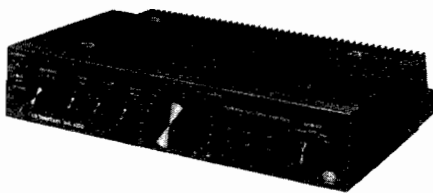
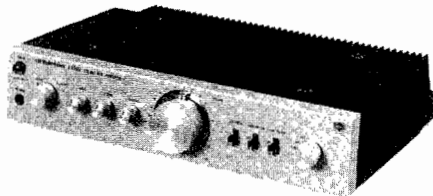


GENERAL / TELETON

MODELS : a350/A450S STEREO Hi-Fi AMPLIFIER SH 057/27 SERVICE MANUAL



MODEL a350



MODEL A450S

Germany: G C J ELECTRONICS (EUROPE) GmbH
D-4000 Düsseldorf-Heerd, Werftstr. 20
Tel. 0211-50 47 021 Tlx. 8588366

Great Britain: TELETON Electro (U.K.) Co. Ltd.
Technical Service Organization

Somerton Works, Prince Avenue,
Westcliff-on-Sea, Essex, SSO 0HU
Tel. 0702 337681 Tlx. 99338

Netherlands: G C J ELECTRONICS (NETHERLAND) B.V.
Marconiweg 10, Vianen
Tel. 03 473-37 44 Tlx. 40 581

Distributor:

Switzerland	France
Allelectric AG	TELECTRODIS S.A.
Gartenstr. 12	21, rue Paul-Lafargue,
5600 Lenzburg	94270 Le Kremlin-Bicêtre
Tel. 064 51 6951	Tel. 6 77 69 34
Tlx. 68 208	Tlx. 20 44 68

Specifications are subject to change without notice.

SPECIFICATIONS

ELECTRICAL PERFORMANCE

Output power
at 1,000 Hz, 0.7% THD. (8Ω) : 22 Watts.

Power Bandwidth (8Ω, 0.7%, -3dB) : 10W, 10Hz-30,000 Hz

Frequency Range for Rated Power (8Ω) & THD. (0.7%) : 20W, 40Hz-20,000 Hz

Maximum Input Signal (Input: 1,000 Hz, output: 2 watts, 0.7% THD.)

Tuner	: 4V
Phono (magnetic)	: 50 mV
AUX	: 4V
Tape	: 4V

Frequency Response (Output: 2 watts at 1,000 Hz)

Tuner/AUX/Tape	: 40 Hz-16,000 Hz ±0.8 dB
Phono (equalizer: RIAA)	: 40 Hz-16,000 Hz ±1 dB

Tone Control Characteristics (Input : AUX)

Bass	: 100 Hz	+8 dB
		-10 dB
Treble	: 10,000 Hz	±10dB

Loudness (Input : AUX 200mV, volume control: maximum gain minus 30 dB.)

100 Hz	: +10 dB	
10,000 Hz	: +5 dB	
High-cut filter	fc = 4 kHz	-6 dB/oct.
Low-cut filter	fc = 100 Hz	-6 dB/oct.

Input Sensitivity & Input Impedance (Output: 20 watts at 1,000 Hz)

Tuner	: 200 mV/120 KΩ
AUX	: 200 mV/120 KΩ
Tape	: 200 mV/120 KΩ
Phono	: 3 mV/47 KΩ

Minimum Volume Hum & Noise : 0.75mV

Signal to Noise Ratio

(Output power: 50 m watts at 1,000 Hz, unweighted)

Tuner	: 58 dB
AUX	: 58 dB
Tape	: 58 dB
Phono	: 58 dB

Channel Gain Difference

(Volume control shall be changed from max. position to -46 dB.)

