

TA-F40

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)	AC Outlets:	1 switched, 100W (at max.) (US, Canadian model) 2 unswitched, total 100W (at max.)
Power Consumption:	85W (US model) 130W (Canadian model) 210W (AEP model) 240W (UK model)	Dimensions:	Approx. 430(w)x80(h)x335(d)mm 16 ⁷ / ₈ (w)x3 ¹ / ₈ (h)x13 ¹ / 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  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 UN TRAMÉ ET UNE MARQUE  SUR LES DIAGRAMMES SCHEMATIQUES, 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 DES SUPPLÉMENTS PUBLIÉS PAR SONY.

SONY

SERVICE MANUAL

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: (60Hz : 7 kHz = 4 : 1)	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 / ₋₁ dB AUX } 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	

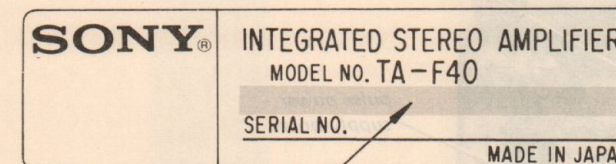
Tone Controls: BASS ±10dB at 100Hz (turnover frequency: 500Hz)
TREBLE ±10dB at 25kHz (turnover frequency: 5kHz)

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

SECTION 1
BLOCK DIAGRAM

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.

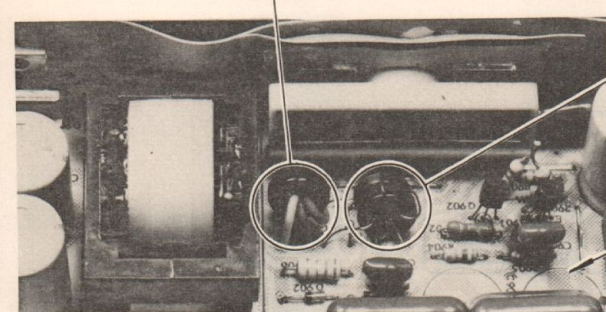
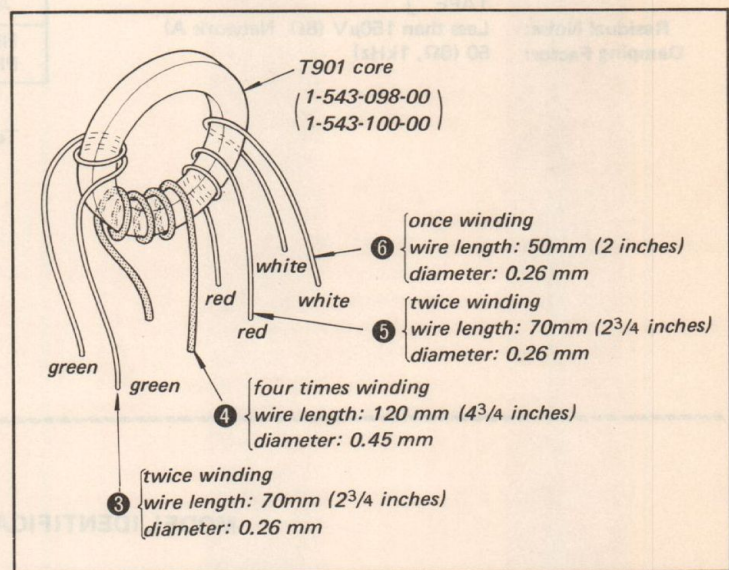
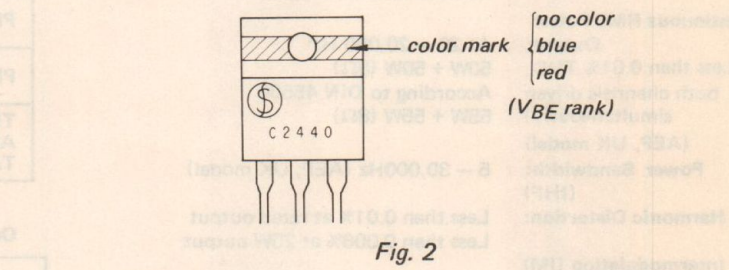
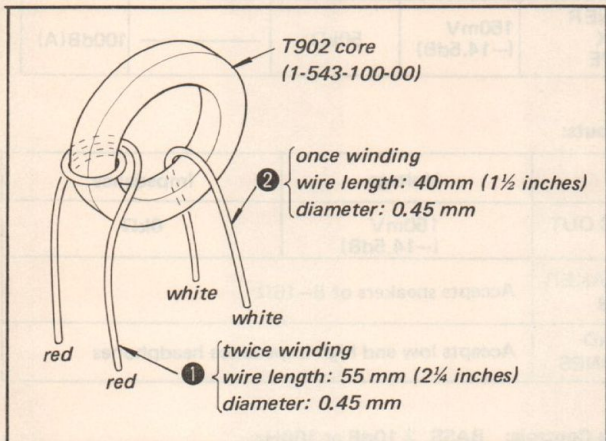
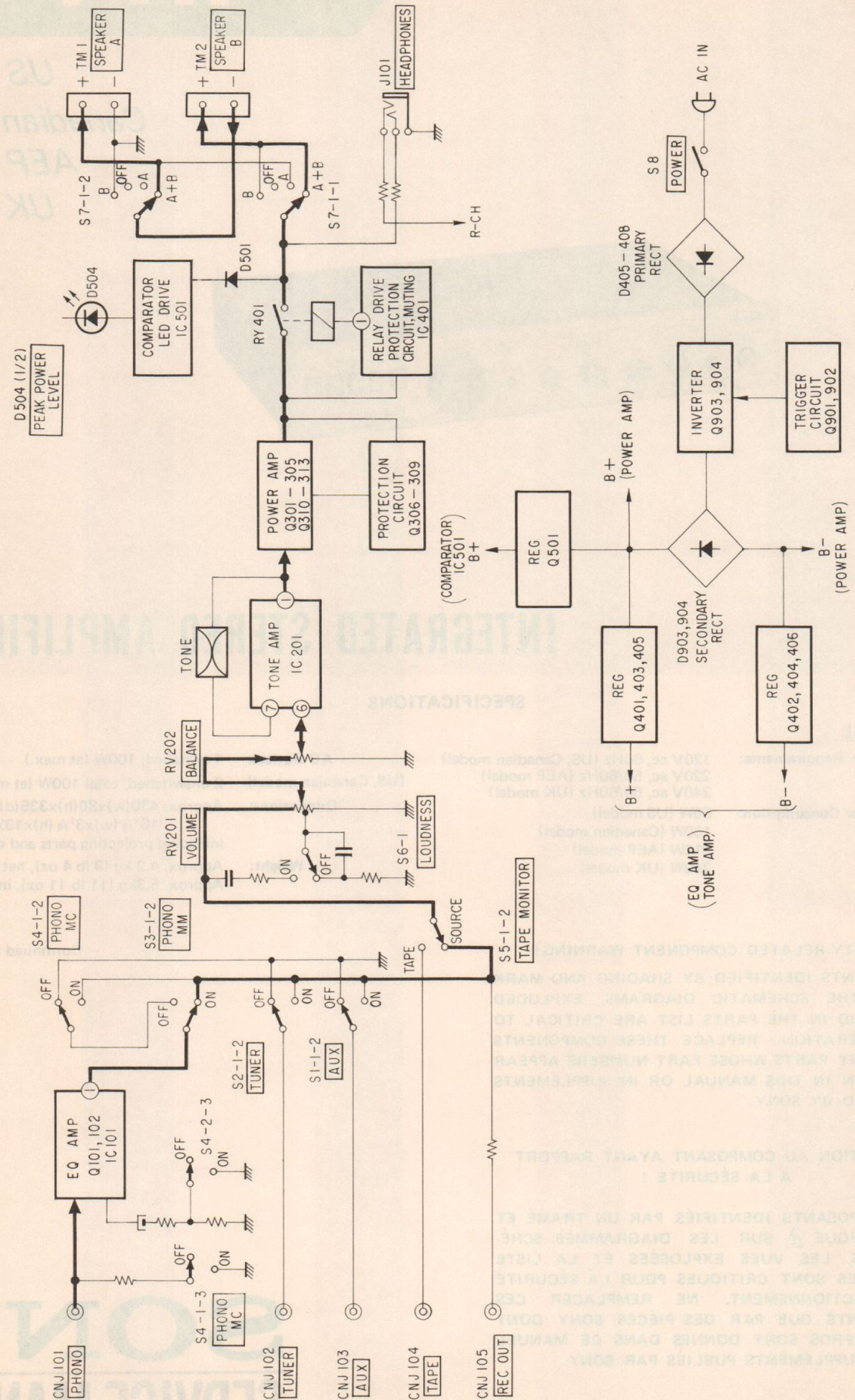


