

TA-1066

USA, Canada, AEP
and UK Model



INTEGRATED STEREO AMPLIFIER

SPECIFICATIONS

POWER AMPLIFIER SECTION

Continuous RMS power output: (rated output) (less than 0.8 % THD)
At 1 kHz
20 watts (8 ohms),
26 watts (4 ohms)
one channel driven separately
18 watts (8 ohms) per channel,
22 watts (4 ohms) per channel,
both channels driven simultaneously

Dynamic power output: (IHF constant power supply method)
50 watts (8 ohms)
75 watts (4 ohms)

Power bandwidth: 10 Hz to 40 kHz (8 ohms, IHF)

Harmonic distortion: Less than 0.8 % at rated output

IM distortion: Less than 0.8 % at rated output
(60 Hz : 7 kHz = 4 : 1)

PREAMPLIFIER SECTION

Frequency response: PHONO RIAA equalization curve ± 1 dB
TUNER
AUX
TAPE-1, TAPE-2 } 20 Hz to 60 kHz
REC/PB (input) } ± 3 dB

Input sensitivity and impedance: PHONO 2.5 mV, 50 k ohms
TUNER
AUX } 250 mV, 50 k ohms
TAPE-1, TAPE-2
REC/PB (input)

Signal output and output impedance: REC OUT 250 mV, 10 k ohms
REC/PB (output) 30 mV, 82 k ohms

GENERAL

Power requirements: 120 volts ac (USA and Canada Model)
110, 127, 220, 240 volts ac
(AEP and UK Model)

Power consumption: 55 watts (USA Model)
80 watts (Canada Model)
140 watts (AEP and UK Model)

Dimensions: 410 (w) x 120 (h) x 280 (d) mm
16 $\frac{1}{8}$ (w) x 4 $\frac{1}{16}$ (h) x 11 $\frac{1}{16}$ (d) inches

Net weight: 6.0 kg (13 lb 4 oz)

SONY[®]

SERVICE MANUAL

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.	TECHNICAL DESCRIPTION	
1-1.	Specifications	1
1-2.	Block Diagram/Level Diagram	2
2.	DISASSEMBLY AND REPLACEMENT	
2-1.	Bottom Plate Removal	3
2-2.	Front Panel Removal	3
2-3.	Front Subchassis Removal	3
2-4.	Pushbutton Switch Replacement	3
2-5.	Nylon Rivet Removal	3
2-6.	Chassis Layout	4
3.	ADJUSTMENT	
3-1.	Dc-Bias Adjustment	5
4.	REPACKING	6
5.	DIAGRAMS	
5-1.	Mounting Diagram	7
5-2.	Schematic Diagram	9
6.	EXPLODED VIEWS	11
7.	ELECTRICAL PARTS LIST	13

**SECTION 1
TECHNICAL DESCRIPTION**

1-1. SPECIFICATIONS

Power Amplifier Section

Continuous RMS

power output: At 1 kHz
 (rated output) 20 watts (8 ohms),
 (less than 0.8 % THD) 26 watts (4 ohms),
 one channel driven separately
 18 watts per channel (8 ohms),
 22 watts per channel (4 ohms),
 both channels driven simultaneously
 At 40 Hz to 20 kHz
 15 watts per channel (8 ohms),
 both channels driven simultaneously

Dynamic power

output: 50 watts (8 ohms)
 (IHF constant 75 watts (4 ohms)
 power supply method)

Power bandwidth: 10 Hz to 40 kHz (8 ohms, IHF)

Harmonic

distortion: Less than 0.8 % at rated output
 Less than 0.2 % at 1 watt output

IM distortion:

(60 Hz : 7 kHz Less than 0.8 % at rated output
 Less than 0.2 % at 1 watt output
 = 4 : 1)

Damping factor: Greater than 22 (8 ohms)

Residual noise: Less than 0.25 μ watt (8 ohms)

Preamplifier Section

Frequency response:

PHONO	RIAA equalization curve ± 1 dB
TUNER AUX TAPE-1, -2 REC/PB (input)	20 Hz to 60 kHz ± 3 dB

Input sensitivity and impedance:

	Maximum sensitivity	Impedance
PHONO	2.5 mV	50 k ohms
TUNER AUX TAPE-1, -2 REC/PB (input)	250 mV	50 k ohms

Measured with specified RMS power output provided into 8-ohm loads (both channels driven simultaneously) at 1 kHz.

Signal output and impedance:

	Level	Impedance	Input level
REC OUT 1-2	250 mV	10 k ohms	PHONO 2.5 mV
REC/PB (output)	30 mV	82 k ohms	TUNER AUX TAPE 1-2 } 250 mV REC/PB (input)

Signal-to-noise ratio:

	S/N	Weighting network	Input level
PHONO	70 dB	B	2.5 mV
TUNER AUX TAPE 1-2 REC/PB (input)	90 dB	A	250 mV

Tone controls: BASS ± 10 dB at 100 Hz
 TREBLE ± 10 dB at 10 kHz

High filters: 6 dB/octave above 5 kHz

Loudness control: + 10 dB at 50 Hz, + 3.5 dB at 10 kHz (at 30 dB attenuation)

General

Circuit system: Quasi-complementary symmetry circuit (SEPP OTL)
 Direct output coupling

Semiconductors: 22 transistors and 6 diodes

Power

requirements: 120 V ac (USA and Canada Model)
 110, 127, 220, 240 V ac
 (AEP and UK Model)

Power

consumption: 55 watts (USA Model)
 80 watts (Canada Model)
 140 watts (AEP and UK Model)

Ac outlets:

1 unswitched, 300 watts maximum
 (USA and Canada Model only)

Dimensions:

410 (w) x 120 (h) x 280 (d) mm
 16¹/₈ (w) x 4¹/₁₆ (h) x 11¹/₁₆ (d)
 inches

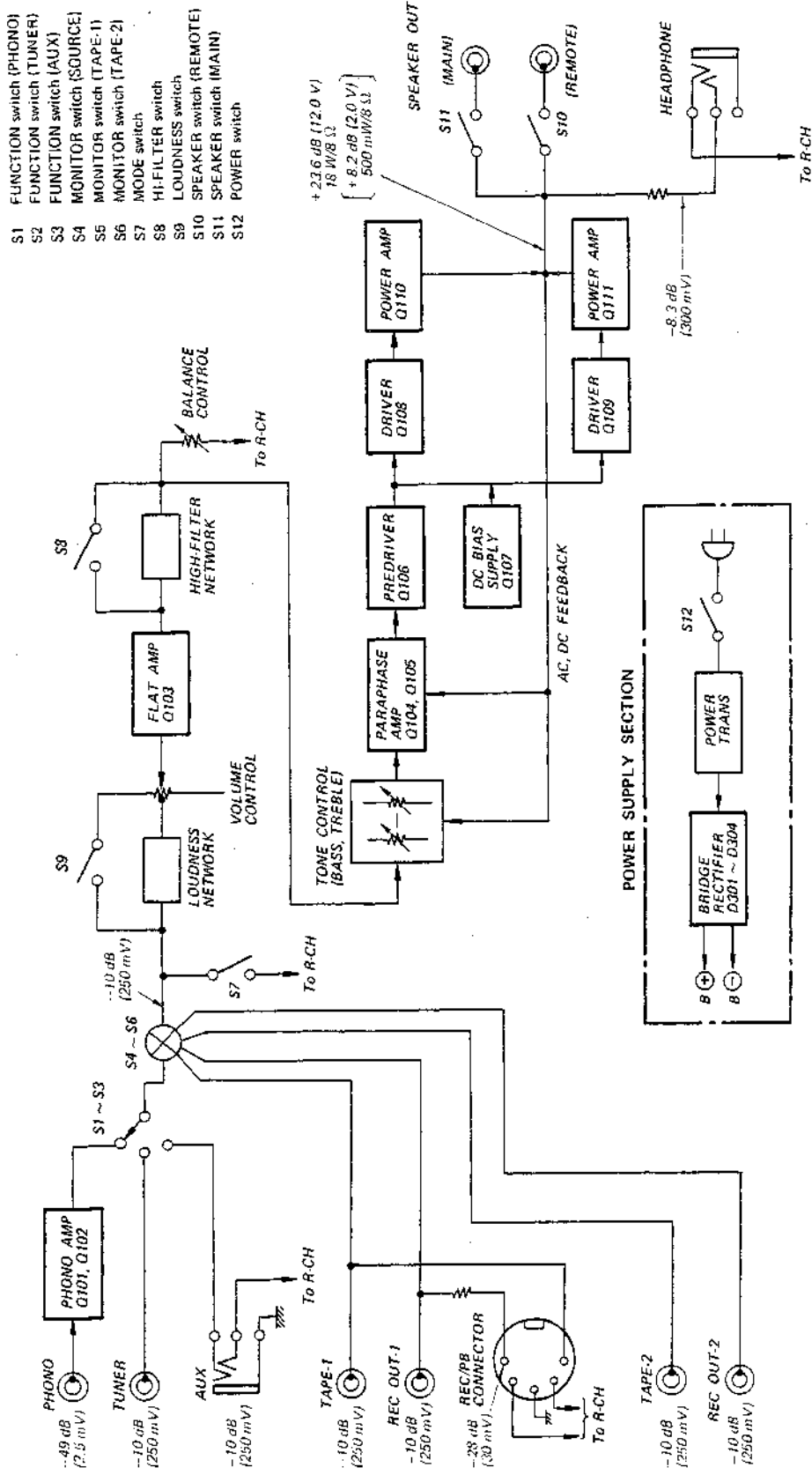
Net weight:

6.0 kg (13 lb 4 oz)

Shipping weight:

7.3 kg (16 lb 2 oz)

1-2. BLOCK DIAGRAM/LEVEL DIAGRAM



- S1 FUNCTION switch (PHONO)
- S2 FUNCTION switch (TUNER)
- S3 FUNCTION switch (AUX)
- S4 MONITOR switch (SOURCE 1)
- S5 MONITOR switch (TAPE 1)
- S6 MONITOR switch (TAPE 2)
- S7 MODE switch
- S8 HI-FILTER switch
- S9 LOUDNESS switch
- S10 SPEAKER switch (REMOTE)
- S11 SPEAKER switch (MAIN)
- S12 POWER switch

Note: Signal voltages are measured with ac VTVM and expressed in dB referred to 0.775 V, 1 kHz.

SECTION 2

DISASSEMBLY AND REPLACEMENT

Note: All screws in this service manual are Phillips type (cross recess type) unless otherwise indicated. (-): slotted head.

2-1. BOTTOM PLATE REMOVAL

1. Remove the seven screws shown in Fig. 2-1.

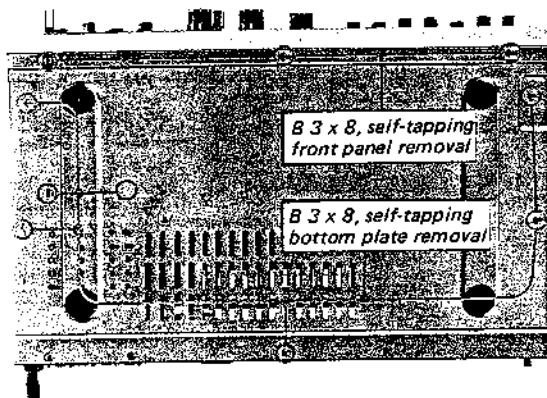


Fig. 2-1. Bottom view

2-2. FRONT PANEL REMOVAL

1. Remove the two screws at both sides of the wooden case.
2. Pull off the TONE, BALANCE and VOLUME control knobs.
3. Remove the six screws from the front top and bottom of the front panel as shown in Fig. 2-1 and 2-2.
4. This frees the front panel with pushbutton.

