

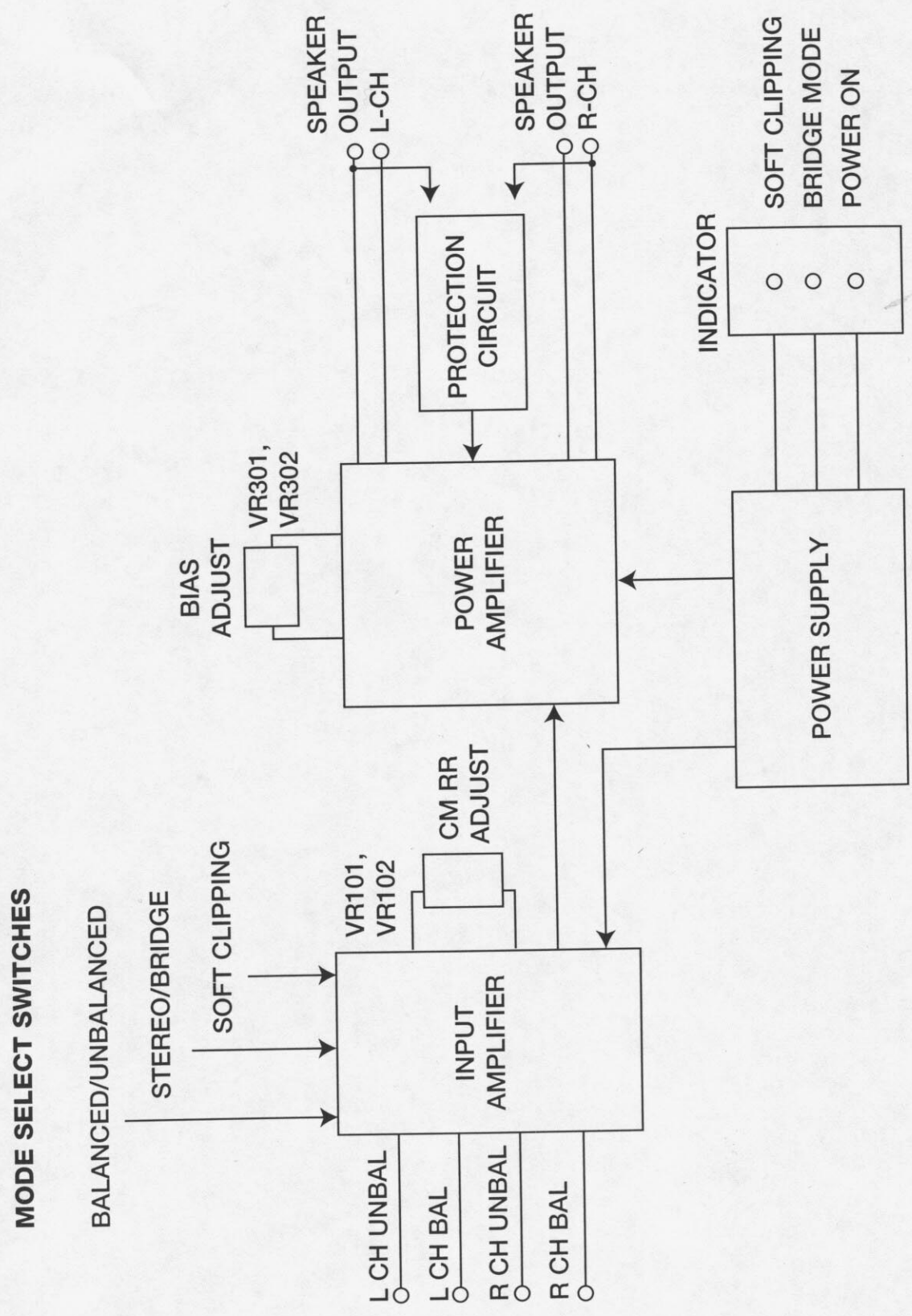
SERVICE MANUAL

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218
STEREO POWER
AMPLIFIER

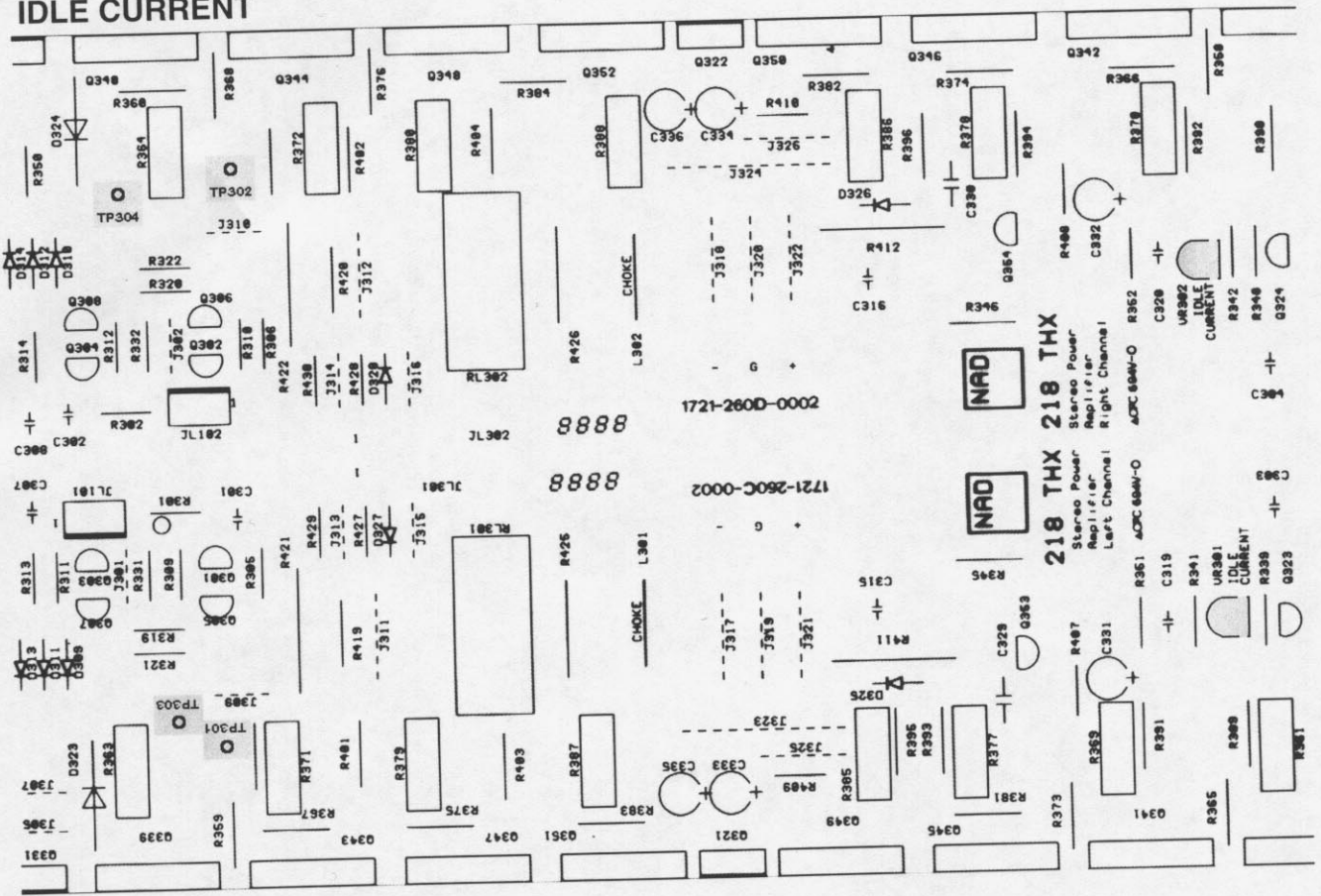
NAD ELECTRONICS
LONDON

BLOCK DIAGRAM

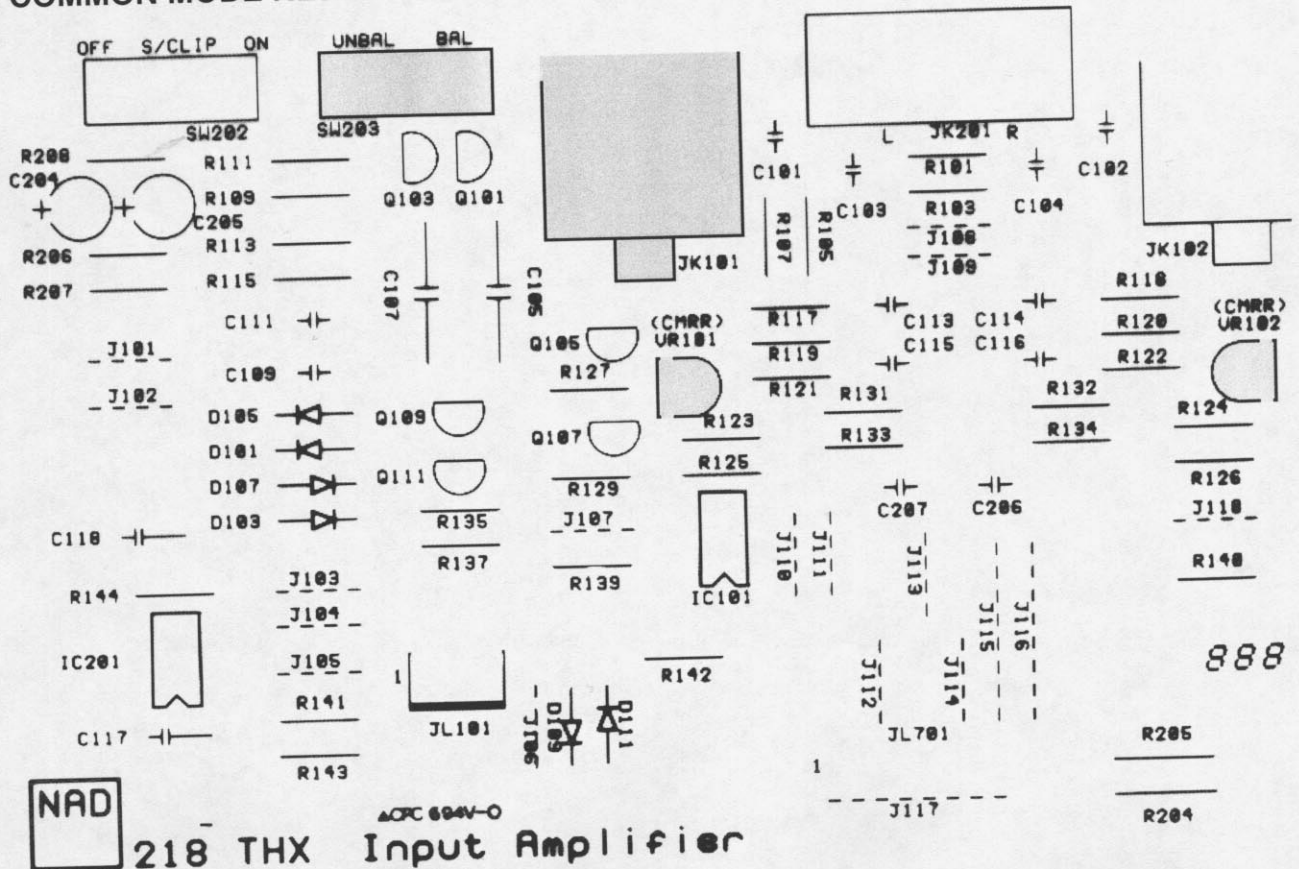


ALIGNMENT POINTS DIAGRAM

1. IDLE CURRENT



2. COMMON MODE REJECTION



MODES OF CONNECTION

INPUT CONNECTION

Model 218 has both RCA and XLR input connections for each channel. The circuit can operate in unbalanced mode and balanced mode. When the input mode is selected to BAL mode, differential input signal of 180 degrees phase difference can be fed into the input amplifier through the XLR socket. This could have a high common mode rejection ratio as the interference from the ground shield can be cancelled out at this input point. When using RCA inputs or the input mode switch is selected to UNBAL, the amplifier is operated in unbalanced mode and the anti-phase input is grounded to the ground shield. It becomes a normal power amplifier which only needs one shielded cable connection for each channel.

