

# TA-F117R

## SERVICE MANUAL

AEP Model



### SPECIFICATIONS

#### Amplifier

Continuous RMS power output (both channels driven simultaneously)

		Speaker impedance
DIN, 1 kHz	40 W + 40 W	8 ohms at 230 V AC
40 Hz-20 kHz, THD 0.05%	30 W + 30 W	

#### Input

Input jack	Jack type	Sensitivity	Impedance	S/N (weighting network, input level)
PHONO (MM)	Phono	2.0 mV	50kilohms	70 dB (A, 2mV)
TUNER, CD TAPE 1, TAPE 2/DAT	Phono	150 mV	50kilohms	100 dB (150 mV)

#### Output

Output jack	Jack type	Voltage/Impedance
REC OUT 1,2	Phono	Voltage 150 mV Impedance 1kilohms
SPEAKERS	—	Accepts speakers of 8-16 ohms
HEADPHONES	Stereo phone	Accepts low and high impedance headphones

#### Tone controls

	Response	Turnover frequency
BASS	± 10dB (100Hz)	500 Hz
TREBLE	± 10dB (15kHz)	3 kHz

Harmonic distortion	Less than 0.05% at rated output
Intermodulation (IM) distortion (60 Hz:7 kHz = 4:1)	Less than 0.05% at rated output
Frequency response	PHONO:RIAA equalization curve ± 0.5dB TUNER, CD, TAPE1, TAPE2/DAT: 7 Hz-100 kHz $_{-5}^{+1}$ dB
Residual noise	Less than 170 $\mu$ V (network A)

#### General

Power requirements	220-230V AC, 50Hz
Power consumption	100W
Dimensions	Approx. 430 × 110 × 297 mm (W/H/D) (17 × 4 $\frac{3}{8}$ × 11 $\frac{3}{4}$ inches)
Weight	Approx. 5 kg (11lb)
Accessories	Remote commander RM-S310 (1) Sony SUM-3 (NS) batteries (2)

Design and specifications subject to change without notice.

#### Note

This appliance conforms with EEC Directive 87/308/EEC regarding interference suppression.



INTEGRATED STEREO AMPLIFIER  
**SONY**®



## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
	Specifications .....	1
<b>1. GENERAL</b>		
	1-1. Parts Identification .....	3
	1-2. Connections .....	4
<b>2. DIAGRAMS</b>		
	2-1. Circuit Boards Location .....	5
	2-2. Semiconductor Lead Layouts .....	6
	2-3. Printed Wiring Boards .....	7
	2-4. Schematic Diagram .....	11
<b>3. EXPLODED VIEWS</b>		18
<b>4. ELECTRICAL PARTS LIST</b>		20

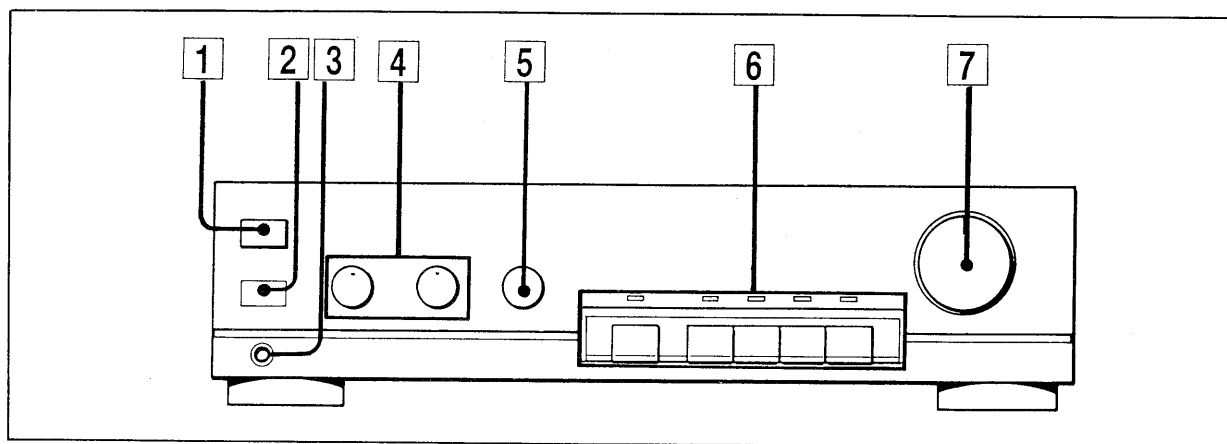
### SAFETY-RELATED COMPONENT WARNING!!

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.

## SECTION 1 GENERAL

### 1-1. PARTS IDENTIFICATION

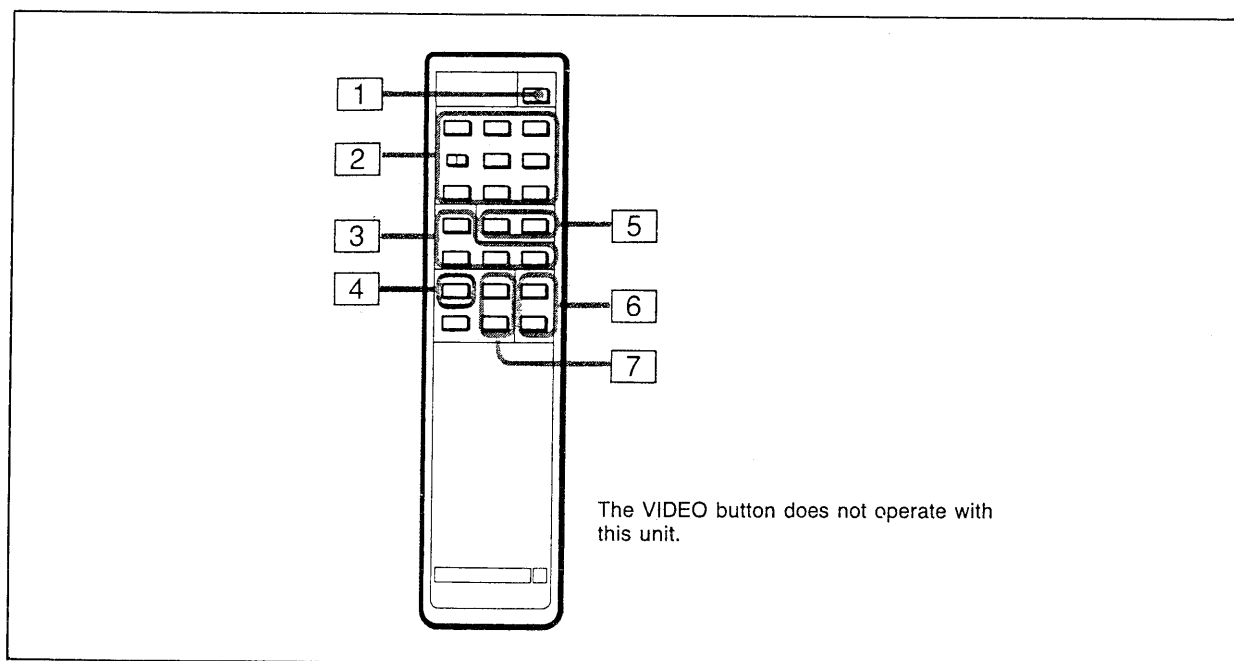
This section is extracted from instruction manual.



#### Front Panel

- |   |   |
|---|---|
| 1 POWER switch (ON/STANDBY)                   | 5 BALANCE control                             |
| 2 Remote control sensor and STANDBY indicator | 6 MONITOR and FUNCTION buttons and indicators |
| 3 HEADPHONES jack                             | 7 VOLUME control                              |
| 4 TONE controls                               |   |