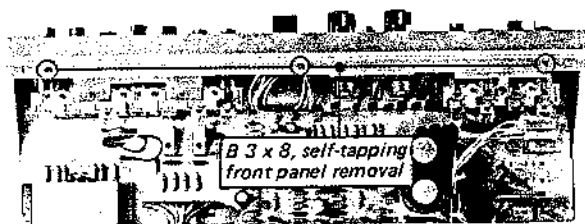


Fig. 2-2. Front panel removal

2-3. FRONT SUBCHASSIS REMOVAL

1. Remove the front panel by following the Procedure 2-2.
2. Remove the two screws at each side of the front subchassis as shown in Fig. 2-3.
3. Remove the three screws shown in Fig. 2-3.
4. Remove the two screws (B 3 x 4) securing the POWER switch.
5. Remove the two hex nuts securing the TONE controls.
6. This frees the front subchassis.

2-4. PUSHBUTTON SWITCH REPLACEMENT

1. Remove the front subchassis by following the Procedure 2-3.
2. With a soldering iron having a soldersucking tip, clean the solder from each lug of the switches and printed circuit board.
3. Install a new one.

2-5. NYLON RIVET REMOVAL

1. To remove the nylon rivet, push its end with a tweezers as shown in Fig. 2-4.
2. To reinstall the rivet, insert the flared part into the opening first, then push its head as far as it will go.

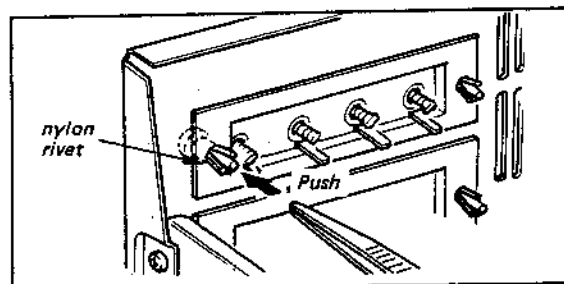


Fig. 2-4. Nylon rivet removal

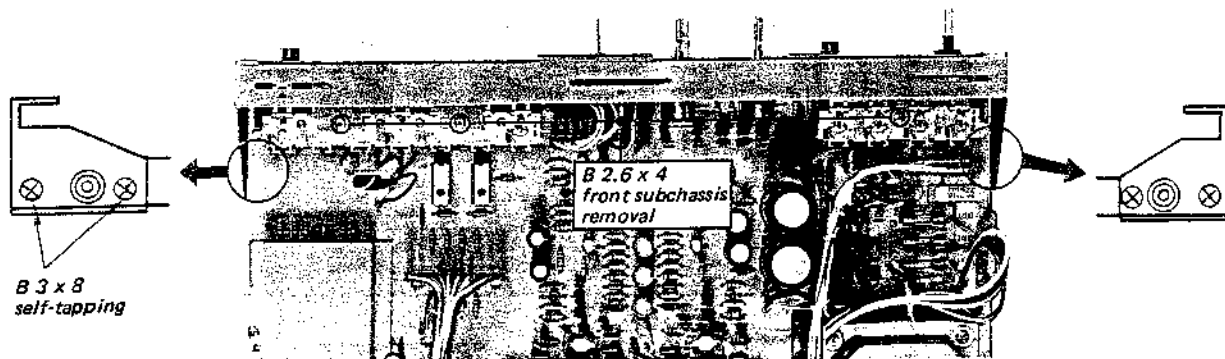
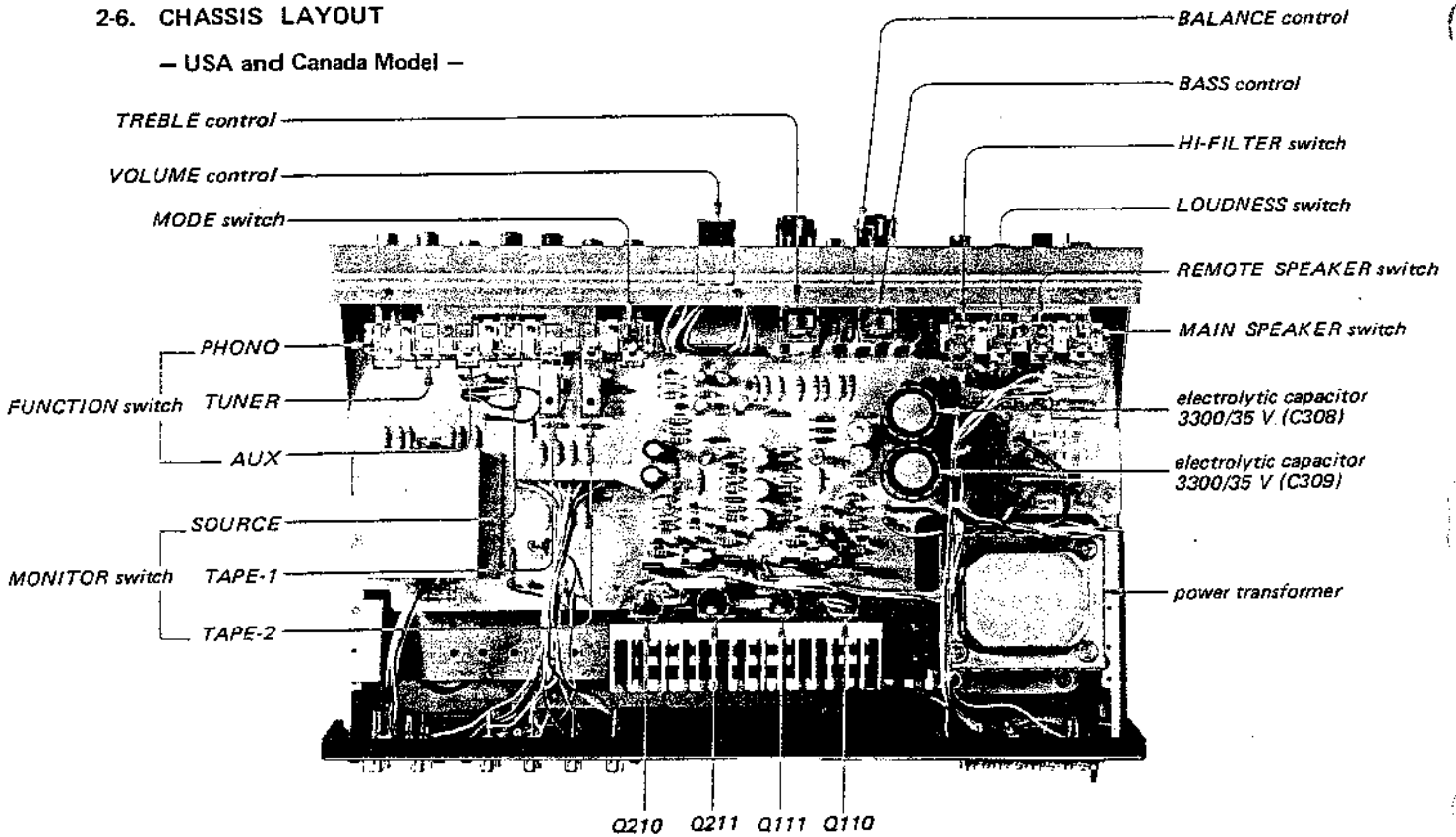


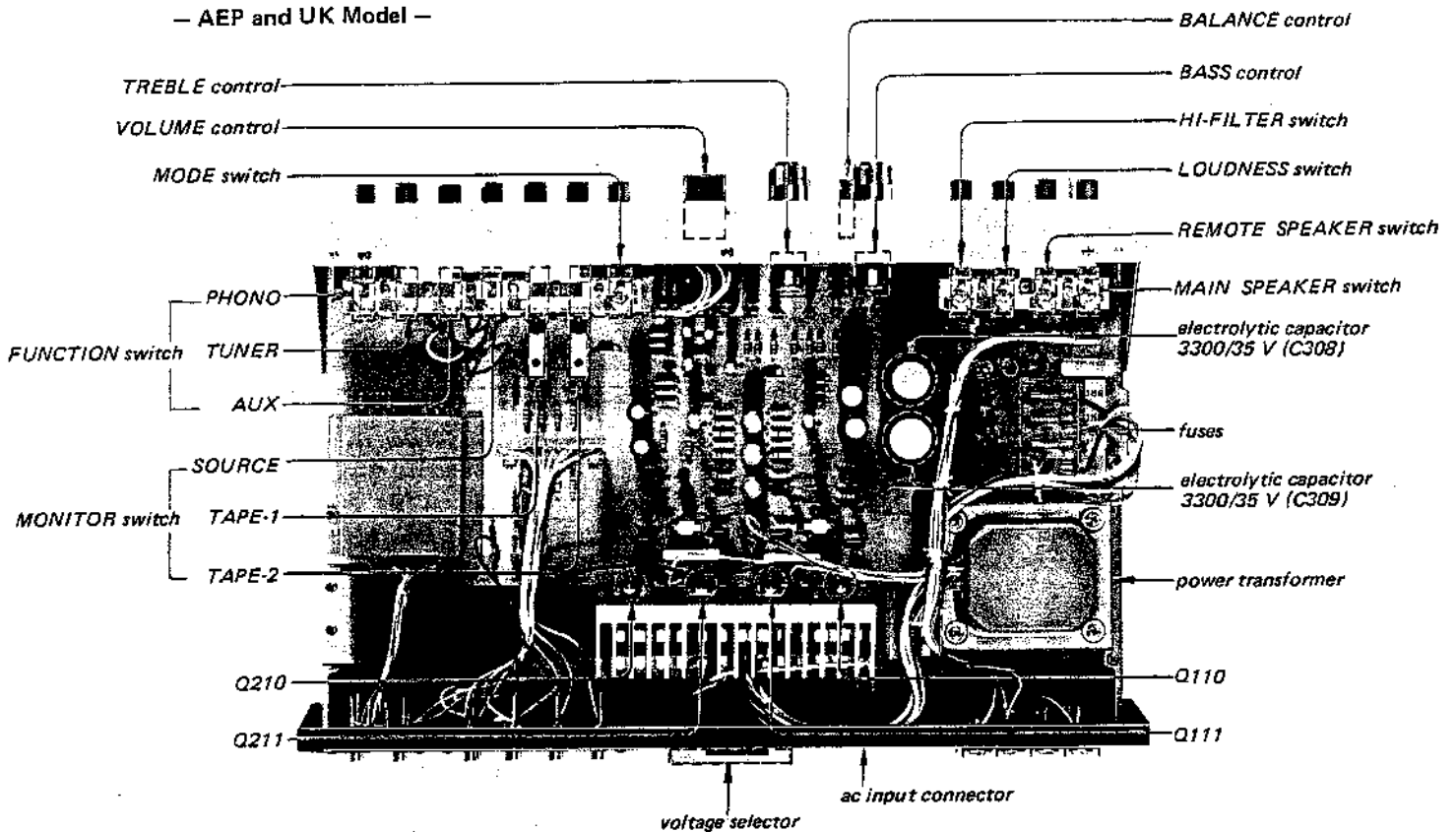
Fig. 2-3. Front subchassis removal

2.6. CHASSIS LAYOUT

— USA and Canada Model —



— AEP and UK Model —



SECTION 3 ADJUSTMENT

3-1. DC-BIAS ADJUSTMENT

Note: This adjustment should be done after replacing any of the power transistors. To avoid accidental power transistor damage, increase the ac line voltage gradually, using a variable transformer, while measuring the voltage across the test point and the MAIN speaker terminal as shown in Fig. 3-1.

