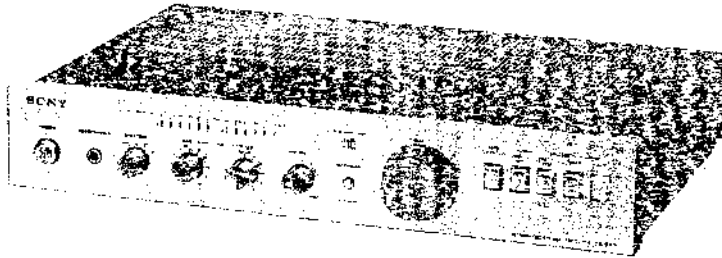


TA-F40

US Model
Canadian Model
AEP Model
UK Model



INTEGRATED STEREO AMPLIFIER

SPECIFICATIONS

GENERAL

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

Power Consumption: 85W (US model)
130W (Canadian model)
210W (AEP model)
240W (UK model)

AC Outlets: 1 switched, 100W (at max.)
(US, Canadian model) 2 unswitched, total 100W (at max.)

Dimensions: Approx. 430(w)x80(h)x335(d)mm
16⁷/₈(w)x3¹/₈(h)x13¹/₄(d) inches
including projecting parts and controls

Weight: Approx. 4.2 kg (9 lb 4 oz), net
Approx. 5.3kg (11 lb 11 oz), in shipping carton

SAFETY-RELATED COMPONENT WARNING!

COMPONENTS IDENTIFIED BY SHADING AND MARK (I) 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 A LA SECURITE

LES COMPOSANTS IDENTIFIES PAR UN TRAME ET UNE MARQUE (I) SUR LES DIAGRAMMES SCHEMATIQUES, LES VUES EXPLOSEES ET LA LISTE DES PIECES SONT CRITIQUES POUR LA SECURITE DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIECES SONY DONT LES NUMEROS SONT DONNES DANS CE MANUEL OU DES SUPPLEMENTS PUBLIES PAR SONY.

- Continued on page 2 -

SONY

SERVICE MANUAL

TA-F40

AMPLIFIER SECTION

Power Output and Total Harmonic Distortion: (US, Canadian model) With 8Ω loads, both channels driven, from 20 – 20,000 Hz; rated 50W per channel minimum RMS power, with no more than 0.01% total harmonic distortion from 250mW to rated output.

Continuous RMS Power Output: (Less than 0.01% THD, both channels driven simultaneously) (AEP, UK model) At 20 – 20,000 Hz
50W + 50W (8Ω)
According to DIN 45500
55W + 55W (8Ω)

Power Bandwidth: (IHF) 5 – 30,000Hz (AEP, UK model)

Harmonic Distortion: Less than 0.01% at rated output
Less than 0.008% at 25W output

Intermodulation (IM) Distortion: Less than 0.01% at rated output
Less than 0.008% at 25W output

Frequency Response: PHONO RIAA equalization curve ±0.2dB
TUNER } 5 – 70,000Hz +0 dB
AUX } -1 dB
TAPE }

Residual Noise: Less than 150μV (8Ω, Network A)

Damping Factor: 50 (8Ω, 1kHz)

Inputs:

	Sensitivity	Impedance	Maximum Input Capability (0.003% distortion, 1kHz)	S/N (weighting network)
PHONO MM	2.5mV (-50dB)	50kΩ	250mV	88dB(A)
PHONO MC	0.25mV (-70dB)	100Ω	25mV	75dB(A)
TUNER AUX TAPE	150mV (-14.5dB)	50kΩ	—	100dB(A)

Outputs:

	Voltage	Impedance
REC OUT	150mV (-14.5dB)	6kΩ
SPEAKER A, B	Accepts speakers of 8–16Ω	
HEAD-PHONES	Accepts low and high impedance headphones	

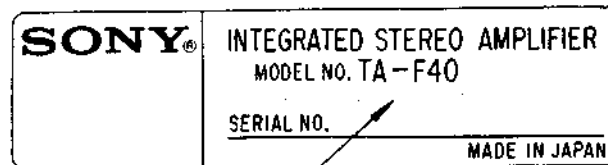
Tone Controls: BASS ±10dB at 100Hz
(turnover frequency: 500Hz)
TREBLE ±10dB at 25kHz
(turnover frequency: 5kHz)

Loudness: +10dB at 100Hz, +3dB at 10kHz
(att. 30dB)

0dB = 0.775V

MODEL IDENTIFICATION

Specification Label



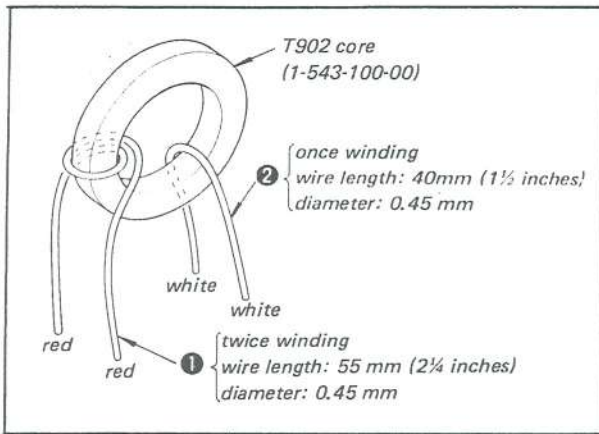
US model : AC 120V 60Hz 85W
Canadian model : AC 120V 60Hz 130W
AEP model : AC 220V ~50/60Hz 210W
UK model : AC 240V ~50/60Hz 240W

SERVICING NOTES

1. REPLACEMENT OF THE TRANSFORMERS IN THE PULSE POWER SUPPLY CIRCUIT

The lead wire arrangement for each of T901 and T902 in the inverter circuit are shown in Fig. 1.

As the repair parts, T901 and T902 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.



2. INVERTER CIRCUIT TRANSISTOR REPLACEMENT

When replacing Q903 and Q904 in the pulse power supply circuit, use those which have the same V_{BE} ranks.

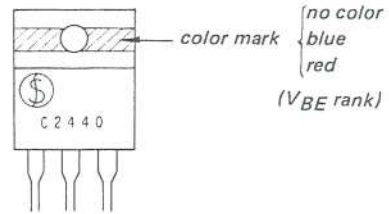


Fig. 2

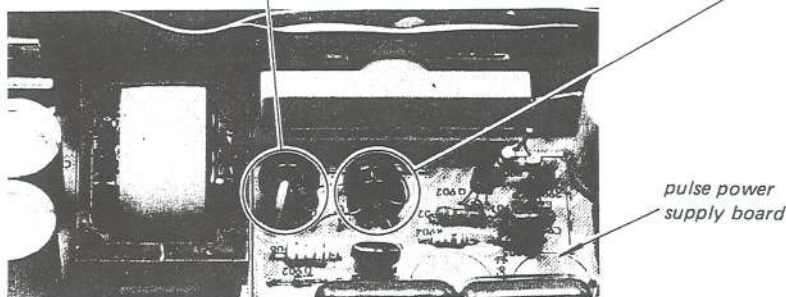
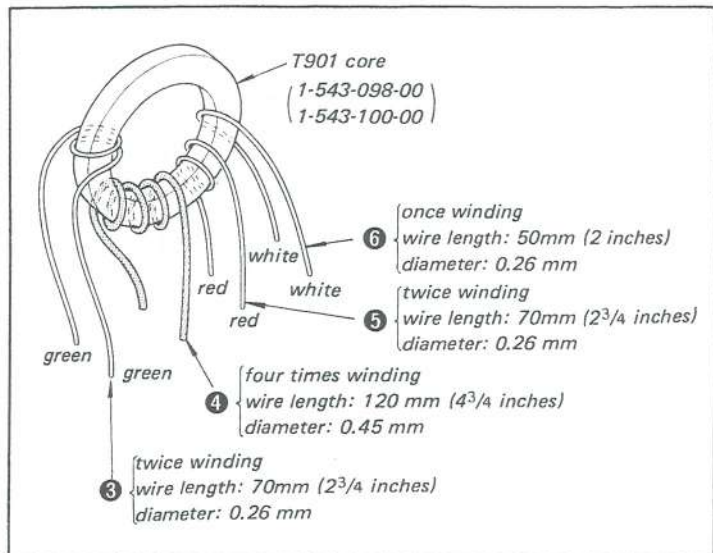
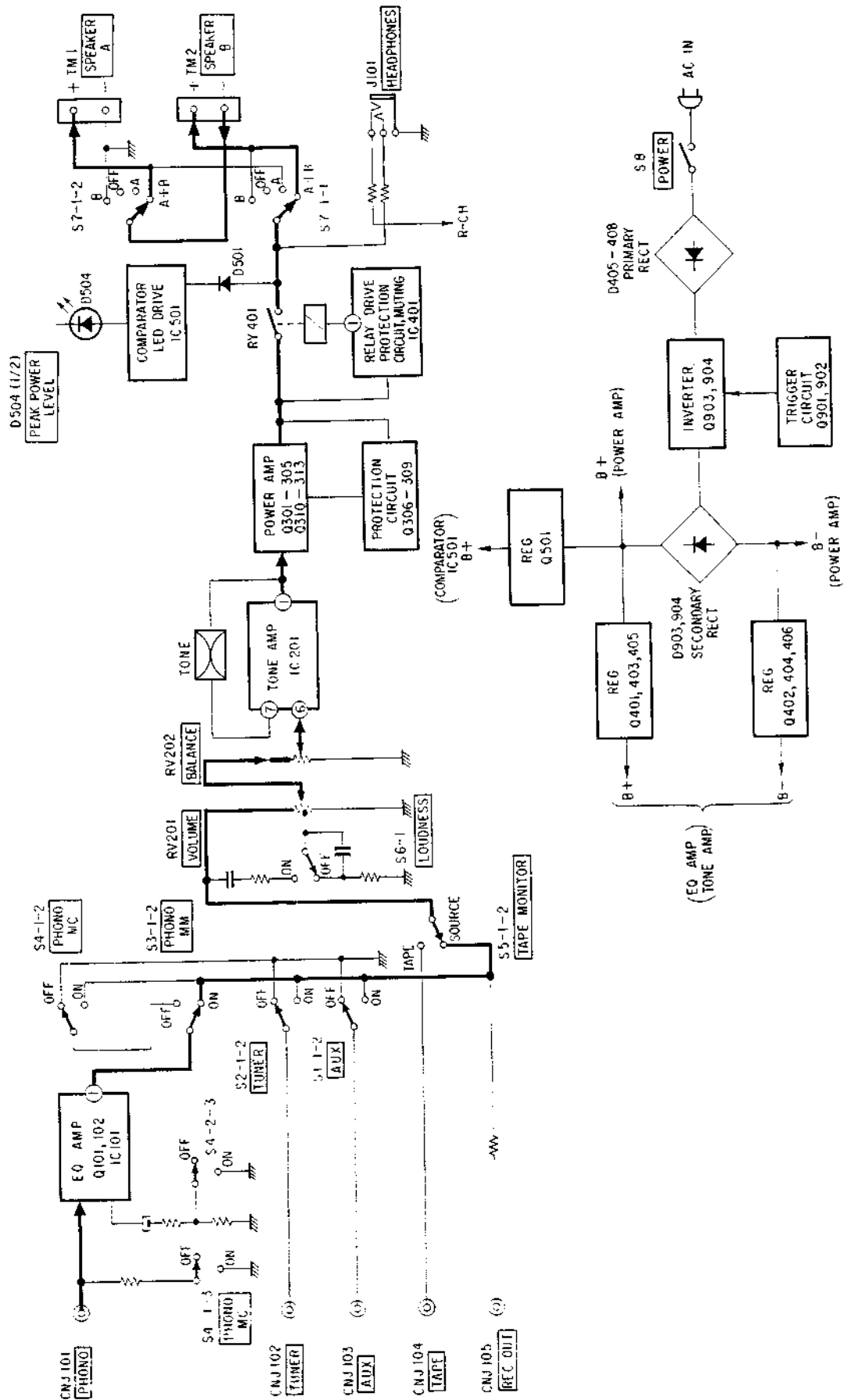


