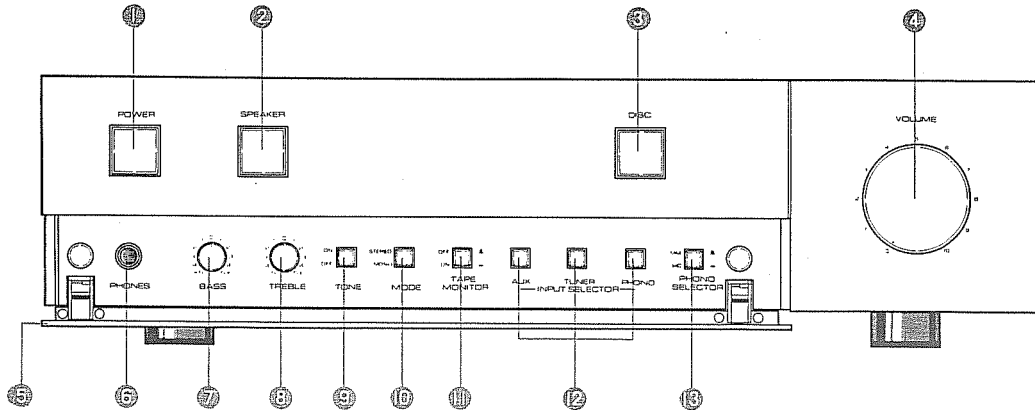


# A-1

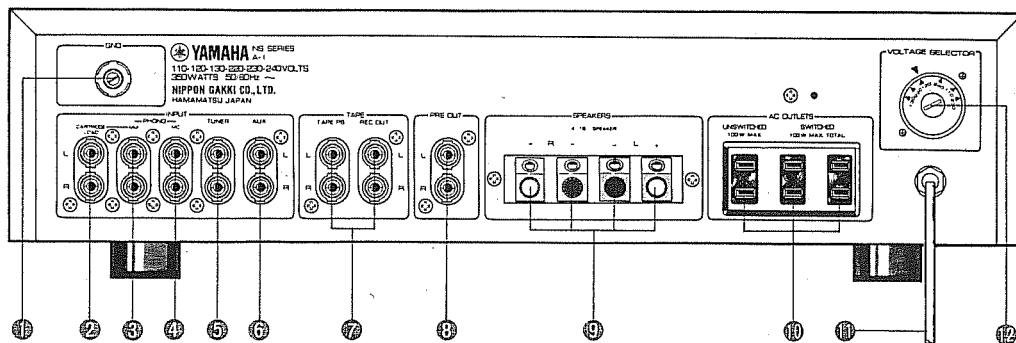
## SERVICE MANUAL

### FRONT PANEL



- ① POWER SWITCH
- ② SPEAKER SWITCH
- ③ DISC SWITCH
- ④ VOLUME CONTROL
- ⑤ SEALING PANEL
- ⑥ HEAD PHONE JACK
- ⑦ BASS CONTROL
- ⑧ TREBLE CONTROL
- ⑨ TONE SWITCH
- ⑩ MODE SWITCH
- ⑪ TAPE MONITOR SWITCH
- ⑫ INPUT SELECTOR SWITCH
- ⑬ PHONO SELECTOR SWITCH

### REAR PANEL (GENERAL MODELS)



- ⑭ GND TERMINAL
- ⑮ PHONO - CARTRIDGE LOAD JACKS
- ⑯ PHONO - MM INPUT JACKS (for MM Cartridge)
- ⑰ PHONO - MC INPUT JACKS (for MC Cartridge)
- ⑱ TUNER INPUT JACKS
- ⑲ AUX INPUT JACKS
- ⑳ TAPE PB/REC OUT JACKS
- ㉑ PRE OUT JACKS
- ㉒ SPEAKER TERMINALS
- ㉓ AC OUTLETS
- ㉔ AC CORD
- ㉕ VOLTAGE SELECTOR

004356

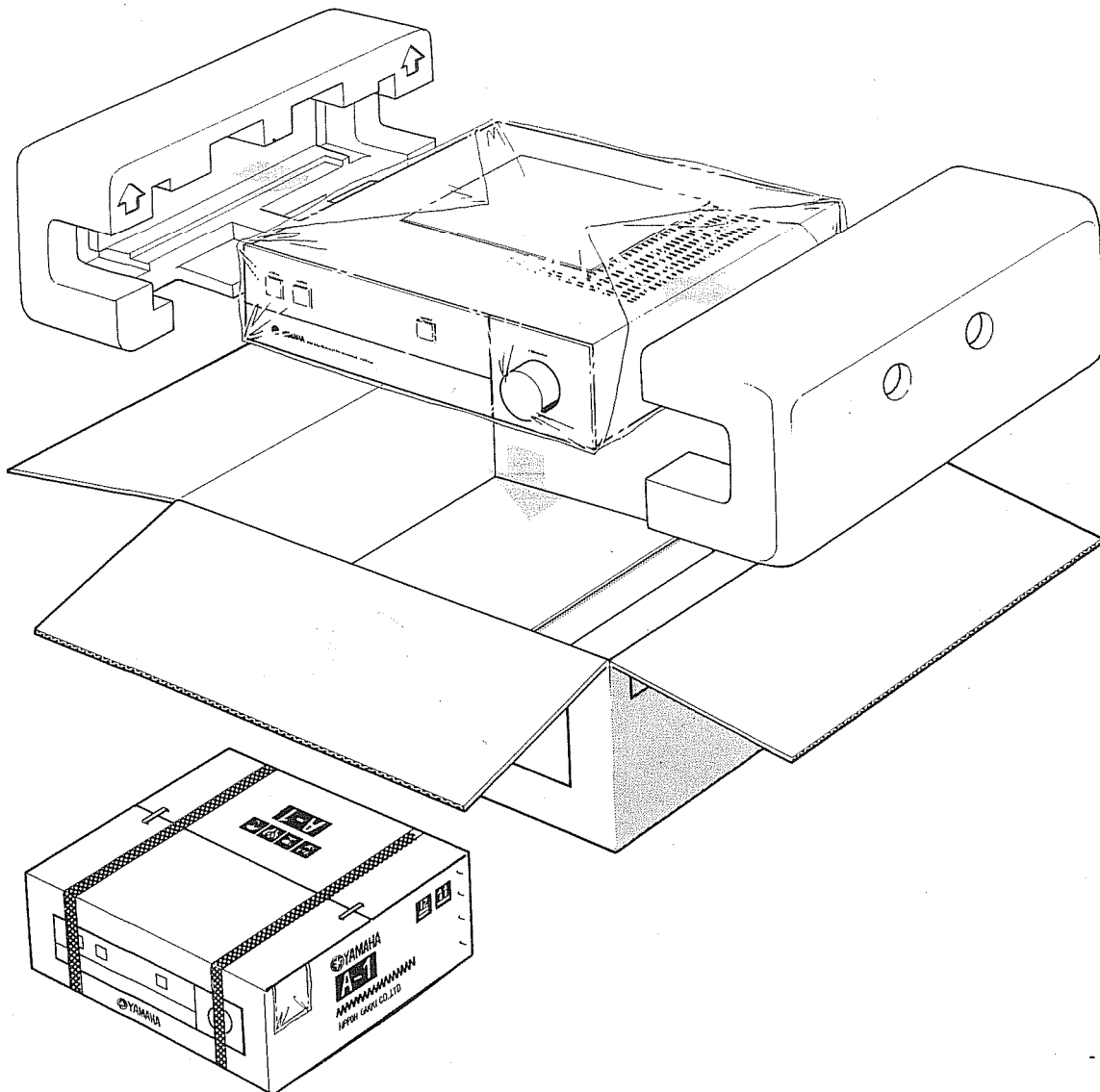
 **YAMAHA**

Printed in Japan 5.78, T.T. 2K

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## ■ PACKAGE

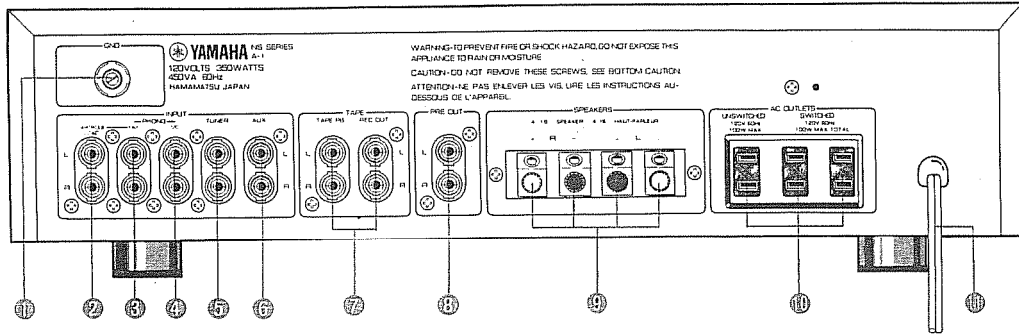


# SPECIFICATIONS (SPECIFICATIONS SUBJECT CHANGE WITHOUT NOTICE.)

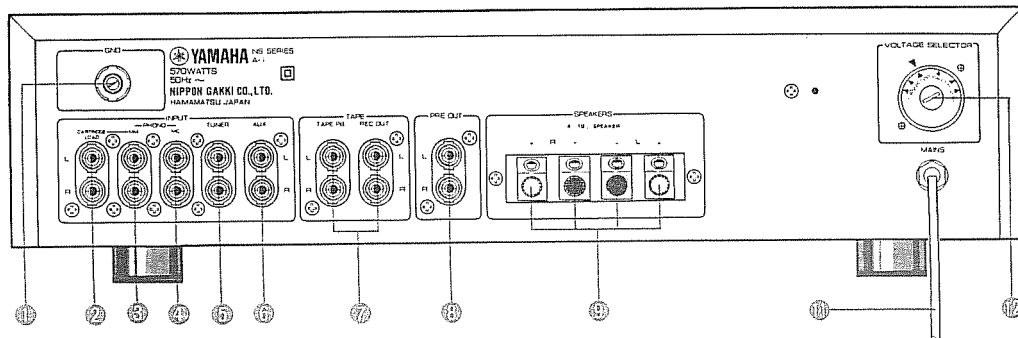
POWER OUTPUT	8Ω 0.02%	70W + 70W, (20 ~ 20KHz)
	4Ω 0.05%	80W + 80W, (20 ~ 20KHz)
	8Ω	85W + 85W, (DIN)
DAMPING FACTOR	8Ω	100 (1KHz)
PRE OUT	OUTPUT LEVEL/ IMPEDANCE	2V/600Ω
INPUT SENSITIVITY/IMPEDANCE	TUNER, AUX, TAPE	200mV/47KΩ
	PHONO MM	2.5mV/47KΩ (200pF)
	PHONO MC	60μV/10Ω
PHONO MAXIMUM INPUT	PHONO MM	230mV (0.01%, 1KHz)
	PHONO MC	6mV (0.01%, 1KHz)
TOTAL HARMONIC DISTORTION	TUNER → SP OUT	Less than 0.01%, 8Ω, 20 ~ 20KHz, (35W)
	PHONO MM → REC OUT	Less than 0.005%, 20 ~ 20KHz, (8V)
	PHONO MC → REC OUT	Less than 0.01%, 20 ~ 20KHz, (2V)
INTER MODULATION DISTORTION	TUNER → SP OUT	Less than 0.003%, (8Ω) 35W, 60Hz : 7KHz = 4 : 1
SIGNAL/NOISE	PHONO MC (A NETWORK)	70dB
	PHONO MM (A NETWORK)	85dB
	TUN } AUX } TONE OFF	112dB
	TAPE }	
	TAPE TONE ON	105dB
RESIDUAL NOISE	DISC ON } TONE OFF }	Less than 50μV
FREQUENCY RESPONSE	TUN } AUX } SP OUT (8Ω) TAPE }	TONE OFF { 10Hz ± 0 100KHz 0 ± ½dB 20 ~ 20KHz ± ½dB
		TONE ON { 10Hz - 4 ± 0.5dB 100KHz 0 ± ½dB 20 ~ 20KHz ± ½dB
	RIAA DEVIATION	20 ~ 20KHz 0 ± 0.2dB
	TONE CONTROL	BASS : 20Hz ± 10dB (TURN OVER FREQ → 350Hz) TREBLE : 20KHz ± 10dB (TURN OVER FREQ → 3.5KHz)
CHANNEL SEPARATION	TUNER → SP OUT	70dB (1KHz, 5.1KΩ)
	PHONO MM → SP OUT	75dB (1KHz, 5.1KΩ) VOL -30dB
	PHONO MC → SP OUT	75dB (1KHz, PHONO short) VOL -30dB
POWER BAND WIDTH	8Ω, 35W, 0.03%	10 ~ 50KHz
N.D.C.R	PHONO MM → SP OUT	6mW ~ 70W (0.1% VOL -20dB) A NETWORK
HEAD PHONE		39mW (8Ω)
SPEAKER TERMINALS		4Ω ~ 16Ω
AC OUTLETS	SWITCHED x 2	100W, (MAX TOTAL)
	UNSWITCHED x 1	100W (MAX)
POWER SOURCE	US & Canadian Models	120V, AC60Hz
	General Model	110/120/130/220/230/240V, AC50/60Hz
	European Model	110/120/130/220/230/240V, AC50Hz
	North European Model	220V, AC50Hz
	British & Australian Models	240V, AC50Hz
DIMENSIONS		435 (W) x 117 (H) x 381 (D)
WEIGHT		15.8 kg (34 lb 13 oz)
ACCESSORIES		CARTRIDGE COAD PLUG (47KΩ x 2)
		" (68KΩ x 2)
	PHONO	SHORT PLUG x 2