Test Equipment Required

1. Dc millivoltmeter
Capable of measuring dc voltage of 100 mV or less
2. Variable transformer
3. Screwdriver with 3 mm ($\frac{1}{8}$ ") blade

Preparation

1. Remove the wooden case.

2. Connect the dc voltmeter across the MAIN speaker terminal and the test point as shown in Fig. 3-1.
3. Depress the MAIN speaker switch button.
4. Set the variable transformer for minimum output.
5. Apply a drop of cement solvent to the adjustable resistors RT101, RT201 (See Fig. 3-1) on the circuit board.

Procedure

1. Turn the power switch ON and increase the line voltage to the rated value.

Note: Check to see that the reading does not exceed 25 mV. If it does, turn off the power immediately, then check and repair the trouble in the power amplifier section.

2. Adjust RT101 (RT201) for 25 mV reading on the meter.

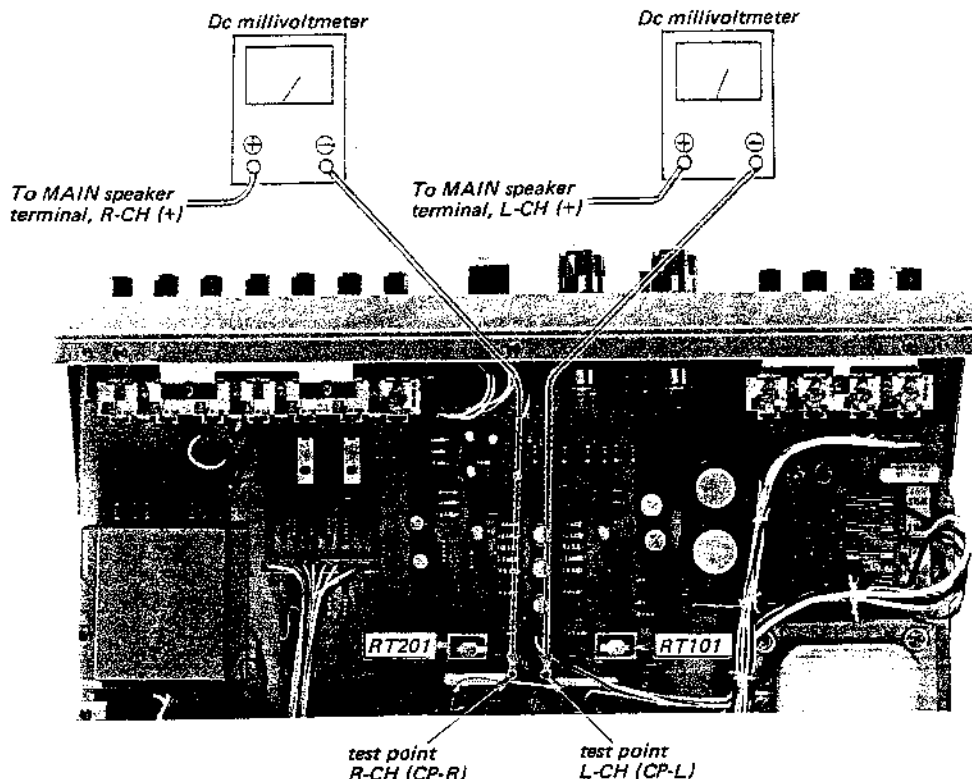
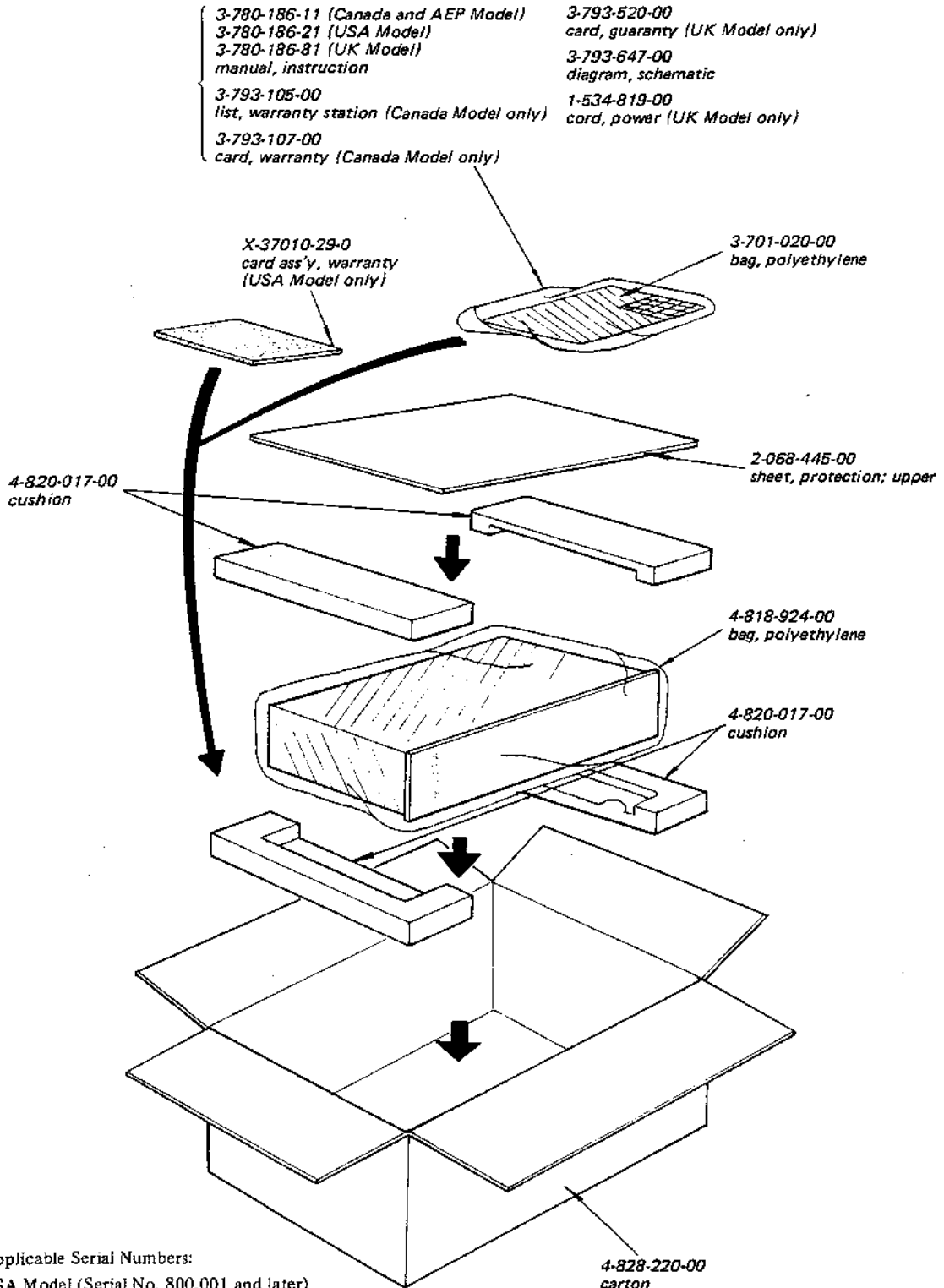


Fig. 3-1. Dc millivoltmeter connection and parts location

SECTION 4 REPACKING

The TA-1066's original shipping carton and packing materials are the ideal containers for shipping the unit. However to secure the maximum protection,

the TA-1066 must be repacked in these materials precisely as before. The proper repacking procedures are shown in Fig. 4-1.

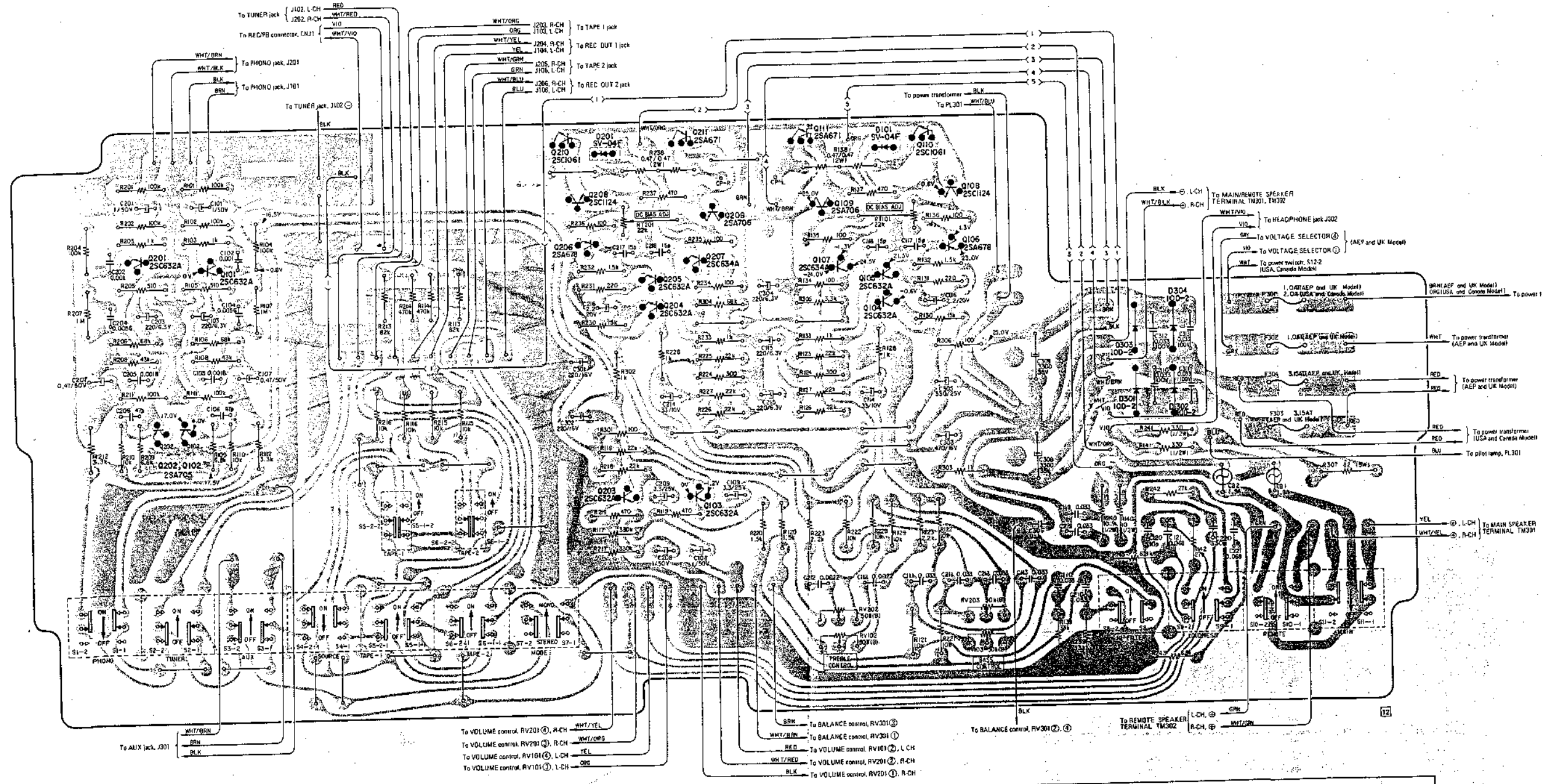


Note: Applicable Serial Numbers:
USA Model (Serial No. 800,001 and later)
Canada Model (Serial No. 700,001 and later)
UK Model (Serial No. 600,001 and later)
AEP Model (Serial No. 500,001 and later)

