

SERVICE MANUAL

NAD

C 370

**STEREO INTEGRATED
AMPLIFIER**

C 370

**STEREO INTEGRATED
AMPLIFIER**



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SERVICE SAFETY PRECAUTIONS

1. Replacing the fuses

CAUTION: FOR CONTINUED PROTECTION AGAINST THE RISK OF FIRE, REPLACE ONLY WITH DESIGNATED TYPE OF FUSE FOR *AH, *B1, *B AND *C VERSIONS.

Reference No	Part Number	Description
F701*B1,*B&*C	20-00400-25	T4AH 250V
F701*AH	20-00630-25	T6.3AH 250V

NOTE:

- <*AH> : USA, CANADIAN MODEL ONLY.
- <*B> : UK MODEL ONLY.
- <*B1> : AUSTRALIAN MODEL ONLY.
- <*C> : EUROPEAN MODEL ONLY.

2. Safety check out

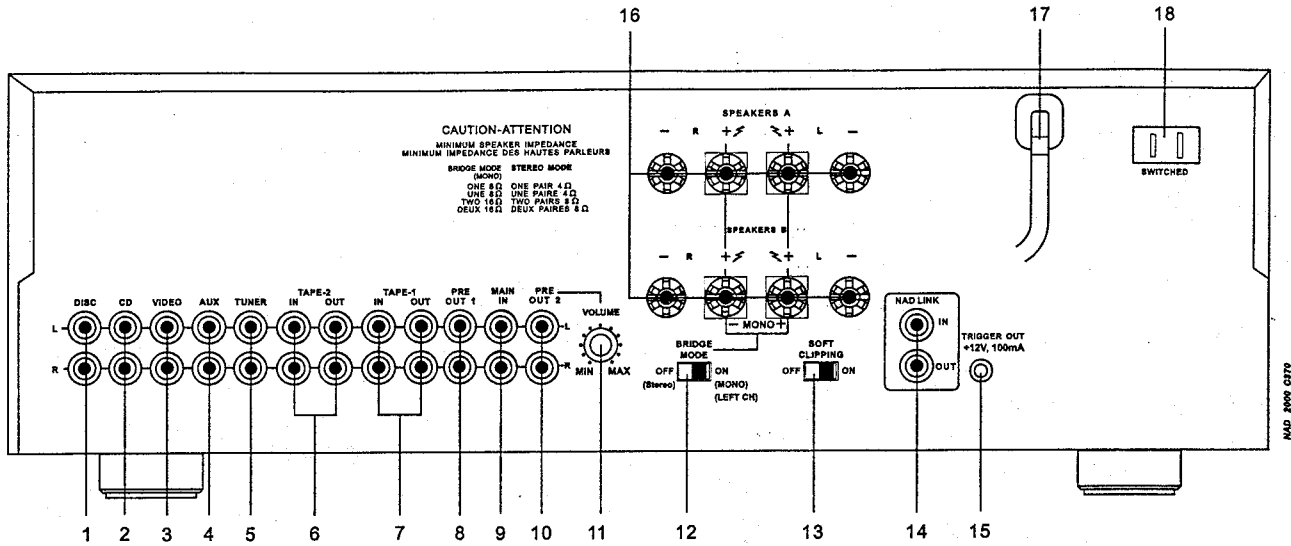
(Only U.S.A. Model)

Before returning the product to the customer, make leakage current or resistance measurements to determine that exposed parts are acceptably insulated from the supply circuit.

Parts marked with the symbol "⚠" are critical with regard to the risk of fire and electric shock. Replace only with parts recommended by the manufacturer.

REAR PANEL / FRONT PANEL VIEW

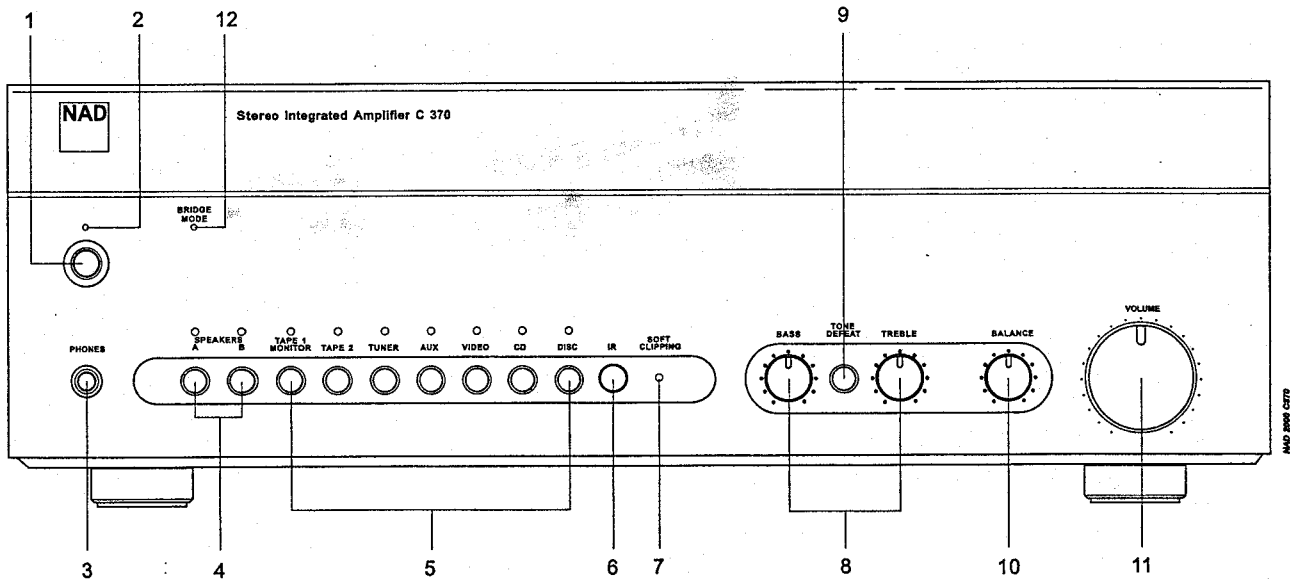
REAR PANEL CONNECTIONS



1. DISC INPUT
2. CD INPUT
3. VIDEO INPUT
4. AUX INPUT
5. TUNER INPUT
6. TAPE 2 IN, OUT
7. TAPE 1 IN, OUT
8. PRE OUT 1
9. MAIN IN

10. PRE OUT 2
11. VOLUME PRE OUT 2
12. BRIDGE MODE
13. SOFT CLIPPING
14. NAD-LINK IN, OUT
15. 12V TRIGGER OUT
16. SPEAKERS A + SPEAKERS B
17. AC CORD
18. SWITCHED AC OUTLET

FRONT PANEL CONTROLS



1. POWER ON/OFF
2. STAND-BY/PROTECTION INDICATOR
3. HEADPHONE SOCKET
4. SPEAKERS A & B
5. INPUT SELECTORS
6. INFRA-RED REMOTE CONTROL COMMAND RECEIVER

7. SOFT CLIPPING INDICATOR
8. BASS & TREBLE CONTROLS
9. TONE DEFEAT SWITCH
10. BALANCE CONTROL
11. VOLUME CONTROL
12. BRIDGE MODE INDICATOR

SPECIFICATIONS

POWER AMPLIFIER SECTION

STEREO MODE

CONTINUOUS AVERAGE POWER OUTPUT INTO 8 OHMS OR 4 OHMS (Min. power per channel, 20 Hz – 20 kHz, both channels driven, with no more than rated distortion) **120 W (20.8 dBW)**

Rated Distortion (THD 20 Hz – 20 kHz) **0.03%**

Clipping power (maximum continuous power per channel). **140 W**

IHF dynamic headroom at 8 ohms **+2.4 dB**

IHF dynamic power (Maximum short term power per channel)

8 ohms: **210 W (23.2 dBW)**
4 ohms: **340 W (25.3 dBW)**
2 ohms: **450 W (26.5 dBW)**

Damping factor (ref. 8 ohms 50Hz) **>150**

Input Impedance **R = 20 kohms
C = 300 pF**

Input sensitivity (for rated output into 8 ohms) **1.1 V**

Voltage gain **29 dB**

Frequency response 20 Hz – 20 kHz **±0.3 dB
- 3dB at 3 Hz/70 kHz**

Signal / Noise ratio, A-weighted **>100 dB ref. 1 W
>120 dB ref. rated power**

BRIDGED (MONOPHONIC) MODE

CONTINUOUS AVERAGE POWER OUTPUT INTO 8 OHMS **300 W (24.8 dBW)**

(Min. power per channel, with no more than rated distortion)

