

# ELECTRONICS SERVICE MANUAL

## C-06 Preamplifier

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**AR**  
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Continuous Rated Power Output..... Total harmonic distortion (20 to 20,000 Hz)  
 No more than 0.004% (CD/TUNER)  
 Inter modulation distortion (60 Hz:7 KHz = 4:1)  
 No more than 0.004% (CD/TUNER)

**Output**

Headphone ..... 8 ohm nominal

**Input Sensitivity/Impedance**

Phono (MM)..... 0.8 mV/47 kohms

Phono (MC)..... 160  $\mu$ V/100 ohms

CD..... 150 mV/20 kohms

Tuner, Tape Monitor..... 150 mV/20 kohms

Output Sensitivity Impedance ..... 1.5V/1.2 kohms

**Overload Level (THD 0.5% 1 kHz)**

Phono (MM)..... 180 mV

Phono (MC)..... 15 mV

CD, Tuner, Tape Monitor..... 5V

**Frequency Response**

Phono..... 20 to 20,000 Hz  $\pm$  0.2 dB (RIAA STD)

CD, Tuner, Tape Monitor..... 20 to 20,000 Hz  $\pm$  0 dB  $\pm$  0.3dB

**Signal to Noise Ratio (IHFA A Network)**

Phono (MM)..... 80 dB

Phono (MC)..... 70 dB

CD, Tuner, Tape Monitor..... 90 dB

Power Consumption..... 20 watts

Dimensions (Overall)..... 430(W)  $\times$  88(H)  $\times$  356(D)

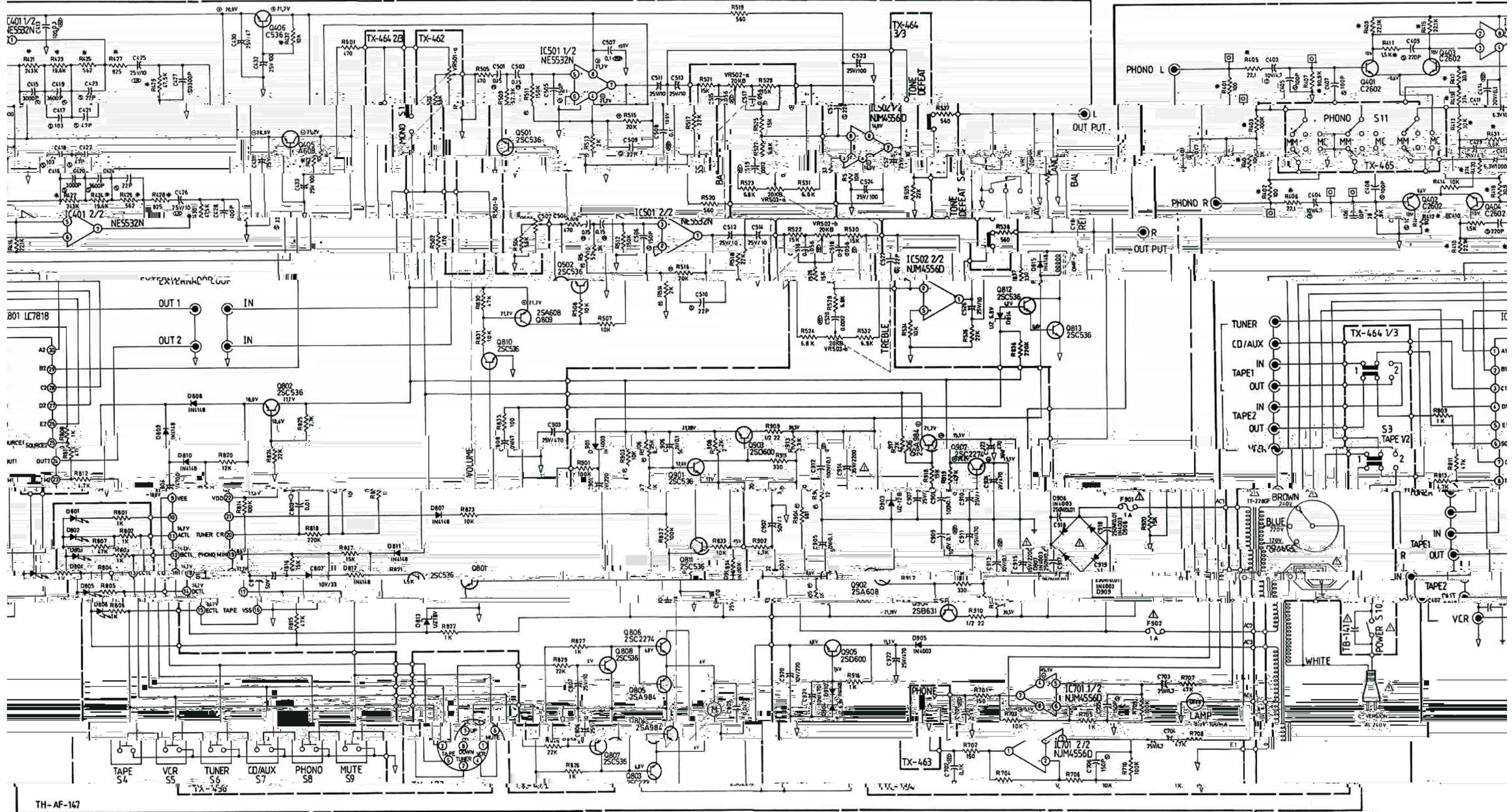
16<sup>15</sup>/<sub>16</sub>"  $\times$  3<sup>15</sup>/<sub>32</sub>"  $\times$  14<sup>1</sup>/<sub>16</sub>"

