

# STR-DE185

## SERVICE MANUAL

Ver 1.1 2003. 11

US Model  
AEP Model  
UK Model



### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS

##### POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 8 ohm loads, both channels driven, from 40 – 20,000 Hz; rated 100 watts per channel minimum RMS power, with no more than 0.09 % total harmonic distortion from 250 milliwatts to rated output (Models of area code US only).

##### Amplifier section

###### POWER OUTPUT

Models of area code US  
Rated Power Output at Stereo Mode  
(8 ohms 40 Hz – 20 kHz, THD 0.09 %)  
100 W + 100 W

Models of area code AEP, UK  
Rated Power Output at Stereo Mode  
(8 ohms 1 kHz, THD 0.7 %)  
100 W + 100 W<sup>1)</sup>

1) Measured under the following conditions:

Area code	Power requirements
AEP, UK	230 V AC, 50 Hz

Frequency response	
CD, MD/TAPE,	20 Hz – 50 kHz
VIDEO 1, VIDEO 2	+0/-0.5 dB (with bass boost bypassed)

Inputs (Analog)	
CD, MD/TAPE,	Sensitivity: 250 mV
VIDEO 1, VIDEO 2	Impedance: 50 kilohms
	S/N <sup>2)</sup> : 85 dB
	(A, 250 mV <sup>3)</sup> )

2) INPUT SHORT.

3) Weighted network, input level.

Outputs	
MD/TAPE, VIDEO 1	Voltage: 250 mV Impedance: 10 kilohms
Bass Boost:	+8 dB at 70 Hz
Tone:	±10 dB at 100 Hz and 10 kHz
FM tuner section	
Tuning range	87.5 – 108.0 MHz
Antenna terminals	75 ohms, unbalanced
Intermediate frequency	10.7 MHz
Sensitivity	
Mono:	18.3 dBf, 2.2 µV/75 ohms
Stereo:	38.3 dBf, 22.5 µV/75 ohms
Usable sensitivity	11.2 dBf, 1 µV/75 ohms
S/N	
Mono:	76 dB
Stereo:	70 dB
Harmonic distortion at 1 kHz	
Mono:	0.5%
Stereo:	0.8%
Separation	35 dB at 1 kHz
Frequency response	30 Hz – 15 kHz, +0.5/-2 dB
Selectivity	60 dB at 400 kHz

– Continued on next page –

### FM STEREO/FM-AM RECEIVER

9-873-586-02

2003K04-1

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Sony Corporation

Home Audio Company

Published by Sony Engineering Corporation

SONY®

## AM tuner section

### Tuning range

Models of area code US

With 10-kHz tuning scale: 530 – 1710 kHz<sup>4)</sup>

With 9-kHz tuning scale: 531 – 1710 kHz<sup>4)</sup>

Models of area code AEP, UK

With 9-kHz tuning scale: 531 – 1602 kHz

Antenna Loop antenna

Intermediate frequency 450 kHz

Usable sensitivity 50 dB/m (at 1,000 kHz or  
999 kHz)

S/N 45 dB (at 50 mV/m)

Harmonic distortion 1.0 % (50 mV/m,  
400 Hz)

Selectivity

At 9 kHz: 35 dB

At 10 kHz: 40 dB

- 4) You can change the AM tuning scale to 9 kHz or 10 kHz. After tuning in any AM station, turn off the receiver. Hold down PRESET TUNING + and press **I/O**. All preset stations will be erased when you change the tuning scale. To reset the scale to 10 kHz (or 9 kHz), repeat the procedure.

## General

### Power requirements

Area code	Power consumption
US	120 V AC, 60 Hz
AEP, UK	230 V AC, 50/60 Hz

### Power consumption

Area code	Power consumption
US	190 W
AEP, UK	210 W

### Power consumption (during standby mode)

0.5 W (for models of all area code)

### AC outlets

Area code	AC outlets
US	1 switched, 120 W/1A MAX
AEP, UK	1 switched, 100 W MAX

Dimensions 430 × 145 × 300 mm  
(16 7/8 × 5 6/8 × 11 6/8 in.)  
including projecting parts  
and controls

Mass (Approx.) 7.0 kg (15 lb 7 oz)

### Supplied accessories

FM wire antenna (1)

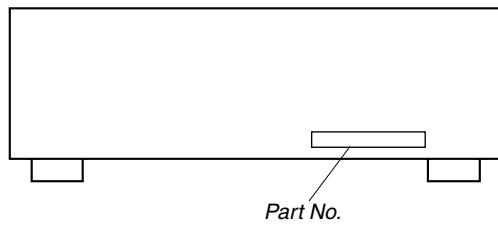
AM loop antenna (1)

Remote commander RM-U185 (1)

R6 (size-AA) batteries (2)

Design and specifications are subject to change without notice.

## MODEL IDENTIFICATION — BACK PANEL —



MODEL	PART No.
US	4-238-277-0□
AEP	4-238-277-1□
UK	4-238-277-2□

## 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.

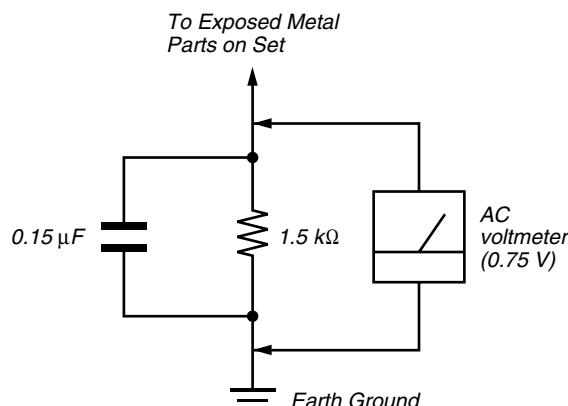
## SAFETY CHECK-OUT

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.**

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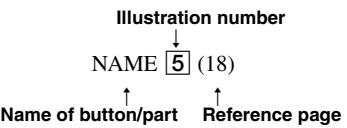
24
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This section is extracted  
from instruction manual.

### List of Button Locations and Reference Pages

#### How to use this page

Use this page to find the location of buttons that are mentioned in the text.



## Main unit

### ALPHABETICAL ORDER

#### A - H

- AM [8] (13, 14)
- BALANCE L/R [10] (12)
- BASS +/- [21] (12)
- BASS BOOST [19] (12)
- CD [15] (8, 12)
- DIRECT [25] (13)
- DISPLAY [11] (12, 16)
- Display [9] (11-16, 18, 19)
- FM [6] (13, 14)
- FM MODE [23] (14)

#### I - O

- IR (receptor) [2] (4, 22)

- MASTER VOLUME [17] (12, 20)
- MD/TAPE [14] (8, 12)
- MEMORY/ENTER [24] (13, 15, 18)
- MUTING [18] (12, 20)
- NAME [5] (18)
- Numeric buttons [3] (13)

#### P - S

- PHONES [29] (12, 21)
- PRESET/PTY SELECT +/- (models of area code CEL, CEK) [7] (15, 16)
- PRESET TUNING +/- (models of area code U) [7] (15, 23)
- PTY (models of area code CEL, CEK) [4] (16)

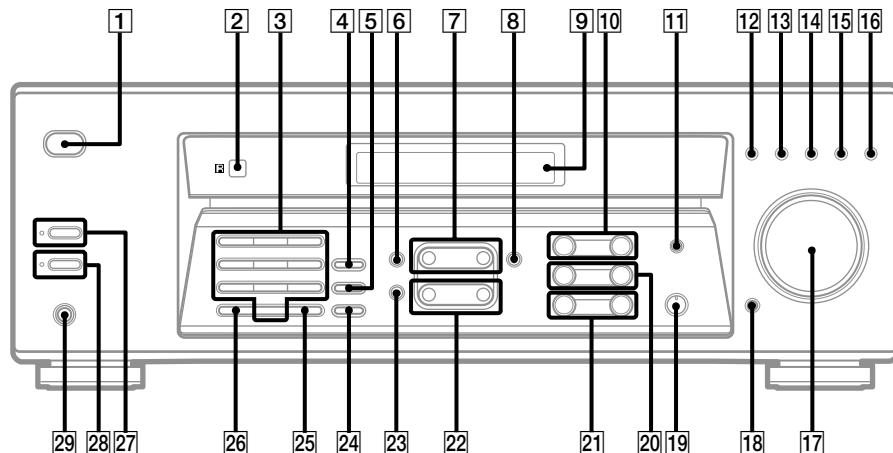
- SHIFT [26] (15)
- SLEEP (models of area code U) [4] (19)
- SPEAKERS A [27] (10, 12)
- SPEAKERS B [28] (10, 12)

#### T - Z

- TREBLE +/- [20] (12)
- TUNER [16] (8, 12-15, 18)
- TUNING/CHAR +/- [22] (14, 18)
- VIDEO 1 [12] (12)
- VIDEO 2 [13] (8, 12)

### BUTTON DESCRIPTIONS

- 1/0 (power) [1] (11, 13, 23)

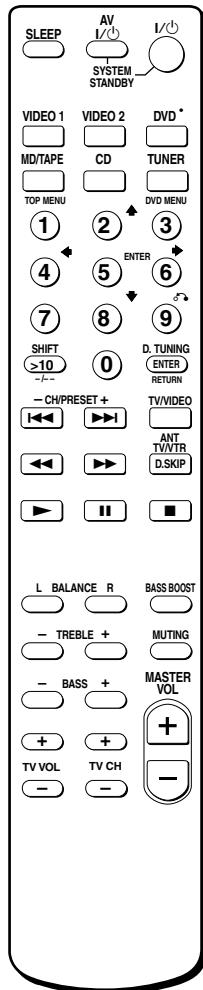


### List of Button Locations and Reference Pages

5<sup>GB</sup>

## Remote button description

You can use the remote RM-U185 to operate the components in your system.



The tables below show the settings of each button.

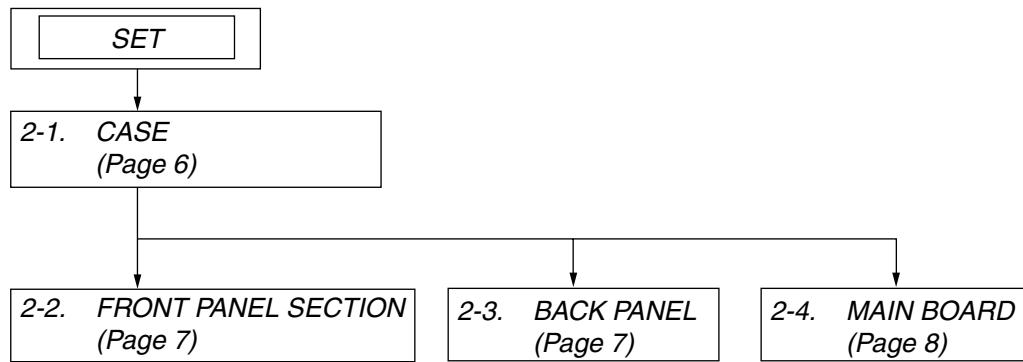
Remote Button	Operations	Function
SLEEP	Receiver	Activates the sleep function and the duration which the receiver turns off automatically.
I/O	Receiver	Turns the receiver on or off.
VIDEO 1	Receiver	To watch VCR. (VTR mode 3)
VIDEO 2	Receiver	To watch VCR. (VTR mode 1)
DVD	Receiver	To watch DVD.
MD/TAPE	Receiver	To listen to Minidisc or audio tape.
CD	Receiver	To listen to compact disc.
TUNER	Receiver	To listen to radio programs.
SHIFT	Receiver	Press repeatedly to select a memory page for presetting radio stations or tuning to preset stations.
D.TUNING	Receiver	Tuner station direct key-in-mode.
BALANCE	Receiver L/R	Adjust the balance.
BASS BOOST	Receiver	Reinforce the bass.
TREBLE	Receiver +/-	Adjust the treble tone quality.
MUTING	Receiver	Mutes the sound from the receiver.
BASS +/-	Receiver	Adjust the bass tone quality.

### Note

When you press the function buttons (VIDEO 1, VIDEO 2, DVD), the input mode of the TV might not switch to the corresponding input mode that you want. In this case, press the TV/VIDEO button to switch the input mode of the TV.

