

TA-F22ESR/F530ES

SERVICE MANUAL

Canadian Model
AEP Model
UK Model
TA-F530ES

E Model
TA-F22ESR



photo : TA-F530ES

SPECIFICATIONS

Amplifier section

Item	Condition		Data
Continuous RMS power output (both channels driven simultaneously)	4 ohms, 20 Hz-20 kHz THD 0.008%	Canadian, UK, E model	120 W + 120 W (THD 0.01%) (DIN: 160 W + 160 W)
	6 ohms, 20 Hz-20 kHz THD 0.006%	Canadian, UK, E model	100 W + 100 W (DIN: 120 W + 120 W)
		AEP, West Germany model	95 W + 95 W (DIN: 115 W + 115 W)
	8 ohms, 20 Hz-20 kHz THD 0.004%	Canadian, UK, E model	90 W + 90 W (DIN: 110 W + 110 W)
AEP, West Germany model		80 W + 80 W (DIN: 100 W + 100 W)	
Power band width (IHF)	8 ohms, THD 0,02%		10 Hz - 100 kHz at 45 W
Dynamic headroom (*78 IHF)	4 ohms		2 dB
	8 ohms		1.2 dB
Total harmonic distortion	8 ohms, at 10 watt output		0.003%
Intermodulation (IM) distortion 60 Hz: 7 kHz = 4:1	4 ohm, at rated output		0.008%
	6 ohms at rated output		0.006%
	8 ohms at rated output		0.004%
Damping factor	8 ohms, 1 kHz		50
Residual noise	network A		less than 90 μ V
Frequency response	PHONO MM		RIAA equalization curve ± 0.2 dB
	TUNER, CD, TAPE 1, 2, 3, DIRECT IN		2 Hz - 200 kHz $+0$ -3 dB

—Continued on page 2—

INTEGRATED STEREO AMPLIFIER
SONY®



Item	Condition		Data
Input sensitivity	PHONO	MC	0.17 mV, 100 ohms.
		MM	2.5 mV, 50 kohms
	TUNER, CD, DIRECT IN, TAPE 1, 2, 3 ADAPTOR IN		150 mV, 50 kohms
S/N (network) *78 (IHF)	PHONO	MC	68 dB 76 dB* (A)
		MM	80 dB 87 dB* (A)
	TUNER, CD, DIRECT IN, TAPE 1, 2, 3 ADAPTOR IN		84 dB 105 dB* (A)
Output voltage impedance	REC OUT 1, 2, 3 ADAPTOR OUT		150 mV, 1 kohm
	HEADPHONES		25 miliwatts (at 8 ohms) Accepts low and high impedance headphones.
Tone controls	BASS, at 100 Hz		±6 dB (turnover freq. 400 Hz)
	TREBLE, at 10 kHz		±6 dB (freq. 4 kHz)

General

System Preamplifier section: Low-noise high gain NFB type equalizer amplifier, passive type direct tone control
Power amplifier section: Pure-complementary SEPP power amplifier

Power requirements

AEP, West Germany model : 220 V AC, 50 Hz
U K model: 240 V AC, 50 Hz
E model : 120 V, 220 V or 240 V AC adjustable, 50/60 Hz
Canadian model : 120 V AC, 50/60Hz

Power consumption

Canadian model	510 VA
AEP, UK, West Germany model	220 W
UK model	600 W
E model	340 W

AC outlet

Canadian model	2 switched, 1 unswitched, 100 watts max. each
AEP, UK, West Germany model	—
E model	1 switched, 1 unswitched, 100 watts each

Dimensions

Approx. 430 x 150 x 370 mm (w/h/d)
(17 x 5⁷/₈ x 14⁹/₁₆ inches)

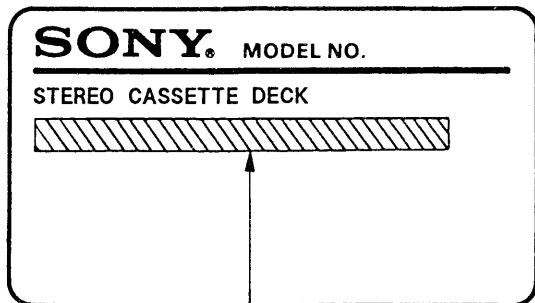
Weight

Approx. 13.5 kg (29 lbs 13 oz) net

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MODEL IDENTIFICATION

— Specification Label —



Canadian model : AC 120V 60Hz
AEP, West Germany model : AC 220V~50/60Hz
UK model : AC 240V~50/60Hz
E model : AC 120/220/240V~50/60Hz

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SERVICING NOTES

On operating voltage

Before operating the unit, check that the operating voltage of your unit is identical with the voltage of your local power supply.

Where purchased	Operating voltage
UK Model	240 V AC
Canadian Model	120V AC
AEP, West Germany Model	220 V AC
E Model	120 V, 220 V or 240 V AC adjustable by AC voltage selector

SAFETY-RELATED COMPONENT WARNING!!

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

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

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

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

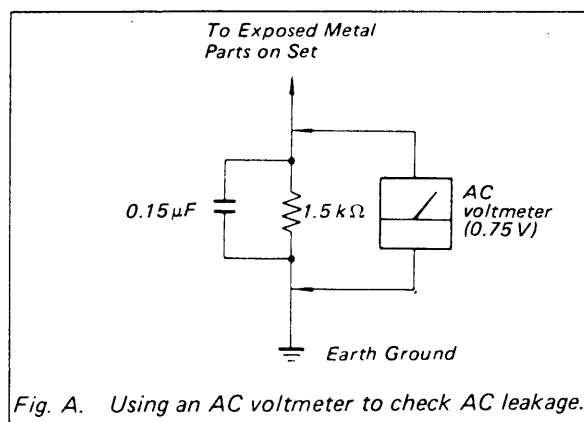
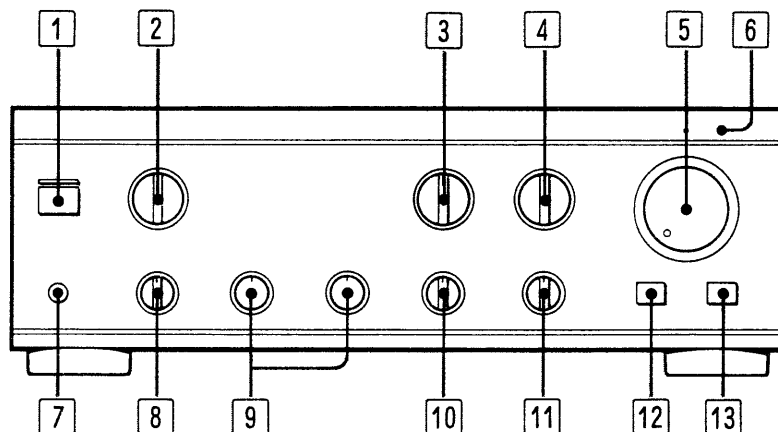


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 1 GENERAL

PARTS IDENTIFICATION



- 1 POWER switch and power/standby indicator**
Immediately after turning ON the power, the standby indicator lights in red as the built-in muting circuit activates.
When the amplifier stays in a stable operating condition, the indicator lights in green.
The indicator lights in red when the unit detects shorting of circuit of the speaker outputs or in case of short-circuit of the inputs of DC components.
In such a case, disconnect the power source and check the connected components and speaker systems.
- 2 SPEAKERS selector**
Select speaker system A or B, or both.
- 3 ADAPTOR/DIRECT IN switch**
Set to NORMAL to select program source by INPUT SELECTOR. To listen to a program source processed through adaptor (graphic equalizer, for example) connected to ADAPTOR jacks, set the selector to ADAPTOR.
To listen to a program source connected to DIRECT IN jacks, set it to DIRECT IN.
Note that selecting ADAPTOR has no effect upon the signals output through the REC OUT jacks.
- 4 INPUT SELECTOR**
Selects the desired program source.
- 5 ATTENUATOR knob**
Regulates the sound level.
- 6 MUTING switch and indicator**
Generally, keep the switch released (OFF).
Depress the switch to reduce the sound level by 20 dB. (Output voltage becomes 1/10.)
- 7 HEADPHONES jack (stereo phone jack)**
- 8 MODE selector**
STEREO: For listening to a stereo program.
MONO: For listening to a monaural program.
- 9 BASS and TREBLE controls**
- 10 REC OUT SELECTOR**
Selects the program source sent to the REC OUT jacks (rear panel).
- 11 BALANCE control**
Controls the sound level of left and right speakers.
- 12 SOURCE DIRECT switch and indicator**
- 13 CARTRIDGE selector**
Set the selector according to your cartridge.
MM: For moving-magnet type cartridge
MC: For moving-coil type cartridge

SECTION 2 ELECTRICAL ADJUSTMENTS

PRECAUTIONS

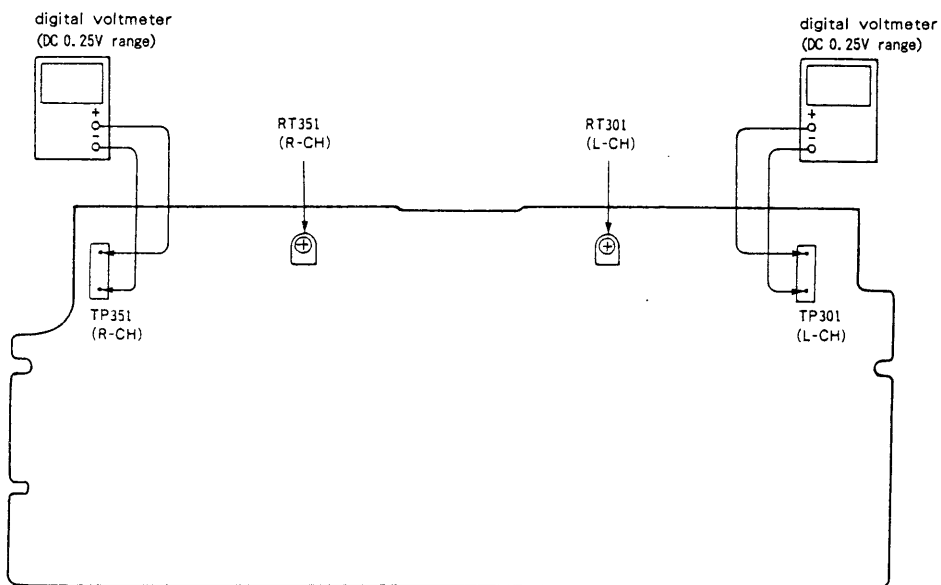
1. Adjust the idling after tuning the unit on for about 10-15 minutes, giving it time to warm up.
2. Always make sure to adjust the idling when repairing the power amp section or when replacing any parts.

【IDLING ADJUSTMENT】

Procedure :

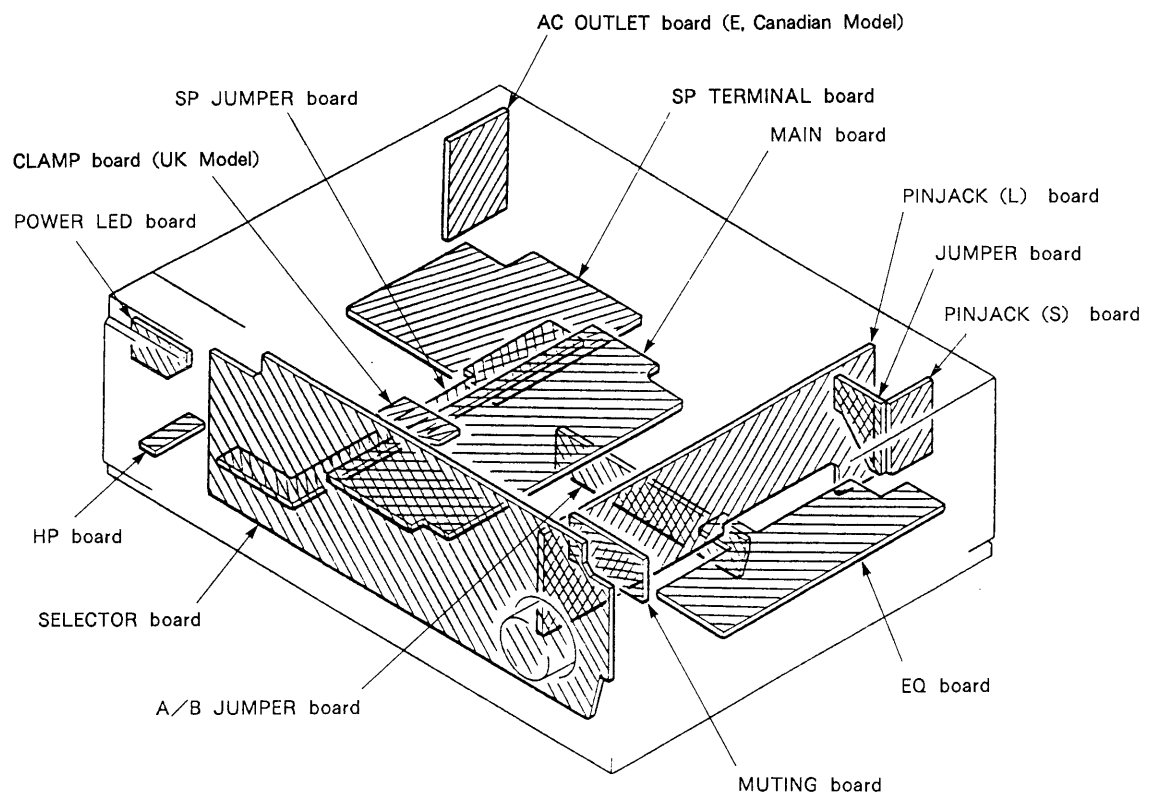
Set the ATTENUATOR control as low as possible and adjust RT301 (L-CH) and RT351 (R-CH) so that the voltmeter reads 7mV at TP301 (L-CH) and TP351 (R-CH).