Weight (Net)..... 6.6 Kgs/14.52 lbs



# Schematic Diagram

NOTE: PARTS AND CIRCUIT SUBJECT TO CHANGES FOR IMPROVEMENTS WITHOUT PRIOR NOTICE

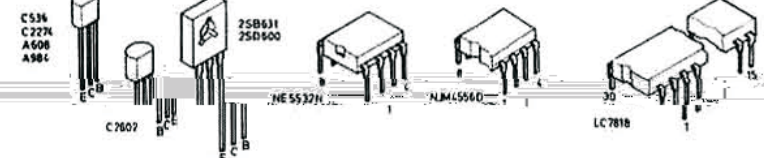


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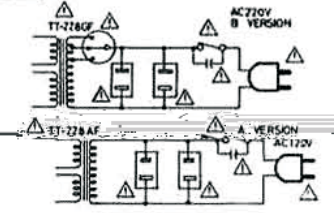
**RESISTORS**  
 5% --- TOLERANCE UNLESS OTHERWISE NOTED  
 K --- KILLOHM  
 M --- MEGA OHM  
 W --- WATT  
 RSU METAL OXIDE FILM RESISTORS

**CAPACITORS**  
 (E) --- LOW NOISE ELECTROLYTIC CAPACITORS  
 (F) --- NYLON FILM CAPACITORS  
 (G) --- POLYSTYRENE FILM CAPACITORS  
 (H) --- TANTALUM CAPACITORS  
 (J) --- ELECTROLYTIC CAPACITORS  
 (K) --- CERAMIC CAPACITORS  
 UNLESS OTHERWISE NOTED IN SCHEMATIC ALL CAPACITORS VALUES ARE EXPRESSED