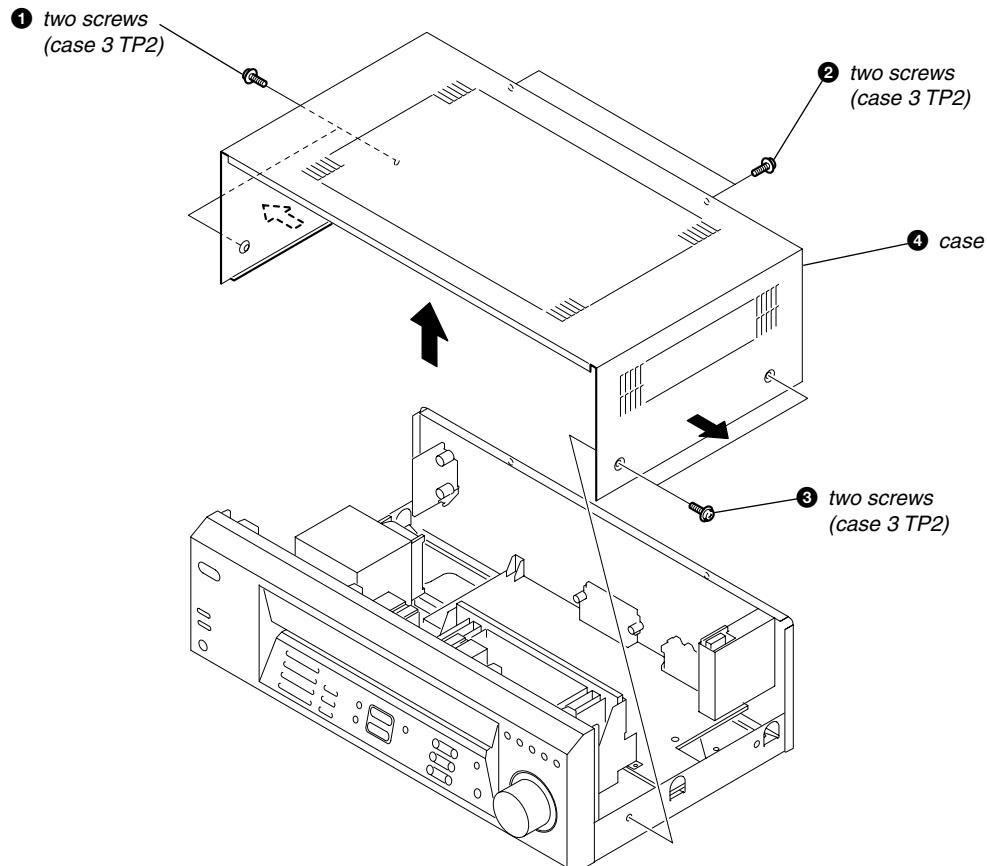
## SECTION 2 DISASSEMBLY

**Note :** This set can be disassemble according to the following sequence.

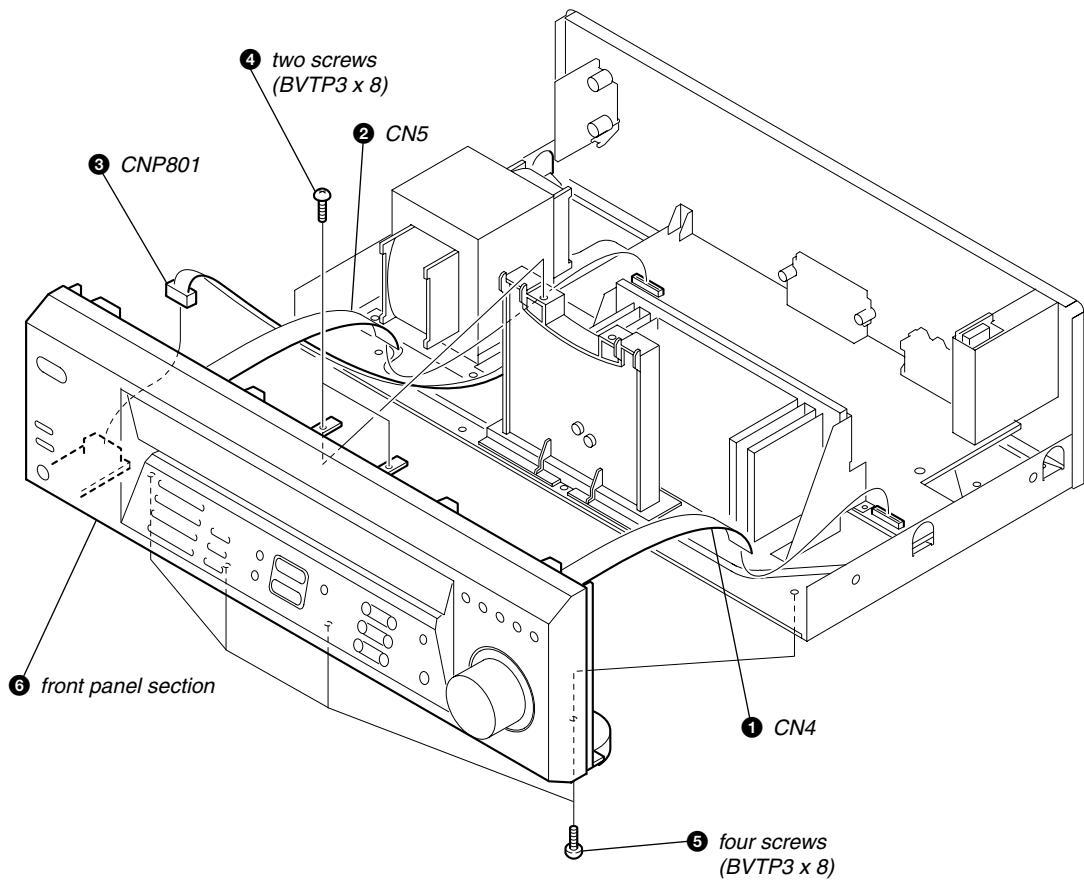


**Note :** Follow the disassembly procedure in the numerical order given.

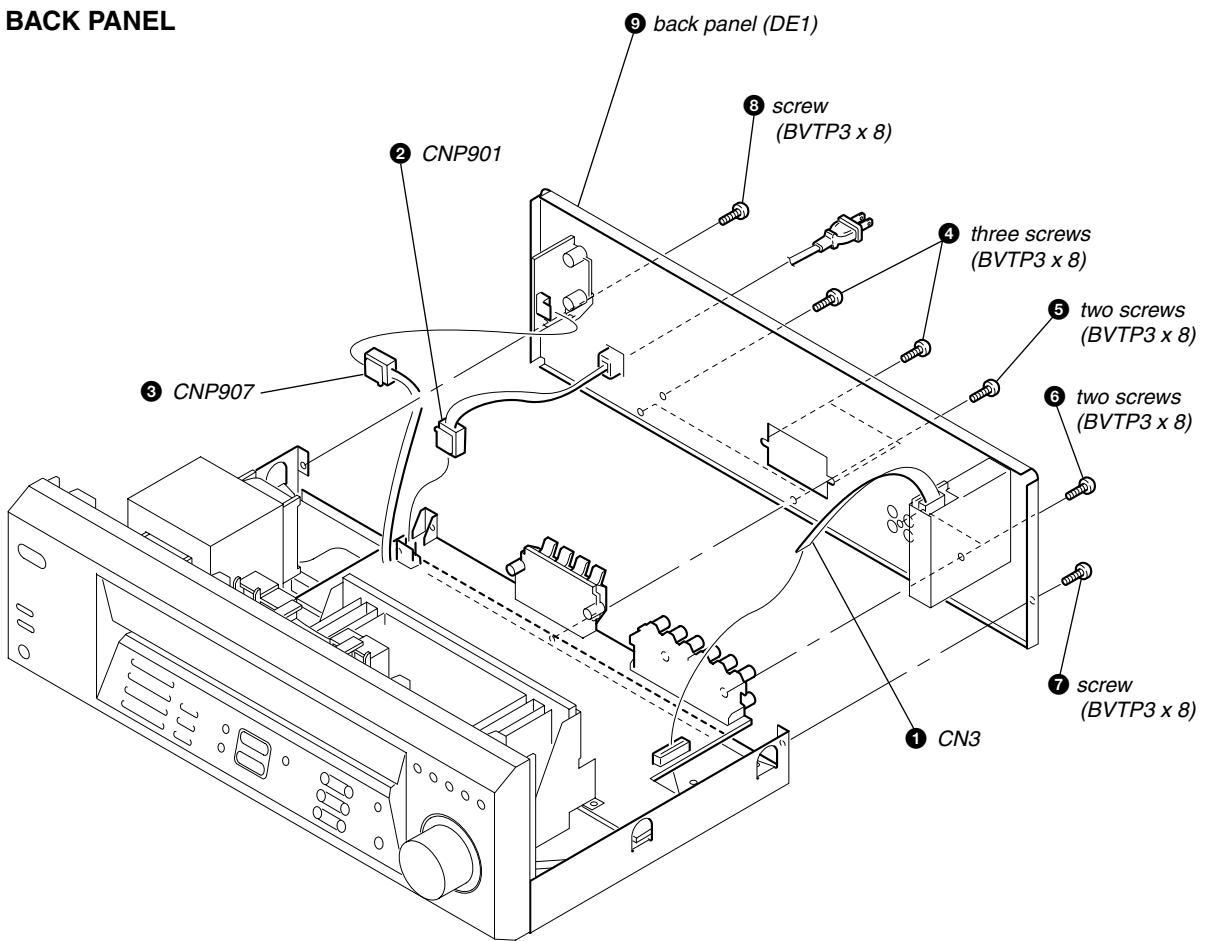
### 2-1. CASE

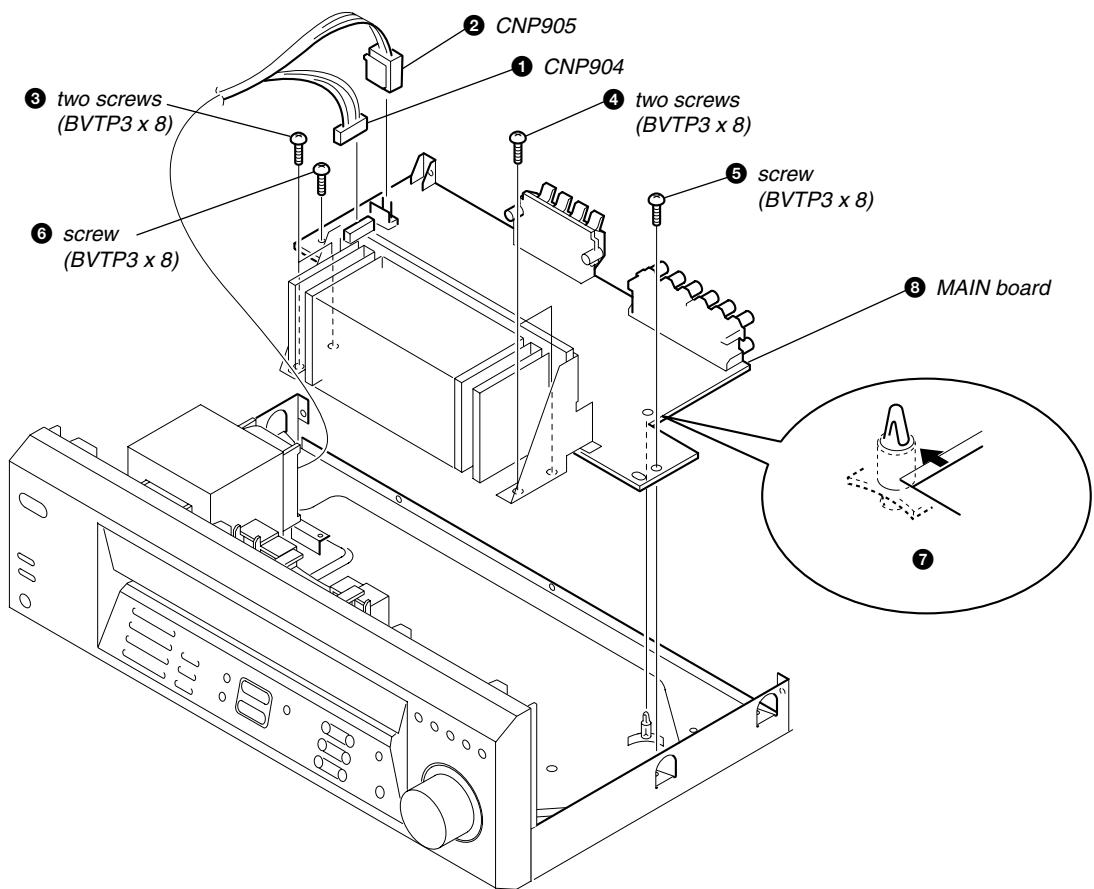


## 2-2. FRONT PANEL SECTION



## 2-3. BACK PANEL



**2-4. MAIN BOARD**

## SECTION 3 TEST MODE

### **Fluorescent Indicator Tube Test Mode**

All fluorescent segments are tested. When this test is activated, all segments turn on at the same time, then each segment turns on one after another.

#### **Procedure:**

1. While pressing the five function buttons of [VIDEO 1], [VIDEO 2], [MD/TAPE], [CD] and [TUNER] simultaneously, press the [I/O] button to turn the power ON.
2. The FL tube will illuminate in half light on. The following display will be repeated whenever the five function buttons are pressed.
  - Operation of function buttons

all light on → half light on 1 → half light on 2 → all light off
3. Press any button other than the function buttons to release the check mode.

### **AUTO-BETICAL Check Mode (AEP, UK models)**

To auto-scanning and memories of RDS station.

#### **Procedure:**

1. While pressing the [MEMORY/ENTER] button, press the [I/O] button to turn the power ON.
2. The message "AUTO-BETICAL SELECT" are scrolled.

### **AM Tuning Interval Selection Mode (US model)**

Either 9 kHz step or 10 kHz step can be selected for the AM tuning interval.

#### **Procedure:**

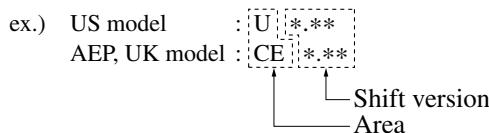
1. While pressing the [TUNING/CHAR +] button, press the [I/O] button to turn the power ON.
2. Either the message "9k STEP" or "10k STEP" appears.
3. Select the desired step.

### **Software Version Display Mode**

The software version is displayed.

#### **Procedure:**

1. While pressing the two buttons of [SPEAKERS B] and [VIDEO 1] simultaneously, press the [I/O] button to turn the power ON.
2. The software version is displayed.



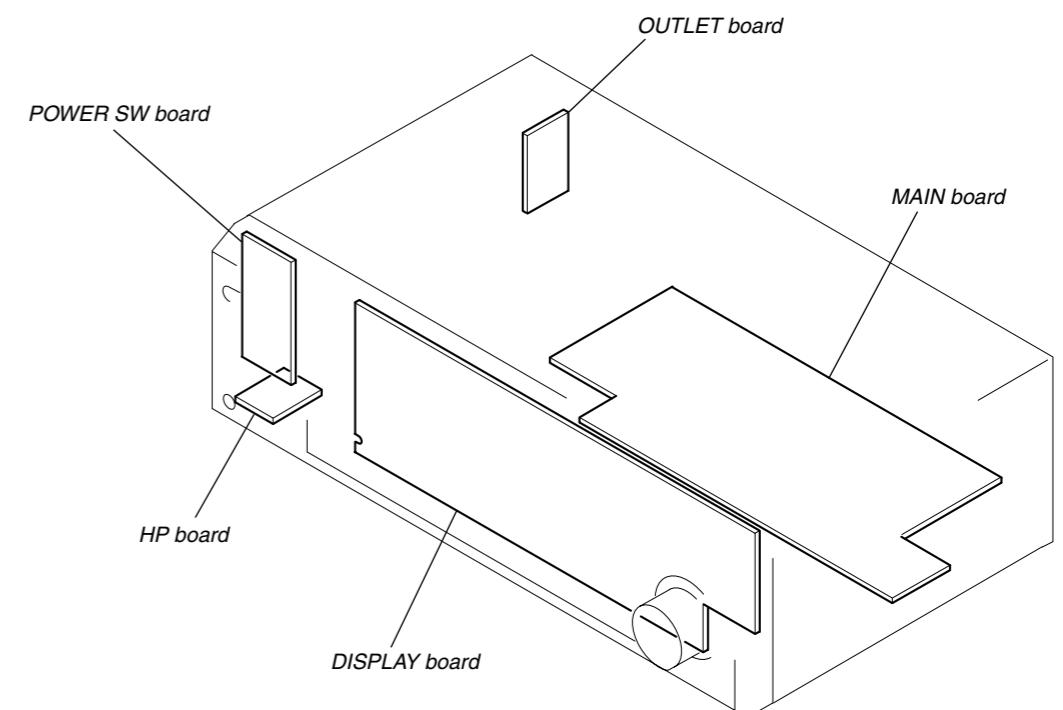
## SECTION 4 DIAGRAMS

**4-1. IC PIN DESCRIPTION****• IC201 μPD78044FGF-200-3B9 (SYSTEM CONTROLLER, FL DRIVER)**

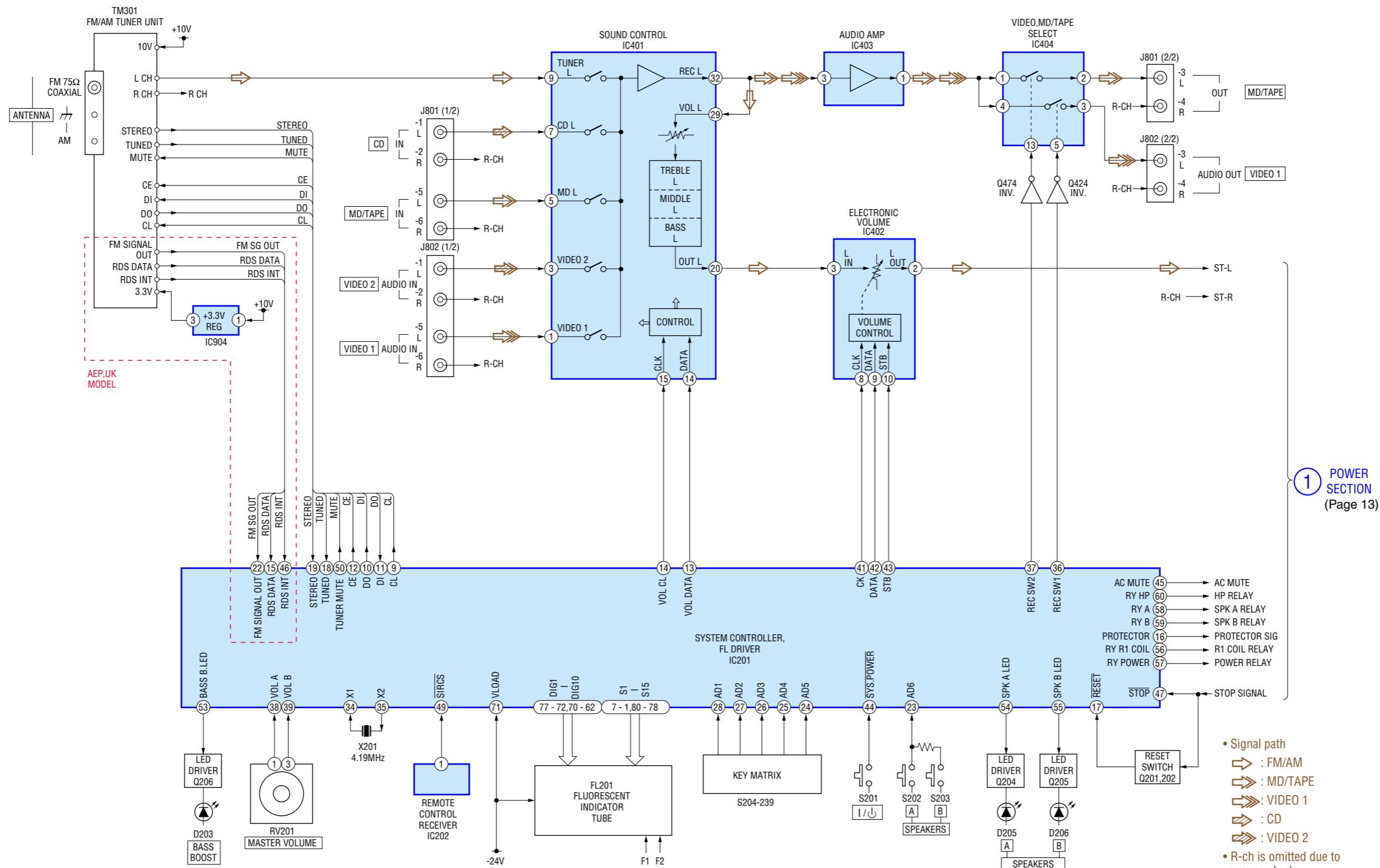
Pin No.	Pin Name	I/O	Pin Description
1 to 7	DIG7 to 1	O	Digit drive signal output to the fluorescent indicator tube (FL201).
8	+5V	—	Power supply pin (+5 V)
9	CL	O	Serial clock signal output to FM/AM tuner pack.
10	DO	O	Serial data signal output to FM/AM tuner pack.
11	DI	I	Serial data signal input from FM/AM tuner pack.
12	CE	O	Serial chip enable signal output to FM/AM tuner pack.
13	VOL DATA	O	Serial data signal output to sound control IC.
14	VOL CE	O	Serial clock signal output to sound control IC.
15	RDS DATA	I	RDS data signal input from FM/AM tuner pack. (AEP, UK model only)
16	PROTECTOR	I	Overload detection signal input
17	RESET	I	Reset signal input
18	TUNED	I	TUNED indicator detection signal input from FM/AM tuner pack.
19	STEREO	I	STEREO indicator detection signal input from FM/AM tuner pack.
20	AVSS	—	Analog ground
21	VERSION	I	Destination select signal input (Fixed at H: US model, L: AEP, UK model)
22	FM SIGNAL OUT	I	FM/AM signal meter voltage detection signal input from FM/AM tuner pack. (AEP, UK model only)
23 to 28	AD6 to 1	I	Function keys signal input
29	AVDD	—	A/D converter power supply pin (+5 V)
30	AVREF	—	A/D converter reference voltage input (+5 V)
31	NC	—	Not used. (Connect to AVREF pin in this set)
32	OPEN	—	Not used. (Open)
33	GND	—	Ground
34	X1	I	Master clock input (4.19 MHz)
35	X2	O	Master clock output (4.19 MHz)
36	REC SW1	O	VIDEO 1 ON/OFF signal output
37	REC SW2	O	MD/TAPE ON/OFF signal output
38, 39	VOL A, B	I	Master volume JOG data input A, B
40	FUNC.MUTE	O	Not used. (Fixed at L in this set)
41	CK	O	Serial clock signal output to electric volume IC.
42	DATA	O	Serial data signal output to electric volume IC.
43	STB	O	Serial data strobe signal output to electric volume IC.
44	SYS.POWER	I	System power signal input
45	AC MUTE	O	A-Class mute signal output
46	RDS INT	I	RDS clock signal input from FM/AM tuner pack. (AEP, UK model only)
47	STOP	I	Stop signal input from reset signal generator IC.
48	VSS	—	Ground
49	SIRCS	I	Sircs signal input from remote control receiver IC.
50	TUNER MUTE	O	Muting control signal output to FM/AM tuner pack.
51	NC	—	Not used. (Open)
52	+5V	—	Power supply pin (+5 V)
53	BASS B. LED	O	BASS BOOST LED drive signal output
54	SPK A LED	O	SPEAKERS A LED drive signal output
55	SPK B LED	O	SPEAKERS B LED drive signal output

Pin No.	Pin Name	I/O	Pin Description
56	RY R1 COIL	O	Power relay (12V) drive signal output
57	RY POWER	O	AC power relay (9V) drive signal output
58	RY A	O	Speakers A relay (12V) drive signal output
59	RY B	O	Speakers B relay (12V) drive signal output
60	RY HP	O	Phones relay (12V) drive signal output
61	NC	—	Not used. (Open)
62 to 70	S15 to 7	O	Segment drive signal output to the fluorescent indicator tube (FL201).
71	VLOAD	—	Power supply pin (-24 V)
72 to 77	S6 to 1	O	Segment drive signal output to the fluorescent indicator tube (FL201).
78 to 80	DIG10 to 8	O	Digit drive signal output to the fluorescent indicator tube (FL201).

