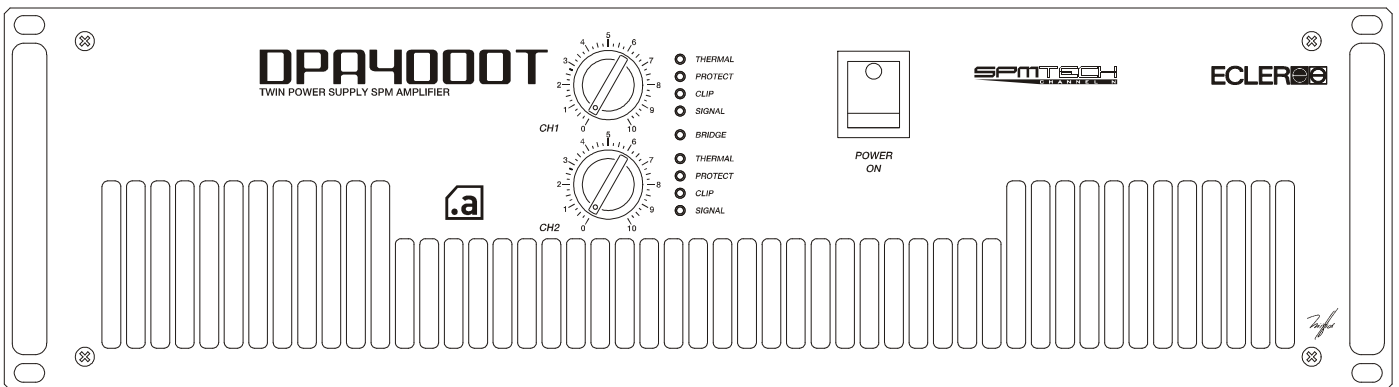
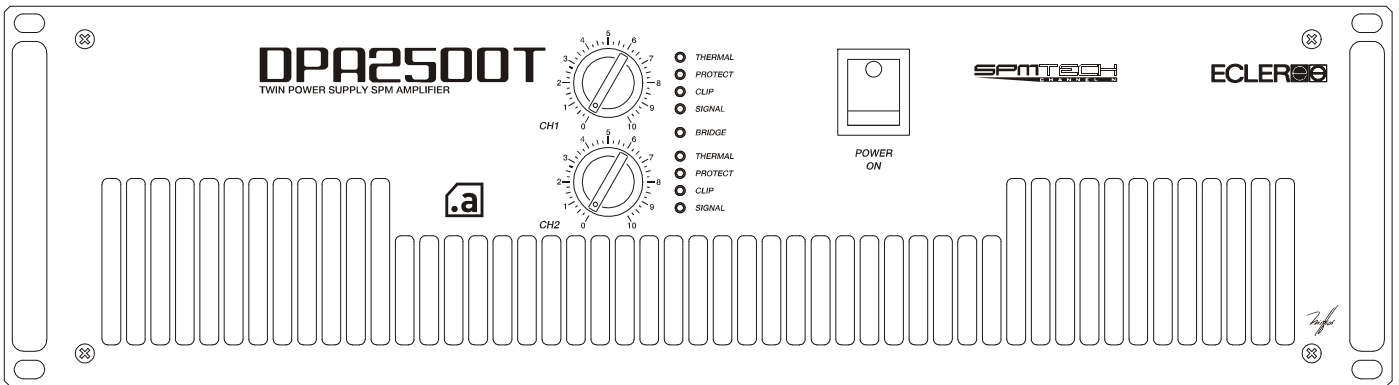


DPA2500T / DPA4000T

SERVICE MANUAL



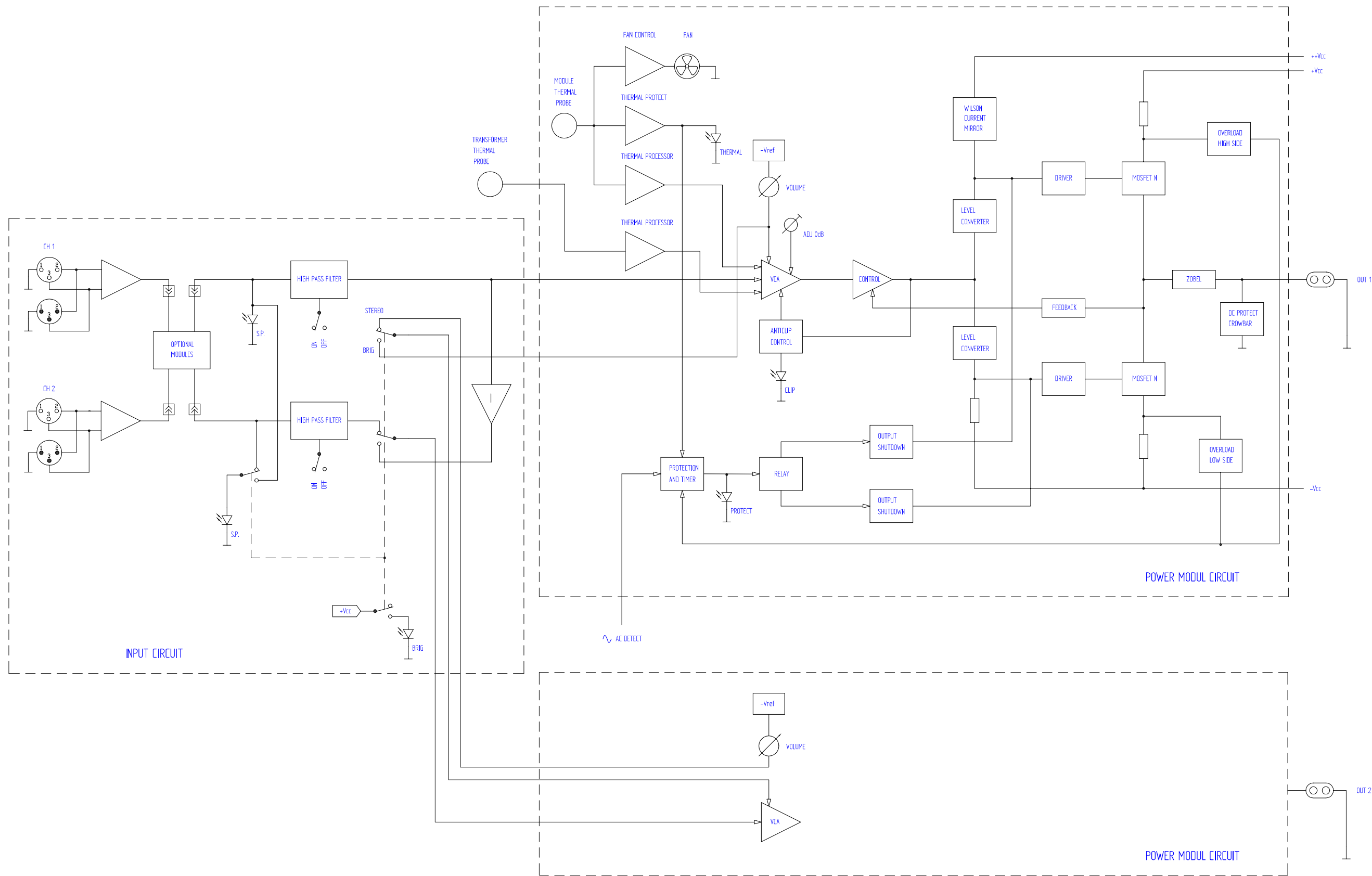
ECLEREO

AUDIO CREATIVE POWER

SERVICE MANUAL DPA2500T DPA4000T

INDEX

- BLOCK DIAGRAM
- FUNCTIONING DESCRIPTION
- SCHEMATICS
- COMPONENTS LOCATION SCHEMA
- TESTING AND QUALITY CONTROL
- TECHNICAL CHARACTERISTICS
- WIRING DIAGRAM
- CONFIGURATION DIAGRAM
- MECHANICAL DIAGRAM
- PACKING DIAGRAM



POWER MODULE.

Due to the high power level required on the output load, the amplifier final stage's structure differs from the design used until now. This is due to the breakdown voltage limit on P-channel MosFET's, with is 200V. This final stage is formed by several shunted MosFET's, where those of the positive branch are common-drain configured, and the negative branch are mounted in common-source configuration.

The system's controlling device is a NE5534-type operational amplifier, with is internally compensated in order to obtain gain levels equal or higher than three. The amplifier's feedback is given by a resistor and a capacitor associated to the operational amplifier's non inverting input.

Transistors BF471 and BF472 are common-base configured, forming a current supply structure. This specific transistor type is used because of the higher Vce voltage level required by this design. They perform simultaneously two functions: they polarize the MosFET's gate-source junctions, keeping them on the conducting edge, and they transfer the OpAmp's output voltage variations referred to signal ground.

The signal variations normally reflected by Q107 and referred to the positive power supply, are now needed to be floating variations, and referred to the outputs. This function is done by Q109-110 (BF472), with are mounted forming a Wilson-type mirror current supply. This mirror current supply transfers all of the current variations detected while descending through Q109's collector, to similar variations on Q110's collector also downward current. Resistors R167 and R174 are used to balance the current mirror, in order to avoid the use of transistors with forcibly the same beta value. C138 and C141 suppress their resistance when high frequency signal is processed. Diodes D126 and D127 avoid the transistors to get saturated, and R171 eliminates the loads on BF472's bases (Baker Circuit).

The system requires about 12Vdc additional voltage upon the usual Vcc level, this allows a correct saturation and a symmetric clipping at the higher MosFET's.

The correct polarization current value is adjusted by a 4K7 potentiometer connected to the BF transistor's emitter. This adds an additional current to the current source output on the BF transistor's loading resistors.

In order to maintain the appropriate stand-by current level against varying temperature conditions, BD437-type transistors are used. As they have a particular temperature-depending base-emitter voltage curve, this voltage is used to keep a correct voltage reference for the current supply. As the temperature rises, the reference voltage level decreases, the gate-source voltage also decreases and, finally, the bias current also decreases.

Transistors Q111 and Q112, and their corresponding twins at the lower branch, form a current-buffering circuit with allows a fast charge and discharge of the power MosFET's gates.

The Zobel circuit, a resistance-capacitance-inductance formed network associated to the amplifier's output, tries to keep the amplifier's output load impedance constant no matter with load value is connected to the output, or with frequency is processed, in order to avoid phase shifts on the feedback signal.

To avoid the presence of DC voltage on the output, a diac-triac based system is used, with shorts the output to signal ground in case the DC level reaches the diac's triggering value. To avoid this to happen when processing correct signal (sine waveform, music...), the diac obtains its reference level from a filtering network formed by a 100K resistor and a 1µF capacitor.

The protections circuitry overhauls the MosFET's power consumption. Basically, this circuitry consists of two important sections: MosFET's Id current monitoring, and MosFET's Vds value detection.

When the MosFET's Id level rises above a certain level, transistor Q119 (controlling transistor) conducts and decreases the BF transistor's loading resistance, thus reducing also their gate-source voltage and, finally, lowering the Id current value. This system is helped by a delayed performance, due to the associated circuitry to Q145 and C174. This capacitor starts to charge when a current level above the allowed value is detected, and the protection starts. The greater is the capacitor's charge level, the higher is also the voltage applied to Q119 controlling transistor's base, increasing its conduction and, consequently, reducing the gate-source voltage and thus the Id current value. This system uses a feedback network. The delay used is necessary to avoid clipping the processed signal's dynamic range, with should result in the typical clipping noise. In the negative branch, the protection circuitry is associated to control transistor Q120.

In case the overcurrent is not occasional, and persists, after a period of time between 4 and 10 seconds (determined by R142 and C124), the system switches back to Stand-by mode, due to a system-reset. This is done by an optocoupler (IC113) associated to the negative branch protection circuitry. When protections get activated, IC113 gradually charges C124 until a 40106-type Schmidt trigger gate switches over. If the problem persists, this cycle is repeated.

STANDBY CIRCUITRY. This circuit maintains the Output shutdown relay closed for about 10 seconds, and thus annulated any current through the MosFET's during this period, just until the whole system's power supply voltage reaches its stable level. By this system, we avoid to hear through the loudspeakers any possible annoying noise proceeding from the system's start-up.

This delay time is achieved by using a RC cell, where R135=287K and C119=47 μ F/50V. As this cell charges, its voltage increases until reaching the 40106-type Schmidt trigger (IC108) switching value; at this point, the relay opens and the amplifier starts to function normally.

The discharge or reset of capacitor C119=47 μ F can be done by cutting off the power supply, or by triggering the Thermal or other protections. During a short period of time, BC817-type transistor Q102 acts like a switch, shunting two 75 Ω resistors to C119.

Moreover, the amplifier includes some other additional features, like:

- Volume control by a VCA system.
- An ANTICLIP system.
- A Temperature control system.

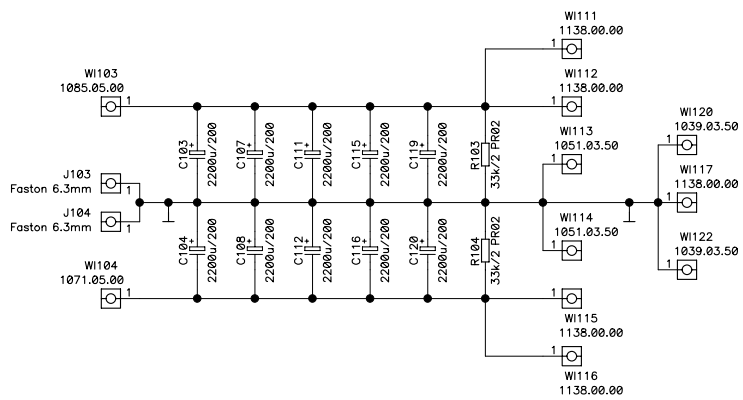
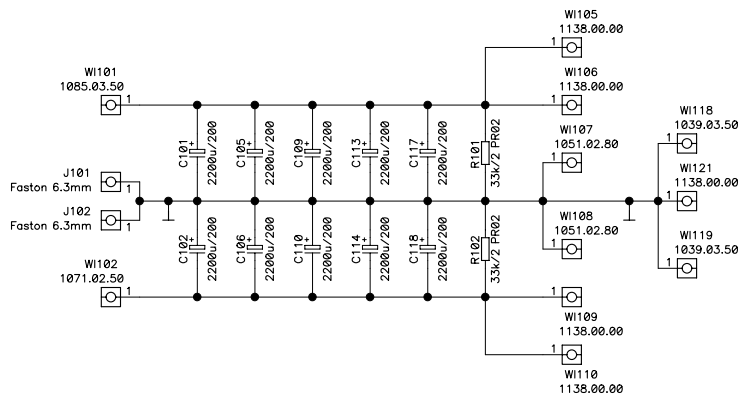
THE ANTICLIP SYSTEM. When the amplifier reaches clipping levels, the operational amplifier loses control on the system's performance and at its output some $\pm V_{cc}$ voltage peaking pulses may appear, proceeding from its power supply. This peaking pulses are used to be rectified and sent to an optocoupler (IC111), with varies the system's VCA control voltage as a function of those pulse's amplitude, creating a negative feedback with should pull back the system into stable functioning area.

The Temperature control system has three main functions:

- Controlling the cooling fan speed, as it is a function of the measured temperature. The fan's operation voltage range is 7 to 14 Volts.
- Suspending the amplifier's functioning when the temperature exceeds 92°C
- Reducing the amount of power output, depending on the module's temperature (as it rises above 85°C) and on the main power supply's transformer (above 120°C).

The temperature control system consists on two LM35D-type IC's, with act like a thermal probe; one is placed on the amplifier's heat sink, and the other is placed into the main power supply transformer's core. Moreover, three amplifiers, a comparator for the thermal probe and a 7805-type IC to feed the cooling fan are used.

The first amplifier (1/4 IC114) acts on the cooling fan speed control. The second amplifier (1/4 IC114) modifies the VCA gain control, in order to reduce the system's gain if the temperature rises above 85°C. The third amplifier (1/4 IC114) modifies the VCA gain control, in order to reduce the system's gain if the temperature rises above 120°C. The comparator (1/4 IC114) is responsible for the output shutdown relay performance, in order to close it as the temperature reaches 92°C, and thus cutting of the amplifier's MosFETs bias current. As this happens, the signal output of the whole unit is cutted off.



Printed Board 11.1036



drawn by: M. Amoros

date: 051014

approved: J.M. Mas

project n: EP04/05-05

title:

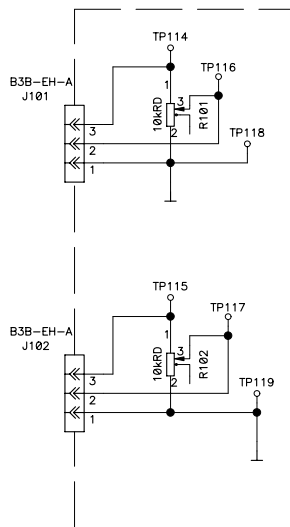
product n: DPA25/4000T

Capacitors Sch.

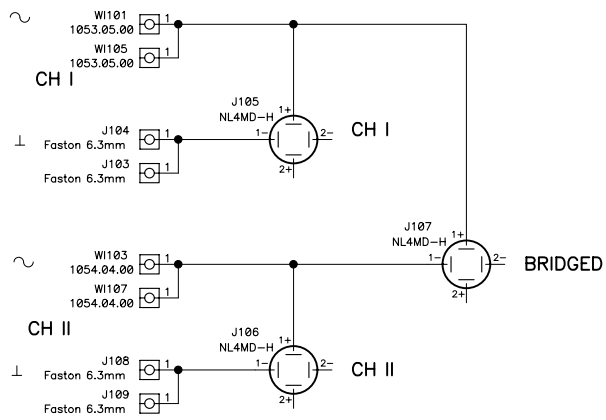
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version: 01.01