IHF dynamic headroom at 8 ohms **3 dB**

IHF dynamic power 8 ohms: **600 W (27.8dBW)**

IHF dynamic power 4 ohms: **800 W (29.0dBW)**

PREAMPLIFIER SECTION

LINE LEVEL INPUTS

(Disk, CD, Video, Auxiliary, Tuner, Tape 1, Tape 2)

Input impedance (R and C)	300 kohms + 320 pF
Input sensitivity (max vol., re 1V preamp out)	290 mV
Signal / Noise ratio re 0.5V in, 0.5V out	>100 dB
Frequency response, 20 Hz – 20 kHz	+/- 0.2dB
THD + Noise, SMPTE IM	< 0.01% at 5 V out

LINE LEVEL OUTPUTS

Pre-amp output impedance	75 ohms
Tape output impedance	Source Z + 1 kohms
Headphones output impedance	220 ohms
Maximum output level	pre-amp out : > 12 V
	Tape-out : > 10 V

CONTROLS

Treble	+ 5.8 dB ± 0.5dB at 10 kHz
	- 5.0 dB ± 0.5dB at 10 kHz
Bass	+ 6.0 dB ± 0.5dB at 100Hz
	- 5.0 dB ± 0.5dB at 100Hz

OVERALL

LINE IN, SPEAKER OUT

Sensitivity max. vol. Re. Rated power	320 mV
Signal to Noise ratio re 1W	> 94 dB
Signal to Noise ratio re rated power	> 115 dB
THD 0.25W-rated power	< 0.03%

DIMENSIONS AND WEIGHTS

Net Weight	12.3 kg (27.1 lb)
Shipping Weight	14.5 kg (32.0 lb)
Dimension (W×H×D)	435 × 132 × 350 mm

ALIGNMENT PROCEDURE

I. INITIAL ADJUSTMENT (NO LOAD CONNECTED)

A. OUTPUT OFFSET VOLTAGE

1. Connect a DC Millivoltmeter to L Channel speaker output terminals.
2. Turn unit "ON" and adjust VR301 (100 ohms) to get a reading of 0V +/-30 mV.
3. Connect the DC Millivoltmeter to R Channel speaker output terminals and adjust VR401 (100 ohms) to get a reading of 0 V +/- 30mV.

B. IDLING CURRENT

1. Connect a DC Millivoltmeter to TP2 (IDL) and TP3 (IDL) and adjust VR302 (500 ohms) for 5-6mV reading on meter.
2. Connect the DC Millivoltmeter to TP6 (IDL) and TP7 (IDL) and adjust VR402 (500 ohms) 5-6mV reading on meter.
3. Leave power "ON" for a minimum of 5 minutes.

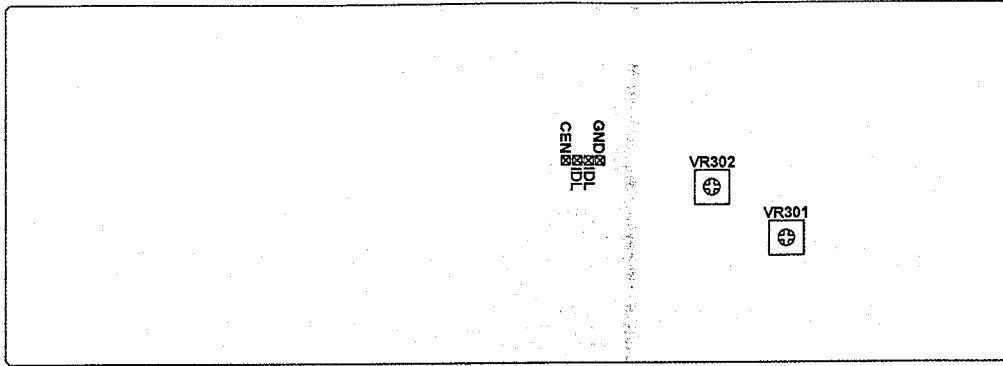
C. ISC SENSITIVITY

Connect a DC Millivoltmeter to 1J91 (TP9, TP10) and adjust VR701 (47 kohms) for -50mV ~ -100mV.

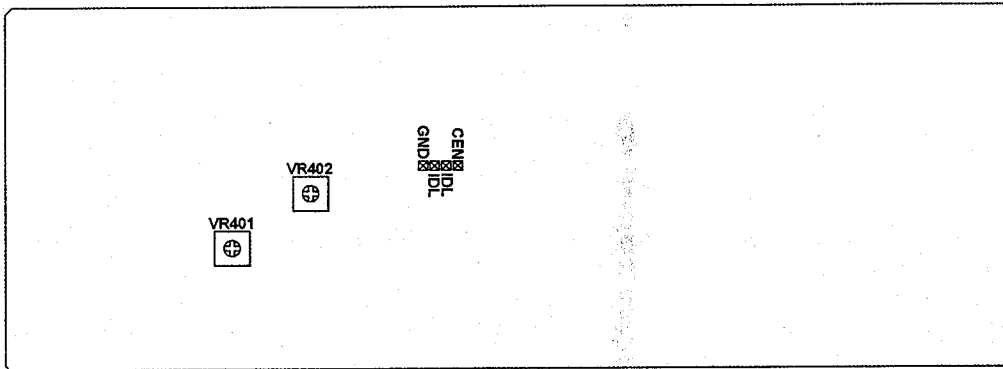
II. FINAL ADJUSTMENT

Repeat procedure A and B for offset voltage and idling current alignment respectively.