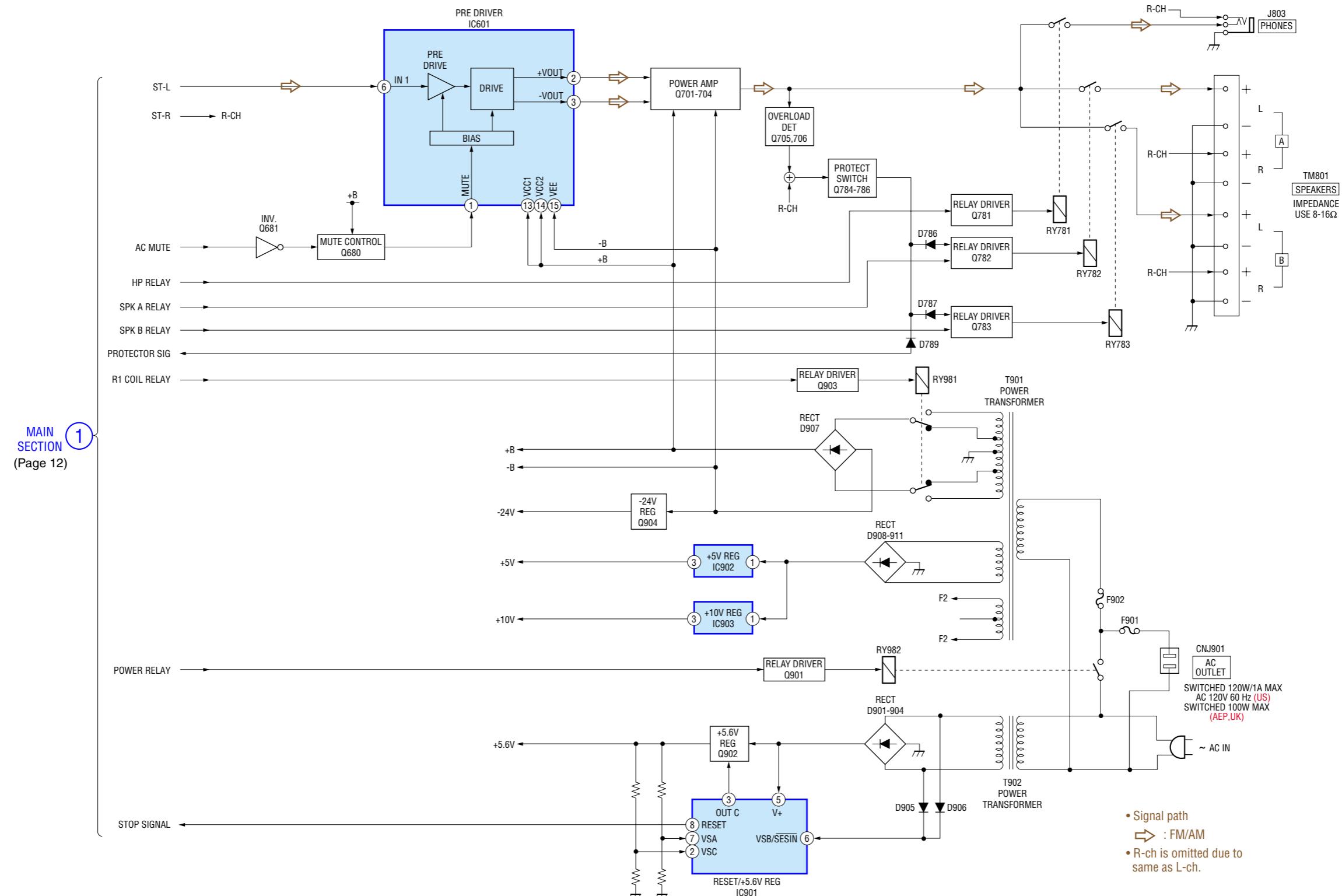
#### 4-2. CIRCUIT BOARDS LOCATION



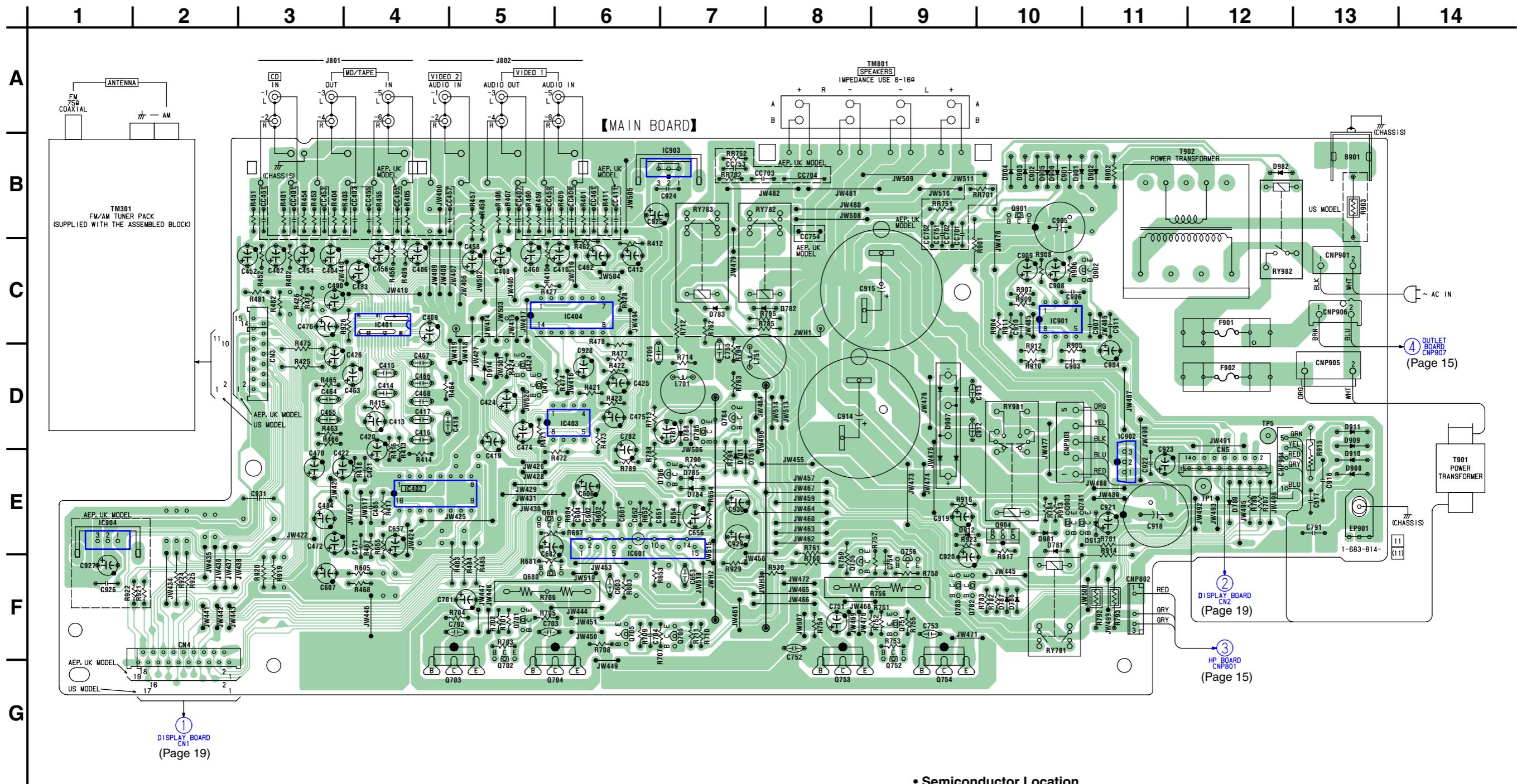
## 4-3. BLOCK DIAGRAM — MAIN SECTION —



## 4-4. BLOCK DIAGRAM — POWER SECTION —



## 4-5. PRINTED WIRING BOARD — MAIN SECTION — • Refer to page 11 for Circuit Boards Location and page 15 for Common Note on Printed Wiring Boards.

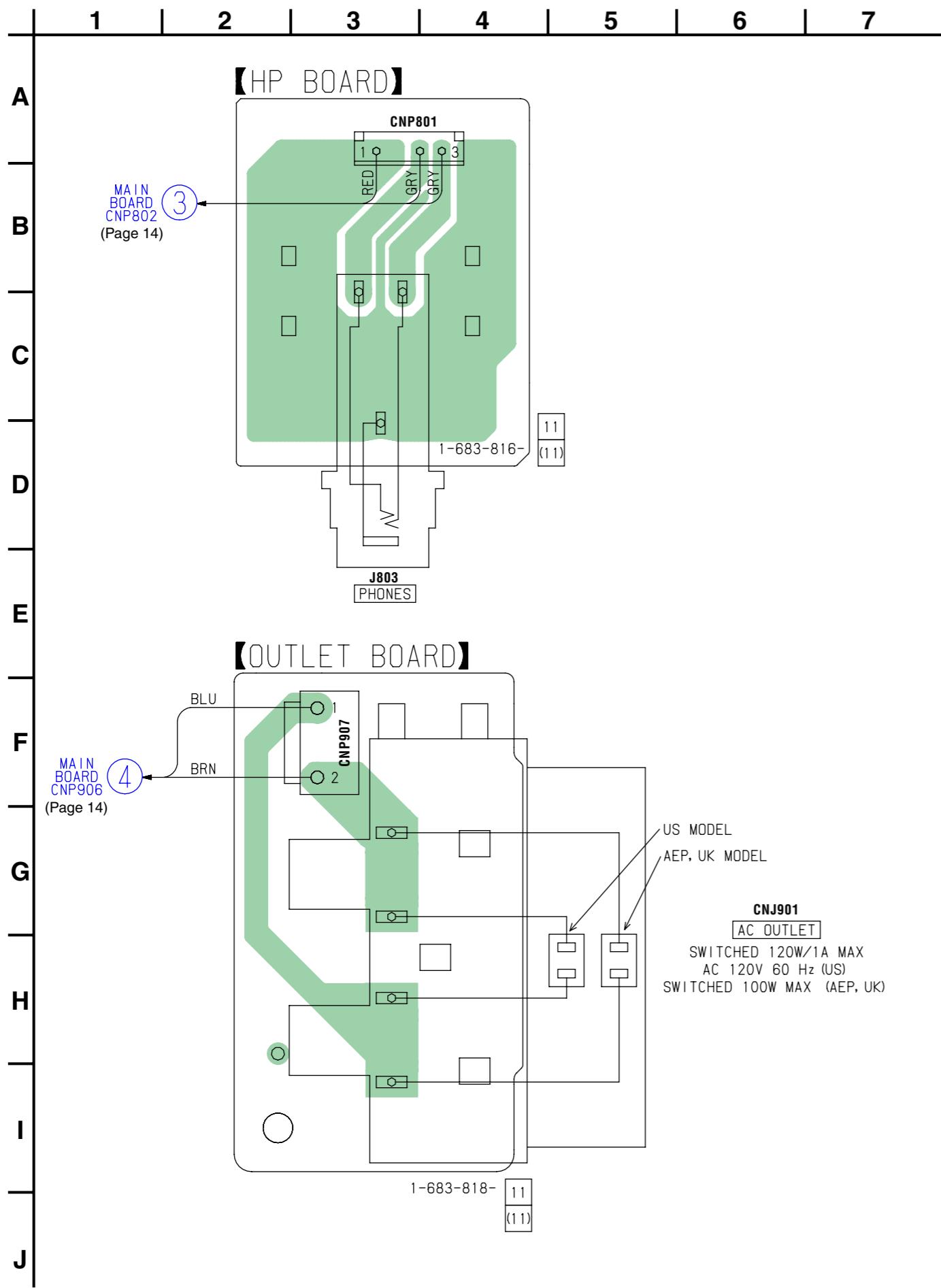


## • Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D701	E-7	D906	B-10	IC601	E-6	Q751	G-9
D751	E-7	D907	D-9	IC901	C-10	Q752	G-9
D781	E-10	D908	E-13	IC902	D-11	Q753	G-8
D782	C-8	D909	D-13	IC903	B-7	Q754	G-9
D783	C-7	D910	E-13	(IC904)	E-1	Q755	F-8
D784	E-7	D911	D-13			Q756	E-9
D785	E-7	D912	E-9	Q424	D-5	Q781	E-10
D786	F-10	D913	E-11	Q474	D-5	Q782	F-9
D787	F-10	D914	D-5	Q680	F-5	Q783	F-9
D788	D-7	D981	E-10	Q681	E-5	Q784	D-7
D789	E-12	D982	B-12	Q701	F-5	Q785	D-7
D901	B-10	IC401	C-4	Q702	G-5	Q786	E-6
D902	B-11	IC402	E-4	Q703	G-4	Q901	B-10
D903	B-10	IC403	D-6	Q704	G-6	Q902	C-11
D904	B-10	IC404	C-6	Q705	F-6	Q903	E-10
D905	B-10			Q706	F-7	Q904	E-10

( ) : AEP, UK model

## 4-6. PRINTED WIRING BOARDS — H/P, OUTLET SECTION — • Refer to page 11 for Circuit Boards Location.



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.  
(In addition to this, the necessary note is printed in each block.)

## for schematic diagram:

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

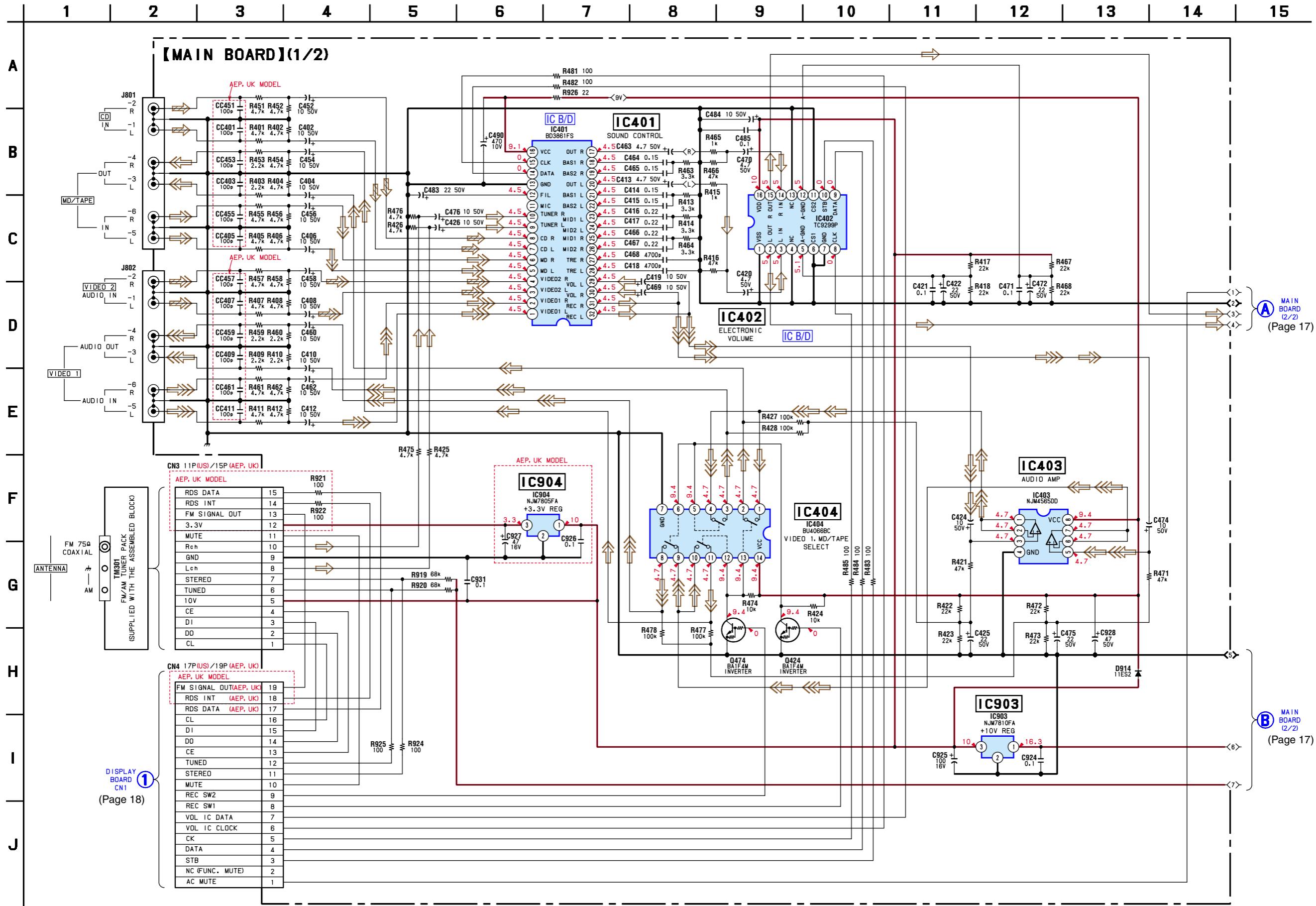
**Note:** The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

- $\text{---}$ : B+ Line.
- $\text{---}$ : B- Line.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.  
no mark : FM
- Voltages are taken with a VOM (Input impedance  $10\text{ M}\Omega$ ).  
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.  
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - $\Rightarrow$ : FM/AM
  - $\Rightarrow$ : MD/TAPE
  - $\Rightarrow$ : VIDEO 1
  - $\Rightarrow$ : CD
  - $\Rightarrow$ : VIDEO 2

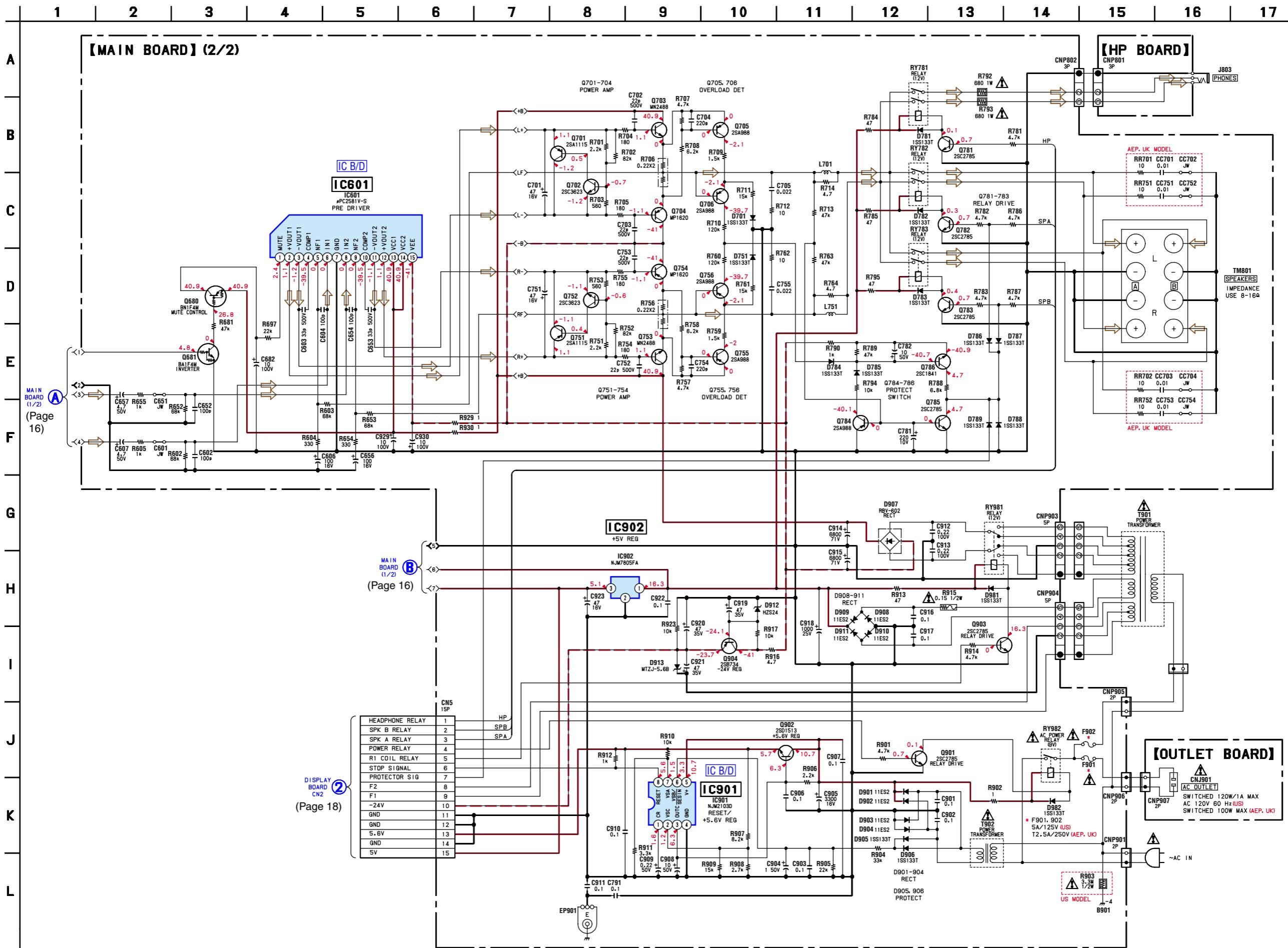
## for printed wiring boards:

- $\circ$ : parts extracted from the component side.
- $\triangle$ : internal component.
- $\blacksquare$ : Pattern from the side which enables seeing.