OUTPUT CONNECTION

The output configuration can be selected to normal mode or bridge mode. At normal mode, each speaker output channel corresponds to the input signal at that channel. At bridge mode, the output becomes mono output in which the output of the left channel is in opposite phase to the right channel. One speaker is needed in such case. The speaker is connected across the red terminals, the positive phase(+) of the speaker is connected to L-channel and the negative phase(-) is connected to the R-channel. Left input connection is used. Please refer to the diagrams below for the connections.

RCA AND XLR INPUT CONNECTION DIAGRAMS

DIAGRAM 1 – NORMAL, UNBALANCED MODE (RCA or XLR input)

Pin 2 of XLR I/P = RCA I/P, Pin 3 of XLR I/P = GROUND.

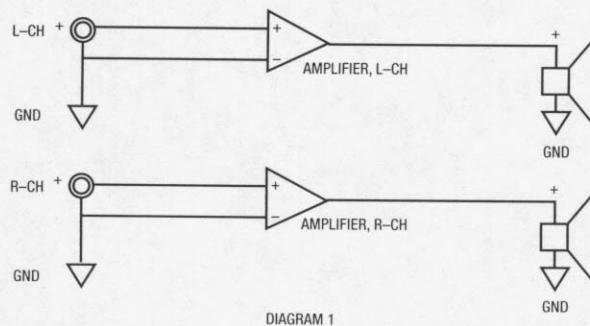


DIAGRAM 2 – NORMAL, BALANCED MODE (XLR input only)

Pin 2 & Pin 3 of XLR input are antiphase differential inputs.

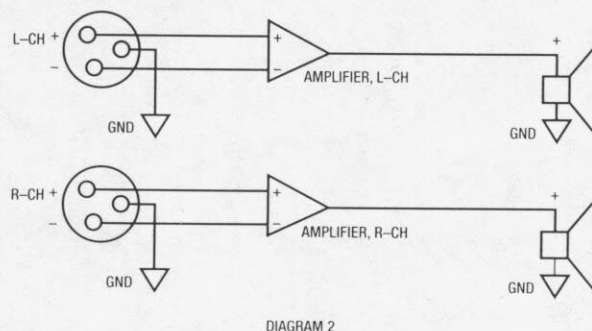


DIAGRAM 3 – BRIDGE MODE, UNBALANCED MODE (RCA input only)
 Monophonic mode, input at L-CH only. Speaker impedance > 8-ohm.
 Speaker(+) connected to L+, speaker(-) connected to R+ output.

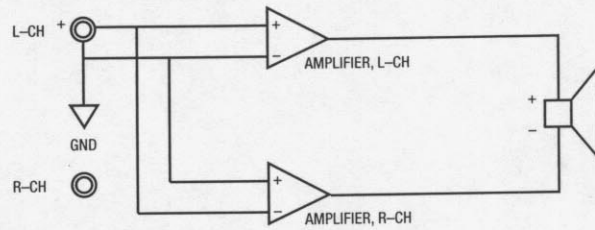


DIAGRAM 3

DIAGRAM 4 – BRIDGE MODE, BALANCED MODE (XLR input only)
 Monophonic mode, input at L-CH only. Speaker impedance > 8-ohm.
 Speaker(+) connected to L +, speaker(-) connected to R + output.

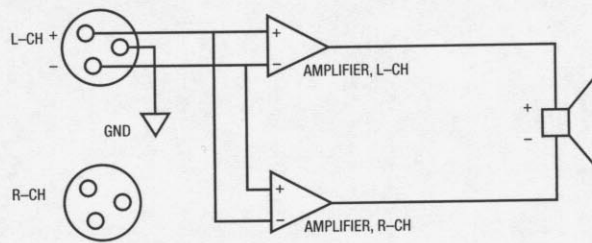
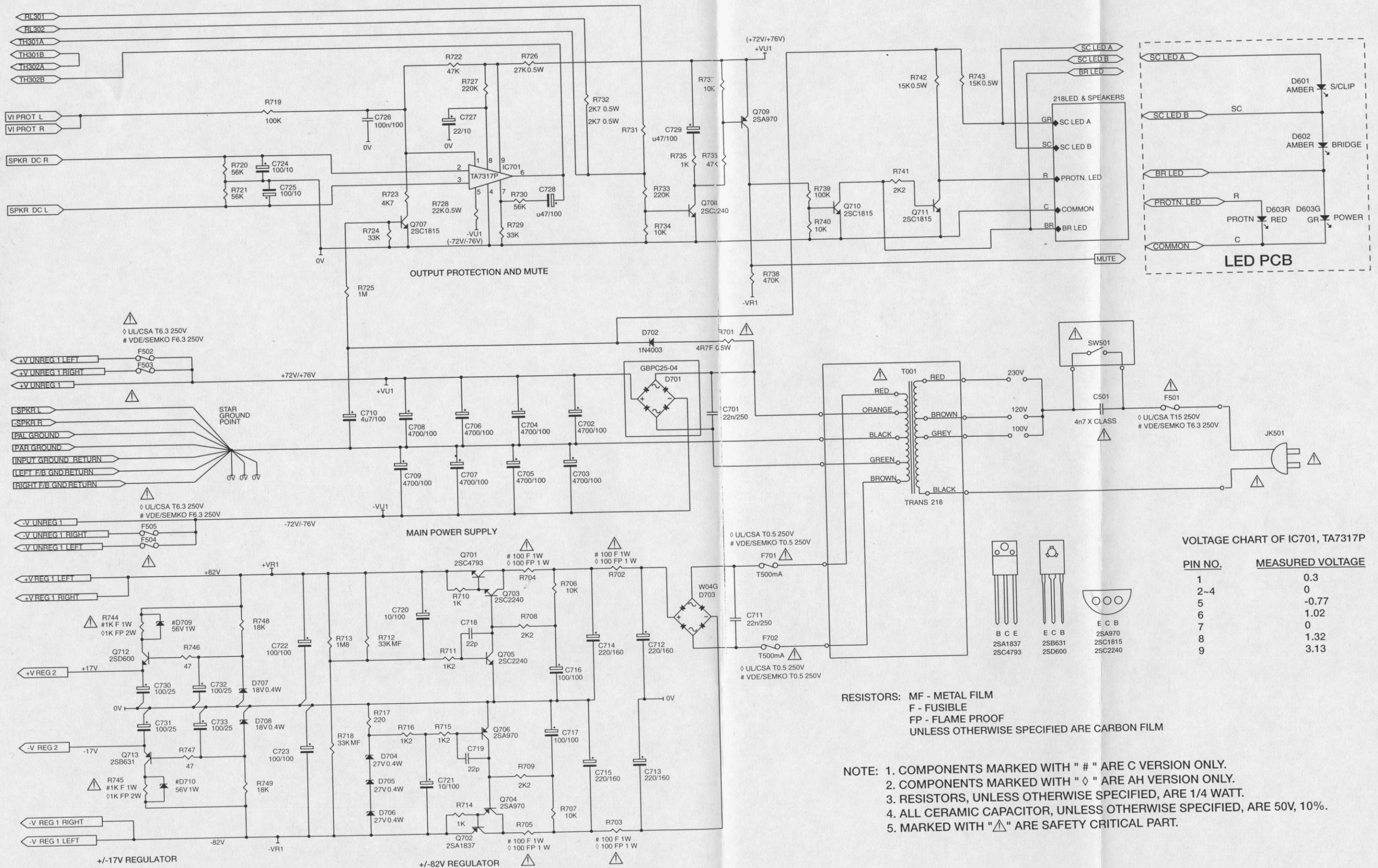


