STR-V55

US Model
Canadian Model
AEP Model
UK Model
E Model

WARNING!!

THIS SET USES THE SWITCHING-TYPE POWER-SUPPLY CIRCUIT, WHICH IS DIRECTLY CONNECTED TO THE AC POWER LINE. AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD.

FM-STEREO/FM-AM RECEIVER

QUARTZ

SPECIFICATIONS

GENERAL

Power Requirements:
120 V ac, 60 Hz (US, Canadian model)
220 V ac, 50/60 Hz (AEP model)
240 V ac, 50/60 Hz (UK model)
110, 120, 220, 240 V ac adjustable, 50/60 Hz (E model)

Power Consumption:
125 W (US model)
195 W (Canadian model)
240 W (AEP, E model)
300 W (UK model)

AC Outlet: (US, Canadian, E model)
1 switched, 100 W
1 unswitched, 300 W

Dimensions:
US, AEP, UK, E model:
Approx. 430 (w) x 135 (h) x 380 (d) mm
17 (w) x 5 ¼ (h) x 14 7/8 (d) inches
Canadian model:
Approx. 460 (w) x 135 (h) x 380 (d) mm
18 (w) x 5 ¼ (h) x 14 7/8 (d) inches
including projecting parts and controls

Weight:
US, AEP, UK, E model:
Approx. 6.8 kg, 15 lb (net)
Approx. 8.0 kg, 17 lb 11 oz (in shipping carton)
Canadian model:
Approx. 7.6 kg, 16 lb 13 oz (net)
Approx. 8.8 kg, 19 lb 7 oz (in shipping carton)

FM TUNER SECTION

Tuning Range:
87.5 – 107.5 MHz (US, Canadian model)
87.5 – 108.0 MHz (AEP, UK, E model)

Antenna Terminals:
300 Ω balanced, 75 Ω unbalanced

– Continued on page 2 –

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE TRAME ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES, LES VUES EXPLOSÉES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SONY®

SERVICE MANUAL

STR-V55

Intermediate Frequency: 10.7 MHz

AEP, UK model:

	At 40 kHz deviation
Sensitivity:	at 46 dB quieting 18.3 dBf, 4.5 μV (13 dB) (mono) 38.3 dBf, 45 μV (33 dB) (stereo)
Usable Sensitivity:	11.2 dBf, 2.0 μV (6 dB) (IHF) 9.8 dBf, 1.7 μV (4.5 dB) (S/N 26 dB)
Signal-to-Noise Ratio:	72 dB (mono), 66 dB (stereo)
Harmonic Distortion:	
at 100 Hz	0.1 % (mono), 0.25 % (stereo)
at 1 kHz	0.1 % (mono), 0.2 % (stereo)
at 6 kHz	0.15 % (mono), 0.2 % (stereo)

US, Canadian, E model:

	At 75 kHz deviation
Sensitivity:	at 50 dB quieting 16.1 dBf, 3.5 μV (10.8 dB) (mono) (US, Canadian model) 18.3 dBf, 4.5 μV (13 dB) (mono) (E model) 36.1 dBf, 35 μV (30.8 dB) (stereo) (US, Canadian model) 38.3 dBf, 45 μV (33 dB) (stereo) (E model)
Usable Sensitivity:	10.3 dBf, 1.8 μV (5.1 dB) (IHF) (US, Canadian model) 11.2 dBf, 2.0 μV (6 dB) (IHF) (E model)
Signal-to-Noise Ratio:	75 dB (mono), 70 dB (stereo) (US, Canadian model) 77 dB (mono), 71 dB (stereo) (E model)
Harmonic Distortion:	
at 100 Hz	0.1 % (mono), 0.2 % (stereo)
at 1 kHz	0.1 % (mono), 0.15 % (stereo)
at 6 kHz	0.15 % (mono), 0.2 % (stereo)

Separation: 40 dB at 100 Hz, 50 dB at 1 kHz, 35 dB at 10 kHz (AEP, UK, E model)
40 dB at 100 Hz, 45 dB at 1 kHz, 35 dB at 10 kHz (US, Canadian model)

Frequency Response: 40 Hz – 12.5 kHz ± 0.3 dB (DIN)
30 Hz – 15 kHz $^{+0.5}_{-1.5}$ dB

Selectivity: 80 dB (300 kHz) (AEP, UK model)
80 dB (400 kHz) (US, Canadian model)
85 dB (400 kHz) (E model)

Capture Ratio: 1.0 dB (US, Canadian, E model)
1.5 dB (AEP, UK, E model)

AM Suppression Ratio: 60 dB (AEP, UK, E model)
50 dB (US, Canadian model)

Image Response Ratio: 85 dB

IF Response Ratio: 100 dB

Spurious Response Ratio: 95 dB

RF Intermodulation: 78 dB (IHF), 93 dB (2.4 MHz) (AEP, UK, E model)
65 dB (US, Canadian model)

Sub-carrier Product Ratio: 55 dB (AEP, UK, E model)
40 dB (US, Canadian model)

Muting Threshold: Approx. 25.2 dBf, 10 μV (20 dB) (AEP, UK, E model)
Approx. 20 dBf, 5.5 μV (14.8 dB) (US, Canadian model)

Auto Tuning Level: LOW: 30 dBf, MID: 40 dBf, HIGH: 55 dBf (AEP, UK, E model)
LOW: 25 dBf, MID: 40 dBf, HIGH: 60dBf (US, Canadian model)

AM TUNER SECTION

Tuning Range:
AEP, UK model:
522 kHz – 1602 kHz (9 kHz steps)
US, Canadian, E model:
522 kHz – 1602 kHz (9 kHz steps)
530 kHz – 1610 kHz (10 kHz steps)

Antenna: Ferrite-rod antenna, External antenna terminal

Intermediate Frequency: 450 kHz

Usable Sensitivity: 250 μV/m (48 dB/m), ferrite-rod antenna (AEP, UK, E model)
300 μV/m (49.5 dB/m) (US, Canadian model)
100 μV (40 dB), external antenna, at 1,000 kHz

Signal-to-Noise Ratio: 52 dB at 50 mV/m (34 dB/m) (AEP, UK, E model)
50 dB at 50 mV/m (34 dB/m) (US, Canadian model)

Harmonic Distortion: 0.5 % at 50 mV/m (34 dB/m), 400 Hz

Selectivity: 40 dB at 9 kHz (AEP, UK, E model)
40 dB at 10 kHz (US, Canadian model)

AMPLIFIER SECTION

Continuous RMS Power Output: (less than 0.02% THD, both channels driven simultaneously)
At 1 kHz
55 + 55 W (8 Ω)
At 20 Hz – 20 kHz
55 + 55 W (8 Ω)
According to DIN 45500
55 + 55 W (8 Ω)

Power Bandwidth (IHF): 5 Hz – 35 kHz (AEP, UK, E model)

Total Harmonic Distortion:
US, Canadian model:
Less than 0.006 % at 2 V output, (20 Hz – 20 kHz)
AEP, UK, E model:
Less than 0.02 % at rated output

Intermodulation (IM) Distortion: (60Hz : 7kHz = 4 : 1)
Less than 0.02 % from 250 mV to rated output (US, Canadian model)
Less than 0.02 % at rated output (AEP, UK, E model)

Frequency Response:
Power Amp Section:
dc –40 kHz $^{+0}_{-1}$ dB
Preamp Section:
PHONO: RIAA equalization curve ± 0.5 dB
AUX, TAPE1, 2: 5 Hz – 200 kHz $^{+0}_{-1}$ dB

Damping Factor: 50 at 1 kHz, 8 Ω
Dynamic Headroom: 0.5 dB
Residual Noise: Less than 0.23 mV at 8 Ω (AEP, UK, E model)

Inputs:

	Sensitivity	Impedance	S/N	Weighting network
PHONO MM	2.5 mV (–50 dB)	50 kΩ	85 dB 78 dB*	A
PHONO MC	0.25 mV (–70 dB)	100 Ω	70 dB 68 dB*	A
AUX, TAPE 1, 2	150 mV (–13.5 dB)	50 kΩ	98 dB 86 dB*	A
POWER IN (US, Canadian model)	1.0 V (2.95 dB)	50 kΩ	116 dB	A

* '78 IHF, Measured with rated output power into 8 Ω loads (both channels driven simultaneously) at 1 kHz

Outputs:

REC OUT 1, 2	Voltage 150 mV Impedance 10 kΩ
HEADPHONES	Accepts low impedance headphones
SPEAKERS	8 – 16 Ω speakers are suitable
PRE OUT (US, Canadian model)	Voltage 1.5 V (5.5 dB) Impedance 2 kΩ

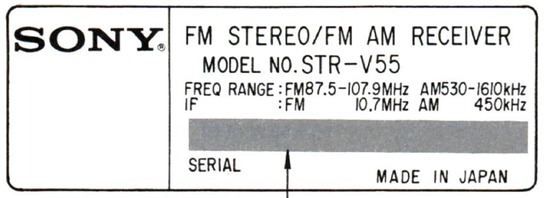
Measured with rated input, FM 30 % modulation

Frequency Response: (US, Canadian model) PHONO: RIAA equalization curve ± 0.5 dB
AUX, TAPE 1, 2: 5 Hz – 50 kHz $^{+0}_{-1}$ dB
Tone Controls: BASS: ± 10 dB at 50 Hz
TREBLE: ± 10 dB at 20 kHz
Loudness Control: (att. 30dB) +10 dB at 50 Hz, +3 dB at 10 kHz
Filter: LOW: 12 dB/octave attenuation below 15 Hz
Audio Muting: Att. 20 dB

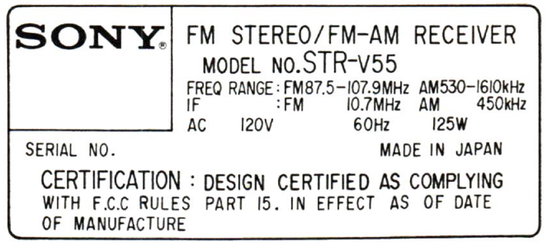
MODEL IDENTIFICATION

– Specification Lebel –

Canadian, E model

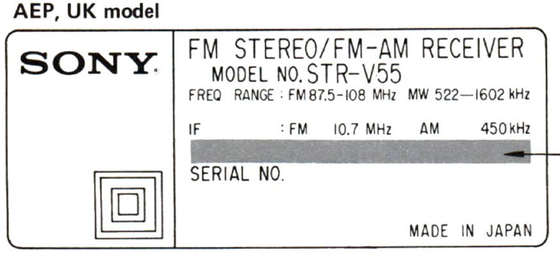


US model



CANADIAN Model: *AC 120V~* *60Hz* *195W*
E Model: *AC 110, 120, 220, 240V~* *50/60Hz* *240W*

AEP, UK model



AEP Model: *AC 220V~* *50/60Hz* *240W*
UK Model: *AC 240V~* *50/60Hz* *300W*

SERVICING NOTES

INSTALLATION PRECAUTION

The epoxy resin used in a light-emitting diode is a kind of thermosetting resin, but as a light-emitting must let the light pass through, its heat resistance cannot be raised by mixing silica or glass fiber.
Thus, the resin used in the light-emitting diodes is usually weak against heat. As the tensile strength is not so strong while it is heated, note the following precautions during soldering.

1) Perform the soldering within 5 seconds with a soldering iron below 25W. The clearance between the end of the diode's body and the circuit board should be more than 3 mm ($^1/_8$") (Fig. 1).

2) When changing the position of the light-emitting diode, do not move it right after soldering, but move it after it naturally cools off.

3) When bending the lead terminals, be sure to bend the point 2 mm ($^3/_{32}$") farther from the end of the diode's body. At this time, fix the foot of the terminal with a round nose plier and be sure that no force is applied to the diode's body. If not, a crack may occur (Fig. 2).

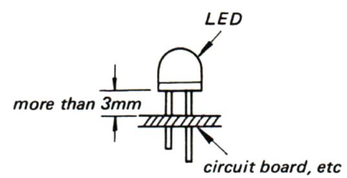


Fig. 1

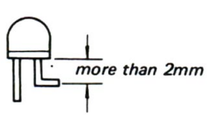


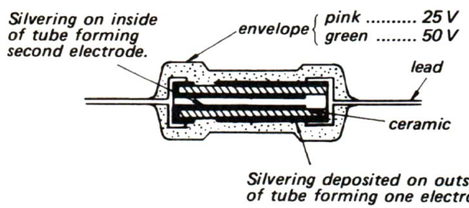
Fig. 2

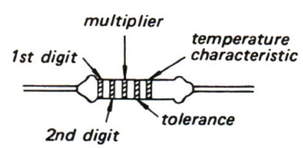
THE CERAMIC CAPACITORS

This set uses tube-type ceramic capacitors whose shape is identical with the carbon resistors, and be careful not to use resistors in place of capacitors in repairing.

Disc-type ceramic capacitors can be used for replacing those originally used in the set.

Two kinds of drilled holes are provided in some patterns for mounting the tube-type and disc-type ceramic capacitors. Use appropriate holes where applicable.

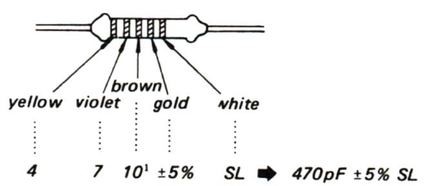




COLOR CODE (in pF)

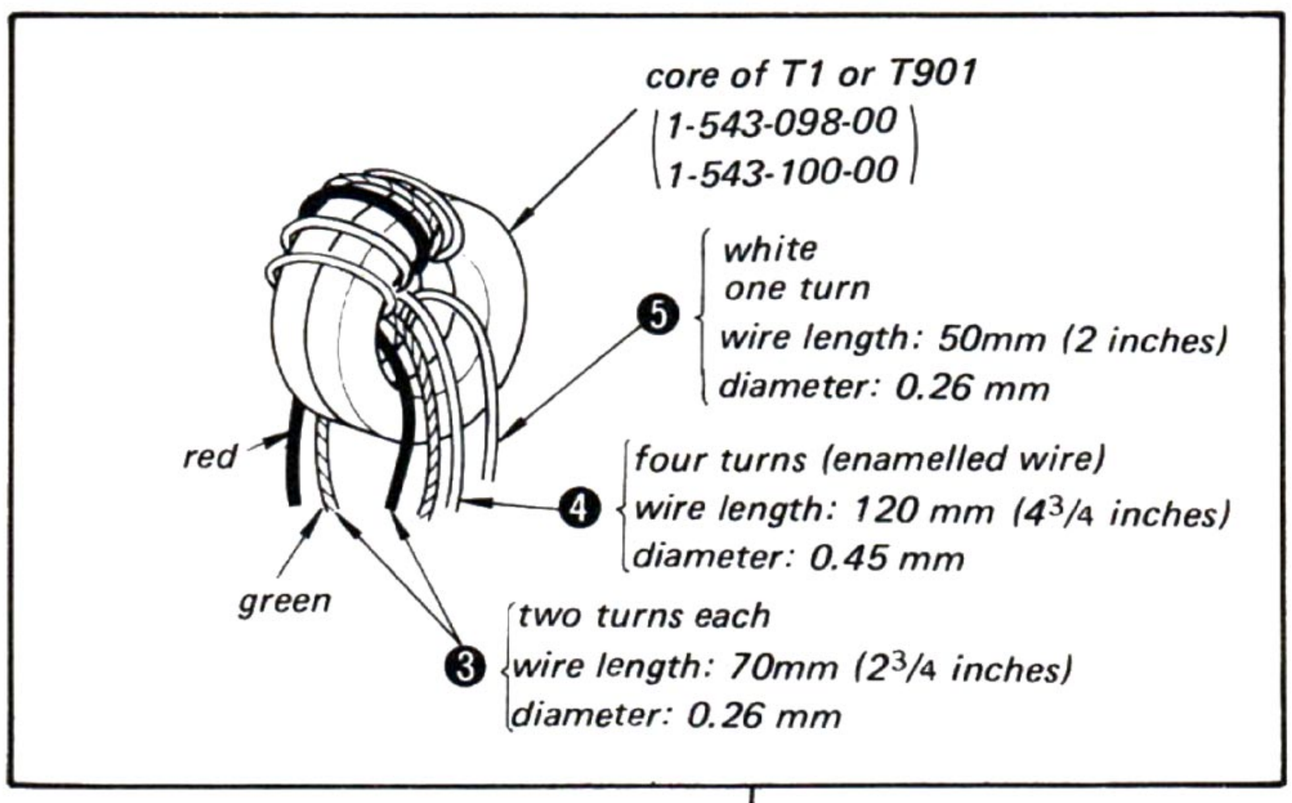
Color	1st or 2nd Digit	Multiplier	Tolerance	Temperature characteristic
brown	1	10^1		Y
red	2	10^2		D
orange	3	10^3		
yellow	4	10^4		RH
green	5			
blue	6			
violet	7			UJ
gray	8		±30%	X
white	9			SL
black	0	10^0	±20%	CH
gold		10^{-1}	± 5%	V
silver		10^{-2}	±10%	B

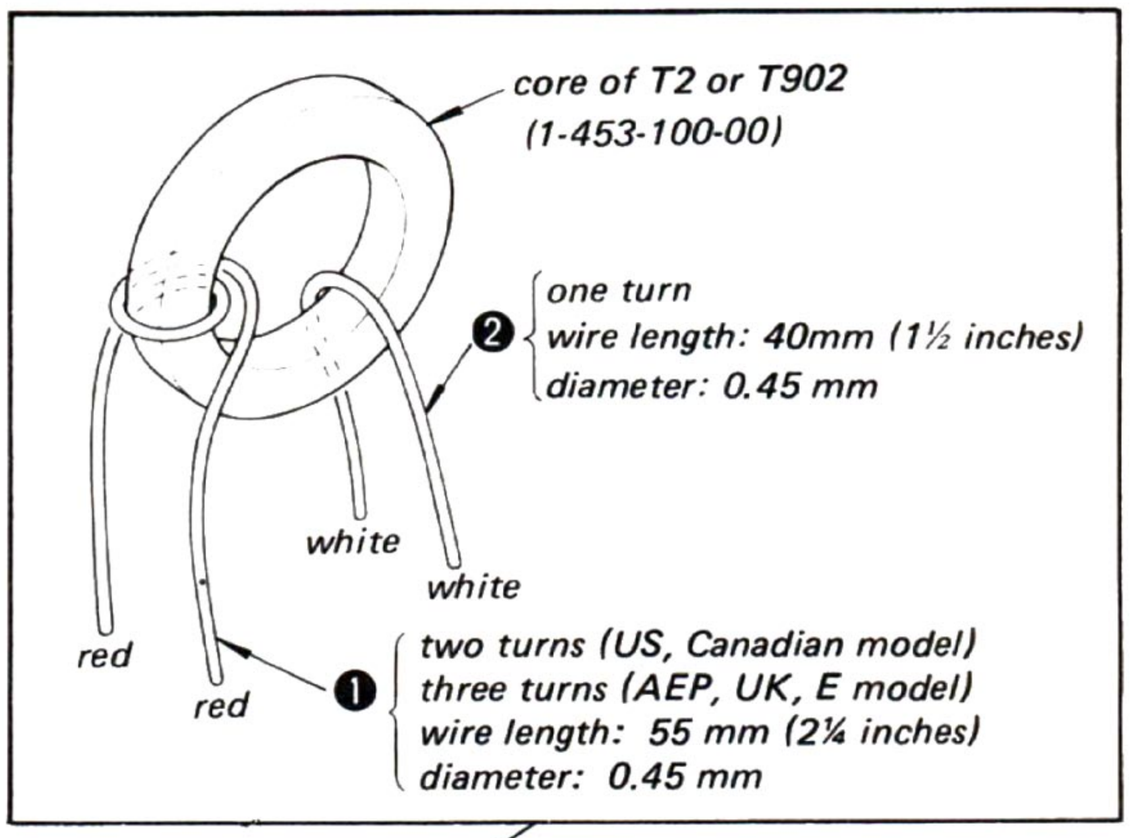
Example:



REPLACEMENT OF THE TRANSFORMES IN THE INVERTER CIRCUIT

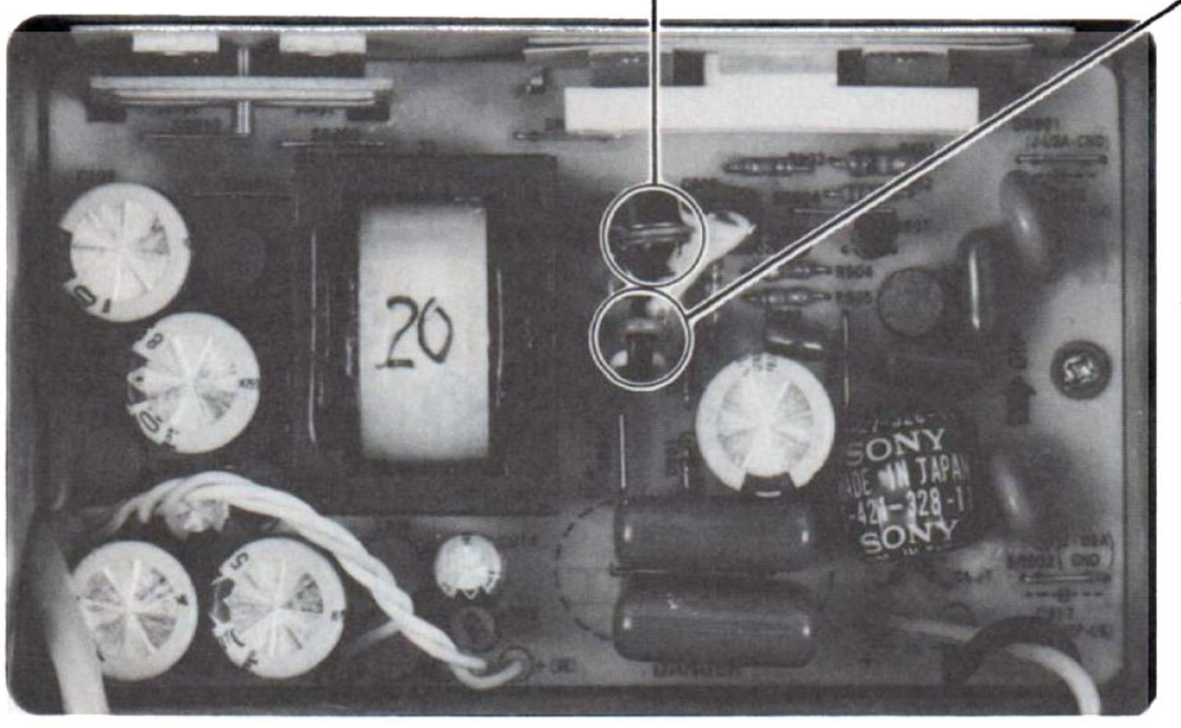
The lead wire arrangement for each of T1 (US, Canadian model) or T901 (AEP, UK, E model) and T2 (US, Canadian model) or T902 (AEP, UK, E model) in the inverter circuit are shown below.
As the repair parts, T1 (US, Canadian model) or T901 (AEP, UK, E model) and T2 (US, Canadian model) or T902 (AEP, UK, E model) are formed by only iron core. Thus, if the coils are defective, arrange a new transformers as shown below. Note that the lead lengths must be exact. Also wind the coil carefully.





T1 or T901

T2 or T902



(US, Canadian model)

Handling Precautions for MOS ICs (IC402, IC405, IC406) (US, Canadian model) (IC401, IC405) (AEP, UK, E model)

Generally, the insulation resistance of the oxide layer in MOS IC structures is very high, and the oxide layer is very thin. Because of this, it is possible that the static voltages usually present on clothes and the human body will be enough to generate a potential difference across the insulator, high enough to cause a breakdown of the insulating layer.

The following precautions should be taken while handling these ICs.

(Particular care should be taken under conditions of low humidity.)

Precautions in Replacing MOS ICs

1. Store new ICs by inserting them into a urethane-polyester cushion (which is somewhat conductive), or wrapping it in aluminum foil, so that all the pins are at the same potential.
   (The ICs should be stored in that manner until mounted on the circuit board.)

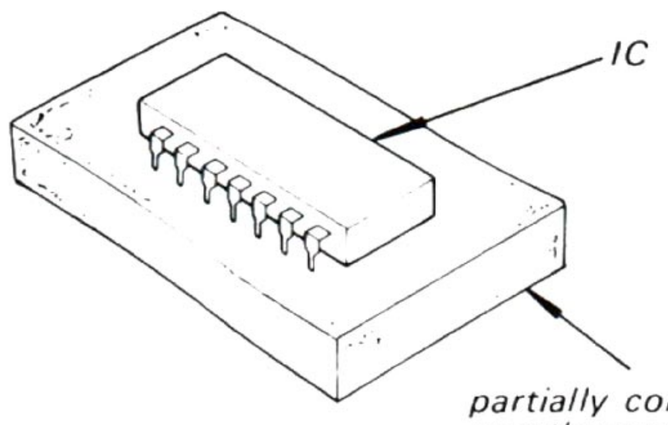


Fig. A

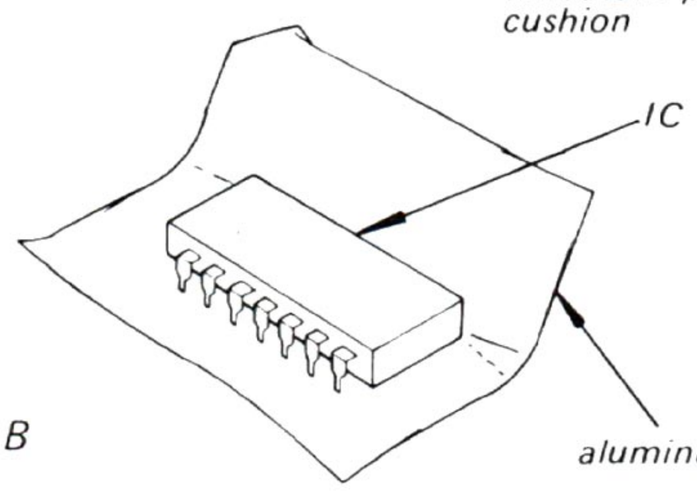


Fig. B

2. Check the soldering iron for possible power-line leakage current. Make sure that there is no leakage path by connecting an ohmmeter to the tip of the soldering iron and the plug as shown in Fig. C. If there is a leakage path, use some other soldering iron.