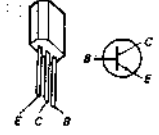
Fig. 4-1. Repacking

SECTION 5
DIAGRAMS

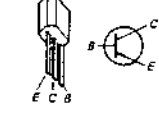
5-1. MOUNTING DIAGRAM
- Conductor Side -



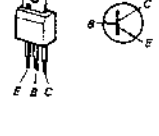
2SC632A
2SC634A



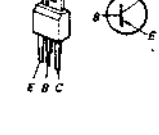
2SA705
2SA678



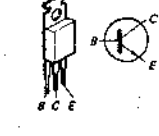
2SC1124



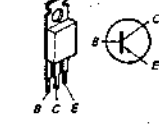
2SA706



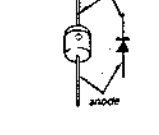
2SC1061



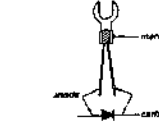
2SA671



10D-2



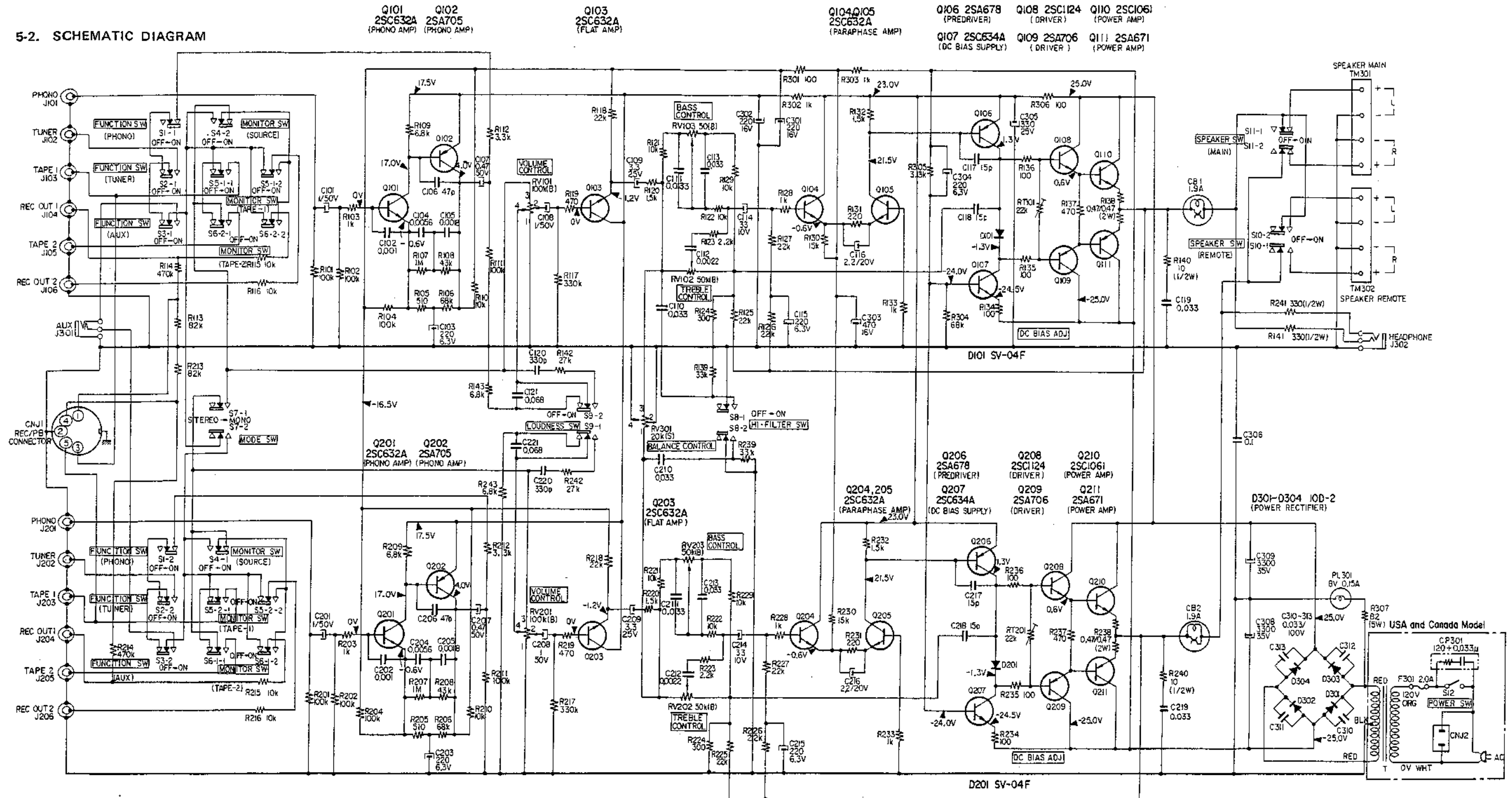
SV-04F



Parts Location	Q201	Q101	Q210	Q208	Q205	Q211	Q209	Q111	Q109	Q107	Q105	Q108	Q106	D303	D304	D301	D302
Q	Q202	Q102	Q206	Q203	Q204	Q207	Q103				D101						
D																	
ADJ			RT201								RT101						

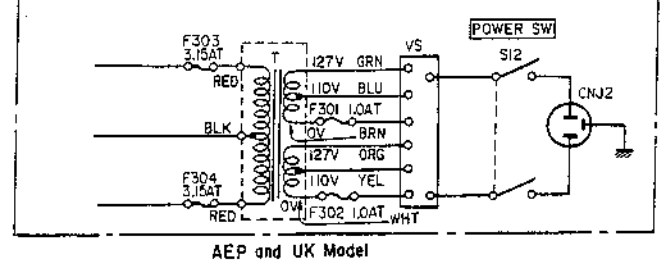
TA-1066 TA-1066

5-2. SCHEMATIC DIAGRAM



Ref. No.	Description	Position	Ref. No.	Description	Position
S1-1 ~ 2	FUNCTION switch (PHONO)	ON	S7-1 ~ 2	MODE switch (STEREO-MONO)	STEREO
S2-1 ~ 2	FUNCTION switch (TUNER)	OFF	S8-1 ~ 2	HI-FILTER switch (ON-OFF)	OFF
S3-1 ~ 2	FUNCTION switch (AUX)	OFF	S9-1 ~ 2	LOUDNESS switch (ON-OFF)	OFF
S4-1 ~ 2	MONITOR switch (SOURCE)	ON	S10-1 ~ 2	SPEAKER switch (REMOTE)	OFF
S5-1 ~ 2	MONITOR switch (TAPE-1)	OFF	S11-1 ~ 2	SPEAKER switch (MAIN)	ON
S6-1 ~ 2	MONITOR switch (TAPE-2)	OFF	S12	POWER switch (ON-OFF)	OFF

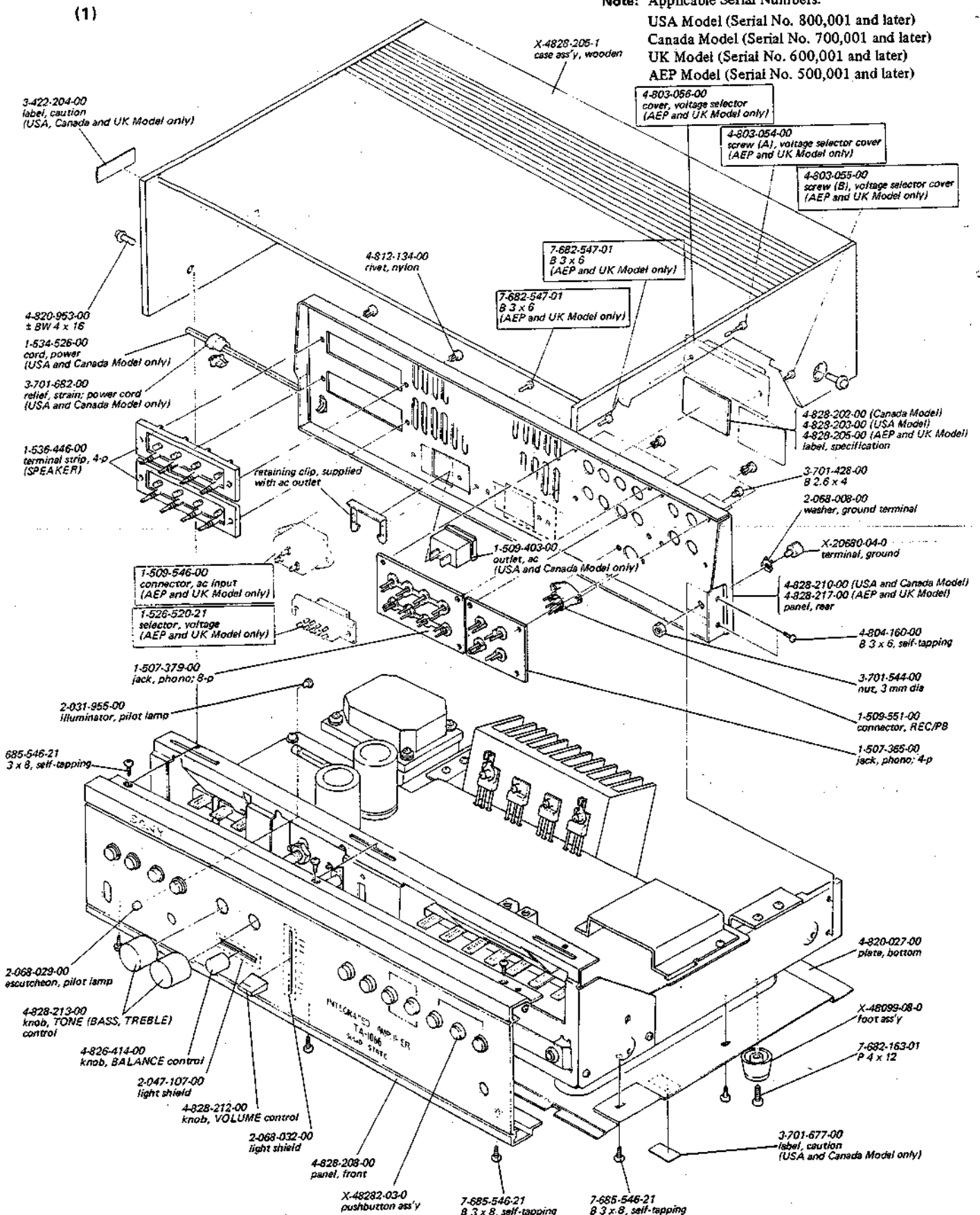
Note:
 All resistance values are in ohms. k = 1,000
 M = 1,000 k.
 All capacitance values are in μF except as indicated with p, which means μF .
 All voltages are dc measured with a VOM having 20 k ohms/volt input impedance. No signal in.
 Voltage variations may be noted due to normal production tolerances.