# REAR PANEL

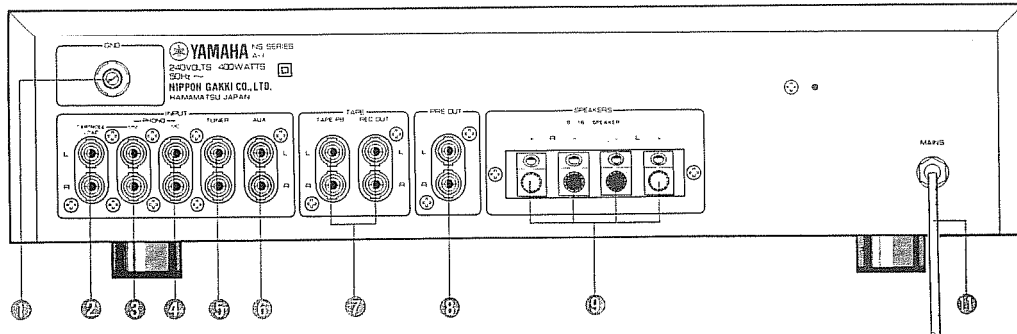
## ▼ US & CANADIAN MODELS



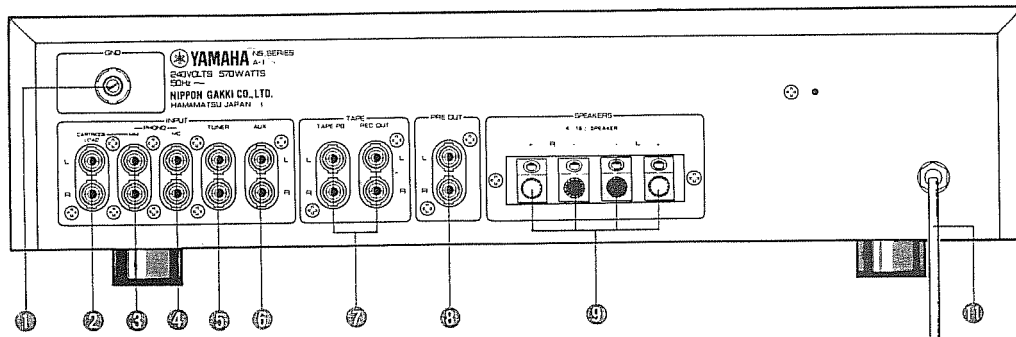
## ▼ EUROPEAN MODEL



## ▼ BRITISH & NORTH EUROPEAN MODELS



## ▼ AUSTRALIAN MODEL

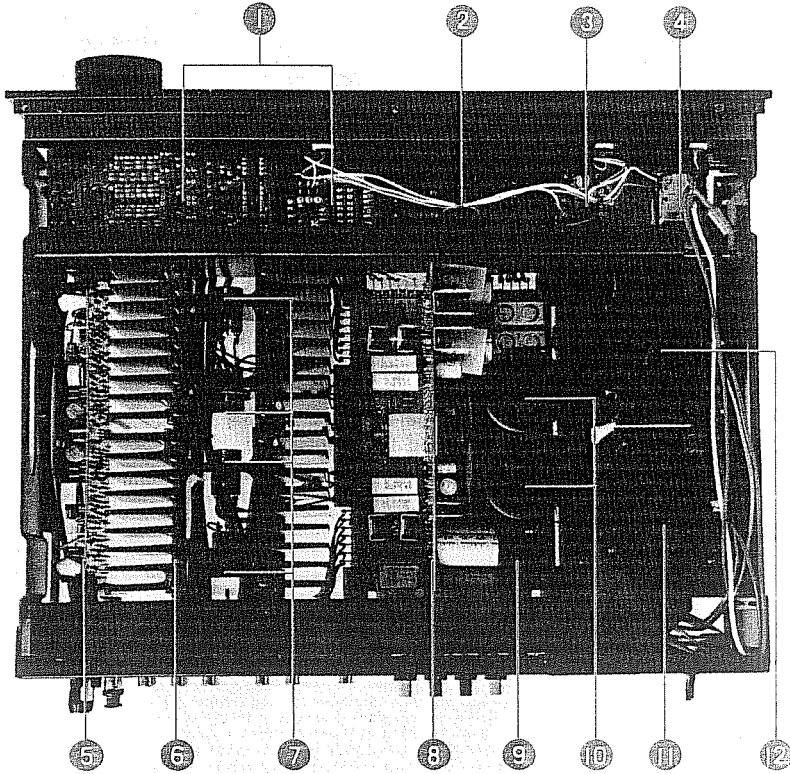


- ⑪ GND TERMINAL
- ⑫ PHONO – CARTRIDGE LOAD JACKS
- ⑬ PHONO – MM INPUT JACKS (for MM Cartridge)
- ⑭ PHONO – MC INPUT JACKS (for MC Cartridge)
- ⑮ TUNER INPUT JACKS
- ⑯ AUX INPUT JACKS
- ⑰ TAPE PB/REC OUT JACKS
- ⑱ PRE OUT JACKS
- ⑲ SPEAKER TERMINALS
- ⑳ AC OUTLETS
- ㉑ AC CORD
- ㉒ VOLTAGE SELECTOR



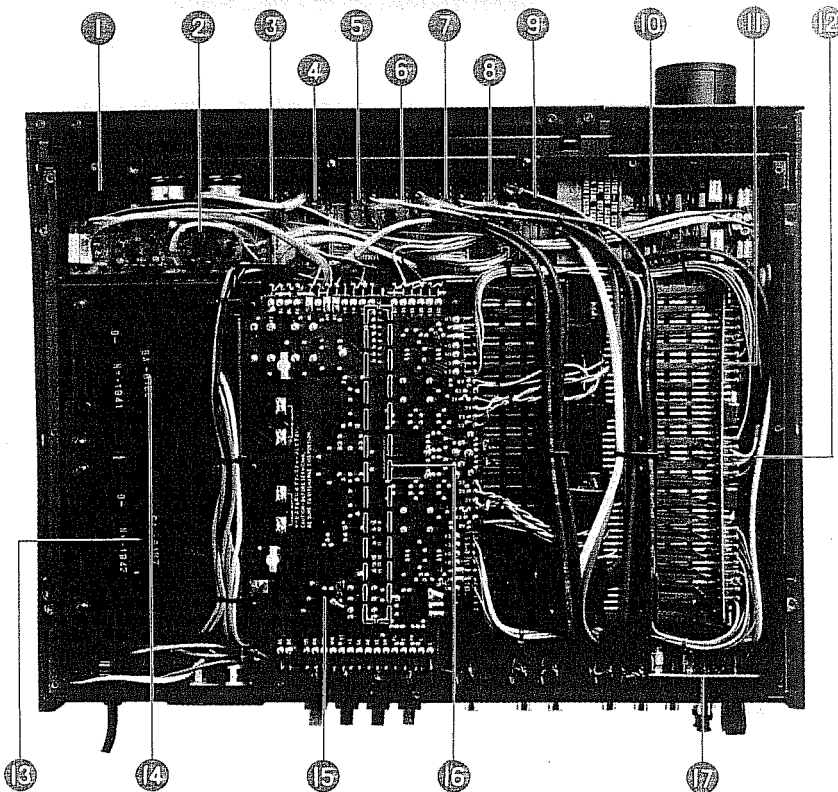
# INTERNAL VIEW

## ▼ TOP VIEW



- ① VR & SW CIRCUIT BOARD
- ② PRE AMP CIRCUIT BOARD
- ③ SPEAKER SWITCH
- ④ POWER SWITCH
- ⑤ DRIVE CIRCUIT BOARD
- ⑥ HEAT SINK
- ⑦ POWER TRANSISTOR
- ⑧ POWER CIRCUIT BOARD
- ⑨ ELECTROLYTIC CAPACITOR CIRCUIT BOARD
- ⑩ ELECTROLYTIC CAPACITOR 18000 $\mu$ F/63WV
- ⑪ POWER TRANSFORMER
- ⑫ POWER TRANSFORMER

## ▼ BOTTOM VIEW



- ⑬ PHONES JACKS
- ⑭ TONE CONTROL CIRCUIT BOARD
- ⑮ TONE SWITCH
- ⑯ MODE SWITCH
- ⑰ TAPE MONITOR SWITCH
- ⑱ AUX SWITCH
- ⑲ TUNER SWITCH
- ⑳ PHONO SWITCH
- ㉑ PHONO SELECTOR SWITCH
- ㉒ PRE AMP CIRCUIT BOARD
- ㉓ DRIVE CIRCUIT BOARD
- ㉔ FET CIRCUIT BOARD
- ㉕ POWER TRANSFORMER
- ㉖ POWER TRANSFORMER
- ㉗ ELECTROLYTIC CAPACITOR CIRCUIT BOARD
- ㉘ POWER CIRCUIT BOARD
- ㉙ PIN JACK CIRCUIT BOARD

# DISASSEMBLY PROCEDURES

## 1. Top cover removal

The top cover can be removed when the (1) to (4) screws at the rear of the unit (see photo) are removed.

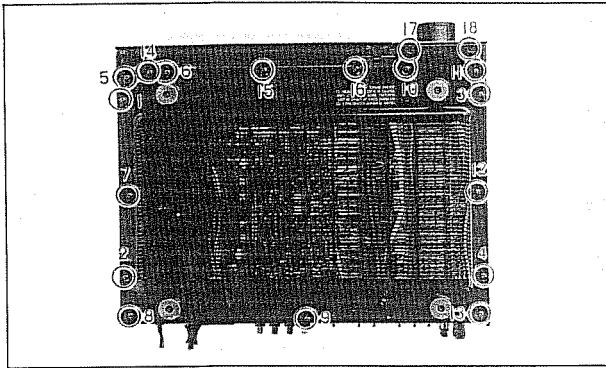


Photo 1

## 2. Bottom cover removal

The bottom cover can be removed when the (5) to (13) screws in Photo 1 are removed.

## 3. Front panel removal

- Pull the (left channel) front part of the VOLUME knob out and remove.
- Use a 2 mm diameter hexagonal wrench to loosen the screws of the (right channel) inside part of the VOLUME knob, pull the knob out from the shaft, and at the same time remove the nut used to mount the VOLUME knob.
- Pull out the BASS and TREBLE knobs inside the sealing panel and remove.
- Remove screws (14) to (18) in Photo 1.
- Remove screws (1) to (3) in Photo 2 and pull out the front panel gently.

\* Make sure that you do not break the pilot lamp lead wire connections with the DISC, SPEAKER and POWER switches.

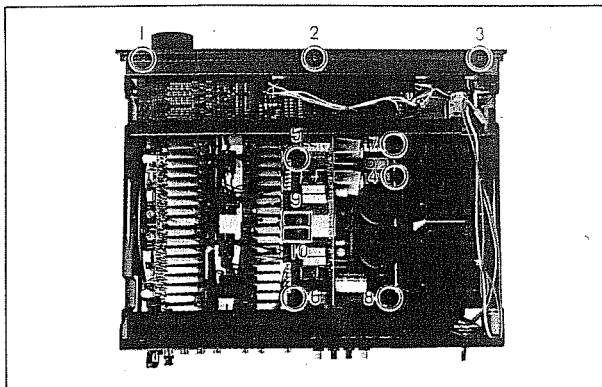


Photo 2

- Pull out the pilot lamps of the DISC, SPEAKER and POWER switches from the holders at the rear of the switches, taking care that you do not break the lead wire connections. (See Fig. 1)

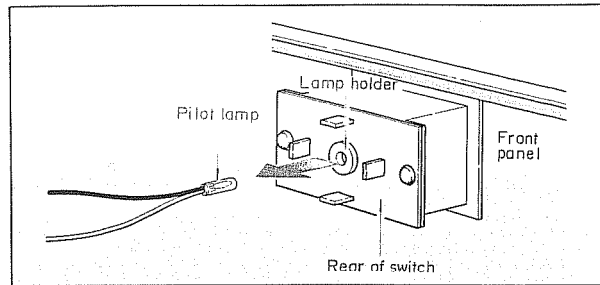


Fig. 1

## 4. Power printed circuit board removal

- Remove the top cover. (Refer to Step 1.)
- Hold the (1) and (2) holders shown in Photo 3 between small pincers and push them in the direction of the arrow to remove them. Now pull the power printed circuit board up and remove.

\* When replacing the printed board, check the positions of the power printed circuit board connector pins and of the electrolytic capacitor printed circuit board.

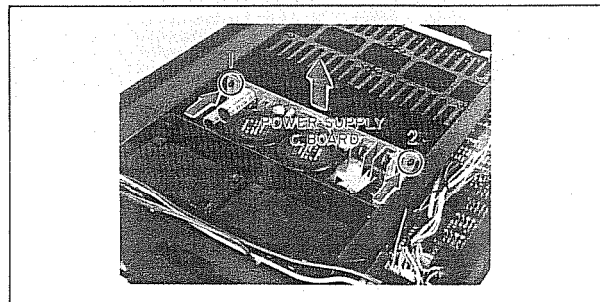


Photo 3

## 5. Electrolytic capacitor printed circuit board removal

- Remove the top and bottom covers. (Refer to Steps 1 and 2.)
- Remove the power printed circuit board. (Refer to Step 4.)
- Detach the lead wires which are connected to the terminals on the electrolytic capacitor printed circuit board.
- Remove screw (4) in Photo 2 and then remove the band which serves to secure the electrolytic capacitor.

\* When replacing this circuit board, make sure that TR137 (9) and TR138 (10) in Photo 2 are brought into close contact with the heat sink as shown in Fig. 2.

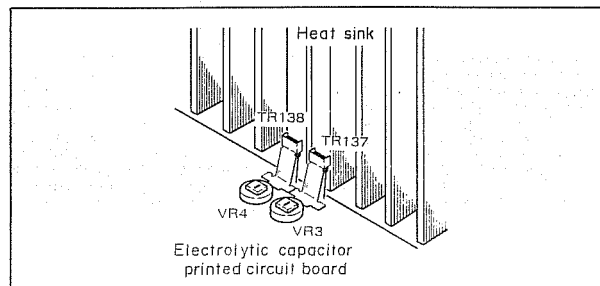


Fig. 2

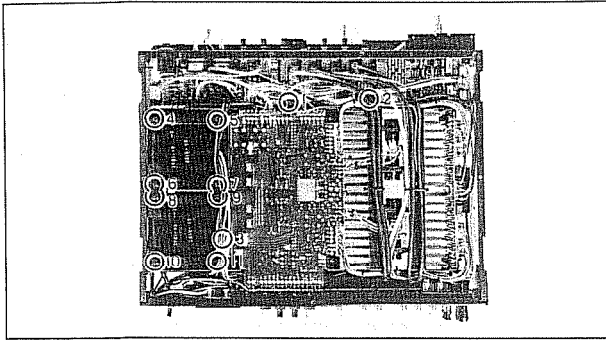


Photo 4

### 6. Drive printed circuit board removal

- a. Remove the top and bottom covers. (Refer to Steps 1 and 2.)
- b. Disconnect the lead wires which are connected to the terminals on the drive printed circuit board.
- c. Hold the (1) and (2) holders shown in Photo 5 between small pincers and push them in the direction of the arrows to remove them. Now pull the drive printed circuit board up and remove.

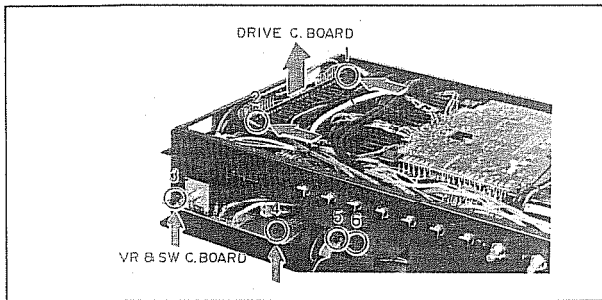


Photo 5

### 7. VR & SW printed circuit board removal

- a. Remove the front panel. (Refer to Step 3.)
- b. Push the (3) and (4) plastic rivets shown in Photo 5 from the rear and remove.
- c. Remove screws (5) and (6) in Photo 5.
- d. Pull out the connectors and pin jacks of the VR & SW printed circuit board, detach the lead wires and then remove the board itself.

### 8. Preamp amplifier printed circuit board

- a. Remove the front panel. (Refer to Step 3.)
- b. Remove screws (1) to (7) in Photo 6 as well as screws (1) and (2) in Photo 4.
  - \* Remove the VR & SW printed circuit board to remove screw (7).
- c. Detach the lead wires and the connectors which are connected to the preamp amplifier printed circuit board and then the board itself.