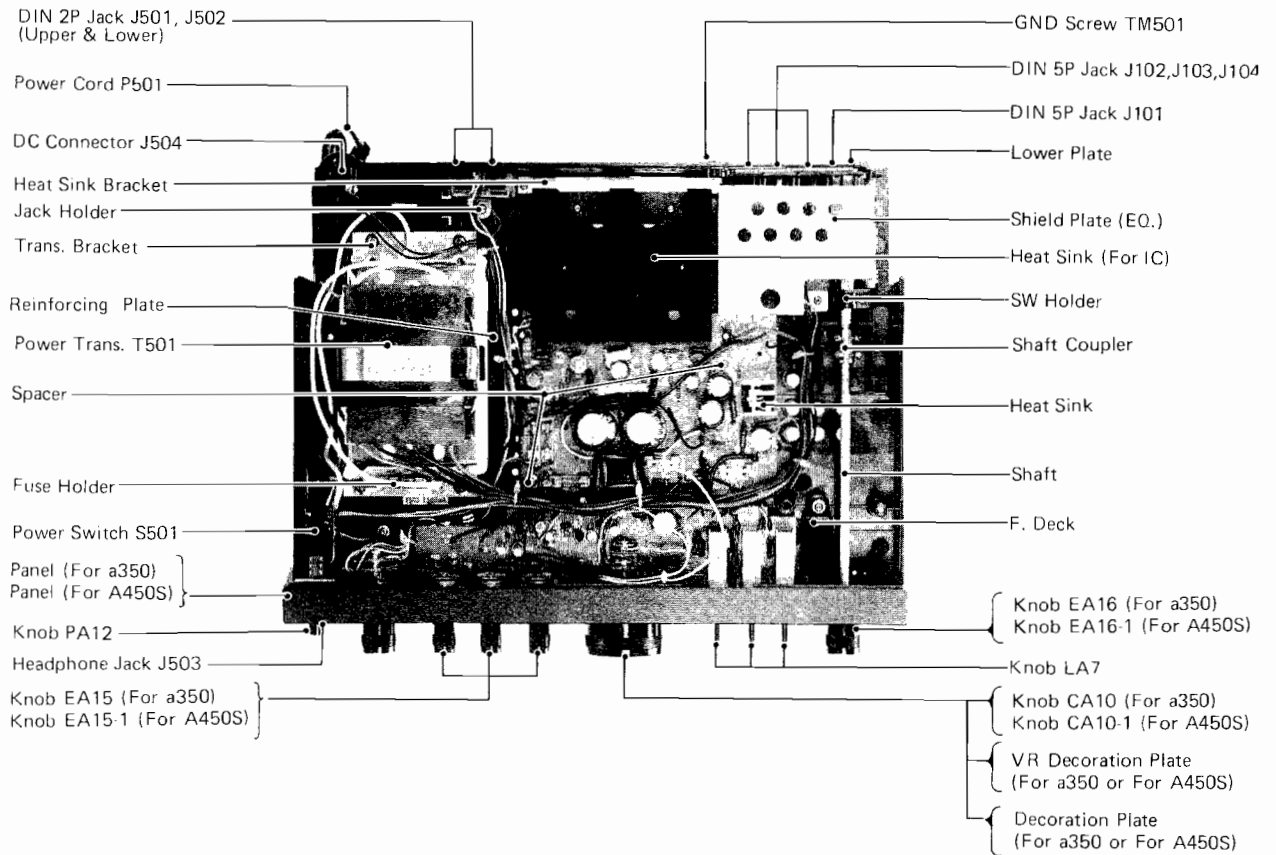
at 1,000 Hz	4 dB max.
250 Hz - 6,300 Hz	4 dB max.

Tape Output Voltage and Output Impedance

(Input: AUX at 1,000 Hz)