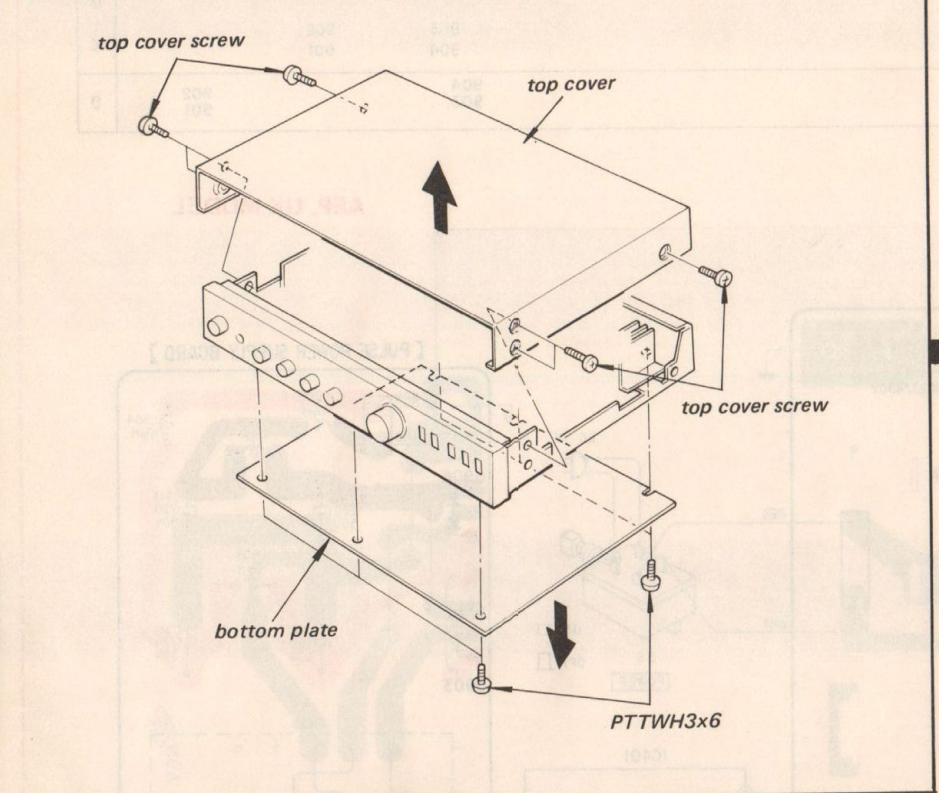
Fig. 1



SECTION 2 DISASSEMBLY

Follow the disassembly procedure in the numerical order given.

TOP COVER AND BOTTOM PLATE REMOVAL



FRONT PANEL REMOVAL

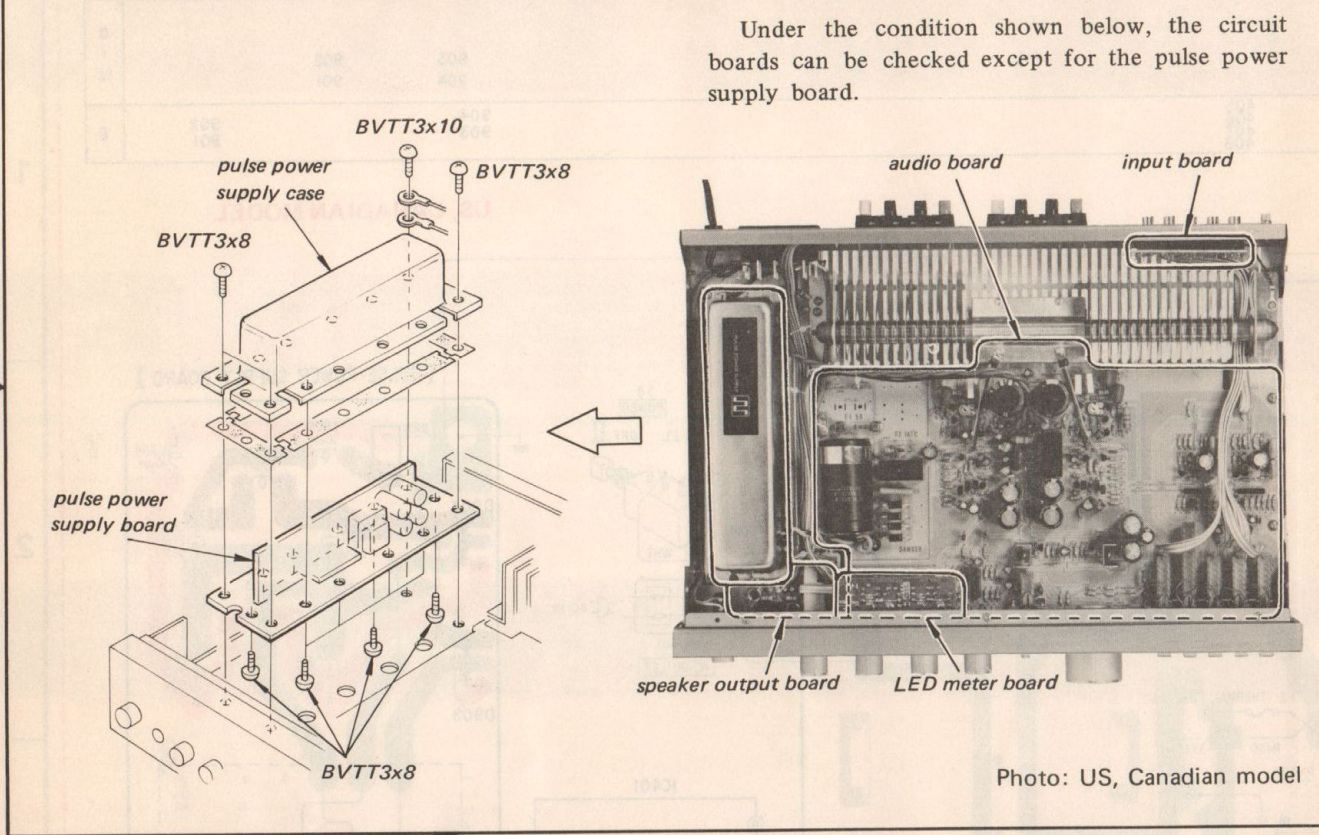
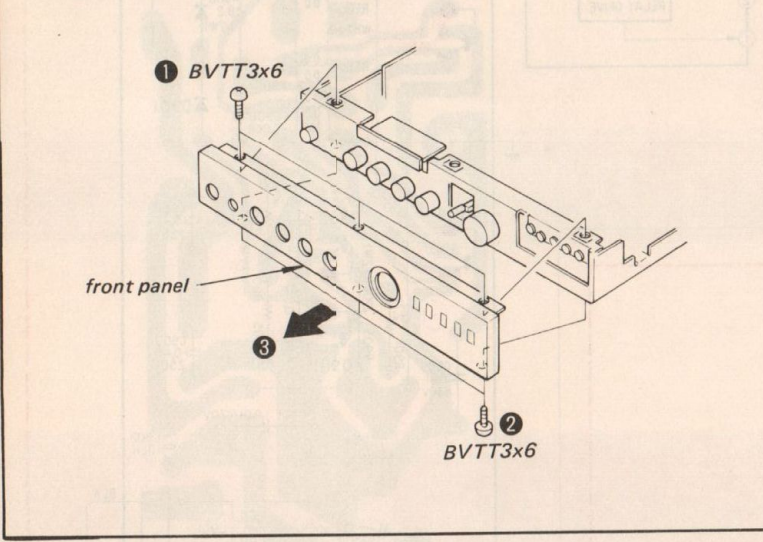


Photo: US, Canadian model

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.