10



#### Remote Commander

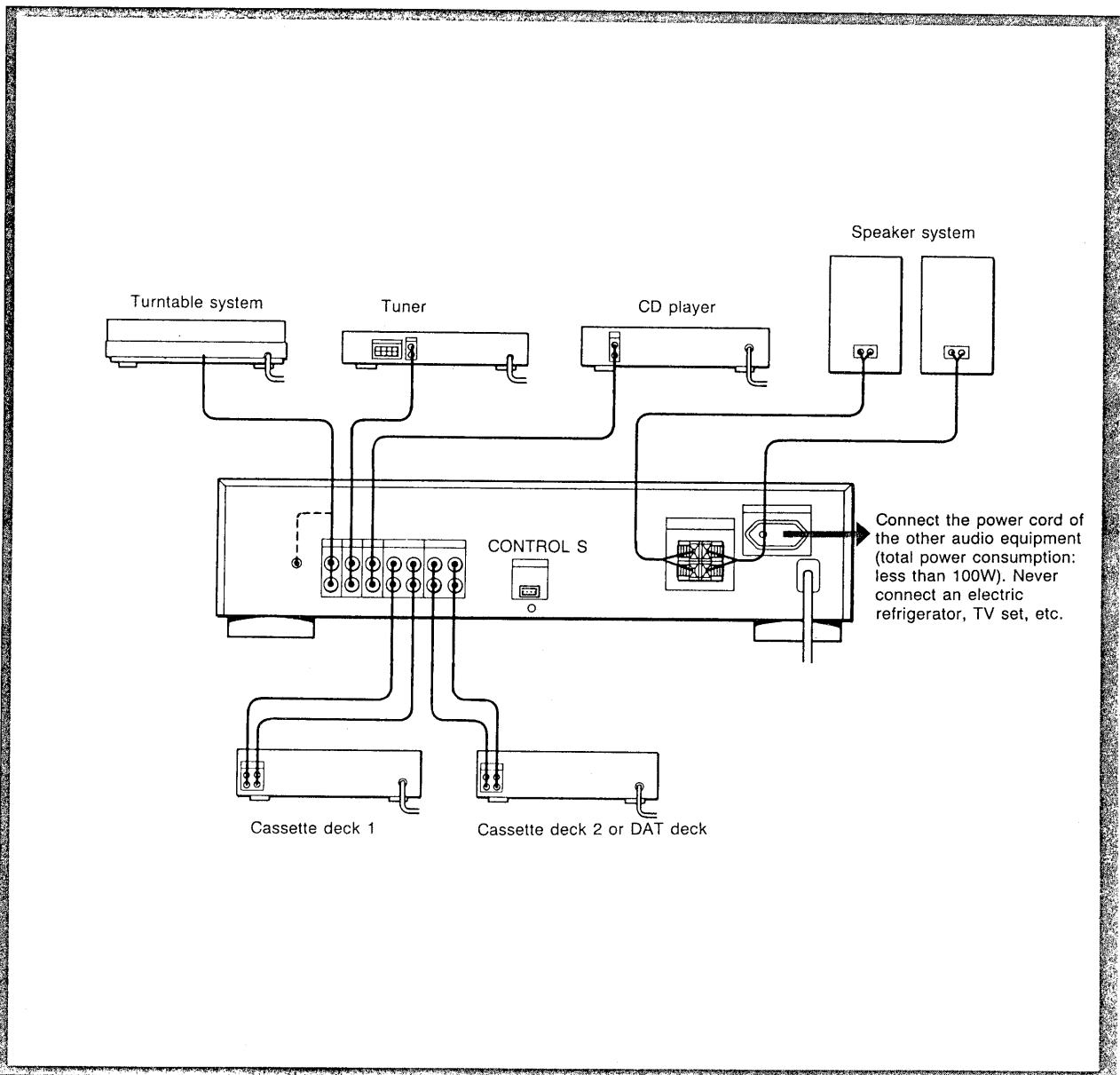
- |   |  |
|---|--|
| 1 POWER switch  | 3 CD player operation buttons                                |
| 2 TAPE deck operation buttons   | ▶: Play  |
| ■: Stop   | Pressing ▶ automatically selects CD on the amplifier.        |
| ◀/▶: Fast winding   | ■: Stop  |
| DECK A/B: Set this switch to select a deck of a double deck unit.       | ◀/▶: Automatic music sensor                                  |
| ◀: Reverse play   | 4 TUNER function button                                      |
| ▶: Forward play   | Press to select TUNER on the amplifier.                      |
| Pressing ◀ or ▶ automatically selects TAPE 1 function on the amplifier. | 5 PHONO (turntable) START/STOP buttons                       |
| : Pause   | Pressing START automatically selects PHONO on the amplifier. |
| ○: Record muting  | 6 VOL (volume) +/- buttons                                   |
| ●: Recording  | 7 TUNER PRESET +/- buttons                                   |
|   | Press to tune in a preset station.                           |

12

## 1-2. CONNECTIONS

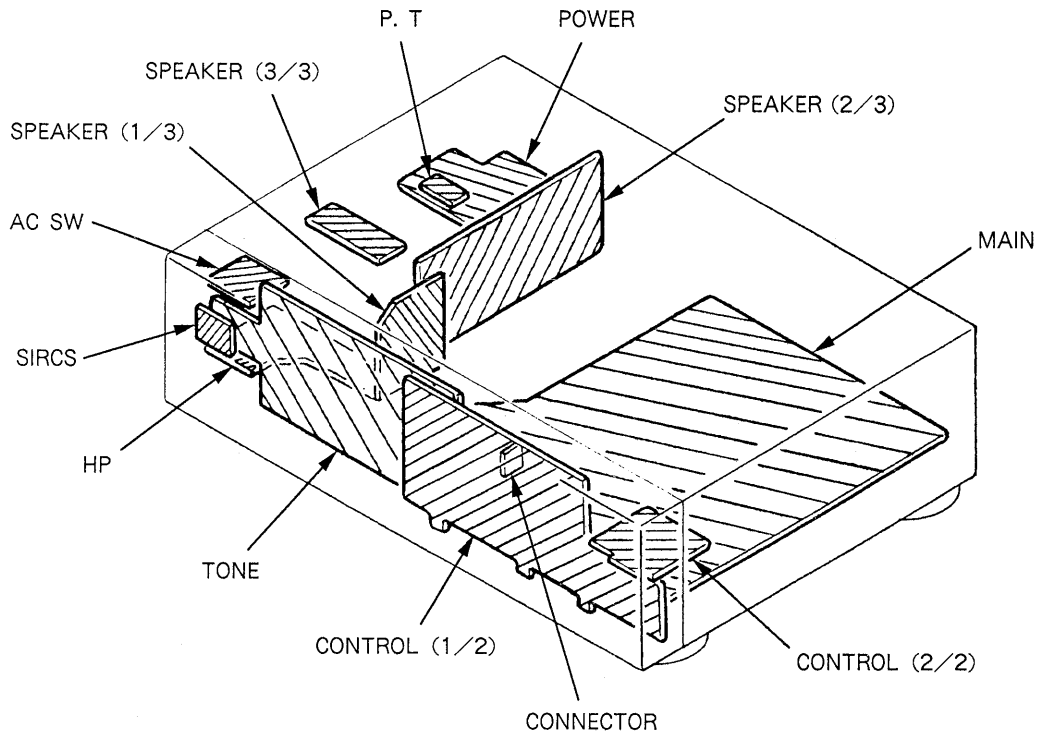
### Notes on Connection

- Connect the AC power cord last. Make sure power is off.
- Cord plugs and jacks are color coded. Red plugs and jacks are for right channel (R) and white ones for left channel (L).
- Fully insert cable connectors into jacks. Loose connections may cause hum or noise.



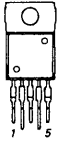
## SECTION 2 DIAGRAMS

### 2-1. CIRCUIT BOARDS LOCATION

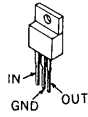


## 2-2. SEMICONDUCTOR LEAD LAYOUTS

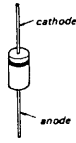
L78MR05



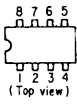
TA7808S



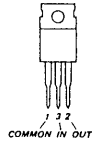
1S1585



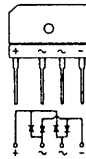
LB1639



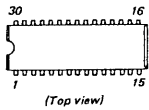
TA7908S



RBA-402



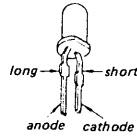
LC7818



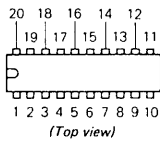
2SA1175-HFE



SEL2210S-C  
SEL2810A-C



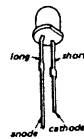
M50761-258P



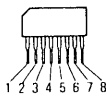
2SC1841-PAFAEA  
2SC3623A-LK



SEL2510C-C



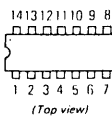
M5218AL  
M5218AL-22  
UPC1237HA



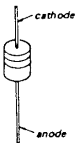
2SC2603-EF  
DTA114ES  
DTA124ES  
DTC144ES  
DTC124ES