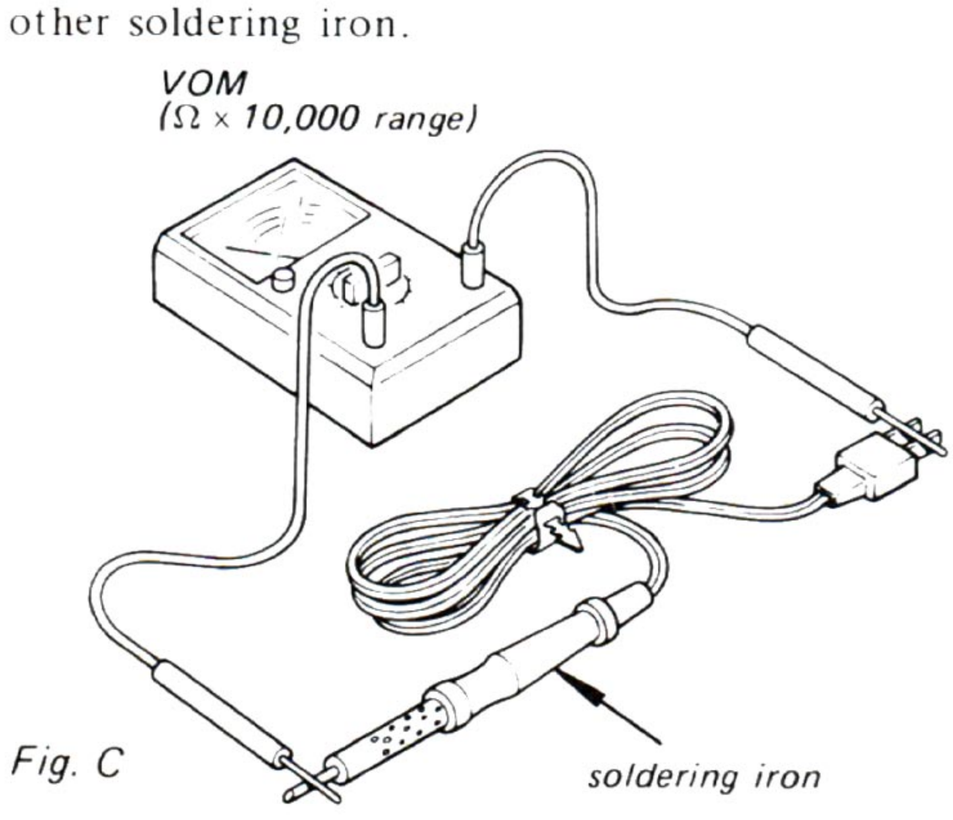


Fig. C

3. Equalize any potential difference between the clothes, the tools in use, the work bench, the set being worked on, and the packaged IC by touching them all in succession with the hands or a conductive wire or tool.
4. The following are effective methods for handling ICs that remove the potential difference across the oxide layer.
   - Use a paper clip modified by soldering in a wire braid insert.

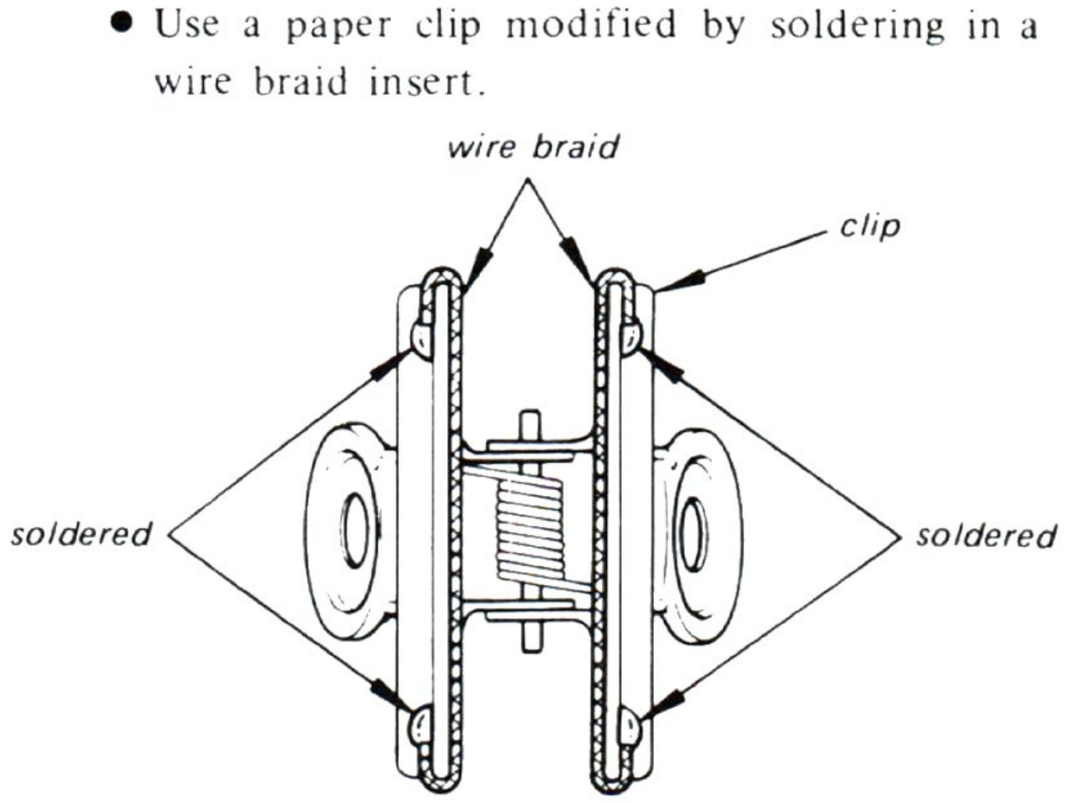


Fig. D

Make sure that there is no solder on the inside.

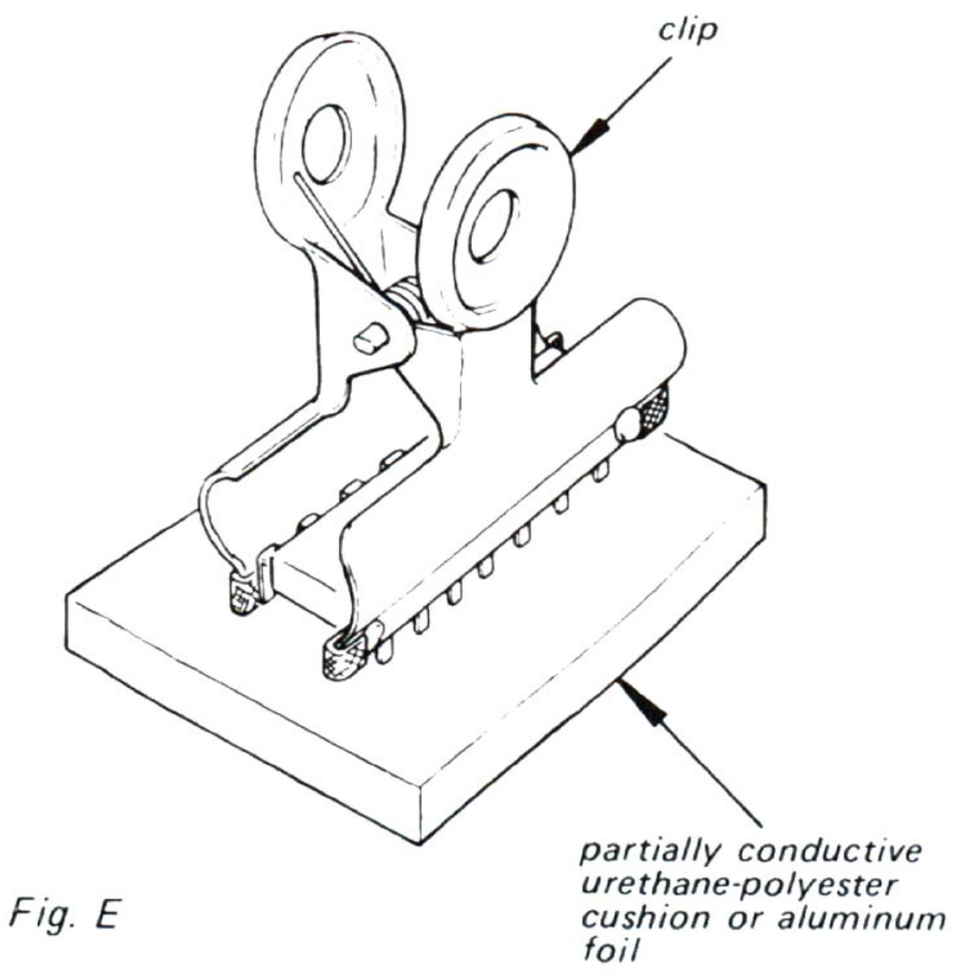
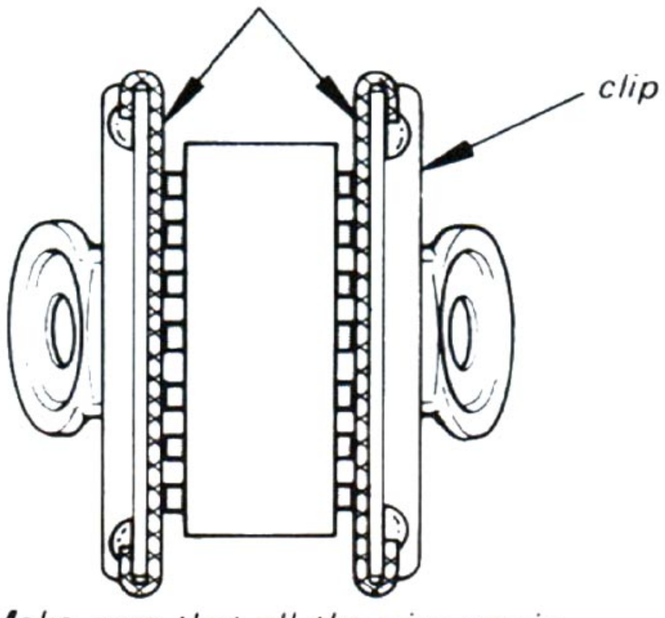


Fig. E



Make sure that all the pins are in contact with the wire braid (all the pins will then be at the same potential.).

Fig. F

— Continued on next page —

- Take a short length of fine bare wire and wind it around the IC so that it shorts all the pins of the IC, while it is still in the urethane-polyester cushion or aluminum foil. This ensures that all the pins are at the same potential.

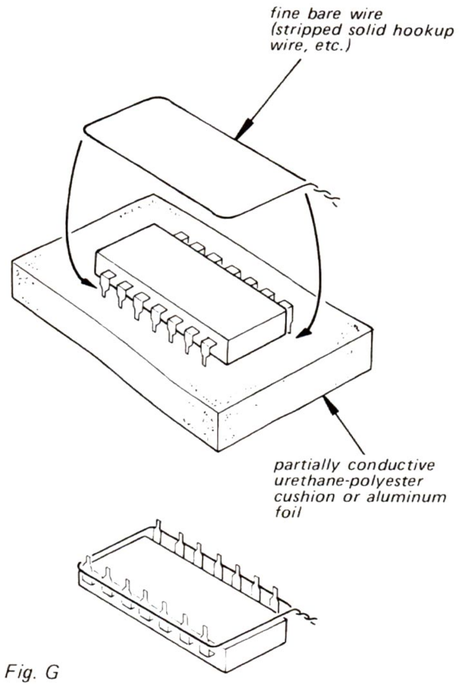


Fig. G

- When it is necessary to handle the IC with the fingers, do not touch any pin, and hold the IC at the ends of its plastic-package case as shown in Fig. H.

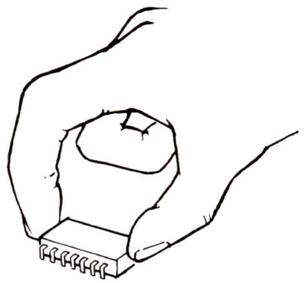


Fig. H

5. Method of Mounting
Insert the IC while holding it with the modified clip, and solder all the pins with the clip still shorting the pins. (Similarly, solder all the pins while the bare shorting wire is still wound around them.). Remove the clip or the bare shorting wire only after all the pins have been soldered.

Precaution while Checking C-MOS ICs

The C-MOS ICs (Complementary MOS) are MOS ICs that have their output sections made up of N-channel and P-channel push-pull stages to increase their speed of operation. If the output terminal of these ICs comes into contact with B+ or B– voltage, then the FET which is ON at that time will either become shorted or open.

This is valid for all the output sections that are connected together by the interconnections. Even the circuits that are physically separated (and not on the same board) can be destroyed simultaneously.

Example:

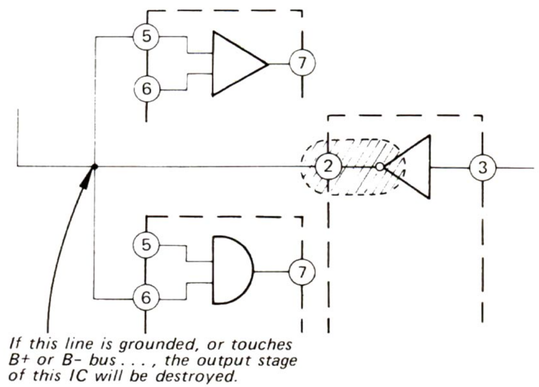


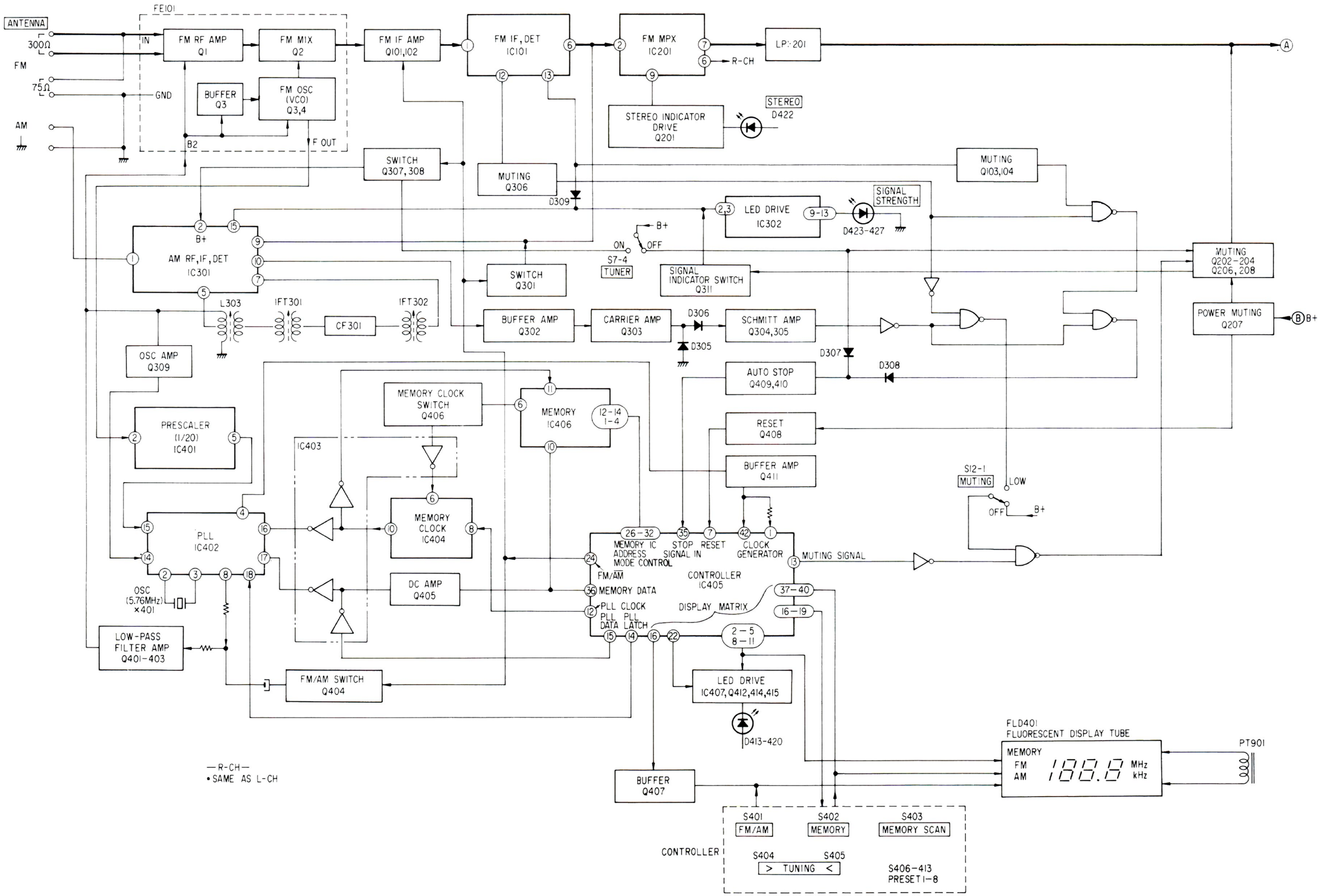
Fig. I

MEMO

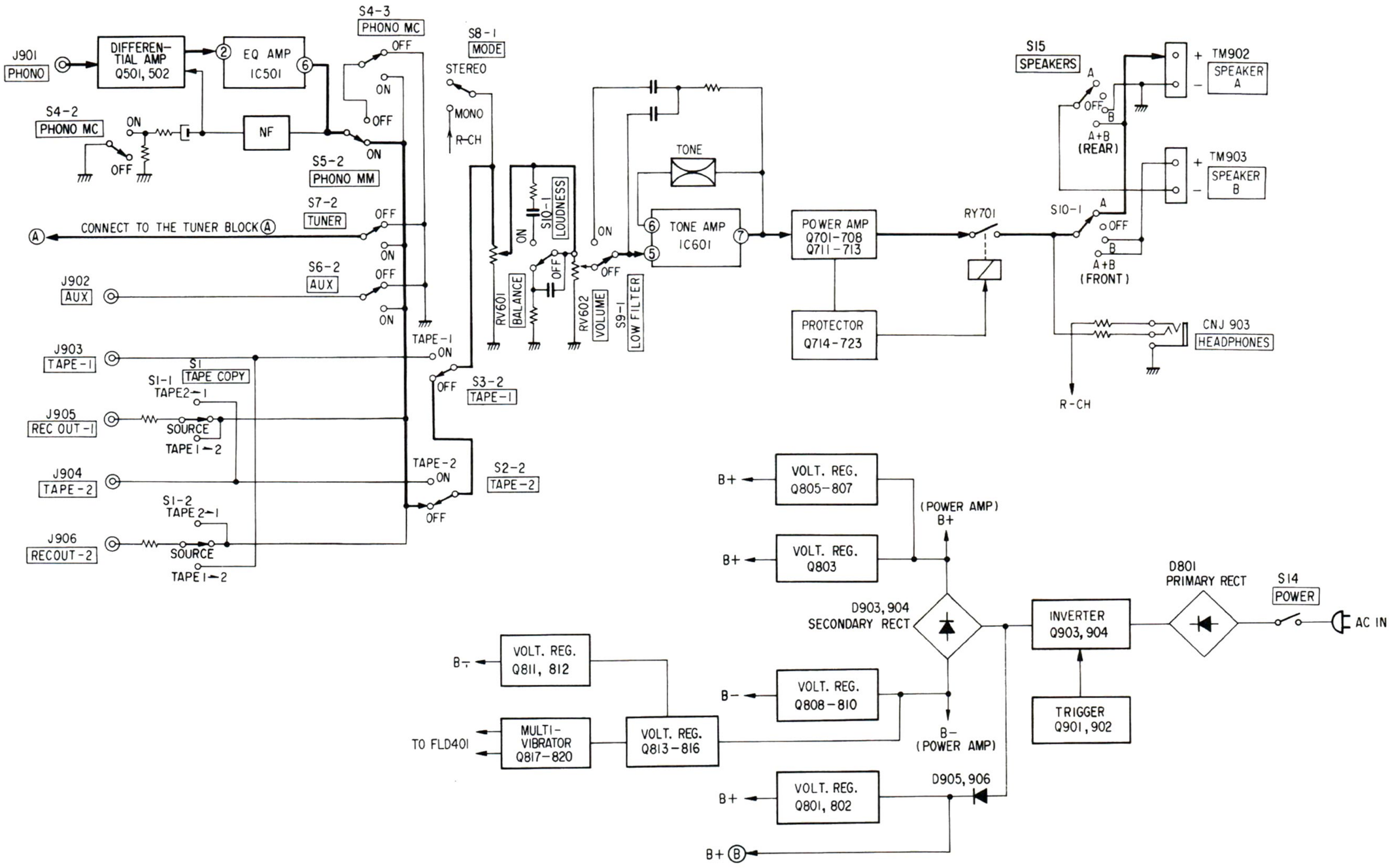
SECTION 1
OUTLINE

1-1. BLOCK DIAGRAMS

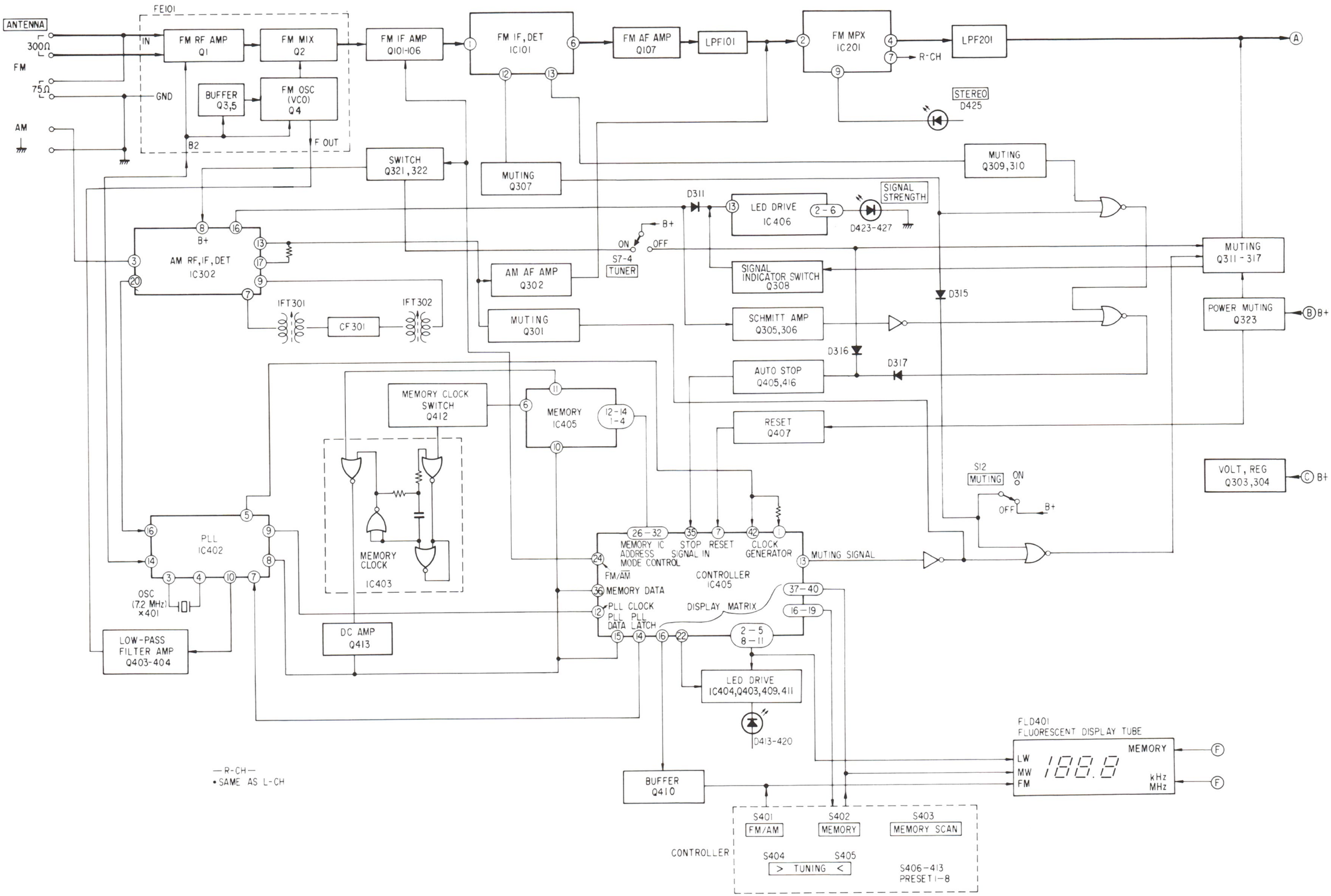
(1) Tuner Section (US, Canadian model)



(2) Amp Section (US, Canadian model)

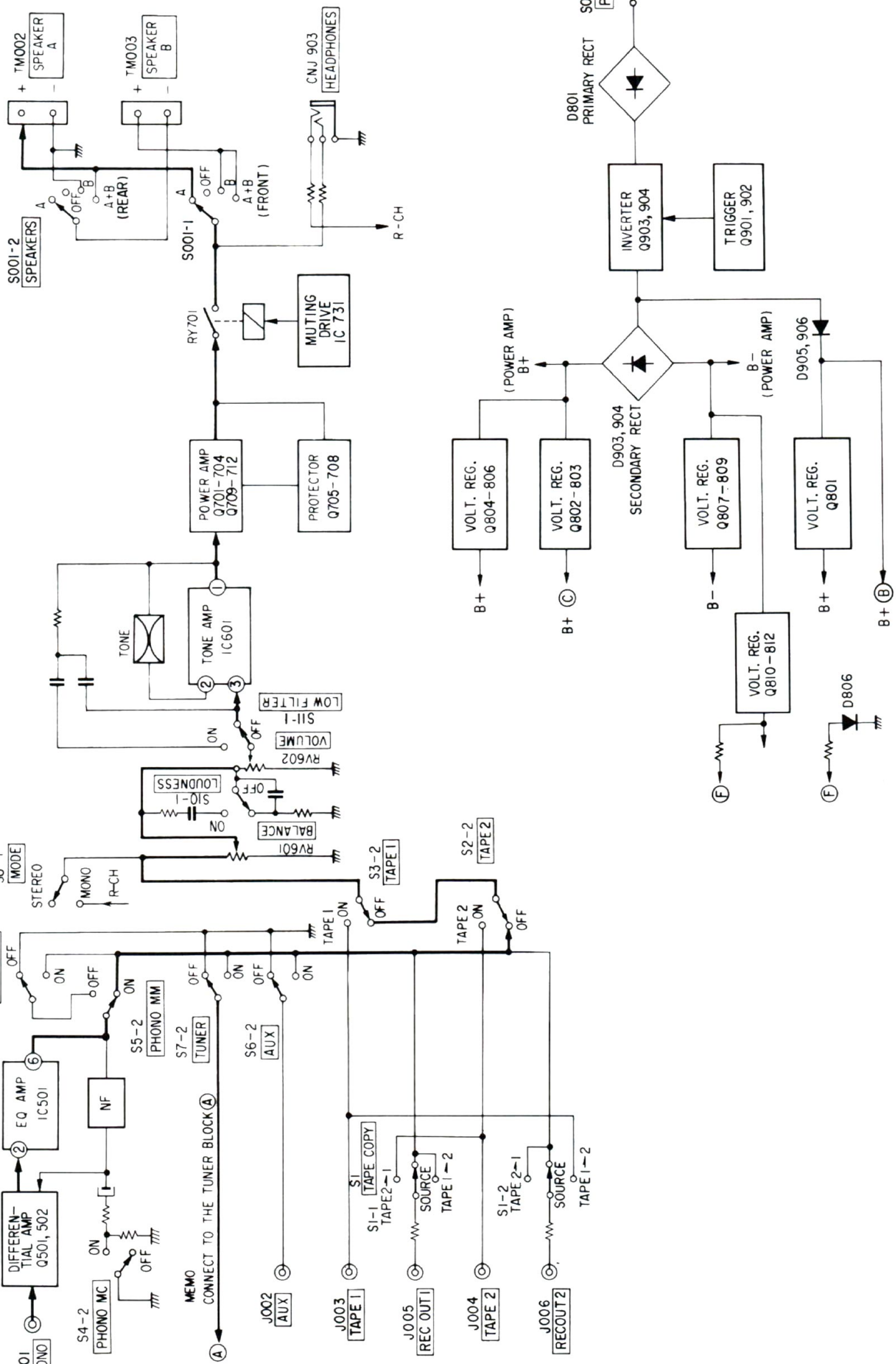


(3) Tuner Section (AEP, UK, E model)



AEP model
UK model
E model

(4) Amp Section (AEP, UK, E model)



1-2. CIRCUIT DESCRIPTION

In the power supply section of conventional audio equipment, ac input power is usually changed in voltage by a transformer and is rectified to obtain a dc voltage. The disadvantages of this are as follows;

1. Voltage regulation is poor.
2. Hum in the output results if large filter are not used.
3. High-power output can not be obtained without a very large transformer.