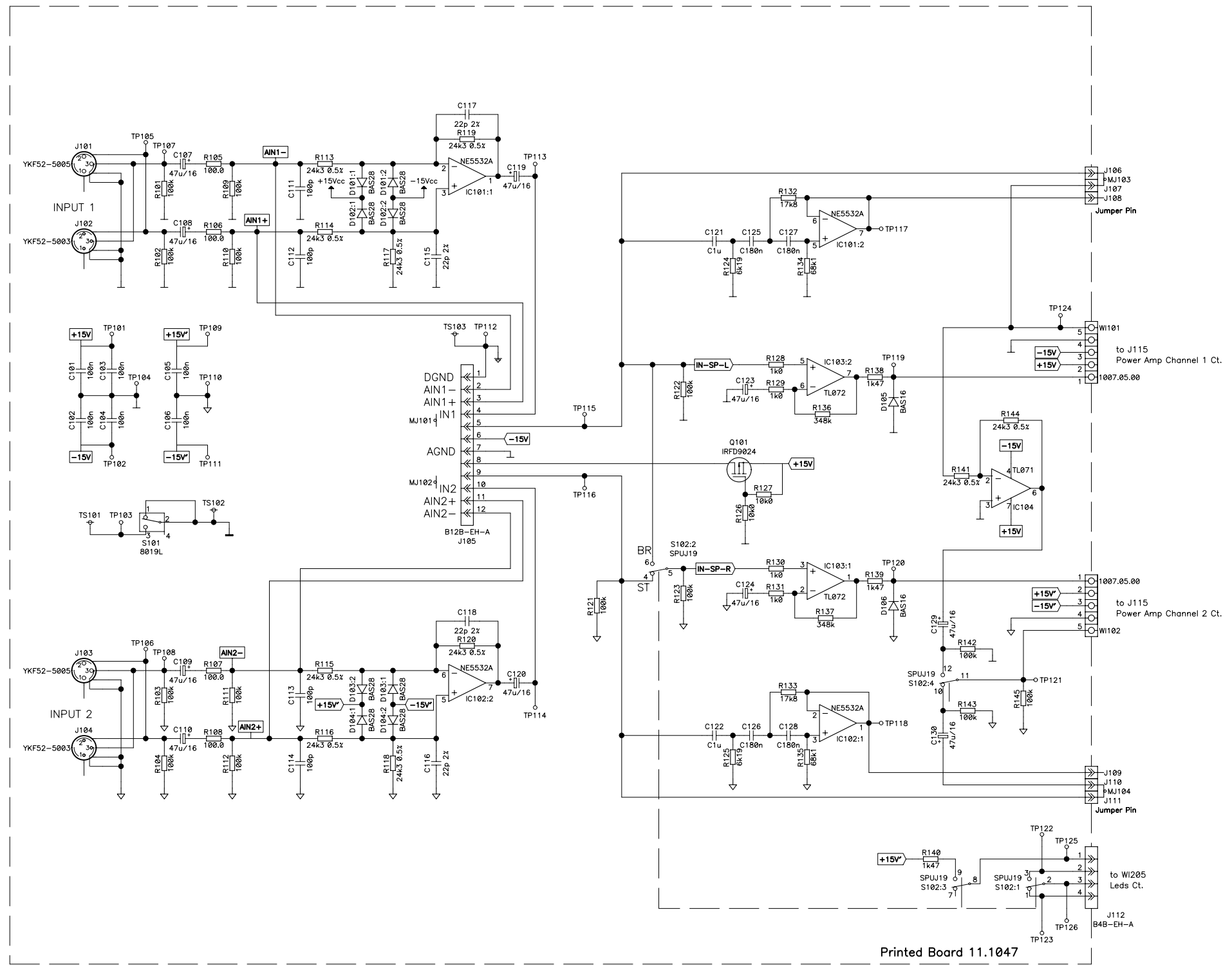
page: 1 of 1



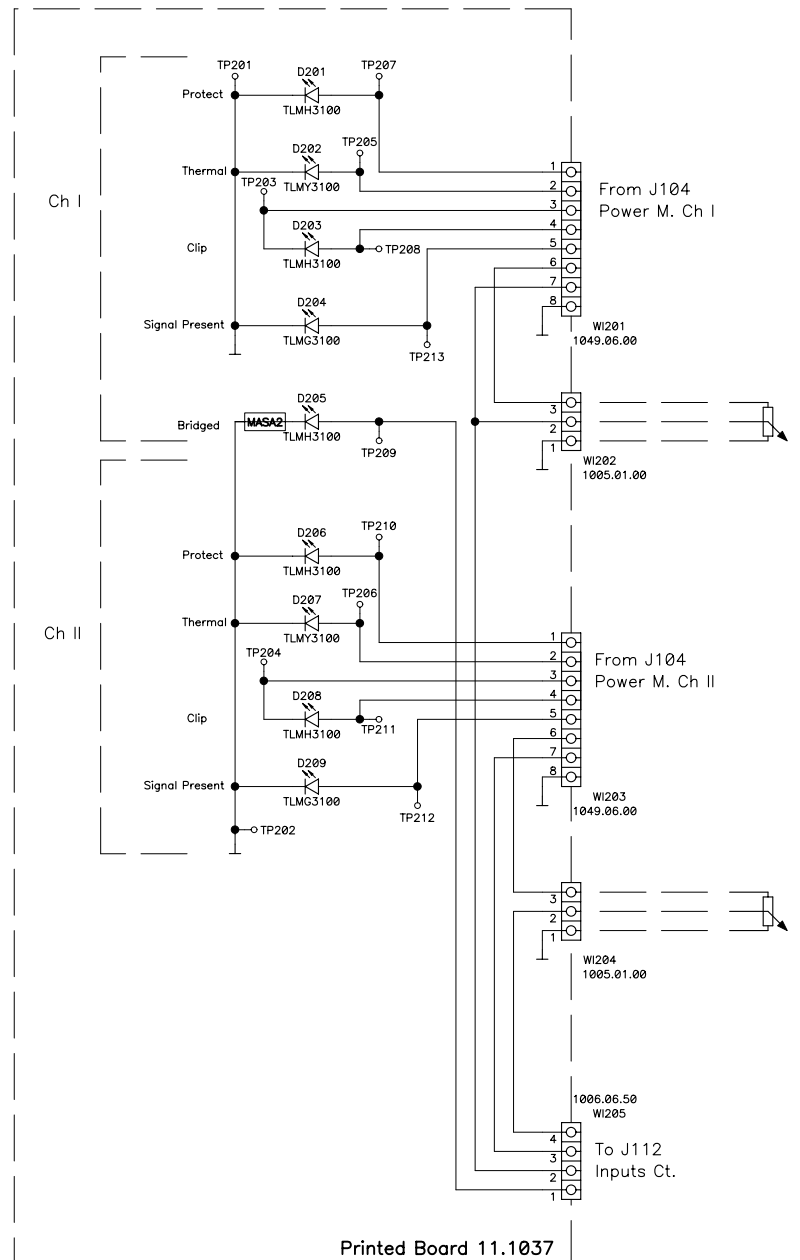
Printed Board 11.1038



Printed Board 11.1039




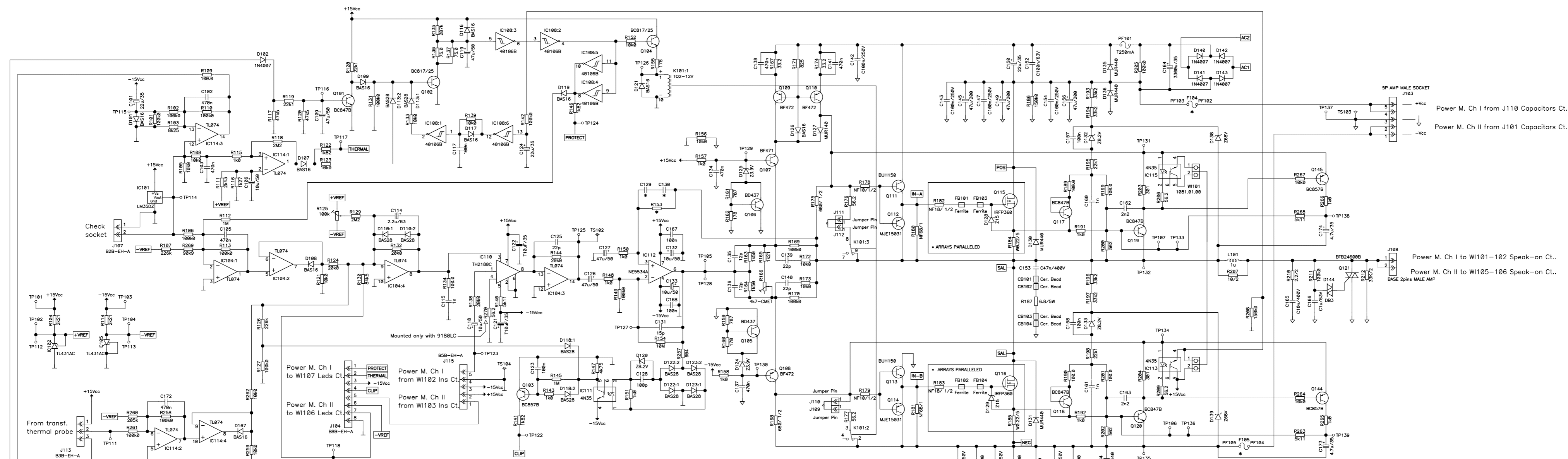
Printed Board 11.1047



Printed Board 11.1037

Printed Board 11.1047

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	project n: EP04/5-05	title:	
number: 10.0719	product n: DPA25/4000T	<h2>Inputs + Leds Schema</h2>	
version: 01.00	page: 1 of 1		

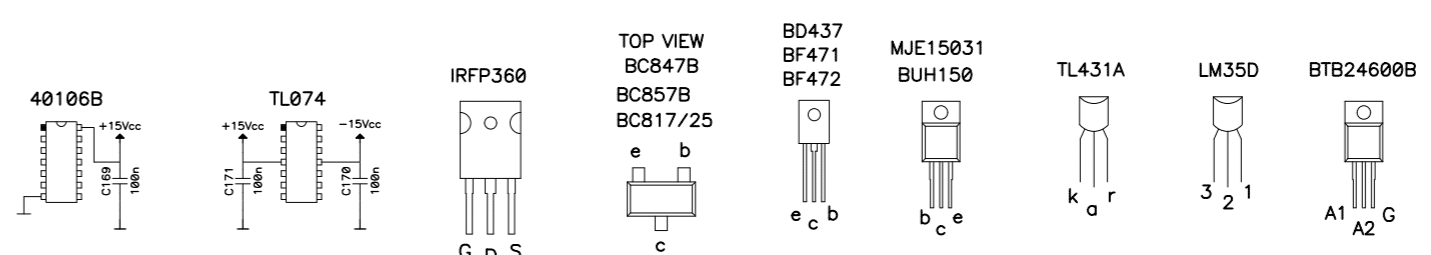


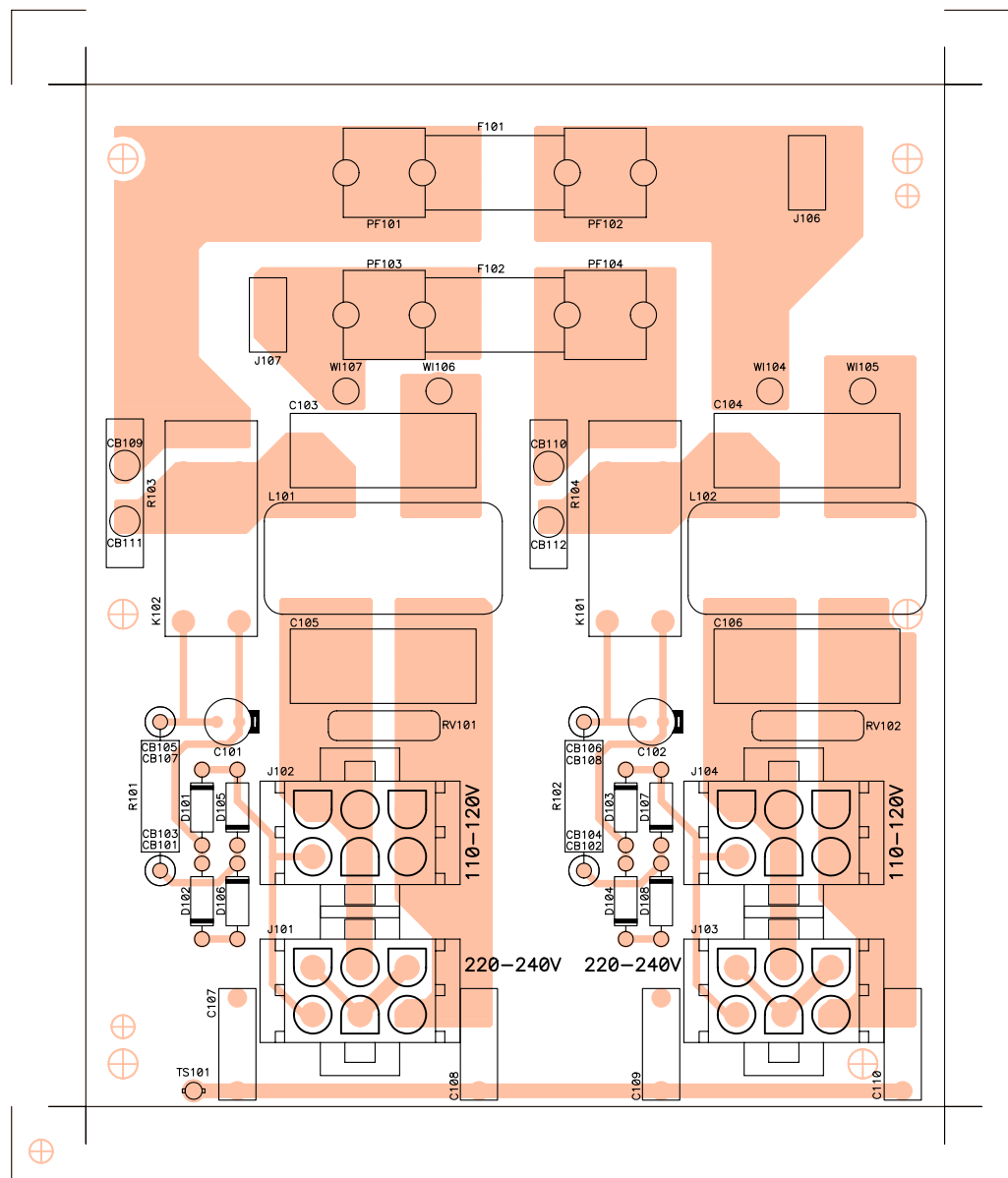
5P AMP MALE SOCKET
J103
+Vcc
-Vcc
Power M. Ch I from J110 Capacitors Ct.
Power M. Ch II from J101 Capacitors Ct.


J108
Power M. Ch I to W110-102 Speak-on Ct.
Power M. Ch II to W1105-106 Speak-on Ct.
BASE 2pins MALE AMP

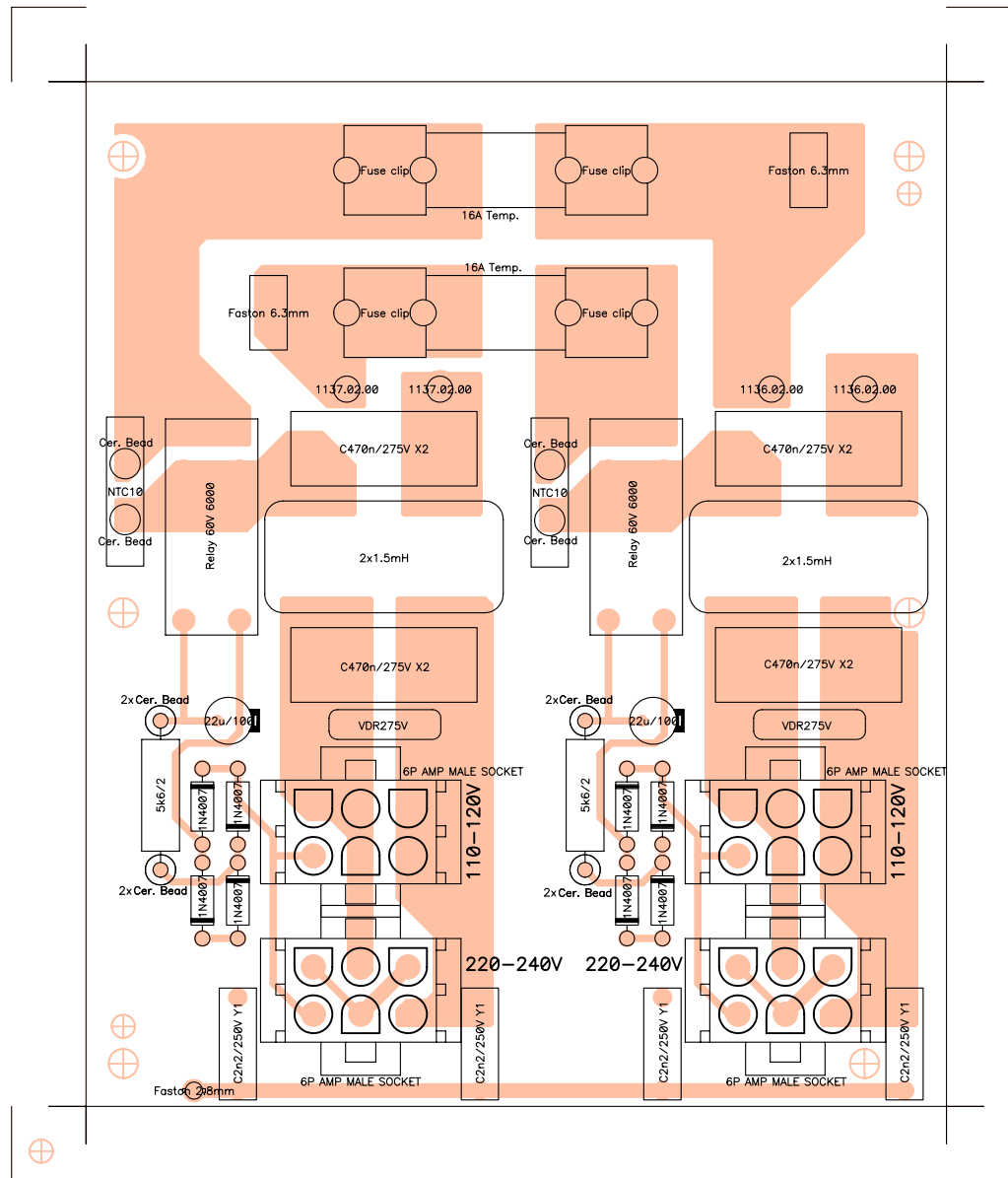
11.0730 Printed Board


MODEL	F104 F105	ARRAYS QTY.	C129 C130	R153
EP04-99A	T 12.5 A	8	33p	71k5
EP04-99B	T 16A	12	22p	100k0





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number: 33.0956	version: 01.00	<h2>Soft-Start Ct.</h2>	
drawn by: M. Amoros	date: 051017		



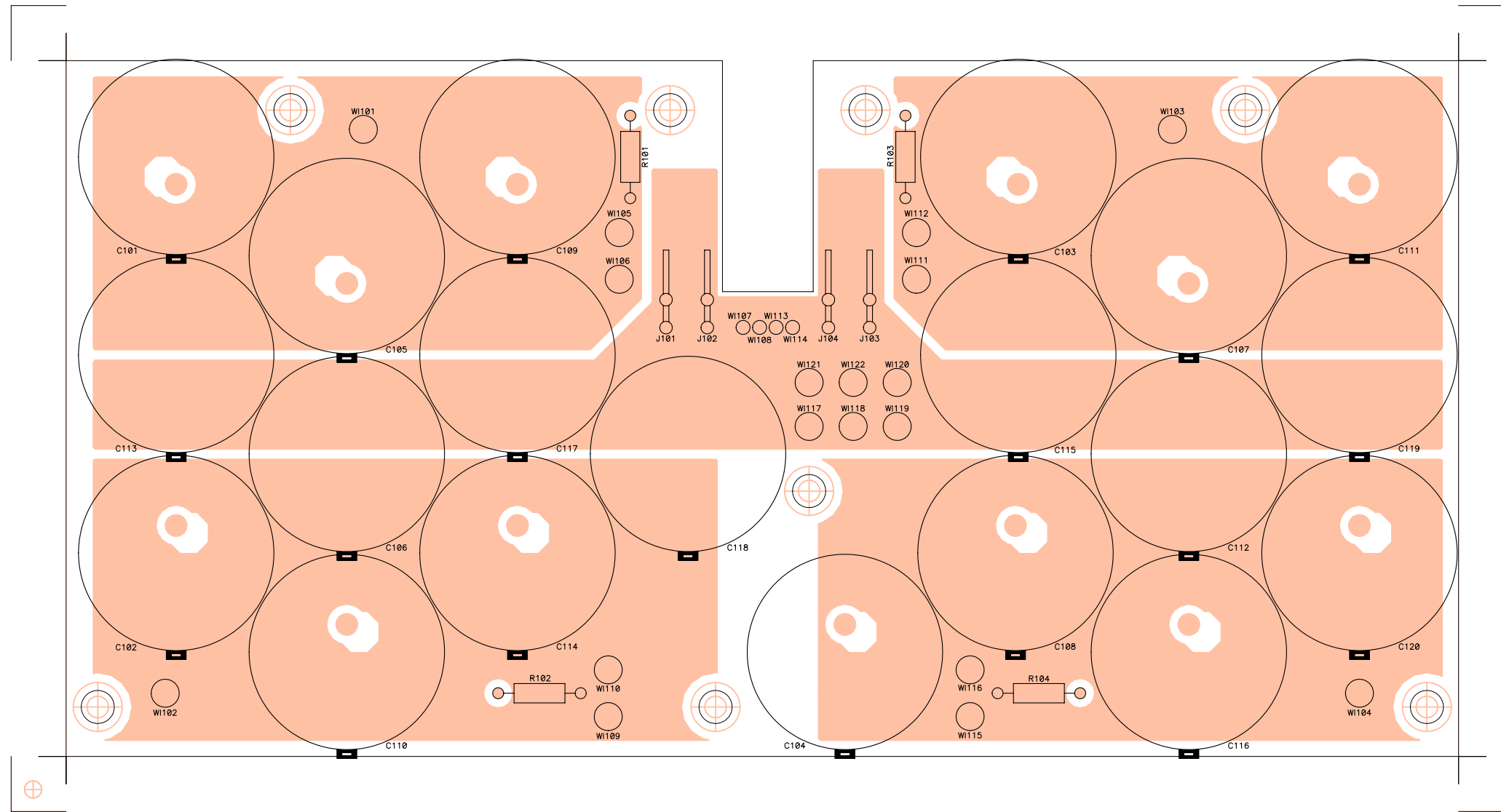
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number: 33.0957	version: 01.01	product n: DPA25/4000T	Soft-Start Ct.
drawn by: M. Amoros	date: 051221	approved: Angel Sanuy	

PARTS LIST: PRINTED CIRCUIT 11.1034.02.01

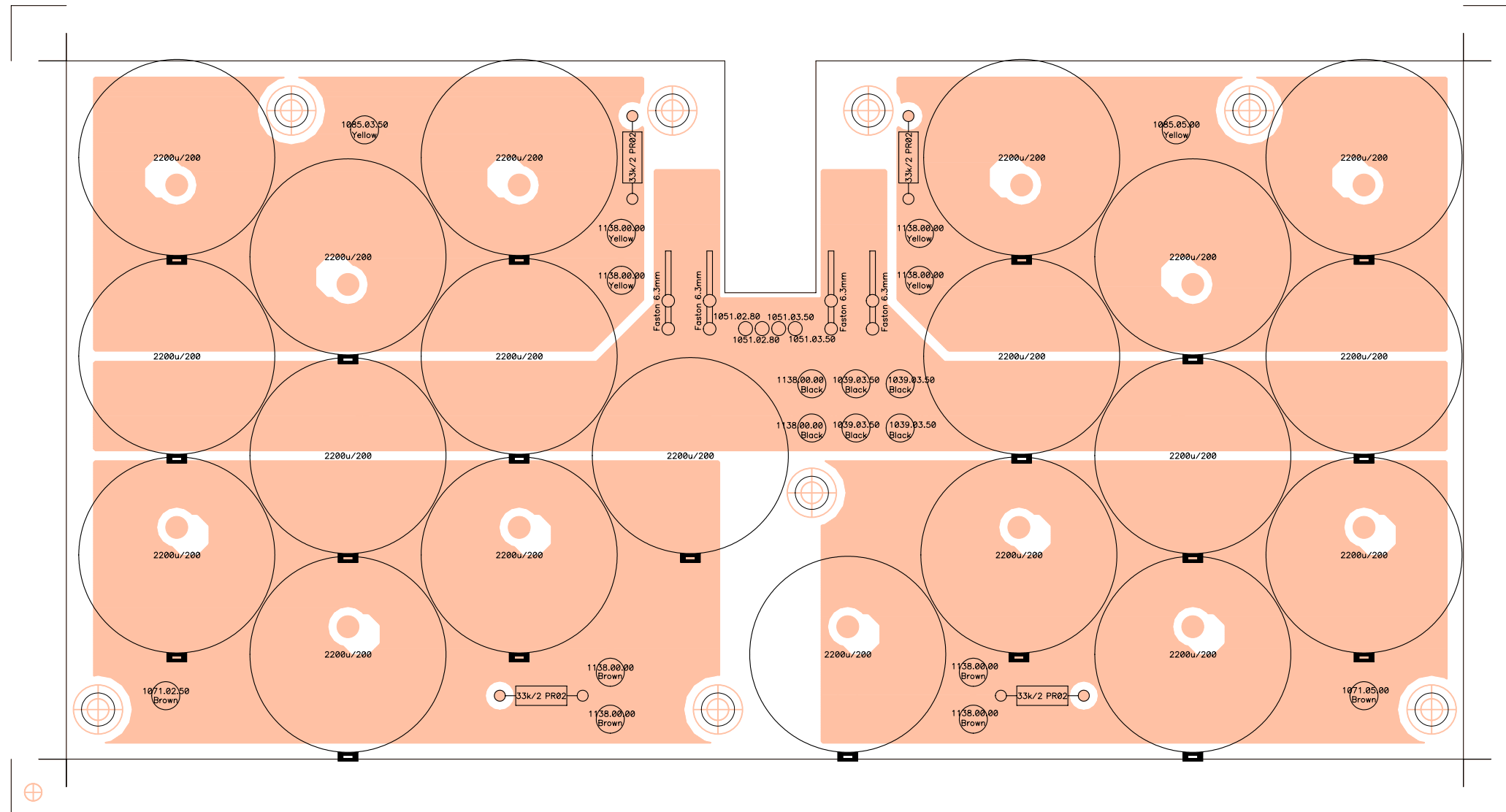
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FCCDH7147000	C470n/275V X2	C103
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FCCDH7147000	C470n/275V X2	C105
FCCDH7147000	C470n/275V X2	C106
FCCCD2225000	C2n2/250V Y1	C107
FCCCD2225000	C2n2/250V Y1	C108
FCCCD2225000	C2n2/250V Y1	C109
FCCCD2225000	C2n2/250V Y1	C110
FCPERL255000	Cer. Bead	CB101
FCPERL255000	Cer. Bead	CB102
FCPERL255000	Cer. Bead	CB103
FCPERL255000	Cer. Bead	CB104
FCPERL255000	Cer. Bead	CB105
FCPERL255000	Cer. Bead	CB106
FCPERL255000	Cer. Bead	CB107
FCPERL255000	Cer. Bead	CB108
FCPERL255000	Cer. Bead	CB109
FCPERL255000	Cer. Bead	CB110
FCPERL255000	Cer. Bead	CB111
FCPERL255000	Cer. Bead	CB112
FCCI01034000	Printed Board 11.1034.02	CI101
FCDD14007000	1N4007	D101
FCDD14007000	1N4007	D102
FCDD14007000	1N4007	D103
FCDD14007000	1N4007	D104
FCDD14007000	1N4007	D105
FCDD14007000	1N4007	D106
FCDD14007000	1N4007	D107
FCDD14007000	1N4007	D108
FCFUS8040000	16A Temp.	F101
FCFUS8040000	16A Temp.	F102
FCCTAMP06000	6P AMP MALE SOC	J101
FCCTAMP06000	6P AMP MALE SOC	J102
FCCTAMP06000	6P AMP MALE SOC	J103
FCCTAMP06000	6P AMP MALE SOC	J104
FCTERMF63000	Faston 6.3mm	J106
FCTERMF63000	Faston 6.3mm	J107
FCREL1060000	Relay 60V 6000	K101
FCREL1060000	Relay 60V 6000	K102
FCBB2X350000	2x1.5mH	L101
FCBB2X350000	2x1.5mH	L102
FCPORF020000	Fuse clip	PF101
FCPORF020000	Fuse clip	PF102
FCPORF020000	Fuse clip	PF103
FCPORF020000	Fuse clip	PF104
FCRC54560000	5k6/2	R101
FCRC54560000	5k6/2	R102
FCNTC0030000	NTC10	R103
FCNTC0030000	NTC10	R104
FCVDR0275000	VDR275V	RV101
FCVDR0275000	VDR275V	RV102
FCTERMF28000	Faston 2.8mm	TS101
FC2H13620000	1136.02.00	WI104
FC2H13620000	1136.02.00	WI105

