

# 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

STEREO POWER  
AMPLIFIER

# 218

STEREO  
POWER  
AMPLIFIER

## SERVICE SAFETY PRECAUTIONS

### 1. Replacing the fuses



This symbol located near the fuse indicates that the fuse used is fast operating type. For continued protection against fire hazard, replace with same type fuse. For fuse rating refer to the marking adjacent to the symbol.

<u>Reference No</u>	<u>Part Number</u>	<u>Description</u>
F501*AH	5120-0023-0	Fuse 250V 15A Slow Blow LBC (UL/CSA)
F502-F505*AH	5120-0040-0	Fuse 250V 6.3A Slow Blow LBC (UL/CSA)
F701-F702*AH	5120-0031-0	Fuse 250V 500mA Slow Blow LBC High Surge (UL/CSA)
F501*C	5120-0025-0	Fuse 250V 6.3A Time LAG HBC (VDE/SEMKO)
F502-F505*C	5120-0038-0	Fuse 250V 6.3A Fast Acting HBC (VDE/SEMKO)
F701-F702*C	5120-0030-0	Fuse 250V 500mA Time LAG LBC (VDE/SEMKO)

**NOTE :**

- <\*AH > : USA, CANADIAN MODEL ONLY.

<\*C > : EUROPEAN MODEL ONLY.

### 2. Safety-check out

(Only U.S.A. model)

After correcting the original service problem perform the following safety check before releasing the set to the customer.

Connect the insulating-resistance tester between the plug of power supply cord and the screw on the back panel.

Specifications : 3.3 Mohm $\pm$ 10% at 500V.

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# SPECIFICATIONS

## TEST CONDITIONS

Unless otherwise specified, this specification will follow NAD SPECIFICATION with reference to EIA Standard RS 490 (IHF-A-202) 1978.

## GENERAL ITEMS

Operating Voltage      AC120V +/- 10% 60Hz for AH Version.  
                                  AC230V +/- 10% 50Hz for C Version.

Operating Temperature : -10 to 50°C

Dimensions WxHxD (in mm) : 482.5 x 177 x 407 (rack mount fascia)

Net Weight : 22.5 kg/ 49.5 lb

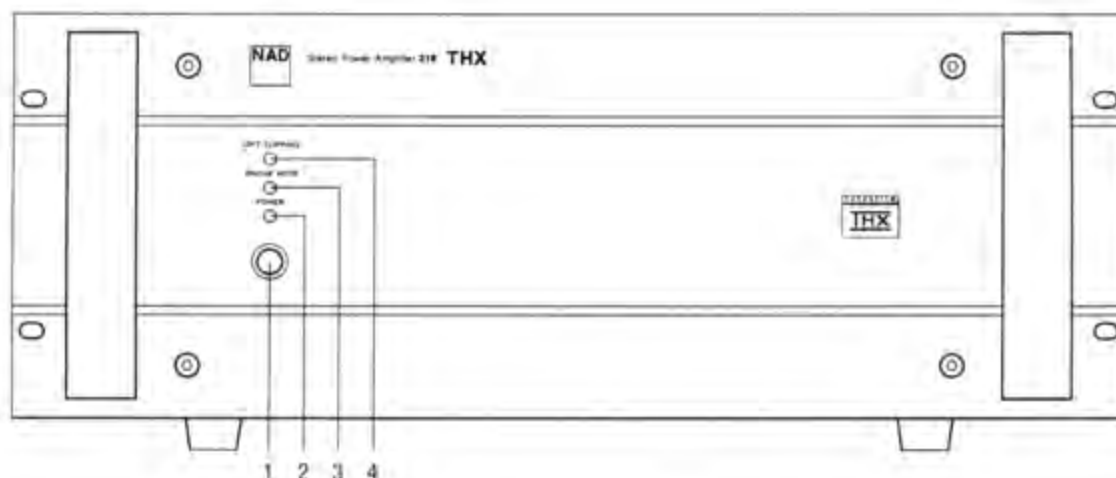
Shipping Weight : 27.5 kg/ 60.5 lb

## NAD218

	LOAD	LIMIT		UNIT
<b>STEREO MODE</b>		<b>*AH</b>	<b>*C</b>	
Continuous Power Output	8-ohm	≥225	≥200	W
(20Hz-20kHz @ THD)	4-ohm	≥350	≥300	W
Clipping Power Output	8-ohm	≥240	≥210	W
(1kHz @ 0.1% THD)	4-ohm	≥420	≥360	W
THD @ rated Power		≤0.03	≤0.03	%
THD @ 0.25W		≤0.03	≤0.03	%
Dynamic Power	8-ohm	≥280	≥250	W
	4-ohm	≥470	≥430	W
	2-ohm	≥700	≥660	W
Noise (A-wtd, 1KΩ, ref. 1W)		≤-95	≤-95	dB
Frequency Response (20Hz-20kHz)		0 ±0/-0.3	0 ±0/-0.3	dB
Damping Factor at 50Hz	8-ohm	≥200	≥200	
Input Sensitivity (200W Output)	8-ohm	≥1420 ±60	≥1420 ±60	mV
Channel Separation (10kHz)		≥70	≥70	dB
<b>BRIDGED MODE</b>				
Continuous Power Output	8-ohm	≥780	≥700	W
(20Hz-20kHz @ THD)				
Input Sensitivity (700W output)	8-ohm	≥1320 ±60	≥1320 ±60	mV

## REAR PANEL / FRONT PANEL VIEW

### FRONT PANEL



1. AC POWERSWITCH
2. POWER INDICATOR

3. BRIDGE MODE INDICATOR
4. SOFT CLIPPING INDICATOR

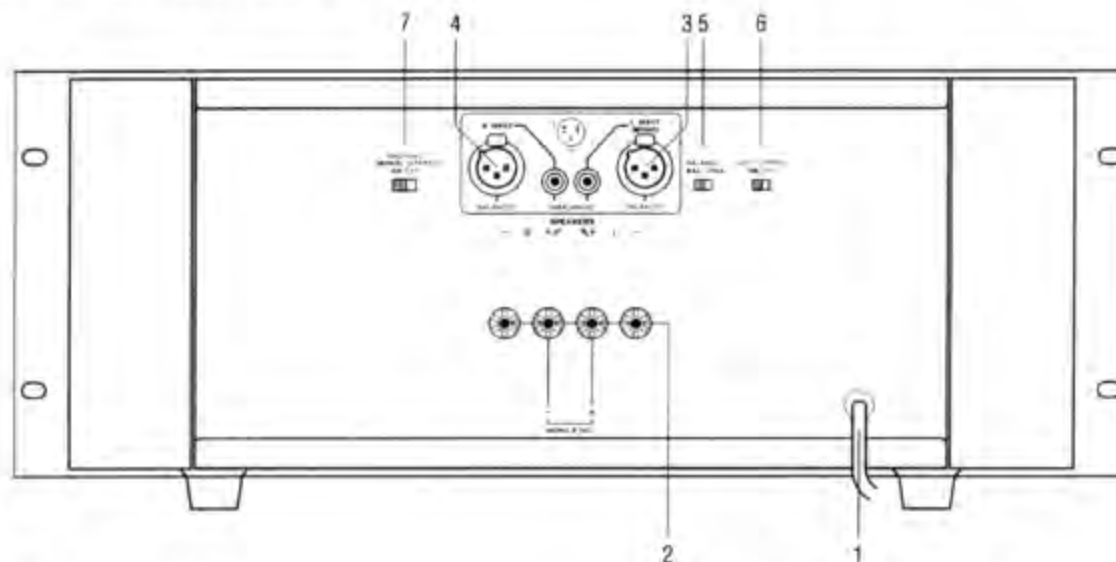


The graphic symbol of a lightning flash with an arrow point within a triangle signifies that there is dangerous voltage within the unit and it poses a hazard to anyone removing the cover to gain access to the interior of the unit. **Only qualified service personnel should make any such attempt.**



The graphic symbol of an exclamation point within an equilateral triangle warns a user of the device that it is necessary to refer to the instruction manual and its warnings for proper operation of the unit.