To eliminate these problems, the pulse-locked power supply is used in this set. In the power supply, after a dc voltage is obtained by rectifying the ac input power, a 20kHz pulse signal is generated in the inverter. The pulse signal is converted to the desired-voltage signal by a high-frequency transformer which has a small ferrite-core, and is then rectified to produce dc voltages.

Fig. 1 shows the block diagram of the pulse-locked power supply. This power supply has the following advantages;

1. The source impedance can be made smaller so better voltage regulation of less than 7% can be obtained.
2. Square waves as high in frequency as 20kHz are used, so hum does not occur.
3. Efficiency is very high, since the dc resistance of the high-frequency transformer is small and a high-efficiency inverter is used.
4. This power supply consists of small components that result in a very small size and a light weight. This power supply is half the size and less than one quarter the weight of a conventional power supply.

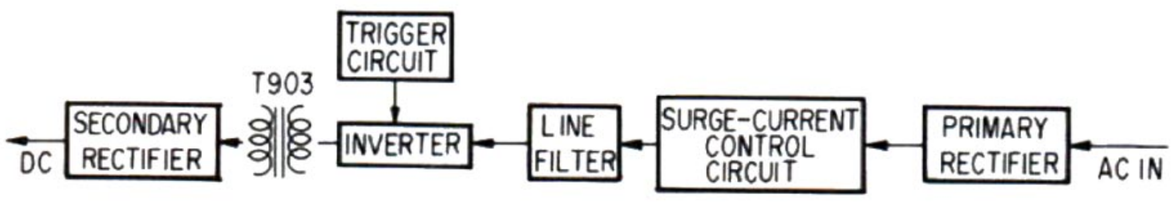


Fig. 1

The following circuit description is based on the AEP, UK and E models. The US and Canadian models are identical to the AEP, UK and E models, and reference numbers are different from the AEP, UK, and E models.

1-2-1. SURGE-CURRENT CONTROL CIRCUIT (See Fig. 2)

Since the pulse-locked power supply directly rectifies ac power input, if S002 (POWER) is set to ON without a surge-current control circuit, a large surge-current charging C804 will flow and damage S002 (POWER).

To prevent this, R802 is added in series with S002 (POWER) to control the rush-current. This resistor is shorted by RY801 after dc voltage appears in the secondary rectifier circuit.

1-2-2. LINE FILTER (See Fig. 2)

To eliminate the high-frequency ripple noise component produced in the inverter, a line filter is installed. The line filter consists of L901, C901 through C904, and C915 through C917. L901 is a bifilar RF choke using a ferrite toroidal core.

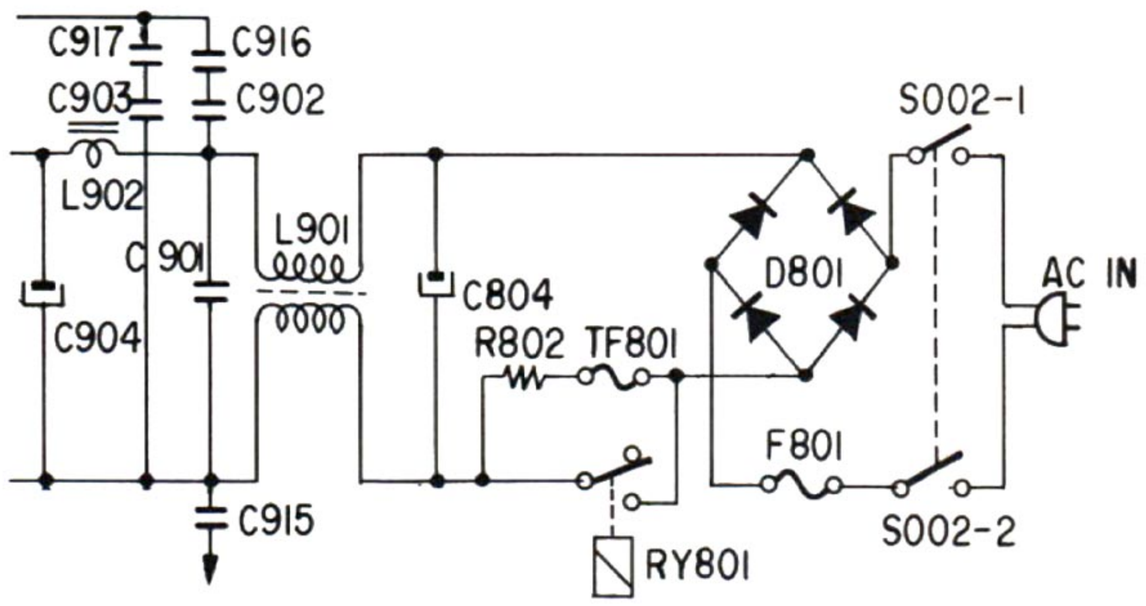


Fig. 2

1-2-3. INVERTER TRIGGER CIRCUIT (See Fig. 3)

Setting switch S002 (POWER) to ON is not sufficient to start the inverter oscillating; a trigger signal is also required for inverter oscillation. The operation is as follows;

1. When S002 (POWER) is set to ON, current ① through R901 charges C908.
2. After switching ON the power, the base-emitter voltage Vbe of Q901 becomes the voltage Vs across R905 with some delay due to the time constant of R904 and C907. When Vbe becomes approximately 0.6V, Q901 turns on and so does Q902 accordingly.
3. When both Q901 and Q902 turned on, the charge in C908 discharges through the winding N1 of T901 and R902 (current flow ②), and the inverter starts oscillating. Once the inverter oscillated, a voltage is generated across the winding N2 of T903. This voltage at the winding N2 is rectified by diodes D901 and D902, not making Vbe a load of winding N1. Thus the inverter maintains a smooth and normal oscillation.

1-2-4. INVERTER CIRCUIT

The inverter consists of two transistors and generates a square-wave signal of about 20kHz.

Fig. 4. shows the principle of the inverter. By turning S1 and S2 on and off alternately, the square-wave signal shown in Fig. 4 is generated at the secondary side of converter transformer T903. In short, dc current is changed to a square-wave signal by switching action.

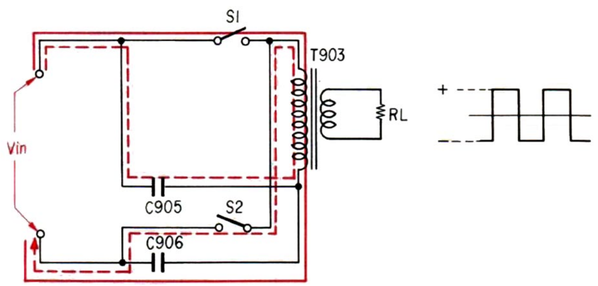


Fig. 4

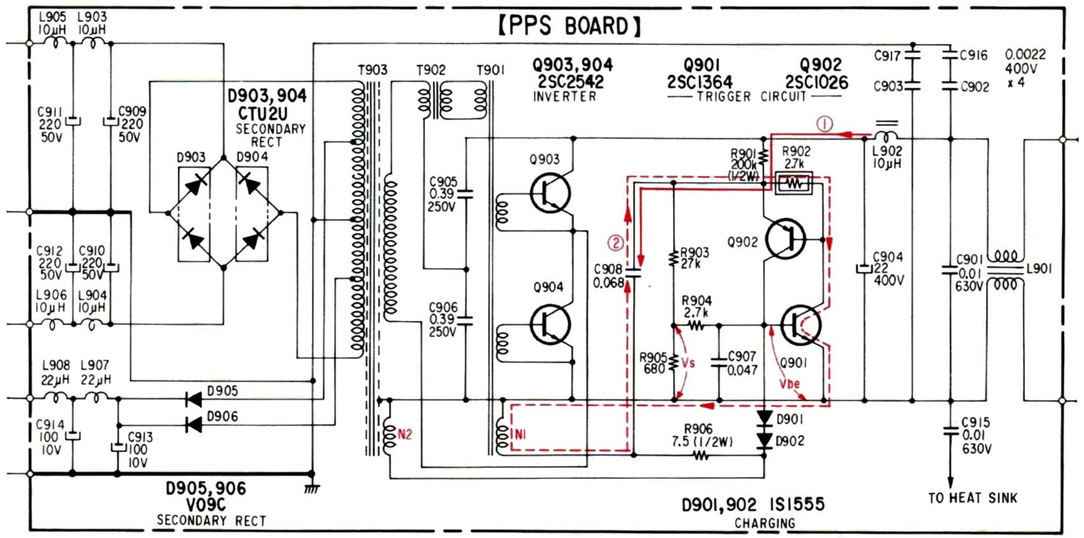


Fig. 3

The details are as follows (See Fig. 5).

1. A trigger pulse signal is generated at the winding N1 by the inverter trigger circuit.
2. Assume that a voltage is generated with which Q903 at the winding N3 turns on and Q904 at the winding N4 turns off with the first trigger pulse.
3. Q903 turned on and the current ① flows through Q903, transformer windings N5 and N6, and C906 from the point ⊕ to ⊖ .
4. At the same time, a current is also induced in the winding N7. This current in turn induces an electromotive force at the winding N3 through T901 by current-feedback effect. This induced electromotive force at the winding N3 also acts as a power to further turn Q903 on.
5. On the other hand, the winding N2 is also wound in the transformer T903. So N2 generates a voltage. This voltage is then applied to the winding N1 through R906.
6. The winding N1 is wound in the transformer T901, the voltage in N1, in turn, generates also a voltage in the winding N3 through the voltage-feedback action and this voltage in N3 adds the power for Q903 to further turning on.
7. With these two feedbacks, i.e., both the current and voltage, Q903 sufficiently saturates and it applies power to T903.
8. Now T901 also saturates in due course and it no longer keeps power to turn Q903 on.
9. As soon as Q903 losts the power, it turns off. And when Q903 turned off, a voltage of oppsite polarity to the initial state (first half cycle) is generated in the winding N2 throught the winding N6.
10. This voltage of opposite polarity, built up in N2 increases an electromagnetic flux also in the opposite direction to the initial state, generates a voltage in N4 of a such direction to turn Q904 on.
11. As a result, the current ② flows from the point ⊕ to point ⊖ through C905, transformer windings N6 and N5, and Q904.
12. Once Q904 has turned on, it keeps itself turning on as in the case of the first half cycle of Q903's operation until T901 is saturated by both the current and voltage feedbacks.
13. When T901 thus saturated in the second half cycle, Q904 turns off and Q903, in turn, turns on again and the oscillating operation continues.
14. Thus a square-wave signal is obtained at the secondary winding of T903 as shown in Fig. 5 from the alternating turning on and off operation of Q903 and Q904.

1-2-5. SECONDARY RECTIFIER CIRCUIT (See Fig. 5)

The secondary rectifier circuit is to convert the square-wave signal made in the above-mentioned converter transformer back into dc voltage. This circuit consists of D903 through D906, L903, L905, L908, and C909 through C914 as shown in Fig. 6 below. High-speed type diodes are used for the rectifying devices and the square-wave is rectified without a significant rectifying power loss.

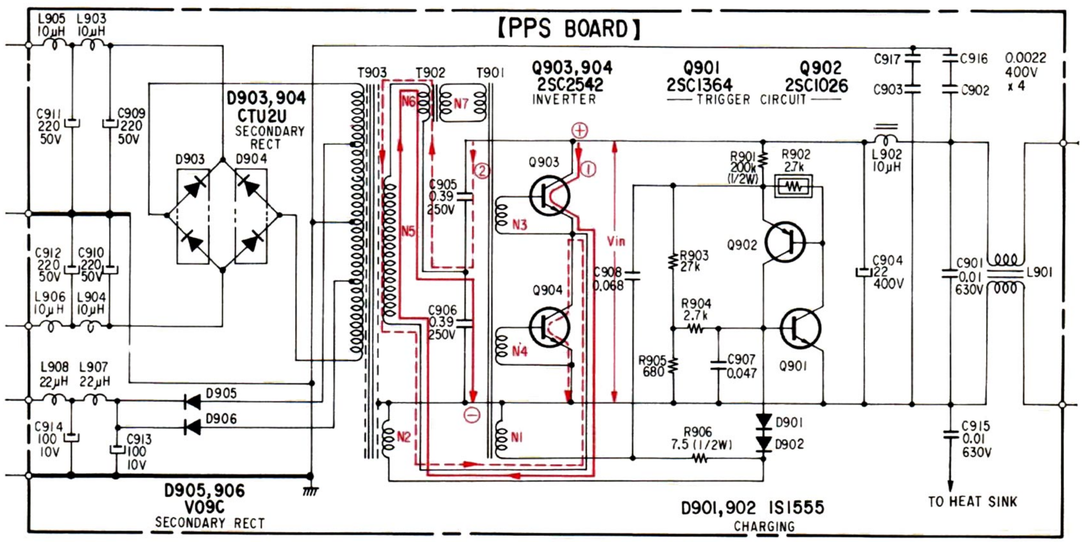


Fig. 5

1-2-6. OUTLINE OF μPD552C-037 (IC405) (US, Canadian model) or μPD553C-065 (IC401) (AEP, UK, E model)

This is a four-bit control microcomputer composed of ALU, ROM, RAM, I/O Ports and control circuit all of which are processed in four-bit parallel manner and are included on a small single chip.

P-channel MOS
ROM (1000 x 8-bits)
RAM (64 x 4-bits)

Input Ports
A and B
Input/output Ports
C and D
Output Ports
E, F, G, H and I
} four-bits each except for Port I which is three bits

Clock Frequency: 360kHz

Input signal is obtained from terminal 4 (US, Canadian model) or 6 (AEP, UK, E model) of the divider output in PLL μPD2819C (US, Canadian model) or CX778 (AEP, UK, E model).

42-pin Plastic Dual-in-Line Package

I/O Ports: Table 1

Port	Terminal	Function
PA_0	33	AUTO/$\overline{\text{MANUAL}}$
PA_1	34	$\overline{\text{9kHz}}$/10kHz (US, Canadian model)
PA_2	35	Input for AUTO TUNING stop signal
PA_3	36	Input for memory IC's data
PB_{0-3}	37–40	Refer to Fig. 6 or 7.
PC_{0-3}	2–5	
PD_{0-3}	8–11	
PF_{0-3}	16–19	
PG_0	22	
PG_1	23	Output for switch matrix
PG_2	24	FM/$\overline{\text{AM}}$
PG_3	25	N/A
PE_0	12	Clock output for PLL memory IC
PE_1	13	Output for muting pulse
PE_2	14	Output for PLL
PE_3	15	Output for PLL and memory IC
PH_0	26	Outputs for memory IC address
PH_1	27	
PH_2	28	
PH_3	29	
PI_0	30	→C1
PI_1	31	→C2
PI_2	32	→C3

Outputs for memory IC mode control

μPD2819C (IC402) (US, Canadian model)

This is a CMOS LSI for the PLL frequency synthesizer designed for AM and/or FM radio/receiver.

Outline of μPD2819C:

18-pin molded DIP (dual-in-line package)

Data inputs are only three (3) because the data are put into the IC successively.

Has two input terminals for programmable divider and these terminals are selectable according to the program data (AM/FM).

Has an output (terminal 4) of 360 kHz for the controller.

Refer to the schematic diagram for its block diagram.

Table 2. Function of Terminals:

Terminal	Function
1	5 V power supply
2	5.76 MHz crystal oscillator
3	
4	Output 1 for 360 kHz clock signal
5	90 kHz test terminal 3
6	25 Hz clock signal output 2
7	unlock-detection terminal "1" (high) when PLL is locked, pulsative waveform when PLL is unlocked
8	Output terminal for phase comparator
9	Test terminal 1 for frequency comparison
10	Test terminal 2 for programmable divider's output
11	Input terminal for filter amp
12	Output terminal for filter amp
13	Grounding terminal
14	Input terminal 1 for programmable divider (AM)
15	Input terminal 2 for programmable divider (FM)
16	Shift register clock
17	Shift register data
18	Latch clock

Note: Terminals 16 – 18 are the input terminals for the program to decide the division ratio of the programmable divider, switching of terminals 11 and 12, and to decide the comparison frequency.

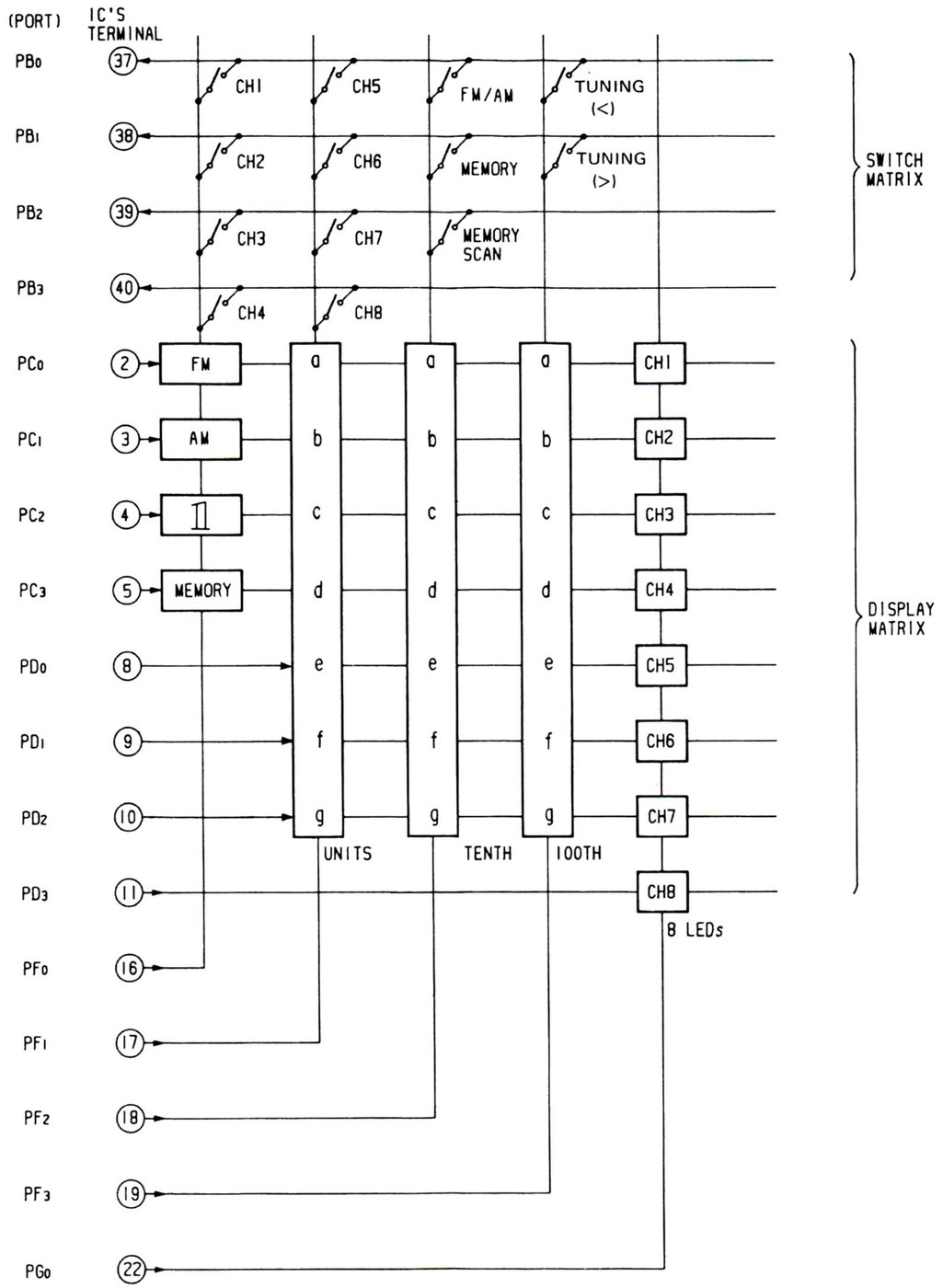


Fig. 6 *Switches and Indication Matrix*
(US, Canadian model)

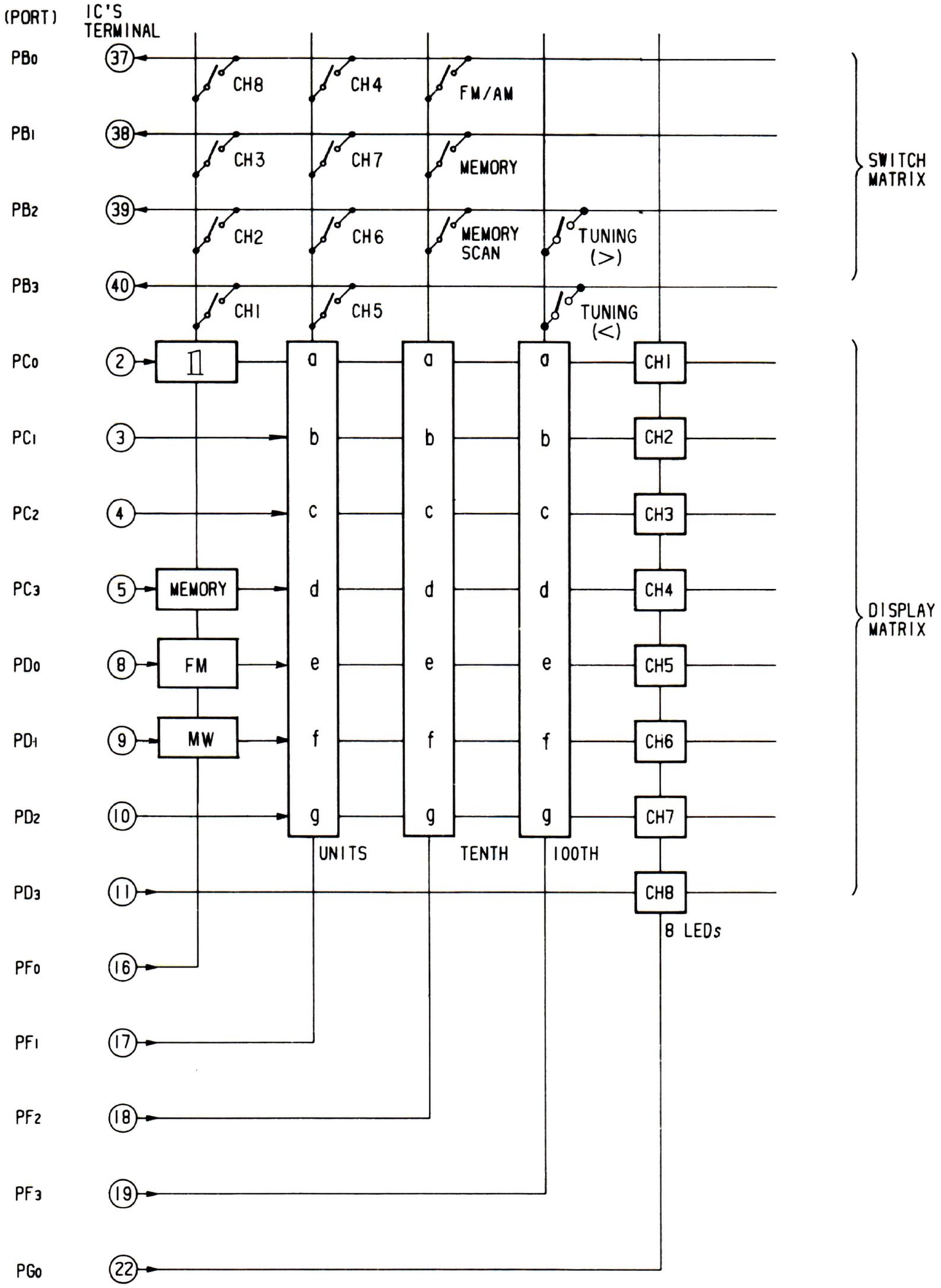


Fig. 7 Switches and Indication Matrix
(AEP, UK, E model)

1-2-7. MEMORY IC CX761 (IC406) (US, Canadian model) or CX761A (IC405) (AEP, UK, E model)

Outline of CX761 or CX761A:

(a) This is a non-volatile memory IC. Has 228 (14 words x 16 bits + 4 bits) non-volatile memory transistors built in, and works for reading, erasure and writing the data word.
(b) Because of being a non-volatile type memory, this IC maintains the memorized informations for a long time without a battery back-up after the power switch is turned off.
(c) Word address is done by the BCD inputs.
(d) Silicon-type P-channel enhancement MNOS IC construction.
(e) 14-pin molded DIP casing.

Refer to the schematic diagram for the block diagram.