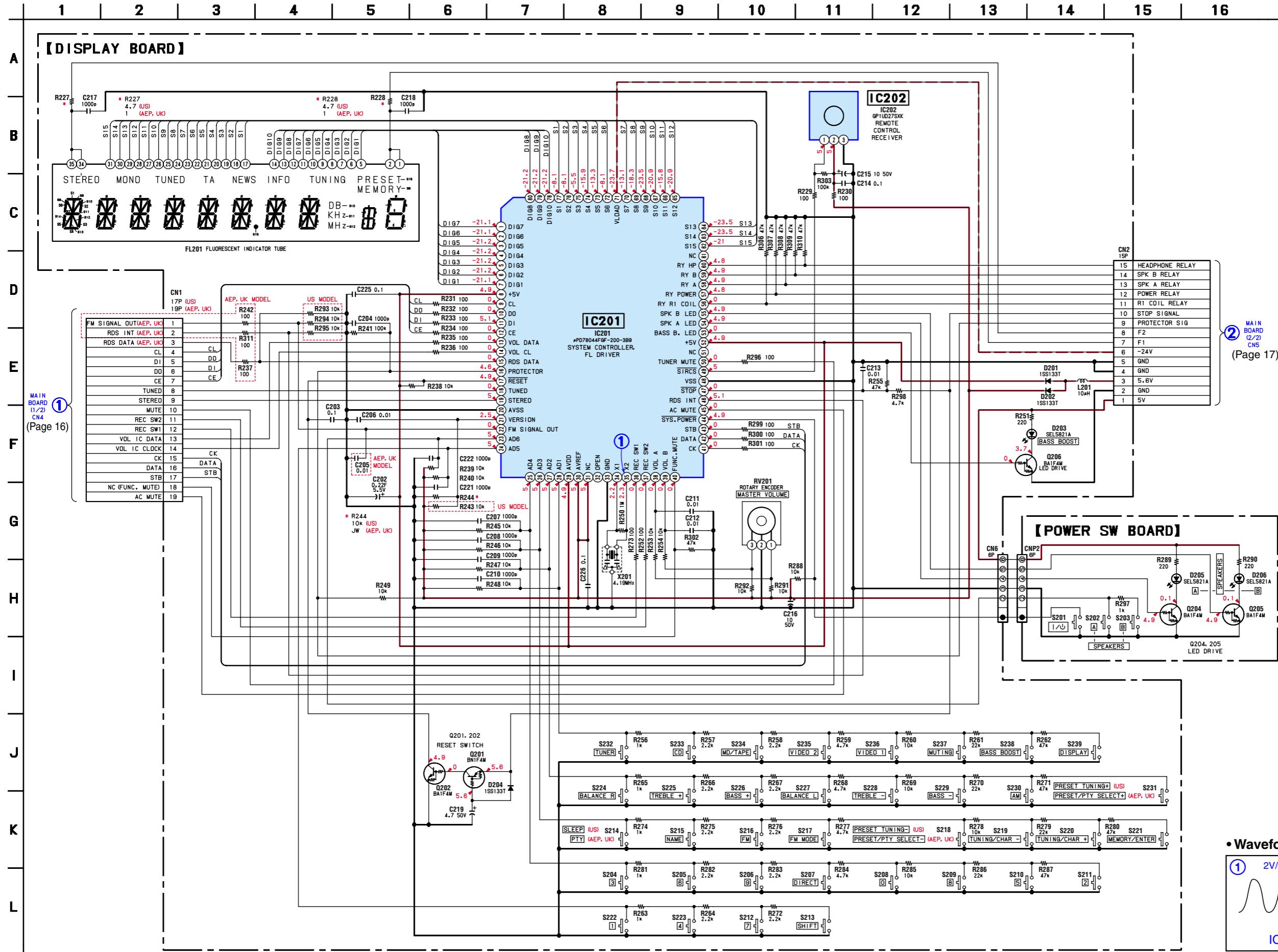
## 4-7. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) — • Refer to page 15 for Common Note on Schematic Diagram and page 20 for IC Block Diagrams.



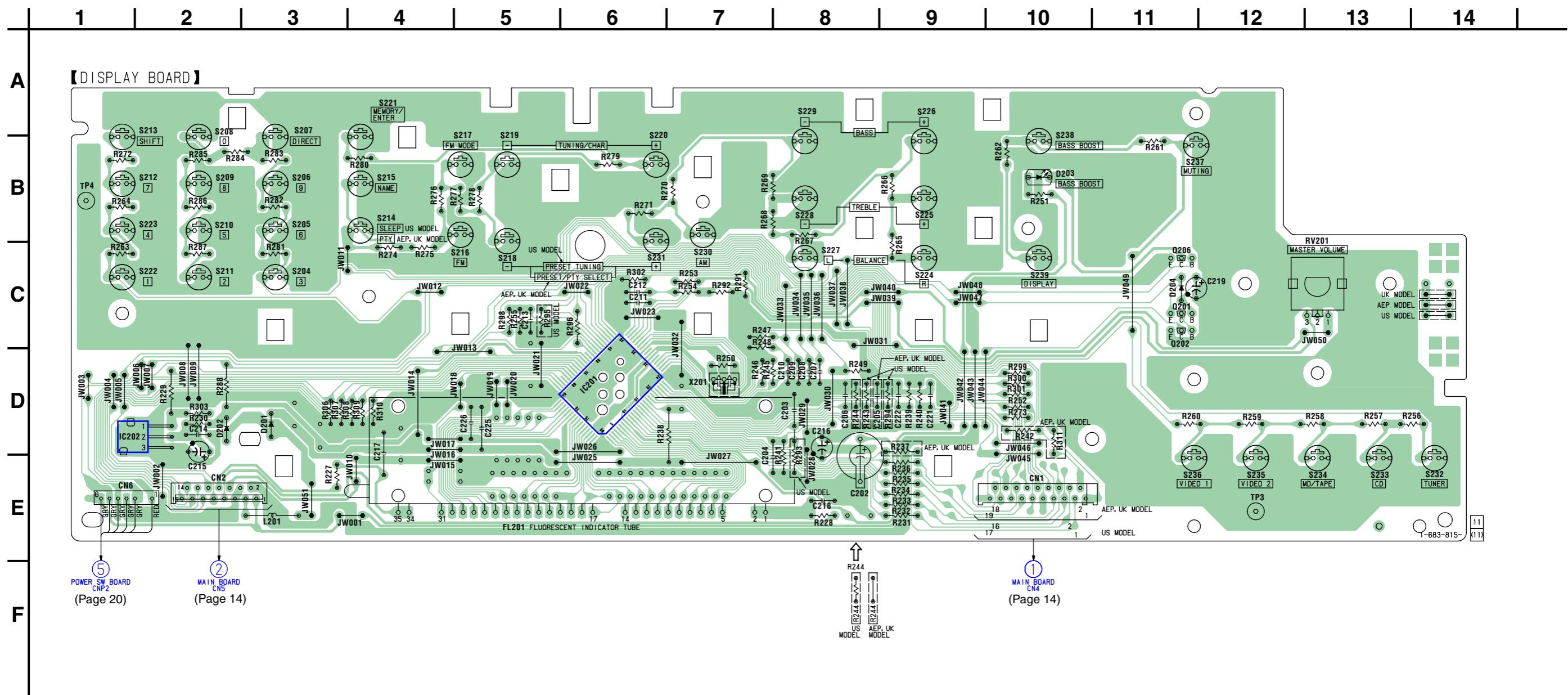
## 4-8. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) — • Refer to page 15 for Common Note on Schematic Diagram and page 20 for IC Block Diagrams.



## 4-9. SCHEMATIC DIAGRAM — DISPLAY SECTION — • Refer to page 15 for Common Note on Schematic Diagram.



**4-10. PRINTED WIRING BOARD — DISPLAY SECTION** • Refer to page 11 for Circuit Boards Location and page 15 for Common Note on Printed Wiring Boards.

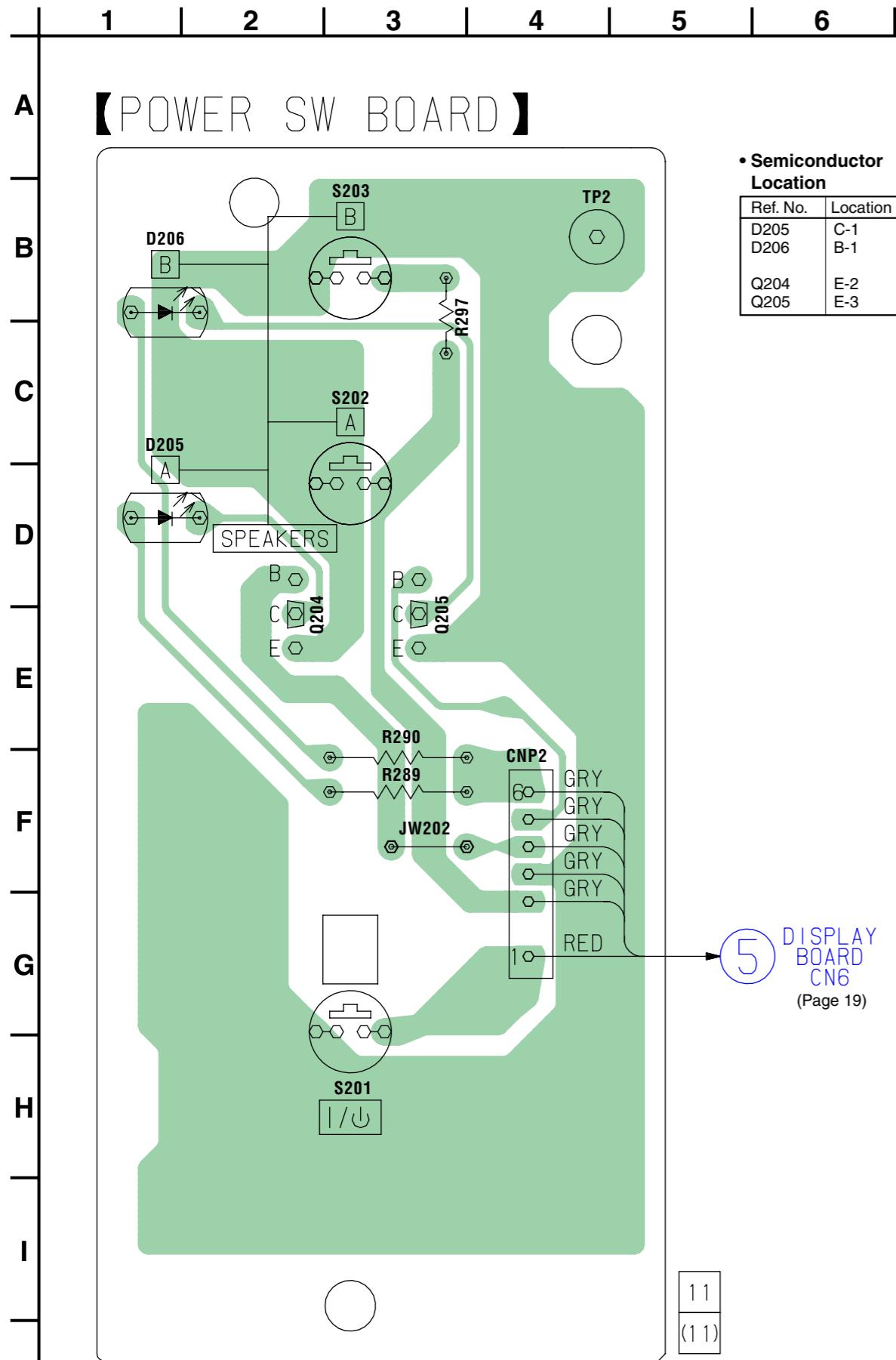


• Semiconductor Location

Ref. No.	Location
D201	D-3
D202	D-2
D203	B-10
D204	C-11
IC201	D-6
IC202	D-1
Q201	C-11
Q202	C-11
Q206	C-11

## 4-11. PRINTED WIRING BOARD — POWER SW SECTION —

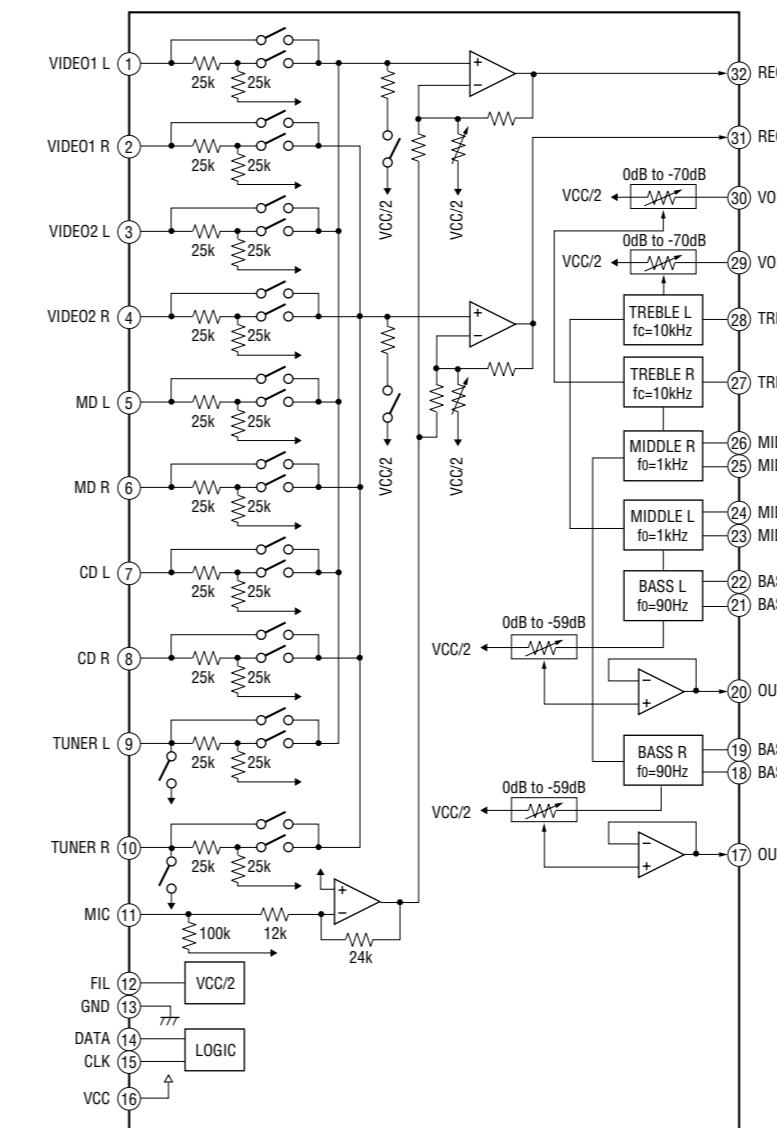
- Refer to page 11 for Circuit Boards Location and
- page 15 for Common Note on Printed Wiring Boards.