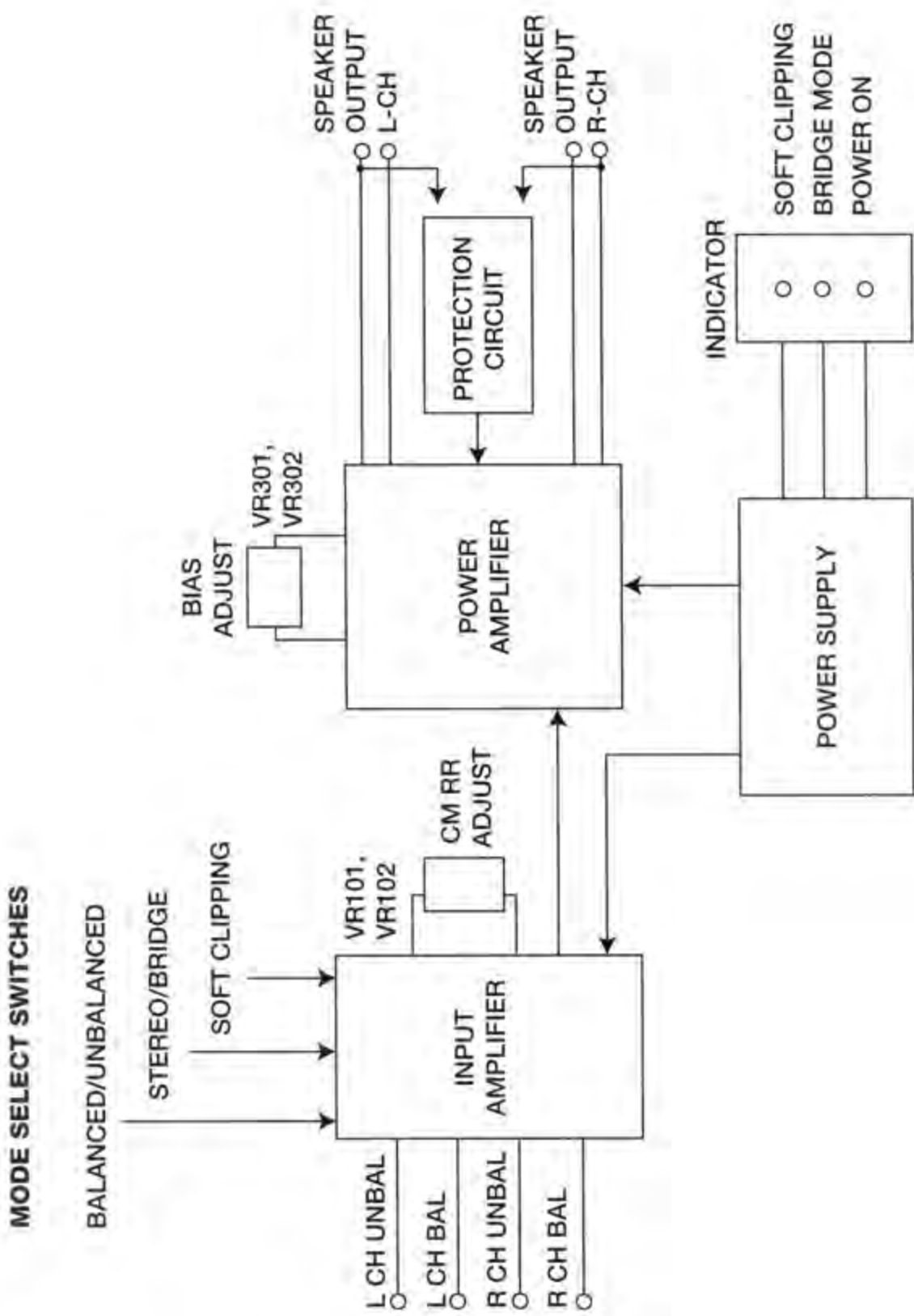
### REAR PANEL CONNECTIONS



1. AC POWER CORD
2. SPEAKER OUTPUT
3. LEFT CHANNEL INPUTS  
(Balanced, Unbalanced)

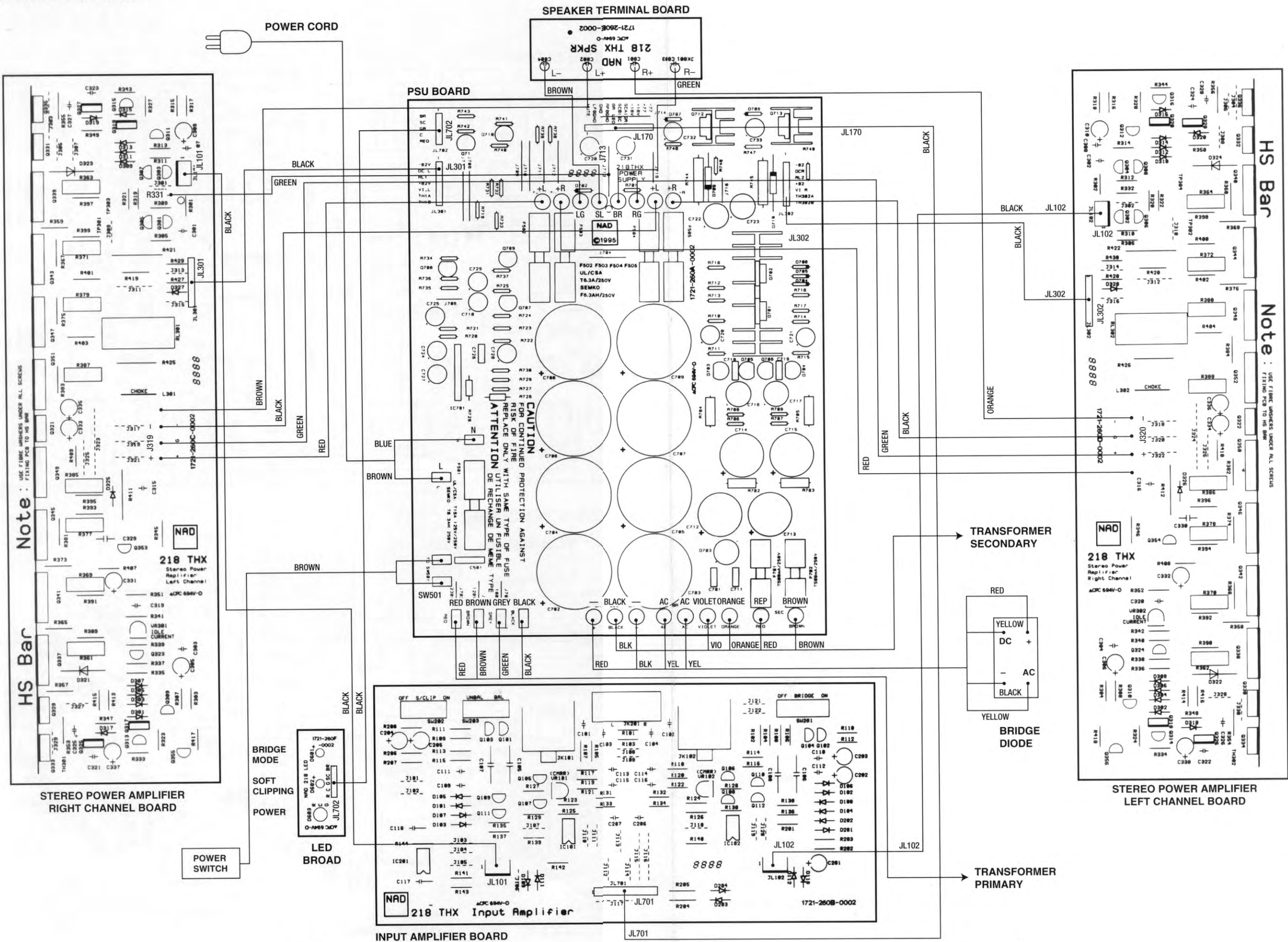
4. RIGHT CHANNEL INPUTS  
(Balanced, Unbalanced)
5. INPUT SELECT (Balanced, Unbalanced)
6. SOFT CLIPPING ON/OFF
7. BRIDGING ON (Mono)/ OFF (Stereo)

BLOCK DIAGRAM





WIRING DIAGRAM



# DISASSEMBLY INSTRUCTIONS

## TOP COVER REMOVAL

1. Remove machine screws M 4.0 x 6.0 ( ① to ⑮ ) from the side panels. Refer to figure No.1.

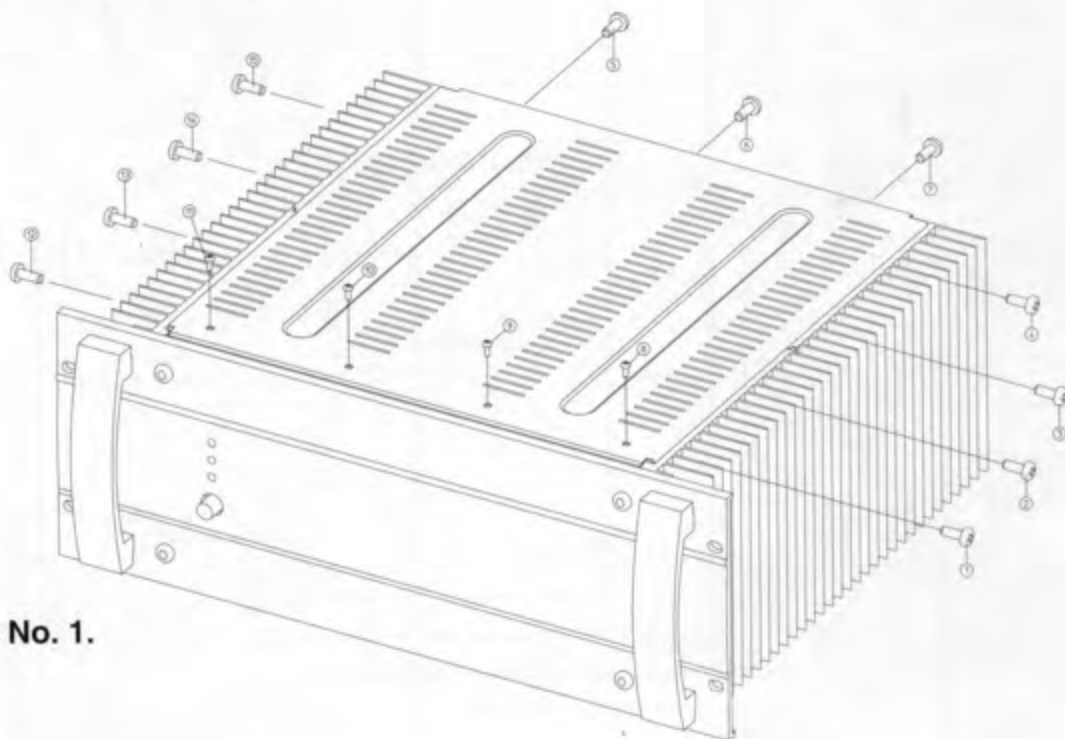


Figure No. 1.