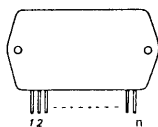
MC14066BCP



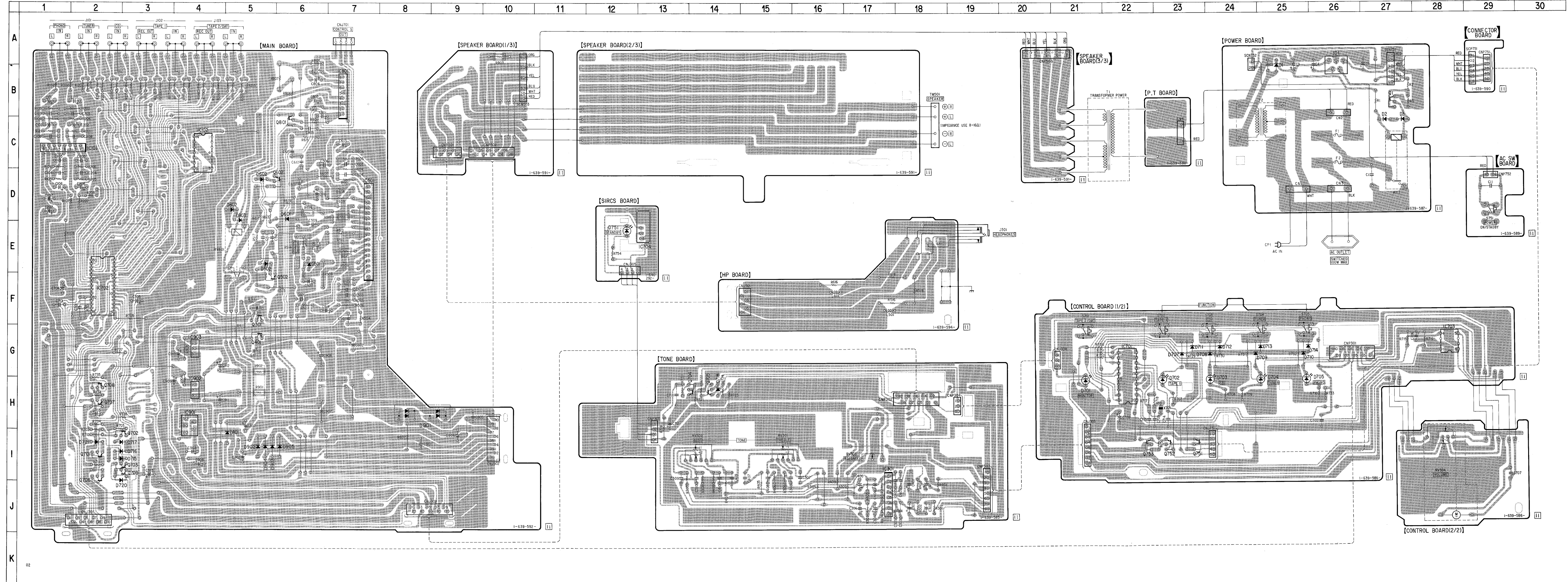
1SS120  
11ES2  
HZS6A1L



STK4162MK2





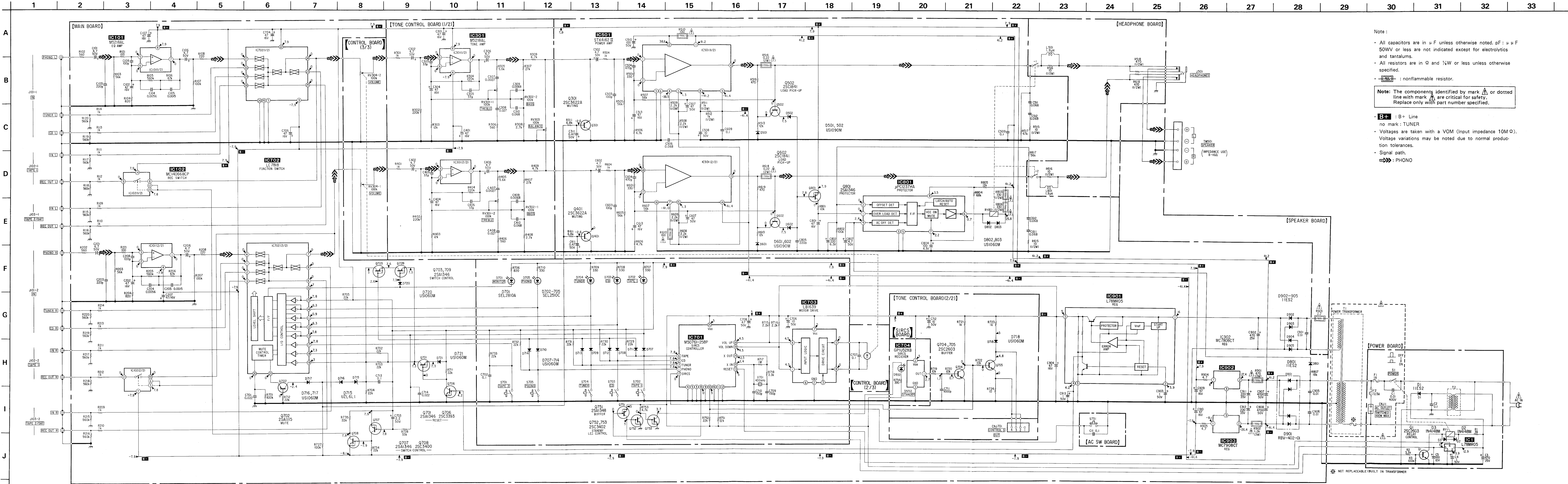


• SEMICONDUCTOR LOCATION

Ref. No.	Location	Ref. No.	Location
D1	B-25	IC1	A-26
D2	C-27	IC101	C-2
D3	C-27	IC102	C-4
D501	E-6	IC301	J-17
D502	E-5	IC501	D-7
D601	D-6	IC701	F-22
D602	D-5	IC702	F-2
D701	G-21	IC703	F-28
D702	G-23	IC704	E-13
D703	G-24	IC801	B-7
D704	G-25	IC901	H-4
D705	G-25	IC902	H-4
D707	F-23	IC903	G-4
D708	F-24		
D709	F-24		
D710	F-25	Q1	B-27
D711	F-23	Q301	F-5
D712	F-24	Q401	G-5
D713	F-25	Q502	F-5
D714	F-24	Q602	D-6
D715	I-3	Q701	I-2
D716	I-3	Q702	I-3
D717	I-3	Q703	I-3
D718	H-14	Q704	H-14
D720	I-3	Q705	H-14
D721	I-2	Q706	I-2
D751	E-12	Q707	H-2
D801	I-5	Q708	H-2
D802	D-5	Q709	I-3
D803	D-5	Q751	H-23
D901	H-8	Q752	H-23
D902	I-5	Q753	H-22
D903	I-5	Q801	C-6
D904	I-5		
D905	I-6		

Note:  
 • ○ : parts extracted from the component side.  
 • ◐ : Pattern on the side which is seen.





Note:

- All capacitors are in  $\mu F$  unless otherwise noted. pF:  $\mu F$
- 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4W$  or less unless otherwise specified.
- $\square$ : nonflammable resistor.

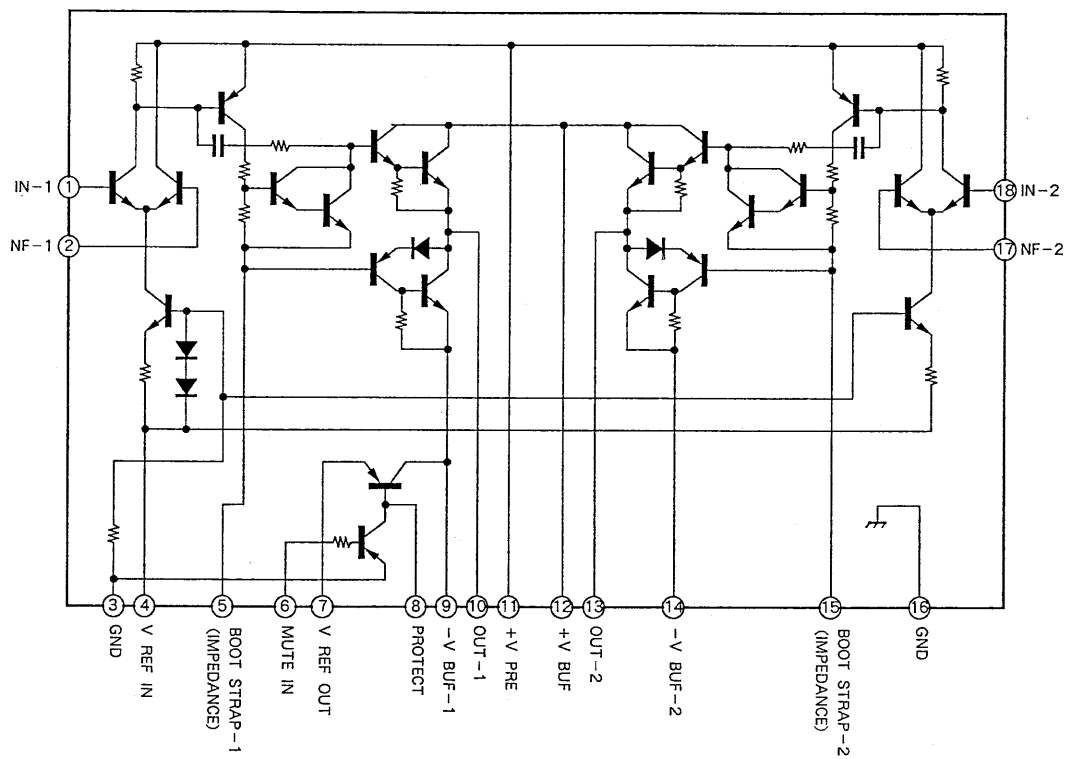
Note: The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

