

MAINTENANCE

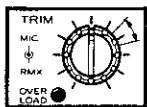
NOTES

- * All procedures refer to all inputs and outputs within the circuit or system discussed. For convenience, the procedures are described referring to a single input-output chain, but must be followed for all inputs and outputs of the circuit or system being discussed, unless expressing stated otherwise.
- * All resistors are 1/4 watt, 5%, unless marked otherwise. Resistor values are in ohms (k=1,000 ohms, M=1,000,000 ohms).
- * All capacitor values are in microfarads (p=picofarads).
- * Δ Parts marked with this sign are safety critical components. They must always be replaced with identical components-refer to the TEAC Parts List and ensure exact replacement.
- * 0 dB is referenced to 1 V in this manual unless otherwise specified.
- * PC boards shown viewed from component side.

1. LEVEL SETTING AND OPERATION CHECK

1-1. MIC IN → PRE OUT (ACCESS SEND)

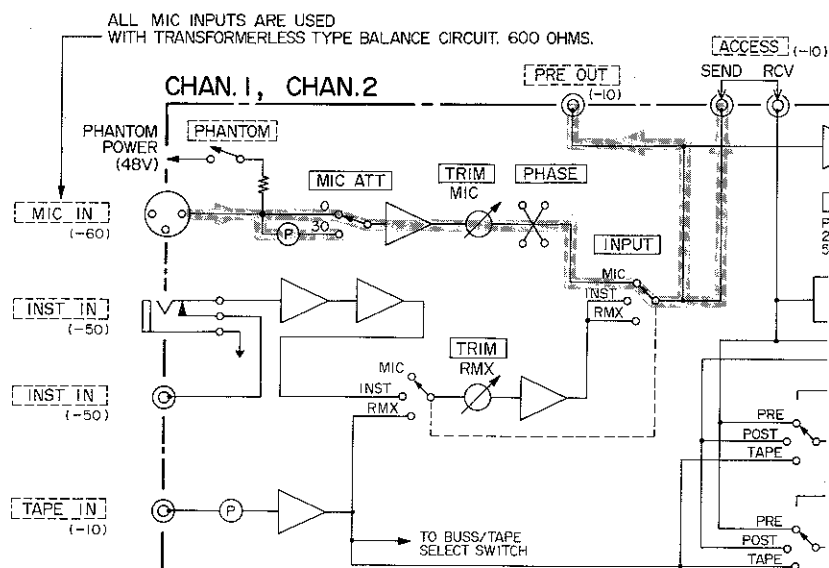
1. In the MIC IN connector, pin #3 is "hot", pin #2 is "cold", and pin #1 is "shield".
2. Remove the jumper between the ACCESS SEND and the RCV jacks for the channel being tested.
3. Plug an AC voltmeter into the PRE OUT or the ACCESS SEND jack. The voltmeter should have an input impedance of 50k ohms or more, input capacitance less than 20pF, a sensitivity selector switch and a maximum sensitivity of -90dB.
4. Set the front panel control for the channel being tested as follows:
 INPUT select switch : Set to MIC
 MIC ATT switch : Set to 0
 PHASE switch : Set to NORMAL
 PHANTOM power switch: Set to OFF
5. Apply a 1 kHz, -60dB (1mV) signal to the MIC IN connector on the back panel.
6. Adjust the MIC TRIM for a -10dB (316mV) reading on the voltmeter. After this adjustment, the MIC TRIM knob should be between 6.5 and 7.5 (between 1 : 30 and 2 : 30 o'clock).



TRIM Knob at normal setting

7. If there is any malfunction, refer to the preamplifier (Q1 ~ Q4 and U1) circuit schematic and check the IC and transistor voltages and signal levels.
8. Check all remaining channels in the same manner.
9. Set the MIC ATT switch to 30 and apply a 1 kHz, -30 dB (31.6mV) signal to the MIC IN connector on the back panel.
10. If the output is not -10dB, readjust the MIC TRIM for a -10dB (316mV) reading on the voltmeter. After this adjustment, the MIC TRIM knob should be between 6.5 and 7.5.
11. Measurement of S/N ratio, T.H.D.:
 S/N ratio : More than 70dB (using "A" weighted network)
 or : 68dB (measured with a bandpass filter, 20Hz ~ 20kHz)
 or : More than 62dB, on an AC voltmeter with a 100kHz or greater bandwidth
 T.H.D. : Less than 0.025% (at 1kHz, 20dB above nominal input level measured with 30kHz L.P.F.)

12. Set the PHASE switch to REVERSE.
 Confirm that the phase of the output signal is inverted using an oscilloscope connected to the PRE OUT jack.

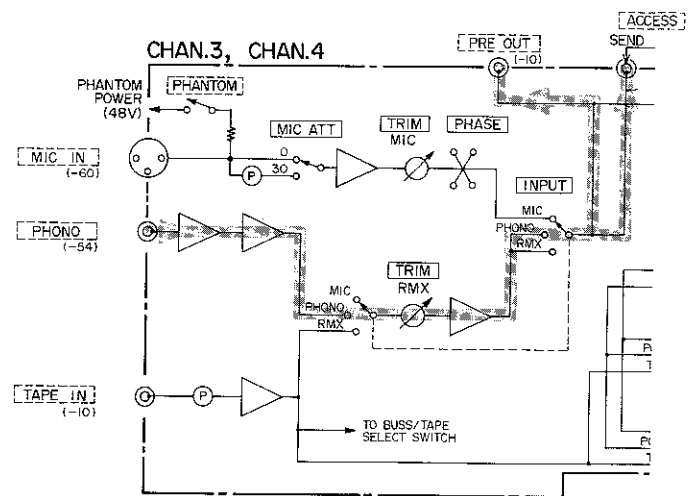
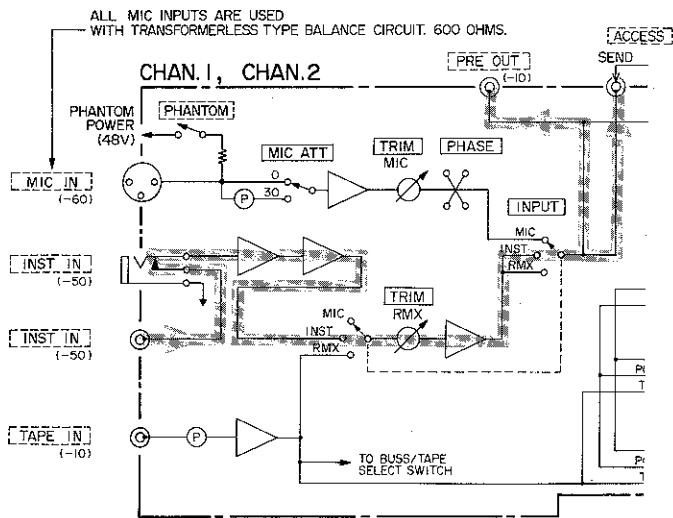


**1-2. INST IN → PRE OUT (ACCESS SEND)
for Channels 1 and 2**

1. Use same test set up as previous section 1-1.
2. Apply a 1kHz, -50dB (3.16mV) signal to the INST IN (phono or phone jack) on the back panel and set INPUT select switch to INST.
3. Adjust the RMX TRIM for -10dB (316mV) reading on the voltmeter. After this adjustment, the RMX TRIM knob should be between 6.5 and 7.5.
4. If there is any malfunction, refer to the preamplifier (U1 and U2) circuit schematic and check the IC voltages and signal levels.
5. Check channel 2 in the same manner.
6. Measurement of S/N ratio:
S/N ratio : More than 71dB (using "A" weighted network)
 or : 68dB (measured with a bandpass filter, 20Hz ~ 20kHz)
 or : More than 62dB, on an AC voltmeter with a 100kHz or greater bandwidth

**1-3. PHONO IN → PRE OUT (ACCESS SEND)
for Channels 3 and 4**

1. Use same test set up as previous section 1-1.
2. Apply a 1kHz, -54dB (2mV) signal to the PHONO jack on the back panel and set the INPUT select switch to PHONO.
3. Adjust the RMX TRIM for a -10dB (316mV) reading on the voltmeter. After this adjustment, the RMX TRIM knob should be between 6.5 and 7.5.
4. If there is any malfunction, refer to the preamplifier (U3) circuit schematic and check the IC voltages and signal levels.
5. Check channel 4 in the same manner.
6. The circuit is considered normal if the frequency response is +17dB, ±1dB for 50Hz; and -13.5dB, ±1dB for 10kHz; both in reference to 1kHz when the signal frequency applied to the PHONO input is swept from 50Hz through 10kHz.
7. Short-circuit the PHONO input. The S/N ratio should then be greater than 64dB (in the range of 20Hz ~ 20kHz).



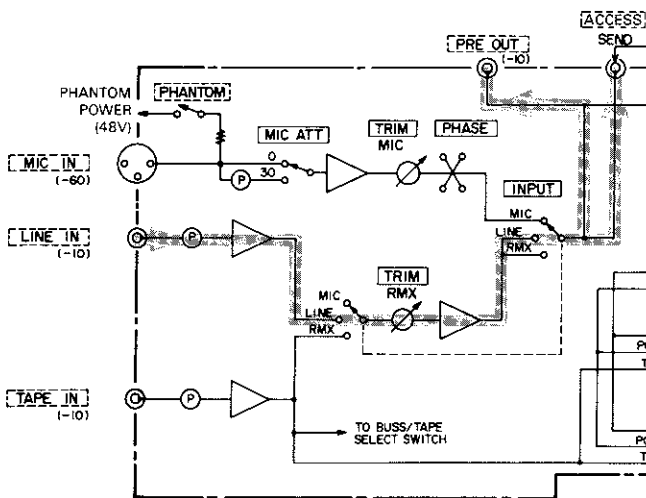
**1-4. LINE IN → PRE OUT (ACCESS SEND)
for Channels 5 through 12**

1. Use same test set up as previous section 1-1.
2. Apply a 1kHz, -10dB (316mV) signal to the LINE IN jack on the back panel and set the INPUT select switch to LINE.
3. Adjust the RMX TRIM for a -10dB (316mV) reading on the AC voltmeter. After this adjustment, the RMX TRIM knob should be between 6.5 and 7.5.
4. If there is any malfunction, refer to the preamplifier (U3) circuit schematic and check the IC voltages and signal levels.
5. Check channels 5 through 12 in the same manner.
6. Measurement of frequency response, S/N ratio, T.H.D.:

Frequency response : 20Hz ~ 20 kHz, within ± 1dB

S/N ratio : More than 88dB (using "A" weighted network)
or : 84dB (measured with a bandpass filter, 20Hz ~ 20kHz)
or : More than 75dB, on an AC voltmeter with a 100kHz or greater bandwidth

T.H.D. : Less than 0.025% (at 1kHz, measured with 30kHz L.P.F.)



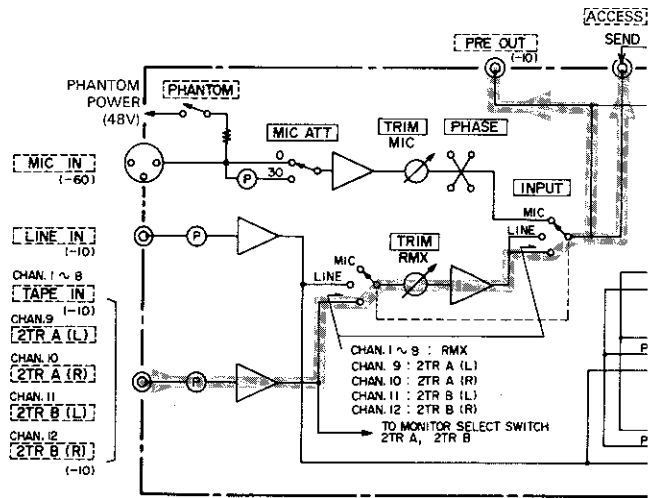
1-5. TAPE IN [2TR A&B (L/R)] → PRE OUT (ACCESS SEND)

1. Use same test set up previous section 1-1.
2. Apply a 1kHz, -10dB (316mV) signal to the TAPE IN or 2TR A (L/R) or 2TR B (L/R) jack on the back panel and set the INPUT select switch, as appropriate, to RMX or 2TR A (L/R) or 2TR B (L/R).
3. Adjust the RMX TRIM for a -10dB (316mV) reading on the voltmeter. After this adjustment, the RMX TRIM knob should be between 6.5 and 7.5.
4. If there is any malfunction, refer to the preamplifier (U1) circuit schematic and check the IC voltages and signal levels.
5. Check all remaining channels in the same manner.
6. Measurement of frequency response, S/N ratio, T.H.D.:

Frequency response : 20 Hz ~ 20 kHz, within ± 1 dB

S/N ratio : More than 83dB (using "A" weighted network)
or : 80dB (measured with a bandpass filter, 20Hz ~ 20kHz)
or : More than 73dB, on an AC voltmeter with a 100kHz or greater bandwidth

T.H.D. : Less than 0.025% (at 1kHz, measured with 30kHz L.P.F.)

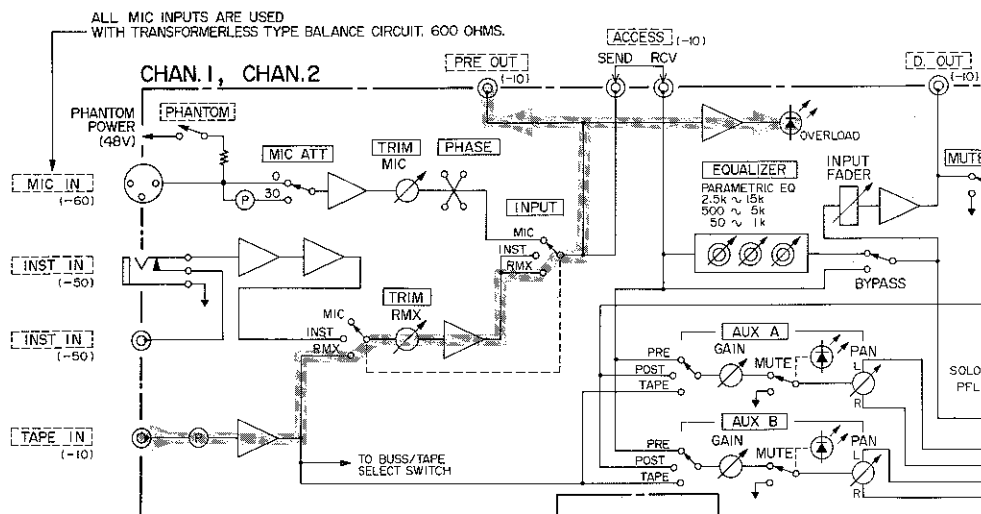


1-6. Input Section OVERLOAD LED

1. Apply a -10dB (316mV) signal to the TAPE IN or 2 TR A (L/R) or 2 TR B (L/R) jack on the back panel.
2. Plug an AC voltmeter into the PRE OUT jack and

check the output level for a -10dB (316mV) reading on the voltmeter.

3. The LED should light at $+15\text{dB} \pm 1\text{dB}$ (5.0V to 6.3V), $25\text{dB} \pm 1\text{dB}$ above the nominal PRE OUT level of -10dB (316mV).
4. Confirm that the output signal is not distorted.



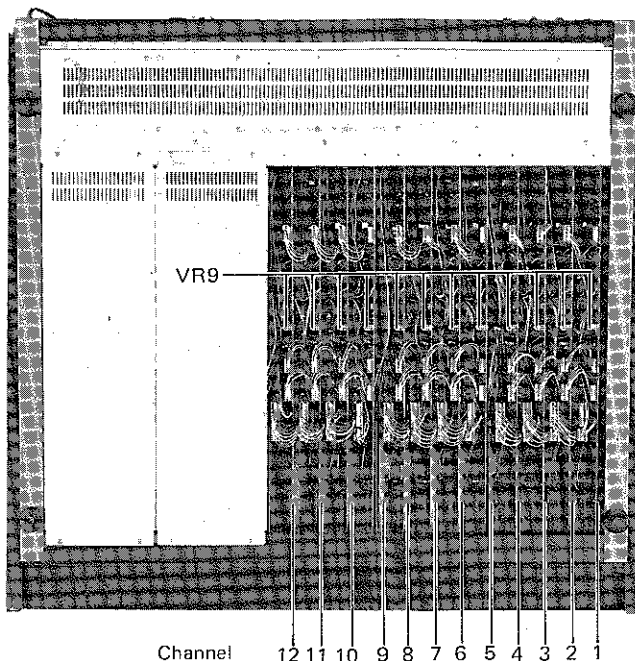
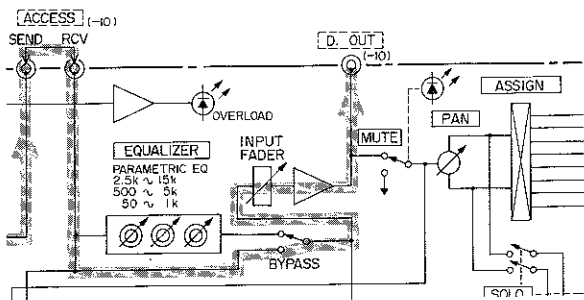
1-7. TAPE IN [2 TR A&B (L/R)] → D(irect) OUT

Carry out the following tests with the same settings specified in section 1-1 procedure # 3, except reinsert the shorting plug in the ACCESS SEND and RCV jacks, depress the EQ bypass switch.

1. Set the INPUT select switch, to appropriate, RMX or 2 TR A(L/R) or 2TR B(L/R).
2. Set the RMX TRIM so that a -10dB output is obtained at the PRE OUT jack.
3. Plug an AC voltmeter into the D OUT jack for the channel being tested.
4. Adjust the Input Fader for a -10dB reading on the AC voltmeter.
5. The Input Fader should then be in the shaded area.
6. If it is slightly out of this area:
 - a) Set the Input Fader between position 7 and 8.
 - b) Adjust resistor VR9 on the Input Amplifier PC board for a -10dB (316mV) output reading from the D OUT jack.

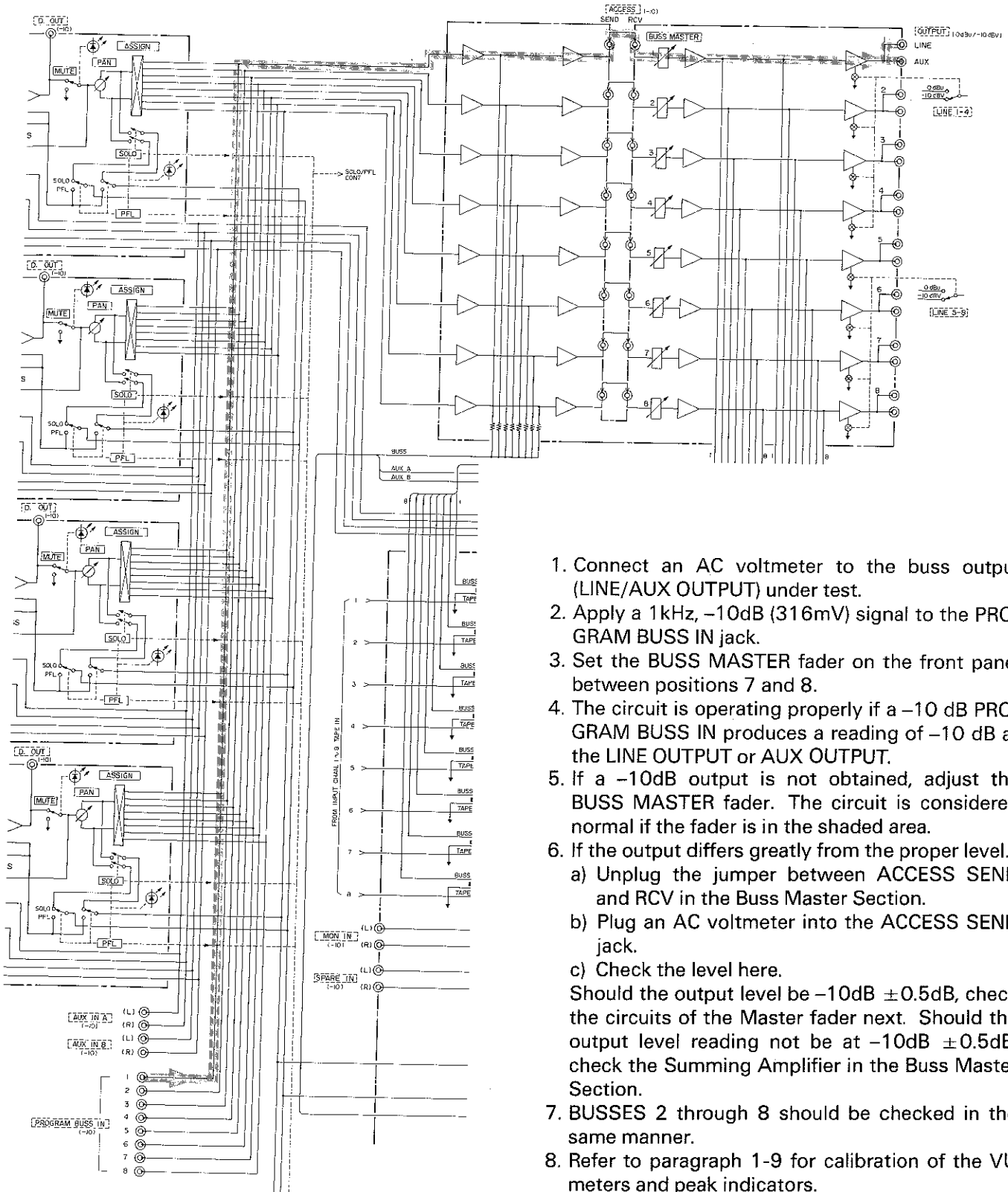
7. If there is any malfunction, the trouble may be in IC's U5, U6, U7 or U8. The gain of amplifier IC's U5-2, U6-1 and U6-2 are unity, when the EQUALIZER knobs are set in the center position. Refer to the level diagram.

8. Check channels 2 ~ 12 in the same manner.



Channel 12 11 10 9 8 7 6 5 4 3 2 1

1-8. PROGRAM BUSS IN → LINE OUTPUT

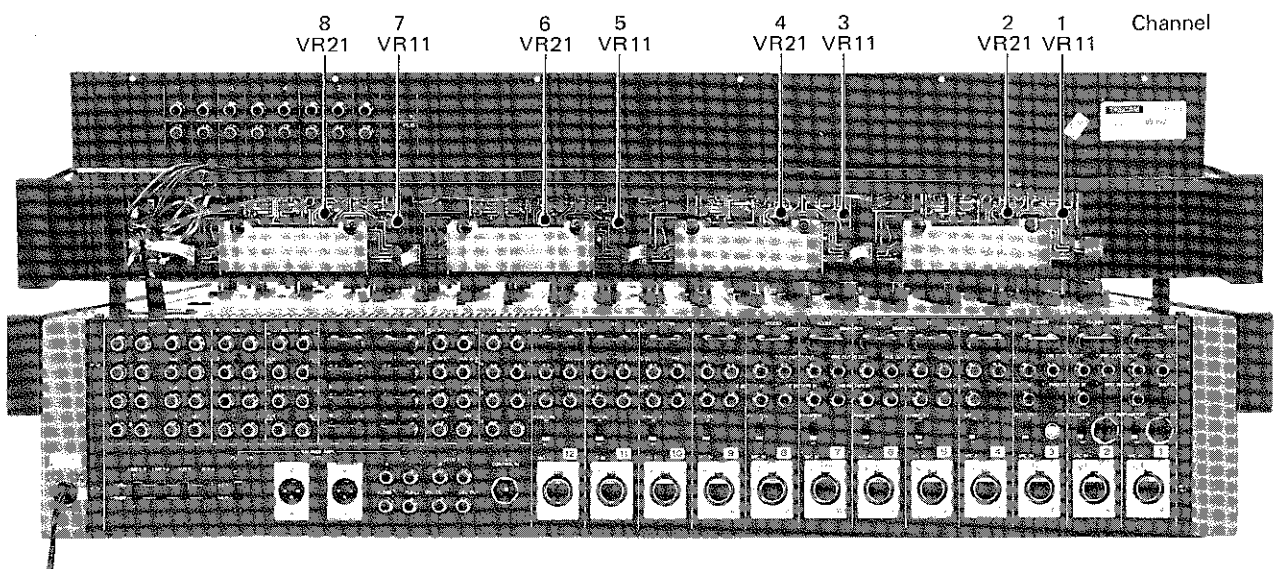
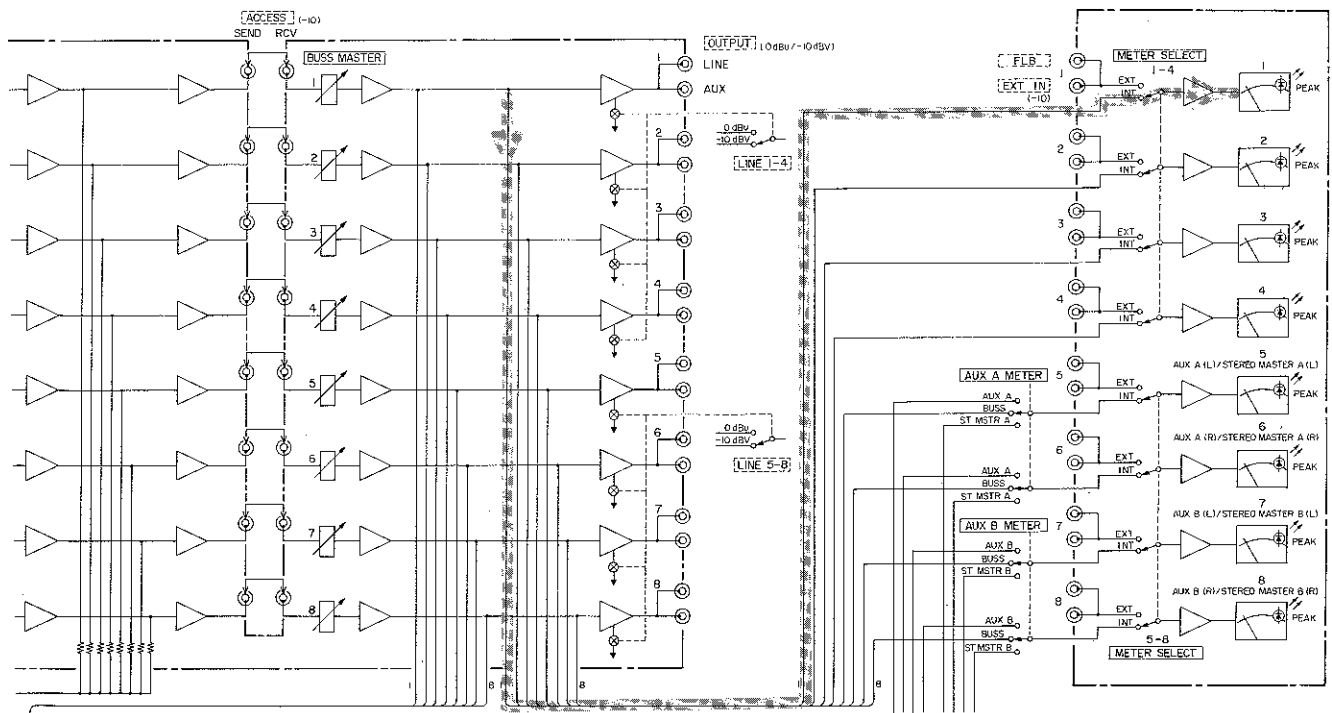


1. Connect an AC voltmeter to the buss output (LINE/AUX OUTPUT) under test.
2. Apply a 1kHz, -10dB (316mV) signal to the PROGRAM BUSS IN jack.
3. Set the BUSS MASTER fader on the front panel between positions 7 and 8.
4. The circuit is operating properly if a -10 dB PROGRAM BUSS IN produces a reading of -10 dB at the LINE OUTPUT or AUX OUTPUT.
5. If a -10dB output is not obtained, adjust the BUSS MASTER fader. The circuit is considered normal if the fader is in the shaded area.
6. If the output differs greatly from the proper level.
 - a) Unplug the jumper between ACCESS SEND and RCV in the Buss Master Section.
 - b) Plug an AC voltmeter into the ACCESS SEND jack.
 - c) Check the level here.

Should the output level be $-10\text{dB} \pm 0.5\text{dB}$, check the circuits of the Master fader next. Should the output level reading not be at $-10\text{dB} \pm 0.5\text{dB}$, check the Summing Amplifier in the Buss Master Section.
7. BUSES 2 through 8 should be checked in the same manner.
8. Refer to paragraph 1-9 for calibration of the VU meters and peak indicators.

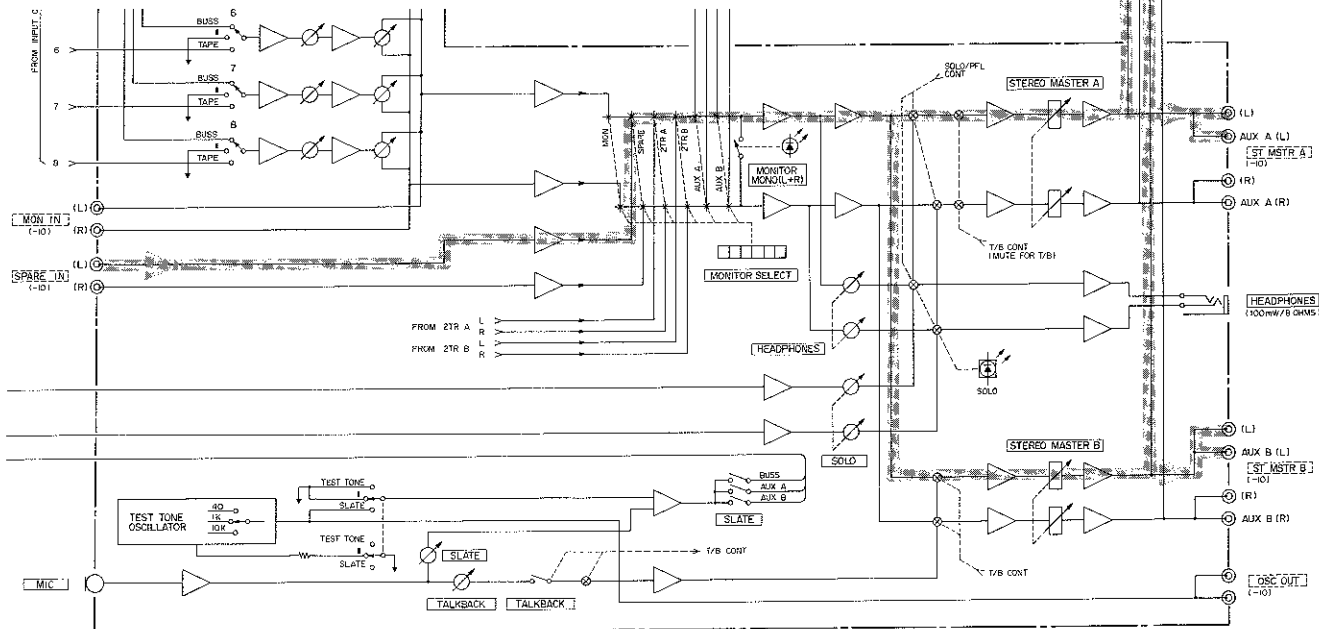
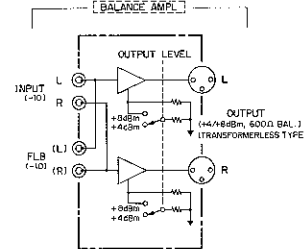
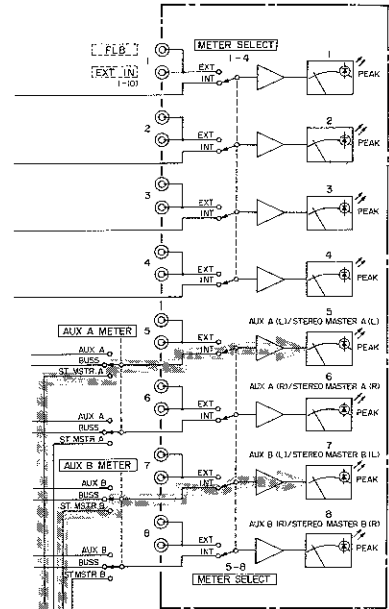
1-9. Meter Calibration and The LED Circuit

1. Use the test instrument connections described in paragraph 1-8 for calibrating the VU meter.
2. Set the AUX A METER and the AUX B METER switches to BUSS.
3. Set the METER SELECT 1-4 and 5-8 switches to INT.
4. The calibration is correct if the VU meter indication is 0VU, $\pm 0.5VU$ when the reading of an AC voltmeter connected to LINE OUTPUT is $-10dB$ (316mV).
5. If the VU meter does not indicate 0VU, adjust the calibrating pots, VR11 for odd channels and VR21 for even channels, on the METER AMPL PCB shown in the photo below, which corresponds to the off-spec meter.
6. Raise the PROGRAM BUSS IN input level.
7. The PEAK level LED should light up at $0dB \pm 1dB$ (0.89V to 1.12V), $10dB \pm 1dB$ above nominal PROGRAM BUSS IN level of $-10dB$ (316mV).
8. Test all meters from the EXT position for proper meter reading.



1-10. SPARE IN → ST MSTR A/B

1. Apply a 1kHz, -10dB (316mV) signal to the SPARE IN (L) jack.
2. Plug AC voltmeters into the ST MSTR A(L) and the ST MSTR B (L) jacks.
3. Set the Stereo Master Section controls as follows:
 MONITOR SELECT switch: Depress SPARE to "on".
 METER SELECT switch: Set to INT (up)
 AUX A METER switch: Set to ST MSTR A
 AUX B METER switch: Set to ST MSTR B
4. Adjust the STEREO MASTER A and STEREO MASTER B faders for a -10dB (316mV) reading on the voltmeters.
5. The STEREO MASTER A and the STEREO MASTER B faders should then be in the shaded area between positions 7 and 8.
6. Confirm that the VU meters of the STEREO MASTER A (L)/5 and the STEREO MASTER B (L)/7 indicate 0VU.
7. Check the SPARE IN (R) right channel in the same manner.



1-11. 2TR A/B → ST MSTR A/B

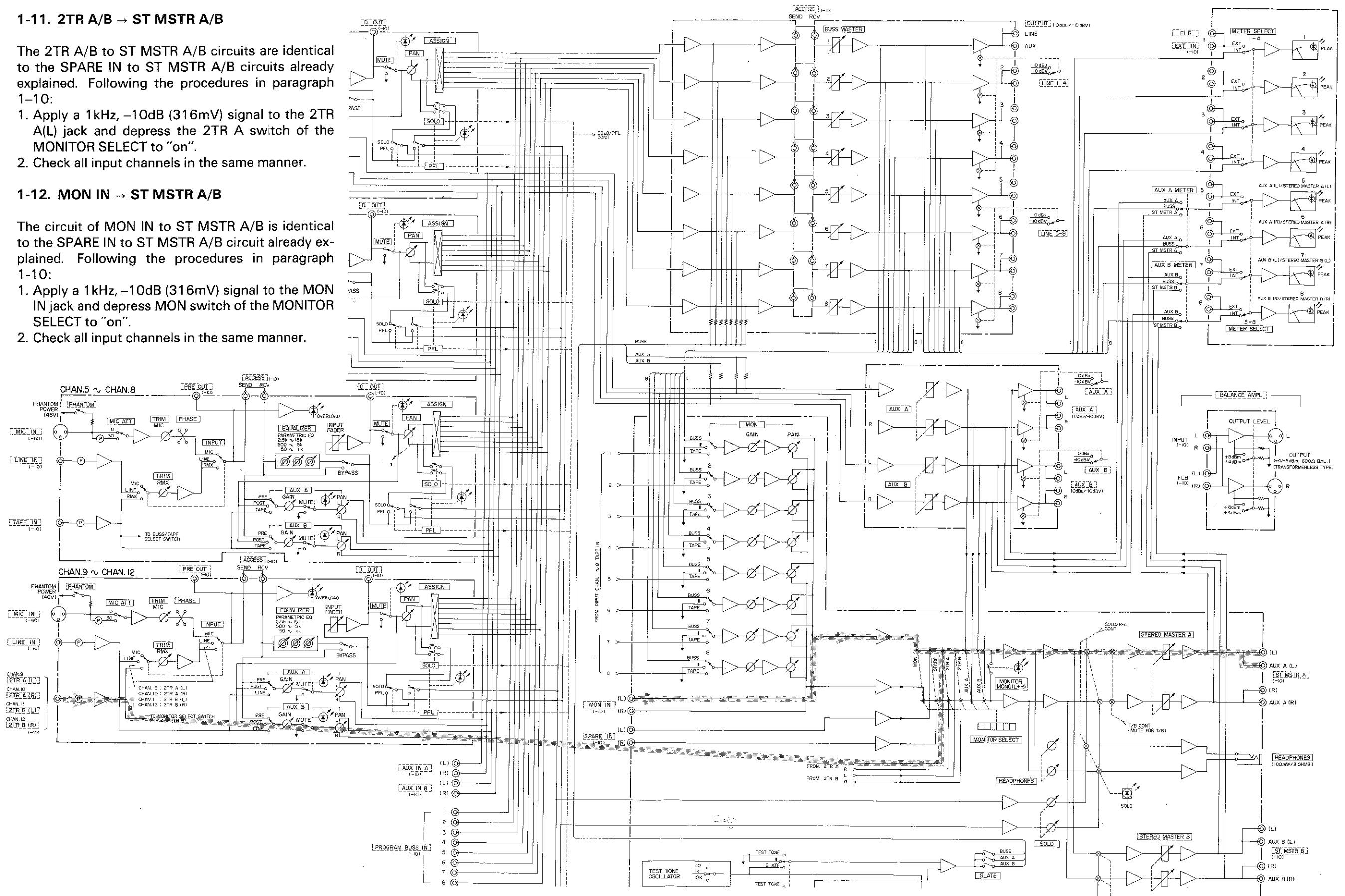
The 2TR A/B to ST MSTR A/B circuits are identical to the SPARE IN to ST MSTR A/B circuits already explained. Following the procedures in paragraph 1-10:

1. Apply a 1kHz, -10dB (316mV) signal to the 2TR A(L) jack and depress the 2TR A switch of the MONITOR SELECT to "on".
2. Check all input channels in the same manner.

1-12. MON IN → ST MSTR A/B

The circuit of MON IN to ST MSTR A/B is identical to the SPARE IN to ST MSTR A/B circuit already explained. Following the procedures in paragraph 1-10:

1. Apply a 1kHz, -10dB (316mV) signal to the MON IN jack and depress MON switch of the MONITOR SELECT to "on".
2. Check all input channels in the same manner.



