

# TA-F245R

## SERVICE MANUAL

*AEP Model*  
*UK Model*  
*E Model*  
*Australian Model*

- This set is almost the same as model TA-F235R previously produced. Therefore, see the service manual for the information which is not contained in this service manual.

<u>Page</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
18	1	4-966-633-01	PANEL, FRONT
	7	X-4944-924-1	BASE ASSY, PANEL
	8	X-4945-054-1	KNOB (R48) ASSY
	*12	A-4369-784-A	DISPLAY BOARD, COMPLETE (AEP, UK, E, AUSTRALIAN)
	*12	A-4369-804-A	DISPLAY BOARD, COMPLETE (G)
19	*52	A-4369-788-A	MAIN BOARD, COMPLETE (AE1, UK, E, AUSTRALIAN)
	*52	A-4369-800-A	MAIN BOARD, COMPLETE (AE2)
	*52	A-4369-806-A	MAIN BOARD, COMPLETE (G)
	*57	4-966-218-01	PANEL, BACK (AE1)
	*57	4-966-218-11	PANEL, BACK (AE2)
	*57	4-966-218-21	PANEL, BACK (G)
	*57	4-966-218-31	PANEL, BACK (UK)
	*57	4-966-218-41	PANEL, BACK (E)
	*57	4-966-218-51	PANEL, BACK (AUSTRALIAN)
22	C512	————	(JW1512)
	C612	————	(JW1602)
26		3-758-871-11	MANUAL, INSTRUCTION (English, French, Spanish, Portuguese, Italian) (AEP, UK, E, AUSTRALIAN)
		3-758-871-41	MANUAL, INSTRUCTION (German, Dutch, Swedish, Danish, Finnish) (AEP)
		3-758-871-51	MANUAL, INSTRUCTION (German) (G)
		3-758-871-61	MANUAL, INSTRUCTION (Polish, Russian) (AE2)
		3-758-871-71	MANUAL, INSTRUCTION (Czech, Hungarian) (AE2)
		*4-931-988-91	INDIVIDUAL CARTON

#### NOTE:

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

## INTEGRATED STEREO AMPLIFIER

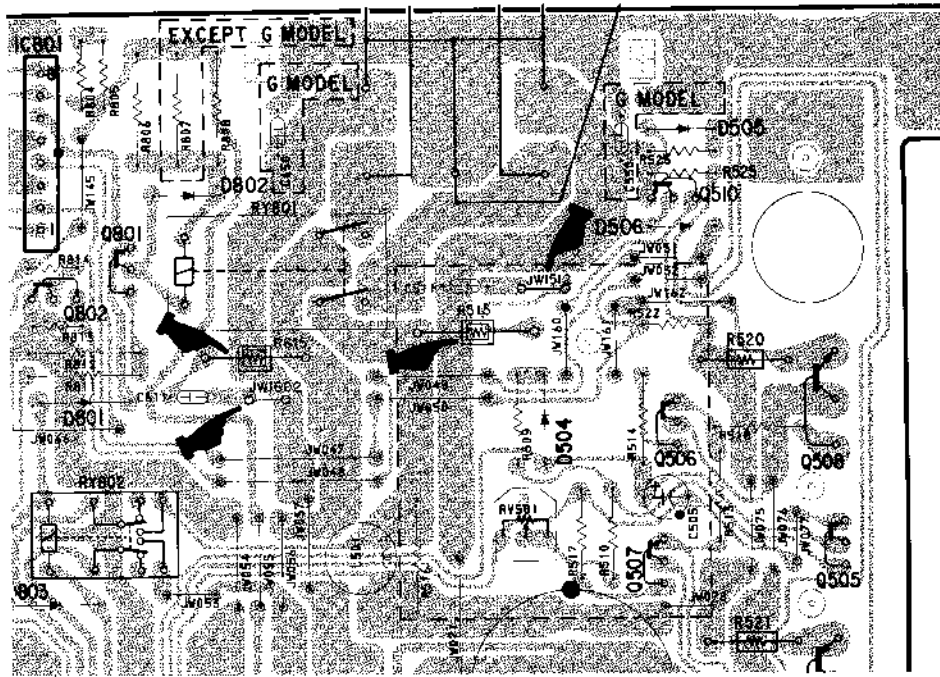
# SONY®

 : difference portion

● PRINTED WIRING BOARD

Page 10

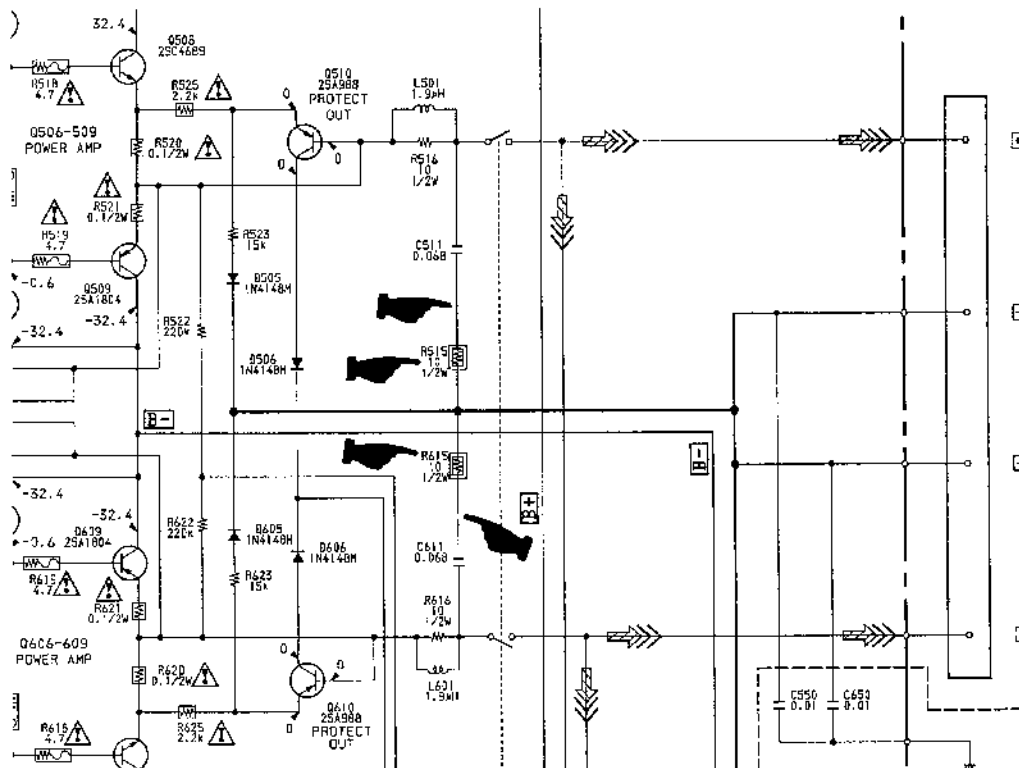
(Location C-7 to C-9)



● SCHEMATIC DIAGRAM

Page 15

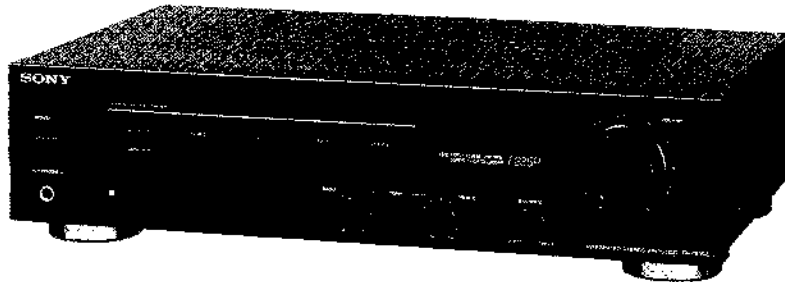
(Location E-18 to F-18)



# TA-F235R

## SERVICE MANUAL

*AEP Model  
UK Model  
E Model  
Australian Model*



### SPECIFICATIONS

#### Amplifier

Continuous RMS power output (both channels driven simultaneously)  
Except for Germany

DIN, 1 kHz	8 ohms	40 W + 40 W
20 Hz - 20 kHz (0.03%)	8 ohms	30 W + 30 W

#### Germany

DIN, 1 kHz	4 ohms	40 W + 40 W
20 Hz - 20 kHz (0.05%)	4 ohms	30 W + 30 W

#### Input

Input jack	Jack type	Sensitivity	impedance
PHONO (MM)	Phono	2.0 mV	50 kilohms
TUNER, CD, DAT/TAPE 1, TAPE 2	Phono	150 mV	50 kilohms

#### S/N

PHONO (MM)	70 dB
TUNER, CD, DAT/TAPE 1, TAPE 2	100 dB

#### Output

Output jack	Jack type	Voltage/impedance
REC OUT	Phono jack	Voltage 450 mV impedance 1 kohm
HEADPHONES	Stereo phono jack	Accepts low and high impedance headphones

#### Tone controls

	Response	Turnover frequency
BASS	± 10 dB (100 Hz)	400 Hz
TREBLE	± 10 dB (10 kHz)	4 kHz

Harmonic distortion Less than 0.008% at 10 W output  
Intermodulation (IM) distortion (60 Hz : 7 kHz = 4 : 1)  
Less than 0.008% at 10 W output  
Frequency response PHONO: RIAA equalization curve  
± 0.5 dB  
TUNER, CD, DAT/TAPE 1, TAPE 2:  
7 Hz - 100 kHz ±3 dB  
Residual noise Less than 170 µV (network A)  
Damping factor 50 (8 ohms, 1 kHz)

#### General System

Preamplifier: Low-noise, equalizer amplifier  
Power amplifier: Pure-complementary SEPP OCL power amplifier with all stages directly coupled

#### Power requirements

Model for UK, Australian:  
240 V AC, 50/60 Hz  
Models for European countries:  
220 V - 230 V AC, 50/60 Hz  
Models for other countries: 120 V  
220 V or 240 V AC adjustable, 50/60 Hz

#### Power Consumption

Model for Scandinavian countries, Switzerland, Spain and Portugal  
100 W  
Model for other European countries  
100 W  
Model for other countries  
100 W

#### Dimension

Approx. 430 × 115 × 310 mm (w/h/d)  
(17 × 4½ × 12 ¼ inches)

#### Weight

Approx. 5.0 kg (11 lb 14 oz)

#### Supplied accessories

Remote commander RM-S312 (1)  
Sony SUM-3 (NS) batteries (2)

The above values are measured at 230 V AC. (AEP model)

Design and specifications are subject to change without notice.

