STUDER
professional audio equipment

Studer 928

Mixing Console

Operating and Service Instructions

Prepared and edited by
Studer Professional Audio GmbH
Technical Documentation
Althardstrasse 30
CH-8105 Regensdorf - Switzerland

Printed in Switzerland
Order no. 10.27.4251 (Ed.0702)

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

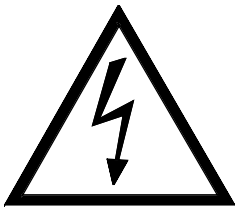
ATTENTION
RISQUE DE CHOC ELECTRIQUE
NE PAS OUVRIR

ACHTUNG
GEFAHR: ELEKTRISCHER SCHLAG
NICHT ÖFFNEN

To reduce the risk of electric shock, do not remove covers (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.

Afin de prévenir un choc électrique, ne pas enlever les couvercles (où l'arrière) de l'appareil. Il ne se trouve à l'intérieur aucune pièce pouvant être réparée par l'usager.

Um die Gefahr eines elektrischen Schlages zu vermeiden, entfernen Sie keine Geräteabdeckungen (oder die Rückwand). Überlassen Sie Wartung und Reparatur qualifiziertem Fachpersonal.



This symbol is intended to alert the user to presence of uninsulated "**dangerous voltage**" within the apparatus that may be of sufficient magnitude to constitute a risk of electric shock to a person.

Ce symbole indique à l'utilisateur qu'il existent à l'intérieur de l'appareil des "**tensions dangereuses**". Ces tensions élevées entrainent un risque de choc électrique en cas de contact.

Dieses Symbol deutet dem Anwender an, dass im Geräteinnern die Gefahr der Berührung von "**gefährlicher Spannung**" besteht. Die Grösse der Spannung kann zu einem elektrischen Schlag führen.

This symbol is intended to alert the user to the presence of **important instructions** for operating and maintenance in the enclosed documentation.

Ce symbole indique à l'utilisateur que la documentation jointe contient **d'importantes instructions** concernant le fonctionnement et la maintenance.

Dieses Symbol deutet dem Anwender an, dass die beigelegte Dokumentation **wichtige Hinweise** für Betrieb und Wartung enthält.

CAUTION: Lithium battery. Danger of explosion by incorrect handling. Replace by battery of the same make and type only.

ATTENTION: Pile au lithium. Danger d'explosion en cas de manipulation incorrecte. Ne remplacer que par un modèle de même type.

ACHTUNG: Explosionsgefahr bei unsachgemässem Auswechseln der Lithiumbatterie. Nur durch den selben Typ ersetzen.

ADVARSEL: Lithiumbatterei. Eksplosinsfare. Udskinftning ma kun foretages af en sagkyndig of som beskrevet i servicemanualen (DK).

FIRST AID

(in case of electric shock)

1. Separate the person as quickly as possible from the electric power source:
- by switching off the equipment
- or by unplugging or disconnecting the mains cable
- pushing the person away from the power source by using dry insulating material (such as wood or plastic).
- *After having sustained an electric shock, always consult a doctor.*

PREMIERS SECOURS

(en cas d'électrocution)

1. Si la personne est dans l'impossibilité de se libérer:

- Couper l'interrupteur principal
- Couper le courant

- Repousser la personne de l'appareil à l'aide d'un objet en matière non conductrice (matière plastique ou bois)
- *Après une électrocution, toujours consulter un médecin.*

ERSTE HILFE

(bei Stromunfällen)

1. Bei einem Stromunfall die betroffene Person so rasch wie möglich vom Strom trennen:
- Ausschalten des Gerätes
- Ziehen oder Unterbrechen der Netzzuleitung
- Betroffene Person mit isoliertem Material (Holz, Kunststoff) von der Gefahrenquelle wegstossen

- *Nach einem Stromunfall sollte immer ein Arzt aufgesucht werden.*

WARNING!

DO NOT TOUCH THE PERSON OR HIS CLOTHING BEFORE THE POWER IS TURNED OFF, OTHERWISE YOU STAND THE RISK OF SUSTAINING AN ELECTRIC SHOCK AS WELL!

2. If the person is unconscious:

- check the pulse,
- reanimate the person if respiration is poor,
- lay the body down, turn it to one side, call for a doctor immediately.

ATTENTION!

NE JAMAIS TOUCHER UNE PERSONNE QUI EST SOUS TENSION, SOUS PEINE DE SUBIR EGALEMENT UNE ELECTROCUTION.

2. En cas de perte de connaissance de la personne électrocutée:
- Controller le pouls
- Si nécessaire, pratiquer la respiration artificielle
- Placer l'accidenté sur le flanc et consulter un médecin.

ACHTUNG!

EINE UNTER SPANNUNG STEHENDE PERSON DARF NICHT BERÜHRT WERDEN. SIE KÖNNEN DABEI SELBST ELEKTRISIERT WERDEN!

2. Bei Bewusstlosigkeit des Verunfallten:
- Puls kontrollieren,
- bei ausgesetzter Atmung künstlich beatmen,
- Seitenlagerung des Verunfallten vornehmen und Arzt verständigen.

Installation

Vor der Installation des Gerätes müssen die hier aufgeführten und auch die weiter in dieser Anleitung mit ⚠ bezeichneten Hinweise gelesen und während der Installation und des Betriebes beachtet werden.
Untersuchen Sie das Gerät und sein Zubehör auf allfällige Transportschäden.
Ein Gerät, das mechanische Beschädigung aufweist oder in welches Flüssigkeit oder Gegenstände eingedrungen sind, darf nicht ans Netz angeschlossen oder muss sofort durch Ziehen des Netzsteckers vom Netz getrennt werden. Das Öffnen und Instandsetzen des Gerätes darf nur von Fachpersonal unter Einhaltung der geltenden Vorschriften durchgeführt werden.

Falls dem Gerät kein konfektioniertes Netzkabel beiliegt, muss dieses durch eine Fachperson unter Verwendung der mitgelieferten Kabel-Gerätedose IEC320/C13 oder IEC320/C19 und unter Berücksichtigung der einschlägigen, im geweiligen Lande geltenden Bestimmungen angefertigt werden; siehe unten.
Vor Anschluss des Netzkabels an die Netzsteckdose muss überprüft werden, ob die Stromversorgungs- und Anschlusswerte des Gerätes (Netzspannung, Netzfrequenz) innerhalb der erlaubten Toleranzen liegen. Die im Gerät eingesetzten Sicherungen müssen den am Gerät angebrachten Angaben entsprechen.
Ein Gerät mit einem dreipoligen Gerätestecker (Gerät der Schutzklasse I) muss an eine dreipolige Netzsteckdose angeschlossen und somit das Gerätegehäuse mit dem Schutzleiter der Netzinstallation verbunden werden (Für Dänemark gelten Starkstrombestimmungen, Abschnitt 107).

Installation

Before you install the equipment, please read and adhere to the following recommendations and all sections of these instructions marked with ⚠ .

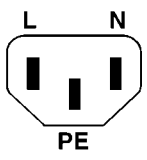
Check the equipment for any transport damage.

A unit that is mechanically damaged or which has been penetrated by liquids or foreign objects must not be connected to the AC power outlet or must be immediately disconnected by unplugging the power cable. Repairs must only be performed by trained personnel in accordance with the applicable regulations.

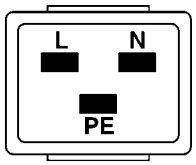
Should the equipment be delivered without a matching mains cable, the latter has to be prepared by a trained person using the attached female plug (IEC320/C13 or IEC320/C19) with respect to the applicable regulations in your country - see diagram below.

Before connecting the equipment to the AC power outlet, check that the local line voltage matches the equipment rating (voltage, frequency) within the admissible tolerance. The equipment fuses must be rated in accordance with the specifications on the equipment.

Equipment supplied with a 3-pole appliance inlet (equipment conforming to protection class I) must be connected to a 3-pole AC power outlet so that the equipment cabinet is connected to the protective earth conductor of the AC supply (for Denmark the Heavy Current Regulations, Section 107, are applicable).



IEC 320 / C13



IEC 320 / C19

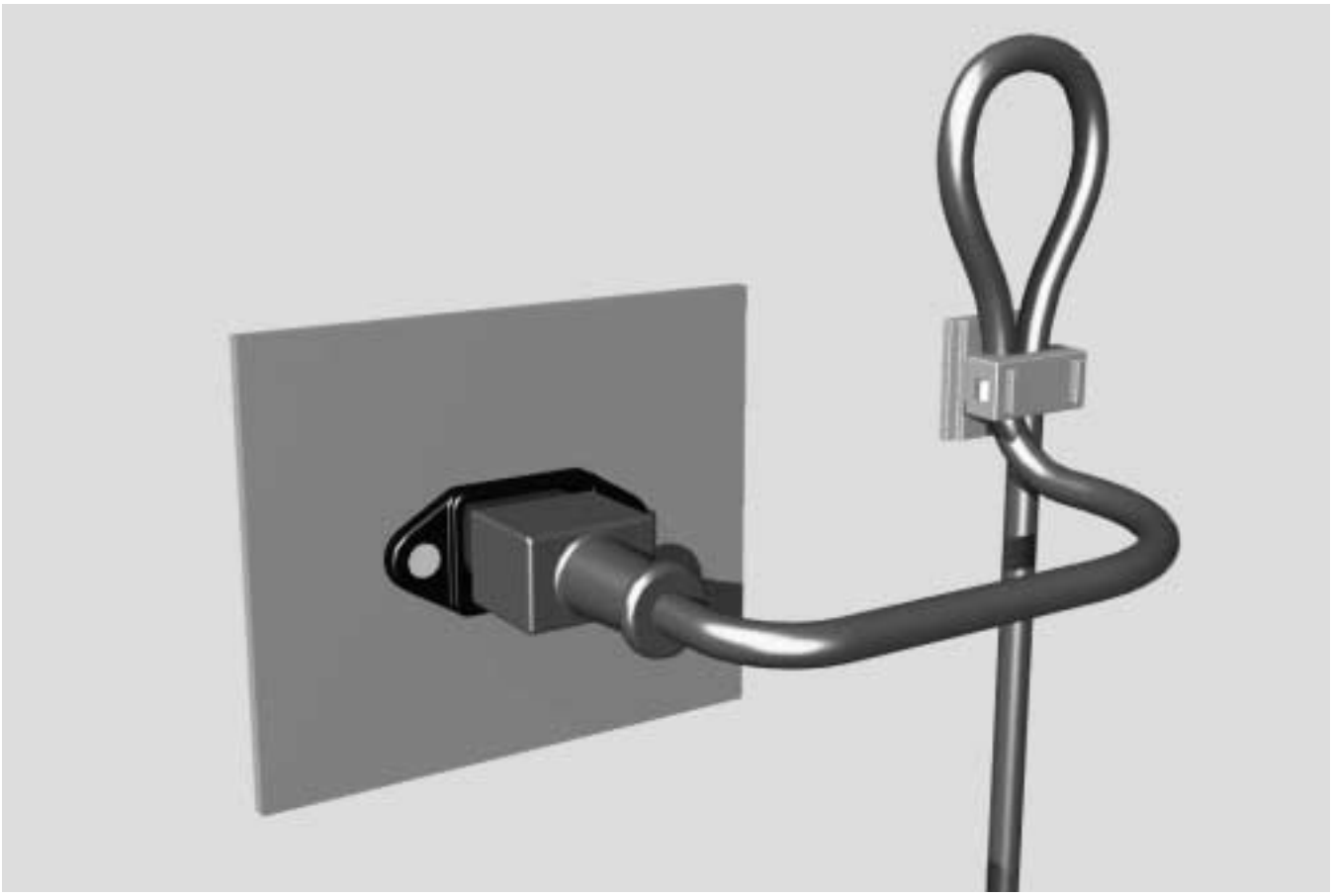
Female plug (IEC320), view from contact side: L live; brown N neutral; blue PE protective earth; green and yellow	National American Standard:	Black White green
Connecteur femelle (IEC320), vue de la face aux contacts: L phase; brun N neutre; bleu PE terre protective; vert et jaune	Standard national américain:	Noir Blanc Vert
Ansicht auf Steckkontakte der Kabel-Gerätesteckdose (IEC320): L Phase; braun N Nulleiter; blau PE Schutzleiter; gelb/grün	USA-Standard:	Schwarz Weiss grün

Zugentlastung für den Netzanschluss

Zum Verankern von Steckverbindungen ohne mechanische Verriegelung (z.B. IEC-Kaltgerätedosen) empfehlen wir die folgende Anordnung:

Mains connector strain relief

For anchoring connectors without a mechanical lock (e.g. IEC mains connectors), we recommend the following arrangement:



Vorgehen: Der mitgelieferte Kabelhalter ist selbstklebend. Bitte beachten Sie bei der Montage die folgenden Regeln:

1. Der Untergrund muss sauber, trocken und frei von Fett, Öl und anderen Verunreinigungen sein. Temperaturbereich für optimale Verklebung: 20...40° C.
2. Entfernen Sie die Schutzfolie auf der Rückseite des Kabelhalters und bringen sie ihn mit kräftigem Druck an der gewünschten Stelle an. Lassen sie ihn unbelastet so lange wie möglich ruhen – die maximale Klebekraft ist erst nach rund 24 Stunden erreicht.
3. Die Stabilität des Kabelhalters wird erhöht, wenn Sie ihn zusätzlich verschrauben. Zu diesem Zweck liegen ihm eine selbstschneidende Schraube sowie eine M4-Schraube mit Mutter bei.
4. Legen Sie das Kabel gemäss Figur in den Halter ein und pressen Sie die Klemme kräftig auf, bis das Kabel fixiert ist.

Procedure: The cable clamp shipped with your unit is auto-adhesive. If mounting, please follow the rules below:

1. The surface to be adhered to must be clean, dry, and free from grease, oil or other contaminants. Best application temperature range is 20...40° C.
2. Remove the plastic protective backing from the rear side of the clamp and apply it firmly to the surface at the desired position. Allow as much time as possible for curing. The bond continues to develop for as long as 24 hours.
3. For improved stability, the clamp can be fixed with a screw. For this purpose, a self-tapping screw and an M4 bolt and nut are included.
4. Place the cable into the clamp as shown in the illustration above and firmly press down the internal top cover until the cable is fixed.

Lufttemperatur und Feuchtigkeit

Allgemein

Die Betriebstauglichkeit des Gerätes oder Systems ist unter folgenden Umgebungsbedingungen gewährleistet:
EN 60721-3-3, Set IE32, Wert 3K3.
Diese Norm umfasst einen umfassenden Katalog von Parametern; die wichtigsten davon sind: Umgebungstemperatur +5...+40 °C; rel. Luftfeuchtigkeit 5...85% – d.h. weder Kondensation noch Eisbildung; abs. Luftfeuchtigkeit 1...25 g/m³; Temperatur-Änderungsrate < 0,5 °C/min. In den folgenden Abschnitten wird darauf näher eingegangen.
Unter den genannten Bedingungen startet und arbeitet das Gerät oder System problemlos. Ausserhalb dieser Spezifikationen möglicherweise auftretende Probleme sind in den folgenden Abschnitten beschrieben.

Umgebungstemperatur

Geräte und Systeme von Studer sind allgemein für einen Umgebungstemperaturbereich (d.h. Temperatur der eintretenden Kühlluft) von +5...+40 °C ausgelegt. Bei Installation in einem Schrank muss der vorgesehene Luftdurchsatz und dadurch die Konvektionskühlung gewährleistet sein. Folgende Tatsachen sind dabei zu berücksichtigen:
1. Die zulässige Umgebungstemperatur für den Betrieb der Halbleiter-Bauelemente beträgt 0 °C bis +70 °C (commercial temperature range for operation).
2. Der Luftdurchsatz der Anlage muss gewährleisten, dass die austretende Kühlluft ständig kühler ist als 70 °C.
3. Die mittlere Erwärmung der Kühlluft soll 20 K betragen, die maximale Erwärmung an den heissen Komponenten darf somit um weitere 10 K höher liegen.
4. Zum Abführen einer Verlustleistung von 1 kW bei dieser zulässigen mittleren Erwärmung ist eine Luftmenge von 2,65 m³/min notwendig.
Beispiel: Für ein Rack mit einer Leistungsaufnahme *P = 800 W* ist eine Kühlluftmenge von *0,8 * 2,65 m³/min* nötig, entsprechend *2,12 m³/min.*
5. Soll die Kühlfunktion der Anlage (z.B. auch bei Lüfter-Ausfall oder Bestrahlung durch Spotlampen) überwacht werden, so ist die Temperatur der Abluft unmittelbar oberhalb der Einschübe an mehreren Stellen im Rack zu messen; die Ansprechtemperatur der Sensoren soll 65 bis 70 °C betragen.

Reif und Tau

Das unversiegelte System (Steckerpartien, Halbleiteranschlüsse) verträgt zwar leichte Eisbildung (Reif). Mit blossem Auge sichtbare Betauung führt jedoch bereits zu Funktionsstörungen.
In der Praxis kann mit einem zuverlässigen Betrieb der Geräte bereits im Temperaturbereich ab –15 °C gerechnet werden, wenn für die Inbetriebnahme des kalten Systems die folgende allgemeine Regel beachtet wird:
Wird die Luft im System abgekühlt, so steigt ihre relative Feuchtigkeit an. Erreicht diese 100%, kommt es zu Niederschlag, meist in der Grenzschicht zwischen der Luft und einer kühleren Oberfläche, und somit zur Bildung von Eis oder Tau an empfindlichen Systemstellen (Kontakte, IC-Anschlüsse etc.). Ein störungsfreier Betrieb mit interner Betauung, unabhängig von der Temperatur, ist nicht gewährleistet.

Air temperature and humidity

General

Normal operation of the unit or system is warranted under the following ambient conditions defined by:
EN 60721-3-3, set IE32, value 3K3.
This standard consists of an extensive catalogue of parameters, the most important of which are: ambient temperature +5... +40° C, relative humidity 5...85% – i.e. no formation of condensation or ice; absolute humidity 1...25 g/m³; rate of temperature change < 0,5 °C/min. These parameters are dealt with in the following paragraphs.
Under these conditions the unit or system starts and works without any problem. Beyond these specifications, possible problems are described in the following sections.

Ambient temperature

Units and systems by Studer are generally designed for an ambient temperature range (i.e. temperature of the incoming air) of +5...+40 °C. When rack mounting the units, the intended air flow and herewith adequate cooling must be provided. The following facts must be considered:

1. The admissible ambient temperature range for operation of the semiconductor components is 0 °C to +70 °C (commercial temperature range for operation).
2. The air flow through the installation must provide that the outgoing air is always cooler than 70 °C.
3. Average heat increase of the cooling air shall be 20 K, allowing for an additional maximum 10 K increase at the hot components.
4. In order to dissipate 1 kW with this admissible average heat increase, an air flow of 2,65 m³/min is required.

Example: A rack dissipating *P = 800 W* requires an air flow of *0,8 * 2,65 m³/min* which corresponds to *2,12 m³/min.*

5. If the cooling function of the installation must be monitored (e.g. for fan failure or illumination with spot lamps), the outgoing air temperature must be measured directly above the modules at several places within the rack. The trigger temperature of the sensors should be 65 to 70 °C.

Frost and dew

The unsealed system parts (connector areas and semiconductor pins) allow for a minute formation of ice or frost. However, formation of dew visible with the naked eye will already lead to malfunctions. In practice, reliable operation can be expected in a temperature range above –15 °C, if the following general rule is considered for putting the cold system into operation:

If the air within the system is cooled down, the relative humidity rises. If it reaches 100%, condensation will arise, usually in the boundary layer between the air and a cooler surface, together with formation of ice or dew at sensitive areas of the system (contacts, IC pins, etc.). Once internal condensation occurs, troublefree operation cannot be guaranteed, independent of temperature.

Vor der Inbetriebnahme muss das System auf allfällige interne Betauung oder Eisbildung überprüft werden. Nur bei sehr leichter Eisbildung kann mit direkter Verdunstung (Sublimation) gerechnet werden; andernfalls muss das System im abgeschalteten Zustand gewärmt und getrocknet werden.
Das System ohne feststellbare interne Eisbildung oder Betauung soll möglichst homogen (und somit langsam) mit eigener Wärmeleistung aufgewärmt werden; die Lufttemperatur der Umgebung soll ständig etwas tiefer als diejenige der Systemabluft sein.
Ist es unumgänglich, das abgekühlte System sofort in warmer Umgebungsluft zu betreiben, so muss diese entfeuchtet sein. Die absolute Luftfeuchtigkeit muss dabei so tief sein, dass die relative Feuchtigkeit, bezogen auf die kälteste Oberfläche im System, immer unterhalb 100% bleibt.
Es ist dafür zu sorgen, dass beim Abschalten des Systems die eingeschlossene Luft möglichst trocken ist (d.h. vor dem Abschalten im Winter den Raum mit kalter, trockener Luft belüften und feuchte Gegenstände, z.B. Kleider, entfernen).
Die Zusammenhänge sind im folgenden Klimatogramm ersichtlich. Zum kontrollierten Verfahren gehören Thermometer und Hygrometer sowie ein Thermometer innerhalb des Systems.
Beispiel 1: Ein Ü-Wagen mit einer Innentemperatur von 20 °C und 40% relativer Luftfeuchtigkeit wird am Abend abgeschaltet. Sinkt die Temperatur unter +5 °C, bildet sich Tau oder Eis.
Beispiel 2: Ein Ü-Wagen wird morgens mit 20 °C warmer Luft von 40% relativer Luftfeuchtigkeit aufgewärmt. Auf Teilen, die kälter als +5 °C sind, bildet sich Tau oder Eis.

Before putting into operation, the system must be checked for internal formation of condensation or ice. Only with a minute formation of ice, direct evaporation (sublimation) may be expected; otherwise the system must be heated and dried while switched off.
A system without visible internal formation of ice or condensation should be heated up with its own heat dissipation, as homogeneously (and subsequently as slow) as possible; the ambient temperature should then always be lower than the outgoing air.
If it is absolutely necessary to operate the system immediately within warm ambient air, this air must be dehydrated. In such a case, the absolute humidity must be so low that the relative humidity, related to the coldest system surface, always remains below 100%.
Ensure that the enclosed air is as dry as possible when powering off (i.e. before switching off in winter, aerate the room with cold, dry air, and remove humid objects as clothes from the room).
These relationships are visible from the following climatogram. For a controlled procedure, thermometer and hygrometer as well as a thermometer within the system will be required.
Example 1: An OB-van having an internal temperature of 20 °C and rel. humidity of 40% is switched off in the evening. If temperature falls below +5 °C, dew or ice will be forming.
Example 2: An OB-van is heated up in the morning with air of 20 °C and a rel. humidity of 40%. On all parts being cooler than +5 °C, dew or ice will be forming.

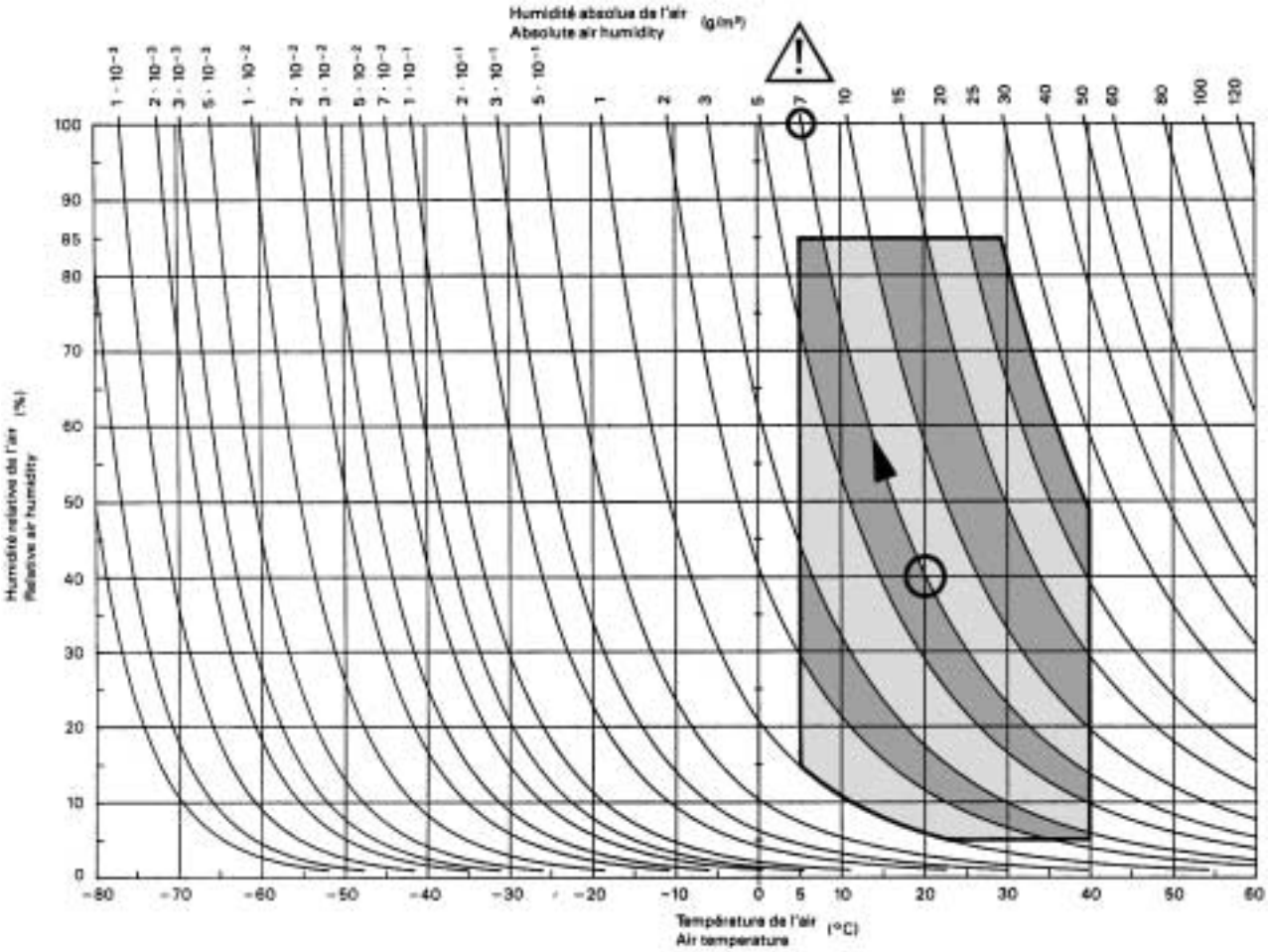


Figure B.3 – Climatogramme pour catégorie 3K3
Climatogram for class 3K3

Wartung und Reparatur

Durch Entfernen von Gehäuseteilen, Abschirmungen etc. werden stromführende Teile freigelegt. Deshalb müssen u.a. die folgenden Grundsätze beachtet werden:
Eingriffe in das Gerät dürfen nur von Fachpersonal unter Einhaltung der geltenden Vorschriften vorgenommen werden.
Vor Entfernen von Gehäuseteilen muss das Gerät ausgeschaltet und vom Netz getrennt werden.
Bei geöffnetem, vom Netz getrenntem Gerät dürfen Teile mit gefährlichen Ladungen (z. B. Kondensatoren, Bildröhren) erst nach kontrollierter Entladung, heiße Bauteile (Leistungshalbleiter, Kühlkörper etc.) erst nach deren Abkühlen berührt werden.

Bei Wartungsarbeiten am geöffneten, unter Netzspannung stehenden Gerät dürfen blanke Schaltungsteile und metallene Halbleitergehäuse weder direkt noch mit nichtisoliertem Werkzeug berührt werden.
Zusätzliche Gefahren bestehen bei unsachgemässer Handhabung besonderer Komponenten:

- *Explosionsgefahr* bei Lithiumzellen, Elektrolyt-Kondensatoren und Leistungshalbleitern
- *Implosionsgefahr* bei evakuierten Anzeigeeinheiten
- *Strahlungsgefahr* bei Lasereinheiten (nichtionisierend), Bildröhren (ionisierend)
- *Verätzungsgefahr* bei Anzeigeeinheiten (LCD) und Komponenten mit flüssigem Elektrolyt.

Solche Komponenten dürfen nur von ausgebildetem Fachpersonal mit den vorgeschriebenen Schutzmitteln (u.a. Schutzbrille, Handschuhe) gehandhabt werden.

Maintenance and Repair

The removal of housing parts, shields, etc. exposes energized parts. For this reason the following precautions should be observed:
Maintenance should only be performed by trained personnel in accordance with the applicable regulations.
The equipment should be switched off and disconnected from the AC power outlet before any housing parts are removed.
Even if the equipment is disconnected from the power, parts with hazardous charges (e.g. capacitors, picture tubes) must not be touched until they have been properly discharged. Touch hot components (power semiconductors, heat sinks, etc.) only when cooled off.

If maintenance is performed on a unit that is opened and switched on, no uninsulated circuit components and metallic semiconductor housings must be touched neither with your bare hands nor with uninsulated tools.
Certain components pose additional hazards:

- *Explosion hazard* from lithium batteries, electrolytic capacitors and power semiconductors
- *Implosion hazard* from evacuated display units
- *Radiation hazard* from laser units (non-ionizing), picture tubes (ionizing)
- *Caustic effect* of display units (LCD) and such components containig liquid electrolyte.

Such components should only be handled by trained personnel who are properly protected (e.g. safety goggles, gloves).

Elektrostatische Entladung (ESD) bei Wartung und Reparatur

Electrostatic Discharge (ESD) during Maintenance and Repair

ATTENTION: Observe precautions for handling devices sensitive to electrostatic discharge!

ATTENTION: Respecter les précautions d'usage concernant la manipulation de composants sensibles à l'électricité statique!

ACHTUNG: Vorsichtsmassnahmen bei Handhabung elektrostatisch entladungsgefährdeter Bauelemente beachten!

Viele ICs und andere Halbleiter sind empfindlich gegen elektrostatische Entladung (ESD). Unfachgerechte Behandlung von Baugruppen mit solchen Komponenten bei Wartung und Reparatur kann deren Lebensdauer drastisch vermindern.
Bei der Handhabung der ESD-empfindlichen Komponenten sind u.a. folgende Regeln zu beachten:

- ESD-empfindliche Komponenten dürfen ausschliesslich in dafür bestimmten und bezeichneten Verpackungen gelagert und transportiert werden.
- Unverpackte, ESD-empfindliche Komponenten dürfen nur in dafür eingerichteten Schutzzonen (EPA, z.B. Gebiet für Feldservice, Reparatur- oder Serviceplatz) gehandhabt und nur von Personen berührt werden, die durch ein Handgelenkband mit Seriewiderstand mit dem Massepotential des Reparatur- oder Serviceplatzes verbunden sind. Das gewartete Gerät wie auch Werkzeug, Hilfsmittel, EPA-taugliche (elektrisch halbleitende) Arbeits-, Ablage- und Bodenmatten müssen ebenfalls mit diesem Potential verbunden sein.
- Die Anschlüsse der ESD-empfindlichen Komponenten dürfen unkontrolliert weder mit elektrostatisch aufladbaren (Gefahr von Spannungsdurchschlag), noch mit metallischen Oberflächen (Schockentladungsgefahr) in Berührung kommen.
- Um undefinierte transiente Beanspruchung der Komponenten und deren eventuelle Beschädigung durch unerlaubte Spannung oder Ausgleichsströme zu vermeiden, dürfen elektrische Verbindungen nur am abgeschalteten Gerät und nach dem Abbau allfälliger Kondensatorladungen hergestellt oder getrennt werden.

Many ICs and semiconductors are sensitive to electrostatic discharge (ESD). The life of components containing such elements can be drastically reduced by improper handling during maintenance and repair work.

Please observe the following rules when handling ESD sensitive components:

- ESD sensitive components should only be stored and transported in the packing material specifically provided for this purpose.
- Unpacked ESD sensitive components should only be handled in ESD protected areas (EPA, e.g. area for field service, repair or service bench) and only be touched by persons who wear a wristlet that is connected to the ground potential of the repair or service bench by a series resistor. The equipment to be repaired or serviced and all tools, aids, as well as electrically semiconducting work, storage and floor mats should also be connected to this ground potential.
- The terminals of ESD sensitive components must not come in uncontrolled contact with electrostatically chargeable (voltage puncture) or metallic surfaces (discharge shock hazard).
- To prevent undefined transient stress of the components and possible damage due to inadmissible voltages or compensation currents, electrical connections should only be established or separated when the equipment is switched off and after any capacitor charges have decayed.

SMD-Bauelemente

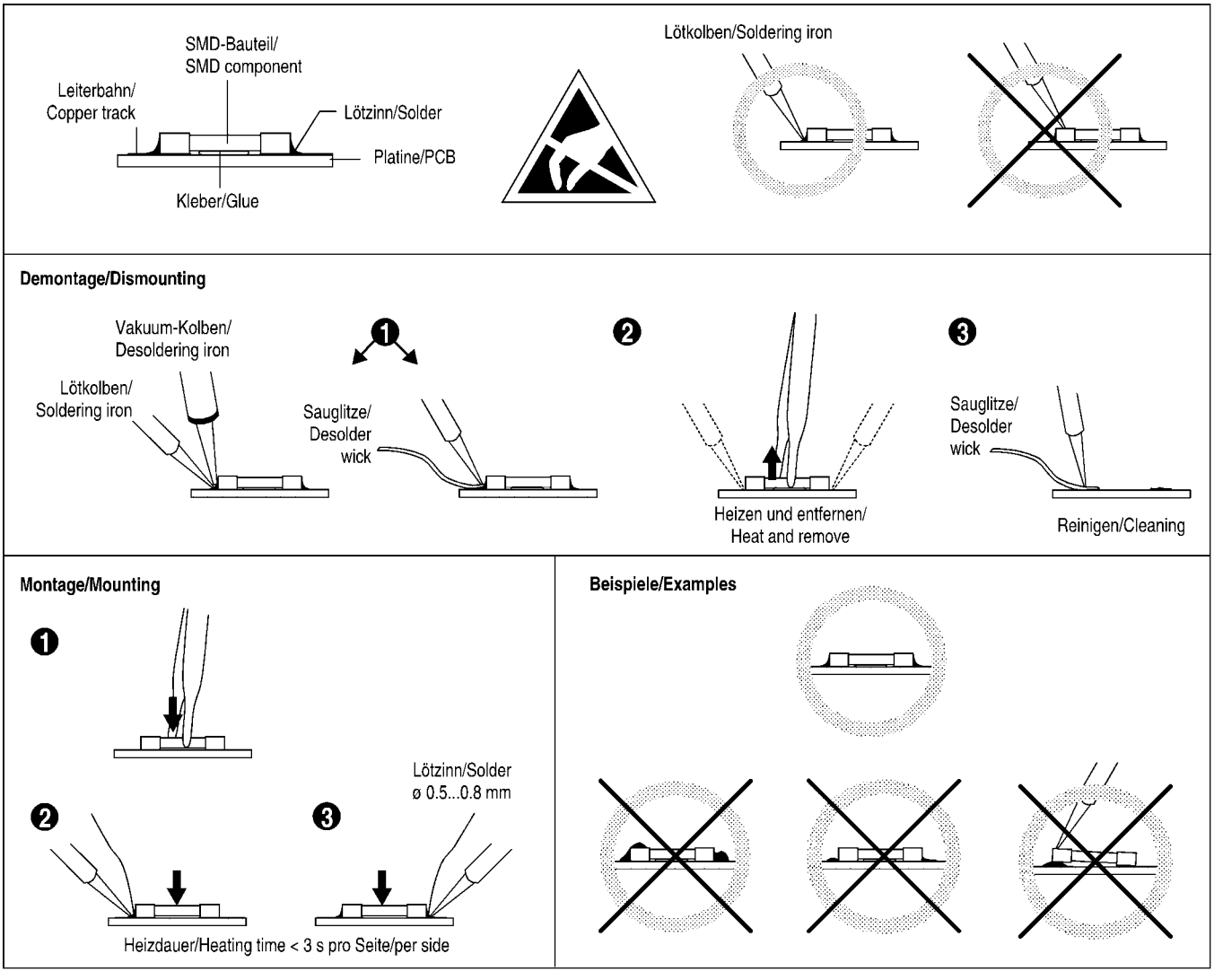
Der Austausch von SMD-Bauelementen ist ausschliesslich geübten Fachleuten vorbehalten. Für verwüstete Platinen können keine Ersatzansprüche geltend gemacht werden. Beispiele für korrekte und falsche SMD-Lötverbindungen in der Abbildung weiter unten.

Bei Studer werden keine handelsüblichen SMD-Teile bewirtschaftet. Für Reparaturen sind die notwendigen Bauteile lokal zu beschaffen. Die Spezifikationen von Spezialbauteilen finden Sie in der Serviceanleitung.

SMD Components

SMDs should only be replaced by skilled specialists. No warranty claims will be accepted for circuit boards that have been ruined. Proper and improper SMD soldering joints are depicted below.

Studer does not keep any commercially available SMDs in stock. For repair the corresponding devices should be purchased locally. The specifications of special components can be found in the service manual.



Störstrahlung und Störfestigkeit

Das Gerät entspricht den Schutzanforderungen auf dem Gebiet elektromagnetischer Phänomene, wie u.a. in den Richtlinien 89/336/EWG und FCC, Part 15, aufgeführt:

1. Vom Gerät erzeugte elektromagnetische Strahlung ist soweit begrenzt, dass bestimmungsgemässer Betrieb anderer Geräte und Systeme möglich ist.
2. Das Gerät weist eine angemessene Festigkeit gegen elektromagnetische Störungen auf, so dass sein bestimmungsgemässer Betrieb möglich ist.

Das Gerät wurde getestet und erfüllt die Bedingungen der im Kapitel „Technische Daten“ aufgeführten EMV-Standards. Die Limiten dieser Standards gewährleisten mit angemessener Wahrscheinlichkeit sowohl den Schutz der Umgebung wie auch entsprechende Störfestigkeit des Gerätes. Absolute Garantie, dass keine unerlaubte elektromagnetische Beeinträchtigung während des Betriebes entsteht, ist jedoch nicht gegeben.

Um die Wahrscheinlichkeit solcher Beeinträchtigung weitgehend auszuschliessen, sind u.a. folgende Massnahmen zu beachten:

- Installieren Sie das Gerät gemäss den Angaben in der Betriebsanleitung, und verwenden Sie das mitgelieferte Zubehör.
- Verwenden Sie im System und in der Umgebung, in denen das Gerät eingesetzt ist, nur Komponenten (Anlagen, Geräte), die ihrerseits die Anforderungen der obenerwähnten Standards erfüllen.
- Sehen Sie ein Erdungskonzept des Systems vor, das sowohl die Sicherheitsanforderungen (die Erdung der Geräte gemäss Schutzklasse I mit einem Schutzleiter muss gewährleistet sein), wie auch die EMV-Belange berücksichtigt. Bei der Entscheidung zwischen stern- oder flächenförmiger bzw. kombinierter Erdung sind Vor- und Nachteile gegeneinander abzuwägen.
- Benutzen Sie abgeschirmte Kabel, wo vorgesehen. Achten Sie auf einwandfreie, grossflächige, korrosionsbeständige Verbindung der Abschirmung zum entsprechenden Steckeranschluss und dessen Gehäuse. Beachten Sie, dass eine nur an einem Ende angeschlossene Kabelabschirmung als Sende- bzw. Empfangsantenne wirken kann (z.B. bei wirksamer Kabellänge von 5 m oberhalb von 10 MHz), und dass die Flanken digitaler Kommunikationssignale hochfrequente Aussendungen verursachen (z.B. LS- oder HC-Logik bis 30 MHz).
- Vermeiden Sie Bildung von Masseschleifen oder vermindern Sie deren unerwünschte Auswirkung, indem Sie deren Fläche möglichst klein halten und den darin fliessenden Strom durch Einfügen einer Impedanz (z.B. Gleichtaktdrossel) reduzieren.

Electromagnetic Compatibility

The equipment conforms to the protection requirements relevant to electromagnetic phenomena that are listed in the guidelines 89/336/EC and FCC, part 15.

1. The electromagnetic interference generated by the equipment is limited in such a way that other equipment and systems can be operated normally.
2. The equipment is adequately protected against electromagnetic interference so that it can operate correctly.

The unit has been tested and conforms to the EMC standards applicable to residential, commercial and light industry, as listed in the section „Technical Data“. The limits of these standards reasonably ensure protection of the environment and corresponding noise immunity of the equipment. However, it is not absolutely warranted that the equipment will not be adversely affected by electromagnetic interference during operation.

To minimize the probability of electromagnetic interference as far as possible, the following recommendations should be followed:

- Install the equipment in accordance with the operating instructions. Use the supplied accessories.
- In the system and in the vicinity where the equipment is installed, use only components (systems, equipment) that also fulfill the above EMC standards.
- Use a system grounding concept that satisfies the safety requirements (protection class I equipment must be connected with a protective ground conductor) that also takes into consideration the EMC requirements. When deciding between radial, surface or combined grounding, the advantages and disadvantages should be carefully evaluated in each case.
- Use shielded cables where shielding is specified. The connection of the shield to the corresponding connector terminal or housing should have a large surface and be corrosion-proof. Please note that a cable shield connected only single-ended can act as a transmitting or receiving antenna (e.g. with an effective cable length of 5 m, the frequency is above 10 MHz) and that the edges of the digital communication signals cause high-frequency radiation (e.g. LS or HC logic up to 30 MHz).
- Avoid ground loops or reduce their adverse effects by keeping the loop surface as small as possible, and reduce the noise current flowing through the loop by inserting an additional impedance (e.g. common-mode rejection choke).

Class A Equipment - FCC Notice

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide a reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Caution:
Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment. Also refer to relevant information in this manual.

CE-Konformitätserklärung

Der Hersteller,

Studer Professional Audio AG,
CH-8105 Regensdorf,

erklärt in eigener Verantwortung, dass das Produkt

Studer 928, Mischpult,
(ab Serie-Nr. 1001),

auf das sich diese Erklärung bezieht, entsprechend den Bestimmungen der EU-Richtlinien und Ergänzungen

- Elektromagnetische Verträglichkeit (EMV):
  89/336/EWG + 92/31/EWG + 93/68/EWG
- Niederspannung:
  73/23/EWG + 93/68/EWG

mit den folgenden Normen und normativen Dokumenten übereinstimmt:

- Sicherheit:
  Schutzklasse 1, EN 60950:1992 + A1/A2:1993
- EMV:
  EN 55103-1/-2:1996, elektromagnetische Umgebungen E2 und E4

Regensdorf, 28. Februar 1997

B. Hochstrasser, Geschäftsleiter

P. Fiala, Leiter QS

CE Declaration of Conformity

The manufacturer,

Studer Professional Audio AG,
CH-8105 Regensdorf,

declares under his sole responsibility that the product

Studer 928, Mixing Console,
(on from serial No. 1001),

to which this declaration relates, according to following regulations of EU directives and amendments

- Electromagnetic Compatibility (EMC):
  89/336/EEC + 92/31/EEC + 93/68/EEC
- Low Voltage (LVD):
  73/23/EEC + 93/68/EEC

is in conformity with the following standards or other normative documents:

- Safety:
  Class 1, EN 60950:1992 + A1/A2:1993
- EMC:
  EN 55103-1/-2:1996, electromagnetic environments E2 and E4

Regensdorf, February 28, 1997

B. Hochstrasser, Managing director

P. Fiala, Manager QA

CONTENTS

1 GENERAL

The Studer 928 console features a modular 30 mm concept with mechanical frames for 12 or 16 units. This way, different size consoles can be built; the maximum would be 96 input units. Both mono and stereo input units are available. The standard configuration contains 8 mono groups, 2 stereo masters, 6 mono and 2 stereo AUX channels, and 2 monitor modules for studio and control room monitoring.

Functionality of the console is very high. N-1 circuits, direct outputs from every input stage, a sophisticated EQ stage, and a high number of AUX channels, limiters in each group and master stage, and dedicated on-air switching features are normally found only in much more expensive constructions.

The gain control is effected via VCAs in all stages which allow the formation of VCA groups. In every input unit the VCA can be locked to one of four VCA groups, and the group master fader is a linear fader in the monitor module.

To cope with special customer requirements, the meter bridge is able to house all Studer 170 mm units. In addition, Studer Eurocards can be installed in the lower chassis.

No automation is provided in the concept.

The main applications of the console comprise:

- Live transmission in radio and TV
- Recording
- Theatre and Opera
- Sound reinforcement
- OB van applications

This development shows the Studer standard of quality the audio world is used to see in our mixing consoles. Studer transformers are used at inputs and outputs, gold contacts for all audio switches, and high quality VCAs to maintain Studer's standard of "good sound".

1.1 Utilization for the purpose intended

The Studer 928 mixing console is intended for professional use.
It is presumed that the unit is operated only by trained personnel. Servicing is reserved to skilled technicians.

The electrical connections may be connected only to the voltages and signals designated in this manual.

1.2 First steps

1.2.1 Unpacking and inspection

Your new mixing console is shipped in a special packing which protects the units against mechanical shock during transit. Care should be exercised when unpacking so that the surfaces do not get marred. Verify that the content of the packing agrees with the items listed on the enclosed shipping list.
Check the condition of the equipment for signs of shipping damage. If there should be any complaints you should immediately notify the forwarding agent and your nearest Studer distributor.
Please retain the original packing material because it offers the best protection in case your equipment ever needs to be transported.

1.2.2 Installation

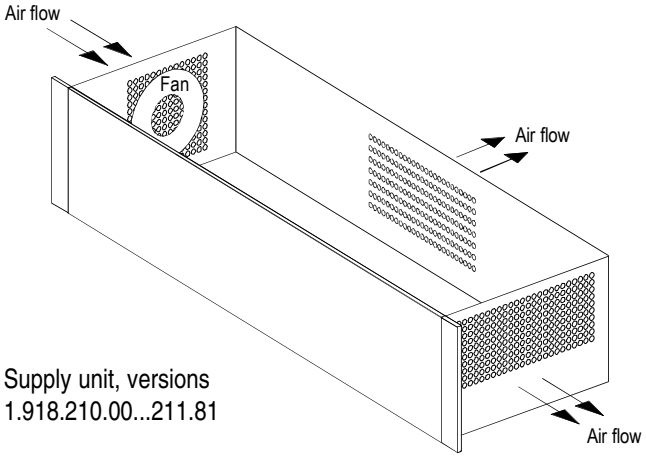
The power supply units are auto-ranging; therefore no voltage selector must be adjusted before connecting them to the mains.

General precautions:

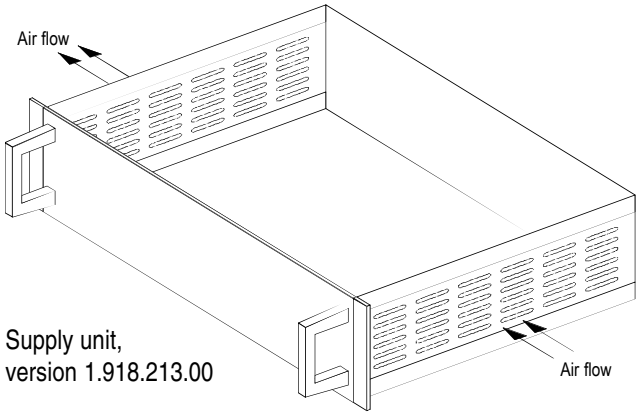
Do not use the units in conditions of excessive heat or cold, near any source of moisture, in excessively humid environments, or in positions where they are likely to be subjected to vibration or dust. Do not use any liquids to clean the exterior of the units. A soft, dry cloth or brush will usually do.

Ventilation/rack mounting:

When installing the power supply unit in a rack or any other location, make sure that there is adequate ventilation. The unit should be situated so that its location or position does not interfere with its proper ventilation. Please refer to the drawing below.
If the power supply unit is rack mounted, the feet may be removed; these may be unscrewed from the outside – do not open the case.



Supply unit, versions
1.918.210.00...211.81



Power connection:

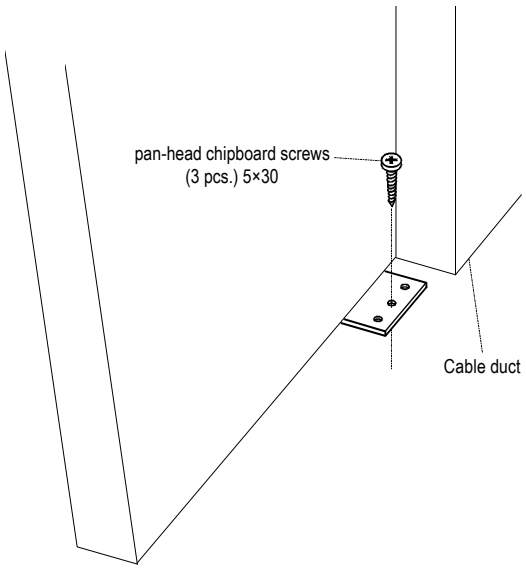
The attached female IEC 320/C13 mains cable socket has to be connected to an appropriate mains cable by a trained technician, respecting your local regulations. Refer to the "Installation, Operation, and Waste Disposal" section at the beginning of this manual.
Maintenance work inside the units must be performed by a trained technician.

Earthing:

This equipment must be earthed, due to the mains input filter network being connected to the mains earth.
Some consideration should be given to the earthing arrangement of the system at the center of which is the console and the power supply unit(s). The console chassis is earthed to the mains earth via the power supply. If the power supply is rack-mounted care should be taken to avoid any possible "ground loops" in the system; this would cause audible hum to be introduced to an otherwise clean audio signal. Ground loops may occur where signal processing equipment, patched to the console, has its signal earth commoned to the equipment chassis. The ground loop is formed if this chassis and the power supply chassis are in electrical contact through fixing rails that they share in the rack.

Tip-over protection:

The console must be secured against tipping-over when a weight is placed on the front rail of the console. For this purpose a bracket is fixed to the bottom side of each console foot (3 countersunk-head chipboard screws each). These brackets must then be screwed to the floor with 3 pan-head chipboard screws each; refer to the drawing below.



1.2.3 Adjustments, repair

Danger:

All internal adjustments as well as repair work on this product are to be performed by skilled technicians!

Replacing the primary fuse:

Supply unit, versions 1.918.210.00...211.81:
Switch the unit off, remove the mains lead plug from the mains supply socket and then from the IEC type mains connector on the unit. The fuse is located in the fuse holder contained in the IEC type mains connector.
Use only an F 8 A H/250 V fuse.

Supply unit, version 1.918.213.00:
The primary fuse is located inside the power supply unit and cannot be changed. In case of failure, the complete supply unit must be replaced. Please ask your nearest Studer representative.

1.2.4 Accessories, options

Accessories shipped with the 928 console: **(Set: order No. 1.928.096.00)**

5	Circlips, 2.3 mm	Order No. 24.16.3023
1	Rotary knob, grey, Ø 10 mm	Order No. 42.01.0203
1	Cap, dark grey, for button Ø 10 mm	Order No. 42.01.0251
5	Rotary knobs, dark grey, Ø 11 mm	Order No. 42.01.1200
5	Rotary knobs, red, Ø 11 mm	Order No. 42.01.1202
5	Rotary knobs, yellow, Ø 11 mm	Order No. 42.01.1204
5	Rotary knobs, green, Ø 11 mm	Order No. 42.01.1205
5	Rotary knobs, blue, Ø 11 mm	Order No. 42.01.1206
5	Rotary knobs, bright grey, Ø 11 mm	Order No. 42.01.1208
1	Rotary knob, dark grey, Ø 15 mm	Order No. 42.01.1220
1	Rotary knob, bright grey, Ø 15 mm	Order No. 42.01.1228
5	Rotary knobs, lower, dark grey, Ø 15 mm	Order No. 42.01.1240
2	TRS plugs	Order No. 54.02.0601
2	Cap, red	Order No. 55.15.0912
2	Cap, yellow	Order No. 55.15.0914
2	Cap, green	Order No. 55.15.0915
1	Allen screwdriver, short, size 2	Order No. 98.00.0612
1	Hexagonal screwdriver, size 2	Order No. 98.00.2022
1	Hexagonal key, size 2	Order No. 98.00.2405
1	Hexagonal key, size 2.5	Order No. 98.00.2406
5	Oval-head screws, M3×8, w. washer	Order No. 1.010.022.21
6	Fader coupling bridges, 42 mm	Order No. 1.911.000.07
2	Fader knobs (P+G), red	Order No. 1.911.000.42
2	Fader knobs (P+G), orange	Order No. 1.911.000.43
2	Fader knobs (P+G), yellow	Order No. 1.911.000.44
2	Fader knobs (P+G), green	Order No. 1.911.000.45
2	Fader knobs (P+G), blue	Order No. 1.911.000.46
2	Fader knobs (P+G), grey	Order No. 1.911.000.48
2	Fader knobs (P+G), white	Order No. 1.911.000.49
2	Module extractors	Order No. 1.912.000.06

1.3 Specifications

General

Voltage specification dBu: 0 dBu ≙ 0.775 V
Channel input faders and master faders are set to 0 dB mark.
Line outputs are terminated with 600 Ω.
External sources have a source impedance of < 200 Ω.
All data are valid within the frequency band from 31.5 Hz...16 kHz.
PPM version: line level +6 dBu
VU version: nominal output level 0 VU = +4 dBu

Levels

Microphone input sensitivity:	–71...+10 dBu
Line input sensitivity:	+6 dBu ±14 dB
Level at insert points and N–1/direct outputs:	+6 dBu
Output level:	+6 dBu, adjustable
Monitor level (balanced, unloaded):	+6...+15 dBu

Common mode rejection

Microphone input: U_{in} = 0 dBu;		@ 15 kHz >50 dB
V = 0 dB; Fine = min		@ 50 Hz >75 dB
Line input:	with transformer	@ 50 Hz...15 kHz >50 dB
	without transformer	@ 50 Hz...15 kHz >46 dB

Impedances

Microphone input:	>1.6 kΩ, balanced and floating (w. transformer)
Line/tape input:	>10 kΩ, electronically balanced (transformer optional)
Source impedance of line outputs:	<40 Ω

Master outputs ➔ balanced/floating (w. transformer)
All other outpus ➔ electronically balanced

Frequency response

Filters switched off:		0.5 dB
–3 dB points, filter switched off:		approx. 4.5 Hz/40 kHz (continuously decreasing outside this range)
Bass cut (18 dB/oct.)		–3 dB @ 75 Hz
High frequency equalizer,	1 kHz...16 kHz:	15 dB
High-mid equalizer,	500 Hz...8 kHz:	15 dB
Low-mid Equalizer,	125 Hz...2 kHz:	15 dB
Low frequency equalizer,	32 Hz...500 Hz:	15 dB

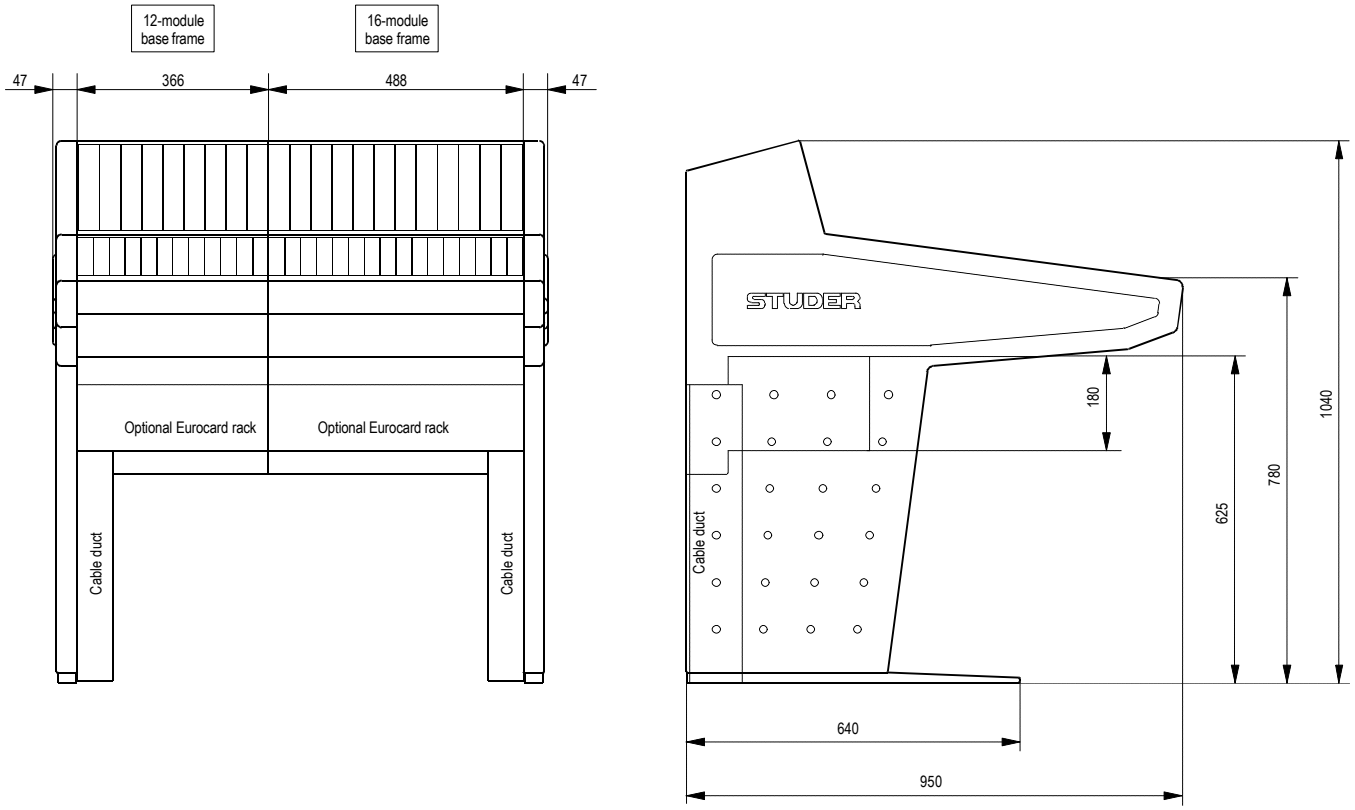
Overload margin

Microphone input:	
Max. level for 1% 3rd harmonic @ 31.5 Hz:	+3 dBu; Pos. +10
Line input:	
Max. level for 1% 2nd harmonic @ 31.5 Hz:	+24 dBu
Fine adjust 0 dB	
Before channel fader (THD = 1%):	20 dB
Before master fader (THD = 1%):	20 dB
Max. line output level:	
R_L = 300 Ω;	
- with transformer:	+23.5 dBu
- without transformer:	+23 dBu

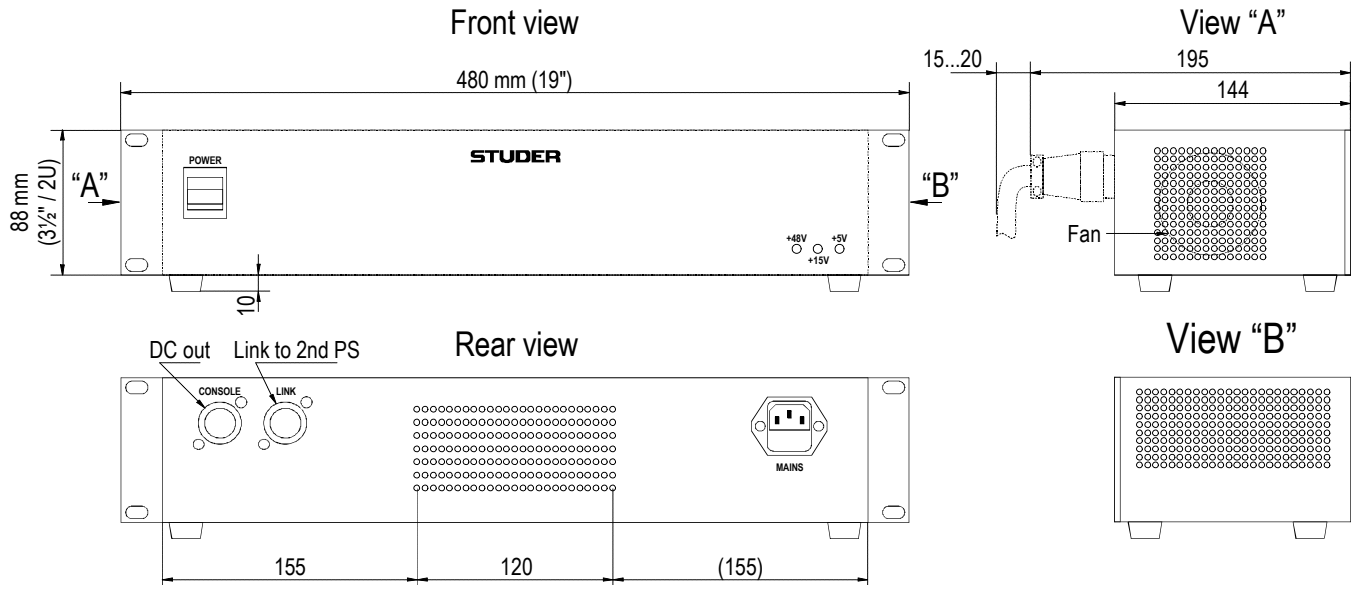
Unweighted noise voltage, Microphone	according to IEC 468-2 (DIN 45405) Equivalent input noise for 23 kHz bandwidth, termination 200 Ω:	<–126 dBu
Signal-to-noise ratio	PPM version, relative to line level (+6 dBu) VU version, relative to peak output level (+6 VU ≙ +10 dBu) On master output, master fader closed: One channel, input and master faders at 0 dB mark, unity gain; - Filters off: - Filters on, linear: 11 channels, all faders at 0 dB mark, unity gain; - Filters off: - Filters on, linear:	 >95 dB >93 dB >92 dB >85 dB >83 dB
Harmonic ratio	PPM version, measured with line level +6 dBu; VU version, measured with nominal output level 0 VU, or peak output level +6 VU; unity gain, 31.5 Hz...16 kHz:	 70 dB
Crosstalk attenuation	Channel to channel, - without panorama potentiometer - with panorama potentiometer Channel bus selector switched off: Fader attenuation, input Fader attenuation, output	 >80 dB >70 dB >90 dB >100 dB >90 dB
Power supply		100...240 V, 50/60 Hz
	Power consumption (Studer 928 32/8/4)	approx. 400 VA

Note: Depending on the application, the on-air mixing consoles can have different configurations. For this reason the abovementioned values are applicable only to a typical configuration; in an individual case, the values may differ.
We reserve the right to make changes as technological progress may warrant.

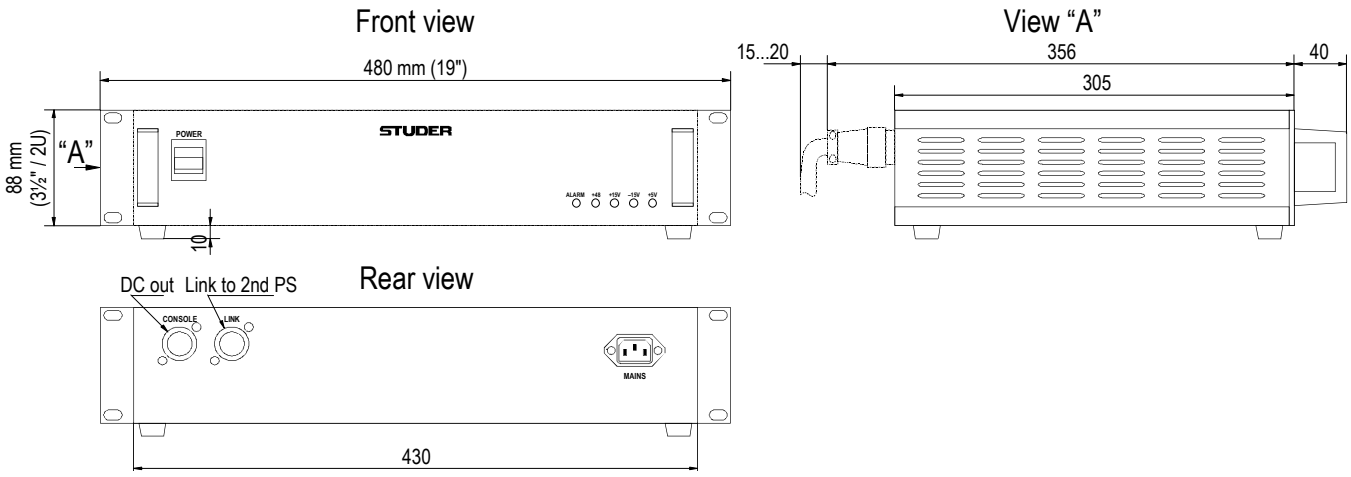
Dimensions (console) in mm:



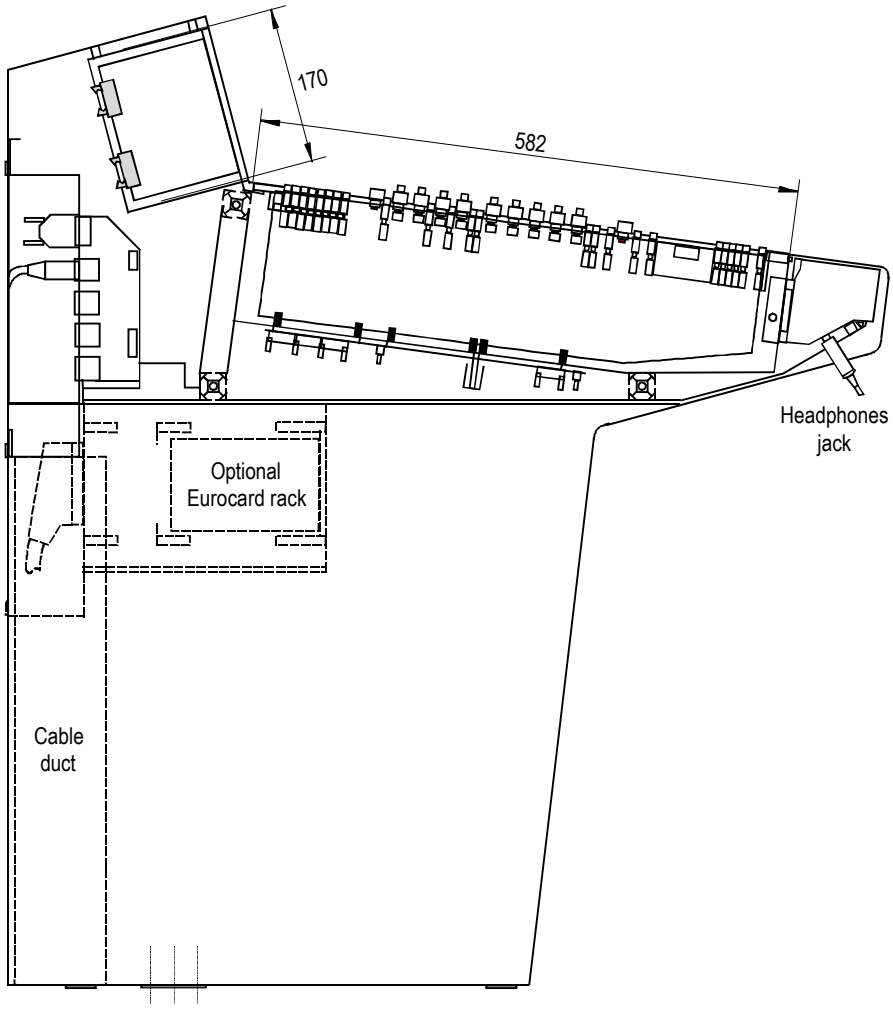
Dimensions (supply unit, versions 1.918.210.00...211.81) in mm:



Dimensions (supply unit, version 1.918.213.00) in mm:



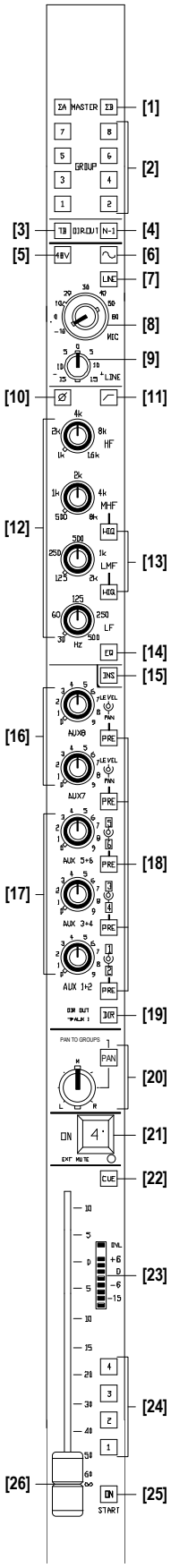
928 console cross section:



CONTENTS

2 OPERATION

2.1 Mono input unit 1.928.220



[1] MASTER ΣA, ΣB
Keys for routing the audio signal to the stereo MASTER busses.

[2] GROUP 1...8
Keys for routing the audio signal to the GROUP busses.

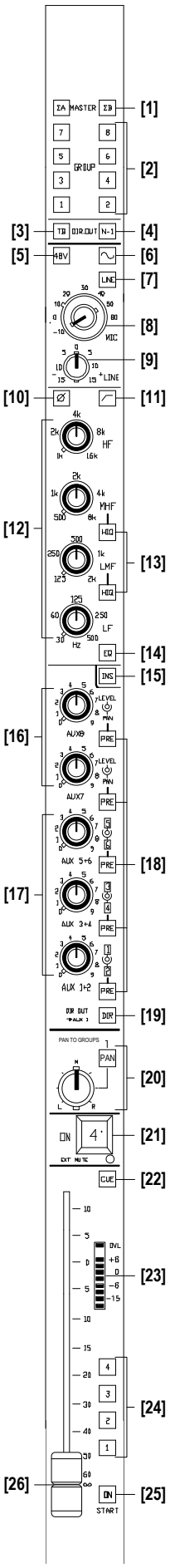
[3] TB DIR. OUT
Talk back, momentary pushbutton for talking via the command microphone to the electronically balanced Direct Output.

[4] DIR. OUT/N–1
Key to select N–1 mode ("mix-minus" mode) for the Direct Output. In this operating mode all selected sources except the channel's own modulation are audible.
There are two N–1 busses in the console: The N–1 ΣA bus, and the N–1/$\overline{\Sigma A}$ bus. The N–1 bus carries a mono mix of the ΣA mix. To provide a mix-minus signal at the direct output using the ΣA mix, the ΣA and the N–1 keys must be pressed.
If the N–1 key is pressed and the ΣA is released, the $\overline{\Sigma A}$ bus is used as the source of the mix-minus signal. The N–1/$\overline{\Sigma A}$ bus carries a mix from all the input modules which have their N–1 key but not their ΣA keyspressed.
Typical application: Direct transmissions or telephone recordings, if the concerned channel is used as a feedback channel to an outside commentator.
The direct output can be jumper-selected to be pre- or after-fader (refer to section 3.1.1).

[5] 48 V
Key for activating the 48 V phantom power for the transformer-balanced MICrophone input. If phantom powering is active, the key is illuminated. If the MIC2 option is installed (i.e. 2nd microphone input), the phantom power is applied to both microphone inputs simultaneously if the 48 V key is pressed.

[6] ~
Key for selecting the test generator input. If selected, the key is illuminated; a signal with a fixed level and the frequency selected in the TEST GEN section of the CR Monitor unit is fed into the input.
If the ~ key is released, the LINE or the MIC input is selected, depending on the LINE key [7].

Note: The test generator input is replaced by the MIC2 input if the corresponding option is installed; in this case, no test generator signal is available, but a second microphone can be connected.



[7] LINE

Key for selecting the electronically balanced line input (input transformer optional). Input sensitivity adjustable in a ±15 dB range with potentiometer LINE [9].
If the LINE key is released, the transformer-balanced MICrophone input is selected, and the key is dark.

[8] MIC

Gain setting for the MIC input.
Ring: Coarse gain setting in 10 dB steps, –10...+60 dB.
Knob: Additional fine gain adjustment in a range of ±10 dB.

[9] LINE

Fine adjustment of the LINE input gain. Adjustment range ±15 dB, with detent in calibrated center position.

[10] Ø

Phase inversion switch. If pressed, the phase of the input signal is inverted, and the key is illuminated.

[11] ⌐

Key for activating the high-pass filter (turnover frequency 75 Hz, slope 18 dB/oct.). If pressed, the filter is active, and the key is illuminated.

[12] HF, HMF, LMF, LF

Semi-parametric four-band equalizer, activated by the EQ key [14].
HF, LF: Shelving treble/bass filter. The turnover frequencies are adjustable with the outer ring (1...16 kHz or 30...500 Hz, resp.); boost/cut is adjustable with the center knobs up to ±15 dB.
HMF: Semi-parametric constant-Q equalizer, Qs of 0.7 or 2 can be selected. Center frequency adjustable with the outer ring (500 Hz...8 kHz), boost/cut adjustable with the center knob up to ±15 dB.
HLF: Semi-parametric equalizer as HMF, but the center frequency is adjustable between 120 Hz and 2 kHz.

[13] HI Q

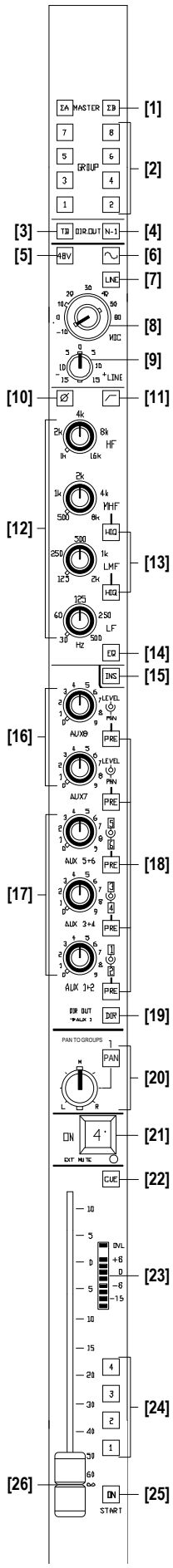
Keys for Q selection of the equalizer's HMF and HLF sections. Key pressed/illuminated: high Q (Q = 2); key released/dark: low Q (Q = 0.7).

[14] EQ

Key for inserting (key pressed and illuminated) or bypassing (key released and dark) the equalizer [12], [13].

[15] INS

Electronically balanced insert point. If the INS key is pressed and illuminated, the signal path is routed via the built-in Bantam patch field, else the signal path is routed internally.
The signal is always available on the INSERT SEND jack socket, regardless of the INS key. The insert point can be configured with jumpers to be pre-EQ, post-EQ but pre-fader, or post-fader (refer to section 3.1.1).



[16] AUX 7, AUX 8
Outputs to the stereo auxiliary busses 7 and 8. The (pre- or post-fader) input signal can be mixed to the desired AUX bus with the concentric potentiometers. The small knobs are the level controls, while the outer rings are used as PAN controls.

[17] AUX 1+2, AUX 3+4, AUX 5+6
Outputs to the mono auxiliary busses 1...6. The (pre- or post-fader) input signal can be mixed to the desired AUX bus with the concentric potentiometers; the knobs are the level controls for the odd-numbered AUX busses (1, 3, 5), the outer rings for the even-numbered AUX busses (2, 4, 6).

[18] PRE
If PRE is pressed, the pre-fader signal is mixed to the AUX bus instead of the post-fader signal, and the key is illuminated.

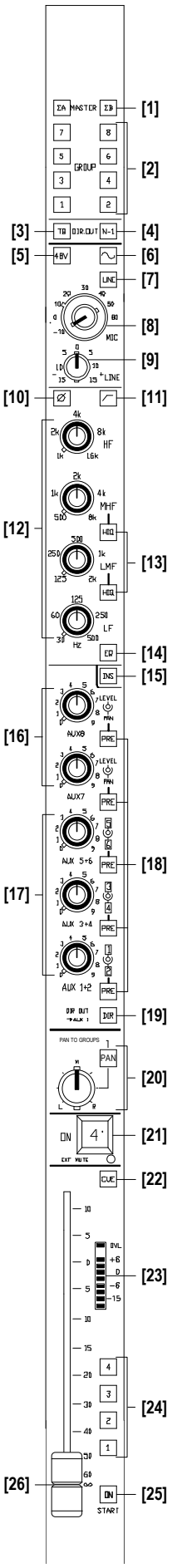
[19] DIR
Key for inserting the AUX 1 potentiometer into to the direct output or N–1 path (DIR OUT). If this key is pressed, the AUX 1 output is muted.

[20] PAN TO GROUPS
Panorama potentiometer with detent in center position. For positioning the mono input signal within the stereo image of the ΣA and ΣB main mixes (MASTER), regardless whether the adjacent PAN key is pressed or not.
If the PAN key is not pressed, the channel signal is routed in mono to all Groups. If it is pressed (and illuminated), the pan pot splits the signal into left and right outputs which are routed to the odd- and even-numbered Groups respectively.

[21] ON
Key for activating the channel with the possibility of external control. The EXT MUTE LED below the key is on if MUTE is externally controlled via the remote input.

[22] CUE
Key to activate the CUE function. If the key is pressed for a short time (less than 0.5 s), the function latches; if the key is pressed for more than 0.5 s, it is used as a momentary pushbutton, and the function will be reset after the key has been released.
If the CUE function is activated while the fader is set to its –∞ position, the AFL/PFL signal is connected to the CUE bus, depending on the AFL/PFL setting made on the CR Monitor Unit. The function will be reset as soon as the fader is moved away from the –∞ position.

[23] LED bargraph with OVL LED
The point to be monitored with the level meter can be selected with jumpers from pre-EQ, post-fader, or direct output/N–1. The meter characteristics can be jumper-selected from PPM or VU. (For jumper settings: refer to section 3.1.1).
The OVL LED monitors pre-EQ, post-EQ, and post-fader; if any of these points reaches a level of 6 dB below clipping, the LED comes on.



[24] 1, 2, 3, 4

Keys for selecting the four VCA group master faders located on the CR Monitor and Studio Monitor Units. The selected group faders are acting on the channel VCA in parallel to the channel fader. If a VCA group master fader is selected, the corresponding key is illuminated.

[25] START ON

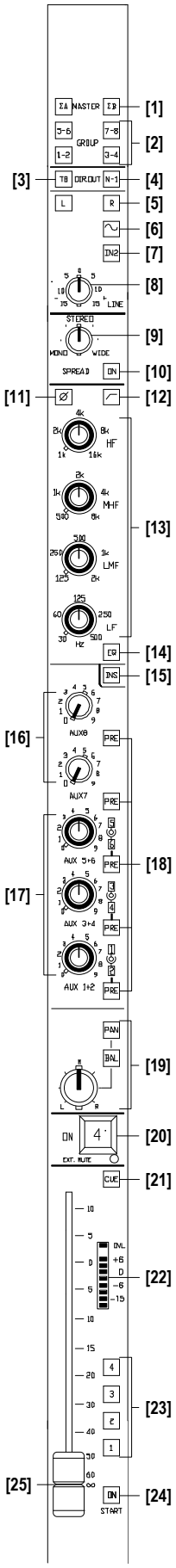
Two sets of relay contacts to start/stop external machines are available. These may be set to latching (default) or pulsed operation with jumpers (refer to section 3.1.1). The relays are operative only if the unit's LINE input is selected.

The START ON key works in conjunction with the fader's end switch. The ON key will be illuminated at half intensity if the fader is in its –∞ position when the ON key is pressed, indicating that the remote start is armed. When the fader is moved up, the start relay is excited and the LED in the ON key is illuminated with full intensity. Alternately, if the fader is moved up before the ON key is activated, the relay is excited as soon as the ON key is pressed.

[27] Fader

Linear Penny & Giles fader with VCA control. The fader is placed immediately after the Mute section, allowing for 10 dB gain at its maximum setting.

2.2 Stereo input unit 1.928.250



[1] MASTER ΣA, ΣB
Keys for routing the audio signal to the stereo MASTER busses.

[2] GROUP 1-2...7-8
Keys for routing the audio signal to the GROUP bus pairs.

[3] TB DIR. OUT
"Talk back", momentary pushbutton for talking via the command microphone to the electronically balanced Direct Output.

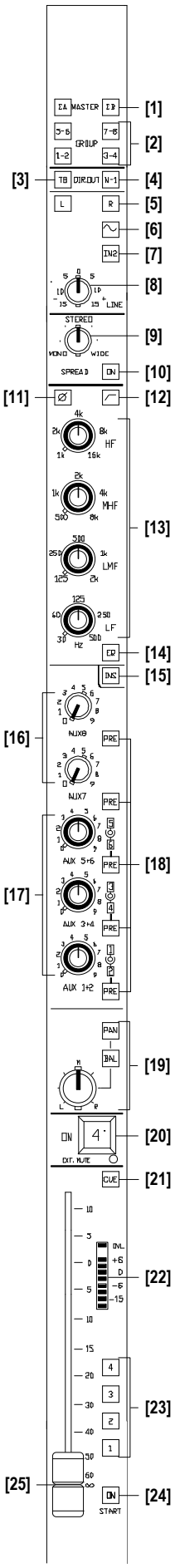
[4] DIR. OUT/N–1
Key to select N–1 mode ("mix–minus" mode) for the Direct Output. In this operating mode all selected sources except the channel's own modulation are audible.
There are two N–1 busses in the console: The N–1 ΣA bus, and the N–1/$\overline{\Sigma A}$ bus. The N–1 bus carries a mono mix of the ΣA mix. To provide a mix-minus signal at the direct output using the ΣA mix, the ΣA and the N–1 keys must be pressed.
If the N–1 key is pressed and the ΣA is released, the $\overline{\Sigma A}$ bus is used as the source of the mix-minus signal. The N–1/$\overline{\Sigma A}$ bus carries a mix from all the input modules which have their N–1 key but not their ΣA key pressed.
Typical application: Direct transmissions or telephone recordings, if the concerned channel is used as a feedback channel to an outside commentator.
The direct output can be jumper-selected to be pre- or post-fader (refer to section 3.1.2).

[5] L, R
Channel selector keys. If both keys are dark, the left and the right input channels are routed to the left and right output channels. If both keys are illuminated, the left and the right input channels are swapped and routed to the right and left output channels, respectively. If either the L or the R key is illuminated, only the left or the right input channel is routed to both output channels.

[6] ~
Key for selecting the test generator input. If selected, the key is illuminated; a signal with a fixed level and the frequency selected in the TEST GEN section of the CR Monitor unit is fed into the input.
If the ~ key is released, the standard LINE input or the second IN2 input is selected, depending on the IN2 key [7].

[7] IN2
Key for selecting from the electronically balanced LINE or IN2 inputs (input transformers optional); if the key is illuminated, the IN2 input is active. Input sensitivity adjustable with potentiometer LINE [9].

[8] LINE
Fine adjustment of the input gain. Adjustment range ±15 dB, with detent in calibrated center position.



[9] SPREAD
Control for adjusting the image width from mono (counterclockwise stop position) through normal stereo (detent in center position) to extra wide (clockwise stop position).

[10] SPREAD **ON**
Key for activating the SPREAD control [9].

[11] Ø
Phase inversion switch. If pressed, the phase of the right channel is inverted, and the key is illuminated.

[12] ⌐
Key for activating the high-pass filter (turnover frequency 75 Hz, slope 18 dB/oct.). If pressed, the filter is active, and the key is illuminated.

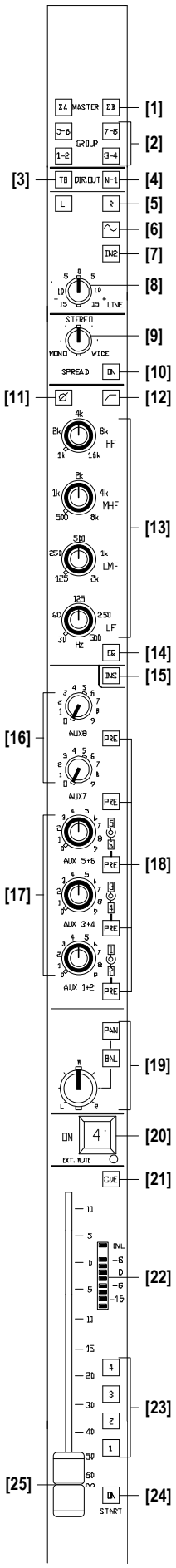
[13] HF, HMF, LMF, LF
Fixed-Q equalizer, activated by the EQ key [14].
HF, LF: Shelving treble/bass filter. The turnover frequencies are adjustable with the outer ring (1...16 kHz or 30...500 Hz, resp.); boost/cut is adjustable with the center knobs up to ±15 dB.
HMF: Semi-parametric constant-Q equalizer (Q = 0.7). The center frequency is adjustable with the outer ring (500 Hz...8 kHz), boost/cut is adjustable with the center knob up to ±15 dB.
HLF: Semi-Parametric equalizer as HMF, but the center frequency is adjustable between 120 Hz and 2 kHz.

[14] EQ
Key for inserting (key pressed and illuminated) or bypassing (key released and dark) the equalizer [13].

[15] INS
Electronically balanced insert point. If the INS key is pressed and illuminated, the signal path is routed via the built-in Bantam jack field, else the signal path is routed internally.
The signal is always available on the INSERT SEND jack socket, regardless of the INS key. The insert point can be configured with jumpers (refer to section 3.1.2) to be pre-EQ or post-EQ.

[16] AUX 7, AUX 8
Outputs to the stereo auxiliary busses 7 and 8. The (pre- or post-fader) stereo input signal can be mixed to the desired AUX bus with the dual (ganged) potentiometers.

[17] AUX 1+2, AUX 3+4, AUX 5+6
Outputs to the mono auxiliary busses 1...6. The left- and right-channel (pre- or post-fader) input signals are summed to a mono signal and can be mixed to the desired AUX bus with the concentric potentiometers; the knobs are the level controls for the odd-numbered AUX busses (1, 3, 5), the outer rings for the even-numbered AUX busses (2, 4, 6).



[18] PRE

If PRE is pressed, the pre-fader signal is mixed to the AUX bus instead of the post-fader signal, and the key is illuminated.

[19] PAN/BAL

Either panorama or balance potentiometer with detent in center position. Function selectable with the adjacent, mutually releasing PAN and BAL keys.

If the adjacent BAL key is pressed (and illuminated), the potentiometer is used for correcting level differences between the right and the left channel. In BAL mode the maximum attenuation of the "unwanted" channel is limited to 10 dB.

If the adjacent PAN key is pressed (and illuminated), the potentiometer is used for positioning the stereo input signal within the stereo image of the master or group mix. At the potentiometer's counterclockwise or clockwise stop, the complete information of both input channels is retained, however in mono, and only in the left or right channel respectively.

The PAN/BAL potentiometer is always active for both Groups and Master busses.

[20] ON

Key for activating the channel with the possibility of external control. The EXT MUTE LED below the key is on if MUTE is controlled externally.

[21] CUE

Key to activate the CUE function. If the key is pressed for a short time (less than 0.5 s), the function latches; if the key is pressed for more than 0.5 s, it is used as a momentary pushbutton, and the function will be reset after the key has been released.

If the CUE function is activated while the fader is set to its –∞ position, the AFL/PFL signal is connected to the CUE bus, depending on the AFL/PFL setting made on the CR Monitor Unit. The function will be reset as soon as the fader is moved away from the –∞ position.

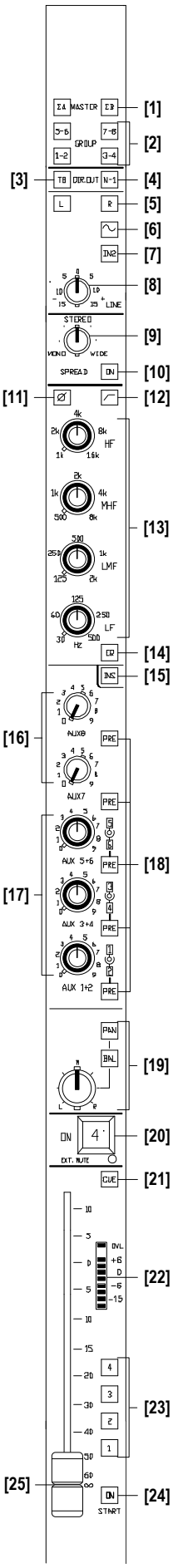
[22] LED bargraph with OVL LED

The point to be monitored with the level meter can be selected with jumpers (refer to section 3.1.2) from pre-EQ or direct output N–1. The meter characteristics can be jumper-selected from PPM or VU.

The OVL LED monitors pre-EQ, post-EQ, and post-fader; if any of these points reaches a level of 6 dB below clipping, the LED comes on.

[23] 1, 2, 3, 4

Keys for selecting the four VCA group master faders located on the CR Monitor and Studio Monitor Units. The selected group faders are acting on the channel VCA in parallel to the channel fader. If a VCA group master fader is selected, the corresponding key is illuminated.



[24] START ON

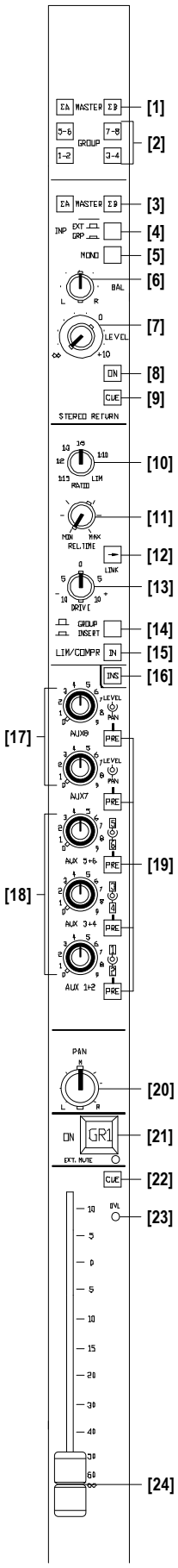
Two sets of relay contacts to start/stop external machines are available. These may be set to latching (default) or pulsed operation with jumpers (refer to section 3.1.2). The relays are operative only if the unit's LINE input is selected.

The START ON key works in conjunction with the fader's end switch. The ON key will be illuminated at half intensity if the fader is in its –∞ position when the ON key is pressed, indicating that the remote start is armed. When the fader is moved up, the start relay is excited and the LED in the ON key is illuminated with full intensity. Alternately, if the fader is moved up before the ON key is activated, the relay is excited as soon as the ON key is pressed.

[25] Fader

Linear Penny & Giles fader with VCA control. The fader is placed immediately after the Mute section, allowing for 10 dB gain at its maximum setting.

2.3 Mono group unit 1.928.230



[1] MASTER ΣA, ΣB
The panned signal is routed to the MASTER busses with the MASTER ΣA and ΣB switches. It may also be routed to the other Group busses.

[2] GROUP 1-2...7-8
Keys for routing the group signal to the GROUP busses. The left signal is routed to the odd-numbered groups, and the right signal to the even-numbered groups.
Each Group is disabled from routing to itself.

[21] ON
Key for activating the group path with the possibility of external control.
The EXT MUTE LED below the key is on if MUTE is controlled externally.

[22] CUE
Key to activate the CUE function. If the key is pressed for a short time (less than 0.5 s), the function latches; if the key is pressed for more than 0.5 s, it is used as a momentary pushbutton, and the function will be reset after the key has been released.

[23] OVL LED
The OVL LED monitors pre- and post-fader; if any of these points reaches a level of 6 dB below clipping, the LED comes on.

[24] Fader
Linear Penny & Giles fader with VCA control. The fader is placed immediately after the Mute section, allowing for 10 dB gain at its maximum setting.

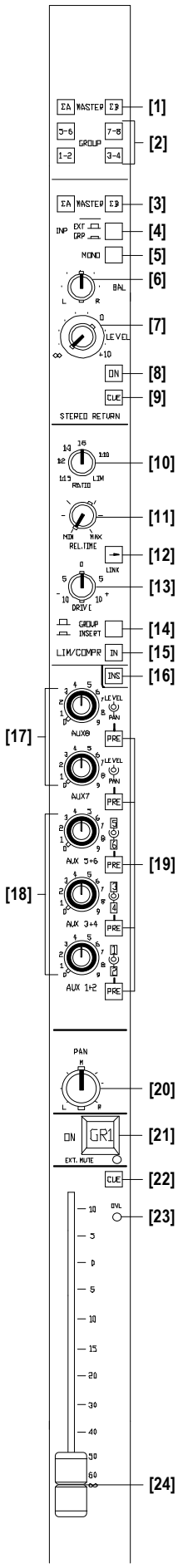
STEREO RETURN:

[3] MASTER ΣA, ΣB
Keys for routing the signal selected with the INP EXT/GRP switch [4] (either the electronically balanced EXTernal line signal or the pre-fader group signal) to the MASTER busses.

[4] INP EXT/GRP
Key for selecting the EXTernal stereo input signal or the pre-fader group signal to the stereo return circuit. When the key is pressed, GRP is selected.

[5] MONO
The stereo return signals from the two electronically balanced XLR input connectors can be summed to a mono signal by pressing the MONO key (key is illuminated).

[6] BAL
Balance potentiometer for the stereo return circuit. If either EXT and MONO or GRP is selected with the keys [4] and [5], respectively, the balance pot acts as a panorama pot with a gain of 3 dB and a drop of 10 dB at either end.



[7] LEVEL
Potentiometer to control the input gain. Adjustment range: –∞...+10 dB.

[8] ON
Key for connecting the output of the stereo return circuit to the Master busses.

[9] CUE
Key to activate the CUE function. If the key is pressed for a short time (less than 0.5 s), the function latches; if the key is pressed for more than 0.5 s, it is used as a momentary pushbutton, and the function will be reset after the key has been released.
If the CUE function is activated while the fader is set to its –∞ position, the AFL/PFL signal is connected to the CUE bus, depending on the AFL/PFL setting made on the CR Monitor Unit. The function will be reset as soon as the fader is moved away from the –∞ position.

COMPRESSOR/LIMITER:

The built-in compressor/limiter can be inserted either into the group channel or be connected to any desired channel via the Bantam patch panel.

[10] RATIO
Potentiometer for adjusting the compression ratio in a range of 1:1.5 to 1:10. In the fully clockwise stop position, the limiter is activated at line level.

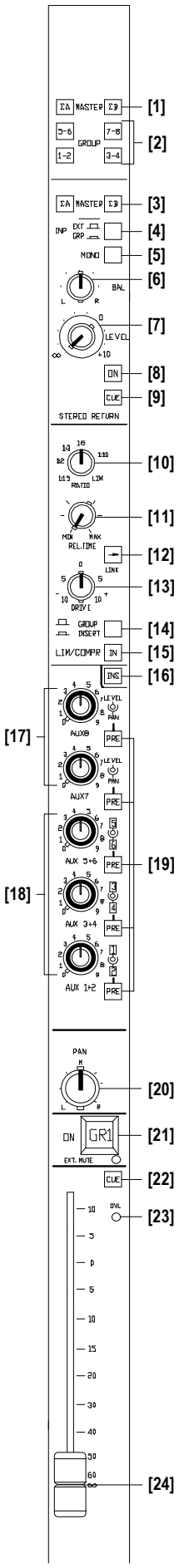
[11] REL. TIME
Potentiometer for adjusting the compressor/limiter's release time in a range of 200 ms to 10 s.

[12] LINK ➔
The LINK key allows linking of the limiter to the next one on its right-hand side (on the far right Group Unit, this has no effect). If limiters are linked, any signal which causes one limiter to start acting will also cause the other linked limiters to act. In this way a stable stereo image is produced even if the compressor/limiter is used.

[13] DRIVE
Potentiometer for adjusting the compressor/limiter's threshold and gain.

[14] GROUP/INSERT
When this key is released (and dark), the compressor/limiter is looped after the fader into the group signal path; when it is pressed, the input and the output of the compressor/limiter is connected to the Bantam patch field.

[15] LIM/COMPR IN
Key for activating the limiter/compressor; when active, the key is illuminated.



GROUP CHANNEL:

[16] INS

Electronically balanced insert point. If the INS key is pressed and illuminated, the signal path is routed via the INSERT SEND/RETURN connectors, else the signal path is routed internally.
The signal is always available on the INSERT SEND connector, regardless of the INS key.

[17] AUX 7, AUX 8

Outputs to the stereo auxiliary busses 7 and 8. The (pre- or post-fader) group signal can be mixed to the desired AUX bus with the concentric potentiometers. The small knobs are the level controls, while the outer rings are used as PAN controls.

[18] AUX 1+2, AUX 3+4, AUX 5+6

Outputs to the mono auxiliary busses 1...6. The (pre- or post-fader) group signal can be mixed to the desired AUX bus with the concentric potentiometers; the knobs are the level controls for the odd-numbered AUX busses (1, 3, 5), the outer rings for the even-numbered AUX busses (2, 4, 6).

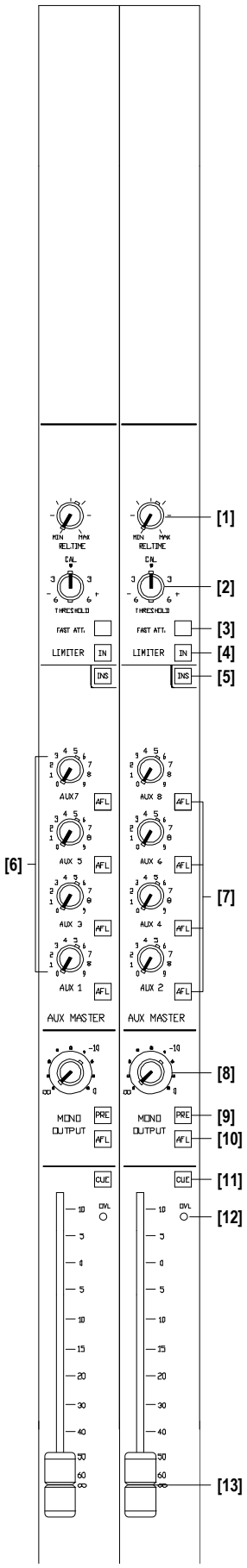
[19] PRE

If PRE is pressed, the pre-fader signal is mixed to the AUX bus instead of the post-fader signal, and the key is illuminated.

[20] PAN

The post-fader signal is routed to the PAN potentiometer (detent in center position). The potentiometer is used for positioning the group signal within the stereo image of the main (MASTER) mix or the other group pairs; the unit's own group bus pair cannot be accessed with the group selector.

2.4 Master unit A/B 1.928.320/.321



There are two master units (A and B) in a console, each handling a stereo channel, 3 mono AUX masters, and one stereo AUX master.

LIMITER:

[1] REL. TIME
Potentiometer for adjusting the limiter's release time in a range of 200 ms to 10 s.

[2] THRESHOLD
Potentiometer for setting the signal level at which the limiter starts operating; setting range ±6 dB, referred to nominal operating level.

[3] FAST ATT.
Key for selecting the limiter's attack time. When the key is released (and dark): 10 ms; when the key is pressed (and illuminated): 0.5 ms.

[4] LIMITER IN
Key for inserting the stereo limiter *after* the Master fader; when inserted, the key is illuminated.

INSERT POINTS:

[5] INS
Electronically balanced insert point. If the INS key is pressed and illuminated, the signal path is routed via the built-in Bantam patch field, else the signal path is routed internally.
The signal is always available on the INSERT SEND jack socket, regardless of the INS key. The insert point can be configured with jumpers to be pre-fader or post-fader (refer to section 3.1.4).

AUX MASTER SECTION:

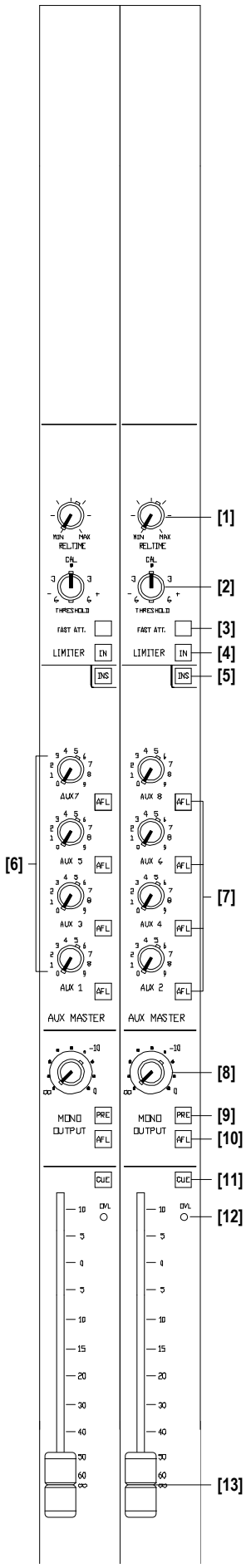
[6] AUX 1, 3, 5, 7/AUX 2, 4, 6, 8
Aux Master level controls.

[7] AFL
The AFL keys allow listening to the signal after the AUX potentiometer via the Cue system.

MONO OUTPUTS:

[8] MONO OUTPUT
Level control for the MONO output signal. The left and right master busses are summed to a mono signal. If PRE [9] is pressed (and illuminated), this mono signal is tapped after the insert point, but before the limiter. If PRE [9] is released (and dark), the mono signal is tapped after insert point, fader, and limiter. Maximum gain is 0 dB.

[9] PRE
If this key is pressed (and illuminated), the signal is tapped before the VCA and routed to the Direct output; else, the signal is tapped after the VCA and routed to the Direct output.



[10] AFL

If this key is pressed (and illuminated), the mono signal is tapped after the level control [8] and routed to the CUE system.

OUTPUT LEVEL CONTROL:

[11] CUE

Key to activate the CUE function. If the key is pressed for a short time (less than 0.5 s), the function latches; if the key is pressed for more than 0.5 s, it is used as a momentary pushbutton, and the function will be reset after the key has been released.
If the CUE function is activated while the fader is set to its –∞ position, the AFL/PFL signal is connected to the CUE bus, depending on the AFL/PFL setting made on the CR Monitor Unit. The function will be reset as soon as the fader is moved away from the –∞ position.

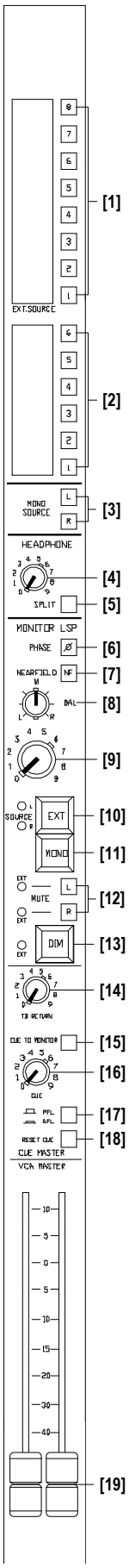
[12] OVL LED

The OVL LED monitors the master busses; if any of these points reaches a level of 6 dB below clipping, the LED comes on.

[13] Fader

Linear Penny & Giles fader with VCA control. The fader is placed immediately after the Mute section, allowing for 10 dB gain at its maximum setting.

2.5 CR Monitor unit 1.928.420



MONITOR SOURCES:

[1] EXT. SOURCE 1...8

The EXT. SOURCE bank of mutually releasing switches allows to select one of eight external inputs as external monitor source, if the SOURCE EXT switch [10] is pressed.

[2] 1...6

The internal source bank of mutually releasing switches allows to select one of six signals as internal monitor source, if the SOURCE EXT switch [10] is released.

For consoles with 8 groups, the internal source can be selected from the following: Groups 1+2, Groups 3+4, Groups 5+6, Groups 7+8, ΣA, ΣB.

For consoles with 4 groups, the internal source can be selected from the following: ΣA mono, ΣB mono, Groups 1+2, Groups 3+4, ΣA, ΣB.

[3] MONO SOURCE L/R

If these switches are both released, the stereo pairs of the sources are routed normally. If only the MONO SOURCE L or the MONO SOURCE R switch is pressed, the left- or right-hand signal is fed to both sides of the monitor circuit. If both are pressed, a mono mix of both sides is fed to both sides of the monitor circuit.

[10] SOURCE EXT

Switchover between the external and internal monitor selector banks (refer to [1] and [2]). The switchover can also be done by external control lines, individually for the left- and right-hand signals. When this is the case, the SOURCE L and/or SOURCE R LEDs are on.

OUTPUTS:

[4] HEADPHONE

Level control for the headphones connector located below the handrest on the right-hand side of the console.

[5] SPLIT

If this key is pressed and a cue (PFL or AFL) is activated from anywhere on the console, both channels of the headphone monitor signal are fed in mono to the left-hand headphones transducer, while the cue signal is fed to the right-hand headphones transducer.

[6] PHASE Ø

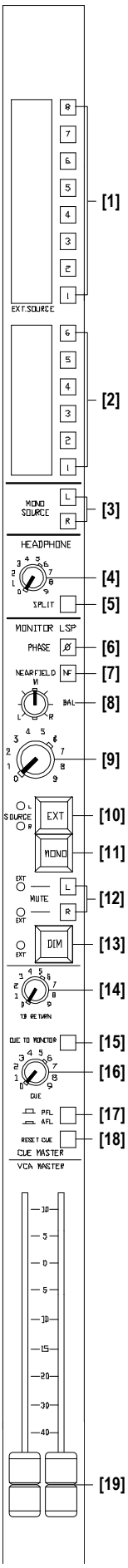
If this key is pressed, the phase of the right-hand monitor speaker channel is reversed.

[7] NEARFIELD NF

If this key is pressed, the second set of monitor speakers is selected for convenient switchover between far field and near field monitoring.

[8] BAL

Balance control for the monitor speaker outputs.



[9] Level control
Overall output level control for the monitor speaker outputs. For optimum stereo tracking, this potentiometer controls two VCAs

[11] MONO
If this key is pressed, the left- and right-hand signals are summed to a mono signal for both monitor speakers; this feature can be used for mono compatibility checks.

[12] MUTE L/R
By pressing these keys the left- and the right-hand monitor signals can be muted individually. This muting can also be done by external control lines, individually for the left- and right-hand signals. When this is the case, the EXT MUTE L and/or EXT MUTE R LEDs are on.

[13] DIM
By pressing this key the monitor signal can be attenuated by 20 dB or muted (jumper-programmable, refer to section 3.1.5). If this attenuation is caused by anything other than use of this key (e.g. talkback), the EXT DIM LED is on.

CUEING SYSTEM:

[14] TB RETURN
Talkback return level control for the cue speaker installed in the meter bridge.

[15] CUE TO MONITOR
If this key is pressed, the left- and right-hand cue signals are switched over from the cue speaker outputs to the monitor speaker outputs, as soon as one or more CUE keys are activated.

[16] CUE
Level control for the internal and external CUE speakers.

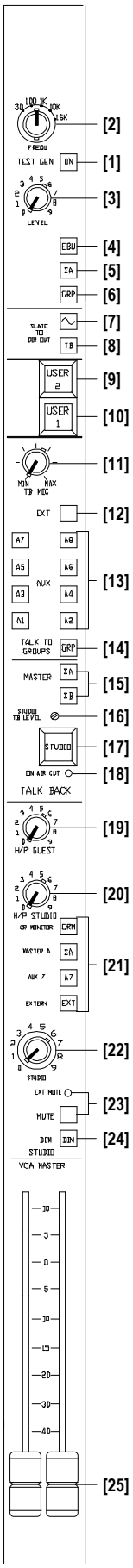
[17] CUE MASTER **PFL/AFL**
Master key to select if the cueing system is set to PFL or AFL.
If this key is not pressed, PFL is active. If it is pressed, AFL is active.

[18] RESET CUE
The various CUE keys may be electronically latched or unlatched by toggling the individual keys. In addition, they all can be unlatched by pressing the RESET CUE key. This key is illuminated if one or more cues are active.

MASTER FADERS:

[19] VCA MASTER 1/2 faders
Linear Penny & Giles faders. These faders send the appropriate control voltages to the individual input modules. VCA group master faders #1 and #2 are on this unit, #3 und #4 are located on the Studio Monitor unit.

2.6 Studio Monitor unit 1.928.520



[1] TEST GEN. ON

Key for activating the internal test generator; if active, the key is illuminated.

The generator output signal is routed to the internal tone bus and (after the LEVEL control [3]) to the internal ΣA and ΣB busses.

The internal tone bus is disabled if the ON-AIR switch on the signalling panel is active.

[2] FREQU.

Rotary switch for frequency selection of the internal test generator (30 Hz, 100 Hz, 1 kHz, 10 kHz, 16 kHz).

[3] LEVEL

Control for the internal test generator's output level.

[4] EBU

Key for selecting EBU mode for the test generator; if active, the key is illuminated, and the OSC R output is muted for 100 ms every 3 s.

[5] ΣA

The post-level control generator signal is connected via the ΣA key to the Master A stereo outputs. The key is illuminated if this routing is active. If the ON AIR switch on the signalling panel is active, the generator signal is interrupted.

[6] GRP

The post-level control generator signal is connected via the GRP key to each of the Group outputs. The key is illuminated if this routing is active.

[7] SLATE TO DIR OUT / ~

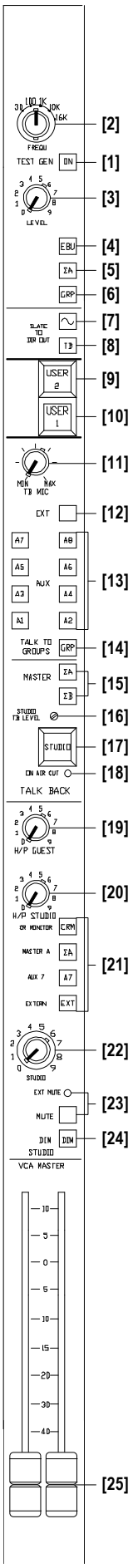
Key for routing the test generator signal to the DIRect output of every input unit; if active, the key is illuminated. If this key is pressed together with the TB key, a 30 Hz signal and the talkback signal are sent together to the DIRect outputs.

[8] SLATE TO DIR OUT/TB

Key for routing the talkback signal to the DIRect output of every input unit; if active, the key is illuminated. If this key is pressed together with the ~ key, the talkback signal and a 30 Hz signal are sent together to the DIRect outputs.

[9], [10] USER 2/1

For both of these two keys, an external input is available normally connected to an external output. The output can be switched over to the talkback signal by pressing the corresponding key. The external output can be jumper-connected to Ground if the key is not pressed. Two other jumpers are provided for connecting the talkback signal to the N–1 busses if the corresponding USER key is pressed (refer to section 3.1.6).



[11] TB MIC
The input to the talkback system is from the built-un talkback mic. The overall gain of the talkback system is adjusted with the TB MIC potentiometer.

[12] EXT
Key for routing the talkback signal to the External Talkback output. If active, the key is illuminated.

[13] AUX A1...8
Keys for routing the talkback signal to the corresponding AUX 1...8 busses. If active, the corresponding key is illuminated.

[14] GRP
Key for routing the talkback signal to the group busses. If the key is pressed for a short time (less than 0.5 s), the function latches; if the key is pressed for more than 0.5 s, it is used as a momentary pushbutton, and the function will be reset after the key has been released. If talkback is active, the key is illuminated.
If the ON-AIR switch on the signalling panel is active, talkback to GRP is inhibited.

[15] MASTER ΣA, ΣB
Keys for routing the talkback signal to the stereo master mixes A and/or B. If the keys are pressed for a short time (less than 0.5 s), the functions latch; if they are pressed for more than 0.5 s, they are used as momentary pushbuttons, and the functions will be reset after the keys have been released. If talkback is active, the keys are illuminated.
If the ON-AIR switch on the signalling panel is active, talkback is inhibited.

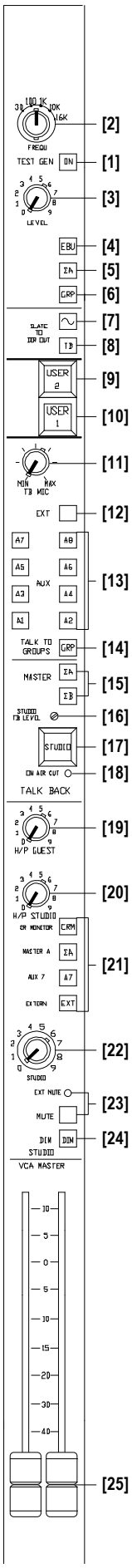
[16] STUDIO TB LEVEL
Potentiometer for setting the talkback level which can be fed to the monitor speakers and headphones in the studio when the STUDIO key [17] is pressed.

[17] STUDIO
Key for routing the talkback signal to the monitor speakers and headphones in the studio. The studio monitor speakers are muted when the ON-AIR key on the signalling panel is pressed.

[18] ON AIR CUT
If this LED is on, the talkback signal will be muted in the following paths:
- Stereo master mixes A and B,
- Studio monitor speakers,
- Studio headphones.

[19] H/P GUEST
Level control for the guest headphones.

[20] H/P STUDIO
Level control for the studio headphones.



[21] CRM, ΣA, A7, EXT

The input signal for the guest headphones, studio headphones and studio monitor speakers is selected with this bank of mutually releasing selector keys. The selection is CRM (i.e. the same signal as is fed to the control room monitor speakers via the CR Monitor unit), ΣA, AUX 7, or EXT (external input from the rear panel connector).

[22] STUDIO

Level control for the studio monitor speakers. Jumper-programmable to VCA remote control from an external potentiometer (refer to section 3.1.6).

[23] MUTE

Key for muting the studio monitor speakers. The EXT MUTE LED next to this key is on if the muting has been activated by the STUDIO MIC ON signal.

[24] DIM

Key for attenuating the level of the studio monitor speakers. The amount of attenuation is set by an internal trimmer potentiometer.

[25] VCA MASTER 3/4 faders

Linear Penny & Giles faders. These faders send the appropriate control voltages to the individual input modules. VCA group master faders #3 and #4 are on this unit, #1 und #2 are located on the CR Monitor unit.

CONTENTS

3 JUMPER SETTINGS, ALIGNMENT

3.1 Jumpers

3.1.1 INPUT UNIT MONO 1.928.220

Insert

With the settings of jumpers LK1...LK8 the insert point can be placed either before the equalizer, before the fader, or after the fader.

Jumper	Insert Pre-EQ	Insert Pre-Fader (default)	Insert Post-Fader
LK1	1-2	2-3	no effect
LK2	1-2	2-3	no effect
LK3	1-2	2-3	no effect
LK4	1-2	2-3	no effect
LK5	1-2	1-2	2-3
LK6	1-2	1-2	2-3
LK7	1-2	1-2	2-3
LK8	1-2	1-2	2-3

Mic 2 Option

Instead of the test tone input, on the input unit a second microphone can be connected. For this purpose, the module 1.928.710 must be replaced by the module 1.928.711, and the jumpers J1 and J2 are to be set as follows:

	Test tone (default)	MIC 2
J1	closed	open
J2	open	closed

Remote control and signalization

APPLIES TO VERSION 1:

Each input unit is equipped with two remote control relays. The normally-open contacts of these relays are terminated on the 9-pin D-type connector of the rear panel.
The relay contacts can be used for remote control or signalization. The function and the behavior of the remote control can be varied with jumpers J3, J4, J5, and J11.

Remote control output

J3	1-2	Fader start pulse on the REM output of the remote control Fader stop pulse on the STOP output of the remote control
	2-3 (default)	Latching contact on the REM output of the remote control for as long as the fader is open and the ON key is active. Fader stop pulse on the STOP output of the remote control.

Remote control key

With the START key the fader start can be prepared or initiated. If the key is pressed when the fader is closed (dim backlight of the key) the fader start command is executed as soon as the fader is opened and the ON key is activated.
If the START key is pressed when the fader is already open and the ON key is active, it immediately executes the fader start command.

J4	1-2 (default)	START key is active
	2-3, and D18, D30 removed	START key is ineffective
J5	1-2	The START key generates start pulses
	2-3 (default)	The START key functions as a latching start/stop key and enables or disables fader start activation with the fader control

Signalization

The 928 mixing console features two signaling busses that are used for on-air signaling and deactivation of the studio speakers.

J11	2-3 (default)	Fader start active (not applicable to version 2 of the input unit)
J12	1-2	When the microphone channel is opened, the CR monitor is dimmed (DJ mode)
	2-3 (default)	When the microphone channel is opened, the studio speaker is switched off, and the studio on-air lamp is activated if the ON AIR signal is available or the STUDIO ON key in the signaling unit is pressed.
J13	1-2 (default)	The microphone input acts on the signaling busses.
	2-3	The LINE input acts on the signaling busses

Input channel Meters

The built-in LED meter can be operated with VU or PPM characteristic and can indicate either the input signal, the post-fader signal or the signal on the direct output (N-1).

J7	1-2 (default)	PPM characteristic
	2-3	VU characteristic
J8/J10	1-1 (default)	Meter before equalizer
	2-2	Meter on direct (N-1) output signal
	3-3	Meter after fader

Direct output

The signal for the direct output can optionally be tapped before or after the fader.

J14	1-2 (default)	Direct output post-fader
	2-3	Direct output pre-fader
J9	1-2	For talkback to the Dir/N-1 output the normal output signal is interrupted (TB signal exclusive)
	2-3 (default)	The talkback signal is added to the Dir/N-1 signal

APPLIES TO VERSION 2:

Each input unit is equipped with two remote control relays. The normally-open contacts of these relays are terminated on the 9-pin D-type connector of the rear panel.
The relay contacts can be used for remote control or signalization. The function and the behavior of the remote control can be varied with jumpers J3, J4, J5, and J11.

Remote control output

J3	1-2	Start pulse on the REM output of the remote control. Stop pulse on the STOP output of the remote control.
	2-3 (default)	Latching contact on the REM output of the remote control for as long as the fader is open and the ON key is active. Stop pulse on the STOP output of the remote control.

Remote control key

With the START key the fader start can be prepared or initiated. If the key is pressed when the fader is closed (dim backlight of the key) the fader start command is executed as soon as the fader is opened and the ON key is activated.
If the START key is pressed when the fader is already open and the ON key is active, it immediately executes the fader start command.

J4	1-2 (default)	START key is active
J11	closed	
J4	2-3	START key is disabled, fader start depends only on the fader and the ON key
J11	open	
J5	1-2	START key generates start pulses
	2-3 (default)	START key functions as a latching start/stop key and enables or disables fader start activation with the fader control

Signalization

The 928 mixing console features two signaling buses that are used for on-air signaling and deactivation of the studio speakers.

J12	1-2	When the microphone channel is opened, the CR monitor is dimmed (DJ mode)
	2-3 (default)	When the microphone channel is opened, the studio speaker is switched off, and the studio on-air lamp is activated if the ON AIR signal is available or the STUDIO ON key in the signaling unit is pressed.
J13	1-2 (default)	Microphone input acts on the signaling buses.
	2-3	LINE input acts on the signaling buses

Input channel meters

The built-in LED meter can be operated with VU or PPM characteristic and indicate either the input signal, the post-fader signal or the signal on the direct output or N-1 output.

J7	1-2 (default)	PPM characteristic
	2-3	VU characteristic
J8/J10	1-1 (default)	Meter before equalizer
	2-2	Meter on direct (N-1) output signal
	3-3	Meter after fader

Direct output

The signal for the direct output can optionally be tapped before or after the fader.

J14	1-2 (default)	Direct output post-fader
	2-3	Direct output pre-fader
J9	1-2	For talkback on the Dir/N-1 output, the normal output signal is interrupted (TB signal exclusive)
	2-3 (default)	The talkback signal is mixed down with the Dir/N-1 signal

3.1.2 INPUT UNIT STEREO 1.928.250

Insert

With the settings of jumpers J1...J4 the insert point can be placed either before the equalizer or before the fader.

Jumper	Insert Pre-EQ	Insert Pre-Fader
J1	1-3 and 2-4	3-5 and 4-6
J2	1-3 and 2-4	3-5 and 4-6
J3	1-3 and 2-4	3-5 and 4-6
J4	1-3 and 2-4	3-5 and 4-6

Remote control

Each input unit is equipped with two remote control relays. One of them produces the fader start signal for the LINE1 input, the other one produces the fader start signal for the LINE2 input. The normally-open contacts of these relays are terminated on the 9-pin D-type connector of the rear panel.
The relay contacts can be used for remote control or signalization. The function and the behavior of the remote control can be varied with jumpers J2, J3, J4, and J5 *on the Side Board*.

Remote control output

J5	Selection	Remote output	J2: 1-2	J2: 2-3
1-2	**LINE1**	REM	Fader start pulse	Fader start pulse
		STOP	Fader stop pulse	Fader stop pulse
	LINE2	REM	= LOW for as long as the fader is open and the ON key is active.	Fader start pulse
		STOP	Fader start pulse	Fader stop pulse
2-3	**LINE1**	REM	Latching contact for as long as the fader is open and the ON key is active.	Latching contact for as long as the fader is open and the ON key is active.
		STOP	---	---
	LINE2	REM	= LOW for as long as the fader is open and the ON key is active.	Latching contact for as long as the fader is open and the ON key is active.
		STOP	Latching contact for as long as the fader is open and the ON key is active.	---

Remote control key

With the START key the fader start can be prepared or initiated. If the key is pressed when the fader is closed (dim backlight of the key) the fader start command is executed as soon as the fader is opened and the ON key is activated.
If the START key is pressed when the fader is already open and the ON key is active, it immediately executes the fader start command.

J4 (on Side Board)	1-2 (default)	START key is active
	2-3	START key is ineffective, fader start depends only on the fader and the ON key
J3 (on Side Board)	1-2	The START key generates start pulses
	2-3 (default)	The START key functions as a latching start/stop key and enables or disables fader start activation with the fader control

Input channel Meters

The built-in LED meter can be operated with VU or PPM characteristic and can indicate either the input signal or the signal on the direct output (N-1).

J7	1-2	VU characteristic
	2-3 (default)	PPM characteristic
J5 + J6	1-2	Meter on direct (N-1) output signal
	2-3 (default)	Meter before EQ

Direct output

The signal for the direct output can optionally be tapped before or after the fader.

J8 + J9	1-2 (default)	Direct output post-fader
	2-3	Direct output pre-fader
J1 (on Side Board)	1-2	For talkback to the Dir/N-1 output the normal output signal is interrupted (TB signal exclusive)
	2-3 (default)	The talkback signal is added to the Dir/N-1 signal

3.1.3 GROUP UNIT 1.928.230

Stereo return

With the EXT/GRP key, the stereo return signal can be selected either from an external stereo line input or from the internal pre-fader group signal.
If in GRP position (key pressed), the signal is tapped before or after the limiter, depending on the position of jumper J1.

J1	1-2 (default)	Before fader and limiter/compressor
	2-3	After fader and limiter/compressor

Groups

If jumpers J2...J5 are not set, the bus cannot be connected to the own group.

Do NOT set Jumper	for groups
J5	1 and 2
J4	3 and 4
J3	5 and 6
J2	7 and 8

Talkback

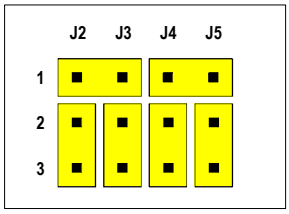
J6	closed (default)	Slate signal replaces group signal
	open	Slate signal is mixed down to the group signal
J8	closed (default)	Talkback signal replaces group signal
	open	Talkback signal is mixed to the group signal
J7	1-2 (default)	On Air signal has no influence on TB
	2-3	On Air signal inhibits talkback and slate

3.1.4 MASTER UNIT 1.928.320

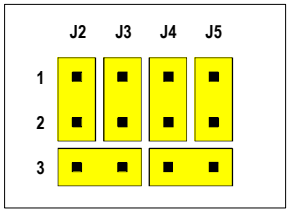
Insert

With the settings of jumpers J2...J5, the insert point of the master channel can be placed either before or after the fader.

Pre-fader insert (default)



Post-fader insert



Talkback

J1	closed (default)	Talkback signal interrupts the master signal
	open	Talkback signal is mixed down to the master signal

Fader start signal

J6	1-2 (default)	Fader start output REM is closed when the master fader is open
	2-3	Fader start output on REM can be controlled externally

3.1.5 CR MONITOR 1.928.420

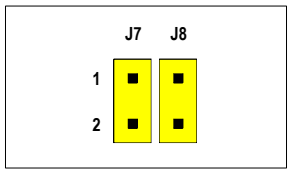
Main Board 1.928.420

CR monitor ➔ studio monitor

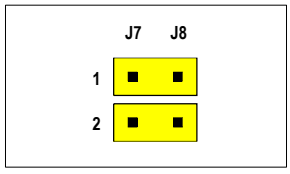
The CR monitor unit can also be used as a studio monitor unit by establishing the following jumper settings:

J1 / J3	1-2 (default)	Cue signal on headphones of the monitor unit
	2-3	Talkback signal on headphones of the monitor unit
J2 / J4	1-2 (default)	Cue signal on speakers of the monitor unit
	2-3	Talkback signal on speakers of the monitor unit
J5 / J6	1-2 (default)	Cue control signal
	2-3	Talk to studio control signal
J9	1-2 (default N.C.)	No function
	2-3	Prod TB control signal
J10	1-2 (default N.C.)	No function
	2-3	Prod TB control signal

CUE speaker



The master level of the left and right cue signal is output to the CUE speaker built into the console. If the overpress option is installed, the cue is muted by the overpress function.



If external CUE speakers are connected, the setting of jumpers J7 and J8 must be changed. If the overpress function is installed, the cue is muted by the overpress function if the connection J7/pin1 to J8/pin1 is set. Without this connection the CUE output will not be interrupted.

Supplementary Board 1.928.423

Mute/Dim

J1	1-2 (default)	CR speaker is dimmed with Monitor DIM
	2-3	CR speaker is switched off with Monitor DIM
J3	1-2 (default N.C.)	Studio mute control switches the speaker off (only for studio monitor option)

External input 8

J2	1-2 (default N.C.)	No function
	2-3	The input sensitivity of the EXT monitor input 8 is increased by 8 dB.

Headphones output

J4	1-2 (default)	The cue signal is mixed to the headphones program
	2-3	The cue signal replaces the headphones program as soon as a cue source is selected

3.1.6 STUDIO MONITOR 1.928.520

Option TB output of user keys

J1 / J2	1-2	An external signal is connected to User Output
	2-3	Ground is connected to User Output
J5 / J6	1-2	Talk to all N-1 outputs

Talkback to studio speaker

J3	1-2 (default)	Red light interrupts talkback to the studio speaker
	2-3	Even when red light is on, talkback to the studio speaker is possible
J4	1-2 (default)	The talkback signal is mixed to the speaker signal
	2-3	Interrupts the speaker signal during talkback

Internal/external volume control of studio speaker

J7	1-2	The volume is controlled by an external potentiometer
	2-3 (default)	The built-in speaker potentiometer is enabled

3.2 Alignment, general information

- The mixing console should be aligned only when it has reached its operating temperature.
- For measuring the levels on the line outputs they must not be loaded with less than 10 kΩ.
- Work should be performed in the indicated sequence only, because several of the steps are prerequisites for subsequent steps.
- All fixing screws of the modules must be firmly tightened. Solid ground connections and the specified EMC values are only achievable if all modules are correctly inserted and fastened.

3.2.1 Level definitions

Level specification: The nominal level specified in *dBu* is based on a fixed voltage as reference level:

0 dBu ≙ 0.775 V_{rms}

Nominal level in dBu:

Nominal level = level at full amplitude

The nominal level corresponds to the level at full amplitude. The terms nominal level, studio level, and line level are used as synonyms. The nominal level is used as the 0 dB value for all relative level specifications.

Output level:

0 dB PPM = nominal level
0 VU = nominal level minus 6 dB*

* 6 dB corresponds to a commonly used lead of the VU indicator.

PPM consoles Peak Program Meters as quasi-peak-indicating instruments indicate the level of a sine wave as RMS value. A signal with nominal level results in an indication of 0 dB.

VU consoles For a continuous tone, a VU instrument indicates a value that is too high by the amount of the lead. For a 0 VU reading the level of the test signal must be reduced by the lead value.
VU consoles are frequently set to a nominal value of +10 dBu, i.e., with a 6 dB lead of the VU meter a level of +4 dBu is indicated as 0 VU.

3.2.2 Voltage level ↔ Decibel

U1/U2	µV ---------- dBu mV ---------- dBu V ------- dBu				U1/U2	µV ---------- dBu mV ---------- dBu V ------- dBu			
1.00	**0.775**	0	–60	–120	31.6	**24.5**	+30	–30	–90
1.12	**0.869**	+1	–59	–119	35.5	**27.5**	+31	–29	–89
1.26	**0.975**	+2	–58	–118	39.8	**30.8**	+32	–28	–88
1.41	**1.09**	+3	–57	–117	44.7	**34.6**	+33	–27	–87
1.59	**1.23**	+4	–56	–116	50.1	**38.8**	+34	–26	–86
1.78	**1.38**	+5	–55	–115	56.2	**43.6**	+35	–25	–85
2.00	**1.55**	+6	–54	–114	63.1	**48.9**	+36	–24	–84
2.24	**1.73**	+7	–53	–113	70.8	**54.8**	+37	–23	–83
2.51	**1.95**	+8	–52	–112	79.4	**61.5**	+38	–22	–82
2.82	**2.18**	+9	–51	–111	89.1	**69.0**	+39	–21	–81
3.16	**2.45**	+10	–50	–110	100	**77.5**	+40	–20	–80
3.55	**2.75**	+11	–49	–109	112	**86.9**	+41	–19	–79
3.98	**3.08**	+12	–48	–108	126	**97.5**	+42	–18	–78
4.47	**3.46**	+13	–47	–107	141	**109**	+43	–17	–77
5.01	**3.88**	+14	–46	–106	159	**123**	+44	–16	–76
5.62	**4.36**	+15	–45	–105	178	**138**	+45	–15	–75
6.31	**4.89**	+16	–44	–104	200	**155**	+46	–14	–74
7.08	**5.48**	+17	–43	–103	224	**173**	+47	–13	–73
7.94	**6.15**	+18	–42	–102	251	**195**	+48	–12	–72
8.91	**6.90**	+19	–41	–101	282	**218**	+49	–11	–71
10.0	**7.75**	+20	–40	–100	316	**245**	+50	–10	–70
11.2	**8.69**	+21	–39	–99	355	**275**	+51	–9	–69
12.6	**9.75**	+22	–38	–98	398	**308**	+52	–8	–68
14.1	**10.9**	+23	–37	–97	447	**346**	+53	–7	–67
15.9	**12.3**	+24	–36	–96	501	**388**	+54	–6	–66
17.8	**13.8**	+25	–35	–95	562	**436**	+55	–5	–65
20.0	**15.5**	+26	–34	–94	631	**489**	+56	–4	–64
22.4	**17.3**	+27	–33	–93	708	**548**	+57	–3	–63
25.1	**19.5**	+28	–32	–92	794	**615**	+58	–2	–62
28.2	**21.8**	+29	–31	–91	891	**690**	+59	–1	–61
31.6	**24.5**	+30	–30	–90	1000	**775**	60	0	–60

3.2.3 Alignment necessity

Every mixing console leaving the factory comes with an alignment protocol containing the data of the final inspection, as:

- Alignment to customer-specific nominal level
- Frequency response, harmonic distortion, signal-to-noise ratio, noise voltage, and crosstalk attenuation.

Aligning the console is required after changing the operating conditions (nominal level) or after modifications to the console. The only measure to be performed regularly is demagnitizing the input transformers (see 3.2.8).

Note: New (spare) modules are factory-aligned to a nominal level of +6 dBu and can be installed in the console without further measures.

3.2.4 Electrostatically sensitive components („ESE“)

Many materials of today's working environment are possible sources of static electricity. Under certain conditions persons or objects can be charged to very high voltages – and according to Murphy's Law, these conditions are always met. When discharged, pulses of substantial peak power can occur. If this energy even partly finds its way into an electronic component, the latter can be damaged or destroyed.

Handling „ESE“ assemblies

Correct handling of electronic assemblies is a very important factor in the area of equipment maintenance; some simple guidelines must be followed:

1. Discharge your body by touching ground potential before touching any electronic assembly.
2. Shake hands with your partner before handing him over an electronic assembly.
3. Only touch a PCB at its edges (or its front panel, if any).
4. Switch off power before removing or inserting an assembly.
5. Stocking and transporting of „ESE“ assemblies must be performed only in special packaging material designed for this purpose.
6. Work only with tools suited and tested for „ESE“ components.
7. Always wear the grounding wrist-strap when working on electronic assemblies.
8. Keep Styrofoam, PVC foils, plastic bags and similar materials far away from „ESE“ assemblies.

Use of a grounded protection mat („ESE“ mat) is strongly recommended (refer to the next paragraph).

3.2.5 Required test equipment and tools

- Audio frequency generator with balanced output,
  output impedance ≤ 200 Ω (e.g. included in AudioPrecision "Portable One")
  or (if no balanced output is available): additional balancing transformer – also refer to 2.11.7
- Audio frequency voltmeter with balanced input,
  input impedance ≥ 10 kΩ (e.g. included in AudioPrecision "Portable One")
  or (if no balanced input is available): additional balancing transformer – also refer to 2.11.7
- DC voltmeter, $R_i \geq 20$ kΩ/V
- Distortion analyzer (e.g. included in AudioPrecision "Portable One")
- Two-channel oscilloscope (not mandatory; if available only)
- Alignment screwdriver, size 1
- Bus adapters for connecting detached modules to the bus; minimum requirement:
  2 Bus adapters, 2 × 32-pin Order No. 1.228.332.00
- 2 Module extractors Order No. 1.912.000.06 (1 pce.)

Note: The module extractors are contained in the accessories set, order no. 1.928.096.00 (refer to section 1.2.4).

- „ESE" protection set (mat 60 × 70 cm, grounding wrist strap, and grounding cable) Order No. 20.020.001.44
- Solid insulating mat (e.g. rubber or cardboard), approx. 25 × 40 cm, as a rest for detached modules which are connected to the bus and are placed onto the operating surface of the console.

3.2.6 Measurement basics

Temperature: Aligning the console should only be performed when it has reached operating temperature (approx. 15 min after powering on).

Load: All outputs and insert points are to be measured without load – i.e. the input impedance of the AF voltmeter must be 10 kΩ at least.

Test signal: Sine wave, approx. 1 kHz.

Level reference: *All indications in the following instructions are referred to a nominal level of +6 dBu.*
Other nominal levels require changed indications according to the table below:

Level overview:

Nominal level	Line outputs	(6 dB lead) 0 VU indication @	(PPM) 0 dB indication @
+6 dBu	+6 dBu	+0 dBu	+6 dBu
+10 dBu	+10 dBu	+4 dBu	+10 dBu
+15 dBu	+15 dBu	+9 dBu	+15 dBu

Insert levels: The level of the balanced insert points is equal to the nominal level.

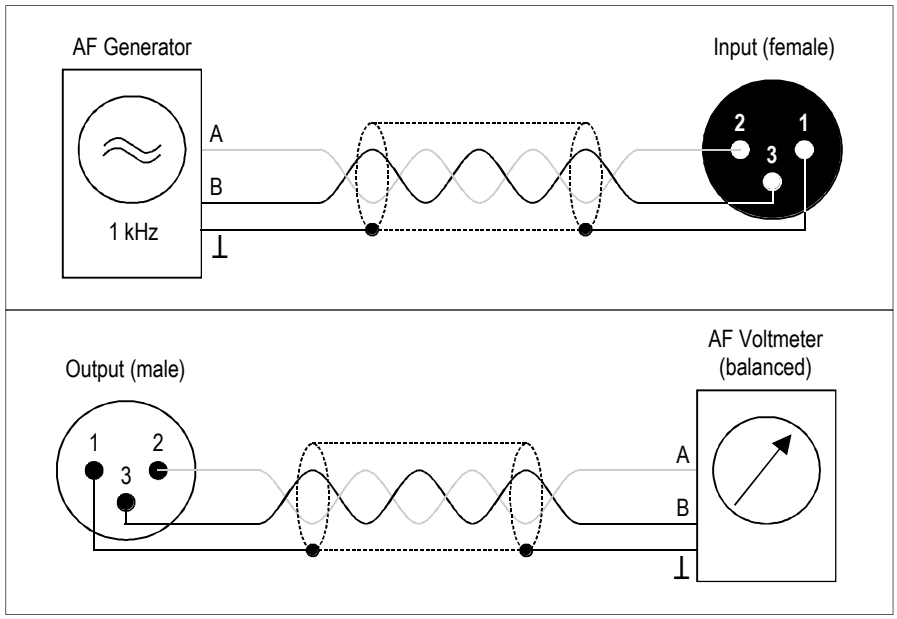
3.2.7 Measuring set-up

Inserting/removing modules:

The modules to be aligned must be removed from the console and connected to the bus via bus adapters.
The 0 W bus amplifiers are sensitive to voltage peaks occurring during hot patching.
For protection of the console and its periphery, the modules may be inserted or removed only after switching the console off.

Balanced test equipment:

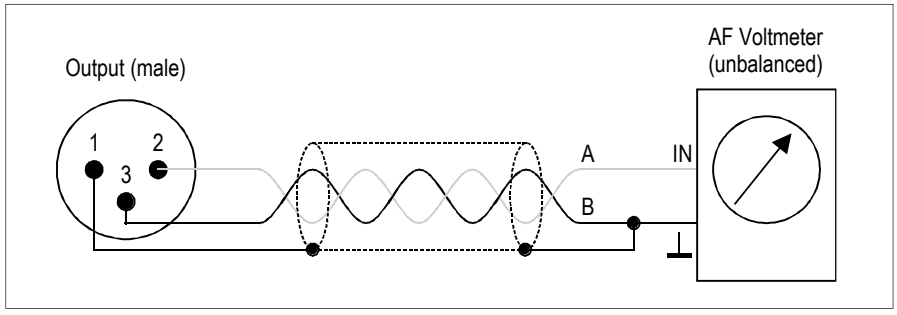
As a matter of principle, the AF voltmeter must have a balanced input, the AF generator must have a balanced output.



Connection of the AF generator with a balanced line. Measurements with the AF voltmeter are performed without load (Ri ≥ 10 kΩ)

Unbalanced test equipment:

If the input of the AF voltmeter is unbalanced, it has to be connected via a balancing transformer. Should this not be feasible, the following method can be used as a makeshift:



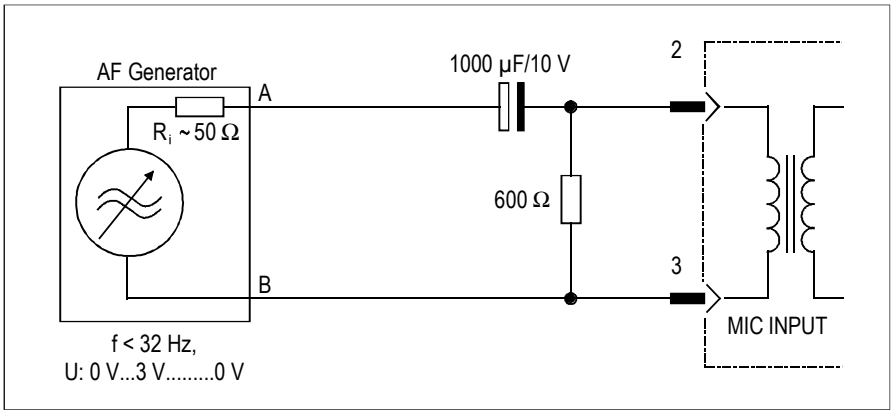
The „cold" B-line (pin 3) is connected to the audio ground (pin 1) and constitutes an unbalanced ground point.
This set-up cannot be used for high-level measurements (in electronically balanced outputs clipping can occur).

3.2.8 Demagnetizing the input transformers

- Prohibited connection of unbalanced input sources or unintentional shorting of the A and/or B audio line of the microphone inputs to chassis when phantom supply is active can drive the input transformers into saturation and cause permanent magnetization (remanence). This manifests itself in the form of significantly higher harmonic distortion and microphonic noise: Light mechanical action on the mixing console, as tapping, causes an audible modulation via the outputs even when the microphone inputs are not active.
- Remanence can also accumulate over extended operating periods.
- All microphone inputs should, therefore, be demagnetized periodically *and prior to calibration.*

Procedure:

- *Switch the console off.*
- Feed a frequency of < 32 Hz to one microphone input after the other.
- Increase the generator level from 0 V to about 3 V.
- Continuously reduce the level *very slowly* to 0 V.



Capacitor (1000 µF/10 V) blocks any DC component
Resistor (600 Ω) is used for discharging the capacitor

3.3 Alignment

For alignment, the fader unit concerned must be removed from the console and connected to it via bus adapters.

Always switch the console off before connecting and disconnecting the modules to avoid damaging the modules.

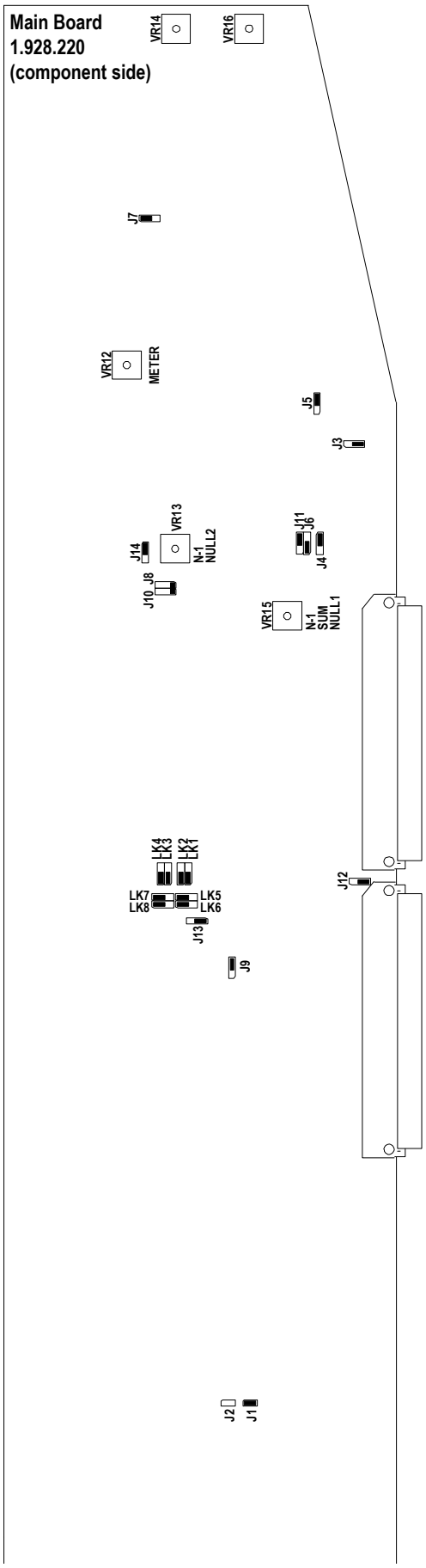
During the alignment, any filters, equalizers, as well as the balance and pan pots must be switched off.
All settings are performed on the faders only.

3.3.1 Generator level

(Please refer to the drawings in section 3.3.7).

- Connect AF voltmeter to the generator bus (connector 2c-23) and to ground (connector 1c-29) at any input.
- Switch test generator on and set it to 1 kHz on the Studio Monitor unit.
- Adjust **VR9** on the Studio Monitor unit to **–50 dBu** generator bus level.

3.3.2 Input unit mono 1.928.220



Distortion:

- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the LINE input.
- Set the LINE GAIN and PAN potentiometers to their center positions (CAL.), switch filters off, and set the fader to its 0 dB position.
- Remove the Input unit from the console and reconnect it via the bus adapter (optionally available; order no. 1.228.332.00).
- Route the signal to Master A (ΣA).
- Connect the distortion analyzer to the PF INSERT SEND connector of Master unit A.
- Adjust **VR14** to **minimum distortion** (typical value: <80 dB @ 1 kHz).

Level:

- Connect the AF voltmeter to the PF INSERT SEND connector of Master unit A.
- Adjust the level with trimmer potentiometer **VR16** to **3 dB below nominal level**.

Meter PPM (JP7 set to 1-2, see section 3.1.1):

- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the LINE input.
- Adjust trimmer potentiometer **VR12 to 0 dB indication.**

Meter VU (JP7 set to 2-3, see section 3.1.1):

- Feed test signal with nominal level –6 dB (1 kHz, typ. 0 or +4 dBu) to the LINE input.
- Adjust trimmer potentiometer **VR12 to 0 dB indication.**

Note: Usually, a 6 dB lead is used to compensate for the lower rise time of the VU meter (example: If the nominal level is +10 dBu, 0 VU is indicated with an input level of +4 dBu).

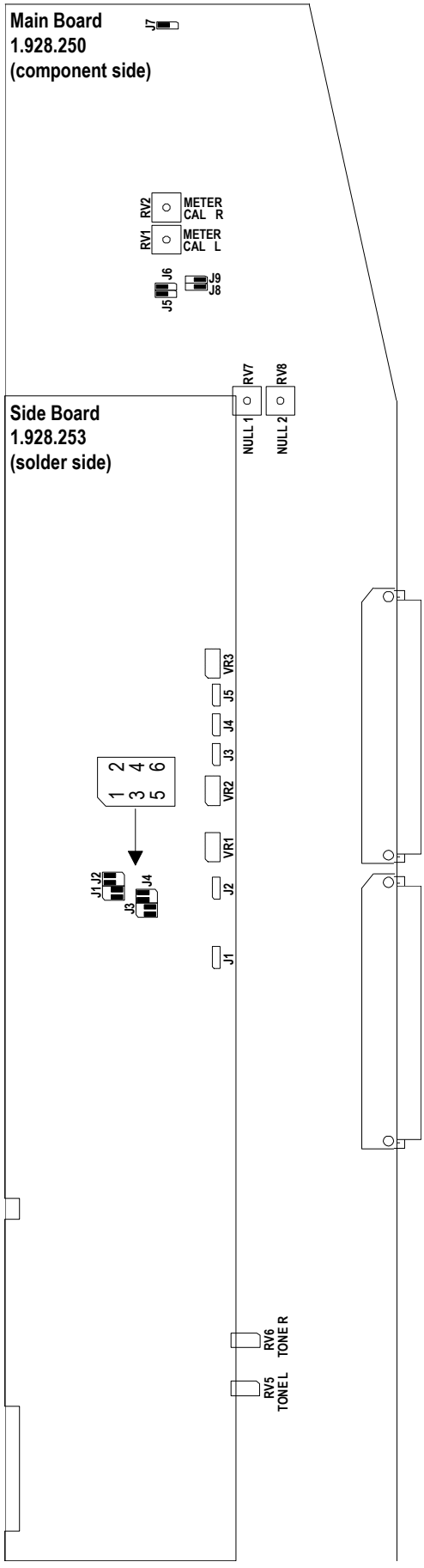
Direct output:

- Connect the AF voltmeter to the DIRECT OUTPUT.
- Route the signal to Master A (ΣA).
- Press the N-1 switch ("clean feed").
- Adjust the output to **minimum** level with trimmer potentiometer **VR15**.
- Press the Master A routing switch (ΣA).
- Adjust the output signal to **minimum level** with trimmer potentiometer **VR13**.

Generator:

- Select the generator ("~") in the input selector section.
- Switch the generator ON on the Studio Monitor module, set the frequency to 1 kHz.
- Connect the AF voltmeter to the PF INSERT SEND connector of Master unit A.
- Set the PAN potentiometer to its center position and the fader to its 0 dB position.
- Adjust **RA1** on the INPUT SIDE SWITCH BOARD to **3 dB below nominal level.**

3.3.3 Input unit stereo 1.928.250



Distortion:

- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the LINE 1 LEFT input.
- Set the LINE GAIN potentiometer to center position (CAL.), switch filters off, and set the fader to its 0 dB position.
- Remove the Input unit from the console and reconnect it via the bus adapter (optionally available, order no. 1.228.332.00).
- Route the signal to Master A (ΣA).
- Connect the distortion analyzer to the PF INSERT SEND connector of Master unit A left.
- Set **VR1** on the Side Board (left channel) to **minimum distortion** (typical value: <80 dB @ 1 kHz).
- Feed test signal with nominal level (1 kHz, typ. +6 dB or +10 dBu) to the LINE 1 RIGHT input.
- Connect the distortion analyzer to the PF INSERT SEND connector of Master unit A right.
- Set **VR2** on the Side Board (right channel) to **minimum distortion** (typical value: <80 dB @ 1 kHz).

Level:

- Feed test signal with nominal level (1 kHz, typ. +6 dB or +10 dBu) to the LINE 1 LEFT input.
- Connect the AF voltmeter to the PF INSERT SEND connector of Master unit A left.
- Set the level with trimmer potentiometer **VR3** on the Side Board to **nominal level**.

Meter PPM (JP7 set to 2-3, section 3.1.2)**:**

- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the LINE 1 LEFT input.
- Set trimmer potentiometer **RV1** on the Main Board for **0 dB indication** on the left-channel meter.
- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the LINE 1 RIGHT input.
- Adjust trimmer potentiometer **RV2** on the Main Board for **0 dB indication** on the the right-channel meter.

Meter VU (JP7 set to 1-2, see section 3.1.2)**:**

- Feed test signal with nominal level –6 dB (1 kHz, typ. 0 or +4 dBu) to the LINE 1 LEFT input.
- Adjust trimmer potentiometer **RV1** on the Main Board for **0 dB indication** on the the left-channel meter.
- Feed test signal with nominal level –6 dB (1 kHz, typ. 0 or +4 dBu) to the LINE 1 RIGHT input.
- Adjust trimmer potentiometer **RV2** on the Main Board for **0 dB indication** on the the right-channel meter.

Note:
Usually, a 6 dB lead is used to compensate for the lower rise time of the VU meter (example: If the nominal level is +10 dBu, 0 VU is indicated with an input level of +4 dBu).

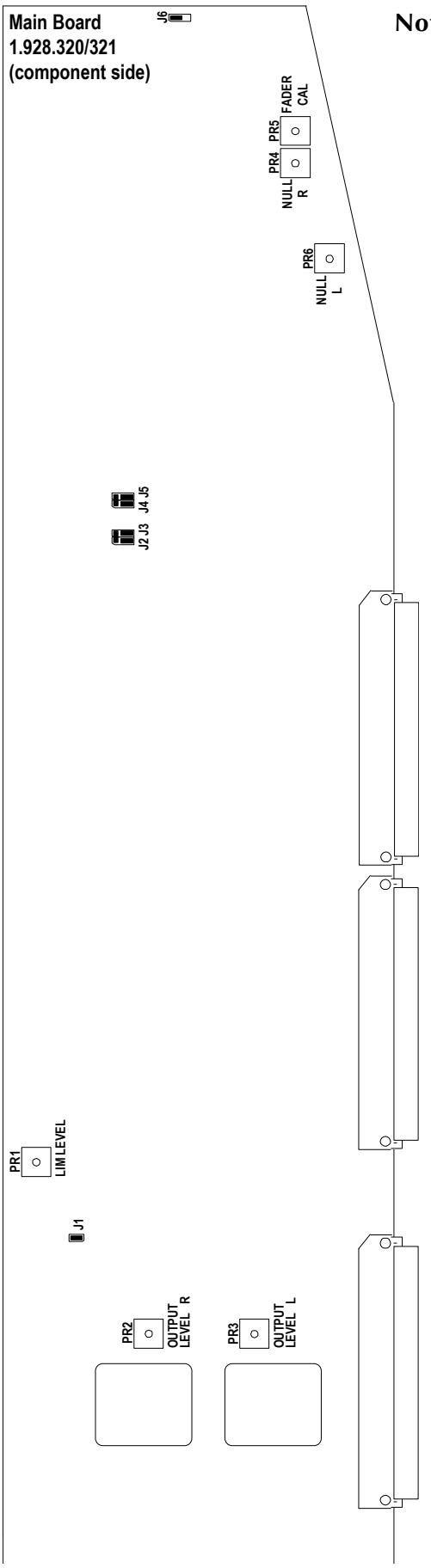
Direct Output:

- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the LINE 1 LEFT input (the Direct Output is only influenced by the PAN pot if jumpers J8/J9 are set to "post fader", position 1-2, see section 3.1.2).
- Connect the AF voltmeter to the DIRECT OUTPUT LEFT.
- Route the signal to Master A (ΣA).
- Press the N-1 switch ("cleanfeed").
- Adjust output with trimmer potentiometer **RV7** to **minimum level**.
- Release the Master A (SA) routing switch.
- Adjust output with trimmer potentiometer **RV8** to **minimum level**.

Generator:

- Select the generator in the input selector section.
- Switch the generator ON on the Studio Monitor unit and set it to 1 kHz.
- Connect the AF voltmeter to the PF INSERT SEND connector of Master unit A Left.
- Set the fader to its 0 dB position.
- Adjust the voltmeter indication with **RV5** on the Input Main Board to **nominal level**.
- Connect the AF voltmeter to the PF INSERT SEND connector of Master unit A Right.
- Verify if the fader is still in its 0 dB position.
- Adjust the voltmeter indication with **RV6** on the Input Main Board to **nominal level**.

3.3.4 Master units A/B 1.928.320/1.928.321



Note: If the calibration must be done from a stereo input module, and the PAN potentiometer is off, all measured levels are lower by 3 dB.

Fader calibration:

- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the LINE input of a mono channel.
- Route the signal to Master A (ΣA) or B (ΣB).
- Set the LINE GAIN and the PAN potentiometers to their center positions (CAL.), switch filters off, set the input and master faders to their 0 dB positions.
- Remove the Master unit from the console and reconnect it via the bus adapter (optionally available; order no. 1.228.332.00).
- Connect the *unbalanced input* of the AF voltmeter to J3/pin1, and *ground* to the unit's ground cable.
- Adjust level with trimmer potentiometer **PR5** to **9 dB below nominal level** (3 dB below nominal level due to the PAN potentiometer in center position, and an additional 6 dB because of unbalanced measurement setup).
- This adjustment is valid for both channels.

Distortion:

- Connect the distortion analyzer to the corresponding MASTER OUTPUT LEFT.
- Adjust with trimmer potentiometer **PR6** to **minimum distortion**.
- Connect the distortion analyzer to the corresponding MASTER OUTPUT RIGHT.
- Adjust with trimmer potentiometer **PR4** to **minimum distortion**.

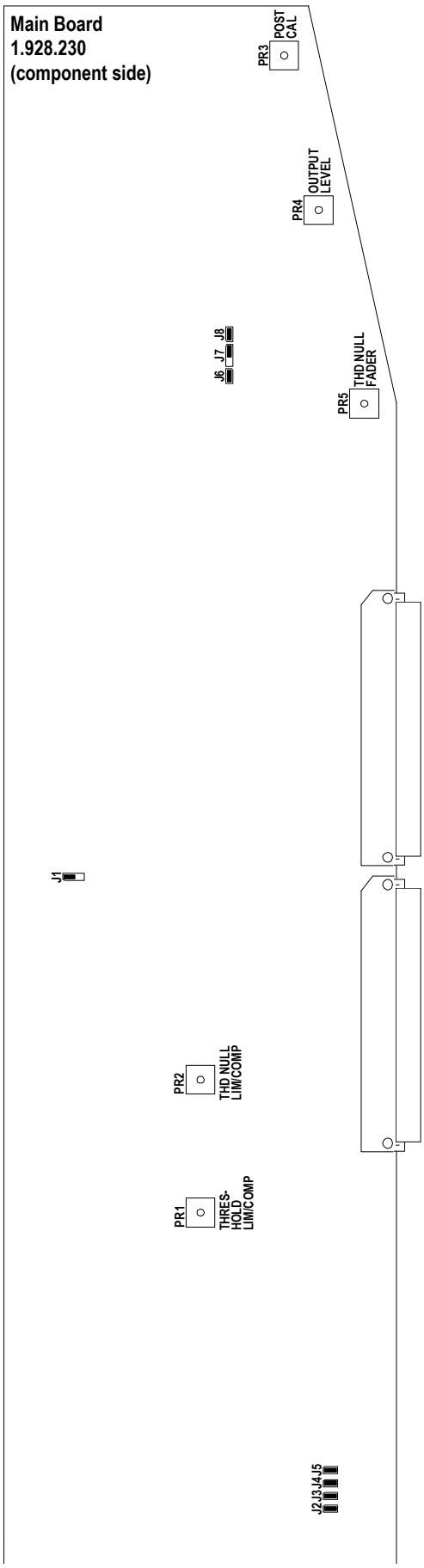
Master output level:

- Connect the AF voltmeter to the corresponding MASTER OUTPUT LEFT.
- Adjust the measured level with trimmer potentiometer **PR3** to **3 dB below nominal level**.
- Connect the AF voltmeter to the corresponding MASTER OUTPUT RIGHT.
- Adjust the measured level with trimmer potentiometer **PR2** to **3 dB below nominal level**.

Limiter:

- Connect the AF voltmeter to the corresponding MASTER OUTPUT LEFT.
- Activate the limiter by pressing the LIMITER IN key.
- Increase the input level with GAIN potentiometer by 10.2 dB (nominal level +10.2 dB).
- Set the THRESHOLD potentiometer to its center ("CAL") position.
- Adjust the output level with trimmer potentiometer **PR1** to **nominal level +0.2 dB**.

3.3.5 Group unit 1.928.230



First, verify the jumpers according to the jumpers list in section 3.1.3, in order to prevent the groups from routing to themselves (e.g. that group 1/2 can only be routed to all the other groups, but not to group 1/2. Therefore, jumper J5 must not be inserted).

Fader calibration:

- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the LINE input of a mono channel.
- Route the signal to the group to be adjusted.
- Remove the Group unit from the console and reconnect it via the bus adapter (optionally available; order no. 1.228.332.00).
- Set the LINE GAIN potentiometer to center position (CAL.), switch filters off, and set the input and group faders to their 0 dB positions.
- Connect the unbalanced input of the AF voltmeter to the "after fader" point of jumper J1, i.e. position 3.
- Adjust the measured level with trimmer potentiometer **PR3** to **6 dB below nominal level** because of the unbalanced measurement.

Distortion:

- Connect the distortion analyzer to the corresponding group output.
- Adjust with trimmer potentiometer **PR5** to **minimum distortion.**

Group output level:

- Connect the AF voltmeter to the corresponding group output.
- Adjust the measured level with trimmer potentiometer **PR4** to **nominal level**.

Limiter distortion:

- Connect the distortion analyzer to the corresponding group output.
- Activate the limiter/compressor section by pressing the LIM/COMPR IN key.
- Adjust with trimmer potentiometer **PR2** to **minimum distortion**.

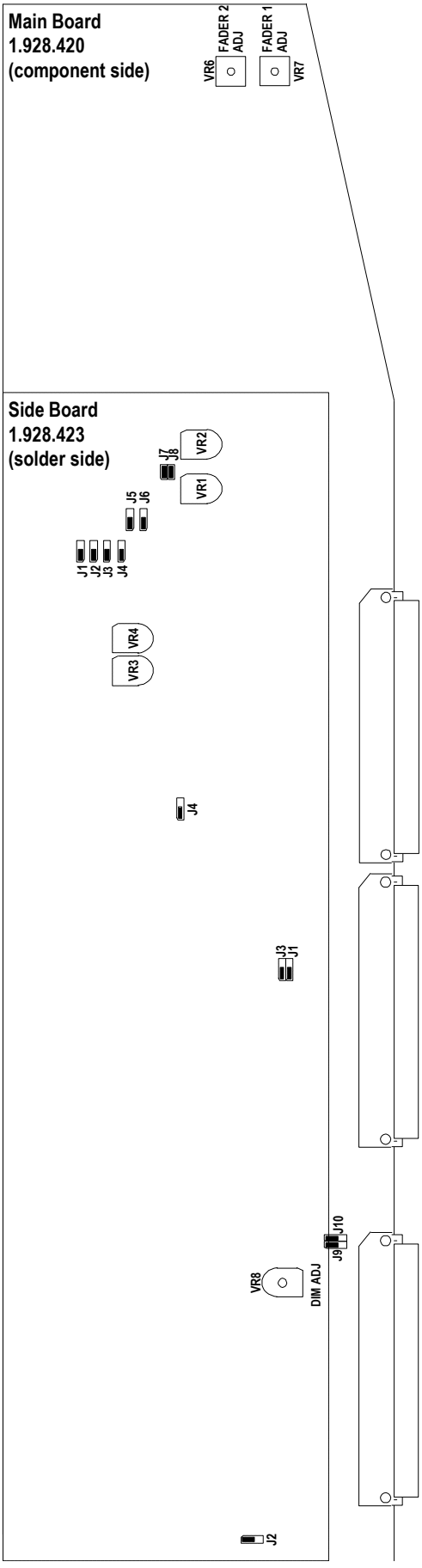
Limiter level:

- Connect the AF voltmeter to the corresponding group output.
- Increase the input level with GAIN potentiometer by 10.2 dB (nominal level +10.2 dB).
- Set the DRIVE potentiometer to its center position, and the RATIO potentiometer to its maximum (limiter) position.
- Adjust the group output level with trimmer potentiometer **PR1** to **nominal level +0.2 dB**.

Meter:

- If available, adjust the corresponding limiter meter to **+10 dB** indication.

3.3.6 CR Monitor unit 1.928.420



Distortion:

- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the left channel of one of the EXT. SOURCE inputs and press the SOURCE EXT. pushbutton.
- Remove the CR Monitor unit from the console and reconnect it via bus adapter (optionally available; order no. 1.228.332.00).
- Select the appropriate input with one of the EXT. SOURCE pushbuttons.
- Set the level control potentiometer fully clockwise (maximum level), and the BAL potentiometer to its center position.
- Connect the distortion analyzer to the CR MONITOR OUTPUT LEFT.
- Adjust with trimmer potentiometer **VR4** on the Side Board to **minimum distortion**.
- Connect the distortion analyzer to the CR MONITOR OUTPUT RIGHT.
- Adjust with trimmer potentiometer **VR3** on the Side Board to **minimum distortion.**

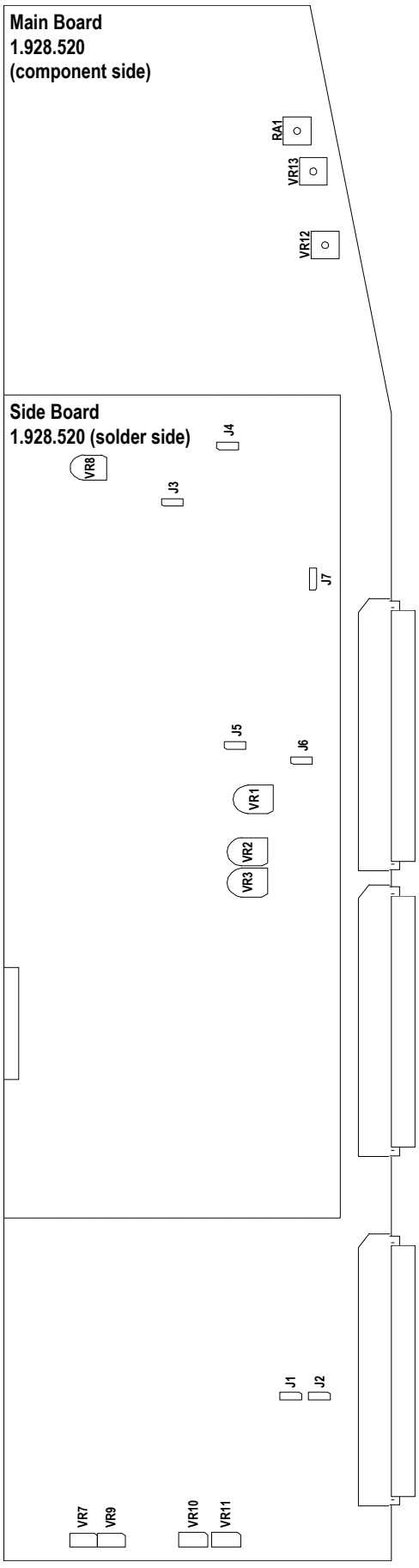
Level:

- Connect the AF voltmeter to the CR MONITOR OUTPUT LEFT.
- Adjust the measured level with trimmer potentiometer **VR2** on the Side Board to **nominal level +10 dB.**
- Feed test signal with nominal level (1 kHz, typically +6 or +10 dBu) into the left channel of one of the EXT. SOURCE inputs.
- Select the appropriate input by pressing one of the EXT. SOURCE pushbuttons.
- Connect the AF voltmeter to the CR MONITOR OUTPUT RIGHT.
- Adjust the measured level with trimmer potentiometer **VR1** on the Side Board to **nominal level +10 dB.**

DIM attenuation:

- Connect the AF voltmeter to either of the CR MONITOR OUTPUT RIGHT or LEFT and measure the level.
- Press the DIM switch.
- Adjust the measured level with trimmer potentiometer **VR8** on the Main Board to **20 dB below the level measured before** (e.g. if the nominal level is +6 dBu and the level potentiometer is set to maximum, the undimmed output level will then be +16 dBu. Therefore, adjust to –4 dBu when the DIM button is pressed).

3.3.7 Studio Monitor unit 1.928.520



Distortion:

- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the left channel of one of the EXT. STUDIO MONITOR inputs and press the EXT pushbutton.
- Remove the Studio Monitor unit from the console and reconnect it via the bus adapter (optionally available; order no. 1.228.332.00).
- Set the STUDIO level control potentiometer potentiometer fully clockwise (maximum level).
- Connect the distortion analyzer to the STUDIO MONITOR OUTPUT LEFT.
- Adjust with trimmer potentiometer **VR1** on the Side Board to **minimum distortion**.
- Connect the distortion analyzer to the STUDIO MONITOR OUTPUT RIGHT.
- Adjust with trimmer potentiometer **VR3** on the Side Board to **minimum distortion**.

Level:

- Connect the AF voltmeter to the STUDIO MONITOR OUTPUT LEFT.
- Adjust the measured level with trimmer potentiometer **VR2** on the Side Board to **nominal level +10 dB.**
- Verify if the right-channel output is within ±0.5 dB from the left-channel output. The right-channel output cannot be adjusted separately.

DIM attenuation:

- Connect the AF voltmeter to one of the STUDIO MONITOR OUTPUT LEFT or RIGHT, and measure the level.
- Press the DIM switch.
- Adjust the measured level with the trimmer potentiometer **VR8** on the Main Board to **20 dB below the level measured before** (for example: if the nominal level is +6 dBu, and the STUDIO level potentiometer is set to maximum, the undimmed output level will then be +16 dBu. Therefore, adjust to –4 dBu when the DIM button is pressed).

Test generator:

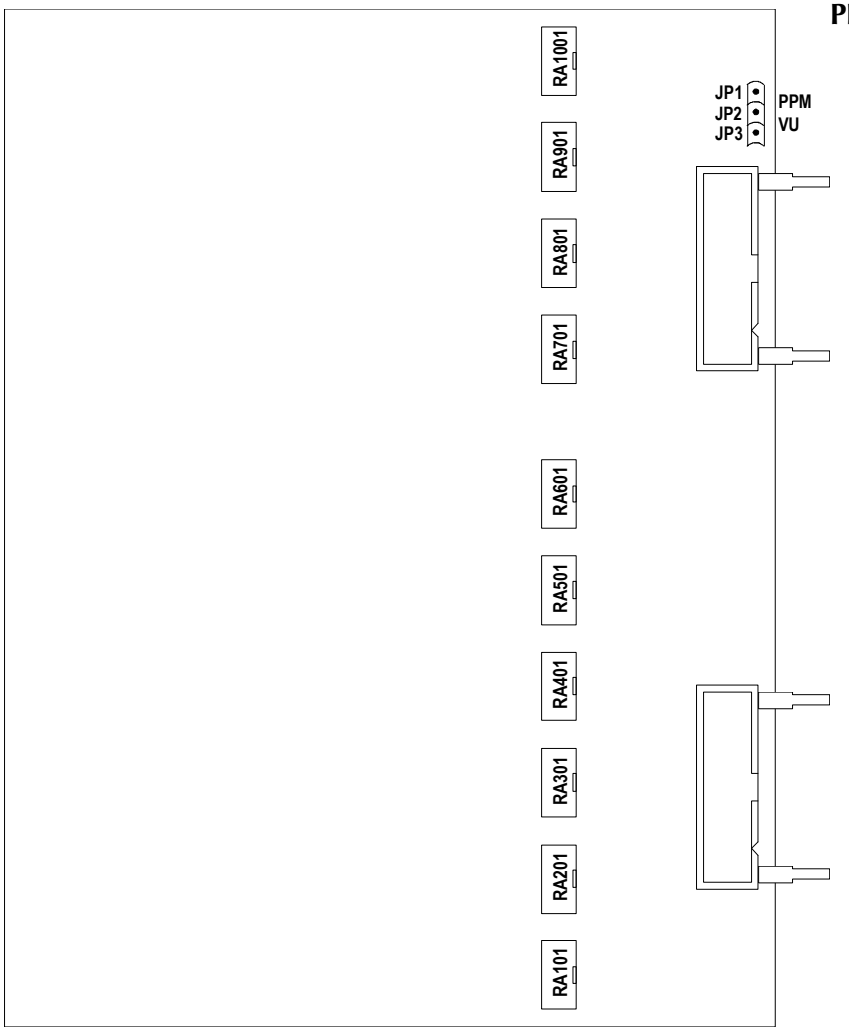
- Press the SLATE TO DIR OUT / ~ key in the test generator section, in order to feed the test generator's output directly to the DIRect outputs of all input units.
- Connect the AF voltmeter to the DIR OUT of a mono input unit.
- Activate the test generator by pressing the TEST GEN ON key.
- Set the TEST GEN LEVEL potentiometer (VR1) fully clockwise (maximum level) .
- Adjust the measured level with trimmer potentiometer **VR7** to **nominal level**.

3.3.8 VCA masters (on CR Monitor and Studio Monitor units)

(Please refer to the drawings in sections 3.3.6 and 3.3.7).

- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the LINE input of a mono channel.
- Route the signal to ΣA.
- Connect the AF voltmeter to the ΣA LEFT insert send.
- Set the LINE gain potentiometer to center position (CAL.), switch filters off, set the input faders to their 0 dB positions.
- Remove the CR Monitor unit from the console and reconnect it via the bus adapter (optionally available; order no. 1.228.332.00).
- Set all four VCA master faders to their 0 dB positions.
- Select VCA group 1 on the desired input unit.
- Adjust the measured level with trimmer potentiometer **VR7** on the CR Monitor unit to **nominal level.**
- Select VCA group 2 on the desired input unit.
- Adjust the measured level with trimmer potentiometer **VR6** on the CR Monitor unit to **nominal level.**
- Reinstall the CR Monitor unit into the console.
- Remove the Studio Monitor unit from the console and reconnect it via the bus adapter (optionally available; order no. 1.228.332.00).
- Select VCA group 3 on the desired input unit.
- Adjust the measured level with trimmer potentiometer **VR13** on the Studio Monitor unit to **nominal level.**
- Select VCA group 4 on the desired input unit.
- Adjust the measured level with trimmer potentiometer **VR12** on the Studio Monitor unit to **nominal level.**

3.3.9 AUX meters 1.913.312



PPM: (the VU/PPM selector jumper connects JP1 with JP2):

- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the LINE input of a mono channel.
- Connect the AF voltmeter to the AUX 1 output.
- Adjust the AUX 1 master potentiometer to nominal level.
- Repeat the last two steps for AUX 2...6.
- Connect the AF voltmeter to the AUX 7 left output, turn the PAN potentiometer to its counterclockwise stop position.
- Adjust the AUX 7 master potentiometer to nominal level.
- Repeat the last two steps for AUX 8.
- AUX 1...6 (mono): Adjust trimmer potentiometers **RA101...RA601** for 0 dB indication.
- AUX 7 left/right (PAN pot in center position): Adjust trimmer potentiometers **RA701** and **RA801** for 0 dB indication.
- AUX 8 left/right (PAN pot in center position): Adjust trimmer potentiometers **RA901** and **RA1001** for 0 dB indication.

VU: (the VU/PPM selector jumper connects JP2 with JP3):

- Feed test signal with nominal level (1 kHz, typ. +6 or +10 dBu) to the LINE input of a mono channel.
- Connect the AF voltmeter to the AUX 1 output.
- Adjust the AUX 1 master potentiometer to 6 dB below nominal level (i.e., 6 dB lead).
- Repeat the last two steps for AUX 2...6.
- Connect the AF voltmeter to the AUX 7 left output, turn the PAN potentiometer to its counterclockwise stop position.
- Adjust the AUX 7 master potentiometer to 6 dB below nominal level (i.e., 6 dB lead).
- Repeat the last two steps for AUX 8.
- AUX 1...6 (mono): Adjust trimmer potentiometers **RA101...RA601** for 0 dB indication.
- AUX 7 left/right (PAN pot in center position): Adjust trimmer potentiometers **RA701** and **RA801** for 0 dB indication.
- AUX 8 left/right (PAN pot in center position): Adjust trimmer potentiometers **RA901** and **RA1001** for 0 dB indication.

CIRCUIT DIAGRAMS

Plug-In Units of the Input Section

Synopsis: Structure Lists and Block Diagrams

Assembly	Assembly No.
Mono Input Unit	1.928.225.81
Block Diagram Mono Input Unit	1.928.220.81
Mono Group Unit	1.928.230.83
Block Diagram Mono Group Unit	1.928.230.81
Input Unit Stereo, HL, with EQ	1.928.255.81
Block Diagram Input Unit Stereo	1.928.250.00
Master Unit A	1.928.320.81
Block Diagram Master Unit A	
Master Unit B	1.928.321.81
Block Diagram Master Unit B	
CR Monitor Unit	1.928.420.82
Block Diagram CR Monitor Unit	1.928.420.81
Studio Monitor Unit	1.928.525.00
Block Diagram Studio Monitor Unit	1.928.520.81

Synopsis: Assemblies, Circuit Diagrams, Component Layouts, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Input MIC Switch Board	1.928.206.00	1.928.206.00	1.928.206.00	1.928.206.00
MIYA Switch Board, latching	1.928.207.00	1.928.207.00	1.928.207.00	1.928.207.00
MIYA Switch Board, non-latching	1.928.208.00	1.928.207.00	1.928.207.00	1.928.208.00
Input Unit Mono, Main Board	1.928.225.81	1.928.225.81	1.928.220.82	1.928.225.81
Input Unit Mono with Option HL, Transformer-Balanced, Main Board	1.928.226.81	1.928.225.81	1.928.220.82	1.928.225.81
Input Unit with Option 2 Mic Inputs, Main Board	1.928.227.81	1.928.225.81	1.928.220.82	1.928.225.81
Input Unit with Option HL, Transf.-Balanced + 2 Mic In, Main Board	1.928.229.81	1.928.225.81	1.928.220.82	1.928.225.81
Input Mono Side Board	1.928.223.82	1.928.223.82	1.928.223.82	1.928.223.82
Group Unit Mono	1.928.230.83	1.928.230.83	1.928.230.83	1.928.230.83
Group Mono Side Board	1.928.233.81	1.928.233.81	1.928.233.81	1.928.233.81
Input Unit Stereo, High Level, with EQ	1.928.255.81	1.928.255.81	1.928.250.81	1.928.255.81
Input Unit Stereo, HL, with EQ, Transformer-Balanced	1.928.257.81	1.928.255.81	1.928.250.81	1.928.255.81
Input Stereo Side Board	1.928.253.81	1.928.253.81	1.928.253.81	1.928.253.81
Master Unit A	1.928.320.81	1.928.320.81	1.928.320.81	1.928.320.81
Master Unit B	1.928.321.81	1.928.320.81	1.928.320.81	1.928.321.81
CR Monitor Unit, Main Board	1.928.420.82	1.928.420.82	1.928.420.82	1.928.420.82
CR Monitor Unit, Side Board	1.928.423.82	1.928.423.82	1.928.423.82	1.928.423.82
Studio Monitor Unit, Main Board	1.928.525.00	1.928.525.00	1.928.520.83	1.928.525.00
Studio Monitor Unit, Side Board	1.928.523.81	1.928.523.81	1.928.523.81	1.928.523.81

Input Unit Mono 1.928.225.81

Assembly Structure

Assembly	Assembly No.
Input Unit Mono	1.928.225.81
Mono Input Unit PCB	*1.928.220.12*
Input Mono Side Board	1.928.223.82
Mono Input Side PCB	*1.928.223.12*
Input MIC Switch Board	1.928.206.00
Input MIC Switch Board PCB	*1.928.206.12*
Miya Switch Board, non-latching	1.928.208.00
Miya Switch PCB	*1.928.208.11*

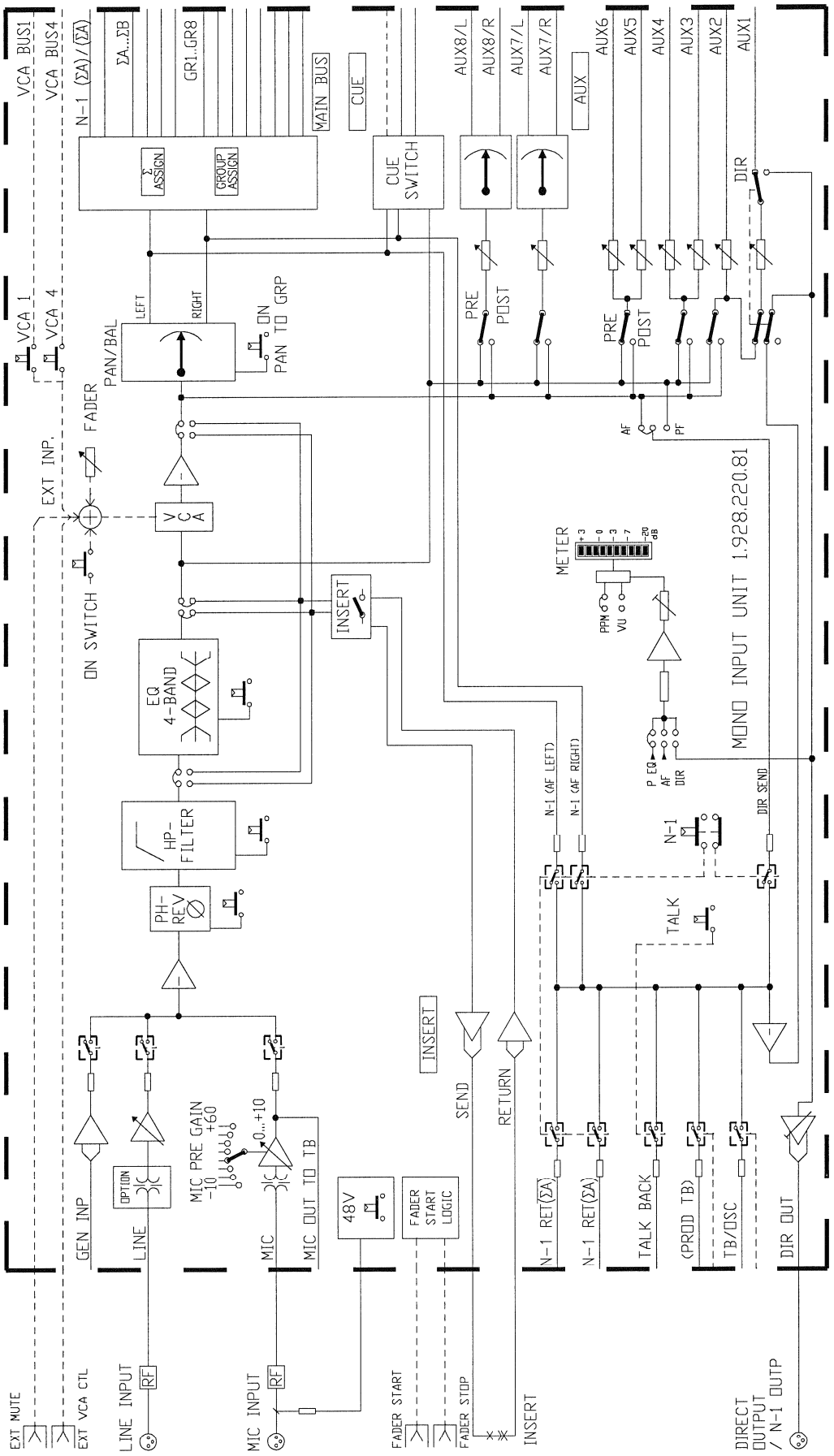
Block Diagram

Assembly	Block Diagram
Input Unit Mono *(please turn page)*	1.928.220.81

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Input Unit Mono	1.928.225.81	1.928.225.81	1.928.220.82	1.928.225.81
Input Mono Side Board	1.928.223.82	1.928.223.82	1.928.223.82	1.928.223.82
Input MIC Switch Board	1.928.206.00	1.928.206.00	1.928.206.00	1.928.206.00
Miya Switch Board, non-latching	1.928.208.00	1.928.207.00	1.928.207.00	1.928.208.00

Block Diagram: Input Unit Mono 1.928.220.81



Group Unit Mono 1.928.230.83

Assembly Structure

Assembly	Assembly No.
Group Unit Mono	1.928.230.83
Mono Group Unit PCB	*1.928.230.12*
Group Mono Side Board	1.928.233.81
Mono Group Side PCB	*1.928.233.11*

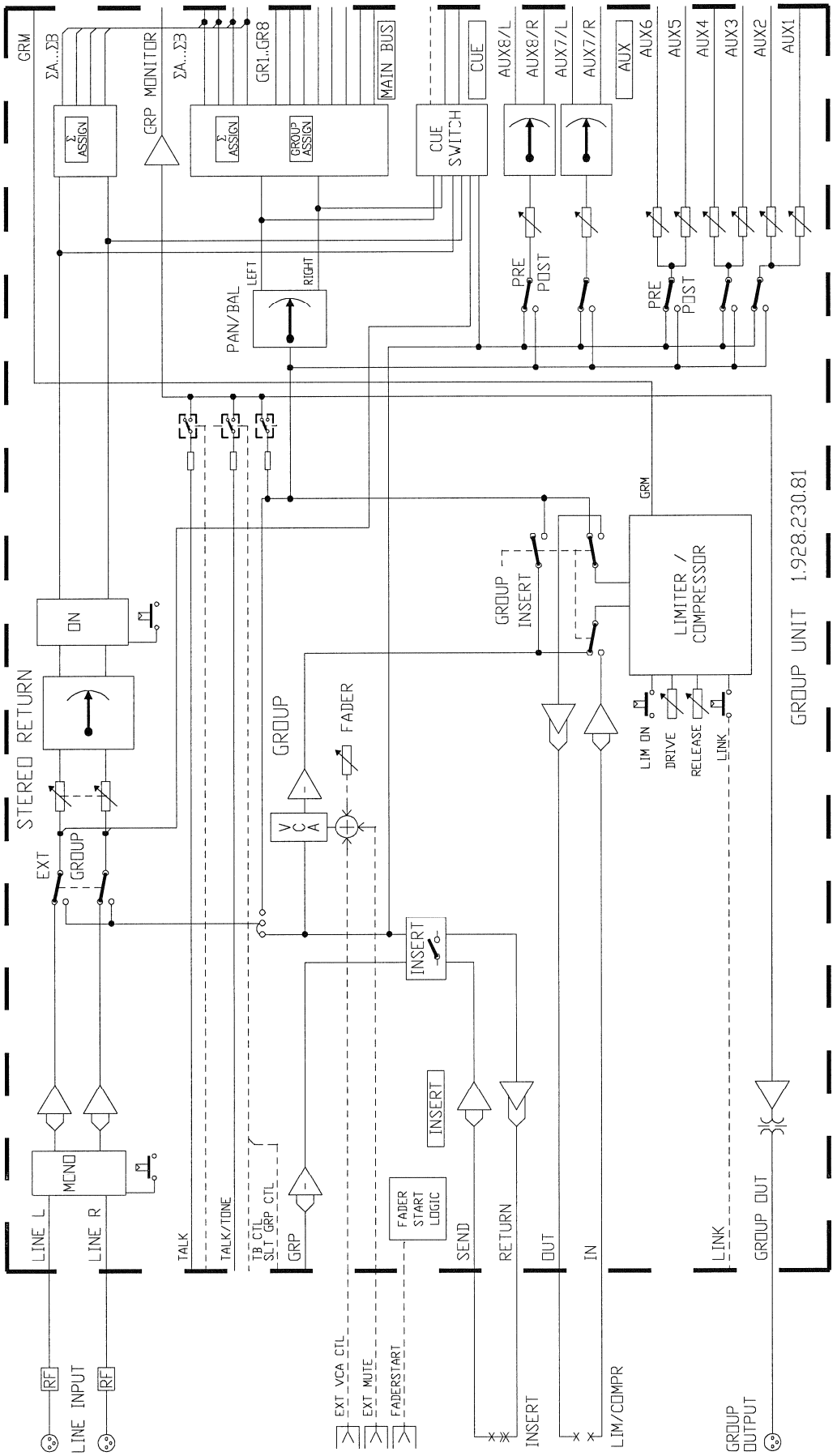
Block Diagram

Assembly	Block Diagram
Group Unit Mono *(please turn page)*	1.928.230.81

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Group Unit Mono	1.928.230.83	1.928.230.83	1.928.230.83	1.928.230.83
Group Mono Side Board	1.928.233.81	1.928.233.81	1.928.233.81	1.928.233.81

Block Diagram: Group Unit Mono 1.928.230.81



Input Unit Stereo, HL, with EQ 1.928.255.81

Assembly Structure

Assembly	Assembly No.
Input Unit Stereo	1.928.255.81
Input Unit Stereo PCB	*1.928.250.11*
Input Stereo Side Board	1.928.253.81
Input Stereo Side PCB	*1.928.253.11*
Miya Switch Board, non-latching	1.928.208.00
Miya Switch PCB	*1.928.208.11*

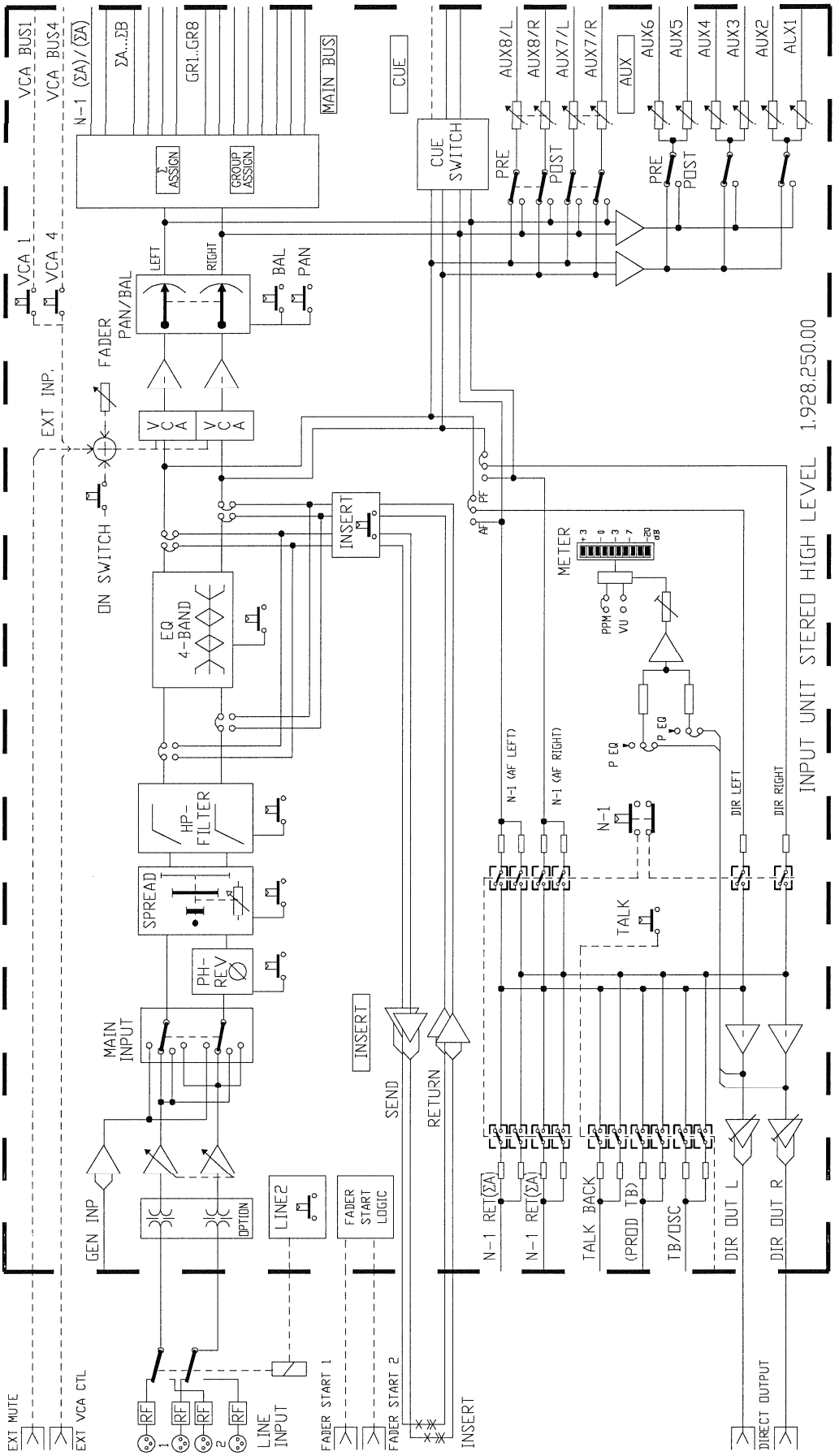
Block Diagram

Assembly	Block Diagram
Input Unit Stereo *(please turn page)*	1.928.250.00

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Input Unit Stereo	1.928.255.81	1.928.255.81	1.928.250.81	1.928.255.81
Input Stereo Side Board	1.928.253.81	1.928.253.81	1.928.253.81	1.928.253.81
Miya Switch Board, non-latching	1.928.208.00	1.928.207.00	1.928.207.00	1.928.208.00

Block Diagram: Input Unit Stereo, HL, with EQ 1.928.250.00



Master Unit A 1.928.320.81

Assembly Structure

Assembly	Assembly No.
Master Unit A	1.928.320.81
Master Unit PCB	*1.928.320.12*

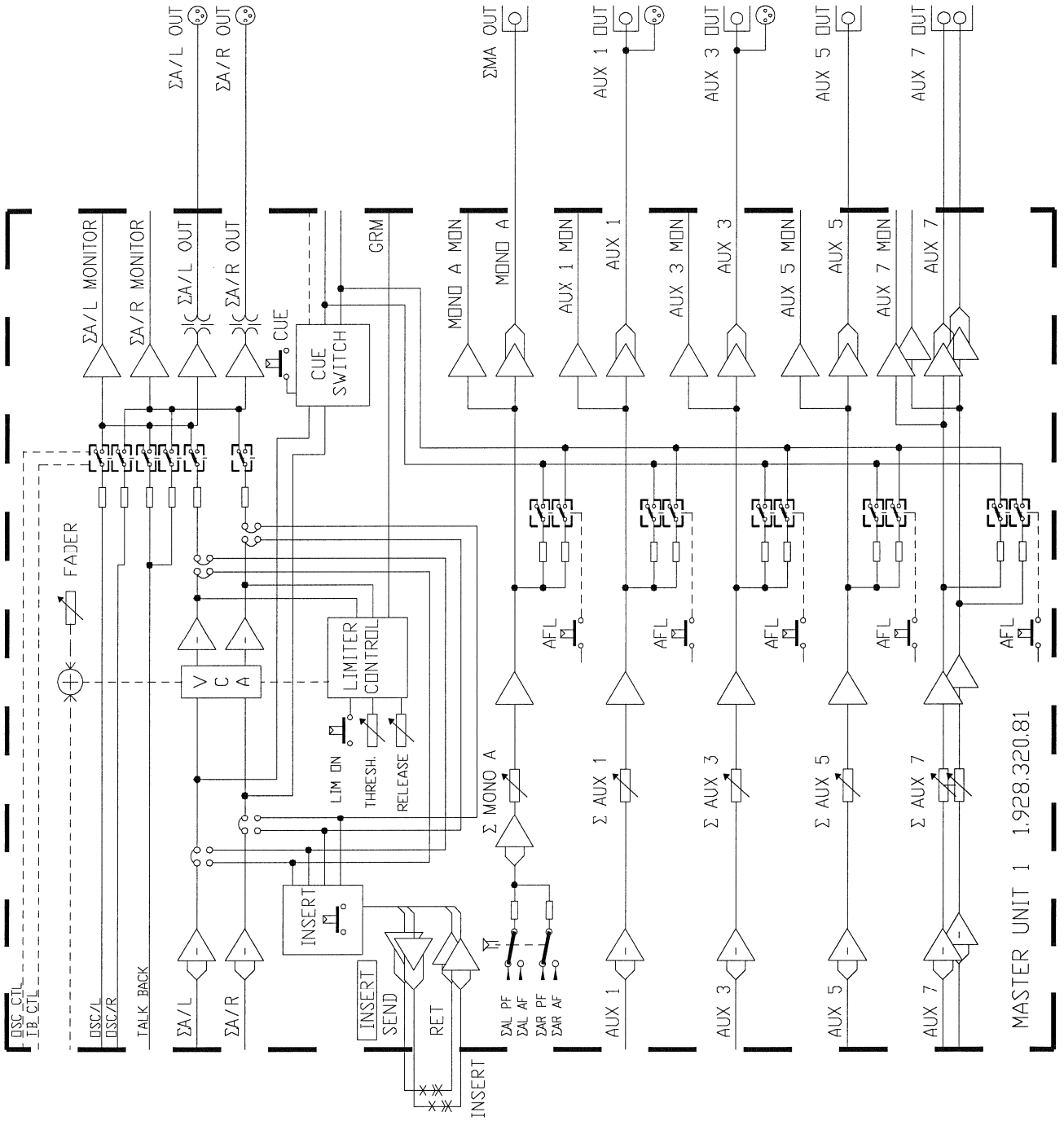
Block Diagram

Assembly	Block Diagram
Master Unit A *(please turn page)*	1.928.320.81

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Master Unit (A)	1.928.320.81	1.928.320.81	1.928.320.81	1.928.320.81

Block Diagram: Master Unit A 1.928.320.81



Master Unit B 1.928.321.81

Assembly Structure

Assembly	Assembly No.
Master Unit B	1.928.321.81
Master Unit PCB	*1.928.320.12*

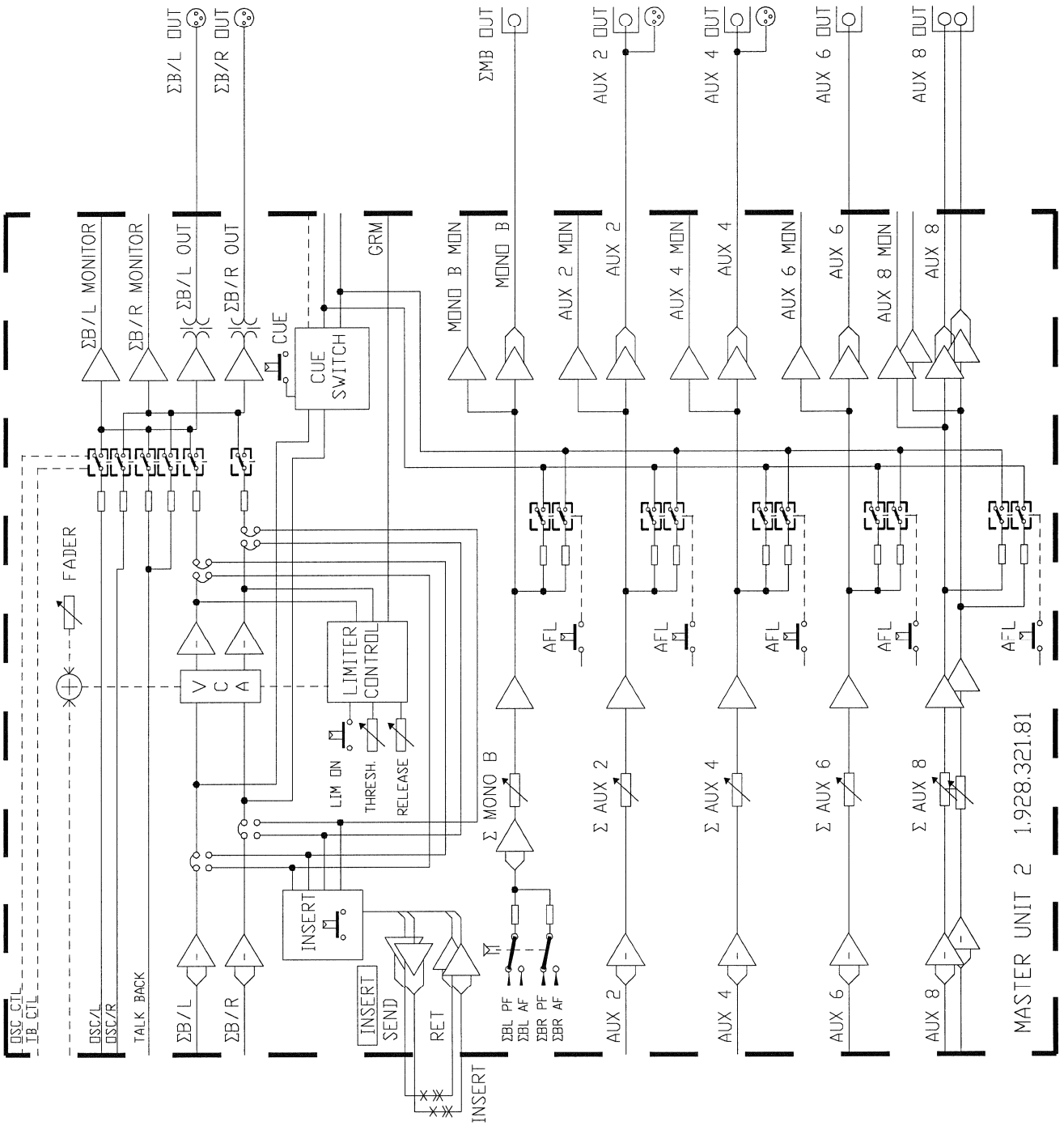
Block Diagram

Assembly	Block Diagram
Master Unit B *(please turn page)*	1.928.321.81

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Master Unit (B)	1.928.321.81	1.928.320.81	1.928.320.81	1.928.321.81

Block Diagram: Master Unit B 1.928.321.81



CR Monitor Unit 1.928.420.82

Assembly Structure

Assembly	Assembly No.
CR Monitor Unit	1.928.420.82
CR Monitor Unit PCB	*1.928.420.12*
CR Monitor Unit, Side Board	1.928.423.82
CR Monitor Side PCB	*1.928.423.12*
Miya Switch Board, latching	1.928.207.00
Miya Switch PCB	*1.928.208.11*

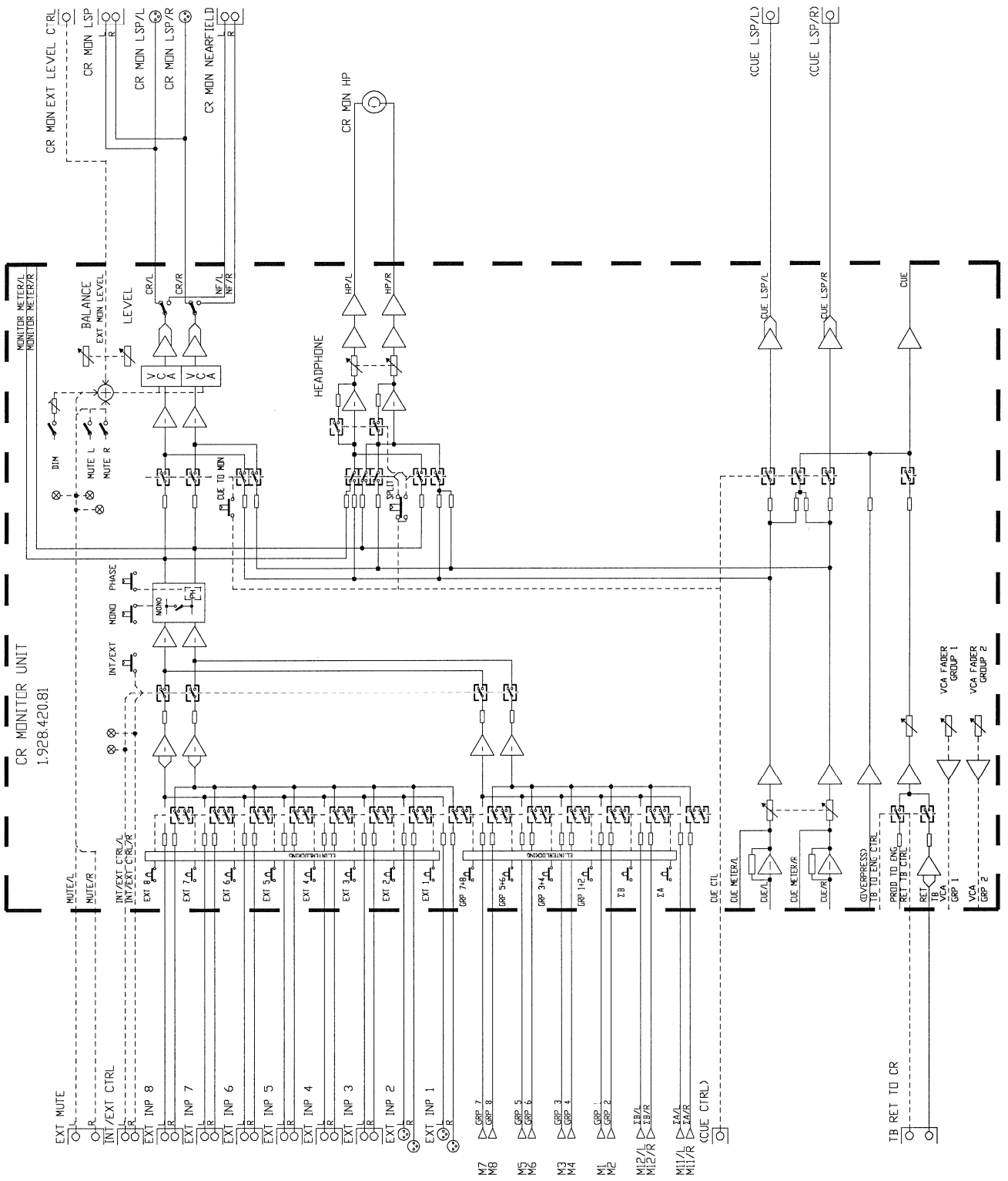
Block Diagram

Assembly	Block Diagram
CR Monitor Unit *(please turn page)*	1.928.420.81

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
CR Monitor Unit	1.928.420.82	1.928.420.82	1.928.420.82	1.928.420.82
CR Monitor Unit, Side Board	1.928.423.82	1.928.423.82	1.928.423.82	1.928.423.82
Miya Switch Board, latching	1.928.207.00	1.928.207.00	1.928.207.00	1.928.207.00

Block Diagram: CR Monitor Unit 1.928.420.81



Studio Monitor Unit 1.928.525.00

Assembly Structure

Assembly	Assembly No.
Studio Monitor Unit	1.928.525.00
Studio Monitor Unit PCB	*1.928.520.12*
Studio Monitor Unit, Side Board	1.928.523.81
Studio Monitor Side PCB	*1.928.523.12*
Miya Switch Board, latching	1.928.207.00
Miya Switch PCB	*1.928.208.11*

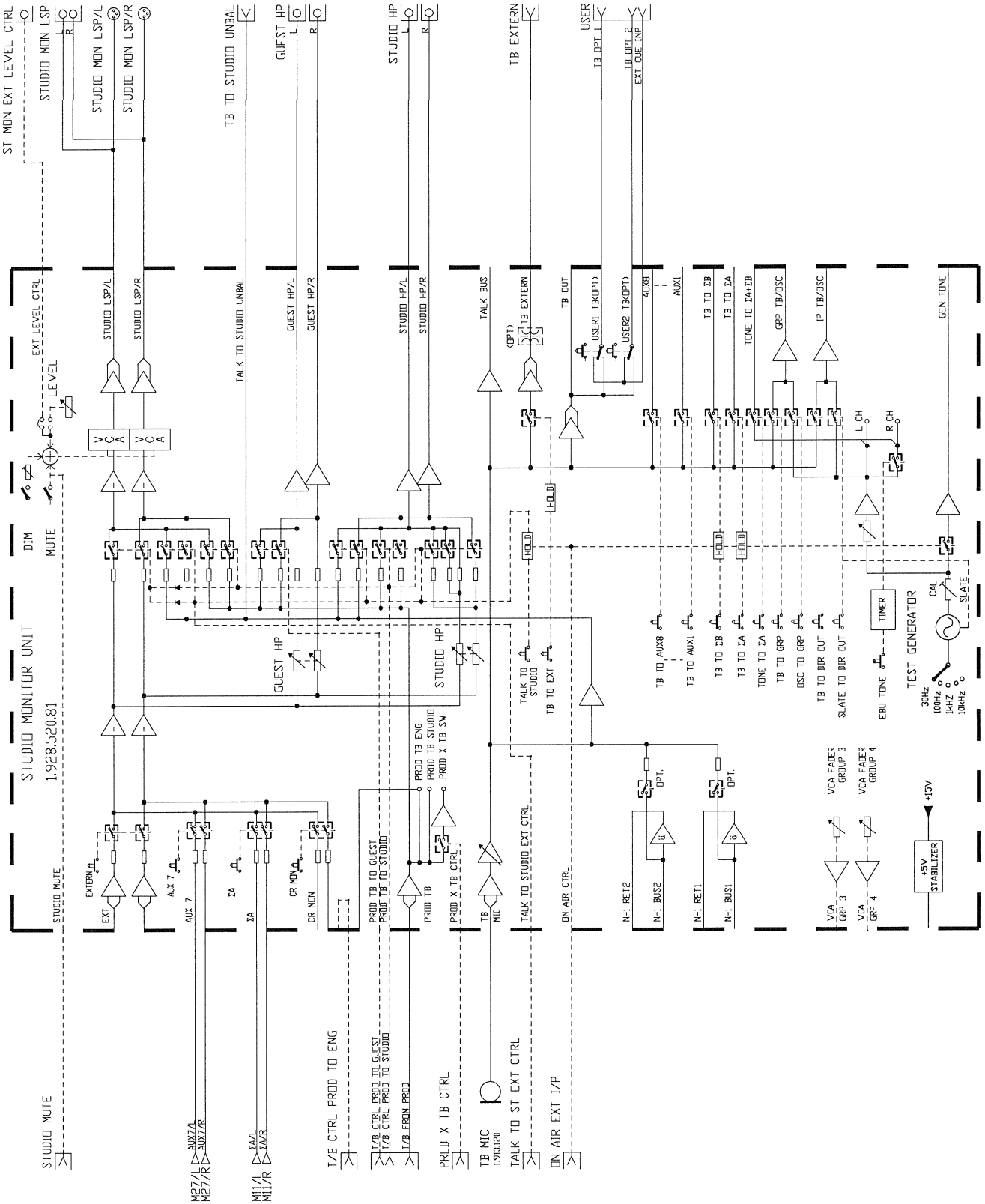
Block Diagram

Assembly	Block Diagram
Studio Monitor Unit *(please turn page)*	1.928.520.81

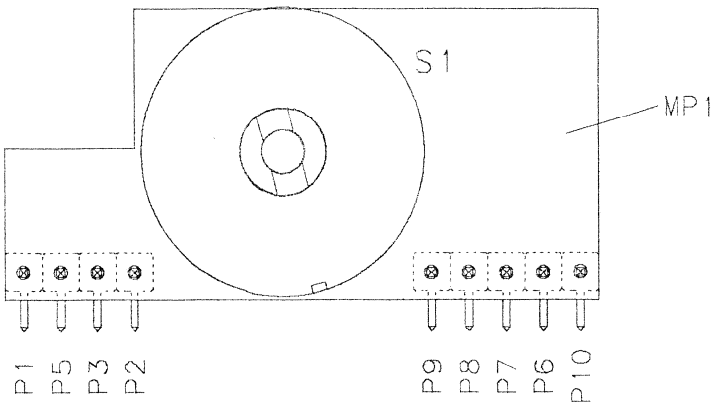
Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Studio Monitor Unit	1.928.525.00	1.928.525.00	1.928.520.83	1.928.525.00
Studio Monitor Unit, Side Board	1.928.523.81	1.928.523.81	1.928.523.81	1.928.523.81
Miya Switch Board, latching	1.928.207.00	1.928.207.00	1.928.207.00	1.928.207.00

Block Diagram: Studio Monitor Unit 1.928.520.81



Input MIC Switch Board 1.928.206.00



Modification Aenderung					
	.	.			3
	.	.			2
	.	.			1
Edition Ausgabe	13.12.97	AF			0
	Date Datum	Visa Gez.	Checked Gepr.	Seen Ges.	Index

Copy to: Kopie fuer: -

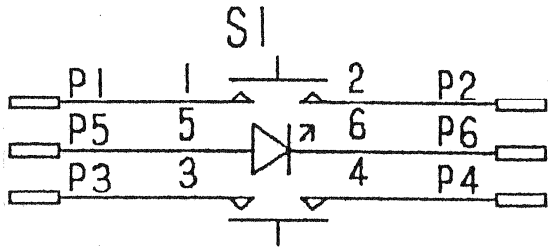
STUDER REGENSDORF	Description: Benennung:	Input MIC Switch Board	Number: Nummer: 1.928.206.00

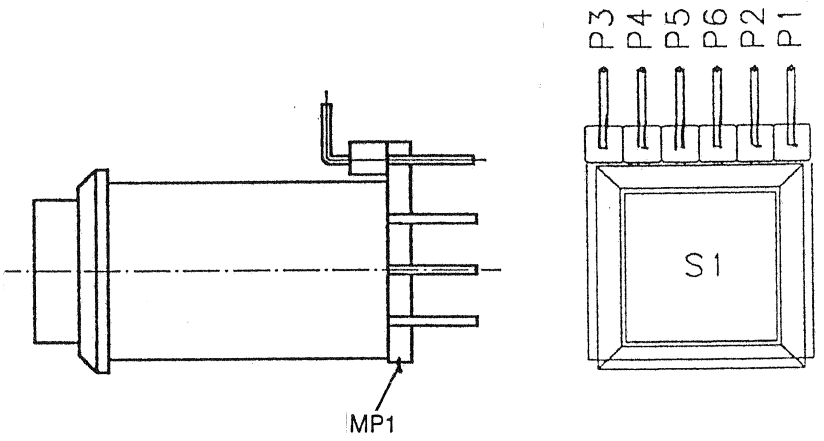
Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	MP 1	1.928.209.12			INPUT MIC SWITCH PCB
0	P 1	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 2	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 3	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 5	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 6	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 7	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 8	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 9	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 10	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	S 1	1.928.209.01			DREHSCHALTER NACHARBEIT

End of List

Comments

MIYA Switch Latch Board 1.928.207.00/
MIYA Switch non Latch Board 1.928.208.00





MIYA Switch Latch Board 1.928.207.00

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	MP 1	1.928.208.11			MiYAMA SWITCH PCB
0	P 1	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 2	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 3	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 4	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 5	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 6	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	S 1	55.15.0902		1*s	Leuchttaste rastend