PARTS LIST: PRINTED CIRCUIT 11.1034.02.01


Code	Description	Reference
FC2H13720000	1137.02.00	WI106
FC2H13720000	1137.02.00	WI107



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	project n:	EP04/05-05	view: Reference
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drawn by: M. Amoros	date: 051221	approved: Angel Sanuy	

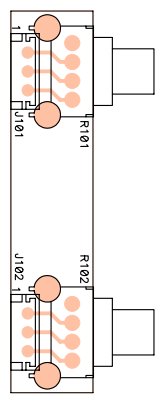



IMPORTANT NOTE: Apply Clear Silicone Sealant among 2200u/200V electrolytic capacitors

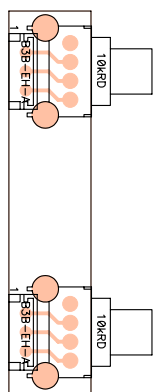
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number: 33.0951	version: 01.01	title: Capacitors Ct.	
drawn by: M. Amoros	date: 051221		approved: Angel Sanuy


PARTS LIST: PRINTED CIRCUIT 11.1036.02.01

Code	Description	Reference
FCCE36022000	2200u/200	C101
FCCE36022000	2200u/200	C102
FCCE36022000	2200u/200	C103
FCCE36022000	2200u/200	C104
FCCE36022000	2200u/200	C105
FCCE36022000	2200u/200	C106
FCCE36022000	2200u/200	C107
FCCE36022000	2200u/200	C108
FCCE36022000	2200u/200	C109
FCCE36022000	2200u/200	C110
FCCE36022000	2200u/200	C111
FCCE36022000	2200u/200	C112
FCCE36022000	2200u/200	C113
FCCE36022000	2200u/200	C114
FCCE36022000	2200u/200	C115
FCCE36022000	2200u/200	C116
FCCE36022000	2200u/200	C117
FCCE36022000	2200u/200	C118
FCCE36022000	2200u/200	C119
FCCE36022000	2200u/200	C120
FCCI01036000	Printed Board 11.1036.02	CI102
FCTERM100000	Faston 6.3mm	J101
FCTERM100000	Faston 6.3mm	J102
FCTERM100000	Faston 6.3mm	J103
FCTERM100000	Faston 6.3mm	J104
FCRP55330000	33k/2 PR02	R101
FCRP55330000	33k/2 PR02	R102
FCRP55330000	33k/2 PR02	R103
FCRP55330000	33k/2 PR02	R104
FC0H08535000	1085.03.50	WI101
FC0H07125000	1071.02.50	WI102
FC0H08550000	1085.05.00	WI103
FC0H07150000	1071.05.00	WI104
FC0C05128000	1051.02.80	WI107
FC0C05128000	1051.02.80	WI108
FC0C05135000	1051.03.50	WI113
FC0C05135000	1051.03.50	WI114
FC0H13800000	1138.00.00	WI117
FC0H03935000	1039.03.50	WI118
FC0H03935000	1039.03.50	WI119
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FC0H13800000	1138.00.00	WI121
FC0H03935000	1039.03.50	WI122



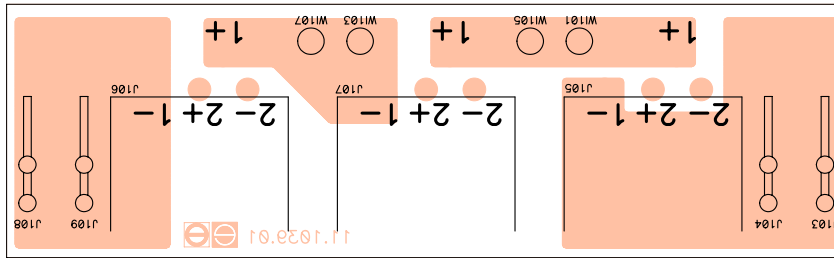
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drawn by: M. Amoros	date: 051017	approved: Angel Sanuy	




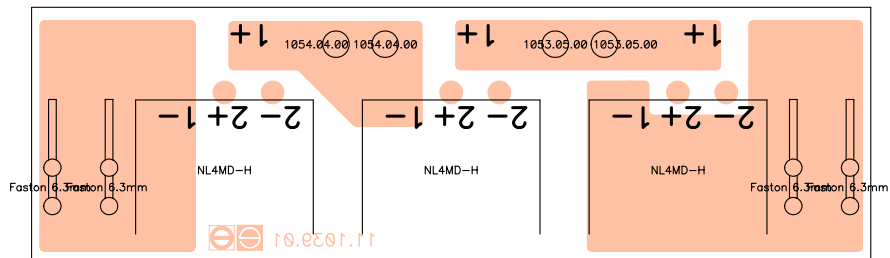
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drawn by: M. Amoros	date: 051017	approved: Angel Sanuy	


PARTS LIST: PRINTED CIRCUIT 11.1038.01.00

Code	Description	Reference
FCCI01038000	Printed Board 11.1038.01	CI101
FCCTM0003000	B3B-EH-A	J101
FCCTM0003000	B3B-EH-A	J102
FCPR11004000	10kRD	R101
FCPR11004000	10kRD	R102



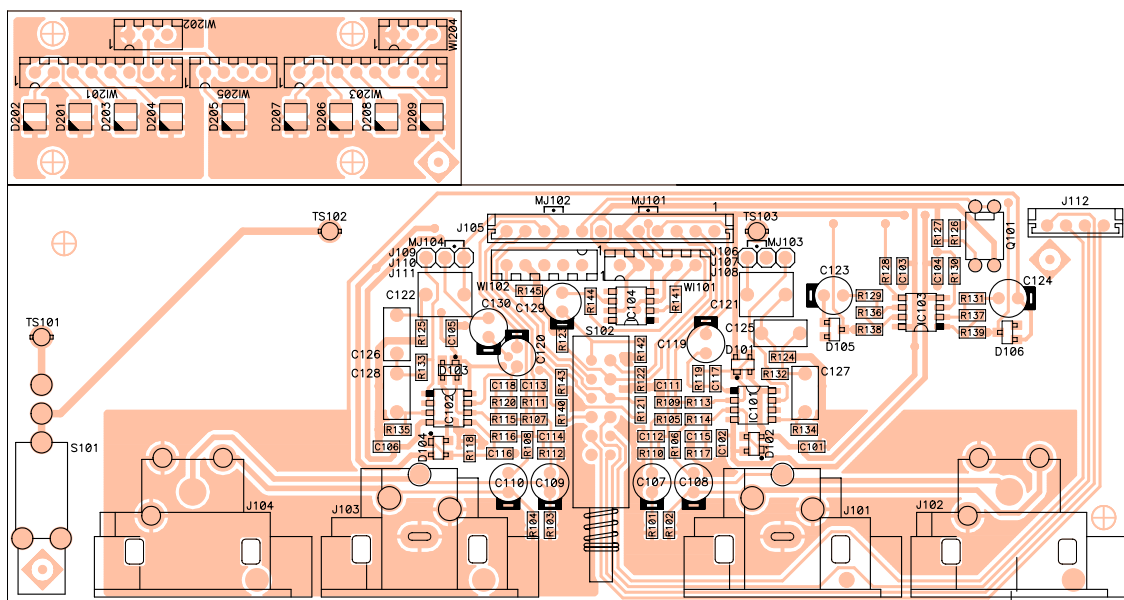
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drawn by: M. Amoros	date: 051017	approved: Angel Sanuy	




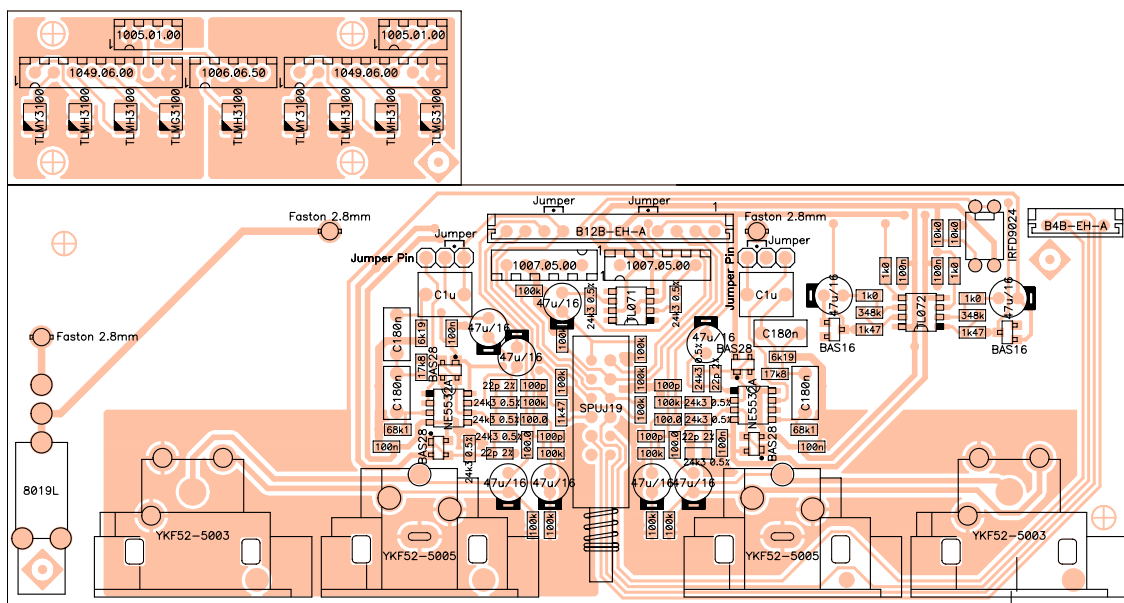
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number: 33.0959	version: 01.01	product n: DPA25/4000T	<h2>Speak On Ct.</h2>
drawn by: M. Amoros	date: 051017	approved: Angel Sanuy	


PARTS LIST: PRINTED CIRCUIT 11.1039.01.01

Code	Description	Reference
FCCI01039000	Printed Board 11.1039.01	CI101
FCTERM100000	Faston 6.3mm	J103
FCTERM100000	Faston 6.3mm	J104
FCBASS012000	NL4MD-H	J105
FCBASS012000	NL4MD-H	J106
FCBASS012000	NL4MD-H	J107
FCTERM100000	Faston 6.3mm	J108
FCTERM100000	Faston 6.3mm	J109
FCOH05350000	1053.05.00	WI101
FCOH05440000	1054.04.00	WI103



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	project n: EP04/05-05		view: Reference
number: 33.0960	version: 01.00	product n: DPA25/4000T	<h2>Inputs Ct.</h2>
drawn by: M. Amoros	date: 051018	approved: Angel Sanuy	



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	project n: EP04/05-05		view: Value
number: 33.0961	version: 01.00	product n: DPA25/4000T	<h2>Inputs Ct.</h2>
drawn by: M. Amoros	date: 051018	approved: Angel Sanuy	

PARTS LIST: PRINTED CIRCUIT 11.1047.01.00

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FCXCD4100000	100n	C101
FCXCD4100000	100n	C102
FCXCD4100000	100n	C103
FCXCD4100000	100n	C104
FCXCD4100000	100n	C105
FCXCD4100000	100n	C106
FCCE10000000	47u/16	C107
FCCE10000000	47u/16	C108
FCCE10000000	47u/16	C109
FCCE10000000	47u/16	C110
FCXCD2100000	100p	C111
FCXCD2100000	100p	C112
FCXCD2100000	100p	C113
FCXCD2100000	100p	C114
FCXCD1220100	22p 2%	C115
FCXCD1220100	22p 2%	C116
FCXCD1220100	22p 2%	C117
FCXCD1220100	22p 2%	C118
FCCE10000000	47u/16	C119
FCCE10000000	47u/16	C120
FCCDK2001000	C1u	C121
FCCDK2001000	C1u	C122
FCCE10000000	47u/16	C123
FCCE10000000	47u/16	C124
FCCDK5180000	C180n	C125
FCCDK5180000	C180n	C126
FCCDK5180000	C180n	C127
FCCDK5180000	C180n	C128
FCCE10000000	47u/16	C129
FCCE10000000	47u/16	C130
FCCI01047000	Printed Board 11.1047.01	CI102
FCXDDBAS2800	BAS28	D101
FCXDDBAS2800	BAS28	D102
FCXDDBAS2800	BAS28	D103
FCXDDBAS2800	BAS28	D104
FCXDDBAS1600	BAS16	D105
FCXDDBAS1600	BAS16	D106
FCLEDSMD2000	TLMH3100	D201
FCLEDSMD2500	TLMY3100	D202
FCLEDSMD2000	TLMH3100	D203
FCLEDSMD3000	TLMG3100	D204
FCLEDSMD2000	TLMH3100	D205
FCLEDSMD2000	TLMH3100	D206
FCLEDSMD2500	TLMY3100	D207
FCLEDSMD2000	TLMH3100	D208
FCLEDSMD3000	TLMG3100	D209
FCIC55322000	NE5532A	IC101
FCIC55322000	NE5532A	IC102
FCIC07201000	TL072	IC103
FCIC07101000	TL071	IC104
FCBASX090000	YKF52-5005	J101
FCBASX100000	YKF52-5003	J102
FCBASX090000	YKF52-5005	J103
FCBASX100000	YKF52-5003	J104
FCCTM0012000	B12B-EH-A	J105
FCTERM010000	Jumper Pin	J106

PARTS LIST: PRINTED CIRCUIT 11.1047.01.00

Code	Description	Reference
FCTERM010000	Jumper Pin	J107
FCTERM010000	Jumper Pin	J108
FCTERM010000	Jumper Pin	J109
FCTERM010000	Jumper Pin	J110
FCTERM010000	Jumper Pin	J111
FCCTM0004000	B4B-EH-A	J112
FCMJ00010000	Jumper	MJ101
FCMJ00010000	Jumper	MJ102
FCMJ00010000	Jumper	MJ103
FCMJ00010000	Jumper	MJ104
FCTR90240000	IRFD9024	Q101
FCXR55100000	100k	R101
FCXR55100000	100k	R102
FCXR55100000	100k	R103
FCXR55100000	100k	R104
FCXR52100000	100.0	R105
FCXR52100000	100.0	R106
FCXR52100000	100.0	R107
FCXR52100000	100.0	R108
FCXR55100000	100k	R109
FCXR55100000	100k	R110
FCXR55100000	100k	R111
FCXR55100000	100k	R112
FCXR64243000	24k3 0.5%	R113
FCXR64243000	24k3 0.5%	R114
FCXR64243000	24k3 0.5%	R115
FCXR64243000	24k3 0.5%	R116
FCXR64243000	24k3 0.5%	R117
FCXR64243000	24k3 0.5%	R118
FCXR64243000	24k3 0.5%	R119
FCXR64243000	24k3 0.5%	R120
FCXR55100000	100k	R121
FCXR55100000	100k	R122
FCXR55100000	100k	R123
FCXR53619000	6k19	R124
FCXR53619000	6k19	R125
FCXR54100000	10k0	R126
FCXR54100000	10k0	R127
FCXR53100000	1k0	R128
FCXR53100000	1k0	R129
FCXR53100000	1k0	R130
FCXR53100000	1k0	R131
FCXR54178000	17k8	R132
FCXR54178000	17k8	R133
FCXR54681000	68k1	R134
FCXR54681000	68k1	R135
FCXR55348000	348k	R136
FCXR55348000	348k	R137
FCXR53147000	1k47	R138
FCXR53147000	1k47	R139
FCXR53147000	1k47	R140
FCXR64243000	24k3 0.5%	R141
FCXR55100000	100k	R142
FCXR55100000	100k	R143
FCXR64243000	24k3 0.5%	R144
FCXR55100000	100k	R145

PARTS LIST: PRINTED CIRCUIT 11.1047.01.00

Code	Description	Reference
FCINTAP13000	8019L	S101
FCINTAP01200	SPUJ19	S102
FCTERMF28000	Faston 2.8mm	TS101
FCTERMF28000	Faston 2.8mm	TS102
FCTERMF28000	Faston 2.8mm	TS103
FC4K00750000	1007.05.00	WI101
FC4K00750000	1007.05.00	WI102
FC4N04960000	1049.06.00	WI201
FC4I00510000	1005.01.00	WI202
FC4N04960000	1049.06.00	WI203
FC4I00510000	1005.01.00	WI204
FC4J00665000	1006.06.50	WI205

Assembled Amplifier.

PRELIMINARY:

- Set the BRIDGE-STEREO selection switch to STEREO.
- Check the *Ground Link* switch.
- Keep the subsonic filter, at the input stage circuitry, set to OFF.
- Be sure that the correct cable types are used.
- Connect the power amplifier mains plug to a 230Vac variac output, and leave it on its 0V position.
- Keep an ammeter nearby (DC 10A range), in order to verify the current consumption adjustments.

VERIFICATION:

- Switch the tested unit's Power main switch to ON, without applying any input signal.
- Remove the protection fuse of the positive power supply, and place instead a 10A DC ranged ammeter. Keep the module's output signal insight by using an oscilloscope, selecting a 10V/div vertical scale and 5ms/div time base. **Note:** In case of doubt, if you only want to feed one channel while verifying the current consumption, simply do not insert the mains protection fuse in the other channel.
- Slowly increase the variac's output until it reaches the unit's nominal mains voltage, and if an excessive current consumption is detected (current flow above 800mA), stop the testing procedure immediately and try to identify the failure. Once the nominal mains voltage is reached, wait for a minute and verify that the current consumption adjustments remain correct: 300mA for DPA4000T, 190mA for DPA2500T. If these values have changed, rectify them. Once adjusted, seal the potentiometer with fixing lacquer.

Caution! The unit's power supply will be charged! Before removing the ammeter and replacing the fuse, it is strongly recommended to completely discharge the unit's power supply by applying a 1KHz 0dB input signal and connecting 4Ω load impedances to the amplifier's output, and reduce the unit's mains voltage to 0V by turning down the variac's output.

- Repeat this procedure on the other channel.
- Once the adjustments are done, turn on again the unit by switching over its main power switch, and verify the STANDBY period lasts approximately 10 seconds, the *clip* and *protect* indicating LED's light up, and also the cooling fans run up to their maximum running speed.
- Verify both XLR-type inputs, the *STK-OUTPUT*, their correspondent *signal present* indicator LED's and also check the correct functioning of the input signal attenuators, as their actuation range.
- Verify the unit's output power when working at nominal mains voltage (230Vac):

DPA4000T	1880W	86,7V on 4Ω
DPA2500T	1130W	67,2V on 4Ω
- To verify the ANTICLIP function, increase the input signal level above 0dB and check that the clipping output signal is smoothed. Check the CLIP indicator LED's are lit, and, when reducing the output signal level in 0,5 or 1dB, the CLIP LEDs turn off.
- Verify the unit's bandwidth curve, with a 2KHz 0,5V input signal, should be linear between 20Hz and 20KHz without inducing any distortion to the output signal. Also check that when applying an input signal up to 50KHz, the unit's output level only decreases in 1 or 2dB, and no visible distortion is observed.
- Verify the BRIDGE operating mode. Switch over the BRIDGE-STEREO selector to BRIDGE, check that both channels are achieving the same gain level when not loaded. In order to verify this, apply a 1KHz 0dB input signal to channel I and, with the volume potentiometer turned up to its maximum,

check with a millivoltmeter that at TP102 a 0dB gain level is obtained. If not, adjust R125. Once channel I is fixed to 0dB, verify TP102 at channel II and proceed to adjust if gain level is not 0dB.

- Connect a 8Ω load impedance to the speakon-type BRIDGED output, and verify the achieved output power levels:

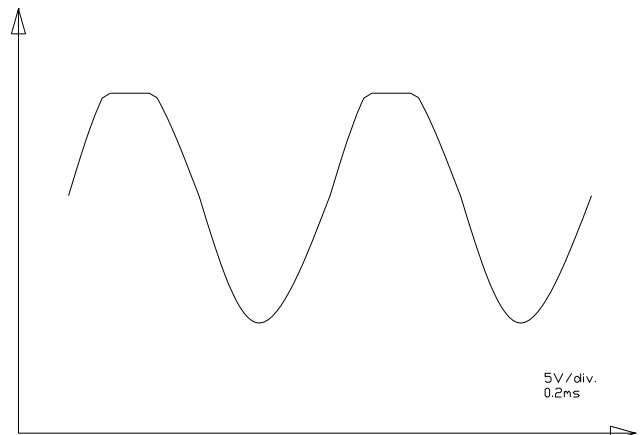
3760W	173,4V	for DPA4000T
2260W	134,5V	for DPA2500T

Only channel I's input potentiometer should be active. Verify that the amplifier reaches its clipping state without troubles. Return the unit to its STEREO operating mode.

- Connect a load impedance formed by a 4Ω resistor shunted to a 2μF capacitor, and apply a 1KHz square waveform input signal. Using an oscilloscope, observe the output signal, and increase the input signal level until the displayed signal starts clipping. At the flat level areas of the squared waveform, only two or three ringing should be detected.
- Verify the SUBSONIC FILTER. Check the amplifier's output level at 25Hz, is reduced in 4,5dB when comparing with the measured level without subsonic filtering. Leave the filter on the ON position.
- Verify the THERMAL protection circuitry. Short the LM35D thermal probe pins 1 and 2, and verify that the relay releases and closes, while the *THERMAL* and *PROTECT* LEDs indicators light up, as the output signal is cutted off and the cooling fan increases its speed until it reaches maximum airflow.
- Repeat this procedure on the other module.