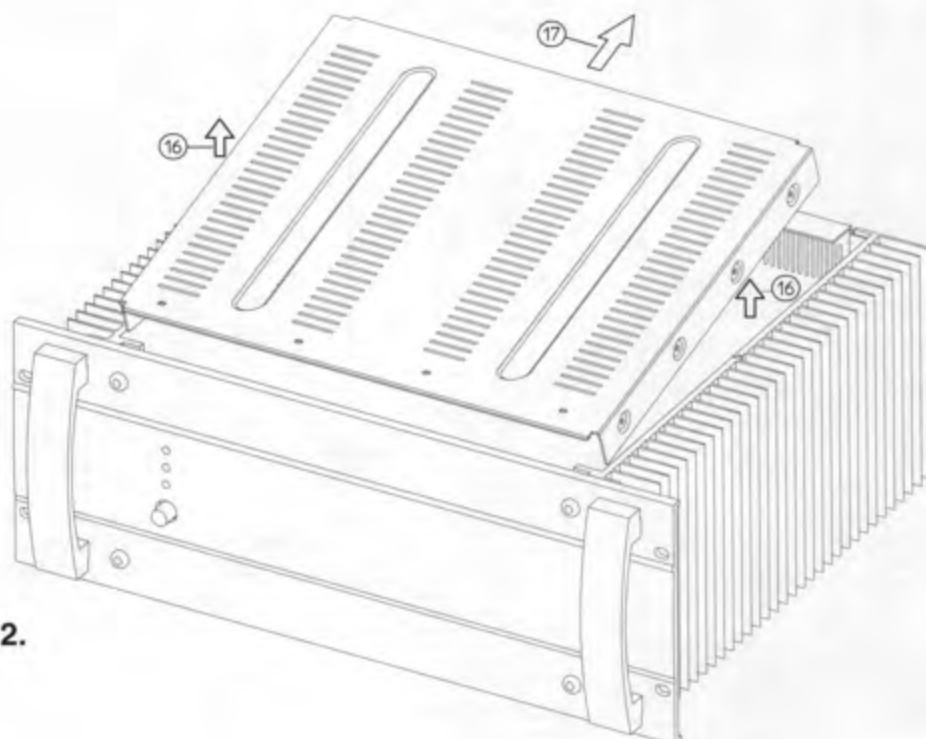


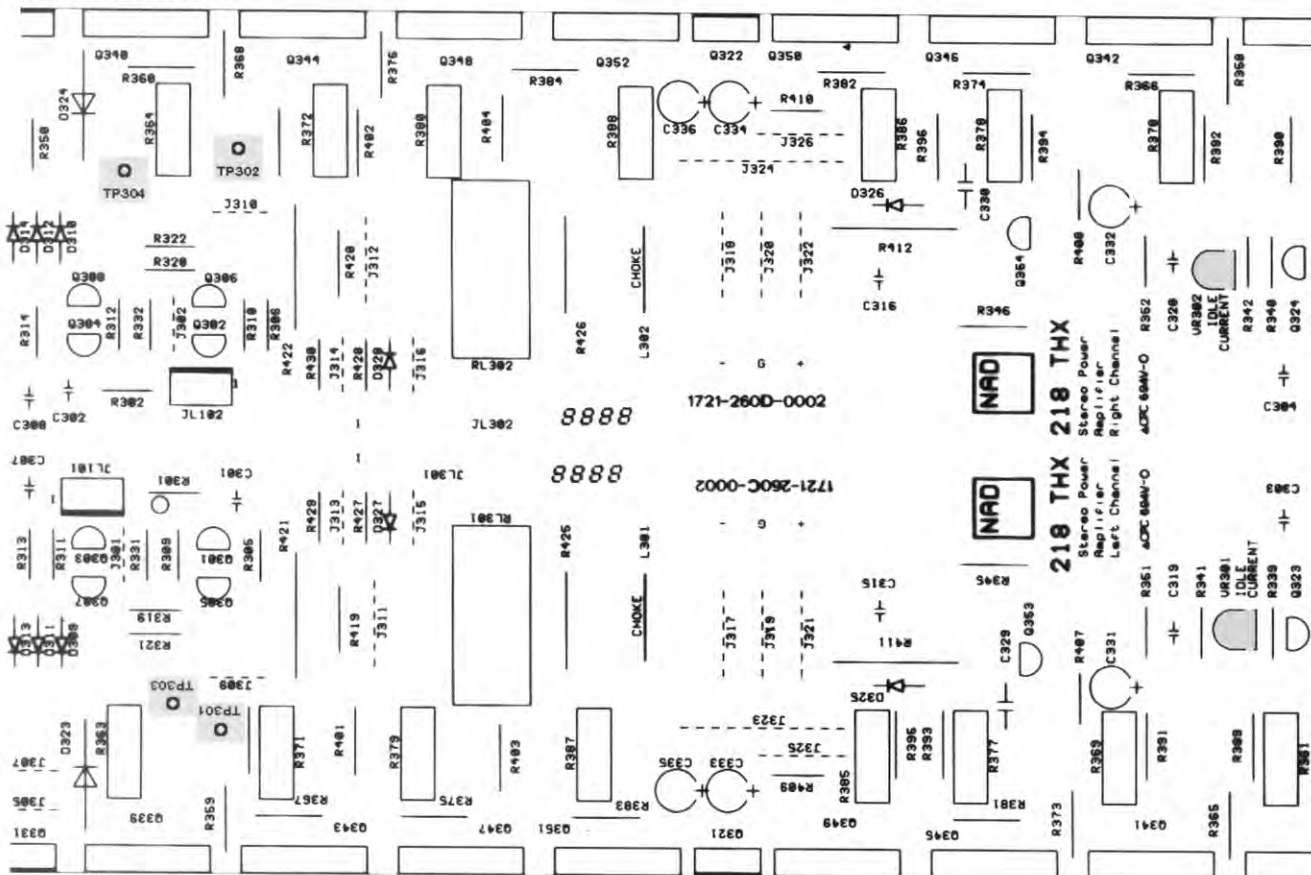
Figure No. 2.

2. Tilt the rear of the TOP COVER upwards by approx. 35° and then remove in the direction as indicated by ①⑦ in figure No. 2.

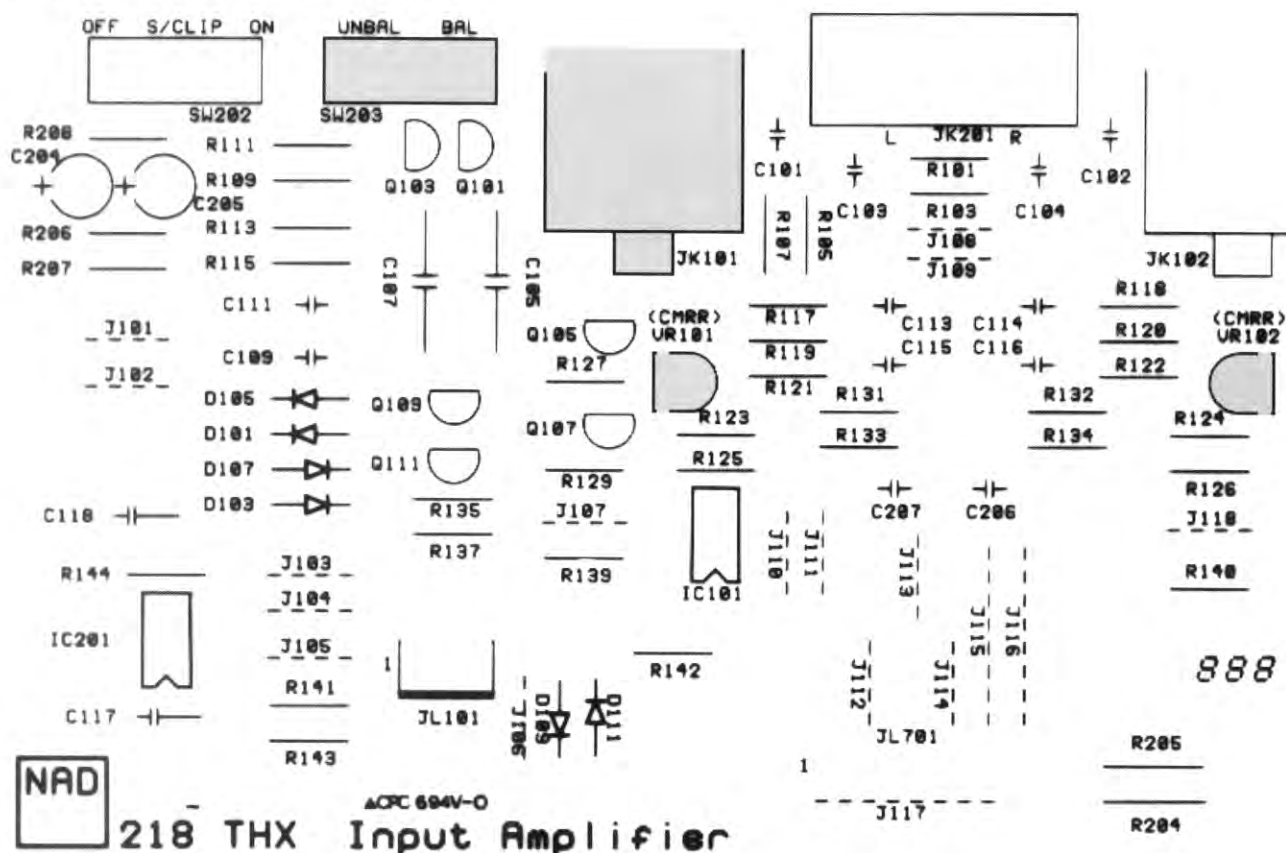


# ALIGNMENT POINTS DIAGRAM

## 1. IDLE CURRENT



## 2. COMMON MODE REJECTION



## ALIGNMENT PROCEDURES

### IDLE CURRENT (VR301, VR302).

Ensure VR301 and VR302 are set to minimum (fully counter-clockwise) before first switching on. No load should be connected and no input signal.

Connect a DVM switched to its 200mV range between TP301 and TP303.

Switch the amplifier on and, after one minute, adjust VR301 to obtain a reading of between 2 and 2.5 mV.

Transfer the DVM to TP302 and TP304 and adjust VR302 to obtain a reading of between 2 and 2.5 mV.

Leave power on for between 5 and 10 minutes to allow the idle currents to stabilize.

Re-adjust VR301 and VR302 as necessary to obtain a reading of  $8 \text{ mV} \pm 2 \text{ mV}$  on each channel.

### COMMON MODE REJECTION (VR101, VR102).

Set SW203 to BALANCED mode.

Apply a signal of 1V rms, 1kHz simultaneously to pins 2 and 3 of the left channel balanced input jack (JK101). Pins 2 and 3 must be shorted together at the plug and the signal referenced to the ground pin (1) for this test.

Monitor the output level at the Left channel speaker terminals with an AC voltmeter (no load connected).

Adjust VR101 to produce the minimum reading on the AC voltmeter. This should be below 10mV rms.

Repeat the above procedure with the Right channel to set VR102.

# MODES OF CONNECTION

## INPUT CONNECTION

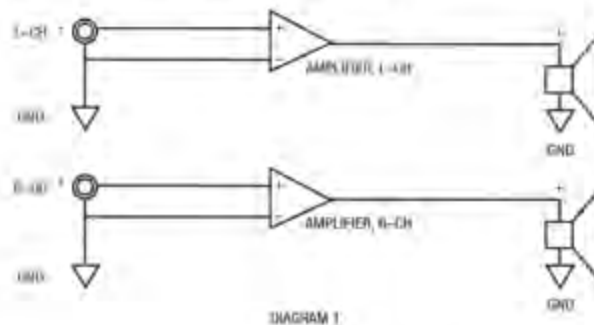
Model 218 has both RCA and XLR input connections for each channel. The circuit can operate in unbalanced mode and balanced mode. When the input mode is selected to BAL mode, differential input signal of 180 degrees phase difference can be fed into the input amplifier through the XLR socket. This could 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

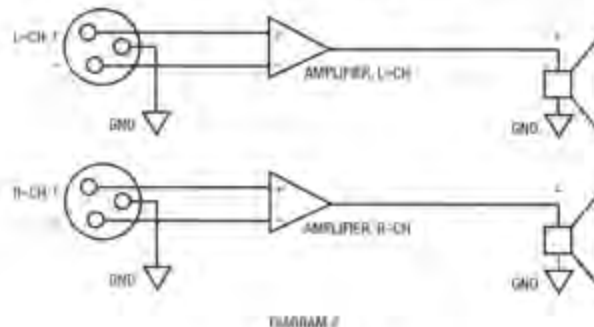
The output configuration can be selected to normal mode or bridge mode. At normal mode, each speaker output channel corresponds to the input signal at that channel. At bridge mode, the output becomes mono output in which the output of the left channel is in opposite phase to the right channel. One speaker 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.