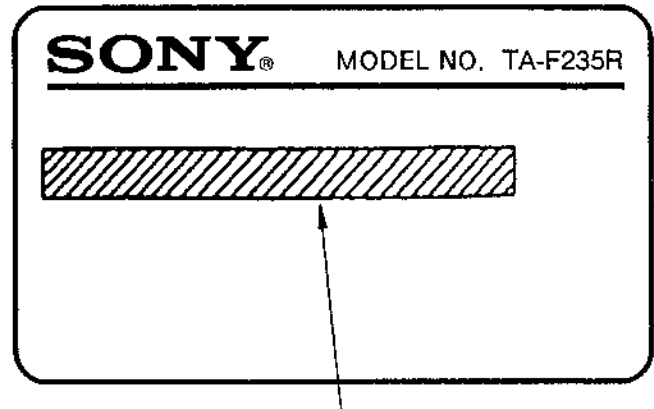
**INTEGRATED STEREO AMPLIFIER**  
**SONY®**

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## MODEL IDENTIFICATION

– Specification Label Printed on Back Panel –



AEP, Germany model: AC 220 -230 V ~50/60 Hz  
 Australian, UK model: AC 240 V ~50/60 Hz  
 E model: AC 120/220/240 V~50/60 Hz



### Note :

There are two type of AEP models which are depend on countries.

AEP2 model : Model for Scandinavian countries,  
 Switzerland, Spain and Portugal

AEP1 model : Model for other European countries

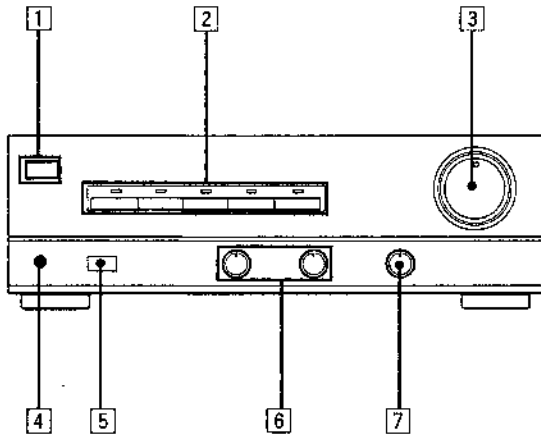
### SAFETY-RELATED COMPONENT WARNING!!

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

This section is extracted from instruction manual.

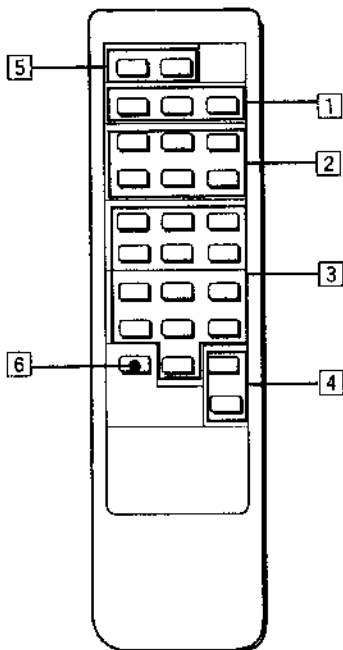
### Identifying the Parts and Controls



This section describes about each name of this amplifier and remote commander.

#### Front Panel

- 1 POWER switch
- 2 Function selectors and indicators
- 3 VOLUME control and indicator  
Adjusts the sound level.
- 4 HEADPHONES jack
- 5 Remote control sensor
- 6 TONE (BASS/TREBLE) controls
- 7 BALANCE control



#### Remote Commaner

- 1 TUNER operation buttons  
TUNER: Select the TUNER mode.  
PRESET +/- buttons: Select the preset station.
- 2 CD operation buttons  
◀▶/▶▶: Automatic music sensor.  
D. (Disc) SKIP: Disc skip (for CD player equipped with a multi-disc changer)  
▶: The amplifier enters the CD mode and the CD player starts playback automatically.  
■: Stop.  
⏸: Pause.
- 3 TAPE 2 DECK A/DECK B operation buttons  
◀◀/▶▶: Fast winding.  
■: Stop.  
◀: The amplifier enters the TAPE 2 mode and the tape deck starts reverse playback automatically.  
▶: The amplifier enters the TAPE 2 mode and the tape deck starts forward playback automatically.  
●: Recording.  
⏸: Pause. (Only for DECK B)
- 4 VOL (Volume) +/- buttons
- 5 PHONO operation buttons  
START: Pressing START automatically selects the PHONO mode on the amplifier and starts playback of the turntable system.  
STOP: Stops playback of the turntable system.
- 6 DAT/TAPE 1 button  
Selects the DAT or TAPE 1 mode.

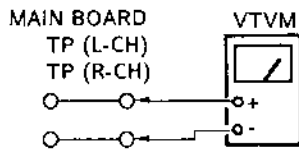
## SECTION 2 ELECTRICAL ADJUSTMENTS

**Note :**

1. DC BIAS adjustments should be made within 2 to 3 minutes after the POWER switch is turned on (POWER ON).
2. After replacing the power transistors, DC BIAS adjustments should be made.

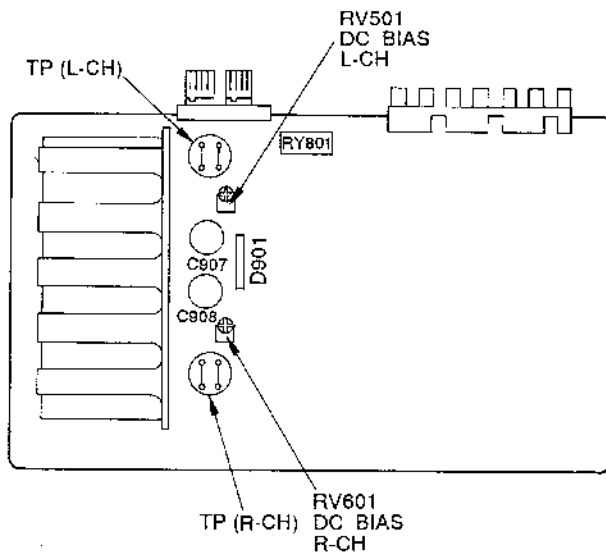
**DC Bias Adjustment (with no signal input)**

**Procedure :**



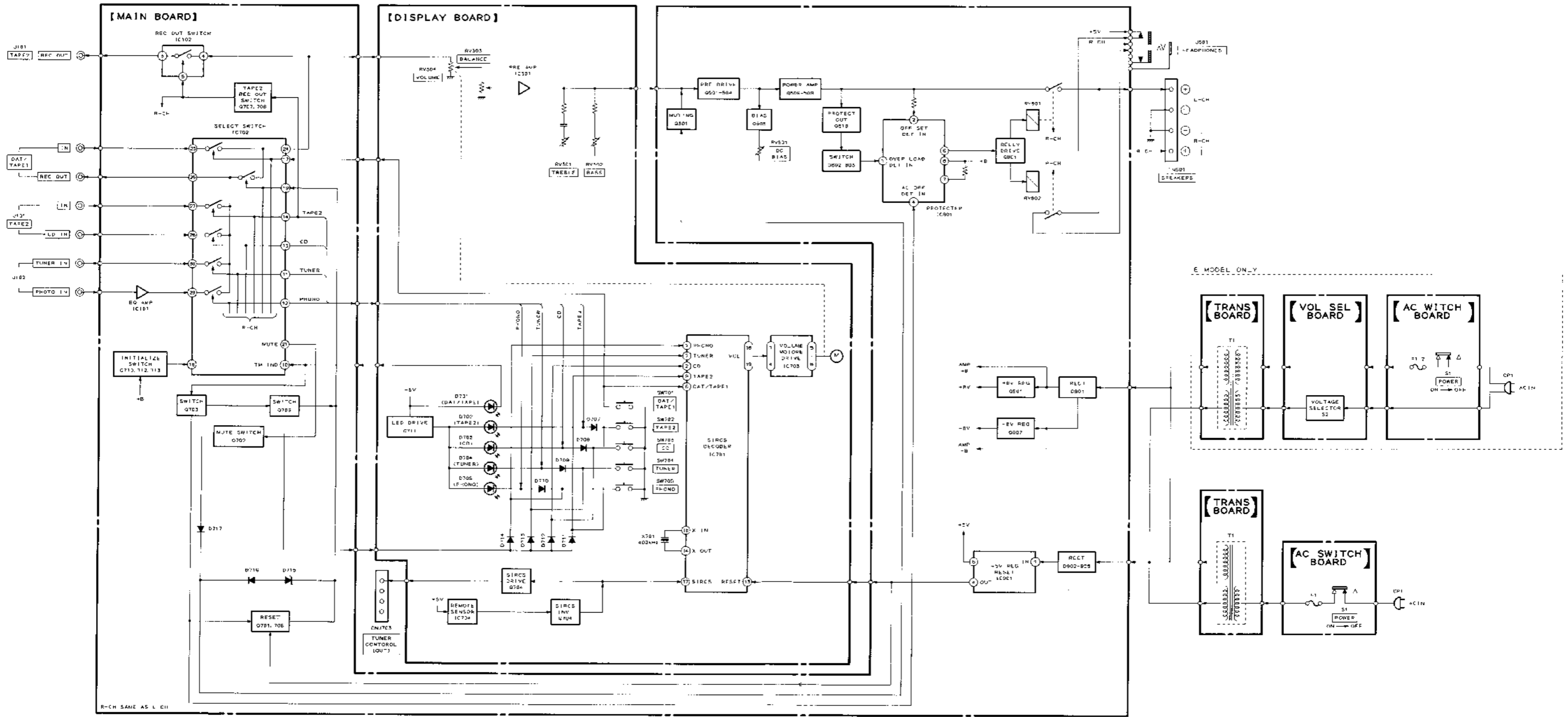
	Adjustment part	Reading on VTVM
L-CH	RV501	6.5mV
R-CH	RV601	6.5mV