Fig. 1

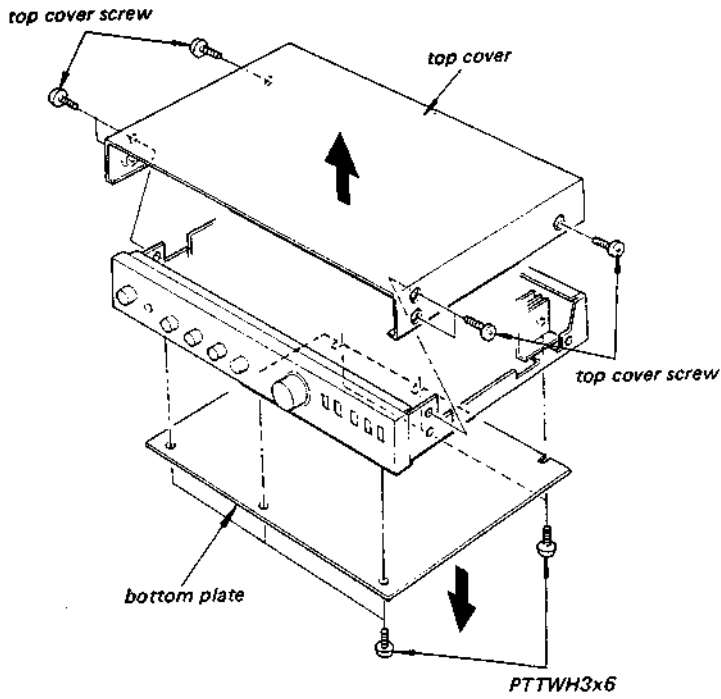
SECTION 1
BLOCK DIAGRAM



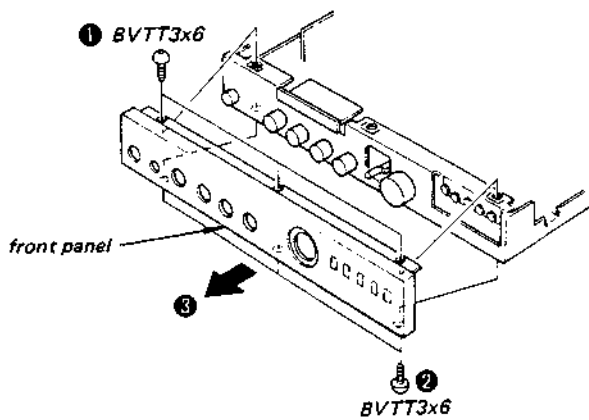
SECTION 2 DISASSEMBLY

- Follow the disassembly procedure in the numerical order given.

TOP COVER AND BOTTOM PLATE REMOVAL



FRONT PANEL REMOVAL



Under the condition shown below, the circuit boards can be checked except for the pulse power supply board.

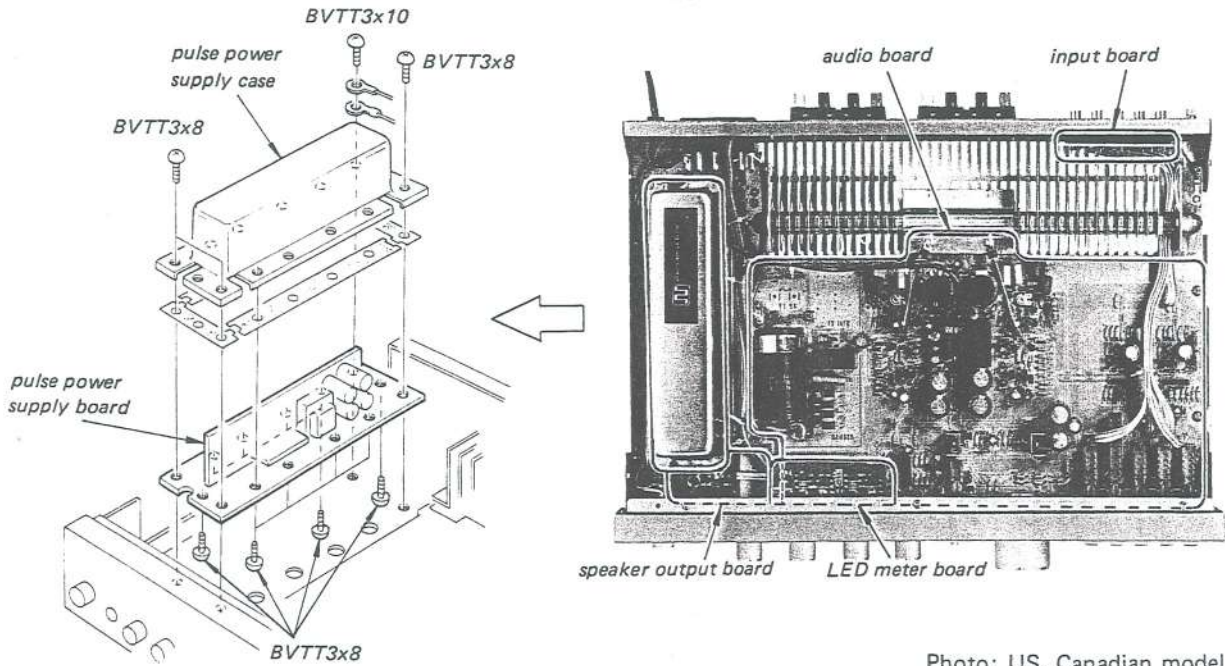
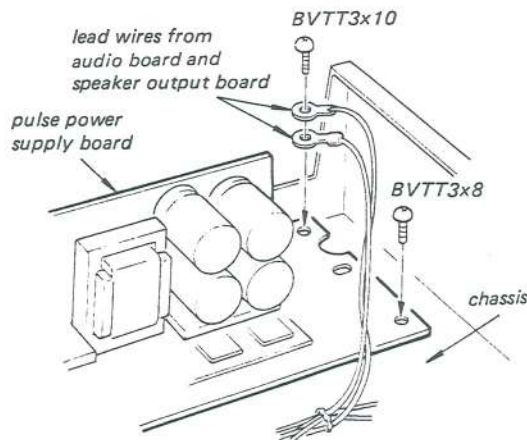


Photo: US, Canadian model

PULSE POWER SUPPLY BOARD REPAIRING

The negative circuit of the secondary rectifier in the pulse power supply circuit is grounded by the screws in the aluminum diecast case. When checking the pulse power supply board out of the box, use the two lead wires to connect the ground pattern of circuit board with the chassis as shown below.



— With shield case installed and lead wires connected. —

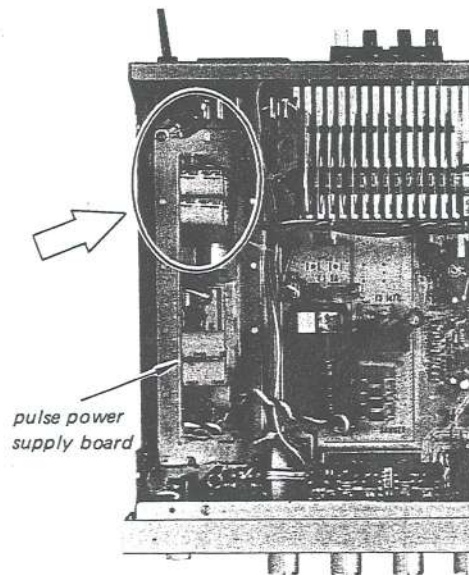


Photo: US, Canadian model

SECTION 3
ADJUSTMENTS

DC Bias Adjustment
(with no signal input)

Note:

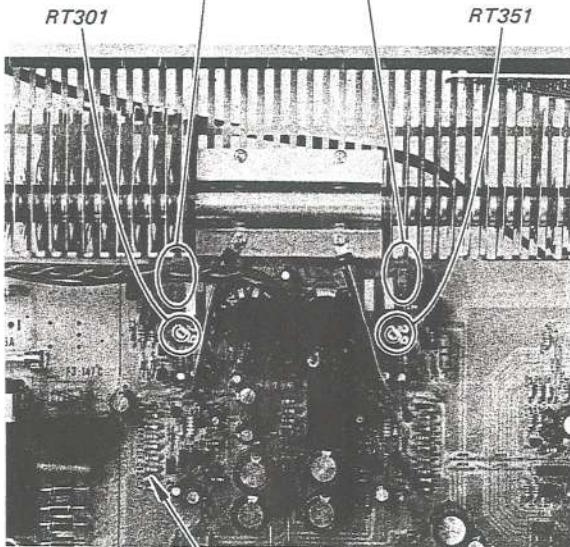
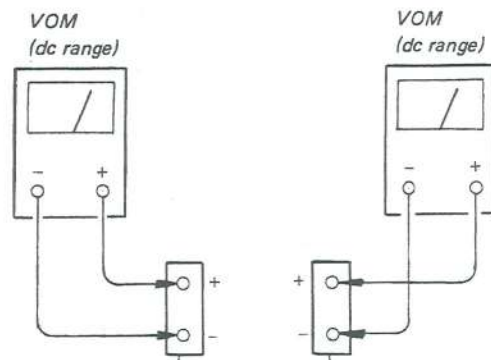
1. The adjustment should be made a few minutes later after the POWER switch is turned ON.
2. After replacing the power transistors, this adjustment should be made.