Adjustment Location: power board

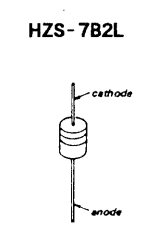
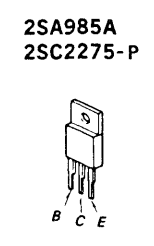
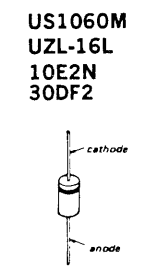
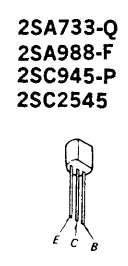
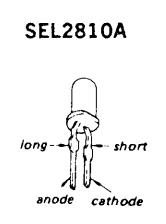
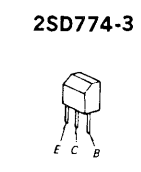
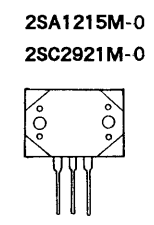
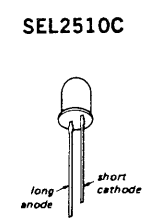
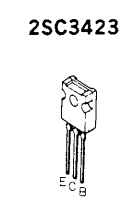
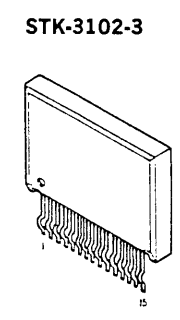


SECTION 3 DIAGRAMS

CIRCUIT BOARD LOCATION



● Semiconductor Lead Layouts

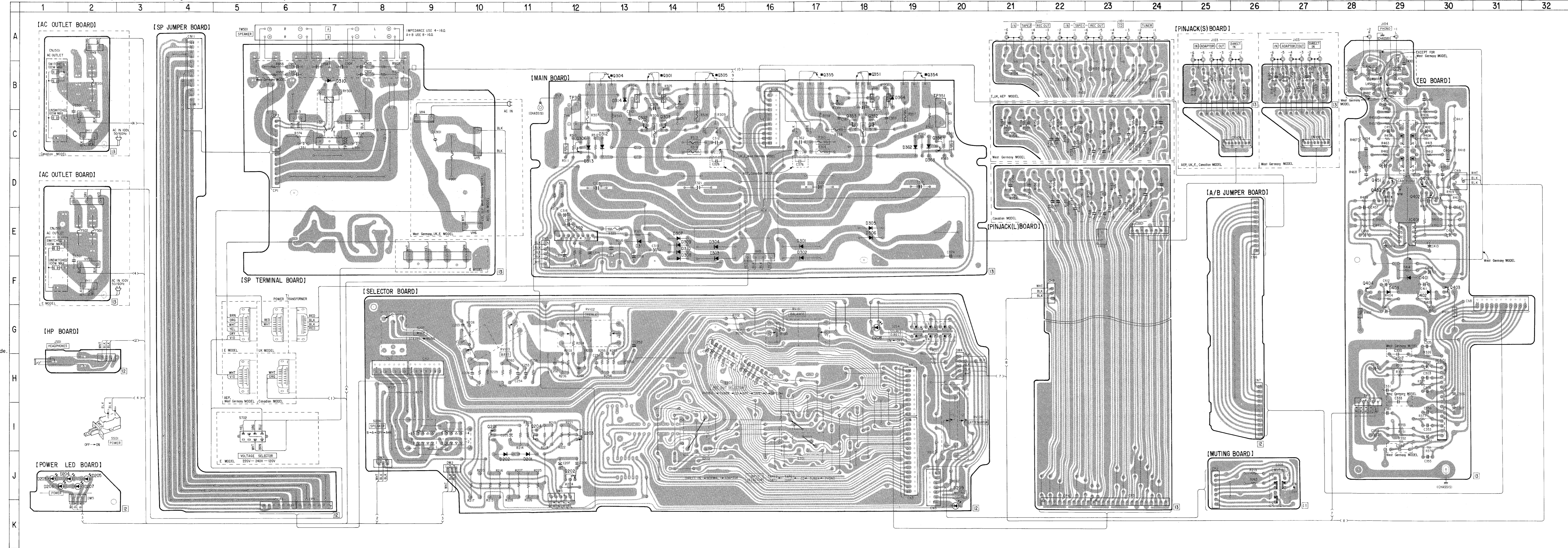


3-1. PRINTED WIRING BOARDS • See page 7 for Semiconductor Lead Layouts.

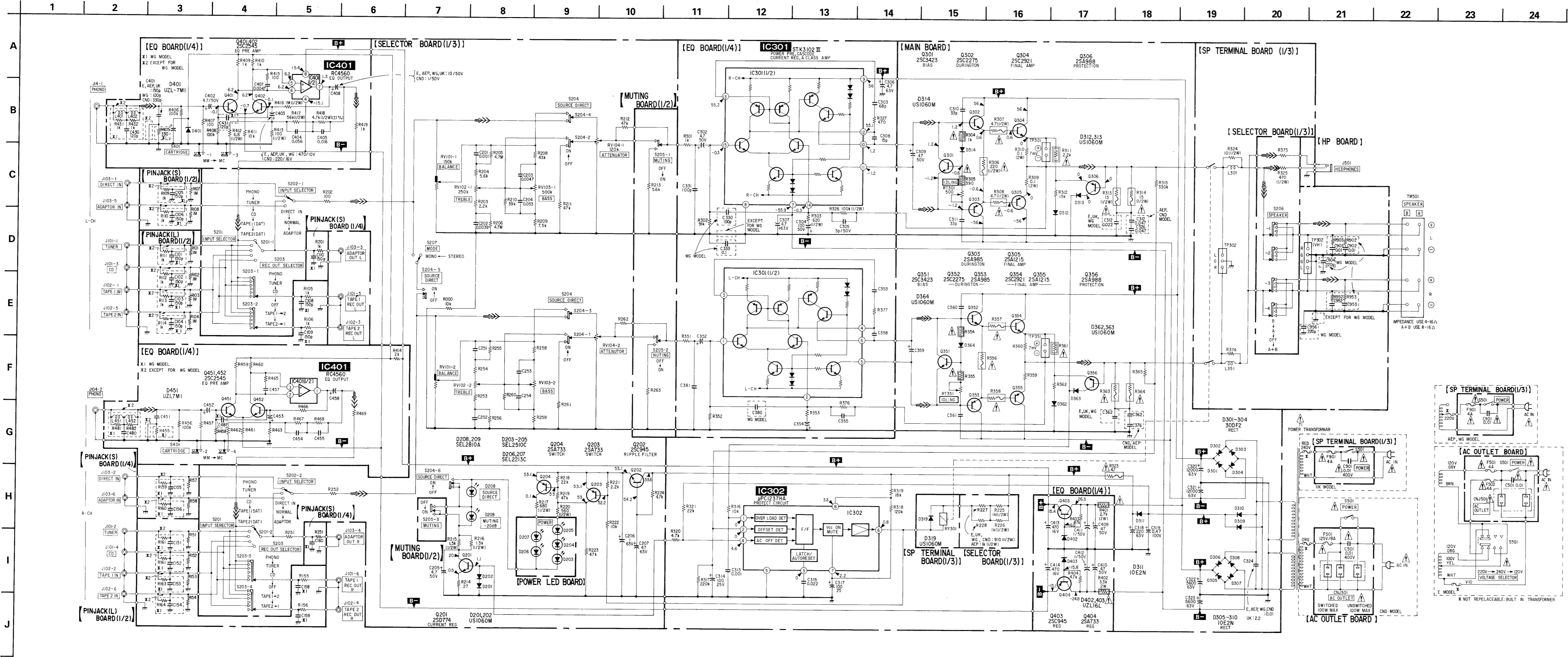
● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D201	J-11	IC301	I-30
D202	J-11	IC302	E-12
D203	J-1	IC401	E-30
D204	J-2		
D205	J-2	Q201	I-10
D206	J-1	Q202	J-12
D207	J-2	Q203	I-12
D208	G-19	Q204	I-11
D209	K-20	Q301	B-14
D301	E-17	Q302	C-14
D302	F-17	Q303	C-14
D303	F-15	Q304	B-13
D304	E-15	Q305	B-15
D305	E-18	Q306	C-12
D306	E-18	Q351	B-18
D307	E-14	Q352	C-18
D308	F-14	Q353	C-18
D309	E-14	Q354	B-19
D310	F-14	Q355	B-17
D311	E-14	Q356	C-20
D312	C-13	Q401	D-30
D313	C-12	Q402	D-30
D314	B-13	Q403	F-31
D319	B-7	Q404	F-21
D362	C-19	Q451	D-29
D363	C-20	Q452	D-29
D364	B-19		
D401	F-30		
D402	F-30		
D403	F-29		

Note on Printed Wiring Boards:
 ● : parts extracted from the component side.
 ■ : parts mounted on the conductor side.



3-2. SCHEMATIC DIAGRAMS



Note on Schematic Diagrams :

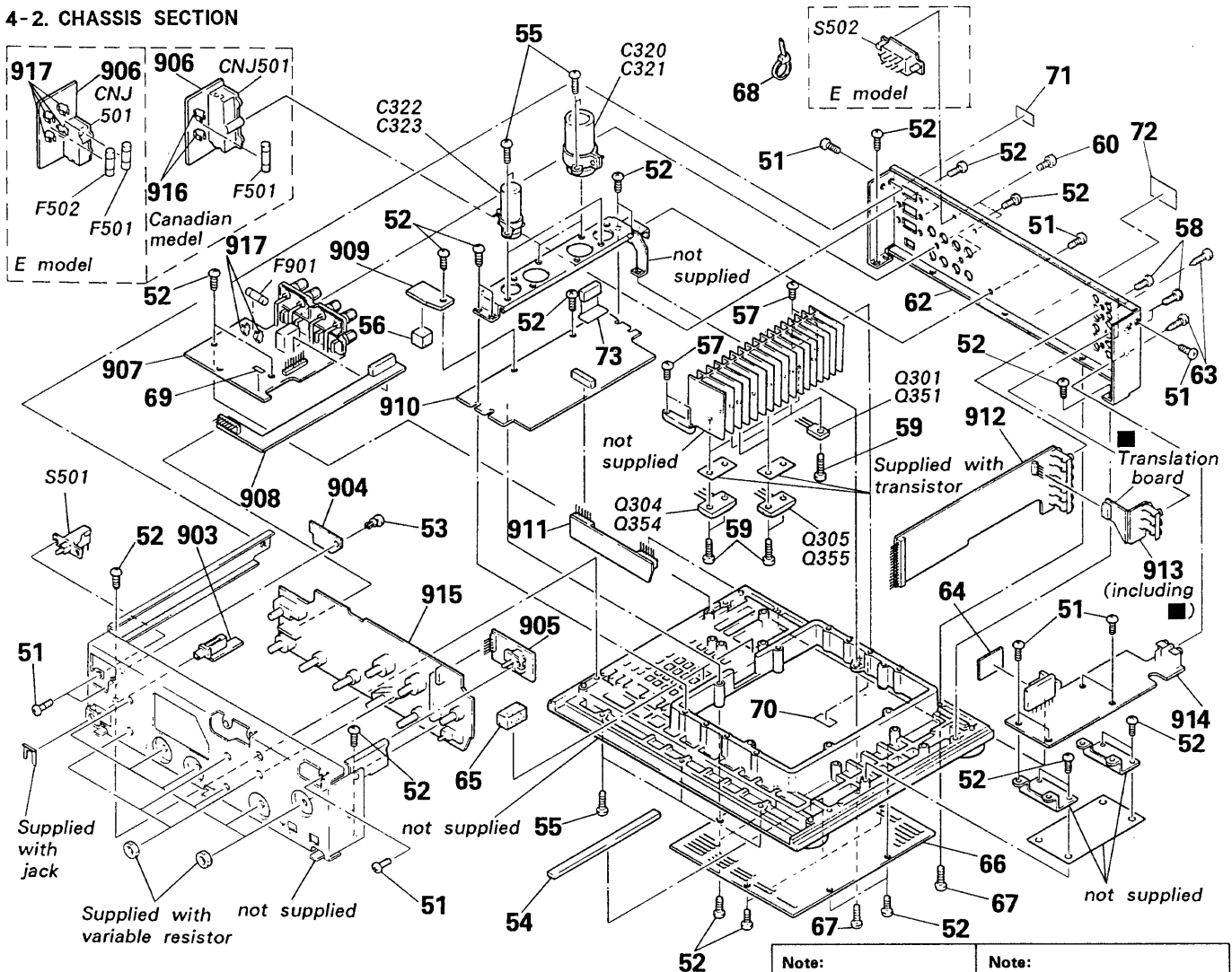
- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- Components for right channel have same values as for left channel.
- \square : nonflammable resistor.
- \square : fusible resistor.