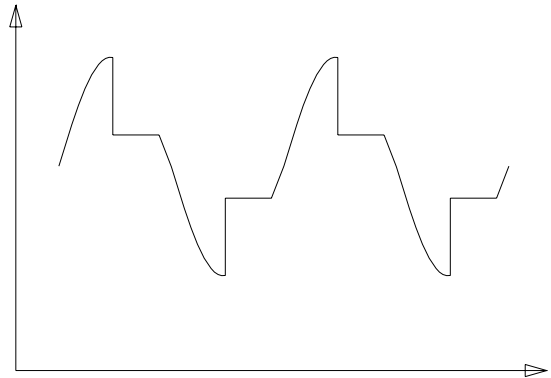
PROTECTIONS

- Adjust the signal generator to deliver a 1KHz 0'8Vrms signal, and leave it ON.
- Turn down the power stage volume potentiometer to its minimum.
- Connect a 0,5Ω load impedance.
- Connect the oscilloscope test probes parallel to the load impedance. Select a 5V/div vertical scale, and a 0'2ms/div time base.
- Turn up quickly the volume potentiometer. Depending on with branch is working, the positive or negative half of the signal cycle is clipped. Verify that no ringing appear when the protection is triggered.
- The output signal should be somehow similar to the picture shown in the figure (from 15Vpp to 20Vpp). There are two protection circuitries, one on the positive and another on the negative branches of the unit. In case one of this protections does not actuate properly, the output signal will appear completely asymmetric. The level of the half-cycle with is not being protected will not be limited, thus allowing to find out with branch is failing. It could also happen that none of the protections are triggered, this can be detected as the measured signal levels delivered to the load impedance are not being compressed. In case this happens, immediately stop the testing procedure. This may occur when the unit is receiving too low mains voltage (at least 240V, 250V recommended), or if the signal level is increased too slowly through the potentiometer.
- After a period between 5 and 10 seconds is elapsed since the protection circuitry has triggered, the module should switch over into PROTECT operating mode. This is, the relay closes, the PROTECT indicator LED lights up, output signal is cutted off, and the 10 seconds lasting STANDBY cycle is started.
- Wait until the STANDBY cycle ends, and allow the unit to repeat the process.
- Turn off the signal generator, output level set to minimum.



DC OUT

- In order to run this test, do not connect any load impedance.
- Adjust the signal generator to deliver a signal with a frequency below 5Hz, and select the 3V scale output level.
- Connect the oscilloscope to the unit's output, 5V/div vertical scale, 20ms/div time base. Use a 10x attenuating test probe.
- Turn on the signal generator. Increase its output level until the thyristor starts actuating, and the observed signal becomes the typical sawed sine wave. Use the oscilloscope's memory bank in order to observe carefully this fact.



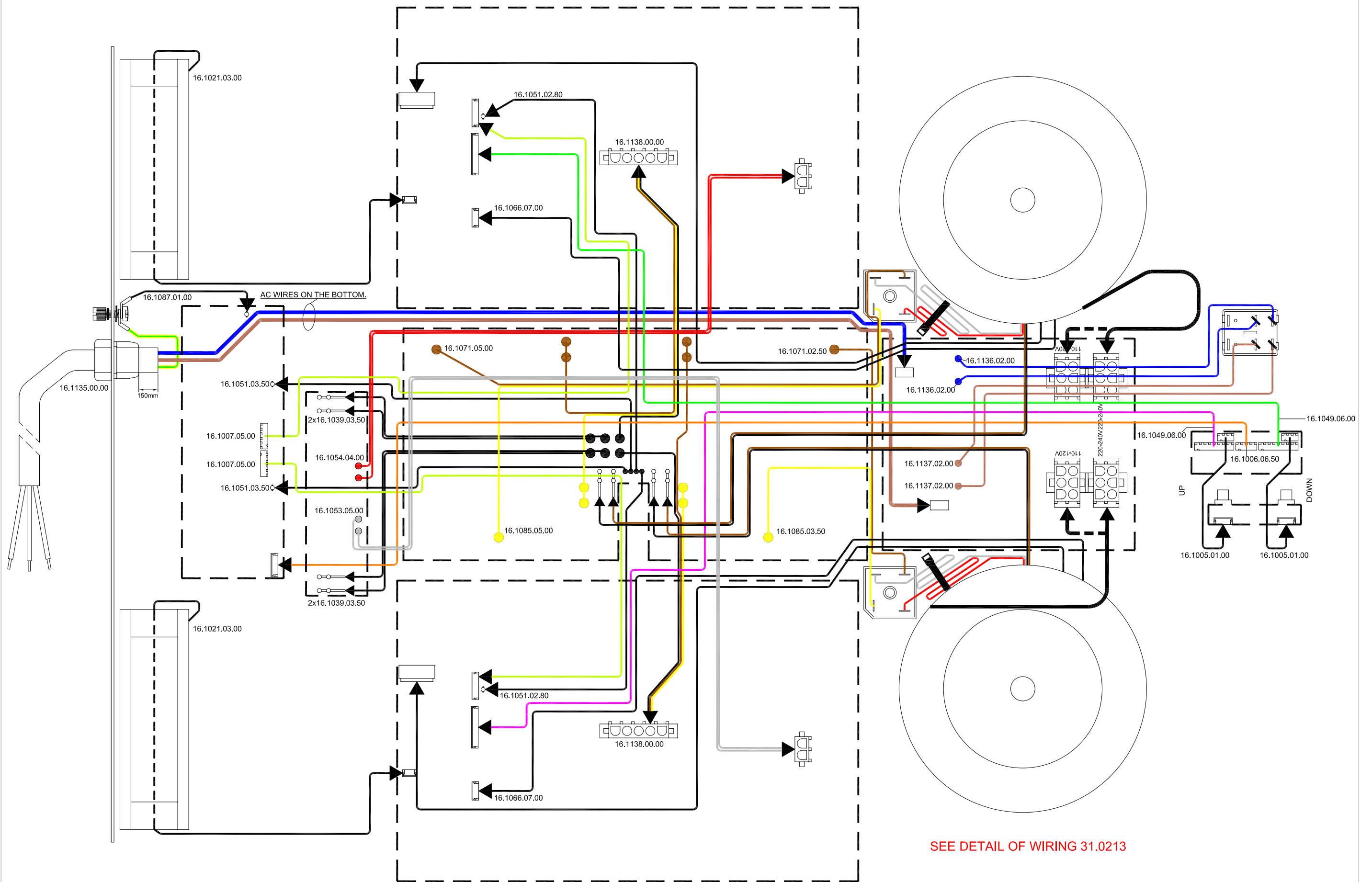
VERIFICATION USING MUSIC

Verify the unit's sound quality, with should be distortion- and noise-free. Once the unit is turned in and its STANDBY cycle time has elapsed, the output relays release, but no annoying noise is heard through the loudspeakers. Also check that all potentiometers can run smoothly their whole sweep, without noise and crisperings. At their minimum position, check that output signal is completely cutted off. To ensure that all electrical junctions are well-fixed, hit the tested unit against your working table, obviously without damaging its outer presentation. Verify all in- and outputs. Short the output terminals while carrying amplified signal, wait approximately 5 or 10 seconds, after with the unit should perform a general reset. Verify the PROTECT indicating LED lights up, the output signal is cutted off, and the STANDBY cycle is correctly done. Once the short-circuit is removed, the unit recovers normal functioning.

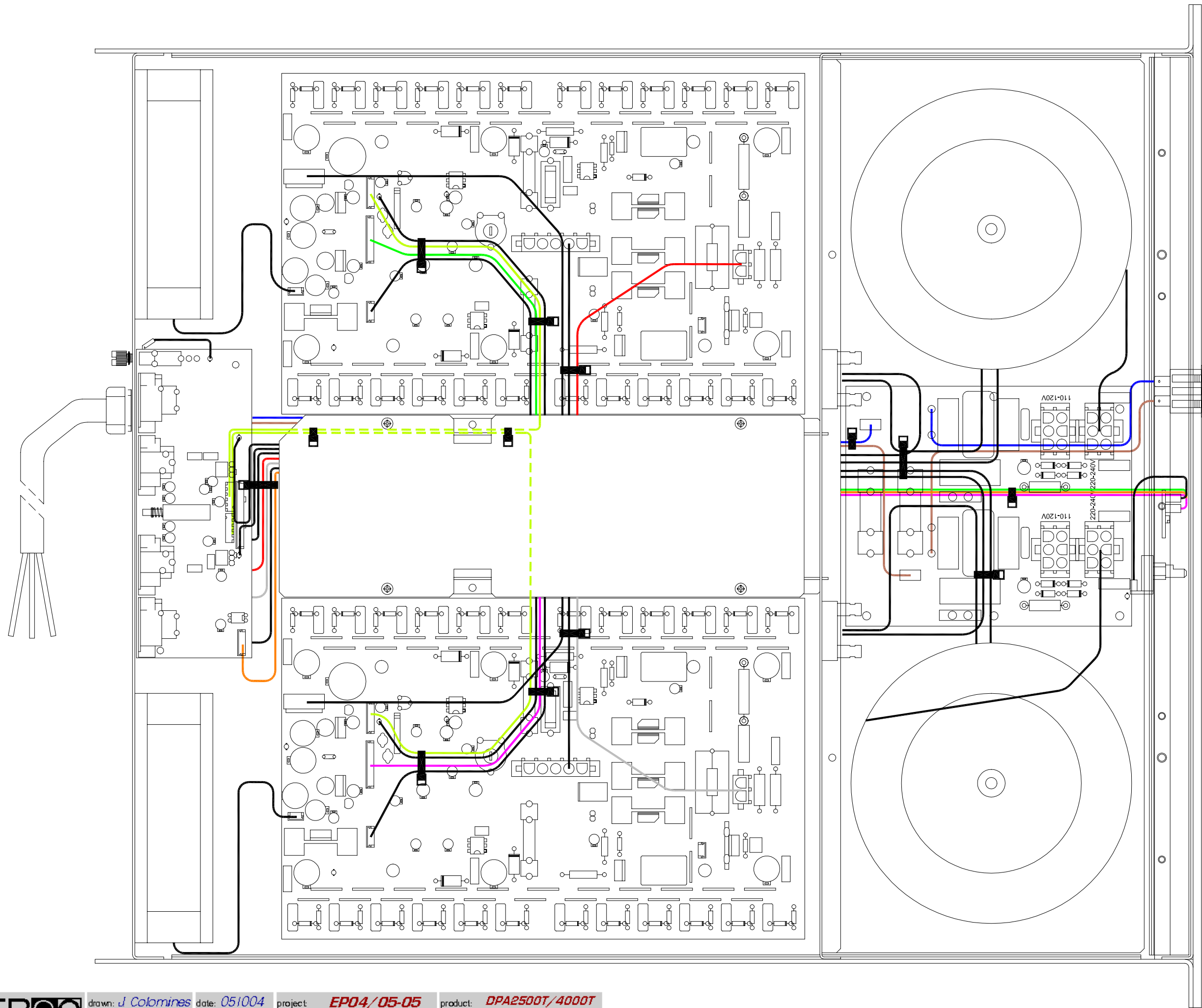
QUALITY CONTROL

All mechanical parts should be visually revised, in order to detect scratches on the unit's painting; all screws should be on their place, correctly tight and unmarked. Check out the unit's general presentation.

	DPA2500T	DPA4000T
POWER 20Hz-20kHz 1% THD		
2Ω Stereo	1610 WRMS	2800 WRMS
4Ω Stereo	1130 WRMS	1880 WRMS
8Ω Stereo	680 WRMS	1110 WRMS
8Ω Bridged	2260 WRMS	3760 WRMS
Peak Power 2Ω/1kHz	3800 WRMS	6100 WRMS
Frequency response (-1dB)	6Hz-90kHz	6Hz-95kHz
High pass filter (-3dB)	25Hz/Butt./18dB/oct.	
THD + Noise @ 1kHz Full power	<0.07%	<0.07%
Imd. Dist. 50Hz & 7kHz 4:1	<0.08%	<0.08%
TIM 100	<0.04%	<0.04%
S+N/N 20Hz-20kHz @ 1W/4Ω	>84dB	>84dB
Damping factor 1kHz @ 8Ω	>320	>370
Slew Rate	±125V/μs	±135V/μs
Channel Crosstalk @ 1kHz	>74dB	>74dB
Input connectors	XLR3 balanced	
Input CMRR/ref. Max. PWR	>64dB@1kHz	>70dB@1kHz
Input sensitivity / impedance	0dBV / >20kΩ	
Signal present indicator	-40dB	
Output connectors	Speakon®	
Clip indicators	-1,5dB real clip	
Anticlip limiter	Intelligent A ² SP	
Mains	Depending on your country. See characteristics in the back of the unit.	
Power consumption (max. Out)	4100VA	6760VA
Dimensions		
Panel	482.6x132.5mm	
Depth	532mm	
Weight	29,7kg	34,1kg



SEE DETAIL OF WIRING 31.0213



drawn: J Colomines
approved:

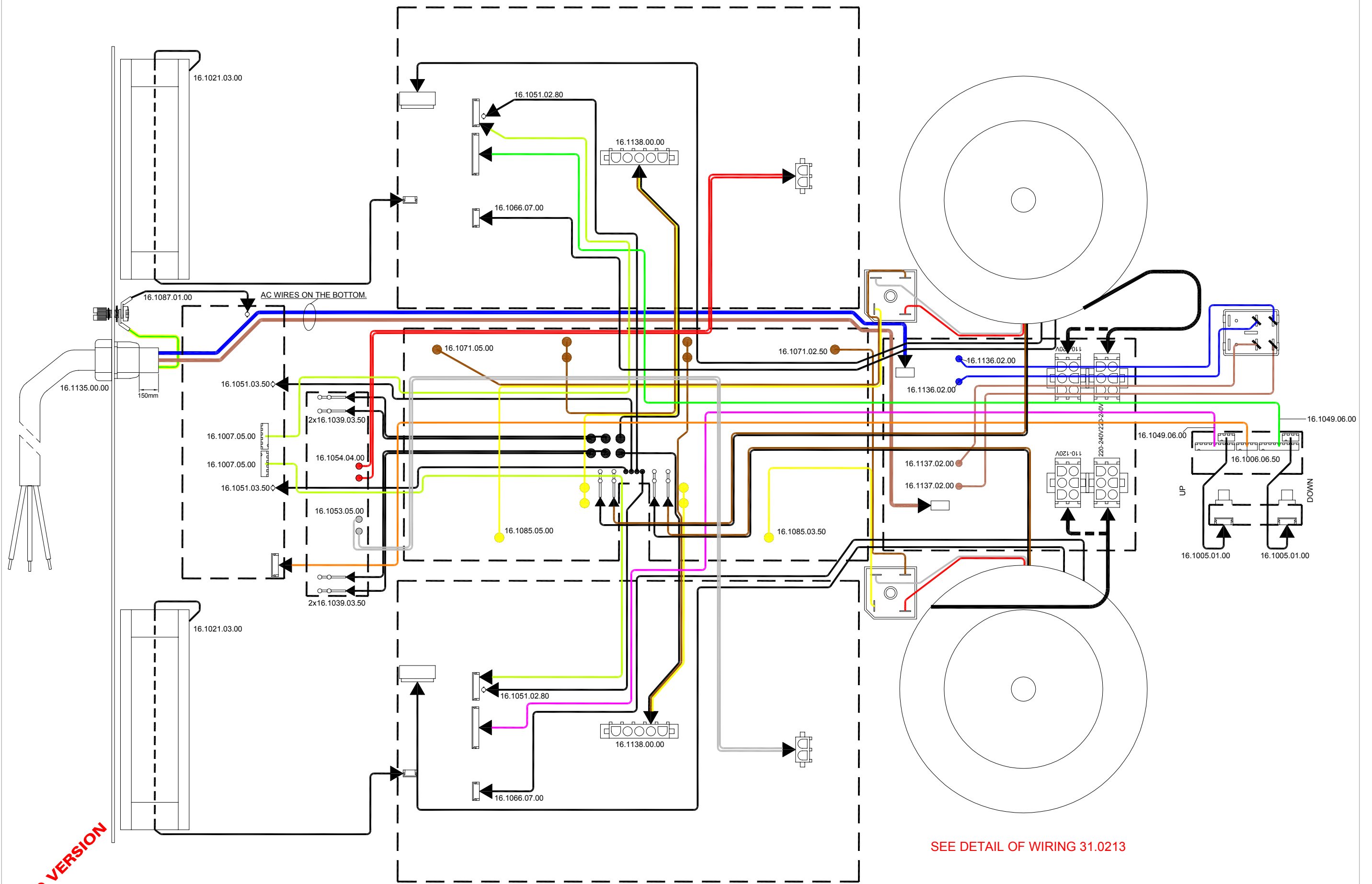
date: 05/004
title:

project: EP04/05-05

product: DPA2500T/4000T

number: 31.0213 version 01.00

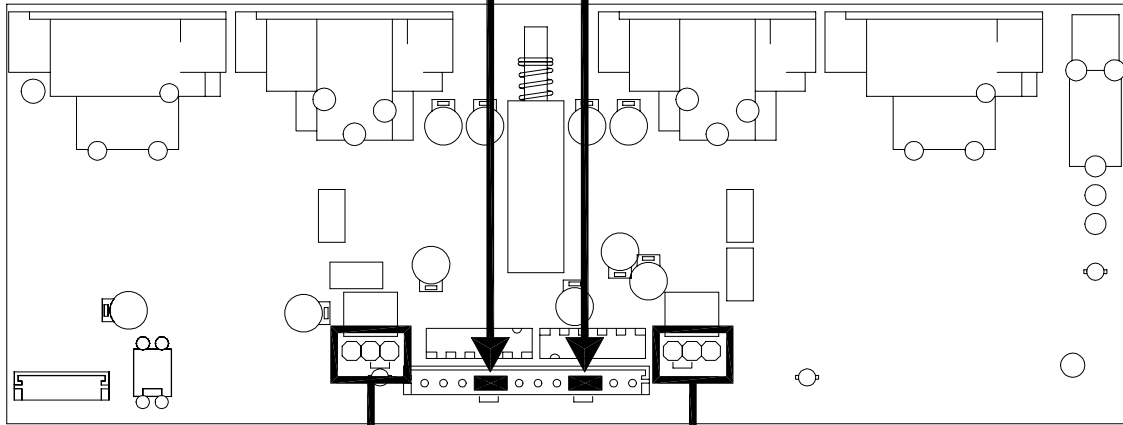
WIRING DIAGRAM DETAILS



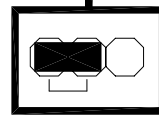
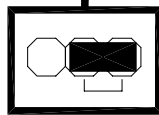
OLD VERSION

SEE DETAIL OF WIRING 31.0213

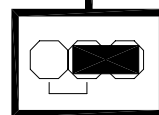
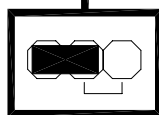
2xJUMPERS OR
OPTIONAL MODULE



SUBSONIC OFF

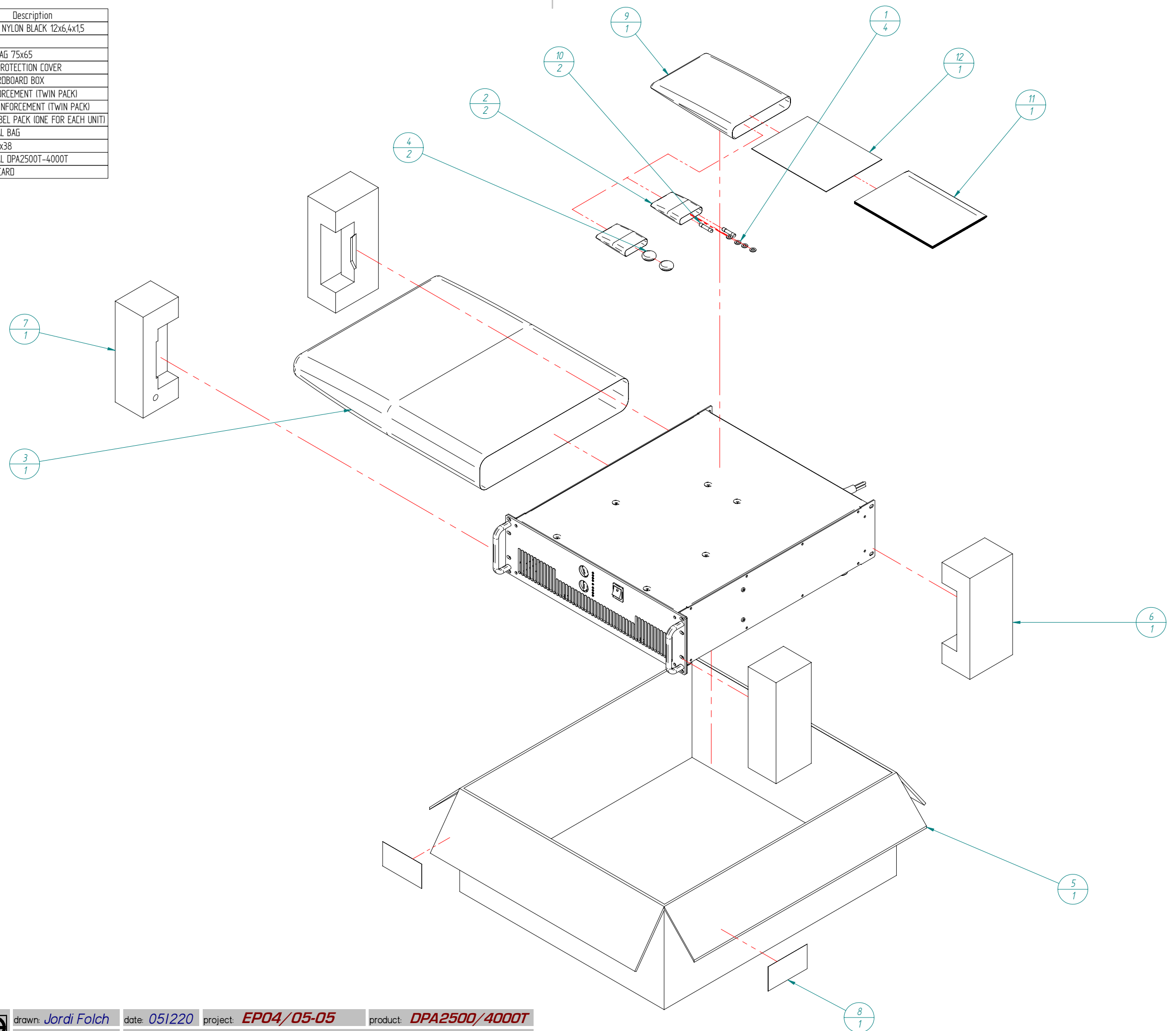


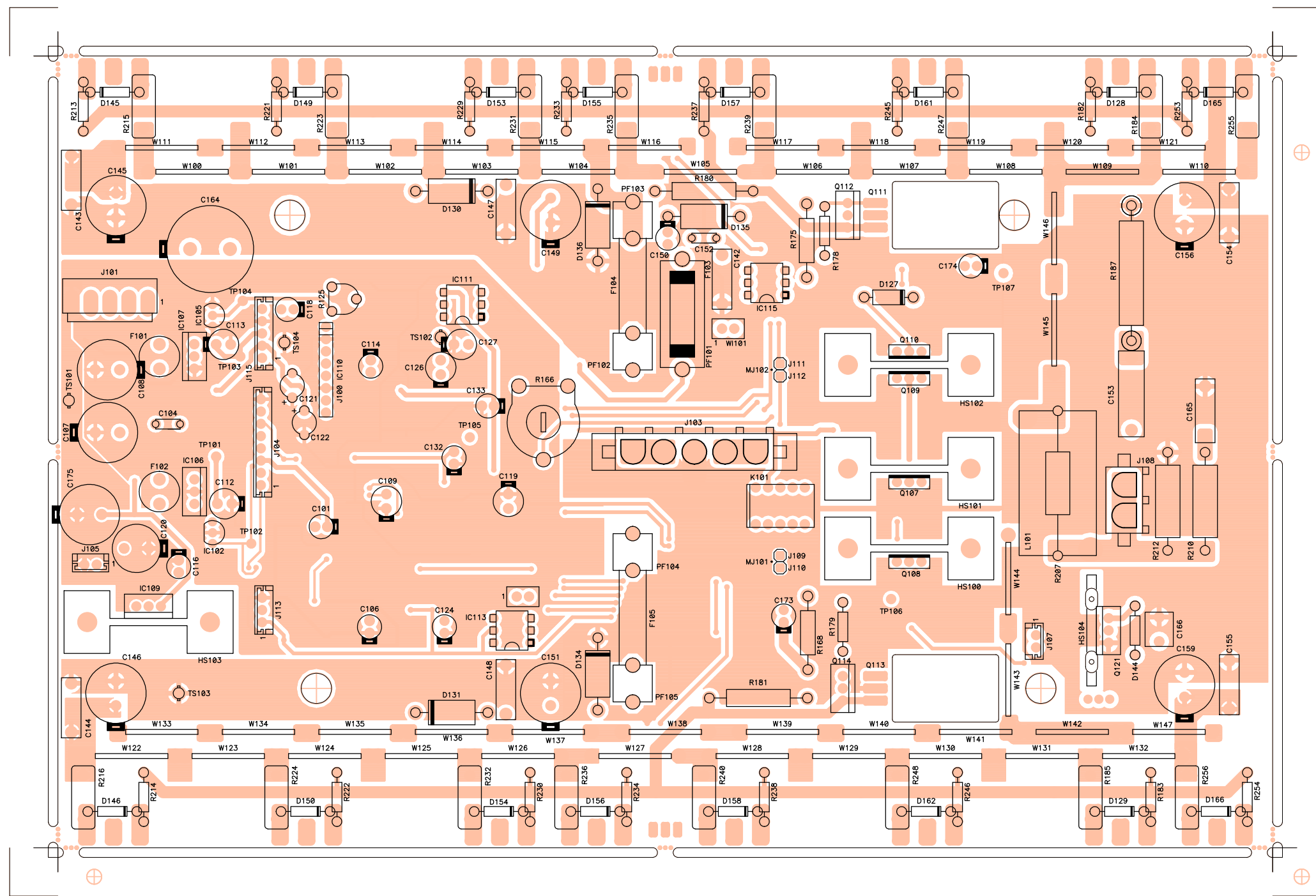
SUBSONIC ON



FACTORY ADJUSTED TO "ON" POSITION

Nº	Qty	Code	Description
1	4	FCARANY06000	WASHER M6 NYLON BLACK 12x6,4x1,5
2	2	FCBOL0010000	BAG 60x80
3	1	FCBOLS020000	STANDARD BAG 75x65
4	2	FCBOTD240100	ROT. KNOB PROTECTION COVER
5	1	FCCAJSTA1800	PACKING CARDBOARD BOX
6	1	FCCANT115300	REAR REINFORCEMENT (TWIN PACK)
7	1	FCCANT115400	FRONTAL REINFORCEMENT (TWIN PACK)
8	1	FCETI0951140	PRODUCT LABEL PACK (ONE FOR EACH UNIT)
9	1	FCFUNMAN0000	USER MANUAL BAG
10	2	FCFUS8040000	FUSE 16A 10x38
11	1	FCMANPAM0PA1	USER MANUAL DPA2500T-4000T
12	1	FCSTARJG00000	WARRANTY CARD