— L-CH —

Adjust RT301 for 15mV
dc reading on VOM.

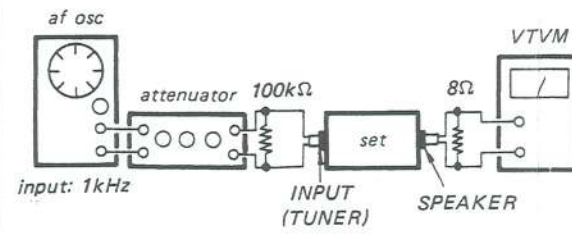
— R-CH —

Adjust RT351 for 15mV
dc reading on VOM.

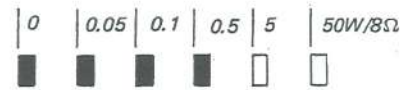


audio board

Indicator Sensitivity Adjustment
Procedure:

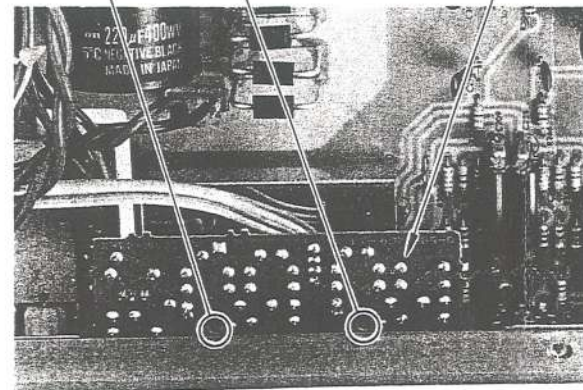


1. Turn the VOLUME control fully clockwise.
2. Adjust the input level of the set for 0.5W (2V) reading on the VTVM.
3. Adjust RT501 (L-CH) and RT551 (R-CH) so that the PEAK POWER LEVEL indicators of 0.5W and less light.



Adjustment Location:

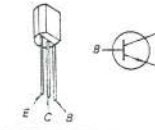
RT501 (L-CH) RT551 (R-CH) LED meter board



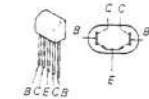
Replacement Semiconductors

For replacement, use semiconductors except in ().

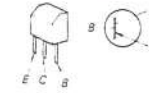
Q101, 151 } 2SC2545
Q102, 152 }
Q307, 357 }
Q308, 358 } 2SC1364(2SC1815)
Q403



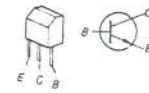
Q301, 351: 2SA798



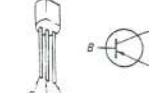
Q302, 352: 2SA1138



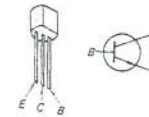
Q303, 353: 2SC2676



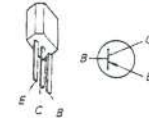
Q304, 354: 2SB646A(2SB646)
Q311, 361: 2SB647A(2SB647)



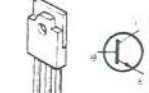
Q305, 355: 2SD666A(2SD666)
Q310, 360: 2SD667A(2SD667)
Q501: 2SC1475



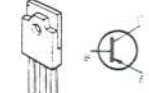
Q306, 356 }
Q309, 359 } 2SA1015
Q314, 364 }
Q404 }
Q902: 2SA1027R(2SA1026)



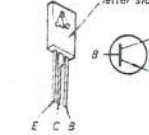
Q312, 362: 2SC2571



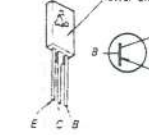
Q313, 363: 2SA1097



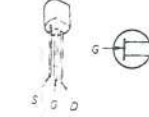
Q401: 2SD809



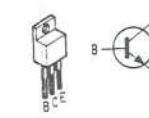
Q402: 2SB731



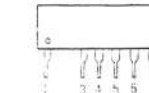
Q405, 406: 2SK34



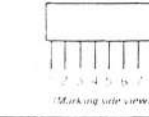
Q903, 904: 2SC2440



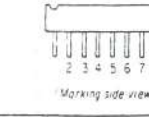
IC101, 151: CX550



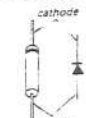
IC201, 251: HA1457
IC401: HA12002



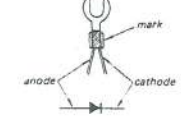
IC501, 551: BA656



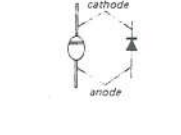
D301, 351 }
D304, 354 }
D307, 357 } 1S1555
D403, }
D501, 551 }
D502, 552 }
D901, 902 }
D401: RD27EB2Z(RD27EB3Z)
D402: HZ6C2L(HZ6C3L)
D503, 553: 1T22AM(1T22)
D505: HZ12C2L(HZ12C)



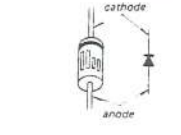
D303, 353: SV04S



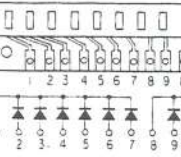
D405-408: U05G (30D4FA)



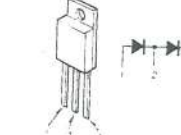
D409, 410: EQB01-08 (RD7.5EC)



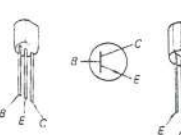
D504: SEL8805



D903, 904: CTU22U



Q901: 2SC1364 (2SC1634)

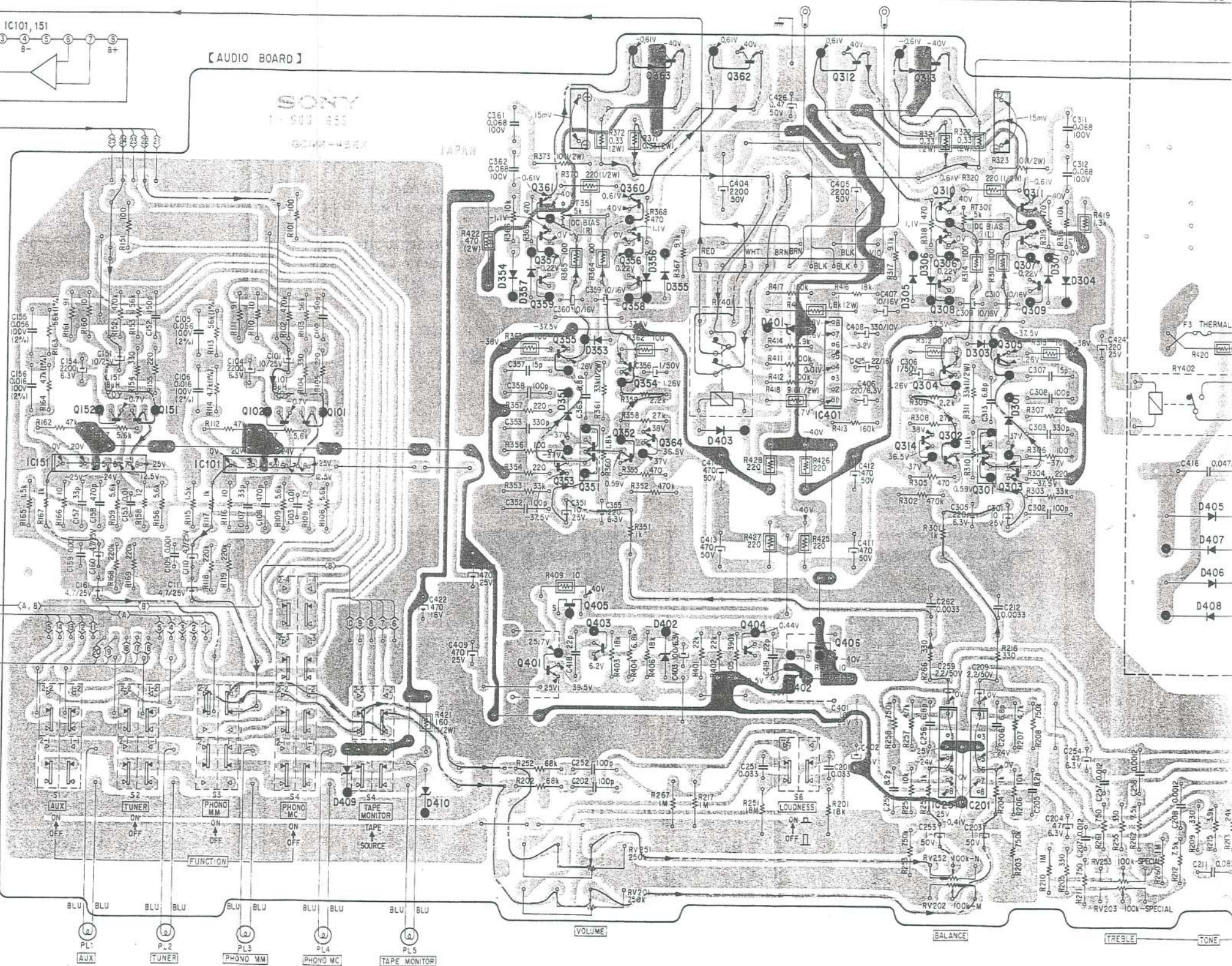
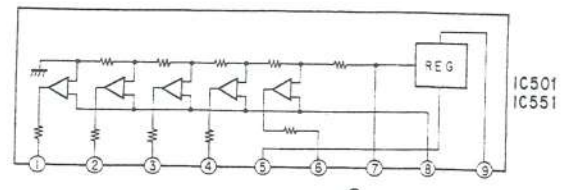
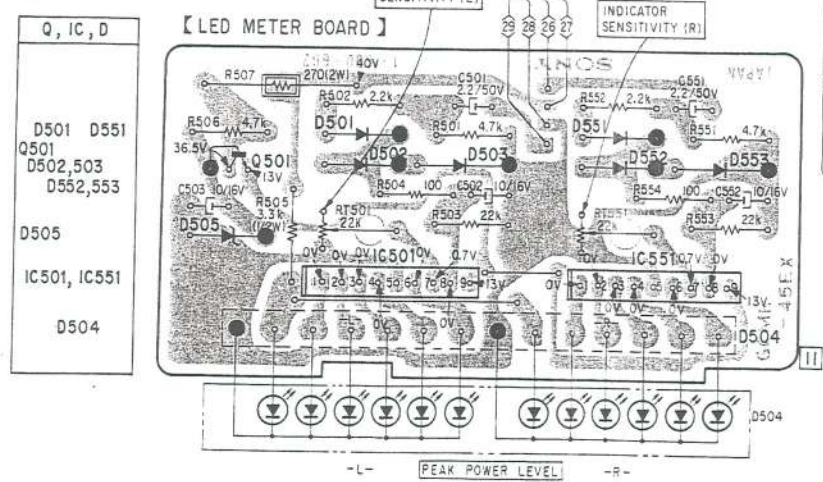
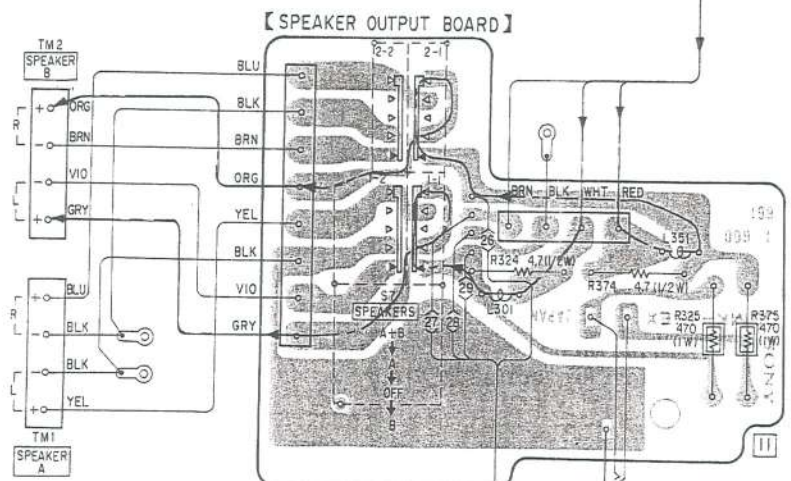
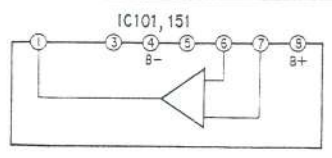
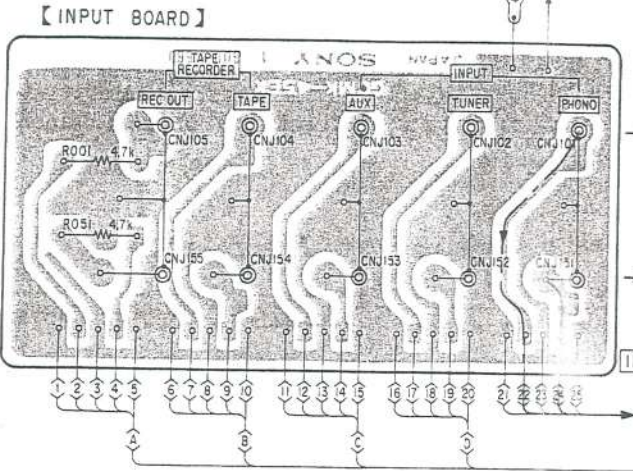