Output voltage	: 16 mV/47 KΩ
Output impedance	: 88 kΩ ±20%

PARTS LOCATION

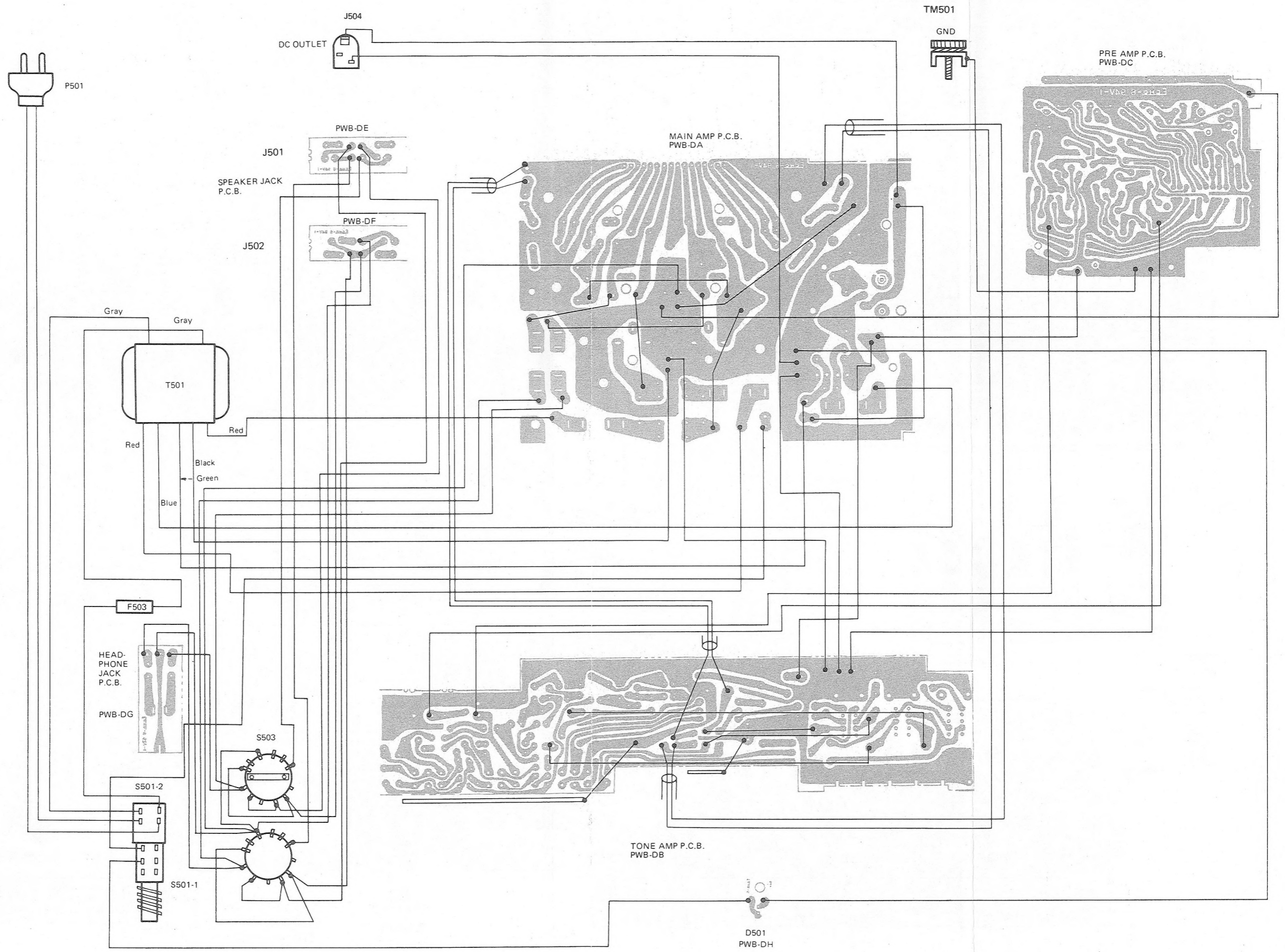


WARNING: FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER RECOMMENDED PARTS. THESE PARTS ARE IDENTIFIED BY (⚠) ON THE SCHEMATIC DIAGRAM.

The manufacturer's warranty and liabilities will be void if any unauthorized modifications, alterations or additions are made. For replacement purposes, use the same type or specified type of wire and cable, ensuring that the positioning of the wires is followed (especially for power supply circuits). Use of alternative wiring or positioning could result in damage to the set or in a shock or fire hazard.