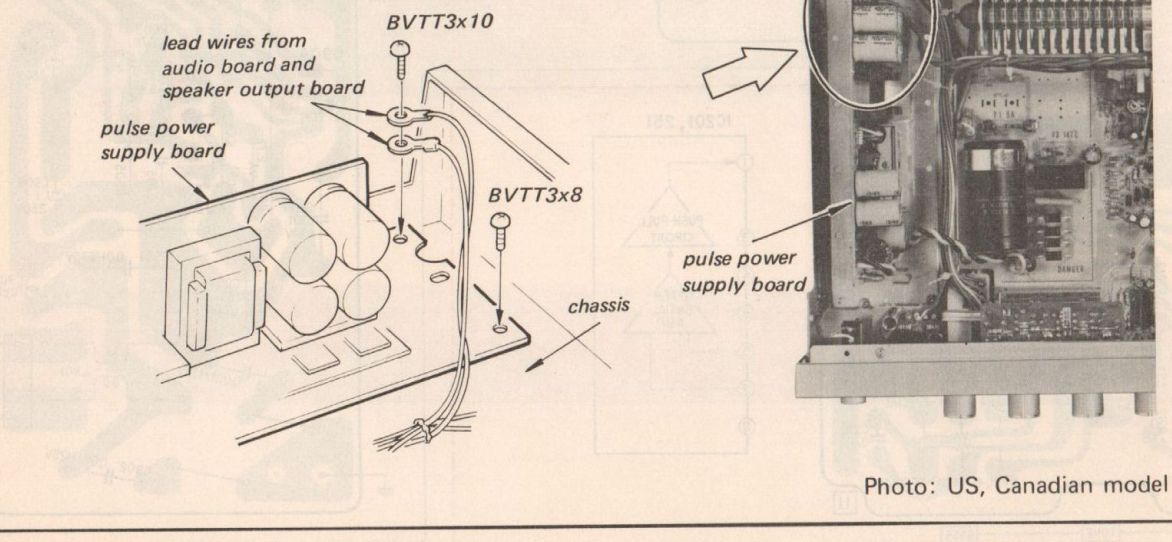


Photo: US, Canadian model

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.

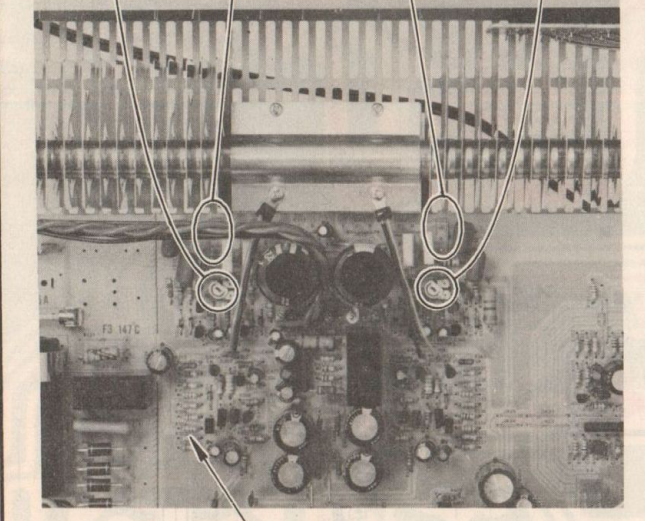
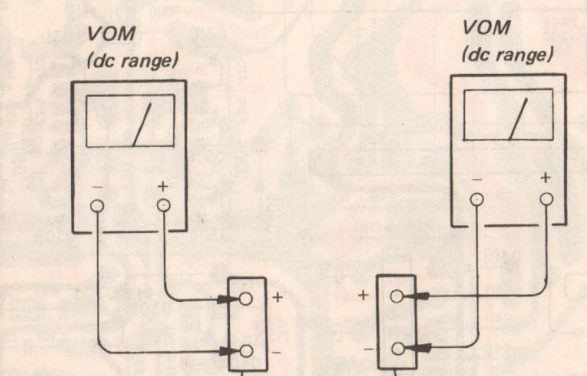
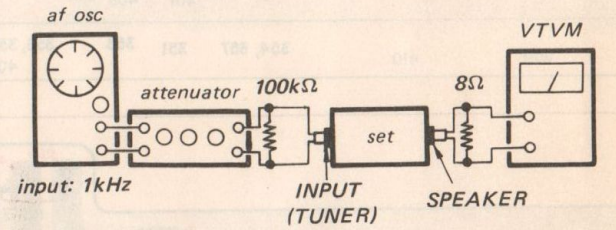
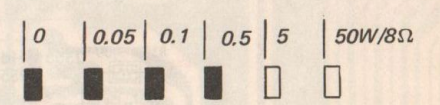


Photo: US, Canadian model

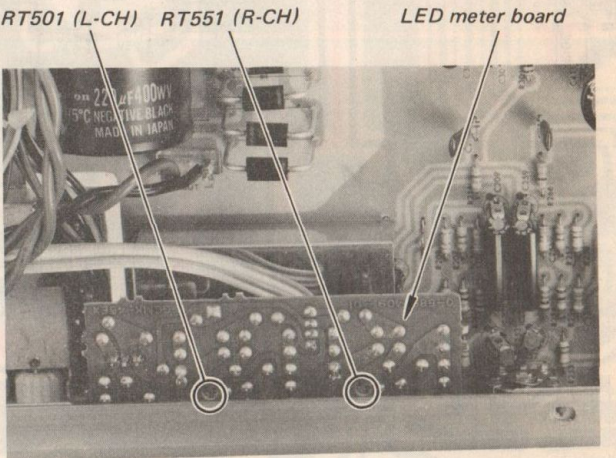
Indicator Sensitivity Adjustment Procedure:



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.