- $B+$ : B+ Line
- no mark: TUNER
- Voltages are taken with a VOM (Input impedance 10M  $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\Rightarrow$ : PHONO

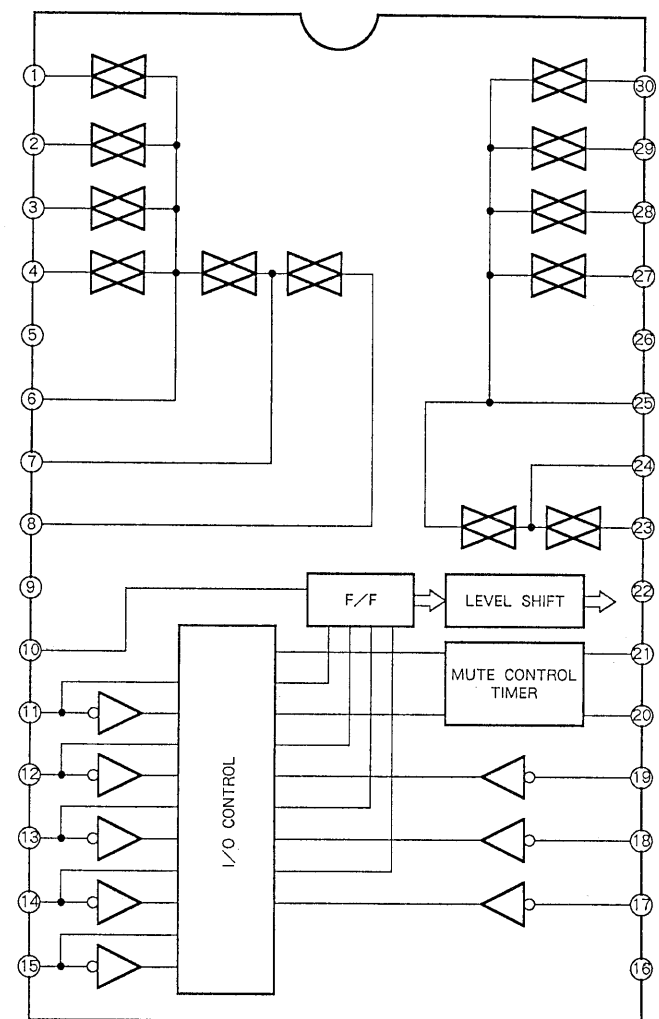


• IC BLOCK DIAGRAMS.

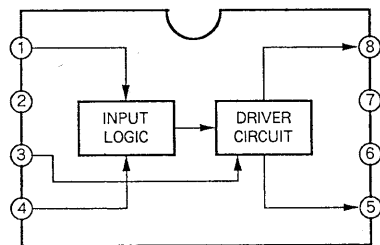
IC501 STK4162MK II



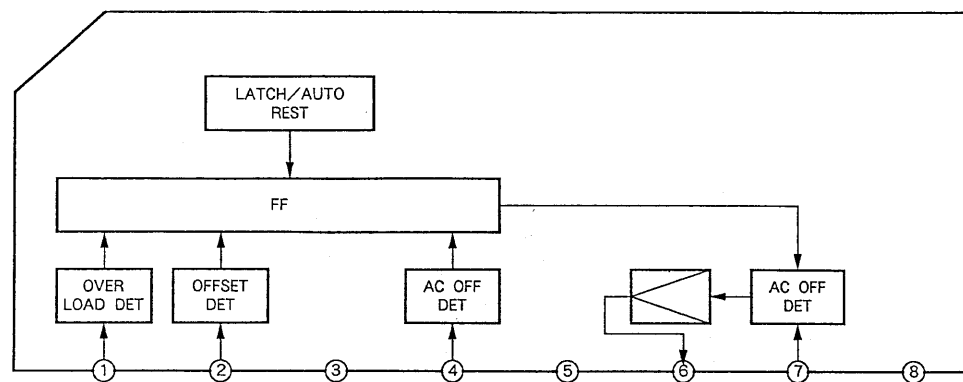
IC702 LC7818



IC703 LB1639



IC801  $\mu$ PC1237HA



## SECTION 3 EXPLODED VIEWS

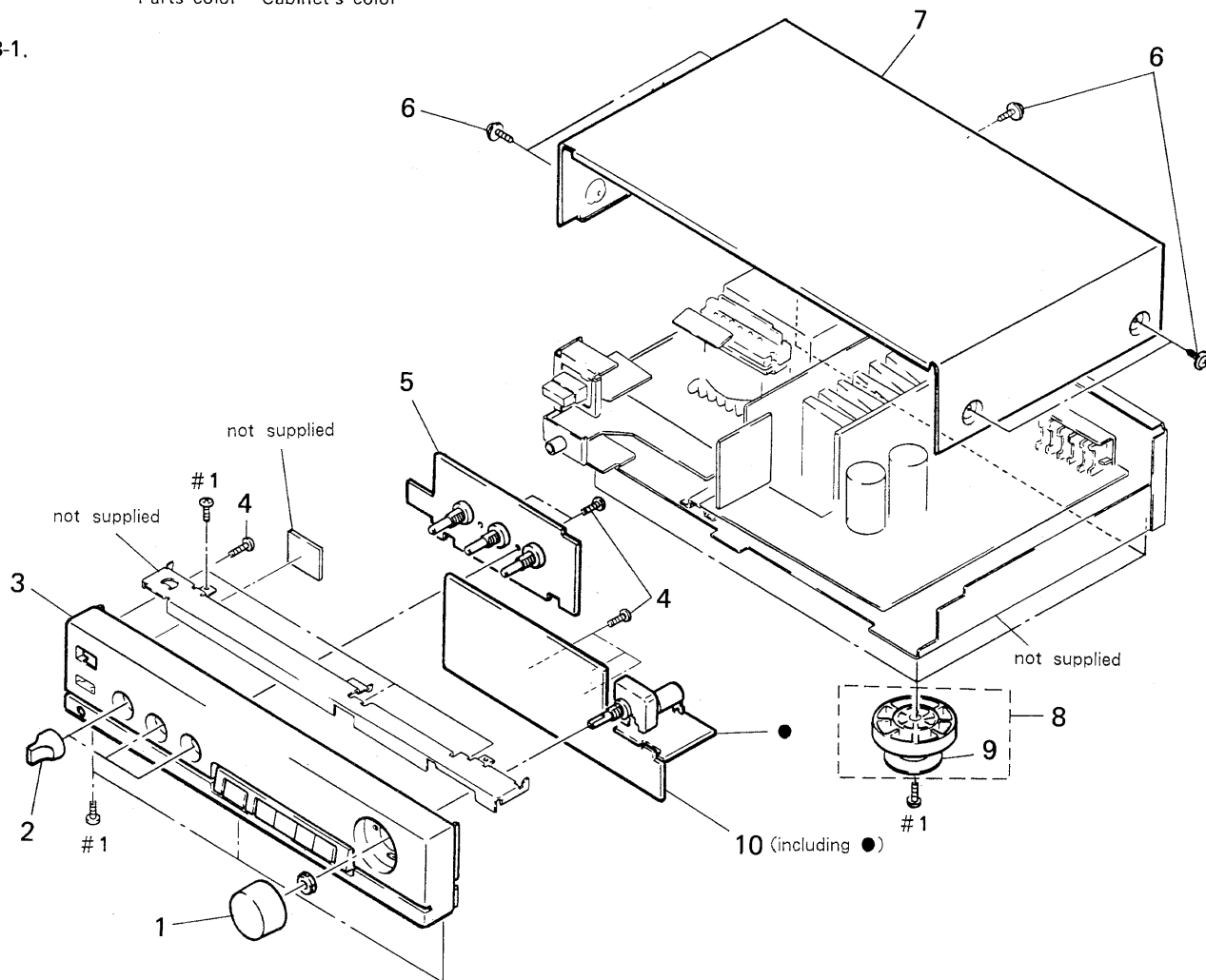
**NOTE:**

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Color indication of Appearance Parts  
Example:  
KNOB, BALANCE (WHITE)....(RED)  
                  ↑                  ↑  
                  Parts color  Cabinet's color

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware(#mark) list is given in the last of this parts list.