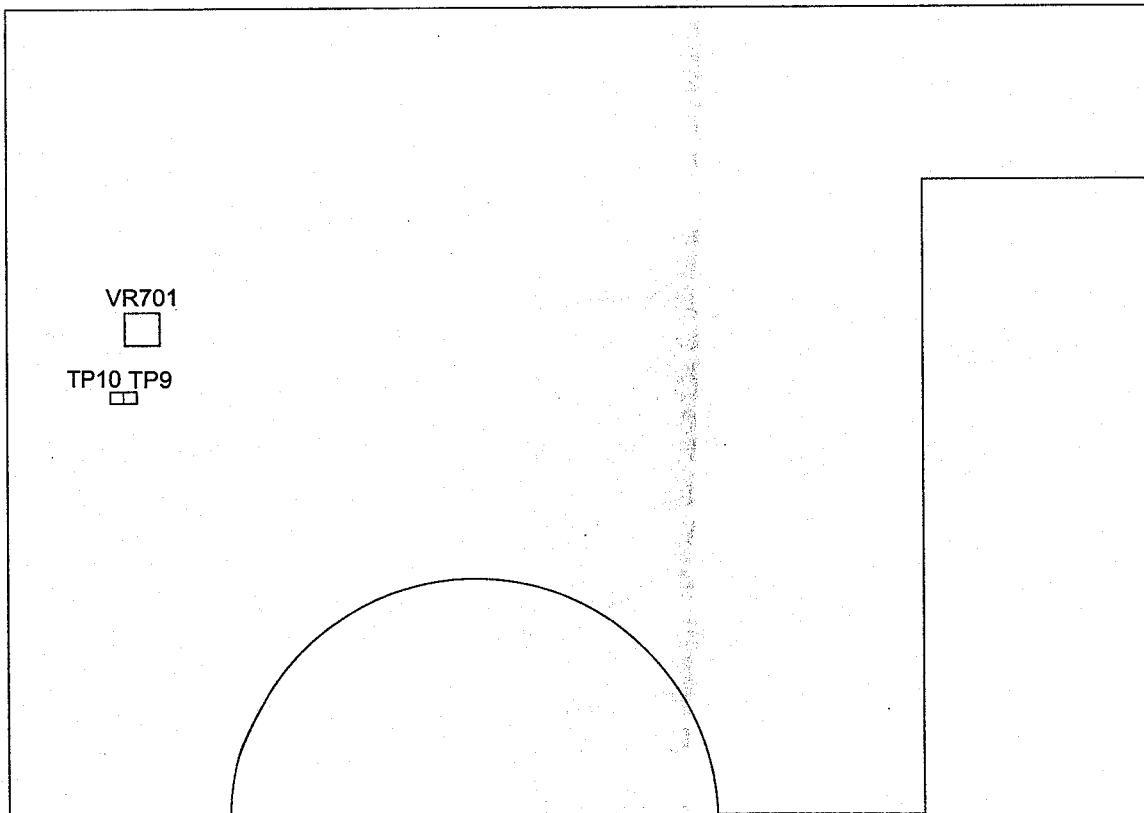
ALIGNMENT DIAGRAM



LEFT CHANNEL

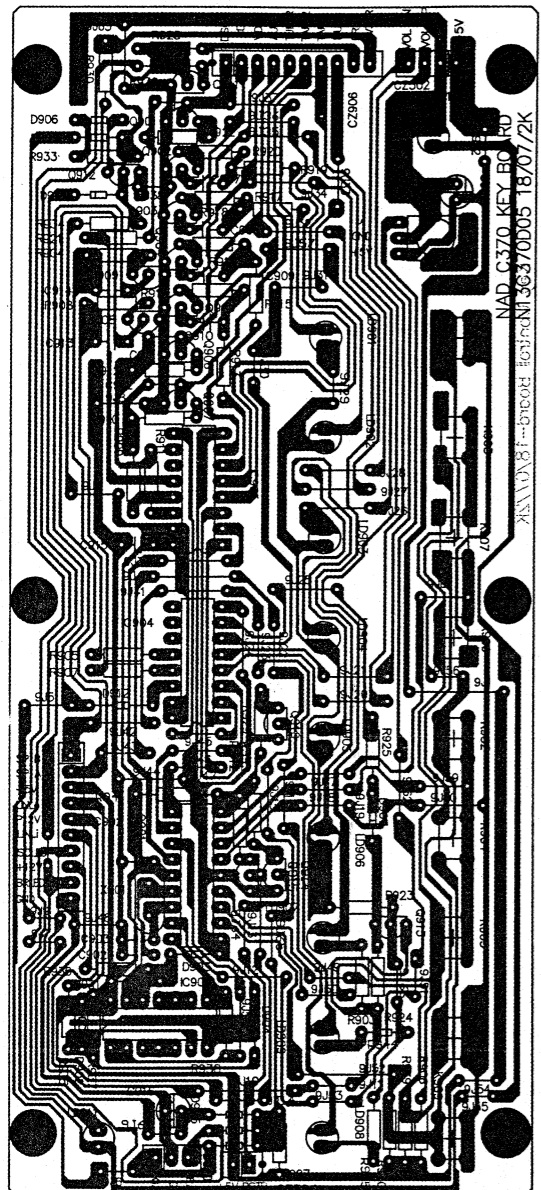


RIGHT CHANNEL

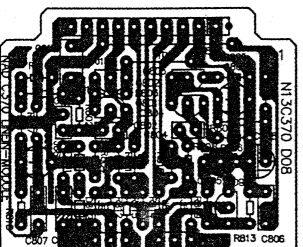


MAIN BOARD

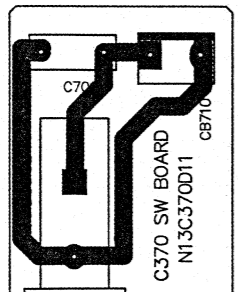
PCB LAYOUT



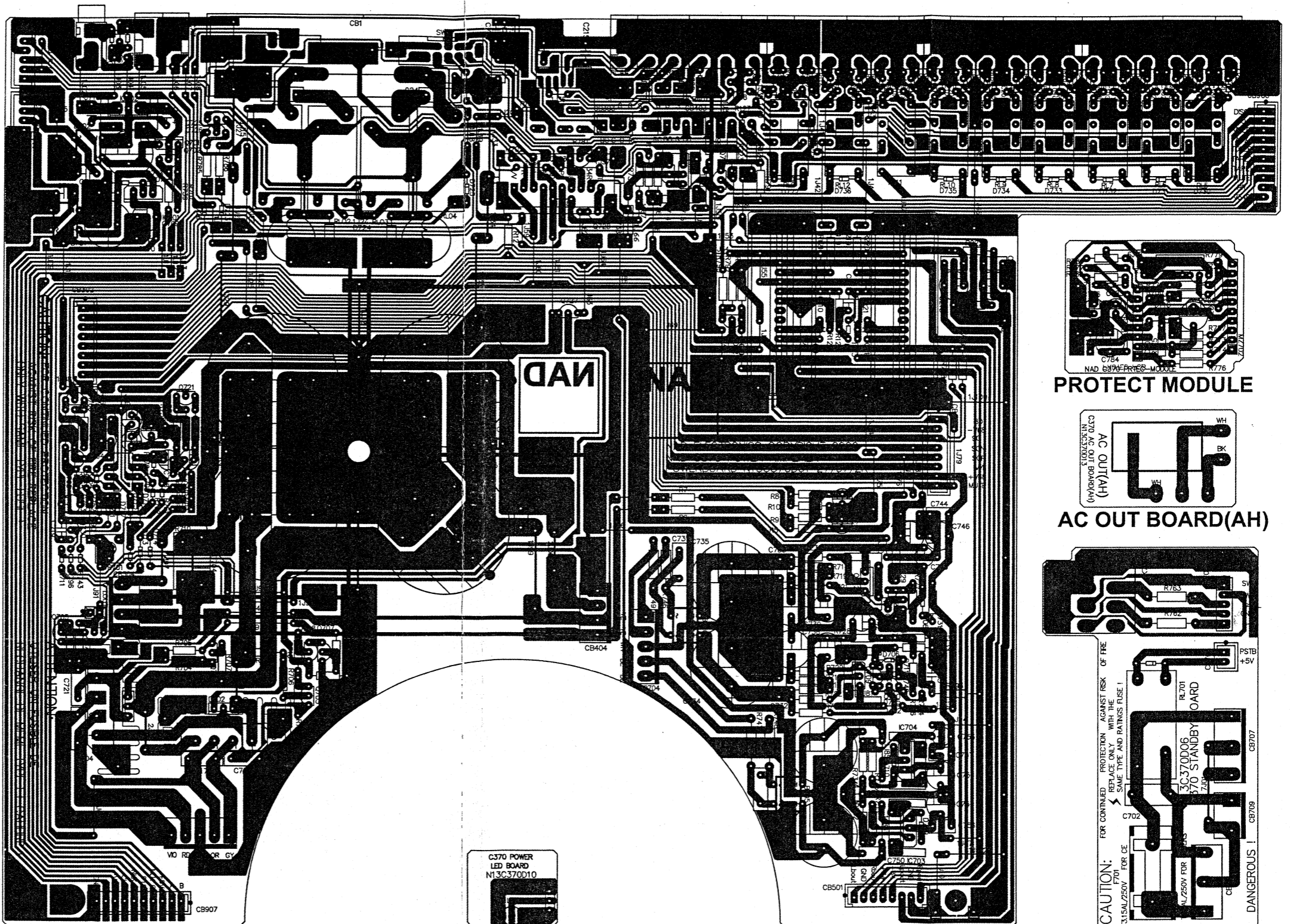
KEY BOARD



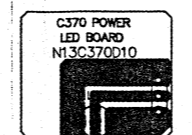
PRE-AMP MODULE



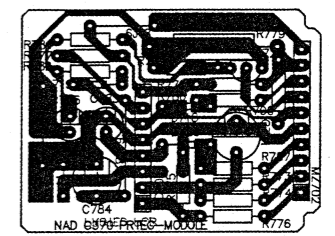
SWITCH BOARD



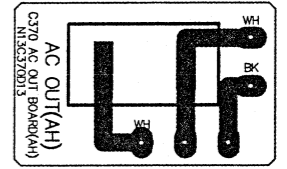
MAIN BOARD



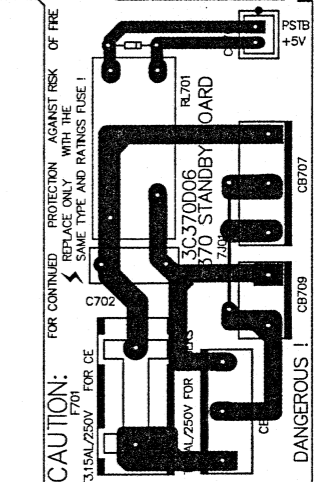
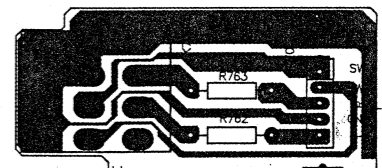
LED BOARD