Note:
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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

- \square : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions. no mark: PHONO
- Voltages are taken with a VOM. (input impedance 10M Ω) Voltage variations may be noted due to normal production tolerances.
- Signal path.
- \Rightarrow : PHONO
- WG : West Germany
- CND : Canadian

4-2. CHASSIS SECTION



Note:
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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

No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
51	7-682-547-09	SCREW +BVTT 3X6 (S)		908	*1-629-757-11	PC BOARD, SP JUMPER	
52	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S		909	*1-630-146-11	(Canadian)...PC BOARD, CLAMP	
53	4-812-134-00	RIVET NYLON, 3.5		910	*A-4333-335-A	(WG,E).....MOUNTED PCB, MAIN	
54	*4-916-782-21	(UK)...DAMPER			*A-4333-343-A	(Canadian,AEP)...MOUNTED PCB, MAIN	
55	7-685-873-09	SCREW +BVTT 3X10 (S)			*A-4333-725-A	(UK).....MOUNTED PCB, MAIN	
56	*4-921-410-01	(UK)...CUSHION		911	*1-629-750-11	PC BOARD, A/B JUMPER	
57	7-685-650-79	SCREW +BVTP 3X16 TYPE2 SLIT		912	*1-629-758-11	PC BOARD, PINJACK (L)	
				913	*1-629-756-11	PC BOARD, PIN JACK (S)	
59	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3		914	*A-4333-336-A	(WG).....MOUNTED PCB, EQ	
60	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S			*A-4333-341-A	(AEP,E).....MOUNTED PCB, EQ	
					*A-4333-726-A	(UK).....MOUNTED PCB, EQ	
62	*4-929-233-03	(Canadian)...PANEL, BACK		915	*A-4358-218-A	(Canadian)...MOUNTED PCB, EQ	
	*4-929-233-11	(WG,UK).....PANEL, BACK			*A-4410-898-A	(Canadian,WG,E).....MOUNTED PCB, SELECTOR	
	*4-929-233-21	(AEP).....PANEL, BACK		916	1-533-190-11	(Canadian)...CLIP, FUSE	
	*4-929-280-01	(E).....PANEL, BACK		917	1-533-183-11	(AEP,WG,UK,E)...HOLDER, FUSE	
63	7-621-849-00	SCREW, TAPPING		C320	1-125-568-11	CAP, ELECT 12000MF	
64	*4-916-782-61	(Canadian,UK)....DAMPER		C321	1-125-568-11	CAP, ELECT 12000MF	
65	*4-921-410-81	(UK)...CUSHION		C322	1-125-569-11	CAP, ELECT 5600MF	
66	*4-916-732-01	BOARD, BOTTOM		C323	1-125-569-11	CAP, ELECT 5600MF	
67	7-685-876-09	SCREW +BVTT 3X16 (S)		CNJ501 Δ	1-540-041-21	(E).....OUTLET, AC (AC OUTLET)	
68	3-655-653-21	BAND (TAITON), BINDING		CNJ501 Δ	1-540-062-31	(Canadian)...OUTLET, AC (AC OUTLET)	
69	*3-701-948-20	(E)...LABEL (T4A), FUSE		F501	Δ 1-532-350-00	(E).....FUSE, TIME-LAG 4A	
70	*3-703-079-21	(Canadian)...LABEL, CAUTION (BACK)		F501	Δ 1-532-510-00	(Canadian)...FUSE, GLASE TUBE 8A	
71	*3-703-270-00	(Canadian)...LABEL, AC 120V 60HZ		F502	Δ 1-532-350-00	(E).....FUSE, TIME-LAG 4A	
72	*4-929-270-01	(Canadian)...LABEL, MODEL NUMBER		F901	Δ 1-532-350-00	(AEP,WG,UK)...FUSE, TIME-LAG 4A	
	*4-929-272-01	(WG).....LABEL, MODEL NUMBER		Q301	8-729-203-45	TRANSISTOR 2SC3423	
	*4-929-273-01	(UK).....LABEL, MODEL NUMBER		Q304	8-729-320-03	TRANSISTOR 2SC2921M-0	
	*4-929-274-01	(E).....LABEL, MODEL NUMBER		Q305	8-729-320-01	TRANSISTOR 2SA1215M-0	
	*4-931-906-01	(AEP).....LABEL, MODEL NUMBER		Q351	8-729-203-45	TRANSISTOR 2SC3423	
73	*4-921-941-31	(UK)...CUSHION (FL)		Q354	8-729-320-03	TRANSISTOR 2SC2921M-0	
903	*1-629-749-11	PC BOARD, HP		Q355	8-729-320-01	TRANSISTOR 2SA1215M-0	
904	*1-629-751-11	PC BOARD, POWER LED		S501	Δ 1-554-920-31	SWITCH, PUSH (AC POWER)(1 KEY)(POWER)	
905	*1-629-747-11	PC BOARD, MUTING		S502	Δ 1-570-307-11	(E)....SWITCH, VOLTAGE CHANGE (VOLTAGE SELECTOR)	
906	*1-629-755-11	PC BOARD, AC OUTLET					
907	*1-629-753-11	PC BOARD, SP TERMINAL					

SECTION 5

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:

MF: μ F, PF: μ μ F.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORS

In each case, U: μ , for example:

UA...: μ A..., UPA...: μ PA...,
UPC...: μ PC, UPD...: μ PD...

- WG : West Germany model



The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.


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

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
901	1-551-478-00	(Canadian)...CORD, POWER	C203	1-130-479-00	MYLAR 0.0047MF 5% 50V
	1-574-381-11	(E).....CORD, POWER	C204	1-136-159-00	FILM 0.033MF 5% 50V
	1-574-804-11	(UK).....CORD, POWER	C205	1-123-369-00	ELECT 4.7MF 20% 50V
	1-574-805-11	(AEP,WG).....CORD, POWER	C206	1-123-380-00	ELECT 1MF 20% 63V
902	1-526-565-00	(E)....AC PLUG ADAPTOR	C207	1-124-918-11	ELECT 47MF 20% 63V
903	*1-629-749-11	PC BOARD, HP	C251	1-130-471-00	MYLAR 0.001MF 5% 50V
904	*1-629-751-11	PC BOARD, POWER LED	C252	1-130-478-00	MYLAR 0.0039MF 5% 50V
905	*1-629-747-11	PC BOARD, MUTING	C253	1-130-479-00	MYLAR 0.0047MF 5% 50V
906	*1-629-755-11	PC BOARD, AC OUTLET	C254	1-136-159-00	FILM 0.033MF 5% 50V
907	*1-629-753-11	PC BOARD, SP TERMINAL	C302	1-123-369-00	ELECT 4.7MF 20% 50V
908	*1-629-757-11	PC BOARD, SP JUMPER	C303	1-101-888-00	(E,AEP,WG)...CERAMIC 68PF 5% 50V
909	*1-630-146-11	(Canadian)...PC BOARD, CLAMP	C303	1-104-276-00	(Canadian,UK) ...POLYSTYRENE 68PF 10% 50V
910	*A-4333-335-A	(WG,E).....MOUNTED PCB, MAIN	C304	1-123-360-00	(E,AEP,WG).....ELECT 100MF 20% 50V
	*A-4333-343-A	(Canadian,AEP)....MOUNTED PCB, MAIN	C304	1-126-052-11	(Canadian,UK)...ELECT 100MF 20% 50V
	*A-4333-725-A	(UK).....MOUNTED PCB, MAIN	C305	1-102-936-00	(E,AEP,WG)...CERAMIC 3PF 0.5PF 50V
911	*1-629-750-11	PC BOARD, A/B JUMPER	C305	1-107-276-11	(Canadian,UK)...MICA 3PF 0.5% 500V
912	*1-629-758-11	PC BOARD, PINJACK (L)	C306	1-123-369-00	(E,AEP,WG)...ELECT 4.7MF 20% 63V
913	*1-629-756-11	PC BOARD, PIN JACK (S)	C307	1-123-369-00	(E,AEP,WG)...ELECT 4.7MF 20% 63V
914	*A-4333-336-A	(WG).....MOUNTED PCB, EQ	C308	1-102-951-00	(E,AEP,WG)...CERAMIC 15PF 5% 50V
	*A-4333-341-A	(AEP,E).....MOUNTED PCB, EQ	C308	1-104-263-00	(Canadian,UK) ...POLYSTYRENE 15PF 10% 125V
	*A-4333-726-A	(UK).....MOUNTED PCB, EQ	C309	1-123-359-00	(E,AEP,WG,Canadian) ...ELECT 47MF 20% 50V
	*A-4358-218-A	(Canadian)...MOUNTED PCB, EQ	C309	1-124-910-11	(UK).....ELECT 47MF 20% 50V
915	*A-4410-898-A	(Canadian,WG,UK,E) ...MOUNTED PCB, SELECTOR	C310	1-102-963-00	(E,AEP,WG,Canadian) ...CERAMIC 33PF 5% 50V
916	1-533-190-11	(Canadian)...CLIP, FUSE	C310	1-107-159-00	(UK).....MICA 33PF 5% 500V
917	1-533-183-11	(AEP,WG,UK,E)...HOLDER, FUSE	C311	1-102-963-00	(E,AEP,WG,Canadian) ...CERAMIC 33PF 5% 50V
C101	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C311	1-107-159-00	(UK).....MICA 33PF 5% 500V
C102	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C312	1-130-487-00	(E,WG,UK).....MYLAR 0.022MF 5% 50V
C103	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C312	1-136-161-00	(AEP,Canadian)...FILM 0.047MF 5% 50V
C104	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C313	1-130-471-00	MYLAR 0.001MF 5% 50V
C105	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C314	1-123-333-00	ELECT 100MF 20% 25V
C106	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C315	1-130-487-00	MYLAR 0.022MF 5% 50V
C108	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C317	1-123-333-00	ELECT 100MF 20% 25V
C109	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C318	1-123-604-00	ELECT 220MF 20% 63V
C151	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C319	1-123-379-00	ELECT 0.47MF 20% 100V
C152	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C320	1-125-568-11	CAP, ELECT 12000MF
C153	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C321	1-125-568-11	CAP, ELECT 12000MF
C154	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C322	1-125-569-11	CAP, ELECT 5600MF
C155	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V	C323	1-125-569-11	CAP, ELECT 5600MF
C156	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V			
C158	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V			
C159	1-162-284-31	(WG)...CERAMIC 150PF 10% 50V			
C201	1-130-471-00	MYLAR 0.001MF 5% 50V			
C202	1-130-478-00	MYLAR 0.0039MF 5% 50V			



Ref.No.	Part No.	Description				
C324	1-136-601-11	(E,AEP,WG,Canadian) ...FILM	0.01MF	10%	630V	
C324	1-136-880-11	(UK).....FILM	2.2MF	10%	160V	
C326	1-136-161-00	(AEP,Canadian)...FILM	0.047MF	5%	50V	
C330	1-162-282-31	(WG).....CERAMIC	100PF	5%	50V	
C331	1-102-973-00	(E,AEP,WG)...CERAMIC	100PF	5%	50V	
C331	1-136-808-11	(UK,Canadian)...FILM	100MF	5%	100V	
C333	1-161-370-00	(WG)...CERAMIC	0.01MF	30%	25V	
C352	1-123-369-00	ELECT	4.7MF	20%	50V	
C353	1-101-888-00	(E,AEP,WG)...CERAMIC	68PF	5%	50V	
C353	1-104-276-00	(Canadian,UK) ...POLYSTYRENE	68PF	10%	50V	
C354	1-123-360-00	(E,AEP,WG)...ELECT	100MF	20%	50V	
C354	1-126-052-11	(Canadian,UK) ...ELECT	100PF	20%	50V	
C355	1-102-936-00	(E,AEP,WG)...CERAMIC	3PF	0.5PF	50V	
C355	1-107-276-11	(Canadian,UK)...MAIC	3PF	0.5PF	500V	
C358	1-102-951-00	(E,AEP,WG)...CERAMIC	15PF	5%	50V	
C358	1-104-263-00	(Canadian,UK) ...POLYSTYRENE	15PF	10%	125V	
C359	1-123-359-00	(E,AEP,WG,Canadian) ...ELECT	47MF	20%	50V	
C359	1-124-910-11	(UK).....ELECT	47MF	20%	50V	
C360	1-102-963-00	(E,AEP,WG,Canadian) ...CERAMIC	33PF	5%	50V	
C360	1-107-159-00	(UK).....MICA	33MF	5%	500V	
C361	1-102-963-00	(E,AEP,WG,Canadian) ...CERAMIC	33PF	5%	50V	
C361	1-107-159-00	(UK).....MICA	33MF	5%	500V	
C362	1-130-487-00	(E,WG,UK)...MYLAR	0.022MF	5%	50V	
C362	1-136-161-00	(AEP,Canadian) ...FILM	0.047MF	5%	50V	
C376	1-136-161-00	(AEP,Canadian) ...FILM	0.047MF	5%	50V	
C380	1-162-282-31	(WG)...CERAMIC	100PF	5%	50V	
C381	1-102-973-00	(E,AEP,WG)...CERAMIC	100PF	5%	50V	
C381	1-136-808-11	(Canadian,UK)...FILM	100PF	5%	100V	
C401	1-101-361-00	(E,AEP).....CERAMIC	150PF	5%	50V	
C401	1-102-112-00	(Canadian)...CERAMIC	330PF	10%	50V	
C401	1-102-973-00	(WG).....CERAMIC	100PF	5%	50V	
C401	1-104-282-11	(UK).....POLYSTYRENE	150PF	5%	50V	
C402	1-123-369-00	ELECT	4.7MF	20%	50V	
C403	1-124-472-11	(AEP,E,WG)...ELECT	470MF	20%	10V	
C403	1-124-120-11	(Canadian)...ELECT	220MF	20%	16V	
C403	1-126-103-11	(UK).....ELECT	470MF	20%	10V	
C404	1-130-341-00	(UK,Canadian)...FILM	0.056MF	3%	100V	
C404	1-136-162-00	(AEP,E,WG).....FILM	0.056MF	5%	50V	
C405	1-130-971-00	(UK,Canadian)...FILM	0.016MF	3%	100V	
C405	1-136-032-51	(AEP,E,WG).....FILM	0.016MF	5%	50V	
C406	1-123-333-00	ELECT	100MF	20%	16V	
C407	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C408	1-123-356-00	(E,AEP,WG)...ELECT	10MF	20%	50V	
C408	1-123-380-00	(Canadian)...ELECT	1MF	20%	50V	
C408	1-126-059-11	(UK).....ELECT	10MF	20%	50V	
C409	1-123-359-00	(E,AEP,WG).....ELECT	47MF	20%	50V	
C409	1-124-910-11	(UK,Canadian)...ELECT	47MF	20%	50V	