related to: circuit no: 11.0730-07.01
 schema no: 10.0476-01.07
 insertion file no:

side: Component
 view: Reference

project n: EP04-99A

title:

product n: PAM4100

Power Circuit

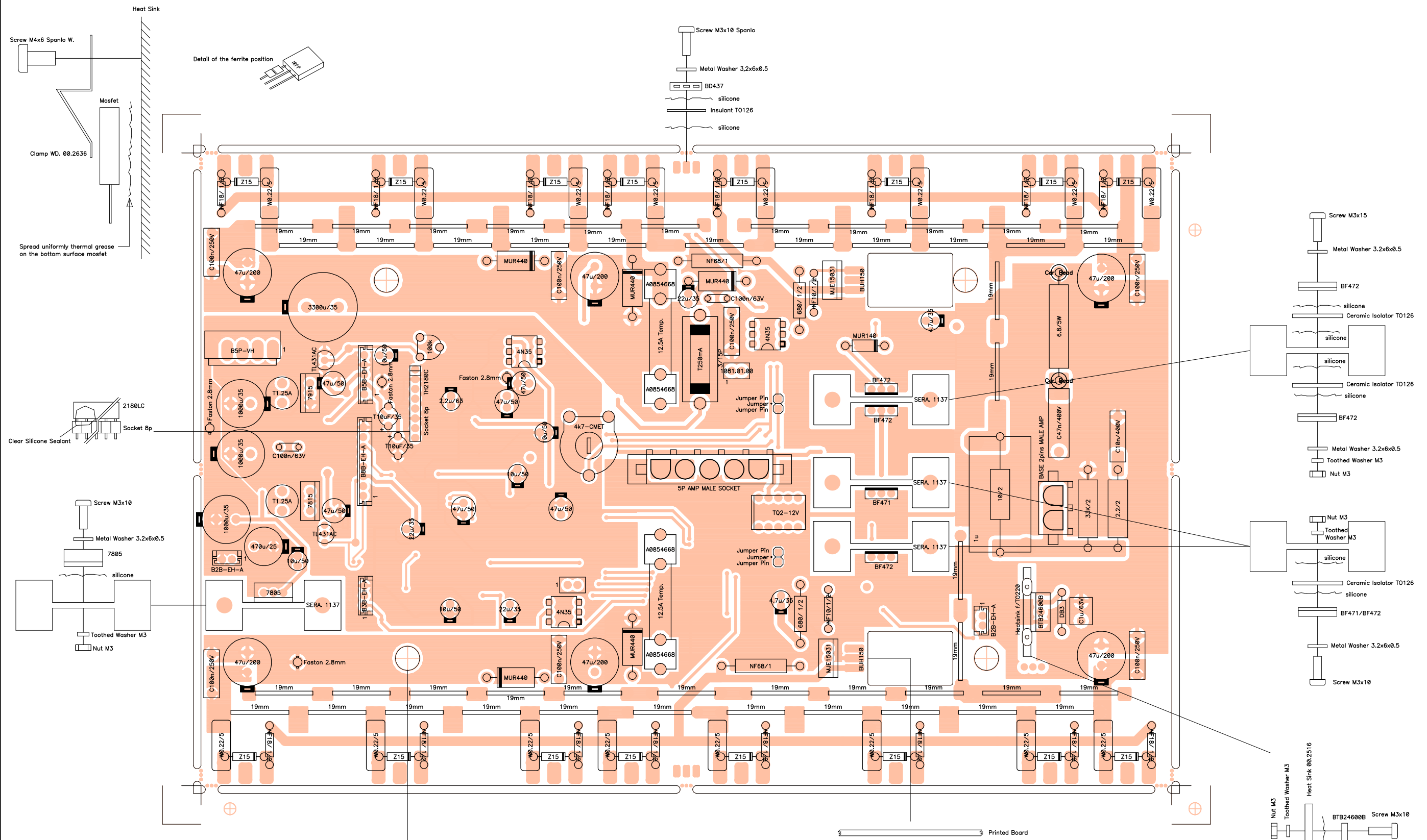
number: 33.0587

version: 01.05

approved: Angel Sanuy

drawn by: M. Amoros

date: 000927



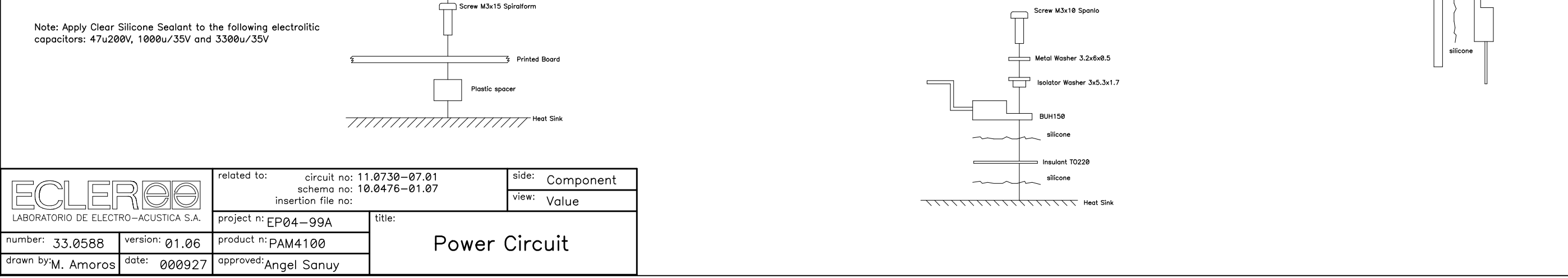
Note: Apply Clear Silicone Sealant to the following electrolytic capacitors: 47u200V, 1000u/35V and 3300u/35V



related to:	circuit no: 11.0730-07.01 schema no: 10.0476-01.07 insertion file no:	side: Component view: Value
project n:	EP04-99A	title: Power Circuit
number: 33.0588	version: 01.06	
drawn by: M. Amoros	date: 000927	
product n:	PAM4100	approved: Angel Sanuy

number: 33.0588
version: 01.06
drawn by: M. Amoros
date: 000927

product n: PAM4100
approved: Angel Sanuy



PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCCE20022000	22u/35	C101
FCXCN4470000	470n	C102
FCXCN4470000	470n	C103
FCCDK1100000	C100n/63V	C104
FCXCN4470000	470n	C105
FCCE25010000	10u/50	C106
FCCE21100000	1000u/35	C107
FCCE21100000	1000u/35	C108
FCCE25047000	47u/50	C109
FCXCN4100000	100n	C110
FCXCN4100000	100n	C111
FCCE25047000	47u/50	C112
FCCE25047000	47u/50	C113
FCCE30002200	2.2u/63	C114
FCXCN4001000	1n	C115
FCCE25010000	10u/50	C116
FCXCN4100000	100n	C117
FCCE25010000	10u/50	C118
FCCE25047000	47u/50	C119
FCCE15470000	470u/25	C120
FCCG00100000	T10uF/35	C121
FCCG00100000	T10uF/35	C122
FCXCN4100000	100n	C123
FCCE20022000	22u/35	C124
FCXCN1220000	22p	C125
FCCE25047000	47u/50	C126
FCCE25047000	47u/50	C127
FCXCN2100000	100p	C128
FCXCN1330000	33p	C129
FCXCN1330000	33p	C130
FCXCN1150000	15p	C131
FCCE25010000	10u/50	C132
FCCE25010000	10u/50	C133
FCXCN4470000	470n	C134
FCXCN1120000	12p	C135
FCXCN1120000	12p	C136
FCXCN4470000	470n	C137
FCXCN4470000	470n	C138
FCXCN1220000	22p	C139
FCXCN1220000	22p	C140
FCXCN4470000	470n	C141
FCCDN1100000	C100n/250V	C142
FCCDN1100000	C100n/250V	C143
FCCDN1100000	C100n/250V	C144
FCCE35004700	47u/200	C145
FCCE35004700	47u/200	C146
FCCDN1100000	C100n/250V	C147
FCCDN1100000	C100n/250V	C148
FCCE35004700	47u/200	C149
FCCE20022000	22u/35	C150
FCCE35004700	47u/200	C151
FCCDK1100000	C100n/63V	C152
FCCDH7104700	C47n/400V	C153
FCCDN1100000	C100n/250V	C154
FCCDN1100000	C100n/250V	C155
FCCE35004700	47u/200	C156

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCXCN4100000	100n	C157
FCXCN4100000	100n	C158
FCCE35004700	47u/200	C159
FCXCN4001000	1n	C160
FCXCN4001000	1n	C161
FCXCN4002200	2n2	C162
FCXCN4002200	2n2	C163
FCCE21330000	3300u/35	C164
FCCDH7101100	C10n/400V	C165
FCCDK2001000	C1u/63V	C166
FCXCN4100000	100n	C167
FCXCN4100000	100n	C168
FCXCN4100000	100n	C169
FCXCN4100000	100n	C170
FCXCN4100000	100n	C171
FCXCN4470000	470n	C172
FCCE20004700	4.7u/35	C173
FCCE20004700	4.7u/35	C174
FCCE21100000	1000u/35	C175
FCXCN4100000	100n	C176
FCPERL255000	Cer. Bead	CB101
FCPERL255000	Cer. Bead	CB102
FCPERL255000	Cer. Bead	CB103
FCPERL255000	Cer. Bead	CB104
FCCIPAM73000	11.0730 Printed Board	CI101
FCXDDBAS1600	BAS16	D101
FCXDD4007000	1N4007	D102
FCXDD4007000	1N4007	D103
FCXDD4007000	1N4007	D104
FCXDD4007000	1N4007	D105
FCXDD4007000	1N4007	D106
FCXDDBAS1600	BAS16	D107
FCXDDBAS1600	BAS16	D108
FCXDDBAS1600	BAS16	D109
FCXDDBAS2800	BAS28	D110
FCXDD4007000	1N4007	D111
FCXDD4007000	1N4007	D112
FCXDDBAS2800	BAS28	D113
FCXDD4007000	1N4007	D114
FCXZ00009100	Z9.1V	D115
FCXDDBAS1600	BAS16	D116
FCXDDBAS1600	BAS16	D117
FCXDDBAS2800	BAS28	D118
FCXDDBAS1600	BAS16	D119
FCXZ00008200	Z8.2V	D120
FCXDDBAS1600	BAS16	D121
FCXDDBAS2800	BAS28	D122
FCXDDBAS2800	BAS28	D123
FCXZ00003900	Z3.9V	D124
FCXZ00003900	Z3.9V	D125
FCXDDBAS1600	BAS16	D126
FCDDMUR14000	MUR140	D127
FCDD04150000	Z15	D128
FCDD04150000	Z15	D129
FCDDMUR44000	MUR440	D130
FCDDMUR44000	MUR440	D131

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCXZ00008200	Z8.2V	D132
FCXZ00008200	Z8.2V	D133
FCDDMUR44000	MUR440	D134
FCDDMUR44000	MUR440	D135
FCDDMUR44000	MUR440	D136
FCXZ00068000	Z68V	D138
FCXZ00068000	Z68V	D139
FCXDD4007000	1N4007	D140
FCXDD4007000	1N4007	D141
FCXDD4007000	1N4007	D142
FCXDD4007000	1N4007	D143
FCDIDB300000	DB3	D144
FCDD04150000	Z15	D145
FCDD04150000	Z15	D146
FCDD04150000	Z15	D149
FCDD04150000	Z15	D150
FCDD04150000	Z15	D153
FCDD04150000	Z15	D154
FCDD04150000	Z15	D155
FCDD04150000	Z15	D156
FCDD04150000	Z15	D157
FCDD04150000	Z15	D158
FCDD04150000	Z15	D161
FCDD04150000	Z15	D162
FCDD04150000	Z15	D165
FCDD04150000	Z15	D166
FCXDDBAS1600	BAS16	D167
FCXDD4007000	1N4007	D168
FCXDD4007000	1N4007	D169
FCFUS4012500	T1.25A	F101
FCFUS4012500	T1.25A	F102
FCFUS5008000	T250mA	F103
FCFUS6030000	12.5A Temp.	F104
FCFUS6030000	12.5A Temp.	F105
FCFER4322000	Ferrite	FB101
FCFER4322000	Ferrite	FB102
FCFER4322000	Ferrite	FB103
FCFER4322000	Ferrite	FB104
FCFER4322000	Ferrite	FB105
FCFER4322000	Ferrite	FB106
FCFER4322000	Ferrite	FB107
FCFER4322000	Ferrite	FB108
FCFER4322000	Ferrite	FB113
FCFER4322000	Ferrite	FB114
FCFER4322000	Ferrite	FB115
FCFER4322000	Ferrite	FB116
FCFER4322000	Ferrite	FB121
FCFER4322000	Ferrite	FB122
FCFER4322000	Ferrite	FB123
FCFER4322000	Ferrite	FB124
FCFER4322000	Ferrite	FB125
FCFER4322000	Ferrite	FB126
FCFER4322000	Ferrite	FB127
FCFER4322000	Ferrite	FB128
FCFER4322000	Ferrite	FB129
FCFER4322000	Ferrite	FB130

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCFER4322000	Ferrite	FB131
FCFER4322000	Ferrite	FB132
FCFER4322000	Ferrite	FB137
FCFER4322000	Ferrite	FB138
FCFER4322000	Ferrite	FB139
FCFER4322000	Ferrite	FB140
FCFER4322000	Ferrite	FB145
FCFER4322000	Ferrite	FB146
FCFER4322000	Ferrite	FB147
FCFER4322000	Ferrite	FB148
FCRAD1263600	SERA. 1137	HS100
FCRAD1263600	SERA. 1137	HS101
FCRAD1263600	SERA. 1137	HS102
FCRAD1263600	SERA. 1137	HS103
FCMECT022000	Heatsink f/TO220	HS104
FCRAD0300000	Heatsink f/ Power Module	HS105
FCRAD0300000	Heatsink f/ Power Module	HS106
FCIC35000000	LM35DZ	IC101
FCIC43100000	TL431AC	IC102
FCIC07401000	TL074	IC104
FCIC43100000	TL431AC	IC105
FCREG7815000	7815	IC106
FCREG7915000	7915	IC107
FCIC40106000	40106B	IC108
FCREG7805000	7805	IC109
FCIC21800000	TH2180C	IC110
FCIC43500000	4N35	IC111
FCIC55341000	NE5534A	IC112
FCIC43500000	4N35	IC113
FCIC07401000	TL074	IC114
FCIC43500000	4N35	IC115
FCMICTO12600	Insulant TO126	IN100
FCMICTO12600	Insulant TO126	IN101
FCMICTO22000	Insulant TO220	IN102
FCMICTO22000	Insulant TO220	IN103
FCTERM008000	Socket 8p	J100
FCCTJ1005000	B5P-VH	J101
FCCTAMP05000	5P AMP MALE SOCKET	J103
FCCTM0008000	B8B-EH-A	J104
FCCTM0002000	B2B-EH-A	J105
FCCTM0002000	B2B-EH-A	J107
FCCTAMP02000	BASE 2pins MALE AMP	J108
FCTERM010000	Jumper Pin	J109
FCTERM010000	Jumper Pin	J110
FCTERM010000	Jumper Pin	J111
FCTERM010000	Jumper Pin	J112
FCCTM0003000	B3B-EH-A	J113
FCCTM0005000	B5B-EH-A	J115
FCREL0030000	TQ2-12V	K101
FCIND0010000	1u	L101
FCMJ00010000	Jumper	MJ101
FCMJ00010000	Jumper	MJ102
FCPINZAM0000	Clamp WD. 00.2636	MP100
FCPINZAM0000	Clamp WD. 00.2636	MP101
FCPINZAM0000	Clamp WD. 00.2636	MP102
FCPINZAM0000	Clamp WD. 00.2636	MP103

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCTUE0030000	Nut M3	NV100
FCTUE0030000	Nut M3	NV101
FCTUE0030000	Nut M3	NV102
FCTUE0030000	Nut M3	NV103
FCTUE0030000	Nut M3	NV104
FCPORF315000	3/15P	PF101
FCPORF010000	A0854668	PF102
FCPORF010000	A0854668	PF103
FCPORF010000	A0854668	PF104
FCPORF010000	A0854668	PF105
FCXTT0847000	BC847B	Q101
FCXTT0817000	BC817/25	Q102
FCXTT0857000	BC857B	Q103
FCXTT0817000	BC817/25	Q104
FCTR43700000	BD437	Q105
FCTR43700000	BD437	Q106
FCTR47100000	BF471	Q107
FCTR47200000	BF472	Q108
FCTR47200000	BF472	Q109
FCTR47200000	BF472	Q110
FCTR15000000	BUH150	Q111
FCTR15031000	MJE15031	Q112
FCTR15000000	BUH150	Q113
FCTR15031000	MJE15031	Q114
FCTR36000000	IRFP360	Q115
FCTR36000000	IRFP360	Q116
FCXTT0847000	BC847B	Q117
FCXTT0847000	BC847B	Q118
FCXTT0847000	BC847B	Q119
FCXTT0847000	BC847B	Q120
FCTI24600000	BTB24600B	Q121
FCTR36000000	IRFP360	Q122
FCTR36000000	IRFP360	Q123
FCTR36000000	IRFP360	Q126
FCTR36000000	IRFP360	Q127
FCTR36000000	IRFP360	Q130
FCTR36000000	IRFP360	Q131
FCTR36000000	IRFP360	Q132
FCTR36000000	IRFP360	Q133
FCTR36000000	IRFP360	Q134
FCTR36000000	IRFP360	Q135
FCTR36000000	IRFP360	Q138
FCTR36000000	IRFP360	Q139
FCTR36000000	IRFP360	Q142
FCTR36000000	IRFP360	Q143
FCXTT0857000	BC857B	Q144
FCXTT0857000	BC857B	Q145
FCXR15100000	100k0	R101
FCXR15100000	100k0	R102
FCXR13825000	8k25	R103
FCXR13221000	2k21	R104
FCXR14100000	10k0	R105
FCXR15100000	100k0	R106
FCXR15226000	226k	R107
FCXR14100000	10k0	R108
FCXR12100000	100.0	R109

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCXR15100000	100k0	R110
FCXR13243000	2k43	R111
FCXR06100000	1M	R112
FCXR15100000	100k0	R113
FCXR13221000	2k21	R114
FCXR13100000	1k0	R115
FCXR13127000	1k27	R116
FCXR14475000	47k5	R117
FCXR06220000	2M2	R118
FCXR14221000	22k1	R119
FCXR14475000	47k5	R120
FCXR14100000	10k0	R121
FCXR13182000	1k82	R122
FCXR14100000	10k0	R123
FCXR14200000	20k0	R124
FCRJC6100000	100k	R125
FCXR15226000	226k	R126
FCXR15100000	100k0	R127
FCXR14221000	22k1	R128
FCXR06220000	2M2	R129
FCXR14845000	84k5	R130
FCXR15100000	100k0	R131
FCXR14200000	20k0	R132
FCXR14100000	10k0	R133
FCXR12100000	100.0	R134
FCXR15287000	287k	R135
FCXR11750000	75.0	R136
FCXR11750000	75.0	R137
FCXR14200000	20k0	R138
FCXR14100000	10k0	R139
FCXR13511000	5k11	R140
FCXR13182000	1k82	R141
FCXR15100000	100k0	R142
FCXR13100000	1k0	R143
FCXR14200000	20k0	R144
FCXR06100000	1M	R145
FCXR13182000	1k82	R146
FCXR13475000	4k75	R147
FCXR13100000	1k0	R148
FCXR15100000	100k0	R149
FCXR13100000	1k0	R150
FCXR13100000	1k0	R151
FCXR14100000	10k0	R152
FCXR14715000	71k5	R153
FCXR07100000	10M	R154
FCXR12178000	178	R155
FCXR14100000	10k0	R156
FCXR13100000	1k0	R157
FCXR13100000	1k0	R158
FCXR12787000	787	R159
FCXR12178000	178	R160
FCXR12787000	787	R161
FCXR12178000	178	R162
FCXR13150000	1k50	R163
FCXR13150000	1k50	R164
FCXR13121000	1k21	R165