PROTECT MODULE

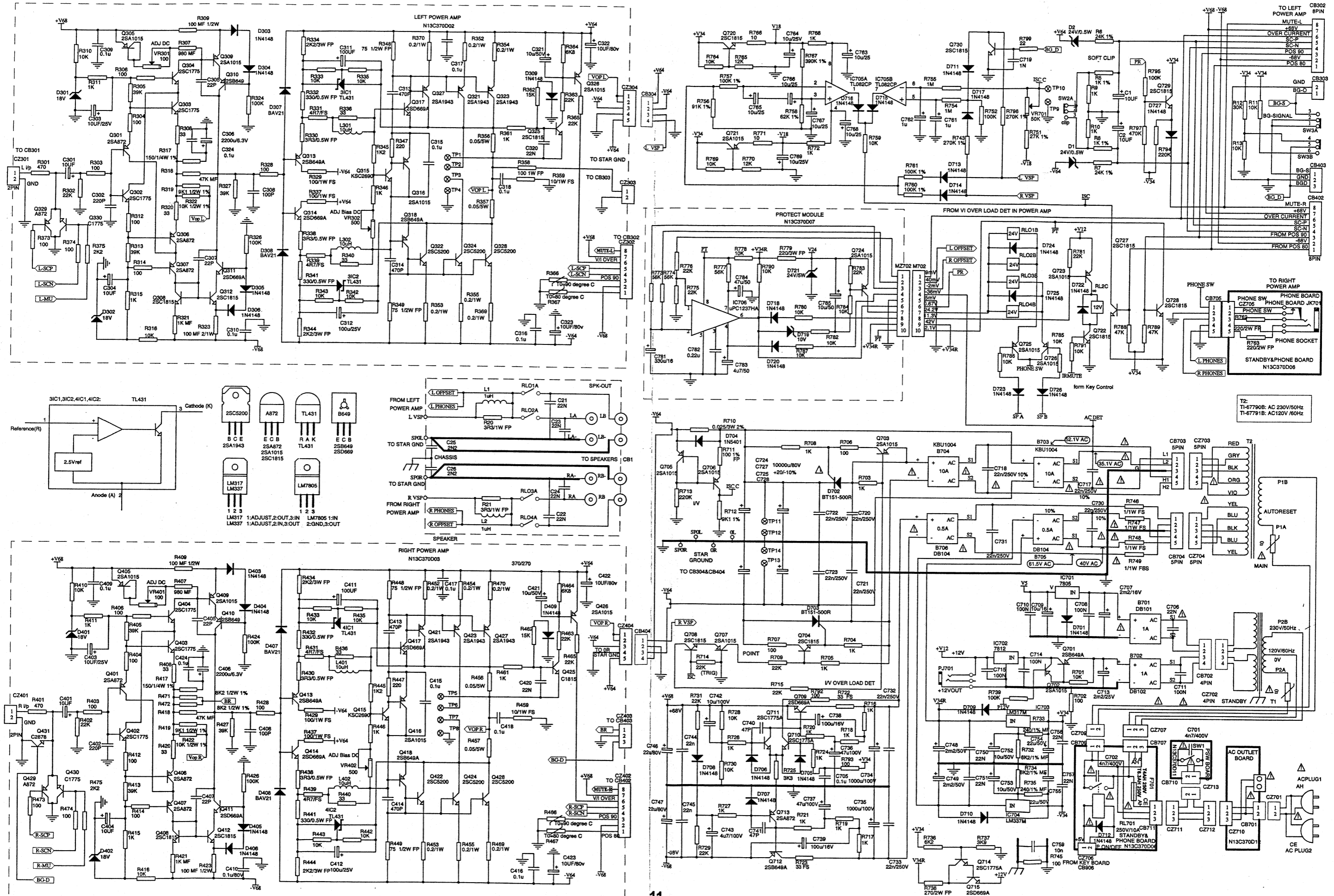


AC OUT BOARD(AH)

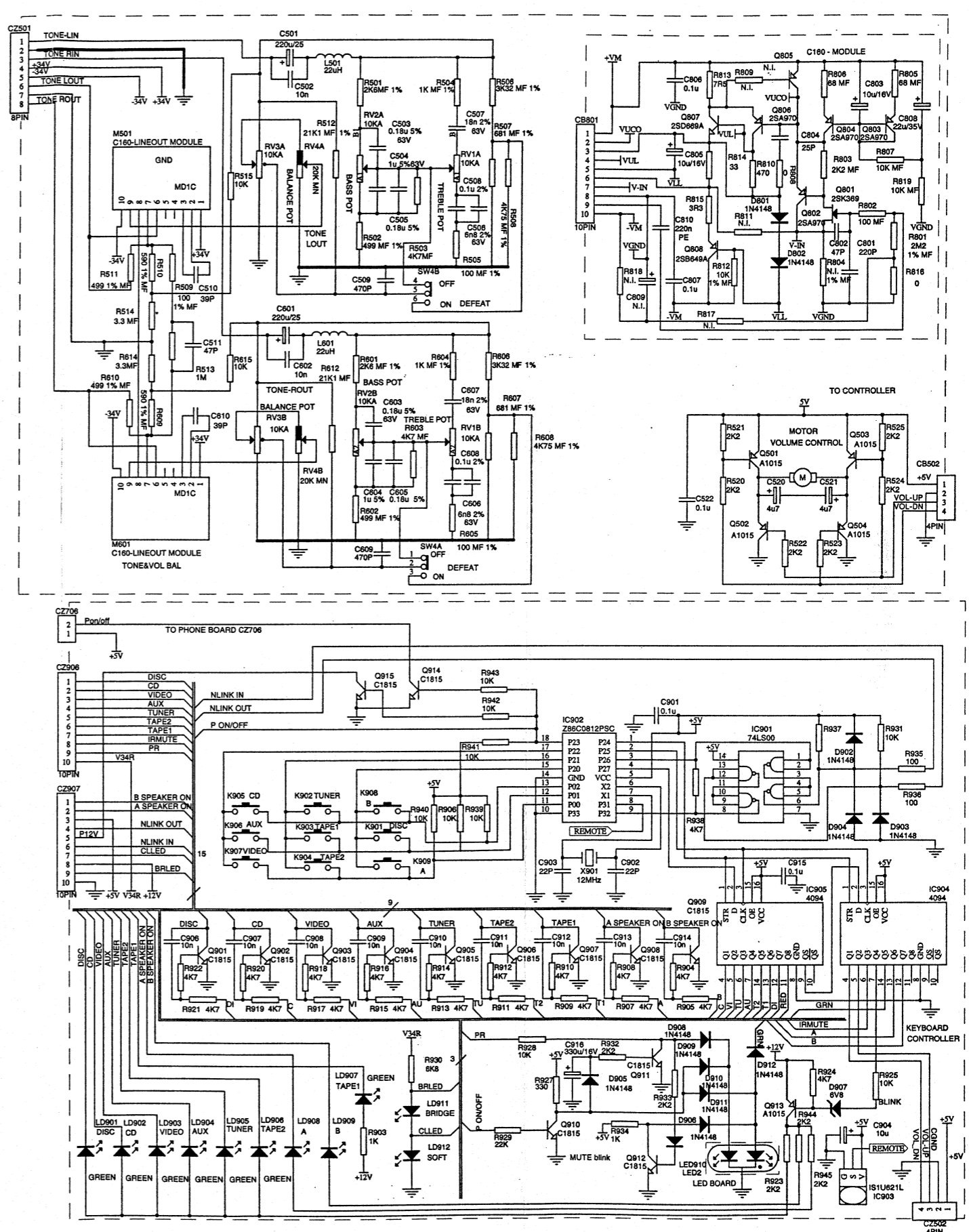
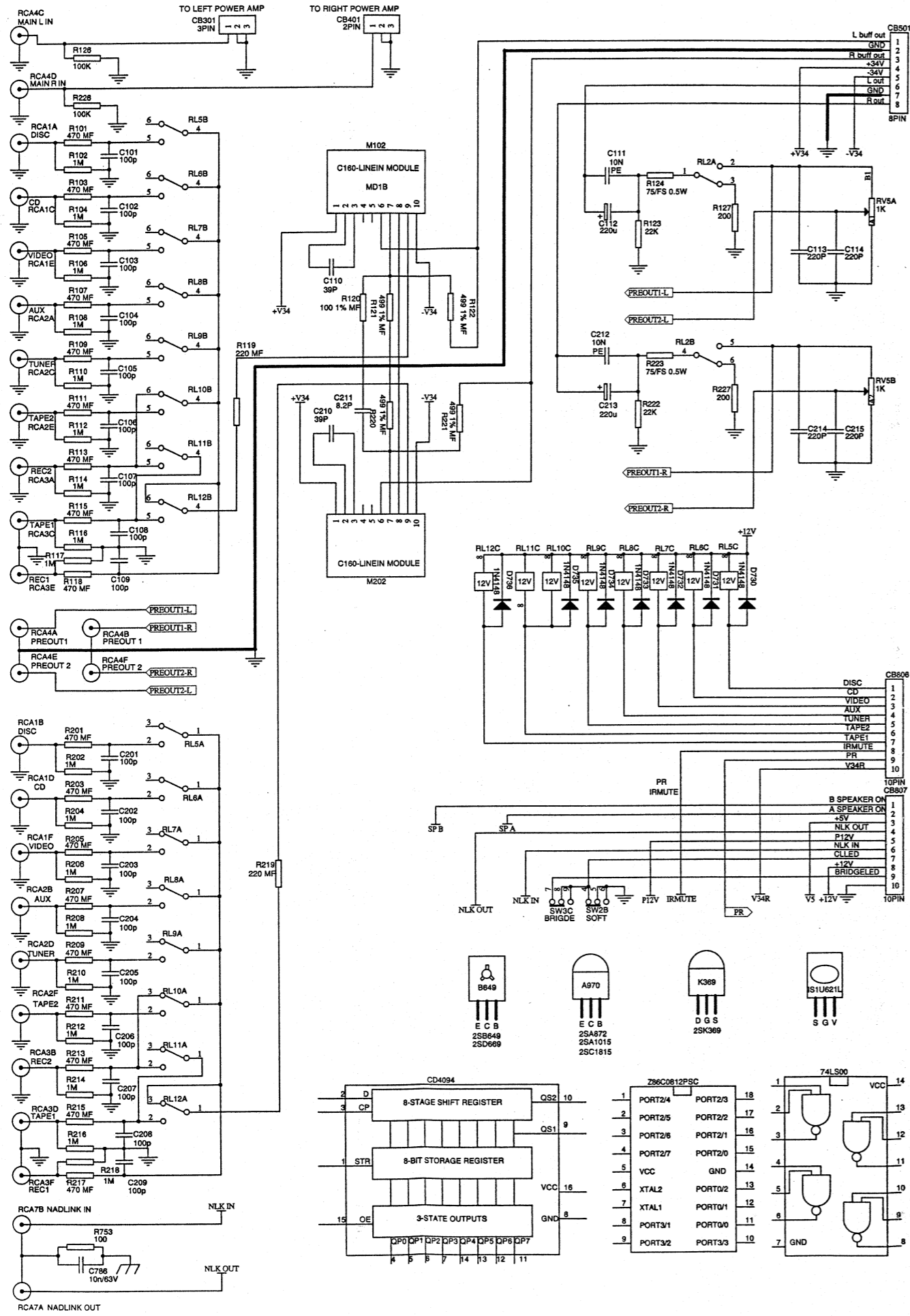