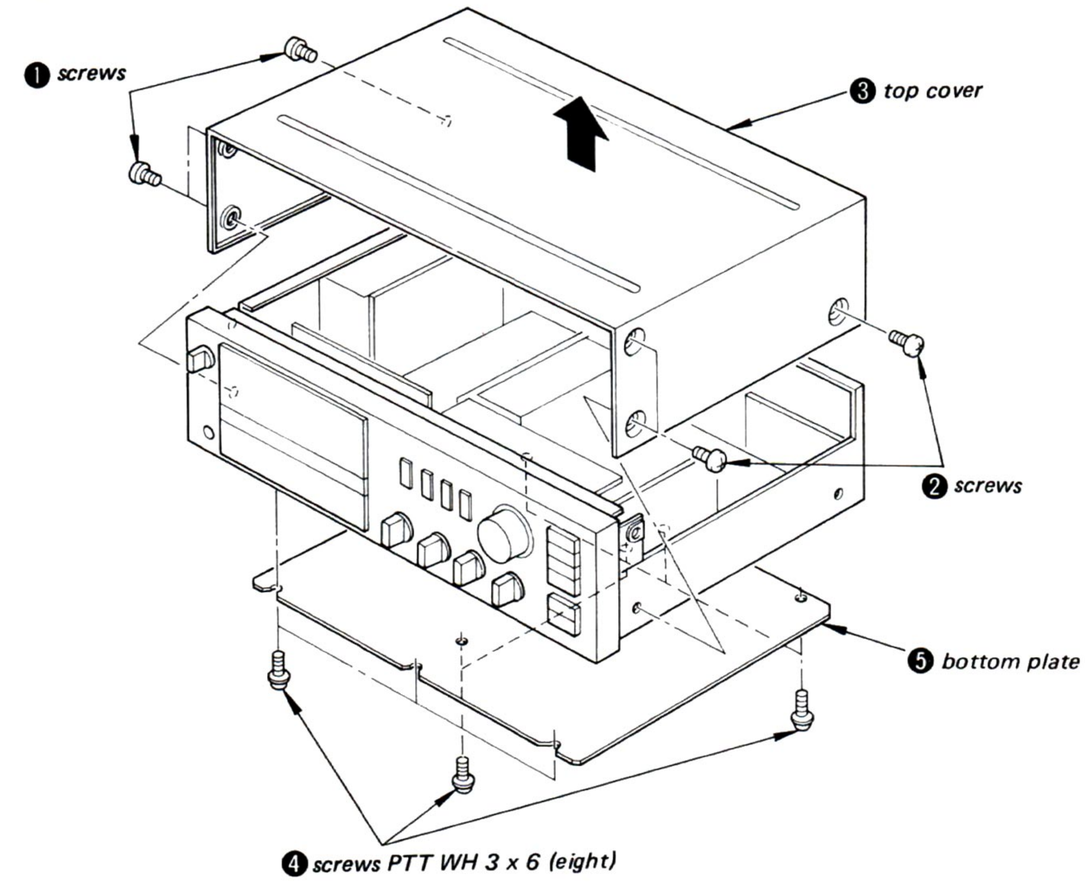
Table 3. Function of Terminals:

Terminal	IN or OUT	Function
1	IN	Word address D
2	IN	Word address C
3	IN	Word address B
4	IN	Word address A
5	IN	Power supply input
6	IN/OUT	Writing and erasure control inputs/memory-BUSY output
7	IN	Power supply input
8	IN/OUT	Inputs and outputs for test checkout
9	IN	Test signal
10	IN/OUT	Combined data inputs and data outputs
11	IN	Input for synchronous clock
12	IN	Input for mode control C3
13	IN	Input for mode control C2
14	IN	Input for mode control C1

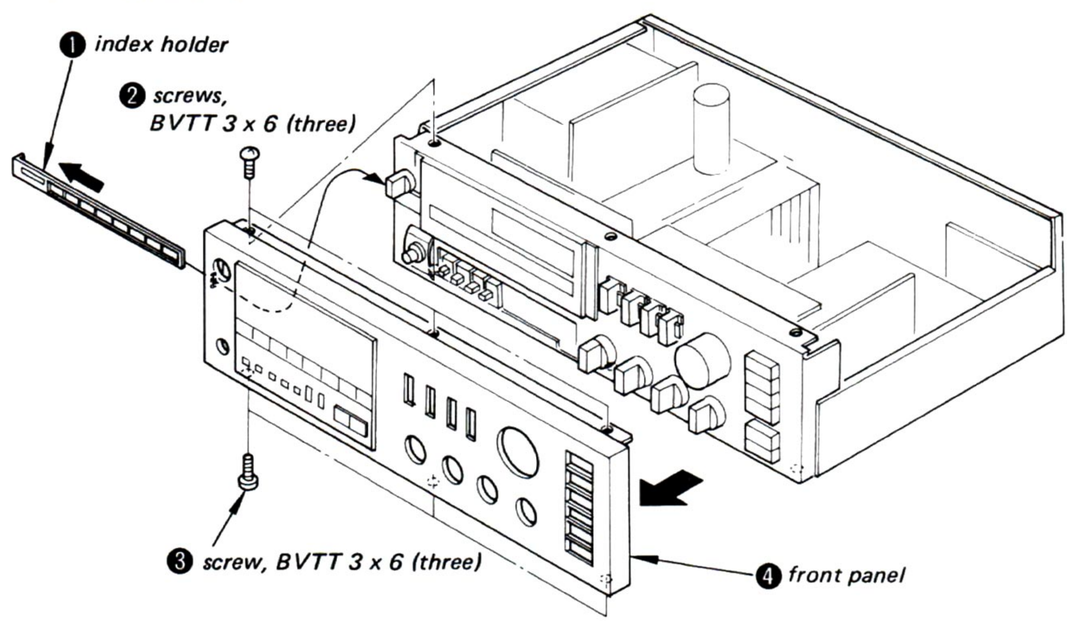
SECTION 2
DISASSEMBLY

- Follow the disassembly procedure in the numerical order given.

TOP COVER AND BOTTOM PLATE REMOVAL



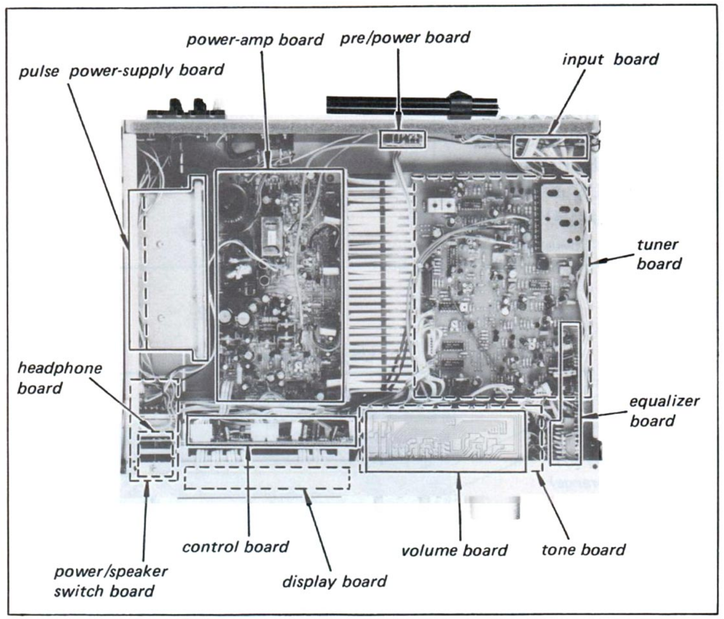
FRONT PANEL REMOVAL



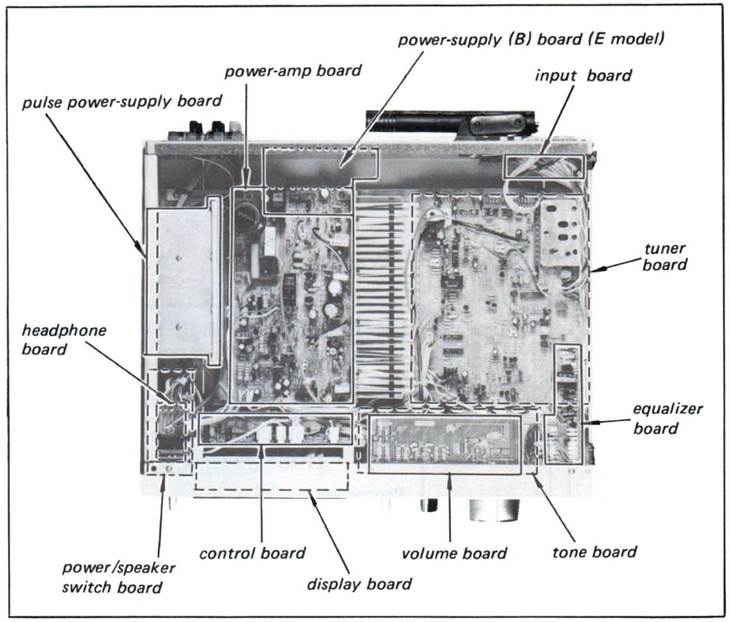
CIRCUIT BOARDS LOCATION

With the set removed shown below, each circuit board can be checked.

US, Canadian model



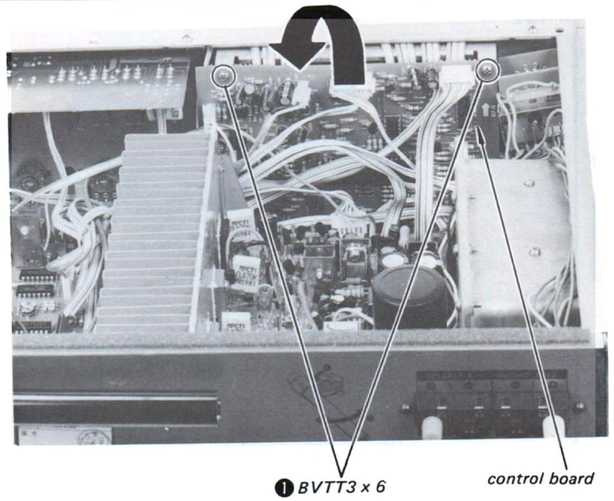
AEP, UK, E model



CONTROL BOARD REMOVAL

US, Canadian model

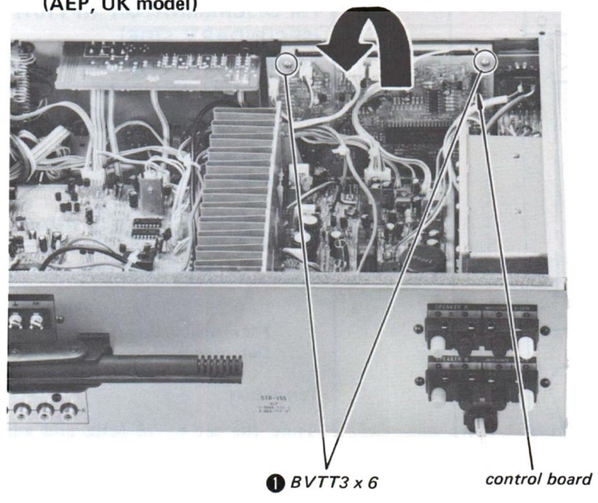
❷ Pull up the board in the direction shown by the arrow.



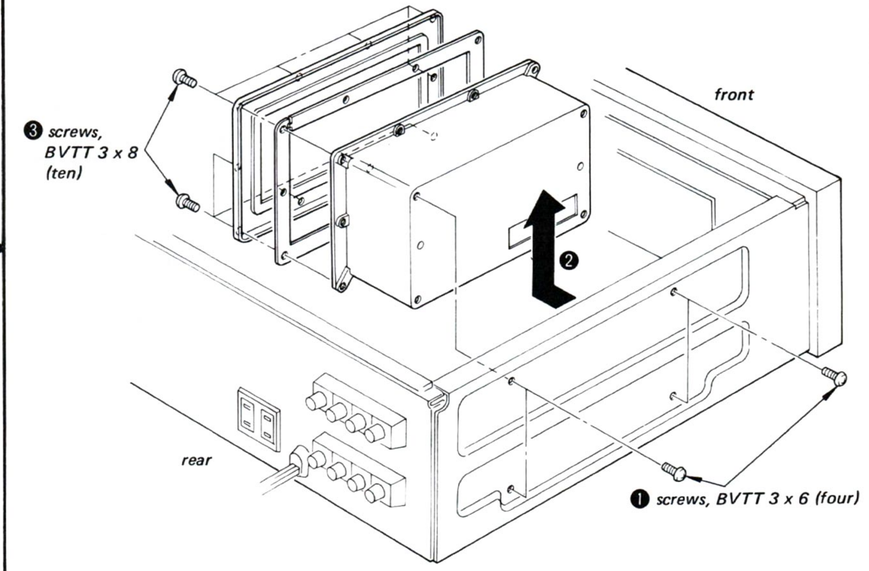
AEP, UK, E model

❷ Pull up the board in the direction shown by the arrow.

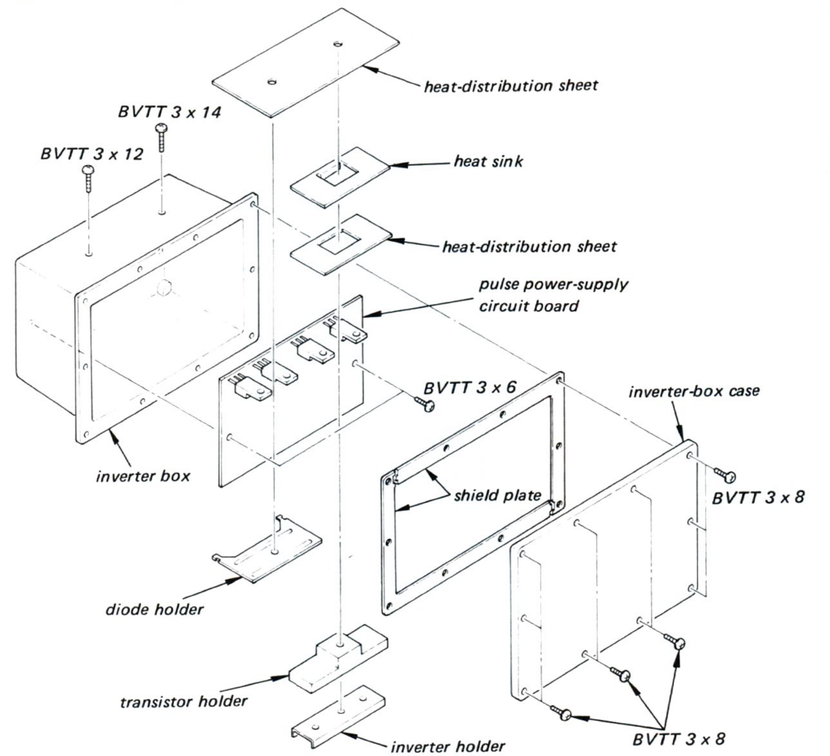
(AEP, UK model)



PULSE POWER BLOCK REMOVAL



PULSE POWER SUPPLY BOARD REMOVAL



SECTION 3
ADJUSTMENTS

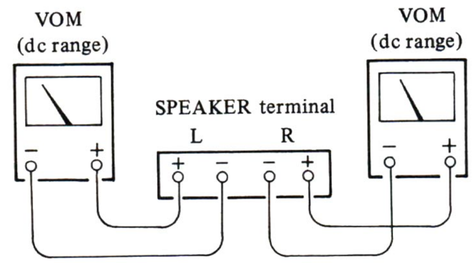
3-1. AMPLIFIER SECTION

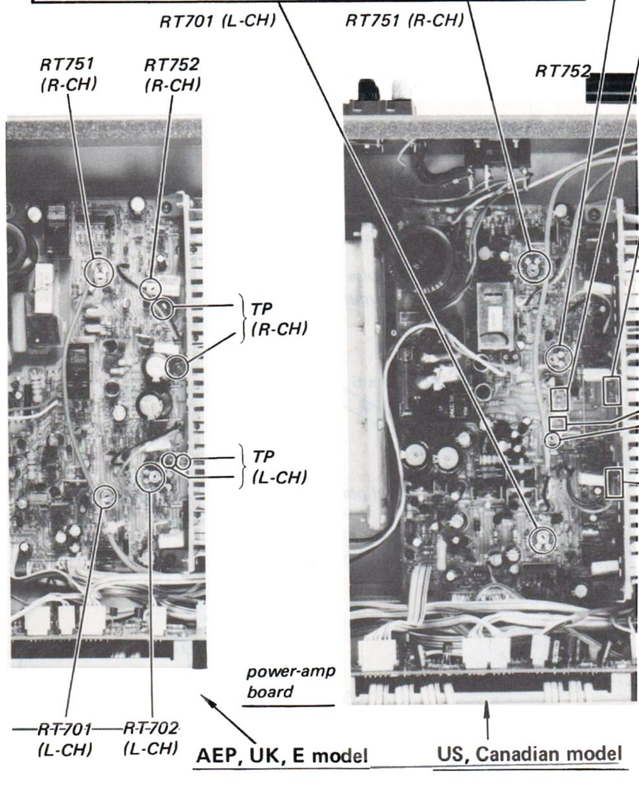
Note:
1. DC bias and DC balance adjustments should be made several minutes later after the POWER switch is turned on (POWER ON.).
2. Make DC bias adjustment first.
3. Repeat DC bias and DC balance adjustments two or three times.
4. After replacing the power transistors, DC bias and DC balance adjustments should be made.

DC Balance Adjustment
(With no signal input)

–L-CH–
Adjust RT701 for 0V
dc reading on VOM.

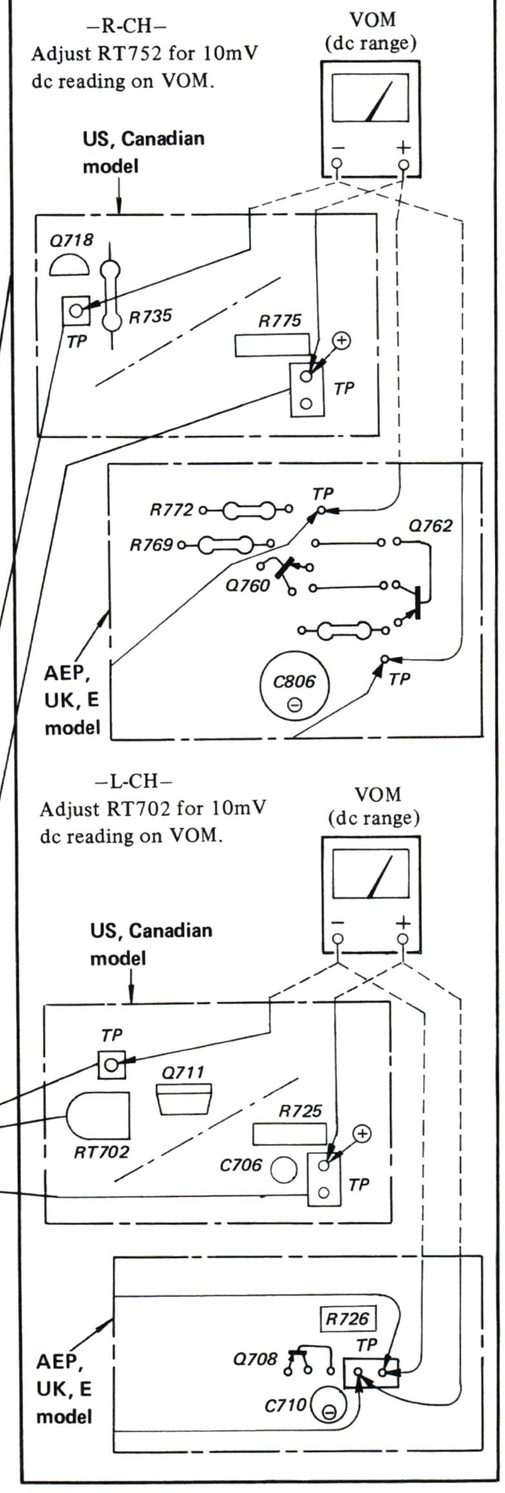
–R-CH–
Adjust RT751 for 0V
dc reading on VOM.





DC Bias Adjustment
(With no signal input)

–R-CH–
Adjust RT752 for 10mV
dc reading on VOM.



–L-CH–
Adjust RT702 for 10mV
dc reading on VOM.

3-2. FM SECTION

FM stereo standard signal	FM monaural standard signal
Carrier frequency: 98MHz Modulation: Audio 400Hz 33.75kHz deviation (US, Canadian, E model) 16.25kHz deviation (AEP, UK model) Sub carrier 38kHz 33.75kHz deviation (US, Canadian, E model) 16.25kHz deviation (AEP, UK model) Pilot signal 19kHz 7.5kHz deviation	Carrier frequency: 98MHz Modulation: 400Hz, 75kHz deviation (100%) (US, Canadian, E model) 40kHz deviation (100%) (AEP, UK model)

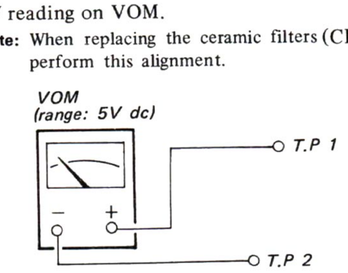
FM DISCRIMINATOR (IFT101) ALIGNMENT 1 (PRIMARY SIDE)

Setting: FUNCTION switch: TUNER
FM/AM switch: FM
MODE switch: MONO
TUNING switch: Detuned position

Procedure:

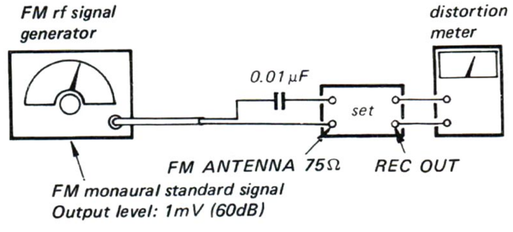
Adjust the orange core (primary-side) of IFT 101 for 0V reading on VOM.

Note: When replacing the ceramic filters (CF101–CF104), perform this alignment.



FM DISCRIMINATOR (IFT101) ALIGNMENT 2 (SECONDARY SIDE)

Setting: FUNCTION switch: TUNER
FM/AM switch: FM
MODE switch: MONO



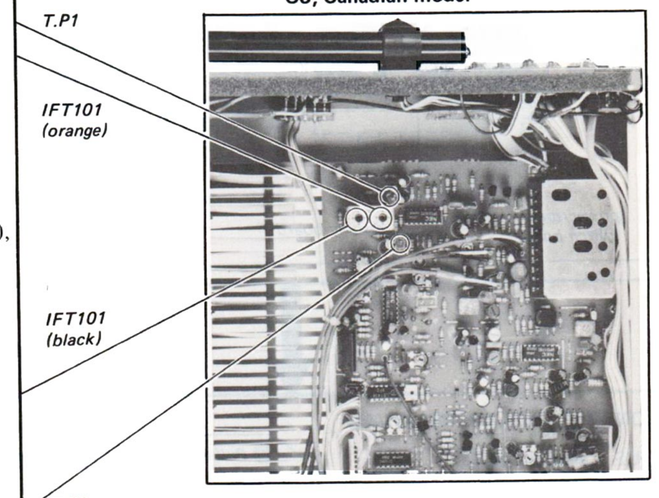
Procedure:

Tune the set to 98 MHz and adjust the black core (secondary side) of IFT101 for minimum distortion.

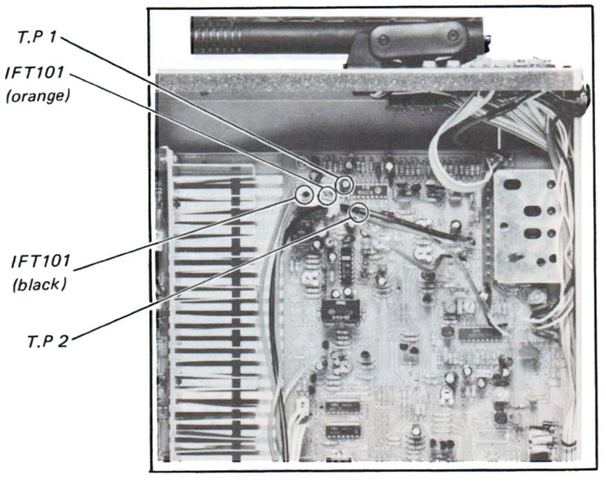
Note: Repeat the primary-side and secondary-side alignments several times.

tuner board

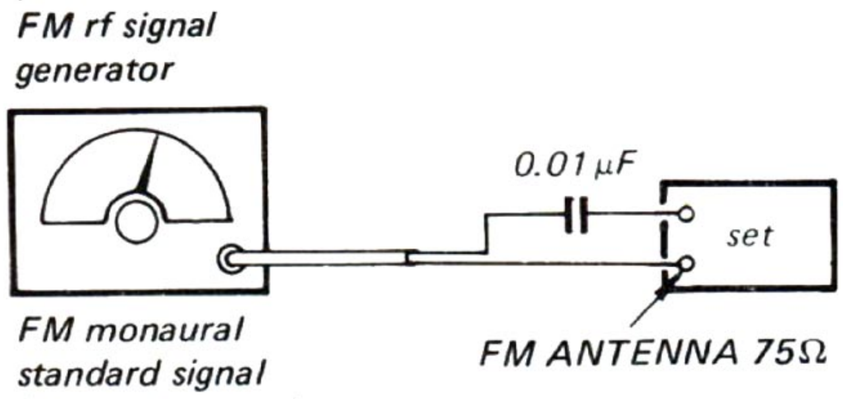
US, Canadian model

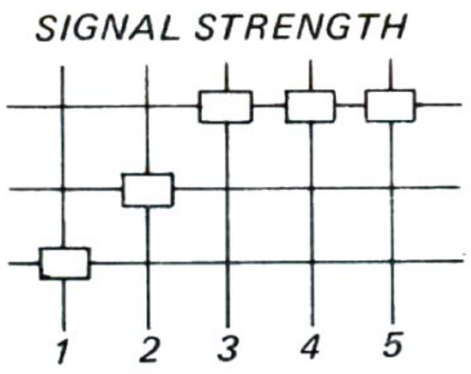


AEP, UK, E model



SIGNAL INDICATOR ADJUSTMENT



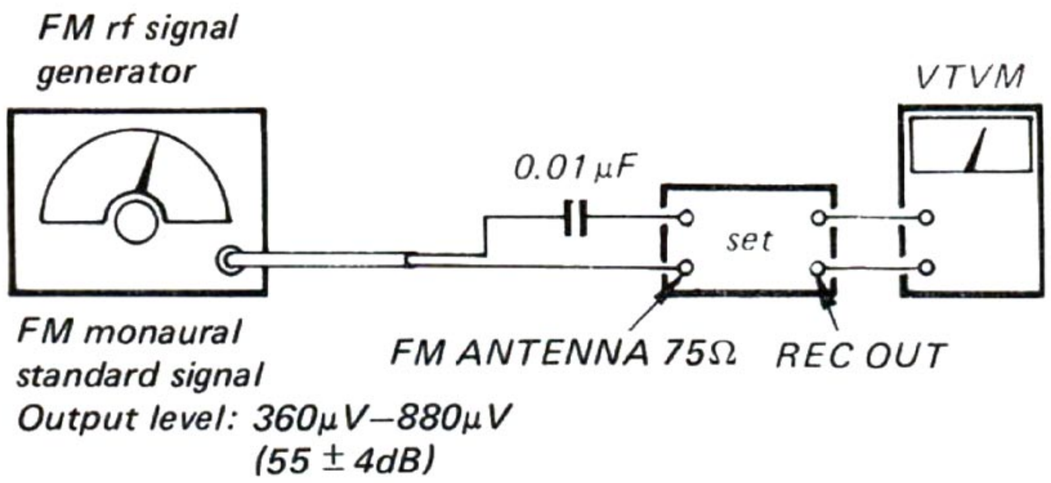


Procedure:

Tune the set to 98MHz and adjust RT301 (US, Canadian model) or RT101 (AEP, UK, E model) for all five LEDs of SIGNAL STRENGTH indicator lighting.