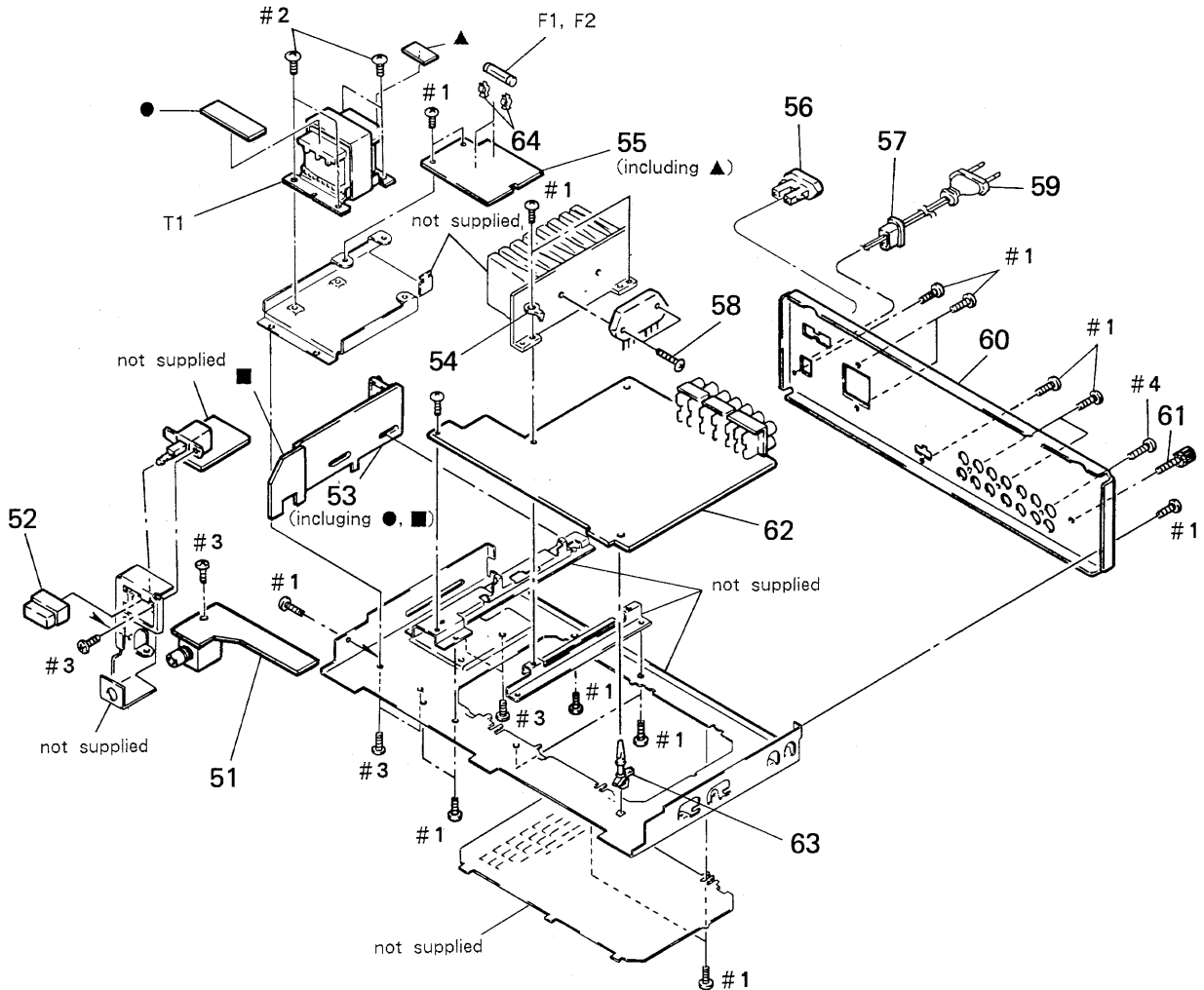
The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

3-1.



Ref.No.	Part No.	Description	Remark
1	4-929-288-22	KNOB (VOL 47)	
2	4-945-173-01	KNOB (R21)	
3	X-4941-601-1	PANEL ASSY, FRONT	
4	4-928-635-01	SCREW, +BV (2.6X8) TAPPING	
5	* A-4345-084-A	TONE BOARD, COMPLETE	

Ref.No.	Part No.	Description	Remark
6	3-704-366-01	SCREW (CASE) (M3X8)	
7	* 4-937-817-11	CASE	
8	X-3304-938-2	FOOT ASSY	
9	4-923-836-11	CUSHION	
10	* A-4345-083-A	CONTROL BOARD, COMPLETE	



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	* 1-639-594-11	HP BOARD		59	▲ 1-574-805-11	CORD, POWER	
52	3-354-912-01	KNOB, POWER		60	* 4-945-015-11	PANEL, BACK (AE2)	
53	* 1-639-591-11	SP BOARD		60	* 4-945-015-01	PANEL, BACK (AE1)	
54	* 4-870-539-00	PLATE GROUND		61	3-706-165-00	SCREW	
55	* A-4345-082-A	POWER BOARD, COMPLETE		62	* A-4345-079-A	MAIN BOARD, COMPLETE	
56	▲ 1-526-794-11	OUTLET, AC		63	* 3-346-265-11	HOLDER, PC BOARD	
57	* 3-703-244-00	BUSHING (2104), CORD		64	1-533-225-11	HOLDER, FUSE	
58	4-928-635-11	SCREW, +BV (2.6X16) TAPPING		F1	▲ 1-532-078-00	FUSE, TIME-LAG (T2, 5A)	
				F2	▲ 1-532-286-00	FUSE, TIME-LAG (T1A)	
				T1	▲ 1-450-555-11	TRANSFORMER, POWER	

## SECTION 4 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.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms  
METAL: Metal-film resistor  
METAL OXIDE: Metal Oxide-film resistor  
F: nonflammable

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u:  $\mu$ , for example:  
uA.....:  $\mu$ A....., uPA.....:  $\mu$ PA.....  
uPB.....:  $\mu$ PB....., uPC.....:  $\mu$ PC.....  
uPD.....:  $\mu$ PD.....
- CAPACITORS  
uF:  $\mu$ F
- COILS  
uH:  $\mu$ H