HEADPHONE & STANDBY BOARD

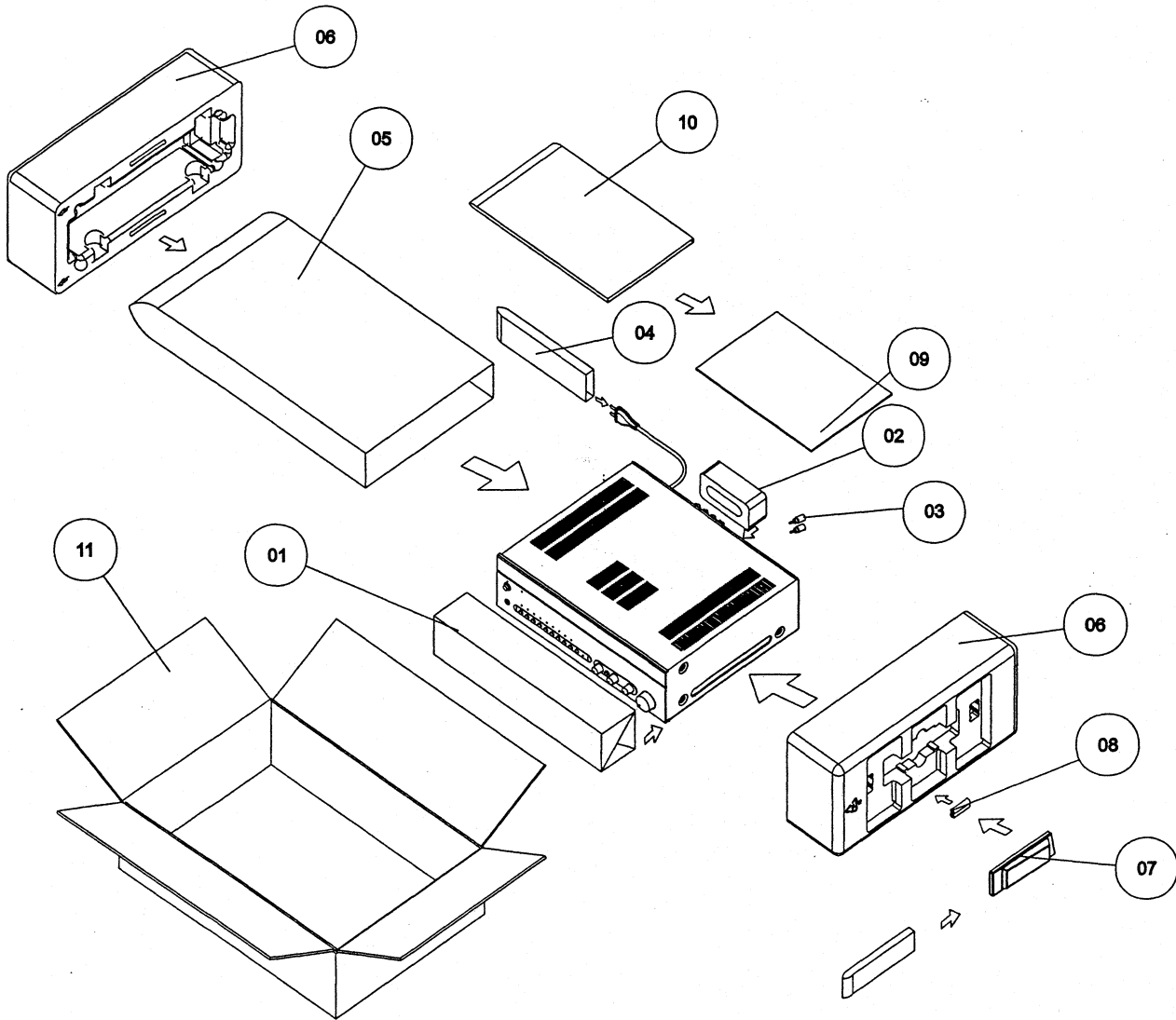
SCHEMATIC (POWER AMP)



SCHEMATIC DIAGRAM (INPUT & TONE KEY BOARD)



PACKING DIAGRAM



Ref. No.	Part No.	Description	Q'TY
01.	64-00370-01	EPE Fascia Cover	1
02.	62-00320-02	Polyfoam BDP Unit	1
03.	49-00370-01	Shorting Plug	2
04.	63-00320-03	AC Cord Polybag	1
05.	63-00370-05	Polybag	1
06.	62-00370-01	Polyfoam End Cap	2
07.	30-0C451-00	Remote Control	1
08.	31-07150-00	Battery	2
09.	65-00370-01	Instruction Manual	1
10.	63-00320-02	Manual Polybag	1
11.	61-00370-01	Carton Box	1

Proprietary information for servicing purposes only.
 The information herein may not be used commercially without the prior written agreement of NAD Electronics International, Toronto, Canada.


ELECTRICAL PARTS LIST

REF. NO.	PART NO.	DESCRIPTION				
RESISTORS						
R367, R467	07-80001-00T	T0=80°C			Posistor	
R366, R466	07-90001-00T	T0=90°C			Posistor	
R815 x4	07-05033-06	3R3	1/6W	5%	Carbon Film Resistor	
R813 x4	07-05068-06	6R8	1/6W	5%	Carbon Film Resistor	
R814 x4	07-05470-06	47	1/6W	5%	Carbon Film Resistor	
R810 x4	07-05471-06	470	1/6W	5%	Carbon Film Resistor	
R944	07-05222-06	2k2	1/6W	5%	Carbon Film Resistor	
R812 x4, R931	07-05103-06	10k	1/6W	5%	Carbon Film Resistor	
R102, R104, R106, R108, R110, R112, R114, R116, R117, R202, R204, R206, R208, R210, R212, R214, R216, R218, R754, R755	07-05105-06	1M	1/6W	5%	Carbon Film Resistor	
R766, R771	07-05100-04	10	1/4W	5%	Carbon Film Resistor	
R799	07-05220-04	22	1/4W	5%	Carbon Film Resistor	
R303, R304, R306, R312, R314, R328, R373, R374, R403, R404, R406, R412, R414, R428, R473, R474, R706, R707, R792, R793, R935, R936	07-05101-04	100	1/4W	5%	Carbon Film Resistor	
R347, R447	07-05221-04	220	1/4W	5%	Carbon Film Resistor	
R301, R401	07-05471-04	470	1/4W	5%	Carbon Film Resistor	
R9, R10, R311, R315, R346, R361, R411, R415, R446, R461, R703, R704, R705, R708, R716, R717, R718, R719, R720, R721, R724, R726, R727, R903, R927, R934	07-05102-04	1k	1/4W	5%	Carbon Film Resistor	
R345, R445	07-05122-04	1k2	1/4W	5%	Carbon Film Resistor	
R375, R475, R520, R521, R522, R523, R524, R525, R923, R932, R933, R945	07-05222-04	2k2	1/4W	5%	Carbon Film Resistor	
R725	07-05332-04	3k3	1/4W	5%	Carbon Film Resistor	
R737	07-05392-04	3k9	1/4W	5%	Carbon Film Resistor	
R904, R905, R907, R908, R909, R910, R911, R912, R913, R914, R915, R916, R917, R918, R919, R920, R921, R922, R924, R938, R943	07-05472-04	4k7	1/4W	5%	Carbon Film Resistor	
R736	07-05622-04	6k2	1/4W	5%	Carbon Film Resistor	
R364, R464, R930	07-05682-04	6k8	1/4W	5%	Carbon Film Resistor	
R11, R310, R316, R333, R335, R342, R343, R410, R416, R433, R435, R442, R443, R701, R728, R730, R764, R769, R778, R780, R782, R784, R785, R786, R787, R790, R791, R906, R925, R937, R939, R940, R941, R942	07-05103-04	10k	1/4W	5%	Carbon Film Resistor	
R765, R770	07-05123-04	12k	1/4W	5%	Carbon Film Resistor	
R362, R462, R928	07-05153-04	15k	1/4W	5%	Carbon Film Resistor	
R123, R222, R302, R363, R365, R402, R463, R465, R714, R715, R709, R729, R731, R775, R776, R781, R783, R929	07-05223-04	22k	1/4W	5%	Carbon Film Resistor	
R12	07-05303-04	30k	1/4W	5%	Carbon Film Resistor	
R305, R313, R327, R405, R413, R427	07-05393-04	39k	1/4W	5%	Carbon Film Resistor	
R788, R789	07-05473-04	47k	1/4W	5%	Carbon Film Resistor	
R773, R774, R777	07-05563-04	56k	1/4W	5%	Carbon Film Resistor	
R324, R326, R424, R426, R739, R795	07-05104-04	100k	1/4W	5%	Carbon Film Resistor	