4-1. MOUNTING DIAGRAM
— Conductor Side —
Replacement Semiconductors: See page 8.

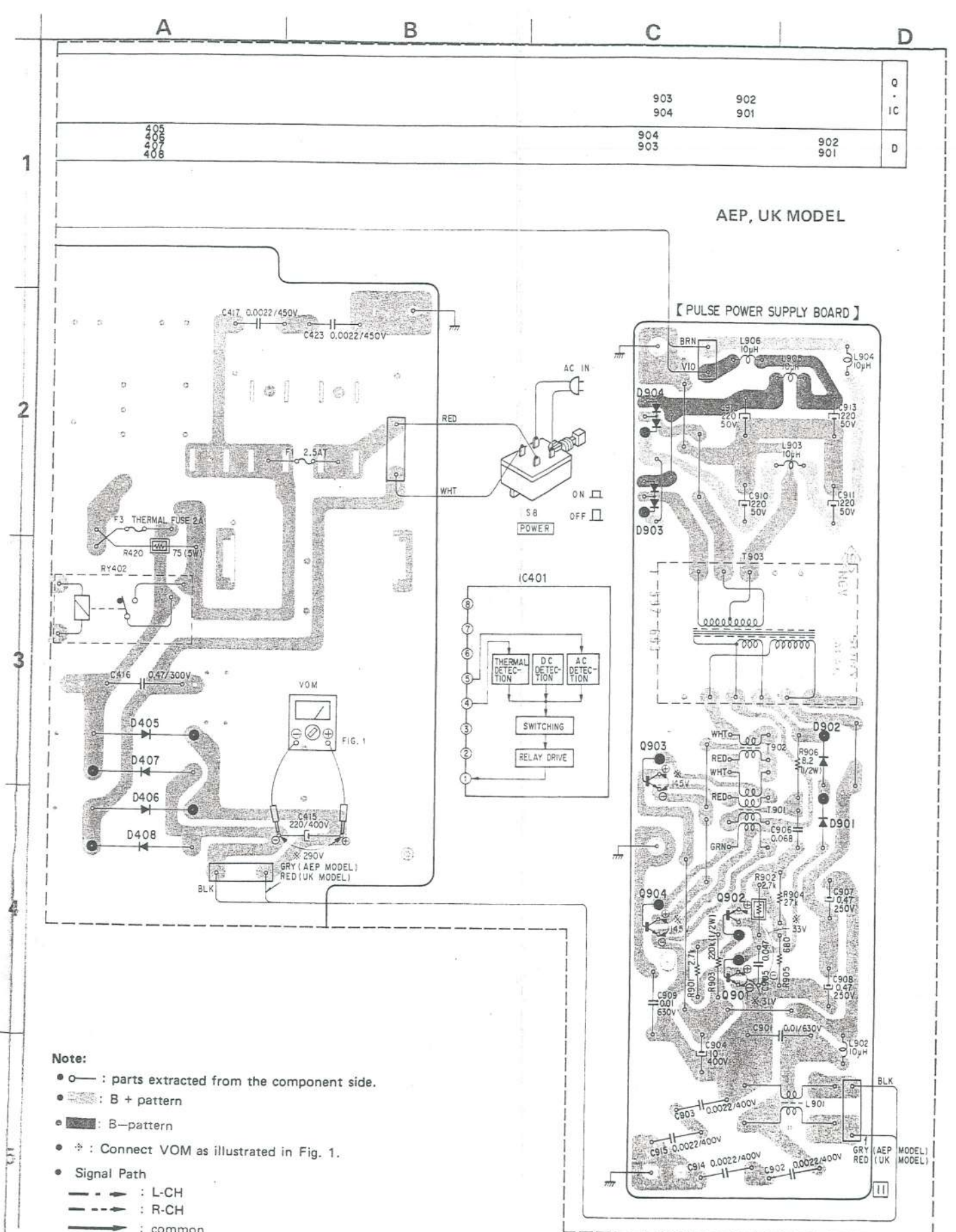
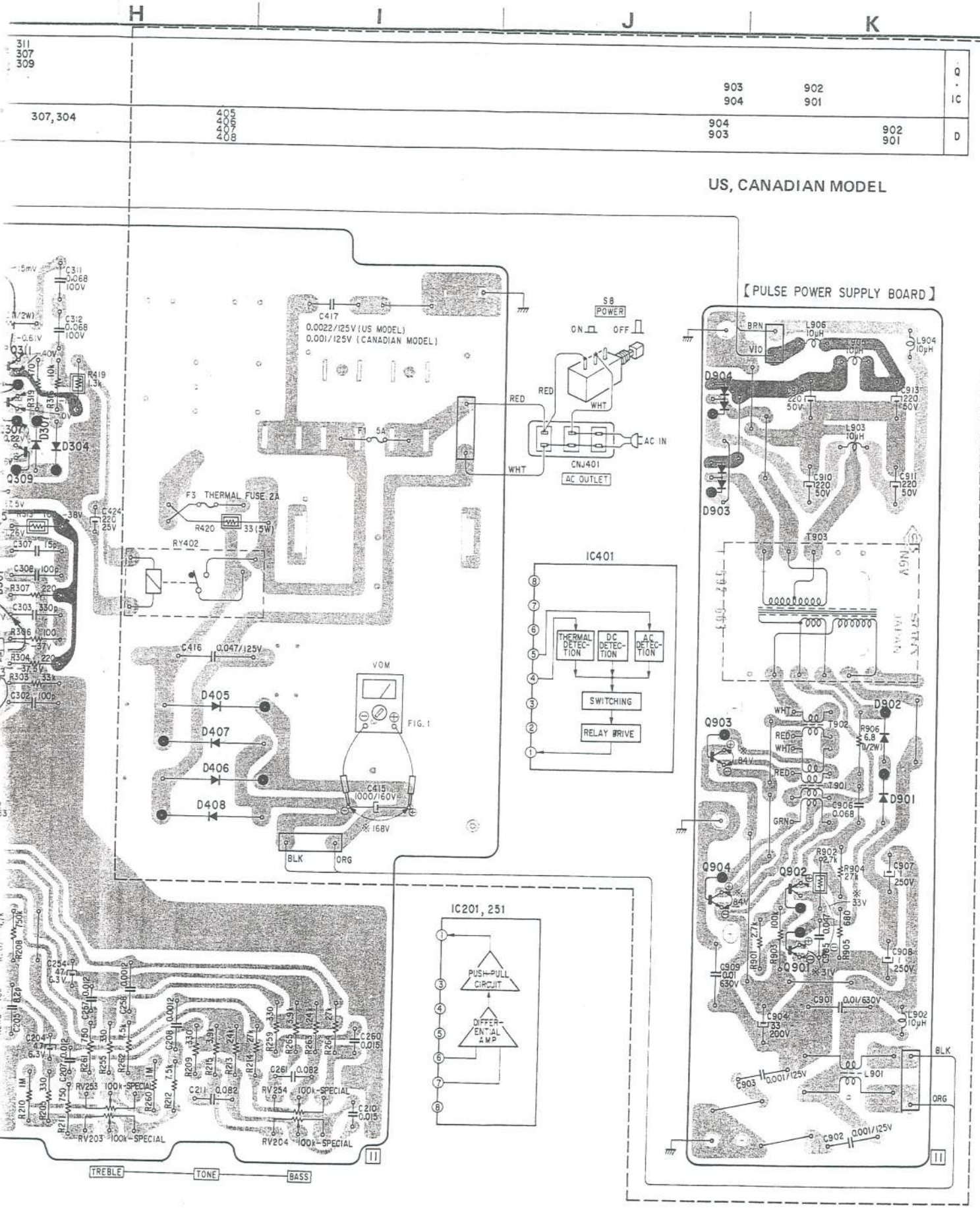
SECTION 4
DIAGRAMS