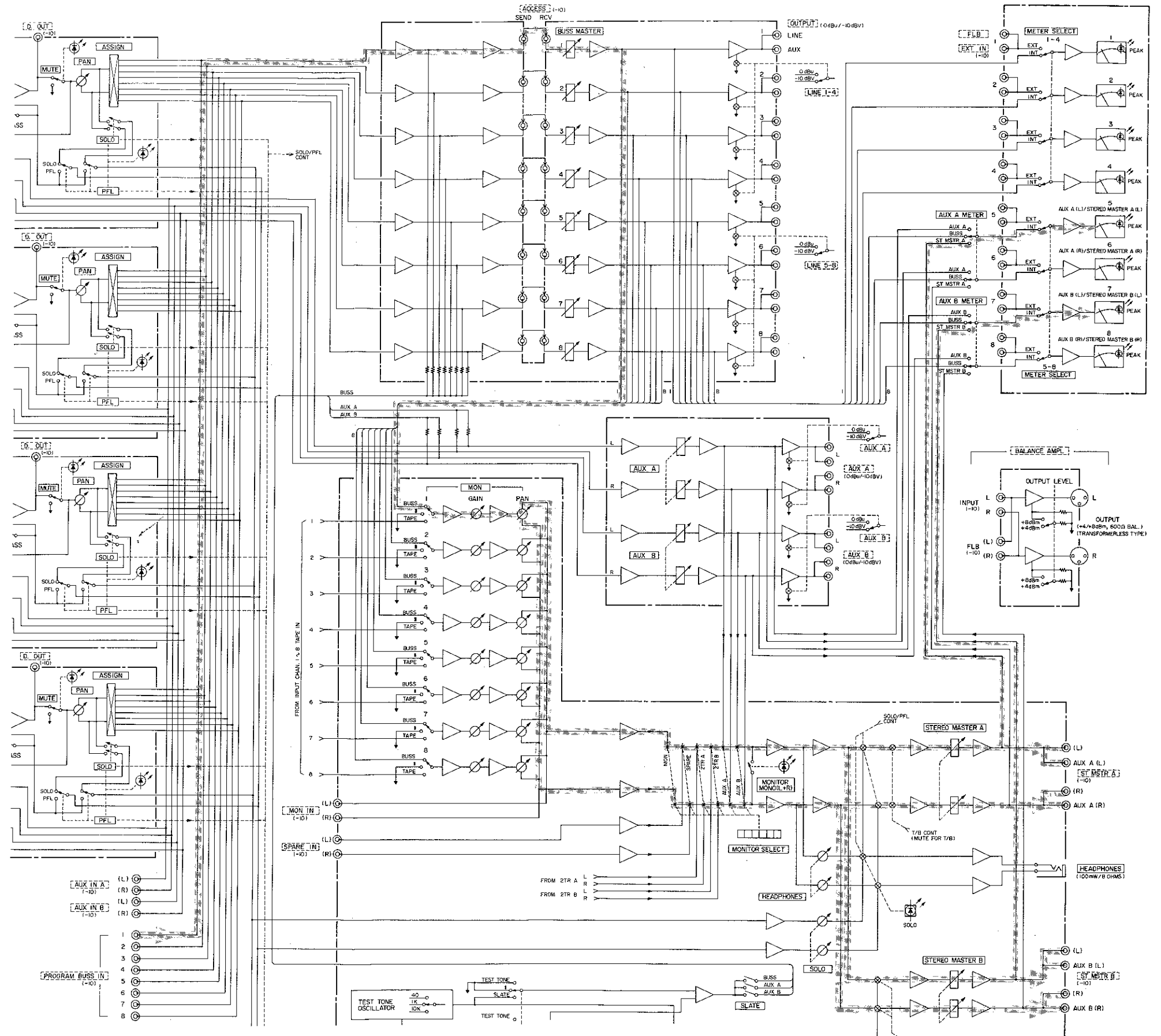
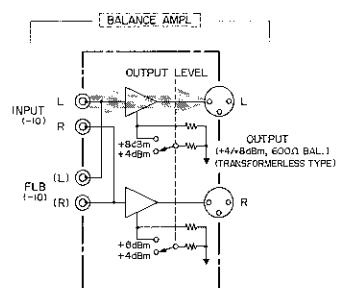
1-13. PROGRAM BUSS IN → ST MSTR A/B

Carry out the following check with the settings of paragraph 1-8:

1. Set the controls so that an output is obtained at LINE OUTPUT. Also set up the METER SELECT so that it indicates a signal at the output.
2. Set the Monitor Section controls as follows:
MON 1 to 8 switches: Set to BUSS
GAIN knobs: Set to 2 o'clock position
PAN knobs: Set to L (full CCW) position
3. Adjust the STEREO MASTER A and the STEREO MASTER B faders for a -10dB (316mV) reading from the ST MSTR A (L) and the ST MSTR B (L) jacks.
4. Confirm that the VU meters of the STEREO MASTER A (L)/5 and the STEREO MASTER B (L)/7 indicate OVU.
5. Set the PAN knobs to the R (full CW) position, and check the right channel in the same manner.
6. Set the PAN knobs at center position. Both the ST MSTR A&B (L) and the ST MSTR A&B (R) output levels should be $-12.5\text{dB} \pm 1\text{dB}$.
7. Confirm that VU meters 5 through indicate -2.5VU within $\pm 1\text{VU}$.
8. Check all remaining channels in the same manner.
9. Reset the PAN knobs to the L (full CCW) position.

1-14. BALANCE AMPL. INPUT → BALANCE AMPL. OUTPUT

1. Apply a 1kHz , -10dB (316mV) signal to the BALANCE AMPL. INPUT (L) jack.
2. Plug an AC voltmeter into the BALANCE AMPL. OUTPUT (L) connector.
3. Set the BALANCE AMPL OUTPUT LEVEL switch to $+4\text{dBm}$.
4. The voltmeter should read $+4\text{dBm} \pm 0.5\text{dB}$.
5. Set the BALANCE AMPL OUTPUT LEVEL switch to $+8\text{dBm}$.
6. The AC voltmeter should read $+8\text{dBm} \pm 0.5\text{dB}$.
7. Check the right channel in the same manner.



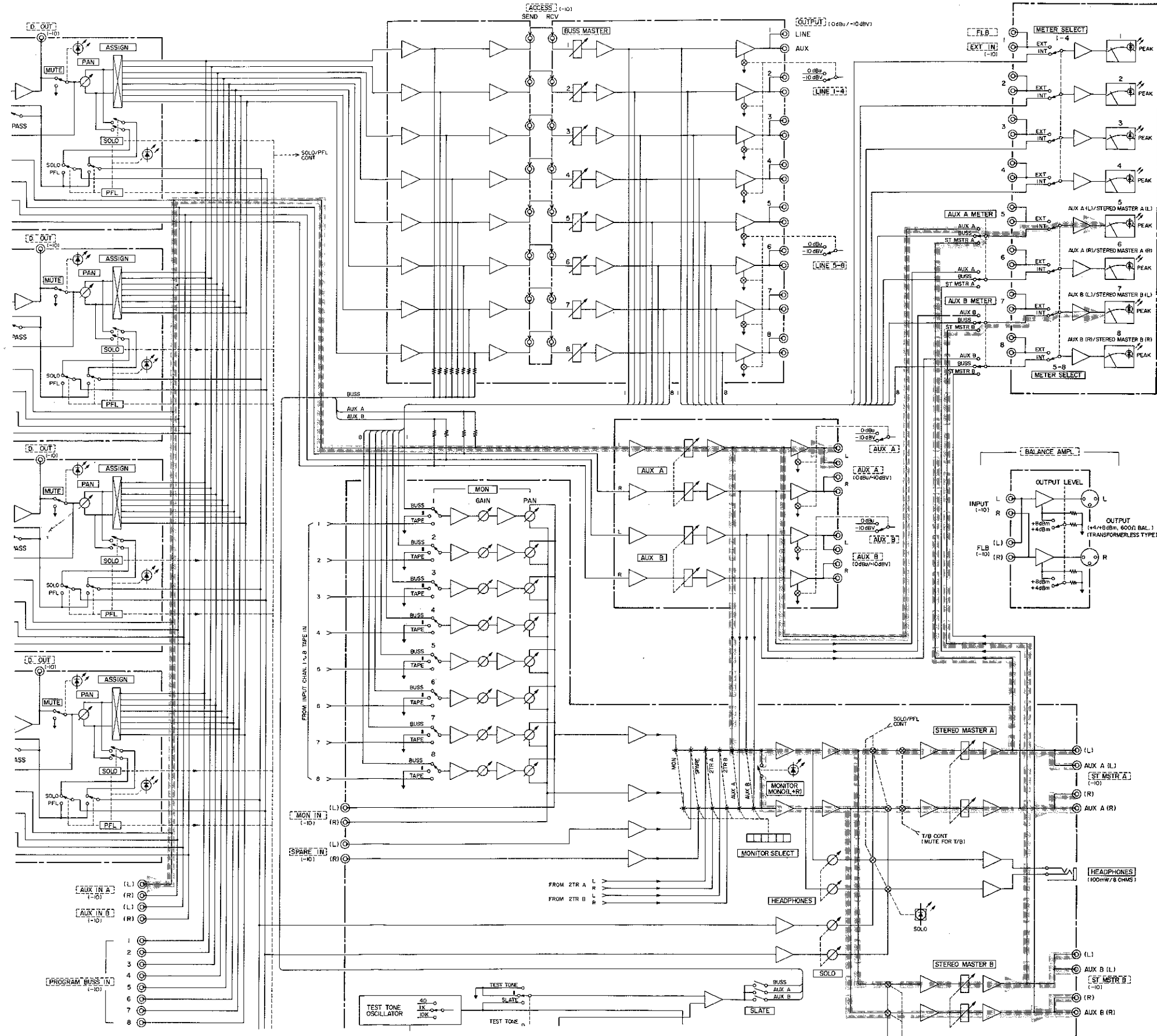
1-15. AUX IN A/B → AUX A/B Out

1. Plug an AC voltmeter into the AUX A (L) jack.
2. Apply a 1kHz, -10dB (316mV) signal to the AUX IN A (L) jack.
3. Set the AUX A METER switch to AUX A.
4. Adjust the AUX A fader for a -10dB (316mV) reading on the voltmeter.
5. Confirm that the VU meter of the AUX A (L)/5 indicates OVU.
6. Check the right channel and AUX B (L/R) circuit in the same manner.

1-16. AUX IN A/B → ST MSTR A/B

Carry out the following check with the settings of paragraph 1-15.

1. Set the controls so that a -10dB output is obtained at AUX A/B output.
2. Depress AUX A switch of the MONITOR SELECT to "on".
3. Adjust the STEREO MASTER A and STEREO MASTER B faders for a -10dB (316mV) reading from the ST MSTR A (L) and ST MSTR B (L) jacks.
4. The STEREO MASTER A and the STEREO MASTER B faders should then be in the shaded area between positions 7 and 8.
5. Set the AUX A METER and AUX B METER switches to ST MSTR A or ST MSTR B.
6. Confirm that the VU meters of the STEREO MASTER A (L)/5 and the STEREO MASTER B (L)/7 indicate OVU.
7. Check the right channel in the same manner.
8. Depress the MONITOR MONO (L+R) to "on". When the signal is input to either the left or right channel of the AUX IN A/B jack, the AC voltmeter should read $-14.5\text{dB} \pm 1\text{dB}$ from both left and right outputs of the ST MSTR A and ST MSTR B outputs.



1-17. TAPE IN [2 TR A&B (L/R)] → LINE OUTPUT

Carry out the following check with the settings of paragraph 1-7.

1. Set the controls so that a -10dB output is obtained at D OUT.
2. Set controls of the selected channel being tested on the Input Section panel as follows:
 MUTE : Set to OFF
 ASSIGN : Depress 1 to ON
 PAN : Set to position 0 (full CCW rotation)
 BUSS MASTER : Set between positions 7 and 8
 AUX A/B METER : Set to BUSS
 METER SELECT : Set to INT
3. The circuit is normal if a -10dB LINE OUTPUT reading is obtained against a -10dB TAPE IN [2 TR A&B (L/R)] level.

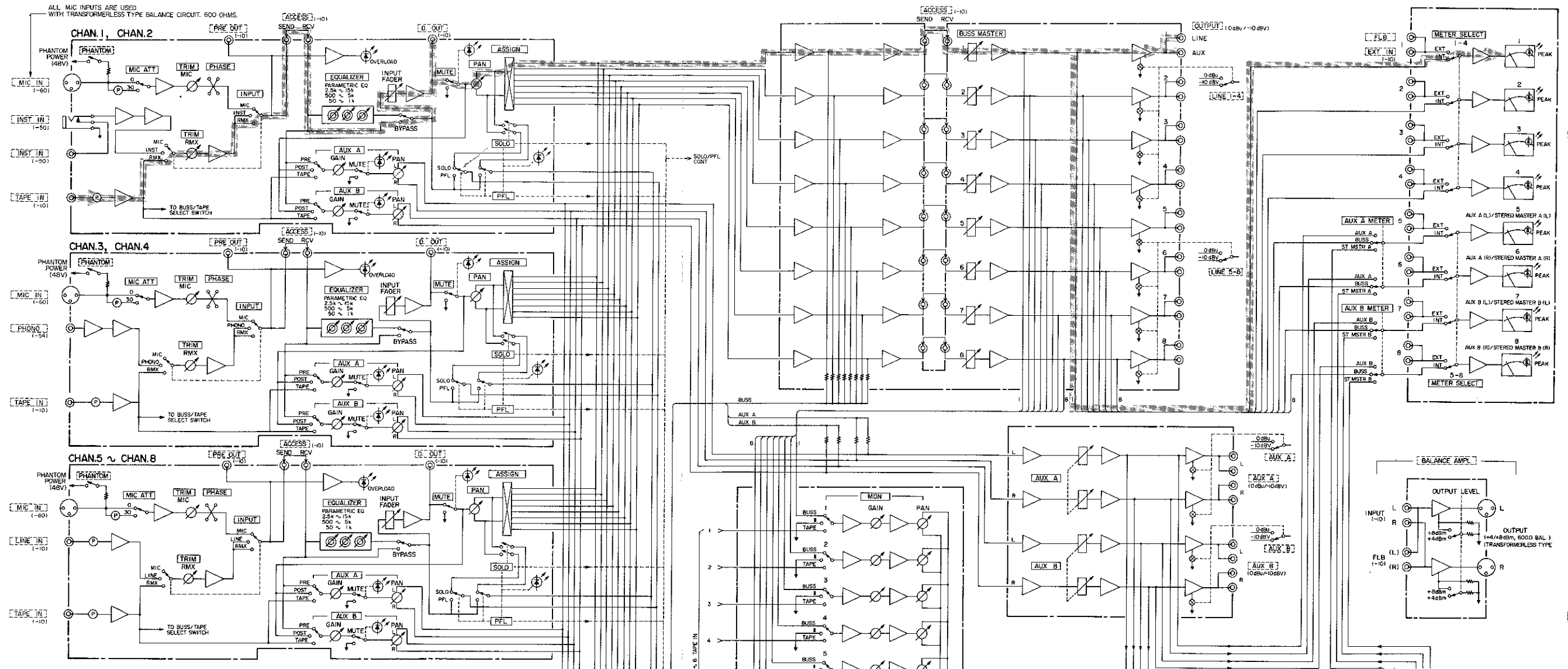
4. If a -10dB output is not obtained, adjust the BUSS MASTER fader. The circuit is normal if the fader is in the shaded area.
5. Confirm that the VU meter indicates 0VU.
6. If the output differs greatly from the proper level.
 - a) Unplug the jumper between ACCESS SEND and RCV in the Buss Master Section.
 - b) Plug an AC voltmeter into the ACCESS SEND jack.
 - c) Check the level here.
 Should the output level be -10dB, check the circuits of the BUSS MASTER fader next. Should the output level reading not be at -10dB, check the circuits of the ASSIGN switch of the Input Section and the Summing Amplifier in the Buss master Section.

7. Frequency response and T.H.D. of TAPE IN [2 TR A&B (L/R)] → LINE OUTPUT

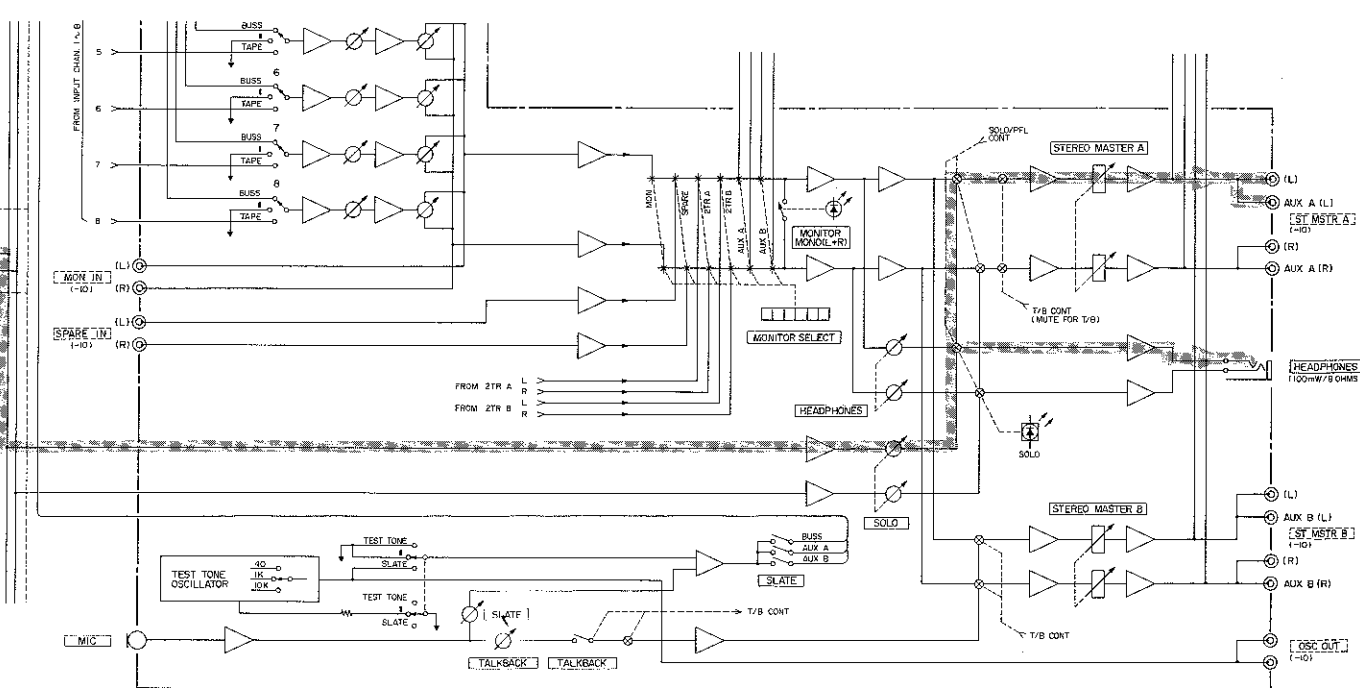
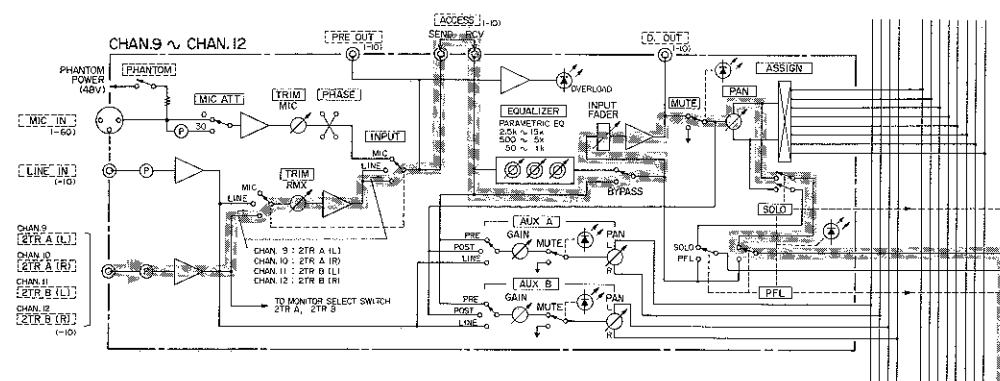
Frequency response : 20Hz ~ 20 kHz, within ±1dB
 T.H.D. : Less than 0.025% (at 1kHz, EQ OUT, measured with 30kHz L.P.F.)

8. S/N - 1: 1 Channel to 1 Buss
 When only one of the 12 channels is ASSIGNED to Buss Master group 1, the S/N ratio should be: Better than 80dB using an "A" weighted network.
 Better than 76dB when measured with a band-pass filter, 20Hz to 20kHz.
 Better than 70dB when measured with an AC voltmeter of 100kHz or greater bandwidth.

9. S/N - 2: 12 Channels to 1 Buss
 When all of the 12 channels are ASSIGNED to Buss Master 1, the S/N ratio should be: Better than 72dB using an "A" weighted network.
 Better than 70dB when measured with a band-pass filter, 20Hz to 20kHz.
 Better than 66dB when measured with an AC voltmeter of 100kHz or greater bandwidth.
10. The remaining Buss Master groups 2 ~ 8 should also be checked in the same manner.
 When an even-numbered ASSIGN switch is depressed, set the PAN knob to position "10" (full CW).
11. Set the PAN knob to the center position.
 The LINE OUTPUT level for each selected ASSIGN switch should be -12.5dB ± 1dB.



1-18. SOLO Circuit and HEADPHONES Circuit

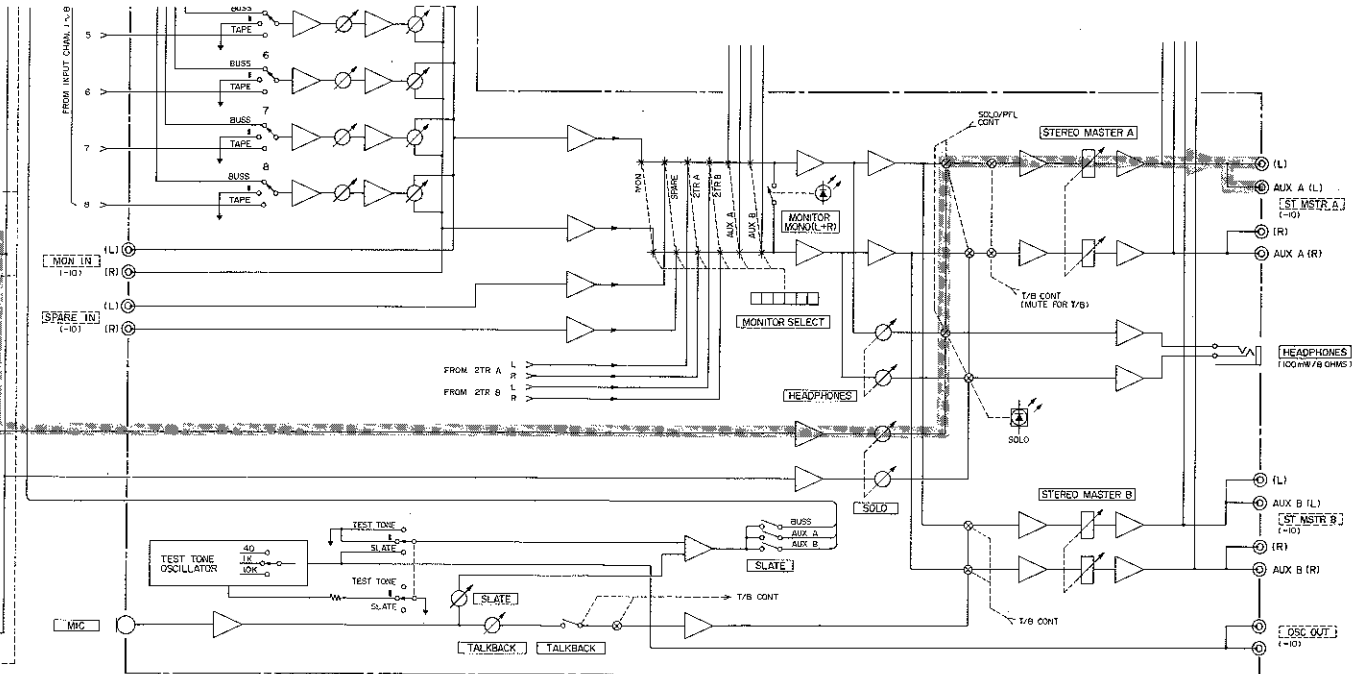
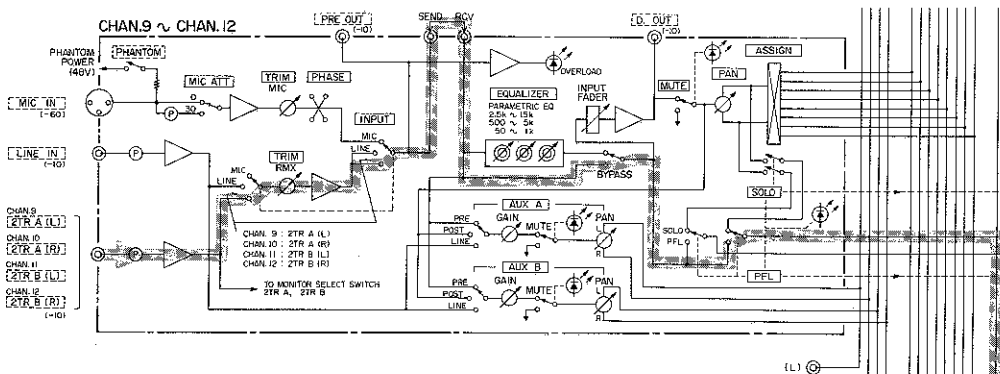


1. Apply a 1kHz, -10dB (316mV) signal to the TAPE IN or the 2 TR A&B (L/R) jack, set the input fader for a -10dB (316mV) signal at the D(irect) OUT jack, depress the SOLO button, and set the PAN knob to the CCW position.
2. Adjust the SOLO control for a -10dB (316mV) reading from the ST MSTR A jack when the STEREO MASTER A fader is set to nominal position.
3. Verify that the input fader varies the output level.
4. The LEDs located above the SOLO knob and the monitor section will light whenever the SOLO button on the input section is depressed.
5. Check all remaining input channels in the same manner.

6. Connect an 8 ohm load resistor to the HEADPHONES jack and set the HEADPHONES knob to max.
 7. Adjust the input signal and measure the HEADPHONES output level just before the waveform begins to clip. This should be performed by connecting an oscilloscope across the 8 ohm load resistor.
- Max. output level: More than 0.9V (100mW)

IMPORTANT: BE SURE TO OBSERVE THE PROPER POLARITY OF THE SCOPE TEST PROBE AND THE OUTPUT OF THE HEADPHONES JACK, FAILURE TO PROPERLY CONNECT MAY CAUSE DAMAGE TO THE HEADPHONE AMPLIFIER.

1-19. PFL Circuit



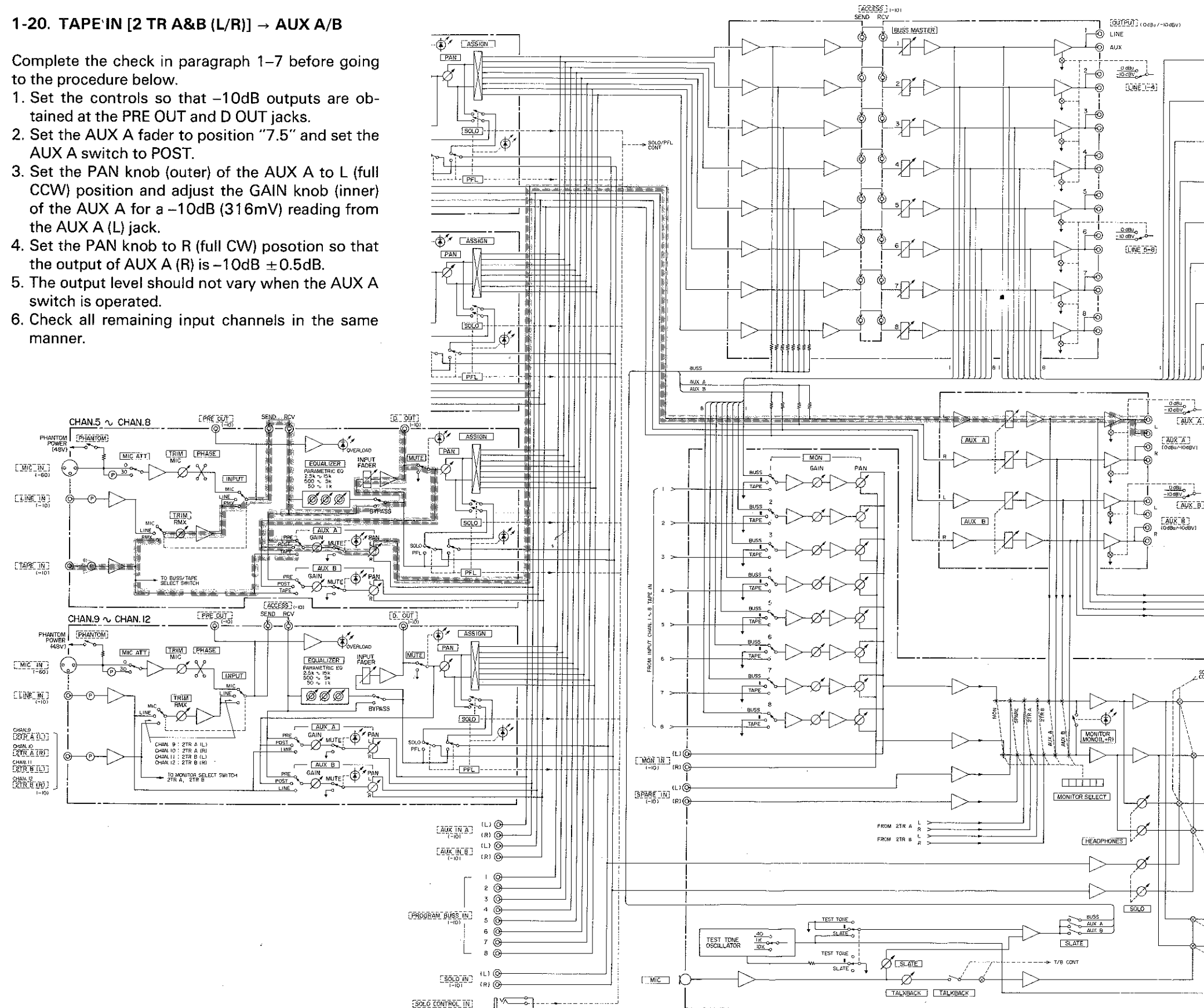
1. Apply a 1kHz, -10dB (316mV) signal to the TAPE IN or the 2TR A&B (L/R) jack, set the RMX TRIM for a -10dB (316mV) reading at the PRE OUT jack, and depress the PFL button. (Reset the SOLO button to "off".)
2. Adjust the SOLO control for a -10dB (316mV) reading from the ST MSTR A jack when the STEREO MASTER A fader is set to nominal position.

3. Varying the input fader should not cause the output level to vary.
4. The LEDs located above the SOLO knob and the monitor section will light whenever the PFL button on the input section is depressed.
5. Check all remaining input channels in the same manner.

1-20. TAPE IN [2 TR A&B (L/R)] → AUX A/B

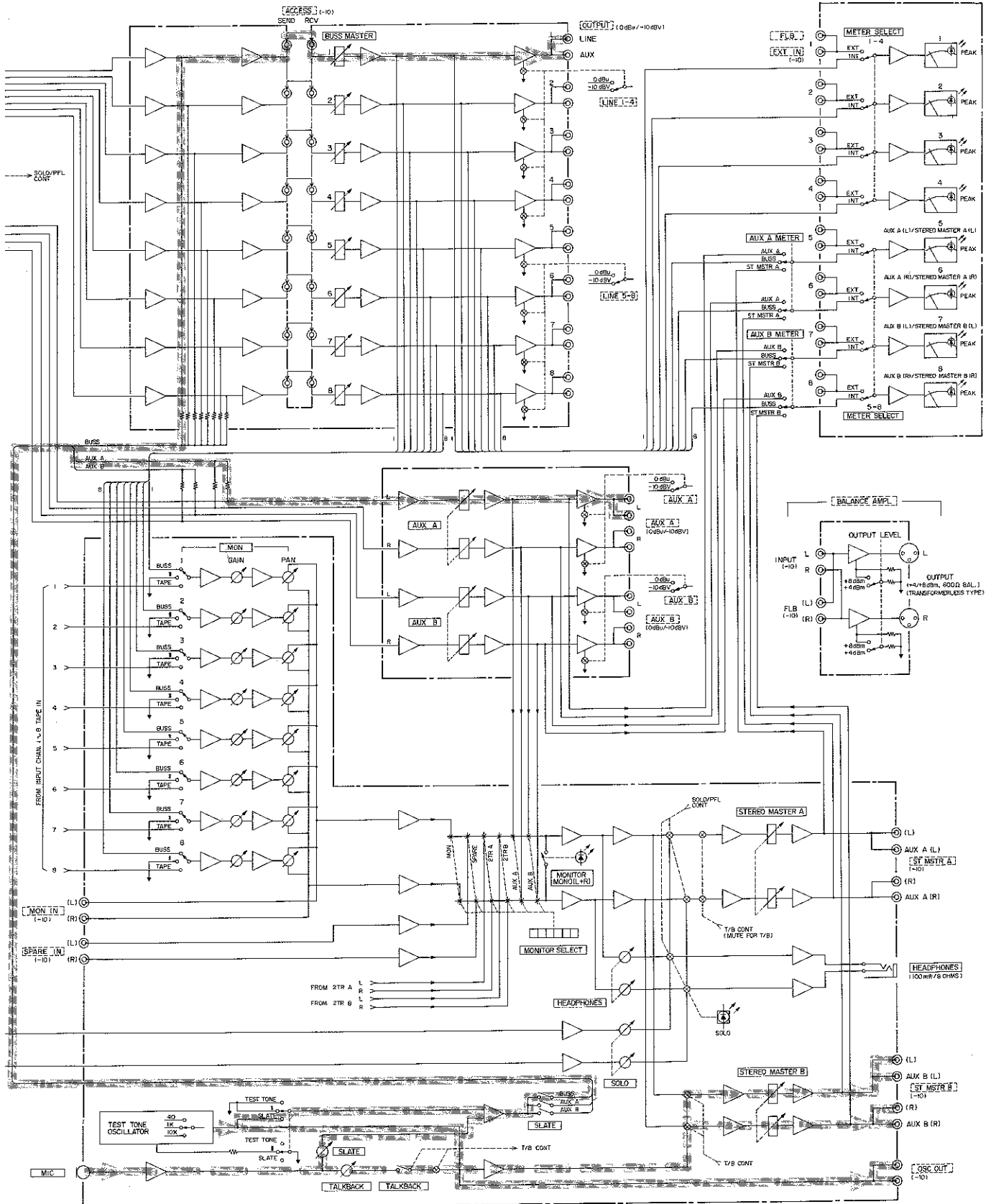
Complete the check in paragraph 1-7 before going to the procedure below.

1. Set the controls so that -10dB outputs are obtained at the PRE OUT and D OUT jacks.
2. Set the AUX A fader to position "7.5" and set the AUX A switch to POST.
3. Set the PAN knob (outer) of the AUX A to L (full CCW) position and adjust the GAIN knob (inner) of the AUX A for a -10dB (316mV) reading from the AUX A (L) jack.
4. Set the PAN knob to R (full CW) position so that the output of AUX A (R) is $-10\text{dB} \pm 0.5\text{dB}$.
5. The output level should not vary when the AUX A switch is operated.
6. Check all remaining input channels in the same manner.



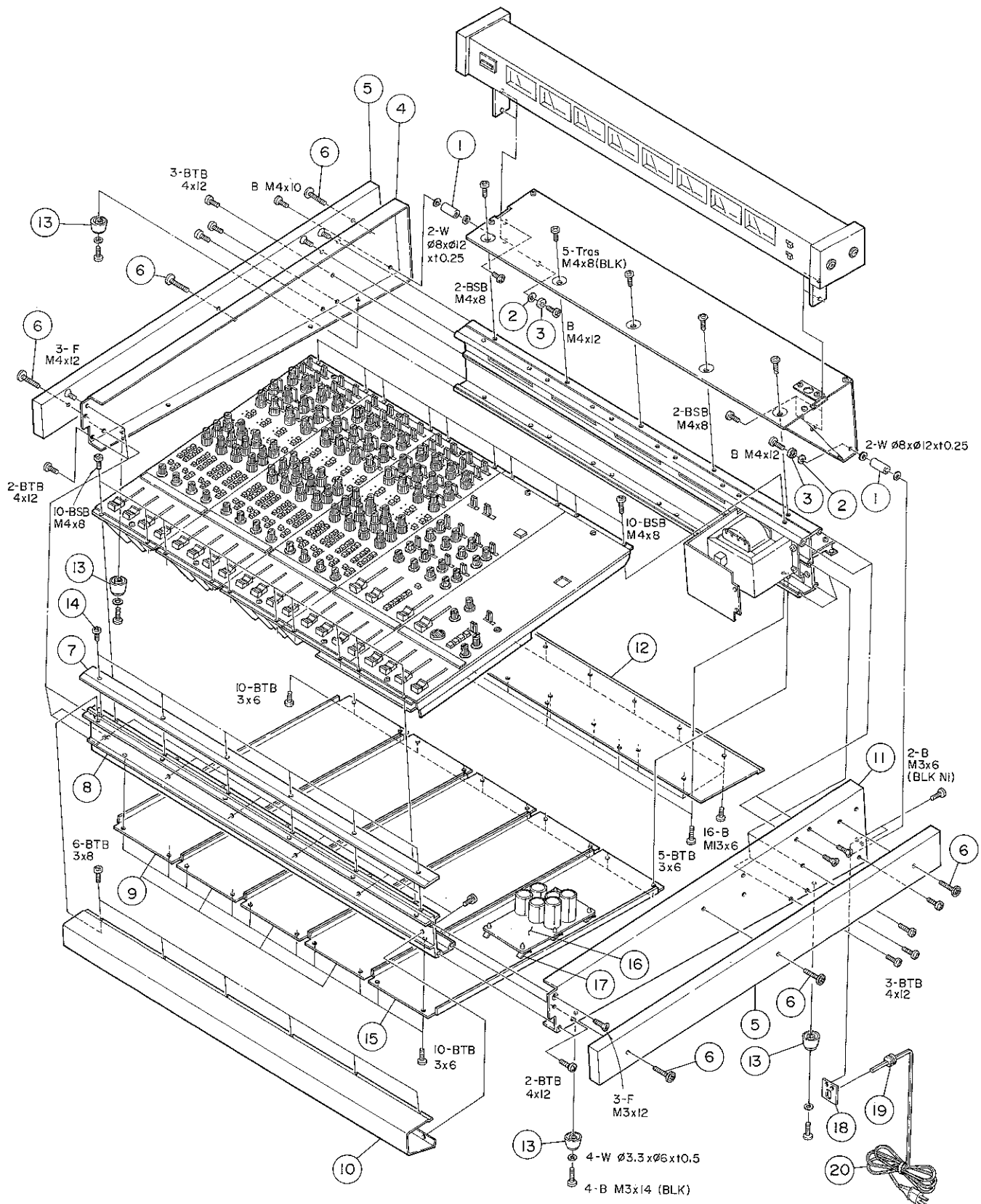
1-21. TALKBACK Circuit

1. Set the SLATE/||/TEST TONE switch to TEST TONE.
A $-10\text{dB} \pm 1\text{dB}$ signal ($40/1\text{k}/10\text{k}$ Hz) should appear at the OSC OUT jack.
2. Set the SLATE/||/TEST TONE switch to SLATE and depress the SLATE (BUSS, AUX A and AUX B) switches.
The signal goes through the SLATE (BUSS, AUX A and AUX B) switches and appears at the LINE OUTPUT, AUX A and AUX B jacks.
3. Set the SLATE/||/TEST TONE switch to || and depress the TALKBACK switch to "on". The output from the MICrophone installed in the talkback circuit is then applied to the SLATE and the TALKBACK pots.
4. The signal is applied to the SLATE (BUSS, AUX A and AUX B) switches and the TALKBACK switch, and signal from the TALKBACK switch is applied to the STEREO MASTER B circuit.