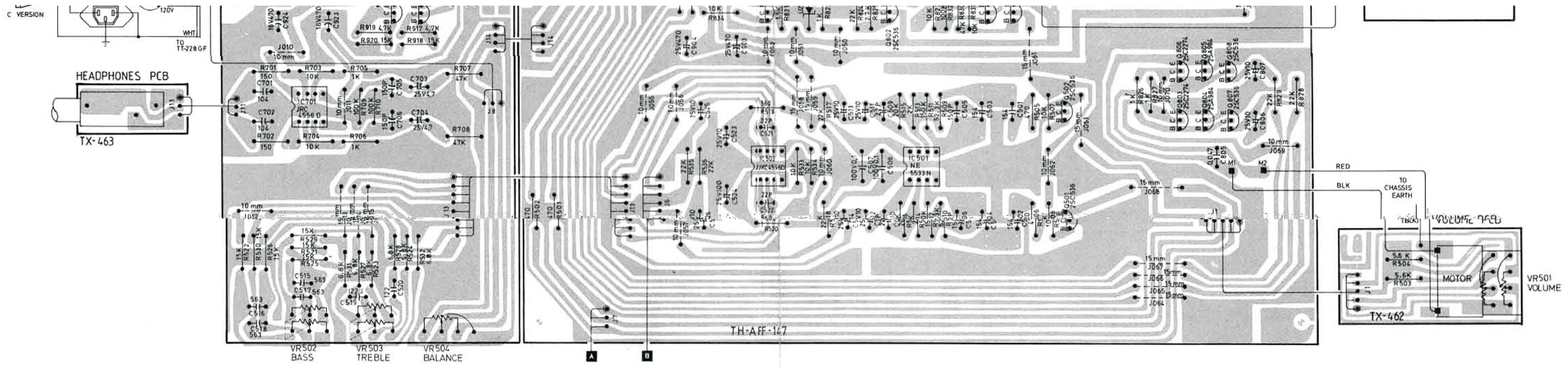
ITEM	SCHEMATIC LOCATION(LAST)
PHONO AMP	R433 C433
TONE AMP	R538 C536
PHONO AMP	R704 C706
FUNCTION	R837 C808
POWER SUPPLY	R924 C924



**INSTRUCTIONS FOR SERVICE PERSONNEL**  
 1. TO USE ONLY REPLACEMENT PARTS THAT HAVE THE CRITICAL CHARACTERISTICS RECOMMENDED BY MANUFACTURER.  
 2. TO MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