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	* A-4345-079-A	MAIN BOARD, COMPLETE *****		C511	1-136-163-00	FILM 0.068uF 5%	50V
	4-870-539-00	PLATE, GROUND		C512	1-136-163-00	FILM 0.068uF 5%	50V
		< CAPACITOR >		C513	1-124-477-11	ELECT 47uF 20%	25V
C101	1-124-927-11	ELECT 4.7uF 20%	100V	C602	1-124-927-11	ELECT 4.7uF 20%	100V
C102	1-124-477-11	ELECT 47uF 20%	25V	C603	1-162-282-31	CERAMIC 100PF 10%	50V
C103	1-162-286-31	CERAMIC 220PF 10%	50V	C604	1-162-290-31	CERAMIC 470PF 10%	50V
C104	1-130-480-00	MYLAR 0.0056uF 5%	50V	C607	1-124-910-11	ELECT 47uF 20%	50V
C105	1-130-473-00	MYLAR 0.0015uF 5%	50V	C609	1-136-165-00	FILM 0.1uF 5%	50V
C106	1-124-927-11	ELECT 4.7uF 20%	100V	C611	1-136-163-00	FILM 0.068uF 5%	50V
C107	1-124-477-11	ELECT 47uF 20%	25V	C612	1-136-163-00	FILM 0.068uF 5%	50V
C108	1-162-282-31	CERAMIC 100PF 10%	50V	C613	1-124-477-11	ELECT 47uF 20%	25V
C201	1-124-927-11	ELECT 4.7uF 20%	100V	C701	1-161-494-00	CERAMIC 0.022uF	25V
C202	1-124-477-11	ELECT 47uF 20%	25V	C703	1-124-925-11	ELECT 2.2uF 20%	100V
C203	1-162-286-31	CERAMIC 220PF 10%	50V	C704	1-124-477-11	ELECT 47uF 20%	25V
C204	1-130-480-00	MYLAR 0.0056uF 5%	50V	C705	1-124-477-11	ELECT 47uF 20%	25V
C205	1-130-473-00	MYLAR 0.0015uF 5%	50V	C713	1-136-165-00	FILM 0.1uF 5%	50V
C206	1-124-927-11	ELECT 4.7uF 20%	100V	C801	1-124-477-11	ELECT 47uF 20%	25V
C207	1-124-477-11	ELECT 47uF 20%	25V	C802	1-126-176-11	ELECT 220uF 20%	10V
C208	1-162-282-31	CERAMIC 100PF 10%	50V	C804	1-124-443-00	ELECT 100uF 20%	10V
C311	1-124-902-00	ELECT 0.47uF 20%	50V	C805	1-162-286-31	CERAMIC 220PF 10%	50V
C411	1-124-902-00	ELECT 0.47uF 20%	50V	C807	1-124-927-11	ELECT 4.7uF 20%	100V
C502	1-124-927-11	ELECT 4.7uF 20%	100V	C901	1-136-153-00	FILM 0.01uF 5%	50V
C503	1-162-282-31	CERAMIC 100PF 10%	50V	C902	1-124-480-11	ELECT 470uF 20%	25V
C504	1-162-290-31	CERAMIC 470PF 10%	50V	C903	1-124-903-11	ELECT 1uF 20%	50V
C506	1-136-163-00	FILM 0.068uF 5%	50V	C904	1-124-477-11	ELECT 47uF 20%	25V
C507	1-124-910-11	ELECT 47uF 20%	50V	C905	1-136-153-00	FILM 0.01uF 5%	50V
C508	1-124-907-11	ELECT 10uF 20%	50V	C906	1-136-153-00	FILM 0.01uF 5%	50V
C509	1-136-165-00	FILM 0.1uF 5%	50V	C907	1-126-138-11	ELECT 4700uF 20%	50V
C510	1-124-122-11	ELECT 100uF 20%	50V	C908	1-126-138-11	ELECT 4700uF 20%	50V
				C909	1-124-477-11	ELECT 47uF 20%	25V
				C910	1-124-477-11	ELECT 47uF 20%	25V
				C911	1-124-484-11	ELECT 220uF 20%	35V
				C912	1-124-484-11	ELECT 220uF 20%	35V
				C913	1-124-903-11	ELECT 1uF 20%	50V

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< CONNECTOR >					
CNJ301	1-568-321-11	SOCKET, CONNECTOR 10P		Q707	8-729-900-63	TRANSISTOR DTA124ES	
CNJ302	1-568-321-11	SOCKET, CONNECTOR 10P		Q708	8-729-900-36	TRANSISTOR DTC124ES	
CNJ502	1-568-321-11	SOCKET, CONNECTOR 10P		Q709	8-729-900-63	TRANSISTOR DTA124ES	
CNJ701	1-566-213-11	PIN, CONNECTOR 4P (CONTROL S/OUT)		Q801	8-729-900-63	TRANSISTOR DTA124ES	
		< DIODE >				< RESISTOR >	
D501	8-719-815-85	DIODE 1S1585		R102	1-249-414-11	CARBON 560	5% 1/4W
D502	8-719-815-85	DIODE 1S1585		R103	1-249-438-11	CARBON 56K	5% 1/4W
D601	8-719-815-85	DIODE 1S1585		R104	1-249-416-11	CARBON 820	5% 1/4W
D602	8-719-815-85	DIODE 1S1585		R105	1-247-897-11	CARBON 560K	5% 1/4W
D715	8-719-933-33	DIODE HZS6A1L		R106	1-249-437-11	CARBON 47K	5% 1/4W
D716	8-719-912-20	DIODE 1SS120		R107	1-249-441-11	CARBON 100K	5% 1/4W
D717	8-719-912-20	DIODE 1SS120		R108	1-249-409-11	CARBON 220	5% 1/4W
D720	8-719-912-20	DIODE 1SS120		R109	1-249-417-11	CARBON 1K	5% 1/4W
D721	8-719-912-20	DIODE 1SS120		R110	1-249-417-11	CARBON 1K	5% 1/4W
D801	8-719-200-82	DIODE 11ES2		R111	1-249-417-11	CARBON 1K	5% 1/4W
D802	8-719-912-20	DIODE 1SS120		R112	1-249-417-11	CARBON 1K	5% 1/4W
D803	8-719-912-20	DIODE 1SS120		R113	1-249-417-11	CARBON 1K	5% 1/4W
D901	8-719-312-09	DIODE RBA-402		R114	1-249-417-11	CARBON 1K	5% 1/4W
D902	8-719-200-82	DIODE 11ES2		R115	1-247-897-11	CARBON 560K	5% 1/4W
D903	8-719-200-82	DIODE 11ES2		R116	1-247-897-11	CARBON 560K	5% 1/4W
D904	8-719-200-82	DIODE 11ES2		R117	1-247-897-11	CARBON 560K	5% 1/4W
D905	8-719-200-82	DIODE 11ES2		R118	1-247-897-11	CARBON 560K	5% 1/4W
		< IC >		R119	1-247-897-11	CARBON 560K	5% 1/4W
IC101	8-759-636-73	IC M5218AL-22		R120	1-247-897-11	CARBON 560K	5% 1/4W
IC102	8-759-000-49	IC MC14066BCP		R121	1-249-405-11	CARBON 100	5% 1/4W
IC501	8-749-900-24	IC STK4162MK2		R202	1-249-414-11	CARBON 560	5% 1/4W
IC702	8-759-802-52	IC LC7818		R203	1-249-438-11	CARBON 56K	5% 1/4W
IC801	8-759-111-68	IC uPC1237HA		R204	1-249-416-11	CARBON 820	5% 1/4W
IC901	8-759-820-84	IC L78MR05		R205	1-247-897-11	CARBON 560K	5% 1/4W
IC902	8-759-231-55	IC TA7808S		R206	1-249-437-11	CARBON 47K	5% 1/4W
IC903	8-759-245-81	IC TA7908S		R207	1-249-441-11	CARBON 100K	5% 1/4W
		< JACK >		R208	1-249-409-11	CARBON 220	5% 1/4W
J101	1-565-320-11	JACK, PIN 6P (PHONO/TUNER/CD)		R209	1-249-417-11	CARBON 1K	5% 1/4W
J102	1-565-258-11	JACK, PIN 4P (TAPE 1)		R210	1-249-417-11	CARBON 1K	5% 1/4W
J103	1-565-258-11	JACK, PIN 4P (TAPE 2/DAT)		R211	1-249-417-11	CARBON 1K	5% 1/4W
		< TRANSISTOR >		R212	1-249-417-11	CARBON 1K	5% 1/4W
Q301	8-729-141-30	TRANSISTOR 2SC3623A-LK		R213	1-249-417-11	CARBON 1K	5% 1/4W
Q401	8-729-141-30	TRANSISTOR 2SC3623A-LK		R214	1-249-417-11	CARBON 1K	5% 1/4W
Q502	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		R215	1-247-897-11	CARBON 560K	5% 1/4W
Q602	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		R216	1-247-897-11	CARBON 560K	5% 1/4W
Q701	8-729-900-63	TRANSISTOR DTA124ES		R217	1-247-897-11	CARBON 560K	5% 1/4W
Q702	8-729-119-76	TRANSISTOR 2SA1175-HFE		R218	1-247-897-11	CARBON 560K	5% 1/4W
Q703	8-729-900-63	TRANSISTOR DTA124ES		R219	1-247-897-11	CARBON 560K	5% 1/4W
Q706	8-729-900-89	TRANSISTOR DTC144ES		R220	1-247-897-11	CARBON 560K	5% 1/4W
				R221	1-249-405-11	CARBON 100	5% 1/4W
				R311	1-249-427-11	CARBON 6.8K	5% 1/4W
				R411	1-249-427-11	CARBON 6.8K	5% 1/4W
				R501	1-249-411-11	CARBON 330	5% 1/4W