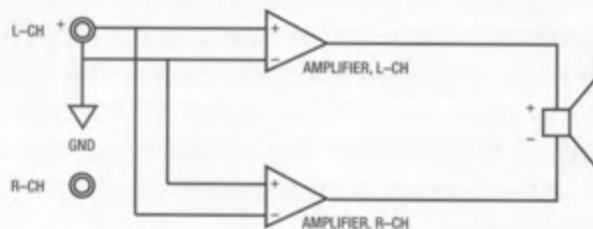


DIAGRAM 3

**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.

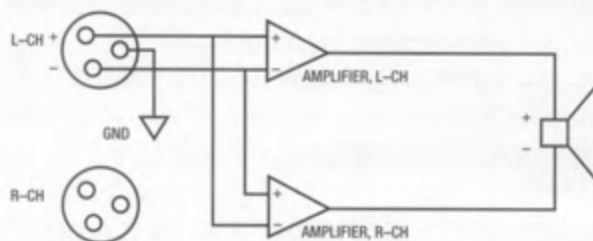


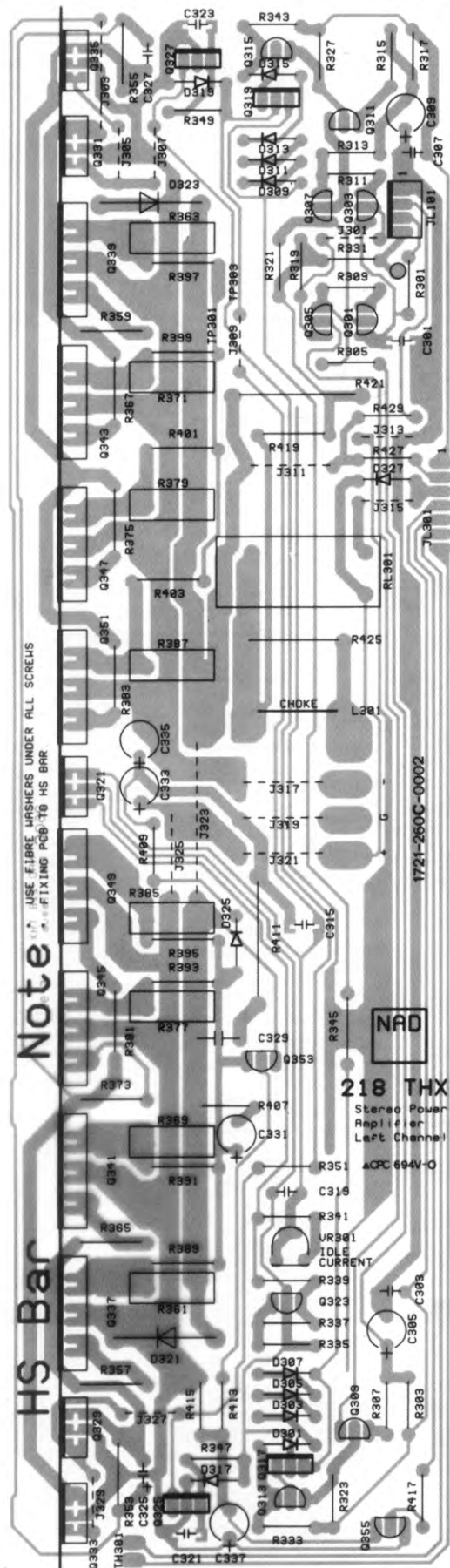
DIAGRAM 4

## PSU

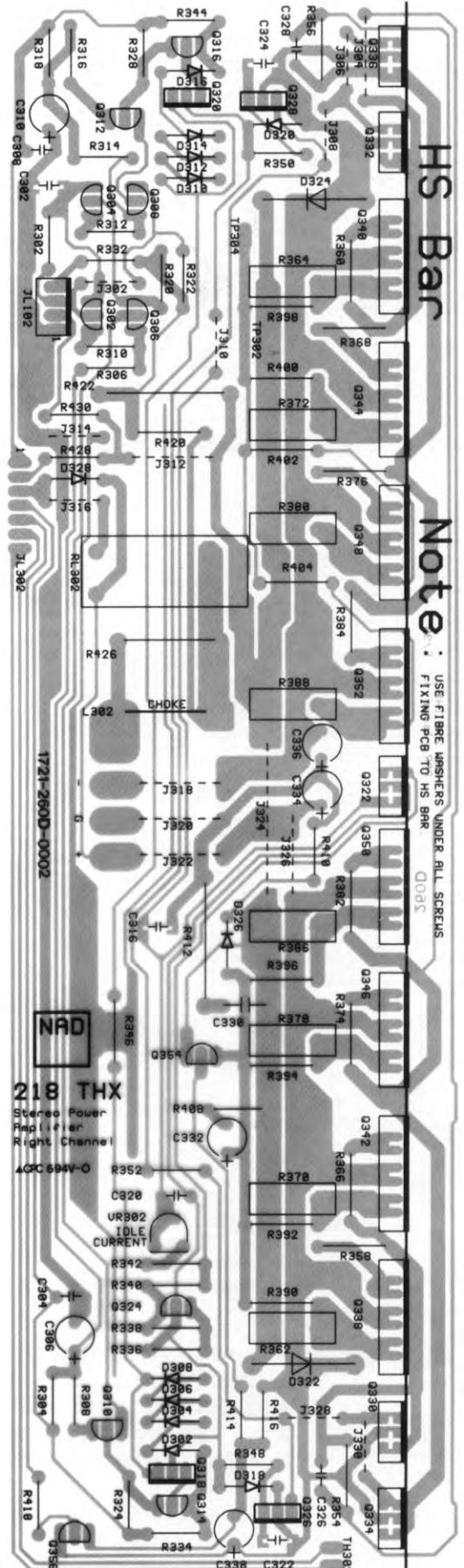




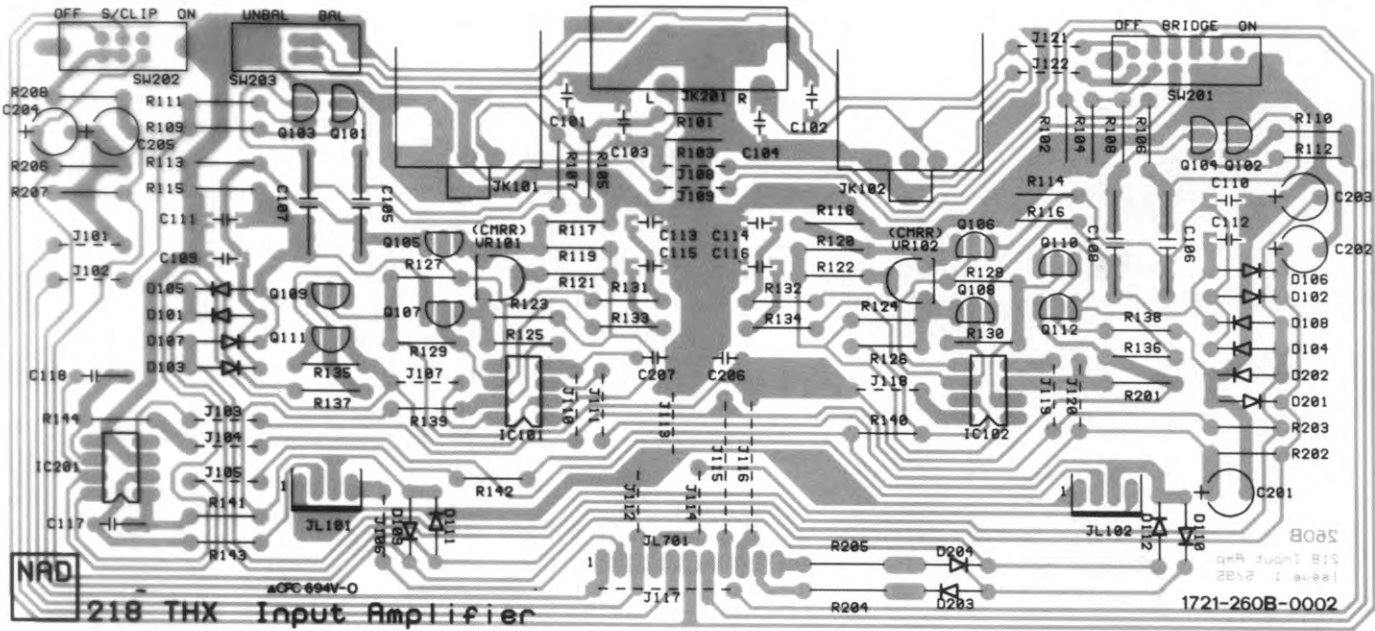
## STEREO POWER AMP LEFT CHANNEL



## STEREO POWER AMP RIGHT CHANNEL



INPUT AMPLIFIER



SPEAKER TERMINAL

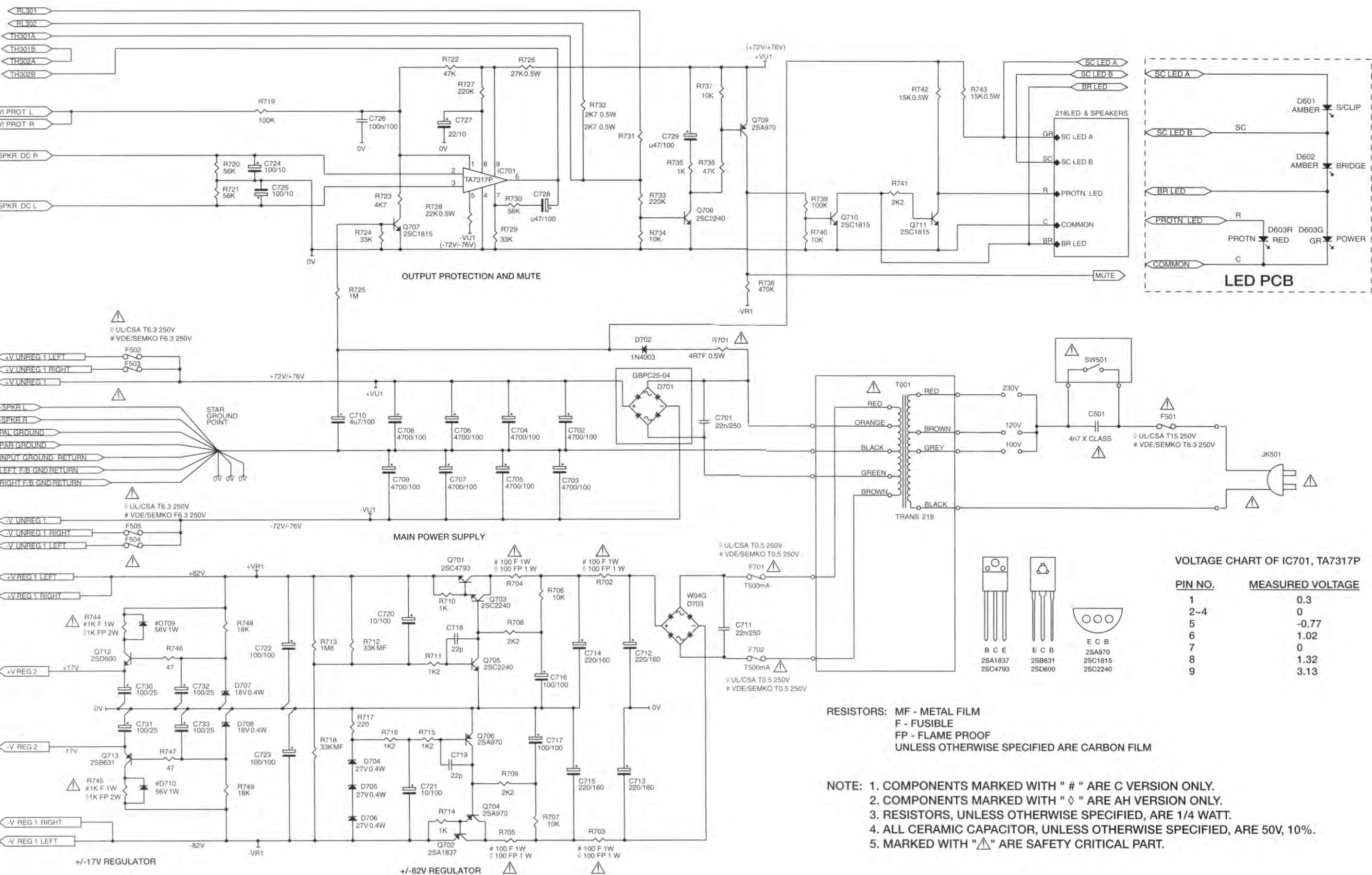


LED



# SCHEMATIC DIAGRAM

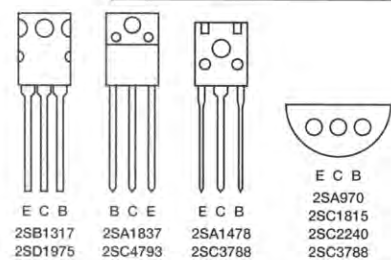
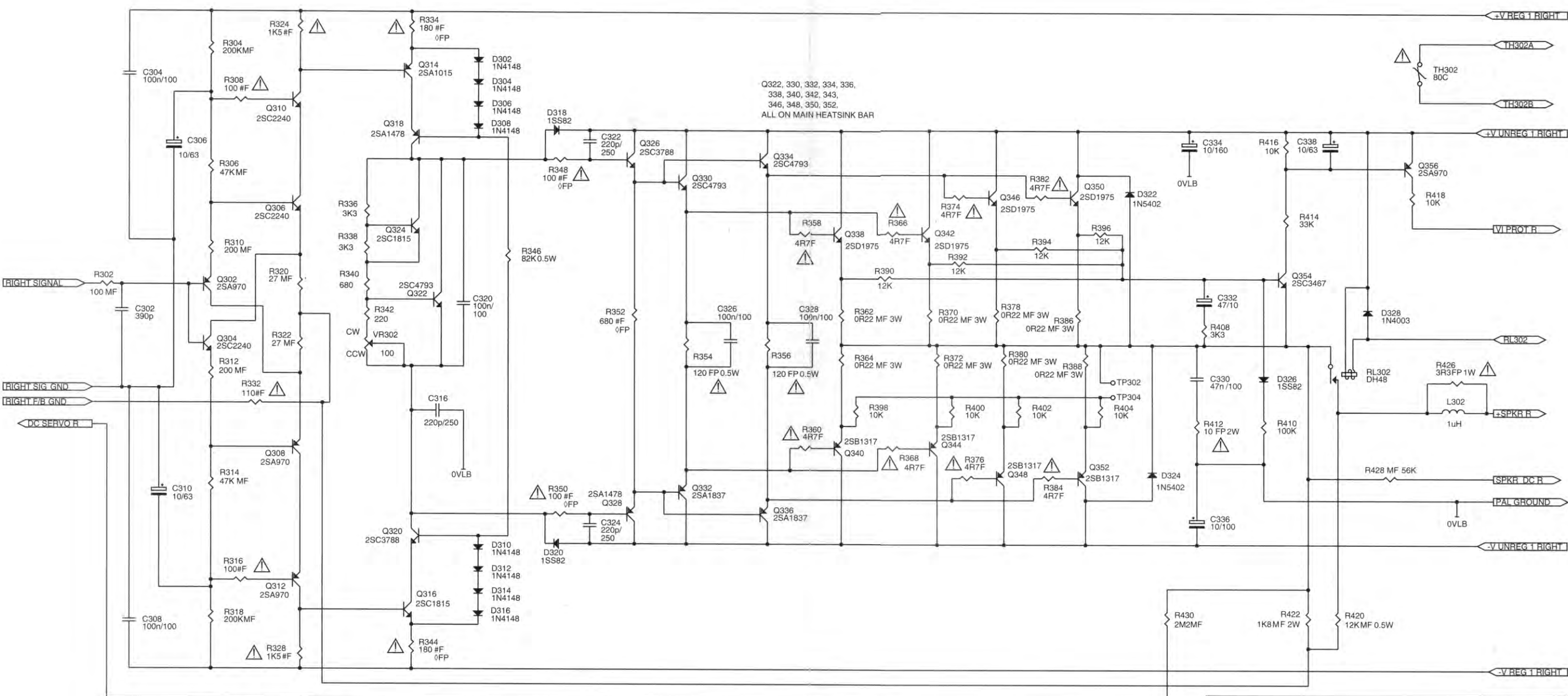