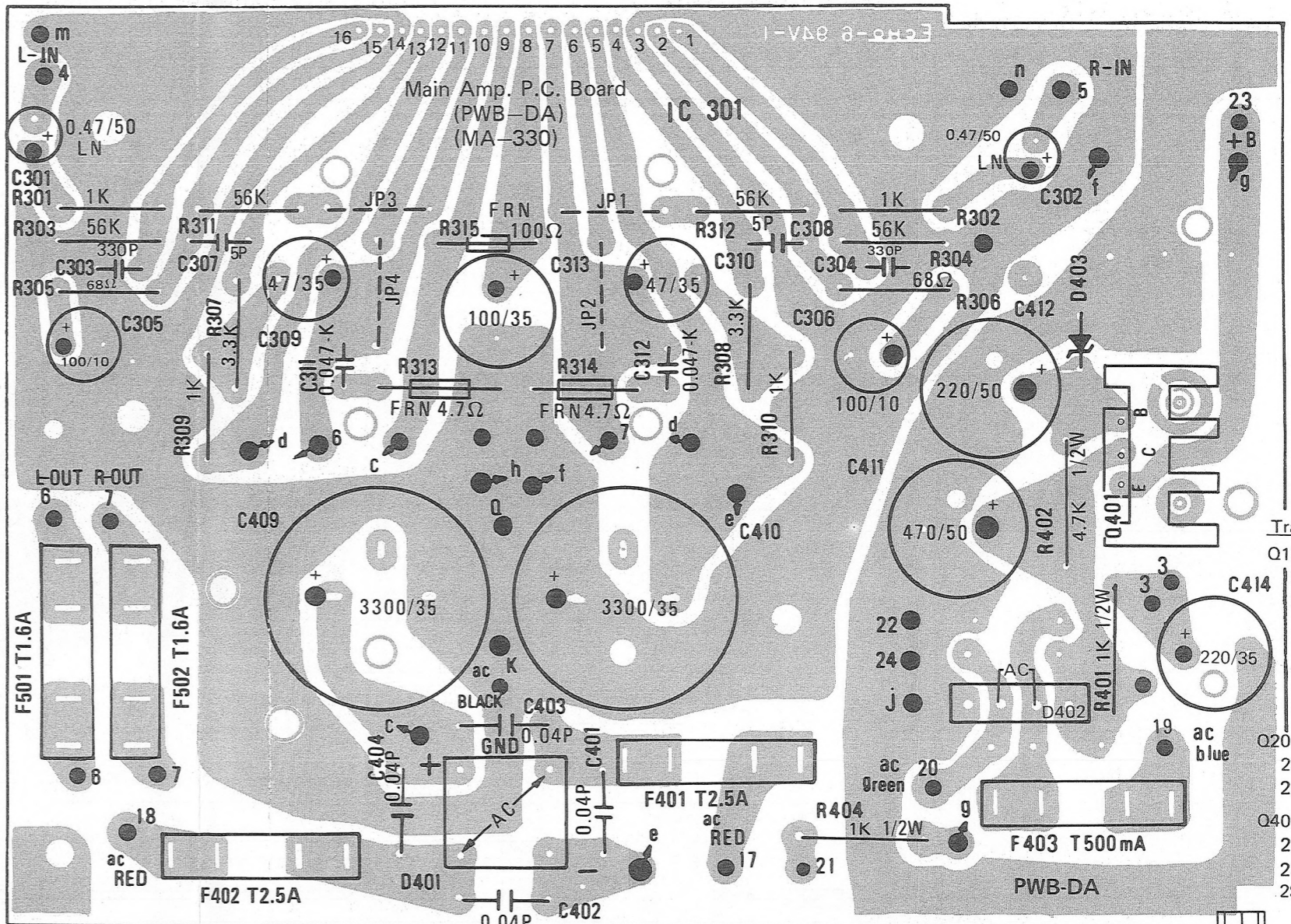
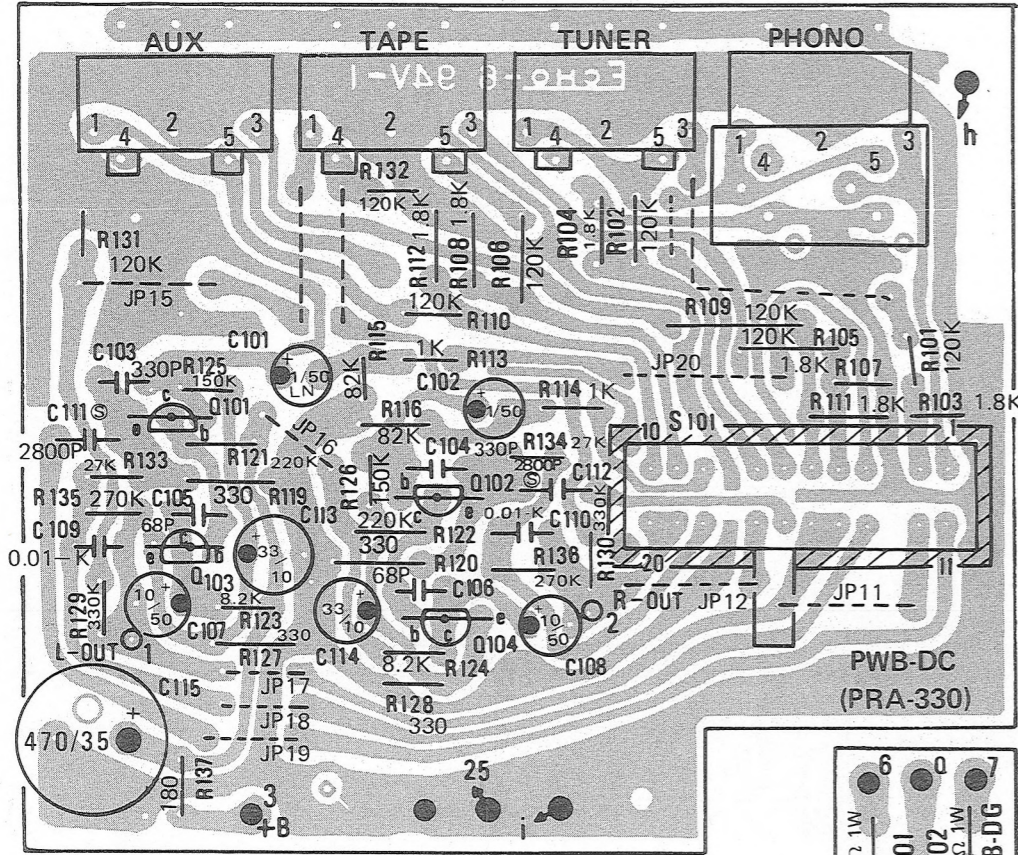
NO INTERNAL PRESET ADJUSTMENTS ARE PROVIDED IN THE DESIGN OF THIS APPARATUS.