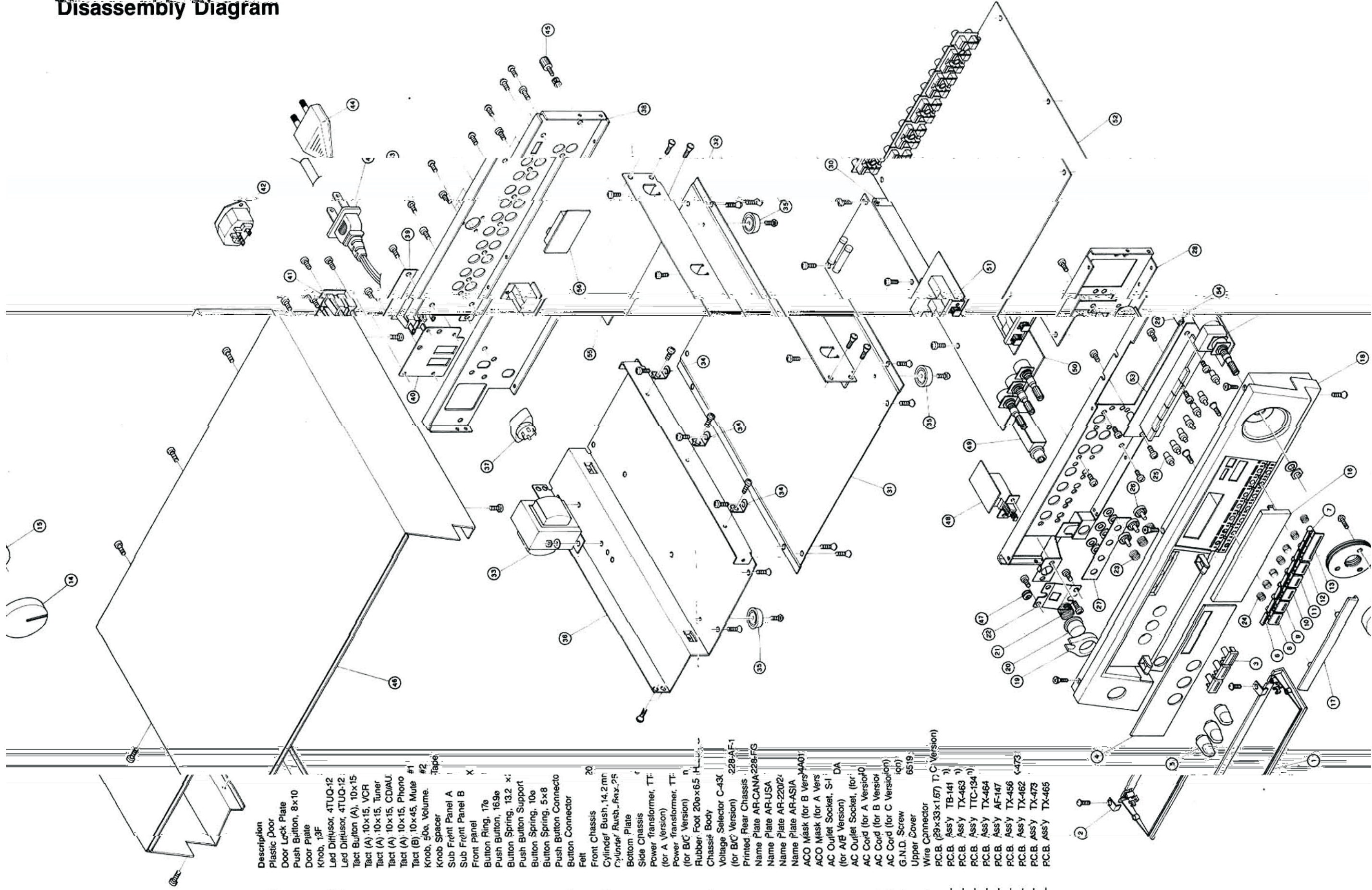








# Disassembly Diagram



Key No.	Pats No.	Description
1	OM00002030	Plastic Door
2	SP10004822	Door Lock Plate
3	KB20001664	Push Button, 8x10
4	OM00002145	Door Plate
5	KB10001333	Knob, 13F
6	OM00002080	Led Diffuser, 4TUO-12
7	OM00002927	Led Diffuser, 4TUO-12
8	KB20001755	Tact Button (A), 10x15
9	KB20001787	Tact (A) 10x15, VCR
10	KB20001779	Tact (A) 10x15, Tuner
11	KB20001780	Tact (A) 10x15, CD/AM
12	KB20001792	Tact (A) 10x15, Phono
13	KB20001573	Tact (B) 10x45, Mute #1
14	KB10001357	Knob, 60a, Volume #2
15	SR00000780	Knob Spacer
16	OM00002108	Sub Front Panel A
17	OM00002110	Sub Front Panel B
18	AA80000821	Front panel
19	BU00000724	Button Ring, 17a
20	KB20001652	Push Button, 16.9a
21	SN00000180	Button Spring, 13.2 x
22	SP10004901	Push Button Support
23	SN00000179	Button Spring, 10b
24	SN00000192	Button Spring, 5x8
25	OM00002091	Push Button Connecto
26	OM00001943	Button Connector
27	FE00000407	Felt
28	AF80000299	Front Chassis
29	BC00000453	Cylinder Bush, 14.2mm
30	AF00001325	Cylinder Bush, 14.2mm
31	AB00000160	Bottom Plate
32	AS01000190	Side Chassis
33	PT21006545	Power transformer, TT- (for A Version)
34	PT21006697	Power transformer, TT- (for B/C Version)
35	FT00000140	Rubber Foot 200x6.5 H
36	AM00001306	Chassis Body
37	VC00000048	Voltage Selector C-43X (for B/C Version) 228-AF-1
38	AR80000570	Printed Rear Chassis
39	NP00001342	Name Plate AR-CANA-228-FG
40	NP00001354	Name Plate AR-USA
41	NP00001391	Name Plate AR-220/2
42	NP00001380	Name Plate AR-ASIA
43	SP10005050	ACO Mask (for B Vers
44	SP10004767	ACO Mask (for A Vers
45	SA00001450	ACO Mask (for A Vers
46	SA00001553	ACO Mask (for A Vers
47	CD00000018	ACO Mask (for A Vers
48	CD00000097	ACO Mask (for B Vers
49	CD00000048	ACO Mask (for C Vers
50	SW00000136	G.N.D. Screw
51	AU00000671	Upper Cover
52	SC00000090	Wire Connector
53	PC04473001	PC.B. Assy TB-141 (1)
54		PC.B. Assy TX-463 (1)
55		PC.B. Assy TTC-134 (1)
56		PC.B. Assy TX-464
		PC.B. Assy AF-147
		PC.B. Assy TX-466
		PC.B. Assy TX-462
		PC.B. Assy TX-473
		PC.B. Assy TX-465