2. EXPLODED VIEW AND PARTS LIST

2-1. Exploded View - 1 (Main Frame)



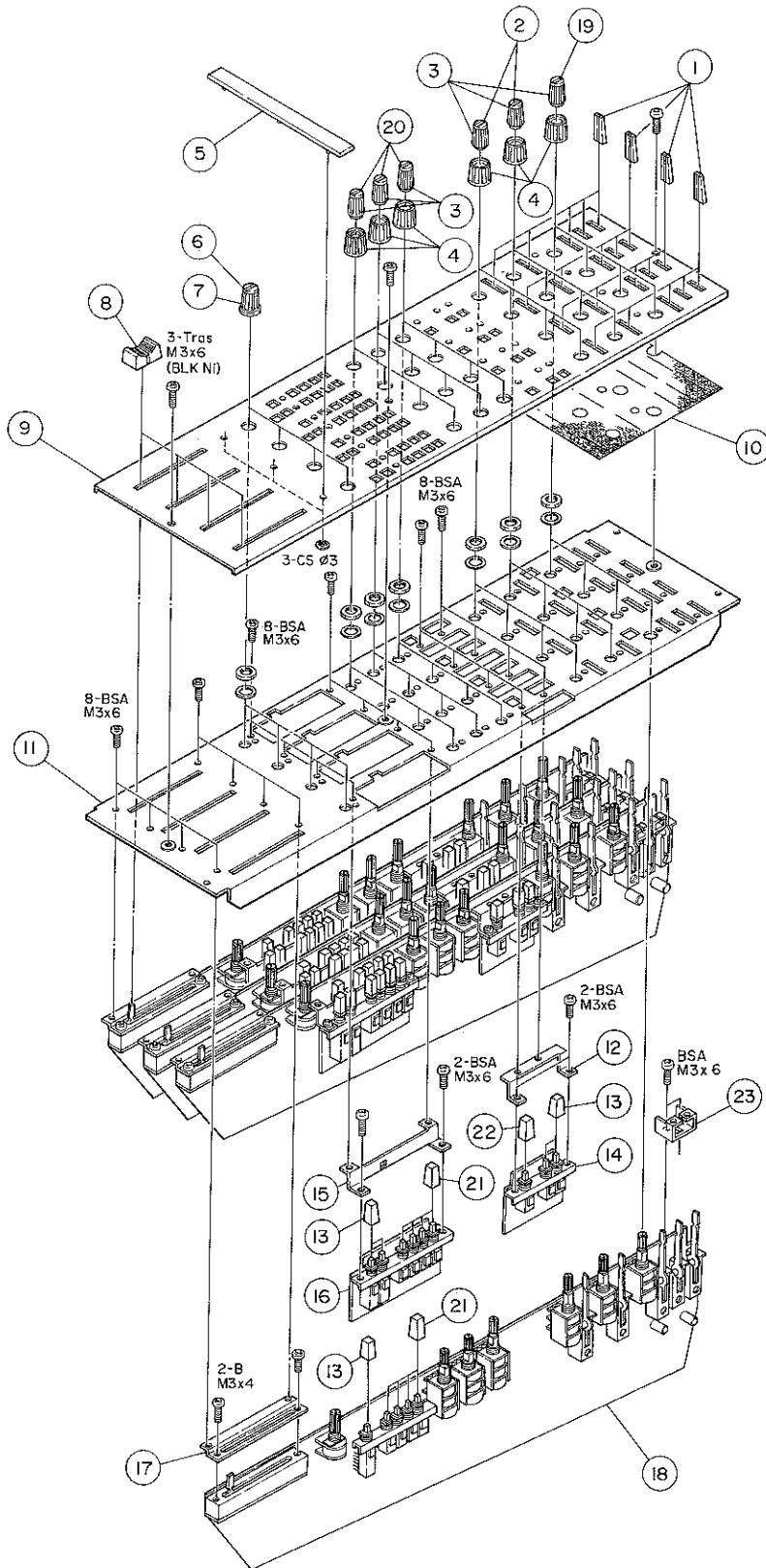
Exploded View - 1

Parts marked with * require longer delivery time.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1- 1	*5800370700	Coller, Rear: A	
1- 2	*5022121000	Spring, Hold: Bearing	
1- 3	*5800395100	Coller, Rear: B	
1- 4	*5800372800	Chassis, Side: L	
1- 5	5800395300	Board, Side	
1- 6	*5504549000	Screw, M4 x 25	
1- 7	*5800369702	Plate, Number	
1- 8	*5800372600	Chassis, Front	
1- 9	*5800372301	Cover, Rear: A	
1-10	*5800397101	Pad Assy	
1-11	*5800372900	Chassis, Side: R	
1-12	*5800371302	Cover, Rear: B	
1-13	5534596000	Foot	
1-14	*5780023006	Screw, M3 x 6 Bind	
1-15	*5800455300	Cover, Rear: C	
1-16	*5200110000	PCB Assy, POWER SUPPLY [All except E]	
	*5200110010	PCB Assy, POWER SUPPLY [E]	
1-17	*5534726000	Support, Locking PCB: LCBS-3N	
1-18	*5800137100	Bracket, Cord Bush	
1-19	△ *5534660000	Bush, Cord: 4N-4 [J, CE, E, A]	
	△ *5534661000	Bush, Cord: 4K-1 [UK]	
	△ *5534662000	Bush, Cord: 5N-4 [C, U]	
1-20	△ *5128027000	Cord, AC Power [J, CE]	
	△ *5350008100	Cord, AC Power [C, U]	
	△ *5350008200	Cord, AC Power [E]	
	△ *5128047000	Cord, AC Power [UK]	
	△ *5350008300	Cord, AC Power [A]	

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2-2. Exploded View - 2 (Input Ampl.)

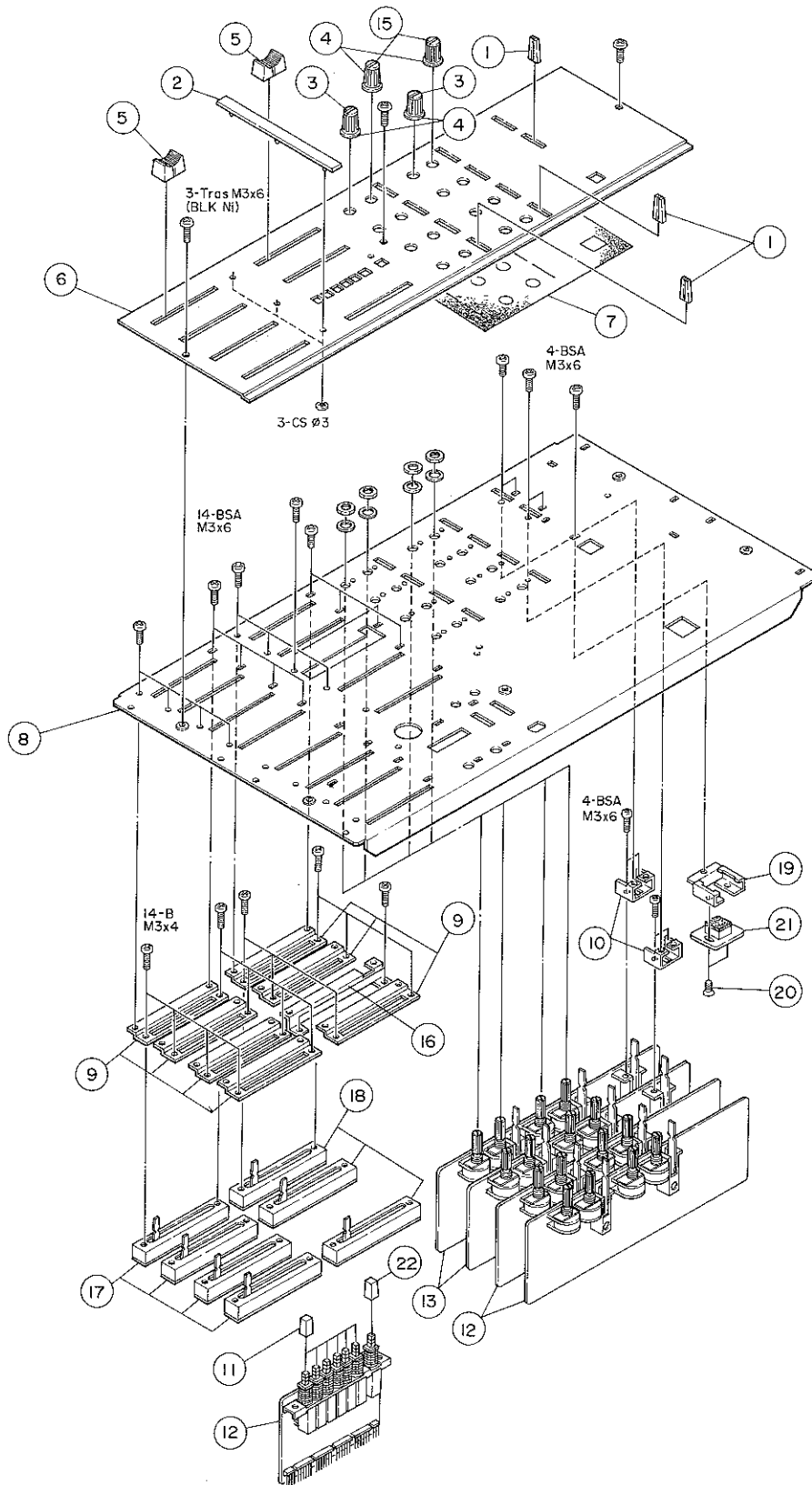


Exploded View – 2

Parts marked with * require longer delivery time.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
2- 1	5800403300	Knob, Lever Switch	
2- 2	5800134200	Knob Cap: (green)	
2- 3	5800382800	Knob, B-11D	
2- 4	5800383000	Knob, B-15W	
2- 5	*5800380900	Plate, Memo	
2- 6	6006054100	Knob Cap: (white)	M-5
2- 7	5800382900	Knob, B-15D	
2- 8	5800383200	Knob, Fader	
2- 9	*5800372001	Panel, Input: A	
	*5800395801	Panel, Input: B	
	*5800395901	Panel, Input: C	
2-10	*5800385200	Mask, Lever Switch: C	
2-11	*5800381500	Chassis Assy, Input	
2-12	*5800370302	Plate, Switch: 4P	
2-13	5800370901	Knob, J	
2-14	5300029400	Switch A	
2-15	*5800370400	Plate, Switch: 7P	
2-16	5300029700	Switch B	
2-17	*5800370200	Plate, Fader	
2-18	*5200086200	PCB Assy, INPUT AMPL: A	
	*5200086210	PCB Assy, INPUT AMPL: B	
	*5200086220	PCB Assy, INPUT AMPL: C	
	*5200086230	PCB Assy, INPUT AMPL: D	
2-19	5800134000	Knob Cap: (red)	
2-20	5800133900	Knob Cap: (orange)	
2-21	5800453000	Knob	
2-22	5800404001	Knob, J33	
2-23	*5800370100	Plate, Lever Switch	

2-3. Exploded View - 3 (Monitor Ampl.)

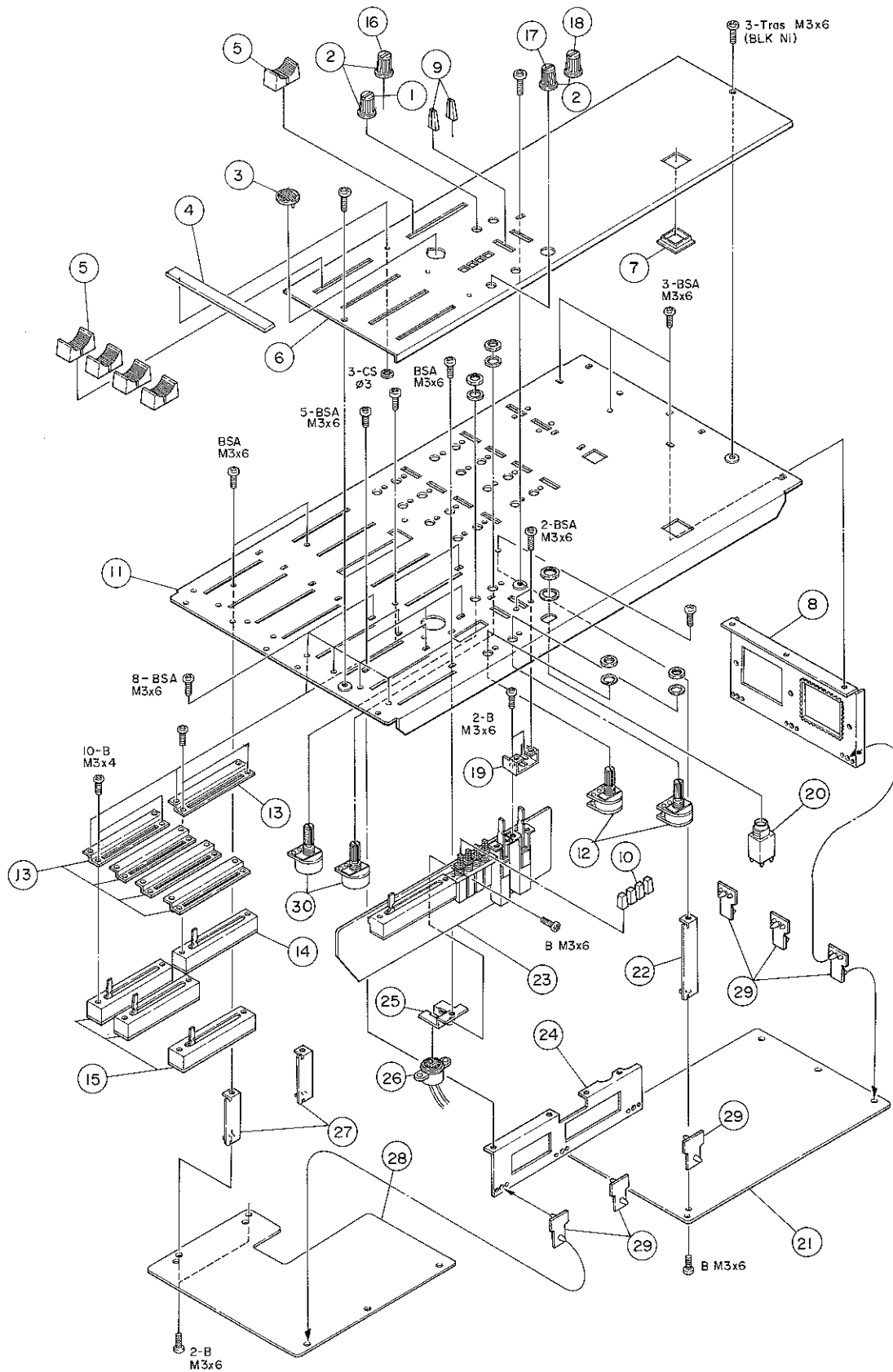


Exploded View – 3

Parts marked with * require longer delivery time.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
3- 1	5800403300	Knob, Lever Switch	
3- 2	*5800380900	Plate, Memo	
3- 3	6006054100	Knob Cap: (ivory)	
3- 4	5800382900	Knob, B-15D	
3- 5	5800383200	Knob, Fader	
3- 6	*5800372102	Panel, Monitor	
3- 7	*5800384800	Mask, Lever Switch: D	
3- 8	*5800443600	Chassis Assy, Master	
3- 9	*5800370200	Plate, Fader	
3-10	*5800370100	Plate, Lever Switch	
3-11	5800371000	Knob, N	
3-12	*5200086900	PCB Assy,	
3-13	*5200086800	PCB Assy, MONITOR AMPL.: A	
3-14	*5200086710	PCB Assy, MONITOR AMPL.: C	
3-15	6006055100	Knob Cap: (yellow)	
3-16	*5800443000	Bracket, Selector	
3-17	5284006200	Variable Resistor, Slide; 10k ohm (A)	
3-18	5284006300	Variable Resistor, Slide; 10k ohm (A) x2	
3-19	*5800442900	Bracket, MIC	
3-20	*5534118000	Rivet, Push	
3-21	*5200087400	LED PCB (B) Assy	
3-22	5800403900	Knob, N33	

2-4. Exploded View - 4 (Buss Ampl.)



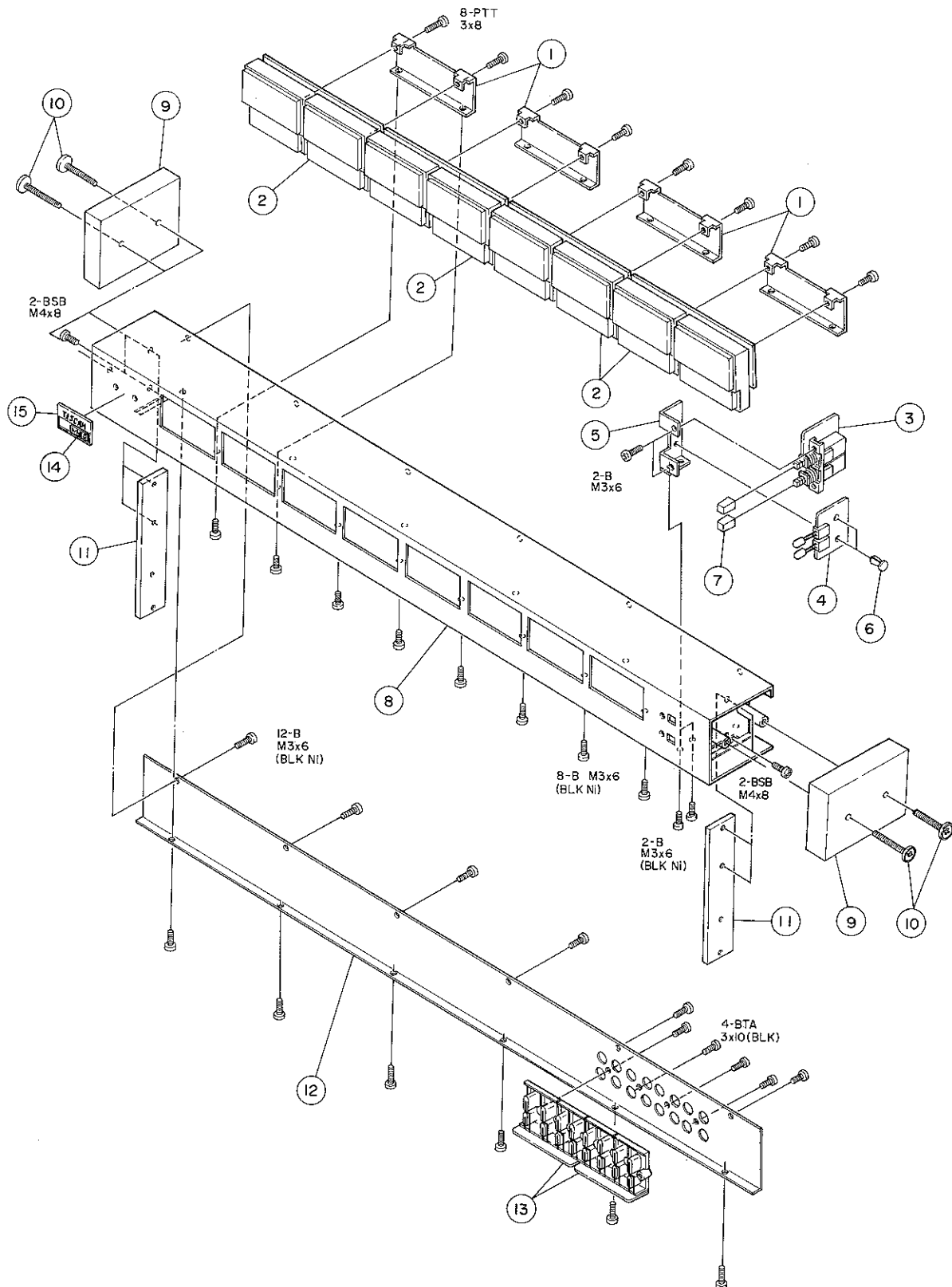
Exploded View - 4

Parts marked with * require longer delivery time.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
4- 1	6006056100	Knob, Cap: (red)	M-5
4- 2	5800382900	Knob, B-15D	
4- 3	*5800383100	Escutcheon, MIC	
4- 4	*5800380900	Plate, Memo	
4- 5	5800383200	Knob, Fader	
4- 6	*5800372202	Panel, Talkback	44
4- 7	*5800218400	Escutcheon, Power Switch	
4- 8	*5800443500	Bracket, BUSS PCB	
4- 9	5800403300	Knob, Lever Switch	
4-10	5800371000	Knob, N	
4-11	*5800443600	Chassis Assy, Master	
4-12	5282408500	Variable Resistor; 10k ohm (A) x2	
4-13	*5800370200	Plate, Fader	M-5
4-14	5284006300	Variable Resistor, Slide; 10k ohm (A) x2	
4-15	5284006200	Variable Resistor, Slide; 10k ohm (A)	
4-16	6006055100	Knob, Cap; (yellow)	
4-17	6006057100	Knob, Cap; (blue)	
4-18	6006058100	Knob, Cap (green)	
4-19	*5800370100	Plate, Lever Switch	
4-20	5124026000	Jack, PHONES	
4-21	*5200086600	PCB Assy, BUSS AMPL.	M-5
4-22	*5800443100	Support, BUSS PCB	
4-23	*5200087300	PCB Assy, TALKBACK	
4-24	*5800443400	Bracket, MONITOR PCB	
4-25	*5800442900	Bracket, MIC	
4-26	6055017000	MIC, EM10PB	V-1RX
4-27	*5800443200	Support, MONITOR PCB	
4-28	*5200110000	PCB Assy, POWER SUPPLY [All except E]	
	5200110010	PCB Assy, POWER SUPPLY [E]	
4-29	*5800273000	Hinge, PCB	
4-30	5282011600	Variable Resistor; 10k ohm (A)	

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2-5. Exploded View - 5 (Meter Section)



Exploded View – 5

Parts marked with * require longer delivery time.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
5- 1	*5800369901	Plate, Mounting Meter	
5- 2	*5200087600	PCB Assy, METER	
5- 3	*5200088200	PCB Assy, SWITCH (C)	
5- 4	*5200088300	PCB Assy, LED: A	
5- 5	*5800381000	Plate, Switch: 2P	
5- 6	*5534118000	Push Rivet	
5- 7	5800404000	Knob, J	
5- 8	*5800387501	Chassis Assy, Meter	
5- 9	*5800395200	Side Board, Meter	
5-10	*5504549000	Screw, M4 x 25	
5-11	*5800370800	Post, Meter	
5-12	*5800371900	Panel, Meter Rear	
5-13	*5200088400	PCB Assy, JACK	
5-14	*5800381100	Plate, Model	
5-15	*5720047400	Emblem: TASCAM	M-35

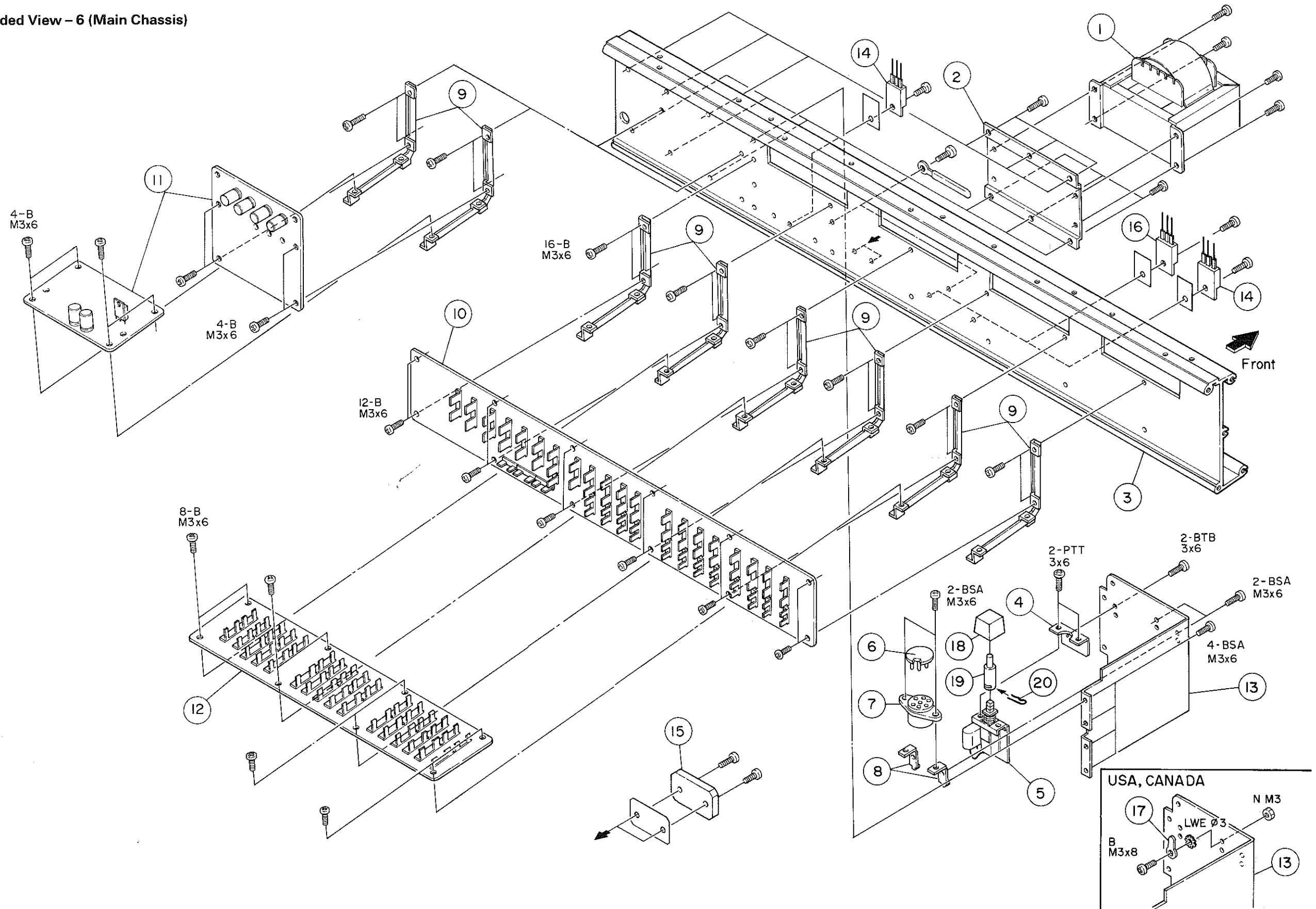
Exploded View – 6

Parts marked with * require longer delivery time.

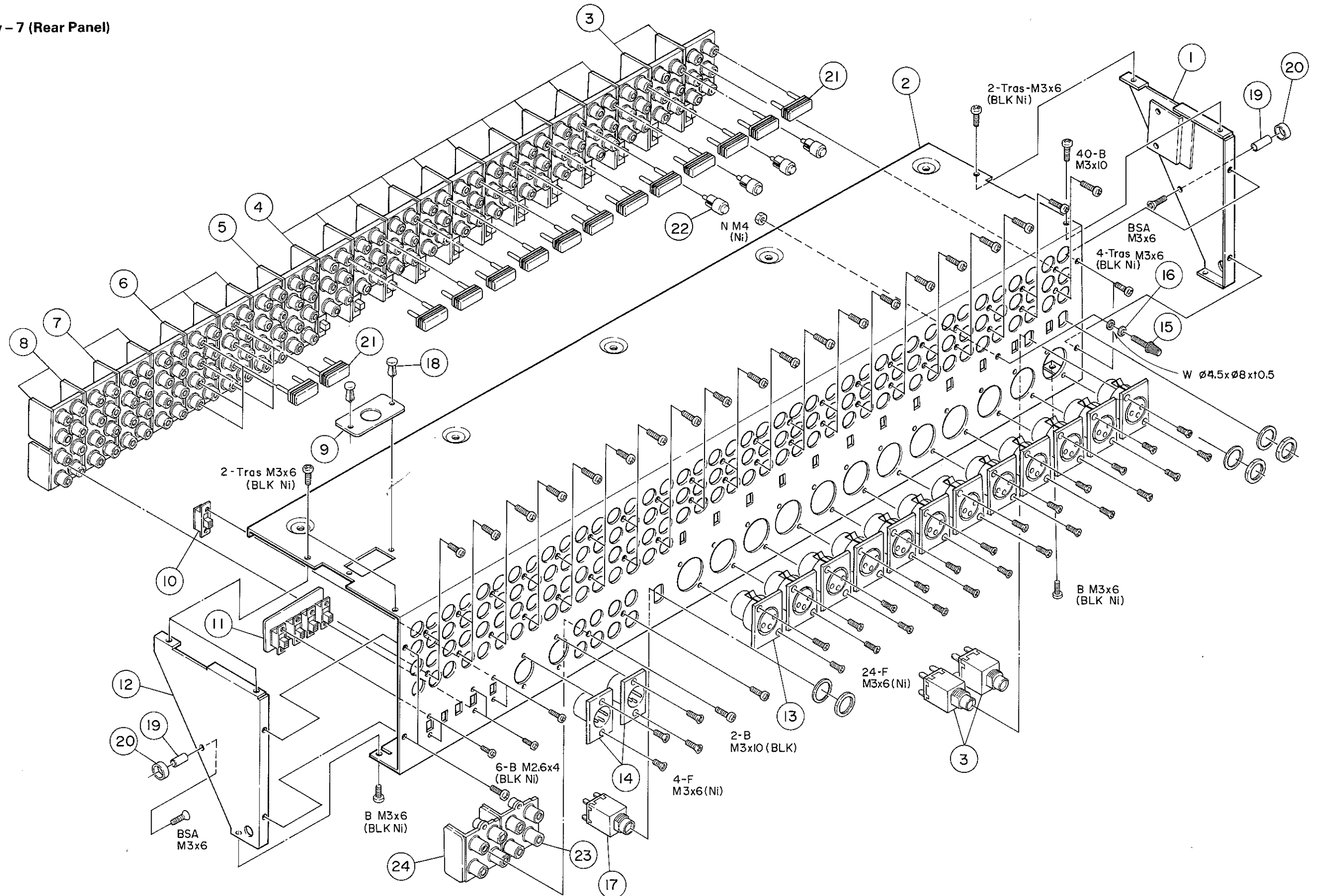
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
6- 1	△ *5320018202	Transformer, Power [J]	
	△ *5320018302	Transformer, Power [U, C]	
	△ *5320018402	Transformer, Power [GE]	
	△ *5320018502	Transformer, Power [E, UK, A]	
6- 2	*5800370000	Plate, Transformer	
6- 3	*5800372702	Chassis, Main	
6- 4	*5800362500	Bracket, Power Switch	
6- 5	*5200127000	PCB Assy, POWER [J]	V-1RX
	*5200127010	PCB Assy, POWER [U]	V-1RX
	*5200127020	PCB Assy, POWER [C]	V-1RX
	*5200127030	PCB Assy, POWER [GE]	V-1RX
	*5200127040	PCB Assy, POWER [E, UK A]	V-1RX
6- 6	△ *5043299000	Plug, Voltage Selector [GE]	
6- 7	△ *5332014400	Socket, Voltage Selector [GE]	
6- 8	*5800136900	Bracket, Voltage Selector [GE]	MM-20
6- 9	*5800371800	Plate, BUSS PCB	
6-10	*5200088100	PCB Assy, MOTHER: B	
6-11	*5200087100	PCB Assy, MONITOR: C	
6-12	*5200088000	PCB Assy, MOTHER: A	
6-13	*5800371700	Shield Plate, Transformer	
6-14	△ *5230779400	Transistor, 2SC3181 (O): Q4, Q6	
6-15	△ *5230506400	Transistor, 2SB755 (O): Q10	
6-16	△ *5230017700	Transistor, 2SA1264 (O): Q3	
6-17	*5786700400	Lug, GND [U, C]	
6-18	*5800173100	Button, Power Switch	44
6-19	*5534713000	Rod, C	X-10R

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2-6. Exploded View - 6 (Main Chassis)



2-7. Exploded View - 7 (Rear Panel)



Exploded View – 7

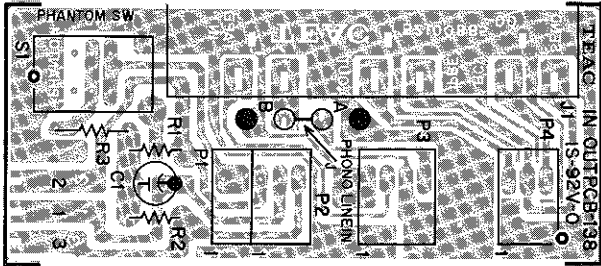
Parts marked with * require longer delivery time.

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
7- 1	*5800395501	Plate Assy Rear: L	
7- 2	*5800372402	Panel, Rear	
7- 3	*5200088500	PCB Assy, IN/OUTPUT: A (Included INST IN Jack)	
7- 4	*5200088510	PCB Assy, IN/OUTPUT: A	
7- 5	*5200095100	PCB Assy, IN/OUTPUT: B-A	
7- 6	*5200095110	PCB Assy, IN/OUTPUT: B-B	
7- 7	*5200095120	PCB Assy, IN/OUTPUT: B-C	
7- 8	*5200095130	PCB Assy, IN/OUTPUT: B-D	
7- 9	*5800395700	Plate, Cable	
7-10	5044410000	Switch, Slide: SSB-042 (L-6)	
7-11	*5200095200	PCB Assy, Switch:D	
7-12	*5800395601	Plate Assy, Rear: R	
7-13	5334027300	Connector, Canon: XLB-31	
7-14	5334027200	Connector, Canon: XLB-32	
7-15	*5045407100	Terminal, GND	
7-16	*5785114000	Washer, Ø4	
7-17	*5043298000	Jack, SOLO CONTROL IN	
7-18	*5534118000	Push Rivet	
7-19	*5800443300	Stopper, Rear Panel	
7-20	*6014803000	Damper	
7-21	*5330507500	Shorting Bar, 2P	
7-22	*6052202000	Shorting Pin	M-3
7-23	*5200108100	PCB Assy, IN/OUTPUT: C-A	
7-24	*5200108110	PCB Assy, IN/OUTPUT: C-B	

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3. ELECTRONICS – PCB'S AND ELECTRONIC COMPONENTS

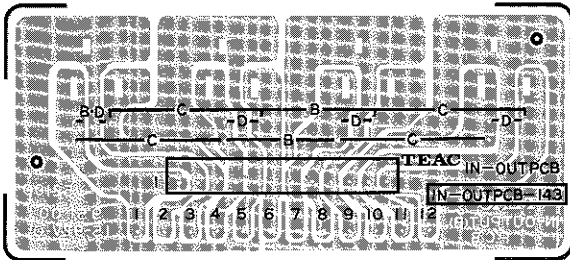
3-1. IN/OUTPUT A PCB Ass'y (1, 2)



IN/OUTPUT A PCB Ass'y (1, 2)

REF. NO.	PARTS NO.	DESCRIPTION
	5200088500	PCB Ass'y (1)
	5200088510	PCB Ass'y (2)
	5210088500	PCB
R1, R2	5241340200	Resistor, Plate ohm, 6.8kΩ
R3	5183578000	Resistor, Carbon 100Ω Nonflammable
C1	5260163150	Capacitor, Elec., 10μ 100V
J1	5330507300	Pin Jack, 6P
S1	5300908900	Switch, Slide
P1	5122145000	Connector Plug, 2P
P2	5122146000	Connector Plug, 3P
P3	5122147000	Connector Plug, 4P
P4	5122454000	Connector Plug, 3P (RED)
	5043297000	INST IN Jack (1 only)
	5800453400	Plate, Shield (2 only)
	5780003006	Screw, Bind, M3 × 6 (2 only)
	5781823000	Nut, M3 (2 only)

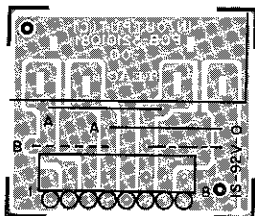
3-2. IN/OUTPUT B PCB Ass'y (A, B, C, D)



IN/OUTPUT B PCB Ass'y (A, B, C, D)

REF. NO.	PARTS NO.	DESCRIPTION
	5200095100	PCB Ass'y (A)
	5200095110	PCB Ass'y (B)
	5200095120	PCB Ass'y (C)
	5200095130	PCB Ass'y (D)
	5210095100	PCB
	5330507200	Jack, 4P
	5122155000	Connector Plug, 12P

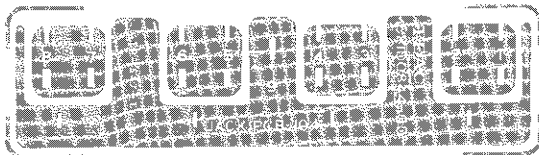
3-3. IN/OUTPUT C PCB Ass'y (A – B)



IN/OUTPUT C PCB Ass'y (A – B)

REF. NO.	PARTS NO.	DESCRIPTION
	5200108100	PCB Ass'y
	5210108100	PCB
	5330507200	4P Jack
P1	5122147000	Connector Plug, 4P
P2	5122145000	Connector Plug, 2P (B only)

3-4. JACK PCB Ass'y

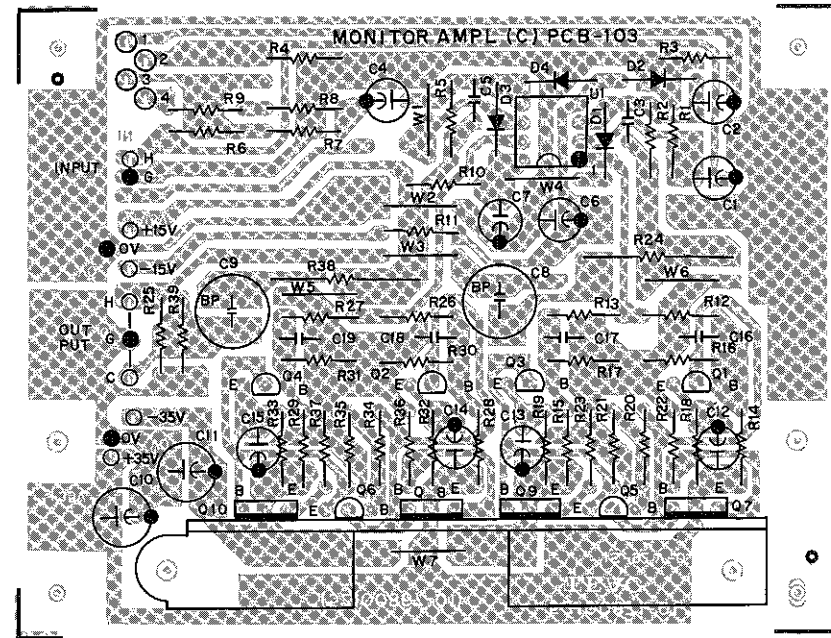


(Viewed from foil side)

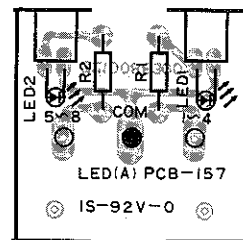
JACK PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200088400	PCB Ass'y
	5210084400	PCB
J1, J2	5330507200	Pin Jack, 4P