WIRING DIAGRAM

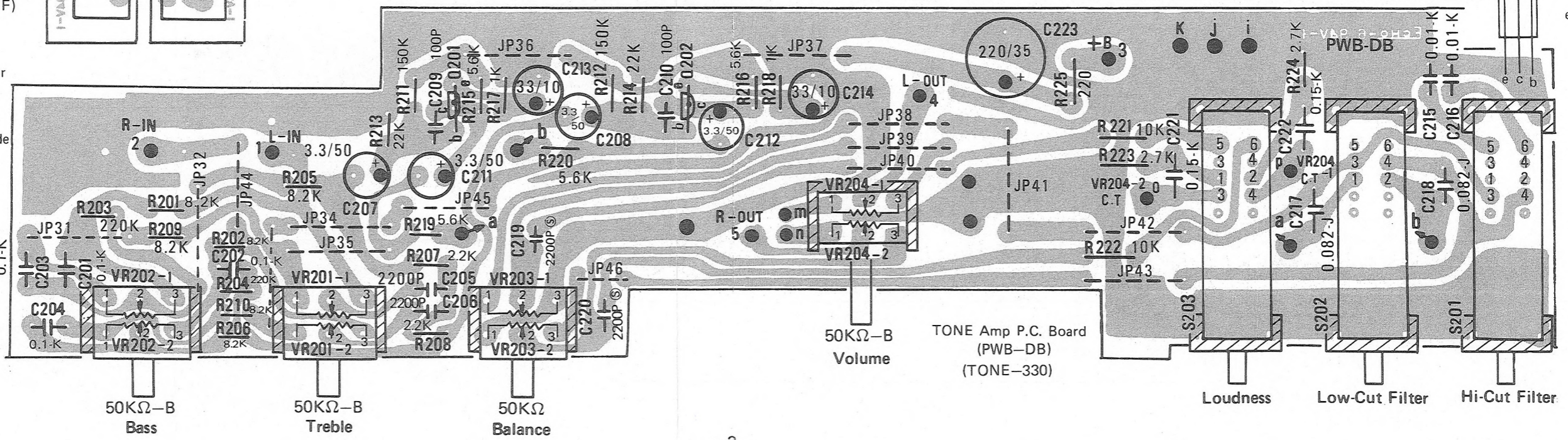
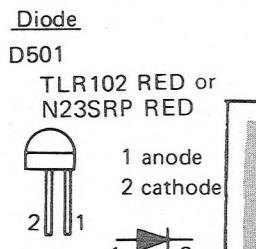
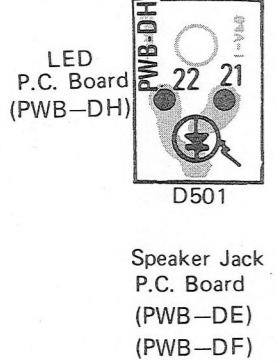


PRE AMP P.C. BOARD (PWB-DC)

P.C. BOARD



- Transistor
 Q101, 102, 103, 104
 2SC732TM-GR
 2SC1571-F
 or
 D401 S4VB
 D402 S1VB10
 D403 HZ15L-2
 Q201, 202
 2SC1815GR or
 2SC1571-F
 Q401
 2SC1815-GR or
 2SC536-F
 2SD 330E



PARTS LIST

(Standard Parts Resistors, Capacitors, Screws are not listed here.)