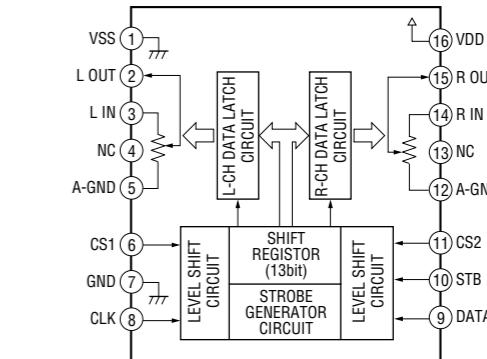
1-683-817-

## • IC Block Diagrams

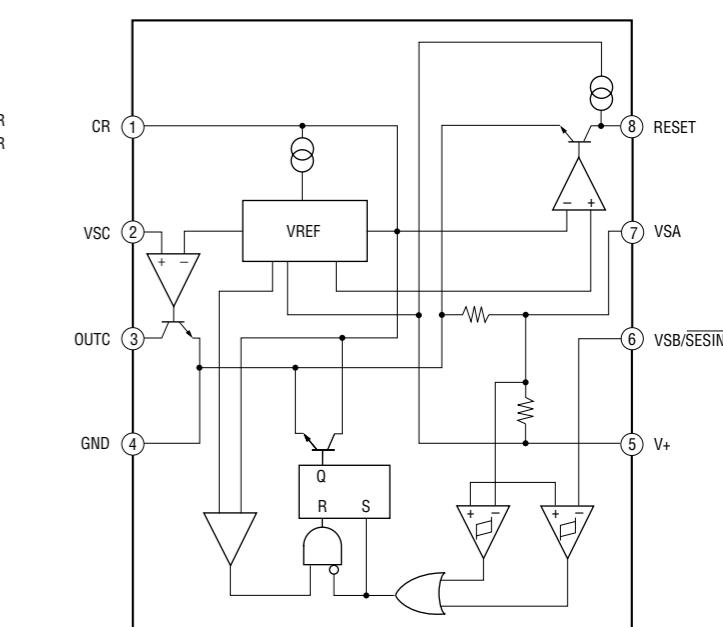
IC401 BD3861FS



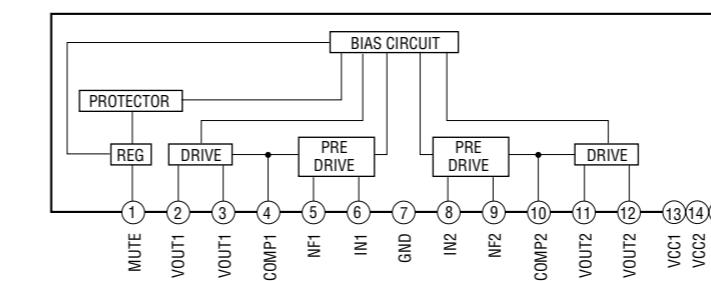
IC402 TC9299P



IC901 NJM2103D



IC601 μPC2581V-S



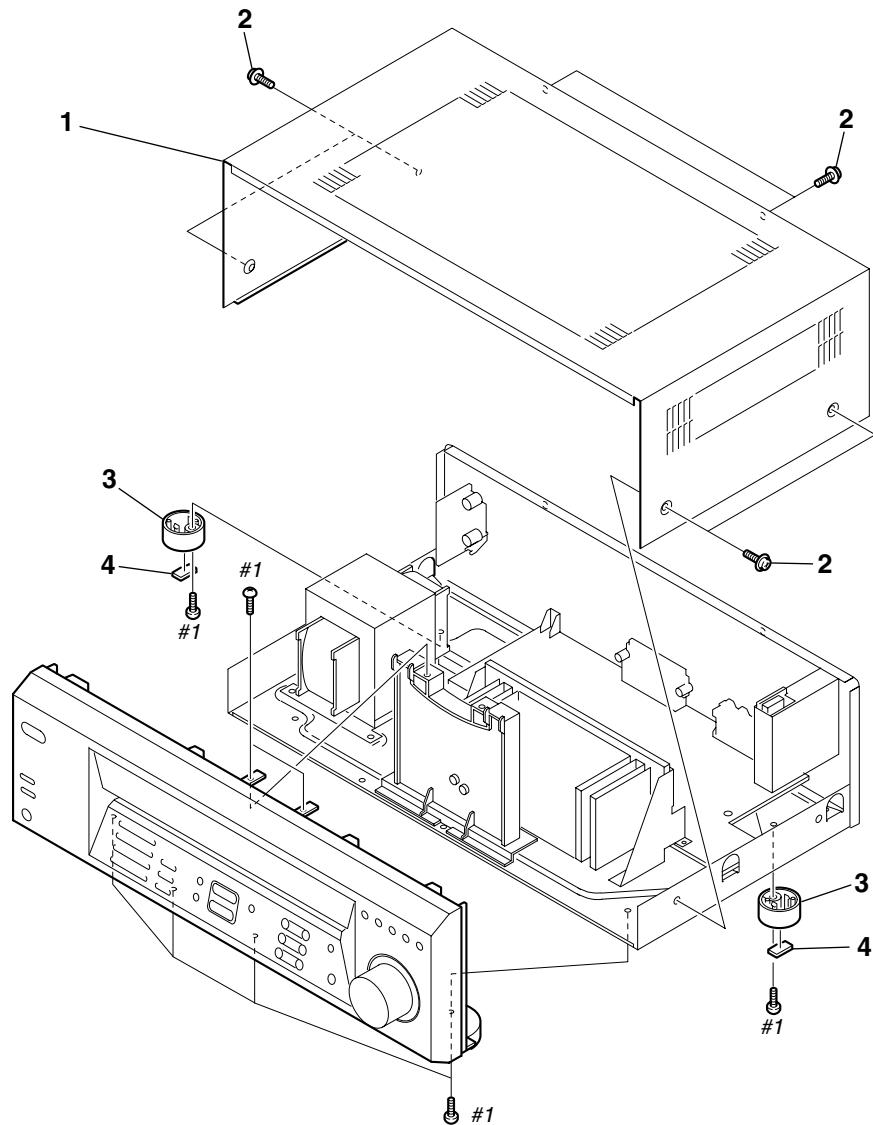
## SECTION 5 EXPLODED VIEWS

**NOTE:**

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

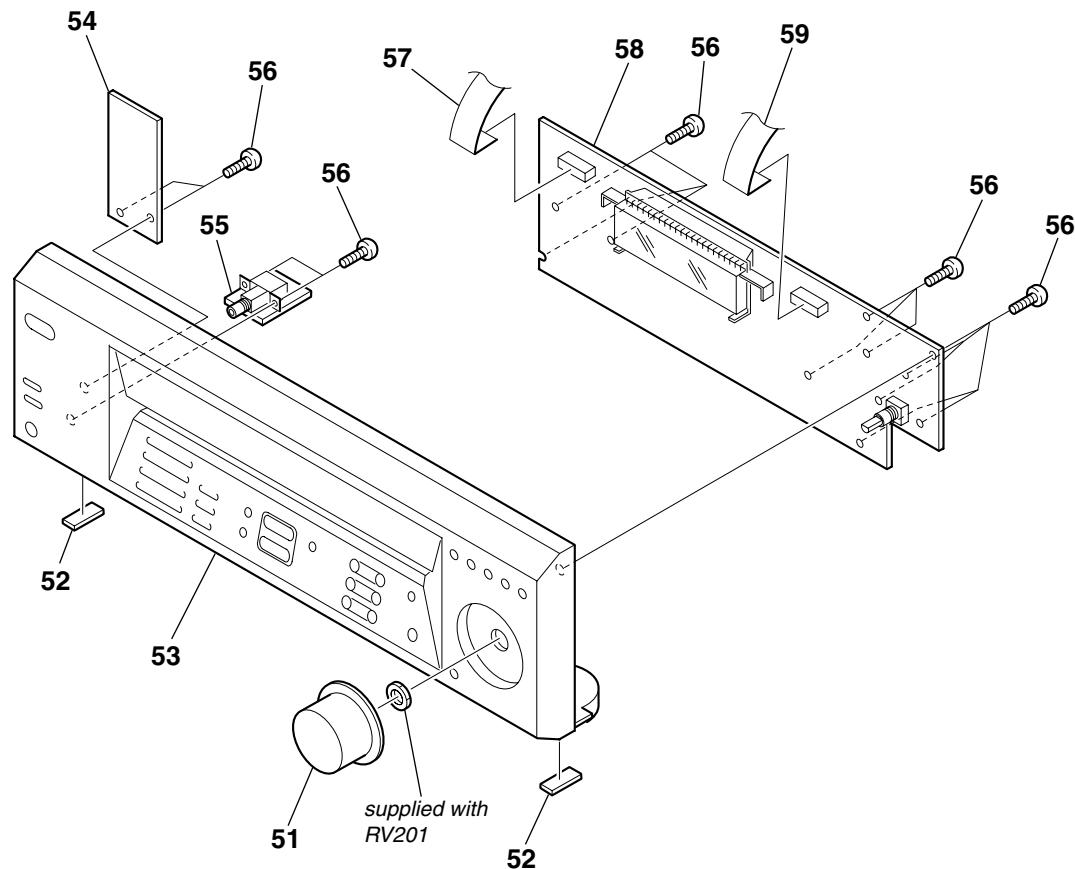
The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

**5-1. CASE SECTION**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
1	4-232-118-01	CASE
2	4-210-291-01	SCREW (CASE3 TP2)
3	4-232-237-01	FOOT (DIA.30)

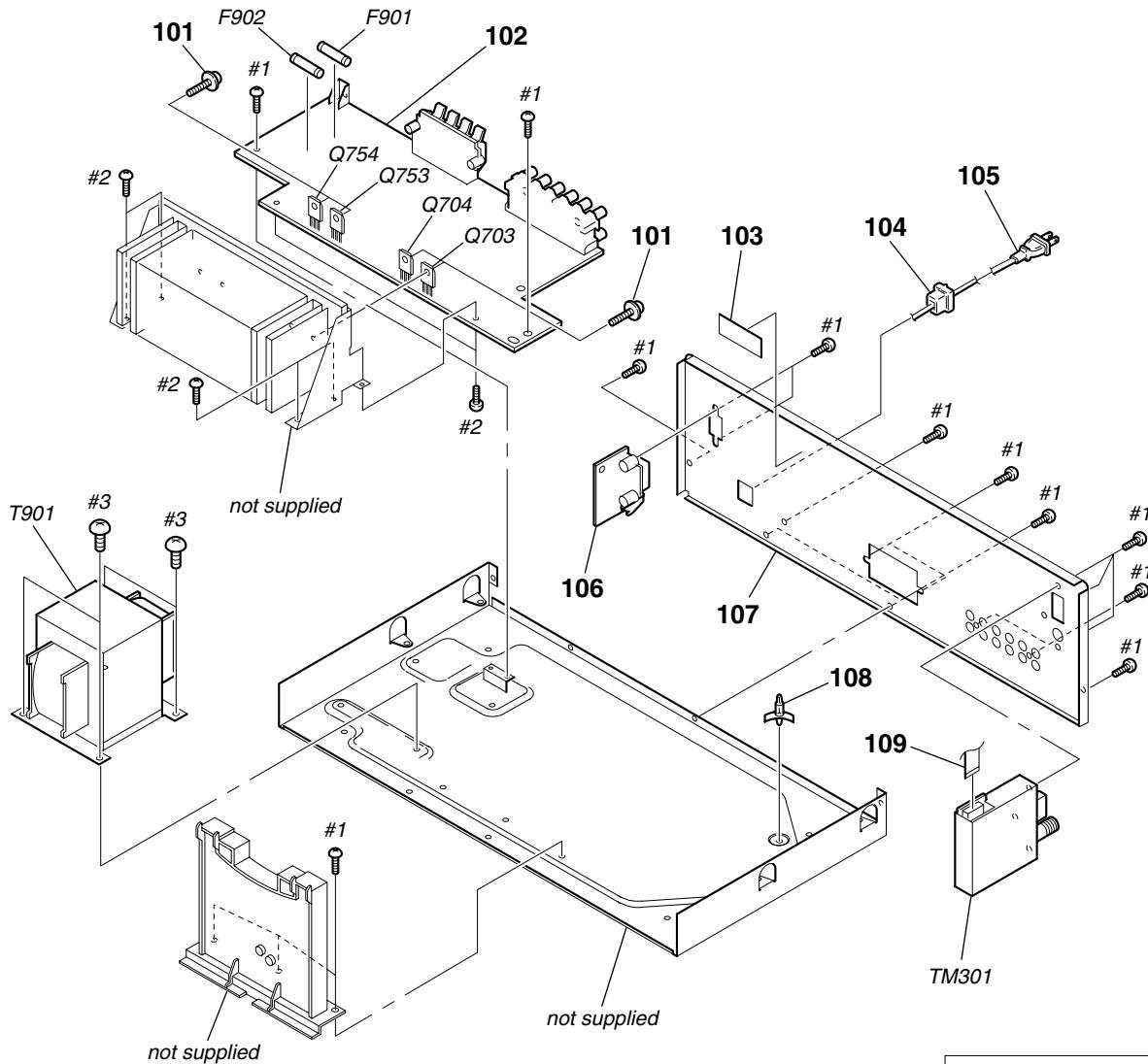
<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
	4	4-921-941-01	CUSHION	
	#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

## 5-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-232-113-01	KNOB (VOL)		56	4-951-620-01	SCREW (2.6X8), +BVTP	
52	4-921-941-01	CUSHION		57	1-765-332-11	WIRE (FLAT TYPE) (15 CORE)	
53	X-4954-453-1	PANEL ASSY, FRONT (US)		58	A-4727-878-A	DISPLAY BOARD, COMPLETE (US)	
53	X-4954-455-1	PANEL ASSY, FRONT (AEP,UK)		58	A-4727-882-A	DISPLAY BOARD, COMPLETE (AEP,UK)	
54	1-683-817-11	POWER SW BOARD		59	1-773-054-11	WIRE (FLAT TYPE) (17 CORE) (US)	
55	1-683-816-11	HP BOARD		59	1-773-125-11	WIRE (FLAT TYPE) (19 CORE) (AEP,UK)	

## 5-3. CHASSIS SECTION



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
101	3-905-609-01	SCREW (TRANSISTOR)		△ F902	1-532-464-31	FUSE (T2.5A/250V) (AEP,UK)	
102	A-4727-875-A	MAIN BOARD, COMPLETE (US)		△ F902	1-576-109-11	FUSE (5A/125V) (US)	
102	A-4727-881-A	MAIN BOARD, COMPLETE (AEP,UK)		Q703	8-749-010-25	TRANSISTOR MN2488-OPY-M	
* 103	3-703-044-26	LABEL, CAUTION (US)		Q704	8-749-010-26	TRANSISTOR MP1620-OPY-M	
104	3-703-244-00	BUSHING (FBS001), CORD		Q753	8-749-010-25	TRANSISTOR MN2488-OPY-M	
△ 105	1-769-744-11	CORD, POWER (AEP,UK)	△	Q754	8-749-010-26	TRANSISTOR MP1620-OPY-M	
△ 105	1-783-820-11	CORD, POWER (US)	△	△ T901	1-437-625-11	TRANSFORMER, POWER (US)	
106	1-683-818-11	OUTLET BOARD		△ T901	1-437-626-11	TRANSFORMER, POWER (AEP,UK)	
107	4-238-277-01	PANEL (DE1), BACK (US)		TM301	1-693-533-11	TUNER (FM/AM) (ANTENNA) (AEP,UK)	
107	4-238-277-11	PANEL (DE1), BACK (AEP)		TM301	1-693-534-71	TUNER (FM/AM) (ANTENNA) (US)	
107	4-238-277-21	PANEL (DE1), BACK (UK)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
108	4-924-098-01	HOLDER, PC BOARD		#2	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	
109	1-769-943-11	WIRE (FLAT TYPE) (11 CORE) (US)		#3	7-685-880-09	SCREW +BVTT 4X6 (S)	
109	1-773-007-11	WIRE (FLAT TYPE) (15 CORE) (AEP,UK)					
△ F901	1-532-464-31	FUSE (T2.5A/250V) (AEP,UK)	△				
△ F901	1-576-109-11	FUSE (5A/125V) (US)	△				

## DISPLAY

## SECTION 6

### 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

The components identified by mark  $\triangle$  or dotted line with mark.  $\triangle$  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	Ref. No.	Part No.	Description	Remark
	A-4727-878-A	DISPLAY BOARD, COMPLETE (US)					< FLUORESCENT INDICATOR >
	A-4727-882-A	DISPLAY BOARD, COMPLETE (AEP,UK)	*****	FL201	1-517-662-11	INDICATOR TUBE, FLUORESCENT	
*	4-921-941-01	CUSHION (FL)					< IC >
	4-943-107-11	HOLDER (FL TUBE)		IC201	6-801-317-01	IC uPD78044FGF-200-3B9	
				IC202	6-600-055-01	IC GP1UD27SXK	
							< COIL >
C202	1-104-905-11	DOUBLE LAYERS	0.22F	L201	1-410-509-11	INDUCTOR	10uH
C203	1-164-159-21	CERAMIC	0.1uF				< TRANSISTOR >
C204	1-128-821-21	CERAMIC	0.001uF	Q201	8-729-900-63	TRANSISTOR DTA124ES	
C205	1-127-876-11	CERAMIC	0.01uF	Q202	8-729-900-36	TRANSISTOR DTC124ES	
C206	1-127-876-21	CERAMIC	0.01uF	Q206	8-729-900-36	TRANSISTOR DTC124ES	
C207	1-128-821-21	CERAMIC	0.001uF				< RESISTOR >
C208	1-128-821-21	CERAMIC	0.001uF	R227	1-249-381-11	CARBON	1 5% 1/4W (AEP,UK)
C209	1-128-821-21	CERAMIC	0.001uF	R227	1-249-389-11	CARBON	4.7 5% 1/4W (US)
C210	1-128-821-21	CERAMIC	0.001uF	R228	1-249-381-11	CARBON	1 5% 1/4W (AEP,UK)
C211	1-127-876-21	CERAMIC	0.01uF	R228	1-249-389-11	CARBON	4.7 5% 1/4W (US)
C212	1-127-876-21	CERAMIC	0.01uF	R229	1-247-807-31	CARBON	100 5% 1/4W
C213	1-127-876-21	CERAMIC	0.01uF	R230	1-247-807-31	CARBON	100 5% 1/4W
C214	1-164-159-21	CERAMIC	0.1uF	R231	1-247-807-31	CARBON	100 5% 1/4W
C215	1-126-795-11	ELECT	10uF 20%	R232	1-247-807-31	CARBON	100 5% 1/4W
C216	1-126-795-11	ELECT	10uF 20%	R233	1-247-807-31	CARBON	100 5% 1/4W
C217	1-128-821-21	CERAMIC	0.001uF	R234	1-247-807-31	CARBON	100 5% 1/4W
C218	1-128-821-21	CERAMIC	0.001uF	R235	1-247-807-31	CARBON	100 5% 1/4W
C219	1-126-794-11	ELECT	4.7uF 20%	R236	1-247-807-31	CARBON	100 5% 1/4W
C221	1-128-821-21	CERAMIC	0.001uF	R237	1-247-807-31	CARBON	100 5% 1/4W (AEP,UK)
C222	1-128-821-21	CERAMIC	0.001uF	R238	1-249-429-11	CARBON	10K 5% 1/4W
C225	1-164-159-21	CERAMIC	0.1uF	R239	1-249-429-11	CARBON	10K 5% 1/4W
C226	1-164-159-21	CERAMIC	0.1uF				
				R240	1-249-429-11	CARBON	10K 5% 1/4W
				R241	1-249-441-11	CARBON	100K 5% 1/4W
				R242	1-247-807-31	CARBON	100 5% 1/4W (AEP,UK)
D201	8-719-991-33	DIODE	1SS133T-77	R243	1-249-429-11	CARBON	10K 5% 1/4W (US)
D202	8-719-991-33	DIODE	1SS133T-77	R244	1-249-429-11	CARBON	10K 5% 1/4W (US)
D203	8-719-046-39	LED	SEL5821A-TP15 (BASS BOOST)				
D204	8-719-991-33	DIODE	1SS133T-77				

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R245	1-249-429-11	CARBON	10K	5%	1/4W	R298	1-249-425-11	CARBON	4.7K	5%	1/4W
R246	1-249-429-11	CARBON	10K	5%	1/4W	R299	1-247-807-31	CARBON	100	5%	1/4W
R247	1-249-429-11	CARBON	10K	5%	1/4W	R300	1-247-807-31	CARBON	100	5%	1/4W
R248	1-249-429-11	CARBON	10K	5%	1/4W	R301	1-247-807-31	CARBON	100	5%	1/4W
R249	1-249-429-11	CARBON	10K	5%	1/4W	R302	1-249-437-11	CARBON	47K	5%	1/4W
R250	1-247-903-00	CARBON	1M	5%	1/4W	R303	1-249-441-11	CARBON	100K	5%	1/4W
R251	1-249-409-11	CARBON	220	5%	1/4W	R306	1-249-437-11	CARBON	47K	5%	1/4W
R252	1-247-807-31	CARBON	100	5%	1/4W	R307	1-249-437-11	CARBON	47K	5%	1/4W
R253	1-249-429-11	CARBON	10K	5%	1/4W	R308	1-249-437-11	CARBON	47K	5%	1/4W
R254	1-249-429-11	CARBON	10K	5%	1/4W	R309	1-249-437-11	CARBON	47K	5%	1/4W
R255	1-249-437-11	CARBON	47K	5%	1/4W	R310	1-249-437-11	CARBON	47K	5%	1/4W
R256	1-249-417-11	CARBON	1K	5%	1/4W	R311	1-247-807-31	CARBON	100	5%	(AEP,UK)
R257	1-249-421-11	CARBON	2.2K	5%	1/4W						< ROTARY ENCODER >
R258	1-249-421-11	CARBON	2.2K	5%	1/4W						
R259	1-249-425-11	CARBON	4.7K	5%	1/4W						
R260	1-249-429-11	CARBON	10K	5%	1/4W	RV201	1-418-725-41	ENCODER, ROTARY (12 TYPE) (MASTER VOLUME)			
R261	1-249-433-11	CARBON	22K	5%	1/4W						< SWITCH >
R262	1-249-437-11	CARBON	47K	5%	1/4W	S204	1-771-410-21	SWITCH, TACTILE (3)			
R263	1-249-417-11	CARBON	1K	5%	1/4W	S205	1-771-410-21	SWITCH, TACTILE (6)			
R264	1-249-421-11	CARBON	2.2K	5%	1/4W	S206	1-771-410-21	SWITCH, TACTILE (9)			
R265	1-249-417-11	CARBON	2.2K	5%	1/4W	S207	1-771-410-21	SWITCH, TACTILE (DIRECT)			
R266	1-249-421-11	CARBON	2.2K	5%	1/4W	S208	1-771-410-21	SWITCH, TACTILE (0)			
R267	1-249-421-11	CARBON	2.2K	5%	1/4W	S209	1-771-410-21	SWITCH, TACTILE (8)			
R268	1-249-425-11	CARBON	4.7K	5%	1/4W	S210	1-771-410-21	SWITCH, TACTILE (5)			
R269	1-249-429-11	CARBON	10K	5%	1/4W	S211	1-771-410-21	SWITCH, TACTILE (2)			
R270	1-249-433-11	CARBON	22K	5%	1/4W	S212	1-771-410-21	SWITCH, TACTILE (7)			
R271	1-249-437-11	CARBON	47K	5%	1/4W	S213	1-771-410-21	SWITCH, TACTILE (SHIFT)			
R272	1-249-421-11	CARBON	2.2K	5%	1/4W	S214	1-771-410-21	SWITCH, TACTILE (SLEEP) (US)			
R273	1-247-807-31	CARBON	100	5%	1/4W	S214	1-771-410-21	SWITCH, TACTILE (PTY) (AEP,UK)			
R274	1-249-417-11	CARBON	1K	5%	1/4W	S215	1-771-410-21	SWITCH, TACTILE (NAME)			
R275	1-249-421-11	CARBON	2.2K	5%	1/4W	S216	1-771-410-21	SWITCH, TACTILE (FM)			
R276	1-249-421-11	CARBON	2.2K	5%	1/4W	S217	1-771-410-21	SWITCH, TACTILE (FM MODE)			
R277	1-249-425-11	CARBON	4.7K	5%	1/4W	S218	1-771-410-21	SWITCH, TACTILE (PRESET TUNING -) (US)			
R278	1-249-429-11	CARBON	10K	5%	1/4W	S218	1-771-410-21	SWITCH, TACTILE (PRESET/PTY SELECT -) (AEP,UK)			
R279	1-249-433-11	CARBON	22K	5%	1/4W	S219	1-771-410-21	SWITCH, TACTILE (TUNING/CHAR -)			
R280	1-249-437-11	CARBON	47K	5%	1/4W	S220	1-771-410-21	SWITCH, TACTILE (TUNING/CHAR +)			
R281	1-249-417-11	CARBON	1K	5%	1/4W	S221	1-771-410-21	SWITCH, TACTILE (MEMORY/ENTER)			
R282	1-249-421-11	CARBON	2.2K	5%	1/4W	S222	1-771-410-21	SWITCH, TACTILE (1)			
R283	1-249-421-11	CARBON	2.2K	5%	1/4W	S223	1-771-410-21	SWITCH, TACTILE (4)			
R284	1-249-425-11	CARBON	4.7K	5%	1/4W	S224	1-771-410-21	SWITCH, TACTILE (BALANCE R)			
R285	1-249-429-11	CARBON	10K	5%	1/4W	S225	1-771-410-21	SWITCH, TACTILE (TREBLE +)			
R286	1-249-433-11	CARBON	22K	5%	1/4W	S226	1-771-410-21	SWITCH, TACTILE (BASS +)			
R287	1-249-437-11	CARBON	47K	5%	1/4W	S227	1-771-410-21	SWITCH, TACTILE (BALANCE L)			
R288	1-249-429-11	CARBON	10K	5%	1/4W	S228	1-771-410-21	SWITCH, TACTILE (TREBLE -)			
R289	1-249-429-11	CARBON	10K	5%	1/4W (US)	S229	1-771-410-21	SWITCH, TACTILE (BASS -)			
R290	1-249-429-11	CARBON	10K	5%	1/4W (US)	S230	1-771-410-21	SWITCH, TACTILE (AM)			
R291	1-249-429-11	CARBON	10K	5%	1/4W	S231	1-771-410-21	SWITCH, TACTILE (PRESET TUNING +) (US)			
R292	1-249-429-11	CARBON	10K	5%	1/4W	S231	1-771-410-21	SWITCH, TACTILE (PRESET/PTY SELECT +) (AEP,UK)			
R293	1-249-429-11	CARBON	10K	5%	1/4W	S232	1-771-410-21	SWITCH, TACTILE (TUNER)			
R294	1-249-429-11	CARBON	10K	5%	1/4W (US)						
R295	1-249-429-11	CARBON	10K	5%	1/4W (US)						
R296	1-247-807-31	CARBON	100	5%	1/4W						