3-9. MONITOR AMPL. C



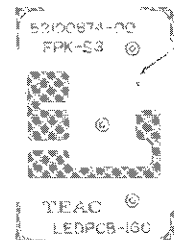
3-10. LED A PCB Ass'y



LED A PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200088300	PCB Ass'y
	5210088300	PCB
CARBON RESISTORS		
R1, R2	5181482000	1k Ω \pm 5% 1/2W
MISCELLANEOUS		
D1, D2	5225006900	LED, PR3432S
J1, J2	5122373000	Connector Socket, 2P

3-11. LED B PCB Ass'y



LED B PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200087400	PCB Ass'y
	5210087400	PCB
D1	5225008800	LED Ass'y (RED)

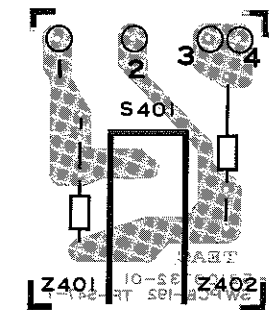
(Viewed from foil side)

MONITOR AMPL. C PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200087101	PCB Ass'y
	5210087101	PCB
IC		
U1	5220407000	TL072CP
TRANSISTORS		
Q1, Q2	5230016200	2SA-992 (E)
Q3, Q4	5230774300	2SC-1845 (F)
Q5, Q6	5230770400	2SC-1815 (BL)
Q7, Q8	5230779200	2SC-2824 (Y)
Q9, Q10	5230017500	2SA-1184 (Y)
DIODES		
D1 ~ D4	5143118000	1S2473HJ
CARBON RESISTORS		
All resistors are rated \pm 5% tolerance at 1/4W.		
R1	5181522000	47k Ω
R2	5241149700	4.3k Ω Metal Film
R3	5241148600	1.5k Ω Metal Film
R4	5241148800	1.8k Ω Metal Film
R5	5241152500	62k Ω Metal Film
R6	5181446000	33 Ω
R7	5241151100	16k Ω Metal Film
R8	5241151500	24k Ω Metal Film
R9	5181488000	1.8k Ω
R10, R11	Δ 5183566000	33k Ω Nonflammable
R12, R13	5181522000	47k Ω
R14, R15	5181490000	2.2k Ω
R16, R17	5181532000	120k Ω
R18, R19	5181480000	820 Ω
R20	5181488000	1.8k Ω
R21	5181490000	2.2k Ω
R22, R23	5181428000	5.6k Ω
R24	5184802000	300 Ω 2W
R25	5181506000	10k Ω
R26, R27	5181522000	47k Ω
R28, R29	5181490000	2.2k Ω
R30, R31	5181532000	120k Ω
R32, R33	5181480000	820k Ω
R34	5181488000	1.8k Ω
R35	5181490000	2.2k Ω
R36, R37	5181428000	5.6k Ω
R38	Δ 5184802000	300 Ω (2W) Nonflammable
R39	5181506000	10k Ω

REF. NO.	PARTS NO.	DESCRIPTION
CAPACITORS		
C1	5260162650	Elec. 10 μ F 25V
C2	5260165252	Elec. 47 μ F 25V
C3	5172217000	Ceramic 270pF
C4	5260163452	Elec. 22 μ F 25V
C5	5172204000	Ceramic 22pF
C6, C7	5260165252	Elec. 47 μ F 25V
C8, C9	5260069910	Elec. 47 μ F 50V
C10, C11	5260165452	Elec. 47 μ F 50V
C12 ~ C15	5260165952	Elec. 100 μ F 10V
C16 ~ C19	5172204000	Ceramic 22pF
MISCELLANEOUS		
	5033291000	Plate, Insulator (4 used)
	5780103008	Screw, PM3 x 8
	5800463400	Heat Sink; A
	5781023006	Screw, PTB 3 x 6

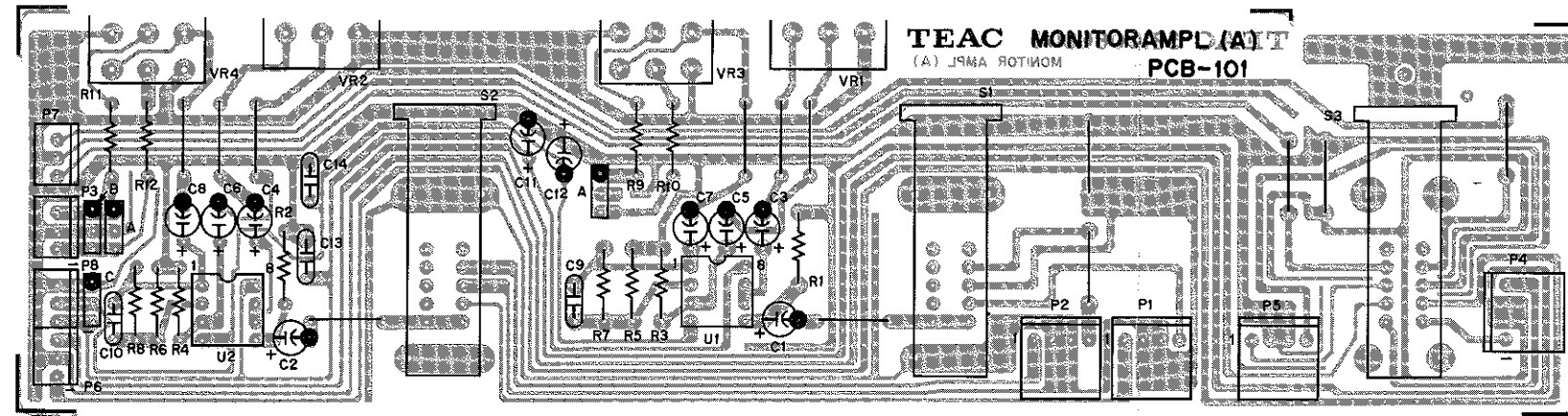
3-12. POWER SWITCH PCB Ass'y



POWER SWITCH PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200127000	Power Switch PCB Ass'y [J]
	5200127010	Power Switch PCB Ass'y [U]
	5200127020	Power Switch PCB Ass'y [C]
	5200127030	Power Switch PCB Ass'y [GE]
	5200127040	Power Switch PCB Ass'y [E, UK, A]
	5210073201	PCB
S401	Δ 5300030800	Switch, Push
Z401	Δ 5052907000	Spark Killer 0.01 μ F + 300 Ω /300V [J]
	Δ 5052910000	Spark Killer 0.033 μ F + 120 Ω /125V [U]
	Δ 5292002600	Spark Killer 0.033 μ F + 120 Ω /125V [C]
	Δ 5292002500	Spark Killer 0.01 μ F + 300 Ω [GE]
	Δ 5267702500	Spark Killer 0.0047 μ F 250V [E, UK, A]
Z402	Δ 5267702600	Spark killer 0.047 μ F 250V [E, UK, A]

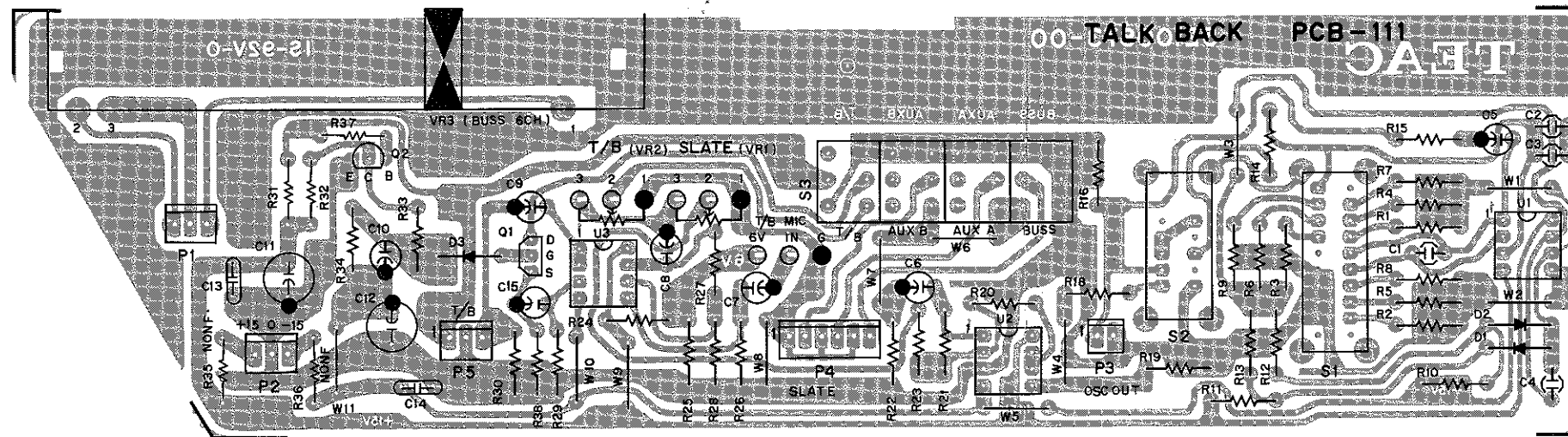
3-13. MONITOR AMPL. A PCB Ass'y



MONITOR AMPL. A PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200086800	PCB Ass'y (1)
	5200086810	PCB Ass'y (2)
	5210086800	PCB
IC'S		
U1, U2	5220407000	TL072CP
CARBON RESISTORS		
All resistors are rated $\pm 5\%$ tolerance at 1/4W.		
R1 ~ R4	5181530000	100k Ω
R5, R6	5181506000	10k Ω
R7, R8	5181510000	15k Ω
R9 ~ R12	5181514000	22k Ω
CAPACITORS		
C1, C2	5260162550	Elec. 10 μ F 16V
C3, C4	5260163452	Elec. 22 μ F 25V
C5, C6	5260162550	Elec. 10 μ F 16V
C7, C8	5260163452	Elec. 22 μ F 25V
C9, C10	5054758000	Dip Mica 82pF
C11, C12	5260165252	Elec. 47 μ F 25V
C13, C14	5254204000	Ceramic 0.01 μ F 50V
VARIABLE RESISTORS		
VR1, VR2	5282011500	10k Ω (A)
VR3, VR4	5282408600	5k Ω (A, C)
CONNECTOR PLUGS		
P1	5122128000	4P
P2	5122185000	4P (BLK) (1 Only)
P3	5122127000	3P
P4	5122147000	4P (1 Only)
P5	5122128000	4P
P6	5334028800	3P (YEL) (1 Only)
P7	5122184000	3P (BLK) (1 Only)
P8	5122300000	3P (RED)
SWITCHES		
S1 ~ S3	5132036000	Lever, SLR523 (S3 = 1 Only)

3-14. TALKBACK PCB Ass'y

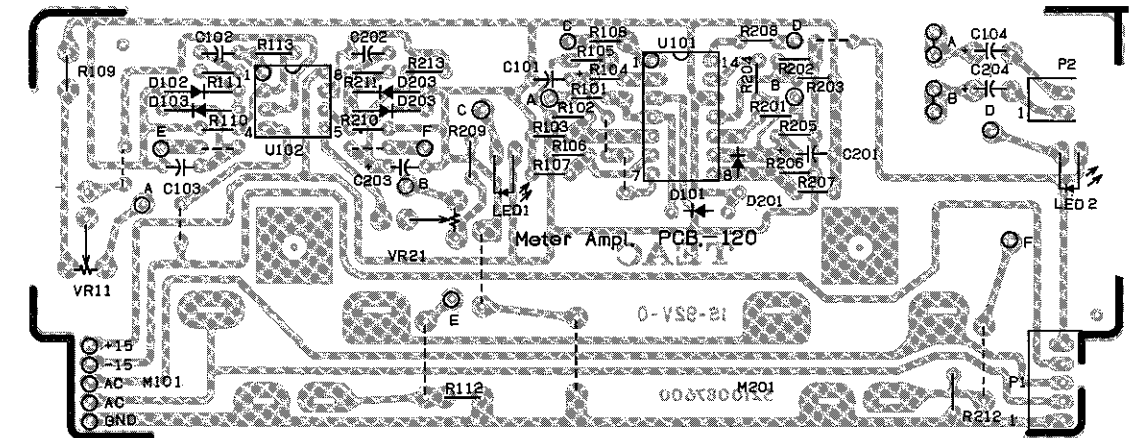


TALKBACK PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200087301	PCB Ass'y
	5210087300	PCB
IC'S		
U1 ~ U3	5220406600	μ PC4558
TRANSISTORS		
Q1	5232007000	2SK-304 (EF)
Q2	5145151000	2SC-1815 (GR)
DIODES		
D1 ~ D3	5143118000	1S2473HJ
CARBON RESISTORS		
All resistors are rated $\pm 5\%$ tolerance at 1/4W.		
R1 ~ R3	5181544000	390k Ω
R4 ~ R6	5181510000	15k Ω
R7 ~ R9	5181486000	1.5k Ω
R10, R11	5181492000	2.7k Ω
R12, R13	5181482000	1k Ω
R14	5181502000	6.8k Ω
R15	5181501000	6.2k Ω
R16	5181474000	470k Ω
R18	5181482000	1k Ω
R19	5181530000	100k Ω
R20 ~ R22	5181522000	47k Ω
R23	5181510000	15k Ω
R24	5181504000	8.2k Ω
R25	5181500000	5.6k Ω
R26	5181522000	47k Ω
R27	5181530000	100k Ω
R28	5181482000	1k Ω
R29, R30	5181522000	47k Ω
R31	5181506000	10k Ω
R32	5181514000	22k Ω
R33	5181530000	100k Ω
R34	5181536000	180k Ω
R35, R36	5183570000	47 Ω Nonflammable
R37	5181530000	100k Ω
R38	5181522000	47k Ω

REF. NO.	PARTS NO.	DESCRIPTION
CAPACITORS		
C1, C2	5054877500	Mylar 0.01 μ F
C3	5054878500	Mylar 0.001 μ F
C4	5054877500	Mylar 0.01 μ F
C5, C6	5260163352	Elec. 22 μ F 16V
C7	5260162550	Elec. 10 μ F 16V
C8, C9	5260163352	Elec. 22 μ F 16V
C10	5260160750	Elec. 1 μ F 50V
C11, C12	5260166052	Elec. 100 μ F 16V
C13, C14	5054204000	Ceramic 0.01 μ F 50V
C15	5260162550	Elec. 10 μ F 16V
VARIABLE RESISTORS		
VR1, VR2	5282011600	10k Ω (A)
VR3	5284006400	Slide 10k Ω (C)
SWITCHES		
S1	5132040000	Lever, SLR543
S2	5132036000	Lever, SLR523
S3	5300032100	Push, 4-gang
CONNECTOR PLUGS		
P1	5122127000	3P
P2	5122300000	3P (RED)
P3	5122126000	2P
P4	5122130000	6P
P5	5122184000	3P (BLK)
MISCELLANEOUS		
M1	6055017000	MIC, EM10PB

3-15. METER AMPL. PCB Ass'y

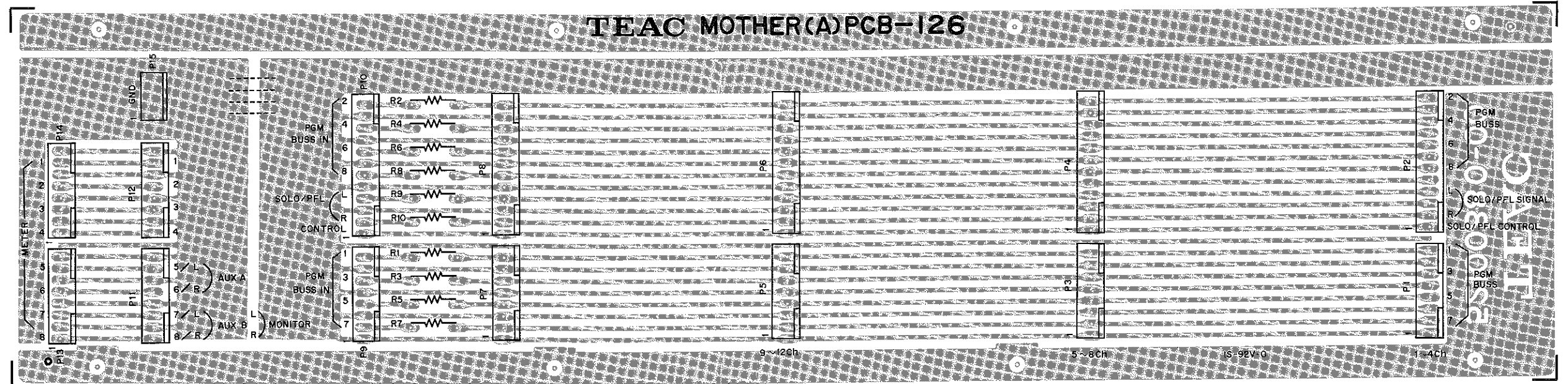


METER AMPL. PCB Ass'y

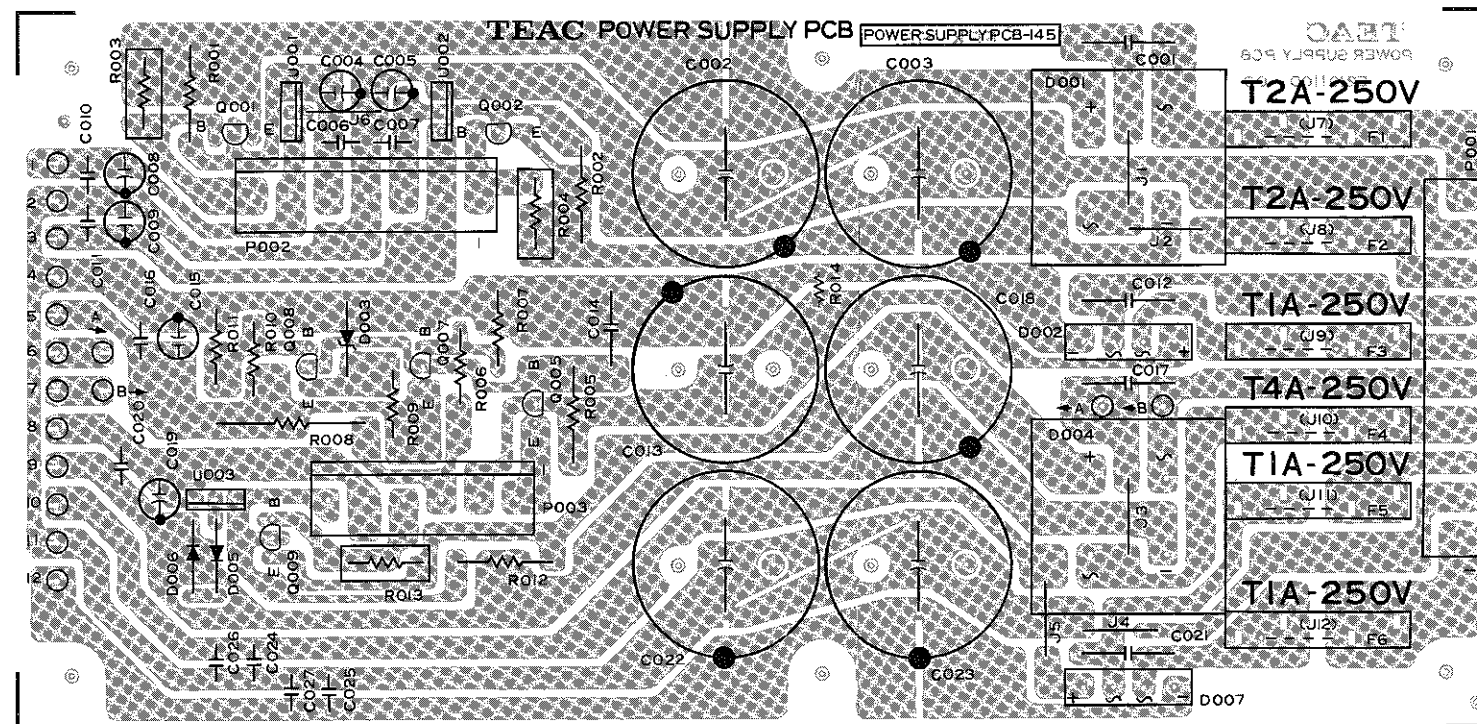
REF. NO.	PARTS NO.	DESCRIPTION
	5200087600	PCB Ass'y
	5210087600	PCB
IC'S		
U101	5220416900	LM339N
U102	5220406600	μ PC4558
DIODES		
D101	5042517000	IS2473VE
D102, D103	5042213000	IN60
D201	5042517000	IS2473VE
D202, D203	5042213000	IN60
CARBON RESISTERS		
All resistors are rated $\pm 5\%$ tolerance at 1/4W.		
R101	5240173000	100k Ω
R102	5240173700	150k Ω
R103	5240171100	16k Ω
R104	5240165800	100 Ω
R105	5240173000	100k Ω
R106	5240171600	27k Ω
R107	5240172200	47k Ω
R108	5240168600	1.5k Ω
R109	5240170600	10k Ω
R110	5240171200	18k Ω
R111, R112	5240168800	1.8k Ω
R113	5240173000	100k Ω
R201	5240173000	100k Ω
R202	5240173000	150k Ω
R203	5240171100	16k Ω

REF. NO.	PARTS NO.	DESCRIPTION
R204	5240165800	100 Ω
R205	5240173000	100k Ω
R206	5240171600	27k Ω
R207	5240172200	47k Ω
R208	5240168600	1.5k Ω
R209	5240170600	10k Ω
R210	5240171200	18k Ω
R211, R212	5240168800	1.8k Ω
R213	5240173000	100k Ω
CAPACITORS		
C101	5260160750	Elec. 1 μ F 50V
C102	5260163352	Elec. 22 μ F 16V
C103	5260162050	Elec. 4.7 μ F 35V
C104	5260162550	Elec. 10 μ F 16V
C201	5260160750	Elec. 1 μ F 50V
C202	5260163352	Elec. 22 μ F 16V
C203	5260162050	Elec. 4.7 μ F 35V
C204	5260162550	Elec. 10 μ F 16V
VARIABLE RESISTORS		
VR11	5280003502	Semi-fixed 10k Ω (B)
VR21	5280003502	Semi-fixed 10k Ω (B)
MISCELLANEOUS		
M101, M201	5296006100	VU Meter <i>11V AC</i>
D1, D2	5225006900	LED, PR3432S
	5800385100	LED Spacer
P1	6052379005	Connector Plug, 5P
P2	6052379002	Connector Plug, 2P

3-16. MOTHER A PCB Ass'y



3-17. POWER SUPPLY PCB Ass'y



MOTHER A PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200088000	PCB Ass'y
	5210088000	PCB
CARBON RESISTORS		
All resistors are rated $\pm 5\%$ tolerance at 1/4W.		
R1 ~ R10	5181514000	22k Ω
CONNECTOR PLUGS		
P1	5122132000	8P
P2	5122136000	12P
P3	5122132000	8P
P4	5122136000	12P
P5	5122132000	8P
P6	5122136000	12P
P7	5122132000	8P
P8	5122136000	12P
P9	5334029300	8P (YEL)
P10	5334029700	12P (YEL)
P11	5122305000	8P (RED)
P12	5122132000	8P
P13	5122305000	8P (RED)
P14	5122132000	8P

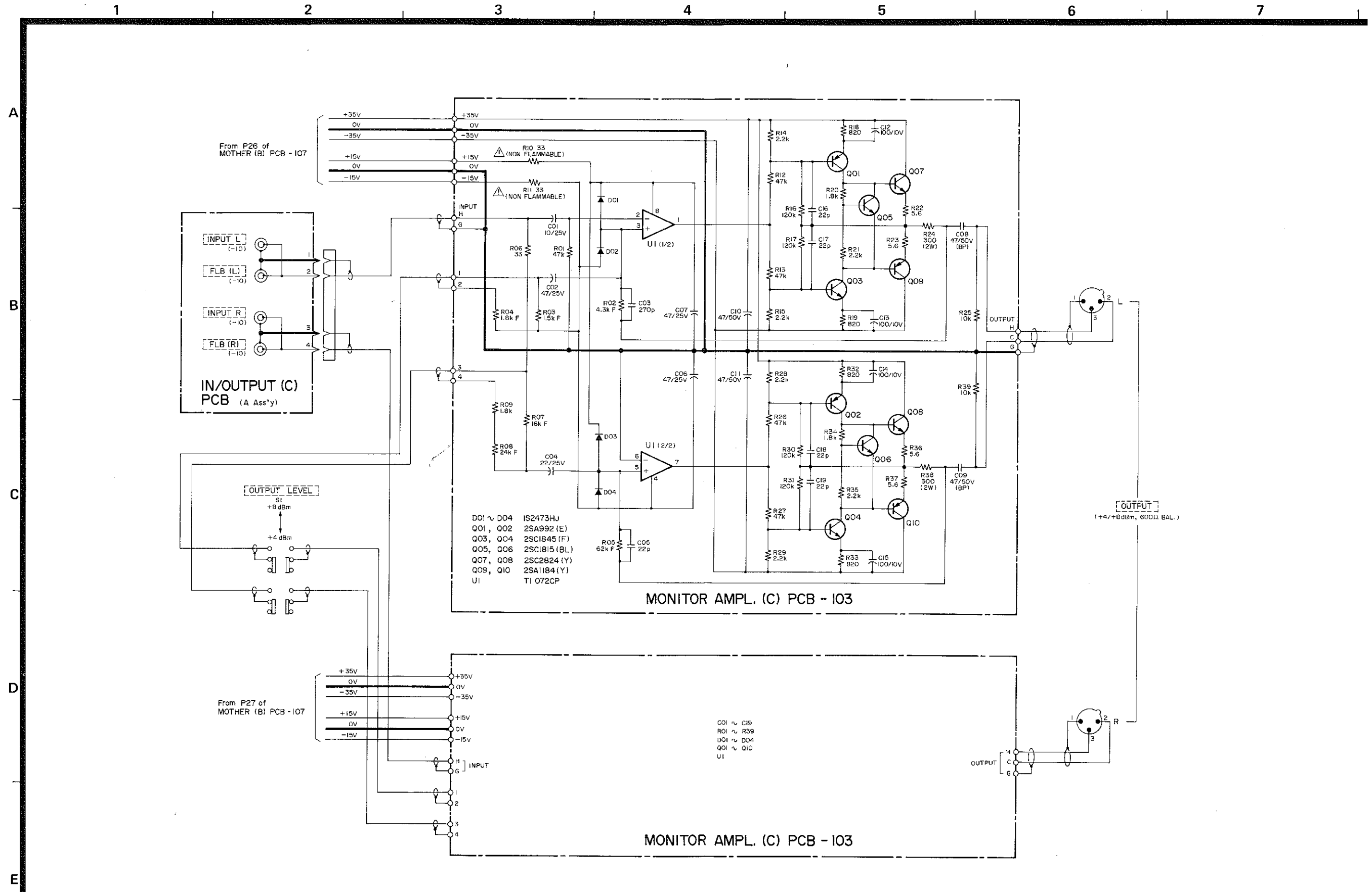
POWER SUPPLY PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200110000	PCB Ass'y (All except EUR)
	5200110010	PCB Ass'y (EUR)
	5210110000	PCB
IC'S		
U1	△ 5220415600	7815
U2	△ 5220412400	7915
U3	△ 5220405100	78M05
TRANSISTORS		
Q1	5230014000	2SA-1020 (Y)
Q2	5230773800	2SC-2655 (Y)
Q5	5230773800	2SC-2655 (Y)
Q7, Q8	5230773800	2SC-2655 (Y)
Q9	5230014000	2SA-1020 (Y)
DIODES		
D1	△ 522800T200	D4BB20
D2	△ 5228006600	KBP604 G1
D3	△ 5143297000	WZ240, Zener
D4	△ 5228007200	D4BB20
D5, D6	5143211800	1S2473HJ
D7	△ 5228006600	KBP604 G1
CARBON RESISTORS'		
All resistors are rated ±5% tolerance at 1/4W.		
R1, R2	△ 5184247000	82Ω Nonflammable
R3, R4	△ 5185191000	0.33Ω 2W Metal Film
R5	△ 5182042000	6.8kΩ Nonflammable
R6	5181486000	1.5kΩ
R7	5181522000	47kΩ
R8	△ 5052810000	10Ω 2W Metal Film
R9	△ 5180094000	3.3kΩ
R10	5181498000	4.7kΩ
R11	5181500000	5.6kΩ
R12	△ 5184247000	82Ω Nonflammable
R13	△ 5185191000	0.33Ω 2W Metal Film

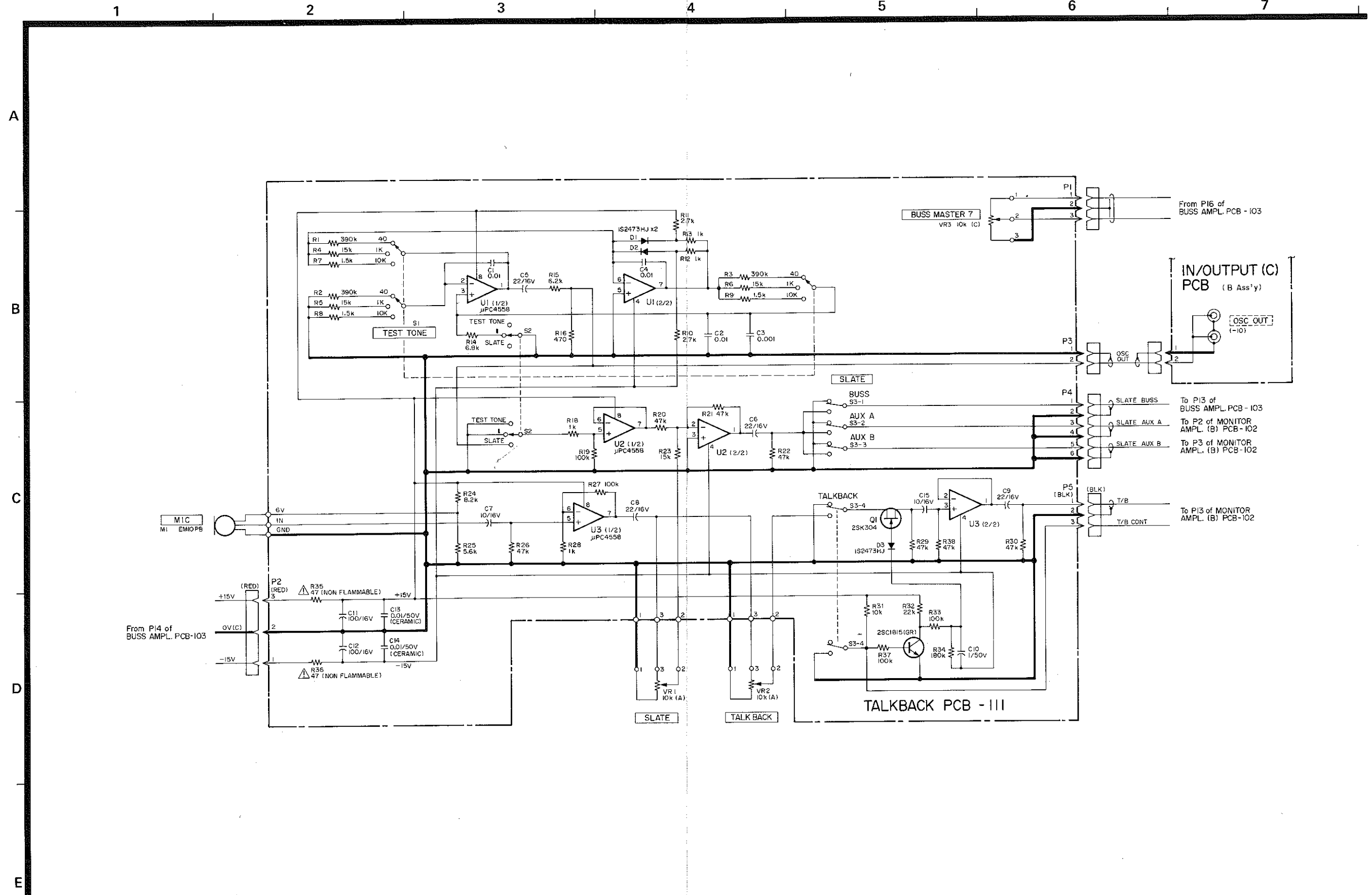
REF. NO.	PARTS NO.	DESCRIPTION
CAPACITORS		
C1	△ 5263164500	Metalized 0.047μF 250V
C2, C3	△ 5262001800	Elec. 4700μF 35V
C4, C5	5260160750	Elec. 1μF 50V
C6, C7	5054204000	Ceramic 0.01μF 50V
C8, C9	5260165252	Elec. 47μF 25V
C10, C11	5054204000	Ceramic 0.01μF 50V
C12	△ 5263164500	Metalized 0.047μF 250V
C13	△ 5262001900	Elec. 1000μF 100V
C14	5054223000	Ceramic 0.01μF 500V
C15	5260163150	Elec. 10μF 100V
C16	5054223000	Ceramic 0.01μF 500V
C17	△ 5263164500	Metalized 0.047μF 250V
C18	△ 5262002000	Elec. 10000μF 25V
C19	5260165252	Elec. 47μF 25V
C20	5054204000	Ceramic 0.01μF 50V
C21	△ 5263164500	Metalized 0.047μF 250V
C22, C23	△ 5262002500	Elec. 4700μF 50V
C24~C27	5054204000	Ceramic 0.01μF 50V
FUSES		
F1, F2	△ 5142189000	T2A 250V (EUR only)
F3	△ 5142140000	T1A 250V (EUR only)
F4	△ 5142192000	T4A 250V (EUR only)
F5, F6	△ 5142140000	T1A 250V (EUR only)
CONNECTOR PLUGS		
P1	5336091000	10P
P2	5336090700	7P
P3	5336070600	6P
MISCELLANEOUS		
	5142087000	Fuse Holder (12 used) EUR only

4. SCHEMATIC DIAGRAM

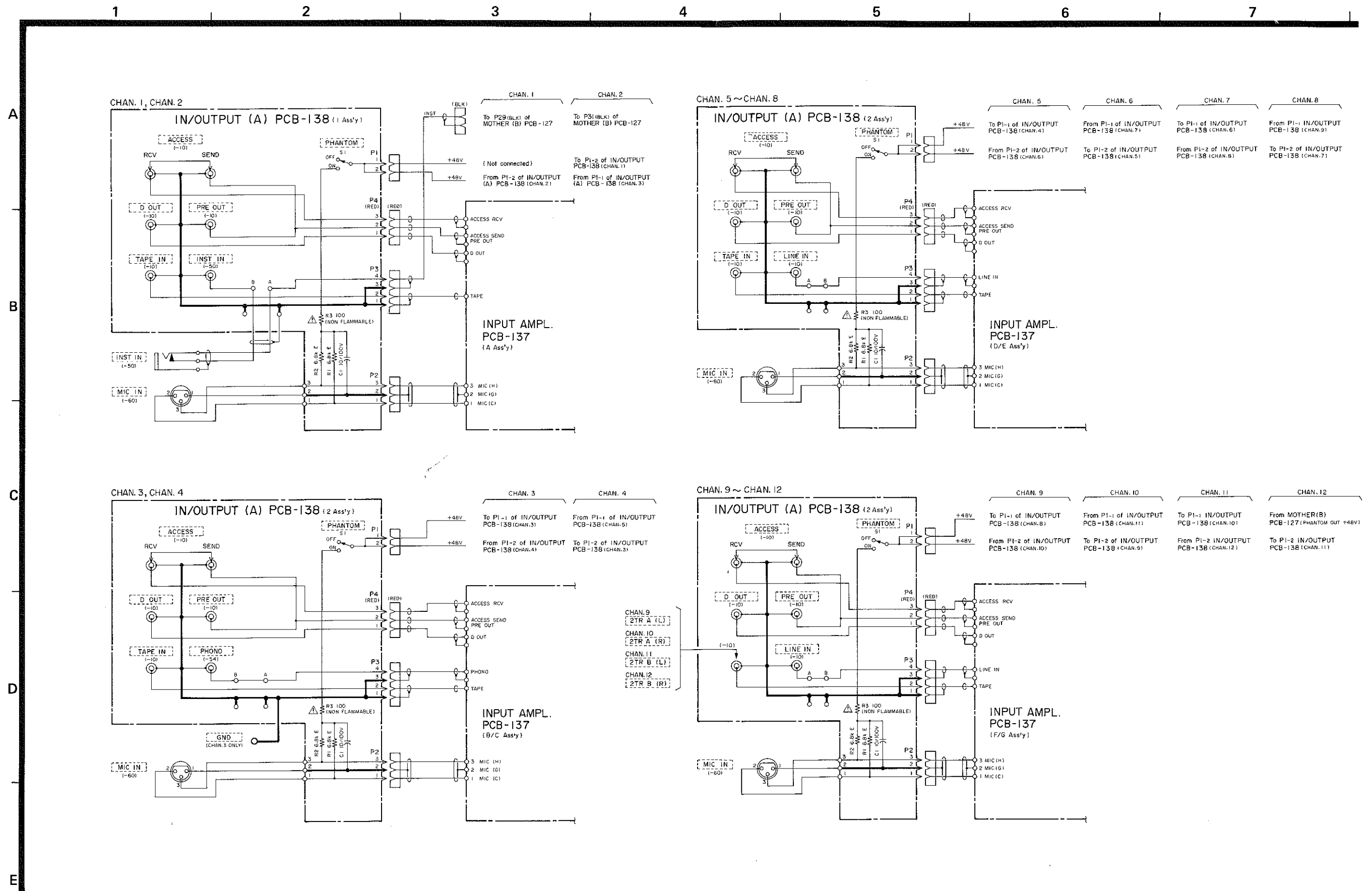
4-1. Monitor Ampl. (C)