DIAGRAM 4

SCHEMATIC DIAGRAM PSU



VOLTAGE CHART OF IC701, TA7317P

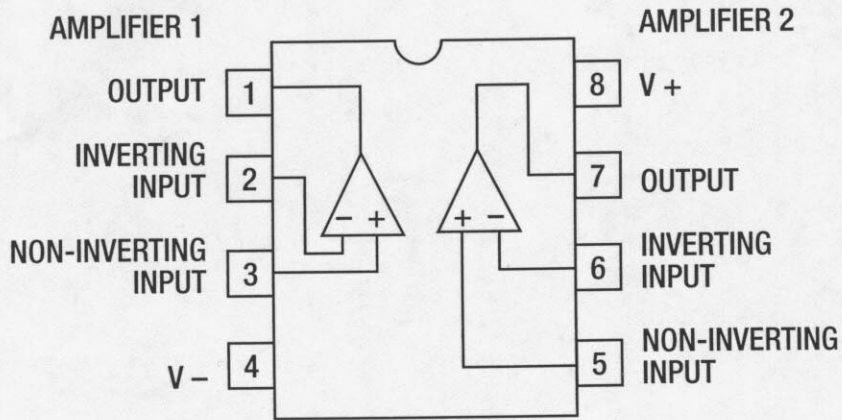
PIN NO.	MEASURED VOLTAGE
1	0.3
2-4	0
5	-0.77
6	1.02
7	0
8	1.32
9	3.13

RESISTORS: MF - METAL FILM
F - FUSIBLE
FP - FLAME PROOF
UNLESS OTHERWISE SPECIFIED ARE CARBON FILM

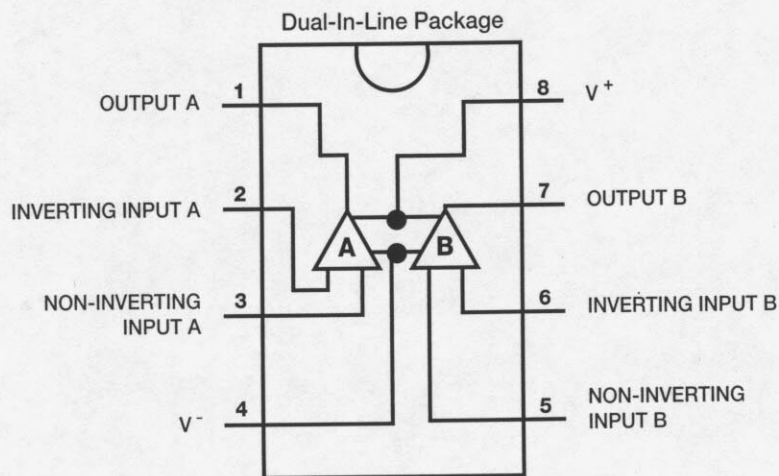
NOTE: 1. COMPONENTS MARKED WITH " # " ARE C VERSION ONLY.
2. COMPONENTS MARKED WITH " ◊ " ARE AH VERSION ONLY.
3. RESISTORS, UNLESS OTHERWISE SPECIFIED, ARE 1/4 WATT.
4. ALL CERAMIC CAPACITOR, UNLESS OTHERWISE SPECIFIED, ARE 50V, 10%.
5. MARKED WITH " ⚠ " ARE SAFETY CRITICAL PART.