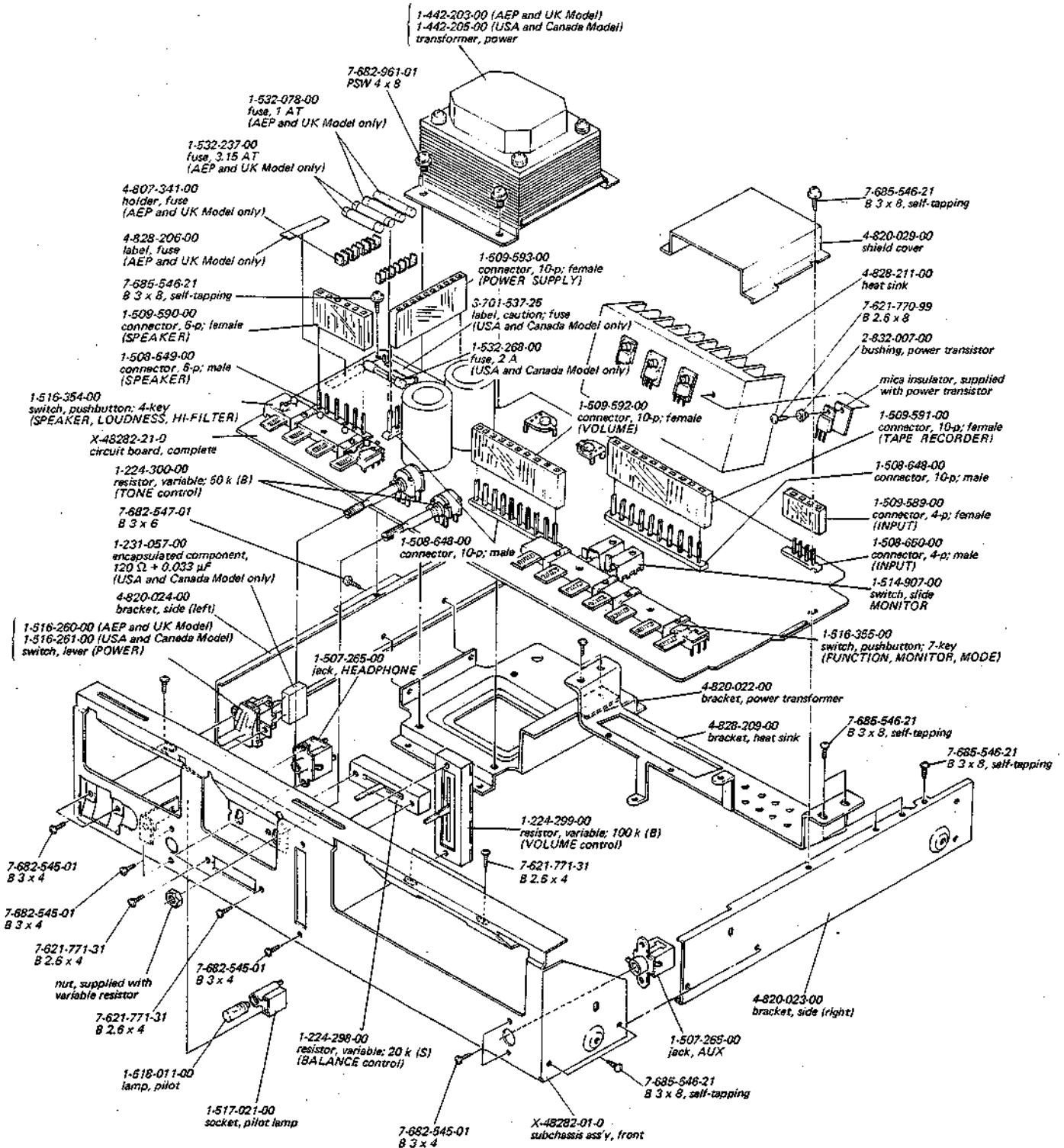
**SECTION 6
EXPLODED VIEWS**

Note: Applicable Serial Numbers:

- USA Model (Serial No. 800,001 and later)
- Canada Model (Serial No. 700,001 and later)
- UK Model (Serial No. 600,001 and later)
- AEP Model (Serial No. 500,001 and later)



(2)



SECTION 7
ELECTRICAL PARTS LIST

Ref. No. Part No. Description

Note: Applicable Serial Numbers:
USA Model (Serial No. 800,001 and later)
Canada Model (Serial No. 700,001 and later)
UK Model (Serial No. 600,001 and later)
AEP Model (Serial No. 500,001 and later)

COMPLETE CIRCUIT BOARD

X-48282-21-0

SEMICONDUCTORS

Q101(Q201)	Transistor	2SC632A
Q102(Q202)	Transistor	2SA705
Q103(Q203)	Transistor	2SC632A
Q104(Q204)	Transistor	2SC632A
Q105(Q205)	Transistor	2SC632A
Q106(Q206)	Transistor	2SA678
Q107(Q207)	Transistor	2SC634A
Q108(Q208)	Transistor	2SC1124
Q109(Q209)	Transistor	2SA706
Q110(Q210)	Transistor	2SC1061
Q111(Q211)	Transistor	2SA671
D101(D201)	Diode	SV-04F
D301	Diode	10D-2
D302	Diode	10D-2
D303	Diode	10D-2
D304	Diode	10D-2

TRANSFORMERS

T	{ 1-442-205-00	Power (USA and Canada Model)
	{ 1-442-203-00	Power (AEP and UK Model)

CAPACITORS

All capacitors listed here are 50 V, mylar type unless otherwise specified and in μF except as indicated with p (p means $\mu\mu$).
(elect = electrolytic)

C101(C201)	1-121-912-11	1	50 V elect
C102(C202)	1-105-661-12	0.001 $\pm 10\%$	
C103(C203)	1-121-419-11	220	6.3 V elect
C104(C204)	1-105-510-12	0.0056 $\pm 5\%$	
C105(C205)	1-105-504-12	0.0018 $\pm 5\%$	
C106(C206)	1-101-880-11	47 p $\pm 5\%$	50 V ceramic
C107(C207)	1-121-911-11	0.47	50 V elect
C108(C208)	1-121-912-11	1	50 V elect
C109(C209)	1-121-913-11	3.3	25 V elect
C110(C210)	1-105-679-12	0.033 $\pm 10\%$	
C111(C211)	1-105-679-12	0.033 $\pm 10\%$	

Ref. No. Part No. Description

C112(C212)	1-105-665-12	0.0022 $\pm 10\%$	
C113(C213)	1-105-679-12	0.033 $\pm 10\%$	
C114(C214)	1-121-926-11	33	10 V elect
C115(C215)	1-121-419-11	220	6.3 V elect
C116(C216)	1-131-196-11	2.2	20 V tantalum
C117(C217)	1-102-951-11	15 p $\pm 5\%$	50 V ceramic
C118(C218)	1-102-951-11	15 p $\pm 5\%$	50 V ceramic
C119(C219)	1-105-679-12	0.033 $\pm 10\%$	
C120(C220)	1-102-820-11	330 p $\pm 5\%$	50 V ceramic
C121(C221)	1-105-683-12	0.068 $\pm 10\%$	

C301	1-121-421-11	220	16 V elect
C302	1-121-421-11	220	16 V elect
C303	1-121-426-11	470	16 V elect
C304	1-121-419-11	220	6.3 V elect
C305	1-121-654-11	330	25 V elect
C306	1-105-685-12	0.1 $\pm 10\%$	
C307		-----	
C308	1-123-118-11	3300	35 V elect
C309	1-123-118-11	3300	35 V elect
C310	1-105-879-12	0.033 $\pm 20\%$	100 V
C311	1-105-879-12	0.033 $\pm 20\%$	100 V
C312	1-105-879-12	0.033 $\pm 20\%$	100 V
C313	1-105-879-12	0.033 $\pm 20\%$	100 V

RESISTORS

All resistors are in Ω , $\pm 5\%$, $\frac{1}{4}$ W and carbon type unless otherwise specified.

R101(R201)	1-244-721-11	100 k
R102(R202)	1-244-721-11	100 k
R103(R203)	1-244-673-11	1 k
R104(R204)	1-244-721-11	100 k
R105(R205)	1-244-666-11	510
R106(R206)	1-244-717-11	68 k
R107(R207)	1-244-745-11	1 M
R108(R208)	1-244-712-11	43 k
R109(R209)	1-244-693-11	6.8 k
R110(R210)	1-244-697-11	10 k
R111(R211)	1-244-721-11	100 k
R112(R212)	1-244-685-11	3.3 k
R113(R213)	1-244-719-11	82 k
R114(R214)	1-244-737-11	470 k
R115(R215)	1-244-697-11	10 k
R116(R216)	1-244-697-11	10 k
R117(R217)	1-244-733-11	330 k
R118(R218)	1-244-705-11	22 k
R119(R219)	1-244-665-11	470
R120(R220)	1-244-677-11	1.5 k
R121(R221)	1-244-697-11	10 k
R122(R222)	1-244-697-11	10 k
R123(R223)	1-244-681-11	2.2 k

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
R124(R224)	1-244-660-11	300
R125(R225)	1-244-705-11	22 k
R126(R226)	1-244-705-11	22 k
R127(R227)	1-244-705-11	22 k
R128(R228)	1-244-673-11	1 k
R129(R229)	1-244-697-11	10 k
R130(R230)	1-244-701-11	15 k
R131(R231)	1-244-657-11	220
R132(R232)	1-244-677-11	1.5 k
R133(R233)	1-244-673-11	1 k
R134(R234)	1-244-649-11	100
R135(R235)	1-211-522-11	100
R136(R236)	1-244-649-11	100
R137(R237)	1-244-665-11	470
R138(R238)	1-217-359-11	0.47 2 W metal
R139(R239)	1-244-709-11	33 k
R140(R240)	1-202-525-11	10 ½ W composition
R141(R241)	1-202-561-11	330 ½ W composition
R142(R242)	1-244-707-11	27 k
R143(R243)	1-244-693-11	6.8 k
R301	1-244-649-11	100
R302	1-244-673-11	1 k
R303	1-244-673-11	1 k
R304	1-244-717-11	68 k
R305	1-244-685-11	3.3 k
R306	1-211-522-11	100
R307	1-217-309-11	82 5 W wirewound
RT101 } (RT201)	1-222-764-00	22 k, adjustable (dc bias adj.)
RV101 } (RV201)		
RV102 } (RV202)	1-224-299-00	100 k (B), variable (VOLUME)
RV103 } (RV203)	1-224-300-00	50 k (B), variable (TREBLE)
RV301		
RV301	1-224-298-00	20 k (S), variable (BALANCE)
SWITCHES		
S1 ~ 4 } S7	1-516-355-00	Pushbutton; 7-key (FUNCTION, MONITOR, MODE)
S5, S6		
S5, S6	1-514-907-00	Slide (MONITOR)
S8 ~ 11	1-516-354-00	Pushbutton; 4-key (SPEAKER, LOUDNESS, HI-FILTER)