FM TUNING LEVEL ADJUSTMENT

Setting: TUNING LEVEL switch: HIGH



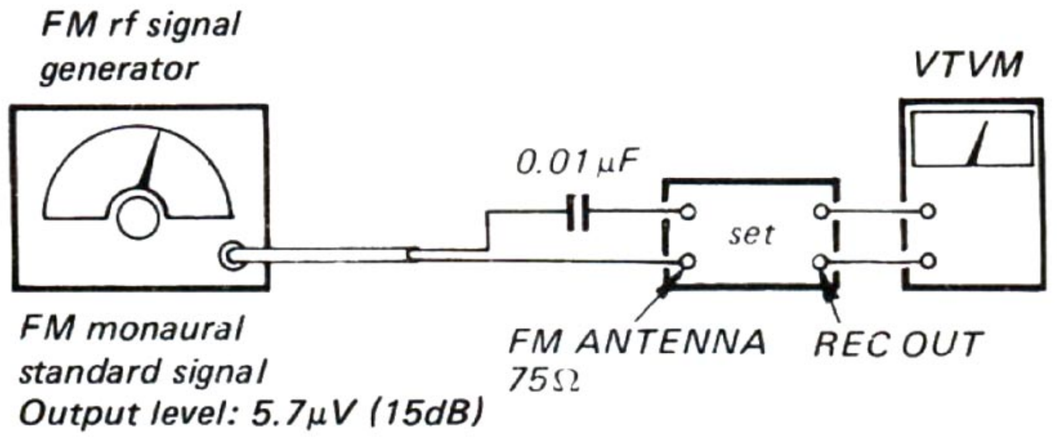
Procedure:

Tune the set to 98MHz.

By varying the output level of the FM signal generator from 360μV (51dB) to 880μV (59dB), adjust RT101 (US, Canadian model) or RT102 (AEP, UK, E model) so that the frequency scanning stops (observing the frequency indicator of the set).

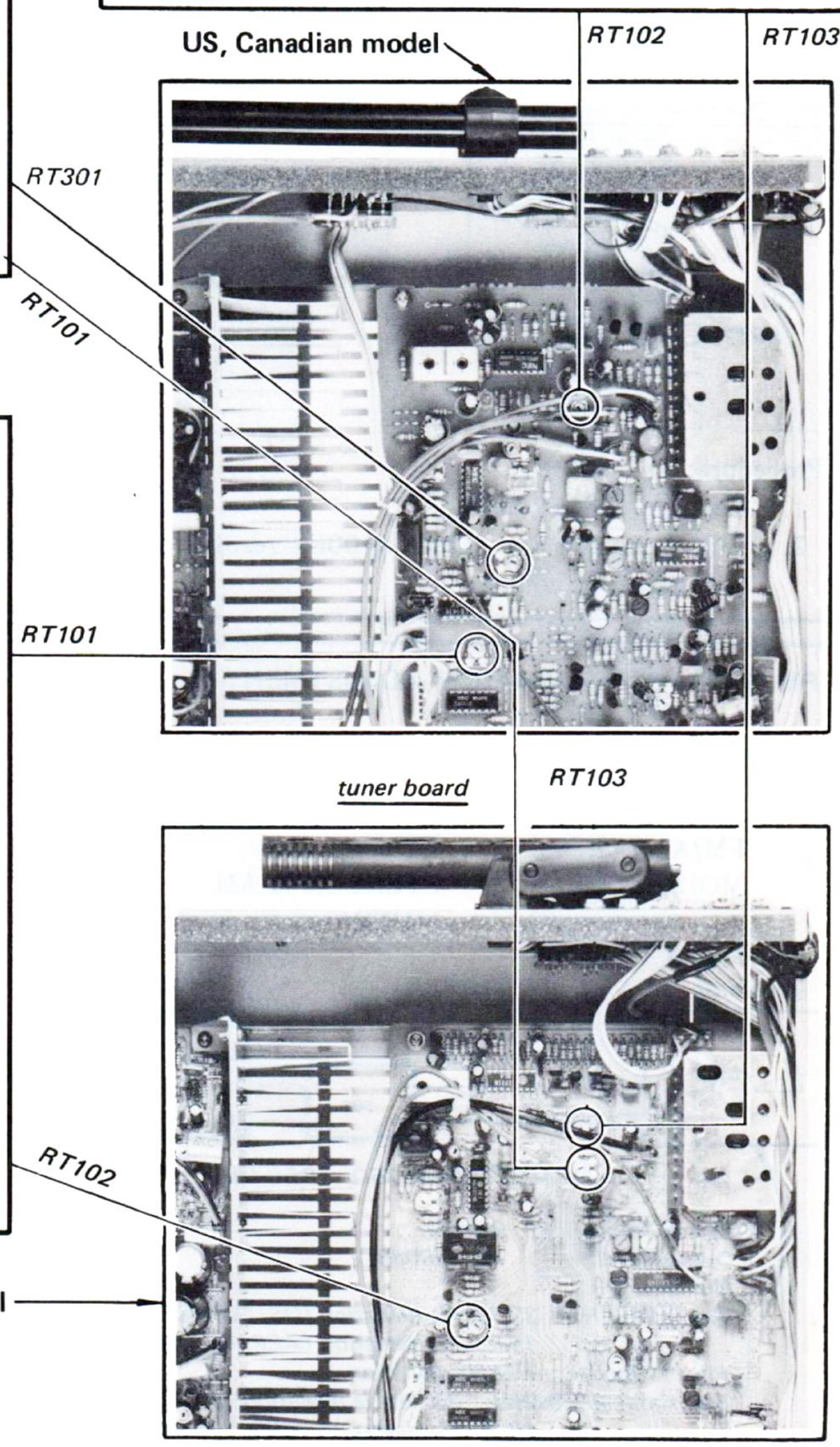
FM MUTING LEVEL ADJUSTMENT

Setting: TUNING LEVEL-LOW switch: ON



Procedure:

1. Tune the set to 98MHz.
2. Turn RT102 (US, Canadian model) or RT103 (AEP, UK, E model) until the VTVM reading drops to 0V.

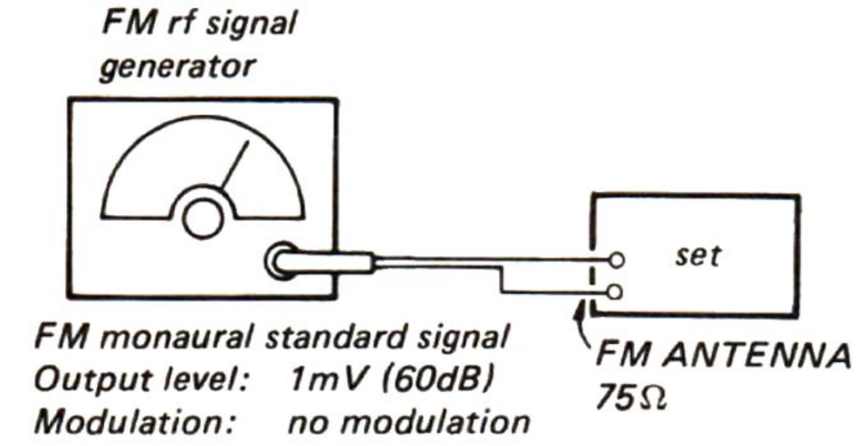


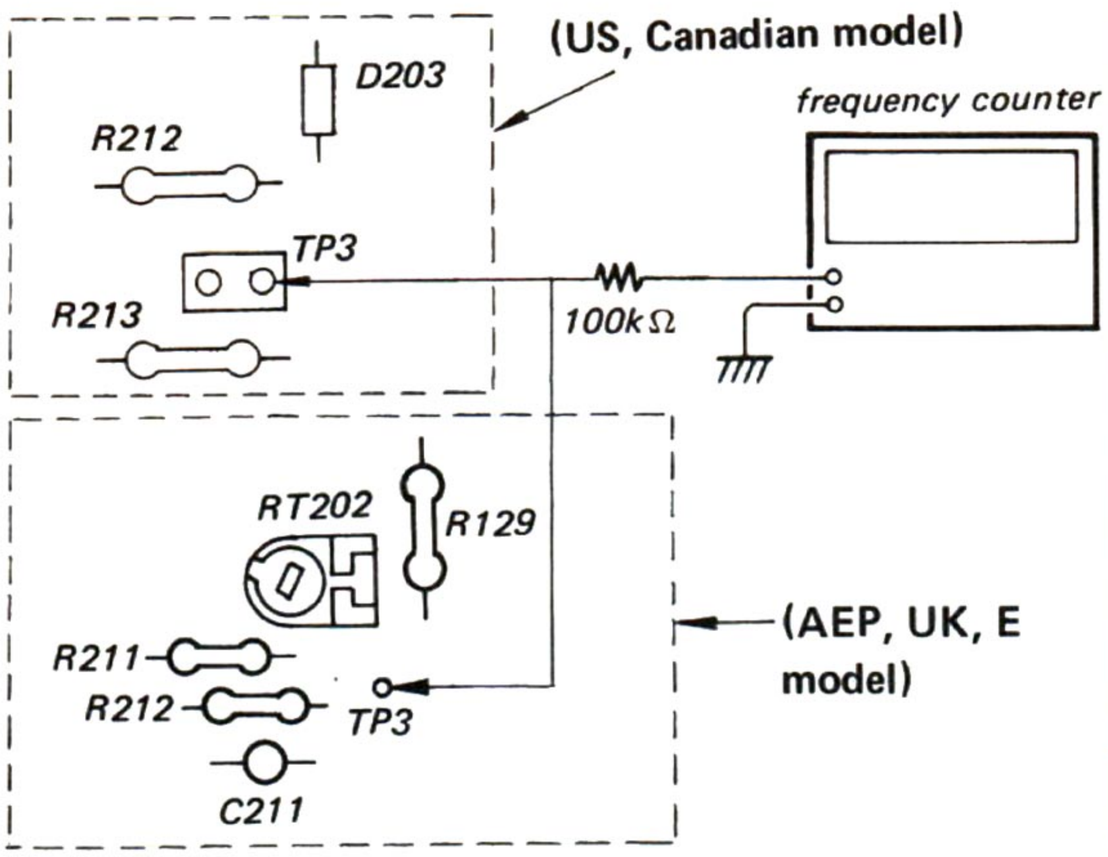
VCO ADJUSTMENT

Setting:

FUNCTION switch:	TUNER
FM/AM switch:	FM
MODE switch:	MONO

A) Regular Method





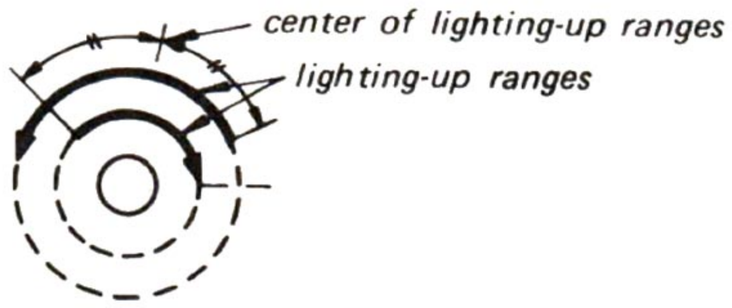
Procedure:

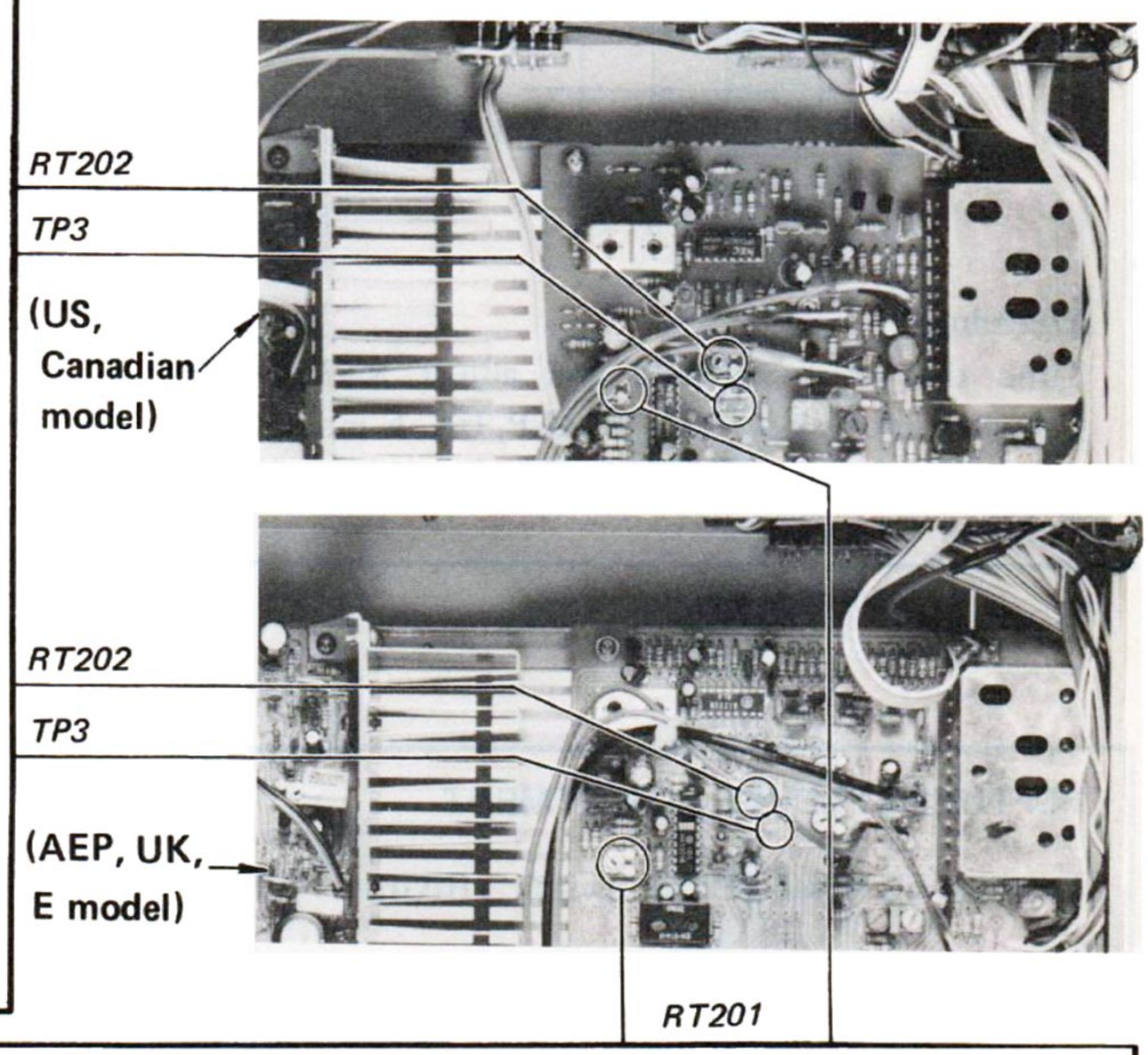
1. Tune the set to 98MHz.
2. Adjust RT202 for 76kHz ±100Hz reading on the frequency counter.

B) Simple Method

Procedure:

1. Tune the set to the FM stereo broadcasting signal.
2. Turn RT202 clockwise or counterclockwise and memorize the lighting-up ranges of STEREO lamp.
3. Secure RT202 at the center of the lighting-up range of both turns as shown below.

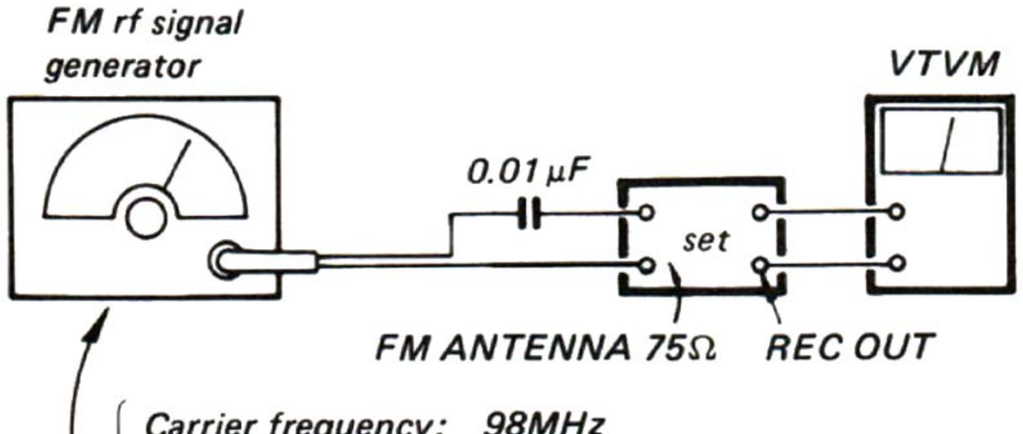




FM STEREO SEPARATION ADJUSTMENT

Setting:

FUNCTION switch:	TUNER
FM/AM switch:	FM
MODE switch:	STEREO/FM-AM MUTING



Procedure:

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RT201 resistor for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RT201 resistor for minimum reading.

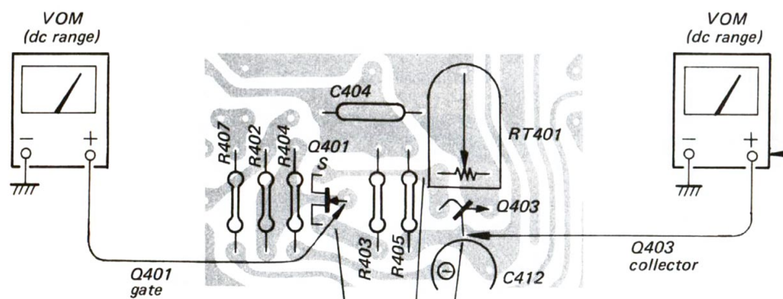
L-CH Stereo Separation: Ⓐ – Ⓑ
R-CH Stereo Separation: Ⓒ – Ⓓ

The separations of both channels should be equal.

PLL AJUSTMENT

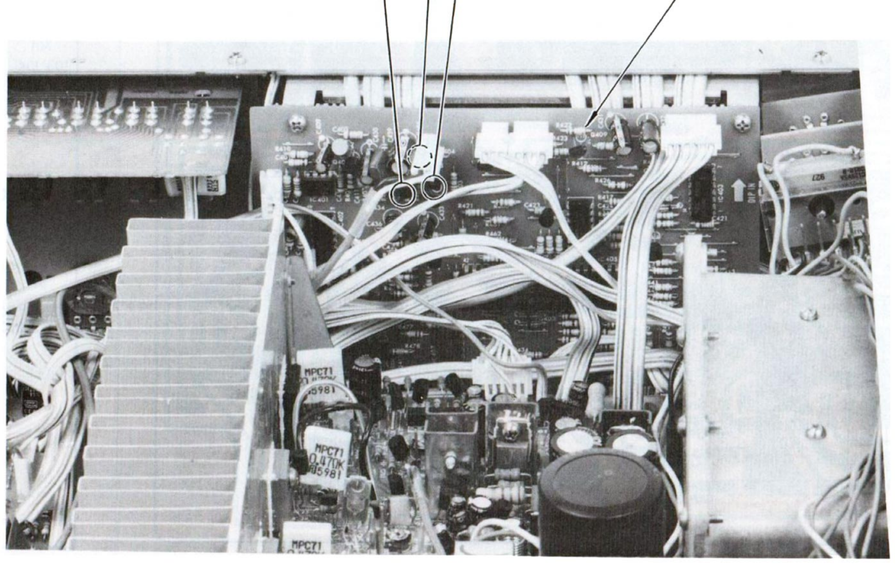
Procedure:

1. Tune the set to 98 MHz.
2. Turn RT401 to obtain 0.4V at the gate lead of Q401.

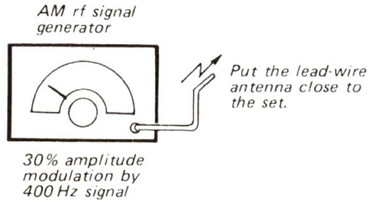


Q401 RT401 Q403

control board

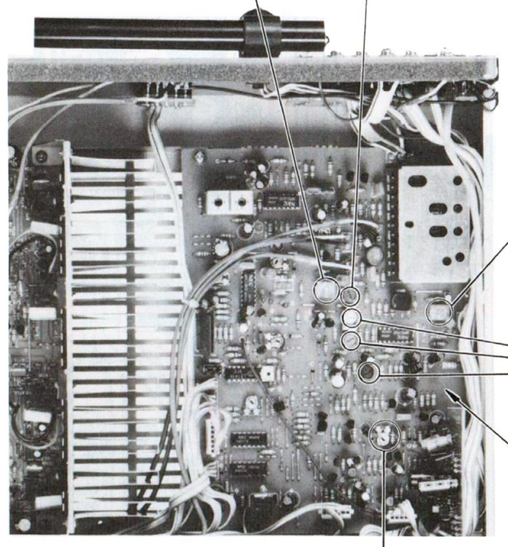


3-3. AM SECTION

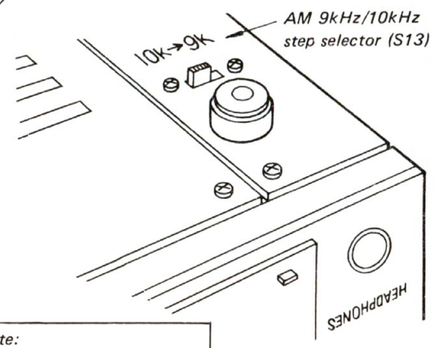


AM FREQUENCY COVERAGE ADJUSTMENT (9/10kHz step)		
Frequency Counter Indication	1602/1610kHz	522/530kHz
Q403 Collector Voltage	25V	1V
Adjust	CT302	L303

CT302 L303



CT301

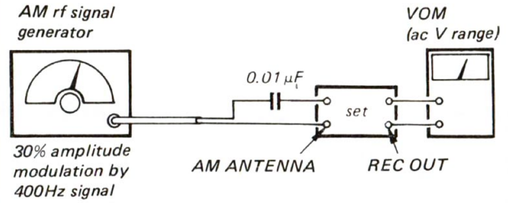


Note:
When IFT301 through 303 are replaced, they do not need readjustment since they have been factory adjusted.

tuner board

RT302

AM TRACKING ADJUSTMENT



Output level: 30–100µV (30–40dB)
Carrier frequency: 603/600, 1395/1400kHz (9/10kHz step)

Procedure:

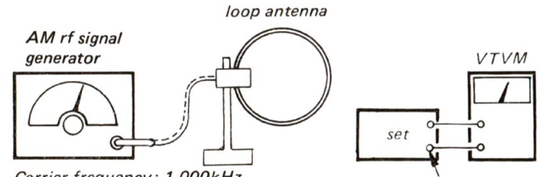
Tune the set to the frequency of AM rf signal generator and adjust L1 and CT301 for maximum reading on the VOM.

	AM Rf Signal Generator Frequency	Adjust	VOM Reading
1	603/600kHz	Core of L1	maximum
2	1395/1400kHz	CT301	

Note: Repeat the above adjustment several times ending with CT301.

AM TUNING ELVEL ADJUSTMENT

Setting: TUNING LEVEL–LOW switch: ON



Procedure:

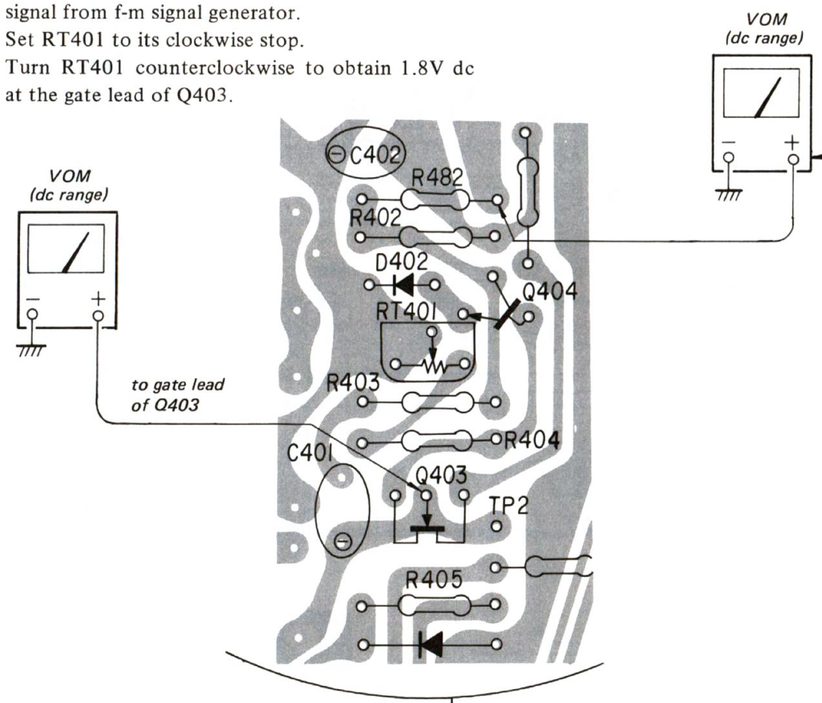
1. Place the loop antenna at a distance of 60cm ($23^5/_8$") away from the ferrite-rod antenna in the set.
2. Turn RT302 until the VTVM reading drops to 0V with the output level of AM signal generator of 86 ±4dB.

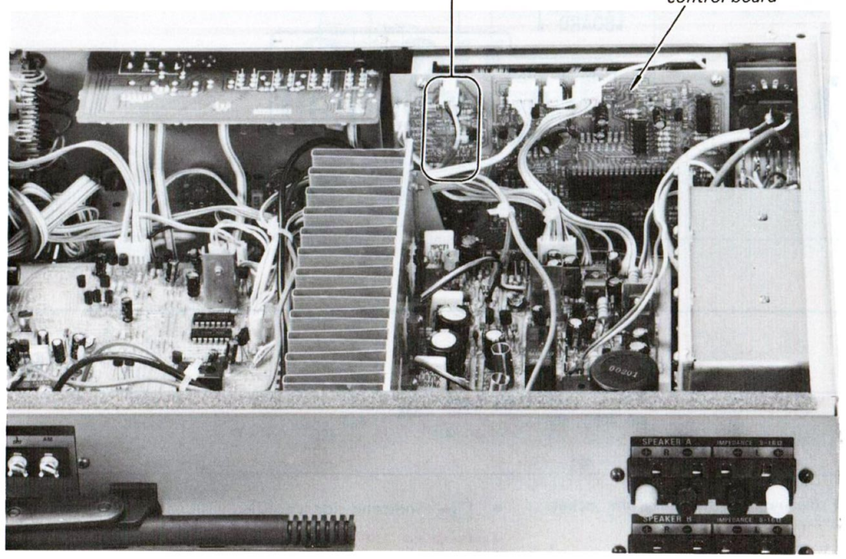
PLL ADJUSTMENT

Setting: FM/AM switch: FM

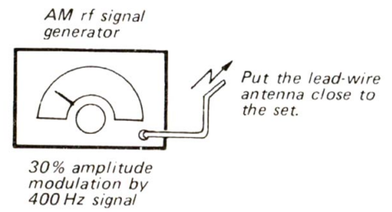
Procedure:

1. Tune the set to 87.5 MHz and receive a 87.5 MHz signal from f-m signal generator.
2. Set RT401 to its clockwise stop.
3. Turn RT401 counterclockwise to obtain 1.8V dc at the gate lead of Q403.