End of List

Comments

MIYA Switch non Latch Board 1.928.208.00

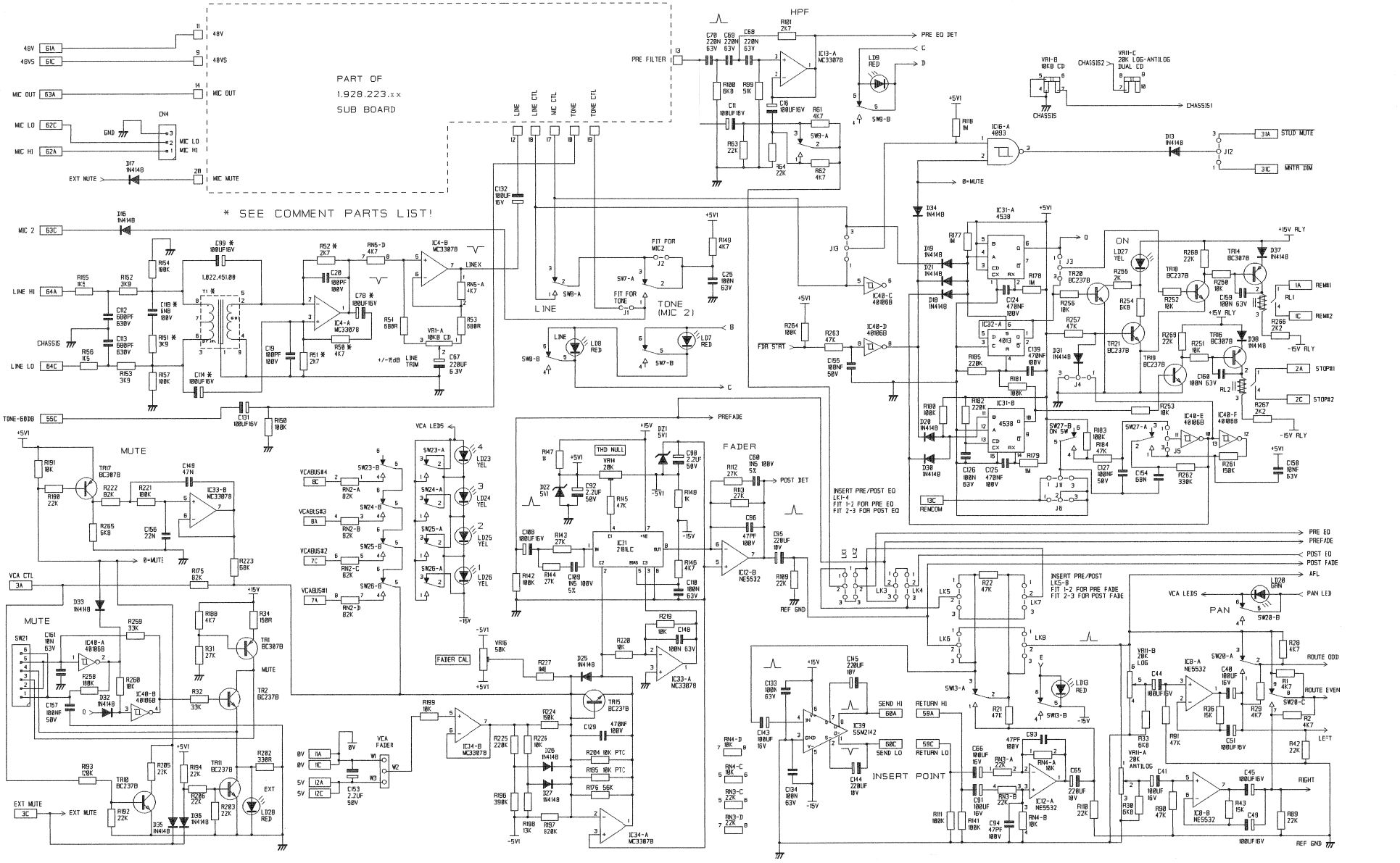
Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	MP 1	1.928.208.11			MiYAMA SWITCH PCB
0	P 1	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 2	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 3	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 4	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 5	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 6	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	S 1	55.15.0901		1*imp	Leuchttaste impuls

End of List

Comments

0 13.08..96 AF				
	MC 928			PAGE 1 / 1
STUDER	MIYA Switch Board		SC	1.928.207.00

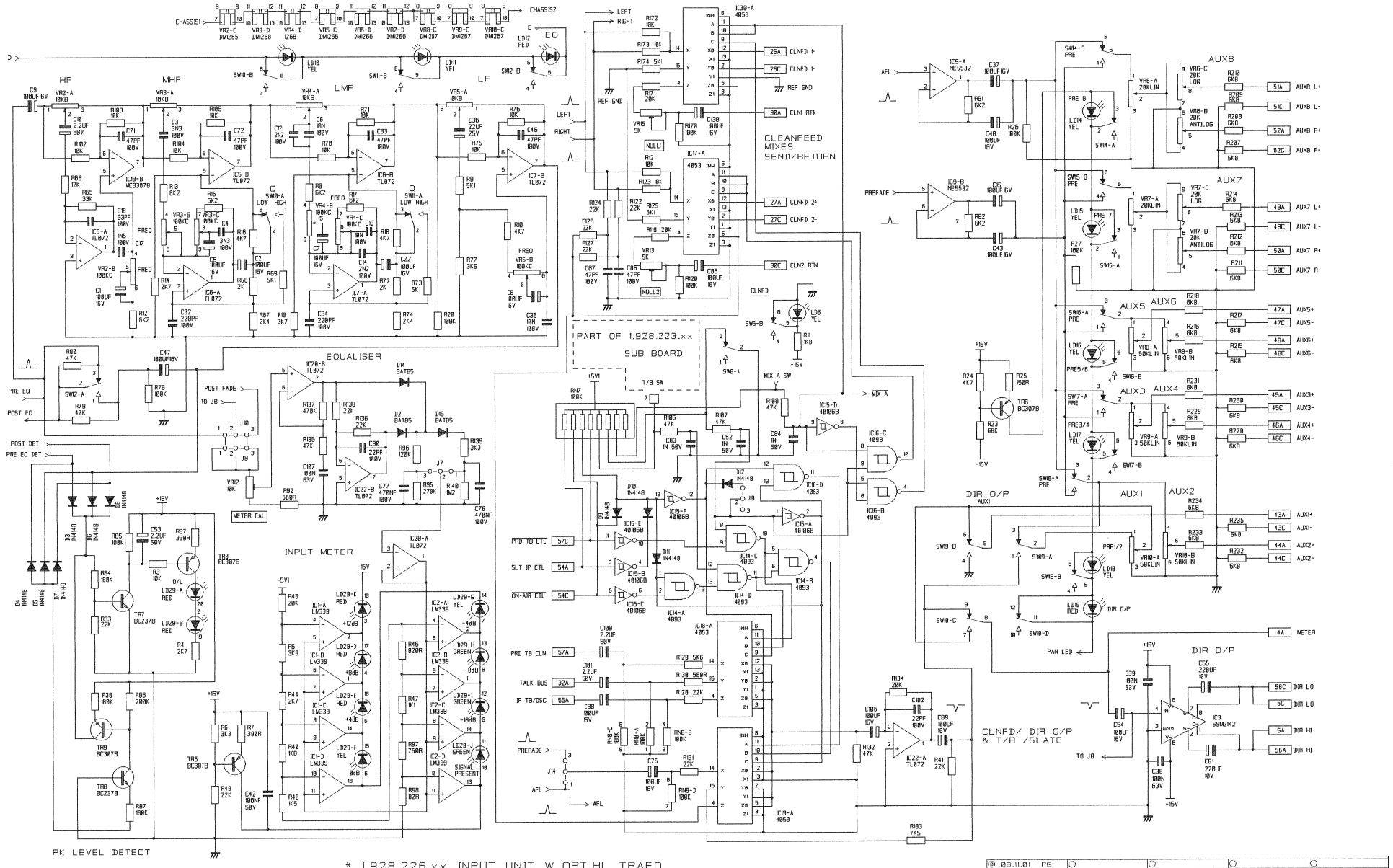
Input Main Mono Board 1.928.225.81 *Input Unit with Option 2 Mic. Input 1.928.227.81
*Input Unit wiht Option HL Trafo 1.928.226.81 *Input Unit with Option HL Trafo + 2 Mic. 1.928.229.81



* 1.928.226.xx INPUT UNIT W OPT.HL TRAFO
* 1.928.227.xx INPUT UNIT W OPT.2MIC INP.
* 1.928.229.xx INPUT UNIT W OPT.HL TRAFO+2MIC

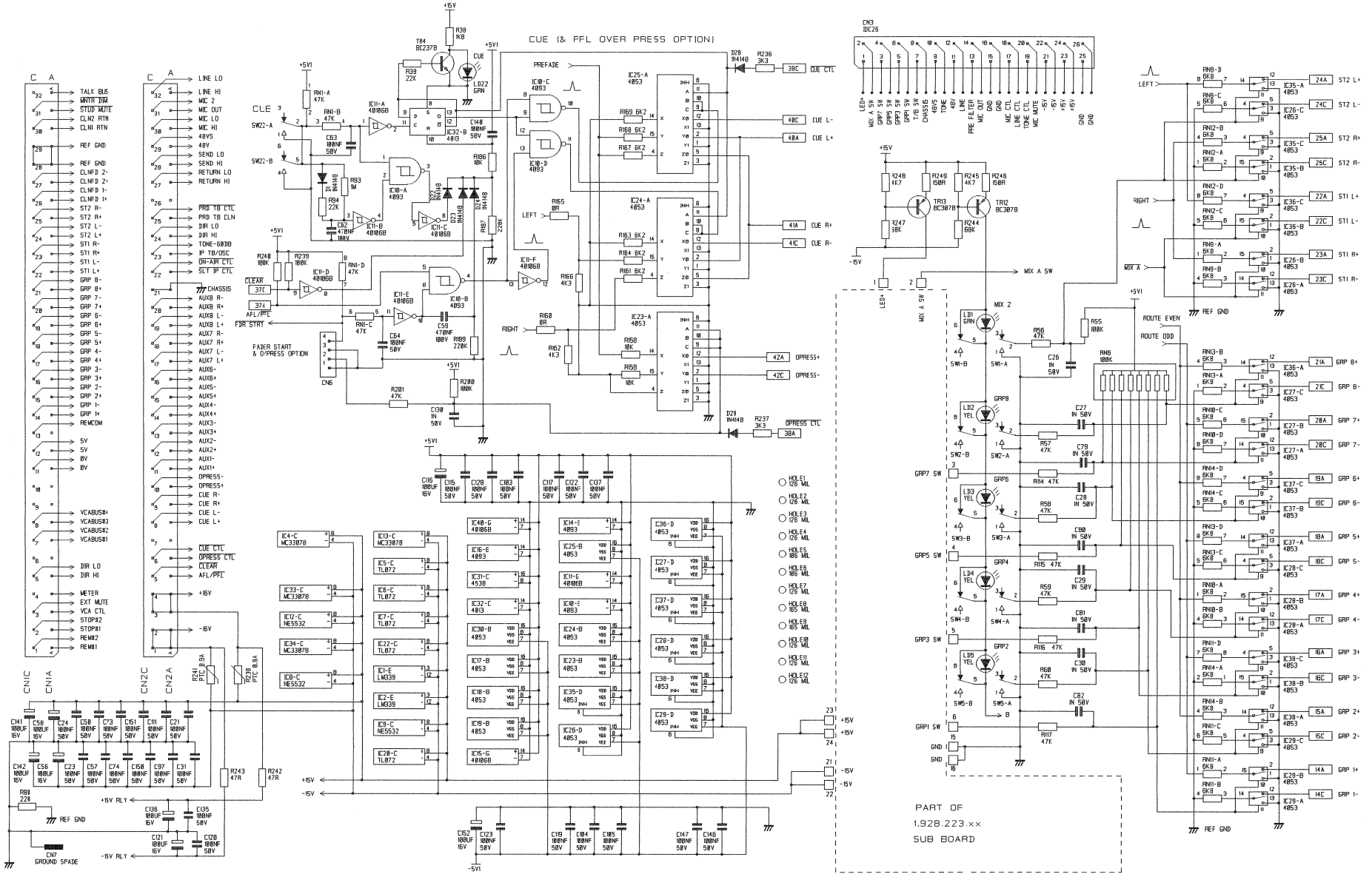
88.11.01 PG			PAGE 1/3
STUDER	INPUT MAIN MO BOARD	SC	1.928.225.81

Input Main Mono Board 1.928.225.81 *Input Unit with Option 2 Mic. Input 1.928.227.81
*Input Unit wiht Option HL Trafo 1.928.226.81 *Input Unit with Option HL Trafo + 2 Mic. 1.928.229.81



08.11.01 FG					PAGE 2/3
STUDER	INPUT MAIN MO BOARD		SC	1.928.225.81	

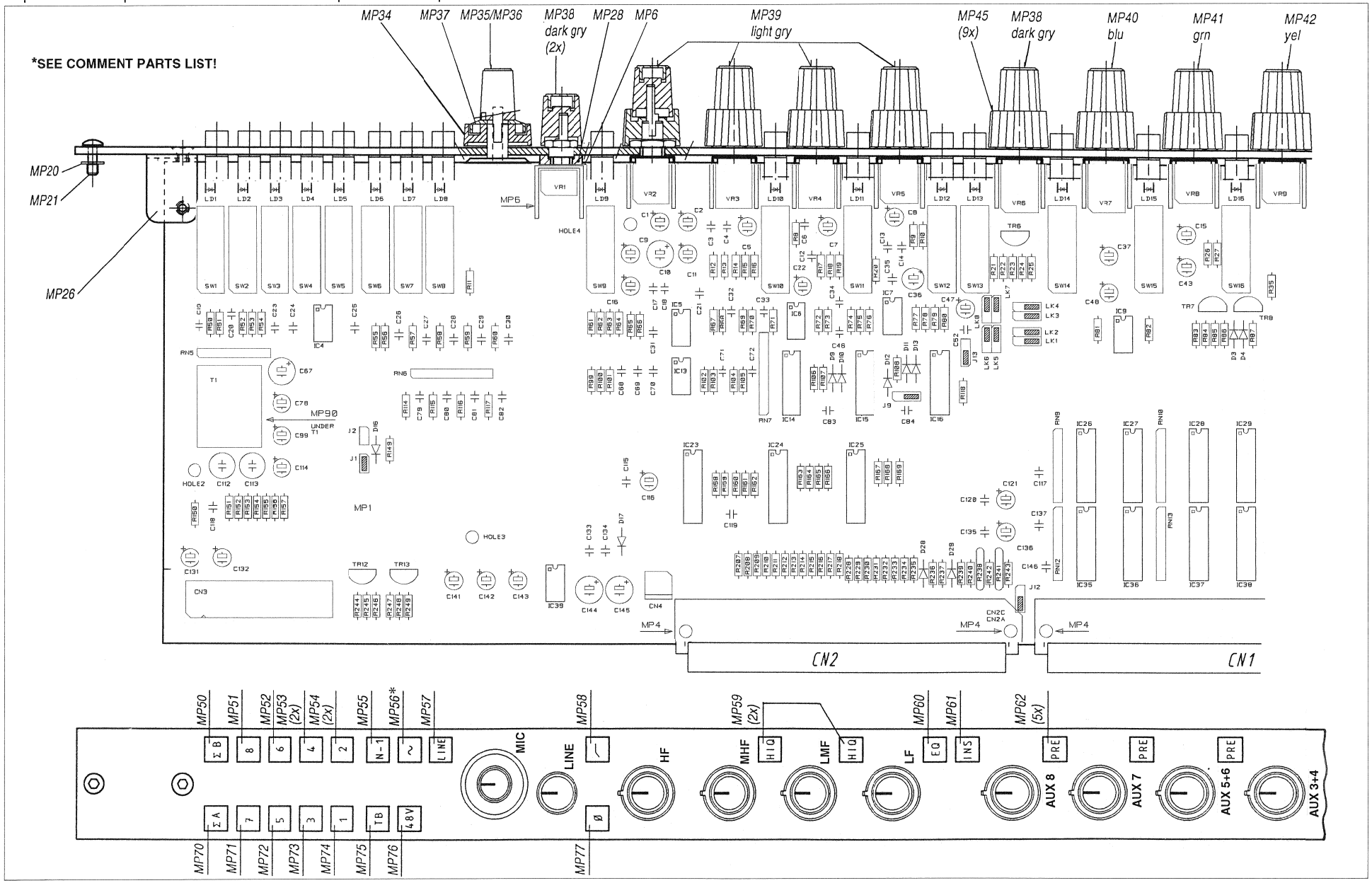
Input Main Mono Board 1.928.225.81 *Input Unit with Option 2 Mic. Input 1.928.227.81
*Input Unit wiht Option HL Trafo 1.928.226.81 *Input Unit with Option HL Trafo + 2 Mic. 1.928.229.81



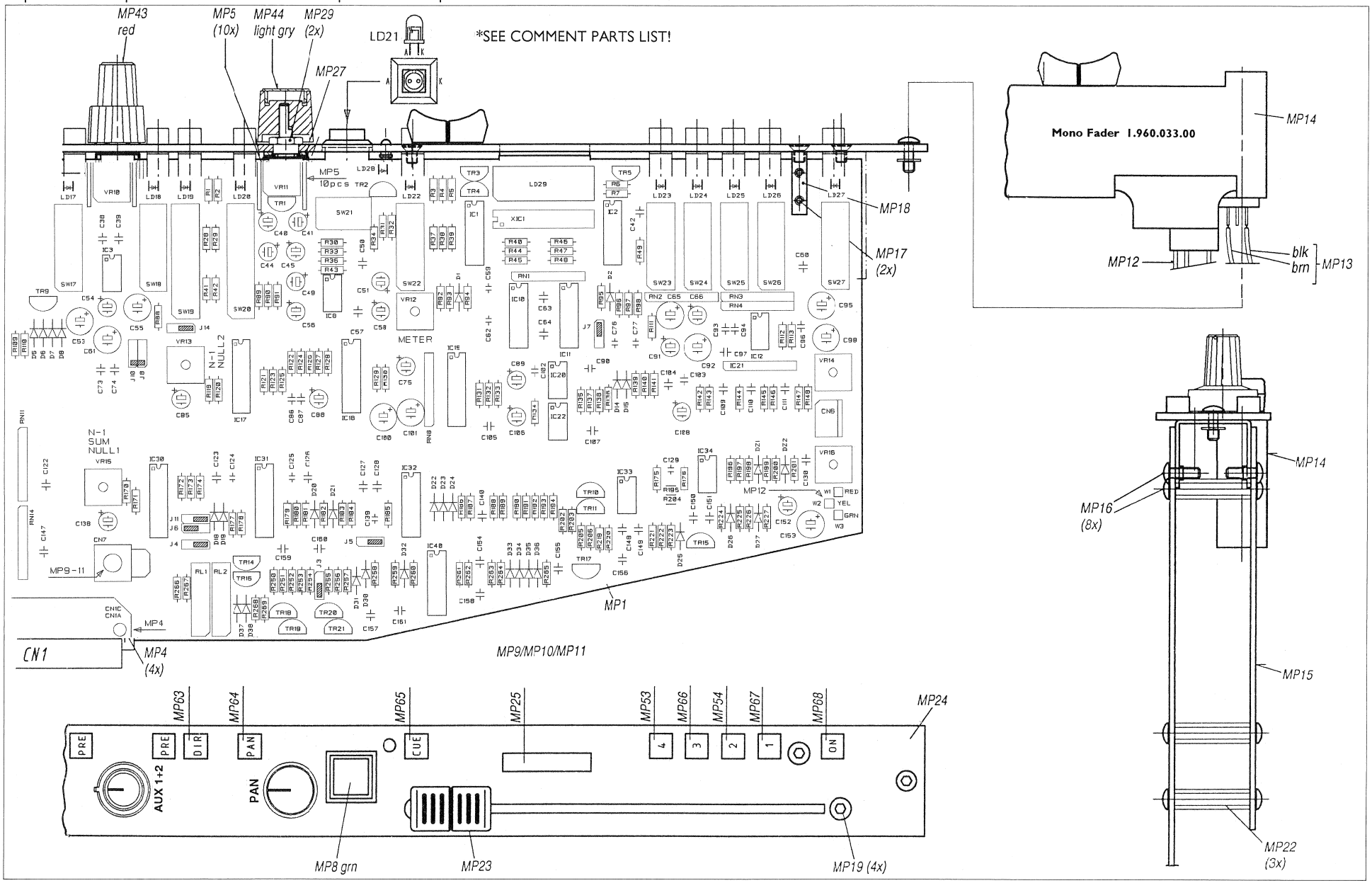
* 1.928.226.xx INPUT UNIT W OPT.HL TRAFO
* 1.928.227.xx INPUT UNIT W OPT.2MIC INP.
* 1.928.229.xx INPUT UNIT W OPT.HL TRAFO+2MIC

@ 08.11.01 PG			PAGE 3/3
STUDER	INPUT MAIN MO BOARD	SC	1.928.225.81

Input Main Mono Board 1.928.220.82 *Input Unit with Option 2 Mic. Input 1.928.222.82
*Input Unit with Option HL Trafo 1.928.221.82 *Input Unit with Option HL Trafo + 2 Mic. 1.928.224.82



Input Main Mono Board 1.928.220.82 *Input Unit with Option 2 Mic. Input 1.928.222.82
*Input Unit with Option HL Trafo 1.928.221.82 *Input Unit with Option HL Trafo + 2 Mic. 1.928.224.82



Input Main Mono Board 1.928.225.81

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.22.4002		100u	EL 16V 20% RM5
0	C 2	59.22.4002		100u	EL 16V 20% RM5
0	C 3	59.06.0332		3n3	PETP, 63V, 10%, RM5
0	C 4	59.06.0332		3n3	PETP, 63V, 10%, RM5
0	C 5	59.22.4002		100u	EL 16V 20% RM5
0	C 6	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 7	59.22.4002		100u	EL 16V 20% RM5
0	C 8	59.22.4002		100u	EL 16V 20% RM5
0	C 9	59.22.4002		100u	EL 16V 20% RM5
0	C 10	59.22.8229		2u2	EL 50V 20% RM5
0	C 11	59.22.4002		100u	EL 16V 20% RM5
0	C 12	59.06.0222		2n2	PETP, 63V, 10%, RM5
0	C 13	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 14	59.06.0222		2n2	PETP, 63V, 10%, RM5
0	C 15	59.22.4002		100u	EL 16V 20% RM5
0	C 16	59.22.4002		100u	EL 16V 20% RM5
0	C 17	59.06.0152		1n5	PETP, 63V, 10%, RM5
0	C 18	59.34.2330		33p	CER 63V, 5%, N150
0	C 19	59.34.4101		100p	CER 63V, 5%, N750
0	C 20	59.34.4101		100p	CER 63V, 5%, N750
0	C 21	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 22	59.22.4002		100u	EL 16V 20% RM5
0	C 23	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 24	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 25	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 26	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 27	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 28	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 29	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 30	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 31	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 32	59.34.4221		220p	CER 63V, 5%, N750
0	C 33	59.34.2470		47p	CER 63V, 5%, N150
0	C 34	59.34.4221		220p	CER 63V, 5%, N750
0	C 35	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 36	59.22.5220		22u	EL 25V 20% RM5
0	C 37	59.22.4002		100u	EL 16V 20% RM5
0	C 38	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 39	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 40	59.22.4002		100u	EL 16V 20% RM5
0	C 41	59.22.4002		100u	EL 16V 20% RM5
0	C 42	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 43	59.22.4002		100u	EL 16V 20% RM5
0	C 44	59.22.4002		100u	EL 16V 20% RM5
0	C 45	59.22.4002		100u	EL 16V 20% RM5
0	C 46	59.34.2470		47p	CER 63V, 5%, N150
0	C 47	59.22.4002		100u	EL 16V 20% RM5
0	C 48	59.22.4002		100u	EL 16V 20% RM5
0	C 49	59.22.4002		100u	EL 16V 20% RM5
0	C 50	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 51	59.22.4002		100u	EL 16V 20% RM5
0	C 52	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 53	59.22.8229		2u2	EL 50V 20% RM5
0	C 54	59.22.4002		100u	EL 16V 20% RM5
0	C 55	59.22.3003		220u	EL 10V 20% RM5
0	C 56	59.22.4002		100u	EL 16V 20% RM5
0	C 57	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 58	59.22.4002		100u	EL 16V 20% RM5
0	C 59	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 60	59.06.5152		1n5	PETP, 63V, 5%, RM5
0	C 61	59.22.3003		220u	EL 10V 20% RM5
0	C 62	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 63	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 64	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 65	59.22.3003		220u	EL 10V 20% RM5
0	C 66	59.22.4002		100u	EL 16V 20% RM5
0	C 67	59.22.3003		220u	EL 10V 20% RM5
0	C 68	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 69	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 70	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 71	59.34.2470		47p	CER 63V, 5%, N150
0	C 72	59.34.2470		47p	CER 63V, 5%, N150
0	C 73	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 74	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 75	59.22.4002		100u	EL 16V 20% RM5
0	C 76	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 77	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 78	not used		100u	EL 16V 20% RM5
		Used with transformator only!			
0	C 79	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 80	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 81	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 82	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 83	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 84	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 85	59.22.4002		100u	EL 16V 20% RM5
0	C 86	59.34.2470		47p	CER 63V, 5%, N150
0	C 87	59.34.2470		47p	CER 63V, 5%, N150
0	C 88	59.22.4002		100u	EL 16V 20% RM5
0	C 89	59.22.4002		100u	EL 16V 20% RM5
0	C 90	59.34.2220		22p	CER 63V, 5%, N150
0	C 91	59.22.4002		100u	EL 16V 20% RM5
0	C 92	59.22.8229		2u2	EL 50V 20% RM5
0	C 93	59.34.2470		47p	CER 63V, 5%, N150
0	C 94	59.34.2470		47p	CER 63V, 5%, N150
0	C 95	59.22.3003		220u	EL 10V 20% RM5
0	C 96	59.34.2470		47p	CER 63V, 5%, N150
0	C 97	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 98	59.22.8229		2u2	EL 50V 20% RM5
0	C 99	59.22.4002		100u	EL 16V 20% RM5
		Used without transformator only!			
0	C 100	59.22.8229		2u2	EL 50V 20% RM5
0	C 101	59.22.8229		2u2	EL 50V 20% RM5
0	C 102	59.34.2220		22p	CER 63V, 5%, N150
0	C 103	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 104	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 105	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 106	59.22.4002		100u	EL 16V 20% RM5
0	C 107	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 108	59.22.4002		100u	EL 16V 20% RM5
0	C 109	59.06.5152		1n5	PETP, 63V, 5%, RM5
0	C 110	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 111	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 112	59.05.1681		680p	PP, 1%, 630V
0	C 113	59.05.1681		680p	PP, 1%, 630V
0	C 114	59.22.4002		100u	EL 16V 20% RM5
		Used without transformator only!			
0	C 115	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 116	59.22.4002		100u	EL 16V 20% RM5
0	C 117	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 118	not used		6n8	PETP, 63V, 10%, RM5
		Used with transformator only!			
0	C 119	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 120	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 121	59.22.4002		100u	EL 16V 20% RM5
0	C 122	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 123	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 124	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 125	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 126	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 127	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 128	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 129	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 130	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 131	59.22.4002		100u	EL 16V 20% RM5
0	C 132	59.22.4002		100u	EL 16V 20% RM5
0	C 133	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 134	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 135	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 136	59.22.4002		100u	EL 16V 20% RM5
0	C 137	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 138	59.22.4002		100u	EL 16V 20% RM5
0	C 139	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 140	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 141	59.22.4002		100u	EL 16V 20% RM5
0	C 142	59.22.4002		100u	EL 16V 20% RM5
0	C 143	59.22.4002		100u	EL 16V 20% RM5
0	C 144	59.22.3003		220u	EL 10V 20% RM5
0	C 145	59.22.3003		220u	EL 10V 20% RM5
0	C 146	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 147	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 148	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 149	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 150	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 151	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 152	59.22.4002		100u	EL 16V 20% RM5
0	C 153	59.22.8229		2u2	EL 50V 20% RM5
0	C 154	59.06.0683		68n	PETP, 63V, 10%, RM5
0	C 155	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 156	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 157	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 158	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 159	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 160	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 161	59.06.0103		10n	PETP, 63V, 10%, RM5
0	CN 1	54.01.0365		64p	P EU-C 2 * 32 A,C
0	CN 2	54.01.0365		64p	P EU-C 2 * 32 A,C
0	CN 3	54.14.2003		26p	1/20" Au, gerade, ohne Verrieg
0	CN 4	54.12.0703		3p	Stecker gerade PCB
0	CN 6	54.12.0704		4p	Stecker gerade PCB
0	CN 7	54.02.0343			P FLACH, 6.3*0.8, WINKEL 45
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0127		BAT85	200mA, Schottky
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 7	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 8	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 9	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 10	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 11	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 12	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 13	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 14	50.04.0127		BAT85	200mA, Schottky
0	D 15	50.04.0127		BAT85	200mA, Schottky
0	D 16	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 17	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 18	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 19	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 20	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 21	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 22	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 23	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 24	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 25	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 26	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 27	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 28	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 29	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 30	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 31	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 32	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 33	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 34	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 35	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 36	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 37	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 38	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	DZ 1	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	DZ 2	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	IC 1	50.11.0104		LM339	IC LM 339 N, ,A
0	IC 2	50.11.0104		LM339	IC LM 339 N, ,A
0	IC 3	50.09.0124		2142	Audio balanced line driver
0	IC 4	50.09.0117		MC33078	IC MC 33078 P
0	IC 5	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 6	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 7	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 8	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 9	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 10	50.07.0008		4093	Quad 2-inp NAND
0	IC 11	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 12	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 13	50.09.0117		MC33078	IC MC 33078 P
0	IC 14	50.07.0008		4093	Quad 2-inp NAND
0	IC 15	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 16	50.07.0008		4093	Quad 2-inp NAND
0	IC 17	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 18	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 19	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 20	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 21	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 22	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 23	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 24	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 25	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 26	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 27	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 28	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 29	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 30	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 31	50.07.1538		4538	Dual retrigg monost multivibra
0	IC 32	50.07.0013		4013	Dual D-type FF
0	IC 33	50.09.0117		MC33078	IC MC 33078 P
0	IC 34	50.09.0117		MC33078	IC MC 33078 P
0	IC 35	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 36	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 37	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 38	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 39	50.09.0124		2142	Audio balanced line driver
0	IC 40	50.07.0014		40106	Hex inverting Schmitt trigger
0	J 1	54.01.0020	2 pcs	1p	Pin, 1reihig, gerade
0	J 2	54.01.0020	2 pcs	1p	Pin, 1reihig, gerade
0	J 3	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 4	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 5	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 6	54.11.0136	1 pce	2*3p	Pin 0.63*0.63, RM2.54
0	J 7	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 8	54.11.0136	1 pce	2*3p	Pin 0.63*0.63, RM2.54
0	J 9	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 10	not used	3 pcs	1p	Pin, 1reihig, gerade
					See J8
0	J 11	not used	3 pcs	1p	Pin, 1reihig, gerade
					See J6
0	J 12	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 13	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 14	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	LD 1	50.04.2206		L934GT	LED 3mm green
0	LD 2	50.04.2205		L934YT	LED 3mm yellow
0	LD 3	50.04.2205		L934YT	LED 3mm yellow
0	LD 4	50.04.2205		L934YT	LED 3mm yellow
0	LD 5	50.04.2205		L934YT	LED 3mm yellow
0	LD 6	50.04.2205		L934YT	LED 3mm yellow
0	LD 7	50.04.2204		L934ID	LED 3mm red
0	LD 8	50.04.2204		L934ID	LED 3mm red
0	LD 9	50.04.2204		L934ID	LED 3mm red
0	LD 10	50.04.2205		L934YT	LED 3mm yellow
0	LD 11	50.04.2205		L934YT	LED 3mm yellow
0	LD 12	50.04.2204		L934ID	LED 3mm red
0	LD 13	50.04.2204		L934ID	LED 3mm red
0	LD 14	50.04.2205		L934YT	LED 3mm yellow
0	LD 15	50.04.2205		L934YT	LED 3mm yellow
0	LD 16	50.04.2205		L934YT	LED 3mm yellow
0	LD 17	50.04.2205		L934YT	LED 3mm yellow
0	LD 18	50.04.2205		L934YT	LED 3mm yellow
0	LD 19	50.04.2204		L934ID	LED 3mm red
0	LD 20	50.04.2206		L934GT	LED 3mm green
0	LD 21	50.04.2162		HLMP1540	LED 3mm, grün klar
					LED for SW21
0	LD 22	50.04.2206		L934GT	LED 3mm green
0	LD 23	50.04.2205		L934YT	LED 3mm yellow
0	LD 24	50.04.2205		L934YT	LED 3mm yellow
0	LD 25	50.04.2205		L934YT	LED 3mm yellow
0	LD 26	50.04.2205		L934YT	LED 3mm yellow
0	LD 27	50.04.2206		L934GT	LED 3mm green
0	LD 28	50.04.2129		LS3360	DL LS 3360 , RT DIFF
0	LD 29	50.04.2813		DC4SR6SG	LED Bargraph 4*red, 6*green
0	LK 1	54.11.0136		2*3p	Pin 0.63*0.63, RM2.54
0	LK 2	not used	3 pcs	1p	Pin, 1reihig, gerade
					See LK1
0	LK 3	54.11.0136		2*3p	Pin 0.63*0.63, RM2.54
0	LK 4	not used	3 pcs	1p	Pin, 1reihig, gerade
					See LK3
0	LK 5	54.11.0136		2*3p	Pin 0.63*0.63, RM2.54
0	LK 6	not used	3 pcs	1p	Pin, 1reihig, gerade
					See LK5
0	LK 7	54.11.0136		2*3p	Pin 0.63*0.63, RM2.54
0	LK 8	not used	3 pcs	1p	Pin, 1reihig, gerade
					See LK7
0	MP 1	1.928.220.12	1 pce		INPUT MAIN MONO PCB
0	MP 2	1.928.220.04	1 pce		STUDER NR. ETIKETTE 10X20
0	MP 3	43.01.0108	1 pce	Label	ESE-WARNSCHILD
0	MP 4	28.99.0119	4 pcs		ROHRNIETE D 2.5*0.15* 9
0	MP 5	1.928.220.09	10 pcs		9mm ALPS POT BRACKET WITH PIPS
0	MP 6	1.928.220.10	1 pce		POT-HALTER NACHARBEIT
0	MP 7	54.01.0021	20 pcs	Jumper	0.63*0.63mm, Au
0	MP 8	55.15.0915	1 pce		Kalotte grün mit Streuscheibe
0	MP 9	21.51.8455	1 pce	M4*8	Linsenkopf-Schr IS, Ni
0	MP 10	22.01.8040	1 pce	M4	6kt-Mutter 0.8d St Zn gb
0	MP 11	24.16.2040	2 pcs	4.3/8.0	Fächerscheibe Form A
0	MP 12	1.942.210.93	1 pce		LL-FADER
0	MP 13	1.928.220.93	1 pce		LL-Fader
0	MP 14	1.960.033.00	1 pce		MONOFADER LIN. P+G 100MM
0	MP 15	1.928.223.82	1 pce		INPUT SIDE MONO SWITCH BOARD
0	MP 16	21.53.8706	8 pcs	M3*6	Lin-Schr IS, Zn gb, Tuflock
0	MP 17	21.53.0279	2 pcs	M2.5*6	Z-Schraube Inbus Zn gb chr
0	MP 18	1.928.220.05	1 pce		STÜTZBOLZEN
0	MP 19	21.99.0175	4 pcs	M3*6	S-Schraube IS A2 sw oxydiert
0	MP 20	24.16.3023	2 pcs		WELLENSICHERUNG 2.3
0	MP 21	1.010.022.21	2 pcs	M3*8	L-Schraube IS sw spezial
0	MP 22	1.010.024.27	3 pcs	M3*20	Mutter-Bolzen 6kt Ms Ni
0	MP 23	1.911.000.48	1 pce		KNOPF HELLGRAU
0	MP 24	1.928.220.01	1 pce		FRONTPLATTE
0	MP 25	1.928.220.02	1 pce		FENSTER
0	MP 26	1.928.220.03	1 pce		PRINTHALTER
0	MP 27	1.928.220.06	1 pce		ZENTRIERSCHEIBE 1
0	MP 28	1.928.220.07	1 pce		ZENTRIERSCHEIBE 2,8
0	MP 29	1.928.220.08	2 pcs		MUTTER M7x0.75
0	MP 34	1.980.220.06	1 pce		DREHKNOPF

Input Main Mono Board 1.928.225.81

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	MP 35	42.01.0227	1 pce		KNEBELKNOPF GR D 10/ 3
0	MP 36	42.01.0251	1 pce		DECKEL D'GR ZU KNOPF-D 10
0	MP 37	42.01.0286	1 pce		MUTTERABDECK. D'GR ZU D 10
0	MP 38	42.01.1200	2 pcs		DREHKNOPF D11 gr/gr
0	MP 39	42.01.1208	4 pcs		DREHKNOPF D11 gr/hellgr
0	MP 40	42.01.1206	1 pce		DREHKNOPF D11 gr/bl
0	MP 41	42.01.1205	1 pce		DREHKNOPF D11 gr/gn
0	MP 42	42.01.1204	1 pce		DREHKNOPF D11 gr/gb
0	MP 43	42.01.1202	1 pce		DREHKNOPF D11 gr/rt
0	MP 44	42.01.1228	1 pce		DREHKNOPF D15 gr/hellgr
0	MP 45	42.01.1240	9 pcs		DREHKNOPF D15 gr unten
0	MP 50	1.928.201.17	1 pce		PUSH BUTTON |B
0	MP 51	1.928.201.08	1 pce		PUSH BUTTON 8
0	MP 52	1.928.201.06	1 pce		PUSH BUTTON 6
0	MP 53	1.928.201.04	2 pcs		PUSH BUTTON 4
0	MP 54	1.928.201.02	2 pcs		PUSH BUTTON 2
0	MP 55	1.928.201.32	1 pce		PUSH BUTTON N-1
0	MP 56	1.928.201.41	1 pce		PUSH BUTTON ~
0	MP 57	1.928.201.31	1 pce		PUSH BUTTON LINE
0	MP 58	1.928.201.40	1 pce		PUSH BUTTON /-
0	MP 59	1.928.201.27	2 pcs		PUSH BUTTON HIQ
0	MP 60	1.928.201.24	1 pce		PUSH BUTTON EQ
0	MP 61	1.928.201.29	1 pce		PUSH BUTTON INS
0	MP 62	1.928.201.37	5 pcs		PUSH BUTTON PRE
0	MP 63	1.928.201.22	1 pce		PUSH BUTTON DIR
0	MP 64	1.928.201.35	1 pce		PUSH BUTTON PAN
0	MP 65	1.928.201.20	1 pce		PUSH BUTTON CUE
0	MP 66	1.928.201.03	1 pce		PUSH BUTTON 3
0	MP 67	1.928.201.01	1 pce		PUSH BUTTON 1
0	MP 68	1.928.201.34	1 pce		PUSH BUTTON ON
0	MP 70	1.928.231.71	1 pce		PUSH BUTTON |A
0	MP 71	1.928.231.64	1 pce		PUSH BUTTON 7
0	MP 72	1.928.231.63	1 pce		PUSH BUTTON 5
0	MP 73	1.928.201.62	1 pce		PUSH BUTTON 3
0	MP 74	1.928.201.61	1 pce		PUSH BUTTON 1
0	MP 75	1.928.201.72	1 pce		PUSH BUTTON TB
0	MP 76	1.928.201.73	1 pce		PUSH BUTTON 48V
0	MP 77	1.928.201.74	1 pce		PUSH BUTTON 0
0	MP 90	not used	1 pce		ISOLATION
				Used with transformator only!	
0	R 1	57.11.3472		4k7	MF, 1%, 0207
0	R 2	57.11.3472		4k7	MF, 1%, 0207
0	R 3	57.11.3103		10k	MF, 1%, 0207
0	R 4	57.11.3332		3k3	MF, 1%, 0207
0	R 5	57.11.3392		3k9	MF, 1%, 0207
0	R 6	57.11.3332		3k3	MF, 1%, 0207
0	R 7	57.11.3241		240R	MF, 1%, 0207
0	R 8	57.11.3622		6k2	MF, 1%, 0207
0	R 9	57.11.3512		5k1	MF, 1%, 0207
0	R 10	57.11.3472		4k7	MF, 1%, 0207
0	R 11	57.11.3182		1k8	MF, 1%, 0207
0	R 12	57.11.3622		6k2	MF, 1%, 0207
0	R 13	57.11.3622		6k2	MF, 1%, 0207
0	R 14	57.11.3272		2k7	MF, 1%, 0207
0	R 15	57.11.3622		6k2	MF, 1%, 0207
0	R 16	57.11.3472		4k7	MF, 1%, 0207
0	R 17	57.11.3622		6k2	MF, 1%, 0207
0	R 18	57.11.3472		4k7	MF, 1%, 0207
0	R 19	57.11.3272		2k7	MF, 1%, 0207
0	R 20	57.11.3104		100k	MF, 1%, 0207
0	R 21	57.11.3473		47k	MF, 1%, 0207
0	R 22	57.11.3473		47k	MF, 1%, 0207
0	R 23	57.11.3683		68k	MF, 1%, 0207
0	R 24	57.11.3472		4k7	MF, 1%, 0207
0	R 25	57.11.3151		150R	MF, 1%, 0207
0	R 26	57.11.3104		100k	MF, 1%, 0207
0	R 27	57.11.3104		100k	MF, 1%, 0207
0	R 28	57.11.3472		4k7	MF, 1%, 0207
0	R 29	57.11.3472		4k7	MF, 1%, 0207
0	R 30	57.11.3682		6k8	MF, 1%, 0207
0	R 31	57.11.3273		27k	MF, 1%, 0207
0	R 32	57.11.3333		33k	MF, 1%, 0207
0	R 33	57.11.3682		6k8	MF, 1%, 0207
0	R 34	57.11.3151		150R	MF, 1%, 0207
0	R 35	57.11.3184		180k	MF, 1%, 0207
0	R 36	57.11.3153		15k	MF, 1%, 0207
0	R 37	57.11.3331		330R	MF, 1%, 0207
0	R 38	57.11.3182		1k8	MF, 1%, 0207
0	R 39	57.11.3223		22k	MF, 1%, 0207

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 40	57.11.3182		1k8	MF, 1%, 0207
0	R 41	57.11.3223		22k	MF, 1%, 0207
0	R 42	57.11.3223		22k	MF, 1%, 0207
0	R 43	57.11.3153		15k	MF, 1%, 0207
0	R 44	57.11.3272		2k7	MF, 1%, 0207
0	R 45	57.11.3203		20k	MF, 1%, 0207
0	R 46	57.11.3821		820R	MF, 1%, 0207
0	R 47	57.11.3112		1k1	MF, 1%, 0207
0	R 48	57.11.3152		1k5	MF, 1%, 0207
0	R 49	57.11.3223		22k	MF, 1%, 0207
0	R 50	not used		4k7	MF, 1%, 0207
				Used with transformator only!	
0	R 51	57.11.3272		2k7	MF, 1%, 0207
				Value with transformator 150R!	
0	R 52	57.11.3272		2k7	MF, 1%, 0207
				Value with transformator 3K3!	
0	R 53	57.11.3681		680R	MF, 1%, 0207
0	R 54	57.11.3681		680R	MF, 1%, 0207
0	R 55	57.11.3104		100k	MF, 1%, 0207
0	R 56	57.11.3473		47k	MF, 1%, 0207
0	R 57	57.11.3473		47k	MF, 1%, 0207
0	R 58	57.11.3473		47k	MF, 1%, 0207
0	R 59	57.11.3473		47k	MF, 1%, 0207
0	R 60	57.11.3473		47k	MF, 1%, 0207
0	R 61	57.11.3472		4k7	MF, 1%, 0207
0	R 62	57.11.3472		4k7	MF, 1%, 0207
0	R 63	57.11.3223		22k	MF, 1%, 0207
0	R 64	57.11.3223		22k	MF, 1%, 0207
0	R 65	57.11.3333		33k	MF, 1%, 0207
0	R 66	57.11.3123		12k	MF, 1%, 0207
0	R 67	57.11.3242		2k4	MF, 1%, 0207
0	R 68	57.11.3202		2k0	MF, 1%, 0207
0	R 69	57.11.3512		5k1	MF, 1%, 0207
0	R 70	57.11.3103		10k	MF, 1%, 0207
0	R 71	57.11.3103		10k	MF, 1%, 0207
0	R 72	57.11.3202		2k0	MF, 1%, 0207
0	R 73	57.11.3512		5k1	MF, 1%, 0207
0	R 74	57.11.3242		2k4	MF, 1%, 0207
0	R 75	57.11.3103		10k	MF, 1%, 0207
0	R 76	57.11.3103		10k	MF, 1%, 0207
0	R 77	57.11.3362		3k6	MF, 1%, 0207
0	R 78	57.11.3104		100k	MF, 1%, 0207
0	R 79	57.11.3473		47k	MF, 1%, 0207
0	R 80	57.11.3473		47k	MF, 1%, 0207
0	R 81	57.11.3622		6k2	MF, 1%, 0207
0	R 82	57.11.3622		6k2	MF, 1%, 0207
0	R 83	57.11.3223		22k	MF, 1%, 0207
0	R 84	57.11.3184		180k	MF, 1%, 0207
0	R 85	57.11.3104		100k	MF, 1%, 0207
0	R 86	57.11.3204		200k	MF, 1%, 0207
0	R 87	57.11.3184		180k	MF, 1%, 0207
0	R 88	57.11.3220		22R	MF, 1%, 0207
0	R 89	57.11.3223		22k	MF, 1%, 0207
0	R 90	57.11.3473		47k	MF, 1%, 0207
0	R 91	57.11.3473		47k	MF, 1%, 0207
0	R 92	57.11.3561		560R	MF, 1%, 0207
0	R 93	57.11.3105		1M0	MF, 1%, 0207
0	R 94	57.11.3223		22k	MF, 1%, 0207
0	R 95	57.11.3274		270k	MF, 1%, 0207
0	R 96	57.11.3124		120k	MF, 1%, 0207
0	R 97	57.11.3751		750R	MF, 1%, 0207
0	R 98	57.11.3820		82R	MF, 1%, 0207
0	R 99	57.11.3513		51k	MF, 1%, 0207
0	R 100	57.11.3682		6k8	MF, 1%, 0207
0	R 101	57.11.3272		2k7	MF, 1%, 0207
0	R 102	57.11.3103		10k	MF, 1%, 0207
0	R 103	57.11.3103		10k	MF, 1%, 0207
0	R 104	57.11.3103		10k	MF, 1%, 0207
0	R 105	57.11.3103		10k	MF, 1%, 0207
0	R 106	57.11.3473		47k	MF, 1%, 0207
0	R 107	57.11.3473		47k	MF, 1%, 0207
0	R 108	57.11.3473		47k	MF, 1%, 0207
0	R 109	57.11.3223		22k	MF, 1%, 0207
0	R 110	57.11.3223		22k	MF, 1%, 0207
0	R 111	57.11.3104		100k	MF, 1%, 0207
0	R 112	57.11.3273		27k	MF, 1%, 0207
0	R 113	57.11.3273		27k	MF, 1%, 0207
0	R 114	57.11.3473		47k	MF, 1%, 0207
0	R 115	57.11.3473		47k	MF, 1%, 0207
0	R 116	57.11.3473		47k	MF, 1%, 0207
0	R 117	57.11.3473		47k	MF, 1%, 0207
0	R 118	57.11.3105		1M0	MF, 1%, 0207
0	R 119	57.11.3203		20k	MF, 1%, 0207
0	R 120	57.11.3104		100k	MF, 1%, 0207
0	R 121	57.11.3103		10k	MF, 1%, 0207

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 122	57.11.3223		22k	MF, 1%, 0207
0	R 123	57.11.3103		10k	MF, 1%, 0207
0	R 124	57.11.3223		22k	MF, 1%, 0207
0	R 125	57.11.3512		5k1	MF, 1%, 0207
0	R 126	57.11.3223		22k	MF, 1%, 0207
0	R 127	57.11.3223		22k	MF, 1%, 0207
0	R 128	57.11.3223		22k	MF, 1%, 0207
0	R 129	57.11.3562		5k6	MF, 1%, 0207
0	R 130	57.11.3561		560R	MF, 1%, 0207
0	R 131	57.11.3223		22k	MF, 1%, 0207
0	R 132	57.11.3473		47k	MF, 1%, 0207
0	R 133	57.11.3752		7k5	MF, 1%, 0207
0	R 134	57.11.3203		20k	MF, 1%, 0207
0	R 135	57.11.3473		47k	MF, 1%, 0207
0	R 136	57.11.3223		22k	MF, 1%, 0207
0	R 137	57.11.3474		470k	MF, 1%, 0207
0	R 138	57.11.3223		22k	MF, 1%, 0207
0	R 139	57.11.3332		3k3	MF, 1%, 0207
0	R 140	57.11.5125		1M2	MF, 5%, 0207
0	R 141	57.11.3104		100k	MF, 1%, 0207
0	R 142	57.11.3104		100k	MF, 1%, 0207
0	R 143	57.11.3273		27k	MF, 1%, 0207
0	R 144	57.11.3273		27k	MF, 1%, 0207
0	R 145	57.11.3473		47k	MF, 1%, 0207
0	R 146	57.11.3472		4k7	MF, 1%, 0207
0	R 147	57.11.3102		1k0	MF, 1%, 0207
0	R 148	57.11.3102		1k0	MF, 1%, 0207
0	R 149	57.11.3472		4k7	MF, 1%, 0207
0	R 150	57.11.3104		100k	MF, 1%, 0207
0	R 151	not used		3k9	MF, 1%, 0207
				Used with transformator only!	
0	R 152	57.11.3392		3k9	MF, 1%, 0207
0	R 153	57.11.3392		3k9	MF, 1%, 0207
0	R 154	57.11.3104		100k	MF, 1%, 0207
0	R 155	57.11.3152		1k5	MF, 1%, 0207
0	R 156	57.11.3152		1k5	MF, 1%, 0207
0	R 157	57.11.3104		100k	MF, 1%, 0207
0	R 158	57.11.3103		10k	MF, 1%, 0207
0	R 159	57.11.3103		10k	MF, 1%, 0207
0	R 160	57.11.3000		0R0	MF, 0207
0	R 161	57.11.3622		6k2	MF, 1%, 0207
0	R 162	not used		4k3	MF, 1%, 0207
0	R 163	57.11.3622		6k2	MF, 1%, 0207
0	R 164	57.11.3622		6k2	MF, 1%, 0207
0	R 165	57.11.3000		0R0	MF, 0207
0	R 166	not used		4k3	MF, 1%, 0207
0	R 167	57.11.3622		6k2	MF, 1%, 0207
0	R 168	57.11.3622		6k2	MF, 1%, 0207
0	R 169	57.11.3622		6k2	MF, 1%, 0207
0	R 170	57.11.3104		100k	MF, 1%, 0207
0	R 171	57.11.3203		20k	MF, 1%, 0207
0	R 172	57.11.3103		10k	MF, 1%, 0207
0	R 173	57.11.3103		10k	MF, 1%, 0207
0	R 174	57.11.3512		5k1	MF, 1%, 0207
0	R 175	57.11.3823		82k	MF, 1%, 0207
0	R 176	57.11.3563		56k	MF, 1%, 0207
0	R 177	57.11.3105		1M0	MF, 1%, 0207
0	R 178	57.11.3105		1M0	MF, 1%, 0207
0	R 179	57.11.3105		1M0	MF, 1%, 0207
0	R 180	57.11.3104		100k	MF, 1%, 0207
0	R 181	57.11.3104		100k	MF, 1%, 0207
0	R 182	57.11.3224		220k	MF, 1%, 0207
0	R 183	57.11.3104		100k	MF, 1%, 0207
0	R 184	57.11.3473		47k	MF, 1%, 0207
0	R 185	57.11.3224		220k	MF, 1%, 0207
0	R 186	57.11.3103		10k	MF, 1%, 0207
0	R 187	57.11.3224		220k	MF, 1%, 0207
0	R 188	57.11.3472		4k7	MF, 1%, 0207
0	R 189	57.11.3224		220k	MF, 1%, 0207
0	R 190	57.11.3223		22k	MF, 1%, 0207
0	R 191	57.11.3103		10k	MF, 1%, 0207
0	R 192	57.11.3223		22k	MF, 1%, 0207
0	R 193	57.11.3124		120k	MF, 1%, 0207
0	R 194	57.11.3223		22k	MF, 1%, 0207
0	R 195	57.69.8301		10k	PTC, 1%, +3300 PPM
0	R 196	57.11.3394		390k	MF, 1%, 0207
0	R 197	57.11.3824		820k	MF, 1%, 0207
0	R 198	57.11.3133		13k	MF, 1%, 0207
0	R 199	57.11.3103		10k	MF, 1%, 0207
0	R 200	57.11.3104		100k	MF, 1%, 0207
0	R 201	57.11.3473		47k	MF, 1%, 0207
0	R 202	57.11.3331		330R	MF, 1%, 0207
0	R 203	57.11.3223		22k	MF, 1%, 0207
0	R 204	57.69.8301		10k	PTC, 1%, +3300 PPM
0	R 205	57.11.3223		22k	MF, 1%, 0207

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 206	57.11.3223		22k	MF, 1%, 0207
0	R 207	57.11.3682		6k8	MF, 1%, 0207
0	R 208	57.11.3682		6k8	MF, 1%, 0207
0	R 209	57.11.3682		6k8	MF, 1%, 0207
0	R 210	57.11.3682		6k8	MF, 1%, 0207
0	R 211	57.11.3682		6k8	MF, 1%, 0207
0	R 212	57.11.3682		6k8	MF, 1%, 0207
0	R 213	57.11.3682		6k8	MF, 1%, 0207
0	R 214	57.11.3682		6k8	MF, 1%, 0207
0	R 215	57.11.3682		6k8	MF, 1%, 0207
0	R 216	57.11.3682		6k8	MF, 1%, 0207
0	R 217	57.11.3682		6k8	MF, 1%, 0207
0	R 218	57.11.3682		6k8	MF, 1%, 0207
0	R 219	57.11.3103		10k	MF, 1%, 0207
0	R 220	57.11.3103		10k	MF, 1%, 0207
0	R 221	57.11.3184		180k	MF, 1%, 0207
0	R 222	57.11.3823		82k	MF, 1%, 0207
0	R 223	57.11.3683		68k	MF, 1%, 0207
0	R 224	57.11.3154		150k	MF, 1%, 0207
0	R 225	57.11.3224		220k	MF, 1%, 0207
0	R 226	57.11.3103		10k	MF, 1%, 0207
0	R 227	57.11.5185		1M8	MF, 5%, 0207
0	R 228	57.11.3682		6k8	MF, 1%, 0207
0	R 229	57.11.3682		6k8	MF, 1%, 0207
0	R 230	57.11.3682		6k8	MF, 1%, 0207
0	R 231	57.11.3682		6k8	MF, 1%, 0207
0	R 232	57.11.3682		6k8	MF, 1%, 0207
0	R 233	57.11.3682		6k8	MF, 1%, 0207
0	R 234	57.11.3682		6k8	MF, 1%, 0207
0	R 235	57.11.3682		6k8	MF, 1%, 0207
0	R 236	57.11.3332		3k3	MF, 1%, 0207
0	R 237	57.11.3332		3k3	MF, 1%, 0207
0	R 238	57.92.7021		0.9A	PTC 60V
0	R 239	57.11.3104		100k	MF, 1%, 0207
0	R 240	57.11.3104		100k	MF, 1%, 0207
0	R 241	57.92.7021		0.9A	PTC 60V
0	R 242	57.19.0470		47R	5%, 0207, Fuse
0	R 243	57.19.0470		47R	5%, 0207, Fuse
0	R 244	57.11.3683		68k	MF, 1%, 0207
0	R 245	57.11.3472		4k7	MF, 1%, 0207
0	R 246	57.11.3151		150R	MF, 1%, 0207
0	R 247	57.11.3683		68k	MF, 1%, 0207
0	R 248	57.11.3472		4k7	MF, 1%, 0207
0	R 249	57.11.3151		150R	MF, 1%, 0207
0	R 250	57.11.3103		10k	MF, 1%, 0207
0	R 251	57.11.3103		10k	MF, 1%, 0207
0	R 252	57.11.3103		10k	MF, 1%, 0207
0	R 253	57.11.3103		10k	MF, 1%, 0207
0	R 254	57.11.3682		6k8	MF, 1%, 0207
0	R 255	57.11.3202		2k0	MF, 1%, 0207
0	R 256	57.11.3103		10k	MF, 1%, 0207
0	R 257	57.11.3473		47k	MF, 1%, 0207
0	R 258	57.11.3104		100k	MF, 1%, 0207
0	R 259	57.11.3333		33k	MF, 1%, 0207
0	R 260	57.11.3103		10k	MF, 1%, 0207
0	R 261	57.11.3154		150k	MF, 1%, 0207
0	R 262	57.11.3334		330k	MF, 1%, 0207
0	R 263	57.11.3473		47k	MF, 1%, 0207
0	R 264	57.11.3104		100k	MF, 1%, 0207
0	R 265	57.11.3682		6k8	MF, 1%, 0207
0	R 266	57.11.3222		2k2	MF, 1%, 0207
0	R 267	57.11.3222		2k2	MF, 1%, 0207
0	R 268	57.11.3223		22k	MF, 1%, 0207
0	R 269	57.11.3223		22k	MF, 1%, 0207
0	RL 1	56.02.1101			Reed Relay
0	RL 2	56.02.1101			Reed Relay
0	RN 1	57.88.2473		47k	4*R Resistor-Netw 2% SIP9
0	RN 2	57.88.2823		82k	4*R Resistor-Netw 2% SIP9
0	RN 3	57.88.2223		22k	4*R Resistor-Netw 2% SIP9
0	RN 4	57.88.2103		10k	4*R Resistor-Netw 2% SIP9
0	RN 5	57.88.2472		4k7	4*R Resistor-Netw 2% SIP9
0	RN 6	57.88.4104		100k	8*R Resistor-Netw 2% SIP9
0	RN 7	57.88.4104		100k	8*R Resistor-Netw 2% SIP9
0	RN 8	57.88.2104		100k	4*R Resistor-Netw 2% SIP9
0	RN 9	57.88.2682		6k8	4*R Resistor-Netw 2% SIP9
0	RN 10	57.88.2682		6k8	4*R Resistor-Netw 2% SIP9
0	RN 11	57.88.2682		6k8	4*R Resistor-Netw 2% SIP9
0	RN 12	57.88.2682		6k8	4*R Resistor-Netw 2% SIP9
0	RN 13	57.88.2682		6k8	4*R Resistor-Netw 2% SIP9
0	RN 14	57.88.2682		6k8	4*R Resistor-Netw 2% SIP9
0	SW 1	55.15.0931		2*u	rastend
0	SW 2	55.15.0931		2*u	rastend
0	SW 3	55.15.0931		2*u	rastend

Input Main Mono Board 1.928.225.81

*Input Unit with Option 2 Mic. Input 1.928.227.81
*Input Unit wiht Option HL Trafo 1.928.226.81 *Input Unit with Option HL Trafo + 2 Mic. 1.928.229.81

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	SW 4	55.15.0931		2*u	rastend
0	SW 5	55.15.0931		2*u	rastend
0	SW 6	55.15.0931		2*u	rastend
0	SW 7	55.15.0931		2*u	rastend
0	SW 8	55.15.0931		2*u	rastend
0	SW 9	55.15.0931		2*u	rastend
0	SW 10	55.15.0931		2*u	rastend
0	SW 11	55.15.0931		2*u	rastend
0	SW 12	55.15.0931		2*u	rastend
0	SW 13	55.15.0931		2*u	rastend
0	SW 14	55.15.0931		2*u	rastend
0	SW 15	55.15.0931		2*u	rastend
0	SW 16	55.15.0931		2*u	rastend
0	SW 17	55.15.0931		2*u	rastend
0	SW 18	55.15.0931		2*u	rastend
0	SW 19	55.15.0933		4*u	rastend
0	SW 20	55.15.0933		4*u	rastend
0	SW 21	1.928.208.00			MIYAMA SWITCH NON LATCH. BOARD
0	SW 22	55.15.0932		2*u	impuls
0	SW 23	55.15.0931		2*u	rastend
0	SW 24	55.15.0931		2*u	rastend
0	SW 25	55.15.0931		2*u	rastend
0	SW 26	55.15.0931		2*u	rastend
0	SW 27	55.15.0932		2*u	impuls
0	T 1	not used		1:0,62	EINGANGSTRAFO 1 : 0,62
				Option	
0	TR 1	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 2	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 3	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 4	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 5	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 6	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 7	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 8	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 9	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 10	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 11	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 12	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 13	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 14	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 15	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 16	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 17	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 18	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 19	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 20	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 21	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	VR 1	58.20.6501		10k lin	1*R
0	VR 2	58.20.6702		100k-/10k lin	2*R, Doppelachse
0	VR 3	58.20.6802		2*100k-/10k l	3*R, Doppelachse
0	VR 4	58.20.6802		2*100k-/10k l	3*R, Doppelachse
0	VR 5	58.20.6702		100k-/10k lin	2*R, Doppelachse
0	VR 6	58.20.6801		2*20k-/20k li	3*R, Doppelachse
0	VR 7	58.20.6801		2*20k-/20k li	3*R, Doppelachse
0	VR 8	58.20.6701		2*50k lin	2*R, Doppelachse
0	VR 9	58.20.6701		2*50k lin	2*R, Doppelachse
0	VR 10	58.20.6701		2*50k lin	2*R, Doppelachse
0	VR 11	58.20.6601		20k+/20k-	2*R
0	VR 12	58.01.8103		10k	Cermet, 10%, 0.5W, horizontal
0	VR 13	58.01.8502		5k0	Cermet, 10%, 0.5W, horizontal
0	VR 14	58.01.8203		20k	Cermet, 10%, 0.5W, horizontal
0	VR 15	58.01.8502		5k0	Cermet, 10%, 0.5W, horizontal
0	VR 16	58.01.8503		50k	Cermet, 10%, 0.5W, horizontal
0	XIC 1	53.03.0185		20p	DIL 0.3", löt, winkel
				Socket for LD29	

Idx	Pos.	Part No.	Qty.	Type/Val.	Description

End of List

Comments

OPTIONS FOR 1.928.225.xx

1.928.226.xx INPUT UNIT W OPT.HL TRAFO

C	78	59.22.4002		100uF 16V
C	99	not used		
C	114	not used		
C	118	59.06.0682		6n8 63V
MP	90	1.022.400.03		isolation for T1
R	50	57.11.3472		4k7
R	51	57.11.3151		150R
R	52	57.11.3332		3k3
R	151	57.11.3392		3k9
T	1	1.022.451.00		transformator

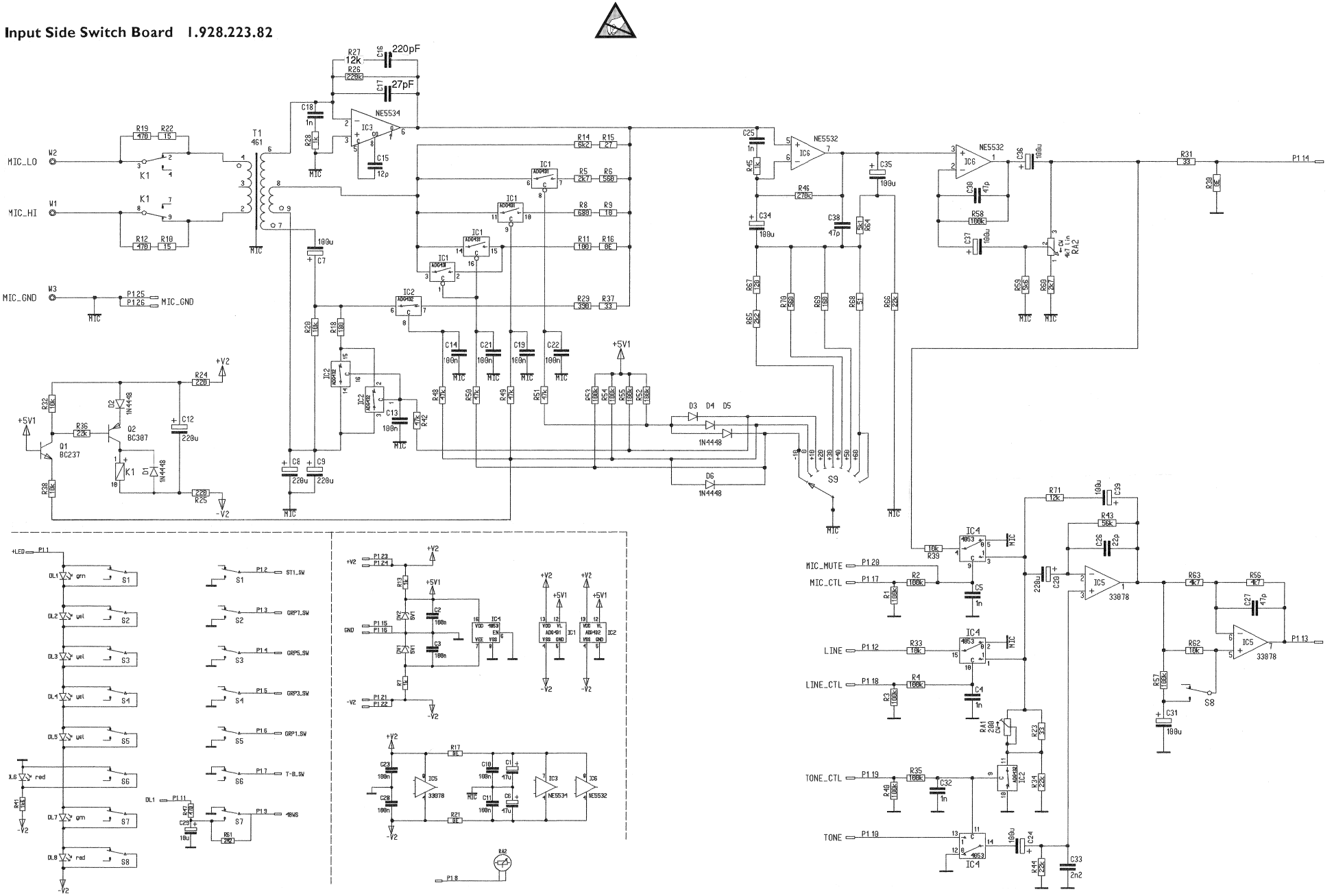
1.928.227.xx INPUT UNIT W OPT.2MIC INP

MP	56	1.928.201.46		push buton mic2

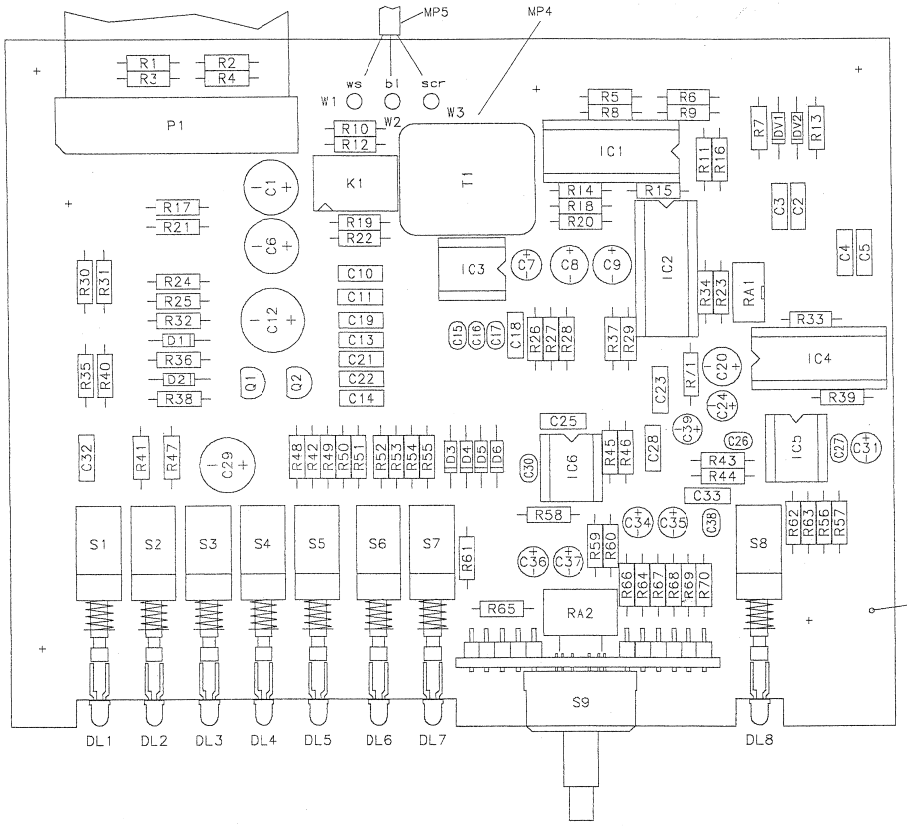
1.928.229.xx INPUT UNIT W OPT.HL TRAFO+2MIC

C	78	59.22.4002		100uF 16V
C	99	not used		
C	114	not used		
C	118	59.06.0682		6n8 63V
MP	56	1.928.201.46		push buton mic2
MP	90	1.022.400.03		isolation for T1
R	50	57.11.3472		4k7
R	51	57.11.3151		150R
R	52	57.11.3332		3k3
R	151	57.11.3392		3k9
T	1	1.022.451.00		transformator

Input Side Switch Board 1.928.223.82



Input Side Switch Board 1.928.223.82



Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	not used		47u	EL 4CV 20% RM5
0	C 2	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 3	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 4	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 5	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 6	not used		47u	EL 40V 20% RM5
0	C 7	59.22.4002		100u	EL 16V 20% RM5
0	C 8	59.22.3003		220u	EL 10V 20% RM5
0	C 9	59.22.3003		220u	EL 10V 20% RM5
0	C 10	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 11	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 12	59.22.5221		220u	EL 25V 20% RM5
0	C 13	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 14	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 15	not used		12p	CER 63V, 5%, NP 0
2	C 16	59.34.4221		220p	CER 63V, 5%, N750
1	C 17	59.34.2270		27p	CER 63V, 5%, N150
0	C 18	not used		1n0	PETP, 63V, 10%, RM5
0	C 19	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 20	59.22.3003		220u	EL 10V 20% RM5
0	C 21	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 22	59.06.0104		100n	PETP, 63V, 10%, RM5

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 23	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 24	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 25	not used		1n0	PETP, 63V, 10%, RM5
0	C 26	59.34.2220		22p	CER 63V, 5%, N150
0	C 27	59.34.2470		47p	CER 63V, 5%, N150
0	C 28	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 29	59.22.8100		10u	EL 63V, 20%, RM5
0	C 30	59.34.2470		47p	CER 63V, 5%, N150
0	C 31	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 32	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 33	59.06.0222		2n2	PETP, 63V, 10%, RM5
0	C 34	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 35	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 36	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 37	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 38	59.34.2470		47p	CER 63V, 5%, N150
0	C 39	59.22.4002		100uF	EL 16V, 20%, RM5
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	DL 1	50.04.2206		934GT	LED 3mm green
0	DL 2	50.04.2205		934YT	LED 3mm yellow
0	DL 3	50.04.2205		934YT	LED 3mm yellow
0	DL 4	50.04.2205		934YT	LED 3mm yellow
0	DL 5	50.04.2205		934YT	LED 3mm yellow
0	DL 6	50.04.2204		934ID	LED 3mm red
0	DL 7	50.04.2206		934GT	LED 3mm green
0	DL 8	50.04.2204		934ID	LED 3mm red
0	DV 1	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	DV 2	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	IC 1	50.19.0303		ADG431	Quad SPST make
0	IC 2	50.19.0304		ADG432	Quad SPST brake
0	IC 3	50.05.0244		NE553<AN	IC 5534 ANB, NE 5534 SAN, ,A
0	IC 4	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 5	50.09.0117		MC33078	IC MC 33078 P
0	IC 6	50.09.0106		5532AN	IC NE 5532 AN, NE 5532 AN, ,A
0	K 1	56.04.0197		2u	24V 125V 2A Ag/Au
0	MP 1	1.928.223.13			INPUT SIDE MO PCB
0	MP 2	1.928.223.04			NR. ETIKETTE 5X20
0	MP 3	43.01.0108		Label	ESE-WARNSCHILD
0	MP 4	1.022.400.03			ISOLATION
0	MP 5	1.928.223.94			KL-Input Side Board
1	MP 6	43.10.0110		A	Revisions-Etikette 5mm h'blau
0	P 1	1.023.112.09			FLACHKABEL 26 POL 0,045M
0	Q 1	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 2	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	R 1	57.11.3104		100k	MF, 1%, 0207
0	R 2	57.11.3104		100k	MF, 1%, 0207
0	R 3	57.11.3104		100k	MF, 1%, 0207
0	R 4	57.11.3104		100k	MF, 1%, 0207
0	R 5	57.11.3272		2k7	MF, 1%, 0207
0	R 6	57.11.3561		560R	MF, 1%, 0207
0	R 7	57.11.3102		1k0	MF, 1%, 0207
0	R 8	57.11.3681		680R	MF, 1%, 0207
0	R 9	57.11.3100		10R	MF, 1%, 0207
0	R 10	57.11.3150		15R	MF, 1%, 0207
0	R 11	57.11.3101		100R	MF, 1%, 0207
0	R 12	57.11.3471		470R	MF, 1%, 0207
0	R 13	57.11.3102		1k0	MF, 1%, 0207
0	R 14	57.11.3622		6k2	MF, 1%, 0207
0	R 15	57.11.3270		27R	MF, 1%, 0207
0	R 16	57.11.3000		0R0	MF, 0207
0	R 17	57.11.3000		0R0	MF, 0207
0	R 18	57.11.3181		180R	MF, 1%, 0207
0	R 19	57.11.3471		470R	MF, 1%, 0207
0	R 20	57.11.3103		10k	MF, 1%, 0207
0	R 21	57.11.3000		0R0	MF, 0207
0	R 22	57.11.3150		15R	MF, 1%, 0207

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 23	57.11.3330		33R	MF, 1%, 0207
0	R 24	57.11.3221		220R	MF, 1%, 0207
0	R 25	57.11.3221		220R	MF, 1%, 0207
0	R 26	57.11.3224		220k	MF, 1%, 0207
0	R 27	57.11.3823		12k	MF, 1%, 0207
0	R 28	not used		1k0	MF, 1%, 0207
0	R 29	57.11.3391		390R	MF, 1%, 0207
0	R 30	57.11.3000		0R0	MF, 0207
0	R 31	not used		33R	MF, 1%, 0207
0	R 32	57.11.3103		10k	MF, 1%, 0207
0	R 33	57.11.3103		10k	MF, 1%, 0207
0	R 34	57.11.3223		22k	MF, 1%, 0207
0	R 35	57.11.3104		100k	MF, 1%, 0207
0	R 36	57.11.3223		22k	MF, 1%, 0207
0	R 37	57.11.3330		33R	MF, 1%, 0207
0	R 38	57.11.3103		10k	MF, 1%, 0207
0	R 39	57.11.3103		10k	MF, 1%, 0207
0	R 40	57.11.3104		100k	MF, 1%, 0207
0	R 41	57.11.3152		1k5	MF, 1%, 0207
0	R 42	57.11.3473		47k	MF, 1%, 0207
0	R 43	57.11.3563		56k	MF, 1%, 0207
0	R 44	57.11.3223		22k	MF, 1%, 0207
0	R 45	not used		1k0	MF, 1%, 0207
0	R 46	57.11.3274		270k	MF, 1%, 0207
0	R 47	57.11.3471		470R	MF, 1%, 0207
0	R 48	57.11.3473		47k	MF, 1%, 0207
0	R 49	57.11.3473		47k	MF, 1%, 0207
0	R 50	57.11.3473		47k	MF, 1%, 0207
0	R 51	57.11.3473		47k	MF, 1%, 0207
0	R 52	57.11.3104		100k	MF, 1%, 0207
0	R 53	57.11.3104		100k	MF, 1%, 0207
0	R 54	57.11.3104		100k	MF, 1%, 0207
0	R 55	57.11.3104		100k	MF, 1%, 0207
0	R 56	57.11.3472		4k7	MF, 1%, 0207
0	R 57	57.11.3104		100k	MF, 1%, 0207
0	R 58	57.11.3104		100k	MF, 1%, 0207
0	R 59	57.11.3562		5k6	MF, 1%, 0207
0	R 60	57.11.3272		2k7	MF, 1%, 0207
0	R 61	57.11.5225		2M2	MF, 5%, 0207
0	R 62	57.11.3103		10k	MF, 1%, 0207
0	R 63	57.11.3472		4k7	MF, 1%, 0207
0	R 64	57.11.3512		5k1	MF, 1%, 0207
0	R 65	57.11.3222		2k2	MF, 1%, 0207
0	R 66	57.11.3223		22k	MF, 1%, 0207
0	R 67	57.11.3121		120R	MF, 1%, 0207
0	R 68	57.11.3510		51R	MF, 1%, 0207
0	R 69	57.11.3161		160R	MF, 1%, 0207
0	R 70	57.11.3561		560R	MF, 1%, 0207
0	R 71	57.11.3123		12k	MF, 1%, 0207
0	RA 1	58.01.9201		200R	Cermet, 10%, 0.5W, vertical
0	RA 2	1.010.123.58		Pot	POT 4K7 LIN;
0	S 1	55.15.0931		2*u	rastend
0	S 2	55.15.0931		2*u	rastend
0	S 3	55.15.0931		2*u	rastend
0	S 4	55.15.0931		2*u	rastend
0	S 5	55.15.0931		2*u	rastend
0	S 6	55.15.0932		2*u	impuls
0	S 7	55.15.0931		2*u	rastend
0	S 8	55.15.0931		2*u	rastend
0	S 9	1.928.206.00			INPUT MIC SWITCH BOARD
0	T 1	1.022.461.00			HIGH-LEVEL MIC INPUT

End of List

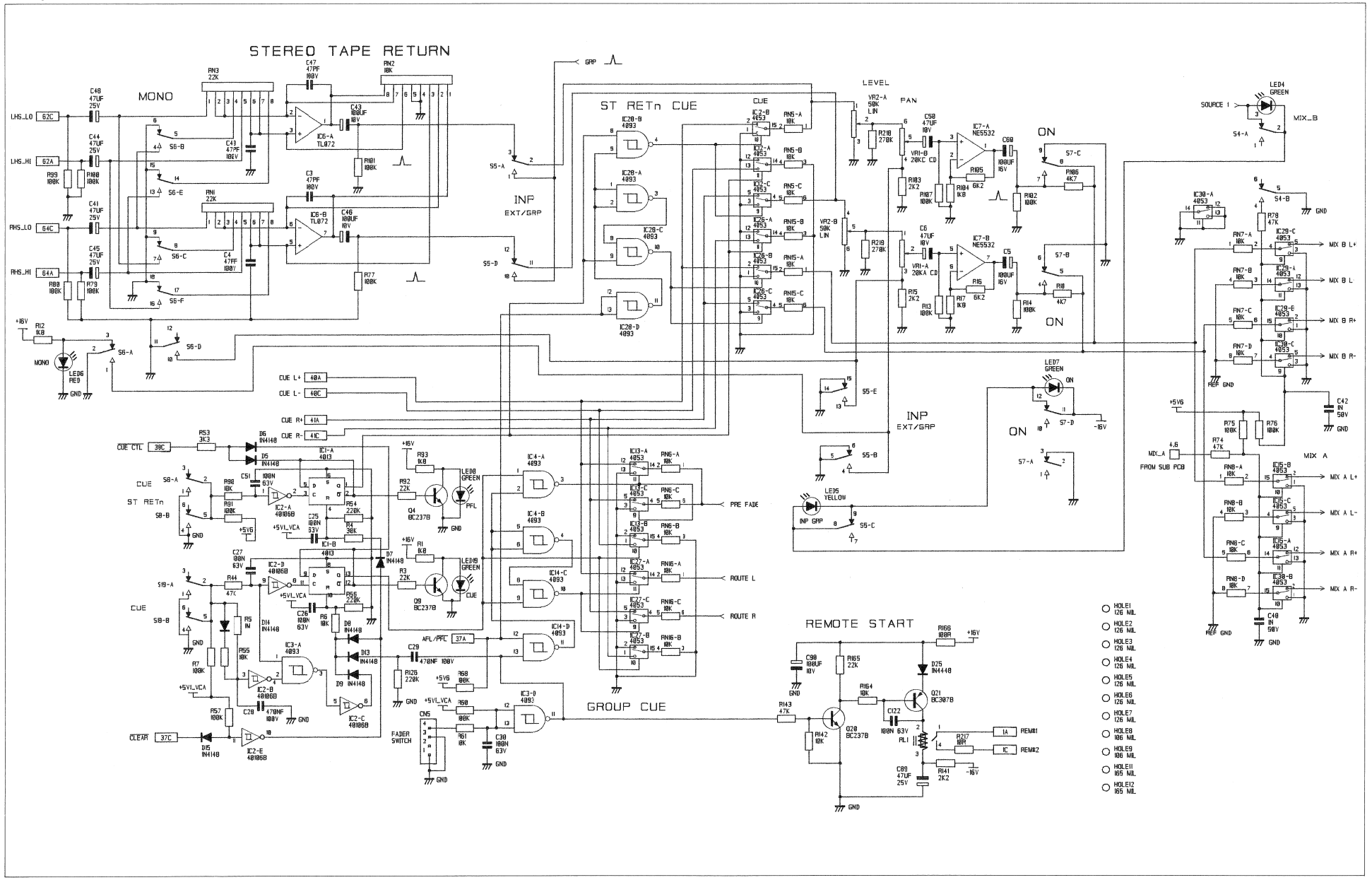
Comments

Edition Ausgabe	Beschreibung Description				
					3
					2
					1
					0
Edition Ausgabe	Beschreibung Description				
	13.12.97	AF			
Edition Ausgabe	Datum Date	Visa Sect.	Visa Dept.	Sach Gen.	Index

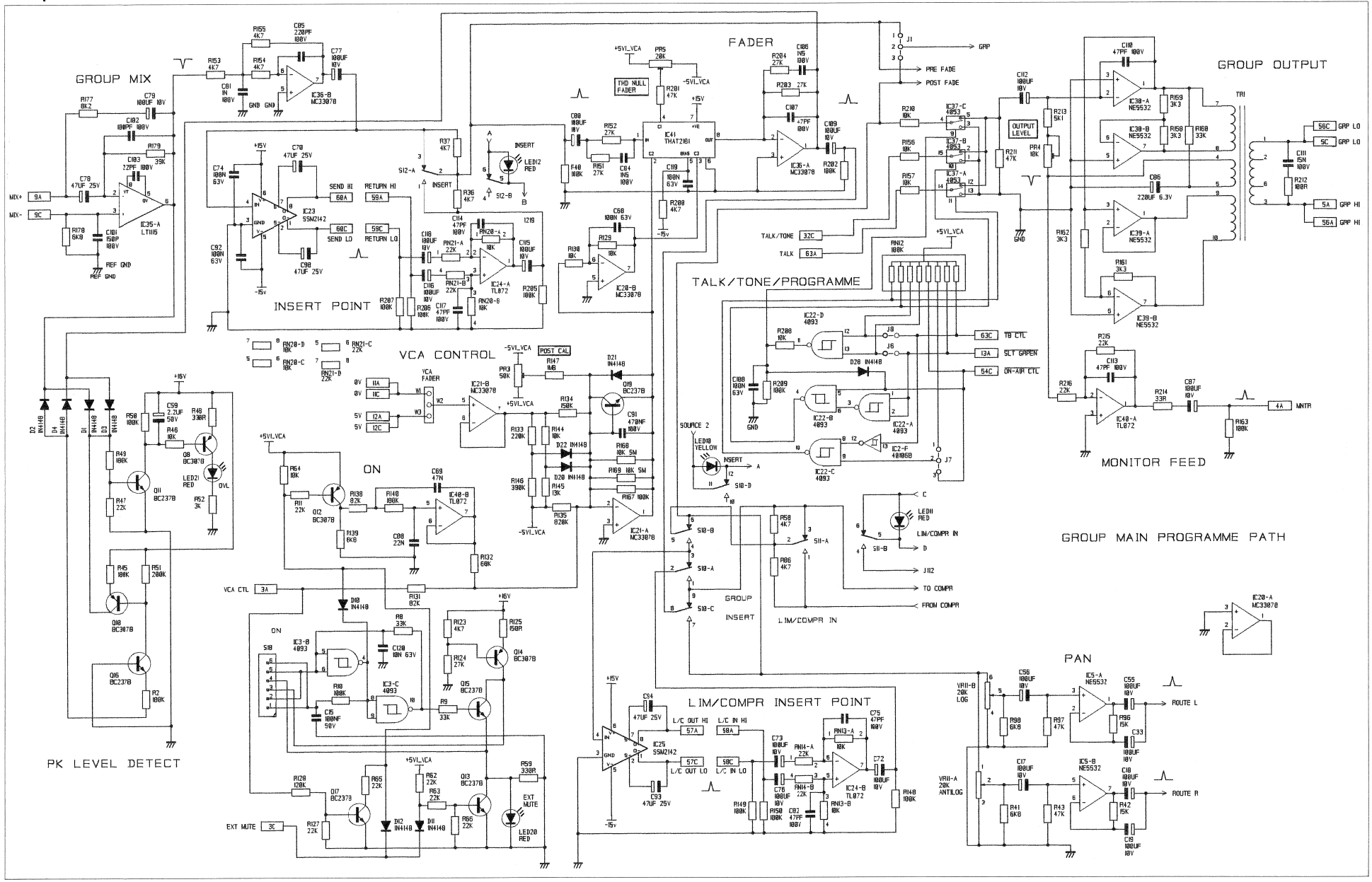
Copy to: Kopie für: -

STUDER REGENSDORF | Input Side Mo Switch Board 'ESE' | Number / Numéro: 1.928.223.82

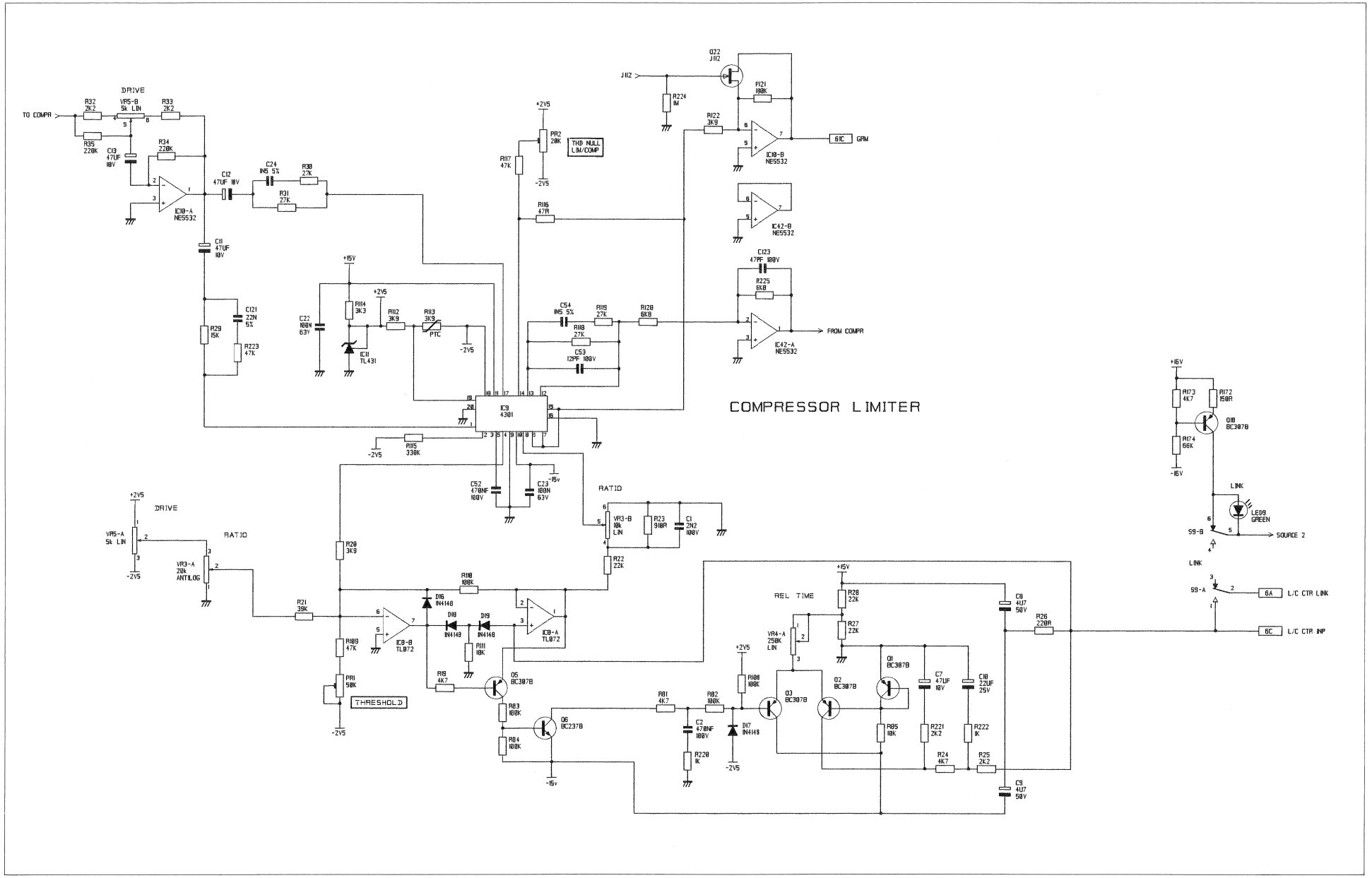
Group Unit Mono 1.928.230.83



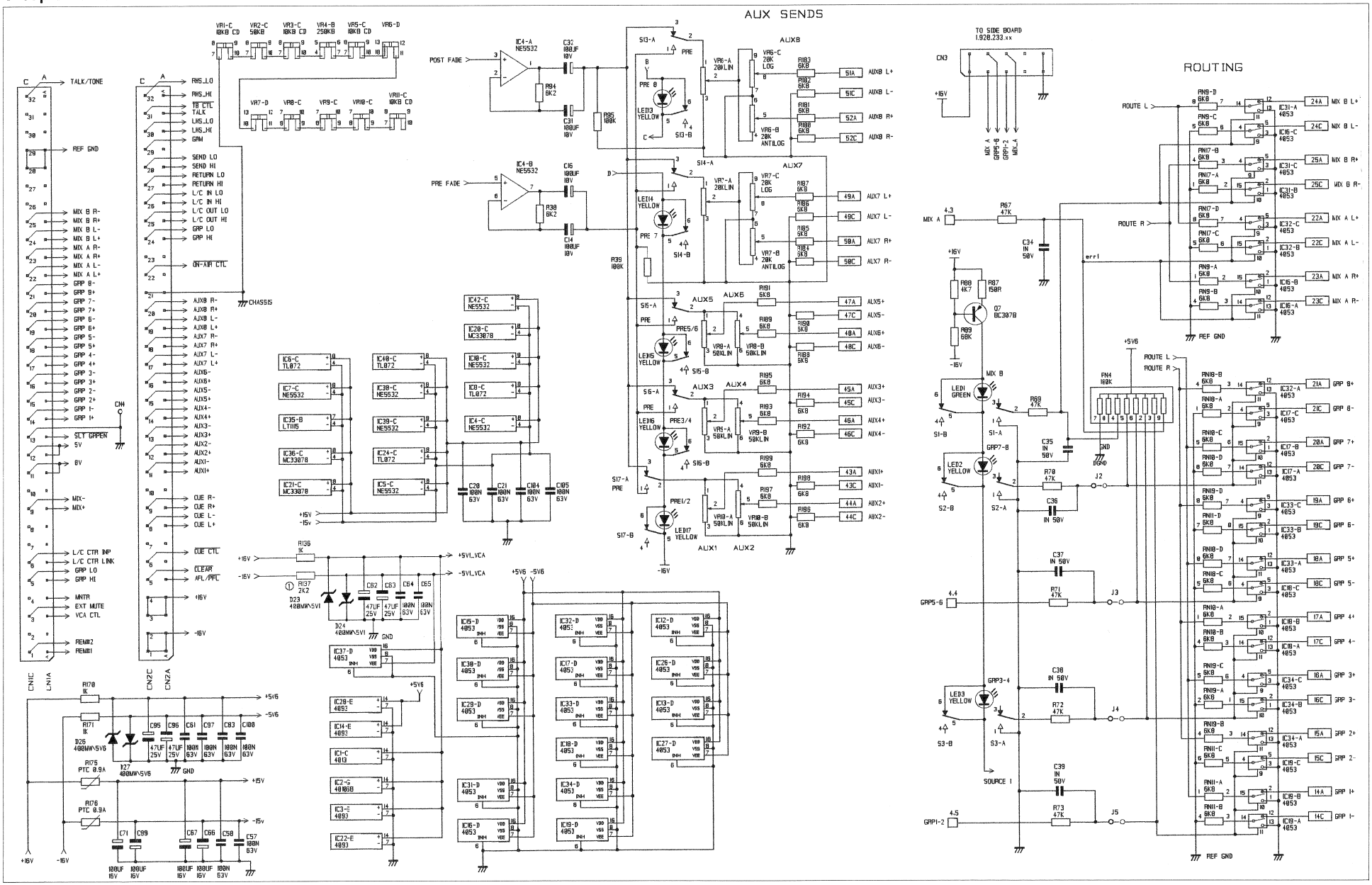
Group Unit Mono 1.928.230.83



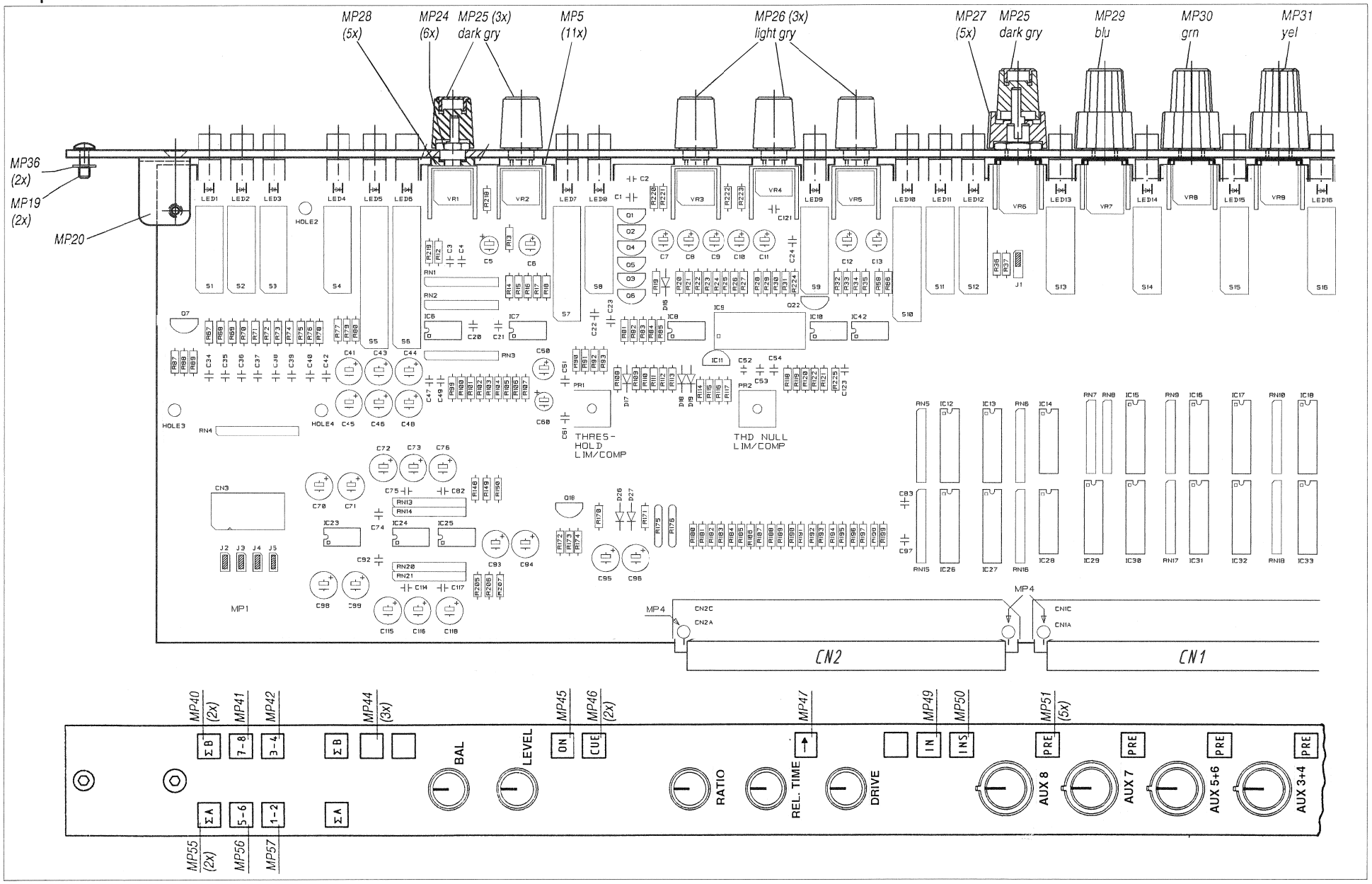
Group Unit Mono 1.928.230.83



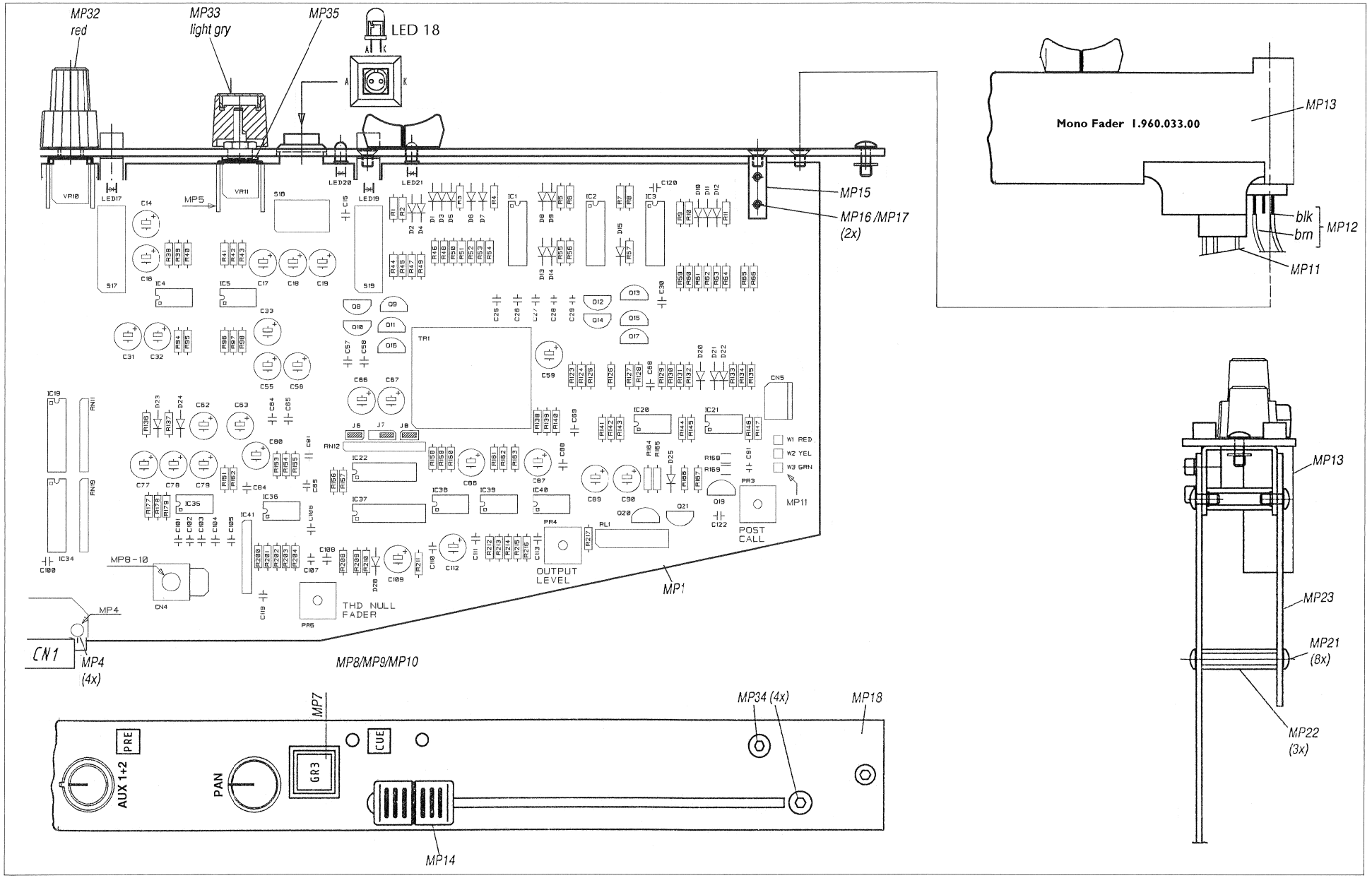
Group Unit Mono 1.928.230.83



Group Unit Mono 1.928.230.83



Group Unit Mono 1.928.230.83



Group Unit Mono 1.928.230.83

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.06.0222		2n2	PETP, 63V, 10%, RM5
0	C 2	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 3	59.34.2470		47p	CER 63V, 5%, N150
0	C 4	59.34.2470		47p	CER 63V, 5%, N150
0	C 5	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 6	59.22.3470		47u	EL 10V, 20%, RM5
0	C 7	59.22.3470		47u	EL 10V, 20%, RM5
0	C 8	59.22.8479		4u7	EL 50V, 20%, RM5
0	C 9	59.22.8479		4u7	EL 50V, 20%, RM5
0	C 10	59.22.5220		22u	EL 25V, 20%, RM5
0	C 11	59.22.3470		47u	EL 10V, 20%, RM5
0	C 12	59.22.3470		47u	EL 10V, 20%, RM5
0	C 13	59.22.3470		47u	EL 10V, 20%, RM5
0	C 14	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 15	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 16	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 17	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 18	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 19	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 20	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 21	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 22	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 23	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 24	59.06.5152		1n5	PETP, 63V, 5%, RM5
0	C 25	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 26	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 27	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 28	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 29	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 30	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 31	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 32	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 33	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 34	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 35	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 36	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 37	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 38	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 39	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 40	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 41	59.22.3470		47u	EL 10V, 20%, RM5
0	C 42	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 43	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 44	59.22.3470		47u	EL 10V, 20%, RM5
0	C 45	59.22.3470		47u	EL 10V, 20%, RM5
0	C 46	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 47	59.34.2470		47p	CER 63V, 5%, N150
0	C 48	59.22.3470		47u	EL 10V, 20%, RM5
0	C 49	59.34.2470		47p	CER 63V, 5%, N150
0	C 50	59.22.3470		47u	EL 10V, 20%, RM5
0	C 51	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 52	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 53	59.34.1120		12p	CER 63V, 5%, NP 0
0	C 54	59.06.5152		1n5	PETP, 63V, 5%, RM5
0	C 55	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 56	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 57	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 58	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 59	59.22.8229		2u2	EL 50V, 20%, RM5
0	C 60	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 61	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 62	59.22.3470		47u	EL 10V, 20%, RM5
0	C 63	59.22.3470		47u	EL 10V, 20%, RM5
0	C 64	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 65	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 66	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 67	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 68	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 69	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 70	59.22.3470		47u	EL 10V, 20%, RM5
0	C 71	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 72	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 73	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 74	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 75	59.34.2470		47p	CER 63V, 5%, N150
0	C 76	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 77	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 78	59.22.3470		47u	EL 10V, 20%, RM5
0	C 79	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 80	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 81	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 82	59.34.2470		47p	CER 63V, 5%, N150
0	C 83	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 84	59.06.0152		1n5	PETP, 63V, 10%, RM5
0	C 85	59.34.4221		220p	CER 63V, 5%, N750
0	C 86	59.22.3003		220u	EL 10V, 20%, RM5
0	C 87	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 88	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 89	59.22.4002		100uF	EL 16V, 20%, RM5

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 90	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 91	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 92	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 93	59.22.3470		47u	EL 10V, 20%, RM5
0	C 94	59.22.3470		47u	EL 10V, 20%, RM5
0	C 95	59.22.3470		47u	EL 10V, 20%, RM5
0	C 96	59.22.3470		47u	EL 10V, 20%, RM5
0	C 97	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 98	59.22.3470		47u	EL 10V, 20%, RM5
0	C 99	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 100	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 101	59.34.4151		150p	CER 63V, 5%, N750
0	C 102	59.34.4101		100p	CER 63V, 5%, N750
0	C 103	59.34.2220		22p	CER 63V, 5%, N150
0	C 104	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 105	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 106	59.06.0152		1n5	PETP, 63V, 10%, RM5
0	C 107	59.34.2470		47p	CER 63V, 5%, N150
0	C 108	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 109	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 110	59.34.2470		47p	CER 63V, 5%, N150
0	C 111	59.06.0153		15n	PETP, 63V, 10%, RM5
0	C 112	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 113	59.34.2470		47p	CER 63V, 5%, N150
0	C 114	59.34.2470		47p	CER 63V, 5%, N150
0	C 115	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 116	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 117	59.34.2470		47p	CER 63V, 5%, N150
0	C 118	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 119	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 120	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 121	59.06.5223		22n	PETP, 63V, 5%, RM5
0	C 122	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 123	not used		47p	CER 63V, 5%, N150
0	CN 1	54.01.0365		64-P	P EU-C 2*32 A,C
0	CN 2	54.01.0365		64-P	P EU-C 2*32 A,C
0	CN 3	54.14.2001		10p	1/20" Au, gerade, ohne Verrieg
0	CN 4	54.02.0343			P FLACH, 6.3*0.8, WINKEL 45
0	CN 5	54.12.0704		4p	Stecker gerade PCB
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 7	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 8	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 9	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 10	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 11	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 12	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 13	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 14	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 15	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 16	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 17	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 18	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 19	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 20	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 21	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 22	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 23	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	D 24	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	D 25	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 26	50.04.1108		5V6	Zener, 5%, 0.5W, DO-35
0	D 27	50.04.1108		5V6	Zener, 5%, 0.5W, DO-35
0	D 28	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	IC 1	50.07.0013		4013	IC .. 4013 .. ,A
0	IC 2	50.07.0014		40106	Hex Schmtt Trigger
0	IC 3	50.07.0008		4093	IC .. 4093 .. ,A
0	IC 4	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 5	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 6	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 7	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 8	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 9	50.11.1902		THAT4301	VCA with RMS-Detector
0	IC 10	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 11	50.10.0106		TL431	IC TL 431 CLP,
0	IC 12	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 13	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 14	50.07.0008		4093	IC .. 4093 .. ,A
0	IC 15	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 16	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 17	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 18	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 19	50.07.0015		4053B	IC .. 4053 .. ,A

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	IC 20	50.09.0117		MC33078	IC MC 33078 P
0	IC 21	50.09.0117		MC33078	IC MC 33078 P
0	IC 22	50.07.0008		4093	IC .. 4093 .. ,A
0	IC 23	50.09.0124		2142	IC SSM 2142 P
0	IC 24	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 25	50.09.0124		2142	IC SSM 2142 P
0	IC 26	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 27	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 28	50.07.0008		4093	IC .. 4093 .. ,A
0	IC 29	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 30	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 31	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 32	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 33	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 34	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 35	50.09.0126		LT1115	Op-Amp, single, low noise
0	IC 36	50.09.0117		MC33078	IC MC 33078 P
0	IC 37	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 38	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 39	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 40	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 41	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 42	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	J 1	54.01.0020	3 pcs	1p	Pin 0.63*0.63
0	J 2	54.01.0020	2 pcs	1p	Pin 0.63*0.63
0	J 3	54.01.0020	2 pcs	1p	Pin 0.63*0.63
0	J 4	54.01.0020	2 pcs	1p	Pin 0.63*0.63
0	J 5	54.01.0020	2 pcs	1p	Pin 0.63*0.63
0	J 6	54.01.0020	2 pcs	1p	Pin 0.63*0.63
0	J 7	54.01.0020	3 pcs	1p	Pin 0.63*0.63
0	J 8	54.01.0020	2 pcs	1p	Pin 0.63*0.63
0	LED 1	50.04.2206		934GT	LED 3mm green
0	LED 2	50.04.2205		934YT	LED 3mm yellow
0	LED 3	50.04.2205		934YT	LED 3mm yellow
0	LED 4	50.04.2206		934GT	LED 3mm green
0	LED 5	50.04.2205		934YT	LED 3mm yellow
0	LED 6	50.04.2204		934ID	LED 3mm red
0	LED 7	50.04.2206		934GT	LED 3mm green
0	LED 8	50.04.2206		934GT	LED 3mm green
0	LED 9	50.04.2206		934GT	LED 3mm green
0	LED 10	50.04.2205		934YT	LED 3mm yellow
0	LED 11	50.04.2204		934ID	LED 3mm red
0	LED 12	50.04.2204		934ID	LED 3mm red
0	LED 13	50.04.2205		934YT	LED 3mm yellow
0	LED 14	50.04.2205		934YT	LED 3mm yellow
0	LED 15	50.04.2205		934YT	LED 3mm yellow
0	LED 16	50.04.2205		934YT	LED 3mm yellow
0	LED 17	50.04.2205		934YT	LED 3mm yellow
0	LED 18	50.04.2162		HLMP1540	LED 3mm, grün klar
					LED for S18
0	LED 19	50.04.2206		934GT	LED 3mm green
0	LED 20	50.04.2129		LS3360	DL LS 3360 , RT DIFF
0	LED 21	50.04.2129		LS3360	DL LS 3360 , RT DIFF
0	MP 1	1.928.230.12	1 pce		INPUT MAIN MO/GR PCB
0	MP 2	1.923.230.04	1 pce		STUDER NR. ETIKETTE 10X20
0	MP 3	43.01.0108	1 pce	Label	ESE-WARNSCHILD
0	MP 4	28.99.0119	4 pcs		ROHRNIETE D 2.5*0.15* 9
0	MP 5	1.923.220.09	11 pcs		9mm ALPS PCB BRACKET WITH PIPS
0	MP 6	54.01.0021	8 pcs	Jumper	0.63 * 0.63mm
0	MP 7	55.15.0915	1 pce		Kalotte grün
					For S18
0	MP 8	21.51.8455	1 pce	M4*8	Linsenkopf-Schr IS, Ni
0	MP 9	22.01.8040	1 pce	M4	6kt-Mutter 0.8d St Zn gb
0	MP 10	24.16.2040	2 pcs		FAECHERSCHEIBE A D 4.3
0	MP 11	1.942.210.93	1 pce		LL-FADER
0	MP 12	1.928.220.93	1 pce		LL-Fader
0	MP 13	1.960.033.00	1 pce		MONOFADER LIN. P+G 100MM
0	MP 14	1.911.000.43	1 pce		KNOPF ORANGE
0	MP 15	1.928.220.05	1 pce		STÜTZBOLZEN
0	MP 16	21.53.0279	2 pcs	M2.5*8	Z-Schraube Inbus Zn gb chr
0	MP 17	24.16.1025	2 pcs		RIPPENSCHEIBE D 2.7/ 5
0	MP 18	1.928.230.01	1 pce		FRONTPLATTE
0	MP 19	1.010.022.21	2 pcs	M3*8	L-Schraube IS sw spezial
0	MP 20	1.928.220.03	1 pce		PRINTHALTER
0	MP 21	21.53.8706	8 pcs	M3*6	Lin-Schr IS, Zn gb, Tuflock
0	MP 22	1.010.024.27	3 pcs		MUTTERBOLZEN M 3 * 20
0	MP 23	1.928.233.81	1 pce		GROUP SIDE MO/GR MONO BOARD
0	MP 24	1.928.220.08	6 pcs		MUTTER M7x0.75
0	MP 25	42.01.1200	3 pcs		DREHKNOPF D11 gr/gr
0	MP 26	42.01.1208	3 pcs		DREHKNOPF D11 gr/hellgr
0	MP 27	42.01.1240	5 pcs		DREHKNOPF D15 gr unten
0	MP 28	1.928.220.07	5 pcs		ZENTRIERSCHEIBE 2,8
0	MP 29	42.01.1208	1 pce		DREHKNOPF D11 gr/bl
0	MP 30	42.01.1205	1 pce		DREHKNOPF D11 gr/gn
0	MP 31	42.01.1204	1 pce		DREHKNOPF D11 gr/gb
0	MP 32	42.01.1202	1 pce		DREHKNOPF D11 gr/rt

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	MP 33	42.01.1228	1 pce		DREHKNOPF D15 gr/hellgr
0	MP 34	21.99.0175	4 pcs	M3*6	S-Schraube IS A2 sw oxydiert
0	MP 35	1.928.220.06	1 pce		ZENTRIERSCHEIBE 1
0	MP 36	24.16.3023	2 pcs		WELLENSICHERUNG 2.3
0	MP 40	1.928.201.17	2 pcs		PUSH BUTTON [B
0	MP 41	1.928.201.10	1 pce		PUSH BUTTON 7-8
0	MP 42	1.928.201.09	1 pce		PUSH BUTTON 3-4
0	MP 44	1.928.201.99	3 pcs		PUSH BUTTON LEER
0	MP 45	1.928.201.34	1 pce		PUSH BUTTON ON
0	MP 46	1.928.201.20	2 pcs		PUSH BUTTON CUE
0	MP 47	1.928.201.42	1 pce		PUSH BUTTON ->
0	MP 49	1.928.201.28	1 pce		PUSH BUTTON IN
0	MP 50	1.928.201.29	1 pce		PUSH BUTTON INS
0	MP 51	1.928.201.37	5 pcs		PUSH BUTTON PRE
0	MP 55	1.928.201.71	2 pcs		PUSH BUTTON [A
0	MP 56	1.928.201.66	1 pce		PUSH BUTTON 5-6
0	MP 57	1.928.201.65	1 pce		PUSH BUTTON 1-2
0	PR 1	58.01.8503		50k	Cermet, 10%, 0.5W, horizontal
0	PR 2	58.01.8203		20k	Cermet, 10%, 0.5W, horizontal
0	PR 3	58.01.8503		50k	Cermet, 10%, 0.5W, horizontal
0	PR 4	58.01.8103		10k	Cermet, 10%, 0.5W, horizontal
0	PR 5	58.01.8203		20k	Cermet, 10%, 0.5W, horizontal
0	Q 1	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 2	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 3	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 4	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 5	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 6	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 7	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 8	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 9	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 10	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 11	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 12	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 13	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 14	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 15	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 16	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 17	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 18	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 19	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 20	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 21	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 22	50.03.0350		J-112	J-112
0	R 1	57.11.3182		1k8	MF, 1%, 0207
0	R 2	57.11.3184		180k	MF, 1%, 0207
0	R 3	57.11.3223		22k	MF, 1%, 0207
0	R 4	57.11.3303		30k	MF, 1%, 0207
0	R 5	57.11.3105		1M0	MF, 1%, 0207
0	R 6	57.11.3103		10k	MF, 1%, 0207
0	R 7	57.11.3104		100k	MF, 1%, 0207
0	R 8	57.11.3333		33k	MF, 1%, 0207
0	R 9	57.11.3333		33k	MF, 1%, 0207
0	R 10	57.11.3104		100k	MF, 1%, 0207
0	R 11	57.11.3223		22k	MF, 1%, 0207
0	R 12	57.11.3182		1k8	MF, 1%, 0207
0	R 13	57.11.3104		100k	MF, 1%, 0207
0	R 14	57.11.3104		100k	MF, 1%, 0207
0	R 15	57.11.3222		2k2	MF, 1%, 0207
0	R 16	57.11.3622		6k2	MF, 1%, 0207
0	R 17	57.11.3182		1k8	MF, 1%, 0207
0	R 18	57.11.3472		4k7	MF, 1%, 0207
0	R 19	57.11.3472		4k7	MF, 1%, 0207
0	R 20	57.11.3392		3k9	MF, 1%, 0207
0	R 21	57.11.3393		39k	MF, 1%, 0207
0	R 22	57.11.3223		22k	MF, 1%, 0207
0	R 23	57.11.3911		910R	MF, 1%, 0207
0	R 24	57.11.3472		4k7	MF, 1%, 0207
0	R 25	57.11.3222		2k2	MF, 1%, 0207
0	R 26	57.11.3221		220R	MF, 1%, 0207
0	R 27	57.11.3223		22k	MF, 1%, 0207
0	R 28	57.11.3223		22k	MF, 1%, 0207
0	R 29	57.11.3153		15k	MF, 1%, 0207
0	R 30	57.11.3273		27k	MF, 1%, 0207
0	R 31	57.11.3273		27k	MF, 1%, 0207
0	R 32	57.11.3222		2k2	MF, 1%, 0207
0	R 33	57.11.3222		2k2	MF, 1%, 0207
0	R 34	57.11.3224		220k	MF, 1%, 0207
0	R 35	57.11.3224		220k	MF, 1%, 0207
0	R 36	57.11.3472		4k7	MF, 1%, 0207
0	R 37	57.11.3472		4k7	MF, 1%, 0207
0	R 38	57.11.3622		6k2	MF, 1%, 0207
0	R 39	57.11.3104		100k	MF, 1%, 0207
0	R 40	57.11.3104		100k	MF, 1%, 0207
0	R 41	57.11.3682		6k8	MF, 1%, 0207
0	R 42	57.11.3153		15k	MF, 1%, 0207

Group Unit Mono 1.928.230.83

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 43	57.11.3473		47k	MF, 1%, 0207
0	R 44	57.11.3473		47k	MF, 1%, 0207
0	R 45	57.11.3184		180k	MF, 1%, 0207
0	R 46	57.11.3103		10k	MF, 1%, 0207
0	R 47	57.11.3223		22k	MF, 1%, 0207
0	R 48	57.11.3331		330R	MF, 1%, 0207
0	R 49	57.11.3184		180k	MF, 1%, 0207
0	R 50	57.11.3104		100k	MF, 1%, 0207
0	R 51	57.11.3204		200k	MF, 1%, 0207
0	R 52	57.11.3302		3k0	MF, 1%, 0207
0	R 53	57.11.3332		3k3	MF, 1%, 0207
0	R 54	57.11.3224		220k	MF, 1%, 0207
0	R 55	57.11.3103		10k	MF, 1%, 0207
0	R 56	57.11.3224		220k	MF, 1%, 0207
0	R 57	57.11.3104		100k	MF, 1%, 0207
0	R 58	57.11.3472		4k7	MF, 1%, 0207
0	R 59	57.11.3331		330R	MF, 1%, 0207
0	R 60	57.11.3104		100k	MF, 1%, 0207
0	R 61	57.11.3103		10k	MF, 1%, 0207
0	R 62	57.11.3223		22k	MF, 1%, 0207
0	R 63	57.11.3223		22k	MF, 1%, 0207
0	R 64	57.11.3103		10k	MF, 1%, 0207
0	R 65	57.11.3223		22k	MF, 1%, 0207
0	R 66	57.11.3223		22k	MF, 1%, 0207
0	R 67	57.11.3473		47k	MF, 1%, 0207
0	R 68	57.11.3104		100k	MF, 1%, 0207
0	R 69	57.11.3473		47k	MF, 1%, 0207
0	R 70	57.11.3473		47k	MF, 1%, 0207
0	R 71	57.11.3473		47k	MF, 1%, 0207
0	R 72	57.11.3473		47k	MF, 1%, 0207
0	R 73	57.11.3473		47k	MF, 1%, 0207
0	R 74	57.11.3473		47k	MF, 1%, 0207
0	R 75	57.11.3104		100k	MF, 1%, 0207
0	R 76	57.11.3104		100k	MF, 1%, 0207
0	R 77	57.11.3104		100k	MF, 1%, 0207
0	R 78	57.11.3473		47k	MF, 1%, 0207
0	R 79	57.11.3104		100k	MF, 1%, 0207
0	R 80	57.11.3104		100k	MF, 1%, 0207
0	R 81	57.11.3472		4k7	MF, 1%, 0207
0	R 82	57.11.3104		100k	MF, 1%, 0207
0	R 83	57.11.3104		100k	MF, 1%, 0207
0	R 84	57.11.3104		100k	MF, 1%, 0207
0	R 85	57.11.3103		10k	MF, 1%, 0207
0	R 86	57.11.3472		4k7	MF, 1%, 0207
0	R 87	57.11.3151		150R	MF, 1%, 0207
0	R 88	57.11.3472		4k7	MF, 1%, 0207
0	R 89	57.11.3683		68k	MF, 1%, 0207
0	R 90	57.11.3103		10k	MF, 1%, 0207
0	R 91	57.11.3104		100k	MF, 1%, 0207
0	R 92	57.11.3223		22k	MF, 1%, 0207
0	R 93	57.11.3182		1k8	MF, 1%, 0207
0	R 94	57.11.3622		6k2	MF, 1%, 0207
0	R 95	57.11.3104		100k	MF, 1%, 0207
0	R 96	57.11.3153		15k	MF, 1%, 0207
0	R 97	57.11.3473		47k	MF, 1%, 0207
0	R 98	57.11.3682		6k8	MF, 1%, 0207
0	R 99	57.11.3104		100k	MF, 1%, 0207
0	R 100	57.11.3104		100k	MF, 1%, 0207
0	R 101	57.11.3104		100k	MF, 1%, 0207
0	R 102	57.11.3104		100k	MF, 1%, 0207
0	R 103	57.11.3222		2k2	MF, 1%, 0207
0	R 104	57.11.3182		1k8	MF, 1%, 0207
0	R 105	57.11.3622		6k2	MF, 1%, 0207
0	R 106	57.11.3472		4k7	MF, 1%, 0207
0	R 107	57.11.3104		100k	MF, 1%, 0207
0	R 108	57.11.3104		100k	MF, 1%, 0207
0	R 109	57.11.3473		47k	MF, 1%, 0207
0	R 110	57.11.3104		100k	MF, 1%, 0207
0	R 111	57.11.3103		10k	MF, 1%, 0207
0	R 112	57.11.3392		3k9	MF, 1%, 0207
0	R 113	57.99.0260		3k9	MF 1%, 0207, +3300ppm
0	R 114	57.11.3332		3k3	MF, 1%, 0207
0	R 115	57.11.3334		330k	MF, 1%, 0207
0	R 116	57.11.3470		47R	MF, 1%, 0207
0	R 117	57.11.3473		47k	MF, 1%, 0207
0	R 118	57.11.3273		27k	MF, 1%, 0207
0	R 119	57.11.3273		27k	MF, 1%, 0207
0	R 120	57.11.3682		6k8	MF, 1%, 0207
0	R 121	57.11.3104		100k	MF, 1%, 0207
0	R 122	57.11.3392		3k9	MF, 1%, 0207
0	R 123	57.11.3472		4k7	MF, 1%, 0207
0	R 124	57.11.3273		27k	MF, 1%, 0207
0	R 125	57.11.3151		150R	MF, 1%, 0207
0	R 126	57.11.3224		220k	MF, 1%, 0207
0	R 127	57.11.3223		22k	MF, 1%, 0207
0	R 128	57.11.3124		120k	MF, 1%, 0207
0	R 129	57.11.3103		10k	MF, 1%, 0207
0	R 130	57.11.3103		10k	MF, 1%, 0207
0	R 131	57.11.3823		82k	MF, 1%, 0207
0	R 132	57.11.3683		68k	MF, 1%, 0207
0	R 133	57.11.3224		220k	MF, 1%, 0207
0	R 134	57.11.3154		150k	MF, 1%, 0207
0	R 135	57.11.3824		820k	MF, 1%, 0207
0	R 136	57.11.3102		1k0	MF, 1%, 0207
1	R 137	57.11.3222		2k2	MF, 1%, 0207
0	R 138	57.11.3823		82k	MF, 1%, 0207
0	R 139	57.11.3682		6k8	MF, 1%, 0207
0	R 140	57.11.3184		180k	MF, 1%, 0207
0	R 141	57.11.3222		2k2	MF, 1%, 0207
0	R 142	57.11.3103		10k	MF, 1%, 0207
0	R 143	57.11.3473		47k	MF, 1%, 0207
0	R 144	57.11.3103		10k	MF, 1%, 0207
0	R 145	57.11.3133		13k	MF, 1%, 0207
0	R 146	57.11.3394		390k	MF, 1%, 0207
0	R 147	57.11.5185		1M8	MF, 5%, 0207
0	R 148	57.11.3104		100k	MF, 1%, 0207
0	R 149	57.11.3104		100k	MF, 1%, 0207
0	R 150	57.11.3104		100k	MF, 1%, 0207
0	R 151	57.11.3273		27k	MF, 1%, 0207
0	R 152	57.11.3273		27k	MF, 1%, 0207
0	R 153	57.11.3472		4k7	MF, 1%, 0207
0	R 154	57.11.3472		4k7	MF, 1%, 0207
0	R 155	57.11.3472		4k7	MF, 1%, 0207
0	R 156	57.11.3103		10k	MF, 1%, 0207
0	R 157	57.11.3103		10k	MF, 1%, 0207
0	R 158	57.11.3332		3k3	MF, 1%, 0207
0	R 159	57.11.3332		3k3	MF, 1%, 0207
0	R 160	57.11.3333		33k	MF, 1%, 0207
0	R 161	57.11.3332		3k3	MF, 1%, 0207
0	R 162	57.11.3332		3k3	MF, 1%, 0207
0	R 163	57.11.3104		100k	MF, 1%, 0207
0	R 164	57.11.3103		10k	MF, 1%, 0207
0	R 165	57.11.3223		22k	MF, 1%, 0207
0	R 166	57.11.3101		100R	MF, 1%, 0207
0	R 167	57.11.3104		100k	MF, 1%, 0207
0	R 168	57.69.8301		10k	PTC, 1%, +3300 PPM
0	R 169	57.69.8301		10k	PTC, 1%, +3300 PPM
0	R 170	57.11.3102		1k0	MF, 1%, 0207
0	R 171	57.11.3102		1k0	MF, 1%, 0207
0	R 172	57.11.3151		150R	MF, 1%, 0207
0	R 173	57.11.3472		4k7	MF, 1%, 0207
0	R 174	57.11.3683		68k	MF, 1%, 0207
0	R 175	57.92.7021		0.9A	POLY- PTC, 60V
0	R 176	57.92.7021		0.9A	POLY- PTC, 60V
0	R 177	57.11.3822		8k2	MF, 1%, 0207
0	R 178	57.11.3682		6k8	MF, 1%, 0207
0	R 179	57.11.3393		39k	MF, 1%, 0207
0	R 180	57.11.3682		6k8	MF, 1%, 0207
0	R 181	57.11.3682		6k8	MF, 1%, 0207
0	R 182	57.11.3682		6k8	MF, 1%, 0207
0	R 183	57.11.3682		6k8	MF, 1%, 0207
0	R 184	57.11.3682		6k8	MF, 1%, 0207
0	R 185	57.11.3682		6k8	MF, 1%, 0207
0	R 186	57.11.3682		6k8	MF, 1%, 0207
0	R 187	57.11.3682		6k8	MF, 1%, 0207
0	R 188	57.11.3682		6k8	MF, 1%, 0207
0	R 189	57.11.3682		6k8	MF, 1%, 0207
0	R 190	57.11.3682		6k8	MF, 1%, 0207
0	R 191	57.11.3682		6k8	MF, 1%, 0207
0	R 192	57.11.3682		6k8	MF, 1%, 0207
0	R 193	57.11.3682		6k8	MF, 1%, 0207
0	R 194	57.11.3682		6k8	MF, 1%, 0207
0	R 195	57.11.3682		6k8	MF, 1%, 0207
0	R 196	57.11.3682		6k8	MF, 1%, 0207
0	R 197	57.11.3682		6k8	MF, 1%, 0207
0	R 198	57.11.3682		6k8	MF, 1%, 0207
0	R 199	57.11.3682		6k8	MF, 1%, 0207
0	R 200	57.11.3472		4k7	MF, 1%, 0207
0	R 201	57.11.3473		47k	MF, 1%, 0207
0	R 202	57.11.3104		100k	MF, 1%, 0207
0	R 203	57.11.3273		27k	MF, 1%, 0207
0	R 204	57.11.3273		27k	MF, 1%, 0207
0	R 205	57.11.3104		100k	MF, 1%, 0207
0	R 206	57.11.3104		100k	MF, 1%, 0207
0	R 207	57.11.3104		100k	MF, 1%, 0207
0	R 208	57.11.3103		10k	MF, 1%, 0207
0	R 209	57.11.3104		100k	MF, 1%, 0207
0	R 210	57.11.3103		10k	MF, 1%, 0207
0	R 211	57.11.3473		47k	MF, 1%, 0207
0	R 212	57.11.3101		100R	MF, 1%, 0207
0	R 213	57.11.3512		5k1	MF, 1%, 0207
0	R 214	57.11.3330		33R	MF, 1%, 0207
0	R 215	57.11.3223		22k	MF, 1%, 0207
0	R 216	57.11.3223		22k	MF, 1%, 0207
0	R 217	57.11.3100		10R	MF, 1%, 0207
0	R 218	not used		270k	MF, 1%, 0207
0	R 219	not used		270k	MF, 1%, 0207
0	R 220	57.11.3102		1k0	MF, 1%, 0207

Group Unit Mono 1.928.230.83

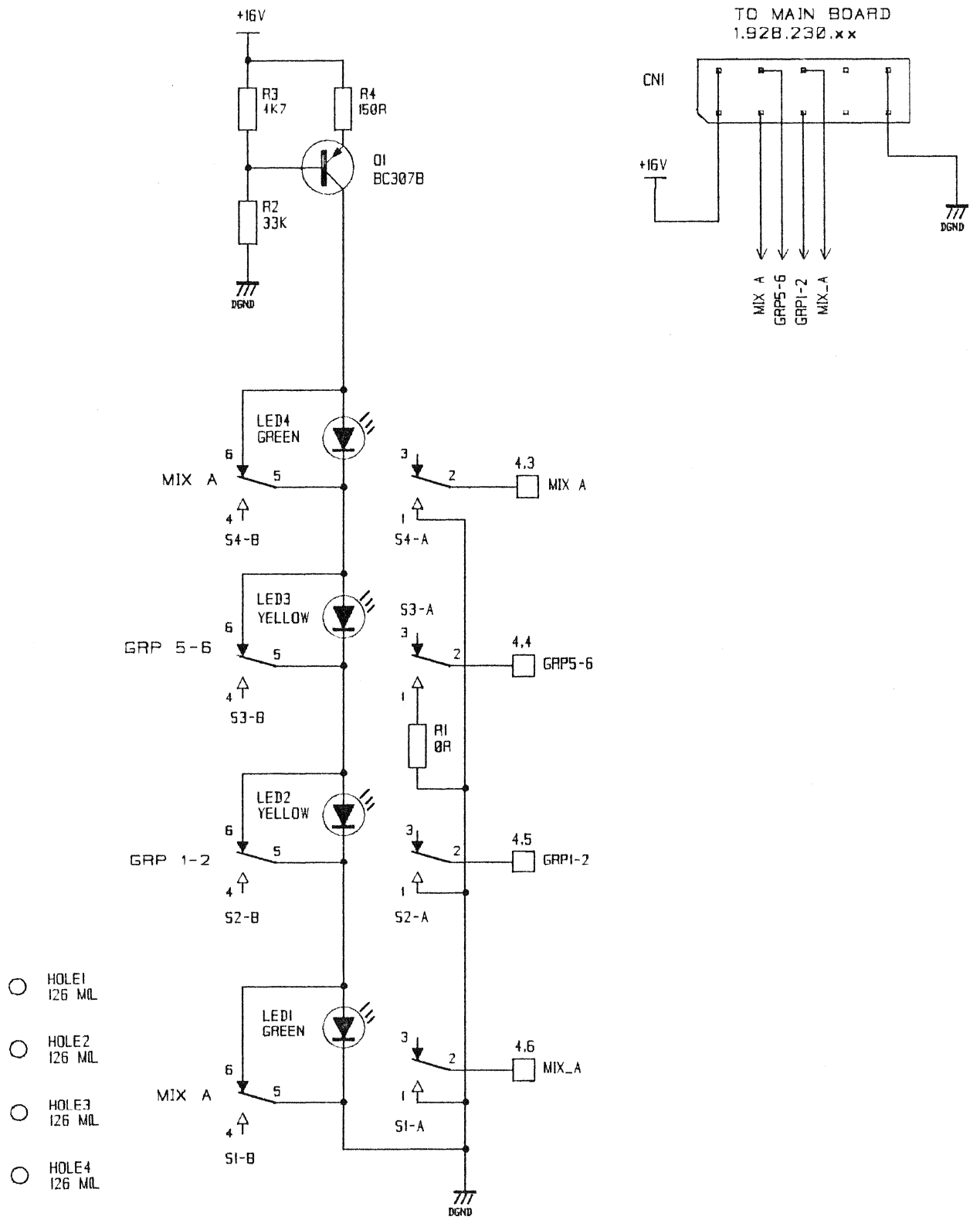
Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 221	57.11.3222		2k2	MF, 1%, 0207
0	R 222	57.11.3102		1k0	MF, 1%, 0207
0	R 223	57.11.3473		47k	MF, 1%, 0207
0	R 224	57.11.3105		1M0	MF, 1%, 0207
0	R 225	57.11.3682		6k8	MF, 1%, 0207
0	RL 1	56.02.1101		K	Reed Relay
0	RN 1	57.88.2223		4*22k	2%, SIP 8
0	RN 2	57.88.2103		4*10k	2%, SIP 8
0	RN 3	57.88.2223		4*22k	2%, SIP 8
0	RN 4	57.88.4104		8*100k	2%, SIP 9
0	RN 5	57.88.2103		4*10k	2%, SIP 8
0	RN 6	57.88.2103		4*10k	2%, SIP 8
0	RN 7	57.88.2103		4*10k	2%, SIP 8
0	RN 8	57.88.2103		4*10k	2%, SIP 8
0	RN 9	57.88.2682		4*6k8	2%, SIP 8
0	RN 10	57.88.2682		4*6k8	2%, SIP 8
0	RN 11	57.88.2682		4*6k8	2%, SIP 8
0	RN 12	57.88.4104		8*100k	2%, SIP 9
0	RN 13	57.88.2103		4*10k	2%, SIP 8
0	RN 14	57.88.2223		4*22k	2%, SIP 8
0	RN 15	57.88.2103		4*10k	2%, SIP 8
0	RN 16	57.88.2103		4*10k	2%, SIP 8
0	RN 17	57.88.2682		4*6k8	2%, SIP 8
0	RN 18	57.88.2682		4*6k8	2%, SIP 8
0	RN 19	57.88.2682		4*6k8	2%, SIP 8
0	RN 20	57.88.2103		4*10k	2%, SIP 8
0	RN 21	57.88.2223		4*22k	2%, SIP 8
0	S 1	55.15.0931		2*u	rastend
0	S 2	55.15.0931		2*u	rastend
0	S 3	55.15.0931		2*u	rastend
0	S 4	55.15.0931		2*u	rastend
0	S 5	55.15.0935		6*u	rastend
0	S 6	55.15.0935		6*u	rastend
0	S 7	55.15.0933		4*u	rastend
0	S 8	55.15.0932		2*u	impuls
0	S 9	55.15.0931		2*u	rastend
0	S 10	55.15.0933		4*u	rastend
0	S 11	55.15.0931		2*u	rastend
0	S 12	55.15.0931		2*u	rastend
0	S 13	55.15.0931		2*u	rastend
0	S 14	55.15.0931		2*u	rastend
0	S 15	55.15.0931		2*u	rastend
0	S 16	55.15.0931		2*u	rastend
0	S 17	55.15.0931		2*u	rastend
0	S 18	1.928.208.00			MIYAMA SWITCH NON LATCH. BOARD
0	S 19	55.15.0932		2*u	impuls
0	TR 1	1.022.368.00			Line Output Trafo 6 dB
0	VR 1	58.20.6601		20k+/20k-	2*R
0	VR 2	58.20.6602		2*50k lin	2*R
0	VR 3	58.20.6604		10k lin/20k -lo	2*R
0	VR 4	58.20.6502		250k lin	1*R
0	VR 5	58.20.6603		2* 5k lin	2*R
0	VR 6	58.20.6801		2*20k-/20k lin	3*R, Doppelachse
0	VR 7	58.20.6801		2*20k-/20k lin	3*R, Doppelachse
0	VR 8	58.20.6701		2*50k lin	2*R, Doppelachse
0	VR 9	58.20.6701		2*50k lin	2*R, Doppelachse
0	VR 10	58.20.6701		2*50k lin	2*R, Doppelachse
0	VR 11	58.20.6601		20k+/20k-	2*R

End of List

Comments

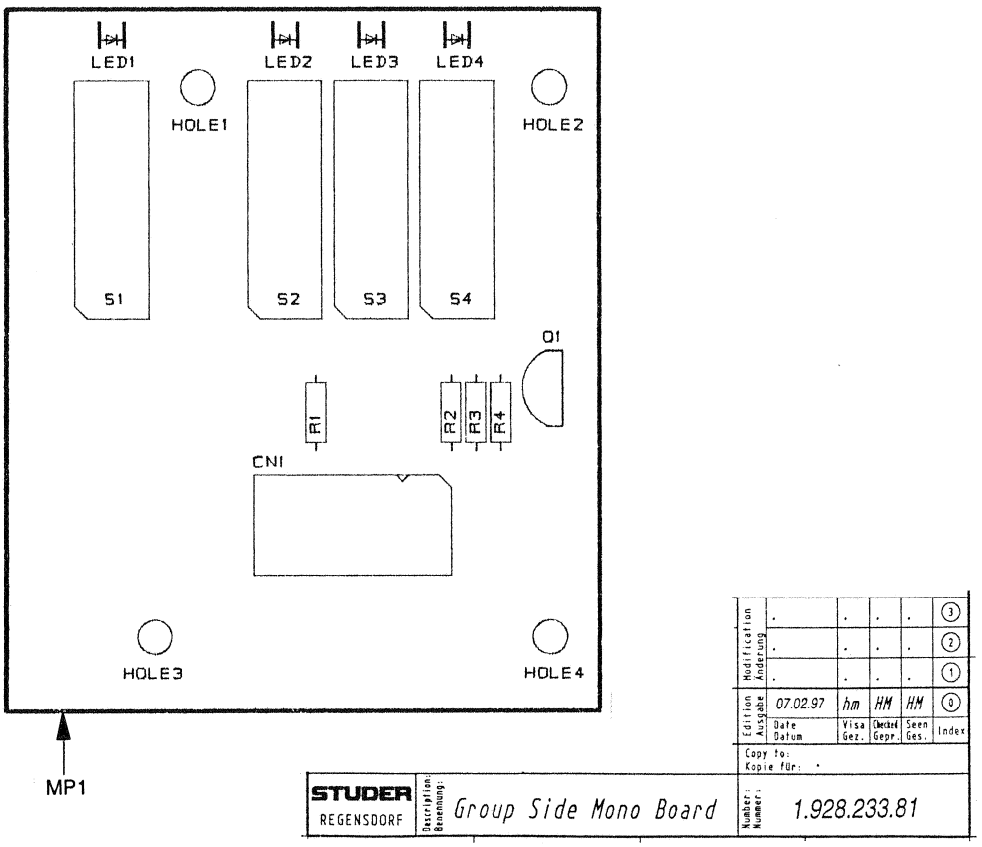
(1) R137 value modification

Group Side Mono Board 1.928.233.81



@ 07.02.97 PG				PAGE 1/1
STUDER	GROUP SIDE MO/GR MONO BOARD		SC	1.928.233.81

Group Side Mono Board 1.928.233.81



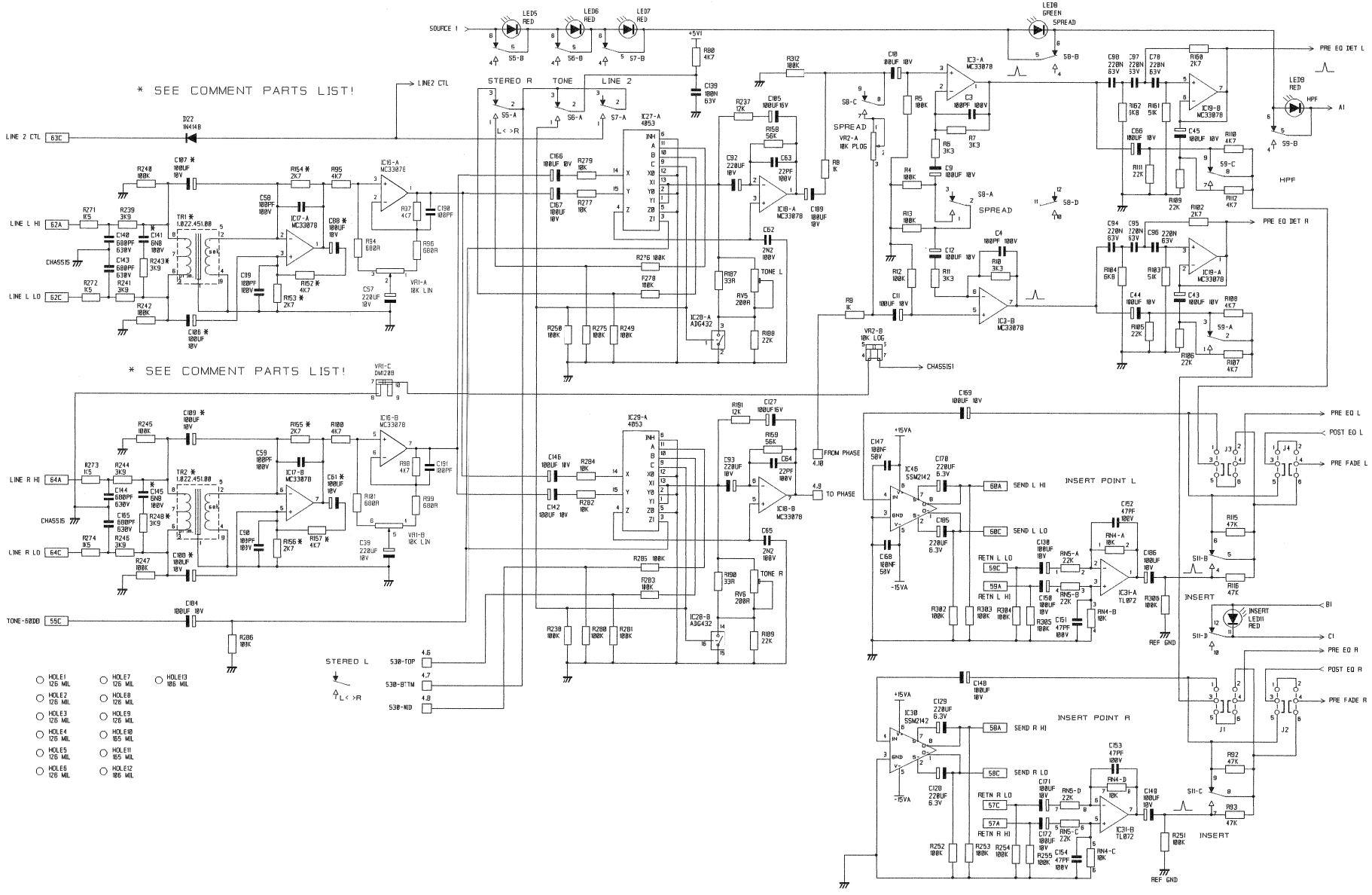
Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	CN 1	1.023.110.07			FLACHKABEL 10 POL. 0,065M
0	LED 1	50.04.2206		934GT	LED 3mm green
0	LED 2	50.04.2205		934YT	LED 3mm yellow
0	LED 3	50.04.2205		934YT	LED 3mm yellow
0	LED 4	50.04.2206		934GT	LED 3mm green
0	MP 1	1.928.233.11	1 pce		INPUT SIDE MO/GR PCB
0	MP 2	1.928.233.04	1 pce		NR. ETIKETTE 5X20
0	Q 1	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	R 1	57.11.3000		0R0	MF, 0207
0	R 2	57.11.3333		33k	MF, 1%, 0207
0	R 3	57.11.3472		4k7	MF, 1%, 0207
0	R 4	57.11.3151		150R	MF, 1%, 0207
0	S 1	55.15.0931		2*u	rastend
0	S 2	55.15.0931		2*u	rastend
0	S 3	55.15.0931		2*u	rastend
0	S 4	55.15.0931		2*u	rastend

End of List

Comments

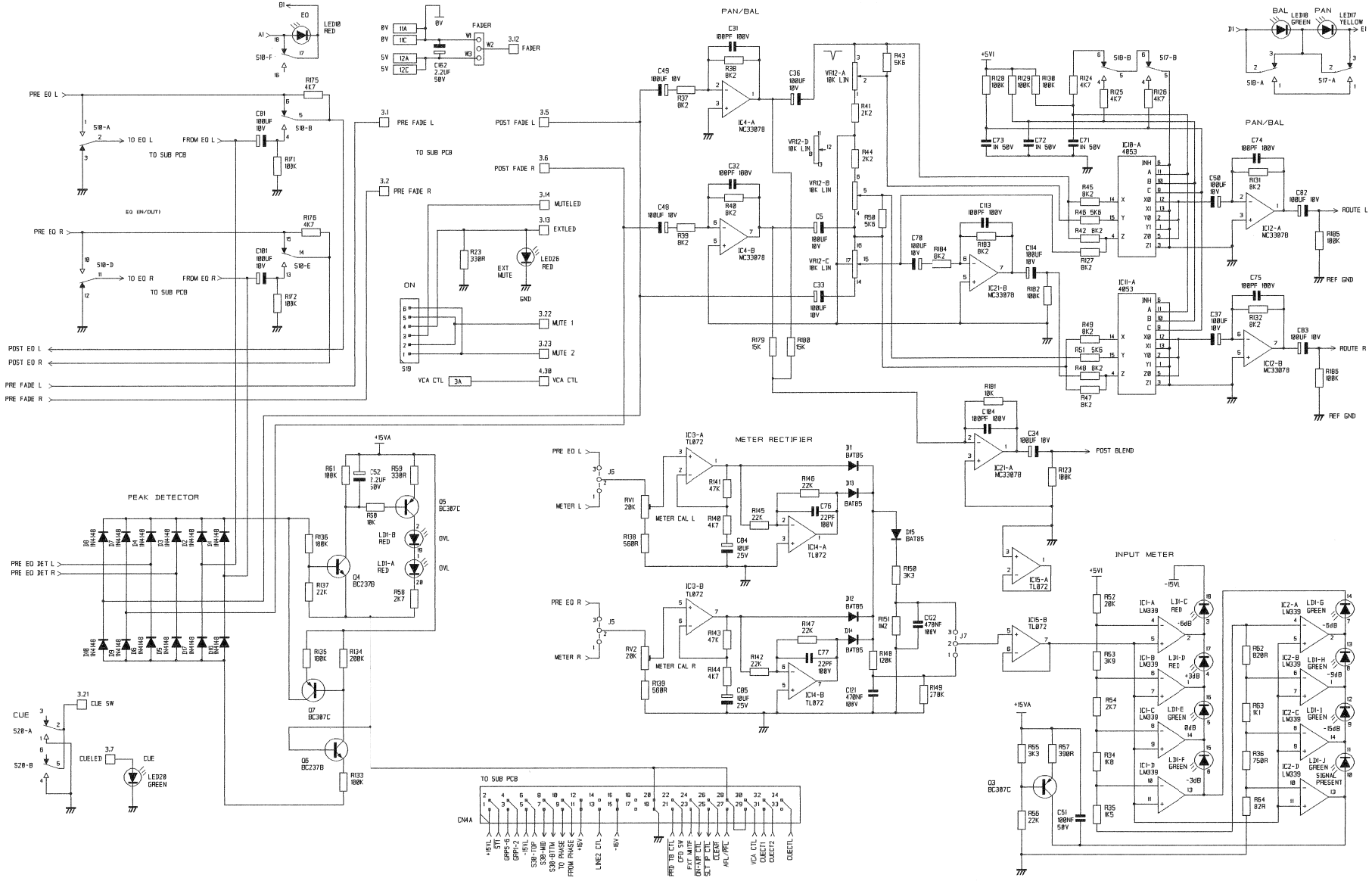
Input Unit Stereo High Level with Equalizer 1.928.255.81

*Input Unit Stereo with Equalizer Trafo 1.928.257.81



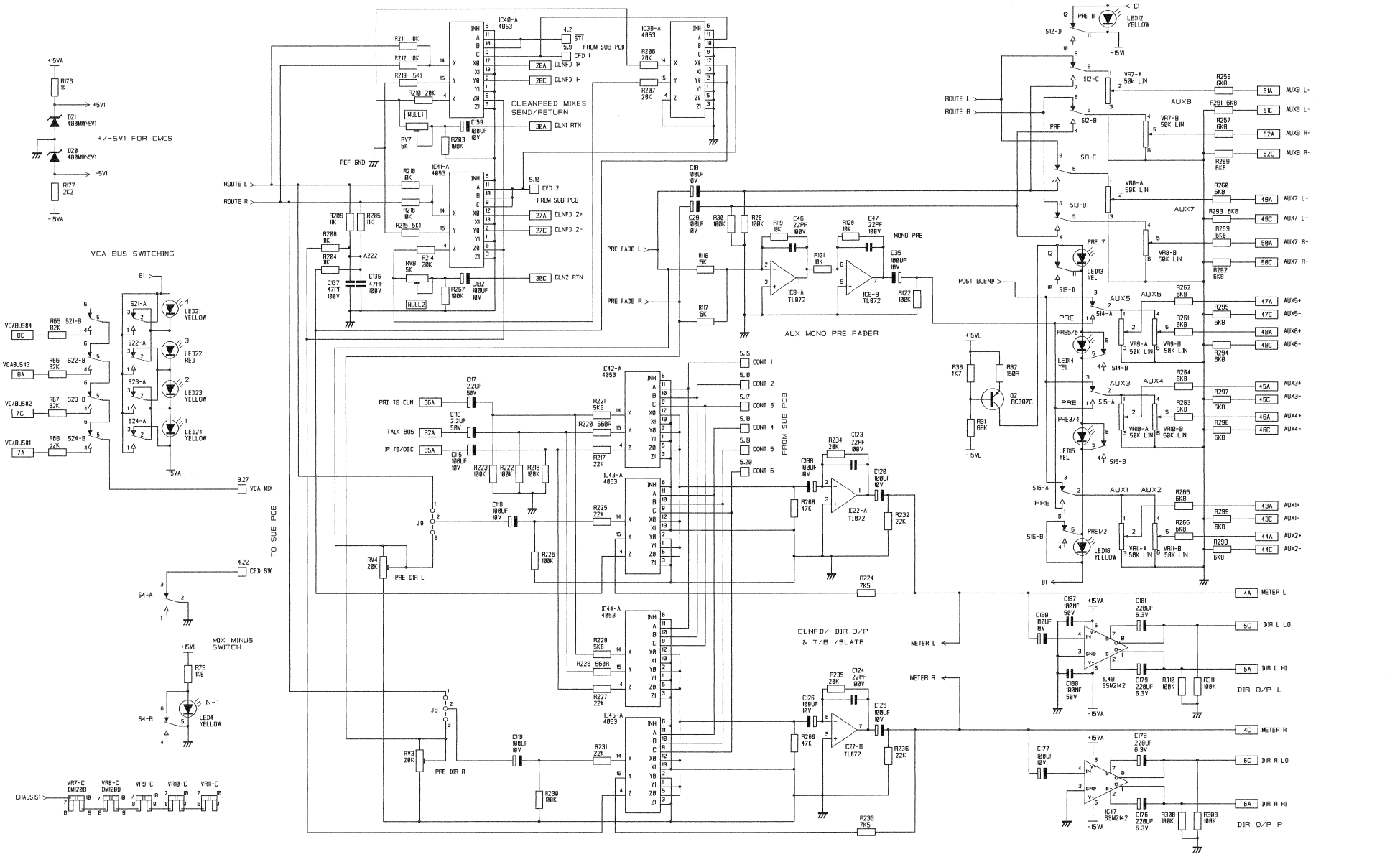
Input Unit Stereo High Level with Equalizer 1.928.255.81

*Input Unit Stereo with Equalizer Trafo 1.928.257.81



Input Unit Stereo High Level with Equalizer 1.928.255.81

*Input Unit Stereo with Equalizer Trafo 1.928.257.81



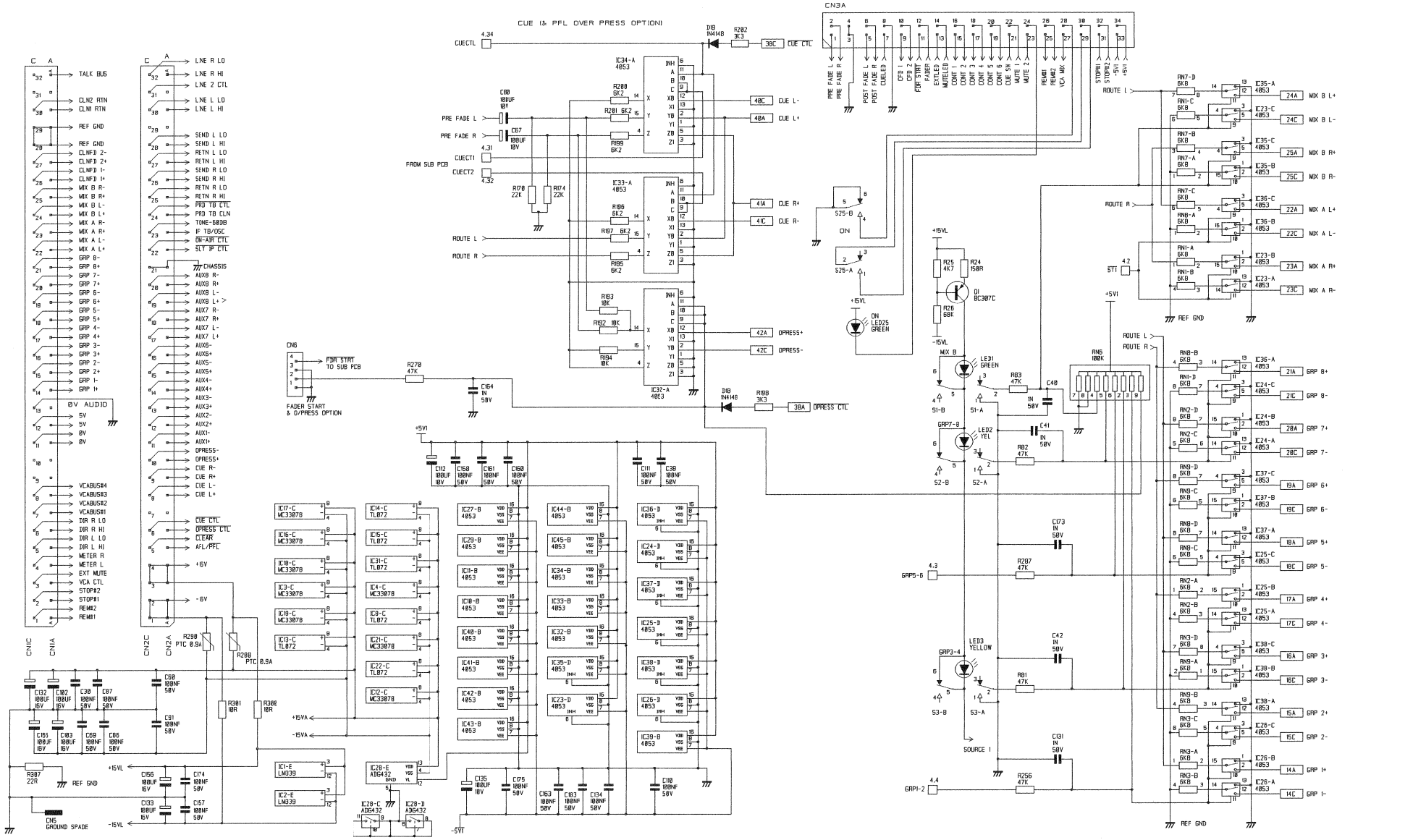
* 1.928.257.xx INPUT UNIT STEREO W EQ/TRAFO

SECTION 4

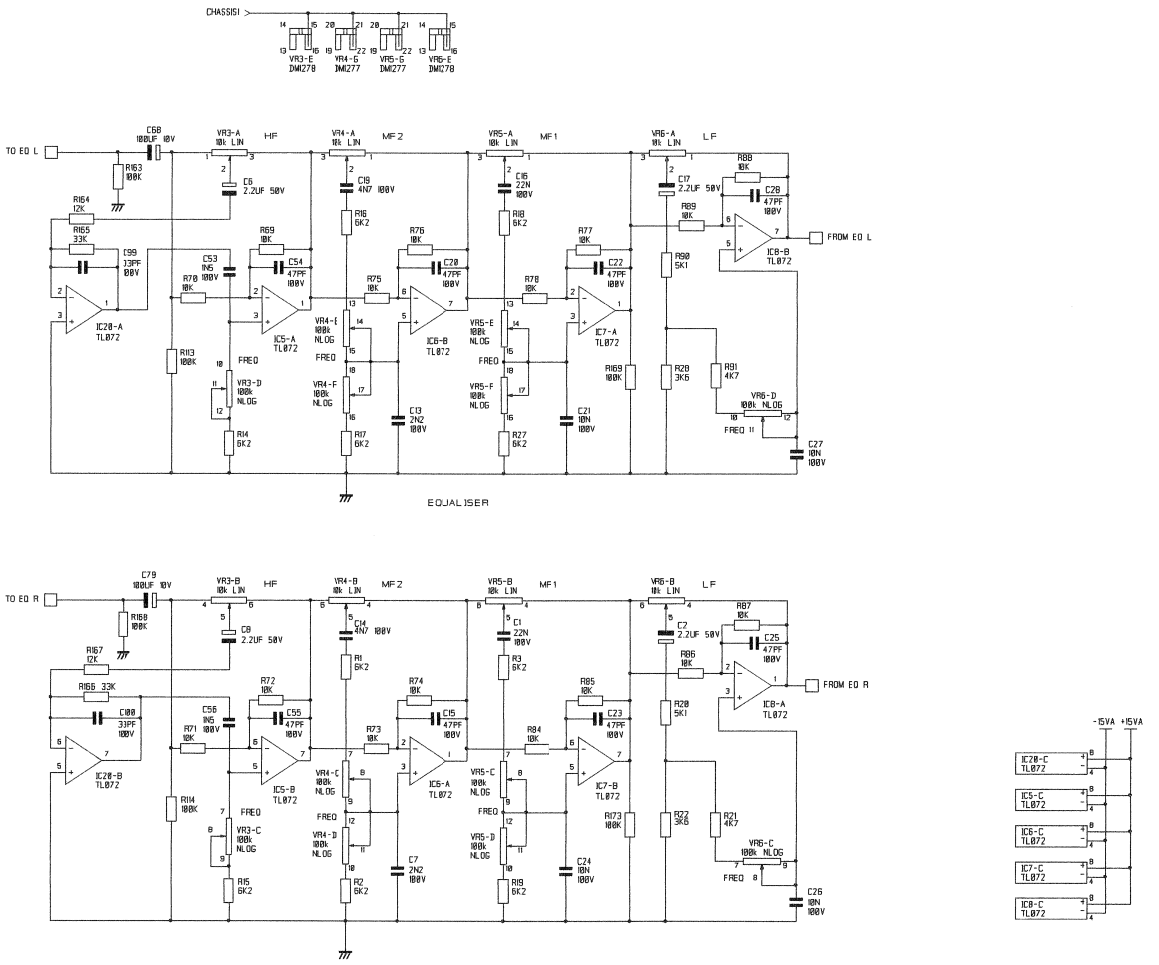
⑧ 08.11.01 PG	① 27.08.02				PAGE 3/5
STUDER	INPUT UNIT STEREO HL W. EQ	SC	1.928.255.81		

Input Unit Stereo High Level with Equalizer 1.928.255.81

*Input Unit Stereo with Equalizer Trafo 1.928.257.81



Input Unit Stereo High Level with Equalizer 1.928.255.81
*Input Unit Stereo with Equalizer Trafo 1.928.257.81

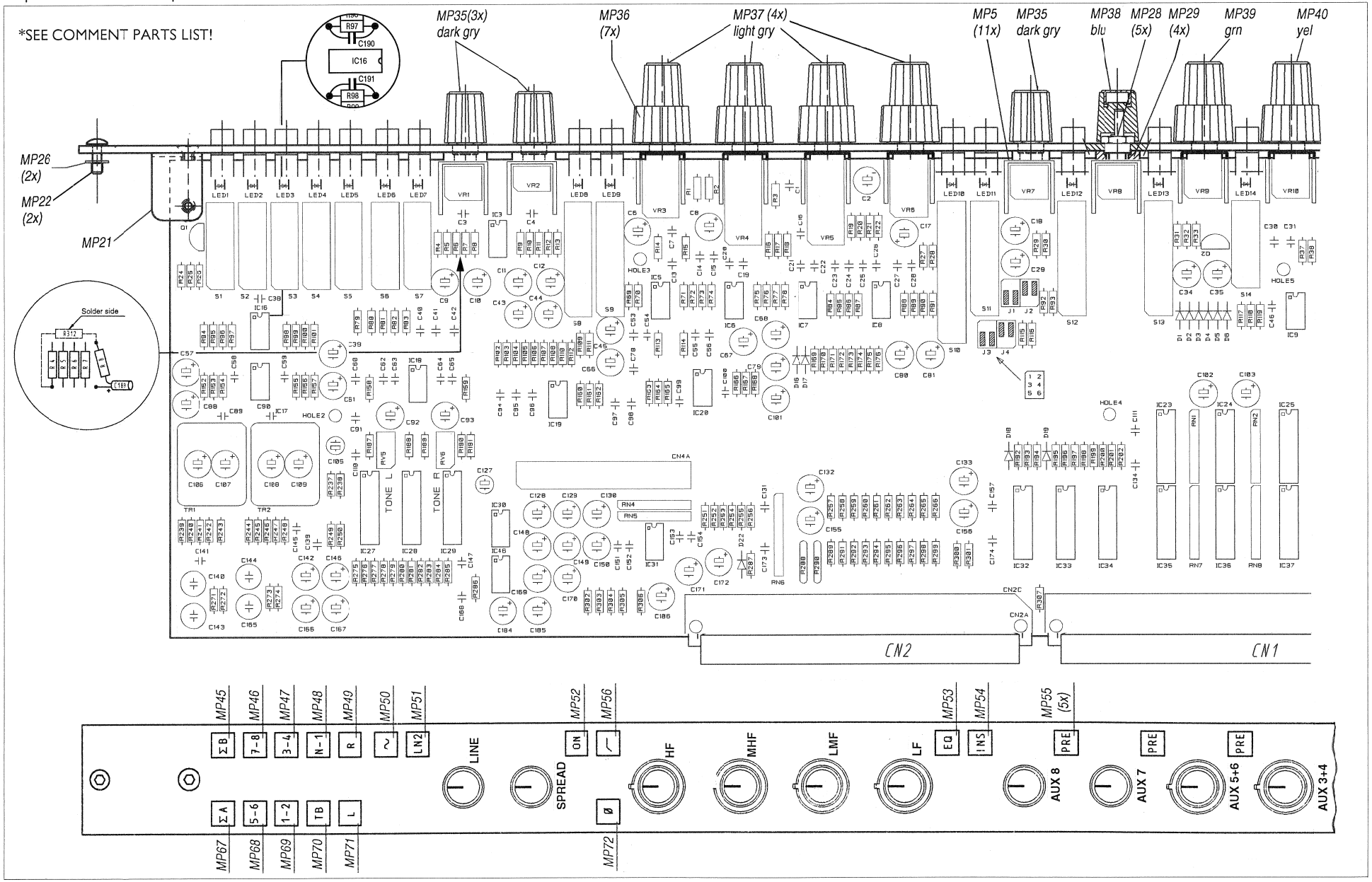


* 1.928.257.xx INPUT UNIT STEREO W. EQ/TRAFO

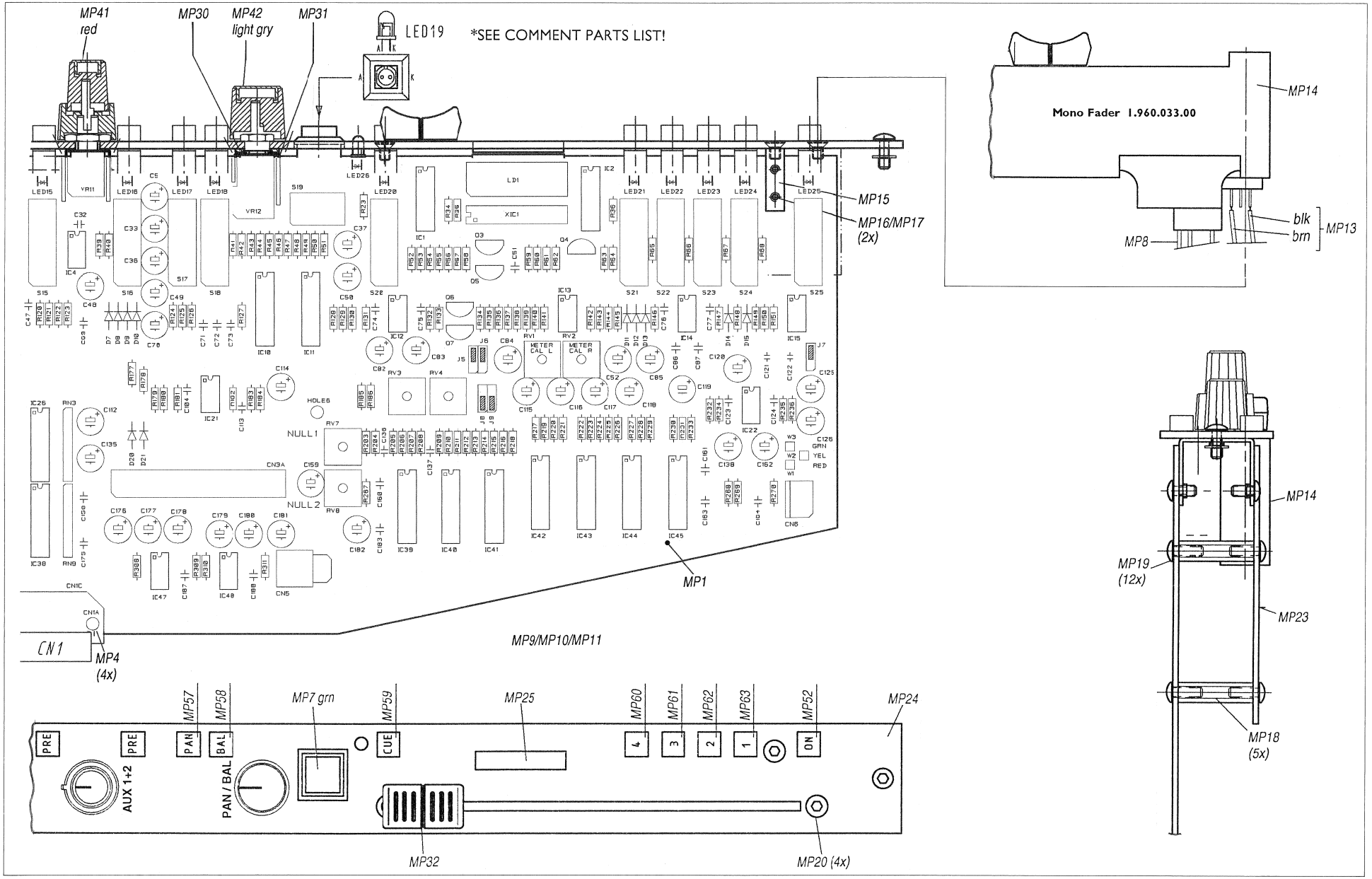
② 08.11.01 PG.	① 27.08.02	○	○	○	PAGE 5/5
STUDER	INPUT UNIT STEREO HL W. EQ		SC	1.928.255.81	

Input Unit Stereo High Level with Equalizer 1.928.250.81

*Input Unit Stereo with Equalizer Trafo 1.928.252.81



Input Unit Stereo High Level with Equalizer 1.928.250.81
*Input Unit Stereo with Equalizer Trafo 1.928.252.81



Input Unit Stereo HL w. EQ 1.928.255.81 (1)

Input Unit Stereo HL w. EQ & Transf. 1.928.257.81 (1)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 2	59.22.8229		2u2	EL 50V 20% RM5
0	C 3	59.34.4101		100p	CER 63V, 5%, N750
0	C 4	59.34.4101		100p	CER 63V, 5%, N750
0	C 5	59.22.4002		100u	EL 16V 20% RM5
0	C 6	59.22.8229		2u2	EL 50V 20% RM5
0	C 7	59.06.0222		2n2	PETP, 63V, 10%, RM5
0	C 8	59.22.8229		2u2	EL 50V 20% RM5
0	C 9	59.22.4002		100u	EL 16V 20% RM5
0	C 10	59.22.4002		100u	EL 16V 20% RM5
0	C 11	59.22.4002		100u	EL 16V 20% RM5
0	C 12	59.22.4002		100u	EL 16V 20% RM5
0	C 13	59.06.0222		2n2	PETP, 63V, 10%, RM5
0	C 14	59.06.0472		4n7	PETP, 63V, 10%, RM5
0	C 15	59.34.2470		47p	CER 63V, 5%, N150
0	C 16	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 17	59.22.8229		2u2	EL 50V 20% RM5
0	C 18	59.22.4002		100u	EL 16V 20% RM5
0	C 19	59.06.0472		4n7	PETP, 63V, 10%, RM5
0	C 20	59.34.2470		47p	CER 63V, 5%, N150
0	C 21	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 22	59.34.2470		47p	CER 63V, 5%, N150
0	C 23	59.34.2470		47p	CER 63V, 5%, N150
0	C 24	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 25	59.34.2470		47p	CER 63V, 5%, N150
0	C 26	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 27	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 28	59.34.2470		47p	CER 63V, 5%, N150
0	C 29	59.22.4002		100u	EL 16V 20% RM5
0	C 30	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 31	59.34.4101		100p	CER 63V, 5%, N750
0	C 32	59.34.4101		100p	CER 63V, 5%, N750
0	C 33	59.22.4002		100u	EL 16V 20% RM5
0	C 34	59.22.4002		100u	EL 16V 20% RM5
0	C 35	59.22.4002		100u	EL 16V 20% RM5
0	C 36	59.22.4002		100u	EL 16V 20% RM5
0	C 37	59.22.4002		100u	EL 16V 20% RM5
0	C 38	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 39	59.22.3003		220u	EL 10V 20% RM5
0	C 40	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 41	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 42	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 43	59.22.4002		100u	EL 16V 20% RM5
0	C 44	59.22.4002		100u	EL 16V 20% RM5
0	C 45	59.22.4002		100u	EL 16V 20% RM5
0	C 46	59.34.2220		22p	CER 63V, 5%, N150
0	C 47	59.34.2220		22p	CER 63V, 5%, N150
0	C 48	59.22.4002		100u	EL 16V 20% RM5
0	C 49	59.22.4002		100u	EL 16V 20% RM5
0	C 50	59.22.4002		100u	EL 16V 20% RM5
0	C 51	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 52	59.22.8229		2u2	EL 50V 20% RM5
0	C 53	59.06.0152		1n5	PETP, 63V, 10%, RM5
0	C 54	59.34.2470		47p	CER 63V, 5%, N150
0	C 55	59.34.2470		47p	CER 63V, 5%, N150
0	C 56	59.06.0152		1n5	PETP, 63V, 10%, RM5
0	C 57	59.22.3003		220u	EL 10V 20% RM5
0	C 58	59.34.4101		100p	CER 63V, 5%, N750
0	C 59	59.34.4101		100p	CER 63V, 5%, N750
0	C 60	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 61	not used		100u	EL 16V 20% RM5
				Used with transformer only!	
0	C 62	59.06.0222		2n2	PETP, 63V, 10%, RM5
0	C 63	59.34.2220		22p	CER 63V, 5%, N150
0	C 64	59.34.2220		22p	CER 63V, 5%, N150
0	C 65	59.06.0222		2n2	PETP, 63V, 10%, RM5
0	C 66	59.22.4002		100u	EL 16V 20% RM5
0	C 67	59.22.4002		100u	EL 16V 20% RM5
0	C 68	59.22.4002		100u	EL 16V 20% RM5
0	C 69	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 70	59.22.4002		100u	EL 16V 20% RM5
0	C 71	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 72	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 73	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 74	59.34.4101		100p	CER 63V, 5%, N750
0	C 75	59.34.4101		100p	CER 63V, 5%, N750
0	C 76	59.34.2220		22p	CER 63V, 5%, N150
0	C 77	59.34.2220		22p	CER 63V, 5%, N150
0	C 78	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 79	59.22.4002		100u	EL 16V 20% RM5
0	C 80	59.22.4002		100u	EL 16V 20% RM5
0	C 81	59.22.4002		100u	EL 16V 20% RM5
0	C 82	59.22.4002		100u	EL 16V 20% RM5
0	C 83	59.22.4002		100u	EL 16V 20% RM5
0	C 84	59.22.6100		10u	EL 35V 20% RM5
0	C 85	59.22.6100		10u	EL 35V 20% RM5
0	C 86	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 87	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 88	not used		100u	EL 16V 20% RM5
				Used with transformer only!	
0	C 89	59.34.4101		100p	CER 63V, 5%, N750
0	C 90	59.34.4101		100p	CER 63V, 5%, N750
0	C 91	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 92	59.22.3003		220u	EL 10V 20% RM5
0	C 93	59.22.3003		220u	EL 10V 20% RM5
0	C 94	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 95	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 96	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 97	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 98	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 99	59.34.2330		33p	CER 63V, 5%, N150
0	C 100	59.34.2330		33p	CER 63V, 5%, N150
0	C 101	59.22.4002		100u	EL 16V 20% RM5
0	C 102	59.22.4002		100u	EL 16V 20% RM5
0	C 103	59.22.4002		100u	EL 16V 20% RM5
0	C 104	59.34.4101		100p	CER 63V, 5%, N750
0	C 105	59.22.4002		100u	EL 16V 20% RM5
0	C 106	59.22.4002		100u	EL 16V 20% RM5
				Used without transformer only!	
0	C 107	59.22.4002		100u	EL 16V 20% RM5
				Used without transformer only!	
0	C 108	59.22.4002		100u	EL 16V 20% RM5
				Used without transformer only!	
0	C 109	59.22.4002		100u	EL 16V 20% RM5
				Used without transformer only!	
0	C 110	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 111	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 112	59.22.4002		100u	EL 16V 20% RM5
0	C 113	59.34.4101		100p	CER 63V, 5%, N750
0	C 114	59.22.4002		100u	EL 16V 20% RM5
0	C 115	59.22.4002		100u	EL 16V 20% RM5
0	C 116	59.22.8229		2u2	EL 50V 20% RM5
0	C 117	59.22.8229		2u2	EL 50V 20% RM5
0	C 118	59.22.4002		100u	EL 16V 20% RM5
0	C 119	59.22.4002		100u	EL 16V 20% RM5
0	C 120	59.22.4002		100u	EL 16V 20% RM5
0	C 121	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 122	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 123	59.34.2220		22p	CER 63V, 5%, N150
0	C 124	59.34.2220		22p	CER 63V, 5%, N150
0	C 125	59.22.4002		100u	EL 16V 20% RM5
0	C 126	59.22.4002		100u	EL 16V 20% RM5
0	C 127	59.22.4002		100u	EL 16V 20% RM5
0	C 128	59.22.3003		220u	EL 10V 20% RM5
0	C 129	59.22.3003		220u	EL 10V 20% RM5
0	C 130	59.22.4002		100u	EL 16V 20% RM5
0	C 131	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 132	59.22.4002		100u	EL 16V 20% RM5
0	C 133	59.22.4002		100u	EL 16V 20% RM5
0	C 134	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 135	59.22.4002		100u	EL 16V 20% RM5
0	C 136	59.34.2470		47p	CER 63V, 5%, N150
0	C 137	59.34.2470		47p	CER 63V, 5%, N150
0	C 138	59.22.4002		100u	EL 16V 20% RM5
0	C 139	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 140	59.05.1681		680p	PP, 1%, 630V
0	C 141	not used		6n8	PETP, 63V, 10%, RM5
				Used with transformer only!	
0	C 142	59.22.4002		100u	EL 16V 20% RM5
0	C 143	59.05.1681		680p	PP, 1%, 630V
0	C 144	59.05.1681		680p	PP, 1%, 630V
0	C 145	not used		6n8	PETP, 63V, 10%, RM5
				Used with transformer only!	
0	C 146	59.22.4002		100u	EL 16V 20% RM5
0	C 147	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 148	59.22.4002		100u	EL 16V 20% RM5
0	C 149	59.22.4002		100u	EL 16V 20% RM5
0	C 150	59.22.4002		100u	EL 16V 20% RM5
0	C 151	59.34.2470		47p	CER 63V, 5%, N150
0	C 152	59.34.2470		47p	CER 63V, 5%, N150
0	C 153	59.34.2470		47p	CER 63V, 5%, N150
0	C 154	59.34.2470		47p	CER 63V, 5%, N150
0	C 155	59.22.4002		100u	EL 16V 20% RM5
0	C 156	59.22.4002		100u	EL 16V 20% RM5
0	C 157	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 158	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 159	59.22.4002		100u	EL 16V 20% RM5
0	C 160	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 161	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 162	59.22.8229		2u2	EL 50V 20% RM5
0	C 163	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 164	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 165	59.05.1681		680p	PP, 1%, 630V
0	C 166	59.22.4002		100u	EL 16V 20% RM5
0	C 167	59.22.4002		100u	EL 16V 20% RM5
0	C 168	59.06.0104		100n	PETP, 63V, 10%, RM5

Input Unit Stereo HL w. EQ 1.928.255.81 (1)

Input Unit Stereo HL w. EQ & Transf. 1.928.257.81 (1)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 169	59.22.4002		100u	EL 16V 20% RM5
0	C 170	59.22.3003		220u	EL 10V 20% RM5
0	C 171	59.22.4002		100u	EL 16V 20% RM5
0	C 172	59.22.4002		100u	EL 16V 20% RM5
0	C 173	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 174	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 175	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 176	59.22.3003		220u	EL 10V 20% RM5
0	C 177	59.22.4002		100u	EL 16V 20% RM5
0	C 178	59.22.3003		220u	EL 10V 20% RM5
0	C 179	59.22.3003		220u	EL 10V 20% RM5
0	C 180	59.22.4002		100u	EL 16V 20% RM5
0	C 181	59.22.3003		220u	EL 10V 20% RM5
0	C 182	59.22.4002		100u	EL 16V 20% RM5
0	C 183	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 184	59.22.4002		100u	EL 16V 20% RM5
0	C 185	59.22.3003		220u	EL 10V 20% RM5
0	C 186	59.22.4002		100u	EL 16V 20% RM5
0	C 187	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 188	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 189	59.22.4002		100u	EL 16V 20% RM5
1	C 190	59.45.4101		100p	CER 63V, 5%, N750
1	C 191	59.45.4101		100p	CER 63V, 5%, N750
0	CN 1	54.01.0365		64p	EU-C 2*32, a,c
0	CN 2	54.01.0365		64p	EU-C 2*32, a,c
0	CN 3	54.14.2007		34p	1/20" Au, gerade, ohne Verrieg
0	CN 4	54.14.2007		34p	1/20" Au, gerade, ohne Verrieg
0	CN 5	54.02.0343			P FLACH, 6.3*0.8, WINKEL 45
0	CN 6	54.12.0704		4p	Stecker gerade PCB
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 7	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 8	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 9	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 10	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 11	50.04.0127		BAT85	200mA, Schottky
0	D 12	50.04.0127		BAT85	200mA, Schottky
0	D 13	50.04.0127		BAT85	200mA, Schottky
0	D 14	50.04.0127		BAT85	200mA, Schottky
0	D 15	50.04.0127		BAT85	200mA, Schottky
0	D 16	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 17	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 18	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 19	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 20	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	D 21	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	D 22	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	IC 1	50.11.0104		LM339	IC LM 339 N, ,A
0	IC 2	50.11.0104		LM339	IC LM 339 N, ,A
0	IC 3	50.09.0117		33078	IC MC 33078 P
0	IC 4	50.09.0117		33078	IC MC 33078 P
0	IC 5	50.09.0101		072	IC TL 072 CN ,A
0	IC 6	50.09.0101		072	IC TL 072 CN ,A
0	IC 7	50.09.0101		072	IC TL 072 CN ,A
0	IC 8	50.09.0101		072	IC TL 072 CN ,A
0	IC 9	50.09.0101		072	IC TL 072 CN ,A
0	IC 10	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 11	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 12	50.09.0117		33078	IC MC 33078 P
0	IC 13	50.09.0101		072	IC TL 072 CN ,A
0	IC 14	50.09.0101		072	IC TL 072 CN ,A
0	IC 15	50.09.0101		072	IC TL 072 CN ,A
0	IC 16	50.09.0117		33078	IC MC 33078 P
0	IC 17	50.09.0117		33078	IC MC 33078 P
0	IC 18	50.09.0117		33078	IC MC 33078 P
0	IC 19	50.09.0117		33078	IC MC 33078 P
0	IC 20	50.09.0101		072	IC TL 072 CN ,A
0	IC 21	50.09.0117		33078	IC MC 33078 P
0	IC 22	50.09.0101		072	IC TL 072 CN ,A
0	IC 23	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 24	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 25	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 26	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 27	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 28	50.19.0304		ADG432	4*SPST analog switch brake
0	IC 29	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 30	50.09.0124		2142	Audio balanced line driver
0	IC 31	50.09.0101		072	IC TL 072 CN ,A
0	IC 32	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 33	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 34	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 35	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 36	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 37	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 38	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 39	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 40	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 41	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 42	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 43	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 44	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 45	50.07.0015		4053	Triple 2ch analog mux/demux
0	IC 46	50.09.0124		2142	Audio balanced line driver
0	IC 47	50.09.0124		2142	Audio balanced line driver
0	IC 48	50.09.0124		2142	Audio balanced line driver
0	J 1	54.11.0136		2*3p	Pin 0.63*0.63, RM2.54
0	J 2	54.11.0136		2*3p	Pin 0.63*0.63, RM2.54
0	J 3	54.11.0136		2*3p	Pin 0.63*0.63, RM2.54
0	J 4	54.11.0136		2*3p	Pin 0.63*0.63, RM2.54
0	J 5	54.11.0136		2*3p	Pin 0.63*0.63, RM2.54
0	J 6	not used	3 pcs	1p	Pin, 1reihig, gerade
				See J5	
0	J 7	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 8	54.11.0136		2*3p	Pin 0.63*0.63, RM2.54
0	J 9	not used	3 pcs	1p	Pin, 1reihig, gerade
				See J8	
0	LD 1	50.04.2813		DC4SR6SGWA	LED Bargraph 4*red, 6*green
0	LED 1	50.04.2206		L934GT	LED 3mm green
0	LED 2	50.04.2205		L934YT	LED 3mm yellow
0	LED 3	50.04.2205		L934YT	LED 3mm yellow
0	LED 4	50.04.2205		L934YT	LED 3mm yellow
0	LED 5	50.04.2204		L934ID	LED 3mm red
0	LED 6	50.04.2204		L934ID	LED 3mm red
0	LED 7	50.04.2204		L934ID	LED 3mm red
0	LED 8	50.04.2206		L934GT	LED 3mm green
0	LED 9	50.04.2204		L934ID	LED 3mm red
0	LED 10	50.04.2204		L934ID	LED 3mm red
0	LED 11	50.04.2204		L934ID	LED 3mm red
0	LED 12	50.04.2205		L934YT	LED 3mm yellow
0	LED 13	50.04.2205		L934YT	LED 3mm yellow
0	LED 14	50.04.2205		L934YT	LED 3mm yellow
0	LED 15	50.04.2205		L934YT	LED 3mm yellow
0	LED 16	50.04.2205		L934YT	LED 3mm yellow
0	LED 17	50.04.2205		L934YT	LED 3mm yellow
0	LED 18	50.04.2206		L934GT	LED 3mm green
0	LED 19	50.04.2162		HLMP1540	LED 3mm, grün klar
				LED for S19	
0	LED 20	50.04.2206		L934GT	LED 3mm green
0	LED 21	50.04.2205		L934YT	LED 3mm yellow
0	LED 22	50.04.2205		L934YT	LED 3mm yellow
0	LED 23	50.04.2205		L934YT	LED 3mm yellow
0	LED 24	50.04.2205		L934YT	LED 3mm yellow
0	LED 25	50.04.2206		L934GT	LED 3mm green
0	LED 26	50.04.2129		LS3360	DL LS 3360 , RT DIFF
0	MP 1	1.928.250.11	1 pce		INPUT MAIN ST PCB
0	MP 2	1.928.250.04	1 pce		STUDER NR. ETIKETTE 10x20
0	MP 3	43.01.0108	1 pce	Label	ESE-WARNSCHILD
0	MP 4	28.99.0119	4 pcs		ROHRNIETE D 2.5*0.15* 9
0	MP 5	1.928.220.09	11 pcs		9mm ALPS POT BRACKET WITH PIPS
0	MP 6	54.01.0021	13 pcs	Jumper	0.63*0.63mm, Au
0	MP 7	55.15.0915	1 pce		Kalotte grün mit Streuscheibe
				For S19	
0	MP 8	1.942.210.93	1 pce		LL-FADER
0	MP 9	21.51.8455	1 pce	M4*8	Linsenkopf-Schr IS, Ni
0	MP 10	22.01.8040	1 pce	M4	6kt-Mutter 0.8d St gb
0	MP 11	24.16.2040	2 pcs	4.3/8.0	Facherscheibe Form A
0	MP 12	not used	2 pcs		ISOLATION
				Used with transformer only!	
0	MP 13	1.928.220.93	1 pce		LL-Fader
0	MP 14	1.960.033.00	1 pce		MONOFADER LIN. P+G 100MM
0	MP 15	1.928.220.05	1 pce		STÜTZBOLZEN
0	MP 16	21.53.0279	2 pcs	M2.5*6	Z-Schraube Inbus Zn gb chr
0	MP 17	24.16.1025	2 pcs	2.7/5.0	Rippenscheibe
0	MP 18	1.010.024.27	5 pcs	M3*20	Mutter-Bolzen 6kt Ms Ni
0	MP 19	21.53.8706	12 pcs	M3*6	Lin-Schr IS, Zn gb, Tuflock
0	MP 20	21.99.0175	4 pcs	M3*6	S-Schraube IS A2 sw oxydiert
0	MP 21	1.928.220.03	1 pce		PRINTHALTER
0	MP 22	1.010.022.21	2 pcs	M3*8	L-Schraube IS sw spezial
0	MP 23	1.928.253.81	1 pce		INPUT SIDE ST BOARD
0	MP 24	1.928.250.01	1 pce		FRONTPLATTE
0	MP 25	1.928.220.02	1 pce		FENSTER
0	MP 26	24.16.3023	2 pcs	2.3	Wellensicherung
0	MP 28	1.928.220.08	5 pcs		MUTTER M7x0,75
0	MP 29	1.928.220.07	4 pcs		ZENTRIERSCHEIBE 2,8
0	MP 30	1.928.220.06	1 pce		ZENTRIERSCHEIBE 1
0	MP 31	1.928.220.10	1 pce		POT-HALTER NACHARBEIT
0	MP 32	1.911.000.48	1 pce		KNOPF HELLGRAU
0	MP 35	42.01.1200	3 pcs		DREHKNOPF D11 gr/gr
0	MP 36	42.01.1240	7 pcs		DREHKNOPF D15 gr unten
0	MP 37	42.01.1208	4 pcs		DREHKNOPF D11 gr/hellgr
0	MP 38	42.01.1206	1 pce		DREHKNOPF D11 gr/bl
0	MP 39	42.01.1205	1 pce		DREHKNOPF D11 gr/gn
0	MP 40	42.01.1204	1 pce		DREHKNOPF D11 gr/gb

Input Unit Stereo HL w. EQ 1.928.255.81 (1)

Input Unit Stereo HL w. EQ & Transf. 1.928.257.81 (1)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	MP 41	42.01.1202	1 pce		DREHKNOPF D11 gr/rt
0	MP 42	42.01.1228	1 pce		DREHKNOPF D15 gr/hellgr
0	MP 45	1.928.201.17	1 pce		PUSH BUTTON [B
0	MP 46	1.928.201.10	1 pce		PUSH BUTTON 7-8
0	MP 47	1.928.201.09	1 pce		PUSH BUTTON 3-4
0	MP 48	1.928.201.32	1 pce		PUSH BUTTON N-1
0	MP 49	1.928.201.38	1 pce		PUSH BUTTON R
0	MP 50	1.928.201.41	1 pce		PUSH BUTTON ~
0	MP 51	1.928.201.45	1 pce		PUSH BUTTON LN2
0	MP 52	1.928.201.34	2 pcs		PUSH BUTTON ON
0	MP 53	1.928.201.24	1 pce		PUSH BUTTON EQ
0	MP 54	1.928.201.29	1 pce		PUSH BUTTON INS
0	MP 55	1.928.201.37	5 pcs		PUSH BUTTON PRE
0	MP 56	1.928.201.40	1 pce		PUSH BUTTON /-
0	MP 57	1.928.201.35	1 pce		PUSH BUTTON PAN
0	MP 58	1.928.201.44	1 pce		PUSH BUTTON BAL
0	MP 59	1.928.201.20	1 pce		PUSH BUTTON CUE
0	MP 60	1.928.201.04	1 pce		PUSH BUTTON 4
0	MP 61	1.928.201.03	1 pce		PUSH BUTTON 3
0	MP 62	1.928.201.02	1 pce		PUSH BUTTON 2
0	MP 63	1.928.201.01	1 pce		PUSH BUTTON 1
0	MP 67	1.928.201.71	1 pce		PUSH BUTTON [A
0	MP 68	1.928.201.66	1 pce		PUSH BUTTON 5-6
0	MP 69	1.928.201.65	1 pce		PUSH BUTTON 1-2
0	MP 70	1.928.201.72	1 pce		PUSH BUTTON TB
0	MP 71	1.928.201.75	1 pce		PUSH BUTTON L
0	MP 72	1.928.201.74	1 pce		PUSH BUTTON 0
0	Q 1	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 2	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 3	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 4	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 5	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 6	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 7	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	R 1	57.11.3622		6k2	MF, 1%, 0207
0	R 2	57.11.3622		6k2	MF, 1%, 0207
0	R 3	57.11.3622		6k2	MF, 1%, 0207
0	R 4	57.11.3104		100k	MF, 1%, 0207
0	R 5	57.11.3104		100k	MF, 1%, 0207
0	R 6	57.11.3332		3k3	MF, 1%, 0207
0	R 7	57.11.3332		3k3	MF, 1%, 0207
0	R 8	57.11.3102		1k0	MF, 1%, 0207
0	R 9	57.11.3102		1k0	MF, 1%, 0207
0	R 10	57.11.3332		3k3	MF, 1%, 0207
0	R 11	57.11.3332		3k3	MF, 1%, 0207
0	R 12	57.11.3104		100k	MF, 1%, 0207
0	R 13	57.11.3104		100k	MF, 1%, 0207
0	R 14	57.11.3622		6k2	MF, 1%, 0207
0	R 15	57.11.3622		6k2	MF, 1%, 0207
0	R 16	57.11.3622		6k2	MF, 1%, 0207
0	R 17	57.11.3622		6k2	MF, 1%, 0207
0	R 18	57.11.3622		6k2	MF, 1%, 0207
0	R 19	57.11.3622		6k2	MF, 1%, 0207
0	R 20	57.11.3512		5k1	MF, 1%, 0207
0	R 21	57.11.3472		4k7	MF, 1%, 0207
0	R 22	57.11.3362		3k6	MF, 1%, 0207
0	R 23	57.11.3331		330R	MF, 1%, 0207
0	R 24	57.11.3151		150R	MF, 1%, 0207
0	R 25	57.11.3472		4k7	MF, 1%, 0207
0	R 26	57.11.3683		68k	MF, 1%, 0207
0	R 27	57.11.3622		6k2	MF, 1%, 0207
0	R 28	57.11.3362		3k6	MF, 1%, 0207
0	R 29	57.11.3104		100k	MF, 1%, 0207
0	R 30	57.11.3104		100k	MF, 1%, 0207
0	R 31	57.11.3683		68k	MF, 1%, 0207
0	R 32	57.11.3151		150R	MF, 1%, 0207
0	R 33	57.11.3472		4k7	MF, 1%, 0207
0	R 34	57.11.3182		1k8	MF, 1%, 0207
0	R 35	57.11.3152		1k5	MF, 1%, 0207
0	R 36	57.11.3751		750R	MF, 1%, 0207
0	R 37	57.11.3822		8k2	MF, 1%, 0207
0	R 38	57.11.3822		8k2	MF, 1%, 0207
0	R 39	57.11.3822		8k2	MF, 1%, 0207
0	R 40	57.11.3822		8k2	MF, 1%, 0207
0	R 41	57.11.3222		2k2	MF, 1%, 0207
0	R 42	57.11.3822		8k2	MF, 1%, 0207
0	R 43	57.11.3562		5k6	MF, 1%, 0207
0	R 44	57.11.3222		2k2	MF, 1%, 0207
0	R 45	57.11.3822		8k2	MF, 1%, 0207
0	R 46	57.11.3562		5k6	MF, 1%, 0207
0	R 47	57.11.3822		8k2	MF, 1%, 0207
0	R 48	57.11.3822		8k2	MF, 1%, 0207
0	R 49	57.11.3822		8k2	MF, 1%, 0207
0	R 50	57.11.3562		5k6	MF, 1%, 0207
0	R 51	57.11.3562		5k6	MF, 1%, 0207
0	R 52	57.11.3203		20k	MF, 1%, 0207
0	R 53	57.11.3392		3k9	MF, 1%, 0207
0	R 54	57.11.3272		2k7	MF, 1%, 0207
0	R 55	57.11.3332		3k3	MF, 1%, 0207
0	R 56	57.11.3223		22k	MF, 1%, 0207
0	R 57	57.11.3391		390R	MF, 1%, 0207
0	R 58	57.11.3272		2k7	MF, 1%, 0207
0	R 59	57.11.3331		330R	MF, 1%, 0207
0	R 60	57.11.3103		10k	MF, 1%, 0207
0	R 61	57.11.3104		100k	MF, 1%, 0207
0	R 62	57.11.3821		820R	MF, 1%, 0207
0	R 63	57.11.3112		1k1	MF, 1%, 0207
0	R 64	57.11.3820		82R	MF, 1%, 0207
0	R 65	57.11.3823		82k	MF, 1%, 0207
0	R 66	57.11.3823		82k	MF, 1%, 0207
0	R 67	57.11.3823		82k	MF, 1%, 0207
0	R 68	57.11.3823		82k	MF, 1%, 0207
0	R 69	57.11.3103		10k	MF, 1%, 0207
0	R 70	57.11.3103		10k	MF, 1%, 0207
0	R 71	57.11.3103		10k	MF, 1%, 0207
0	R 72	57.11.3103		10k	MF, 1%, 0207
0	R 73	57.11.3103		10k	MF, 1%, 0207
0	R 74	57.11.3103		10k	MF, 1%, 0207
0	R 75	57.11.3103		10k	MF, 1%, 0207
0	R 76	57.11.3103		10k	MF, 1%, 0207
0	R 77	57.11.3103		10k	MF, 1%, 0207
0	R 78	57.11.3103		10k	MF, 1%, 0207
0	R 79	57.11.3182		1k8	MF, 1%, 0207
0	R 80	57.11.3472		4k7	MF, 1%, 0207
0	R 81	57.11.3473		47k	MF, 1%, 0207
0	R 82	57.11.3473		47k	MF, 1%, 0207
0	R 83	57.11.3473		47k	MF, 1%, 0207
0	R 84	57.11.3103		10k	MF, 1%, 0207
0	R 85	57.11.3103		10k	MF, 1%, 0207
0	R 86	57.11.3103		10k	MF, 1%, 0207
0	R 87	57.11.3103		10k	MF, 1%, 0207
0	R 88	57.11.3103		10k	MF, 1%, 0207
0	R 89	57.11.3103		10k	MF, 1%, 0207
0	R 90	57.11.3512		5k1	MF, 1%, 0207
0	R 91	57.11.3472		4k7	MF, 1%, 0207
0	R 92	57.11.3473		47k	MF, 1%, 0207
0	R 93	57.11.3473		47k	MF, 1%, 0207
0	R 94	57.11.3681		680R	MF, 1%, 0207
0	R 95	57.11.3472		4k7	MF, 1%, 0207
0	R 96	57.11.3681		680R	MF, 1%, 0207
0	R 97	57.11.3472		4k7	MF, 1%, 0207
0	R 98	57.11.3472		4k7	MF, 1%, 0207
0	R 99	57.11.3681		680R	MF, 1%, 0207
0	R 100	57.11.3472		4k7	MF, 1%, 0207
0	R 101	57.11.3681		680R	MF, 1%, 0207
0	R 102	57.11.3272		2k7	MF, 1%, 0207
0	R 103	57.11.3513		51k	MF, 1%, 0207
0	R 104	57.11.3682		6k8	MF, 1%, 0207
0	R 105	57.11.3223		22k	MF, 1%, 0207
0	R 106	57.11.3223		22k	MF, 1%, 0207
0	R 107	57.11.3472		4k7	MF, 1%, 0207
0	R 108	57.11.3472		4k7	MF, 1%, 0207
0	R 109	57.11.3223		22k	MF, 1%, 0207
0	R 110	57.11.3472		4k7	MF, 1%, 0207
0	R 111	57.11.3223		22k	MF, 1%, 0207
0	R 112	57.11.3472		4k7	MF, 1%, 0207
0	R 113	57.11.3104		100k	MF, 1%, 0207
0	R 114	57.11.3104		100k	MF, 1%, 0207
0	R 115	57.11.3473		47k	MF, 1%, 0207
0	R 116	57.11.3473		47k	MF, 1%, 0207
0	R 117	57.11.3153		15k	MF, 1%, 0207
0	R 118	57.11.3153		15k	MF, 1%, 0207
0	R 119	57.11.3103		10k	MF, 1%, 0207
0	R 120	57.11.3103		10k	MF, 1%, 0207
0	R 121	57.11.3103		10k	MF, 1%, 0207
0	R 122	57.11.3104		100k	MF, 1%, 0207
0	R 123	57.11.3104		100k	MF, 1%, 0207
0	R 124	57.11.3472		4k7	MF, 1%, 0207
0	R 125	57.11.3472		4k7	MF, 1%, 0207
0	R 126	57.11.3472		4k7	MF, 1%, 0207
0	R 127	57.11.3822		8k2	MF, 1%, 0207
0	R 128	57.11.3104		100k	MF, 1%, 0207
0	R 129	57.11.3104		100k	MF, 1%, 0207
0	R 130	57.11.3104		100k	MF, 1%, 0207
0	R 131	57.11.3822		8k2	MF, 1%, 0207
0	R 132	57.11.3822		8k2	MF, 1%, 0207
0	R 133	57.11.3184		180k	MF, 1%, 0207
0	R 134	57.11.3204		200k	MF, 1%, 0207
0	R 135	57.11.3184		180k	MF, 1%, 0207
0	R 136	57.11.3184		180k	MF, 1%, 0207
0	R 137	57.11.3223		22k	MF, 1%, 0207
0	R 138	57.11.3561		560R	MF, 1%, 0207
0	R 139	57.11.3561		560R	MF, 1%, 0207
0	R 140	57.11.3472		4k7	MF, 1%, 0207

Input Unit Stereo HL w. EQ 1.928.255.81 (1)

Input Unit Stereo HL w. EQ & Transf. 1.928.257.81 (1)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 141	57.11.3473		47k	MF, 1%, 0207
0	R 142	57.11.3223		22k	MF, 1%, 0207
0	R 143	57.11.3473		47k	MF, 1%, 0207
0	R 144	57.11.3472		4k7	MF, 1%, 0207
0	R 145	57.11.3223		22k	MF, 1%, 0207
0	R 146	57.11.3223		22k	MF, 1%, 0207
0	R 147	57.11.3223		22k	MF, 1%, 0207
0	R 148	57.11.3124		120k	MF, 1%, 0207
0	R 149	57.11.3274		270k	MF, 1%, 0207
0	R 150	57.11.3332		3k3	MF, 1%, 0207
0	R 151	57.11.5125		1M2	MF, 5%, 0207
0	R 152	not used		4k7	MF, 1%, 0207
				Used with transformer only	
0	R 153	57.11.3272		2k7	MF, 1%, 0207
				Value with transformer: 150R	
0	R 154	57.11.3272		2k7	MF, 1%, 0207
				Value with transformer: 3K3	
0	R 155	57.11.3272		2k7	MF, 1%, 0207
				Value with transformer: 3K3	
0	R 156	57.11.3272		2k7	MF, 1%, 0207
				Value with transformer: 150R	
0	R 157	not used		4k7	MF, 1%, 0207
				Used with transformer only	
0	R 158	57.11.3563		56k	MF, 1%, 0207
0	R 159	57.11.3563		56k	MF, 1%, 0207
0	R 160	57.11.3272		2k7	MF, 1%, 0207
0	R 161	57.11.3513		51k	MF, 1%, 0207
0	R 162	57.11.3682		6k8	MF, 1%, 0207
0	R 163	57.11.3104		100k	MF, 1%, 0207
0	R 164	57.11.3123		12k	MF, 1%, 0207
0	R 165	57.11.3333		33k	MF, 1%, 0207
0	R 166	57.11.3333		33k	MF, 1%, 0207
0	R 167	57.11.3123		12k	MF, 1%, 0207
0	R 168	57.11.3104		100k	MF, 1%, 0207
0	R 169	57.11.3104		100k	MF, 1%, 0207
0	R 170	57.11.3223		22k	MF, 1%, 0207
0	R 171	57.11.3104		100k	MF, 1%, 0207
0	R 172	57.11.3104		100k	MF, 1%, 0207
0	R 173	57.11.3104		100k	MF, 1%, 0207
0	R 174	57.11.3223		22k	MF, 1%, 0207
0	R 175	57.11.3472		4k7	MF, 1%, 0207
0	R 176	57.11.3472		4k7	MF, 1%, 0207
0	R 177	57.11.3222		2k2	MF, 1%, 0207
0	R 178	57.11.3102		1k0	MF, 1%, 0207
0	R 179	57.11.3153		15k	MF, 1%, 0207
0	R 180	57.11.3153		15k	MF, 1%, 0207
0	R 181	57.11.3103		10k	MF, 1%, 0207
0	R 182	57.11.3104		100k	MF, 1%, 0207
0	R 183	57.11.3822		8k2	MF, 1%, 0207
0	R 184	57.11.3822		8k2	MF, 1%, 0207
0	R 185	57.11.3104		100k	MF, 1%, 0207
0	R 186	57.11.3104		100k	MF, 1%, 0207
0	R 187	57.11.3330		33R	MF, 1%, 0207
0	R 188	57.11.3223		22k	MF, 1%, 0207
0	R 189	57.11.3223		22k	MF, 1%, 0207
0	R 190	57.11.3330		33R	MF, 1%, 0207
0	R 191	57.11.3123		12k	MF, 1%, 0207
0	R 192	57.11.3103		10k	MF, 1%, 0207
0	R 193	57.11.3103		10k	MF, 1%, 0207
0	R 194	57.11.3103		10k	MF, 1%, 0207
0	R 195	57.11.3622		6k2	MF, 1%, 0207
0	R 196	57.11.3622		6k2	MF, 1%, 0207
0	R 197	57.11.3622		6k2	MF, 1%, 0207
0	R 198	57.11.3332		3k3	MF, 1%, 0207
0	R 199	57.11.3622		6k2	MF, 1%, 0207
0	R 200	57.11.3622		6k2	MF, 1%, 0207
0	R 201	57.11.3622		6k2	MF, 1%, 0207
0	R 202	57.11.3332		3k3	MF, 1%, 0207
0	R 203	57.11.3104		100k	MF, 1%, 0207
0	R 204	57.11.3113		11k	MF, 1%, 0207
0	R 205	57.11.3113		11k	MF, 1%, 0207
0	R 206	57.11.3203		20k	MF, 1%, 0207
0	R 207	57.11.3203		20k	MF, 1%, 0207
0	R 208	57.11.3113		11k	MF, 1%, 0207
0	R 209	57.11.3113		11k	MF, 1%, 0207
0	R 210	57.11.3203		20k	MF, 1%, 0207
0	R 211	57.11.3103		10k	MF, 1%, 0207
0	R 212	57.11.3103		10k	MF, 1%, 0207
0	R 213	57.11.3512		5k1	MF, 1%, 0207
0	R 214	57.11.3203		20k	MF, 1%, 0207
0	R 215	57.11.3512		5k1	MF, 1%, 0207
0	R 216	57.11.3103		10k	MF, 1%, 0207
0	R 217	57.11.3223		22k	MF, 1%, 0207
0	R 218	57.11.3103		10k	MF, 1%, 0207
0	R 219	57.11.3104		100k	MF, 1%, 0207
0	R 220	57.11.3561		560R	MF, 1%, 0207
0	R 221	57.11.3562		5k6	MF, 1%, 0207
0	R 222	57.11.3104		100k	MF, 1%, 0207
0	R 223	57.11.3104		100k	MF, 1%, 0207
0	R 224	57.11.3752		7k5	MF, 1%, 0207
0	R 225	57.11.3223		22k	MF, 1%, 0207
0	R 226	57.11.3104		100k	MF, 1%, 0207
0	R 227	57.11.3223		22k	MF, 1%, 0207
0	R 228	57.11.3561		560R	MF, 1%, 0207
0	R 229	57.11.3562		5k6	MF, 1%, 0207
0	R 230	57.11.3104		100k	MF, 1%, 0207
0	R 231	57.11.3223		22k	MF, 1%, 0207
0	R 232	57.11.3223		22k	MF, 1%, 0207
0	R 233	57.11.3752		7k5	MF, 1%, 0207
0	R 234	57.11.3203		20k	MF, 1%, 0207
0	R 235	57.11.3203		20k	MF, 1%, 0207
0	R 236	57.11.3223		22k	MF, 1%, 0207
0	R 237	57.11.3123		12k	MF, 1%, 0207
0	R 238	57.11.3104		100k	MF, 1%, 0207
0	R 239	57.11.3392		3k9	MF, 1%, 0207
0	R 240	57.11.3104		100k	MF, 1%, 0207
0	R 241	57.11.3392		3k9	MF, 1%, 0207
0	R 242	57.11.3104		100k	MF, 1%, 0207
0	R 243	not used		3k9	MF, 1%, 0207
				Used with transformer only	
0	R 244	57.11.3392		3k9	MF, 1%, 0207
0	R 245	57.11.3104		100k	MF, 1%, 0207
0	R 246	57.11.3392		3k9	MF, 1%, 0207
0	R 247	57.11.3104		100k	MF, 1%, 0207
0	R 248	not used		3k9	MF, 1%, 0207
				Used with transformer only	
0	R 249	57.11.3104		100k	MF, 1%, 0207
0	R 250	57.11.3104		100k	MF, 1%, 0207
0	R 251	57.11.3104		100k	MF, 1%, 0207
0	R 252	57.11.3104		100k	MF, 1%, 0207
0	R 253	57.11.3104		100k	MF, 1%, 0207
0	R 254	57.11.3104		100k	MF, 1%, 0207
0	R 255	57.11.3104		100k	MF, 1%, 0207
0	R 256	57.11.3473		47k	MF, 1%, 0207
0	R 257	57.11.3682		6k8	MF, 1%, 0207
0	R 258	57.11.3682		6k8	MF, 1%, 0207
0	R 259	57.11.3682		6k8	MF, 1%, 0207
0	R 260	57.11.3682		6k8	MF, 1%, 0207
0	R 261	57.11.3682		6k8	MF, 1%, 0207
0	R 262	57.11.3682		6k8	MF, 1%, 0207
0	R 263	57.11.3682		6k8	MF, 1%, 0207
0	R 264	57.11.3682		6k8	MF, 1%, 0207
0	R 265	57.11.3682		6k8	MF, 1%, 0207
0	R 266	57.11.3682		6k8	MF, 1%, 0207
0	R 267	57.11.3104		100k	MF, 1%, 0207
0	R 268	57.11.3473		47k	MF, 1%, 0207
0	R 269	57.11.3473		47k	MF, 1%, 0207
0	R 270	57.11.3473		47k	MF, 1%, 0207
0	R 271	57.11.3152		1k5	MF, 1%, 0207
0	R 272	57.11.3152		1k5	MF, 1%, 0207
0	R 273	57.11.3152		1k5	MF, 1%, 0207
0	R 274	57.11.3152		1k5	MF, 1%, 0207
0	R 275	57.11.3104		100k	MF, 1%, 0207
0	R 276	57.11.3104		100k	MF, 1%, 0207
0	R 277	57.11.3103		10k	MF, 1%, 0207
0	R 278	57.11.3104		100k	MF, 1%, 0207
0	R 279	57.11.3103		10k	MF, 1%, 0207
0	R 280	57.11.3104		100k	MF, 1%, 0207
0	R 281	57.11.3104		100k	MF, 1%, 0207
0	R 282	57.11.3103		10k	MF, 1%, 0207
0	R 283	57.11.3104		100k	MF, 1%, 0207
0	R 284	57.11.3103		10k	MF, 1%, 0207
0	R 285	57.11.3104		100k	MF, 1%, 0207
0	R 286	57.11.3104		100k	MF, 1%, 0207
0	R 287	57.11.3473		47k	MF, 1%, 0207
0	R 288	57.92.7021		0.9A	PTC 60V
0	R 289	57.11.3682		6k8	MF, 1%, 0207
0	R 290	57.92.7021		0.9A	PTC 60V
0	R 291	57.11.3682		6k8	MF, 1%, 0207
0	R 292	57.11.3682		6k8	MF, 1%, 0207
0	R 293	57.11.3682		6k8	MF, 1%, 0207
0	R 294	57.11.3682		6k8	MF, 1%, 0207
0	R 295	57.11.3682		6k8	MF, 1%, 0207
0	R 296	57.11.3682		6k8	MF, 1%, 0207
0	R 297	57.11.3682		6k8	MF, 1%, 0207
0	R 298	57.11.3682		6k8	MF, 1%, 0207
0	R 299	57.11.3682		6k8	MF, 1%, 0207
0	R 300	57.19.0100		10R	5%, 0207, Fuse
0	R 301	57.19.0100		10R	5%, 0207, Fuse
0	R 302	57.11.3104		100k	MF, 1%, 0207
0	R 303	57.11.3104		100k	MF, 1%, 0207
0	R 304	57.11.3104		100k	MF, 1%, 0207
0	R 305	57.11.3104		100k	MF, 1%, 0207
0	R 306	57.11.3104		100k	MF, 1%, 0207
0	R 307	57.11.3220		22R	MF, 1%, 0207
0	R 308	57.11.3104		100k	MF, 1%, 0207
0	R 309	57.11.3104		100k	MF, 1%, 0207

Input Unit Stereo HL w. EQ 1.928.255.81 (1)