ELECTRICAL PARTS LIST CONTINUATION

REF. NO.	PART NO.	DESCRIPTION				
R713, R794	07-05224-04	220k	1/4W	5%	Carbon Film Resistor	
R797	07-05474-04	470k	1/4W	5%	Carbon Film Resistor	
R710	07-10025C-30A	0.025	3W	10%	Cement Resistor	
R356, R357, R456, R457	07-10005B-50A	0.05	5W	10%	Cement Resistor	
⚠ R331, R339, R431, R439	07-05047-04C	4.7	1/4W	5%	Fusible Resistor	
⚠ R722, R723	07-05330-04C	33	1/4W	5%	Fusible Resistor	
⚠ R124, R223	07-05750-02C	75	1/2W	5%	Fusible Resistor	
⚠ R352, R353, R354, R355, R369, R370, R452, R453, R454, R455, R469, R470	07-05002-10C	0.2	1W	5%	Fusible Resistor	
⚠ R746, R747, R748, R749	07-05010-01C	1	1W	5%	Fusible Resistor	
⚠ R359, R459	07-05100-10C	10	1W	5%	Fusible Resistor	
⚠ R329, R337, R429, R437	07-05101-10C	100	1W	5%	Fusible Resistor	
⚠ R330, R338, R430, R438	07-05033-02B	3.3	1/2W	5%	Metal Oxidized Film Resistor	
⚠ R348, R349, R448, R449	07-05750-02B	75	1/2W	5%	Metal Oxidized Film Resistor	
⚠ R332, R341, R432, R441	07-05331-02B	330	1/2W	5%	Metal Oxidized Film Resistor	
⚠ R20, R21	07-05033-10B	3.3	1W	5%	Metal Oxidized Film Resistor	
⚠ R358	07-05101-10B	100	1W	5%	Metal Oxidized Film Resistor	
⚠ R762, R763	07-05221-20B	220	2W	5%	Metal Oxidized Film Resistor	
⚠ R738	07-05271-20B	270	2W	5%	Metal Oxidized Film Resistor	
⚠ R779	07-05221-30B	220	3W	5%	Metal Oxidized Film Resistor	
⚠ R334, R344, R434, R444	07-05222-30B	2k2	3W	5%	Metal Oxidized Film Resistor	
R514, R614	07-01033-06D	3.3	1/6W	1%	Metal Film Resistor	
R805 x4, R806 x4	07-05680-06D	68	1/6W	5%	Metal Film Resistor	
R505, R509, R605, R711	07-01101-06D	100	1/6W	1%	Metal Film Resistor	
R802 x4, R702, R745, R753	07-05101-06D	100	1/6W	5%	Metal Film Resistor	
R127, R227	07-05201-06D	200	1/6W	5%	Metal Film Resistor	
R101, R103, R105, R107, R109, R111, R113, R115, R118, R201, R203, R205, R207, R209, R211, R213, R215, R217	07-05471-06D	470	1/6W	5%	Metal Film Resistor	
R502, R511, R602, R610	07-014990-06D	499	1/6W	1%	Metal Film Resistor	
R510, R609	07-01590-06D	590	1/6W	1%	Metal Film Resistor	
R507, R607	07-016810-06D	681	1/6W	1%	Metal Film Resistor	
R768, R772	07-05102-06D	1k	1/6W	5%	Metal Film Resistor	
R803 x4	07-05222-06D	2k2	1/6W	5%	Metal Film Resistor	
R601	07-01262-06D	2k6	1/6W	1%	Metal Film Resistor	
R506, R606	07-013321-06D	3.32k	1/6W	1%	Metal Film Resistor	
R508, R608	07-014751-06D	4.75k	1/6W	1%	Metal Film Resistor	
R503, R603	07-01472-02D	4k7	1/6W	1%	Metal Film Resistor	
R515, R615	07-01103-06D	10k	1/6W	1%	Metal Film Resistor	
R13, R759, R819 x4, R807 x4	07-05103-06D	10k	1/6W	5%	Metal Film Resistor	
R512, R612	07-012112-06D	21k1	1/6W	1%	Metal Film Resistor	
R751	07-01273-04D	27k	1/6W	1%	Metal Film Resistor	
R758	07-01623-06D	62k	1/6W	1%	Metal Film Resistor	
R756	07-01913-06D	91k	1/6W	1%	Metal Film Resistor	
R126, R226, R752	07-05104-06D	100k	1/6W	5%	Metal Film Resistor	
R757, R760, R761	07-01104-06D	100k	1/6W	1%	Metal Film Resistor	
R743, R796	07-01274-06D	270k	1/6W	1%	Metal Film Resistor	
R767	07-01394-06D	390k	1/6W	1%	Metal Film Resistor	
R513	07-01824-06D	820k	1/6W	1%	Metal Film Resistor	
R801 x4	07-01225-06D	2M2	1/6W	1%	Metal Film Resistor	
R308, R320, R336, R340, R408, R420, R436, R440	07-05330-04D	33	1/4W	5%	Metal Film Resistor	
R120	07-01101-04D	100	1/4W	1%	Metal Film Resistor	
R317, R417	07-01151-04D	150	1/4W	1%	Metal Film Resistor	
R119, R219	07-05221-06D	220	1/4W	5%	Metal Film Resistor	
R733, R735	07-01241-04D	240	1/4W	1%	Metal Film Resistor	
R121, R122, R220, R221	07-014990-04D	499	1/4W	1%	Metal Film Resistor	
R307, R407	07-01981-04D	910	1/4W	1%	Metal Film Resistor	
R5, R8, R321, R421, R504, R604	07-01102-04D	1k	1/4W	1%	Metal Film Resistor	
R501	07-01262-04D	2k6	1/4W	1%	Metal Film Resistor	