IC BLOCK DIAGRAM

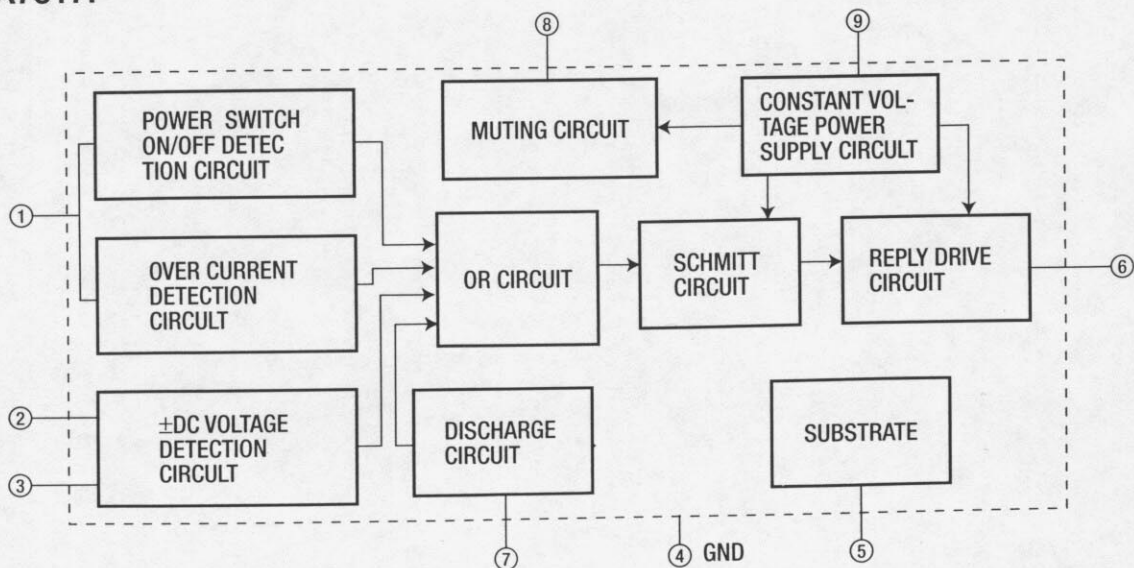
IC101/ IC102: NE5532



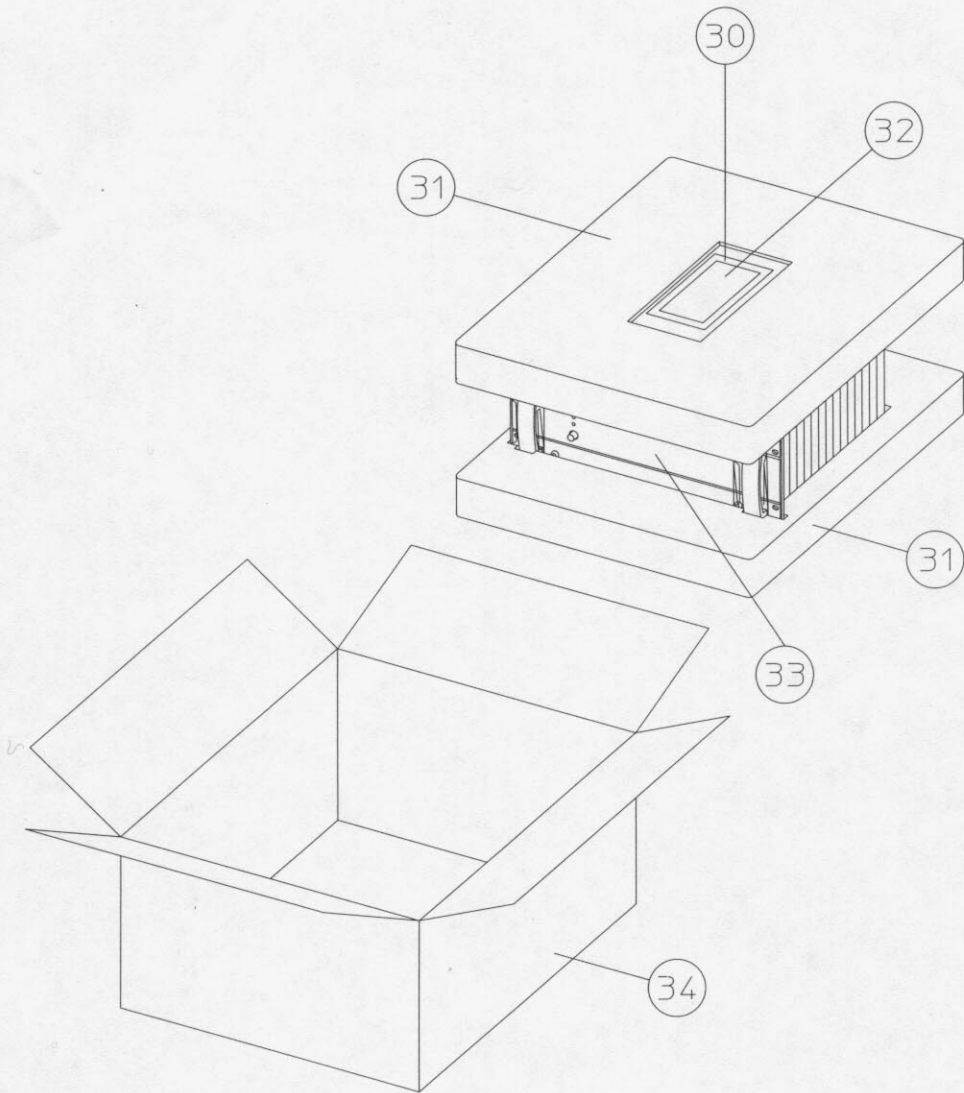
IC201: AD712



IC701: TA7317P



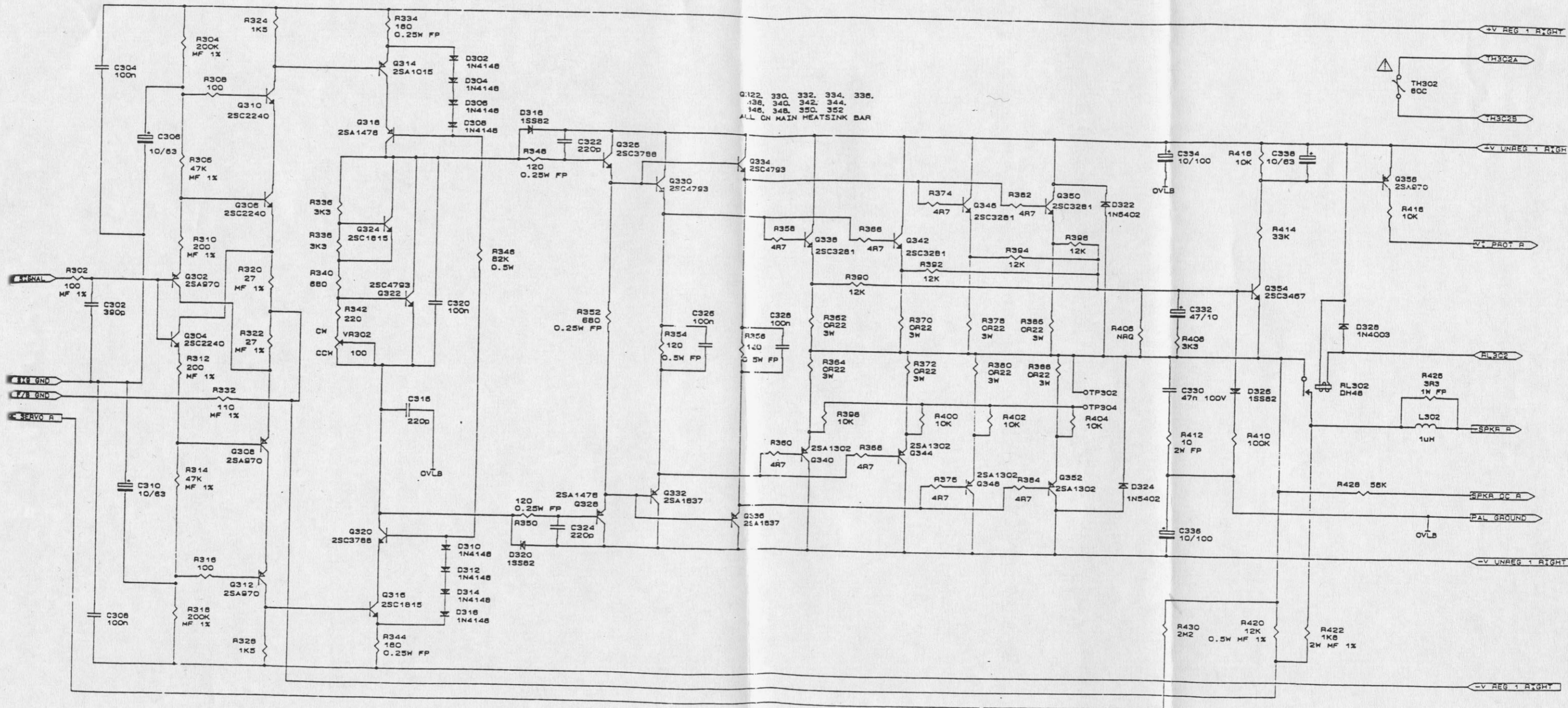
PACKING DIAGRAM