## PSU





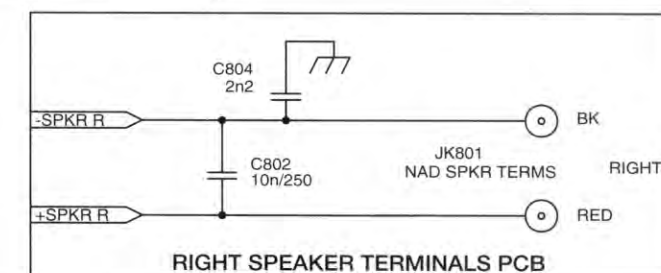


## STEREO POWER AMPLIFIER RIGHT CHANNEL



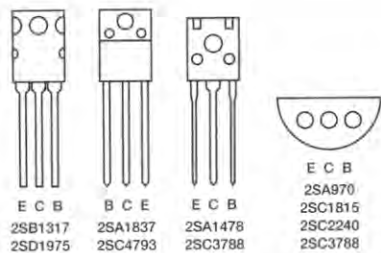
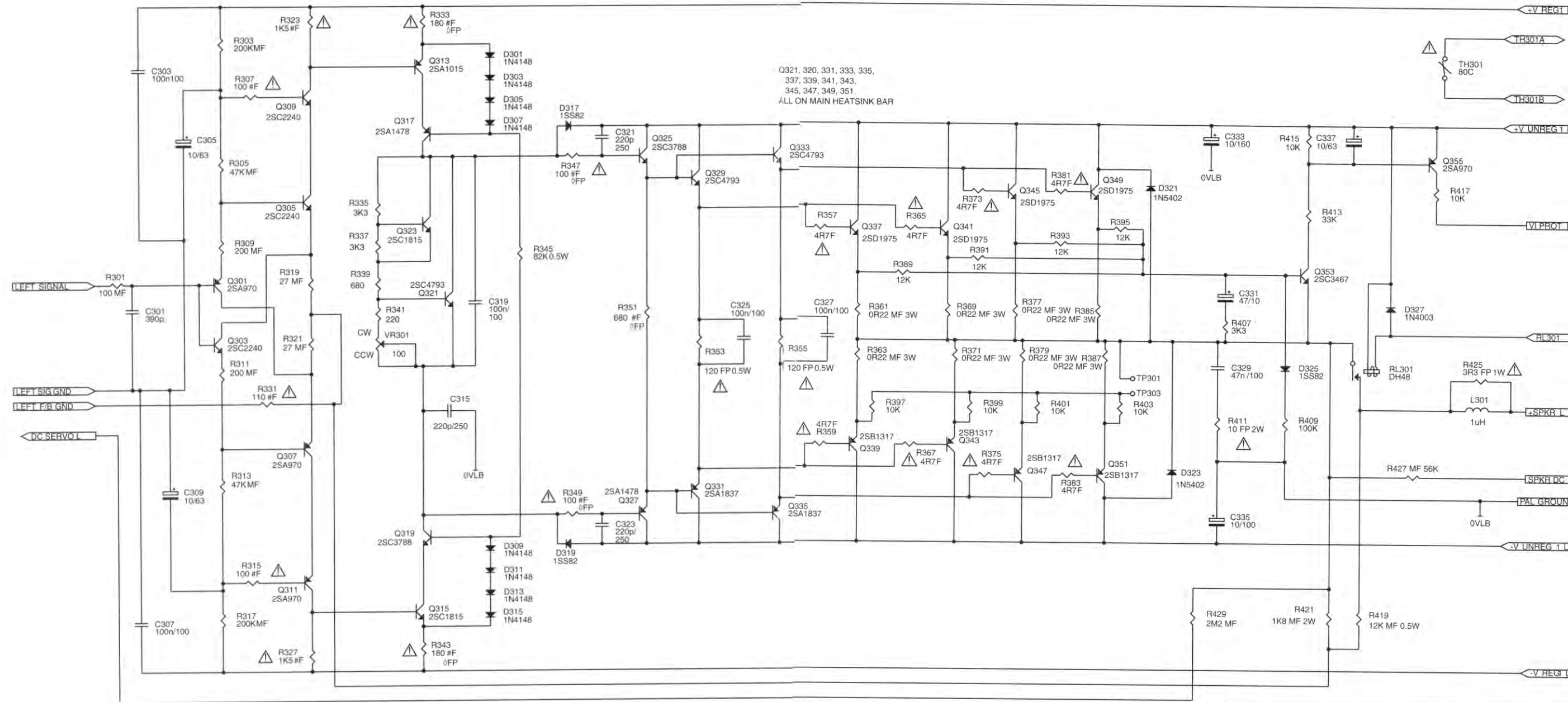
RESISTORS: MF - METAL FILM  
F - FUSIBLE  
FP - FLAME PROOF  
NOT SPECIFIED ARE CARBON FILM

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



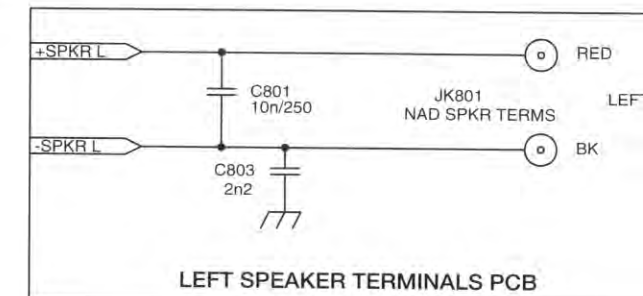


# STEREO POWER AMPLIFIER LEFT CHANNEL



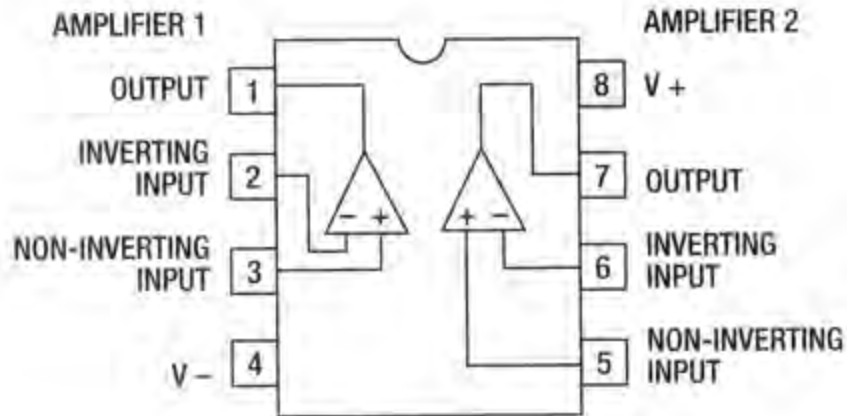
RESISTORS: MF - METAL FILM  
F - FUSIBLE  
FP - FLAME PROOF  
NOT SPECIFIED ARE CARBON FILM