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
S12	1-516-260-00	Lever (POWER) (AEP and UK Model)
	1-516-261-00	Lever (POWER) (USA and Canada Model)
MISCELLANEOUS		
CB1, 2	1-532-380-21	Circuit Breaker, 1.9 A
CP301	1-231-057-00	Encapsulated Component, 120 Ω + 0.033 μF (USA and Canada Model only)
CNJ1	1-509-551-00	Connector, REC/PB
CNJ2	1-509-403-00	Outlet, ac (USA and Canada Model only)
	1-509-546-00	Connector, ac input; 3-p (AEP and UK Model only)
F301	1-532-268-00	Fuse, 2 A (USA and Canada Model only)
	1-532-078-00	Fuse, 1 AT (AEP and UK Model)
F302	1-532-078-00	Fuse, 1 AT (AEP and UK Model only)
F303, 304	1-532-237-00	Fuse, 3.15 AT (AEP and UK Model only)
J101, 102 } (J201, 202)	1-507-365-00	Jack, phono; 4-p
J103~J106 } (J203~J206)		
J301, 302	1-507-265-00	Jack, AUX, HEADPHONE
PL301	1-518-011-00	Lamp, pilot; 8 V, 0.15 A
TM301, 302	1-536-446-00	Terminal Strip, 4-p (SPEAKER)
VS	1-526-520-21	Selector, voltage (AEP and UK Model only)
	1-508-648-00	Connector, 10-p; male
	1-508-649-00	Connector, 6-p; male (SPEAKER)
	1-508-650-00	Connector, 4-p; male (INPUT)
	1-509-589-00	Connector, 4-p; female (INPUT)
	1-509-590-00	Connector, 6-p; female (SPEAKER)
	1-509-591-00	Connector, 10-p; female (TAPE RECORDER)
	1-509-592-00	Connector, 10-p; female (VOLUME)
	1-509-593-00	Connector, 10-p; female (POWER SUPPLY)
	1-517-021-00	Socket, pilot lamp
	1-534-526-00	Cord, power (USA and Canada Model only)

SONY®

New Price

Complete Spare Parts List

INTEGRATED STEREO AMPLIFIER

Model **TA-1066**

AEP MODEL

IMPORTANT

When ordering parts, be sure to furnish the following information:

1. Part Number
2. Model Number
3. Description as contained in this parts list

Due to our use of an electronic data processing system, your orders are processed by the PART NUMBER specified by you.

Please order carefully-wrong part numbers result in wrong parts.

NOTE: Prices are subject to change without notice.

SONY CORPORATION

Complete Spare Parts List for TA-1066

(USA, Canada, AEP and UK Model)

September, 1973

<u>Part No.</u>	<u>Description</u>	<u>Unit Price</u>	
I. MECHANICAL PARTS			
		\$	DM
X-20680-04-0	Terminal, ground -----	0.06	0.17
X-48099-08-0	Foot Ass'y, rubber -----	0.04	0.11
X-4828-205-1	Case Ass'y, wooden -----	5.02	22.23
X-48282-01-0	Subchassis Ass'y, front -----	0.69	1.95
X-48282-03-0	Pushbutton Ass'y -----	1.10	3.13
2-056-665-00	Clamp, lead wire; 5 mm dia -----	0.01	0.03
2-056-666-00	Clamp, lead wire; 8 mm dia -----	0.01	0.03
2-031-955-00	Illuminator, pilot lamp -----	0.02	0.06
2-047-107-00	Light Shield -----	0.01	0.03
2-068-008-00	Washer, ground terminal -----	0.01	0.03
2-068-029-00	Escutcheon, pilot lamp -----	0.02	0.06
2-068-032-00	Light Shield -----	0.01	0.03
2-832-007-00	Bushing, power transistor -----	0.01	0.03
3-701-428-00	Screw, (+) B 2.6 x 4 -----	0.01	0.03
3-701-537-25	Label, caution; fuse ----- (USA and Canada Model only)	0.02	0.06
3-701-544-00	Nut, flange; 3 mm dia -----	0.02	0.06
3-701-682-00	Strain Relief, power cord ----- (USA and Canada Model only)	0.03	0.08
3-701-677-00	Label, caution ----- (USA and Canada Model only)	0.01	0.03
4-803-054-00	Screw (A), voltage selector cover ---- (AEP and UK Model only)	0.02	0.06
4-803-055-00	Screw (B), voltage selector cover ---- (AEP and UK Model only)	0.01	0.03
4-803-056-00	Cover, voltage selector ----- (AEP and UK Model only)	0.10	0.28
4-804-160-00	Screw, self-tapping; (+) B 3 x 6 -----	0.01	0.03
4-807-341-00	Holder, fuse (AEP and UK Model only) ---	0.51	1.44
4-809-246-00	Label, AC 120 V 60 Hz ----- (USA and Canada Model only)	0.02	0.06
4-812-134-00	Rivet, nylon (3.5 x 5.5) -----	0.01	0.03

USA Model
 Canada Model
 AEP Model
 UK Model

<u>Part No.</u>	<u>Description</u>	<u>Unit Price</u>	
		\$	DM
4-820-022-00	Bracket, power transformer -----	0.35	0.99
4-820-023-00	Bracket, side (right) -----	0.21	0.59
4-820-024-00	Bracket side (left) -----	0.21	0.59
4-820-027-00	Plate, bottom -----	0.54	1.52
4-820-029-00	Shield Cover -----	0.11	0.31
4-820-953-00	Screw, (±) BW 4 x 16 -----	0.01	0.03
4-826-414-00	Knob, BALANCE control -----	0.10	0.28
4-828-202-00	Label, specification (Canada Model) ---	0.08	0.20
4-828-203-00	Label, specification (USA Model) -----	0.08	0.20
4-828-205-00	Label, specification (AEP and UK Model)-	0.08	0.20
4-828-206-00	Label, fuse (AEP and UK Model only) ----	0.01	0.03
4-828-208-00	Panel, front -----	2.93	8.32
4-828-209-00	Bracket, heat sink -----	0.40	1.13
4-828-210-00	Panel, rear (USA and Canada Model) ----	0.90	2.53
4-828-211-00	Heat Sink -----	1.44	4.10
4-828-212-00	Knob, VOLUME control -----	0.13	0.36
4-828-213-00	Knob, TONE control -----	0.22	0.63
4-828-217-00	Panel, rear (AEP and UK Model) -----	0.94	2.67

USA Model
Canada Model
AEP Model
UK Model

<u>Part No.</u>	<u>Description</u>	<u>Unit Price</u>
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II. HARDWARE

Screws

All screws are Phillips type (cross recess type) unless otherwise specified.

		(Per 100)	
		\$	DM
7-621-770-99	B 2.6 x 8 -----	0.30	0.84
7-621-771-31	B 2.6 x 4 -----	0.50	1.41
7-682-163-01	P 4 x 12 -----	0.20	0.55
7-682-545-01	B 3 x 4 -----	0.14	0.41
7-682-547-01	B 3 x 6 -----	0.14	0.39
7-682-961-01	PSW 4 x 8 -----	0.95	2.68
7-685-546-21	B 3 x 8, self-tapping -----	0.32	0.85

Washer

7-623-108-12	3 mm dia (middle) -----	0.09	0.27
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USA Model
 Canada Model
 AEP Model
 UK Model

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Unit Price</u>	
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III. ELECTRICAL PARTS

Complete Circuit Board

			\$	DM
	X-48282-21-0	Complete Circuit Board -----	21.93	61.97

Semiconductors

Q101(Q201)	Transistor, 2SC632A	-----	0.20	0.57
Q102(Q202)	Transistor, 2SA705	-----	0.22	0.62
Q103(Q203)	Transistor, 2SC632A	-----	0.20	0.57
Q104(Q204)	Transistor, 2SC632A	-----	0.20	0.57
Q105(Q205)	Transistor, 2SC632A	-----	0.20	0.57
Q106(Q206)	Transistor, 2SA678	-----	0.20	0.57
Q107(Q207)	Transistor, 2SC634A	-----	0.16	0.45
Q108(Q208)	Transistor, 2SC1124	-----	0.57	1.61
Q109(Q209)	Transistor, 2SA706	-----	0.48	1.36
Q110(Q210)	Transistor, 2SC1061	-----	0.43	1.22
Q111(Q211)	Transistor, 2SA671	-----	0.59	1.67
D101(D201)	Diode, SV-04F	-----	0.40	1.13
D301	Diode, 10D-2	-----	0.12	0.34
D302	Diode, 10D-2	-----	0.12	0.34
D303	Diode, 10D-2	-----	0.12	0.34
D304	Diode, 10D-2	-----	0.12	0.34

Transformers

o T	1-442-205-00	Power (USA and Canada Model)	-	-
o T	1-442-203-00	Power (AEP and UK Model) ---	6.70	18.43

Capacitors

All capacitors listed here are 50 V mylar type unless otherwise specified and in μ F except as indicated with p (p means μ). (elect = electrolytic)

C101(C201)	1-121-912-11	1	50 V elect -	0.02	0.06
C102(C202)	1-105-661-12	0.001	$\pm 10\%$ -----	0.02	0.06
C103(C203)	1-121-419-11	220	6.3 V elect -	0.06	0.17

o: New parts

USA Model
 Canada Model
 AEP Model
 UK Model

Ref. No.	Part No.	Description	Unit Price	
			\$	DM
C104(C204)	1-105-510-12	0.0056 ±5% -----	0.04	0.11
C105(C205)	1-105-504-12	0.0018 ±5% -----	0.04	0.11
C106(C206)	1-101-880-11	47 p ±5% ceramic -----	0.02	0.06
C107(C207)	1-121-911-11	0.47 50 V elect --	0.04	0.11
C108(C208)	1-121-912-11	1 50 V elect --	0.04	0.11
C109(C209)	1-121-913-11	3.3 25 V elect --	0.04	0.11
C110(C210)	1-105-679-12	0.033 ±10% -----	0.03	0.08
C111(C211)	1-105-679-12	0.033 ±10% -----	0.03	0.08
C112(C212)	1-105-665-12	0.0022 ±10% -----	0.02	0.06
C113(C213)	1-105-679-12	0.033 ±10% -----	0.03	0.08
C114(C214)	1-121-926-11	33 10 V elect --	0.05	0.14
C115(C215)	1-121-419-11	220 6.3 V elect --	0.06	0.17
C116(C216)	1-131-196-11	2.2 20 V tantalum-	0.11	0.31
C117(C217)	1-102-951-11	15 p ±5% 50 V ceramic -	0.02	0.06
C118(C218)	1-102-951-11	15 p ±5% 50 V ceramic -	0.02	0.06
C119(C219)	1-105-679-12	0.033 ±10% -----	0.03	0.08
C120(C220)	1-102-820-11	330 p ±5% 50 V ceramic -	0.03	0.08
C121(C221)	1-105-683-12	0.068 ±10% -----	0.04	0.11
C301	1-121-421-11	220 16 V elect --	0.08	0.23
C302	1-121-421-11	220 16 V elect --	0.08	0.23
C303	1-121-426-11	470 16 V elect --	0.13	0.37
C304	1-121-419-11	220 6.3 V elect --	0.06	0.17
C305	1-121-654-11	330 25 V elect --	0.12	0.34
C306	1-105-685-12	0.1 ±10% -----	0.05	0.14
C307	-	-	-	-
o C308	1-123-118-11	3300 35 V elect --	0.70	1.97
o C309	1-123-118-11	3300 35 V elect --	0.70	1.97
C310	1-105-879-12	0.033 ±20% 100V -----	0.04	0.11
C311	1-105-879-12	0.033 ±20% 100V -----	0.04	0.11
C312	1-105-879-12	0.033 ±20% 100V -----	0.04	0.11
C313	1-105-879-12	0.033 ±20% 100V -----	0.04	0.11

Resistors

All resistors are in Ω , ±5%, 1/4W and carbon type unless otherwise indicated.