Input Unit Stereo HL w. EQ & Transf. 1.928.257.81 (1)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 310	57.11.3104		100k	MF, 1%, 0207
0	R 311	57.11.3104		100k	MF, 1%, 0207
0	R 312	57.11.3104		100k	MF, 1%, 0207
0	RN 1	57.88.2682		6k8	4*R Resistor-Netw 2% SIP9
0	RN 2	57.88.2682		6k8	4*R Resistor-Netw 2% SIP9
0	RN 3	57.88.2682		6k8	4*R Resistor-Netw 2% SIP9
0	RN 4	57.88.2103		10k	4*R Resistor-Netw 2% SIP9
0	RN 5	57.88.2223		22k	4*R Resistor-Netw 2% SIP9
0	RN 6	57.88.4104		100k	8*R Resistor-Netw 2% SIP9
0	RN 7	57.88.2682		6k8	4*R Resistor-Netw 2% SIP9
0	RN 8	57.88.2682		6k8	4*R Resistor-Netw 2% SIP9
0	RN 9	57.88.2682		6k8	4*R Resistor-Netw 2% SIP9
0	RV 1	58.01.8203		20k	Cermet, 10%, 0.5W, horizontal
0	RV 2	58.01.8203		20k	Cermet, 10%, 0.5W, horizontal
0	RV 3	not used		20k	Cermet, 10%, 0.5W, horizontal
0	RV 4	not used		20k	Cermet, 10%, 0.5W, horizontal
0	RV 5	58.05.1201		200R	10%, 0.5W, Cermet
0	RV 6	58.05.1201		200R	10%, 0.5W, Cermet
0	RV 7	58.01.8502		5k0	Cermet, 10%, 0.5W, horizontal
0	RV 8	58.01.8502		5k0	Cermet, 10%, 0.5W, horizontal
0	S 1	55.15.0931		2*u	rastend
0	S 2	55.15.0931		2*u	rastend
0	S 3	55.15.0931		2*u	rastend
0	S 4	55.15.0931		2*u	rastend
0	S 5	55.15.0931		2*u	rastend
0	S 6	55.15.0931		2*u	rastend
0	S 7	55.15.0931		2*u	rastend
0	S 8	55.15.0933		4*u	rastend
0	S 9	55.15.0933		4*u	rastend
0	S 10	55.15.0935		6*u	rastend
0	S 11	55.15.0933		4*u	rastend
0	S 12	55.15.0933		4*u	rastend
0	S 13	55.15.0933		4*u	rastend
0	S 14	55.15.0931		2*u	rastend
0	S 15	55.15.0931		2*u	rastend
0	S 16	55.15.0931		2*u	rastend
0	S 17	55.15.0931		2*u	rastend
0	S 18	55.15.0931		2*u	rastend
0	S 19	1.928.208.00			MiYAMA SWITCH NON LATCH. BOAR
0	S 20	55.15.0932		2*u	impuls
0	S 21	55.15.0931		2*u	rastend
0	S 22	55.15.0931		2*u	rastend
0	S 23	55.15.0931		2*u	rastend
0	S 24	55.15.0931		2*u	rastend
0	S 25	55.15.0932		2*u	impuls
0	TR 1	not used		1:0.62 *Option*	EINGANGSTRAFO 1 : 0,62
0	TR 2	not used		1:0.62 *Option*	EINGANGSTRAFO 1 : 0,62
0	VR 1	58.20.6606		2* 10k lin	2*R
0	VR 2	58.20.6504		10k +log	1*R
0	VR 3	58.20.6751		2*100k-/2*10klin	4*R, Doppelachse
0	VR 4	58.20.6752		4*100k-/2*10klin	6*R, Doppelachse
0	VR 5	58.20.6752		4*100k-/2*10klin	6*R, Doppelachse
0	VR 6	58.20.6751		2*100k-/2*10klin	4*R, Doppelachse
0	VR 7	58.20.6602		2*50k lin	2*R
0	VR 8	58.20.6602		2*50k lin	2*R
0	VR 9	58.20.6701		2*50k lin	2*R, Doppelachse
0	VR 10	58.20.6701		2*50k lin	2*R, Doppelachse
0	VR 11	58.20.6701		2*50k lin	2*R, Doppelachse
0	VR 12	58.20.6652		4*10k lin	4*R, Mittenrasterung
0	XIC 1	53.03.0185		20p *Socket for LD1*	DIL 0.3", löt, winkel

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description

End of List

Comments:

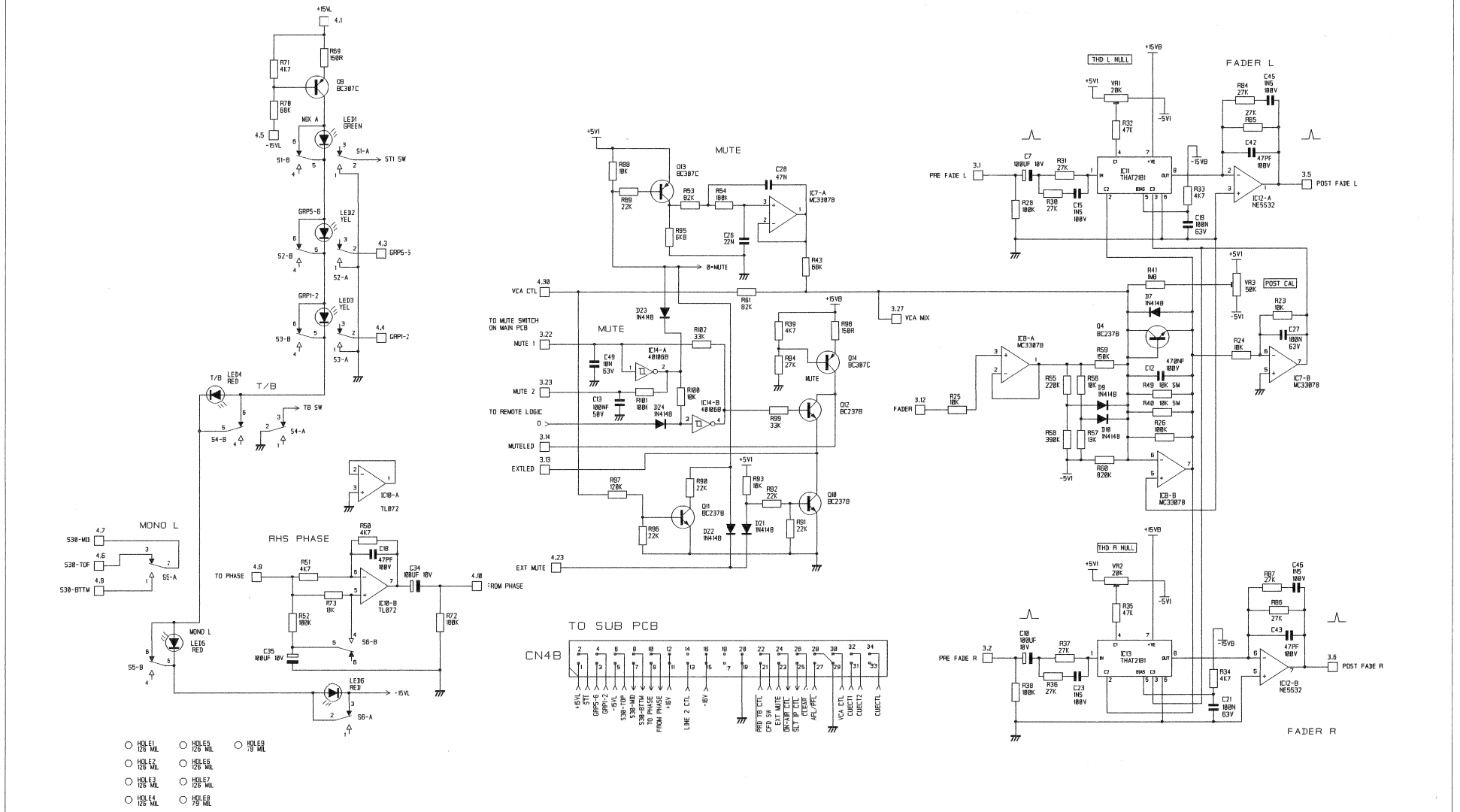
Index -01
2 capacitors (C190, C191) added for improved performance

OPTION FOR 1.928.255.xx

1.928.257.xx INPUT UNIT STEREO W. EQ/TRAFO

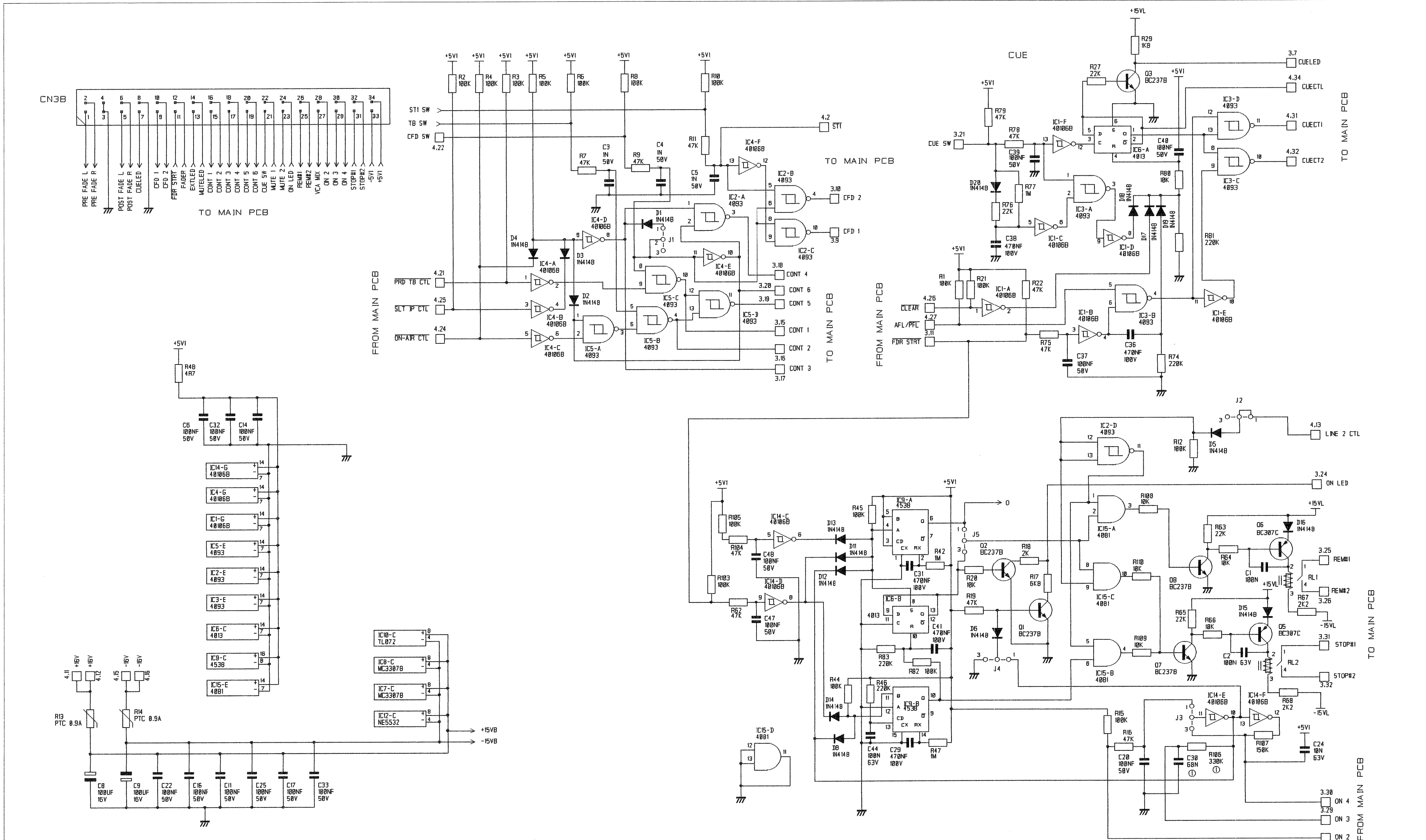
C	61	59.22.4002	100uF 16V
C	88	59.22.4002	100uF 16V

Input Side Stereo Board 1.928.253.81



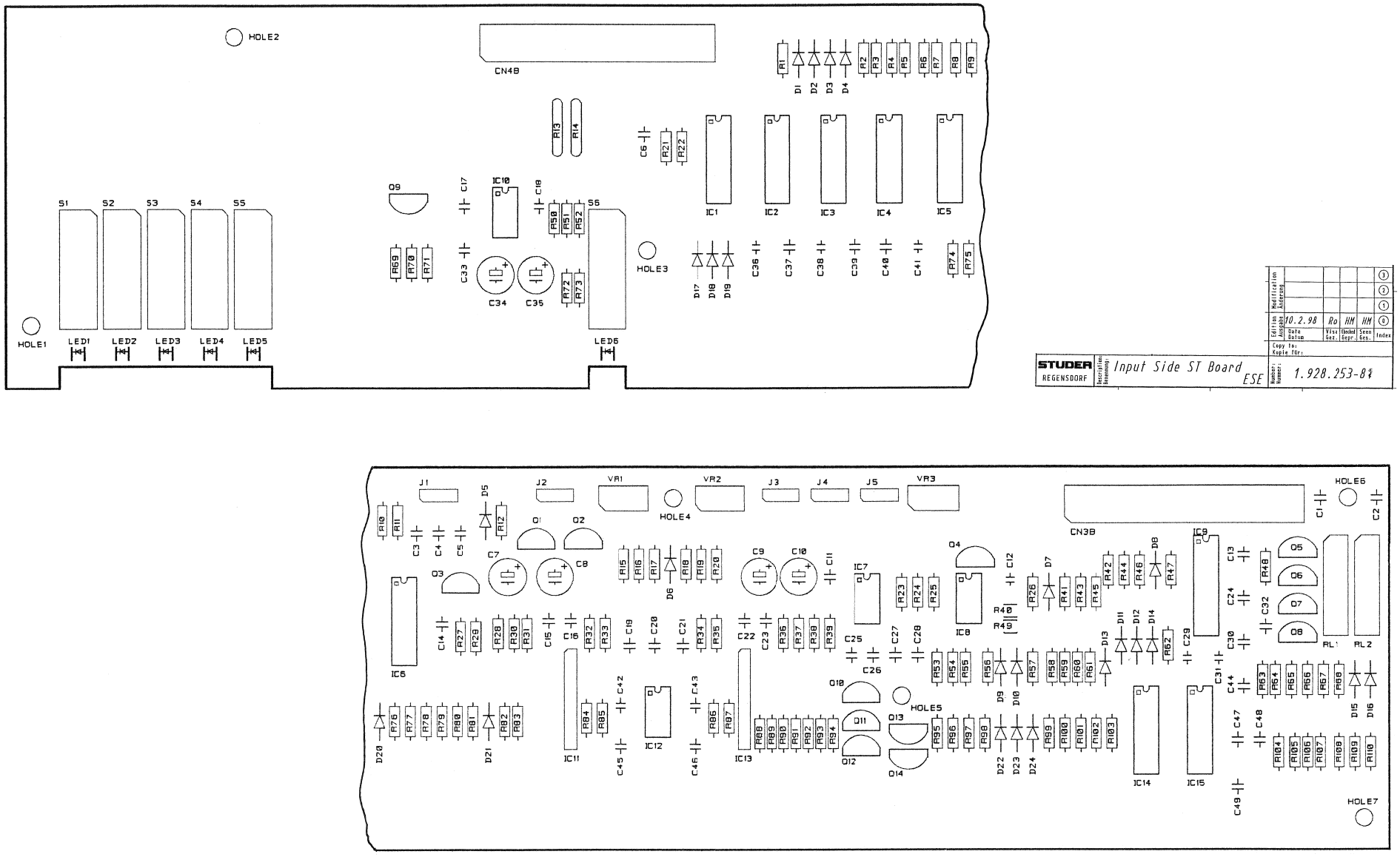
⓪ 05.01.98 PG	① 29.11.99 PG	○	○	○
				PAGE 1/2
STUDER	INPUT SIDE ST BOARD		SC	1.928.253.81

Input Side Stereo Board 1.928.253.81



⓪ 05.01.98 PG	① 29.11.99 PG	○	○	○
				PAGE 2/2
STUDER	INPUT SIDE ST BOARD		SC	1.928.253.81

Input Side Stereo Board 1.928.253.81



Input Side Stereo Board 1.928.253.81

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 2	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 3	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 4	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 5	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 6	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 7	59.22.4002		100u	EL 16V 20% RM5
0	C 8	59.22.4002		100u	EL 16V 20% RM5
0	C 9	59.22.4002		100u	EL 16V 20% RM5
0	C 10	59.22.4002		100u	EL 16V 20% RM5
0	C 11	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 12	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 13	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 14	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 15	59.06.0152		1n5	PETP, 63V, 10%, RM5
0	C 15	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 17	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 18	59.34.2470		47p	CER 63V, 5%, N150
0	C 19	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 20	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 21	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 22	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 23	59.06.0152		1n5	PETP, 63V, 10%, RM5
0	C 24	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 25	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 26	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 27	59.06.0153		15n	PETP, 63V, 10%, RM5
0	C 28	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 29	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 30	59.06.0683		68n	PETP, 63V, 10%, RM5
0	C 31	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 32	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 33	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 34	59.22.4002		100u	EL 16V 20% RM5
0	C 35	59.22.4002		100u	EL 16V 20% RM5
0	C 36	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 37	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 38	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 39	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 40	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 41	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 42	59.34.2470		47p	CER 63V, 5%, N150
0	C 43	59.34.2470		47p	CER 63V, 5%, N150
0	C 44	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 45	59.06.0152		1n5	PETP, 63V, 10%, RM5
0	C 46	59.06.0152		1n5	PETP, 63V, 10%, RM5
0	C 47	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 48	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 49	59.06.0103		10n	PETP, 63V, 10%, RM5
0	CN 3	1.023.113.06			FLACHKABEL 34 POL. 0,045M
0	CN 4	1.023.113.06			FLACHKABEL 34 POL. 0,045M
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 7	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 8	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 9	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 10	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 11	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 12	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 13	not used		1N4448	75V, 150mA, 4ns, DO-35
0	D 14	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 15	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 16	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 17	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 18	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 19	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 20	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 21	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 22	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 23	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 24	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	IC 1	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 2	50.07.0008		4093	Quad 2-inp NAND
0	IC 3	50.07.0008		4093	Quad 2-inp NAND
0	IC 4	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 5	50.07.0008		4093	Quad 2-inp NAND
0	IC 6	50.07.0013		4013	Dual D-type FF
0	IC 7	50.09.0117		MC33078	IC MC 33078 P
0	IC 8	50.09.0117		MC33078	IC MC 33078 P
0	IC 9	50.07.1538		4538	Dual retrigg monost multivibra
0	IC 10	50.09.0121		TL072B	IC TL 072 BCP ,A
0	IC 11	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 12	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 13	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 14	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 15	50.07.0081		4081	Quad 2-inp AND
0	J 1	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 2	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 3	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 4	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 5	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	LED 1	50.04.2206		L934GT	LED 3mm green
0	LED 2	50.04.2205		L934YT	LED 3mm yellow
0	LED 3	50.04.2205		L934YT	LED 3mm yellow
0	LED 4	50.04.2204		L934ID	LED 3mm red
0	LED 5	50.04.2204		L934ID	LED 3mm red
0	LED 6	50.04.2204		L934ID	LED 3mm red
0	MP 1	1.928.253.11	1 pce		INPUT SIDE ST PCB
0	MP 2	1.928.253.04	1 pce		NR. ETIKETTE 5X20
0	MP 3	43.01.0108	1 pce	Label	ESE-WARNSCHILD
0	MP 4	54.01.0021	5 pcs	Jumper	0.63*0.63mm, Au
0	MP 5	1.928.253.01	1 pce		Isolation
0	Q 1	50.03.0436		EC237B	BC 237 B, 547 B, 550 B,
0	Q 2	50.03.0436		EC237B	BC 237 B, 547 B, 550 B,
0	Q 3	50.03.0436		EC237B	BC 237 B, 547 B, 550 B,
0	Q 4	50.03.0436		EC237B	BC 237 B, 547 B, 550 B,
0	Q 5	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 6	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 7	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 8	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 9	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 10	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 11	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 12	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 13	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 14	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	R 1	57.11.3104		100k	MF, 1%, 0207
0	R 2	57.11.3104		100k	MF, 1%, 0207
0	R 3	57.11.3104		100k	MF, 1%, 0207
0	R 4	57.11.3104		100k	MF, 1%, 0207
0	R 5	57.11.3104		100k	MF, 1%, 0207
0	R 6	57.11.3104		100k	MF, 1%, 0207
0	R 7	57.11.3473		47k	MF, 1%, 0207
0	R 8	57.11.3104		100k	MF, 1%, 0207
0	R 9	57.11.3473		47k	MF, 1%, 0207
0	R 10	57.11.3104		100k	MF, 1%, 0207
0	R 11	57.11.3473		47k	MF, 1%, 0207
0	R 12	57.11.3104		100k	MF, 1%, 0207
0	R 13	57.92.7021		0.9A	PTC 6CV
0	R 14	57.92.7021		0.9A	PTC 6CV
0	R 15	57.11.3104		100k	MF, 1%, 0207
0	R 16	57.11.3473		47k	MF, 1%, 0207
0	R 17	57.11.3682		6k8	MF, 1%, 0207
0	R 18	57.11.3202		2k0	MF, 1%, 0207
0	R 19	57.11.3473		47k	MF, 1%, 0207
0	R 20	57.11.3103		10k	MF, 1%, 0207
0	R 21	57.11.3104		100k	MF, 1%, 0207
0	R 22	57.11.3473		47k	MF, 1%, 0207
0	R 23	57.11.3103		10k	MF, 1%, 0207
0	R 24	57.11.3103		10k	MF, 1%, 0207
0	R 25	57.11.3103		10k	MF, 1%, 0207
0	R 26	57.11.3104		100k	MF, 1%, 0207
0	R 27	57.11.3223		22k	MF, 1%, 0207
0	R 28	57.11.3104		100k	MF, 1%, 0207
0	R 29	57.11.3182		1k8	MF, 1%, 0207
0	R 30	57.11.3273		27k	MF, 1%, 0207

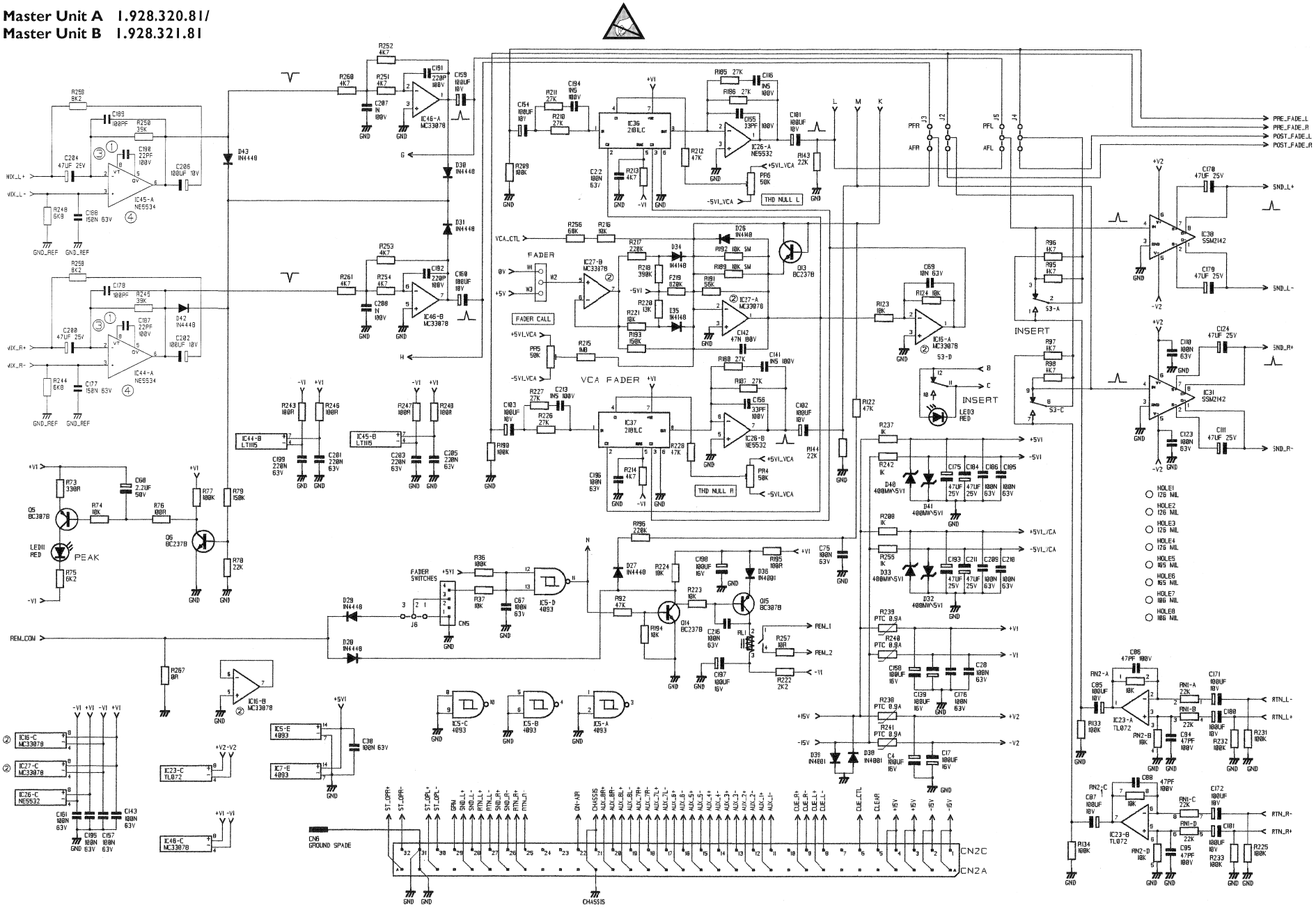
Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 31	57.11.3273		27k	MF, 1%, 0207
0	R 32	57.11.3473		47k	MF, 1%, 0207
0	R 33	57.11.3472		4k7	MF, 1%, 0207
0	R 34	57.11.3472		4k7	MF, 1%, 0207
0	R 35	57.11.3473		47k	MF, 1%, 0207
0	R 36	57.11.3273		27k	MF, 1%, 0207
0	R 37	57.11.3273		27k	MF, 1%, 0207
0	R 38	57.11.3104		100k	MF, 1%, 0207
0	R 39	57.11.3472		4k7	MF, 1%, 0207
0	R 40	57.69.8301		10k	PTC, 1%, +3300 PPM
0	R 41	57.11.5185		1M8	MF, 5%, 0207
0	R 42	57.11.3105		1M0	MF, 1%, 0207
0	R 43	57.11.3683		68k	MF, 1%, 0207
0	R 44	57.11.3104		100k	MF, 1%, 0207
0	R 45	57.11.3104		100k	MF, 1%, 0207
0	R 46	57.11.3224		220k	MF, 1%, 0207
0	R 47	57.11.3105		1M0	MF, 1%, 0207
0	R 48	57.11.3479		4R7	MF, 1%, 0207
0	R 49	57.69.8301		10k	PTC, 1%, +3300 PPM
0	R 50	57.11.3472		4k7	MF, 1%, 0207
0	R 51	57.11.3472		4k7	MF, 1%, 0207
0	R 52	57.11.3104		100k	MF, 1%, 0207
0	R 53	57.11.3823		82k	MF, 1%, 0207
0	R 54	57.11.3184		180k	MF, 1%, 0207
0	R 55	57.11.3224		220k	MF, 1%, 0207
0	R 56	57.11.3103		10k	MF, 1%, 0207
0	R 57	57.11.3133		13k	MF, 1%, 0207
0	R 58	57.11.3394		390k	MF, 1%, 0207
0	R 59	57.11.3154		150k	MF, 1%, 0207
0	R 60	57.11.3824		820k	MF, 1%, 0207
0	R 61	57.11.3823		82k	MF, 1%, 0207
0	R 62	57.11.3473		47k	MF, 1%, 0207
0	R 63	57.11.3223		22k	MF, 1%, 0207
0	R 64	57.11.3103		10k	MF, 1%, 0207
0	R 65	57.11.3223		22k	MF, 1%, 0207
0	R 66	57.11.3103		10k	MF, 1%, 0207
0	R 67	57.11.3222		2k2	MF, 1%, 0207
0	R 68	57.11.3222		2k2	MF, 1%, 0207
0	R 69	57.11.3151		150R	MF, 1%, 0207
0	R 70	57.11.3683		68k	MF, 1%, 0207
0	R 71	57.11.3472		4k7	MF, 1%, 0207
0	R 72	57.11.3104		100k	MF, 1%, 0207
0	R 73	57.11.3103		10k	MF, 1%, 0207
0	R 74	57.11.3224		220k	MF, 1%, 0207
0	R 75	57.11.3473		47k	MF, 1%, 0207
0	R 76	57.11.3223		22k	MF, 1%, 0207
0	R 77	57.11.3105		1M0	MF, 1%, 0207
0	R 78	57.11.3473		47k	MF, 1%, 0207
0	R 79	57.11.3473		47k	MF, 1%, 0207
0	R 80	57.11.3103		10k	MF, 1%, 0207
0	R 81	57.11.3224		220k	MF, 1%, 0207
0	R 82	57.11.3104		100k	MF, 1%, 0207
0	R 83	57.11.3224		220k	MF, 1%, 0207
0	R 84	57.11.3273		27k	MF, 1%, 0207
0	R 85	57.11.3273		27k	MF, 1%, 0207
0	R 86	57.11.3273		27k	MF, 1%, 0207
0	R 87	57.11.3273		27k	MF, 1%, 0207
0	R 88	57.11.3103		10k	MF, 1%, 0207
0	R 89	57.11.3223		22k	MF, 1%, 0207
0	R 90	57.11.3223		22k	MF, 1%, 0207
0	R 91	57.11.3223		22k	MF, 1%, 0207
0	R 92	57.11.3223		22k	MF, 1%, 0207
0	R 93	57.11.3103		10k	MF, 1%, 0207
0	R 94	57.11.3273		27k	MF, 1%, 0207
0	R 95	57.11.3682		6k8	MF, 1%, 0207
0	R 96	57.11.3223		22k	MF, 1%, 0207
0	R 97	57.11.3124		120k	MF, 1%, 0207
0	R 98	57.11.3151		150R	MF, 1%, 0207
0	R 99	57.11.3333		33k	MF, 1%, 0207
0	R 100	57.11.3103		10k	MF, 1%, 0207
0	R 101	57.11.3104		100k	MF, 1%, 0207
0	R 102	57.11.3333		33k	MF, 1%, 0207
0	R 103	57.11.3104		100k	MF, 1%, 0207
0	R 104	57.11.3473		47k	MF, 1%, 0207
0	R 105	57.11.3104		100k	MF, 1%, 0207
0	R 106	57.11.3334		330k	MF, 1%, 0207

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 107	57.11.3154		150k	MF, 1%, 0207
0	R 108	57.11.3103		10k	MF, 1%, 0207
0	R 109	not used		10k	MF, 1%, 0207
0	R 110	57.11.3103		10k	MF, 1%, 0207
0	RL 1	56.02.1101			Reed Relay
0	RL 2	56.02.1101			Reed Relay
0	S 1	55.15.0931		2*u	rastend
0	S 2	55.15.0931		2*u	rastend
0	S 3	55.15.0931		2*u	rastend
0	S 4	55.15.0932		2*u	impuls
0	S 5	55.15.0931		2*u	rastend
0	S 6	55.15.0931		2*u	rastend
0	VR 1	58.01.9203		20k	Cermet, 10%, 0.5W, vertical
0	VR 2	58.01.9203		20k	Cermet, 10%, 0.5W, vertical
0	VR 3	58.01.9503		50k	Cermet, 10%, 0.5W, vertical

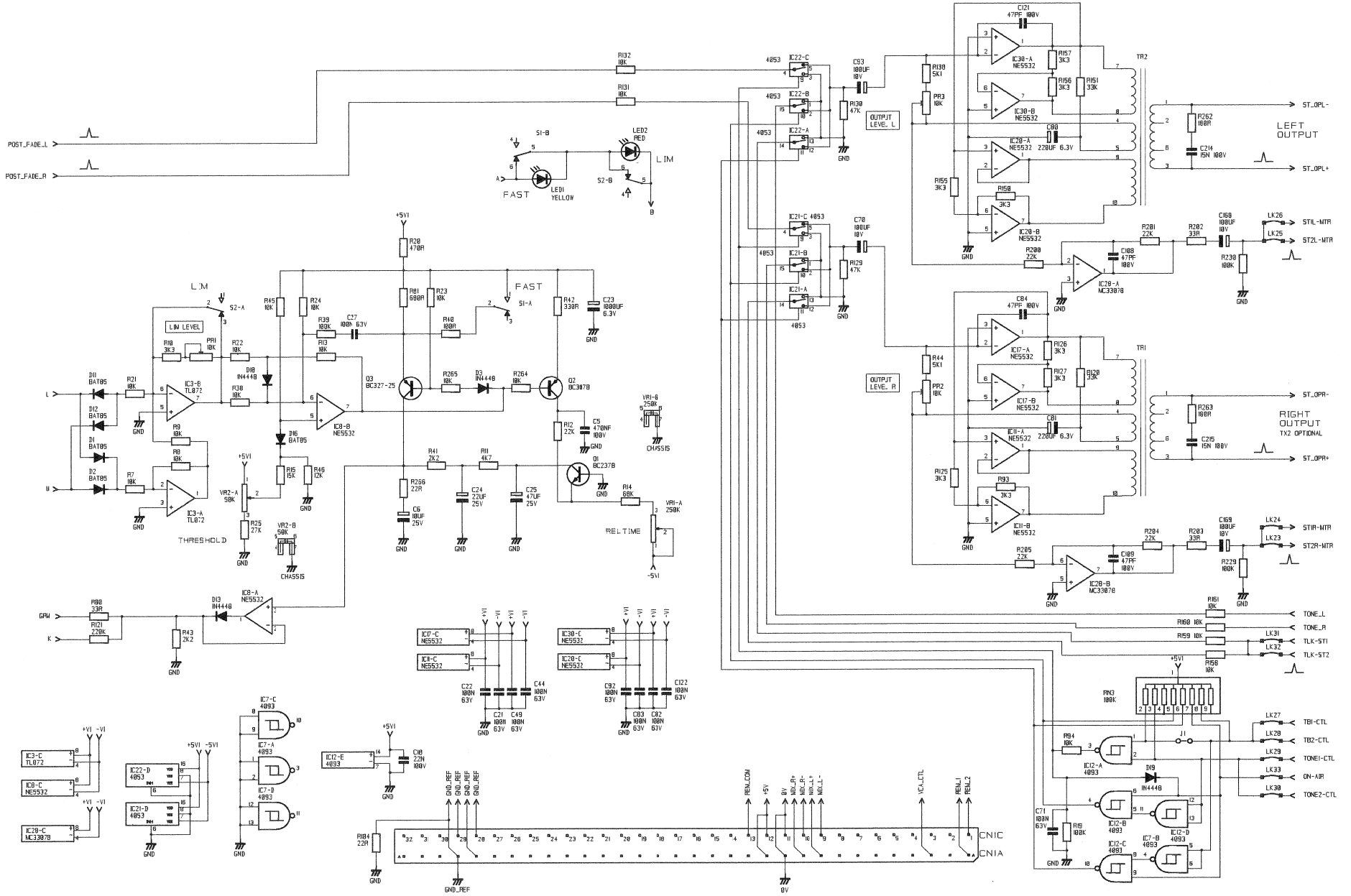
End of List

Comments

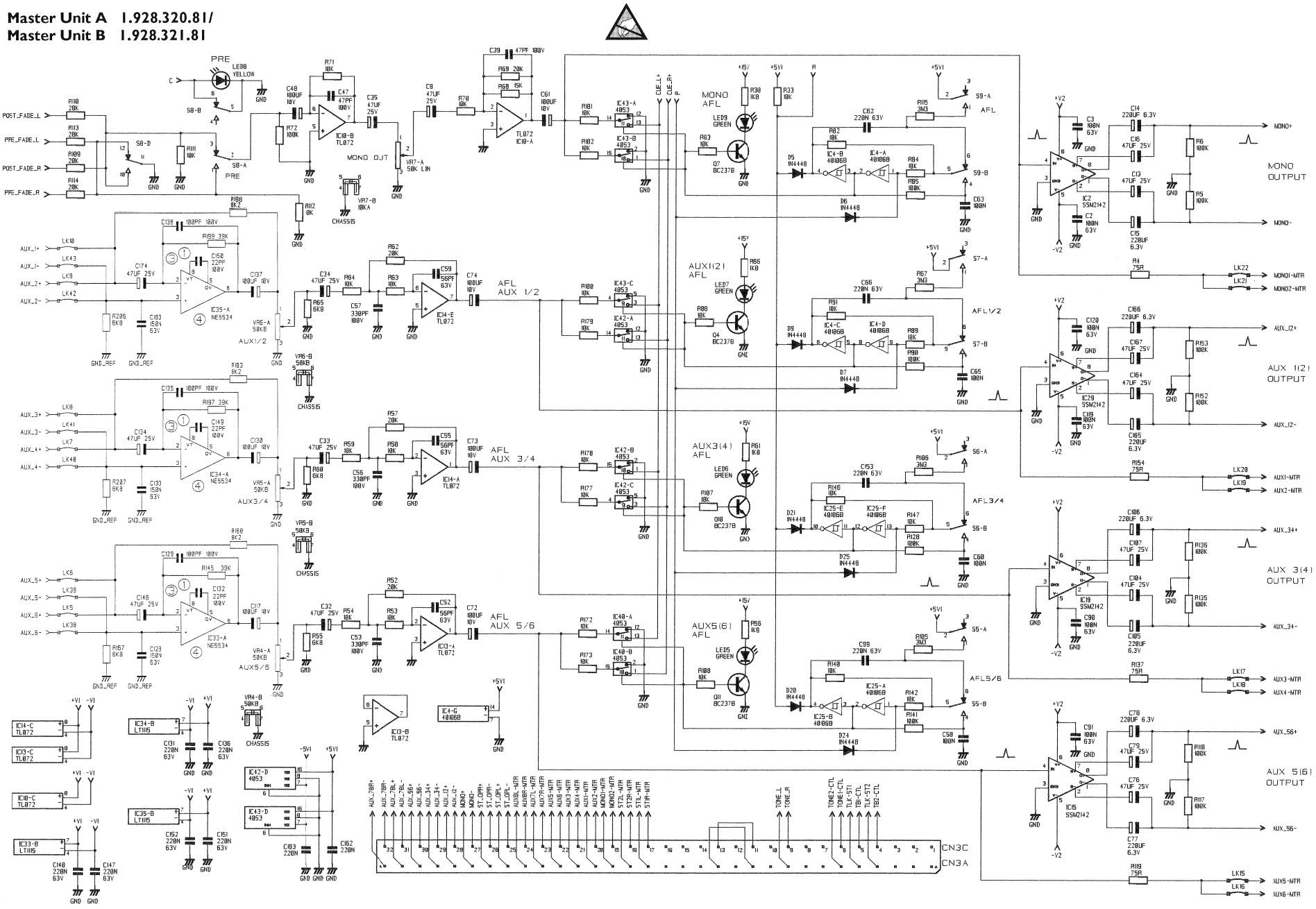
Master Unit A 1.928.320.81/
Master Unit B 1.928.321.81



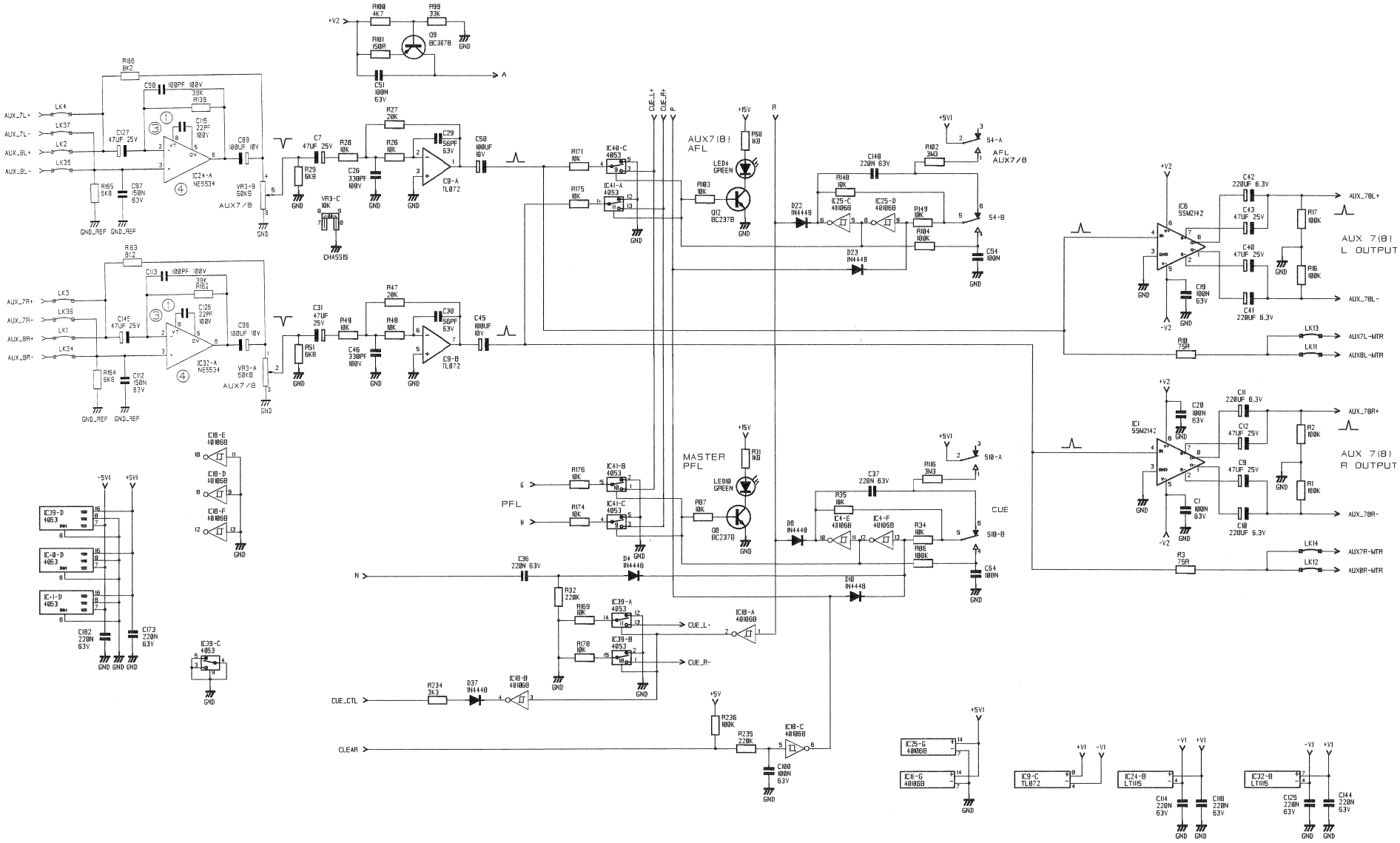
Master Unit A 1.928.320.81/
Master Unit B 1.928.321.81



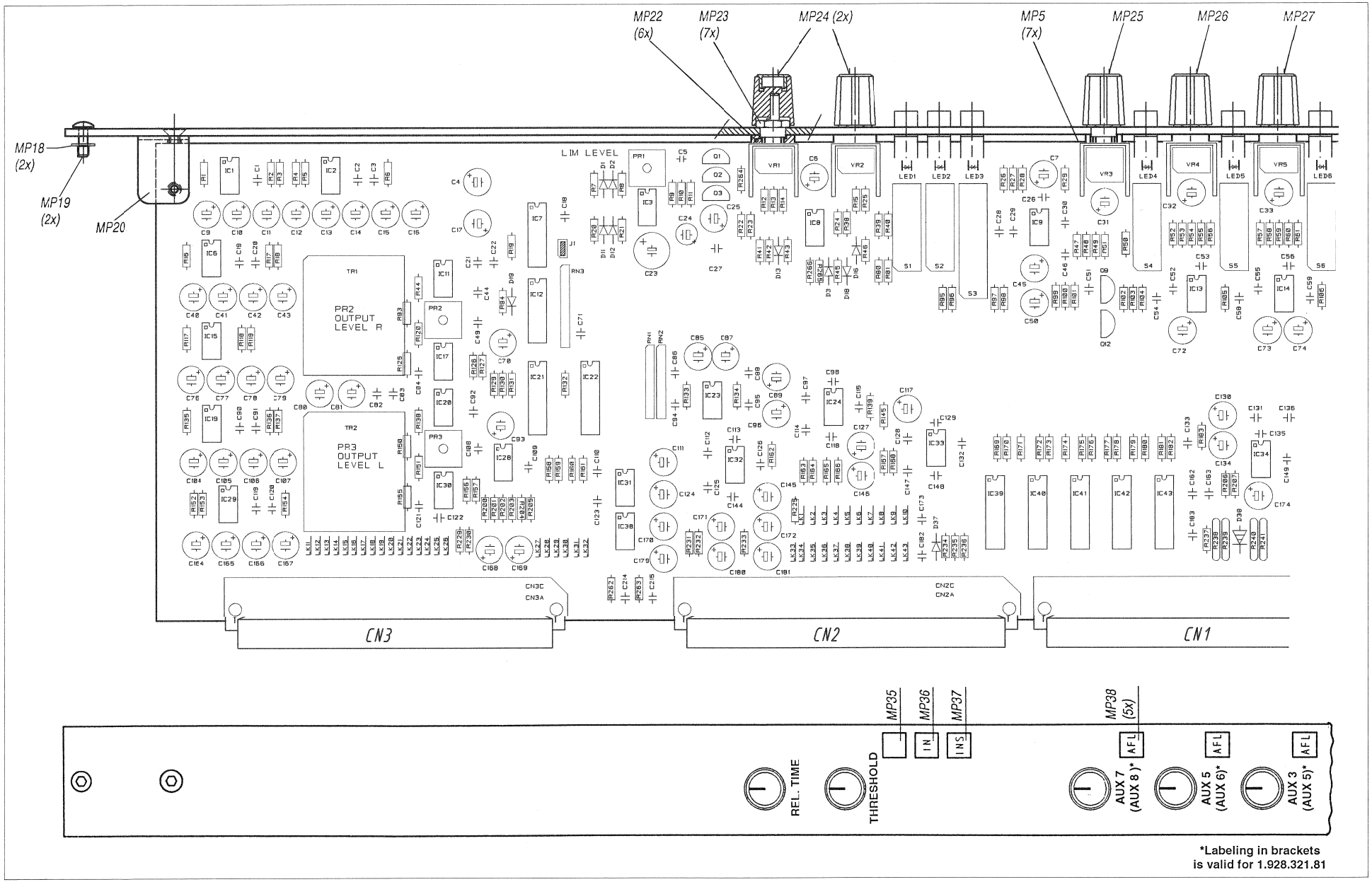
Master Unit A 1.928.320.81/
Master Unit B 1.928.321.81



Master Unit A 1.928.320.81/
Master Unit B 1.928.321.81

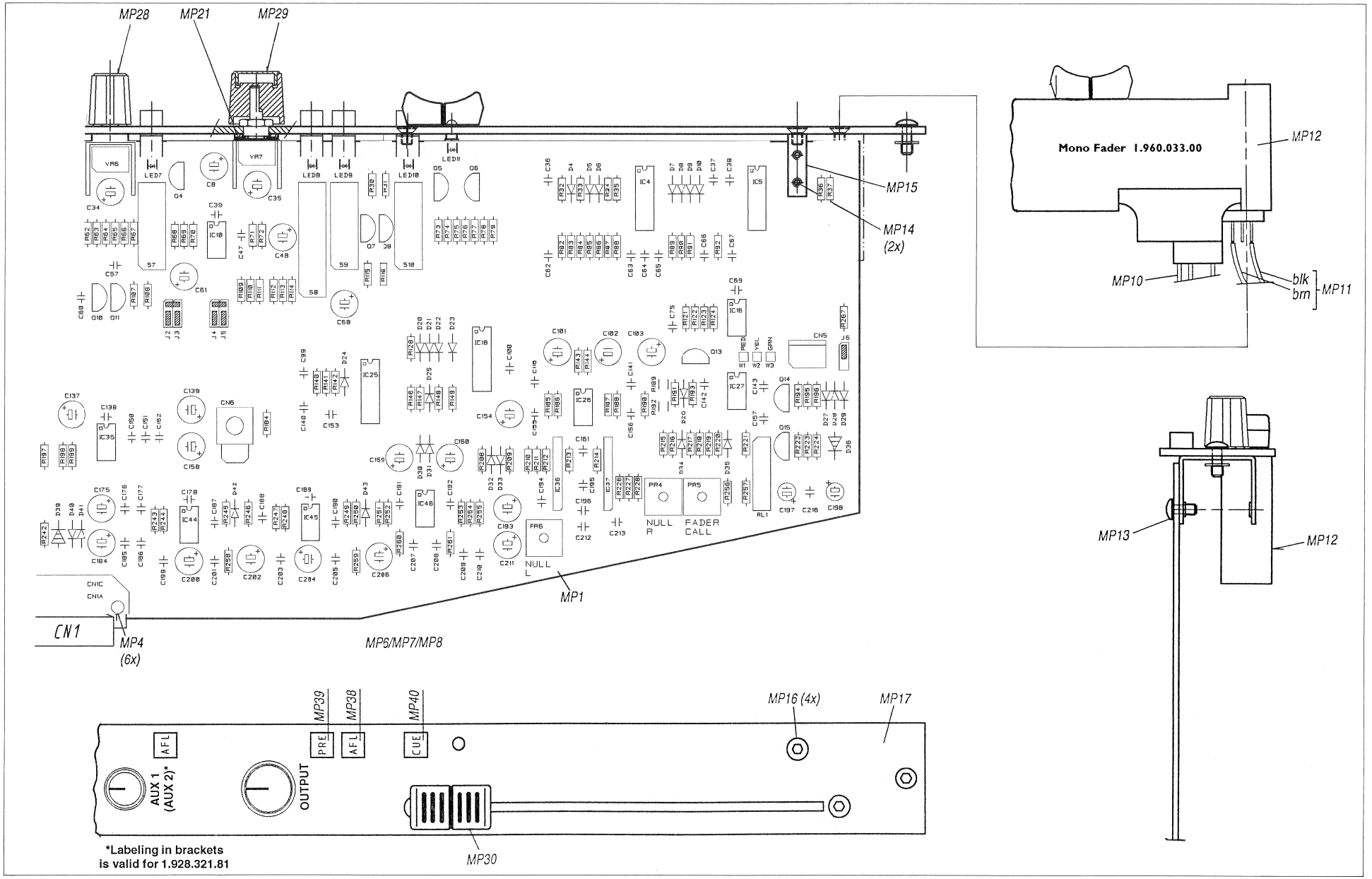


Master Unit A 1.928.320.81/
Master Unit B 1.928.321.81



*Labeling in brackets is valid for 1.928.321.81

Master Unit A 1.928.320.81/
Master Unit B 1.928.321.81



MASTER UNIT A 1.928.320.81 (5)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 2	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 3	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 4	59.22.4002		100u	EL 16V 20% RM5
0	C 5	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 6	59.22.6100		10u	EL 35V 20% RM5
0	C 7	59.22.3470		47u	EL 10V 20% RM5
0	C 8	59.22.3470		47u	EL 10V 20% RM5
0	C 9	59.22.3470		47u	EL 10V 20% RM5
0	C 10	59.22.3003		220u	EL 10V 20% RM5
0	C 11	59.22.3003		220u	EL 10V 20% RM5
0	C 12	59.22.3470		47u	EL 10V 20% RM5
0	C 13	59.22.3470		47u	EL 10V 20% RM5
0	C 14	59.22.3003		220u	EL 10V 20% RM5
0	C 15	59.22.3003		220u	EL 10V 20% RM5
0	C 16	59.22.3470		47u	EL 10V 20% RM5
0	C 17	59.22.4002		100u	EL 16V 20% RM5
0	C 18	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 19	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 20	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 21	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 22	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 23	59.22.2102		1m0	EL 6.3V 20% RM5
0	C 24	59.22.5220		22u	EL 25V 20% RM5
0	C 25	59.22.3470		47u	EL 10V 20% RM5
0	C 26	59.34.4331		330p	CER 63V, 5%, N750
0	C 27	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 28	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 29	59.34.4560		56p	CER 63V, 5%, N750
0	C 30	59.34.4560		56p	CER 63V, 5%, N750
0	C 31	59.22.3470		47u	EL 10V 20% RM5
0	C 32	59.22.3470		47u	EL 10V 20% RM5
0	C 33	59.22.3470		47u	EL 10V 20% RM5
0	C 34	59.22.3470		47u	EL 10V 20% RM5
0	C 35	59.22.3470		47u	EL 10V 20% RM5
0	C 36	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 37	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 38	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 39	59.34.2470		47p	CER 63V, 5%, N150
0	C 40	59.22.3470		47u	EL 10V 20% RM5
0	C 41	59.22.3003		220u	EL 10V 20% RM5
0	C 42	59.22.3003		220u	EL 10V 20% RM5
0	C 43	59.22.3470		47u	EL 10V 20% RM5
0	C 44	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 45	59.22.4002		100u	EL 16V 20% RM5
0	C 46	59.34.4331		330p	CER 63V, 5%, N750
0	C 47	59.34.2470		47p	CER 63V, 5%, N150
0	C 48	59.22.4002		100u	EL 16V 20% RM5
0	C 49	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 50	59.22.4002		100u	EL 16V 20% RM5
0	C 51	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 52	59.34.4560		56p	CER 63V, 5%, N750
0	C 53	59.34.4331		330p	CER 63V, 5%, N750
0	C 54	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 55	59.34.4560		56p	CER 63V, 5%, N750
0	C 56	59.34.4331		330p	CER 63V, 5%, N750
0	C 57	59.34.4331		330p	CER 63V, 5%, N750
0	C 58	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 59	59.34.4560		56p	CER 63V, 5%, N750
0	C 60	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 61	59.22.4002		100u	EL 16V 20% RM5
0	C 62	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 63	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 64	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 65	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 66	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 67	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 68	59.22.8229		2u2	EL 50V 20% RM5
0	C 69	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 70	59.22.4002		100u	EL 16V 20% RM5
0	C 71	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 72	59.22.4002		100u	EL 16V 20% RM5
0	C 73	59.22.4002		100u	EL 16V 20% RM5
0	C 74	59.22.4002		100u	EL 16V 20% RM5
0	C 75	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 76	59.22.3470		47u	EL 10V 20% RM5
0	C 77	59.22.3003		220u	EL 10V 20% RM5
0	C 78	59.22.3003		220u	EL 10V 20% RM5
0	C 79	59.22.3470		47u	EL 10V 20% RM5
0	C 80	59.22.3003		220u	EL 10V 20% RM5
0	C 81	59.22.3003		220u	EL 10V 20% RM5
0	C 82	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 83	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 84	59.34.2470		47p	CER 63V, 5%, N150
0	C 85	59.22.4002		100u	EL 16V 20% RM5
0	C 86	59.34.2470		47p	CER 63V, 5%, N150
0	C 87	59.22.4002		100u	EL 16V 20% RM5
0	C 88	59.34.2470		47p	CER 63V, 5%, N150
0	C 89	59.22.4002		100u	EL 16V 20% RM5
0	C 90	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 91	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 92	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 93	59.22.4002		100u	EL 16V 20% RM5
0	C 94	59.34.2470		47p	CER 63V, 5%, N150
0	C 95	59.34.2470		47p	CER 63V, 5%, N150
0	C 96	59.22.4002		100u	EL 16V 20% RM5
0	C 97	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 98	59.34.4101		100p	CER 63V, 5%, N750
0	C 99	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 100	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 101	59.22.4002		100u	EL 16V 20% RM5
0	C 102	59.22.4002		100u	EL 16V 20% RM5
0	C 103	59.22.4002		100u	EL 16V 20% RM5
0	C 104	59.22.3470		47u	EL 10V 20% RM5
0	C 105	59.22.3003		220u	EL 10V 20% RM5
0	C 106	59.22.3003		220u	EL 10V 20% RM5
0	C 107	59.22.3470		47u	EL 10V 20% RM5
0	C 108	59.34.2470		47p	CER 63V, 5%, N150
0	C 109	59.34.2470		47p	CER 63V, 5%, N150
0	C 110	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 111	59.22.3470		47u	EL 10V 20% RM5
0	C 112	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 113	59.34.4101		100p	CER 63V, 5%, N750
0	C 114	59.06.0224		220n	PETP, 63V, 10%, RM5
3	C 115	59.34.2220		22p	CER 63V, 5%, N150
5	C 116	59.05.1152		1n5	PP, 1%, 160V
0	C 117	59.22.4002		100u	EL 16V 20% RM5
0	C 118	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 119	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 120	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 121	59.34.2470		47p	CER 63V, 5%, N150
0	C 122	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 123	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 124	59.22.3470		47u	EL 10V 20% RM5
0	C 125	59.06.0224		220n	PETP, 63V, 10%, RM5
3	C 126	59.34.2220		22p	CER 63V, 5%, N150
0	C 127	59.22.3470		47u	EL 10V 20% RM5
0	C 128	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 129	59.34.4101		100p	CER 63V, 5%, N750
0	C 130	59.22.4002		100u	EL 16V 20% RM5
0	C 131	59.06.0224		220n	PETP, 63V, 10%, RM5
3	C 132	59.34.2220		22p	CER 63V, 5%, N150
0	C 133	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 134	59.22.3470		47u	EL 10V 20% RM5
0	C 135	59.34.4101		100p	CER 63V, 5%, N750
0	C 136	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 137	59.22.4002		100u	EL 16V 20% RM5
0	C 138	59.34.4101		100p	CER 63V, 5%, N750
0	C 139	59.22.4002		100u	EL 16V 20% RM5
0	C 140	59.06.0224		220n	PETP, 63V, 10%, RM5
5	C 141	59.05.1152		1n5	PP, 1%, 160V
0	C 142	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 143	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 144	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 145	59.22.3470		47u	EL 10V 20% RM5
0	C 146	59.22.3470		47u	EL 10V 20% RM5
0	C 147	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 148	59.06.0224		220n	PETP, 63V, 10%, RM5
3	C 149	59.34.2220		22p	CER 63V, 5%, N150
3	C 150	59.34.2220		22p	CER 63V, 5%, N150
0	C 151	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 152	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 153	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 154	59.22.4002		100u	EL 16V 20% RM5
0	C 155	59.34.2330		33p	CER 63V, 5%, N150
0	C 156	59.34.2330		33p	CER 63V, 5%, N150
0	C 157	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 158	59.22.4002		100u	EL 16V 20% RM5
0	C 159	59.22.4002		100u	EL 16V 20% RM5
0	C 160	59.22.4002		100u	EL 16V 20% RM5
0	C 161	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 162	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 163	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 164	59.22.3470		47u	EL 10V 20% RM5
0	C 165	59.22.3003		220u	EL 10V 20% RM5
0	C 166	59.22.3003		220u	EL 10V 20% RM5
0	C 167	59.22.3470		47u	EL 10V 20% RM5
0	C 168	59.22.4002		100u	EL 16V 20% RM5
0	C 169	59.22.4002		100u	EL 16V 20% RM5
0	C 170	59.22.3470		47u	EL 10V 20% RM5
0	C 171	59.22.4002		100u	EL 16V 20% RM5
0	C 172	59.22.4002		100u	EL 16V 20% RM5
0	C 173	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 174	59.22.3470		47u	EL 10V 20% RM5

MASTER UNIT A 1.928.320.81 (5)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 175	59.22.3470		47u	EL 10V 20% RM5
0	C 176	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 177	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 178	59.34.4101		100p	CER 63V, 5%, N750
0	C 179	59.22.3470		47u	EL 10V 20% RM5
0	C 180	59.22.4002		100u	EL 16V 20% RM5
0	C 181	59.22.4002		100u	EL 16V 20% RM5
0	C 182	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 183	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 184	59.22.3470		47u	EL 10V 20% RM5
0	C 185	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 186	59.06.0104		100n	PETP, 63V, 10%, RM5
3	C 187	59.34.2220		22p	CER 63V, 5%, N150
0	C 188	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 189	59.34.4101		100p	CER 63V, 5%, N750
3	C 190	59.34.2220		22p	CER 63V, 5%, N150
0	C 191	59.34.4221		220p	CER 63V, 5%, N750
0	C 192	59.34.4221		220p	CER 63V, 5%, N750
0	C 193	59.22.3470		47u	EL 10V 20% RM5
5	C 194	59.05.1152		1n5	PP, 1%, 160V
0	C 195	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 196	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 197	59.22.4002		100u	EL 16V 20% RM5
0	C 198	59.22.4002		100u	EL 16V 20% RM5
0	C 199	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 200	59.22.3470		47u	EL 10V 20% RM5
0	C 201	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 202	59.22.4002		100u	EL 16V 20% RM5
0	C 203	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 204	59.22.3470		47u	EL 10V 20% RM5
0	C 205	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 206	59.22.4002		100u	EL 16V 20% RM5
0	C 207	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 208	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 209	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 210	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 211	59.22.3470		47u	EL 10V 20% RM5
0	C 212	59.06.0104		100n	PETP, 63V, 10%, RM5
5	C 213	59.05.1152		1n5	PP, 1%, 160V
0	C 214	59.06.0153		15n	PETP, 63V, 10%, RM5
0	C 215	59.06.0153		15n	PETP, 63V, 10%, RM5
0	C 216	59.06.0104		100n	PETP, 63V, 10%, RM5
0	CN 1	54.01.0365		64p	EU-C 2*32, a,c
0	CN 2	54.01.0365		64p	EU-C 2*32, a,c
0	CN 3	54.01.0365		64p	EU-C 2*32, a,c
0	CN 5	54.12.0704		4p	Stecker gerade PCB
0	CN 6	54.02.0343			P FLACH, 6.3*0.8, WINKEL 45
0	D 1	50.04.0127		BAT85	200mA, Schottky
0	D 2	50.04.0127		BAT85	200mA, Schottky
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 7	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 8	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 9	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 10	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 11	50.04.0127		BAT85	200mA, Schottky
0	D 12	50.04.0127		BAT85	200mA, Schottky
0	D 13	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 16	50.04.0127		BAT85	200mA, Schottky
0	D 18	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 19	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 20	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 21	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 22	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 23	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 24	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 25	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 26	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 27	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 28	not used		1N4448	75V, 150mA, 4ns, DO-35
0	D 29	not used		1N4448	75V, 150mA, 4ns, DO-35
0	D 30	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 31	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 32	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	D 33	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	D 34	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 35	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 36	50.04.0122		1N4001	1A, DO 41
0	D 37	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 38	50.04.0122		1N4001	1A, DO 41
0	D 39	50.04.0122		1N4001	1A, DO 41
0	D 40	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	D 41	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	D 42	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 43	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	IC 1	50.09.0124		2142	Audio balanced line driver
0	IC 2	50.09.0124		2142	Audio balanced line driver
0	IC 3	50.09.0101		072	IC TL 072 CN ,A
0	IC 4	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 5	50.07.0008		4093	Quad 2-inp NAND
0	IC 6	50.09.0124		2142	Audio balanced line driver
0	IC 7	50.07.0008		4093	Quad 2-inp NAND
0	IC 8	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 9	50.09.0101		072	IC TL 072 CN ,A
0	IC 10	50.09.0101		072	IC TL 072 CN ,A
0	IC 11	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 12	50.07.0008		4093	Quad 2-inp NAND
0	IC 13	50.09.0101		072	IC TL 072 CN ,A
0	IC 14	50.09.0101		072	IC TL 072 CN ,A
0	IC 15	50.09.0124		2142	Audio balanced line driver
2	IC 16	50.09.0117		33078	IC MC 33078 P
0	IC 17	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 18	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 19	50.09.0124		2142	Audio balanced line driver
0	IC 20	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 21	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 22	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 23	50.09.0101		072	IC TL 072 CN ,A
4	IC 24	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
0	IC 25	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 26	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
2	IC 27	50.09.0117		33078	IC MC 33078 P
0	IC 28	50.09.0117		33078	IC MC 33078 P
0	IC 29	50.09.0124		2142	Audio balanced line driver
0	IC 30	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 31	50.09.0124		2142	Audio balanced line driver
4	IC 32	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
4	IC 33	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
4	IC 34	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
4	IC 35	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
0	IC 36	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 37	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 38	50.09.0124		2142	Audio balanced line driver
0	IC 39	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 40	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 41	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 42	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 43	50.07.0015		4053	Tripple 2ch analog mux/demux
4	IC 44	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
4	IC 45	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
0	IC 46	50.09.0117		33078	IC MC 33078 P
0	J 1	54.01.0020	2 pcs	1p	Pin, 1reihig, gerade
0	J 2	54.11.0136	1 pce	2*3p	Pin 0.63*0.63, RM2.54
0	J 3	not used	3 pcs	1p	Pin, 1reihig, gerade
0	J 4	54.11.0136	1 pce	2*3p	Pin 0.63*0.63, RM2.54
0	J 5	not used	3 pcs	1p	Pin, 1reihig, gerade
0	J 6	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	LED 1	50.04.2205		L934YT	LED 3mm yellow
0	LED 2	50.04.2204		L934ID	LED 3mm red
0	LED 3	50.04.2204		L934ID	LED 3mm red
0	LED 4	50.04.2206		L934GT	LED 3mm green
0	LED 5	50.04.2206		L934GT	LED 3mm green
0	LED 6	50.04.2206		L934GT	LED 3mm green
0	LED 7	50.04.2206		L934GT	LED 3mm green
0	LED 8	50.04.2205		L934YT	LED 3mm yellow
0	LED 9	50.04.2206		L934GT	LED 3mm green
0	LED 10	50.04.2206		L934GT	LED 3mm green
0	LED 11	50.04.2129		LS3360	DL LS 3360 , RT DIFF
0	LK 1	not used			SCHALTDRAHT SN D 0.6
0	LK 2	not used			SCHALTDRAHT SN D 0.6
0	LK 3	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 4	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 5	not used			SCHALTDRAHT SN D 0.6
0	LK 6	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 7	not used			SCHALTDRAHT SN D 0.6
0	LK 8	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 9	not used			SCHALTDRAHT SN D 0.6
0	LK 10	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 11	not used			SCHALTDRAHT SN D 0.6
0	LK 12	not used			SCHALTDRAHT SN D 0.6
0	LK 13	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 14	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 15	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 16	not used			SCHALTDRAHT SN D 0.6
0	LK 17	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 18	not used			SCHALTDRAHT SN D 0.6
0	LK 19	not used			SCHALTDRAHT SN D 0.6
0	LK 20	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 21	not used			SCHALTDRAHT SN D 0.6
0	LK 22	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 23	not used			SCHALTDRAHT SN D 0.6
0	LK 24	64.01.0106			SCHALTDRAHT SN D 0.6

MASTER UNIT A 1.928.320.81 (5)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	LK 25	not used			SCHALTDRAHT SN D 0.6
0	LK 26	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 27	not used			SCHALTDRAHT SN D 0.6
0	LK 28	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 29	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 30	not used			SCHALTDRAHT SN D 0.6
0	LK 31	not used			SCHALTDRAHT SN D 0.6
0	LK 32	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 33	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 34	not used			SCHALTDRAHT SN D 0.6
0	LK 35	not used			SCHALTDRAHT SN D 0.6
0	LK 36	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 37	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 38	not used			SCHALTDRAHT SN D 0.6
0	LK 39	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 40	not used			SCHALTDRAHT SN D 0.6
0	LK 41	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 42	not used			SCHALTDRAHT SN D 0.6
0	LK 43	64.01.0106			SCHALTDRAHT SN D 0.6
0	MP 1	1.928.320.12	1 pce		MASTER MAIN PCB
0	MP 2	1.928.320.04	1 pce		STUDER NR. ETIKETTE 10x20
0	MP 3	43.01.0108	1 pce	Label	ESE-WARNSCHILD
0	MP 4	28.99.0119	6 pcs		ROHRNIETE D 2.5*0.15* 9
0	MP 5	1.928.220.09	7 pcs		9mm ALPS POT BRACKET WITH PIP
0	MP 6	21.51.8455	1 pce	M4*8	Linsenkopf-Schr IS, Ni
0	MP 7	22.01.8040	1 pce	M4	6kt-Mutter 0.8d St gb
0	MP 8	24.16.2040	2 pcs	4.3/8.0	Fächerscheibe Form A
0	MP 9	54.01.0021	8 pcs	Jumper	0.63*0.63mm, Au
0	MP 10	1.942.210.93	1 pce		LL-FADER
0	MP 11	1.928.220.93	1 pce		LL-Fader
0	MP 12	1.960.033.00	1 pce		MONOFADER LIN. P+G 100MM
0	MP 13	21.53.8706	1 pce	M3*6	Lin-Schr IS, Zn gb, Tuflock
0	MP 14	21.53.0279	2 pcs	M2.5*6	Z-Schraube Inbus Zn gb chr
0	MP 15	1.928.220.05	1 pce		STÜTZBOLZEN
0	MP 16	21.99.0175	4 pcs	M3*6	S-Schraube IS A2 sw oxydiert
0	MP 17	1.928.320.01	1 pce		FRONTPLATTE
0	MP 18	24.16.3023	2 pcs	2.3	Wellensicherung
0	MP 19	1.010.022.21	2 pcs	M3*8	L-Schraube IS sw spezial
0	MP 20	1.928.220.03	1 pce		PRINTHALTER
0	MP 21	1.928.220.06	1 pce		ZENTRIERSCHEIBE 1
0	MP 22	1.928.220.07	6 pcs		ZENTRIERSCHEIBE 2,8
0	MP 23	1.928.220.08	7 pcs		MUTTER M7x0,75
0	MP 24	42.01.1208	2 pcs		DREHKNOPF D11 gr/hellgr
0	MP 25	42.01.1206	1 pce		DREHKNOPF D11 gr/bl
0	MP 26	42.01.1205	1 pce		DREHKNOPF D11 gr/gn
2	MP 27	42.01.1204	1 pce		DREHKNOPF D11 gr/gb
2	MP 28	42.01.1202	1 pce		DREHKNOPF D11 gr/rt
0	MP 29	42.01.1220	1 pce		DREHKNOPF D15 gr/gr
0	MP 30	1.911.000.42	1 pce		KNOPF ROT
0	MP 35	1.928.201.99	1 pce		PUSH BUTTON LEER
0	MP 36	1.928.201.28	1 pce		PUSH BUTTON IN
0	MP 37	1.928.201.29	1 pce		PUSH BUTTON INS
0	MP 38	1.928.201.18	5 pcs		PUSH BUTTON AFL
0	MP 39	1.928.201.37	1 pce		PUSH BUTTON PRE
0	MP 40	1.928.201.20	1 pce		PUSH BUTTON CUE
5	MP 41	43.10.0111		B	Revisions-Etikette 5mm h'blau
0	PR 1	58.01.8103		10k	Cermet, 10%, 0.5W, horizontal
0	PR 2	58.01.8103		10k	Cermet, 10%, 0.5W, horizontal
0	PR 3	58.01.8103		10k	Cermet, 10%, 0.5W, horizontal
0	PR 4	58.01.8503		50k	Cermet, 10%, 0.5W, horizontal
0	PR 5	58.01.8503		50k	Cermet, 10%, 0.5W, horizontal
0	PR 6	58.01.8503		50k	Cermet, 10%, 0.5W, horizontal
0	Q 1	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 2	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 3	50.03.0351		BC327-25	PNP, 800mA
0	Q 4	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 5	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 6	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 7	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 8	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 9	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 10	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 11	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 12	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 13	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 14	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 15	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	R 1	57.11.3104		100k	MF, 1%, 0207
0	R 2	57.11.3104		100k	MF, 1%, 0207
0	R 3	57.11.3750		75R	MF, 1%, 0207
0	R 4	57.11.3750		75R	MF, 1%, 0207
0	R 5	57.11.3104		100k	MF, 1%, 0207
0	R 6	57.11.3104		100k	MF, 1%, 0207
0	R 7	57.11.3103		10k	MF, 1%, 0207
0	R 8	57.11.3103		10k	MF, 1%, 0207
0	R 9	57.11.3103		10k	MF, 1%, 0207
0	R 10	57.11.3332		3k3	MF, 1%, 0207
0	R 11	57.11.3472		4k7	MF, 1%, 0207
0	R 12	57.11.3223		22k	MF, 1%, 0207
0	R 13	57.11.3103		10k	MF, 1%, 0207
0	R 14	57.11.3683		68k	MF, 1%, 0207
0	R 15	57.11.3153		15k	MF, 1%, 0207
0	R 16	57.11.3104		100k	MF, 1%, 0207
0	R 17	57.11.3104		100k	MF, 1%, 0207
0	R 18	57.11.3750		75R	MF, 1%, 0207
0	R 19	57.11.3104		100k	MF, 1%, 0207
0	R 20	57.11.3471		470R	MF, 1%, 0207
0	R 21	57.11.3103		10k	MF, 1%, 0207
0	R 22	57.11.3103		10k	MF, 1%, 0207
0	R 23	57.11.3103		10k	MF, 1%, 0207
0	R 24	57.11.3103		10k	MF, 1%, 0207
0	R 25	57.11.3273		27k	MF, 1%, 0207
0	R 26	57.11.3103		10k	MF, 1%, 0207
0	R 27	57.11.3203		20k	MF, 1%, 0207
0	R 28	57.11.3103		10k	MF, 1%, 0207
0	R 29	57.11.3682		6k8	MF, 1%, 0207
0	R 30	57.11.3182		1k8	MF, 1%, 0207
0	R 31	57.11.3182		1k8	MF, 1%, 0207
0	R 32	57.11.3224		220k	MF, 1%, 0207
0	R 33	57.11.3103		10k	MF, 1%, 0207
0	R 34	57.11.3103		10k	MF, 1%, 0207
0	R 35	57.11.3103		10k	MF, 1%, 0207
0	R 36	57.11.3104		100k	MF, 1%, 0207
0	R 37	57.11.3103		10k	MF, 1%, 0207
0	R 38	57.11.3103		10k	MF, 1%, 0207
0	R 39	57.11.3104		100k	MF, 1%, 0207
0	R 40	57.11.3101		100R	MF, 1%, 0207
0	R 41	57.11.3222		2k2	MF, 1%, 0207
0	R 42	57.11.3331		330R	MF, 1%, 0207
0	R 43	57.11.3222		2k2	MF, 1%, 0207
0	R 44	57.11.3512		5k1	MF, 1%, 0207
0	R 45	57.11.3103		10k	MF, 1%, 0207
0	R 46	57.11.3123		12k	MF, 1%, 0207
0	R 47	57.11.3203		20k	MF, 1%, 0207
0	R 48	57.11.3103		10k	MF, 1%, 0207
0	R 49	57.11.3103		10k	MF, 1%, 0207
0	R 50	57.11.3182		1k8	MF, 1%, 0207
0	R 51	57.11.3682		6k8	MF, 1%, 0207
0	R 52	57.11.3203		20k	MF, 1%, 0207
0	R 53	57.11.3103		10k	MF, 1%, 0207
0	R 54	57.11.3103		10k	MF, 1%, 0207
0	R 55	57.11.3682		6k8	MF, 1%, 0207
0	R 56	57.11.3182		1k8	MF, 1%, 0207
0	R 57	57.11.3203		20k	MF, 1%, 0207
0	R 58	57.11.3103		10k	MF, 1%, 0207
0	R 59	57.11.3103		10k	MF, 1%, 0207
0	R 60	57.11.3682		6k8	MF, 1%, 0207
0	R 61	57.11.3182		1k8	MF, 1%, 0207
0	R 62	57.11.3203		20k	MF, 1%, 0207
0	R 63	57.11.3103		10k	MF, 1%, 0207
0	R 64	57.11.3103		10k	MF, 1%, 0207
0	R 65	57.11.3682		6k8	MF, 1%, 0207
0	R 66	57.11.3182		1k8	MF, 1%, 0207
0	R 67	57.11.5335		3M3	MF, 5%, 0207
0	R 68	not used		15k	MF, 1%, 0207
0	R 69	57.11.3203		20k	MF, 1%, 0207
0	R 70	57.11.3103		10k	MF, 1%, 0207
0	R 71	57.11.3103		10k	MF, 1%, 0207
0	R 72	57.11.3104		100k	MF, 1%, 0207
0	R 73	57.11.3331		330R	MF, 1%, 0207
0	R 74	57.11.3103		10k	MF, 1%, 0207
0	R 75	57.11.3622		6k2	MF, 1%, 0207
0	R 76	57.11.3101		100R	MF, 1%, 0207
0	R 77	57.11.3104		100k	MF, 1%, 0207
0	R 78	57.11.3223		22k	MF, 1%, 0207
0	R 79	57.11.3154		150k	MF, 1%, 0207
0	R 80	57.11.3330		33R	MF, 1%, 0207
0	R 81	57.11.3681		680R	MF, 1%, 0207
0	R 82	57.11.3103		10k	MF, 1%, 0207
0	R 83	57.11.3103		10k	MF, 1%, 0207
0	R 84	57.11.3103		10k	MF, 1%, 0207
0	R 85	57.11.3104		100k	MF, 1%, 0207
0	R 86	57.11.3104		100k	MF, 1%, 0207
0	R 87	57.11.3103		10k	MF, 1%, 0207
0	R 88	57.11.3103		10k	MF, 1%, 0207
0	R 89	57.11.3103		10k	MF, 1%, 0207
0	R 90	57.11.3104		100k	MF, 1%, 0207
0	R 91	57.11.3103		10k	MF, 1%, 0207
0	R 92	57.11.3473		47k	MF, 1%, 0207
0	R 93	57.11.3332		3k3	MF, 1%, 0207
0	R 94	57.11.3103		10k	MF, 1%, 0207
0	R 95	57.11.3472		4k7	MF, 1%, 0207
0	R 96	57.11.3472		4k7	MF, 1%, 0207
0	R 97	57.11.3472		4k7	MF, 1%, 0207

MASTER UNIT A 1.928.320.81 (5)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 98	57.11.3472		4k7	MF, 1%, 0207
0	R 99	57.11.3333		33k	MF, 1%, 0207
0	R 100	57.11.3472		4k7	MF, 1%, 0207
0	R 101	57.11.3151		150R	MF, 1%, 0207
0	R 102	57.11.5335		3M3	MF, 5%, 0207
0	R 103	57.11.3103		10k	MF, 1%, 0207
0	R 104	57.11.3104		100k	MF, 1%, 0207
0	R 105	57.11.5335		3M3	MF, 5%, 0207
0	R 106	57.11.5335		3M3	MF, 5%, 0207
0	R 107	57.11.3103		10k	MF, 1%, 0207
0	R 108	57.11.3103		10k	MF, 1%, 0207
0	R 109	57.11.3203		20k	MF, 1%, 0207
0	R 110	57.11.3203		20k	MF, 1%, 0207
0	R 111	57.11.3103		10k	MF, 1%, 0207
0	R 112	57.11.3103		10k	MF, 1%, 0207
0	R 113	57.11.3203		20k	MF, 1%, 0207
0	R 114	57.11.3203		20k	MF, 1%, 0207
0	R 115	57.11.5335		3M3	MF, 5%, 0207
0	R 116	57.11.5335		3M3	MF, 5%, 0207
0	R 117	57.11.3104		100k	MF, 1%, 0207
0	R 118	57.11.3104		100k	MF, 1%, 0207
0	R 119	57.11.3750		75R	MF, 1%, 0207
0	R 120	57.11.3333		33k	MF, 1%, 0207
0	R 121	57.11.3224		220k	MF, 1%, 0207
0	R 122	57.11.3473		47k	MF, 1%, 0207
0	R 123	57.11.3103		10k	MF, 1%, 0207
0	R 124	57.11.3103		10k	MF, 1%, 0207
0	R 125	57.11.3332		3k3	MF, 1%, 0207
0	R 126	57.11.3332		3k3	MF, 1%, 0207
0	R 127	57.11.3332		3k3	MF, 1%, 0207
0	R 128	57.11.3104		100k	MF, 1%, 0207
0	R 129	57.11.3473		47k	MF, 1%, 0207
0	R 130	57.11.3473		47k	MF, 1%, 0207
0	R 131	57.11.3103		10k	MF, 1%, 0207
0	R 132	57.11.3103		10k	MF, 1%, 0207
0	R 133	57.11.3104		100k	MF, 1%, 0207
0	R 134	57.11.3104		100k	MF, 1%, 0207
0	R 135	57.11.3104		100k	MF, 1%, 0207
0	R 136	57.11.3104		100k	MF, 1%, 0207
0	R 137	57.11.3750		75R	MF, 1%, 0207
0	R 138	57.11.3512		5k1	MF, 1%, 0207
0	R 139	57.11.3393		39k	MF, 1%, 0207
0	R 140	57.11.3103		10k	MF, 1%, 0207
0	R 141	57.11.3104		100k	MF, 1%, 0207
0	R 142	57.11.3103		10k	MF, 1%, 0207
0	R 143	57.11.3223		22k	MF, 1%, 0207
0	R 144	57.11.3223		22k	MF, 1%, 0207
0	R 145	57.11.3393		39k	MF, 1%, 0207
0	R 146	57.11.3103		10k	MF, 1%, 0207
0	R 147	57.11.3103		10k	MF, 1%, 0207
0	R 148	57.11.3103		10k	MF, 1%, 0207
0	R 149	57.11.3103		10k	MF, 1%, 0207
0	R 150	57.11.3332		3k3	MF, 1%, 0207
0	R 151	57.11.3333		33k	MF, 1%, 0207
0	R 152	57.11.3104		100k	MF, 1%, 0207
0	R 153	57.11.3104		100k	MF, 1%, 0207
0	R 154	57.11.3750		75R	MF, 1%, 0207
0	R 155	57.11.3332		3k3	MF, 1%, 0207
0	R 156	57.11.3332		3k3	MF, 1%, 0207
0	R 157	57.11.3332		3k3	MF, 1%, 0207
0	R 158	57.11.3103		10k	MF, 1%, 0207
0	R 159	57.11.3103		10k	MF, 1%, 0207
0	R 160	57.11.3103		10k	MF, 1%, 0207
0	R 161	57.11.3103		10k	MF, 1%, 0207
0	R 162	57.11.3393		39k	MF, 1%, 0207
0	R 163	57.11.3822		8k2	MF, 1%, 0207
0	R 164	57.11.3682		6k8	MF, 1%, 0207
0	R 165	57.11.3682		6k8	MF, 1%, 0207
0	R 166	57.11.3822		8k2	MF, 1%, 0207
0	R 167	57.11.3682		6k8	MF, 1%, 0207
0	R 168	57.11.3822		8k2	MF, 1%, 0207
0	R 169	57.11.3103		10k	MF, 1%, 0207
0	R 170	57.11.3103		10k	MF, 1%, 0207
0	R 171	57.11.3103		10k	MF, 1%, 0207
0	R 172	57.11.3103		10k	MF, 1%, 0207
0	R 173	57.11.3103		10k	MF, 1%, 0207
0	R 174	57.11.3103		10k	MF, 1%, 0207
0	R 175	57.11.3103		10k	MF, 1%, 0207
0	R 176	57.11.3103		10k	MF, 1%, 0207
0	R 177	57.11.3103		10k	MF, 1%, 0207
0	R 178	57.11.3103		10k	MF, 1%, 0207
0	R 179	57.11.3103		10k	MF, 1%, 0207
0	R 180	57.11.3103		10k	MF, 1%, 0207
0	R 181	57.11.3103		10k	MF, 1%, 0207
0	R 182	57.11.3103		10k	MF, 1%, 0207
0	R 183	57.11.3822		8k2	MF, 1%, 0207
0	R 184	57.11.3220		22R	MF, 1%, 0207
0	R 185	57.11.3273		27k	MF, 1%, 0207
0	R 186	57.11.3273		27k	MF, 1%, 0207
0	R 187	57.11.3273		27k	MF, 1%, 0207
0	R 188	57.11.3273		27k	MF, 1%, 0207
0	R 189	57.69.8301		10k	PTC, 1%, +3300 PPM
0	R 190	57.11.3104		100k	MF, 1%, 0207
0	R 191	57.11.3563		56k	MF, 1%, 0207
0	R 192	57.69.8301		10k	PTC, 1%, +3300 PPM
0	R 193	57.11.3154		150k	MF, 1%, 0207
0	R 194	57.11.3103		10k	MF, 1%, 0207
0	R 195	57.11.3101		100R	MF, 1%, 0207
0	R 196	57.11.3224		220k	MF, 1%, 0207
0	R 197	57.11.3393		39k	MF, 1%, 0207
0	R 198	57.11.3822		8k2	MF, 1%, 0207
0	R 199	57.11.3393		39k	MF, 1%, 0207
0	R 200	57.11.3223		22k	MF, 1%, 0207
0	R 201	57.11.3223		22k	MF, 1%, 0207
0	R 202	57.11.3330		33R	MF, 1%, 0207
0	R 203	57.11.3330		33R	MF, 1%, 0207
0	R 204	57.11.3223		22k	MF, 1%, 0207
0	R 205	57.11.3223		22k	MF, 1%, 0207
0	R 206	57.11.3682		6k8	MF, 1%, 0207
0	R 207	57.11.3682		6k8	MF, 1%, 0207
0	R 208	57.11.3102		1k0	MF, 1%, 0207
0	R 209	57.11.3104		100k	MF, 1%, 0207
0	R 210	57.11.3273		27k	MF, 1%, 0207
0	R 211	57.11.3273		27k	MF, 1%, 0207
0	R 212	57.11.3473		47k	MF, 1%, 0207
0	R 213	57.11.3472		4k7	MF, 1%, 0207
0	R 214	57.11.3472		4k7	MF, 1%, 0207
0	R 215	57.11.5185		1M8	MF, 5%, 0207
0	R 216	57.11.3103		10k	MF, 1%, 0207
0	R 217	57.11.3224		220k	MF, 1%, 0207
0	R 218	57.11.3394		390k	MF, 1%, 0207
0	R 219	57.11.3824		820k	MF, 1%, 0207
0	R 220	57.11.3133		13k	MF, 1%, 0207
0	R 221	57.11.3103		10k	MF, 1%, 0207
0	R 222	57.11.3222		2k2	MF, 1%, 0207
0	R 223	57.11.3103		10k	MF, 1%, 0207
0	R 224	57.11.3103		10k	MF, 1%, 0207
0	R 225	57.11.3104		100k	MF, 1%, 0207
0	R 226	57.11.3273		27k	MF, 1%, 0207
0	R 227	57.11.3273		27k	MF, 1%, 0207
0	R 228	57.11.3473		47k	MF, 1%, 0207
0	R 229	57.11.3104		100k	MF, 1%, 0207
0	R 230	57.11.3104		100k	MF, 1%, 0207
0	R 231	57.11.3104		100k	MF, 1%, 0207
0	R 232	57.11.3104		100k	MF, 1%, 0207
0	R 233	57.11.3104		100k	MF, 1%, 0207
0	R 234	57.11.3332		3k3	MF, 1%, 0207
0	R 235	57.11.3224		220k	MF, 1%, 0207
0	R 236	57.11.3104		100k	MF, 1%, 0207
0	R 237	57.11.3102		1k0	MF, 1%, 0207
0	R 238	57.92.7021		0.9A	PTC 60V
0	R 239	57.92.7021		0.9A	PTC 60V
0	R 240	57.92.7021		0.9A	PTC 60V
0	R 241	57.92.7021		0.9A	PTC 60V
0	R 242	57.11.3102		1k0	MF, 1%, 0207
0	R 243	57.11.3101		100R	MF, 1%, 0207
0	R 244	57.11.3682		6k8	MF, 1%, 0207
0	R 245	57.11.3393		39k	MF, 1%, 0207
0	R 246	57.11.3101		100R	MF, 1%, 0207
0	R 247	57.11.3101		100R	MF, 1%, 0207
0	R 248	57.11.3682		6k8	MF, 1%, 0207
0	R 249	57.11.3101		100R	MF, 1%, 0207
0	R 250	57.11.3393		39k	MF, 1%, 0207
0	R 251	57.11.3472		4k7	MF, 1%, 0207
0	R 252	57.11.3472		4k7	MF, 1%, 0207
0	R 253	57.11.3472		4k7	MF, 1%, 0207
0	R 254	57.11.3472		4k7	MF, 1%, 0207
0	R 255	57.11.3102		1k0	MF, 1%, 0207
5	R 256	not used		68k	MF, 1%, 0207
0	R 257	57.11.3100		10R	MF, 1%, 0207
0	R 258	57.11.3822		8k2	MF, 1%, 0207
0	R 259	57.11.3822		8k2	MF, 1%, 0207
0	R 260	57.11.3472		4k7	MF, 1%, 0207
0	R 261	57.11.3472		4k7	MF, 1%, 0207
0	R 262	57.11.3181		180R	MF, 1%, 0207
0	R 263	57.11.3181		180R	MF, 1%, 0207
0	R 264	57.11.3103		10k	MF, 1%, 0207
0	R 265	57.11.3103		10k	MF, 1%, 0207
0	R 266	57.11.3220		22R	MF, 1%, 0207
0	R 267	57.11.3000		0R0	MF, 0207
0	RL 1	56.02.1101			Reed Relay
0	RN 1	57.88.2223		22k	4*R Resistor-Netw 2% SIP9
0	RN 2	57.88.2103		10k	4*R Resistor-Netw 2% SIP9
0	RN 3	57.88.4104		100k	8*R Resistor-Netw 2% SIP9

MASTER UNIT A 1.928.320.81 (5)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	S 1	55.15.0931		2*u	rastend
0	S 2	55.15.0931		2*u	rastend
0	S 3	55.15.0933		4*u	rastend
0	S 4	55.15.0932		2*u	impuls
0	S 5	55.15.0932		2*u	impuls
0	S 6	55.15.0932		2*u	impuls
0	S 7	55.15.0932		2*u	impuls
0	S 8	55.15.0933		4*u	rastend
0	S 9	55.15.0932		2*u	impuls
0	S 10	55.15.0932		2*u	impuls
0	TR 1	1.022.368.00			Line Output Trafo 6 dB
0	TR 2	1.022.368.00			Line Output Trafo 6 dB
0	VR 1	58.20.6502		250k lin	1*R
0	VR 2	58.20.6503		50k lin	1*R
0	VR 3	58.20.6602		2*50k lin	2*R
0	VR 4	58.20.6503		50k lin	1*R
0	VR 5	58.20.6503		50k lin	1*R
0	VR 6	58.20.6503		50k lin	1*R
0	VR 7	58.20.6503		50k lin	1*R
1	W 1	1.010.107.64			WIRE WRAP DRAHT D .25 L= 70

End of List

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description

MASTER UNIT B 1.928.321.81 (5)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 2	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 3	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 4	59.22.4002		100u	EL 16V 20% RM5
0	C 5	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 6	59.22.6100		10u	EL 35V 20% RM5
0	C 7	59.22.3470		47u	EL 10V 20% RM5
0	C 8	59.22.3470		47u	EL 10V 20% RM5
0	C 9	59.22.3470		47u	EL 10V 20% RM5
0	C 10	59.22.3003		220u	EL 10V 20% RM5
0	C 11	59.22.3003		220u	EL 10V 20% RM5
0	C 12	59.22.3470		47u	EL 10V 20% RM5
0	C 13	59.22.3470		47u	EL 10V 20% RM5
0	C 14	59.22.3003		220u	EL 10V 20% RM5
0	C 15	59.22.3003		220u	EL 10V 20% RM5
0	C 16	59.22.3470		47u	EL 10V 20% RM5
0	C 17	59.22.4002		100u	EL 16V 20% RM5
0	C 18	59.06.0223		22n	PETP, 63V, 10%, RM5
0	C 19	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 20	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 21	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 22	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 23	59.22.2102		1m0	EL 6.3V 20% RM5
0	C 24	59.22.5220		22u	EL 25V 20% RM5
0	C 25	59.22.3470		47u	EL 10V 20% RM5
0	C 26	59.34.4331		330p	CER 63V, 5%, N750
0	C 27	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 28	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 29	59.34.4560		56p	CER 63V, 5%, N750
0	C 30	59.34.4560		56p	CER 63V, 5%, N750
0	C 31	59.22.3470		47u	EL 10V 20% RM5
0	C 32	59.22.3470		47u	EL 10V 20% RM5
0	C 33	59.22.3470		47u	EL 10V 20% RM5
0	C 34	59.22.3470		47u	EL 10V 20% RM5
0	C 35	59.22.3470		47u	EL 10V 20% RM5
0	C 36	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 37	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 38	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 39	59.34.2470		47p	CER 63V, 5%, N150
0	C 40	59.22.3470		47u	EL 10V 20% RM5
0	C 41	59.22.3003		220u	EL 10V 20% RM5
0	C 42	59.22.3003		220u	EL 10V 20% RM5
0	C 43	59.22.3470		47u	EL 10V 20% RM5
0	C 44	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 45	59.22.4002		100u	EL 16V 20% RM5
0	C 46	59.34.4331		330p	CER 63V, 5%, N750
0	C 47	59.34.2470		47p	CER 63V, 5%, N150
0	C 48	59.22.4002		100u	EL 16V 20% RM5
0	C 49	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 50	59.22.4002		100u	EL 16V 20% RM5
0	C 51	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 52	59.34.4560		56p	CER 63V, 5%, N750
0	C 53	59.34.4331		330p	CER 63V, 5%, N750
0	C 54	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 55	59.34.4560		56p	CER 63V, 5%, N750
0	C 56	59.34.4331		330p	CER 63V, 5%, N750
0	C 57	59.34.4331		330p	CER 63V, 5%, N750
0	C 58	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 59	59.34.4560		56p	CER 63V, 5%, N750
0	C 60	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 61	59.22.4002		100u	EL 16V 20% RM5
0	C 62	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 63	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 64	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 65	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 66	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 67	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 68	59.22.8229		2u2	EL 50V 20% RM5
0	C 69	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 70	59.22.4002		100u	EL 16V 20% RM5
0	C 71	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 72	59.22.4002		100u	EL 16V 20% RM5
0	C 73	59.22.4002		100u	EL 16V 20% RM5
0	C 74	59.22.4002		100u	EL 16V 20% RM5
0	C 75	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 76	59.22.3470		47u	EL 10V 20% RM5
0	C 77	59.22.3003		220u	EL 10V 20% RM5
0	C 78	59.22.3003		220u	EL 10V 20% RM5
0	C 79	59.22.3470		47u	EL 10V 20% RM5
0	C 80	59.22.3003		220u	EL 10V 20% RM5
0	C 81	59.22.3003		220u	EL 10V 20% RM5
0	C 82	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 83	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 84	59.34.2470		47p	CER 63V, 5%, N150
0	C 85	59.22.4002		100u	EL 16V 20% RM5
0	C 86	59.34.2470		47p	CER 63V, 5%, N150
0	C 87	59.22.4002		100u	EL 16V 20% RM5
0	C 88	59.34.2470		47p	CER 63V, 5%, N150
0	C 89	59.22.4002		100u	EL 16V 20% RM5
0	C 90	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 91	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 92	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 93	59.22.4002		100u	EL 16V 20% RM5
0	C 94	59.34.2470		47p	CER 63V, 5%, N150
0	C 95	59.34.2470		47p	CER 63V, 5%, N150
0	C 96	59.22.4002		100u	EL 16V 20% RM5
0	C 97	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 98	59.34.4101		100p	CER 63V, 5%, N750
0	C 99	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 100	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 101	59.22.4002		100u	EL 16V 20% RM5
0	C 102	59.22.4002		100u	EL 16V 20% RM5
0	C 103	59.22.4002		100u	EL 16V 20% RM5
0	C 104	59.22.3470		47u	EL 10V 20% RM5
0	C 105	59.22.3003		220u	EL 10V 20% RM5
0	C 106	59.22.3003		220u	EL 10V 20% RM5
0	C 107	59.22.3470		47u	EL 10V 20% RM5
0	C 108	59.34.2470		47p	CER 63V, 5%, N150
0	C 109	59.34.2470		47p	CER 63V, 5%, N150
0	C 110	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 111	59.22.3470		47u	EL 10V 20% RM5
0	C 112	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 113	59.34.4101		100p	CER 63V, 5%, N750
0	C 114	59.06.0224		220n	PETP, 63V, 10%, RM5
3	C 115	59.34.2220		22p	CER 63V, 5%, N150
5	C 116	59.05.1152		1n5	PP, 1%, 160V
0	C 117	59.22.4002		100u	EL 16V 20% RM5
0	C 118	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 119	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 120	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 121	59.34.2470		47p	CER 63V, 5%, N150
0	C 122	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 123	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 124	59.22.3470		47u	EL 10V 20% RM5
0	C 125	59.06.0224		220n	PETP, 63V, 10%, RM5
3	C 126	59.34.2220		22p	CER 63V, 5%, N150
0	C 127	59.22.3470		47u	EL 10V 20% RM5
0	C 128	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 129	59.34.4101		100p	CER 63V, 5%, N750
0	C 130	59.22.4002		100u	EL 16V 20% RM5
0	C 131	59.06.0224		220n	PETP, 63V, 10%, RM5
3	C 132	59.34.2220		22p	CER 63V, 5%, N150
0	C 133	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 134	59.22.3470		47u	EL 10V 20% RM5
0	C 135	59.34.4101		100p	CER 63V, 5%, N750
0	C 136	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 137	59.22.4002		100u	EL 16V 20% RM5
0	C 138	59.34.4101		100p	CER 63V, 5%, N750
0	C 139	59.22.4002		100u	EL 16V 20% RM5
0	C 140	59.06.0224		220n	PETP, 63V, 10%, RM5
5	C 141	59.05.1152		1n5	PP, 1%, 160V
0	C 142	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 143	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 144	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 145	59.22.3470		47u	EL 10V 20% RM5
0	C 146	59.22.3470		47u	EL 10V 20% RM5
0	C 147	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 148	59.06.0224		220n	PETP, 63V, 10%, RM5
3	C 149	59.34.2220		22p	CER 63V, 5%, N150
3	C 150	59.34.2220		22p	CER 63V, 5%, N150
0	C 151	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 152	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 153	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 154	59.22.4002		100u	EL 16V 20% RM5
0	C 155	59.34.2330		33p	CER 63V, 5%, N150
0	C 156	59.34.2330		33p	CER 63V, 5%, N150
0	C 157	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 158	59.22.4002		100u	EL 16V 20% RM5
0	C 159	59.22.4002		100u	EL 16V 20% RM5
0	C 160	59.22.4002		100u	EL 16V 20% RM5
0	C 161	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 162	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 163	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 164	59.22.3470		47u	EL 10V 20% RM5
0	C 165	59.22.3003		220u	EL 10V 20% RM5
0	C 166	59.22.3003		220u	EL 10V 20% RM5
0	C 167	59.22.3470		47u	EL 10V 20% RM5
0	C 168	59.22.4002		100u	EL 16V 20% RM5
0	C 169	59.22.4002		100u	EL 16V 20% RM5
0	C 170	59.22.3470		47u	EL 10V 20% RM5
0	C 171	59.22.4002		100u	EL 16V 20% RM5
0	C 172	59.22.4002		100u	EL 16V 20% RM5
0	C 173	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 174	59.22.3470		47u	EL 10V 20% RM5

MASTER UNIT B 1.928.321.81 (5)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 175	59.22.3470		47u	EL 10V 20% RM5
0	C 176	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 177	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 178	59.34.4101		100p	CER 63V, 5%, N750
0	C 179	59.22.3470		47u	EL 10V 20% RM5
0	C 180	59.22.4002		100u	EL 16V 20% RM5
0	C 181	59.22.4002		100u	EL 16V 20% RM5
0	C 182	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 183	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 184	59.22.3470		47u	EL 10V 20% RM5
0	C 185	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 186	59.06.0104		100n	PETP, 63V, 10%, RM5
3	C 187	59.34.2220		22p	CER 63V, 5%, N150
0	C 188	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 189	59.34.4101		100p	CER 63V, 5%, N750
3	C 190	59.34.2220		22p	CER 63V, 5%, N150
0	C 191	59.34.4221		220p	CER 63V, 5%, N750
0	C 192	59.34.4221		220p	CER 63V, 5%, N750
0	C 193	59.22.3470		47u	EL 10V 20% RM5
5	C 194	59.05.1152		1n5	PP, 1%, 160V
0	C 195	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 196	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 197	59.22.4002		100u	EL 16V 20% RM5
0	C 198	59.22.4002		100u	EL 16V 20% RM5
0	C 199	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 200	59.22.3470		47u	EL 10V 20% RM5
0	C 201	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 202	59.22.4002		100u	EL 16V 20% RM5
0	C 203	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 204	59.22.3470		47u	EL 10V 20% RM5
0	C 205	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 206	59.22.4002		100u	EL 16V 20% RM5
0	C 207	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 208	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 209	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 210	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 211	59.22.3470		47u	EL 10V 20% RM5
0	C 212	59.06.0104		100n	PETP, 63V, 10%, RM5
5	C 213	59.05.1152		1n5	PP, 1%, 160V
0	C 214	59.06.0153		15n	PETP, 63V, 10%, RM5
0	C 215	59.06.0153		15n	PETP, 63V, 10%, RM5
0	C 216	59.06.0104		100n	PETP, 63V, 10%, RM5
0	CN 1	54.01.0365		64p	EU-C 2*32, a,c
0	CN 2	54.01.0365		64p	EU-C 2*32, a,c
0	CN 3	54.01.0365		64p	EU-C 2*32, a,c
0	CN 5	54.12.0704		4p	Stecker gerade PCB
0	CN 6	54.02.0343			P FLACH, 6.3*0.8, WINKEL 45
0	D 1	50.04.0127		BAT85	200mA, Schottky
0	D 2	50.04.0127		BAT85	200mA, Schottky
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 7	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 8	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 9	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 10	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 11	50.04.0127		BAT85	200mA, Schottky
0	D 12	50.04.0127		BAT85	200mA, Schottky
0	D 13	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 16	50.04.0127		BAT85	200mA, Schottky
0	D 18	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 19	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 20	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 21	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 22	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 23	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 24	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 25	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 26	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 27	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 28	not used		1N4448	75V, 150mA, 4ns, DO-35
0	D 29	not used		1N4448	75V, 150mA, 4ns, DO-35
0	D 30	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 31	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 32	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	D 33	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	D 34	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 35	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 36	50.04.0122		1N4001	1A, DO 41
0	D 37	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 38	50.04.0122		1N4001	1A, DO 41
0	D 39	50.04.0122		1N4001	1A, DO 41
0	D 40	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	D 41	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	D 42	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 43	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	IC 1	50.09.0124		2142	Audio balanced line driver
0	IC 2	50.09.0124		2142	Audio balanced line driver
0	IC 3	50.09.0101		072	IC TL 072 CN ,A
0	IC 4	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 5	50.07.0008		4093	Quad 2-inp NAND
0	IC 6	50.09.0124		2142	Audio balanced line driver
0	IC 7	50.07.0008		4093	Quad 2-inp NAND
0	IC 8	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 9	50.09.0101		072	IC TL 072 CN ,A
0	IC 10	50.09.0101		072	IC TL 072 CN ,A
0	IC 11	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 12	50.07.0008		4093	Quad 2-inp NAND
0	IC 13	50.09.0101		072	IC TL 072 CN ,A
0	IC 14	50.09.0101		072	IC TL 072 CN ,A
0	IC 15	50.09.0124		2142	Audio balanced line driver
2	IC 16	50.09.0117		33078	IC MC 33078 P
0	IC 17	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 18	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 19	50.09.0124		2142	Audio balanced line driver
0	IC 20	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 21	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 22	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 23	50.09.0101		072	IC TL 072 CN ,A
4	IC 24	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
0	IC 25	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 26	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
2	IC 27	50.09.0117		33078	IC MC 33078 P
0	IC 28	50.09.0117		33078	IC MC 33078 P
0	IC 29	50.09.0124		2142	Audio balanced line driver
0	IC 30	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 31	50.09.0124		2142	Audio balanced line driver
4	IC 32	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
4	IC 33	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
4	IC 34	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
4	IC 35	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
0	IC 36	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 37	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 38	50.09.0124		2142	Audio balanced line driver
0	IC 39	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 40	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 41	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 42	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 43	50.07.0015		4053	Tripple 2ch analog mux/demux
4	IC 44	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
4	IC 45	50.05.0244		5534A	IC 5534 ANB, NE 5534 SAN, ,A
0	IC 46	50.09.0117		33078	IC MC 33078 P
0	J 1	54.01.0020	2 pcs	1p	Pin, 1reihig, gerade
0	J 2	54.11.0136	1 pce	2*3p	Pin 0.63*0.63, RM2.54
0	J 3	not used	3 pcs	1p	Pin, 1reihig, gerade
0	J 4	54.11.0136	1 pce	2*3p	Pin 0.63*0.63, RM2.54
0	J 5	not used	3 pcs	1p	Pin, 1reihig, gerade
0	J 6	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	LED 1	50.04.2205		L934YT	LED 3mm yellow
0	LED 2	50.04.2204		L934ID	LED 3mm red
0	LED 3	50.04.2204		L934ID	LED 3mm red
0	LED 4	50.04.2206		L934GT	LED 3mm green
0	LED 5	50.04.2206		L934GT	LED 3mm green
0	LED 6	50.04.2206		L934GT	LED 3mm green
0	LED 7	50.04.2206		L934GT	LED 3mm green
0	LED 8	50.04.2205		L934YT	LED 3mm yellow
0	LED 9	50.04.2206		L934GT	LED 3mm green
0	LED 10	50.04.2206		L934GT	LED 3mm green
0	LED 11	50.04.2129		LS3360	DL LS 3360 , RT DIFF
0	LK 1	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 2	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 3	not used			SCHALTDRAHT SN D 0.6
0	LK 4	not used			SCHALTDRAHT SN D 0.6
0	LK 5	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 6	not used			SCHALTDRAHT SN D 0.6
0	LK 7	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 8	not used			SCHALTDRAHT SN D 0.6
0	LK 9	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 10	not used			SCHALTDRAHT SN D 0.6
0	LK 11	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 12	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 13	not used			SCHALTDRAHT SN D 0.6
0	LK 14	not used			SCHALTDRAHT SN D 0.6
0	LK 15	not used			SCHALTDRAHT SN D 0.6
0	LK 16	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 17	not used			SCHALTDRAHT SN D 0.6
0	LK 18	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 19	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 20	not used			SCHALTDRAHT SN D 0.6
0	LK 21	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 22	not used			SCHALTDRAHT SN D 0.6
0	LK 23	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 24	not used			SCHALTDRAHT SN D 0.6

MASTER UNIT B 1.928.321.81 (5)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	LK 25	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 26	not used			SCHALTDRAHT SN D 0.6
0	LK 27	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 28	not used			SCHALTDRAHT SN D 0.6
0	LK 29	not used			SCHALTDRAHT SN D 0.6
0	LK 30	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 31	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 32	not used			SCHALTDRAHT SN D 0.6
0	LK 33	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 34	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 35	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 36	not used			SCHALTDRAHT SN D 0.6
0	LK 37	not used			SCHALTDRAHT SN D 0.6
0	LK 38	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 39	not used			SCHALTDRAHT SN D 0.6
0	LK 40	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 41	not used			SCHALTDRAHT SN D 0.6
0	LK 42	64.01.0106			SCHALTDRAHT SN D 0.6
0	LK 43	not used			SCHALTDRAHT SN D 0.6
0	MP 1	1.928.320.12	1 pce		MASTER MAIN PCB
0	MP 2	1.928.320.04	1 pce		STUDER NR. ETIKETTE 10x20
0	MP 3	43.01.0108	1 pce	Label	ESE-WARNSCHILD
0	MP 4	28.99.0119	6 pcs		ROHRNIETE D 2.5*0.15* 9
0	MP 5	1.928.220.09	7 pcs		9mm ALPS POT BRACKET WITH PIP
0	MP 6	21.51.8455	1 pce	M4*8	Linsenkopf-Schr IS, Ni
0	MP 7	22.01.8040	1 pce	M4	6kt-Mutter 0.8d St gb
0	MP 8	24.16.2040	2 pcs	4.3/8.0	Fächerscheibe Form A
0	MP 9	54.01.0021	8 pcs	Jumper	0.63*0.63mm, Au
0	MP 10	1.942.210.93	1 pce		LL-FADER
0	MP 11	1.928.220.93	1 pce		LL-Fader
0	MP 12	1.960.033.00	1 pce		MONOFADER LIN. P+G 100MM
0	MP 13	21.53.8706	1 pce	M3*6	Lin-Schr IS, Zn gb, Tuflock
0	MP 14	21.53.0279	2 pcs	M2.5*6	Z-Schraube Inbus Zn gb chr
0	MP 15	1.928.220.05	1 pce		STÜTZBOLZEN
0	MP 16	21.99.0175	4 pcs	M3*6	S-Schraube IS A2 sw oxydiert
0	MP 17	1.928.321.01	1 pce		FRONTPLATTE
0	MP 18	24.16.3023	2 pcs	2.3	Wellensicherung
0	MP 19	1.010.022.21	2 pcs	M3*8	L-Schraube IS sw spezial
0	MP 20	1.928.220.03	1 pce		PRINTHALTER
0	MP 21	1.928.220.06	1 pce		ZENTRIERSCHEIBE 1
0	MP 22	1.928.220.07	6 pcs		ZENTRIERSCHEIBE 2,8
0	MP 23	1.928.220.08	7 pcs		MUTTER M7x0,75
0	MP 24	42.01.1208	2 pcs		DREHKNOPF D11 gr/hellgr
2	MP 25	42.01.1200	1 pce		DREHKNOPF D11 gr/gr
0	MP 26	42.01.1205	1 pce		DREHKNOPF D11 gr/gn
2	MP 27	42.01.1204	1 pce		DREHKNOPF D11 gr/gb
2	MP 28	42.01.1202	1 pce		DREHKNOPF D11 gr/rt
0	MP 29	42.01.1220	1 pce		DREHKNOPF D15 gr/gr
0	MP 30	1.911.000.42	1 pce		KNOPF ROT
0	MP 35	1.928.201.99	1 pce		PUSH BUTTON LEER
0	MP 36	1.928.201.28	1 pce		PUSH BUTTON IN
0	MP 37	1.928.201.29	1 pce		PUSH BUTTON INS
0	MP 38	1.928.201.18	5 pcs		PUSH BUTTON AFL
0	MP 39	1.928.201.37	1 pce		PUSH BUTTON PRE
0	MP 40	1.928.201.20	1 pce		PUSH BUTTON CUE
5	MP 41	43.10.0111		B	Revisions-Etikette 5mm h'blau
0	PR 1	58.01.8103		10k	Cermet, 10%, 0.5W, horizontal
0	PR 2	58.01.8103		10k	Cermet, 10%, 0.5W, horizontal
0	PR 3	58.01.8103		10k	Cermet, 10%, 0.5W, horizontal
0	PR 4	58.01.8503		50k	Cermet, 10%, 0.5W, horizontal
0	PR 5	58.01.8503		50k	Cermet, 10%, 0.5W, horizontal
0	PR 6	58.01.8503		50k	Cermet, 10%, 0.5W, horizontal
0	Q 1	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 2	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 3	50.03.0351		BC327-25	PNP, 800mA
0	Q 4	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 5	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 6	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 7	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 8	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 9	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 10	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 11	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 12	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 13	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 14	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 15	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	R 1	57.11.3104		100k	MF, 1%, 0207
0	R 2	57.11.3104		100k	MF, 1%, 0207
0	R 3	57.11.3750		75R	MF, 1%, 0207
0	R 4	57.11.3750		75R	MF, 1%, 0207
0	R 5	57.11.3104		100k	MF, 1%, 0207
0	R 6	57.11.3104		100k	MF, 1%, 0207
0	R 7	57.11.3103		10k	MF, 1%, 0207
0	R 8	57.11.3103		10k	MF, 1%, 0207
0	R 9	57.11.3103		10k	MF, 1%, 0207
0	R 10	57.11.3332		3k3	MF, 1%, 0207
0	R 11	57.11.3472		4k7	MF, 1%, 0207
0	R 12	57.11.3223		22k	MF, 1%, 0207
0	R 13	57.11.3103		10k	MF, 1%, 0207
0	R 14	57.11.3683		68k	MF, 1%, 0207
0	R 15	57.11.3153		15k	MF, 1%, 0207
0	R 16	57.11.3104		100k	MF, 1%, 0207
0	R 17	57.11.3104		100k	MF, 1%, 0207
0	R 18	57.11.3750		75R	MF, 1%, 0207
0	R 19	57.11.3104		100k	MF, 1%, 0207
0	R 20	57.11.3471		470R	MF, 1%, 0207
0	R 21	57.11.3103		10k	MF, 1%, 0207
0	R 22	57.11.3103		10k	MF, 1%, 0207
0	R 23	57.11.3103		10k	MF, 1%, 0207
0	R 24	57.11.3103		10k	MF, 1%, 0207
0	R 25	57.11.3273		27k	MF, 1%, 0207
0	R 26	57.11.3103		10k	MF, 1%, 0207
0	R 27	57.11.3203		20k	MF, 1%, 0207
0	R 28	57.11.3103		10k	MF, 1%, 0207
0	R 29	57.11.3682		6k8	MF, 1%, 0207
0	R 30	57.11.3182		1k8	MF, 1%, 0207
0	R 31	57.11.3182		1k8	MF, 1%, 0207
0	R 32	57.11.3224		220k	MF, 1%, 0207
0	R 33	57.11.3103		10k	MF, 1%, 0207
0	R 34	57.11.3103		10k	MF, 1%, 0207
0	R 35	57.11.3103		10k	MF, 1%, 0207
0	R 36	57.11.3104		100k	MF, 1%, 0207
0	R 37	57.11.3103		10k	MF, 1%, 0207
0	R 38	57.11.3103		10k	MF, 1%, 0207
0	R 39	57.11.3104		100k	MF, 1%, 0207
0	R 40	57.11.3101		100R	MF, 1%, 0207
0	R 41	57.11.3222		2k2	MF, 1%, 0207
0	R 42	57.11.3331		330R	MF, 1%, 0207
0	R 43	57.11.3222		2k2	MF, 1%, 0207
0	R 44	57.11.3512		5k1	MF, 1%, 0207
0	R 45	57.11.3103		10k	MF, 1%, 0207
0	R 46	57.11.3123		12k	MF, 1%, 0207
0	R 47	57.11.3203		20k	MF, 1%, 0207
0	R 48	57.11.3103		10k	MF, 1%, 0207
0	R 49	57.11.3103		10k	MF, 1%, 0207
0	R 50	57.11.3182		1k8	MF, 1%, 0207
0	R 51	57.11.3682		6k8	MF, 1%, 0207
0	R 52	57.11.3203		20k	MF, 1%, 0207
0	R 53	57.11.3103		10k	MF, 1%, 0207
0	R 54	57.11.3103		10k	MF, 1%, 0207
0	R 55	57.11.3682		6k8	MF, 1%, 0207
0	R 56	57.11.3182		1k8	MF, 1%, 0207
0	R 57	57.11.3203		20k	MF, 1%, 0207
0	R 58	57.11.3103		10k	MF, 1%, 0207
0	R 59	57.11.3103		10k	MF, 1%, 0207
0	R 60	57.11.3682		6k8	MF, 1%, 0207
0	R 61	57.11.3182		1k8	MF, 1%, 0207
0	R 62	57.11.3203		20k	MF, 1%, 0207
0	R 63	57.11.3103		10k	MF, 1%, 0207
0	R 64	57.11.3103		10k	MF, 1%, 0207
0	R 65	57.11.3682		6k8	MF, 1%, 0207
0	R 66	57.11.3182		1k8	MF, 1%, 0207
0	R 67	57.11.5335		3M3	MF, 5%, 0207
0	R 68	not used		15k	MF, 1%, 0207
0	R 69	57.11.3203		20k	MF, 1%, 0207
0	R 70	57.11.3103		10k	MF, 1%, 0207
0	R 71	57.11.3103		10k	MF, 1%, 0207
0	R 72	57.11.3104		100k	MF, 1%, 0207
0	R 73	57.11.3331		330R	MF, 1%, 0207
0	R 74	57.11.3103		10k	MF, 1%, 0207
0	R 75	57.11.3622		6k2	MF, 1%, 0207
0	R 76	57.11.3101		100R	MF, 1%, 0207
0	R 77	57.11.3104		100k	MF, 1%, 0207
0	R 78	57.11.3223		22k	MF, 1%, 0207
0	R 79	57.11.3154		150k	MF, 1%, 0207
0	R 80	57.11.3330		33R	MF, 1%, 0207
0	R 81	57.11.3681		680R	MF, 1%, 0207
0	R 82	57.11.3103		10k	MF, 1%, 0207
0	R 83	57.11.3103		10k	MF, 1%, 0207
0	R 84	57.11.3103		10k	MF, 1%, 0207
0	R 85	57.11.3104		100k	MF, 1%, 0207
0	R 86	57.11.3104		100k	MF, 1%, 0207
0	R 87	57.11.3103		10k	MF, 1%, 0207
0	R 88	57.11.3103		10k	MF, 1%, 0207
0	R 89	57.11.3103		10k	MF, 1%, 0207
0	R 90	57.11.3104		100k	MF, 1%, 0207
0	R 91	57.11.3103		10k	MF, 1%, 0207
0	R 92	57.11.3473		47k	MF, 1%, 0207
0	R 93	57.11.3332		3k3	MF, 1%, 0207
0	R 94	57.11.3103		10k	MF, 1%, 0207
0	R 95	57.11.3472		4k7	MF, 1%, 0207
0	R 96	57.11.3472		4k7	MF, 1%, 0207
0	R 97	57.11.3472		4k7	MF, 1%, 0207

MASTER UNIT B 1.928.321.81 (5)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 98	57.11.3472		4k7	MF, 1%, 0207
0	R 99	57.11.3333		33k	MF, 1%, 0207
0	R 100	57.11.3472		4k7	MF, 1%, 0207
0	R 101	57.11.3151		150R	MF, 1%, 0207
0	R 102	57.11.5335		3M3	MF, 5%, 0207
0	R 103	57.11.3103		10k	MF, 1%, 0207
0	R 104	57.11.3104		100k	MF, 1%, 0207
0	R 105	57.11.5335		3M3	MF, 5%, 0207
0	R 106	57.11.5335		3M3	MF, 5%, 0207
0	R 107	57.11.3103		10k	MF, 1%, 0207
0	R 108	57.11.3103		10k	MF, 1%, 0207
0	R 109	57.11.3203		20k	MF, 1%, 0207
0	R 110	57.11.3203		20k	MF, 1%, 0207
0	R 111	57.11.3103		10k	MF, 1%, 0207
0	R 112	57.11.3103		10k	MF, 1%, 0207
0	R 113	57.11.3203		20k	MF, 1%, 0207
0	R 114	57.11.3203		20k	MF, 1%, 0207
0	R 115	57.11.5335		3M3	MF, 5%, 0207
0	R 116	57.11.5335		3M3	MF, 5%, 0207
0	R 117	57.11.3104		100k	MF, 1%, 0207
0	R 118	57.11.3104		100k	MF, 1%, 0207
0	R 119	57.11.3750		75R	MF, 1%, 0207
0	R 120	57.11.3333		33k	MF, 1%, 0207
0	R 121	57.11.3224		220k	MF, 1%, 0207
0	R 122	57.11.3473		47k	MF, 1%, 0207
0	R 123	57.11.3103		10k	MF, 1%, 0207
0	R 124	57.11.3103		10k	MF, 1%, 0207
0	R 125	57.11.3332		3k3	MF, 1%, 0207
0	R 126	57.11.3332		3k3	MF, 1%, 0207
0	R 127	57.11.3332		3k3	MF, 1%, 0207
0	R 128	57.11.3104		100k	MF, 1%, 0207
0	R 129	57.11.3473		47k	MF, 1%, 0207
0	R 130	57.11.3473		47k	MF, 1%, 0207
0	R 131	57.11.3103		10k	MF, 1%, 0207
0	R 132	57.11.3103		10k	MF, 1%, 0207
0	R 133	57.11.3104		100k	MF, 1%, 0207
0	R 134	57.11.3104		100k	MF, 1%, 0207
0	R 135	57.11.3104		100k	MF, 1%, 0207
0	R 136	57.11.3104		100k	MF, 1%, 0207
0	R 137	57.11.3750		75R	MF, 1%, 0207
0	R 138	57.11.3512		5k1	MF, 1%, 0207
0	R 139	57.11.3393		39k	MF, 1%, 0207
0	R 140	57.11.3103		10k	MF, 1%, 0207
0	R 141	57.11.3104		100k	MF, 1%, 0207
0	R 142	57.11.3103		10k	MF, 1%, 0207
0	R 143	57.11.3223		22k	MF, 1%, 0207
0	R 144	57.11.3223		22k	MF, 1%, 0207
0	R 145	57.11.3393		39k	MF, 1%, 0207
0	R 146	57.11.3103		10k	MF, 1%, 0207
0	R 147	57.11.3103		10k	MF, 1%, 0207
0	R 148	57.11.3103		10k	MF, 1%, 0207
0	R 149	57.11.3103		10k	MF, 1%, 0207
0	R 150	57.11.3332		3k3	MF, 1%, 0207
0	R 151	57.11.3333		33k	MF, 1%, 0207
0	R 152	57.11.3104		100k	MF, 1%, 0207
0	R 153	57.11.3104		100k	MF, 1%, 0207
0	R 154	57.11.3750		75R	MF, 1%, 0207
0	R 155	57.11.3332		3k3	MF, 1%, 0207
0	R 156	57.11.3332		3k3	MF, 1%, 0207
0	R 157	57.11.3332		3k3	MF, 1%, 0207
0	R 158	57.11.3103		10k	MF, 1%, 0207
0	R 159	57.11.3103		10k	MF, 1%, 0207
0	R 160	57.11.3103		10k	MF, 1%, 0207
0	R 161	57.11.3103		10k	MF, 1%, 0207
0	R 162	57.11.3393		39k	MF, 1%, 0207
0	R 163	57.11.3822		8k2	MF, 1%, 0207
0	R 164	57.11.3682		6k8	MF, 1%, 0207
0	R 165	57.11.3682		6k8	MF, 1%, 0207
0	R 166	57.11.3822		8k2	MF, 1%, 0207
0	R 167	57.11.3682		6k8	MF, 1%, 0207
0	R 168	57.11.3822		8k2	MF, 1%, 0207
0	R 169	57.11.3103		10k	MF, 1%, 0207
0	R 170	57.11.3103		10k	MF, 1%, 0207
0	R 171	57.11.3103		10k	MF, 1%, 0207
0	R 172	57.11.3103		10k	MF, 1%, 0207
0	R 173	57.11.3103		10k	MF, 1%, 0207
0	R 174	57.11.3103		10k	MF, 1%, 0207
0	R 175	57.11.3103		10k	MF, 1%, 0207
0	R 176	57.11.3103		10k	MF, 1%, 0207
0	R 177	57.11.3103		10k	MF, 1%, 0207
0	R 178	57.11.3103		10k	MF, 1%, 0207
0	R 179	57.11.3103		10k	MF, 1%, 0207
0	R 180	57.11.3103		10k	MF, 1%, 0207
0	R 181	57.11.3103		10k	MF, 1%, 0207
0	R 182	57.11.3103		10k	MF, 1%, 0207
0	R 183	57.11.3822		8k2	MF, 1%, 0207
0	R 184	57.11.3220		22R	MF, 1%, 0207
0	R 185	57.11.3273		27k	MF, 1%, 0207
0	R 186	57.11.3273		27k	MF, 1%, 0207
0	R 187	57.11.3273		27k	MF, 1%, 0207
0	R 188	57.11.3273		27k	MF, 1%, 0207
0	R 189	57.69.8301		10k	PTC, 1%, +3300 PPM
0	R 190	57.11.3104		100k	MF, 1%, 0207
0	R 191	57.11.3563		56k	MF, 1%, 0207
0	R 192	57.69.8301		10k	PTC, 1%, +3300 PPM
0	R 193	57.11.3154		150k	MF, 1%, 0207
0	R 194	57.11.3103		10k	MF, 1%, 0207
0	R 195	57.11.3101		100R	MF, 1%, 0207
0	R 196	57.11.3224		220k	MF, 1%, 0207
0	R 197	57.11.3393		39k	MF, 1%, 0207
0	R 198	57.11.3822		8k2	MF, 1%, 0207
0	R 199	57.11.3393		39k	MF, 1%, 0207
0	R 200	57.11.3223		22k	MF, 1%, 0207
0	R 201	57.11.3223		22k	MF, 1%, 0207
0	R 202	57.11.3330		33R	MF, 1%, 0207
0	R 203	57.11.3330		33R	MF, 1%, 0207
0	R 204	57.11.3223		22k	MF, 1%, 0207
0	R 205	57.11.3223		22k	MF, 1%, 0207
0	R 206	57.11.3682		6k8	MF, 1%, 0207
0	R 207	57.11.3682		6k8	MF, 1%, 0207
0	R 208	57.11.3102		1k0	MF, 1%, 0207
0	R 209	57.11.3104		100k	MF, 1%, 0207
0	R 210	57.11.3273		27k	MF, 1%, 0207
0	R 211	57.11.3273		27k	MF, 1%, 0207
0	R 212	57.11.3473		47k	MF, 1%, 0207
0	R 213	57.11.3472		4k7	MF, 1%, 0207
0	R 214	57.11.3472		4k7	MF, 1%, 0207
0	R 215	57.11.5185		1M8	MF, 5%, 0207
0	R 216	57.11.3103		10k	MF, 1%, 0207
0	R 217	57.11.3224		220k	MF, 1%, 0207
0	R 218	57.11.3394		390k	MF, 1%, 0207
0	R 219	57.11.3824		820k	MF, 1%, 0207
0	R 220	57.11.3133		13k	MF, 1%, 0207
0	R 221	57.11.3103		10k	MF, 1%, 0207
0	R 222	57.11.3222		2k2	MF, 1%, 0207
0	R 223	57.11.3103		10k	MF, 1%, 0207
0	R 224	57.11.3103		10k	MF, 1%, 0207
0	R 225	57.11.3104		100k	MF, 1%, 0207
0	R 226	57.11.3273		27k	MF, 1%, 0207
0	R 227	57.11.3273		27k	MF, 1%, 0207
0	R 228	57.11.3473		47k	MF, 1%, 0207
0	R 229	57.11.3104		100k	MF, 1%, 0207
0	R 230	57.11.3104		100k	MF, 1%, 0207
0	R 231	57.11.3104		100k	MF, 1%, 0207
0	R 232	57.11.3104		100k	MF, 1%, 0207
0	R 233	57.11.3104		100k	MF, 1%, 0207
0	R 234	57.11.3332		3k3	MF, 1%, 0207
0	R 235	57.11.3224		220k	MF, 1%, 0207
0	R 236	57.11.3104		100k	MF, 1%, 0207
0	R 237	57.11.3102		1k0	MF, 1%, 0207
0	R 238	57.92.7021		0.9A	PTC 60V
0	R 239	57.92.7021		0.9A	PTC 60V
0	R 240	57.92.7021		0.9A	PTC 60V
0	R 241	57.92.7021		0.9A	PTC 60V
0	R 242	57.11.3102		1k0	MF, 1%, 0207
0	R 243	57.11.3101		100R	MF, 1%, 0207
0	R 244	57.11.3682		6k8	MF, 1%, 0207
0	R 245	57.11.3393		39k	MF, 1%, 0207
0	R 246	57.11.3101		100R	MF, 1%, 0207
0	R 247	57.11.3101		100R	MF, 1%, 0207
0	R 248	57.11.3682		6k8	MF, 1%, 0207
0	R 249	57.11.3101		100R	MF, 1%, 0207
0	R 250	57.11.3393		39k	MF, 1%, 0207
0	R 251	57.11.3472		4k7	MF, 1%, 0207
0	R 252	57.11.3472		4k7	MF, 1%, 0207
0	R 253	57.11.3472		4k7	MF, 1%, 0207
0	R 254	57.11.3472		4k7	MF, 1%, 0207
0	R 255	57.11.3102		1k0	MF, 1%, 0207
5	R 256	not used		68k	MF, 1%, 0207
0	R 257	57.11.3100		10R	MF, 1%, 0207
0	R 258	57.11.3822		8k2	MF, 1%, 0207
0	R 259	57.11.3822		8k2	MF, 1%, 0207
0	R 260	57.11.3472		4k7	MF, 1%, 0207
0	R 261	57.11.3472		4k7	MF, 1%, 0207
0	R 262	57.11.3181		180R	MF, 1%, 0207
0	R 263	57.11.3181		180R	MF, 1%, 0207
0	R 264	57.11.3103		10k	MF, 1%, 0207
0	R 265	57.11.3103		10k	MF, 1%, 0207
0	R 266	57.11.3220		22R	MF, 1%, 0207
0	R 267	57.11.3000		0R0	MF, 0207
0	RL 1	56.02.1101			Reed Relay
0	RN 1	57.88.2223		22k	4*R Resistor-Netw 2% SIP9
0	RN 2	57.88.2103		10k	4*R Resistor-Netw 2% SIP9

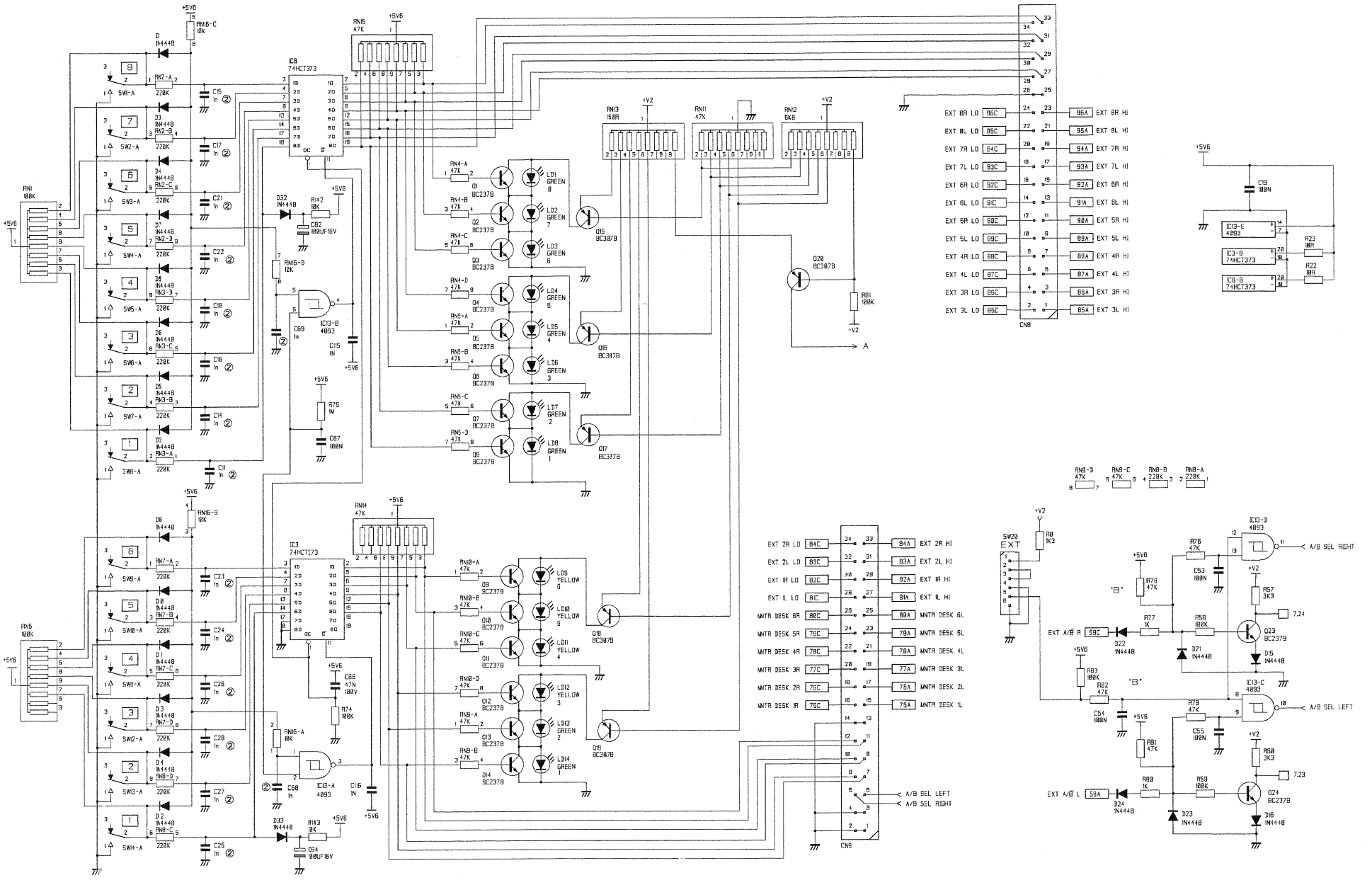
MASTER UNIT B 1.928.321.81 (5)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	RN 3	57.88.4104		100k	8*R Resistor-Netw 2% SIP9
0	S 1	55.15.0931		2*u	rastend
0	S 2	55.15.0931		2*u	rastend
0	S 3	55.15.0933		4*u	rastend
0	S 4	55.15.0932		2*u	impuls
0	S 5	55.15.0932		2*u	impuls
0	S 6	55.15.0932		2*u	impuls
0	S 7	55.15.0932		2*u	impuls
0	S 8	55.15.0933		4*u	rastend
0	S 9	55.15.0932		2*u	impuls
0	S 10	55.15.0932		2*u	impuls
0	TR 1	1.022.368.00			Line Output Trafo 6 dB
0	TR 2	1.022.368.00			Line Output Trafo 6 dB
0	VR 1	58.20.6502		250k lin	1*R
0	VR 2	58.20.6503		50k lin	1*R
0	VR 3	58.20.6602		2*50k lin	2*R
0	VR 4	58.20.6503		50k lin	1*R
0	VR 5	58.20.6503		50k lin	1*R
0	VR 6	58.20.6503		50k lin	1*R
0	VR 7	58.20.6503		50k lin	1*R
1	W 1	1.010.107.64			WIRE WRAP DRAHT D .25 L= 70

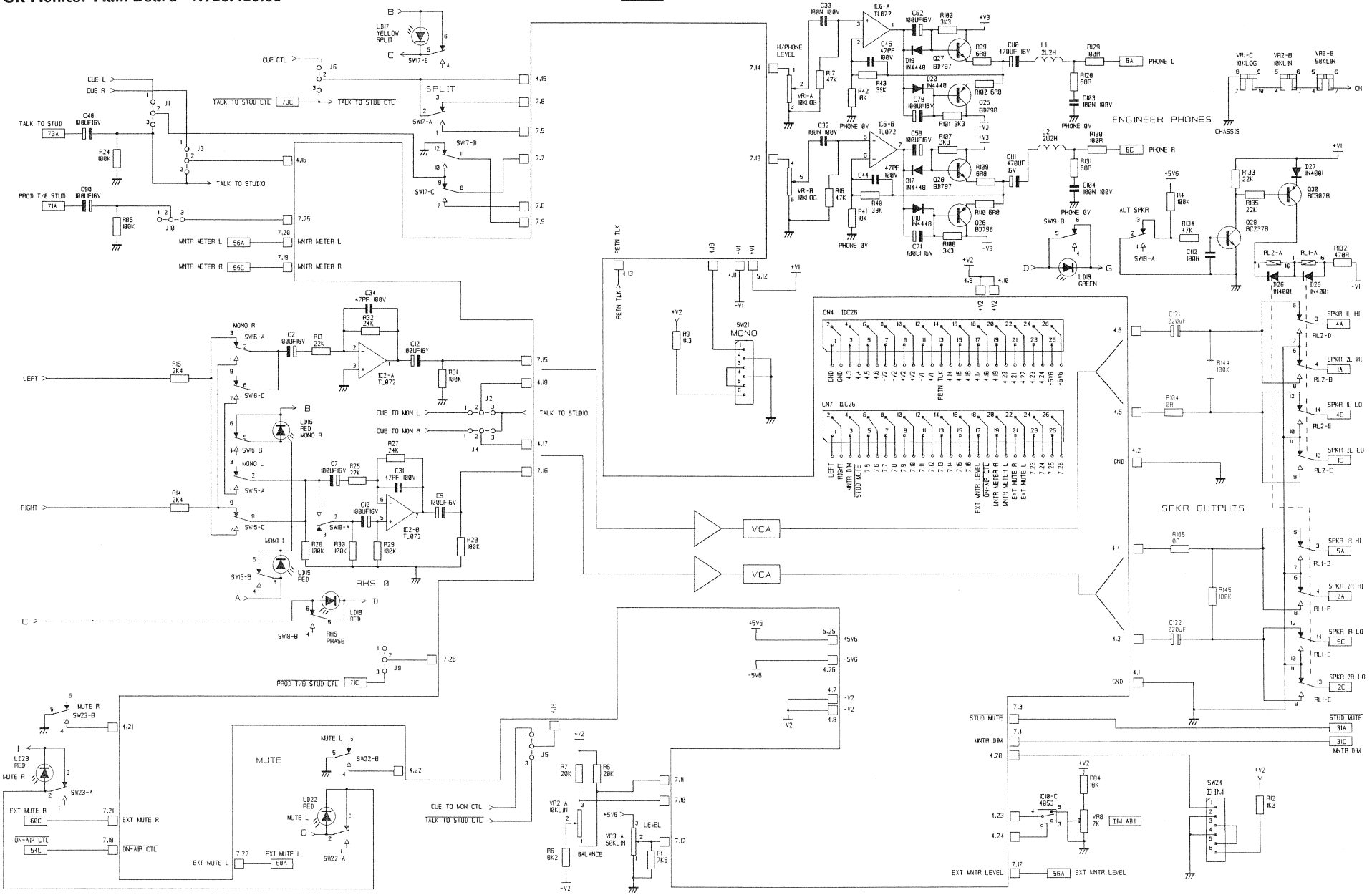
End of List

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description

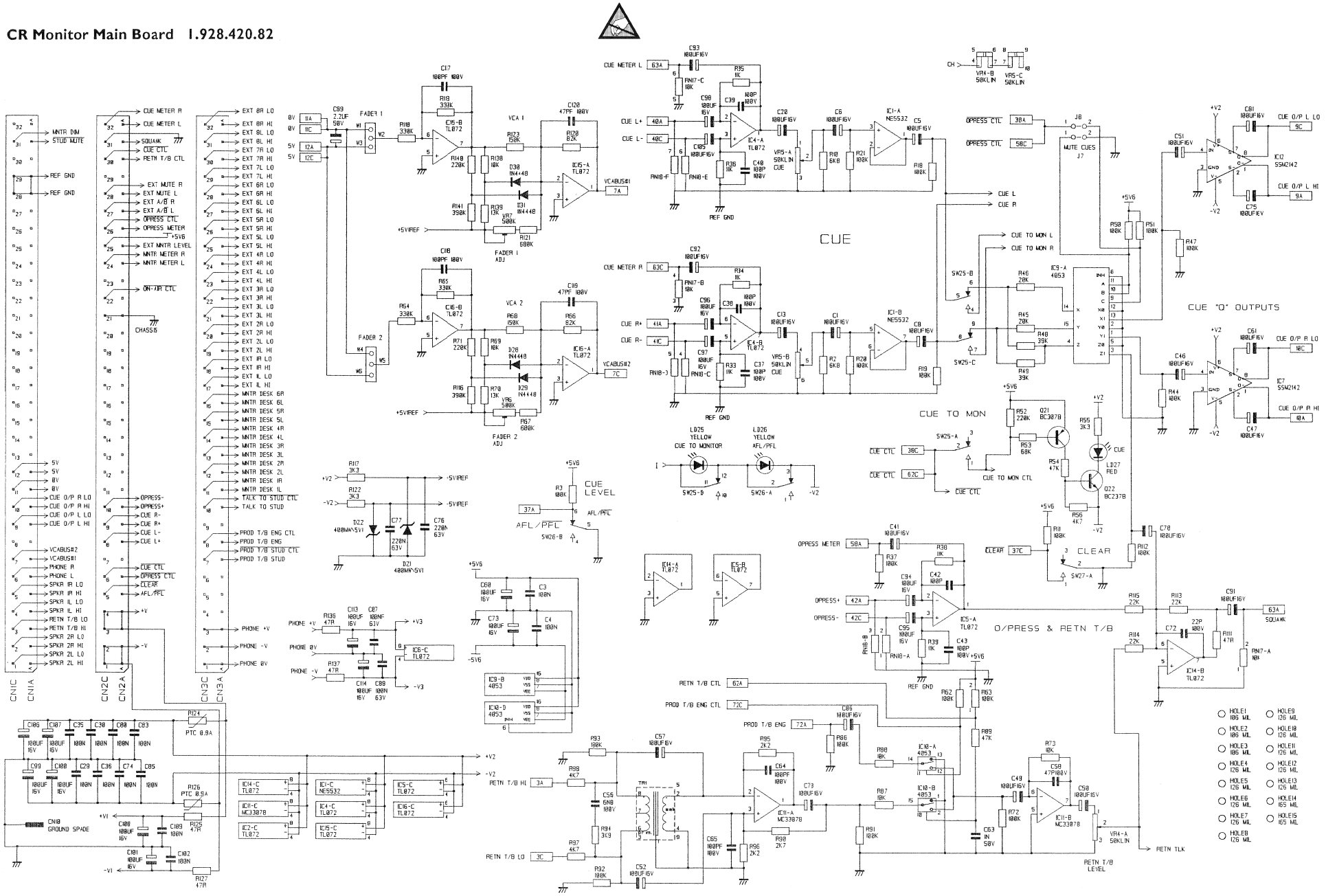
CR Monitor Main Board 1.928.420.82



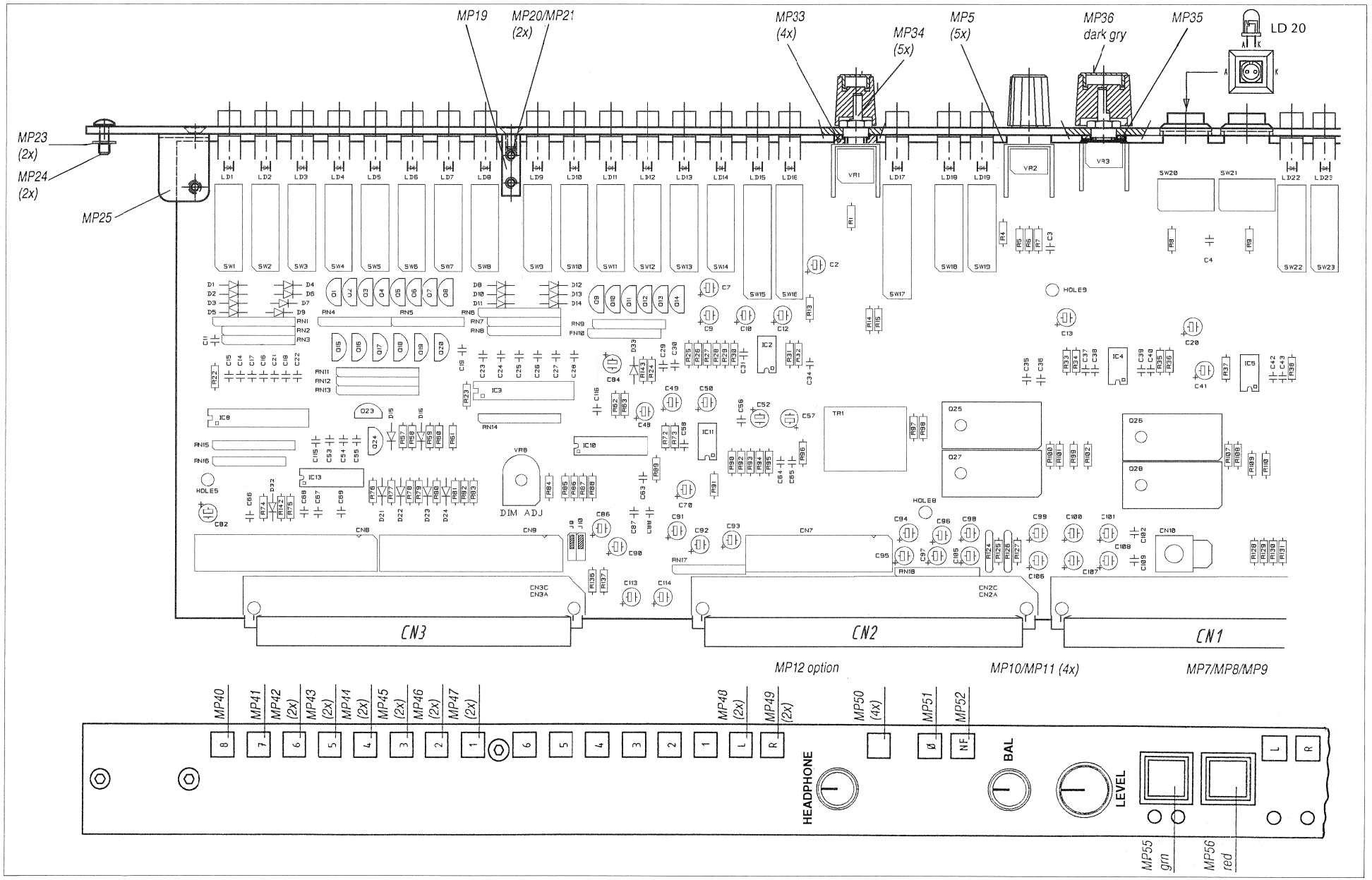
CR Monitor Main Board 1.928.420.82



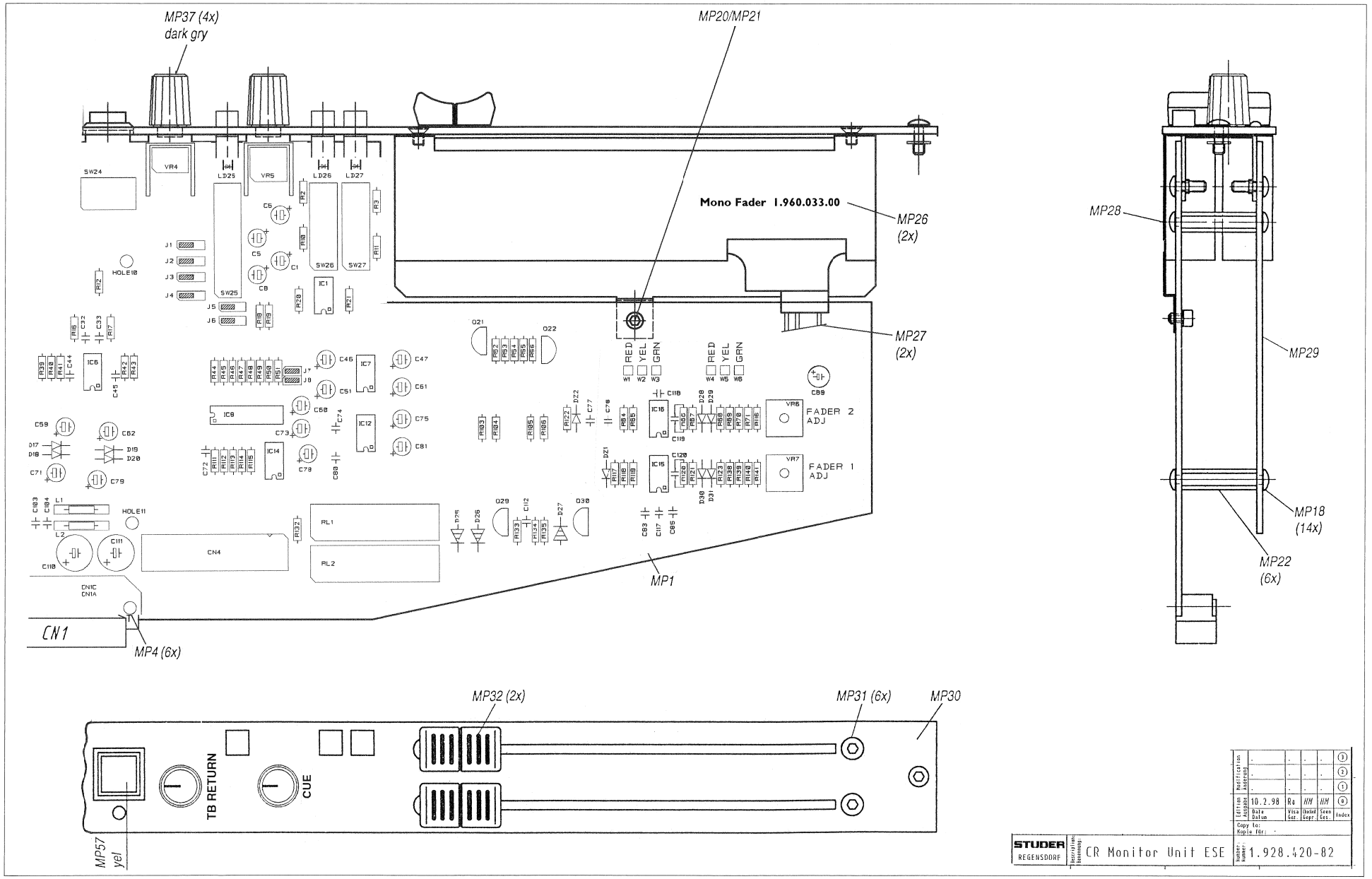
CR Monitor Main Board 1.928.420.82



CR Monitor Main Board 1.928.420.82



CR Monitor Main Board 1.928.420.82



Edition Ausgabe	Modification Aenderung				
	.	.	.	.	3
	.	.	.	.	2
	.	.	.	.	1
	10.2.98	Ra	HH	HH	0
	Date Datum	Visa Ges.	Checked Gepr.	Seen Ges.	Index

Copy to: Kopie für: -

STUDER REGENSDORF	Description: Bezeichnung: CR Monitor Unit ESE	Number: Nummer: 1.928.420-82

CR Monitor Main Board 1.928.420.82

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.99.2723		100u	EL 6.3V, RM5
0	C 2	59.99.2723		100u	EL 6.3V, RM5
0	C 3	59.06.0104		100n	PETP 63V, 10%, RM5
0	C 4	59.06.0104		100n	PETP 63V, 10%, RM5
0	C 5	59.99.2723		100u	EL 6.3V, RM5
0	C 6	59.99.2723		100u	EL 6.3V, RM5
0	C 7	59.99.2723		100u	EL 6.3V, RM5
0	C 8	59.99.2723		100u	EL 6.3V, RM5
0	C 9	59.99.2723		100u	EL 6.3V, RM5
0	C 10	59.99.2723		100u	EL 6.3V, RM5
2	C 11	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 12	59.99.2723		100u	EL 6.3V 20% RM5
0	C 13	59.99.2723		100u	EL 6.3V 20% RM5
2	C 14	59.06.0102		1n0	PETP, 63V, 10%, RM5
2	C 15	59.06.0102		1n0	PETP, 63V, 10%, RM5
2	C 16	59.06.0102		1n0	PETP, 63V, 10%, RM5
2	C 17	59.06.0102		1n0	PETP, 63V, 10%, RM5
2	C 18	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 19	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 20	59.99.2723		100u	EL 6.3V 20% RM5
2	C 21	59.06.0102		1n0	PETP, 63V, 10%, RM5
2	C 22	59.06.0102		1n0	PETP, 63V, 10%, RM5
2	C 23	59.06.0102		1n0	PETP, 63V, 10%, RM5
2	C 24	59.06.0102		1n0	PETP, 63V, 10%, RM5
2	C 25	59.06.0102		1n0	PETP, 63V, 10%, RM5
2	C 26	59.06.0102		1n0	PETP, 63V, 10%, RM5
2	C 27	59.06.0102		1n0	PETP, 63V, 10%, RM5
2	C 28	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 29	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 30	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 31	59.34.2470		47p	CER 63V, 5%, N150
0	C 32	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 33	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 34	59.34.2470		47p	CER 63V, 5%, N150
0	C 35	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 36	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 37	59.34.4101		100p	CER 63V, 5%, N750
0	C 38	59.34.4101		100p	CER 63V, 5%, N750
0	C 39	59.34.4101		100p	CER 63V, 5%, N750
0	C 40	59.34.4101		100p	CER 63V, 5%, N750
0	C 41	59.99.2723		100u	EL 6.3V, RM5
0	C 42	59.34.4101		100p	CER 63V, 5%, N750
0	C 43	59.34.4101		100p	CER 63V, 5%, N750
0	C 44	59.34.2470		47p	CER 63V, 5%, N150
0	C 45	59.34.2470		47p	CER 63V, 5%, N150
0	C 46	59.99.2723		100u	EL 6.3V, RM5
0	C 47	59.99.2723		100u	EL 6.3V, RM5
0	C 48	59.99.2723		100u	EL 6.3V, RM5
0	C 49	59.99.2723		100u	EL 6.3V, RM5
0	C 50	59.99.2723		100u	EL 6.3V, RM5
0	C 51	59.99.2723		100u	EL 6.3V, RM5
0	C 52	59.99.2723		100u	EL 6.3V, RM5
					Usec without transformator only!
0	C 53	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 54	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 55	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 56	not used		6n8	PETP, 63V, 10%, RM5
					Usec with transformator only!
0	C 57	59.99.2723		100u	EL 6.3V, RM5
					Usec without transformator only!
0	C 58	59.34.2470		47p	CER 63V, 5%, N150
0	C 59	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 60	59.99.2723		100u	EL 6.3V, RM5
0	C 61	59.99.2723		100u	EL 6.3V, RM5
0	C 62	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 63	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 64	59.34.4101		100p	CER 63V, 5%, N750
0	C 65	59.34.4101		100p	CER 63V, 5%, N750
0	C 66	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 67	59.06.0104		100n	PETP, 63V, 10%, RM5
2	C 68	59.06.0102		1n0	PETP, 63V, 10%, RM5
2	C 69	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 70	59.99.2723		100u	EL 6.3V 20% RM5
0	C 71	59.22.4002		100u	EL 16V 20% RM5
0	C 72	59.34.2220		22p	CER 63V, 5%, N150
0	C 73	59.99.2723		100u	EL 6.3V, RM5
0	C 74	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 75	59.99.2723		100u	EL 6.3V, RM5
0	C 76	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 77	not used		220n	PETP, 63V, 10%, RM5
0	C 78	59.99.2723		100u	EL 6.3V, RM5
0	C 79	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 80	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 81	59.99.2723		100u	EL 6.3V, RM5
0	C 82	59.99.2723		100u	EL 6.3V, RM5
0	C 83	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 84	59.99.2723		100u	EL 6.3V, RM5
0	C 85	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 86	59.99.2723		100u	EL 6.3V, RM5

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 87	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 88	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 89	59.22.8229		2u2	EL 50V, 20%, RM5
0	C 90	59.99.2723		100u	EL 6.3V, RM5
0	C 91	59.99.2723		100u	EL 6.3V, RM5
0	C 92	59.99.2723		100u	EL 6.3V, RM5
0	C 93	59.99.2723		100u	EL 6.3V, RM5
0	C 94	59.99.2723		100u	EL 6.3V, RM5
0	C 95	59.99.2723		100u	EL 6.3V, RM5
0	C 96	59.99.2723		100u	EL 6.3V, RM5
0	C 97	59.99.2723		100u	EL 6.3V, RM5
0	C 98	59.99.2723		100u	EL 6.3V, RM5
0	C 99	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 100	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 101	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 102	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 103	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 104	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 105	59.99.2723		100u	EL 6.3V, RM5
0	C 106	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 107	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 108	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 109	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 110	59.22.4471		470u	EL 16V, 20%, RM5
0	C 111	59.22.4471		470u	EL 16V, 20%, RM5
0	C 112	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 113	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 114	59.22.4002		100uF	EL 16V, 20%, RM5
0	C 115	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 116	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 117	59.34.4101		100p	CER 63V, 5%, N750
0	C 118	59.34.4101		100p	CER 63V, 5%, N750
0	C 119	59.34.2470		47p	CER 63V, 5%, N150
0	C 120	59.34.2470		47p	CER 63V, 5%, N150
1	C 121	59.22.3003		220u	EL 10V, 20%, RM5
1	C 122	59.22.3003		220u	EL 10V, 20%, RM5
0	CN 1	54.01.0365		64-P	P EU-C 2 * 32 A,C
0	CN 2	54.01.0365		64-P	P EU-C 2 * 32 A,C
0	CN 3	54.01.0365		64-P	P EU-C 2 * 32 A,C
0	CN 4	54.14.2003		26p	1/20" Au, gerade, ohne Verrieg
0	CN 7	54.14.2003		26p	1/20" Au, gerade, ohne Verrieg
0	CN 8	54.14.2007		34p	1/20" Au, gerade, ohne Verrieg
0	CN 9	54.14.2007		34p	1/20" Au, gerade, ohne Verrieg
0	CN 10	54.02.0343			P FLACH, 6.3*0.8, WINKEL 45
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 7	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 8	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 9	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 10	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 11	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 12	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 13	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 14	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 15	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 16	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 17	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 18	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 19	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 20	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 21	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 22	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 23	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 24	50.04.0125		1N4448	75V, 150mA, 4ns DO-35
0	D 25	50.04.0122		1N400'	1A, DO 41
0	D 26	50.04.0122		1N400'	1A, DO 41
0	D 27	50.04.0122		1N400'	1A, DO 41
0	D 28	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 29	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 30	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 31	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 32	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 33	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	DZ 1	50.04.1112		5V1	Zener, 5%, 0.5W, DO-35
0	DZ 2	not used		5V1	Zener, 5%, 0.5W, DO-35
0	IC 1	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 2	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 3	50.17.1373		74HC373	IC ... 74 HC 373 ., ,A
0	IC 4	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 5	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 6	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 7	50.09.0124		2142	IC SSM 2142 P
0	IC 8	50.17.1373		74HC373	IC ... 74 HC 373 ., ,A

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	IC 9	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 10	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 11	50.09.0117		MC33078	IC MC 33078 P
0	IC 12	50.09.0124		2142	IC SSM 2142 P
0	IC 13	50.07.0008		4093	IC .. 4093 .. ,A
0	IC 14	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 15	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 16	50.09.0101		TL072	IC TL 072 CN ,A
0	J 1	54.01.0020	3 pcs	1p	Pin 0.63*0.63
0	J 2	54.01.0020	3 pcs	1p	Pin 0.63*0.63
0	J 3	54.01.0020	3 pcs	1p	Pin 0.63*0.63
0	J 4	54.01.0020	3 pcs	1p	Pin 0.63*0.63
0	J 5	54.01.0020	3 pcs	1p	Pin 0.63*0.63
0	J 6	54.01.0020	3 pcs	1p	Pin 0.63*0.63
0	J 7	54.01.0020	2 pcs	1p	Pin 0.63*0.63
0	J 8	54.01.0020	2 pcs	1p	Pin 0.63*0.63
0	J 9	54.01.0020	3 pcs	1p	Pin 0.63*0.63
0	J 10	54.01.0020	3 pcs	1p	Pin 0.63*0.63
0	L 1	62.01.0107		2.2uH	L 2.2 U , 10%,
0	L 2	62.01.0107		2.2uH	L 2.2 U , 10%,
0	LD 1	50.04.2206		934GT	LED 3mm green
0	LD 2	50.04.2206		934GT	LED 3mm green
0	LD 3	50.04.2206		934GT	LED 3mm green
0	LD 4	50.04.2206		934GT	LED 3mm green
0	LD 5	50.04.2206		934GT	LED 3mm green
0	LD 6	50.04.2206		934GT	LED 3mm green
0	LD 7	50.04.2206		934GT	LED 3mm green
0	LD 8	50.04.2206		934GT	LED 3mm green
0	LD 9	50.04.2205		934YT	LED 3mm yellow
0	LD 10	50.04.2205		934YT	LED 3mm yellow
0	LD 11	50.04.2205		934YT	LED 3mm yellow
0	LD 12	50.04.2205		934YT	LED 3mm yellow
0	LD 13	50.04.2206		934GT	LED 3mm green
0	LD 14	50.04.2206		934GT	LED 3mm green
0	LD 15	50.04.2204		934ID	LED 3mm red
0	LD 16	50.04.2204		934ID	LED 3mm red
0	LD 17	50.04.2205		934YT	LED 3mm yellow
0	LD 18	50.04.2204		934ID	LED 3mm red
0	LD 19	50.04.2206		934GT	LED 3mm green
0	LD 20	50.04.2162		HLMP1540	LED 3mm, grün klar
					LED for SW20
0	LD 21	55.15.0922			LED rot mit Sockel
					LED for SW21
0	LD 22	50.04.2204		934ID	LED 3mm red
0	LD 23	50.04.2204		934ID	LED 3mm red
0	LD 24	55.15.0924			LED gelb mit Sockel
					LED for SW24
0	LD 25	50.04.2205		934YT	LED 3mm yellow
0	LD 26	50.04.2205		934YT	LED 3mm yellow
0	LD 27	50.04.2204		934ID	LED 3mm red
0	MP 1	1.928.420.12	1 pce		CR Monitor PCB
0	MP 2	1.928.420.04	1 pce		STUDER NR. ETIKETTE 10x20
0	MP 3	43.01.0108	1 pce	Label	ESE-WARNSCHILD
0	MP 4	28.99.0119	6 pcs		ROHRNIETE D 2.5*0.15* 9
0	MP 5	1.928.220.09	5 pcs		9mm ALPS POT BRACKET WITH PIPS
0	MP 6	54.01.0021	10 pcs	Jumper	0.63 * 0.63mm
0	MP 7	21.51.8455	1 pce	M4*8	Linsenkopf-Schr IS, Ni
0	MP 8	22.01.8040	1 pce	M4	6kt-Mutter 0.8d St Zn gb
0	MP 9	24.16.2040	2 pcs		FAECHERSCHEIBE A D 4.3
0	MP 10	28.21.1480	4 pcs		ROHRNIETE, D 3.1* 6.5
0	MP 11	50.20.0404	4 pcs		ISOLIERDURCHFUEHRUNG,D 6.0/3.5
0	MP 12	not used	1 pce		ISOLATION
					Used with transformator only!
0	MP 18	21.53.8708	14 pcs	M3*6	Lin-Schr IS, Zn gb, Tuflock
0	MP 19	1.928.220.05	1 pce		STÜTZBOLZEN
0	MP 20	21.53.0279	3 pcs	M2.5*6	Z-Schraube Inbus Zn gb chr
0	MP 21	24.16.1025	3 pcs		RIPPENSCHEIBE D 2.7/ 5
0	MP 22	1.010.024.27	6 pcs		MUTTERBOLZEN M 3 * 20
0	MP 23	24.16.3023	2 pcs		WELLENSICHERUNG 2.3
0	MP 24	1.010.022.21	2 pcs	M3*8	L-Schraube IS sw spezial
0	MP 25	1.928.220.03	1 pce		PRINTHALTER
0	MP 26	1.960.033.00	2 pcs		MONOFADER LIN. P+G 100MM
0	MP 27	1.942.210.93	2 pcs		LL-FADER
0	MP 28	1.928.420.02	1 pce		FADERHALTER
0	MP 29	1.928.423.82	1 pce		CR MONITOR SIDE BOARD
0	MP 30	1.928.420.01	1 pce		FRONTPLATTE
0	MP 31	21.99.0175	6 pcs	M3*6	S-Schraube IS A2 sw oxydiert
0	MP 32	1.911.000.45	2 pcs		KNOPF GRUEN
0	MP 33	1.928.220.07	4 pcs		ZENTRIERSCHEIBE 2,8
0	MP 34	1.928.220.08	5 pcs		MUTTER M7x0,75
0	MP 35	1.928.220.06	1 pce		ZENTRIERSCHEIBE 1
0	MP 36	42.01.1220	1 pce		DREHKNOPF D15 gr/gr
0	MP 37	42.01.1200	4 pcs		DREHKNOPF D11 gr/gr
0	MP 40	1.928.201.08	1 pce		PUSH BUTTON 8
0	MP 41	1.928.201.07	1 pce		PUSH BUTTON 7

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	MP 42	1.928.201.06	2 pcs		PUSH BUTTON 6
0	MP 43	1.928.201.05	2 pcs		PUSH BUTTON 5
0	MP 44	1.928.201.04	2 pcs		PUSH BUTTON 4
0	MP 45	1.928.201.03	2 pcs		PUSH BUTTON 3
0	MP 46	1.928.201.02	2 pcs		PUSH BUTTON 2
0	MP 47	1.928.201.01	2 pcs		PUSH BUTTON 1
0	MP 48	1.928.201.30	2 pcs		PUSH BUTTON L
0	MP 49	1.928.201.38	2 pcs		PUSH BUTTON R
0	MP 50	1.928.201.99	4 pcs		PUSH BUTTON LEER
0	MP 51	1.928.201.43	1 pce		PUSH BUTTON 0
0	MP 52	1.928.201.33	1 pce		PUSH BUTTON NF
0	MP 55	55.15.0915	1 pce		Kalotte grün
					for SW 20
0	MP 56	55.15.0912	1 pce		Kalotte rot
					for SW 21
0	MP 57	55.15.0914	1 pce		Kalotte gelb
					for SW 24
0	Q 1	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 2	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 3	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 4	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 5	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 6	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 7	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 8	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 9	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 10	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 11	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 12	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 13	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 14	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 15	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 16	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 17	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 18	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 19	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 20	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 21	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	Q 22	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 23	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 24	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 25	50.03.0458		BD802	PNP, TO 220
0	Q 26	50.03.0458		BD802	PNP, TO 220
0	Q 27	50.03.0457		BD801	NPN, TO 220
0	Q 28	50.03.0457		BD801	NPN, TO 220
0	Q 29	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 30	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	R 1	57.11.3752		7k5	MF, 1%, 0207
0	R 2	57.11.3682		6k8	MF, 1%, 0207
0	R 3	57.11.3104		100k	MF, 1%, 0207
0	R 4	57.11.3104		100k	MF, 1%, 0207
0	R 5	57.11.3203		20k	MF, 1%, 0207
0	R 6	57.11.3822		8k2	MF, 1%, 0207
0	R 7	57.11.3203		20k	MF, 1%, 0207
0	R 8	57.11.3132		1k3	MF, 1%, 0207
0	R 9	57.11.3132		1k3	MF, 1%, 0207
0	R 10	57.11.3682		6k8	MF, 1%, 0207
0	R 11	57.11.3104		100k	MF, 1%, 0207
0	R 12	57.11.3132		1k3	MF, 1%, 0207
0	R 13	57.11.3223		22k	MF, 1%, 0207
0	R 14	57.11.3242		2k4	MF, 1%, 0207
0	R 15	57.11.3242		2k4	MF, 1%, 0207
0	R 16	57.11.3473		47k	MF, 1%, 0207
0	R 17	57.11.3473		47k	MF, 1%, 0207
0	R 18	57.11.3104		100k	MF, 1%, 0207
0	R 19	57.11.3104		100k	MF, 1%, 0207
0	R 20	57.11.3104		100k	MF, 1%, 0207
0	R 21	57.11.3104		100k	MF, 1%, 0207
0	R 22	57.11.3100		10R	MF, 1%, 0207
0	R 23	57.11.3100		10R	MF, 1%, 0207
0	R 24	57.11.3104		100k	MF, 1%, 0207
0	R 25	57.11.3223		22k	MF, 1%, 0207
0	R 26	57.11.3104		100k	MF, 1%, 0207
0	R 27	57.11.3243		24k	MF, 1%, 0207
0	R 28	57.11.3104		100k	MF, 1%, 0207
0	R 29	57.11.3104		100k	MF, 1%, 0207
0	R 30	57.11.3104		100k	MF, 1%, 0207
0	R 31	57.11.3104		100k	MF, 1%, 0207
0	R 32	57.11.3243		24k	MF, 1%, 0207
0	R 33	57.11.3113		11k	MF, 1%, 0207
0	R 34	57.11.3113		11k	MF, 1%, 0207
0	R 35	57.11.3113		11k	MF, 1%, 0207
0	R 36	57.11.3113		11k	MF, 1%, 0207
0	R 37	57.11.3104		100k	MF, 1%, 0207
0	R 38	57.11.3113		11k	MF, 1%, 0207
0	R 39	57.11.3113		11k	MF, 1%, 0207
0	R 40	57.11.3393		39k	MF, 1%, 0207

CR Monitor Main Board 1.928.420.82

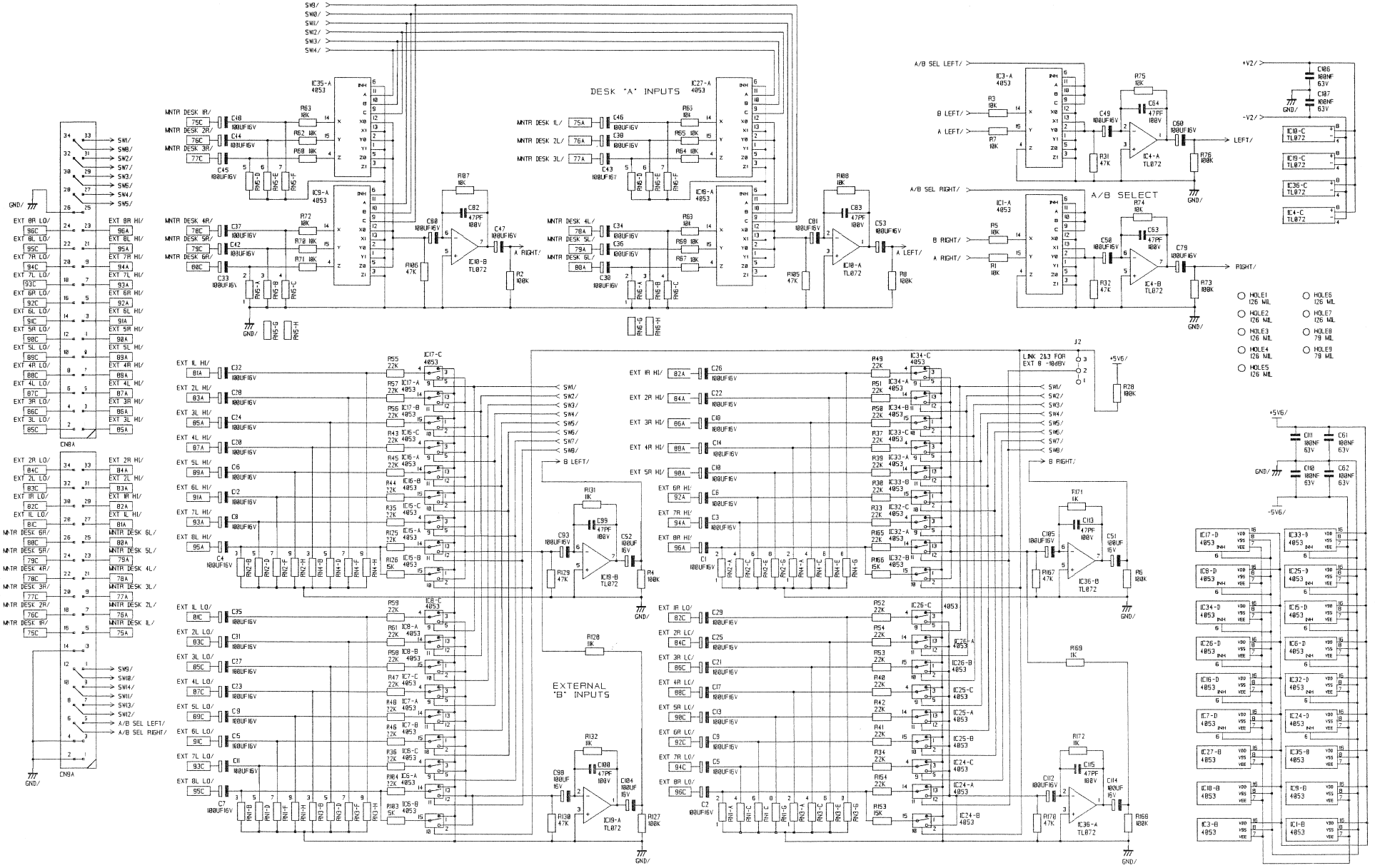
Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 41	57.11.3103		10k	MF, 1%, 0207
0	R 42	57.11.3103		10k	MF, 1%, 0207
0	R 43	57.11.3393		39k	MF, 1%, 0207
0	R 44	57.11.3104		100k	MF, 1%, 0207
0	R 45	57.11.3203		20k	MF, 1%, 0207
0	R 46	57.11.3203		20k	MF, 1%, 0207
0	R 47	57.11.3104		100k	MF, 1%, 0207
0	R 48	57.11.3393		39k	MF, 1%, 0207
0	R 49	57.11.3393		39k	MF, 1%, 0207
0	R 50	57.11.3104		100k	MF, 1%, 0207
0	R 51	57.11.3104		100k	MF, 1%, 0207
0	R 52	57.11.3224		220k	MF, 1%, 0207
0	R 53	57.11.3683		68k	MF, 1%, 0207
0	R 54	57.11.3473		47k	MF, 1%, 0207
0	R 55	57.11.3332		3k3	MF, 1%, 0207
0	R 56	57.11.3472		4k7	MF, 1%, 0207
0	R 57	57.11.3332		3k3	MF, 1%, 0207
0	R 58	57.11.3104		100k	MF, 1%, 0207
0	R 59	57.11.3104		100k	MF, 1%, 0207
0	R 60	57.11.3332		3k3	MF, 1%, 0207
0	R 61	57.11.3104		100k	MF, 1%, 0207
0	R 62	57.11.3104		100k	MF, 1%, 0207
0	R 63	57.11.3104		100k	MF, 1%, 0207
0	R 64	57.11.3334		330k	MF, 1%, 0207
0	R 65	57.11.3334		330k	MF, 1%, 0207
0	R 66	57.11.3823		82k	MF, 1%, 0207
0	R 67	57.11.3684		680k	MF, 1%, 0207
0	R 68	57.11.3154		150k	MF, 1%, 0207
0	R 69	57.11.3103		10k	MF, 1%, 0207
0	R 70	57.11.3133		13k	MF, 1%, 0207
0	R 71	57.11.3224		220k	MF, 1%, 0207
0	R 72	57.11.3104		100k	MF, 1%, 0207
0	R 73	57.11.3103		10k	MF, 1%, 0207
0	R 74	57.11.3104		100k	MF, 1%, 0207
0	R 75	57.11.3105		1M0	MF, 1%, 0207
0	R 76	57.11.3473		47k	MF, 1%, 0207
0	R 77	57.11.3102		1k0	MF, 1%, 0207
0	R 78	57.11.3473		47k	MF, 1%, 0207
0	R 79	57.11.3473		47k	MF, 1%, 0207
0	R 80	57.11.3102		1k0	MF, 1%, 0207
0	R 81	57.11.3473		47k	MF, 1%, 0207
0	R 82	57.11.3473		47k	MF, 1%, 0207
0	R 83	57.11.3104		100k	MF, 1%, 0207
0	R 84	57.11.3183		18k	MF, 1%, 0207
0	R 85	57.11.3104		100k	MF, 1%, 0207
0	R 86	57.11.3104		100k	MF, 1%, 0207
0	R 87	57.11.3103		10k	MF, 1%, 0207
0	R 88	57.11.3103		10k	MF, 1%, 0207
0	R 89	57.11.3473		47k	MF, 1%, 0207
0	R 90	not used		2k7	MF, 1%, 0207
					Used with transformator only!
0	R 91	57.11.3104		100k	MF, 1%, 0207
0	R 92	57.11.3104		100k	MF, 1%, 0207
0	R 93	57.11.3104		100k	MF, 1%, 0207
0	R 94	not used		3k9	MF, 1%, 0207
					Used with transformator only!
0	R 95	57.11.3222		2k2	MF, 1%, 0207
					Value with transformator 3k0
0	R 96	57.11.3222		2k2	MF, 1%, 0207
					Value with transformator 100E
0	R 97	57.11.3472		4k7	MF, 1%, 0207
0	R 98	57.11.3472		4k7	MF, 1%, 0207
0	R 99	57.11.3689		6R8	MF, 1%, 0207
0	R 100	57.11.3332		3k3	MF, 1%, 0207
0	R 101	57.11.3332		3k3	MF, 1%, 0207
0	R 102	57.11.3689		6R8	MF, 1%, 0207
0	R 103	57.11.3000		0R0	MF, 0207
0	R 104	57.11.3000		0R0	MF, 0207
0	R 105	57.11.3000		0R0	MF, 0207
0	R 106	57.11.3000		0R0	MF, 0207
0	R 107	57.11.3332		3k3	MF, 1%, 0207
0	R 108	57.11.3332		3k3	MF, 1%, 0207
0	R 109	57.11.3689		6R8	MF, 1%, 0207
0	R 110	57.11.3689		6R8	MF, 1%, 0207
0	R 111	57.11.3470		47R	MF, 1%, 0207
0	R 112	57.11.3104		100k	MF, 1%, 0207
0	R 113	57.11.3223		22k	MF, 1%, 0207
0	R 114	57.11.3223		22k	MF, 1%, 0207
0	R 115	57.11.3223		22k	MF, 1%, 0207
0	R 116	57.11.3394		390k	MF, 1%, 0207
0	R 117	57.11.3332		3k3	MF, 1%, 0207
0	R 118	57.11.3334		330k	MF, 1%, 0207
0	R 119	57.11.3334		330k	MF, 1%, 0207
0	R 120	57.11.3823		82k	MF, 1%, 0207
0	R 121	57.11.3684		680k	MF, 1%, 0207
0	R 122	not used		3k3	MF, 1%, 0207
0	R 123	57.11.3154		150k	MF, 1%, 0207
0	R 124	57.92.7021		0.9A	POLY- PTC, 60V
0	R 125	57.19.0470		47R	5%, 0207, Fuse
0	R 126	57.92.7021		0.9A	POLY- PTC, 60V
0	R 127	57.19.0470		47R	5%, 0207, Fuse
0	R 128	57.11.3680		68R	MF, 1%, 0207
0	R 129	57.11.3101		100R	MF, 1%, 0207
0	R 130	57.11.3101		100R	MF, 1%, 0207
0	R 131	57.11.3680		68R	MF, 1%, 0207
0	R 132	57.11.3471		470R	MF, 1%, 0207
0	R 133	57.11.3223		22k	MF, 1%, 0207
0	R 134	57.11.3473		47k	MF, 1%, 0207
0	R 135	57.11.3223		22k	MF, 1%, 0207
0	R 136	57.19.0470		47R	5%, 0207, Fuse
0	R 137	57.19.0470		47R	5%, 0207, Fuse
0	R 138	57.11.3103		10k	MF, 1%, 0207
0	R 139	57.11.3133		13k	MF, 1%, 0207
0	R 140	57.11.3224		220k	MF, 1%, 0207
0	R 141	57.11.3394		390k	MF, 1%, 0207
0	R 142	57.11.3103		10k	MF, 1%, 0207
0	R 143	57.11.3103		10k	MF, 1%, 0207
1	R 144	57.11.3104		100k	MF, 1%, 0207
1	R 145	57.11.3104		100k	MF, 1%, 0207
0	RL 1	56.04.0186		4u	12V 250V 8A Ag/Au
0	RL 2	56.04.0186		4u	12V 250V 8A Ag/Au
0	RN 1	57.88.4104		8*100k	2%, SIP 9
0	RN 2	57.88.2224		4*220k	2%, SIP 8
0	RN 3	57.88.2224		4*220k	2%, SIP 8
0	RN 4	57.88.2473		4*47k	2%, SIP 8
0	RN 5	57.88.2473		4*47k	2%, SIP 8
0	RN 6	57.88.4104		8*100k	2%, SIP 9
0	RN 7	57.88.2224		4*220k	2%, SIP 8
0	RN 8	57.88.2224		4*220k	2%, SIP 8
0	RN 9	57.88.2473		4*47k	2%, SIP 8
0	RN 10	57.88.2473		4*47k	2%, SIP 8
0	RN 11	57.88.4473		8*47k	2%, SIP 9
0	RN 12	57.88.4682		8*6k8	2%, SIP 9
0	RN 13	57.88.4151		8*150R	2%, SIP 9
0	RN 14	57.88.4473		8*47k	2%, SIP 9
0	RN 15	57.88.4473		8*47k	2%, SIP 9
0	RN 16	57.88.2103		4*10k	2%, SIP 8
0	RN 17	57.88.2103		4*10k	2%, SIP 8
0	RN 18	57.88.4104		8*100k	2%, SIP 9
0	SW 1	55.15.0932		2*u	impuls
0	SW 2	55.15.0932		2*u	impuls
0	SW 3	55.15.0932		2*u	impuls
0	SW 4	55.15.0932		2*u	impuls
0	SW 5	55.15.0932		2*u	impuls
0	SW 6	55.15.0932		2*u	impuls
0	SW 7	55.15.0932		2*u	impuls
0	SW 8	55.15.0932		2*u	impuls
0	SW 9	55.15.0932		2*u	impuls
0	SW 10	55.15.0932		2*u	impuls
0	SW 11	55.15.0932		2*u	impuls
0	SW 12	55.15.0932		2*u	impuls
0	SW 13	55.15.0932		2*u	impuls
0	SW 14	55.15.0932		2*u	impuls
0	SW 15	55.15.0933		4*u	rastend
0	SW 16	55.15.0933		4*u	rastend
0	SW 17	55.15.0933		4*u	rastend
0	SW 18	55.15.0931		2*u	rastend
0	SW 19	55.15.0931		2*u	rastend
0	SW 20	1.928.207.00			MIYAMA SWITCH LATCHING BOARD
0	SW 21	1.928.207.00			MIYAMA SWITCH LATCHING BOARD
0	SW 22	55.15.0931		2*u	rastend
0	SW 23	55.15.0931		2*u	rastend
0	SW 24	1.928.207.00			MIYAMA SWITCH LATCHING BOARD
0	SW 25	55.15.0933		4*u	rastend
0	SW 26	55.15.0931		2*u	rastend
0	SW 27	55.15.0932		2*u	impuls
0	TR 1	not used		1:0.62	EINGANGSTRAFO 1 : 0,62
					Option
0	VR 1	58.20.6607		2*10k log	2*R
0	VR 2	58.20.6501		10k lin	1*R
0	VR 3	58.20.6503		50k lin	1*R
0	VR 4	58.20.6503		50k lin	1*R
0	VR 5	58.20.6602		2*50k lin	2*R
0	VR 6	58.01.8504		500k	Cermet, 10%, 0.5W, horizontal
0	VR 7	58.01.8504		500k	Cermet, 10%, 0.5W, horizontal
0	VR 8	58.02.5222		2k2	20%, 0.1W, Carbon

End of List

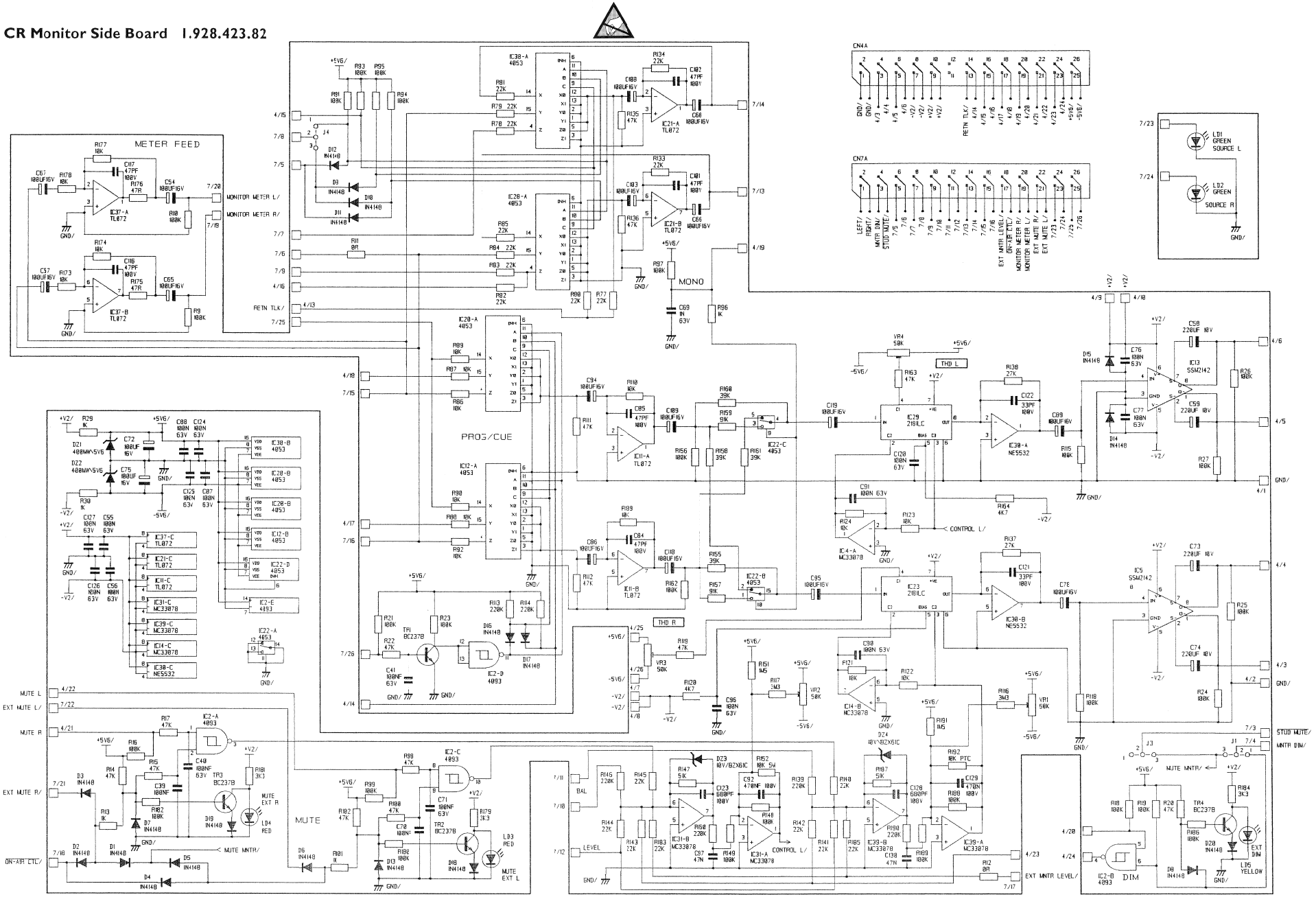
Comments

(2) Improvement of switching noise

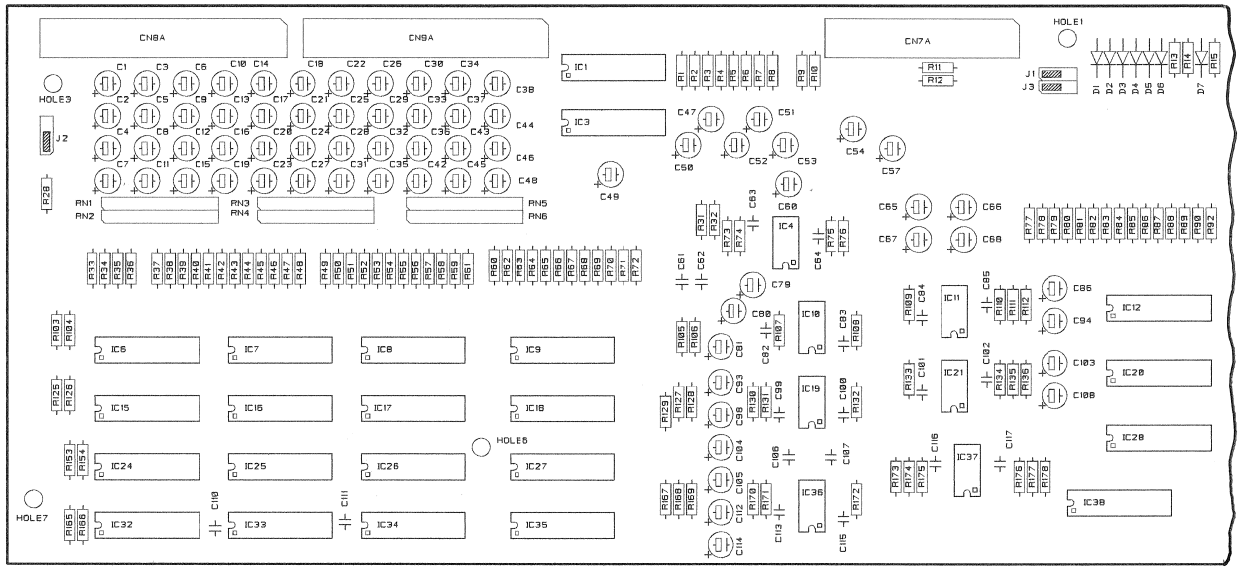
CR Monitor Side Board 1.928.423.82



CR Monitor Side Board 1.928.423.82

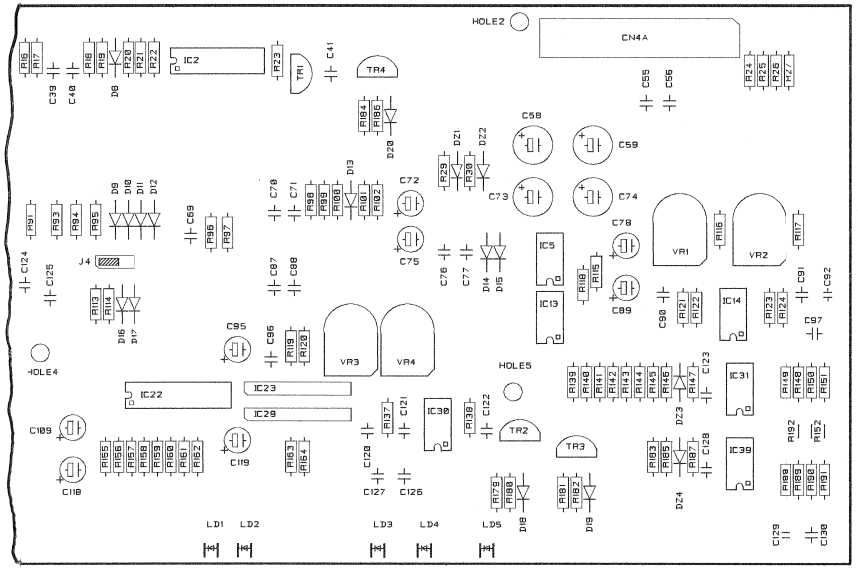


CR Monitor Side Board 1.928.423.82



Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 42	59.99.2723		100u	EL 6.3V, RM5
0	C 43	59.99.2723		100u	EL 6.3V, RM5
0	C 44	59.99.2723		100u	EL 6.3V, RM5
0	C 45	59.99.2723		100u	EL 6.3V, RM5
0	C 46	59.99.2723		100u	EL 6.3V, RM5
0	C 47	59.99.2723		100u	EL 6.3V, RM5
0	C 48	59.99.2723		100u	EL 6.3V, RM5
0	C 49	59.99.2723		100u	EL 6.3V, RM5
0	C 50	59.99.2723		100u	EL 6.3V, RM5
0	C 51	59.99.2723		100u	EL 6.3V, RM5
0	C 52	59.99.2723		100u	EL 6.3V, RM5
0	C 53	59.99.2723		100u	EL 6.3V, RM5
0	C 54	59.99.2723		100u	EL 6.3V, RM5
0	C 55	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 56	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 57	59.99.2723		100u	EL 6.3V, RM5
0	C 58	59.22.3221		220u	EL 10V, 20%, RM5
0	C 59	59.22.3221		220u	EL 10V, 20%, RM5
0	C 60	59.99.2723		100u	EL 6.3V, RM5
0	C 61	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 62	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 63	59.34.2470		47p	CER 63V, 5%, N150
0	C 64	59.34.2470		47p	CER 63V, 5%, N150
0	C 65	59.99.2723		100u	EL 6.3V, RM5
0	C 66	59.99.2723		100u	EL 6.3V, RM5
0	C 67	59.99.2723		100u	EL 6.3V, RM5
0	C 68	59.99.2723		100u	EL 6.3V, RM5
0	C 69	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 70	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 71	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 72	59.99.2723		100u	EL 6.3V, RM5
0	C 73	59.22.3221		220u	EL 10V, 20%, RM5
0	C 74	59.22.3221		220u	EL 10V, 20%, RM5
0	C 75	59.99.2723		100u	EL 6.3V, RM5
0	C 76	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 77	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 78	59.99.2723		100u	EL 6.3V, RM5
0	C 79	59.99.2723		100u	EL 6.3V, RM5
0	C 80	59.99.2723		100u	EL 6.3V, RM5
0	C 81	59.99.2723		100u	EL 6.3V, RM5

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.59.2723		100u	EL 6.3V, RM5
0	C 2	59.59.2723		100u	EL 6.3V, RM5
0	C 3	59.59.2723		100u	EL 6.3V, RM5
0	C 4	59.59.2723		100u	EL 6.3V, RM5
0	C 5	59.59.2723		100u	EL 6.3V, RM5
0	C 6	59.59.2723		100u	EL 6.3V, RM5
0	C 7	59.59.2723		100u	EL 6.3V, RM5
0	C 8	59.59.2723		100u	EL 6.3V, RM5
0	C 9	59.59.2723		100u	EL 6.3V, RM5
0	C 10	59.59.2723		100u	EL 6.3V, RM5
0	C 11	59.59.2723		100u	EL 6.3V, RM5
0	C 12	59.59.2723		100u	EL 6.3V, RM5
0	C 13	59.59.2723		100u	EL 6.3V, RM5
0	C 14	59.59.2723		100u	EL 6.3V, RM5
0	C 15	59.59.2723		100u	EL 6.3V, RM5
0	C 16	59.59.2723		100u	EL 6.3V, RM5
0	C 17	59.59.2723		100u	EL 6.3V, RM5
0	C 18	59.59.2723		100u	EL 6.3V, RM5
0	C 19	59.59.2723		100u	EL 6.3V, RM5
0	C 20	59.59.2723		100u	EL 6.3V, RM5
0	C 21	59.59.2723		100u	EL 6.3V, RM5
0	C 22	59.59.2723		100u	EL 6.3V, RM5
0	C 23	59.59.2723		100u	EL 6.3V, RM5
0	C 24	59.59.2723		100u	EL 6.3V, RM5
0	C 25	59.59.2723		100u	EL 6.3V, RM5
0	C 26	59.59.2723		100u	EL 6.3V, RM5
0	C 27	59.59.2723		100u	EL 6.3V, RM5
0	C 28	59.59.2723		100u	EL 6.3V, RM5
0	C 29	59.59.2723		100u	EL 6.3V, RM5
0	C 30	59.59.2723		100u	EL 6.3V, RM5
0	C 31	59.59.2723		100u	EL 6.3V, RM5
0	C 32	59.59.2723		100u	EL 6.3V, RM5
0	C 33	59.59.2723		100u	EL 6.3V, RM5
0	C 34	59.59.2723		100u	EL 6.3V, RM5
0	C 35	59.59.2723		100u	EL 6.3V, RM5
0	C 36	59.59.2723		100u	EL 6.3V, RM5
0	C 37	59.59.2723		100u	EL 6.3V, RM5
0	C 38	59.59.2723		100u	EL 6.3V, RM5
0	C 39	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 40	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 41	59.06.0104		100n	PETP, 63V, 10%, RM5



Modification Änderung	.	.	.	.	3
	.	.	.	.	2
	.	.	.	.	1
Edition Ausgabe	9.2.98	Ao	HM	HM	0
	Date Datum	Visa Gez.	Checked Gepr.	Seen Ges.	Index

Copy to: Kopie für: .