ELECTRICAL PARTS LIST CONTINUATION

REF. NO.	PART NO.	DESCRIPTION			
R732, R734	07-01622-04D	6k2	1/4W	1%	Metal Film Resistor
R712	07-01912-04D	9k1	1/4W	1%	Metal Film Resistor
R6, R7	07-01252-04D	25k	1/4W	1%	Metal Film Resistor
R318, R418	07-01473-04D	47k	1/4W	1%	Metal Film Resistor
R309, R323, R409, R423	07-05101-02D	100	1/2W	5%	Metal Film Resistor
R471, R472	07-01822-02D	8k2	1/2W	1%	Metal Film Resistor
R319, R419	07-01912-02D	9k1	1/2W	1%	Metal Film Resistor
R322, R422	07-01103-02D	10k	1/2W	1%	Metal Film Resistor
POTENTIOMETERS					
RV1, RV2	09-16103-12	10KA			Treble and Bass Potentiometer
RV3	09-16203-22M	10KA			Volume Potentiometer
RV4	09-16203-02	20K MN			Balance Potentiometer
RV5	10-01102-00T	1k			Pre-out Potentiometer
VR301, VR401	10-01101-00T	180 Ω			SEMI Potentiometer
VR302, VR402	10-01501-00T	500 Ω			SEMI Potentiometer
VR701	10-01104-00T	50k Ω			SEMI Potentiometer
CAPACITORS					
C211	05-01082-20	8.2pF	100V	20%	Ceramic Disk Capacitor
C305, C307, C405, C407, C902, C903	05-05220-20	22pF	500V	20%	Ceramic Disk Capacitor
C804 x4	05-01250-20	25pF	100V	20%	Ceramic Disk Capacitor
C110, C210, C510, C610	05-01390-20	39pF	100V	20%	Ceramic Disk Capacitor
C802 x4, C511, C740, C741	05-01470-20	47pF	100V	20%	Ceramic Disk Capacitor
C101, C102, C103, C104, C105, C106, C107, C108, C109, C201, C202, C203, C204, C205, C206, C207, C208, C209, C308, C408	05-01101-20	100pF	100V	20%	Ceramic Disk Capacitor
C113, C114, C214, C215, C302, C402, C801 x4	05-01221-20	220pF	100V	20%	Ceramic Disk Capacitor
C313, C314, C413, C414, C509, C609	05-05471-20	470pF	500V	20%	Ceramic Disk Capacitor
C719	05-01102-20	1000pF	100V	20%	Ceramic Disk Capacitor
C759, C786, C906, C907, C908, C909, C910, C911, C912, C913, C914	05-01103-20	10nF	100V	+50% -20%	Ceramic Disk Capacitor
 C701, C702	05-04472-20	4.7nF 400V (AC)		20%	High Voltage Capacitor
C901, C915, C806 x4, C807 x4	05-10103-20	0.1uF	100V	20%	Monolithic Capacitor
C782	05-10223-20	0.22uF	63V	20%	Monolithic Capacitor
C25, C26	05-20222-10A	2.2nF	63V	10%	Metallized Polyester Film Capacitor
C506, C606	05-20682-02A	6.8nF	63V	2%	Metallized Polyester Film Capacitor
C111, C212, C502, C602	05-20103-05A	10nF	63V	5%	Metallized Polyester Film Capacitor
C507, C607	05-20183-05A	18nF	63V	2%	Metallized Polyester Film Capacitor
C706, C744, C745, C750, C751, C756, C757	05-20223-10A	22nF	63V	10%	Metallized Polyester Film Capacitor
C21, C22, C23, C24	05-21223-10A	22nF	100V	10%	Metallized Polyester Film Capacitor
C722, C723, C732, C733	05-22223-10A	22nF	250V	10%	Metallized Polyester Film Capacitor
C717, C718, C720, C721, C730, C731	05-22223-10A	22nF	250V	10%	Metallized Polyester Film Capacitor
C522, C705, C708, C710, C711, C714, C715	05-21104-20	0.1uF	100V	20%	Metallized Polyester Film Capacitor
C508, C608	05-20104-05A	0.1uF	63V	2%	Metallized Polyester Film Capacitor
C309, C310, C315, C316, C317, C318, C324, C409, C410, C415, C416, C417, C418, C424	05-21104-10A	0.1uF	100V	10%	Metallized Polyester Film Capacitor
C503, C505, C603, C605	05-20184-05A	0.18uF	63V	5%	Metallized Polyester Film Capacitor
C810 x4	05-20224-05A	0.22uF	63V	5%	Metallized Polyester Film Capacitor
C504, C604	05-20105-05A	1uF	63V	5%	Metallized Polyester Film Capacitor
C320, C420	05-30223-10	22nF	63V	10%	Mini-polyester Capacitor
C761, C762	06-50105-20	1uF	50V	20%	Electrolytic Capacitor
C520, C521, C783	06-50475-20	4.7uF	50V	20%	Electrolytic Capacitor

ELECTRICAL PARTS LIST CONTINUATION

REF. NO.	PART NO.	DESCRIPTION			
C743	06-101475-20	4.7uF	100V	20%	Electrolytic Capacitor
C803 x4, C805 x4	06-16106-20M	10uF	16V	20%	Electrolytic Capacitor
C1, C2, C301, C303, C304, C321, C401, C403, C404, C421, C709, C763, C764, C765, C766, C767, C768, C769, C904	06-25106-20	10uF	25V	20%	Electrolytic Capacitor
C752, C753, C785	06-50106-20	10uF	50V	20%	Electrolytic Capacitor
C322, C323, C422, C423, C742	06-101106-20	10uF	100V	20%	Electrolytic Capacitor
C808 x4	06-35226-20M	22uF	35V	20%	Electrolytic Capacitor(small size)
C754, C755	06-50226-20	22uF	50V	20%	Electrolytic Capacitor
C746, C747	06-101226-20	22uF	100V	20%	Electrolytic Capacitor
C784	06-50476-20	47uF	50V	20%	Electrolytic Capacitor
C736, C737	06-101476-20	47uF	100V	20%	Electrolytic Capacitor
C738, C739	06-35107-20	100uF	35V	20%	Electrolytic Capacitor
C311, C312, C411, C412	06-25107-20	100uF	25V	20%	Electrolytic Capacitor
C112, C213, C501, C601	06-16227-20	220uF	16V	20%	Electrolytic Capacitor
C781, C916	06-16337-20	330uF	16V	20%	Electrolytic Capacitor
C734, C735	06-102108-20	1000uF	100V	20%	Electrolytic Capacitor
C306, C406	06-063228-20	2200uF	6.3V	20%	Electrolytic Capacitor
C707	06-16228-20	2200uF	16V	20%	Electrolytic Capacitor
C713	06-25228-20	2200uF	25V	20%	Electrolytic Capacitor
C748, C749	06-50228-20	2200uF	50V	20%	Electrolytic Capacitor
C724, C725, C727, C728	06-80109-10	10000uF	80V	+20% -10%	Electrolytic Capacitor
DIODES					
D907	02-00068-05	6V8	0.5W		Zener Diode
D719	02-00100-05	10V	0.5W		Zener Diode
D302, D402	02-00180-05	18V	0.5W		Zener Diode
D301, D401	02-00180-05	18V	0.5W		Zener Diode
D1, D2	02-00240-05	24V	0.5W		Zener Diode
D721	02-00240-50	24V	0.5W		Zener Diode
D704	02-15401-00	1N5401			Rectifier Diode
D308, D408	02-10021-00	BAV21(BV>200V)			Switch Diode
D307, D407	02-10021-00	BAV21(BV>200V)			Switch Diode
D801 x4, D802 x4	02-24148-00	1N4148			Switch Diode
D303, D304, D305, D306, D309, D403, D404, D405, D406, D409, D701, D705, D706, D707, D708, D709, D710, D711, D712, D713, D714, D715, D716, D717, D718, D720, D722, D723, D724, D725, D726, D727, D730, D731, D732, D733, D734, D735, D736, D902, D903, D904, D905, D906, D908, D909, D910, D911, D912	02-24148-00	1N4148			Switch Diode
B703, B704	02-44010-00	10A	400V		Rectifier Bridge
B701, B702, B705, B706	02-44001-01	1A	400V		Rectifier Bridge
LD901, LD902, LD903, LD904, LD905, LD906, LD908, LD909, LD912	02-30505-01	φ 5			Green LED
LD911, LD907	02-30503-01	φ 5			Amber LED
LD910	02-30525-02	φ 5			Dual color LED
IC					
IC705	03-00082-08	TL082CP			Dual OP-AMP
IC901	03-00074-14	74LS00			Standard TTL
IC902	03-00812-18	Z86C0812PSC			NAD MICOM
IC904, IC905	03-04094-16	CD4094			Standard CMOS
IC903	03-10038-03	HS0038B			IR Sensor
IC706	03-01237-08	UPC1237HA			Protection IC
IC701	01-07805-03	LM7805			Regulator
IC702	01-07812-03	LM7812			Regulator
IC703	01-00317-03	LM317M			Regulator