**[ADJUSTMENT LOCATIONS]**



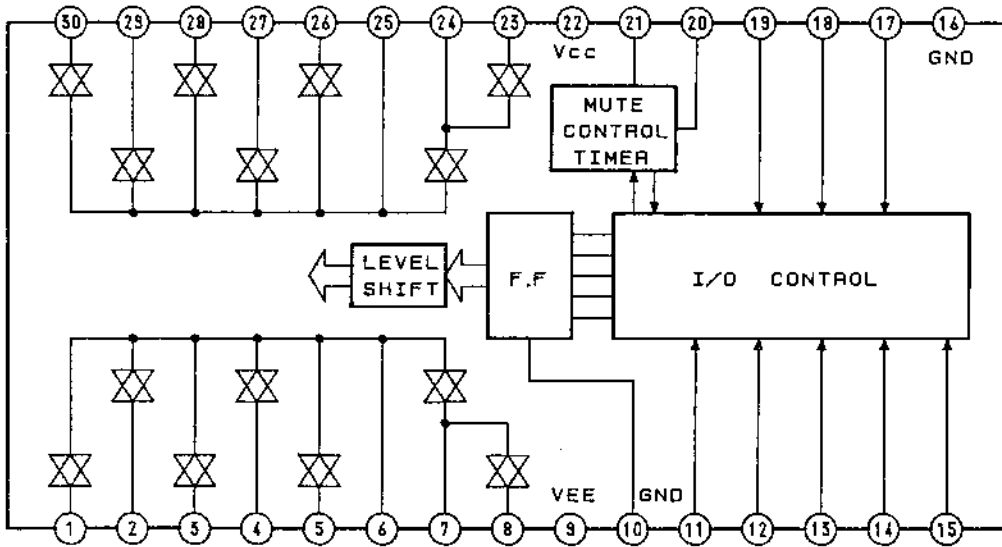
# SECTION 3 DIAGRAMS

## 3-1. BLOCK DIAGRAM

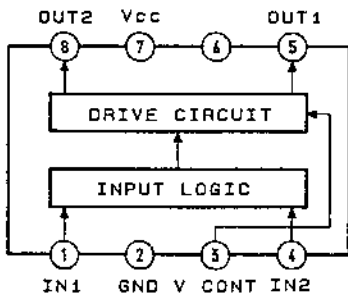


• IC BLOCK DIAGRAMS

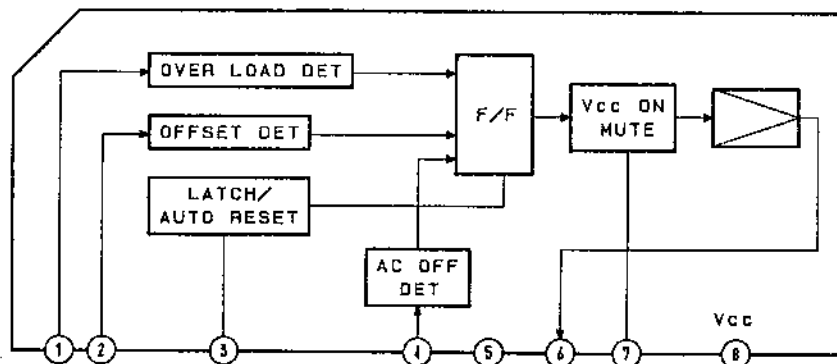
IC702 LC7818



IC703 LB1639



IC801 UPC1237HA

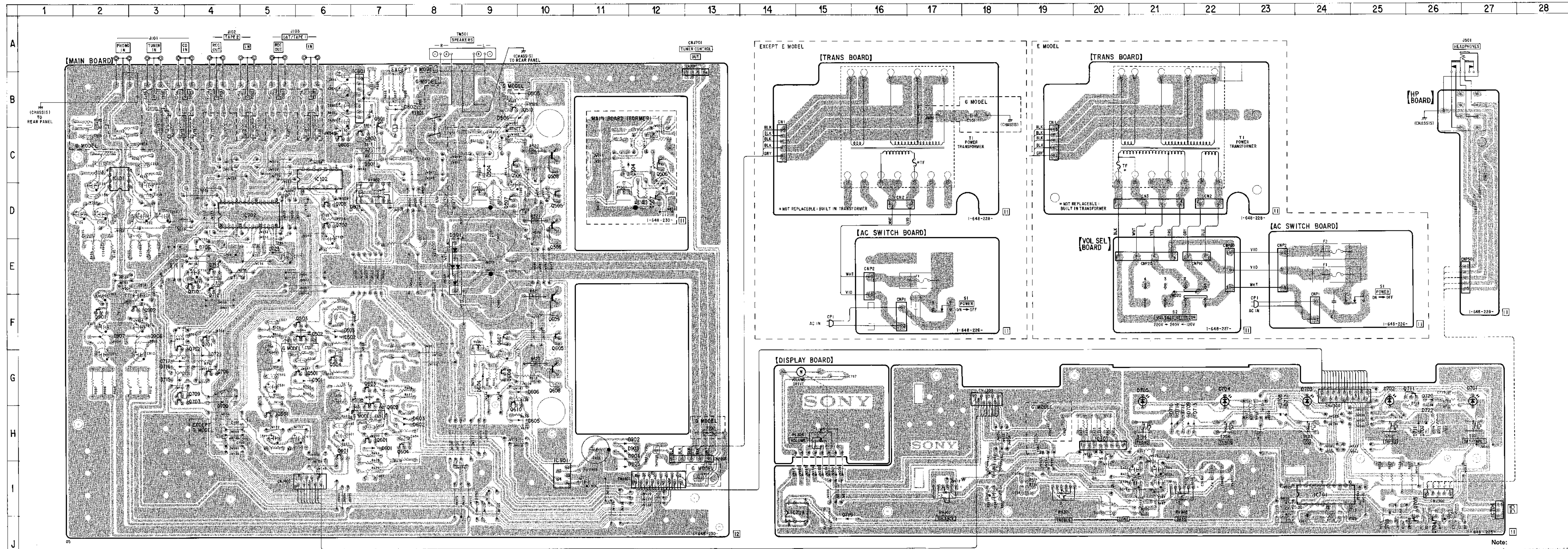




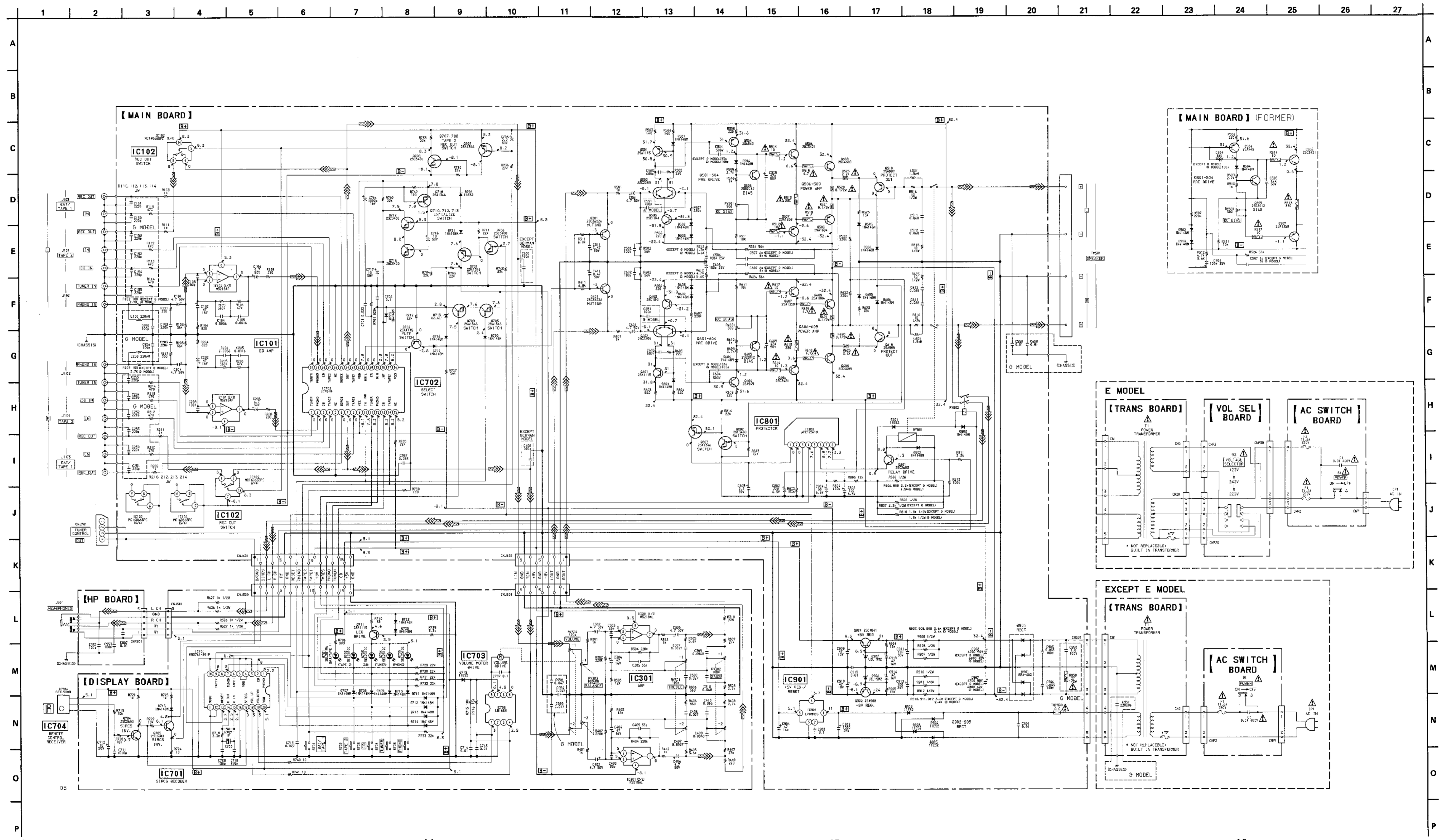
### 3-2. IC701 FUNCTION CONTROLLER (M50761-291P).