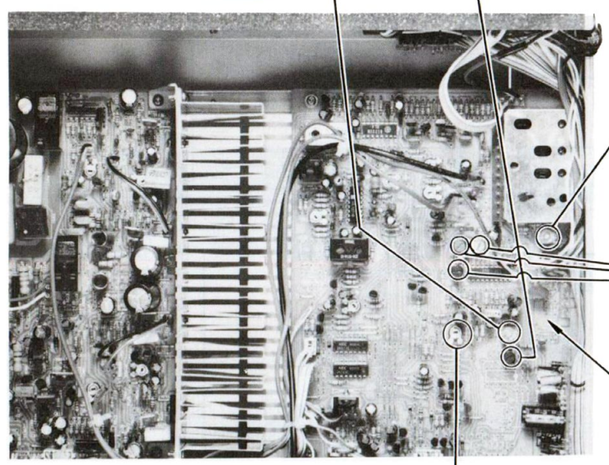


3-3. AM SECTION

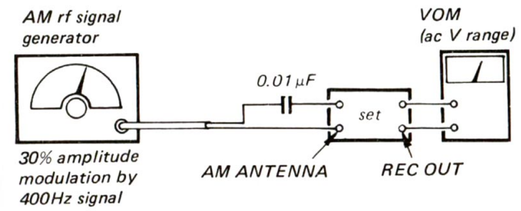


Set S16 to "9kHz" side.

AM FREQUENCY COVERAGE ADJUSTMENT		
Frequency Counter Indication	1602kHz	522kHz
VOM reading	22V	1.5V
Adjust	CT304	L303



AM TRACKING ADJUSTMENT



Output level: 30–100μV (30–40dB)
Carrier frequency: 603, 1404kHz

Procedure:

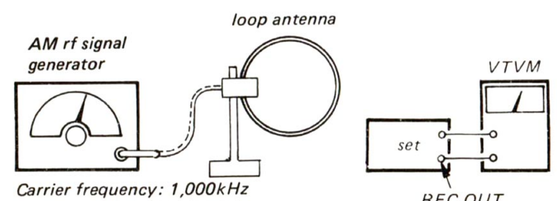
Tune the set to the frequency of AM rf signal generator and adjust L001 and CT302 for maximum reading on the VOM.

	AM Rf Signal Generator Frequency	Adjust	VOM Reading
1	603kHz	Core of L001	maximum
2	1404kHz	CT302	

Note: Repeat the above adjustment several times ending with CT302.

AM TUNING LEVEL ADJUSTMENT

Setting: TUNING LEVEL–LOW switch: ON



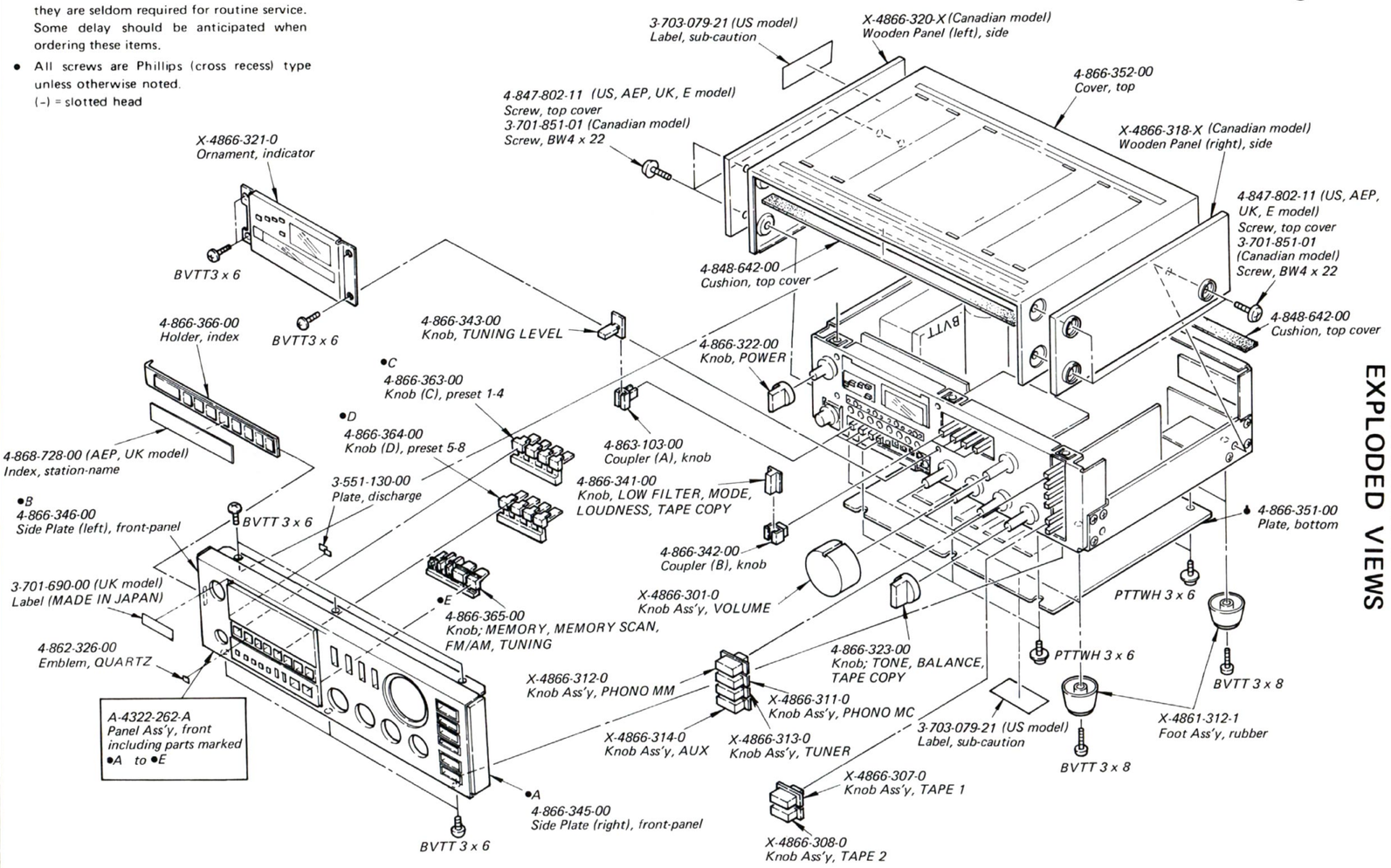
Carrier frequency: 1,000kHz
Output level: 0.02V (86dB)
Modulation: 400Hz, 30%

Procedure:

1. Place the loop antenna at a distance of 60cm ($23^5/_8$") away from the ferrite-rod antenna in the set.
2. Turn RT301 until the VTVM reading drops to 0V with the output level of AM signal generator of 86 ±4dB.

Note:
- Items marked "♦" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head

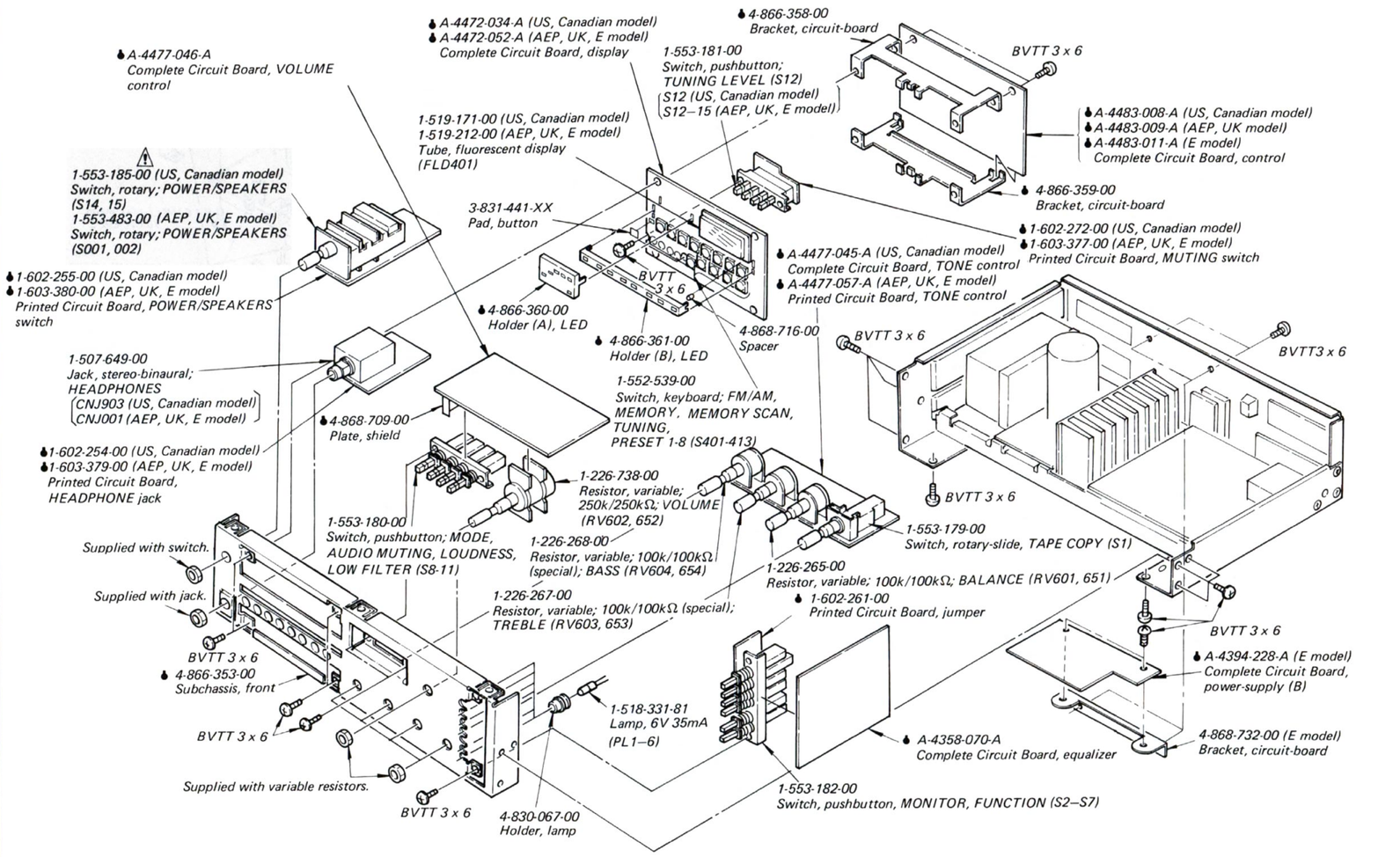
(1)



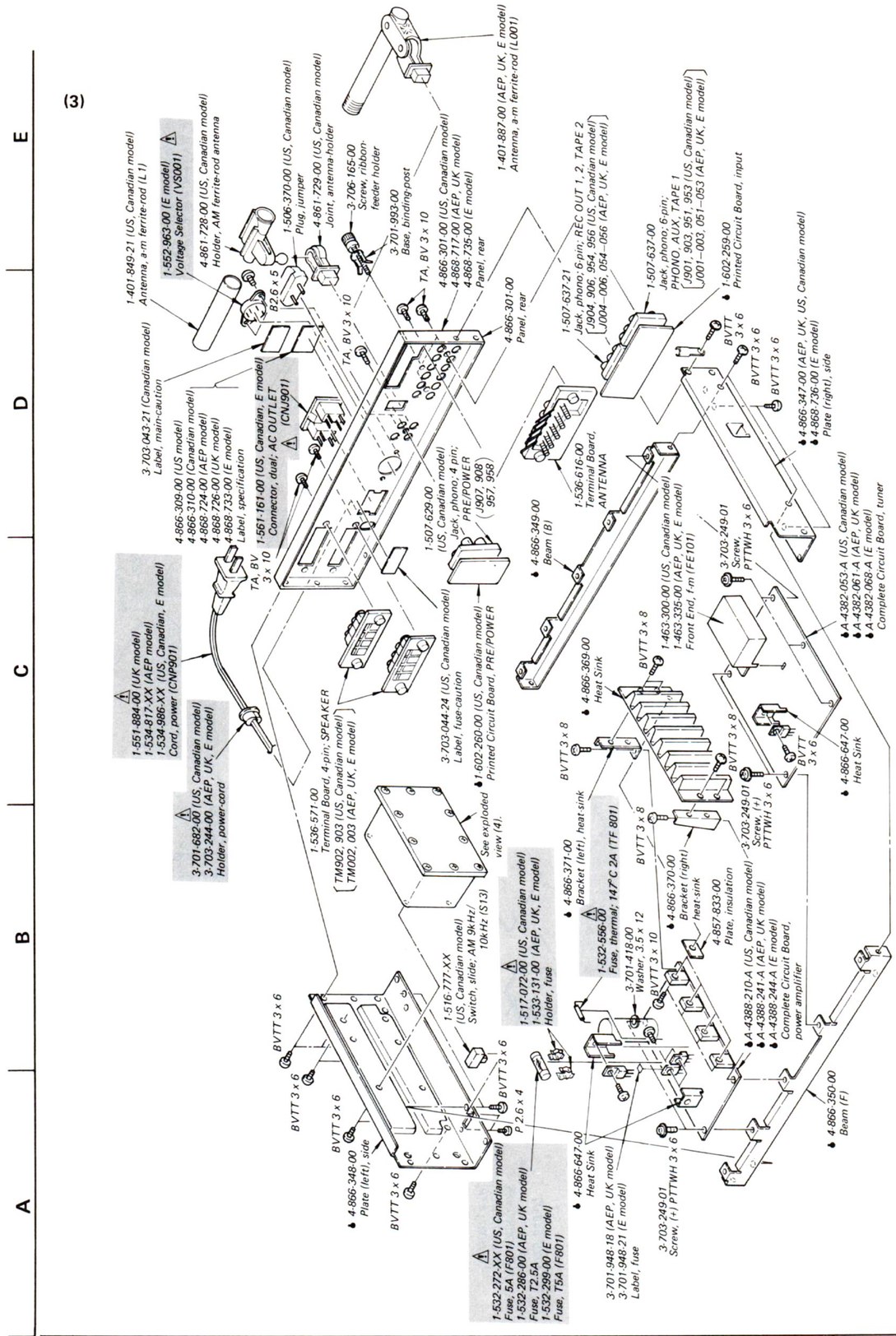
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

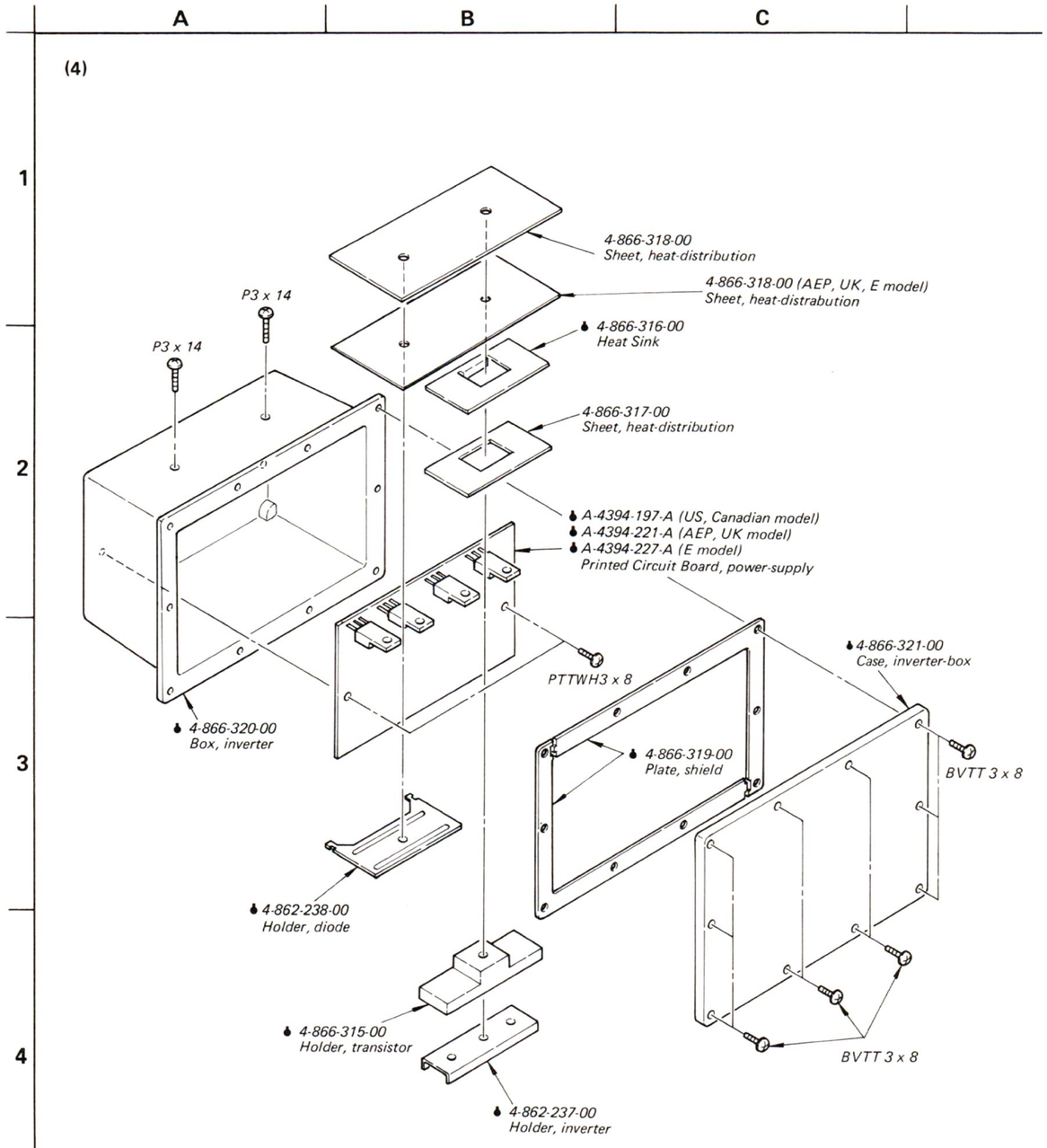
(2)



(3)


1.401 849-21 (US, Canadian model) Antenna, a-m ferrite-rod (L1)
1-552-963-00 (E model) Voltage Selector (VSD01)
4-861-728-00 (US, Canadian model) Holder, AM ferrite-rod antenna
1-506-370-00 (US, Canadian model) Plug, jumper
4-861-729-00 (US, Canadian model) Joint, antenna-holder
3-706-165-00 Screw, ribbon-feeder holder
3-701-993-00 Base, binding-post
TA, BV 3 x 10
1-401-887-00 (AEP, UK, E model) Antenna, a-m ferrite-rod (L001)
4-866-301-00 (US, Canadian model)
4-868-717-00 (AEP, UK model)
4-868-735-00 (E model) Panel, rear
4-866-301-00 Panel, rear
1-507-637-21 Jack, phono; 6-pin; REC OUT 1, 2, TAPE 2 (J904, 906, 954, 956 (US, Canadian model) J004–006, 054–056 (AEP, UK, E model)
1-507-637-00 Jack, phono; 6-pin; PHONO, AUX, TAPE 1 (J901, 903, 951, 953 (US, Canadian model) J001–003, 051–053 (AEP, UK, E model)
1-602-259-00 Printed Circuit Board, input
BVTT 3 x 6
4-866-347-00 (AEP, UK, US, Canadian model)
4-868-736-00 (E model) Plate (right), side
3.703.043.21 (Canadian model) Label, main-caution
4-866-309-00 (US model)
4-866-310-00 (Canadian model)
4-868-724-00 (AEP model)
4-868-726-00 (UK model)
4-868-733-00 (E model) Label, specification
1-561-161-00 (US, Canadian, E model) Connector, dual; AC OUTLET (CNJ901)
TA, BV 3 x 10
1-507-629-00 (US, Canadian model) Jack, phono; 4 pin; PRE/POWER (J907, 908 957, 958)
1-536-616-00 Terminal Board, ANTENNA
4-866-349-00 Beam (B)
A-4382-053-A (US, Canadian model)
A-4382-061-A (AEP, UK model)
A-4382-068-A (E model) Complete Circuit Board, tuner
1-551-884-00 (UK model)
1-534-817-XX (AEP model)
1-534-986-XX (US, Canadian, E model) Cord, power (CNP901)
3-701-682-00 (US, Canadian model)
3-703-244-00 (AEP, UK, E model) Holder, power-cord
3-703-044-24 (US, Canadian model) Label, fuse-caution
1-602-260-00 (US, Canadian model) Printed Circuit Board, PRE/POWER
1-536-571-00 Terminal Board, 4-pin; SPEAKER (TM902, 903 (US, Canadian model) TM002, 003 (AEP, UK, E model)
See exploded view (4).
4-866-369-00 Heat Sink
1-463-300-00 (US, Canadian model)
1-463-335-00 (AEP, UK, E model) Front End, f-m (FE101)
3-703-249-01 Screw, PTTWH 3 x 6
BVTT 3 x 8
4-866-371-00 Bracket (left), heat sink
4-866-370-00 Bracket (right) heat sink
4-857-833-00 Plate, insulation
3-703-249-01 Screw, (+) PTTWH 3 x 6
4-866-647-00 Heat Sink
1-516-777-XX (US, Canadian model) Switch, slide; AM 9kHz/ 10kHz (S13)
1-517-072-00 (US, Canadian model)
1-533-131-00 (AEP, UK, E model) Holder, fuse
1-532-556-00 Fuse, thermal; 147°C 2A (TF 801)
3-701-418-00 Washer, 3.5 x 12
BVTT 3 x 10
4-388-210-A (US, Canadian model)
4-388-241-A (AEP, UK model)
4-388-244-A (E model) Complete Circuit Board, power amplifier
4-866-348-00 Plate (left), side
BVTT 3 x 6
P 2.6 x 4
1-532-272-XX (US, Canadian model) Fuse, 5A (F801)
1-532-286-00 (AEP, UK model) Fuse, T2.5A
1-532-299-00 (E model) Fuse, T5A (F801)
4-866-647-00 Heat Sink
3-701-948-18 (AEP, UK model)
3-701-948-21 (E model) Label, fuse
4-866-350-00 Beam (F)
A
B
C
D
E
1
2
3
4

(4)


A
B
C
1
2
3
4
5
4-866-318-00 Sheet, heat-distribution
4-866-318-00 (AEP, UK, E model) Sheet, heat-distrabution
P3 x 14
4-866-316-00 Heat Sink
4-866-317-00 Sheet, heat-distribution
A-4394-197-A (US, Canadian model)
A-4394-221-A (AEP, UK model)
A-4394-227-A (E model) Printed Circuit Board, power-supply
4-866-321-00 Case, inverter-box
PTTWH3 x 8
4-866-320-00 Box, inverter
4-866-319-00 Plate, shield
BVTT 3 x 8
4-862-238-00 Holder, diode
4-866-315-00 Holder, transistor
4-862-237-00 Holder, inverter