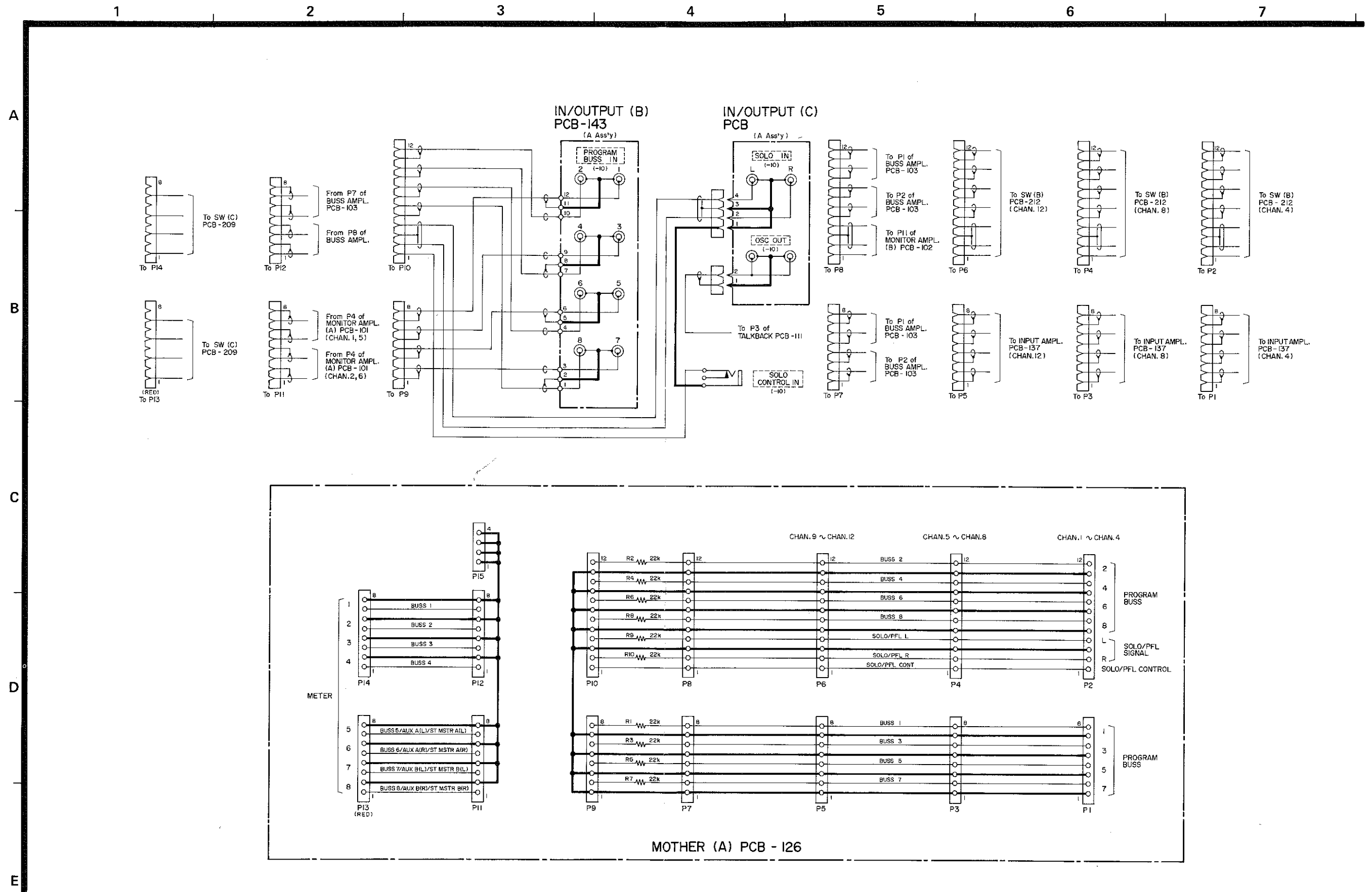
4-2. Talkback PCB



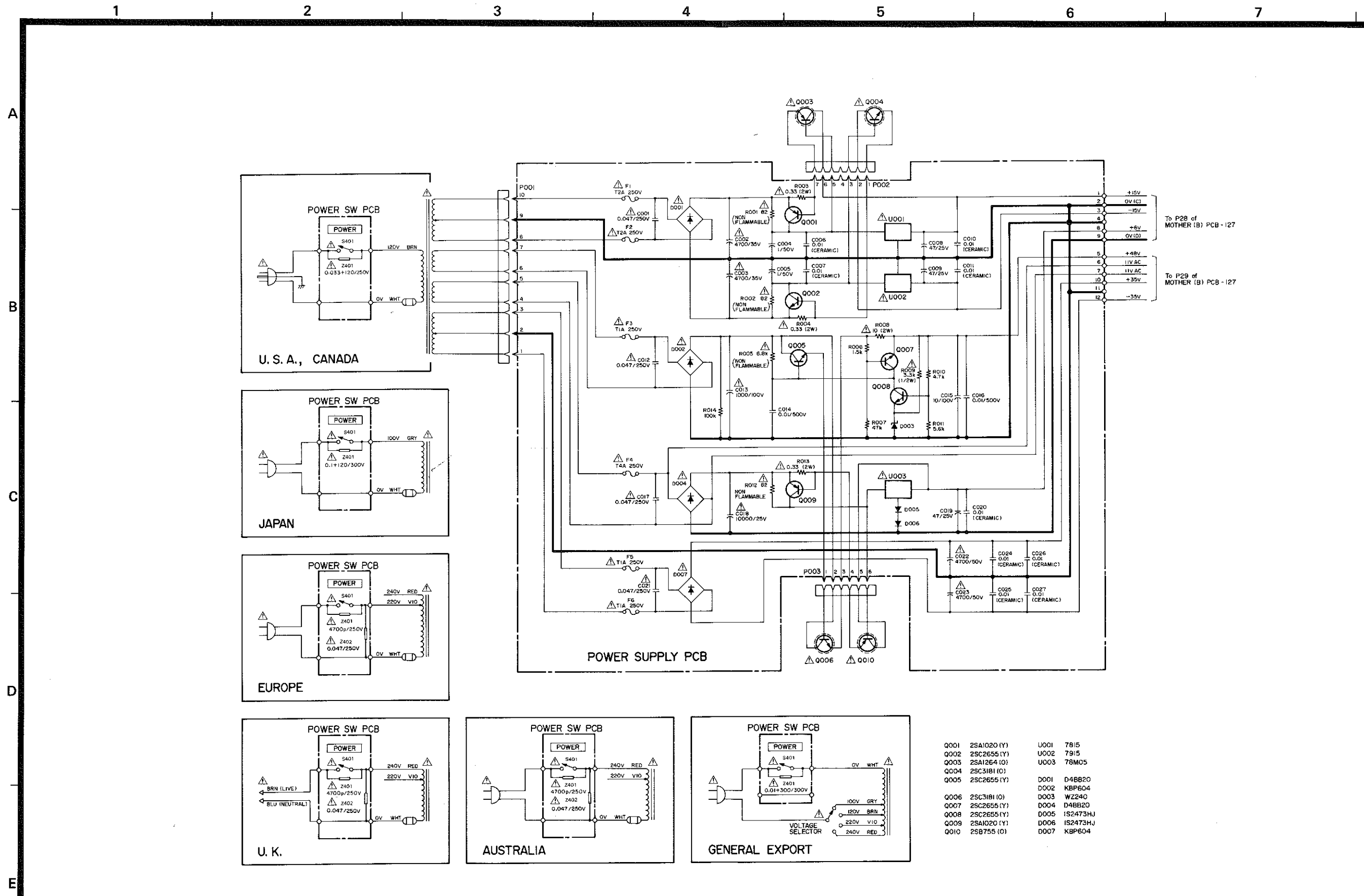
4-3. In/Output (A) PCB



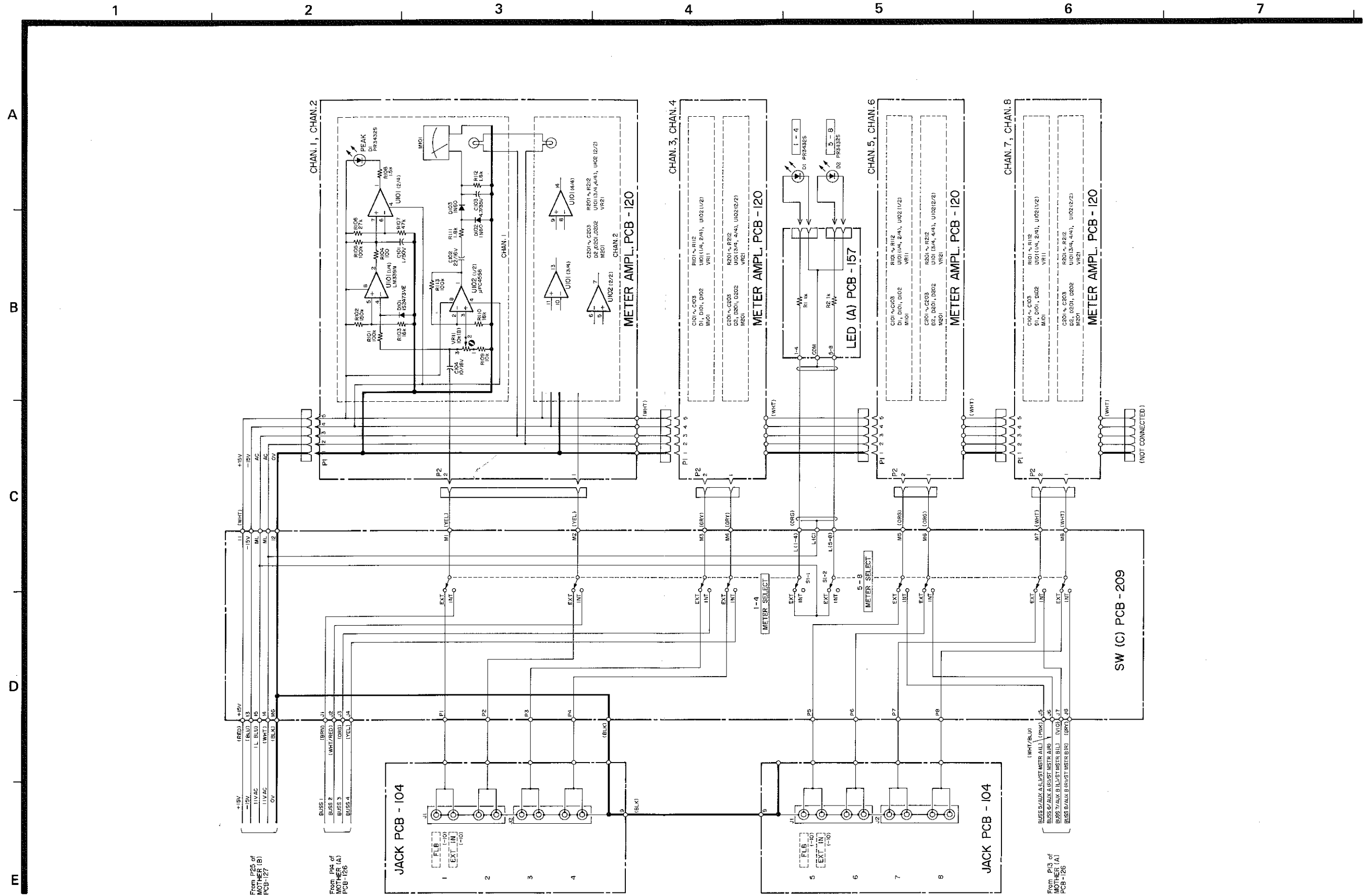
4-4. Mother (A) PCB



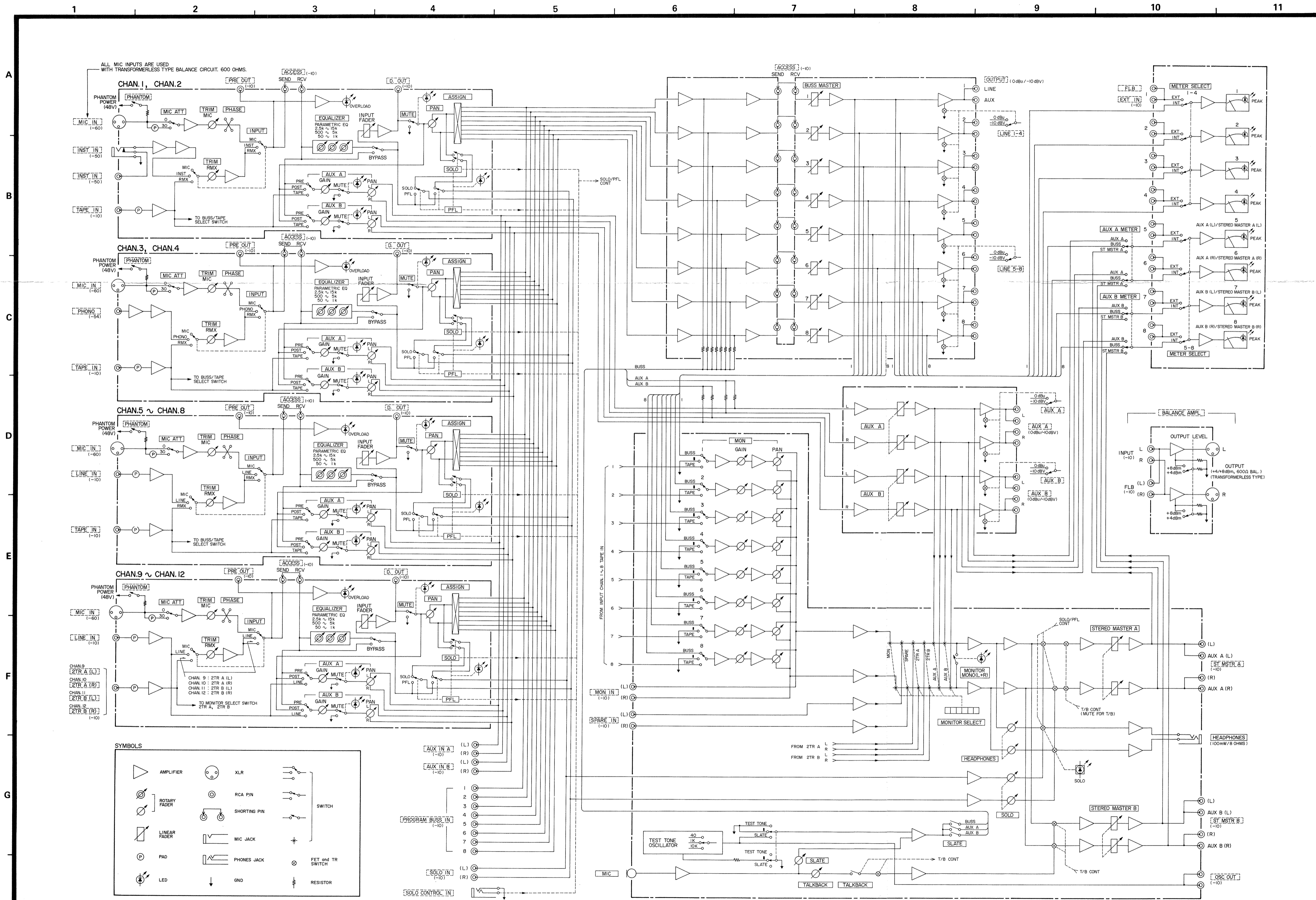
4-5. Power Supply PCB



4-6. Meter Ampl. PCB/SW (C) PCB/Jack PCB



BLOCK DIAGRAM



INPUT AMPL. A through G Ass'y (Included SW A PCB and SW B PCB.)

REF. NO.	PARTS NO.	DESCRIPTION
	5200086201	PCB A Ass'y (Chan. 1, 2)
	5200086211	PCB B Ass'y (Chan. 3)
	5200086221	PCB C Ass'y (Chan. 4)
	5200086231	PCB D Ass'y (Chan. 5, 6, 7)
	5200086241	PCB E Ass'y (Chan. 8)
	5200086251	PCB F Ass'y (Chan. 9, 10, 11)
	5200086261	PCB G Ass'y (Chan. 12)
	5200086201	PCB
IC'S		
U1	5220407000	TLO72CP
U2	5220414400	NJM4556D
U3	5220416600	NJM2041DD
U4	5220417000	LM393P
U5, U6	5220407000	TLO73CP
U7	5220414400	NJM4556D
U9, U10	5220414400	NJM4556D
TRANSISTORS		
Q1, Q2	5145119000	2SC-1844F
Q3, Q4	5145151000	2SC-1815GR
DIODES		
D1 ~ D4	5143118000	1S24T3HJ
CARBON RESISTORS All resistors are rated $\pm 5\%$ tolerance, 1/4W and of carbon type unless otherwise noted.		
R1	5181482000	1k Ω
R2	5181454000	68 Ω
R3	5181482000	1k Ω
R4	5181491000	2.4k Ω
R5, R6	5181506000	10k Ω
R7	5241152200	47k Ω 1% Metal Film
R8, R9	5241149800	4.7k Ω 1% Metal Film
R10	5181458000	100 Ω
R11	5181448000	39 Ω
R12	5181546000	470k Ω
R13	5241152200	47k Ω 1% Metal Film
R14, R15	5241150600	10k Ω 1% Metal Film
R16, R17	5181530000	100k Ω
R18	5181500000	5.6k Ω
R19	5241148600	1.5k Ω 1% Metal Film
R20	5181486000	1.5k Ω
R21	5241148600	1.5k Ω 1% Metal Film
R22	5181522000	47k Ω
R23	5181498000	4.7k Ω
R24	5181482000	1k Ω
R25	5181506000	10k Ω
R26	5181522000	47k Ω
R27	5181522000	47k Ω
R28, R29	5181462000	150 Ω
R30	5181530000	100k Ω

REF. NO.	PARTS NO.	DESCRIPTION
R31	5181506000	10k Ω
R32	5181510000	15k Ω
R33	5181514000	22k Ω
R34	5181522000	47k Ω
R34	5181490000	2.2k Ω
R35	5181498000	4.7k Ω
R36	5181522000	47k Ω
R37	5181548000	560k Ω
R38	5181482000	1k Ω
R39	5181530000	100k Ω
R40	5181482000	1k Ω
R41	5181506000	10k Ω
R42	5181522000	100k Ω
R43	5181458000	100 Ω
R44	5181530000	100k Ω
R45	5181515000	24k Ω
R46	5181516000	27k Ω
R47	5181530000	100k Ω
R48	5181458000	100 Ω
R49	5181516000	27k Ω
R50	5181522000	47k Ω
R51	5181456000	560 Ω
R52	5181538000	220k Ω
R53, R54	5181506000	10k Ω
R55, R56	5181499000	5.1k Ω
R57, R58	5181506000	10k Ω
R59, R60	5181507000	11k Ω
R61, R62	5181506000	10k Ω
R63, R64	5181513000	20k Ω
R65 ~ R67	5181506000	10k Ω
R68	5181510000	15k Ω
R69	5181522000	47k Ω
R70	5181458000	100 Ω
R71 ~ R78	5181514000	22k Ω
R79, R80	5181530000	100k Ω
R81, R82	5181506000	10k Ω
R83, R84	5181510000	15k Ω
R85 ~ R88	5181514000	22k Ω
R89 ~ R93	5181476000	560 Ω
R94 ~ R97	5181530000	100k Ω
R98, R99	5181514000	22k Ω
R100	5181530000	100k Ω
R101, R102	Δ 5183566000	33 Ω Nonflammable
R103, R104	5181434000	10 Ω
R105	5181522000	47k Ω
R106	5181522000	47k Ω
R107, R108	5181458000	100 Ω
R109 ~ R111	5181522000	47k Ω

REF. NO.	PARTS NO.	DESCRIPTION
CAPACITORS		
C1, C2	5260163652	Elec. 22 μ F 50V
C3, C4	5054744000	Dip Mica 100pF
C5	5170006000	Dip Mica 68pF
C6	5054878500	Mylar 0.001 μ F
C7	5260072700	Bipolar 470 μ F 16V
C9	5170006000	Dip Mica 68pF
C10, C11	5260165252	Elec. 47 μ F 25V
C12, C13	5260163452	Elec. 22 μ F 25V
C14	5260162550	Elec. 10 μ F 16V
C15	5260165152	Elec. 47 μ F 16V
C17	5054896500	Mylar 0.0015 μ F 5%
C18	5054891500	Mylar 0.0047 μ F 5%
C19	5260163352	Elec. 22 μ F 16V
C20	5260162550	Elec. 10 μ F 16V
C21, C22	5260163452	Elec. 22 μ F 25V
C24	5260160750	Elec. 1 μ F 50V
C25	5260162550	Elec. 10 μ F 16V
C26	5054479500	Mylar 0.051 μ F 5%
C27	5054897500	Mylar 0.018 μ F 5%
C28	5054891500	Mylar 0.047 μ F 5%
C29	5054888500	Mylar 0.0018 μ F 5%
C30	5172827000	Polyst. 910pF
C31	5172816000	Polyst. 330pF
C33, C34	5260162550	Elec. 10 μ F 16V
C35	5260163452	Elec. 22 μ F 25V
C36, C37	5260162550	Elec. 10 μ F 16V
C38, C39	5260163452	Elec. 22 μ F 25V
C40 ~ C43	5260162550	Elec. 10 μ F 16V
C44, C45	5260163452	Elec. 22 μ F 25V
C46, C47	5260166052	Elec. 100 μ F 16V
C48 ~ C53	5054758000	Dip Mica 82pF
C54, C55	5054204000	Ceramic 0.01 μ F 50V
C56 ~ C58	5054758000	Dip Mica 47pF
C59, C60	5260165252	Elec. 47 μ F 25V
C61	5054204000	Ceramic 0.01 μ F 50V
VARIABLE RESISTORS		
VR1	5282706700	5k Ω (RD) + 10k Ω (A)
VR2 ~ VR4	5283504402	10k Ω (BP) + 100k Ω (30C) x 2
VR5	5284006400	Slide 10k Ω (C)
VR6, VR7	5283504200	10k Ω (A) + 5k Ω (A, C)
VR8	5282408600	5k Ω (A, C)
VR9	5280001102	Semi-fixed 20k Ω (B)
SWITCHES		
S1, S2	5132037000	Lever, SLR522
S3 ~ S5	5132036000	Lever, SLR523
S6	5300029400	Push, SUJ30
S7	5300029800	Push, SUJ50
S8	5300029700	Push, SUJ60

REF. NO.	PARTS NO.	DESCRIPTION
CONNECTOR PLUGS		
P1	5122151000	8P
P2	5122150000	7P (RED)
P3	5122151000	8P
P4, P5	5122155000	12P
P6	5122149000	6P
MISCELLANEOUS		
	5210086300	PCB-211, SW (A)
	5210086400	PCB-212, SW (B)
	5122373000	Connector Socket, 2P
LED1 ~ LED6	5225006900	LED, PR3432S

Components Mounted Chart

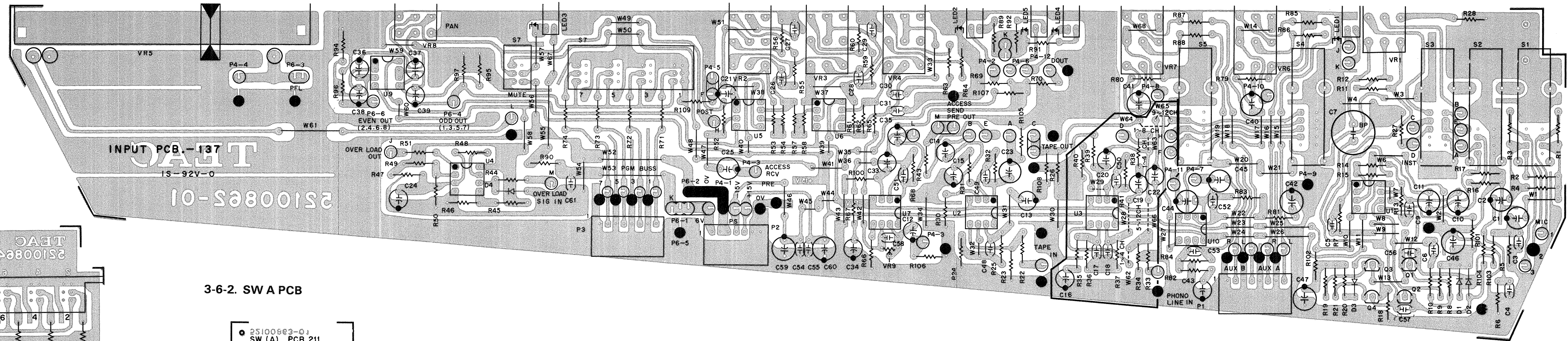
REF. NO.	PCB Ass'y							
	A	B	C	D	E	F	G	
	CHANNEL							
	1, 2	3	4	5, 6, 7	8	9, 10, 11	12	
	U3	-	o	o	o	o	o	o
	R33	-	-	-	o	o	o	o
	R34	-	47k	47k	2.2k	2.2k	2.2k	2.2k
	R35	-	o	o	-	-	-	-
	R36	-	o	o	-	-	-	-
	R37	-	o	o	-	-	-	-
	R38	-	o	o	-	-	-	-
	R39	-	o	o	o	o	o	o
	R40	-	o	o	o	o	o	o
	R41	-	o	o	o	o	o	o
	C16	-	o	o	-	-	-	-
	C17	-	o	o	-	-	-	-
	C18	-	o	o	-	-	-	-
	C19	-	o	o	-	-	-	-
	C20	-	o	o	o	o	o	o
	C22	-	o	o	o	o	o	o
	C50	-	o	o	o	o	o	o

MOTHER B PCB Ass'y

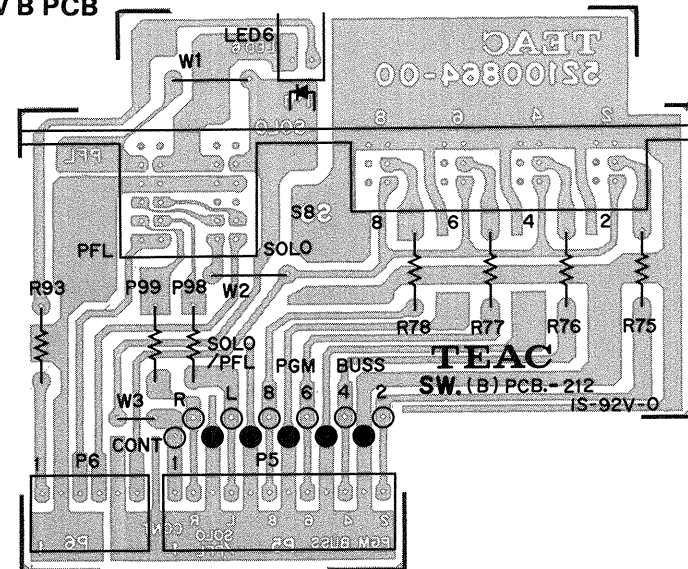
REF. NO.	PARTS NO.	DESCRIPTION
	5200088100	PCB Ass'y
	5210088100	PCB
IC'S		
U1, U2	5220416600	NJM2041DD
CARBON RESISTORS All resistors are rated $\pm 5\%$ tolerance at 1/4W.		
R1 ~ R4	5181514000	22k Ω
R5	5181530000	100k Ω
R6	5181484000	1.2k Ω
R7	5181506000	10k Ω
R8	5181482000	1k Ω
R9	5181526000	68k Ω
R10	5181482000	1k Ω
R11	5181506000	10k Ω
R12	5181530000	100k Ω
R13	5181484000	1.2k Ω
R14	5181506000	10k Ω
R15	5181482000	1k Ω
R16	5181526000	68k Ω
R17	5181482000	1k Ω
R18	5181506000	10k Ω
R19, R20	5183566000	33k Ω

REF. NO.	PARTS NO.	DESCRIPTION
CAPACITORS		
C2	5054758000	Dip Mica 82pF
C3	5260163352	Elec. 22 μ F 16V
C5	5054758000	Dip Mica 82pF
C6	5260163352	Elec. 22 μ F 16V
C8	5054758000	Dip Mica 82pF
C9	5260163352	Elec. 22 μ F 16V
C11	5054758000	Dip Mica 82pF
C12	5260163352	Elec. 22 μ F 16V
C13, C14	5260165252	Elec. 47 μ F 25V
C15, C16	5054204000	Ceramic 0.01 μ F 50V
CONNECTOR PLUGS		
P1 ~ P12	5122126000	2P
P13	5122304000	7P (RED)
P14	5122189000	8P (BLK)
P15	5122304000	7P (RED)
P16	5122189000	8P (BLK)
P17	5122304000	7P (RED)
P18, P19	5122189000	8P (BLK)
P20	5122132000	8P
P21	5122193000	12P (BLK)
P22	5122309000	12P (RED)
P23	5122128000	4P
P24	5122131000	7P (BLK)
P25	5122130000	6P
P26, P27	5122189000	8P (BLK)
P28	5122304000	7P (RED)
P29	5122302000	5P (RED)

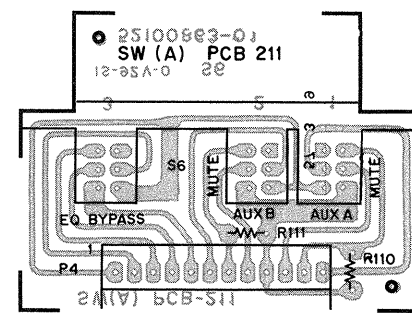
3-6. INPUT AMPL. A through G Ass'y



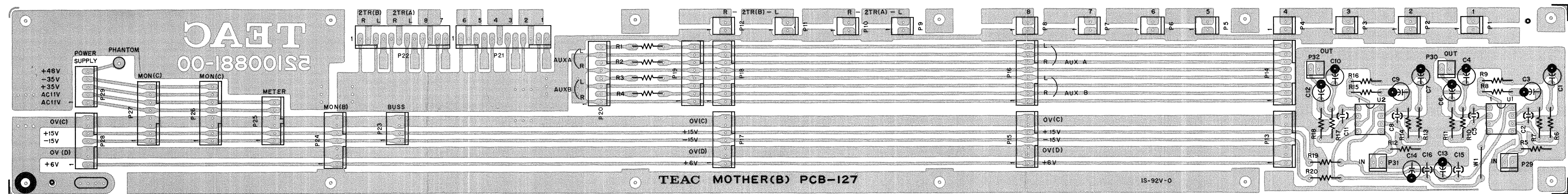
3-6-1. SW B PCB



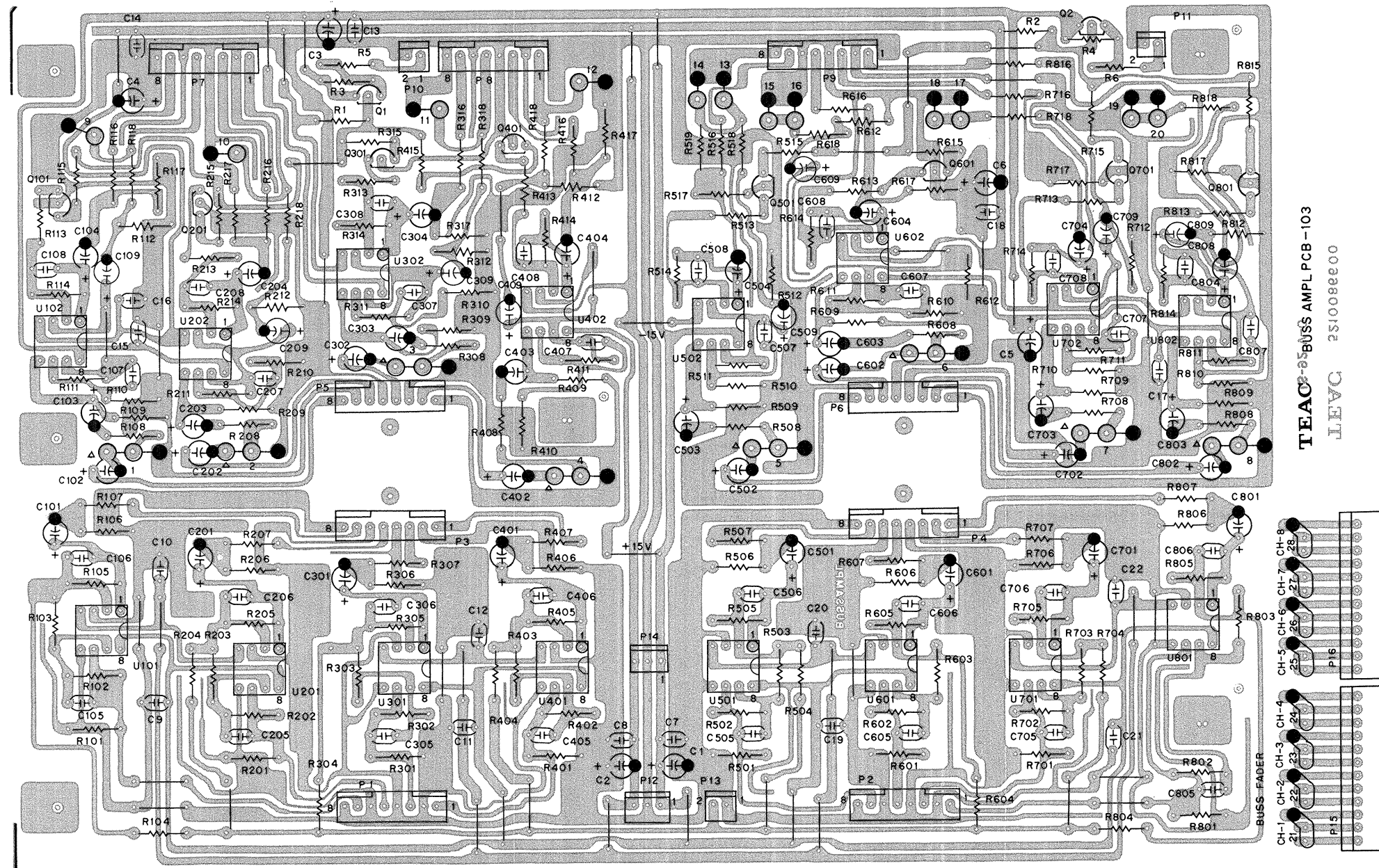
3-6-2. SW A PCB



3-7. MOTHER B PCB Ass'y



3-5. BUSS AMPL. PCB Ass'y



BUSS AMPL. PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200086600	PCB Ass'y
	5210086600	PCB
IC'S		
U101, U201	5220414400	NJM4556D
U301, U401	5220414400	
U501, U601	5220414400	
U701, U801	5220414400	
U102, U202	5220414400	NJM4556D
U302, U402	5220414400	
U502, U602	5220414400	
U702, U802	5220414400	
TRANSISTORS		
Q1, Q2	5145150000	2SA-1015GR
Q101, Q201	5230775000	2SC-2878B
Q301, Q401	5230775000	
Q501, Q601	5230775000	
Q701, Q801	5230775000	
CARBON RESISTORS		
All resistors are rated $\pm 5\%$ tolerance at 1/4W.		
R1 ~ R4	5181522000	47k Ω
R5, R6	5181506000	10k Ω
R101, R201	5181514000	22k Ω
R301, R401	5181514000	22k Ω
R501, R601	5181514000	22k Ω
R701, R801	5181514000	22k Ω
R102, R202	5181514000	22k Ω
R302, R402	5181514000	22k Ω
R502, R602	5181514000	22k Ω
R702, R802	5181514000	22k Ω
R103, R203	5181514000	22k Ω
R303, R403	5181514000	22k Ω
R503, R603	5181514000	22k Ω
R703, R803	5181514000	22k Ω
R104, R204	5181514000	22k Ω
R304, R404	5181514000	22k Ω
R504, R604	5181514000	22k Ω
R704, R804	5181514000	22k Ω
R105, R205	5181514000	22k Ω
R305, R405	5181514000	22k Ω
R505, R605	5181514000	22k Ω
R705, R805	5181514000	22k Ω
R106, R206	5181522000	47k Ω
R306, R406	5181522000	47k Ω
R506, R606	5181522000	47k Ω
R706, R806	5181522000	47k Ω
R107, R207	5181458000	100 Ω
R307, R407	5181458000	100 Ω
R507, R607	5181458000	100 Ω
R707, R807	5181458000	100 Ω

REF. NO.	PARTS NO.	DESCRIPTION
R108, R208	5181482000	1k Ω
R308, R408	5181482000	1k Ω
R508, R608	5181482000	1k Ω
R708, R808	5181482000	1k Ω
R109, R209	5181530000	100k Ω
R309, R409	5181530000	100k Ω
R509, R609	5181530000	100k Ω
R709, R809	5181530000	100k Ω
R110, R210	5181506000	10k Ω
R310, R410	5181506000	10k Ω
R510, R610	5181506000	10k Ω
R710, R810	5181506000	10k Ω
R111, R211	5181510000	15k Ω
R311, R411	5181510000	15k Ω
R511, R611	5181510000	15k Ω
R711, R811	5181510000	15k Ω
R112, R212	5181530000	100k Ω
R312, R412	5181530000	100k Ω
R512, R612	5181530000	100k Ω
R712, R812	5181530000	100k Ω
R113, R213	5181506000	10k Ω
R313, R413	5181506000	10k Ω
R513, R613	5181506000	10k Ω
R713, R813	5181506000	10k Ω
R114, R214	5181510000	15k Ω
R314, R414	5181510000	15k Ω
R514, R614	5181510000	15k Ω
R714, R814	5181510000	15k Ω
R115, R215	5181522000	47k Ω
R315, R415	5181522000	47k Ω
R515, R615	5181522000	47k Ω
R715, R815	5181522000	47k Ω
R116, R216	5181458000	100 Ω
R316, R416	5181458000	100 Ω
R516, R616	5181458000	100 Ω
R716, R816	5181458000	100 Ω
R117, R217	5181522000	47k Ω
R317, R417	5181522000	47k Ω
R517, R617	5181522000	47k Ω
R717, R817	5181522000	47k Ω
R118, R218	5181458000	100 Ω
R318, R418	5181458000	100 Ω
R518, R618	5181458000	100 Ω
R718, R818	5181458000	100 Ω

REF. NO.	PARTS NO.	DESCRIPTION
CAPACITORS		
C1 ~ C6	5260165252	Elec. 47 μ F 25V
C7 ~ C22	5054204000	Ceramic 0.01 μ F 50V
C101, C201	5260163452	Elec. 22 μ F 25V
C301, C401	5260163452	Elec. 22 μ F 25V
C501, C601	5260163452	Elec. 22 μ F 25V
C701, C801	5260163452	Elec. 22 μ F 25V
C102, C202	5260162550	Elec. 10 μ F 16V
C302, C402	5260162550	Elec. 10 μ F 16V
C502, C602	5260162550	Elec. 10 μ F 16V
C702, C802	5260162550	Elec. 10 μ F 16V
C103, C203	5260162550	Elec. 10 μ F 16V
C303, C403	5260162550	Elec. 10 μ F 16V
C503, C603	5260162550	Elec. 10 μ F 16V
C703, C803	5260162550	Elec. 10 μ F 16V
C104, C204	5260163452	Elec. 22 μ F 25V
C304, C404	5260163452	Elec. 22 μ F 25V
C504, C604	5260163452	Elec. 22 μ F 25V
C704, C804	5260163452	Elec. 22 μ F 25V
C105, C205	5054758000	Dip Mica 82pF
C305, C405	5054758000	Dip Mica 82pF
C505, C605	5054758000	Dip Mica 82pF
C705, C805	5054758000	Dip Mica 82pF
C106, C206	5054742000	Dip Mica 47pF
C306, C406	5054742000	Dip Mica 47pF
C506, C606	5054742000	Dip Mica 47pF
C706, C806	5054742000	Dip Mica 47pF
C107, C207	5054758000	Dip Mica 82pF
C307, C407	5054758000	Dip Mica 82pF
C507, C607	5054758000	Dip Mica 82pF
C707, C807	5054758000	Dip Mica 82pF
C108, C208	5054758000	Dip Mica 82pF
C308, C408	5054758000	Dip Mica 82pF
C508, C608	5054758000	Dip Mica 82pF
C708, C808	5054758000	Dip Mica 82pF
C109, C209	5260163452	Elec. 22 μ F 25V
C309, C409	5260163452	Elec. 22 μ F 25V
C509, C609	5260163452	Elec. 22 μ F 25V
C709, C809	5260163452	Elec. 22 μ F 25V
CONNECTOR PLUGS		
P1 ~ P9	5122132000	8P
P10 ~ P11	5122126000	2P
P12	5122127000	3P
P13	5122126000	2P
P14	5122127000	3P
P15, P16	5122155000	12P