R101(R201)	1-244-721-11	100 k -----	0.02	0.06
R102(R202)	1-244-721-11	100 k -----	0.02	0.06
R103(R203)	1-244-673-11	1 k -----	0.02	0.06

o: New parts

USA Model
Canada Model
AEP Model
UK Model

Ref. No.	Part No.	Description	Unit Price	
			\$	DM
R104(R204)	1-244-721-11	100 k	0.02	0.06
R105(R205)	1-244-666-11	510	0.02	0.06
R106(R206)	1-244-717-11	68 k	0.02	0.06
R107(R207)	1-244-745-11	1 M	0.02	0.06
R108(R208)	1-244-712-11	43 k	0.02	0.06
R109(R209)	1-244-693-11	6.8 k	0.02	0.06
R110(R210)	1-244-697-11	10 k	0.02	0.06
R111(R211)	1-244-721-11	100 k	0.02	0.06
R112(R212)	1-244-685-11	3.3 k	0.02	0.06
R113(R213)	1-244-719-11	82 k	0.02	0.06
R114(R214)	1-244-737-11	470 k	0.02	0.06
R115(R215)	1-244-697-11	10 k	0.02	0.06
R116(R216)	1-244-697-11	10 k	0.02	0.06
R117(R217)	1-244-733-11	330 k	0.02	0.06
R118(R218)	1-244-705-11	22 k	0.02	0.06
R119(R219)	1-244-665-11	470	0.02	0.06
R120(R220)	1-244-677-11	1.5 k	0.02	0.06
R121(R221)	1-244-697-11	10 k	0.02	0.06
R122(R222)	1-244-697-11	10 k	0.02	0.06
R123(R223)	1-244-681-11	2.2 k	0.02	0.06
R124(R224)	1-244-660-11	300	0.02	0.06
R125(R225)	1-244-705-11	22 k	0.02	0.06
R126(R226)	1-244-705-11	22 k	0.02	0.06
R127(R227)	1-244-705-11	22 k	0.02	0.06
R128(R228)	1-244-673-11	1 k	0.02	0.06
R129(R229)	1-244-697-11	10 k	0.02	0.06
R130(R230)	1-244-701-11	15 k	0.02	0.06
R131(R231)	1-244-657-11	220	0.02	0.06
R132(R232)	1-244-677-11	1.5 k	0.02	0.06
R133(R233)	1-244-673-11	1 k	0.02	0.06
R134(R234)	1-244-649-11	100	0.02	0.06
R135(R235)	1-211-522-11	100	0.02	0.06
R136(R236)	1-244-649-11	100	0.02	0.06
R137(R237)	1-244-665-11	470	0.02	0.06
o R138(R238)	1-217-359-11	0.47	2 W metal	0.07 0.20
R139(R239)	1-244-709-11	33 k		0.02 0.06
R140(R240)	1-202-525-11	10	1/2 W composition	0.02 0.06
R141(R241)	1-202-561-11	330	1/2 W composition	

o: New parts

USA Model
Canada Model
AEP Model
UK Model

6/9 (TA-1066)
(Al-17)

Ref. No.	Part No.	Description	Unit Price	
			\$	DM
R142(R242)	1-244-707-11	27 k -----	0.02	0.06
R143(R243)	1-244-693-11	6.8 k -----	0.02	0.06
R301	1-244-649-11	100 -----	0.02	0.06
R302	1-244-673-11	1 k -----	0.02	0.06
R303	1-244-673-11	1 k -----	0.02	0.06
R304	1-244-717-11	68 k -----	0.02	0.06
R305	1-244-685-11	3.3 k -----	0.02	0.06
R306	1-211-522-11	100 -----	0.02	0.06
R307	1-217-309-11	82 5 W wire wound ---	0.09	0.25
RT101(RT201)	1-222-764-00	22 k, adjustable ----- (dc bias adj)	0.06	0.17
o RV101(RV201)	1-224-299-00	100 k (B), variable ----- (VOLUME)	0.67	1.90
o RV102(RV202)	1-224-300-00	50 k (B), variable (TREBLE)-	0.47	1.32
o RV103(RV203)	1-224-300-00	50 k (B), variable (BASS) --	0.47	1.32
RV301	1-224-298-11	20 k (S), variable (BALANCE)	0.35	0.98

Switches

o S1~S4, S7	1-516-355-00	Pushbutton, 7-key ----- (FUNCTION, MONITOR, MODE)	1.66	4.83
S5, 6	1-514-907-00	Slide (MONITOR) -----	0.25	0.70
o S8~S11	1-516-354-00	Pushbutton, 4-key ----- (HI-FILTER, LOUDNESS, SPEAKER)	1.36	3.85
S12	(1-516-260-00	Lever (POWER) ----- (AEP and UK Model)	0.45	-
	(1-516-261-00	Lever (POWER) ----- (USA and Canada Model)	0.82	-

Miscellaneous

CB1, 2	1-532-380-21	Circuit Braker, 1.9 A -----	0.55	1.55
CP301	1-231-057-00	Encapsulated Component, 120 Ω + 0.033 μ F ----- (USA and Canada Model only)	-	-
CNJ1	1-509-551-00	Connector, REC/PB -----	0.19	0.54
CNJ2	(1-509-403-00	Outlet, ac ----- (USA and Canada Model only)	-	-
	(1-509-546-00	Connector, ac input; 3-p -- (AEP and UK Model only)	0.47	1.32

o: New parts

USA Model
Canada Model
AEP Model
UK Model

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Unit Price</u>	
			\$	DM
F301	(1-532-268-00	Fuse, 2 A ----- (USA and Canada Model only)	0.16	-
	(1-532-078-00	Fuse, 1 AT ----- (AEP and UK Model)	0.06	-
F302	1-532-078-00	Fuse, 1 AT ----- (AEP and UK Model only)	0.06	-
F303, 304	1-532-237-00	Fuse, 3.15 AT ----- (AEP and UK Model only)	0.13	-
J101, 102 } (J201,202)	1-507-365-00	Jack, phono; 4-p -----	0.31	0.87
J103~J106 } (J203~J206)	1-507-379-00	Jack, phono; 8-p -----	0.56	1.58
J301, 302	1-507-265-00	Jack, AUX/HEADPHONE -----	0.16	0.45
PL301	1-518-011-00	Lamp, pilot; 8V/0.15A -----	0.04	0.11
o TM301,302	1-536-446-00	Terminal Strip, 4-p (SPEAKER)	0.26	0.73
VS	1-526-520-21	Selector, voltage ----- (AEP and UK Model only)	0.11	0.31
o	1-508-648-00	Connector, 10-p; male ----	0.02	0.06
o	1-508-649-00	Connector, 6-p; male ---- (SPEAKER)	0.03	0.08
o	1-508-650-00	Connector, 4-p; male (INPUT)	0.05	0.14
o	1-509-589-00	Connector, 4-p; female ---- (INPUT)	0.16	0.45
o	1-509-590-00	Connector, 6-p, female ---- (SPEAKER)	0.21	0.59
o	1-509-591-00	Connector, 10-p; female ---- (TAPE RECORDER)	0.41	1.18
o	1-509-592-00	Connector, 10-p, female --- (VOLUME)	0.34	0.96
o	1-509-593-00	Connector, 10-p; female --- (POWER SUPPLY)	0.39	1.10
	1-517-021-00	Socket, pilot lamp -----	0.05	0.14
	1-534-526-00	Cord, power ----- (USA and Canada Model only)	0.35	-

o: New parts

USA Model
Canada Model
AEP Model
UK Model

<u>Part No.</u>	<u>Description</u>	<u>Unit Price</u>	
IV. ACCESSORIES AND PACKING MATERIALS			
		\$	DM
X-37010-29-0	Card Ass'y, warranty (USA Model only) --	0.06	-
1-534-819-00	Cord, power (UK Model only) -----	0.12	0.34
2-068-445-00	Cushion, upper -----	0.01	0.03
3-701-020-00	Bag, polyethylene; instruction manual --	0.43	1.21
3-780-186-11	Manual, instruction ----- (Canada and AEP Model)		
3-780-186-21	Manual, instruction (USA Model) -----	-	-
3-780-186-81	Manual, instruction (UK Model) -----	-	-
3-793-105-00	List, warranty station(Canada Model only)	0.06	-
3-793-107-00	Card, warranty (Canada Model) -----	0.06	-
3-793-520-00	Card, warranty (UK Model) -----	-	-
3-793-647-00	Diagram, schematic -----	0.06	0.17
4-802-201-00	Bag, polyethylene; warranty card ----- (Canada and UK Model only)	0.01	0.03
4-818-924-00	Bag, polyethylene; unit -----	0.04	0.11
4-820-017-00	Cushion -----	0.13	0.37
4-828-220-00	Carton -----	0.70	1.97