STUDER REGENSDORF — Description: CR Monitor Side Board — ESE — Number: 1.928.423-82

CR Monitor Side Board 1.928.423.82

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 82	59.34.2470		47p	CER 63V, 5%, N150
0	C 83	59.34.2470		47p	CER 63V, 5%, N150
0	C 84	59.34.2470		47p	CER 63V, 5%, N150
0	C 85	59.34.2470		47p	CER 63V, 5%, N150
0	C 86	59.99.2723		100u	EL 6.3V, RM5
0	C 87	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 88	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 89	59.99.2723		100u	EL 6.3V, RM5
0	C 90	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 91	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 92	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 93	59.99.2723		100u	EL 6.3V, RM5
0	C 94	59.99.2723		100u	EL 6.3V, RM5
0	C 95	59.99.2723		100u	EL 6.3V, RM5
0	C 96	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 97	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 98	59.99.2723		100u	EL 6.3V, RM5
0	C 99	59.34.2470		47p	CER 63V, 5%, N150
0	C 100	59.34.2470		47p	CER 63V, 5%, N150
0	C 101	59.34.2470		47p	CER 63V, 5%, N150
0	C 102	59.34.2470		47p	CER 63V, 5%, N150
0	C 103	59.99.2723		100u	EL 6.3V, RM5
0	C 104	59.99.2723		100u	EL 6.3V, RM5
0	C 105	59.99.2723		100u	EL 6.3V, RM5
0	C 106	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 107	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 108	59.99.2723		100u	EL 6.3V, RM5
0	C 109	59.99.2723		100u	EL 6.3V, RM5
0	C 110	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 111	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 112	59.99.2723		100u	EL 6.3V, RM5
0	C 113	59.34.2470		47p	CER 63V, 5%, N150
0	C 114	59.99.2723		100u	EL 6.3V, RM5
0	C 115	59.34.2470		47p	CER 63V, 5%, N150
0	C 116	59.34.2470		47p	CER 63V, 5%, N150
0	C 117	59.34.2470		47p	CER 63V, 5%, N150
0	C 118	59.99.2723		100u	EL 6.3V, RM5
0	C 119	59.99.2723		100u	EL 6.3V, RM5
0	C 120	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 121	59.34.2330		33p	CER 63V, 5%, N150
0	C 122	59.34.2330		33p	CER 63V, 5%, N150
0	C 123	59.32.2681		680p	C 680 P , 10%, 50V , CER
0	C 124	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 125	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 126	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 127	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 128	59.32.2681		680p	C 680 P , 10%, 50V , CER
0	C 129	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 130	59.06.0473		47n	PETP, 63V, 10%, RM5
0	CN 4	1.023.312.08	1 pce		FLACHKABEL 26 POL. 0,045M
0	CN 7	1.023.312.08	1 pce		FLACHKABEL 26 POL. 0,045M
0	CN 8	1.023.313.01	1 pce		FLACHKABEL 34 POL. 0,045M
0	CN 9	1.023.313.01	1 pce		FLACHKABEL 34 POL. 0,045M
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	not used		1N4448	75V, 150mA, 4ns, DO-35
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	not used		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 7	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 8	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 9	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 10	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 11	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 12	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 13	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 14	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 15	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 16	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 17	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 18	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 19	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 20	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	DZ 1	50.04.1108		5V6	Zener, 5%, 0.5W, DO-35
0	DZ 2	50.04.1108		5V6	Zener, 5%, 0.5W, DO-35
0	DZ 3	50.04.1114		10V	Zener, 5%, 0.5W, DO-35
0	DZ 4	50.04.1114		10V	Zener, 5%, 0.5W, DO-35
0	IC 1	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 2	50.07.0008		4093	IC .. 4093 .. ,A
0	IC 3	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 4	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 5	50.09.0124		2142	IC SSM 2142 P
0	IC 6	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 7	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 8	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 9	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 10	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 11	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 12	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 13	50.09.0124		2142	IC SSM 2142 P
0	IC 14	50.09.0117		MC33078	IC MC 33078 P
0	IC 15	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 16	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 17	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 18	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 19	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 20	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 21	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 22	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 23	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 24	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 25	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 26	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 27	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 28	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 29	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 30	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 31	50.09.0117		MC33078	IC MC 33078 P
0	IC 32	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 33	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 34	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 35	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 36	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 37	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 38	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 39	50.09.0117		MC33078	IC MC 33078 P
0	J 1	54.11.0136	1 pce	2*3p	Pin 0.63*0.63, RM2.54
0	J 2	not used	3 pcs	1p	Pin 0.63*0.63
					See J1
0	J 3	54.01.0020	3 pcs	1p	Pin 0.63*0.63
0	J 4	54.01.0020	3 pcs	1p	Pin 0.63*0.63
0	LD 1	50.04.2206		934GT	LED 3mm green
0	LD 2	50.04.2206		934GT	LED 3mm green
0	LD 3	50.04.2204		934ID	LED 3mm red
0	LD 4	50.04.2204		934ID	LED 3mm red
0	LD 5	50.04.2205		934YT	LED 3mm yellow
0	MP 1	1.928.423.12	1 pce		CR MONITOR SIDE PCB
0	MP 2	1.928.423.04	1 pce		NR.-ETIKETTE 5x20
0	MP 3	43.01.0108	1 pce	Label	ESE-WARNSCHILD
0	MP 4	54.01.0021	4 pcs	Jumper	0.63 * 0.63mm
0	R 1	57.11.3103		10k	MF, 1%, 0207
0	R 2	57.11.3104		100k	MF, 1%, 0207
0	R 3	57.11.3103		10k	MF, 1%, 0207
0	R 4	57.11.3104		100k	MF, 1%, 0207
0	R 5	57.11.3103		10k	MF, 1%, 0207
0	R 6	57.11.3104		100k	MF, 1%, 0207
0	R 7	57.11.3103		10k	MF, 1%, 0207
0	R 8	57.11.3104		100k	MF, 1%, 0207
0	R 9	57.11.3104		100k	MF, 1%, 0207
0	R 10	57.11.3104		100k	MF, 1%, 0207
0	R 11	57.11.3000		0R0	MF, 0207
0	R 12	57.11.3000		0R0	MF, 0207
0	R 13	57.11.3102		1k0	MF, 1%, 0207
0	R 14	57.11.3473		47k	MF, 1%, 0207
0	R 15	57.11.3473		47k	MF, 1%, 0207
0	R 16	57.11.3104		100k	MF, 1%, 0207
0	R 17	57.11.3473		47k	MF, 1%, 0207
0	R 18	57.11.3104		100k	MF, 1%, 0207
0	R 19	57.11.3104		100k	MF, 1%, 0207
0	R 20	57.11.3473		47k	MF, 1%, 0207
0	R 21	57.11.3104		100k	MF, 1%, 0207
0	R 22	57.11.3473		47k	MF, 1%, 0207
0	R 23	57.11.3104		100k	MF, 1%, 0207
0	R 24	57.11.3104		100k	MF, 1%, 0207
0	R 25	57.11.3104		100k	MF, 1%, 0207
0	R 26	57.11.3104		100k	MF, 1%, 0207
0	R 27	57.11.3104		100k	MF, 1%, 0207
0	R 28	57.11.3104		100k	MF, 1%, 0207
0	R 29	57.11.3102		1k0	MF, 1%, 0207
0	R 30	57.11.3102		1k0	MF, 1%, 0207
0	R 31	57.11.3473		47k	MF, 1%, 0207
0	R 32	57.11.3473		47k	MF, 1%, 0207
0	R 33	57.11.3223		22k	MF, 1%, 0207
0	R 34	57.11.3223		22k	MF, 1%, 0207
0	R 35	57.11.3223		22k	MF, 1%, 0207
0	R 36	57.11.3223		22k	MF, 1%, 0207
0	R 37	57.11.3223		22k	MF, 1%, 0207
0	R 38	57.11.3223		22k	MF, 1%, 0207
0	R 39	57.11.3223		22k	MF, 1%, 0207
0	R 40	57.11.3223		22k	MF, 1%, 0207
0	R 41	57.11.3223		22k	MF, 1%, 0207
0	R 42	57.11.3223		22k	MF, 1%, 0207
0	R 43	57.11.3223		22k	MF, 1%, 0207
0	R 44	57.11.3223		22k	MF, 1%, 0207
0	R 45	57.11.3223		22k	MF, 1%, 0207
0	R 46	57.11.3223		22k	MF, 1%, 0207
0	R 47	57.11.3223		22k	MF, 1%, 0207
0	R 48	57.11.3223		22k	MF, 1%, 0207
0	R 49	57.11.3223		22k	MF, 1%, 0207
0	R 50	57.11.3223		22k	MF, 1%, 0207
0	R 51	57.11.3223		22k	MF, 1%, 0207
0	R 52	57.11.3223		22k	MF, 1%, 0207
0	R 53	57.11.3223		22k	MF, 1%, 0207
0	R 54	57.11.3223		22k	MF, 1%, 0207
0	R 55	57.11.3223		22k	MF, 1%, 0207
0	R 56	57.11.3223		22k	MF, 1%, 0207
0	R 57	57.11.3223		22k	MF, 1%, 0207
0	R 58	57.11.3223		22k	MF, 1%, 0207
0	R 59	57.11.3223		22k	MF, 1%, 0207
0	R 60	57.11.3103		10k	MF, 1%, 0207
0	R 61	57.11.3223		22k	MF, 1%, 0207
0	R 62	57.11.3103		10k	MF, 1%, 0207
0	R 63	57.11.3103		10k	MF, 1%, 0207
0	R 64	57.11.3103		10k	MF, 1%, 0207
0	R 65	57.11.3103		10k	MF, 1%, 0207
0	R 66	57.11.3103		10k	MF, 1%, 0207
0	R 67	57.11.3103		10k	MF, 1%, 0207
0	R 68	57.11.3103		10k	MF, 1%, 0207
0	R 69	57.11.3103		10k	MF, 1%, 0207
0	R 70	57.11.3103		10k	MF, 1%, 0207
0	R 71	57.11.3103		10k	MF, 1%, 0207
0	R 72	57.11.3103		10k	MF, 1%, 0207
0	R 73	57.11.3104		100k	MF, 1%, 0207
0	R 74	57.11.3103		10k	MF, 1%, 0207
0	R 75	57.11.3103		10k	MF, 1%, 0207
0	R 76	57.11.3104		100k	MF, 1%, 0207
0	R 77	57.11.3223		22k	MF, 1%, 0207
0	R 78	57.11.3223		22k	MF, 1%, 0207
0	R 79	57.11.3223		22k	MF, 1%, 0207
0	R 80	57.11.3223		22k	MF, 1%, 0207
0	R 81	57.11.3223		22k	MF, 1%, 0207
0	R 82	57.11.3223		22k	MF, 1%, 0207
0	R 83	57.11.3223		22k	MF, 1%, 0207
0	R 84	57.11.3223		22k	MF, 1%, 0207
0	R 85	57.11.3223		22k	MF, 1%, 0207
0	R 86	57.11.3103		10k	MF, 1%, 0207
0	R 87	57.11.3103		10k	MF, 1%, 0207
0	R 88	57.11.3103		10k	MF, 1%, 0207
0	R 89	57.11.3103		10k	MF, 1%, 0207
0	R 90	57.11.3103		10k	MF, 1%, 0207
0	R 91	57.11.3104		100k	MF, 1%, 0207
0	R 92	57.11.3103		10k	MF, 1%, 0207
0	R 93	57.11.3104		100k	MF, 1%, 0207
0	R 94	57.11.3104		100k	MF, 1%, 0207
0	R 95	57.11.3104		100k	MF, 1%, 0207
0	R 96	57.11.3102		1k0	MF, 1%, 0207
0	R 97	57.11.3104		100k	MF, 1%, 0207
0	R 98	57.11.3473		47k	MF, 1%, 0207
0	R 99	57.11.3104		100k	MF, 1%, 0207
0	R 100	57.11.3473		47k	MF, 1%, 0207
0	R 101	57.11.3102		1k0	MF, 1%, 0207
0	R 102	57.11.3473		47k	MF, 1%, 0207
0	R 103	57.11.3153		15k	MF, 1%, 0207
0	R 104	57.11.3223		22k	MF, 1%, 0207
0	R 105	57.11.3473		47k	MF, 1%, 0207
0	R 106	57.11.3473		47k	MF, 1%, 0207
0	R 107	57.11.3103		10k	MF, 1%, 0207
0	R 108	57.11.3103		10k	MF, 1%, 0207
0	R 109	57.11.3103		10k	MF, 1%, 0207
0	R 110	57.11.3103		10k	MF, 1%, 0207
0	R 111	57.11.3473		47k	MF, 1%, 0207
0	R 112	57.11.3473		47k	MF, 1%, 0207
0	R 113	57.11.3224		220k	MF, 1%, 0207
0	R 114	57.11.3224		220k	MF, 1%, 0207
0	R 115	57.11.3104		100k	MF, 1%, 0207
0	R 116	57.11.5335		3M3	MF, 5%, 0207
0	R 117	57.11.5335		3M3	MF, 5%, 0207
0	R 118	57.11.3104		100k	MF, 1%, 0207
0	R 119	57.11.3473		47k	MF, 1%, 0207
0	R 120	57.11.3472		4k7	MF, 1%, 0207
0	R 121	57.11.3103		10k	MF, 1%, 0207
0	R 122	57.11.3103		10k	MF, 1%, 0207
0	R 123	57.11.3103		10k	MF, 1%, 0207
0	R 124	57.11.3103		10k	MF, 1%, 0207
0	R 125	57.11.3223		22k	MF, 1%, 0207
0	R 126	57.11.3153		15k	MF, 1%, 0207
0	R 127	57.11.3104		100k	MF, 1%, 0207
0	R 128	57.11.3113		11k	MF, 1%, 0207
0	R 129	57.11.3473		47k	MF, 1%, 0207
0	R 130	57.11.3473		47k	MF, 1%, 0207
0	R 131	57.11.3113		11k	MF, 1%, 0207
0	R 132	57.11.3113		11k	MF, 1%, 0207
0	R 133	57.11.3223		22k	MF, 1%, 0207
0	R 134	57.11.3223		22k	MF, 1%, 0207
0	R 135	57.11.3473		47k	MF, 1%, 0207
0	R 136	57.11.3473		47k	MF, 1%, 0207
0	R 137	57.11.3273		27k	MF, 1%, 0207
0	R 138	57.11.3273		27k	MF, 1%, 0207
0	R 139	57.11.3224		220k	MF, 1%, 0207
0	R 140	57.11.3223		22k	MF, 1%, 0207
0	R 141	57.11.3223		22k	MF, 1%, 0207
0	R 142	57.11.3223		22k	MF, 1%, 0207
0	R 143	57.11.3223		22k	MF, 1%, 0207
0	R 144	57.11.3223		22k	MF, 1%, 0207
0	R 145	57.11.3223		22k	MF, 1%, 0207
0	R 146	57.11.3224		220k	MF, 1%, 0207
0	R 147	57.11.3513		51k	MF, 1%, 0207
0	R 148	57.11.3104		100k	MF, 1%, 0207
0	R 149	57.11.3104		100k	MF, 1%, 0207
0	R 150	57.11.3224		220k	MF, 1%, 0207
0	R 151	57.11.5155		1M5	MF, 5%, 0207
0	R 152	57.69.8301		10k	PTC, 1%, +3300 PPM
0	R 153	57.11.3153		15k	MF, 1%, 0207
0	R 154	57.11.3223		22k	MF, 1%, 0207
0	R 155	57.11.3393		39k	MF, 1%, 0207
0	R 156	57.11.3104		100k	MF, 1%, 0207
0	R 157	57.11.3913		91k	MF, 1%, 0207
0	R 158	57.11.3393		39k	MF, 1%, 0207
0	R 159	57.11.3913		91k	MF, 1%, 0207
0	R 160	57.11.3393		39k	MF, 1%, 0207
0	R 161	57.11.3393		39k	MF, 1%, 0207
0	R 162	57.11.3104		100k	MF, 1%, 0207
0	R 163	57.11.3473		47k	MF, 1%, 0207
0	R 164	57.11.3472		4k7	MF, 1%, 0207
0	R 165	57.11.3223		22k	MF, 1%, 0207
0	R 166	57.11.3153		15k	MF, 1%, 0207
0	R 167	57.11.3473		47k	MF, 1%, 0207
0	R 168	57.11.3104		100k	MF, 1%, 0207
0	R 169	57.11.3113		11k	MF, 1%, 0207
0	R 170	57.11.3473		47k	MF, 1%, 0207
0	R 171	57.11.3113		11k	MF, 1%, 0207
0	R 172	57.11.3113		11k	MF, 1%, 0207
0	R 173	57.11.3103		10k	MF, 1%, 0207
0	R 174	57.11.3103		10k	MF, 1%, 0207
0	R 175	57.11.3470		47R	MF, 1%, 0207
0	R 176	57.11.3470		47R	MF, 1%, 0207
0	R 177	57.11.3103		10k	MF, 1%, 0207
0	R 178	57.11.3103		10k	MF, 1%, 0207
0	R 179	57.11.3332		3k3	MF, 1%, 0207
0	R 180	57.11.3104		100k	MF, 1%, 0207
0	R 181	57.11.3332		3k3	MF, 1%, 0207
0	R 182	57.11.3104		100k	MF, 1%, 0207
0	R 183	57.11.3223		22k	MF, 1%, 0207
0	R 184	57.11.3332		3k3	MF, 1%, 0207
0	R 185	57.11.3223		22k	MF, 1%, 0207
0	R 186	57.11.3104		100k	MF, 1%, 0207
0	R 187	57.11.3513		51k	MF, 1%, 0207
0	R 188	57.11.3104		100k	MF, 1%, 0207
0	R 189	57.11.3104		100k	MF, 1%, 0207
0	R 190	57.11.3224		220k	MF, 1%, 0207
0	R 191	57.11.5155		1M5	MF, 5%, 0207
0	R 192	57.69.8301		10k	PTC, 1%, +3300 PPM
0	RN 1	57.88.4104		8*100k	2%, SIP 9
0	RN 2	57.88.4104		8*100k	2%, SIP 9
0	RN 3	57.88.4104		8*100k	2%, SIP 9
0	RN 4	57.88.4104		8*100k	2%, SIP 9
0	RN 5	57.88.4104		8*100k	2%, SIP 9
0	RN 6	57.88.4104		8*100k	2%, SIP 9
0	TR 1	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,

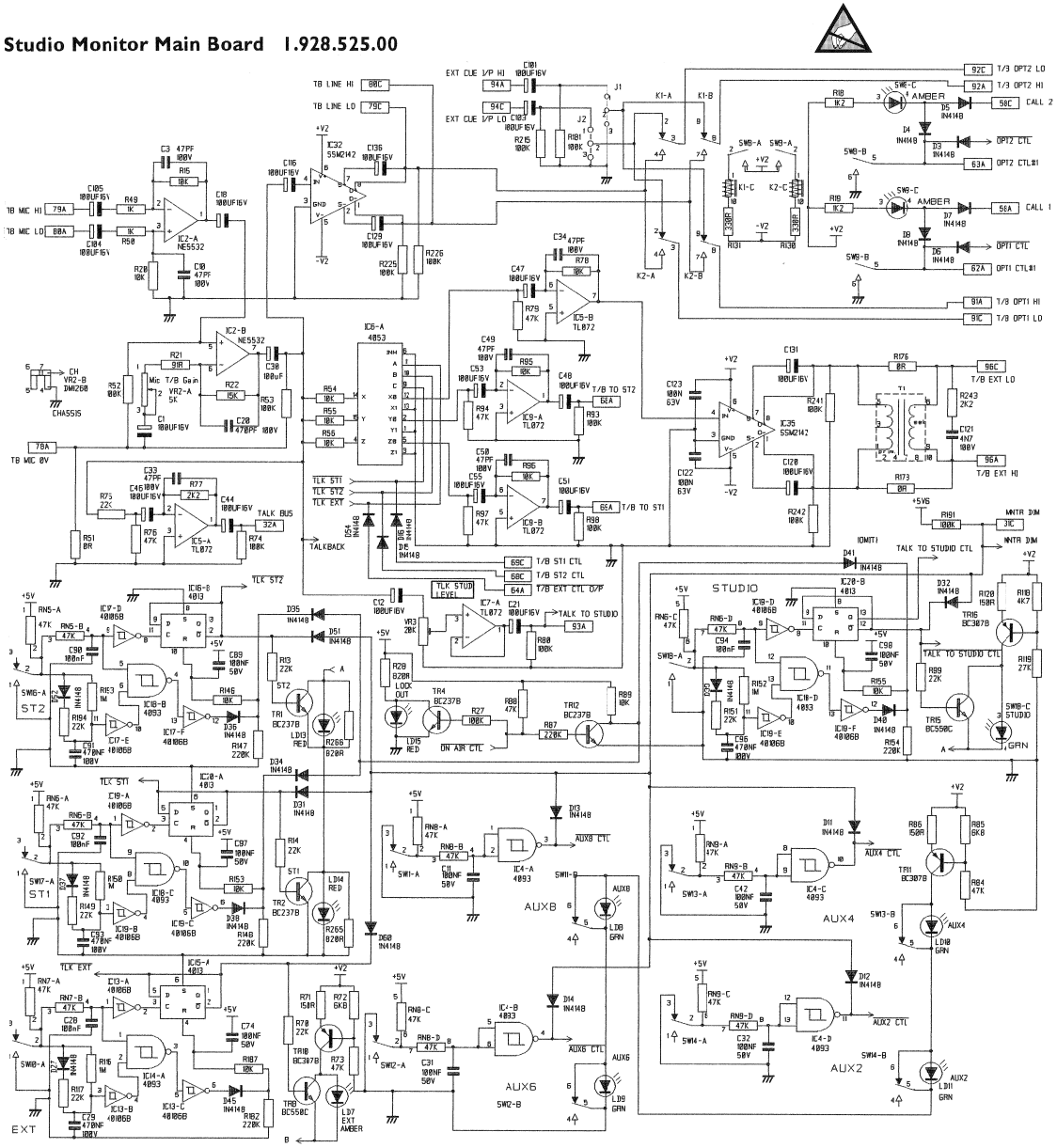
CR Monitor Side Board 1.928.423.82

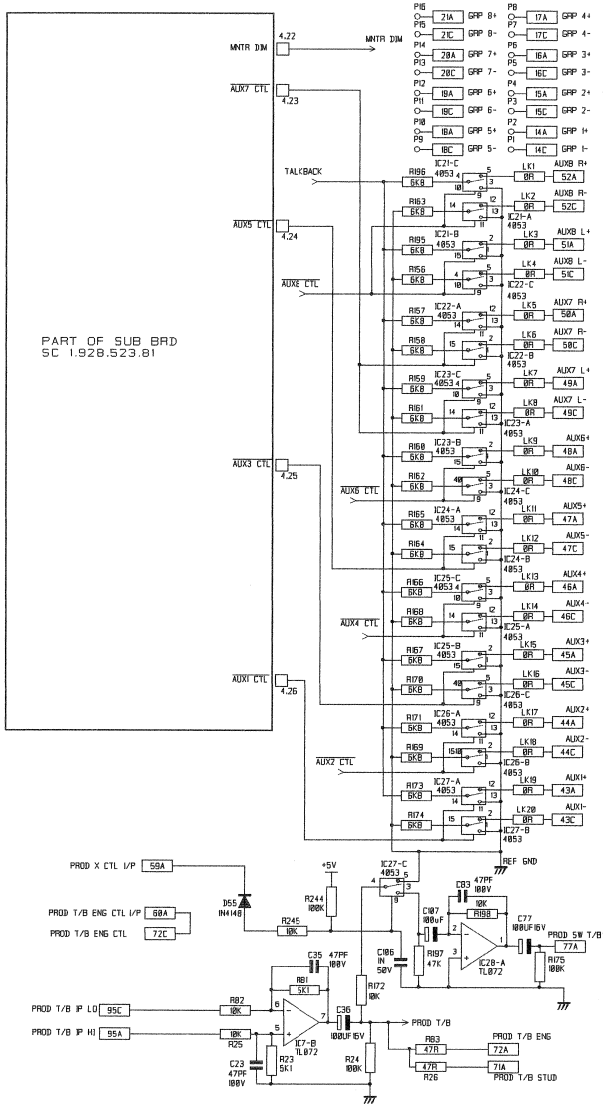
Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	TR 2	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 3	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 4	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	VR 1	58.02.5473		47k	20%, 0.1W, Carbon
0	VR 2	58.02.5473		47k	20%, 0.1W, Carbon
0	VR 3	58.02.5473		47k	20%, 0.1W, Carbon
0	VR 4	58.02.5473		47k	20%, 0.1W, Carbon

End of List

Comments:

Studio Monitor Main Board 1.928.525.00

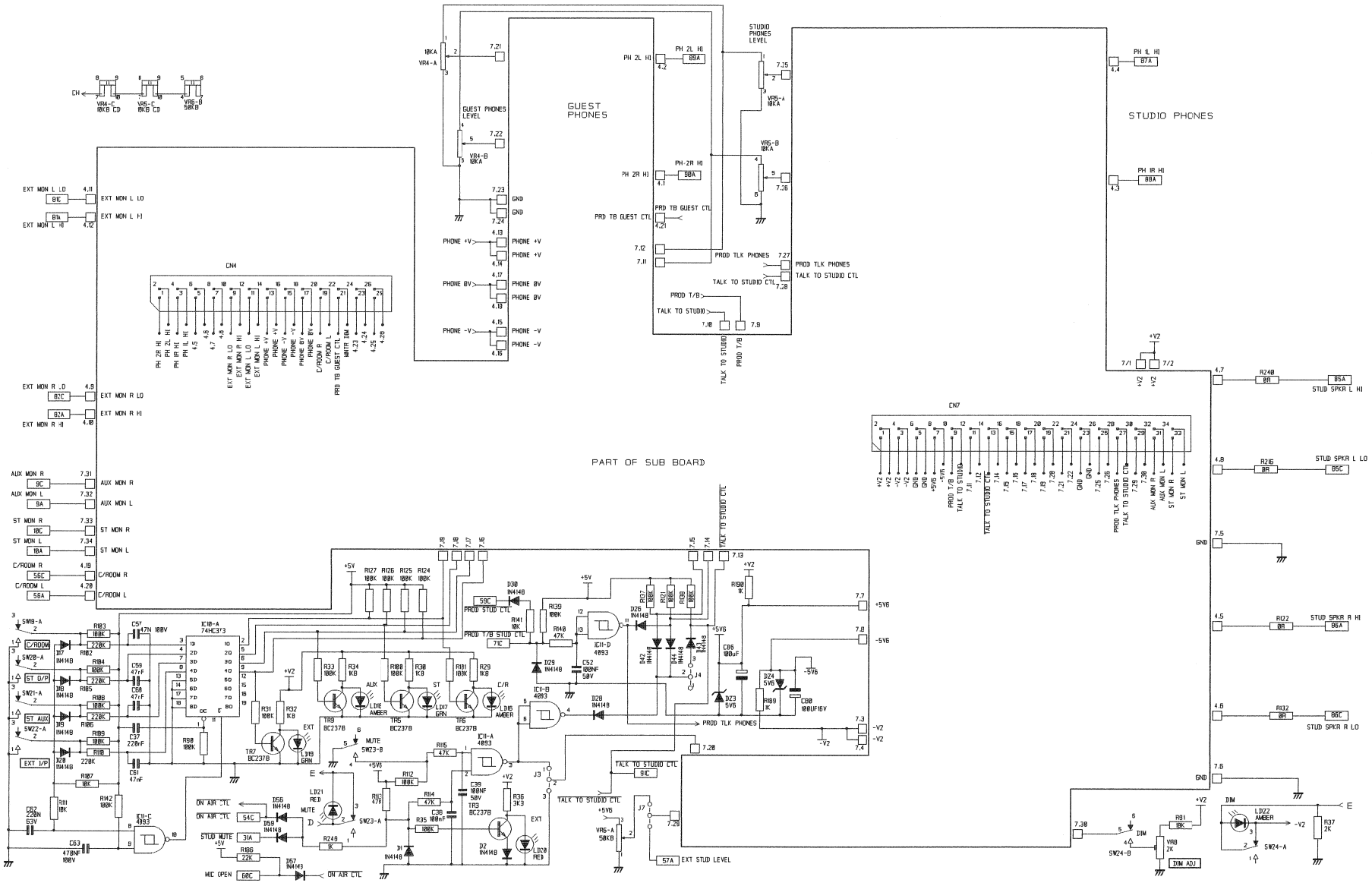




HOLE3 126 MIL, HOLE4 126 MIL, HOLE5 126 MIL, HOLE6 126 MIL, HOLE7 126 MIL, HOLE8 126 MIL, HOLE9 165 MIL, HOLE10 126 MIL, HOLE11 165 MIL, HOLE12 126 MIL

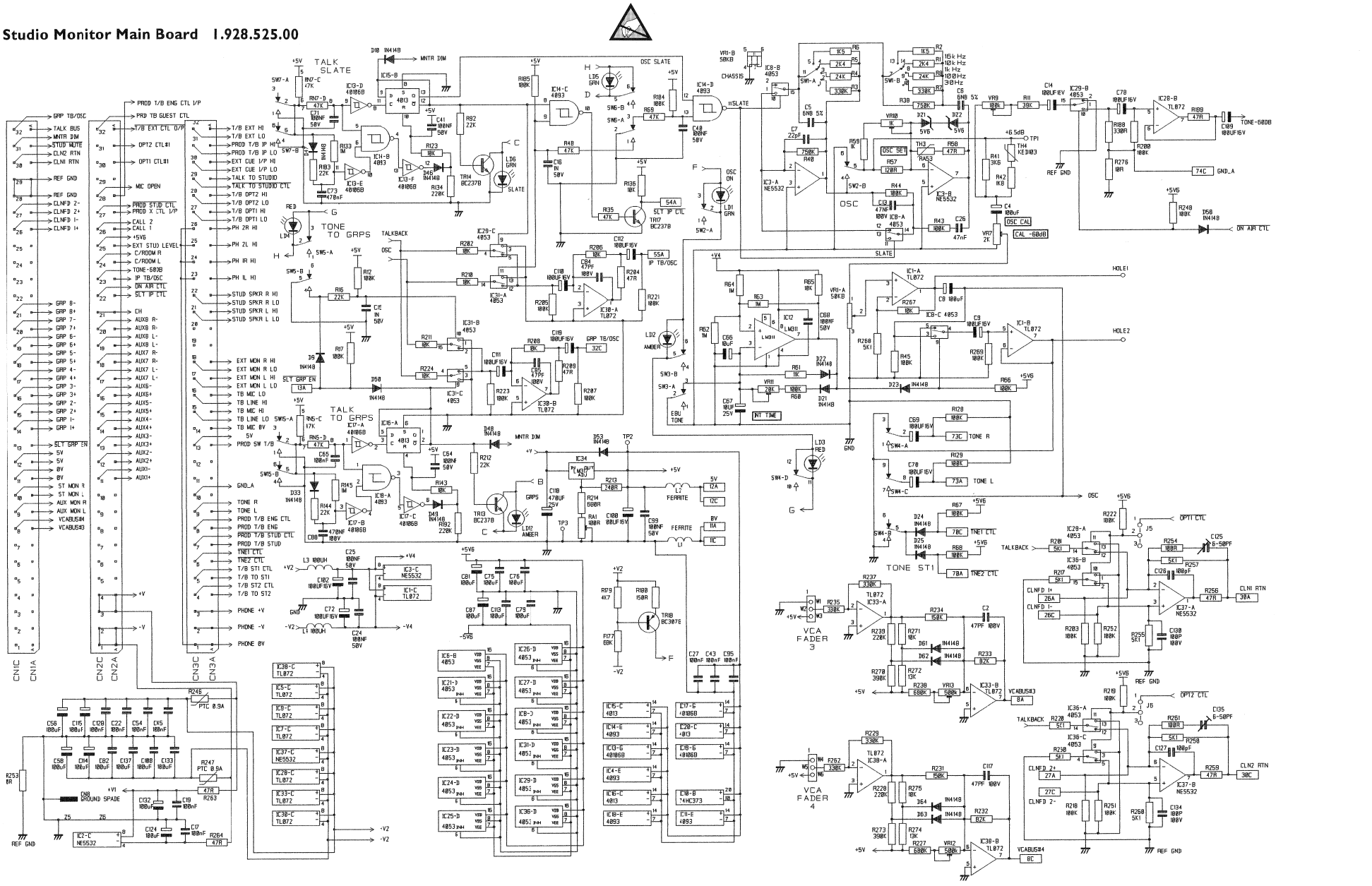
2105.01 PG			PAGE 1/3
STUDER	STUDIO MONITOR MAIN BOARD	SC	1.928.525.00

Studio Monitor Main Board 1.928.525.00

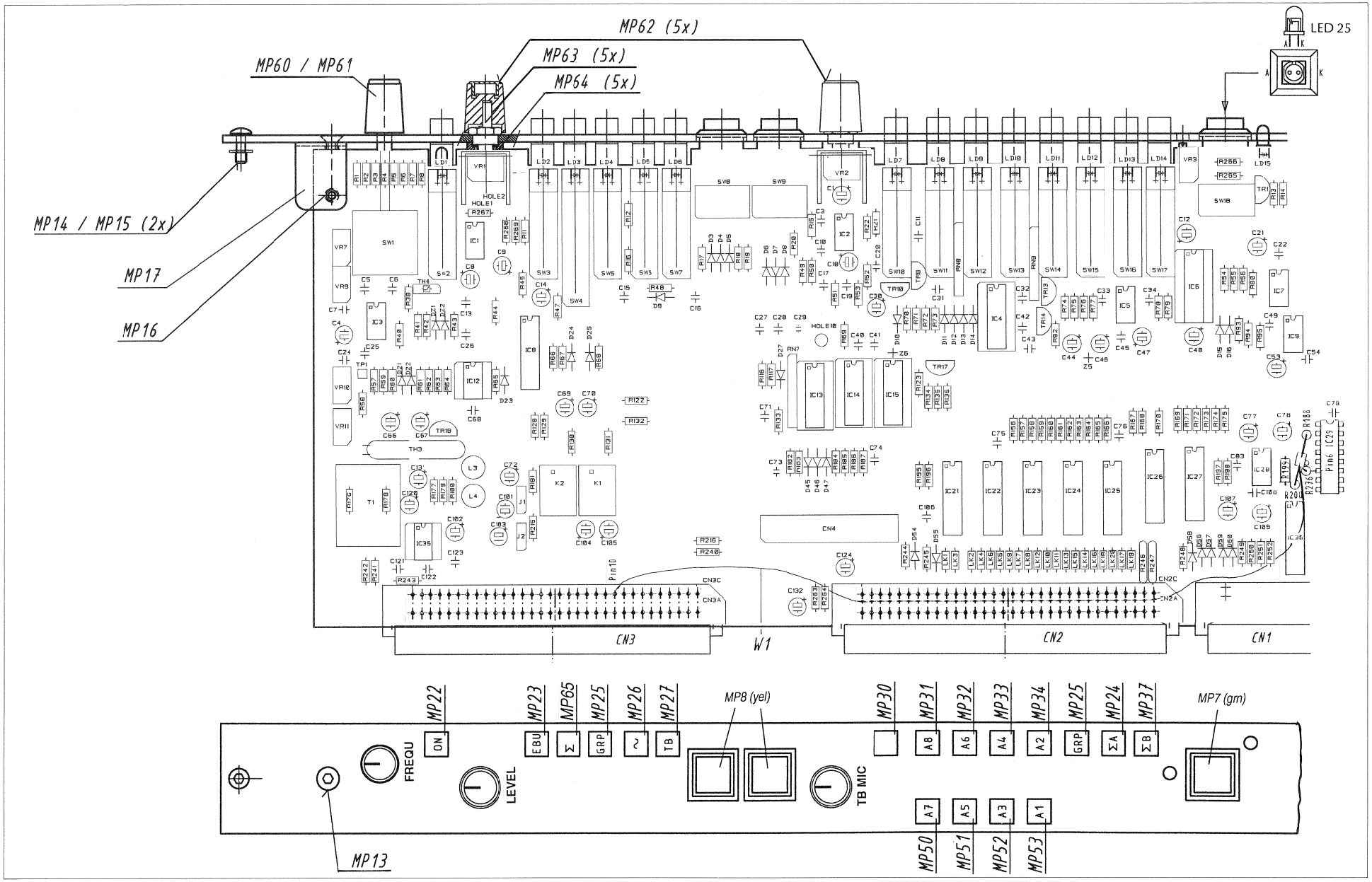


21.06.91 PS			PAGE 2/3
STUDER	STUDIO MONITOR MAIN BOARD	SC	1.928.525.00

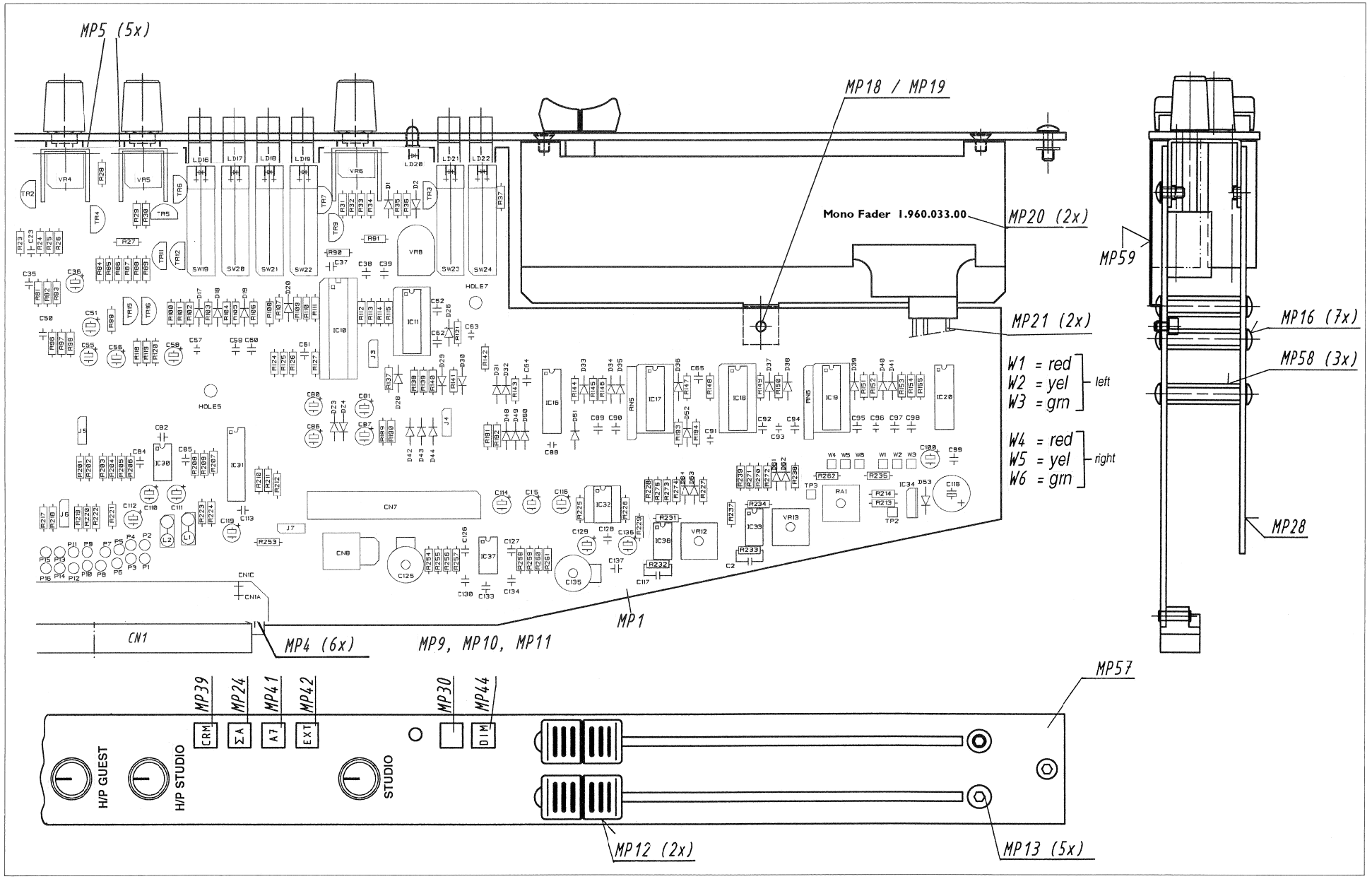
Studio Monitor Main Board 1.928.525.00



Studio Monitor Main Board 1.928.520.83



Studio Monitor Main Board 1.928.520.83



Studio Monitor Main Board 1.928.525.00

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.99.2723		100u	EL 6.3V 20% RM5
0	C 2	59.34.2470		47p	CER 63V, 5%, N150
0	C 3	59.34.2470		47p	CER 63V, 5%, N150
0	C 4	59.99.2723		100u	EL 6.3V 20% RM5
0	C 5	59.06.5682		6n8	PETP, 63V, 5%, RM5
0	C 6	59.06.5682		6n8	PETP, 63V, 5%, RM5
0	C 7	59.34.2220		22p	CER 63V, 5%, N150
0	C 8	59.99.2723		100u	EL 6.3V 20% RM5
0	C 9	59.99.2723		100u	EL 6.3V 20% RM5
0	C 10	59.34.2470		47p	CER 63V, 5%, N150
0	C 11	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 12	59.99.2723		100u	EL 6.3V 20% RM5
0	C 13	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 14	59.99.2723		100u	EL 6.3V 20% RM5
0	C 15	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 16	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 17	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 18	59.99.2723		100u	EL 6.3V 20% RM5
0	C 19	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 20	59.34.5471		470p	CER 63V, 5%, N1500
0	C 21	59.99.2723		100u	EL 6.3V 20% RM5
0	C 22	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 23	59.34.2470		47p	CER 63V, 5%, N150
0	C 24	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 25	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 26	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 27	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 28	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 29	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 30	59.99.2723		100u	EL 6.3V 20% RM5
0	C 31	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 32	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 33	59.34.2470		47p	CER 63V, 5%, N150
0	C 34	59.34.2470		47p	CER 63V, 5%, N150
0	C 35	59.34.2470		47p	CER 63V, 5%, N150
0	C 36	59.99.2723		100u	EL 6.3V 20% RM5
0	C 37	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 38	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 39	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 40	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 41	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 42	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 43	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 44	59.99.2723		100u	EL 6.3V 20% RM5
0	C 45	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 46	59.99.2723		100u	EL 6.3V 20% RM5
0	C 47	59.99.2723		100u	EL 6.3V 20% RM5
0	C 48	59.99.2723		100u	E. 6.3V 20% RM5
0	C 49	59.34.2470		47p	CER 63V, 5%, N150
0	C 50	59.34.2470		47p	CER 63V, 5%, N150
0	C 51	59.99.2723		100u	EL 6.3V 20% RM5
0	C 52	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 53	59.99.2723		100u	E. 6.3V 20% RM5
0	C 54	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 55	59.99.2723		100u	E. 6.3V 20% RM5
0	C 56	59.99.2706		100u	E. 16V 20% RM5
0	C 57	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 58	59.99.2706		100u	E. 16V 20% RM5
0	C 59	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 60	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 61	59.06.0473		47n	PETP, 63V, 10%, RM5
0	C 62	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 63	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 64	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 65	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 66	59.22.6100		10u	EL 35V 20% RM5
0	C 67	59.22.6100		10u	EL 35V 20% RM5
0	C 68	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 69	59.99.2723		100u	EL 6.3V 20% RM5
0	C 70	59.99.2723		100u	EL 6.3V 20% RM5
0	C 71	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 72	59.99.2706		100u	EL 16V 20% RM5
0	C 73	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 74	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 75	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 76	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 77	59.99.2723		100u	EL 6.3V 20% RM5
0	C 78	59.99.2723		100u	EL 6.3V 20% RM5
0	C 79	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 80	59.99.2723		100u	EL 6.3V 20% RM5
0	C 81	59.99.2723		100u	EL 6.3V 20% RM5
0	C 82	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 83	59.34.2470		47p	CER 63V, 5%, N150
0	C 84	59.34.2470		47p	CER 63V, 5%, N150
0	C 85	59.34.2470		47p	CER 63V, 5%, N150
0	C 86	59.99.2723		100u	EL 6.3V 20% RM5
0	C 87	59.99.2723		100u	EL 6.3V 20% RM5
0	C 88	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 89	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 90	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 91	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 92	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 93	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 94	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 95	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 96	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 97	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 98	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 99	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 100	59.99.2723		100u	EL 6.3V 20% RM5
0	C 101	59.99.2723		100u	EL 6.3V 20% RM5
0	C 102	59.99.2706		100u	EL 16V 20% RM5
0	C 103	59.99.2723		100u	EL 6.3V 20% RM5
0	C 104	59.99.2723		100u	EL 6.3V 20% RM5
0	C 105	59.99.2723		100u	EL 6.3V 20% RM5
0	C 106	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 107	59.99.2723		100u	EL 6.3V 20% RM5
0	C 108	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 109	59.99.2723		100u	EL 6.3V 20% RM5
0	C 110	59.99.2723		100u	EL 6.3V 20% RM5
0	C 111	59.99.2723		100u	EL 6.3V 20% RM5
0	C 112	59.99.2723		100u	EL 6.3V 20% RM5
0	C 113	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 114	59.99.2706		100u	EL 16V 20% RM5
0	C 115	59.99.2706		100u	EL 16V 20% RM5
0	C 116	59.99.2723		100u	EL 6.3V 20% RM5
0	C 117	59.34.2470		47p	CER 63V, 5%, N150
0	C 118	59.22.5471		470u	EL 35V 20% RM5
0	C 119	59.99.2723		100u	EL 6.3V 20% RM5
0	C 120	59.99.2723		100u	EL 6.3V 20% RM5
0	C 121	59.06.0472		4n7	PETP, 63V, 10%, RM5
0	C 122	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 123	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 124	59.99.2706		100u	EL 16V 20% RM5
0	C 125	not used		5.5-65p	C 5.5---65 P, 100V , TRI
0	C 126	59.34.4101		100p	CER 63V, 5%, N750
0	C 127	59.34.4101		100p	CER 63V, 5%, N750
0	C 128	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 129	59.99.2723		100u	EL 6.3V 20% RM5
0	C 130	59.34.4101		100p	CER 63V, 5%, N750
0	C 131	59.99.2723		100u	EL 6.3V 20% RM5
0	C 132	59.99.2706		100u	EL 16V 20% RM5
0	C 133	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 134	59.34.4101		100p	CER 63V, 5%, N750
0	C 135	not used		5.5-65p	C 5.5---65 P, 100V , TRI
0	C 136	59.99.2723		100u	EL 6.3V 20% RM5
0	C 137	59.06.0104		100n	PETP, 63V, 10%, RM5
0	CN 1	54.01.0365		64p	P EU-C 2 * 32 A,C
0	CN 2	54.01.0365		64p	P EU-C 2 * 32 A,C
0	CN 3	54.01.0365		64p	P EU-C 2 * 32 A,C
0	CN 4	54.14.2003		26p	1/20" Au, gerade, ohne Verrieg
0	CN 7	54.14.2007		34p	1/20" Au, gerade, ohne Verrieg
0	CN 8	54.02.0343			P FLACH, 6.3*0.8, WINKEL 45
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 7	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 8	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 9	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 10	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 11	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 12	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 13	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 14	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 15	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 16	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 17	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 18	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 19	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 20	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 21	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 22	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 23	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 24	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 25	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 26	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 27	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 28	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 29	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 30	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 31	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 32	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 33	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 34	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 35	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 36	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 37	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 38	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 39	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 40	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 41	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 42	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 43	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 44	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 45	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 46	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 47	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 48	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 49	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 50	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 51	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 52	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 53	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 54	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 55	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 56	not used		1N4448	75V, 150mA, 4ns, DO-35
0	D 57	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 58	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 59	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 60	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 61	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 62	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 63	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 64	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	DZ 1	not used		5V6	Zener, 5%, 0.5W, DO-35
0	DZ 2	not used		5V6	Zener, 5%, 0.5W, DO-35
0	DZ 3	50.04.1108		5V6	Zener, 5%, 0.5W, DO-35
0	DZ 4	50.04.1108		5V6	Zener, 5%, 0.5W, DO-35
0	IC 1	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 2	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 3	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 4	50.07.0008		4093	Quad 2-inp NAND
0	IC 5	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 6	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 7	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 8	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 9	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 10	50.17.1373		74HC373	IC ... 74 HC 373 ., ,A
0	IC 11	50.07.0008		4093	Quad 2-inp NAND
0	IC 12	50.11.0114		LM311	IC LM 311 N, LM 311 P,
0	IC 13	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 14	50.07.0008		4093	Quad 2-inp NAND
0	IC 15	50.07.0013		4013	Dual D-type FF
0	IC 16	50.07.0013		4013	Dual D-type FF
0	IC 17	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 18	50.07.0008		4093	Quad 2-inp NAND
0	IC 19	50.07.0014		40106	Hex inverting Schmitt trigger
0	IC 20	50.07.0013		4013	Dual D-type FF
0	IC 21	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 22	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 23	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 24	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 25	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 26	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 27	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 28	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 29	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 30	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 31	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 32	50.09.0124		2142	Audio balanced line driver
0	IC 33	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 34	50.10.0104		LM317SP	Series regulator 1.5A ...+37V
0	IC 35	50.09.0124		2142	Audio balanced line driver
0	IC 36	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 37	50.09.0105		NE5532N	IC NE 5532 N, RC 5532 NB ,A
0	IC 38	50.09.0101		TL072	IC TL 072 CN ,A
0	J 1	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 2	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 3	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 4	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 5	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 6	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	J 7	54.01.0020	3 pcs	1p	Pin, 1reihig, gerade
0	K 1	56.04.0197		2*u	24V 125V 2A Ag/Au
0	K 2	56.04.0197		2*u	24V 125V 2A Ag/Au
0	L 1	62.01.0301		110MHz	Breitband-Drossel
0	L 2	62.01.0301		110MHz	Breitband-Drossel
0	L 3	62.02.3101		100uH	10%, radial RM 5
0	L 4	62.02.3101		100uH	10%, radial RM 5
0	LD 1	50.04.2206		L934GT	LED 3mm green
0	LD 2	50.04.2205		L934YT	LED 3mm yellow
0	LD 3	50.04.2204		L934ID	LED 3mm red
0	LD 4	50.04.2204		L934ID	LED 3mm red
0	LD 5	50.04.2206		L934GT	LED 3mm green
0	LD 6	50.04.2206		L934GT	LED 3mm green
0	LD 7	50.04.2205		L934YT	LED 3mm yellow
0	LD 8	50.04.2206		L934GT	LED 3mm green
0	LD 9	50.04.2206		L934GT	LED 3mm green
0	LD 10	50.04.2206		L934GT	LED 3mm green
0	LD 11	50.04.2206		L934GT	LED 3mm green
0	LD 12	50.04.2205		L934YT	LED 3mm yellow
0	LD 13	50.04.2204		L934ID	LED 3mm red
0	LD 14	50.04.2204		L934ID	LED 3mm red
0	LD 15	50.04.2129		LS3360	DL LS 3360 , RT DIFF
0	LD 16	50.04.2205		L934YT	LED 3mm yellow
0	LD 17	50.04.2206		L934GT	LED 3mm green
0	LD 18	50.04.2205		L934YT	LED 3mm yellow
0	LD 19	50.04.2206		L934GT	LED 3mm green
0	LD 20	50.04.2129		LS3360	DL LS 3360 , RT DIFF
0	LD 21	50.04.2204		L934ID	LED 3mm red
0	LD 22	50.04.2205		L934YT	LED 3mm yellow
0	LD 23	55.15.0924			LED gelb mit Sockel
					LED for SW8
0	LD 24	55.15.0924			LED gelb mit Sockel
					LED for SW9
0	LD 25	50.04.2162		HLMP1540	LED 3mm, grün klar
					LED for SW18
0	LK 1	57.10.1000		0R0	MF, 0204
0	LK 2	57.10.1000		0R0	MF, 0204
0	LK 3	57.10.1000		0R0	MF, 0204
0	LK 4	57.10.1000		0R0	MF, 0204
0	LK 5	57.10.1000		0R0	MF, 0204
0	LK 6	57.10.1000		0R0	MF, 0204
0	LK 7	57.10.1000		0R0	MF, 0204
0	LK 8	57.10.1000		0R0	MF, 0204
0	LK 9	57.10.1000		0R0	MF, 0204
0	LK 10	57.10.1000		0R0	MF, 0204
0	LK 11	57.10.1000		0R0	MF, 0204
0	LK 12	57.10.1000		0R0	MF, 0204
0	LK 13	57.10.1000		0R0	MF, 0204
0	LK 14	57.10.1000		0R0	MF, 0204
0	LK 15	57.10.1000		0R0	MF, 0204
0	LK 16	57.10.1000		0R0	MF, 0204
0	LK 17	57.10.1000		0R0	MF, 0204
0	LK 18	57.10.1000		0R0	MF, 0204
0	LK 19	57.10.1000		0R0	MF, 0204
0	LK 20	57.10.1000		0R0	MF, 0204
0	MP 1	1.928.520.12	1 pce		STUDIO MONITOR PCB
0	MP 2	1.928.520.04	1 pce		STUDER NR. ETIKETTE 10x20
0	MP 3	43.01.0108	1 pce	Label	ESE-WARNSCHILD
0	MP 4	28.99.0119	6 pcs		ROHRNIETE D 2.5*0.15* 9
0	MP 5	1.928.220.09	5 pcs		9mm ALPS POT BRACKET WITH PIPS
0	MP 6	54.01.0021	7 pcs	Jumper	0.63*0.63mm, Au
0	MP 7	55.15.0915	1 pce		Kalotte grün mit Streuscheibe
					for SW18
0	MP 8	55.15.0914	2 pcs		Kalotte gelb mit Streuscheibe
					for SW8,9
0	MP 9	21.51.8455	1 pce	M4*8	Linsenkopf-Schr IS, Ni
0	MP 10	22.01.8040	1 pce	M4	6kt-Mutter 0.8d St Zn gb
0	MP 11	24.16.2040	2 pcs	4.3/8.0	Fächerscheibe Form A
0	MP 12	1.911.000.45	2 pcs		KNOPF GRUEN
0	MP 13	21.99.0175	5 pcs	M3*6	S-Schraube IS A2 sw oxydiert
0	MP 14	1.010.022.21	2 pcs	M3*8	L-Schraube IS sw spezial
0	MP 15	24.16.3023	2 pcs		WELLENSICHERUNG 2.3
0	MP 16	21.53.8706	7 pcs	M3*6	Lin-Schr IS, Zn gb, Tuflock
0	MP 17	1.928.220.03	1 pce		PRINTHALTER
0	MP 18	21.53.0277	1 pce	M2.5*4	Z-Schraube Inbus Zn gb chr
0	MP 19	24.16.1025	1 pce	2.7/5.0	Rippenscheibe
0	MP 20	1.960.033.00	2 pcs		MONOFADER LIN. P+G 100MM
0	MP 21	1.942.210.93	2 pcs		LL-FADER
0	MP 22	1.928.201.34	1 pce		PUSH BUTTON ON
0	MP 23	1.928.201.23	1 pce		PUSH BUTTON EBU
0	MP 24	1.928.201.16	2 pcs		PUSH BUTTON [A

Studio Monitor Main Board 1.928.525.00

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	MP 25	1.928.201.26	2 pcs		PUSH BUTTON GRP
0	MP 26	1.928.201.41	1 pce		PUSH BUTTON ~
0	MP 27	1.928.201.39	1 pce		PUSH BUTTON TB
0	MP 28	1.928.523.81	1 pce		STUDIO MONITOR SIDE BOARD
0	MP 30	1.928.201.99	2 pcs		PUSH BUTTON LEER
0	MP 31	1.928.201.15	1 pce		PUSH BUTTON A8
0	MP 32	1.928.201.13	1 pce		PUSH BUTTON A6
0	MP 33	1.928.201.12	1 pce		PUSH BUTTON A4
0	MP 34	1.928.201.11	1 pce		PUSH BUTTON A2
0	MP 37	1.928.201.17	1 pce		PUSH BUTTON IB
0	MP 39	1.928.201.19	1 pce		PUSH BUTTON CRM
0	MP 41	1.928.201.14	1 pce		PUSH BUTTON A7
0	MP 42	1.928.201.25	1 pce		PUSH BUTTON EXT
0	MP 44	1.928.201.21	1 pce		PUSH BUTTON DIM
0	MP 50	1.928.201.70	1 pce		PUSH BUTTON A7
0	MP 51	1.928.201.69	1 pce		PUSH BUTTON A5
0	MP 52	1.928.201.68	1 pce		PUSH BUTTON A3
0	MP 53	1.928.201.67	1 pce		PUSH BUTTON A1
0	MP 57	1.928.520.01	1 pce		FRONTPLATTE
0	MP 58	1.010.024.27	3 pcs	M3*20	Mutter-Bolzen 6kt Ms Ni
0	MP 59	1.928.420.02	1 pce		FADERHALTER
0	MP 60	42.01.0203	1 pce		DREHKNOPF GR, D 10/ 4
0	MP 61	42.01.0251	1 pce		DECKEL D'GR ZU KNOPF-D 10
0	MP 62	42.01.1200	5 pcs		DREHKNOPF D11 gr/gr
0	MP 63	1.928.220.08	5 pcs		MUTTER M7x0.75
0	MP 64	1.928.220.07	5 pcs		ZENTRIERSCHEIBE 2.8
0	MP 65	1.928.201.47	1 pce		PUSH BOTTON (
0	MP 80	29.99.0134		1.8*5	Lötspirale Cu Sn
0	R 1	57.11.3242		2k4	MF, 1%, 0207
0	R 2	57.11.3152		1k5	MF, 1%, 0207
0	R 3	57.11.3334		330k	MF, 1%, 0207
0	R 4	57.11.3243		24k	MF, 1%, 0207
0	R 5	57.11.3242		2k4	MF, 1%, 0207
0	R 6	57.11.3152		1k5	MF, 1%, 0207
0	R 7	57.11.3334		330k	MF, 1%, 0207
0	R 8	57.11.3243		24k	MF, 1%, 0207
0	R 11	57.11.3393		39k	MF, 1%, 0207
0	R 12	57.11.3104		100k	MF, 1%, 0207
0	R 13	57.11.3223		22k	MF, 1%, 0207
0	R 14	57.11.3223		22k	MF, 1%, 0207
0	R 15	57.11.3103		10k	MF, 1%, 0207
0	R 16	57.11.3223		22k	MF, 1%, 0207
0	R 17	57.11.3104		100k	MF, 1%, 0207
0	R 18	57.11.3122		1k2	MF, 1%, 0207
0	R 19	57.11.3122		1k2	MF, 1%, 0207
0	R 20	57.11.3103		10k	MF, 1%, 0207
0	R 21	57.11.3910		91R	MF, 1%, 0207
0	R 22	57.11.3153		15k	MF, 1%, 0207
0	R 23	57.11.3512		5k1	MF, 1%, 0207
0	R 24	57.11.3104		100k	MF, 1%, 0207
0	R 25	57.11.3103		10k	MF, 1%, 0207
0	R 26	57.11.3470		47R	MF, 1%, 0207
0	R 27	57.11.3104		100k	MF, 1%, 0207
0	R 28	57.11.3821		820R	MF, 1%, 0207
0	R 29	57.11.3182		1k8	MF, 1%, 0207
0	R 30	57.11.3182		1k8	MF, 1%, 0207
0	R 31	57.11.3104		100k	MF, 1%, 0207
0	R 32	57.11.3182		1k8	MF, 1%, 0207
0	R 33	57.11.3104		100k	MF, 1%, 0207
0	R 34	57.11.3182		1k8	MF, 1%, 0207
0	R 35	57.11.3104		100k	MF, 1%, 0207
0	R 36	57.11.3332		3k3	MF, 1%, 0207
0	R 37	57.11.3202		2k0	MF, 1%, 0207
0	R 38	57.11.3754		750k	MF, 1%, 0207
0	R 40	57.11.3754		750k	MF, 1%, 0207
0	R 41	57.11.3362		3k6	MF, 1%, 0207
0	R 42	57.11.3182		1k8	MF, 1%, 0207
0	R 43	57.11.3104		100k	MF, 1%, 0207
0	R 44	57.11.3104		100k	MF, 1%, 0207
0	R 45	57.11.3104		100k	MF, 1%, 0207
0	R 48	57.11.3473		47k	MF, 1%, 0207
0	R 49	57.11.3102		1k0	MF, 1%, 0207
0	R 50	57.11.3102		1k0	MF, 1%, 0207
0	R 51	57.11.3000		0R0	MF, 0207
0	R 52	57.11.3104		100k	MF, 1%, 0207
0	R 53	57.11.3104		100k	MF, 1%, 0207
0	R 54	57.11.3103		10k	MF, 1%, 0207
0	R 55	57.11.3103		10k	MF, 1%, 0207
0	R 56	57.11.3103		10k	MF, 1%, 0207
0	R 57	57.11.3121		120R	MF, 1%, 0207
0	R 58	57.11.3470		47R	MF, 1%, 0207
0	R 59	57.11.3102		1k0	MF, 1%, 0207
0	R 60	57.11.3104		100k	MF, 1%, 0207
0	R 61	57.11.3113		11k	MF, 1%, 0207
0	R 62	57.11.3105		1M0	MF, 1%, 0207
0	R 63	57.11.3105		1M0	MF, 1%, 0207
0	R 64	57.11.3105		1M0	MF, 1%, 0207
0	R 65	57.11.3103		10k	MF, 1%, 0207
0	R 66	57.11.3104		100k	MF, 1%, 0207
0	R 67	57.11.3104		100k	MF, 1%, 0207
0	R 68	57.11.3104		100k	MF, 1%, 0207
0	R 69	57.11.3473		47k	MF, 1%, 0207
0	R 70	57.11.3223		22k	MF, 1%, 0207
0	R 71	57.11.3151		150R	MF, 1%, 0207
0	R 72	57.11.3682		6k8	MF, 1%, 0207
0	R 73	57.11.3473		47k	MF, 1%, 0207
0	R 74	57.11.3104		100k	MF, 1%, 0207
0	R 75	57.11.3223		22k	MF, 1%, 0207
0	R 76	57.11.3473		47k	MF, 1%, 0207
0	R 77	57.11.3222		2k2	MF, 1%, 0207
0	R 78	57.11.3103		10k	MF, 1%, 0207
0	R 79	57.11.3473		47k	MF, 1%, 0207
0	R 80	57.11.3104		100k	MF, 1%, 0207
0	R 81	57.11.3512		5k1	MF, 1%, 0207
0	R 82	57.11.3103		10k	MF, 1%, 0207
0	R 83	57.11.3470		47R	MF, 1%, 0207
0	R 84	57.11.3473		47k	MF, 1%, 0207
0	R 85	57.11.3682		6k8	MF, 1%, 0207
0	R 86	57.11.3151		150R	MF, 1%, 0207
0	R 87	57.11.3224		220k	MF, 1%, 0207
0	R 88	57.11.3473		47k	MF, 1%, 0207
0	R 89	57.11.3103		10k	MF, 1%, 0207
0	R 90	57.11.3104		100k	MF, 1%, 0207
0	R 91	57.11.3183		18k	MF, 1%, 0207
0	R 92	57.11.3223		22k	MF, 1%, 0207
0	R 93	57.11.3104		100k	MF, 1%, 0207
0	R 94	57.11.3473		47k	MF, 1%, 0207
0	R 95	57.11.3103		10k	MF, 1%, 0207
0	R 96	57.11.3103		10k	MF, 1%, 0207
0	R 97	57.11.3473		47k	MF, 1%, 0207
0	R 98	57.11.3104		100k	MF, 1%, 0207
0	R 99	57.11.3223		22k	MF, 1%, 0207
0	R 100	57.11.3104		100k	MF, 1%, 0207
0	R 101	57.11.3104		100k	MF, 1%, 0207
0	R 102	57.11.3224		220k	MF, 1%, 0207
0	R 103	57.11.3104		100k	MF, 1%, 0207
0	R 104	57.11.3104		100k	MF, 1%, 0207
0	R 105	57.11.3224		220k	MF, 1%, 0207
0	R 106	57.11.3224		220k	MF, 1%, 0207
0	R 107	57.11.3103		10k	MF, 1%, 0207
0	R 108	57.11.3104		100k	MF, 1%, 0207
0	R 109	57.11.3104		100k	MF, 1%, 0207
0	R 110	57.11.3224		220k	MF, 1%, 0207
0	R 111	57.11.3103		10k	MF, 1%, 0207
0	R 112	57.11.3104		100k	MF, 1%, 0207
0	R 113	57.11.3473		47k	MF, 1%, 0207
0	R 114	57.11.3473		47k	MF, 1%, 0207
0	R 115	57.11.3473		47k	MF, 1%, 0207
0	R 116	57.11.3105		1M0	MF, 1%, 0207
0	R 117	57.11.3223		22k	MF, 1%, 0207
0	R 118	57.11.3472		4k7	MF, 1%, 0207
0	R 119	57.11.3273		27k	MF, 1%, 0207
0	R 120	57.11.3151		150R	MF, 1%, 0207
0	R 121	57.11.3104		100k	MF, 1%, 0207
0	R 122	57.11.3000		0R0	MF, 0207
0	R 123	57.11.3103		10k	MF, 1%, 0207
0	R 124	57.11.3104		100k	MF, 1%, 0207
0	R 125	57.11.3104		100k	MF, 1%, 0207
0	R 126	57.11.3104		100k	MF, 1%, 0207
0	R 127	57.11.3104		100k	MF, 1%, 0207
0	R 128	57.11.3104		100k	MF, 1%, 0207
0	R 129	57.11.3104		100k	MF, 1%, 0207
0	R 130	57.11.3331		330R	MF, 1%, 0207
0	R 131	57.11.3331		330R	MF, 1%, 0207
0	R 132	57.11.3000		0R0	MF, 0207
0	R 133	57.11.3105		1M0	MF, 1%, 0207
0	R 134	57.11.3224		220k	MF, 1%, 0207
0	R 135	57.11.3473		47k	MF, 1%, 0207
0	R 136	57.11.3103		10k	MF, 1%, 0207
0	R 137	57.11.3104		100k	MF, 1%, 0207
0	R 138	57.11.3104		100k	MF, 1%, 0207
0	R 139	57.11.3104		100k	MF, 1%, 0207
0	R 140	57.11.3473		47k	MF, 1%, 0207
0	R 141	57.11.3103		10k	MF, 1%, 0207
0	R 142	57.11.3104		100k	MF, 1%, 0207
0	R 143	57.11.3103		10k	MF, 1%, 0207
0	R 144	57.11.3223		22k	MF, 1%, 0207
0	R 145	57.11.3105		1M0	MF, 1%, 0207
0	R 146	57.11.3103		10k	MF, 1%, 0207
0	R 147	57.11.3224		220k	MF, 1%, 0207
0	R 148	57.11.3224		220k	MF, 1%, 0207
0	R 149	57.11.3223		22k	MF, 1%, 0207
0	R 150	57.11.3105		1M0	MF, 1%, 0207
0	R 151	57.11.3223		22k	MF, 1%, 0207
0	R 152	57.11.3105		1M0	MF, 1%, 0207
0	R 153	57.11.3103		10k	MF, 1%, 0207
0	R 154	57.11.3224		220k	MF, 1%, 0207
0	R 155	57.11.3103		10k	MF, 1%, 0207
0	R 156	57.11.3682		6k8	MF, 1%, 0207
0	R 157	57.11.3682		6k8	MF, 1%, 0207
0	R 158	57.11.3682		6k8	MF, 1%, 0207
0	R 159	57.11.3682		6k8	MF, 1%, 0207
0	R 160	57.11.3682		6k8	MF, 1%, 0207
0	R 161	57.11.3682		6k8	MF, 1%, 0207
0	R 162	57.11.3682		6k8	MF, 1%, 0207
0	R 163	57.11.3682		6k8	MF, 1%, 0207
0	R 164	57.11.3682		6k8	MF, 1%, 0207
0	R 165	57.11.3682		6k8	MF, 1%, 0207
0	R 166	57.11.3682		6k8	MF, 1%, 0207
0	R 167	57.11.3682		6k8	MF, 1%, 0207
0	R 168	57.11.3682		6k8	MF, 1%, 0207
0	R 169	57.11.3682		6k8	MF, 1%, 0207
0	R 170	57.11.3682		6k8	MF, 1%, 0207
0	R 171	57.11.3682		6k8	MF, 1%, 0207
0	R 172	57.11.3103		10k	MF, 1%, 0207
0	R 173	57.11.3682		6k8	MF, 1%, 0207
0	R 174	57.11.3682		6k8	MF, 1%, 0207
0	R 175	57.11.3104		100k	MF, 1%, 0207
0	R 176	57.11.3000		0R0	MF, 0207
0	R 177	57.11.3683		68k	MF, 1%, 0207
0	R 178	57.11.3000		0R0	MF, 0207
0	R 179	57.11.3472		4k7	MF, 1%, 0207
0	R 180	57.11.3151		150R	MF, 1%, 0207
0	R 181	57.11.3104		100k	MF, 1%, 0207
0	R 182	57.11.3224		220k	MF, 1%, 0207
0	R 183	57.11.3223		22k	MF, 1%, 0207
0	R 184	57.11.3104		100k	MF, 1%, 0207
0	R 185	57.11.3104		100k	MF, 1%, 0207
0	R 186	57.11.3223		22k	MF, 1%, 0207
0	R 187	57.11.3103		10k	MF, 1%, 0207
0	R 188	57.11.3331		330R	MF, 1%, 0207
0	R 189	57.11.3102		1k0	MF, 1%, 0207
0	R 190	57.11.3102		1k0	MF, 1%, 0207
0	R 191	57.11.3104		100k	MF, 1%, 0207
0	R 192	57.11.3224		220k	MF, 1%, 0207
0	R 193	57.11.3105		1M0	MF, 1%, 0207
0	R 194	57.11.3223		22k	MF, 1%, 0207
0	R 195	57.11.3682		6k8	MF, 1%, 0207
0	R 196	57.11.3682		6k8	MF, 1%, 0207
0	R 197	57.11.3473		47k	MF, 1%, 0207
0	R 198	57.11.3103		10k	MF, 1%, 0207
0	R 199	57.11.3470		47R	MF, 1%, 0207
0	R 200	57.11.3104		100k	MF, 1%, 0207
0	R 201	57.11.3512		5k1	MF, 1%, 0207
0	R 202	57.11.3103		10k	MF, 1%, 0207
0	R 203	57.11.3104		100k	MF, 1%, 0207
0	R 204	57.11.3470		47R	MF, 1%, 0207
0	R 205	57.11.3104		100k	MF, 1%, 0207
0	R 206	57.11.3103		10k	MF, 1%, 0207
0	R 207	57.11.3104		100k	MF, 1%, 0207
0	R 208	57.11.3103		10k	MF, 1%, 0207
0	R 209	57.11.3470		47R	MF, 1%, 0207
0	R 210	57.11.3103		10k	MF, 1%, 0207
0	R 211	57.11.3103		10k	MF, 1%, 0207
0	R 212	57.11.3223		22k	MF, 1%, 0207
0	R 213	57.11.3241		240R	MF, 1%, 0207
0	R 214	57.11.3681		580R	MF, 1%, 0207
0	R 215	57.11.3104		100k	MF, 1%, 0207
0	R 216	57.11.3000		0R0	MF, 0207
0	R 217	57.11.3512		5k1	MF, 1%, 0207
0	R 218	57.11.3104		100k	MF, 1%, 0207
0	R 219	57.11.3104		100k	MF, 1%, 0207
0	R 220	57.11.3512		5k1	MF, 1%, 0207
0	R 221	57.11.3104		100k	MF, 1%, 0207
0	R 222	57.11.3104		100k	MF, 1%, 0207
0	R 223	57.11.3104		100k	MF, 1%, 0207
0	R 224	57.11.3103		10k	MF, 1%, 0207
0	R 225	57.11.3104		100k	MF, 1%, 0207
0	R 226	57.11.3104		100k	MF, 1%, 0207
0	R 227	57.11.3684		680k	MF, 1%, 0207
0	R 228	57.11.3224		220k	MF, 1%, 0207
0	R 229	57.11.3334		330k	MF, 1%, 0207
0	R 231	57.11.3154		150k	MF, 1%, 0207
0	R 232	57.11.3823		82k	MF, 1%, 0207
0	R 233	57.11.3823		82k	MF, 1%, 0207
0	R 234	57.11.3154		150k	MF, 1%, 0207
0	R 235	57.11.3334		330k	MF, 1%, 0207
0	R 237	57.11.3334		330k	MF, 1%, 0207
0	R 238	57.11.3684		680k	MF, 1%, 0207
0	R 239	57.11.3224		220k	MF, 1%, 0207
0	R 240	57.11.3000		0R0	MF, 0207
0	R 241	57.11.3104		100k	MF, 1%, 0207
0	R 242	57.11.3104		100k	MF, 1%, 0207
0	R 243	57.11.3222		2k2	MF, 1%, 0207
0	R 244	57.11.3104		100k	MF, 1%, 0207
0	R 245	57.11.3103		10k	MF, 1%, 0207
0	R 246	57.92.7021		0.9A	PTC 60V
0	R 247	57.92.7021		0.9A	PTC 60V
0	R 248	57.11.3104		100k	MF, 1%, 0207
0	R 249	57.11.3102		1k0	MF, 1%, 0207
0	R 250	57.11.3512		5k1	MF, 1%, 0207
0	R 251	57.11.3104		100k	MF, 1%, 0207
0	R 252	57.11.3104		100k	MF, 1%, 0207
0	R 253	57.11.3000		0R0	MF, 0207
0	R 254	not used		not used	not used
0	R 255	57.11.3512		5k1	MF, 1%, 0207
0	R 256	57.11.3470		47R	MF, 1%, 0207
0	R 257	57.11.3512		5k1	MF, 1%, 0207
0	R 258	57.11.3512		5k1	MF, 1%, 0207
0	R 259	57.11.3470		47R	MF, 1%, 0207
0	R 260	57.11.3512		5k1	MF, 1%, 0207
0	R 261	not used		not used	not used
0	R 262	57.11.3334		330k	MF, 1%, 0207
0	R 263	57.19.0470		47R	5%, 0207, Fuse
0	R 264	57.19.0470		47R	5%, 0207, Fuse
0	R 265	57.11.3821		820R	MF, 1%, 0207
0	R 266	57.11.3821		820R	MF, 1%, 0207
0	R 267	57.11.3103		10k	MF, 1%, 0207
0	R 268	57.11.3512		5k1	MF, 1%, 0207
0	R 269	57.11.3104		100k	MF, 1%, 0207
0	R 270	57.11.3394		390k	MF, 1%, 0207
0	R 271	57.11.3103		10k	MF, 1%, 0207
0	R 272	57.11.3133		13k	MF, 1%, 0207
0	R 273	57.11.3394		390k	MF, 1%, 0207
0	R 274	57.11.3133		13k	MF, 1%, 0207
0	R 275	57.11.3103		10k	MF, 1%, 0207
0	R 276	57.11.3100		10R	MF, 1%, 0207
0	RA 1	58.01.8101		100R	Cermet, 10%, 0.5W, horizontal
0	RN 5	57.88.2473		47k	4*R Resistor-Netw 2% SIP9
0	RN 6	57.88.2473		47k	4*R Resistor-Netw 2% SIP9
0	RN 7	57.88.2473		47k	4*R Resistor-Netw 2% SIP9
0	RN 8	57.88.2473		47k	4*R Resistor-Netw 2% SIP9
0	RN 9	57.88.2473		47k	4*R Resistor-Netw 2% SIP9
0	SW 1	55.13.0102		2*5p	Dreh-, PCB, Au, kurzschl
0	SW 2	55.15.0931		2*u	rastend
0	SW 3	55.15.0931		2*u	rastend
0	SW 4	55.15.0933		4*u	rastend
0	SW 5	55.15.0931		2*u	rastend
0	SW 6	55.15.0931		2*u	rastend
0	SW 7	55.15.0932		2*u	impuls
0	SW 8	1.928.207.00			MIYAMA SWITCH LATCHING BOARD
0	SW 9	1.928.207.00			MIYAMA SWITCH LATCHING BOARD
0	SW 10	55.15.0932		2*u	impuls
0	SW 11	55.15.0932		2*u	impuls
0	SW 12	55.15.0932		2*u	impuls
0	SW 13	55.15.0932		2*u	impuls
0	SW 14	55.15.0932		2*u	impuls
0	SW 15	55.15.0932		2*u	impuls
0	SW 16	55.15.0932		2*u	impuls
0	SW 17	55.15.0932		2*u	impuls
0	SW 18	1.928.208.00			MIYAMA SWITCH NON LATCH. BOARD
0	SW 19	55.15.0932		2*u	impuls
0	SW 20	55.15.0932		2*u	impuls
0	SW 21	55.15.0932		2*u	impuls
0	SW 22	55.15.0932		2*u	impuls
0	SW 23	55.15.0931		2*u	rastend
0	SW 24	55.15.0931		2*u	rastend
0	T 1	not used			AUSGANGSTRAFO ED16 1:1.05
					Option
0	TH 3	57.93.0102		1k0	NTC
0	TH 4	57.93.0103		10k	NTC

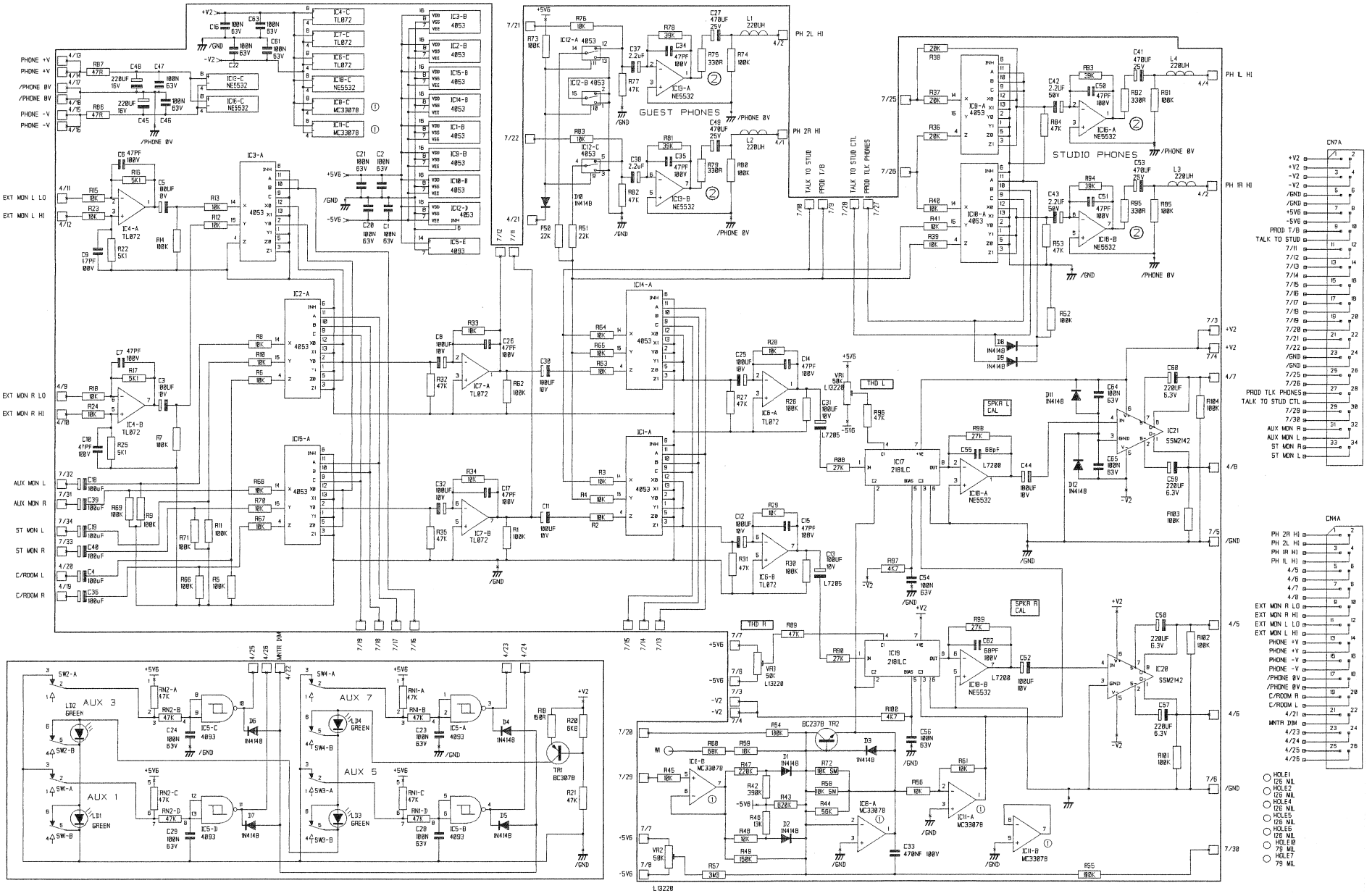
Studio Monitor Main Board 1.928.525.00

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	TP 1	54.02.0320		1p	PCB-Flachst 2.8*0.8, gerade
0	TP 2	54.02.0320		1p	PCB-Flachst 2.8*0.8, gerade
0	TP 3	54.02.0320		1p	PCB-Flachst 2.8*0.8, gerade
0	TR 1	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 2	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 3	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 4	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 5	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 6	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 7	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 8	50.03.0407		BC550C	BC 550 C
0	TR 9	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 10	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 11	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 12	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 13	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 14	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 15	50.03.0407		BC550C	BC 550 C
0	TR 16	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 17	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	TR 18	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	VR 1	58.20.6503		50k lin	1*R
0	VR 2	58.20.6505		5k -log	1*R
0	VR 3	58.05.0203		20k	10%, 0.5W, Cermet
0	VR 4	58.20.6607		2*10k log	2*R
0	VR 5	58.20.6607		2*10k log	2*R
0	VR 6	58.20.6503		50k lin	1*R
0	VR 7	58.01.9202		2k0	Cermet, 10%, 0.5W, vertical
0	VR 8	58.02.5222		2k2	20%, 0.1W, Carbon
0	VR 9	58.01.9104		100k	Cermet, 10%, 0.5W, vertical
0	VR 10	58.01.9102		1k0	Cermet, 10%, 0.5W, vertical
0	VR 11	58.01.9203		20k	Cermet, 10%, 0.5W, vertical
0	VR 12	58.01.8504		500k	Cermet, 10%, 0.5W, horizontal
0	VR 13	58.01.8504		500k	Cermet, 10%, 0.5W, horizontal
0	W 1	64.02.0117	230 mm	vi	Litze AWG 24, UL appr

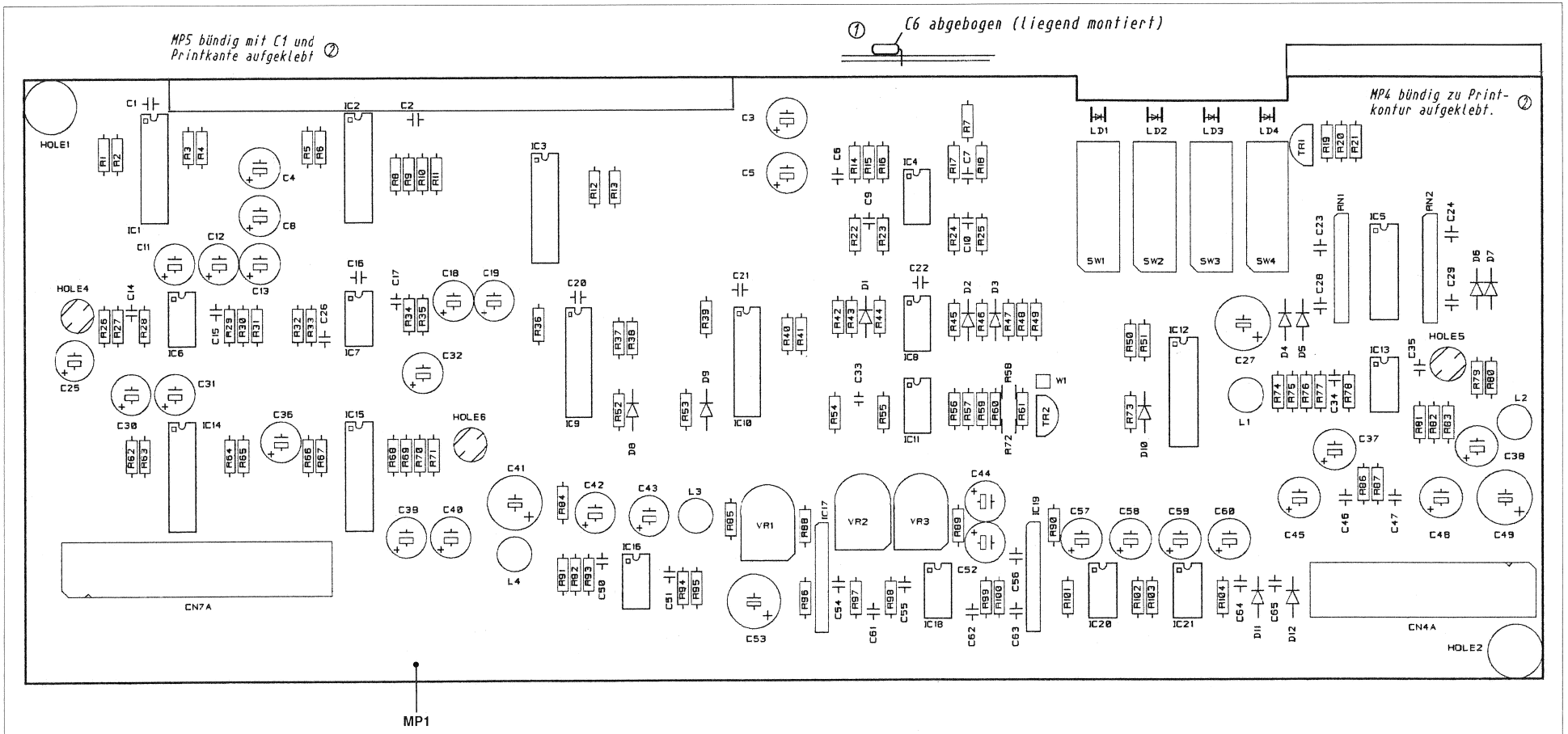
End of List

Comments

Studio Monitor Side Board 1.928.523.81



Studio Monitor Side Board 1.928.523.81



③ *SMD Widerstände R78, R81, R93 und R94 auf Lötseite parallel zu C34, C35, C50 und C51 nach Fabrikationsmuster eingelötet.*

Edition Ausgabe	Modification Änderung	Date Datum	Visa Gez.	Checked Gepr.	Seen Ges.	Index
③		27.03.02	hm	HM	HM	
②		14.01.99	hm	HM	HM	
①		11.11.97	Ro	HM	HM	
⓪		21.01.97	Ro	HM	HM	

Copy to: Kopie für:

STUDER REGENSDORF — Description Bezeichnung: Studio Monitor Side Board ESE — Number: Nummer: 1.928.523.81

STUDIO MONITOR SIDE BOARD 1.928.523.81 (4)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 2	59.06.0104		100n	PETP, 63V, 10%, RM5
2	C 3	59.99.2723		100u	EL 6.3V 20% RM5
0	C 4	59.99.2706		100u	EL 16V 20% RM5
2	C 5	59.99.2723		100u	EL 6.3V 20% RM5
0	C 6	59.34.2470		47p	CER 63V, 5%, N150
0	C 7	59.34.2470		47p	CER 63V, 5%, N150
0	C 8	59.99.2706		100u	EL 16V 20% RM5
0	C 9	59.34.2470		47p	CER 63V, 5%, N150
0	C 10	59.34.2470		47p	CER 63V, 5%, N150
0	C 11	59.99.2706		100u	EL 16V 20% RM5
0	C 12	59.99.2706		100u	EL 16V 20% RM5
0	C 13	59.99.2706		100u	EL 16V 20% RM5
0	C 14	59.34.2470		47p	CER 63V, 5%, N150
0	C 15	59.34.2470		47p	CER 63V, 5%, N150
0	C 16	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 17	59.34.2470		47p	CER 63V, 5%, N150
0	C 18	59.99.2706		100u	EL 16V 20% RM5
0	C 19	59.99.2706		100u	EL 16V 20% RM5
0	C 20	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 21	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 22	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 23	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 24	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 25	59.99.2706		100u	EL 16V 20% RM5
0	C 26	59.34.2470		47p	CER 63V, 5%, N150
0	C 27	59.22.2471		470u	EL 6.3V 20% RM5
0	C 28	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 29	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 30	59.99.2706		100u	EL 16V 20% RM5
0	C 31	59.99.2706		100u	EL 16V 20% RM5
0	C 32	59.99.2706		100u	EL 16V 20% RM5
0	C 33	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 34	59.34.2470		47p	CER 63V, 5%, N150
0	C 35	59.34.2470		47p	CER 63V, 5%, N150
0	C 36	59.99.2706		100u	EL 16V 20% RM5
0	C 37	59.22.8229		2u2	EL 50V 20% RM5
0	C 38	59.22.8229		2u2	EL 50V 20% RM5
0	C 39	59.99.2706		100u	EL 16V 20% RM5
0	C 40	59.99.2706		100u	EL 16V 20% RM5
0	C 41	59.22.2471		470u	EL 6.3V 20% RM5
0	C 42	59.22.8229		2u2	EL 50V 20% RM5
0	C 43	59.22.8229		2u2	EL 50V 20% RM5
0	C 44	59.99.2706		100u	EL 16V 20% RM5
0	C 45	59.22.4221		220u	EL 16V 20% RM5
0	C 46	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 47	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 48	59.22.4221		220u	EL 16V 20% RM5
0	C 49	59.22.2471		470u	EL 6.3V 20% RM5
0	C 50	59.34.2470		47p	CER 63V, 5%, N150
0	C 51	59.34.2470		47p	CER 63V, 5%, N150
0	C 52	59.99.2706		100u	EL 16V 20% RM5
0	C 53	59.22.2471		470u	EL 6.3V 20% RM5
0	C 54	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 55	59.34.4680		68p	CER 63V, 5%, N750
0	C 56	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 57	59.22.3003		220u	EL 10V 20% RM5
0	C 58	59.22.3003		220u	EL 10V 20% RM5
0	C 59	59.22.3003		220u	EL 10V 20% RM5
0	C 60	59.22.3003		220u	EL 10V 20% RM5
0	C 61	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 62	59.34.4680		68p	CER 63V, 5%, N750
0	C 63	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 64	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 65	59.06.0104		100n	PETP, 63V, 10%, RM5
0	CN 4	1.023.112.09			FLACHKABEL 26 POL. 0,045M
0	CN 7	1.023.313.01			FLACHKABEL 34 POL. 0,045M
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 7	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 8	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 9	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 10	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 11	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 12	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	IC 1	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 2	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 3	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 4	50.09.0101		072	IC TL 072 CN ,A
0	IC 5	50.07.0008		4093	Quad 2-inp NAND
0	IC 6	50.09.0101		072	IC TL 072 CN ,A
0	IC 7	50.09.0101		072	IC TL 072 CN ,A
1	IC 8	50.09.0117		33078	IC MC 33078 P
0	IC 9	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 10	50.07.0015		4053	Tripple 2ch analog mux/demux
1	IC 11	50.09.0117		33078	IC MC 33078 P
0	IC 12	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 13	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 14	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 15	50.07.0015		4053	Tripple 2ch analog mux/demux
0	IC 16	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 17	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 18	50.09.0105		5532	IC NE 5532 N, RC 5532 NB ,A
0	IC 19	50.11.0140		THAT2181C	IC VCA THAT 2181C
0	IC 20	50.09.0124		2142	Audio balanced line driver
0	IC 21	50.09.0124		2142	Audio balanced line driver
0	L 1	not used		220uH	10%, radial RM 5
0	L 2	not used		220uH	10%, radial RM 5
0	L 3	not used		220uH	10%, radial RM 5
0	L 4	not used		220uH	10%, radial RM 5
0	LD 1	50.04.2206		L934GT	LED 3mm green
0	LD 2	50.04.2206		L934GT	LED 3mm green
0	LD 3	50.04.2206		L934GT	LED 3mm green
0	LD 4	50.04.2206		L934GT	LED 3mm green
0	MP 1	1.928.523.12	1 pce		STUDIO MONITOR SIDE PCB
0	MP 2	1.928.523.04	1 pce		NR.-ETIKETTE 5x20
0	MP 3	43.01.0108	1 pce	Label	ESE-WARNSCHILD
3	MP 4	1.928.423.01	1 pce		Isolation
3	MP 5	1.928.423.02	1 pce		Isolation
4	MP 6	43.10.0110		A	Revisions-Etikette 5mm h'blau
0	R 1	57.11.3104		100k	MF, 1%, 0207
0	R 2	57.11.3103		10k	MF, 1%, 0207
0	R 3	57.11.3103		10k	MF, 1%, 0207
0	R 4	57.11.3103		10k	MF, 1%, 0207
0	R 5	57.11.3104		100k	MF, 1%, 0207
0	R 6	57.11.3103		10k	MF, 1%, 0207
0	R 7	57.11.3104		100k	MF, 1%, 0207
0	R 8	57.11.3103		10k	MF, 1%, 0207
0	R 9	57.11.3104		100k	MF, 1%, 0207
0	R 10	57.11.3103		10k	MF, 1%, 0207
0	R 11	57.11.3104		100k	MF, 1%, 0207
0	R 12	57.11.3103		10k	MF, 1%, 0207
0	R 13	57.11.3103		10k	MF, 1%, 0207
0	R 14	57.11.3104		100k	MF, 1%, 0207
0	R 15	57.11.3103		10k	MF, 1%, 0207
0	R 16	57.11.3512		5k1	MF, 1%, 0207
0	R 17	57.11.3512		5k1	MF, 1%, 0207
0	R 18	57.11.3103		10k	MF, 1%, 0207
0	R 19	57.11.3151		150R	MF, 1%, 0207
0	R 20	57.11.3682		6k8	MF, 1%, 0207
0	R 21	57.11.3473		47k	MF, 1%, 0207
0	R 22	57.11.3512		5k1	MF, 1%, 0207
0	R 23	57.11.3103		10k	MF, 1%, 0207
0	R 24	57.11.3103		10k	MF, 1%, 0207
0	R 25	57.11.3512		5k1	MF, 1%, 0207
0	R 26	57.11.3104		100k	MF, 1%, 0207
0	R 27	57.11.3473		47k	MF, 1%, 0207
0	R 28	57.11.3103		10k	MF, 1%, 0207
0	R 29	57.11.3103		10k	MF, 1%, 0207
0	R 30	57.11.3104		100k	MF, 1%, 0207
0	R 31	57.11.3473		47k	MF, 1%, 0207
0	R 32	57.11.3473		47k	MF, 1%, 0207
0	R 33	57.11.3103		10k	MF, 1%, 0207
0	R 34	57.11.3103		10k	MF, 1%, 0207
0	R 35	57.11.3473		47k	MF, 1%, 0207
0	R 36	57.11.3203		20k	MF, 1%, 0207
0	R 37	57.11.3203		20k	MF, 1%, 0207
0	R 38	57.11.3203		20k	MF, 1%, 0207
0	R 39	57.11.3103		10k	MF, 1%, 0207
0	R 40	57.11.3103		10k	MF, 1%, 0207
0	R 41	57.11.3103		10k	MF, 1%, 0207
0	R 42	57.11.3394		390k	MF, 1%, 0207
0	R 43	57.11.3824		820k	MF, 1%, 0207
0	R 44	57.11.3563		56k	MF, 1%, 0207
0	R 45	57.11.3103		10k	MF, 1%, 0207
0	R 46	57.11.3133		13k	MF, 1%, 0207
0	R 47	57.11.3224		220k	MF, 1%, 0207
0	R 48	57.11.3103		10k	MF, 1%, 0207
0	R 49	57.11.3154		150k	MF, 1%, 0207
0	R 50	57.11.3223		22k	MF, 1%, 0207
0	R 51	57.11.3223		22k	MF, 1%, 0207
0	R 52	57.11.3104		100k	MF, 1%, 0207
0	R 53	57.11.3473		47k	MF, 1%, 0207
0	R 54	57.11.3104		100k	MF, 1%, 0207
0	R 55	57.11.3104		100k	MF, 1%, 0207
0	R 56	57.11.3103		10k	MF, 1%, 0207
0	R 57	57.11.5335		3M3	MF, 5%, 0207
0	R 58	57.69.8301		10k	PTC, 1%, +3300 PPM
0	R 59	57.11.3103		10k	MF, 1%, 0207
0	R 60	57.11.3683		68k	MF, 1%, 0207

STUDIO MONITOR SIDE BOARD 1.928.523.81 (4)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 61	57.11.3103		10k	MF, 1%, 0207
0	R 62	57.11.3104		100k	MF, 1%, 0207
0	R 63	57.11.3103		10k	MF, 1%, 0207
0	R 64	57.11.3103		10k	MF, 1%, 0207
0	R 65	57.11.3103		10k	MF, 1%, 0207
0	R 66	57.11.3104		100k	MF, 1%, 0207
0	R 67	57.11.3103		10k	MF, 1%, 0207
0	R 68	57.11.3103		10k	MF, 1%, 0207
0	R 69	57.11.3104		100k	MF, 1%, 0207
0	R 70	57.11.3103		10k	MF, 1%, 0207
0	R 71	57.11.3104		100k	MF, 1%, 0207
0	R 72	57.69.6301		10k	PTC, 1%, +3300 PPM
0	R 73	57.11.3104		100k	MF, 1%, 0207
0	R 74	57.11.3104		100k	MF, 1%, 0207
4	R 75	57.11.3331		330R	MF, 1%, 0207
0	R 76	57.11.3103		10k	MF, 1%, 0207
0	R 77	57.11.3473		47k	MF, 1%, 0207
4	R 78	57.60.1393		39k	MF, 1%, 0204, E24
4	R 79	57.11.3331		330R	MF, 1%, 0207
0	R 80	57.11.3104		100k	MF, 1%, 0207
4	R 81	57.60.1393		39k	MF, 1%, 0204, E24
0	R 82	57.11.3473		47k	MF, 1%, 0207
0	R 83	57.11.3103		10k	MF, 1%, 0207
0	R 84	57.11.3473		47k	MF, 1%, 0207
0	R 85	57.11.3104		100k	MF, 1%, 0207
0	R 86	57.19.0470		47R	5%, 0207, Fuse
0	R 87	57.19.0470		47R	5%, 0207, Fuse
0	R 88	57.11.3273		27k	MF, 1%, 0207
0	R 89	57.11.3473		47k	MF, 1%, 0207
0	R 90	57.11.3273		27k	MF, 1%, 0207
0	R 91	57.11.3104		100k	MF, 1%, 0207
4	R 92	57.11.3331		330R	MF, 1%, 0207
4	R 93	57.60.1393		39k	MF, 1%, 0204, E24
4	R 94	57.60.1393		39k	MF, 1%, 0204, E24
4	R 95	57.11.3331		330R	MF, 1%, 0207
0	R 96	57.11.3473		47k	MF, 1%, 0207
0	R 97	57.11.3472		4k7	MF, 1%, 0207
0	R 98	57.11.3273		27k	MF, 1%, 0207
0	R 99	57.11.3273		27k	MF, 1%, 0207
0	R 100	57.11.3472		4k7	MF, 1%, 0207
0	R 101	57.11.3104		100k	MF, 1%, 0207
0	R 102	57.11.3104		100k	MF, 1%, 0207
0	R 103	57.11.3104		100k	MF, 1%, 0207
0	R 104	57.11.3104		100k	MF, 1%, 0207
0	RN 1	57.88.2473		47k	4*R Resistor-Netw 2% SIP9
0	RN 2	57.88.2473		47k	4*R Resistor-Netw 2% SIP9
0	SW 1	55.15.0932		2*u	impuls
0	SW 2	55.15.0932		2*u	impuls
0	SW 3	55.15.0932		2*u	impuls
0	SW 4	55.15.0932		2*u	impuls
0	TR 1	50.03.0515		BC307B	BC 307 B , BC 557 B ,PNP
0	TR 2	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	VR 1	58.02.5473		47k	20%, 0.1W, Carbon
0	VR 2	58.02.5473		47k	20%, 0.1W, Carbon
0	VR 3	58.02.5473		47k	20%, 0.1W, Carbon

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description

End of List

(04) Output-power of headphone-amp limited

CIRCUIT DIAGRAMS

Plug-In Units of the Meter Panel

Synopsis: Structure Lists

Assembly	Assembly No.
Patch Board	1.928.041.00
PFL / Signaling Unit	1.913.311.00
10 AUX LED Meter Unit	1.913.312.00 1.913.312.81

Synopsis: Assemblies, Circuit Diagrams, Component Layouts, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Patch Board	1.928.041.00	1.928.041.00	1.928.041.00	-
VU/PPM 30 LED	1.913.101...108 1.913.321...324	*	*	*
PFL / Signaling Unit	1.913.311.00	1.913.311.00	1.913.311.00	1.913.311.00
10 AUX LED Meter Unit	1.913.312.00	1.913.312.00	1.913.312.00	1.913.312.00
10 AUX LED Meter Unit	1.913.312.81	1.913.312.81	1.913.312.81	1.913.312.81
* **Note:** Diagrams supplied depending on the particular console configuration				

Patch Board 1.928.041.00

Assembly Structure

Assembly	Assembly No.
Patch Board	1.928.041.00
Patch PCB	*1.928.041.13*

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Patch Board	1.928.041.00	1.928.041.00	1.928.041.00	1.928.041.00

PFL / Signaling Unit 1.913.311.00

Assembly Structure

Assembly	Assembly No.
PFL / Signaling Unit	1.913.311.00
PFL / Signaling PCB	*1.913.311.11*

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
PFL / Signaling Unit	1.913.311.00	1.913.311.00	1.913.311.00	1.913.311.00

10 AUX LED Meter Unit 1.913.312.00/.81

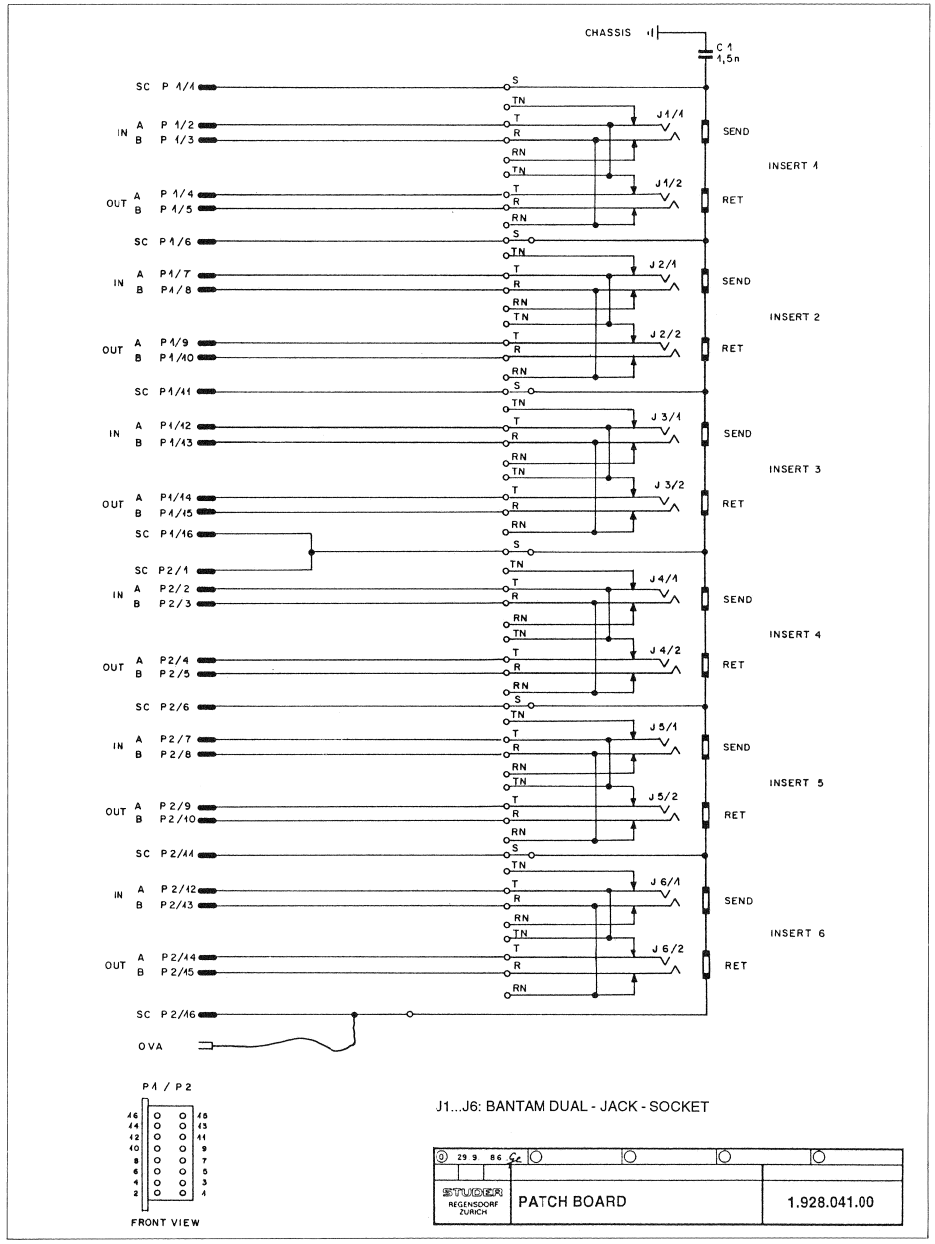
Assembly Structure

Assembly	Assembly No.
10 AUX LED Meter Unit	1.913.312.00
10 AUX LED Meter PCB	*1.913.312.11*
10 AUX LED Meter Unit	1.913.312.81
10 AUX LED Meter PCB	*1.913.312.12*

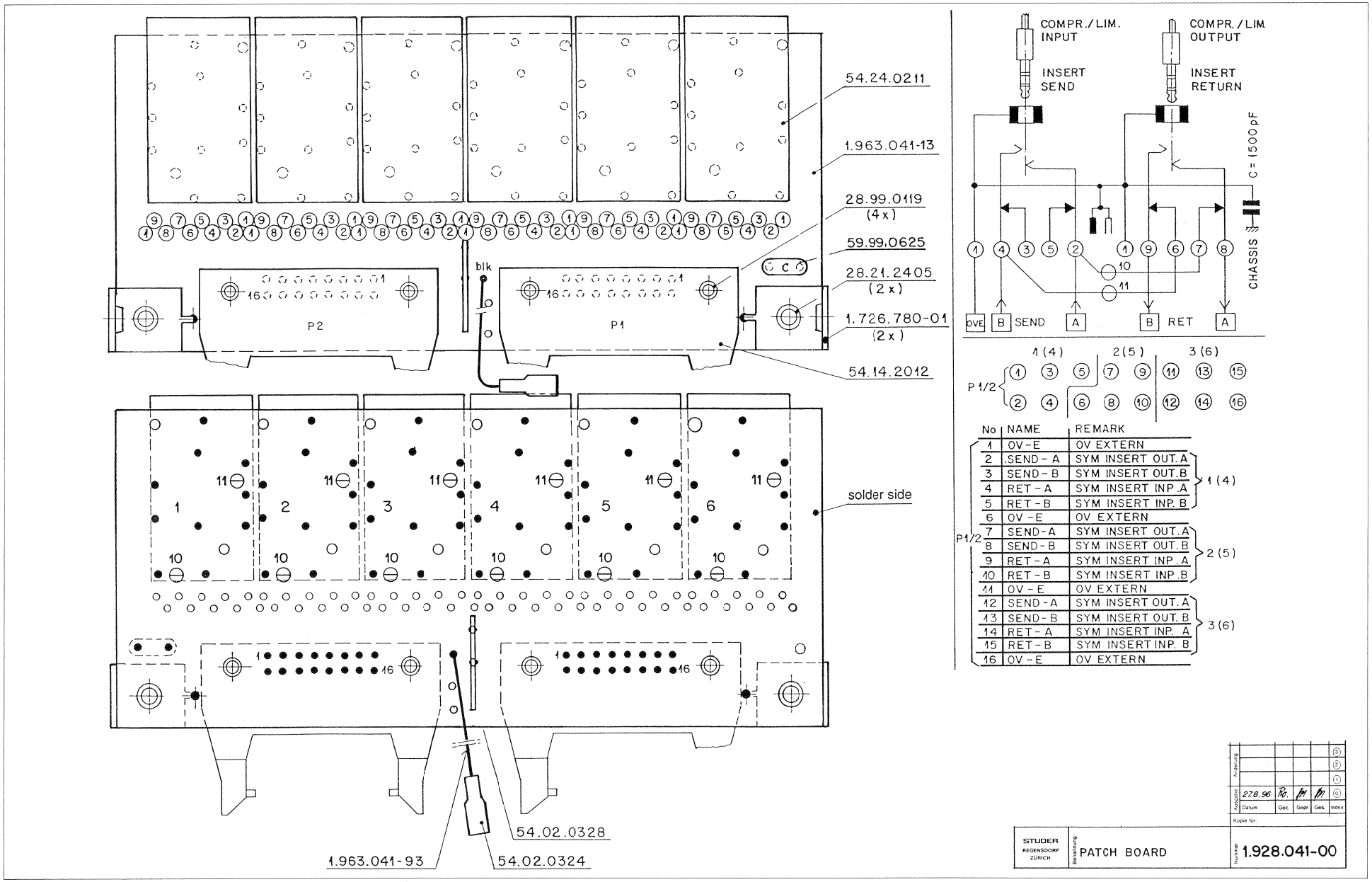
Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
10 AUX LED Meter Unit	1.913.312.00	1.913.312.00	1.913.312.00	1.913.312.00
10 AUX LED Meter Unit	1.913.312.81	1.913.312.81	1.913.312.81	1.913.312.81

Patch Board 1.928.041.00



Patch Board 1.928.041.00



No	NAME	REMARK	
1	OV-E	OV EXTERN	
2	SEND-A	SYM INSERT OUT.A	1 (4)
3	SEND-B	SYM INSERT OUT.B	1 (4)
4	RET-A	SYM INSERT INP.A	1 (4)
5	RET-B	SYM INSERT INP.B	1 (4)
6	OV-E	OV EXTERN	
7	SEND-A	SYM INSERT OUT.A	2 (5)
8	SEND-B	SYM INSERT OUT.B	2 (5)
9	RET-A	SYM INSERT INP.A	2 (5)
10	RET-B	SYM INSERT INP.B	2 (5)
11	OV-E	OV EXTERN	
12	SEND-A	SYM INSERT OUT.A	3 (6)
13	SEND-B	SYM INSERT OUT.B	3 (6)
14	RET-A	SYM INSERT INP.A	3 (6)
15	RET-B	SYM INSERT INP.B	3 (6)
16	OV-E	OV EXTERN	

P1/2

Änderung					
Ausgabe	27.8.96	Ro.			0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH | Benennung: PATCH BOARD | Nummer: 1.928.041-00

VU/PPM LED Level Meter Modules

Contents

Diagrams	PCB No.	Diagram	Component Layout	Parts List
VU/PPM 30 LED with GRM	1.913.293.00	1.913.293.00	1.913.293.00	1.913.293.00
VU/PPM 30 LED	1.913.294.00			1.913.294.00
LED PPM Meter (10 LED)	1.913.291.00	1.913.291.00	1.913.291.00	1.913.291.00

Scope of Validity

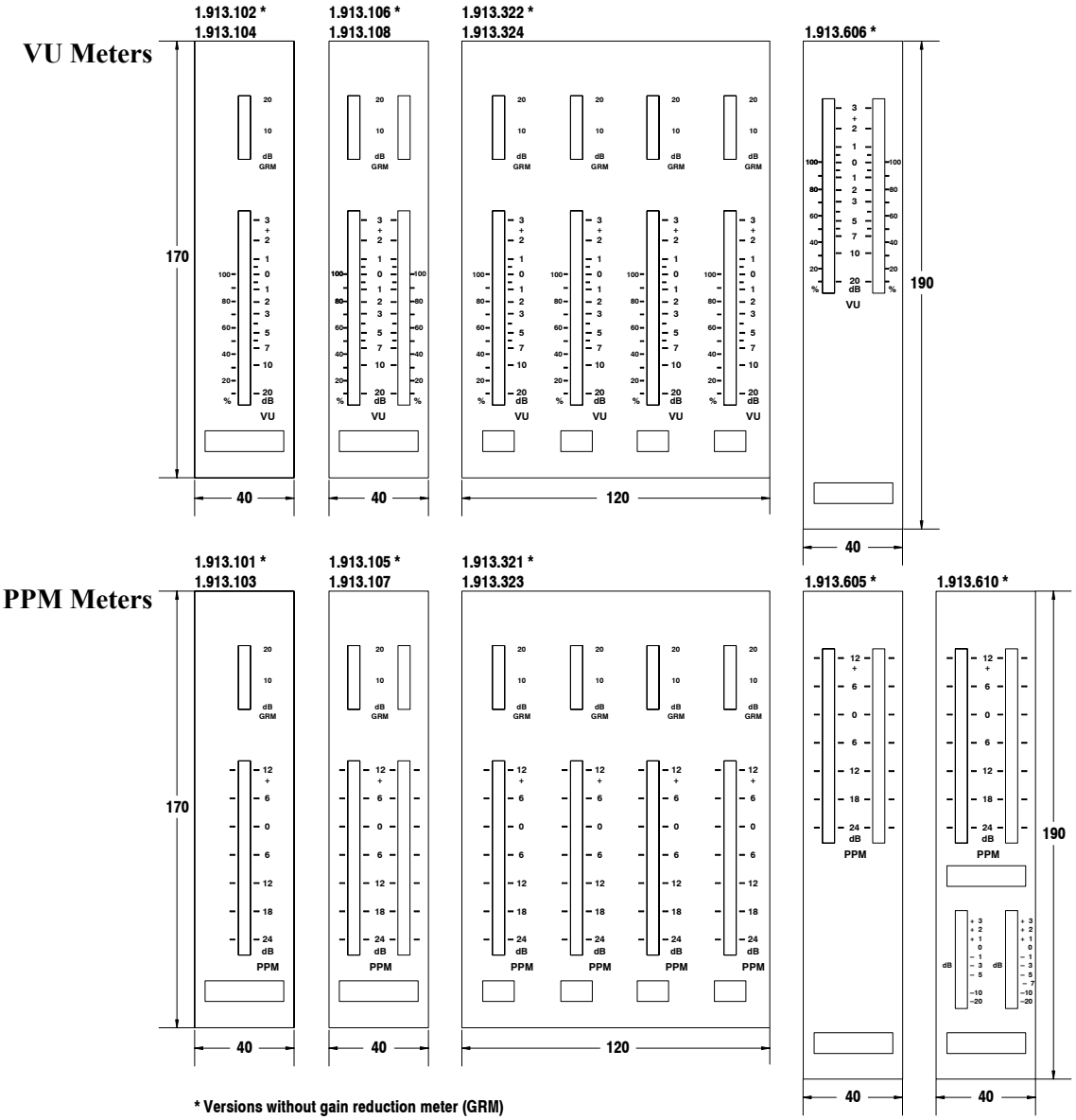
These instructions apply to the following assemblies:

Display	1 Channel, dark front panel	2 Channels, dark front panel	2 Channels, bright front panel	4 Channels, dark front panel	*PCB No.*
PPM	1.913.101	1.913.105	1.913.605	1.913.321	*1.913.294*
VU	1.913.102	1.913.106	1.913.606	1.913.322	*1.913.294*
PPM w. GRM	1.913.103	1.913.107	-	1.913.323	*1.913.293*
VU w. GRM	1.913.104	1.913.108	-	1.913.324	*1.913.293*
PPM w. additional small level meter	-	-	1.913.610	-	*1.913.294, 1.913.291*

1 General

The Level Meter units with 30 LEDs have been developed for installation in the display panel of Studer Mixing Consoles. Instruments with VU (volume unit) and PPM (peak program meter) characteristics, with or without gain reduction meter (GRM) are available. Instead of bar-graph indication, also dot indication is optionally available.

The instruments listed below are equipped with the PCBs 1.913.294 (VU or PPM) or 1.913.293 (VU or PPM with gain reduction meter) according to the table above. Please consult the circuit diagram relating to the corresponding assembly number.



2 Functional Description

PPM: The peak program meter is a quasi-peak value instrument with long decay time. When a signal voltage corresponding to a level of 0 dB is applied for 10 ms, the resulting indication is –1 dB. Decay time (0 to –20 dB) is 1.7 s.

VU Meter: The VU meter indicates signals according to the standard defined by ANSI 1954. When a signal with a duration of 300 ms is applied, the indication is 99% of the reference value. Rise and decay times on a VU meter are identical. The factory-set lead is +6 dB.

Gain Reduction Meter: When the limiter/compressor is switched on, the GRM indicates the magnitude of the gain reduction.

Small PPM: The assembly 1.913.610 contains an additional small PPM meter with 10 LEDs, normally used for AUX level indication.

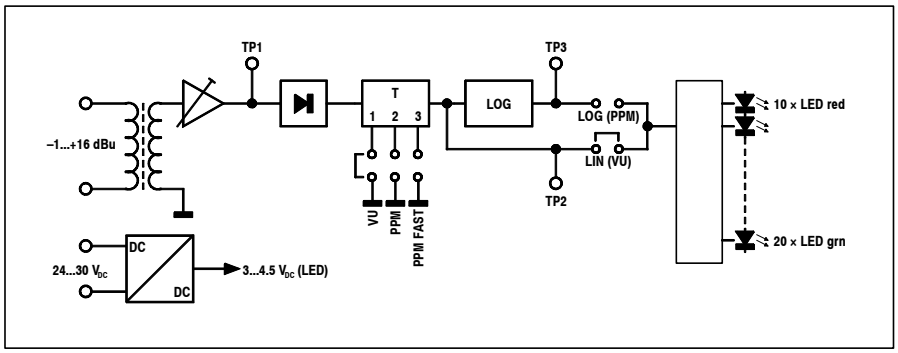
Bar/Dot Display Selection: On each of the PCBs, selection of bar or dot display mode is provided. All level meters are factory-set to bar display mode; dot display mode is unusual and recommended only if extra-low current consumption is required.

PCB No.	Bar Display Mode (Default Factory Setting)	Dot Display Mode
1.913.293.00 (VU/PPM 30 LED w. GRM)	insert: R3, R8, R10, R15 remove: R4, R9, R11, R14	insert: R4, R9, R11, R14 remove: R3, R8, R10, R15
1.913.294.00 (VU/PPM 30 LED)	insert: R3, R8, R10 remove: R4, R9, R11	insert: R4, R9, R11 remove: R3, R8, R10
1.913.291.00 (PPM 10 LED)	insert jumper JS201	remove jumper JS201

3 Technical Specifications

General:	**0 dBu ≙ 0.775 V_{rms}**			
	Sensitivity for reference indication		–1 dBu ... +16 dBu	
	Input impedance		>10 kΩ	
	Supply		±15 V_{DC}	+24 V_{DC}
	Current consumption without GRM (p. ch., bar display mode)	Quiescent:	45 mA	35 mA
		Full load:	80 mA	80 mA
	Current consumption with GRM (p. ch., bar display mode)	Quiescent:	55 mA	45 mA
		Full load:	105 mA	105 mA
VU Meter (1.913.293):	**Indication range**		–20 VU ... +3 VU	
	Accuracy (conditions: –10...+3 VU, 0...+50° C, 31.5 Hz...16 kHz)		± 1 segment	
	Response time to –1 VU		207 ms ±30 ms	
PPM (1.913.293):	**Indication range**		–30 dBu ... +15 dBu	
	Accuracy (conditions: –30...+15 VU, 0...+50° C, 31.5 Hz...16 kHz)		± 1 segment	
	Dynamic behavior			
	Jumper "normal"	0 dB, 10 ms burst	Indication:	–1 dB ±0.5 dB
		0 dB, 3 ms burst	Indication:	–4 dB ±1 dB
	Jumper "fast"	0 dB, 100 µs burst	Indication:	–1 dB
	Decay time: 0...–20 dB		1.7 s ±0.3 s	
GRM (1.913.294):	**Input voltage range**		min. control: 0 V ... +2 V_{DC} max. control: 0 V ... +11 V_{DC}	
Dimensions:	1- and 2-channel units, dark front panel (w × h × d)			40 × 170 × 97 mm
	2-channel units, bright front panel (w × h × d)			40 × 190 × 97 mm
	4-channel units, dark front panel (w × h × d)			120 × 170 × 97 mm

4 VU/PPM Meter Block Diagram



VU/PPM meter block diagram: VU/PPM/PPM FAST and LIN/LOG settings are established with jumpers J2 and J3, respectively.

5 Alignment

Required Instruments: AC voltmeter, $R_i \geq 20$ kΩ
DC voltmeter, $R_i \geq 100$ kΩ
AF generator, 31.5 Hz ... 16 kHz, 0...16 dBu; attenuator with 10 dB increments.

DC/DC Converter Check: Connect DC voltmeter to TP5 (hot) and TP4 (ground). Feed generator output signal with line level (–1...+16 dBu) to the input (pins 5 and 7 of P1, or TP8 and TP9); all green LEDs are on.
DC voltmeter reading should be:
3.1 ±0.1 V_{DC} (supply: +24 V_{DC}),
4.1 ±0.1 V_{DC} (supply: +30 V_{DC}).

Input Range: Feed generator output signal with line level (1 kHz, –1...+16 dBu) to the input (pins 5 and 7 of P1, or TP8 and TP9).
Connect AC voltmeter to test points TP1 (hot) and TP4 (ground). Reading must be adjustable with RA3 to 290 ±10 mV_{AC} for the complete input level range.

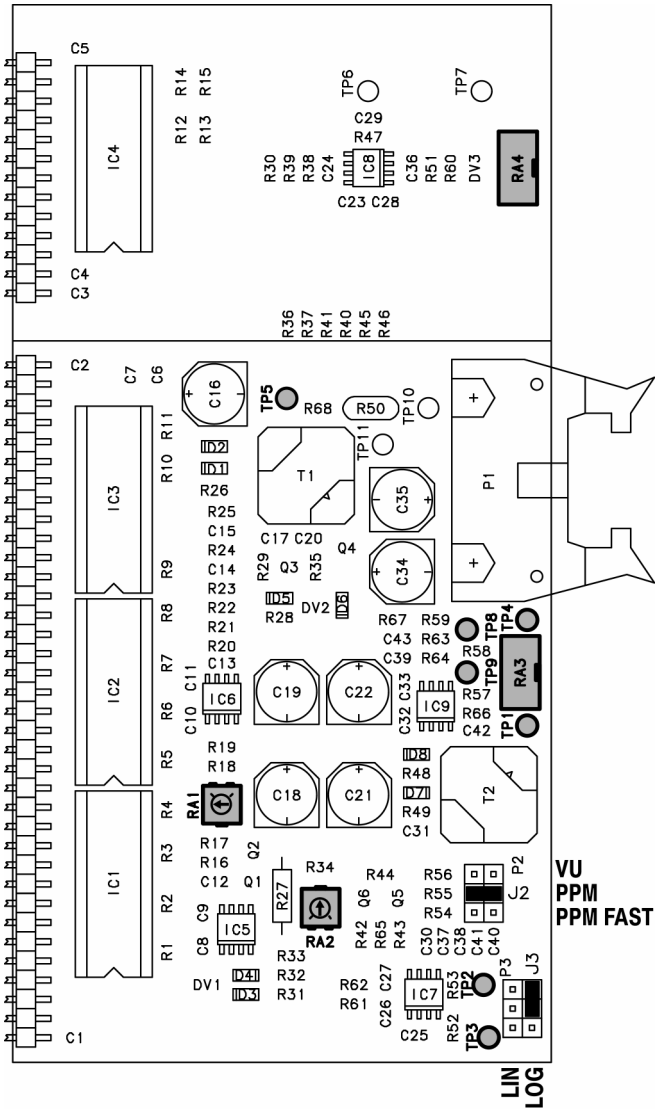
Line Level: Feed generator output signal with your line level (1 kHz, range: –1...+16 dBu) to the input (pins 5 and 7 of P1, or TP8 and TP9).
Adjust RA3 until all green LEDs are on. The red LEDs must be dark.
(TP3: 2.5 ±0.1 V_{DC}).

Rectifier and Indication: Set J2 to VU, J3 to LIN.
Feed generator output signal with your line level (1 kHz, usually 0 dBu) to the input (pins 5 and 7 of P1, or TP8 and TP9).
Connect AC voltmeter to test points TP1 (hot) and TP4 (ground). Adjust with RA3 to 290 ±10 mV_{AC}. All green LEDs must be on.
Connect DC voltmeter to test points TP2 (hot) and TP4 (ground); the meter should read –380 ±15 mV_{DC}.
Connect DC voltmeter to test points TP3 (hot) and TP4 (ground); the meter should read +2.575 ±0.100 V_{DC}. All green LEDs must be on.
Check: Set generator output for a DC voltmeter reading of 3.8 ±0.1 V_{DC}. All LEDs must be on. Set generator output for a DC voltmeter reading of 170 ±20 mV_{DC}. Only the lowest LED must be on.

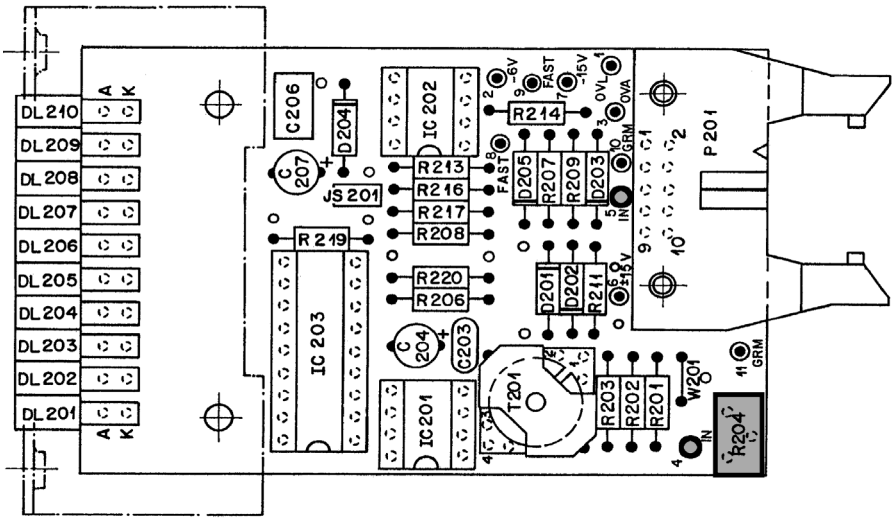
Log Converter (PPM only): Set J2 to PPM, J3 to LOG.
Feed generator output signal (1 kHz, +6 dBu) to the input (pins 5 and 7 of P1, or TP8 and TP9).
Connect DC voltmeter to test points TP2 (hot) and TP4 (ground). Adjust with RA3 to 1.18 ±0.05 V_{DC}.
RA1 and RA2: Basic setting according to the arrows in the diagram below.
Procedure:

1. Upper value setting: Adjust with RA2 to 3.06 ±0.10 V_{DC}. All green LEDs and four red LEDs must be on (+6 dB indication).
2. Set generator output to –24 dBu (i.e., attenuate the +6 dBu setting from above by 30 dB).
3. Lower value setting: Adjust with RA1 to 560 ±20 mV_{DC}. Only the four lowest green LEDs must be on (–24 dB indication).
4. These two settings are interdependent, therefore repeat steps 1...3 several times.

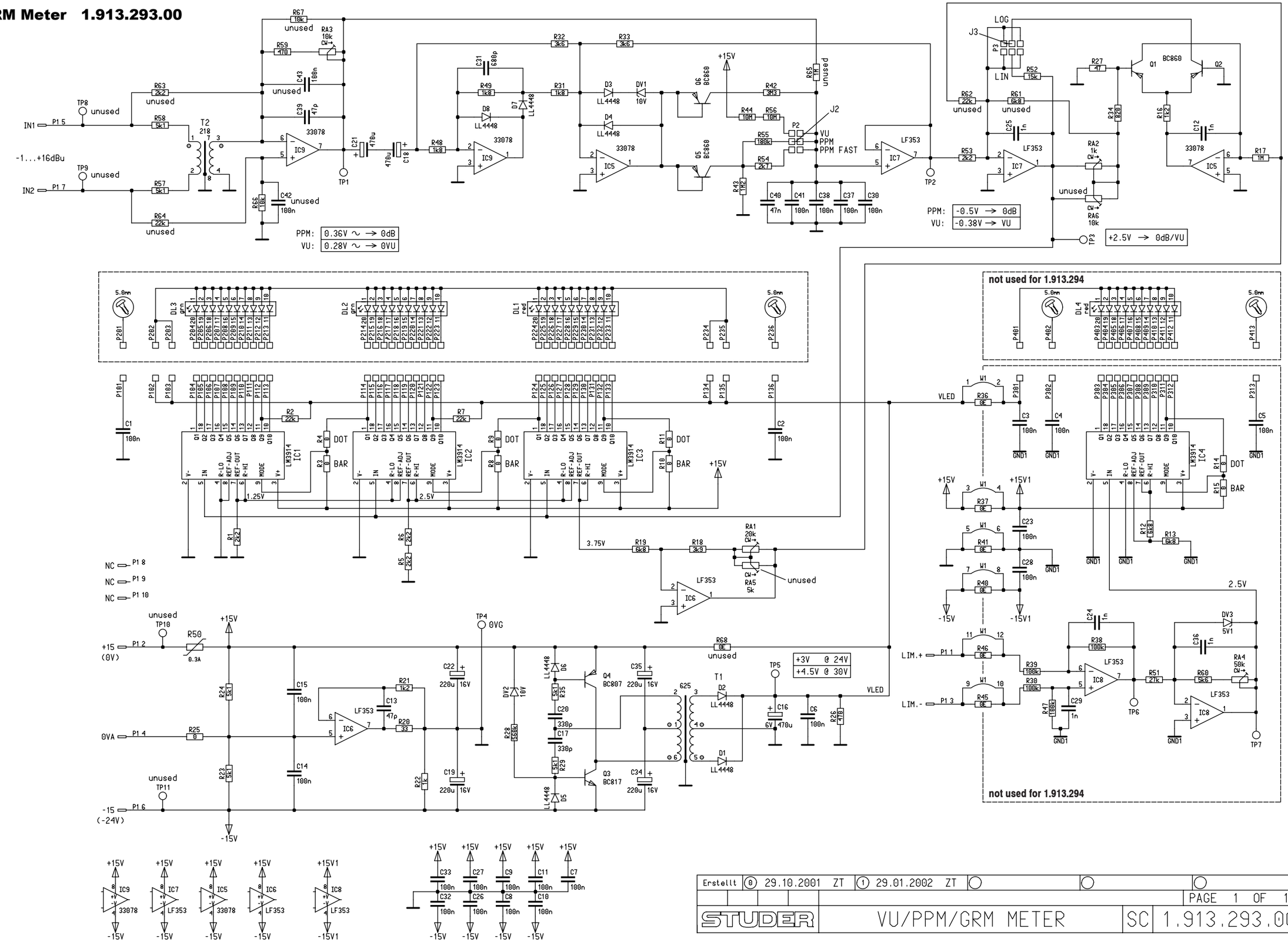
GRM (if included): Connect the Meter Unit to the console.
Feed a test signal via an input channel. Set the level on the master output to nominal level +20 dB.
Switch the limiter on.
Align with RA4 to a GRM indication of 20 dB.



Line Level for 1.913.291: Feed generator output signal with your line level (1 kHz, range: +6...+15 dBu) to the input (pins 5 and 7 of P201, or TP5 and TP4).
Adjust R204 until all green LEDs are on.
The red LEDs must be dark.

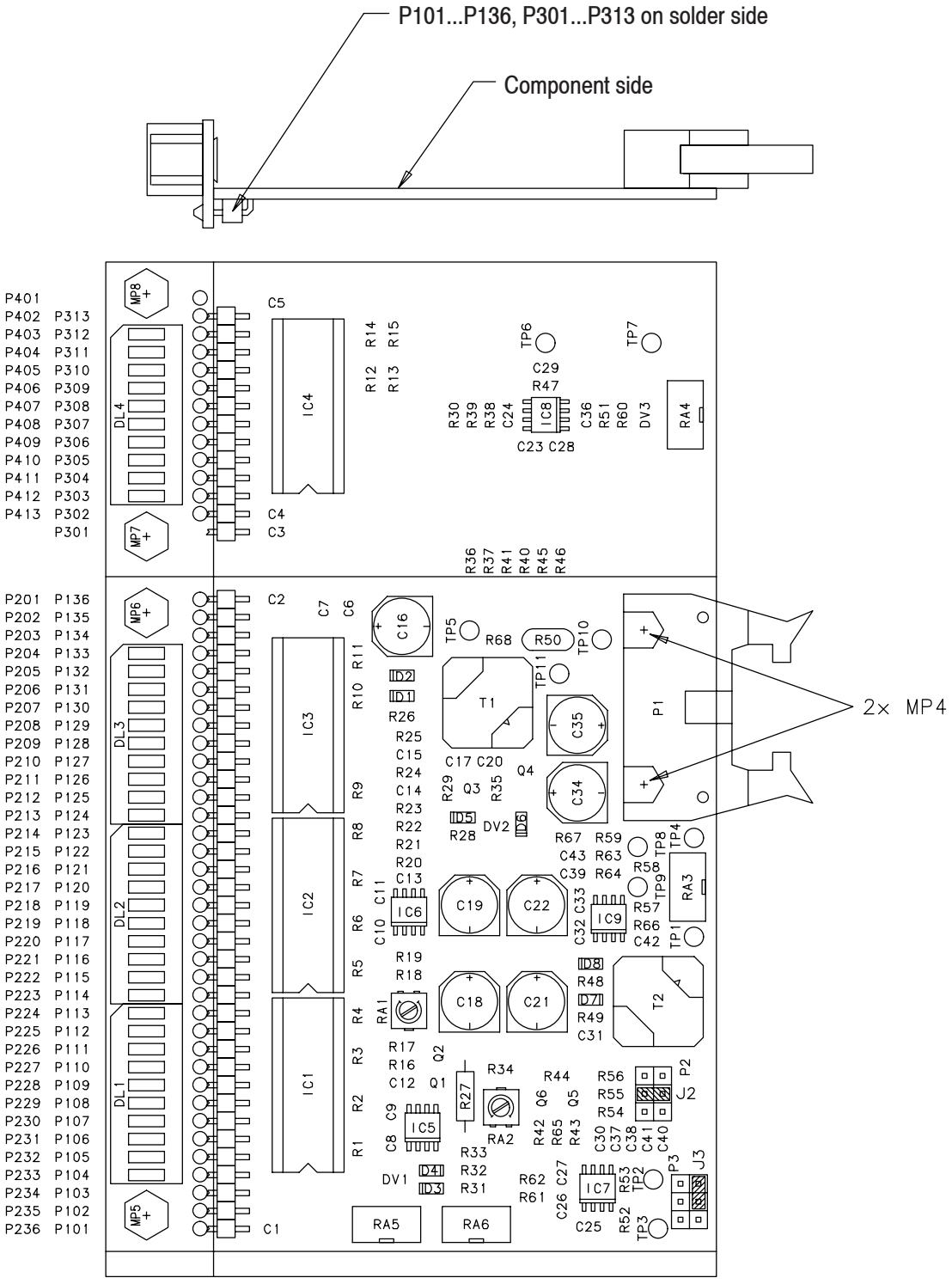


VU/PPM/GRM Meter 1.913.293.00



Erstellt	0 29.10.2001 ZT	1 29.01.2002 ZT			PAGE 1 OF 1
STUDER	VU/PPM/GRM METER			SC	1.913.293.00

VU/PPM/GRM Meter 1.913.293.00



Accompanying documents: Zugehoerige Unterlagen: PL	General tolerance: Freimasstoleranz: .	Scale: Massstab: 1:1	Edition Ausgabe	29.10.2001 Date Datum	ZT Visa Gez.	ML Checked Gepr.	HW Seen Ges.	0 Index
Substitute for: Ersatz fuer: .			Page: Seite:	1 / 1				
STUDER REGENSDORF	Description: Benennung: VU/PPM/GRM METER , ESE		Z	Number: Nummer: 1.913.293.00				

VU/PPM/GRM Meter 1.913.293.00 (4)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 2	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 3	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 4	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 5	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 6	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 7	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 8	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 9	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 10	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 11	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 12	59.60.2373	1 pce	1n0	CER 50V, 5%, C0G, 0805
0	C 13	59.60.2241	1 pce	47p	CER 50V, 5%, C0G, 0603
0	C 14	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 15	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 16	59.68.0033	1 pce	470u	EL 6V, 8.0*10.7
0	C 17	59.60.2361	1 pce	330p	CER 50V, 5%, C0G, 0805
0	C 18	59.68.0033	1 pce	470u	EL 6V, 8.0*10.7
0	C 19	59.68.0073	1 pce	220u	EL 16V, 8.0*10.7
0	C 20	59.60.2361	1 pce	330p	CER 50V, 5%, C0G, 0805
0	C 21	59.68.0033	1 pce	470u	EL 6V, 8.0*10.7
0	C 22	59.68.0073	1 pce	220u	EL 16V, 8.0*10.7
0	C 23	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 24	59.60.2373	1 pce	1n0	CER 50V, 5%, C0G, 0805
0	C 25	59.60.2373	1 pce	1n0	CER 50V, 5%, C0G, 0805
0	C 26	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 27	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 28	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 29	59.60.2373	1 pce	1n0	CER 50V, 5%, C0G, 0805
0	C 30	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 31	59.60.2369	1 pce	680p	CER 50V, 5%, C0G, 0805
0	C 32	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 33	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 34	59.68.0073	1 pce	220u	EL 16V, 8.0*10.7
0	C 35	59.68.0073	1 pce	220u	EL 16V, 8.0*10.7
0	C 36	59.60.2373	1 pce	1n0	CER 50V, 5%, C0G, 0805
0	C 37	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 38	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 39	59.60.2241	1 pce	47p	CER 50V, 5%, C0G, 0603
0	C 40	59.60.3333	1 pce	47n	CER 50V, 10%, X7R, 0805
0	C 41	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	D 1	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 2	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 3	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 4	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 5	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 6	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 7	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 8	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	DL 1	50.04.2150	1 pce	MV57164	10*LED-Bargraf rot diffus
0	DL 2	50.04.2161	1 pce	GRN	DLZ MV 54 164,LTA1000G 10*D GN
0	DL 3	50.04.2161	1 pce	GRN	DLZ MV 54 164,LTA1000G 10*D GN
0	DL 4	50.04.2150	1 pce	MV57164	10*LED-Bargraf rot diffus
0	DV 1	50.60.9017	1 pce	10V	5%, 0.2W, SOT 23
0	DV 2	50.60.9017	1 pce	10V	5%, 0.2W, SOT 23
0	DV 3	50.60.9010	1 pce	5V1	5%, 0.2W, SOT 23
4	DV 4	50.04.1112	1 pce	5V1	Zener, 5%, 0.5W, DO-35
0	IC 1	50.11.0119	1 pce	LM3914	IC LM 3914 N,
0	IC 2	50.11.0119	1 pce	LM3914	IC LM 3914 N,
0	IC 3	50.11.0119	1 pce	LM3914	IC LM 3914 N,
0	IC 4	50.11.0119	1 pce	LM3914	IC LM 3914 N,
0	IC 5	50.61.0204	1 pce	MC33078	Dual Op-Amp low noise
0	IC 6	50.61.0207	1 pce	LF353	Dual Op-Amp JFET SO 8
3	IC 7	50.61.0209	1 pce	LF412	Dual Op-Amp JFET SO 8
0	IC 8	50.61.0207	1 pce	LF353	Dual Op-Amp JFET SO 8
1	IC 9	50.61.0204	1 pce	MC33078	Dual Op-Amp low noise
0	J 2	54.01.0021	1 pce	Jumper	0.63*0.63mm, Au
0	J 3	54.01.0021	1 pce	Jumper	0.63*0.63mm, Au
0	MP 1	1.913.293.11	1 pce		VU/PPM/GRM METER PCB
0	MP 2	1.913.293.10	1 pce		NR.-ETIKETTE 5 * 20
0	MP 3	43.01.0108	1 pce	Label	ESE-Warnschild
0	MP 4	28.99.0119	2 pcs		ROHRNIETE D 2.5*0.15* 9
0	MP 5	1.010.057.22	1 pce	M3*7.4	Nietmutter sw 6
0	MP 6	1.010.057.22	1 pce	M3*7.4	Nietmutter sw 6
0	MP 7	1.010.057.22	1 pce	M3*7.4	Nietmutter sw 6
0	MP 8	1.010.057.22	1 pce	M3*7.4	Nietmutter sw 6
4	MP 9	43.10.0113	1 pce	D	Revisions-Etikette 5mm h'blau
0	P 1	54.14.2011	1 pce	10p	Winkelstecker Au
0	P 2	54.11.0136	1 pce	2*3p	Pin 0.63*0.63, RM2.54
0	P 3	54.11.0136	1 pce	2*3p	Pin 0.63*0.63, RM2.54
0	P 102	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 103	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 104	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 105	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 106	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 107	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 108	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 109	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 110	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 111	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 112	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 113	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 114	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 115	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 116	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 117	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 118	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 119	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 120	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 121	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 122	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 123	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 124	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 125	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 126	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 127	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 128	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 129	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 130	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 131	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 132	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 133	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 134	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 135	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 136	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 301	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 302	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 303	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 304	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 305	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 306	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 307	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 308	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 309	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 310	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 311	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 312	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 313	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	Q 1	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	Q 2	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	Q 3	50.60.0050	1 pce	BC817-25	NPN 45V 800mA SOT 23
0	Q 4	50.60.1050	1 pce	BC807-25	PNP 45V 800mA SOT 23
0	Q 5	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	Q 6	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	R 1	57.60.1222	1 pce	2k2	MF, 1%, 0204, E24
0	R 2	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 3	57.60.1000	1 pce	0R0	MF, 0204
0	R 4	not used	1 pce	0R0	MF, 0204
0	R 5	57.60.1222	1 pce	2k2	MF, 1%, 0204, E24
0	R 6	57.60.1222	1 pce	2k2	MF, 1%, 0204, E24
0	R 7	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 8	57.60.1000	1 pce	0R0	MF, 0204
0	R 9	not used	1 pce	0R0	MF, 0204
0	R 10	57.60.1000	1 pce	0R0	MF, 0204
0	R 11	not used	1 pce	0R0	MF, 0204
0	R 12	57.60.1682	1 pce	6k8	MF, 1%, 0204, E24
0	R 13	57.60.1682	1 pce	6k8	MF, 1%, 0204, E24
0	R 14	not used	1 pce	0R0	MF, 0204
0	R 15	57.60.1000	1 pce	0R0	MF, 0204
0	R 16	57.60.1122	1 pce	1k2	MF, 1%, 0204, E24
0	R 17	57.60.1105	1 pce	1M0	MF, 1%, 0204, E24
0	R 18	57.60.1392	1 pce	3k9	MF, 1%, 0204, E24
0	R 19	57.60.1682	1 pce	6k8	MF, 1%, 0204, E24
0	R 20	57.60.1330	1 pce	33R	MF, 1%, 0204, E24
0	R 21	57.60.1122	1 pce	1k2	MF, 1%, 0204, E24
0	R 22	57.60.1102	1 pce	1k0	MF, 1%, 0204, E24
0	R 23	57.60.1512	1 pce	5k1	MF, 1%, 0204, E24
0	R 24	57.60.1512	1 pce	5k1	MF, 1%, 0204, E24
2	R 25	not used	1 pce	0R0	MF, 0204
0	R 26	57.60.1471	1 pce	470R	MF, 1%, 0204, E24
0	R 27	57.99.0252	1 pce	47	MF 10%, +4500ppm
0	R 28	57.60.1564	1 pce	560k	MF, 1%, 0204, E24
0	R 29	57.60.1512	1 pce	5k1	MF, 1%, 0204, E24
0	R 30	57.60.1104	1 pce	100k	MF, 1%, 0204, E24
0	R 31	57.60.1182	1 pce	1k8	MF, 1%, 0204, E24
0	R 32	57.60.1362	1 pce	3k6	MF, 1%, 0204, E24
0	R 33	57.60.1362	1 pce	3k6	MF, 1%, 0204, E24
0	R 34	57.60.1821	1 pce	820R	MF, 1%, 0204, E24
0	R 35	57.60.1512	1 pce	5k1	MF, 1%, 0204, E24
0	R 36	57.60.1000	1 pce	0R0	MF, 0204
0	R 37	57.60.1000	1 pce	0R0	MF, 0204
0	R 38	57.60.1104	1 pce	100k	MF, 1%, 0204, E24
0	R 39	57.60.1104	1 pce	100k	MF, 1%, 0204, E24
0	R 40	57.60.1000	1 pce	0R0	MF, 0204
0	R 41	57.60.1000	1 pce	0R0	MF, 0204
0	R 42	57.60.1335	1 pce	3M3	MF, 1%, 0204, E24
0	R 43	57.60.1125	1 pce	1M2	MF, 1%, 0204, E24
0	R 44	57.60.1106	1 pce	10M	MF, 1%, 0204, E24
0	R 45	57.60.1000	1 pce	0R0	MF, 0204
0	R 46	57.60.1000	1 pce	0R0	MF, 0204
0	R 47	57.60.1104	1 pce	100k	MF, 1%, 0204, E24
0	R 48	57.60.1182	1 pce	1k8	MF, 1%, 0204, E24
0	R 49	57.60.1182	1 pce	1k8	MF, 1%, 0204, E24
0	R 50	57.92.7012	1 pce	0.3A	PTC 60V
0	R 51	57.60.1273	1 pce	27k	MF, 1%, 0204, E24
0	R 52	57.60.1153	1 pce	15k	MF, 1%, 0204, E24
0	R 53	57.60.1222	1 pce	2k2	MF, 1%, 0204, E24
0	R 54	57.60.1272	1 pce	2k7	MF, 1%, 0204, E24
0	R 55	57.60.1184	1 pce	180k	MF, 1%, 0204, E24
0	R 56	57.60.1106	1 pce	10M	MF, 1%, 0204, E24
0	R 57	57.60.1512	1 pce	5k1	MF, 1%, 0204, E24
0	R 58	57.60.1512	1 pce	5k1	MF, 1%, 0204, E24
0	R 59	57.60.1471	1 pce	470R	MF, 1%, 0204, E24
0	R 60	57.60.1562	1 pce	5k6	MF, 1%, 0204, E24
0	R 66	57.60.1103	1 pce	10k	MF, 1%, 0204, E24
0	RA 1	58.60.0121	1 pce	20k	SMD 20%, 0.25W, Cermet
0	RA 2	58.60.0113	1 pce	1k0	SMD 20%, 0.25W, Cermet
0	RA 3	58.01.9103	1 pce	10k	Cermet, 10%, 0.5W, vertical
0	RA 4	58.01.9503	1 pce	50k	Cermet, 10%, 0.5W, vertical
0	T 1	1.022.625.00	1 pce		SCHALTTRAFO 3:1
0	T 2	1.022.218.00	1 pce	1 : 1	EINGANGSTRAFO 1 : 1
0	TP 1	54.02.0471	1 pce		Stift d 1.5 * 5.5 löt
0	TP 2	54.02.0471	1 pce		Stift d 1.5 * 5.5 löt
0	TP 3	54.02.0471	1 pce		Stift d 1.5 * 5.5 löt
0	TP 4	54.02.0471	1 pce		Stift d 1.5 * 5.5 löt

VU/PPM/GRM Meter 1.913.293.00 (4)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	TP 5	54.02.0471	1 pce		Stift d 1.5 * 5.5 löt
0	TP 6	not used	1 pce		Stift d 1.5 * 5.5 löt
0	TP 7	not used	1 pce		Stift d 1.5 * 5.5 löt

End of List

Comments:

(01) Offset-voltage of IC 9 LF 353 too large
->replaced by MC
(02) R25 not used
(03) IC7 LF353 replaced by LF412
(04) DV4 added

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description

VU/PPM Meter mod. 1.913.294.00 (3)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 2	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 6	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 7	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 8	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 9	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 10	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 11	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 12	59.60.2373	1 pce	1n0	CER 50V, 5%, C0G, 0805
0	C 13	59.60.2241	1 pce	47p	CER 50V, 5%, C0G, 0603
0	C 14	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 15	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 16	59.68.0033	1 pce	470u	EL 6V, 8.0*10.7
0	C 17	59.60.2361	1 pce	330p	CER 50V, 5%, C0G, 0805
0	C 18	59.68.0033	1 pce	470u	EL 6V, 8.0*10.7
0	C 19	59.68.0073	1 pce	220u	EL 16V, 8.0*10.7
0	C 20	59.60.2361	1 pce	330p	CER 50V, 5%, C0G, 0805
0	C 21	59.68.0033	1 pce	470u	EL 6V, 8.0*10.7
0	C 22	59.68.0073	1 pce	220u	EL 16V, 8.0*10.7
0	C 25	59.60.2373	1 pce	1n0	CER 50V, 5%, C0G, 0805
0	C 26	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 27	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 30	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 31	59.60.2369	1 pce	680p	CER 50V, 5%, C0G, 0805
0	C 32	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 33	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 34	59.68.0073	1 pce	220u	EL 16V, 8.0*10.7
0	C 35	59.68.0073	1 pce	220u	EL 16V, 8.0*10.7
0	C 37	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 38	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 39	59.60.2241	1 pce	47p	CER 50V, 5%, C0G, 0603
0	C 40	59.60.3333	1 pce	47n	CER 50V, 10%, X7R, 0805
0	C 41	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	D 1	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 2	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 3	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 4	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 5	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 6	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 7	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	D 8	50.60.8001	1 pce	4448	200mA 75V 4ns SOD 80
0	DL 1	50.04.2150	1 pce	MV57164	10*LED-Bargraf rot diffus
0	DL 2	50.04.2161	1 pce	GRN	DLZ MV 54 164,LTA1000G 10*D GN
0	DL 3	50.04.2161	1 pce	GRN	DLZ MV 54 164,LTA1000G 10*D GN
0	DV 1	50.60.9017	1 pce	10V	5%, 0.2W, SOT 23
0	DV 2	50.60.9017	1 pce	10V	5%, 0.2W, SOT 23
3	DV 4	50.04.1112	1 pce	5V1	Zener, 5%, 0.5W, DO-35
0	IC 1	50.11.0119	1 pce	LM3914	IC LM 3914 N,
0	IC 2	50.11.0119	1 pce	LM3914	IC LM 3914 N,
0	IC 3	50.11.0119	1 pce	LM3914	IC LM 3914 N,
0	IC 5	50.61.0204	1 pce	MC33078	Dual Op-Amp low noise
0	IC 6	50.61.0207	1 pce	LF353	Dual Op-Amp JFET SO 8
0	IC 7	50.61.0207	1 pce	LF353	Dual Op-Amp JFET SO 8
1	IC 9	50.61.0204	1 pce	MC33078	Dual Op-Amp low noise
0	J 2	54.01.0021	1 pce	Jumper	0.63*0.63mm, Au
0	J 3	54.01.0021	1 pce	Jumper	0.63*0.63mm, Au
0	MP 1	1.913.293.11	1 pce		VU/PPM/GRM METER PCB
0	MP 2	1.913.294.10	1 pce		NR.-ETIKETTE 5 * 20
0	MP 3	43.01.0108	1 pce	Label	ESE-Warnschild
0	MP 4	28.99.0119	2 pcs		ROHRNIETE D 2.5*0.15* 9
0	MP 5	1.010.057.22	1 pce	M3*7.4	Nietmutter sw 6
0	MP 6	1.010.057.22	1 pce	M3*7.4	Nietmutter sw 6
3	MP 7	43.10.0112	1 pce	C	Revisions-Etikette 5mm h'blau
0	P 1	54.14.2011	1 pce	10p	Winkelstecker Au
0	P 2	54.11.0136	1 pce	2*3p	Pin 0.63*0.63, RM2.54
0	P 3	54.11.0136	1 pce	2*3p	Pin 0.63*0.63, RM2.54
0	P 101	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 102	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 103	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 104	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 105	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 106	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 107	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 108	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 109	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 110	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 111	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 112	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 113	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 114	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 115	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 116	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 117	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 118	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 119	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 120	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 121	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 122	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 123	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 124	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 125	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 126	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 127	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 128	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 129	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 130	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 131	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 132	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 133	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 134	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 135	54.11.0125	1 pce	1p	Pin, 1reihig, winkel
0	P 136	54.11.0125	1 pce	1p	Pin, 1reihig, winkel

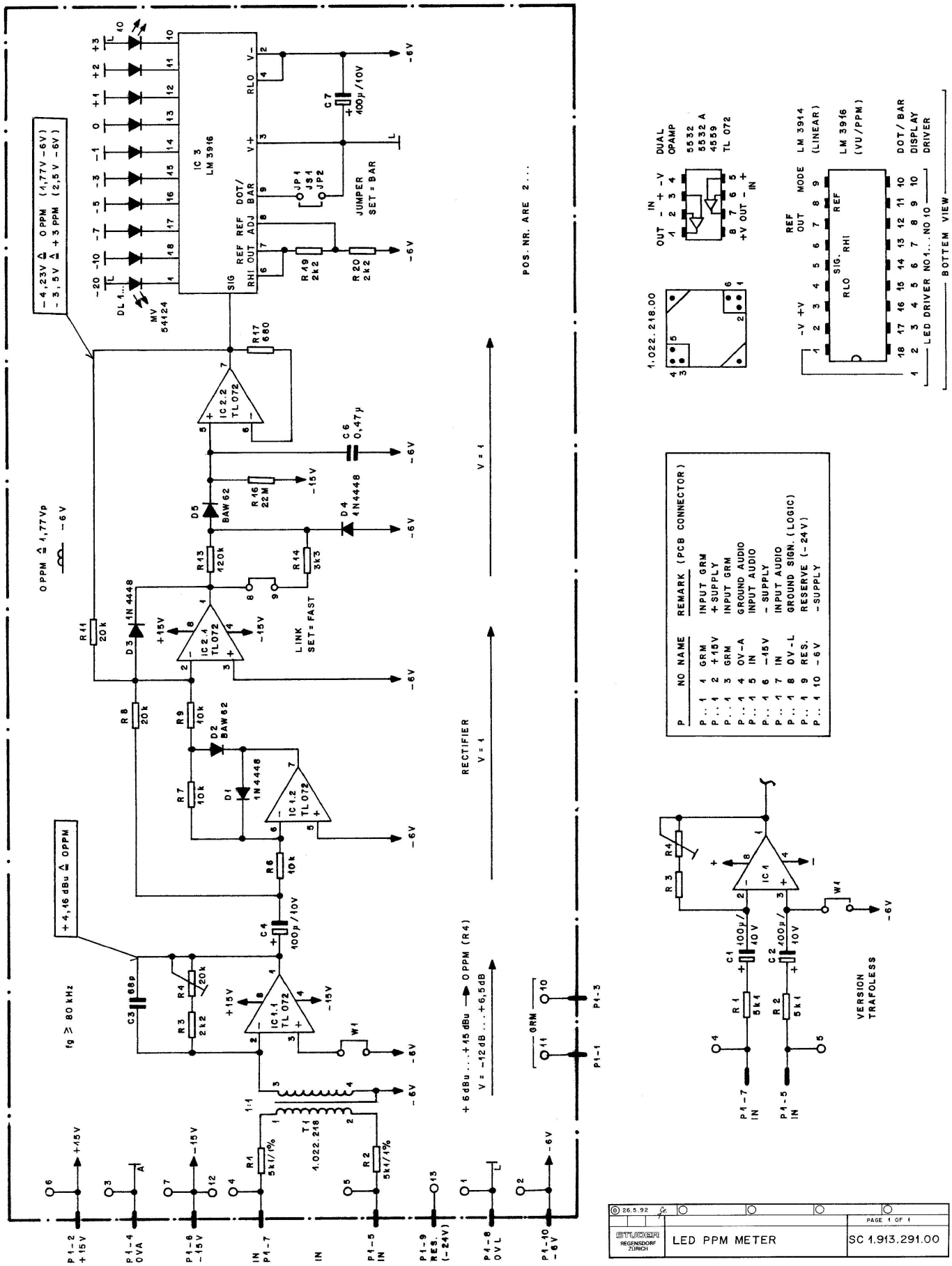
Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	Q 1	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	Q 2	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	Q 3	50.60.0050	1 pce	BC817-25	NPN 45V 800mA SOT 23
0	Q 4	50.60.1050	1 pce	BC807-25	PNP 45V 800mA SOT 23
0	Q 5	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	Q 6	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	R 1	57.60.1222	1 pce	2k2	MF, 1%, 0204, E24
0	R 2	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 3	57.60.1000	1 pce	0R0	MF, 0204
0	R 4	not used	1 pce	0R0	MF, 0204
0	R 5	57.60.1222	1 pce	2k2	MF, 1%, 0204, E24
0	R 6	57.60.1222	1 pce	2k2	MF, 1%, 0204, E24
0	R 7	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 8	57.60.1000	1 pce	0R0	MF, 0204
0	R 9	not used	1 pce	0R0	MF, 0204
0	R 10	57.60.1000	1 pce	0R0	MF, 0204
0	R 11	not used	1 pce	0R0	MF, 0204
0	R 16	57.60.1122	1 pce	1k2	MF, 1%, 0204, E24
0	R 17	57.60.1105	1 pce	1M0	MF, 1%, 0204, E24
0	R 18	57.60.1392	1 pce	3k9	MF, 1%, 0204, E24
0	R 19	57.60.1682	1 pce	6k8	MF, 1%, 0204, E24
0	R 20	57.60.1330	1 pce	33R	MF, 1%, 0204, E24
0	R 21	57.60.1122	1 pce	1k2	MF, 1%, 0204, E24
0	R 22	57.60.1102	1 pce	1k0	MF, 1%, 0204, E24
0	R 23	57.60.1512	1 pce	5k1	MF, 1%, 0204, E24
0	R 24	57.60.1512	1 pce	5k1	MF, 1%, 0204, E24
2	R 25	not used	1 pce	0R0	MF, 0204
0	R 26	57.60.1471	1 pce	470R	MF, 1%, 0204, E24
0	R 27	57.99.0252	1 pce	47	MF 10%, +4500ppm
0	R 28	57.60.1564	1 pce	560k	MF, 1%, 0204, E24
0	R 29	57.60.1512	1 pce	5k1	MF, 1%, 0204, E24
0	R 31	57.60.1182	1 pce	1k8	MF, 1%, 0204, E24
0	R 32	57.60.1362	1 pce	3k6	MF, 1%, 0204, E24
0	R 33	57.60.1362	1 pce	3k6	MF, 1%, 0204, E24
0	R 34	57.60.1821	1 pce	820R	MF, 1%, 0204, E24
0	R 35	57.60.1512	1 pce	5k1	MF, 1%, 0204, E24
0	R 42	57.60.1335	1 pce	3M3	MF, 1%, 0204, E24
0	R 43	57.60.1125	1 pce	1M2	MF, 1%, 0204, E24
0	R 44	57.60.1106	1 pce	10M	MF, 1%, 0204, E24
0	R 48	57.60.1182	1 pce	1k8	MF, 1%, 0204, E24
0	R 49	57.60.1182	1 pce	1k8	MF, 1%, 0204, E24
0	R 50	57.92.7012	1 pce	0.3A	PTC 60V
0	R 52	57.60.1153	1 pce	15k	MF, 1%, 0204, E24
0	R 53	57.60.1222	1 pce	2k2	MF, 1%, 0204, E24
0	R 54	57.60.1272	1 pce	2k7	MF, 1%, 0204, E24
0	R 55	57.60.1184	1 pce	180k	MF, 1%, 0204, E24
0	R 56	57.60.1106	1 pce	10M	MF, 1%, 0204, E24
0	R 57	57.60.1512	1 pce	5k1	MF, 1%, 0204, E24
0	R 58	57.60.1512	1 pce	5k1	MF, 1%, 0204, E24
0	R 59	57.60.1471	1 pce	470R	MF, 1%, 0204, E24
0	R 66	57.60.1103	1 pce	10k	MF, 1%, 0204, E24
0	RA 1	58.60.0121	1 pce	20k	SMD 20%, 0.25W, Cermet
0	RA 2	58.60.0113	1 pce	1k0	SMD 20%, 0.25W, Cermet
0	RA 3	58.01.9103	1 pce	10k	Cermet, 10%, 0.5W, vertical
0	T 1	1.022.625.00	1 pce		SCHALTTRAFO 3:1
0	T 2	1.022.218.00	1 pce	1 : 1	EINGANGSTRAFO 1 : 1
0	TP 1	54.02.0471	1 pce		Stift d 1.5 * 5.5 löt
0	TP 2	54.02.0471	1 pce		Stift d 1.5 * 5.5 löt
0	TP 3	54.02.0471	1 pce		Stift d 1.5 * 5.5 löt
0	TP 4	54.02.0471	1 pce		Stift d 1.5 * 5.5 löt
0	TP 5	54.02.0471	1 pce		Stift d 1.5 * 5.5 löt

End of List

Comments:

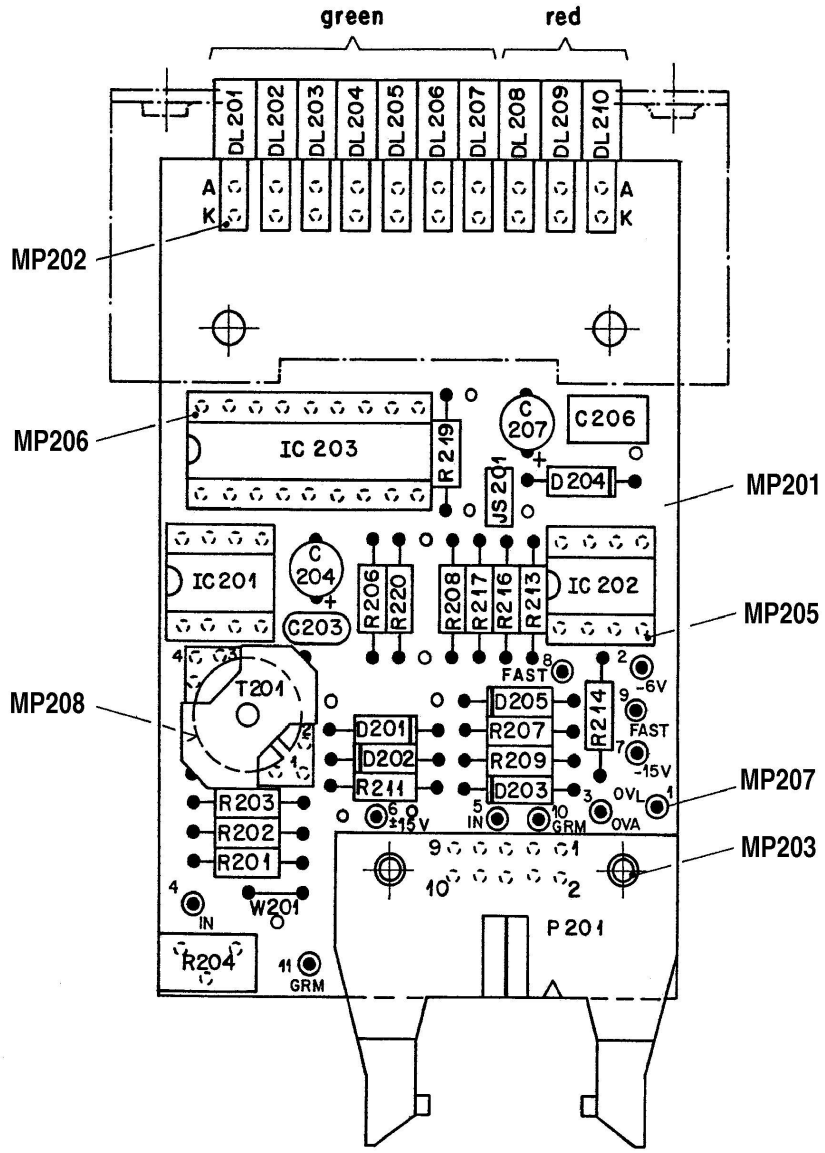
(01) Offset-voltage of IC 9 LF 353 too large
->replaced by MC 33078
(02) R25 not used
(03) DV4 added

LED PPM Meter (10 LED) 1.913.291.00



P	NO	NAME	REMARK (PCB CONNECTOR)
P.. 1	1	GRM	INPUT GRM
P.. 1	2	+15V	+SUPPLY
P.. 1	3	GRM	INPUT GRM
P.. 1	4	0V-A	GROUND AUDIO
P.. 1	5	IN	INPUT AUDIO
P.. 1	6	-15V	-SUPPLY
P.. 1	7	IN	INPUT AUDIO
P.. 1	8	0V-L	GROUND SIGN. (LOGIC)
P.. 1	9	RES.	RESERVE (-24V)
P.. 1	10	-6V	-SUPPLY

LED PPM Meter (10 LED) 1.913.291.00



Werkstoff	Norm-Nr.:	Oberfläche	Güte:	Änderung					③
	DIN-Bez.:		Beh.:						②
	Abmessung:								①
Zugehörige Unterlagen: PL		Freimasstoleranz: ±	Maßstab:	Ausgabe	22.10.87	A.Ho	B.D	Fa	⓪
					Datum	Gez.	Gepr.	Ges.	Index
Ersatz für:		Ersetzt durch:		Kopie für:					
STUDER REGENSDORF ZÜRICH	Benennung: LED PPM METER ESE			Nummer: 1.913.291-00					

LED PPM Meter (10 LED) 1.913.291.00 (1)

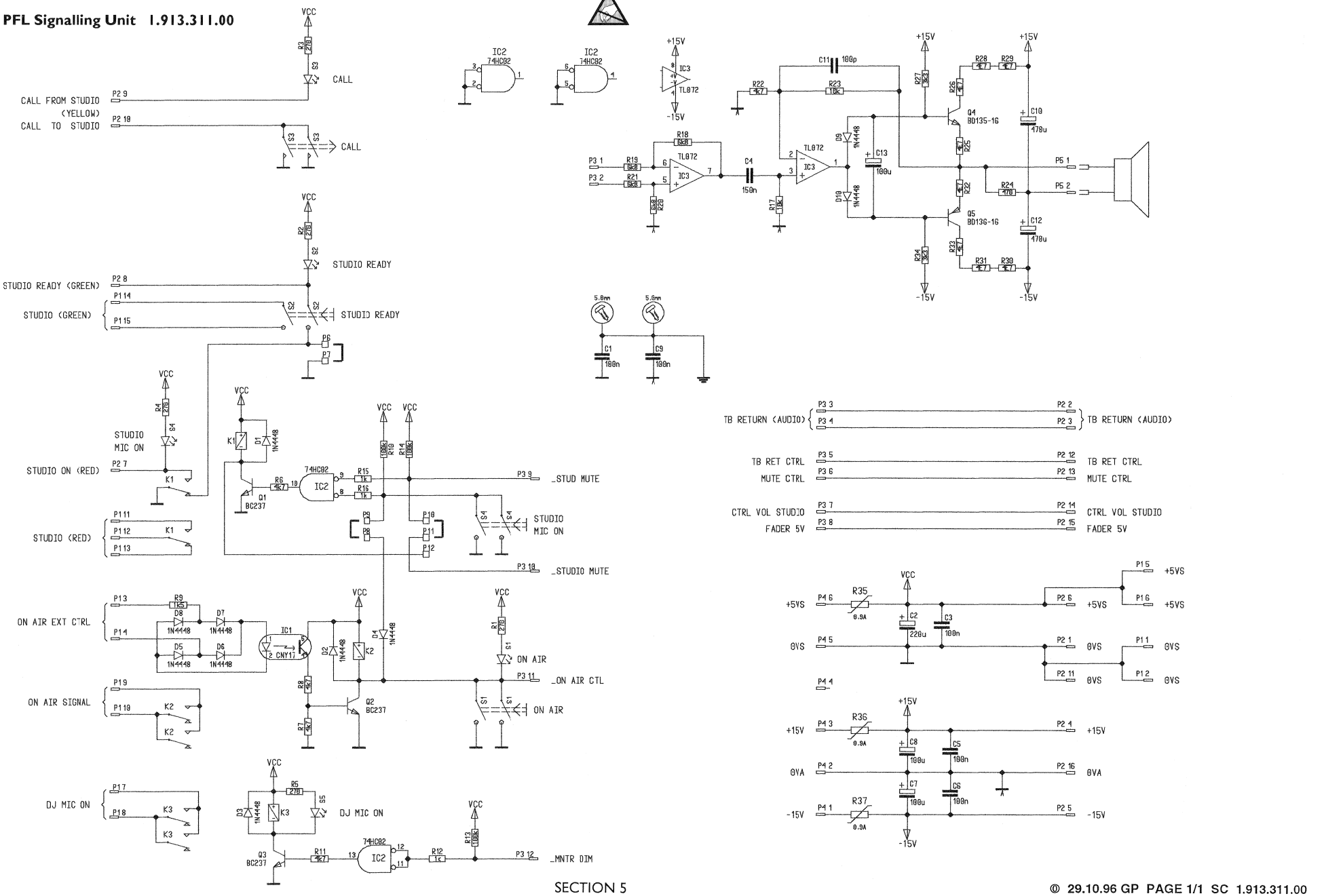
Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 201	not used		not used	not used
0	C 202	not used		not used	not used
0	C 203	59.34.2680		68p	CER 63V, 5%, N150
0	C 204	59.22.3101		100u	EL 10V 20% RM5
0	C 205	not used		not used	not used
0	C 206	59.06.5474		470n	PETP, 63V, 5%, RM5
0	C 207	59.22.3101		100u	EL 10V 20% RM5
0	D 201	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 202	50.04.0132		BAW62	D BAW 62
1	D 203	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
1	D 204	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 205	50.04.0132		BAW62	D BAW 62
0	D 206	not used		not used	not used
0	DL 201	50.04.2146		MV54124A	LED green
0	DL 202	50.04.2146		MV54124A	LED green
0	DL 203	50.04.2146		MV54124A	LED green
0	DL 204	50.04.2146		MV54124A	LED green
0	DL 205	50.04.2146		MV54124A	LED green
0	DL 206	50.04.2146		MV54124A	LED green
0	DL 207	50.04.2146		MV54124A	LED green
0	DL 208	50.04.2119		MV57124A	LED red
0	DL 209	50.04.2119		MV57124A	LED red
0	DL 210	50.04.2119		MV57124A	LED red
0	IC 201	50.09.0101		TL072	Dual op-amp biFET
0	IC 202	50.09.0101		TL072	Dual op-amp biFET
0	IC 203	50.11.0144		LM3916	LED Bar/Dot driver
0	JP 201	54.01.0020		1p	Pin, 1reihig, gerade
0	JP 202	54.01.0020		1p	Pin, 1reihig, gerade
0	JS 201	54.01.0021		Jumper	0.63*0.63mm, Au
0	MP 201	1.913.290.11	1 pce		LED METER PCB
0	MP 202	1.010.012.50	10 pcs		LED-spacer universal
0	MP 203	28.99.0119	2 pcs		ROHRNIETE D 2.5*0.15* 9
0	MP 204	not used		not used	not used
0	MP 205	53.03.0166	2 pcs	8p	DIL-socket 0.3"
0	MP 206	53.03.0175	1 pce	18p	DIL 0.3", löt, gerade
0	MP 207	54.02.0471	11 pcs		Stift d 1.5 * 5.5 löt
0	MP 208	1.010.004.61	1 pce	RM5	Isolierscheibe d=10
0	P 201	54.14.2011		10p	Winkelstecker Au
0	R 201	57.11.3512		5k1	MF, 1%, 0207
0	R 202	57.11.3512		5k1	MF, 1%, 0207
0	R 203	57.11.4222		2k2	MF, 2%, 0207
0	R 204	58.01.9203		20k	Cermet, 10%, 0.5W, vertical
0	R 205	not used		not used	not used
				replaced by W 201	
0	R 206	57.11.4103		10k	MF, 2%, 0207
0	R 207	57.11.4103		10k	MF, 2%, 0207
0	R 208	57.11.3203		20k	MF, 1%, 0207
0	R 209	57.11.4103		10k	MF, 2%, 0207
0	R 210	not used		not used	not used
0	R 211	57.11.3203		20k	MF, 1%, 0207
0	R 212	not used		not used	not used
				replaced by D 203	
0	R 213	57.11.4823		82k	MF, 2%, 0207
0	R 214	57.11.4332		3k3	MF, 2%, 0207
0	R 215	not used		not used	not used
				replaced by D 205	
0	R 216	57.11.6226		22M	MF, 10%, 0207
0	R 217	57.11.4681		680R	MF, 2%, 0207
0	R 218	not used		not used	not used
0	R 219	57.11.4222		2k2	MF, 2%, 0207
0	R 220	57.11.4222		2k2	MF, 2%, 0207
0	R 221	not used		not used	not used
0	T 201	1.022.218.00		1 : 1	EINGANGSTRAFO 1 : 1
0	W 201	1.010.321.64		RM5.0	U shaped wire 0.6mm

End of List

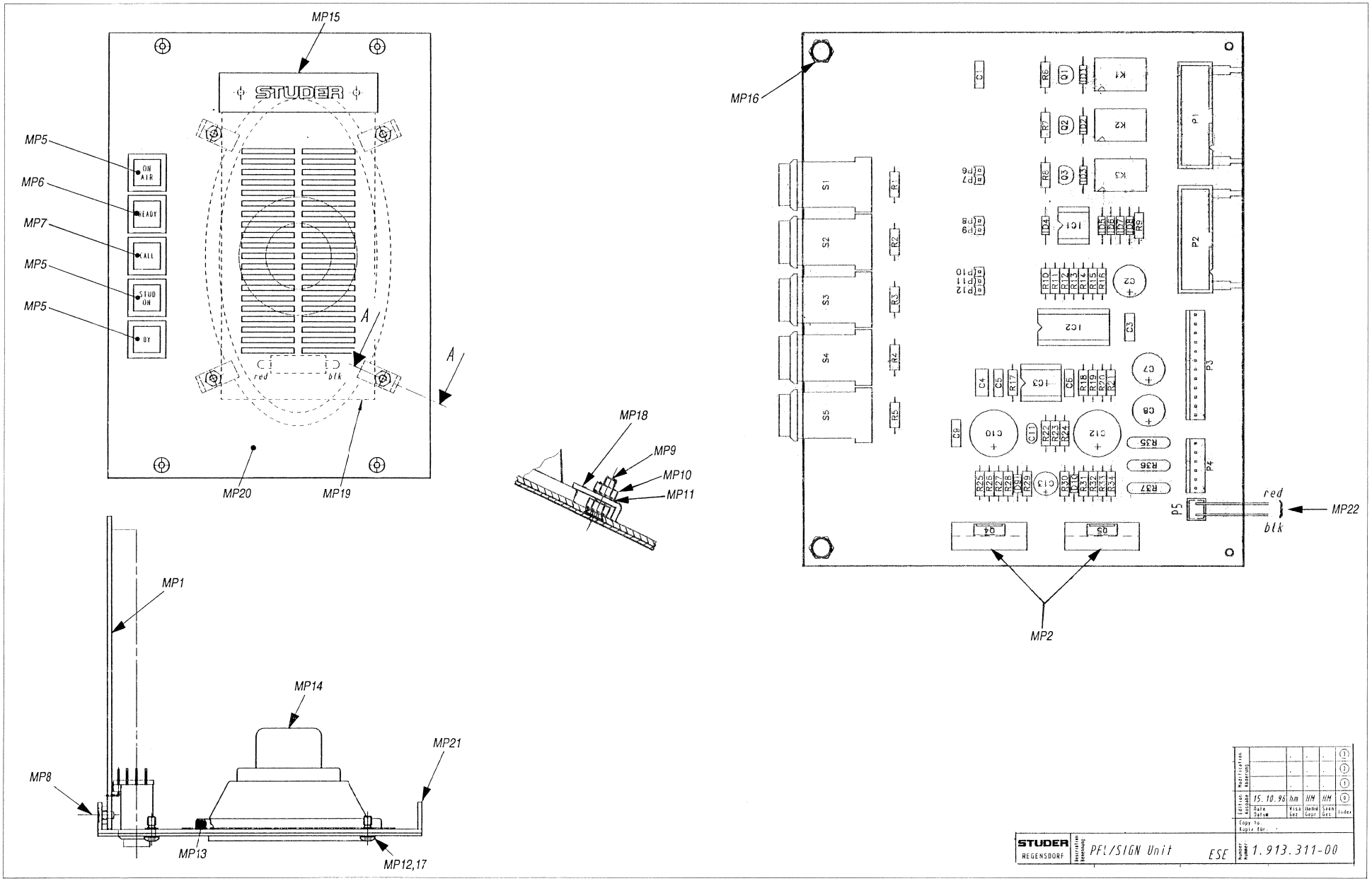
Comments:

(01) D203, D204 changed

PFL Signalling Unit 1.913.311.00



PFL Signalling Unit 1.913.311.00



PFL Signalling Unit 1.913.311.00

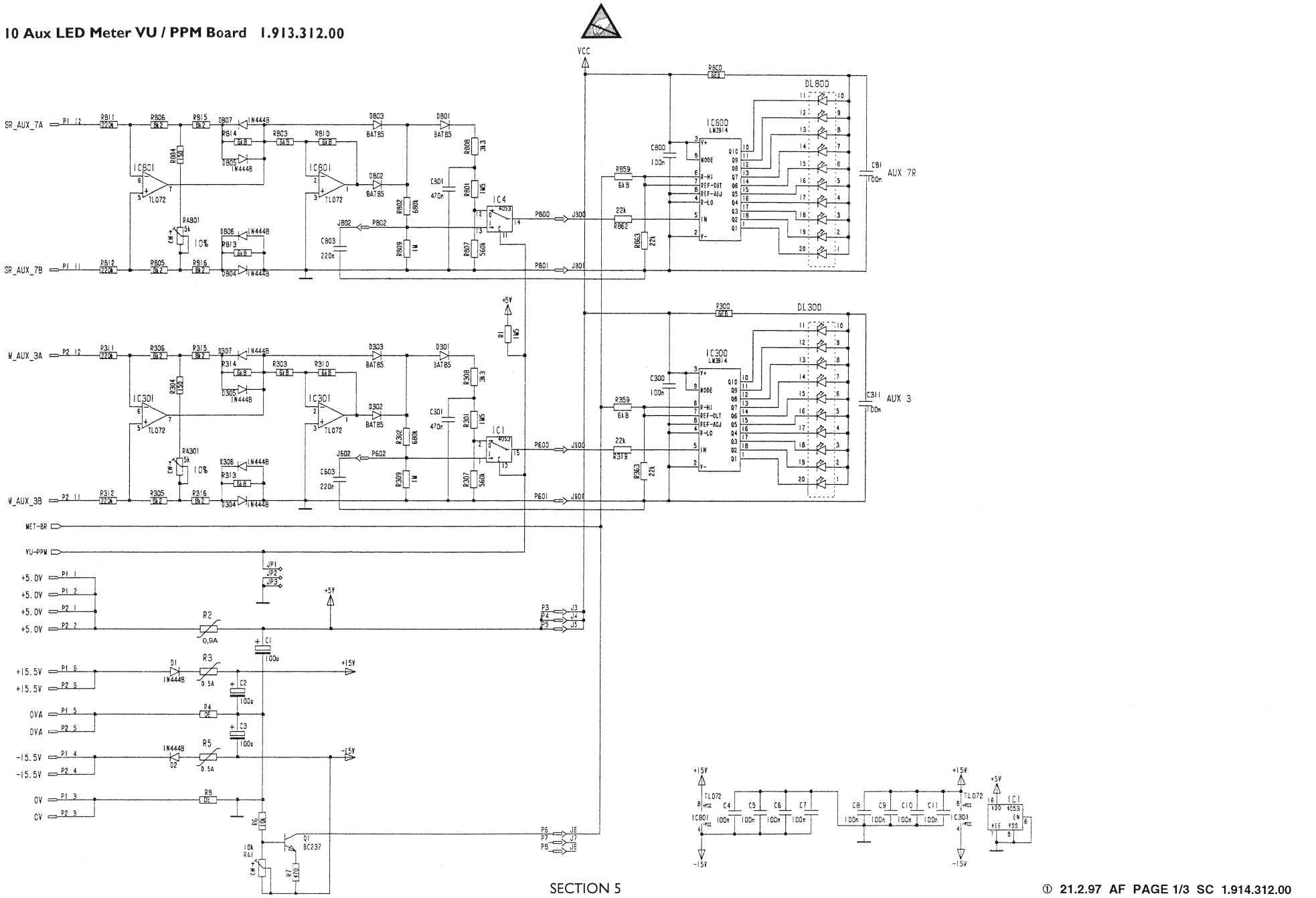
Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 2	59.22.3221		220u	EL 10V 20% RM5
0	C 3	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 4	59.06.0154		150n	PETP, 63V, 10%, RM5
0	C 5	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 6	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 7	59.22.5101		100u	EL 25V 20% RM5
0	C 8	59.22.5101		100u	EL 25V 20% RM5
0	C 9	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 10	59.22.5471		470u	EL 35V 20% RM5
0	C 11	not used		100p	CER 63V, 5%, N750
0	C 12	59.22.5471		470u	EL 35V 20% RM5
0	C 13	59.22.3101		100u	EL 10V 20% RM5
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 7	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 8	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 9	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 10	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	DL 1	55.15.0922			LED rot mit Sockel
				inserted into S1	
0	DL 2	55.15.0925			LED grün mit Sockel
				inserted into S2	
0	DL 3	55.15.0924			LED gelb mit Sockel
				inserted into S3	
0	DL 4	55.15.0922			LED rot mit Sockel
				inserted into S4	
0	DL 5	55.15.0922			LED rot mit Sockel
				inserted into S5	
0	IC 1	50.04.3200		CNY17-2	Opto-coupler
0	IC 2	50.17.1002		74HC 02	IC ... 74 HC 02 ., ,A
0	IC 3	50.09.0101		TL072	IC TL 072 CN ,A
0	JP 1	54.01.0021		Jumper	0.63*0.63mm, Au
				inserted between P6 and P7	
0	JP 2	54.01.0021		Jumper	0.63*0.63mm, Au
				inserted between P8 and P9	
0	JP 3	54.01.0021		Jumper	0.63*0.63mm, Au
				inserted between P10 and P11	
0	K 1	56.04.0198		2*u	5V 125V 2A Ag/Au
0	K 2	56.04.0198		2*u	5V 125V 2A Ag/Au
0	K 3	56.04.0198		2*u	5V 125V 2A Ag/Au
0	MP 1	1.913.311.11	1 pce		PFL/SIGN. UNIT PCB
0	MP 2	50.20.3003	2 pcs		KUEHLKOERPER, TO 126
0	MP 3	43.01.0108	1 pce	Label	ESE-WARNSCHILD
0	MP 4	1.913.311.04	1 pce		STUDER NR.-ETIKETTE 10 x 20
0	MP 5	55.15.0912	3 pcs		Kalotte rot mit Streuscheibe
				inserted into S1,S4,S5	
0	MP 6	55.15.0915	1 pce		Kalotte grün mit Streuscheibe
				inserted into S2	
0	MP 7	55.15.0914	1 pce		Kalotte gelb mit Streuscheibe
				inserted into S3	
0	MP 8	21.51.2353	2 pcs	M3*5	S-Schraube Inbus Ni
1	MP 9	21.51.2356	4 pcs	M3*10	S-Schraube Inbus Ni
1	MP 10	22.01.8030	4 pcs	M3	6kt-Mutter 0.8d St Zn gb
1	MP 11	24.16.1030	8 pcs	3.2/5.5	Rippenscheibe
0	MP 12	24.16.3023	4 pcs		WELLENSICHERUNG 2.3
1	MP 13	not used			O-RING, D 95 * 4
1	MP 14	71.01.0179			16 OHM, 2.5W, 3" * 5"
0	MP 15	1.010.008.43			MARKENSCHILD
0	MP 16	1.010.012.22	2 pcs	M3*2	NIETMUTTER SW 6 M 3 * 2
0	MP 17	1.010.022.21	4 pcs	M3*8	L-Schraube IS sw spezial
1	MP 18	23.01.1043	4 pcs	M4	U-Scheibe 4.3/8.0*0.5 St gb
0	MP 19	1.038.822.17			GEWEBE
0	MP 20	1.913.311.01			FRONTSCHILD PFL/SIGN UNIT
0	MP 21	1.913.311.02			TRAEGERBLECH
0	MP 22	1.913.311.93			LL-PFL/SIGN UNIT
1	MP 23	22.01.5030	4 pcs		6KT-MUTTER 0.5 D , M 3
0	P 1	54.14.2102		16p	1/20" Au, gerade, Verrieg
0	P 2	54.14.2102		16p	1/20" Au, gerade, Verrieg
0	P 3	54.12.0712		12p	Stecker gerade PCB
0	P 4	54.12.0706		6p	Stecker gerade PCB
0	P 5	54.12.0702		2p	Stecker gerade PCB
0	P 6	54.01.0020		1p	Pin, 1reihig, gerade
0	P 7	54.01.0020		1p	Pin, 1reihig, gerade
0	P 8	54.01.0020		1p	Pin, 1reihig, gerade
0	P 9	54.01.0020		1p	Pin, 1reihig, gerade
0	P 10	54.01.0020		1p	Pin, 1reihig, gerade
0	P 11	54.01.0020		1p	Pin, 1reihig, gerade
0	P 12	54.01.0020		1p	Pin, 1reihig, gerade
0	Q 1	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 2	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 3	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 4	50.03.0495		BD135-16	NPN, TO 126
0	Q 5	50.03.0510		BD136-16	PNP, TO 126
0	R 1	57.11.3271		270R	MF, 1%, 0207
0	R 2	57.11.3271		270R	MF, 1%, 0207
0	R 3	57.11.3271		270R	MF, 1%, 0207
0	R 4	57.11.3271		270R	MF, 1%, 0207
0	R 5	57.11.3271		270R	MF, 1%, 0207
0	R 6	57.11.3472		4k7	MF, 1%, 0207
0	R 7	57.11.3472		4k7	MF, 1%, 0207
0	R 8	57.11.3472		4k7	MF, 1%, 0207
0	R 9	57.11.3152		1k5	MF, 1%, 0207
0	R 10	57.11.3104		100k	MF, 1%, 0207
0	R 11	57.11.3472		4k7	MF, 1%, 0207
0	R 12	57.11.3102		1k0	MF, 1%, 0207
0	R 13	57.11.3104		100k	MF, 1%, 0207
0	R 14	57.11.3104		100k	MF, 1%, 0207
0	R 15	57.11.3102		1k0	MF, 1%, 0207
0	R 16	57.11.3102		1k0	MF, 1%, 0207
0	R 17	57.11.3103		10k	MF, 1%, 0207
0	R 18	57.11.3682		6k8	MF, 1%, 0207
0	R 19	57.11.3682		6k8	MF, 1%, 0207
0	R 20	57.11.3682		6k8	MF, 1%, 0207
0	R 21	57.11.3682		6k8	MF, 1%, 0207
0	R 22	57.11.3472		4k7	MF, 1%, 0207
0	R 23	57.11.3103		10k	MF, 1%, 0207
0	R 24	57.11.3471		470R	MF, 1%, 0207
0	R 25	57.19.0479		4R7	5%, 0207, Fuse
0	R 26	57.19.0479		4R7	5%, 0207, Fuse
0	R 27	57.11.3332		3k3	MF, 1%, 0207
0	R 28	57.19.0479		4R7	5%, 0207, Fuse
0	R 29	57.19.0479		4R7	5%, 0207, Fuse
0	R 30	57.19.0479		4R7	5%, 0207, Fuse
0	R 31	57.19.0479		4R7	5%, 0207, Fuse
0	R 32	57.19.0479		4R7	5%, 0207, Fuse
0	R 33	57.19.0479		4R7	5%, 0207, Fuse
0	R 34	57.11.3332		3k3	MF, 1%, 0207
0	R 35	57.92.7021		0.9A	PTC 60V
0	R 36	57.92.7021		0.9A	PTC 60V
0	R 37	57.92.7021		0.9A	PTC 60V
0	S 1	1.928.207.00			MIYAMA SWITCH LATCHING BOARD
0	S 2	1.928.207.00			MIYAMA SWITCH LATCHING BOARD
0	S 3	1.928.208.00			MIYAMA SWITCH NON LATCH. BOAR
0	S 4	1.928.207.00			MIYAMA SWITCH LATCHING BOARD
0	S 5	1.928.208.00			MIYAMA SWITCH NON LATCH. BOAR

End of List

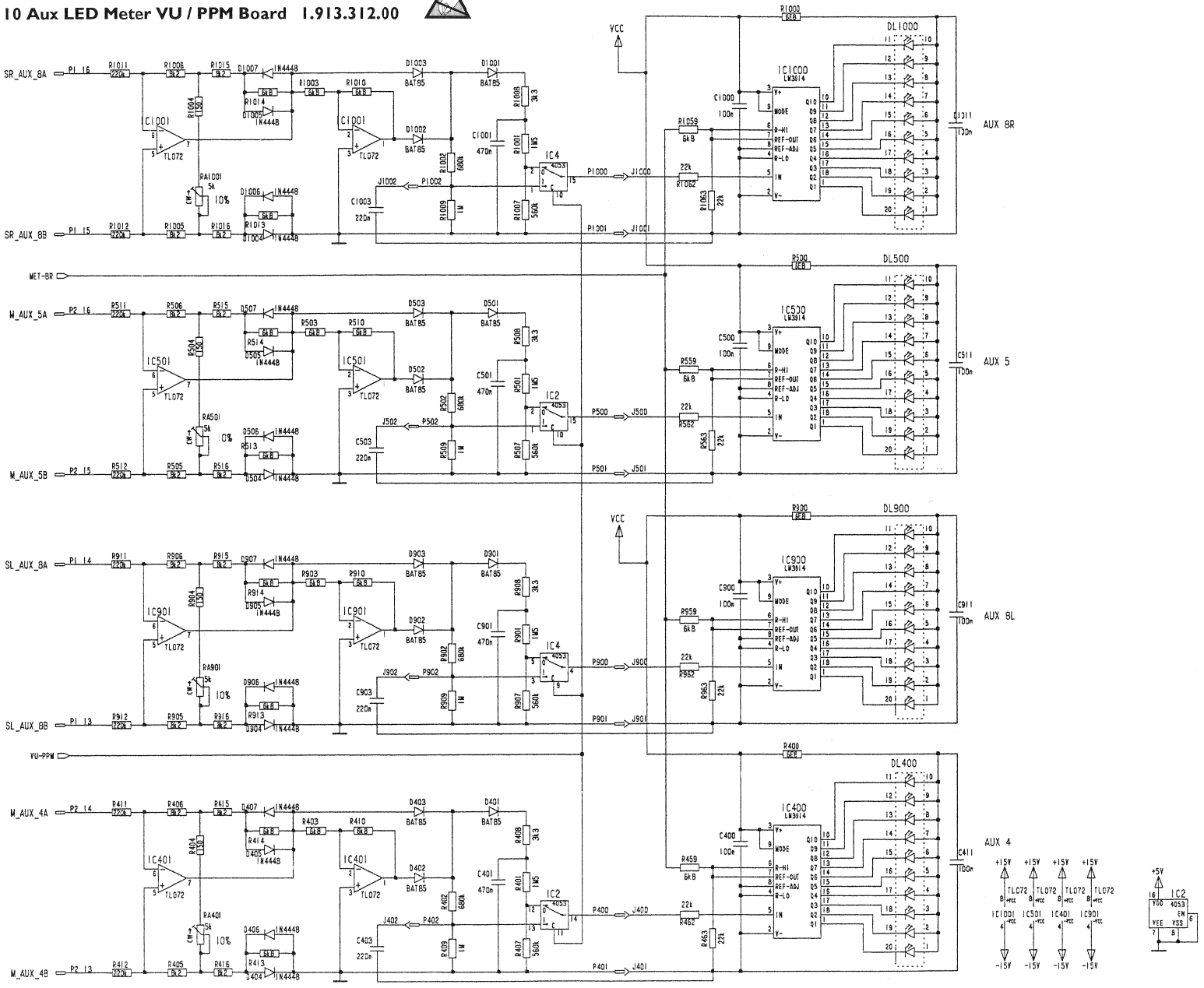
Comments

(01) Lautsprecher 71.01.0108 ersetzt durch71.01.0179

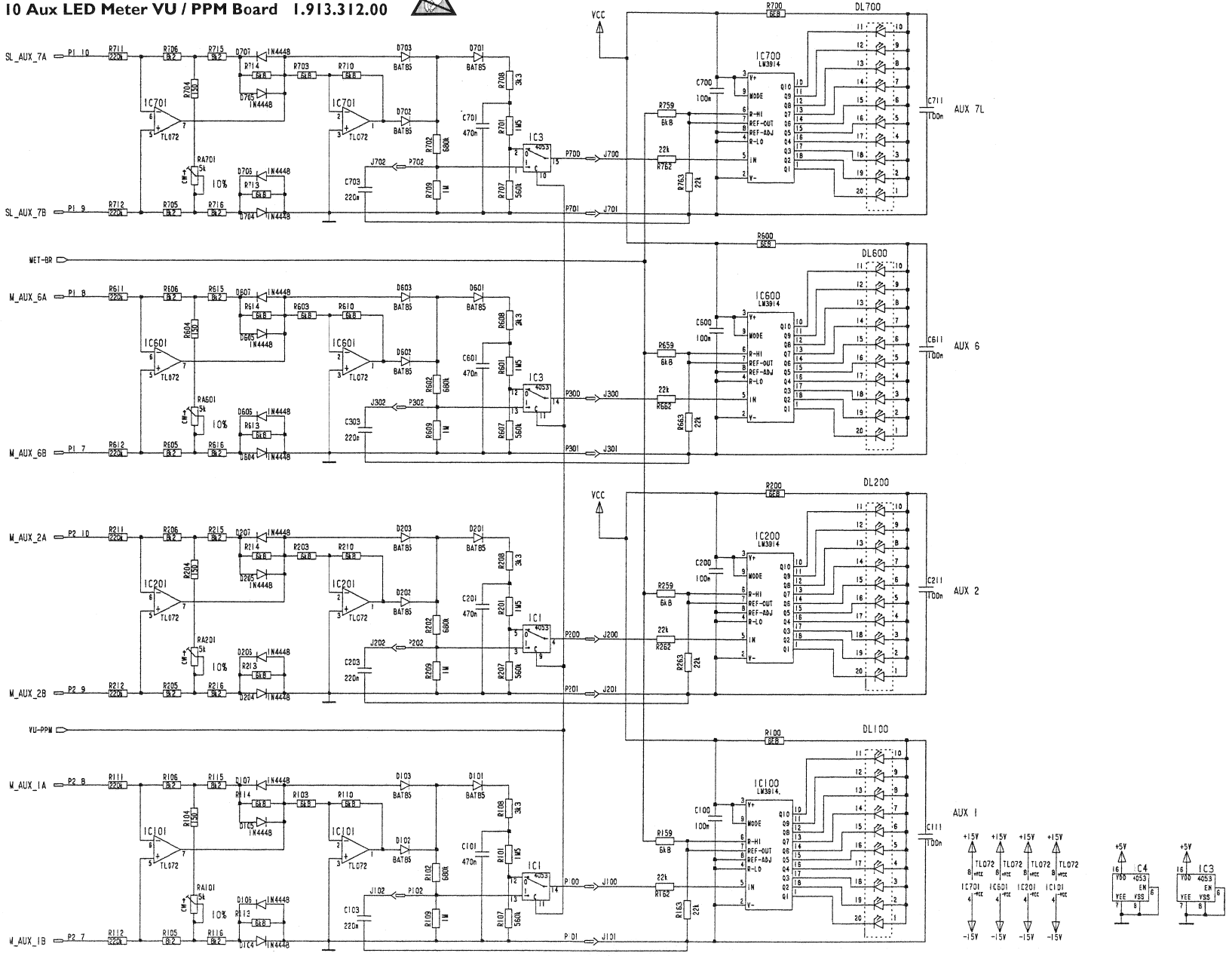
10 Aux LED Meter VU / PPM Board 1.913.312.00



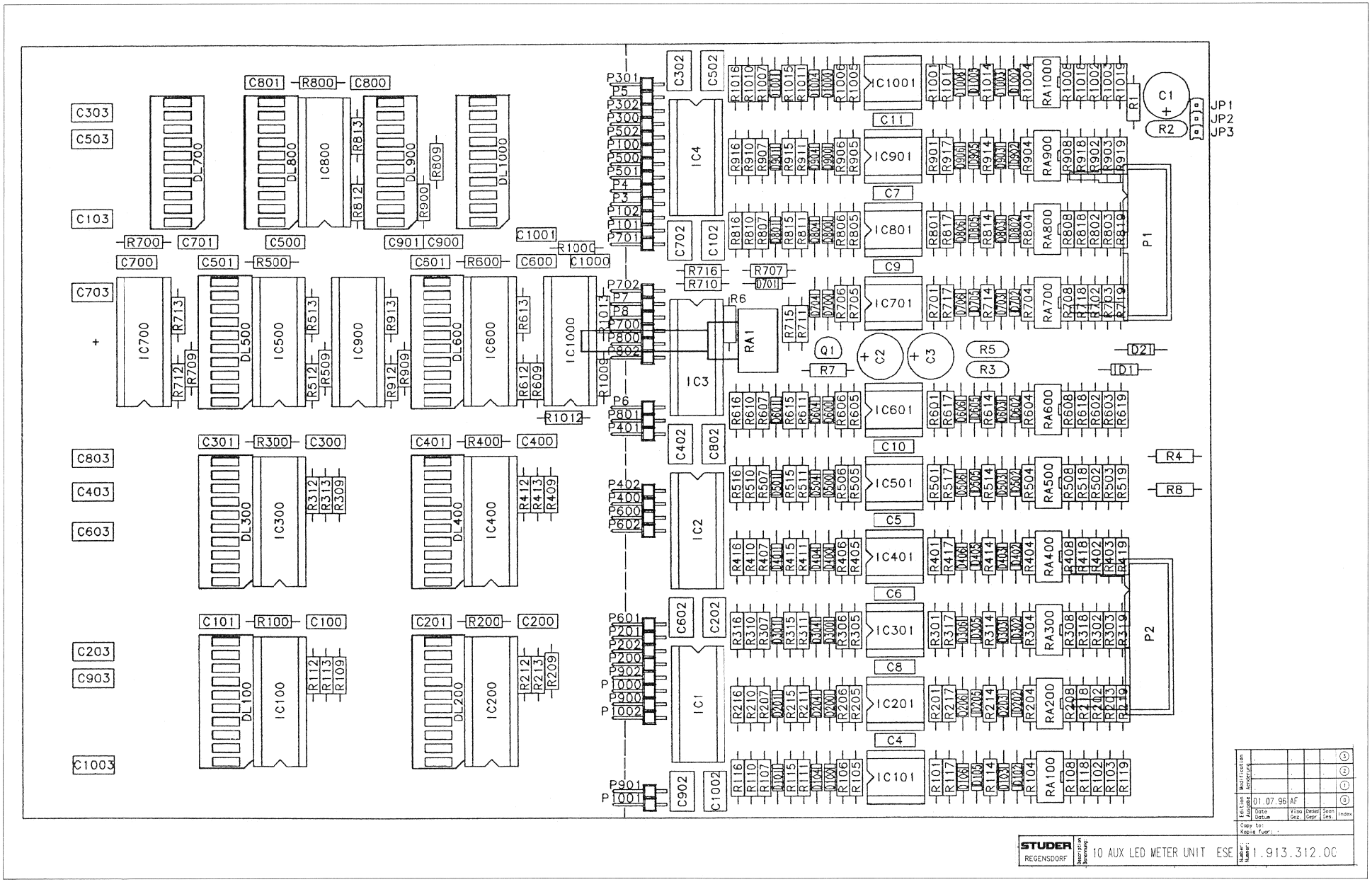
10 Aux LED Meter VU / PPM Board 1.913.312.00



10 Aux LED Meter VU / PPM Board 1.913.312.00



10 Aux LED Meter VU / PPM Board 1.913.312.00



10 Aux LED Meter VU / PPM Board 1.928.312.00

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.22.5101		100u	EL 25V, 20%, rad RM5
0	C 2	59.22.5101		100u	EL 25V, 20%, rad RM5
0	C 3	59.22.5101		100u	EL 25V, 20%, rad RM5
0	C 4	59.06.0104		100n	PETP, 10%, 63V
0	C 5	59.06.0104		100n	PETP, 10%, 63V
0	C 6	59.06.0104		100n	PETP, 10%, 63V
0	C 7	59.06.0104		100n	PETP, 10%, 63V
0	C 8	59.06.0104		100n	PETP, 10%, 63V
0	C 9	59.06.0104		100n	PETP, 10%, 63V
0	C 10	59.06.0104		100n	PETP, 10%, 63V
0	C 11	59.06.0104		100n	PETP, 10%, 63V
0	C 81	59.06.0104		100n	PETP, 10%, 63V
0	C 100	59.06.0104		100n	PETP, 10%, 63V
0	C 101	59.06.0474		470n	PETP, 10%, 63V
0	C 103	59.06.5224		220n	PETP, 5%, 63V
0	C 111	59.06.0104		100n	PETP, 10%, 63V
0	C 200	59.06.0104		100n	PETP, 10%, 63V
0	C 201	59.06.0474		470n	PETP, 10%, 63V
0	C 203	59.06.5224		220n	PETP, 5%, 63V
0	C 211	59.06.0104		100n	PETP, 10%, 63V
0	C 300	59.06.0104		100n	PETP, 10%, 63V
0	C 301	59.06.0474		470n	PETP, 10%, 63V
0	C 303	59.06.5224		220n	PETP, 5%, 63V
0	C 311	59.06.0104		100n	PETP, 10%, 63V
0	C 400	59.06.0104		100n	PETP, 10%, 63V
0	C 401	59.06.0474		470n	PETP, 10%, 63V
0	C 403	59.06.5224		220n	PETP, 5%, 63V
0	C 411	59.06.0104		100n	PETP, 10%, 63V
0	C 500	59.06.0104		100n	PETP, 10%, 63V
0	C 501	59.06.0474		470n	PETP, 10%, 63V
0	C 503	59.06.5224		220n	PETP, 5%, 63V
0	C 511	59.06.0104		100n	PETP, 10%, 63V
0	C 600	59.06.0104		100n	PETP, 10%, 63V
0	C 601	59.06.0474		470n	PETP, 10%, 63V
0	C 603	59.06.5224		220n	PETP, 5%, 63V
0	C 611	59.06.0104		100n	PETP, 10%, 63V
0	C 700	59.06.0104		100n	PETP, 10%, 63V
0	C 701	59.06.0474		470n	PETP, 10%, 63V
0	C 703	59.06.5224		220n	PETP, 5%, 63V
0	C 711	59.06.0104		100n	PETP, 10%, 63V
0	C 800	59.06.0104		100n	PETP, 10%, 63V
0	C 801	59.06.0474		470n	PETP, 10%, 63V
0	C 803	59.06.5224		220n	PETP, 5%, 63V
0	C 900	59.06.0104		100n	PETP, 10%, 63V
0	C 901	59.06.0474		470n	PETP, 10%, 63V
0	C 903	59.06.5224		220n	PETP, 5%, 63V
0	C 911	59.06.0104		100n	PETP, 10%, 63V
0	C 1000	59.06.0104		100n	PETP, 10%, 63V
0	C 1001	59.06.0474		470n	PETP, 10%, 63V
0	C 1003	59.06.5224		220n	PETP, 5%, 63V
0	C 1011	59.06.0104		100n	PETP, 10%, 63V
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 101	50.04.0127		BAT85	D BAT 85
0	D 102	50.04.0127		BAT85	D BAT 85
0	D 103	50.04.0127		BAT85	D BAT 85
0	D 104	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 105	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 106	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 107	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 201	50.04.0127		BAT85	D BAT 85
0	D 202	50.04.0127		BAT85	D BAT 85
0	D 203	50.04.0127		BAT85	D BAT 85
0	D 204	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 205	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 206	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 207	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 301	50.04.0127		BAT85	D BAT 85
0	D 302	50.04.0127		BAT85	D BAT 85
0	D 303	50.04.0127		BAT85	D BAT 85
0	D 304	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 305	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 306	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 307	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 401	50.04.0127		BAT85	D BAT 85
0	D 402	50.04.0127		BAT85	D BAT 85
0	D 403	50.04.0127		BAT85	D BAT 85
0	D 404	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 405	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 406	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 407	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 501	50.04.0127		BAT85	D BAT 85
0	D 502	50.04.0127		BAT85	D BAT 85
0	D 503	50.04.0127		BAT85	D BAT 85
0	D 504	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 505	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 506	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 507	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 601	50.04.0127		BAT85	D BAT 85
0	D 602	50.04.0127		BAT85	D BAT 85
0	D 603	50.04.0127		BAT85	D BAT 85
0	D 604	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 605	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 606	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 607	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 701	50.04.0127		BAT85	D BAT 85
0	D 702	50.04.0127		BAT85	D BAT 85
0	D 703	50.04.0127		BAT85	D BAT 85
0	D 704	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 705	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 706	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 707	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 801	50.04.0127		BAT85	D BAT 85
0	D 802	50.04.0127		BAT85	D BAT 85
0	D 803	50.04.0127		BAT85	D BAT 85
0	D 804	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 805	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 806	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 807	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 901	50.04.0127		BAT85	D BAT 85
0	D 902	50.04.0127		BAT85	D BAT 85
0	D 903	50.04.0127		BAT85	D BAT 85
0	D 904	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 905	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 906	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 907	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 1001	50.04.0127		BAT85	D BAT 85
0	D 1002	50.04.0127		BAT85	D BAT 85
0	D 1003	50.04.0127		BAT85	D BAT 85
0	D 1004	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 1005	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 1006	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 1007	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	DL 100	50.04.2150		MV57164	DLZ MV 57164 " G " 10*D RT
0	DL 200	50.04.2150		MV57164	DLZ MV 57164 " G " 10*D RT
0	DL 300	50.04.2150		MV57164	DLZ MV 57164 " G " 10*D RT
0	DL 400	50.04.2150		MV57164	DLZ MV 57164 " G " 10*D RT
0	DL 500	50.04.2150		MV57164	DLZ MV 57164 " G " 10*D RT
0	DL 600	50.04.2150		MV57164	DLZ MV 57164 " G " 10*D RT
0	DL 700	50.04.2150		MV57164	DLZ MV 57164 " G " 10*D RT
0	DL 800	50.04.2150		MV57164	DLZ MV 57164 " G " 10*D RT
0	DL 900	50.04.2150		MV57164	DLZ MV 57164 " G " 10*D RT
0	DL 1000	50.04.2150		MV57164	DLZ MV 57164 " G " 10*D RT
0	IC 1	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 2	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 3	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 4	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 100	50.11.0119		LM4094	IC LM 3914 N,
0	IC 101	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 200	50.11.0119		LM4094	IC LM 3914 N,
0	IC 201	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 300	50.11.0119		LM4094	IC LM 3914 N,
0	IC 301	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 400	50.11.0119		LM4094	IC LM 3914 N,
0	IC 401	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 500	50.11.0119		LM4094	IC LM 3914 N,
0	IC 501	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 600	50.11.0119		LM4094	IC LM 3914 N,
0	IC 601	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 700	50.11.0119		LM4094	IC LM 3914 N,
0	IC 701	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 800	50.11.0119		LM4094	IC LM 3914 N,
0	IC 801	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 900	50.11.0119		LM4094	IC LM 3914 N,
0	IC 901	50.09.0101		TL072	IC TL 072 CN ,A
0	IC 1000	50.11.0119		LM4094	IC LM 3914 N,
0	IC 1001	50.09.0101		TL072	IC TL 072 CN ,A
0	JP 1	54.11.0126		1-P	P STIFT,11.3 MM 1 PIN=1 STK.
0	JP 2	54.11.0126		1-P	P STIFT,11.3 MM 1 PIN=1 STK.
0	JP 3	54.11.0126		1-P	P STIFT,11.3 MM 1 PIN=1 STK.
0	MP 1	1.913.312.11			10 AUX LED METER PCB
0	MP 2	43.01.0108		Label	ESE-WARNSCHILD
0	MP 3	1.913.312.04			STUDER NR.-ETIKETTE 10 x 20

10 Aux LED Meter VU / PPM Board 1.928.312.00

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	P 1	54.14.2102		16p	P STECKER 16 P,AU,VR
0	P 2	54.14.2102		16p	P STECKER 16 P,AU,VR
0	P 3	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 4	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 5	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 6	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 7	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 8	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 100	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 101	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 102	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 200	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 201	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 202	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 300	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 301	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 302	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 400	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 401	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 402	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 500	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 501	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 502	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 600	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 601	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 602	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 700	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 701	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 702	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 800	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 801	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 802	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 900	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 901	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 902	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 1000	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 1001	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	P 1002	54.11.0132		1-P	P STIFT,WINKEL 1 PIN=1 STK.
0	Q 1	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	R 1	57.11.5155		1M5	MF, 5%, 0207
0	R 2	57.92.7021		0.5A	POLY- PTC, 60V
0	R 3	57.92.7013		0.5A	POLY- PTC, 60V
0	R 4	57.11.3000		0R0	MF, 0207
0	R 5	57.92.7013		0.5A	POLY- PTC, 60V
0	R 6	57.11.3103		10k	MF, 1%, 0207
0	R 7	57.11.3471		470R	MF, 1%, 0207
0	R 8	57.11.3000		0R0	MF, 0207
0	R 100	57.11.3689		6R8	MF, 1%, 0207
0	R 101	57.11.5155		1M5	MF, 5%, 0207
0	R 102	57.11.3684		680k	MF, 1%, 0207
0	R 103	57.11.3682		6k8	MF, 1%, 0207
0	R 104	57.11.3151		150R	MF, 1%, 0207
0	R 105	57.11.3822		8k2	MF, 1%, 0207
0	R 106	57.11.3822		8k2	MF, 1%, 0207
0	R 107	57.11.3564		560k	MF, 1%, 0207
0	R 108	57.11.3332		3k3	MF, 1%, 0207
0	R 109	57.11.3105		1M0	MF, 1%, 0207
0	R 110	57.11.3682		6k8	MF, 1%, 0207
0	R 111	57.11.3224		220k	MF, 1%, 0207
0	R 112	57.11.3224		220k	MF, 1%, 0207
0	R 113	57.11.3682		6k8	MF, 1%, 0207
0	R 114	57.11.3682		6k8	MF, 1%, 0207
0	R 115	57.11.3822		8k2	MF, 1%, 0207
0	R 116	57.11.3822		8k2	MF, 1%, 0207
0	R 159	57.11.3682		6k8	MF, 1%, 0207
0	R 162	57.11.3223		22k	MF, 1%, 0207
0	R 163	57.11.3223		22k	MF, 1%, 0207
0	R 200	57.11.3689		6R8	MF, 1%, 0207
0	R 201	57.11.5155		1M5	MF, 5%, 0207
0	R 202	57.11.3684		680k	MF, 1%, 0207
0	R 203	57.11.3682		6k8	MF, 1%, 0207
0	R 204	57.11.3151		150R	MF, 1%, 0207
0	R 205	57.11.3822		8k2	MF, 1%, 0207
0	R 206	57.11.3822		8k2	MF, 1%, 0207
0	R 207	57.11.3564		560k	MF, 1%, 0207
0	R 208	57.11.3332		3k3	MF, 1%, 0207
0	R 209	57.11.3105		1M0	MF, 1%, 0207
0	R 210	57.11.3682		6k8	MF, 1%, 0207
0	R 211	57.11.3224		220k	MF, 1%, 0207
0	R 212	57.11.3224		220k	MF, 1%, 0207
0	R 213	57.11.3682		6k8	MF, 1%, 0207
0	R 214	57.11.3682		6k8	MF, 1%, 0207
0	R 215	57.11.3822		8k2	MF, 1%, 0207
0	R 216	57.11.3822		8k2	MF, 1%, 0207
0	R 259	57.11.3682		6k8	MF, 1%, 0207
0	R 262	57.11.3223		22k	MF, 1%, 0207
0	R 263	57.11.3223		22k	MF, 1%, 0207
0	R 300	57.11.3689		6R8	MF, 1%, 0207
0	R 301	57.11.5155		1M5	MF, 5%, 0207
0	R 302	57.11.3684		680k	MF, 1%, 0207
0	R 303	57.11.3682		6k8	MF, 1%, 0207
0	R 304	57.11.3151		150R	MF, 1%, 0207
0	R 305	57.11.3822		8k2	MF, 1%, 0207
0	R 306	57.11.3822		8k2	MF, 1%, 0207
0	R 307	57.11.3564		560k	MF, 1%, 0207
0	R 308	57.11.3332		3k3	MF, 1%, 0207
0	R 309	57.11.3105		1M0	MF, 1%, 0207
0	R 310	57.11.3682		6k8	MF, 1%, 0207
0	R 311	57.11.3224		220k	MF, 1%, 0207
0	R 312	57.11.3224		220k	MF, 1%, 0207
0	R 313	57.11.3682		6k8	MF, 1%, 0207
0	R 314	57.11.3682		6k8	MF, 1%, 0207
0	R 315	57.11.3822		8k2	MF, 1%, 0207
0	R 316	57.11.3822		8k2	MF, 1%, 0207
0	R 319	57.11.3223		22k	MF, 1%, 0207
0	R 359	57.11.3682		6k8	MF, 1%, 0207
0	R 363	57.11.3223		22k	MF, 1%, 0207
0	R 400	57.11.3689		6R8	MF, 1%, 0207
0	R 401	57.11.5155		1M5	MF, 5%, 0207
0	R 402	57.11.3684		680k	MF, 1%, 0207
0	R 403	57.11.3682		6k8	MF, 1%, 0207
0	R 404	57.11.3151		150R	MF, 1%, 0207
0	R 405	57.11.3822		8k2	MF, 1%, 0207
0	R 406	57.11.3822		8k2	MF, 1%, 0207
0	R 407	57.11.3564		560k	MF, 1%, 0207
0	R 408	57.11.3332		3k3	MF, 1%, 0207
0	R 409	57.11.3105		1M0	MF, 1%, 0207
0	R 410	57.11.3682		6k8	MF, 1%, 0207
0	R 411	57.11.3224		220k	MF, 1%, 0207
0	R 412	57.11.3224		220k	MF, 1%, 0207
0	R 413	57.11.3682		6k8	MF, 1%, 0207
0	R 414	57.11.3682		6k8	MF, 1%, 0207
0	R 415	57.11.3822		8k2	MF, 1%, 0207
0	R 416	57.11.3822		8k2	MF, 1%, 0207
0	R 459	57.11.3682		6k8	MF, 1%, 0207
0	R 462	57.11.3223		22k	MF, 1%, 0207
0	R 463	57.11.3223		22k	MF, 1%, 0207
0	R 500	57.11.3689		6R8	MF, 1%, 0207
0	R 501	57.11.5155		1M5	MF, 5%, 0207
0	R 502	57.11.3684		680k	MF, 1%, 0207
0	R 503	57.11.3682		6k8	MF, 1%, 0207
0	R 504	57.11.3151		150R	MF, 1%, 0207
0	R 505	57.11.3822		8k2	MF, 1%, 0207
0	R 506	57.11.3822		8k2	MF, 1%, 0207
0	R 507	57.11.3564		560k	MF, 1%, 0207
0	R 508	57.11.3332		3k3	MF, 1%, 0207
0	R 509	57.11.3105		1M0	MF, 1%, 0207
0	R 510	57.11.3682		6k8	MF, 1%, 0207
0	R 511	57.11.3224		220k	MF, 1%, 0207
0	R 512	57.11.3224		220k	MF, 1%, 0207
0	R 513	57.11.3682		6k8	MF, 1%, 0207
0	R 514	57.11.3682		6k8	MF, 1%, 0207
0	R 515	57.11.3822		8k2	MF, 1%, 0207
0	R 516	57.11.3822		8k2	MF, 1%, 0207
0	R 559	57.11.3682		6k8	MF, 1%, 0207
0	R 562	57.11.3223		22k	MF, 1%, 0207
0	R 563	57.11.3223		22k	MF, 1%, 0207
0	R 600	57.11.3689		6R8	MF, 1%, 0207
0	R 601	57.11.5155		1M5	MF, 5%, 0207
0	R 602	57.11.3684		680k	MF, 1%, 0207
0	R 603	57.11.3682		6k8	MF, 1%, 0207
0	R 604	57.11.3151		150R	MF, 1%, 0207
0	R 605	57.11.3822		8k2	MF, 1%, 0207
0	R 606	57.11.3822		8k2	MF, 1%, 0207
0	R 607	57.11.3564		560k	MF, 1%, 0207
0	R 608	57.11.3332		3k3	MF, 1%, 0207
0	R 609	57.11.3105		1M0	MF, 1%, 0207
0	R 610	57.11.3682		6k8	MF, 1%, 0207
0	R 611	57.11.3224		220k	MF, 1%, 0207
0	R 612	57.11.3224		220k	MF, 1%, 0207
0	R 613	57.11.3682		6k8	MF, 1%, 0207
0	R 614	57.11.3682		6k8	MF, 1%, 0207
0	R 615	57.11.3822		8k2	MF, 1%, 0207
0	R 616	57.11.3822		8k2	MF, 1%, 0207
0	R 659	57.11.3682		6k8	MF, 1%, 0207
0	R 662	57.11.3223		22k	MF, 1%, 0207

10 Aux LED Meter VU / PPM Board 1.928.312.00

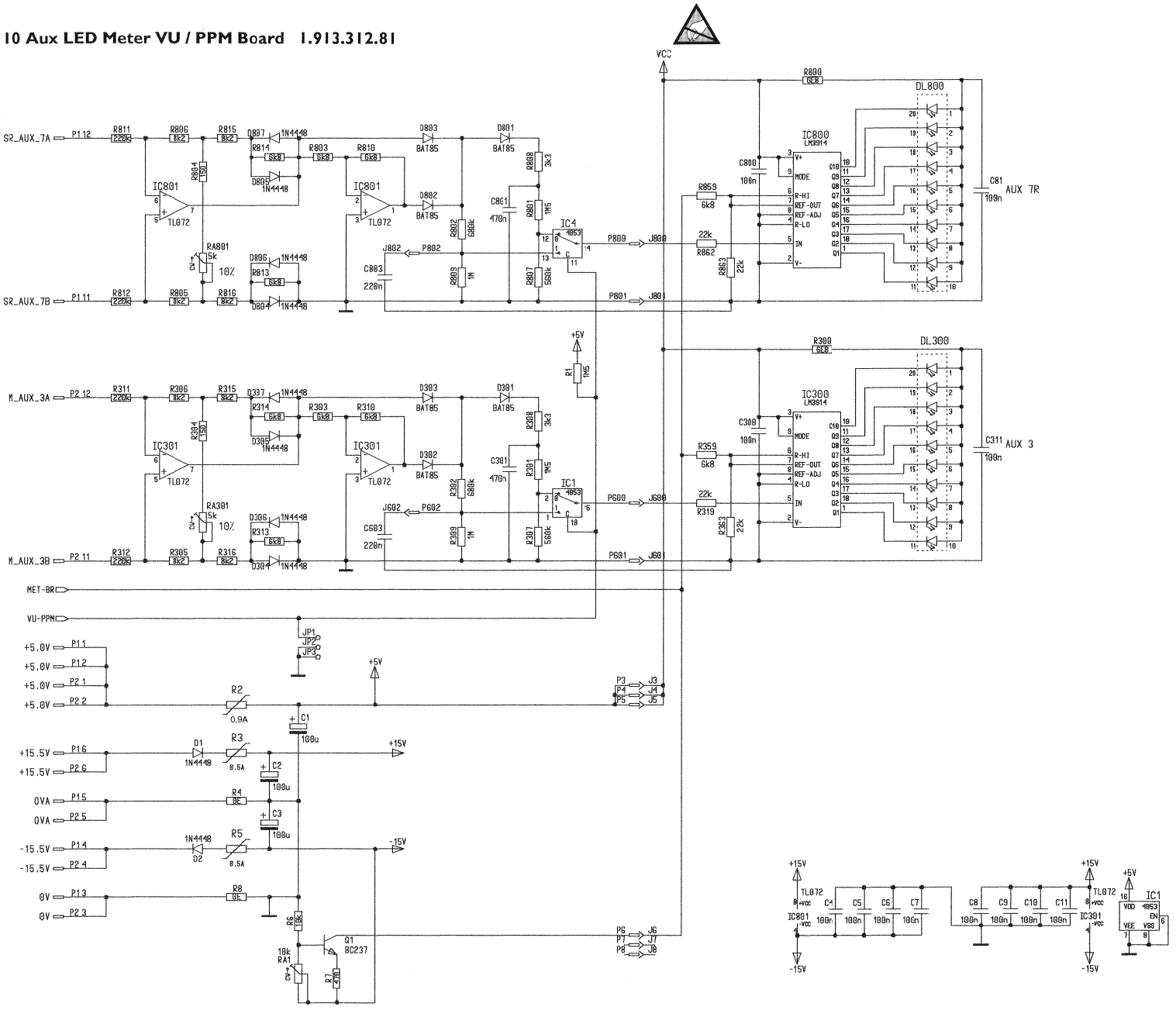
Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 663	57.11.3223		22k	MF, 1%, 0207
0	R 700	57.11.3689		6R8	MF, 1%, 0207
0	R 701	57.11.5155		1M5	MF, 5%, 0207
0	R 702	57.11.3684		680k	MF, 1%, 0207
0	R 703	57.11.3682		6k8	MF, 1%, 0207
0	R 704	57.11.3151		150R	MF, 1%, 0207
0	R 705	57.11.3822		8k2	MF, 1%, 0207
0	R 706	57.11.3822		8k2	MF, 1%, 0207
0	R 707	57.11.3564		560k	MF, 1%, 0207
0	R 708	57.11.3332		3k3	MF, 1%, 0207
0	R 709	57.11.3105		1M0	MF, 1%, 0207
0	R 710	57.11.3682		6k8	MF, 1%, 0207
0	R 711	57.11.3224		220k	MF, 1%, 0207
0	R 712	57.11.3224		220k	MF, 1%, 0207
0	R 713	57.11.3682		6k8	MF, 1%, 0207
0	R 714	57.11.3682		6k8	MF, 1%, 0207
0	R 715	57.11.3822		8k2	MF, 1%, 0207
0	R 716	57.11.3822		8k2	MF, 1%, 0207
0	R 759	57.11.3682		6k8	MF, 1%, 0207
0	R 762	57.11.3223		22k	MF, 1%, 0207
0	R 763	57.11.3223		22k	MF, 1%, 0207
0	R 800	57.11.3689		6R8	MF, 1%, 0207
0	R 801	57.11.5155		1M5	MF, 5%, 0207
0	R 802	57.11.3684		680k	MF, 1%, 0207
0	R 803	57.11.3682		6k8	MF, 1%, 0207
0	R 804	57.11.3151		150R	MF, 1%, 0207
0	R 805	57.11.3822		8k2	MF, 1%, 0207
0	R 806	57.11.3822		8k2	MF, 1%, 0207
0	R 807	57.11.3564		560k	MF, 1%, 0207
0	R 808	57.11.3332		3k3	MF, 1%, 0207
0	R 809	57.11.3105		1M0	MF, 1%, 0207
0	R 810	57.11.3682		6k8	MF, 1%, 0207
0	R 811	57.11.3224		220k	MF, 1%, 0207
0	R 812	57.11.3224		220k	MF, 1%, 0207
0	R 813	57.11.3682		6k8	MF, 1%, 0207
0	R 814	57.11.3682		6k8	MF, 1%, 0207
0	R 815	57.11.3822		8k2	MF, 1%, 0207
0	R 816	57.11.3822		8k2	MF, 1%, 0207
0	R 859	57.11.3682		6k8	MF, 1%, 0207
0	R 862	57.11.3223		22k	MF, 1%, 0207
0	R 863	57.11.3223		22k	MF, 1%, 0207
0	R 900	57.11.3689		6R8	MF, 1%, 0207
0	R 901	57.11.5155		1M5	MF, 5%, 0207
0	R 902	57.11.3684		680k	MF, 1%, 0207
0	R 903	57.11.3682		6k8	MF, 1%, 0207
0	R 904	57.11.3151		150R	MF, 1%, 0207
0	R 905	57.11.3822		8k2	MF, 1%, 0207
0	R 906	57.11.3822		8k2	MF, 1%, 0207
0	R 907	57.11.3564		560k	MF, 1%, 0207
0	R 908	57.11.3332		3k3	MF, 1%, 0207
0	R 909	57.11.3105		1M0	MF, 1%, 0207
0	R 910	57.11.3682		6k8	MF, 1%, 0207
0	R 911	57.11.3224		220k	MF, 1%, 0207
0	R 912	57.11.3224		220k	MF, 1%, 0207
0	R 913	57.11.3682		6k8	MF, 1%, 0207
0	R 914	57.11.3682		6k8	MF, 1%, 0207
0	R 915	57.11.3822		8k2	MF, 1%, 0207
0	R 916	57.11.3822		8k2	MF, 1%, 0207
0	R 959	57.11.3682		6k8	MF, 1%, 0207
0	R 962	57.11.3223		22k	MF, 1%, 0207
0	R 963	57.11.3223		22k	MF, 1%, 0207
0	R 1000	57.11.3689		6R8	MF, 1%, 0207
0	R 1001	57.11.5155		1M5	MF, 5%, 0207
0	R 1002	57.11.3684		680k	MF, 1%, 0207
0	R 1003	57.11.3682		6k8	MF, 1%, 0207
0	R 1004	57.11.3151		150R	MF, 1%, 0207
0	R 1005	57.11.3822		8k2	MF, 1%, 0207
0	R 1006	57.11.3822		8k2	MF, 1%, 0207
0	R 1007	57.11.3564		560k	MF, 1%, 0207
0	R 1008	57.11.3332		3k3	MF, 1%, 0207
0	R 1009	57.11.3105		1M0	MF, 1%, 0207
0	R 1010	57.11.3682		6k8	MF, 1%, 0207
0	R 1011	57.11.3224		220k	MF, 1%, 0207
0	R 1012	57.11.3224		220k	MF, 1%, 0207
0	R 1013	57.11.3682		6k8	MF, 1%, 0207
0	R 1014	57.11.3682		6k8	MF, 1%, 0207
0	R 1015	57.11.3822		8k2	MF, 1%, 0207
0	R 1016	57.11.3822		8k2	MF, 1%, 0207
0	R 1059	57.11.3682		6k8	MF, 1%, 0207
0	R 1062	57.11.3223		22k	MF, 1%, 0207
0	R 1063	57.11.3223		22k	MF, 1%, 0207
0	RA 1	1.010.111.58		10k	POT 10K LIN
0	RA 101	58.01.9502		5k	Cermet, 10%, 0.5W, vertical

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	RA 201	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 301	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 401	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 501	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 601	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 701	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 801	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 901	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 1001	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	XIC 101	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 201	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 301	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 401	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 501	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 601	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 701	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 801	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 901	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 1001	53.03.0166		8p	DIL 0.3", löt, gerade