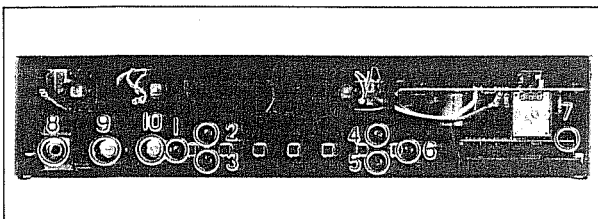


Photo 6

### 9. Tone control printed circuit board

- a. Remove the front panel. (Refer to Step 3.)
- b. Remove hexagonal nuts (8) to (10) in Photo 6 and then the tone control printed circuit board.

### 10. Power transformer removal

- a. Remove the top and bottom covers. (Refer to Steps 1 and 2.)
- b. Remove screws (1) at either side of the rear panel (see Photo 7) and then loosen screws (2) and lean the rear panel back.

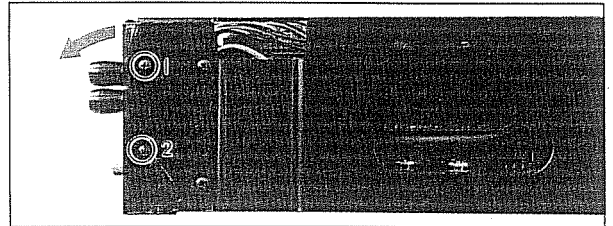


Photo 7

- c. Detach the lead wires which are connected to the power transformer and electrolytic capacitor printed circuit board as well as to the AC outlets and the lead wires connected to the fuse.
- d. Remove screws (4) to (7) and (8) to (11) in Photo 4, and then remove the power transformers.

### 11. Pin jack printed circuit board and pin jack removal

- a. Remove screws (1) to (7) in Photo 8. (The photo shows a US & Canadian models.)
- b. Lean the rear panel back, referring to the procedure under 'a' and 'b' of Step 10 (power transformer removal).
- c. Detach the four pin plugs of the pin jack printed circuit board, and then remove the board itself.

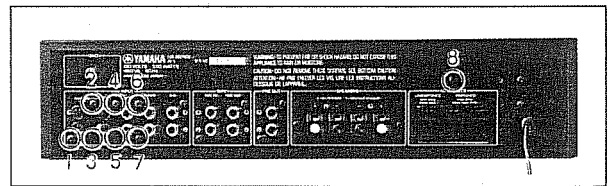


Photo 8

### 12. Power fuse replacement (the fuse rating differs according to the destination of the model)

- a. Lean the rear panel back, referring to the procedure under 'a' and 'b' of Step 10 (power transformer removal).
- b. The fuse holder is located behind the screw in Photo 8. Replace the fuse with a 7.0AT, 250V unit.

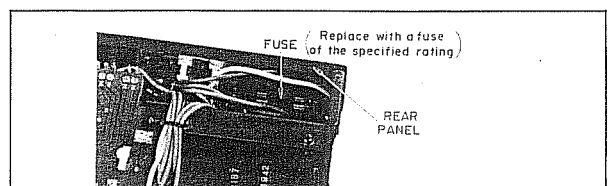


Photo 9

## CIRCUIT DESCRIPTIONS

### MC head amplifier circuit

The MC head amplifier circuit used in the A-1 features a configuration which is similar to that of the equivalent circuit inside the C-2's head amplifier IC. Low-noise transistors are connected in complementary parallel and serve to effectively reduce the noise components.

### Principle behind noise reduction with parallel connection

It is assumed that the two signal sources in Fig. 1,  $e_1$  and  $e_2$ , have internal resistances  $R_1$  and  $R_2$ , respectively. If the resistors and signal sources are connected in parallel, the output voltage  $e_0$  will be:

$$e_0 = e_1 \times \frac{R_2}{R_1 + R_2} + e_2 \times \frac{R_1}{R_1 + R_2} \dots 1$$

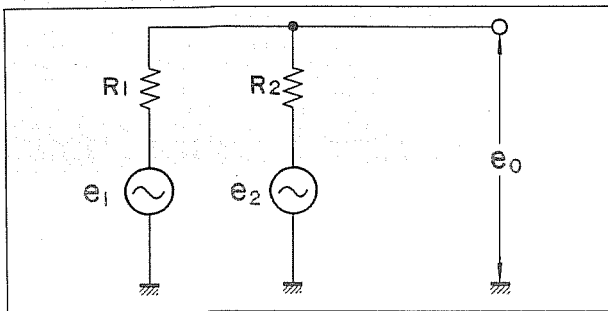


Fig. 1

If  $e_1$  is equivalent to  $e_2$  and if  $R_1$  is equivalent to  $R_2$ , then  $e_0 = e_1 = e_2$ , and when  $e_1$  and  $e_2$  have the opposite phase, the two signals are canceled out and there will be no output voltage  $e_0$ .

If the same two amplifiers are connected in parallel, they will have the same phase with respect to the signal components and so the value of  $e_0$  will not change. However, the noise components will configure separate signals in each amplifier, at times being canceled out, and at times remaining unchanged in the same phase.

Considered from total perspective, the phase difference between the two signals will be neither  $0^\circ$  or  $180^\circ$  but conceivably an average of  $90^\circ$ . From this observation, the first part of the right half of formula (1) will be:

$$e_1 \times \frac{R_2}{R_1 + R_2} = \frac{1}{2} e_1 \quad \therefore R_1 = R_2$$

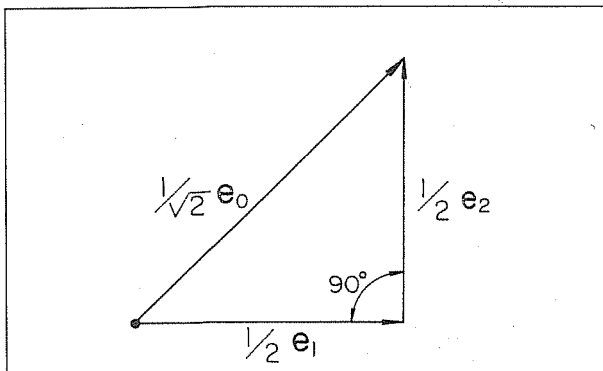


Fig. 2

In the same way, the second part will be  $\frac{1}{2} e_2$  and the vectors will join at a  $90^\circ$  angle. This means that, as in Fig. 2, the noise components will be  $\frac{1}{\sqrt{2}} e_0$ . In this way, the noise can be considered reduced by 3dB when two of the same amplifiers are connected in parallel. Based on this approach, it is possible to come to the following formula between the degree by which the noise is reduced (dB) and the number of amplifier stages (N) connected in parallel:

$$\text{dB} = 10 \log_{10} N \quad (2)$$

In the case of the A-1's MC head amplifier, the two-stage parallel connection brings about a noise reduction of 3dB (theoretical value). However, as shown in Fig. 3, there are two types of noise in an amplifier: one that accompanies the voltage and the other that accompanies the current. It is therefore necessary to subtract the overall noise components.

Contrary to the voltage noise, the current noise is in direct proportion to the thermal noise of the signal source resistance, and so it is necessary to determine the number of parallel connections which agrees with the signal source resistance.

- \* Voltage noise (noise unrelated to the signal source resistance)
- \* Current noise (noise which increases in direct proportion to the signal source resistance)
- \* Thermal noise of the signal source resistance (noise which increases in proportion to the square root of the signal source resistance).

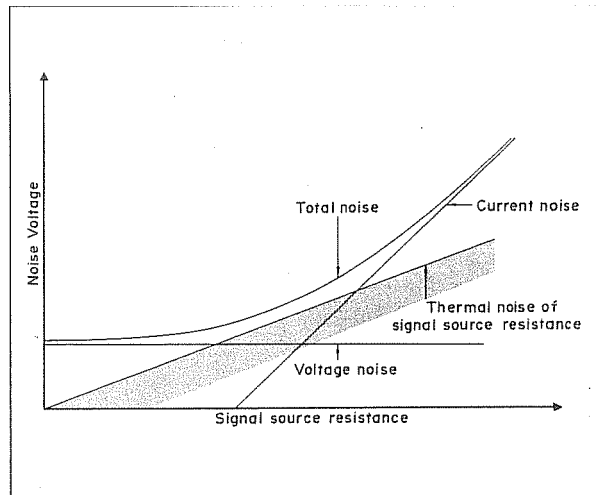
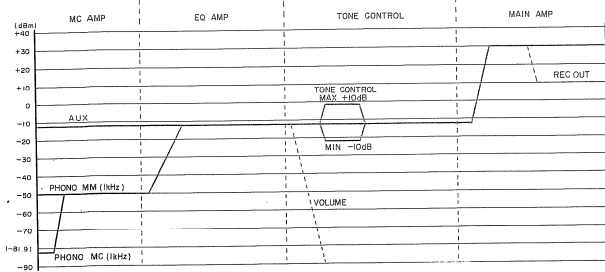
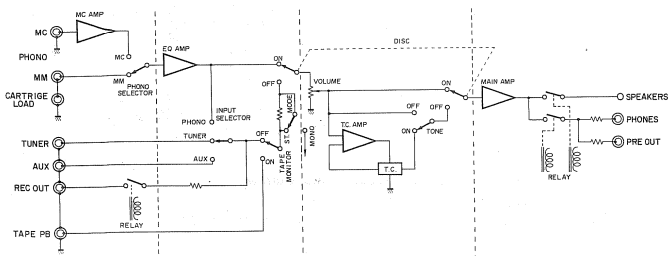


Fig. 3

## BLOCK DIAGRAM/LEVEL DIAGRAM

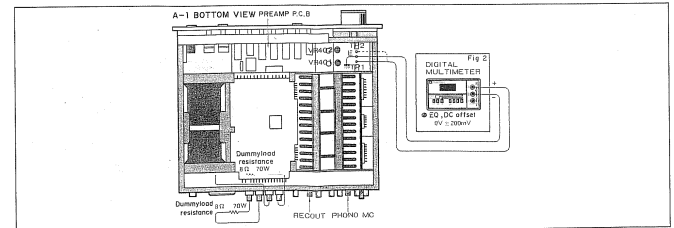
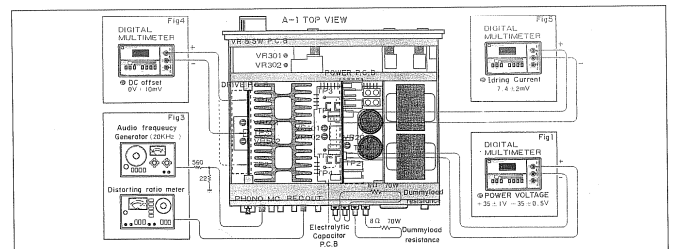


## ADJUSTMENT

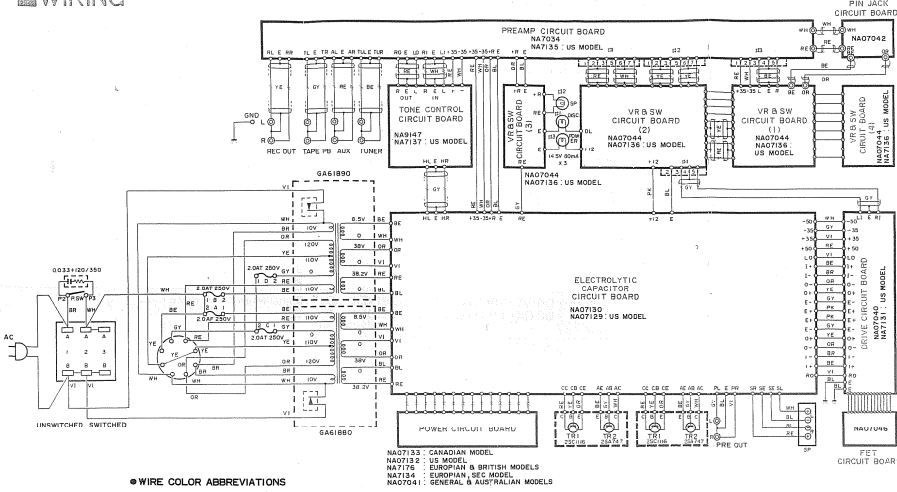
### BEFORE MEASUREMENT

- After the power switch is push on, wait 3 ~ 4 minutes before measuring, to be sure of the most stable operation.
- Connect dummyload resistance (70W) to the speaker terminals.
- VOLUME CONTROL → MIN

STEP	ADJUSTMENT ITEM	ADJUSTMENT	INSTRUMENTS	TERMINALS/TEST POINT	PATING OR STANDARD	RE-MARKS
1	POWER Supply Voltage	POWER P.C.B	Digital Multi Meter	POWER R.C.B	+35 ± 1V -35 ± -0.5V	Fig. 1
2	EQALIZER AMP DC Offset Voltage	PRE AMP P.L.B VR401 (L CH) VR402 (R CH)	Digital Multi Meter	PRE AMP P.C.B TP1 (L CH) TP2 (R CH)	0V ± 200mV	Fig. 2
3	MC AMP Distortion	VR & SW P.C.B VR301 (L CH) VR302 (R CH)	Audio Frequency Generator 20KHz Distortion ratio Meter	REC OUT JACK (20KHz, 3V)	Distortion → Min	Fig. 3
4	DRIVE CIRCUIT DC Offset Voltage	DRIVE P.C.B VR501 (L CH) VR502 (R CH)	Digital Multi Meter	DRIVE P.C.B TP1, TP2 (L CH) TP2, TP4 (R CH)	0V ± 10mV	Fig. 4
5	POWER AMP Indring Current	Electrolytic Capacitor P.C.B VR101 (L CH) VR102 (R CH)	Digital Multi Meter	Electrolytic Capacitor P.C.B TP1, TP3 (L CH) TP2, TP4 (R CH)	7.4 ± 2mV	Fig. 5



**WIRING**

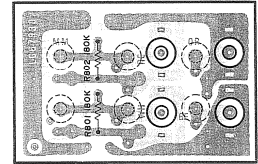


**WIRE COLOR ABBREVIATIONS**

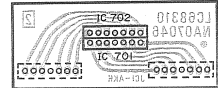
- BL ▶ Black
- BR ▶ Brown
- RE ▶ Red
- OR ▶ Orange
- YE ▶ Yellow
- GR ▶ Green
- BE ▶ Blue
- VI ▶ Violet
- GY ▶ Gray
- WH ▶ White
- GG ▶ Grass Green
- SB ▶ Sky Blue
- PK ▶ Pink