SECTION 6
ELECTRICAL PARTS LIST

Ref. No.	*Part No.*	*Description*
		SEMICONDUCTORS
		Transistors
Q101–104	8-729-671-14	2SC710
Q105, 106	8-729-671-14	2SC710 (AEP, UK, E model)
Q107	8-729-663-47	2SC1364 (AEP, UK, E model)
Q201–207	8-729-663-47	2SC1364 (US, Canadian model)
Q208	8-729-201-52	2SA1015 (US, Canadian model)
Q301, 302	8-729-663-47	2SC1364
Q303	8-729-203-04	2SK30A (AEP, UK, E model)
	8-729-663-47	2SC1364 (US, Canadian model)
Q304	8-729-398-62	2SC1986 (AEP, UK, E model)
	8-729-663-47	2SC1364 (US, Canadian model)
Q305–308	8-729-663-47	2SC1364
Q309	8-729-203-04	2SK30A (US, Canadian model)
	8-729-663-47	2SC1364 (AEP, UK, E model)
Q310	8-729-308-72	2SC1986D (US, Canadian model)
	8-729-663-47	2SC1364 (AEP, UK, E model)
Q311	8-729-612-77	2SA1027R (AEP, UK, E model)
	8-729-663-47	2SC1364 (US, Canadian model)
Q312–317	8-729-663-47	2SC1364 (AEP, UK, E model)
Q321, 322	8-729-663-47	2SC1364 (AEP, UK, E model)
Q401	8-729-203-04	2SK30A (US, Canadian model)
Q402	8-729-377-58	2SC1775 (US, Canadian model)
Q403	8-729-203-05	2SK30A-GR3 (AEP, UK, E model)
	8-729-377-58	2SC1775 (US, Canadian model)
Q404	8-729-665-47	2SC1362 (AEP, UK, E model)
	8-729-663-47	2SC1364 (US, Canadian model)
Q405	8-729-201-52	2SA1015 (US, Canadian model)
	8-729-663-47	2SC1364 (AEP, UK, E model)
Q406, 407	8-729-201-52	2SA1015 (AEP, UK, E model)
	8-729-663-47	2SC1364 (US, Canadian model)
Q408	8-729-663-47	2SC1364 (AEP, UK, E model)
	8-729-201-52	2SA1015 (US, Canadian model)
Q409	8-729-663-47	2SC1364
Q410, 411	8-729-201-52	2SA1015 (US, Canadian model)
	8-729-663-47	2SC1364 (AEP, UK, E model)
Q412	8-729-663-47	2SC1364
Q413	8-729-663-47	2SC1364 (AEP, UK, E model)
Q414, 415	8-729-663-47	2SC1364 (US, Canadian model)
Q501, 551 Q502, 552	8-729-354-52	2SC2545
Q503	8-729-663-47	2SC1364
Q601, 651	8-761-622-00	2SC1636 (US, Canadian model)
Q701, 751	8-729-663-47	2SC1364 (US, Canadian model)
	8-729-672-52	2SC2725 (AEP, UK, E model)
Q702, 752	8-729-663-47	2SC1364
Q703, 753	8-729-610-92	2SK109 (US, Canadian model)
	8-729-697-92	2SA979 (AEP, UK, E model)
Q704, 754	8-729-663-47	2SC1364 (US, Canadian model)
	8-729-601-42	2SC1914A (AEP, UK, E model)
Q705, 755	8-729-697-92	2SA979 (US, Canadian model)
	8-729-204-91	2SA1049 (AEP, UK, E model)
Q706, 756	8-729-609-42	2SA904A (US, Canadian model)
	8-729-663-47	2SC1364 (AEP, UK, E model)
Q707, 757	8-729-601-42	2SC1914A (US, Canadian model)
	8-729-663-47	2SC1364 (AEP, UK, E model)
Q708, 758	8-729-635-82	2SD358 (US, Canadian model)
	8-729-204-91	2SA1049 (AEP, UK, E model)
Q709, 759	8-729-663-47	2SC1364 (US, Canadian model)
	8-729-635-82	2SD358 (AEP, UK, E model)
Q710, 760	8-729-612-77	2SA1027R (US, Canadian model)
	8-729-652-82	2SB528 (AEP, UK, E model)
Q711, 761	8-729-652-82	2SB528 (US, Canadian model)
	8-729-168-11	2SC2681 (AEP, UK, E model)
Q712, 762	8-729-168-11	2SC2681 (US, Canadian model)
	8-729-114-11	2SA1141 (AEP, UK, E model)
Q713, 763	8-729-114-11	2SA1141 (US, Canadian model)
Q714, 715 Q764, 765	8-729-204-91	2SA1049 (US, Canadian model)
Q716–721	8-729-663-47	2SC1364 (US, Canadian model)
Q722	8-729-612-77	2SA1027R (US, Canadian model)
Q723	8-729-309-06	2SC1890A (US, Canadian model)
Q801	8-729-217-33	2SC1173
Q802	8-729-663-47	2SC1364
Q803	8-729-663-47	2SC1364 (US, Canadian model)
	8-729-634-03	2SK34 (AEP, UK, E model)
Q804	8-729-634-03	2SK34 (US, Canadian model)
	8-729-217-33	2SC1173 (AEP, UK, E model)
Q805	8-729-217-33	2SC1173 (US, Canadian model)
	8-729-634-03	2SK34 (AEP, UK, E model)
Q806	8-729-634-03	2SK34 (US, Canadian model)
	8-729-663-47	2SC1364 (AEP, UK, E model)
Q807	8-729-247-33	2SA473 (AEP, UK, E model)
	8-729-663-47	2SC1364 (US, Canadian model)
Q808	8-729-634-03	2SK34 (AEP, UK, E model)
Q809	8-729-612-77	2SA1027R (AEP, UK, E model)
	8-729-634-03	2SK34 (US, Canadian model)
Q810	8-729-612-77	2SA1027R (US, Canadian model)
	8-729-247-33	2SA473 (AEP, UK, E model)
Q811	8-729-663-47	2SC1364 (US, Canadian model)
	8-729-634-03	2SK34 (AEP, UK, E model)
Q812	8-729-663-47	2SC1364
Q813	8-729-247-33	2SA473 (US, Canadian model)
Q814	8-729-634-03	2SK34 (US, Canadian model)
Q815	8-729-612-77	2SA1027R (US, Canadian model)
Q816	8-729-663-47	2SC1364 (US, Canadian model)
Q817, 818	8-729-612-77	2SA1027R (US, Canadian model)
Q819, 820	8-729-663-47	2SC1364 (US, Canadian model)
Q901 ⚠	8-729-663-47	2SC1364 (AEP, UK, E model)
	8-729-612-77	2SA1027R (US, Canadian model)
Q902 ⚠	8-729-612-77	2SA1027R (AEP, UK, E model)
	8-729-663-47	2SC1364 (US, Canadian model)
Q903, 904 ⚠	8-729-954-21	2SC2542 (AEP, UK, E model)
	8-729-976-71	2SC2767 (US, Canadian model)
		ICs
IC101	8-759-111-67	μPC1167C (US, Canadian model)
	8-759-812-31	LA1231 (AEP, UK, E model)
IC201	8-759-111-61	μPC1161C (US, Canadian model)
	8-759-320-16	HA12016 (AEP, UK, E model)
IC301	8-759-111-78	μPC1178C (US, Canadian model)
IC302	8-759-814-16	LB1416 (US, Canadian model)
IC303	8-759-140-11	μPD4011C (US, Canadian model)
	8-759-984-69	MB84069B (AEP, UK, E model)
IC304	8-759-140-69	μPD4069C (US, Canadian model)
	8-759-140-11	μPD4011C (AEP, UK, E model)
IC401	8-759-155-21	μPB552C (US, Canadian model)
	8-759-153-65	μPD553C-065 (AEP, UK, E model)
IC402	8-759-128-19	μPD2819C (US, Canadian model)
	8-759-607-78	CX778 (AEP, UK, E model)
IC403	8-759-140-69	μPD4069C (US, Canadian model)
	8-759-140-11	μPD4011C (AEP, UK, E model)
IC404	8-759-140-01	μPD4001C (US, Canadian model)
	8-759-100-67	μPA67C (AEP, UK, E model)
IC405	8-759-152-37	μPD552C037 (US, Canadian model)
	8-757-611-00	CX761A (AEP, UK, E model)
IC406	8-757-611-00	CX761A (US, Canadian model)
	8-759-920-10	1R2E01 (AEP, UK, E model)
IC407	8-759-100-67	μPA67C (US, Canadian model)
IC501, 551	8-759-652-14	M5214L
IC601	8-759-745-60	NJM4560D
IC731	8-759-320-02	HA12002 (AEP, UK, E model)
		Diodes
D101	8-719-815-55	1S1555
D102, 103	8-719-815-55	1S1555 (AEP, UK, E model)
D201–205	8-719-815-55	1S1555 (US, Canadian model)
D301	8-719-912-27	KV1226 (US, Canadian model)
D302	8-719-912-27	KV1226 (AEP, UK, E model)
	8-719-931-16	EQB01-16 (US, Canadian model)
D303, 304	8-719-815-55	1S1555 (US, Canadian model)
D305	8-719-931-16	EQB01-16 (AEP, UK, E model)
	8-719-815-55	1S1555 (US, Canadian model)
D306–312	8-719-815-55	1S1555
D313–317	8-719-815-55	1S1555 (AEP, UK, E model)
D401, 402	8-719-815-55	1S1555 (US, Canadian model)
D402	8-719-912-00	MV12N (AEP, UK, E model)
D403	8-719-815-55	1S1555
D404–408	8-719-815-55	1S1555 (AEP, UK, E model)
D409	8-719-815-55	1S1555 (US, Canadian model)
D410–412	8-719-815-55	1S1555
D413–415	8-719-311-12	SEL1112R (US, Canadian model)
D416–419	8-719-815-55	1S1555 (AEP, UK, E model)
	8-719-311-12	SEL1112R (US, Canadian model)
D420	8-719-311-12	SEL1112R (US, Canadian model)
	8-719-922-41	SLP241B (AEP, UK, E model)

• Items marked "•" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description
D421	8-719-812-41	TLR124 (US, Canadian model)
	8-719-922-41	SLP241B (AEP, UK, E model)
D422–424	8-719-922-41	SLP241B
D425	8-719-922-41	SLP241B (US, Canadian model)
	8-719-900-41	SLP141B (AEP, UK, E model)
D426	8-719-311-12	SEL1112R (AEP, UK, E model)
	8-719-922-41	SLP241B (US, Canadian model)
D427	8-719-311-12	SEL1112R (AEP, UK, E model)
	8-719-922-41	SLP241B (US, Canadian model)
D428–433	8-719-311-12	SEL1112R (AEP, UK, E model)
D434, 435	8-719-815-55	1S1555 (AEP, UK, E model)
D501	8-719-931-10	EQB01-10
D701, 751	8-719-912-00	MV-12N
D702, 752	8-719-815-55	1S1555
D703, 753	8-719-300-11	SV04S
D704, 754 D705, 755 D706, 756 D707, 757	8-719-815-55	1S1555
D708	8-719-815-55	1S1555 (US, Canadian model)
D709	8-719-931-10	EQB01-10 (US, Canadian model)
D710	8-719-931-20	EQB01-20 (US, Canadian model)
D711	8-719-815-55	1S1555 (US, Canadian model)
D731	8-719-127-25	RD27E-B2Z (AEP, UK, E model)
D732	8-719-815-55	1S1555 (E model)
D732, 733	8-719-815-55	1S1555 (AEP, UK model)
D801	⚠8-719-504-40	S4VB40
D802	8-719-815-55	1S1555 (US, Canadian model)
	8-719-200-02	10E2 (AEP, UK, E model)
D803	8-719-931-06	EQB01-06
D804	8-719-200-02	10E2 (US, Canadian model)
	8-719-931-06	EQB01-06 (AEP, UK, E model)
D805	8-719-931-30	EQB01-30
D806	8-719-931-05	EQB01-05 (AEP, UK, E model)
	8-719-931-24	EQB01-24 (US, Canadian model)
D807	8-719-931-30	EQB01-30 (US, Canadian model)
D808	8-719-931-05	EQB01-05 (US, Canadian model)
D810	⚠8-719-305-15	GH3F (E model)
D901, 902	⚠8-719-815-55	1S1555

Ref. No.	Part No.	Description
D903, 904	⚠8-719-300-22	CTU-22U
D905, 906	⚠8-719-900-93	V09C

CAPACITORS

All capacitors are in μF. Common capacitors are omitted.
Refer to the lists on pages 81 and 82 for their part numbers.

C003, 004	⚠1-161-737-00	0.001	400V		
		(E model)			
C507, 557	1-130-305-00	0.0056	100V	polyethylene	
		(AEP, UK, E model)			
C508, 558	1-130-291-00	0.0056	100V	polyethylene	
		(AEP, UK, E model)			
C801	⚠1-108-749-52	0.047	125V	mylar	
		(US model)			
C801	⚠1-130-197-21	0.047	125V	film	
		(Canadian model)			
C801	⚠1-130-342-51	0.47	300V	film	
		(AEP, UK model)			
C801	⚠1-161-737-00	1000p	400V		
		(E model)			
C802, 803	⚠1-161-734-11	2200p	400V		
		(AEP, US model)			
C802	⚠1-161-747-11	2200p	125V		
		(US, Canadian model)			
C803	⚠1-125-179-11	1000	200V	elect	
		(US, Canadian model)			
C803	⚠1-125-178-00	470	220V	elect	
		(E model)			
C804	⚠1-125-178-00	470	200V	elect	
		(E model)			
C804	⚠1-125-233-11	220	400V	elect	
		(AEP, UK model)			
C805	⚠1-123-335-51	330	25V	elect	
		(AEP, UK, E model)			
C820	⚠1-130-234-00	0.047	220V	elect	
		(E model)			
C830	⚠1-121-422-00	220	25V	elect	
		(US, Canadian model)			
C901	⚠1-130-141-11	0.01	630V	film	
C902, 903	⚠1-161-734-11	2200p	400V		
		(AEP, UK model)			

C902, 903	⚠1-161-741-00	1000p	400V		
		(E model)			
C902, 903	⚠1-161-516-11	0.001	125V		
		(US model)			
C902, 903	⚠1-161-746-00	0.001	125V		
		(Canadian model)			
C904	⚠1-123-565-00	33	200V	elect	
		(US, Canadian model)			
	⚠1-123-402-00	22	400V	elect	
		(AEP, UK, E model)			
C905, 906	⚠1-130-357-00	1	250V	film	
		(US, Canadian model)			
	⚠1-130-533-00	0.39	250V	film	
		(AEP, UK, E model)			
C907	⚠1-108-595-00	0.047		mylar	
C908	⚠1-108-599-00	0.068		mylar	
C909–912	⚠1-123-361-00	220	50V	elect	
C913, 914	⚠1-123-307-00	100	10V	elect	
C915	⚠1-130-141-00	0.01	630V	film	
C916	⚠1-123-359-00	47	50V	elect	
		(E model)			
C916, 917	⚠1-161-734-11	2200p	400V		
		(AEP, UK model)			
CT301	1-141-171-XX	Trimmer (US, Canadian model)			
CT301	1-141-171-XX	Trimmer (US, Canadian model)			
	1-141-180-00	Trimmer (AEP, UK, E model)			
CT304	1-141-171-XX	Trimmer (AEP, UK, E model)			

RESISTORS

All resistors are in ohms. Common ¼W carbon resistors are omitted. Refer to the list on the last page for their part numbers.
kΩ : 1000Ω, MΩ : 1000kΩ

R001	⚠1-202-725-11	3.3M	½W	composition	
		(US, Canadian model)			
R101, 201	⚠1-247-107-51	100	¼W	carbon	
		(nonflammable) (AEP, UK, E model)			
R142, 143	⚠1-247-107-51	100	¼W	carbon	
		(nonflammable) (AEP, UK, E model)			
R301	⚠1-244-821-00	5.6k	½W		
R314	⚠1-247-111-51	150	¼W	carbon	
		(nonflammable) (AEP, UK, E model)			

R322	⚠1-247-107-51	100	¼W	carbon	
		(nonflammable) (AEP, UK, E model)			
R328	⚠1-247-089-51	18	¼W	carbon	
		(nonflammable) (AEP, UK, E model)			
R705, 755 R706, 756	⚠1-247-135-51	1.5k	¼W	carbon	
		(nonflammable)			
R709, 759	⚠1-247-123-51	470	¼W	carbon	
		(nonflammable)			
R711, 761	⚠1-247-121-51	390	¼W	carbon	
		(nonflammable) (AEP, UK, E model)			
R712, 762	⚠1-247-103-51	68	½W	carbon	
		(nonflammable) (US, Canadian model)			
R713, 763	⚠1-212-879-51	82	¼W	fusible	
		(AEP, UK, E model)			
	⚠1-247-137-51	1.8k		carbon	
		(nonflammable) (US, Canadian model)			
R714, 764 R715, 765	⚠1-247-109-51	120	¼W	carbon	
		(nonflammable)			
R717, 767	⚠1-247-107-51	100	¼W	carbon	
		(nonflammable) (US, Canadian model)			
R718, 768	⚠1-247-107-51	100	¼W	carbon	
		(nonflammable)			
R719, 769	⚠1-247-107-51	100	¼W	carbon	
		(nonflammable) (AEP, UK, E model)			
	⚠1-247-099-51	47	¼W	carbon	
		(nonflammable) (US, Canadian model)			
R720, 770	⚠1-212-873-51	47	¼W	fusible	
		(AEP, UK, E model)			
R720, 770 R721, 771	⚠1-247-095-51	33		carbon	
		(nonflammable) (US, Canadian model)			
R722, 772	⚠1-247-119-51	330		carbon	
		(nonflammable) (US, Canadian model)			
R723, 773	⚠1-247-107-51	100		carbon	
		(nonflammable) (US, Canadian model)			
R724, 774	⚠1-217-158-00	0.47	5W	metal-plate	
		(US, Canadian model)			
	⚠1-247-119-51	330	¼W	carbon	
		(nonflammable) (AEP, UK, E model)			
R725, 775	⚠1-217-158-00	0.47	5W	metal-plate	

Ref. No.	Part No.	Description
R726, 776	⚠1-217-158-00	0.47 5W metal-plate (AEP, UK, E model)
	⚠1-247-107-51	100 ¼W carbon (nonflammable) (US, Canadian model)
R727, 777 R728, 778	⚠1-247-129-51	820 ¼W carbon (nonflammable) (US, Canadian model)
R730, 780	⚠1-247-192-51	10 ½W carbon (nonflammable) (US, Canadian model)
R731, 781	1-244-817-10	4.7 ½W (US, Canadian model)
R734	1-206-670-00	1.8k 2W metal oxide (nonflammable)
R736	⚠1-247-240-51	1k ½W carbon (nonflammable) (AEP, UK, E model)
R740, 790	⚠1-213-139-51	470 1W metal oxide (nonflammable) (AEP, UK, E model)
R746	1-244-901-00	15k ½W (US, Canadian model)
R747	⚠1-206-654-51	390 2W metallized-film (US, Canadian model)
R748, 749	1-244-863-00	390 ½W (US, Canadian model)
R801	⚠1-217-294-00	4.7 5W wire-wound (US, Canadian model)
	⚠1-247-243-51	1.3k ½W carbon (nonflammable) (AEP, UK, E model)
R802	⚠1-247-243-51	1.3k ½W carbon (nonflammable) (US, Canadian model)
	⚠1-205-599-11	75 5W composition (nonflammable)
R803, 804	⚠1-247-188-51	4.7 ½W carbon (nonflammable) (US, Canadian model)
	⚠1-212-849-00	4.7 fusible (AEP, UK, E model)
R807	⚠1-247-105-51	82 ¼W carbon (nonflammable) (US, Canadian model)
R808	⚠1-247-119-51	330 ¼W carbon (nonflammable) (AEP, UK, E model)
	⚠1-247-218-51	120 ½W carbon (nonflammable) (US, Canadian model)
R812	⚠1-247-119-51	330 carbon (nonflammable) (AEP, UK, E model)
	⚠1-247-218-51	120 ½W carbon (nonflammable) (US, Canadian model)
R813	1-206-642-51	120 2W metal oxide (nonflammable)
R814	⚠1-212-857-00	10 fusible (nonflammable) (AEP, UK, E model)
R817, 818	1-206-644-51	150 2W metal oxide (nonflammable) (AEP, UK, E model)
R820	⚠1-247-089-51	18 carbon (nonflammable) (AEP, UK, E model)
R821, 822	⚠1-246-529-15	220k ¼W carbon (nonflammable) (E model)
R822	⚠1-206-648-51	220 2W metal oxide (US, Canadian model)
R823	⚠1-206-678-11	3.9k 2W metal oxide (nonflammable) (E model)
R824	⚠1-206-674-11	2.7k 2W metal oxide (nonflammable) (E model)
R901	⚠1-244-928-00	200k ½W (AEP, UK, E model)
	⚠1-244-921-00	100k ½W (US, Canadian model)
R902	⚠1-247-141-00	2.7k carbon (nonflammable) (AEP, UK, E model)
	⚠1-211-553-00	2.7k carbon (nonflammable) (US, Canadian model)
R903	⚠1-246-507-25	27k
R904	⚠1-246-483-00	2.7k
R905	⚠1-246-469-00	680
R906	⚠1-244-821-00	6.8 ½W (US, Canadian model)
	⚠1-244-822-00	7.5 ½W (AEP, UK, E model)
R907	⚠1-246-481-00	2.2k (E model)
RT101	1-226-237-00	20k-B, adjustable; fm tuning level (US, Canadian model)
	1-226-238-00	50k-B, adjustable; signal indicator (AEP, UK, E model)
RT102	1-226-238-00	50k-B, adjustable; fm tuning level (AEP, UK, E model)
	1-226-239-00	100k-B, adjustable; fm muting level (US, Canadian model)
RT103	1-226-238-00	50k-B, adjustable; fm muting level (AEP, UK, E model)
RT201	1-226-238-00	50k, adjustable; stereo separation (AEP, UK, E model)
	1-226-240-00	200k-B, adjustable; stereo separation (US, Canadian model)
RT202	1-226-235-00	5k-B, adjustable; VCO
RT301	1-226-238-00	50k, adjustable; a-m tuning level (AEP, UK, E model)
	1-226-239-00	100k-B, adjustable; signal strength (US, Canadian model)
RT302	1-226-235-00	5k-B, adjustable; a-m muting level (US, Canadian model)
RT401	1-226-232-00	500-B, adjustable; PLL
RT701, 751	1-226-232-00	500-B, adjustable; dc balance
RT702, 752	1-226-237-00	20k-B, adjustable; dc bias
RV601, 651	1-226-265-00	100k/100k, variable; BALANCE
RV602, 652	1-226-738-00	250k/250k-B, variable; VOLUME
RV603, 653	1-226-267-00	100k/100k, variable; TREBLE
RV604, 654	1-226-268-00	100k/100k, variable; BASS

MISCELLANEOUS

Ref. No.	Part No.	Description
CF101–103	1-527-307-99	Filter, ceramic (US, Canadian, E model)
CF101–104	1-527-344-91	Filter, ceramic (AEP, UK model)
CF104	1-527-307-99	Filter, ceramic (E model)
CF301	1-527-402-00	Filter, mechanical (US, Canadian, E model)
	1-527-403-00	Filter, mechanical (AEP, UK model)
CF302	1-527-403-00	Filter, mechanical (US, Canadian model)
	1-527-732-00	Filter, ceramic (AEP, UK, E model)
CNJ001	1-507-649-00	Jack, stereo-binaural; HEADPHONES (AEP, UK, E model)
CNJ901	1-561-161-00	Connector, dual; AC OUTLET (US, Canadian, E model)
CNJ903	1-507-649-00	Jack, stereo-binaural; HEADPHONES (US, Canadian model)
CNP001	⚠1-534-817-XX	Cord, power (AEP model)
CNP001	⚠1-551-884-00	Cord, power (UK model)
CNP901	⚠1-534-986-XX	Cord, power (US, Canadian, E model)
F801	⚠1-532-286-00	Fuse, T2.5A (AEP, UK model)
	⚠1-532-272-00	Fuse, 5A (US, Canadian model)
	⚠1-532-299-00	Fuse, T5A (E model)
FE101	1-463-335-00	Front End, f-m (AEP, UK, E model)
	1-463-300-00	Front End, f-m (US, Canadian model)
FLD401	1-519-212-00	Tube, fluorescent display (AEP, UK, E model)
	1-519-171-00	Tube, fluorescent display (US, Canadian model)
IFT101	1-404-258-00	Transformer, discriminator (AEP, UK, E model)
	1-404-170-00	IFT, f-m (US, Canadian model)
IFT301	1-409-323-00	Coil, mechanical-filter
IFT302	1-409-324-00	Coil, mechanical-filter
IFT303	1-404-189-00	IFT, a-m (US, Canadian model)
	1-404-266-00	IFT, a-m (AEP, UK, E model)
J001, 051 J002, 052 J003, 053	1-507-637-00	Jack, phono; 6-pin; PNONO, AUX, TAPE 1 (AEP, UK, E model)
J901, 951 J902, 952 J903, 953	1-507-637-00	Jack, phono; 6-pin; PHONO, AUX, TAPE 1 (US, Canadian model)
J004, 054 J005, 055 J006, 056	1-507-637-21	Jack, phono; 6-pin; REC OUT 1, 2, TAPE 2 (AEP, UK, E model)
J904, 954 J905, 955 J906, 956	1-507-637-21	Jack, phono; 6-pin; REC OUT 1, 2, TAPE 2 (US, Canadian model)
L001	1-401-887-00	Antenna, a-m ferrite-rod (AEP, UK, E model)
L1	1-401-849-21	Antenna, a-m ferrite-rod (US, Canadian model)
L301	1-407-169-XX	100μH, microinductor
L302	1-407-177-XX	470μH, microinductor (US, Canadian model)
L303	1-405-927-00	Coil, a-m OSC (AEP, UK, E model)
	1-405-898-00	Coil, a-m OSC (US, Canadian model)
L304	1-407-878-00	27mH, microinductor (US, Canadian model)
L305	1-407-176-XX	390μH, microinductor
L401	1-407-199-00	10μH, microinductor (US, Canadian model)
L403	1-407-169-XX	100μH, microinductor (US, Canadian model)
L404	1-407-190-00	10μH, microinductor (US, Canadian model)
L501, 551	1-407-519-00	8μH, microinductor
♦L701, 751	1-420-838-00	1.8μH, microinductor

Ref. No.	Part No.	Description
L901	**⚠1-421-340-00**	**Coil, line-filter choke (AEP, UK, E model)**
L902–906	**⚠1-421-328-11**	**Coil, line-filter choke (US, Canadian model)**
	⚠1-421-329-00	**10μH, choke coil**
L907, 908	**⚠1-407-161-XX**	**22μH, microinductor**
LPF101	1-231-729-00	Filter, lowpass (AEP, UK, E model)
LPF201	1-231-224-00	Encapsulated Component (US, Canadian model)
	1-231-574-00	Filter, lowpass (AEP, UK, E model)
LPF202	1-231-224-00	Encapsulated Component (US, Canadian model)
PL1–6	1-518-331-81	Lamp, pilot; 6V 35mA
RY701	1-553-227-00	Relay (US, Canadian model)
RY731	1-515-348-00	Relay (AEP, UK, E model)
RY801	**⚠1-515-347-00**	**Relay**
RY901	**⚠1-515-349-00**	**Relay (E model)**
S001, 002	**⚠1-553-483-00**	**Switch, rotary; POWER/SPEAKERS (AEP, UK, E model)**
S1	1-553-179-00	Switch, rotary-slide; TAPE COPY
S2–7	1-553-182-00	Switch, pushbutton; MONITOR, FUNCTION
S8–11	1-553-180-00	Switch, pushbutton; AUDIO MUTING, LOUDNESS, MODE, LOW FILTER
S12	1-553-181-00	Switch, pushbutton; TUNING LEVEL (US, Canadian model)
S12–15	1-553-181-00	Switch, pushbutton; TUNING LEVEL (AEP, UK, E model)
S13	1-516-777-XX	Switch, slide; AM 9kHz/10kHz (US, Canadian model)
S14, 15	**⚠1-553-185-00**	**Switch, rotary; POWER/SPEAKERS (US, Canadian model)**
S401–413	1-552-539-00	Switch, keyboard; MEMORY, MEMORY SCAN, FM/AM, TUNING, preset 1 to 8
T1	**⚠1-543-098-00**	**Core (US, Canadian model)**
	⚠1-543-100-00	
T2	1-543-100-00	Core (US, Canadian model)
T3	1-446-606-00	Transformer, inverter (US, Canadian model)
T901	**⚠1-543-098-00**	**Core (AEP, UK, E model)**
	⚠1-543-100-00	
T902	**⚠1-543-100-00**	**Core (AEP, UK, E model)**
T903	**⚠1-446-844-00**	**Transformer, converter (AEP, UK, E model)**

Ref. No.	Part No.	Description
TF801	**⚠1-532-556-00**	**Fuse, thermal; 147°C 2A**
TF802	**⚠1-532-556-00**	**Fuse, thermal; 147°C 2A (AEP, UK model)**
TM002,003	1-536-571-00	Terminal Board, 4-pin; SPEAKER (AEP, UK, E model)
TM902,903	1-536-571-00	Terminal Board, 4-pin; SPEAKER (US, Canadian model)
VS001	**⚠1-552-963-00**	**Voltage Selector (E model)**
X401	1-527-404-00	Crystal, quartz (US, Canadian model)
	1-527-731-00	Crystal, quartz (AEP, UK, E model)
	♦1-506-370-00	Plug, jumper (US, Canadian model)
	♦1-508-799-00	Terminal Strip
	♦1-508-800-00	Terminal Strip (E model)
	♦1-508-809-00	Terminal Strip (US, Canadian model)
	♦1-508-811-00	Terminal Strip (US, Canadian model)
	♦1-508-812-00	Terminal Strip (AEP, UK, E model)
	♦1-508-833-00	Terminal Strip (US, Canadian model)
	⚠1-517-072-00	**Holder, fuse (US, Canadian model)**
	⚠1-533-131-00	**Holder, fuse (AEP, UK, E model)**
	♦1-535-115-00	Terminal Strip, 2-pin
	♦1-535-116-00	Terminal Strip, 3-pin
	♦1-535-118-00	Terminal Strip, 5-pin
	♦1-535-135-00	Terminal Strip (US, Canadian model)
	1-536-616-00	Terminal Board, ANTENNA
	♦1-560-060-00	Pin, connector
	♦1-560-061-00	Pin, connector
	♦1-560-063-00	Connector, 5-pin
	♦1-560-064-00	Connector, 6-pin (US, Canadian model)
	♦1-560-065-00	Connector, 8-pin (US, Canadian model)