Ref.No.	Part No.	Description				
C410	1-123-359-00	(E,AEP,WG).....ELECT	47MF	20%	50V	
C410	1-124-910-11	(UK,Canadian)...ELECT	47MF	20%	50V	
C411	1-123-380-00	ELECT	1MF	20%	50V	
C412	1-123-380-00	ELECT	1MF	20%	50V	
C413	1-126-103-11	ELECT	470MF	20%	16V	
C414	1-126-103-11	ELECT	470MF	20%	16V	
C430	1-102-816-00	(WG)...CERAMIC	120PF	5%	50V	
C431	1-162-282-31	(WG)...CERAMIC	100PF	5%	50V	
C451	1-101-361-00	(E,AEP).....CERAMIC	150PF	5%	50V	
C451	1-102-112-00	(Canadian)...CERAMIC	330PF	10%	50V	
C451	1-102-973-00	(WG).....CERAMIC	100PF	5%	50V	
C451	1-104-282-11	(UK).....POLYSTYRENE	150PF	5%	50V	
C452	1-123-369-00	ELECT	4.7MF	20%	50V	
C453	1-124-472-11	(E,AEP,WG)...ELECT	470MF	20%	10V	
C453	1-124-120-11	(Canadian)...ELECT	220MF	20%	16V	
C453	1-126-103-11	(UK).....ELECT	470MF	20%	10V	
C454	1-130-341-00	(UK,Canadian)...FILM	0.056MF	3%	100V	
C454	1-136-162-00	(E,AEP,WG).....FILM	0.056MF	5%	50V	
C455	1-130-971-00	(UK,Canadian)...FILM	0.016MF	3%	100V	
C455	1-136-032-51	(E,AEP,WG).....FILM	0.016MF	5%	50V	
C457	1-130-479-00	MYLAR	0.0047MF	5%	50V	
C458	1-123-356-00	(E,AEP,WG)...ELECT	10MF	20%	50V	
C458	1-123-380-00	(Canadian)...ELECT	1MF	20%	50V	
C458	1-126-059-11	(UK).....ELECT	10MF	20%	50V	
C480	1-102-816-00	(WG)...CERAMIC	120PF	5%	50V	
C481	1-162-282-31	(WG)...CERAMIC	100PF	5%	50V	
C501	1-161-744-00	CERAMIC	0.01MF		400V	
C902	1-136-153-00	(UK)...FILM	0.01MF	5%	50V	
C903	1-136-153-00	(UK)...FILM	0.01MF	5%	50V	
C904	1-102-978-00	(WG)...CERAMIC	220PF	5%	50V	
C952	1-136-153-00	(UK)...FILM	0.01MF	5%	50V	
C953	1-136-153-00	(UK)...FILM	0.01MF	5%	50V	
C954	1-102-978-00	(WG)...CERAMIC	220PF	5%	50V	
CN1	*1-561-651-00	SOCKET, CONNECTOR 7P				
CN2	*1-561-651-00	SOCKET, CONNECTOR 7P				
CN3	1-568-118-11	SOCKET, CONNECTOR 16P				
CN4	*1-562-334-00	SOCKET, CONNECTOR 10P				
CN5	*1-561-651-00	SOCKET, CONNECTOR 7P				
CN6	1-568-203-11	PIN, CONNECTOR (PC BOARD) 11P				
CN7	1-568-203-11	PIN, CONNECTOR (PC BOARD) 11P				
CN8	*1-563-381-11	SOCKET, CONNECTOR 11P				
CN9	*1-566-451-11	HOUSING, CONNECTOR 3P				
CN10	*1-563-381-11	SOCKET, CONNECTOR 11P				
CN11	1-568-117-11	SOCKET, CONNECTOR 14P				
CN12	*1-565-484-11	CONNECTOR, BOARD TO BOARD 8P				
CNJ501	*1-540-041-21	(E)....OUTLET, AC (AC OUT LET)				
CNJ501	*1-540-062-31	(Canadian)...OUTLET, AC (AC OUT LET)				
CNP604	*1-508-694-00	CONNECTOR PIN 8P				
CP1	*1-560-532-00	PIN, CONNECTOR 7P				
CP2	*1-560-532-00	PIN, CONNECTOR 7P				
CP4	*1-568-202-11	PIN, CONNECTOR (PC BOARD) 10P				

Note:
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Note:
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Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
CP5	1-568-120-11	PIN, CONNECTOR (PC BOARD) 7P	Q204	8-729-713-36	TRANSISTOR 2SA733Q
CP6	1-568-120-11	PIN, CONNECTOR (PC BOARD) 7P	Q301	8-729-203-45	TRANSISTOR 2SC3423
CP7	*1-568-204-11	PIN, CONNECTOR (PC BOARD) 16P	Q302	8-729-127-53	TRANSISTOR 2SC2275-P
D201	8-719-000-26	DIODE US1060M	Q303	8-729-190-53	TRANSISTOR 2SA985A
D202	8-719-000-26	DIODE US1060M	Q304	8-729-320-03	TRANSISTOR 2SC2921M-0
D203	8-719-303-00	DIODE SEL2510C	Q305	8-729-320-01	TRANSISTOR 2SA1215M-0
D204	8-719-303-00	DIODE SEL2510C	Q306	8-729-108-04	TRANSISTOR 2SA988F
D205	8-719-303-00	DIODE SEL2510C	Q351	8-729-203-45	TRANSISTOR 2SC3423
D206	8-719-300-82	DIODE SEL2213C	Q352	8-729-127-53	TRANSISTOR 2SC2275-P
D207	8-719-300-82	DIODE SEL2213C	Q353	8-729-190-53	TRANSISTOR 2SA985A-P
D208	8-719-301-49	DIODE SEL2810A	Q354	8-729-320-03	TRANSISTOR 2SC2921M-0
D209	8-719-301-49	DIODE SEL2810A	Q355	8-729-320-01	TRANSISTOR 2SA1215M-0
D301	8-719-230-02	DIODE 30DF2	Q356	8-729-108-04	TRANSISTOR 2SA988F
D302	8-719-230-02	DIODE 30DF2	Q401	8-729-354-52	TRANSISTOR 2SC2545
D303	8-719-230-02	DIODE 30DF2	Q402	8-729-354-52	TRANSISTOR 2SC2545
D304	8-719-230-02	DIODE 30DF2	Q403	8-729-194-57	TRANSISTOR 2SC945P
D305	8-719-200-77	DIODE 10E2N	Q404	8-729-173-36	TRANSISTOR 2SA733Q
D306	8-719-200-77	DIODE 10E2N	Q451	8-729-354-52	TRANSISTOR 2SC2545
D307	8-719-200-77	DIODE 10E2N	Q452	8-729-354-52	TRANSISTOR 2SC2545
D308	8-719-200-77	DIODE 10E2N	R000	1-247-725-11	CARBON 10K 5% 1/4W
D309	8-719-200-77	DIODE 10E2N	R101	1-246-545-00	CARBON 1M 5% 1/4W
D310	8-719-200-77	DIODE 10E2N	R102	1-246-545-00	CARBON 1M 5% 1/4W
D311	8-719-200-77	DIODE 10E2N	R103	1-246-545-00	CARBON 1M 5% 1/4W
D312	8-719-000-26	DIODE US1060M	R104	1-246-545-00	CARBON 1M 5% 1/4W
D313	8-719-000-26	DIODE US1060M	R105	1-247-713-11	CARBON 1K 5% 1/4W
D314	8-719-000-26	DIODE US1060M	R106	1-249-417-11	CARBON 1K 5% 1/4W
D319	8-719-000-26	DIODE US1060M	R107	1-246-545-00	CARBON 1M 5% 1/4W
D362	8-719-000-26	DIODE US1060M	R108	1-246-545-00	CARBON 1M 5% 1/4W
D363	8-719-000-26	DIODE US1060M	R109	1-249-417-11	(WG)...CARBON 1K 5% 1/4W
D364	8-719-000-26	DIODE US1060M	R110	1-249-417-11	(WG)...CARBON 1K 5% 1/4W
D401	8-719-933-47	DIODE HZS7B2L	R111	1-249-417-11	(WG)...CARBON 1K 5% 1/4W
D402	8-719-001-97	DIODE UZL-16L	R112	1-249-417-11	(WG)...CARBON 1K 5% 1/4W
D403	8-719-001-97	DIODE UZL-16L	R113	1-249-417-11	(WG)...CARBON 1K 5% 1/4W
EH2	*1-564-508-11	PLUG, CONNECTOR 5P	R114	1-249-417-11	(WG)...CARBON 1K 5% 1/4W
EH3	*1-564-508-11	PLUG, CONNECTOR 5P	R151	1-246-545-00	CARBON 1M 5% 1/4W
F501	△1-532-350-00	(E).....FUSE, TIME-LAG 4A	R152	1-246-545-00	CARBON 1M 5% 1/4W
F501	△1-532-510-00	(Canadian)...FUSE, GLASE TUBE 8A	R153	1-246-545-00	CARBON 1M 5% 1/4W
F502	△1-532-350-00	(E).....FUSE, TIME-LAG 4A	R154	1-246-545-00	CARBON 1M 5% 1/4W
F901	△1-532-350-00	(AEP,WG,UK)...FUSE, TIME-LAG 4A	R155	1-247-713-11	CARBON 1K 5% 1/4W
IC301	8-749-920-70	IC STK3102-3	R156	1-249-417-11	CARBON 1K 5% 1/4W
IC302	8-759-111-68	IC UPC1237HA	R157	1-246-545-00	CARBON 1M 5% 1/4W
IC401	8-759-981-96	IC RC4560D	R158	1-246-545-00	CARBON 1M 5% 1/4W
J101	1-565-320-51	JACK, PIN 6P (TUNER/CD/TAPE1,RECOUT)	R159	1-249-417-11	(WG)...CARBON 1K 5% 1/4W
J102	1-565-320-41	JACK, PIN 6P (TAPE2/REC OUT)	R160	1-249-417-11	(WG)...CARBON 1K 5% 1/4W
J103	1-565-320-51	JACK, PIN 6P (ADAPTOR IN,OUT/DIRECT IN)	R161	1-249-417-11	(WG)...CARBON 1K 5% 1/4W
J104	1-568-250-11	JACK, PIN 2P (PHONO)	R162	1-249-417-11	(WG)...CARBON 1K 5% 1/4W
L301	*1-420-872-00	(E,AEP,WG,UK)...COIL, AIR CORE	R163	1-249-417-11	(WG)...CARBON 1K 5% 1/4W
L301	*1-420-872-31	(Canadian).....COIL, AIR CORE	R164	1-249-417-11	(WG)...CARBON 1K 5% 1/4W
L351	*1-420-872-00	(E,AEP,WG,UK)...COIL, AIR CORE	R201	1-249-417-11	CARBON 1K 5% 1/4W
L351	*1-420-872-31	(Canadian).....COIL, AIR CORE	R202	1-247-700-11	CARBON 100 5% 1/4W
L401	1-413-101-00	(WG)...COIL INPUT	R203	1-247-717-11	CARBON 2.2K 5% 1/4W
L402	1-413-101-00	(WG)...COIL INPUT	R204	1-247-722-11	CARBON 5.6K 5% 1/4W
L451	1-413-101-00	(WG)...COIL INPUT	R205	1-249-753-15	CARBON 4.7M 5% 1/4W
L452	1-413-101-00	(WG)...COIL INPUT	R206	1-249-753-15	CARBON 4.7M 5% 1/4W
Q201	8-729-177-42	TRANSISTOR 2SD774-3	R208	1-247-170-00	CARBON 43K 5% 1/4W
Q202	8-729-194-57	TRANSISTOR 2SC945P			
Q203	8-729-713-36	TRANSISTOR 2SA733Q			