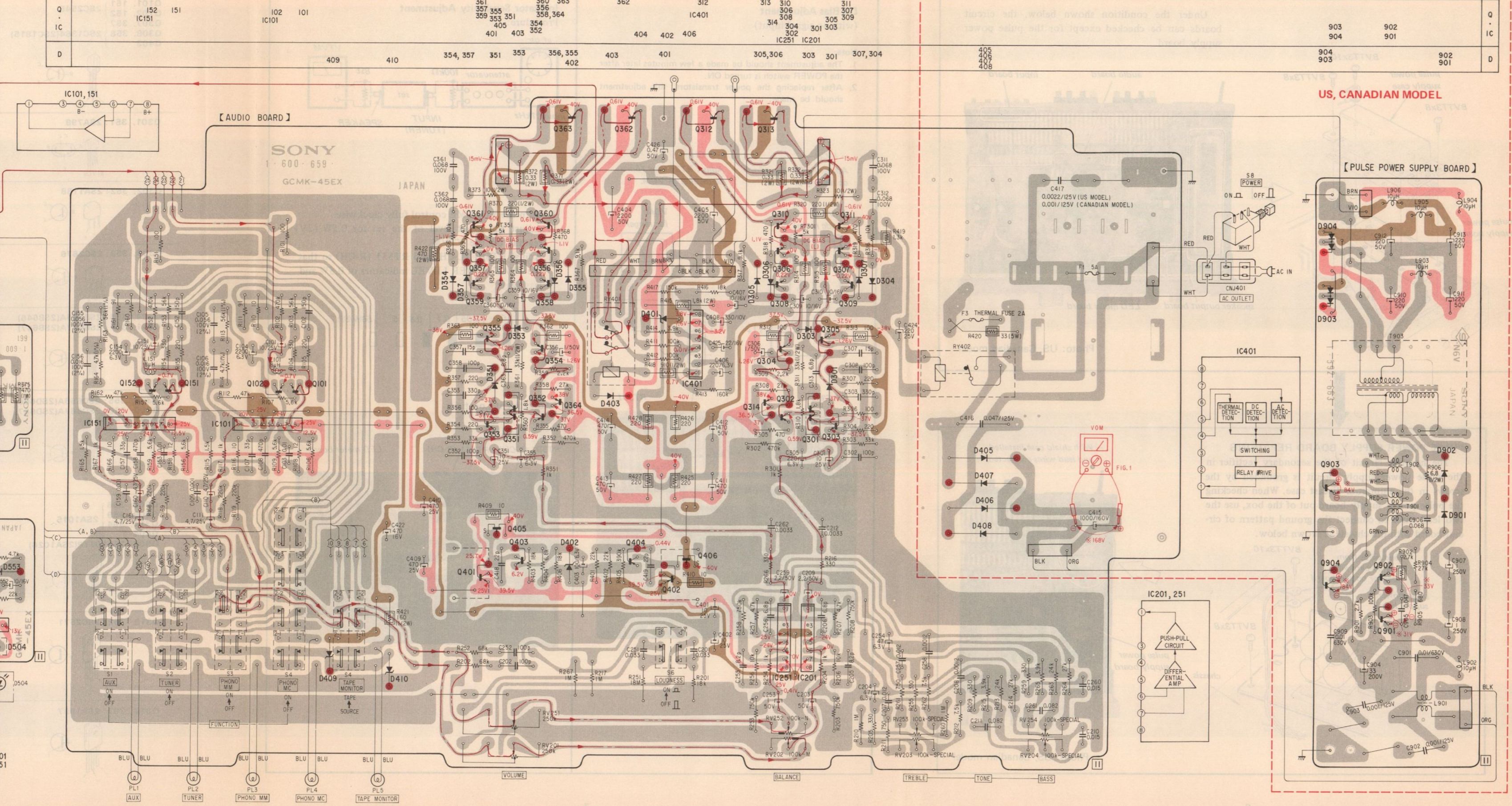
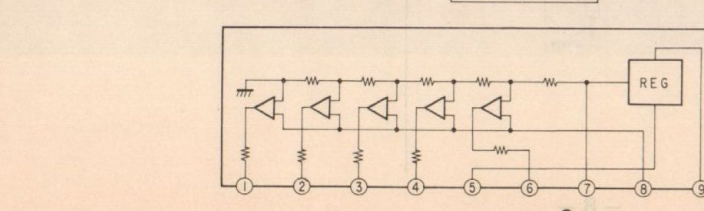
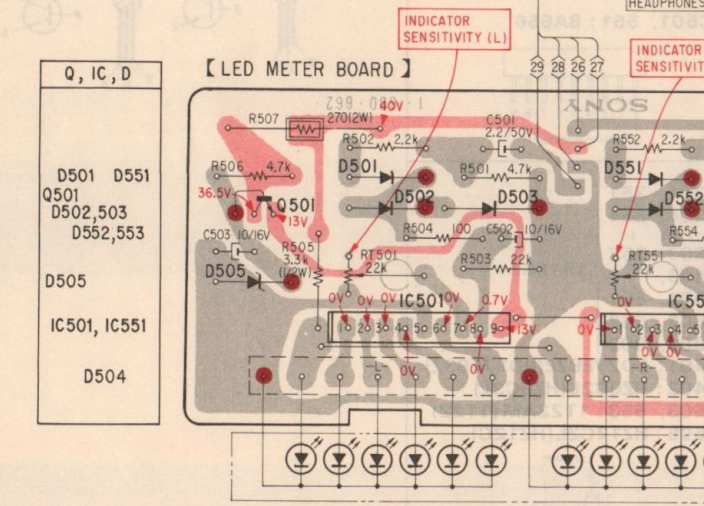
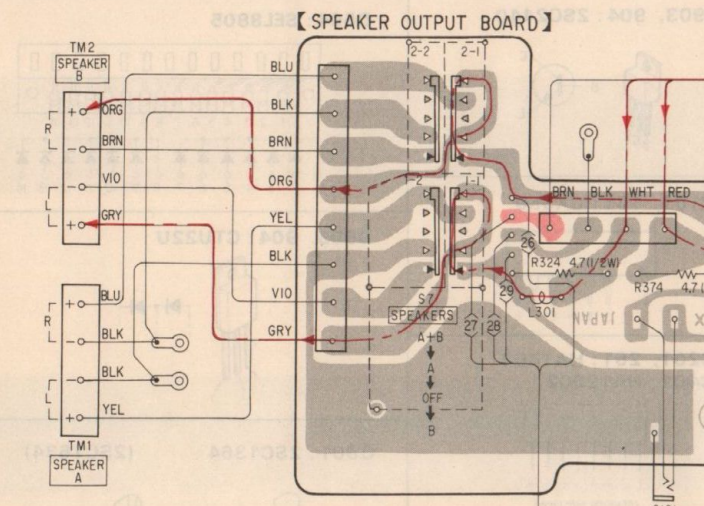
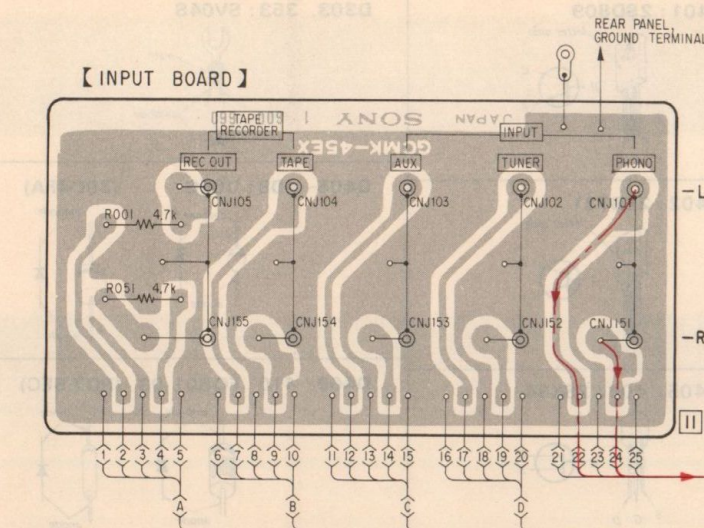
Adjustment Location:



Replacement Semiconductors For replacement, use semiconductors except in ().