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
Cabinet				2176300007	Rubber cushion (775) 5 x 15 x 5
	2176001505	Upper plate		2168507786	Reinforcing plate
	2186100364	Adiabatic plate (PT)	⚠ F503	2147200121	SEMKO fuse 250V T800mA
	2186100392	Adiabatic plate (Stabilizer)		2175901731	Fuse label
	2186100420	Adiabatic plate (IC)	MA P.C. Board		
	2171201262	Decoration plate (For A450S)		2161230005	PWB-DA (B.C.E.F)
	2171201463	Decoration plate (For a 350)	⚠ F401,	2147200114	SEMKO fuse 250V T2.5A
	2187000307	Knob CA10-1 (For A450S)(Volume)	402		
	2187000291	Knob CA10 (For a350)(Volume)	⚠ F403	2147200022	SEMKO fuse 250V T500mA
	2176601992	Pointer B (VR)	Q401	2104500544	Transistor 2SD880-Y
	2176602104	VR Decoration plate (For A450S)		2104500174	or Transistor 2SD330-E
	2176602020	VR Decoration plate (For a350)		2104500559	or Transistor 2SD880-GR
	2186100387	Shield plate (For tuner)	D401	2109200124	Silicon rect. (Stack-F) S4VB20-F
	2176001990	Panel (For A450S)	D402	2109200222	Silicon rect. (Stack) S1VB10
	2176001962	Panel (For a350)	D403	2108200319	Zener diode HZ15L-2
	2187100372	Knob EA16-1 (For A450S)(Selector)		2161235008	PWB-DG (A.B.C.E.F.H)
	2187100340	Knob EA16 (For a350)(Selector)		2161233007	PWB-DE (A.B.C.F.G.H)
	2187300305	Knob PA12 (Power Switch)		2161234004	PWB-DF (A.B.C.E.F.H)
	2187100361	Knob EA15-1 (For A450S) (Bass, Tre., Balance)	J501-1,	2149300802	DIN 2P Jack
			501-2,		
	2187100355	Knob EA15 (For a350) (Bass, Tre., Balance)	502-1,		
			502-2		
	2187600151	Knob LA7 (Loud., Filter)	⚠ F501,	2161236001	PWB-DH (A.B.C.E.F.G)
	2176301400	Rubber Foot	502	2147200036	SEMKO fuse (2093) T1.6A 250V
Chassis Parts				2168100961	Heat sink
IC301	2102400232	IC STK-459		2149200033	Fuse holder (4013)
	2168101040	Heat sink (For IC)	J503	2149300827	Headphone jack
S503	2148000023	Rotary switch (1089)	D501	2111300223	LED TLR102 (RED)
J504	2149300810	DC connector		2111300216	or LED N23SRP (RED)
⚠ P501	2095002641	Power cord (144) 2P Class II		2176300468	Rubber (For LED)
	2195000065		PRA P.C. Board		
	2186100413	Shield plate (For EQ)		2161232009	PWB-DC (A.B.E.F.G.H)
	2176301439	Cushion A (For Shield Plate)	S101	2148100449	Slide rotary switch
	2176301442	Cushion B (For Shield Plate)	J101	2149300912	DIN 5P jack TCS-0720
	2176300343	Cushion C (For Shield Plate)	J102~	2149300792	DIN 5P jack TCS-700
⚠ T501	2117300225	Power trans.	104		
	2168507887	Trans. bracket	Q101~	2103000649	Transistor 2SC732TM-GR
⚠ S501	2148200396	Power switch	104	2103100370	or Transistor 2SC1571-F
	2149200103	Fuse holder	STONE P.C. Board		
	2176602047	Plastic foot		2161231000	PWB-DB (A.C.E.F.G.H)
C501	2129100009	Capacitor MP 0.0047μF	S201~	2148400133	Lever switch
502			203		
	2182000059	Capacitor cover	VR201,	2143000445	Center Click B50Kx2 (Tone Control)
	2176001973	Lower plate	202	2143000432	Center Click HB50Kx2 (Balance Control)
TM501	2149100192	GND screw	VR203	2143000450	41 Detent B50Kx2 (Volume Control)
	2176001600	F. deck	VR204	2003181523	Transistor 2SC1815GR
	2168507541	Heat sink bracket	Q201,	2103000043	or Transistor 2SC536F
	2168101008	Shield plate	202		
	2176602034	Spacer (For MA P.C.B.)			
	2176602005	SW holder			
	2168507524	Jack holder			
	2182400062	Cord stopper SR-4P-4			
	2170600455	Shaft coupler			
	2170600461	Shaft			
	2176301425	Rubber cushion B (12φ x 8)			