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Ref.No.	Part No.	Description				
R209	1-247-152-00	CARBON	7.5K	5%	1/4W	
R210	1-249-464-11	CARBON	39K	5%	1/4W	
R211	1-249-465-11	CARBON	47K	5%	1/4W	
R212	1-249-465-11	CARBON	47K	5%	1/4W	
R213	1-247-722-11	CARBON	5.6K	5%	1/4W	
R214	1-247-693-11	CARBON	27	5%	1/4W	
R215	1-247-754-11	CARBON	1.5K	5%	1/2W	
R216	1-247-754-11	CARBON	1.5K	5%	1/2W	
R217	1-247-750-11	CARBON	680	5%	1/2W	
R218	1-249-462-11	CARBON	22K	5%	1/4W	
R219	1-249-465-11	CARBON	47K	5%	1/4W	
R220	1-247-749-11	CARBON	560	5%	1/2W	
R221	1-247-717-11	CARBON	2.2K	5%	1/4W	
R222	1-247-725-11	CARBON	10K	5%	1/4W	
R223	1-249-465-11	CARBON	47K	5%	1/4W	
R224	1-247-721-11	CARBON	4.7K	5%	1/4W	
R225	1-247-752-11	CARBON	1K	5%	1/2W	
R226	1-247-752-11	CARBON	1K	5%	1/2W	
R227	1-247-752-11	(E,WG,Canadian,UK) ...CARBON	1K	5%	1/2W	
R227	1-247-239-00	(AEP)...CARBON	910	5%	1/2W	
R228	1-247-752-11	(E,WG,Canadian,UK) ...CARBON	1K	5%	1/2W	
R228	1-247-239-00	(AEP)...CARBON	910	5%	1/2W	
R251	1-249-417-11	CARBON	1K	5%	1/4W	
R252	1-247-700-11	CARBON	100	5%	1/4W	
R253	1-247-717-11	CARBON	2.2K	5%	1/4W	
R254	1-247-722-11	CARBON	5.6K	5%	1/4W	
R255	1-249-753-15	CARBON	4.7M	5%	1/4W	
R256	1-249-753-15	CARBON	4.7M	5%	1/4W	
R258	1-247-170-00	CARBON	43K	5%	1/4W	
R259	1-247-152-00	CARBON	7.5K	5%	1/4W	
R260	1-249-464-11	CARBON	39K	5%	1/4W	
R261	1-249-465-11	CARBON	47K	5%	1/4W	
R262	1-249-465-11	CARBON	47K	5%	1/4W	
R263	1-247-722-11	CARBON	5.6K	5%	1/4W	
R301	1-247-713-11	CARBON	1K	5%	1/4W	
R302	1-249-599-11	CARBON	91K	5%	1/4W	
R303	1-249-668-11	CARBON	620	5%	1/2W	
R304	1-247-713-11	CARBON	1K	5%	1/4W	
R305	1-247-707-11	CARBON	390	5%	1/4W	
R306	△ 1-212-990-00	FUSIBLE	220	5%	1/2W	F
R307	△ 1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R308	△ 1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R309	1-217-611-00	METAL PLATE	0.1	10%	2W	
R310	1-217-611-00	METAL PLATE	0.1	10%	2W	
R311	△ 1-247-717-11	CARBON	2.2K	5%	1/4W	F
R312	1-249-460-11	CARBON	15K	5%	1/4W	
R313	△ 1-212-962-00	FUSIBLE	15	5%	1/2W	F
R314	△ 1-212-962-00	FUSIBLE	15	5%	1/2W	F
R315	1-247-891-00	CARBON	330K	5%	1/4W	
R316	1-247-725-11	CARBON	10K	5%	1/4W	
R317	1-247-887-00	CARBON	220K	5%	1/4W	
R318	1-247-881-00	CARBON	120K	5%	1/4W	
R319	1-249-461-11	CARBON	18K	5%	1/4W	
R320	1-247-721-11	CARBON	4.7K	5%	1/4W	
R321	1-249-462-11	CARBON	22K	5%	1/4W	
R323	△ 1-212-849-00	FUSIBLE	4.7	5%	1/4W	F
R324	1-247-727-11	CARBON	10	5%	1/2W	
R325	1-247-747-11	CARBON	470	5%	1/2W	


Ref.No.	Part No.	Description				
R326	1-249-721-11	CARBON	100K	5%	1/2W	
R327	1-247-708-11	CARBON	470	5%	1/4W	
R351	1-247-713-11	CARBON	1K	5%	1/4W	
R352	1-249-599-11	CARBON	91K	5%	1/4W	
R353	1-249-668-11	CARBON	620	5%	1/2W	
R354	1-247-713-11	CARBON	1K	5%	1/4W	
R355	1-247-707-11	CARBON	390	5%	1/4W	
R356	△ 1-212-990-00	FUSIBLE	220	5%	1/2W	F
R357	△ 1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R358	△ 1-212-950-00	FUSIBLE	4.7	5%	1/2W	F
R359	1-217-611-00	METAL PLATE	0.1	10%	2W	
R360	1-217-611-00	METAL PLATE	0.1	10%	2W	
R361	△ 1-247-717-11	CARBON	2.2K	5%	1/4W	F
R362	1-249-460-11	CARBON	15K	5%	1/4W	
R363	△ 1-212-962-00	FUSIBLE	15	5%	1/2W	F
R364	△ 1-212-962-00	FUSIBLE	15	5%	1/2W	F
R365	1-247-891-00	CARBON	330K	5%	1/4W	
R374	1-247-727-11	CARBON	10	5%	1/2W	
R375	1-247-747-11	CARBON	470	5%	1/2W	
R376	1-249-721-11	CARBON	100K	5%	1/2W	
R377	1-247-708-11	CARBON	470	5%	1/4W	
R401	△ 1-216-459-00	METAL OXIDE	2.7K	5%	2W	F
R402	△ 1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R403	1-247-721-11	CARBON	4.7K	5%	1/4W	
R404	1-247-721-11	CARBON	4.7K	5%	1/4W	
R405	1-247-706-11	(E,AEP,UK,Canadian) ...CARBON	330	5%	1/4W	
R406	1-249-469-11	CARBON	100K	5%	1/4W	
R407	1-247-700-11	CARBON	100	5%	1/4W	
R408	1-249-469-11	CARBON	100K	5%	1/4W	
R409	1-247-713-11	CARBON	1K	5%	1/4W	
R410	1-247-713-11	CARBON	1K	5%	1/4W	
R411	1-247-725-11	CARBON	10K	5%	1/4W	
R412	1-249-484-11	CARBON	6.8	5%	1/2W	
R413	1-247-739-11	CARBON	100	5%	1/2W	
R414	1-247-138-00	CARBON	2K	5%	1/4W	
R415	1-247-700-11	CARBON	100	5%	1/4W	
R416	1-214-937-00	CARBON	1M	5%	1/2W	
R417	1-249-844-11	CARBON	56K	5%	1/2W	
R418	1-249-818-11	CARBON	4.7K	1%	1/2W	
R419	1-247-713-11	CARBON	1K	5%	1/4W	
R431	1-247-713-11	(WG)...CARBON	1K	5%	1/4W	
R432	1-247-713-11	(WG)...CARBON	1K	5%	1/4W	
R455	1-247-706-11	(E,AEP,UK,Canadian) ...CARBON	330	5%	1/4W	
R456	1-249-469-11	CARBON	100K	5%	1/4W	
R457	1-247-700-11	CARBON	100	5%	1/4W	
R458	1-249-469-11	CARBON	100K	5%	1/4W	
R459	1-247-713-11	CARBON	1K	5%	1/4W	
R460	1-247-713-11	CARBON	1K	5%	1/4W	
R461	1-247-725-11	CARBON	10K	5%	1/4W	
R462	1-249-484-11	CARBON	6.8	5%	1/2W	
R463	1-247-739-11	CARBON	100	5%	1/2W	
R465	1-247-700-11	CARBON	100	5%	1/4W	

Note:
The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

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

Ref.No.	Part No.	Description
R466	1-214-937-00	CARBON 1M 5% 1/2W
R467	1-249-844-11	CARBON 56K 5% 1/2W
R468	1-249-818-11	CARBON 4.7K 1% 1/2W
R469	1-247-713-11	CARBON 1K 5% 1/4W
R481	1-247-713-11	(WG)...CARBON 1K 5% 1/4W
R482	1-247-713-11	(WG)...CARBON 1K 5% 1/4W
R902	1-247-727-11	(WG)...CARBON 10 5% 1/2W
R903	1-247-727-11	(WG)...CARBON 10 5% 1/2W
RT301	1-237-455-11	RES, ADJ, CARBON 500
RT351	1-237-455-11	RES, ADJ, CARBON 500
RV101	1-238-448-11	RES, VAR, CARBON 150K /150K (BALANCE)
RV102	1-238-446-11	RES, VAR, CARBON 250K /250K (TREBLE)
RV103	1-238-447-11	RES, VAR, CARBON 25K /500K (BASS)
RV104	1-237-472-11	RES, VAR, CARBON 120K /120K (ATTENUATOR)
RY301	1-515-501-00	RELAY
S201	1-571-824-11	SWITCH, ROTARY (INPUT SELECTOR)
S202	1-571-826-11	SWITCH, ROTARY (INPUT SELECTOR)
S203	1-571-823-11	SWITCH, ROTARY SLIDE (REC OUT SELECTOR)
S204	1-571-828-11	SWITCH, PUSH (1 KEY) (SOURCE DIRECT)
S205	1-571-827-11	SWITCH, PUSH (1 KEY) (MUTING)
S206	1-571-822-11	SWITCH, ROTARY SLIDE (SPEAKER)
S207	1-571-825-11	SWITCH, ROTARY (MODE)
S401	1-571-111-11	SWITCH, PUSH (1 KEY) (CARTRIDGE)
S501	△1-554-920-31	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)
S502	△1-570-307-11	(E)...SWITCH, VOLTAGE CHANGE (VOLTAGE SELECTOR)
T1	△1-449-685-11	(Canadian)...TRANSFORMER, POWER
T1	△1-449-687-11	(WG).....TRANSFORMER, POWER
T1	△1-449-688-11	(AEP).....TRANSFORMER, POWER
T1	△1-449-689-11	(UK).....TRANSFORMER, POWER
T1	△1-449-690-11	(E).....TRANSFORMER, POWER
TM501	1-537-235-11	TERMINAL BOARD (SP)
TP301	1-535-135-00	BASE POST 14MM (10MM PITCH) 2P
TP351	1-535-135-00	BASE POST 14MM (10MM PITCH) 2P
VH2	*1-564-321-00	PIN, CONNECTOR 2P
VH3	1-564-320-00	PIN, CONNECTOR 2P
VH4	*1-564-321-00	(AEP,UK,WG)...PIN, CONNECTOR 2P
VH5	*1-565-792-11	PIN, CONNECTOR 2P
VH6	*1-564-321-00	(AEP,UK,WG)...PIN, CONNECTOR 2P
VH8	*1-564-241-00	PIN, CONNECTOR 4P
VH9	*1-560-595-21	TERMINAL (WITH BASE)
VH11	1-564-321-00	(Canadian,E)...PIN, CONNECTOR 2P
VH12	1-564-320-00	PIN, CONNECTOR 2P
VH20	*1-535-141-00	(E)...BASE POST 22MM (10MM PITCH) 4P
ACCESSORY & PACKING MATERIAL		
	3-786-976-11	(Canadian,UK,E)...MANUAL, INSTRUCTION
	3-786-976-41	(AEP,WG).....MANUAL, INSTRUCTION
	*4-929-219-01	CUSHION
	*4-929-263-11	INDIVIDUAL CARTON

Note:
The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

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

TA-F222ESR/F530ES

SONY[®] SERVICE MANUAL

Canadian Model
AEP Model
UK Model
TA-F530ES
E Model
TA-F222ESR

SUPPLEMENT-1

File this Supplement with the Service Manual (9-953-786-11).

Subject : Boards change

Part number suffix of boards have been changed as shown below.

- AC OUTLET BOARD 1-629-755-15
- EQ BOARD 1-629-748-17
- MAIN BOARD 1-629-754-15
- MUTING BOARD 1-629-747-12
- PIN JACK (S) BOARD 1-629-756-14
- SELECTOR BOARD 1-629-746-14
- SP JUMPER BOARD 1-629-757-13
- SP TERMINAL BOARD 1-629-753-17