**PRINTED CIRCUIT BOARDS**

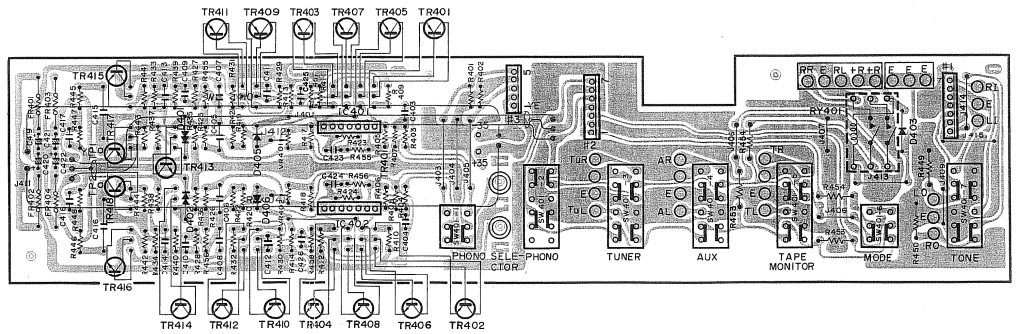
1. PINJACK CIRCUIT BOARD NA07042



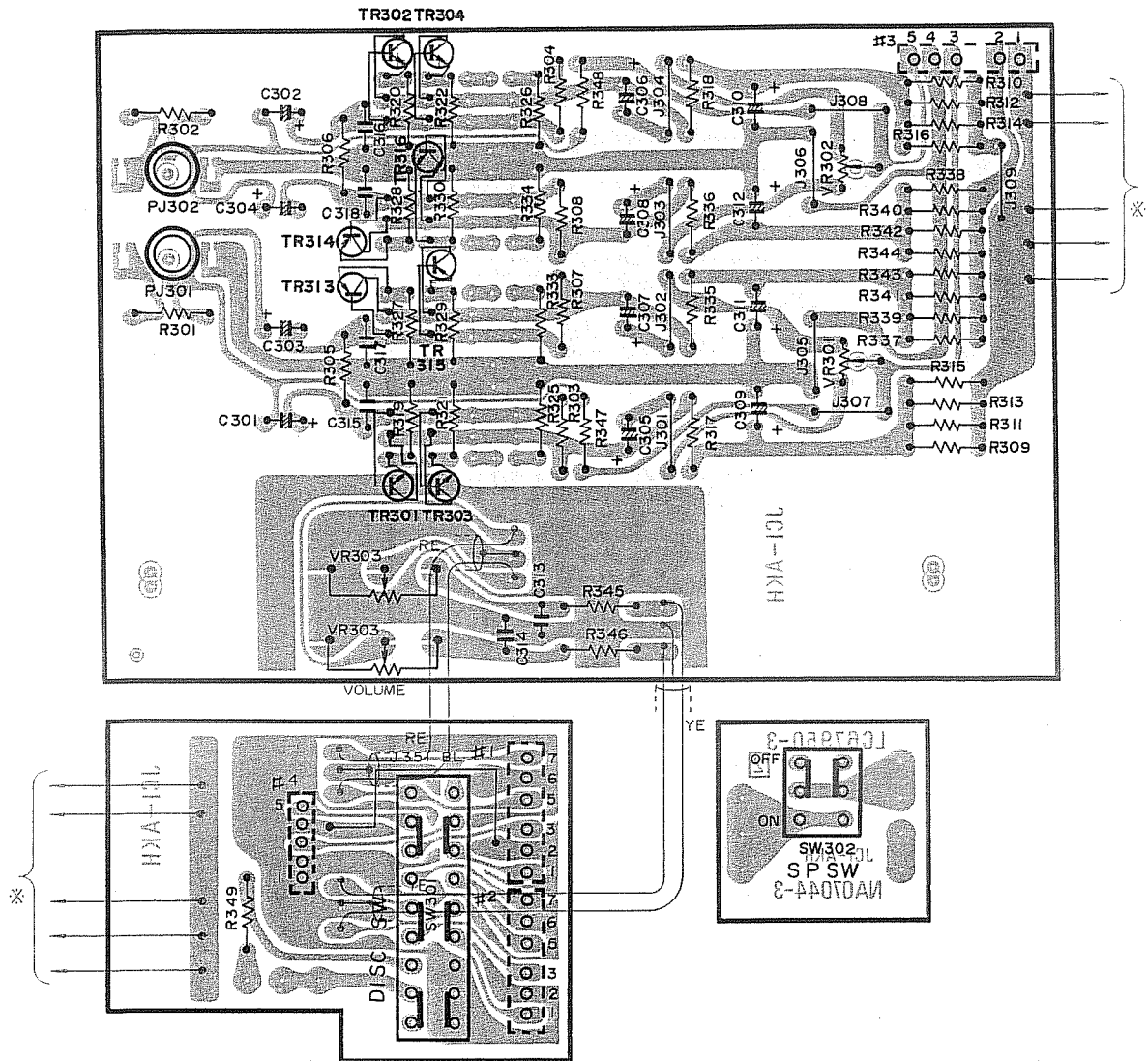
2. FET CIRCUIT BOARD NA07046



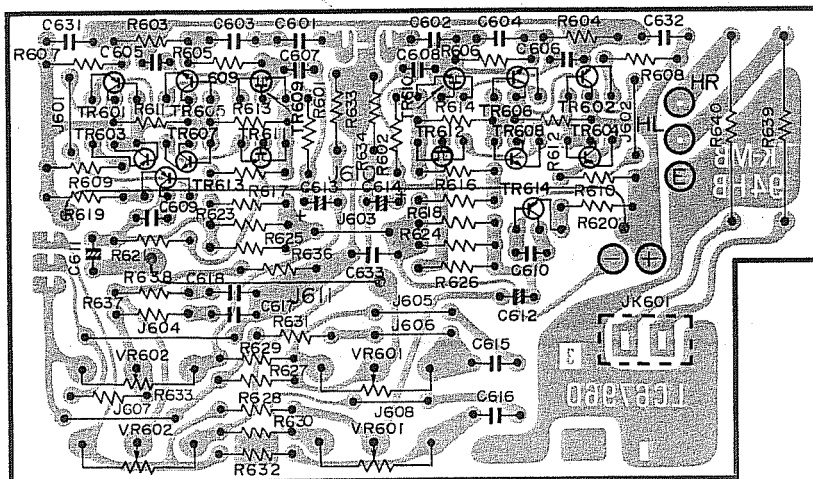
3. PREAMP CIRCUIT BOARD NA07043, NA07135: US model



4. VR & SW CIRCUIT BOARD NA07044, NA07035: US model only



5. TONE CONTROL CIRCUIT BOARD NA07045

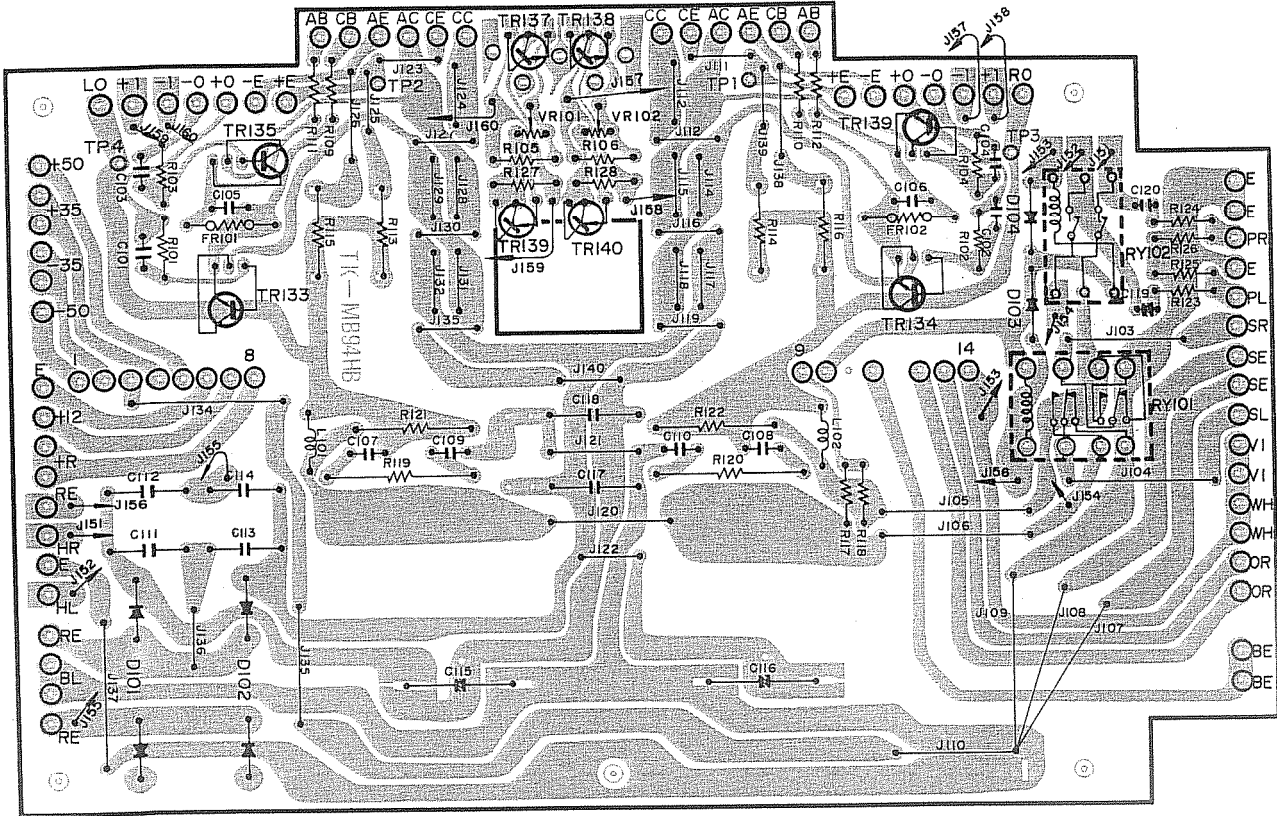






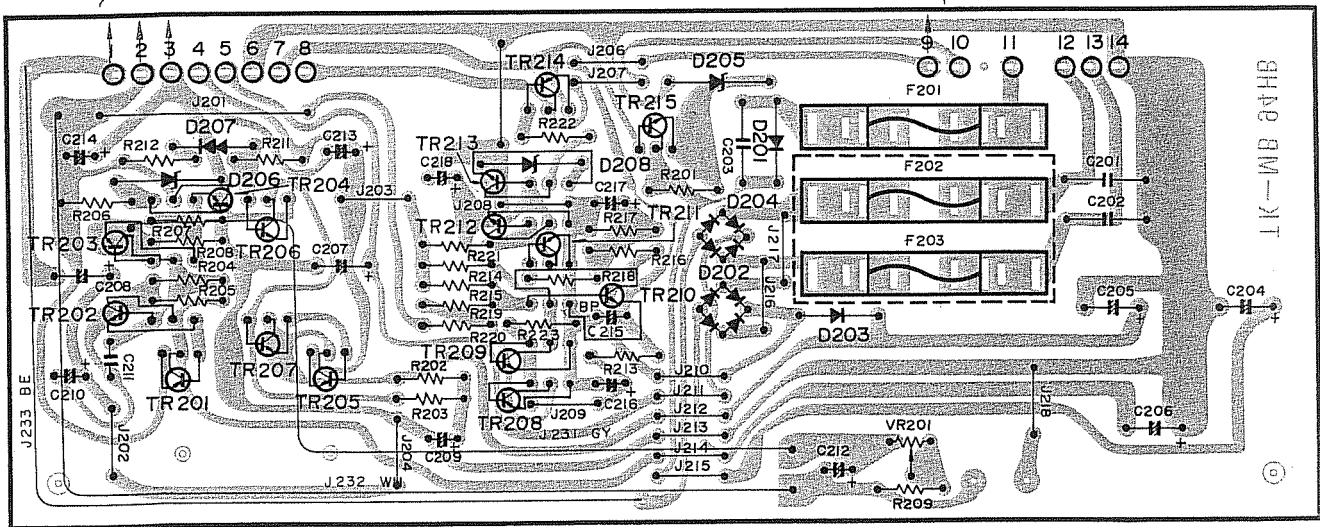


7. ELECTROLYTIC CAPACITOR CIRCUIT BOARD NA07130, NA07129: US model only



8. POWER CIRCUIT BOARD NA07041: GENERAL models, NA07132: US model  
 NA07133: CANADIAN model, NA07134: EUROPEAN, PC model  
 NA07176: EUROPEAN model

TO ELECTROLYTIC CAPACITOR  
 CIRCUIT BOARD



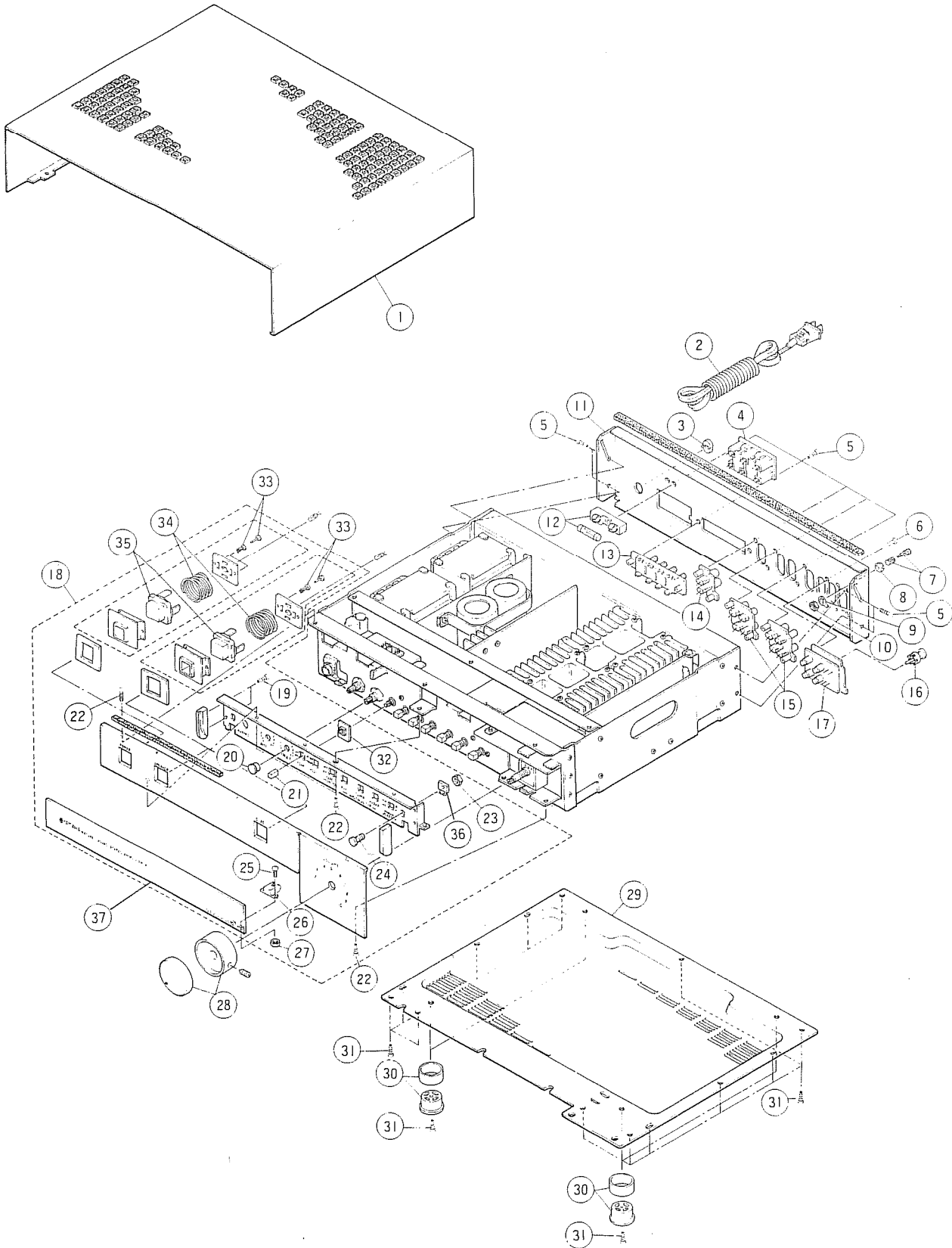
→ F202, 203: GENERAL, AUSTRALIAN, EUROPEAN,  
 BRITISH models