# STR-DE185

**DISPLAY**   **HP**   **MAIN**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
S233	1-771-410-21	SWITCH, TACTILE (CD)		C462	1-126-964-11	ELECT	10uF 20% 50V
S234	1-771-410-21	SWITCH, TACTILE (MD/TAPE)		C463	1-126-794-11	ELECT	4.7uF 20% 50V
S235	1-771-410-21	SWITCH, TACTILE (VIDEO 2)		C464	1-136-167-00	FILM	0.15uF 5% 50V
S236	1-771-410-21	SWITCH, TACTILE (VIDEO 1)		C465	1-136-167-00	FILM	0.15uF 5% 50V
S237	1-771-410-21	SWITCH, TACTILE (MUTING)		C466	1-136-169-00	FILM	0.22uF 5% 50V
S238	1-771-410-21	SWITCH, TACTILE (BASS BOOST)		C467	1-136-169-00	FILM	0.22uF 5% 50V
S239	1-771-410-21	SWITCH, TACTILE (DISPLAY)		C468	1-137-368-11	MYLAR	0.0047uF 5% 50V
		< VIBRATOR >		C469	1-126-964-11	ELECT	10uF 20% 50V
X201	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)		C470	1-126-794-11	ELECT	4.7uF 20% 50V
		*****		C471	1-164-159-21	CERAMIC	0.1uF 50V
				C472	1-126-965-11	ELECT	22uF 20% 50V
	1-683-816-11	HP BOARD	*****	C474	1-126-964-11	ELECT	10uF 20% 50V
				C475	1-126-965-11	ELECT	22uF 20% 50V
		< CONNECTOR >		C476	1-126-964-11	ELECT	10uF 20% 50V
CNP801	1-691-765-11	PLUG (MICRO CONNECTOR) 3P		C483	1-126-965-11	ELECT	22uF 20% 50V
				C484	1-126-964-11	ELECT	10uF 20% 50V
		< JACK >		C485	1-164-159-21	CERAMIC	0.1uF 50V
J803	1-750-733-11	JACK (LARGE TYPE) (PHONES)		C490	1-126-935-11	ELECT	470uF 20% 10V
		*****		C602	1-128-809-11	CERAMIC	100PF 5% 50V
				C603	1-102-233-00	CERAMIC	33PF 10% 500V
	A-4727-875-A	MAIN BOARD, COMPLETE (US)		C604	1-128-809-11	CERAMIC	100PF 5% 50V
	A-4727-881-A	MAIN BOARD, COMPLETE (AEP,UK)	*****	C606	1-126-933-11	ELECT	100uF 20% 16V
				C607	1-126-794-11	ELECT	4.7uF 20% 50V
	1-533-223-11	HOLDER, FUSE		C652	1-128-809-11	CERAMIC	100PF 5% 50V
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3		C653	1-102-233-00	CERAMIC	33PF 10% 500V
		< CAPACITOR >		C654	1-128-809-11	CERAMIC	100PF 5% 50V
C402	1-126-964-11	ELECT	10uF 20% 50V	C656	1-126-933-11	ELECT	100uF 20% 16V
C404	1-126-964-11	ELECT	10uF 20% 50V	C657	1-126-794-11	ELECT	4.7uF 20% 50V
C406	1-126-964-11	ELECT	10uF 20% 50V	C682	1-128-582-11	ELECT	10uF 20% 100V
C408	1-126-964-11	ELECT	10uF 20% 50V	C701	1-126-947-11	ELECT	47uF 20% 16V
C410	1-126-964-11	ELECT	10uF 20% 50V	C702	1-107-597-11	CERAMIC	22PF 10% 500V
C412	1-126-964-11	ELECT	10uF 20% 50V	C703	1-107-597-11	CERAMIC	22PF 10% 500V
C413	1-126-794-11	ELECT	4.7uF 20% 50V	C704	1-128-813-11	CERAMIC	220PF 5% 50V
C414	1-136-167-00	FILM	0.15uF 5% 50V	C705	1-137-372-11	MYLAR	0.022uF 5% 50V
C415	1-136-167-00	FILM	0.15uF 5% 50V	C751	1-126-947-11	ELECT	47uF 20% 16V
C416	1-136-169-00	FILM	0.22uF 5% 50V	C752	1-107-597-11	CERAMIC	22PF 10% 500V
C417	1-136-169-00	FILM	0.22uF 5% 50V	C753	1-107-597-11	CERAMIC	22PF 10% 500V
C418	1-137-368-11	MYLAR	0.0047uF 5% 50V	C754	1-128-813-11	CERAMIC	220PF 5% 50V
C419	1-126-964-11	ELECT	10uF 20% 50V	C755	1-137-372-11	MYLAR	0.022uF 5% 50V
C420	1-126-794-11	ELECT	4.7uF 20% 50V	C781	1-126-934-11	ELECT	220uF 20% 10V
C421	1-164-159-21	CERAMIC	0.1uF	C782	1-126-964-11	ELECT	10uF 20% 50V
C422	1-126-965-11	ELECT	22uF 20% 50V	C791	1-164-159-21	CERAMIC	0.1uF 50V
C424	1-126-964-11	ELECT	10uF 20% 50V	C901	1-164-159-21	CERAMIC	0.1uF 50V
C425	1-126-965-11	ELECT	22uF 20% 50V	C902	1-164-159-21	CERAMIC	0.1uF 50V
C426	1-126-964-11	ELECT	10uF 20% 50V	C903	1-164-159-21	CERAMIC	0.1uF 50V
C427	1-126-964-11	ELECT	10uF 20% 50V	C904	1-126-960-11	ELECT	1uF 20% 50V
C428	1-126-964-11	ELECT	10uF 20% 50V	C905	1-126-936-11	ELECT	3300uF 20% 16V
C429	1-126-964-11	ELECT	10uF 20% 50V	C906	1-164-159-21	CERAMIC	0.1uF 50V
C430	1-126-964-11	ELECT	10uF 20% 50V	C907	1-164-159-21	CERAMIC	0.1uF 50V
C431	1-126-964-11	ELECT	10uF 20% 50V	C908	1-126-964-11	ELECT	10uF 20% 50V
C432	1-126-964-11	ELECT	10uF 20% 50V	C909	1-126-957-11	ELECT	0.22uF 20% 50V
C433	1-126-964-11	ELECT	10uF 20% 50V	C910	1-164-159-21	CERAMIC	0.1uF 50V
C434	1-126-964-11	ELECT	10uF 20% 50V	C911	1-164-159-21	CERAMIC	0.1uF 50V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C912	1-135-851-21	MYLAR	0.22uF	100V			< CONNECTOR >
C913	1-135-851-21	MYLAR	0.22uF	100V			
C914	1-165-946-11	DOUBLE LAYERS	6800uF	20%	71V	CN3	1-569-060-11 SOCKET, CONNECTOR 11P (US)
C915	1-165-946-11	DOUBLE LAYERS	6800uF	20%	71V	CN3	1-569-321-11 SOCKET, CONNECTOR 15P (AEP,UK)
C916	1-164-159-21	CERAMIC	0.1uF		50V	CN4	1-568-440-11 SOCKET, CONNECTOR 17P (US)
C917	1-164-159-21	CERAMIC	0.1uF		50V	CN4	1-569-323-11 SOCKET, CONNECTOR 19P (AEP,UK)
C918	1-126-942-61	ELECT	1000uF	20%	25V	CN5	1-569-321-11 SOCKET, CONNECTOR 15P
C919	1-126-947-11	ELECT	47uF	20%	35V	CNP901	1-564-321-00 PIN, CONNECTOR 2P
C920	1-126-947-11	ELECT	47uF	20%	35V	* CNP903	1-564-242-00 PIN, CONNECTOR 5P
C921	1-126-947-11	ELECT	47uF	20%	35V	CNP904	1-691-767-11 PLUG (MICRO CONNECTOR) 5P
						* CNP905	1-565-792-11 PIN, CONNECTOR 2P
C922	1-164-159-21	CERAMIC	0.1uF		50V		< DIODE >
C923	1-126-947-11	ELECT	47uF	20%	16V	D701	8-719-991-33 DIODE 1SS133T-77
C924	1-164-159-21	CERAMIC	0.1uF		50V	D751	8-719-991-33 DIODE 1SS133T-77
C925	1-126-933-11	ELECT	100uF	20%	16V	D781	8-719-991-33 DIODE 1SS133T-77
C926	1-164-159-11	CERAMIC	0.1uF		50V (AEP,UK)	D782	8-719-991-33 DIODE 1SS133T-77
C927	1-126-947-11	ELECT	47uF	20%	16V (AEP,UK)	D783	8-719-991-33 DIODE 1SS133T-77
C928	1-126-967-11	ELECT	47uF	20%	50V	D784	8-719-991-33 DIODE 1SS133T-77
C929	1-128-582-11	ELECT	10uF	20%	100V	D785	8-719-991-33 DIODE 1SS133T-77
C930	1-128-582-11	ELECT	10uF	20%	100V	D786	8-719-991-33 DIODE 1SS133T-77
C931	1-164-159-21	CERAMIC	0.1uF		50V	D787	8-719-991-33 DIODE 1SS133T-77
						D788	8-719-991-33 DIODE 1SS133T-77
CC401	1-128-809-11	CERAMIC	100PF	5%	50V (AEP,UK)	D789	8-719-991-33 DIODE 1SS133T-77
CC403	1-128-809-11	CERAMIC	100PF	5%	50V (AEP,UK)	D901	8-719-200-82 DIODE 11ES2
CC405	1-128-809-11	CERAMIC	100PF	5%	50V (AEP,UK)	D902	8-719-200-82 DIODE 11ES2
CC407	1-128-809-11	CERAMIC	100PF	5%	50V (AEP,UK)	D903	8-719-200-82 DIODE 11ES2
CC409	1-128-809-11	CERAMIC	100PF	5%	50V (AEP,UK)	D904	8-719-200-82 DIODE 11ES2
CC411	1-128-809-11	CERAMIC	100PF	5%	50V (AEP,UK)	D905	8-719-991-33 DIODE 1SS133T-77
CC451	1-128-809-11	CERAMIC	100PF	5%	50V (AEP,UK)	D906	8-719-991-33 DIODE 1SS133T-77
CC453	1-128-809-11	CERAMIC	100PF	5%	50V (AEP,UK)	D907	8-719-072-05 DIODE RBV-602LF-A
CC455	1-128-809-11	CERAMIC	100PF	5%	50V (AEP,UK)	D908	8-719-200-82 DIODE 11ES2
CC457	1-128-809-11	CERAMIC	100PF	5%	50V (AEP,UK)	D909	8-719-200-82 DIODE 11ES2
CC459	1-128-809-11	CERAMIC	100PF	5%	50V (AEP,UK)	D910	8-719-200-82 DIODE 11ES2
CC461	1-128-809-11	CERAMIC	100PF	5%	50V (AEP,UK)	D911	8-719-200-82 DIODE 11ES2
CC701	1-127-876-11	CERAMIC	0.01uF	10%	50V (AEP,UK)	D912	8-719-936-34 DIODE HZS24LTD
CC703	1-127-876-11	CERAMIC	0.01uF	10%	50V (AEP,UK)	D913	8-719-109-89 DIODE RD5.6ES-B2
CC751	1-127-876-11	CERAMIC	0.01uF	10%	50V (AEP,UK)	D914	8-719-200-82 DIODE 11ES2
CC753	1-127-876-11	CERAMIC	0.01uF	10%	50V (AEP,UK)	D981	8-719-991-33 DIODE 1SS133T-77
						D982	8-719-991-33 DIODE 1SS133T-77
							< EARTH TERMINAL >
						* EP901	1-537-738-21 TERMINAL, EARTH
							< IC >
						IC401	6-700-261-01 IC BD3861FS
						IC402	8-759-534-63 IC TC9299P
						IC403	8-759-636-74 IC M5218AP-22
						IC404	8-759-932-33 IC BU4066BC
						IC601	6-700-943-01 IC uPC2581V-S
						IC901	8-759-333-83 IC NJM2103D
						IC902	8-759-701-75 IC NJM7805FA
						IC903	8-759-656-35 IC NJM7810FA

## MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
IC904	8-759-701-75	IC NJM7805FA (AEP,UK)		R418	1-249-433-11	CARBON	22K 5% 1/4W
		< JACK >		R421	1-249-437-11	CARBON	47K 5% 1/4W
J801	1-774-411-11	JACK, PIN 6P (CD,MD/TAPE)		R422	1-249-433-11	CARBON	22K 5% 1/4W
J802	1-793-776-12	JACK, PIN 6P (VIDEO 2,VIDEO 1)		R423	1-249-433-11	CARBON	22K 5% 1/4W
		< COIL >		R424	1-249-429-11	CARBON	10K 5% 1/4W
L701	1-422-009-13	COIL, AIR-CORE		R425	1-249-425-11	CARBON	4.7K 5% 1/4W
L751	1-422-009-13	COIL, AIR-CORE		R426	1-249-425-11	CARBON	4.7K 5% 1/4W
		< TRANSISTOR >		R427	1-249-441-11	CARBON	100K 5% 1/4W
Q424	8-729-900-36	TRANSISTOR DTC124ES		R428	1-249-441-11	CARBON	100K 5% 1/4W
Q474	8-729-900-36	TRANSISTOR DTC124ES		R451	1-249-425-11	CARBON	4.7K 5% 1/4W
Q680	8-729-900-63	TRANSISTOR DTA124ES		R452	1-249-425-11	CARBON	4.7K 5% 1/4W
Q681	8-729-900-36	TRANSISTOR DTC124ES		R453	1-249-421-11	CARBON	2.2K 5% 1/4W
Q701	8-729-119-76	TRANSISTOR 2SA1175-HFE		R454	1-249-425-11	CARBON	4.7K 5% 1/4W
Q702	8-729-141-30	TRANSISTOR 2SC3623A-LK		R455	1-249-425-11	CARBON	4.7K 5% 1/4W
Q705	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R456	1-249-425-11	CARBON	4.7K 5% 1/4W
Q706	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R457	1-249-425-11	CARBON	4.7K 5% 1/4W
Q751	8-729-119-76	TRANSISTOR 2SA1175-HFE		R458	1-249-425-11	CARBON	4.7K 5% 1/4W
Q752	8-729-141-30	TRANSISTOR 2SC3623A-LK		R459	1-249-421-11	CARBON	2.2K 5% 1/4W
Q755	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R460	1-249-421-11	CARBON	2.2K 5% 1/4W
Q756	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R461	1-249-425-11	CARBON	4.7K 5% 1/4W
Q781	8-729-119-79	TRANSISTOR 2SC2785-FEK		R462	1-249-425-11	CARBON	4.7K 5% 1/4W
Q782	8-729-119-79	TRANSISTOR 2SC2785-FEK		R463	1-247-843-11	CARBON	3.3K 5% 1/4W
Q783	8-729-119-79	TRANSISTOR 2SC2785-FEK		R464	1-247-843-11	CARBON	3.3K 5% 1/4W
Q784	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R465	1-249-417-11	CARBON	1K 5% 1/4W
Q785	8-729-119-79	TRANSISTOR 2SC2785-FEK		R466	1-249-437-11	CARBON	47K 5% 1/4W
Q786	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		R467	1-249-433-11	CARBON	22K 5% 1/4W
Q901	8-729-119-79	TRANSISTOR 2SC2785-FEK		R468	1-249-433-11	CARBON	22K 5% 1/4W
Q902	8-729-045-21	TRANSISTOR 2SD1513TP-LK		R471	1-249-437-11	CARBON	47K 5% 1/4W
Q903	8-729-119-79	TRANSISTOR 2SC2785-FEK		R472	1-249-433-11	CARBON	22K 5% 1/4W
Q904	8-729-140-97	TRANSISTOR 2SB734-34		R473	1-249-433-11	CARBON	22K 5% 1/4W
		< RESISTOR >		R474	1-249-429-11	CARBON	10K 5% 1/4W
R401	1-249-425-11	CARBON 4.7K 5% 1/4W		R475	1-249-425-11	CARBON	4.7K 5% 1/4W
R402	1-249-425-11	CARBON 4.7K 5% 1/4W		R476	1-249-425-11	CARBON	4.7K 5% 1/4W
R403	1-249-421-11	CARBON 2.2K 5% 1/4W		R477	1-249-441-11	CARBON	100K 5% 1/4W
R404	1-249-425-11	CARBON 4.7K 5% 1/4W		R478	1-249-441-11	CARBON	100K 5% 1/4W
R405	1-249-425-11	CARBON 4.7K 5% 1/4W		R481	1-247-807-31	CARBON	100 5% 1/4W
R406	1-249-425-11	CARBON 4.7K 5% 1/4W		R482	1-247-807-31	CARBON	100 5% 1/4W
R407	1-249-425-11	CARBON 4.7K 5% 1/4W		R483	1-247-807-31	CARBON	100 5% 1/4W
R408	1-249-425-11	CARBON 4.7K 5% 1/4W		R484	1-247-807-31	CARBON	100 5% 1/4W
R409	1-249-421-11	CARBON 2.2K 5% 1/4W		R485	1-247-807-31	CARBON	100 5% 1/4W
R410	1-249-421-11	CARBON 2.2K 5% 1/4W		R602	1-249-439-11	CARBON	68K 5% 1/4W
R411	1-249-425-11	CARBON 4.7K 5% 1/4W		R603	1-249-439-11	CARBON	68K 5% 1/4W
R412	1-249-425-11	CARBON 4.7K 5% 1/4W		R604	1-249-411-11	CARBON	330 5% 1/4W
R413	1-247-843-11	CARBON 3.3K 5% 1/4W		R605	1-249-417-11	CARBON	1K 5% 1/4W
R414	1-247-843-11	CARBON 3.3K 5% 1/4W		R652	1-249-439-11	CARBON	68K 5% 1/4W
R415	1-249-417-11	CARBON 1K 5% 1/4W		R653	1-249-439-11	CARBON	68K 5% 1/4W
R416	1-249-437-11	CARBON 47K 5% 1/4W		R654	1-249-411-11	CARBON	330 5% 1/4W
R417	1-249-433-11	CARBON 22K 5% 1/4W		R655	1-249-417-11	CARBON	1K 5% 1/4W
				R681	1-249-437-11	CARBON	47K 5% 1/4W
				R697	1-249-433-11	CARBON	22K 5% 1/4W
				R701	1-249-421-11	CARBON	2.2K 5% 1/4W
				R702	1-249-440-11	CARBON	82K 5% 1/4W
				R703	1-249-414-11	CARBON	560 5% 1/4W