COMPLETE CIRCUIT BOARDS

Ref. No.	Part No.	Description
	♦A-4358-070-A	Equalizer
	♦A-4382-053-A	Tuner (US, Canadian model)
	♦A-4382-061-A	Tuner (AEP, UK model)
	♦A-4382-068-A	Tuner (E model)
	♦A-4388-210-A	Power Amplifier (US, Canadian model)
	♦A-4388-241-A	Power Amplifier (AEP, UK model)
	♦A-4388-244-A	Power Amplifier (E model)
	♦A-4394-197-A	Power Supply (US, Canadian model)
	♦A-4394-221-A	Power Supply (AEP, UK model)
	♦A-4394-227-A	Power Supply (E model)
	♦A-4394-228-A	Power Supply (B) (E model)
	♦A-4472-052-A	Display (AEP, UK, E model)
	♦A-4477-045-A	TONE Control (US, Canadian model)
	♦A-4477-046-A	VOLUME Control
	♦A-4477-057-A	TONE Control (AEP, UK, E model)
	♦A-4483-008-A	Control (US, Canadian model)
	♦A-4483-009-A	Control (AEP, UK model)
	♦A-4483-011-A	Control (E model)

PRINTED CIRCUIT BOARDS

Ref. No.	Part No.	Description
	♦1-602-254-00	HEADPHONE Jack (US, Canadian model)
	♦1-602-255-00	POWER/SPEAKER Switch (US, Canadian model)
	♦1-602-259-00	Input
	♦1-602-260-00	Separate (US, Canadian model)
	♦1-602-261-00	Jumper
	♦1-602-272-00	MUTING Switch (US, Canadian model)
	♦1-603-377-00	MUTING Switch (AEP, UK, E model)
	♦1-603-379-00	Headphone Jack (AEP, UK, E model)
	♦1-603-380-00	POWER/SPEAKER Switch (AEP, UK, E model)

ACCESSORIES AND PACKING MATERIALS

Part No.	Description
1-501-161-00	Feeder Antenna, FM
3-701-630-00	Bag, plastic; instruction manual
3-783-169-12	Manual, instruction (UK, E model)
3-783-169-12	Manual, instruction (AEP model)
3-795-037-11	Manual, instruction (Dutch and Swedish) (AEP model)
3-783-169-21	Manual, instruction (US model)
3-783-169-21	Manual, instruction (Canadian model)
3-794-809-31	Manual, instruction (French) (Canadian model)
4-809-251-00	Bag, plastic; set
4-866-387-00	Sheet, station-index (US, Canadian, E model)
4-866-398-00	Cushion (top)
4-866-399-00	Cushion (bottom)
4-868-707-00	Carton (US, AEP, UK, E model)
4-868-708-00	Carton (Canadian model)
4-868-713-00	Cushion (top)
4-868-714-00	Cushion (bottom)
4-868-729-00	Sheet, station-index (AEP, UK, E model)

SONY-STANDARD REPLACEMENT CAPACITORS AND RESISTORS LIST

ELECTROLYTIC CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one.					
	6.3 VOLT.	10 VOLT.	16 VOLT.	25 VOLT.	35 VOLT.	50 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.47					→	1-121-726-00
1.0					→	1-121-391-00
2.2					→	1-121-450-00
3.3	→	→	→	1-121-392-00	→	1-121-393-00
4.7	→	→	→	1-121-395-00	→	1-121-396-00
10	→	→	1-121-651-00	1-121-398-00	→	1-121-738-00
22	→	→	1-121-479-00	1-121-480-00	1-121-662-00	1-121-152-00
33	→	→	1-121-403-00	1-121-404-00	1-121-652-00	1-121-405-00
47	→	1-121-352-00	1-121-409-00	1-121-410-00	1-121-653-00	1-121-411-00
100	→	1-121-414-00	1-121-415-00	1-121-416-00	1-121-357-00	1-121-417-00
220	1-121-419-00	1-121-420-00	1-121-421-00	1-121-422-00	1-121-261-00	1-121-423-00
330	1-121-751-00	1-121-805-00	1-121-521-00	1-121-654-00	1-121-655-00	1-121-656-00
470	1-121-424-00	1-121-425-00	1-121-426-00	1-121-733-00	1-121-361-00	1-121-810-00
1000	–	1-121-736-00	1-121-245-00	1-121-657-00	1-121-388-00	1-123-061-00
2200	1-121-658-00	1-121-659-00	1-121-660-00	1-123-067-00	1-121-984-00	–
3300	1-121-661-00	1-123-075-00	1-123-071-00	–	–	–

CAP. (μF)	100 VOLT.	160 VOLT.	250 VOLT.	350 VOLT.
	PART No.	PART No.	PART No.	PART No.
0.47	–	–	–	–
1.0	1-123-249-00	1-123-252-00	1-123-003-00	1-121-168-00
2.2	1-123-250-00	1-123-026-00	–	1-123-028-00
3.3	1-121-995-00	–	1-123-004-00	1-123-006-00
4.7	1-123-255-00	1-121-246-00	1-121-759-00	1-123-007-00
10	1-121-126-00	1-121-999-00	1-123-254-00	1-123-008-00
22	1-121-996-00	1-123-253-00	1-123-005-00	1-123-022-00
33	1-121-997-00	1-121-757-00	–	–
47	1-123-251-00	1-121-919-00	–	–
100	1-123-084-00	–	–	–

CERAMIC CAPACITORS

CAP. (pF)	RATING 50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (pF)	50 VOLT.	CAP. (μF)	50 VOLT.
	PART No.		PART No.		PART No.		PART No.
0.5	1-101-837-00	22	1-102-959-00	150	1-101-361-00	0.001	1-102-074-00
0.75	1-101-586-00	24	1-102-960-00	160	1-101-367-00	0.0012	1-102-118-00
1.0	1-102-934-00	27	1-102-961-00	180	1-102-976-00	0.0015	1-102-119-00
1.5	1-101-576-00	30	1-102-962-00	200	1-102-977-00	0.0018	1-102-120-00
2.0	1-102-935-00	33	1-102-963-00	220	1-102-978-00	0.0022	1-102-121-00
3	1-102-936-00	36	1-102-964-00	240	1-102-979-00	0.0027	1-102-122-00
4	1-102-937-00	39	1-102-965-00	270	1-102-980-00	0.0033	1-102-123-00
5	1-102-942-00	43	1-102-966-00	300	1-102-981-00	0.0039	1-102-124-00
6	1-102-943-00	47	1-101-880-00	330	1-102-820-00	0.0047	1-102-125-00
7	1-102-944-00	51	1-101-882-00	360	1-102-821-00	0.0056	1-102-126-00
8	1-102-945-00	56	1-101-884-00	390	1-102-822-00	0.0068	1-102-127-00
9	1-102-946-00	62	1-101-886-00	430	1-102-823-00	0.0082	1-102-128-00
10	1-102-947-00	68	1-101-888-00	470	1-102-824-00	0.01	1-102-129-00
11	1-102-948-00	75	1-101-890-00	510	1-101-059-00	0.022	1-101-005-00
12	1-102-949-00	82	1-102-971-00	560	1-102-115-00	0.047	1-101-006-00
13	1-102-950-00	91	1-102-972-00	680	1-102-116-00		
15	1-102-951-00	100	1-102-973-00	820	1-102-117-00		
16	1-102-952-00	110	1-102-815-00				
18	1-102-953-00	120	1-102-816-00				
20	1-102-958-00	130	1-101-081-00				

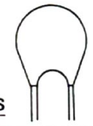
0.001μF = 1,000pF

CERAMIC (SEMICONDUCTOR) CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one. 25 VOLT.	50 VOLT.	CAP. (μF)	25 VOLT.	50 VOLT.
	PART No.	PART No.		PART No.	PART No.
0.001	→	1-161-039-00	0.018	1-161-016-00	1-161-054-00
0.0012	→	1-161-040-00	0.022	1-161-017-00	1-161-055-00
0.0015		1-161-041-00	0.027	1-161-018-00	1-161-056-00
0.0018		1-161-042-00	0.033	1-161-019-00	1-161-057-00
0.0022		1-161-043-00	0.039	1-161-010-00	1-161-058-00
0.0027	→	1-161-044-00	0.047	1-161-021-00	1-161-059-00
0.0033	→	1-161-045-00	0.056	→	1-161-060-00
0.0039	→	1-161-046-00	0.068	→	1-161-061-00
0.0047	→	1-161-047-00	0.082	1-161-024-00	1-161-062-00
0.0056	→	1-161-048-00	0.1	1-161-025-00	1-161-063-00
0.0068	→	1-161-049-00			
0.0082	1-161-012-00	1-161-050-00			
0.01	1-161-013-00	1-161-051-00			
0.012	→	1-161-052-00			
0.015	1-161-015-00	1-161-053-00			

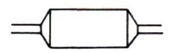
MYLAR CAPACITORS

CAP. (μF)	RATING 50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.	CAP. (μF)	50 VOLT.	100 VOLT.	200 VOLT.
	PART No.	PART No.	PART No.		PART No.	PART No.	PART No.		PART No.	PART No.	PART No.
0.001	1-108-227-00	1-108-365-00	1-108-409-00	0.01	1-108-239-00	1-108-377-00	1-108-421-00	0.1	1-108-251-00	1-108-389-00	1-108-433-00
0.0012	1-108-351-00	1-108-366-00	1-108-410-00	0.012	1-108-357-00	1-108-378-00	1-108-422-00	0.12	1-108-363-00	1-108-390-00	1-108-434-00
0.0015	1-108-228-00	1-108-367-00	1-108-411-00	0.015	1-108-240-00	1-108-379-00	1-108-423-00	0.15	1-108-252-00	1-108-391-00	1-108-435-00
0.0018	1-108-352-00	1-108-368-00	1-108-412-00	0.018	1-108-358-00	1-108-380-00	1-108-424-00	0.18	1-108-364-00	1-108-392-00	1-108-436-00
0.0022	1-108-230-00	1-108-369-00	1-108-413-00	0.022	1-108-242-00	1-108-381-00	1-108-425-00	0.22	1-108-254-00	1-108-393-00	1-108-437-00
0.0027	1-108-353-00	1-108-370-00	1-108-414-00	0.027	1-108-359-00	1-108-382-00	1-108-426-00	0.27	1-108-854-00	–	–
0.0033	1-108-232-00	1-108-371-00	1-108-415-00	0.033	1-108-244-00	1-108-383-00	1-108-427-00	0.33	1-108-855-00	–	–
0.0039	1-108-354-00	1-108-372-00	1-108-416-00	0.039	1-108-360-00	1-108-384-00	1-108-428-00	0.39	1-108-856-00	–	–
0.0047	1-108-234-00	1-108-373-00	1-108-417-00	0.047	1-108-246-00	1-108-385-00	1-108-429-00	0.47	1-108-857-00	–	–
0.0056	1-108-355-00	1-108-374-00	1-108-418-00	0.056	1-108-361-00	1-108-386-00	1-108-430-00				
0.0068	1-108-237-00	1-108-375-00	1-108-419-00	0.068	1-108-249-00	1-108-387-00	1-108-431-00				
0.0082	1-108-356-00	1-108-376-00	1-108-420-00	0.082	1-108-362-00	1-108-388-00	1-108-432-00				



TANTALUM CAPACITORS

CAP. (μF)	RATING → : Use the high voltage rated one. 3.15 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	25 VOLT.	35 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.01					→	→	1-131-396-00
0.015						→	1-131-397-00
0.022						→	1-131-398-00
0.033						→	1-131-399-00
0.047						→	1-131-400-00
0.068					→	→	1-131-401-00
0.1					→	→	1-131-402-00
0.15					→	→	1-131-403-00
0.22					→	→	1-131-404-00
0.33					→	1-131-409-00	1-131-405-00
0.47	–	–	–	–	1-131-412-00	→	1-131-406-00
0.68	–	–	–	1-131-415-00	→	1-131-410-00	1-131-407-00
1.0	–	–	1-131-418-00	–	1-131-413-00	→	1-131-408-00
1.5	–	1-131-421-00	–	1-131-416-00	→	1-131-411-00	1-131-348-00
2.2	1-131-424-00	–	1-131-419-00	–	1-131-414-00	1-131-355-00	1-131-349-00
3.3	–	1-131-422-00	–	1-131-417-00	1-131-362-00	1-131-356-00	1-131-350-00
4.7	1-131-425-00	–	1-131-420-00	1-131-369-00	1-131-363-00	1-131-357-00	1-131-351-00
6.8	–	1-131-423-00	1-131-376-00	1-131-370-00	1-131-364-00	1-131-358-00	1-131-352-00
10	1-131-426-00	1-131-383-00	1-131-377-00	1-131-371-00	1-131-365-00	1-131-359-00	1-131-353-00
15	1-131-390-00	1-131-384-00	1-131-378-00	1-131-372-00	1-131-366-00	1-131-360-00	–
22	1-131-391-00	1-131-385-00	1-131-379-00	1-131-373-00	1-131-367-00		
33	1-131-392-00	1-131-386-00	1-131-380-00	1-131-374-00			
47	1-131-393-00	1-131-387-00	1-131-381-00	–			
68	1-131-394-00	1-131-388-00	–	–			
100	1-131-395-00	–	–	–			



TANTALUM CAPACITORS

CAP. (μF)	RATING 3 VOLT.	6.3 VOLT.	10 VOLT.	16 VOLT.	20 VOLT.	35 VOLT.
	PART No.	PART No.	PART No.	PART No.	PART No.	PART No.
0.033						1-131-273-00
0.047						1-131-274-00
0.068						1-131-275-00
0.1						1-131-276-00
0.15						1-131-277-00
0.22			–	–	1-131-262-00	1-131-278-00
0.33			–	–	1-131-263-00	1-131-279-00
0.47			1-131-169-00	–	1-131-264-00	1-131-280-00
0.68			–	1-131-258-00	1-131-265-00	1-131-281-00
1.0			1-131-254-00	–	1-131-266-00	1-131-282-00
1.5		1-131-250-00	–	–	1-131-267-00	1-131-283-00
2.2		–	–	1-131-259-00	1-131-268-00	1-131-284-00
3.3		–	1-131-255-00	–	1-131-269-00	–
4.7		1-131-251-00	1-131-171-00	–	1-131-270-00	–
6.8		–	–	1-131-260-00	1-131-271-00	–
10	–	–	1-131-256-00	–	1-131-272-00	–
15	–	1-131-252-00	–	1-131-261-00		
22	–	–	1-131-257-00	–		
33	1-131-176-00	1-131-253-00	1-131-173-00	–		
47	1-131-288-00	1-131-174-00	–	–		
100	1-131-177-00					

1/16 WATT CARBON RESISTOR

Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*
2.0	—	13	—	91	1-210-354-00	620	1-210-367-00	4.3k	1-209-772-00	30k	1-210-380-00	200k	1-210-839-00
2.2	—	15	—	100	1-210-355-00	680	1-210-106-00	4.7k	1-209-773-00	33k	1-210-381-00	220k	1-210-840-00
2.4	—	16	—	110	1-210-356-00	750	1-210-107-00	5.1k	1-209-774-00	36k	1-210-394-00	240k	—
2.7	—	18	1-211-688-00	120	1-210-357-00	820	1-210-108-00	5.6k	1-209-775-00	39k	1-210-382-00	270k	1-210-841-00
3.0	—	20	—	130	1-210-358-00	910	1-210-368-00	6.2k	1-209-776-00	43k	1-210-383-00	300k	—
3.3	—	22	—	150	1-210-102-00	1.0k	1-204-122-00	6.8k	1-209-777-00	47k	1-210-384-00	330k	1-210-842-00
3.6	—	24	—	160	1-210-359-00	1.1k	1-210-369-00	7.5k	1-209-778-00	51k	1-210-385-00	360k	—
3.9	—	27	—	180	1-210-360-00	1.2k	1-209-765-00	8.2k	1-209-779-00	56k	1-210-386-00	390k	1-210-843-00
4.3	—	30	1-210-845-00	200	1-210-361-00	1.3k	1-210-370-00	9.1k	1-209-780-00	62k	1-210-387-00	430k	—
4.7	—	33	1-210-846-00	220	1-210-362-00	1.5k	1-209-766-00	10k	1-209-781-00	68k	1-210-388-00	470k	1-210-844-00
5.1	—	36	1-210-847-00	240	1-209-762-00	1.6k	1-210-371-00	11k	1-210-374-00	75k	1-210-389-00	510k	—
5.6	—	39	1-210-848-00	270	1-210-363-00	1.8k	1-209-878-00	12k	1-210-111-00	82k	1-210-390-00	560k	1-211-695-00
6.2	—	43	1-210-849-00	300	1-210-364-00	2.0k	1-209-767-00	13k	1-210-375-00	91k	1-210-391-00	620k	—
6.8	—	47	1-210-395-00	330	1-209-763-00	2.2k	1-209-768-00	15k	1-210-112-00	100k	1-210-115-00	680k	1-211-696-00
7.5	—	51	1-210-101-00	360	1-210-103-00	2.4k	1-209-769-00	16k	1-210-376-00	110k	—	750k	—
8.2	—	56	1-210-351-00	390	1-210-365-00	2.7k	1-209-770-00	18k	1-210-113-00	120k	1-210-836-00	820k	1-211-698-00
9.1	—	62	1-210-352-00	430	1-210-366-00	3.0k	1-210-372-00	20k	1-210-377-00	130k	—	910k	—
10	—	68	1-210-353-00	470	1-209-764-00	3.3k	1-204-123-00	22k	1-210-114-00	150k	1-210-837-00	1 M	—
11	—	75	1-210-392-00	510	1-210-104-00	3.6k	1-210-373-00	24k	1-210-378-00	160k	—		
12	—	82	1-210-393-00	560	1-210-105-00	3.9k	1-209-771-00	27k	1-210-379-00	180k	1-210-838-00		

1/8 WATT CARBON RESISTOR

Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*
2.0	—	13	1-246-821-00	91	1-246-831-00	620	1-246-841-00	4.3k	1-246-851-00	30k	1-246-861-00	200k	1-246-871-00
2.2	1-246-751-00	15	1-246-761-00	100	1-246-771-00	680	1-246-781-00	4.7k	1-246-791-00	33k	1-246-801-00	220k	1-246-811-00
2.4	—	16	1-246-822-00	110	1-246-832-00	750	1-246-842-00	5.1k	1-246-852-00	36k	1-246-862-00	240k	1-247-054-00
2.7	1-246-752-00	18	1-246-762-00	120	1-246-772-00	820	1-246-782-00	5.6k	1-246-792-00	39k	1-246-802-00	270k	1-247-046-00
3.0	—	20	1-246-823-00	130	1-246-833-33	910	1-246-843-00	6.2k	1-246-853-00	43k	1-246-863-00	300k	1-247-055-00
3.3	1-246-753-00	22	1-246-763-00	150	1-246-773-00	1.0k	1-246-783-00	6.8k	1-246-793-00	47k	1-246-803-00	330k	1-247-047-00
3.6	—	24	1-246-824-00	160	1-246-834-00	1.1k	1-246-844-00	7.5k	1-246-854-00	51k	1-246-864-00	360k	1-247-056-00
3.9	1-246-754-00	27	1-246-764-00	180	1-246-774-00	1.2k	1-246-784-00	8.2k	1-246-794-00	56k	1-246-804-00	390k	1-247-048-00
4.3	—	30	1-246-825-00	200	1-246-835-00	1.3k	1-246-845-00	9.1k	1-246-855-00	62k	1-246-865-00	430k	1-247-057-00
4.7	1-246-755-00	33	1-246-765-00	220	1-246-775-00	1.5k	1-246-785-00	10k	1-246-795-00	68k	1-246-805-00	470k	1-247-049-00
5.1	—	36	1-246-826-00	240	1-246-836-00	1.6k	1-246-846-00	11k	1-246-856-00	75k	1-246-866-00	510k	1-247-058-00
5.6	1-246-756-00	39	1-246-766-00	270	1-246-776-00	1.8k	1-246-786-00	12k	1-246-796-00	82k	1-246-806-00	560k	1-247-050-00
6.2	—	43	1-246-827-00	300	1-246-837-00	2.0k	1-246-847-00	13k	1-246-857-00	91k	1-246-867-00	620k	1-247-059-00
6.8	1-246-757-00	47	1-246-767-00	330	1-246-777-00	2.2k	1-246-787-00	15k	1-246-797-00	100k	1-246-807-00	680k	1-247-051-00
7.5	1-246-818-00	51	1-246-828-00	360	1-246-838-00	2.4k	1-246-848-00	16k	1-246-858-00	110k	1-246-868-00	750k	1-247-060-00
8.2	1-246-758-00	56	1-246-768-00	390	1-246-778-00	2.7k	1-246-788-00	18k	1-246-798-00	120k	1-246-808-00	820k	1-247-052-00
9.1	1-246-819-00	62	1-246-829-00	430	1-246-839-00	3.0k	1-246-849-00	20k	1-246-859-00	130k	1-246-869-00	910k	1-247-061-00
10	1-246-759-00	68	1-246-769-00	470	1-246-779-00	3.3k	1-246-789-00	22k	1-246-799-00	150k	1-246-809-00	1 M	1-247-053-00
11	1-246-820-00	75	1-246-830-00	510	1-246-840-00	3.6k	1-246-850-00	24k	1-246-860-00	160k	1-246-870-00		
12	1-246-760-00	82	1-246-770-00	560	1-246-780-00	3.9k	1-246-790-00	27k	1-246-800-00	180k	1-246-810-00		

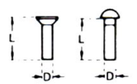
1/4 WATT CARBON RESISTORS

Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*	Ω	*Part No.*
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	12k	1-246-499-00	120k	1-246-523-00	1.2M	1-210-815-00
1.3	1-246-404-00	13	1-246-428-00	130	1-246-452-00	1.3k	1-246-576-00	13k	1-246-500-00	130k	1-246-524-00	1.3M	1-210-816-00
1.5	1-246-405-00	15	1-246-429-00	150	1-246-453-00	1.5k	1-246-577-00	15k	1-246-501-00	150k	1-246-525-00	1.5M	1-210-817-00
1.6	1-246-406-00	16	1-246-430-00	160	1-246-454-00	1.6k	1-246-578-00	16k	1-246-502-00	160k	1-246-526-00	1.6M	1-210-818-00
1.8	1-246-407-00	18	1-246-431-00	180	1-246-455-00	1.8k	1-246-579-00	18k	1-246-503-00	180k	1-246-527-00	1.8M	1-210-819-00
2.0	1-246-408-00	20	1-246-432-00	200	1-246-456-00	2.0k	1-246-580-00	20k	1-246-504-00	200k	1-246-528-00	2.0M	1-210-820-00
2.2	1-246-409-00	22	1-246-433-00	220	1-246-457-00	2.2k	1-246-581-00	22k	1-246-505-00	220k	1-246-529-00	2.2M	1-210-821-00
2.4	1-246-410-00	24	1-246-434-00	240	1-246-458-00	2.4k	1-246-582-00	24k	1-246-506-00	240k	1-246-530-00	2.4M	1-244-754-00
2.7	1-246-411-00	27	1-246-435-00	270	1-246-459-00	2.7k	1-246-583-00	27k	1-246-507-00	270k	1-246-531-00	2.7M	1-244-755-00
3.0	1-246-412-00	30	1-246-436-00	300	1-246-460-00	3.0k	1-246-584-00	30k	1-246-508-00	300k	1-246-532-00	3.0M	1-244-756-00
3.3	1-246-413-00	33	1-246-437-00	330	1-246-461-00	3.3k	1-246-585-00	33k	1-246-509-00	330k	1-246-533-00	3.3M	1-244-757-00
3.6	1-246-414-00	36	1-246-438-00	360	1-246-462-00	3.6k	1-246-586-00	36k	1-246-510-00	360k	1-246-534-00	3.6M	1-244-758-00
3.9	1-246-415-00	39	1-246-439-00	390	1-246-463-00	3.9k	1-246-587-00	39k	1-246-511-00	390k	1-246-535-00	3.9M	1-244-759-00
4.3	1-246-416-00	43	1-246-440-00	430	1-246-464-00	4.3k	1-246-488-00	43k	1-246-512-00	430k	1-246-536-00	4.3M	1-244-760-00
4.7	1-246-417-00	47	1-246-441-00	470	1-246-465-00	4.7k	1-246-489-00	47k	1-246-513-00	470k	1-246-537-00	4.7M	1-244-761-00
5.1	1-246-418-00	51	1-246-442-00	510	1-246-466-00	5.1k	1-246-490-00	51k	1-246-514-00	510k	1-246-538-00	5.1M	1-244-762-00
5.6	1-246-419-00	56	1-246-443-00	560	1-246-467-00	5.6k	1-246-491-00	56k	1-246-515-00	560k	1-246-539-00		
6.2	1-246-420-00	62	1-246-444-00	620	1-246-468-00	6.2k	1-246-492-00	62k	1-246-516-00	620k	1-246-540-00		
6.8	1-246-421-00	68	1-246-445-00	680	1-246-469-00	6.8k	1-246-493-00	68k	1-246-517-00	680k	1-246-541-00		
7.5	1-246-422-00	75	1-246-446-00	750	1-246-470-00	7.5k	1-246-494-00	75k	1-246-518-00	750k	1-246-542-00		
8.2	1-246-423-00	82	1-246-447-00	820	1-246-471-00	8.2k	1-246-495-00	82k	1-246-519-00	820k	1-246-543-00		
9.1	1-246-424-00	91	1-246-448-00	910	1-246-472-00	9.1k	1-246-496-00	91k	1-246-520-00	910k	1-246-544-00		

HARDWARE NOMENCLATURE

Screw:

– P 3 x 10
- *L: Length in mm*
- *D: Diameter in mm*
- *Type of head*
  - *Indicated slotted-head only.*
  - *Unless otherwise indicated, it means cross-recessed head (Phillips type).*



Nut, Washer, Retaining ring:

N 3
- *Diameter of usable screw or shaft*
- *Reference designation*

Reference Designation	Shape	Description	Remarks
SCREWS			
P		pan-head screw	binding-head (B) screw for replacement
PWH		pan-head screw with washer face	binding-head (B) screw and flat washer for replacement
PS PSP		pan-head screw with spring washer	binding-head (B) screw and spring washer for replacement
PSW PSPW		pan-head screw with spring and flat washers	binding-head (B) screw and spring and flat washers for replacement
R		round-head screw	binding-head (B) screw for replacement
K		flat-countersunk-head screw	
RK		oval-countersunk-head screw	
B		binding-head screw	
T		truss-head screw	binding-head (B) screw for replacement
F		flat-fillister-head screw	
RF		fillister-head screw	
BV		braizer-head screw	

Reference Designation	Shape	Description	Remarks
SELF-TAPPING SCREWS			
TA		self-tapping screw	ex: TA, P 3 x 10
PTP		pan-head self-tapping screw	binding-head self-tapping (TA, B) screw for replacement
PTPWH		pan-head self-tapping screw with washer face	binding-head self tapping (TA, B) screw and flat washer for replacement
PTTWH		pan-head thread-rolling screw with washer face	binding-head (B) screw and flat washer for replacement
SET SCREWS			
SC		set screw	
SC		hexagon-socket set screw	ex: SC 2.6 x 4, hexagon socket
NUT			
N		nut	
WASHERS			
W		flat washer	
SW		spring washer	
LW		internal-tooth lock washer	ex: LW3, internal
LW		external-tooth lock washer	ex: LW3, external
RETAINING RINGS			
E		retaining ring	
G		grip-type retaining ring	

Sony Corporation

1980

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