MODELS	F201, 202, 203
GENERAL AUSTRALIAN	1.0A/125V
US & CANADIAN	1A/250V
EUROPEAN, BRITISH, ESPEC	800mA/250V

# PARTS LIST

**A-1**

■ Exploded view

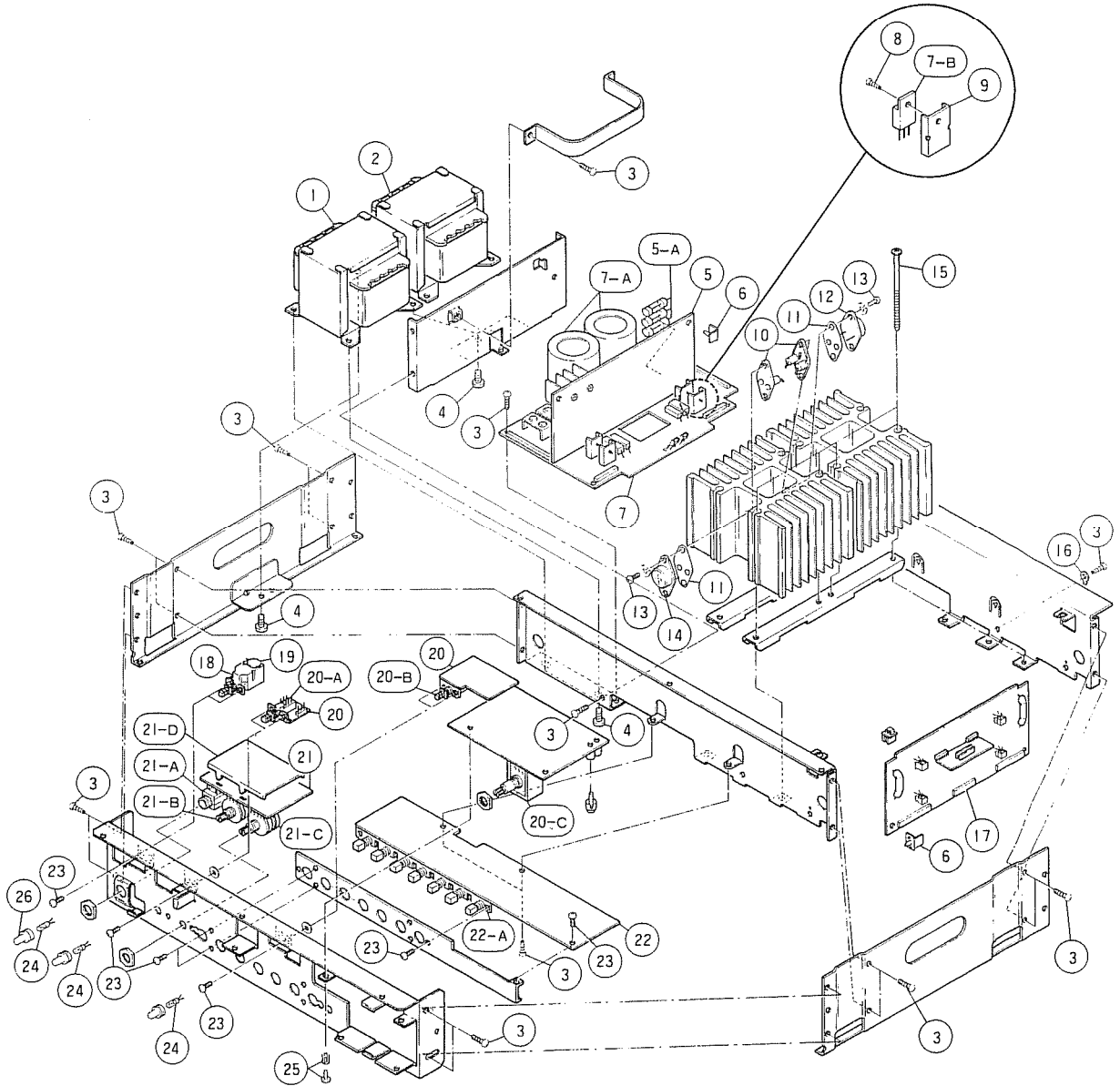


# Parts List

Ref. No.	Part No.	Description	Markets	Remarks
* 1	32:00:00:AA:09:30:80	Topcover		
* 2	42:00:00:MG:00:03:40	AC Cord 8F 105°C	R, U, C	
	42:00:00:MG:00:04:60	-do.- VM0077 6A	E, G	
	42:00:00:MG:00:08:50	-do.- type A4, 7.5A 240V	A	
	32:00:00:MZ:07:28:90	AC Cord Ass'y	B	
3	42:00:00:CB:07:27:50	Cord Stopper SR-4N-4	B	
	42:00:00:CB:06:86:30	-do.- SR-3P-4	R, U, A, E, G, C	
4	42:00:00:LB:60:18:80	AC Socket	R, U, C	
5	42:00:00:EN:33:00:10	Bind Head Tapping Screw M3 x 8 FCM3-BL		
6	42:00:00:ED:33:00:60	Bind Head Screw M3 x 6 FCM3-BL		
7	32:00:00:NB:08:14:80	Terminal Ass'y		
8	32:00:00:CB:07:81:70	Saucer		
9	42:00:00:LA:00:02:80	Earth Lug 3 mm FCM3-BL		
10	42:00:00:EV:10:33:00	Hexagonal Nut M3 FCM3-BL		
* 11	32:00:00:AA:09:31:00	Rear Panel	R	
	32:00:00:AA:09:31:10	-do.-	U, C	
	32:00:00:AA:09:31:20	-do.-	A	
	32:00:00:AA:09:31:30	-do.-	E	
	32:00:00:AA:09:31:40	-do.-	G	
	32:00:00:AA:09:31:50	-do.-	B	
* 12	42:00:00:LB:20:12:10	Fuse Holder	R	
	42:00:00:LB:20:13:00	-do.-	U, A, C	
	42:00:00:LB:20:14:70	-do.-	E, G, B	
* 13	42:00:00:LA:00:23:10	Speaker Terminal (4P)		
* 14	42:00:00:LB:20:11:40	Pin-Jack (2P)		
15	42:00:00:LB:40:03:90	-do.- (4P)		
16	42:00:00:LB:10:01:80	Short plug		
* 17	32:00:00:NA:07:04:20	<b>Pin-Jack C. Board</b>		
* 18	32:00:00:NB:08:60:30	Panel Unit	R, A, E, C, B	
	32:00:00:NB:08:60:40	-do.-	U	
19	42:00:00:EN:03:00:20	Bind Head Tapping Screw M3 x 8 ZMC2-Y		
* 20	32:00:00:BA:07:22:80	Knob, Tone Control		
* 21	32:00:00:CB:08:68:90	Push Button		
22	42:00:00:EI:23:00:80	Bind Head Tapping Screw M3 x 8 FCrM3-3g		
* 23	32:00:00:AA:09:07:10	Hexagonal Nut M5		
* 24	32:00:00:BA:07:34:70	Screw # 7347		
25	42:00:00:EA:23:00:60	Pan Head Screw M3 x 6 FCrM3-3g		
* 26	32:00:00:CB:08:69:00	Shaft for Rolling Panel		
27	42:00:00:EV:10:20:30	Hexagonal Nut M3 FCrM3-3g		
* 28	32:00:00:NB:08:57:90	Knob Ass'y		
* 29	32:00:00:AA:09:30:90	Bottom Cover		
* 30	32:00:00:NB:07:94:90	Leg Ass'y		
31	42:00:00:EN:03:00:20	Bind Head Tapping Screw M3 x 8 ZMC2-Y		
* 32	32:00:00:CB:07:45:10	Push Button Frame		
33	32:00:00:CB:06:88:80	Plastic Rivet		
* 34	32:00:00:AA:08:99:80	Spring for Push Botton		
* 35	32:00:00:CB:08:36:40	Push Button		
* 36	32:00:00:CB:08:69:10	Shaft Holder		
37	32:00:00:BA:07:34:20	Rolling Panel		

\*New parts

■ Exploded view



# Parts List

Ref. No.	Part No.	Description	Markets	Remarks
* 1	42:00:00:GA:61:86:00	Transformer Front	U, C	
	42:00:00:GA:61:88:00	--do.-- --do.--	R, E	
	42:00:00:GA:61:90:00	--do.-- --do.--	G	
	42:00:00:GA:61:92:00	--do.-- --do.--	A, B	
* 2	42:00:00:GA:61:87:00	--do.-- Rear	U, C	
	42:00:00:GA:61:89:00	--do.-- --do.--	R, E	
	42:00:00:GA:61:91:00	--do.-- --do.--	G	
	42:00:00:GA:61:93:00	--do.-- --do.--	A, B	
3	42:00:00:EN:33:00:10	Bind Head Tapping Screw M3 x 8 FCM3-BL		
4	42:00:00:EZ:00:03:90	Blaze-Washer Head Screw M4 x 8 ZMC2-Y		
* 5	32:00:00:NA:07:04:10	<b>Power Supply C. Board</b>	R, A	
	32:00:00:NA:07:13:20	--do.--	U	
	32:00:00:NA:07:13:30	--do.--	C	
	32:00:00:NA:07:13:40	--do.--	E, G, B	
F201	42:00:00:KB:00:01:00	Fuse 1.0AT 125V	R, A	
F202	42:00:00:KB:00:10:60	--do.-- 1A 250V ST-4	U, C	
F203	42:00:00:KB:00:07:20	--do.-- 800mA 250V	E, G, B	
* 6	32:00:00:CB:08:77:90	C. Board Holder		
* 7	32:00:00:NA:07:12:90	<b>Electrolytic Cap. C. Board</b>	U	
	32:00:00:NA:07:13:00	--do.--	R, A, E, G, C, B	
* C115	42:00:00:FZ:00:11:80	Electrolytic Cap. Lug Type 18000 $\mu$ F / 63V		
C116	42:00:00:FZ:00:11:80	--do.--		
Tr135	42:00:00:IA:09:13:00	Transistor 2SA913		
Tr136	42:00:00:IA:09:13:00	--do.-- --do.--		
8	42:00:00:EN:03:00:20	Pan Head Tapping Screw M3 x 8 ZMC2-Y		
9	32:00:00:BA:06:27:60	Radistor		
10	42:00:00:LB:30:04:90	Transistor Socket		
11	42:00:00:IL:00:02:30	Mica Base		
12	42:00:00:IA:07:47:10	Transistor 2SA747		
13	42:00:00:EZ:33:01:60	BW Head Screw M3 x 16 FNM3-3m		
14	42:00:00:IC:11:16:10	Transistor 2SC1116		
15	42:00:00:EA:34:08:70	Pan Head Screw M4 x 87 FCM3-BL		
16	42:00:00:LA:00:02:80	Earth Lug $\phi$ 3 mm		
* 17	32:00:00:NA:07:04:00	<b>Drive C. Board</b>	R, A, E, G, C, B	
	32:00:00:NA:07:13:10	--do.--	U	
* 18	42:00:00:KA:80:04:90	Power Switch 125V 15A		
19	42:00:00:FZ:00:09:70	Ceramic Cap. 0.01 $\mu$ F / 150V		
* 20	32:00:00:NA:07:04:40	<b>VR &amp; SW C. Board</b>	R, A, E, G, C, B	
	32:00:00:NA:07:13:60	--do.--	U	
* SW301	42:00:00:KA:80:04:70	Push Switch for Speaker		
* SW302	42:00:00:KA:80:04:80	Push Switch for Disk		
* VR303	42:00:00:HY:00:06:50	Variable Resistor A-50K		
*	32:00:00:BB:06:63:40	Sealed Plate		
* 21	32:00:00:NA:07:13:70	<b>Tone Control C. Board</b>	U	
	32:00:00:NA:07:14:70	--do.--	R, A, E, G, C, B	
* JK601	42:00:00:LB:30:06:40	Headphone Jack JK601		
* VR601	42:00:00:HS:32:04:20	VR Bass Control B30K x 2		
* VR602	42:00:00:HS:32:04:80	VR Treble Control W-10K x 2		

\* New parts



Ref. No.	Part No.	Description	Markets	Remarks	
*	5	32:00:00:NA:07:04:10	Power Supply C. Board	R, A	
		32:00:00:NA:07:13:20	-do.-	U	
		32:00:00:NA:07:13:30	-do.-	C	
		32:00:00:NA:07:13:40	-do.-	E, G B	
Tr201	42:00:00:iB:05:66:00	Transistor 2SB566			
Tr202	42:00:00:iA:08:72:00	-do.- 2SA872			
Tr203	42:00:00:iA:08:72:00	-do.- -do.-			
Tr204	42:00:00:iA:08:72:00	-do.- -do.-			
Tr205	42:00:00:iD:04:76:00	-do.- 2SD476A			
Tr206	42:00:00:iC:17:75:00	-do.- 2SC1775			
Tr207	42:00:00:iC:17:75:00	-do.- -do.-			
Tr208	42:00:00:iA:08:44:10	-do.- 2SA844			
Tr209	42:00:00:iC:19:18:00	-do.- 2SC1918			
Tr210	42:00:00:iC:19:18:00	-do.- -do.-			
Tr211	42:00:00:iC:19:18:00	-do.- -do.-			
Tr212	42:00:00:iC:12:13:10	-do.- 2SC1213A			
Tr213	42:00:00:iC:19:18:00	-do.- 2SC1918			
Tr214	42:00:00:iA:06:73:10	-do.- 2SC673A			
Tr215	42:00:00:iD:05:26:30	-do.- 2SD526			
D201	42:00:00:iH:00:02:40	Diode 1S1815			
D202	42:00:00:iH:00:04:70	-do.- 1D431			
D203	42:00:00:iH:00:02:40	-do.- 1S1815			
D204	42:00:00:iH:00:04:70	-do.- 1D431			
D205	42:00:00:iF:00:03:50	Zener Diode WZ-130			
D206	42:00:00:iF:00:05:70	-do.- HZ-6C			
D207	42:00:00:iF:00:07:70	-do.- VD1212			
D208	42:00:00:iF:00:05:70	-do.- HZ-6C			
C201	42:00:00:FZ:00:06:80	MM Cap. 0.1 $\mu$ F / 250V			
C202	42:00:00:FZ:00:06:80	-do.- -do.-			
C203	42:00:00:FZ:00:06:80	-do.- -do.-			
C204	42:00:00:FJ:14:91:00	Electrolytic Cap. 1000 $\mu$ F / 25V			
C205	42:00:00:FJ:17:84:70	-do.- 470 $\mu$ F / 63V			
C206	42:00:00:FJ:17:84:70	-do.- -do.-			
C207	42:00:00:FJ:17:84:70	-do.- -do.-			
C208	42:00:00:FJ:17:84:70	-do.- -do.-			
C209	42:00:00:FJ:16:74:70	-do.- 47 $\mu$ F / 50V			
C210	42:00:00:FJ:16:74:70	-do.- -do.-			
C211	42:00:00:FA:11:41:00	Mylar Cap. 0.01 $\mu$ F / 50V MS (K)			
C212	42:00:00:FJ:15:71:00	Electrolytic Cap. 1000 $\mu$ F / 25V			
C213	42:00:00:FJ:16:74:70	-do.- 47 $\mu$ F / 50V			
C214	42:00:00:FJ:16:74:70	-do.- -do.-			
C215	42:00:00:FM:11:71:00	Bipolar Cap. 10 $\mu$ F / 50V			
C216	42:00:00:FZ:00:04:70	Electrolytic Cap. 10 $\mu$ F / 16V MS			
C217	42:00:00:FZ:00:02:50	-do.- 0.47 $\mu$ F / 50V MS			
C218	42:00:00:FM:39:81:00	-do.- 100 $\mu$ F / 16V Z			
R201	42:00:00:HK:15:54:70	Carbon Resistor 470 $\Omega$			
R202	42:00:00:HK:15:66:80	-do.- 6.8K $\Omega$			
R203	42:00:00:HK:15:68:20	-do.- 8.2K $\Omega$			
R204	42:00:00:HK:15:68:20	-do.- -do.-			
R205	42:00:00:HK:15:66:80	-do.- 6.8K $\Omega$			
R206	42:00:00:HK:15:73:30	-do.- 33K $\Omega$			
R207	42:00:00:HK:15:62:20	-do.- 2.2K $\Omega$			
R208	42:00:00:HK:15:61:50	-do.- 1.5K $\Omega$			