A

B

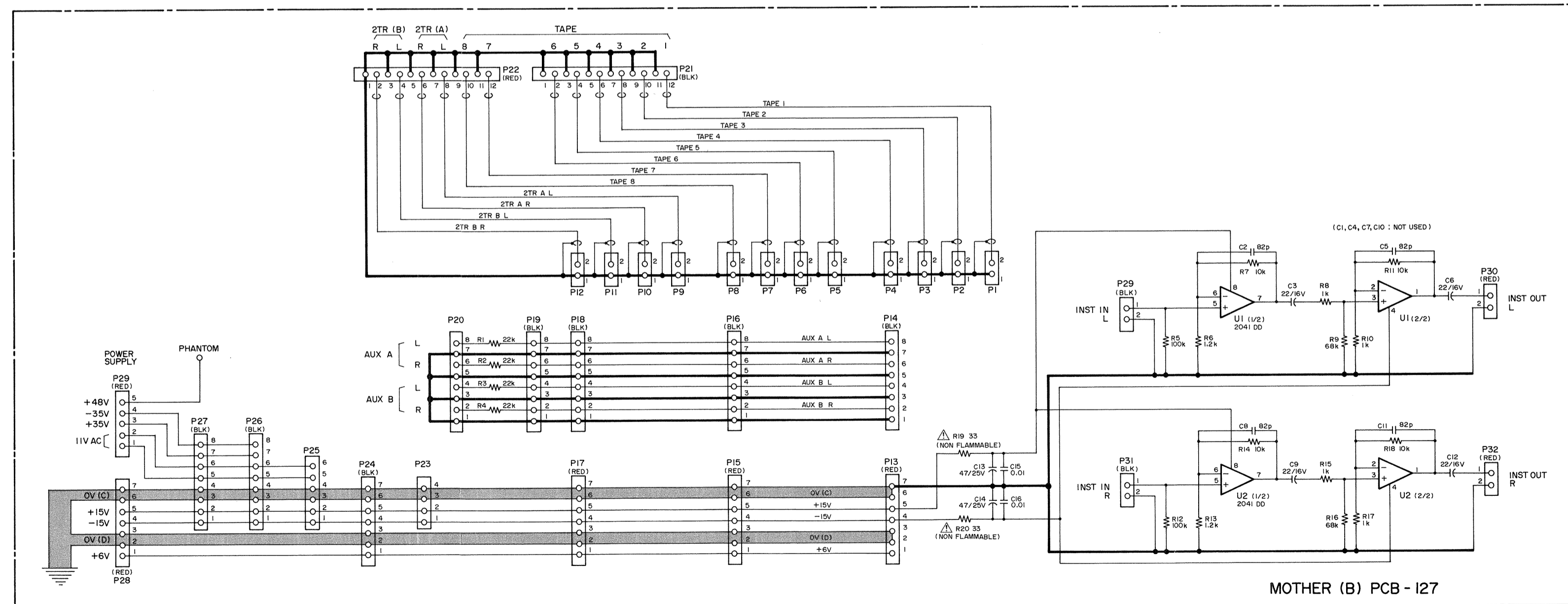
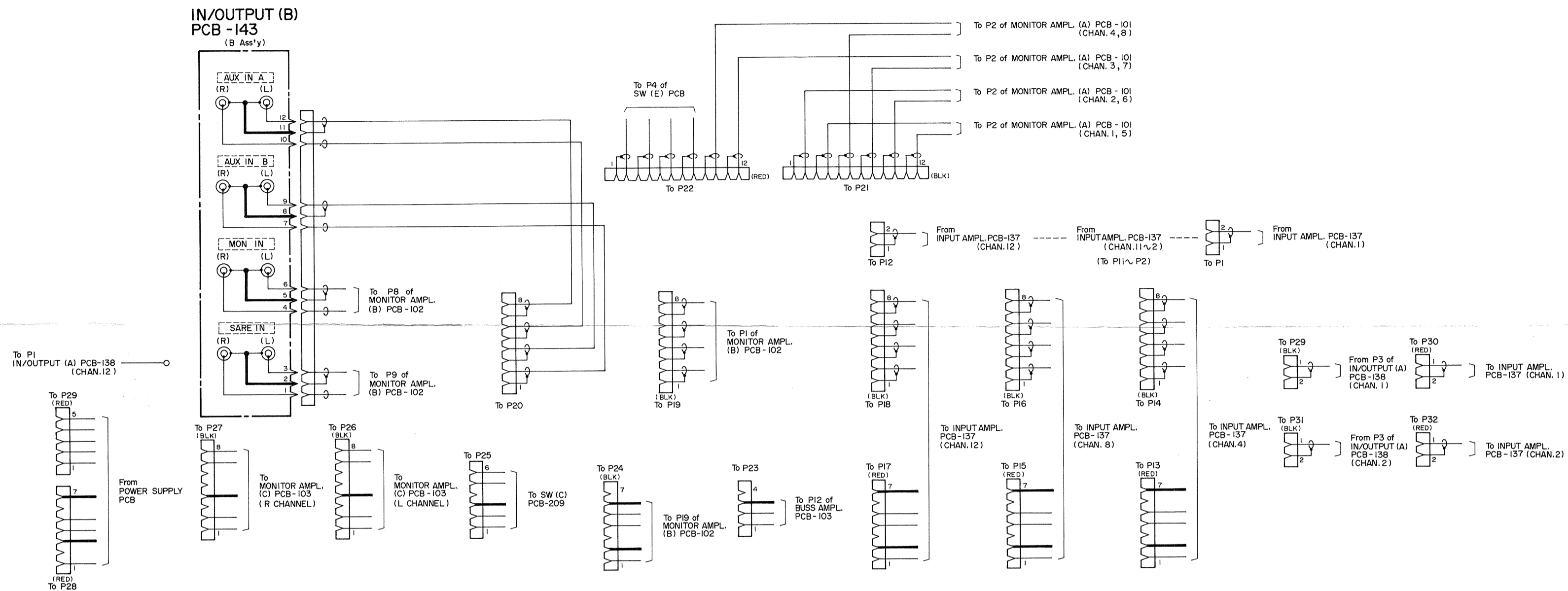
C

D

E

F

G



1 2 3 4 5 6 7 8 9 10 11

A

B

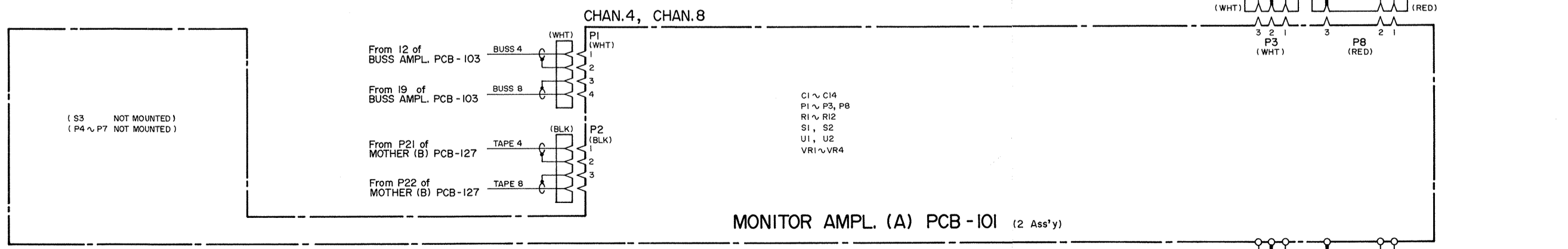
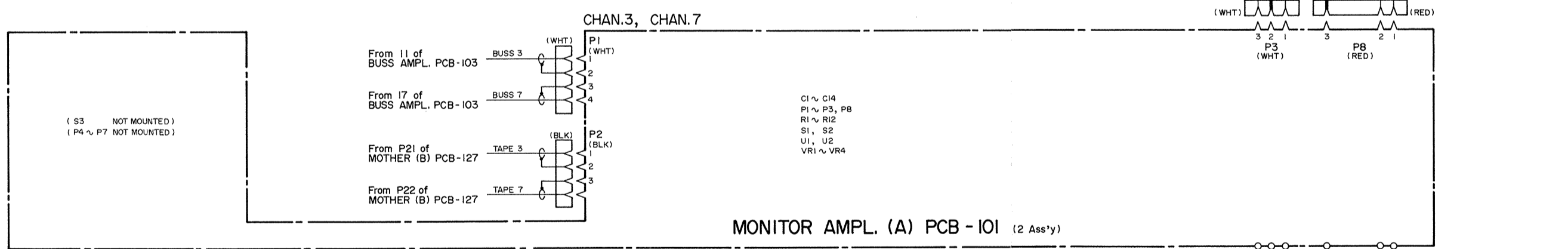
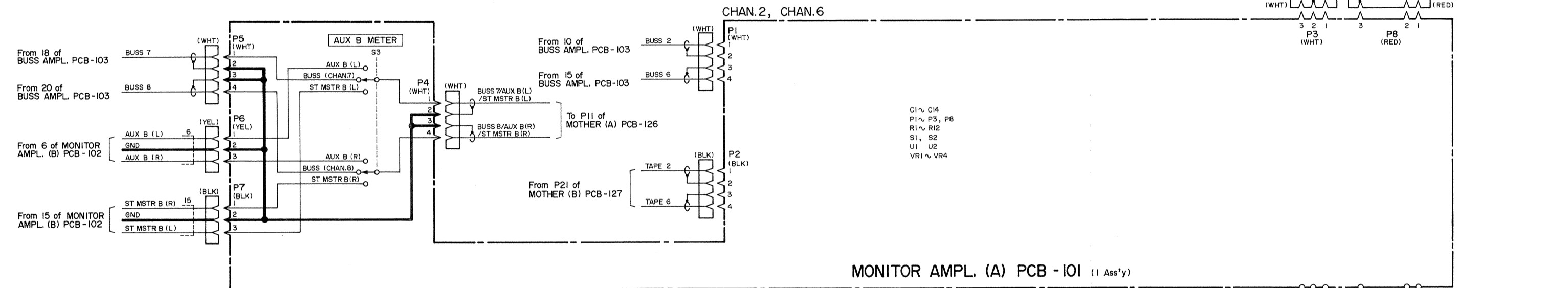
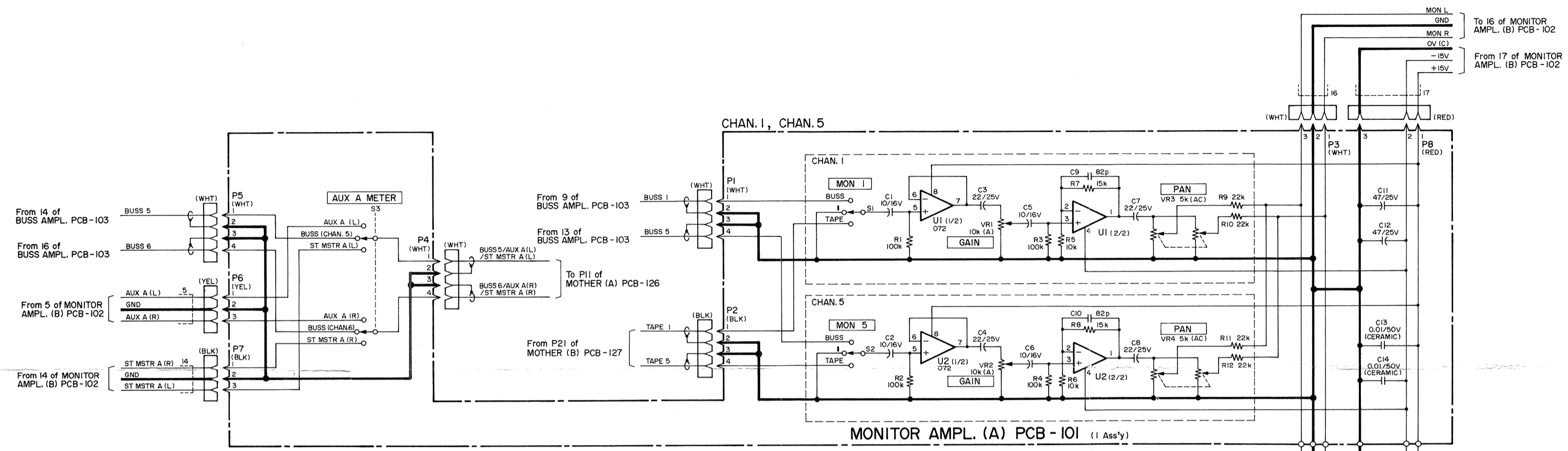
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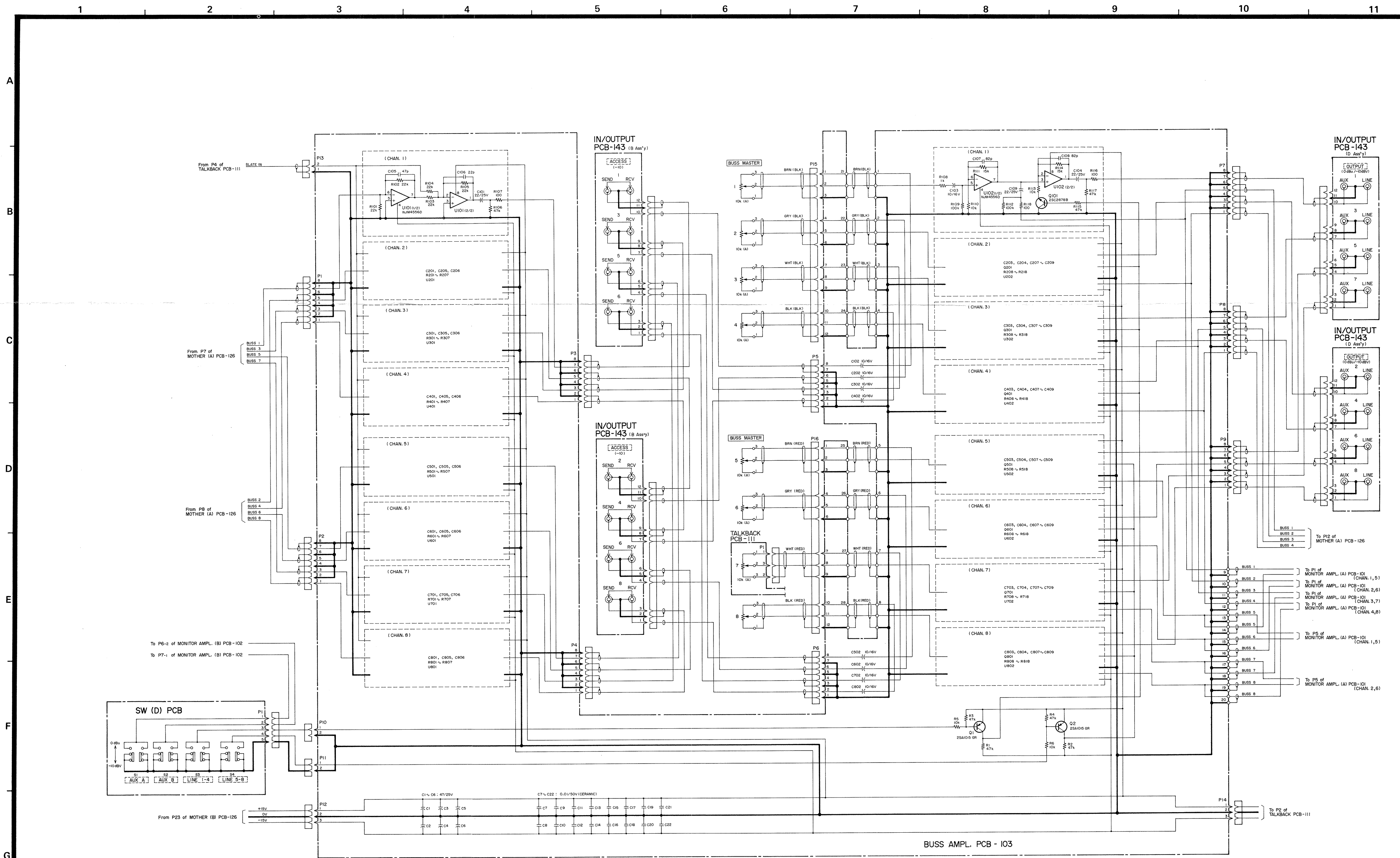
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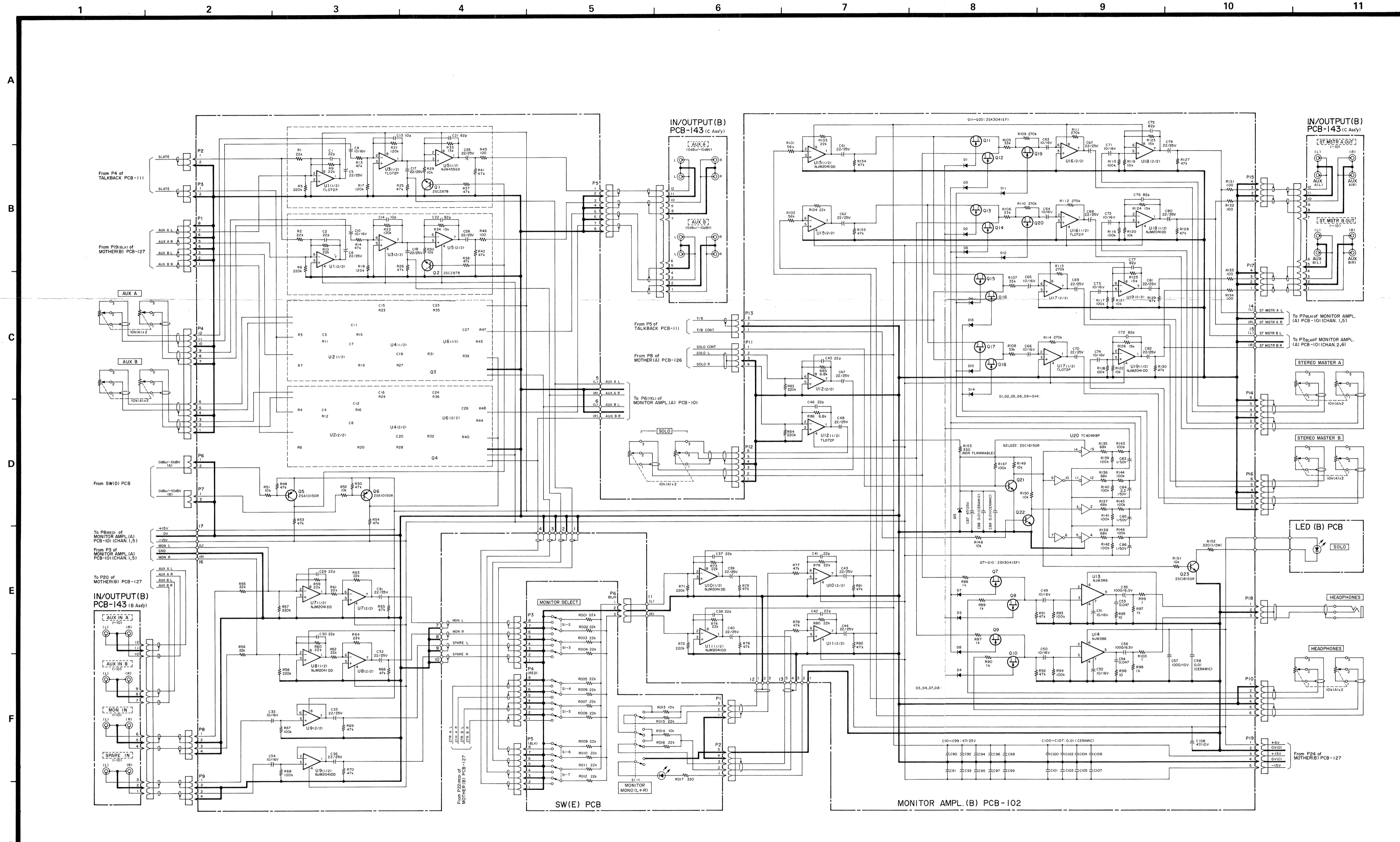
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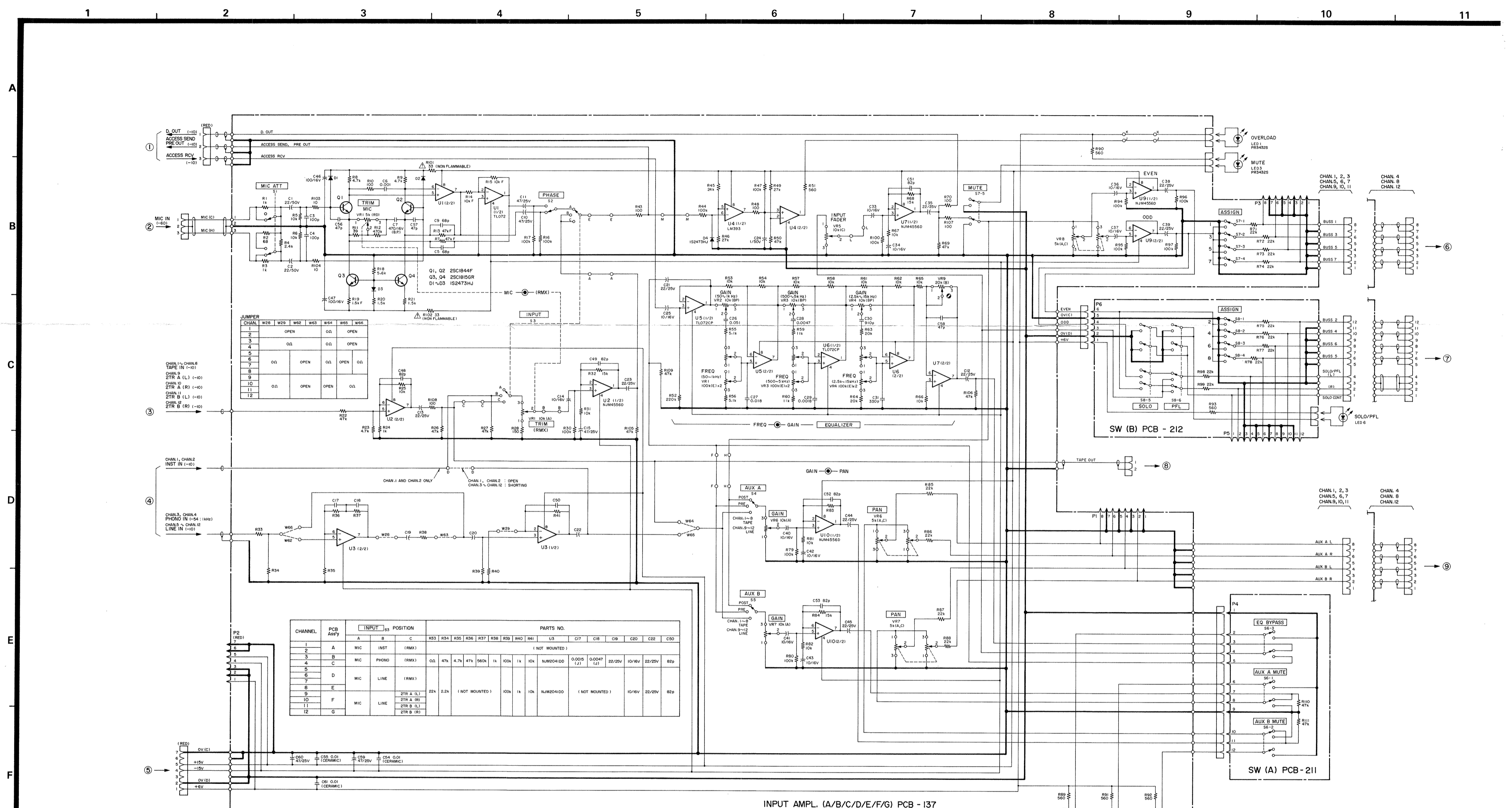
F

G









CHANNEL	PCB Assy	INPUT POSITION			PARTS NO.															
		A	B	C	R33	R34	R35	R36	R37	R38	R40	R41	U3	C17	C18	C19	C20	C22	C50	
1	A	MIC	INST	(RMX)																
2	B	MIC	PHONO	(RMX)	Q1	47k	4.7k	47k	500k	1k	10k	10k	NUM20400	0.0015 (J)	0.0047 (J)	22/25V	10/16V	22/25V	82p	
3	C	MIC	LINE	(RMX)																
4	D	MIC	LINE	(RMX)																
5	E	MIC	LINE	(RMX)																
6	F	MIC	LINE	(RMX)																
7	G	MIC	LINE	(RMX)																
8			STR A (L)		22k	2.2k														
9			STR A (R)																	
10			STR B (L)																	
11			STR B (R)																	
12																				

INPUT AMPL. (A/B/C/D/E/F/G) PCB - 137

CHANNEL	①	②	③	④	⑤	⑥	⑦	⑧	⑨	CHANNEL
1	IN/OUTPUT (A) PCB P4 of CH.1	IN/OUTPUT (A) PCB P2 of CH.1	IN/OUTPUT (A) PCB P3 of CH.1	MOTHER (B) PCB P30	INPUT AMPL. PCB P2 of CH.2	INPUT AMPL. PCB P3 of CH.2	SW (B) PCB P5 of CH.2	MOTHER (B) PCB P1	INPUT AMPL. PCB P1 of CH.2	1
2	IN/OUTPUT (A) PCB P4 of CH.2	IN/OUTPUT (A) PCB P2 of CH.2	IN/OUTPUT (A) PCB P3 of CH.2	MOTHER (B) PCB P32	INPUT AMPL. PCB P2 of CH.3	INPUT AMPL. PCB P3 of CH.3	SW (B) PCB P5 of CH.3	MOTHER (B) PCB P2	INPUT AMPL. PCB P1 of CH.3	2
3	IN/OUTPUT (A) PCB P4 of CH.3	IN/OUTPUT (A) PCB P2 of CH.3	IN/OUTPUT (A) PCB P3 of CH.3	MOTHER (B) PCB P34	INPUT AMPL. PCB P2 of CH.4	INPUT AMPL. PCB P3 of CH.4	SW (B) PCB P5 of CH.4	MOTHER (B) PCB P3	INPUT AMPL. PCB P1 of CH.4	3
4	IN/OUTPUT (A) PCB P4 of CH.4	IN/OUTPUT (A) PCB P2 of CH.4	IN/OUTPUT (A) PCB P3 of CH.4	MOTHER (B) PCB P36	INPUT AMPL. PCB P2 of CH.5	INPUT AMPL. PCB P3 of CH.5	SW (B) PCB P5 of CH.5	MOTHER (B) PCB P4	INPUT AMPL. PCB P1 of CH.5	4
5	IN/OUTPUT (A) PCB P4 of CH.5	IN/OUTPUT (A) PCB P2 of CH.5	IN/OUTPUT (A) PCB P3 of CH.5	MOTHER (B) PCB P38	INPUT AMPL. PCB P2 of CH.6	INPUT AMPL. PCB P3 of CH.6	SW (B) PCB P5 of CH.6	MOTHER (B) PCB P5	INPUT AMPL. PCB P1 of CH.6	5
6	IN/OUTPUT (A) PCB P4 of CH.6	IN/OUTPUT (A) PCB P2 of CH.6	IN/OUTPUT (A) PCB P3 of CH.6	MOTHER (B) PCB P40	INPUT AMPL. PCB P2 of CH.7	INPUT AMPL. PCB P3 of CH.7	SW (B) PCB P5 of CH.7	MOTHER (B) PCB P6	INPUT AMPL. PCB P1 of CH.7	6
7	IN/OUTPUT (A) PCB P4 of CH.7	IN/OUTPUT (A) PCB P2 of CH.7	IN/OUTPUT (A) PCB P3 of CH.7	MOTHER (B) PCB P42	INPUT AMPL. PCB P2 of CH.8	INPUT AMPL. PCB P3 of CH.8	SW (B) PCB P5 of CH.8	MOTHER (B) PCB P7	INPUT AMPL. PCB P1 of CH.8	7
8	IN/OUTPUT (A) PCB P4 of CH.8	IN/OUTPUT (A) PCB P2 of CH.8	IN/OUTPUT (A) PCB P3 of CH.8	MOTHER (B) PCB P44	INPUT AMPL. PCB P2 of CH.9	INPUT AMPL. PCB P3 of CH.9	SW (B) PCB P5 of CH.9	MOTHER (B) PCB P8	INPUT AMPL. PCB P1 of CH.9	8
9	IN/OUTPUT (A) PCB P4 of CH.9	IN/OUTPUT (A) PCB P2 of CH.9	IN/OUTPUT (A) PCB P3 of CH.9	MOTHER (B) PCB P46	INPUT AMPL. PCB P2 of CH.10	INPUT AMPL. PCB P3 of CH.10	SW (B) PCB P5 of CH.10	MOTHER (B) PCB P9	INPUT AMPL. PCB P1 of CH.10	9
10	IN/OUTPUT (A) PCB P4 of CH.10	IN/OUTPUT (A) PCB P2 of CH.10	IN/OUTPUT (A) PCB P3 of CH.10	MOTHER (B) PCB P48	INPUT AMPL. PCB P2 of CH.11	INPUT AMPL. PCB P3 of CH.11	SW (B) PCB P5 of CH.11	MOTHER (B) PCB P10	INPUT AMPL. PCB P1 of CH.11	10
11	IN/OUTPUT (A) PCB P4 of CH.11	IN/OUTPUT (A) PCB P2 of CH.11	IN/OUTPUT (A) PCB P3 of CH.11	MOTHER (B) PCB P50	INPUT AMPL. PCB P2 of CH.12	INPUT AMPL. PCB P3 of CH.12	SW (B) PCB P5 of CH.12	MOTHER (B) PCB P11	INPUT AMPL. PCB P1 of CH.12	11
12	IN/OUTPUT (A) PCB P4 of CH.12	IN/OUTPUT (A) PCB P2 of CH.12	IN/OUTPUT (A) PCB P3 of CH.12	MOTHER (B) PCB P52	MOTHER (A) PCB P7	MOTHER (A) PCB P5	MOTHER (A) PCB P6	MOTHER (B) PCB P12	MOTHER (B) PCB P18	12

CONNECTION



1 2 3 4 5 6 7 8 9 10 11

A

B

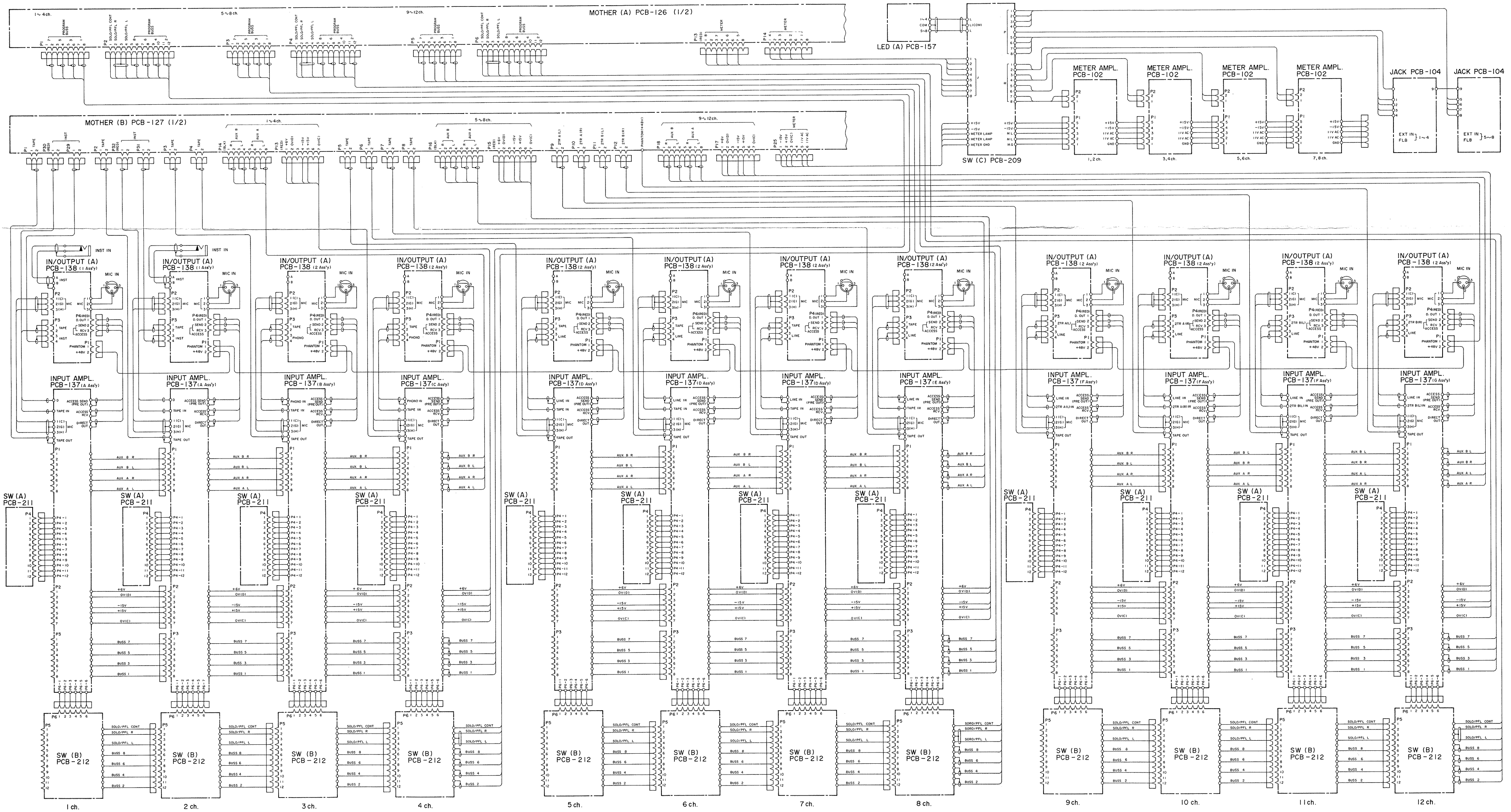
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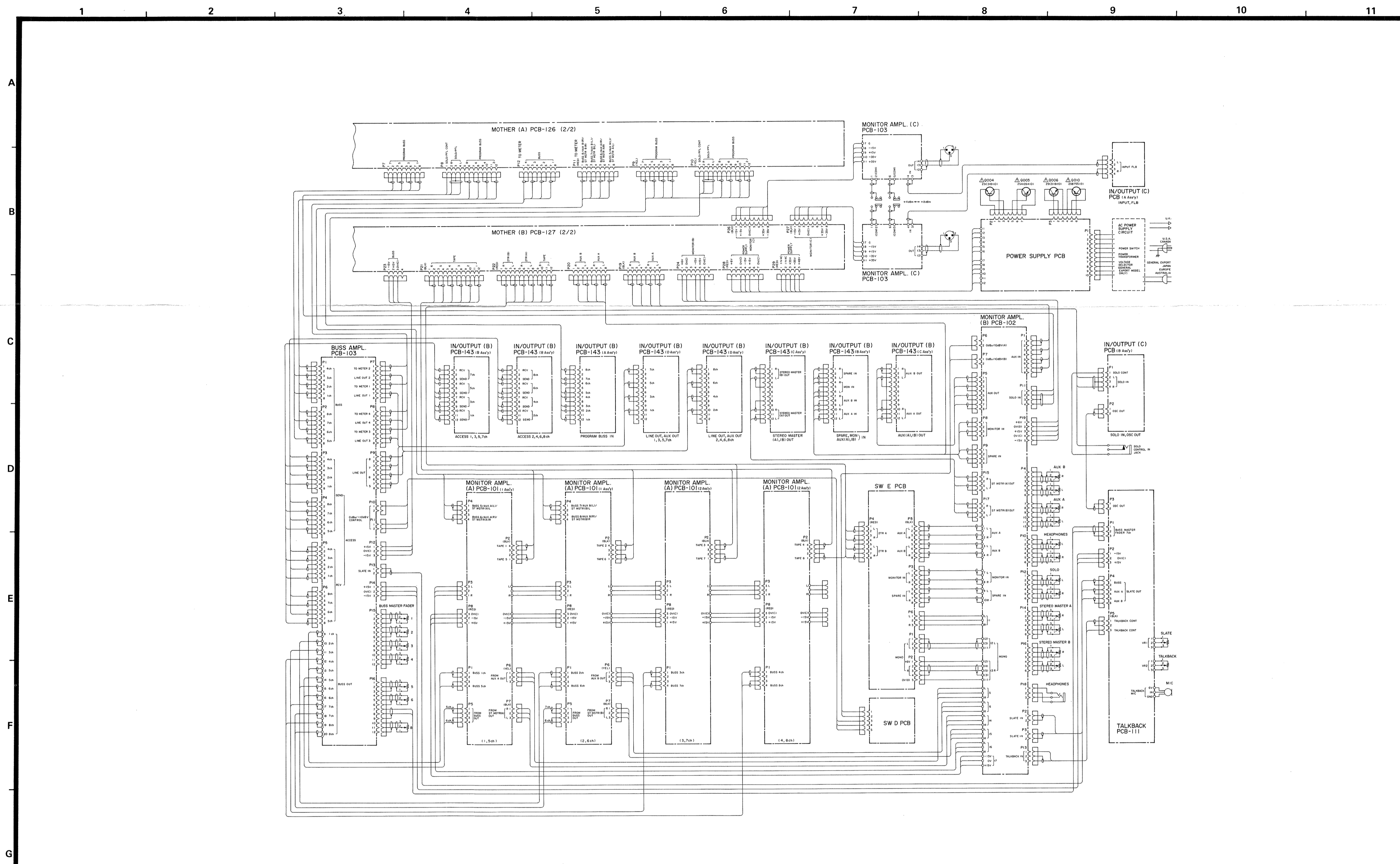
D