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCRJP4470000	4k7-CMET	R166
FCXR11332000	33.2	R167
FCRC23680000	680/ 1/2	R168
FCXR15100000	100k0	R169
FCXR15100000	100k0	R170
FCXR12825000	825	R171
FCXR14100000	10k0	R172
FCXR14100000	10k0	R173
FCXR11332000	33.2	R174
FCRC23680000	680/ 1/2	R175
FCXR11562000	56.2	R176
FCXR11562000	56.2	R177
FCRF22100000	NF10/1/2	R178
FCRF22100000	NF10/1/2	R179
FCRF42680000	NF68/1	R180
FCRF42680000	NF68/1	R181
FCRF22180000	NF18/ 1/2	R182
FCRF22180000	NF18/ 1/2	R183
FCRY00010000	W0.22/5	R184
FCRY00010000	W0.22/5	R185
FCXR15150000	150k0	R186
FCRY00025000	6.8/5W	R187
FCXR15150000	150k0	R188
FCXR12100000	100.0	R189
FCXR12100000	100.0	R190
FCXR13100000	1k0	R191
FCXR13100000	1k0	R192
FCXR14332000	33k2	R193
FCXR14332000	33k2	R194
FCXR14221000	22k1	R195
FCXR14332000	33k2	R196
FCXR14332000	33k2	R197
FCXR14221000	22k1	R198
FCXR12100000	100.0	R199
FCXR12562000	562	R200
FCXR12100000	100.0	R201
FCXR12562000	562	R202
FCXR12301000	301	R203
FCXR12301000	301	R204
FCXR15100000	100k0	R205
FCXR11562000	56.2	R206
FCRC52100000	10/2	R207
FCXR15150000	150k0	R208
FCXR11562000	56.2	R209
FCRC51220000	2.2/2	R210
FCXR15100000	100k0	R211
FCRC55330000	33K/2	R212
FCRF22180000	NF18/ 1/2	R213
FCRF22180000	NF18/ 1/2	R214
FCRY00010000	W0.22/5	R215
FCRY00010000	W0.22/5	R216
FCRF22180000	NF18/ 1/2	R221
FCRF22180000	NF18/ 1/2	R222
FCRY00010000	W0.22/5	R223
FCRY00010000	W0.22/5	R224
FCRF22180000	NF18/ 1/2	R229

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

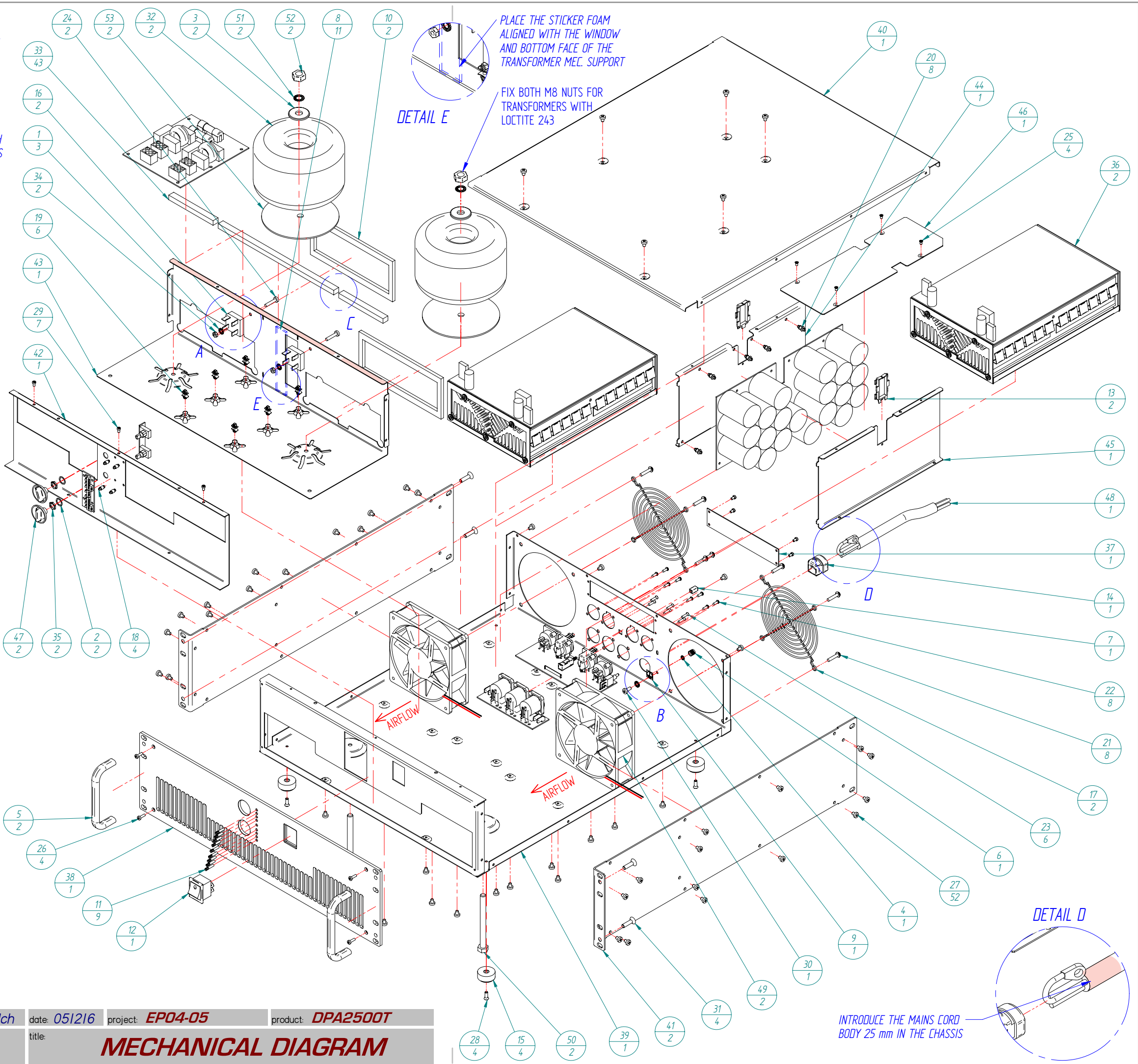
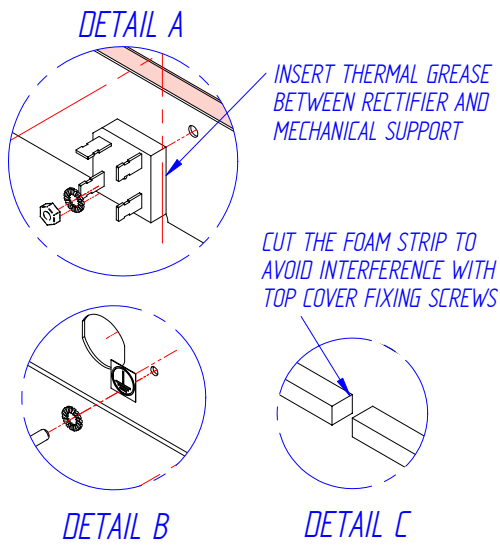
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FCRF22180000	NF18/ 1/2	R230
FCRY00010000	WO.22/5	R231
FCRY00010000	WO.22/5	R232
FCRF22180000	NF18/ 1/2	R233
FCRF22180000	NF18/ 1/2	R234
FCRY00010000	WO.22/5	R235
FCRY00010000	WO.22/5	R236
FCRF22180000	NF18/ 1/2	R237
FCRF22180000	NF18/ 1/2	R238
FCRY00010000	WO.22/5	R239
FCRY00010000	WO.22/5	R240
FCRF22180000	NF18/ 1/2	R245
FCRF22180000	NF18/ 1/2	R246
FCRY00010000	WO.22/5	R247
FCRY00010000	WO.22/5	R248
FCRF22180000	NF18/ 1/2	R253
FCRF22180000	NF18/ 1/2	R254
FCRY00010000	WO.22/5	R255
FCRY00010000	WO.22/5	R256
FCXR12604000	604	R257
FCXR15100000	100k0	R258
FCXR14100000	10k0	R259
FCXR15205000	205k	R260
FCXR15100000	100k0	R261
FCXR14100000	10k0	R262
FCXR13511000	5k11	R263
FCXR14100000	10k0	R264
FCXR13100000	1k0	R265
FCXR13100000	1k0	R266
FCXR14100000	10k0	R267
FCXR13511000	5k11	R268
FCXR14909000	90k9	R269
FCXR11562000	56.2	R270
FCXR00000000	0	RX100
FCXR00000000	0	RX101
FCT804006000	Screw M4x6 SPAN	SC100
FCT804006000	Screw M4x6 SPAN	SC101
FCT804006000	Screw M4x6 SPAN	SC102
FCT804006000	Screw M4x6 SPAN	SC103
FCT804006000	Screw M4x6 SPAN	SC104
FCT804006000	Screw M4x6 SPAN	SC105
FCT804006000	Screw M4x6 SPAN	SC106
FCT804006000	Screw M4x6 SPAN	SC107
FCT804006000	Screw M4x6 SPAN	SC108
FCT804006000	Screw M4x6 SPAN	SC109
FCT804006000	Screw M4x6 SPAN	SC110
FCT804006000	Screw M4x6 SPAN	SC111
FCT803010000	Screw M3x10 SPA	SC112
FCT803010000	Screw M3x10 SPA	SC113
FCT803015000	Screw 3x15 SPIRALFORM	SC114
FCT803015000	Screw 3x15 SPIRALFORM	SC115
FCT803010000	Screw M3x10 SPA	SC116
FCT803010000	Screw M3x10 SPA	SC117
FCT750301000	Screw M3x10	SC118
FCT750301000	Screw M3x10	SC119
FCT750301000	Screw M3x10	SC120

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

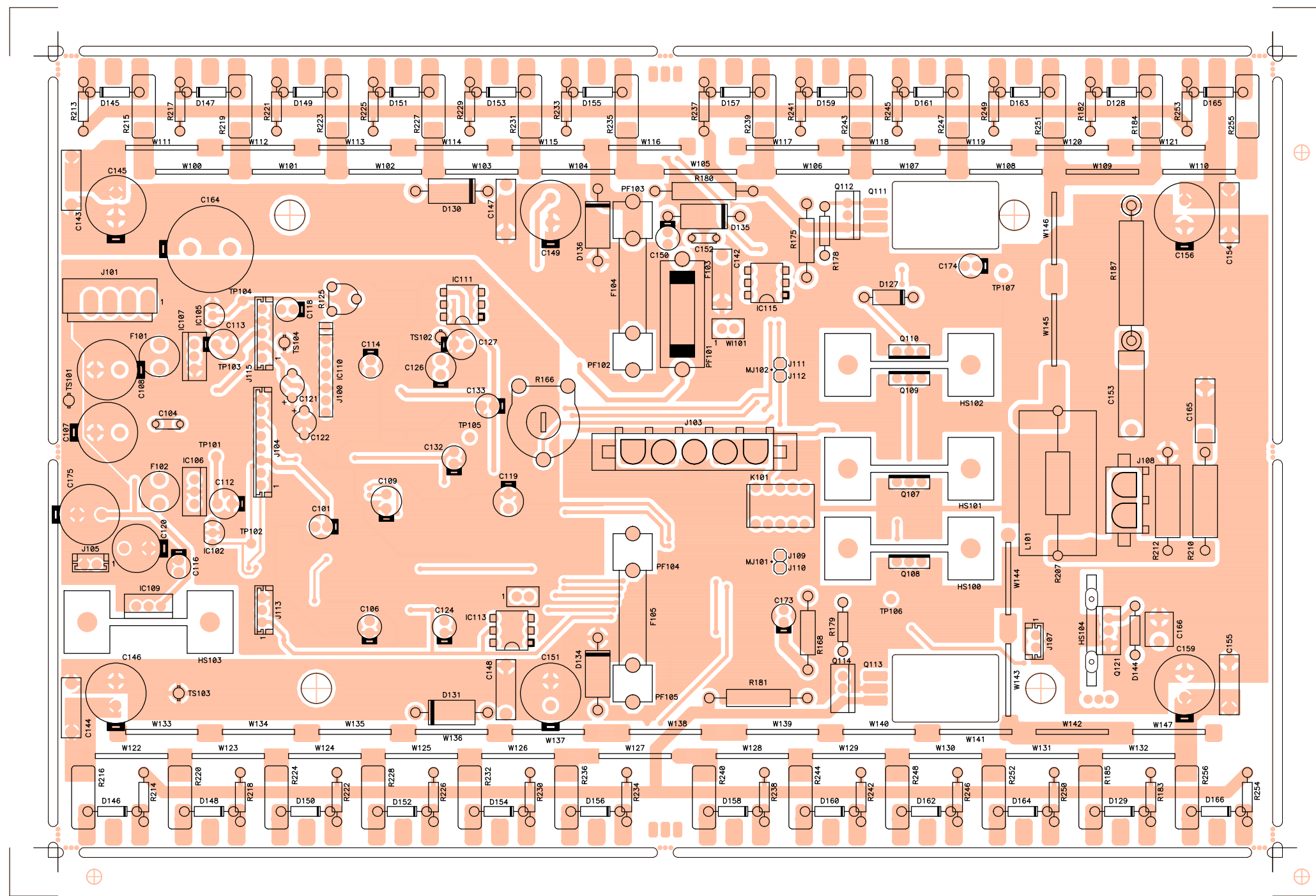
Code	Description	Reference
FCT750301000	Screw M3x10	SC121
FCT803015000	Screw M3x15	SC122
FCSEPPM00000	Plastic Spacer f/board ct.	SC123
FCT803015000	Screw 3x15 SPIRALFORM	SC124
FCT803015000	Screw 3x15 SPIRALFORM	SC125
FCSEPPM00000	Plastic Spacer f/board ct.	SC126
FCSEPPM00000	Plastic Spacer f/board ct.	SC127
FCSEPPM00000	Plastic Spacer f/board ct.	SC128
FCTERMF28000	Faston 2.8mm	TS101
FCTERMF28000	Faston 2.8mm	TS102
FCTERMF28000	Faston 2.8mm	TS103
FCTERMF28000	Faston 2.8mm	TS104
FCMECPON1900	19mm	W100
FCMECPON1900	19mm	W101
FCMECPON1900	19mm	W102
FCMECPON1900	19mm	W103
FCMECPON1900	19mm	W104
FCMECPON1900	19mm	W105
FCMECPON1900	19mm	W106
FCMECPON1900	19mm	W107
FCMECPON1900	19mm	W108
FCMECPON1900	19mm	W109
FCMECPON1900	19mm	W110
FCMECPON1900	19mm	W111
FCMECPON1900	19mm	W112
FCMECPON1900	19mm	W113
FCMECPON1900	19mm	W114
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FCMECPON1900	19mm	W136
FCMECPON1900	19mm	W137
FCMECPON1900	19mm	W138
FCMECPON1900	19mm	W139
FCMECPON1900	19mm	W140
FCMECPON1900	19mm	W141
FCMECPON1900	19mm	W142
FCMECPON1900	19mm	W143

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

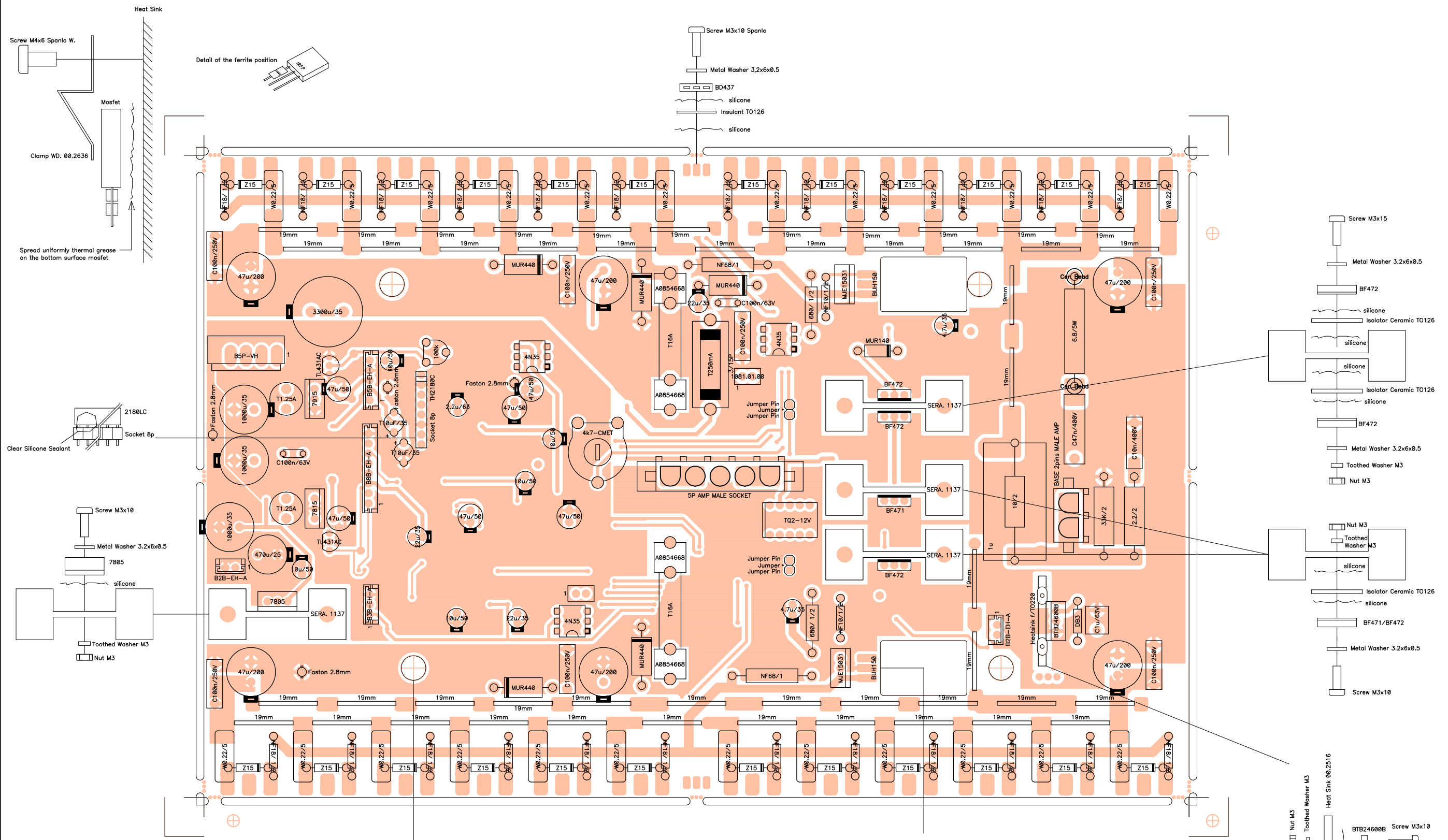
Code	Description	Reference
FCMECPON1900	19mm	W144
FCMECPON1900	19mm	W145
FCMECPON1900	19mm	W146
FCMECPON1900	19mm	W147
FCARM3200000	Metal Washer 3.2x6x0.5	WA100
FCARM3200000	Metal Washer 3.2x6x0.5	WA101
FCARM3200000	Metal Washer 3.2x6x0.5	WA102
FCARM3200000	Metal Washer 3.2x6x0.5	WA103
FCARM3200000	Metal Washer 3.2x6x0.5	WA104
FCARDE030000	Toothed Washer f/M3	WA105
FCARM3200000	Metal Washer 3.2x6x0.5	WA106
FCARDE030000	Toothed Washer f/M3	WA107
FCARDE030000	Toothed Washer f/M3	WA108
FCARDE030000	Toothed Washer f/M3	WA109
FCARDE030000	Toothed Washer f/M3	WA110
FCARM3200000	Metal Washer 3.2x6x0.5	WA114
FCARAT0000000	Washer Ins. Tr. 3x5.3x1.7	WA115
FCSEPCE12600	Ceramic Isolator TO126	WA116
FCSEPCE12600	Ceramic Isolator TO126	WA117
FCSEPCE12600	Ceramic Isolator TO126	WA118
FCSEPCE12600	Ceramic Isolator TO126	WA119
FCARM3200000	Metal Washer 3.2x6x0.5	WA120
FCARAT0000000	Washer Ins. Tr. 3x5.3x1.7	WA122
FC4G08110000	1081.01.00	WI101