\*New parts





Ref. No.	Part No.	Description	Markets	Remarks
* 7	32:00:00:NA:07:12:90	Electrolytic Cap. C. Board	U	
	32:00:00:NA:07:13:00	-do.-	R, A, E, G, C, B	
Tr133	42:00:00:IC:19:13:00	Transistor 2SC1913		
Tr134	42:00:00:IC:19:13:00	-do.- -do.-		
Tr135	42:00:00:IA:09:13:00	-do.- 2SA913		
Tr136	42:00:00:IA:09:13:00	-do.- -do.-		
Tr137	42:00:00:IC:12:13:10	-do.- 2SC1213A		
Tr138	42:00:00:IC:12:13:10	-do.- -do.-		
D101	42:00:00:iH:00:02:10	Diode S-5151		
D102	42:00:00:iH:00:02:20	-do.- S-5151R		
D103	42:00:00:iF:00:00:40	-do.- 1S1555		
D104	42:00:00:iF:00:00:40	-do.- -do.-		
C101	42:00:00:FD:15:23:30	Polystyrene Cap. 330 $\mu$ F / 500V (J)		
C102	42:00:00:FD:15:23:30	-do.- -do.-		
C103	42:00:00:FD:15:23:30	-do.- -do.-		
C104	42:00:00:FD:15:23:30	-do.- -do.-		
C105	42:00:00:FA:11:45:60	Mylar Cap. 0.056 $\mu$ F / 50V MS (K)		
C106	42:00:00:FA:11:45:60	-do.- -do.-		
C107	42:00:00:FA:11:51:00	-do.- 0.1 $\mu$ F / 50V MS (K)		
C108	42:00:00:FA:11:51:00	-do.- -do.-		
C109	42:00:00:FA:11:51:00	-do.- -do.-		
C110	42:00:00:FA:11:51:00	-do.- -do.-		
C111	42:00:00:FZ:00:06:80	MM Cap. 0.1 $\mu$ F / 250V		
C112	42:00:00:FZ:00:06:80	-do.- -do.-		
C113	42:00:00:FZ:00:06:80	-do.- -do.-		
C114	42:00:00:FZ:00:06:80	-do.- -do.-		
C115	42:00:00:FZ:00:11:80	Electrolytic Cap. Lug Type 18000 $\mu$ F / 63V		
C116	42:00:00:FZ:00:11:80	-do.- -do.-		
* C117	42:00:00:FC:12:62:20	Metalized Polyester Film Cap. 2.2 $\mu$ F / 100V		
C118	42:00:00:FC:12:62:20	-do.- -do.-		
* C119	42:00:00:FM:09:71:00	Bi-Polar Electrolytic Cap. 10 $\mu$ F / 16V		
C120	42:00:00:FM:09:71:00	-do.- -do.-		
L101	42:00:00:GD:90:00:50	Coil 3 $\mu$ H		
L102	42:00:00:GD:90:00:50	-do.- -do.-		
R101	42:00:00:HK:15:53:30	Carbon Resistor 330 $\Omega$		
R102	42:00:00:HK:15:53:30	-do.- -do.-		
R103	42:00:00:HK:15:53:30	-do.- -do.-		
R104	42:00:00:HK:15:53:30	-do.- -do.-		
R105	42:00:00:HK:15:58:20	-do.- 820 $\Omega$		
R106	42:00:00:HK:15:58:20	-do.- -do.-		
R109	42:00:00:HK:15:34:70	-do.- 4.7 $\Omega$		
R110	42:00:00:HK:15:34:70	-do.- -do.-		
R111	42:00:00:HK:15:34:70	-do.- -do.-		
R112	42:00:00:HK:15:34:70	-do.- -do.-		
R113	42:00:00:HM:05:24:70	Cement Molded Resistor 5P 0.47 $\Omega$		
R114	42:00:00:HM:05:24:70	-do.- -do.-		
R115	42:00:00:HM:05:24:70	-do.- -do.-		
R116	42:00:00:HM:05:24:70	-do.- -do.-		
R117	42:00:00:HK:15:72:20	Carbon Resistor 22K $\Omega$		
R118	42:00:00:HK:15:72:20	-do.- -do.-		
R119	42:00:00:HL:62:41:00	Metal Oxide Resistor 2P 10 $\Omega$		
R120	42:00:00:HU:62:41:00	-do.- -do.-		
R121	42:00:00:HZ:00:07:10	-do.- 1P 4.7 $\Omega$		

\*New parts



Ref. No.	Part No.	Description	Markets	Remarks
* 17	32:00:00:NA:07:04:00	Drive C. Board	R, A, E, G, C, B	
	32:00:00:NA:07:13:10	-do.-	U	
Tr501	42:00:00:iC:17:75:00	Transistor 2SC1775		
Tr502	42:00:00:iC:17:75:00	-do.-		
Tr503	42:00:00:iC:17:75:00	-do.-		
Tr504	42:00:00:iC:17:75:00	-do.-		
Tr505	42:00:00:iC:17:75:00	-do.-		
Tr506	42:00:00:iC:17:75:00	-do.-		
Tr507	42:00:00:iC:17:75:00	-do.-		
Tr508	42:00:00:iC:17:75:00	-do.-		
Tr509	42:00:00:iA:08:72:00	-do.- 2SA872		
Tr510	42:00:00:iA:08:72:00	-do.-		
Tr511	42:00:00:iA:06:73:30	-do.- 2SA673A, C, D		
Tr512	42:00:00:iA:06:73:30	-do.-		
Tr513	42:00:00:iA:06:73:30	-do.-		
Tr514	42:00:00:iA:06:73:30	-do.-		
Tr515	42:00:00:iA:09:14:50	-do.- 2SA914Q, R, S, T		
Tr516	42:00:00:iA:09:14:50	-do.-		
Tr517	42:00:00:iA:09:14:50	-do.-		
Tr518	42:00:00:iA:09:14:50	-do.-		
Tr519	42:00:00:iC:19:53:50	-do.- 2SC1953Q, R, S, T		
Tr520	42:00:00:iC:19:53:50	-do.-		
Tr521	42:00:00:iC:12:13:10	-do.- 2SC1213A		
Tr522	42:00:00:iC:12:13:10	-do.-		
Tr523	42:00:00:iC:12:13:10	-do.-		
Tr524	42:00:00:iC:12:13:10	-do.-		
Tr525	42:00:00:iA:09:14:50	-do.- 2SA914Q, R, S, T		
Tr526	42:00:00:iA:09:14:50	-do.-		
Tr527	42:00:00:iC:19:53:50	-do.- 2SC1953Q, R, S, T		
Tr528	42:00:00:iC:19:53:50	-do.-		
Tr529	42:00:00:iC:07:34:30	-do.- 2SC734		
Tr530	42:00:00:iC:07:34:30	-do.-		
Tr531	42:00:00:iA:05:61:70	-do.- 2SA561		
Tr532	42:00:00:iA:05:61:70	-do.-		
D501	42:00:00:iF:00:00:40	Diode IS1555		
D502	42:00:00:iF:00:00:40	-do.-		
D503	42:00:00:iF:00:00:40	-do.-		
D504	42:00:00:iF:00:00:40	-do.-		
D505	42:00:00:iF:00:05:70	Zener Diode HZ6C		
D506	42:00:00:iF:00:05:70	-do.-		
D507	42:00:00:iF:00:05:70	-do.-		
D508	42:00:00:iF:00:05:70	-do.-		
D509	42:00:00:iF:00:00:40	Diode IS1555		
D510	42:00:00:iF:00:00:40	-do.-		
D511	42:00:00:iF:00:00:40	-do.-		
D512	42:00:00:iF:00:00:40	-do.-		
D513	42:00:00:iF:00:00:40	-do.-		
D514	42:00:00:iF:00:00:40	-do.-		
D515	42:00:00:iF:00:00:40	-do.-		
D516	42:00:00:iF:00:00:40	-do.-		
D517	42:00:00:iF:00:00:40	-do.-		
D518	42:00:00:iF:00:00:40	-do.-		
D519	42:00:00:iF:00:00:40	-do.-		

\*New parts

Ref. No.	Part No.	Description	Markets	Remarks
D520	42:00:00: iF 00:00:40	Diode 1S1555		
C501	42:00:00: FZ 00:06:80	MM Cap. 0.1 $\mu$ F / 250V		
C502	42:00:00: FZ 00:06:80	-do.- -do.-		
C503	42:00:00: FZ 00:06:80	-do.- -do.-		
C504	42:00:00: FZ 00:06:80	-do.- -do.-		
C505	42:00:00: FA 11:31:50	Mylar Cap. 0.0015 $\mu$ F/50V MS (K)		
C506	42:00:00: FA 11:31:50	-do.- -do.-		
C507	42:00:00: FD 15:13:30	Polystyrene Cap. 33 $\mu$ F / 50V (J)		
C508	42:00:00: FD 15:13:30	-do.- -do.-		
C511	42:00:00: FF 06:11:20	-do.- 12pF / 125V		
C512	42:00:00: FF 06:11:20	-do.- -do.-		
C513	42:00:00: FA 11:41:00	Mylar Cap. 0.01 $\mu$ F / 50V MS (K)		
C514	42:00:00: FA 11:41:00	-do.- -do.-		
C515	42:00:00: FF 06:11:50	Polystyrene Cap. 15pF / 125V		
C516	42:00:00: FF 06:11:50	-do.- -do.-		
C519	42:00:00: FF 06:07:00	-do.- 7pF / 125V		
C520	42:00:00: FF 06:07:00	-do.- -do.-		
C523	42:00:00: FA 11:41:00	Mylar Cap. 0.01 $\mu$ F / 50V MS (K)		
C524	42:00:00: FA 11:41:00	-do.- -do.-		
C525	42:00:00: FA 11:34:70	-do.- 0.0047 $\mu$ F/50V MS (K)		
C526	42:00:00: FA 11:34:70	-do.- -do.-		
C531	42:00:00: FA 11:34:70	-do.- -do.-		
C532	42:00:00: FA 11:34:70	-do.- -do.-		
C533	42:00:00: FZ 00:06:80	MM Cap. 0.1 $\mu$ F / 250V		
C534	42:00:00: FZ 00:06:80	-do.- -do.-		
C535	42:00:00: FZ 00:06:80	-do.- -do.-		
C536	42:00:00: FZ 00:06:80	-do.- -do.-		
R501	42:00:00: HK 15:82:20	Carbon Resistor 220K $\Omega$		
R502	42:00:00: HK 15:82:20	-do.- -do.-		
R503	42:00:00: HK 15:53:30	-do.- 330 $\Omega$		
R504	42:00:00: HK 15:53:30	-do.- -do.-		
R505	42:00:00: HK 15:62:20	-do.- 2.2K $\Omega$		
R506	42:00:00: HK 15:62:20	-do.- -do.-		
R507	42:00:00: HK 15:62:20	-do.- -do.-		
R508	42:00:00: HK 15:62:20	-do.- -do.-		
R509	42:00:00: HK 15:51:50	-do.- 150 $\Omega$		
R510	42:00:00: HK 15:51:50	-do.- -do.-		
R511	42:00:00: HK 15:42:70	-do.- 27 $\Omega$		
R512	42:00:00: HK 15:42:70	-do.- -do.-		
R513	42:00:00: HK 15:64:70	-do.- 4.7K $\Omega$		
R514	42:00:00: HK 15:64:70	-do.- -do.-		
R515	42:00:00: HK 15:61:50	-do.- 1.5K $\Omega$		
R516	42:00:00: HK 15:61:50	-do.- -do.-		
R517	42:00:00: HK 15:52:20	-do.- 220 $\Omega$		
R518	42:00:00: HK 15:52:20	-do.- -do.-		
R519	42:00:00: HK 15:73:90	-do.- 39K $\Omega$		
R520	42:00:00: HK 15:73:90	-do.- -do.-		
R521	42:00:00: HK 15:62:70	-do.- 2.7K $\Omega$		
R522	42:00:00: HK 15:62:70	-do.- -do.-		
R523	42:00:00: HK 15:75:60	-do.- 56K $\Omega$		
R524	42:00:00: HK 15:75:60	-do.- -do.-		
R525	42:00:00: HK 15:72:70	-do.- 27K $\Omega$		
R526	42:00:00: HK 15:72:70	-do.- -do.-		