# Repair Parts List

Schematic Location	Parts No.	Description	Schematic Location	Parts No.	Description
<b>TRANSISTORS, DIODES AND IC'S</b>			<b>COILS, VARIABLE RESISTORS, SWITCHES AND OTHER</b>		
RS	Q401, 402	TR30000467 2SC2602, Differential Amp.	LY801	LY0000058	OMF-240, Relay
	Q403, 404	TR30000467 2SC2602, Differential Amp.	VR501	RV10001073	05IC-4170A08 50KB x 2, Volume Control
	Q405, 406	TR30000327 2SC536G, Stabilizer	VR502, 503	RV10000433	4TR-1742, 20KB x 2, Treble, Bass Control
	Q501, 502	TR30000327 2SC536G, for Mute	VR504	RV10000378	LTR-1572, 20KW, Balance Control
	Q801	TR30000327 2SC536G, for Switching,	S401	SH20000307	4TR-2293, Slide Switch Phono
	Q802	TR30000327 2SC536G, Stabilizer	S501 - 503	SH13000280	4TR-2277SUL, 3 Key Push Switch, Mono/Defeat/Tape 1, 2
	Q803	TR30000121 2SC2274, Motor Driver	S801 - 806	SH60000239	4TR-2301, Key Board Switch, Tape/VCR/Tuner/CD/Phono/Mute
	Q804	TR10000140 2SA984K, Motor Driver		SH40000155	C-4176A01, Power
	Q805	TR10000140 2SA984K, Motor Driver	T001	PT21006545	Power Transformer, TT-228AF, (for A Version)
	Q806	TR30000121 2SC2274, Motor Driver		PT21006697	Power Transformer, TT-228GF (for B/C Version)
	Q807	TR30000327 2SC536G, for Switching	F901, 902	FU12000070	Fuse, 250V, 1A (UL)
	Q808	TR30000327 2SC536G, for Switching		FU23000025	Fuse, 250V 1A (S)
	Q809	TR10000126 2SA608K, for Switching			
	Q810	TR30000327 2SC536G, for Switching			
	Q811	TR30000327 2SC536G, for Switching			
	Q812	TR30000327 2SC536G, Relay Driver			
	Q813	TR30000327 2SC536G, Relay Driver			
	Q901	TR30000327 2SC536G, Stabilizer			
	Q902	TR10000126 2SA608K, Stabilizer			
	Q903	TR40000069 2SD600K, Stabilizer			
	Q904	TR10000047 2SB631K, Stabilizer			
	Q905	TR40000069 2SD600K, Stabilizer			
	Q906	TR10000140 2SA984K, Stabilizer			
	Q907	TR30000121 2SC2274, Stabilizer			
	D801 - 806	DD40000812 SE65224DT-D, Function LED			
	D807	DD10000100 IN4148, Reverse Prevention			
	D808	DD10000100 IN4148, Reverse Prevention			
	D809	DD10000100 IN4148, Reverse Prevention			
	D810	DD10000100 IN4148, Reverse Prevention			
	D811	DD10000100 IN4148, Reverse Prevention			
	D812	DD10000100 IN4148, Reverse Prevention			
	D813	DD20000041 UZ18B, Zener 18V			
	D814	DD20000065 UZ6.8B, Zener 6.8V			
	D815	DD10000100 IN4148, Reverse Prevention			
	D901	DD10000068 IN4003, Rectifier			
	D902	DD10000068 IN4003, Rectifier			
	D903	DD20000016 UZ-12B, Zener 12V			
	D904	DD20000065 UZ-6.8B, Zener 6.8V			
	D905	DD10000068 IN4003, Rectifier			
	D906	DD10000068 IN4003, Rectifier			
	D907	DD10000068 IN4003, Rectifier			
	D908	DD10000068 IN4003, Rectifier			
	D909	DD10000068 IN4003, Rectifier			
	D910	DD10000100 IN4148, Protection			
	IC401	IC00001279 NE5532N, Phono Amp.			
	IC501	IC00001279 NE5532N, Flat Amp.			
	IC502	IC00001474 NJM4556D, Tone Amp.			
	IC701	IC00001474 NJM4556D, Phone Amp.			
	IC801	IC00001541 LC7818, Function IC.			