Micro Processor M50761-291P is used for control the volume up/down, function select and power on/standby by SIRCS code signal input and power on/standby key code signal input.

Pin No.	Pin Name	I/O	Description						
1	PHONO	O	Function select output. (one-shot output) (L : PHONO)						
2	CD	O	Function select output. (one-shot output) (L : CD)						
3	AUX	O	Function select output. (one-shot output) (L : AUX)						
4	CN VSS	—	Ground						
5	VSS	—	Ground						
6	TAPE1	O	Function select output. (one-shot output) (L : TAPE1)						
7	TUNER	O	Function select output. (one-shot output) (L : TUNER)						
8	POWER	O	Power supply ON/OFF relay (RY1) control output. (L : POWER ON, H : POWER OFF)						
9	TAPE2	O	Function select output. (one-shot output) (L : TAPE2)						
10	POWER IN	I	POWER ON/STANDBY key switch input.						
11	MODE	I	Mode select input. This model is used "L" level only. <table border="1" style="margin-left: 40px;"> <thead> <tr> <th></th> <th>POWER ON/OFF mode</th> </tr> </thead> <tbody> <tr> <td>H</td> <td>USED</td> </tr> <tr> <td>L</td> <td>NOT USED</td> </tr> </tbody> </table>		POWER ON/OFF mode	H	USED	L	NOT USED
	POWER ON/OFF mode								
H	USED								
L	NOT USED								
12	NC	—	Ground						
13	RESET	I	Reset signal input.						
14	X OUT	O	Ceramic vibrator connection terminal. (400Hz)						
15	X IN	O	Ceramic vibrator connection terminal. (400Hz)						
16	NC	—	Ground						
17	SIRCS	I	SIRCS code signal input. (serial input)						
18	VOL UP	O	Volume motor up control output. (contineous output)						
19	VOL DOWN	O	Volume motor down control output. (contineous output)						
20	VDD	—	+5V power supply.						







**• Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D501	G-6	IC301	H-20
D502	F-6	IC701	I-24
D503	F-6	IC702	D-5
D504	C-9	IC703	I-14
D505	B-10	IC704	I-27
D506	B-9	IC901	B-7
D507	H-7	IC901	I-10
D602	H-8		
D603	H-8	Q301	H-5
D604	G-9	Q401	H-8
D605	H-10	Q501	G-6
D606	G-10	Q502	F-6
D700	G-4	Q503	F-6
D701	G-27	Q504	C-8
D702	G-25	Q505	D-10
D703	G-24	Q506	C-9
D704	G-22	Q507	D-9
D705	G-21	Q508	C-10
D706	E-4	Q509	C-10
D707	H-26	Q510	B-10
D708	H-23	Q601	H-7
D709	H-22	Q602	H-7
D710	H-21	Q603	G-7
D711	H-26	Q604	H-7
D712	H-23	Q605	F-10
D713	H-22	Q606	G-9
D714	H-21	Q607	F-9
D715	G-3	Q608	C-10
D716	G-3	Q609	F-10
D717	G-3	Q610	H-9
D718	J-25	Q701	F-4
D719	J-25	Q702	F-4
D720	G-26	Q703	G-4
D721	G-4	Q704	J-26
D722	H-26	Q705	I-26
D723	E-5	Q706	G-4
D801	C-7	Q707	D-6
D802	B-7	Q708	D-6
D803	D-7	Q709	G-4
D804	E-1	Q710	F-4
D805	H-11	Q711	G-26
D806	H-11	Q712	F-4
D807	H-11	Q713	E-4
D808	F-3	Q801	B-7
D809	F-2	Q802	C-7
D810	F-2	Q803	C-8
D811	F-2	Q901	F-2
IC101	C-2	Q902	F-3
IC102	C-6		

**Note:**

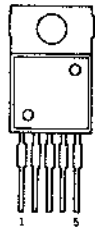
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}$  W or less unless otherwise specified.
- $\square$ : nonflammable resistor.
- $\square$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

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

- $\square$ : B+ Line.
- $\square$ : B- Line.
- $\square$ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (10 MQ/V).
- Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\Rightarrow$ : PHONO

• SEMICONDUCTOR LEAD LAYOUTS

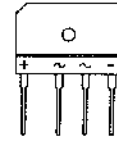
L78MR05



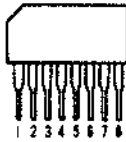
2SA1804-RO  
25C4689-RO



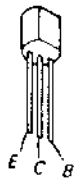
RBA-402



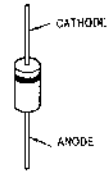
M5218AP  
μ PC1237HA



2SA949-OY  
2SA988-PAFAEA  
25C1841-PAFAEA



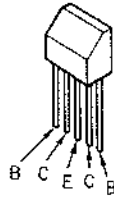
1N4148M



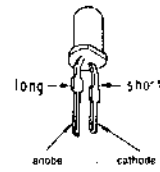
DTA124ES  
DTC124ES  
25C2603-EF  
25C3622A-LK



25C2259-FG



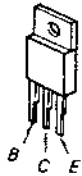
SEL3510C-CD  
SEL3810A-CD



2SA1175-HFE



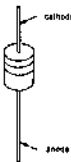
25D2012



2SA1358-OY  
25C3421-OY



HZS6A3L  
UZL-9M2  
UZL-9M3  
11ES2



## SECTION 4 EXPLODED VIEWS

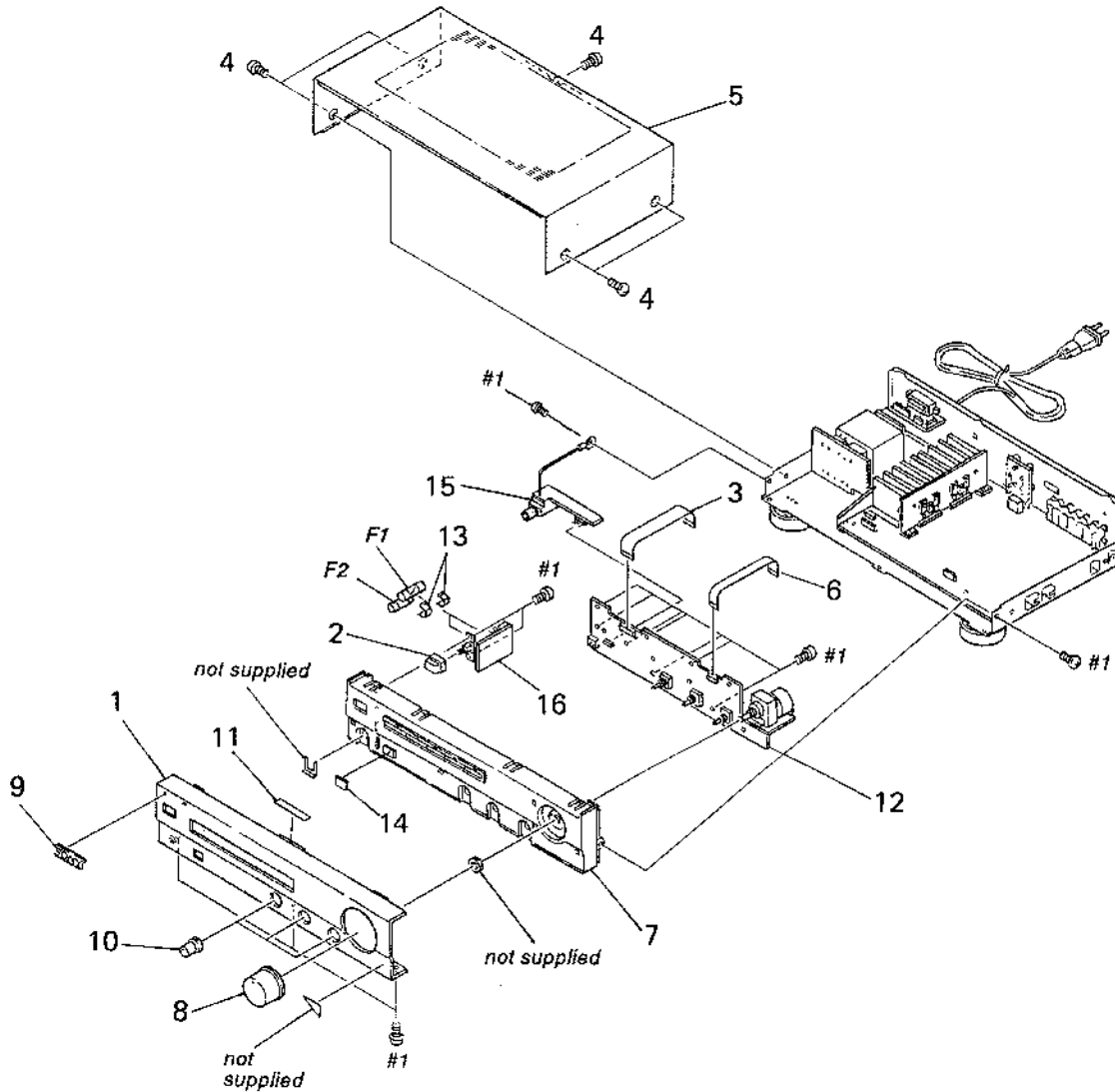
**NOTE:**

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- 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.