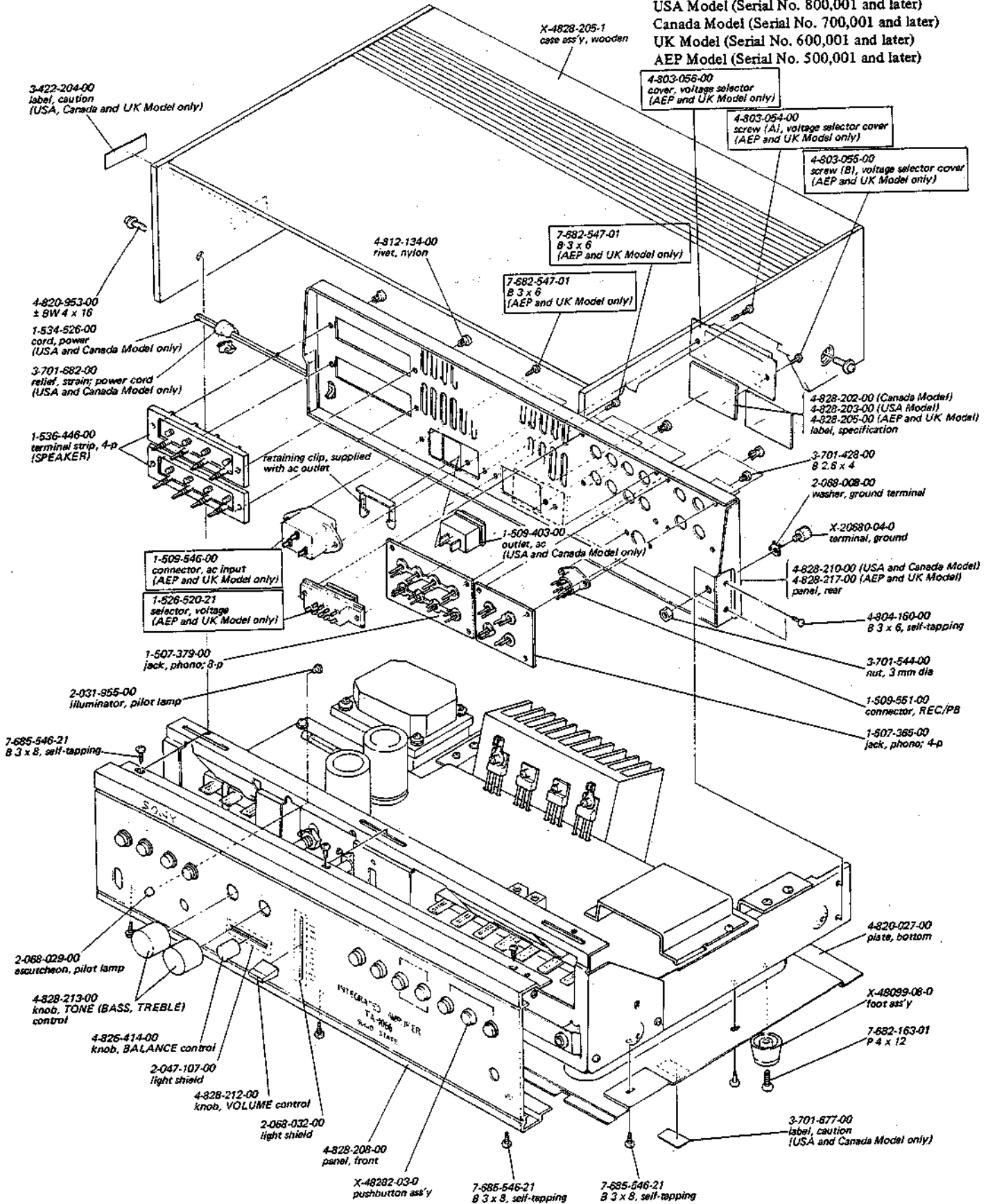
Note: Applicable Serial Numbers;

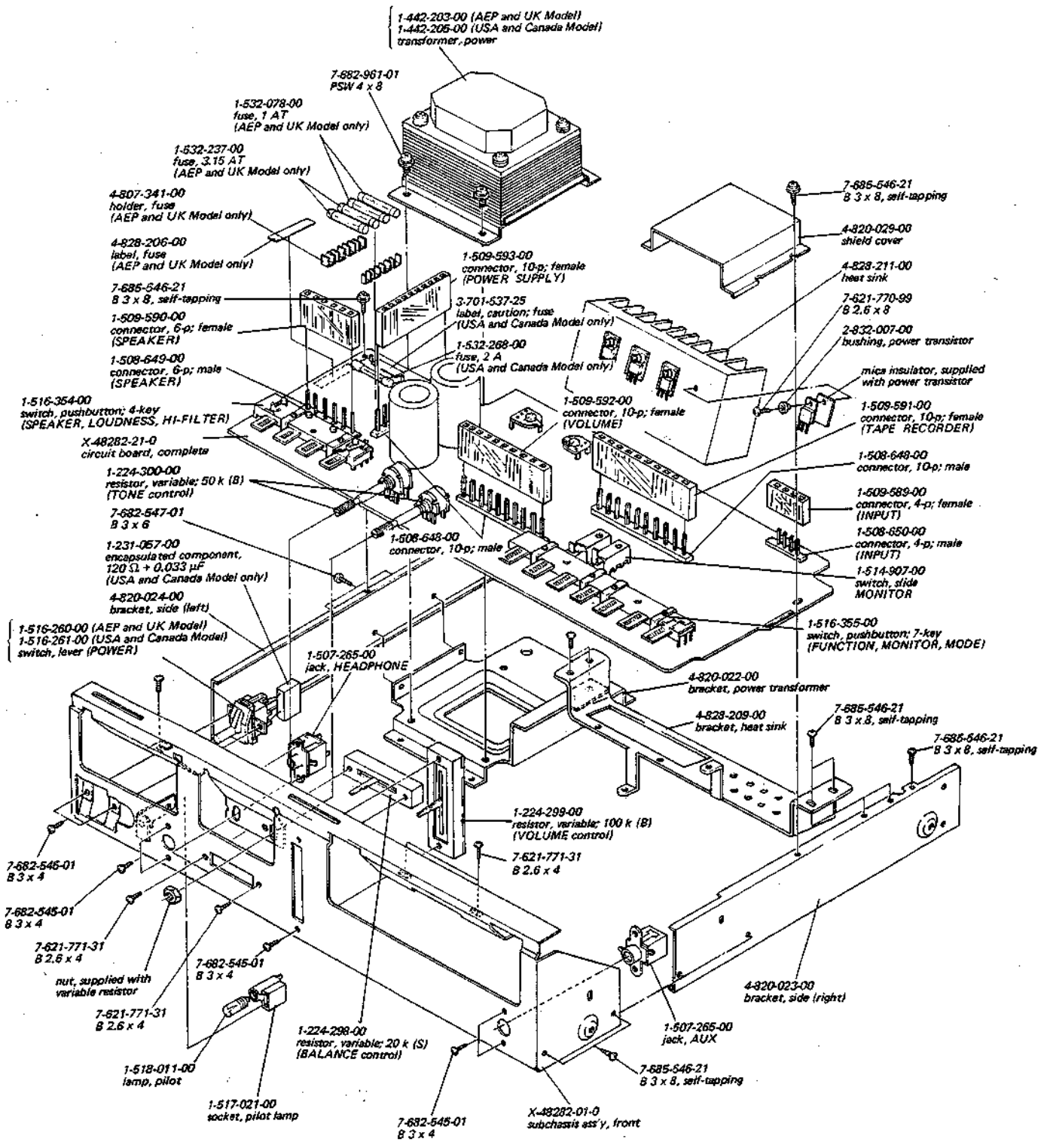
USA Model 800,001 and later
Canada Model 700,001 and later
AEP Model 900,001 and later
UK Model 400,001 and later

USA Model
Canada Model
AEP Model
UK Model

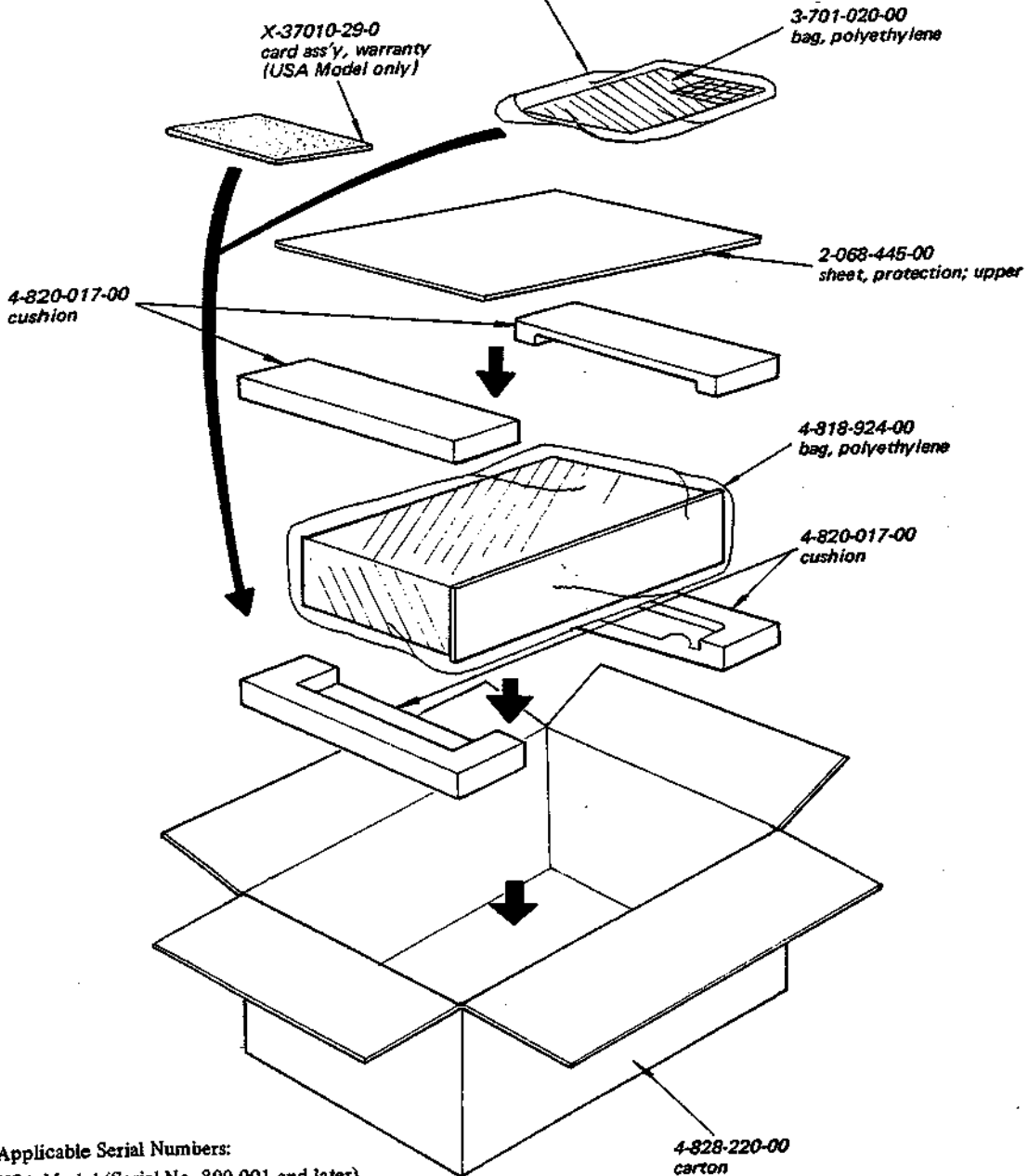
Note: Applicable Serial Numbers:

- USA Model (Serial No. 800,001 and later)
- Canada Model (Serial No. 700,001 and later)
- UK Model (Serial No. 600,001 and later)
- AEP Model (Serial No. 500,001 and later)





- 3-780-186-11 (Canada and AEP Model)
- 3-780-186-21 (USA Model)
- 3-780-186-81 (UK Model)
- manual, instruction
- 3-793-105-00
- list, warranty station (Canada Model only)
- 3-793-107-00
- card, warranty (Canada Model only)
- 3-793-520-00
- card, guaranty (UK Model only)
- 3-793-647-00
- diagram, schematic
- 1-534-819-00
- cord, power (UK Model only)



Note: Applicable Serial Numbers:
 USA Model (Serial No. 800,001 and later)
 Canada Model (Serial No. 700,001 and later)
 UK Model (Serial No. 600,001 and later)
 AEP Model (Serial No. 500,001 and later)