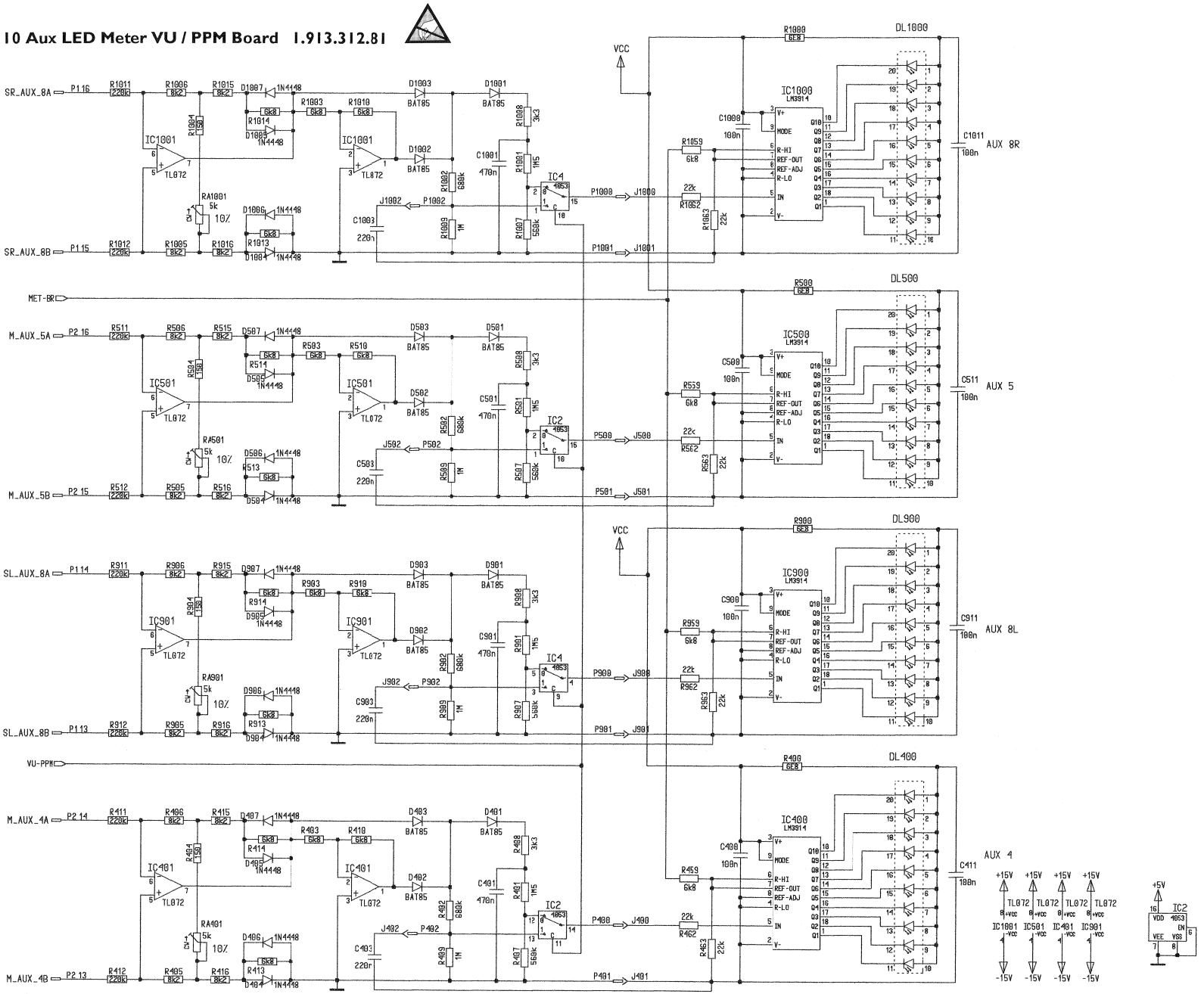
End of List

Comments

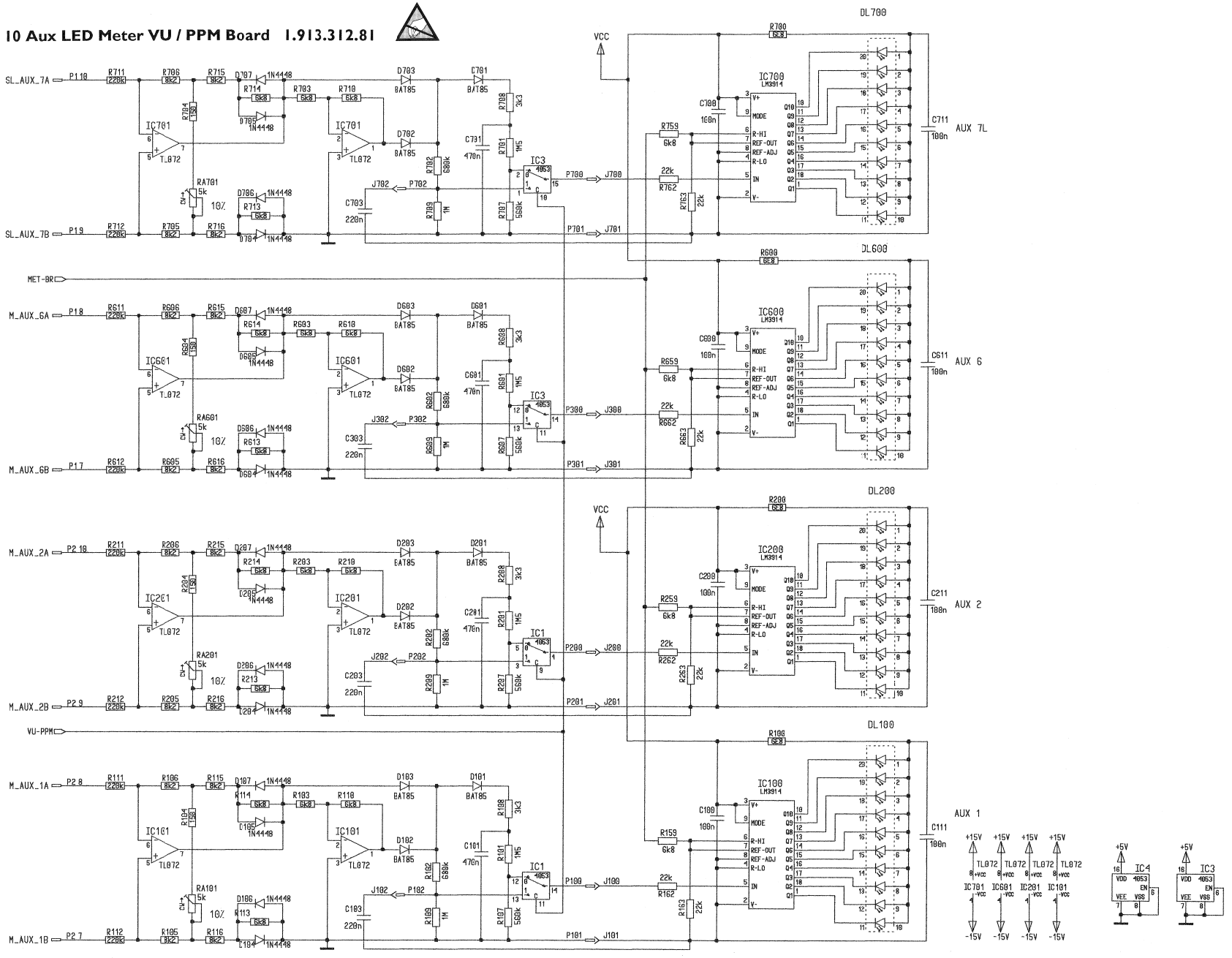
10 Aux LED Meter VU / PPM Board 1.913.312.81



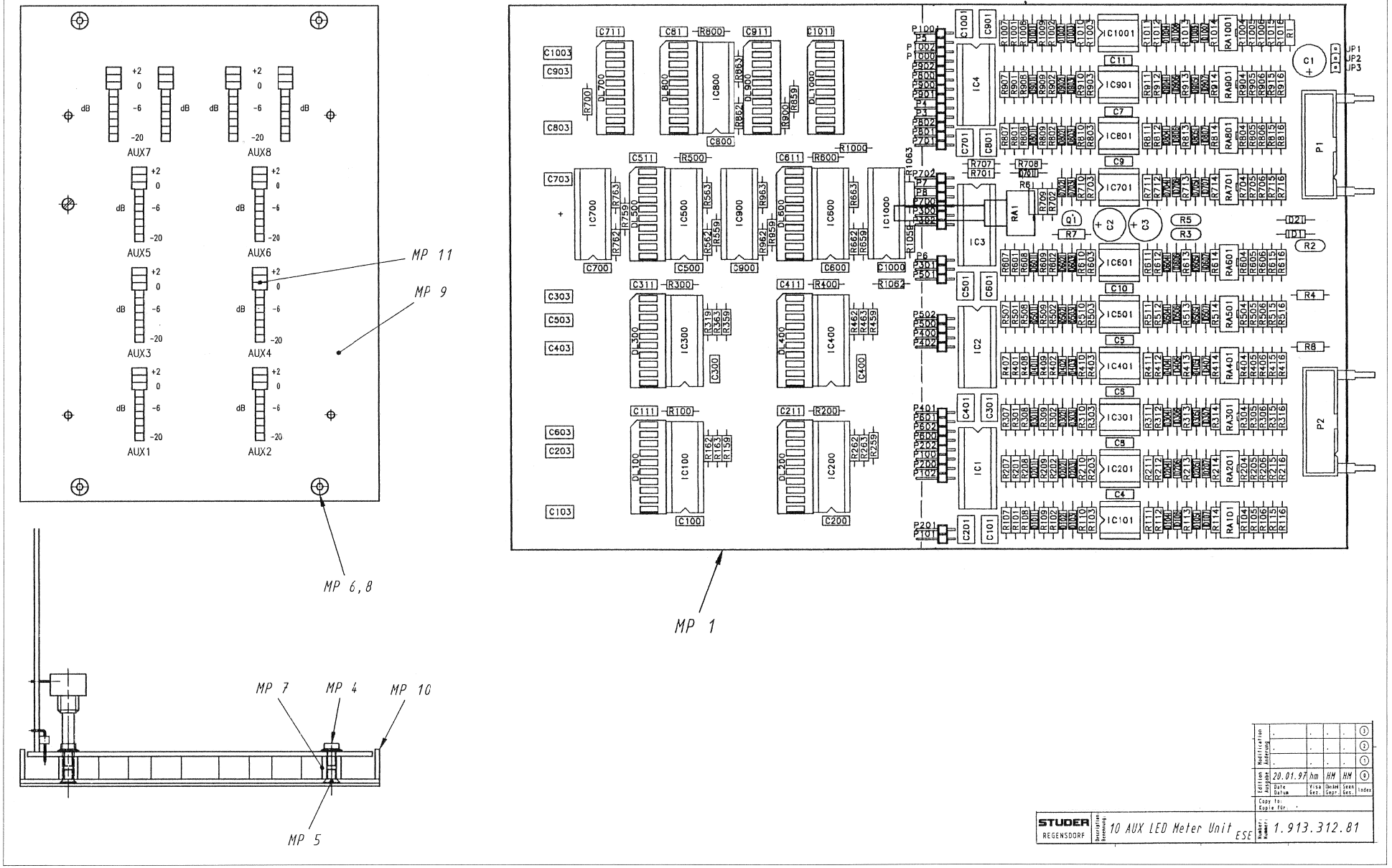
10 Aux LED Meter VU / PPM Board 1.913.312.81



10 Aux LED Meter VU / PPM Board 1.913.312.81



10 Aux LED Meter VU / PPM Board 1.913.312.81



10 Aux LED Meter VU / PPM Board 1.928.312.81

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.22.5101		100u	EL 25V, 20%, RM5
0	C 2	59.22.5101		100u	EL 25V, 20%, RM5
0	C 3	59.22.5101		100u	EL 25V, 20%, RM5
0	C 4	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 5	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 6	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 7	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 8	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 9	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 10	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 11	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 81	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 100	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 101	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 103	59.06.5224		220n	PETP, 63V, 5%, RM5
0	C 111	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 200	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 201	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 203	59.06.5224		220n	PETP, 63V, 5%, RM5
0	C 211	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 300	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 301	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 303	59.06.5224		220n	PETP, 63V, 5%, RM5
0	C 311	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 400	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 401	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 403	59.06.5224		220n	PETP, 63V, 5%, RM5
0	C 411	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 500	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 501	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 503	59.06.5224		220n	PETP, 63V, 5%, RM5
0	C 511	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 600	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 601	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 603	59.06.5224		220n	PETP, 63V, 5%, RM5
0	C 611	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 700	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 701	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 703	59.06.5224		220n	PETP, 63V, 5%, RM5
0	C 711	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 800	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 801	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 803	59.06.5224		220n	PETP, 63V, 5%, RM5
0	C 900	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 901	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 903	59.06.5224		220n	PETP, 63V, 5%, RM5
0	C 911	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 1000	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 1001	59.06.0474		470n	PETP, 63V, 10%, RM5
0	C 1003	59.06.5224		220n	PETP, 63V, 5%, RM5
0	C 1011	59.06.0104		100n	PETP, 63V, 10%, RM5
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 101	50.04.0127		BAT85	200mA, Schottky
0	D 102	50.04.0127		BAT85	200mA, Schottky
0	D 103	50.04.0127		BAT85	200mA, Schottky
0	D 104	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 105	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 106	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 107	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 201	50.04.0127		BAT85	200mA, Schottky
0	D 202	50.04.0127		BAT85	200mA, Schottky
0	D 203	50.04.0127		BAT85	200mA, Schottky
0	D 204	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 205	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 206	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 207	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 301	50.04.0127		BAT85	200mA, Schottky
0	D 302	50.04.0127		BAT85	200mA, Schottky
0	D 303	50.04.0127		BAT85	200mA, Schottky
0	D 304	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 305	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 306	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 307	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 401	50.04.0127		BAT85	200mA, Schottky
0	D 402	50.04.0127		BAT85	200mA, Schottky
0	D 403	50.04.0127		BAT85	200mA, Schottky
0	D 404	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 405	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 406	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 407	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 501	50.04.0127		BAT85	200mA, Schottky
0	D 502	50.04.0127		BAT85	200mA, Schottky
0	D 503	50.04.0127		BAT85	200mA, Schottky
0	D 504	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 505	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 506	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 507	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 601	50.04.0127		BAT85	200mA, Schottky
0	D 602	50.04.0127		BAT85	200mA, Schottky
0	D 603	50.04.0127		BAT85	200mA, Schottky
0	D 604	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 605	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 606	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 607	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 701	50.04.0127		BAT85	200mA, Schottky
0	D 702	50.04.0127		BAT85	200mA, Schottky
0	D 703	50.04.0127		BAT85	200mA, Schottky
0	D 704	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 705	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 706	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 707	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 801	50.04.0127		BAT85	200mA, Schottky
0	D 802	50.04.0127		BAT85	200mA, Schottky
0	D 803	50.04.0127		BAT85	200mA, Schottky
0	D 804	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 805	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 806	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 807	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 901	50.04.0127		BAT85	200mA, Schottky
0	D 902	50.04.0127		BAT85	200mA, Schottky
0	D 903	50.04.0127		BAT85	200mA, Schottky
0	D 904	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 905	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 906	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 907	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 1001	50.04.0127		BAT85	200mA, Schottky
0	D 1002	50.04.0127		BAT85	200mA, Schottky
0	D 1003	50.04.0127		BAT85	200mA, Schottky
0	D 1004	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 1005	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 1006	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 1007	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	DL 100	50.04.2810		B1001	DLZ B1001/3E+7GWA, 3OR/7GN
0	DL 200	50.04.2810		B1001	DLZ B1001/3E+7GWA, 3OR/7GN
0	DL 300	50.04.2810		B1001	DLZ B1001/3E+7GWA, 3OR/7GN
0	DL 400	50.04.2810		B1001	DLZ B1001/3E+7GWA, 3OR/7GN
0	DL 500	50.04.2810		B1001	DLZ B1001/3E+7GWA, 3OR/7GN
0	DL 600	50.04.2810		B1001	DLZ B1001/3E+7GWA, 3OR/7GN
0	DL 700	50.04.2810		B1001	DLZ B1001/3E+7GWA, 3OR/7GN
0	DL 800	50.04.2810		B1001	DLZ B1001/3E+7GWA, 3OR/7GN
0	DL 900	50.04.2810		B1001	DLZ B1001/3E+7GWA, 3OR/7GN
0	DL 1000	50.04.2810		B1001	DLZ B1001/3E+7GWA, 3OR/7GN
0	IC 1	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 2	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 3	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 4	50.07.0015		4053B	IC .. 4053 .. ,A
0	IC 100	50.11.0119		LM4094	IC LM 3914 N,
0	IC 101	50.09.0121		TL072B	IC TL 072 BCP ,A
0	IC 200	50.11.0119		LM4094	IC LM 3914 N,
0	IC 201	50.09.0121		TL072B	IC TL 072 BCP ,A
0	IC 300	50.11.0119		LM4094	IC LM 3914 N,
0	IC 301	50.09.0121		TL072B	IC TL 072 BCP ,A
0	IC 400	50.11.0119		LM4094	IC LM 3914 N,
0	IC 401	50.09.0121		TL072B	IC TL 072 BCP ,A
0	IC 500	50.11.0119		LM4094	IC LM 3914 N,
0	IC 501	50.09.0121		TL072B	IC TL 072 BCP ,A
0	IC 600	50.11.0119		LM4094	IC LM 3914 N,
0	IC 601	50.09.0121		TL072B	IC TL 072 BCP ,A
0	IC 700	50.11.0119		LM4094	IC LM 3914 N,
0	IC 701	50.09.0121		TL072B	IC TL 072 BCP ,A
0	IC 800	50.11.0119		LM4094	IC LM 3914 N,
0	IC 801	50.09.0121		TL072B	IC TL 072 BCP ,A
0	IC 900	50.11.0119		LM4094	IC LM 3914 N,
0	IC 901	50.09.0121		TL072B	IC TL 072 BCP ,A
0	IC 1000	50.11.0119		LM4094	IC LM 3914 N,
0	IC 1001	50.09.0121		TL072B	IC TL 072 BCP ,A
0	J 1	54.01.0021	1 pce	Jumper	0.63 * 0.63mm
0	JP 1	54.01.0020		1p	Pin 0.63*0.63
0	JP 2	54.01.0020		1p	Pin 0.63*0.63
0	JP 3	54.01.0020		1p	Pin 0.63*0.63
0	MP 1	1.913.312.12			10 AUX LED METER PCB
0	MP 2	43.01.0108		Label	ESE-WARNSCHILD
0	MP 3	1.913.312.04			STUDER NR.-ETIKETTE 10 x 20

10 Aux LED Meter VU / PPM Board 1.928.312.81

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	MP 4	21.53.9354	4 pcs		Z - SCHR.IS, M.SICH, M 3 * 6
0	MP 5	21.99.0197	4 pcs		S-Schr M 3 * 5, IS, St brünier
0	MP 6	24.16.3023	4 pcs		WELLENSICHERUNG 2.3
0	MP 7	1.010.216.27	4 pcs		MUTTERBOLZEN M 3 * 8
0	MP 8	1.010.022.21	4 pcs		LINSENSCHRAUBE IS SPEZ.M3X8 SW
0	MP 9	1.913.312.01			FRONTSCHILD AUX LED METER
0	MP 10	1.913.312.02			TRAEGERBLECH
0	MP 11	1.980.110.06	10 pcs		ANZEIGEFENSTER
0	P 1	54.14.2102		16p	P STECKER 16 P,AU,VR
0	P 2	54.14.2102		16p	P STECKER 16 P,AU,VR
0	P 3	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 4	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 5	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 6	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 7	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 8	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 100	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 101	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 102	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 200	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 201	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 202	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 300	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 301	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 302	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 400	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 401	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 402	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 500	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 501	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 502	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 600	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 601	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 602	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 700	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 701	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 702	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 800	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 801	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 802	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 900	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 901	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 902	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 1000	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 1001	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	P 1002	54.11.0132		1p	P STIFT,WINKEL 1 PIN=1 STK.
0	Q 1	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	R 1	57.11.5155		1M5	MF, 5%, 0207
0	R 2	57.92.7021		0.5A	POLY- PTC, 60V
0	R 3	57.92.7013		0.5A	POLY- PTC, 60V
0	R 4	57.11.3000		0R0	MF, 0207
0	R 5	57.92.7013		0.5A	POLY- PTC, 60V
0	R 6	57.11.3103		10k	MF, 1%, 0207
0	R 7	57.11.3471		470R	MF, 1%, 0207
0	R 8	57.11.3000		0R0	MF, 0207
0	R 100	57.11.3689		6R8	MF, 1%, 0207
0	R 101	57.11.5155		1M5	MF, 5%, 0207
0	R 102	57.11.3684		680k	MF, 1%, 0207
0	R 103	57.11.3682		6k8	MF, 1%, 0207
0	R 104	57.11.3151		150R	MF, 1%, 0207
0	R 105	57.11.3822		8k2	MF, 1%, 0207
0	R 106	57.11.3822		8k2	MF, 1%, 0207
0	R 107	57.11.3564		560k	MF, 1%, 0207
0	R 108	57.11.3332		3k3	MF, 1%, 0207
0	R 109	57.11.3105		1M0	MF, 1%, 0207
0	R 110	57.11.3682		6k8	MF, 1%, 0207
0	R 111	57.11.3224		220k	MF, 1%, 0207
0	R 112	57.11.3224		220k	MF, 1%, 0207
0	R 113	57.11.3682		6k8	MF, 1%, 0207
0	R 114	57.11.3682		6k8	MF, 1%, 0207
0	R 115	57.11.3822		8k2	MF, 1%, 0207
0	R 116	57.11.3822		8k2	MF, 1%, 0207
0	R 159	57.11.3682		6k8	MF, 1%, 0207
0	R 162	57.11.3223		22k	MF, 1%, 0207
0	R 163	57.11.3223		22k	MF, 1%, 0207
0	R 200	57.11.3689		6R8	MF, 1%, 0207
0	R 201	57.11.5155		1M5	MF, 5%, 0207
0	R 202	57.11.3684		680k	MF, 1%, 0207
0	R 203	57.11.3682		6k8	MF, 1%, 0207
0	R 204	57.11.3151		150R	MF, 1%, 0207
0	R 205	57.11.3822		8k2	MF, 1%, 0207
0	R 206	57.11.3822		8k2	MF, 1%, 0207
0	R 207	57.11.3564		560k	MF, 1%, 0207
0	R 208	57.11.3332		3k3	MF, 1%, 0207
0	R 209	57.11.3105		1M0	MF, 1%, 0207
0	R 210	57.11.3682		6k8	MF, 1%, 0207
0	R 211	57.11.3224		220k	MF, 1%, 0207
0	R 212	57.11.3224		220k	MF, 1%, 0207
0	R 213	57.11.3682		6k8	MF, 1%, 0207
0	R 214	57.11.3682		6k8	MF, 1%, 0207
0	R 215	57.11.3822		8k2	MF, 1%, 0207
0	R 216	57.11.3822		8k2	MF, 1%, 0207
0	R 259	57.11.3682		6k8	MF, 1%, 0207
0	R 262	57.11.3223		22k	MF, 1%, 0207
0	R 263	57.11.3223		22k	MF, 1%, 0207
0	R 300	57.11.3689		6R8	MF, 1%, 0207
0	R 301	57.11.5155		1M5	MF, 5%, 0207
0	R 302	57.11.3684		680k	MF, 1%, 0207
0	R 303	57.11.3682		6k8	MF, 1%, 0207
0	R 304	57.11.3151		150R	MF, 1%, 0207
0	R 305	57.11.3822		8k2	MF, 1%, 0207
0	R 306	57.11.3822		8k2	MF, 1%, 0207
0	R 307	57.11.3564		560k	MF, 1%, 0207
0	R 308	57.11.3332		3k3	MF, 1%, 0207
0	R 309	57.11.3105		1M0	MF, 1%, 0207
0	R 310	57.11.3682		6k8	MF, 1%, 0207
0	R 311	57.11.3224		220k	MF, 1%, 0207
0	R 312	57.11.3224		220k	MF, 1%, 0207
0	R 313	57.11.3682		6k8	MF, 1%, 0207
0	R 314	57.11.3682		6k8	MF, 1%, 0207
0	R 315	57.11.3822		8k2	MF, 1%, 0207
0	R 316	57.11.3822		8k2	MF, 1%, 0207
0	R 319	57.11.3223		22k	MF, 1%, 0207
0	R 359	57.11.3682		6k8	MF, 1%, 0207
0	R 363	57.11.3223		22k	MF, 1%, 0207
0	R 400	57.11.3689		6R8	MF, 1%, 0207
0	R 401	57.11.5155		1M5	MF, 5%, 0207
0	R 402	57.11.3684		680k	MF, 1%, 0207
0	R 403	57.11.3682		6k8	MF, 1%, 0207
0	R 404	57.11.3151		150R	MF, 1%, 0207
0	R 405	57.11.3822		8k2	MF, 1%, 0207
0	R 406	57.11.3822		8k2	MF, 1%, 0207
0	R 407	57.11.3564		560k	MF, 1%, 0207
0	R 408	57.11.3332		3k3	MF, 1%, 0207
0	R 409	57.11.3105		1M0	MF, 1%, 0207
0	R 410	57.11.3682		6k8	MF, 1%, 0207
0	R 411	57.11.3224		220k	MF, 1%, 0207
0	R 412	57.11.3224		220k	MF, 1%, 0207
0	R 413	57.11.3682		6k8	MF, 1%, 0207
0	R 414	57.11.3682		6k8	MF, 1%, 0207
0	R 415	57.11.3822		8k2	MF, 1%, 0207
0	R 416	57.11.3822		8k2	MF, 1%, 0207
0	R 459	57.11.3682		6k8	MF, 1%, 0207
0	R 462	57.11.3223		22k	MF, 1%, 0207
0	R 463	57.11.3223		22k	MF, 1%, 0207
0	R 500	57.11.3689		6R8	MF, 1%, 0207
0	R 501	57.11.5155		1M5	MF, 5%, 0207
0	R 502	57.11.3684		680k	MF, 1%, 0207
0	R 503	57.11.3682		6k8	MF, 1%, 0207
0	R 504	57.11.3151		150R	MF, 1%, 0207
0	R 505	57.11.3822		8k2	MF, 1%, 0207
0	R 506	57.11.3822		8k2	MF, 1%, 0207
0	R 507	57.11.3564		560k	MF, 1%, 0207
0	R 508	57.11.3332		3k3	MF, 1%, 0207
0	R 509	57.11.3105		1M0	MF, 1%, 0207
0	R 510	57.11.3682		6k8	MF, 1%, 0207
0	R 511	57.11.3224		220k	MF, 1%, 0207
0	R 512	57.11.3224		220k	MF, 1%, 0207
0	R 513	57.11.3682		6k8	MF, 1%, 0207
0	R 514	57.11.3682		6k8	MF, 1%, 0207
0	R 515	57.11.3822		8k2	MF, 1%, 0207
0	R 516	57.11.3822		8k2	MF, 1%, 0207
0	R 559	57.11.3682		6k8	MF, 1%, 0207
0	R 562	57.11.3223		22k	MF, 1%, 0207
0	R 563	57.11.3223		22k	MF, 1%, 0207
0	R 600	57.11.3689		6R8	MF, 1%, 0207
0	R 601	57.11.5155		1M5	MF, 5%, 0207
0	R 602	57.11.3684		680k	MF, 1%, 0207
0	R 603	57.11.3682		6k8	MF, 1%, 0207
0	R 604	57.11.3151		150R	MF, 1%, 0207
0	R 605	57.11.3822		8k2	MF, 1%, 0207
0	R 606	57.11.3822		8k2	MF, 1%, 0207
0	R 607	57.11.3564		560k	MF, 1%, 0207
0	R 608	57.11.3332		3k3	MF, 1%, 0207
0	R 609	57.11.3105		1M0	MF, 1%, 0207
0	R 610	57.11.3682		6k8	MF, 1%, 0207
0	R 611	57.11.3224		220k	MF, 1%, 0207

10 Aux LED Meter VU / PPM Board 1.928.312.81

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 612	57.11.3224		220k	MF, 1%, 0207
0	R 613	57.11.3682		6k8	MF, 1%, 0207
0	R 614	57.11.3682		6k8	MF, 1%, 0207
0	R 615	57.11.3822		8k2	MF, 1%, 0207
0	R 616	57.11.3822		8k2	MF, 1%, 0207
0	R 659	57.11.3682		6k8	MF, 1%, 0207
0	R 662	57.11.3223		22k	MF, 1%, 0207
0	R 663	57.11.3223		22k	MF, 1%, 0207
0	R 700	57.11.3689		6R8	MF, 1%, 0207
0	R 701	57.11.5155		1M5	MF, 5%, 0207
0	R 702	57.11.3684		680k	MF, 1%, 0207
0	R 703	57.11.3682		6k8	MF, 1%, 0207
0	R 704	57.11.3151		150R	MF, 1%, 0207
0	R 705	57.11.3822		8k2	MF, 1%, 0207
0	R 706	57.11.3822		8k2	MF, 1%, 0207
0	R 707	57.11.3564		560k	MF, 1%, 0207
0	R 708	57.11.3332		3k3	MF, 1%, 0207
0	R 709	57.11.3105		1M0	MF, 1%, 0207
0	R 710	57.11.3682		6k8	MF, 1%, 0207
0	R 711	57.11.3224		220k	MF, 1%, 0207
0	R 712	57.11.3224		220k	MF, 1%, 0207
0	R 713	57.11.3682		6k8	MF, 1%, 0207
0	R 714	57.11.3682		6k8	MF, 1%, 0207
0	R 715	57.11.3822		8k2	MF, 1%, 0207
0	R 716	57.11.3822		8k2	MF, 1%, 0207
0	R 759	57.11.3682		6k8	MF, 1%, 0207
0	R 762	57.11.3223		22k	MF, 1%, 0207
0	R 763	57.11.3223		22k	MF, 1%, 0207
0	R 800	57.11.3689		6R8	MF, 1%, 0207
0	R 801	57.11.5155		1M5	MF, 5%, 0207
0	R 802	57.11.3684		680k	MF, 1%, 0207
0	R 803	57.11.3682		6k8	MF, 1%, 0207
0	R 804	57.11.3151		150R	MF, 1%, 0207
0	R 805	57.11.3822		8k2	MF, 1%, 0207
0	R 806	57.11.3822		8k2	MF, 1%, 0207
0	R 807	57.11.3564		560k	MF, 1%, 0207
0	R 808	57.11.3332		3k3	MF, 1%, 0207
0	R 809	57.11.3105		1M0	MF, 1%, 0207
0	R 810	57.11.3682		6k8	MF, 1%, 0207
0	R 811	57.11.3224		220k	MF, 1%, 0207
0	R 812	57.11.3224		220k	MF, 1%, 0207
0	R 813	57.11.3682		6k8	MF, 1%, 0207
0	R 814	57.11.3682		6k8	MF, 1%, 0207
0	R 815	57.11.3822		8k2	MF, 1%, 0207
0	R 816	57.11.3822		8k2	MF, 1%, 0207
0	R 859	57.11.3682		6k8	MF, 1%, 0207
0	R 862	57.11.3223		22k	MF, 1%, 0207
0	R 863	57.11.3223		22k	MF, 1%, 0207
0	R 900	57.11.3689		6R8	MF, 1%, 0207
0	R 901	57.11.5155		1M5	MF, 5%, 0207
0	R 902	57.11.3684		680k	MF, 1%, 0207
0	R 903	57.11.3682		6k8	MF, 1%, 0207
0	R 904	57.11.3151		150R	MF, 1%, 0207
0	R 905	57.11.3822		8k2	MF, 1%, 0207
0	R 906	57.11.3822		8k2	MF, 1%, 0207
0	R 907	57.11.3564		560k	MF, 1%, 0207
0	R 908	57.11.3332		3k3	MF, 1%, 0207
0	R 909	57.11.3105		1M0	MF, 1%, 0207
0	R 910	57.11.3682		6k8	MF, 1%, 0207
0	R 911	57.11.3224		220k	MF, 1%, 0207
0	R 912	57.11.3224		220k	MF, 1%, 0207
0	R 913	57.11.3682		6k8	MF, 1%, 0207
0	R 914	57.11.3682		6k8	MF, 1%, 0207
0	R 915	57.11.3822		8k2	MF, 1%, 0207
0	R 916	57.11.3822		8k2	MF, 1%, 0207
0	R 959	57.11.3682		6k8	MF, 1%, 0207
0	R 962	57.11.3223		22k	MF, 1%, 0207
0	R 963	57.11.3223		22k	MF, 1%, 0207
0	R 1000	57.11.3689		6R8	MF, 1%, 0207
0	R 1001	57.11.5155		1M5	MF, 5%, 0207
0	R 1002	57.11.3684		680k	MF, 1%, 0207
0	R 1003	57.11.3682		6k8	MF, 1%, 0207
0	R 1004	57.11.3151		150R	MF, 1%, 0207
0	R 1005	57.11.3822		8k2	MF, 1%, 0207
0	R 1006	57.11.3822		8k2	MF, 1%, 0207
0	R 1007	57.11.3564		560k	MF, 1%, 0207
0	R 1008	57.11.3332		3k3	MF, 1%, 0207
0	R 1009	57.11.3105		1M0	MF, 1%, 0207
0	R 1010	57.11.3682		6k8	MF, 1%, 0207
0	R 1011	57.11.3224		220k	MF, 1%, 0207
0	R 1012	57.11.3224		220k	MF, 1%, 0207
0	R 1013	57.11.3682		6k8	MF, 1%, 0207
0	R 1014	57.11.3682		6k8	MF, 1%, 0207
0	R 1015	57.11.3822		8k2	MF, 1%, 0207
0	R 1016	57.11.3822		8k2	MF, 1%, 0207
0	R 1059	57.11.3682		6k8	MF, 1%, 0207
0	R 1062	57.11.3223		22k	MF, 1%, 0207
0	R 1063	57.11.3223		22k	MF, 1%, 0207
0	RA 1	1.010.111.58		10k	POT 10K LIN
0	RA 101	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 201	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 301	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 401	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 501	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 601	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 701	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 801	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 901	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	RA 1001	58.01.9502		5k	Cermet, 10%, 0.5W, vertical
0	XIC 101	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 201	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 301	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 401	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 501	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 601	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 701	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 801	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 901	53.03.0166		8p	DIL 0.3", löt, gerade
0	XIC 1001	53.03.0166		8p	DIL 0.3", löt, gerade

End of List

Comments

CONTENTS

1 INTRODUCTION

The individual descriptions and application notes contained in this brochure are intended to acquaint designers and project engineers with the Studer Audio System Components. They allow to realize custom-tailored signal distribution, signal switching and amplifying systems to satisfy almost any individual requirement.

Euro-Cards (1.915....) The backbone of the system is the so-called Euro-card, a circuit board measuring 100 × 160 mm, which comes in a great variety of different circuit configurations.

Modular Sub-Cards (1.914....) Furthermore, there are the Modular Sub-Cards, small plug-in cards. Four of them can be accommodated on one Euro-size motherboard, allowing to make up a system which provides the ultimate in flexibility.

Racks, Frames (1.918....) Matching 19” mounting frames and 19” sub-racks for Euro-cards with or without power supply are available as well as installation hardware.

For prices please consult your local Studer distributor or contact:

Studer Professional Audio GmbH
Althardstrasse 30
CH-8105 Regensdorf
Switzerland

Phone: +41 44 870 75 11
Fax: +41 44 870 71 34
e-mail: sales@studer.ch

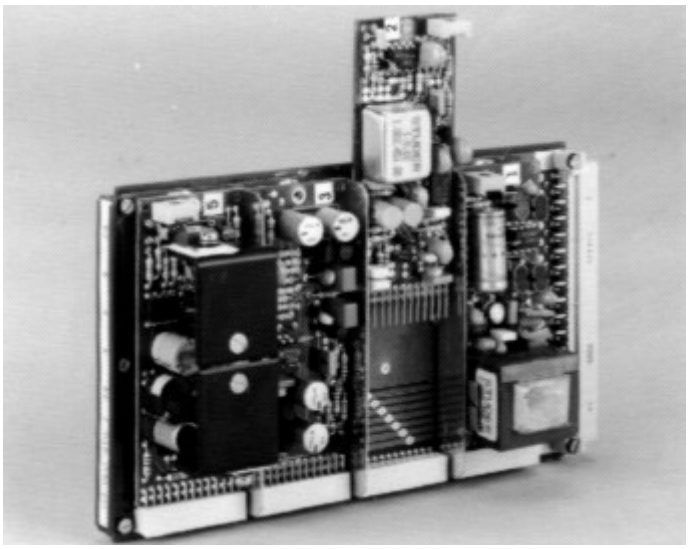
We reserve the right to change the design and the performance specifications of the products listed here as technical progress may warrant.

2 MSC SYSTEM

To provide highest possible flexibility for the designer of professional sound systems, Studer engineers have pursued a completely new concept.

The Euro-card is a convenient circuit board as far as its size and its plug-in features are concerned. However, it often offers excess space for a particular circuit. This has triggered the idea to utilize the Euro-card simply as a carrier (“motherboard”, order no. 1.915.770) for four smaller plug-in circuit boards, the “Modular Sub-Cards” (MSC).

The 32 connections of the Euro-card are divided into 6 supply lines common to the modular sub-cards, and 4 × 6 individual lines joining the plug-in sockets for each sub-card. The remaining 2 connections are used as separate bus lines, one of them leading to sub-cards 1 and 2, the other one to sub-cards 3 and 4, resulting in a total of 13 connections to each MSC. A small motherboard for only one MSC is available as well (order no. 1.914.500).



A great variety of different circuits is available in form of MSCs, such as

- Balancing amplifiers
- Microphone pre-amplifiers
- Speaker amplifiers
- 0-Ω input amplifiers
- Limiters
- Voltage controlled amplifiers (VCAs)
- Relay sub-cards
- High level input amplifiers
- Line output amplifiers
- 1900 Hz signal generator/decoder
- 90° filter, stereo/mono
- Flip-flop
- Breadboarding card (0.1”/2.54 mm grid)

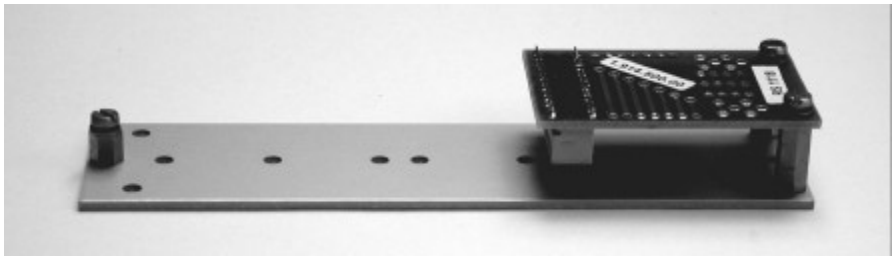
To meet the requirements of a system concept, a designer will be able to build individual circuits similar to working with a construction set: He either selects from the available circuits on Euro-cards or makes up his own Euro-card by simply arranging the most suitable combination of Modular Sub-Cards on the motherboard.

2.1 Modular Sub-Cards (MSCs)

2.1.1 Motherboard for 1 MS-Card 1.914.500

If only one MS-card is used, this motherboard is helpful for both mechanical and electrical interfacing. It consists of an aluminium mounting base (135 × 36 mm) and a small PCB with a connector for the MS-card; for wiring, this PCB contains solder terminals.

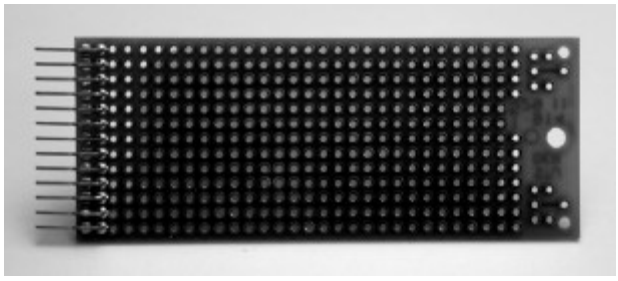
Note: For installation of up to four MS-cards, there is a second, Euro-card format motherboard available (1.915.770) that can be installed into an Euro-card rack. Please refer to chapter 2.2.1.



Ordering Information	Motherboard for 1 MS-card	1.914.500.xx

2.1.2 Breadboarding Card 1.914.529

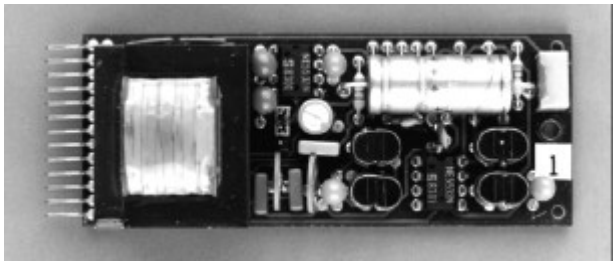
This experimental board is an empty plug-in PCB compatible with the MSC system. It offers a punched 0.1” grid (2.54 × 2.54 mm) for individual component placement.

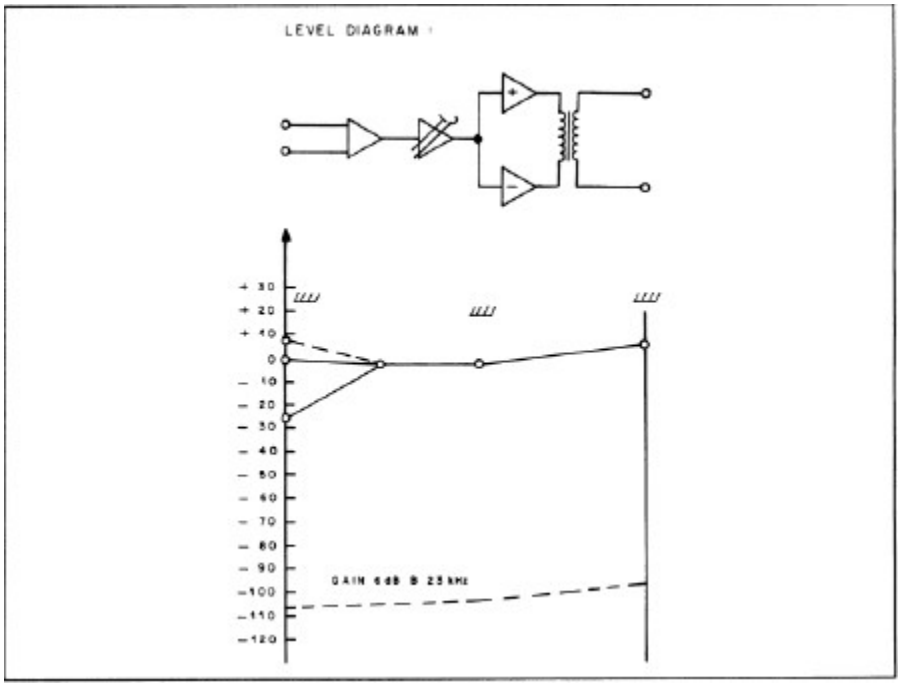


Ordering Information:	Breadboarding card	1.914.529.xx

2.1.3 Line Output Amplifier 1.914.501

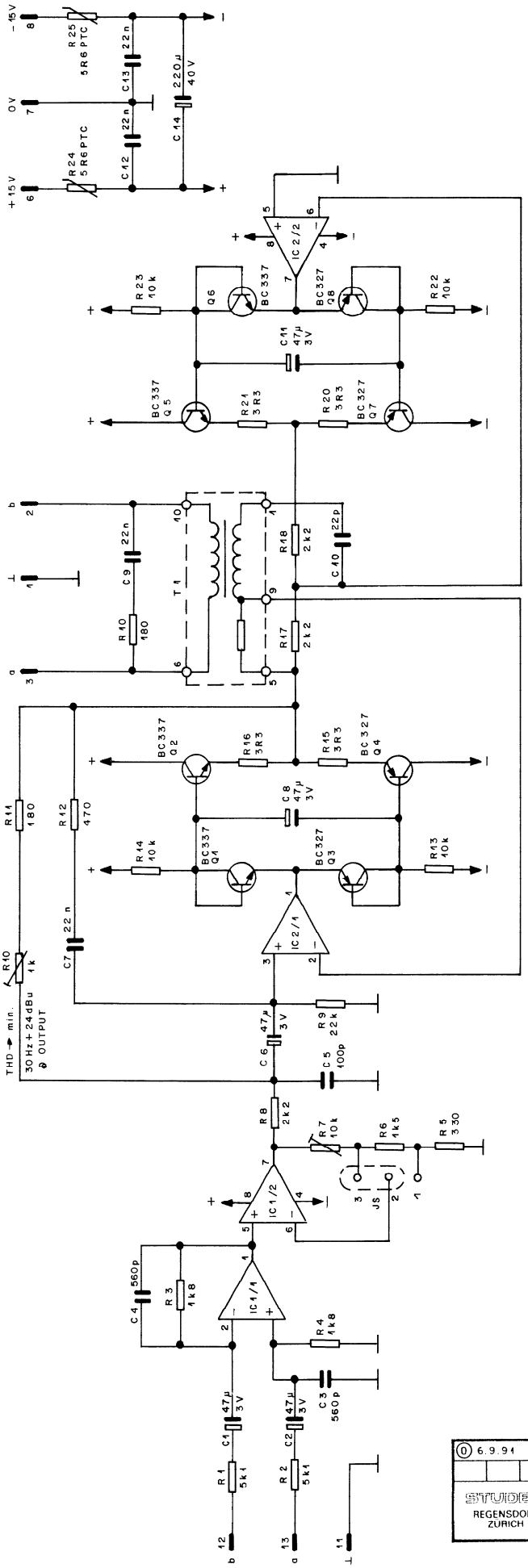
Designed for operation at a nominal line level of +6 dBu (1.55 V_{rms}), this amplifier can handle levels of up to +24 dBu (12.3 V_{rms}), providing an excellent overload margin without the risk of clipping. A unique circuit around the primary of the amplifier's output transformer ensures excellent frequency response performance throughout the audible range. Fine and coarse gain adjustment is provided which allows to accommodate input levels in the range from –22...+8 dBu for a nominal +6 dBu output.

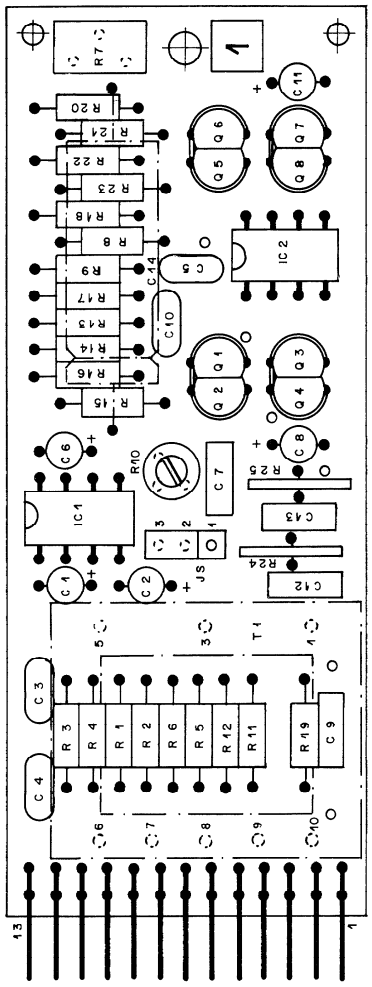


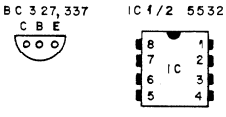


Technical Specifications

Input:	Impedance	> **10 kW**, electronically balanced (transformerless)
	Overload point	**+24 dBu**
Output:	Impedance	< **50 W**, balanced and floating
	Minimum load	**200 W**
	Maximum level	**+24 dBu**
	Gain	**–2 dB...+28 dB**; adjustment: coarse 0 or 15 dB/fine –2 dB...+13 dB
	Frequency response	**±0.2 dB**, 30 Hz...16 kHz
	THD	< **0.01%**, 30 Hz...16 kHz
	Equivalent input noise	< **–106 dB**, linear, at 6 dB gain
Supply:		**±15 V** (25 mA idling; max. 170 mA at +24 dBu into 200 Ω)
Dimensions:		**MS-card**, 34 × 85 mm
Ordering Information:		Line output amplifier 1.914.501.xx







BOTTOM VIEW

PIN		EURO 32 PIN			
		ⓐ	ⓑ	ⓒ	ⓓ
INP a	13	1	7	21	27
INP b	12	2	8	22	28
⊥	11	3	9	23	29
OUT a	3	4	10	24	30
OUT b	2	5	11	25	31
⊥	1	6	13	26	32
+15V	6	16			
0V	7	15			
-15V	8	14			

⓪ 6.9.91		
STUDER REGENSDORF ZURICH	LINE AMPLIFIER (NR 1)	SC 1.914.501.00

MSC LINE AMPLIFIER

Ad	POS.	REF.No.	DESCRIPTION				MANUFACTURER
①	C.....1	59.30.1470	47µ	3V	TA		
①	C.....2	59.30.1470	47µ	3V	TA		
	C.....3	59.34.5561	560pF	5%	CER		
	C.....4	59.34.5561	560pF	5%	CER		
	C.....5	59.34.4101	100pF		CER		
	C.....6	59.30.1470	47µF	3V	TA		
	C.....7	59.06.0222	2200pF		PE		
	C.....8	59.30.1470	47µF	3V	TA		
	C.....9	59.06.0223	0,022µF		PE		
	C....10	59.34.2220	22pF		CER		
	C....11	59.30.1470	47µF	3V	TA		
	C....12	59.06.0223	0,022µF		PE		
	C....13	59.06.0223	0,022µF		PE		
	C....14	59.25.5221	220µF	40V	EL		
	IC.....1	50.09.0105	NE5532	XR5532 DUAL OP LOW NOISE			SIG/EX
	IC.....2	50.09.0105	NE5532	XR5532 DUAL OP LOW NOISE			SIG/EX
	JSJ	54.01.0021		JUMPER JACK			
	JSP	54.01.0020		JUMPER PLUG 3PIN			
	Q.....1	50.03.0516	BC337	NPN IC 0,8A	]	MATCHED	ST
	Q.....2	50.03.0516	BC337	NPN IC 0,8A	]		ST
	Q.....3	50.03.0625	BC327	PNP IC 0,8A	]	MATCHED	ST
	Q.....4	50.03.0625	BC327	PNP IC 0,8A	]		ST
	Q.....5	50.03.0516	BC337	NPN IC 0,8A	]	MATCHED	ST
	Q.....6	50.03.0516	BC337	NPN IC 0,8A	]		ST
	Q.....7	50.03.0625	BC327	PNP IC 0,8A	]	MATCHED	ST
	Q.....8	50.03.0625	BC327	PNP IC 0,8A	]		ST
	R.....1	57.11.3512	5k1	1%			
	R.....2	57.11.3512	5k1	1%			
	R.....3	57.11.3182	1k8	1%			
	R.....4	57.11.3182	1k8	1%			
	R.....5	57.11.4331	330				
	R.....6	57.11.4152	1k5				
	R.....7	58.11.9103	10k	TRIM LIN			
	R.....8	57.11.4222	2k2				
	R.....9	57.11.4223	22k				
	R....10	58.11.6102	1k	TRIM LIN			
	R....11	57.11.4681	680				
	R....12	57.11.4471	470				
	R....13	57.11.4103	10k				
	R....14	57.11.4103	10k				
	R....15	57.11.4339	3,3				
	R....16	57.11.4339	3,3				
	R....17	57.11.4222	2k2				
	R....18	57.11.4222	2k2				
	R....19	57.11.4181	180				
	R....20	57.11.4339	3,3				
	R....21	57.11.4339	3,3				
	R....22	57.11.4103	10k				
	R....23	57.11.4103	10k				
	R....24	57.11.0209	5,6	PTC			PH
	R....25	57.11.0209	5,6	PTC			PH
		50.20.2001		CLIP			
	T.....1	1.022.355.00		LINE OUTPUT TRAFO			ST

CER=Ceramic, EL=Electrolytic, PE=Polyester, TA=Tantalum

MANUFACTURER: ST=Studer, SIG=Signetics, EX=Exar, PH=Philips

1.914.501.00 LINE AMPLIFIER (Nr. 1) FRI 06/06/83

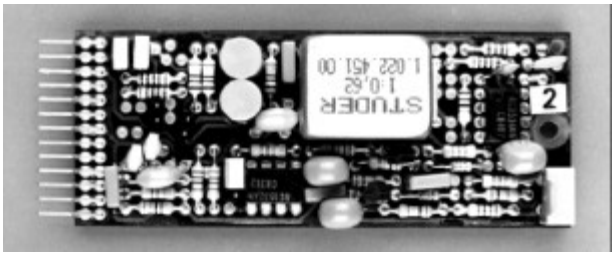
1.914.501.00 LINE AMPLIFIER (Nr. 1) ① FRI 17/11/83

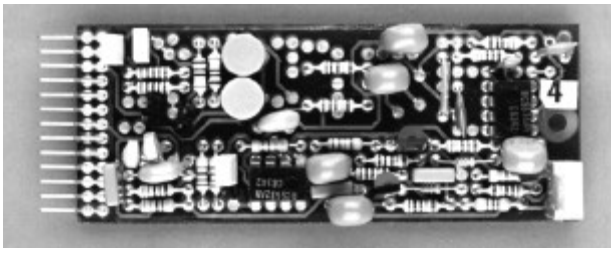
END

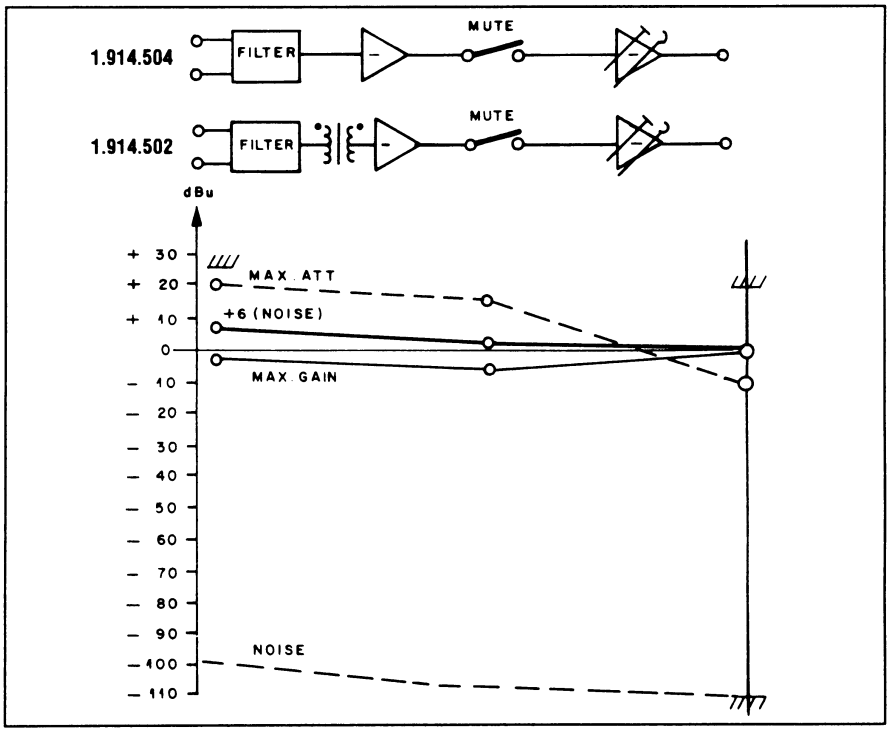
→

2.1.4 High-Level Input Amplifier 1.914.502/504

Basically, this is an amplifier with near 0 dB gain for high-level applications, yet with additional features, such as remote muting facility, RF input filter, and choice of two input and output impedances. The input configuration is balanced, whereas the output is unbalanced. Jumpers in the primary of the input circuit permit selection of either high-impedance operation with RF filter or a 0-Ω input without filter, for summing-bus applications. The combining (mixing) resistors have to be added externally. By switching pin3 of the amplifier's 13-pin plug to ground (via a corresponding connection on the motherboard) the amplifier may be muted from a remote point. If only 20 dB level reduction is desirable instead of muting, this can be programmed by connecting a resistor across two solder points.







The amplifier may be used, for example, to work into a 600 Ω load, or into the input of a 0-Ω input amplifier of another summing circuit.

If transformerless yet balanced input configuration is desired, an MSC amplifier with basically the same performance characteristics is available as well. Refer to the ordering information below.

Technical Specifications

Input:	Impedance	**> 10 kW** (transformer- or electronically balanced versions available; input with RF filter; 0-Ω input selectable with jumpers)
	Common mode rejection	**> 50 dB**
	Overload point	**+24 dBu** (12.3 V_{rms})
Output:	Impedance	**33 W** (pin1), unbalanced
	Minimum load	**600 W**
	Maximum level	**+20 dBu** (7.75 V_{rms})
	Impedance	**3.3 kW** (pin2), unbalanced, for 0-Ω operation
	Maximum gain	**1 dB**
	Maximum attenuation	**30 dB**
	Frequency response	**±0.3 dB**, 30 Hz...16 kHz
	THD	**< 0.03%**, 30 Hz...16 kHz
	Equivalent input noise	**–100 dBu**, unweighted, at 6 dB attenuation
	Programmable attenuation	**20 dB** (resistor 33 kΩ across muting circuit)
Supply:		**±15 V** (11 mA idling)
Dimensions:		**MS-card**, 34 × 85 mm

Ordering Information:	High level input amp with transformer-balanced input	1.914.502.xx
	High level input amp with electronically balanced input	1.914.504.xx

STUDER

0	19.4.85		
①	7.11.85		
②	8.2.93		

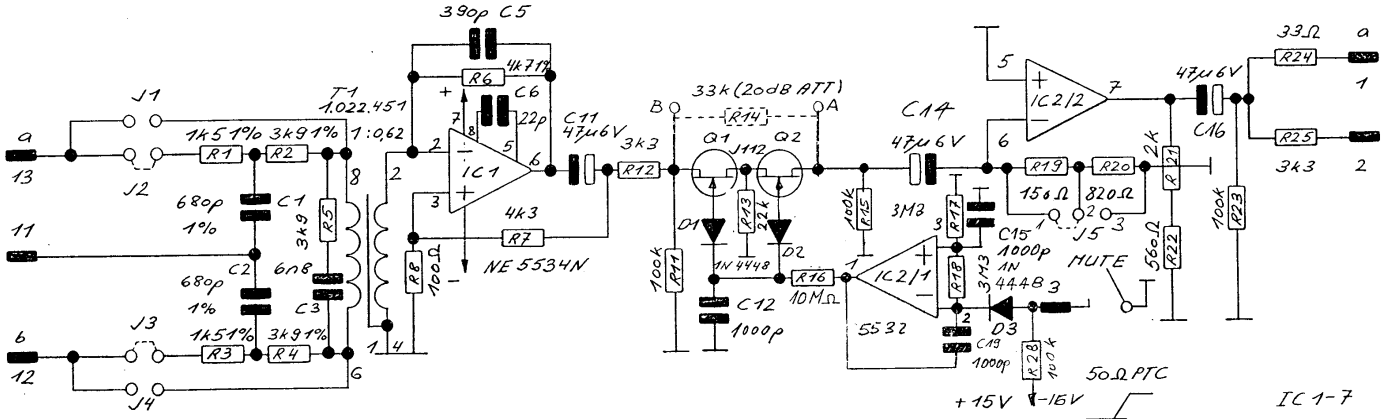
H. INPUT AMP. BOARD (W2)

MIXING CONSOLE 900

1.914.502.81

PAGE 1 OF 1

CIS PIN		EURO 32 P a	b	c	d
IN a	13	1	7	21	27
IN b	12	2	8	22	28
IN ⊥	11	3	9	23	29
	10				
	9				
-15V	8	14	—	—	—
0 V	7	15	—	—	—
+15V	6	16	—	—	—
	5				
	4				
MUTE	3	4	10	24	30
OUT (3k3)	2	5	11	25	31
OUT	1	6	13	26	32



GAIN

Adjustable (see level diagram)

Max. gain	V_{max} = + 1 dB
Max. attenuation	V_{min} = -30 dB

GENERAL

Frequency response	30Hz ... 16kHz	$\pm^{0}_{0,3}$ dB
THD amplifier	30Hz ... 16kHz	THD ⩽ -70 dB
Noise (B 23kHz), gain -6 dB		U_{NOISE} = -106 dBu

ATTENUATOR

Mute switch, with resistor programable to a attenuator of 20 dB

SUPPLY

Supply voltage	U = ± 15 V
Idle current	I = 11 mA

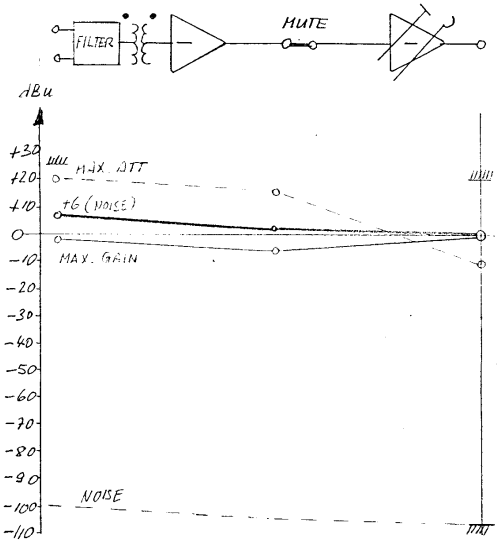
INPUT

Balanced, floating, RF-filter

Input impedance	R_i > 10 kΩ
0Ω input with jumper	
Max. input level	Uin = +24 dBu
Common mode rejection ratio	> 50 dB
Source impedance	R_S ⩽ 200 Ω

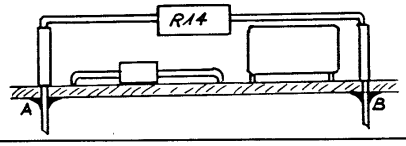
OUTPUT

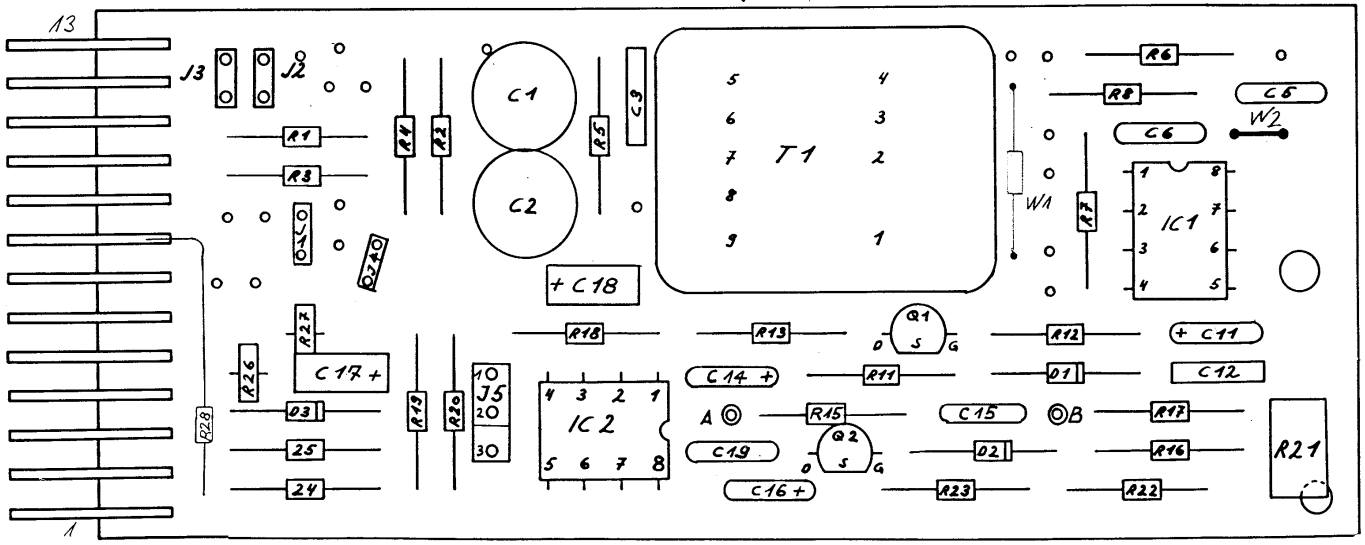
Max. output level	U_{out} = +20 dBu
Output impedance pin 1	R_{out} = 33 Ω
Load	R_L ⩾ 600 Ω
Output impedance pin 2 (to a 0Ω amp.)	R_{out} = 3k3



OPTION

33k (20 dB Attenuation)





HL Input Amp, transformer-balanced 1.914.502.81 (1)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.05.1681		680p	PP, 1%, 630V
0	C 2	59.05.1681		680p	PP, 1%, 630V
0	C 3	59.06.5682		6n8	PETP, 63V, 5%, RM5
0	C 5	59.34.5391		390p	CER 63V, 5%, N1500
0	C 6	59.34.2220		22p	CER 63V, 5%, N150
0	C 11	59.26.0470		47u	SAL 6.3V 20%
0	C 12	59.32.4102		1n0	CER 20%, 50V
0	C 13	not used		1n0	PETP, 63V, 10%, RM5
0	C 14	59.26.0470		47u	SAL 6.3V 20%
0	C 15	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 16	59.26.0470		47u	SAL 6.3V 20%
0	C 17	59.26.2689		6u8	SAL 16V 20%
0	C 18	59.26.2689		6u8	SAL 16V 20%
0	C 19	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	IC 1	50.05.0244		5534A	Single Op-amp, low noise
0	IC 2	50.09.0106		5532A	Dual Op-Amp, low noise
0	J 1	54.01.0021		Jumper	0.63*0.63mm, Au
0	J 2	54.01.0021		Jumper	0.63*0.63mm, Au
0	J 3	54.01.0021		Jumper	0.63*0.63mm, Au
0	P 1	54.01.0273		13p	Stecker CIS parallelsteck
0	P 2	54.01.0020	11 pcs	1p	Pin, 1reihig, gerade
0	Q 1	50.03.0350		J112	JFET N-Channel
0	Q 2	50.03.0350		J112	JFET N-Channel
0	R 1	57.11.3152		1k5	MF, 1%, 0207
0	R 2	57.11.3392		3k9	MF, 1%, 0207
0	R 3	57.11.3152		1k5	MF, 1%, 0207
0	R 4	57.11.3392		3k9	MF, 1%, 0207
0	R 5	57.11.3392		3k9	MF, 1%, 0207
0	R 6	57.11.3472		4k7	MF, 1%, 0207
0	R 7	57.11.3432		4k3	MF, 1%, 0207
0	R 8	57.11.3101		100R	MF, 1%, 0207
0	R 11	57.11.3104		100k	MF, 1%, 0207
0	R 12	57.11.3332		3k3	MF, 1%, 0207
0	R 13	57.11.3223		22k	MF, 1%, 0207
0	R 14	not used		33k	MF, 1%, 0207
				optional (20 dB attenuation)	
0	R 15	57.11.3104		100k	MF, 1%, 0207
0	R 16	57.11.5106		10M	MF, 5%, 0207
0	R 17	57.11.5335		3M3	MF, 5%, 0207
0	R 18	57.11.5335		3M3	MF, 5%, 0207
0	R 19	57.11.3151		150R	MF, 1%, 0207
0	R 20	57.11.3821		820R	MF, 1%, 0207
0	R 21	58.01.9202		2k0	Cermet, 10%, 0.5W, vertical
0	R 22	57.11.3561		560R	MF, 1%, 0207
0	R 23	57.11.3104		100k	MF, 1%, 0207
0	R 24	57.11.3330		33R	MF, 1%, 0207
0	R 25	57.11.3332		3k3	MF, 1%, 0207
0	R 26	57.99.0206		50R	PTC, 25V, 0.5W
0	R 27	57.99.0206		50R	PTC, 25V, 0.5W
0	R 28	57.11.3104		100k	MF, 1%, 0207
0	T 1	1.022.451.00		1:0.62	EINGANGSTRAFO 1 : 0,62
1	W 1	57.11.3000		0R0	MF, 0207
1	W 2	64.01.0106		0.6mm	Schaltdraht Cu

End of List

Comments:

(01) W1, W2 added

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description

STUDER

0	19.4.85 qkr	
	14.10.85 qkr	8.2.93 qkr

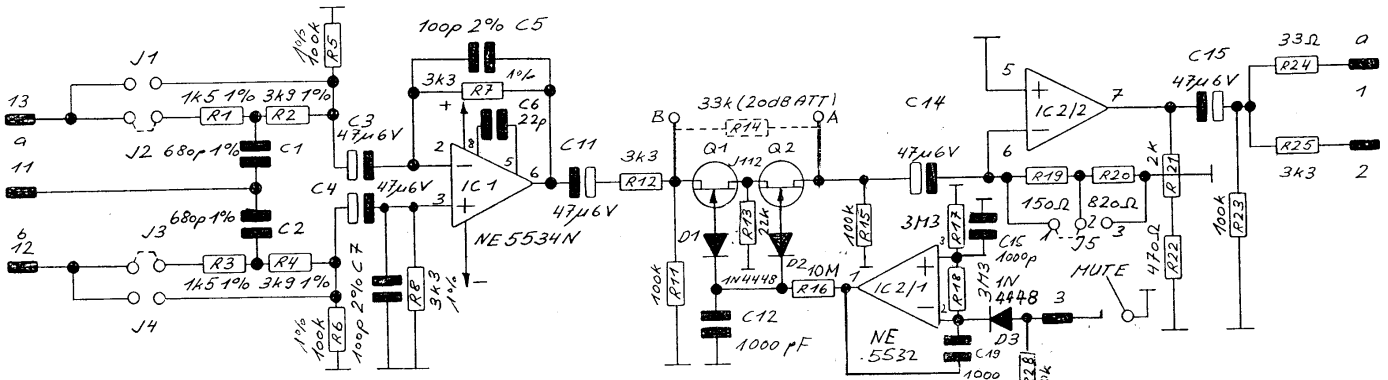
HL INPUT AMP. BALANCED (MRA4)

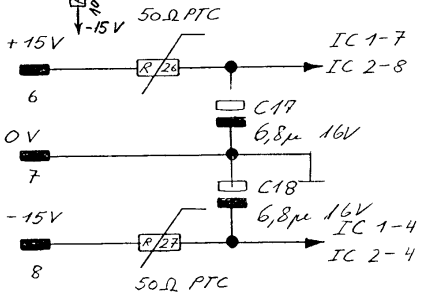
MINIMIX CONSOLE

1.914.504.81

PAGE 1 OF 1

CIS PIN		EURO 32 P a	b	c	d
IN a	13	1	7	21	27
IN b	12	2	8	22	28
IN ⊥	11	3	9	23	29
	10				
	9				
-15V	8	14			
0 V	7	15			
+15V	6	16			
	5				
	4				
MUTE [I]	3	4	10	24	30
OUT (3k3)	2	5	11	25	31
OUT	1	6	13	26	32





INPUT

Balanced, RF-filter

Input impedance	R_i > 10 kΩ
0Ω input with jumper	
Max. input level	Uin = +24 dBu
Source impedance	R_s ⩽ 200 Ω

OUTPUT

Max. output level	U_{out}= +20 dBu
Output impedance pin 1	R_{out}= 33 Ω
Load	R_L ⩾ 600 Ω
Output impedance pin 2 (to a 0Ω amp.)	R_{out}= 3k3

GAIN

Adjustable (see level diagram)

Max. gain	Vmax= + 1 dB
Max. attenuation	Vmin= -30 dB

GENERAL

Frequency response	30Hz ... 16kHz	$^{0}_{\pm 0,3}$ dB
THD amplifier	30Hz ... 16kHz	THD ⩽ 80 dB
Noise (B 23kHz), gain -6 dB		U_{NOISE}= -107 dBu

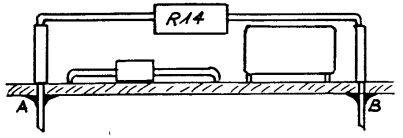
ATTENUATOR

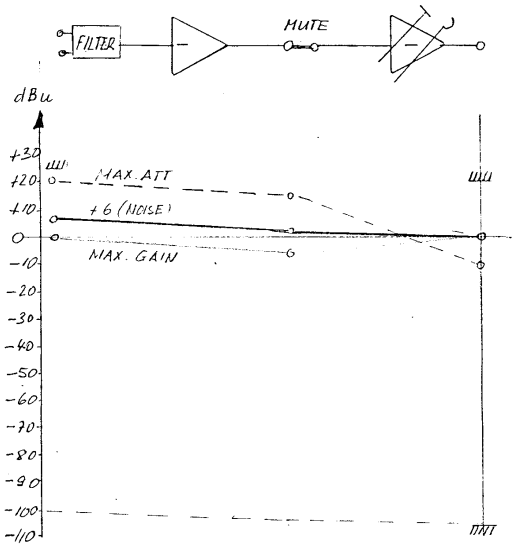
Mute switch, with resistor programable to a attenuator of 20 dB

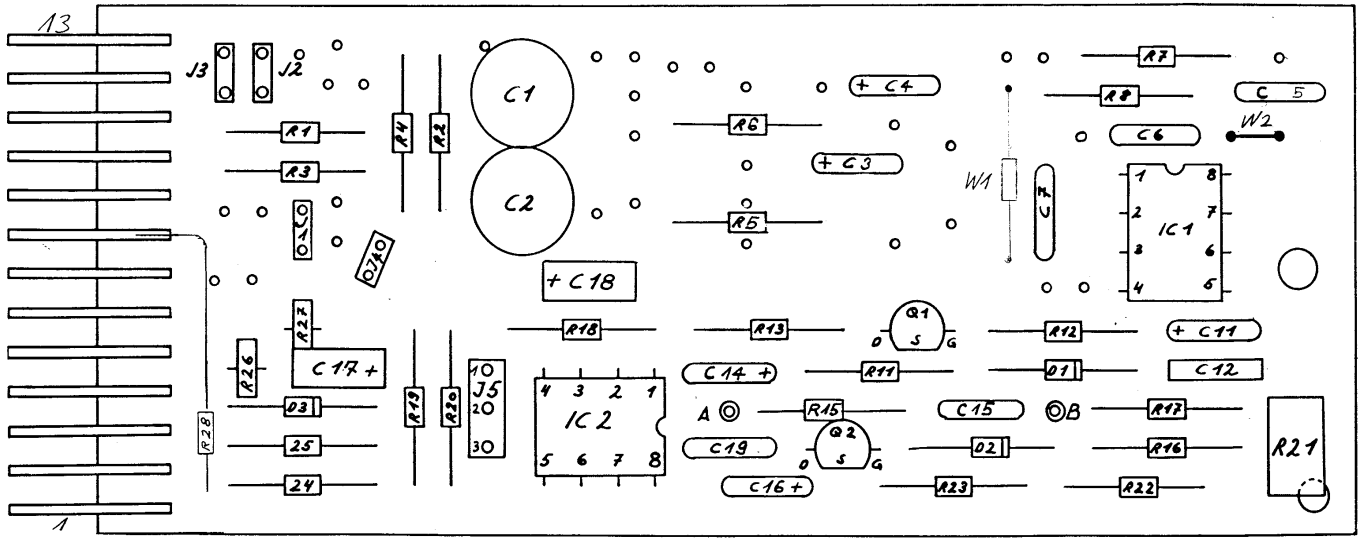
SUPPLY

Supply voltage	U = ± 15 V
Idle current	I = 11 mA

OPTION
33k (20 dB Attenuation)







HL Input Amp, electronically balanced 1.914.504.81 (1)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.05.1681		680p	PP, 1%, 630V
0	C 2	59.05.1681		680p	PP, 1%, 630V
0	C 3	59.26.0470		47u	SAL 6.3V 20%
0	C 4	59.26.0470		47u	SAL 6.3V 20%
0	C 5	59.34.2101		100p	CER 63V, 5%, N150
0	C 6	59.34.2220		22p	CER 63V, 5%, N150
0	C 7	59.34.2101		100p	CER 63V, 5%, N150
0	C 11	59.26.0470		47u	SAL 6.3V 20%
0	C 12	59.32.4102		1n0	CER 20%, 50V
0	C 14	59.26.0470		47u	SAL 6.3V 20%
0	C 15	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 16	59.26.0470		47u	SAL 6.3V 20%
0	C 17	59.26.2689		6u8	SAL 16V 20%
0	C 18	59.26.2689		6u8	SAL 16V 20%
0	C 19	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	IC 1	50.05.0244		5534A	Single Op-amp, low noise
0	IC 2	50.09.0106		5532A	Dual Op-Amp, low noise
0	J 1	54.01.0021		Jumper	0.63*0.63mm, Au
0	J 2	54.01.0021		Jumper	0.63*0.63mm, Au
0	J 3	54.01.0021		Jumper	0.63*0.63mm, Au
0	P 1	54.01.0273		13p	Stecker CIS parallelsteck
0	P 2	54.01.0020	9 pcs	1p	Pin, 1reihig, gerade
0	Q 1	50.03.0350		J112	JFET N-Channel
0	Q 2	50.03.0350		J112	JFET N-Channel
0	R 1	57.11.3152		1k5	MF, 1%, 0207
0	R 2	57.11.3392		3k9	MF, 1%, 0207
0	R 3	57.11.3152		1k5	MF, 1%, 0207
0	R 4	57.11.3392		3k9	MF, 1%, 0207
0	R 5	57.11.3104		100k	MF, 1%, 0207
0	R 6	57.11.3104		100k	MF, 1%, 0207
0	R 7	57.11.3332		3k3	MF, 1%, 0207
0	R 8	57.11.3332		3k3	MF, 1%, 0207
0	R 11	57.11.3104		100k	MF, 1%, 0207
0	R 12	57.11.3332		3k3	MF, 1%, 0207
0	R 13	57.11.3223		22k	MF, 1%, 0207
0	R 14	not used		33k	MF, 1%, 0207
				optional (20 dB attenuation)	
0	R 15	57.11.3104		100k	MF, 1%, 0207
0	R 16	57.11.5106		10M	MF, 5%, 0207
0	R 17	57.11.5335		3M3	MF, 5%, 0207
0	R 18	57.11.5335		3M3	MF, 5%, 0207
0	R 19	57.11.3151		150R	MF, 1%, 0207
0	R 20	57.11.3821		820R	MF, 1%, 0207
0	R 21	58.01.9202		2k0	Cermet, 10%, 0.5W, vertical
0	R 22	57.11.3471		470R	MF, 1%, 0207
0	R 23	57.11.3104		100k	MF, 1%, 0207
0	R 24	57.11.3330		33R	MF, 1%, 0207
0	R 25	57.11.3332		3k3	MF, 1%, 0207
0	R 26	57.99.0206		50R	PTC, 25V, 0.5W
0	R 27	57.99.0206		50R	PTC, 25V, 0.5W
1	R 28	57.11.3104		100k	MF, 1%, 0207
1	W 1	57.11.3000		0R0	MF, 0207
1	W 2	64.01.0106		0.6mm	Schaltdraht Cu

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description

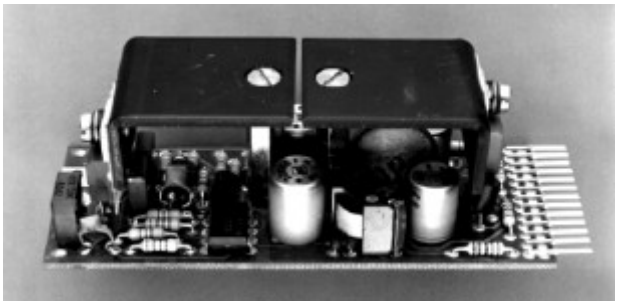
End of List

Comments:

(01) R28, W1, W2 added

2.1.5 Loudspeaker Amplifier 1.914.505

This low-power amplifier on a modular sub-card is designed to drive a 10...15 Ω speaker. Power output is about 2...3 W. As can be concluded from this specification, the amplifier is not intended for high-quality monitoring. It will be ideally suited, however, for pre-fader listening and similar applications. The amplifier's input is balanced and floating, with adjustable gain.



Technical Specifications

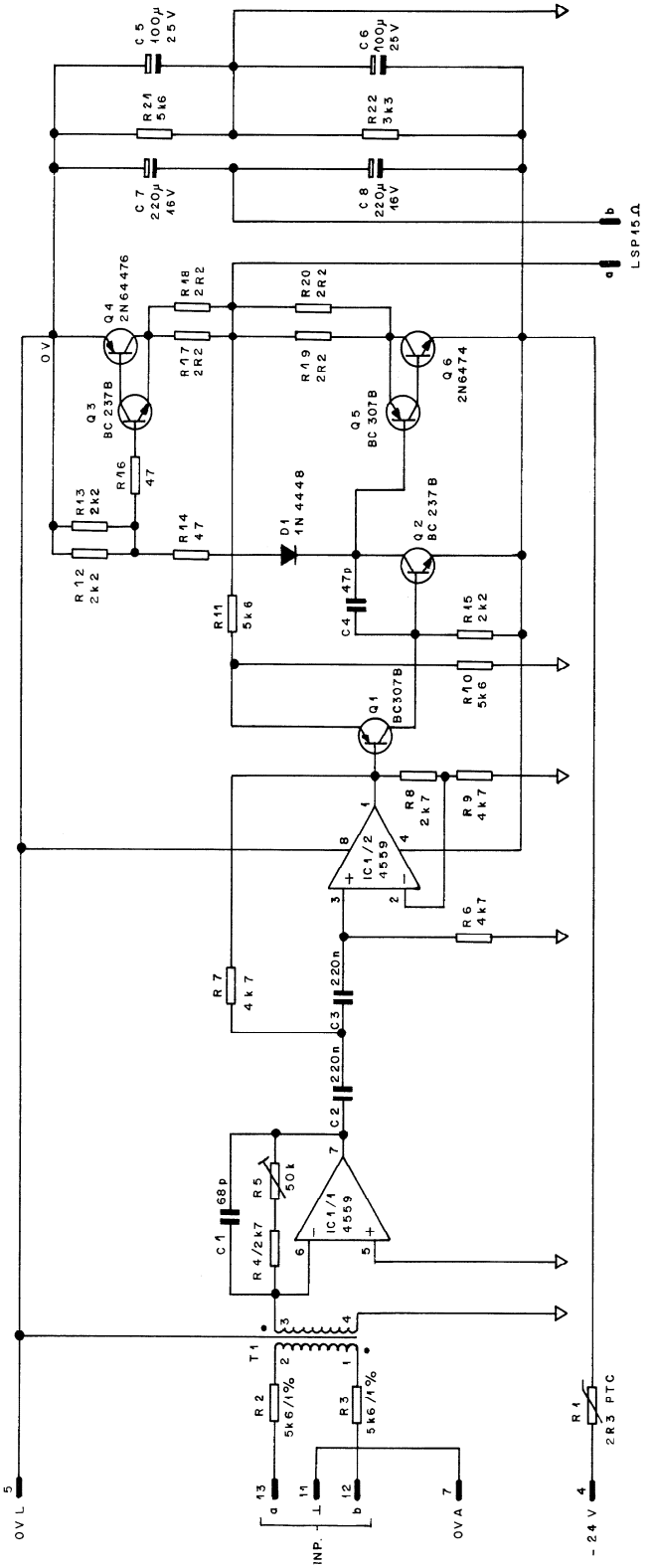
Input impedance	**> 10 kW,** balanced and floating (with transformer)
Nominal power output	**2 W** into 15 Ω
Power output	**25 mW...2.5 W** into 15 Ω, with 0 dBu input
Distortion	**< 0.5%** at 2 W
	< 0.15% at 500 mW
S/N	**99 dB,** ref. to 2 W at max. gain
Frequency response	**–0.5 dB** at 15 kHz
High pass filter	**150 Hz,** 12 dB/oct.

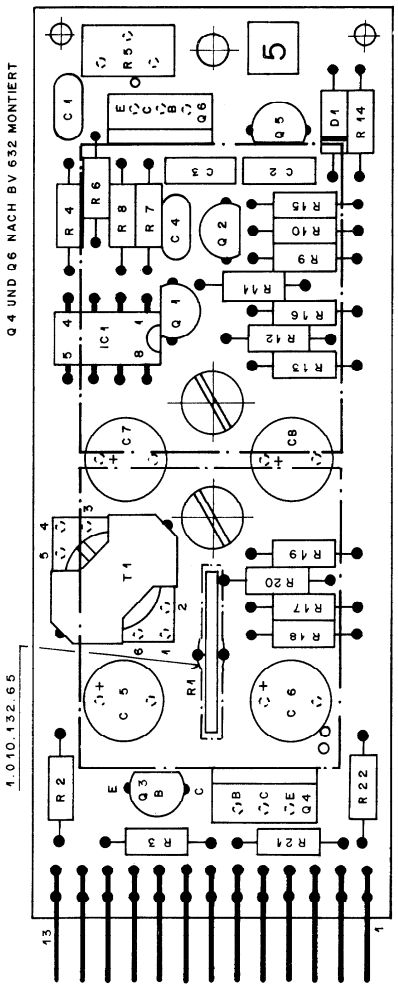
Supply: **–24 V** (40 mA idling, max. 220 mA fully driven)

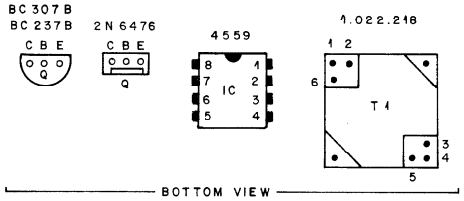
Dimensions: **MS-card,** 34 × 85 mm

Ordering Information: Loudspeaker amplifier 1.914.505.xx

MSC SPEAKER AMPLIFIER







CIS	PIN	EURO 32 PIN			
		ⓐ	ⓑ	ⓒ	ⓓ
INP a	13	1	7	21	27
INP b	12	2	8	22	28
(⊥)	11	3	9	23	29
	10				
	9				
	8				
(⊥)	7				
	6				
0 V	5	19			
- 24 V	4	20			
OUT a	3	4	10	24	30
OUT b	2	5	11	25	31
	1				

⓪ 13.9.91 fe		
STUDER REGENSDORF ZÜRICH	LSP AMPLIFIER 3 W (NR. 5)	1.914.505.00

MSC SPEAKER AMPLIFIER

Ad	POS.	REF.No.	DESCRIPTION		MANUFACTURER
	C.....1	59.34.4680	68pF		CER
	C.....2	59.06.0224	0,22µF		PE
	C.....3	59.06.0224	0,22µF		PE
①	C.....4	59.34.2470	47pF		CER
	C.....5	59.22.5101	100µF	25V	EL
	C.....6	59.22.5101	100µF	25V	EL
	C.....7	59.22.4221	220µF	16V	EL
	C.....8	59.22.4221	220µF	16V	EL
	D.....1	50.04.0125	1N4448		
	IC.....1	50.09.0107	RC4559		
	P.....1	54.01.0273	13P	CIS	
	Q.....1	50.03.0515	BC307B		
	Q.....2	50.03.0436	BC237B		
	Q.....3	50.03.0436	BC237B		
	Q.....4	50.03.0345	2N6476		
	Q.....5	50.03.0515	BC307B		
	Q.....6	50.03.0344	2N6474		
	R.....1	57.99.0210	2,3Ω		PTC
	R.....2	57.11.3562	5,6kΩ		
	R.....3	57.11.3562	5,6kΩ		
	R.....4	57.11.4272	2,7kΩ		
	R.....5	58.01.9503	50kΩ		PMG
	R.....6	57.11.4472	4,7kΩ		
	R.....7	57.11.4472	4,7kΩ		
	R.....8	57.11.4272	2,7kΩ		
	R.....9	57.11.4472	4,7kΩ		
	R....10	57.11.3562	5,6kΩ		
	R....11	57.11.3562	5,6kΩ		
	R....12	57.11.4222	2,2kΩ		
	R....13	57.11.4222	2,2kΩ		
	R....14	57.11.4470	47Ω		
	R....15	57.11.4222	2,2kΩ		
	R....16	57.11.4470	47Ω		
	R....17	57.11.4229	2,2Ω		
	R....18	57.11.4229	2,2Ω		
	R....19	57.11.4229	2,2Ω		
	R....20	57.11.4229	2,2Ω		
	R....21	57.11.3562	5,6kΩ		
	R....22	57.11.4332	3,3kΩ		
	T.....1	1.022.218.00	1:1		

CER=Ceramic, PE=Polyester, EL=Electrolytic, PTC=Pos. Temp. Coif., PMG=Cermet

1.914.505.00 LSP AMPLIFIER 3W (Nr. 5) P. Casutt 07/09/83

1.914.505.00 LSP AMPLIFIER 3W (Nr. 5) ① A. Ho 30/11/83

END

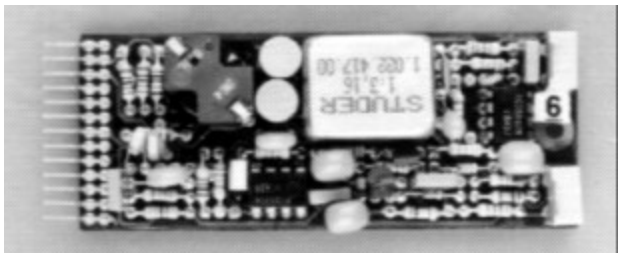
2.1.6 Microphone Pre-Amplifiers 1.914.506/507

Two different microphone pre-amplifiers are available, for dynamic or condenser microphones, and for electret microphones. Both offer high gain and low noise, as is required for microphone pre-amplification.

1.914.506 features a balanced and floating input. It is designed for dynamic or condenser microphones with a source impedance of 200 Ω or less. An RF filter is incorporated at the input transformer's primary. Furthermore, the input is equipped with the resistors required for phantom powering of condenser microphones.

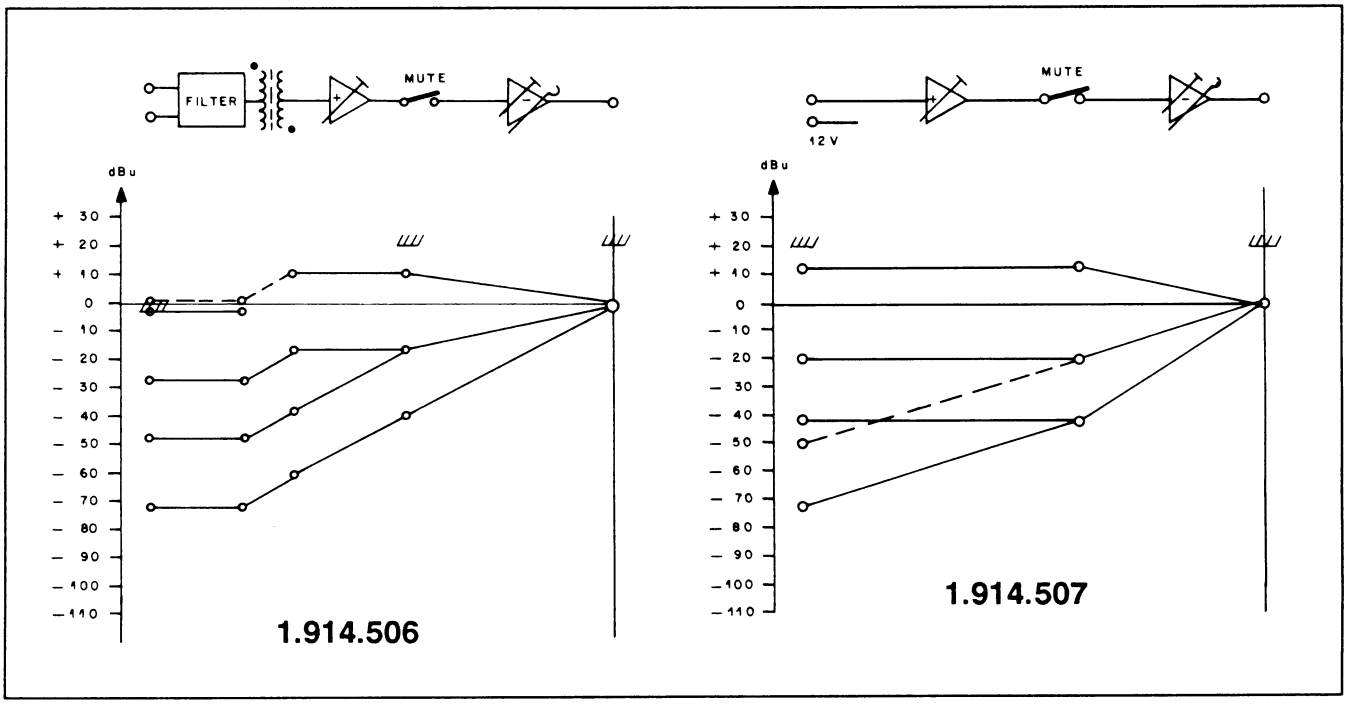
1.914.507 is designed for unbalanced electret microphones requiring a 12 V supply.

A wide range of input levels can be accommodated (see level diagram).



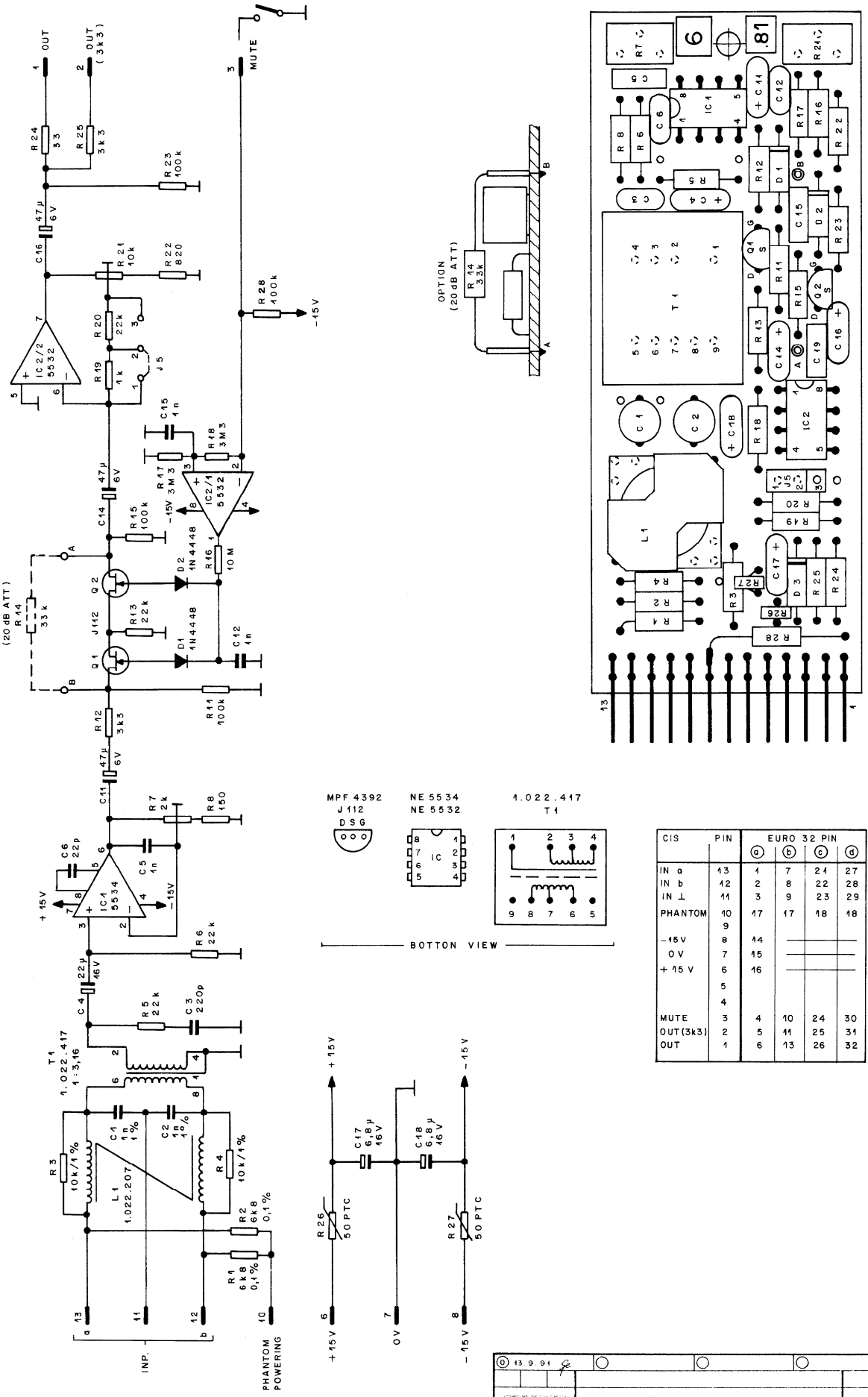
By using the same solid-state switching circuit as can be found in the line and high-level amplifiers, remote muting or activation of a fixed amount of attenuation are possible as well.

The amplifier's two outputs are unbalanced, with impedances of 3.3 kΩ or 33 Ω, respectively.



Technical Specifications

Input:		Transformer-balanced and floating, with RF filter	(1.914.506)
		Unbalanced, with RF filter and electret supply	(1.914.507)
	Impedance	> **1 kW,** for microphones with an impedance of 200 Ω or less.	
	Max. input level	**–2 dBu** (615 mV_{rms}); THD at 30 Hz: approx. 1%	
	Common mode rejection	> **60 dB**, unbalanced, to ground	
Output:	Max. level	**+20 dBu** (7.75 V_{rms})	
	Nominal level	**0 dBu** (0.775 V_{rms})	
	Impedance	**33 W** (pin1)	
		3.3 kW (pin2; to a 0-Ω amp.)	
	Minimum load	**600 W**	
	Max. gain	**71 dB** (see level diagram)	
	Frequency response	**±0.5 dB,** 30 Hz...16 kHz	
	THD	< **0.3%,** 30 Hz...16 kHz at 20 dB gain	
	Noise figure, linear	< **4.5 dB**, input terminated with 200 Ω	
Supply:		**±15 V** (11 mA idling)	
		+48 V (1.914.506, only if phantom powering required)	
Dimensions:		**MS-card,** 34 × 85 mm	
Ordering Information:	•	Microphone pre-amplifier for dynamic microphones	1.914.506.xx
	•	Microphone pre-amplifier for electret microphones	1.914.507.xx



CIS	PIN	EURO 32 PIN			
		(a)	(b)	(c)	(d)
IN a	13	1	7	21	27
IN b	12	2	8	22	28
IN ⊥	11	3	9	23	29
PHANTOM	10	17	17	18	18
	9				
-15V	8	14			
0V	7	15			
+15V	6	16			
	5				
	4				
MUTE	3	4	10	24	30
OUT(3k3)	2	5	11	25	31
OUT	1	6	13	26	32

13.9.91		
STUDER REGENSDORF ZURICH	MIC. AMPLIFIER FLOATING (NR. 6)	1.914.506.81

MICROPHONE PRE-AMP. MSC

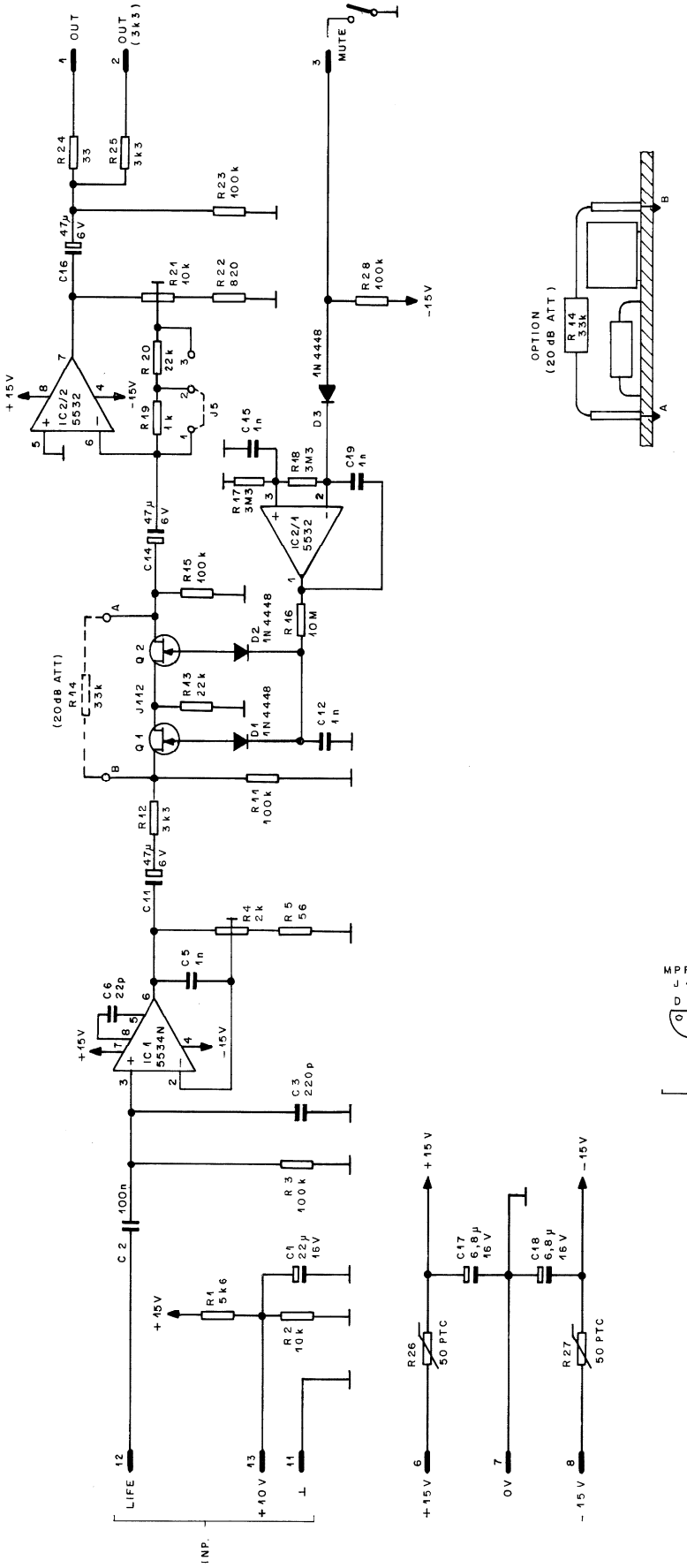
Ad	POS.	REF.No.	DESCRIPTION			MANUFACTURER
	C.....1	59.05.1102	1000pF	630V 1%	PP	
	C.....2	59.05.1102	1000pF	630V 1%	PP	
	C.....3	59.34.4221	220pF		CER	
	C.....4	59.30.4220	22µF	16V	TA	
	C.....5	59.06.0102	1000pF		PE	
	C.....6	59.34.2220	22pF		CER	
	C....11	59.26.0470	47µF	6,3V	SAL	
	C....12	59.32.4102	1000pF		CER	
	C....13					
	C....14	59.26.0470	47µF	6,3V	SAL	
	C....15	59.06.0102	1000pF		PE	
	C....16	59.26.0470	47µF	6,3V	SAL	
	C....17	59.26.2689	6,8µF	16V	SAL	
	C....18	59.26.2689	6,8µF	16V	SAL	
	C....19	59.06.0102	1000pF		PE	
	D.....1	50.04.0125	1N4448			
	D.....2	50.04.0125	1N4448			
	D.....3	50.04.0125	1N4448			
	IC.....1	50.05.0244	NE5534AN	LOW NOISE OP AMP		SIG
	IC.....2	50.09.0106	NE5532AN	DUAL LOW NOISE OP AMP		SIG
	J.....5	54.01.0021		JUMPER		
	L.....1	1.022.207.00		HF SYM. COIL		ST
	P	54.01.0273	13PIN	CIS		
	P (J5)	54.01.0020	PIN	JUMPER PLUG		
	Q.....1	50.03.0350	J112	N	N-FET	
	Q.....2	50.03.0350	J112	N	N-FET	
	R.....1	57.99.0250	6,8kΩ	0,1%		
	R.....2	57.99.0250	6,8kΩ	0,1%		
	R.....3	57.11.3103	10kΩ	1%		
	R.....4	57.11.3103	10kΩ	1%		
	R.....5	57.11.4123	12kΩ			
	R.....6	57.11.4223	22kΩ			
	R.....7	58.01.9202	2kΩ	POT		
	R.....8	57.11.4151	150			
	R....11	57.11.4104	100kΩ			
	R....12	57.11.4332	3,3kΩ			
	R....13	57.11.4223	22kΩ			
	R....14	57.11.4333	33kΩ	OPTIONAL (20dB ATT)		
	R....15	57.11.4104	100kΩ			
	R....16	57.11.5106	10MΩ			
	R....17	57.11.5335	3,3MΩ	5%		
	R....18	57.11.5335	3,3MΩ	5%		
	R....19	57.11.4102	1kΩ			
	R....20	57.11.4223	22kΩ			
	R....21	58.01.9103	10kΩ	POT		
	R....22	57.11.4821	820Ω			
	R....23	57.11.4104	100kΩ			
	R....24	57.11.4330	33Ω			
	R....25	57.11.4332	3,3kΩ			
	R....26	57.99.0206	50Ω	PTC		PH
	R....27	57.99.0206	50Ω	PTC		PH
	R....28	57.11.4104	100kΩ			
	T.....1	1.022.417.00	1:3,16	TRAFO		ST

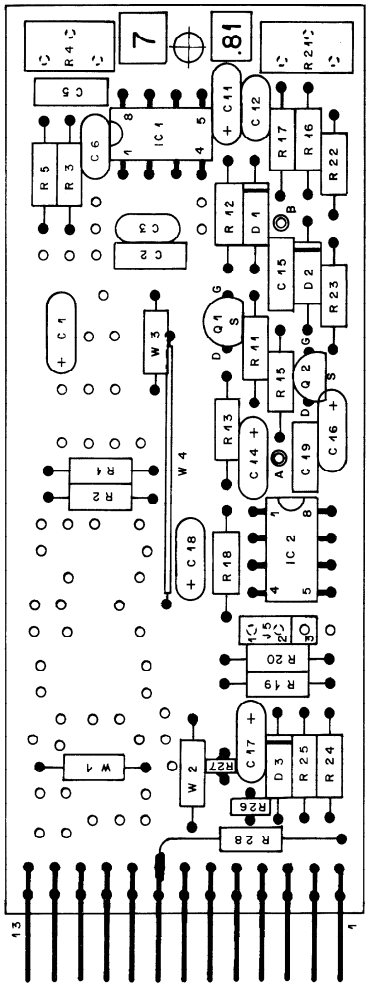
CER=Ceramic, PE=Polystyrene, SAL=Solid Aluminium, PP=Polypropylen, TA=Tantalum

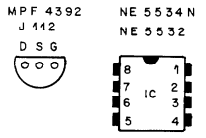
MANUFACTURER: ST=Studer, SIG=Signetics, PH=Philips

1.914.506.81 MIC. AMPLIFIER, FLOATING (Nr. 6) FRI 19/04/85

END







CIS	PIN	EURO 32 PIN			
		ⓐ	ⓑ	ⓒ	ⓓ
+ 10 V	13	1	7	21	27
IN	12	2	8	22	28
IN ⊥	11	3	9	23	29
	10				
	9				
- 15 V	8	14			
0 V	7	15			
+ 15 V	6	16			
	5				
	4				
MUTE	3	4	10	24	30
OUT(3k3)	2	5	11	25	31
OUT	1	6	13	26	32

⓪ 12.9.91 fz		
STUDER REGENSDORF ZÜRICH	ELECTRET MIC. AMP. (NR.7)	1.914.507.81

MICROPHONE PRE-AMP. MSC

Ad	POS.	REF.No.	DESCRIPTION			MANUFACTURER
	C....1	59.30.4220	22µF	16V	TA	
	C....2	59.06.5104	0,1µF	63V	PE	
	C....3	59.34.4221	220pF		CER	
	C....5	59.06.0102	1000pF		PE	
	C....6	59.34.2220	22pF		CER	
	C....11	59.26.0470	47µF	6,3V	SAL	
	C....12	59.32.4102	1000p		CER	
	C....13					
	C....14	59.26.0470	47µF	6,3V	SAL	
	C....15	59.06.0102	1000pF		PE	
	C....16	59.26.0470	47µF	6,3V	SAL	
	C....17	59.26.2689	6,8µF	16V	SAL	
	C....18	59.26.2689	6,8µF	16V	SAL	
	C....19	59.06.0102	1000pF		PE	
	D....1	50.04.0125	1N4448			
	D....2	50.04.0125	1N4448			
①	D....3	50.04.0125	1N4448			
	IC....1	50.05.0244	NE5534AN	LOW NOISE OP AMP		SIG
	IC....2	50.09.0106	NE5532AN	DUAL LOW NOISE OP AMP		SIG
	J....5	54.01.0021		JUMPER		
	P	54.01.0273	13PIN	CIS		
	P (J5)	54.01.0020	PIN	JUMPER PLUG		
	Q....1	50.03.0350	J112	N-FET		
	Q....2	50.03.0350	J112	N-FET		
	R....1	57.11.4562	5,6kΩ			
	R....2	57.11.4103	10kΩ			
	R....3	57.11.4104	100kΩ			
	R....4	58.01.9202	2kΩ	POT		
	R....5	57.11.4560	56Ω			
	R....11	57.11.4104	100kΩ			
	R....12	57.11.4332	3,3kΩ			
	R....13	57.11.4223	22kΩ			
	R....14	57.11.4333	33kΩ	OPTIONAL (20dB ATT)		
	R....15	57.11.4104	100kΩ			
	R....16	57.11.5106	10MΩ			
	R....17	57.11.5335	3,3MΩ	5%		
	R....18	57.11.5335	3,3MΩ	5%		
	R....19	57.11.4102	1kΩ			
	R....20	57.11.4223	22kΩ			
	R....21	58.01.9103	10kΩ	POT		
	R....22	57.11.4821	820Ω			
	R....23	57.11.4104	100kΩ			
	R....24	57.11.4330	33Ω			
	R....25	57.11.4332	3,3kΩ			
	R....26	57.99.0206	50Ω	PTC		PH
	R....27	57.99.0206	50Ω	PTC		PH
	R....28	57.11.4104	100kΩ			
①	W....1	57.11.4000		0Ω LINK		
①	W....2	57.11.4000		0Ω LINK		
①	W....3	57.11.4000		0Ω LINK		
①	W....4			WIRE		

CER=Ceramic, PE=Polystyrene, SAL=Solid Aluminium, TA=Tantalum

MANUFACTURER: SIG=Signetics, PH=Philips

1.914.507.81 ELECTRET MIC AMP (Nr. 7) FRI 19/04/85

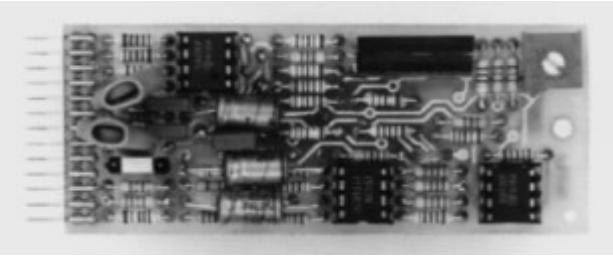
1.914.507.81 ELECTRET MIC AMP (Nr. 7) ① FRI 14/10/85

END

→

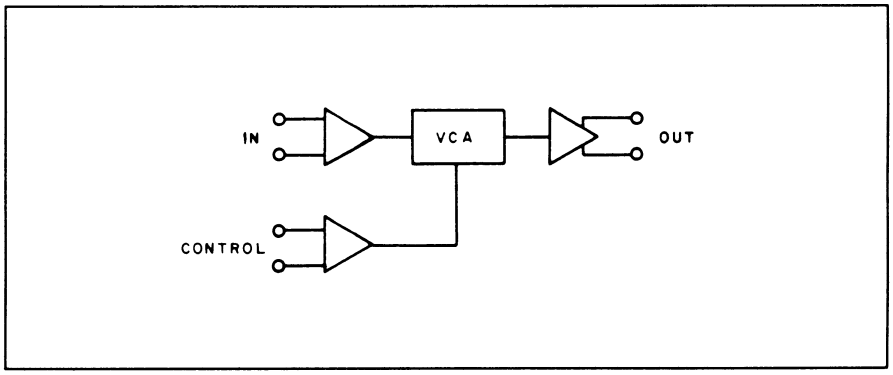
2.1.7 VCA with Electronically Balanced Connections 1.914.515

In contrast to the VCA 1.914.518/528 (chapter 2.1.8), this assembly features an electronically balanced input and output.



It is intended for use in balanced audio systems for a variety of applications, especially when gain is to be controlled from a remote point. It will be useful in audio-video post-production work where suitable DC ramps can control cross-fades, voice-overs, etc. Its high overload margin and its exceptionally low noise and distortion performance make it the perfect choice for high-quality audio applications.

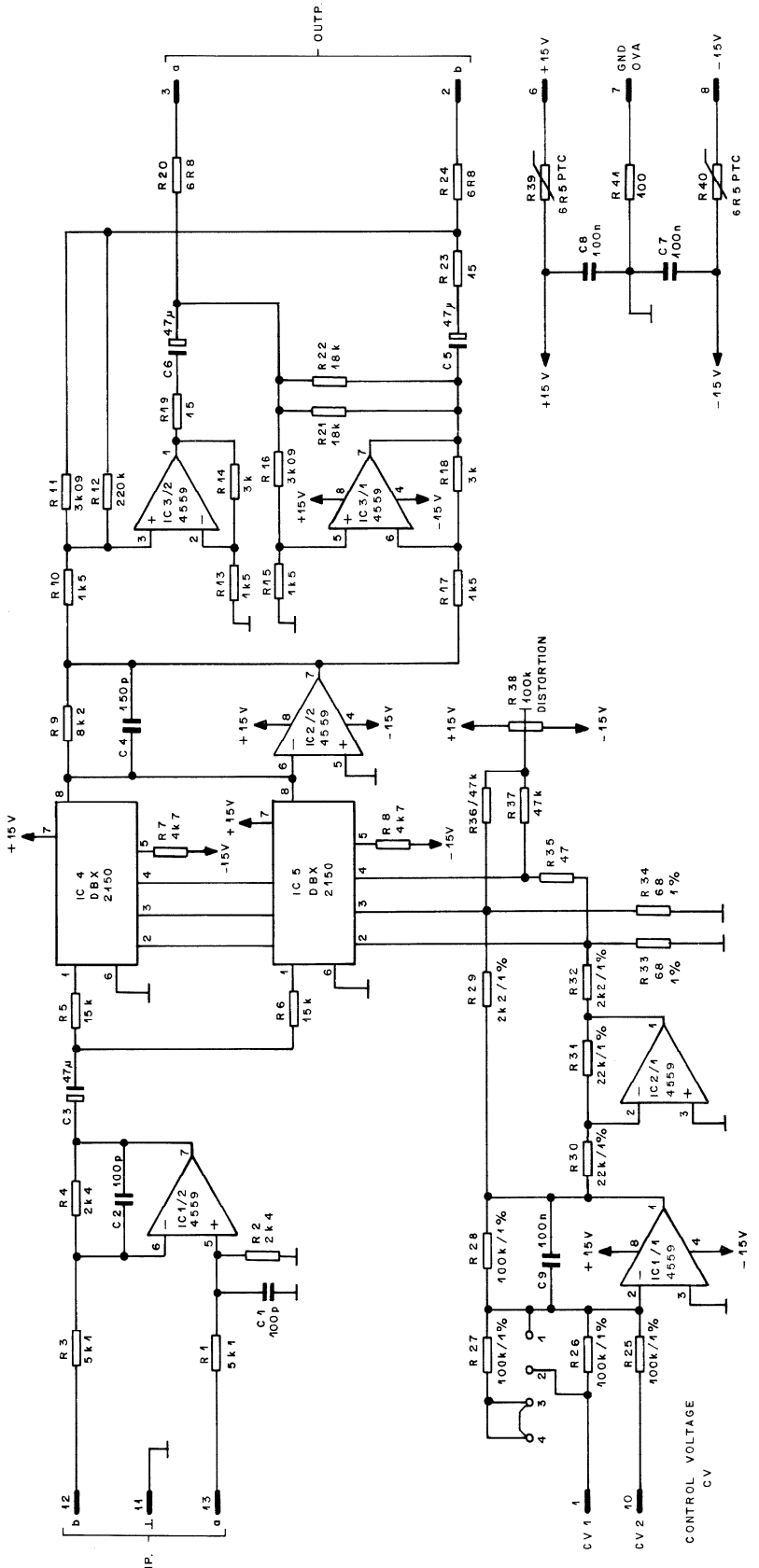
By connecting the gain control terminals of a number of VCAs to a common potentiometer or fader, several audio channels may thus be controlled simultaneously.

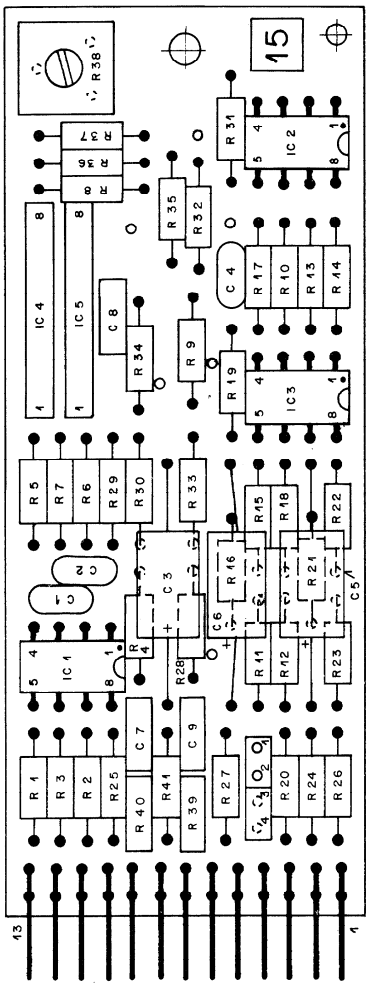


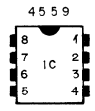
Two control inputs provide VCA gain control from two different remote points

Technical Specifications

Input:	Impedance	**³ 10 kW,** electronically balanced
	Clipping point	**+24 dBu**
Output:		Electronically balanced
	Recommended load	**³ 2 kW**
	Maximum level	**+24 dBu**
	Frequency response	**–0.5 dB,** 30 Hz...15 kHz
	Gain/attenuation range	**+40...–100 dB,** with ext. control
	Control input: pin1; gain tracking	**0 V = unity gain;** **1 dB/µA;** jumper 1-2 **20 dB/V;** jumper 2-3 **10 dB/V;** jumper 3-4
	Control input: pin10; gain tracking	**10 dB/V**
	THD	**< 0.1%**
	Equivalent input noise	**–93 dBu** @ unity gain
Supply:		**±15 V** (25 mA)
Dimensions:		**MS-card,** 34 × 85 mm
Ordering Information:		VCA with electronically balanced input and output 1.914.515.xx







CIS	PIN	EURO 32 PIN			
		a	b	c	d
INP a	13	1	7	21	27
INP b	12	2	8	22	28
⊥	11	3	9	23	29
CV 2	10	17	17	18	18
	9				
- 15 V	8	14			
OVA	7	15			
+ 15 V	6	16			
	5				
	4				
OUT a	3	4	10	24	30
OUT b	2	5	11	25	31
CV 1	1	6	13	26	32

0 17.9.91		
STUDER REGENSDORF ZÜRICH	BAL. AMP. WITH VCA	1.914.515.00

MSC VCA

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.34.4101	100 pF CER	
	C.....2	59.34.4101	100 pF CER	
	C.....3	59.25.3470	47 uF ALU	
	C.....4	59.34.4151	150 pF CER	
	C.....5	59.25.3470	47 uF ALU	
	C.....6	59.25.3470	47 uF ALU	
	C.....7	59.06.5104	100 nF PE	
	C.....8	59.06.5104	100 nF PE	
	C.....9	59.06.5104	100 nF PE	
	JS....1	54.01.0020	JUMPER PLUG 4-PIN	
	JP....1	54.01.0021	JUMPER JACK	
	IC....1	50.09.0107	RC4559 dual op. amp.	Ra,NE
	IC....2	50.09.0107	RC4559 dual op. amp.	Ra.NE
	IC....3	50.09.0107	RC4559 dual op. amp.	Ra,NE
	IC....4	50.11.0140	2150A VCA	DBX
	IC....5	50.11.0140	2150A VCA	DBX
	P.....1	54.01.0273	13 PIN CIS	
	R.....1	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R.....2	57.11.3242	2.4 kOhm 1% 0.25W MF	
	R.....3	57.11.3512	5.1 kOhm 1% 0.25W MF	
	R.....4	57.11.3242	2.4 kOhm 1% 0.25W MF	
	R.....5	57.11.3153	15 kOhm 1% 0.25W MF	
	R.....6	57.11.3153	15 kOhm 1% 0.25W MF	
	R.....7	57.11.4472	4.7 kOhm 5% 0.25W MF	
	R.....8	57.11.4472	4.7 kOhm 5% 0.25W MF	
	R.....9	57.11.3822	8.2 kOhm 1% 0.25W MF	
	R....10	57.11.3152	1.5 kOhm 1% 0.25W MF	
	R....11	57.39.3091	3.09kOhm 1% 0.25W MF	
	R....12	57.11.4224	220 kOhm 2% 0.25W MF	
	R....13	57.11.3152	1.5 kOhm 1% 0.25W MF	
	R....14	57.11.3302	3.0 kOhm 1% 0.25W MF	
	R....15	57.11.3152	1.5 kOhm 1% 0.25W MF	
	R....16	57.39.3091	3.09kOhm 1% 0.25W MF	
	R....17	57.11.3152	1.5 kOhm 1% 0.25W MF	
	R....18	57.11.3302	3.0 kOhm 1% 0.25W MF	
	R....19	57.11.3150	15 Ohm 1% 0.25W MF	
	R....20	57.11.3689	6.8 Ohm 1% 0.25W MF	
	R....21	57.11.3183	18 kOhm 1% 0.25W MF	
	R....22	57.11.3183	18 kOhm 1% 0.25W MF	
	R....23	57.11.3150	15 Ohm 1% 0.25W MF	
	R....24	57.11.3689	6.8 Ohm 2% 0.25W MF	
	R....25	57.11.3104	100 kOhm 1% 0.25W MF	
	R....26	57.11.3104	100 kOhm 1% 0.25W MF	
	R....27	57.11.3104	100 kOhm 1% 0.25W MF	
	R....28	57.11.3104	100 kOhm 1% 0.25W MF	
	R....29	57.11.3222	2.2 kOhm 1% 0.25W MF	
	R....30	57.11.3223	22 kOhm 1% 0.25W MF	
	R....31	57.11.3223	22 kOhm 1% 0.25W MF	
	R....32	57.11.3222	2.2 kOhm 1% 0.25W MF	
	R....33	57.11.3680	68 Ohm 1% 0.25W MF	
	R....34	57.11.3680	68 Ohm 1% 0.25W MF	
	R....35	57.11.4470	47 Ohm 2% 0.25W MF	
	R....36	57.11.4473	47 kOhm 2% 0.25W MF	
	R....37	57.11.4473	47 kOhm 2% 0.25W MF	
	R....38	58.01.8104	100 kOhm 10% 0.5 W PMG trimming resistor	
	R....39	57.92.1271	6.5 Ohm PTC Philips Nr.2322 662 12711	
01	R....39	57.92.7013	0.75 Ohm I-Hold 0.5A	R-PTC
	R....40	57.92.1271	6.5 Ohm PTC Philips Nr.2322 662 12711	
01	R....40	57.92.7013	0.75 Ohm I-Hold 0.5A	R-PTC
	R....41	57.11.4101	100 Ohm 2% 0.25W MF	

(01) 89/11/02 - Improvement of distance PTC - R

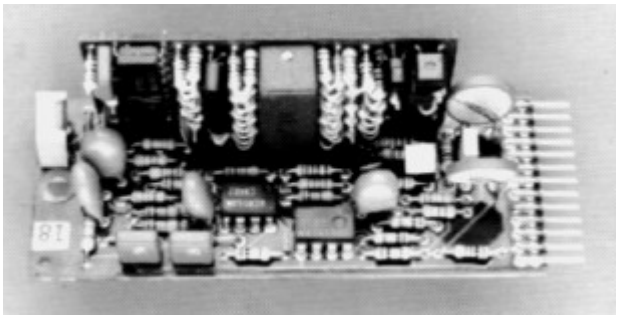
CER=Ceramic, PE=Polyester, SAL=Solid Aluminium
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NE=NEC, Ph=Philips, Ra=Raytheon,
Sig=Signetics, St=Studer,

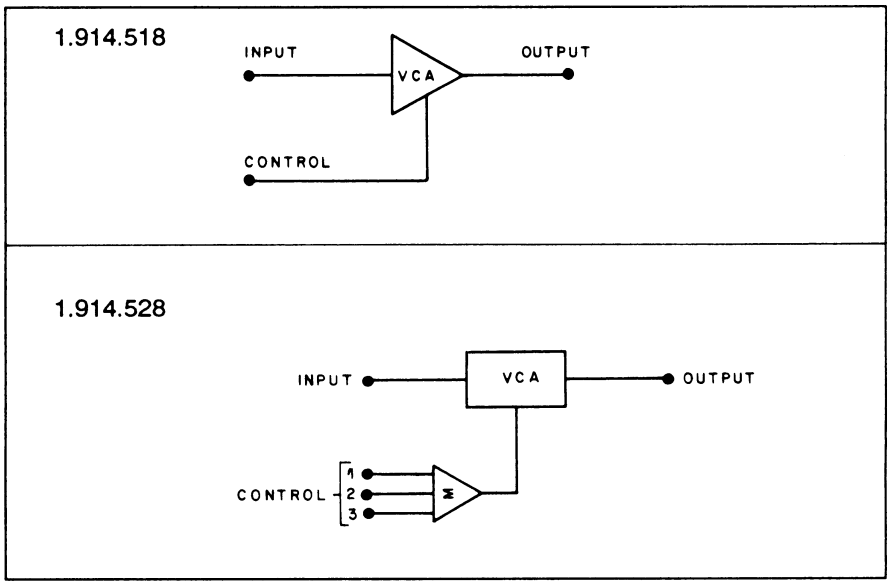
1.914.515.00	BAL AMP WITH VCA	SE 87/07/0100
1.914.515.00	BAL AMP WITH VCA	TA 89/11/0201

2.1.8 VCA with 1 or 3 Control Ports 1.914.518/528

Within the range of modular sub-cards, two more VCAs are available. Voltage controlled amplifiers are ideally suited for applications such as remote level control, level limiting (in combination with the voltage processor 1.914.519) or for automatic “voice-over” circuits, when driven by suitable ramp generators. These VCAs offer outstandingly low noise and harmonic distortion.



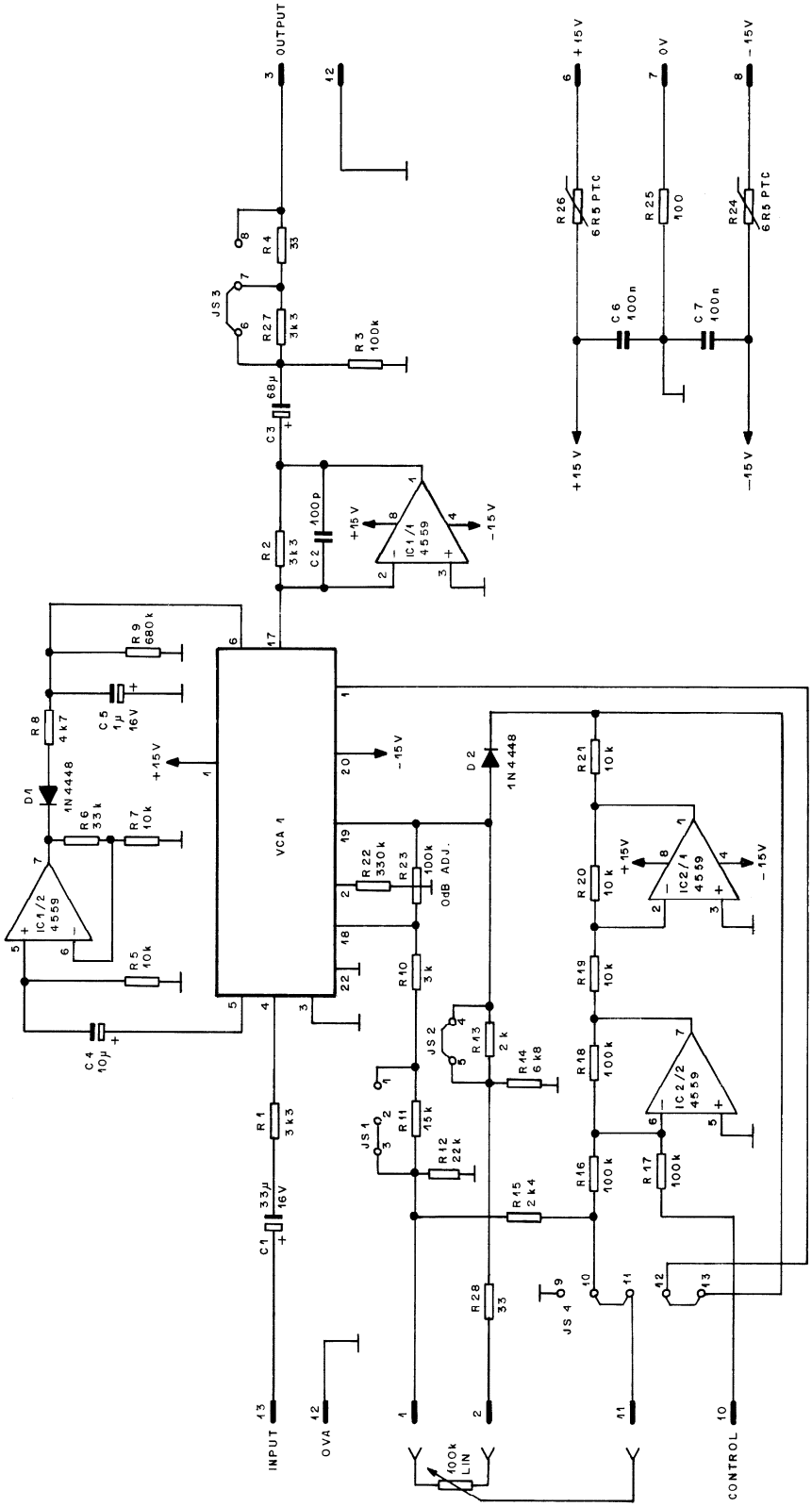
For best performance, they should be operated at a level of 0 dBu.
Gain pre-selection is possible on the 1.914.518 version, allowing gain/attenuation ranges either from +10 to –90 dB or from +40 to –70 dB, using an external potentiometer.
The 1.914.528 VCA card differs in that it is equipped with three external control inputs, providing gain control from three different locations.

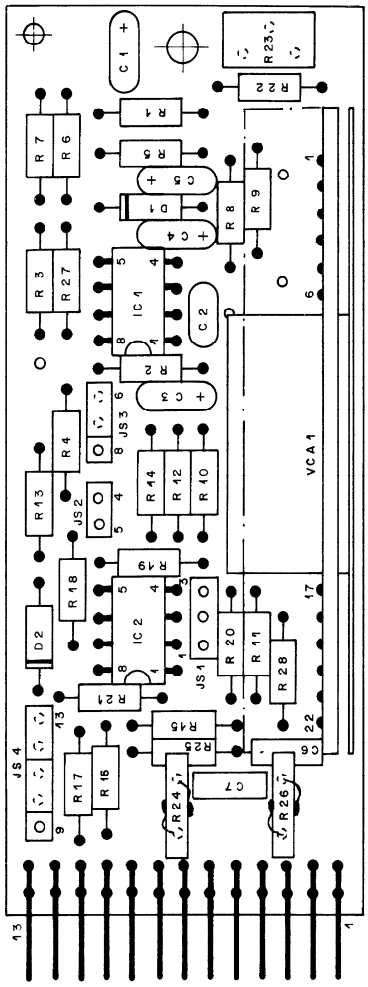


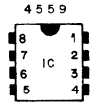
Technical Specifications

Input:	Impedance	**> 3 kW**
	Clipping point	**+20 dBu**
Output:	Impedance	**33 W or 3.3 kW,** selectable
	Max. level	**+20 dBu**
	Recommended load	**³ 2 kW**
	Frequency response	**–0.5 dB,** 30 Hz...16 kHz
	External gain control	**+40...–90 dB** (1.914.518.xx) **+40...–100 dB** (1.914.528.xx)
	Gain/attenuation range (pot. meter)	**+40...–60 dB / +10...–70 dB / +10...–90 dB** (1.914.518.xx only, jumper-selectable)
	Gain tracking	**10 dB/V**
	THD	**< 0.1%**
	Equivalent input noise	**–102 dBu**
Supply:		**±15 V** (40 mA)
Dimensions:		**MS-card,** 34 × 85 mm

Ordering Information:	Voltage controlled amplifier with 1 control port	1.914.518.xx
	Voltage controlled amplifier with 3 control ports	1.914.528.xx







BOTTOM VIEW

CIS	PIN	EURO 32 PIN ⓐ	ⓑ	ⓒ	ⓓ
INPUT	13	1	7	21	27
⊥(INP./OUTP.)	12	2	8	22	28
LIN POT TAP	11	3	9	23	29
LEVEL CONTR.	10	17	17	18	18
	9				
-15V	8	14			
0V	7	15			
+15V	6	16			
	5				
	4				
OUTPUT	3	4	10	24	30
LIN POT 100k	2	5	11	25	31
LIN POT 100k	1	6	13	26	32

⓪ 17.9.91				
STUDER REGENSDORF ZÜRICH	VCA UNIT			1.914.518.81

MSC VCA

Ad	..POS..	...REF.No...	DESCRIPTION				MANUFACTURER
	A.....1	1.010.110.50	Studer VCA				St
01	A.....1	1.911.290.00	VCA-BOARD				St
02	A.....1	1.911.290.81	VCA BOARD				St
	C.....1	59.26.1330	33 uF			SAL	
	C.....2	59.34.4101	100 pF			CER	
	C.....3	59.26.0680	68 uF			SAL	
	C.....4	59.26.2100	10 uF			SAL	
	C.....5	59.26.9109	1 uF			SAL	
	C.....6	59.06.5104	100 nF			PE	
	C.....7	59.06.5104	100 nF			PE	
	D.....1	50.04.0125	1N4448				any
	D.....2	50.04.0125	1N4448				any
	JS....1	54.01.0020	JUMPER PLUG 3-PIN				
	JS....2	54.01.0020	JUMPER PLUG 2-PIN				
	JS....3	54.01.0020	JUMPER PLUG 3-PIN				
	JS....4	54.01.0020	JUMPER PLUG 5-PIN				
	JP....1	54.01.0021	JUMPER JACK				
	JP....2	54.01.0021	JUMPER JACK				
	JP....3	54.01.0021	JUMPER JACK				
	JP....4	54.01.0021	JUMPER JACK				
	IC....1	50.09.0107	RC4559	dual op. amp.			Ra,NE
	IC....2	50.09.0107	RC4559	dual op. amp.			Ra,NE
	P.....1	54.01.0273	13 PIN			CIS	
	R.....1	57.11.4332	3.3 kOhm	5%	0.25W	MF	
	R.....2	57.11.4332	3.3 kOhm	5%	0.25W	MF	
	R.....3	57.11.4104	100 kOhm	5%	0.25W	MF	
	R.....4	57.11.4330	33 Ohm	5%	0.25W	MF	
	R.....5	57.11.4103	10 kOhm	5%	0.25W	MF	
	R.....6	57.11.4333	33 kOhm	5%	0.25W	MF	
	R.....7	57.11.4103	10 kOhm	5%	0.25W	MF	
	R.....8	57.11.4472	4.7 kOhm	5%	0.25W	MF	
	R.....9	57.11.4684	680 kOhm	5%	0.25W	MF	
	R....10	57.11.3302	3.0 kOhm	2%	0.25W	MF	
	R....11	57.11.4153	15 kOhm	2%	0.25W	MF	
	R....12	57.11.3242	2.4 kOhm	2%	0.25W	MF	
	R....13	57.11.3202	2 kOhm	2%	0.25W	MF	
	R....14	57.11.4682	6.8 kOhm	5%	0.25W	MF	
	R....15	57.11.4223	22 kOhm	5%	0.25W	MF	
	R....16	57.11.4104	100 kOhm	2%	0.25W	MF	
	R....17	57.11.4104	100 kOhm	2%	0.25W	MF	
	R....18	57.11.4104	100 kOhm	2%	0.25W	MF	
	R....19	57.11.4103	10 kOhm	2%	0.25W	MF	
	R....20	57.11.4103	10 kOhm	2%	0.25W	MF	
	R....21	57.11.4103	10 kOhm	5%	0.25W	MF	
	R....22	57.11.4334	330 kOhm	5%	0.25W	MF	
	R....23	58.01.9104	100 kOhm	10%	0.5 W	PMG	trimming resistor
	R....24	57.92.1271	6.5 Ohm			PTC	Philips Nr.2322 662 12711
	R....25	57.11.4101	100 Ohm	5%	0.25W	MF	
	R....26	57.92.1271	6.5 Ohm			PTC	Philips Nr.2322 662 12711
	R....27	57.11.4332	3.3 kOhm	5%	0.25W	MF	
	R....28	57.11.4330	33 Ohm	5%	0.25W	MF	

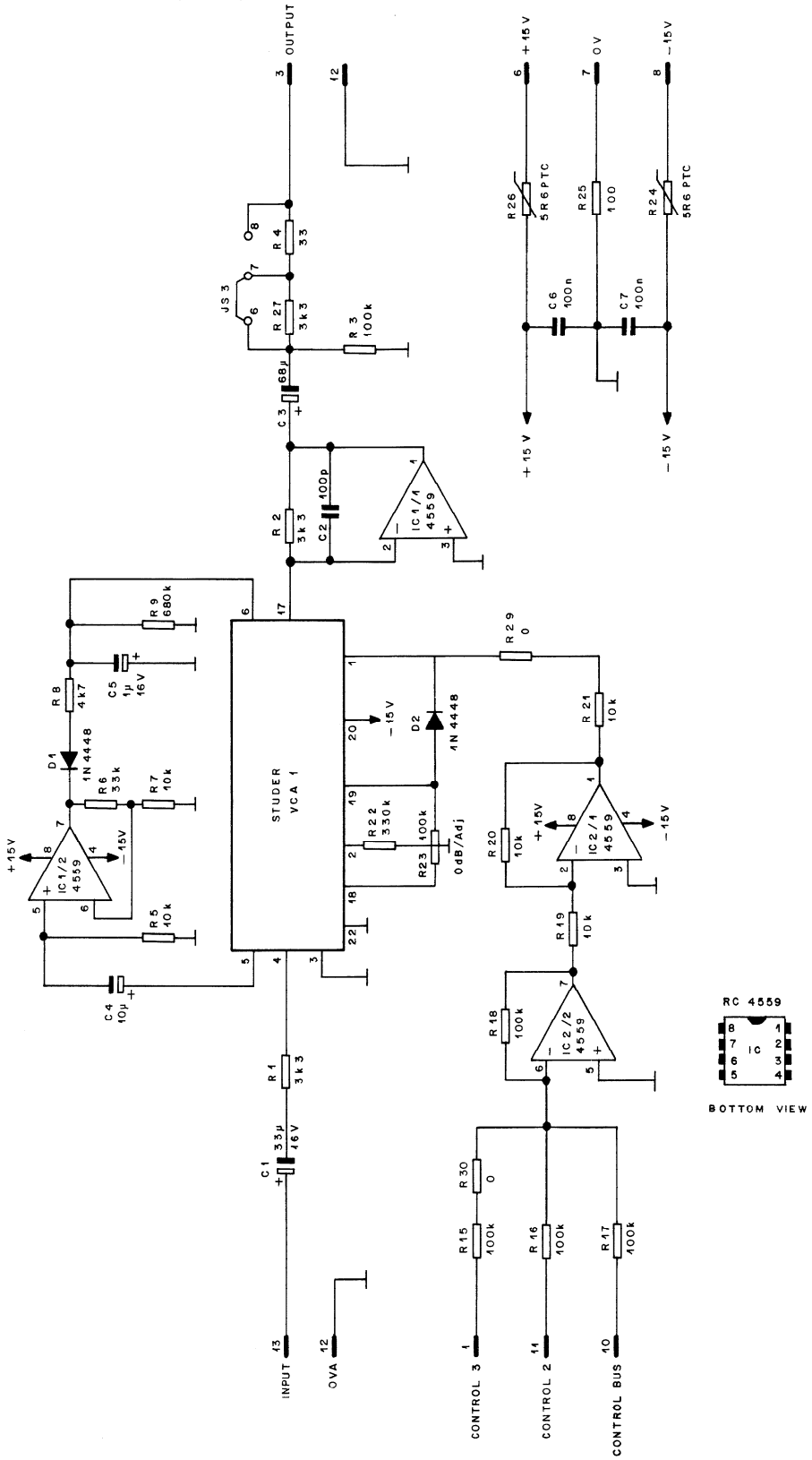
(1) 89/01/13 A1 VCA 1.010.110.50 replaced by 1.911.290.00

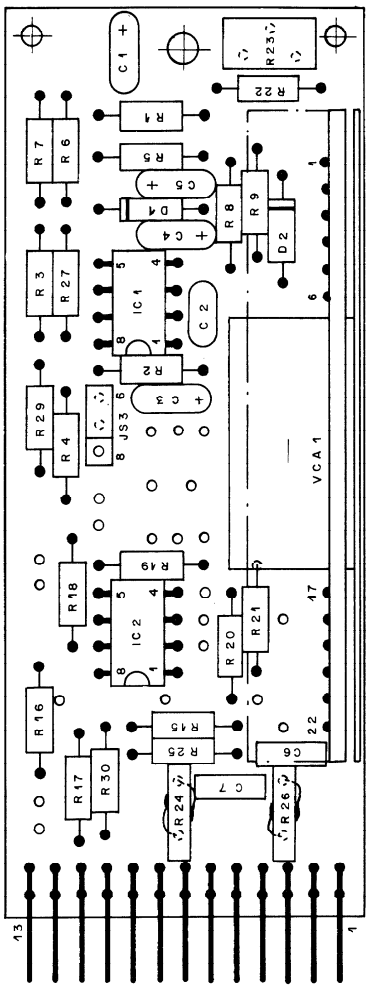
(2) 90/01/17 A1 VCA 1.911.290.00 replaced by 1.911.290.81

CER=Ceramic, PE=Polyester, SAL=Solid Aluminium Lacquard
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NE=NEC, Ph=Philips, Ra=Raytheon,
Sig=Signetics, St=Studer,

1.914.518.81	VCA UNIT	SE 86/11/0500
1.914.518.81	VCA UNIT	SE 89/01/1301
1.914.518.81	VCA UNIT	WY 90/01/1702





RC 4559

BOTTOM VIEW

CIS	PIN	EURO 32 PIN			
		(a)	(b)	(c)	(d)
INPUT	13	1	7	21	27
⊥ IN/OUT	12	2	8	22	28
CONTROL 2	11	3	9	23	29
CONTROL BUS	10	17	17	18	18
	9				
-15V	8	14			
0V	7	15			
+15V	6	16			
	5				
	4				
OUTPUT	3	4	10	24	30
	2	5	11	25	31
CONTROL 3	1	6	13	26	32

⓪ 23.9.91 Ge		
STUDER REGENSDORF ZÜRICH	VCA UNIT / 3 CONTROL	1.914.528.00

VCA MSC

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	A.....1	1.010.110.50	Studer VCA			St
01	A.....1	1.911.290.00	VCA-BOARD			St
02	A.....1	1.911.290.81	VCA-BOARD			St
	C.....1	59.26.1330	33 uF		SAL	
	C.....2	59.34.4101	100 pF		CER	
	C.....3	59.26.0680	68 uF		SAL	
	C.....4	59.26.2100	10 uF		SAL	
	C.....5	59.26.9109	1 uF		SAL	
	C.....6	59.06.5104	100 nF		PE	
	C.....7	59.06.5104	100 nF		PE	
	D.....1	50.04.0125	1N4448			any
	D.....2	50.04.0125	1N4448			any
	JS....3	54.01.0020	JUMPER PLUG 3-PIN			
	JP....1	54.01.0021	JUMPER JACK			
	IC....1	50.09.0107	RC4559	dual op. amp.		Ra,NE
	IC....2	50.09.0107	RC4559	dual op. amp.		Ra,NE
	P.....1	54.01.0273	13 PIN		CIS	
	R.....1	57.11.4332	3.3 kOhm	5% 0.25W	MF	
	R.....2	57.11.4332	3.3 kOhm	5% 0.25W	MF	
	R.....3	57.11.4104	100 kOhm	5% 0.25W	MF	
	R.....4	57.11.4330	33 Ohm	5% 0.25W	MF	
	R.....5	57.11.4103	10 kOhm	5% 0.25W	MF	
	R.....6	57.11.4333	33 kOhm	5% 0.25W	MF	
	R.....7	57.11.4103	10 kOhm	5% 0.25W	MF	
	R.....8	57.11.4472	4.7 kOhm	5% 0.25W	MF	
	R.....9	57.11.4684	680 kOhm	5% 0.25W	MF	
	R....15	57.11.4104	100 kOhm	2% 0.25W	MF	
	R....16	57.11.4104	100 kOhm	2% 0.25W	MF	
	R....17	57.11.4104	100 kOhm	2% 0.25W	MF	
	R....18	57.11.4104	100 kOhm	2% 0.25W	MF	
	R....19	57.11.4103	10 kOhm	2% 0.25W	MF	
	R....20	57.11.4103	10 kOhm	2% 0.25W	MF	
	R....21	57.11.4103	10 kOhm	5% 0.25W	MF	
	R....22	57.11.4334	330 kOhm	5% 0.25W	MF	
	R....23	58.01.9104	100 kOhm	10% 0.5 W	PMG	trimming resistor
	R....24	57.92.1271	6.5 Ohm		PTC	Philips Nr.2322 662 12711
	R....25	57.11.4101	100 Ohm	5% 0.25W	MF	
	R....26	57.92.1271	6.5 Ohm		PTC	Philips Nr.2322 662 12711
	R....27	57.11.4332	3.3 kOhm	5% 0.25W	MF	
	R....29	57.11.4000	0 Ohm			
	R....30	57.11.4000	0 Ohm			

(1) 89/01/13 A1 VCA 1.010.110.50 replaced by 1.911.290.00
(2) 90/01/17 A1 VCA 1.911.290.00 replaced by 1.911.290.81

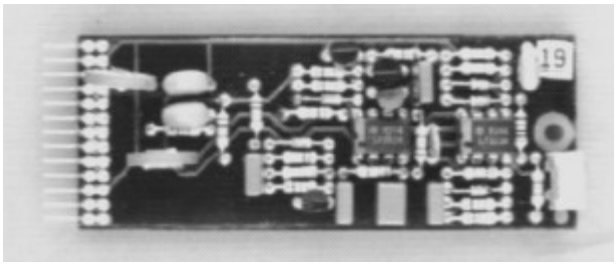
CER=Ceramic, PE=Polyester, SAL=Solid Aluminium
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NE=NEC, Ph=Philips, Ra=Raytheon,
Sig=Signetics, St=Studer,

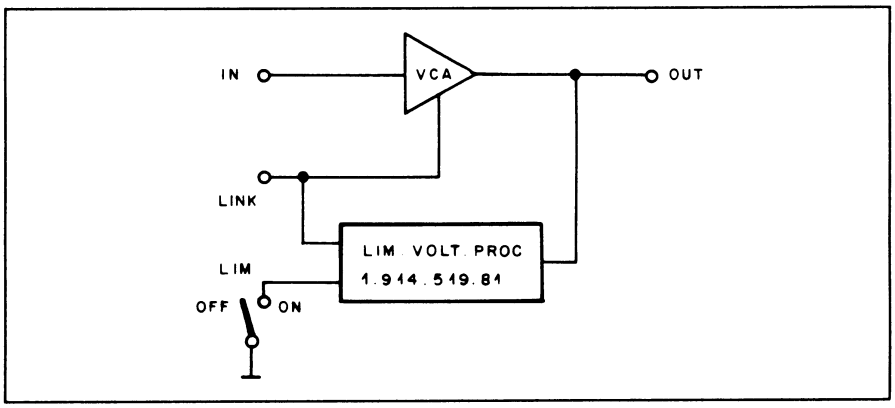
1.914.528.00	VCA UNIT / 3 CONTROL	SE 86/10/2800
1.914.528.00	VCA UNIT / 3 CONTROL	SE 89/01/1301
1.914.528.00	VCA UNIT / 3 CONTROL	WY 90/01/1702

2.1.9 Limiter Voltage Processor 1.914.519

Together with this voltage processor, the VCAs 1.914.518/528 can perform as signal level limiters.



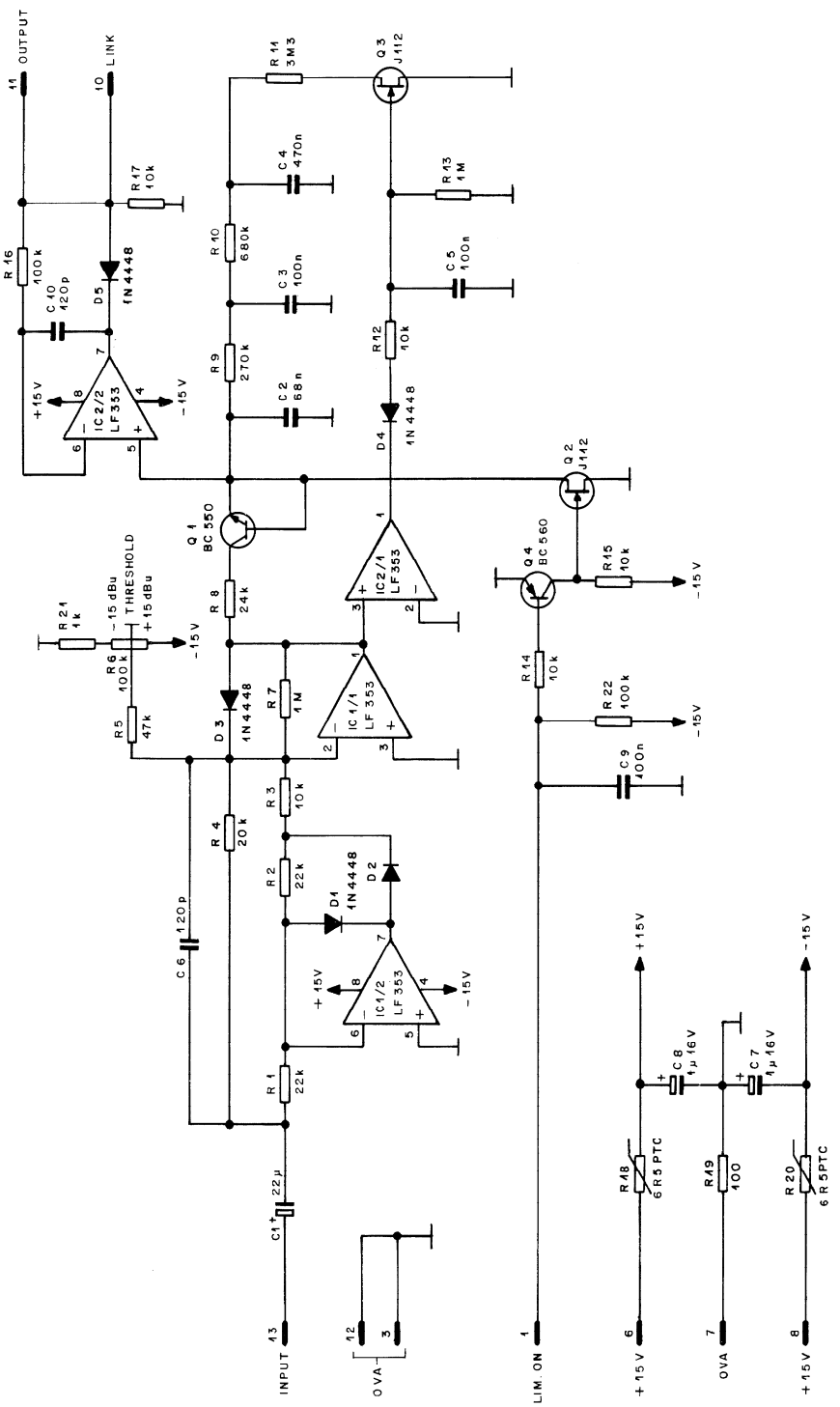
The processor's threshold can be set within a wide range of levels, so that limiting action becomes effective at a desired level within a range of –15 to +15 dBu. Limiting action attacks within 1 ms, whereas release can vary from 50 ms to 5 s, depending on the program's energy content. This means that no audible "pumping" action – which is often associated with such a device – will occur. After the cessation of loud passages, amplification will recover only slowly. For stereo applications, a two-channel set-up (VCAs and voltage processor) can be linked, so that identical amounts of gain reduction will take place simultaneously in both channels.

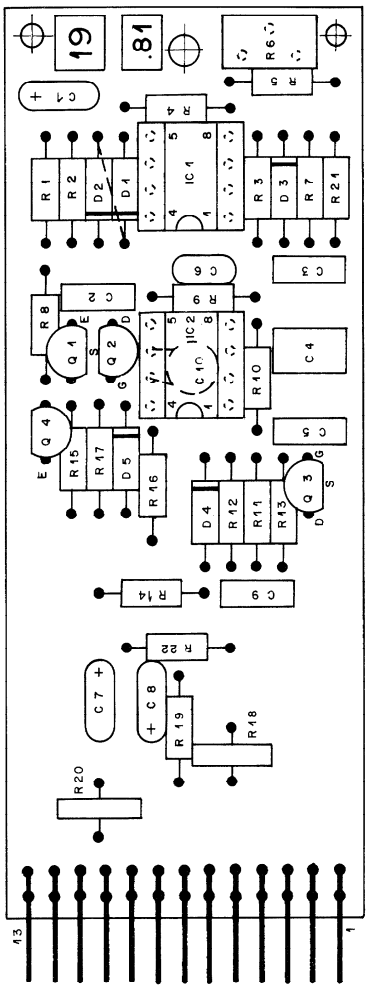


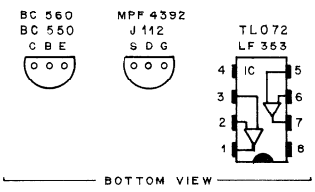
The input of the voltage processor has to be wired to the output of the VCA. The processor's output, when connected to the VCA's control terminal, will effect the necessary gain reduction so that a limiting characteristic is obtained. The limiting threshold is adjustable in a wide range. Remote on/off switching of the limiter function is possible.

Technical Specifications

Limiter:	Input impedance	**³ 10 kW**
	Max. input level	**+20 dBu**
	Frequency range	**30 Hz...16 kHz**
	Output voltage	**0...–13 V_{DC}**
	Threshold level	**–15 dBu...+15 dBu**
	Attack time	**1 ms**
	Release time	**50 ms...5 s,** program-depending
	Compression ratio	**20:1**, in conjunction with a VCA
Supply:		**±15 V** (10 mA)
Dimensions:		**MS-card,** 34 × 85 mm
Ordering Information:	Limiter voltage processor	1.914.519.xx







CIS	PIN	EURO 32 PIN			
		a	b	c	d
INPUT	13	1	7	21	27
⊥(INP./OUTP.)	12	2	8	22	28
OUTPUT	11	3	9	23	29
LINK	10	17	17	18	18
	9				
- 15 V	8				
0V	7				
+ 15 V	6				
	5				
	4				
⊥(LIM ON)	3	4	10	24	30
	2	5	11	25	31
LIM ON	1	6	13	26	32

0 16.9.91 fe		
STUDER REGENSDORF ZÜRICH	LIMITER VOLTAGE PROCESSOR	1.914.519.81

MSC LIMITER

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C.....1	59.26.1220	22 uF SAL	
	C.....2	59.06.0683	68 nF PE	
	C.....3	59.06.5104	100 nF PE	
	C.....4	59.06.5474	470 nF PE	
	C.....5	59.06.5104	100 nF PE	
	C.....6	59.34.4121	120 pF CER	
	C.....7	59.26.9109	1 uF SAL	
	C.....8	59.26.9109	1 uF SAL	
	C.....9	59.06.5104	100 nF PE	
	C....10	59.34.4121	120 pF CER	
	D.....1	50.04.0125	1N4448	any
	D.....2	50.04.0125	1N4448	any
	D.....3	50.04.0125	1N4448	any
	D.....4	50.04.0125	1N4448	any
	D.....5	50.04.0125	1N4448	any
	IC....1	50.09.0101	TL 072 dual op. amp. low noise	NS,TI
	IC....2	50.09.0101	TL 072 dual op. amp. low noise	NS,TI
	P.....1	54.01.0273	13 PIN CIS	
	Q.....1	50.03.0497	BC 550 NPN IC>100mA, B>100	any
	Q.....2	50.03.0350	J 112 N-JFET	NS,Mot,Six
	Q.....3	50.03.0350	J 112 N-JFET	NS,Mot,Six
	Q.....4	50.03.0496	BC 560 PNP IC>100mA, B>100	any
	R.....1	57.11.4223	22 kOhm 2% 0.25W MF	
	R.....2	57.11.4223	22 kOhm 2% 0.25W MF	
	R.....3	57.11.4103	10 kOhm 2% 0.25W MF	
	R.....4	57.11.3203	20 kOhm 2% 0.25W MF	
	R.....5	57.11.4473	47 kOhm 5% 0.25W MF	
	R.....6	58.01.9104	100 kOhm 10% 0.50W PMG trimming resistor	
	R.....7	57.11.4106	1 MOhm 5% 0.25W MF	
	R.....8	57.11.3243	24 kOhm 5% 0.25W MF	
	R.....9	57.11.4274	270 kOhm 5% 0.25W MF	
	R....10	57.11.4684	680 kOhm 5% 0.25W MF	
	R....11	57.11.4335	3.3 MOhm 5% 0.25W MF	
	R....12	57.11.4103	10 kOhm 5% 0.25W MF	
	R....13	57.11.4105	1 MOhm 5% 0.25W MF	
	R....14	57.11.4103	10 kOhm 5% 0.25W MF	
	R....15	57.11.4103	10 kOhm 5% 0.25W MF	
	R....16	57.11.4104	100 kOhm 5% 0.25W MF	
	R....17	57.11.4103	10 kOhm 5% 0.25W MF	
	R....18	57.92.1271	6.5 Ohm PTC Philips Nr.2322 662 12711	
	R....19	57.11.4101	100 Ohm 5% 0.25W MF	
	R....20	57.92.1271	6.5 Ohm PTC Philips Nr.2322 662 12711	
	R....21	57.11.4102	1 kOhm 5% 0.25W MF	
	R....22	57.11.4104	100 kOhm 5% 0.25W MF	

CER=Ceramic, PE=Polyester, SAL=Solid Aluminium
MF=Metal Film, PMG=Cermet

MANUFACTURER: Mot=Motorola, NS=National Semiconductors
Six=Siliconix, TI=Texas Instruments

2.1.10 1900 Hz Signal Generator 1.914.520

This signal generator produces a stable frequency of 1900 Hz to establish communication on outside broadcast lines, as specified in the EBU/CCIR recommendations.

Technical Specifications

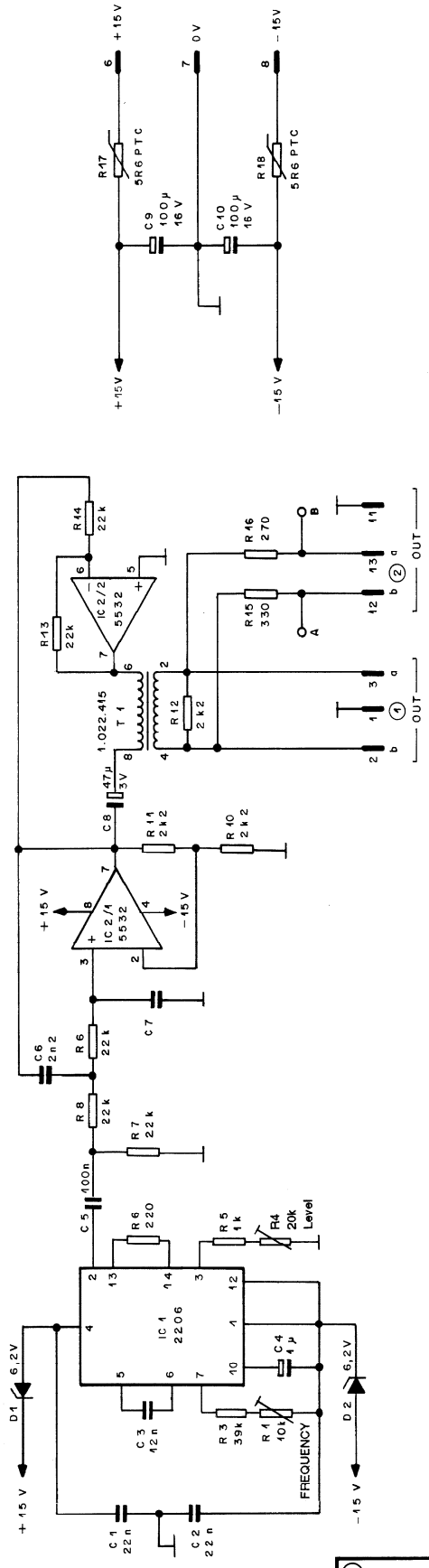
Frequency	**1900 Hz** (adjustable)
Distortion	**< 1%**
Output level	**–15...+6 dBu** (adjustable)
Output	**balanced and floating**
Output Impedance, out 1	**< 15 W**
out 2	**600 W**
Minimum load	**200 W**

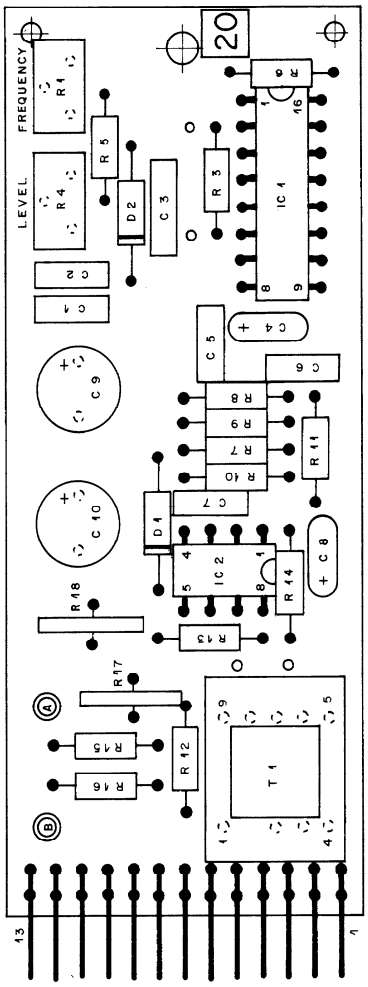
Supply: **±15 V** (20 mA)

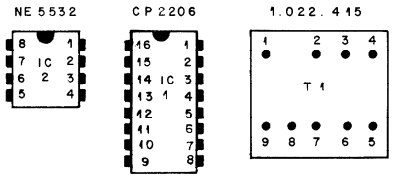
Dimensions: **MS-card,** 34 × 85 mm

Ordering Information: 1900 Hz signal generator 1.914.520.xx

MSC 1900 HZ GENERATOR







CIS	PIN	EURO 32 PIN ⓐ	ⓑ	ⓒ	ⓓ
OUT a ②	13	1	7	21	27
OUT b ②	12	2	8	22	28
⊥	11	3	9	23	29
	10				
	9				
− 15 V	8	14			
0 V	7	15			
+ 15 V	6	16			
	5				
	4				
OUT a ①	3	4	10	24	30
OUT b ①	2	5	11	25	31
⊥	1	6	13	26	32

⓪ 18.9.91		
STUDER REGENSDORF ZÜRICH	SIGNAL GENERATOR (NR.20)	1.914.520.00

MSC 1900 HZ GENERATOR

Ad	POS.	REF.No.	DESCRIPTION			MANUFACTURER
	C.....1	59.06.0223	0,022µF		PE	
	C.....2	59.06.0223	0,022µF		PE	
	C.....3	59.99.0220	0,012µF		CN 40C 123J Centralab	
	C.....4	59.26.9109	1µF	40V	B37 983-J-5123-J Siemens SAL	
	C.....5	59.06.0104	0,1µF		C062 5123 J5 65 CA Kemet PE	
	C.....6	59.06.5222	2200pF		PE	
	C.....7	59.06.5222	2200pF		PE	
	C.....8	59.26.0470	47µF	6,3V	SAL	
	C.....9	59.22.4101	100µF	16V	EL	
	C....10	59.22.4101	100µF	16V	EL	
	D.....1	50.04.1511	6,2V	1,3W Zener		
	D.....2	50.04.1511	6,2V	1,3W Zener		
	IC.....1	50.11.0108	2206CP	DIL 16		EX
	IC.....2	50.09.0105	NE5532	DIP 8		SIG/EX
	P	54.01.0273	13P	CIS		AMP
	R.....1	58.01.9103	10kΩ	TRIM		
	R.....3	57.11.4393	39kΩ			
	R.....4	58.01.9203	20kΩ	TRIM		
	R.....5	57.11.4102	1kΩ			
①	R.....6	57.11.4221	220Ω			
	R.....7	57.11.4223	22kΩ			
	R.....8	57.11.4223	22kΩ			
	R.....9	57.11.4223	22kΩ			
	R....10	57.11.4222	2,2kΩ			
	R....11	57.11.4222	2,2kΩ			
	R....12	57.11.4222	2,2kΩ			
	R....13	57.11.4223	22kΩ			
	R....14	57.11.4223	22kΩ			
①	R....15	57.11.4331	330Ω			
①	R....16	57.11.4271	270Ω			
	R....17	57.99.0209	5,6Ω	2322 662 91005		PH
	R....18	57.99.0209	5,6Ω	2322 662 91005		PH
	T.....1	1.022.415.00	1:2			ST

PE=Polyester, SAL=Solid Aluminium, EL=Electrolytic

MANUFACTURER: EX=Exar, SIG=Signetics, ST=Studer, PH=Philips

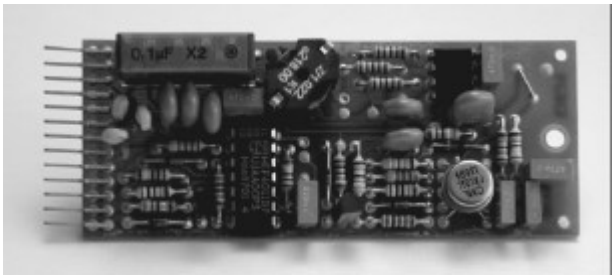
1.914.520.00 SIGNAL GENERATOR (Nr. 20) P. Casutt 14/07/83

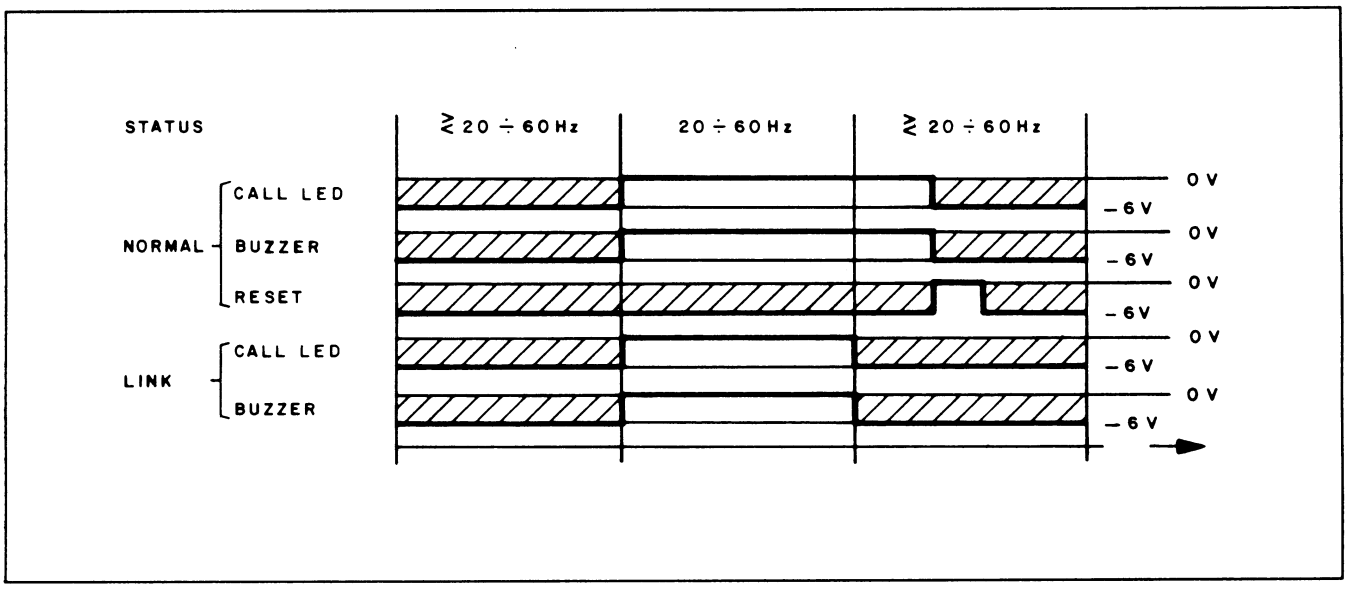
1.914.520.00 SIGNAL GENERATOR (Nr. 20) ① FRI 01/09/83

END

2.1.11 Call Decoder 20...60 Hz 1.914.521

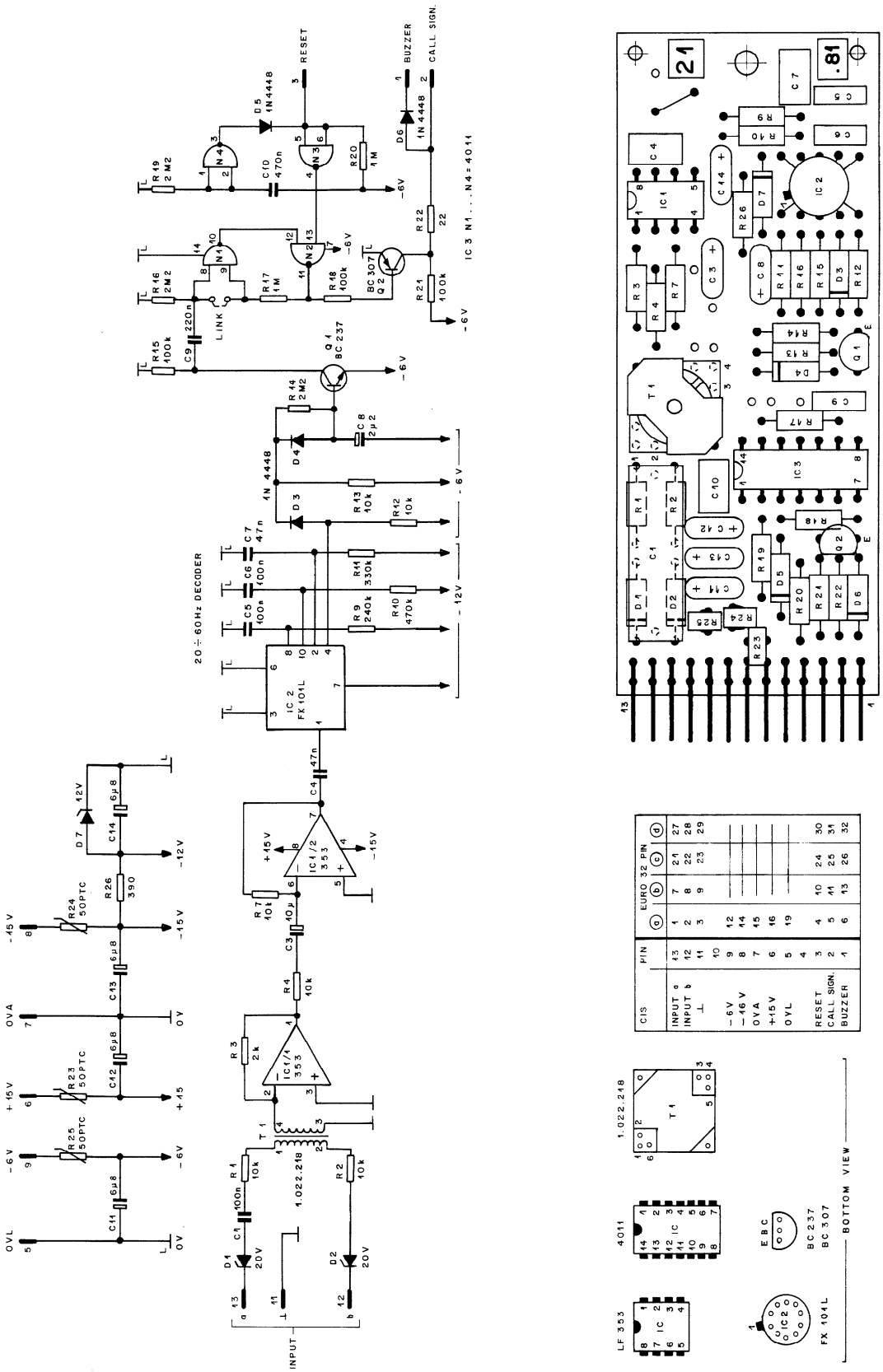
This assembly features a call receiver for the ringing frequency on telephone lines (20...60 Hz). The receiver can activate an optical and/or an acoustical signal generated by an external buzzer (not supplied). In normal mode the buzzer will be on until reset. In linked mode the signal lasts only as long as a call is detected.





Technical Specifications

Input:		**balanced, floating;** no DC
	Impedance	**> 20 kW**
	Frequency	**20...60 Hz**
	Min. level	**17 V_{rms}**
	Nominal level	**70 V_{rms}**
Supply:		**+15 V** (5 mA); **–15 V** (10 mA); **–6 V** (2 mA)
Dimensions:		**MS-card,** 34 × 85 mm
Ordering Information:		Call decoder 20...60 Hz 1.914.521.xx



0 21.9.91				
STUDER REGENSDORF ZÜRICH	20 ÷ 60 Hz DECODER (NR. 21)			1.914.521.00

MSC CALL DECODER

Ad	POS.	REF.No.	DESCRIPTION		MANUFACTURER
	C.....1	59.99.0453	0,1µF	250V Rifa MP	
	C.....3	59.26.2100	10µF	16V SAL	
	C.....4	59.06.5474	0,47µF	PE	
	C.....5	59.06.5104	0,1µF	PE	
	C.....6	59.06.5104	0,1µF	PE	
	C.....7	59.06.5474	0,47µF	PE	
	C.....8	59.26.5229	2,2µF	25V SAL	
	C.....9	59.06.0224	0,22µF	PE	
	C....10	59.06.5474	0,47µF	PE	
	C....11	59.26.2689	6,8µF	16V SAL	
	C....12	59.26.2689	6,8µF	16V SAL	
	C....13	59.26.2689	6,8µF	16V SAL	
	C....14	59.26.2689	6,8µF	16V SAL	
	D.....1	50.04.1109	20V	400mW Zener	
	D.....2	50.04.1109	20V	400mW Zener	
	D.....3	50.04.0125	1N4448		
	D.....4	50.04.0125	1N4448		
	D.....5	50.04.0125	1N4448		
	D.....6	50.04.0125	1N4448		
	D.....7	50.04.1117	12V	400mW Zener	
	IC.....1	50.09.0101	LF353N	DIP 8	
	IC.....2	50.07.0032	FX101L		CML
①	IC.....3	50.07.1011	4011BPC	DIL 14	
	P	54.01.0273	13P	CIS	
	Q.....1	50.03.0436	BC237B	NPN	
	Q.....2	50.03.0515	BC307B	PNP	
	R.....1	57.11.4103	10kΩ		
	R.....2	57.11.4103	10kΩ		
①	R.....3	57.11.3202	2kΩ		
	R.....4	57.11.4103	10kΩ		
	R.....7	57.11.4103	10kΩ		
②	R.....9	57.11.3244	240kΩ		
	R....10	57.11.4474	470kΩ		
	R....11	57.11.4334	330kΩ		
	R....12	57.11.4103	10kΩ		
	R....13	57.11.4103	10kΩ		
①	R....14	57.11.5225	2,2MΩ		
	R....15	57.11.4104	100kΩ		
①	R....16	57.11.5225	2,2MΩ		
	R....17	57.11.4105	1MΩ		
	R....18	57.11.4104	100kΩ		
①	R....19	57.11.5225	2,2MΩ		
	R....20	57.11.4105	1MΩ		
	R....21	57.11.4104	100kΩ		
	R....22	57.11.4220	22Ω		
	R....23	57.99.0206	50Ω	PTC ┌ 2322 660 91008 Philips	
	R....24	57.99.0206	50Ω	PTC │ Typ YS 822 ITT	
	R....25	57.99.0206	50Ω	PTC └ PTH 60BD 470M 050 Murata	
	R....26	57.11.4391	390Ω		
	T.....1	1.022.218.00	1:1		ST

PE=Polyester, SAL=Solid Aluminium

MANUFACTURER: CML=Consumer Microcircuit LTD, ST=Studer

1.914.521.00 20÷60HZ DECODER (Nr. 21) FRI 23/08/83

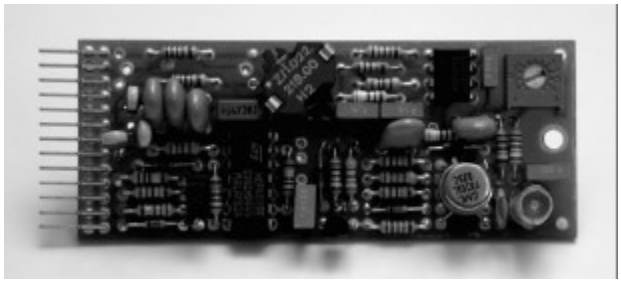
① 1.914.521.00 20÷60HZ DECODER (Nr. 21) ① FRI 01/09/83

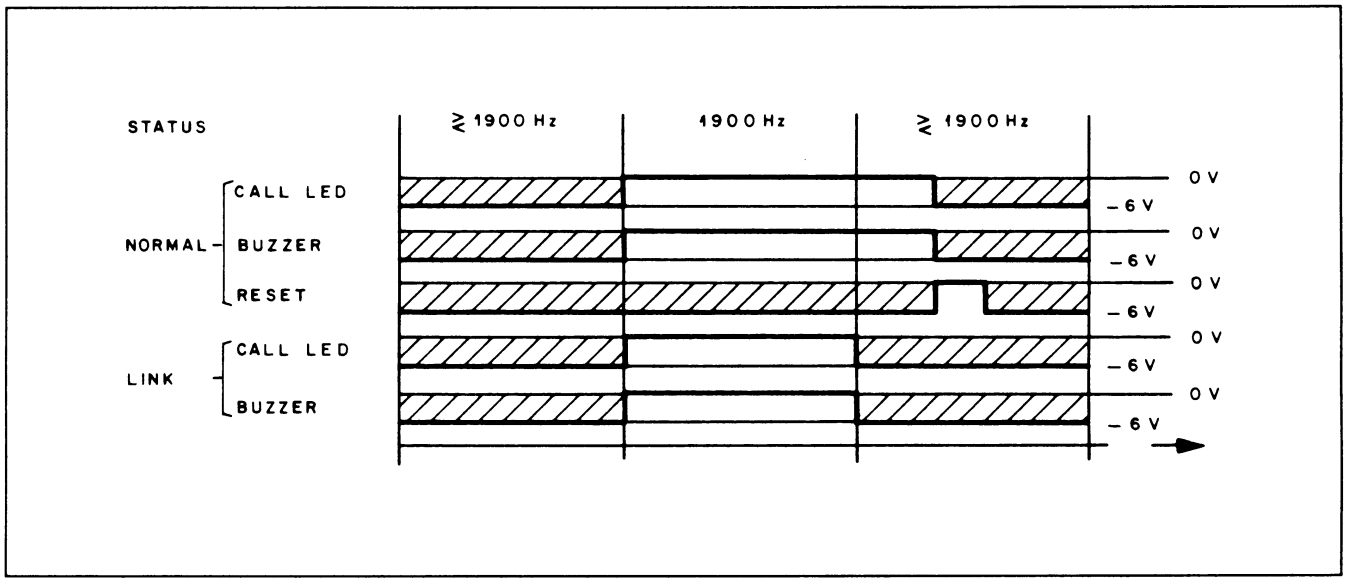
② 1.914.521.00 20÷60HZ DECODER (Nr. 21) ② FRI 18/06/84

END

2.1.12 Call Decoder 1900 Hz 1.914.522

This card contains a call receiver for the standardized 1900 Hz call frequency on OB lines. It is tuned to respond to 1900 Hz ±1 %. The receiver can be switched either to activate an optical or an acoustical signal for the duration of the 1900 Hz call (linked mode), or the acoustical signal can be selected to remain activated until reset (normal mode).
The acoustical signal can be generated by an external buzzer (not supplied).

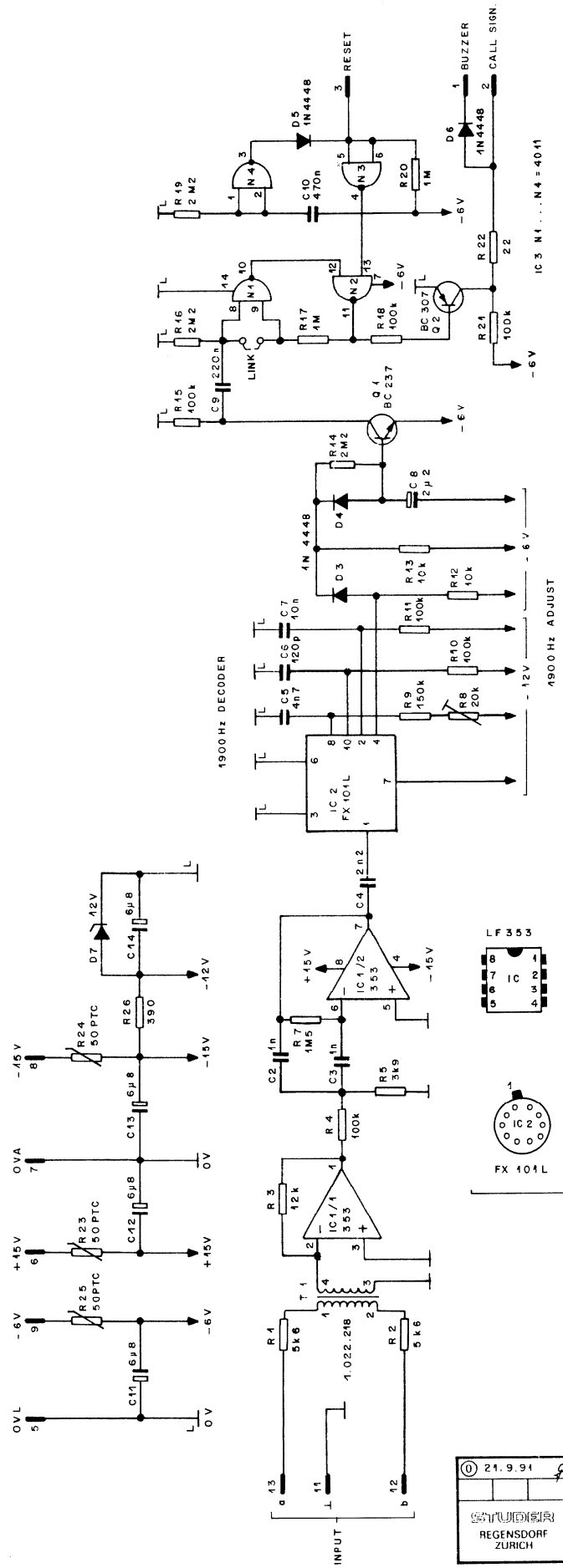


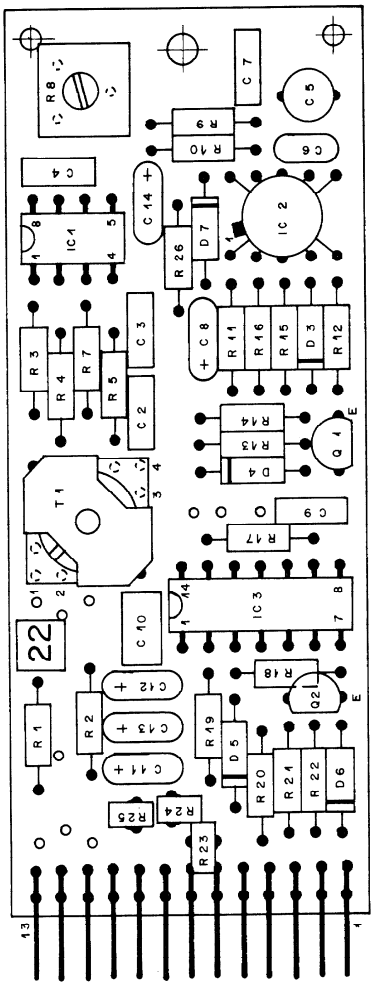


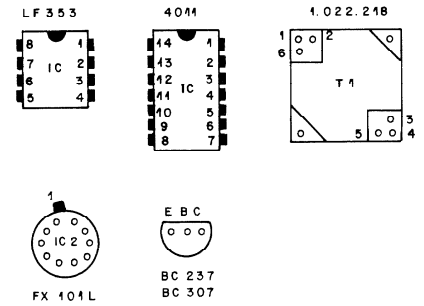
Technical Specifications

Input:		**balanced, floating;** no DC
	Frequency	**1900 Hz,** ±1%
	Impedance	> **10 kW**
	Min. level	**–30 dBu**
	Nominal level	**+24 dBu**
Supply:		**+15 V** (5 mA); **–15 V** (10 mA); **–6 V** (2 mA)
	Insulation rating	**500 V_{DC}**
Dimensions:		**MS-card,** 34 × 85 mm
Ordering Information:		Call decoder 1900 Hz 1.914.522.xx

1900Hz CALL-DECODER MSC







CIS	PIN	EURO 32 PIN			
		a	b	c	d
INPUT a	13	1	7	21	27
INPUT b	12	2	8	22	28
⊥	11	3	9	23	29
	10				
-6V	9	12			
-15V	8	14			
OVA	7	15			
+15V	6	16			
OVL	5	19			
	4				
RESET	3	4	10	24	30
CALL SIGN.	2	5	11	25	31
BUZZER	1	6	13	26	32

⓪ 21.9.91		
STUDER REGENSDORF ZURICH	1900 Hz DECODER (NR.22)	1.914.522.00

Call Decoder 1900 Hz 1.914.522.00 (1)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 2	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 3	59.06.0102		1n0	PETP, 63V, 10%, RM5
0	C 4	59.06.0222		2n2	PETP, 63V, 10%, RM5
0	C 5	59.05.2472		4n7	PP, 2.5%, 63V
0	C 6	59.34.4121		120p	CER 63V, 5%, N750
0	C 7	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 8	59.26.5229		2u2	SAL, 20%, 25V
0	C 9	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 10	59.06.5474		470n	PETP, 63V, 5%, RM5
0	C 11	59.26.2689		6u8	SAL 16V 20%
0	C 12	59.26.2689		6u8	SAL 16V 20%
0	C 13	59.26.2689		6u8	SAL 16V 20%
0	C 14	59.26.2689		6u8	SAL 16V 20%
0	D 3	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 5	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 6	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 7	50.04.1117		12V	Zener, 5%, 0.5W, DO-35
0	IC 1	50.09.0101		TL072	Dual op-amp biFET
0	IC 2	50.07.0032		FX101	IC FX-101 L, ,A
1	IC 3	50.07.1011		4011	Quad 2-inp NAND
0	P 1	54.01.0273		13p	Stecker CIS parallelsteck
0	Q 1	50.03.0515		BC307B	PNP 100mA 45V
0	Q 2	50.03.0436		BC237B	NPN 100mA 45V
0	R 1	57.11.3562		5k6	MF, 1%, 0207
0	R 2	57.11.3562		5k6	MF, 1%, 0207
0	R 3	57.11.3123		12k	MF, 1%, 0207
0	R 4	57.11.3104		100k	MF, 1%, 0207
0	R 5	57.11.3392		3k9	MF, 1%, 0207
0	R 7	57.11.5155		1M5	MF, 5%, 0207
0	R 8	58.01.8203		20k	Cermet, 10%, 0.5W, horizontal
0	R 9	57.11.3154		150k	MF, 1%, 0207
0	R 10	57.11.3104		100k	MF, 1%, 0207
0	R 11	57.11.3104		100k	MF, 1%, 0207
0	R 12	57.11.3103		10k	MF, 1%, 0207
0	R 13	57.11.3103		10k	MF, 1%, 0207
0	R 14	57.11.5225		2M2	MF, 5%, 0207
0	R 15	57.11.3104		100k	MF, 1%, 0207
1	R 16	57.11.5225		2M2	MF, 5%, 0207
0	R 17	57.11.3105		1M0	MF, 1%, 0207
0	R 18	57.11.3104		100k	MF, 1%, 0207
1	R 19	57.11.5225		2M2	MF, 5%, 0207
0	R 20	57.11.3105		1M0	MF, 1%, 0207
0	R 21	57.11.3104		100k	MF, 1%, 0207
0	R 22	57.11.3220		22R	MF, 1%, 0207
0	R 23	57.99.0206		50R	PTC, 25V, 0.5W
0	R 24	57.99.0206		50R	PTC, 25V, 0.5W
0	R 25	57.99.0206		50R	PTC, 25V, 0.5W
0	R 26	57.11.3391		390R	MF, 1%, 0207
0	T 1	1.022.218.00		1 : 1	EINGANGSTRAFO 1 : 1

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description

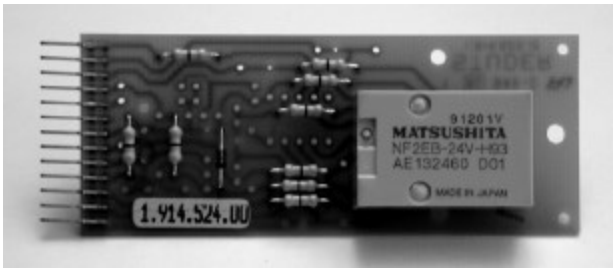
End of List

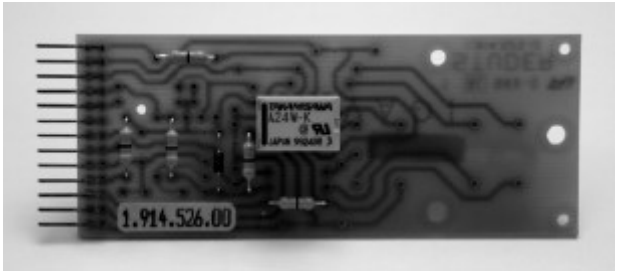
Comments:

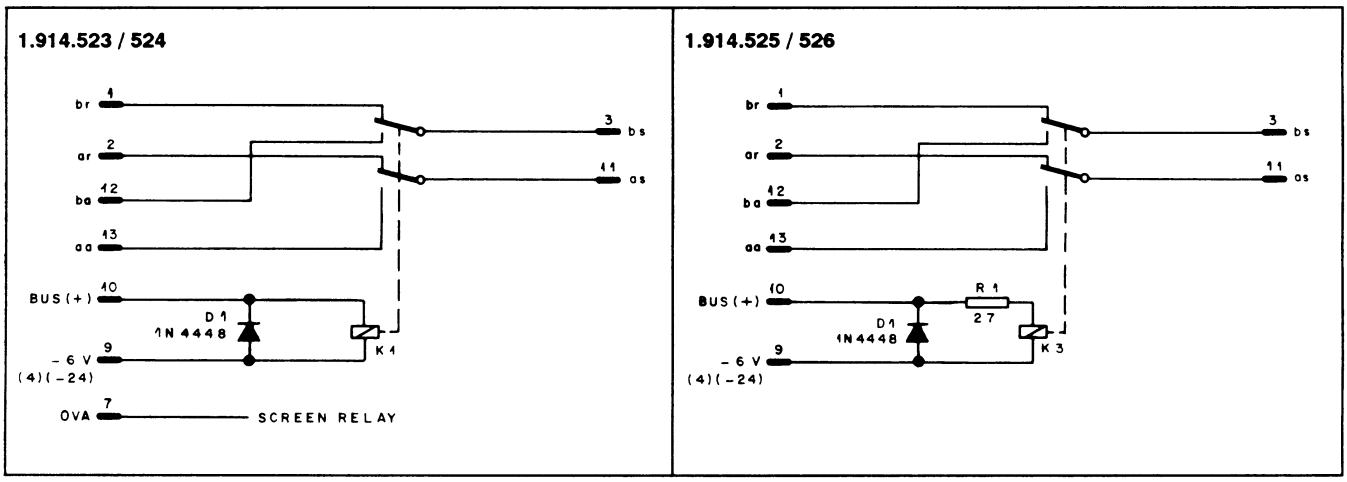
(01) IC3, R16, R19 changed

2.1.13 Relay Sub-Cards 1.914.523/524/525/526

Audio signal routing or enabling/disabling of certain circuit sections is often effected best using relays. The Modular Sub-Card System, therefore, offers a selection of four relays on individual circuit boards. Because only one relay can be accommodated on one MS-Card, several cards (or a card from the Euro-card range) will be required if more complex switching has to be realized.







The relays offer double pole/double throw switching with non-shorting contacts, and coils rated for either 6 V_{DC} or 24 V_{DC} operation. A diode is wired across the relay coil in all versions to suppress interfering back-EMF when de-energizing the relay.
For studio applications where the mechanical click produced by the relay's armature is objectionable, a low-noise type is available.

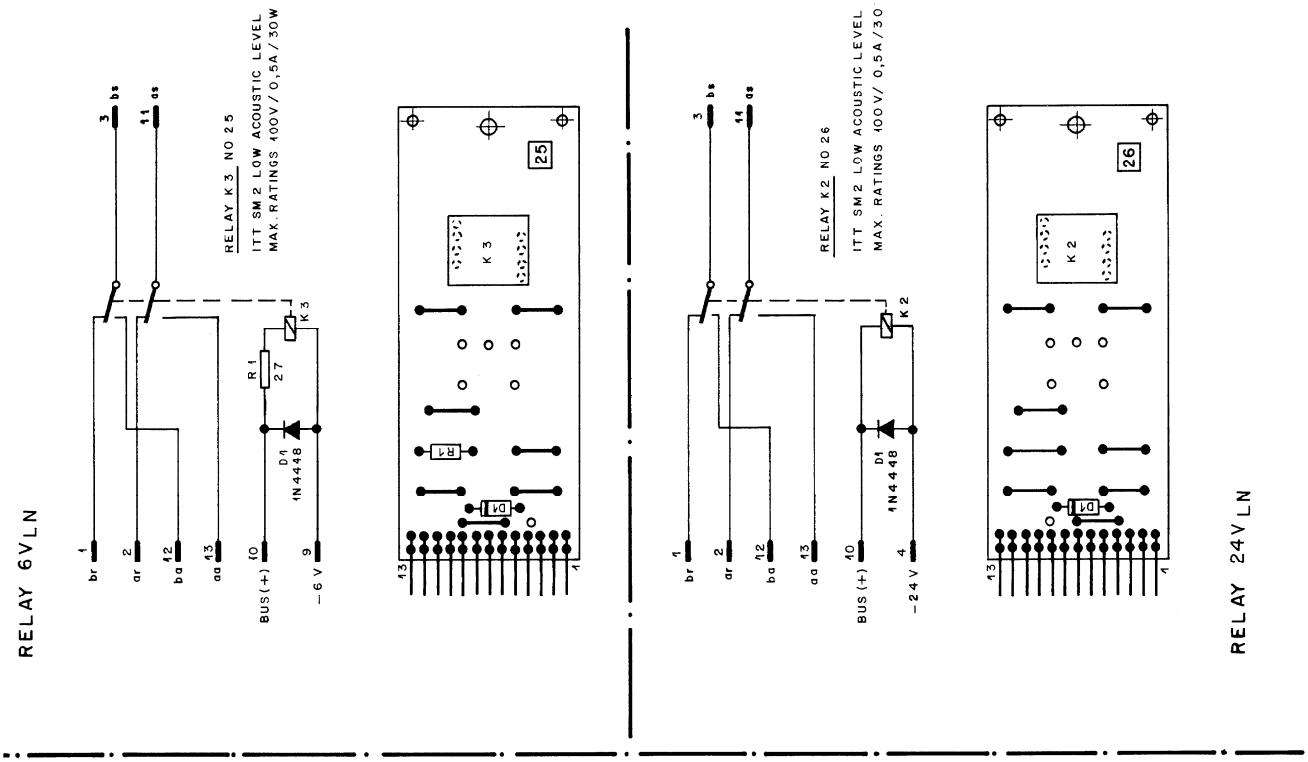
No.	Coil	Contact Rating	
1.914.523	6 V_{DC} / 137 Ω	220 V / 2 A / 60 W	
1.914.524	24 V_{DC} / 2.0 kΩ	220 V / 2 A / 60 W	
* 1.914.525	5 V_{DC} / 135 Ω	100 V / 0.5 A / 30 W	(R1 = 27 Ω for 6 V operation)
* 1.914.526	24 V_{DC} / 2.6 kΩ	100 V / 0.5 A / 30 W	(R1 = 0 Ω)
* Low-noise relays			

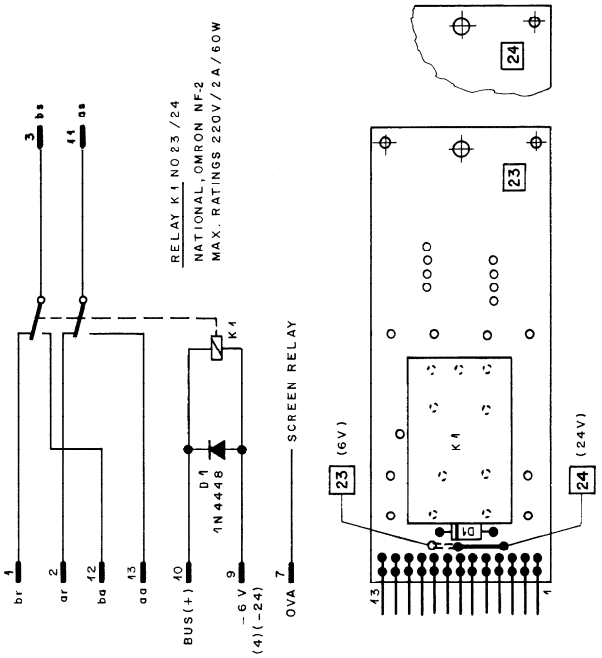
Dimensions: **MS-card,** 34 × 85 mm

Ordering Information:

MSC relay 6 V_{DC}	1.914.523.xx
MSC relay 24 V_{DC}	1.914.524.xx
MSC relay 6 V_{DC}; low-noise	1.914.525.xx
MSC relay 24 V_{DC}; low-noise	1.914.526.xx

MSC RELAYS



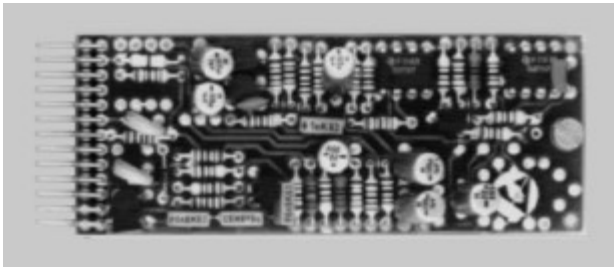


CIS	PIN	EURO 32 P			
		a	b	c	d
aa	13	1	7	21	27
ba	12	2	8	22	28
as	11	3	9	23	29
BUS	10	17	17	18	18
-6V	9	12			
	8				
	7				
	6				
	5				
-24V	4	20			30
bs	3	4	10	24	31
ar	2	5	11	25	26
br	1	6	13		32

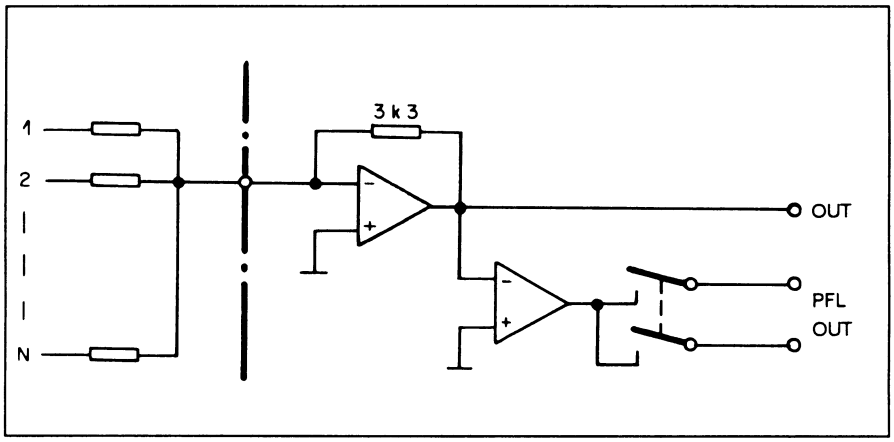
0 2.10.91			
STUDER REGENSDORF ZÜRICH	RELAY BOARD 2U	24V LN	1.914.526.00
		6 V LN	1.914.525.00
		24V	1.914.524.00
		6 V	1.914.523.00

2.1.14 0-Ω Input Amplifier with PFL Facility 1.914.530

This amplifier with its characteristic input impedance of less than 1 Ω finds its application as a summing amplifier. A multitude of unbalanced sources can thus be mixed with a high degree of effective isolation between the individual inputs.

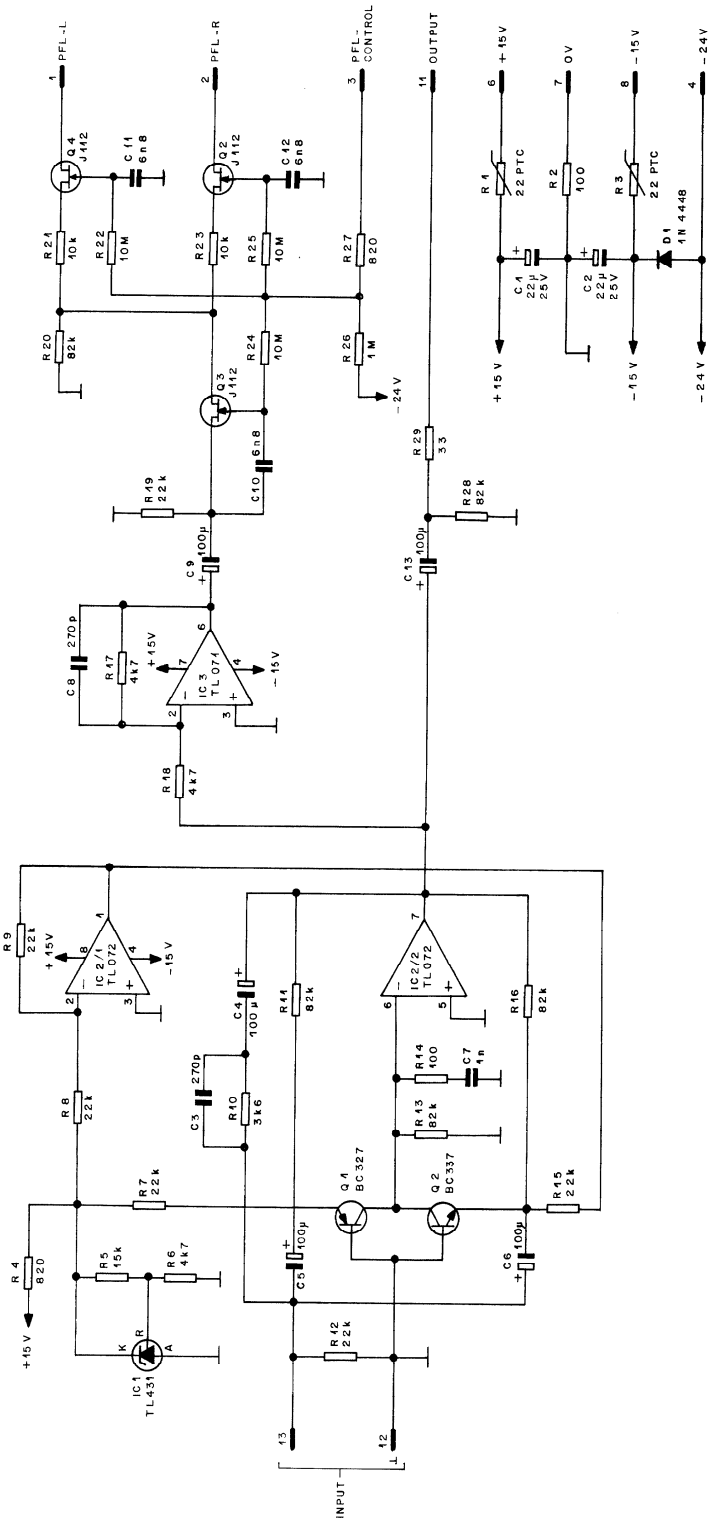


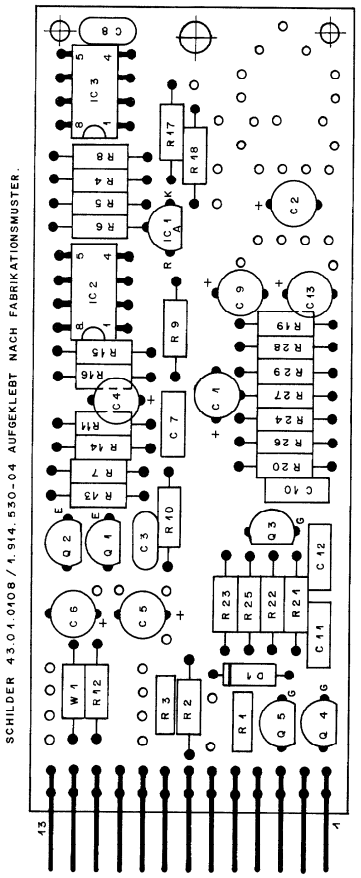
When using 3.3 kΩ resistors as combining (mixing) resistors in series with each source feeding the summing bus, gain will be unity (0 dB), i.e., the amplifier's output level will be equal to the level of the signal source ahead of the combining resistor. The amplifier's output is unbalanced, with low impedance. Additional outputs for monitoring (or pre-listening) can be activated via solid-state switches by remote control.



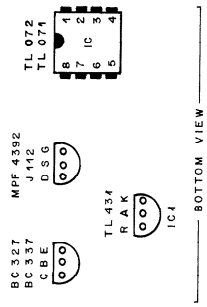
Technical Specifications

Input:	Max. current	**2.5 mA_{rms}** for max. output swing
	Current for 0 dBu	**234.2 µA;** 0 dBu output (≙ 3.3 kΩ at the input for unity gain)
Output:	Impedance	**33 W**
	Max. output swing	**+20 dBu**
	Load	**³ 600 W** @ max. output swing
	Frequency response	**±0.3 dBu,** 30 Hz...16 kHz
	THD	< –75 dB, 30 Hz...16 kHz
	Noise voltage at the output	**–110 dBu**, input terminated with 3.3 kΩ, bandwidth 23 kHz
	Noise figure, 12 inputs	**F < 2 dB** ≙ R_S = 275 Ω
Supply:		**+15 V** (11 mA idling); **–15 V** (7 mA idling)
Dimensions:		**MS-card,** 34 × 85 mm
Ordering Information:		Zero-Ω input amplifier (PFL facility) 1.914.530.xx





CIS	PIN	EURO (d)	EURO (b)	32 PIN (e)	(d)
	13	1	7	21	27
INPUT	12	2	8	22	28
0V (INPUT)	11	3	9	23	29
OUTPUT	10				
	9				
- 15V	8	14			
0V	7	15			
+ 15V	6	16			
	5				
- 24V	4	20			
PFL CONTR.BUS	3	4	10	24	30
PFL RIGHT BUS	2	5	11	25	31
PFL LEFT BUS	1	6	13	26	32



⓪ 24.9.91			
STUDER REGENSDORF ZÜRICH	0-Ω-INPUT WITH PFL	ESE	1.914.530.00

MSC 0Ω-INPUT

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	C.....1	59.22.5220	22 uF	25V	EL	
	C.....2	59.22.5220	22 uF	25V	EL	
	C.....3	59.34.4271	270 pF		CER	
	C.....4	59.22.3101	100 uF	10V	EL	
	C.....5	59.22.3101	100 uF	10V	EL	
	C.....6	59.22.3101	100 uF	10V	EL	
	C.....7	59.06.0102	1 nF		PE	
	C.....8	59.34.4271	270 pF		CER	
	C.....9	59.22.3101	100 uF	10V	EL	
	C....10	59.06.0682	6.8 nF		PE	
	C....11	59.06.0682	6.8 nF		PE	
	C....12	59.06.0682	6.8 nF		PE	
	C....13	59.22.3101	100 uF	10V	EL	
	D.....1	50.04.0125	1N4448			any
	IC....1	50.10.0106	TL431CLP	voltage regulator		TI, Mot
	IC....2	50.09.0101	TL072	dual op.amp.		TI
	IC....3	50.09.0103	TL071	dual op.amp.		TI
	P.....1	54.01.0273	CIS, 13 pin			
	Q.....1	50.03.0625	BC327	PNP, low noise		
	Q.....2	50.03.0516	BC337	NPN, low noise		
	Q.....3	50.03.0350	J112	N-J-FET		NS, Mot, Six
	Q.....4	50.03.0350	J112	N-J-FET		NS, Mot, Six
	Q.....5	50.03.0350	J112	N-J-FET		NS, Mot, Six
	R.....1	57.92.1121	22 Ohm	PTC		
	R.....2	57.11.4101	100 Ohm			
	R.....3	57.92.1121	22 Ohm	PTC		
	R.....4	57.11.4821	820 Ohm			
	R.....5	57.11.4153	15 kOhm			
	R.....6	57.11.4472	4.7 kOhm			
	R.....7	57.11.4223	22 kOhm			
	R.....8	57.11.4223	22 kOhm			
	R.....9	57.11.4223	22 kOhm			
	R....10	57.11.3362	3.6 kOhm			
	R....11	57.11.4823	82 kOhm			
	R....12	57.11.4223	22 kOhm			
	R....13	57.11.4823	82 kOhm			
	R....14	57.11.4101	100 Ohm			
	R....15	57.11.4223	22 kOhm			
	R....16	57.11.4823	82 kOhm			
	R....17	57.11.4472	4.7 kOhm			
	R....18	57.11.4472	4.7 kOhm			
	R....19	57.11.4223	22 kOhm			
	R....20	57.11.4823	82 kOhm			
	R....21	57.11.4103	10 kOhm			
	R....22	57.11.5106	10 MOhm			
	R....23	57.11.4103	10 kOhm			
	R....24	57.11.5106	10 MOhm			
	R....25	57.11.5106	10 MOhm			
	R....26	57.11.4105	1 MOhm			
	R....27	57.11.4821	820 Ohm			
	R....28	57.11.4823	82 kOhm			
	R....29	57.11.4330	33 Ohm			
	W.....1	57.11.4000	0 Ohm			

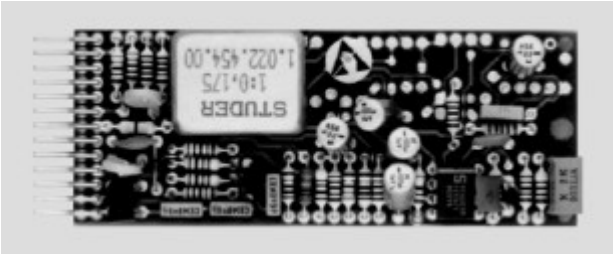
CER = ceramic, EL = electrolytic, PE = polyester

MANUFACTURER Mot=Motorola, NS=National Semiconductor, Six=Siliconics, TI=Texas Instruments

1.914.530.00 0-OHM INPUT WITH PFL WY 87/06/1800

2.1.15 High-Level Input with PFL Facility 1.914.531

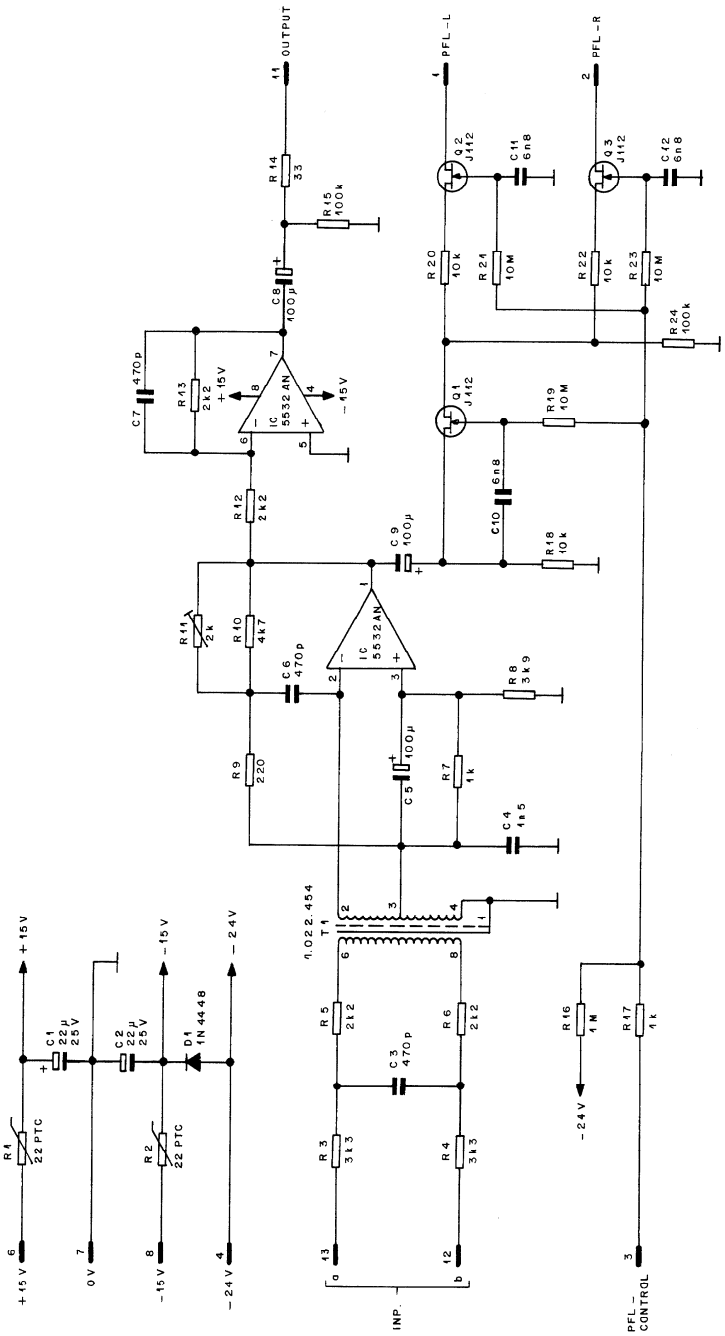
This compact high-level input amplifier features a balanced and floating input stage. The output is unbalanced, with low impedance and low distortion up to +24 dBu. An additional PFL monitoring facility is electronically switchable (FET).