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

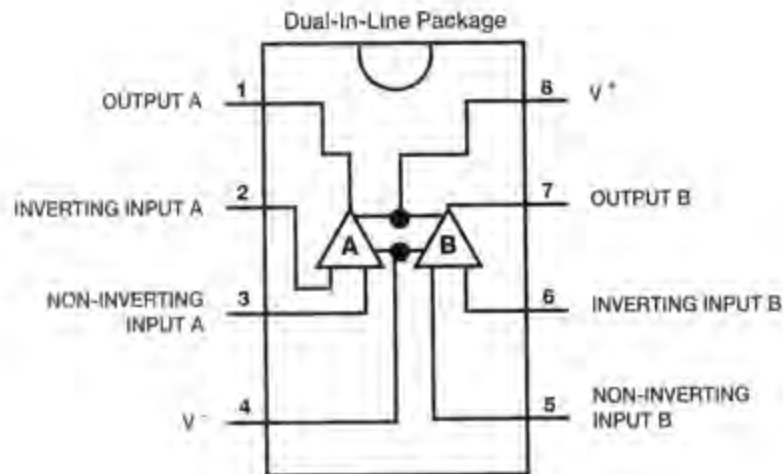


## IC BLOCK DIAGRAM

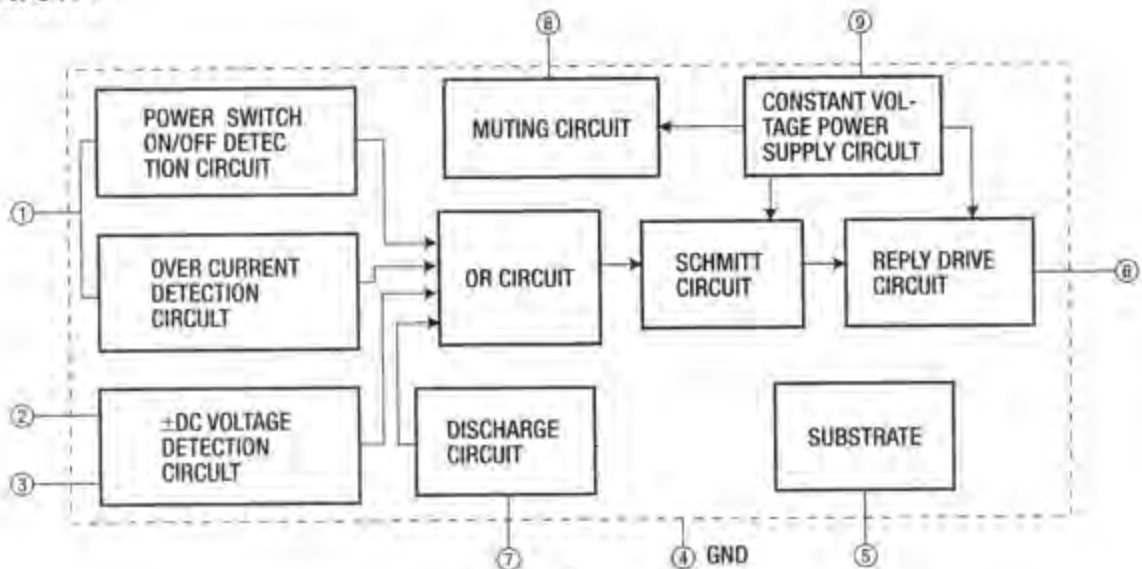
IC101/ IC102: NE5532



IC201: AD712



IC701: TA7317P














This is a detailed exploded view diagram of a mechanical assembly, likely a piece of industrial equipment. The diagram shows the main housing, internal components, and various fasteners. Numerous callouts with numbers and leader lines identify specific parts, including:

- Fasteners:** Screws (e.g., 0270, 0271, 0272, 0273, 0274, 0275, 0276, 0277, 0278, 0279, 0280, 0281, 0282, 0283, 0284, 0285, 0286, 0287, 0288, 0289, 0290, 0291, 0292, 0293, 0294, 0295, 0296, 0297, 0298, 0299, 0300, 0301, 0302, 0303, 0304, 0305, 0306, 0307, 0308, 0309, 0310, 0311, 0312, 0313, 0314, 0315, 0316, 0317, 0318, 0319, 0320, 0321, 0322, 0323, 0324, 0325, 0326, 0327, 0328, 0329, 0330, 0331, 0332, 0333, 0334, 0335, 0336, 0337, 0338, 0339, 0340, 0341, 0342, 0343, 0344, 0345, 0346, 0347, 0348, 0349, 0350, 0351, 0352, 0353, 0354, 0355, 0356, 0357, 0358, 0359, 0360, 0361, 0362, 0363, 0364, 0365, 0366, 0367, 0368, 0369, 0370, 0371, 0372, 0373, 0374, 0375, 0376, 0377, 0378, 0379, 0380, 0381, 0382, 0383, 0384, 0385, 0386, 0387, 0388, 0389, 0390, 0391, 0392, 0393, 0394, 0395, 0396, 0397, 0398, 0399, 0400, 0401, 0402, 0403, 0404, 0405, 0406, 0407, 0408, 0409, 0410, 0411, 0412, 0413, 0414, 0415, 0416, 0417, 0418, 0419, 0420, 0421, 0422, 0423, 0424, 0425, 0426, 0427, 0428, 0429, 0430, 0431, 0432, 0433, 0434, 0435, 0436, 0437, 0438, 0439, 0440, 0441, 0442, 0443, 0444, 0445, 0446, 0447, 0448, 0449, 0450, 0451, 0452, 0453, 0454, 0455, 0456, 0457, 0458, 0459, 0460, 0461, 0462, 0463, 0464, 0465, 0466, 0467, 0468, 0469, 0470, 0471, 0472, 0473, 0474, 0475, 0476, 0477, 0478, 0479, 0480, 0481, 0482, 0483, 0484, 0485, 0486, 0487, 0488, 0489, 0490, 0491, 0492, 0493, 0494, 0495, 0496, 0497, 0498, 0499, 0500, 0501, 0502, 0503, 0504, 0505, 0506, 0507, 0508, 0509, 0510, 0511, 0512, 0513, 0514, 0515, 0516, 0517, 0518, 0519, 0520, 0521, 0522, 0523, 0524, 0525, 0526, 0527, 0528, 0529, 0530, 0531, 0532, 0533, 0534, 0535, 0536, 0537, 0538, 0539, 0540, 0541, 0542, 0543, 0544, 0545, 0546, 0547, 0548, 0549, 0550, 0551, 0552, 0553, 0554, 0555, 0556, 0557, 0558, 0559, 0560, 0561, 0562, 0563, 0564, 0565, 0566, 0567, 0568, 0569, 0570, 0571, 0572, 0573, 0574, 0575, 0576, 0577, 0578, 0579, 0580, 0581, 0582, 0583, 0584, 0585, 0586, 0587, 0588, 0589, 0590, 0591, 0592, 0593, 0594, 0595, 0596, 0597, 0598, 0599, 0600, 0601, 0602, 0603, 0604, 0605, 0606, 0607, 0608, 0609, 0610, 0611, 0612, 0613, 0614, 0615, 0616, 0617, 0618, 0619, 0620, 0621, 0622, 0623, 0624, 0625, 0626, 0627, 0628, 0629, 0630, 0631, 0632, 0633, 0634, 0635, 0636, 0637, 0638, 0639, 0640, 0641, 0642, 0643, 0644, 0645, 0646, 0647, 0648, 0649, 0650, 0651, 0652, 0653, 0654, 0655, 0656, 0657, 0658, 0659, 0660, 0661, 0662, 0663, 0664, 0665, 0666, 0667, 0668, 0669, 0670, 0671, 0672, 0673, 0674, 0675, 0676, 0677, 0678, 0679, 0680, 0681, 0682, 0683, 0684, 0685, 0686, 0687, 0688, 0689, 0690, 0691, 0692, 0693, 0694, 0695, 0696, 0697, 0698, 0699, 0700, 0701, 0702, 0703, 0704, 0705, 0706, 0707, 0708, 0709, 0710, 0711, 0712, 0713, 0714, 0715, 0716, 0717, 0718, 0719, 0720, 0721, 0722, 0723, 0724, 0725, 0726, 0727, 0728, 0729, 0730, 0731, 0732, 0733, 0734, 0735, 0736, 0737, 0738, 0739, 0740, 0741, 0742, 0743, 0744, 0745, 0746, 0747, 0748, 0749, 0750, 0751, 0752, 0753, 0754, 0755, 0756, 0757, 0758, 0759, 0760, 0761, 0762, 0763, 0764, 0765, 0766, 0767, 0768, 0769, 0770, 0771, 0772, 0773, 0774, 0775, 0776, 0777, 0778, 0779, 0780, 0781, 0782, 0783, 0784, 0785, 0786, 0787, 0788, 0789, 0790, 0791, 0792, 0793, 0794, 0795, 0796, 0797, 0798, 0799, 0800, 0801, 0802, 0803, 0804, 0805, 0806, 0807, 0808, 0809, 0810, 0811, 0812, 0813, 0814, 0815, 0816, 0817, 0818, 0819, 0820, 0821, 0822, 0823, 0824, 0825, 0826, 0827, 0828, 0829, 0830, 0831, 0832, 0833, 0834, 0835, 0836, 0837, 0838, 0839, 0840, 0841, 0842, 0843, 0844, 0845, 0846, 0847, 0848, 0849, 0850, 0851, 0852, 0853, 0854, 0855, 0856, 0857, 0858, 0859, 0860, 0861, 0862, 0863, 0864, 0865, 0866, 0867, 0868, 0869, 0870, 0871, 0872, 0873, 0874, 0875, 0876, 0877, 0878, 0879, 0880, 0881, 0882, 0883, 0884, 0885, 0886, 0887, 0888, 0889, 0890, 0891, 0892, 0893, 0894, 0895, 0896, 0897, 0898, 0899, 0900, 0901, 0902, 0903, 0904, 0905, 0906, 0907, 0908, 0909, 0910, 0911, 0912, 0913, 0914, 0915, 0916, 0917, 0918, 0919, 0920, 0921, 0922, 0923, 0924, 0925, 0926, 0927, 0928, 0929, 0930, 0931, 0932, 0933, 0934, 0935, 0936, 0937