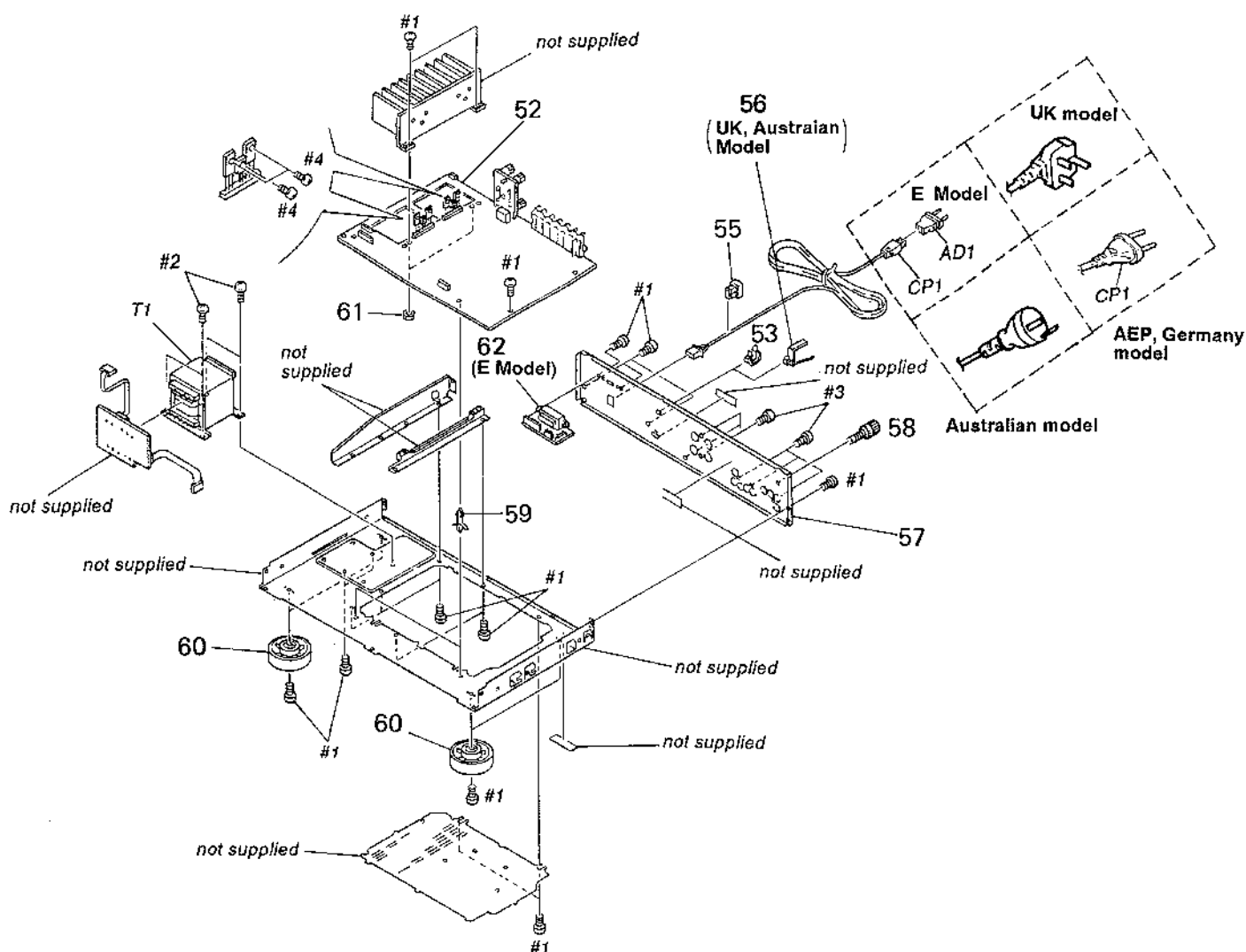
The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

**(1) FRONT PANEL SECTION**



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-958-635-01	PANEL, FRONT		11	9-911-837-XX	CUSHION	
2	4-917-460-01	KNOB, POWER		* 12	A-4360-805-A	DISPLAY BOARD, COMPLETE (AEP, UK, E, AUSTRALIAN)	
3	1-751-432-11	WIRE (FLAT TYPE) (17 CORE)		* 12	A-4360-806-A	DISPLAY BOARD, COMPLETE (G)	
4	3-704-366-01	SCREW (CASE) (M3X8)		13	1-533-293-11	FUSE HOLDER	
* 5	4-937-817-11	CASE		14	4-931-911-01	FILTER	
6	1-751-433-11	WIRE (FLAT TYPE) (9 CORE)		15	1-648-229-11	PC BOARD, HP	
7	X-4943-696-1	BASE ASSY, PANEL		16	1-648-226-11	PC BOARD, AC SW	
8	X-4943-697-1	KNOB ASSY		F1	1-532-285-00	FUSE T1.6A 250V	
9	4-942-568-01	EMBLEM (NO. 5), SONY		F2	1-532-285-00	FUSE T1.6A 250V (E)	
10	4-958-636-01	KNOB					

(2) CHASSIS SECTION



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

Ref. No.	Part No.	Description	Remark
	52	A-4360-799-A MAIN BOARD, COMPLETE (AE1)	
*	52	A-4360-800-A MAIN BOARD, COMPLETE (AE2)	
*	52	A-4360-801-A MAIN BOARD, COMPLETE (G)	
*	52	A-4360-802-A MAIN BOARD, COMPLETE (UK)	
*	52	A-4360-803-A MAIN BOARD, COMPLETE (E)	
*	52	A-4360-804-A MAIN BOARD, COMPLETE (AUSTRALIAN))	
*	53	4-949-235-01 HOOK (AEP, E, G)	
*	55	3-703-244-00 BUSHING (2104), CORD (AEP, UK, G, AUSTRALIAN)	
*	55	3-703-571-11 BUSHING (S) (4516), CORD (E)	
	56	4-956-370-02 BAND, PLUG FIXED (UK, AUSTRALIAN)	
*	57	4-958-640-01 PANEL, BACK (AE1)	
*	57	4-958-640-11 PANEL, BACK (AE2)	
*	57	4-958-640-21 PANEL, BACK (G)	
*	57	4-958-640-31 PANEL, BACK (UK)	
*	57	4-958-640-41 PANEL, BACK (E)	

Ref. No.	Part No.	Description	Remark
*	57	4-958-640-51 PANEL, BACK (AUSTRALIAN)	
	58	4-947-010-01 SCREW, FEEDER FIXED	
*	59	3-346-285-11 HOLDER, PC BOARD	
	60	4-943-148-42 FOOT (F58175SW)	
	61	4-960-258-01 WASHER	
	62	1-648-227-11 PC BOARD, VOLSEL (E)	
	$\Delta$ AD1	1-569-007-11 ADAPTER, CONVERSION 2P (E)	
	$\Delta$ CP1	1-575-651-21 CORD, POWER (AEP, G)	
	$\Delta$ CP1	1-696-027-11 CORD, POWER (E)	
	$\Delta$ CP1	1-696-586-11 CORD, POWER (UK)	
	$\Delta$ CP1	1-696-845-11 CORD, POWER (AUSTRALIAN)	
	$\Delta$ T1	1-423-676-11 TRANSFORMER, POWER (AEP)	
	$\Delta$ T1	1-423-677-11 TRANSFORMER, POWER (G)	
	$\Delta$ T1	1-423-678-11 TRANSFORMER, POWER (E)	
	$\Delta$ T1	1-423-681-11 TRANSFORMER, POWER (UK, AUSTRALIAN)	

## 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.
- -XX and -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
- G: German

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.

Ref. No.	Part No.	Description	Remark
*	1-648-226-11	AC SW BOARD *****	
		< CAPACITOR >	
$\Delta$ C1	1-161-744-00	CERAMIC    0.01uF	400V
		< CONNECTOR >	
* CNP1	1-580-230-31	PIN, CONNECTOR (PC BOARD) 2P	
CNP2	1-564-321-00	PIN, CONNECTOR 2P (AEP, UK, G, AUSTRALIAN)	
CNP2	1-564-687-11	PIN, CONNECTOR 3P (E)	
		< FUSE >	
$\Delta$ F1	1-532-285-00	FUSE T1. 6A    250V	
$\Delta$ F2	1-532-285-00	FUSE T1. 6A    250V (E)	
		< SWITCH >	
$\Delta$ S1	1-572-267-51	SWITCH, PUSH (AC POWER) (1 KEY)	
*****			
	A-4360-805-A	DISPLAY BOARD, COMPLETE (AEP, UK, E AUSTRALIAN)	
	A-4360-806-A	DISPLAY BOARD, COMPLETE (G)	
		*****	
*	1-533-293-11	FUSE HOLDER	
*	1-690-880-31	LEAD (WITH CONNECTOR) (G)	
		< CAPACITOR >	
C302	1-123-369-00	ELECT    4.7uF    20%	50V
C303	1-162-211-31	CERAMIC    33PF    5%	50V
C304	1-123-306-00	ELECT    47uF    20%	10V
C305	1-162-211-31	CERAMIC    33PF    5%	50V
C306	1-123-369-00	ELECT    4.7uF    20%	50V
C307	1-130-476-00	MYLAR    0.0027uF    5%	50V