\*New parts

Ref. No.	Part No.	Description	Markets	Remarks
R527	42:00:00:HK:15:63:30	Carbon Resistor 3.3K $\Omega$		
R528	42:00:00:HK:15:63:30	-do.-		
R529	42:00:00:HK:15:74:70	-do.- 47K $\Omega$		
R530	42:00:00:HK:15:74:70	-do.-		
R531	42:00:00:HK:15:63:30	-do.- 3.3K $\Omega$		
R532	42:00:00:HK:15:63:30	-do.-		
R533	42:00:00:HK:15:52:20	-do.- 220 $\Omega$		
R534	42:00:00:HK:15:52:20	-do.-		
R535	42:00:00:HK:15:43:90	-do.- 39 $\Omega$		
R536	42:00:00:HK:15:43:90	-do.-		
R537	42:00:00:HK:15:43:90	-do.-		
R538	42:00:00:HK:15:43:90	-do.-		
R539	42:00:00:HL:62:64:70	Metal Oxide Resistor 4.7K $\Omega$ 2P		
R540	42:00:00:HL:62:64:70	-do.-		
R543	42:00:00:HK:15:54:70	Carbon Resistor 470 $\Omega$		
R544	42:00:00:HK:15:54:70	-do.-		
R545	42:00:00:HK:15:54:70	-do.-		
R546	42:00:00:HK:15:54:70	-do.-		
R547	42:00:00:HK:15:74:70	-do.- 47K $\Omega$		
R548	42:00:00:HK:15:74:70	-do.-		
R549	42:00:00:HK:15:75:60	-do.- 56K $\Omega$		
R550	42:00:00:HK:15:75:60	-do.-		
R555	42:00:00:HK:15:61:50	-do.- 1.5K $\Omega$		
R556	42:00:00:HK:15:61:50	-do.-		
R557	42:00:00:HK:15:64:70	-do.- 4.7K $\Omega$		
R558	42:00:00:HK:15:64:70	-do.-		
R559	42:00:00:HK:15:64:70	-do.-		
R560	42:00:00:HK:15:64:70	-do.-		
R561	42:00:00:HK:15:61:50	-do.- 1.5K $\Omega$		
R562	42:00:00:HK:15:61:50	-do.-		
R563	42:00:00:HL:42:65:60	Metal Oxide Resistor 5.6K $\Omega$ 2P		
R564	42:00:00:HL:42:65:60	-do.-		
R565	42:00:00:HL:62:65:60	-do.-		
R566	42:00:00:HL:62:65:60	-do.-		
R567	42:00:00:HK:55:61:50	Carbon Resistor 1.5K $\Omega$		
R568	42:00:00:HK:55:61:50	-do.-		
R569	42:00:00:HK:55:61:50	-do.-		
R570	42:00:00:HK:55:61:50	-do.-		
FR501	42:00:00:HW:19:44:70	Fuse Resistor 70mA		
FR502	42:00:00:HW:19:44:70	-do.-		
FR503	42:00:00:HW:19:44:70	-do.-		
FR504	42:00:00:HW:19:44:70	-do.-		
* VR501	42:00:00:HY:00:06:60	Metal Glaze VR B-100		
VR502	42:00:00:HY:00:06:60	-do.-		
	42:00:00:LB:10:01:10	Connect Pin		
	42:00:00:BB:06:62:80	Thermo Coupler		
*	32:00:00:NA:07:04:60	FET C. Board		
IC701	32:00:00:IE:10:11:30	FET 2SK-100C		
IC702	32:00:00:IE:10:11:30	-do.-		

\*New parts

Ref. No.	Part No.	Description	Markets	Remarks
* 20	32:00:00:NA:07:04:40	VR & SW C. Board	R, A, E, G, C, B	
	32:00:00:NA:07:13:60	-do.-	U	
Tr301	42:00:00:iC:23:00:00	Transistor 2SC2300		
Tr302	42:00:00:iC:23:00:00	-do.-		
Tr303	42:00:00:iC:23:00:00	-do.-		
Tr304	42:00:00:iC:23:00:00	-do.-		
Tr313	42:00:00:iA:09:98:00	-do.- 2SA998		
Tr314	42:00:00:iA:09:98:00	-do.-		
Tr315	42:00:00:iA:09:98:00	-do.-		
Tr316	42:00:00:iA:09:98:00	-do.-		
* C301	42:00:00:FZ:00:12:60	Electrolytic Cap. 220 $\mu$ F / 6.3V UKN		
C302	42:00:00:FZ:00:12:60	-do.-		
C303	42:00:00:FZ:00:12:60	-do.-		
C304	42:00:00:FZ:00:12:60	-do.-		
* C305	42:00:00:FZ:00:12:50	-do.- 47 $\mu$ F / 6.3V UKN		
C306	42:00:00:FZ:00:12:50	-do.-		
C307	42:00:00:FZ:00:12:50	-do.-		
C308	42:00:00:FZ:00:12:50	-do.-		
* C309	42:00:00:FJ:12:91:00	-do.- 1000 $\mu$ F / 10V		
C310	42:00:00:FJ:12:91:00	-do.-		
C311	42:00:00:FJ:12:91:00	-do.-		
C312	42:00:00:FJ:12:91:00	-do.-		
C313	42:00:00:FD:15:23:30	Polystyrene Cap. 330pF / 50V (J)		
C314	42:00:00:FD:15:23:30	-do.-		
* C315	42:00:00:FD:21:25:60	-do.- 560pF / 50V (K)		
C316	42:00:00:FD:21:25:60	-do.-		
C317	42:00:00:FD:21:25:60	-do.-		
C318	42:00:00:FD:21:25:60	-do.-		
R301	42:00:00:HK:15:61:00	Carbon Resistor 1K $\Omega$		
R302	42:00:00:HK:15:61:00	-do.-		
R303	42:00:00:HK:15:71:00	-do.- 10K $\Omega$		
R304	42:00:00:HK:15:71:00	-do.-		
R305	42:00:00:HK:15:64:70	-do.- 4.7K $\Omega$		
R306	42:00:00:HK:15:64:70	-do.-		
R307	42:00:00:HK:15:71:00	-do.- 10K $\Omega$		
R308	42:00:00:HK:15:71:00	-do.-		
R309	42:00:00:HK:15:68:20	-do.- 8.2K $\Omega$		
R310	42:00:00:HK:15:68:20	-do.-		
R311	42:00:00:HK:15:68:20	-do.-		
R312	42:00:00:HK:15:68:20	-do.-		
R313	42:00:00:HK:15:68:20	-do.-		
R314	42:00:00:HK:15:68:20	-do.-		
R315	42:00:00:HK:15:66:80	-do.- 6.8K $\Omega$		
R316	42:00:00:HK:15:66:80	-do.-		
R317	42:00:00:HK:15:51:80	-do.- 180 $\Omega$		
R318	42:00:00:HK:15:51:80	-do.-		
R319	42:00:00:HK:15:32:20	-do.- 2.2 $\Omega$		
R320	42:00:00:HK:15:32:20	-do.-		
R321	42:00:00:HK:15:32:20	-do.-		
R322	42:00:00:HK:15:32:20	-do.-		
R327	42:00:00:HK:15:32:20	-do.-		
R328	42:00:00:HK:15:32:20	-do.-		
R329	42:00:00:HK:15:32:20	-do.-		

\*New parts

Ref. No.	Part No.	Description	Markets	Remarks
R330	42:00:00:HK:15:32:20	Carbon Resistor 2.2Ω		
R335	42:00:00:HK:15:51:80	—do.— 180Ω		
R336	42:00:00:HK:15:51:80	—do.— —do.—		
R337	42:00:00:HK:15:68:20	—do.— 8.2KΩ		
R338	42:00:00:HK:15:68:20	—do.— —do.—		
R339	42:00:00:HK:15:68:20	—do.— —do.—		
R340	42:00:00:HK:15:68:20	—do.— —do.—		
R341	42:00:00:HK:15:68:20	—do.— —do.—		
R342	42:00:00:HK:15:68:20	—do.— —do.—		
R343	42:00:00:HK:15:66:80	—do.— 6.8KΩ		
R344	42:00:00:HK:15:66:80	—do.— —do.—		
R345	42:00:00:HK:15:52:20	—do.— 220Ω		
R346	42:00:00:HK:15:52:20	—do.— —do.—		
R347	42:00:00:HK:15:54:70	—do.— 470Ω		
R348	42:00:00:HK:15:54:70	—do.— —do.—		
R349	42:00:00:HK:15:34:70	—do.— 4.7Ω		
VR301	42:00:00:HT:41:00:10	Variable Resistor 10KΩ		
VR302	42:00:00:HT:41:00:10	—do.— —do.—		
VR303	42:00:00:HY:00:06:50	—do.— —do.—		
SW301	42:00:00:KA:80:04:70	Push Switch for Speaker		
SW302	42:00:00:KA:80:04:80	Push Switch for Disk		
PJ301	42:00:00:LB:10:04:40	Pin-Jack 1P SQ-3056-2		
PJ302	42:00:00:LB:10:04:40	—do.— —do.—		
	42:00:00:LA:00:21:10	Lapping Pin Type I 2P P = 5		
*	42:00:00:LB:50:02:20	Miniature Connector 5P		
	42:00:00:LA:00:24:40	Lapping Pin Type U 3P P = 5		
	42:00:00:LA:00:21:20	Lapping Pin Type L 3P P = 5		
	42:00:00:LB:60:17:80	Miniature Connector		
*	21 32:00:00:NA:07:13:70	Tone Control C. Board	U	
	32:00:00:NA:07:14:70	—do.—	R, A, E, G, C, B	
Tr601	42:00:00:iA:06:73:10	Transistor 2SA673A, C, D		
Tr602	42:00:00:iA:06:73:10	—do.— —do.—		
Tr603	42:00:00:iA:06:73:10	—do.— —do.—		
Tr604	42:00:00:iA:06:73:10	—do.— —do.—		
Tr605	42:00:00:iC:17:75:00	—do.— 2SC1775		
Tr606	42:00:00:iC:17:75:00	—do.— —do.—		
Tr607	42:00:00:iC:17:75:00	—do.— —do.—		
Tr608	42:00:00:iC:17:75:00	—do.— —do.—		
Tr609	42:00:00:iE:10:05:50	FET 2SK68A		
Tr610	42:00:00:iE:10:05:50	—do.— —do.—		
Tr611	42:00:00:iE:10:05:50	—do.— —do.—		
Tr612	42:00:00:iE:10:05:50	—do.— —do.—		
Tr613	42:00:00:iA:07:77:30	Transistor 2SA777Q, R		
Tr614	42:00:00:iA:07:77:30	—do.— —do.—		
C601	42:00:00:FA:15:44:70	Mylar Cap. 0.047μF / 50V (J)		
C602	42:00:00:FA:15:44:70	—do.— —do.—		
C603	42:00:00:FA:15:44:70	—do.— —do.—		
C604	42:00:00:FA:15:44:70	—do.— —do.—		
C605	42:00:00:FD:15:21:00	Polystyrene Cap. 100pF / 50V (J)		
C606	42:00:00:FD:15:21:00	—do.— —do.—		
C607	42:00:00:FD:15:21:00	—do.— —do.—		
C608	42:00:00:FD:15:21:00	—do.— —do.—		

\* New parts



Ref. No.	Part No.	Description	Markets	Remarks
C609	42:00:00:FF:06:12:20	Polystrene Cap. 22pF / 125V		
C610	42:00:00:FF:06:12:20	-do.- -do.-		
C611	42:00:00:FM:22:63:30	Bi-Polar Electrolytic Cap. 3.3μF / 25V		
C612	42:00:00:FM:22:63:30	-do.- -do.-		
C613	42:00:00:FJ:12:72:20	Electrolytic Cap. 22μF / 10V		
C614	42:00:00:FJ:12:72:20	-do.- -do.-		
C615	42:00:00:FA:11:45:60	Mylar Cap. 0.056μF / 50V (K)		
C616	42:00:00:FA:11:45:60	-do.- -do.-		
C617	42:00:00:FA:11:44:70	-do.- 0.047μF / 50V (K)		
C618	42:00:00:FA:11:44:70	-do.- -do.-		
C631	42:00:00:FA:11:41:00	-do.- 0.01μF / 50V (K)		
C632	42:00:00:FA:11:41:00	-do.- -do.-		
C633	42:00:00:FA:11:41:00	-do.- -do.-		
R601	42:00:00:HK:15:81:80	Carbon Resistor 180KΩ		
R602	42:00:00:HK:15:81:80	-do.- -do.-		
R603	42:00:00:HK:15:83:90	-do.- 390KΩ		
R604	42:00:00:HK:15:83:90	-do.- -do.-		
R605	42:00:00:HK:15:52:20	-do.- 220Ω		
R606	42:00:00:HK:15:52:20	-do.- -do.-		
R607	42:00:00:HK:15:52:20	-do.- -do.-		
R608	42:00:00:HK:15:52:20	-do.- -do.-		
R609	42:00:00:HK:15:52:20	-do.- -do.-		
R610	42:00:00:HK:15:52:20	-do.- -do.-		
R611	42:00:00:HK:15:75:60	-do.- 56KΩ		
R612	42:00:00:HK:15:75:60	-do.- -do.-		
R613	42:00:00:HK:15:71:20	-do.- 12KΩ		
R614	42:00:00:HK:15:71:20	-do.- -do.-		
R615	42:00:00:HK:15:63:90	-do.- 3.9KΩ		
R616	42:00:00:HK:15:63:90	-do.- -do.-		
R617	42:00:00:HK:15:63:90	-do.- -do.-		
R618	42:00:00:HK:15:63:90	-do.- -do.-		
R619	42:00:00:HK:15:44:70	-do.- 47Ω		
R620	42:00:00:HK:15:44:70	-do.- -do.-		
R621	42:00:00:HK:15:81:00	-do.- 100KΩ		
R622	42:00:00:HK:15:81:00	-do.- -do.-		
R623	42:00:00:HK:15:71:00	-do.- 10KΩ		
R624	42:00:00:HK:15:71:00	-do.- -do.-		
R625	42:00:00:HK:15:71:00	-do.- -do.-		
R626	42:00:00:HK:15:71:00	-do.- -do.-		
R627	42:00:00:HK:15:81:00	-do.- 100KΩ		
R628	42:00:00:HK:15:81:00	-do.- -do.-		
R629	42:00:00:HK:15:66:80	-do.- 6.8KΩ		
R630	42:00:00:HK:15:66:80	-do.- -do.-		
R631	42:00:00:HK:15:66:80	-do.- -do.-		
R632	42:00:00:HK:15:66:80	-do.- -do.-		
R633	42:00:00:HK:15:61:00	-do.- 1KΩ		
R634	42:00:00:HK:15:61:00	-do.- -do.-		
R635	42:00:00:HK:15:92:20	-do.- 2.2MΩ		
R636	42:00:00:HK:15:92:20	-do.- -do.-		
R637	42:00:00:HK:15:52:70	-do.- 270Ω		
R638	42:00:00:HK:15:52:70	-do.- -do.-		
R639	42:00:00:HM:52:53:30	Cement Molded Resistor 2P 330Ω		
R640	42:00:00:HM:52:53:30	-do.- -do.-		