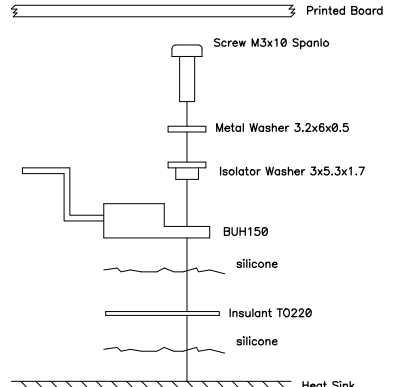
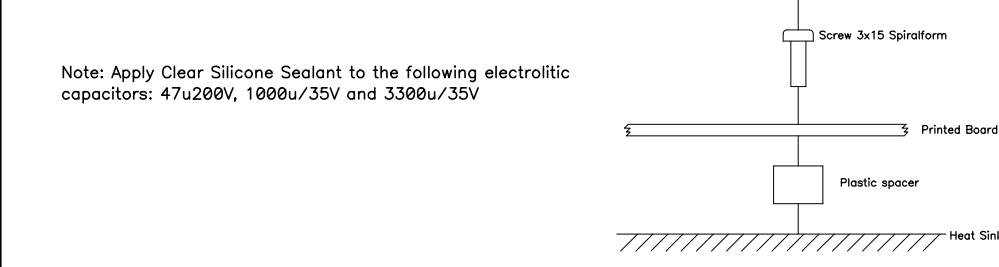
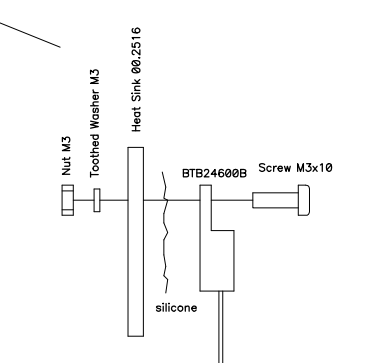
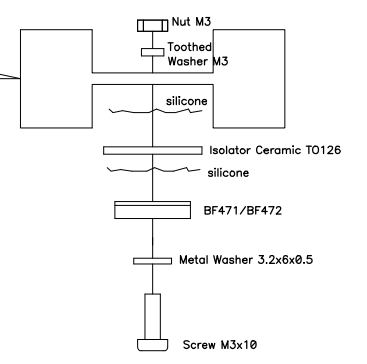
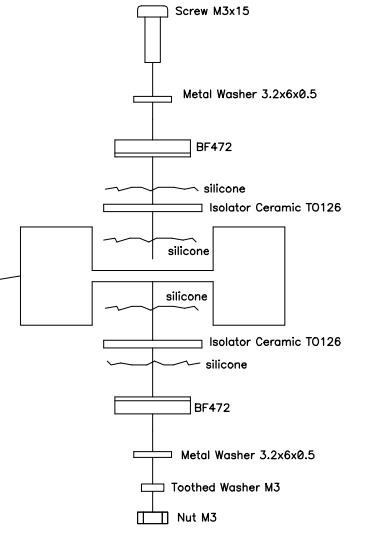
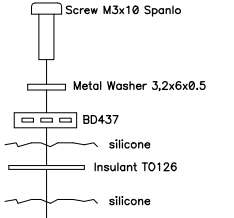
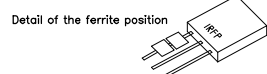
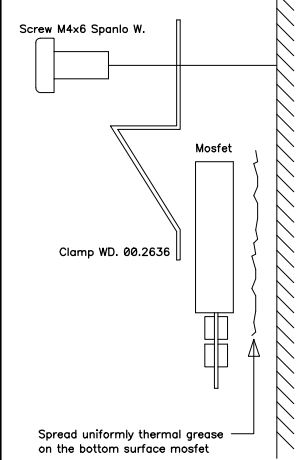
N°	Qty	Code	Description
1	3	FCARDE040000	TOOTHED WASHER M4
2	2	FCARDEP0TE00	ROTARY POT. WASHER M9
3	2	FCARM1050000	WASHER 10,5X30X2,5M
4	1	FCARS4000000	SEGMENTED WASHER M4
5	2	FCASADPA0000	FRONTAL HANDLE
6	1	FCBOR0030000	GROUND TERMINAL
7	1	FCBOTRE01000	SWITCH KNOB 5,5X5,5 WHITE
8	11	FCBURC010000	STICKER FOAM STRIP (units in cm)
9	1	FEETIZTT00000	EARTH TAG
10	2	FCGOES600000	FRONTAL ISOLATOR FOAM
11	9	FCGUAL100000	LIGHT PIPE GUIDE VERTICAL
12	1	FCINTRED3000	MAINS SWITCH W/LIGHT
13	2	FCPASCO100000	LONG EDGE WIRE SADDLE
14	1	FCPC00DM8000	BUSHING DM8
15	4	FCPIE1125000	RUBBER FOOT 11x25
16	2	FCREC50060000	BRIDGE RECTIFIER FB5006
17	2	FCREJ12000000	FAN GRILLE 120x120
18	4	FCSEPDLMSPM0	PLASTIC SPACER DLMSPM-3-01
19	6	FCSEPWLS0600	PLASTIC SPACER 6MM
20	8	FCSOPMSP4000	PLASTIC SPACER MSP-4N
21	8	FCT060512000	SCREW 5,1x20
22	8	FCT4002909000	SCREW 2,9x9,5 D7981F BLACK
23	6	FCT5002913000	SCREW D7982 2,9x13
24	2	FCT7004020000	SCREW D7985 M4x20
25	4	FCT8030055000	SCREW D965 M3x5 BLACK
26	4	FCT8030100000	SCREW DIN7985 M3x10 SPANLO
27	52	FCT8040060000	SCREW M4x6 SPANLO BLACK
28	4	FCT8040120000	SCREW M4x12 D965 SPANLO
29	7	FCT8503005000	SCREW M3x5 REDUCED HEAD
30	1	FCT8504110000	SCREW M4x10 TRILOB. WHITE
31	4	FCTALL5160000	SCREW DIN7991 M5x16 ALLEN
32	2	FCTFT02150000	TOROIDAL TRANSFORMER DPA2500T
33	43	FCTIRACAU0000	STICKER FOAM STRIP 10X8 (units in cm)
34	2	FCTUE00400000	NUT M4
35	2	FCTUP0T000000	ROTARY POT. NUT M9
36	2	FMMOPAM41000	POWER AMPLIFIER MODULE
37	1	FP028620000000	REAR BLANK PANEL
38	1	FP028980000000	FRONT PANEL
39	1	FP028990000000	BASE CHASSIS
40	1	FP029000000000	TOP COVER
41	2	FP029010000000	LEFT/RIGHT SIDE
42	1	FP029020000000	FRONTAL CIRCUIT MEC. SUPPORT
43	1	FP029030000000	TRANSFORMER MECHANICAL SUPPORT
44	1	FP029040000000	POWER SUPPLY LEFT MEC. SUPPORT
45	1	FP029050000000	POWER SUPPLY RIGHT MEC. SUPPORT
46	1	FP029100000000	CENTRAL SUPPORT PLATE
47	2	FRBOTRD24100	ROTARY KNOB D24 ROTATED INDEX
48	1	FRCONX0250000	MAINS CORD 3X6
49	2	FRVEN120B0000	FAN 12 VDC 120x120 CABLE=300
50	2	GENERIC	SCREW M8 TRANSFORMER
51	2	GENERIC	TRANSFORMER TOOTHED WASHER M8
52	2	GENERIC	TRANSFORMER NUT M8
53	2	GENERIC	TRANSFORMER RUBBER DISC



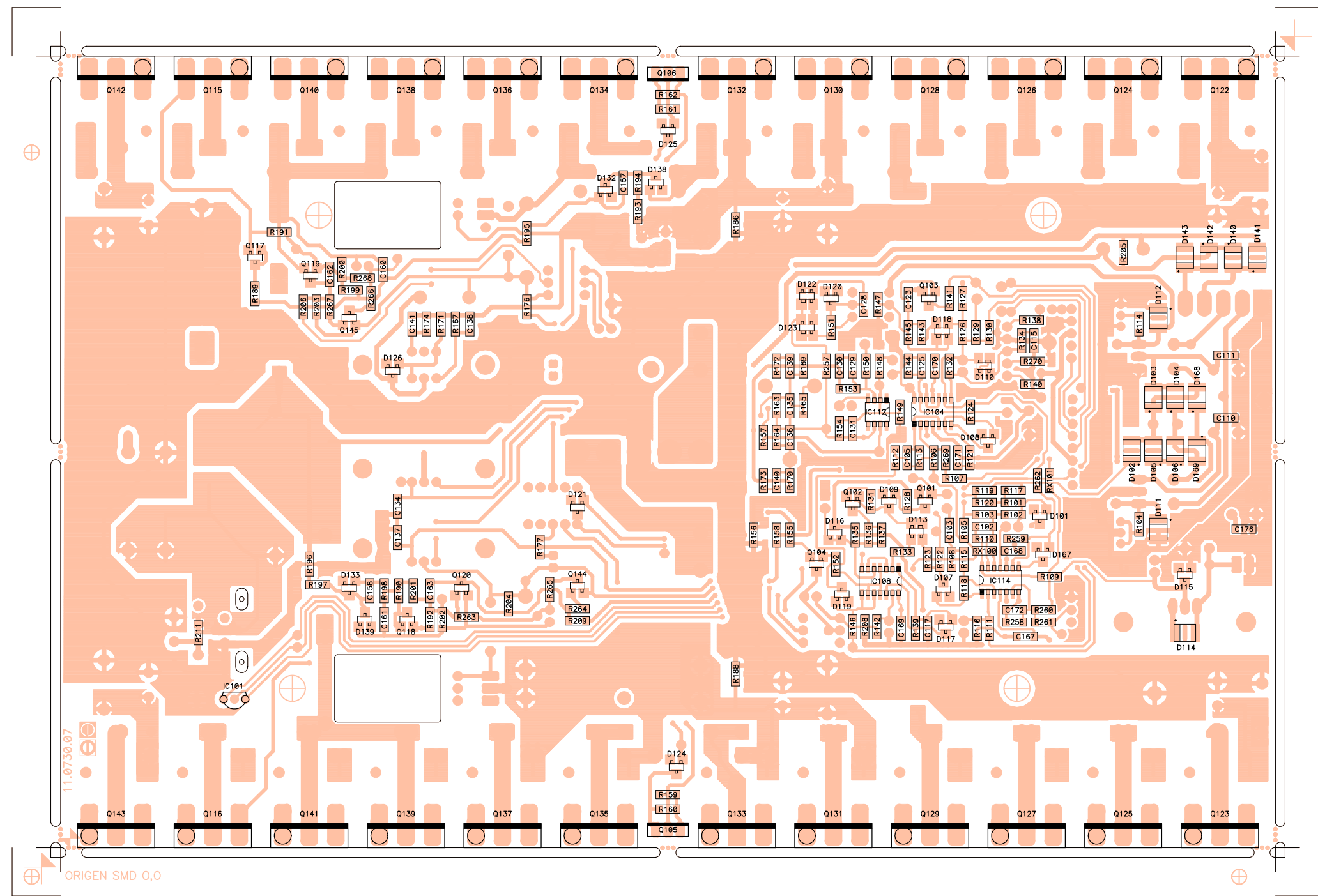
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number:	33.0541	title: Power Circuit
version:	01.08	
product n:	PAM6100	
drawn by:	M. Amoros	
date:	000927	
approved:	Angel Sanuy	




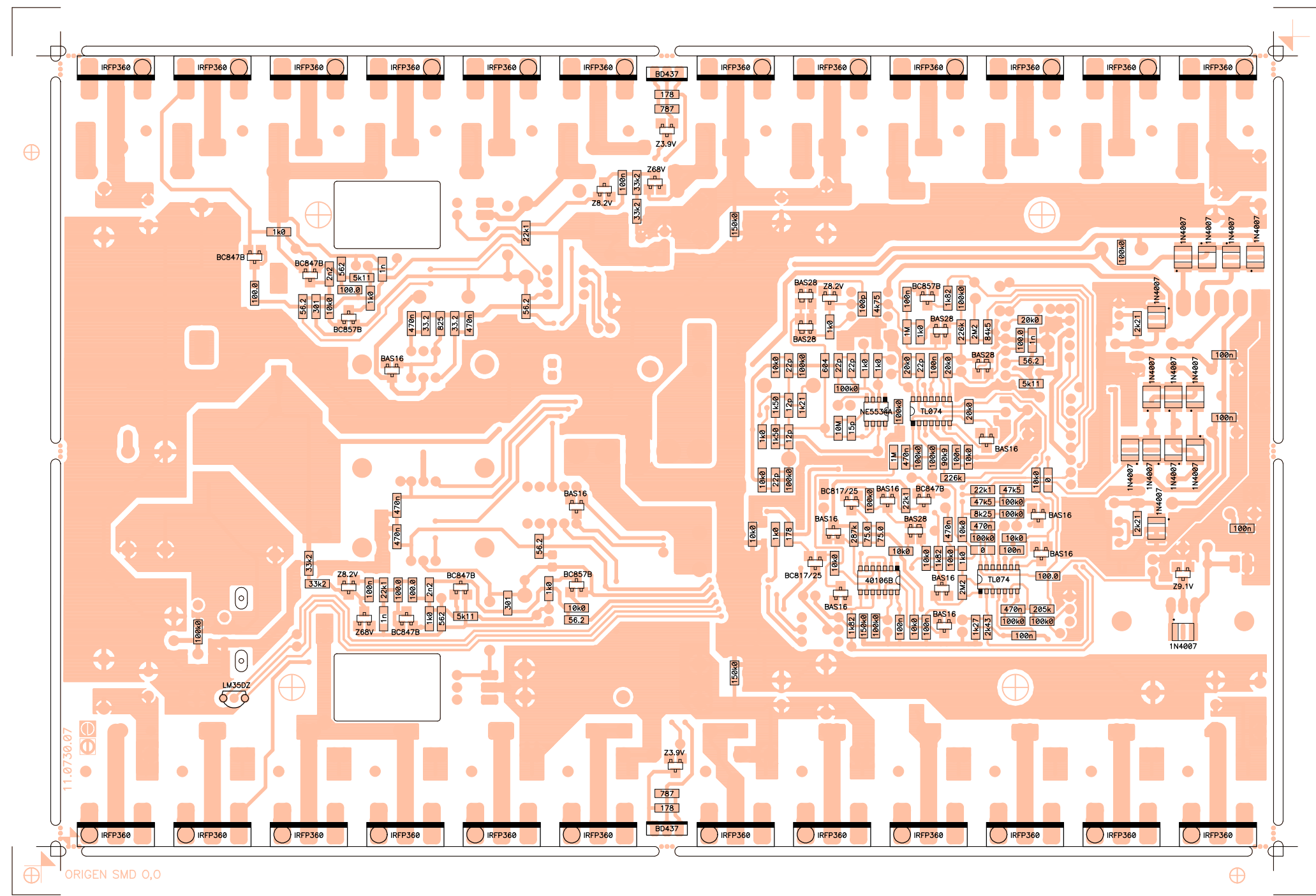
Note: Apply Clear Silicone Sealant to the following electrolytic capacitors: 47u200V, 1000u/35V and 3300u/35V



 LABORATORIO DE ELECTRO-ACUSTICA S.A.	related to:	circuit no: 11.0730-07.01 schema no: 10.0476-01.07 insertion file no:	side: Component
	project n: EP04-99B	title:	view: Value
number: 33.0542	version: 01.09	product n: PAM6100	<h1>Power Circuit</h1>
drawn by: M. Amoros	date: 000927	approved: Angel Sanuy	



 LABORATORIO DE ELECTRO-ACUSTICA S.A.	related to:	circuit no: 11.0730-07.01 schema no: 10.0476-01.07 insertion file no: 81.0039-01.04	side: Solder
	project n: EP04-99B	title:	view: Reference
number: 33.0543	version: 01.08	product n: PAM6100	<h2>Power Circuit</h2>
drawn by: M. Amoros	date: 000927	approved: Angel Sanuy	



related to:	circuit no: 11.0730-07.01 schema no: 10.0476-01.07 insertion file no: 81.0039-01.04	side: Solder
project n: EP04-99B	title:	view: Value
number: 33.0544	version: 01.08	Power Circuit
drawn by: M. Amoros	date: 000927	
	approved: Angel Sanuy	

LABORATORIO DE ELECTRO-ACUSTICA S.A.
number: 33.0544 version: 01.08
drawn by: M. Amoros date: 000927

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCCE20022000	22u/35	C101
FCXCN4470000	470n	C102
FCXCN4470000	470n	C103
FCCDK1100000	C100n/63V	C104
FCXCN4470000	470n	C105
FCCE25010000	10u/50	C106
FCCE21100000	1000u/35	C107
FCCE21100000	1000u/35	C108
FCCE25047000	47u/50	C109
FCXCN4100000	100n	C110
FCXCN4100000	100n	C111
FCCE25047000	47u/50	C112
FCCE25047000	47u/50	C113
FCCE30002200	2.2u/63	C114
FCXCN4001000	1n	C115
FCCE25010000	10u/50	C116
FCXCN4100000	100n	C117
FCCE25010000	10u/50	C118
FCCE25047000	47u/50	C119
FCCE15470000	470u/25	C120
FCCG00100000	T10uF/35	C121
FCCG00100000	T10uF/35	C122
FCXCN4100000	100n	C123
FCCE20022000	22u/35	C124
FCXCN1220000	22p	C125
FCCE25047000	47u/50	C126
FCCE25047000	47u/50	C127
FCXCN2100000	100p	C128
FCXCN1220000	22p	C129
FCXCN1220000	22p	C130
FCXCN1150000	15p	C131
FCCE25010000	10u/50	C132
FCCE25010000	10u/50	C133
FCXCN4470000	470n	C134
FCXCN1120000	12p	C135
FCXCN1120000	12p	C136
FCXCN4470000	470n	C137
FCXCN4470000	470n	C138
FCXCN1220000	22p	C139
FCXCN1220000	22p	C140
FCXCN4470000	470n	C141
FCCDN1100000	C100n/250V	C142
FCCDN1100000	C100n/250V	C143
FCCDN1100000	C100n/250V	C144
FCCE35004700	47u/200	C145
FCCE35004700	47u/200	C146
FCCDN1100000	C100n/250V	C147
FCCDN1100000	C100n/250V	C148
FCCE35004700	47u/200	C149
FCCE20022000	22u/35	C150
FCCE35004700	47u/200	C151
FCCDK1100000	C100n/63V	C152
FCCDH7104700	C47n/400V	C153
FCCDN1100000	C100n/250V	C154
FCCDN1100000	C100n/250V	C155
FCCE35004700	47u/200	C156

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCXCN4100000	100n	C157
FCXCN4100000	100n	C158
FCCE35004700	47u/200	C159
FCXCN4001000	1n	C160
FCXCN4001000	1n	C161
FCXCN4002200	2n2	C162
FCXCN4002200	2n2	C163
FCCE21330000	3300u/35	C164
FCCDH7101100	C10n/400V	C165
FCCDK2001000	C1u/63V	C166
FCXCN4100000	100n	C167
FCXCN4100000	100n	C168
FCXCN4100000	100n	C169
FCXCN4100000	100n	C170
FCXCN4100000	100n	C171
FCXCN4470000	470n	C172
FCCE20004700	4.7u/35	C173
FCCE20004700	4.7u/35	C174
FCCE21100000	1000u/35	C175
FCXCN4100000	100n	C176
FCPERL255000	Cer. Bead	CB101
FCPERL255000	Cer. Bead	CB102
FCPERL255000	Cer. Bead	CB103
FCPERL255000	Cer. Bead	CB104
FCCIPAM73000	11.0730 Printed Board	CI101
FCXDDBAS1600	BAS16	D101
FCXDD4007000	1N4007	D102
FCXDD4007000	1N4007	D103
FCXDD4007000	1N4007	D104
FCXDD4007000	1N4007	D105
FCXDD4007000	1N4007	D106
FCXDDBAS1600	BAS16	D107
FCXDDBAS1600	BAS16	D108
FCXDDBAS1600	BAS16	D109
FCXDDBAS2800	BAS28	D110
FCXDD4007000	1N4007	D111
FCXDD4007000	1N4007	D112
FCXDDBAS2800	BAS28	D113
FCXDD4007000	1N4007	D114
FCXZ00009100	Z9.1V	D115
FCXDDBAS1600	BAS16	D116
FCXDDBAS1600	BAS16	D117
FCXDDBAS2800	BAS28	D118
FCXDDBAS1600	BAS16	D119
FCXZ00008200	Z8.2V	D120
FCXDDBAS1600	BAS16	D121
FCXDDBAS2800	BAS28	D122
FCXDDBAS2800	BAS28	D123
FCXZ00003900	Z3.9V	D124
FCXZ00003900	Z3.9V	D125
FCXDDBAS1600	BAS16	D126
FCDDMUR14000	MUR140	D127
FCDD04150000	Z15	D128
FCDD04150000	Z15	D129
FCDDMUR44000	MUR440	D130
FCDDMUR44000	MUR440	D131

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCXZ00008200	Z8.2V	D132
FCXZ00008200	Z8.2V	D133
FCDDMUR44000	MUR440	D134
FCDDMUR44000	MUR440	D135
FCDDMUR44000	MUR440	D136
FCXZ00068000	Z68V	D138
FCXZ00068000	Z68V	D139
FCXDD4007000	1N4007	D140
FCXDD4007000	1N4007	D141
FCXDD4007000	1N4007	D142
FCXDD4007000	1N4007	D143
FCDIDB300000	DB3	D144
FCDD04150000	Z15	D145
FCDD04150000	Z15	D146
FCDD04150000	Z15	D147
FCDD04150000	Z15	D148
FCDD04150000	Z15	D149
FCDD04150000	Z15	D150
FCDD04150000	Z15	D151
FCDD04150000	Z15	D152
FCDD04150000	Z15	D153
FCDD04150000	Z15	D154
FCDD04150000	Z15	D155
FCDD04150000	Z15	D156
FCDD04150000	Z15	D157
FCDD04150000	Z15	D158
FCDD04150000	Z15	D159
FCDD04150000	Z15	D160
FCDD04150000	Z15	D161
FCDD04150000	Z15	D162
FCDD04150000	Z15	D163
FCDD04150000	Z15	D164
FCDD04150000	Z15	D165
FCDD04150000	Z15	D166
FCXDDBAS1600	BAS16	D167
FCXDD4007000	1N4007	D168
FCXDD4007000	1N4007	D169
FCFUS4012500	T1.25A	F101
FCFUS4012500	T1.25A	F102
FCFUS5008000	T250mA	F103
FCFUS6040000	T16A	F104
FCFUS6040000	T16A	F105
FCFER4322000	Ferrite	FB101
FCFER4322000	Ferrite	FB102
FCFER4322000	Ferrite	FB103
FCFER4322000	Ferrite	FB104
FCFER4322000	Ferrite	FB105
FCFER4322000	Ferrite	FB106
FCFER4322000	Ferrite	FB107
FCFER4322000	Ferrite	FB108
FCFER4322000	Ferrite	FB109
FCFER4322000	Ferrite	FB110
FCFER4322000	Ferrite	FB111
FCFER4322000	Ferrite	FB112
FCFER4322000	Ferrite	FB113
FCFER4322000	Ferrite	FB114

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCFER4322000	Ferrite	FB115
FCFER4322000	Ferrite	FB116
FCFER4322000	Ferrite	FB117
FCFER4322000	Ferrite	FB118
FCFER4322000	Ferrite	FB119
FCFER4322000	Ferrite	FB120
FCFER4322000	Ferrite	FB121
FCFER4322000	Ferrite	FB122
FCFER4322000	Ferrite	FB123
FCFER4322000	Ferrite	FB124
FCFER4322000	Ferrite	FB125
FCFER4322000	Ferrite	FB126
FCFER4322000	Ferrite	FB127
FCFER4322000	Ferrite	FB128
FCFER4322000	Ferrite	FB129
FCFER4322000	Ferrite	FB130
FCFER4322000	Ferrite	FB131
FCFER4322000	Ferrite	FB132
FCFER4322000	Ferrite	FB133
FCFER4322000	Ferrite	FB134
FCFER4322000	Ferrite	FB135
FCFER4322000	Ferrite	FB136
FCFER4322000	Ferrite	FB137
FCFER4322000	Ferrite	FB138
FCFER4322000	Ferrite	FB139
FCFER4322000	Ferrite	FB140
FCFER4322000	Ferrite	FB141
FCFER4322000	Ferrite	FB142
FCFER4322000	Ferrite	FB143
FCFER4322000	Ferrite	FB144
FCFER4322000	Ferrite	FB145
FCFER4322000	Ferrite	FB146
FCFER4322000	Ferrite	FB147
FCFER4322000	Ferrite	FB148
FCRAD1263600	SERA. 1137	HS100
FCRAD1263600	SERA. 1137	HS101
FCRAD1263600	SERA. 1137	HS102
FCRAD1263600	SERA. 1137	HS103
FCMECT022000	Heatsink f/TO220	HS104
FCRAD0300000	Heatsink f/ Power Module	HS105
FCRAD0300000	Heatsink f/ Power Module	HS106
FCIC35000000	LM35DZ	IC101
FCIC43100000	TL431AC	IC102
FCIC07401000	TL074	IC104
FCIC43100000	TL431AC	IC105
FCREG7815000	7815	IC106
FCREG7915000	7915	IC107
FCIC40106000	40106B	IC108
FCREG7805000	7805	IC109
FCIC21800000	TH2180C	IC110
FCIC43500000	4N35	IC111
FCIC55341000	NE5534A	IC112
FCIC43500000	4N35	IC113
FCIC07401000	TL074	IC114
FCIC43500000	4N35	IC115
FCMICTO12600	Insulant TO126	IN100