Ref. No.	Part No.	Description	Remark
C308	1-130-488-00	MYLAR    0.027uF    5%	50V
C309	1-130-481-00	MYLAR    0.0068uF    5%	50V
C310	1-130-493-00	MYLAR    0.068uF    5%	50V
C402	1-123-369-00	ELECT    4.7uF    20%	50V
C403	1-162-211-31	CERAMIC    33PF    5%	50V
C404	1-123-306-00	ELECT    47uF    20%	10V
C405	1-162-211-31	CERAMIC    33PF    5%	50V
C406	1-123-369-00	ELECT    4.7uF    20%	50V
C407	1-130-476-00	MYLAR    0.0027uF    5%	50V
C408	1-130-488-00	MYLAR    0.027uF    5%	50V
C409	1-130-481-00	MYLAR    0.0068uF    5%	50V
C410	1-130-493-00	MYLAR    0.068uF    5%	50V
C707	1-164-159-11	CERAMIC    0.1uF    50V	
C709	1-162-284-31	CERAMIC    150PF    10%	50V
C710	1-162-284-31	CERAMIC    150PF    10%	50V
C711	1-162-294-31	CERAMIC    0.001uF    10%	50V
C712	1-124-907-11	ELECT    10uF    20%	50V
C713	1-162-294-31	CERAMIC    0.001uF    10%	50V
C714	1-162-294-31	CERAMIC    0.001uF    10%	50V
C715	1-130-488-00	MYLAR    0.027uF    5%	50V
C951	1-164-097-11	CERAMIC    0.022uF    50V (G)	
C954	1-136-161-00	FILM    0.047uF    5%	50V (G)
C958	1-136-161-00	FILM    0.047uF    5%	50V (G)
C959	1-136-161-00	FILM    0.047uF    5%	50V (G)
		< CONNECTOR >	
CNJ300	1-750-234-11	CONNECTOR, FFC/FPC 17P	
CNJ301	1-750-586-11	CONNECTOR, FFC/FPC 9P	
		< DIODE >	
D701	8-719-313-72	LED    SEL3810A-CD	
D702	8-719-018-46	LED    SEL3510C-CD	
D703	8-719-018-46	LED    SEL3510C-CD	
D704	8-719-018-46	LED    SEL3510C-CD	
D705	8-719-018-46	LED    SEL3510C-CD	
D707	8-719-987-63	DIODE    1N4148M	

Ref. No.	Part No.	Description	Remark
D708	8-719-987-63	DIODE 1N4148M	
D712	8-719-987-63	DIODE 1N4148M	
D709	8-719-987-63	DIODE 1N4148M	
D710	8-719-987-63	DIODE 1N4148M	
D711	8-719-987-63	DIODE 1N4148M	
D713	8-719-987-63	DIODE 1N4148M	
D714	8-719-987-63	DIODE 1N4148M	
D718	8-719-987-63	DIODE 1N4148M	
D719	8-719-200-82	DIODE 11ES2	
D720	8-719-987-63	DIODE 1N4148M	
D722	8-719-987-63	DIODE 1N4148M	
< IC >			
IC301	8-759-634-50	IC M5218AL	
IC701	8-759-077-08	IC M50761-291P	
IC703	8-759-820-62	IC LB1639	
IC704	8-749-923-43	IC GPIU57XB	
< TRANSISTOR >			
Q704	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q705	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q711	8-729-119-76	TRANSISTOR 2SA1175-11FE	
< RESISTOR >			
R301	1-259-428-11	CARBON 1K 5% 1/6W	
R302	1-259-484-11	CARBON 220K 5% 1/6W	
R303	1-259-454-11	CARBON 12K 5% 1/6W	
R304	1-259-484-11	CARBON 220K 5% 1/6W	
R305	1-259-446-11	CARBON 5.6K 5% 1/6W	
R306	1-259-422-11	CARBON 560 5% 1/6W	
R307	1-259-462-11	CARBON 27K 5% 1/6W	
R308	1-259-438-11	CARBON 2.7K 5% 1/6W	
R310	1-259-412-11	CARBON 220 5% 1/6W	
R312	1-259-428-11	CARBON 1K 5% 1/6W	
R401	1-259-428-11	CARBON 1K 5% 1/6W	
R402	1-259-484-11	CARBON 220K 5% 1/6W	
R403	1-259-454-11	CARBON 12K 5% 1/6W	
R404	1-259-484-11	CARBON 220K 5% 1/6W	
R405	1-259-446-11	CARBON 5.6K 5% 1/6W	
R406	1-259-422-11	CARBON 560 5% 1/6W	
R407	1-259-462-11	CARBON 27K 5% 1/6W	
R408	1-259-438-11	CARBON 2.7K 5% 1/6W	
R410	1-259-412-11	CARBON 220 5% 1/6W	
R412	1-259-428-11	CARBON 1K 5% 1/6W	
R526	1-247-752-11	CARBON 1K 5% 1/2W	
R527	1-247-752-11	CARBON 1K 5% 1/2W	
R626	1-247-752-11	CARBON 1K 5% 1/2W	
R627	1-247-752-11	CARBON 1K 5% 1/2W	
R705	1-247-818-11	CARBON 300 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R707	1-247-903-00	CARBON 1M 5% 1/4W	
R710	1-249-399-11	CARBON 33 5% 1/4W F	
R715	1-249-429-11	CARBON 10K 5% 1/4W	
R716	1-249-429-11	CARBON 10K 5% 1/4W	
R718	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R719	1-249-429-11	CARBON 10K 5% 1/4W	
R720	1-249-429-11	CARBON 10K 5% 1/4W	
R721	1-249-417-11	CARBON 1K 5% 1/4W F	
R722	1-249-429-11	CARBON 10K 5% 1/4W	
R723	1-249-417-11	CARBON 1K 5% 1/4W F	
R724	1-249-393-11	CARBON 10 5% 1/4W F	
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	
R739	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R740	1-249-393-11	CARBON 10 5% 1/4W F	
R741	1-249-393-11	CARBON 10 5% 1/4W F	
< VARIABLE RESISTOR >			
RV301	1-223-397-11	RES, VAR, CARBON 100K/100K	
RV302	1-223-397-11	RES, VAR, CARBON 100K/100K	
RV303	1-223-396-11	RES, VAR, CARBON 100K/100K	
RV304	1-223-395-11	RES, VAR, CARBON 100K/100K	
< SWITCH >			
S701	1-554-303-21	SWITCH, TACTILE (DAT/TAPE1)	
S702	1-554-303-21	SWITCH, TACTILE (TAPE2)	
S703	1-554-303-21	SWITCH, TACTILE (CD)	
S704	1-554-303-21	SWITCH, TACTILE (TUNER)	
S705	1-554-303-21	SWITCH, TACTILE (PHONO)	
< VIBRATOR >			
X700	1-577-077-21	OSCILLATOR, CERAMIC	
*****			
*	1-648-229-11	HP BOARD	
*****			
< CAPACITOR >			
C807	1-136-153-00	FILM 0.01uF 5% 50V	
C952	1-182-282-31	CERAMIC 100PF 10% 50V	
C853	1-162-282-31	CERAMIC 100PF 10% 50V	
< CONNECTOR >			
CNP501	1-506-906-11	PIN, CONNECTOR 5P	



**MAIN**

Ref. No.	Part No.	Description	Remark
		< JACK >	
J501	1-563-347-11	JACK, LARGE TYPE (HEADPHONES)	
*****			
	A-4360-799-A	MAIN BOARD, COMPLETE (AE1)	
	*****		
*	A-4360-800-A	MAIN BOARD, COMPLETE (AE2)	
	*****		
*	A-4360-802-A	MAIN BOARD, COMPLETE (UK)	
	*****		
*	A-4360-801-A	MAIN BOARD, COMPLETE (G)	
	*****		
*	A-4360-804-A	MAIN BOARD, COMPLETE (AUSTRALIAN)	
	*****		
	1-648-230-11	MAIN BOARD	
	7-685-647-79	SCREW +BVT 3X10 TYPE2 IT-3	
		< CAPACITOR >	
C101	1-123-369-00	ELECT 4.7uF 20% 50V	
C102	1-124-910-11	ELECT 47uF 20% 50V	
C103	1-164-077-11	CERAMIC 220PF 10% 50V	
C104	1-130-480-00	MYLAR 0.0056uF 5% 50V	
C105	1-104-842-91	MYLAR 0.0016uF 5% 50V	
C106	1-123-369-00	ELECT 4.7uF 20% 50V	
C108	1-164-073-11	CERAMIC 100PF 10% 50V	
C150	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
C151	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
C152	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
C153	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
C154	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
C155	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
C201	1-123-369-00	ELECT 4.7uF 20% 50V	
C202	1-124-910-11	ELECT 47uF 20% 50V	
C203	1-164-077-11	CERAMIC 220PF 10% 50V	
C204	1-130-480-00	MYLAR 0.0056uF 5% 50V	
C205	1-104-842-91	MYLAR 0.0016uF 5% 50V	
C206	1-123-369-00	ELECT 4.7uF 20% 50V	
C208	1-164-073-11	CERAMIC 100PF 10% 50V	
C250	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
C251	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
C252	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
C253	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
C254	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
C255	1-162-286-31	CERAMIC 220PF 10% 50V (G)	
C300	1-164-073-11	CERAMIC 100PF 10% 50V (AEP, UK, E, AUSTRALIAN)	
C311	1-124-902-00	ELECT 0.47uF 20% 50V	
C400	1-164-073-11	CERAMIC 100PF 10% 50V (AEP, UK, E, AUSTRALIAN)	