C D E F G H

Q	152	151			361	360	363	362	312	313	310	311		
IC	IC151		IC101	IC101	359	355	351		IC401	314	306	307	309	
D				409	410	354, 357	351	353	356, 355	404	402	406	401	408
														405
														406
														407
														408



1
2
3
4
5

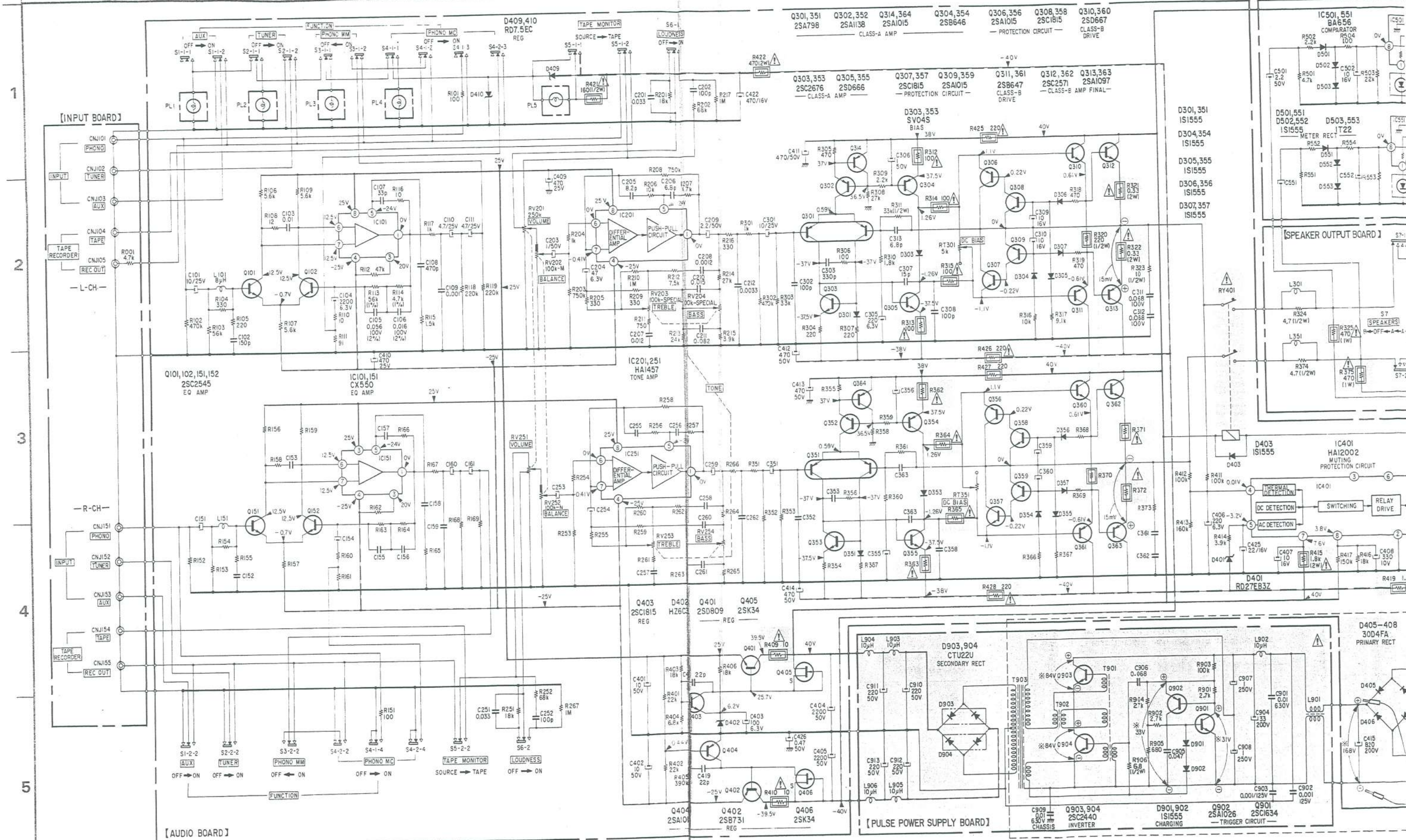


Note:

- : parts extracted from the component side.
- ▨ : B + pattern
- : B - pattern
- * : Connect VOM as illustrated in Fig. 1.
- **Signal Path**
 - : L-CH
 - - - : R-CH
 - : common

TA-F40 TA-F40

4.2. SCHEMATIC DIAGRAM



H I J K L M

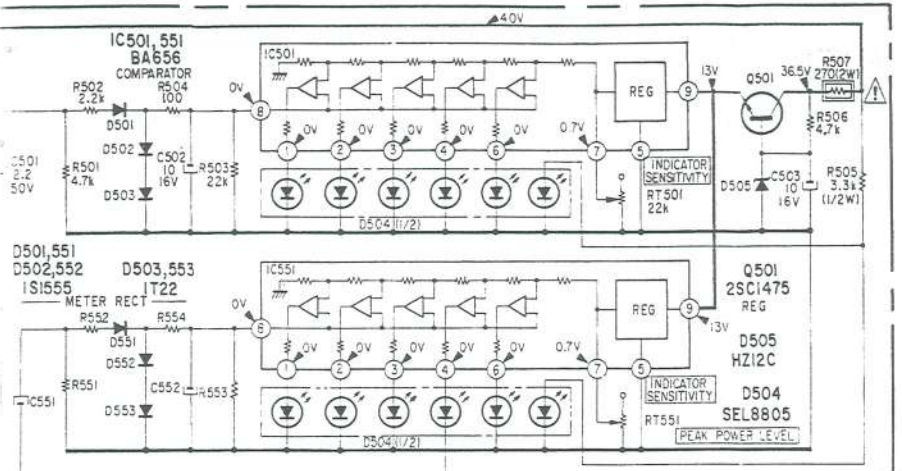
Note: The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

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

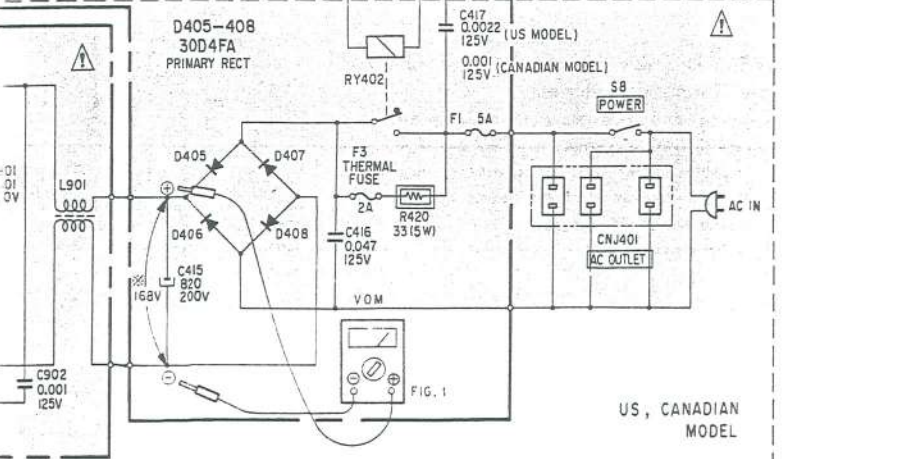
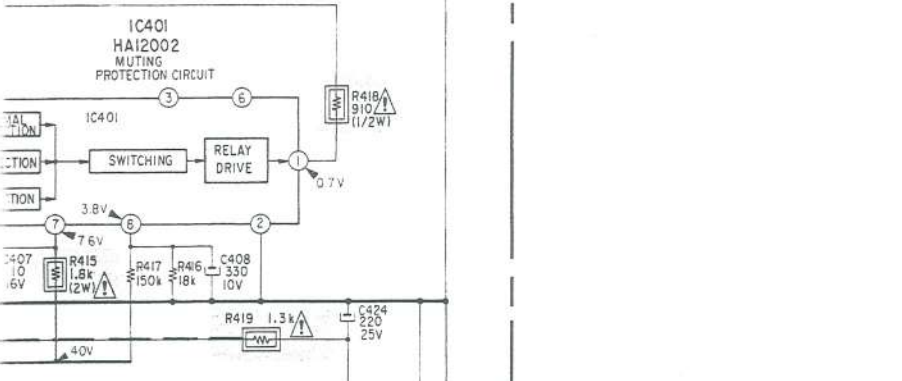
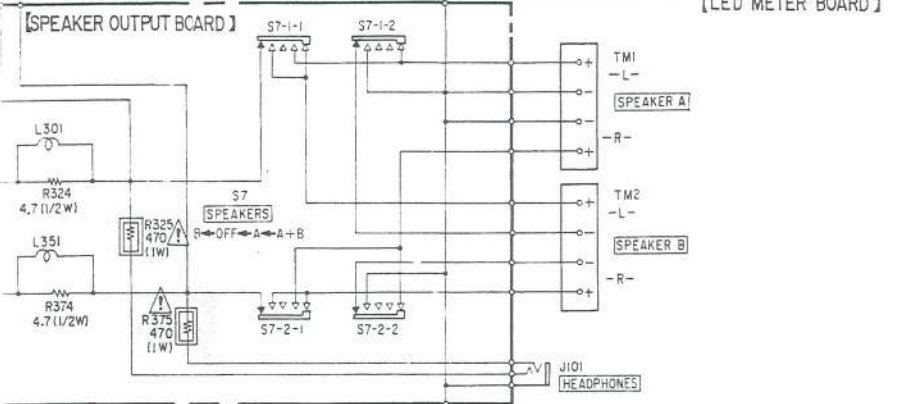
- Components for right channel have same values as for left channel. Reference numbers are coded from 151, 251, 35 or 551.
- All capacitors are in μF unless otherwise noted. pF : μm 50 WV or less are not indicated except for electrolytics.
- All resistors are in ohms, $\frac{1}{4}\text{W}$ unless otherwise noted. k Ω : 1000 Ω , M Ω : 1000 k Ω .
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- $\frac{1}{4}\text{W}$: nonflammable resistor.
- 1% or 2% indicates component tolerance.
- \square : panel designation
- \square : adjustment for repair
- --- : B + bus.
- --- : B - bus.
- \ast : Connect VOM as illustrated in Fig. 1.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no signal conditions with a VO (20 k Ω /V).
- Voltage variations may be noted due to normal production tolerances.