**MAIN**

**SP**

**TRANS**

**HP**

Ref. No.	Part No.	Description		Remark
R504	1-249-417-11	CARBON	1K	5% 1/4W
R505	1-249-438-11	CARBON	56K	5% 1/4W
R506	1-249-425-11	CARBON	4.7K	5% 1/4W
R507	1-249-438-11	CARBON	56K	5% 1/4W
R508	1-247-756-11	CARBON	2.2K	5% 1/2W
R509	1-247-756-11	CARBON	2.2K	5% 1/2W
R510	△ 1-247-700-11	CARBON	100	5% 1/4W F
R511	1-247-752-11	CARBON	1K	5% 1/2W
R512	1-247-752-11	CARBON	1K	5% 1/2W
R513	1-249-430-11	CARBON	12K	5% 1/4W
R514	△ 1-216-361-00	METAL OXIDE	0.22	5% 2W F
R515	1-247-727-11	CARBON	10	5% 1/2W
R517	1-249-437-11	CARBON	47K	5% 1/4W
R519	1-249-413-11	CARBON	470	5% 1/4W
R601	1-249-411-11	CARBON	330	5% 1/4W
R604	1-249-417-11	CARBON	1K	5% 1/4W
R605	1-249-438-11	CARBON	56K	5% 1/4W
R606	1-249-425-11	CARBON	4.7K	5% 1/4W
R607	1-249-438-11	CARBON	56K	5% 1/4W
R608	1-247-756-11	CARBON	2.2K	5% 1/2W
R609	1-247-756-11	CARBON	2.2K	5% 1/2W
R610	△ 1-247-700-11	CARBON	100	5% 1/4W F
R613	1-249-430-11	CARBON	12K	5% 1/4W
R614	△ 1-216-361-00	METAL OXIDE	0.22	5% 2W F
R615	1-247-727-11	CARBON	10	5% 1/2W
R617	1-249-438-11	CARBON	56K	5% 1/4W
R619	1-249-413-11	CARBON	470	5% 1/4W
R701	1-247-901-11	CARBON	820K	5% 1/4W
R702	1-249-433-11	CARBON	22K	5% 1/4W
R703	1-249-433-11	CARBON	22K	5% 1/4W
R704	1-249-433-11	CARBON	22K	5% 1/4W
R705	1-249-433-11	CARBON	22K	5% 1/4W
R711	1-249-433-11	CARBON	22K	5% 1/4W
R712	1-249-433-11	CARBON	22K	5% 1/4W
R727	1-249-441-11	CARBON	100K	5% 1/4W
R728	1-249-435-11	CARBON	33K	5% 1/4W
R734	1-249-433-11	CARBON	22K	5% 1/4W
R735	1-249-433-11	CARBON	22K	5% 1/4W
R801	1-249-429-11	CARBON	10K	5% 1/4W
R802	1-249-441-11	CARBON	100K	5% 1/4W
R804	1-249-439-11	CARBON	68K	5% 1/4W
R805	1-249-430-11	CARBON	12K	5% 1/4W
R806	1-247-745-11	CARBON	330	5% 1/2W
R807	1-249-432-11	CARBON	18K	5% 1/4W
R808	1-247-745-11	CARBON	330	5% 1/2W
R901	△ 1-215-915-11	METAL OXIDE	470	5% 3W F
R902	△ 1-216-481-11	METAL OXIDE	1.2K	5% 3W F
R904	1-249-389-11	CARBON	4.7	5% 1/4W
R905	1-249-389-11	CARBON	4.7	5% 1/4W

Ref. No.	Part No.	Description		Remark
		< RELAY >		
RY801	1-515-533-11	RELAY		
*****				
	* 1-639-591-11	SP BOARD		*****
		< CONNECTOR >		
CNP501	1-569-402-11	PLUG, CONNECTOR 6P		
CNP502	* 1-568-322-11	PLUG, CONNECTOR 10P		
CNP503	* 1-564-524-11	PLUG, CONNECTOR 9P		
		< RESISTOR >		
R903	△ 1-249-451-11	CARBON	2.2	5% 1/4W F
		< TERMINAL >		
TM501	1-537-240-31	TERMINAL BOARD (CHECKER PIN)		(SPEAKER)
*****				
	* 1-639-593-11	TRANS BOARD		*****
	* 1-639-594-11	HP BOARD		*****
		< CONNECTOR >		
CNJ501	1-568-317-11	SOCKET, CONNECTOR 6P		
		< JACK >		
J501	1-563-347-11	JACK, LARGE TYPE (HEADPHONES)		
		< COIL >		
L501	* 1-420-872-00	COIL, AIR CORE		
L601	* 1-420-872-00	COIL, AIR CORE		
		< RESISTOR >		
R516	1-247-727-11	CARBON	10	5% 1/2W
R518	1-247-747-11	CARBON	470	5% 1/2W
R616	1-247-727-11	CARBON	10	5% 1/2W
R618	1-247-747-11	CARBON	470	5% 1/2W

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



**CONTROL**

**POWER**

Ref. No.	Part No.	Description	Remark		
* A-4345-083-A CONTROL BOARD, COMPLETE *****					
< CAPACITOR >					
C702	1-136-165-00	FILM	0. 1uF	5%	50V
C706	1-124-261-00	ELECT	10uF	20%	50V
C707	1-136-165-00	FILM	0. 1uF	5%	50V
C708	1-124-589-11	ELECT	47uF	20%	16V
C709	1-162-284-31	CERAMIC	150PF	10%	50V
C710	1-162-284-31	CERAMIC	150PF	10%	50V
C714	1-161-494-00	CERAMIC	0. 022uF		25V
< CONNECTOR >					
CNJ303	* 1-562-573-11	SOCKET, CONNECTOR 8P			
CNJ304	* 1-565-835-11	SOCKET, CONNECTOR 3P			
CNP301	* 1-568-322-11	PLUG, CONNECTOR 10P			
< DIODE >					
D701	8-719-301-52	DIODE SEL2810A-C (MONITOR)			
D702	8-719-303-00	DIODE SEL2510C-C (TAPE 1)			
D703	8-719-303-00	DIODE SEL2510C-C (CD)			
D704	8-719-303-00	DIODE SEL2510C-C (TUNER)			
D705	8-719-303-00	DIODE SEL2510C-C (PHONO)			
D707	8-719-912-20	DIODE 1SS120			
D708	8-719-912-20	DIODE 1SS120			
D709	8-719-912-20	DIODE 1SS120			
D710	8-719-912-20	DIODE 1SS120			
D711	8-719-912-20	DIODE 1SS120			
D712	8-719-912-20	DIODE 1SS120			
D713	8-719-912-20	DIODE 1SS120			
D714	8-719-912-20	DIODE 1SS120			
< IC >					
IC701	8-759-632-61	IC M50761-258P			
IC703	8-759-820-62	IC LB1639			
< TRANSISTOR >					
Q751	8-729-900-61	TRANSISTOR DTA114ES			
Q752	8-729-900-80	TRANSISTOR DTC114ES			
Q753	8-729-900-80	TRANSISTOR DTC114ES			
< RESISTOR >					
R706	1-249-416-11	CARBON	820	5%	1/4W
R707	1-249-411-11	CARBON	330	5%	1/4W
R708	1-249-411-11	CARBON	330	5%	1/4W
R709	1-249-411-11	CARBON	330	5%	1/4W
R710	1-249-411-11	CARBON	330	5%	1/4W
R715	1-249-421-11	CARBON	2. 2K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R716	1-249-421-11	CARBON	2. 2K	5%	1/4W
R717	1-247-903-00	CARBON	1M	5%	1/4W
R718	1-249-423-11	CARBON	3. 3K	5%	1/4W
R729	1-249-433-11	CARBON	22K	5%	1/4W
R730	1-249-433-11	CARBON	22K	5%	1/4W
R731	1-249-433-11	CARBON	22K	5%	1/4W
R732	1-249-433-11	CARBON	22K	5%	1/4W
R733	1-249-433-11	CARBON	22K	5%	1/4W
R751	1-249-433-11	CARBON	22K	5%	1/4W
R752	1-249-433-11	CARBON	22K	5%	1/4W
R753	1-249-425-11	CARBON	4. 7K	5%	1/4W
< VARIABLE RESISTOR >					
RV304	1-241-132-11	RES, VAR, CARBON 100K/100K (VOLUME)			
< SWITCH >					
S701	1-572-184-11	SWITCH, KEYBOARD (TAPE 2/DAT)			
S702	1-572-184-11	SWITCH, KEYBOARD (TAPE 1)			
S703	1-572-184-11	SWITCH, KEYBOARD (CD)			
S704	1-572-184-11	SWITCH, KEYBOARD (TUNER)			
S705	1-572-184-11	SWITCH, KEYBOARD (PHONO)			
< CRYSTAL >					
X701	1-577-077-11	OSCILLATOR, CERAMIC			
*****					
* A-4345-082-A POWER BOARD, COMPLETE *****					
1-533-225-11 HOLDER, FUSE					
< CAPACITOR >					
C1	1-161-744-00	CERAMIC	0. 01uF		400V
C2	1-136-165-00	FILM	0. 1uF	5%	50V
C3	1-124-480-11	ELECT	470uF	20%	25V
C4	1-124-903-11	ELECT	1uF	20%	50V
C5	1-124-443-00	ELECT	100uF	20%	10V
C11	1-164-159-11	CERAMIC	0. 1uF		50V
< CONNECTOR >					
CN1	* 1-564-321-00	PIN, CONNECTOR 2P			
CN2	1-564-321-00	PIN, CONNECTOR 2P			
CN3	* 1-564-321-21	PIN, CONNECTOR 2P			
CNP751	1-506-906-11	PIN, CONNECTOR 5P			
CNP752	* 1-564-505-11	PLUG, CONNECTOR 2P			
< DIODE >					
D1	8-719-200-82	DIODE 11ES2			
D2	8-719-912-20	DIODE 1SS120			
D3	8-719-912-20	DIODE 1SS120			