MAIN

OUTLET

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R704	1-249-408-11	CARBON	180	5%	1/4W	R914	1-249-425-11	CARBON	4.7K	5%	1/4W
R705	1-249-408-11	CARBON	180	5%	1/4W	▲ R915	1-240-877-11	FUSIBLE	0.15	5%	1/2W F
R706	1-233-352-41	COMPONENT, ENCAPSULATED 0.22X2				R916	1-249-389-11	CARBON	4.7	5%	1/4W
R707	1-249-425-11	CARBON	4.7K	5%	1/4W	R917	1-249-429-11	CARBON	10K	5%	1/4W
R708	1-240-855-11	CARBON	6.2K	5%	1/4W	R919	1-249-439-11	CARBON	68K	5%	1/4W
R709	1-249-419-11	CARBON	1.5K	5%	1/4W	R920	1-249-439-11	CARBON	68K	5%	1/4W
R710	1-247-881-00	CARBON	120K	5%	1/4W	R921	1-247-807-31	CARBON	100	5%	1/4W (AEP,UK)
R711	1-249-431-11	CARBON	15K	5%	1/4W	R922	1-247-807-31	CARBON	100	5%	1/4W (AEP,UK)
R712	1-249-393-11	CARBON	10	5%	1/4W	R923	1-249-429-11	CARBON	10K	5%	1/4W
R713	1-249-437-11	CARBON	47K	5%	1/4W	R924	1-247-807-31	CARBON	100	5%	1/4W
R714	1-249-389-11	CARBON	4.7	5%	1/4W	R925	1-247-807-31	CARBON	100	5%	1/4W
R751	1-249-421-11	CARBON	2.2K	5%	1/4W	R926	1-247-791-11	CARBON	22	5%	1/4W
R752	1-249-440-11	CARBON	82K	5%	1/4W	R929	1-249-381-11	CARBON	1	5%	1/4W
R753	1-249-414-11	CARBON	560	5%	1/4W	R930	1-249-381-11	CARBON	1	5%	1/4W
R754	1-249-408-11	CARBON	180	5%	1/4W	RR701	1-249-393-11	CARBON	10	5%	1/4W (AEP,UK)
R755	1-249-408-11	CARBON	180	5%	1/4W	RR702	1-249-393-11	CARBON	10	5%	1/4W (AEP,UK)
R756	1-233-352-41	COMPONENT, ENCAPSULATED 0.22X2				RR751	1-249-393-11	CARBON	10	5%	1/4W (AEP,UK)
R757	1-249-425-11	CARBON	4.7K	5%	1/4W	RR752	1-249-393-11	CARBON	10	5%	1/4W (AEP,UK)
R758	1-240-855-11	CARBON	6.2K	5%	1/4W						< RELAY >
R759	1-249-419-11	CARBON	1.5K	5%	1/4W	R781	1-249-425-11	CARBON	4.7K	5%	1/4W
R760	1-247-881-00	CARBON	120K	5%	1/4W	RY781	1-755-421-11	RELAY (12V)			
R761	1-249-431-11	CARBON	15K	5%	1/4W	RY782	1-755-421-11	RELAY (12V)			
R762	1-249-393-11	CARBON	10	5%	1/4W	RY783	1-755-421-11	RELAY (12V)			
R763	1-249-437-11	CARBON	47K	5%	1/4W	RY981	1-755-013-11	RELAY (12V)			
R764	1-249-389-11	CARBON	4.7	5%	1/4W	▲ RY982	1-755-334-11	RELAY, AC POWER (9V)			
R781	1-249-425-11	CARBON	4.7K	5%	1/4W						< TRANSFORMER >
R782	1-249-425-11	CARBON	4.7K	5%	1/4W	▲ T902	1-435-435-11	TRANSFORMER, POWER (AEP,UK)			
R783	1-249-425-11	CARBON	4.7K	5%	1/4W	▲ T902	1-435-436-11	TRANSFORMER, POWER (US)			
R784	1-249-401-11	CARBON	47	5%	1/4W						< TERMINAL BOARD >
R785	1-249-401-11	CARBON	47	5%	1/4W	TM801	1-537-376-11	TERMINAL BOARD (SPEAKERS)			
▲ R792	1-215-868-00	METAL OXIDE	680	5%	1W F	*****					
▲ R793	1-215-868-00	METAL OXIDE	680	5%	1W F						
R794	1-249-429-11	CARBON	10K	5%	1/4W						
R795	1-249-401-11	CARBON	47	5%	1/4W						
R901	1-249-425-11	CARBON	4.7K	5%	1/4W						
R902	1-249-381-11	CARBON	1	5%	1/4W	1-683-818-11	OUTLET BOARD				
▲ R903	1-219-237-11	SOLID	3.3M	20%	1/2W F (US)	*****					
R904	1-249-435-11	CARBON	33K	5%	1/4W						< AC OUTLET >
R905	1-249-433-11	CARBON	22K	5%	1/4W	▲ CNJ901	1-785-285-11	OUTLET, AC (1P) (AC OUTLET) (AEP,UK)			
R906	1-249-421-11	CARBON	2.2K	5%	1/4W	▲ CNJ901	1-785-834-11	OUTLET, AC (1P) (AC OUTLET) (US)			
R907	1-249-428-11	CARBON	8.2K	5%	1/4W						< CONNECTOR >
R908	1-249-422-11	CARBON	2.7K	5%	1/4W	CNP907	1-564-321-00	PIN, CONNECTOR 2P			
R909	1-249-431-11	CARBON	15K	5%	1/4W	*****					
R910	1-249-429-11	CARBON	10K	5%	1/4W						
R911	1-247-843-11	CARBON	3.3K	5%	1/4W						
R912	1-249-417-11	CARBON	1K	5%	1/4W						
R913	1-249-401-11	CARBON	47	5%	1/4W						

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

**POWER SW**

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>			<u>Remark</u>
	1-683-817-11	POWER SW BOARD			*****			ACCESSORIES			*****
< DIODE >											
D205	8-719-046-39	LED	SEL5821A-TP15	(SPEAKERS A)				1-477-133-11	REMOTE COMMANDER (RM-U185)		
D206	8-719-046-39	LED	SEL5821A-TP15	(SPEAKERS B)		△	1-501-374-11	ANTENNA, LOOP (AM)			
< TRANSISTOR >											
Q204	8-729-900-36	TRANSISTOR	DTC124ES				1-501-594-11	ANTENNA (FM) (AEP,UK)			
Q205	8-729-900-36	TRANSISTOR	DTC124ES				1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (UK)			
< RESISTOR >											
R289	1-249-409-11	CARBON	220	5%	1/4W		1-793-184-21	CONNECTOR (F TYPE ADAPTOR) (FM ANTENNA) (US)			
R290	1-249-409-11	CARBON	220	5%	1/4W						
R297	1-249-417-11	CARBON	1K	5%	1/4W						
< SWITCH >											
S201	1-771-410-21	SWITCH, TACTILE	(I/O)				4-228-696-01	COVER, BATTERY (for RM-U185)			
S202	1-771-410-21	SWITCH, TACTILE	(SPEAKERS A)				4-238-304-11	MANUAL, INSTRUCTION (ENGLISH)			
S203	1-771-410-21	SWITCH, TACTILE	(SPEAKERS B)				4-238-304-21	MANUAL, INSTRUCTION (FRENCH,DUTCH, SWEDISH,GERMAN,SPANISH, ITALIAN,POLISH) (AEP)			
*****											
MISCELLANEOUS											
57	1-765-332-11	WIRE (FLAT TYPE)	(15 CORE)				4-238-304-31	MANUAL, INSTRUCTION (DANISH,FINNISH) (AEP)			
59	1-773-054-11	WIRE (FLAT TYPE)	(17 CORE)	(US)			4-238-304-41	MANUAL, INSTRUCTION (PORTUGUESE) (AEP)			
59	1-773-125-11	WIRE (FLAT TYPE)	(19 CORE)	(AEP,UK)							
△ 105	1-769-744-11	CORD, POWER	(AEP,UK)								
△ 105	1-783-820-11	CORD, POWER	(US)								
109	1-769-943-11	WIRE (FLAT TYPE)	(11 CORE)	(US)							
109	1-773-007-11	WIRE (FLAT TYPE)	(15 CORE)	(AEP,UK)							
△ F901	1-532-464-31	FUSE	(T2.5A/250V)	(AEP,UK)							
△ F901	1-576-109-11	FUSE	(5A/125V)	(US)							
△ F902	1-532-464-31	FUSE	(T2.5A/250V)	(AEP,UK)							
△ F902	1-576-109-11	FUSE	(5A/125V)	(US)							
Q703	8-749-010-25	TRANSISTOR	MN2488-OPY-M								
Q704	8-749-010-26	TRANSISTOR	MP1620-OPY-M								
Q753	8-749-010-25	TRANSISTOR	MN2488-OPY-M								
Q754	8-749-010-26	TRANSISTOR	MP1620-OPY-M								
△ T901	1-437-625-11	TRANSFORMER, POWER	(US)								
△ T901	1-437-626-11	TRANSFORMER, POWER	(AEP,UK)								
TM301	1-693-533-11	TUNER (FM/AM)	(ANTENNA)	(AEP,UK)							
TM301	1-693-534-71	TUNER (FM/AM)	(ANTENNA)	(US)							
*****											

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

# STR-DE185

**SONY®**

*US Model  
AEP Model  
UK Model*

## SERVICE MANUAL

**Ver 1.1 2003. 11**

### SUPPLEMENT-1

File this supplement with the service manual.

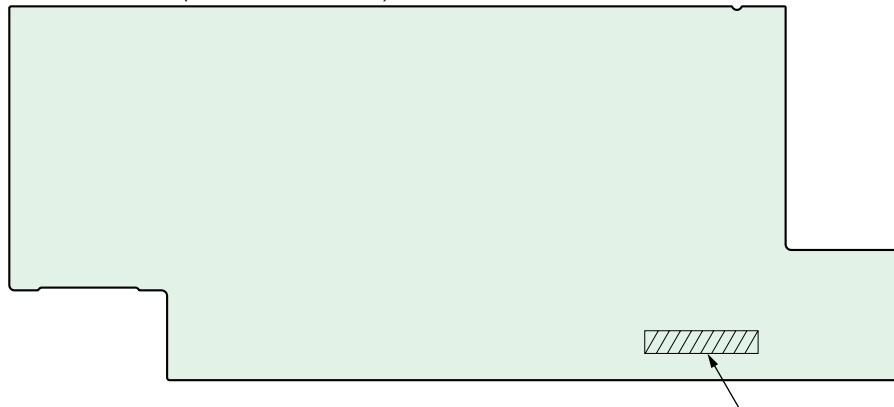
**Subject :** Change of Main Board and IC601

(SPM-03110)

When performing service and inspection, check the suffix of the part number of the main board.

#### • DISCRIMINATION

– MAIN BOARD (COMPONENT SIDE) –



MAIN Board Part No.  
Former : 1-683-814-11  
New : 1-686-993-11

**TABLE OF CONTENTS**

1. Printed Wiring Board –Main Section– .....	3
2. Schematic Diagram –Main Section (1/2)– .....	4
3. Schematic Diagram –Main Section (2/2)– .....	5
4. Electrical Parts List.....	6

**THIS NOTE IS COMMON FOR PRINTED WIRING  
BOARDS AND SCHEMATIC DIAGRAMS.**  
(In addition to this, the necessary note is  
printed in each block.)

**for schematic diagram:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\mu\text{F}$   
50  $\text{mV}$  or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.
- $\triangle$  : internal component.
-  : nonflammable resistor.
-  : fusible resistor.
-  : panel designation.

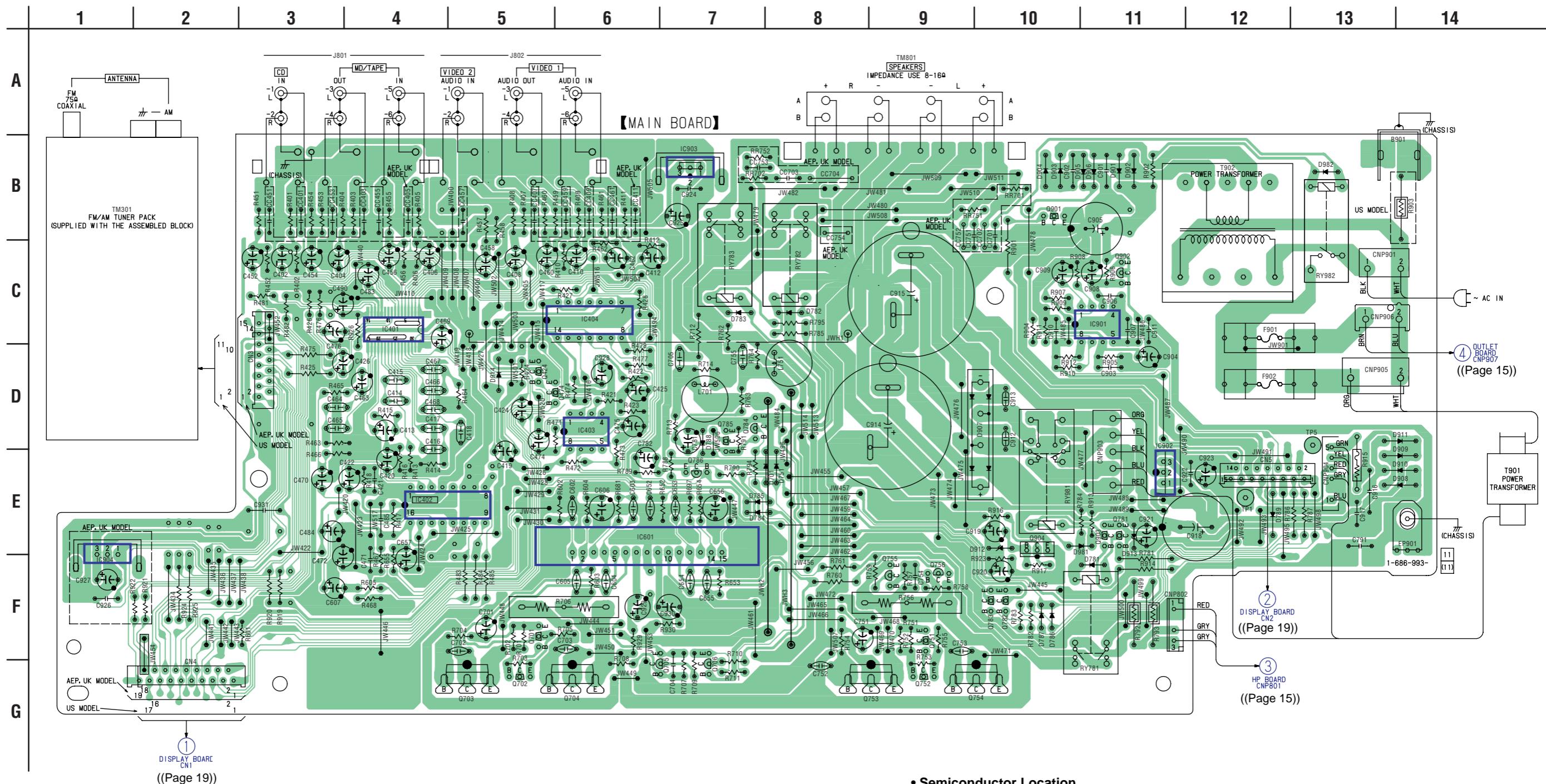
**Note:** The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

-  : B+ Line.
-  : B- Line.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.  
no mark : FM
- Voltages are taken with a VOM (Input impedance  $10\text{ M}\Omega$ ).  
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.  
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  -  : FM/AM
  -  : MD/TAPE
  -  : VIDEO 1
  -  : CD
  -  : VIDEO 2

**for printed wiring boards:**

-  : parts extracted from the component side.
- $\triangle$  : internal component.
-  : Pattern from the side which enables seeing.
- ( ) : Refer to page of Supplement-1.
- (( )) : Refer to page of Service Manual.