**SECTION 3
DIAGRAMS**

3-1. PRINTED WIRING BOARDS

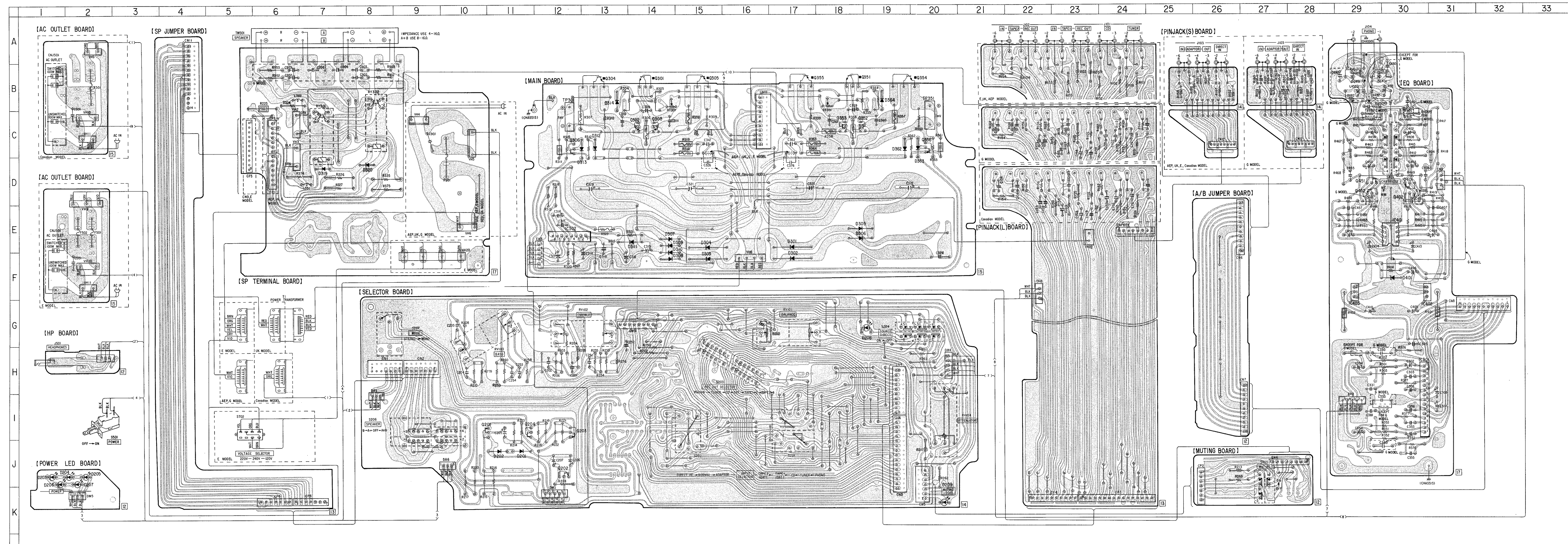
• Semiconductor Location

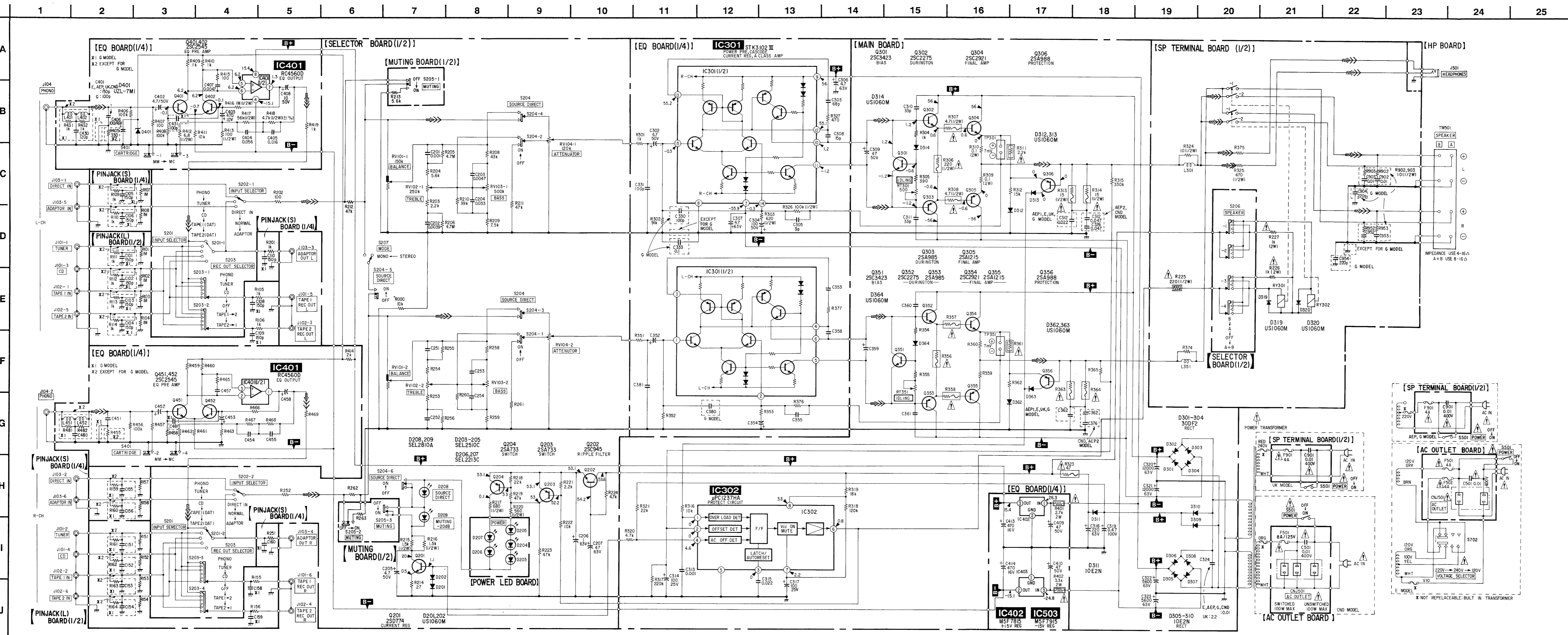
Ref. No.	Location	Ref. No.	Location
D201	J-11	IC301	I-30
D202	J-11	IC302	E-12
D203	J-1	IC401	E-30
D204	J-2	IC402	G-31
D205	J-2	IC403	G-29
D206	J-1		
D207	J-2	Q201	I-10
D208	G-19	Q202	J-12
D209	K-20	Q203	I-12
D301	E-17	Q204	I-11
D302	F-17	Q301	B-14
D303	F-15	Q302	C-14
D304	E-15	Q305	B-15
D305	E-18	Q306	C-12
D306	E-18	Q351	B-18
D307	E-14	Q352	C-18
D308	F-14	Q353	C-18
D309	E-14	Q354	B-19
D310	F-14	Q355	B-17
D311	E-14	Q356	C-20
D312	C-13	Q401	D-30
D313	C-12	Q402	D-30
D314	B-13	Q403	F-31
D319	D-7	Q404	F-21
D320	D-8	Q451	D-29
D362	C-19	Q452	D-29
D363	C-20		
D364	B-19		
D401	F-30		

Note on Printed Wiring Boards:

- : parts extracted from the components side.
- : parts mounted on the conductor side.
- ⋯ : Pattern on the side which is seen.
- G : German model

Note :
There are two typed of AEP models which are depend on countries.
AEP2 model : Model for Scandinavian countries, Switzerland, Finland.
AEP1 model : Model for other European countries.





Note on Schematic Diagrams:

- All capacitors are in μF unless otherwise noted. pF , μMFD 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\text{W}$ or less unless otherwise specified.
- Components for right channel have same values as for left channel.
- \square : nonflammable resistor.
- \square : fusible resistor.

Note:
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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

Note:
There are two types of AEP models which are depend on countries.
AEP2 model : Model for Scandinavian countries, Switzerland, Finland.
AEP1 model : Model for other European countries.

SECTION 5

ELECTRICAL PARTS LIST

NOTE:

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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

When indicating parts by reference number, please include the board name.

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA...: μ PA..., uPB...: μ PB...,
uPC...: μ PC..., uPD...: μ PD...
- CAPACITORS
uF : μ F
- COILS
uH : μ H

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- G: German model

Note:

There are two type of AEP models which are depend on countries.
AEP2 model: Model for Scandinavian countries. Switzerland, Finland.
AEP1 model: Model for other European countries.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Δ 901	1-551-478-00	CORD, POWER (Canadian)		C158	1-162-284-31	CERAMIC 150PF 10% 50V (G)	
Δ 901	1-574-381-11	CORD, POWER (E)		C159	1-162-284-31	CERAMIC 150PF 10% 50V (G)	
Δ 901	1-574-804-11	CORD, POWER (UK)		C160	1-162-284-31	CERAMIC 150PF 10% 50V (G)	
Δ 901	1-574-805-11	CORD, POWER (AEP, G)		C201	1-130-471-00	MYLAR 0.001uF 5% 50V	
Δ 902	1-526-565-00	AC PLUG ADAPTOR (E)		C202	1-130-478-00	MYLAR 0.0039uF 5% 50V	
* 903	1-629-749-11	PC BOARD, HP		C203	1-130-479-00	MYLAR 0.0047uF 5% 50V	
* 904	1-629-751-11	PC BOARD, POWER LED		C204	1-136-159-00	FILM 0.033uF 5% 50V	
* 905	1-629-747-11	PC BOARD, MUTING		C205	1-123-369-00	ELECT 4.7uF 20% 50V	
* 906	1-629-755-11	PC BOARD, AC OUTLET (Canadian, E)		C206	1-124-791-11	ELECT 1.0uF 20% 100V	
* 907	1-629-753-11	PC BOARD, SP TERMINAL		C207	1-124-918-11	ELECT 47uF 20% 63V	
* 908	1-629-757-11	PC BOARD, SP JUMPER		C251	1-130-471-00	MYLAR 0.001uF 5% 50V	
* 909	1-630-146-11	PC BOARD, CLAMP (Canadian)		C252	1-130-478-00	MYLAR 0.0039uF 5% 50V	
* 910	A-4333-335-A	MOUNTED PCB, MAIN (AEP1, G, E)		C253	1-130-479-00	MYLAR 0.0047uF 5% 50V	
* 910	A-4333-343-A	MOUNTED PCB, MAIN (Canadian, AEP2)		C254	1-136-159-00	FILM 0.033uF 5% 50V	
* 910	A-4333-725-A	MOUNTED PCB, MAIN (UK)		C302	1-123-369-00	ELECT 4.7uF 20% 50V	
* 911	1-629-750-11	PC BOARD, A/B JUMPER		C303	1-101-888-00	CERAMIC 68PF 5% 50V	
* 912	1-629-758-11	PC BOARD, PIN JACK (L)				(Canadian, E, AEP, G)	
* 913	1-629-756-11	PC BOARD, PIN JACK (S)		C303	1-104-276-11	POLYSTYRENE 68PF 10% 50V (UK)	
* 914	A-4333-336-A	MOUNTED PCB, EQ (G)		C304	1-124-572-11	ELECT 100uF 20% 63V	
* 914	A-4333-341-A	MOUNTED PCB, EQ (Canadian, AEP, E)				(Canadian, E, AEP, G)	
* 914	A-4333-726-A	MOUNTED PCB, EQ (UK)		C304	1-126-052-11	ELECT 100uF 20% 50V (UK)	
* 915	A-4410-898-A	MOUNTED PCB, SELECTOR		C305	1-102-936-00	CERAMIC 3.0PF +0.25PF 50V	
		(Canadian, AEP1, G, UK, E)				(Canadian, E, AEP, G)	
* 915	A-4333-344-A	MOUNTED PCB, SELECTOR (AEP2)		C305	1-107-044-00	MICA 3PF 5% 500V (UK)	
916	1-533-190-11	CLIP, FUSE (Canadian)		C306	1-123-369-00	ELECT 4.7uF 20% 63V	
917	1-533-183-11	HOLDER, FUSE (AEP, G, UK, E)		C307	1-123-369-00	ELECT 4.7uF 20% 63V	
		< CAPACITOR >		C308	1-102-951-00	CERAMIC 15PF 5% 50V	
C101	1-162-284-31	CERAMIC 150PF 10% 50V (G)				(Canadian, E, AEP, G)	
C102	1-162-284-31	CERAMIC 150PF 10% 50V (G)		C308	1-104-263-00	POLYSTYRENE 15PF 10% 125V (UK)	
C103	1-162-284-31	CERAMIC 150PF 10% 50V (G)		C309	1-124-910-11	ELECT 47uF 20% 50V (UK)	
C104	1-162-284-31	CERAMIC 150PF 10% 50V (G)		C309	1-124-918-11	ELECT 47uF 20% 63V	
C105	1-162-284-31	CERAMIC 150PF 10% 50V (G)				(Canadian, E, AEP, G)	
C106	1-162-284-31	CERAMIC 150PF 10% 50V (G)		C310	1-102-963-00	CERAMIC 33PF 5% 50V	
C108	1-162-284-31	CERAMIC 150PF 10% 50V (G)				(Canadian, E, AEP, G)	
C109	1-162-284-31	CERAMIC 150PF 10% 50V (G)		C310	1-107-159-00	MICA 33PF 5% 500V (UK)	
C110	1-162-284-31	CERAMIC 150PF 10% 50V (G)		C311	1-102-963-00	CERAMIC 33PF 5% 50V	
C151	1-162-284-31	CERAMIC 150PF 10% 50V (G)				(Canadian, E, AEP, G)	
C152	1-162-284-31	CERAMIC 150PF 10% 50V (G)		C311	1-107-159-00	MICA 33PF 5% 500V (UK)	
C153	1-162-284-31	CERAMIC 150PF 10% 50V (G)		C312	1-130-487-00	MYLAR 0.022uF 5% 50V	
C154	1-162-284-31	CERAMIC 150PF 10% 50V (G)				(E, AEP1, UK, G)	
C155	1-162-284-31	CERAMIC 150PF 10% 50V (G)		C312	1-136-161-00	FILM 0.047uF 5% 50V	
C156	1-162-284-31	CERAMIC 150PF 10% 50V (G)				(Canadian, AEP2)	
				C313	1-130-471-00	MYLAR 0.001uF 5% 50V	
				C314	1-124-122-11	ELECT 100uF 20% 50V	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C315	1-130-487-00	MYLAR	0.022uF 5% 50V	C401	1-104-282-11	POLYSTYRENE	150PF 5% 50V (UK)
C317	1-124-122-11	ELECT	100uF 20% 50V	C402	1-123-369-00	ELECT	4.7uF 20% 50V
C318	1-123-604-00	ELECT	220uF 20% 63V	C403	1-124-472-11	ELECT	470uF 20% 10V (Canadian, E, AEP)
C319	1-123-379-00	ELECT	0.47uF 20% 100V	C403	1-126-103-11	ELECT	470uF 20% 10V (UK, G)
C320	1-125-460-11	ELECT.	12000uF	C404	1-130-341-00	FILM	0.056uF 3% 100V (UK)
C321	1-125-460-11	ELECT	12000uF	C404	1-136-162-00	FILM	0.056uF 5% 50V (Canadian, E, AEP, G)
C322	1-125-558-11	ELECT	5600uF	C405	1-130-971-00	FILM	0.016uF 3% 100V (UK)
C323	1-125-558-11	ELECT	5600uF	C405	1-136-032-11	FILM	0.016uF 5% 50V (Canadian, E, AEP, G)
C324	1-136-601-11	FILM	0.01uF 10% 630V (Canadian, E, AEP, G)	C406	1-124-122-11	ELECT	100uF 20% 50V
C324	1-136-880-11	FILM	2.2uF 10% 160V (UK)	C407	1-130-479-00	MYLAR	0.0047uF 5% 50V
C326	1-136-161-00	FILM	0.047uF 5% 50V (Canadian, AEP2)	C408	1-124-915-11	ELECT	10uF 20% 63V (Canadian, E, AEP, G)
C330	1-162-282-31	CERAMIC	100PF 5% 50V (G)	C408	1-126-059-11	ELECT	10uF 20% 50V (UK)
C331	1-102-973-00	CERAMIC	100PF 5% 50V (Canadian, E, AEP, G)	C409	1-124-910-11	ELECT	47uF 20% 50V (UK)
C331	1-136-808-11	FILM	100PF 5% 100V (UK)	C409	1-124-918-11	ELECT	47uF 20% 63V (Canadian, E, AEP, G)
C333	1-161-379-00	CERAMIC	0.01uF 30% 25V (G)	C410	1-124-910-11	ELECT	47uF 20% 50V (UK)
C352	1-123-369-00	ELECT	4.7uF 20% 50V	C410	1-124-918-11	ELECT	47uF 20% 63V (Canadian, E, AEP, G)
C353	1-101-888-00	CERAMIC	68PF 5% 50V (Canadian, E, AEP, G)	C413	1-126-103-11	ELECT	470uF 20% 16V
C353	1-104-276-11	POLYSTYRENE	68PF 10% 50V (UK)	C414	1-126-103-11	ELECT	470uF 20% 16V
C354	1-124-572-11	ELECT	100uF 20% 63V (Canadian, E, AEP, G)	C430	1-102-816-00	CERAMIC	120PF 5% 50V (G)
C354	1-126-052-11	ELECT	100uF 20% 50V (UK)	C431	1-162-282-31	CERAMIC	100PF 5% 50V (G)
C355	1-102-936-00	CERAMIC	3.0PF +-0.25PF 50V (Canadian, E, AEP, G)	C451	1-101-361-00	CERAMIC	150PF 5% 50V (Canadian, E, AEP)
C355	1-107-044-00	MICA	3PF 0.5PF 500V (UK)	C451	1-102-973-00	CERAMIC	100PF 5% 50V (G)
C358	1-102-951-00	CERAMIC	15PF 5% 50V (Canadian, E, AEP, G)	C451	1-104-282-11	POLYSTYRENE	150PF 5% 50V (UK)
C358	1-104-263-00	POLYSTYRENE	15PF 10% 125V (UK)	C452	1-123-369-00	ELECT	4.7uF 20% 50V
C359	1-124-910-11	ELECT	47uF 20% 50V (UK)	C453	1-124-472-11	ELECT	470uF 20% 10V (Canadian, E, AEP)
C359	1-124-918-11	ELECT	47uF 20% 63V (Canadian, E, AEP, G)	C453	1-126-103-11	ELECT	470uF 20% 10V (UK, G)
C360	1-102-963-00	CERAMIC	33PF 5% 50V (Canadian, E, AEP, G)	C454	1-130-341-00	FILM	0.056uF 3% 100V (UK)
C360	1-107-159-00	MICA	33PF 5% 500V (UK)	C454	1-136-162-00	FILM	0.056uF 5% 50V (Canadian, E, AEP, G)
C361	1-102-963-00	CERAMIC	33PF 5% 50V (Canadian, E, AEP, G)	C455	1-130-971-00	FILM	0.016uF 3% 100V (UK)
C361	1-107-159-00	MICA	33PF 5% 500V (UK)	C455	1-136-032-11	FILM	0.016uF 5% 50V (Canadian, E, AEP, G)
C362	1-130-487-00	MYLAR	0.022uF 5% 50V (E, AEP1, UK, G)	C457	1-130-479-00	MYLAR	0.0047uF 5% 50V
C362	1-136-161-00	FILM	0.047uF 5% 50V (Canadian, AEP2)	C458	1-124-915-11	ELECT	10uF 20% 63V (Canadian, E, AEP, G)
C376	1-136-161-00	FILM	0.047uF 5% 50V (Canadian, AEP)	C458	1-126-059-11	ELECT	10uF 20% 50V (UK)
C380	1-162-282-31	CERAMIC	100PF 5% 50V (G)	C480	1-102-816-00	CERAMIC	120PF 5% 50V (G)
C381	1-102-973-00	CERAMIC	100PF 5% 50V (Canadian, E, AEP, G)	C481	1-162-282-31	CERAMIC	100PF 5% 50V (G)
C381	1-136-808-11	FILM	100pF 5% 100V (UK)	△C501	1-161-744-00	CERAMIC	0.01uF 400V (Canadian, E)
C401	1-101-361-00	CERAMIC	150PF 5% 50V (Canadian, E, AEP)	△C901	1-161-744-00	CERAMIC	0.01uF 400V (AEP, UK, G)
C401	1-102-973-00	CERAMIC	100PF 5% 50V (G)	C902	1-136-153-00	FILM	0.01uF 5% 50V (UK)
				C903	1-136-153-00	FILM	0.01uF 5% 50V (UK)