ELECTRICAL PARTS LIST CONTINUATION

REF. NO.	PART NO.	DESCRIPTION		
IC704	01-00337-03	LM337M		Regulator
3IC1, 3IC2, 4IC1, 4IC2	01-10431-00	TA76431(or TL431)		Regulator
X901	04-12000-00	12.000MHz		Crystal
TRANSISTORS				
Q305, Q309, Q316, Q326, Q405, Q409, Q416, Q426, Q501, Q502, Q503, Q504, Q702, Q703, Q705, Q706, Q707, Q721, Q723, Q724, Q725, Q726, Q913	01-01015-070	2SA1015 GR		Small signal Transistor
Q802 x4, Q803 x4, Q804 x4, Q806 x4	01-00970-070	2SA970 GR		Small signal Transistor
Q308, Q312, Q325, Q408, Q412, Q425, Q704, Q708, Q720, Q722, Q727, Q728, Q729, Q730, Q901, Q902, Q903, Q904, Q905, Q906, Q907, Q908, Q909, Q910, Q911, Q912, Q914, Q915	01-01815-070	2SC1815 GR		Small signal Transistor
Q301, Q306, Q307, Q329, Q401, Q406, Q407, Q429, Q713	01-00872-001	2SA872 GR		Small signal Transistor
Q302, Q303, Q304, Q330, Q430, Q402, Q403, Q404, Q710, Q711, Q714	01-01775-001	2SC1775 GR		Small signal Transistor
Q431	01-02878-020	2SC2878 GR		Power Transistor
Q315, Q415	01-02690-001	KSC2690		Power Transistor
Q311, Q314, Q317, Q411, Q414, Q417, Q709, Q715, Q807 x4	01-00669-001	2SD669A		Power Transistor
Q801 x4	01-00369-001	2SK369		Power Transistor
Q310, Q313, Q318, Q410, Q413, Q418, Q701, Q712, Q808 x4	01-00649-001	2SB649A		Power Transistor
Q321, Q323, Q327, Q421, Q423, Q427	01-01943-002	2SA1943		Power Transistor
Q322, Q324, Q328, Q422, Q424, Q428	01-05200-002	2SC5200		Power Transistor
D702, D703	01-20151-003	BT151-500R		Thyristor
SWITCHES				
SW4	11-01022-01	Tone Defeat		Push Switch
K901, K902, K903, K904, K905, K906, K907, K908, K909	11-00004-01	Selector		TACT Switch
SW2	11-02122-01	Soft Clipping		Slide Switch
SW3	11-02142-01	Bridge		Slide Switch
⚠ SW1	11-01201-00	TV-8		Power Switch
RELAYS				
RL2, RL5, RL6, RL7, RL8, RL9, RL10, RL11, RL12	12-02012-05	DC12V (800 Ω)	G5V2	I/P Relay
RL01, RL02, RL03, RL04	12-02024-10	DC24V 10A		SPK Relay
⚠ RL701	12-01005-15	5V TV-8		Standby Relay
FUSES				
⚠ F701*B1, B&C	20-00400-25	T4AH 250V		Fuse for 230V Version
⚠ F701*AH	20-00630-25	T6.3AH 250V		Fuse for 120V Version
OTHERS				
⚠ T2*B1, B&C	18-67790-00 or 18-67790-00G	TI-67790B (Toroid) TI-67790B (Gloria)		Main Transformer for 230V Version
⚠ T2*AH	18-67791-00	TI-67791B		Main Transformer for 120V Version
⚠ T1	18-50103-12	TD050-E103H		Standarby Transformer
RCA1, RCA2, RCA3, RCA4	17-01200-06	6 holes		RCA
RCA7	17-01200-02	2 holes		RCA
PJ701	17-03000-01D			Power Socket
JK701	17-00200-01	PH-2ASW		Headphone Jack

EXPLODED VIEW PARTS LIST

REF. NO.	PART NO.	DESCRIPTION	Qty.	REF. NO.	PART NO.	DESCRIPTION	Qty.
C001	45-00270-02	Chassis	1	F008	53-00320-04	Power Button Bezel	1
C002	45-00370-03	Base Cover	1	F009	54-00160-01	LED lens	12
C003	53-00320-05	Foot	4	F010	53-00160-03	Plastic Bracket	2
C004	56-00320-01	Foot Pad	4	F011	52-00160-01	Input Button (3P)	3
C005	47-00370-01	Heatsink	2	F012	53-00320-01	IR lens	1
C006	47-00370-02	Heatsink plate	2	S001	45-00370-01	Subfascia	1
C007	59-00370-01	Plastic Spacer	4-9	S002	53-00160-02	Sleeve(1P)	1
C008	45-00300-04	Module Support 2	4	S003	45-00160-04	IR Cover	1
C009	55-00300-02	Module Lid	4	S004	53-00370-02	Sleeve(1P)	3
C010	45-00300-13	Trans Clamp (Module)	4	S005	53-00160-01	Sleeve(7P)	1
C011	16-0C160-03	C160 Module PCB	4	S006	45-00300-09	Phone Bracket	1
C012	45-00320-08	Module Support 1	1	S007	16-0C370-04	Tact SW PCB	1
C013	45-0C320-07	C320 Module PCB	1	S008	16-0C370-09	LED PCB	1
C014	48-00370-05	Bus Bar C	1	S009	16-0C370-10	Power SW Board	1
C015	48-00370-04	Bus Bar B	1	⚠ R001*B,B1&C	46-00370-01	Rear Panel for 230V Version	1
C016	48-00370-06	Bus Bar D	1	⚠ R001*AH	46-00370-01A	Rear Panel for 120V Version	1
C017	48-00370-03	Bus Bar A	2	⚠ R002	18-50103-00	Standby Transformer	1
C018	47-00300-01	Heatsink F35	6	⚠ R003*B,B1&C	16-0C370-07	Power Out PCB 1	1
C019	16-00370-01	Main PCB	1	⚠ R003*AH	16-0C370-0	Power Out PCB 2	1
C020	48-00370-07	Copper Spacer	5	⚠ R004*B,B1&C	17-01600-03	AC Outlet for 230V Version	1
C021	59-00370-02	Plastic Spacer	TCBS-20	⚠ R004*AH	17-01600-04A	AC Outlet for 120V Version	1
C022	59-00320-01	Plastic Spacer	TCBS-15	⚠ R005	58-00320-01	Strain Relief Bushing	1
C023	16-0C370-05	Phone PCB	1	⚠ R006*B,B1&C	15-00183-00	AC Cord for 230V Version	1
C024	16-00370-03	Tone PCB	1	⚠ R006*AH	15-00203-00A	AC Cord for 120V Version	1
C025	47-00350-02	Heat Sink B	2	⚠ R007*B,B1&C	18-50103-01A	Ferrite Core for 230V Version	1
C026	45-00370-04	Trans Clamping	12	⚠ T001	46-00370-03	Top Cover	1
C027	56-00370-01	Insulated Cushion	12	0001	40-02008-01	Self Taping Screw (STF2x8-0)	4
C028	56-00370-02	Insulated Cushion(small)	12	0002	40-12604-01	Self Taping Screw (BTB2.6x4)	1
C029	47-00270-01	Heatsink 1 A	4	0003	40-12606-01	Self Taping Screw (BTB2.6x6)	9
C030	47-00270-02	Heatsink 1 B	4	0004	40-03006-01	Self Taping Screw (STB3x6)	42
C031	16-0C370-02	Amplifier L Channel PCB	1	0005	40-03008-01	Self Taping Screw (STB3x8)	8
C032	16-0C370-08	Transistor Board PCB	2	0006	40-13004-01	Self Taping Screw (BTB3x4)	2
C033	46-00370-02	Shielding Box	1	0007*B,B1&C	40-13008-01	Self Taping Screw (BTB3x8)	41
⚠ C034*B,B1&C	18-67790-00	Transformer for 230V Version (with 2 rubber pad)	1	0007*AH	40-13008-01	Self Taping Screw (BTB3x8)	39
⚠ C034*AH	18-67791-00	Transformer for 120V Version (with 2 rubber pad)	1	0008	40-13020-01	Self Taping Screw (PTP3x20)	8
C035	45-00370-05	Metal Disc	1	0009	40-03014-10	Self Taping Screw GB70,3x14	12
C036	69-00370-01	Transformer Label (Toroid)	1	0010	40-13015-01	Self Taping Screw MPW3x15	2
	or 69-00370-01G	Transformer Label (Gloria)	1	0011	40-04008-02	Self Taping Screw STB(4x8)	2
C037	48-00300-01	BDP Pin	4	0012	40-04008-01	Self Taping Screw STBW(4x8)	6
C038	48-00370-01	BDP Pin (Big)	4	0013*B,B1&C	40-01065-22	Bolt for Toroid 230V Version GB5781,M10x65	1
C039	17-02200-04	Binding Post	2		40-01070-22	Bolt for Gloria 230V Version GB5781,M10x70	1
C040	16-0C370-11	Amplifier R Channel PCB	1	0013*AH	40-01060-22	Bolt for 120V Version GB5781,M10x60	1
F001	46-00370-04	Fascia	1	0014	41-03003-00	Nuts GB6170,M3	2
F002	51-00320-01	Volume Knob	1	0015	41-01010-00	Nuts GB6170,M10	2
F003	51-00320-02	Tone Knob	3	0016	42-01002-00	Washers GB95 φ 10	2
F004	53-00320-01	Tone Control Lozenge	1	0017	42-01002-01	Spring Washers GB93 φ 10	2
F005	53-00300-02	Tone Defeat Button	1	0018	40-03006-22	Self Taping Screw MB3x6	32
F006	53-00370-01	Input Button Lozenge	1				
F007	52-00320-02	Power Button	1				