**POWER**  **TONE**

Ref. No.	Part No.	Description	Remark
< FUSE >			
F1	△ 1-532-078-00	FUSE, TIME-LAG (T2.5A)	
F2	△ 1-532-286-00	FUSE, TIME-LAG (T1A)	
< IC >			
IC1	8-759-820-84	IC L78MR05	
< TRANSISTOR >			
Q1	8-729-620-05	TRANSISTOR 2SC2603-EF	
< RESISTOR >			
R1	1-247-695-11	CARBON	39 5% 1/4W
R2	1-249-423-11	CARBON	3.3K 5% 1/4W
R3	1-249-441-11	CARBON	100K 5% 1/4W
< RELAY >			
RY1	1-515-516-00	RELAY	
< SWITCH >			
S751	1-572-737-11	SWITCH, PUSH (POWER)	
< TRANSFORMER >			
T2	1-449-297-11	TRANSFORMER, POWER	
*****			
* A-4345-084-A TONE BOARD, COMPLETE			
*****			
< CAPACITOR >			
C301	1-124-477-11	ELECT	47uF 20% 25V
C302	1-124-927-11	ELECT	4.7uF 20% 100V
C303	1-162-211-31	CERAMIC	33PF 5% 50V
C304	1-124-477-11	ELECT	47uF 20% 25V
C305	1-162-211-31	CERAMIC	33PF 5% 50V
C306	1-124-927-11	ELECT	4.7uF 20% 100V
C307	1-130-476-00	MYLAR	0.0027uF 5% 50V
C308	1-136-158-00	FILM	0.027uF 5% 50V
C309	1-130-481-00	MYLAR	0.0068uF 5% 50V
C310	1-136-163-00	FILM	0.068uF 5% 50V
C401	1-124-477-11	ELECT	47uF 20% 25V
C402	1-124-927-11	ELECT	4.7uF 20% 100V
C403	1-162-211-31	CERAMIC	33PF 5% 50V
C404	1-124-477-11	ELECT	47uF 20% 25V
C405	1-162-211-31	CERAMIC	33PF 5% 50V

Ref. No.	Part No.	Description	Remark
C406	1-124-927-11	ELECT	4.7uF 20% 100V
C407	1-130-476-00	MYLAR	0.0027uF 5% 50V
C408	1-136-158-00	FILM	0.027uF 5% 50V
C409	1-130-481-00	MYLAR	0.0068uF 5% 50V
C410	1-136-163-00	FILM	0.068uF 5% 50V
C711	1-162-294-31	CERAMIC	0.001uF 10% 50V
C712	1-124-907-11	ELECT	10uF 20% 50V
< CONNECTOR >			
CNP302 *	1-568-322-11	PLUG, CONNECTOR 10P	
CNP303 *	1-564-599-11	PIN, CONNECTOR 8P	
CNP304 *	1-560-666-00	PIN, CONNECTOR 3P	
CNP305 *	1-506-509-11	PIN, CONNECTOR 4P	
< DIODE >			
D718	8-719-912-20	DIODE 1SS120	
< IC >			
IC301	8-759-634-50	IC M5218AL	
< TRANSISTOR >			
Q704	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q705	8-729-620-05	TRANSISTOR 2SC2603-EF	
< RESISTOR >			
R301	1-249-417-11	CARBON	1K 5% 1/4W
R302	1-247-887-00	CARBON	220K 5% 1/4W
R303	1-249-430-11	CARBON	12K 5% 1/4W
R304	1-247-887-00	CARBON	220K 5% 1/4W
R305	1-249-426-11	CARBON	5.6K 5% 1/4W
R306	1-249-414-11	CARBON	560 5% 1/4W
R307	1-249-434-11	CARBON	27K 5% 1/4W
R308	1-249-422-11	CARBON	2.7K 5% 1/4W
R309	1-249-425-11	CARBON	4.7K 5% 1/4W
R401	1-249-417-11	CARBON	1K 5% 1/4W
R402	1-247-887-00	CARBON	220K 5% 1/4W
R403	1-249-430-11	CARBON	12K 5% 1/4W
R404	1-247-887-00	CARBON	220K 5% 1/4W
R405	1-249-426-11	CARBON	5.6K 5% 1/4W
R406	1-249-414-11	CARBON	560 5% 1/4W
R407	1-249-434-11	CARBON	27K 5% 1/4W
R408	1-249-422-11	CARBON	2.7K 5% 1/4W
R409	1-249-425-11	CARBON	4.7K 5% 1/4W
R719	1-249-429-11	CARBON	10K 5% 1/4W
R720	1-249-429-11	CARBON	10K 5% 1/4W

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

**TO****N****E**

**S****I****R****C****S**

Ref. No.	Part No.	Description	Remark		
R721	1-249-417-11	CARBON	1K	5%	1/4W
R722	1-249-429-11	CARBON	10K	5%	1/4W
R723	1-249-417-11	CARBON	1K	5%	1/4W
R724	1-249-393-11	CARBON	10	5%	1/4W

< VARIABLE RESISTOR >

RV301	1-241-104-11	RES. VAR. CARBON 100K/100K (TONE/TREBLE)
RV302	1-241-104-11	RES. VAR. CARBON 100K/100K (TONE/BASS)
RV303	1-241-105-11	RES. VAR. CARBON 100K (BALANCE)

\*\*\*\*\*

\* A-4345-613-A SIRCS BOARD, COMPLETE  
\*\*\*\*\*

< CONNECTOR >

CNJ305	1-562-087-00	SOCKET, CONNECTOR 4P
--------	--------------	----------------------

< DIODE >

D751	8-719-301-38	DIODE SEL2210S-C (STANDBY)
------	--------------	----------------------------

< IC >

IC704	8-749-920-83	IC GP1U52XB
-------	--------------	-------------

< RESISTOR >

R754	1-249-412-11	CARBON	390	5%	1/4W
------	--------------	--------	-----	----	------

\*\*\*\*\*

MISCELLANEOUS  
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56	⚠ 1-526-794-11	OUTLET, AC
59	⚠ 1-574-805-11	CORD, POWER
T1	⚠ 1-450-555-11	TRANSFORMER, POWER

\*\*\*\*\*

ACCESSORY & PACKING MATERIAL  
\*\*\*\*\*

- 1-465-199-11 REMOTE COMMANDER (RM-S310)
- 3-753-408-11 MANUAL, INSTRUCTION  
(ENGLISH/FRENCH/SPANISH)
- 3-753-408-41 MANUAL, INSTRUCTION  
(GERMAN/SWEDISH/DUTCH)
- \* 4-931-987-01 CUSHION
- \* 4-931-988-11 INDIVIDUAL CARTON

Ref. No.	Part No.	Description	Remark
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**HARDWARE LIST**

\*\*\*\*\*

# 1	7-685-646-79	SCREW +BVTP 3X8	TYPE2 N-S
# 2	7-682-560-04	SCREW +BVTT 4X6	(S)
# 3	7-682-547-04	SCREW +BVTT 3X6	(S)
# 4	7-621-849-00	SCREW, TAPPING	

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



# TA-F117R

## SONY SERVICE MANUAL

AEP Model

### SUPPLEMENT-1

Revise your service manual as shown below due to parts supply classification has been changed.

Page	CURRENT			REVISED	
	Ref.No.	Part No.	Description	Part No.	Description
25			not supplied		<u>ACCESSORIES &amp; PACKING MATERIALS</u>
				2-128-529-01	CASE, BATTERY (RM-S310)

(RPC-95043)