## EXPLODED VIEW PARTS LIST

Item	Part No	Description	Qty
0001	N14023931-0	FASCIA (218) W/SS	1
0002	N14023940-0	SUBFASCIA (218)	1
0003	N14023950-0	BASE (218)	1
0005*AH	N14023962-0	REAR PANEL (218 AH) W/SS	1
0005*C	1402-3973-0	REAR PANEL (218C) W/SS	1
0006	N14023980-0	COVER (218)	1
0007	N14023990-0	CHANNEL (218)	1
0008	N41322691-0	RACK HANDLE (218)	2
0010	2602-6005-1269	PVC WASHER M6 0.5T OD=12	4
0011	5400-1041-0	REAR HS MACH (218)	2
0014	N41321671-0	TRANSISTOR CLAMP	8
0015	N14631001-0	BEZEL (218)	1
0017	N2437640B-0	POWER BUTTON DIA 11.5 GREEN	1
0020	N14024000-0	SPEAKER GROUND BRACKET (218)	1
0025	N41321661-0	THERMAL MOUNTING CLIP	2
0030	4152-0931-1	FOOT (218) 14MM HIGH FF-001	4
0035	5400-1021-1	HEAT SINK BAR (218)	2
0036	5400-1031-1	FRONT HS MACH (218)	2
0037	N54000851-0	HEATSINK 15MM-HIGH	2
0064	3714-6906-0	CLEAR LED LENS (218)	3
0101	2954-3008-0000	TAPPING 3X8MM B-TITE YEL. ZN	20
0131	2954-3008-3000	TAPPING 3X8MM B-TITE BLK. ZN	4
0201	2903-6020-3400	HEX SOCKET T/H M6x20 BLK. ZN	4
0202	2904-6012-3000	SCREW M6X12 B/H BLK. ZN	4
0203	2904-4010-3000	SCREW M4X10 BLK. ZN	53
0204	2908-4012-3400	HEXAGON SOCKET HEAD 4x12mm	8
0205	2904-3006-3000	M3X6 BINDING BLK. ZN	6
0206	2954-2606-0000	SCREWS BT 2.6X6	4
0207	2910-4020-3000	SCREW T4.0X20MM TAPPING	1
0208	2600-4508-0980	WASHER M4.5 0.8T OD=9.8	1
0209	2954-4010-3000	SCREW 4X10 B/H TAPPING BLK. ZN	4
0210	2954-4012-3000	SCREW 4X12 B/H TAPPING BLK. ZN	10
0211*AH 	4152-0731-0	STRAIN RELIEF BUSHING	1
0211*C 	4152-0741-0	STRAIN RELIEF BUSHING 5N4	1
0212*AH 	7009-5790-0	AC CORD SJT 2X14AWG	1
0212*C 	7009-5420-0	AC CORD 10/16A 250V	1
0213	2601-2608-0601	FIBRE WASHER M2.6 0.8T OD	2
0214	2954-2606-0000	SCREWS BT 2.6X6	2
0215	2601-2608-0601	FIBRE WASHER M2.6 0.8T OD	2
0216	2954-2606-0000	SCREWS BT 2.6X6	2
0217	2601-3508-0661	FIBRE WASHER M3.5 0.8T OD	8
0218	2950-3508-0000	SCREW 3.5X8 P/H TAPPING TEL. ZN	8
0220	N54000821-1	HEAT SINK (POWER SUPPLY)	1
0300	1402-4050-0	WASHER (218)	1
0301	4132-2831-0	BOLT M10X120MM HEX-HEAD	1

<b>Item</b>	<b>Part No</b>	<b>Description</b>	<b>Qty</b>
0302	2640-A076-1652	NUT HEX M10X1.5P 7.6T YEL. ZN	1
0303	2600-A015-2432	FLAT M.WASHER M10 1.5T OD=24.3	1
0305 	4152-1711-1	GROMMENT (UL) NYLON	1
0304	2607-A025-1800	SPR WASHER M10 2.5T OD=18	1
F501*AH 	5120-0023-0	Fuse 250V 15A Slow Blow LBC (UL/CSA)	1
F502-F505*AH 	5120-0040-0	Fuse 250V 6.3A Slow Blow LBC (UL/CSA)	4
F701-F702*AH 	5120-0031-0	Fuse 250V 500mA Slow Blow LBC High Surge(UL/CSA)	2
F501*C 	5120-0025-0	Fuse 250V 6.3A Time LAG HBC (VDE/SEMKO)	1
F502-F505*C 	5120-0038-0	Fuse 250V 6.3A Fast Acting HBC (VDE/SEMKO)	4
F701-F702*C 	5120-0030-0	Fuse 250V 500mA Time LAG LBC (VDE/SEMKO)	2
FH502-FH505	4131-9131-0	FUSE HOLDER 6.5MM PITCH	8
FH501*AH	N41321821-0	FUSE HOLDER (JALCO)	2
FH501*C	4131-9131-0	FUSE HOLDER 6.5MM PITCH	2
FH701-FH702	4131-9131-0	FUSE HOLDER 6.5MM PITCH	4
JK101-J102	2113-0600-0	3-PIN FEMALE JACK NC3FG-H	1
JK201	N21037902-0	TWIN JACK YKC21-3539 RCA	1
JK801	N21038104-0	SPK BINDING POST (CHROME)	1
SW201	N52003161-0-01	4PDT SLIDE SWITCH	1
SW202-SW203	N52003171-0-01	DPDT SLIDE SWITCH	2
SW501*AH 	5200-3441-0	POWER SW TV-10 UL/CSA	1
SW501*C 	5200-3461-0	POWER SW 10A/250V VDE/SEMKO	1
T001 	1806-2114-0	POWER TRANSFORMER 218	1

NOTE :- The components identified by  mark are critical for risk of fire and electrical shock.  
 Replace only with part number specified.  
 - <\*AH> : USA, Canadian model only.  
 - <\*C> : European model only.







# ELECTRICAL PARTS LIST

Reference No	Part Number	Description
<b>PC BOARD</b>		
	MI-21260P-01-S	PCB Assembly 218
<b>ICs</b>		
IC101-IC102	3130-2430-0	IC NE5532 OP AMP
IC201	N31303830-0	IC AD712 (JN) ANALOG DEVICES
IC701	N31303550-0	IC TA7317P
<b>TRANSISTORS</b>		
Q101-Q104	N48600770-5	TR 2SC2878 (A,B)
Q105-Q108	N485240GR-5	TR 2SC2240GR
Q109-Q112	N4851015Y-5	TR 2SA1015-Y HFE 100-200
Q301-Q302	N48600650-5	TR 2SA970GR
Q303-Q306	N485240GR-5	TR 2SC2240GR
Q307-Q308	N48600650-5	TR 2SA970GR
Q309-Q310	N485240GR-5	TR 2SC2240GR
Q311-Q312	N48600650-5	TR 2SA970GR
Q313-Q314	N4851015Y-5	TR 2SA1015-Y HFE 100-200
Q315-Q316	4860-0700-5	TR 2SC1815GR
Q317-Q318	N48600810-5	TR 2SA1478E
Q319-Q320	N48600820-5	TR 2SC3788E
Q321-Q322	4860-1060-5	TR 2SC4793 100-320
Q323-Q324	4860-0700-5	TR 2SC1815GR
Q325-Q326	N48600820-5	TR 2SC3788E
Q327-Q328	N48600810-5	TR 2SA1478E
Q329-Q330	4860-1060-5	TR 2SC4793 100-320
Q331-Q332	4860-1050-5	TR 2SA1837 100-320
Q333-Q334	4860-1060-5	TR 2SC4793 100-320
Q335-Q336	4860-1050-5	TR 2SA1837 100-320
Q337-Q338	4860-0880-5	TR 2SD1975 S.P
Q339-Q340	4860-0890-5	TR 2SB1317 S.P
Q341-Q342	4860-0880-5	TR 2SD1975 S.P
Q343-Q344	4860-0890-5	TR 2SB1317 S.P
Q345-Q346	4860-0880-5	TR 2SD1975 S.P
Q347-Q348	4860-0890-5	TR 2SB1317 S.P
Q349-Q350	4860-0880-5	TR 2SD1975 S.P
Q351-Q352	4860-0890-5	TR 2SB1317 S.P
Q353-Q354	N48600720-5	TR 2SC3467E
Q355-Q356	N48600650-5	TR 2SA970GR
Q701	4860-1060-5	TR 2SC4793 100-320
Q702	4860-1050-5	TR 2SA1837 100-320
Q703	N485240GR-5	TR 2SC2240GR
Q704	N48600650-5	TR 2SA970GR
Q705	N485240GR-5	TR 2SC2240GR
Q706	N48600650-5	TR 2SA970GR
Q707	4860-0700-5	TR 2SC1815GR
Q708	N485240GR-5	TR 2SC2240GR
Q709	N48600650-5	TR 2SA970GR
Q710-Q711	4860-0700-5	TR 2SC1815GR
Q712	N48600740-5	TR 2SD600K (E,F)
Q713	N48600870-5	TR 2SB631K (E,F)
<b>COILS</b>		
L301-L302	1804-0550-0	Air Coil 1uH D15.5 x L15