• Switch

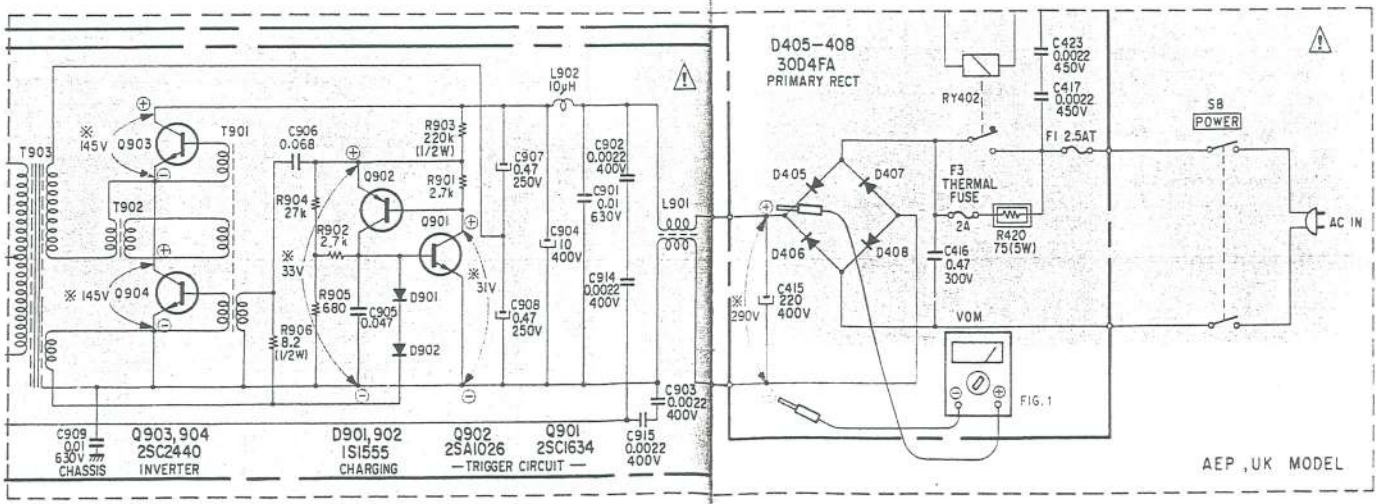
Ref. No.	Switch	Position
S1-1-1, 2	AUX	OFF
S1-2-2		OFF
S2-1-1, 2	TUNER	OFF
S2-2-2		OFF
S3-1-1, 2	PHONO MM	ON
S3-2-2		ON
S4-1-1 to 4	PHONO MC	OFF
S4-2-2 to 4		OFF
S5-1-1, 2	TAPE MONITOR	SOURCE
S5-2-2		SOURCE
S6-1, 2	LOUDNESS	OFF
S7-1-1, 2	SPEAKERS	A + B
S7-2-1, 2		A + B
S8	POWER	OFF



[LED METER BOARD]



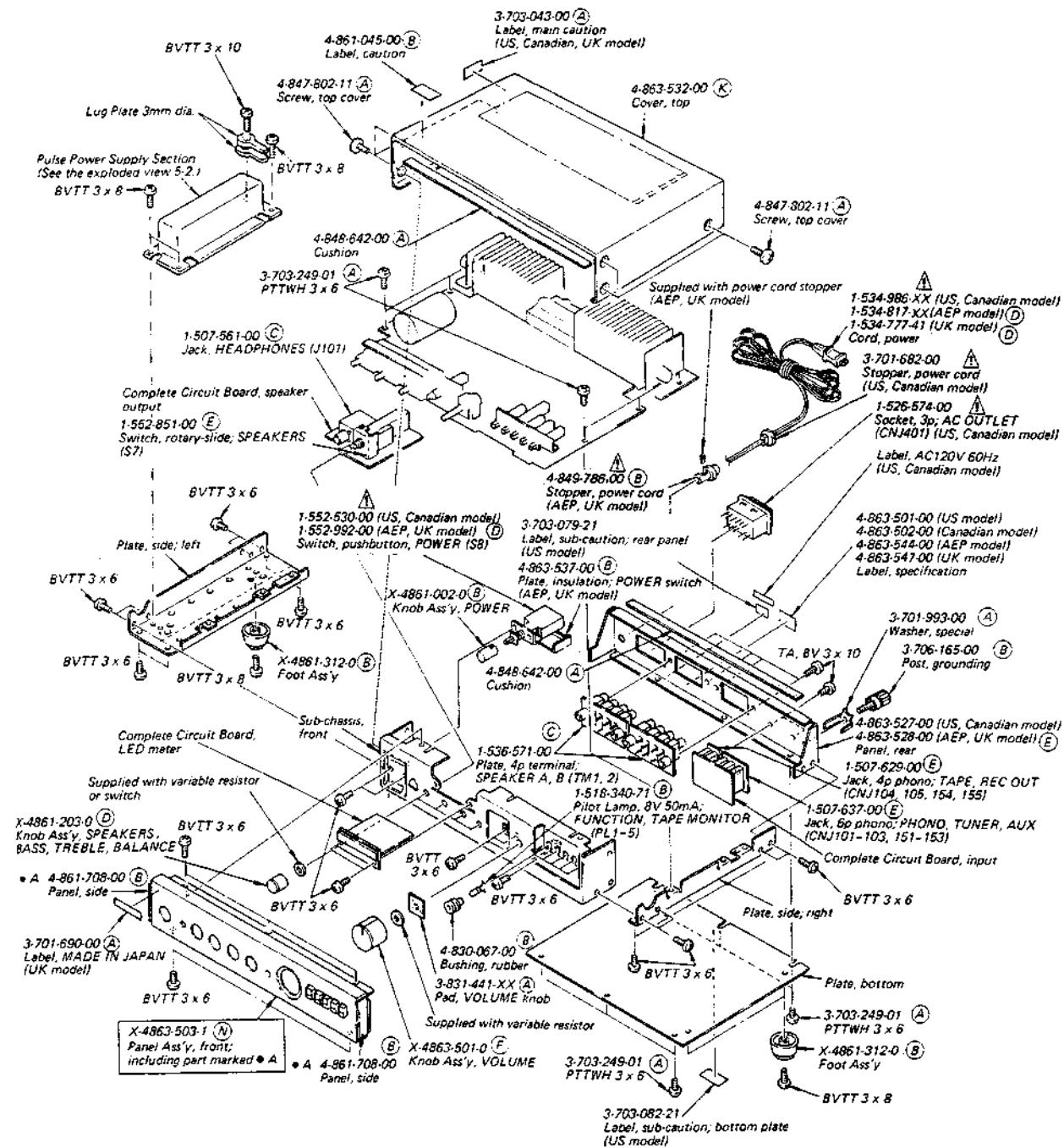
US, CANADIAN MODEL



AEP, UK MODEL

SECTION 5
EXPLODED VIEWS

5-1.

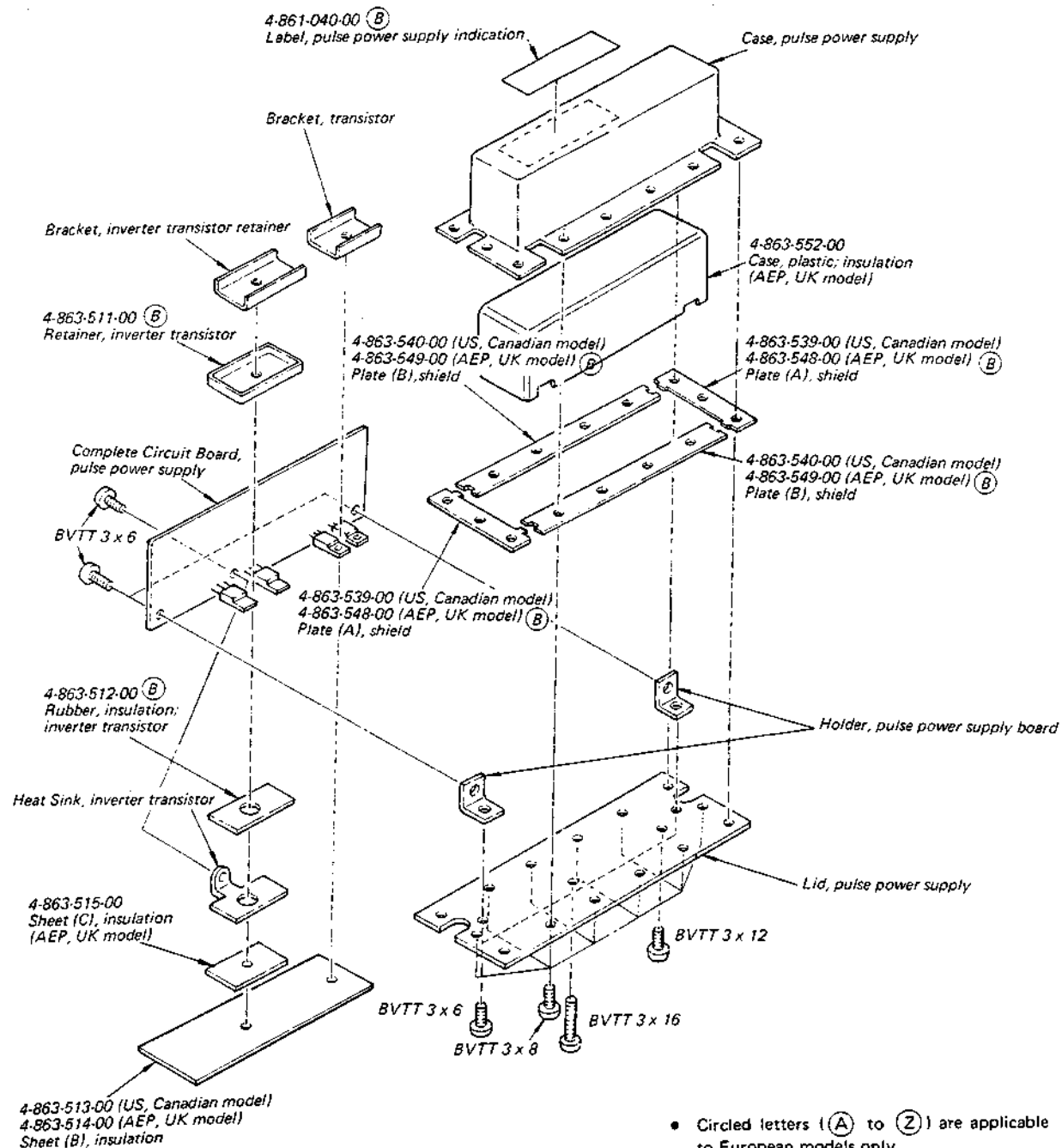


Note: The components identified by shading and mark are critical for safety. Replace only with part number specified.