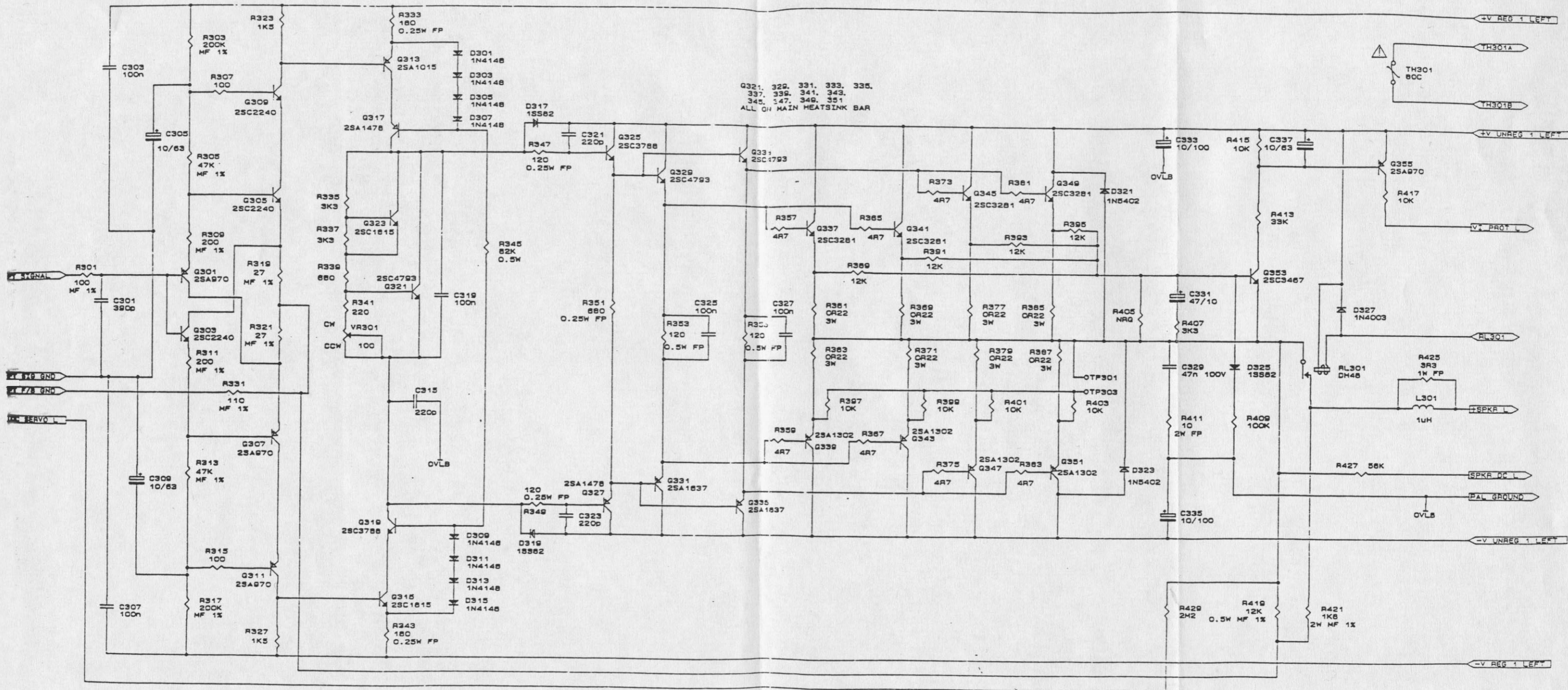
PACKING LIST

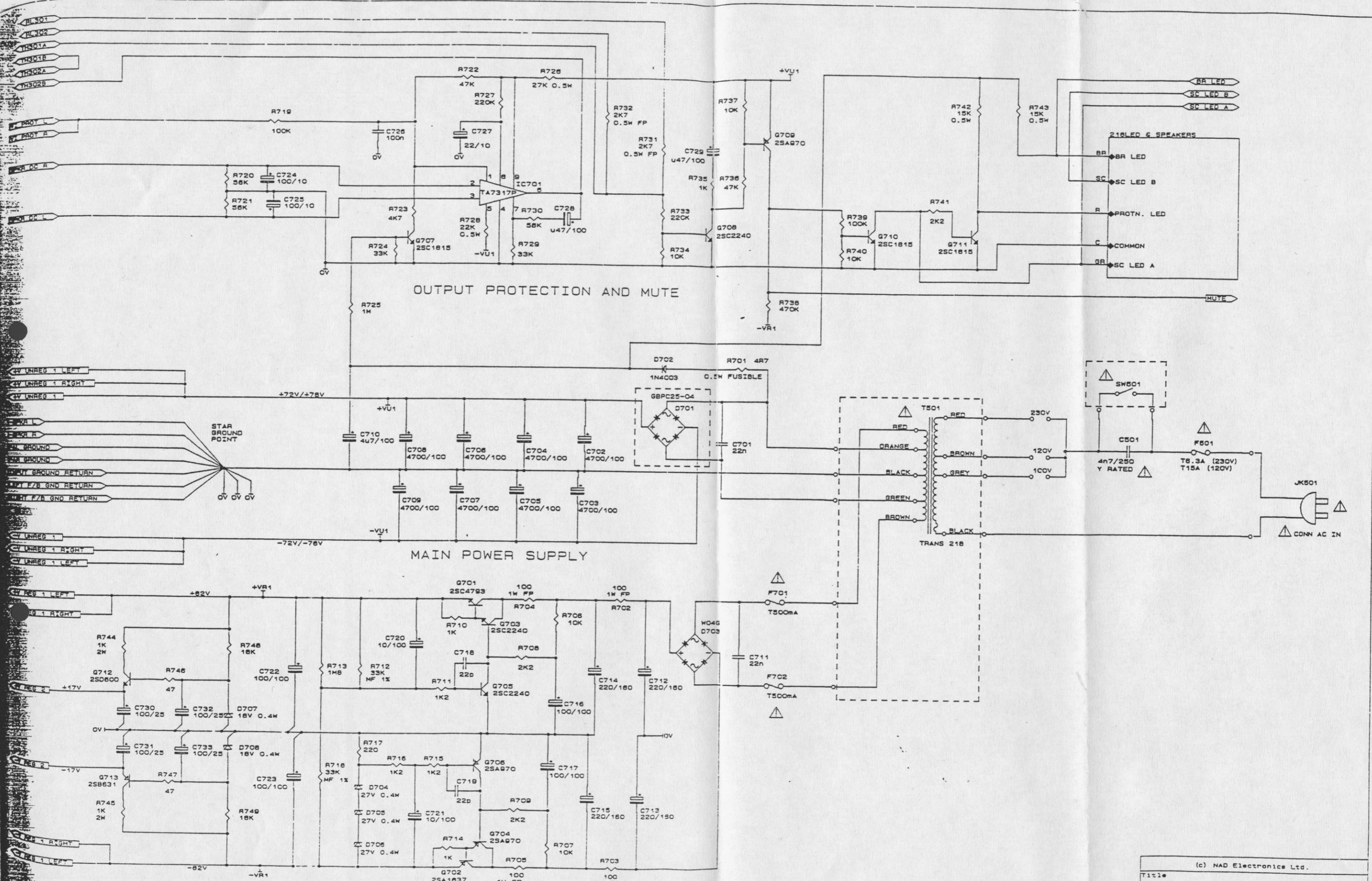
<u>Item</u>	<u>Part No</u>	<u>Description</u>	<u>Qty</u>
30	N14971062-0	MANUAL POLYBAG	1
31	1490-1853-0	POLYFORM ENDCAP	2
32	N43013604-1	INSTRUCTION MANUAL	1
33	1497-1482-0	EPE BAG	1
34	1476-3701-0	CARTON BOX	1

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Title 218 POWER AMP - RIGHT		
Size Document Number		REV
C	218PAR	A
Date:	April 24, 1988	Sheet 1 of 1