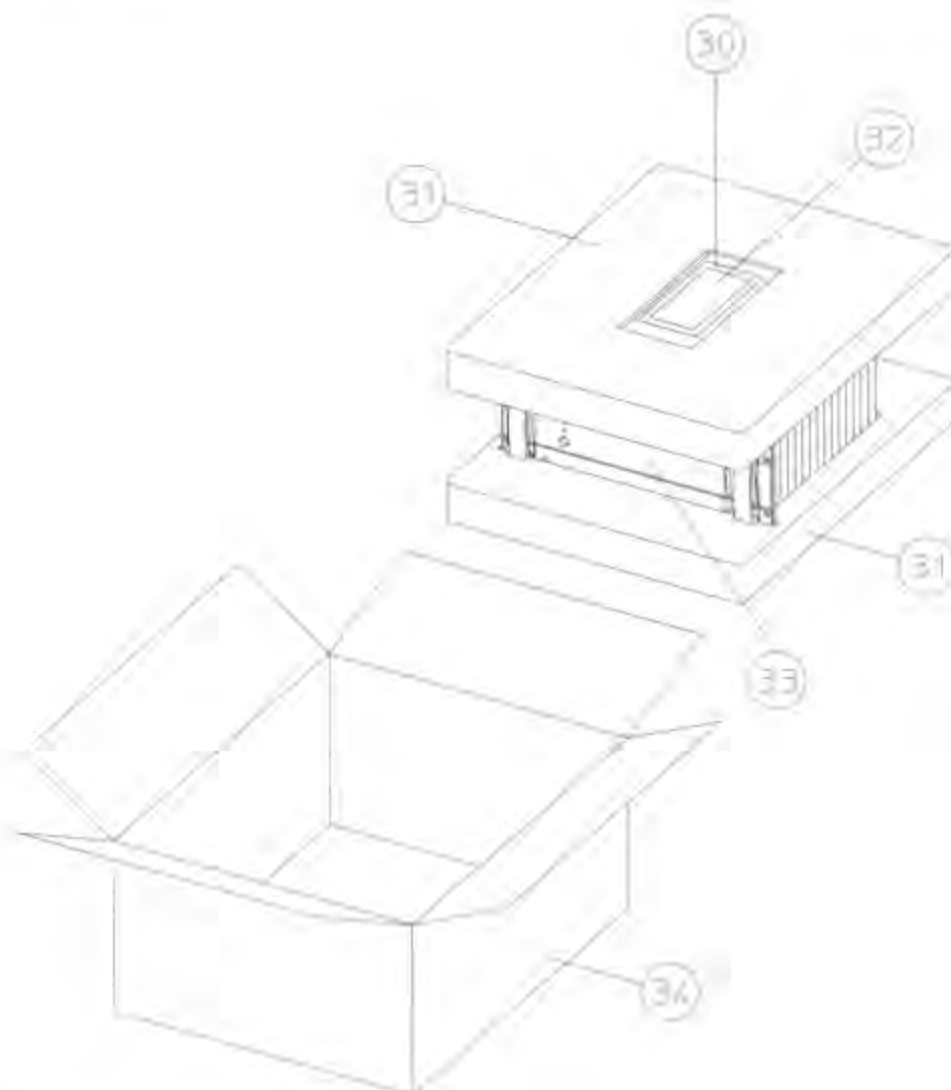
Reference No	Part Number	Description
<b>DIODES</b>		
D101-D112	4804-1480-C	Diode 1N4148
D201-D202	4837-3B20-2	Zener Diode 1/2W 3.8-4.0V
D203-D204	4840-0850-0	Zener Diode 1/2W 21.52-22.63V
D301-D316	4804-1480-C	Diode 1N4148
D317-D320	4840-0590-0	Diode 1SS143
D321-D324	N48054020-L	Diode 1N5402
D325-D326	4840-0590-0	Diode 1SS143
D327-D328	N48040030-2	Diode 1N4003
D601-D602	N37003513-Y	LED L-424YDT Yellow
D603	N37003517-RG	LED L-469HGW Red/Green
D701	4840-0970-0	Bridge Diode 25A 400V KBPC 2504
D702	N48040030-2	Diode 1N4003
D703	4840-0810-0	Bridge Diode 1.5A 400V
D704-D706	4837-27V0-2	Zener Diode 1/2W 26.2-27.6V
D707-D708	4840-0800-0	Zener Diode 1/2W MTZ-J 18C
D709-D710°C	4840-1160-0	Zener Diode 1W 56V 5%
<b>CAPACITORS</b>		
C101-C104	158R-101J-5-IQ	CP 250V 100pF
C105-C108	153I-105J-9-NO	CM 63V 1µF
C109-C112	158F-391J-5-JS	CP 50V 390pF
C113-C116	158F-102J-5-KW	CP 50V 1000pF
C117-C118	153I-474K-9-NL	CM 63V 0.47µF
C201	157E-107M-5-KW	CE 25V 100µF
C202-C203	157C-107M-5-IU	CE 10V 100µF
C204-205	157C-226M-5-IU	CE 10V 22µF
C206-C207	153H-104M-9-NL	CM 100V 0.1µF
C301-C302	158F-391J-5-JS	CP 50V 390pF
C303-C304	153H-104M-9-NL	CM 100V 0.1µF
C305-C306	157I-106M-5-IU	CE 63V 10µF
C307-C308	153H-104M-9-NL	CM 100V 0.1µF
C309-C310	157H-106M-5-LU	CE 100V 10µF
C315-C316	158R-221J-5-IQ	CP 250V 220pF
C319-C320	153H-104M-9-NL	CM 100V 0.1µF
C321-C324	158R-221J-5-IQ	CP 250V 220pF
C325-C328	153H-104M-9-NL	CM 100V 0.1µF
C329-C330	153H-473K-9-SW	CM 100V 0.047µF
C331-C332	157C-476M-5-IU	CE 10V 47µF
C333-C336	157S-106M-5-OV	CE 160V 10µF
C337-C338	157I-106M-5-IU	CE 63V 10µF
C501	N89100049-0	Cap 400V 4700pF
C701	153R-223M-9-NL	CM 250V 0.022µF
C702-C709	8910-0095-0	CE 100V 4700µF
C710	N157H475M-5-IU	CE 100V 4.7µF
C711	153R-223M-9-NL	CM 250V 0.022µF
C712-C715	N89100056-0	CE 160V 220µF
C716-C717	157H-107M-5-X9	CE 100V 100µF
C720-C721	157H-106M-5-LU	CE 100V 10µF
C722-C723	157H-107M-5-X9	CE 100V 100µF
C724-C725	157C-107M-5-IU	CE 10V 100µF
C726	153H-104M-9-NL	CM 100V 0.1µF
C727	157C-226M-5-IU	CE 10V 22µF
C728-C729	N157H474M-5-IU	CE 100V 0.47µF
C730-C733	157E-107M-5-KW	CE 25V 100µF
C801-C802	153R-103M-9-NL	CM 250V 0.01µF

Reference No		Part Number	Description
<b>RESISTORS</b>			
R101-R104		4715-124A-2	RMF 120k Ohm 1/4W 1%
R105-R108		4715-152A-2	RMF 1.5k Ohm 1/4W 1%
R113-R116		4715-124A-2	RMF 120k Ohm 1/4W 1%
R117-R120		4715-102A-2	RMF 1k Ohm 1/4W 1%
R123-R126		4715-102A-2	RMF 1k Ohm 1/4W 1%
R127-R130		4715-472A-2	RMF 4.7k Ohm 1/4W 1%
R139-R140		4715-222A-2	RMF 2.2k Ohm 1/4W 1%
R141-R142		4715-223A-2	RMF 22k Ohm 1/4W 1%
R301-R302		4715-101A-2	RMF 100 Ohm 1/4W 1%
R303-R304		4715-204A-2	RMF 200k Ohm 1/4W 1%
R305-R306		4715-473A-2	RMF 47k Ohm 1/4W 1%
R307-R308*AH		4705-101J-2	RCF 100 Ohm 1/4W 5%
R307-R308*C	△	4715-101J-2-F	RFU 100 Ohm 1/4W 5%
R309-R312		4715-201A-2	RMF 200 Ohm 1/4W 1%
R313-R324		4715-473A-2	RMF 47k Ohm 1/4W 1%
R315-R316*AH		4705-101J-2	RCF 100 Ohm 1/4W 5%
R315-R316*C	△	4715-101J-2-F	RFU 100 Ohm 1/4W 5%
R317-R318		4715-204A-2	RMF 200k Ohm 1/4W 1%
R319-R322		4715-270A-2	RMF 27 Ohm 1/4W 1%
R323-R324*AH		4705-152J-2	RCF 1.5k Ohm 1/4W 5%
R323-R324*C	△	4705-152J-2-F	RFU 1.5k Ohm 1/4W 5%
R327-R328*AH		4705-152J-2	RCF 1.5k Ohm 1/4W 5%
R327-R328*C	△	4705-152J-2-F	RFU 1.5k Ohm 1/4W 5%
R331-R332*AH		4715-111A-2	RMF 110 Ohm 1/4W 1%
R331-R332*C	△	4715-111J-2-F	RFU 110 Ohm 1/4W 5%
R333-R334*AH	△	4715-181J-2-P	RFP 180 Ohm 1/4W 5%
R333-R334*C	△	4715-181J-2-F	RFU 180 Ohm 1/4W 5%
R343-R344*AH	△	4715-181J-2-P	RFP 180 Ohm 1/4W 5%
R343-R344*C	△	4715-181J-2-F	RFU 180 Ohm 1/4W 5%
R347-R350*AH	△	4715-121J-2-P	RFP 120 Ohm 1/4W 5%
R347-R350*C	△	4715-101J-2-F	RFU 100 Ohm 1/4W 5%
R351-R352*AH	△	4715-681J-2-P	RFP 680 Ohm 1/4W 5%
R351-R352*C	△	4715-681J-2-F	RFU 680 Ohm 1/4W 5%
R353-R356	△	4717-121J-2-P	RFP 120 Ohm 1/2W 5%
R357-R360	△	4717-4R7J-2-F	RFU 4.7 Ohm 1/2W 5%
R361-R364		471A-022K-5-N	RMF 0.22 Ohm 3W 10%
R365-R368	△	4717-4R7J-2-F	RFU 4.7 Ohm 1/2W 5%
R369-R372		471A-022K-5-N	RMF 0.22 Ohm 3W 10%
R373-R376	△	4717-4R7J-2-F	RFU 4.7 Ohm 1/2W 5%
R377-R380		471A-022K-5-N	RMF 0.22 Ohm 3W 10%
R381-R384	△	4717-4R7J-2-F	RFU 4.7 Ohm 1/2W 5%
R385-R388		471A-022K-5-N	RMF 0.22 Ohm 3W 10%
R411-R412	△	4719-100J-1-P	RFP 10 Ohm 2W 5%
R419-R420		4717-123A-2	RMF 12k Ohm 1/2W 1%
R421-R422		4719-182A-1	RMF 1.8k Ohm 2W 1%
R425-R426	△	4718-3R3J-1-P	RFP 3.3 Ohm 1W 5%
R427-R428		4705-563J-2	RCF 56k Ohm 1/4W 5%
R429-R430		4705-185J-2	RCF 1.8M Ohm 1/4W 5%
R701	△	4717-4R7J-2-F	RFU 4.7 Ohm 1/2W 5%
R702-R705*AH	△	4718-101J-1-P	RFP 100 Ohm 1W 5%
R702-R705*C	△	4718-101J-1-F	RFU 100 Ohm 1W 5%

<b>Reference No</b>	<b>Part Number</b>	<b>Description</b>
R712	4715-333A-2	RMF 33k Ohm 1/4W 1%
R718	4715-333A-2	RMF 33k Ohm 1/4W 1%
R744-R745*AH	4719-102J-1-X	RMF 1k Ohm 2W 5%
R744-R745°C 	4718-102J-2-F	RFU 1k Ohm 1W 5%
<b><u>VARIABLE RES.</u></b>		
VR101-VR102	4756-2236-3-06	Semi-Fixed 22k Ohm RH0615C
VR301-VR302	4756-1016-3-06	Semi-Fixed 100 Ohm RH0615C
<b><u>SWITCHES</u></b>		
TH301-TH302 	8910-0090-0	Thermal Switch 80C UP72
<b><u>TRANSFORMER</u></b>		
T001 	1806-2114-0	Power Transformer 218
<b><u>RELAY</u></b>		
RL301-RL302	4500-0150-0	Relay 48V 16A SPST

- NOTE :**
- The components identified by  mark are critical for risk of fire and electrical shock. Replace only with part number specified.
  - <\*AH> : USA, Canadian model only.
  - <°C> : European model only.
  - Capacitors : CP-Polystyrene, CM-Mylar, CE-Electrolytic.
  - Resistors : RMF-Metal Film, RFU-Fusible, RCF-Carbon Film, RFP-Flame Proof.

## 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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# SERVICE MANUAL

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**218**  
STEREO POWER  
AMPLIFIER

**NAD ELECTRONICS**  
LONDON