E

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G

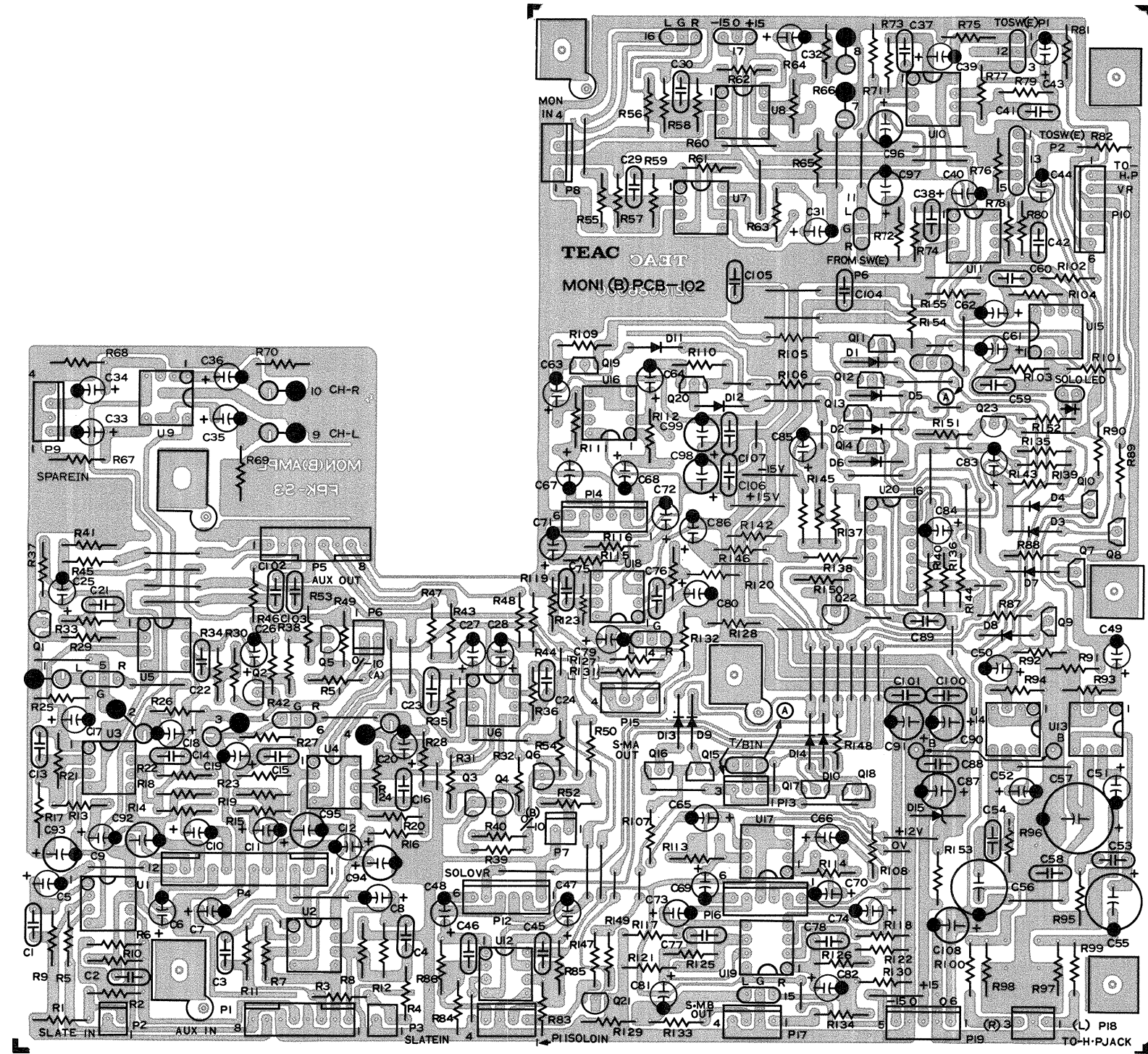




A
B
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G

1 2 3 4 5 6 7 8 9 10 11

3-8. MONITOR AMPL. B PCB Ass'y



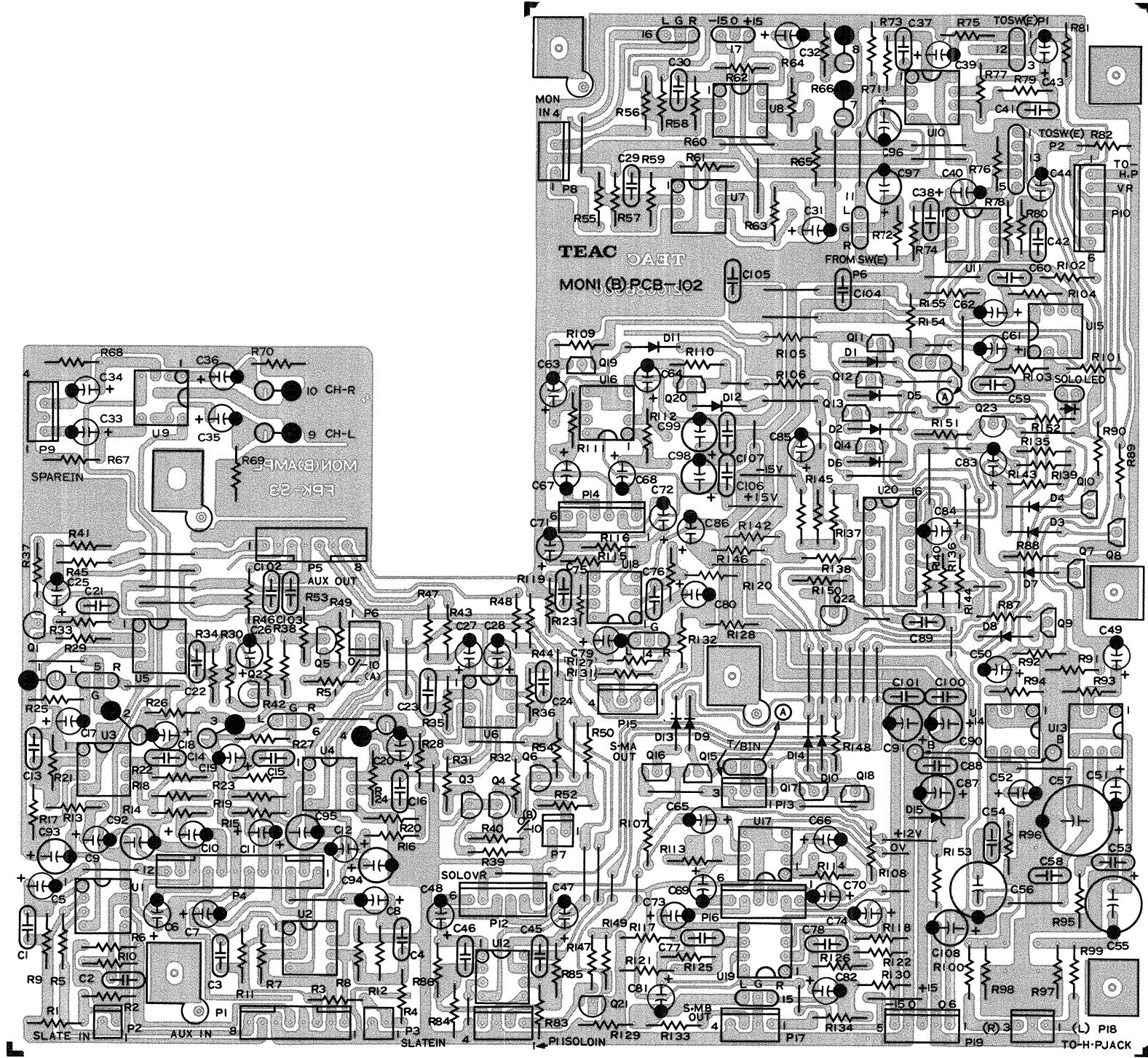
MONITOR AMPL. B PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200086900	PCB Ass'y
	5210086900	PCB
IC'S		
U1 ~ U4	5220407000	TL072CP
U5, U6	5220414400	NJM4556D
U7 ~ U11	5220416600	NJM2041DD
U12	5220407000	TL072CP
U13, U14	6048649000	NJM386D
U15	5220416600	NJM2041DD
U16, U17	5220407000	TL072CP
U18, U19	5220416600	NJM2041DD
U20	5220020000	TC4049BP
TRANSISTORS		
Q1 ~ Q4	5230775000	2SB-2878B
Q5, Q6	5145150000	2SA-1015GR
Q7 ~ Q20	5232007000	2SK-304 (EF)
Q21 ~ Q23	5145151000	2SC-1815GR
DIODES		
D1 ~ D14	5143118000	1S2473HJ
D15	5042281000	WZ120, Zener
CARBON RESISTORS		
All resistors are rated $\pm 5\%$ tolerance at 1/4W.		
R1 ~ R4	5181514000	22k Ω
R5 ~ R8	5181538000	220k Ω
R9 ~ R12	5181514000	22k Ω
R13 ~ R16	5181522000	47k Ω
R17 ~ R24	5181532000	120k Ω
R25 ~ R28	5181522000	47k Ω
R29 ~ R32	5181506000	10k Ω
R33 ~ R36	5181510000	15k Ω
R37 ~ R44	5181522000	47k Ω
R45 ~ R48	5181458000	100k Ω
R49, R50	5181522000	47k Ω
R51, R52	5181506000	10k Ω
R53, R54	5181522000	47k Ω
R55, R56	5181514000	22k Ω
R57, R58	5181538000	220k Ω
R59, R64	5181514000	22k Ω
R65, R66	5181522000	47k Ω
R67, R68	5181530000	100k Ω
R69, R70	5181522000	47k Ω
R71, R72	5181538000	220k Ω
R73, R74	5181514000	22k Ω
R75 ~ R78	5181522000	47k Ω
R79, R80	5181526000	68k Ω
R81, R82	5181522000	47k Ω
R83, R84	5181538000	220k Ω

REF. NO.	PARTS NO.	DESCRIPTION
R85, R86	5181502000	6.8k Ω
R87 ~ R90	5181482000	1k Ω
R91, R92	5181522000	47k Ω
R93, R94	5181530000	100k Ω
R95, R96	5181434000	10 Ω
R97, R98	5181482000	1k Ω
R99, R100	5181410000	1 Ω
R101, R102	5181524000	56k Ω
R103, R104	5181514000	22k Ω
R105 ~ R108	5181518000	33k Ω
R109 ~ R114	5181540000	270k Ω
R115 ~ R118	5181530000	100k Ω
R119 ~ R122	5181506000	10k Ω
R123 ~ R126	5181510000	15k Ω
R127 ~ R130	5181522000	47k Ω
R131 ~ R134	5181458000	100 Ω
R135 ~ R138	5181526000	68k Ω
R139 ~ R148	5181530000	100k Ω
R149 ~ R151	5181506000	10k Ω
R152	5180066000	220 Ω (1/2W)
R153	5183582000	150 Ω Nonflammable
R154, R155	5181522000	47k Ω
R156, R157	5181514000	22k Ω
CAPACITORS		
C1 ~ C4	5054382000	Dip Mica 22pF
C5 ~ C8	5260163452	Elec. 22 μ F 25V
C9 ~ C12	5260162550	Elec. 10 μ F 16V
C13 ~ C16	5054740000	Dip Mica 10pF
C17 ~ C20	5260163452	Elec. 22 μ F 25V
C21 ~ C24	5054758000	Dip Mica 82pF
C25 ~ C28	5260163452	Elec. 22 μ F 25V
C29, C30	5054382000	Dip Mica 22pF
C31, C32	5260163452	Elec. 22 μ F 25V
C33, C34	5260162550	Elec. 10 μ F 16V
C35, C36	5260163452	Elec. 22 μ F 25V
C37, C38	5054382000	Dip Mica 22pF
C39, C40	5260163452	Elec. 22 μ F 25V
C41, C42	5054382000	Dip Mica 22pF
C43, C44	5260163452	Elec. 22 μ F 25V
C45, C46	5054382000	Dip Mica 22pF
C47, C48	5260163352	Elec. 22 μ F 16V
C49 ~ C52	5260162550	Elec. 10 μ F 16V
C53, C54	5054738500	Mylar 0.047 μ F
C55, C56	5173079000	Elec. 1000 μ F 6.3V
C57	5173080000	Elec. 1000 μ F 10V
C58	5054204000	Ceramic 0.01 μ F 50V
C61, C62	5260163452	Elec. 22 μ F 25V
C63 ~ C66	5260162550	Elec. 10 μ F 16V
C67 ~ C70	5260163452	Elec. 22 μ F 25V

REF. NO.	PARTS NO.	DESCRIPTION
C71 ~ C74	5260162550	Elec. 10 μ F 16V
C75 ~ C78	5054758000	Dip Mica 82pF
C79 ~ C82	5260163452	Dip Mica 22pF 25V
C83	5260160750	Elec. 1 μ F 16V
C84	5260161150	Elec. 2.2 μ F 50V
C85, C86	5260160750	Elec. 1 μ F 50V
C87	5260165252	Elec. 47 μ F 25V
C88, C89	5054204000	Ceramic 0.01 μ F 50V
C90 ~ C99	5260165252	Elec. 47 μ F 25V
C100 ~ C107	5054204000	Ceramic 0.01 μ F 50V
C108	5260165052	Elec. 47 μ F 10V
CONNECTOR PLUGS		
P1	5122132000	8P
P2, P3	5122126000	2P
P4	5122136000	12P
P5	5122132000	8P
P6, P7	5122126000	2P
P8, P9	5122128000	4P
P10	5122130000	6P
P11	5122128000	4P
P12	5122130000	6P
P13	5122127000	3P
P14	5122130000	6P
P15	5122128000	4P
P16	5122130000	6P
P17	5122128000	4P
P18	5122127000	3P
P19	5122129000	5P

3-8. MONITOR AMPL. B PCB Ass'y



MONITOR AMPL. B PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200086900	PCB Ass'y
	5210086900	PCB
IC'S		
U1 ~ U4	5220407000	TL072CP
U5, U6	5220414400	NJM4556D
U7 ~ U11	5220416600	NJM2041DD
U12	5220407000	TL072CP
U13, U14	6048649000	NJM386D
U15	5220416600	NJM2041DD
U16, U17	5220407000	TL072CP
U18, U19	5220416600	NJM2041DD
U20	5220020000	TC4049BP
TRANSISTORS		
Q1 ~ Q4	5230775000	2SB-2878B
Q5, Q6	5145150000	2SA-1015GR
Q7 ~ Q20	5232007000	2SK-304 (EF)
Q21 ~ Q23	5145151000	2SC-1815GR
DIODES		
D1 ~ D14	5143118000	1S2473HJ
D15	5042281000	WZ120, Zener
CARBON RESISTORS		
All resistors are rated $\pm 5\%$ tolerance at 1/4W.		
R1 ~ R4	5181514000	22k Ω
R5 ~ R8	5181538000	220k Ω
R9 ~ R12	5181514000	22k Ω
R13 ~ R16	5181522000	47k Ω
R17 ~ R24	5181532000	120k Ω
R25 ~ R28	5181522000	47k Ω
R29 ~ R32	5181506000	10k Ω
R33 ~ R36	5181510000	15k Ω
R37 ~ R44	5181522000	47k Ω
R45 ~ R48	5181458000	100k Ω
R49, R50	5181522000	47k Ω
R51, R52	5181506000	10k Ω
R53, R54	5181522000	47k Ω
R55, R56	5181514000	22k Ω
R57, R58	5181538000	220k Ω
R59, R64	5181514000	22k Ω
R65, R66	5181522000	47k Ω
R67, R68	5181530000	100k Ω
R69, R70	5181522000	47k Ω
R71, R72	5181538000	220k Ω
R73, R74	5181514000	22k Ω
R75 ~ R78	5181522000	47k Ω
R79, R80	5181526000	68k Ω
R81, R82	5181522000	47k Ω
R83, R84	5181538000	220k Ω

REF. NO.	PARTS NO.	DESCRIPTION
R85, R86	5181502000	6.8k Ω
R87 ~ R90	5181482000	1k Ω
R91, R92	5181522000	47k Ω
R93, R94	5181530000	100k Ω
R95, R96	5181434000	10 Ω
R97, R98	5181482000	1k Ω
R99, R100	5181410000	1 Ω
R101, R102	5181524000	56k Ω
R103, R104	5181514000	22k Ω
R105 ~ R108	5181518000	33k Ω
R109 ~ R114	5181540000	270k Ω
R115 ~ R118	5181530000	100k Ω
R119 ~ R122	5181506000	10k Ω
R123 ~ R126	5181510000	15k Ω
R127 ~ R130	5181522000	47k Ω
R131 ~ R134	5181458000	100 Ω
R135 ~ R138	5181526000	68k Ω
R139 ~ R148	5181530000	100k Ω
R149 ~ R151	5181506000	10k Ω
R152	5180066000	220 Ω (1/2W)
R153	5183582000	150 Ω Nonflammable
R154, R155	5181522000	47k Ω
R156, R157	5181514000	22k Ω
CAPACITORS		
C1 ~ C4	5054382000	Dip Mica 22pF
C5 ~ C8	5260163452	Elec. 22 μ F 25V
C9 ~ C12	5260162550	Elec. 10 μ F 16V
C13 ~ C16	5054740000	Dip Mica 10pF
C17 ~ C20	5260163452	Elec. 22 μ F 25V
C21 ~ C24	5054758000	Dip Mica 82pF
C25 ~ C28	5260163452	Elec. 22 μ F 25V
C29, C30	5054382000	Dip Mica 22pF
C31, C32	5260163452	Elec. 22 μ F 25V
C33, C34	5260162550	Elec. 10 μ F 16V
C35, C36	5260163452	Elec. 22 μ F 25V
C37, C38	5054382000	Dip Mica 22pF
C39, C40	5260163452	Elec. 22 μ F 25V
C41, C42	5054382000	Dip Mica 22pF
C43, C44	5260163452	Elec. 22 μ F 25V
C45, C46	5054382000	Dip Mica 22pF
C47, C48	5260163352	Elec. 22 μ F 16V
C49 ~ C52	5260162550	Elec. 10 μ F 16V
C53, C54	5054738500	Myler 0.047 μ F
C55, C56	5173079000	Elec. 1000 μ F 6.3V
C57	5173080000	Elec. 1000 μ F 10V
C58	5054204000	Ceramic 0.01 μ F 50V
C61, C62	5260163452	Elec. 22 μ F 25V
C63 ~ C66	5260162550	Elec. 10 μ F 16V
C67 ~ C70	5260163452	Elec. 22 μ F 25V

REF. NO.	PARTS NO.	DESCRIPTION
C71 ~ C74	5260162550	Elec. 10 μ F 16V
C75 ~ C78	5054758000	Dip Mica 82pF
C79 ~ C82	5260163452	Dip Mica 22pF 25V
C83	5260160750	Elec. 1 μ F 16V
C84	5260161150	Elec. 2.2 μ F 50V
C85, C86	5260160750	Elec. 1 μ F 50V
C87	5260165252	Elec. 47 μ F 25V
C88, C89	5054204000	Ceramic 0.01 μ F 50V
C90 ~ C99	5260165252	Elec. 47 μ F 25V
C100 ~ C107	5054204000	Ceramic 0.01 μ F 50V
C108	5260165052	Elec. 47 μ F 10V
CONNECTOR PLUGS		
P1	5122132000	8P
P2, P3	5122126000	2P
P4	5122136000	12P
P5	5122132000	8P
P6, P7	5122126000	2P
P8, P9	5122128000	4P
P10	5122130000	6P
P11	5122128000	4P
P12	5122130000	6P
P13	5122127000	3P
P14	5122130000	6P
P15	5122128000	4P
P16	5122130000	6P
P17	5122128000	4P
P18	5122127000	3P
P19	5122129000	5P

INPUT AMPL. A through G Ass'y (Included SW A PCB and SW B PCB.)

REF. NO.	PARTS NO.	DESCRIPTION
	5200086201	PCB A Ass'y (Chan. 1, 2)
	5200086211	PCB B Ass'y (Chan. 3)
	5200086221	PCB C Ass'y (Chan. 4)
	5200086231	PCB D Ass'y (Chan. 5, 6, 7)
	5200086241	PCB E Ass'y (Chan. 8)
	5200086251	PCB F Ass'y (Chan. 9, 10, 11)
	5200086261	PCB G Ass'y (Chan. 12)
	5200086201	PCB
IC'S		
U1	5220407000	TLO72CP
U2	5220414400	NJM4556D
U3	5220416600	NJM2041DD
U4	5220417000	LM393P
U5, U6	5220407000	TLO73CP
U7	5220414400	NJM4556D
U9, U10	5220414400	NJM4656D
TRANSISTORS		
Q1, Q2	5145119000	2SC-1844F
Q3, Q4	5145151000	2SC-1815GR
DIODES		
D1 ~ D4	5143118000	1S24T3HJ
CARBON RESISTORS		
All resistors are rated $\pm 5\%$ tolerance, 1/4W and of carbon type unless otherwise noted.		
R1	5181482000	1k Ω
R2	5181454000	68 Ω
R3	5181482000	1k Ω
R4	5181491000	2.4k Ω
R5, R6	5181506000	10k Ω
R7	5241152200	47k Ω 1% Metal Film
R8, R9	5241149800	4.7k Ω 1% Metal Film
R10	5181458000	100 Ω
R11	5181448000	39 Ω
R12	5181546000	470k Ω
R13	5241152200	47k Ω 1% Metal Film
R14, R15	5241150600	10k Ω 1% Metal Film
R16, R17	5181530000	100k Ω
R18	5181500000	5.6k Ω
R19	5241148600	1.5k Ω 1% Metal Film
R20	5181486000	1.5k Ω
R21	5241148600	1.5k Ω 1% Metal Film
R22	5181522000	47k Ω
R23	5181498000	4.7k Ω
R24	5181482000	1k Ω
R25	5181506000	10k Ω
R26	5181522000	47k Ω
R27	5181522000	47k Ω
R28, R29	5181462000	150 Ω
R30	5181530000	100k Ω

REF. NO.	PARTS NO.	DESCRIPTION
R31	5181506000	10k Ω
R32	5181510000	15k Ω
R33	5181514000	22k Ω
R34	5181522000	47k Ω
R34	5181490000	2.2k Ω
R35	5181498000	4.7k Ω
R36	5181522000	47k Ω
R37	5181548000	560k Ω
R38	5181482000	1k Ω
R39	5181530000	100k Ω
R40	5181482000	1k Ω
R41	5181506000	10k Ω
R42	5181522000	100k Ω
R43	5181458000	100 Ω
R44	5181530000	100k Ω
R45	5181515000	24k Ω
R46	5181516000	27k Ω
R47	5181530000	100k Ω
R48	5181458000	100 Ω
R49	5181516000	27k Ω
R50	5181522000	47k Ω
R51	5181456000	560 Ω
R52	5181538000	220k Ω
R53, R54	5181506000	10k Ω
R55, R56	5181499000	5.1k Ω
R57, R58	5181506000	10k Ω
R59, R60	5181507000	11k Ω
R61, R62	5181506000	10k Ω
R63, R64	5181513000	20k Ω
R65 ~ R67	5181506000	10k Ω
R68	5181510000	15k Ω
R69	5181522000	47k Ω
R70	5181458000	100 Ω
R71 ~ R78	5181514000	22k Ω
R79, R80	5181530000	100k Ω
R81, R82	5181506000	10k Ω
R83, R84	5181510000	15k Ω
R85 ~ R88	5181514000	22k Ω
R89 ~ R93	5181476000	560 Ω
R94 ~ R97	5181530000	100k Ω
R98, R99	5181514000	22k Ω
R100	5181530000	100k Ω
R101, R102	5183566000	33 Ω Nonflammable
R103, R104	5181434000	10 Ω
R105	5181522000	47k Ω
R106	5181522000	47k Ω
R107, R108	5181458000	100 Ω
R109 ~ R111	5181522000	47k Ω

REF. NO.	PARTS NO.	DESCRIPTION
CAPACITORS		
C1, C2	5260163652	Elec. 22 μ F 50V
C3, C4	5054744000	Dip Mica 100pF
C5	5170006000	Dip Mica 68pF
C6	5054878500	Mylar 0.001 μ F
C7	5260072700	Bipolar 470 μ F 16V
C9	5170006000	Dip Mica 68pF
C10, C11	5260165252	Elec. 47 μ F 25V
C12, C13	5260163452	Elec. 22 μ F 25V
C14	5260162550	Elec. 10 μ F 16V
C15	5260165152	Elec. 47 μ F 16V
C17	5054896500	Mylar 0.0015 μ F 5%
C18	5054891500	Mylar 0.0047 μ F 5%
C19	5260163352	Elec. 22 μ F 16V
C20	5260162550	Elec. 10 μ F 16V
C21, C22	5260163452	Elec. 22 μ F 25V
C24	5260160750	Elec. 1 μ F 50V
C25	5260162550	Elec. 10 μ F 16V
C26	5054479500	Mylar 0.051 μ F 5%
C27	5054897500	Mylar 0.018 μ F 5%
C28	5054891500	Mylar 0.047 μ F 5%
C29	5054888500	Mylar 0.0018 μ F 5%
C30	5172827000	Polyst. 910pF
C31	5172816000	Polyst. 330pF
C33, C34	5260162550	Elec. 10 μ F 16V
C35	5260163452	Elec. 22 μ F 25V
C36, C37	5260162550	Elec. 10 μ F 16V
C38, C39	5260163452	Elec. 22 μ F 25V
C40 ~ C43	5260162550	Elec. 10 μ F 16V
C44, C45	5260163452	Elec. 22 μ F 25V
C46, C47	5260166052	Elec. 100 μ F 16V
C48 ~ C53	5054758000	Dip Mica 82pF
C54, C55	5054204000	Ceramic 0.01 μ F 50V
C56 ~ C58	5054758000	Dip Mica 47pF
C59, C60	5260165252	Elec. 47 μ F 25V
C61	5054204000	Ceramic 0.01 μ F 50V
VARIABLE RESISTORS		
VR1	5282706700	5k Ω (RD) + 10k Ω (A)
VR2 ~ VR4	5283504402	10k Ω (BP) + 100k Ω (30C) x 2
VR5	5284006400	Slide 10k Ω (C)
VR6, VR7	5283504200	10k Ω (A) + 5k Ω (A, C)
VR8	5282408600	5k Ω (A, C)
VR9	5280001102	Semi-fixed 20k Ω (B)
SWITCHES		
S1, S2	5132037000	Lever, SLR522
S3 ~ S5	5132036000	Lever, SLR523
S6	5300029400	Push, SUJ30
S7	5300029800	Push, SUJ50
S8	5300029700	Push, SUJ60

REF. NO.	PARTS NO.	DESCRIPTION
CONNECTOR PLUGS		
P1	5122151000	8P
P2	5122150000	7P (RED)
P3	5122151000	8P
P4, P5	5122155000	12P
P6	5122149000	6P
MISCELLANEOUS		
	5210086300	PCB-211, SW (A)
	5210086400	PCB-212, SW (B)
	5122373000	Connector Socket, 2P
LED1 ~ LED6	5225006900	LED, PR3432S

Components Mounted Chart

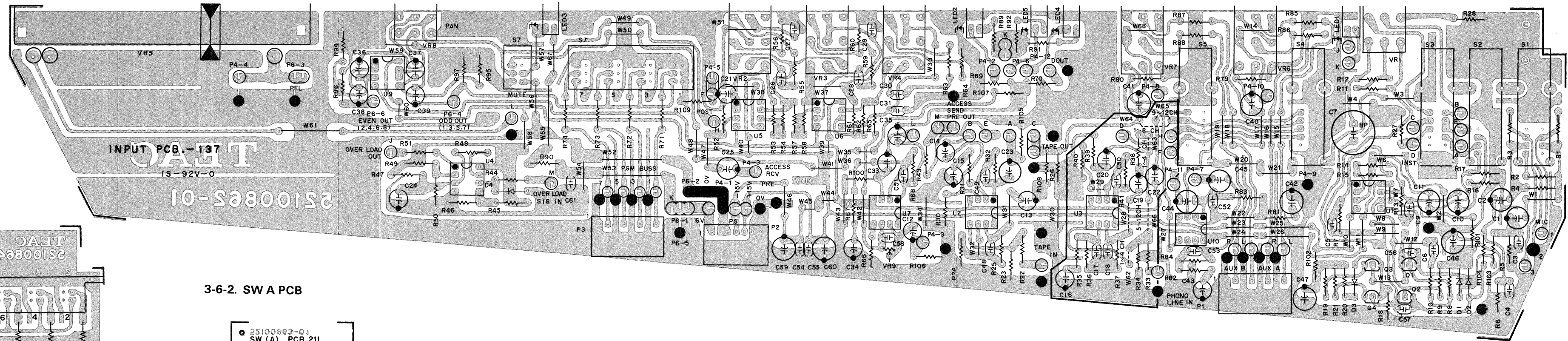
REF. NO.	PCB Ass'y						
	A	B	C	D	E	F	G
	1, 2	3	4	5, 6, 7	8	9, 10, 11	12
U3	-	o	o	o	o	o	o
R33	-	-	-	o	o	o	o
R34	-	47k	47k	2.2k	2.2k	2.2k	2.2k
R35	-	o	o	-	-	-	-
R36	-	o	o	-	-	-	-
R37	-	o	o	-	-	-	-
R38	-	o	o	-	-	-	-
R39	-	o	o	o	o	o	o
R40	-	o	o	o	o	o	o
R41	-	o	o	o	o	o	o
C16	-	o	o	-	-	-	-
C17	-	o	o	-	-	-	-
C18	-	o	o	-	-	-	-
C19	-	o	o	-	-	-	-
C20	-	o	o	o	o	o	o
C22	-	o	o	o	o	o	o
C50	-	o	o	o	o	o	o

MOTHER B PCB Ass'y

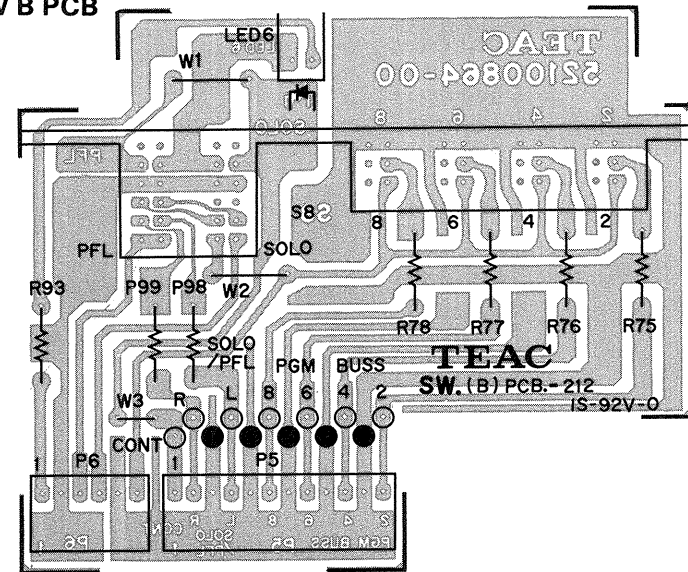
REF. NO.	PARTS NO.	DESCRIPTION
	5200088100	PCB Ass'y
	5210088100	PCB
IC'S		
U1, U2	5220416600	NJM2041DD
CARBON RESISTORS		
All resistors are rated $\pm 5\%$ tolerance at 1/4W.		
R1 ~ R4	5181514000	22k Ω
R5	5181530000	100k Ω
R6	5181484000	1.2k Ω
R7	5181506000	10k Ω
R8	5181482000	1k Ω
R9	5181526000	68k Ω
R10	5181482000	1k Ω
R11	5181506000	10k Ω
R12	5181530000	100k Ω
R13	5181484000	1.2k Ω
R14	5181506000	10k Ω
R15	5181482000	1k Ω
R16	5181526000	68k Ω
R17	5181482000	1k Ω
R18	5181506000	10k Ω
R19, R20	5183566000	33k Ω

REF. NO.	PARTS NO.	DESCRIPTION
CAPACITORS		
C2	5054758000	Dip Mica 82pF
C3	5260163352	Elec. 22 μ F 16V
C5	5054758000	Dip Mica 82pF
C6	5260163352	Elec. 22 μ F 16V
C8	5054758000	Dip Mica 82pF
C9	5260163352	Elec. 22 μ F 16V
C11	5054758000	Dip Mica 82pF
C12	5260163352	Elec. 22 μ F 16V
C13, C14	5260165252	Elec. 47 μ F 25V
C15, C16	5054204000	Ceramic 0.01 μ F 50V
CONNECTOR PLUGS		
P1 ~ P12	5122126000	2P
P13	5122304000	7P (RED)
P14	5122189000	8P (BLK)
P15	5122304000	7P (RED)
P16	5122189000	8P (BLK)
P17	5122304000	7P (RED)
P18, P19	5122189000	8P (BLK)
P20	5122132000	8P
P21	5122193000	12P (BLK)
P22	5122309000	12P (RED)
P23	5122128000	4P
P24	5122131000	7P (BLK)
P25	5122130000	6P
P26, P27	5122189000	8P (BLK)
P28	5122304000	7P (RED)
P29	5122302000	5P (RED)

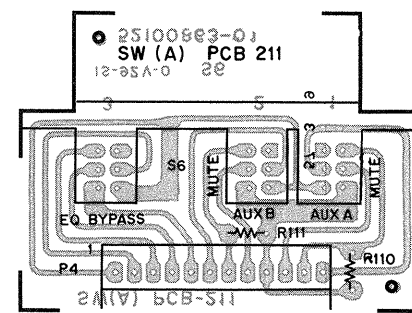
3-6. INPUT AMPL. A through G Ass'y



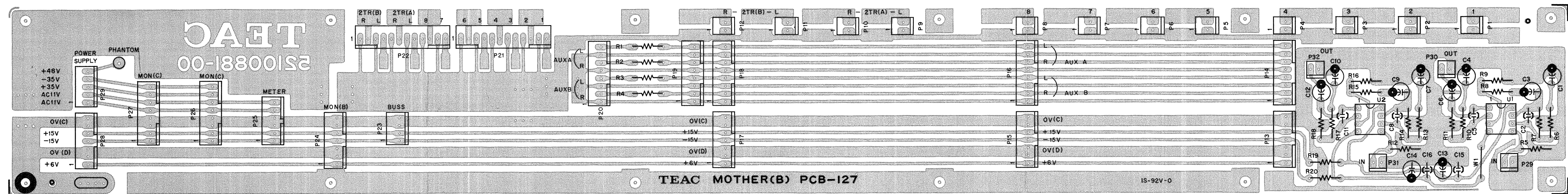
3-6-1. SW B PCB



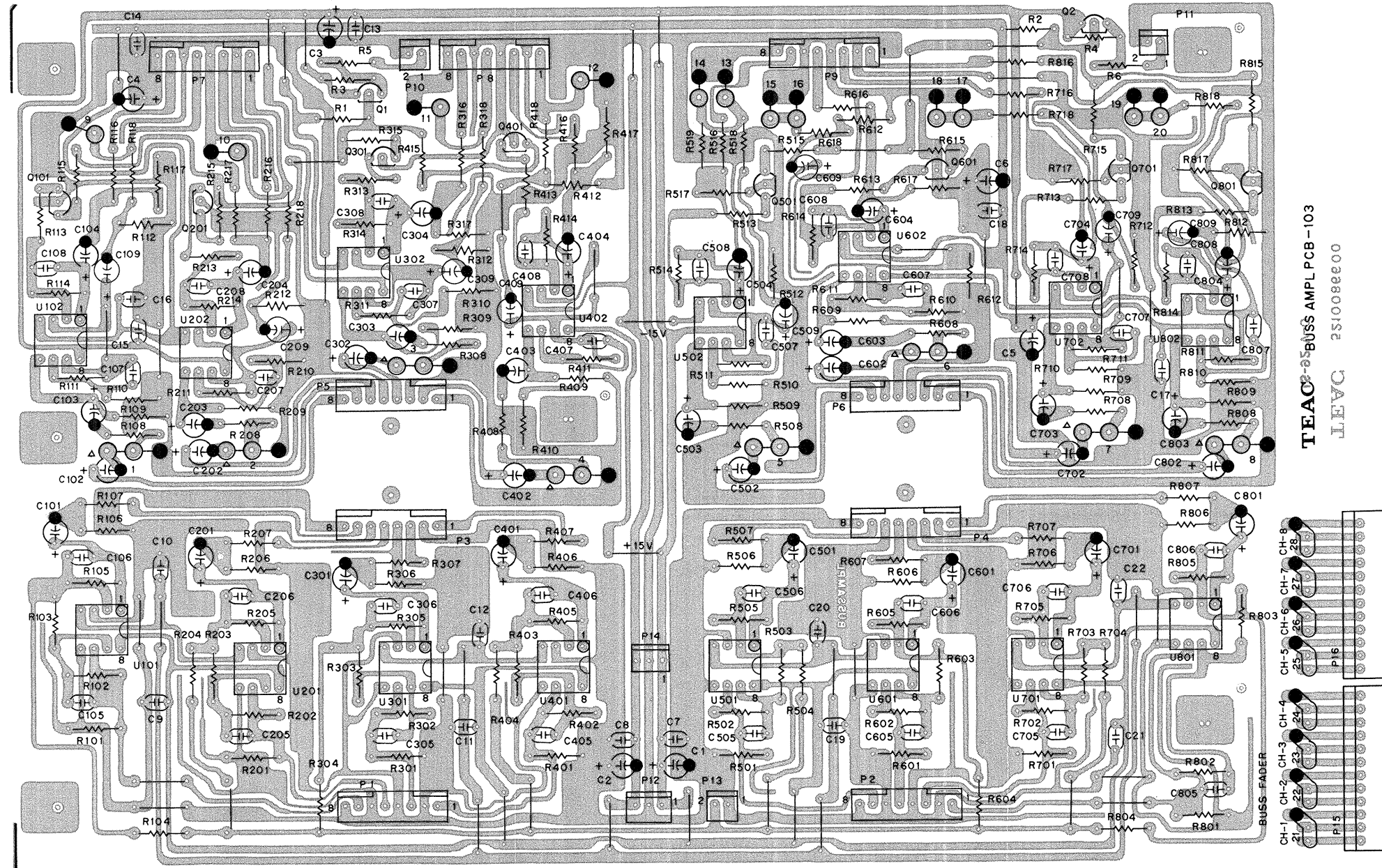
3-6-2. SW A PCB



3-7. MOTHER B PCB Ass'y



3-5. BUSS AMPL. PCB Ass'y



BUSS AMPL. PCB Ass'y

REF. NO.	PARTS NO.	DESCRIPTION
	5200086600	PCB Ass'y
	5210086600	PCB
IC'S		
U101, U201	5220414400	NJM4556D
U301, U401	5220414400	
U501, U601	5220414400	
U701, U801	5220414400	
U102, U202	5220414400	NJM4556D
U302, U402	5220414400	
U502, U602	5220414400	
U702, U802	5220414400	
TRANSISTORS		
Q1, Q2	5145150000	2SA-1015GR
Q101, Q201	5230775000	2SC-2878B
Q301, Q401	5230775000	
Q501, Q601	5230775000	
Q701, Q801	5230775000	
CARBON RESISTORS All resistors are rated $\pm 5\%$ tolerance at 1/4W.		
R1 ~ R4	5181522000	47k Ω
R5, R6	5181506000	10k Ω
R101, R201	5181514000	22k Ω
R301, R401	5181514000	22k Ω
R501, R601	5181514000	22k Ω
R701, R801	5181514000	22k Ω
R102, R202	5181514000	22k Ω
R302, R402	5181514000	22k Ω
R502, R602	5181514000	22k Ω
R702, R802	5181514000	22k Ω
R103, R203	5181514000	22k Ω
R303, R403	5181514000	22k Ω
R503, R603	5181514000	22k Ω
R703, R803	5181514000	22k Ω
R104, R204	5181514000	22k Ω
R304, R404	5181514000	22k Ω
R504, R604	5181514000	22k Ω
R704, R804	5181514000	22k Ω
R105, R205	5181514000	22k Ω
R305, R405	5181514000	22k Ω
R505, R605	5181514000	22k Ω
R705, R805	5181514000	22k Ω
R106, R206	5181522000	47k Ω
R306, R406	5181522000	47k Ω
R506, R606	5181522000	47k Ω
R706, R806	5181522000	47k Ω
R107, R207	5181458000	100 Ω
R307, R407	5181458000	100 Ω
R507, R607	5181458000	100 Ω
R707, R807	5181458000	100 Ω

REF. NO.	PARTS NO.	DESCRIPTION
R108, R208	5181482000	1k Ω
R308, R408	5181482000	1k Ω
R508, R608	5181482000	1k Ω
R708, R808	5181482000	1k Ω
R109, R209	5181530000	100k Ω
R309, R409	5181530000	100k Ω
R509, R609	5181530000	100k Ω
R709, R809	5181530000	100k Ω
R110, R210	5181506000	10k Ω
R310, R410	5181506000	10k Ω
R510, R610	5181506000	10k Ω
R710, R810	5181506000	10k Ω
R111, R211	5181510000	15k Ω
R311, R411	5181510000	15k Ω
R511, R611	5181510000	15k Ω
R711, R811	5181510000	15k Ω
R112, R212	5181530000	100k Ω
R312, R412	5181530000	100k Ω
R512, R612	5181530000	100k Ω
R712, R812	5181530000	100k Ω
R113, R213	5181506000	10k Ω
R313, R413	5181506000	10k Ω
R513, R613	5181506000	10k Ω
R713, R813	5181506000	10k Ω
R114, R214	5181510000	15k Ω
R314, R414	5181510000	15k Ω
R514, R614	5181510000	15k Ω
R714, R814	5181510000	15k Ω
R115, R215	5181522000	47k Ω
R315, R415	5181522000	47k Ω
R515, R615	5181522000	47k Ω
R715, R815	5181522000	47k Ω
R116, R216	5181458000	100 Ω
R316, R416	5181458000	100 Ω
R516, R616	5181458000	100 Ω
R716, R816	5181458000	100 Ω
R117, R217	5181522000	47k Ω
R317, R417	5181522000	47k Ω
R517, R617	5181522000	47k Ω
R717, R817	5181522000	47k Ω
R118, R218	5181458000	100 Ω
R318, R418	5181458000	100 Ω
R518, R618	5181458000	100 Ω
R718, R818	5181458000	100 Ω