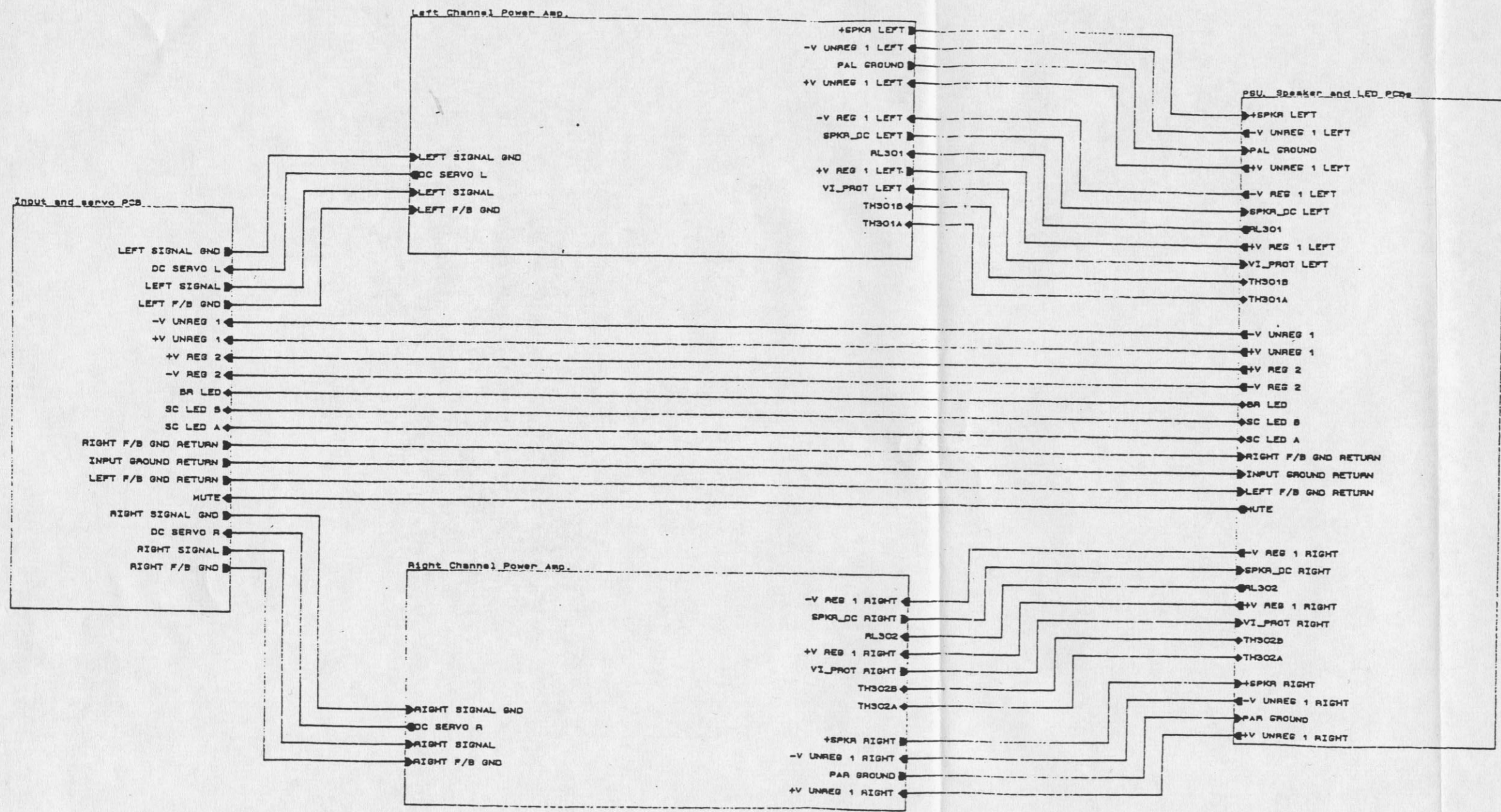


+/-17V REGULATOR

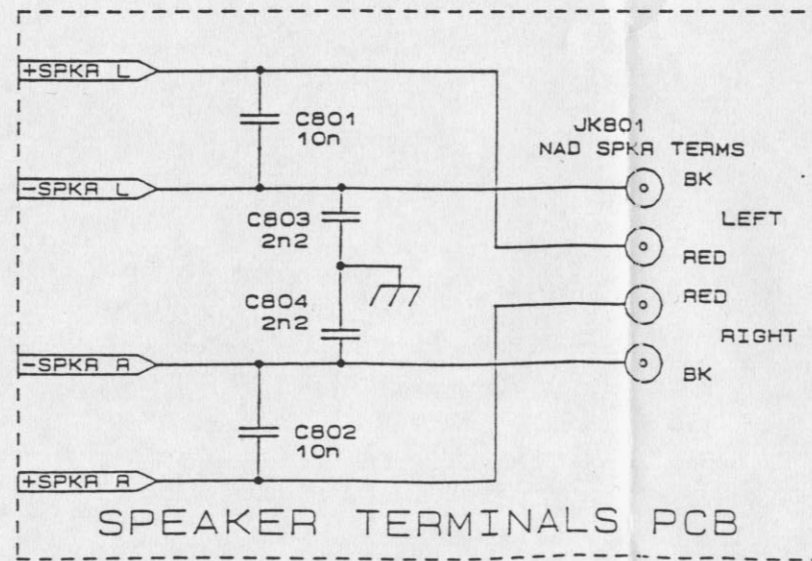
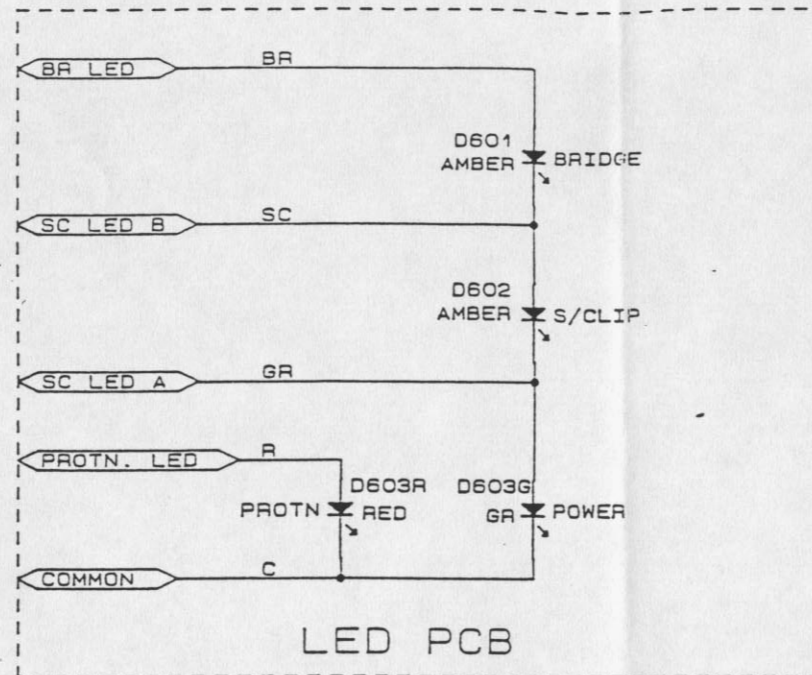
+/-82V REGULATOR

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Title	216 PSU PCB	
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C	216PS	REV A
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MR



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Title 218 Power Amplifier System		
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C	February 15, 1988	Sheet 1 of 1



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Title		
218 LED & Speakers PCBs		
Size	Document Number	REV
B	218LED	A
Date:	February 14, 1995	Sheet 1 of 1

SERVICE MANUAL

NAD

SERVICE SAFETY PRECAUTIONS (UL)

1. Use exact replacement parts for critical locations marked "⚠"
2. Return lead dress to original position and re-install protective covers.
3. Before returning to customer, test for shock hazard; use either method A or B:

A. Leakage test "cold":

1. Unplug the AC cord; turn power switch ON.
2. Connect one lead of High Voltage Insulation Tester to both prongs of the AC plug.
3. Touch other lead to all exposed metal parts.
4. Impedance measurement must be 0.3-5.0 Megohms.

B. Leakage test, "live" :

1. Plug unit directly into the AC outlet: do not use isolation transformer.
2. Connect one lead of the Leakage Current Tester to earth ground.
3. Touch other lead to all exposed metal parts.
4. Leakage measurement must be less than 0.5 milliamps.

218

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