\*New parts

Ref. No.	Part No.	Description	Markets	Remarks
VR601	42:00:00:HS:32:04:20	Bass VR 30KB x 2		
VR602	42:00:00:HS:32:04:80	Treble VR 10KW x 2		
TK601	42:00:00:LB:30:03:90	Headphone Jack LJ213-1-2		
	42:00:00:LB:30:06:40	-do.-		
	42:00:00:LA:00:21:10	Wire Lapping Terminal 2P P = 5		
	42:00:00:LA:00:21:20	-do.- 3P - do.-		
	32:00:00:BB:06:63:40	Sealed Plate		
	42:00:00:CB:07:78:60	Sealed Cap.		
* 22	32:00:00:NA:07:04:30	Pre C. Board	R, A, E, G, C, B	
	32:00:00:NA:07:13:50	-do.-	U	
Tr401	42:00:00:iA:06:73:10	Transistor 2SA673A, C, D		
Tr402	42:00:00:iA:06:73:10	-do.- -do.-		
Tr403	42:00:00:iA:06:73:10	-do.- -do.-		
Tr404	42:00:00:iA:06:73:10	-do.- -do.-		
Tr405	42:00:00:iC:17:75:00	-do.- 2SC1775		
Tr406	42:00:00:iC:17:75:00	-do.- -do.-		
Tr407	42:00:00:iC:17:75:00	-do.- -do.-		
Tr408	42:00:00:iC:17:75:00	-do.- -do.-		
Tr409	42:00:00:iA:08:72:00	-do.- 2SA872		
Tr410	42:00:00:iA:08:72:00	-do.- -do.-		
Tr411	42:00:00:iA:09:14:50	-do.- 2SA914 S, T, Q, R		
Tr412	42:00:00:iA:09:14:50	-do.- -do.-		
* Tr413	42:00:00:iC:19:53:50	-do.- 2SC1953 S, T, Q, R		
Tr414	42:00:00:iC:19:53:50	-do.- -do.-		
Tr415	42:00:00:iC:19:53:50	-do.- -do.-		
Tr416	42:00:00:iC:19:53:50	-do.- -do.-		
* Tr417	42:00:00:iA:09:14:50	-do.- 2SA914 S, T, Q, R		
Tr418	42:00:00:iA:09:14:50	-do.- -do.-		
IC401	42:00:00:iE:10:11:20	FET 2SK 100		
IC402	42:00:00:iE:10:11:20	-do.- -do.-		
D401	32:00:00:iF:00:07:70	Varistor VD1212		
D402	32:00:00:iF:00:07:70	-do.- -do.-		
D403	42:00:00:iF:00:00:40	Diode 1S1555		
D405	42:00:00:iF:00:05:70	Zener Diode HZ-6C		
D406	42:00:00:iF:00:05:70	-do.- -do.-		
C401	42:00:00:FA:11:43:30	Mylar Cap. 0.033 $\mu$ F / 50V		
C402	42:00:00:FA:11:43:30	-do.- -do.-		
C403	42:00:00:FD:15:21:00	Polystyrene Cap. 100pF / 50V (J)		
C404	42:00:00:FD:15:21:00	-do.- -do.-		
C405	42:00:00:FT:17:45:60	0.056 $\mu$ F / 100V (F)		
C406	42:00:00:FT:17:45:60	-do.- -do.-		
C407	42:00:00:FT:17:41:50	-do.- 0.015 $\mu$ F / 100V (F)		
C408	42:00:00:FT:17:41:50	-do.- -do.-		
C409	42:00:00:FA:11:31:00	Mylar Cap. 0.001 $\mu$ F / 50V MS (K)		
C410	42:00:00:FA:11:31:00	-do.- -do.-		
C411	42:00:00:FF:06:13:30	Polystyrene Cap. 33pF / 125V		
* C412	42:00:00:FF:06:13:30	-do.- -do.-		
C413	42:00:00:FA:11:41:00	Mylar Cap. 0.1 $\mu$ F / 50V		
C414	42:00:00:FA:11:41:00	-do.- -do.-		
C415	42:00:00:FC:10:61:00	MM Cap. 1 $\mu$ F / 100V		
C416	42:00:00:FC:10:61:00	-do.- -do.-		
C417	42:00:00:FA:11:41:50	Mylar Cap. 0.015 $\mu$ F / 50V		

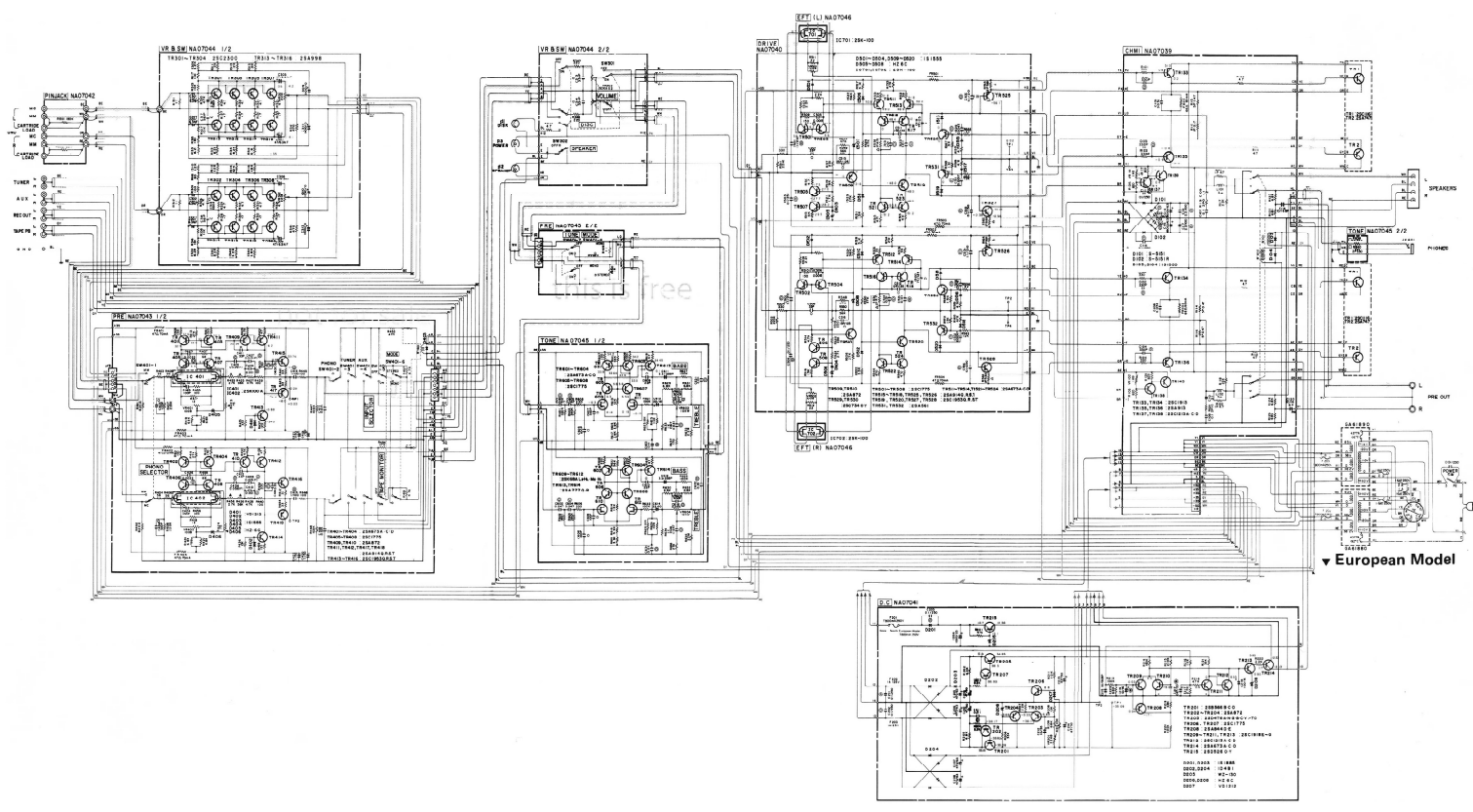
\*New parts

Ref. No.	Part No.	Description	Markets	Remarks
C418	42:00:00:FA:11:41:50	Mylar Cap. 0.015 $\mu$ F / 50V		
C419	42:00:00:FJ:16:61:00	Electrolytic Cap. 1 $\mu$ F / 50V		
C420	42:00:00:FJ:16:61:00	-do.- -do.-		
C421	42:00:00:FJ:16:61:00	-do.- -do.-		
C422	42:00:00:FJ:16:61:00	-do.- -do.-		
C423	42:00:00:FD:15:21:00	Polystyrene Cap. 100pF / 50V (J)		
C424	42:00:00:FD:15:21:00	-do.- -do.-		
C425	42:00:00:FA:11:32:20	Mylar Cap. 0.0022 $\mu$ F / 50V		
C426	42:00:00:FA:11:32:20	-do.- -do.-		
R401	42:00:00:HK:55:68:20	Carbon Resistor 8.2K $\Omega$ ELS25		
R402	42:00:00:HK:55:68:20	-do.- -do.-		
R403	42:00:00:HK:55:51:00	-do.- 100 $\Omega$ ELS25		
R404	42:00:00:HK:55:51:00	-do.- -do.-		
R405	42:00:00:HK:55:41:20	-do.- 12 $\Omega$ ELS25		
R406	42:00:00:HK:55:41:20	-do.- -do.-		
R407	42:00:00:HK:55:82:20	-do.- 220K $\Omega$ ELS25		
R408	42:00:00:HK:55:82:20	-do.- -do.-		
R409	42:00:00:HK:55:51:50	-do.- 150 $\Omega$ ELS25		
R410	42:00:00:HK:55:51:50	-do.- -do.-		
R411	42:00:00:HK:55:51:50	-do.- -do.-		
R412	42:00:00:HK:55:51:50	-do.- -do.-		
R413	42:00:00:HK:55:72:70	-do.- 27K $\Omega$ ELS25		
R414	42:00:00:HK:55:72:70	-do.- -do.-		
R415	42:00:00:HK:55:47:20	-do.- 4.7K $\Omega$		
R416	42:00:00:HK:55:47:20	-do.- -do.-		
R417	42:00:00:HK:55:41:20	-do.- 12 $\Omega$ ELS25		
R418	42:00:00:HK:55:41:20	-do.- -do.-		
R419	42:00:00:HK:55:68:20	-do.- 6.8K $\Omega$ ELS25		
R420	42:00:00:HK:55:68:20	-do.- -do.-		
R421	42:00:00:HK:55:68:20	-do.- -do.-		
R422	42:00:00:HK:55:68:20	-do.- -do.-		
* R423	42:00:00:HU:07:47:50	Metal Film Resistor 75 $\Omega$ RE35		
R424	42:00:00:HU:07:47:50	-do.- -do.-		
R425	42:00:00:HU:07:75:60	-do.- 56K $\Omega$		
* R426	42:00:00:HU:07:75:60	-do.- -do.-		
* R427	42:00:00:HU:07:64:70	-do.- 4.7K $\Omega$		
R428	42:00:00:HU:07:64:70	-do.- -do.-		
R429	42:00:00:HK:55:64:70	Carbon Resistor 4.7K $\Omega$ ELS25		
R430	42:00:00:HK:55:64:70	-do.- -do.-		
R431	42:00:00:HK:55:44:70	-do.- 47 $\Omega$ ELS25		
R432	42:00:00:HK:55:44:70	-do.- -do.-		
R433	42:00:00:HK:55:53:30	-do.- 330 $\Omega$ ELS25		
R434	42:00:00:HK:55:53:30	-do.- -do.-		
R435	42:00:00:HK:55:73:30	-do.- 33K $\Omega$ ELS25		
R436	42:00:00:HK:55:73:30	-do.- -do.-		
R437	42:00:00:HK:55:51:20	-do.- 120 $\Omega$ ELS25		
R438	42:00:00:HK:55:51:20	-do.- -do.-		
R439	42:00:00:HK:55:51:00	-do.- 100 $\Omega$ ELS25		
R440	42:00:00:HK:55:51:00	-do.- -do.-		
R441	42:00:00:HK:55:43:30	-do.- 33 $\Omega$ ELS25		
R442	42:00:00:HK:55:43:30	-do.- -do.-		
R443	42:00:00:HK:55:43:30	-do.- -do.-		
R444	42:00:00:HK:55:43:30	-do.- -do.-		

\* New parts

Ref. No.	Part No.	Description	Markets	Remarks
R445	42:00:00:HK:55:51:00	Carbon Resistor 100Ω	ELS25	
R446	42:00:00:HK:55:51:00	-do.-	-do.-	
R447	42:00:00:HK:55:81:00	-do.- 100KΩ	ELS25	
R448	42:00:00:HK:55:81:00	-do.-	-do.-	
R449	42:00:00:HK:15:61:00	-do.- 1KΩ	FCR25	
R450	42:00:00:HK:15:61:00	-do.-	-do.-	
R451	42:00:00:HK:15:62:70	-do.- 2.7KΩ		
R452	42:00:00:HK:15:62:70	-do.-		
R453	42:00:00:HK:15:54:70	-do.- 470Ω	FCR25	
R454	42:00:00:HK:15:54:70	-do.-	-do.-	
R455	42:00:00:HK:55:51:00	-do.- 100Ω	ELS25	
R456	42:00:00:HK:55:51:00	-do.-	-do.-	
R457	42:00:00:HK:55:46:80	-do.- 68Ω	ELS25	
R458	42:00:00:HK:55:46:80	-do.-	-do.-	
R801	42:00:00:HK:15:81:80	-do.- 180KΩ	FCR25	
R802	42:00:00:HK:15:81:80	-do.-	-do.-	
VR401	42:00:00:HY:00:05:40	Metal Glaze VR B-100	CR-19R	
VR402	42:00:00:HY:00:05:40	-do.-	-do.-	
FR401	42:00:00:HW:19:44:70	Fuse Resistor 70mA/47Ω		R, A, E, G, C, B
FR402	42:00:00:HW:19:44:70	-do.-	-do.-	R, A, E, G, C, B
FR403	42:00:00:HW:19:44:70	-do.-	-do.-	R, A, E, G, C, B
FR404	42:00:00:HW:19:44:70	-do.-	-do.-	R, A, E, G, C, B
FR401	42:00:00:HW:29:44:70	-do.-	-do.-	U
FR402	42:00:00:HW:29:44:70	-do.-	-do.-	U
FR403	42:00:00:HW:29:44:70	-do.-	-do.-	U
FR404	42:00:00:HW:29:44:70	-do.-	-do.-	U
PJ801	42:00:00:LB:20:12:60	Pin-Jack 2P		
PJ802	42:00:00:LB:20:12:60	-do.-	-do.-	
PJ803	42:00:00:LB:20:12:60	-do.-	-do.-	
PJ804	42:00:00:LB:10:04:40	-do.-	SQ-3056-2	
PJ805	42:00:00:LB:10:04:40	-do.-	-do.-	
PJ806	42:00:00:LB:10:04:40	-do.-	-do.-	
PJ807	42:00:00:LB:10:04:40	-do.-	-do.-	
SW401	42:00:00:KA:80:04:60	Push Switch		
RY401	42:00:00:KC:00:03:00	Read Relay		
	42:00:00:LA:00:20:30	Wire Lapping Terminal 4P	P = 5	
	42:00:00:LA:00:20:40	-do.- 5P	P = 5	
	42:00:00:LA:00:21:10	-do.- 2P	P = 5	
	42:00:00:LA:00:21:20	-do.- 3P	P = 5	
	42:00:00:LB:10:01:10	Connect Pin	RT0.7 - 1.3A	
*	42:00:00:LB:10:04:40	Pin-Jack	SQ-3056-2	
*	42:00:00:LB:50:02:20	Miniature Connector 5P		
*	42:00:00:LB:60:21:50	-do.- 7P		
	32:00:00:BB:06:62:40	Sealed Plate		
	32:00:00:BB:06:64:30	-do.-		
	42:00:00:CA:06:80:20	-do.-		
	42:00:00:LB:20:12:70	Cartridge Load 47KΩ		
	42:00:00:LB:20:13:50	-do.- 68KΩ		

\* New parts



▼ European Model