Q101, 151 Q102, 152 Q307, 357 Q308, 358 Q403	2SC2545	Q401 : 2SD809	D303, 353 : SV04S
Q301, 351 : 2SA798		Q402 : 2SB731	D405-408 : U05G (30D4FA)
Q302, 352 : 2SA1138		Q405, 406 : 2SK34	D409, 410 : EQB01-08 (RD7.5EC)
Q303, 353 : 2SC2676		Q903, 904 : 2SC2440	D504 : SEL8805
Q304, 354 : 2SB646A(2SB646) Q311, 361 : 2SB647A(2SB647)		IC101, 151 : CX550	D903, 904 : CTU22U
Q305, 355 : 2SD666A(2SD666) Q310, 360 : 2SD667A(2SD667) Q501 : 2SC1475		IC201, 251 : HA1457 IC401 : HA12002	Q901 : 2SC1364 (2SC1634)
Q306, 356 Q309, 359 Q314, 364 Q404 Q902 : 2SA1027R(2SA1026)	2SA1015	IC501, 551 : BA656	D301, 351 D304, 354 D307, 357 D403, D501, 551 D502, 552 D901, 902 D401 : RD27EB2Z(RD27EB3Z) D402 : HZ6C2L (HZ6C3L) D503, 553 : 1T22AM (1T22) D505 : HZ12C2L (HZ12C)
Q312, 362 : 2SC2571			
Q313, 363 : 2SA1097			

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



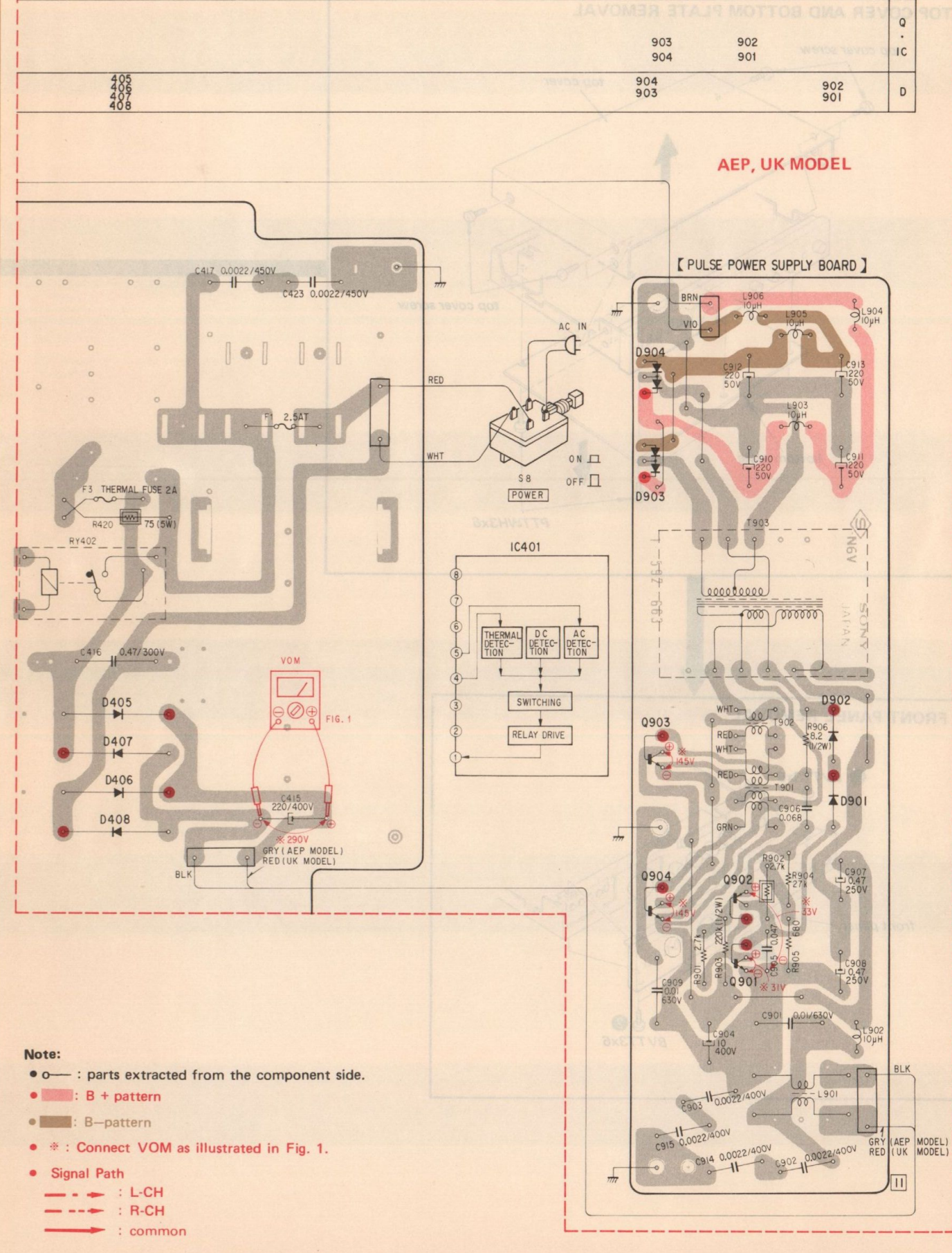
Q	IC	152	151
D		409	410

361	356	360	363
357	358	358	364
355	353	351	
401	403	352	
402	406		
312	IC401		
313	310	308	311
314	304	301	303
302	IC201	305	307
301		303	301
307	304		