Ref. No.	Part No.	Description	Remark
C411	1-124-902-00	ELECT 0.47uF 20% 50V	
C501	1-123-369-00	ELECT 4.7uF 20% 50V	
C502	1-164-073-11	CERAMIC 100PF 10% 50V	
C503	1-164-083-11	CERAMIC 680PF 10% 50V	
C504	1-101-810-00	CERAMIC 100PF 5% 500V (G)	
C504	1-102-233-00	CERAMIC 33PF 10% 500V (AEP, UK, E, AUSTRALIAN)	
C505	1-124-910-11	ELECT 47uF 20% 50V	
C506	1-124-122-11	ELECT 100uF 20% 16V	
C507	1-102-943-00	CERAMIC 6.0PF +-0.5PF 50V (AEP, UK, E, AUSTRALIAN)	
C507	1-164-044-11	CERAMIC 8PF 0.5PF 50V (G)	
C511	1-136-163-00	FILM 0.068uF 5% 50V	
C512	1-136-163-00	FILM 0.068uF 5% 50V	
C550	1-136-153-00	FILM 0.01uF 5% 50V (G)	
C551	1-162-282-31	CERAMIC 100PF 10% 50V (G)	
C601	1-123-369-00	ELECT 4.7uF 20% 50V	
C602	1-164-073-11	CERAMIC 100PF 10% 50V	
C603	1-164-083-11	CERAMIC 680PF 10% 50V	
C604	1-101-810-00	CERAMIC 100PF 5% 500V (G)	
C604	1-102-233-00	CERAMIC 33PF 10% 500V (AEP, UK, E, AUSTRALIAN)	
C605	1-124-910-11	ELECT 47uF 20% 50V	
C606	1-124-122-11	ELECT 100uF 20% 16V	
C607	1-102-943-00	CERAMIC 6.0PF +-0.5PF 50V (AEP, UK, E, AUSTRALIAN)	
C607	1-164-044-11	CERAMIC 8PF 0.5PF 50V (G)	
C611	1-136-163-00	FILM 0.068uF 5% 50V	
C612	1-136-163-00	FILM 0.068uF 5% 50V	
C650	1-136-153-00	FILM 0.01uF 5% 50V (G)	
C651	1-162-282-31	CERAMIC 100PF 10% 50V (G)	
C701	1-161-494-00	CERAMIC 0.022uF 25V	
C703	1-124-925-11	ELECT 2.2uF 20% 100V	
C704	1-126-926-11	ELECT 1000uF 20% 10V	
C706	1-164-159-11	CERAMIC 0.1uF 50V	
C716	1-124-907-11	ELECT 10uF 20% 50V	
C717	1-124-907-11	ELECT 10uF 20% 50V	
C802	1-126-176-11	ELECT 220uF 20% 10V	
C804	1-124-034-51	ELECT 33uF 20% 16V	
C805	1-124-925-11	ELECT 2.2uF 20% 100V	
C806	1-124-443-00	ELECT 100uF 20% 10V	
C901	1-136-153-00	FILM 0.01uF 5% 50V	
C902	1-124-557-11	ELECT 1000uF 20% 25V	
C903	1-136-165-00	FILM 0.1uF 5% 50V	
C904	1-123-306-00	ELECT 47uF 20% 10V	
C905	1-106-379-12	MYLAR 0.033uF 5% 200V	
C906	1-106-379-12	MYLAR 0.033uF 5% 200V	
C907	1-104-836-11	ELECT 4700uF 20% 50V (AEP, UK, E, AUSTRALIAN)	

Ref. No.	Part No.	Description	Remark
C907	1-104-837-11	ELECT 6800uF	20% 42V (G)
C908	1-104-836-11	ELECT 4700uF	20% 50V
		(AEP, UK, E, AUSTRALIAN)	
C908	1-104-837-11	ELECT 6800uF	20% 42V (G)
C909	1-123-306-00	ELECT 47uF	20% 10V
C910	1-123-306-00	ELECT 47uF	20% 10V
C911	1-124-122-11	ELECT 100uF	20% 50V
C912	1-124-122-11	ELECT 100uF	20% 50V
C913	1-123-306-00	ELECT 47uF	20% 10V
C914	1-123-306-00	ELECT 47uF	20% 10V
C915	1-136-153-00	FILM 0.01uF	5% 50V
C950	1-130-789-00	FILM 1uF	5% 100V (G)
C955	1-164-073-11	CERAMIC 100PF	10% 50V (G)
C956	1-164-073-11	CERAMIC 100PF	10% 50V (G)
C957	1-106-379-12	MYLAR 0.033uF	5% 200V

< CONNECTOR >

CNJ401	1-750-227-11	CONNECTOR, FFC/FPC 17P
CNJ402	1-750-598-11	CONNECTOR, FFC/FPC 9P
CNJ701	1-566-213-11	PIN, CONNECTOR 4P
CNPR01	1-564-242-00	PIN, CONNECTOR 5P

< DIODE >

D501	8-719-987-63	DIODE 1N4148M
D502	8-719-987-63	DIODE 1N4148M
D503	8-719-987-63	DIODE 1N4148M
D504	8-719-987-63	DIODE 1N4148M
D505	8-719-987-63	DIODE 1N4148M
D506	8-719-987-63	DIODE 1N4148M
D601	8-719-987-63	DIODE 1N4148M
D602	8-719-987-63	DIODE 1N4148M
D603	8-719-987-63	DIODE 1N4148M
D604	8-719-987-63	DIODE 1N4148M
D605	8-719-987-63	DIODE 1N4148M
D606	8-719-987-63	DIODE 1N4148M
D700	8-719-987-63	DIODE 1N4148M
D706	8-719-200-82	DIODE 11ES2
D715	8-719-933-35	DIODE HZS6A3L
D716	8-719-987-63	DIODE 1N4148M
D717	8-719-987-63	DIODE 1N4148M
D721	8-719-987-63	DIODE 1N4148M
D723	8-719-987-63	DIODE 1N4148M
D801	8-719-200-82	DIODE 11ES2
D802	8-719-987-63	DIODE 1N4148M
D803	8-719-987-63	DIODE 1N4148M
D901	8-719-312-09	DIODE RBA-402
D902	8-719-200-82	DIODE 11ES2
D903	8-719-200-82	DIODE 11ES2
D904	8-719-200-82	DIODE 11ES2

Ref. No.	Part No.	Description	Remark
D905	8-719-200-82	DIODE 11ES2	
D906	8-719-001-15	DIODE UZL-9M2	
D907	8-719-001-18	DIODE UZL-9M3	

< IC >

IC101	8-759-634-51	IC M5218AP
IC102	8-759-000-49	IC MC14066BPC
IC702	8-759-802-52	IC LC7818
IC801	8-759-111-68	IC uPC1237HA
IC901	8-759-820-84	IC L78MRO5

< JACK >

J101	1-566-883-81	JACK, PIN 6P
J102	1-566-882-51	JACK, PIN 4P
J103	1-566-882-51	JACK, PIN 4P

< COIL >

L100	1-410-979-11	INDUCTOR 220uH (G)
L200	1-410-979-11	INDUCTOR 220uH (G)
* L501	1-420-872-00	COIL, AIR CORE 1.9uHz
* L601	1-420-872-00	COIL, AIR CORE 1.9uHz

< TRANSISTOR >

Q301	8-729-141-26	TRANSISTOR 2SC3622A-LK
Q401	8-729-141-26	TRANSISTOR 2SC3622A-LK
Q501	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q502	8-729-620-17	TRANSISTOR 2SC2259-FG
Q503	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA
Q504	8-729-021-74	TRANSISTOR 2SA949-OY-TPE6
Q505	8-729-209-15	TRANSISTOR 2SD2012
Q506	8-729-020-82	TRANSISTOR 2SC3421-OY
Q507	8-729-020-83	TRANSISTOR 2SA1358-OY
Q508	8-729-021-75	TRANSISTOR 2SC4689-RO
Q509	8-729-021-76	TRANSISTOR 2SA1804-RO
Q510	8-729-140-82	TRANSISTOR 2SA988-PAFAEA
Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q602	8-729-620-17	TRANSISTOR 2SC2259-FG
Q603	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA
Q604	8-729-021-74	TRANSISTOR 2SA949-OY-TPE6
Q605	8-729-209-15	TRANSISTOR 2SD2012
Q606	8-729-020-82	TRANSISTOR 2SC3421-OY
Q607	8-729-020-83	TRANSISTOR 2SA1358-OY
Q608	8-729-021-75	TRANSISTOR 2SC4689-RO
Q609	8-729-021-76	TRANSISTOR 2SA1804 RO
Q610	8-729-140-82	TRANSISTOR 2SA988-PAFAEA
Q701	8-729-900-63	TRANSISTOR DTA124ES
Q702	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q703	8-729-900-63	TRANSISTOR DTA124ES
Q706	8-729-900-36	TRANSISTOR DTC124ES