REF. NO.	PARTS NO.	DESCRIPTION
CAPACITORS		
C1 ~ C6	5260165252	Elec. 47 μ F 25V
C7 ~ C22	5054204000	Ceramic 0.01 μ F 50V
C101, C201	5260163452	Elec. 22 μ F 25V
C301, C401	5260163452	Elec. 22 μ F 25V
C501, C601	5260163452	Elec. 22 μ F 25V
C701, C801	5260163452	Elec. 22 μ F 25V
C102, C202	5260162550	Elec. 10 μ F 16V
C302, C402	5260162550	Elec. 10 μ F 16V
C502, C602	5260162550	Elec. 10 μ F 16V
C702, C802	5260162550	Elec. 10 μ F 16V
C103, C203	5260162550	Elec. 10 μ F 16V
C303, C403	5260162550	Elec. 10 μ F 16V
C503, C603	5260162550	Elec. 10 μ F 16V
C703, C803	5260162550	Elec. 10 μ F 16V
C104, C204	5260163452	Elec. 22 μ F 25V
C304, C404	5260163452	Elec. 22 μ F 25V
C504, C604	5260163452	Elec. 22 μ F 25V
C704, C804	5260163452	Elec. 22 μ F 25V
C105, C205	5054758000	Dip Mica 82pF
C305, C405	5054758000	Dip Mica 82pF
C505, C605	5054758000	Dip Mica 82pF
C705, C805	5054758000	Dip Mica 82pF
C106, C206	5054742000	Dip Mica 47pF
C306, C406	5054742000	Dip Mica 47pF
C506, C606	5054742000	Dip Mica 47pF
C706, C806	5054742000	Dip Mica 47pF
C107, C207	5054758000	Dip Mica 82pF
C307, C407	5054758000	Dip Mica 82pF
C507, C607	5054758000	Dip Mica 82pF
C707, C807	5054758000	Dip Mica 82pF
C108, C208	5054758000	Dip Mica 82pF
C308, C408	5054758000	Dip Mica 82pF
C508, C608	5054758000	Dip Mica 82pF
C708, C808	5054758000	Dip Mica 82pF
C109, C209	5260163452	Elec. 22 μ F 25V
C309, C409	5260163452	Elec. 22 μ F 25V
C509, C609	5260163452	Elec. 22 μ F 25V
C709, C809	5260163452	Elec. 22 μ F 25V
CONNECTOR PLUGS		
P1 ~ P9	5122132000	8P
P10 ~ P11	5122126000	2P
P12	5122127000	3P
P13	5122126000	2P
P14	5122127000	3P
P15, P16	5122155000	12P

A

B

C

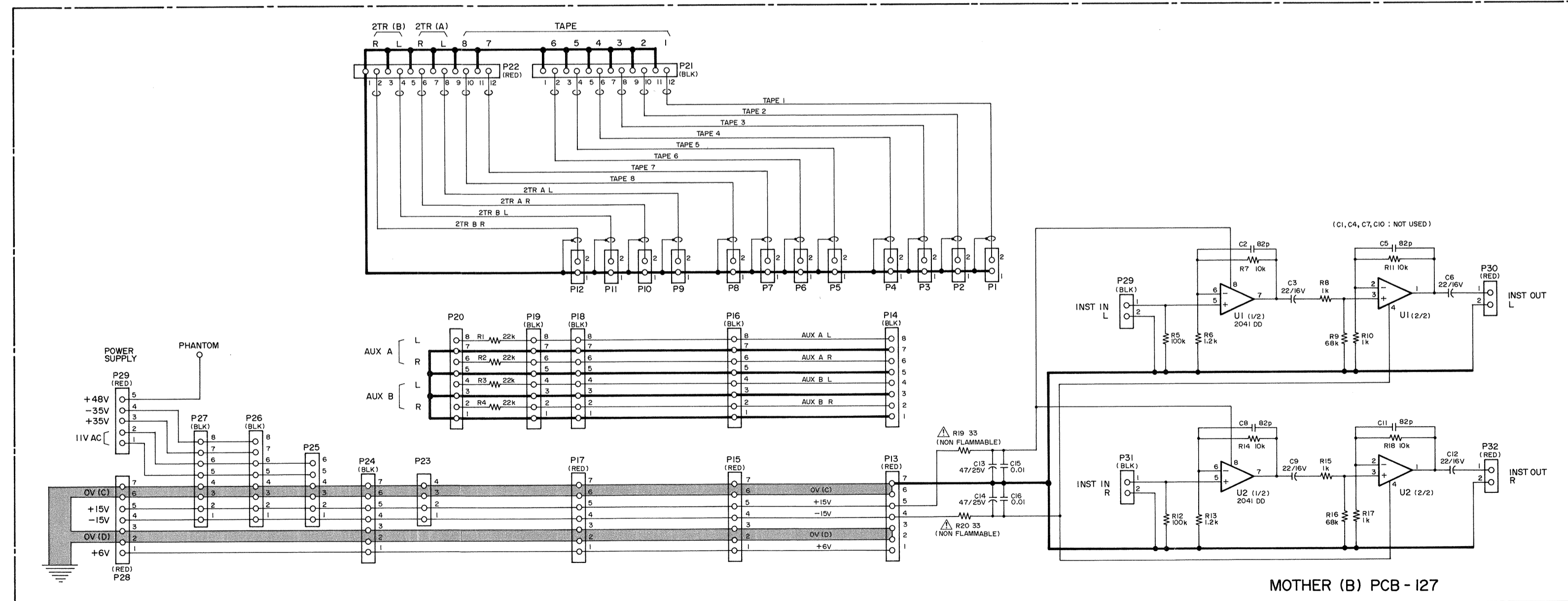
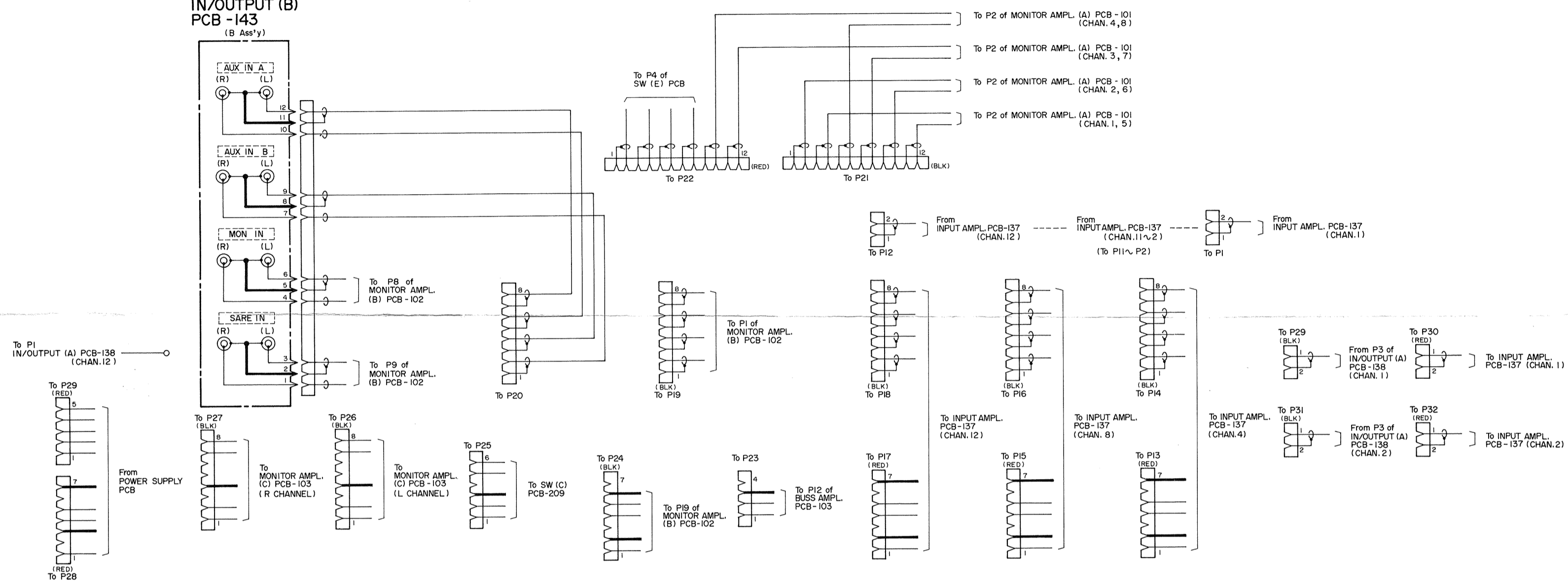
D

E

F

G

IN/OUTPUT (B)
PCB -143
(B Assy)



1 2 3 4 5 6 7 8 9 10 11

A

B

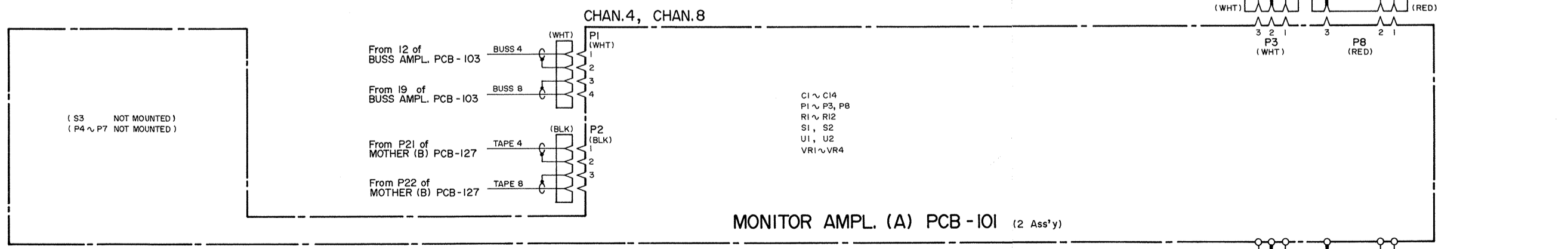
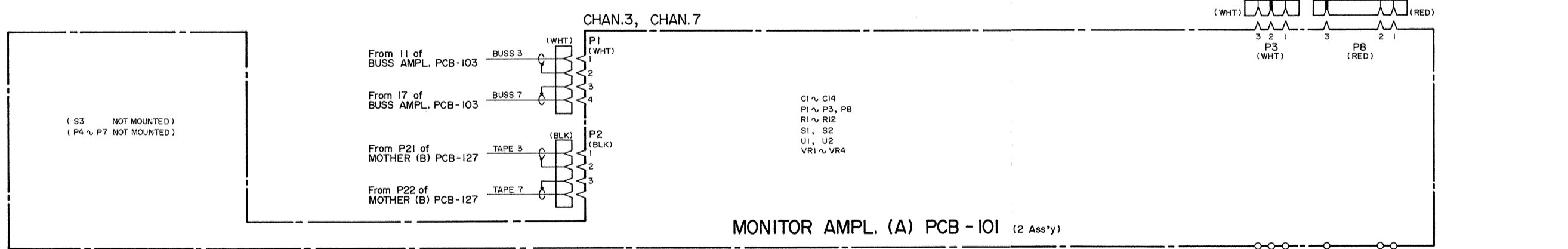
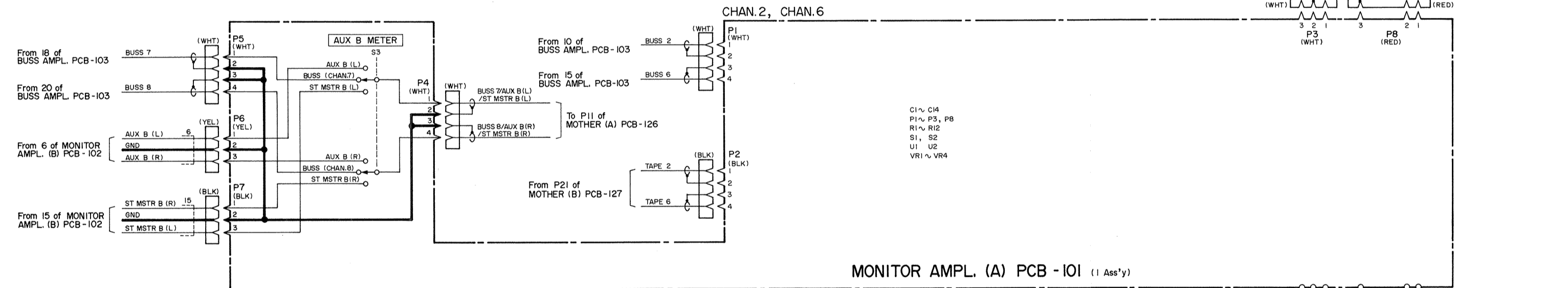
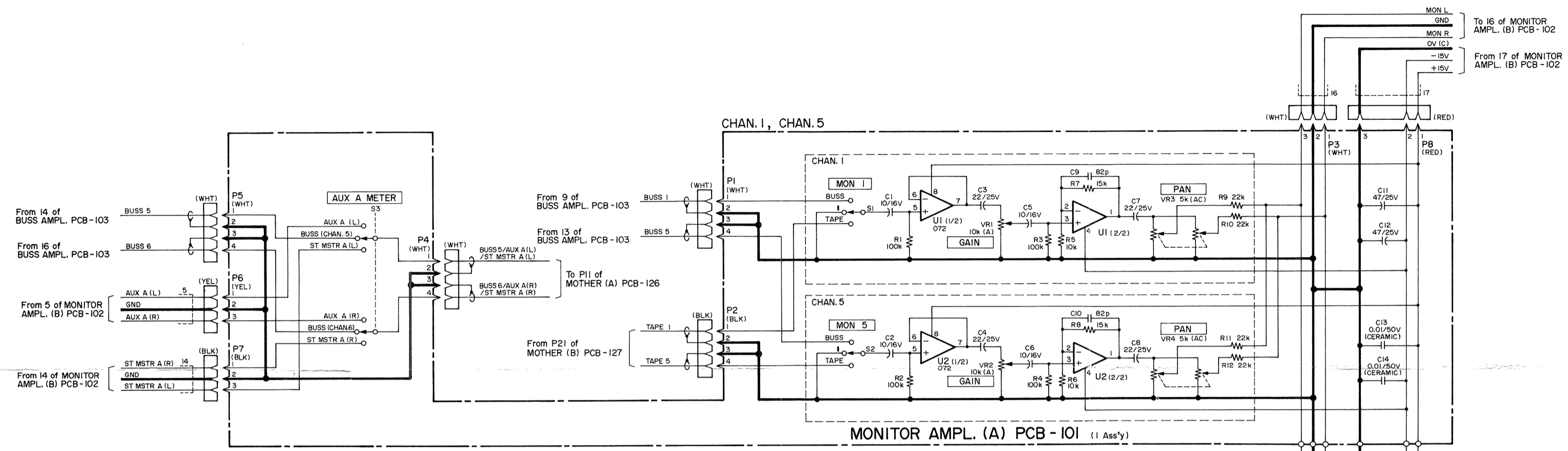
C

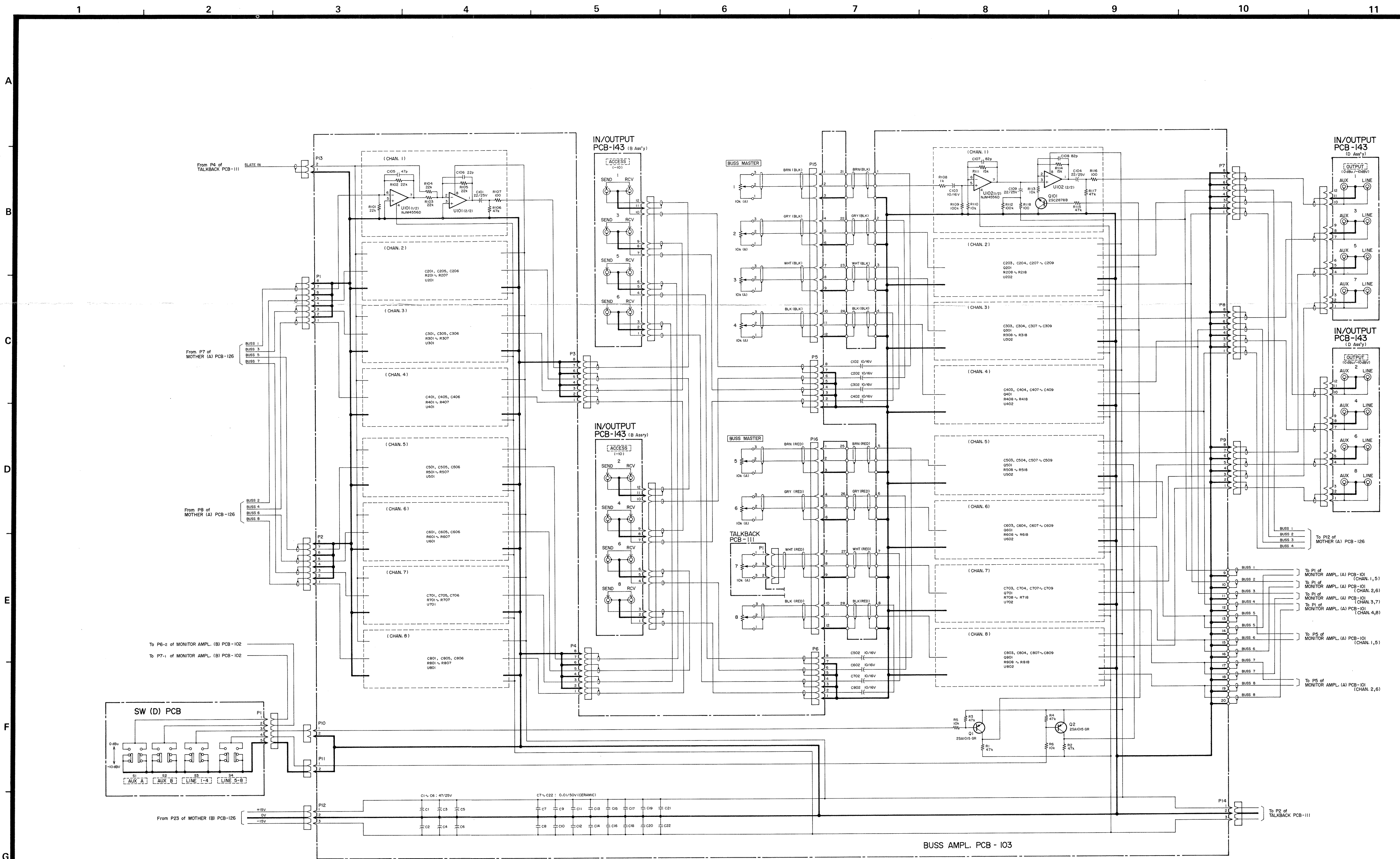
D

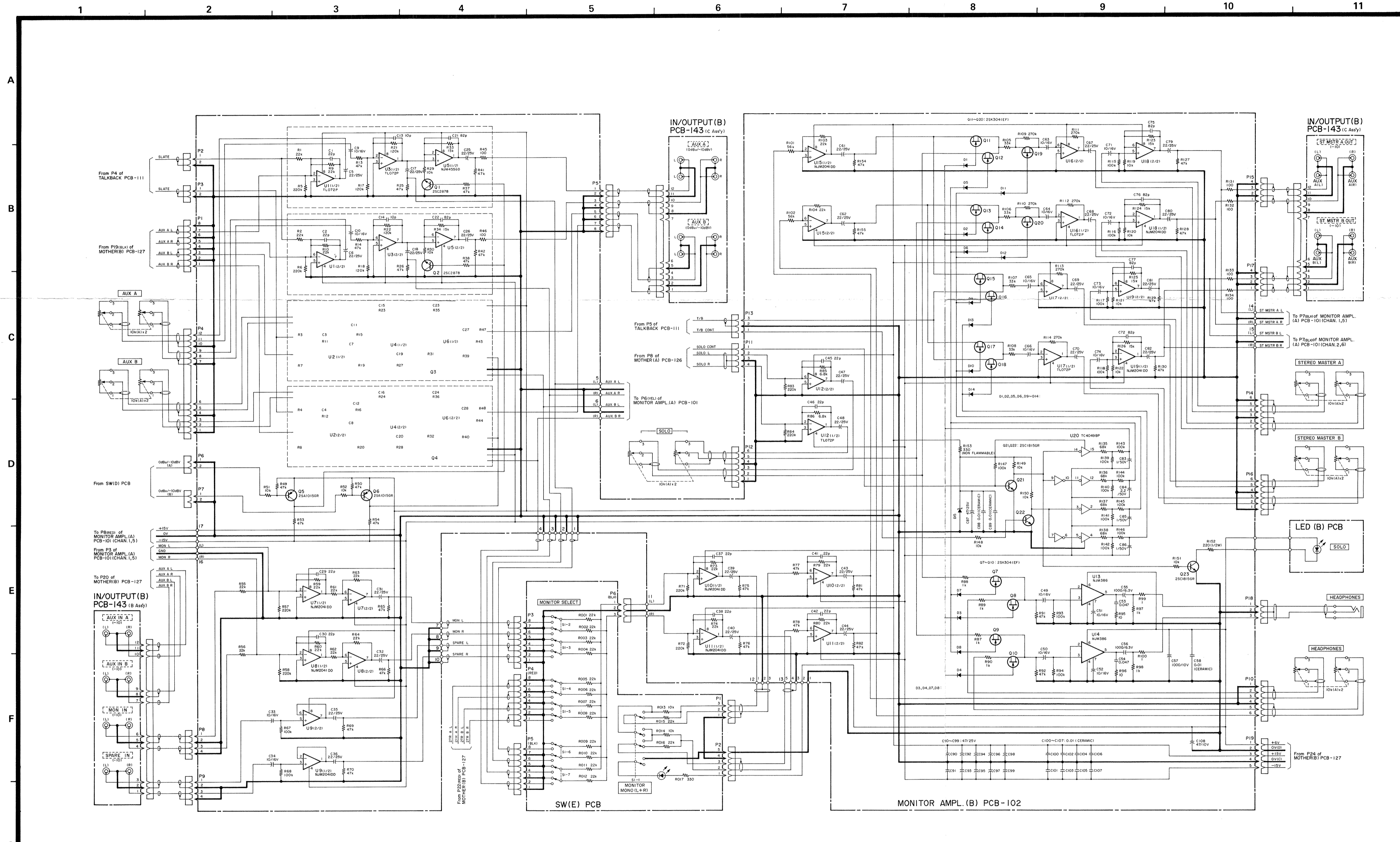
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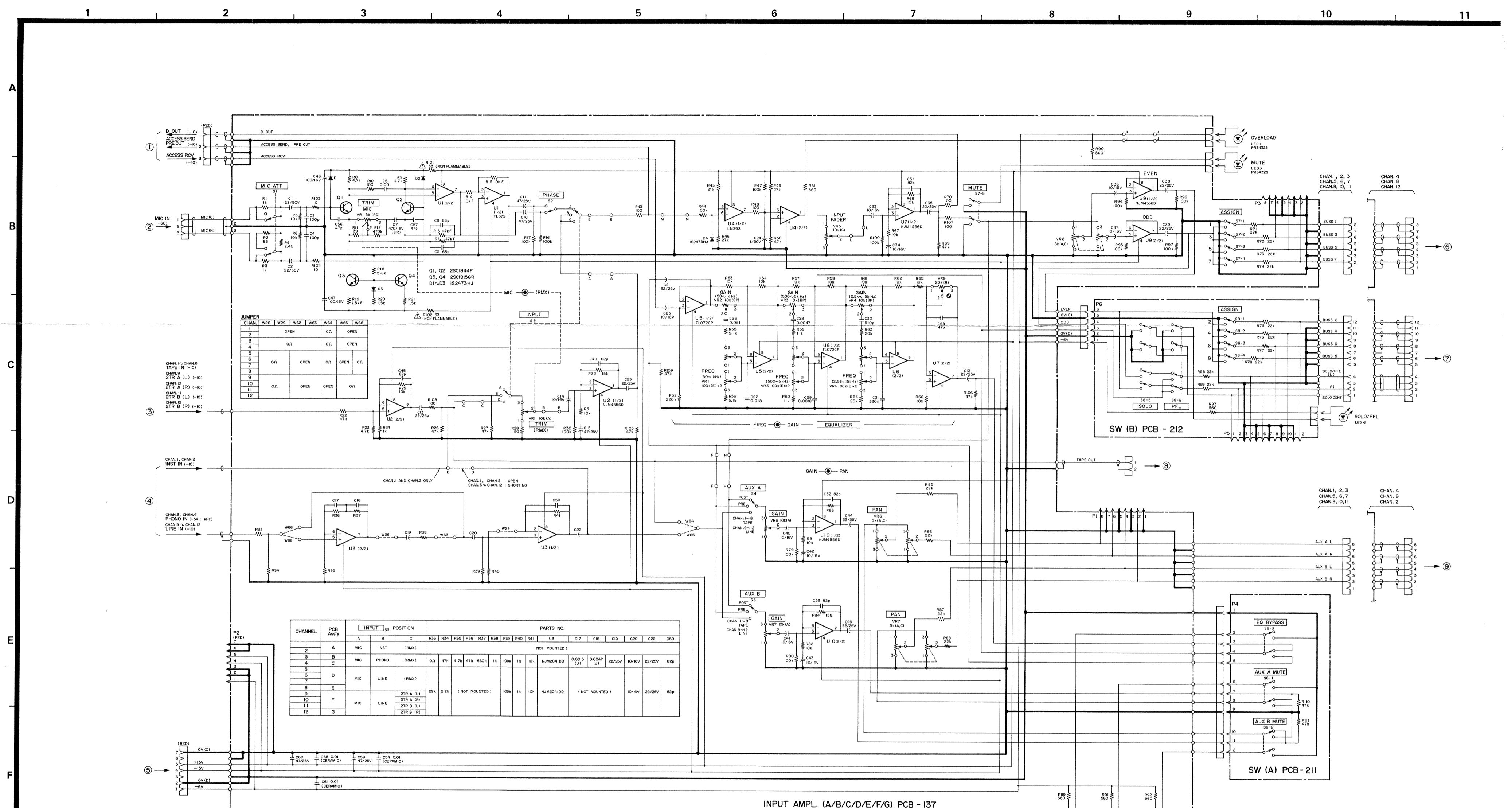
F

G





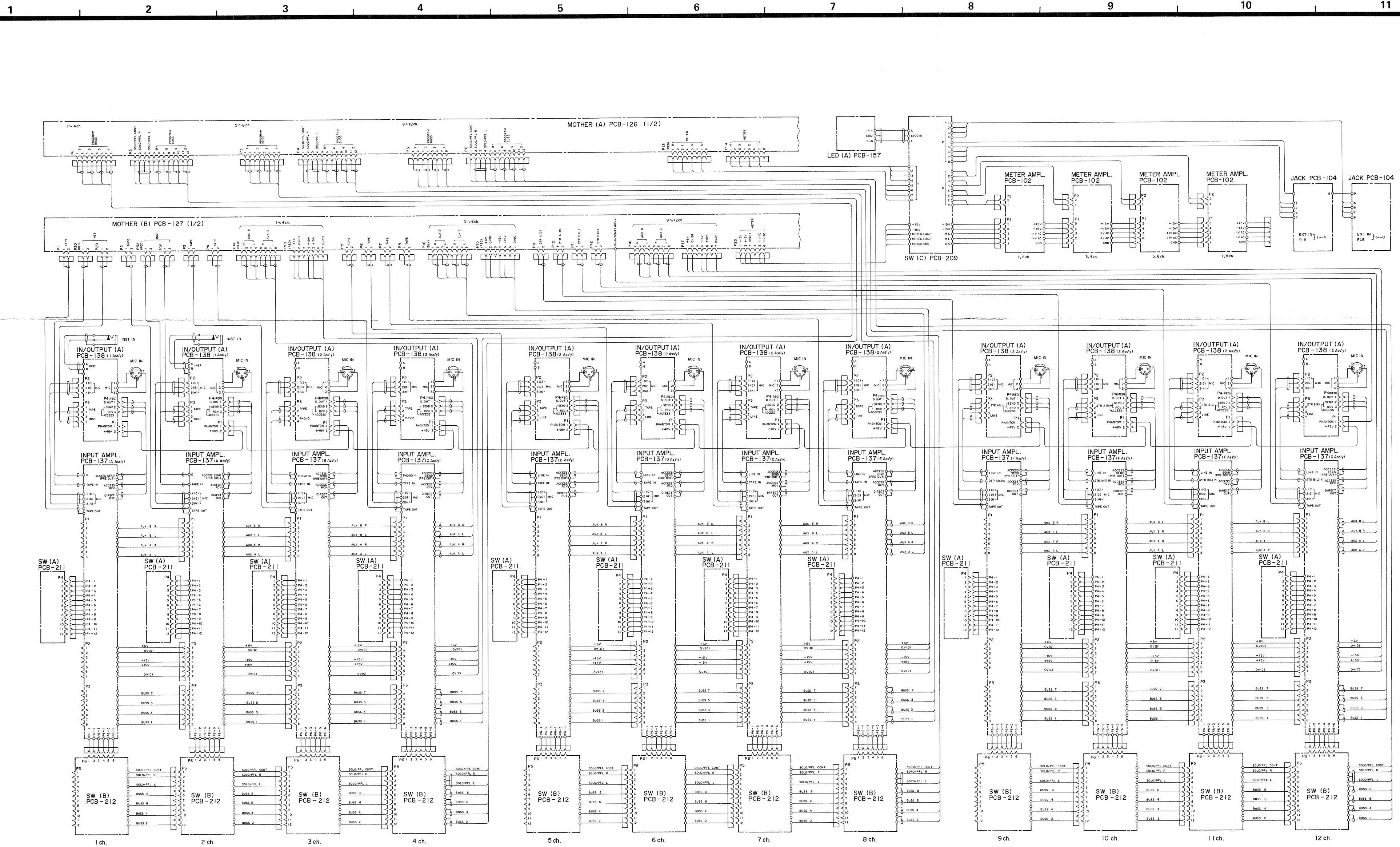


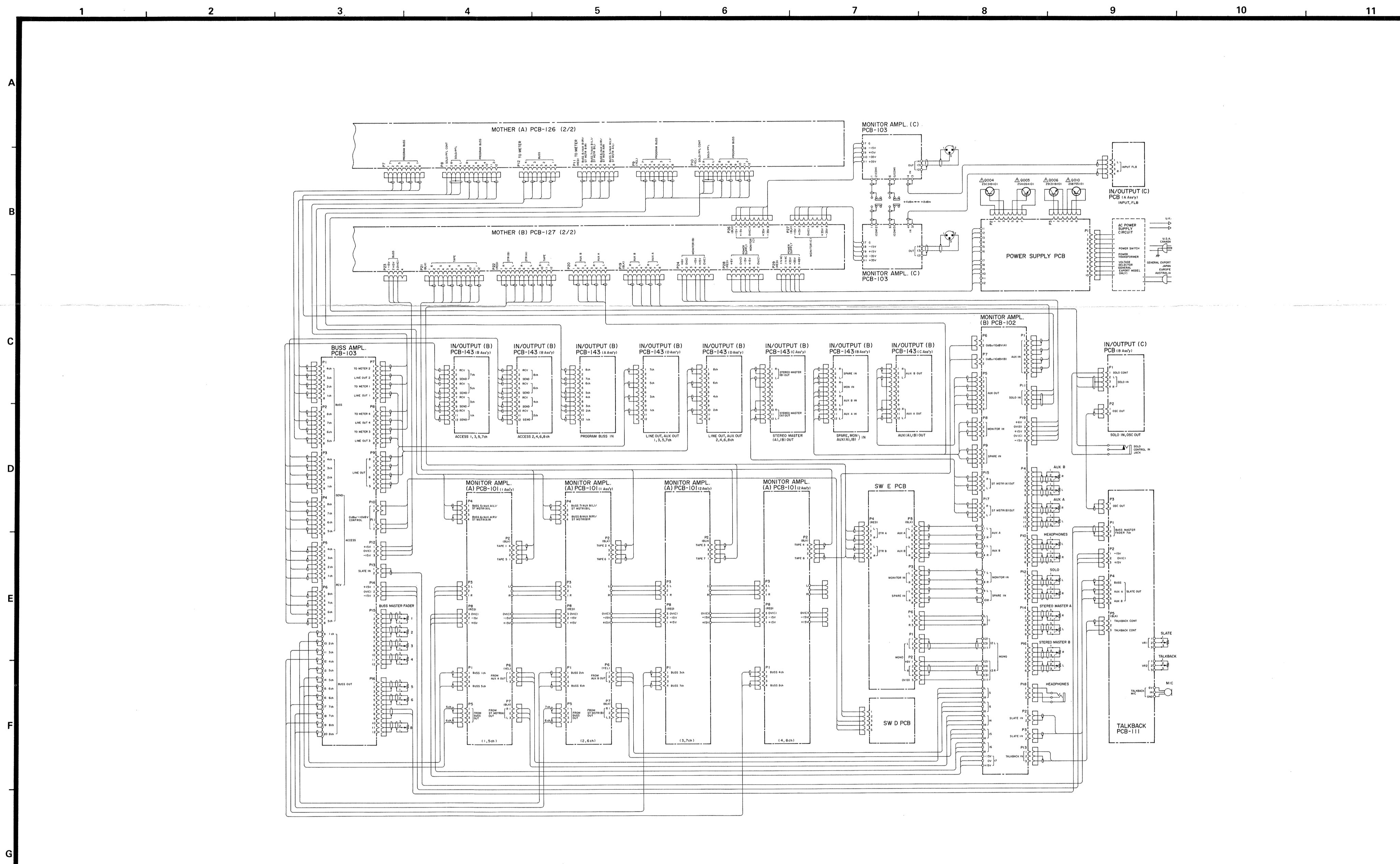


INPUT AMPL. (A/B/C/D/E/F/G) PCB - 137

CONNECTION

CHANNEL	①	②	③	④	⑤	⑥	⑦	⑧	⑨	CHANNEL
1	IN/OUTPUT (A) PCB P4 of CH.1	IN/OUTPUT (A) PCB P2 of CH.1	IN/OUTPUT (A) PCB P3 of CH.1	MOTHER (B) PCB P30	INPUT AMPL. PCB P2 of CH.2	INPUT AMPL. PCB P3 of CH.2	SW (B) PCB P5 of CH.2	MOTHER (B) PCB P1	INPUT AMPL. PCB P1 of CH.2	1
2	IN/OUTPUT (A) PCB P4 of CH.2	IN/OUTPUT (A) PCB P2 of CH.2	IN/OUTPUT (A) PCB P3 of CH.2	MOTHER (B) PCB P32	INPUT AMPL. PCB P2 of CH.3	INPUT AMPL. PCB P3 of CH.3	SW (B) PCB P5 of CH.3	MOTHER (B) PCB P2	INPUT AMPL. PCB P1 of CH.3	2
3	IN/OUTPUT (A) PCB P4 of CH.3	IN/OUTPUT (A) PCB P2 of CH.3	IN/OUTPUT (A) PCB P3 of CH.3	(NOT MOUNTED)	INPUT AMPL. PCB P2 of CH.4	INPUT AMPL. PCB P3 of CH.4	SW (B) PCB P5 of CH.4	MOTHER (B) PCB P3	INPUT AMPL. PCB P1 of CH.4	3
4	IN/OUTPUT (A) PCB P4 of CH.4	IN/OUTPUT (A) PCB P2 of CH.4	IN/OUTPUT (A) PCB P3 of CH.4	(NOT MOUNTED)	MOTHER (B) PCB P3	MOTHER (A) PCB P1	MOTHER (B) PCB P3	MOTHER (B) PCB P4	MOTHER (B) PCB P4	4
5	IN/OUTPUT (A) PCB P4 of CH.5	IN/OUTPUT (A) PCB P2 of CH.5	IN/OUTPUT (A) PCB P3 of CH.5	(NOT MOUNTED)	INPUT AMPL. PCB P2 of CH.6	INPUT AMPL. PCB P3 of CH.6	SW (B) PCB P5 of CH.6	MOTHER (B) PCB P5	INPUT AMPL. PCB P1 of CH.6	5
6	IN/OUTPUT (A) PCB P4 of CH.6	IN/OUTPUT (A) PCB P2 of CH.6	IN/OUTPUT (A) PCB P3 of CH.6	(NOT MOUNTED)	INPUT AMPL. PCB P2 of CH.7	INPUT AMPL. PCB P3 of CH.7	SW (B) PCB P5 of CH.7	MOTHER (B) PCB P6	INPUT AMPL. PCB P1 of CH.7	6
7	IN/OUTPUT (A) PCB P4 of CH.7	IN/OUTPUT (A) PCB P2 of CH.7	IN/OUTPUT (A) PCB P3 of CH.7	(NOT MOUNTED)	INPUT AMPL. PCB P2 of CH.8	INPUT AMPL. PCB P3 of CH.8	SW (B) PCB P5 of CH.8	MOTHER (B) PCB P7	INPUT AMPL. PCB P1 of CH.8	7
8	IN/OUTPUT (A) PCB P4 of CH.8	IN/OUTPUT (A) PCB P2 of CH.8	IN/OUTPUT (A) PCB P3 of CH.8	(NOT MOUNTED)	MOTHER (A) PCB P5	MOTHER (A) PCB P4	MOTHER (A) PCB P4	MOTHER (B) PCB P8	MOTHER (B) PCB P8	8
9	IN/OUTPUT (A) PCB P4 of CH.9	IN/OUTPUT (A) PCB P2 of CH.9	IN/OUTPUT (A) PCB P3 of CH.9	(NOT MOUNTED)	INPUT AMPL. PCB P2 of CH.10	INPUT AMPL. PCB P3 of CH.10	SW (B) PCB P5 of CH.10	MOTHER (B) PCB P9	INPUT AMPL. PCB P1 of CH.10	9
10	IN/OUTPUT (A) PCB P4 of CH.10	IN/OUTPUT (A) PCB P2 of CH.10	IN/OUTPUT (A) PCB P3 of CH.10	(NOT MOUNTED)	INPUT AMPL. PCB P2 of CH.11	INPUT AMPL. PCB P3 of CH.11	SW (B) PCB P5 of CH.11	MOTHER (B) PCB P10	INPUT AMPL. PCB P1 of CH.11	10
11	IN/OUTPUT (A) PCB P4 of CH.11	IN/OUTPUT (A) PCB P2 of CH.11	IN/OUTPUT (A) PCB P3 of CH.11	(NOT MOUNTED)	INPUT AMPL. PCB P2 of CH.12	INPUT AMPL. PCB P3 of CH.12	SW (B) PCB P5 of CH.12	MOTHER (B) PCB P11	INPUT AMPL. PCB P1 of CH.12	11
12	IN/OUTPUT (A) PCB P4 of CH.12	IN/OUTPUT (A) PCB P2 of CH.12	IN/OUTPUT (A) PCB P3 of CH.12	MOTHER (B) PCB P17	MOTHER (A) PCB P5	MOTHER (A) PCB P6	MOTHER (A) PCB P6	MOTHER (B) PCB P12	MOTHER (B) PCB P12	12





BLOCK DIAGRAM