405	406	408
903	904	901
902	901	
902	901	

US, CANADIAN MODEL

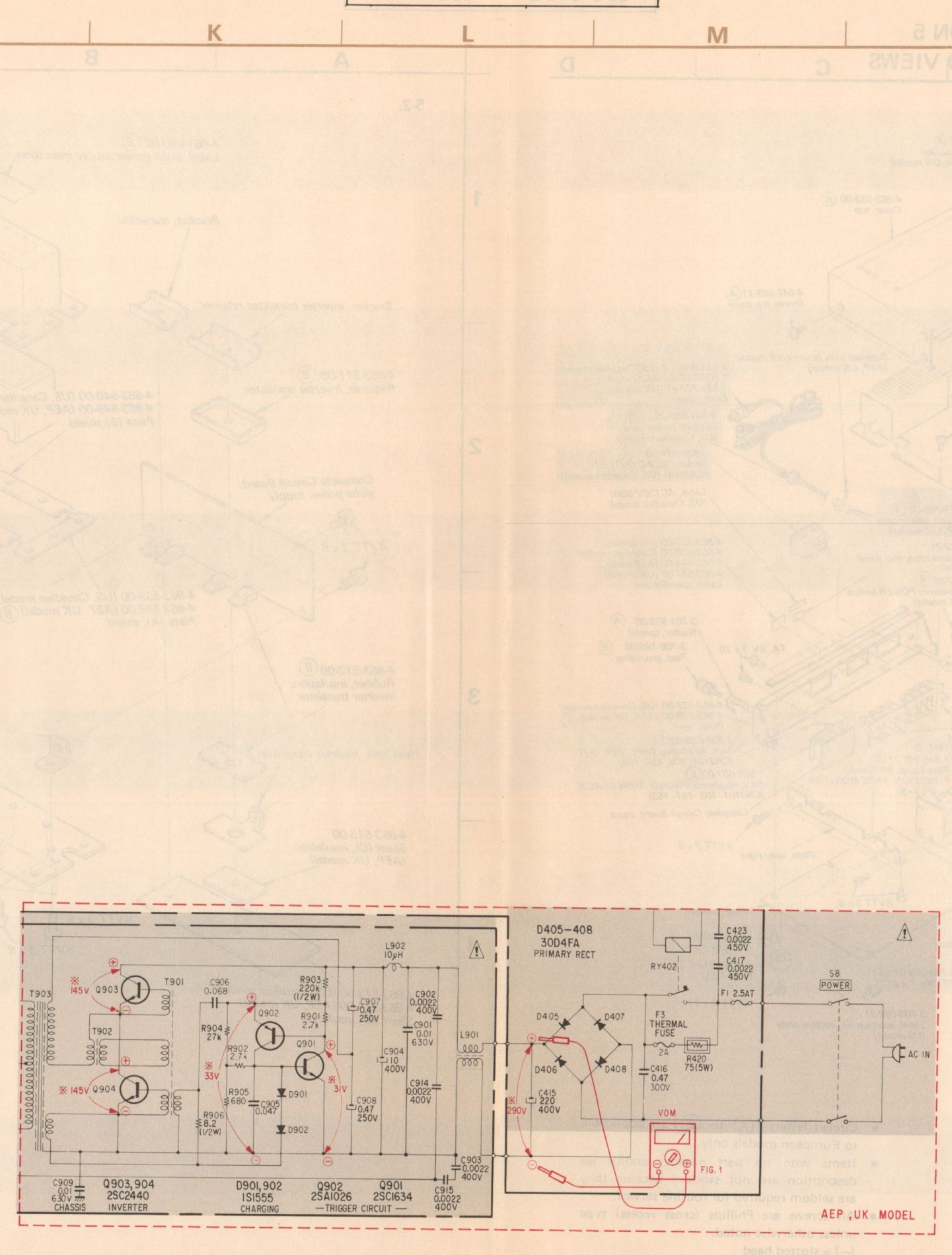
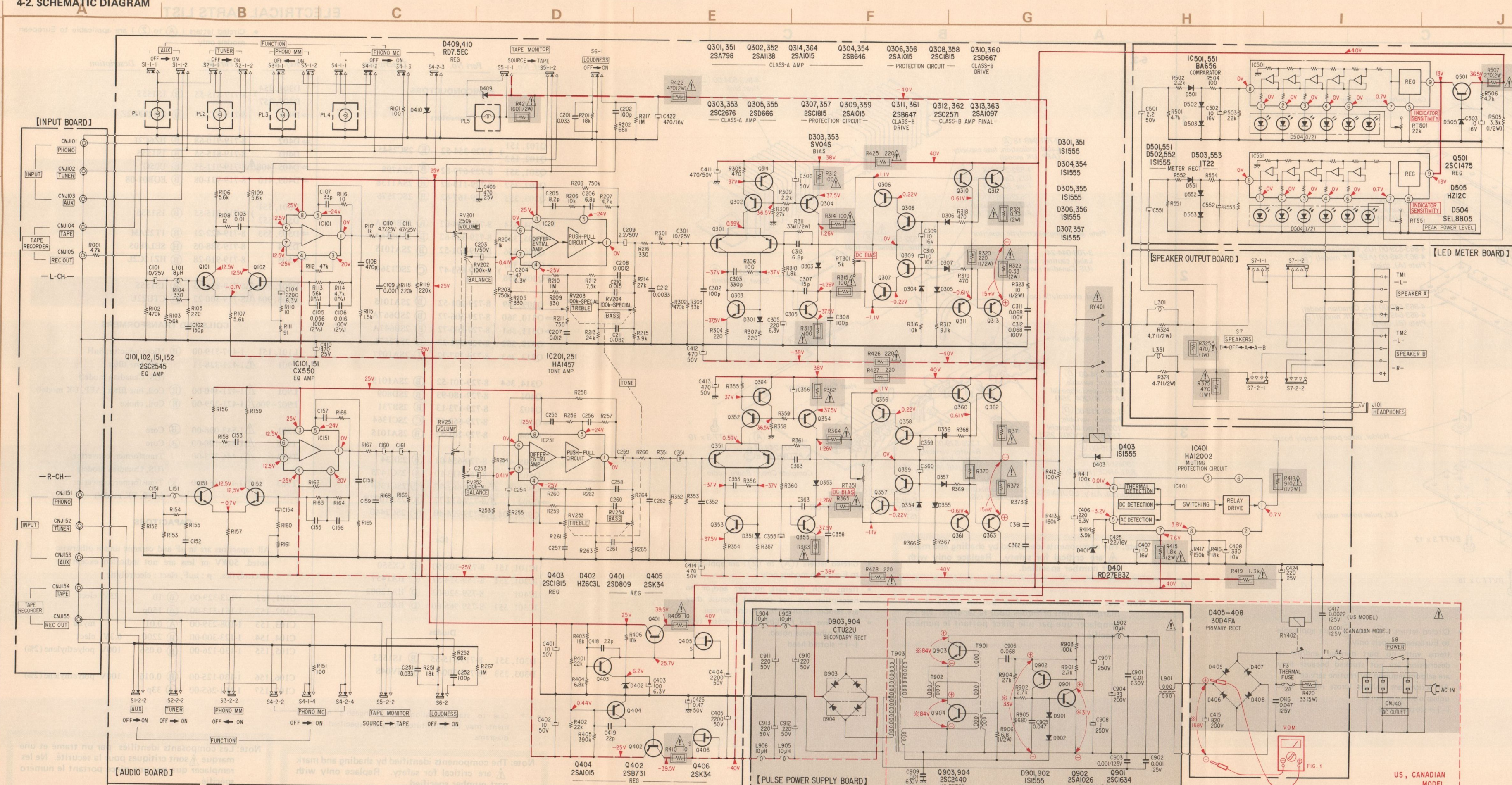
PULSE POWER SUPPLY BOARD



AEP, UK MODEL

PULSE POWER SUPPLY BOARD

- 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



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.