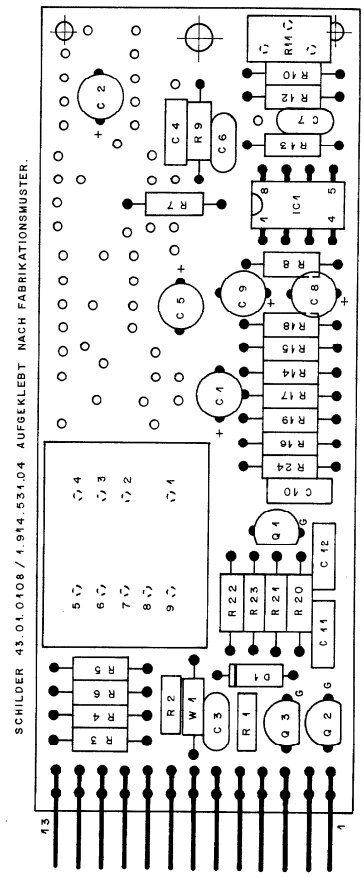


Technical Specifications

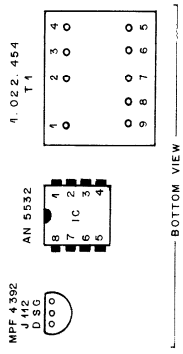
Input:		Balanced and floating
	Impedance	> **10 kW**
	Max. level	**+26 dBu**
	CMRR	> **110 dB** @ 50 Hz
		> **110 dB** @ 16 kHz
Output:		Unbalanced
	Impedance	**33 W**
	Load	³ **600 W** @ max. output swing
	Max. output swing	**+20 dBu**
	Gain	**–1.4...–17.8 dB**
	Frequency response	**±0.3 dB**, 30 Hz...16 kHz
	THD	< **–85 dB,** 30 Hz...16 kHz
	Noise voltage	< **–107 dBu,** gain –6 dB, bandwidth 23 kHz
Supply:		**±15 V** (10 mA idling)
Dimensions:		**MS-card,** 34 × 85 mm
Ordering Information:		HL input with PFL 1.914.531.xx

MSC HL INPUT WITH PFL





CIS	PIN	EURO 32 PIN		
		(d)	(c)	(a)
INPUT a	13	1	21	27
INPUT b	12	2	22	28
OUTPUT	11	3	23	29
	10			
	9			
-15V	8	14		
0V	7	15		
+15V	6	16		
	5			
-24V	4	20		
PFL SIGN. BUS	3	4	10	24	30
PFL RIGHT BUS	2	5	11	25	31
PFL LEFT BUS	1	6	13	26	32



0 25.9.91 fc		
STUDER REGENSDORF ZÜRICH	HL INPUT WITH PFL ESE	1.914.531.00

MSC HL INPUT WITH PFL

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	C.....1	59.22.5220	22 uF	25V	EL	
	C.....2	59.22.5220	22 uF	25V	EL	
	C.....3	59.34.5471	470 pF		CER	
	C.....4	59.06.5152	1.5 nF		PE	
	C.....5	59.22.3101	100 uF	10V	EL	
	C.....6	59.34.5471	470 pF		CER	
	C.....7	59.34.5471	470 pF		CER	
	C.....8	59.22.3101	100 uF	10V	EL	
	C.....9	59.22.3101	100 uF	10V	EL	
	C....10	59.06.0682	6.8 nF		PE	
	C....11	59.06.0682	6.8 nF		PE	
	C....12	59.06.0682	6.8 nF		PE	
	D.....1	50.04.0125	1N4448			any
	IC....1	50.09.0106	NE5532AN	dual op.amp. low noise		Sig
	P.....1	54.01.0273		CIS, 13 pin		
	Q.....1	50.03.0350	J112	N-J-FET		NS, Mot, Six
	Q.....2	50.03.0350	J112	N-J-FET		NS, Mot, Six
	Q.....3	50.03.0350	J112	N-J-FET		NS, Mot, Six
	R.....1	57.92.1121	22 Ohm	PTC		
	R.....2	57.92.1121	22 Ohm	PTC		
	R.....3	57.11.3332	3.3 kOhm	1%		
	R.....4	57.11.3332	3.3 kOhm	1%		
	R.....5	57.11.3222	2.2 kOhm	1%		
	R.....6	57.11.3222	2.2 kOhm	1%		
	R.....7	57.11.4102	1 kOhm			
	R.....8	57.11.4392	3.9 kOhm			
	R.....9	57.11.4221	220 Ohm			
	R....10	57.11.4472	4.7 kOhm			
	R....11	58.01.9202	2 kOhm	trim potm.		
	R....12	57.11.3222	2.2 kOhm			
	R....13	57.11.3222	2.2 kOhm			
	R....14	57.11.4330	33 Ohm			
	R....15	57.11.4104	100 kOhm			
	R....16	57.11.4105	1 MOhm			
	R....17	57.11.4102	1 kOhm			
	R....18	57.11.4103	10 kOhm			
	R....19	57.11.5106	10 MOhm			
	R....20	57.11.4103	10 kOhm			
	R....21	57.11.5106	10 MOhm			
	R....22	57.11.4103	10 kOhm			
	R....23	57.11.5106	10 MOhm			
	R....24	57.11.4104	10 kOhm			
	T.....1	1.022.454.00		input trafo		
	W.....1	57.11.4000	0 Ohm			

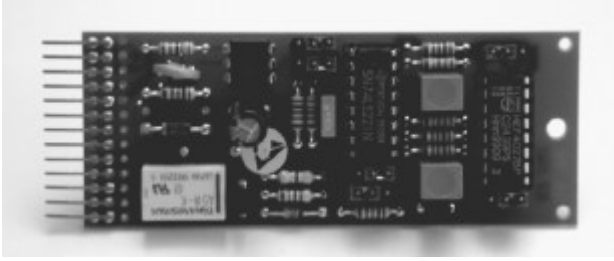
CER = ceramic, EL = electrolytic, PE = polyester

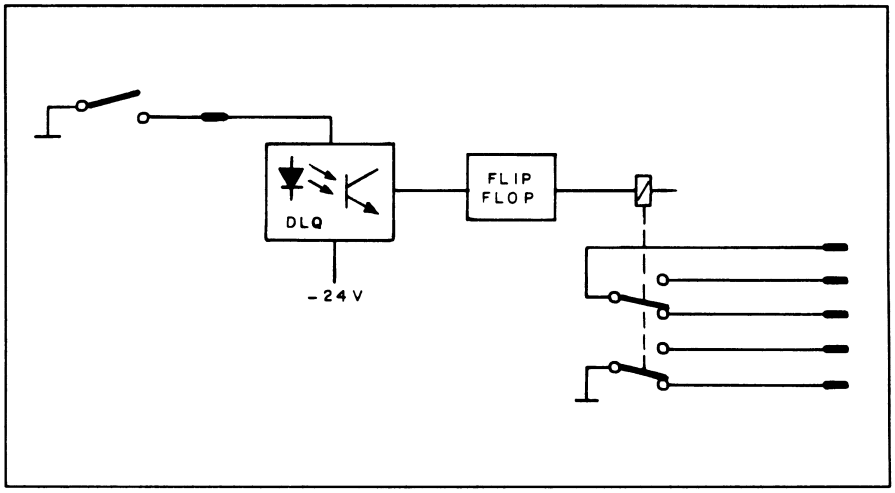
MANUFACTURER Mot=Motorola, NS=National Semiconductor, Six=Siliconics,
TI=Texas Instruments, Sig=Signetics

1.914.531.00 HL-INPUT WITH PFL WY 87/06/1800

2.1.16 Flip-flop Unit 1.914.532

The Flip-flop Unit consists of a relay with two DPDT contacts and a flip-flop circuit with a control input (opto-coupler). A ground pulse from a non-latching switch applied to the input activates the relay. A next ground pulse will deactivate it again.

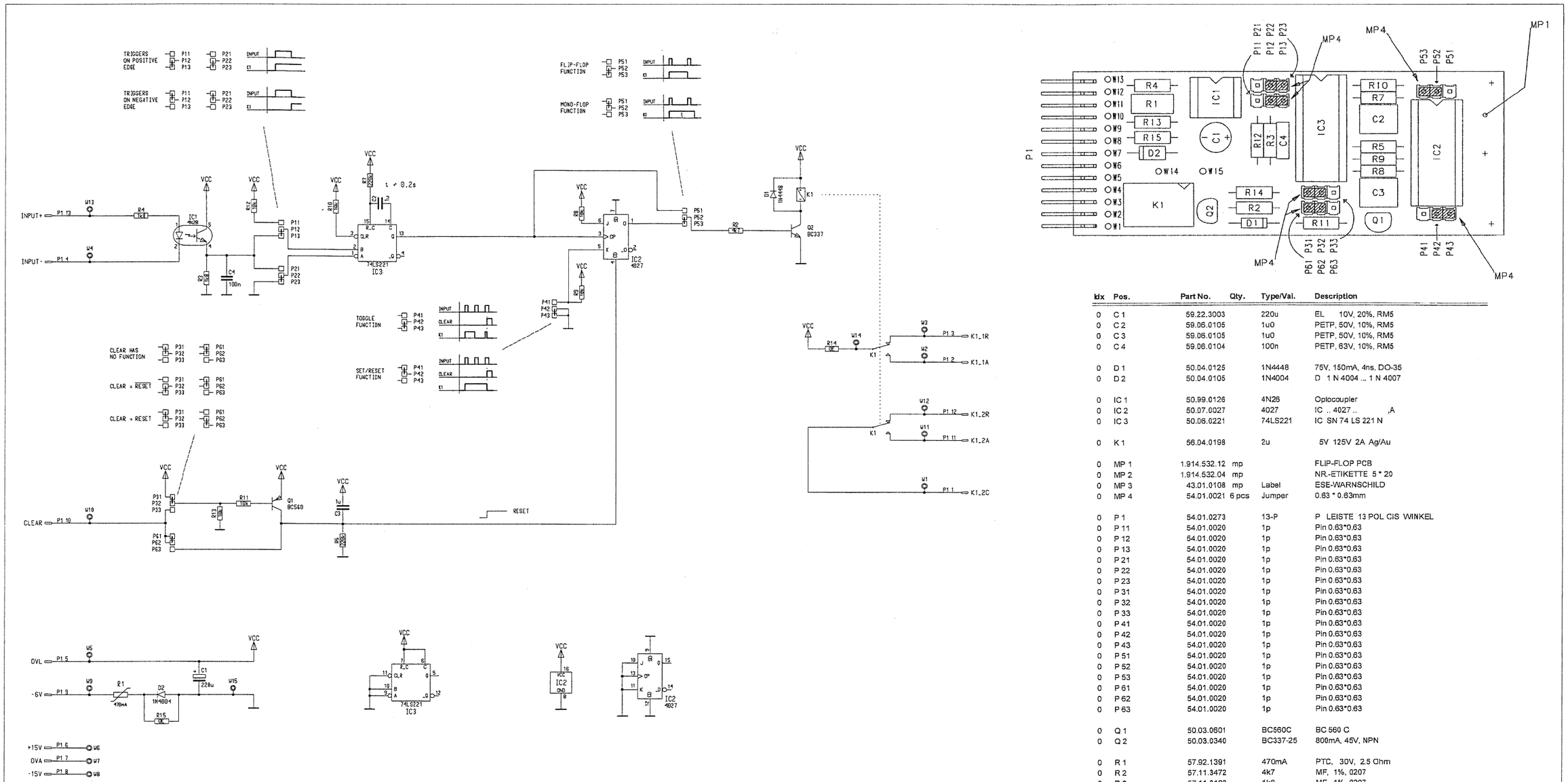




Technical Specifications

Input:		**floating,** with opto-coupler
Relay contacts:	Max. rating	**100 V/0.5 A/30 W**
Supply:		**–6 V** for logic **–24 V** for opto-coupler
Dimensions:		**MS-card,** 34 × 85 mm
Ordering Information:		Flip-flop unit 1.914.532.xx

MSC FLIP FLOP



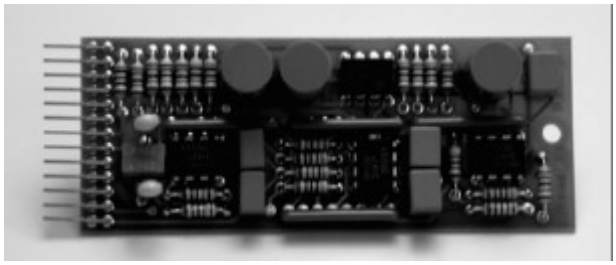
Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.22.3003		220u	EL 10V, 20%, RM5
0	C 2	59.06.0105		1u0	PETP, 50V, 10%, RM5
0	C 3	59.06.0105		1u0	PETP, 50V, 10%, RM5
0	C 4	59.06.0104		100n	PETP, 63V, 10%, RM5
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0105		1N4004	D 1 N 4004 .. 1 N 4007
0	IC 1	50.99.0126		4N26	Optocoupler
0	IC 2	50.07.0027		4027	IC .. 4027 .. ,A
0	IC 3	50.06.0221		74LS221	IC SN 74 LS 221 N
0	K 1	56.04.0198		2u	5V 125V 2A Ag/Au
0	MP 1	1.914.532.12	mp		FLIP-FLOP PCB
0	MP 2	1.914.532.04	mp		NR.-ETIKETTE 5 * 20
0	MP 3	43.01.0108	mp	Label	ESE-WARNSCHILD
0	MP 4	54.01.0021	6 pcs	Jumper	0.63 * 0.63mm
0	P 1	54.01.0273		13-P	P LEISTE 13 POL CIS WINKEL
0	P 11	54.01.0020		1p	Pin 0.63*0.63
0	P 12	54.01.0020		1p	Pin 0.63*0.63
0	P 13	54.01.0020		1p	Pin 0.63*0.63
0	P 21	54.01.0020		1p	Pin 0.63*0.63
0	P 22	54.01.0020		1p	Pin 0.63*0.63
0	P 23	54.01.0020		1p	Pin 0.63*0.63
0	P 31	54.01.0020		1p	Pin 0.63*0.63
0	P 32	54.01.0020		1p	Pin 0.63*0.63
0	P 33	54.01.0020		1p	Pin 0.63*0.63
0	P 41	54.01.0020		1p	Pin 0.63*0.63
0	P 42	54.01.0020		1p	Pin 0.63*0.63
0	P 43	54.01.0020		1p	Pin 0.63*0.63
0	P 51	54.01.0020		1p	Pin 0.63*0.63
0	P 52	54.01.0020		1p	Pin 0.63*0.63
0	P 53	54.01.0020		1p	Pin 0.63*0.63
0	P 61	54.01.0020		1p	Pin 0.63*0.63
0	P 62	54.01.0020		1p	Pin 0.63*0.63
0	P 63	54.01.0020		1p	Pin 0.63*0.63
0	Q 1	50.03.0601		BC560C	BC 560 C
0	Q 2	50.03.0340		BC337-25	800mA, 45V, NPN
0	R 1	57.92.1391		470mA	PTC, 30V, 2.5 Ohm
0	R 2	57.11.3472		4k7	MF, 1%, 0207
0	R 3	57.11.3182		1k8	MF, 1%, 0207
0	R 4	57.11.3182		1k8	MF, 1%, 0207
0	R 5	57.11.3224		220k	MF, 1%, 0207
0	R 7	57.11.3224		220k	MF, 1%, 0207
0	R 8	57.11.3103		10k	MF, 1%, 0207
0	R 9	57.11.3103		10k	MF, 1%, 0207
0	R 10	57.11.3103		10k	MF, 1%, 0207
0	R 11	57.11.3103		10k	MF, 1%, 0207
0	R 12	57.11.3103		10k	MF, 1%, 0207
0	R 13	57.11.3103		10k	MF, 1%, 0207
0	R 14	57.11.3000		0R0	MF, 0207
0	R 15	not used		0R0	MF, 0207
0	XIC 2	53.03.0168		16p	DIL 0.3", löt, gerade
0	XIC 3	53.03.0168		16p	DIL 0.3", löt, gerade

End of List

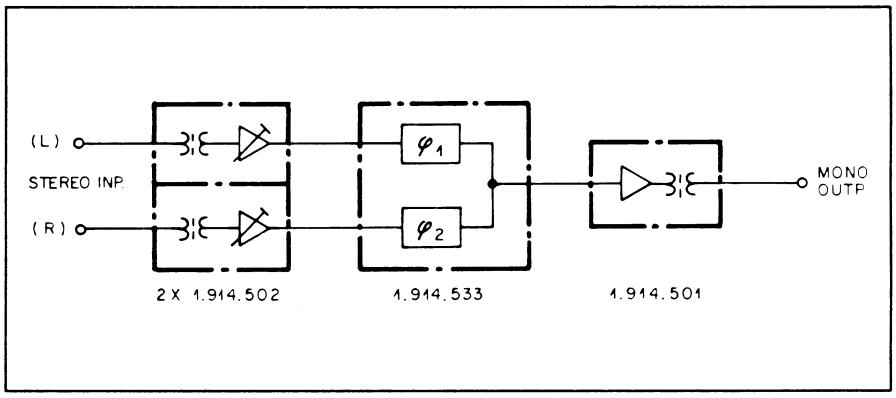
0 11.01.1999 LC				PAGE 1 OF 1
STUDER	FLIP FLOP UNIT		SC	1.914.532.81

2.1.17 90° Filter 1.914.533

This active 90° filter is used to form a monophonic signal from the left and right channel of stereo signals. Simple mixing of the left and right channel will not produce a mono signal of satisfactory quality, but results in an emphasis of the center information. By summing the stereo signals in a 90° phase-shifted manner, this undesirable effect can be avoided.



The 90° filter consists of two all-pass filter chains, producing a uniform 90° phase difference across the whole audio range. The left and the right stereo signals are each passed through one of these filters and added at the filter's output. Doubling of equally-phased signal components as well as canceling of opposite-phased components is thus avoided.



The filter circuits are of unbalanced configuration. For this reason a summing circuit usually consists of two high-level amplifiers with balanced inputs (1.914.502), one 90° filter, and one high-level output amplifier (1.914.501), all accommodated on one MSC motherboard, as shown in the diagram above.

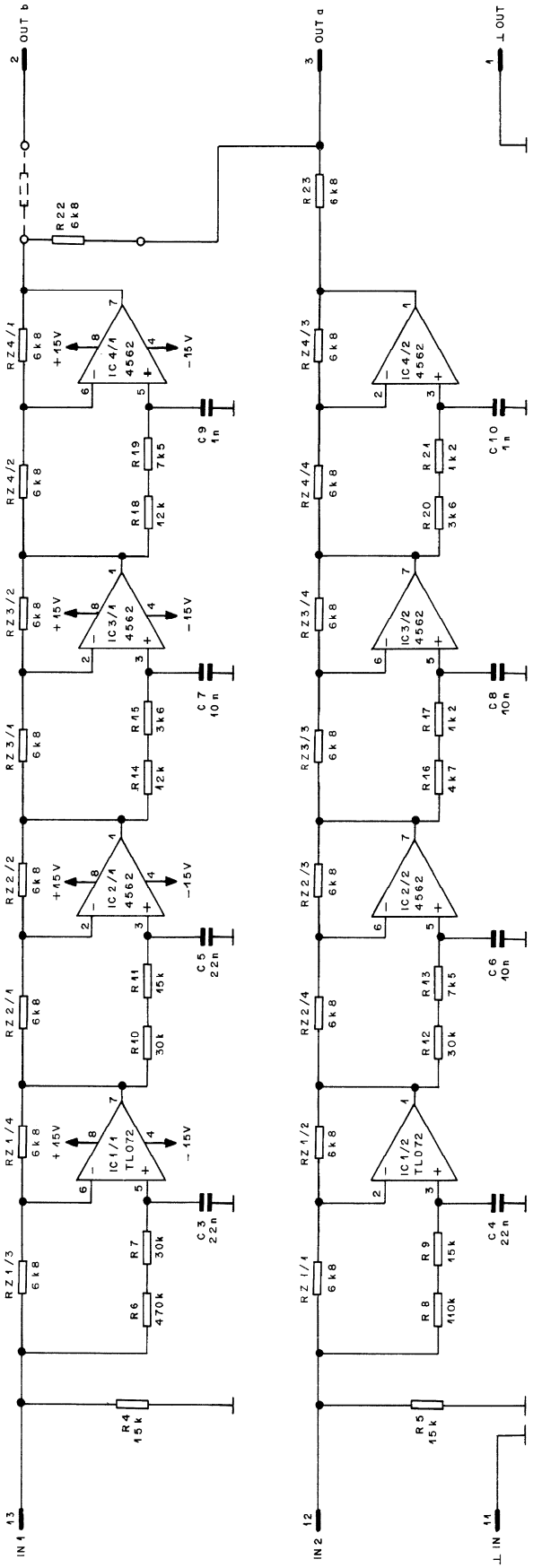
The gain of this combination can be adjusted. A correlated stereo input of equal level in both channels will provide a mono signal of identical level. With only one input channel (left or right), the mono output level will be lower by 3 dB.

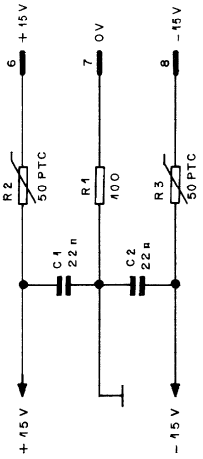
Since the 90° filter with its input and output cards can be realized on a single, Euro-card size MSC motherboard, it can possibly be combined with other Audio Components, such as limiters and isolation amplifiers. Such stereo-to-mono combinations are in use at various radio stations to feed the stereo programs to the monophonic AM-transmitter in a correctly summed manner.

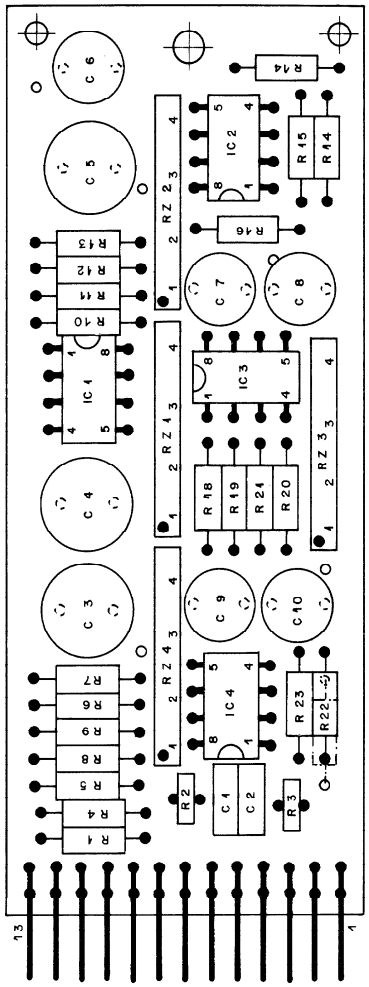
Technical Specifications

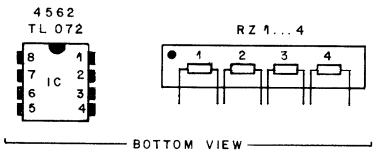
Input:	Max. level	**+20 dBu**
	Impedance	**4 kW**
Output:	Max. level	**+20 dBu**
	Impedance	**6.8 kW**
	Frequency response	**30 Hz...16 kHz**, ±0.3 dB
	Phase	**90°** ±3°; 30 Hz...16 kHz
	THD	**£ –80 dB**
	Noise	**< –95 dBu**
Supply:		**±15 V** (18 mA idling)
Dimensions:		**MS-card,** 34 × 85 mm
Ordering Information:		90° filter stereo/mono 1.914.533.xx

MSC 90° FILTER









CIS	PIN	EURO 32 PIN			
		(a)	(b)	(c)	(d)
IN 1	13	1	7	21	27
IN 2	12	2	8	22	28
⊥	11	3	9	23	29
	10				
	9				
-15 V	8	14			
0 V	7	15			
+15V	6	16			
	5				
	4				
OUT a	3	4	10	24	30
OUT b	2	5	11	25	31
⊥	1	6	13	26	32

0 26.9.91		
STUDER REGENSDORF ZÜRICH	90 DEGREE FILTER	1.914.533.00

MSC 90° FILTER

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	C.....1	59.06.0223	22 nF		PE	
	C.....2	59.06.0223	22 nF		PE	
	C.....3	59.05.1223	22 nF	1%	PP	
	C.....4	59.05.1223	22 nF	1%	PP	
	C.....5	59.05.1223	22 nF	1%	PP	
	C.....6	59.05.1103	10 nF	1%	PP	
	C.....7	59.05.1103	10 nF	1%	PP	
	C.....8	59.05.1103	10 nF	1%	PP	
	C.....9	59.05.1102	1 nF	1%	PP	
	C....10	59.05.1102	1 nF	1%	PP	
	IC....1	50.09.0101	TL072	dual op.amp.		TI
01	IC....2	50.09.0107	RC4559	dual op.amp.		Ra
01	IC....3	50.09.0107	RC4559	dual op.amp.		Ra
01	IC....4	50.09.0107	RC4559	dual op.amp.		Ra
	P.....1	54.01.0273		CIS, 13 pin		
	R.....1	57.11.3101	100 Ohm			
	R.....2	57.99.0206	50 Ohm	PTC		
	R.....3	57.99.0206	50 Ohm	PTC		
	R.....4	57.11.3153	15 kOhm			
	R.....5	57.11.3153	15 kOhm			
	R.....6	57.11.3474	470 kOhm	1%		
	R.....7	57.11.3303	30 kOhm	1%		
	R.....8	57.11.3114	110 kOhm	1%		
	R.....9	57.11.3153	15 kOhm	1%		
	R....10	57.11.3303	30 kOhm	1%		
	R....11	57.11.3153	15 kOhm	1%		
	R....12	57.11.3303	30 kOhm	1%		
	R....13	57.11.3752	7.5 kOhm	1%		
	R....14	57.11.3123	12 kOhm	1%		
	R....15	57.11.3362	3.6 kOhm	1%		
	R....16	57.11.3472	4.7 kOhm	1%		
	R....17	57.11.3122	1.2 kOhm	1%		
	R....18	57.11.3123	12 kOhm	1%		
	R....19	57.11.3752	7.5 kOhm	1%		
	R....20	57.11.3362	3.6 kOhm	1%		
	R....21	57.11.3122	1.2 kOhm	1%		
	R....22	57.11.3682	6.8 kOhm	1%		
	R....23	57.11.3682	6.8 kOhm	1%		
	RZ....1	57.88.2682	6.8 kOhm		Resistor-Network	
	RZ....2	57.88.2682	6.8 kOhm		Resistor-Network	
	RZ....3	57.88.2682	6.8 kOhm		Resistor-Network	
	RZ....4	57.88.2682	6.8 kOhm		Resistor-Network	

PE = polyester, PP = polypropylen

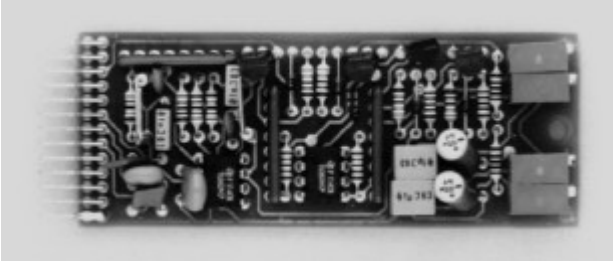
(01) 90/06/21 IC 2...4 RC 4562 replaced by RC 4559

MANUFACTURER TI=Texas Instruments, Ra=Raytheon

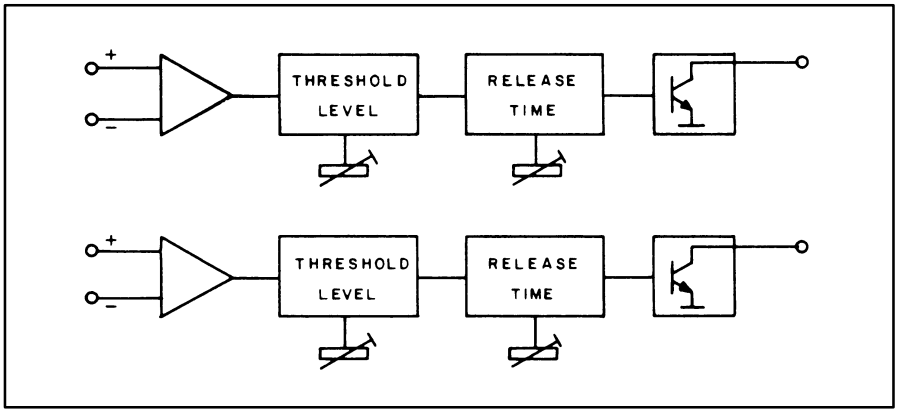
1.914.533.00	90 DEGREE FILTER	HAM88/02/2400
1.914.533.00	90 DEGREE FILTER	FRI90/06/2101

2.1.18 Dual Vox Detector 1.914.534

The Dual Vox Detector card contains two adjustable threshold level detector circuits. Threshold level (–22 dBu...+16 dBu) and release time (0.2 s...10 s) are separately adjustable for two audio channels. These adjustments are effected very precisely with multi-turn trimmer potentiometers.

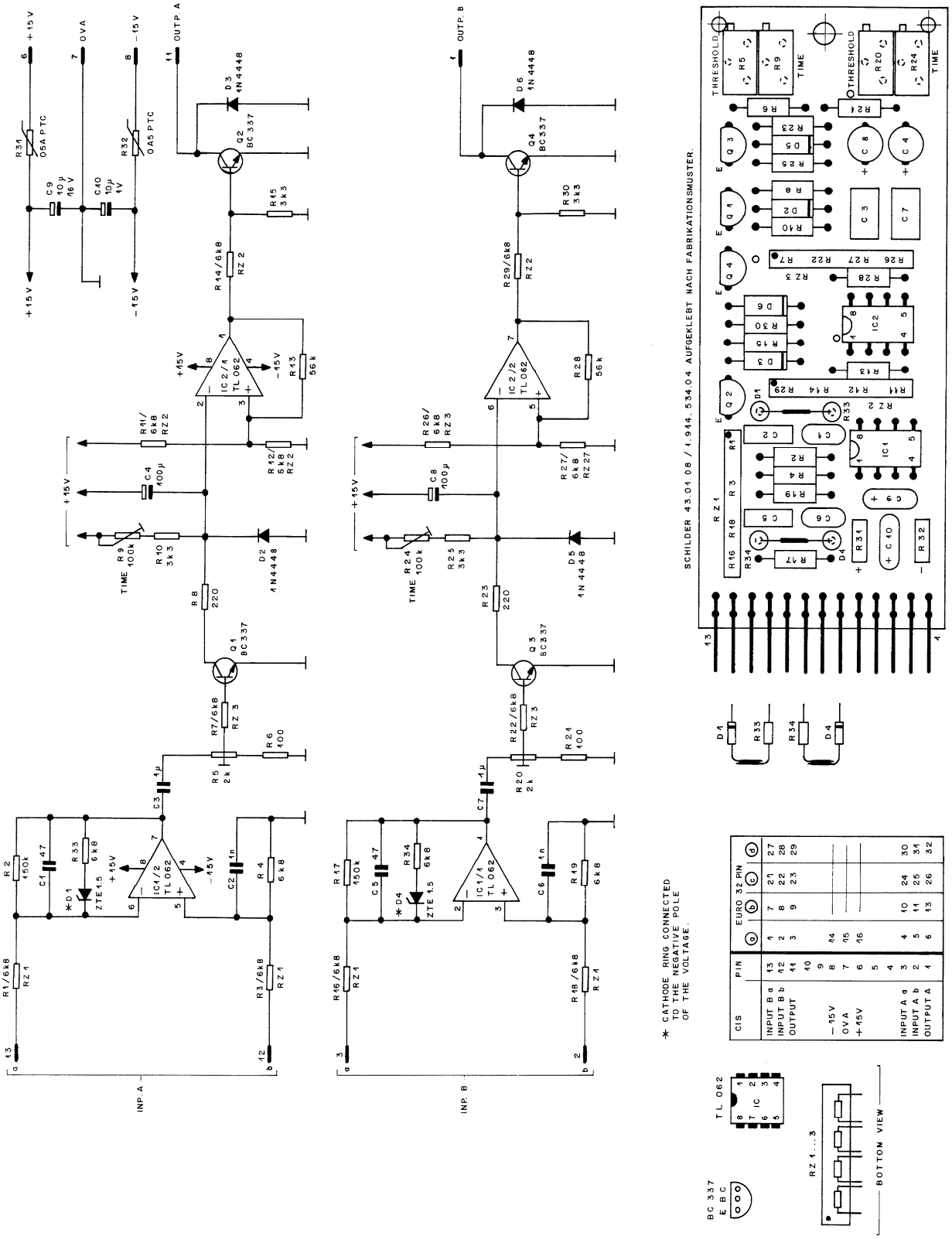


The high-impedance audio input is balanced. The open-collector output is prepared to activate a relay or an alarm device.
A possible application of this card would be to detect incoming modulation.



Technical Specifications

Inputs:		**Electronically balanced**
	Impedance	**³ 10 kW**
	Max. level	**+24 dBu** (0 dBu ≙ 0,775 V_{rms})
	Frequency response	**75 Hz...12 kHz,** –3 dB
	Threshold level	**–22 dBu...+16 dBu**
	Attack time	**100 ms**
	Release time	**200 ms...10 s**
	Hysteresis	**£ 1 dB**
Outputs:		**Open-collector**; U_{CE} ≤ +45 V; Imax ≤ 100 mA
Supply:		**±15 V** (≤ 15 mA / 4 mA idling)
Dimensions:		**MS-card,** 34 × 85 mm
Ordering Information:	Dual vox detector	1.914.534.xx



0 27.9.91				
STUDER REGENSDORF ZÜRICH	THRESHOLD LEVEL DETECTOR	ESE	1.914.534.00	

MSC DUAL VOX DETECTOR

Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
01	C.....1	59.34.2470	47 pF	63V	CER 5%	
01	C.....2	59.34.5102	1000 pF	63V	PE 5%	
	C.....3	59.06.5105	1 uF		PE 5%	
	C.....4	59.22.3101	100 uF	10V	EL	
01	C.....5	59.34.2470	47 pF	63V	CER 5%	
01	C.....6	59.06.5102	1000 pF	63V	PE 5%	
	C.....7	59.06.5105	1 uF		PE 5%	
	C.....8	59.22.3101	100 uF	10V	EL	
	C.....9	59.26.2100	10 uF	16V	EL	
	C....10	59.26.2100	10 uF	16V	EL	
01	D.....1	50.99.0183	ZTE1.5	1.5V	ZENER	ITT
	D.....2	50.04.0125	1N4448			any
	D.....3	50.04.0125	1N4448			any
01	D.....4	50.99.0183	ZTE1.5	1.5V	ZENER	ITT
	D.....5	50.04.0125	1N4448			any
	D.....6	50.04.0125	1N4448			any
	IC....2	50.09.0119	TL062	dual op.amp.		TI
	IC....3	50.09.0119	TL062	dual op.amp.		TI
	P.....1	54.01.0273		CIS, 13 pin		
	Q.....1	50.03.0516	BC337	NPN		any
	Q.....2	50.03.0516	BC337	NPN		any
	Q.....3	50.03.0516	BC337	NPN		any
	Q.....4	50.03.0516	BC337	NPN		any
	R.....1	. .	6.8 kOhm	RZ 1		
01	R.....2	57.11.3154	150 kOhm			
	R.....3	. .	6.8 kOhm	RZ 1		
01	R.....4	57.11.3682	6.8 kOhm			
	R.....5	58.05.0202	2 kOhm	Trim 10%		
	R.....6	57.11.3101	100 Ohm			
	R.....7	. .	6.8 kOhm	RZ 3		
	R.....8	57.11.3221	220 Ohm			
	R.....9	58.05.0104	100 kOhm	Trim 10%		
	R....10	57.11.3332	3.3 kOhm			
	R....11	. .	6.8 kOhm	RZ 2		
	R....12	. .	6.8 kOhm	RZ 2		
	R....13	57.11.3563	56 kOhm			
	R....14	. .	6.8 kOhm	RZ 2		
	R....15	57.11.3332	3.3 kOhm			
	R....16	. .	6.8 kOhm	RZ 1		
01	R....17	57.11.3154	150 kOhm	1%		
	R....18	. .	6.8 kOhm	RZ 1		
01	R....19	57.11.3682	6.8 kOhm			
	R....20	58.05.0202	2 kOhm	Trim 10%		
	R....21	57.11.3101	100 Ohm			
	R....22	. .	6.8 kOhm	RZ 3		
	R....23	57.11.3221	220 Ohm			
	R....24	58.05.0104	100 kOhm	Trim 10%		
	R....25	57.11.3332	3.3 kOhm			
	R....26	. .	6.8 kOhm	RZ 3		
	R....27	. .	6.8 kOhm	RZ 3		
	R....28	57.11.3563	56 kOhm			
	R....29	. .	6.8 kOhm	RZ 2		
	R....30	57.11.3332	3.3 kOhm			
	R....31	57.92.7001	0.3 Ohm	PTC .5A		
	R....32	57.92.7001	0.3 Ohm	PTC .5A		
01	R....33	57.11.3682	6.8 kOhm			
01	R....34	57.11.3682	6.8 kOhm			
	RZ....1	57.88.2682	6.8 kOhm	R. Network 4*6.8k		
	RZ....2	57.88.2682	6.8 kOhm	R. Network 4*6.8k		
	RZ....3	57.88.2682	6.8 kOhm	R. Network 4*6.8k		

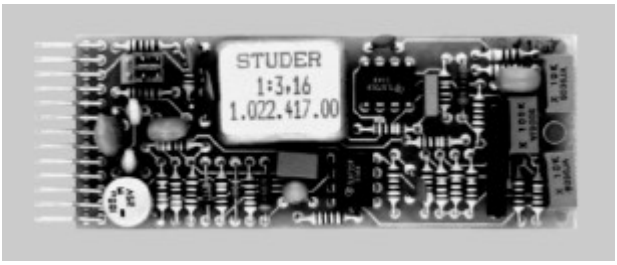
(01) update
(02) old name: THRESHOLD DETECTOR
CER = ceramic, EL = electrolytic, PE = polyester

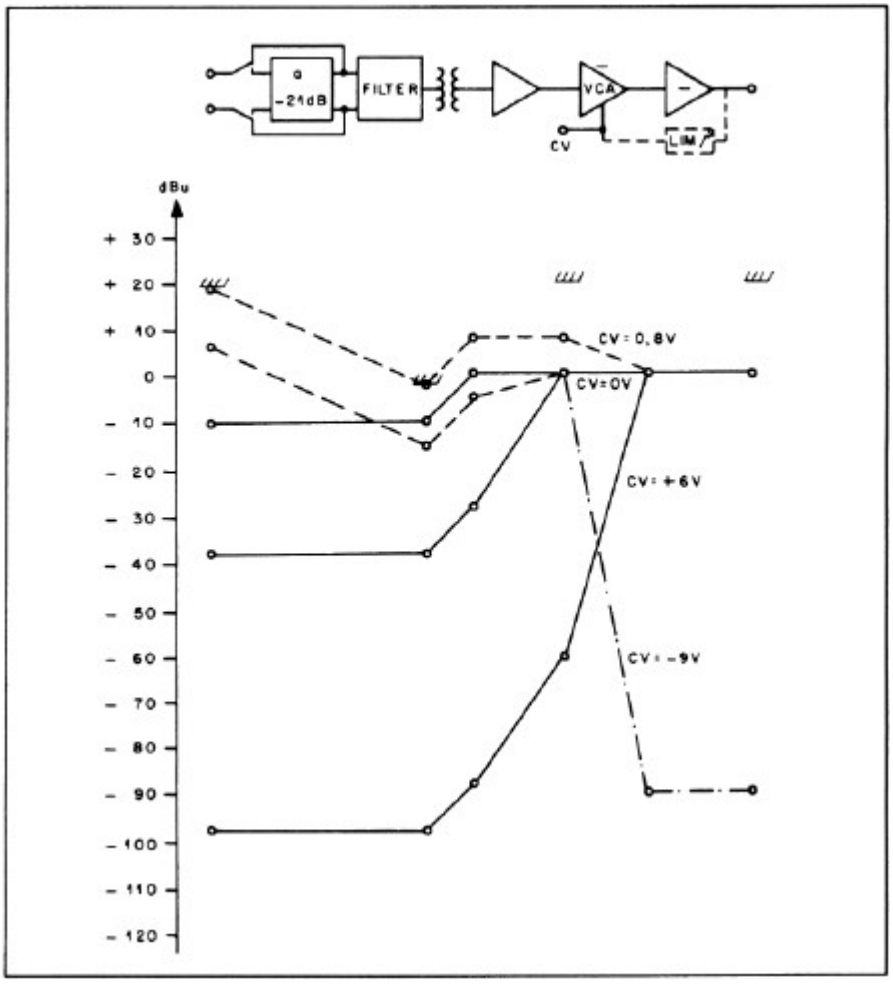
MANUFACTURER Mot=Motorola, NS=National Semiconductor, Six=Siliconics,
TI=Texas Instruments

1.914.534.00	THRESHOLD LEVEL DETECTOR	FRI88/06/1800
1.914.534.00	THRESHOLD LEVEL DETECTOR	FRI88/09/0701
1.914.534.00	DUAL VOX DETECTOR (POS)	FRI88/10/2702

2.1.19 Microphone Amplifier with Limiter 1.914.539

This assembly combines a microphone amplifier and a VCA limiter circuit with adjustable threshold level and program-depending release time. The input is balanced and floating, the output is unbalanced and with low impedance. Gain control is effected internally with a trimmer potentiometer, or externally with a gain-control DC voltage. A jumper-selectable pad reduces the input level by 21 dB.





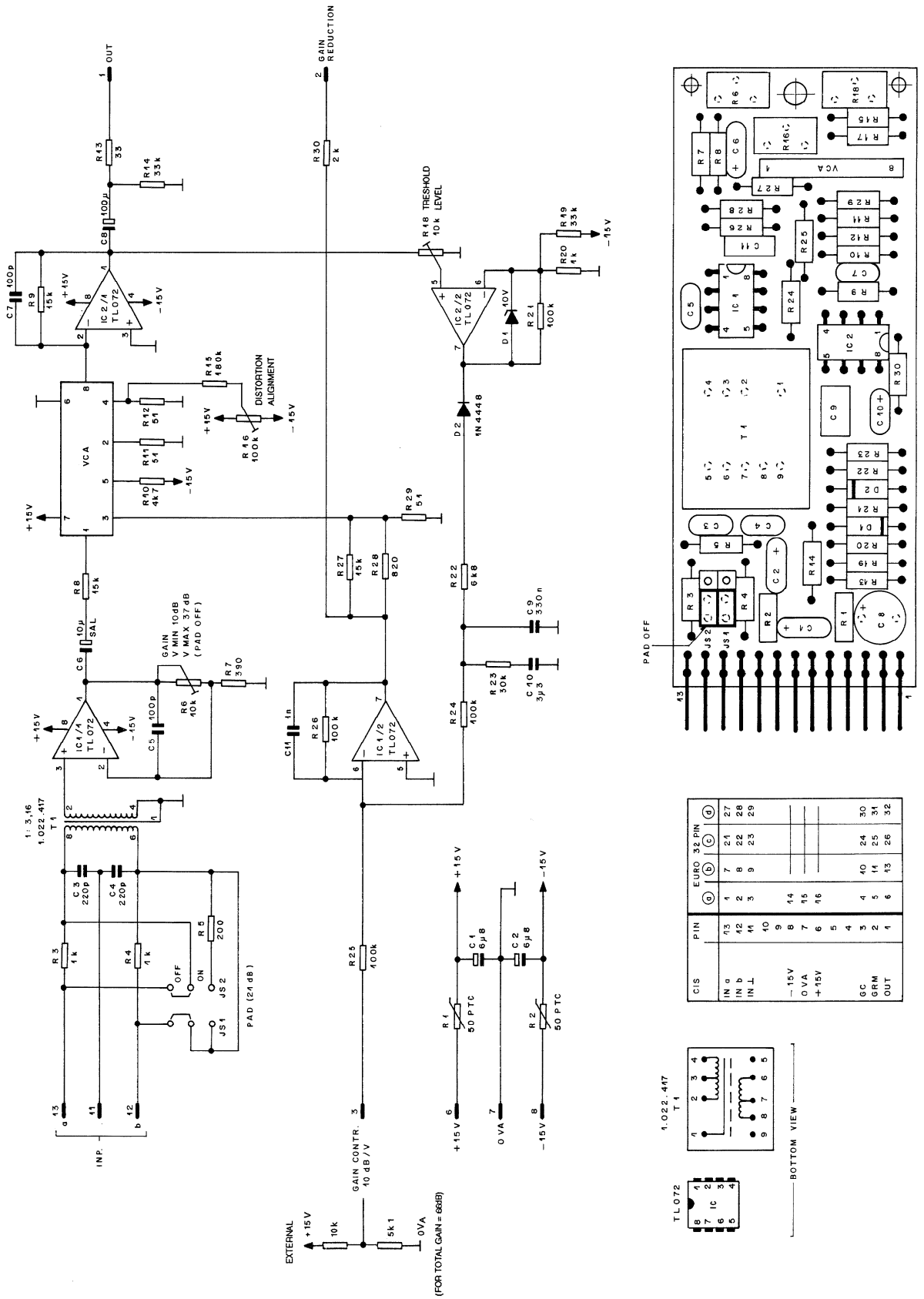
The operation of the limiter circuit can be monitored at the gain reduction output, if an appropriate instrument (GRM) is connected.

This card is ideally suited for talkback applications.

Technical Specifications

Input:	Impedance	**> 1 kW,** balanced, floating
	Max. level	**–2 dBu** (THD at 30 Hz ≤ 1%)
		+19 dBu, pad on
	Pad (attenuation)	**–21 dB**, jumper-selectable
	CMRR	**> 60 dB** @ 16 kHz
	Source impedance	**£ 200 W**
Output:	Max. level	**+20 dBu**
	Impedance	**33 W**
	Load	**³ 2 kW**
	Gain adjust (v_1)	**min. +10 dB,** VCA = 0 dB; pad off
		max. +37 dB, VCA = 0 dB; pad off
		min. –11 dB, VCA = 0 dB; pad on
		max. +16 dB, VCA = 0 dB; pad on
	Gain control characteristics (v_2)	**10 dB/V**
	DC range	**–10...+6 V**, pin3: gain control input
	Total gain	**v_{tot} = v1 + v2**
	Max. attenuation	**> 90 dB**
General:	Frequency response	**±0.5 dB**, 30 Hz...16 kHz
	THD	**£ –50 dB,** 20 dB gain; 30 Hz...16 kHz
	Noise voltage	**–95 dBu,** pad on; 0 dB gain
	Noise figure	**F ~ 10 dB,** bandwidth = 23 kHz; 60 dB gain; R_s = 200 Ω; pad off
Limiter:	Threshold level	**–7...+20 dBu**
	Attack time	**0.5 ms**
	Release time	**50 ms...1 s**, program-dependent
	Compression ratio	**10:1** @ 1 kHz
Supply:		**±15 V** (25 mA)

Ordering Information:	Microphone amplifier with limiter	1.914.539.xx



⓪ 4.10.91					
STUDER REGENSDORF ZÜRICH	MIC. AMPLIFIER WITH LIMITER				1.914.539.00

MSC MIC AMP / LIMITER

Ad	..POS..	...REF.No...	DESCRIPTION				MANUFACTURER
	C.....1	59.26.2689	6.8 uF	16V	SAL		
	C.....2	59.26.2689	6.8 uF	16V	SAL		
	C.....3	59.34.4221	220 pF	63V	CER	5%	
	C.....4	59.34.4221	220 pF	63V	CER	5%	
	C.....5	59.34.4101	100 pF	63V	CER	5%	
	C.....6	59.26.5100	10 uF	25V	SAL		
	C.....7	59.34.4101	100 pF	63V	CER	5%	
	C.....8	59.22.4101	100 uF	16V	EL		
	C.....9	59.06.0334	330 nF	63V	PETP	10%	
	C....10	59.30.6339	3.3 uF	35V	TA	20%	
	C....11	59.06.0102	1 nF	63V	PETP	10%	
	D.....1	50.04.1114	BZX55-C10	Z 10V	0.4W		any
	D.....2	50.04.0125	1N4448	diode			any
	IC....1	50.09.0101	TL072 CP	dual op.amp. biFET			TI
	IC....2	50.09.0101	TL072 CP	dual op.amp. biFET			TI
	IC....3	50.11.0140	dbx2150 A	VCA			dBx
	JS....1	54.01.0021	Jumper	Au			
	JS....2	54.01.0021	Jumper	Au			
	MP....1	43.01.0108	ESE	ESE warning			
	P.....1	54.01.0273	13 PIN	CIS			
	P.....2	54.11.0136	2*3 PIN	Stiftleiste			
	PCB...1	1.914.539.11		empty PCB			St
	R.....1	57.99.0206	50 Ohm	PTC			
	R.....2	57.99.0206	50 Ohm	PTC			
	R.....3	57.11.3102	1 kOhm				
	R.....4	57.11.3102	1 kOhm				
	R.....5	57.11.3201	200 Ohm				
	R.....6	58.01.9103	10 kOhm	variable resistor 10%		PGM	
	R.....7	57.11.3391	390 Ohm				
	R.....8	57.11.3153	15 kOhm				
	R.....9	57.11.3153	15 kOhm				
	R....10	57.11.3472	4.7 kOhm				
	R....11	57.11.3510	51 Ohm				
	R....12	57.11.3510	51 Ohm				
	R....13	57.11.3330	33 Ohm				
	R....14	57.11.3333	33 kOhm				
	R....15	57.11.3184	180 kOhm				
	R....16	58.01.9104	100 kOhm	variable resistor 10%		PGM	
	R....17	57.11.3102	1 kOhm				
	R....18	58.01.9103	10 kOhm	variable resistor 10%		PGM	
	R....19	57.11.3333	33 kOhm				
	R....20	57.11.3102	1 kOhm				
	R....21	57.11.3104	100 kOhm				
	R....22	57.11.3682	6.8 kOhm				
	R....23	57.11.3303	30 kOhm				
	R....24	57.11.3104	100 kOhm				
	R....25	57.11.3104	100 kOhm				
	R....26	57.11.3104	100 kOhm				
	R....27	57.11.3153	15 kOhm				
	R....28	57.11.3821	820 Ohm				
	R....29	57.11.3510	51 Ohm				
	R....30	57.11.3202	2 kOhm				
	T.....1	1.022.417.00	1:3.16	input-transformer			St

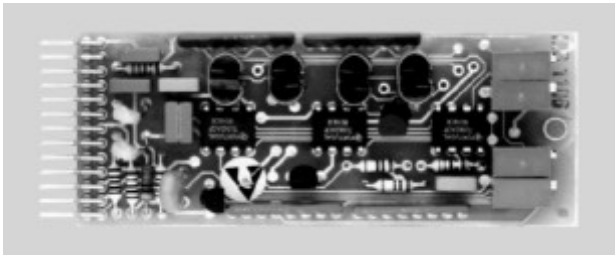
CER = ceramic, EL = electrolytic, PETP = polyester
SAL = solid aluminium, TA = tantal

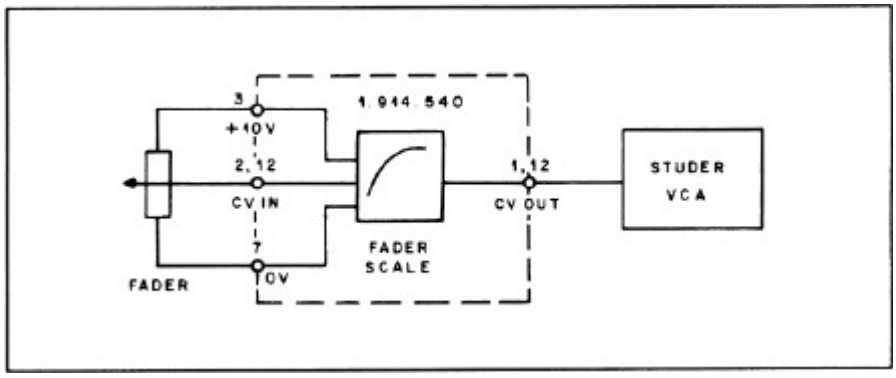
MANUFACTURER dBx= dBx-Incorp., St= Studer, TI= Texas Instruments

1.914.539.00 MIC.AMPLIFIER WITH LIMITER HORZO/11/9000

2.1.20 Dual Fader/VCA Control Voltage Interface 1.914.540 /541

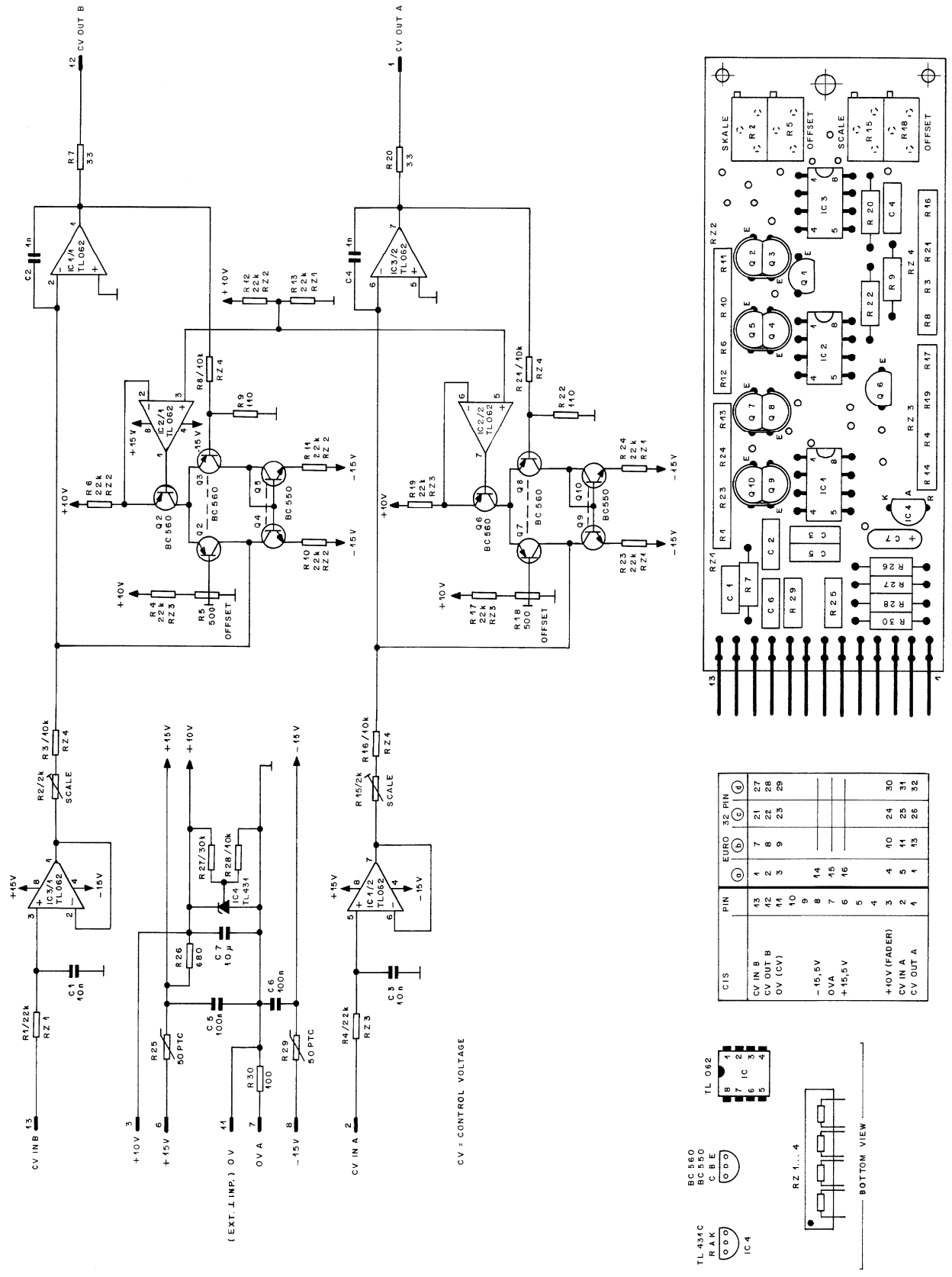
These interfaces are used to convert the voltage of a linear fader to the non-linear dB scale of a Studer VCA. One card processes two channels. It is available in two versions: 540.xx (0...+10 V_{DC} control voltage), and 541.xx (+5...0 V_{DC} control voltage). A regulated +10 V_{DC} reference voltage is generated on-board. The DC from the fader's wiper is connected to the input. Offset and scale alignment is performed with on-board trimmer potentiometers for matching the VCA gain to the dB scale of the fader.





Technical Specifications

		1.914.540.xx	1.914.541.xx
Input:	Impedance	**> 1 MW,** unbalanced	**100 kW,** unbalanced
	Level range	**0...+10 V**	**+5...0 V**
Output:	Impedance	**33 W,** unbalanced	**33 W,** unbalanced
	Control range	**+1 V...–10 V**	**+1 V...–10 V**
Supply:		**±15 V** (15 mA)	
Dimensions:		**MS-card,** 34 × 85 mm	
Ordering Information:		Fader/VCA control interface	1.914.540.xx
		Fader/VCA control interface	1.914.541.xx



C1S	PIN	EURO (b)	32 PIN (c)	(d)
CV IN B	13	1	7	21	27
CV OUT B	12	2	8	22	28
OV (CV)	11	3	9	23	29
	10				
	9				
-15,5V	8	14			
OVA	7	15			
+15,5V	6	16			
	5				
	4				30
+10V (FADER)	3	4	10	24	31
CV IN A	2	5	11	25	32
CV OUT A	1		13	26	

0 7.10.91 fe		
STUDER REGENSDORF ZÜRICH	FADER / VCA CV INTERFACE BOARD	1.914.540.00

MSC FADER / VCA INTERFACE

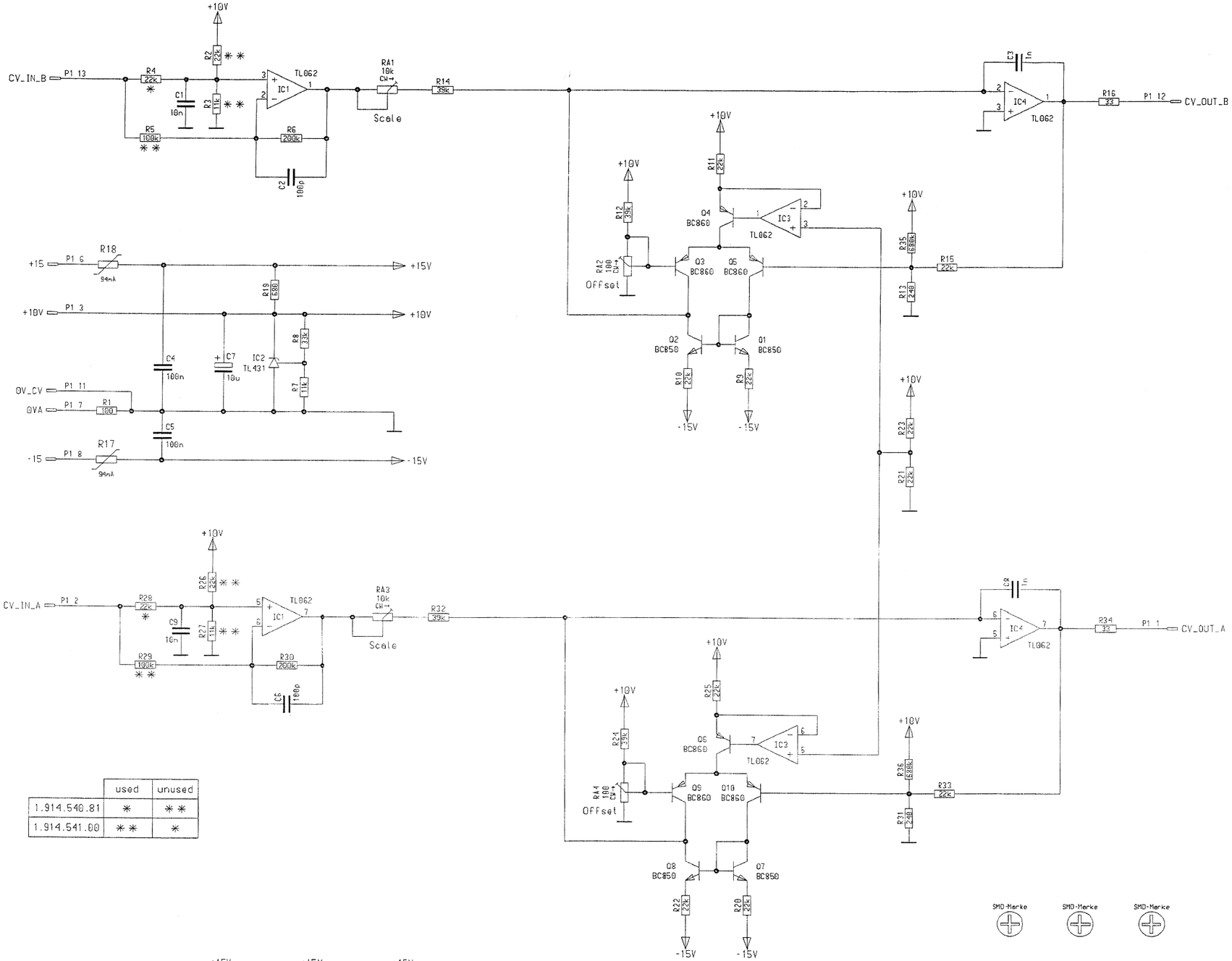
Ad	..POS..	...REF.No...	DESCRIPTION			MANUFACTURER
	C.....1	59.06.0103	10 nF	63V	PE 10%	
	C.....2	59.06.0102	1 nF	63V	PE 10%	
	C.....3	59.06.0103	10 nF	63V	PE 10%	
	C.....4	59.06.0102	1 nF	63V	PE 10%	
	C.....5	59.06.0104	0.1 uF	63V	PE 10%	
	C.....6	59.06.0104	0.1 uF	63V	PE 10%	
	C.....7	59.26.2100	10 uF	16V	SAL	
	IC....1	50.09.0119	TL062 ACP	dual op.amp.		TI
	IC....2	50.09.0119	TL062 ACP	dual op.amp.		TI
	IC....3	50.09.0119	TL062 ACP	dual op.amp.		TI
	IC....4	50.10.0106	TL431 CLP	shunt regulator		TI
	MP....1	50.20.2001	CLIP	2 * TO 92		
	MP....2	50.20.2001	CLIP	2 * TO 92		
	MP....3	50.20.2001	CLIP	2 * TO 92		
	MP....4	50.20.2001	CLIP	2 * TO 92		
	MP....5	43.01.0108	ESE	ESE warning		
	P.....1	54.01.0273	13 PIN	CIS		
	PCB...1	1.914.540.11		empty PCB		St
	Q.....1	50.03.0496	BC560	PNP		Sie
	Q.....2	50.03.0600	BC560	PNP	E6310 see note 1	Sie
	Q.....3	50.03.0600	BC560	PNP	E6310 see note 1	Sie
	Q.....4	50.03.0524	BC550	NPN	E6310 see note 1	Sie
	Q.....5	50.03.0524	BC550	NPN	E6310 see note 1	Sie
	Q.....6	50.03.0496	BC560	PNP		Sie
	Q.....7	50.03.0600	BC560	PNP	E6310 see note 1	Sie
	Q.....8	50.03.0600	BC560	PNP	E6310 see note 1	Sie
	Q.....9	50.03.0524	BC550	NPN	E6310 see note 1	Sie
	Q....10	50.03.0524	BC550	NPN	E6310 see note 1	Sie
	R.....1	58.05.0104	100 kOhm	multi-turn 10%		
	R.....2	58.05.0501	500 Ohm	multi-turn 10%		
	R.....3	57.11.3330	33 Ohm			
	R.....4	57.11.3241	240 Ohm			
	R.....5	58.05.0104	100 kOhm	multi-turn 10%		
	R.....6	58.05.0501	500 Ohm	multi-turn 10%		
	R.....7	57.11.3330	33 Ohm			
	R.....8	57.11.3241	240 Ohm			
	R.....9	57.92.1820	42 Ohm	PTC		
	R....10	57.11.3681	680 Ohm			
	R....11	57.11.3303	30 kOhm			
	R....12	57.11.3103	10 kOhm			
	R....13	57.92.1820	42 Ohm	PTC		
	R....14	57.11.3101	100 Ohm			
	RZ....1	57.88.2223	22 kOhm	network 4 * 22k		
	RZ....2	57.88.2223	22 kOhm	network 4 * 22k		
	RZ....3	57.88.2223	22 kOhm	network 4 * 22k		
	RZ....4	57.88.2223	22 kOhm	network 4 * 22k		

SAL = electrolytic, PE = polyester

MANUFACTURER TI=Texas Instruments, Sie=Siemens, St=Studer

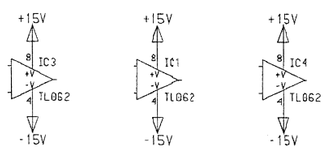
Note 1: Q2,Q3,Q4,Q5,Q7,Q8,Q9,Q10 must fulfill BV 678 I

1.914.540.00 FADER/VCA CV INTERFACE BOARD HOR16/11/9000



	used	unused
1.914.540.81	*	**
1.914.541.00	**	*

NC P1 4
NC P1 5
NC P1 9
NC P1 10



Erstellt	0	17.04.2000	ZT	

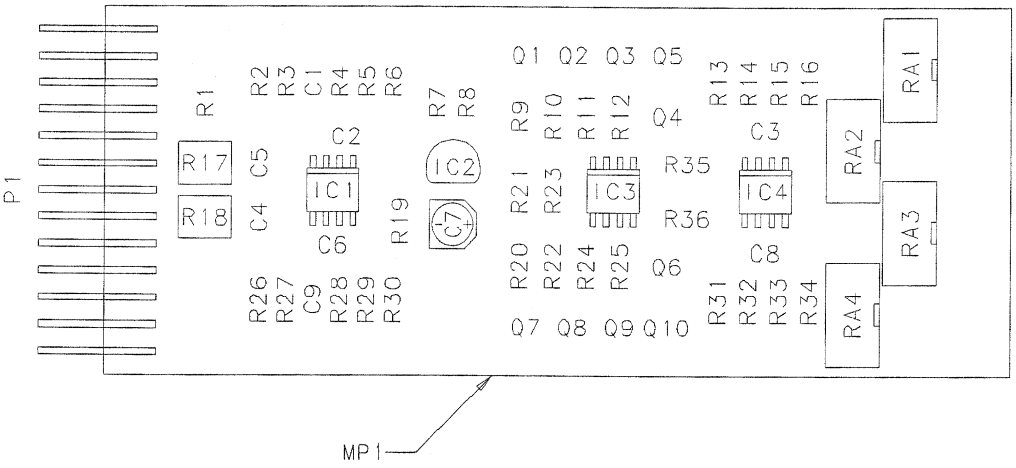
STUDER

FADER/VCA INTERFACE Type2
FADER/VCA CV INTERFACE

SC

PAGE 1 OF 1

1.914.541.00
1.914.540.81



Accompanying documents: Zugehoerige Unterlagen: PL	General tolerance: Freimasstoleranz:	Scale: Massstab: 1.5:1	Edition Ausgabe	17.04.2000 Date Datum	ZT Visa Gez.	ML Checked Gepr.	RL Seen Ges.	0 Index
Substitute for: Ersatz fuer:			Page: Seite:	1 / 1				
STUDER REGENSDORF	Description: Benennung:	FADER/VCA INTERFACE TYPE2 FADER/VCA CV INTERFACE	Z	Number: Nummer:	1.914.541.00 1.914.540.81			

Dual Fader/VCA Control Voltage IF 1.914.541.00 (0)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.60.3325	1 pce	10n	CER 50V, 10%, X7R, 0805
0	C 2	59.60.2249	1 pce	100p	CER 50V, 5%, C0G, 0603
0	C 3	59.60.2373	1 pce	1n0	CER 50V, 5%, C0G, 0805
0	C 4	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 5	59.60.3337	1 pce	100n	CER 50V, 10%, X7R, 0805
0	C 6	59.60.2249	1 pce	100p	CER 50V, 5%, C0G, 0603
0	C 7	59.68.0065	1 pce	10u	EL 16V, 4.0*5.7
0	C 8	59.60.2373	1 pce	1n0	CER 50V, 5%, C0G, 0805
0	C 9	59.60.3325	1 pce	10n	CER 50V, 10%, X7R, 0805
0	IC 1	50.61.0201	1 pce	TL062	Dual FET Op-Amp
0	IC 2	50.10.0106	1 pce	TL431	Shunt regulator
0	IC 3	50.61.0201	1 pce	TL062	Dual FET Op-Amp
0	IC 4	50.61.0201	1 pce	TL062	Dual FET Op-Amp
0	MP 1	1.914.541.11	1 pce		FADER/VCA INTERFACE2 PCB
0	MP 2	1.914.541.04	1 pce		NR.-ETIKETTE 5 * 20
0	MP 3	43.01.0108	1 pce	Label	ESE-Warnschild
0	P 1	54.01.0273	1 pce	13p	Stecker CIS parallelsteck
0	Q 1	50.60.0002	1 pce	BC850C	NPN 45V 100mA SOT 23
0	Q 2	50.60.0002	1 pce	BC850C	NPN 45V 100mA SOT 23
0	Q 3	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	Q 4	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	Q 5	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	Q 6	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	Q 7	50.60.0002	1 pce	BC850C	NPN 45V 100mA SOT 23
0	Q 8	50.60.0002	1 pce	BC850C	NPN 45V 100mA SOT 23
0	Q 9	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	Q 10	50.60.1002	1 pce	BC860C	PNP 45V 100mA SOT 23
0	R 1	57.60.1101	1 pce	100R	MF, 1%, 0204, E24
0	R 2	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 3	57.60.1113	1 pce	11k	MF, 1%, 0204, E24
0	R 4	not used	1 pce	22k	MF, 1%, 0204, E24
0	R 5	57.60.1104	1 pce	100k	MF, 1%, 0204, E24
0	R 6	57.60.1204	1 pce	200k	MF, 1%, 0204, E24
0	R 7	57.60.1113	1 pce	11k	MF, 1%, 0204, E24
0	R 8	57.60.1333	1 pce	33k	MF, 1%, 0204, E24
0	R 9	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 10	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 11	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 12	57.60.1393	1 pce	39k	MF, 1%, 0204, E24
0	R 13	57.60.1241	1 pce	240R	MF, 1%, 0204, E24
0	R 14	57.60.1393	1 pce	39k	MF, 1%, 0204, E24
0	R 15	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 16	57.60.1330	1 pce	33R	MF, 1%, 0204, E24
0	R 17	57.92.1820	1 pce	94mA	PTC 60V
0	R 18	57.92.1820	1 pce	94mA	PTC 60V
0	R 19	57.60.1681	1 pce	680R	MF, 1%, 0204, E24
0	R 20	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 21	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 22	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 23	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 24	57.60.1393	1 pce	39k	MF, 1%, 0204, E24
0	R 25	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 26	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 27	57.60.1113	1 pce	11k	MF, 1%, 0204, E24
0	R 28	not used	1 pce	22k	MF, 1%, 0204, E24
0	R 29	57.60.1104	1 pce	100k	MF, 1%, 0204, E24
0	R 30	57.60.1204	1 pce	200k	MF, 1%, 0204, E24
0	R 31	57.60.1241	1 pce	240R	MF, 1%, 0204, E24
0	R 32	57.60.1393	1 pce	39k	MF, 1%, 0204, E24
0	R 33	57.60.1223	1 pce	22k	MF, 1%, 0204, E24
0	R 34	57.60.1330	1 pce	33R	MF, 1%, 0204, E24
0	R 35	57.60.1684	1 pce	680k	MF, 1%, 0204, E24
0	R 36	57.60.1684	1 pce	680k	MF, 1%, 0204, E24
0	RA 1	58.01.9103	1 pce	10k	Cermet, 10%, 0.5W, vertical
0	RA 2	58.01.9101	1 pce	100R	Cermet, 10%, 0.5W, vertical
0	RA 3	58.01.9103	1 pce	10k	Cermet, 10%, 0.5W, vertical
0	RA 4	58.01.9101	1 pce	100R	Cermet, 10%, 0.5W, vertical

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description

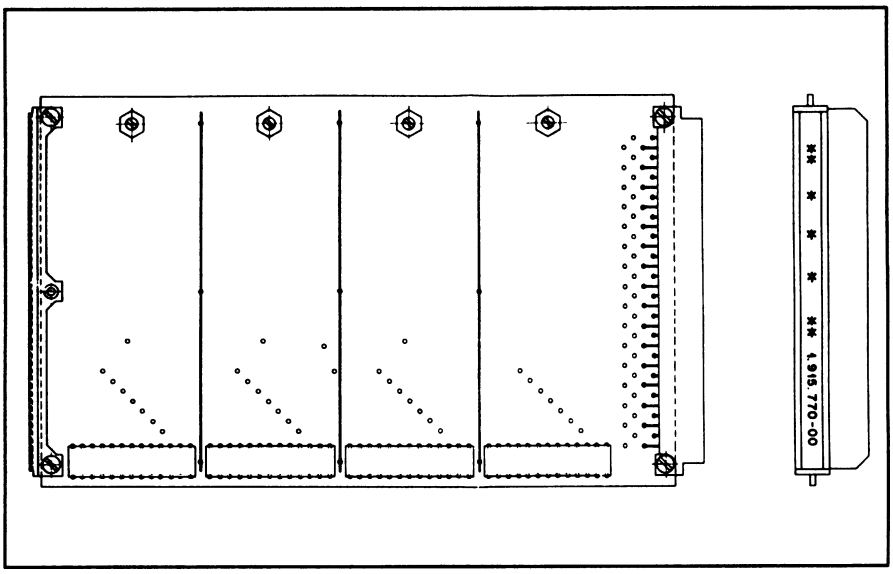
End of List

Comments:

2.2 Euro-Cards

2.2.1 Motherboard for 4 MS-Cards 1.915.770

The Modular Sub-Cards require a mounting base for mechanical and electrical installation. This motherboard for four MS-cards in standard Euro-card size easily integrates into the Studer audio components system; it carries 32 printed tracks from its edge connector to four small plug-in sockets. Each socket has 13 contacts; six of them are common supply lines, while another six are individual to each socket. Then there is a separate bus line for circuits 1 and 2, and another bus line for circuits 3 and 4.
A motherboard for only one MS-card is available as well, refer to chapter 2.1.1.



Dimensions: Euro-card **100 × 160 mm**

Connectors: 1 × Euro connector **32-pin,** DIN 41612
4 × CIS connector **13-pin,** plug-in socket for MSC

Ordering Information: MSC motherboard 1.915.770.xx

PIN No. EURO	CIS	SIGNAL	SECTION	CONNECTION REMARKS
1	a 13		1.914.5..	1
2	a 12			2
3	a 11		ⓐ NAME	3
4	a 3			4
5	a 2			5
6	a 1			6
7	b 13		1.914.5..	7
8	b 12			8
9	b 11			9
10	b 3		ⓑ NAME	10
11	b 2			11
12		- 6 V		- 6V 12
13	b 1			13
14		- 15 V		- 15V 14
15		OVA		OVA 15
16		+ 15 V		+ 15 V 16
17	a,b 10			BUS ab 17
18	c,d 10			BUS cd 18
19		OVL		OVL 19
20		- 24 V		- 24V 20
21	c 13		1.914.5..	21
22	c 12			22
23	c 11			23
24	c 3		ⓒ NAME	24
25	c 2			25
26	c 1			26
27	d 13		1.914.5..	27
28	d 12			28
29	d 11			29
30	d 3		ⓓ NAME	30
31	d 2			31
32	d 1			32

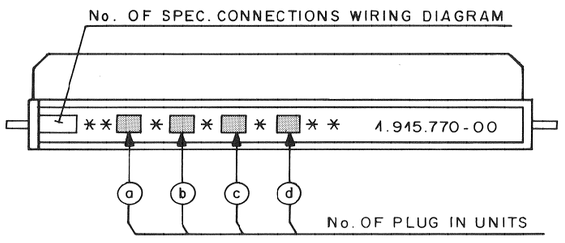
CIS 13 P.

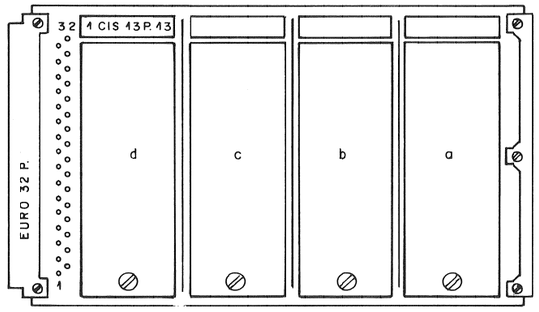
13		
12		
11		
10	BUS	
9	- 6 V	
8	- 15 V	
7	0 V A	a
6	+ 15 V	
5	0 V L	
4	- 24 V	
3		
2		
1		

13		
12		
11		
10	BUS	
9	- 6 V	
8	- 15 V	
7	0 V A	b
6	+ 15 V	
5	0 V L	
4	- 24 V	
3		
2		
1		

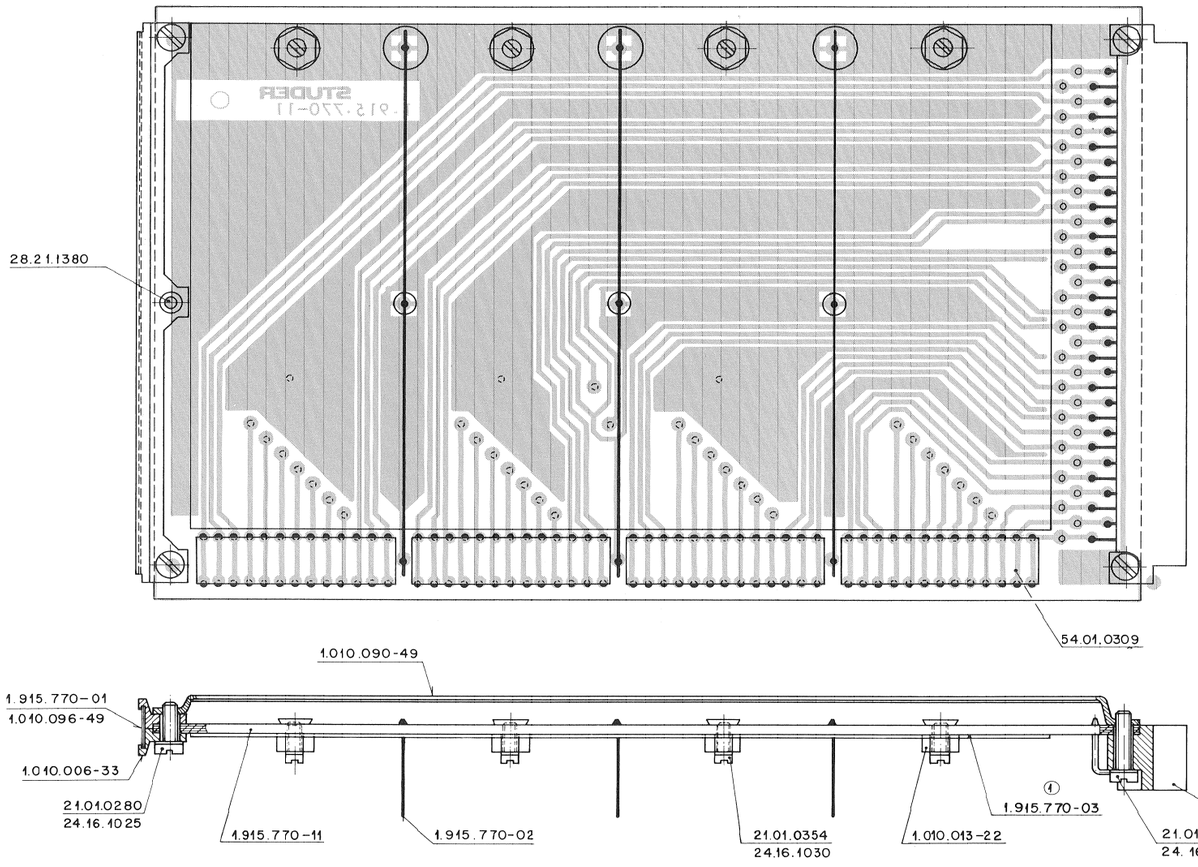
13		
12		
11		
10	BUS	
9	- 6 V	
8	- 15 V	
7	0 V A	c
6	+ 15 V	
5	0 V L	
4	- 24 V	
3		
2		
1		

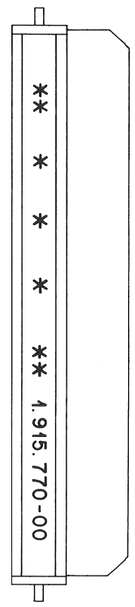
13		
12		
11		
10	BUS	
9	- 6 V	
8	- 15 V	
7	0 V A	d
6	+ 15 V	
5	0 V L	
4	- 24 V	
3		
2		
1		





MSC MOTHER BOARD



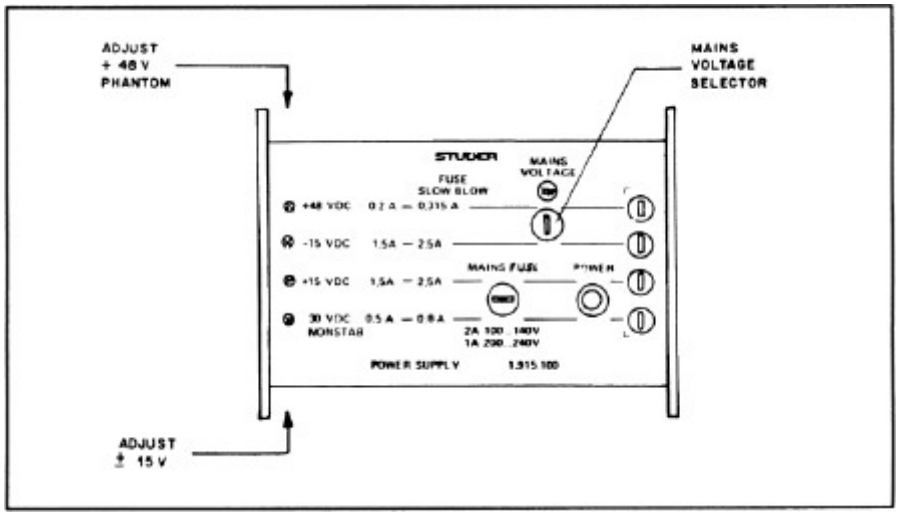


Änderung					
					3
					2
	8.2.85	A.Ho			1
Ausgabe	04.04.84	STJ			0
	Datum	Gez	Gepr	Ges.	Index
	Kopie für:				

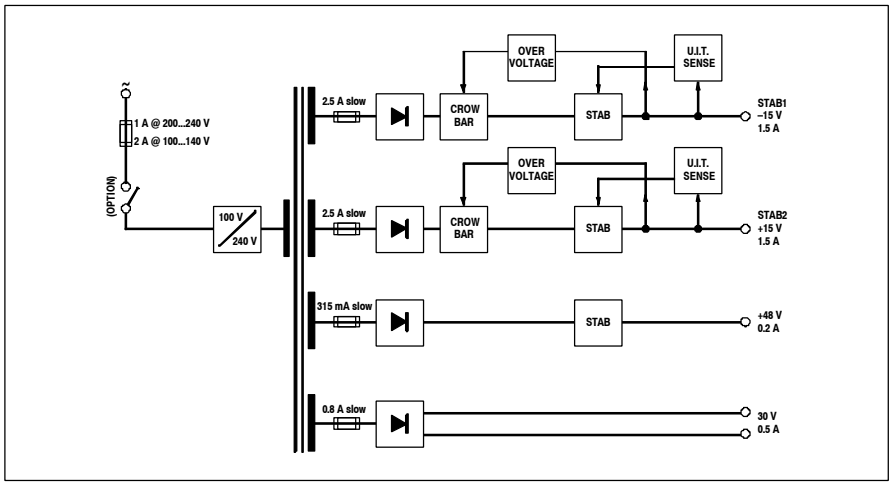
STUDER REGENSDORF ZÜRICH	Benennung: BASIS BOARD	Nummer: 1.915.770-00

2.2.2 Power Supply 1.915.100

This power supply provides a regulated output of ±15 V_{DC} at a maximum load of 1.5 A for audio circuits, plus a regulated 48 V_{DC} output for the phantom powering of microphones. In addition, 30 V of unregulated DC are available as well.
If a regulated 24 V_{DC} supply is required, the stabilizer card 1.915.105.xx can be connected to the 30 V_{DC} output.
Each of the output voltages is derived from a separate secondary winding of the mains transformer and can be fine-adjusted.



The ±15 V_{DC} supply is fully short-circuit proof and is protected against overvoltage and excess temperature. Short-circuit-protection is also effective in the 48 V_{DC} section.
The power supply has no on/off switch in the primary circuit. Such a switch, if needed, will have to be fitted separately.



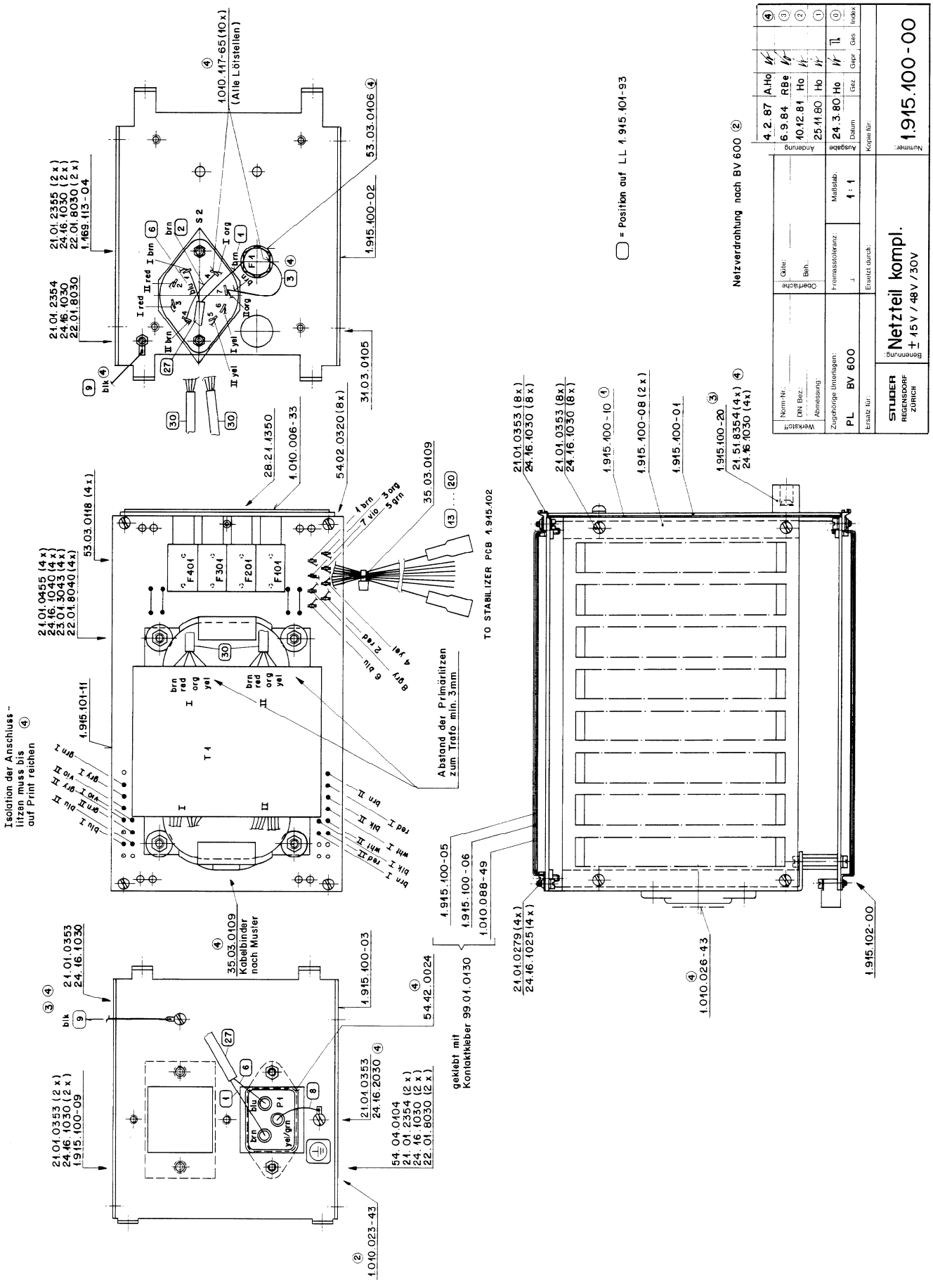
Mains transformer and regulator electronics are housed in one rectangular unit fitting into the 19" Euro-card frame (1.918.318/319), occupying the space of 28M widths. For this purpose, a mounting kit 1.918.316 is recommended (see chapter 2.3.4).

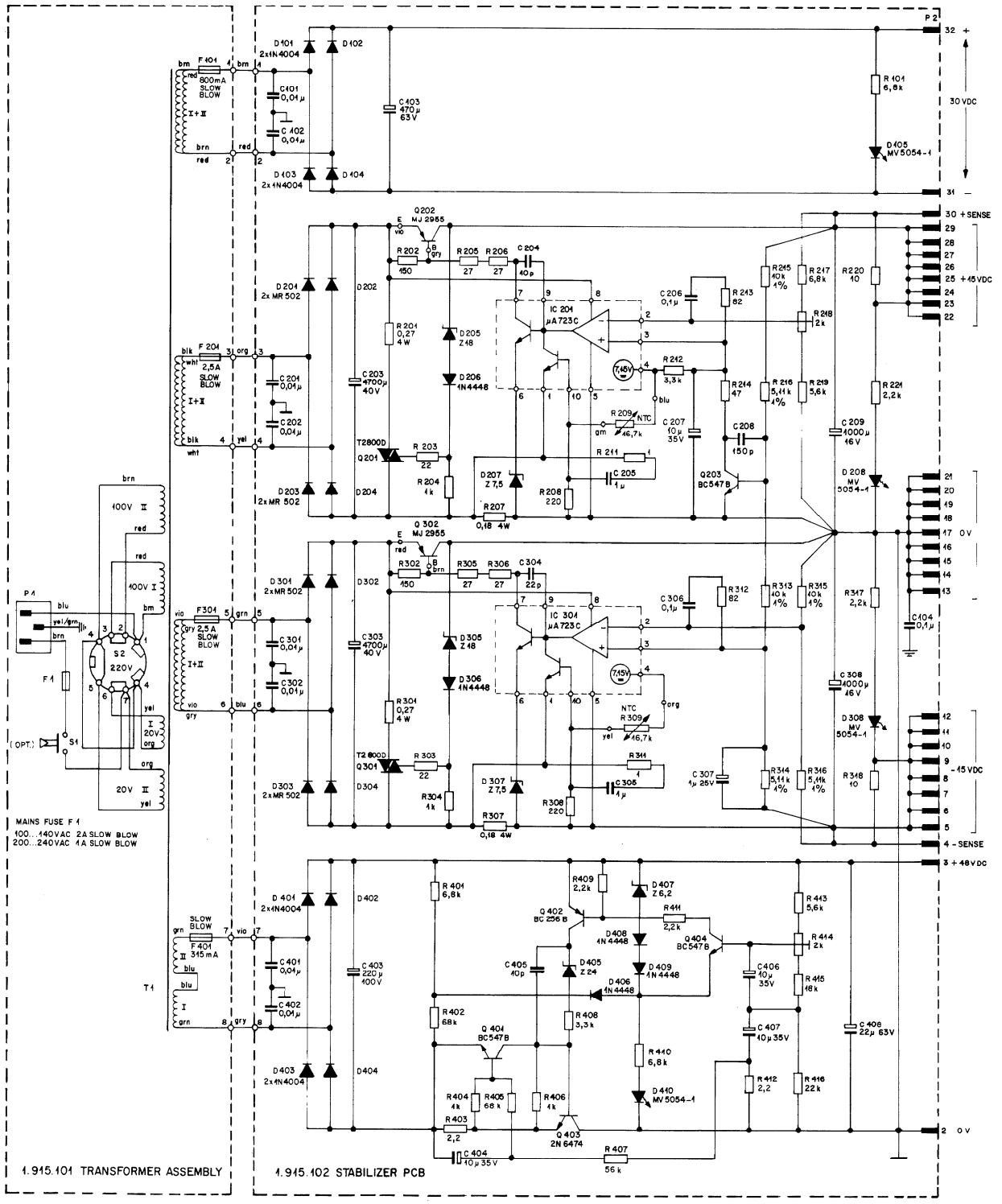
Technical Specifications

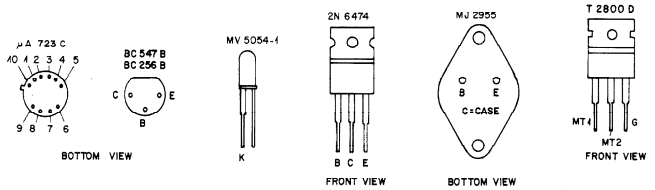
Primary:	Voltage selector	**100/120/140/200/220/240 V_{AC} ±10%**
	Fuse	**T 2 A (slow),** 100...140 V
		T 1 A (slow), 200...240 V
	Power consumption	< **120 W** (190 VA)
Secondary:	**Audio supply:**	**±15 V/1.5 A max.,** regulated voltage
	Ripple	**100 µV**
	Fuses	**2 × T 2.5 A (slow)**
	Phantom supply:	**48 V/200 mA max.,** regulated voltage, according to DIN 45596
	Ripple	**100 µV**
	Fuse	**T 315 mA (slow)**
	Unregulated DC:	**30 V/0.5 A max.**
	Fuse	**T 0.8 A (slow)**
Dimensions:	W × H × D	**140 × 100 × 160 mm**, Euro-card/28M units
	Weight	**2.75 kg**

Ordering Information:	Power supply	1.915.100.xx
	Mounting kit for installation in ELMA frame (1.918.318)	1.918.316.xx

POWER SUPPLY



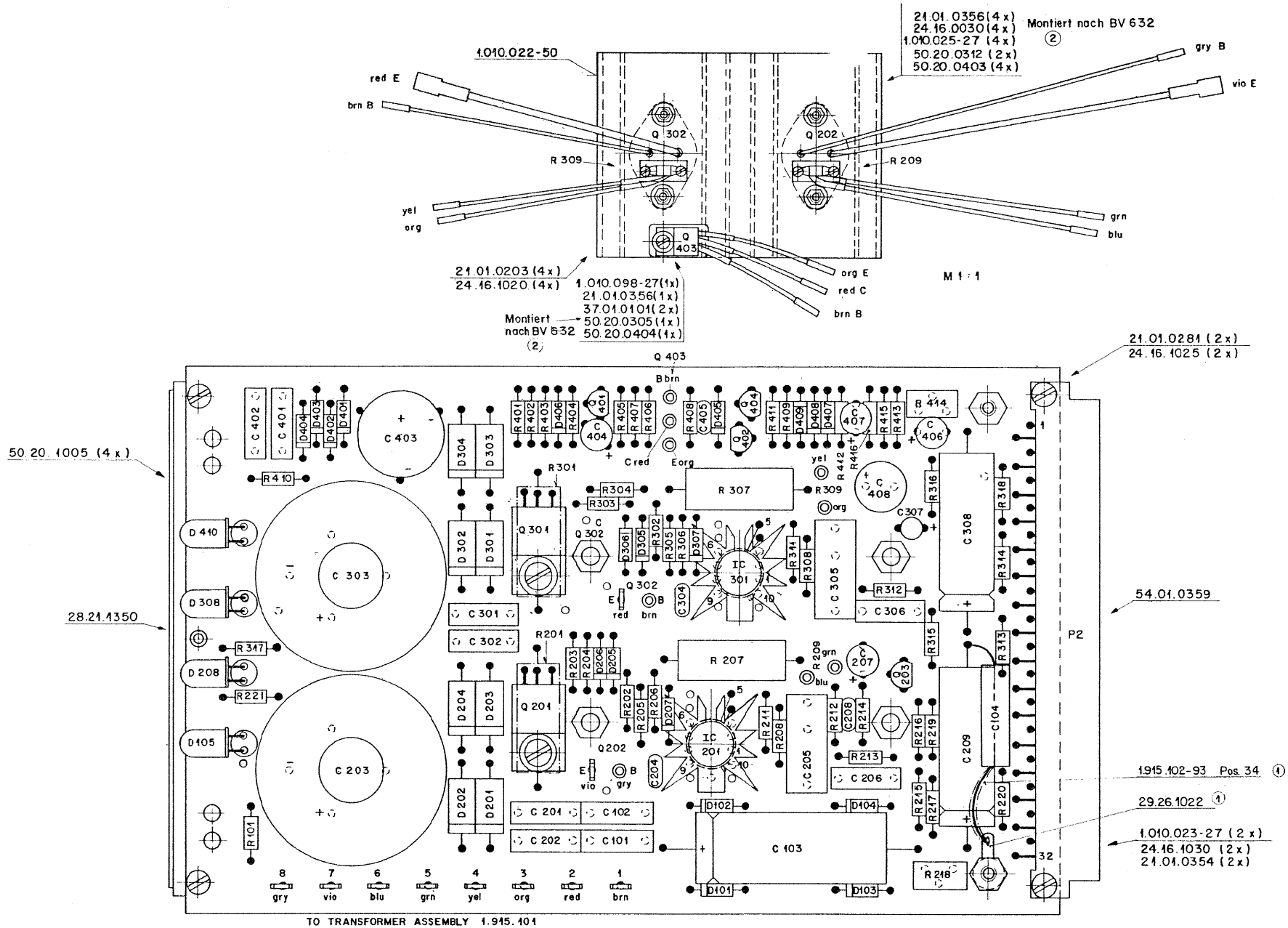




Änderung					③
					②
	2. 4. 86	Si			①
Ausgabe	1. 12. 78	Si			⓪
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: EU POWER SUPPLY ±15 V 1,5 A / +48 V 0,2 A / 30 V DC 0,5 A	Nummer: SC 1.915.100



Oberfläch.: Gute: / Beh.:			Änderung	17.1.86 A.Ho (3) / 6.9.84 RBe (2) (1)
Zugehörige Unterlagen: BV 632 (2) PL 1.915.100 AL 1.915.100-95	Freimasstoleranz: ±	Maßstab: 2:1 (1:1)	Ausgabe	19.11.79 Ho (0)
Ersatz für:	Ersetzt durch:		Kopie für:	
STUDER REGENSDORF ZÜRICH	Benennung: Stabilisator-Print		Nummer:	1.915.102-00

POWER SUPPLY

Ad	POS.	REF.No.	DESCRIPTION			MANUFACTURER
	C...101	59.31.2103	0,01µ	250V	PE	
	C...102	59.31.2103	0,01µ	250V	PE	
	C...103	59.25.6471	470µ	63V	EL	
②	C...104	59.99.0453	0,1µ	250V	MP	
	C...201	59.31.2103	0,01µ	250V	PE	
	C...202	59.31.2103	0,01µ	250V	PE	
	C...203	59.35.4472	4700µ	40V	EL	
	C...204	59.34.1100	10p		CER	
	C...205	59.34.6105	1µ	100V	PE	
	C...206	59.31.6104	0,1µ		PE	
	C...207	59.36.5100	10µ	35V	TA	
	C...208	59.34.4151	150p		CER	
	C...209	59.25.3102	1000µ	16V	EL	
	C...301	59.31.2103	0,01µ	250V	PE	
	C...302	59.31.2103	0,01µ	250V	PE	
	C...303	59.35.4472	4700µ	40V	EL	
	C...304	59.34.2220	22p		CER	
	C...305	59.31.6105	1µ	100V	PE	
	C...306	59.31.6104	0,1µ		PE	
	C...307	59.36.4109	1µ	25V	TA	
	C...308	59.25.3102	1000µ	16V	EL	
	C...401	59.31.2103	0,01µ	250V	PE	
	C...402	59.31.2103	0,01µ	250V	PE	
	C...403	59.22.9221	220µ	100V	EL	
	C...404	59.36.5100	10µ	35V	TA	
	C...405	59.34.1100	10p		CER	
	C...406	59.36.5100	10µ	35V	TA	
	C...407	59.36.5100	10µ	35V	TA	
	C...408	59.22.8220	22µ	63V	EL	
	D...101	50.04.0105	1N4004	1A 200V		ANY
	D...102	50.04.0105	1N4004	1A 200V		ANY
	D...103	50.04.0105	1N4004	1A 200V		ANY
	D...104	50.04.0105	1N4004	1A 200V		ANY
	D...105	50.04.2109	MV5054-1	LED		
	D...201	50.04.0507	MR502	3A 200V		MOT
	D...202	50.04.0507	MR502	3A 200V		MOT
	D...203	50.04.0507	MR502	3A 200V		MOT
	D...204	50.04.0507	MR502	3A 200V		MOT
	D...205	50.04.1122	ZPD18	Z-DIODE 18V	400mW	
	D...206	50.04.0125	1N4448			
	D...207	50.04.1503	ZPY7,5	Z-DIODE 7,5V	1,3W	
	D...208	50.04.2109	MV5054-1	LED		
	D...301	50.04.0507	MR502	3A 200V		MOT
	D...302	50.04.0507	MR502	3A 200V		MOT
	D...303	50.04.0507	MR502	3A 200V		MOT
	D...304	50.04.0507	MR502	3A 200V		MOT
	D...305	50.04.1122	ZPD18	Z-DIODE 18V	400mW	
	D...306	50.04.0125	1N4448			
	D...307	50.04.1503	ZPY7,5	Z-DIODE 7,5V	1,3W	
	D...308	50.04.2109	MV5054-1	LED		
	D...401	50.04.0105	1N4004	1A 200V		
	D...402	50.04.0105	1N4004	1A 200V		
	D...403	50.04.0105	1N4004	1A 200V		
	D...404	50.04.0105	1N4004	1A 200V		
	D...405	50.04.1121	ZPD24	Z-DIODE 24V	400mW	
	D...406	50.04.0125	1N4448			
	D...407	50.04.1118	ZPD6,2	Z-DIODE 6,2V	400mW	
	D...408	50.04.0125	1N4448			
	D...409	50.04.0125	1N4448			
	D...410	50.04.2109	MV5054	LED		
	F.....1	51.01.0120	2A	SLOW BLOW @ 100...140 VAC		
		51.01.0117	1A	SLOW BLOW @ 200...240 VAC		
	F...101	51.01.0116	800mA	SLOW BLOW		
	F...201	51.01.0121	2,5A	SLOW BLOW		
	F...301	51.01.0121	2,5A	SLOW BLOW		
	F...401	51.01.0112	315mA			
	IC..201	50.05.0119	µA723C			
	IC..301	50.05.0119	µA723C			
	P.....1	54.04.0104	3p	MAINS-PLUG		
	P.....2	54.01.0359	32p	EDGE CONNECTOR		
	Q...201	50.99.0106	T2800D	TRIAC		RCA
	Q...202	50.03.0481	MJ2955			MOT
	Q...203	50.03.0436	BC237B	NPN GEN. PURP. BC547B		
	Q...301	50.99.0106	T2800D	TRIAC		RCA
	Q...302	50.03.0481	MJ2955			MOT
	Q...401	50.03.0436	BC237B	NPN 50V	BC547B	
	Q...402	50.03.0492	BC256B			
	Q...403	50.03.0344	2N6474			RCA
	Q...404	50.03.0436	BC237B	NPN 50V	BC547B	
	R...101	57.11.4682	6,8k			
	R...201	57.56.5278	0,27		4W	
	R...202	57.11.4151	150			
	R...203	57.11.4220	22			
	R...204	57.11.4102	1k			
	R...205	57.11.4270	27			
	R...206	57.11.4270	27			
	R...207	57.56.5188	0,18		2W	
	R...208	57.11.4221	220			
	R...209	57.99.0208	16,7k	NTC R@ 100°C		PH
	R...210					
	R...211	57.11.4109	1			
	R...212	57.11.4332	3,3k			
	R...213	57.11.4820	82			
	R...214	57.11.4470	47			
	R...215	57.39.1002	10k	1%	MF	
	R...216	57.39.5111	5,11k	1%	MF	
	R...217	57.11.4682	6,8k			
	R...218	58.01.7202	2k	TRIM	PMG	
	R...219	57.11.4562	5,6k			
	R...220	57.11.4100	10			
	R...221	57.11.4222	2,2k			
	R...301	57.56.5278	0,27		4W	
	R...302	57.11.4151	150			
	R...303	57.11.4220	22			
	R...304	57.11.4102	1k			
	R...305	57.11.4270	27			
	R...306	57.11.4270	27			
	R...307	57.56.5188	0,18		2W	
	R...308	57.11.4221	220			
	R...309	57.99.0208	16,7k	NTC R@ 100°C		PH
	R...310					
	R...311	57.11.4109	1			
	R...312	57.11.4820	82			
	R...313	57.39.1002	10k	1%	MF	
	R...314	57.39.5111	5,11k	1%	MF	
	R...315	57.39.1002	10k	1%	MF	
	R...316	57.39.5111	5,11k	1%	MF	
	R...317	57.11.4222	2,2k			
	R...318	57.11.4100	10			
	R...401	57.11.4682	6,8k			
	R...402	57.11.4683	68k			
	R...403	57.11.4229	2,2			
	R...404	57.11.4102	1k			
	R...405	57.11.4683	68k			
	R...406	57.11.4102	1k			
	R...407	57.11.4563	56k			
	R...408	57.11.4332	3,3k			
	R...409	57.11.4222	2,2k			
	R...410	57.11.4682	6,8k			
	R...411	57.11.4222	2,2k			
	R...412	57.11.4229	2,2			
	R...413	57.11.4562	5,6k			
	R...414	58.01.7202	2k	TRIM	PMG	
	R...415	57.11.4183	18k			
	R...416	57.11.4223	22k			
	S.....2	53.03.0128		VOLTAGE SELECTOR		
		1.169.113.04		INSULATION-VOLT. SEL.		
	T.....1	1.915.103.00		MAINS-TRANSFORMER		
		53.03.0106		FUSE HOLDER MAINS		
		53.03.0118		FUSE HOLDER PCB		
		1.010.088.49		PCB SCREEN		
		1.915.100.05		INSULATION		
		1.915.100.06		PERMALLOY		
		1.010.001.50		HEATSINK STAR		
		1.915.101.00		TRANSFORMER ASSEMBLY		
		1.915.102.00		STABILIZER PCB		

PE=Polyester, EL=Electrolytic, CER=Ceramic, TA=Tantalum, PMG=Cermet, MF=Metal Film

MANUFACTURER: MOT=Motorola, PH=Philips

1.915.100 POWER SUPPLY TH 28/08/79

① 1.915.100 POWER SUPPLY HO 08/02/80

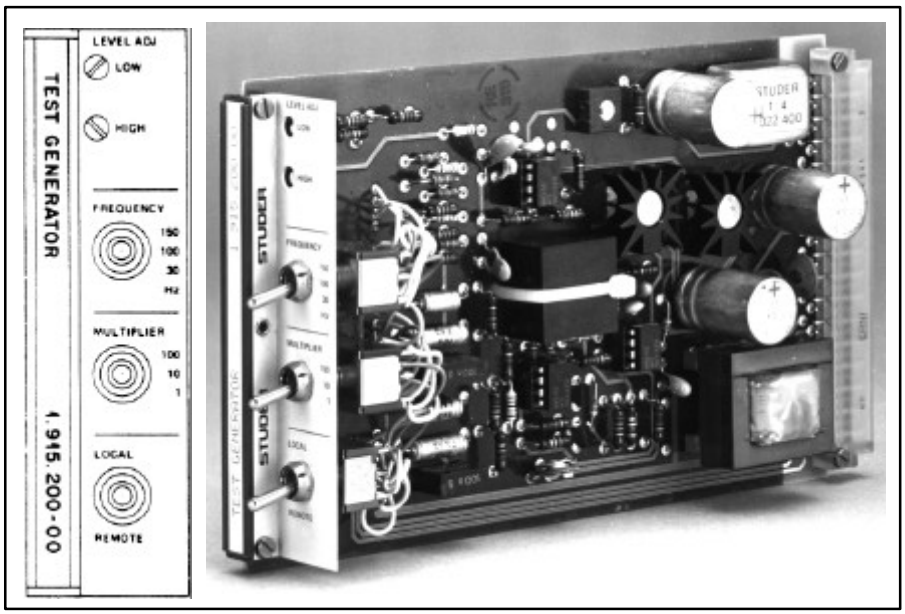
② 1.915.100 POWER SUPPLY VO 06/09/84

END

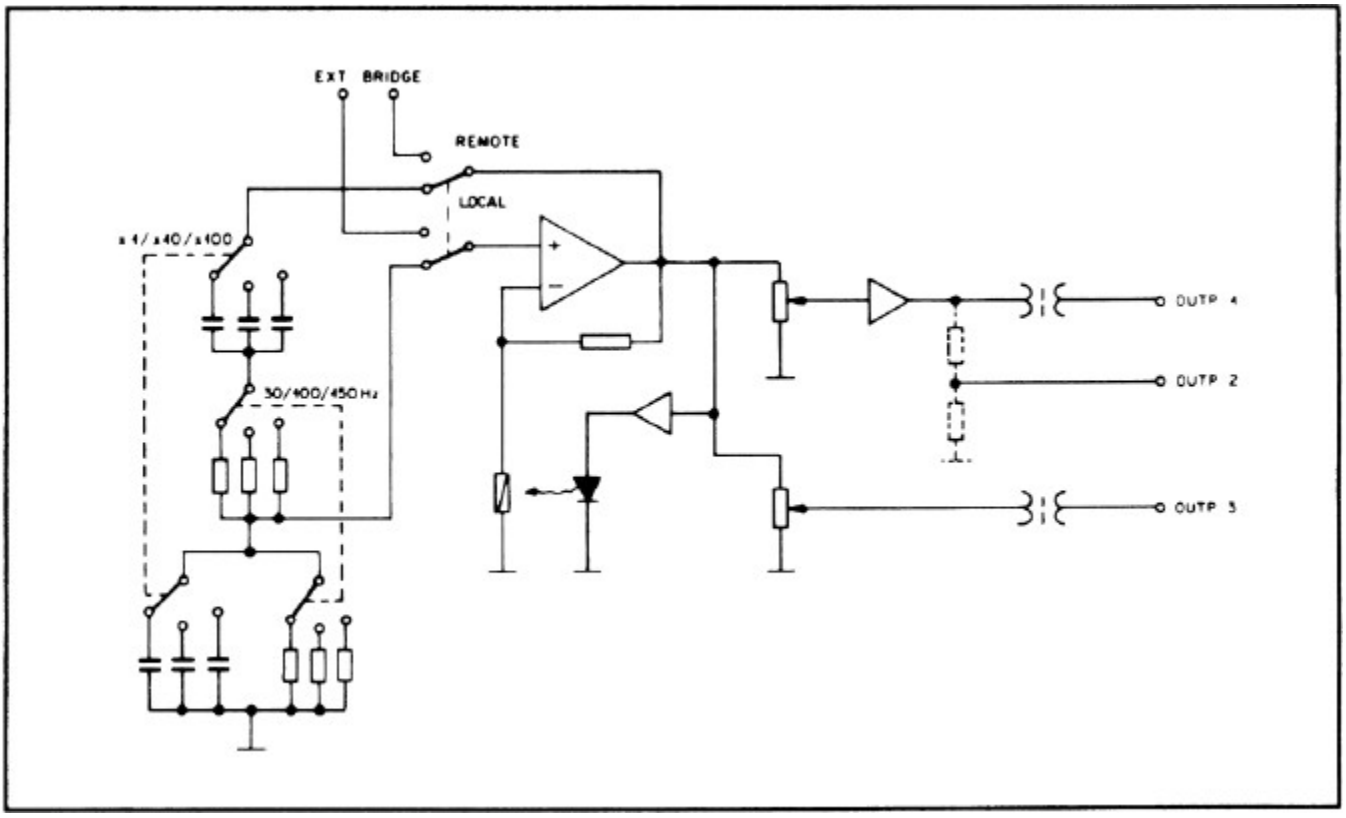
➔

2.2.3 Audio Generator 1.915.200

This oscillator circuit provides a convenient source of 9 fixed audio frequencies with stable signal level, accommodated on one Euro-card. It is well suited for quick frequency-response measurements or for other calibration work in an audio system.



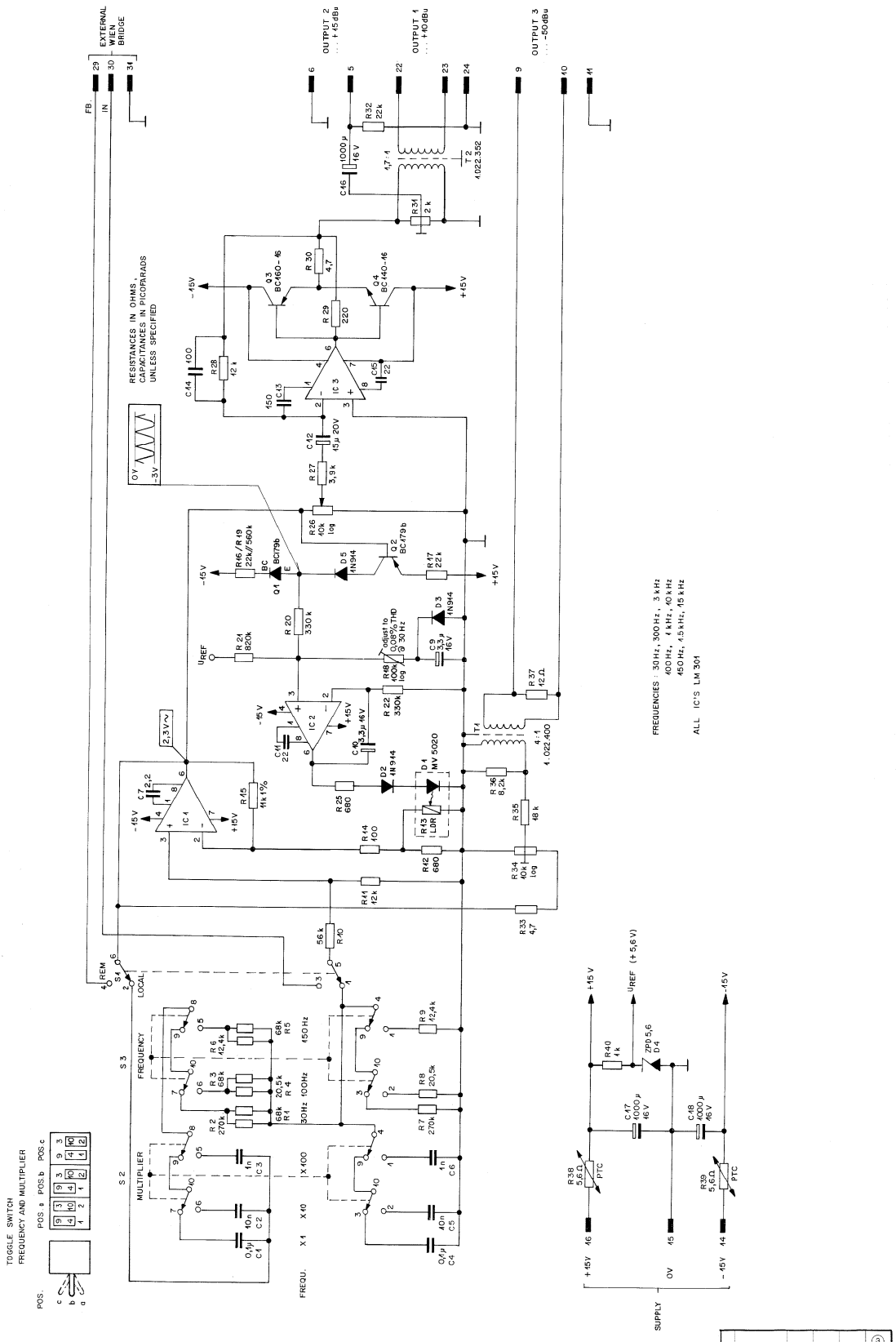
Two three-position rocker switches allow the selection of the 9 frequencies, a third switch permits changeover to an external Wien-bridge, if external frequency control should be desired.
An output amplifier with level control on its input is also implemented, providing three different outputs, as far as levels and balanced/unbalanced configurations are concerned.



Technical Specifications

General:	Frequencies	**30 / 100 / 150 / 300 Hz / 1 / 1.5 / 3 / 10 / 15 kHz,** fixed (accuracy ±5%)
	Settling time	**< 5 s** (30 Hz)
		< 1 s (1 kHz)
	Level accuracy	**+0.1/–0.2 dB** (0...50° C)
	Operating temperature	**–10...+55° C**
	Supply	**±15 V**, regulated within ±0.2 V (< 25 mA)
Output 1:	balanced and floating	**separately adjustable**
	Output level range	**–¥...+10 dBu** (0...2.45 V_{rms})
	Level uniformity vs. frequency	**±0.1 dB** (20° C)
	THD	**< 0.25%**, 30 Hz...15 kHz
		< 0.1%, 100 Hz...10 kHz
	Output impedance	**< 30 W**
	Minimum load	**200 W**
Output 2:	unbalanced	**separately adjustable**
	Output level range	**–¥...+15 dBu** (0...4.4 V_{rms})
	Level uniformity vs. frequency	**±0.2 dB** (20° C)
	THD	**< 0.15%,** 30 Hz...15 kHz
		< 0.1%, 100 Hz...10 kHz
	Minimum load	**200 W**
Output 3:	balanced and floating	**separately adjustable**
	Output level range	**–¥...–50 dBu** (0...2.5 mV_{rms})
	Level uniformity vs. frequency	**±0.2 dB** (20° C)
	THD	**< 0.2%**, 30 Hz...15 kHz
	Output impedance	**12 W**
	Minimum load	**200 W**
Dimensions:	Euro-card	**100 × 160 mm, 7M units wide**
	Weight	**approx. 350 g**

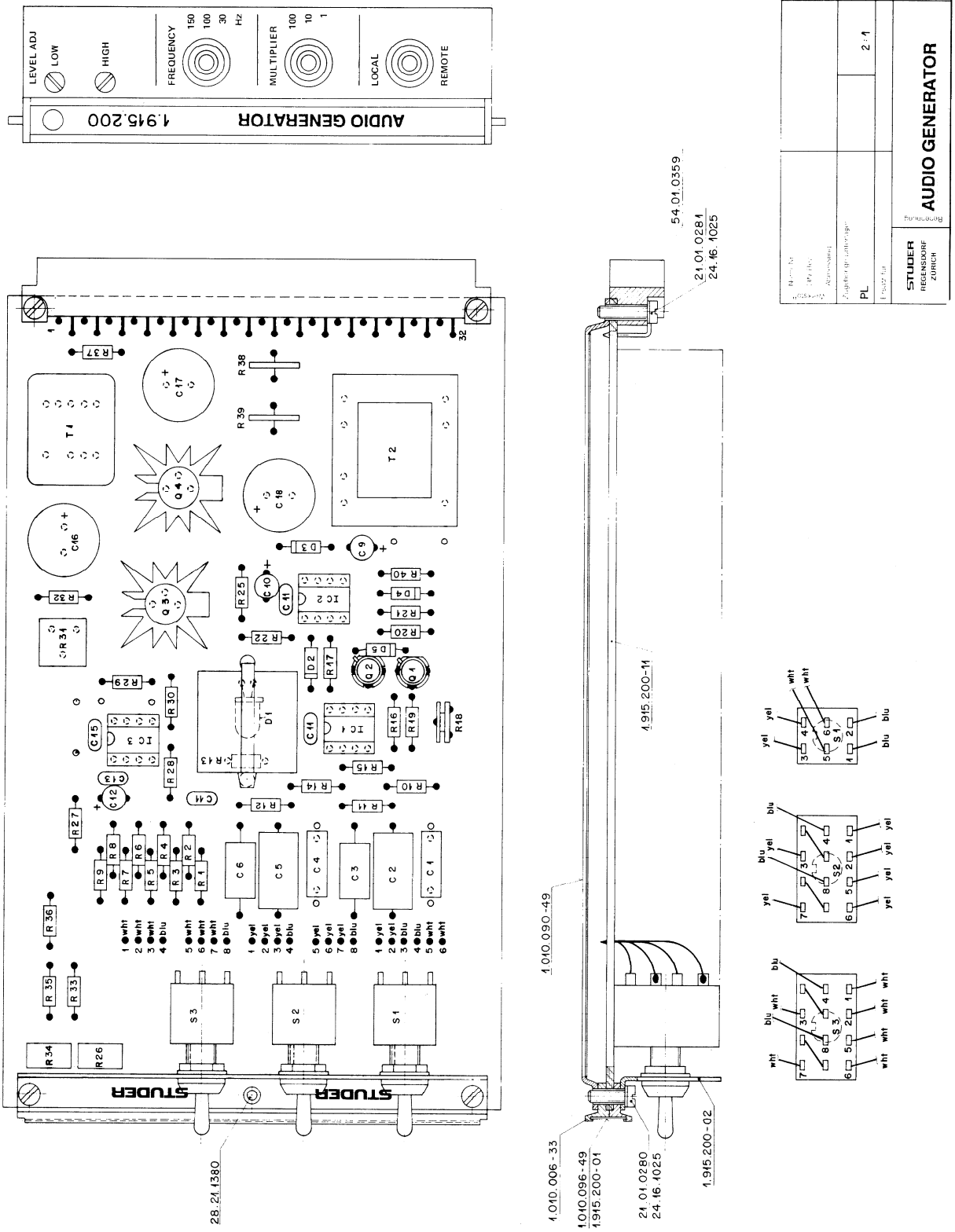
Ordering Information:	Audio generator 30 Hz...15 kHz	1.915.200.xx



Ersatz für:	Ersetzt durch:	Kopie für:
STUDER REGENSDORF ZÜRICH	Benennung: AUDIO GENERATOR	Nummer: 1.915.200

Änderung					
					3
	1. 3. 83	Si	We		2
	29.10.79	Si	We		1
Ausgabe	16.10.78	Si	SH		0
	Datum	Gez.	Gepr.	Ges.	Index

AUDIO GENERATOR



Ad	POS.	REF.No.	DESCRIPTION			MANUFACTURER
	C.....1	59.99.0254	0,1µ	2%	100V	PE
	C.....2	59.12.7103	0,01µ	1%	63V	PS
	C.....3	59.12.9102	1000p	1%	500V	PS
	C.....4	59.99.0254	0,1µ	2%	100V	PE
	C.....5	59.12.7103	0,01µ	1%	63V	PS
	C.....6	59.12.9102	1000p	1%	500V	PS
	C.....7	59.34.0229	2,2p			CER
	C.....8					
	C.....9	59.36.3339	3,3µ	20%	16V	TA
	C....10	59.36.3339	3,3µ	20%	16V	TA
	C....11	59.32.0220	22p	20%	400V	CER
	C....12	59.36.4150	15µ	20%	25V	TA
	C....13	59.32.1151	150p	10%	400V	CER
	C....14	59.32.0101	100p	20%	400V	CER
	C....15	59.32.0220	22p	20%	400V	CER
	C....16	59.22.4102	1000µ	-10%	16V	EL
	C....17	59.22.4102	1000µ	-10%	16V	EL
	C....18	59.22.4102	1000µ	-10%	16V	EL
	D.....1	50.04.2104	MV5020	LED		
	D.....2	50.04.0125	1N4448	SI	1N914	
	D.....3	50.04.0125	1N4448	SI	1N914	
	D.....4	50.04.1104	Z5,6	5%	0,4W	
	D.....5	50.04.0125	1N4448	SI	1N914	
	IC.....1	50.05.0144	LM301AN	OP AMP		
	IC.....2	50.05.0144	LM301AN	OP AMP		
	IC.....3	50.05.0144	LM301AN	OP AMP		
	Q.....1	50.03.0305	BC179B	PNP		
	Q.....2	50.03.0305	BC179B	PNP		
	Q.....3	50.03.0315	BC160-16	PNP		
	Q.....4	50.03.0316	BC140-16	NPN		
	R.....1	57.41.4683	68k	5%	¼W	CSCH
	R.....2	57.39.2673	267k	1%	¼W	MF
	R.....3	57.41.4683	68k	5%	¼W	CSCH
	R.....4	57.39.2052	20,5k	1%	¼W	MF
	R.....5	57.41.4683	68k	5%	¼W	CSCH
	R.....6	57.39.1242	12,4k	1%	¼W	MF
	R.....7	57.39.2673	267k	1%	¼W	MF
	R.....8	57.39.2052	20,5k	1%	¼W	MF
	R.....9	57.39.1242	12,4k	1%	¼W	MF
	R....10	57.41.4563	56k	5%	¼W	CSCH
	R....11	57.41.4123	12k	5%	¼W	CSCH
	R....12	57.41.4681	680	5%	¼W	CSCH
	R....13	57.99.0135	1k	LDR	100UIX	
	R....14	57.41.4101	100	5%	¼W	CSCH
	R....15	57.39.1102	11k	1%	¼W	MF
	R....16	57.41.4223	22k	5%	¼W	CSCH
	R....17	57.41.4223	22k	5%	¼W	CSCH
	R....18	58.02.8104	100k LOG	20%	0,1W	PSCH
	R....19	57.41.4564	560k	5%	¼W	CSCH
	R....20	57.41.4334	330k	5%	¼W	CSCH
	R....21	57.41.4824	820k	5%	¼W	CSCH
	R....22	57.41.4334	330k	5%	¼W	CSCH
	R....23					
	R....24					
	R....25	57.41.4681	680	5%	¼W	CSCH
	R....26	58.01.7103	10k	10%	½W	PMG
	R....27	57.39.3921	3,92k	1%	¼W	MF
	R....28	57.41.4123	12k	5%	¼W	CSCH
	R....29	57.41.4221	220	5%	¼W	CSCH
	R....30	57.41.4479	4,7	5%	¼W	CSCH
	R....31	58.01.8202	2k	10%	½W	PMG
	R....32	57.41.4223	22k	5%	¼W	CSCH
	R....33	57.41.4479	4,7	5%	¼W	CSCH
	R....34	58.01.7103	10k	10%	½W	PMG
	R....35	57.41.4183	18k	5%	¼W	CSCH
	R....36	57.41.4822	8,2k	5%	¼W	CSCH
	R....37	57.41.4120	12	5%	¼W	CSCH
	R....38	57.99.0209	5,6	PTC		
	R....39	57.99.0209	5,6	PTC		
	R....40	57.41.4102	1k	5%	¼W	CSCH
	S.....1	55.01.0112	2xON-ON	SWITCH AU KIPP		
	S.....2	55.01.0114	4xON-ON-ON	SWITCH AU KIPP		
	S.....3	55.01.0114	4xON-ON-ON	SWITCH AU KIPP		
	T.....1	1.022.400.00	4:1	TRAFO		ST
	T.....2	1.022.352.00				ST

CER=Ceramic, PE=Polyester, PS=Polystyrol, PMG=Trimmer, MF=Metal Film, CSCH=Carbon Film
PSCH=Poti, EL=Electrolytic, TA=Tantalum

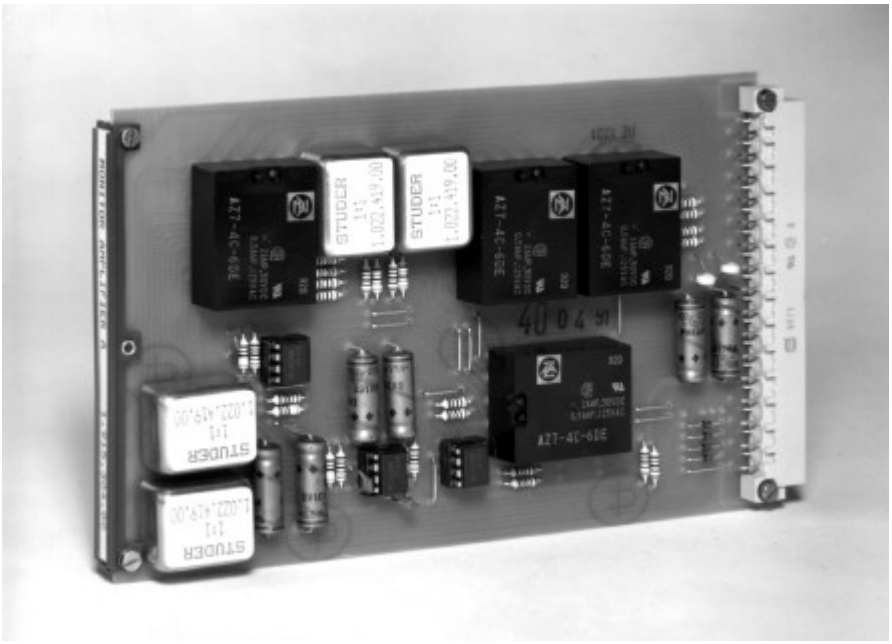
MANUFACTURER: ST=Studer

1.915.200 AUDIO GENERATOR WE 24/03/80

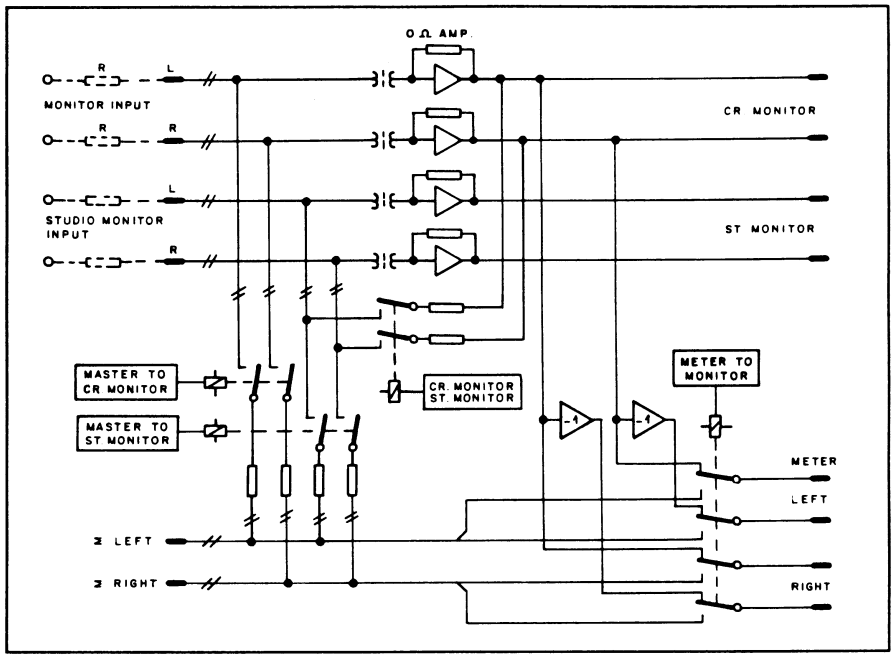
END

2.2.4 Monitor Amplifier and Switching Relays (Studio/CR) 1.915.304

The circuit on this Euro-card is designed to form part of an audio monitoring system. The card is narrower than most others, i.e., 4 M units only. It contains four amplifiers, each presenting a 0-Ω input impedance, two metering amplifiers, and four relays for audio switching.



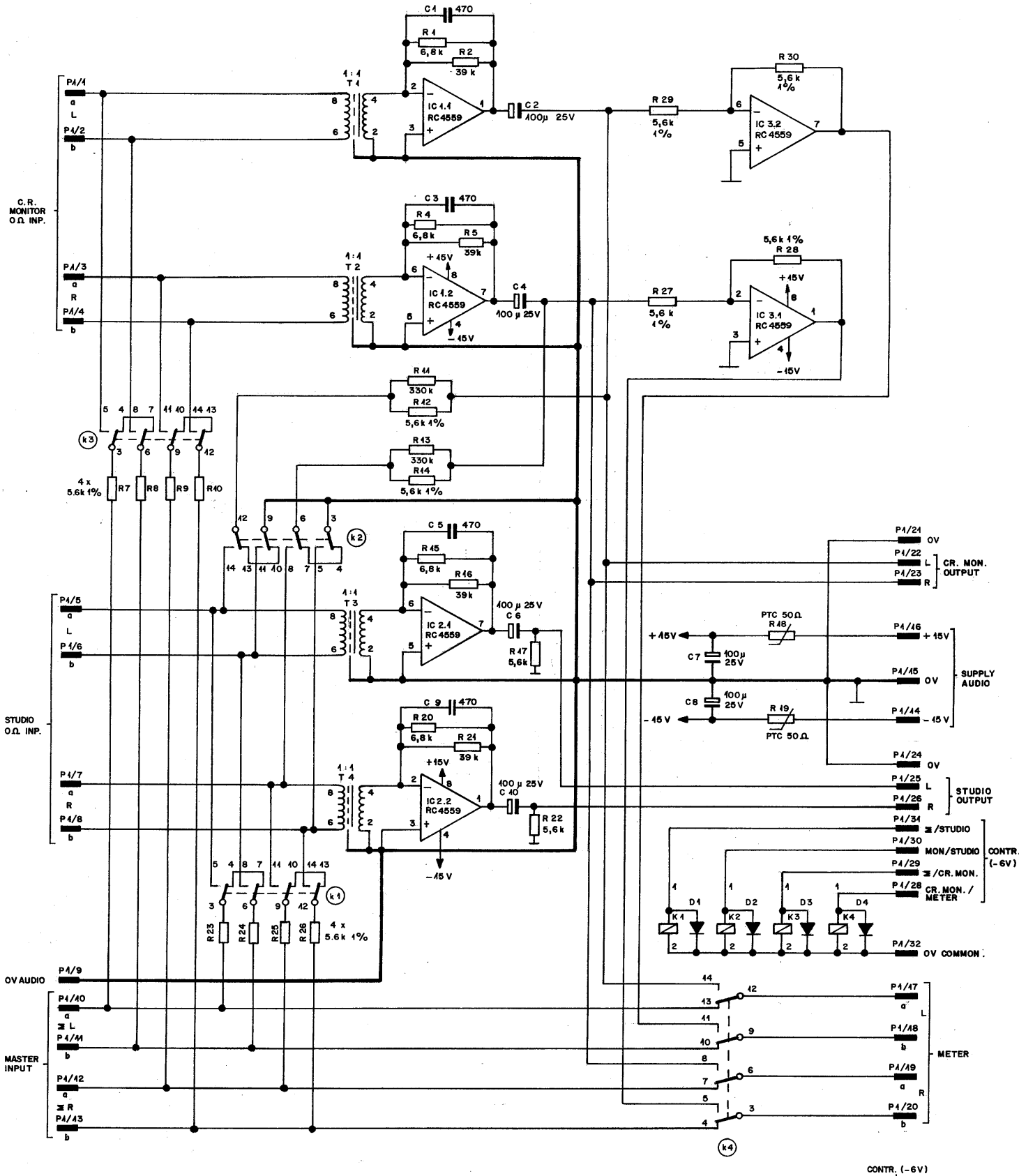
Two stereo signal inputs from a combination of sources (with suitable isolation resistors at the output of each source) can thus be summed for Control Room (CR) and Studio Monitoring, for example. In addition, the signal from the stereo master can be assigned to either monitor line and, if needed, CR monitoring and studio monitoring can be paralleled. A further circuit permits switchover of level meters from the master bus to the CR monitor line. The relays are designed for 6 V_{DC} operation.



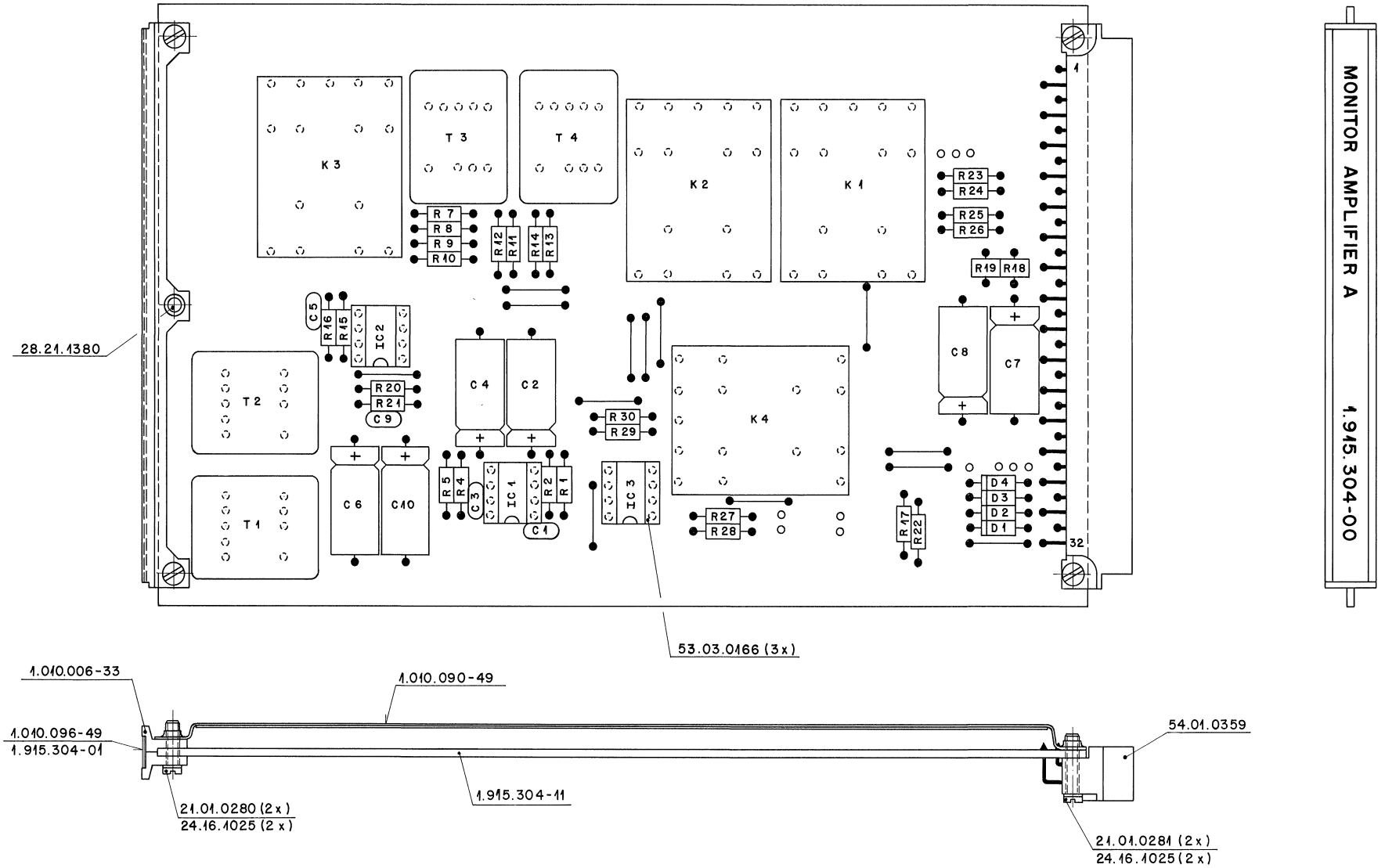
Technical Specifications

Inputs:		**balanced and floating** (for CR monitor and studio monitor)
	Impedance	**> 10 kW**
	Maximum level	**+24 dBu**
Outputs:		**unbalanced** (for CR monitor and studio monitor)
	Impedance	**< 3 W**
	Maximum level	**+20 dBu** into 1 kΩ
	Maximum load	**1 kW**
Meter outputs:		**push-pull**
	Maximum level	**+24 dBu**
	Frequency response	**±0.5 dB,** 30 Hz...16 kHz
	THD	**< 0.1%,** @ +6 dBu input, 30 Hz...16 kHz
	S/N	**105 dB,** 20 Hz...23 kHz
Supply:		**±15 V** (20 mA)
Dimensions:	Euro-card	**100 × 160 mm**, **4M units wide (19 mm)**
	Connector system	**DIN 41612, type B**
	Weight	**approx. 270 g**

Ordering Information:	Monitor amplifier and switching relay	1.915.304.xx



DATE:	20.11.81					
SIGN:						
STUDER REGENSDORF ZÜRICH	MONITOR AMPLIFIER A					SC. 1.915.304



Änderung					
					3
					2
	4.4.84	A.Ho			1
Ausgabe	8.10.81	Ho			0
	Datum	Gez.	Gepr.	Ges.	Index

Kopie für:

STUDER REGENSDORF ZÜRICH	Benennung: Monitor Amplifier A	Nummer: 1.915.304-00

Monitor Amp 1.915.304.00 (0)

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.32.4471	1 pce	470p	CER , 20%, 50V
0	C 2	59.25.4101	1 pce	100u	EL 25V 20% axial
0	C 3	59.32.4471	1 pce	470p	CER , 20%, 50V
0	C 4	59.25.4101	1 pce	100u	EL 25V 20% axial
0	C 5	59.32.4471	1 pce	470p	CER , 20%, 50V
0	C 6	59.25.4101	1 pce	100u	EL 25V 20% axial
0	C 7	59.25.4101	1 pce	100u	EL 25V 20% axial
0	C 8	59.25.4101	1 pce	100u	EL 25V 20% axial
0	C 9	59.32.4471	1 pce	470p	CER , 20%, 50V
0	C 10	59.25.4101	1 pce	100u	EL 25V 20% axial
0	D 1	50.04.0125	1 pce	1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125	1 pce	1N4448	75V, 150mA, 4ns, DO-35
0	D 3	50.04.0125	1 pce	1N4448	75V, 150mA, 4ns, DO-35
0	D 4	50.04.0125	1 pce	1N4448	75V, 150mA, 4ns, DO-35
0	IC 1	50.09.0107	1 pce	4559	Dual Op-Amp
0	IC 2	50.09.0107	1 pce	4559	Dual Op-Amp
0	IC 3	50.09.0107	1 pce	4559	Dual Op-Amp
0	K 1	56.04.0146	1 pce	4*u	6V, 220V/2A, PCB
0	K 2	56.04.0146	1 pce	4*u	6V, 220V/2A, PCB
0	K 3	56.04.0146	1 pce	4*u	6V, 220V/2A, PCB
0	K 4	56.04.0146	1 pce	4*u	6V, 220V/2A, PCB
0	R 1	57.11.3682	1 pce	6k8	MF, 1%, 0207
0	R 2	57.11.3393	1 pce	39k	MF, 1%, 0207
0	R 4	57.11.3682	1 pce	6k8	MF, 1%, 0207
0	R 5	57.11.3393	1 pce	39k	MF, 1%, 0207
0	R 7	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 8	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 9	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 10	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 11	57.11.3334	1 pce	330k	MF, 1%, 0207
0	R 12	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 13	57.11.3334	1 pce	330k	MF, 1%, 0207
0	R 14	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 15	57.11.3682	1 pce	6k8	MF, 1%, 0207
0	R 16	57.11.3393	1 pce	39k	MF, 1%, 0207
0	R 17	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 18	57.99.0206	1 pce	50R	PTC, 25V, 0.5W
0	R 19	57.99.0206	1 pce	50R	PTC, 25V, 0.5W
0	R 20	57.11.3682	1 pce	6k8	MF, 1%, 0207
0	R 21	57.11.3393	1 pce	39k	MF, 1%, 0207
0	R 22	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 23	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 24	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 25	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 26	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 27	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 28	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 29	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	R 30	57.11.3562	1 pce	5k6	MF, 1%, 0207
0	T 1	1.022.419.00	1 pce		EINGANGSTRAFO 1:1
0	T 2	1.022.419.00	1 pce		EINGANGSTRAFO 1:1
0	T 3	1.022.419.00	1 pce		EINGANGSTRAFO 1:1
0	T 4	1.022.419.00	1 pce		EINGANGSTRAFO 1:1

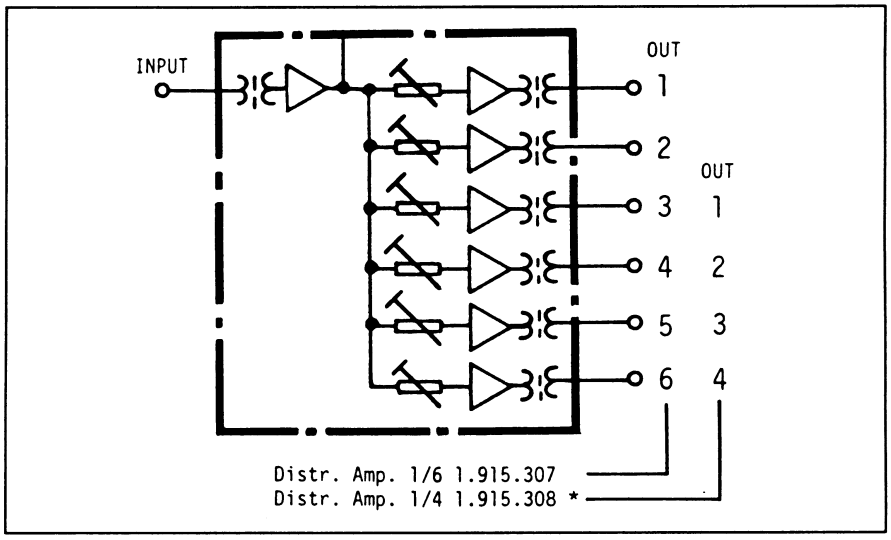
Idx.	Pos.	Part No.	Qty.	Type/Val.	Description

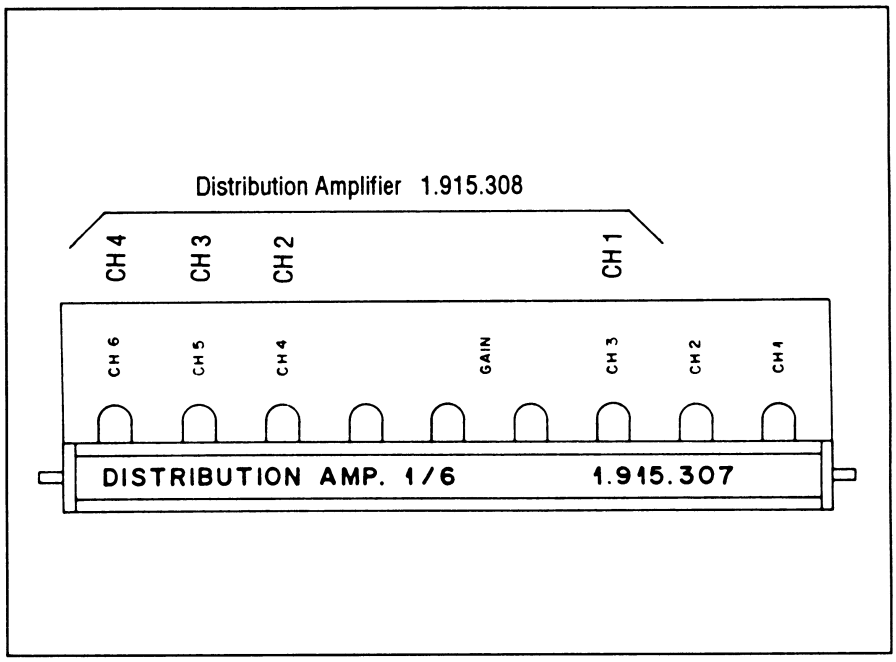
End of List

Comments:

2.2.5 Distribution Amplifier 1.915.307/308

The distribution amplifier cards offer splitting of one input to four or six individually adjustable outputs (versions 1.915.308 or 1.915.307, respectively). The input and all outputs are transformer-balanced and floating. These cards satisfy any complex requirement of signal routing and distribution.



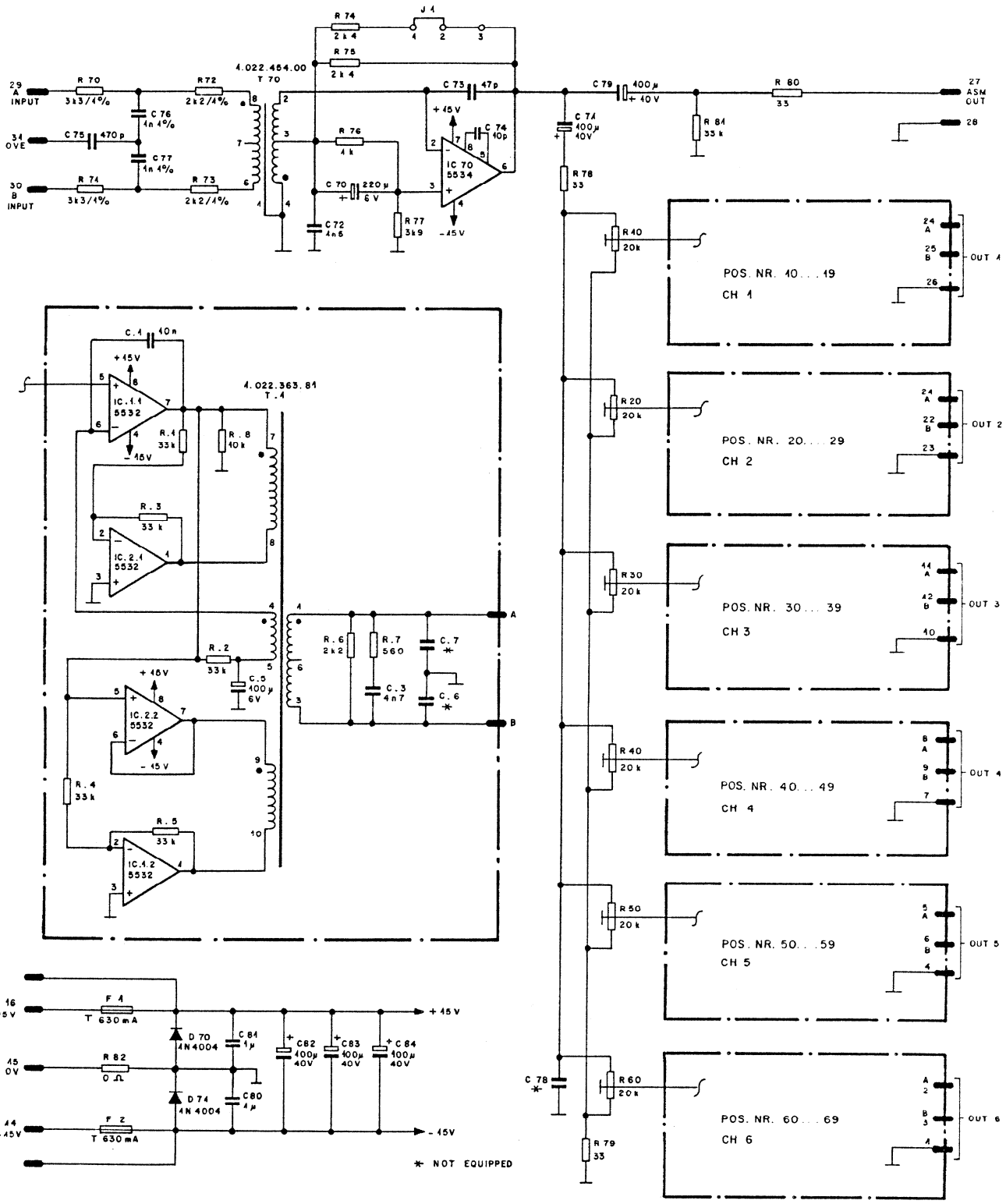


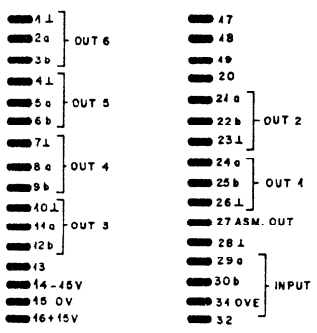
Technical Specifications

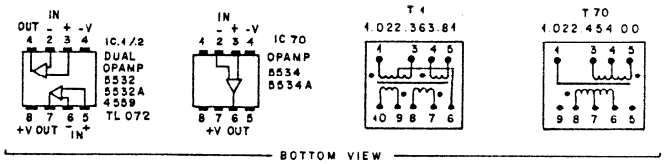
General:	Frequency range	**31.5 Hz...16 kHz**
	Frequency response	**+0.2/–0.5 dB,** R_L = 300 Ω
Input:		**balanced and floating**
	Impedance	**³ 10 kW**
	Symmetry	**³ 60 dB**
	Gain, adjustable	**–20...+10 dB** (Jumper 2-3: +6 dB Gain)
Outputs:		**balanced and floating**
	Impedance	**£ 40 W**
	Maximum level	**+24 dBu,** R_L = 600 Ω/THD < 1%
		+21 dBu, R_L = 200 Ω/THD < 1%
	THD	**£ 0.02%,** +6 dBu/300 Ω
	Output noise voltage	**–100 dBu,** 0 dB gain
Supply:		**±15 V_{DC}** (90 mA, all outputs +6 dBu, without load; 180 mA, all outputs +24 dBu into 300 Ω)
Dimensions:	Euro-card	**100 × 160 mm, 7 M units wide**
	Weight	**500 g** (1.915.308)
		600 g (1.915.307)

Ordering Information:

Euro-cards:	•	Distribution amplifier 1 to 6	1.915.307.xx
	•	Distribution amplifier 1 to 4	1.915.308.xx
19”/1U standard products:	•	Distribution unit 2 × 1 in/4 out on XLR	75.700.89301
	•	Distribution unit 3 × 1 in/4 out on XLR	75.700.89302
	•	Distribution unit 2 × 1 in/6 out on XLR	75.700.89303







⓪ 24.11.93 fz	① 12.4.94 We			
STUDER REGENSDORF ZÜRICH	DISTRIBUTION AMP. 1/6		SC 1.915.307-81	

DISTRIBUTION AMPLIFIER

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C....11	. .	not used	
01	C....11	59.06.0222	2.2 nF PE	
	C....12	59.34.2470	47 pF CER	
	C....13	59.06.0472	4.7 nF PE	
	C....14	59.34.2470	47 pF CER	
	C....15	59.22.3101	100 uF ALU 10V	
	C....16	59.32.1680	68 pF CER 400V	
	C....17	. .	not used	
	C....21	. .	not used	
01	C....21	59.06.0222	2.2 nF PE	
	C....22	59.34.2470	47 pF CER	
	C....23	59.06.0472	4.7 nF PE	
	C....24	59.34.2470	47 pF CER	
	C....25	59.22.3101	100 uF ALU 10V	
	C....26	59.32.1680	68 pF CER 400V	
	C....27	. .	not used	
	C....31	. .	not used	
01	C....31	59.06.0222	2.2 nF PE	
	C....32	59.34.2470	47 pF CER	
	C....33	59.06.0472	4.7 nF PE	
	C....34	59.34.2470	47 pF CER	
	C....35	59.22.3101	100 uF ALU 10V	
	C....36	59.32.1680	68 pF CER 400V	
	C....37	. .	not used	
	C....41	. .	not used	
01	C....41	59.06.0222	2.2 nF PE	
	C....42	59.34.2470	47 pF CER	
	C....43	59.06.0472	4.7 nF PE	
	C....44	59.34.2470	47 pF CER	
	C....45	59.22.3101	100 uF ALU 10V	
	C....46	59.32.1680	68 pF CER 400V	
	C....47	. .	not used	
	C....51	. .	not used	
01	C....51	59.06.0222	2.2 nF PE	
	C....52	59.34.2470	47 pF CER	
	C....53	59.06.0472	4.7 nF PE	
	C....54	59.34.2470	47 pF CER	
	C....55	59.22.3101	100 uF ALU 10V	
	C....56	59.32.1680	68 pF CER 400V	
	C....57	. .	not used	
	C....61	. .	not used	
01	C....61	59.06.0222	2.2 nF PE	
	C....62	59.34.2470	47 pF CER	
	C....63	59.06.0472	4.7 nF PE	
	C....64	59.34.2470	47 pF CER	
	C....65	59.22.3101	100 uF ALU 10V	
	C....66	59.32.1680	68 pF CER 400V	
	C....67	. .	not used	
	C....70	59.22.4221	220 uF ALU 6V	
	C....71	59.22.4101	100 uF ALU 10V	
	C....72	59.06.0152	1.5 nF CER	
	C....73	59.34.2470	47 pF CER	
	C....74	59.34.4100	10 pF CER	
	C....75	59.34.5471	470 pF CER	
	C....76	59.05.1102	1 nF 1%	
	C....77	59.05.1102	1 nF 1%	
	C....79	59.22.4101	100 uF ALU 10V	
	C....80	59.06.5105	1 uF PE	
	C....81	59.06.5105	1 uF PE	
	C....82	59.25.5101	100 uF 40V	
	C....83	59.25.5101	100 uF 40V	
	C....84	59.25.5101	100 uF 40V	
	D....70	50.04.0105	1N4004	
	D....71	50.04.0105	1N4004	
	F.....1	51.01.0115	T 630mA /250V 5*20	
	F.....2	51.01.0115	T 630mA /250V 5*20	
	IC...11	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...12	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...21	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...22	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...31	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...32	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...41	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...42	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...51	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...52	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...61	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...62	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...70	50.05.0244	NE5534AN single op.amp.	Ra,NE
	JP....1	54.01.0021	JUMPER JACK	
	JS....1	54.01.0020	JUMPER PLUG 3-PIN	
	MP....1	53.03.0142	4 pcs Fuse holder	
	MP....2	1.915.307.02	1 pcs Abdeckwinkel	
	MP....3	1.915.307.05	1 pcs Kuelblech	
	MP....4	1.022.400.03	1 pcs Isolation T 70	
	R....10	58.01.9203	20 kOhm 10% 0.5 W PMG trimming resistor	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R....11	57.11.4333	33 kOhm 5% 0.25W MF	
	R....12	57.11.4333	33 kOhm 5% 0.25W MF	
	R....13	57.11.4333	33 kOhm 5% 0.25W MF	
	R....14	57.11.4333	33 kOhm 5% 0.25W MF	
	R....15	57.11.4333	33 kOhm 5% 0.25W MF	
	R....16	57.11.4222	2.2 kOhm 5% 0.25W MF	
	R....17	57.11.4102	1 kOhm 5% 0.25W MF	
	R....18	57.11.4103	10 kOhm 5% 0.25W MF	
	R....20	58.01.9203	20 kOhm 10% 0.5 W PMG trimming resistor	
	R....21	57.11.4333	33 kOhm 5% 0.25W MF	
	R....22	57.11.4333	33 kOhm 5% 0.25W MF	
	R....23	57.11.4333	33 kOhm 5% 0.25W MF	
	R....24	57.11.4333	33 kOhm 5% 0.25W MF	
	R....25	57.11.4333	33 kOhm 5% 0.25W MF	
	R....26	57.11.4222	2.2 kOhm 5% 0.25W MF	
	R....27	57.11.4102	1 kOhm 5% 0.25W MF	
	R....28	57.11.4103	10 kOhm 5% 0.25W MF	
	R....30	58.01.9203	20 kOhm 10% 0.5 W PMG trimming resistor	
	R....31	57.11.4333	33 kOhm 5% 0.25W MF	
	R....32	57.11.4333	33 kOhm 5% 0.25W MF	
	R....33	57.11.4333	33 kOhm 5% 0.25W MF	
	R....34	57.11.4333	33 kOhm 5% 0.25W MF	
	R....35	57.11.4333	33 kOhm 5% 0.25W MF	
	R....36	57.11.4222	2.2 kOhm 5% 0.25W MF	
	R....37	57.11.4102	1 kOhm 5% 0.25W MF	
	R....38	57.11.4103	10 kOhm 5% 0.25W MF	
	R....40	58.01.9203	20 kOhm 10% 0.5 W PMG trimming resistor	
	R....41	57.11.4333	33 kOhm 5% 0.25W MF	
	R....42	57.11.4333	33 kOhm 5% 0.25W MF	
	R....43	57.11.4333	33 kOhm 5% 0.25W MF	
	R....44	57.11.4333	33 kOhm 5% 0.25W MF	
	R....45	57.11.4333	33 kOhm 5% 0.25W MF	
	R....46	57.11.4222	2.2 kOhm 5% 0.25W MF	
	R....47	57.11.4102	1 kOhm 5% 0.25W MF	
	R....48	57.11.4103	10 kOhm 5% 0.25W MF	
	R....50	58.01.9203	20 kOhm 10% 0.5 W PMG trimming resistor	
	R....51	57.11.4333	33 kOhm 5% 0.25W MF	
	R....52	57.11.4333	33 kOhm 5% 0.25W MF	
	R....53	57.11.4333	33 kOhm 5% 0.25W MF	
	R....54	57.11.4333	33 kOhm 5% 0.25W MF	
	R....55	57.11.4333	33 kOhm 5% 0.25W MF	
	R....56	57.11.4222	2.2 kOhm 5% 0.25W MF	
	R....57	57.11.4102	1 kOhm 5% 0.25W MF	
	R....58	57.11.4103	10 kOhm 5% 0.25W MF	
	R....60	58.01.9203	20 kOhm 10% 0.5 W PMG trimming resistor	
	R....61	57.11.4333	33 kOhm 5% 0.25W MF	
	R....62	57.11.4333	33 kOhm 5% 0.25W MF	
	R....63	57.11.4333	33 kOhm 5% 0.25W MF	
	R....64	57.11.4333	33 kOhm 5% 0.25W MF	
	R....65	57.11.4333	33 kOhm 5% 0.25W MF	
	R....66	57.11.4222	2.2 kOhm 5% 0.25W MF	
	R....67	57.11.4102	1 kOhm 5% 0.25W MF	
	R....68	57.11.4103	10 kOhm 5% 0.25W MF	
	R....70	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R....71	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R....72	57.11.3222	2.2 kOhm 1% 0.25W MF	
	R....73	57.11.3222	2.2 kOhm 1% 0.25W MF	
	R....74	57.11.3242	2.4 kOhm 1% 0.25W MF	
	R....75	57.11.3242	2.4 kOhm 1% 0.25W MF	
	R....76	57.11.4102	1 kOhm 5% 0.25W MF	
	R....77	57.11.4392	3.9 kOhm 5% 0.25W MF	
	R....78	57.11.4330	33 Ohm 5% 0.25W MF	
	R....79	57.11.4330	33 Ohm 5% 0.25W MF	
	R....80	57.11.4330	33 Ohm 5% 0.25W MF	
	R....81	57.11.4333	33 kOhm 5% 0.25W MF	
	R....82	57.11.4000	0 Ohm 5% 0.25W MF	
	T....10	1.022.363.00	output trafo	
	T....20	1.022.363.00	output trafo	
	T....30	1.022.363.00	output trafo	
	T....40	1.022.363.00	output trafo	
	T....50	1.022.363.00	output trafo	
	T....60	1.022.363.00	output trafo	
	T....70	1.022.454.00	input trafo	

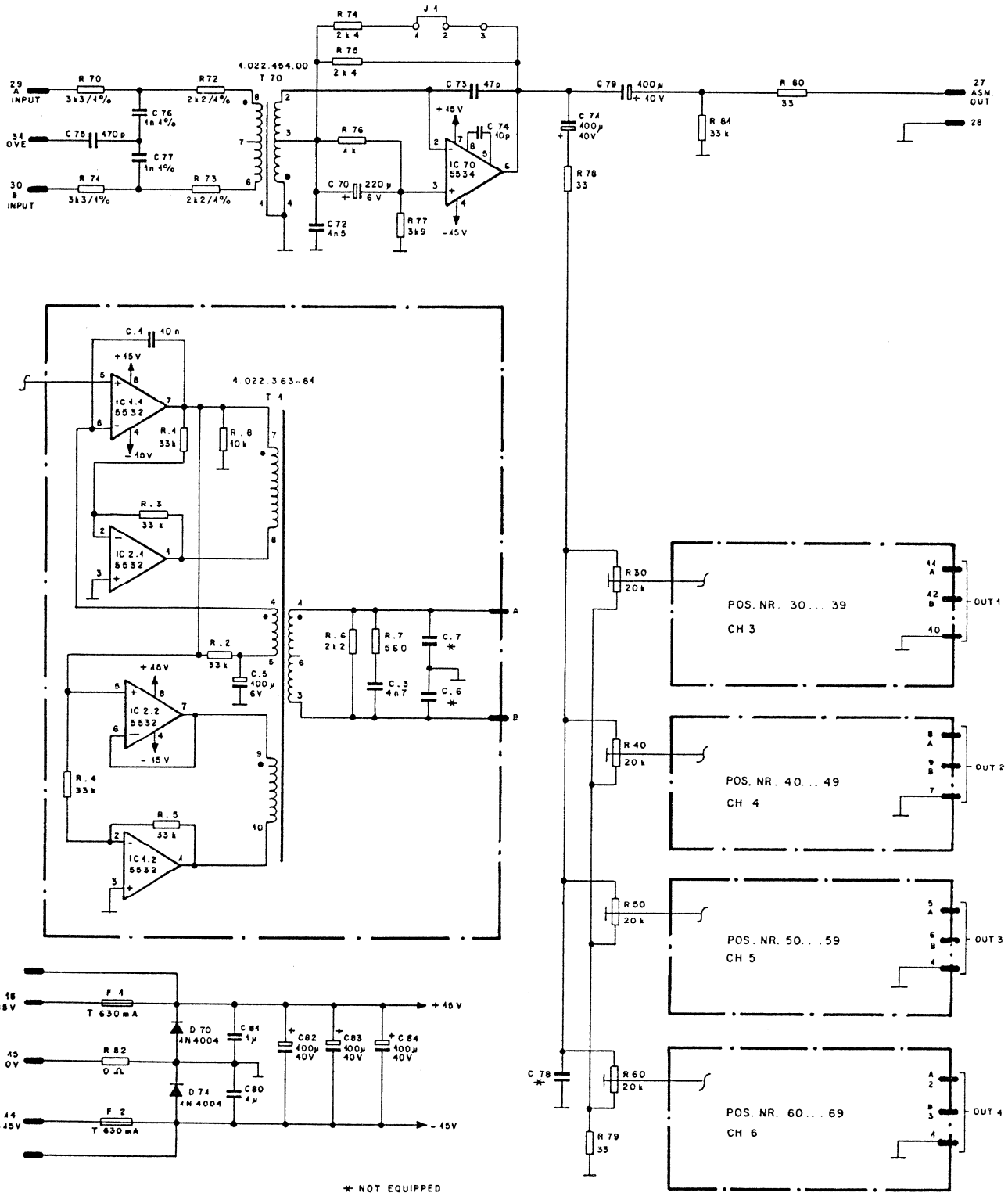
CER=Ceramic, PE=Polyester
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NEC=Nippon Electric Corp., Ph=Philips, Ra=Rayth
Sig=Signetics, St=Studer.

1.915.307.00 DISTRIBUTION AMP. 1/6 SE 87/09/0400

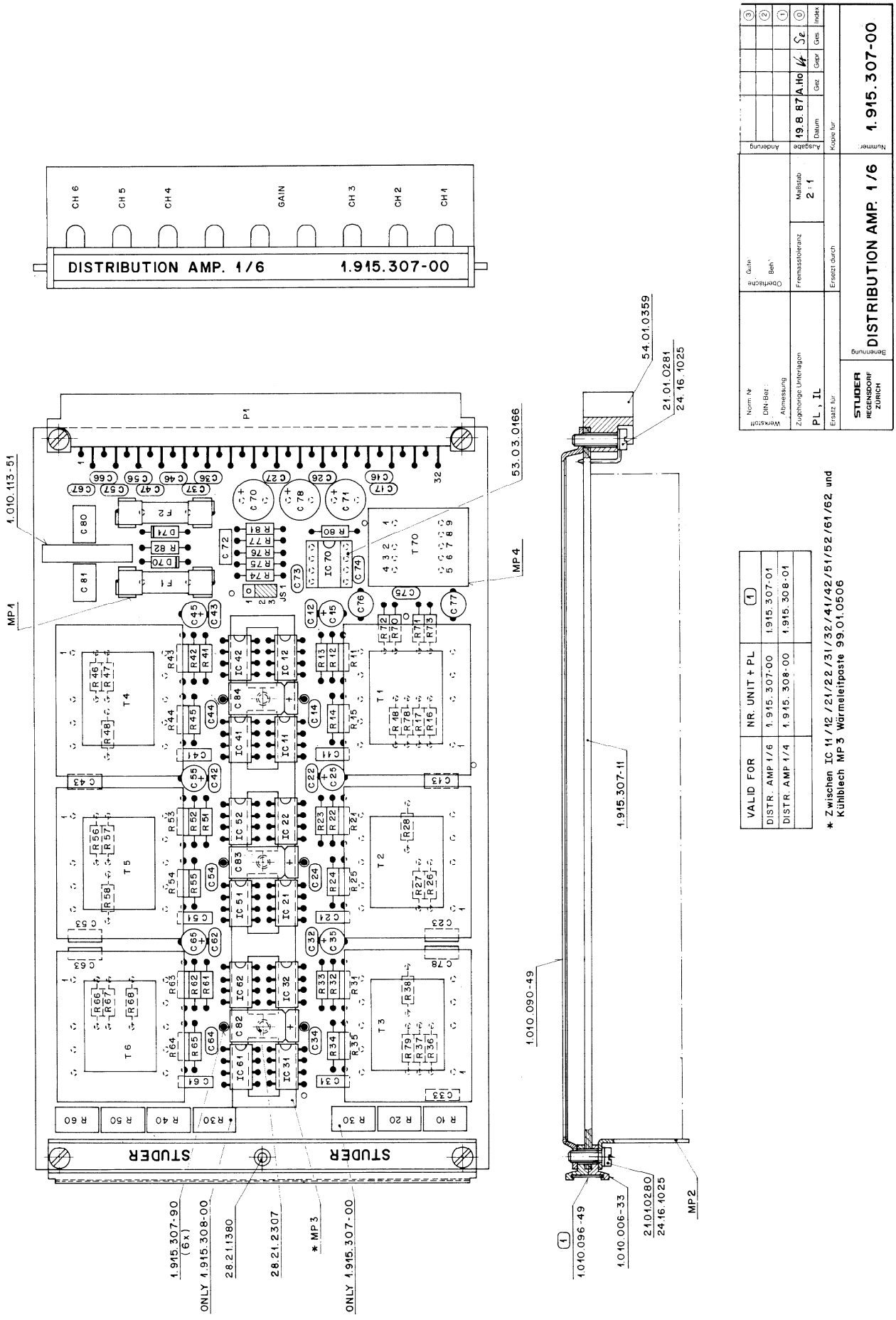
1.915.307.00 DISTRIBUTION AMP. 1/6 SE 92/07/0201

END



EDITION: 19. April 1993

DISTRIBUTION AMPLIFIER



VALID FOR	NR. UNIT + PL	(1)
DISTR. AMP 1/6	1.915.307-00	1.915.307-01
DISTR. AMP 1/4	1.915.308-00	1.915.308-01

* Zwischen IC 11/12/21/22/31/32/41/42/51/52/61/62 und Kühlblech MP3 Wärmeleitpaste 99.01.0506

DISTRIBUTION AMPLIFIER

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	C....31	. .	not used	
01	C....31	59.06.0222	2.2 nF PE	
	C....32	59.34.2470	47 pF CER	
	C....33	59.06.0472	4.7 nF PE	
	C....34	59.34.2470	47 pF CER	
	C....35	59.22.3101	100 uF ALU 10V	
	C....36	59.32.1680	68 pF CER 400V	
	C....37	. .	not used	
	C....41	. .	not used	
01	C....41	59.06.0222	2.2 nF PE	
	C....42	59.34.2470	47 pF CER	
	C....43	59.06.0472	4.7 nF PE	
	C....44	59.34.2470	47 pF CER	
	C....45	59.22.3101	100 uF ALU 10V	
	C....46	59.32.1680	68 pF CER 400V	
	C....47	. .	not used	
	C....51	. .	not used	
01	C....51	59.06.0222	2.2 nF PE	
	C....52	59.34.2470	47 pF CER	
	C....53	59.06.0472	4.7 nF PE	
	C....54	59.34.2470	47 pF CER	
	C....55	59.22.3101	100 uF ALU 10V	
	C....56	59.32.1680	68 pF CER 400V	
	C....57	. .	not used	
	C....61	. .	not used	
01	C....61	59.06.0222	2.2 nF PE	
	C....62	59.34.2470	47 pF CER	
	C....63	59.06.0472	4.7 nF PE	
	C....64	59.34.2470	47 pF CER	
	C....65	59.22.3101	100 uF ALU 10V	
	C....66	59.32.1680	68 pF CER 400V	
	C....67	. .	not used	
	C....70	59.22.4221	220 uF ALU 6V	
	C....71	59.22.4101	100 uF ALU 10V	
	C....72	59.06.0152	1.5 nF CER	
	C....73	59.34.2470	47 pF CER	
	C....74	59.34.4100	10 pF CER	
	C....75	59.34.5471	470 pF CER	
	C....76	59.05.1102	1 nF 1%	
	C....77	59.05.1102	1 nF 1%	
	C....79	59.22.4101	100 uF ALU 10V	
	C....80	59.06.5105	1 uF PE	
	C....81	59.06.5105	1 uF PE	
	C....82	59.25.5101	100 uF 40V	
	C....83	59.25.5101	100 uF 40V	
	C....84	59.25.5101	100 uF 40V	
	D....70	50.04.0105	1N4004	
	D....71	50.04.0105	1N4004	
	F.....1	51.01.0115	T 630mA /250V 5*20	
	F.....2	51.01.0115	T 630mA /250V 5*20	
	IC...31	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...32	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...41	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...42	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...51	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...52	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...61	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...62	50.09.0106	NE5532AN dual op. amp.	Ra,NE
	IC...70	50.05.0244	NE5534AN single op.amp.	Ra,NE
	JP....1	54.01.0021	JUMPER JACK	
	JS....1	54.01.0020	JUMPER PLUG 3-PIN	
	MP....1	53.03.0142	4 pcs Fuse holder	
	MP....2	1.915.307.02	1 pcs Abdeckwinkel	
	MP....3	1.915.307.05	1 pcs Kuelblech	
	MP....4	1.022.400.03	1 pcs Isolation T 70	
	R....30	58.01.9203	20 kOhm 10% 0.5 W PMG trimming resistor	
	R....31	57.11.4333	33 kOhm 5% 0.25W MF	
	R....32	57.11.4333	33 kOhm 5% 0.25W MF	
	R....33	57.11.4333	33 kOhm 5% 0.25W MF	
	R....34	57.11.4333	33 kOhm 5% 0.25W MF	
	R....35	57.11.4333	33 kOhm 5% 0.25W MF	
	R....36	57.11.4222	2.2 kOhm 5% 0.25W MF	
	R....37	57.11.4102	1 kOhm 5% 0.25W MF	
	R....38	57.11.4103	10 kOhm 5% 0.25W MF	
	R....40	58.01.9203	20 kOhm 10% 0.5 W PMG trimming resistor	
	R....41	57.11.4333	33 kOhm 5% 0.25W MF	
	R....42	57.11.4333	33 kOhm 5% 0.25W MF	
	R....43	57.11.4333	33 kOhm 5% 0.25W MF	
	R....44	57.11.4333	33 kOhm 5% 0.25W MF	
	R....45	57.11.4333	33 kOhm 5% 0.25W MF	
	R....46	57.11.4222	2.2 kOhm 5% 0.25W MF	
	R....47	57.11.4102	1 kOhm 5% 0.25W MF	
	R....48	57.11.4103	10 kOhm 5% 0.25W MF	
	R....50	58.01.9203	20 kOhm 10% 0.5 W PMG trimming resistor	
	R....51	57.11.4333	33 kOhm 5% 0.25W MF	
	R....52	57.11.4333	33 kOhm 5% 0.25W MF	
	R....53	57.11.4333	33 kOhm 5% 0.25W MF	
	R....54	57.11.4333	33 kOhm 5% 0.25W MF	
	R....55	57.11.4333	33 kOhm 5% 0.25W MF	

Ad	..POS..	...REF.No...	DESCRIPTION	MANUFACTURER
	R....56	57.11.4222	2.2 kOhm 5% 0.25W MF	
	R....57	57.11.4102	1 kOhm 5% 0.25W MF	
	R....58	57.11.4103	10 kOhm 5% 0.25W MF	
	R....60	58.01.9203	20 kOhm 10% 0.5 W PMG trimming resistor	
	R....61	57.11.4333	33 kOhm 5% 0.25W MF	
	R....62	57.11.4333	33 kOhm 5% 0.25W MF	
	R....63	57.11.4333	33 kOhm 5% 0.25W MF	
	R....64	57.11.4333	33 kOhm 5% 0.25W MF	
	R....65	57.11.4333	33 kOhm 5% 0.25W MF	
	R....66	57.11.4222	2.2 kOhm 5% 0.25W MF	
	R....67	57.11.4102	1 kOhm 5% 0.25W MF	
	R....68	57.11.4103	10 kOhm 5% 0.25W MF	
	R....70	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R....71	57.11.3332	3.3 kOhm 1% 0.25W MF	
	R....72	57.11.3222	2.2 kOhm 1% 0.25W MF	
	R....73	57.11.3222	2.2 kOhm 1% 0.25W MF	
	R....74	57.11.3242	2.4 kOhm 1% 0.25W MF	
	R....75	57.11.3242	2.4 kOhm 1% 0.25W MF	
	R....76	57.11.4102	1 kOhm 5% 0.25W MF	
	R....77	57.11.4392	3.9 kOhm 5% 0.25W MF	
	R....78	57.11.4330	33 Ohm 5% 0.25W MF	
	R....79	57.11.4330	33 Ohm 5% 0.25W MF	
	R....80	57.11.4330	33 Ohm 5% 0.25W MF	
	R....81	57.11.4333	33 kOhm 5% 0.25W MF	
	R....82	57.11.4000	0 Ohm 5% 0.25W MF	
	T....30	1.022.363.00	output trafo	
	T....40	1.022.363.00	output trafo	
	T....50	1.022.363.00	output trafo	
	T....60	1.022.363.00	output trafo	
	T....70	1.022.454.00	input trafo	

CER=Ceramic, PE=Polyester, SAL=Solid Aluminium
MF=Metal Film, PMG=Cermet

MANUFACTURER: Ex=Exar, NE=NEC, Ph=Philips, Ra=Raytheon,
Sig=Signetics, St=Studer,

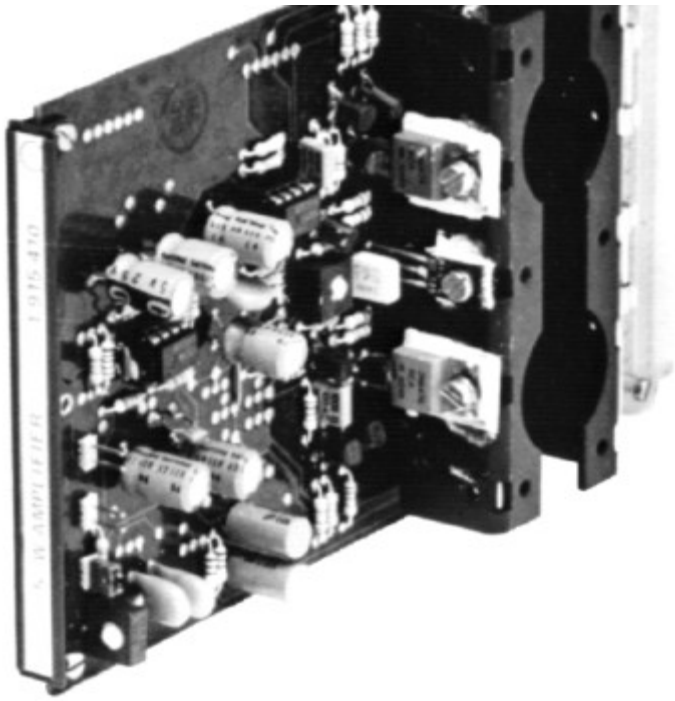
1.915.308.00 DISTRIBUTION AMP.1/4 SE 87/09/0400

1.915.308.00 DISTRIBUTION AMP.1/4 SE 92/07/0201

END

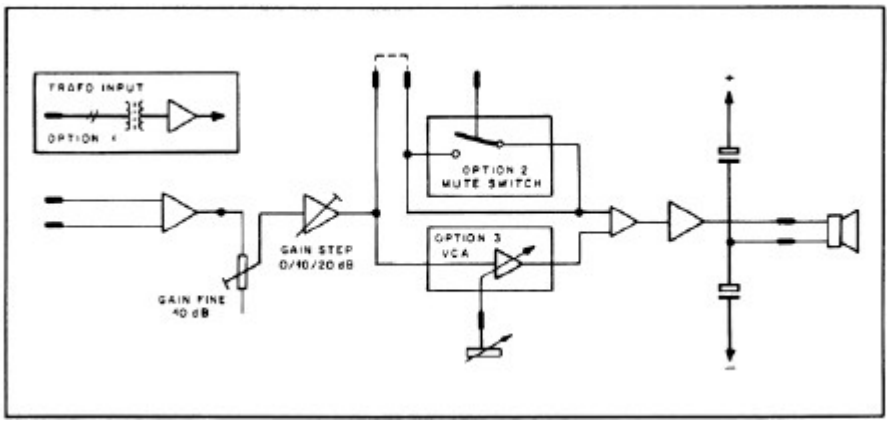
2.2.6 5 W Power Amplifier 1.915.410/415

This amplifier on one Euro-card is designed for operation on a ±15 V supply. It is capable of providing a power output of 5 W into a load of 8 Ω.
With its low-to-medium power level, this amplifier is ideally suited for applications such as pre-listening or talkback speaker operation. Its output stage is protected by instantaneous output power limiting.



The standard version has an electronically balanced (transformerless) input. It is also available with the following options:

- Input balancing transformer
- Remote muting
- Remote gain control (VCA)
- Input balancing transformer plus remote muting
- Input balancing transformer plus remote gain control (VCA).



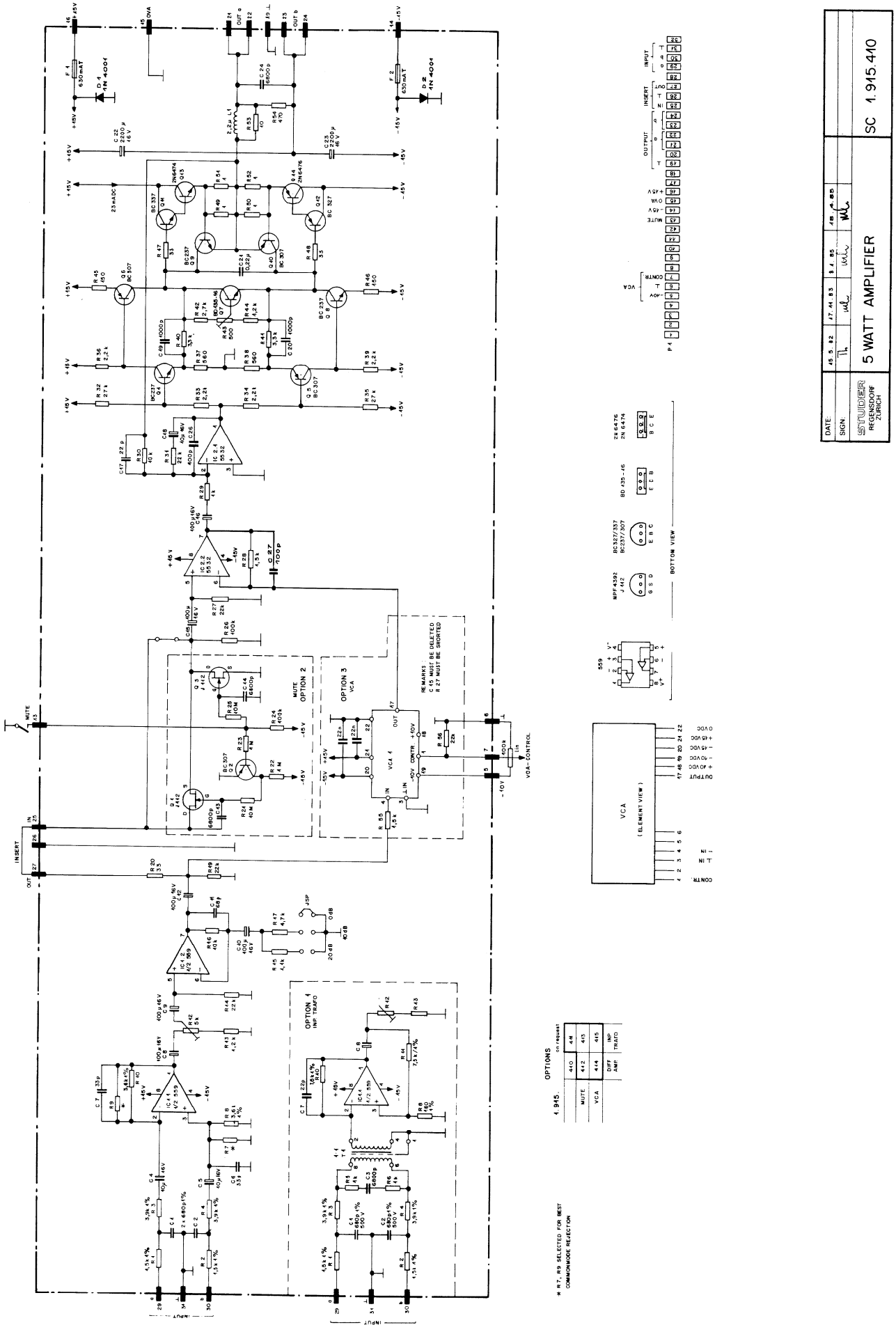
Technical Specifications

Audio:	Power output	**4 W/15 W** **5 W/8 W** **2.5 W/4 W,** continuous, sine wave
	THD	< **0.1%** @ rated output, 30 Hz...16 kHz
	Frequency response	**±0.5 dB,** 30 Hz...16 kHz
	Input impedance	**10 kW,** balanced
	Sensitivity	**–17...+16 dBu** (0.11...4.9 V_{rms}) for rated output
	Maximum input level	**+24 dBu** (12.3 V_{rms}) clipping point
	S/N	**100 dB,** linear to 23 kHz at normal operating gain (input +6 dBu) **85 dB,** at maximum gain
Supply:		**±15 V DC** (40 mA idling; 400 mA @ 5 W/8 Ω)
	Output stage quiescent current	**23 mA**
Dimensions:	Euro-card	**100 × 160 mm, 7M units wide**
	Weight	**approx. 210 g**

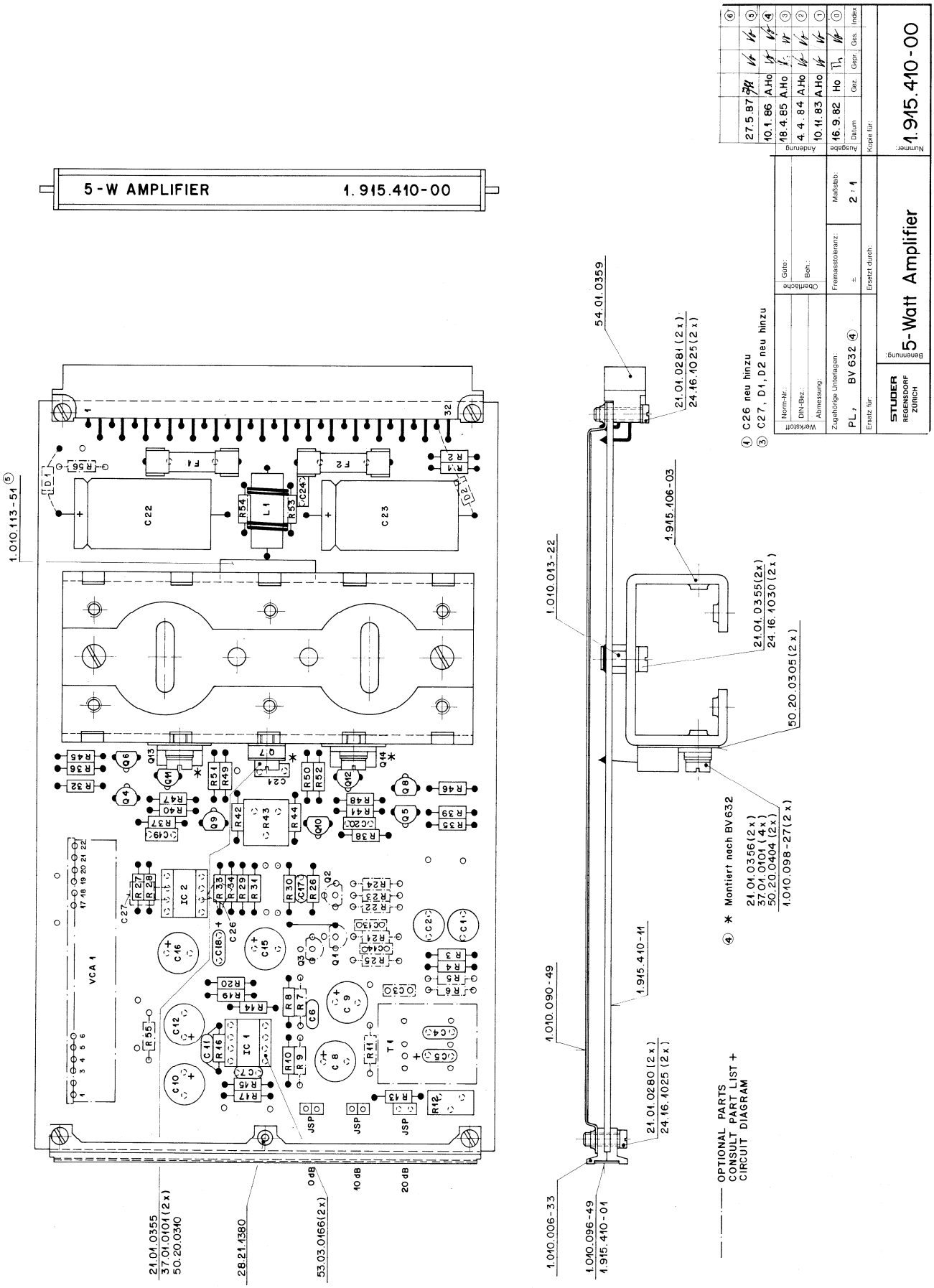
Ordering Information:

5 W amplifier with		
•	transformerless input	1.915.410.xx
•	input transformer	1.915.411.xx
•	transformerless input and remote muting facility	1.915.412.xx
•	input transformer and remote muting facility	1.915.413.xx
•	transformerless input and remote gain control (VCA)	1.915.414.xx
•	input transformer and remote gain control (VCA)	1.915.415.xx

5W AUDIO AMPLIFIER



5W AUDIO AMPLIFIER



5W AUDIO AMPLIFIER

Ad	POS.	REF.No.	DESCRIPTION				MANUFACTURER
	C.....1	59.05.1681	680p	1%	500V	PP	
	C.....2	59.05.1681	680p	1%	500V	PP	
	C.....3		OPT 1				
	C.....4	59.26.2100	10µ		16V	SAL	
	C.....5	59.26.2100	10µ		16V	SAL	
	C.....6	59.34.2330	33p			CER	
	C.....7	59.34.2330	33p			CER	
	C.....8	59.22.5101	100µ		16V	EL	
	C.....9	59.22.5101	100µ		16V	EL	
	C....10	59.22.5101	100µ		16V	EL	
	C....11	59.34.4680	68p			CER	
	C....12	59.22.5101	100µ		16V	EL	
	C....13		OPT 2				
	C....14		OPT 2				
	C....15	59.22.5101	100µ		16V	EL	
	C....16	59.22.5101	100µ		16V	EL	
	C....17	59.34.2220	22p			CER	
	C....18	59.26.2100	10µ		16V	SAL	
	C....19	59.06.0102	1000p			PE	
	C....20	59.06.0102	1000p			PE	
	C....21	59.06.0224	0,22µ			PE	
	C....22	59.25.3222	2200µ		16V	EL	
	C....23	59.25.3222	2200µ		16V	EL	
	C....24	59.06.0682	6800p			PE	
	C....25		OPT 3				
①	C....26	59.34.4101	100p			CER	
②	C....27	59.34.4101	100p			CER	
	F.....1	51.01.0115	630mA	SLOW BLOW 5•20			
	F.....2	51.01.0115	630mA	SLOW BLOW 5•20			
	IC.....1	50.09.0107	4559	DUAL OP AMP			RA
①	IC.....2	50.09.0106	5532	DUAL OP AMP			SIG
	JSP	54.01.0020	PIN	(2•)			
		54.01.0021	JUMPER				
	L.....1	1.068.614.00	2,2µH				
	P.....1	54.01.0359	32p	EDGE CONN. TYBE B			
	Q.....1		OPT 2				
	Q.....2		OPT 2				
	Q.....3		OPT 2				
	Q.....4	50.03.0436	BC237B	NPN	GEN. PURPOSE		
	Q.....5	50.03.0515	BC307B	PNP	GEN. PURPOSE		
	Q.....6	50.03.0515	BC307B	PNP	GEN. PURPOSE		
	Q.....7	50.03.0495	BD135-16	NPN			
	Q.....8	50.03.0436	BC237B	NPN	GEN. PURPOSE		
	Q.....9	50.03.0436	BC237B	NPN	GEN. PURPOSE		
	Q....10	50.03.0515	BC307B	PNP	GEN. PURPOSE		
	Q....11	50.03.0340	BC337	NPN	800mA		
	Q....12	50.03.0351	BC327	PNP	800mA		
	Q....13	50.03.0344	2N6474	NPN			RCA
	Q....14	50.03.0345	2N6476	PNP			RCA
	R.....1	57.11.3152	1,5k	1%			
	R.....2	57.11.3152	1,5k	1%			
	R.....3	57.11.3392	3,9k	1%			
	R.....4	57.11.3392	3,9k	1%			
	R.....5		OPT 1				
	R.....6		OPT 1				
	R.....7		SELECTED				
	R.....8	57.11.3362	3,6k	1%			
	R.....9		SELECTED				
	R....10	57.11.3362	3,6k	1%			
	R....11		OPT 1				
	R....12	58.01.7502	5k	TRIM			
	R....13	57.11.4122	1,2k				
	R....14	57.11.4223	22k				
	R....15	57.11.3112	1,1k	1%			
	R....16	57.11.4103	10k				
	R....17	57.11.4472	4,7k				
	R....18		NOT USED				
	R....19	57.11.4223	22k				
	R....20	57.11.4330	33				
	R....21		OPT 2				
	R....22		OPT 2				
	R....23		OPT 2				
	R....24		OPT 2				
	R....25		OPT 2				
	R....26	57.11.4104	100k				
	R....27	57.11.4223	22k				
	R....28	57.11.4152	1,5k				
	R....29	57.11.4102	1k				
	R....30	57.11.4103	10k				
	R....31	57.11.4223	22k				
	R....32	57.11.4273	27k				
	R....33	57.11.4222	2,2k				
	R....34	57.11.4222	2,2k				
	R....35	57.11.4273	27k				
	R....36	57.11.4222	2,2k				
	R....37	57.11.4561	560				
	R....38	57.11.4561	560				
	R....39	57.11.4222	2,2k				
	R....40	57.11.4332	3,3k				
	R....41	57.11.4332	3,3k				
	R....42	57.11.4272	2,7k				
	R....43	58.01.8501	500	TRIM			
	R....44	57.11.4122	1,2k				
	R....45	57.11.4151	150				
	R....46	57.11.4151	150				
	R....47	57.11.4330	33				
	R....48	57.11.4330	33				
	R....49	57.11.4109	1				
	R....50	57.11.4109	1				
	R....51	57.11.4109	1				
	R....52	57.11.4109	1				
	R....53	57.11.4100	10				
	R....54	57.11.4471	470				
	R....55		OPT 3				
	R....56		OPT 3				
	XF	53.03.0142		FUSE HOLDER			
	XIC	53.03.0166	8pDIL				
	OPTIONS						
			OPTION 1				
	C.....3	59.06.0682	6800p		PE		
	C.....7	59.34.2220	22p		CER		
	R.....5	57.11.4102	1k				
	R.....6	57.11.4102	1k				
	R.....8	57.11.3181	180	1%			
	R....10	57.11.3752	7,5k	1%			
	R....11	57.11.3752	7,5k	1%			
	T.....1	1.022.419.00	1:1				ST
		1.022.400.03		INSULATION			
			OPTION 2				
	C....13	59.06.0682	6800p				
	C....14	59.06.0682	6800p				
	Q.....1	50.03.0350	J112	ND FET		MPF4392	SIX, MOT
	Q.....2	50.03.0515	BC307	PNP GEN. PURPOSE			
	Q.....3	50.03.0350	J112	ND FET		MPF4392	SIX, MOT
	R....21	57.11.6106	10M				
	R....22	57.11.4105	1M				
	R....23	57.11.4105	1M				
	R....24	57.11.4104	100k				
	R....25	57.11.6106	10M				
			OPTION 3				
②	D.....1	50.04.0122	1N4001				MOT
②	D.....2	50.04.0122	1N4001				MOT
	R....55	57.11.4152	1,5k				
	R....56	57.11.4223	22k				
	VCA...1	1.010.110.50		VOLTAGE CONTROLLED AMPL.			ST

Additional Diodes see Page 6

PP=Polypropylene, SAL= Solid Aluminium, CER=Ceramic, EL=Electrolytic, PE=Polyester

MANUFACTURER: ST=Studer, MOT=Motorola, SIX=Siliconix, RA=Raytheon, SIG=Signetics

1.915.410.00 5 WATT AMPLIFIER TH 14/04/82

1.915.410.00 5 WATT AMPLIFIER ① HO 04/11/83

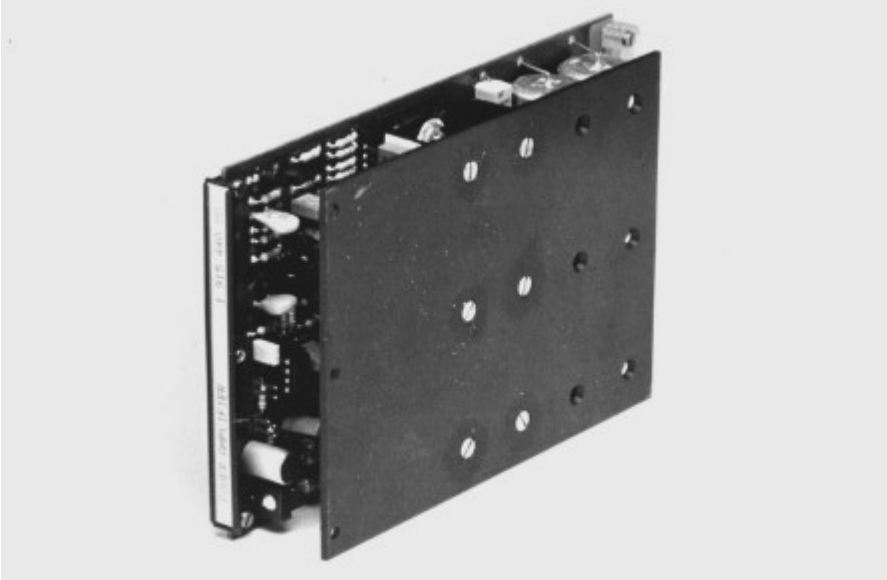
1.915.410.00 5 WATT AMPLIFIER ② PA 18/04/85

END

→

2.2.7 40 W Power Amplifier 1.915.440/441

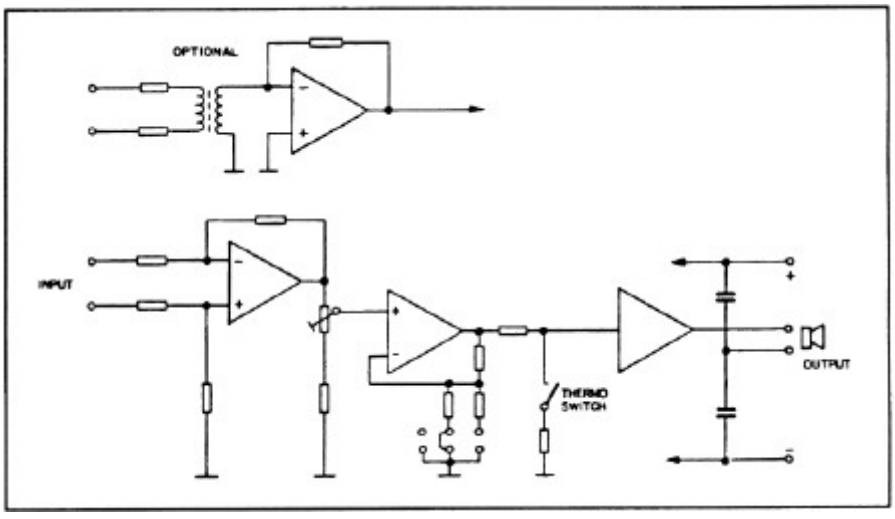
For applications where higher power level is needed, a 40 W amplifier has been realized on a Euro-card. Its width is 32 mm, which equals 7M widths approximately.



Power is supplied from a separate 45 V_{DC} source, as is contained in the 19" mounting frame 1.918.120.xx. Two amplifier cards will fit into that frame, making it suitable for applications where stereophonic monitoring is required.