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C904	1-102-978-00	CERAMIC	220PF 5% 50V (G)	D311	8-719-200-77	DIODE 10E2N	
C952	1-136-153-00	FILM	0.01uF 5% 50V (UK)	D312	8-719-912-20	DIODE 1SS120	
C953	1-136-153-00	FILM	0.01uF 5% 50V (UK)	D313	8-719-912-20	DIODE 1SS120	
C954	1-102-978-00	CERAMIC	220PF 5% 50V (G)	D314	8-719-912-20	DIODE 1SS120	
< CONNECTOR >				D319	8-719-912-20	DIODE 1SS120	
* CN1	1-561-651-00	SOCKET, CONNECTOR	7P	D320	8-719-912-20	DIODE 1SS120	
* CN2	1-561-651-00	SOCKET, CONNECTOR	7P	D362	8-719-912-20	DIODE 1SS120	
* CN3	1-568-118-11	SOCKET, CONNECTOR	16P	D363	8-719-912-20	DIODE 1SS120	
* CN4	1-562-334-00	SOCKET, CONNECTOR	10P	D364	8-719-912-20	DIODE 1SS120	
* CN5	1-561-651-00	SOCKET, CONNECTOR	7P	D401	8-719-000-84	DIODE UZL-7M1	
CN6	1-568-203-11	PIN, CONNECTOR (PC BOARD)	11P	< CONNECTOR >			
CN7	1-568-203-11	PIN, CONNECTOR (PC BOARD)	11P	* EH2	1-564-508-11	PLUG, CONNECTOR	5P
* CN8	1-563-381-11	SOCKET, CONNECTOR	11P	* EH3	1-564-508-11	PLUG, CONNECTOR	5P
* CN9	1-566-451-11	HOUSING, CONNECTOR	3P	EH4	1-564-511-11	PLUG, CONNECTOR	8P
* CN10	1-563-381-11	SOCKET, CONNECTOR	11P	< FUSE >			
CN11	1-568-117-11	SOCKET, CONNECTOR	14P	△F501	1-532-350-00	FUSE, TIME-LAG	4A (E)
* CN12	1-565-484-11	CONNECTOR, BOARD TO BOARD	8P	△F501	1-532-510-00	FUSE, GLASE TUBE	8A (Canadian)
△CNJ501	1-540-041-21	OUTLET, AC (AC OUTLET)	(E)	△F502	1-532-350-00	FUSE, TIME-LAG	4A (E)
△CNJ501	1-540-062-31	OUTLET, AC (AC OUTLET)	(Canadian)	△F901	1-532-350-00	FUSE, TIME-LAG	4A (AEP, UK, G)
* CNP604	1-508-694-00	SOCKET, CONNECTOR	8P	< IC >			
* CP1	1-560-532-00	PIN, CONNECTOR	7P (AEP, UK, G)	IC301	8-749-920-70	IC	STK-3102-3
* CP2	1-560-532-00	PIN, CONNECTOR	7P	IC302	8-759-111-68	IC	uPC1237HA
* CP3	1-560-532-00	PIN, CONNECTOR	7P (AEP, UK, G)	IC401	8-759-745-60	IC	NJM4560D
* CP3	1-568-204-11	PIN, CONNECTOR	16P	IC402	8-759-231-59	IC	M5F7815L
* CP3	1-569-648-11	PIN, CONNECTOR	11P (Canadian, E)	IC403	8-759-245-87	IC	M5F7915L
* CP4	1-568-202-11	PIN, CONNECTOR (PC BOARD)	10P	< JACK >			
CP5	1-568-120-11	PIN, CONNECTOR (PC BOARD)	7P	J101	1-580-028-11	JACK, PIN 6P (TUNER, CD, TAPE1 REC OUT)	
CP6	1-568-120-11	PIN, CONNECTOR (PC BOARD)	7P	J102	1-580-027-11	JACK, PIN 6P (TAPE1/TAPE2 IN, TAPE2 REC OUT)	
< DIODE >				J103	1-580-028-11	JACK, PIN 6P (DIRECT IN, ADAPTOR IN/OUT)	
D201	8-719-912-20	DIODE	1SS120	J104	1-568-250-11	JACK, PIN 2P (PHONO) (Canadian, E, AEP, G)	
D202	8-719-912-20	DIODE	1SS120	J104	1-568-250-21	JACK, PIN 2P (PHONO) (UK)	
D203	8-719-303-00	LED	SEL2510C	J501	1-507-863-51	JACK, PHONE (HEADPHONES)	
D204	8-719-303-00	LED	SEL2510C	< COIL >			
D205	8-719-303-00	LED	SEL2510C	L301	1-420-872-00	COIL, AIR CORE	
D206	8-719-302-23	DIODE	SEL2213C-C	L351	1-420-872-00	COIL, AIR CORE	
D207	8-719-302-23	DIODE	SEL2213C-C	L401	1-413-101-00	COIL INPUT (G)	
D208	8-719-301-52	LED	SEL2810A-C (SOURCE DIRECT)	L402	1-413-101-00	COIL INPUT (G)	
D209	8-719-301-52	LED	SEL2810A-C (MUTING -20dB)	L451	1-413-101-00	COIL INPUT (G)	
D301	8-719-230-02	DIODE	30DF2	L452	1-413-101-00	COIL INPUT (G)	
D302	8-719-230-02	DIODE	30DF2	< TRANSISTOR >			
D303	8-719-230-02	DIODE	30DF2	Q201	8-729-140-96	TRANSISTOR	KSC1008
D304	8-719-230-02	DIODE	30DF2	Q202	8-729-194-57	TRANSISTOR	2SC945-P
D305	8-719-200-77	DIODE	10E2N	Q203	8-729-141-03	TRANSISTOR	2SA733-QP
D306	8-719-200-77	DIODE	10E2N	< TRANSISTOR >			
D307	8-719-200-77	DIODE	10E2N	< TRANSISTOR >			
D308	8-719-200-77	DIODE	10E2N	< TRANSISTOR >			
D309	8-719-200-77	DIODE	10E2N	< TRANSISTOR >			
D310	8-719-200-77	DIODE	10E2N	< TRANSISTOR >			