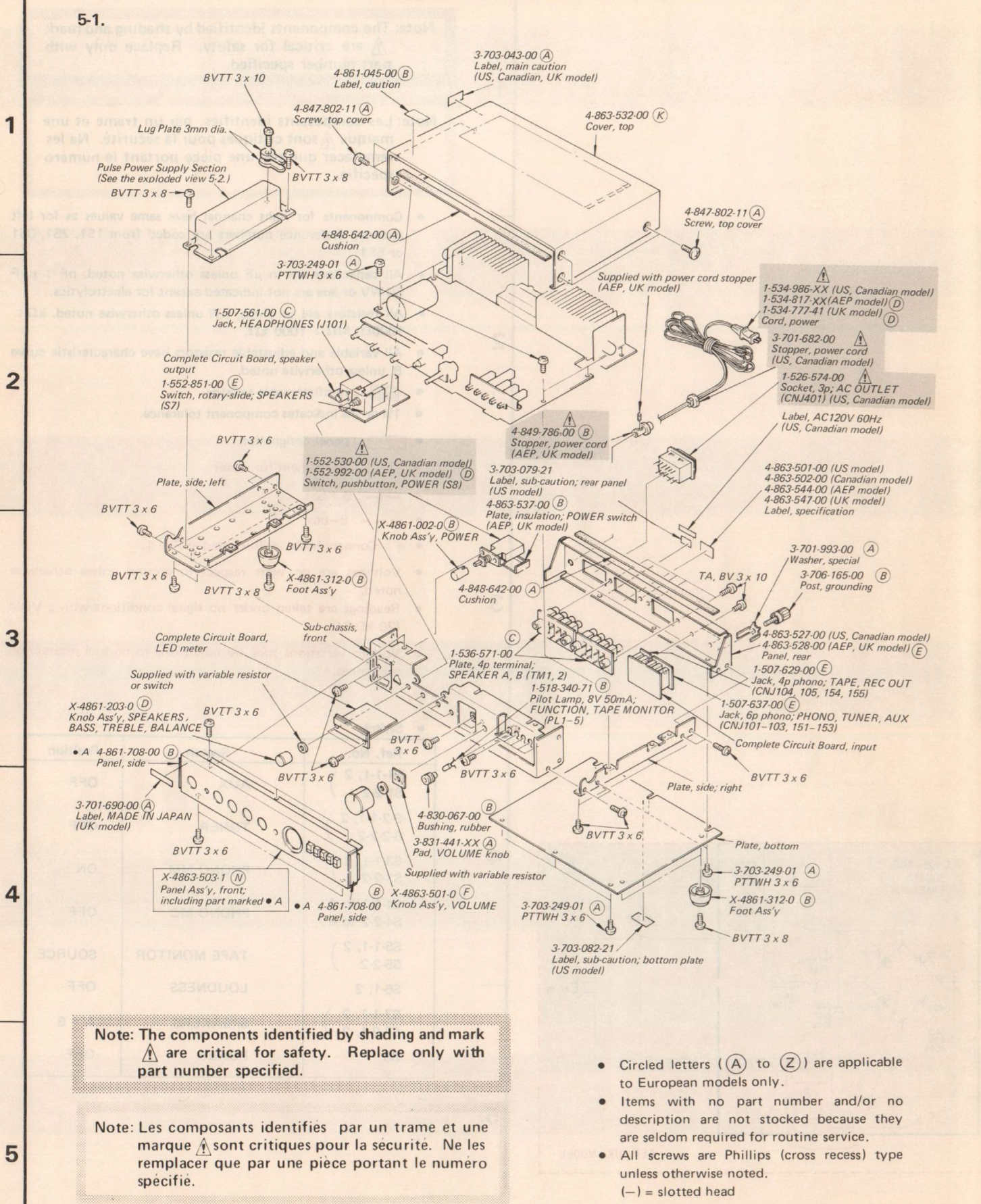
- Components for right channel have same values as for left channel. Reference numbers are coded from 151, 251, 351 or 551.
- All capacitors are in μF unless otherwise noted. pF : μF 50 WV or less are not indicated except for electrolytics.
- All resistors are in ohms, $\frac{1}{4}W$ unless otherwise noted. k Ω : 1000 Ω , M Ω : 1000 k Ω .
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : nonflammable resistor.
- 1% or 2% indicates component tolerance.
- : panel designation
- : adjustment for repair
- : B + bus.
- : B - bus.
- : 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 VOM (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
S-2-1-1, 2	TUNER	OFF
S3-1-1, 2	PHONO MM	ON
S4-1-1 to 4	PHONO MC	OFF
S4-2-1, 2	PHONO MC	OFF
S5-1-1, 2	TAPE MONITOR	SOURCE
S5-2-2	TAPE MONITOR	OFF
S6-1, 2	LOUDNESS	OFF
S7-1-1, 2	SPEAKERS	A + B
S7-2-1, 2	SPEAKERS	A + B
S8	POWER	OFF

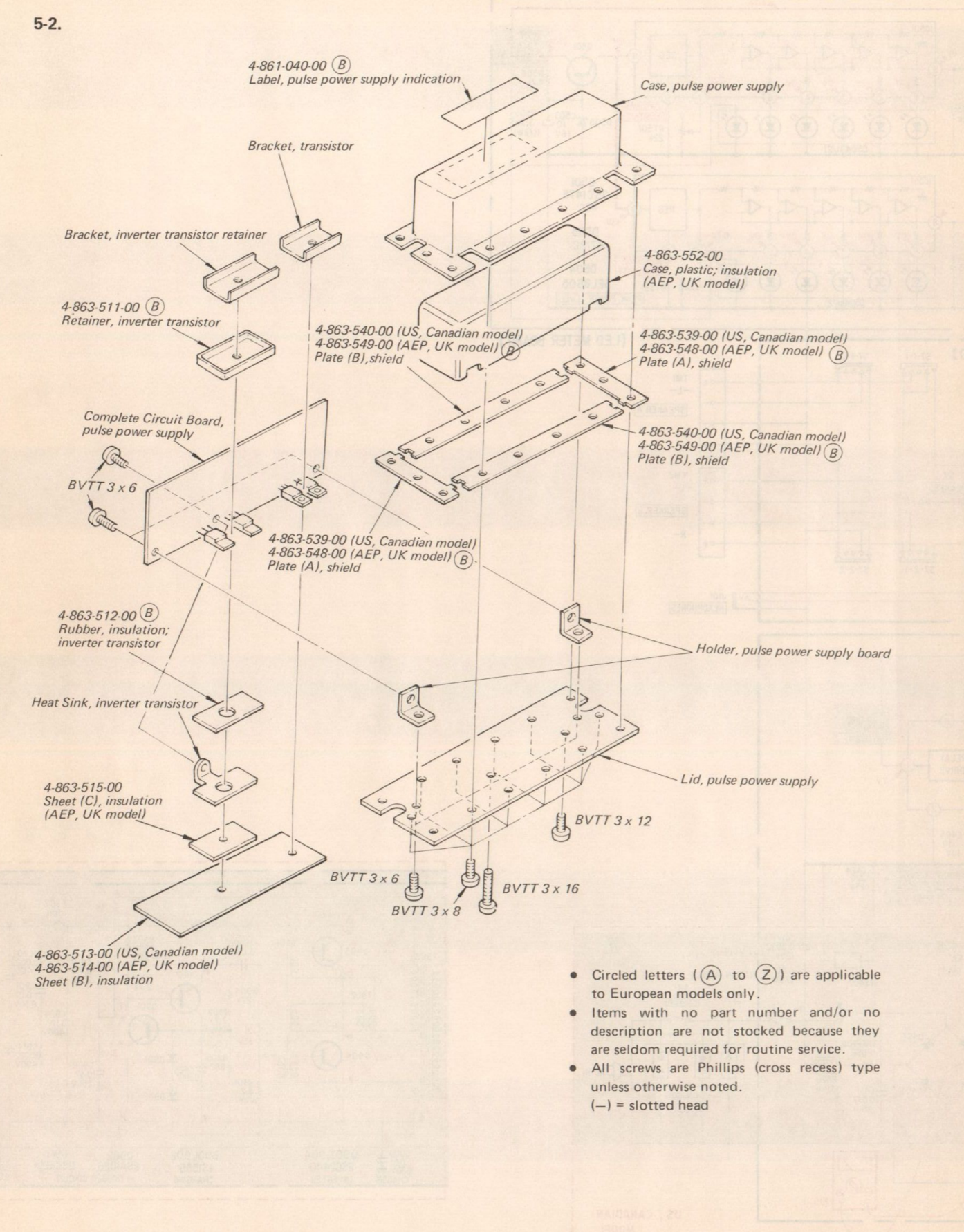
SECTION 5

EXPLODED VIEWS



SECTION 6

ELECTRICAL PARTS LIST



SECTION 6

ELECTRICAL PARTS LIST

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

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
SEMICONDUCTORS					
Transistors					
D304, 354	8-719-815-55	(B) 1S1555	D307, 357	8-719-127-25	(B) RD27EB2Z
⇒D401	8-719-910-68	(B) HZ6C2L	D403	8-719-815-55	(B) 1S1555
⇒D405	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	8-719-815-55	(B) 1S1555
⇒D503, 553	8-719-422-21	(B) 1T22AM	D504	8-719-388-05	(H) SEL8805
⇒D505	8-719-910-28	(B) HZ12C2L	COILS AND TRANSFORMERS		
D901, 902	8-719-815-55	(B) 1S1555	L101, 151	1-407-519-00	(B) Microinductor, 8μH
D903, 904	8-719-300-22	(D) CTU22U	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	(K) 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	Diodes		
D301, 351	8-719-815-55	(B) 1S1555	D303, 353	8-719-300-11	(B) SV04S
Q101, 151	8-729-354-52	(E) 2SC2545	Q102, 152	8-729-679-82	(B) 2SA798
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	8-729-201-52	(B) 2SA1015
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
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.					
• 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					
• ⇒ : Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.					
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.					