# MAIN

Ref. No.	Part No.	Description	Remark
Q707	8-729-900-63	TRANSISTOR DTA124ES	
Q708	8-729-900-36	TRANSISTOR DTC124ES	
Q709	8-729-900-63	TRANSISTOR DTA124ES	
Q710	8-729-900-63	TRANSISTOR DTA124ES	
Q712	8-729-900-36	TRANSISTOR DTC124ES	
Q713	8-729-900-36	TRANSISTOR DTC124ES	
Q801	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q802	8-729-900-36	TRANSISTOR DTC124ES	
Q803	8-729-900-63	TRANSISTOR DTA124ES	
Q901	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q902	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
< RESISTOR >			
R102	1-247-700-11	CARBON 100 5% 1/4W (AEP, UK, E. AUSTRALIAN)	
R102	1-247-718-11	CARBON 2.7K 5% 1/4W (G)	
R103	1-249-466-11	CARBON 56K 5% 1/4W	
R104	1-247-712-11	CARBON 820 5% 1/4W	
R105	1-214-958-00	METAL 560K 1% 1/4W	
R106	1-249-465-11	CARBON 47K 5% 1/4W	
R108	1-247-704-11	CARBON 220 5% 1/4W	
R109	1-247-713-11	CARBON 1K 5% 1/4W F	
R110	1-247-708-11	CARBON 470 5% 1/4W (G)	
R111	1-247-713-11	CARBON 1K 5% 1/4W F	
R112	1-247-708-11	CARBON 470 5% 1/4W (G)	
R113	1-247-708-11	CARBON 470 5% 1/4W (G)	
R114	1-247-708-11	CARBON 470 5% 1/4W (G)	
R121	1-247-706-11	CARBON 330 5% 1/4W F	
R202	1-247-700-11	CARBON 100 5% 1/4W (AEP, UK, E. AUSTRALIAN)	
R202	1-247-718-11	CARBON 2.7K 5% 1/4W (G)	
R203	1-249-466-11	CARBON 56K 5% 1/4W	
R204	1-247-712-11	CARBON 820 5% 1/4W	
R205	1-214-958-00	METAL 560K 1% 1/4W	
R206	1-249-465-11	CARBON 47K 5% 1/4W	
R208	1-247-704-11	CARBON 220 5% 1/4W	
R209	1-247-713-11	CARBON 1K 5% 1/4W F	
R210	1-247-708-11	CARBON 470 5% 1/4W (G)	
R211	1-247-713-11	CARBON 1K 5% 1/4W F	
R212	1-247-708-11	CARBON 470 5% 1/4W (G)	
R213	1-247-708-11	CARBON 470 5% 1/4W (G)	
R214	1-247-708-11	CARBON 470 5% 1/4W (G)	
R221	1-247-706-11	CARBON 330 5% 1/4W F	
R311	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R411	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R501	1-247-713-11	CARBON 1K 5% 1/4W F	
R502	1-249-466-11	CARBON 56K 5% 1/4W	
R503	1-247-710-11	CARBON 560 5% 1/4W	
R504	1-247-710-11	CARBON 560 5% 1/4W	
R505	1-247-704-11	CARBON 220 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R506	1-247-704-11	CARBON 220 5% 1/4W	
R507	1-247-887-00	CARBON 220K 5% 1/4W	
R508	1-247-704-11	CARBON 220 5% 1/4W	
R509	1-247-718-11	CARBON 2.7K 5% 1/4W	
R510	1-247-713-11	CARBON 1K 5% 1/4W F	
R511	1-247-725-11	CARBON 10K 5% 1/4W	
R512	1-247-721-11	CARBON 4.7K 5% 1/4W (AEP, UK, E. AUSTRALIAN)	
R512	1-247-722-11	CARBON 5.6K 5% 1/4W (G)	
△R513	1-212-893-00	FUSIBLE 330 5% 1/4W F	
△R514	1-212-857-00	FUSIBLE 10 5% 1/4W F	
R515	1-247-727-11	CARBON 10 5% 1/2W	
R516	1-247-727-11	CARBON 10 5% 1/2W	
△R517	1-212-857-00	FUSIBLE 10 5% 1/4W F	
△R518	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
△R519	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
△R520	1-217-611-00	RES, METAL PLATE 0.1 2W	
△R521	1-217-611-00	RES, METAL PLATE 0.1 2W	
R522	1-247-887-00	CARBON 220K 5% 1/4W	
R523	1-249-431-11	CARBON 15K 5% 1/4W	
R524	1-249-466-11	CARBON 56K 5% 1/4W	
△R525	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R601	1-247-713-11	CARBON 1K 5% 1/4W F	
R602	1-249-466-11	CARBON 56K 5% 1/4W	
R603	1-247-710-11	CARBON 560 5% 1/4W	
R604	1-247-710-11	CARBON 560 5% 1/4W	
R605	1-247-704-11	CARBON 220 5% 1/4W	
R606	1-247-704-11	CARBON 220 5% 1/4W	
R607	1-247-887-00	CARBON 220K 5% 1/4W	
R608	1-247-704-11	CARBON 220 5% 1/4W	
R609	1-247-718-11	CARBON 2.7K 5% 1/4W	
R610	1-247-713-11	CARBON 1K 5% 1/4W F	
R611	1-247-725-11	CARBON 10K 5% 1/4W	
R612	1-247-721-11	CARBON 4.7K 5% 1/4W (AEP, UK, E. AUSTRALIAN)	
R612	1-247-722-11	CARBON 5.6K 5% 1/4W (G)	
△R613	1-212-893-00	FUSIBLE 330 5% 1/4W F	
△R614	1-212-857-00	FUSIBLE 10 5% 1/4W F	
R615	1-247-727-11	CARBON 10 5% 1/2W	
R616	1-247-727-11	CARBON 10 5% 1/2W	
△R617	1-212-857-00	FUSIBLE 10 5% 1/4W F	
△R618	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
△R619	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
△R620	1-217-611-00	RES, METAL PLATE 0.1 2W	
△R621	1-217-611-00	RES, METAL PLATE 0.1 2W	
R622	1-247-887-00	CARBON 220K 5% 1/4W	
R623	1-249-431-11	CARBON 15K 5% 1/4W	
R624	1-249-466-11	CARBON 56K 5% 1/4W	
△R625	1-249-421-11	CARBON 2.2K 5% 1/4W F	

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

**MAIN**

**TRANS**

**VOL SEL**

Ref. No.	Part No.	Description	Remark
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	1-249-438-11	CARBON 56K 5% 1/4W	
R734	1-249-433-11	CARBON 22K 5% 1/4W	
R735	1-249-433-11	CARBON 22K 5% 1/4W	
R736	1-249-434-11	CARBON 27K 5% 1/4W	
R742	1-249-405-11	CARBON 100 5% 1/4W F	
R743	1-249-435-11	CARBON 33K 5% 1/4W	
R750	1-249-405-11	CARBON 100K 5% 1/4W	
R802	1-249-441-11	CARBON 100K 5% 1/4W	
R804	1-247-861-00	CARBON 120K 5% 1/4W	
R805	1-249-430-11	CARBON 12K 5% 1/4W	
R806	1-247-754-11	CARBON 1.5K 5% 1/2W (G)	
R806	1-247-756-11	CARBON 2.2K 5% 1/2W (AEP, UK, E, AUSTRALIAN)	
R807	1-247-754-11	CARBON 1.5K 5% 1/2W (G)	
R807	1-247-756-11	CARBON 2.2K 5% 1/2W (AEP, UK, E, AUSTRALIAN)	
R808	1-247-754-11	CARBON 1.5K 5% 1/2W (G)	
R808	1-247-756-11	CARBON 2.2K 5% 1/2W (AEP, UK, E, AUSTRALIAN)	
R810	1-247-754-11	CARBON 1.5K 5% 1/2W (G)	
R810	1-247-755-11	CARBON 1.8K 5% 1/2W (AEP, UK, E, AUSTRALIAN)	
R811	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R812	1-249-441-11	CARBON 100K 5% 1/4W	
R813	1-249-433-11	CARBON 22K 5% 1/4W	
R814	1-249-433-11	CARBON 22K 5% 1/4W	
R904	1-249-459-11	CARBON 12K 5% 1/4W	
R905	1-249-459-11	CARBON 12K 5% 1/4W	
R907	1-247-249-00	CARBON 2.4K 5% 1/2W (G)	
R907	1-247-253-00	CARBON 3.6K 5% 1/2W (AEP, UK, E, AUSTRALIAN)	
R908	1-247-249-00	CARBON 2.4K 5% 1/2W (G)	
R908	1-247-253-00	CARBON 3.6K 5% 1/2W (AEP, UK, E, AUSTRALIAN)	
R909	1-247-249-00	CARBON 2.4K 5% 1/2W (G)	
R909	1-247-253-00	CARBON 3.6K 5% 1/2W (AEP, UK, E, AUSTRALIAN)	
R910	1-247-249-00	CARBON 2.4K 5% 1/2W (G)	
R910	1-247-253-00	CARBON 3.6K 5% 1/2W (AEP, UK, E, AUSTRALIAN)	
R911	1-247-249-00	CARBON 2.4K 5% 1/2W (G)	

Ref. No.	Part No.	Description	Remark
R911	1-247-253-00	CARBON 3.6K 5% 1/2W (AEP, UK, E, AUSTRALIAN)	
R912	1-247-249-00	CARBON 2.4K 5% 1/2W (G)	
R912	1-247-253-00	CARBON 3.6K 5% 1/2W (AEP, UK, E, AUSTRALIAN)	
R950	1-247-732-11	CARBON 27 5% 1/2W (G) < VARIABLE RESISTOR >	
RV501	1-237-455-11	RES. ADJ. CARBON 500	
RV601	1-237-455-11	RES. ADJ. CARBON 500 < RELAY >	
RY801	1-515-920-11	RELAY (24V)	
RY802	1-515-793-11	RELAY < THERMISTOR (POSITIVE) >	
△THP900	1-806-882-11	THERMISTOR, POSITIVE 2.2 < TERMINAL >	
TM501	1-537-530-11	TERMINAL BOARD (G)	
TM501	1-537-530-21	TERMINAL BOARD (AE1, UK, E, AUSTRALIAN)	
TM501	1-537-530-31	TERMINAL BOARD (AE2)	
*****			
*	1-648-228-11	TRANS BOARD ***** < CAPACITOR >	
C951	1-164-097-11	CERAMIC 0.022uF 50V (G)	
*****			
△T1	1-423-676-11	TRANSFORMER, POWER (AEP)	
△T1	1-423-677-11	TRANSFORMER, POWER (G)	
△T1	1-423-678-11	TRANSFORMER, POWER (E)	
△T1	1-423-681-11	TRANSFORMER, POWER (UK, AUSTRALIAN)	
*****			
	1-648-227-11	VOL SEL BOARD (E) ***** < CONNECTOR >	
CNP10	1-564-321-00	PIN, CONNECTOR 2P	
CNP20	1-568-106-11	PIN, CONNECTOR 4P	
CNP30	1-564-687-11	PIN, CONNECTOR 3P < SWITCH >	
△S2	1-572-009-11	SELECTOR, VOLTAGE (VOLTAGE SELECTOR)	
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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
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MISCELLANEOUS  
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△AD1	1-569-007-11	ADAPTER, CONVERSION 2P (E)	
△CP1	1-575-651-21	CORD, POWER (AEP, G)	
△CP1	1-696-027-11	CORD, POWER (E)	
△CP1	1-696-586-11	CORD, POWER (UK)	
△CP1	1-696-845-11	CORD, POWER (AUSTRALIAN)	

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ACCESSORIES & PACKING MATERIALS  
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	1-467-107-11	REMOTE COMMANDER (RM-S312)	
	3-756-853-11	MANUAL, INSTRUCTION (English, French, Spanish, Portuguese) (AEP, UK, E, AUSTRALIAN)	
	3-756-853-41	MANUAL, INSTRUCTION (German, Dutch, Swedish, Italian) (AEP)	
	3-756-853-51	MANUAL, INSTRUCTION (German) (G)	
*	4-931-988-71	INDIVIDUAL CARTON	
	4-941-762-11	COVER (MLY), BATTERY	
*	4-959-584-01	CUSHION	

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HARDWARE LIST  
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#1	7-685-646-79	SCREW +BTP 3X8 TYPE2 N-S
#2	7-682-560-04	SCREW +BVTT 4X6 (S)
#3	7-621-849-00	SCREW (BV/RING)
#4	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3

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△ are critical for safety.  
Replace only with part number  
specified.