Special Features

- Transformerless version with electronically balanced inputs standard
- Version with balanced and floating inputs available
- Output stage protected from overload by momentary power limiting
- Temperature sensing avoids thermal overload
- High-end frequency response limited to prevent transient intermodulation distortion
- Low distortion performance, even at low power output
- Operation with output transformer possible

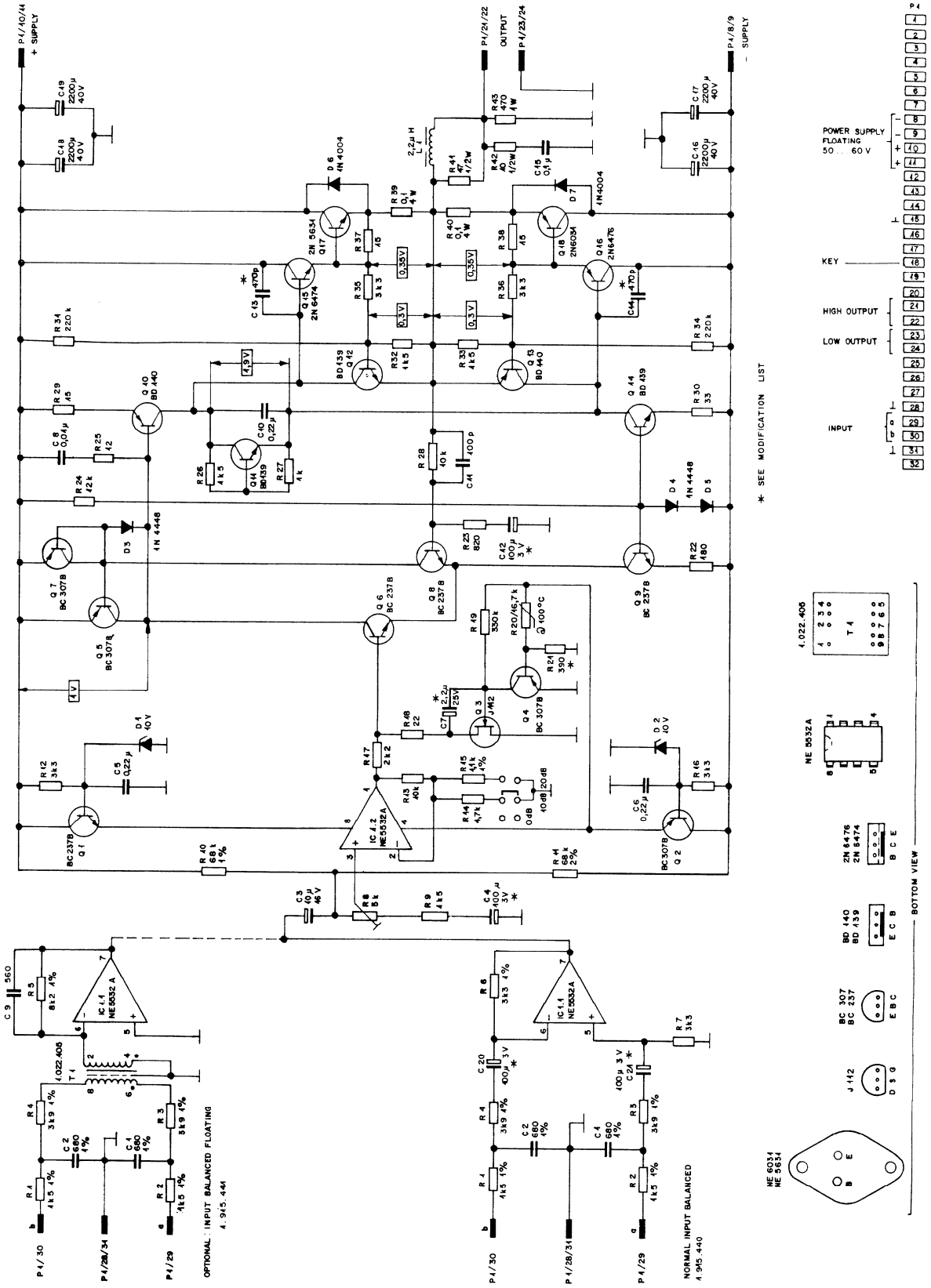


Technical Specifications

Audio:	Power output	**40 W/4 W**, continuous, sine-wave,
	THD	**< 0.1 %**, 30 Hz...15 kHz (up to rated output)
	Output impedance	**0.1 W**
	Input impedance	**10 kW**
	Common mode rejection	**> 50 dB**, 30 Hz...16 kHz (with input transformer)
	Input sensitivity	**–12...+18 dBu** (0.195...6.2 V_{rms}) for rated output (adjustable with jumper in three 10 dB-increments, plus fine-trim range of 12 dB)
	Frequency response	**+0.5/–1 dB,** 30 Hz...15 kHz
	S/N	**105 dB** @ maximum gain
		90 dB @ minimum gain
Supply:		**45 V_{DC}** (70 mA idling, 1.5 A @ 40 W/4 Ω)
Dimensions:	Euro-card	**100 × 160 mm, 7M units wide**

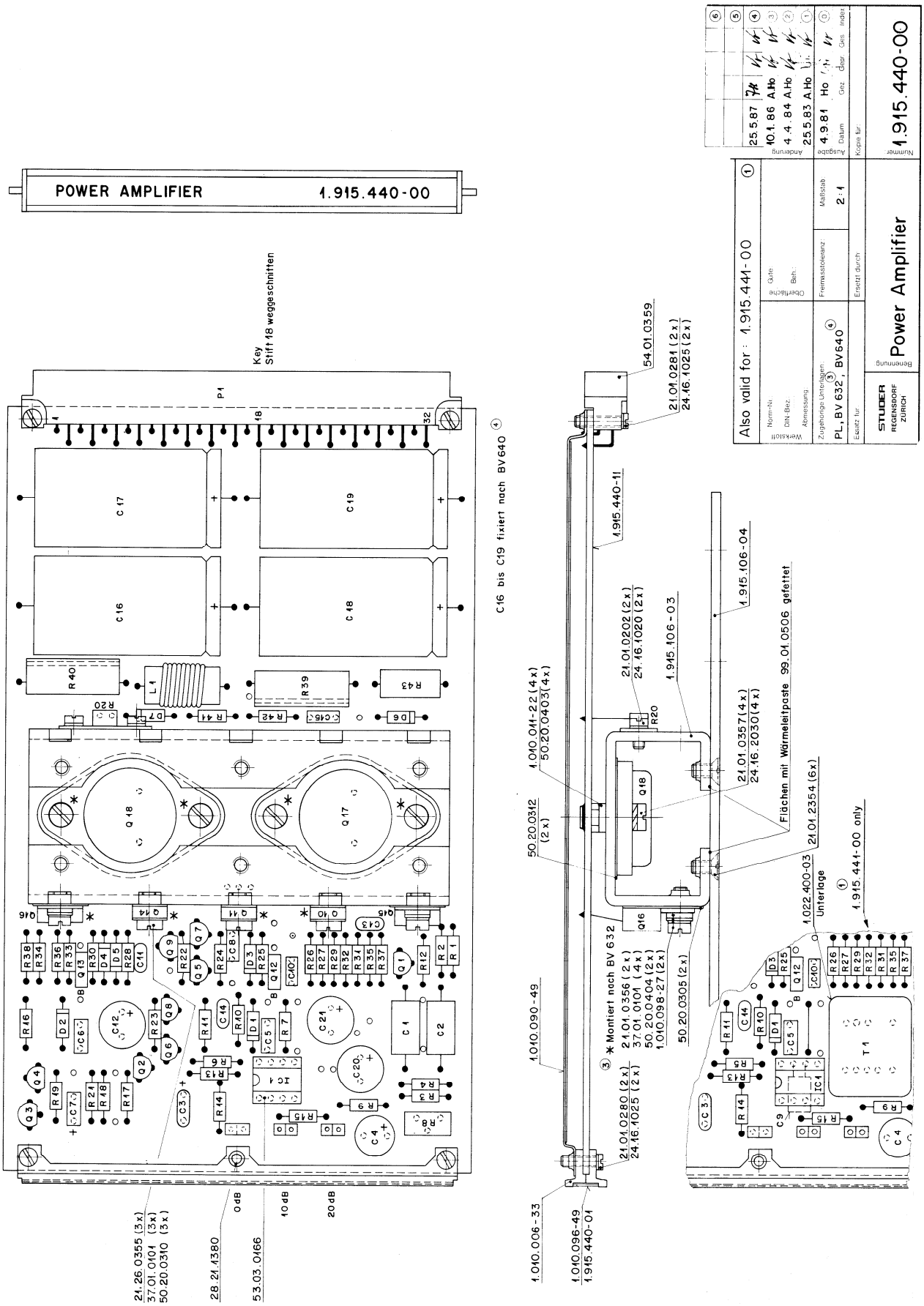
Ordering Information:

Euro-cards	•	40 W power amplifier with transformerless input	1.915.440.xx
	•	40 W power amplifier with input transformer	1.915.441.xx
19”/1U standard products			
40 W power amplifier	•	Mono version, 19”/1U	75.700.80311
	•	Stereo version, 19”/1U	75.700.80322
	•	19”/1U mounting frame (without amplifier cards)	1.918.120.xx



DATE:	12.1.82	24.5.83	24.6.83	23.11.83		
SIGN:						
STUDER REGENSDORF ZÜRICH	POWER AMPLIFIER OPTIONAL: INP. BALANCED FLOATING					SC 1.915.440 1.915.441

40W POWER AMPLIFIER



40W POWER AMPLIFIER

Ad	POS.	REF.No.	DESCRIPTION			MANUFACTURER
	C....1	59.12.9681	680pF	500V 1%	PS	
	C....2	59.12.9681	680pF	500V 1%	PS	
	C....3	59.26.2100	10µF	16V	SAL	
②	C....4	59.30.1101	100µF	3V	TA	
	C....5	59.06.0224	0,22µF		PE	
	C....6	59.06.0224	0,22µF		PE	
①	C....7	59.26.5229	2,2µF	25V	SAL	
	C....8	59.06.0103	0,01µF		PE	
	C....9	59.34.5561	560pF		CER (1.915.441)	
	C...10	59.06.0224	0,22µF		PE	
②	C...11	59.34.4101	100pF		CER	
②	C...12	59.30.1101	100µF	3V	TA	
②	C...13	59.32.1471	470pF		CER	
②	C...14	59.32.1471	470pF		CER	
	C...15	59.06.0104	0,1µF		PE	
	C...16	59.25.5222	2200µF	40V	EL	
	C...17	59.25.5222	2200µF	40V	EL	
	C...18	59.25.5222	2200µF	40V	EL	
	C...19	59.25.5222	2200µF	40V	EL	
②	C...20	59.30.1101	100µF	3V	TA (1.915.440)	
②	C...21	59.30.1101	100µF	3V	TA (1.915.440)	
	D....1	50.04.1114	ZPD10V	10V @ 5mA		
	D....2	50.04.1114	ZPD10V	10V @ 5mA		
	D....3	50.04.0125	1N4448		SI	
	D....4	50.04.0125	1N4448		SI	
	D....5	50.04.0125	1N4448		SI	
	D....6	50.04.0105	1N4004	1,1V @ 1A	SI	
	D....7	50.04.0105	1N4004	1,1V @ 1A	SI	
	IC....1	50.09.0105	NE5532A	DUAL OPA		SIG
	L....1	1.068.614.00	2,2µH			ST
	Q....1	50.03.0436	BC237B	NPN		PH, TI
	Q....2	50.03.0515	BC307B	PNP		PH, TI
	Q....3	50.03.0350	J112	FET		SIX, N
	Q....4	50.03.0515	BC307B	PNP		PH, TI
	Q....5	50.03.0515	BC307B	PNP		PH, TI
	Q....6	50.03.0436	BC237B	NPN		PH, TI
	Q....7	50.03.0515	BC307B	PNP		PH, TI
	Q....8	50.03.0436	BC237B	NPN		PH, TI
	Q....9	50.03.0436	BC237B	NPN		PH, TI
	Q...10	50.03.0452	BD140	PNP		PH, SIE
	Q...11	50.03.0451	BD139	NPN		PH, SIE
	Q...12	50.03.0451	BD139	NPN		PH, SIE
	Q...13	50.03.0452	BD140	PNP		PH, SIE
	Q...14	50.03.0451	BD139	NPN		PH, SIE
	Q...15	50.03.0344	2N6474	NPN		R
	Q...16	50.03.0345	2N6476	PNP		R
	Q...17	50.03.0342	2N5631	NPN		MOT
	Q...18	50.03.0343	2N6031	PNP		MOT
	R....1	57.11.3152	1,5k	1%		
	R....2	57.11.3152	1,5k	1%		
	R....3	57.11.3392	3,9k	1%		
	R....4	57.11.3392	3,9k	1%		
	R....5	57.11.3822	8,2k	1% (1.915.441)		
	R....6	57.11.3332	3,3k	1% (1.915.440)		
	R....7	57.11.3332	3,3k	1% (1.915.440)		
	R....8	58.01.7502	5k	10%	LIN	
	R....9	57.11.4152	1,5k			
	R...10	57.11.4683	68k			
	R...11	57.11.4683	68k			
	R...12	57.11.4332	3,3k			
	R...13	57.11.4103	10k	2%		
	R...14	57.11.4472	4,7k	2%		
	R...15	57.11.3112	1,1k	2%		
	R...16	57.11.4332	3,3k			
	R...17	57.11.4222	2,2k	2%		
	R...18	57.11.4220	22			
	R...19	57.11.4334	330k			
④	R...20	57.99.0803	16,7k		NTC	PH
②	R...21	57.11.4391	390			
	R...22	57.11.4181	180			
	R...23	57.11.4821	820			
	R...24	57.11.4123	12k			
	R...25	57.11.4120	12			
	R...26	57.11.4152	1,5k			
	R...27	57.11.4102	1k			
	R...28	57.11.4103	10k			
	R...29	57.11.4150	15			
	R...30	57.11.4330	33			
③	R...31	57.11.4224	220k			
	R...32	57.11.4152	1,5k			
	R...33	57.11.4152	1,5k			
③	R...34	57.11.4224	220k			
	R...35	57.11.4332	3,3k			
	R...36	57.11.4332	3,3k			
	R...37	57.11.4150	15			
	R...38	57.11.4150	15			
	R...39	57.56.5108	0,1	10%	4W WW	
	R...40	57.56.5108	0,1	10%	4W WW	
	R...41	57.11.4470	47		0,4W	
	R...42	57.11.4100	10		0,4W	
	R...43	57.13.4471	470		1W	
	T....1	1.022.405.00	1:1	INPUT TRANSFORMER		ST

MODIFICATION LIST

②	C....4	220µFEL→100µTA	QUALITY IMPROVEMENT
①	C....7	0,22µF→2,2µF	BETTER INRUSH
②	C...12	100µFEL→100µTA	QUALITY IMPROVEMENT
②	C...13	560pF→470pF	PRODUCTIONS REASONS
②	C...20	100µFEL→100µTA	QUALITY IMPROVEMENT
②	C...21	100µFEL→100µTA	QUALITY IMPROVEMENT
②	R...21	1kΩ→390Ω	SWITCH OFF @ 100°C
③	R...31	100k→220k	CURRENT LIMIT @ HIGHER IDLE VOLTAGES
③	R...34	100k→220k	CURRENT LIMIT @ HIGHER IDLE VOLTAGES

PS=Polystyrene, EL=Electrolytic, SAL=Solid Aluminium, PE=Polyester, CER=Ceramic, SI=Silicium, T=Tantalum
WW=Wire Wound

MANUFACTURER: PH=Philips, SIG=Signetics, SIX=Siliconix, SIE=Siemens, TI=Texas Instruments, R=RCA
MOT=Motorola, N=National, ST=Studer

Also Valid for: 1.915.441 ①

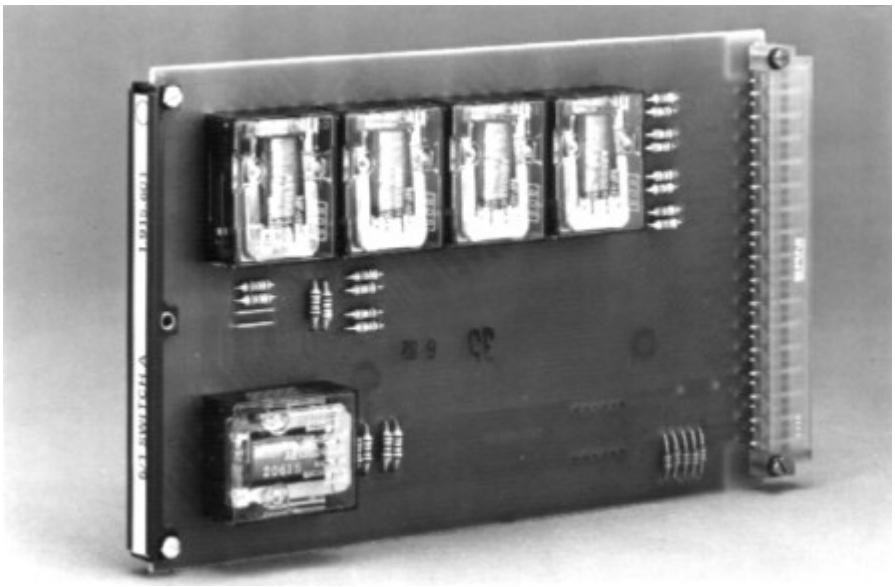
1.915.440	POWER AMPLIFIER	PA 09/06/81
1.915.440	POWER AMPLIFIER	① VO 25/05/83
1.915.440	POWER AMPLIFIER	② FRI 06/07/83
1.915.440	POWER AMPLIFIER	③ VO 23/11/83
1.915.440	POWER AMPLIFIER	④ VO 23/09/91

END

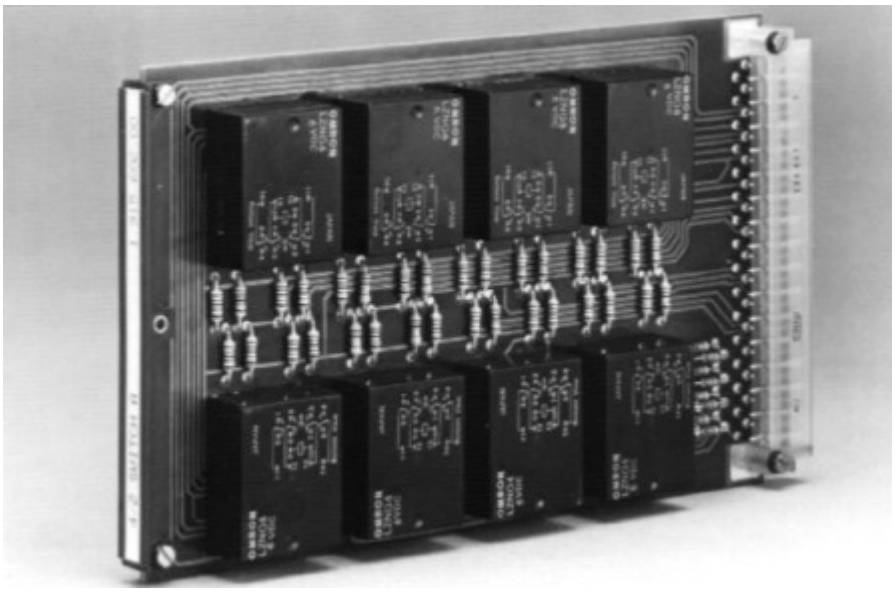
→

2.2.8 Monitor Switching Relays 1.915.601/602

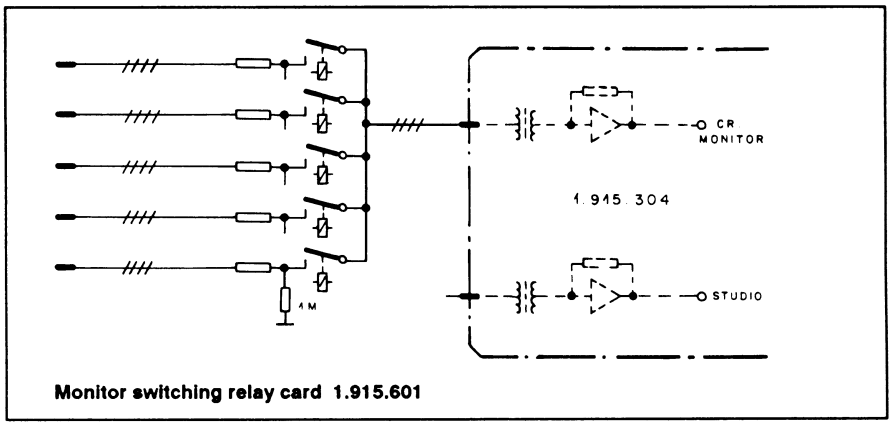
Two different monitor circuit switching cards are available. They are equipped with either five or eight relays for switching of a corresponding number of stereo sources to one or two stereo outputs in monitor circuits.



The relays are available with coil ratings of $6\,V_{DC}$ or $24\,V_{DC}$, depending on the user's requirement. Click-suppressing diodes are wired across each relay coil. The relays are equipped with four double throw (change-over) contacts each.

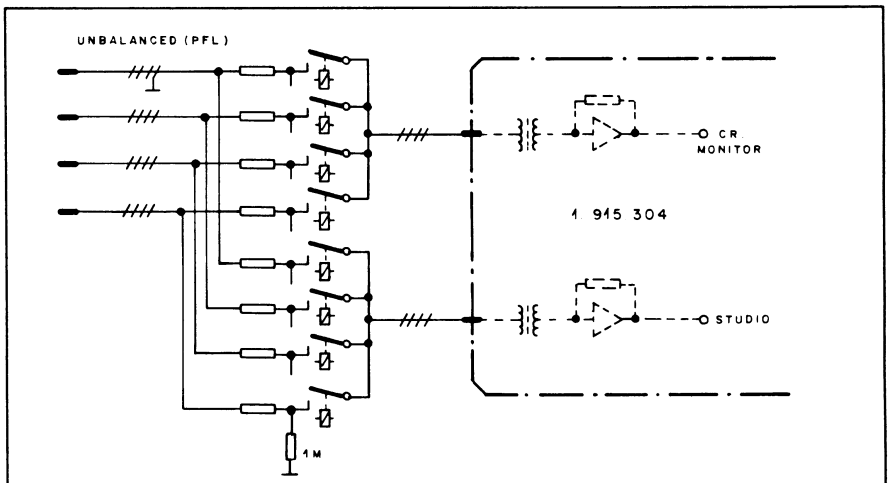


Isolation of the monitor lines from external circuitry is achieved by $5.6\,k\Omega$ resistors in the "a" and "b" legs of each stereo line, thus a high impedance (bridging) load is presented to the outside source, even in de-energized (non-selected) status, when the respective pair of relay contacts shorts the lines after the respective isolation resistors. With a relay energized, the corresponding stereo pair is routed to a stereo bus available on four pins of the 32-contact edge connector (in case of the 5-input card 1.915.601.xx).



Monitor switching relay card 1.915.601

Card 1.915.602.xx features a similar circuit configuration with eight relays, to switch one unbalanced and three balanced stereo inputs. Two stereo buses appear on eight pins of the edge-connector; in this way, the four inputs can be switched to either one or to both outputs, such as may be the case with separate monitor circuits in the control room and in the studio.

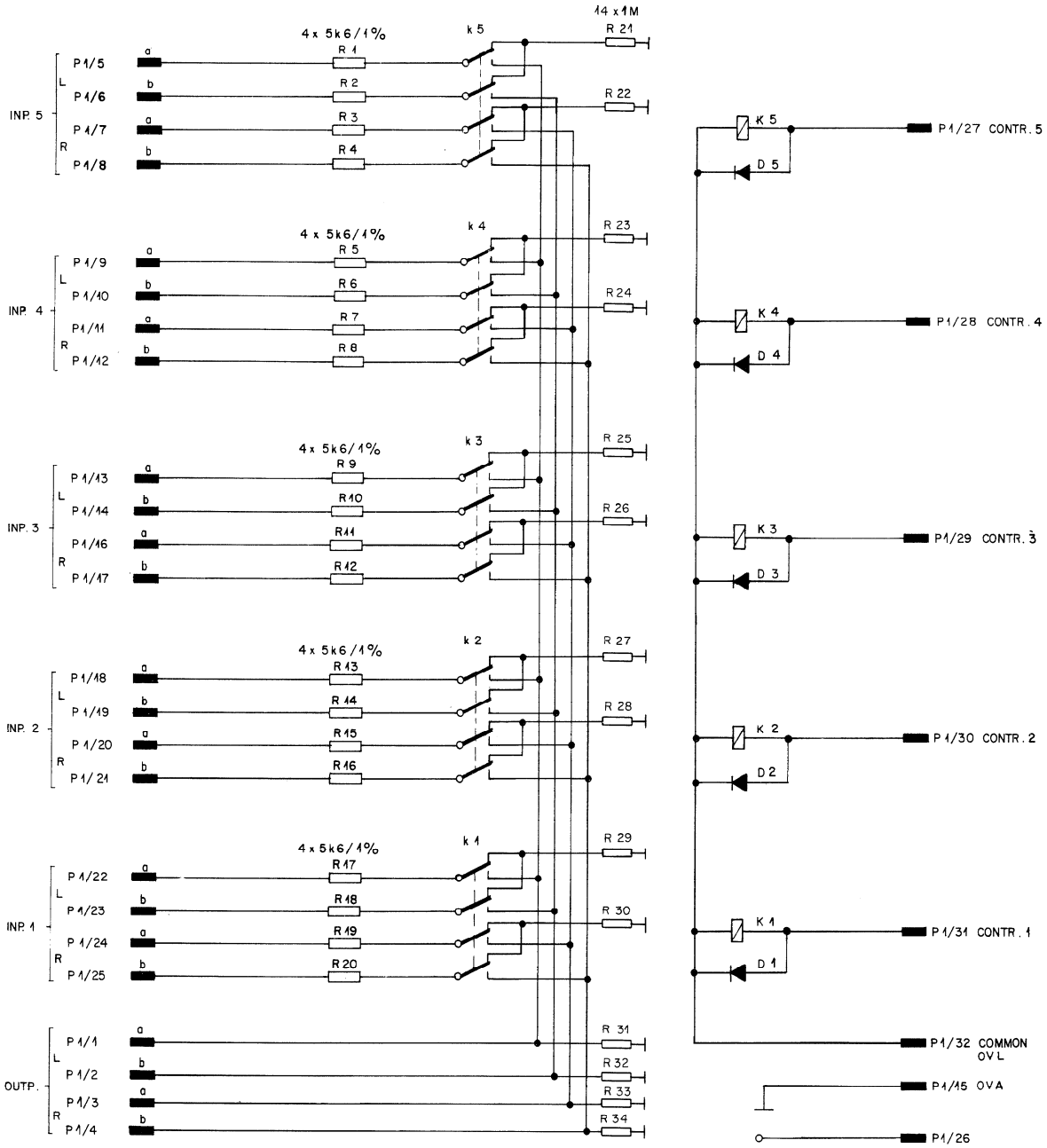


Monitor switching relay card 1.915.602

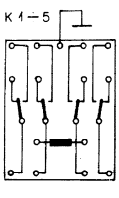
Dimensions: Euro-card **100 × 160 mm, 4 M units wide**
Weight **approx. 250 g**

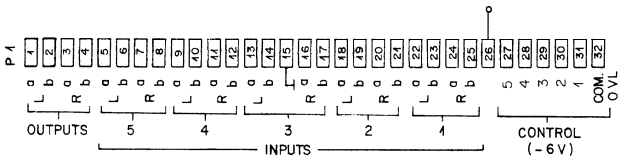
Ordering Information:

• Relay card, 5 IN/1 OUT	1.915.601.xx
• Relay card, 4 IN/2 OUT	1.915.602.xx



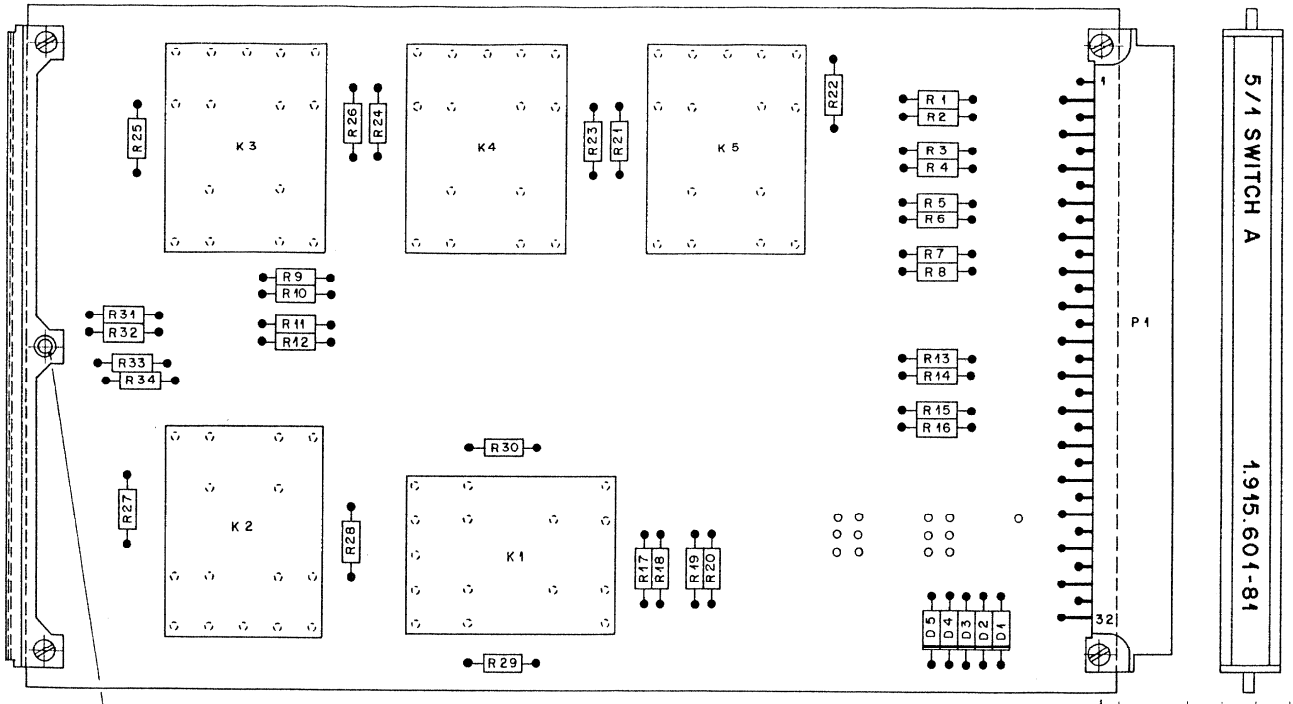
D1 . . . D5 = 1N 4448

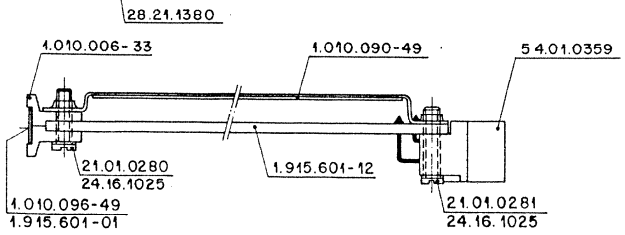




DATE:	26.10.87					
SIGN:						
STUDER REGENSDORF ZÜRICH	5/1 SWITCH A MONITOR RELAYS					SC 1.915.601.81

RELAYS





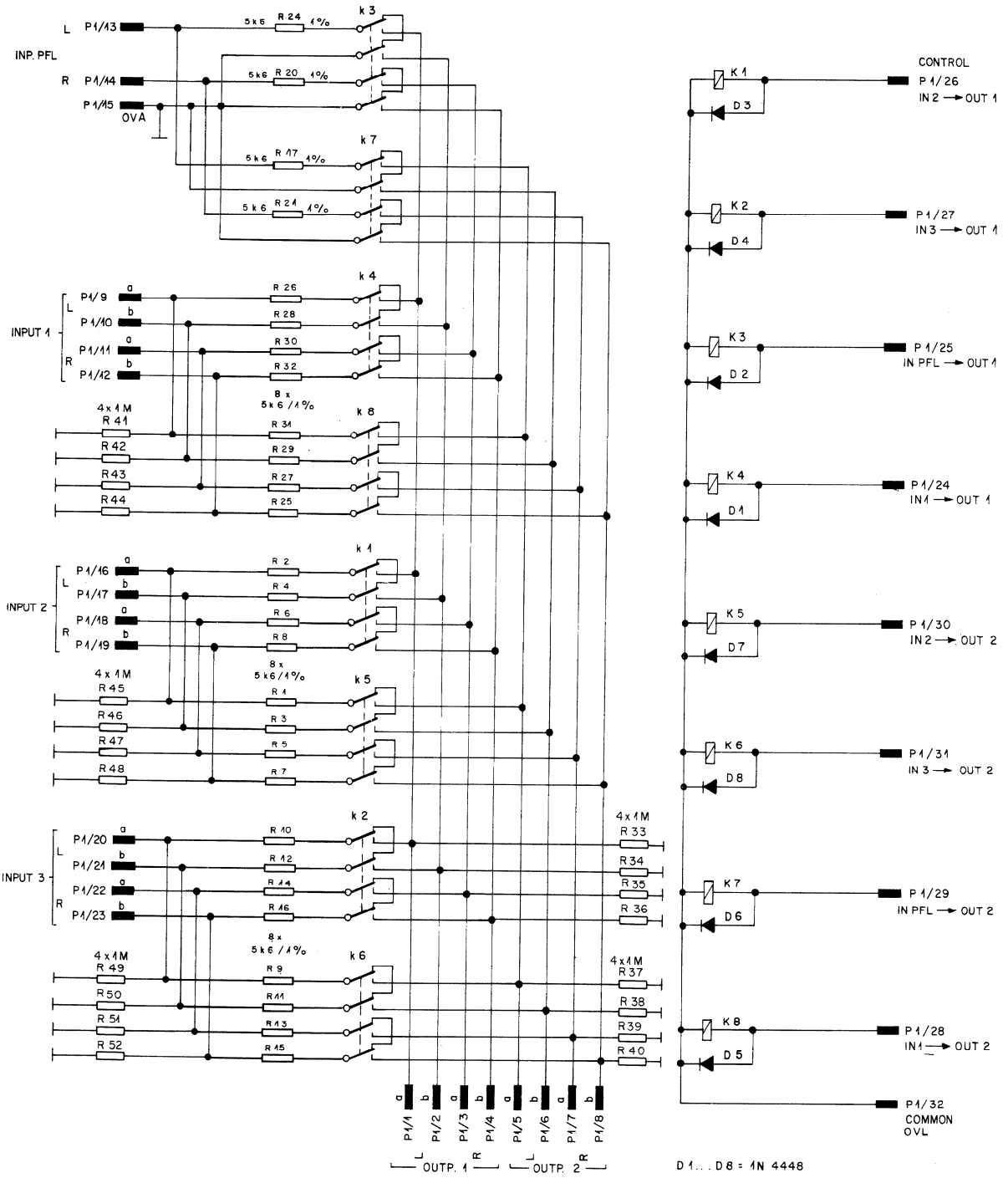
Werkstoff	Norm-Nr.:	Oberfläche	Güte:		Änderung				③
	DIN-Bez.:		Beh.:						②
	Abmessung:								①
Zugehörige Unterlagen:		Freimasstoleranz:		Maßstab:	Ausgabe	9.10.87	A.Ho		⓪
PL		±		2 : 1	Datum	Gez.	Gepr.	Ges.	Index
Ersatz für 1.915.601-00		Ersetzt durch:			Kopie für:				
STUDER REGENSDORF ZÜRICH	Benennung	5/1 SWITCH A			Nummer:	1.915.601-81			

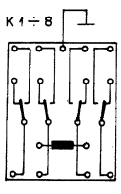
Ad	POS.	REF.No.	DESCRIPTION		MANUFACTURER
	D....1	50.04.0125	1N4448		ANY
	D....2	50.04.0125	1N4448		ANY
	D....3	50.04.0125	1N4448		ANY
	D....4	50.04.0125	1N4448		ANY
	D....5	50.04.0125	1N4448		ANY
	K....1	56.04.0146	4U/6V		N/0
	K....2	56.04.0146	4U/6V		N/0
	K....3	56.04.0146	4U/6V		N/0
	K....4	56.04.0146	4U/6V		N/0
	K....5	56.04.0146	4U/6V		N/0
	R....1	57.11.3562	5,6k	1%	
	R....2	57.11.3562	5,6k	1%	
	R....3	57.11.3562	5,6k	1%	
	R....4	57.11.3562	5,6k	1%	
	R....5	57.11.3562	5,6k	1%	
	R....6	57.11.3562	5,6k	1%	
	R....7	57.11.3562	5,6k	1%	
	R....8	57.11.3562	5,6k	1%	
	R....9	57.11.3562	5,6k	1%	
	R...10	57.11.3562	5,6k	1%	
	R...11	57.11.3562	5,6k	1%	
	R...12	57.11.3562	5,6k	1%	
	R...13	57.11.3562	5,6k	1%	
	R...14	57.11.3562	5,6k	1%	
	R...15	57.11.3562	5,6k	1%	
	R...16	57.11.3562	5,6k	1%	
	R...17	57.11.3562	5,6k	1%	
	R...18	57.11.3562	5,6k	1%	
	R...19	57.11.3562	5,6k	1%	
	R...20	57.11.3562	5,6k	1%	
	R...21	57.11.4105	1M		
	R...22	57.11.4105	1M		
	R...23	57.11.4105	1M		
	R...24	57.11.4105	1M		
	R...25	57.11.4105	1M		
	R...26	57.11.4105	1M		
	R...27	57.11.4105	1M		
	R...28	57.11.4105	1M		
	R...29	57.11.4105	1M		
	R...30	57.11.4105	1M		
	R...31	57.11.4105	1M		
	R...32	57.11.4105	1M		
	R...33	57.11.4105	1M		
	R...34	57.11.4105	1M		

MANUFACTURER: N=National, O=Omron

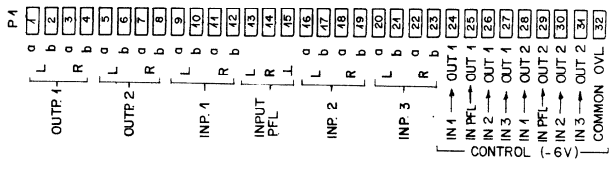
1.915.601.81 5/1 SWITCH A WY 14/10/87

END



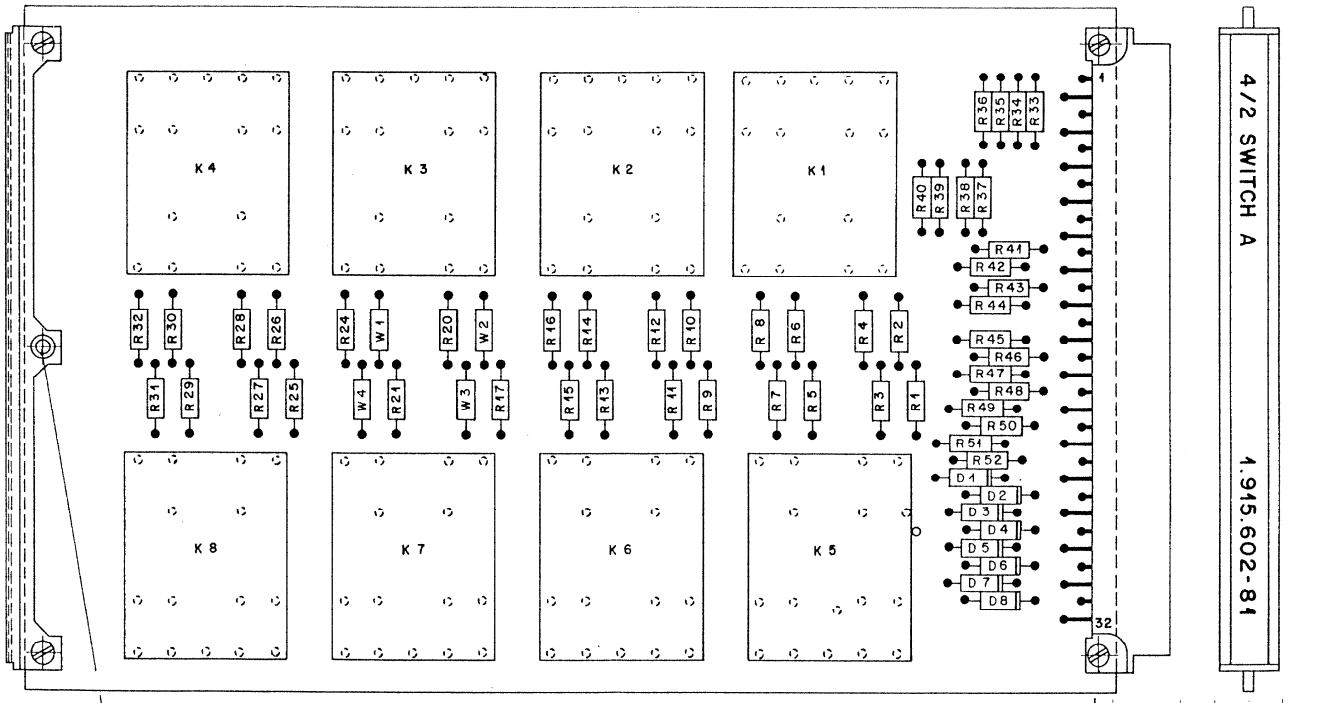


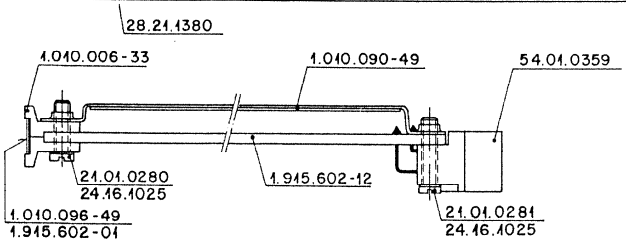
BOTTOM VIEW



DATE:	26.10.87					
SIGN:						
STUDER REGENSDORF ZÜRICH	4/2 SWITCH A MONITOR RELAYS					SC 1.915.602.81

RELAYS





Werkstoff: Norm-Nr.: / DIN-Bez.: / Abmessung:	Oberfläche: Güte: / Beh.:			Änderung:	③ ② ①
Zugehörige Unterlagen: PL	Freimasstoleranz: +	Maßstab: 2:1		Ausgabe: 9.10.87 A.Ho	⓪
				Datum / Gez. / Gepr. / Ges. / Index	
Ersatz für 1.915.602-00	Ersetzt durch:			Kopie für:	
STUDER REGENSDORF ZÜRICH	Benennung: 4/2 SWITCH A			Nummer: 1.915.602-81	

Ad	POS.	REF.No.	DESCRIPTION.			MANUFACTURER
	D.....1	50.04.0125	1N4448			ANY
	D.....2	50.04.0125	1N4448			ANY
	D.....3	50.04.0125	1N4448			ANY
	D.....4	50.04.0125	1N4448			ANY
	D.....5	50.04.0125	1N4448			ANY
	D.....6	50.04.0125	1N4448			ANY
	D.....7	50.04.0125	1N4448			ANY
	D.....8	50.04.0125	1N4448			ANY
	K.....1	56.04.0146	4U/6V			N/0
	K.....2	56.04.0146	4U/6V			N/0
	K.....3	56.04.0146	4U/6V			N/0
	K.....4	56.04.0146	4U/6V			N/0
	K.....5	56.04.0146	4U/6V			N/0
	K.....6	56.04.0146	4U/6V			N/0
	K.....7	56.04.0146	4U/6V			N/0
	K.....8	56.04.0146	4U/6V			N/0
	R.....1	57.11.3562	5,6k	1%	28Stk.	
	R.....2	57.11.3562	5,6k	1%	28Stk.	
	R.....3	57.11.3562	5,6k	1%	28Stk.	
	R.....4	57.11.3562	5,6k	1%	28Stk.	
	R.....5	57.11.3562	5,6k	1%	28Stk.	
	R.....6	57.11.3562	5,6k	1%	28Stk.	
	R.....7	57.11.3562	5,6k	1%	28Stk.	
	R.....8	57.11.3562	5,6k	1%	28Stk.	
	R.....9	57.11.3562	5,6k	1%	28Stk.	
	R....10	57.11.3562	5,6k	1%	28Stk.	
	R....11	57.11.3562	5,6k	1%	28Stk.	
	R....12	57.11.3562	5,6k	1%	28Stk.	
	R....13	57.11.3562	5,6k	1%	28Stk.	
	R....14	57.11.3562	5,6k	1%	28Stk.	
	R....15	57.11.3562	5,6k	1%	28Stk.	
	R....16	57.11.3562	5,6k	1%	28Stk.	
	R....17	57.11.3562	5,6k	1%	28Stk.	
	R....25	57.11.3562	5,6k	1%	28Stk.	
	R....26	57.11.3562	5,6k	1%	28Stk.	
	R....27	57.11.3562	5,6k	1%	28Stk.	
	R....28	57.11.3562	5,6k	1%	28Stk.	
	R....29	57.11.3562	5,6k	1%	28Stk.	

Ad	POS.	REF.No.	DESCRIPTION.			MANUFACTURER
	R....30	57.11.3562	5,6k	1%	28Stk.	
	R....31	57.11.3562	5,6k	1%	28Stk.	
	R....32	57.11.3562	5,6k	1%	28Stk.	
	R....33	57.11.3105	1M			
	R....34	57.11.3105	1M			
	R....35	57.11.3105	1M			
	R....36	57.11.3105	1M			
	R....37	57.11.3105	1M			
	R....38	57.11.3105	1M			
	R....39	57.11.3105	1M			
	R....40	57.11.3105	1M			
	R....41	57.11.3105	1M			
	R....42	57.11.3105	1M			
	R....43	57.11.3105	1M			
	R....44	57.11.3105	1M			
	R....45	57.11.3105	1M			
	R....46	57.11.3105	1M			
	R....47	57.11.3105	1M			
	R....48	57.11.3105	1M			
	R....49	57.11.3105	1M			
	R....50	57.11.3105	1M			
	R....51	57.11.3105	1M			
	R....52	57.11.3105	1M			
	W.....1	57.11.3000	0-Ω			
	W.....2	57.11.3000	0-Ω			
	W.....3	57.11.3000	0-Ω			
	W.....4	57.11.3000	0-Ω			

MANUFACTURER: N=National, O=Omron

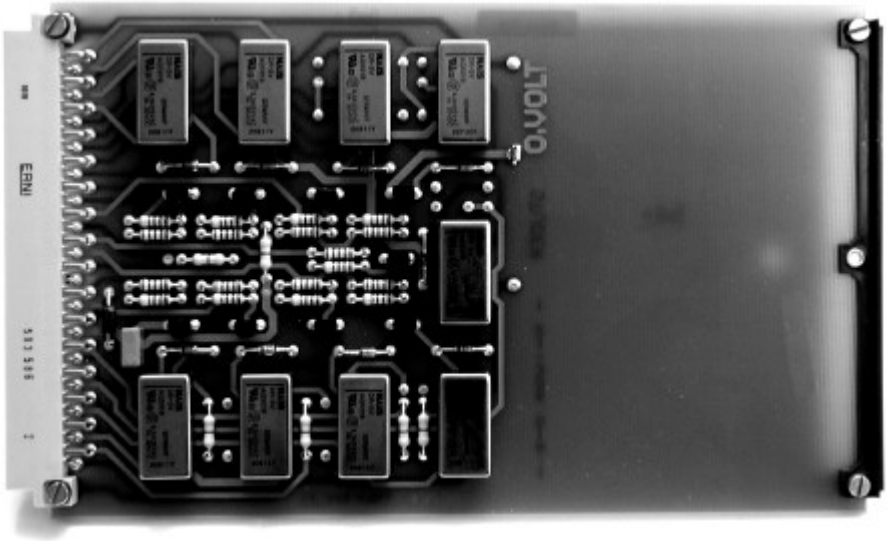
1.915.602.81 4/2 SWITCH A WY 14/10/87

1.915.602.81 4/2 SWITCH A ① WY 22/05/89

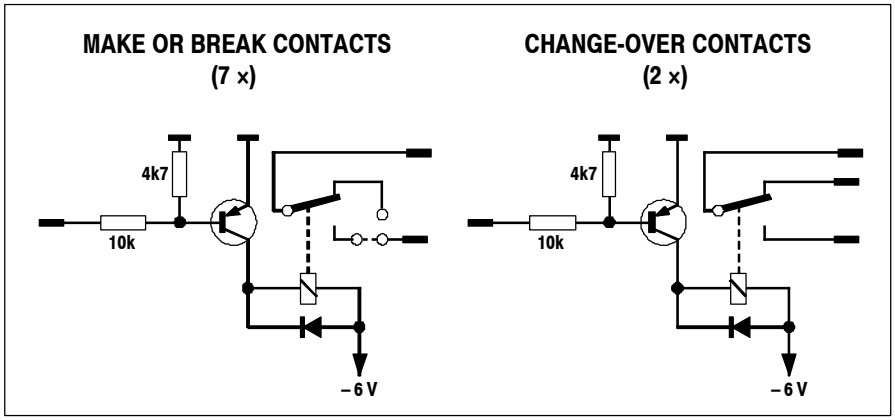
END

2.2.9 Transistor-Driven Relays (7+2) 1.915.603

This Euro-card is supplied with nine transistor-driven relays with single-pole, double-throw (SPDT) contacts. For two of the relays, both normally-open and normally-closed contacts are routed to the edge connector; for the remaining seven it is jumper-selectable whether the normally-open or the normally-closed contact is used.



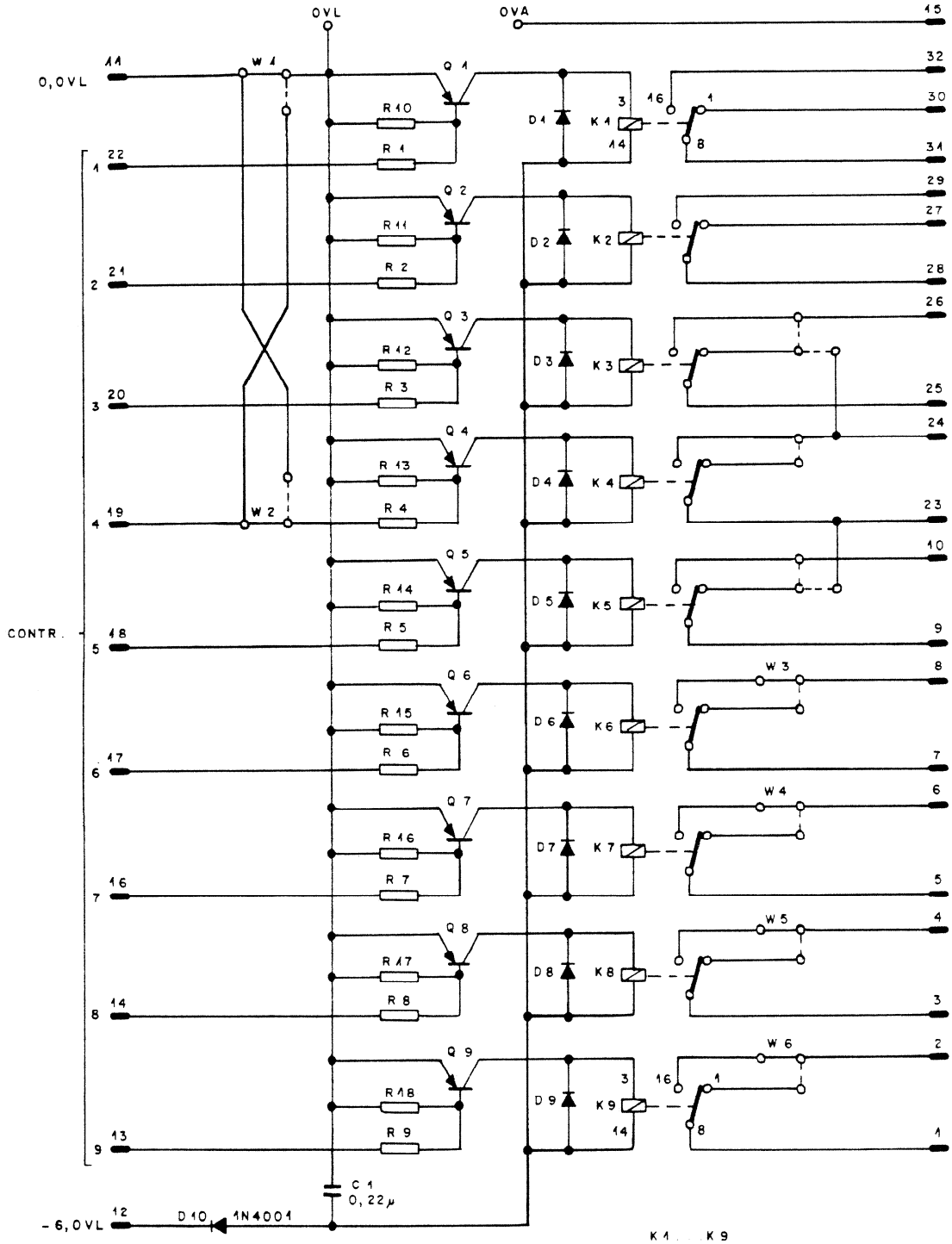
The relays are designed for operation on 6 V_{DC}, and each relay coil is bridged with a click-suppressing diode. PNP transistors in series with the coils are blocking the current flow, because each transistor is normally biased off. By applying the output from the gate of an external control logic to the base of a transistor, it is switched into saturation, thereby energizing the respective relay. This arrangement of nine relays was designed for use in signaling systems within a studio installation; however, it may find its use for other applications as well.



Polarity of the relay's supply voltage must be observed when utilizing this circuit.

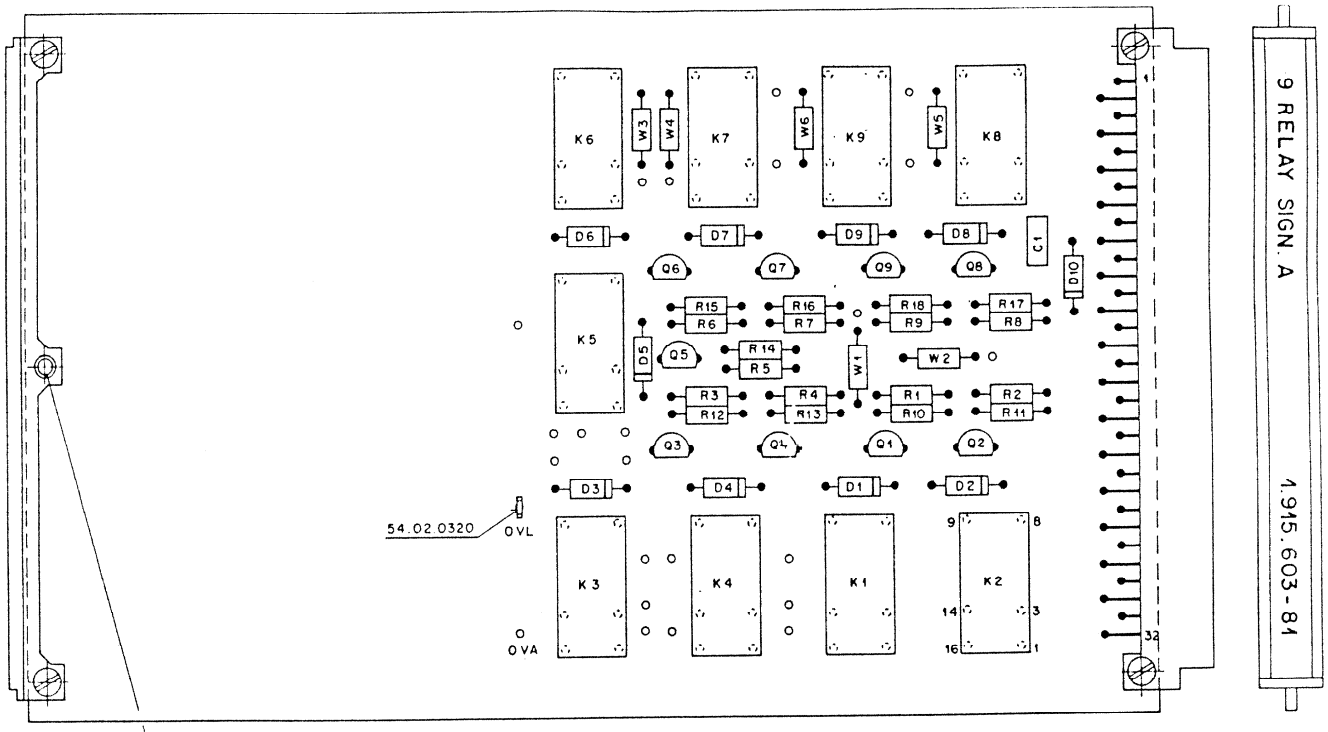
Technical Specifications

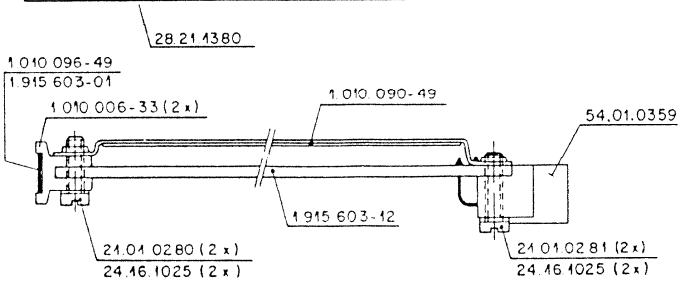
Contact Ratings:		**max. 1 A/30 V_{DC} or 0.3 A/125 V_{AC}**
	Note:	*In this application **48 V** must not be exceeded to avoid shock hazard.*
	Switching power	**60 VA** (AC) **100 W** (DC)
Dimensions:	Euro-card	**100 × 160 mm, 4 M units wide**
Ordering Information:		Transistor-driven relays 1.915.603.xx



0 24 11 92 We				
STUDER REGENSDORF ZÜRICH	9 RELAYS SIGN. A			SC 1.915.603-81

RELAYS





Werkstoff: Norm-Nr. / DIN-Bez. / Abmessung	Oberfläche: Güte / Ben		Änderung
Zugehörige Unterlagen: PL	Freimasstoleranz: ±	Maßstab: 2 : 1	Ausgabe: 30.992 Datum / Gez. / Gepr. / Gen. / Index
Ersatz für:	Ersetzt durch:		Kopie für:
STUDER REGENSDORF ZÜRICH	Benennung: RELAYS UNIT 9A SIGNALISATION		Nummer: 1.915.603-81

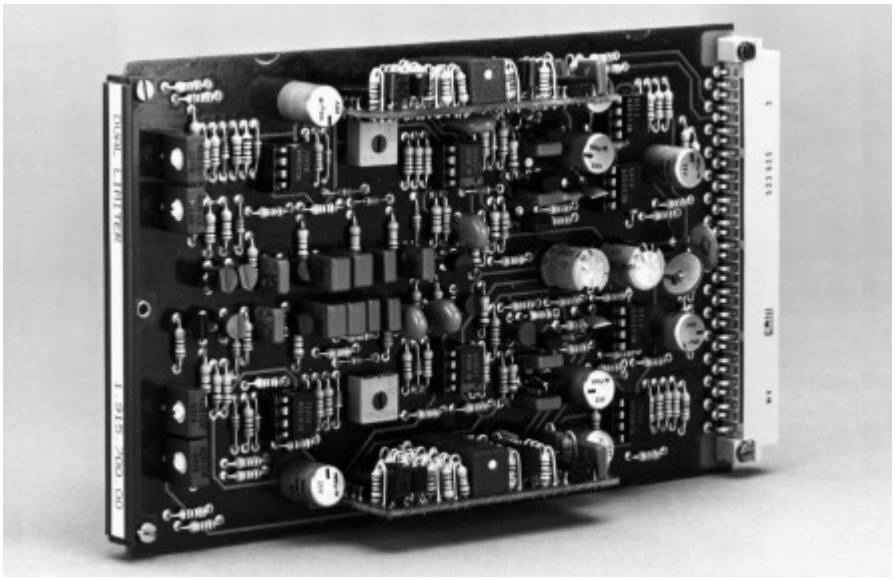
Ad	..POS..	...REF.No...	DESCRIPTION.....	.....MANUFACTURER
	C 1	59.06.0224	KONDENSATOR	0,22µ
	D.....1	50.04.0125	DIODE	1N 4448
	D.....2	50.04.0125	DIODE	1N 4448
	D.....3	50.04.0125	DIODE	1N 4448
	D.....4	50.04.0125	DIODE	1N 4448
	D.....5	50.04.0125	DIODE	1N 4448
	D.....6	50.04.0125	DIODE	1N 4448
	D.....7	50.04.0125	DIODE	1N 4448
	D.....8	50.04.0125	DIODE	1N 4448
	D.....9	50.04.0125	DIODE	1N 4448
	D....10	50.04.0122	DIODE	1N 4001
	K.....1	56.04.0190	RELAYS	DR-5V
	K.....2	56.04.0190	RELAYS	DR-5V
	K.....3	56.04.0190	RELAYS	DR-5V
	K.....4	56.04.0190	RELAYS	DR-5V
	K.....5	56.04.0190	RELAYS	DR-5V
	K.....6	56.04.0190	RELAYS	DR-5V
	K.....7	56.04.0190	RELAYS	DR-5V
	K.....8	56.04.0190	RELAYS	DR-5V
	K.....9	56.04.0190	RELAYS	DR-5V
	Q.....1	50.03.0601	TRANSISTOR	BC 560
	Q.....2	50.03.0601	TRANSISTOR	BC 560
	Q.....3	50.03.0601	TRANSISTOR	BC 560
	Q.....4	50.03.0601	TRANSISTOR	BC 560
	Q.....5	50.03.0601	TRANSISTOR	BC 560
	Q.....6	50.03.0601	TRANSISTOR	BC 560
	Q.....7	50.03.0601	TRANSISTOR	BC 560
	Q.....8	50.03.0601	TRANSISTOR	BC 560
	Q.....9	50.03.0601	TRANSISTOR	BC 560

Ad	..POS..	...REF.No...	DESCRIPTION.....	.....MANUFACTURER
	R.....1	57.11.3103	WIDERSTAND	10K
	R.....2	57.11.3103	WIDERSTAND	10K
	R.....3	57.11.3103	WIDERSTAND	10K
	R.....4	57.11.3103	WIDERSTAND	10K
	R.....5	57.11.3103	WIDERSTAND	10K
	R.....6	57.11.3103	WIDERSTAND	10K
	R.....7	57.11.3103	WIDERSTAND	10K
	R.....8	57.11.3103	WIDERSTAND	10K
	R.....9	57.11.3103	WIDERSTAND	10K
	R....10	57.11.3472	WIDERSTAND	4,7K
	R....11	57.11.3472	WIDERSTAND	4,7K
	R....12	57.11.3472	WIDERSTAND	4,7K
	R....13	57.11.3472	WIDERSTAND	4,7K
	R....14	57.11.3472	WIDERSTAND	4,7K
	R....15	57.11.3472	WIDERSTAND	4,7K
	R....16	57.11.3472	WIDERSTAND	4,7K
	R....17	57.11.3472	WIDERSTAND	4,7K
	R....18	57.11.3472	WIDERSTAND	4,7K
	W.....1	57.11.3000	0 OHM WIDERSTAND	
	W.....2	57.11.3000	0 OHM WIDERSTAND	
	W.....3	57.11.3000	0 OHM WIDERSTAND	
	W.....4	57.11.3000	0 OHM WIDERSTAND	
	W.....5	57.11.3000	0 OHM WIDERSTAND	
	W.....6	57.11.3000	0 OHM WIDERSTAND	
		1.915.603.81	RELAY UNIT 9A	21/10/92

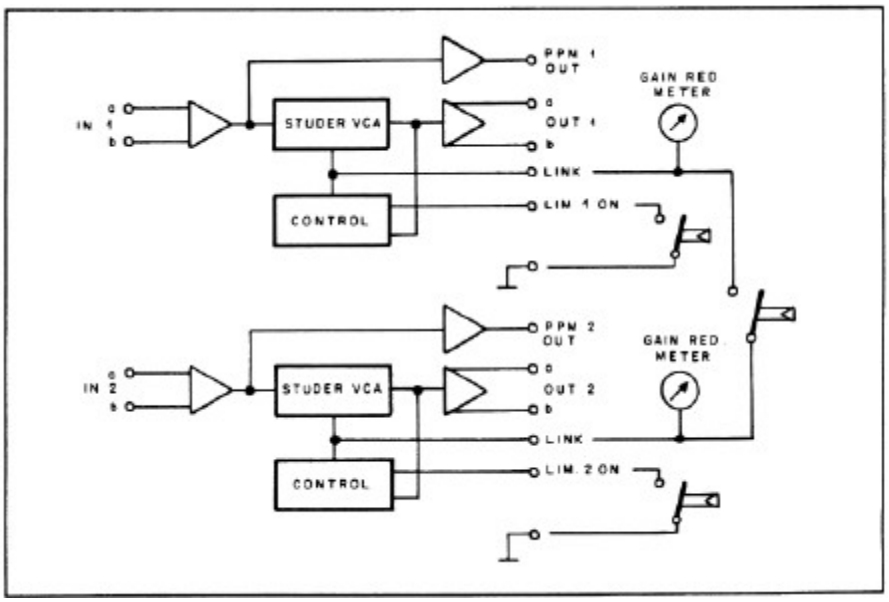
END

2.2.10 Dual Limiter 1.915.700

In sound work there are numerous situations where the signal amplitude has to be limited to a pre-determined level in order to prevent overloading of succeeding equipment, such as light modulators in film work, or radio transmitters. With this limiter, excessive levels are automatically reduced to a preset level, and, since regulation is controlled by the program's energy content, the performance of this limiter is free of any "pumping" effects. Gain reduction is achieved with a Studer Voltage Controlled Amplifier (VCA) which ensures low noise performance and negligible distortion.



Two identical, independent limiter circuits are contained on one Eurocard, plus additional, separate gain stages to drive peak program meters.
The perfect tracking of the two VCAs makes this Dual Limiter suitable for stereo work as well, in which case a simple electrical connection is needed to link the units.

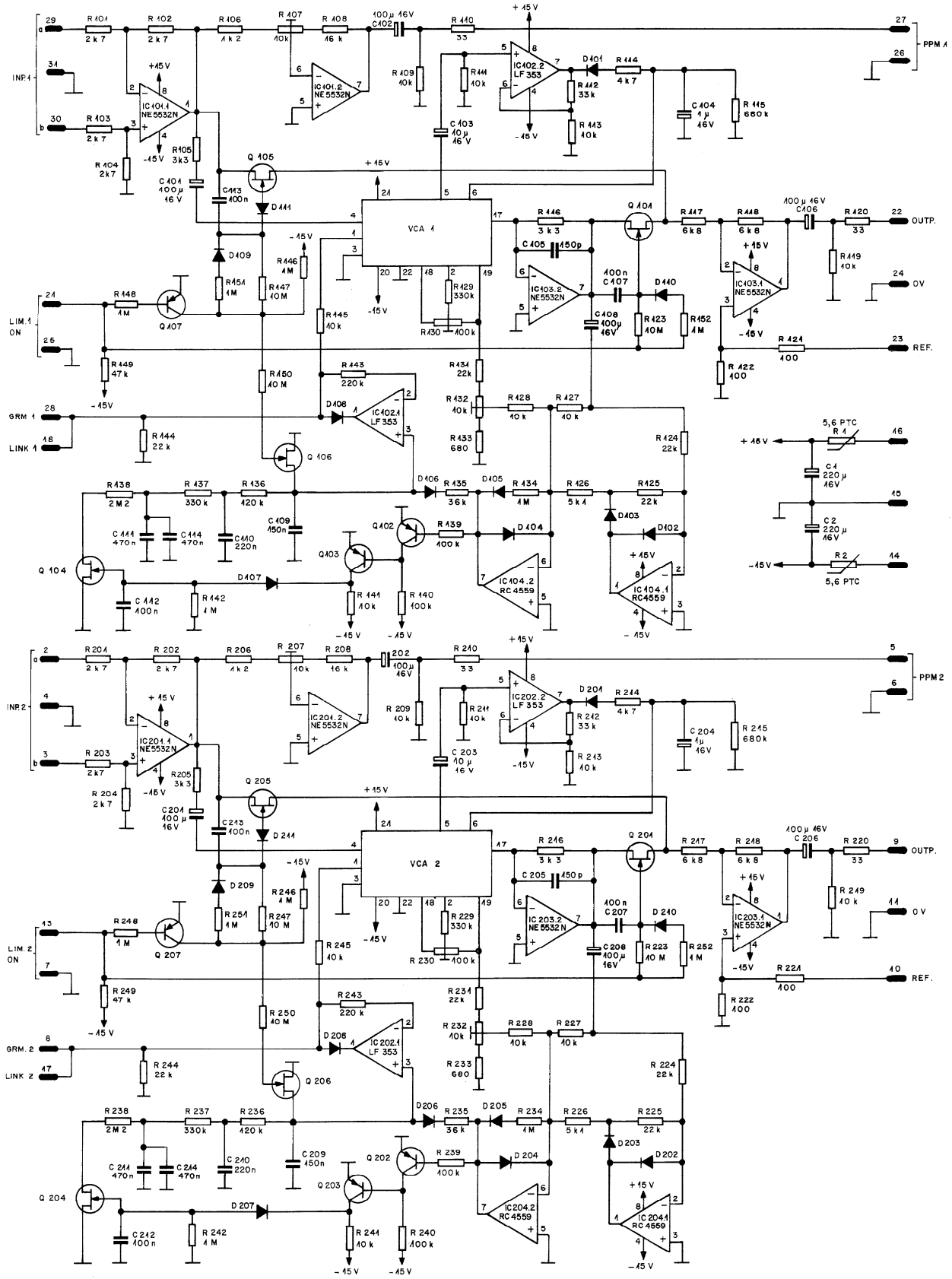


Note: Gain reduction meters *(not supplied)* can be connected to the LINK outputs as well, if required.

Technical Specifications

Input:	Impedance	**5.4 kW**, balanced configuration
		2.7 kW, unbalanced configuration
	Overload point	**+20 dBu** (7.75 V_{rms})
Output:	Impedance	**< 50 W,** unbalanced
	Frequency response	**+0/–0.5 dB**, 30 Hz...15 kHz
		+0/–3 dB, 2 Hz...200 kHz
	Gain	**0 dB,** limiter off
	Output noise level	**–102 dBu,** Limiter on
		–106 dBu, Limiter off
	Limiting ratio	**20:1**
	Threshold	**–15 dBu...+3 dBu,** adjustable
	Limited output level	**–14 dBu...+4 dBu,** depending on threshold setting
	Attack time	**1 ms**
	Release time	**50 ms...5 s,** program-dependent
PPM Section:	Output impedance	**< 50 W,** unbalanced
	Maximum output level	**+20 dBu**
	Gain	**2.5 dB...27 dB,** adjustable
	Frequency response	**+0/–3 dB,** 2 Hz...200 kHz
Supply:		**±15 V** (100 mA)
Dimensions:	Euro-card	**100 × 160 mm, 7 M units wide**
Ordering Information:		Dual limiter 1.915.700.xx

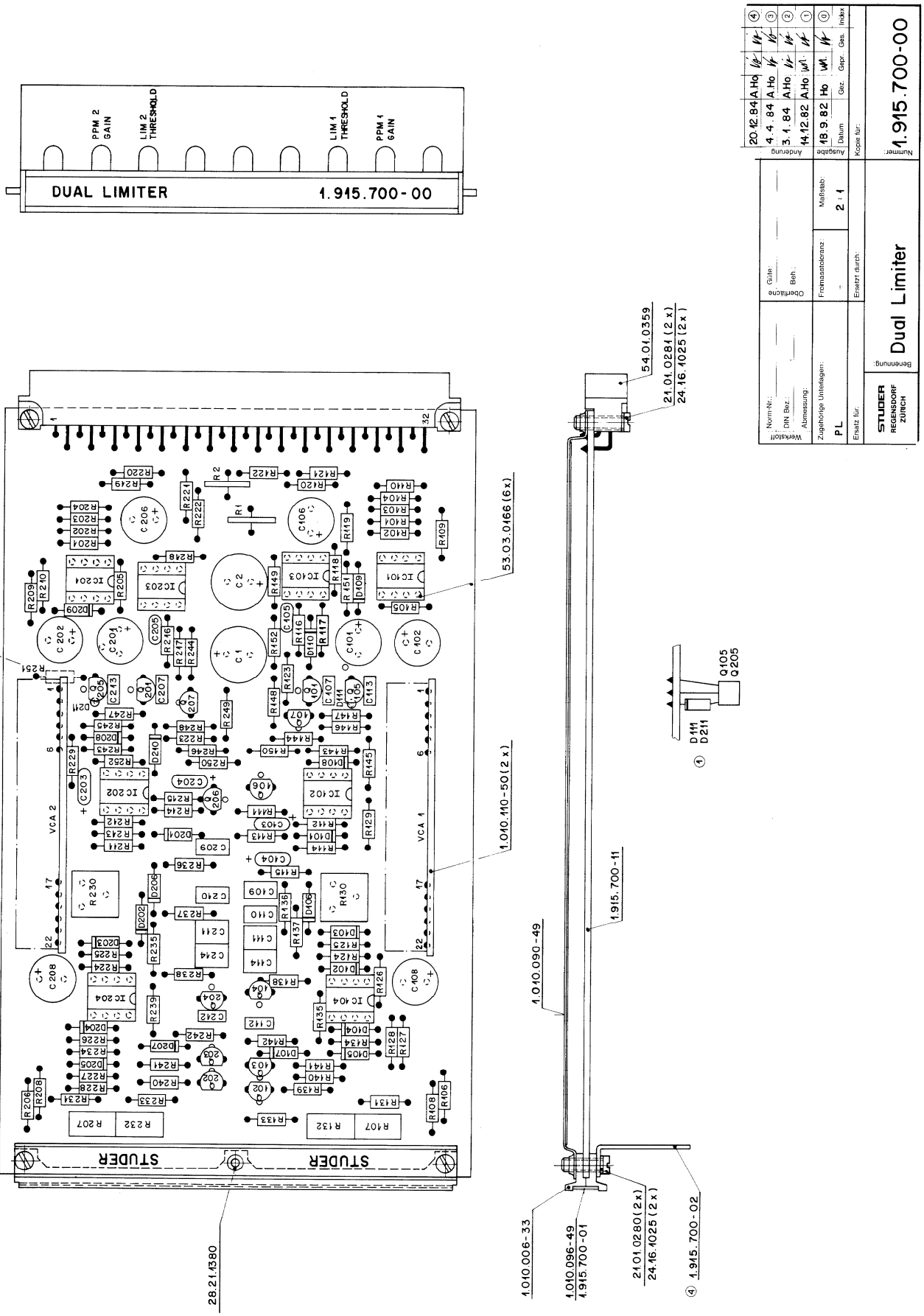
DUAL LIMITER



ALL DIODES 1N4448
ALL PNP BC 560
ALL FET J 112

DATE:	3.3.83	16.7.84				
SIGN:	ml	ml				
STUDER REGENSDORF ZÜRICH	DUAL LIMITER					SC 1.915.700

DUAL LIMITER



DUAL LIMITER

Ad	POS.	REF.No.	DESCRIPTION				MANUFACTURER
	C....1	59.22.4221	220µ	16V	EL		
	C....2	59.22.4221	220µ	16V	EL		
	C....1	59.22.4101	100µ	16V	EL		
	C....2	59.22.4101	100µ	16V	EL		
	C....3	59.26.2100	10µ	16V	EL, SAL		
	C....4	59.26.5109	1µ	16V	EL, SAL		
	C....5	59.34.4151	150p		CER		
	C....6	59.22.4101	100µ	16V	EL		
	C....7	59.06.5104	100n		PETP		
	C....8	59.22.4101	100µ	16V	EL		
	C....9	59.06.5154	150n	5%	PETP		
	C....10	59.06.5224	220n	5%	PETP		
	C....11	59.06.5474	470n	5%	PETP		
	C....12	59.06.5104	100n		PETP		
	C....13	59.06.5104	100n		PETP		
	C....14	59.06.5474	470n	5%	PETP		
	D....1	50.04.0125	1N4448		SI		
	D....2	50.04.0125	1N4448		SI		
	D....3	50.04.0125	1N4448		SI		
	D....4	50.04.0125	1N4448		SI		
	D....5	50.04.0125	1N4448		SI		
	D....6	50.04.0125	1N4448		SI		
	D....7	50.04.0125	1N4448		SI		
	D....8	50.04.0125	1N4448		SI		
	D....9	50.04.0125	1N4448		SI		
	D....10	50.04.0125	1N4448		SI		
①	D....11	50.04.0125	1N4448		SI		
	IC....1	50.09.0106	NE5532N	DUAL OP		XR5532N	SIG, EX
	IC....2	50.09.0101	LF353N	DUAL OP		TL072	N, TI
	IC....3	50.09.0106	NE5532N	DUAL OP		XR5532N	SIG, EX
	IC....4	50.09.0107	RC4559NB	DUAL OP			RA, TI
	Q....1	50.03.0350	J112	J-FET			SIX, N
	Q....2	50.03.0496	BC560	PNP			SIE
	Q....3	50.03.0496	BC560	PNP			SIE
	Q....4	50.03.0350	J112	J-FET			SIX, N
	Q....5	50.03.0350	J112	J-FET			SIX, N
	Q....6	50.03.0350	J112	J-FET			SIX, N
	Q....7	50.03.0496	BC560	PNP			SIE
	R....1	57.99.0209	5,6		PTC		PH
	R....2	57.99.0209	5,6		PTC		PH
	R....1	57.11.4272	2,7k	2%			
	R....2	57.11.4272	2,7k	2%			
	R....3	57.11.4272	2,7k	2%			
	R....4	57.11.4272	2,7k	2%			
	R....5	57.11.4332	3,3k	2%			
	R....6	57.11.4122	1,2k				
	R....7	58.01.7103	10k	10% LIN	PMG		
	R....8	57.11.3163	16k				
	R....9	57.11.4103	10k				
	R....10	57.11.4330	33				
	R....11	57.11.4103	10k				
	R....12	57.11.4333	33k				
	R....13	57.11.4103	10k				
	R....14	57.11.4472	4,7k				
	R....15	57.11.4684	680k				
	R....16	57.11.4332	3,3k	2%			
	R....17	57.11.4682	6,8k	2%			
	R....18	57.11.4682	6,8k	2%			
	R....19	57.11.4103	10k				
	R....20	57.11.4330	33				
	R....21	57.11.4101	100	2%			
	R....22	57.11.4101	100	2%			
	R....23	57.11.6106	10M				
	R....24	57.11.4223	22k	2%			
	R....25	57.11.4223	22k	2%			
	R....26	57.11.3512	5,1k	2%			
	R....27	57.11.4103	10k	2%			
	R....28	57.11.4103	10k	2%			
	R....29	57.11.4334	330k				
	R....30	58.01.8104	100k	10% LIN	PMG		
	R....31	57.11.4223	22k				
	R....32	58.01.7103	10k	10% LIN	PMG		
	R....33	57.11.4681	680				
②	R....34	57.11.4105	1M				
③	R....35	57.11.3363	36k				
	R....36	57.11.4124	120k				
	R....37	57.11.4334	330k				
	R....38	57.11.5225	2,2M				
	R....39	57.11.4104	100k				
	R....40	57.11.4104	100k				
	R....41	57.11.4103	10k				
	R....42	57.11.4105	1M				
	R....43	57.11.4224	220k				
	R....44	57.11.4223	22k				
	R....45	57.11.4103	10k				
	R....46	57.11.4105	1M				
	R....47	57.11.6106	10M				
	R....48	57.11.4105	1M				
	R....49	57.11.4473	47k				
	R....50	57.11.6106	10M				
	R....51	57.11.4105	1M				
	R....52	57.11.4105	1M				
④⑤	VCA...1	1.911.290.81			STUDER VCA-BOARD		ST
④⑤	VCA...2	1.911.290.81			STUDER VCA-BOARD		ST
	XIC	53.03.0166	DIP8POL				

EL=Electrolytic, SAL=Solid Aluminium, CER=Ceramic, PETP=Polyester, SI=Silicium, PTC=Pos. Temp. Coif. PMG=Cermet

MANUFACTURER: SIG=Signetics, EX=Exar, N=National, TI=Texas Instruments, RA=Raytheon, SIX=Siliconix SIE=Siemens, PH=Philips, ST=Studer

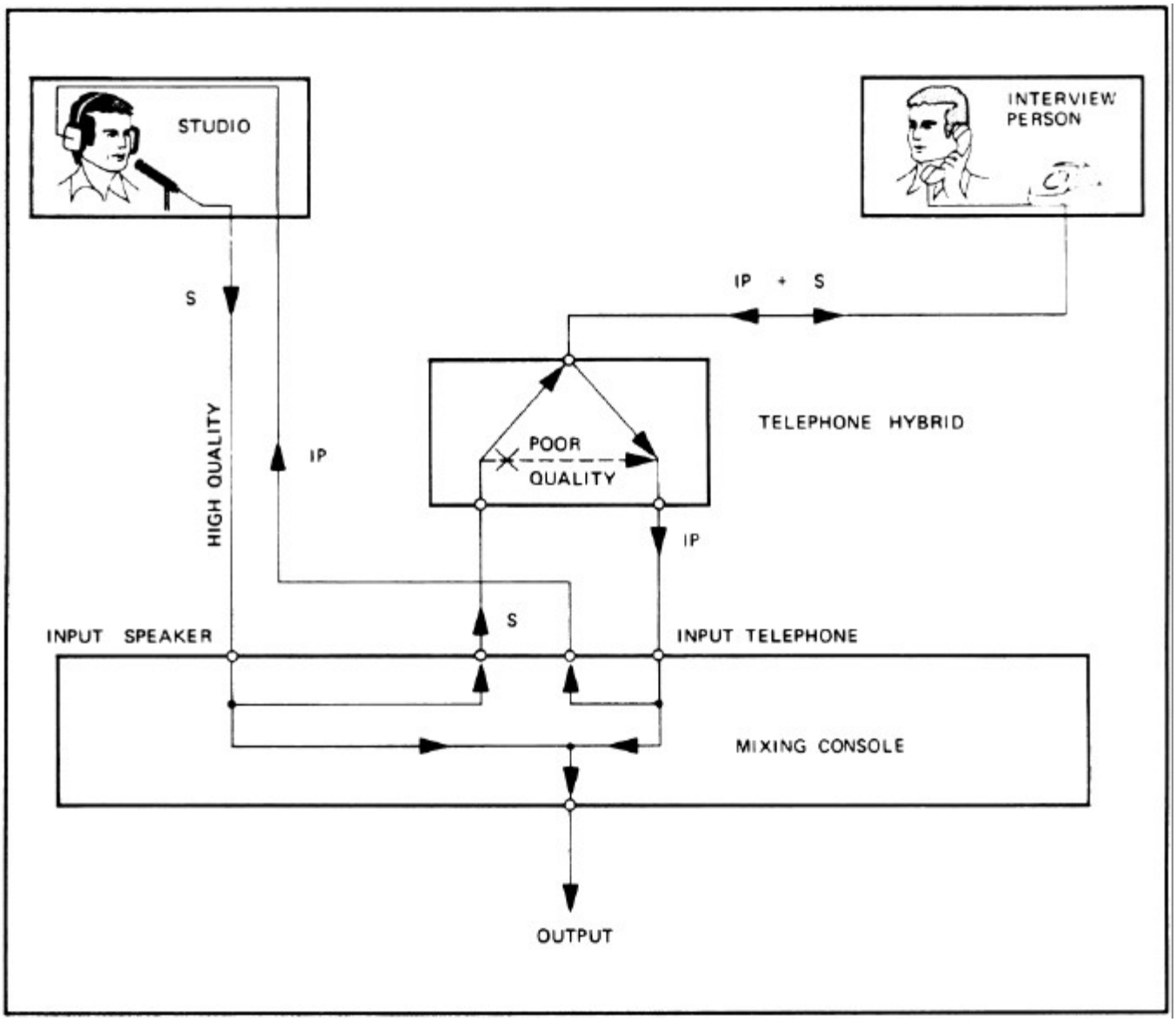
1.915.700.00	DUAL LIMITER	W. Markl 14/06/82
1.915.700.00	DUAL LIMITER	① W. Markl 14/12/82
1.915.700.00	DUAL LIMITER	② A. Ho 01/04/84
1.915.700.00	DUAL LIMITER	③ VO 16/07/84
1.915.700.00	DUAL LIMITER	④ PA 13/01/89
1.915.700.00	DUAL LIMITER	⑤ WY 17/01/90

END

2.2.11 Telephone Hybrid 1.915.760/764

In order to record or transmit a conversation between the announcer in the studio and a person outside the studio being interviewed by telephone, the telephone line must be connected to the mixing console.

In such a case, the full conversation is transmitted, since both voice signals are carried on normal 2-wire telephone lines. However, also the voice of the announcer in the studio is then transmitted in telephone quality (300... 3400 Hz). By mixing the microphone signal of the announcer (in studio quality) to the conversation, the addition of the “good” and “poor” signals results in a distorted and untrue signal.

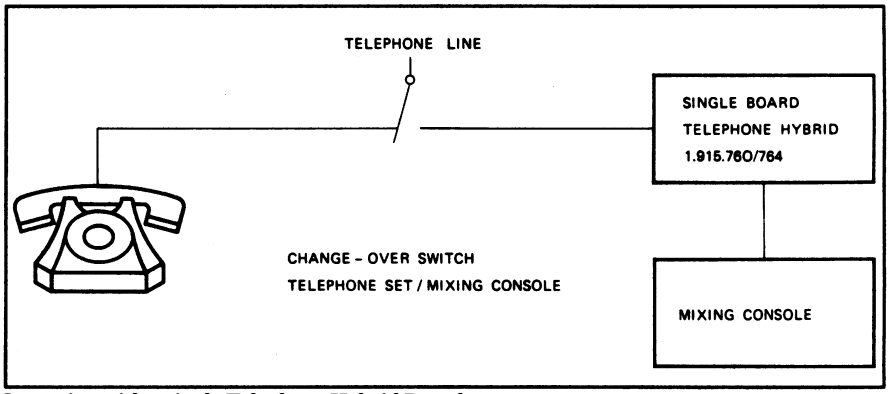


Principle of a telephone transmission via a mixing console

The telephone hybrid allows to greatly improve the quality of a telephone transmission by selectively suppressing the undesired “poor” announcer signal (side-tone attenuation). This side-tone attenuation is done in principle by a hybrid circuit which is a familiar feature in telephony.

The Studer telephone hybrid permits high-quality transmission of telephone conversations with the announcer in the studio. Apart from connecting it to the telephone line, the hybrid works automatically.

Maximum side-tone attenuation of the studio voice signal in the receiver line is achieved by automatically constituting a dummy load for the telephone line. This adjustment is performed electronically, the real (resistive) and imaginary (capacitive) components of the telephone line impedance being matched as near as possible. This automatical matching process begins as soon as an announcer signal is present.



Operation with a single Telephone Hybrid Board

The telephone set is used to establish a telephone connection (call). After switching over to the mixing console, the holding current for the subscriber's relay is maintained by a resistor on the hybrid board.

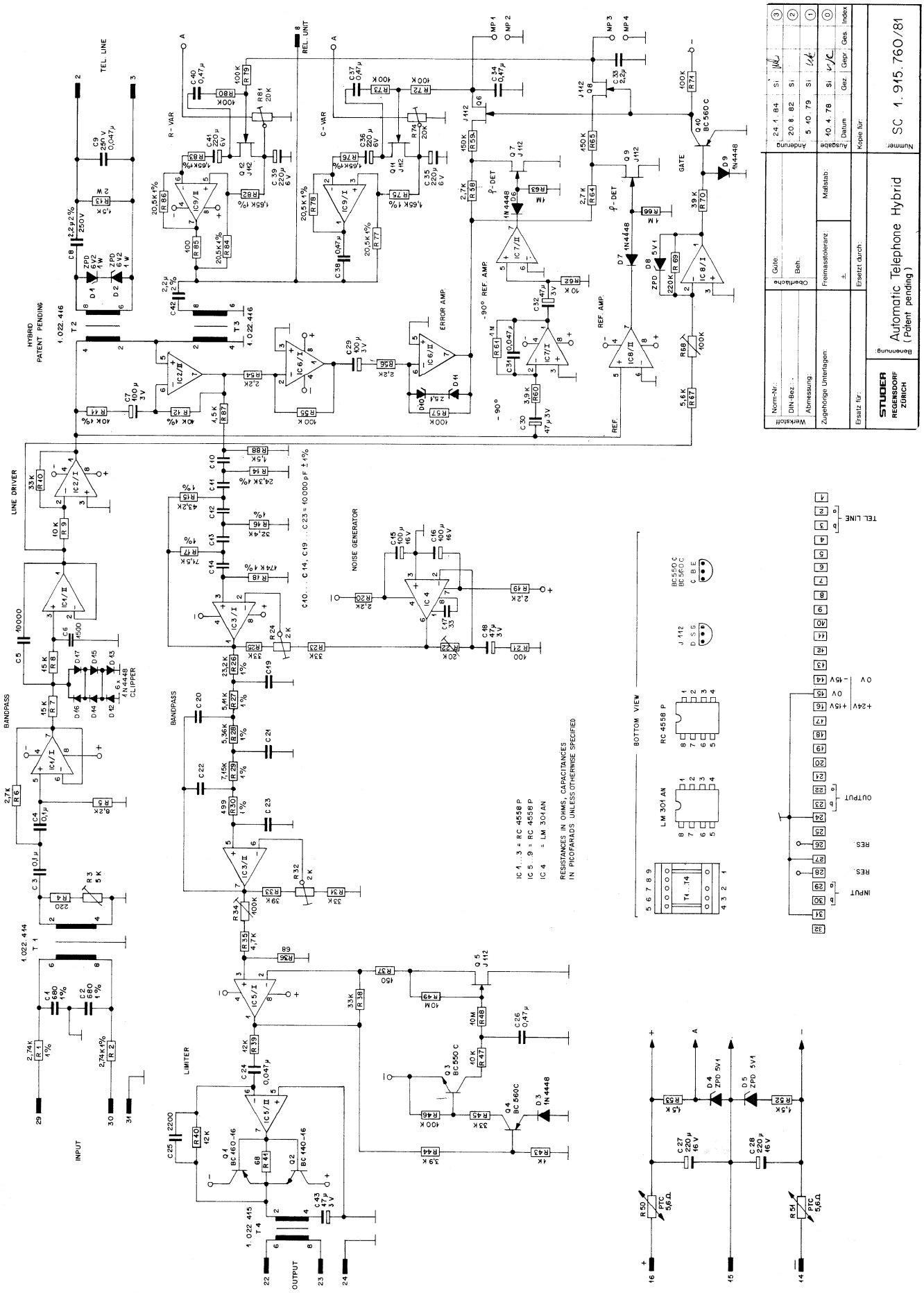
Versions:

A variety of 19" Telephone Hybrid units with one or two channels is available, consisting of the following versions:

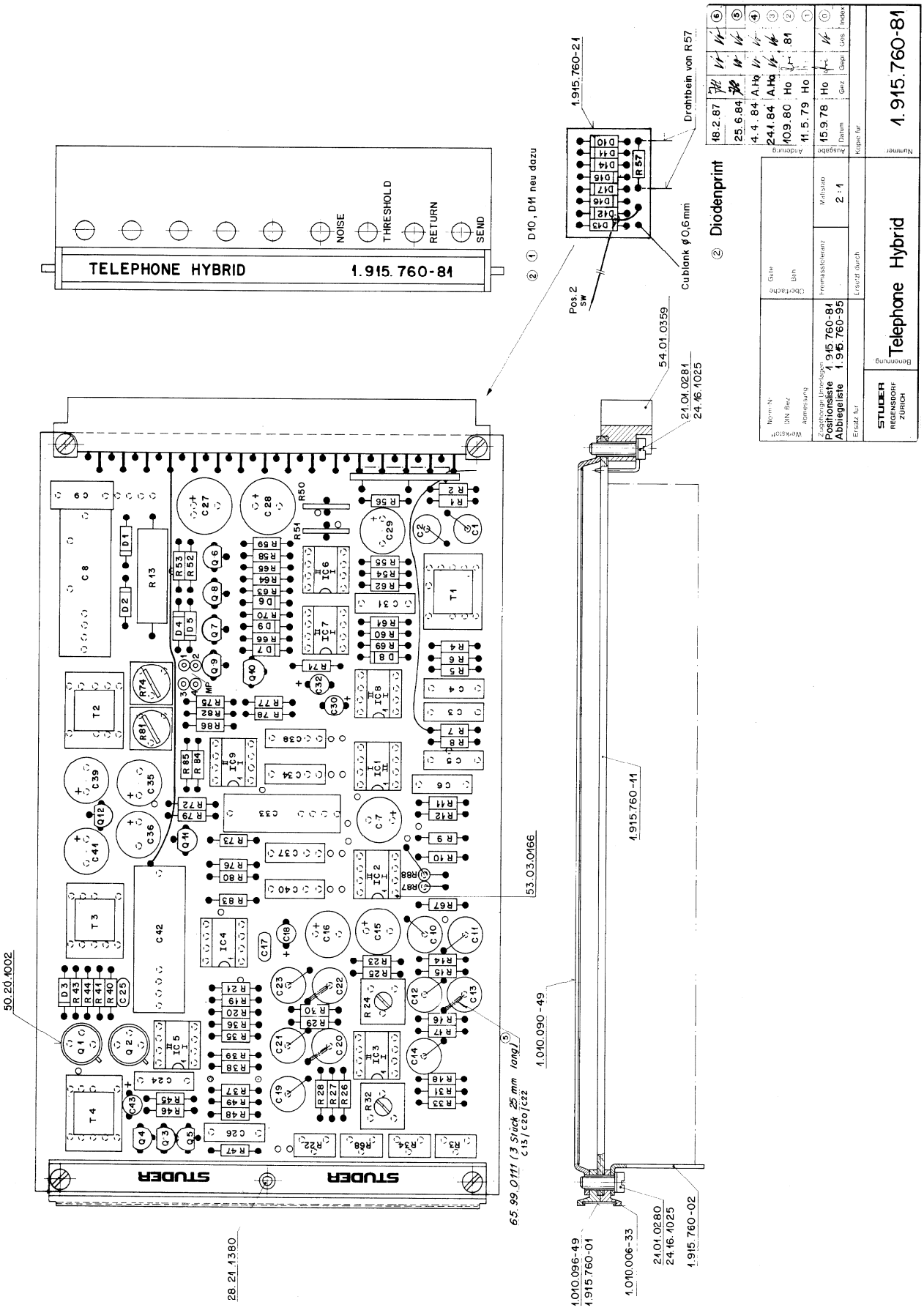
- Standard version (ST) – 19"/1U Telephone Hybrid unit for direct connection to the telephone line and a relay to switch the telephone line from the telephone set to the hybrid.
- Noise gate version (NG) – same as standard version, equipped with a noise gate
- Current-adjustable version (CA) – same as standard version, but additionally featuring adjustable holding current for the telephone line.

Ordering Information:

Euro-cards:	• Telephone hybrid card	1.915.760.xx
	• Telephone hybrid card with noise gate	1.915.764.xx
19" standard products:	• Telephone hybrid 1CH-ST	75.700.89118
	• Telephone hybrid 2CH-ST	75.700.89228
	• Telephone hybrid 1CH-NG	75.700.89114
	• Telephone hybrid 2CH-NG	75.700.89224
	• Telephone hybrid 1CH-CA	75.700.89116
	• Telephone hybrid 2CH-CA	75.700.89226
	• Telephone hybrid 1CH-CA/NG	75.700.89117
	• Telephone hybrid 2CH-CA/NG	75.700.89227


HYBRID
PATENT PENDING
1.022.416
TEL LINE
REL. UNIT
R - VAR
C - VAR
- 90° REF. AMP.
ERROR AMP.
REF. AMP.
GATE
LINE DRIVER
NOISE GENERATOR
BANDPASS
LIMITER
INPUT
OUTPUT
BOTTOM VIEW
RESISTANCES IN OHMS, CAPACITANCES IN PICOFARADS UNLESS OTHERWISE SPECIFIED
IC 1..3 = RC 4558 P
IC 5..9 = RC 4558 P
IC 4 = LM 304 AN
Norm-Nr.:
DIN-Bez.:
Abmessung:
Werkstoff
Oberfläche
Gute:
Beh.:
Zugehörige Unterlagen:
Freimasstoleranz:
±
Maßstab:
Ersetzt durch:
Ersatz für:
Kopie für:
Ausgabe
Datum
Gez.
Gepr.
Ges.
Index
24. 1. 84 Si
20. 8. 82 Si
5. 10. 79 Si
10. 4. 78 Si
STUDER
REGENSDORF
ZÜRICH
Benennung:
Automatic Telephone Hybrid
(Patent pending)
Nummer
SC 1.915.760/81

TEL. HYBRID


TELEPHONE HYBRID 1.915.760-81
NOISE
THRESHOLD
RETURN
SEND
1.915.760-21
D10, D11 neu dazu
Drahtbein von R57
Cubiank ø0,6mm
Pos.2 SW
Diodenprint
54.01.0359
21.01.0281
24.16.1025
1.915.760-11
53.03.0466
1.010.090-49
50.20.1002
65.99.0111 (3 Stück 25 mm lang) C15/C20/C22
28.21.1380
1.010.096-49
1.915.760-01
1.010.006-33
21.01.0280
24.16.1025
1.915.760-02
STUDER
Telephone Hybrid
1.915.760-81
Nummer
Benennung
Datum
Gepr.
Gez.
Index
Ersatz für
Ersetzt durch
Kopie für
Positionsliste 1.915.760-84
Abliegeliste 1.915.760-95
Maßstab 2:1
Fremdtoleranz
Oberfläche
Gute
Dich
Norm-Nr.
DIN Blatt
Abmessung
Werkstoff
Änderung
18.2.87
25.6.84
4.4.84
241.84
109.80
11.5.79
15.9.78

Ad	POS.	REF.No.	DESCRIPTION				MANUFACTURER
	C....1	59.12.9681	680pF	1%	500V-	PS	
	C....2	59.12.9681	680pF	1%		PS	
	C....3	59.31.6104	0,1µF	10%		PE	
	C....4	59.31.6104	0,1µF	10%		PE	
	C....5	59.12.4103	0,01µF	5%		PE	
	C....6	59.11.6152	1500pF	5%		PC	
	C....7	59.22.4101	100µF	3V		EL	
①	C....8	1.915.760.03	2,2µF	1%	250V-	PE	ST
①⑥	C....9	59.31.8473	0,047µF	400V-		PE	
	C....10	59.12.7103	0,01µF	1%		PS	
	C....11	59.12.7103	0,01µF	1%		PS	
	C....12	59.12.7103	0,01µF	1%		PS	
	C....13	59.12.7103	0,01µF	1%		PS	
	C....14	59.12.7103	0,01µF	1%		PS	
	C....15	59.22.4101	100µF	16V		EL	
	C....16	59.22.4101	100µF	16V		EL	
	C....17	59.34.2330	33pF			CER	
	C....18	59.36.0470	47µF	3V		TA	
	C....19	59.12.7103	0,01µF	1%		PS	
	C....20	59.12.7103	0,01µF	1%		PS	
	C....21	59.12.7103	0,01µF	1%		PS	
	C....22	59.12.7103	0,01µF	1%		PS	
	C....23	59.12.7103	0,01µF	1%		PS	
	C....24	59.12.4473	0,047µF			PE	
	C....25	59.32.2222	2200pF			CER	
	C....26	59.02.0474	0,47µF	5%		PC	
	C....27	59.22.4221	220µF	16V		EL	
	C....28	59.22.4221	220µF	16V		EL	
	C....29	59.22.4101	100µF	3V		EL	
	C....30	59.36.0470	47µF	3V		TA	
	C....31	59.12.4473	0,047µF			PE	
	C....32	59.36.0470	47µF	3V		TA	
	C....33	59.02.2225	2,2µF			PC	
①	C....34	59.02.0474	0,47µF			PE	
	C....35	59.22.2221	220µF	6V		EL	
	C....36	59.22.2221	220µF	6V		EL	
	C....37	59.02.0474	0,47µF			PC	
	C....38	59.02.0474	0,47µF			PC	
	C....39	59.22.2221	220µF			EL	
	C....40	59.02.0474	0,47µF			PC	
	C....41	59.22.2221	220µF	6V		EL	
①	C....42	1.915.760.03	2,2µF	1%	250V-	PE	ST
	C....43	59.36.0470	47µF	3V		TA	
	D....1	50.04.1511	U_z 6,2V	ZPD 6V2 1W			
	D....2	50.04.1511	U_z 6,2V	ZPD 6V2 1W			
	D....3	50.04.0125	1N4448			SI	
	D....4	50.04.1112	U_z 5,1V	ZPD 5V1 0,4W			
	D....5	50.04.1112	U_z 5,1V	ZPD 5V1 0,4W			
	D....6	50.04.0125	1N4448			SI	
	D....7	50.04.0125	1N4448			SI	
	D....8	50.04.1112	U_z 5,1V	ZPD 5V1 0,4W			
	D....9	50.04.0125	1N4448			SI	
②	D....10	50.04.1112	U_z 5,1V	ZPD 5V1 0,4W			
②	D....11	50.04.1112	U_z 5,1V	ZPD 5V1 0,4W			
③	D....12	50.04.0125	1N4448			SI	
③	D....13	50.04.0125	1N4448			SI	
③	D....14	50.04.0125	1N4448			SI	
③	D....15	50.04.0125	1N4448			SI	
③	D....16	50.04.0125	1N4448			SI	
③	D....17	50.04.0125	1N4448			SI	
④	IC....1	50.09.0107	RC4559NB	DUAL OP AMP			TI, RA
④	IC....2	50.09.0107	RC4559NB				
④	IC....3	50.09.0107	RC4559NB				
	IC....4	50.05.0144	LM301AN	OP AMP			NS
④	IC....5	50.09.0107	RC4559NB				
④	IC....6	50.09.0107	RC4559NB				
④	IC....7	50.09.0107	RC4559NB				
④	IC....8	50.09.0107	RC4559NB				
④	IC....9	50.09.0107	RC4559NB				
	Q....1	50.03.0315	BC160-16				SIE, F
	Q....2	50.03.0316	BC140-16				SIE, F
	Q....3	50.03.0497	BC550-C				T, ITT
	Q....4	50.03.0496	BC560-C				T, ITT
	Q....5	50.03.0350	J112				SIX, NS
	Q....6	50.03.0350	J112				SIX, NS
	Q....7	50.03.0350	J112				SIX, NS
	Q....8	50.03.0350	J112				SIX, NS
	Q....9	50.03.0350	J112				SIX, NS
	Q....10	50.03.0496	BC560-C				T, ITT
	Q....11	50.03.0350	J112				SIX, NS
	Q....12	50.03.0350	J112				SIX, NS
	R....1	57.39.2741	2,74k	1%			
	R....2	57.39.2741	2,74K	1%			
①	R....3	58.01.7502	5k	LIN			TR, SP

Ad	POS.	REF.No.	DESCRIPTION				MANUFACTURER
	R....4	57.11.4221	220				
	R....5	57.11.4822	8,2k	2%			
	R....6	57.11.4272	2,7k	2%			
	R....7	57.11.4153	15k	2%			
	R....8	57.11.4153	15k				
	R....9	57.11.4103	10k				
	R....10	57.11.4333	33k				
	R....11	57.39.1002	10k	1%			
	R....12	57.39.1002	10k	1%			
	R....13	57.56.5152	1,5k	2W			
	R....14	57.39.2432	24,3k	1%			
	R....15	57.39.4322	43,2k	1%			
	R....16	57.39.3242	32,4k	1%			
	R....17	57.39.7152	71,5k	1%			
	R....18	57.39.1743	174k	1%			
	R....19	57.11.4222	2,2k				
	R....20	57.11.4222	2,2k				
	R....21	57.11.4101	100				
	R....22	58.01.7203	20k	LIN	10%		TR, SP
	R....23	57.11.4333	33k	2%			
	R....24	58.01.8202	2k	LIN	10%		TR, SP
	R....25	57.11.4333	33k	2%			
	R....26	57.39.2322	23,2k	1%			
	R....27	57.39.5111	5,11k	1%			
	R....28	57.39.5361	5,36k	1%			
	R....29	57.39.7151	7,15k	1%			
	R....30	57.39.4990	499	1%			
	R....31	57.11.4333	33k	2%			
	R....32	58.01.8202	2k	LIN	10%		TR, SP
	R....33	57.11.4393	39k	2%			
	R....34	58.01.7104	100k	LIN	10%		TR, SP
	R....35	57.11.4472	4,7k				
	R....36	57.11.4680	68				
	R....37	57.11.4151	150				
	R....38	57.11.4333	33k				
	R....39	57.11.4123	12k				
	R....40	57.11.4123	12k				
	R....41	57.11.4680	68				
	R....42						
	R....43	57.11.4102	1k				
	R....44	57.11.4392	3,9k				
	R....45	57.11.4333	33k				
	R....46	57.11.4104	100k				
	R....47	57.11.4103	10k				
	R....48	57.02.5106	10M				
	R....49	57.02.5106	10M				
	R....50	57.99.0209	5,6Ω	PTC 2322 662 91005			PH
	R....51	57.99.0209	5,6Ω	PTC			PH
	R....52	57.11.4152	1,5k				
	R....53	57.11.4152	1,5k				
	R....54	57.11.4222	2,2k				
	R....55	57.11.4104	100k				
	R....56	57.11.4222	2,2k				
	R....57	57.11.4104	100k				
	R....58	57.11.4272	2,7k				
	R....59	57.11.4154	150k				
	R....60	57.11.4392	3,9k				
	R....61	57.11.4105	1M				
	R....62	57.11.4103	10k				
	R....63	57.11.4105	1M				
	R....64	57.11.4272	2,7k				
	R....65	57.11.4154	150k				
	R....66	57.11.4105	1M				
	R....67	57.11.4562	5,6k				
	R....68	58.01.7104	100k	LIN	10%		TR, SP
	R....69	57.11.4224	220k				
	R....70	57.11.4393	39k				
	R....71	57.11.4104	10k				
	R....72	57.11.4104	100k				
	R....73	57.11.4104	100k				
	R....74	58.01.8203	20k	LIN	10%		TR, SP
	R....75	57.39.1651	1,65k	1%			
	R....76	57.39.1651	1,65k	1%			
	R....77	57.39.2052	20,5k	1%			
	R....78	57.39.2052	20,5k	1%			
	R....79	57.11.4104	100k				
	R....80	57.11.4104	100k				
	R....81	58.01.8203	20k	LIN	10%		TR, SP
	R....82	57.39.1651	1,65k	1%			
	R....83	57.39.1651	1,65k	1%			
	R....84	57.39.2052	20,5k	1%			
	R....85	57.11.4101	100	2%			
	R....86	57.39.2052	20,5k	1%			
①	R....87	57.02.5152	1,5k				
①	R....88	57.02.5152	1,5k				

TEL. HYBRID

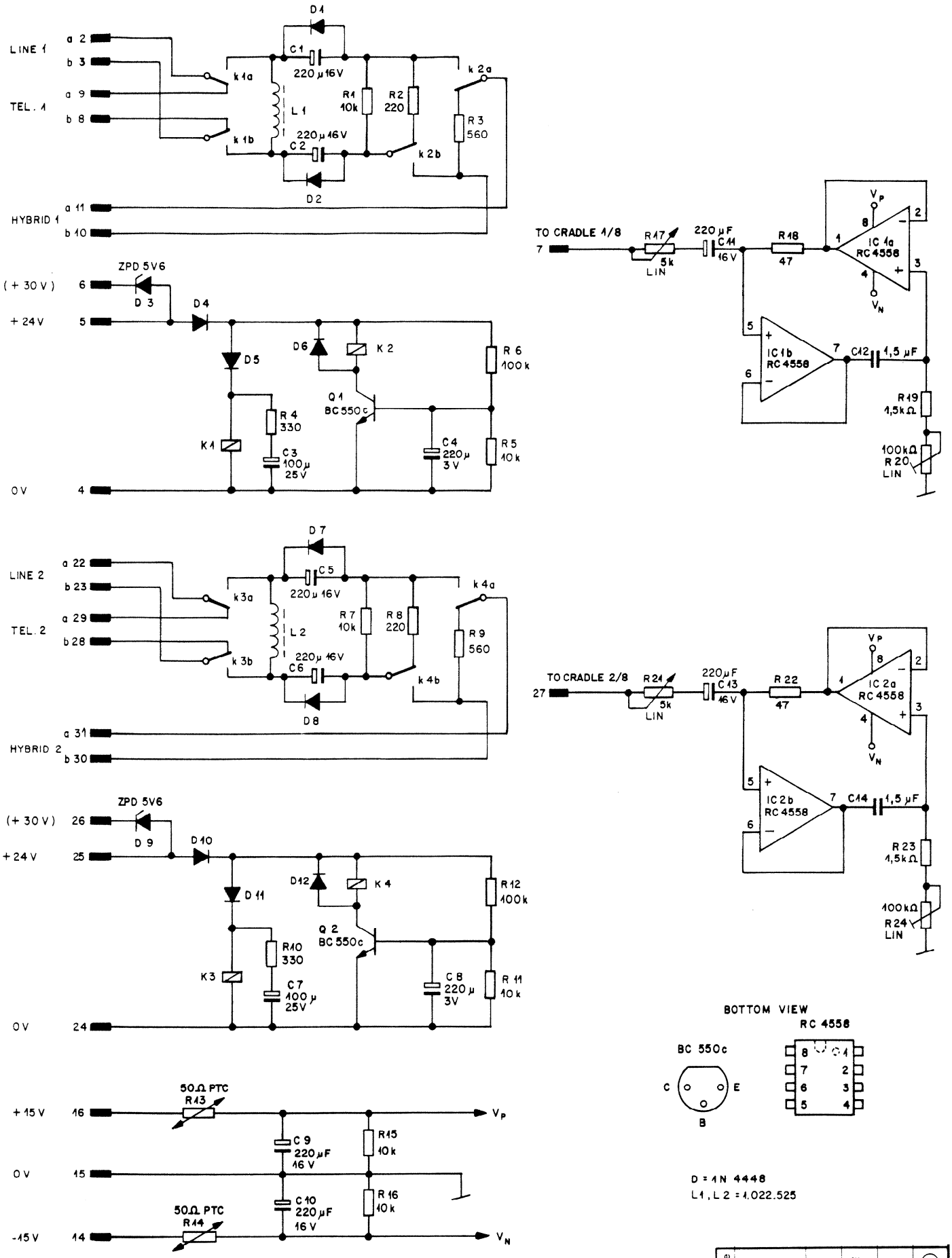
T.....1	1.022.414	1:1	ST
T.....2	1.022.416	1:1	ST
T.....3	1.022.416	1:1	ST
T.....4	1.022.415	1:2	ST

CER=Ceramic, EL=Electrolytic, TA=Tantalum, PE=Polyester, PS=Polystyrene, PC=Polycarbonate

MANUFACTURER: ST=Studer, PH=Philips, TR=TRW, SP=Spectrol, TI=Texas Instruments, RA=Raytheon
NS=National Sem., SIX=Siliconix, T=Telefunken, SIE=Siemens, F=Fairchild

1.915.760.81	TELEPHONE HYBRID	FRI 14/03/78
1.915.760.81	TELEPHONE HYBRID	① FRI 06/11/78
1.915.760.81	TELEPHONE HYBRID	② HO 11/05/79
1.915.760.81	TELEPHONE HYBRID	③ HO 10/09/80
1.915.760.81	TELEPHONE HYBRID	④ VO 11/03/81
1.915.760.81	TELEPHONE HYBRID	⑤ VO 20/08/82

END
→



D = 1N 4448

L1, L2 = 1.022.525

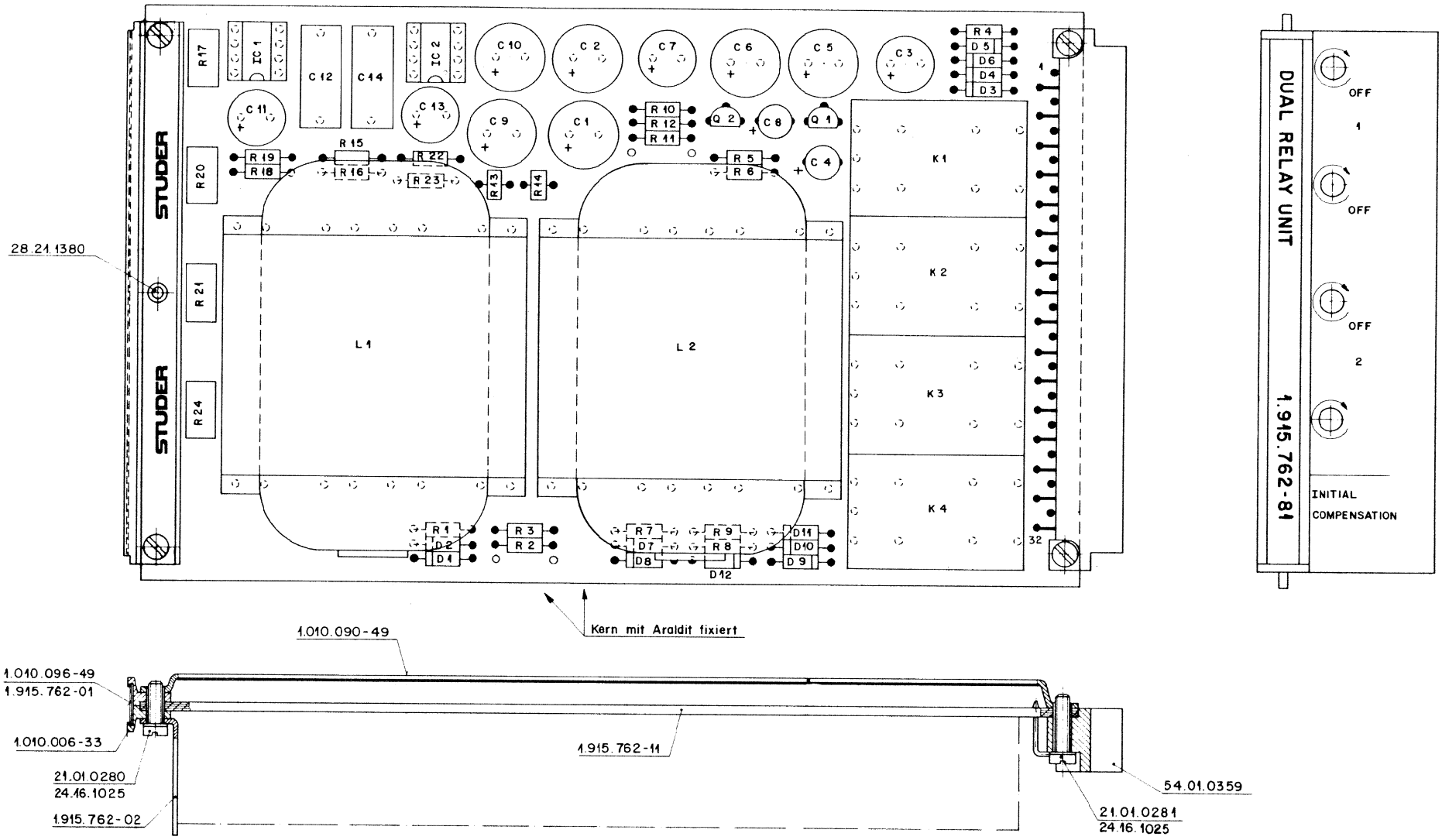
Ausgabe	16.2.79	Si			⓪
	Datum	Gez.	Gepr.	Ges.	Index

Ersatz für:	Ersetzt durch:	Kopie für:

STUDER
REGENSDORF
ZÜRICH

Benennung: DUAL RELAY UNIT

Nummer: SC 1.915.762-81



Werkstoff: Norm Nr / DIN-Bez / Abmessung	Oberfläche: Gute / Ben		Änderung: 4.4.84 A.Ho
Zugehörige Unterlagen: PL, AL	Freimasstoleranz	Massstab: 2 : 1	Ausgabe: 18.7.79 Ho (Datum / Gez / Gepr / Ges / Index)
Ersatz für	Ersetzt durch		Kopie für
STUDER REGENSDORF ZURICH	Benennung: Dual Relay Unit		Nummer: 1.915.762-81

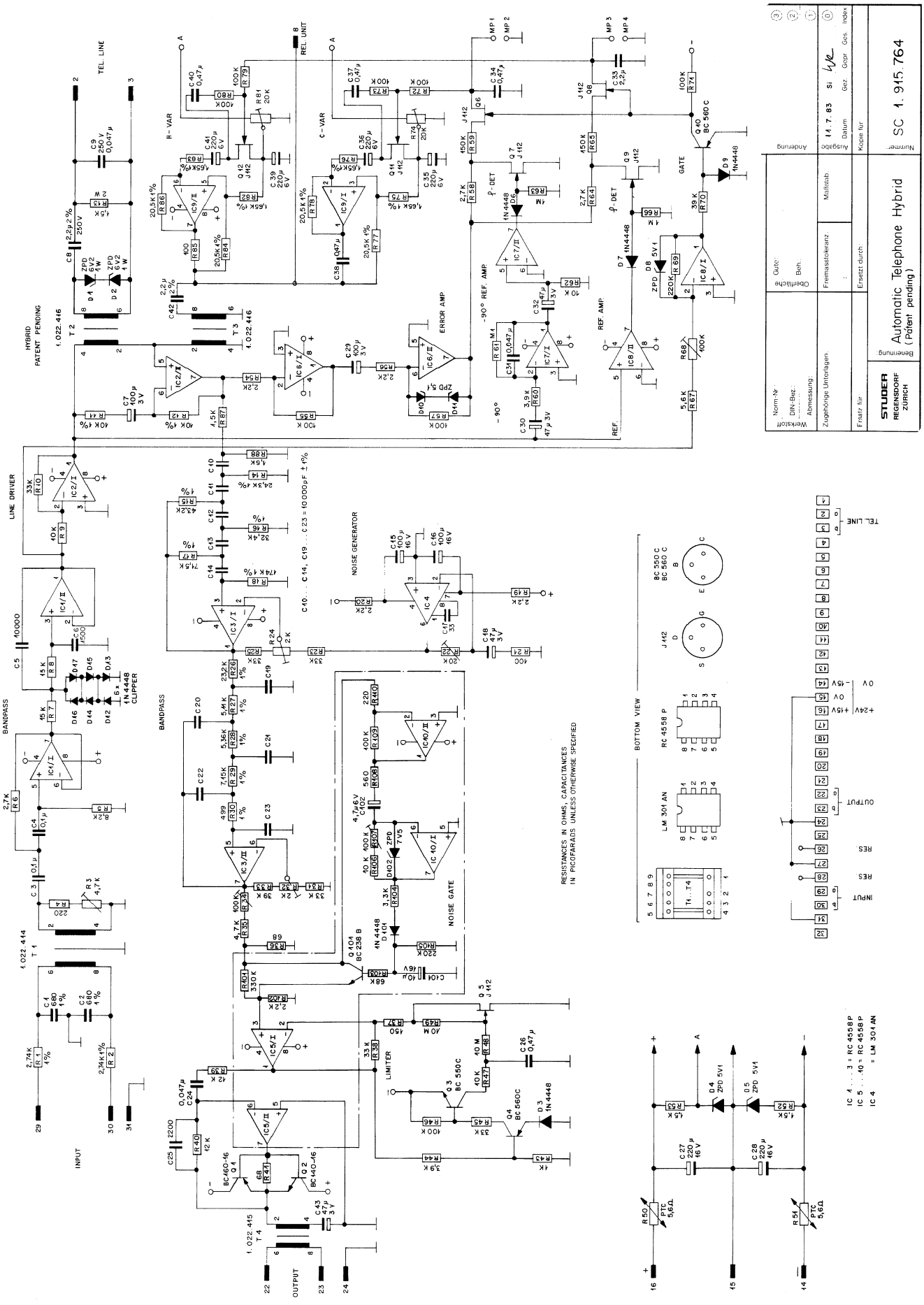
IND	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
C	1	59.22.4221	220µF	16 V EL	
C	2	59.22.4221	220µF	16 V EL	
C	3	59.22.5101	100µF	25V EL	
C	4	59.30.1221	220µF	3V TA	
C	5	59.22.4221	220µF	16 V EL	
C	6	59.22.4221	220µF	16 V EL	
C	7	59.22.5101	100µF	25V EL	
C	8	59.30.1221	220µF	3V TA	
C	9	59.22.4221	220µF	16 V EL	
C	10	59.22.4221	220µF	16 V EL	
C	11	59.22.2221	220µF	6V EL	
C	12	59.05.1155	1,5µF	63V MPC	
C	13	59.22.2221	220µF	6V EL	
C	14	59.05.1155	1,5µF	63V MPC	
D	1...12	50.04.0125	1N4448	or equivalent	ANY
	except				
D	3, 9	50.04.1108	ZPD5V6	BZX83 5V6	ITT,S
① IC	1, 2	50.09.0107	RC4559NB	Dual Op. Amp.	TI, RA
② K	1...4	56.04.0143	2u, AgAu	Relay	NA
L	1, 2	1.022.525		Inductivity	ST
P		54.01.0359		Edge Connector	
Q	1, 2	50.03.0497	BC550C		T,P,ITT

IND	DATE	NAME
④		
③		
②	15.9.82	Ffl
①	11.3.81	Vo
○	18.7.79	WY

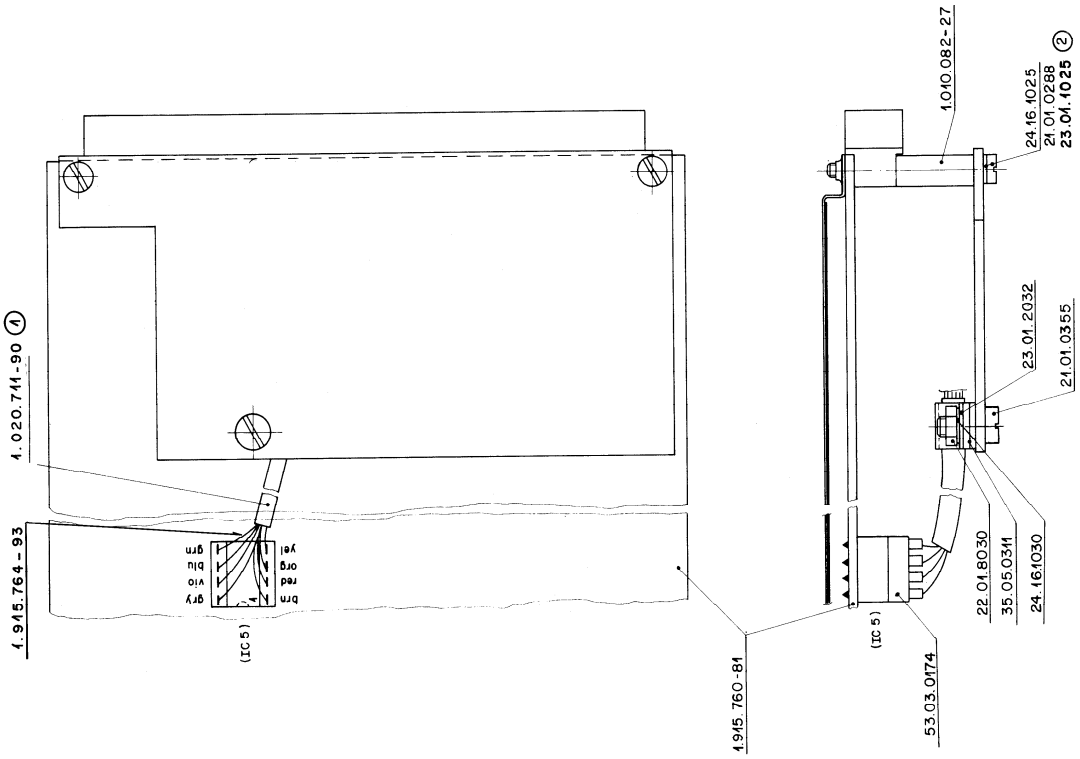
ITT INTERMETALL ST STUDER
NA NATIONAL TI TEXAS INSTRUMENTS
P PHILIPS EL ELECTROLYTIC
RA RAYTHEON TA TANTALLUM
S SIEMENS MPC POLYCARBONATE

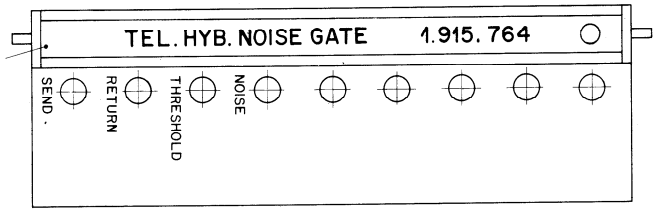
IND	POS NO	PART NO	VALUE	SPECIFICATIONS/EQUIVALENT	MFR
R	1	57.11.4103	10 k		
R	2	57.11.4221	220		
R	3	57.11.4561	560		
R	4	57.11.4331	330		
R	5	57.11.4103	10 k		
R	6	57.11.4104	100k		
R	7	57.11.4103	10 k		
R	8	57.11.4221	220		
R	9	57.11.4561	560		
R	10	57.11.4331	330		
R	11	57.11.4103	10 k		
R	12	57.11.4104	100k		
R	13	57.99.0206	50	PTC	
R	14	57.99.0206	50	PTC	
R	15	57.11.4103	10 k		
R	16	57.11.4103	10 k		
R	17	58.01.7502	5 k	Potm.	
R	18	57.11.4470	47		
R	19	57.11.4152	1,5k		
R	20	58.01.7104	100k	Potm.	
R	21	58.01.7502	5 k	Potm.	
R	22	57.11.4470	47		
R	23	57.11.4152	1,5k		
R	24	58.01.7104	100k	Potm.	
XIC		53.03.0166		IC-Socket DIL 8 pins	

IND	DATE	NAME
④		
③		
②	15.9.82	Ffl
①	11.3.81	Vo
○	18.7.79	WY

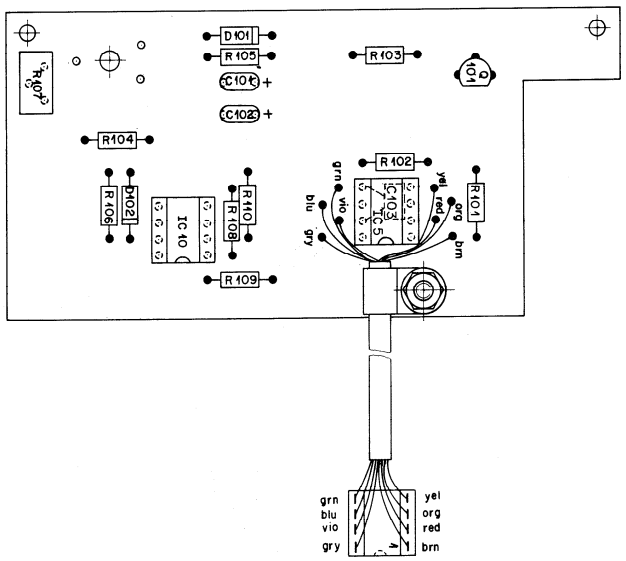

HYBRID
PATENT PENDING
1.022.416
T2
T3
4.022.446
TEL. LINE
REL. UNIT
R - VAR
C - VAR
MP 1
MP 2
MP 3
MP 4
P - DET
GATE
REF. AMP.
- 90° REF. AMP.
ERROR AMP.
- 90°
REF.
LINE DRIVER
BANDPASS
CLIPPER
1N 4448
NOISE GENERATOR
NOISE GATE
LIMITER
INPUT
OUTPUT
1.022.414
T1
1.022.415
T4
C40 ... C14, C19 ... C23 = 10000pF ± 1%
RESISTANCES IN OHMS, CAPACITANCES
IN PICOFARADS UNLESS OTHERWISE SPECIFIED
BOTTOM VIEW
RC 4558 P
LM 301 AN
BC 550 C
BC 560 C
J 112
TEL. LINE
OUTPUT
INPUT
IC 1 ... 3 = RC 4558 P
IC 5 ... 10 = RC 4558 P
IC 4 = LM 301 AN
Automatic Telephone Hybrid
(Patent pending)
SC 1. 915. 764
STUDER
REGENSDORF
ZÜRICH

TEL. HYBRID





Ad	POS.	REF.No.	DESCRIPTION			MANUFACTURER
	C...101	59.26.2100	10µF	16V	EL	
	C...102	59.26.1479	4,7µF	10V	EL	
①	C...103	59.32.1101	110pF		CR	
	D...101	50.04.0125	1N4448			
	D...102	50.04.1103	ZPD7V5			
	IC....5	50.09.0107	RC4559	DUAL OP AMP		TI, RA
	IC...10	50.09.0107	RC4559	DUAL OP AMP		TI, RA
	Q.....1	50.03.0436	BC237B	NPN		PH, SIE, MOT
		53.03.0174		ADAPTER PLUG		
		1.915.760.81		TEL. HYBRID KOMPL		ST
		21.01.0355	M3x8	SCREW		
		23.01.2032	7/3,2	WASHER		
		22.01.8030	M3	NUT		
		35.05.0311	4,8	BINDER		
		21.01.0288	M2,5x25			
		1.010.082.27	3,2/5x13	SPACER		
		1.915.764.01		LABEL		ST
	R...101	57.11.4334	330k			
	R...102	57.11.4222	2,2k			
	R...103	57.11.4683	68k			
	R...104	57.11.4332	3,3k			
	R...105	57.11.4224	220k			
	R...106	57.11.4103	10k			
	R...107	58.01.7104	100k	LIN		
	R...108	57.11.4561	560			
	R...109	57.11.4104	100k			
	R...110	57.11.4221	220			



EL=Electrolytic

MANUFACTURER: ST=Studer, TI=Texas Instruments, RA=Raytheon, PH=Philips, SIE=Siemens, MOT=Motorola

1.915.764.00 TEL. HYBRID WITH NOISE GATE FRI 30/11/81

1.915.764.00 TEL. HYBRID WITH NOISE GATE ① VO 19/10/87

END

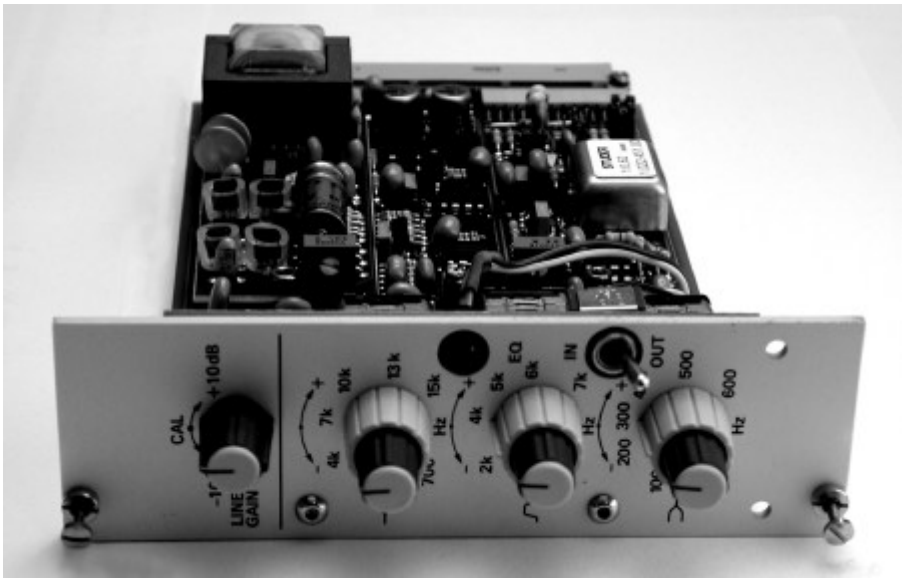
Norm Nr	Gute		Änderung	19.10.87	Si	Ge	③		
Werkstoff	Oberfläche			27.5.87	Si	Ge	②		
DIN Ber	Beh			3.6.86	Ho	Ge	①		
Abmessung			Ausgabe	3.6.81	Ho				
Zugehörige Unterlagen	Freimasstoleranz	Maßstab	Datum	Gez	Gepr	Ges	Index		
PL, LL		2:1							
Ersatz für	Ersetzt durch		Kopie für						
STUDER REGENSDORF ZURICH	Steuerung	Telephone Hybrid with Noise Gate	Nummer	1.915. 764-00					

2.2.12 Line Equalizer 1.915.776/777/779

The Line Equalizer Euro-card is the ideal component to cope with situations as inadequate frequency response or excessive level loss on long-haul audio lines. Special effects equalization may be another application.

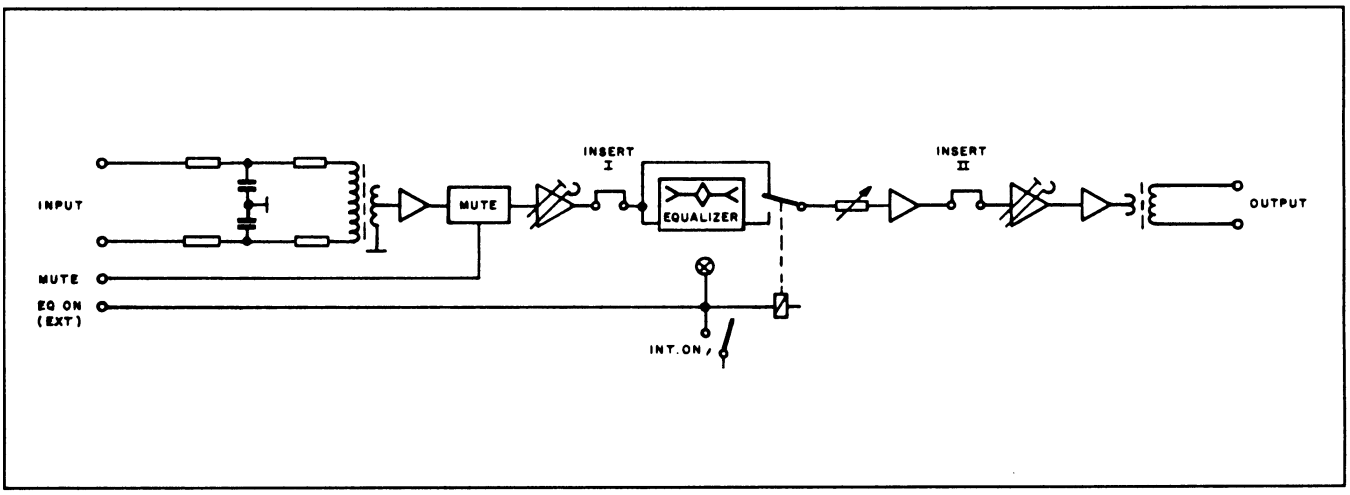
The frequency response can be varied in three bands over a ±15 dB range, as shown by the respective graphs below. Gain is normally set to unity, with 10 dB of continuously variable gain or attenuation available. Remote controlled muting or bypassing is possible.

The equalizer cards are supplied with a choice of different front panels for either horizontal recessed, vertical recessed, or vertical flush installation into suitable mounting frames.



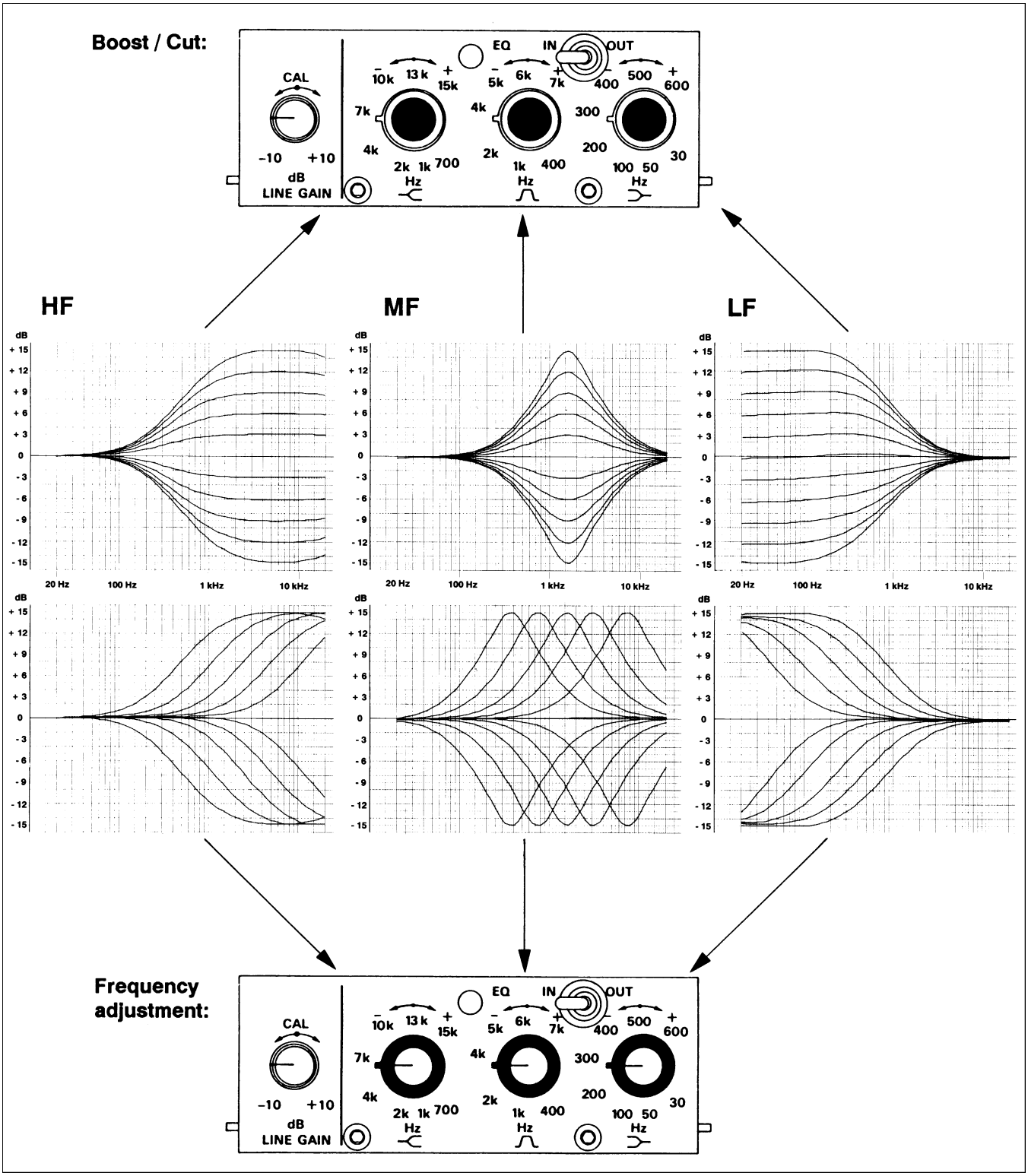
When installed vertically, each equalizer occupies 8 M units.

A 19” mounting frame for three equalizer cards plus the required power supply is described below.



Parametric filter diagrams:

HF shelving equalizer: Treble filter **700 Hz...15 kHz, ±15 dB**
MF bell-shaped equalizer: Center frequency **400 Hz...7 kHz, ±15 dB**; Q approx. 1
LF shelving equalizer: Bass filter **30 Hz...600 Hz, ±15 dB**

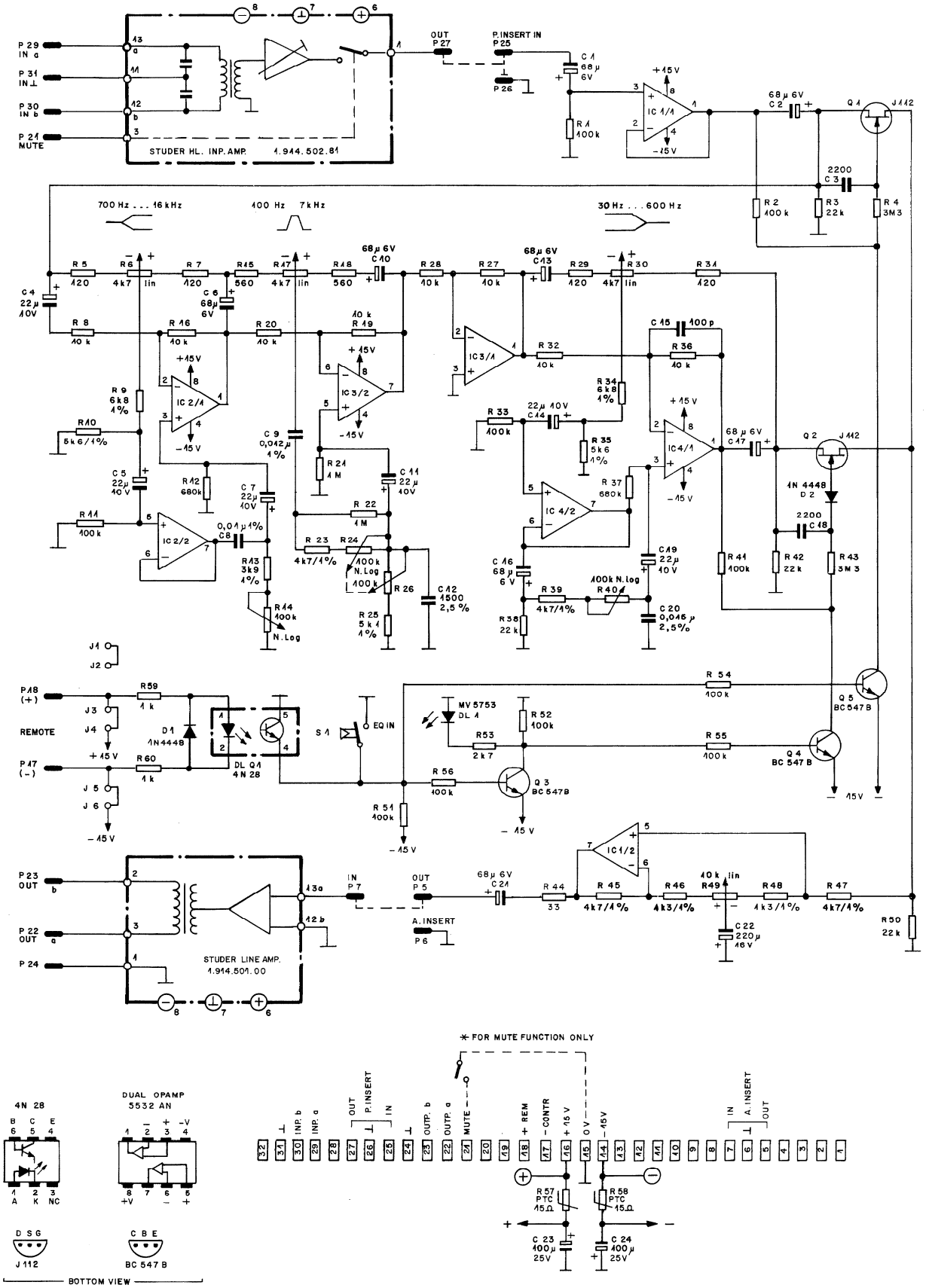


Technical Specifications

Input:		**balanced and floating,** with RF filter
	Impedance	> **10 kW**
	Clipping point	**+24 dBu** (12.3 V)
	Common mode rejection	> **50 dB**, unbalanced to ground
Output:		**balanced and floating**
	Minimum permissible load	**200 W**
	Maximum output level	**+24 dBu** (12.3 V)
	Frequency response	**±0.2 dB**, 30 Hz...60 kHz, equalization off
	THD	< **0.01%,** at nominal level
Equalization:	Characteristics	**see diagram,** referred to +6 dBu in/out
	S/N	> **96 dB,** equalizer off
		> **93 dB,** equalizer on (linear)
Supply:		**±15 V** (80 mA idling, 170 mA @ +24 dBu into 200 Ω)
Dimensions:	Euro-card	**100 × 160 mm, 8 M units wide**

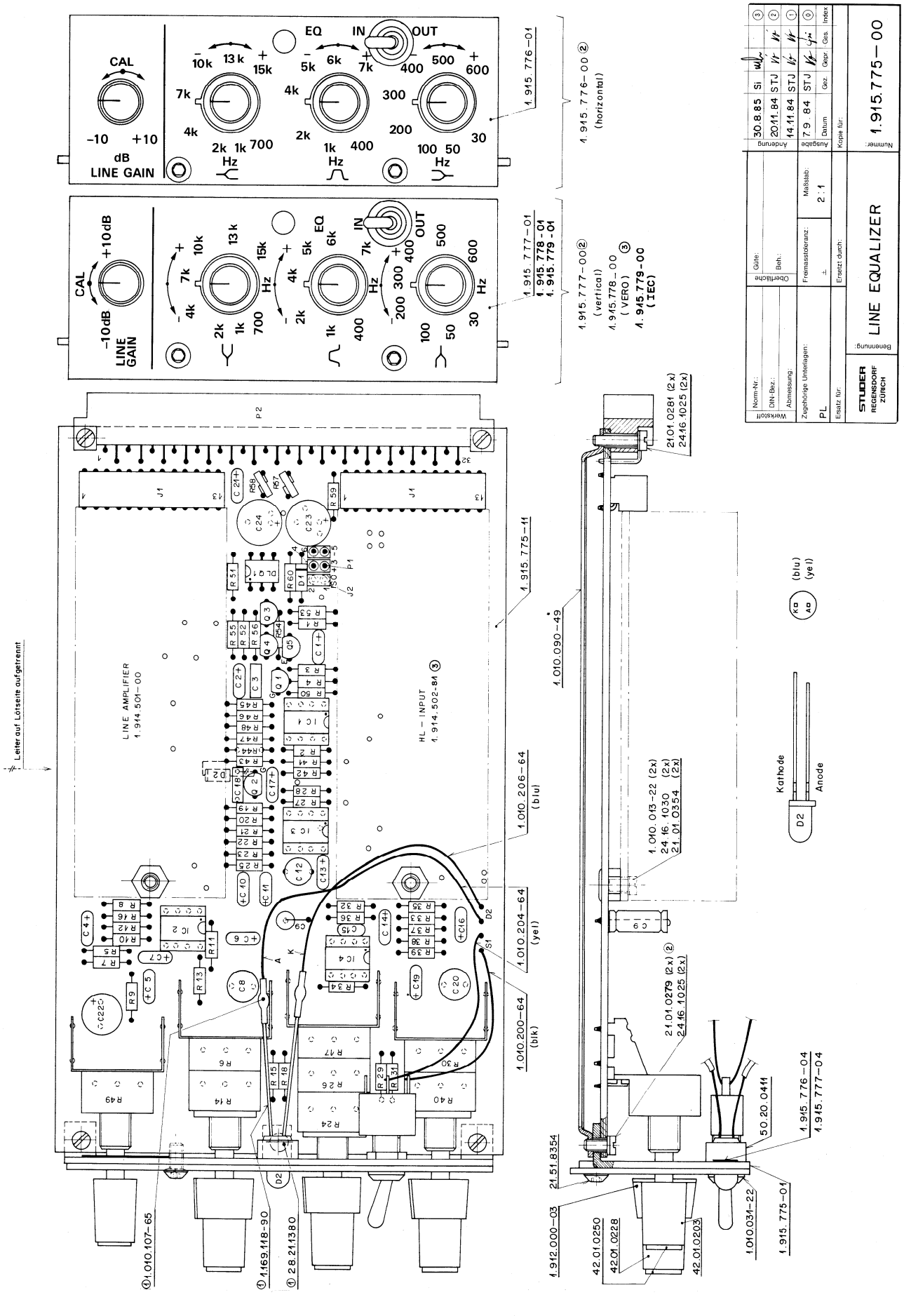
Ordering Information:

Euro-cards:	•	Line equalizer, horizontal, for recessed mounting	1.915.776.xx
	•	Line equalizer, vertical, for recessed mounting	1.915.777.xx
	•	Line equalizer, vertical, for flush mounting (ELMA)	1.915.779.xx
19" standard product	•	Mounting frame (19"/1U) with power supply and front panel, wired for three equalizer cards 1.915.776 (not incl.)	1.918.117.xx



DATE:	10. 9. 84	20.11. 84	10. 4. 85	30. 8. 85		VERTICAL 1.915.777
SIGN:	We	We				HORIZONTAL 1.915.776
STUDER REGENSDORF ZÜRICH	LINE EQUALIZER BOARD					SC 1.915.775

LINE EQUALIZER

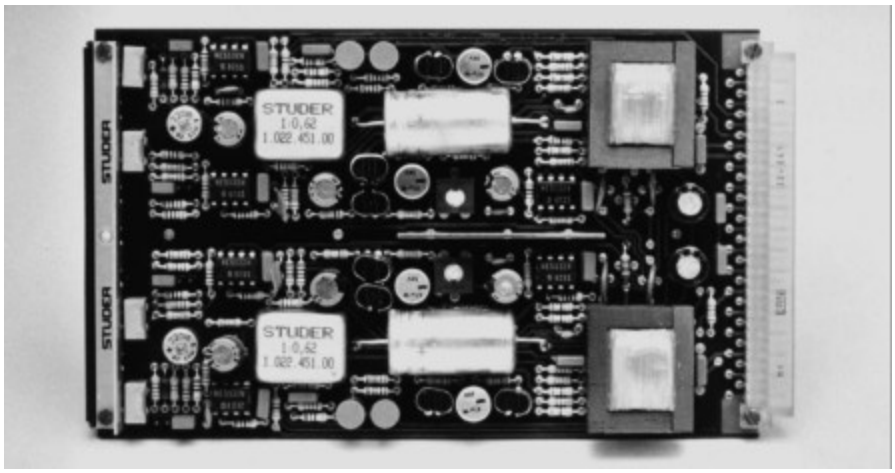


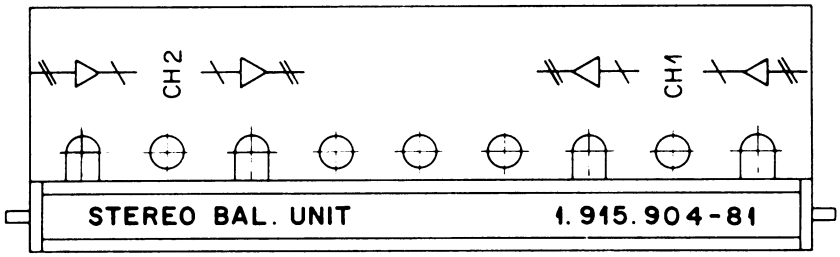
Ad	..POS..	...REF.No...	DESCRIPTION					MANUFACTURER
	C.....1	59.26.0680	68 uF	20%	6.3V	SAL		
	C.....2	59.26.0680	68 uF	20%	6.3V	SAL		
	C.....3	59.06.0222	2.2nF	10%	63V	PETP		
	C.....4	59.26.1220	22 uF	20%	10V	SAL		
	C.....5	59.26.1220	22 uF	20%	10V	SAL		
	C.....6	59.26.0680	68 uF	20%	6.3V	SAL		
	C.....7	59.26.1220	22 uF	20%	10V	SAL		
	C.....8	59.05.1103	10nF	1%	63V	PP		
	C.....9	59.12.7123	12nF	1%	63V	PS		
	C....10	59.26.0680	68 uF	20%	6.3V	SAL		
	C....11	59.26.1220	22 uF	20%	10V	SAL		
	C....12	59.05.2152	1.5nF	2.5%	160V	PP		
	C....13	59.26.0680	68 uF	20%	6.3V	SAL		
	C....14	59.26.1220	22 uF	20%	10V	SAL		
	C....15	59.32.1101	100pF	10%	400V	CE		
	C....16	59.26.0680	68 uF	20%	6.3V	SAL		
	C....17	59.26.0680	68 uF	20%	6.3V	SAL		
	C....18	59.06.0222	2.2nF	10%	63V	PETP		
	C....19	59.26.1220	22 uF	20%	10V	SAL		
	C....20	59.05.2153	15nF	2.5%	63V	PP		
	C....21	59.26.0680	68 uF	20%	6.3V	SAL		
	C....22	59.22.3221	220uF	20%	10V	EL		
	C....23	59.22.5101	100 uF	20%	25V	EL		
	C....24	59.22.5101	100 uF	20%	25V	EL		
	D.....1	50.04.0125	1N4448					any
	D.....2	50.04.0125	1N4448					any
	DL....1	50.04.2111	MV5753	red				GI,HP
	DLQ...1	50.99.0126	4N28					
	IC....1	50.09.0106	NE5532AN	dual op. amp.				RA,SIG
	IC....2	50.09.0106	NE5532AN	dual op. amp.				RA,SIG
	IC....3	50.09.0106	NE5532AN	dual op. amp.				RA,SIG
	IC....4	50.09.0106	NE5532AN	dual op. amp.				RA,SIG
	J.....1	54.01.0309	13 PIN-	CIS 2X				
	J.....2	54.01.0021	JUMPER					
	P.....1	54.01.0020	J-PLUG	6X				
	P.....2	54.01.0359	2*16	EURO - PLUG				
	MP....1	42.01.0203	GRY	UPPER KNOB	3X,4/10			
	MP....2	42.01.0228	GRY	KNOB	1X,4/10			
	MP....3	42.01.0250	L-GRY	COVER	4X,			
	MP....4	1.912.000.03	L-GRY	LOWER KNOB	3X,6/13			
	MP....5	1.010.090.49		SCREEN PLATE				
	MP....6	1.915.776.01		FRONT PANEL VERTICAL				
01	MP....6	1.915.776.01		FRONT PANEL HORIZONTAL				
	MP....7	1.915.777.01		FRONT PANEL HORIZONTAL				
01	MP....7	1.915.777.01		FRONT PANEL VERTICAL				
	Q.....1	50.03.0350	J 112	N-JFET				NS,Mot,Six
	Q.....2	50.03.0350	J 112	N-JFET				NS,Mot,Six
	Q.....3	50.03.0436	BC 547	NPN	IC>100mA, B>100			any
	Q.....4	50.03.0436	BC 547	NPN	IC>100mA, B>100			any
	Q.....5	50.03.0436	BC 547	NPN	IC>100mA, B>100			any
	R.....1	57.11.4104	100 kOhm	2%	0.25W	MF		
	R.....2	57.11.4104	100 kOhm	2%	0.25W	MF		
	R.....3	57.11.4223	22 kOhm	2%	0.25W	MF		
	R.....4	57.11.4335	3.3 MOhm	2%	0.25W	MF		
	R.....5	57.11.4121	120 Ohm	2%	0.25W	MF		
	R.....6	1.010.003.58	4.7 kOhm	20%	lin.		variable resistor	
	R.....7	57.11.4121	120 Ohm	2%	0.25W	MF		
	R.....8	57.11.4103	10 kOhm	2%	0.25W	MF		
	R.....9	57.11.3682	6.8 kOhm	1%	0.25W	MF		
	R....10	57.11.3562	5.6 kOhm	1%	0.25W	MF		
	R....11	57.11.4104	100 kOhm	2%	0.25W	MF		
	R....12	57.11.4684	680 kOhm	2%	0.25W	MF		
	R....13	57.11.3392	3.9 kOhm	1%	0.25W	MF		
	R....14	. .	100 kOhm	10%	neg.log.		variable resistor,see R 6	
	R....15	57.11.4561	560 Ohm	2%	0.25W	MF		
	R....16	57.11.4103	10 kOhm	2%	0.25W	MF		
	R....17	1.010.005.58	4.7 kOhm	20%	lin.		variable resistor	
	R....18	57.11.4561	560 Ohm	2%	0.25W	MF		
	R....19	57.11.4103	10 kOhm	2%	0.25W	MF		
	R....20	57.11.4103	10 kOhm	2%	0.25W	MF		
	R....21	57.11.4105	1 MOhm	2%	0.25W	MF		
	R....22	57.11.4105	1 MOhm	2%	0.25W	MF		
	R....23	57.11.3472	4.7 kOhm	1%	0.25W	MF		
	R....24	. .	100 kOhm	10%	neg.log.		variable resistor,see R17	
	R....25	57.11.3512	5.1 kOhm	1%	0.25W	MF		
	R....26	. .	100 kOhm	10%	neg.log.		variable resistor,see R17	
	R....27	57.11.4103	10 kOhm	2%	0.25W	MF		
	R....28	57.11.4103	10 kOhm	2%	0.25W	MF		
	R....29	57.11.4121	120 Ohm	2%	0.25W	MF		
	R....30	1.010.003.58	4.7 kOhm	20%	lin.		variable resistor	
	R....31	57.11.4121	120 Ohm	2%	0.25W	MF		
	R....32	57.11.4103	10 kOhm	2%	0.25W	MF		
	R....33	57.11.4104	100 kOhm	2%	0.25W	MF		
	R....34	57.11.3682	6.8 kOhm	1%	0.25W	MF		
	R....35	57.11.3562	5.6 kOhm	1%	0.25W	MF		
	R....36	57.11.4103	10 kOhm	2%	0.25W	MF		
	R....37	57.11.4684	680 kOhm	2%	0.25W	MF		
	R....38	57.11.4223	22 kOhm	2%	0.25W	MF		
	R....39	57.11.3472	4.7 kOhm	1%	0.25W	MF		
	R....40	. .	100 kOhm	10%	neg.log.		variable resistor,see R30	
	R....41	57.11.4104	100 kOhm	2%	0.25W	MF		
	R....42	57.11.4223	22 kOhm	2%	0.25W	MF		
	R....43	57.11.5335	3.3 MOhm	5%	0.25W	MF		
	R....44	57.11.4330	33 Ohm	2%	0.25W	MF		
	R....45	57.11.3472	4.7 kOhm	1%	0.25W	MF		
	R....46	57.11.3132	1.3 kOhm	1%	0.25W	MF		
	R....47	57.11.3472	4.7 kOhm	1%	0.25W	MF		
	R....48	57.11.3132	1.3 kOhm	1%	0.25W	MF		
	R....49	1.010.001.58	10 kOhm	20%	lin.		variable resistor	
	R....50	57.11.4223	22 kOhm	2%	0.25W	MF		
	R....51	57.11.4104	100 kOhm	2%	0.25W	MF		
	R....52	57.11.4104	100 kOhm	2%	0.25W	MF		
	R....53	57.11.4272	2.7 kOhm	2%	0.25W	MF		
	R....54	57.11.4104	100 kOhm	2%	0.25W	MF		
	R....55	57.11.4104	100 kOhm	2%	0.25W	MF		
	R....56	57.11.4104	100 kOhm	2%	0.25W	MF		
	R....57	57.92.1121	120 mA		R-PTC 56V		15 ohm	Philips
	R....58	57.92.1121	120 mA		R-PTC 56V		15 ohm	Philips
	R....59	57.11.4102	1 kOhm	2%	0.25W	MF		
	R....60	57.11.4102	1 kOhm	2%	0.25W	MF		
	S.....1	55.01.0111	ON-ON	SWITCH				C & K
	V.....1	1.914.501.00		LINE AMPLIFIER				St
	V.....2	1.914.502.00		HL. INPUT AMP. (FLOATING)				St
	XIC...1	53.03.0166	DIL	8-PIN 4X				

```
========================================
1.915.775.00  LINE EQUALIZER - BOARD
1.915.776.00  LINE EQUALIZER - HORIZONTAL
1.915.777.00  LINE EQUALIZER - VERTICAL
========================================

CE=Ceramic, CF=Carbon Film, EL=Electrolytic, MF=Metal Film,
PE=Polyester, PP=Polypropylen, PS=Polystyrol

MANUFACTURER: Bu=Burndy, Ex=Exar, Fc=Fairchild, GI=General Instrument
              HP=Hewlett Packard, ITT=Intermetall, Mot=Motorola, Nat=National
              (Matsushita), NS=National Semiconductors, Ph=Philips,
              Ra=Raytheon, Sig=Signetics, Six=Siliconix, St=Studer,
              TI=Texas Instrument

             1.915.775.00  LINE-EQUALIZER BOARD          FRI 84/09/0600

             1.915.775.00  LINE-EQUALIZER BOARD          FRI 84/11/2001

 END
+
```

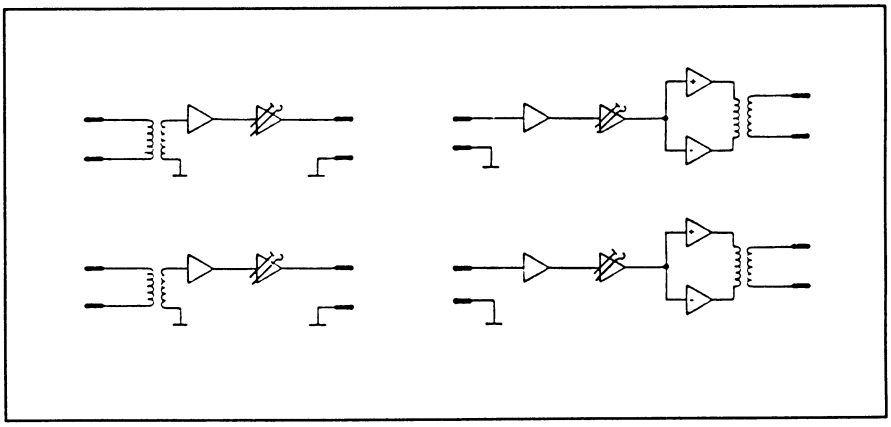
2.2.13 Dual Balancing Unit/Dual Line Amplifier 1.915.904

In professional audio work it is not uncommon that equipment with unbalanced input or output configuration must be connected to a system that is based on a strictly balanced design. The Dual Balancing Unit is the ideal component if the requirement of matching unbalanced to balanced equipment or vice versa has to be satisfied.

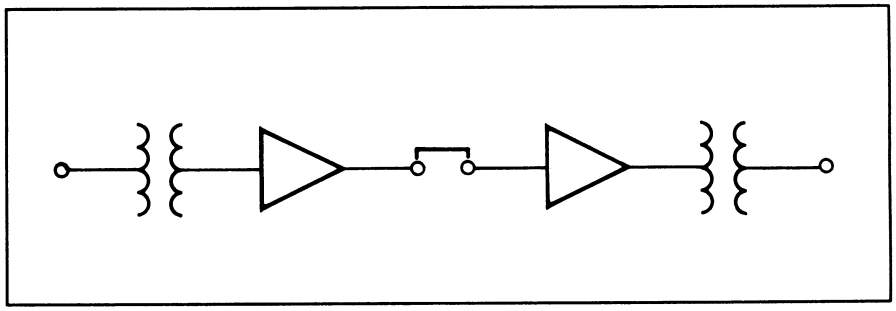




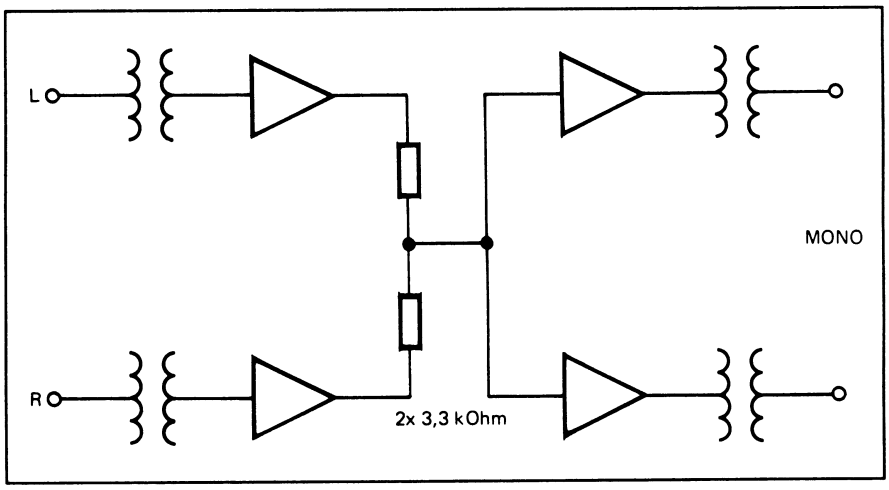
The Dual Balancing Unit consists of one Euro-card which contains four separate circuits to accommodate unbalanced-to-balanced or balanced-to-unbalanced matching in a stereo system. It is the ideal choice for applications in which consumer-type stereo equipment has to be integrated into a professional audio system, where balanced audio lines are a must. The Dual Balancing Unit will also be used in situations where balanced auxiliary units must be connected to unbalanced insert points on a mixing desk.



The use of the balancing unit is not restricted to matching of balanced and unbalanced audio system components, because it can also be utilized as a (line) booster amplifier or as a stereo-to-mono mixer. By simply connecting the unbalanced outputs and inputs together and by adjusting again within the available ranges, two booster amplifiers with a maximum gain of 30 dB and a maximum output capability of +24 dBu*) can be realized.



For stereo-to-mono mixing, the unbalanced sides of the amplifier sections simply are connected by means of combining (mixing) resistors, as shown in the diagram below.



*) To avoid signal clipping, a system should always be designed in such a way that signal peaks stay well below an amplifier's maximum output capacity. Alignment procedures and level settings depend to a large degree on the type of metering used in an audio system. When making measurements with a steady-state signal, a margin of 6 dB below a system's clipping point and the PPM deflected to "zero volume", or a margin of 15 dB (for programs with extreme crest factors, even 20 dB) when utilizing a VU-meter, is considered good engineering practice.

Technical Specifications

Balanced to unbalanced (Section 1):

Input impedance	**³ 10 kW,** balanced/floating
Maximum input level	**+24 dBu**
Output impedance	**< 100 W,** unbalanced
Maximum output level	**+20 dBu**
Minimum load	**600 W**
Frequency response	**±0.2 dB**, 30 Hz...16 kHz
Attenuation	**0/15 dB;** two fixed steps
	0...15 dB; variable
S/N	**> 100 dB;** attenuation set to 6 dB, line level +6 dBu

Unbalanced to balanced (Section 2):

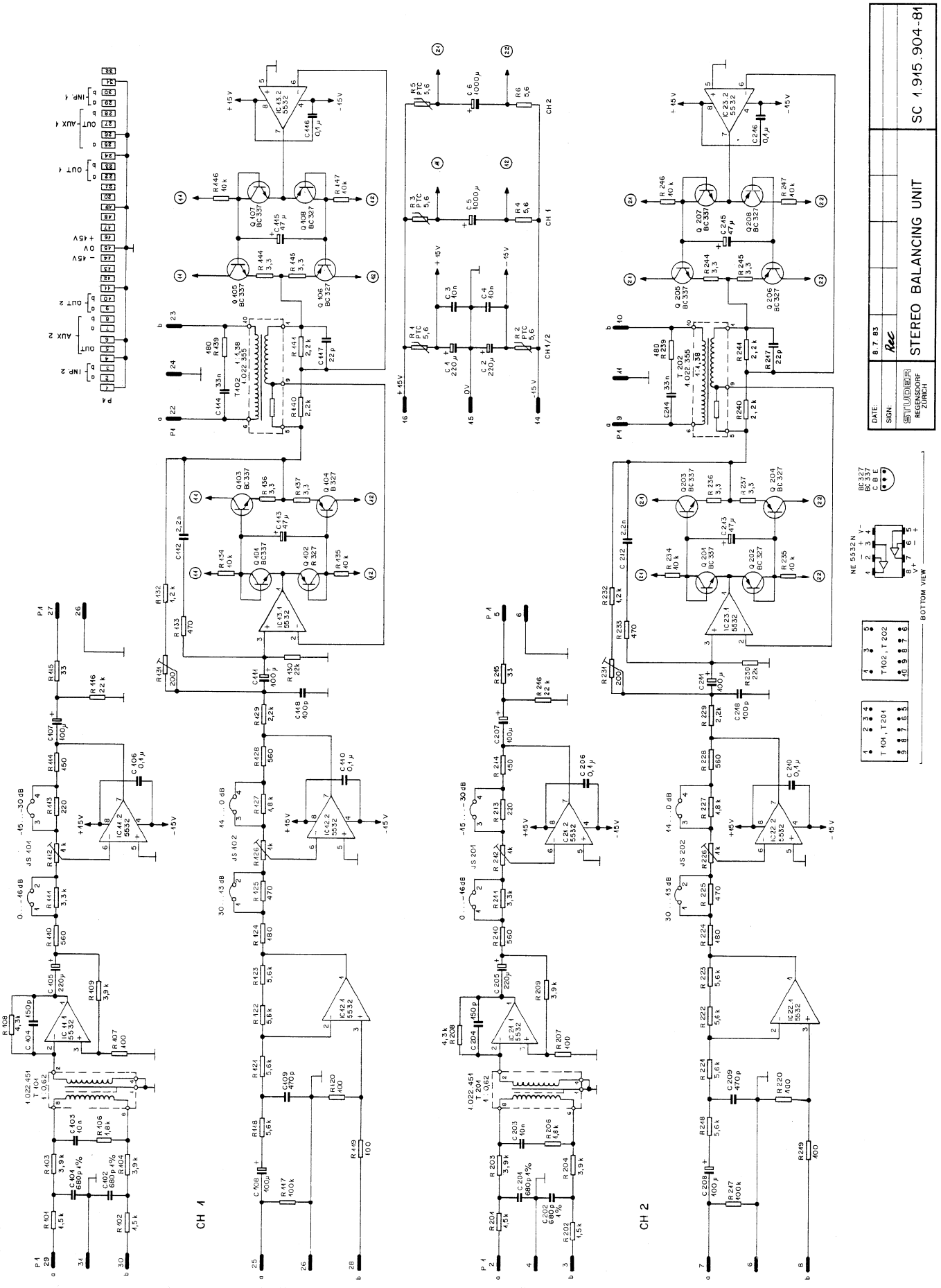
Input impedance	**5 kW,** unbalanced
Maximum input level	**+20 dBu**
Output impedance	**£ 50 W,** balanced/floating
Minimum load	**200 W**
Maximum output level	**+24 dBu**
Frequency response	**±0.2 dB,** 30 Hz...16 kHz
Gain	**14/30 dB;** two fixed steps
	0...17 dB; variable
S/N	**> 100 dB;** gain set to 6 dB, line level +6 dBu

Supply: **±15 V** (70 mA, idling; 170 mA, each channel +24 dBu into 200 Ω)

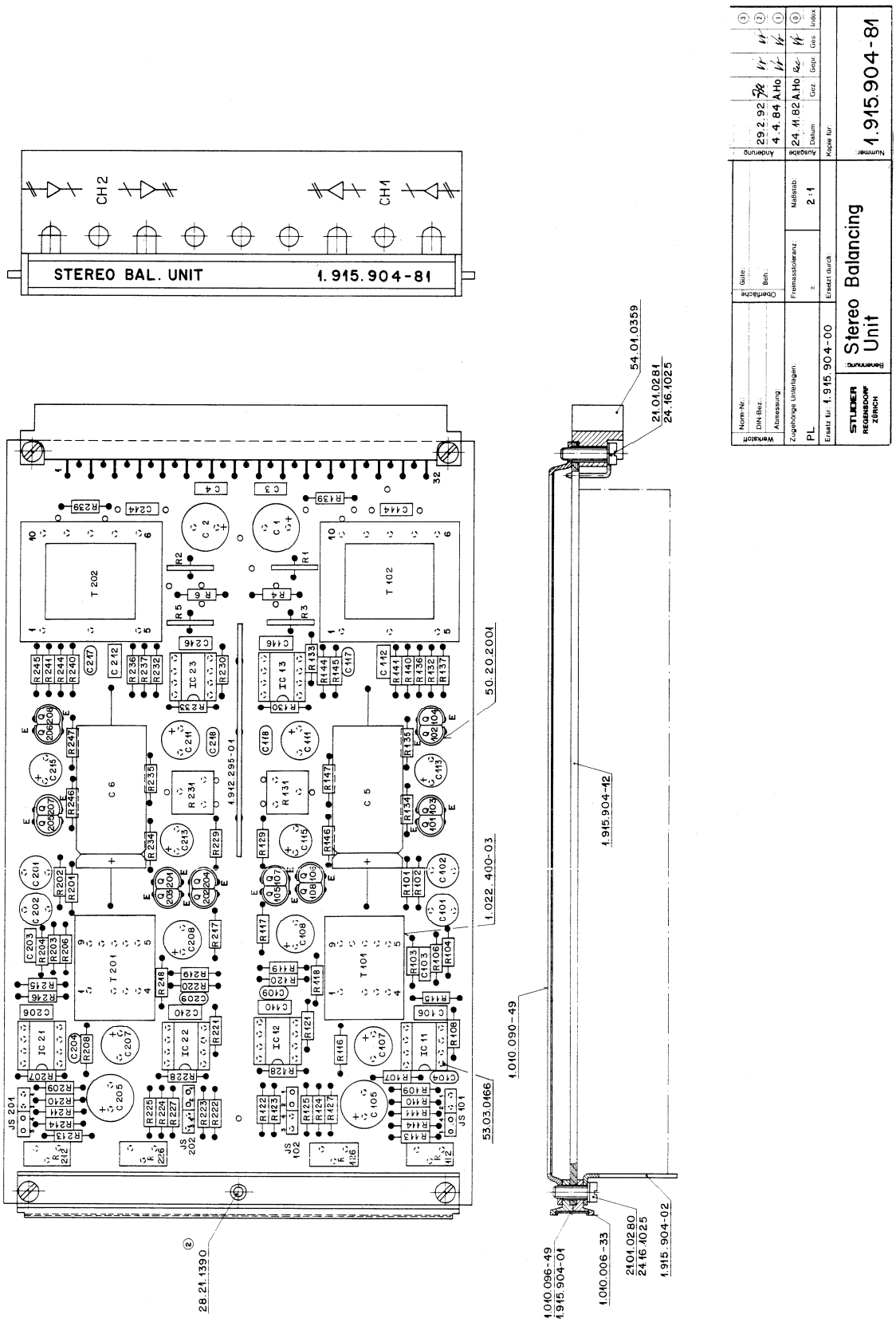
Dimensions: Euro-card **100 × 160 mm, 7 M units wide**

Ordering Information:

Euro-card:	•	Dual balancing unit	1.915.904.xx
19”/1U standard products:	•	2CH balancing unit (1 × 1.915.904)	75.700.89212
	•	4CH balancing unit (2 × 1.915.904)	75.700.89422
	•	6CH balancing unit (3 × 1.915.904)	75.700.89632


STUDER
REGENSDORF
ZÜRICH
STEREO BALANCING UNIT
SC 1.915.904-81
DATE: 8.7.83
SIGN:
CH 1
CH 2
BOTTOM VIEW
NE 5532 N
BC 327
BC 337
T 101, T 201
T 102, T 202

DUAL BALANCING UNIT



DUAL BALANCING UNIT

Ad	POS.	REF.No.	DESCRIPTION				MANUFACTURER
	C....1	59.22.4221	220µ		16V	EL	
	C....2	59.22.4221	220µ		16V	EL	
	C....3	59.06.0103	10n		63V	PE	
	C....4	59.06.0103	10n		63V	PE	
	C....5	59.25.5102	1000µ		40V	EL	
	C....6	59.25.5102	1000µ		40V	EL	
	C....1	59.05.1681	680p	1%	630V	PP	
	C....2	59.05.1681	680p	1%	630V	PP	
	C....3	59.06.0103	10n		63V	PE	
	C....4	59.34.4151	150p		63V	CER	
	C....5	59.22.2221	220µ		6V	EL	
	C....6	59.06.0104	0,1µ		63V	PE	
	C....7	59.22.5101	100µ		25V	EL	
	C....8	59.22.5101	100µ		25V	EL	
	C....9	59.34.5471	470p		63V	CER	
	C...10	59.06.0104	0,1µ		63V	PE	
	C...11	59.22.5101	100µ		25V	EL	
	C...12	59.06.0222	2,2n		63V	PE	
	C...13	59.22.5470	47µ		25V	EL	
	C...14	59.06.0333	33n		63V	PE	
	C...15	59.22.5470	47µ		25V	EL	
	C...16	59.06.0104	0,1µ		63V	PE	
	C...17	59.34.2220	22p		63V	CER	
①	C...18	59.34.4101	100p		63V	CER	
	IC....1	50.09.0105	NE5532	DUAL OP AMP		XR5532	SIG, EX
	IC....2	50.09.0105	NE5532	DUAL OP AMP		XR5532	SIG, EX
	IC....3	50.09.0105	NE5532	DUAL OP AMP		XR5532	SIG, EX
	JS....1	54.01.0020	4PIN				
		54.01.0021	JUMPER				
	JS....2	54.01.0021	4PIN				
		54.01.0021	JUMPER				
	P.....1	54.01.0359	2•16P				
	Q.....1	1.010.037.50	BC337	NPN			
	Q.....2	1.010.036.50	BC327	PNP			
	Q.....3	1.010.037.50	BC337	NPN			MATCHED
	Q.....4	1.010.036.50	BC327	PNP			
	Q.....5	1.010.037.50	BC337	NPN			
	Q.....6	1.010.036.50	BC327	PNP			
	Q.....7	1.010.037.50	BC337	NPN			
	Q.....8	1.010.036.50	BC327	PNP			
	R.....1	57.99.0209	5,6	PTC			PH
	R.....2	57.99.0209	5,6	PTC			PH
	R.....3	57.99.0209	5,6	PTC			PH
	R.....4	57.11.4569	5,6				
	R.....5	57.99.0209	5,6	PTC			PH
	R.....6	57.11.4569	5,6				
	R.....1	57.11.3152	1,5k	1%			
	R.....2	57.11.3152	1,5k	1%			
	R.....3	57.11.3392	3,9k	1%			
	R.....4	57.11.3392	3,9k	1%			
	R.....5						
	R.....6	57.11.4182	1,8k				
	R.....7	57.11.3101	100				
	R.....8	57.11.3432	4,3k				
	R.....9	57.11.3392	3,9k	2%			
	R....10	57.11.4561	560				
	R....11	57.11.4332	3,3k				
	R....12	58.01.9102	1k	10%	TRIM		
	R....13	57.11.4221	220	2%			
	R....14	57.11.4151	150	2%			
	R....15	57.11.4330	33				
	R....16	57.11.4223	22k				
	R....17	57.11.4104	100k				
	R....18	57.11.3562	5,6k				
	R....19	57.11.3101	100				
	R....20	57.11.3101	100	1%			
	R....21	57.11.3562	5,6k				
	R....22	57.11.3562	5,6k				
	R....23	57.11.3562	5,6k				
	R....24	57.11.4181	180	2%			
	R....25	57.11.4471	470	2%			
	R....26	58.01.9102	1k	10%	TRIM		
	R....27	57.11.4182	1,8k	2%			
	R....28	57.11.4561	560	2%			
	R....29	57.11.4222	2,2k				
	R....30	57.11.4223	22k				
	R....31	58.01.8201	200	TRIM			
	R....32	57.11.4122	1,2k				
	R....33	57.11.4471	470				
	R....34	57.11.4103	10k				
	R....35	57.11.4103	10k				
	R....36	57.11.4339	3,3				
	R....37	57.11.4339	3,3				
	R....38						
	R....39	57.11.4181	180				
	R....40	57.11.4222	2,2k	2%			
	R....41	57.11.4222	2,2k	2%			
	R....42						
	R....43						
	R....44	57.11.4339	3,3				
	R....45	57.11.4339	3,3				
	R....46	57.11.4103	10k				
	R....47	57.11.4103	10k				
	T.....1	1.022.451.00	1:0,62	INPUT TRAFO			ST
	T.....2	1.022.355.00	1:1,38	LINE OUTPUT TRAFO			ST
	XIC	53.03.0166	8P	IC SOCKET			

EL=Electrolytic, PE=Polyester, PP=Polypropylen, CER=Ceramic

MANUFACTURER: SIG=Signetics, PH=Philips, EX=Exar, ST=Studer

1.915.904.81 STEREO BAL. UNIT BR 24/11/82

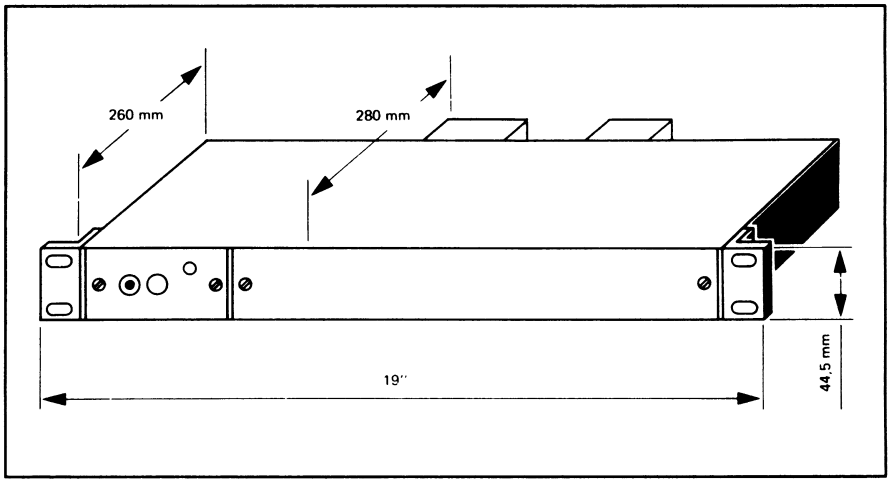
END

➔

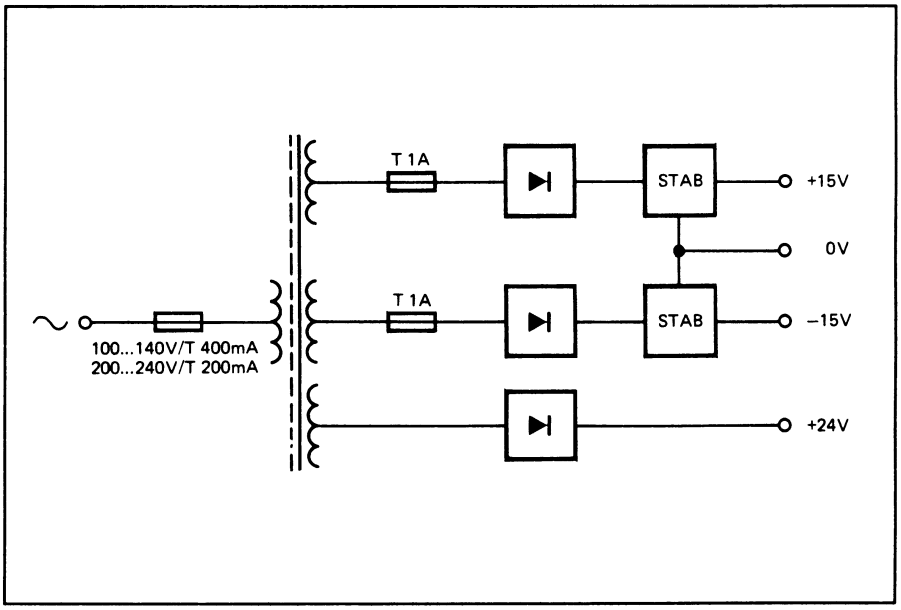
2.3 Racks and Frames

2.3.1 19" Mounting Frame for 3 Euro-Cards 1.918.100

This 19" mounting frame (height: 44.5 mm/1U) offers space for three Euro-cards next to the power supply. The power supply provides ±15 V_{DC} (regulated) and 24 V_{DC} (unregulated).



The frame comes equipped with three edge connectors to accommodate three Euro-cards horizontally, side by side. A blank back panel of anodized aluminium is provided and permits the installation of input and output connectors as required, depending on the application.



Technical Specifications

Primary: Voltage selector for **100, 120, 140, 200, 220, 240 V_{AC}**
Fuse (slow-blow) **400 mA** (for 100...140 V_{AC})
200 mA (for 200...240 V_{AC})

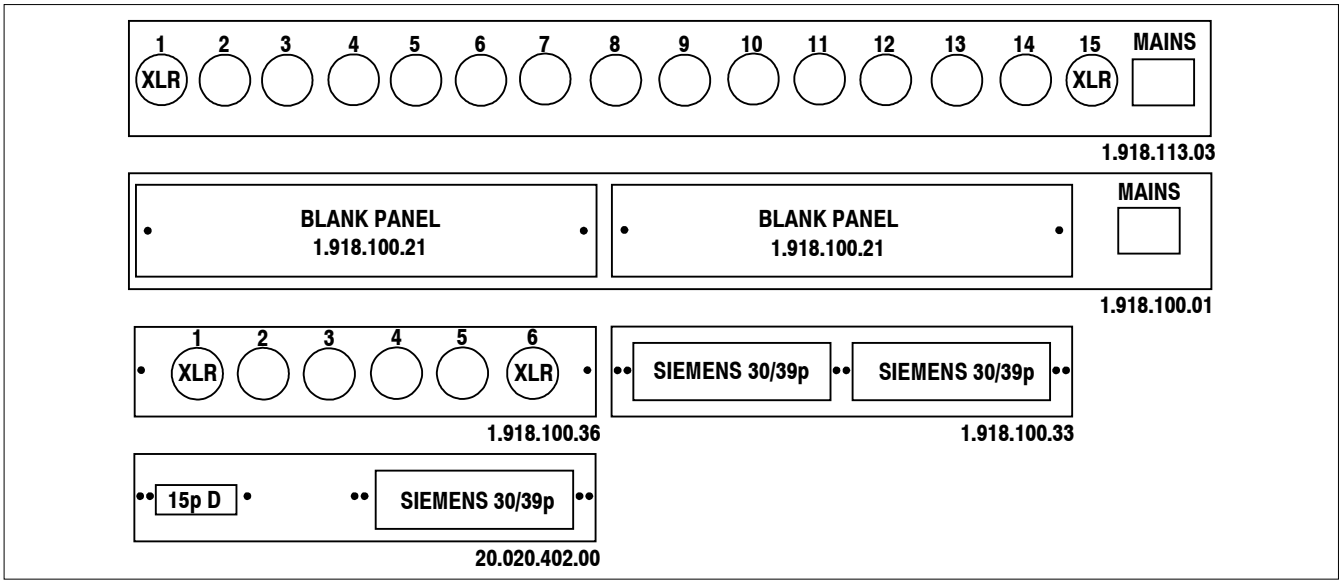
Secondary: Regulated voltage **±15 V_{DC}**, 0.5 A max.
Unregulated voltage **24 V_{DC},** 0.2 A max. (for signaling)
Fuses (slow-blow) **2 × 1 A**

Ordering Information:

19"/1U standard product

- Mounting frame for three Euro-cards with power supply and stabilizer PCB, with two blank aluminium back panels (1.918.100.21) 1.918.100.xx

Alternative Back Panels: The mounting frame 1.918.100.xx can be equipped with the following back panels:



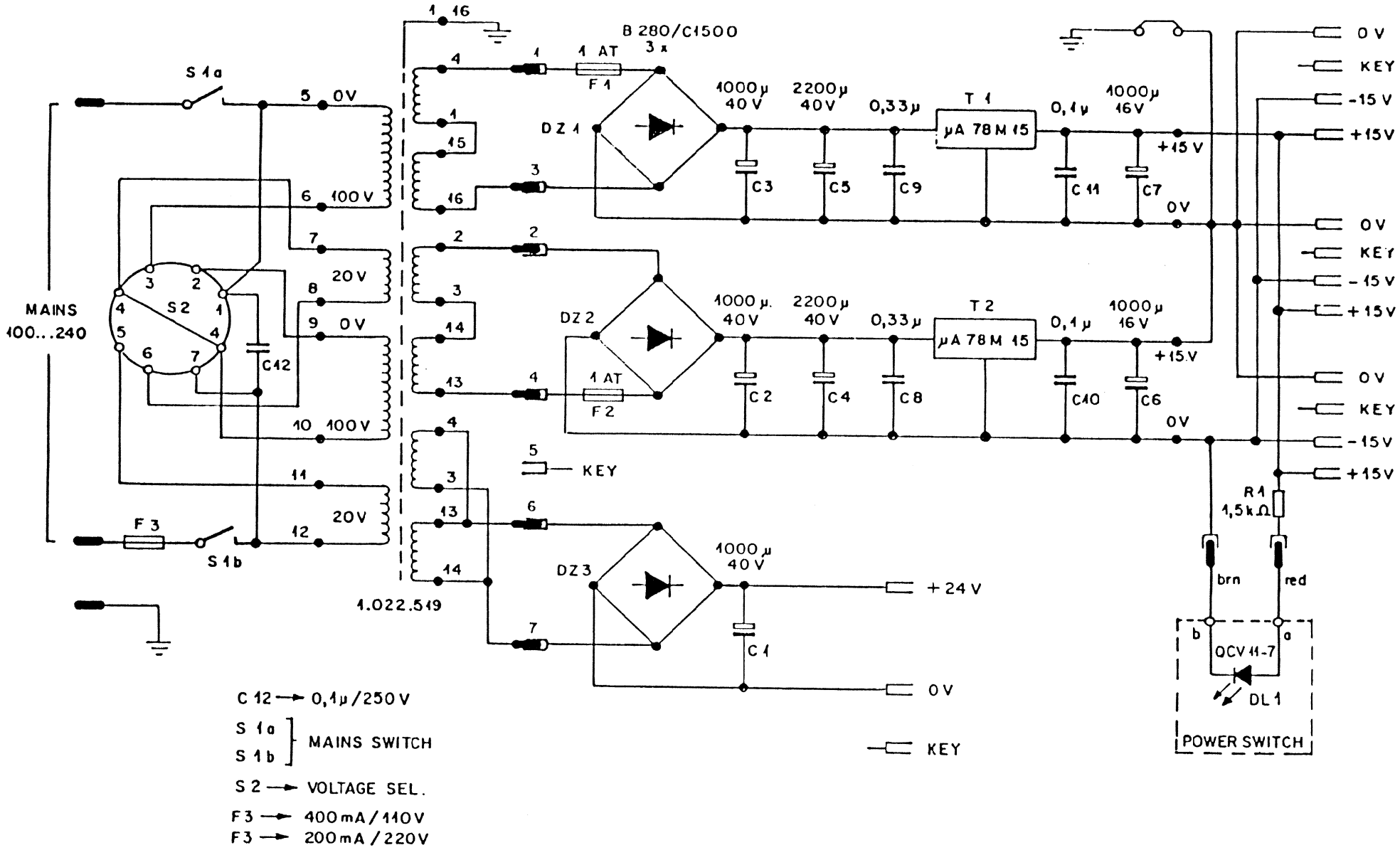
Ordering Information:

Alternative Back Panels for Mounting Frame 1.918.100

- Steel back panel for 15 × XLR sockets (Neutrik) 1.918.113.03

Alternative Back Panels for Blank Panels 1.918.100.21

- Aluminium back panel for 6 × XLR sockets (Neutrik) 1.918.100.36
- Aluminium back panel for 1 × Siemens 30/39 pin and 1 × 15pin D-type sockets 20.020.402.00
- Aluminium back panel for 2 × Siemens 30/39 pin sockets 1.918.100.33
- *Mechanical interface Siemens panel → D-type connector: see chapter 2.3.4.*



C 12 → 0,1µ/250V

S 1a, S 1b] MAINS SWITCH

S 2 → VOLTAGE SEL.

F3 → 400mA/110V

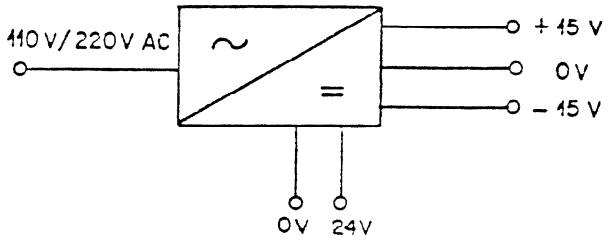
F3 → 200mA/220V

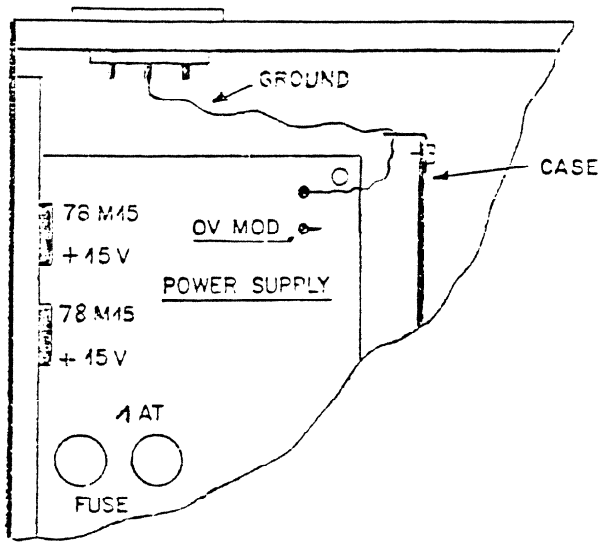
DATE:	9.4.85					REPLACES 4.918.099-81
SIGN:	We					
STUDER REGENSDORF ZURICH	POWER SUPPLY ±15V/24V					1.918.098-00

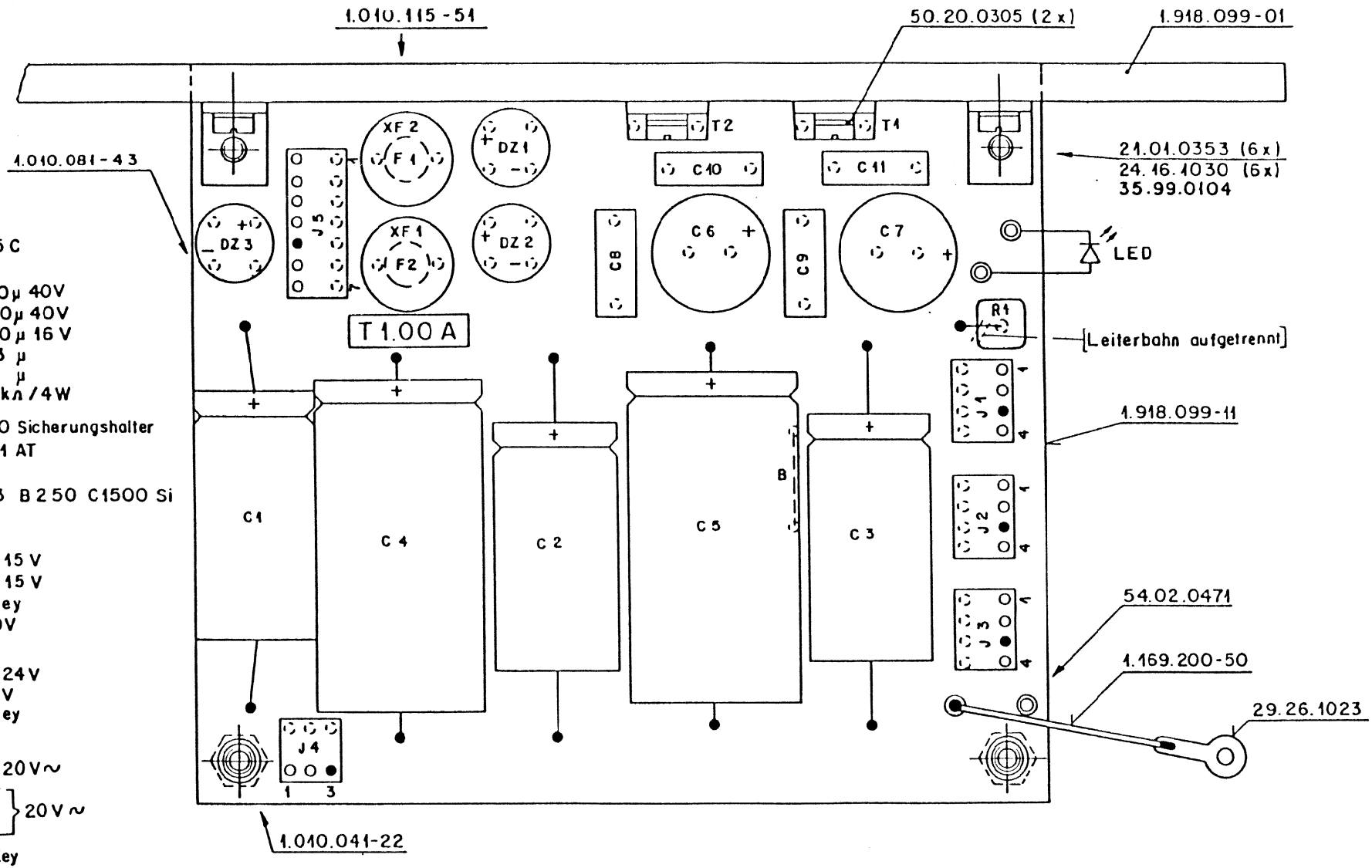
P O W E R S U P P L Y 1.918.098

Technical data:

Input	100 ... 240 V AC
Output	±15 V, 0.5A (audio)
	24 V, 0.2A (signalling)
Prim.fuse	400 mAT (100 ... 140 V AC)
	200 mAT (200 ... 240 V AC)
Sec. fuse	1 AT (± 15 V DC)







B Drahtbrücke

T1, T2 78M15C

C1...C3	1000µ 40V
C4, C5	2200µ 40V
C6, C7	1000µ 16V
C8, C9	0,33 µ
C10, C11	0,1 µ
R1	1,5 kΩ / 4W

XF1, XF2 5x20 Sicherungshalter
F1, F2 1 AT

DZ1, DZ2, DZ3 B250 C1500 Si

J1...J3
1 +15V
2 −15V
3 Key
4 0V

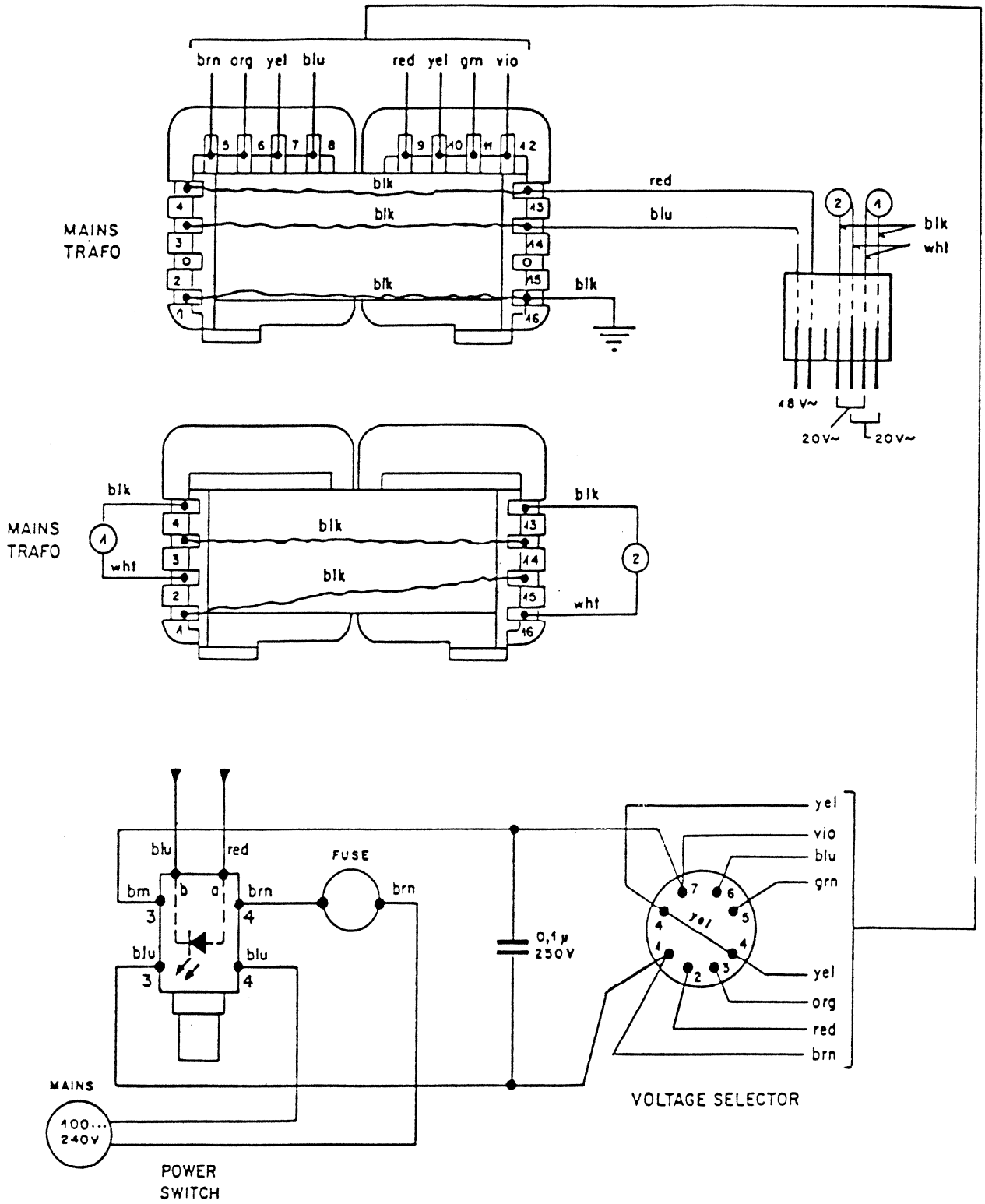
J4
1 +24V
2 0V
3 Key

J7
1 20V~
2 20V~
3 20V~
4
5 Key
6 20V~
7

Codierung: Schaltdraht 64.01.0108 ⌀0,8x8mm (muss 4mm vorstehen)

In	Buchsenleiste	J1	in	Kontakt	3
"	"	J2	"	"	3
"	"	J3	"	"	3
"	"	J4	"	"	3
"	"	J5	"	"	5

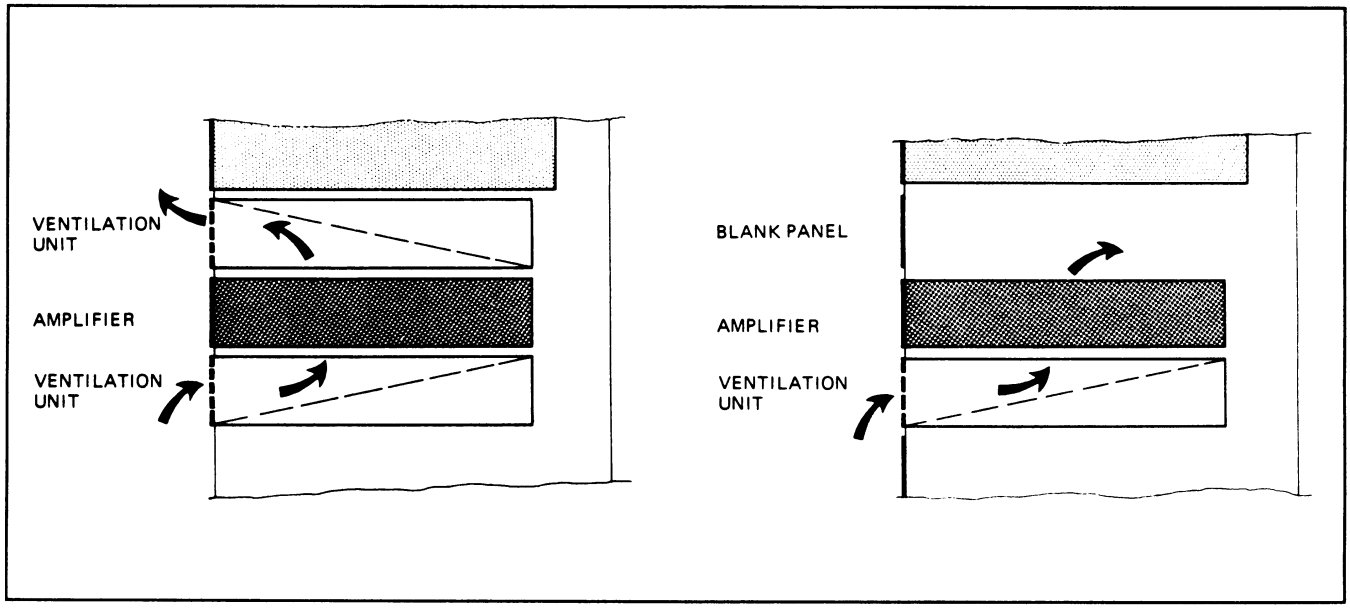
DATE:	9.1.85					REPLACES 1.918.099-81
SIGN:	We					
STUDER REGENSDORF ZURICH	POWER SUPPLY ±15V / 24V					1.918.098



DATE:	6.11.79	25.3.85			
SIGN:	we	we			
STUDER REGENSDORF ZÜRICH	WIRING				1.918.100 1.918.101 1.918.102

2.3.2 19” Ventilation Unit/19” Blank Panels 1.918.119/0XX

When filling a cabinet rack with various electronic equipment, considerable heat may be generated, which could be harmful to other nearby components. To provide for sufficient convection cooling, the use of ventilation units above and below the heat-generating equipment is strongly recommended.



A ventilation unit consists of a 19” wide and 1U high sheet metal structure, which extends about 340 mm into the rack. The unit’s front section is perforated, with a slanting metal panel mounted inside. By installing the ventilation unit with that panel either slanting upwards or downwards, the air flow can be directed as desired.

If only moderate heat problems have to be coped with, it may be sufficient to use one ventilation unit above or below the heat source, and to provide sufficient spacing from adjacent equipment by installing a 1U blank panel on the opposite side.

Ordering Information:

19” Ventilation Units

• Ventilation unit 19”/1U	1.918.119.xx
• Ventilation unit without air guide panel	1.918.119.09

19” Blank Panels

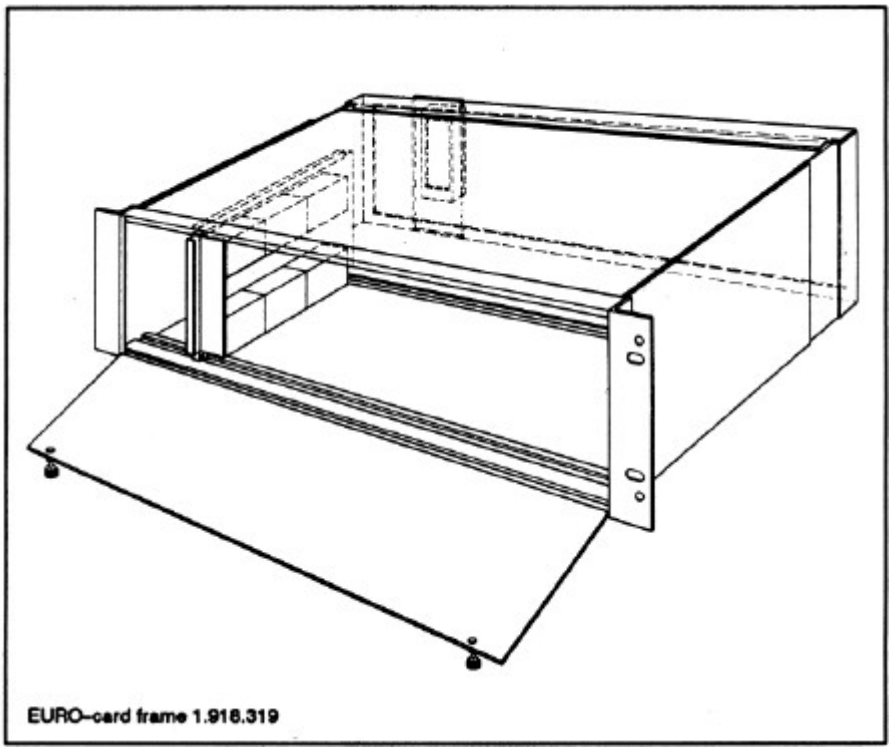
• Blank panel 19”/1U high, anodized finish	1.918.001.xx
• Blank panel 19”/2U high, anodized finish	1.918.002.xx
• Blank panel 19”/3U high, anodized finish	1.918.003.xx
• Blank panel 19”/1U high, plastic coated, grey	1.918.001.09
• Blank panel 19”/2U high, plastic coated, grey	1.918.002.09
• Blank panel 19”/3U high, plastic coated, grey	1.918.003.09
• Blank panel 19”/1U high, paint finish, grey	1.918.011.xx
• Blank panel 19”/2U high, paint finish, grey	1.918.012.xx
• Blank panel 19”/3U high, paint finish, grey	1.918.013.xx

2.3.3 19” Euro-Card Mounting Frames 1.918.318/319

The Euro-card mounting frame (sometimes also referred to as 19” Sub Rack) is an empty structure which fits into any standard 19” rack. It is intended to accommodate PCBs of the Euro format vertically, side by side. The available space within the sub rack is divided into 84 Modular Widths, each measuring 5.08 mm (0.2 inches). One Euro-card usually occupies 7 M (Module) widths, thus up to 12 Euro-cards may be installed.

The Euro-card frame is supplied as a kit for assembly by the user. Assembly instructions are included with each kit.

Supplied with the kit is a hinged front panel of anodized aluminium, providing quick access to the plug-in PCBs if required. This front panel and its hinges are available separately in case a damaged panel or hinge needs to be replaced.



EURO-card frame 1.918.319

Separate edge connectors and slide rails are required for each Euro-card and power supply unit installed into the Euro-card frame. Mounting kits containing the slide rails, edge connectors, and other accessories are described below (1.918.315/316).

To provide for convection cooling within an equipment rack, the Ventilation Unit 1.918.119.xx is recommended.

Euro-Card Racks, Ordering Information:

- Euro-card frame (19”/3U, ELMA), direct access to 32pin connectors on back panel 1.918.318.xx
- Euro-card frame (19”/3U, ELMA) with additional rear panel, for max. 10 freely assignable connector panels 1.918.319.xx

2.3.4 19" Euro-Card Mounting Accessories

Euro-Card Mounting Kit

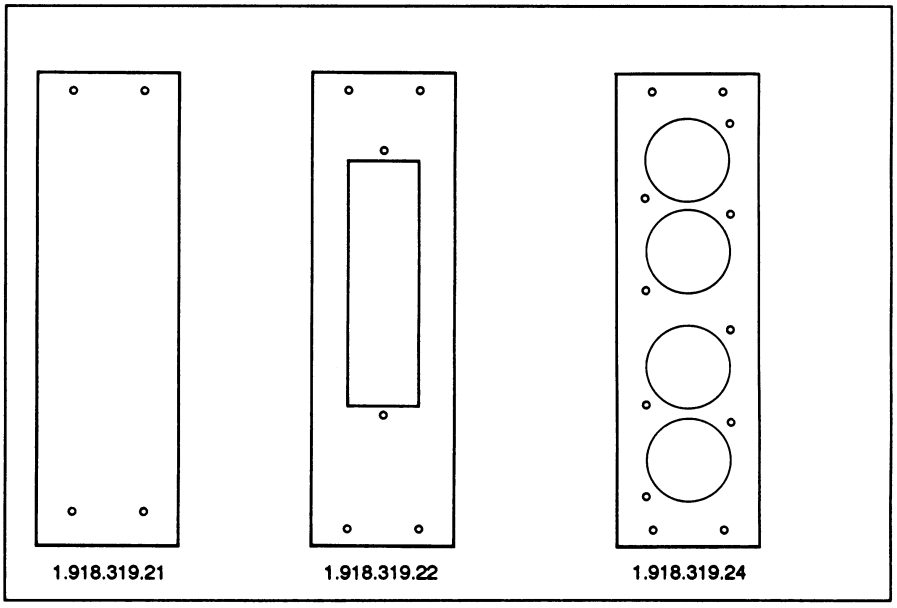
For installing Euro-cards and/or a power supply unit into a Euro-card frame 1.918.318/319, suitable edge connectors and guide rails are required.

Euro-Card Mounting Kit, Ordering Information:

- Mounting kit for 1 Euro-card (ELMA rack); see photograph 1.918.315.xx
- Mounting kit for power supply 1.915.100 1.918.316.xx

Connector Panels:

The connector panels fit into the Euro-card frame with back panel (1.918.319). Please order the suitable panels separately.



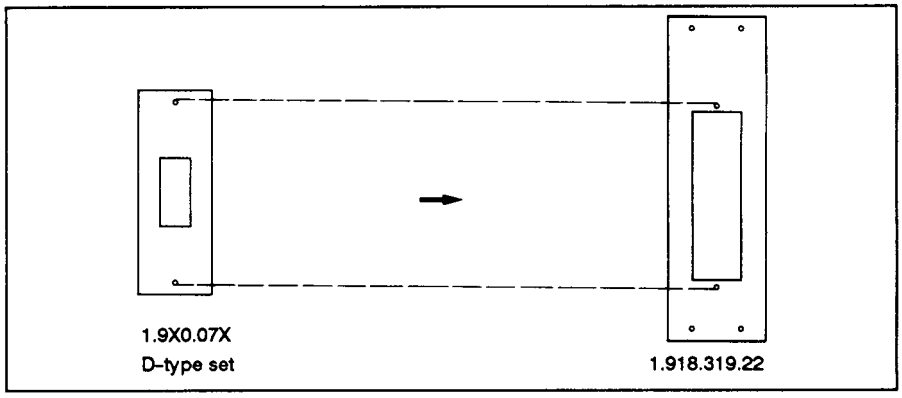
Connector Panel (3U high) Ordering Information:

• Blank panel	1.918.319.21
• Panel for Siemens connector (cut out 18 × 67 mm) *	1.918.319.22
• Panel for mains inlet and 2 banana sockets	1.918.319.23
• Panel for 4 XLR sockets	1.918.319.24

*** Siemens Connector Sets:** Including male and female connector:

– Siemens 30pin, without connector panel	1.900.080.xx
– Siemens 39pin, without connector panel	1.900.081.xx

*** D-Type Adapter Panels:** The Siemens connector panel can be used as a base for mounting a D-type connector adapter panel. The adapter sets listed below include male and female connectors, connector cover, bolting spring, clamp, and adapter panel:



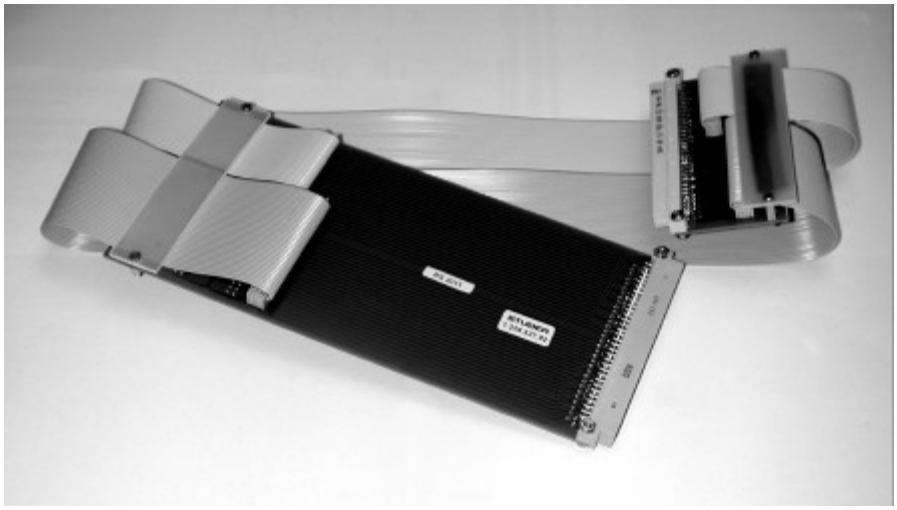
Adapter Panel Ordering Information:

The adapter kits consist of male and female D-type connector, metal or plastic connector cover, adapter panel, and mounting hardware, to fit on the Siemens connector panels 1.918.319.22 (for 3U frames) or 1.918.100.33 (for 1U frames):

– D-type set, 9pin, metal connector cover	1.900.075.xx
– D-type set, 15pin, metal connector cover	1.900.076.xx
– D-type set, 25pin, metal connector cover	1.900.077.xx
– D-type set, 37pin, metal connector cover	1.900.078.xx
– D-type set, 50pin, metal connector cover	1.900.079.xx
– D-type set, 9pin, plastic connector cover	1.970.075.xx
– D-type set, 15pin, plastic connector cover	1.970.076.xx
– D-type set, 25pin, plastic connector cover	1.970.077.xx
– D-type set, 37pin, plastic connector cover	1.970.078.xx
– D-type set, 50pin, plastic connector cover	1.970.079.xx

Extension Board:

For alignment and repair, a Euro-card may have to be operated outside the mounting frame. To facilitate any service work that has to be performed on individual cards, extending the card's 32 electrical connections is possible by means of a flexible extension board.