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

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
C108, 158	1-161-319-00	(A) 470p	C415	(A)1-123-407-00	(H) 220 400V elect (AEP, UK model)
C109, 159	1-108-227-00	(A) 0.001 mylar	C416	(A)1-108-749-00	0.047 125V mylar (US, Canadian model)
C110, 160	1-123-328-00	(B) 4.7 25V elect	C416	(A)1-130-342-00	(C) 0.47 300V film (AEP, UK model)
C111, 161			C417	(A)1-161-515-00	0.0022 125V (US model)
C201, 251	1-108-244-00	(A) 0.033 mylar	C417	(A)1-161-502-00	0.001 125V (Canadian model)
C202, 252	1-161-271-00	(A) 100p	C417	(A)1-161-734-00	(B) 0.0022 450V (AEP, UK model)
C203, 253	1-123-352-00	(B) 1 50V elect	C418, 419	1-161-263-00	(A) 22p
C204, 254	1-123-294-00	(B) 47 6.3V elect	C422	1-123-323-00	(B) 470 16V elect
C205, 255	1-161-258-00	(A) 8.2p	C423	(A)1-161-734-00	(B) 0.0022 450V (AEP, UK model)
C206, 256	1-161-257-00	(A) 6.8p	C424	1-123-334-00	(B) 220 25V elect
C207, 257	1-108-357-00	(A) 0.012 mylar	C425	1-123-317-00	(B) 22 16V elect
C208, 258	1-161-324-00	(A) 0.0012	C426	1-123-351-00	(B) 0.47 50V elect
C209, 259	1-123-353-00	(B) 2.2 50V elect	C501, 551	1-123-353-00	(B) 2.2 50V elect
C210, 260	1-108-240-00	(A) 0.015 mylar	C502, 552	1-123-316-00	(B) 10 16V elect
C211, 261	1-108-362-00	(B) 0.082 mylar	C503		
C212, 262	1-108-232-00	(A) 0.0033 mylar	C901	(A)1-130-141-00	(B) 0.01 630V polyethylene
C301, 351	1-123-329-00	(B) 10 25V elect	C902, 903	(A)1-161-516-00	0.001 125V (US model)
C302, 352	1-161-271-00	(A) 100p	C902, 903	(A)1-161-502-00	0.001 125V (Canadian model)
C303, 353	1-161-317-00	(A) 330p	C902, 903	(A)1-161-734-00	(B) 0.0022 400V (AEP, UK model)
C305, 355	1-123-296-00	(B) 220 6.3V elect	C904	(A)1-123-565-00	33 200V elect (US, Canadian model)
C306, 356	1-123-352-00	(B) 1 50V elect	C904	(A)1-123-290-00	(H) 10 400V elect (AEP, UK model)
C307, 357	1-161-261-00	(A) 15p	C905	(A)1-108-246-00	(A) 0.047 mylar
C308, 358	1-161-271-00	(A) 100p	C906	(A)1-108-249-00	(A) 0.068 mylar
C309, 359	1-123-316-00	(B) 10 16V elect	C907, 908	(A)1-130-357-00	1 250V solid aluminum (US, Canadian model)
C310, 360			C907, 908	(A)1-130-356-00	0.47 250V solid aluminum (AEP, UK model)
C311, 361	1-130-317-00	(B) 0.068 100V polyethylene	C909	(A)1-130-141-00	(B) 0.01 630V polyethylene
C312, 362			C910-913	(A)1-123-361-00	(A) 220 50V elect
C313, 363	1-161-257-00	(A) 6.8p	C914, 915	(A)1-161-734-00	(B) 0.0022 400V (AEP, UK model)
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	(A)1-123-408-00	820 200V elect (US, Canadian model)			

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.

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

Ref. No.	Part No.	Description
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		
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	(A)1-247-107-00	(A) 100 1/4W carbon (nonflammable)
R315, 365		
R320, 370	(A)1-247-224-00	(A) 220 1/2W carbon (nonflammable)
R321, 371	(A)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	(A)1-213-139-00	(A) 470 1W metal oxide (nonflammable)
R409, 410	(A)1-247-083-00	(A) 10 1/4W carbon (nonflammable)
R415	(A)1-206-670-00	(A) 1.8k 2W metal oxide (nonflammable)
R418	(A)1-247-239-00	(A) 910 1/2W carbon (nonflammable)
R419	(A)1-247-134-00	(A) 1.3k 1/4W carbon (nonflammable)
R420	(A)1-205-598-00	33 5W wirewound (nonflammable) (US, Canadian model)
R420	(A)1-205-599-00	75 5W wirewound (nonflammable) (AEP, UK model)
R421	(A)1-247-221-00	(B) 160 1/2W carbon (nonflammable)
R422	(A)1-206-656-00	(A) 470 2W metal oxide (nonflammable)
R425-428	(A)1-247-115-00	(A) 220 1/4W carbon (nonflammable)
R505	1-244-885-00	(A) 3.3k 1/2W carbon
R507	(A)1-206-650-00	(A) 270 2W metal oxide (nonflammable)
R901	(A)1-246-483-00	(A) 2.7k 1/4W carbon
R902	(A)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	(A)1-246-521-00	100k 1/4W carbon (US, Canadian model)
R903	(A)1-244-929-00	(A) 220k 1/2W carbon (AEP, UK model)
R904	(A)1-246-507-00	(A) 27k 1/4W carbon
R905	(A)1-246-469-00	(A) 680 1/4W carbon
R906	(A)1-244-821-00	6.8 1/2W carbon (US, Canadian model)
R906	(A)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	(G) Pushbutton, FUNCTION, TAPE MONITOR
S6	1-552-932-00	(B) Pushbutton, LOUDNESS
S7	1-552-851-00	(E) Rotary-slide, SPEAKERS
S8	(A)1-552-530-00	Pushbutton, POWER (US, Canadian model)
S8	(A)1-552-992-00	(D) Pushbutton, POWER (AEP, UK model)
MISCELLANEOUS		
CNJ101, 151	(E)1-507-637-00	Jack, 6p phono; PHONO, TUNER, AUX
CNJ103, 153		
CNJ104, 154	(E)1-507-629-00	Jack, 4p phono; TAPE, REC OUT
CNJ105, 155		
CNJ401	(A)1-526-574-00	Socket, 3p; AC OUTLET (US, Canadian model)
F1	(A)1-532-272-XX	Fuse, 5A (US, Canadian model)
F1	(A)1-532-286-00	(B) Fuse, 2.5AT (AEP, UK model)
F3	(A)1-532-556-00	(B) Fuse, thermal; 2A

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

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

ACCESSORIES AND PACKING MATERIALS

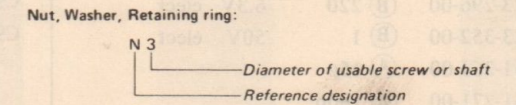
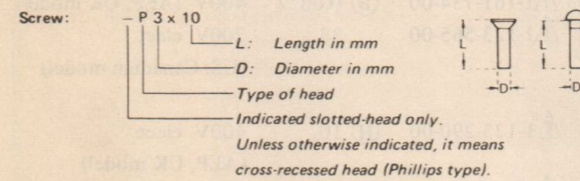
Part No.	Description
3-701-630-00	(A) Bag, plastic; instruction manual
3-770-869-11	(D) Manual, instruction (AEP, UK model)
3-770-869-21	Manual, instruction (US model)
3-770-869-21	Manual, instruction (Canadian model)
3-794-479-31	
3-794-233-21	Sheet, consumer products (US model)
4-863-541-00	(D) Carton
4-863-543-00	(C) Cushion
4-891-037-00	(B) Bag, plastic; set

1/4 WATT CARBON RESISTORS (A)

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

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	1-246-476-00	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



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		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	

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