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

- Circled letters (A to Z) are applicable to European models only.
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted. (-) = slotted head

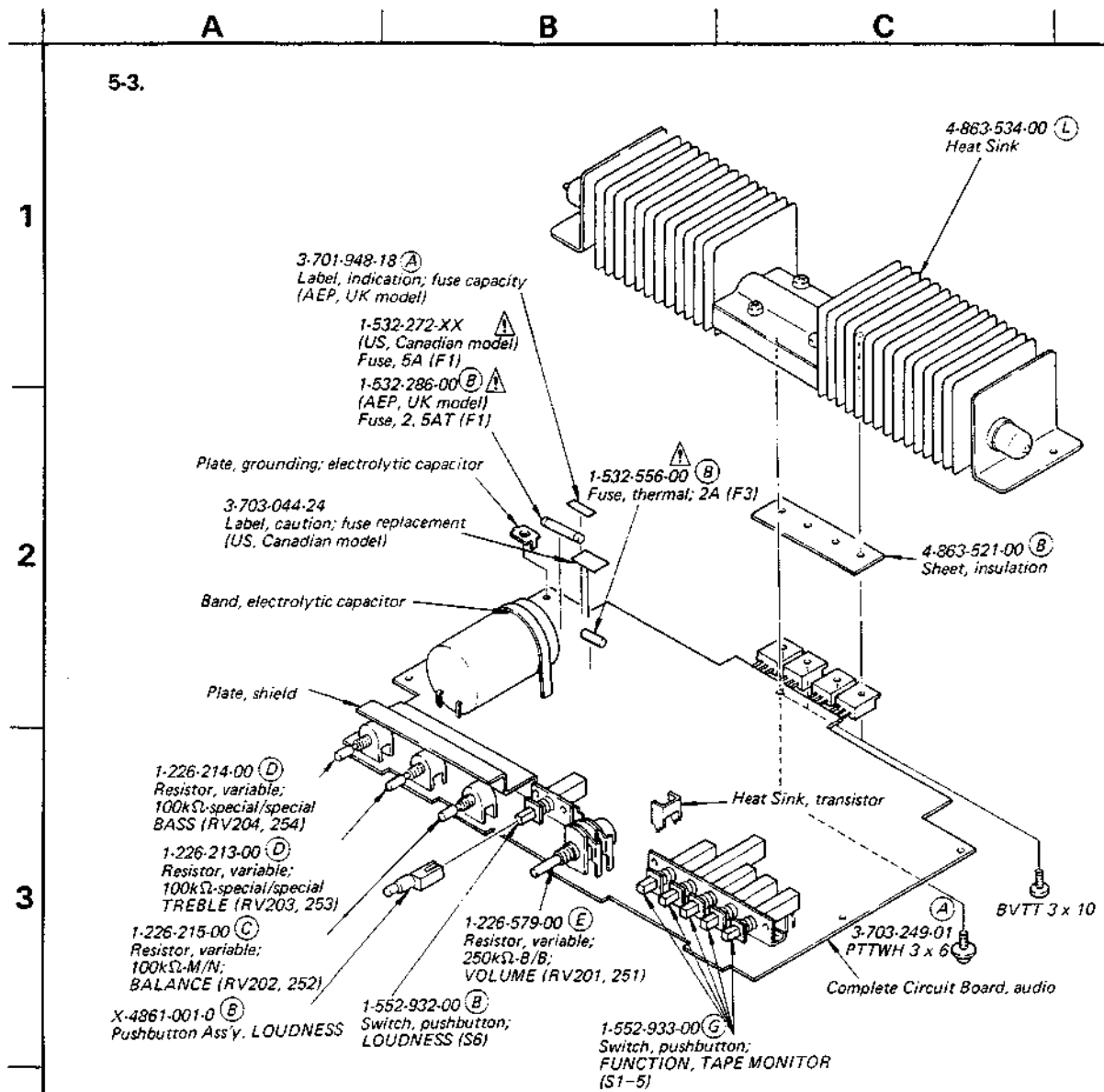
5-2.



- Circled letters (A to Z) are applicable to European models only.
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted. (-) = slotted head

SECTION 6
ELECTRICAL PARTS LIST

• Circled letters (A to Z) are applicable to European models only.



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

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

- Circled letters (A to Z) are applicable to European models only.
- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
(-) = slotted head

Ref. No.	Part No.	Description
SEMICONDUCTORS		
Transistors		
Q101, 151	8-729-354-52	(E) 2SC2545
Q102, 152		(E) 2SC2545
Q301, 351	8-729-679-82	(B) 2SA798
Q302, 352	8-729-113-82	(B) 2SA1138
Q303, 353	8-729-167-62	(B) 2SC2676
⇒ Q304, 354	8-729-304-62	(B) 2SB646A
⇒ Q305, 355	8-729-300-62	(B) 2SD666A
Q306, 356	8-729-201-52	(B) 2SA1015
⇒ Q307, 357	8-729-663-47	(C) 2SC1364
⇒ Q308, 358		(C) 2SC1364
Q309, 359	8-729-201-52	(B) 2SA1015
⇒ Q310, 360	8-729-306-72	(B) 2SD667A
⇒ Q311, 361	8-729-300-72	(B) 2SB647A
Q312, 362	8-729-371-22	(C) 2SC2571
Q313, 363	8-729-397-22	(I) 2SA1097
Q314, 364	8-729-201-52	(B) 2SA1015
Q401	8-729-180-93	(B) 2SD809
Q402	8-729-173-13	(B) 2SB731
⇒ Q403	8-729-663-47	(C) 2SC1364
Q404	8-729-201-52	(B) 2SA1015
Q405, 406	8-729-634-03	(B) 2SK34
Q501	8-760-413-10	(B) 2SC1475
⇒ Q901	▲ 8-729-663-47	(C) 2SC1364
⇒ Q902	▲ 8-729-612-77	(B) 2SA1027R
Q903, 904	▲ 8-729-924-40	(F) 2SC2440
ICs		
IC101, 151	8-759-305-50	(D) CX550
IC201, 251	8-759-314-57	(C) HA1457
IC401	8-759-320-02	(D) HA12002
IC501, 551	8-759-965-60	(D) BA656
Diodes		
D301, 351	8-719-815-55	(B) 1S1555
D303, 353	8-719-300-11	(B) SV04S

Ref. No.	Part No.	Description
D304, 354	8-719-815-55	(B) 1S1555
D307, 357		(B) 1S1555
⇒ D401	8-719-127-25	(B) RD27EB2Z
⇒ D402	8-719-910-68	(B) HZ6C2L
D403	8-719-815-55	(B) 1S1555
⇒ D405-408	▲ 8-719-911-55	(B) U05G
⇒ D409, 410	8-719-931-08	(B) EQB01-08
D501, 551	8-719-815-55	(B) 1S1555
D502, 552		(B) 1S1555
⇒ D503, 553	8-719-422-21	(B) 1T22AM
D504	8-719-388-05	(H) SEL8805
⇒ D505	8-719-910-28	(B) HZ12C2L
D901, 902	▲ 8-719-815-55	(B) 1S1555
D903, 904	▲ 8-719-300-22	(D) CTU22U
COILS AND TRANSFORMERS		
L101, 151	1-407-519-00	(B) Microinductor, 8μH
L901	▲ 1-421-328-11	(B) Coil, line filter (US, Canadian model)
L901	▲ 1-421-340-00	(E) Coil, line filter (AEP, UK model)
L902-906	▲ 1-421-329-00	(B) Coil, choke
T901	▲ 1-543-098-00	(B) Core
T902	▲ 1-543-100-00	(B) Core
T903	▲ 1-446-363-00	(B) Transformer, converter (US, Canadian model)
T903	▲ 1-446-364-00	(K) Transformer, converter (AEP, UK model)
CAPACITORS		
All capacitors are in μF and ceramic unless otherwise noted. 50WV or less are not indicated except for electrolytics. p : μμF, elect : electrolytic		
C101, 151	1-123-329-00	(B) 10 25V elect
C102, 152	1-161-313-00	(A) 150p
C103, 153	1-108-239-00	(A) 0.01 mylar
C104, 154	1-123-300-00	(B) 2200 6.3V elect
C105, 155	1-130-126-00	(B) 0.056 100V polyethylene (2%)
C106, 156	1-130-125-00	(B) 0.016 100V polyethylene (2%)
C107, 157	1-161-265-00	(A) 33p

• ⇒ : Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

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

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

TA-F40 TA-F40

• Circled letters (A to Z) are applicable to European models only.