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q204	8-729-141-03	TRANSISTOR	2SA733-QP	R203	1-247-717-11	CARBON	2.2K 5% 1/4W F
Q301	8-729-203-45	TRANSISTOR	2SC3423-0	R204	1-247-722-11	CARBON	5.6K 5% 1/4W
Q302	8-729-127-53	TRANSISTOR	2SC2275-P	R205	1-249-753-15	CARBON	4.7M 5% 1/4W
Q303	8-729-141-10	TRANSISTOR	2SA985A	R206	1-249-753-15	CARBON	4.7M 5% 1/4W
Q304	8-729-320-03	TRANSISTOR	2SC2921M-0	R208	1-247-170-00	CARBON	43K 5% 1/4W
Q305	8-729-320-01	TRANSISTOR	2SA1215M-0	R209	1-247-152-00	CARBON	7.5K 5% 1/4W
Q306	8-729-140-82	TRANSISTOR	2SA988-PAFAEA	R210	1-249-464-11	CARBON	39K 5% 1/4W
Q351	8-729-203-45	TRANSISTOR	2SC3423-0	R211	1-249-465-11	CARBON	47K 5% 1/4W
Q352	8-729-127-53	TRANSISTOR	2SC2275-P	R212	1-249-465-11	CARBON	47K 5% 1/4W
Q353	8-729-141-10	TRANSISTOR	2SA985A	R213	1-247-722-11	CARBON	5.6K 5% 1/4W
Q354	8-729-320-03	TRANSISTOR	2SC2921M-0	R214	1-247-693-11	CARBON	27 5% 1/4W
Q355	8-729-320-01	TRANSISTOR	2SA1215M-0	R215	1-247-754-11	CARBON	1.5K 5% 1/2W
Q356	8-729-140-82	TRANSISTOR	2SA988-PAFAEA	R216	1-247-754-11	CARBON	1.5K 5% 1/2W
Q401	8-729-354-52	TRANSISTOR	2SC2545	R217	1-247-750-11	CARBON	680 5% 1/2W
Q402	8-729-354-52	TRANSISTOR	2SC2545	R218	1-249-462-11	CARBON	22K 5% 1/4W
Q451	8-729-354-52	TRANSISTOR	2SC2545	R219	1-249-465-11	CARBON	47K 5% 1/4W
Q452	8-729-354-52	TRANSISTOR	2SC2545	R220	1-247-749-11	CARBON	560 5% 1/2W
		< RESISTOR >		R221	1-247-717-11	CARBON	2.2K 5% 1/4W F
R000	1-247-725-11	CARBON	10K 5% 1/4W	R222	1-247-725-11	CARBON	10K 5% 1/4W
R101	1-246-545-00	CARBON	1.0M 5% 1/4W	R223	1-249-465-11	CARBON	47K 5% 1/4W
R102	1-246-545-00	CARBON	1.0M 5% 1/4W	R224	1-247-721-11	CARBON	4.7K 5% 1/4W
R103	1-246-545-00	CARBON	1.0M 5% 1/4W	△R225	1-247-743-11	CARBON	220 5% 1/2W F
R104	1-246-545-00	CARBON	1.0M 5% 1/4W	△R226	1-215-892-11	METAL OXIDE	1K 5% 2W F
R105	1-247-713-11	CARBON	1K 5% 1/4W F	△R227	1-215-892-11	METAL OXIDE	1K 5% 2W F
R106	1-249-417-11	CARBON	1K 5% 1/4W F	R251	1-249-417-11	CARBON	1K 5% 1/4W F
R107	1-246-545-00	CARBON	1.0M 5% 1/4W	R252	1-247-700-11	CARBON	100 5% 1/4W
R108	1-259-500-11	CARBON	1M 5% 1/6W	R253	1-247-717-11	CARBON	2.2K 5% 1/4W F
R109	1-249-417-11	CARBON	1K 5% 1/4W (G)	R254	1-247-722-11	CARBON	5.6K 5% 1/4W
R110	1-249-417-11	CARBON	1K 5% 1/4W (G)	R255	1-249-753-15	CARBON	4.7M 5% 1/4W
R111	1-249-417-11	CARBON	1K 5% 1/4W (G)	R256	1-249-753-15	CARBON	4.7M 5% 1/4W
R112	1-249-417-11	CARBON	1K 5% 1/4W (G)	R258	1-247-170-00	CARBON	43K 5% 1/4W
R113	1-249-417-11	CARBON	1K 5% 1/4W (G)	R259	1-247-152-00	CARBON	7.5K 5% 1/4W
R114	1-249-417-11	CARBON	1K 5% 1/4W (G)	R260	1-249-464-11	CARBON	39K 5% 1/4W
R151	1-246-545-00	CARBON	1.0M 5% 1/4W	R261	1-249-465-11	CARBON	47K 5% 1/4W
R152	1-246-545-00	CARBON	1.0M 5% 1/4W	R262	1-249-465-11	CARBON	47K 5% 1/4W
R153	1-246-545-00	CARBON	1.0M 5% 1/4W	R263	1-247-722-11	CARBON	5.6K 5% 1/4W
R154	1-246-545-00	CARBON	1.0M 5% 1/4W	R301	1-247-713-11	CARBON	1K 5% 1/4W F
R155	1-247-713-11	CARBON	1K 5% 1/4W F	R302	1-249-599-11	CARBON	91K 5% 1/4W
R156	1-249-417-11	CARBON	1K 5% 1/4W F	R303	1-249-668-11	CARBON	620 5% 1/2W
R157	1-246-545-00	CARBON	1.0M 5% 1/4W	R304	1-247-713-11	CARBON	1K 5% 1/4W F
R158	1-259-500-11	CARBON	1M 5% 1/6W				(E, AEP1, UK, G)
R159	1-249-417-11	CARBON	1K 5% 1/4W (G)	R304	1-249-417-11	CARBON	1K 5% 1/4W
R160	1-249-417-11	CARBON	1K 5% 1/4W (G)				(Canadian, AEP2)
R161	1-249-417-11	CARBON	1K 5% 1/4W (G)	R305	1-247-707-11	CARBON	390 5% 1/4W
R162	1-249-417-11	CARBON	1K 5% 1/4W (G)				(E, AEP1, UK, G)
R163	1-249-417-11	CARBON	1K 5% 1/4W (G)	R305	1-249-412-11	CARBON	390 5% 1/4W
R164	1-249-417-11	CARBON	1K 5% 1/4W (G)				(Canadian, AEP2)
R201	1-249-417-11	CARBON	1K 5% 1/4W F	△R306	1-212-990-00	FUSIBLE	220 5% 1/2W F
R202	1-247-700-11	CARBON	100 5% 1/4W	△R307	1-212-950-00	FUSIBLE	4.7 5% 1/2W F
				△R308	1-212-950-00	FUSIBLE	4.7 5% 1/2W F
				R309	1-217-611-00	RES, METAL PLATE	0.1

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R310	1-217-611-00	RES, METAL PLATE 0.1		R411	1-247-725-11	CARBON 10K 5% 1/4W	
△R311	1-247-717-11	CARBON 2.2K 5%	1/4W F	R412	1-249-484-11	CARBON 6.8 5% 1/2W	
R312	1-249-460-11	CARBON 15K 5%	1/4W	R413	1-247-739-11	CARBON 100 5% 1/2W	
△R313	1-212-962-00	FUSIBLE 15 5%	1/2W F	R414	1-247-138-00	CARBON 2K 5% 1/4W	
△R314	1-212-962-00	FUSIBLE 15 5%	1/2W F	R415	1-247-700-11	CARBON 100 5% 1/4W	
R315	1-247-891-00	CARBON 330K 5%	1/4W	R416	1-214-937-00	METAL 1M 1% 1/2W	
R316	1-247-725-11	CARBON 10K 5%	1/4W	R417	1-249-844-11	CARBON 56K 5% 1/2W	
R317	1-247-887-00	CARBON 220K 5%	1/4W	R418	1-249-818-11	CARBON 4.7K 1% 1/2W	
R318	1-247-881-00	CARBON 120K 5%	1/4W	R419	1-247-713-11	CARBON 1K 5% 1/4W F	(Canadian, E, AEP, UK)
R319	1-249-461-11	CARBON 18K 5%	1/4W	R431	1-247-713-11	CARBON 1K 5% 1/4W (G)	
R320	1-247-721-11	CARBON 4.7K 5%	1/4W	R432	1-247-713-11	CARBON 1K 5% 1/4W (G)	
R321	1-249-462-11	CARBON 22K 5%	1/4W	R455	1-247-706-11	CARBON 330 5% 1/4W F	(Canadian, E, AEP, UK)
△R323	1-212-849-00	FUSIBLE 4.7 5%	1/4W F	R456	1-249-469-11	CARBON 100K 5% 1/4W	
R324	1-247-727-11	CARBON 10 5%	1/2W	R457	1-247-700-11	CARBON 100 5% 1/4W	
R325	1-247-747-11	CARBON 470 5%	1/2W	R458	1-249-469-11	CARBON 100K 5% 1/4W	
R326	1-249-721-11	CARBON 100K 5%	1/2W	R459	1-247-713-11	CARBON 1K 5% 1/4W F	
R327	1-247-708-11	CARBON 470 5%	1/4W	R460	1-247-713-11	CARBON 1K 5% 1/4W F	
R351	1-247-713-11	CARBON 1K 5%	1/4W F	R461	1-247-725-11	CARBON 10K 5% 1/4W	
R352	1-249-599-11	CARBON 91K 5%	1/4W	R462	1-249-484-11	CARBON 6.8 5% 1/2W	
R353	1-249-668-11	CARBON 620 5%	1/2W	R463	1-247-739-11	CARBON 100 5% 1/2W	
R354	1-247-713-11	CARBON 1K 5%	1/4W F	R465	1-247-700-11	CARBON 100 5% 1/4W	
R354	1-249-417-11	CARBON 1K 5%	1/4W (Canadian, AEP2)	R466	1-214-937-00	METAL 1M 1% 1/2W	
R355	1-247-707-11	CARBON 390 5%	1/4W (E, AEP1, UK, G)	R467	1-249-844-11	CARBON 56K 5% 1/2W	
R355	1-249-412-11	CARBON 390 5%	1/4W (Canadian, AEP2)	R468	1-249-818-11	CARBON 4.7K 1% 1/2W	
△R356	1-212-990-00	FUSIBLE 220 5%	1/2W F	R469	1-247-713-11	CARBON 1K 5% 1/4W F	
△R357	1-212-950-00	FUSIBLE 4.7 5%	1/2W F	R481	1-247-713-11	CARBON 1K 5% 1/4W (G)	
△R358	1-212-950-00	FUSIBLE 4.7 5%	1/2W F	R482	1-247-713-11	CARBON 1K 5% 1/4W (G)	
R359	1-217-611-00	RES, METAL PLATE 0.1		R902	1-247-727-11	CARBON 10 5% 1/2W (G)	
R360	1-217-611-00	RES, METAL PLATE 0.1		R903	1-247-727-11	CARBON 10 5% 1/2W (G)	
△R361	1-247-717-11	CARBON 2.2K 5%	1/4W F	R952	1-247-727-11	CARBON 10 5% 1/2W (G)	
R362	1-249-460-11	CARBON 15K 5%	1/4W	R953	1-247-727-11	CARBON 10 5% 1/2W (G)	
△R363	1-212-962-00	FUSIBLE 15 5%	1/2W F	< VARIABLE RESISTOR >			
△R364	1-212-962-00	FUSIBLE 15 5%	1/2W F	RT301	1-237-455-11	RES, ADJ, CARBON 500	
R365	1-247-891-00	CARBON 330K 5%	1/4W	RT351	1-237-455-11	RES, ADJ, CARBON 500	
R374	1-247-727-11	CARBON 10 5%	1/2W	RV101	1-238-448-11	RES, VAR, CARBON 150K/150K (BALANCE)	
R375	1-247-747-11	CARBON 470 5%	1/2W	RV102	1-238-446-11	RES, VAR, CARBON 250K/250K (TREBLE)	
R376	1-249-721-11	CARBON 100K 5%	1/2W	RV103	1-238-447-11	RES, VAR, CARBON 25K/500K (BASS)	
R377	1-247-708-11	CARBON 470 5%	1/4W	RV104	1-237-472-11	RES, VAR, CARBON 120K/120K (ATTENUATOR)	
△R401	1-216-459-00	METAL OXIDE 2.7K 5%	2W F	< RELAY >			
△R402	1-215-895-11	METAL OXIDE 3.3K 5%	2W F	RY301	1-515-676-11	RELAY	
R405	1-247-706-11	CARBON 330 5%	1/4W F (Canadian, E, AEP, UK)	RY302	1-515-676-11	RELAY	
R406	1-249-469-11	CARBON 100K 5%	1/4W	< SWITCH >			
R407	1-247-700-11	CARBON 100 5%	1/4W	S201	1-571-824-11	SWITCH, ROTARY (INPUT SELECTOR)	
R408	1-249-469-11	CARBON 100K 5%	1/4W	S202	1-571-826-11	SWITCH, ROTARY (INPUT SELECTOR)	
R409	1-247-713-11	CARBON 1K 5%	1/4W F	S203	1-571-823-11	SWITCH, ROTARY SLIDE (REC OUT SELECTOR)	
R410	1-247-713-11	CARBON 1K 5%	1/4W F				

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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Ref.No.	Part No.	Description	Remark
S204	1-571-828-11	SWITCH, PUSH (1 KEY) (SOURCE DIRECT)	
S205	1-571-827-11	SWITCH, PUSH (1 KEY) (MUTING)	
S206	1-571-822-11	SWITCH, ROTARY SLIDE (SPEAKER)	
S207	1-571-825-11	SWITCH, ROTARY (MODE)	
S401	1-571-111-11	SWITCH, PUSH (1 KEY) (CARTRIDGE)	
△S501	1-554-920-11	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)	
△S702	1-570-307-11	SWITCH, VOLTAGE CHANGE (VOLTAGE SELECTOR)	(E)
< TRANSFORMER >			
△T1	1-449-685-11	TRANSFORMER, POWER (Canadian)	
△T1	1-449-687-11	TRANSFORMER, POWER (G)	
△T1	1-449-688-11	TRANSFORMER, POWER (AEP)	
△T1	1-449-689-11	TRANSFORMER, POWER (UK)	
△T1	1-449-690-11	TRANSFORMER, POWER (E)	
< TERMINAL >			
TM501	1-537-227-11	TERMINAL BOARD (SP) (SPEAKER) (AEP2)	
TM501	1-537-228-11	TERMINAL BOARD (SP) (SPEAKER) (G)	
TM501	1-537-235-11	TERMINAL BOARD (SP) (SPEAKER)	(Canadian, E, AEP1, UK)
< TEST PIN >			
* TP301	1-535-135-00	BASE POST 14MM (10MM PITCH) 2P	
* TP351	1-535-135-00	BASE POST 14MM (10MM PITCH) 2P	
< CONNECTOR >			
* VH2	1-535-139-00	BASE POST 14MM (10MM PITCH) 2P	
* VH3	1-535-139-00	BASE POST 14MM (10MM PITCH) 2P	
* VH4	1-564-321-00	PIN, CONNECTOR 2P (AEP, UK, G)	
* VH5	1-565-792-11	PIN, CONNECTOR 2P	
* VH6	1-564-321-00	PIN, CONNECTOR 2P (AEP, UK, G)	
* VH8	1-564-241-00	PIN, CONNECTOR 4P	
* VH9	1-560-595-21	TERMINAL (WITH BASS) (E)	
* VH9	1-564-321-00	PIN, CONNECTOR 2P (Canadian)	
* VH10	1-565-792-11	PIN, CONNECTOR 2P (Canadian, E)	
* VH11	1-564-321-00	PIN, CONNECTOR 2P (Canadian, E)	
* VH12	1-564-320-00	PIN, CONNECTOR 2P	
* VH15	1-565-792-11	PIN, CONNECTOR 2P	
* VH20	1-535-141-00	BASE POST 22MM (10MM PITCH) 4P (E)	

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