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCMICTO12600	Insulant TO126	IN101
FCMICTO22000	Insulant TO220	IN102
FCMICTO22000	Insulant TO220	IN103
FCTERM008000	Socket 8p	J100
FCCTJ1005000	B5P-VH	J101
FCCTAMP05000	5P AMP MALE SOCKET	J103
FCCTM0008000	B8B-EH-A	J104
FCCTM0002000	B2B-EH-A	J105
FCCTM0002000	B2B-EH-A	J107
FCCTAMP02000	BASE 2pins MALE AMP	J108
FCTERM010000	Jumper Pin	J109
FCTERM010000	Jumper Pin	J110
FCTERM010000	Jumper Pin	J111
FCTERM010000	Jumper Pin	J112
FCCTM0003000	B3B-EH-A	J113
FCCTM0005000	B5B-EH-A	J115
FCREL0030000	TQ2-12V	K101
FCIND0010000	1u	L101
FCMJ00010000	Jumper	MJ101
FCMJ00010000	Jumper	MJ102
FCPINZAM0000	Clamp WD. 00.2636	MP100
FCPINZAM0000	Clamp WD. 00.2636	MP101
FCPINZAM0000	Clamp WD. 00.2636	MP102
FCPINZAM0000	Clamp WD. 00.2636	MP103
FCTUE0030000	Nut M3	NV100
FCTUE0030000	Nut M3	NV101
FCTUE0030000	Nut M3	NV102
FCTUE0030000	Nut M3	NV103
FCTUE0030000	Nut M3	NV104
FCPORF315000	3/15P	PF101
FCPORF010000	A0854668	PF102
FCPORF010000	A0854668	PF103
FCPORF010000	A0854668	PF104
FCPORF010000	A0854668	PF105
FCXTT0847000	BC847B	Q101
FCXTT0817000	BC817/25	Q102
FCXTT0857000	BC857B	Q103
FCXTT0817000	BC817/25	Q104
FCTR43700000	BD437	Q105
FCTR43700000	BD437	Q106
FCTR47100000	BF471	Q107
FCTR47200000	BF472	Q108
FCTR47200000	BF472	Q109
FCTR47200000	BF472	Q110
FCTR15000000	BUH150	Q111
FCTR15031000	MJE15031	Q112
FCTR15000000	BUH150	Q113
FCTR15031000	MJE15031	Q114
FCTR36000000	IRFP360	Q115
FCTR36000000	IRFP360	Q116
FCXTT0847000	BC847B	Q117
FCXTT0847000	BC847B	Q118
FCXTT0847000	BC847B	Q119
FCXTT0847000	BC847B	Q120
FCTI24600000	BTB24600B	Q121
FCTR36000000	IRFP360	Q122

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCTR36000000	IRFP360	Q123
FCTR36000000	IRFP360	Q124
FCTR36000000	IRFP360	Q125
FCTR36000000	IRFP360	Q126
FCTR36000000	IRFP360	Q127
FCTR36000000	IRFP360	Q128
FCTR36000000	IRFP360	Q129
FCTR36000000	IRFP360	Q130
FCTR36000000	IRFP360	Q131
FCTR36000000	IRFP360	Q132
FCTR36000000	IRFP360	Q133
FCTR36000000	IRFP360	Q134
FCTR36000000	IRFP360	Q135
FCTR36000000	IRFP360	Q136
FCTR36000000	IRFP360	Q137
FCTR36000000	IRFP360	Q138
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FCTR36000000	IRFP360	Q140
FCTR36000000	IRFP360	Q141
FCTR36000000	IRFP360	Q142
FCTR36000000	IRFP360	Q143
FCXTT0857000	BC857B	Q144
FCXTT0857000	BC857B	Q145
FCXR15100000	100k0	R101
FCXR15100000	100k0	R102
FCXR13825000	8k25	R103
FCXR13221000	2k21	R104
FCXR14100000	10k0	R105
FCXR15100000	100k0	R106
FCXR15226000	226k	R107
FCXR14100000	10k0	R108
FCXR12100000	100.0	R109
FCXR15100000	100k0	R110
FCXR13243000	2k43	R111
FCXR06100000	1M	R112
FCXR15100000	100k0	R113
FCXR13221000	2k21	R114
FCXR13100000	1k0	R115
FCXR13127000	1k27	R116
FCXR14475000	47k5	R117
FCXR06220000	2M2	R118
FCXR14221000	22k1	R119
FCXR14475000	47k5	R120
FCXR14100000	10k0	R121
FCXR13182000	1k82	R122
FCXR14100000	10k0	R123
FCXR14200000	20k0	R124
FCRJC6100000	100k	R125
FCXR15226000	226k	R126
FCXR15100000	100k0	R127
FCXR14221000	22k1	R128
FCXR06220000	2M2	R129
FCXR14845000	84k5	R130
FCXR15100000	100k0	R131
FCXR14200000	20k0	R132
FCXR14100000	10k0	R133

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCXR12100000	100.0	R134
FCXR15287000	287k	R135
FCXR11750000	75.0	R136
FCXR11750000	75.0	R137
FCXR14200000	20k0	R138
FCXR14100000	10k0	R139
FCXR13511000	5k11	R140
FCXR13182000	1k82	R141
FCXR15100000	100k0	R142
FCXR13100000	1k0	R143
FCXR14200000	20k0	R144
FCXR06100000	1M	R145
FCXR13182000	1k82	R146
FCXR13475000	4k75	R147
FCXR13100000	1k0	R148
FCXR15100000	100k0	R149
FCXR13100000	1k0	R150
FCXR13100000	1k0	R151
FCXR14100000	10k0	R152
FCXR15100000	100k0	R153
FCXR07100000	10M	R154
FCXR12178000	178	R155
FCXR14100000	10k0	R156
FCXR13100000	1k0	R157
FCXR13100000	1k0	R158
FCXR12787000	787	R159
FCXR12178000	178	R160
FCXR12787000	787	R161
FCXR12178000	178	R162
FCXR13150000	1k50	R163
FCXR13150000	1k50	R164
FCXR13121000	1k21	R165
FCRJP4470000	4k7-CMET	R166
FCXR11332000	33.2	R167
FCRC23680000	680/ 1/2	R168
FCXR15100000	100k0	R169
FCXR15100000	100k0	R170
FCXR12825000	825	R171
FCXR14100000	10k0	R172
FCXR14100000	10k0	R173
FCXR11332000	33.2	R174
FCRC23680000	680/ 1/2	R175
FCXR11562000	56.2	R176
FCXR11562000	56.2	R177
FCRF22100000	NF10/1/2	R178
FCRF22100000	NF10/1/2	R179
FCRF42680000	NF68/1	R180
FCRF42680000	NF68/1	R181
FCRF22180000	NF18/ 1/2	R182
FCRF22180000	NF18/ 1/2	R183
FCRY00010000	W0.22/5	R184
FCRY00010000	W0.22/5	R185
FCXR15150000	150k0	R186
FCRY00025000	6.8/5W	R187
FCXR15150000	150k0	R188
FCXR12100000	100.0	R189

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCXR12100000	100.0	R190
FCXR13100000	1k0	R191
FCXR13100000	1k0	R192
FCXR14332000	33k2	R193
FCXR14332000	33k2	R194
FCXR14221000	22k1	R195
FCXR14332000	33k2	R196
FCXR14332000	33k2	R197
FCXR14221000	22k1	R198
FCXR12100000	100.0	R199
FCXR12562000	562	R200
FCXR12100000	100.0	R201
FCXR12562000	562	R202
FCXR12301000	301	R203
FCXR12301000	301	R204
FCXR15100000	100k0	R205
FCXR11562000	56.2	R206
FCRC52100000	10/2	R207
FCXR15150000	150k0	R208
FCXR11562000	56.2	R209
FCRC51220000	2.2/2	R210
FCXR15100000	100k0	R211
FCRC55330000	33K/2	R212
FCRF22180000	NF18/ 1/2	R213
FCRF22180000	NF18/ 1/2	R214
FCRY00010000	W0.22/5	R215
FCRY00010000	W0.22/5	R216
FCRF22180000	NF18/ 1/2	R217
FCRF22180000	NF18/ 1/2	R218
FCRY00010000	W0.22/5	R219
FCRY00010000	W0.22/5	R220
FCRF22180000	NF18/ 1/2	R221
FCRF22180000	NF18/ 1/2	R222
FCRY00010000	W0.22/5	R223
FCRY00010000	W0.22/5	R224
FCRF22180000	NF18/ 1/2	R225
FCRF22180000	NF18/ 1/2	R226
FCRY00010000	W0.22/5	R227
FCRY00010000	W0.22/5	R228
FCRF22180000	NF18/ 1/2	R229
FCRF22180000	NF18/ 1/2	R230
FCRY00010000	W0.22/5	R231
FCRY00010000	W0.22/5	R232
FCRF22180000	NF18/ 1/2	R233
FCRF22180000	NF18/ 1/2	R234
FCRY00010000	W0.22/5	R235
FCRY00010000	W0.22/5	R236
FCRF22180000	NF18/ 1/2	R237
FCRF22180000	NF18/ 1/2	R238
FCRY00010000	W0.22/5	R239
FCRY00010000	W0.22/5	R240
FCRF22180000	NF18/ 1/2	R241
FCRF22180000	NF18/ 1/2	R242
FCRY00010000	W0.22/5	R243
FCRY00010000	W0.22/5	R244
FCRF22180000	NF18/ 1/2	R245

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

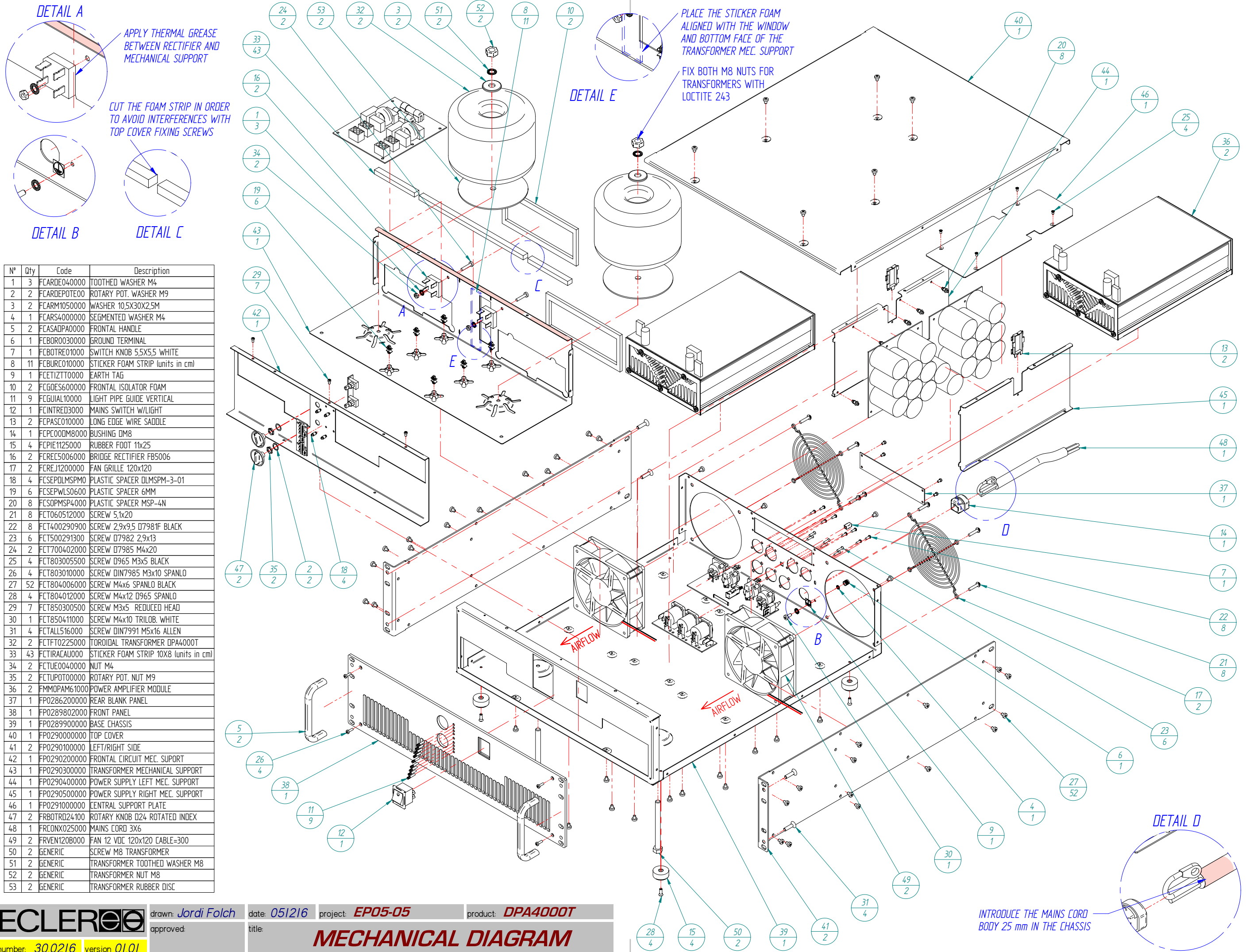
Code	Description	Reference
FCRF22180000	NF18/ 1/2	R246
FCRY00010000	W0.22/5	R247
FCRY00010000	W0.22/5	R248
FCRF22180000	NF18/ 1/2	R249
FCRF22180000	NF18/ 1/2	R250
FCRY00010000	W0.22/5	R251
FCRY00010000	W0.22/5	R252
FCRF22180000	NF18/ 1/2	R253
FCRF22180000	NF18/ 1/2	R254
FCRY00010000	W0.22/5	R255
FCRY00010000	W0.22/5	R256
FCXR12604000	604	R257
FCXR15100000	100k0	R258
FCXR14100000	10k0	R259
FCXR15205000	205k	R260
FCXR15100000	100k0	R261
FCXR14100000	10k0	R262
FCXR13511000	5k11	R263
FCXR14100000	10k0	R264
FCXR13100000	1k0	R265
FCXR13100000	1k0	R266
FCXR14100000	10k0	R267
FCXR13511000	5k11	R268
FCXR14909000	90k9	R269
FCXR11562000	56.2	R270
FCXR00000000	0	RX100
FCXR00000000	0	RX101
FCT804006000	Screw M4x6 SPAN	SC100
FCT804006000	Screw M4x6 SPAN	SC101
FCT804006000	Screw M4x6 SPAN	SC102
FCT804006000	Screw M4x6 SPAN	SC103
FCT804006000	Screw M4x6 SPAN	SC104
FCT804006000	Screw M4x6 SPAN	SC105
FCT804006000	Screw M4x6 SPAN	SC106
FCT804006000	Screw M4x6 SPAN	SC107
FCT804006000	Screw M4x6 SPAN	SC108
FCT804006000	Screw M4x6 SPAN	SC109
FCT804006000	Screw M4x6 SPAN	SC110
FCT804006000	Screw M4x6 SPAN	SC111
FCT803010000	Screw M3x10 SPA	SC112
FCT803010000	Screw M3x10 SPA	SC113
FCT803015000	Screw 3x15 SPIRALFORM	SC114
FCT803015000	Screw 3x15 SPIRALFORM	SC115
FCT803010000	Screw M3x10 SPA	SC116
FCT803010000	Screw M3x10 SPA	SC117
FCT750301000	Screw M3x10	SC118
FCT750301000	Screw M3x10	SC119
FCT750301000	Screw M3x10	SC120
FCT750301000	Screw M3x10	SC121
FCT803015000	Screw M3x15	SC122
FCSEPPM00000	Plastic Spacer f/board ct.	SC123
FCT803015000	Screw 3x15 SPIRALFORM	SC124
FCT803015000	Screw 3x15 SPIRALFORM	SC125
FCSEPPM00000	Plastic Spacer f/board ct.	SC126
FCSEPPM00000	Plastic Spacer f/board ct.	SC127
FCSEPPM00000	Plastic Spacer f/board ct.	SC128

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCTERMF28000	Faston 2.8mm	TS101
FCTERMF28000	Faston 2.8mm	TS102
FCTERMF28000	Faston 2.8mm	TS103
FCTERMF28000	Faston 2.8mm	TS104
FCMECPON1900	19mm	W100
FCMECPON1900	19mm	W101
FCMECPON1900	19mm	W102
FCMECPON1900	19mm	W103
FCMECPON1900	19mm	W104
FCMECPON1900	19mm	W105
FCMECPON1900	19mm	W106
FCMECPON1900	19mm	W107
FCMECPON1900	19mm	W108
FCMECPON1900	19mm	W109
FCMECPON1900	19mm	W110
FCMECPON1900	19mm	W111
FCMECPON1900	19mm	W112
FCMECPON1900	19mm	W113
FCMECPON1900	19mm	W114
FCMECPON1900	19mm	W115
FCMECPON1900	19mm	W116
FCMECPON1900	19mm	W117
FCMECPON1900	19mm	W118
FCMECPON1900	19mm	W119
FCMECPON1900	19mm	W120
FCMECPON1900	19mm	W121
FCMECPON1900	19mm	W122
FCMECPON1900	19mm	W123
FCMECPON1900	19mm	W124
FCMECPON1900	19mm	W125
FCMECPON1900	19mm	W126
FCMECPON1900	19mm	W127
FCMECPON1900	19mm	W128
FCMECPON1900	19mm	W129
FCMECPON1900	19mm	W130
FCMECPON1900	19mm	W131
FCMECPON1900	19mm	W132
FCMECPON1900	19mm	W133
FCMECPON1900	19mm	W134
FCMECPON1900	19mm	W135
FCMECPON1900	19mm	W136
FCMECPON1900	19mm	W137
FCMECPON1900	19mm	W138
FCMECPON1900	19mm	W139
FCMECPON1900	19mm	W140
FCMECPON1900	19mm	W141
FCMECPON1900	19mm	W142
FCMECPON1900	19mm	W143
FCMECPON1900	19mm	W144
FCMECPON1900	19mm	W145
FCMECPON1900	19mm	W146
FCMECPON1900	19mm	W147
FCARM3200000	Metal Washer 3.2x6x0.5	WA100
FCARM3200000	Metal Washer 3.2x6x0.5	WA101
FCARM3200000	Metal Washer 3.2x6x0.5	WA102
FCARM3200000	Metal Washer 3.2x6x0.5	WA103

PARTS LIST: PRINTED CIRCUIT 11.0730.07.01

Code	Description	Reference
FCARM3200000	Metal Washer 3.2x6x0.5	WA104
FCARDE030000	Toothed Washer f/M3	WA105
FCARM3200000	Metal Washer 3.2x6x0.5	WA106
FCARDE030000	Toothed Washer f/M3	WA107
FCARDE030000	Toothed Washer f/M3	WA108
FCARDE030000	Toothed Washer f/M3	WA109
FCARDE030000	Toothed Washer f/M3	WA110
FCARM3200000	Metal Washer 3.2x6x0.5	WA114
FCARAT000000	Washer Ins. Tr. 3x5.3x1.7	WA115
FCSEPCE12600	Ceramic Isolator TO126	WA116
FCSEPCE12600	Ceramic Isolator TO126	WA117
FCSEPCE12600	Ceramic Isolator TO126	WA118
FCSEPCE12600	Ceramic Isolator TO126	WA119
FCARM3200000	Metal Washer 3.2x6x0.5	WA120
FCARAT000000	Washer Ins. Tr. 3x5.3x1.7	WA122
FC4G08110000	1081.01.00	WI101



N°	Qty	Code	Description
1	3	FCARDE040000	TOOTHED WASHER M4
2	2	FCARDEP0TE00	ROTARY POT. WASHER M9
3	2	FCARM1050000	WASHER 10,5X30X2,5M
4	1	FCARS4000000	SEGMENTED WASHER M4
5	2	FCASADPA0000	FRONTAL HANDLE
6	1	FCBOR0030000	GROUND TERMINAL
7	1	FCBOTRE01000	SWITCH KNOB 5,5X5,5 WHITE
8	11	FCBURC010000	STICKER FOAM STRIP (units in cm)
9	1	FEETIZTT00000	EARTH TAG
10	2	FCGOES600000	FRONTAL ISOLATOR FOAM
11	9	FCGUAL100000	LIGHT PIPE GUIDE VERTICAL
12	1	FCINTRED3000	MAINS SWITCH W/LIGHT
13	2	FCPASCO100000	LONG EDGE WIRE SADDLE
14	1	FCPC00DM8000	BUSHING DM8
15	4	FCPIE1125000	RUBBER FOOT 11x25
16	2	FCREC50060000	BRIDGE RECTIFIER FB5006
17	2	FCREJ12000000	FAN GRILLE 120x120
18	4	FCSEPDLMSPM0	PLASTIC SPACER DLMSPM-3-01
19	6	FCSEPWLS0600	PLASTIC SPACER 6MM
20	8	FCSOPMSP4000	PLASTIC SPACER MSP-4N
21	8	FCT060512000	SCREW 5,1x20
22	8	FCT4002909000	SCREW 2,9x9,5 D7981F BLACK
23	6	FCT5002913000	SCREW D7982 2,9x13
24	2	FCT7004020000	SCREW D7985 M4x20
25	4	FCT8030055000	SCREW D965 M3x5 BLACK
26	4	FCT8030100000	SCREW DIN7985 M3x10 SPANLO
27	52	FCT8040060000	SCREW M4x6 SPANLO BLACK
28	4	FCT8040120000	SCREW M4x12 D965 SPANLO
29	7	FCT8503005000	SCREW M3x5 REDUCED HEAD
30	1	FCT8504110000	SCREW M4x10 TRILOB. WHITE
31	4	FCTALL5160000	SCREW DIN7991 M5x16 ALLEN
32	2	FCTFT02250000	TOROIDAL TRANSFORMER DPA4000T
33	43	FCTIRACAU0000	STICKER FOAM STRIP 10X8 (units in cm)
34	2	FCTUE00400000	NUT M4
35	2	FCTUP0T000000	ROTARY POT. NUT M9
36	2	FMMOPAM610000	POWER AMPLIFIER MODULE
37	1	FP028620000000	REAR BLANK PANEL
38	1	FP028980200000	FRONT PANEL
39	1	FP028990000000	BASE CHASSIS
40	1	FP029000000000	TOP COVER
41	2	FP029010000000	LEFT/RIGHT SIDE
42	1	FP029020000000	FRONTAL CIRCUIT MEC. SUPPORT
43	1	FP029030000000	TRANSFORMER MECHANICAL SUPPORT
44	1	FP029040000000	POWER SUPPLY LEFT MEC. SUPPORT
45	1	FP029050000000	POWER SUPPLY RIGHT MEC. SUPPORT
46	1	FP029100000000	CENTRAL SUPPORT PLATE
47	2	FRBOTRD24100	ROTARY KNOB D24 ROTATED INDEX
48	1	FRCONX0250000	MAINS CORD 3X6
49	2	FRVEN120B0000	FAN 12 VDC 120x120 CABLE=300
50	2	GENERIC	SCREW M8 TRANSFORMER
51	2	GENERIC	TRANSFORMER TOOTHED WASHER M8
52	2	GENERIC	TRANSFORMER NUT M8
53	2	GENERIC	TRANSFORMER RUBBER DISC