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Ref. No.	Part No.	Description
C108, 158	1-161-319-00 (A) 470p	
C109, 159	1-108-227-00 (A) 0.001	mylar
C110, 160	1-123-328-00 (B) 4.7	25V elect
C111, 161		
C201, 251	1-108-244-00 (A) 0.033	mylar
C202, 252	1-161-271-00 (A) 100p	
C203, 253	1-123-352-00 (B) 1	50V elect
C204, 254	1-123-294-00 (B) 47	6.3V elect
C205, 255	1-161-258-00 (A) 8.2p	
C206, 256	1-161-257-00 (A) 6.8p	
C207, 257	1-108-357-00 (A) 0.012	mylar
C208, 258	1-161-324-00 (A) 0.0012	
C209, 259	1-123-353-00 (B) 2.2	50V elect
C210, 260	1-108-240-00 (A) 0.015	mylar
C211, 261	1-108-362-00 (B) 0.082	mylar
C212, 262	1-108-232-00 (A) 0.0033	mylar
C301, 351	1-123-329-00 (B) 10	25V elect
C302, 352	1-161-271-00 (A) 100p	
C303, 353	1-161-317-00 (A) 330p	
C305, 355	1-123-296-00 (B) 220	6.3V elect
C306, 356	1-123-352-00 (B) 1	50V elect
C307, 357	1-161-261-00 (A) 15p	
C308, 358	1-161-271-00 (A) 100p	
C309, 359	1-123-316-00 (B) 10	16V elect
C310, 360		
C311, 361		
C312, 362	1-130-317-00 (B) 0.068	100V polyethylene
C313, 363	1-161-257-00 (A) 6.8p	
C401, 402	1-123-356-00 (A) 10	50V elect
C403	1-123-295-00 (B) 100	6.3V elect
C404, 405	1-123-256-00 (E) 2200	50V elect
C406	1-123-296-00 (B) 220	6.3V elect
C407	1-123-316-00 (B) 10	16V elect
C408	1-123-309-00 (B) 330	10V elect
C409, 410	1-123-568-00 (B) 470	25V elect
C411-414	1-123-363-00 (C) 470	50V elect
C415	1-123-408-00 (A) 820	200V elect (US, Canadian model)

Ref. No.	Part No.	Description
C415	1-123-407-00 (H) 220	400V elect (AEP, UK model)
C416	1-108-749-00 0.047	125V mylar (US, Canadian model)
C416	1-130-342-00 (C) 0.47	300V film (AEP, UK model)
C417	1-161-515-00 0.0022	125V (US model)
C417	1-161-502-00 0.001	125V (Canadian model)
C417	1-161-734-00 (B) 0.0022	450V (AEP, UK model)
C418, 419	1-161-263-00 (A) 22p	
C422	1-123-323-00 (B) 470	16V elect
C423	1-161-734-00 (B) 0.0022	450V (AEP, UK model)
C424	1-123-334-00 (B) 220	25V elect
C425	1-123-317-00 (B) 22	16V elect
C426	1-123-351-00 (B) 0.47	50V elect
C501, 551	1-123-353-00 (B) 2.2	50V elect
C502, 552	1-123-316-00 (B) 10	16V elect
C503		
C901	1-130-141-00 (B) 0.01	630V polyethylene
C902, 903	1-161-516-00 0.001	125V (US model)
C902, 903	1-161-502-00 0.001	125V (Canadian model)
C902, 903	1-161-734-00 (B) 0.0022	400V (AEP, UK model)
C904	1-123-565-00 33	200V elect (US, Canadian model)
C904	1-123-290-00 (H) 10	400V elect (AEP, UK model)
C905	1-108-246-00 (A) 0.047	mylar
C906	1-108-249-00 (A) 0.068	mylar
C907, 908	1-130-357-00 1	250V solid aluminum (US, Canadian model)
C907, 908	1-130-356-00 0.47	250V solid aluminum (AEP, UK model)
C909	1-130-141-00 (B) 0.01	630V polyethylene
C910-913	1-123-361-00 (A) 220	50V elect
C914, 915	1-161-734-00 (B) 0.0022	400V (AEP, UK model)

RESISTORS

All resistors are in ohms. Common 1/4W carbon resistors are omitted. Refer to the list on the last page for their part numbers.
kΩ : 1000Ω, MΩ : 1000kΩ

Ref. No.	Part No.	Description
R113, 163	1-214-771-00 (A) 56k	1/4W metal oxide (1%)
R114, 164	1-214-745-00 (A) 4.7k	1/4W metal oxide (1%)
R311, 361	1-244-909-00 (A) 33k	1/2W carbon
R312, 362	1-247-107-00 (A) 100	1/4W carbon (nonflammable)
R315, 365		
R320, 370	1-247-224-00 (A) 220	1/2W carbon (nonflammable)
R321, 371	1-207-615-00 (A) 0.33	2W metal plate (nonflammable)
R322, 372		
R323, 373	1-244-825-00 (A) 10	1/2W carbon
R324, 374	1-244-817-00 (A) 4.7	1/2W carbon
R325, 375	1-213-139-00 (A) 470	1W metal oxide (nonflammable)
R409, 410	1-247-083-00 (A) 10	1/4W carbon (nonflammable)
R415	1-206-670-00 (A) 1.8k	2W metal oxide (nonflammable)
R418	1-247-239-00 (A) 910	1/2W carbon (nonflammable)
R419	1-247-134-00 (A) 1.3k	1/4W carbon (nonflammable)
R420	1-205-598-00 33	5W wirewound (nonflammable) (US, Canadian model)
R420	1-205-599-00 75	5W wirewound (nonflammable) (AEP, UK model)
R421	1-247-221-00 (B) 160	1/2W carbon (nonflammable)
R422	1-206-656-00 (A) 470	2W metal oxide (nonflammable)
R425-428	1-247-115-00 (A) 220	1/4W carbon (nonflammable)
R505	1-244-885-00 (A) 3.3k	1/2W carbon
R507	1-206-650-00 (A) 270	2W metal oxide (nonflammable)
R901	1-246-483-00 (A) 2.7k	1/4W carbon
R902	1-247-141-00 (A) 2.7k	1/4W carbon (nonflammable)

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

Ref. No.	Part No.	Description
R903	1-246-521-00 100k	1/4W carbon (US, Canadian model)
R903	1-244-929-00 (A) 220k	1/2W carbon (AEP, UK model)
R904	1-246-507-00 (A) 27k	1/4W carbon
R905	1-246-469-00 (A) 680	1/4W carbon
R906	1-244-821-00 6.8	1/2W carbon (US, Canadian model)
R906	1-244-823-00 (A) 8.2	1/2W carbon (AEP, UK model)
RT301, 351	1-226-235-00 (A) 5k-B, adjustable; DC bias	
RT501, 551	1-226-267-00 (A) 22k-B, adjustable; indicator sensitivity	
RV201, 251	1-226-579-00 (E) 250k-B/B, variable; VOLUME	
RV202, 252	1-226-215-00 (C) 100k-M/N, variable; BALANCE	
RV203, 253	1-226-213-00 (D) 100k-special/special, variable; TREBLE	
RV204, 254	1-226-214-00 (D) 100k-special/special, variable; BASS	

SWITCHES

S1-5	1-552-933-00 (C) Pushbutton, FUNCTION, TAPE MONITOR
S6	1-552-932-00 (B) Pushbutton, LOUDNESS
S7	1-552-851-00 (E) Rotary-slide, SPEAKERS
S8	1-552-530-00 Pushbutton, POWER (US, Canadian model)
S8	1-552-992-00 (D) Pushbutton, POWER (AEP, UK model)

MISCELLANEOUS

CNJ101, 151	1-507-637-00 (E) Jack, 6p phono; PHONO, TUNER, AUX
CNJ103, 153	
CNJ104, 154	1-507-629-00 (E) Jack, 4p phono; TAPE, REC OUT
CNJ105, 155	
CNJ401	1-526-574-00 Socket, 3p; AC OUTLET (US, Canadian model)
F1	1-532-272-XX Fuse, 5A (US, Canadian model)
F1	1-532-286-00 (B) Fuse, 2.5AT (AEP, UK model)
F3	1-532-556-00 (B) Fuse, thermal; 2A

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

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

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

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
J101	1-507-561-00	ⓐ Jack, HEADPHONES
PL1-5	1-518-340-71	ⓑ Pilot Lamp, 8V 50mA; FUNCTION, TAPE MONITOR
RY401	△ 1-515-348-00	ⓕ Relay
RY402	△ 1-515-347-00	ⓕ Relay
TM1, 2	1-536-571-00	ⓒ Plate, 4p terminal; SPEAKER A, B
	△ 1-517-072-00	Holder, fuse (US, Canadian model)
	△ 1-533-131-00	ⓐ Holder, fuse (AEP, UK model)
	△ 1-534-777-41	ⓓ Cord, power (UK model)
	△ 1-534-817-XX	ⓓ Cord, power (AEP model)
	△ 1-534-986-XX	Cord, power (US, Canadian model)

• Circled letters (ⓐ to Ⓩ) are applicable to European models only.

ACCESSORIES AND PACKING MATERIALS	
<u>Part No.</u>	<u>Description</u>
3-701-630-00	ⓐ Bag, plastic; instruction manual
3-770-869-11	ⓓ Manual, instruction (AEP, UK model)
3-770-869-21	Manual, instruction (US model)
3-770-869-21)	Manual, instruction (Canadian model)
3-794-479-31	
3-794-233-21	Sheet, consumer products (US model)
4-863-541-00	ⓓ Carton
4-863-543-00	ⓒ Cushion
4-891-037-00	ⓑ Bag, plastic; set

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

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

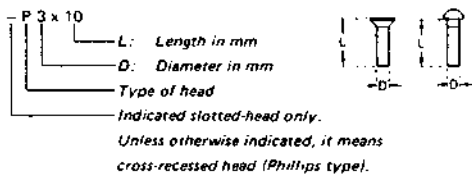
1/4 WATT CARBON RESISTORS (A)

Note: Circled letter (A) is applicable to European models only.

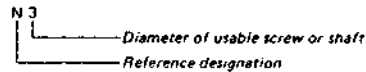
1.0	1-246-401-00	10	1-246-425-00	100	1-246-449-00	1.0k	1-246-473-00	10k	1-246-497-00	100k	1-246-521-00	1.0M	1-246-545-00
1.1	1-246-402-00	11	1-246-426-00	110	1-246-450-00	1.1k	1-246-474-00	11k	1-246-498-00	110k	1-246-522-00	1.1M	1-210-814-00
1.2	1-246-403-00	12	1-246-427-00	120	1-246-451-00	1.2k	1-246-475-00	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	1-246-476-00	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	1-246-477-00	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	1-246-478-00	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	1-246-479-00	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	1-246-480-00	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	1-246-481-00	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	1-246-482-00	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	1-246-483-00	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	1-246-484-00	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	1-246-485-00	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	1-246-486-00	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	1-246-487-00	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:



Nut, Washer, Retaining ring:



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-filister-head screw	
RF		filister-head screw	
BV		brazer-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	