**1. PRINTED WIRING BOARD — MAIN SECTION — • Refer to page 2 for Common Note on Printed Wiring Boards.**

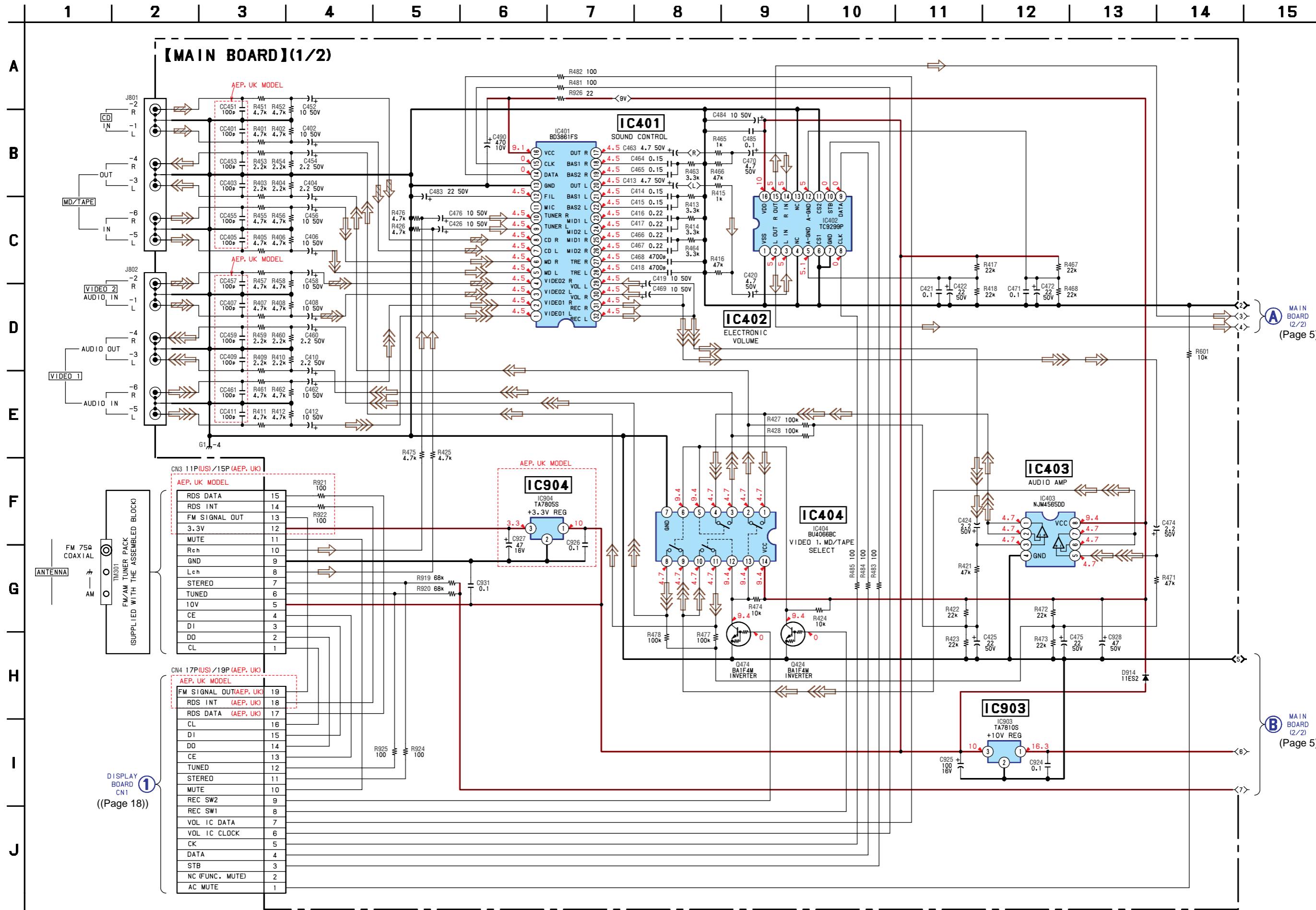


• Semiconductor Location

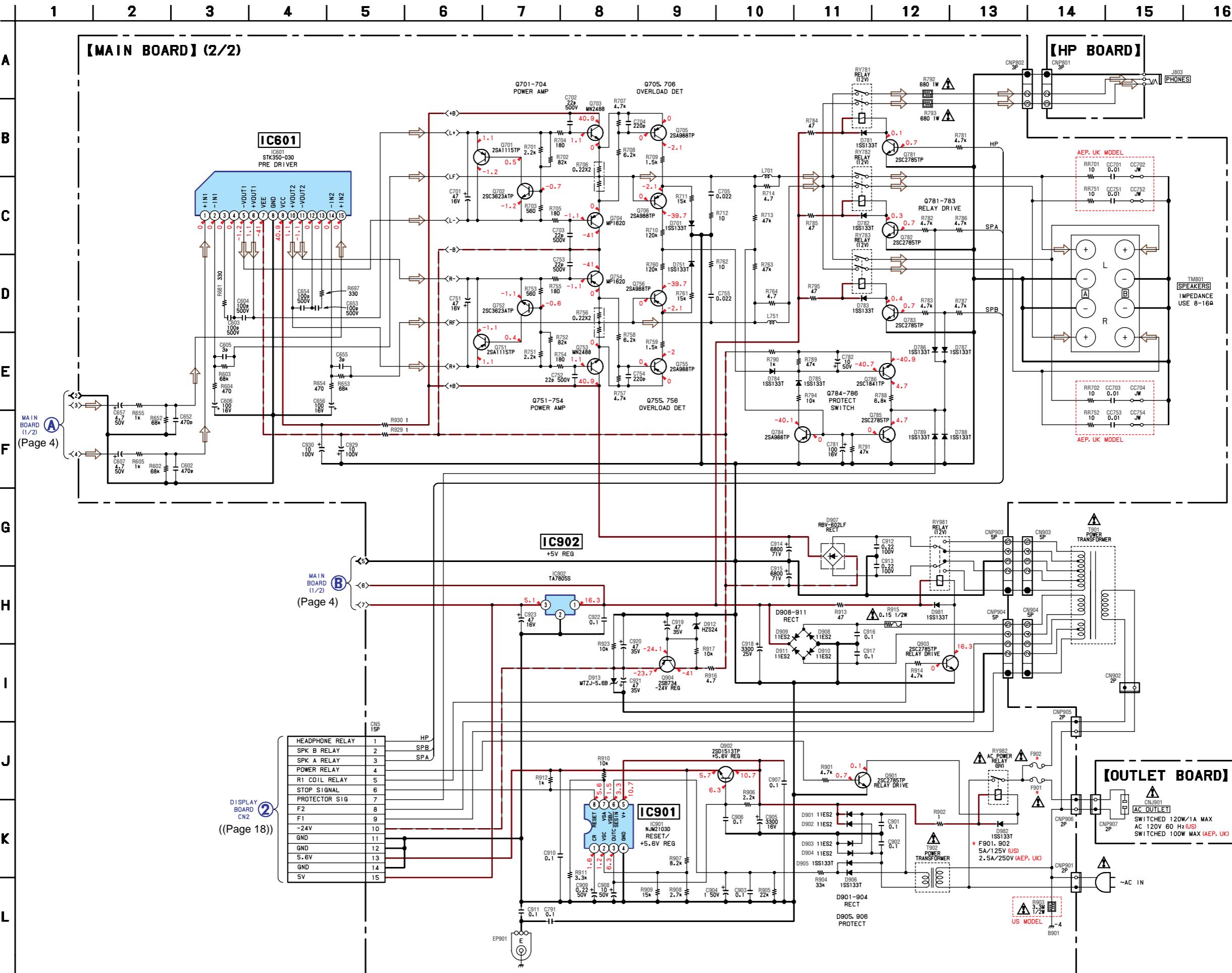
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D701	E-8	D906	B-11	IC601	E-6	Q753	G-9
D751	E-8	D907	D-10	IC901	C-10	Q754	G-10
D781	E-11	D908	E-13	IC902	E-11	Q755	F-9
D782	C-8	D909	E-13	IC903	B-7	Q756	E-9
D783	C-7	D910	E-13	(IC904)	E-1	Q781	E-10
D784	E-7	D911	E-13			Q782	F-10
D785	E-7	D912	E-10	Q424	D-5	Q783	F-10
D786	F-10	D913	E-11	Q474	D-6	Q784	D-7
D787	F-10	D914	D-5	Q701	F-5	Q785	D-7
D788	D-7	D981	E-10	Q702	G-5	Q786	E-7
D789	E-12	D982	B-13	Q703	G-5	Q901	B-10
D901	B-11			Q704	G-6	Q902	C-11
D902	B-11	IC401	C-4	Q705	G-7	Q903	E-11
D903	B-10	IC402	E-4	Q706	G-7	Q904	E-10
D904	B-10	IC403	D-6	Q751	G-9		
D905	B-11	IC404	C-6	Q752	G-9		

( ) : AEP, UK model

## 2. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) — • Refer to page 2 for Common Note on Schematic Diagram.



## 3. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) • Refer to page 2 for Common Note on Schematic Diagram.





Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q706	8-729-140-82	TRANSISTOR	2SA988-PAFAEA	R466	1-249-437-11	CARBON	47K 5% 1/4W
Q751	8-729-119-76	TRANSISTOR	2SA1175-HFE	R467	1-249-433-11	CARBON	22K 5% 1/4W
Q752	8-729-141-30	TRANSISTOR	2SC3623A-LK	R468	1-249-433-11	CARBON	22K 5% 1/4W
Q755	8-729-140-82	TRANSISTOR	2SA988-PAFAEA	R471	1-249-437-11	CARBON	47K 5% 1/4W
Q756	8-729-140-82	TRANSISTOR	2SA988-PAFAEA	R472	1-249-433-11	CARBON	22K 5% 1/4W
Q781	8-729-119-79	TRANSISTOR	2SC2785-FEK	R473	1-249-433-11	CARBON	22K 5% 1/4W
Q782	8-729-119-79	TRANSISTOR	2SC2785-FEK	R474	1-249-429-11	CARBON	10K 5% 1/4W
Q783	8-729-119-79	TRANSISTOR	2SC2785-FEK	R475	1-249-425-11	CARBON	4.7K 5% 1/4W
Q784	8-729-140-82	TRANSISTOR	2SA988-PAFAEA	R476	1-249-425-11	CARBON	4.7K 5% 1/4W
Q785	8-729-119-79	TRANSISTOR	2SC2785-FEK	R477	1-249-441-11	CARBON	100K 5% 1/4W
Q786	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA	R478	1-249-441-11	CARBON	100K 5% 1/4W
Q901	8-729-119-79	TRANSISTOR	2SC2785-FEK	R481	1-247-807-31	CARBON	100 5% 1/4W
Q902	8-729-045-21	TRANSISTOR	2SD1513TP-LK	R482	1-247-807-31	CARBON	100 5% 1/4W
Q903	8-729-119-79	TRANSISTOR	2SC2785-FEK	R483	1-247-807-31	CARBON	100 5% 1/4W
Q904	8-729-140-97	TRANSISTOR	2SB734-34	R484	1-247-807-31	CARBON	100 5% 1/4W
< RESISTOR >				R485	1-247-807-31	CARBON	100 5% 1/4W
R401	1-249-425-11	CARBON	4.7K 5% 1/4W	R601	1-249-429-11	CARBON	10K 5% 1/4W
R402	1-249-425-11	CARBON	4.7K 5% 1/4W	R602	1-249-439-11	CARBON	68K 5% 1/4W
R403	1-249-421-11	CARBON	2.2K 5% 1/4W	R603	1-249-439-11	CARBON	68K 5% 1/4W
R404	1-249-421-11	CARBON	2.2K 5% 1/4W	R604	1-249-413-11	CARBON	470 5% 1/4W
R405	1-249-425-11	CARBON	4.7K 5% 1/4W	R605	1-249-417-11	CARBON	1K 5% 1/4W
R406	1-249-425-11	CARBON	4.7K 5% 1/4W	R652	1-249-439-11	CARBON	68K 5% 1/4W
R407	1-249-425-11	CARBON	4.7K 5% 1/4W	R653	1-249-439-11	CARBON	68K 5% 1/4W
R408	1-249-425-11	CARBON	4.7K 5% 1/4W	R654	1-249-413-11	CARBON	470 5% 1/4W
R409	1-249-421-11	CARBON	2.2K 5% 1/4W	R655	1-249-417-11	CARBON	1K 5% 1/4W
R410	1-249-421-11	CARBON	2.2K 5% 1/4W	R681	1-249-411-11	CARBON	330 5% 1/4W
R411	1-249-425-11	CARBON	4.7K 5% 1/4W	R697	1-249-411-11	CARBON	330 5% 1/4W
R412	1-249-425-11	CARBON	4.7K 5% 1/4W	R701	1-249-421-11	CARBON	2.2K 5% 1/4W
R413	1-247-843-11	CARBON	3.3K 5% 1/4W	R702	1-249-440-11	CARBON	82K 5% 1/4W
R414	1-247-843-11	CARBON	3.3K 5% 1/4W	R703	1-249-414-11	CARBON	560 5% 1/4W
R415	1-249-417-11	CARBON	1K 5% 1/4W	R704	1-249-408-11	CARBON	180 5% 1/4W
R416	1-249-437-11	CARBON	47K 5% 1/4W	R705	1-249-408-11	CARBON	180 5% 1/4W
R417	1-249-433-11	CARBON	22K 5% 1/4W	R706	1-234-182-11	ENCAPSULATED COMPONENT 0.22X2	
R418	1-249-433-11	CARBON	22K 5% 1/4W	R707	1-249-425-11	CARBON	4.7K 5% 1/4W
R421	1-249-437-11	CARBON	47K 5% 1/4W	R708	1-240-855-81	CARBON	6.2K 5% 1/4W
R422	1-249-433-11	CARBON	22K 5% 1/4W	R709	1-249-419-11	CARBON	1.5K 5% 1/4W
R423	1-249-433-11	CARBON	22K 5% 1/4W	R710	1-247-881-00	CARBON	120K 5% 1/4W
R424	1-249-429-11	CARBON	10K 5% 1/4W	R711	1-249-431-11	CARBON	15K 5% 1/4W
R425	1-249-425-11	CARBON	4.7K 5% 1/4W	R712	1-249-393-11	CARBON	10 5% 1/4W
R426	1-249-425-11	CARBON	4.7K 5% 1/4W	R713	1-249-437-11	CARBON	47K 5% 1/4W
R427	1-249-441-11	CARBON	100K 5% 1/4W	R714	1-249-389-11	CARBON	4.7 5% 1/4W
R428	1-249-441-11	CARBON	100K 5% 1/4W	R751	1-249-421-11	CARBON	2.2K 5% 1/4W
R451	1-249-425-11	CARBON	4.7K 5% 1/4W	R752	1-249-440-11	CARBON	82K 5% 1/4W
R452	1-249-425-11	CARBON	4.7K 5% 1/4W	R753	1-249-414-11	CARBON	560 5% 1/4W
R453	1-249-421-11	CARBON	2.2K 5% 1/4W	R754	1-249-408-11	CARBON	180 5% 1/4W
R454	1-249-421-11	CARBON	2.2K 5% 1/4W	R755	1-249-408-11	CARBON	180 5% 1/4W
R455	1-249-425-11	CARBON	4.7K 5% 1/4W	R756	1-234-182-11	ENCAPSULATED COMPONENT 0.22X2	
R456	1-249-425-11	CARBON	4.7K 5% 1/4W	R757	1-249-425-11	CARBON	4.7K 5% 1/4W
R457	1-249-425-11	CARBON	4.7K 5% 1/4W	R758	1-240-855-81	CARBON	6.2K 5% 1/4W
R458	1-249-425-11	CARBON	4.7K 5% 1/4W	R759	1-249-419-11	CARBON	1.5K 5% 1/4W
R459	1-249-421-11	CARBON	2.2K 5% 1/4W	R760	1-247-881-00	CARBON	120K 5% 1/4W
R460	1-249-421-11	CARBON	2.2K 5% 1/4W	R761	1-249-431-11	CARBON	15K 5% 1/4W
R461	1-249-425-11	CARBON	4.7K 5% 1/4W	R762	1-249-393-11	CARBON	10 5% 1/4W
R462	1-249-425-11	CARBON	4.7K 5% 1/4W	R763	1-249-437-11	CARBON	47K 5% 1/4W
R463	1-247-843-11	CARBON	3.3K 5% 1/4W	R764	1-249-389-11	CARBON	4.7 5% 1/4W
R464	1-247-843-11	CARBON	3.3K 5% 1/4W	R781	1-249-425-11	CARBON	4.7K 5% 1/4W
R465	1-249-417-11	CARBON	1K 5% 1/4W	R782	1-249-425-11	CARBON	4.7K 5% 1/4W
R466	1-249-417-11	CARBON	1K 5% 1/4W	R783	1-249-425-11	CARBON	4.7K 5% 1/4W

## MAIN

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>		<u>Remark</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
R784	1-249-401-11	CARBON	47	5%	1/4W	△T902	1-435-435-11	TRANSFORMER, POWER (AEP,UK)
R785	1-249-401-11	CARBON	47	5%	1/4W			< TERMINAL BOARD >
R786	1-249-425-11	CARBON	4.7K	5%	1/4W			
R787	1-249-425-11	CARBON	4.7K	5%	1/4W	TM801	1-537-376-11	TERMINAL BOARD (SPEAKERS)
R788	1-249-427-11	CARBON	6.8K	5%	1/4W			
R789	1-249-437-11	CARBON	47K	5%	1/4W			
R790	1-249-417-11	CARBON	1K	5%	1/4W			
R791	1-249-437-11	CARBON	47K	5%	1/4W			
△R792	1-215-868-00	METAL OXIDE	680	5%	1W F			
△R793	1-215-868-00	METAL OXIDE	680	5%	1W F			
R794	1-249-429-11	CARBON	10K	5%	1/4W			
R795	1-249-401-11	CARBON	47	5%	1/4W			
R901	1-249-425-11	CARBON	4.7K	5%	1/4W			
R902	1-249-381-11	CARBON	1	5%	1/4W			
△R903	1-219-237-11	SOLID	3.3M	20%	1/2W F (US)			
R904	1-249-435-11	CARBON	33K	5%	1/4W			
R905	1-249-433-11	CARBON	22K	5%	1/4W			
R906	1-249-421-11	CARBON	2.2K	5%	1/4W			
R907	1-249-428-11	CARBON	8.2K	5%	1/4W			
R908	1-249-422-11	CARBON	2.7K	5%	1/4W			
R909	1-249-431-11	CARBON	15K	5%	1/4W			
R910	1-249-429-11	CARBON	10K	5%	1/4W			
R911	1-247-843-11	CARBON	3.3K	5%	1/4W			
R912	1-249-417-11	CARBON	1K	5%	1/4W			
R913	1-249-401-11	CARBON	47	5%	1/4W			
△R915	1-240-877-11	FUSIBLE	0.15	5%	1/2W F			
R916	1-249-389-11	CARBON	4.7	5%	1/4W			
R917	1-249-429-11	CARBON	10K	5%	1/4W			
R919	1-249-439-11	CARBON	68K	5%	1/4W			
R920	1-249-439-11	CARBON	68K	5%	1/4W			
R921	1-247-807-31	CARBON	100	5%	1/4W (AEP,UK)			
R922	1-247-807-31	CARBON	100	5%	1/4W (AEP,UK)			
R923	1-249-429-11	CARBON	10K	5%	1/4W			
R924	1-247-807-31	CARBON	100	5%	1/4W			
R925	1-247-807-31	CARBON	100	5%	1/4W			
R926	1-249-397-11	CARBON	22	5%	1/4W			
R929	1-249-381-11	CARBON	1	5%	1/4W			
R930	1-249-381-11	CARBON	1	5%	1/4W			
RR701	1-249-393-11	CARBON	10	5%	1/4W (AEP,UK)			
RR702	1-249-393-11	CARBON	10	5%	1/4W (AEP,UK)			
RR751	1-249-393-11	CARBON	10	5%	1/4W (AEP,UK)			
RR752	1-249-393-11	CARBON	10	5%	1/4W (AEP,UK)			
< RELAY >								
RY781	1-755-421-11	RELAY (12V)						
RY782	1-755-421-11	RELAY (12V)						
RY783	1-755-421-11	RELAY (12V)						
RY981	1-755-013-11	RELAY (12V)						
△RY982	1-755-334-11	RELAY, AC POWER (9V)						
< TRANSFORMER >								
△T902	1-435-281-11	TRANSFORMER, POWER (US)						

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

**MEMO**