Ordering Information:	Extension PCB for Euro-cards, 2 × 32pin, flexible	1.228.327.82

CIRCUIT DIAGRAMS

Connectors

Synopsis: Structure Lists

Assembly	Assembly No.
Mono XLR Connection Board	1.928.710.00 1.928.710.81
Stereo XLR Connection Board	1.928.712.00 1.928.712.81
Group Mono XLR Connection Board	1.928.714.00 1.928.714.81
Monitor Connection Board	1.928.720.00
Studio Monitor Connection Board	1.928.722.00

Synopsis: Assemblies, Circuit Diagrams, Component Layouts, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Mono XLR Connection Board	1.928.710.00	1.928.710.00	1.928.710.00	1.928.710.00
Stereo XLR Connection Board	1.928.712.00	1.928.710.00	1.928.710.00	1.928.712.00
Group Mono XLR Connection Board	1.928.714.00	1.928.710.00	1.928.710.00	1.928.714.00
Mono XLR Connection Board	1.928.710.81	1.928.710.81	1.928.710.81	1.928.710.81
Stereo XLR Connection Board	1.928.712.81	1.928.710.81	1.928.710.81	1.928.712.81
Group Mono XLR Connection Board	1.928.714.81	1.928.710.81	1.928.710.81	1.928.714.81
Monitor Connection Board	1.928.720.00	1.928.720.00	1.928.720.00	1.928.720.00
Studio Monitor Connection Board	1.928.722.00	1.928.720.00	1.928.720.00	1.928.722.00
Connector 39 pin EMV	1.963.164.00	1.963.164.00	1.963.164.00	1.963.164.00
Connection Board Studio 39 pin	1.963.165.00	1.963.165.00	1.963.165.00	1.963.165.00

Bus Boards

Synopsis: Structure Lists

Assembly	Assembly No.
Main Bus Board 12A	1.928.800.00 1.928.800.81
Monitor Bus Board 6A	1.928.810.00 1.928.810.81

Synopsis: Assemblies, Circuit Diagrams, Component Layouts, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Main Bus Board 12A	1.928.800.00	1.928.800.00	1.928.800.00	1.928.800.00
Main Bus Board 12A	1.928.800.81	1.928.800.81	1.928.800.81	1.928.800.81
Monitor Bus Board 6A	1.928.810.00	1.928.810.00	1.928.810.00	1.928.810.00
Monitor Bus Board 6A	1.928.810.81	1.928.810.81	1.928.810.81	1.928.810.81

Mono XLR Connection Board 1.928.710.00/.81

Assembly Structure

Assembly	Assembly No.
Mono XLR Connection Board	1.928.710.00
Input XLR Conn. PCB	*1.928.710.11*
Mono XLR Connection Board	1.928.710.81
Input XLR Conn. PCB	*1.928.710.12*

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Mono XLR Connection Board	1.928.710.00	1.928.710.00	1.928.710.00	1.928.710.00
Mono XLR Connection Board	1.928.710.81	1.928.710.81	1.928.710.81	1.928.710.81

Stereo XLR Connection Board 1.928.712.00/.81

Assembly Structure

Assembly	Assembly No.
Stereo XLR Connection Board	1.928.712.00
Input XLR Conn. PCB	*1.928.710.11*
Stereo XLR Connection Board	1.928.712.81
Input XLR Conn. PCB	*1.928.710.12*

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Stereo XLR Connection Board	1.928.712.00	1.928.710.00	1.928.710.00	1.928.712.00
Stereo XLR Connection Board	1.928.712.81	1.928.710.81	1.928.710.81	1.928.712.81

Group Mono XLR Connection Board 1.928.714.00/.81

Assembly Structure

Assembly	Assembly No.
Group Mono XLR Connection Board	1.928.714.00
Input XLR Conn. PCB	*1.928.710.11*
Group Mono XLR Connection Board	1.928.714.81
Input XLR Conn. PCB	*1.928.710.12*

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Group Mono XLR Connection Board	1.928.714.00	1.928.710.00	1.928.710.00	1.928.714.00
Group Mono XLR Connection Board	1.928.714.81	1.928.710.81	1.928.710.81	1.928.714.81

Monitor Connection Board 1.928.720.00

Assembly Structure

Assembly	Assembly No.
Monitor Connection Board	1.928.720.00
Monitor Conn. PCB	*1.928.720.11*

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Monitor Connection Board	1.928.720.00	1.928.720.00	1.928.720.00	1.928.720.00

Studio Monitor Connection Board 1.928.722.00

Assembly Structure

Assembly	Assembly No.
Studio Monitor Connection Board	1.928.722.00
Monitor Conn. PCB	*1.928.720.11*

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Studio Monitor Connection Board	1.928.722.00	1.928.720.00	1.928.720.00	1.928.722.00

Main Bus Board 12A 1.928.800.00/.81

Assembly Structure

Assembly	Assembly No.
Main Bus Board 12A	1.928.800.00
Main Bus PCB 12A	*1.928.800.11*
Main Bus Board 12A	1.928. 800.81
Main Bus PCB 12A	*1.928. 800.12*

Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Main Bus Board 12A	1.928.800.00	1.928.800.00	1.928.800.00	1.928.800.00
Main Bus Board 12A	1.928. 800.81	1.928. 800.81	1.928. 800.81	1.928. 800.81

Monitor Bus Board 6A 1.928.810.00/.81

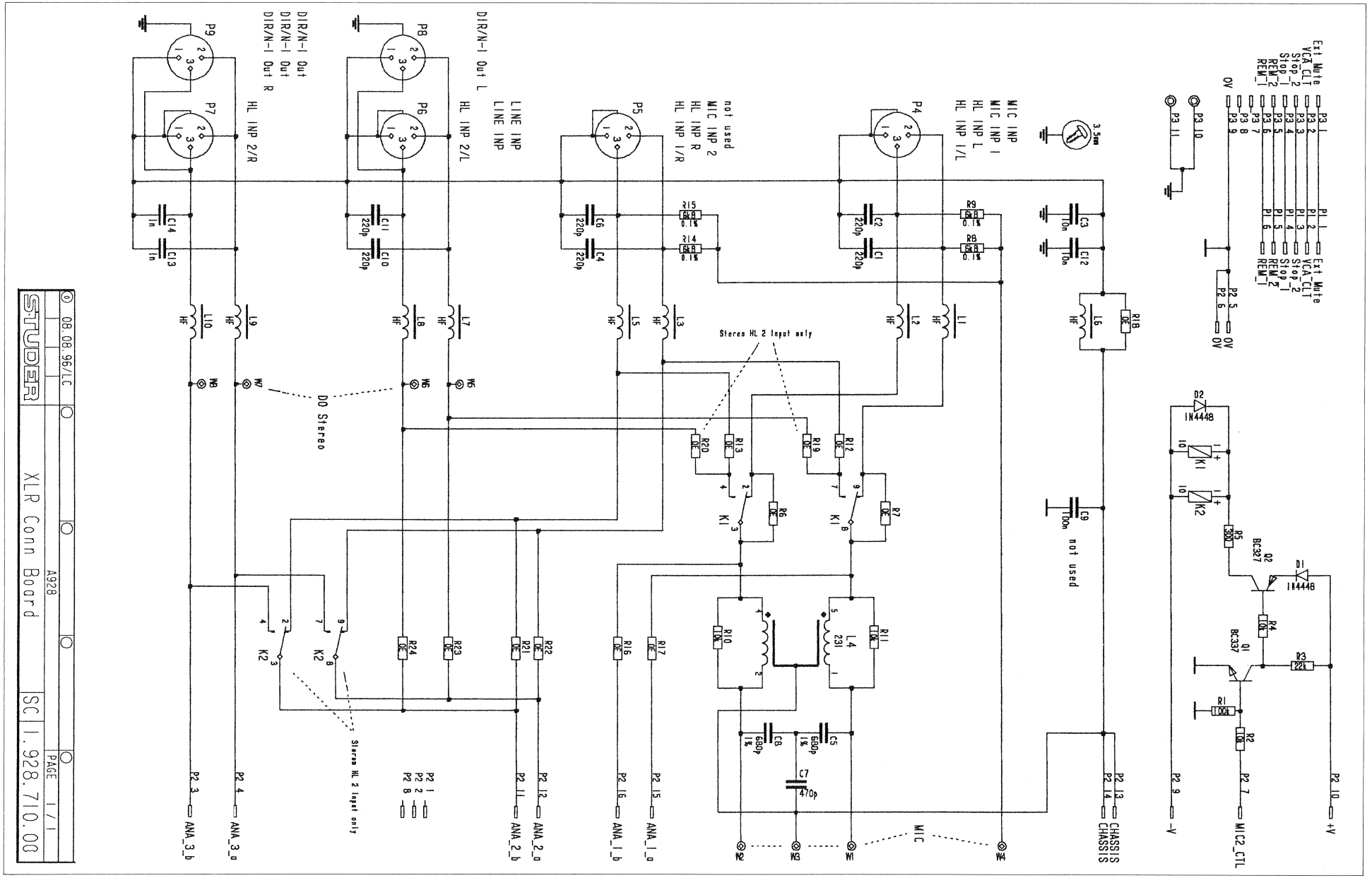
Assembly Structure

Assembly	Assembly No.
Monitor Bus Board 6A	1.928.810.00
Monitor Bus PCB 6A	*1.928.810.11*
Monitor Bus Board 6A	1.928. 810.81
Monitor Bus PCB 6A	*1.928. 810.12*

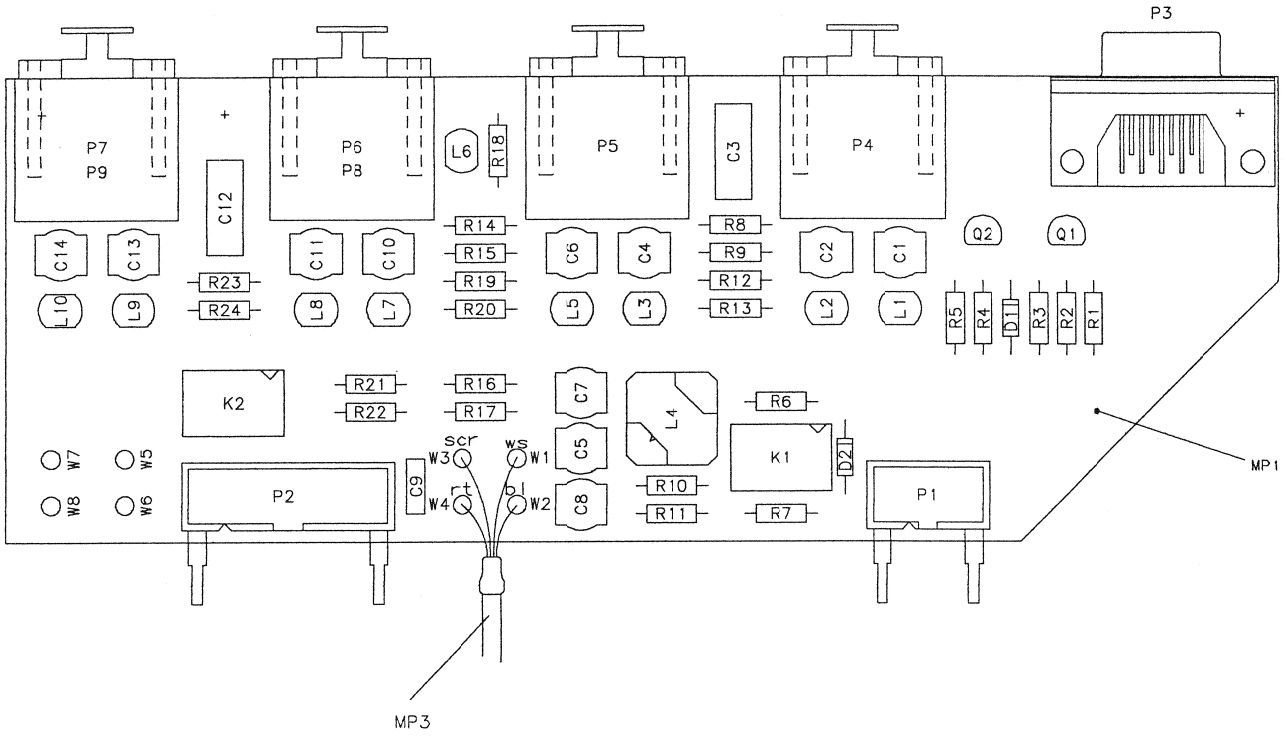
Circuit Diagrams, Component Layout Drawings, Parts Lists

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Monitor Bus Board 6A	1.928.810.00	1.928.810.00	1.928.810.00	1.928.810.00
Monitor Bus Board 6A	1.928. 810.81	1.928. 810.81	1.928. 810.81	1.928. 810.81

Mono XLR Connection Board 1.928.710.00/
Stereo XLR Connection Board 1.928.712.00/
Group Mono XLR Connection Board 1.928.714.00



Mono XLR Connection Board 1.928.710.00/
Stereo XLR Connection Board 1.928.712.00/
Group Mono XLR Connection Board 1.928.714.00



Edition Ausgabe	Modification Aenderung				
					3
					2
					1
08.08.96	LC				0
Date Datum	Visa Gez.	Record Gepr.	Seen Ges.	Index	

Copy to: Kopie fuer:

STUDER REGENSDORF Beschriftung Bezeichnung: XLR Conn Board

Number Nummer: 1.928.710.00

Mono XLR Connection Board 1.928.710.00

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.05.2221		220p	PP, 2.5%, 630V
0	C 2	59.05.2221		220p	PP, 2.5%, 630V
0	C 3	59.02.6103		10n	C .01 U , 5%, 400V , MPC
0	C 4	not used		220p	PP, 2.5%, 630V
0	C 5	59.05.1681		680p	PP, 1%, 630V
0	C 6	not used		220p	PP, 2.5%, 630V
0	C 7	59.05.2471		470p	PP, 2.5%, 630V
0	C 8	59.05.1681		680p	PP, 1%, 630V
0	C 9	not used		100n	PETP, 63V, 10%, RM5
0	C 10	59.05.2221		220p	PP, 2.5%, 630V
0	C 11	59.05.2221		220p	PP, 2.5%, 630V
0	C 12	59.02.6103		10n	C .01 U , 5%, 400V , MPC
0	C 13	59.05.2102		1n	PP, 2.5%, 630V
0	C 14	59.05.2102		1n	PP, 2.5%, 630V
0	D 1	not used		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	not used		1N4448	75V, 150mA, 4ns, DO-35
0	K 1	not used		2u	24V, 125V/2A, AG/AU
0	K 2	not used		2u	24V, 125V/2A, AG/AU
0	L 1	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 2	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 3	not used		110MHz	BREITBAND-DROSSEL
0	L 4	1.022.231.00		235mH	HF-ASYM. DROSSEL RM5
0	L 5	not used		110MHz	BREITBAND-DROSSEL
0	L 6	not used		110MHz	BREITBAND-DROSSEL
0	L 7	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 8	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 9	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 10	62.01.0301		110MHz	BREITBAND-DROSSEL
0	MP 1	1.928.710.11			XLR CONN PCB
0	MP 2	1.928.710.04			NR.-ETIKETTE 5 * 20
1	MP 3	1.928.710.01			KABEL ABGESCHIRMT 3P
0	P 1	54.14.2100		6p	P STECKER 6 P,AU,VR,GERADE
0	P 2	54.14.2102		16p	P STECKER 16 P,AU,VR,GERADE
0	P 3	54.13.0071		9p	D-Sub, PCB, Winkel
0	P 4	54.21.2205		3p	XLR 3p PCB WINKEL LOCK
0	P 5	not used		3p	XLR 3p PCB WINKEL LOCK
0	P 6	54.21.2205		3p	XLR 3p PCB WINKEL LOCK
0	P 7	not used		3p	XLR 3p PCB WINKEL LOCK
0	P 8	not used		3p	XLR 3p PCB WINKEL
0	P 9	54.21.2202		3p	XLR 3p PCB WINKEL
0	Q 1	not used		BC337-25	800mA, 45V, NPN
0	Q 2	not used		BC327-25	PNP, 800mA
0	R 1	not used		100k	MF, 1%, 0207
0	R 2	not used		10k	MF, 1%, 0207
0	R 3	not used		22k	MF, 1%, 0207
0	R 4	not used		10k	MF, 1%, 0207
1	R 5	not used		330R	MF, 1%, 0207
0	R 6	57.11.3000		0R0	MF, 0207
0	R 7	57.11.3000		0R0	MF, 0207
0	R 8	57.99.0250		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 9	57.99.0250		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 10	57.11.3103		10k	MF, 1%, 0207
0	R 11	57.11.3103		10k	MF, 1%, 0207
0	R 12	not used		0R0	MF, 0207
0	R 13	not used		0R0	MF, 0207
0	R 14	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 15	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 16	not used		0R0	MF, 0207
0	R 17	not used		0R0	MF, 0207
0	R 18	57.11.3000		0R0	MF, 0207
0	R 19	not used		0R0	MF, 0207
0	R 20	not used		0R0	MF, 0207
0	R 21	not used		0R0	MF, 0207
0	R 22	not used		0R0	MF, 0207
0	R 23	57.11.3000		0R0	MF, 0207
0	R 24	57.11.3000		0R0	MF, 0207

End of List

Comments:
(01) MP3 Kabel neu dazu 1.928.710.01 R5 neu 330R

Stereo XLR Connection Board 1.928.712.00

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.05.2221		220p	PP, 2.5%, 630V
0	C 2	59.05.2221		220p	PP, 2.5%, 630V
0	C 3	59.02.6103		10n	C .01 U , 5%, 400V , MPC
0	C 4	59.05.2221		220p	PP, 2.5%, 630V
0	C 5	not used		680p	PP, 1%, 630V
0	C 6	59.05.2221		220p	PP, 2.5%, 630V
0	C 7	not used		470p	PP, 2.5%, 630V
0	C 8	not used		680p	PP, 1%, 630V
0	C 9	not used		100n	PETP, 63V, 10%, RM5
0	C 10	59.05.2221		220p	PP, 2.5%, 630V
0	C 11	59.05.2221		220p	PP, 2.5%, 630V
0	C 12	59.02.6103		10n	C .01 U , 5%, 400V , MPC
1	C 13	59.05.2221		220p	PP, 2.5%, 630V
1	C 14	59.05.2221		220p	PP, 2.5%, 630V
1	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
1	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
1	K 1	56.04.0197		2u	24V, 125V/2A, AG/AU
1	K 2	56.04.0197		2u	24V, 125V/2A, AG/AU
0	L 1	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 2	62.01.0301		110MHz	BREITBAND-DROSSEL
1	L 3	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 4	not used		235mH	HF-ASYM. DROSSEL RM5
1	L 5	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 6	not used		110MHz	BREITBAND-DROSSEL
0	L 7	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 8	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 9	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 10	62.01.0301		110MHz	BREITBAND-DROSSEL
0	MP 1	1.928.710.11			XLR CONN PCB
1	MP 2	1.928.712.04			NR.-ETIKETTE 5 * 20
0	P 1	54.14.2100		6p	P STECKER 6 P,AU,VR,GERADE
0	P 2	54.14.2102		16p	P STECKER 16 P,AU,VR,GERADE
0	P 3	54.13.0071		9p	D-Sub, PCB, Winkel
0	P 4	54.21.2205		3p	XLR 3p PCB WINKEL LOCK
0	P 5	54.21.2205		3p	XLR 3p PCB WINKEL LOCK
1	P 6	54.21.2205		3p	XLR 3p PCB WINKEL LOCK
1	P 7	54.21.2205		3p	XLR 3p PCB WINKEL LOCK
1	P 8	not used		3p	XLR 3p PCB WINKEL
1	P 9	not used		3p	XLR 3p PCB WINKEL
1	Q 1	50.03.0340		BC337-25	800mA, 45V, NPN
1	Q 2	50.03.0351		BC327-25	PNP, 800mA
1	R 1	57.11.3104		100k	MF, 1%, 0207
1	R 2	57.11.3103		10k	MF, 1%, 0207
1	R 3	57.11.3223		22k	MF, 1%, 0207
1	R 4	57.11.3103		10k	MF, 1%, 0207
1	R 5	57.11.3331		330R	MF, 1%, 0207
1	R 6	not used		0R0	MF, 0207
1	R 7	not used		0R0	MF, 0207
0	R 8	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 9	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 10	not used		10k	MF, 1%, 0207
0	R 11	not used		10k	MF, 1%, 0207
0	R 12	not used		0R0	MF, 0207
0	R 13	not used		0R0	MF, 0207
0	R 14	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 15	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
1	R 16	not used		0R0	MF, 0207
1	R 17	not used		0R0	MF, 0207
0	R 18	57.11.3000		0R0	MF, 0207
1	R 19	57.11.3000		0R0	MF, 0207
1	R 20	57.11.3000		0R0	MF, 0207
1	R 21	not used		0R0	MF, 0207
1	R 22	not used		0R0	MF, 0207
0	R 23	not used		0R0	MF, 0207
0	R 24	not used		0R0	MF, 0207

End of List

Comments

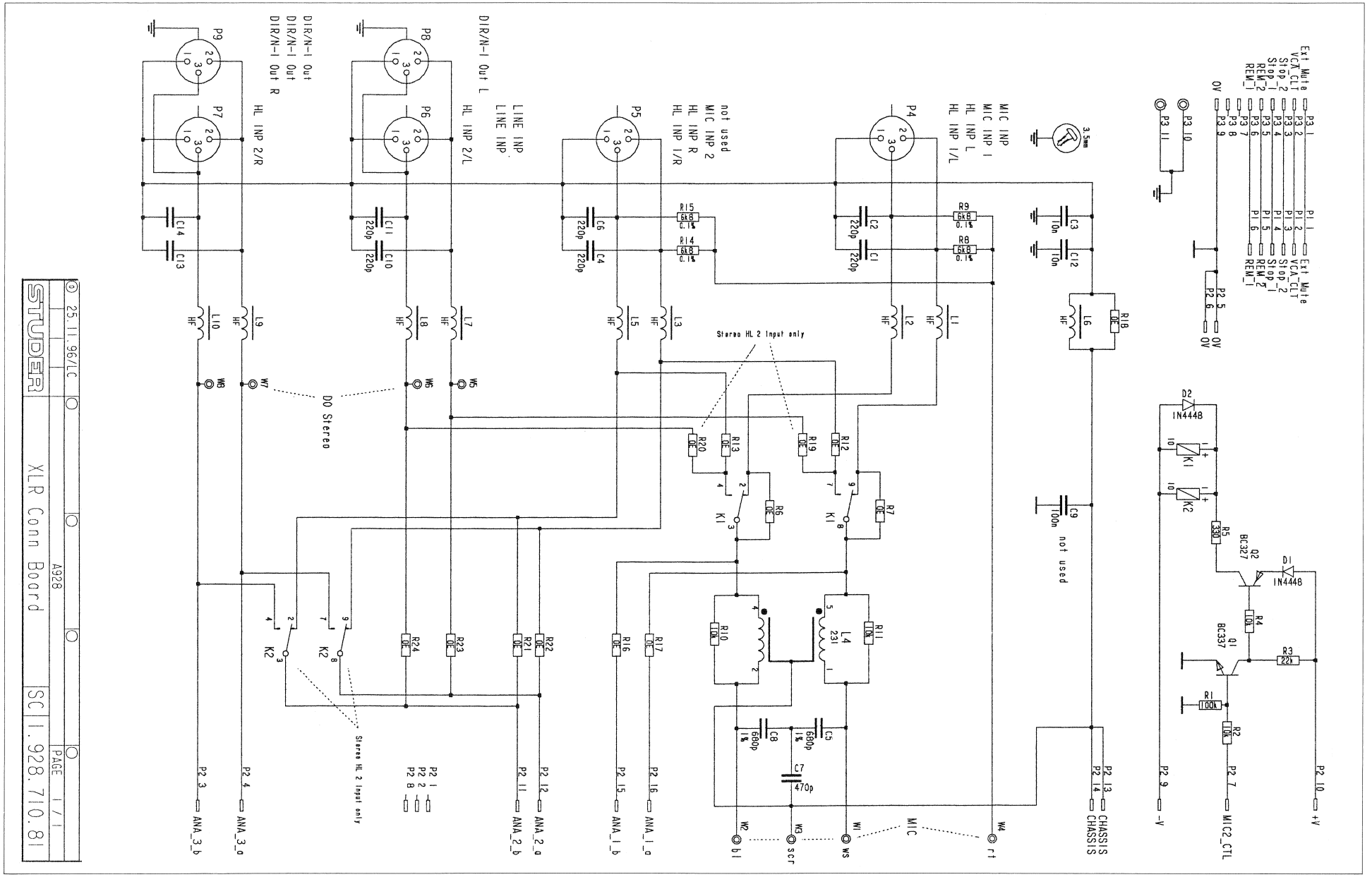
Group Mono XLR Connection Board 1.928.714.00

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.05.2221		220p	PP, 2.5%, 630V
0	C 2	59.05.2221		220p	PP, 2.5%, 630V
0	C 3	59.02.6103		10n	C .01 U , 5%, 400V , MPC
0	C 4	59.05.2221		220p	PP, 2.5%, 630V
0	C 5	not used		680p	PP, 1%, 630V
0	C 6	59.05.2221		220p	PP, 2.5%, 630V
0	C 7	not used		470p	PP, 2.5%, 630V
0	C 8	not used		680p	PP, 1%, 630V
0	C 9	not used		100n	PETP, 63V, 10%, RM5
0	C 10	59.05.2221		220p	PP, 2.5%, 630V
0	C 11	not used		220p	PP, 2.5%, 630V
0	C 12	59.02.6103		10n	C .01 U , 5%, 400V , MPC
0	C 13	59.05.2102		1n	PP, 2.5%, 630V
0	C 14	59.05.2102		1n	PP, 2.5%, 630V
0	D 1	not used		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	not used		1N4448	75V, 150mA, 4ns, DO-35
0	K 1	not used		2u	24V, 125V/2A, AG/AU
0	K 2	not used		2u	24V, 125V/2A, AG/AU
0	L 1	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 2	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 3	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 4	not used		235mH	HF-ASYM. DROSSEL RM5
0	L 5	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 6	not used		110MHz	BREITBAND-DROSSEL
0	L 7	not used		110MHz	BREITBAND-DROSSEL
0	L 8	not used		110MHz	BREITBAND-DROSSEL
0	L 9	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 10	62.01.0301		110MHz	BREITBAND-DROSSEL
0	MP 1	1.928.710.11			XLR CONN PCB
0	MP 2	1.928.714.04			STUDER NR. ETIKETTE
0	P 1	54.14.2100		6p	P STECKER 6 P,AU,VR,GERADE
0	P 2	54.14.2102		16p	P STECKER 16 P,AU,VR,GERADE
0	P 3	54.13.0071		9p	D-Sub, PCB, Winkel
0	P 4	54.21.2205		3p	XLR 3p PCB WINKEL LOCK
0	P 5	54.21.2205		3p	XLR 3p PCB WINKEL LOCK
0	P 6	not used		3p	XLR 3p PCB WINKEL LOCK
0	P 7	not used		3p	XLR 3p PCB WINKEL LOCK
0	P 8	not used		3p	XLR 3p PCB WINKEL
0	P 9	54.21.2202		3p	XLR 3p PCB WINKEL
0	Q 1	not used		BC337-25	800mA, 45V, NPN
0	Q 2	not used		BC327-25	PNP, 800mA
0	R 1	not used		100k	MF, 1%, 0207
0	R 2	not used		10k	MF, 1%, 0207
0	R 3	not used		22k	MF, 1%, 0207
0	R 4	not used		10k	MF, 1%, 0207
0	R 5	not used		300R	MF, 1%, 0207
0	R 6	57.11.3000		0R0	MF, 0207
0	R 7	57.11.3000		0R0	MF, 0207
0	R 8	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 9	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 10	not used		10k	MF, 1%, 0207
0	R 11	not used		10k	MF, 1%, 0207
0	R 12	not used		0R0	MF, 0207
0	R 13	not used		0R0	MF, 0207
0	R 14	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 15	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 16	not used		0R0	MF, 0207
0	R 17	not used		0R0	MF, 0207
0	R 18	57.11.3000		0R0	MF, 0207
0	R 19	not used		0R0	MF, 0207
0	R 20	not used		0R0	MF, 0207
0	R 21	57.11.3000		0R0	MF, 0207
0	R 22	57.11.3000		0R0	MF, 0207
0	R 23	not used		0R0	MF, 0207
0	R 24	not used		0R0	MF, 0207

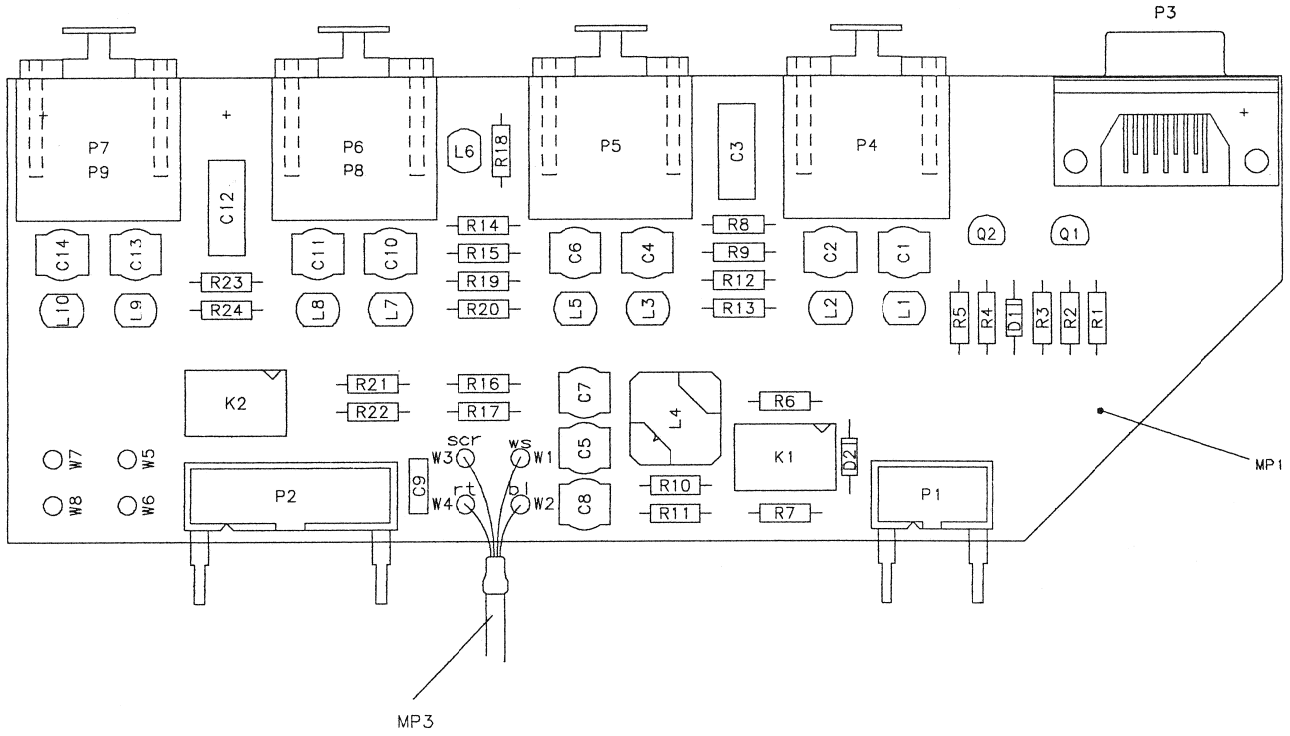
End of List

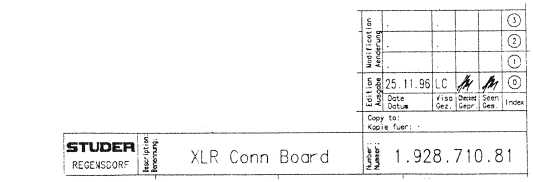
Comments:

Mono XLR Connection Board 1.928.710.81/
Stereo XLR Connection Board 1.928.712.81/
Group Mono XLR Connection Board 1.928.714.81



Mono XLR Connection Board 1.928.710.81/
Stereo XLR Connection Board 1.928.712.81/
Group Mono XLR Connection Board 1.928.714.81





Mono XLR Connection Board 1.928.710.81

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.05.2221		220p	PP, 2.5%, 630V
0	C 2	59.05.2221		220p	PP, 2.5%, 630V
0	C 3	59.31.7103		10n	C .01 U , 10%, 250V , MPETP
0	C 4	not used		220p	PP, 2.5%, 630V
0	C 5	59.05.1681		680p	PP, 1%, 630V
0	C 6	not used		220p	PP, 2.5%, 630V
0	C 7	59.05.2471		470p	PP, 2.5%, 630V
0	C 8	59.05.1681		680p	PP, 1%, 630V
0	C 9	not used		100n	PETP, 63V, 10%, RM5
0	C 10	59.05.2221		220p	PP, 2.5%, 630V
0	C 11	59.05.2221		220p	PP, 2.5%, 630V
0	C 12	59.31.7103		10n	C .01 U , 10%, 250V , MPETP
0	C 13	59.05.2102		1n	PP, 2.5%, 630V
0	C 14	59.05.2102		1n	PP, 2.5%, 630V
0	D 1	not used		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	not used		1N4448	75V, 150mA, 4ns, DO-35
0	K 1	not used		2u	24V, 125V/2A, AG/AU
0	K 2	not used		2u	24V, 125V/2A, AG/AU
0	L 1	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 2	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 3	not used		110MHz	BREITBAND-DROSSEL
0	L 4	1.022.231.00		235mH	HF-ASYM. DROSSEL RM5
0	L 5	not used		110MHz	BREITBAND-DROSSEL
0	L 6	not used		110MHz	BREITBAND-DROSSEL
0	L 7	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 8	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 9	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 10	62.01.0301		110MHz	BREITBAND-DROSSEL
0	MP 1	1.928.710.12			XLR CONN PCB
0	MP 2	1.928.710.04			NR.-ETIKETTE 5 * 20
0	MP 3	1.928.710.01			KABEL ABGESCHIRMT 3P
0	P 1	54.14.2100		6p	P STECKER 6 P,AU,VR,GERADE
0	P 2	54.14.2102		16p	P STECKER 16 P,AU,VR,GERADE
0	P 3	54.13.0071		9p	D-Sub, PCB, Winkel
0	P 4	54.21.2207		3p	XLR, PCB, WINKEL, LOCK
0	P 5	not used		3p	XLR, PCB, WINKEL, LOCK
0	P 6	54.21.2207		3p	XLR, PCB, WINKEL, LOCK
0	P 7	not used		3p	XLR, PCB, WINKEL, LOCK
0	P 8	not used		3p	XLR 3p PCB WINKEL
0	P 9	54.21.2202		3p	XLR 3p PCB WINKEL
0	Q 1	not used		BC337-25	800mA, 45V, NPN
0	Q 2	not used		BC327-25	PNP, 800mA
0	R 1	not used		100k	MF, 1%, 0207
0	R 2	not used		10k	MF, 1%, 0207
0	R 3	not used		22k	MF, 1%, 0207
0	R 4	not used		10k	MF, 1%, 0207
0	R 5	not used		330R	MF, 1%, 0207
0	R 6	57.11.3000		0R0	MF, 0207
0	R 7	57.11.3000		0R0	MF, 0207
0	R 8	57.99.0250		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 9	57.99.0250		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 10	57.11.3103		10k	MF, 1%, 0207
0	R 11	57.11.3103		10k	MF, 1%, 0207
0	R 12	not used		0R0	MF, 0207
0	R 13	not used		0R0	MF, 0207
0	R 14	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 15	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 16	not used		0R0	MF, 0207
0	R 17	not used		0R0	MF, 0207
0	R 18	57.11.3000		0R0	MF, 0207
0	R 19	not used		0R0	MF, 0207
0	R 20	not used		0R0	MF, 0207
0	R 21	not used		0R0	MF, 0207
0	R 22	not used		0R0	MF, 0207
0	R 23	57.11.3000		0R0	MF, 0207
0	R 24	57.11.3000		0R0	MF, 0207

End of List

Comments:

Stereo XLR Connection Board 1.928.712.81

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.05.2221		220p	PP, 2.5%, 630V
0	C 2	59.05.2221		220p	PP, 2.5%, 630V
0	C 3	59.31.7103		10n	C .01 U , 10%, 250V , MPETP
0	C 4	59.05.2221		220p	PP, 2.5%, 630V
0	C 5	not used		680p	PP, 1%, 630V
0	C 6	59.05.2221		220p	PP, 2.5%, 630V
0	C 7	not used		470p	PP, 2.5%, 630V
0	C 8	not used		680p	PP, 1%, 630V
0	C 9	not used		100n	PETP, 63V, 10%, RM5
0	C 10	59.05.2221		220p	PP, 2.5%, 630V
0	C 11	59.05.2221		220p	PP, 2.5%, 630V
0	C 12	59.31.7103		10n	C .01 U , 10%, 250V , MPETP
0	C 13	59.05.2221		220p	PP, 2.5%, 630V
0	C 14	59.05.2221		220p	PP, 2.5%, 630V
0	D 1	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	K 1	56.04.0197		2u	24V, 125V/2A, AG/AU
0	K 2	56.04.0197		2u	24V, 125V/2A, AG/AU
0	L 1	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 2	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 3	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 4	not used		235mH	HF-ASYM. DROSSEL RM5
0	L 5	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 6	not used		110MHz	BREITBAND-DROSSEL
0	L 7	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 8	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 9	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 10	62.01.0301		110MHz	BREITBAND-DROSSEL
0	MP 1	1.928.710.12			XLR CONN PCB
0	MP 2	1.928.712.04			NR.-ETIKETTE 5 * 20
0	P 1	54.14.2100		6p	P STECKER 6 P,AU,VR,GERADE
0	P 2	54.14.2102		16p	P STECKER 16 P,AU,VR,GERADE
0	P 3	54.13.0071		9p	D-Sub, PCB, Winkel
0	P 4	54.21.2207		3p	XLR, PCB, WINKEL, LOCK
0	P 5	54.21.2207		3p	XLR, PCB, WINKEL, LOCK
0	P 6	54.21.2207		3p	XLR, PCB, WINKEL, LOCK
0	P 7	54.21.2207		3p	XLR, PCB, WINKEL, LOCK
0	P 8	not used		3p	XLR 3p PCB WINKEL
0	P 9	not used		3p	XLR 3p PCB WINKEL
0	Q 1	50.03.0340		BC337-25	800mA, 45V, NPN
0	Q 2	50.03.0351		BC327-25	PNP, 800mA
0	R 1	57.11.3104		100k	MF, 1%, 0207
0	R 2	57.11.3103		10k	MF, 1%, 0207
0	R 3	57.11.3223		22k	MF, 1%, 0207
0	R 4	57.11.3103		10k	MF, 1%, 0207
0	R 5	57.11.3331		330R	MF, 1%, 0207
0	R 6	not used		0R0	MF, 0207
0	R 7	not used		0R0	MF, 0207
0	R 8	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 9	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 10	not used		10k	MF, 1%, 0207
0	R 11	not used		10k	MF, 1%, 0207
0	R 12	not used		0R0	MF, 0207
0	R 13	not used		0R0	MF, 0207
0	R 14	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 15	not used		6k8	R 6.8 K ,0.1%, 25PPM, MF
0	R 16	57.11.3000		0R0	MF, 0207
0	R 17	57.11.3000		0R0	MF, 0207
0	R 18	57.11.3000		0R0	MF, 0207
0	R 19	57.11.3000		0R0	MF, 0207
0	R 20	57.11.3000		0R0	MF, 0207
0	R 21	not used		0R0	MF, 0207
0	R 22	not used		0R0	MF, 0207
0	R 23	not used		0R0	MF, 0207
0	R 24	not used		0R0	MF, 0207

End of List

Comments:

Group Mono XLR Connection Board 1.928.714.81

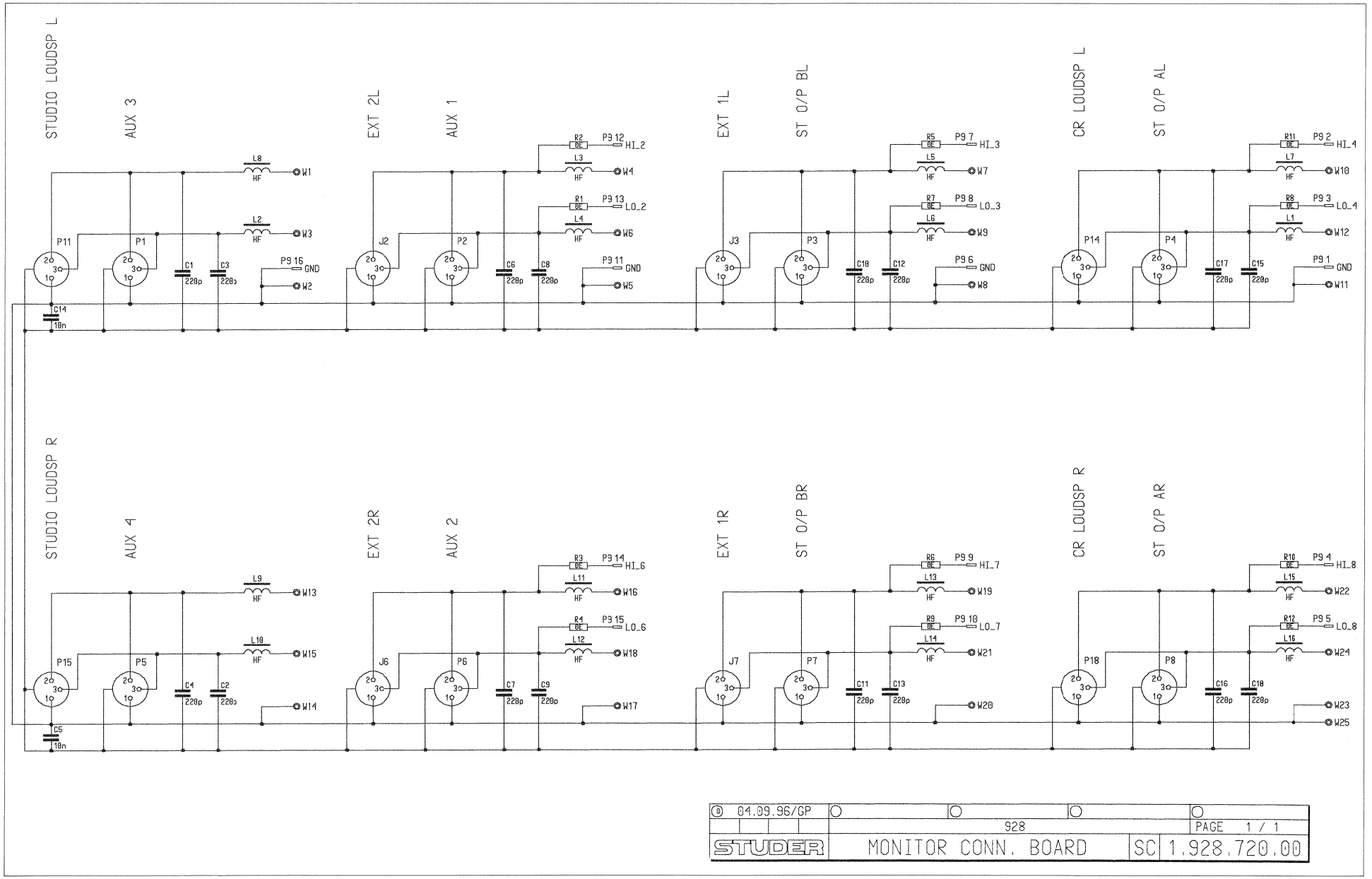
Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.05.2221		220p	PP, 2.5%, 630V
0	C 2	59.05.2221		220p	PP, 2.5%, 630V
0	C 3	59.31.7103		10n	C .01 U , 10%, 250V , MPETP
0	C 4	59.05.2221		220p	PP, 2.5%, 630V
0	C 5	not used		680p	PP, 1%, 630V
0	C 6	59.05.2221		220p	PP, 2.5%, 630V
0	C 7	not used		470p	PP, 2.5%, 630V
0	C 8	not used		680p	PP, 1%, 630V
0	C 9	not used		100n	PETP, 63V, 10%, RM5
0	C 10	not used		220p	PP, 2.5%, 630V
0	C 11	not used		220p	PP, 2.5%, 630V
0	C 12	59.31.7103		10n	C .01 U , 10%, 250V , MPETP
0	C 13	59.05.2102		1n	PP, 2.5%, 630V
0	C 14	59.05.2102		1n	PP, 2.5%, 630V
0	D 1	not used		1N4448	75V, 150mA, 4ns, DO-35
0	D 2	not used		1N4448	75V, 150mA, 4ns, DO-35
0	K 1	not used		2u	24V, 125V/2A, AG/AU
0	K 2	not used		2u	24V, 125V/2A, AG/AU
0	L 1	62.01.0301		110MHz	Breitband-Drossel
0	L 2	62.01.0301		110MHz	Breitband-Drossel
0	L 3	62.01.0301		110MHz	Breitband-Drossel
0	L 4	not used		235mH	HF-ASYM. DROSSEL RM5
0	L 5	62.01.0301		110MHz	Breitband-Drossel
0	L 6	not used		110MHz	Breitband-Drossel
0	L 7	not used		110MHz	Breitband-Drossel
0	L 8	not used		110MHz	Breitband-Drossel
0	L 9	62.01.0301		110MHz	Breitband-Drossel
0	L 10	62.01.0301		110MHz	Breitband-Drossel
0	MP 1	1.928.710.12			XLR CONN PCB
0	MP 2	1.928.714.04			STUDER NR. ETIKETTE
0	P 1	54.14.2100		6p	P STECKER 6 P,AU,VR,GERADE
0	P 2	54.14.2102		16p	P STECKER 16 P,AU,VR,GERADE
0	P 3	54.13.0071		9p	D-Sub, PCB, Winkel
0	P 4	54.21.2207		3p	XLR, PCB, WINKEL, LOCK
0	P 5	54.21.2207		3p	XLR, PCB, WINKEL, LOCK
0	P 6	not used		3p	XLR, PCB, WINKEL, LOCK
0	P 7	not used		3p	XLR, PCB, WINKEL, LOCK
0	P 8	not used		3p	XLR 3p PCB WINKEL
0	P 9	54.21.2202		3p	XLR 3p PCB WINKEL
0	Q 1	not used		BC337-25	800mA, 45V, NPN
0	Q 2	not used		BC327-25	PNP, 800mA
0	R 1	not used		100k	MF, 1%, 0207
0	R 2	not used		10k	MF, 1%, 0207
0	R 3	not used		22k	MF, 1%, 0207
0	R 4	not used		10k	MF, 1%, 0207
0	R 5	not used		330R	MF, 1%, 0207
0	R 6	57.11.3000		0R0	MF, 0207
0	R 7	57.11.3000		0R0	MF, 0207
0	R 8	not used		6k8	MF 0.1%, 25ppm 0207
0	R 9	not used		6k8	MF 0.1%, 25ppm 0207
0	R 10	not used		10k	MF, 1%, 0207
0	R 11	not used		10k	MF, 1%, 0207
0	R 12	not used		0R0	MF, 0207
0	R 13	not used		0R0	MF, 0207
0	R 14	not used		6k8	MF 0.1%, 25ppm 0207
0	R 15	not used		6k8	MF 0.1%, 25ppm 0207
1	R 16	57.11.3000		0R0	MF, 0207
1	R 17	57.11.3000		0R0	MF, 0207
0	R 18	57.11.3000		0R0	MF, 0207
0	R 19	not used		0R0	MF, 0207
0	R 20	not used		0R0	MF, 0207
0	R 21	57.11.3000		0R0	MF, 0207
0	R 22	57.11.3000		0R0	MF, 0207
0	R 23	not used		0R0	MF, 0207
0	R 24	not used		0R0	MF, 0207

End of List

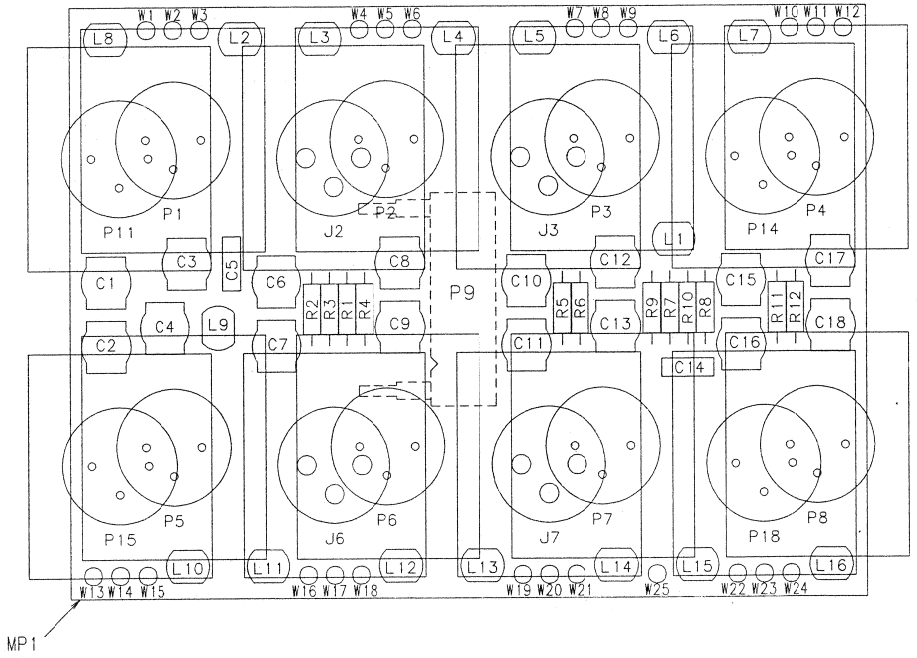
Comments

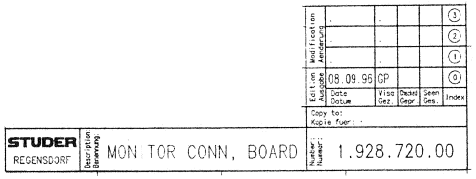
(1) R16+R17 changed to 57.11.0000

Monitor Connector Board 1.928.720.00/
Studio Monitor Connector Board 1.928.722.00



Monitor Connector Board 1.928.720.00/
Studio Monitor Connector Board 1.928.722.00





Monitor Connector Board 1.928.720.00

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.05.2221		220p	PP, 2.5%, 630V
0	C 2	59.05.2221		220p	PP, 2.5%, 630V
0	C 3	59.05.2221		220p	PP, 2.5%, 630V
0	C 4	59.05.2221		220p	PP, 2.5%, 630V
0	C 5	59.06.0103		10n	PETP, 10%, 63V
0	C 6	59.05.2221		220p	PP, 2.5%, 630V
0	C 7	59.05.2221		220p	PP, 2.5%, 630V
0	C 8	59.05.2221		220p	PP, 2.5%, 630V
0	C 9	59.05.2221		220p	PP, 2.5%, 630V
0	C 10	59.05.2221		220p	PP, 2.5%, 630V
0	C 11	59.05.2221		220p	PP, 2.5%, 630V
0	C 12	59.05.2221		220p	PP, 2.5%, 630V
0	C 13	59.05.2221		220p	PP, 2.5%, 630V
0	C 14	59.06.0103		10n	PETP, 10%, 63V
0	C 15	59.05.2221		220p	PP, 2.5%, 630V
0	C 16	59.05.2221		220p	PP, 2.5%, 630V
0	C 17	59.05.2221		220p	PP, 2.5%, 630V
0	C 18	59.05.2221		220p	PP, 2.5%, 630V
0	J 2	not used		JXLR3p	J 3 POL CHASSIS/PCB XLR
0	J 3	not used		JXLR3p	J 3 POL CHASSIS/PCB XLR
0	J 6	not used		JXLR3p	J 3 POL CHASSIS/PCB XLR
0	J 7	not used		JXLR3p	J 3 POL CHASSIS/PCB XLR
0	L 1	not used		110MHz	BREITBAND-DROSSEL
0	L 2	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 3	not used		110MHz	BREITBAND-DROSSEL
0	L 4	not used		110MHz	BREITBAND-DROSSEL
0	L 5	not used		110MHz	BREITBAND-DROSSEL
0	L 6	not used		110MHz	BREITBAND-DROSSEL
0	L 7	not used		110MHz	BREITBAND-DROSSEL
0	L 8	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 9	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 10	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 11	not used		110MHz	BREITBAND-DROSSEL
0	L 12	not used		110MHz	BREITBAND-DROSSEL
0	L 13	not used		110MHz	BREITBAND-DROSSEL
0	L 14	not used		110MHz	BREITBAND-DROSSEL
0	L 15	not used		110MHz	BREITBAND-DROSSEL
0	L 16	not used		110MHz	BREITBAND-DROSSEL
0	MP 1	1.928.720.11			MONITOR CONN PCB
0	MP 2	1.928.720.04			NR.-ETIKETTE 5 * 20
0	P 1	54.21.2001		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 2	54.21.2001		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 3	54.21.2001		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 4	54.21.2001		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 5	54.21.2001		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 6	54.21.2001		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 7	54.21.2001		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 8	54.21.2001		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 9	54.14.2102		16p	P STECKER 16 P,AU,VR,GERADE
0	P 11	not used		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 14	not used		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 15	not used		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 18	not used		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	R 1	57.11.3000		0R0	MF, 0207
0	R 2	57.11.3000		0R0	MF, 0207
0	R 3	57.11.3000		0R0	MF, 0207
0	R 4	57.11.3000		0R0	MF, 0207
0	R 5	57.11.3000		0R0	MF, 0207
0	R 6	57.11.3000		0R0	MF, 0207
0	R 7	57.11.3000		0R0	MF, 0207
0	R 8	57.11.3000		0R0	MF, 0207
0	R 9	57.11.3000		0R0	MF, 0207
0	R 10	57.11.3000		0R0	MF, 0207
0	R 11	57.11.3000		0R0	MF, 0207
0	R 12	57.11.3000		0R0	MF, 0207

End of List

Comments

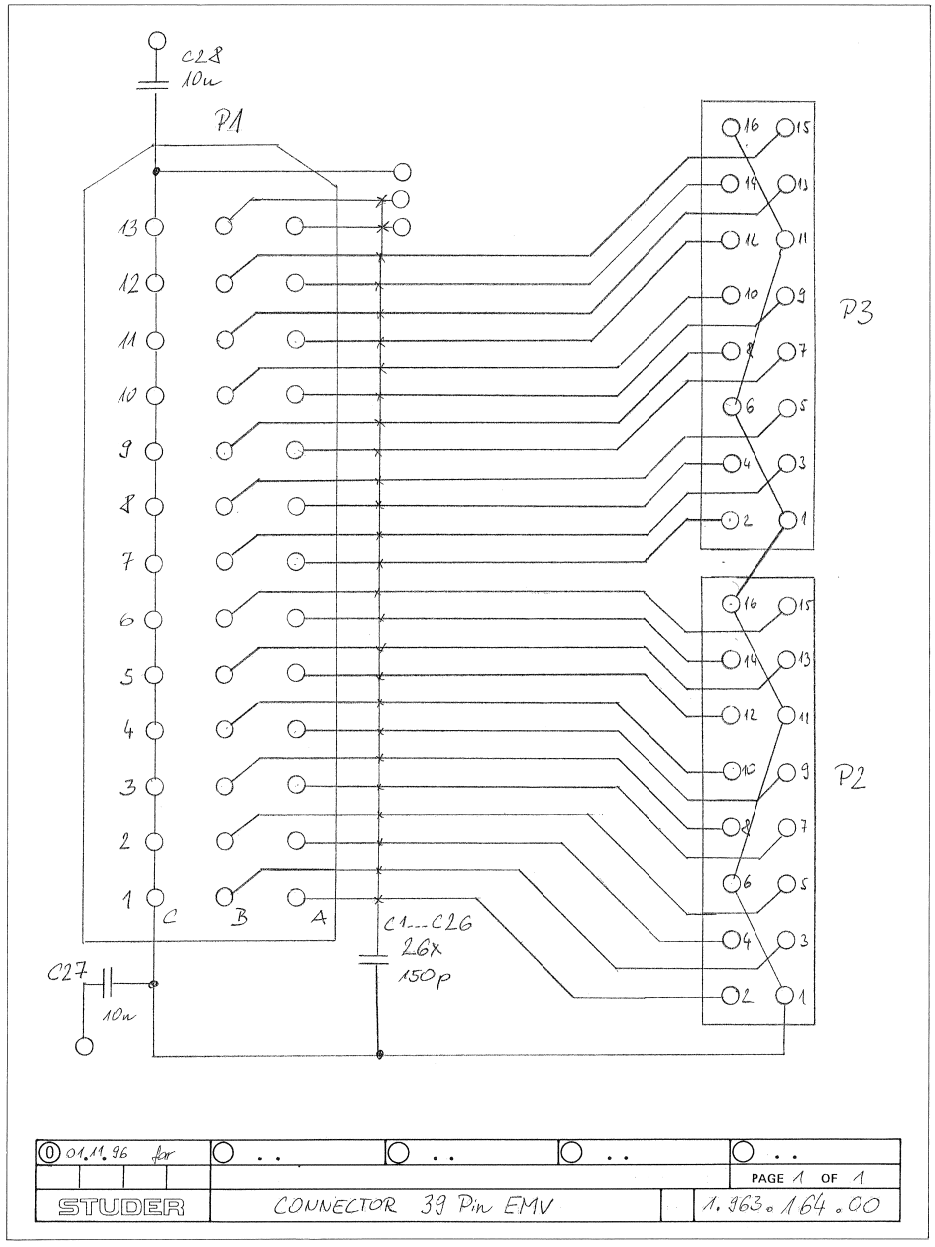
Studio Monitor Connector Board 1.928.722.00

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.05.2221		220p	PP, 2.5%, 630V
0	C 2	59.05.2221		220p	PP, 2.5%, 630V
0	C 3	59.05.2221		220p	PP, 2.5%, 630V
0	C 4	59.05.2221		220p	PP, 2.5%, 630V
0	C 5	59.06.0103		10n	PETP, 10%, 63V
0	C 6	59.05.2221		220p	PP, 2.5%, 630V
0	C 7	59.05.2221		220p	PP, 2.5%, 630V
0	C 8	59.05.2221		220p	PP, 2.5%, 630V
0	C 9	59.05.2221		220p	PP, 2.5%, 630V
0	C 10	59.05.2221		220p	PP, 2.5%, 630V
0	C 11	59.05.2221		220p	PP, 2.5%, 630V
0	C 12	59.05.2221		220p	PP, 2.5%, 630V
0	C 13	59.05.2221		220p	PP, 2.5%, 630V
0	C 14	59.06.0103		10n	PETP, 10%, 63V
0	C 15	59.05.2221		220p	PP, 2.5%, 630V
0	C 16	59.05.2221		220p	PP, 2.5%, 630V
0	C 17	59.05.2221		220p	PP, 2.5%, 630V
0	C 18	59.05.2221		220p	PP, 2.5%, 630V
0	J 2	54.21.2002		JXLR3p	J 3 POL CHASSIS/PCB XLR
0	J 3	54.21.2002		JXLR3p	J 3 POL CHASSIS/PCB XLR
0	J 6	54.21.2002		JXLR3p	J 3 POL CHASSIS/PCB XLR
0	J 7	54.21.2002		JXLR3p	J 3 POL CHASSIS/PCB XLR
0	L 1	not used		110MHz	BREITBAND-DROSSEL
0	L 2	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 3	not used		110MHz	BREITBAND-DROSSEL
0	L 4	not used		110MHz	BREITBAND-DROSSEL
0	L 5	not used		110MHz	BREITBAND-DROSSEL
0	L 6	not used		110MHz	BREITBAND-DROSSEL
0	L 7	not used		110MHz	BREITBAND-DROSSEL
0	L 8	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 9	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 10	62.01.0301		110MHz	BREITBAND-DROSSEL
0	L 11	not used		110MHz	BREITBAND-DROSSEL
0	L 12	not used		110MHz	BREITBAND-DROSSEL
0	L 13	not used		110MHz	BREITBAND-DROSSEL
0	L 14	not used		110MHz	BREITBAND-DROSSEL
0	L 15	not used		110MHz	BREITBAND-DROSSEL
0	L 16	not used		110MHz	BREITBAND-DROSSEL
0	MP 1	1.928.720.11			MONITOR CONN PCB
0	MP 2	1.928.722.04			NR.-ETIKETTE 5 * 20
0	P 1	not used		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 2	not used		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 3	not used		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 4	not used		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 5	not used		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 6	not used		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 7	not used		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 8	not used		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 9	54.14.2102		16p	P STECKER 16 P,AU,VR,GERADE
0	P 11	54.21.2001		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 14	54.21.2001		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 15	54.21.2001		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	P 18	54.21.2001		PXLR3p	P 3 POL CHASSIS/PCB XLR
0	R 1	57.11.3000		0R0	MF, 0207
0	R 2	57.11.3000		0R0	MF, 0207
0	R 3	57.11.3000		0R0	MF, 0207
0	R 4	57.11.3000		0R0	MF, 0207
0	R 5	57.11.3000		0R0	MF, 0207
0	R 6	57.11.3000		0R0	MF, 0207
0	R 7	57.11.3000		0R0	MF, 0207
0	R 8	57.11.3000		0R0	MF, 0207
0	R 9	57.11.3000		0R0	MF, 0207
0	R 10	57.11.3000		0R0	MF, 0207
0	R 11	57.11.3000		0R0	MF, 0207
0	R 12	57.11.3000		0R0	MF, 0207

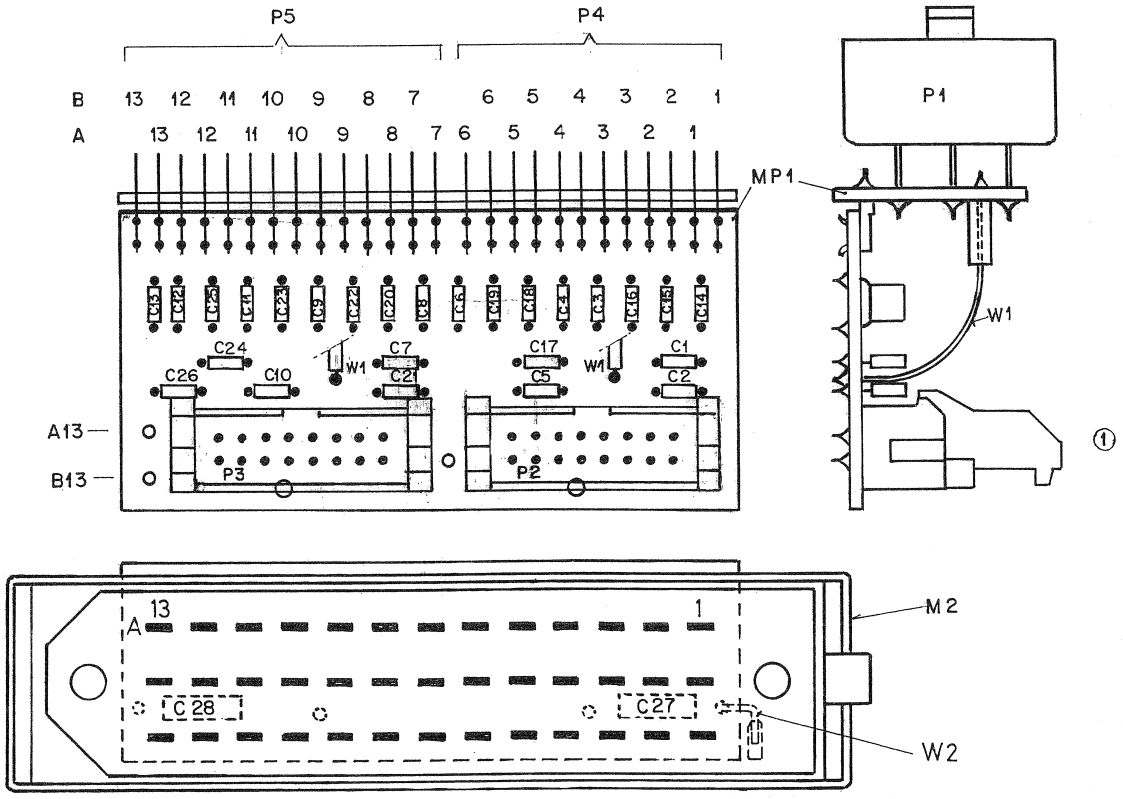
End of List

Comments

Connector 39 Pin EMV 1.963.164.00



Connector 39 Pin EMV 1.963.164.00



C27 and C28 on solder side

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.34.7151		150p	CER 63V, 2%, NP150
0	C 2	59.34.7151		150p	CER 63V, 2%, NP150
0	C 3	59.34.7151		150p	CER 63V, 2%, NP150
0	C 4	59.34.7151		150p	CER 63V, 2%, NP150
0	C 5	59.34.7151		150p	CER 63V, 2%, NP150
0	C 6	59.34.7151		150p	CER 63V, 2%, NP150
0	C 7	59.34.7151		150p	CER 63V, 2%, NP150
0	C 8	59.34.7151		150p	CER 63V, 2%, NP150
0	C 9	59.34.7151		150p	CER 63V, 2%, NP150
0	C 10	59.34.7151		150p	CER 63V, 2%, NP150
0	C 11	59.34.7151		150p	CER 63V, 2%, NP150
0	C 12	59.34.7151		150p	CER 63V, 2%, NP150
0	C 13	59.34.7151		150p	CER 63V, 2%, NP150
0	C 14	59.34.7151		150p	CER 63V, 2%, NP150
0	C 15	59.34.7151		150p	CER 63V, 2%, NP150
0	C 16	59.34.7151		150p	CER 63V, 2%, NP150
0	C 17	59.34.7151		150p	CER 63V, 2%, NP150
0	C 18	59.34.7151		150p	CER 63V, 2%, NP150
0	C 19	59.34.7151		150p	CER 63V, 2%, NP150
0	C 20	59.34.7151		150p	CER 63V, 2%, NP150
0	C 21	59.34.7151		150p	CER 63V, 2%, NP150
0	C 22	59.34.7151		150p	CER 63V, 2%, NP150
0	C 23	59.34.7151		150p	CER 63V, 2%, NP150
0	C 24	59.34.7151		150p	CER 63V, 2%, NP150
0	C 25	59.34.7151		150p	CER 63V, 2%, NP150
0	C 26	59.34.7151		150p	CER 63V, 2%, NP150
0	C 27	59.06.0103		10n	PETP, 63V, 10%, RM5
0	C 28	59.06.0103		10n	PETP, 63V, 10%, RM5
2	MP 1	1.963.164.12			CONNECTOR 39-PIN EMV PCB
0	MP 2	54.14.7002			MP RIEGELWANNE 30/39 POL
0	MP 3	1.963.164.04			NR.-ETIKETTE 5*20
0	P 1	54.14.1023			P LEISTE 39 POL PRINT
1	P 2	54.14.2102		16p	P STECKER 16 P,AU,VR,GERADE
1	P 3	54.14.2102		16p	P STECKER 16 P,AU,VR,GERADE
0	P 4	54.01.0221		12-P	P LEISTE 12 POL CIS WINKEL
0	P 5	54.01.0274		14-P	P LEISTE 14 POL CIS WINKEL
0	W 1	1.963.164.93	2 pcs		LL-CONNECTOR 39-PIN EMV BOARD
0	W 2	64.01.0106			SCHALTDRAHT SN D 0.6

End of List

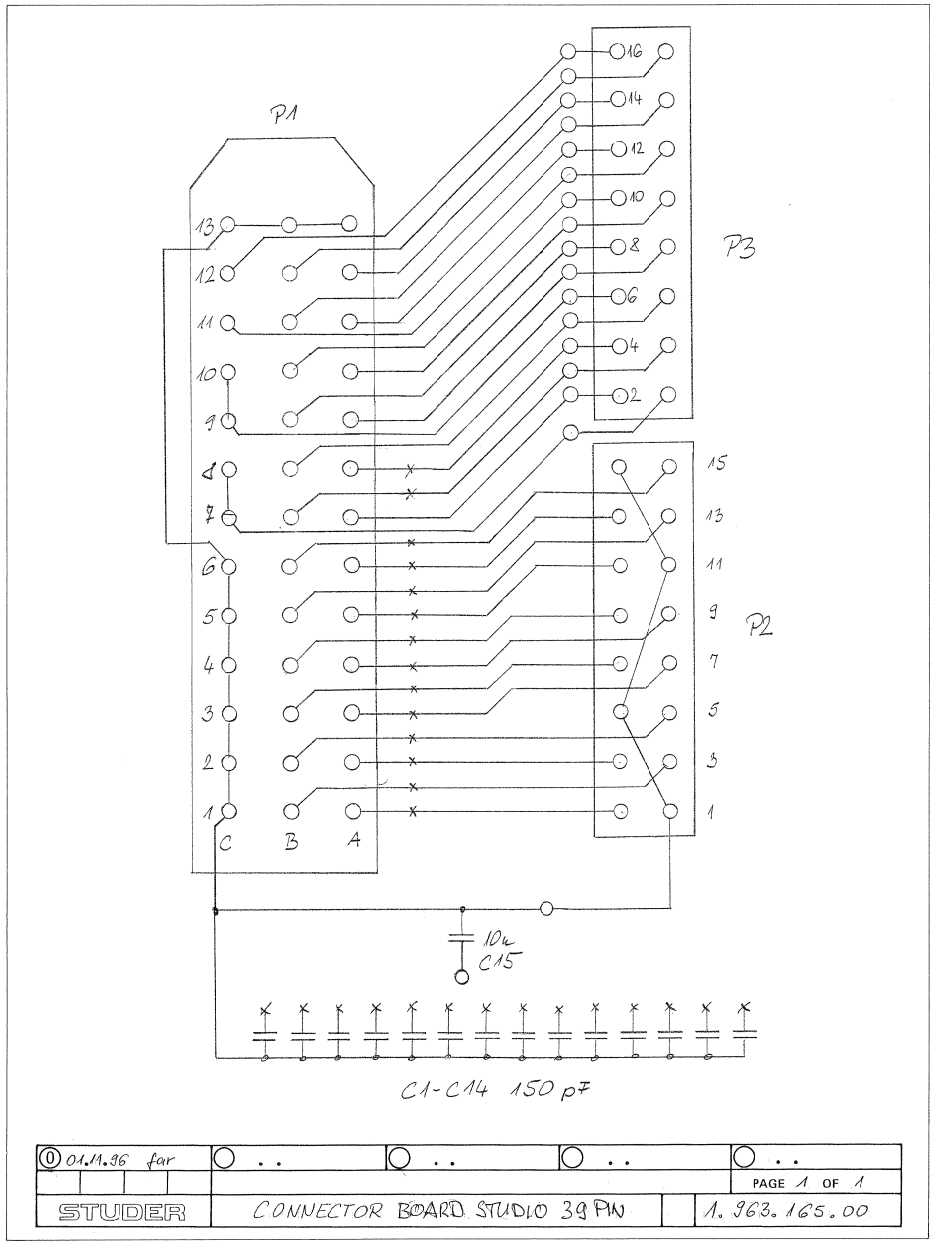
Comments:
(01) P2+P3 54.14.2142 Changed to 54.14.2102
(02) MP1 1.963.164.11 Changed to 1.963.164.12

Änderung					
	20.11.96				1
Ausgabe	29.8.96				0
	Datum	Gez.	Gepr.	Ges.	Index

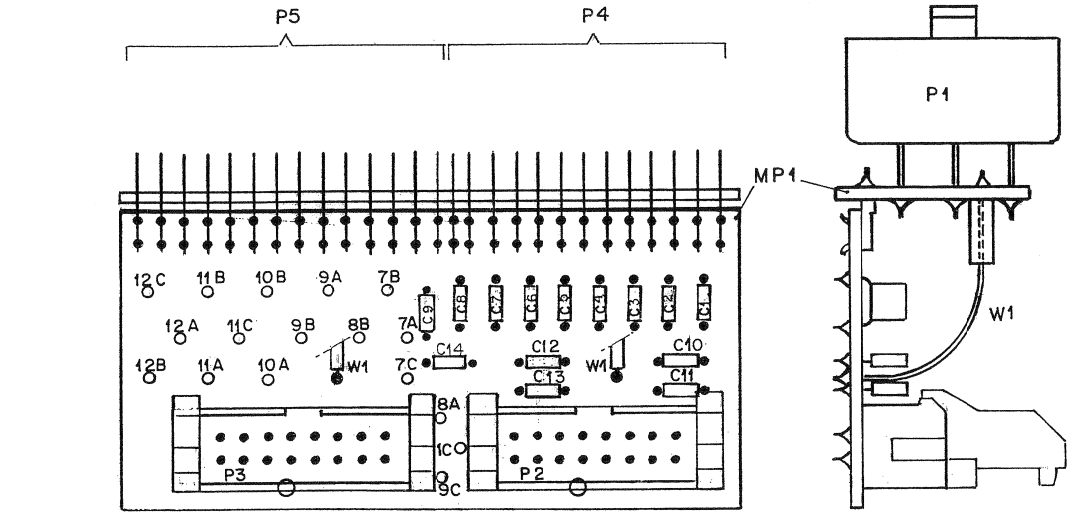
Kopie für:

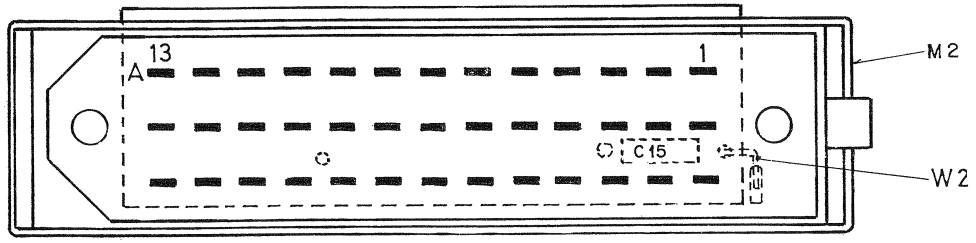
STUDER REGENSDORF ZÜRICH	Benennung: Connector 39-Pin EMV	Nummer: 1.963.164-00

Connector Board Studio 39 Pin 1.963.165.00



Connector Board Studio 39 Pin 1.963.165.00





C15 on solder side

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.34.7151		150p	CER 63V, 2%, NP150
0	C 2	59.34.7151		150p	CER 63V, 2%, NP150
0	C 3	59.34.7151		150p	CER 63V, 2%, NP150
0	C 4	59.34.7151		150p	CER 63V, 2%, NP150
0	C 5	59.34.7151		150p	CER 63V, 2%, NP150
0	C 6	59.34.7151		150p	CER 63V, 2%, NP150
0	C 7	59.34.7151		150p	CER 63V, 2%, NP150
0	C 8	59.34.7151		150p	CER 63V, 2%, NP150
0	C 9	59.34.7151		150p	CER 63V, 2%, NP150
0	C 10	59.34.7151		150p	CER 63V, 2%, NP150
0	C 11	59.34.7151		150p	CER 63V, 2%, NP150
0	C 12	59.34.7151		150p	CER 63V, 2%, NP150
0	C 13	59.34.7151		150p	CER 63V, 2%, NP150
0	C 14	59.34.7151		150p	CER 63V, 2%, NP150
0	C 15	59.06.0103		10n	PETP, 63V, 10%, RM5
0	MP 1	1.963.165.11			CONNECTOR PCB STUDIO 39-PIN
0	MP 2	54.14.7002			MP RIEGELWANNE 30/39 POL
0	MP 3	1.963.165.04			NR.-ETIKETTE 5*20
0	P 1	54.14.1023			P LEISTE 39 POL PRINT
0	P 2	54.14.2102		16p	P STECKER 16 P,AU,VR,GERADE
0	P 3	54.14.2102		16p	P STECKER 16 P,AU,VR,GERADE
0	P 4	54.01.0273		13-P	P LEISTE 13 POL CIS WINKEL
0	P 5	54.01.0274		14-P	P LEISTE 14 POL CIS WINKEL
0	W 1	1.963.164.93	2 pcs		LL-CONNECTOR 39-PIN EMV BOARD
0	W 2	64.01.0106			SCHALTDRAHT SN D 0.6

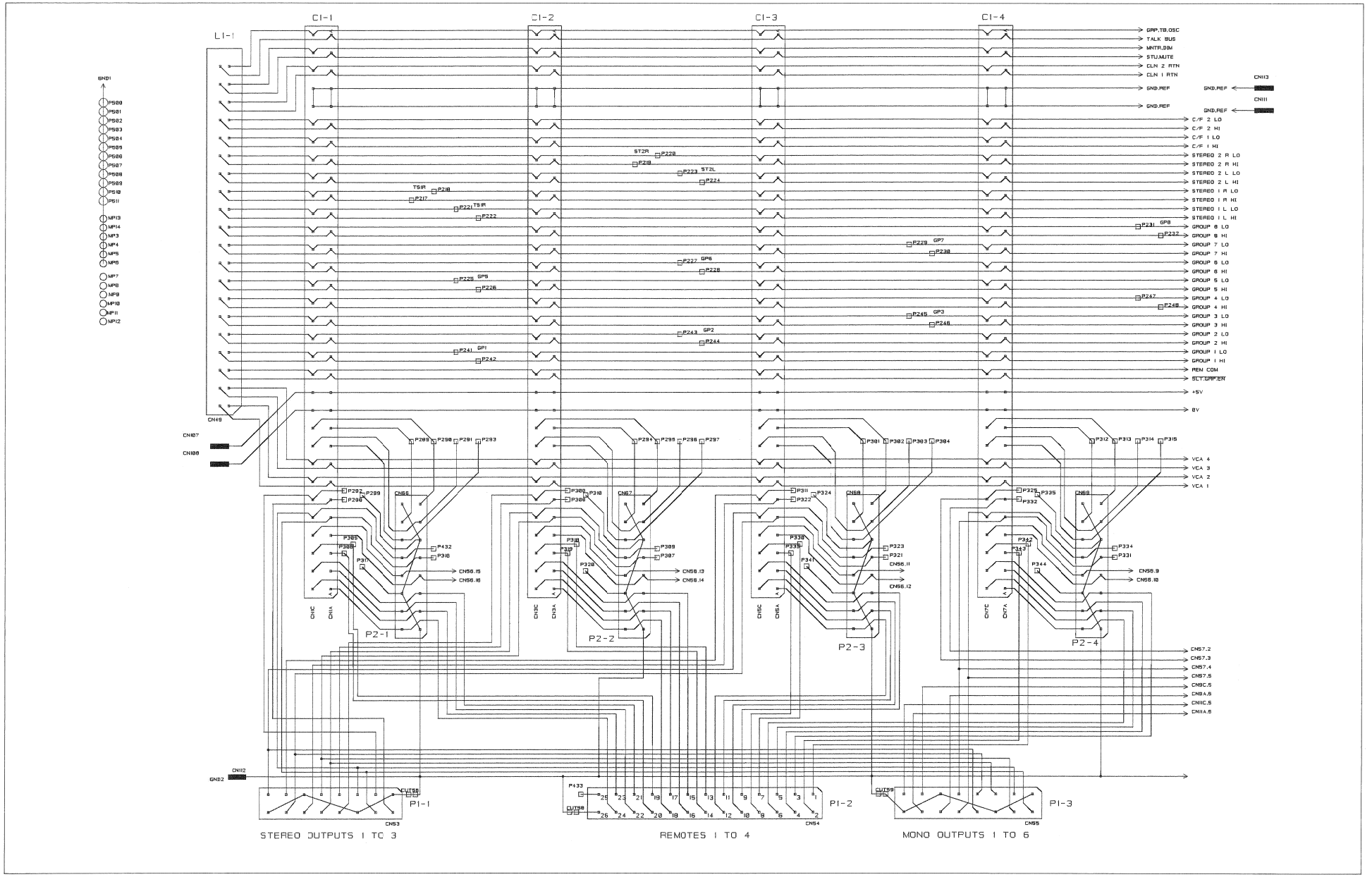
End of List

Comments:

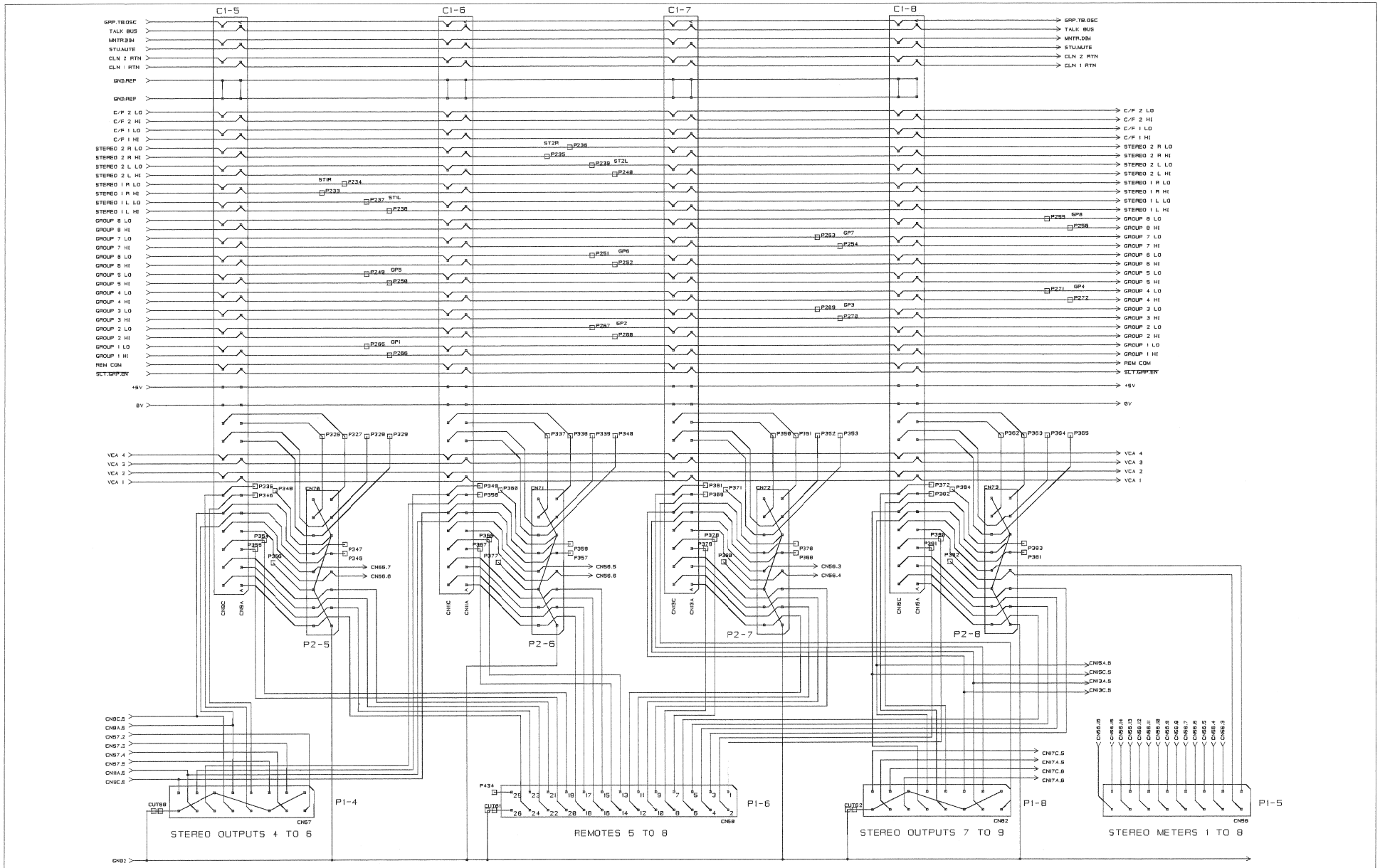
Änderung					③ ② ①
Ausgabe	6.11.95	Pb	fa	M	⓪
	Datum	Gez.	Gepr.	Ges.	Index
Kopie für:					

STUDER REGENSDORF ZÜRICH | Benennung: Connector Board Studio 39 Pin | Nummer: 1.963.165-00

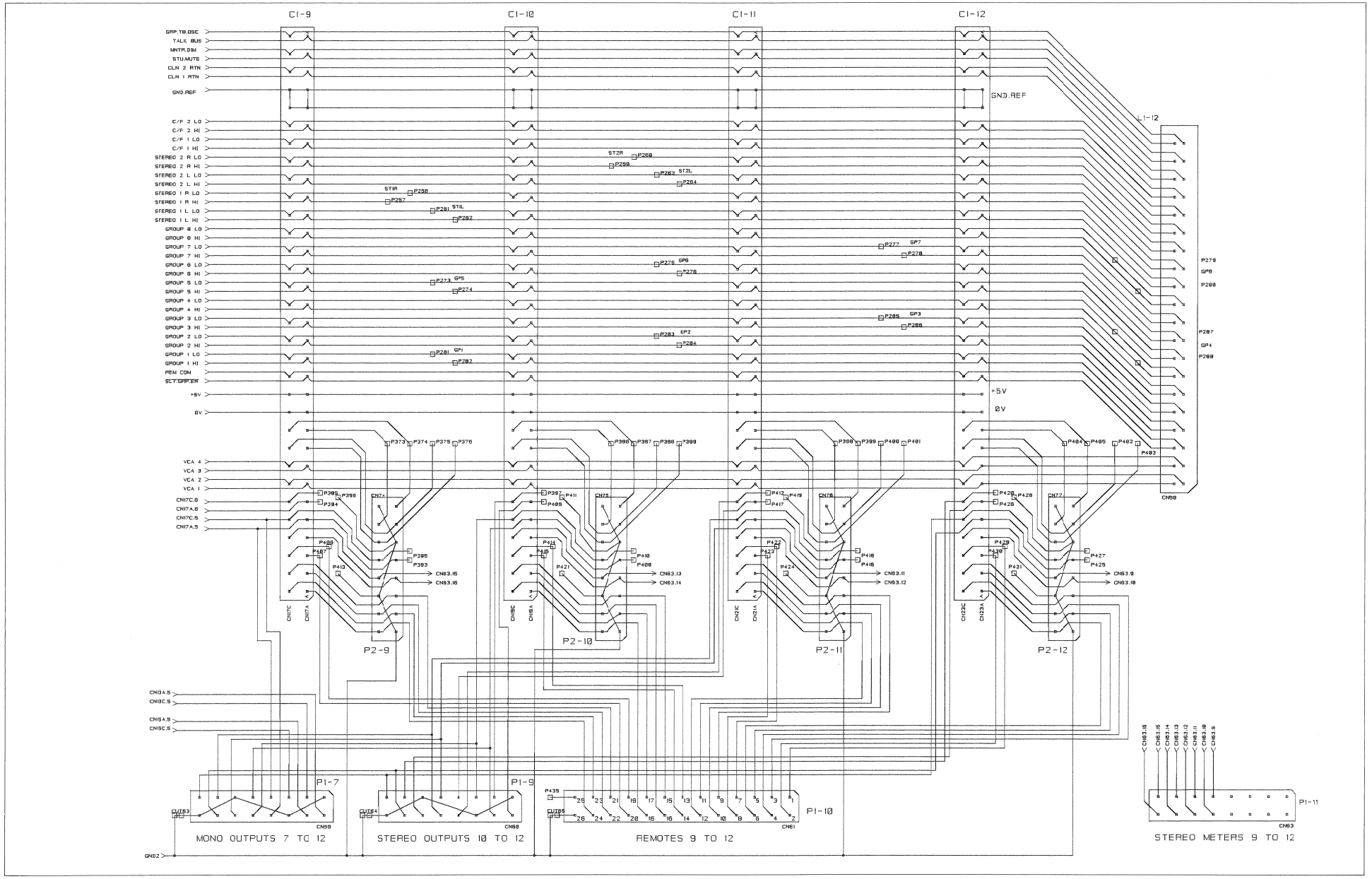
Main Bus Board 12A 1.928.800.00



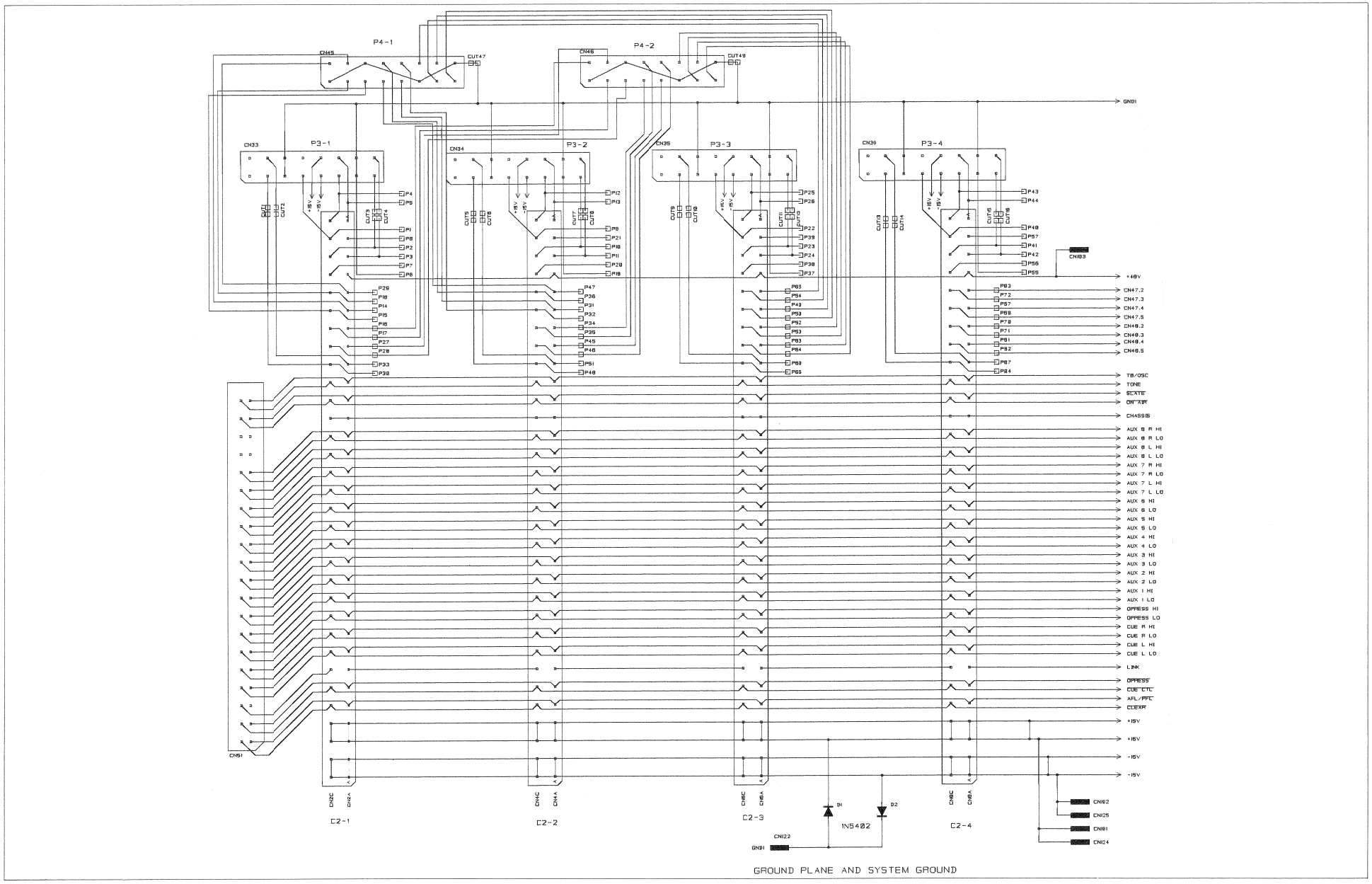
Main Bus Board 12A 1.928.800.00



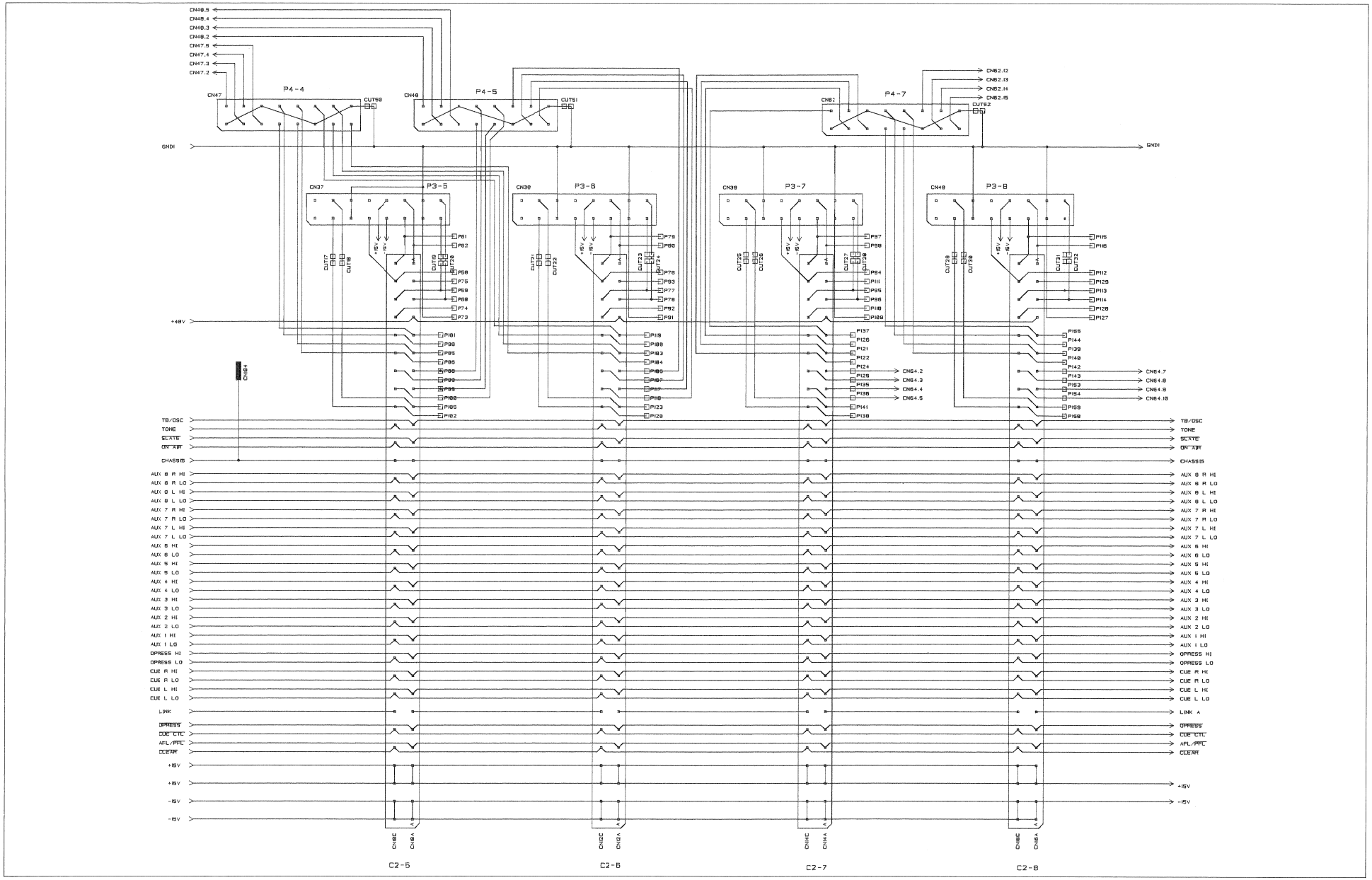
Main Bus Board 12A 1.928.800.00



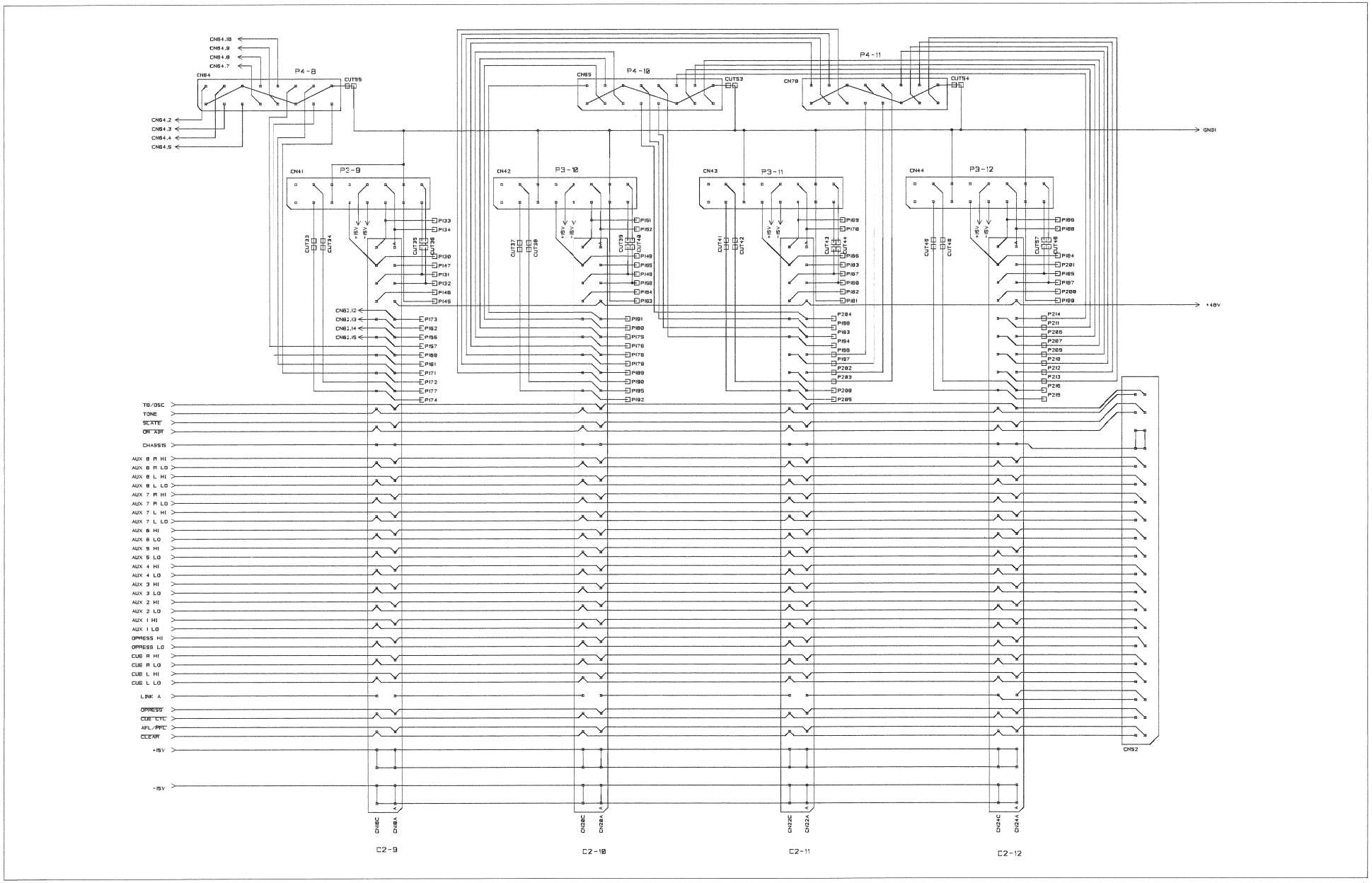
Main Bus Board 12A 1.928.800.00



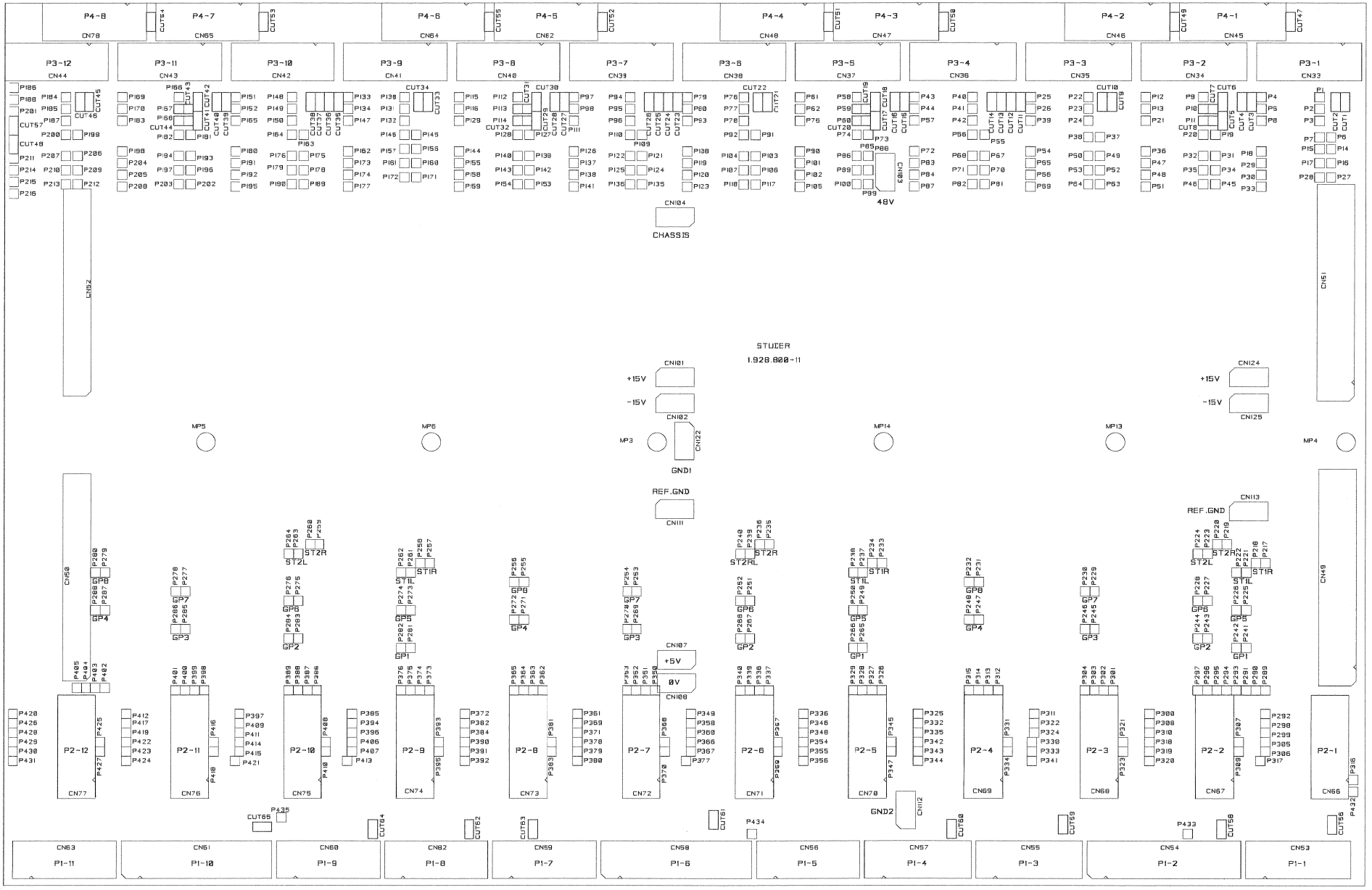
Main Bus Board 12A 1.928.800.00



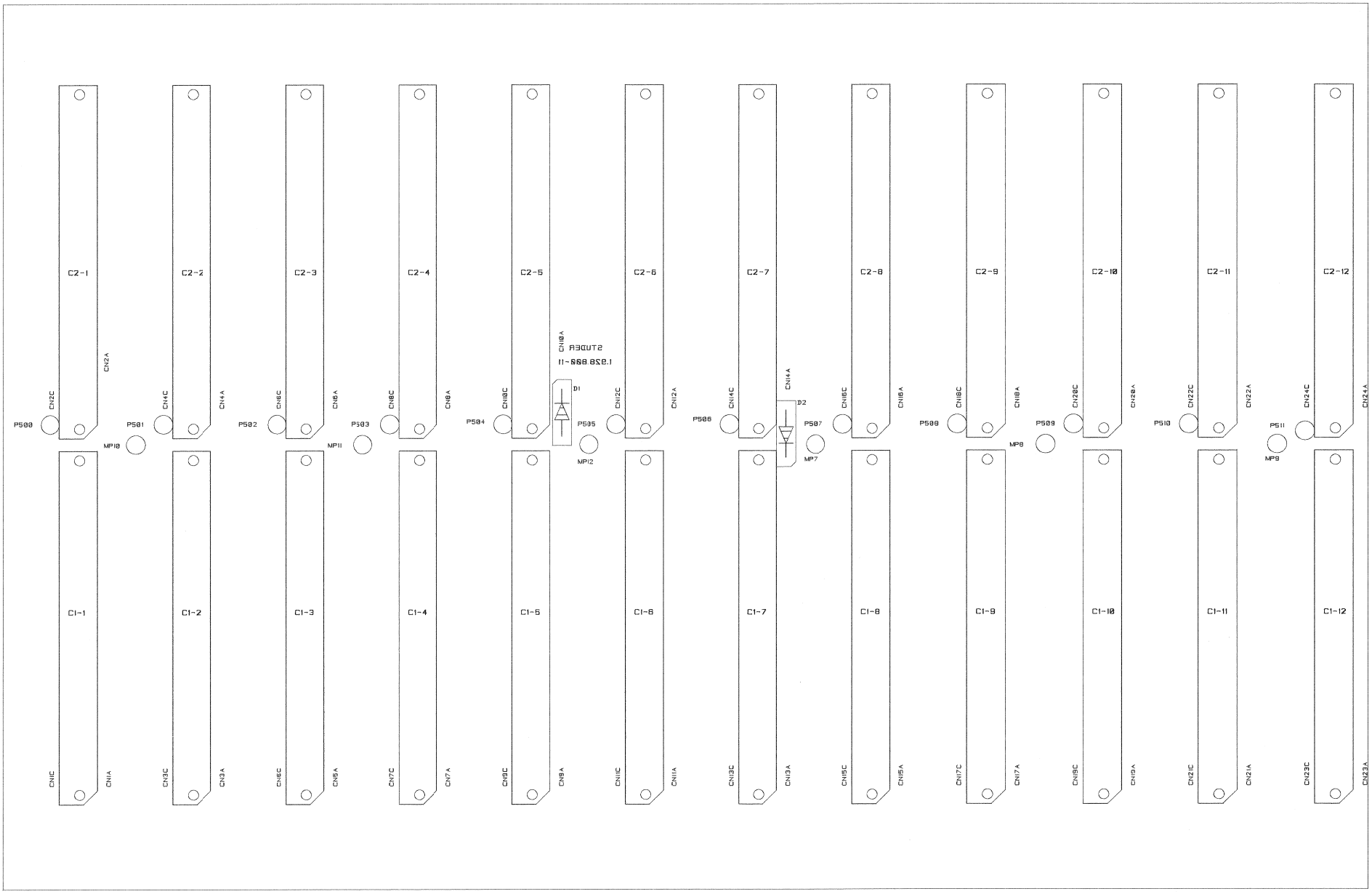
Main Bus Board 12A 1.928.800.00



Main Bus Board 12A 1.928.800.00



Main Bus Board 12A 1.928.800.00



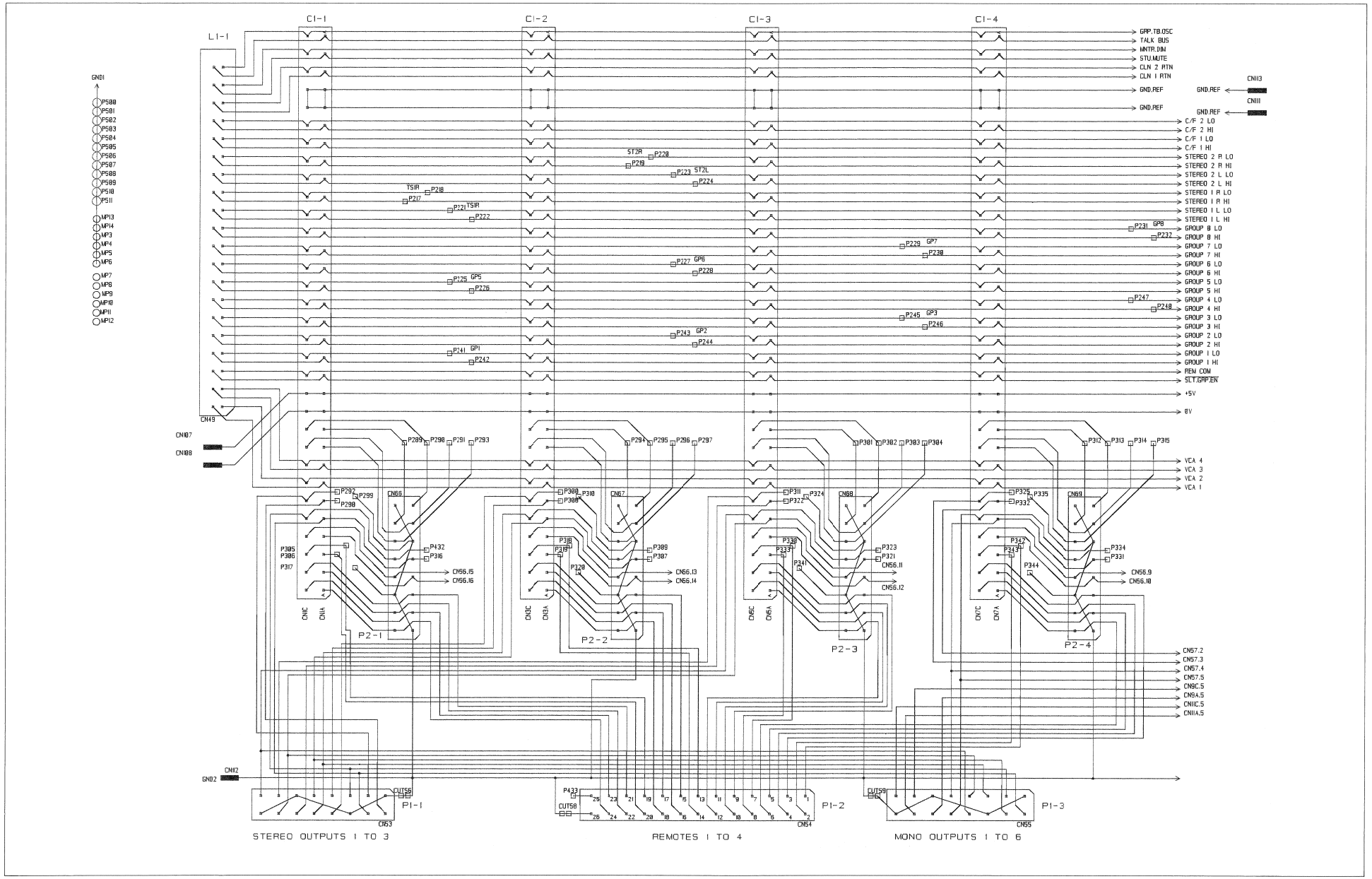
Main Bus Board 12A 1.928.800.00

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	CN 1	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 2	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 3	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 4	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 5	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 6	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 7	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 8	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 9	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 10	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 11	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 12	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 13	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 14	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 15	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 16	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 17	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 18	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 19	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 20	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 21	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 22	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 23	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 24	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 33	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 34	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 35	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 36	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 37	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 38	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 39	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 40	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 41	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 42	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 43	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 44	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 45	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 46	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 47	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 48	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 49	54.14.4040			P STECKER 40 P, AU, PRINT
0	CN 50	54.14.4040			P STECKER 40 P, AU, PRINT
0	CN 51	54.14.4040			P STECKER 40 P, AU, PRINT
0	CN 52	54.14.4040			P STECKER 40 P, AU, PRINT
0	CN 53	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 54	54.14.4026		26-P	P STECKER 26 P, AU, PRINT
0	CN 55	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 56	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 57	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 58	54.14.4026		26-P	P STECKER 26 P, AU, PRINT
0	CN 59	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 60	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 61	54.14.4026		26-P	P STECKER 26 P, AU, PRINT
0	CN 62	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 63	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 64	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 65	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 66	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 67	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 68	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 69	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 70	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 71	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 72	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 73	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 74	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 75	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 76	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 77	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 78	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 82	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 101	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 102	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 103	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 104	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 107	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 108	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 111	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 112	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 113	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 122	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 124	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 125	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	D 1	50.04.0507		1N5402	D 1 N 5402,
0	D 2	50.04.0507		1N5402	D 1 N 5402,
0	MP 1	1.928.800.11			Main Bus 12A PCB
0	MP 2	1.928.800.04			STUDER NR. ETIKETTE 10x20
0	MP 3	1.010.054.22			NIETMUTTER, M 3 * 30.5
0	MP 4	1.010.054.22			NIETMUTTER, M 3 * 30.5
0	MP 5	1.010.054.22			NIETMUTTER, M 3 * 30.5
0	MP 6	1.010.054.22			NIETMUTTER, M 3 * 30.5
0	MP 7	1.010.016.22			NIETMUTTER SW 6 M 3 * 5
0	MP 8	1.010.016.22			NIETMUTTER SW 6 M 3 * 5
0	MP 9	1.010.016.22			NIETMUTTER SW 6 M 3 * 5
0	MP 10	1.010.016.22			NIETMUTTER SW 6 M 3 * 5
0	MP 11	1.010.016.22			NIETMUTTER SW 6 M 3 * 5
0	MP 12	1.010.016.22			NIETMUTTER SW 6 M 3 * 5
0	MP 13	1.010.054.22			NIETMUTTER, M 3 * 30.5
0	MP 14	1.010.054.22			NIETMUTTER, M 3 * 30.5
0	MP 15	21.53.0280	24 pcs		Z - SCHR. IS , ZN , M2.5 * 8
0	MP 16	1.928.800.01	6 pcs		Befestigungswinkel
0	MP 17	1.928.800.93	12 pcs		LL-Main Bus Board 12A

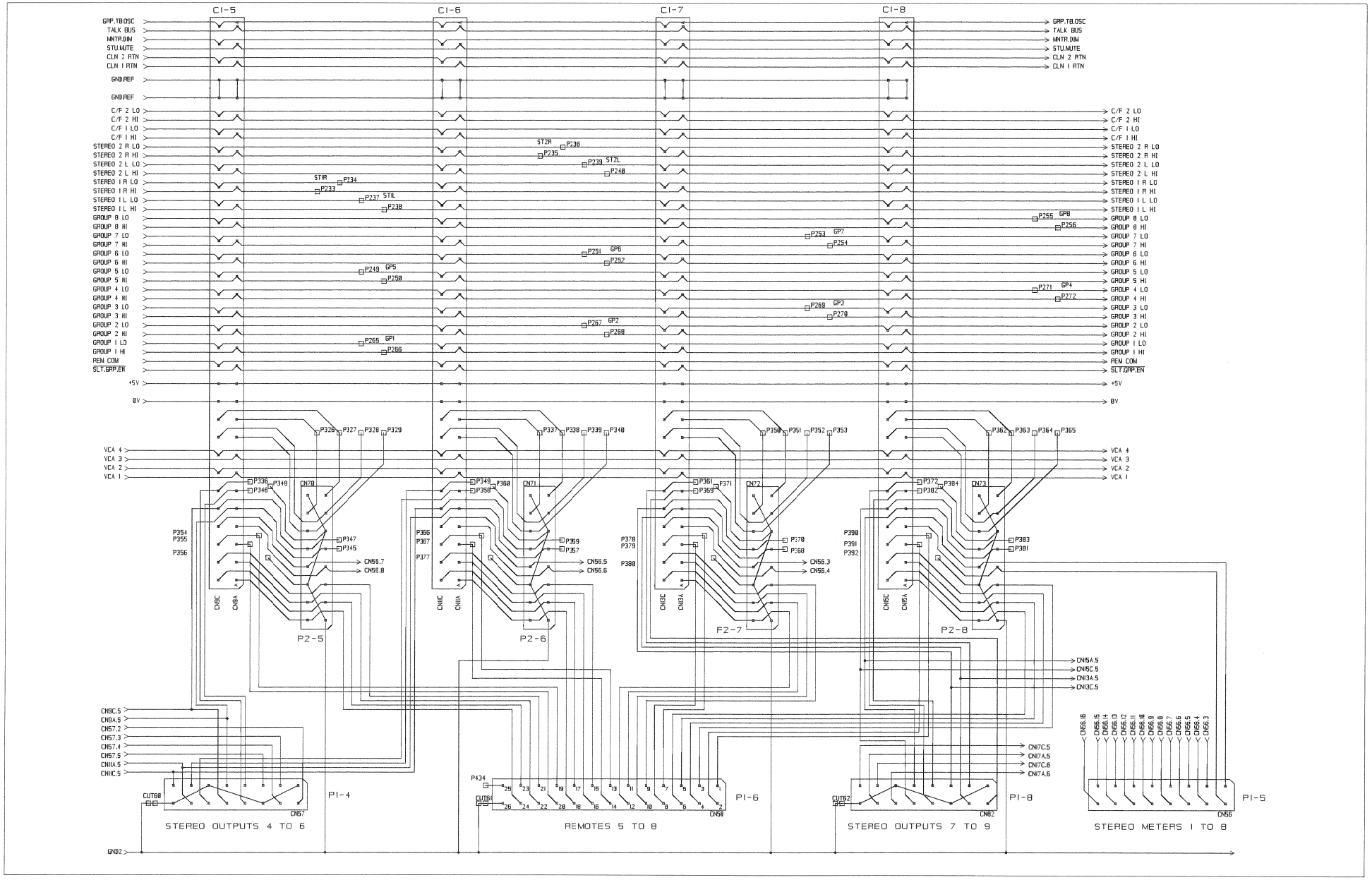
End of List

Comments

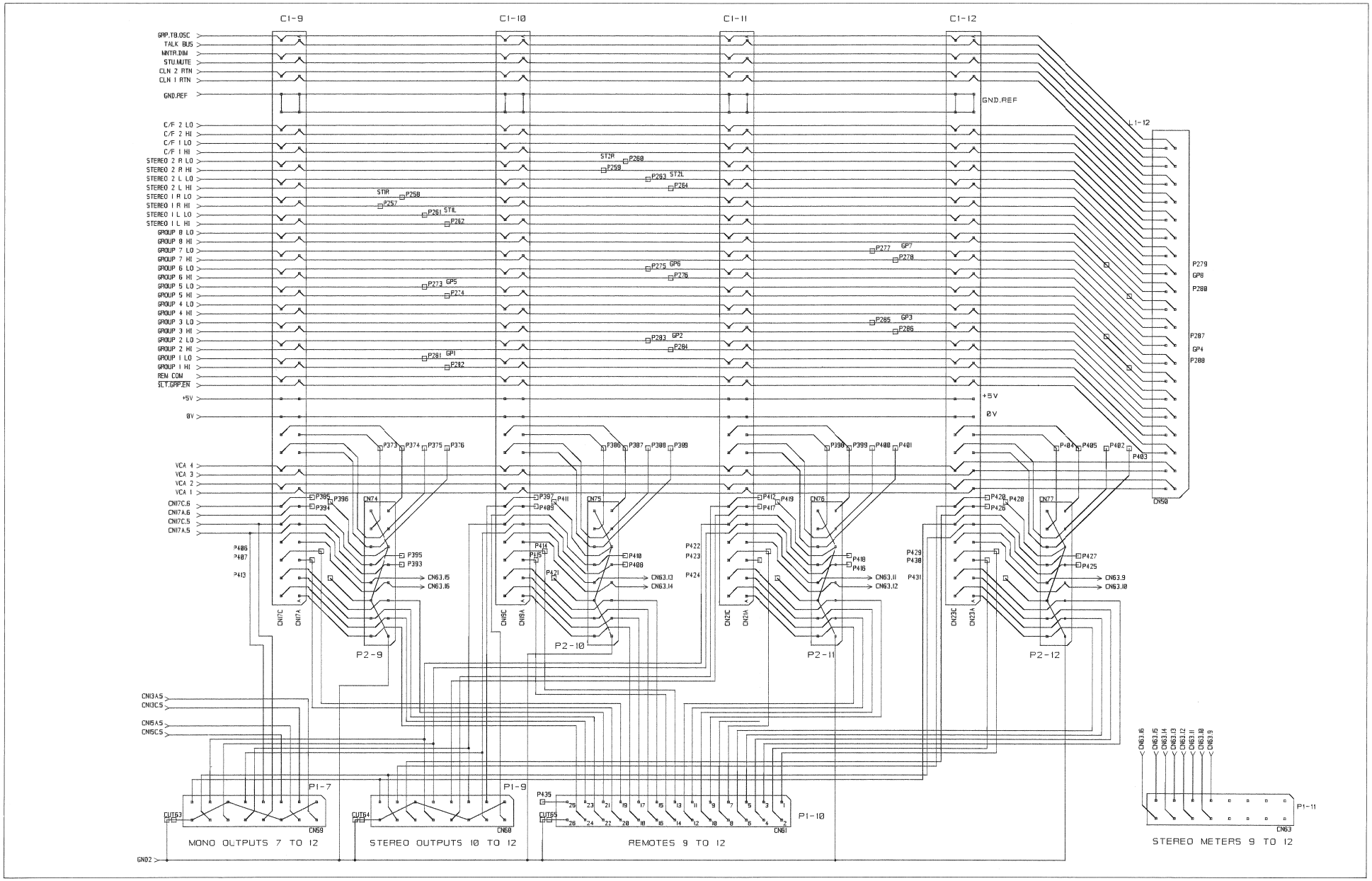
Main Bus Board 12A 1.928.800.81



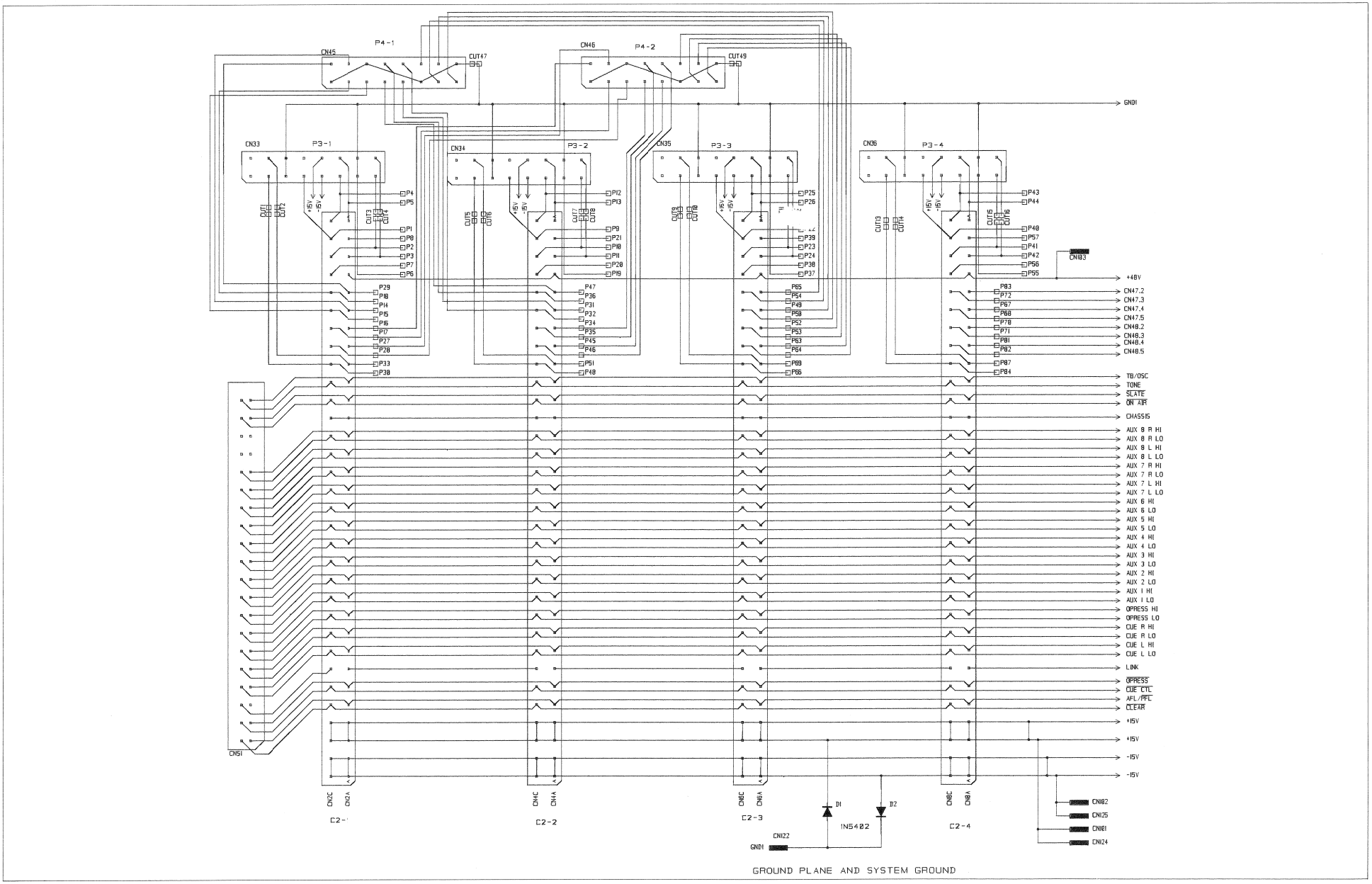
Main Bus Board 12A 1.928.800.81



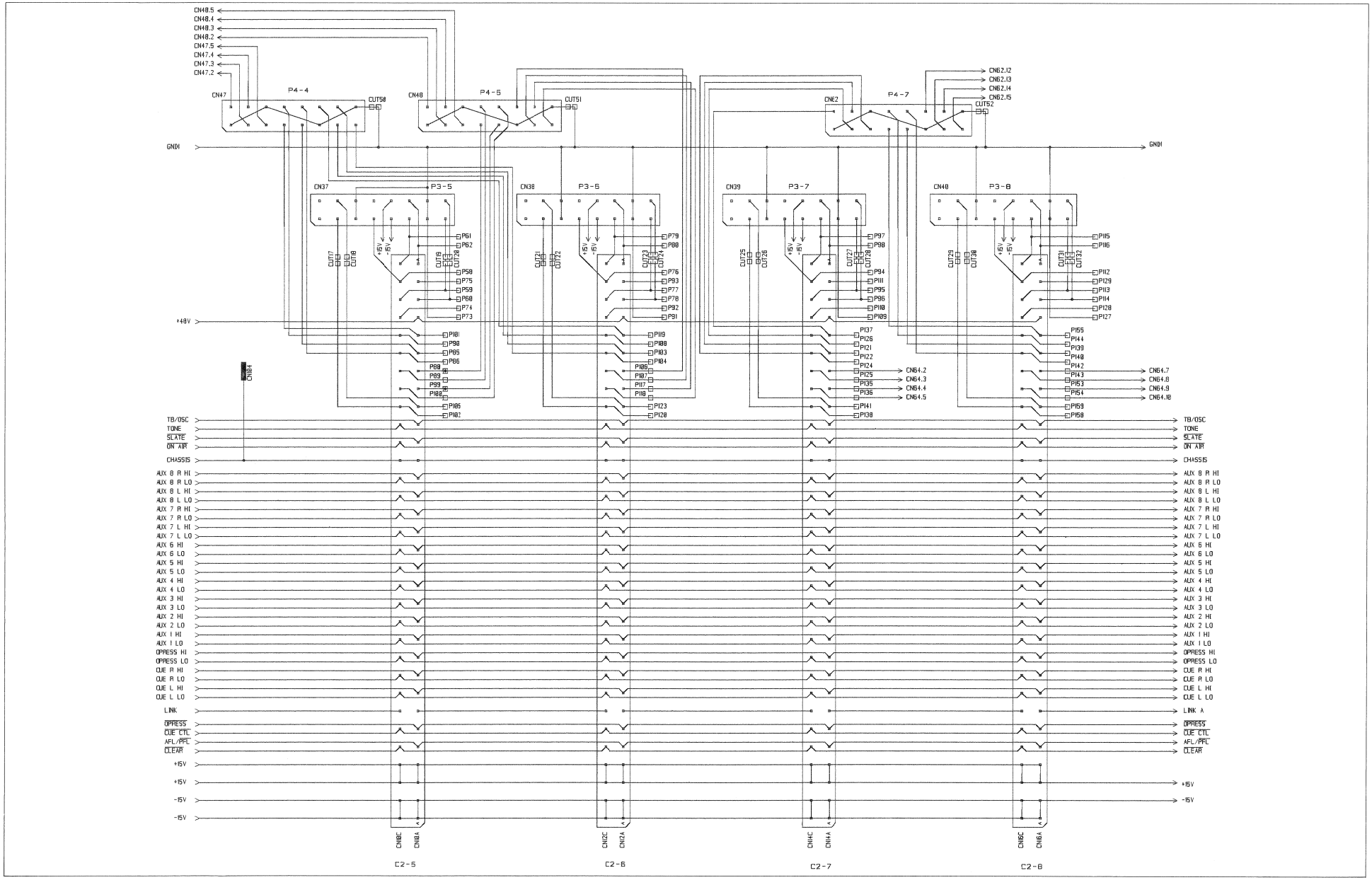
Main Bus Board 12A 1.928.800.81



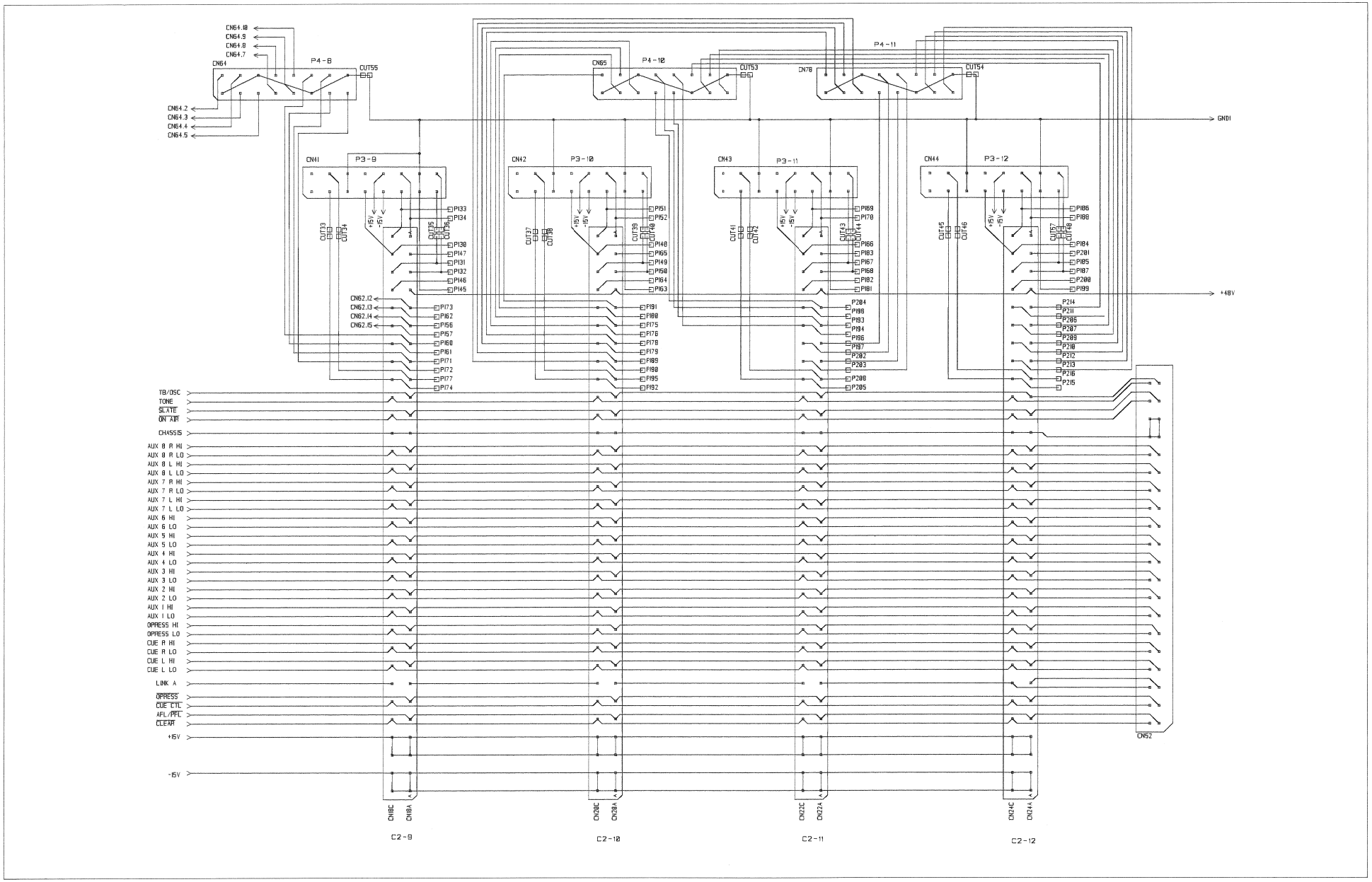
Main Bus Board 12A 1.928.800.81



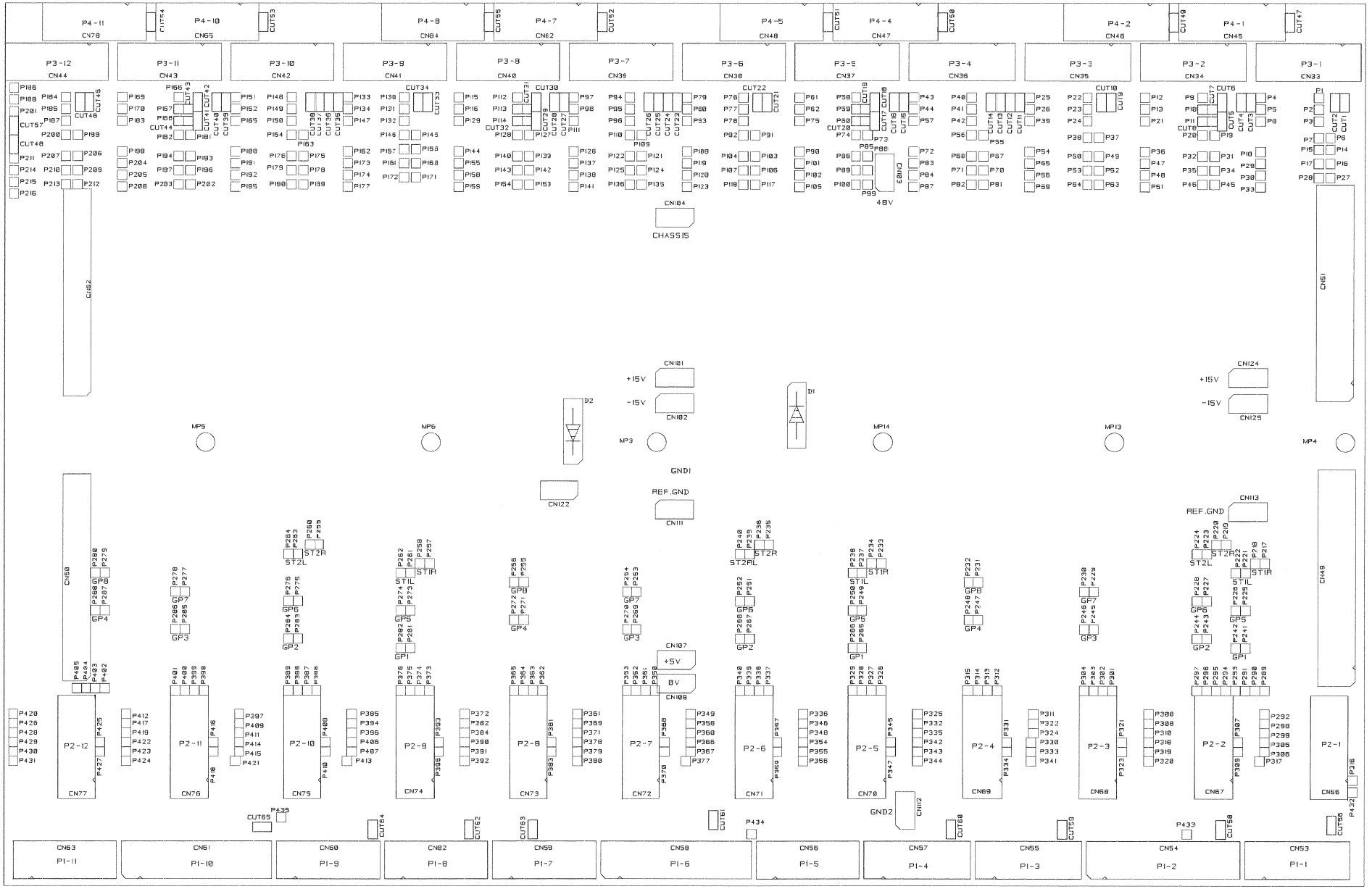
Main Bus Board 12A 1.928.800.81



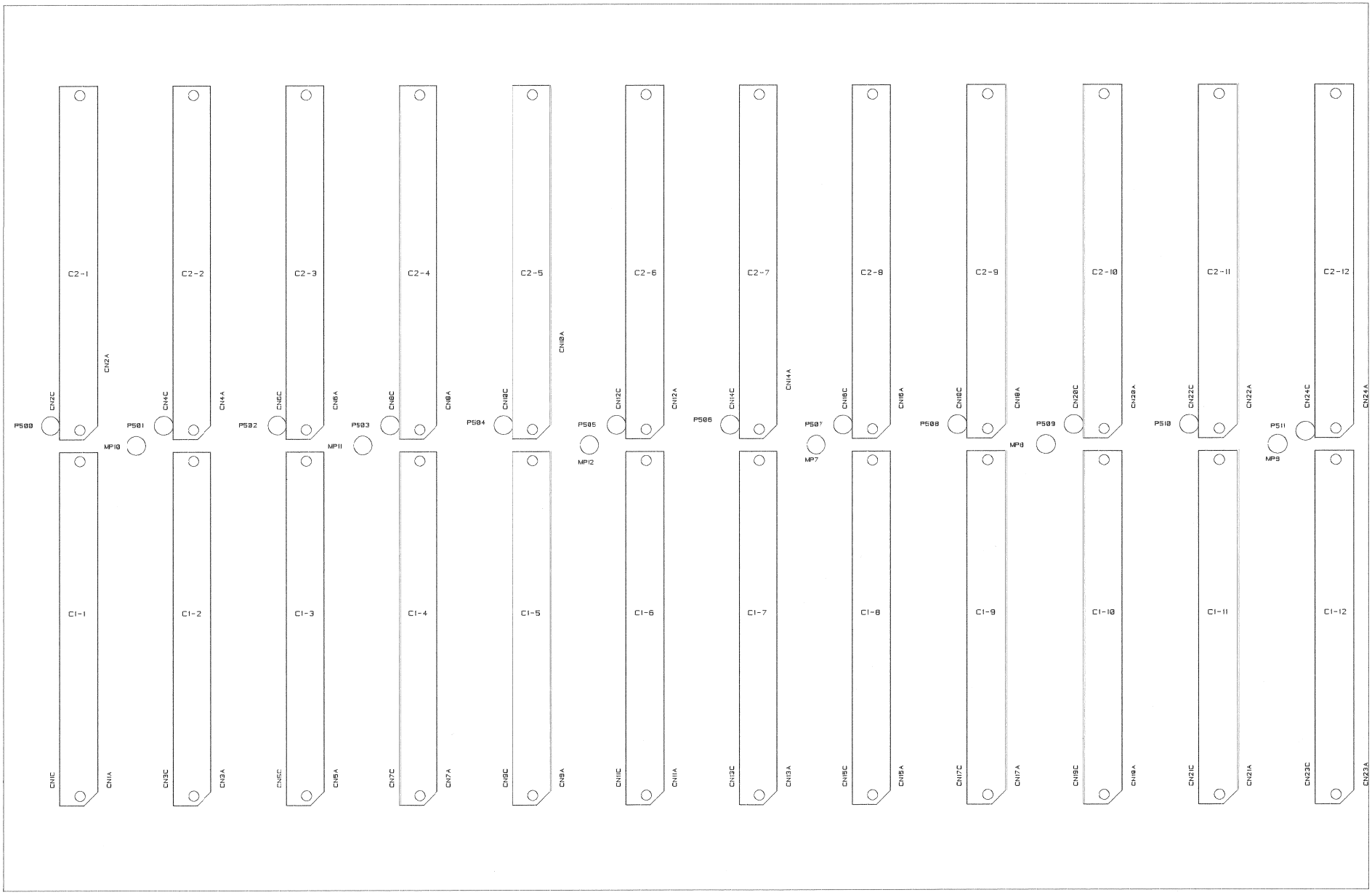
Main Bus Board 12A 1.928.800.81



Main Bus Board 12A 1.928.800.81



Main Bus Board 12A 1.928.800.81



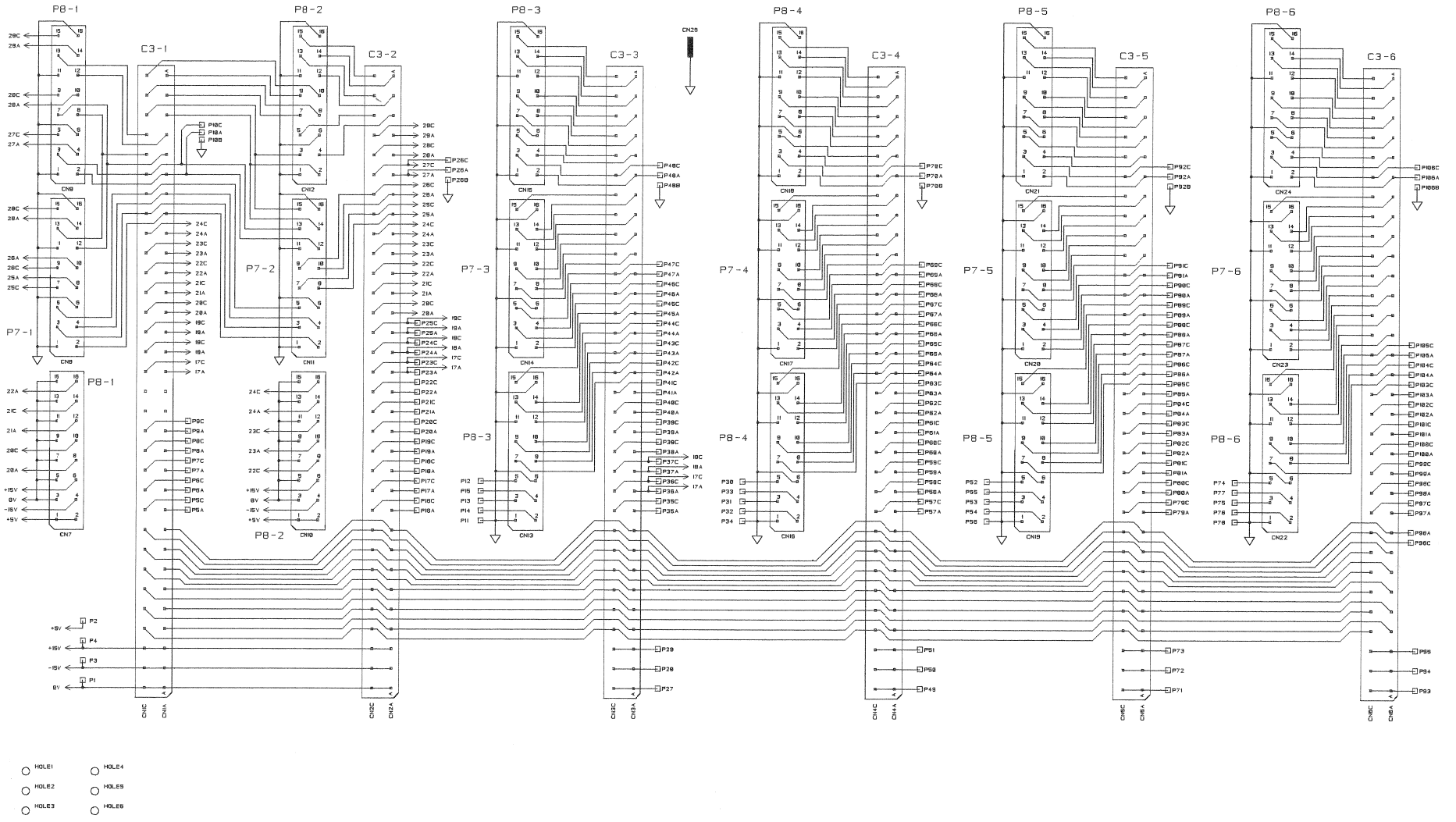
Main Bus Board 12A 1.928.800.81

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	CN 1	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 2	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 3	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 4	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 5	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 6	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 7	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 8	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 9	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 10	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 11	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 12	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 13	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 14	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 15	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 16	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 17	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 18	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 19	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 20	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 21	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 22	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 23	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 24	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 33	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 34	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 35	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 36	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 37	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 38	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 39	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 40	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 41	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 42	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 43	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 44	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 45	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 46	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 47	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 48	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 49	54.14.4040			P STECKER 40 P, AU, PRINT
0	CN 50	54.14.4040			P STECKER 40 P, AU, PRINT
0	CN 51	54.14.4040			P STECKER 40 P, AU, PRINT
0	CN 52	54.14.4040			P STECKER 40 P, AU, PRINT
0	CN 53	not used			P STECKER 16 P, AU, PRINT
0	CN 54	54.14.4026		26-P	P STECKER 26 P, AU, PRINT
0	CN 55	not used			P STECKER 16 P, AU, PRINT
0	CN 56	not used			P STECKER 16 P, AU, PRINT
0	CN 57	not used			P STECKER 16 P, AU, PRINT
0	CN 58	54.14.4026		26-P	P STECKER 26 P, AU, PRINT
0	CN 59	not used			P STECKER 16 P, AU, PRINT
0	CN 60	not used			P STECKER 16 P, AU, PRINT
0	CN 61	54.14.4026		26-P	P STECKER 26 P, AU, PRINT
0	CN 62	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 63	not used			P STECKER 16 P, AU, PRINT
0	CN 64	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 65	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 66	not used			P STECKER 16 P, AU, PRINT
0	CN 67	not used			P STECKER 16 P, AU, PRINT
0	CN 68	not used			P STECKER 16 P, AU, PRINT
0	CN 69	not used			P STECKER 16 P, AU, PRINT
0	CN 70	not used			P STECKER 16 P, AU, PRINT
0	CN 71	not used			P STECKER 16 P, AU, PRINT
0	CN 72	not used			P STECKER 16 P, AU, PRINT
0	CN 73	not used			P STECKER 16 P, AU, PRINT
0	CN 74	not used			P STECKER 16 P, AU, PRINT
0	CN 75	not used			P STECKER 16 P, AU, PRINT
0	CN 76	not used			P STECKER 16 P, AU, PRINT
0	CN 77	not used			P STECKER 16 P, AU, PRINT
0	CN 78	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 82	not used			P STECKER 16 P, AU, PRINT
0	CN 101	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 102	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 103	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 104	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 107	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 108	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 111	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 112	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 113	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 122	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 124	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	CN 125	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	D 1	50.04.0507		1N5402	D 1 N 5402,
0	D 2	50.04.0507		1N5402	D 1 N 5402,
0	MP 1	1.928.800.12			Main Bus 12A PCB
0	MP 2	1.928.800.04			STUDER NR. ETIKETTE 10x20
0	MP 3	1.010.054.22			NIETMUTTER, M 3 * 30.5
0	MP 4	1.010.054.22			NIETMUTTER, M 3 * 30.5
0	MP 5	1.010.054.22			NIETMUTTER, M 3 * 30.5
0	MP 6	1.010.054.22			NIETMUTTER, M 3 * 30.5
0	MP 7	1.010.016.22			NIETMUTTER SW 6 M 3 * 5
0	MP 8	1.010.016.22			NIETMUTTER SW 6 M 3 * 5
0	MP 9	1.010.016.22			NIETMUTTER SW 6 M 3 * 5
0	MP 10	1.010.016.22			NIETMUTTER SW 6 M 3 * 5
0	MP 11	1.010.016.22			NIETMUTTER SW 6 M 3 * 5
0	MP 12	1.010.016.22			NIETMUTTER SW 6 M 3 * 5
0	MP 13	1.010.054.22			NIETMUTTER, M 3 * 30.5
0	MP 14	1.010.054.22			NIETMUTTER, M 3 * 30.5
0	MP 15	21.53.0280	24 pcs		Z - SCHR. IS , ZN , M2.5 * 8
0	MP 16	1.928.800.01	6 pcs		Befestigungswinkel
0	MP 17	1.928.800.93	12 pcs		LL-Main Bus Board 12A

End of List

Comments

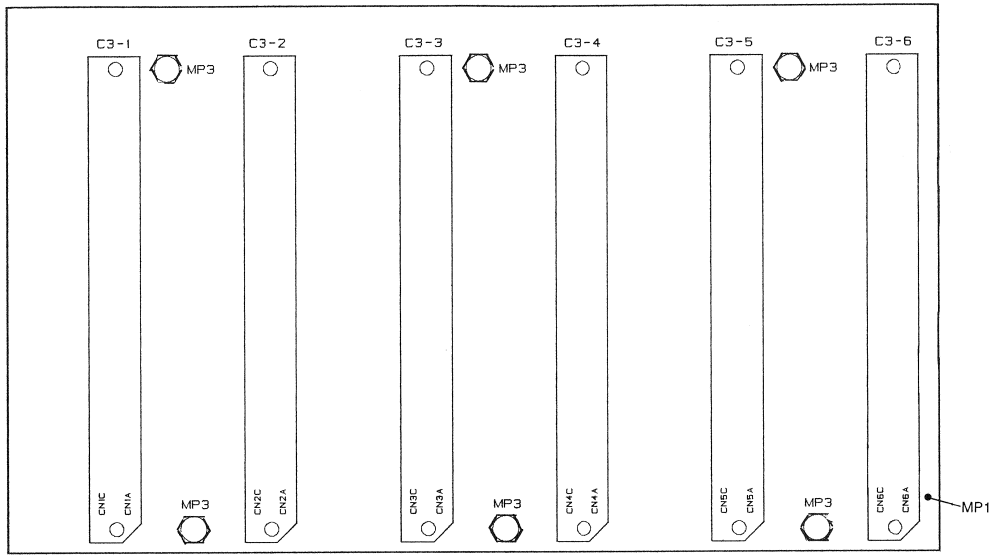
Monitor Bus Board 6A 1.928.810.00



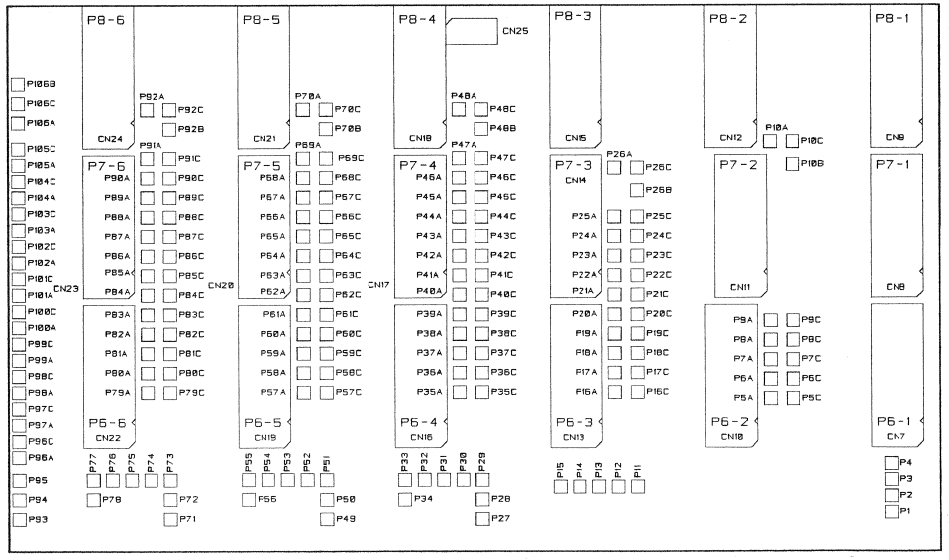
ⓐ 12.12.96 PG					PAGE 1/1
STUDER	MONITOR BUS BOARD 6A			SC	1.928.810.00

Monitor Bus Board 6A 1.928.810.00

Component side



Solder side



Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	CN 1	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 2	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 3	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 4	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 5	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 6	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 7	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 8	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 9	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 10	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 11	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 12	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 13	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 14	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 15	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 16	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 17	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 18	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 19	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 20	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 21	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 22	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 23	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 24	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 25	54.02.0335		1p	P FLACH, 5.3*0,8, GERADE
0	MP 1	1.928.802.11	1 pce		Monitor Bus 6A PCB
0	MP 2	1.928.810.04	1 pce		STUDER NR. ETIKETTE 10x20
0	MP 3	1.010.016.22	6 pcs		NIETMUTTER SW 6 M 3 * 5

End of List

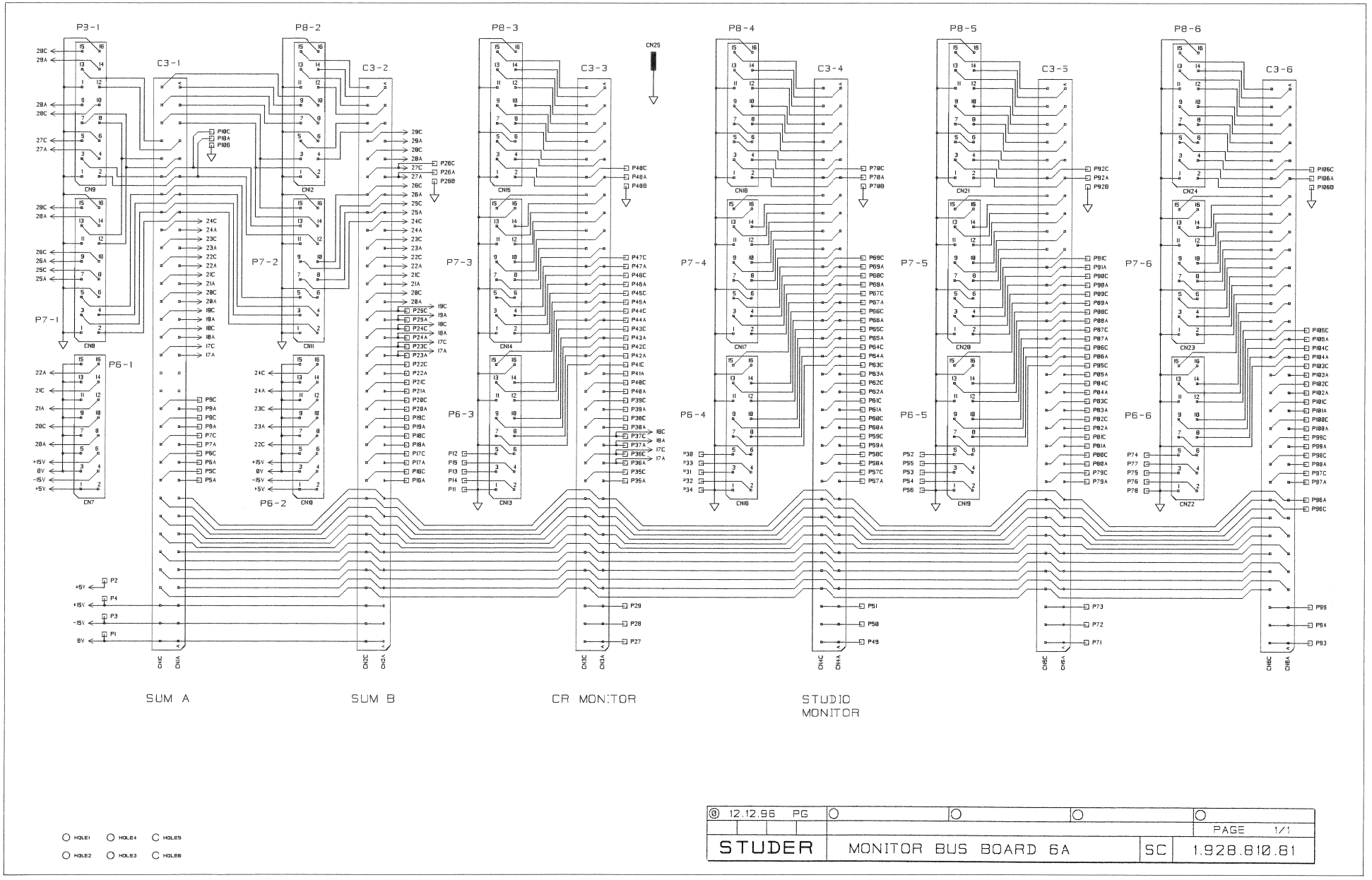
Comments:

Edition Ausgabe	Modification Änderung				
	.	.	.	.	3
	.	.	.	.	2
	.	.	.	.	1
15.10.96	hm	HM	HM		0
Date Datum		Visa Ges.	Checked Gepr.	Seen Ges.	Index

Copy to: Kopie für: .

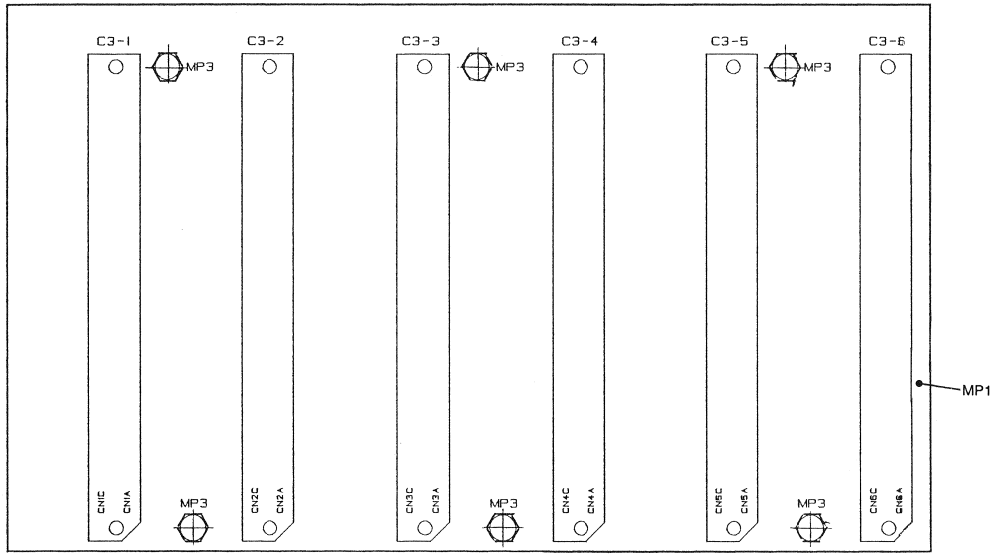
STUDER REGENSDORF | Description Benennung: Monitor Bus Board 6A | Number Nummer: 1.928.810.00

Monitor Bus Board 6A 1.928.810.81

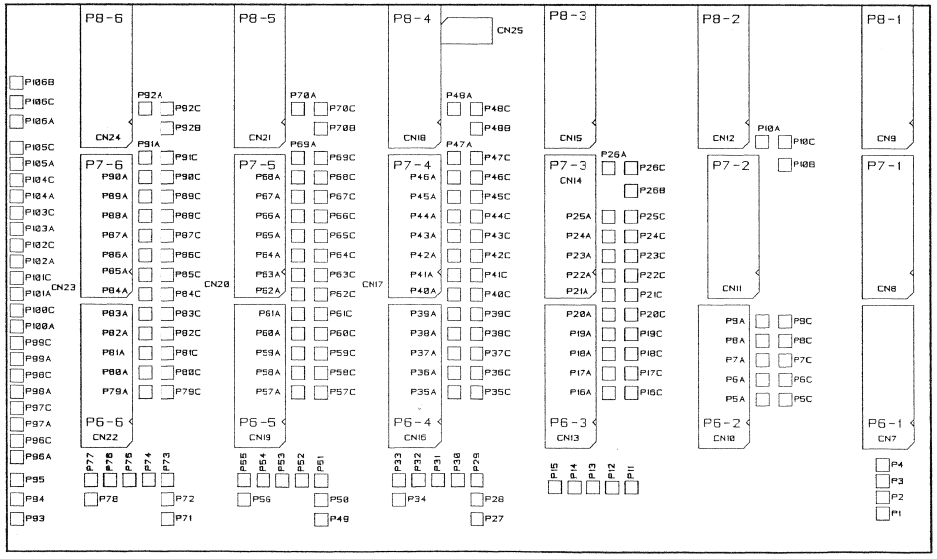


Monitor Bus Board 6A 1.928.810.81

Component side



Solder side



Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	CN 1	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 2	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 3	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 4	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 5	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 6	54.11.2202		64p	EU-C 2*32p, a,c Action
0	CN 7	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 8	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 9	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 10	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 11	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 12	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 13	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 14	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 15	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 16	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 17	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 18	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 19	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 20	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 21	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 22	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 23	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 24	54.14.4016			P STECKER 16 P, AU, PRINT
0	CN 25	54.02.0335		1p	P FLACH, 6.3*0,8, GERADE
0	MP 1	1.928.802.12	1 pce		Monitor Bus 6A PCB
0	MP 2	1.928.810.04	1 pce		STUDER NR. ETIKETTE 10x20
0	MP 3	1.010.016.22	6 pcs		NIETMUTTER SW 6 M 3 * 5

End of List

Comments:

Modifikation Änderung	.	.	.	.	3
	.	.	.	.	2
	.	.	.	.	1
Edition Ausgabe	Date Datum	Visa Gez.	Geprüft Gepr.	Genehmigt Gen.	Index 0
	12.12.96	hm	HM	HM	
Copy to: Kopie für: .					

STUDER REGENSDORF — Description Benennung: Monitor Bus Board 6A — Number: 1.928.810.81

CIRCUIT DIAGRAMS

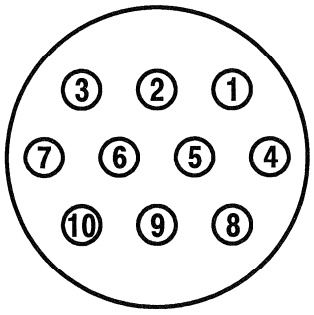
Power Supply Units

Assembly	Assembly No.
* Power Supply Unit, 5 A (no diagrams available)	1.918.210.00
* Power Supply Unit, 6 A (no diagrams available)	1.918.210.81
* Power Supply Unit, 5 A, with Alarm (no diagrams available)	1.918.211.00
* Power Supply Unit, 6 A, with Alarm (no diagrams available)	1.918.211.81
* **Note:** The switched power supply units from external manufacturers cannot be serviced in the field – please ship them to your nearest Studer Representative for repair or replacement.	

Assembly	Assembly No.	Circuit Diagram	Component Layout	Parts List
Power Supply Unit	1.918.213.00	-	1.918.213.00	1.918.213.00
Subboard for PSU (1.918.213.00)	1.918.214.00	1.918.214.00	1.918.214.00	1.918.214.00
Power Supply Unit, 6 A (9 A), with Alarm	1.918.215.00	1.918.215.00	-	-
Subboard for PSU (1.918.215.00)	1.918.216.00	1.918.216.00	1.918.216.81	1.918.216.00
Power Supply Unit, 6 A (9 A), with Alarm	1.918.215.81	1.918.215.81	-	-
Subboard for PSU (1.918.215.81)	1.918.216.81	1.918.216.81	1.918.216.81	1.918.216.00
Power Supply Cable for 928	* 1.925.20x.81	-	* 1.925.20x.81	-
Power Supply Link Cable for 928	1.925.220.81	-	1.925.220.81	-
Power Supply Cable for 928, Dual	** 1.925.21y.81	-	** 1.925.21y.81	-

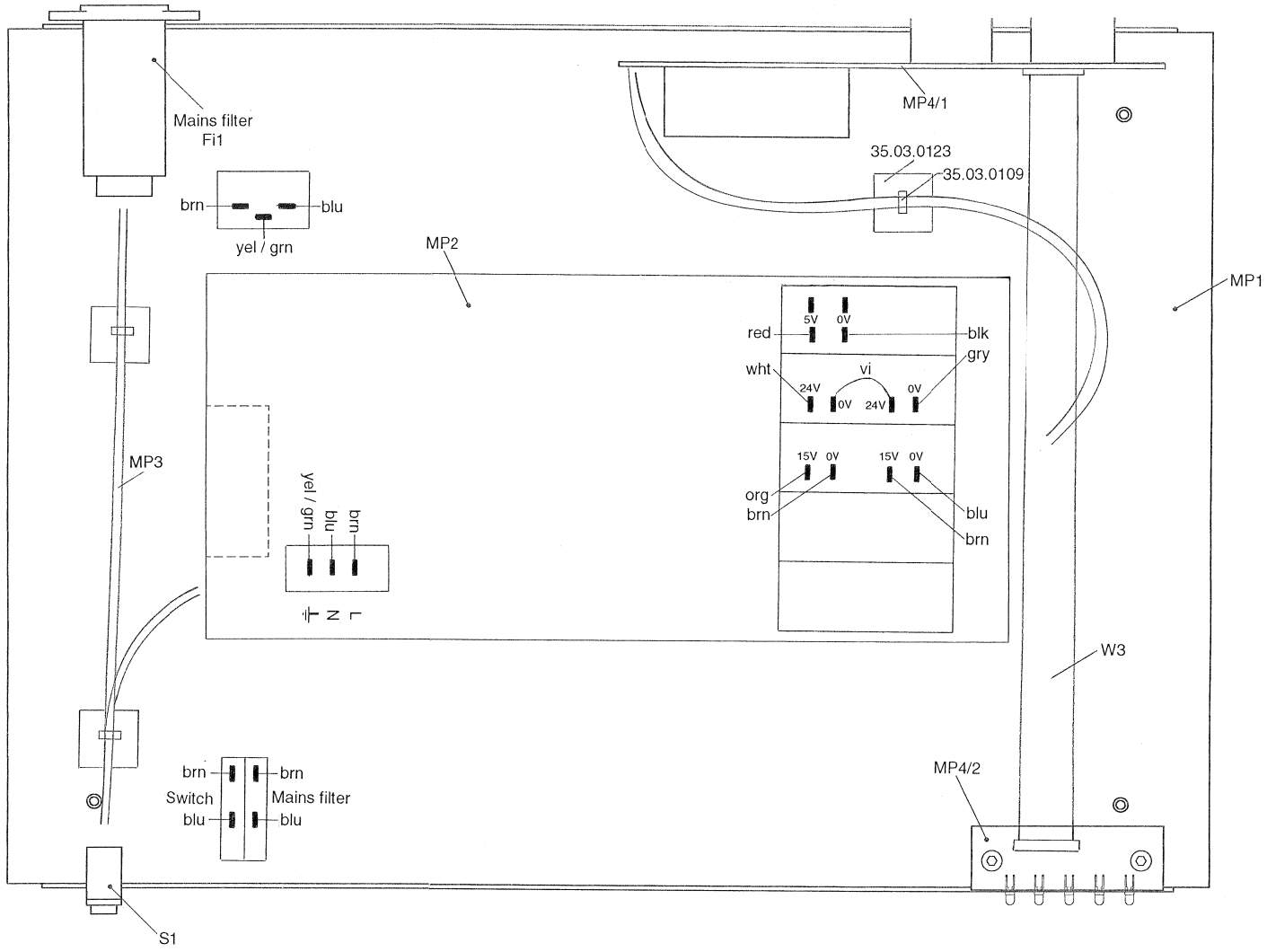
* x =	Length [m]	** y =	Length [m]
3	3	3	3
5	5	5	5
7	10	7	10
8	12	8	15

Connector Pin Assignments: (valid for both CONSOLE and LINK connectors)



Pin	Assembly				
	1.918.210.00 1.918.210.81	1.918.211.00 1.918.211.81	1.918.213.00	1.918.215.00	1.918.215.81
1	+15 V	+15 V	+15 V	+15 V	+15 V
2	+5 V	+5 V	+5 V	+5 V	+5 V
3	–15 V	–15 V	–15 V	–15 V	–15 V
4	Chassis	Chassis	Chassis	Chassis	Chassis
5	Common earth	Common earth	Common earth	Common earth	+15 V
6	not used	not used	not used	not used	–15 V
7	Common earth	Common earth	Common earth	Common earth	Common earth
8	not used	Alarm	Alarm	Alarm	Alarm
9	Common earth	Common earth	Common earth	Common earth	Common earth
10	+48 V	+48 V	+48 V	+48 V	+48 V

Studer PSU 1.918.213.00



Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	Fi 1	89.01.4104		4A	Netzfilter, 2kV
0	MP 1	1.918.213.01	1 pce		19" Gehaeuse.Nacharbeit
0	MP 2	89.20.2007	1 pce	5/2*15/2*24	Power Supply 400W
0	MP 3	1.918.213.93	1 pce		LL Studer PSU
0	MP 4	1.918.214.00	1 pce		SUBBOARD FOR PSU
0	MP 5	not used	1 pce		VENTILATOR 12 V /.6 W
0	MP 6	33.04.0116	4 pcs		GERAETEFUSS SW, D 21 * 8.0
0	MP 7	1.918.213.10	1 pce		Typenschild
0	MP 8	1.918.213.02	1 pce		Beschriftungsstreifen
0	MP 9	1.918.213.03	1 pce		Schild
0	MP 10	1.010.025.21	4 pcs		LINSENSCHRAUBE M 3 X 6
0	MP 11	21.99.0175	2 pcs		S - SCHR. IS ,SWOX M 3 * 6
0	MP 12	21.53.9354	2 pcs	M3*6	Z-Schraube Inbus-Ripp Zn gb ch
0	MP 13	1.010.021.27	2 pcs		MUTTERBOLZEN M 3 * 10
0	MP 14	1.010.042.21	8 pcs		LS-SCHR IS SW M 4 * 6
0	MP 15	24.16.1040	4 pcs		RIPPENSCHEIBE D 4.3/ 7
0	MP 16	24.16.1030	4 pcs		RIPPENSCHEIBE D 3.2/5.5
0	MP 17	35.03.0109	3 pcs		BEFESTIGUNGSRIEMEN 2.5 * 92
0	MP 18	35.03.0123	3 pcs		SOCKEL ZU BEFESTIGUNGSRIEMEN
0	S 1	55.12.0001			S SCHIEBE, 2*A, NETZ

End of List

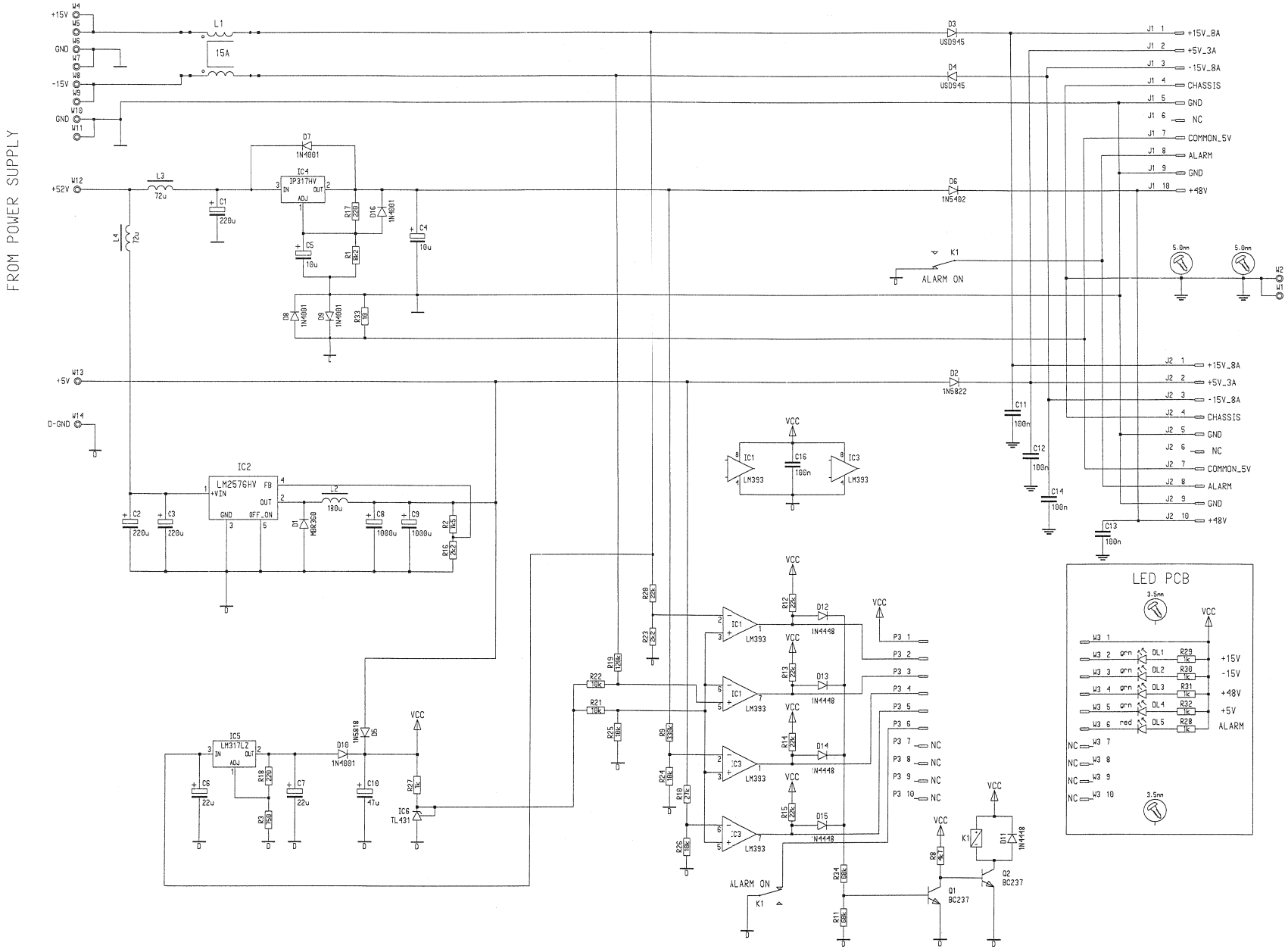
Comments

Edition / Ausgabe	Modification / Aenderung					
						3
						2
						1
05.9.97	WR					0
Date / Datum	Visa / Gez.	Checked / Gepr.	Seen / Ges.	Index		

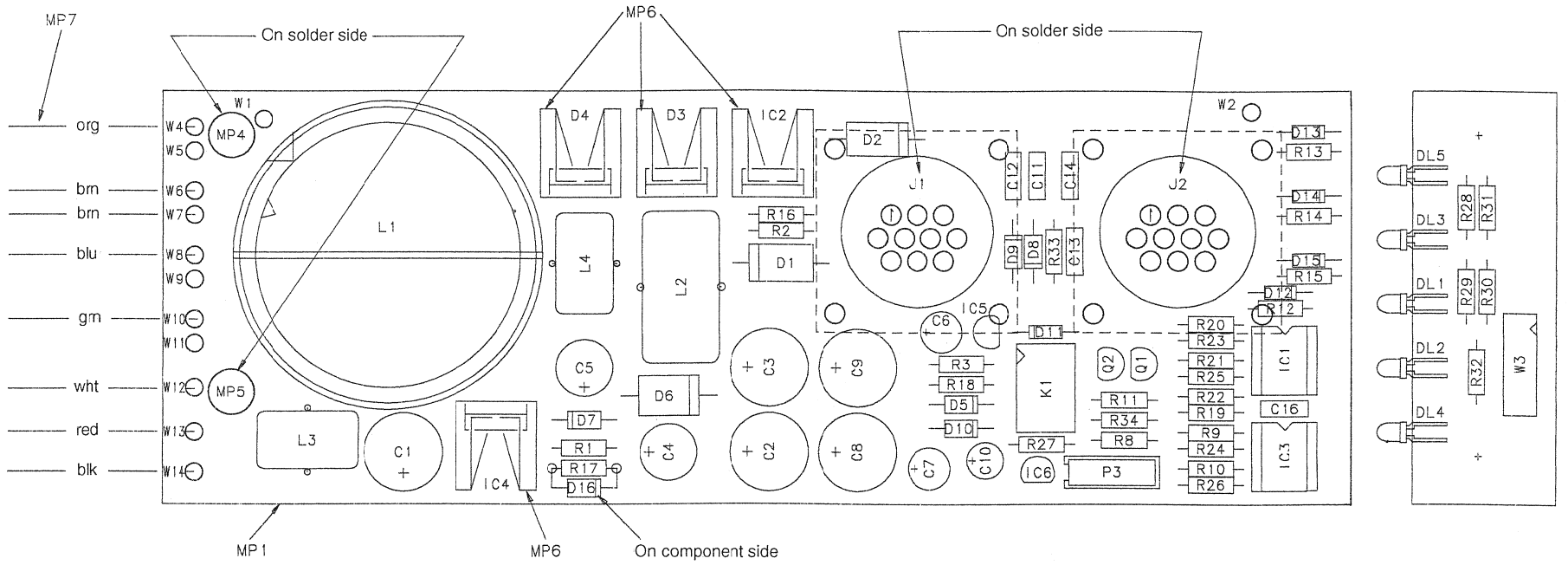
Copy to: / Kopie für:

STUDER REGENSDORF — Name of item / Benennung des Objekts: Studer PSU — Number / Nummer: 1.918.213.00

Subboard for PSU 1.918.214.00



Subboard for PSU 1.918.214.00



Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.22.8221		220u	EL 63V, 20%, RM5
0	C 2	not used		220u	EL 63V, 20%, RM5
0	C 3	not used		220u	EL 63V, 20%, RM5
0	C 4	59.22.8100		10u	EL 63V, 20%, RM5
0	C 5	59.22.8100		10u	EL 63V, 20%, RM5
0	C 6	59.22.6220		22u	EL 35V, 20%, RM5
0	C 7	59.22.6220		22u	EL 35V, 20%, RM5
0	C 8	not used		1m	EL 16V, 20%, RM5
0	C 9	not used		1m	EL 16V, 20%, RM5
0	C 10	59.22.3470		47u	EL 10V, 20%, RM5
0	C 11	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 12	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 13	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 14	59.06.0104		100n	PETP, 63V, 10%, RM5
0	C 16	59.06.0104		100n	PETP, 63V, 10%, RM5
0	D 1	not used		MBR360	D MBR 360, SB 360, 31 DQ 06,
0	D 2	50.04.0519		1N5822	3A, Schottky
0	D 3	50.04.0516		USD945	D USD 945,
0	D 4	50.04.0516		USD945	D USD 945,
0	D 5	50.04.0512		1N5818	D 1N 5818, 1N 5819,
0	D 6	50.04.0507		1N5402	D 1 N 5402,
0	D 7	50.04.0122		1N4001	1A, DO 41
0	D 8	50.04.0122		1N4001	1A, DO 41
0	D 9	50.04.0122		1N4001	1A, DO 41
0	D 10	50.04.0122		1N4001	1A, DO 41
0	D 11	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 12	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 13	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 14	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 15	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 16	50.04.0122		1N4001	1A, DO 41
0	DL 1	50.04.2206		934GT	LED 3mm green
0	DL 2	50.04.2206		934GT	LED 3mm green
0	DL 3	50.04.2206		934GT	LED 3mm green

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	DL 4	50.04.2206		934GT	LED 3mm green
0	DL 5	50.04.2204		934ID	LED 3mm red
0	IC 1	50.03.0283		LM393	Dual Comparator
0	IC 2	not used		LM2576HV-A	1.23V...57V, 3A Switching Reg
0	IC 3	50.03.0283		LM393	Dual Comparator
0	IC 4	50.10.0116		LM317HV	IC IP 317 HV", LM 317 HVT
0	IC 5	50.10.0108		LM317L	IC LM 317 LZ
0	IC 6	50.10.0106		TL431	IC TL 431 CLP,
0	K 1	56.04.0198		2u	5V, 125V/2A, AG/AU
0	L 1	62.03.0115		1.0uH	15A Toroid Chocke compensated
0	L 2	not used		180uH	3A Toroid Chocke
0	L 3	62.03.0015		72uH	2A Toroid Chocke
0	L 4	not used		72uH	2A Toroid Chocke
0	MP 1	1.918.214.11	1 pce		SUB PCB FOR PSU
0	MP 2	1.918.214.10	1 pce		Nr.-Etikette 5x20
0	MP 3	43.01.0108	1 pce	Label	ESE-WARNSCHILD
0	MP 4	1.010.018.22	1 pce	3*12	NIETMUTTER SW 6 M 3 * 12
0	MP 5	1.010.018.22	1 pce	3*12	NIETMUTTER SW 6 M 3 * 12
0	MP 6	50.20.3011	3 pcs		Kühlkörper, TO 220, vertikal
0	MP 7	1.918.214.93			LL Subboard for PSU
0	P 3	54.14.5510		10p	PCB-Buchse gerade
0	Q 1	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 2	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	R 1	57.11.3822		8k2	MF, 1%, 0207
0	R 2	not used		7k5	MF, 1%, 0207
0	R 3	57.11.3751		750R	MF, 1%, 0207
0	R 8	57.11.3472		4k7	MF, 1%, 0207
0	R 9	57.11.3334		330k	MF, 1%, 0207
0	R 10	57.11.3273		27k	MF, 1%, 0207
0	R 11	57.11.3683		68k	MF, 1%, 0207

Idx.	Pos.	Part No.	Qty.	Type/Val.	Description
0	R 12	57.11.3223		22k	MF, 1%, 0207
0	R 13	57.11.3223		22k	MF, 1%, 0207
0	R 14	57.11.3223		22k	MF, 1%, 0207
0	R 15	57.11.3223		22k	MF, 1%, 0207
0	R 16	not used		2k2	MF, 1%, 0207
0	R 17	57.11.3221		220R	MF, 1%, 0207
0	R 18	57.11.3221		220R	MF, 1%, 0207
0	R 19	57.11.3124		120k	MF, 1%, 0207
0	R 20	57.11.3223		22k	MF, 1%, 0207
0	R 21	57.11.3103		10k	MF, 1%, 0207
0	R 22	57.11.3103		10k	MF, 1%, 0207
0	R 23	57.11.3222		2k2	MF, 1%, 0207
0	R 24	57.11.3103		10k	MF, 1%, 0207
0	R 25	57.11.3103		10k	MF, 1%, 0207
0	R 26	57.11.3103		10k	MF, 1%, 0207
0	R 27	57.11.3102		1k0	MF, 1%, 0207
0	R 28	57.11.3102		1k0	MF, 1%, 0207
0	R 29	57.11.3102		1k0	MF, 1%, 0207
0	R 30	57.11.3102		1k0	MF, 1%, 0207
0	R 31	57.11.3102		1k0	MF, 1%, 0207
0	R 32	57.11.3102		1k0	MF, 1%, 0207
0	R 33	57.11.3100		10R	MF, 1%, 0207
0	R 34	57.11.3683		68k	MF, 1%, 0207
0	W 1	not used			MP RAST-LOETKONTAKT, D 1,85
0	W 2	not used			MP RAST-LOETKONTAKT, D 1,85
0	W 3	1.023.390.36			FLACHKABEL 10 POL. 0.36M

End of List

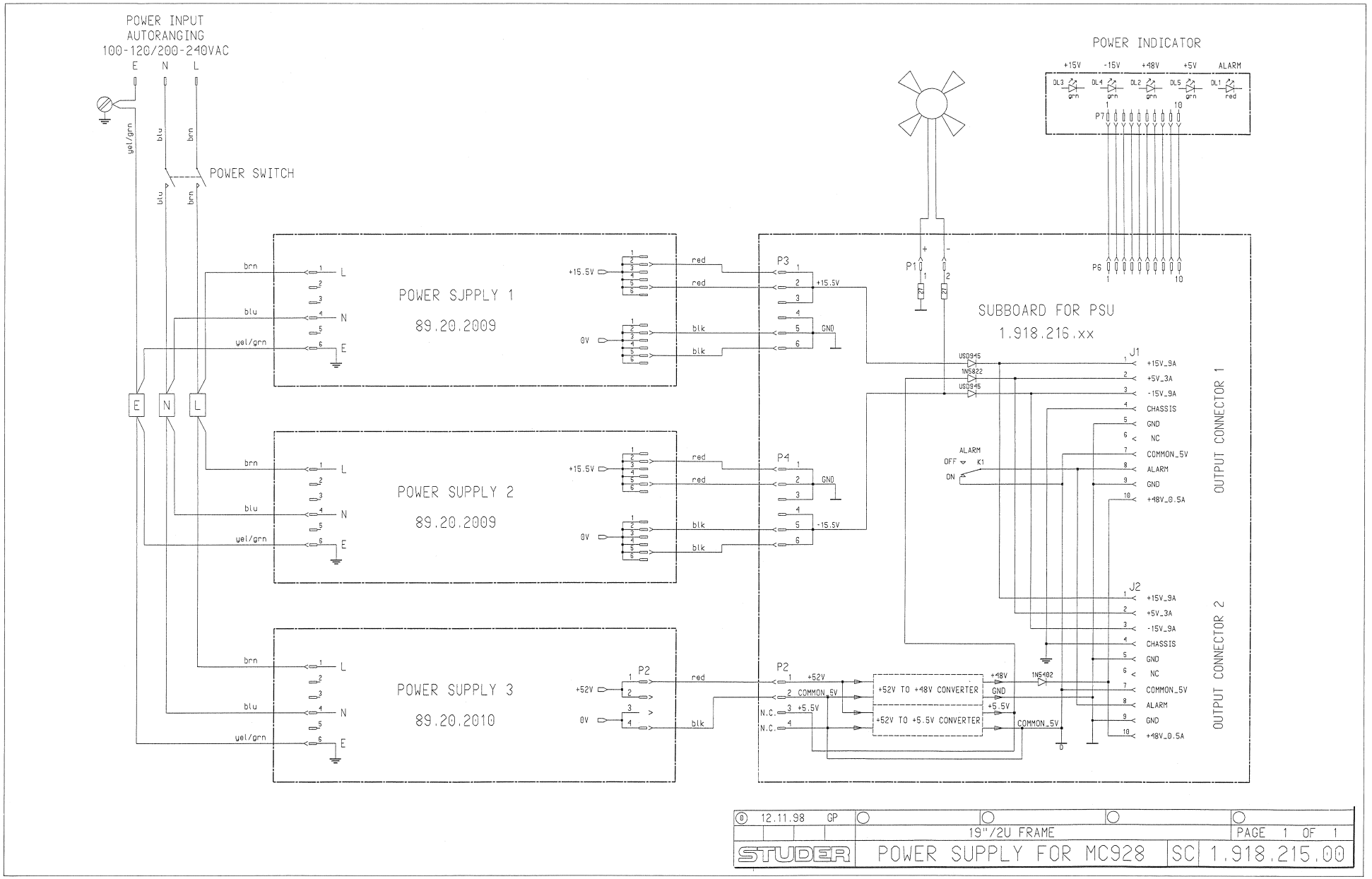
Comments

Edition Ausgabe	Modification Aenderung	Index
03.09.97 ZT		0

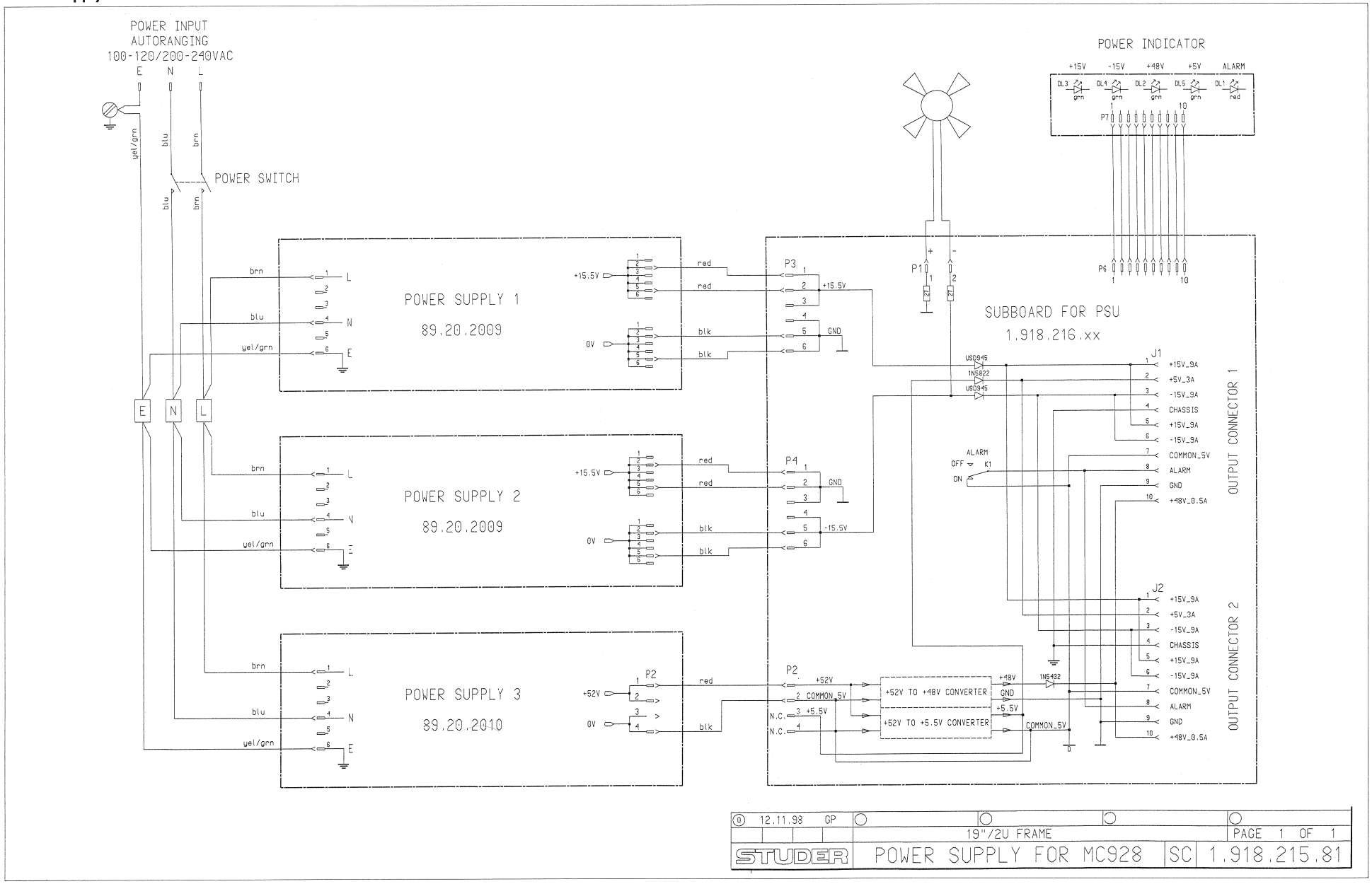
Copy to: Kopie fuer: -

STUDER REGENSDORF — SUBBOARD FOR PSU 'ESE' — Number Nummer 1.918.214.00

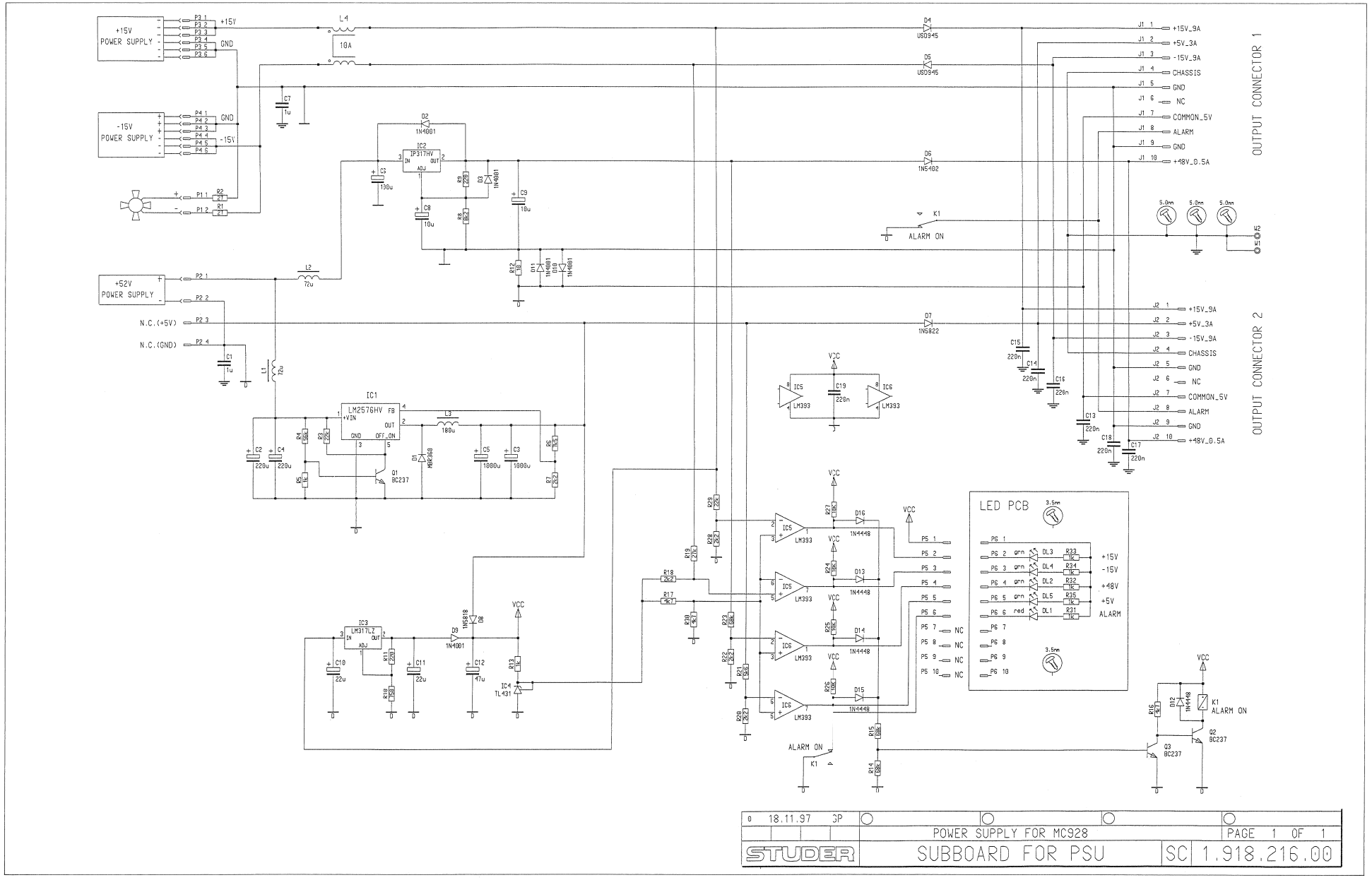
Power Supply for MC 928 1.918.215.00



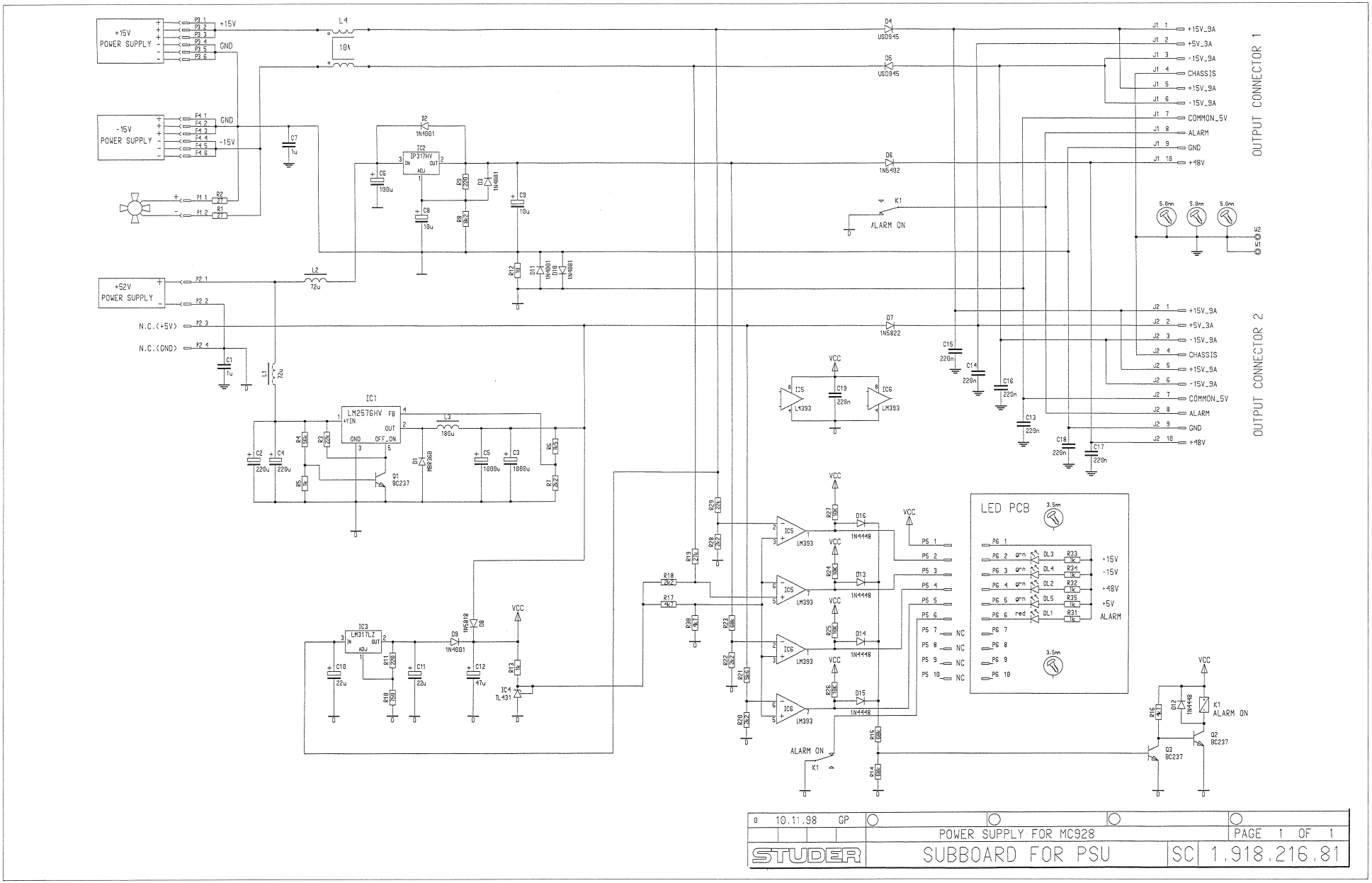
Power Supply for MC 928 1.918.215.81



Subboard for PSU 1.918.216.00



Subboard for PSU 1.918.216.81

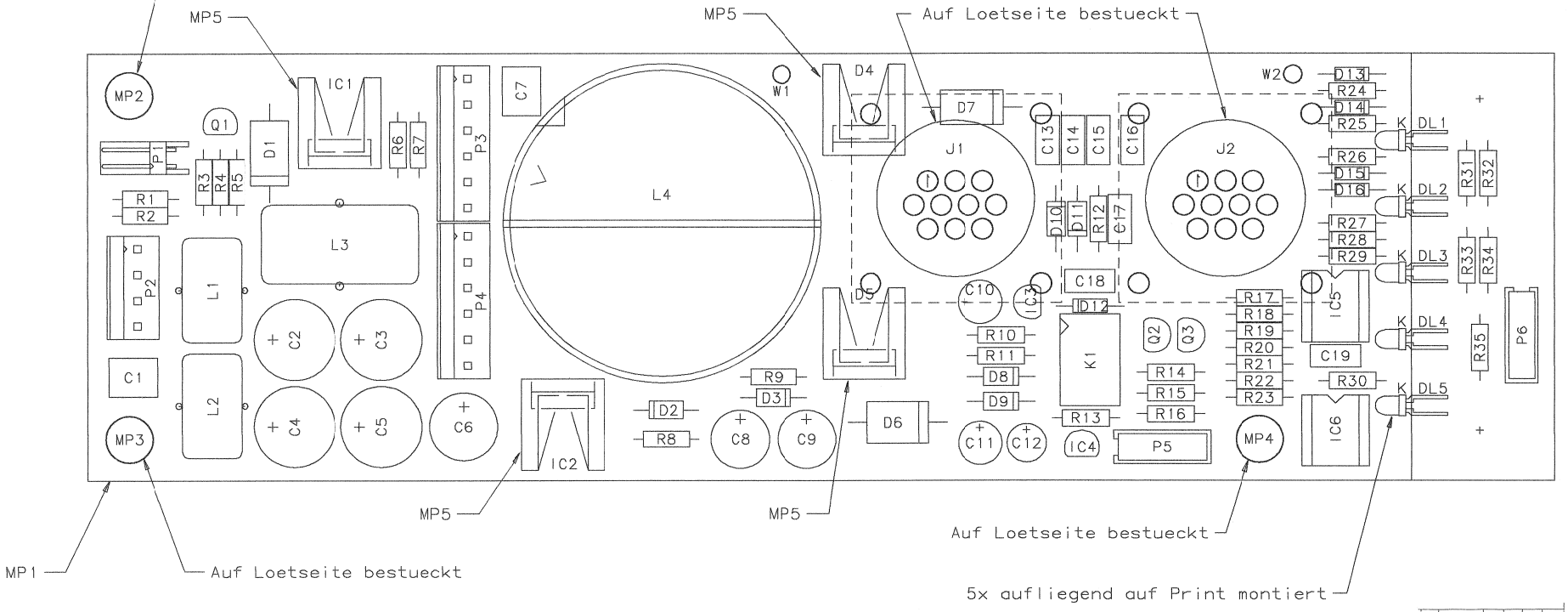


Subboard for PSU 1.918.216.00 (1)
Subboard for PSU 1.918.216.81 (2)

Aenderung der Anschlussbelegung von J1 und J2
mit Printplatte 1.918.216-11

Leiterbahn auftrennen zwischen Pin 5 und Pin 9
Dtrahtbruecke einloeten zwischen Pin 1 und Pin 5
Dtrahtbruecke einloeten zwischen Pin 3 und Pin 6

Bei der Printplatte 1.918.216.12 ist diese
Aenderung bereits durchgefuehrt.



Edition Ausgabe	Aenderung Aenderung				3 2 1 0
	12.11.98	GP	AE	SW	
	Date Datum	Visa Gez.	Check Gepr.	Seen Ges.	Index

Copy to: Kopie fuer:

STUDER REGENSDORF — Description Benennung: SUBBOARD FOR PSU "ESE" — Number Nummer: 1.918.216.81

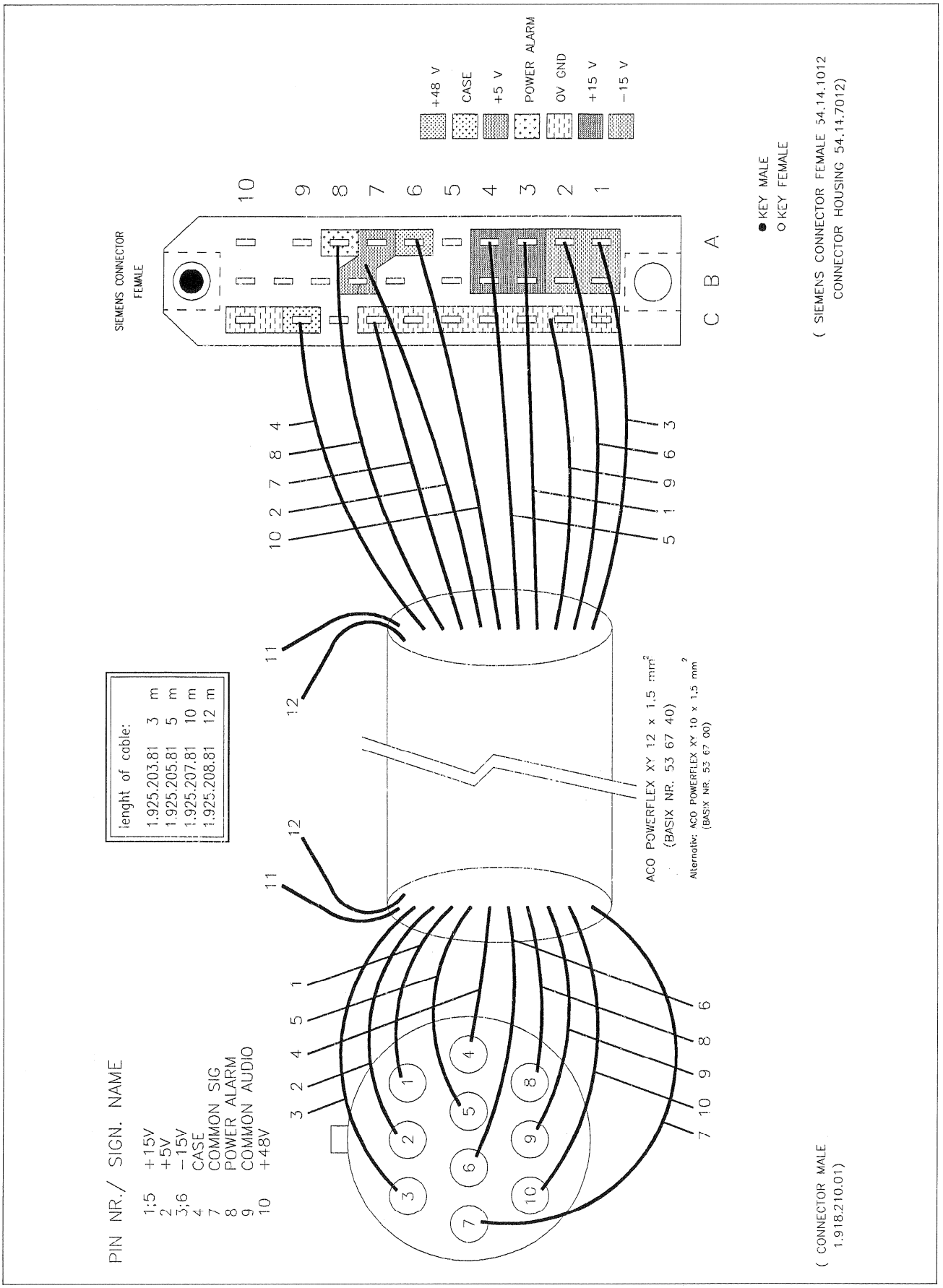
Subboard for PSU 1.918.216.00 (1)
Subboard for PSU 1.918.216.81 (2)

Idx	Pos.	Part No.	Qty.	Type/Val.	Description
0	C 1	59.06.0105		1u0	PETP, 50V, 10%, RM5
0	C 2	59.22.8221		220u	EL 63V, 20%, RM5
0	C 3	59.22.4102		1m0	EL 16V, 20%, RM5
0	C 4	59.22.8221		220u	EL 63V, 20%, RM5
0	C 5	59.22.4102		1m0	EL 16V, 20%, RM5
0	C 6	59.22.8101		100u	EL 63V, 20%, RM5
0	C 7	59.06.0105		1u0	PETP, 50V, 10%, RM5
0	C 8	59.22.8100		10u	EL 63V, 20%, RM5
0	C 9	59.22.8100		10u	EL 63V, 20%, RM5
0	C 10	59.22.6220		22u	EL 35V, 20%, RM5
0	C 11	59.22.6220		22u	EL 35V, 20%, RM5
0	C 12	59.22.3470		47u	EL 10V, 20%, RM5
0	C 13	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 14	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 15	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 16	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 17	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 18	59.06.0224		220n	PETP, 63V, 10%, RM5
0	C 19	59.06.0224		220n	PETP, 63V, 10%, RM5
0	D 1	50.04.0326		MBR360	D MBR 360, SB 360, 31 DQ 06,
0	D 2	50.04.0122		1N4001	1A, DO 41
0	D 3	50.04.0122		1N4001	1A, DO 41
0	D 4	50.04.0516		USD945	D USD 945,
0	D 5	50.04.0516		USD945	D USD 945,
0	D 6	50.04.0507		1N5402	D 1 N 5402,
0	D 7	50.04.0519		1N5822	3A, Schottky
0	D 8	50.04.0512		1N5818	D 1N 5818, 1N 5819,
0	D 9	50.04.0122		1N4001	1A, DO 41
0	D 10	50.04.0122		1N4001	1A, DO 41
0	D 11	50.04.0122		1N4001	1A, DO 41
0	D 12	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 13	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 14	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 15	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	D 16	50.04.0125		1N4448	75V, 150mA, 4ns, DO-35
0	DL 1	50.04.2204		934ID	LED 3mm red
0	DL 2	50.04.2206		934GT	LED 3mm green
0	DL 3	50.04.2206		934GT	LED 3mm green
0	DL 4	50.04.2206		934GT	LED 3mm green
0	DL 5	50.04.2206		934GT	LED 3mm green
0	IC 1	50.10.0126		LM2576HV-A	Switching Reg 1.23V...57V, 3A
0	IC 2	50.10.0116		LM317HV	IC IP 317 HVT, LM 317 HVT
0	IC 3	50.10.0108		LM317L	IC LM 317 LZ,
0	IC 4	50.10.0106		TL431	IC TL 431 CLP,
0	IC 5	50.05.0283		LM393	Dual Comparator
0	IC 6	50.05.0283		LM393	Dual Comparator
0	K 1	56.04.0198		2u	5V 125V 2A AgAu
0	L 1	62.03.0015		72uH	2A Toroid Chocke
0	L 2	62.03.0015		72uH	2A Toroid Chocke
0	L 3	62.03.0035		180uH	3A Toroid Chocke
0	L 4	62.03.0110		1.8mH	10A Toroid Chocke compensated
0	MP 1	1.918.213.12			SUBPCB FOR PSJ
0	MP 2	1.010.013.22	mp	3*12	NIETMUTTER SW 6 M 3 * 12
0	MP 3	1.010.013.22	mp	3*12	NIETMUTTER SW 6 M 3 * 12
0	MP 4	1.010.013.22	mp	3*12	NIETMUTTER SW 6 M 3 * 12
0	MP 5	50.20.3011	4 pcs		Kühlkörper, TO 220, vertikal
0	MP 6	1.918.215.10	mp		Nr.-Etikette 5x20
0	MP 7	43.01.0108	mp	Label	ESE-WARNSCHILD
0	P 1	54.12.0722		2p	Stecker winkel PCB
0	P 2	54.12.0504		4p	P Stecker 4p Power-Pin
0	P 3	54.12.0506		6p	P Stecker 6p Power-Pin
0	P 4	54.12.0506		6p	P Stecker 6p Power-Pin
0	P 5	54.14.5510		10p	PCB-Buchse gerade
0	P 6	54.14.5510		10p	PCB-Buchse gerade
0	Q 1	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 2	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	Q 3	50.03.0436		BC237B	BC 237 B, 547 B, 550 B,
0	R 1	57.11.3270		27R	MF, 1%, 0207
0	R 2	57.11.3270		27R	MF, 1%, 0207
0	R 3	57.11.3223		22k	MF, 1%, 0207
0	R 4	57.11.3563		56k	MF, 1%, 0207
0	R 5	57.11.3102		1k0	MF, 1%, 0207
0	R 6	57.11.3752		7k5	MF, 1%, 0207
0	R 7	57.11.3222		2k2	MF, 1%, 0207
0	R 8	57.11.3822		8k2	MF, 1%, 0207
0	R 9	57.11.3221		220R	MF, 1%, 0207
0	R 10	57.11.3751		750R	MF, 1%, 0207
0	R 11	57.11.3221		220R	MF, 1%, 0207
0	R 12	57.11.3100		10R	MF, 1%, 0207
0	R 13	57.11.3102		1k0	MF, 1%, 0207
0	R 14	57.11.3683		68k	MF, 1%, 0207
0	R 15	57.11.3683		68k	MF, 1%, 0207
0	R 16	57.11.3472		4k7	MF, 1%, 0207
0	R 17	57.11.3472		4k7	MF, 1%, 0207
0	R 18	57.11.3222		2k2	MF, 1%, 0207
0	R 19	57.11.3273		27k	MF, 1%, 0207
0	R 20	57.11.3222		2k2	MF, 1%, 0207
0	R 21	57.11.3562		5k6	MF, 1%, 0207
0	R 22	57.11.3222		2k2	MF, 1%, 0207
0	R 23	57.11.3683		68k	MF, 1%, 0207
0	R 24	57.11.3103		10k	MF, 1%, 0207
0	R 25	57.11.3103		10k	MF, 1%, 0207
0	R 26	57.11.3103		10k	MF, 1%, 0207
0	R 27	57.11.3103		10k	MF, 1%, 0207
0	R 28	57.11.3222		2k2	MF, 1%, 0207
0	R 29	57.11.3223		22k	MF, 1%, 0207
0	R 30	57.11.3472		4k7	MF, 1%, 0207
0	R 31	57.11.3102		1k0	MF, 1%, 0207
0	R 32	57.11.3102		1k0	MF, 1%, 0207
0	R 33	57.11.3102		1k0	MF, 1%, 0207
0	R 34	57.11.3102		1k0	MF, 1%, 0207
0	R 35	57.11.3102		1k0	MF, 1%, 0207
0	W 1	not used			MP RAST-LOETKONTAKT, D 1,85
0	W 2	not used			MP RAST-LOETKONTAKT, D 1,85

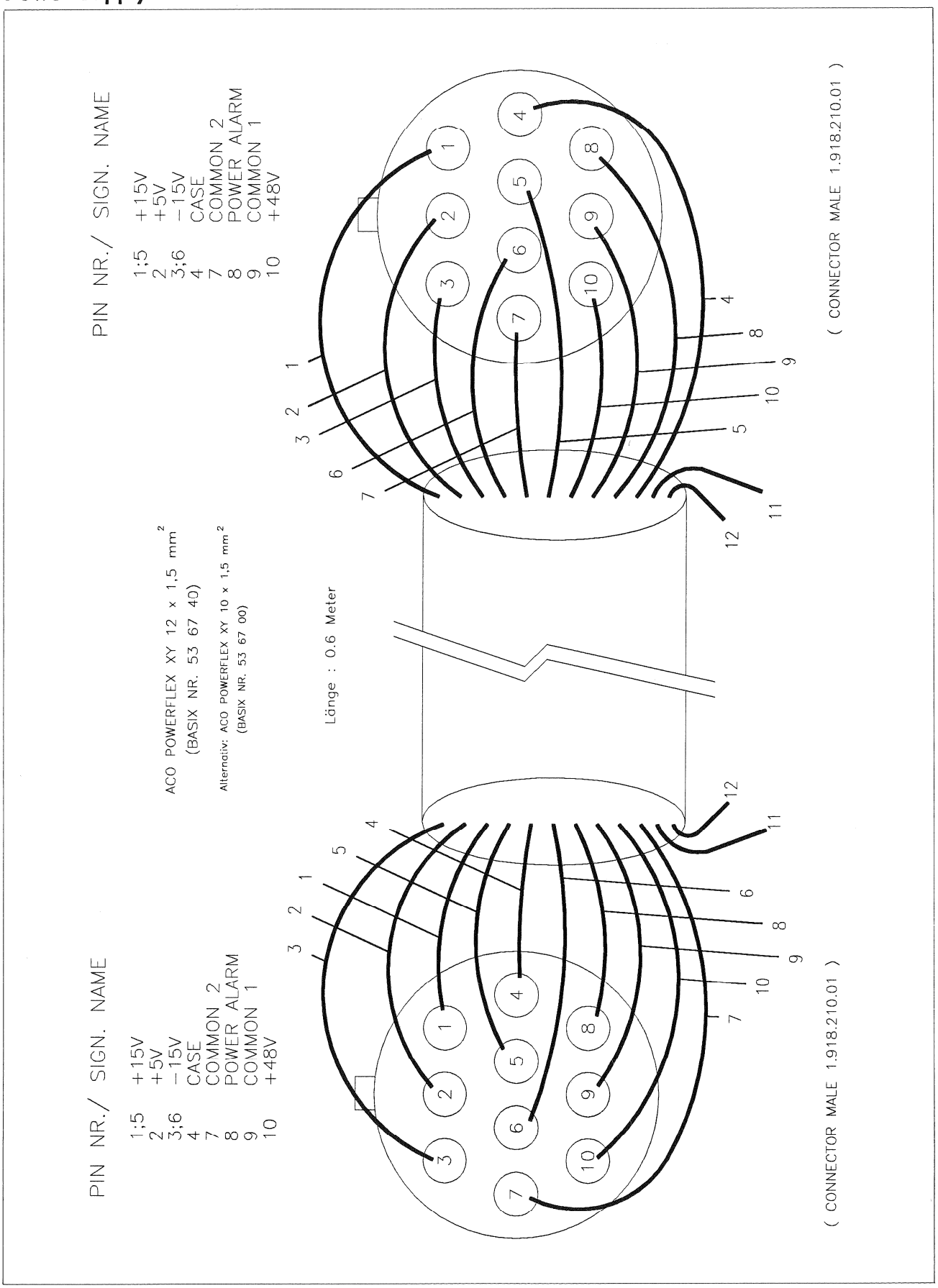
End of List

Comments

Power Supply Cable for 928 1.925.20x.81



Power Supply Link Cable for 928 1.925.220.81



Power Supply Cable for 928, Dual 1.925.21y.81