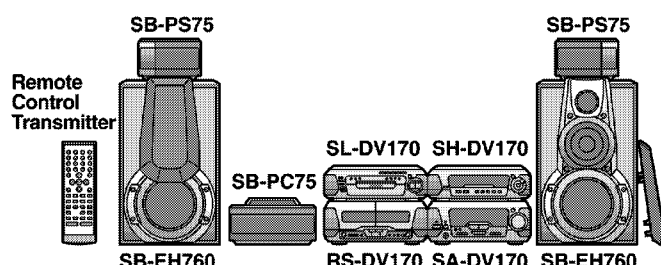


# Service Manual

## Tuner/Amplifier



### SA-DV170

Colour

(S).....Silver Type

Areas

(EB).....Great Britain.

(EG).....Europe.

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

System	SC-DV170
Sound Processor	SH-DV170
Tuner/Amplifier	<b>SA-DV170</b>
DVD Changer	SL-DV170
Cassette Deck	RS-DV170
Front Speakers*	SB-EH760
Center Speaker*	SB-PC75
Surround Speakers*	SB-PS75

\* : Made in Spain.

## Specifications

### Amplifier section

Power output (L/R both channel driven):

Stereo mode;

DIN	10 kHz, THD 1 % (High)	2 × 20 W (6 Ω)
	1 kHz, THD 1 % (Mid)	2 × 20 W (6 Ω)
	100 Hz, THD 1 % (Low)	2 × 43 W (8 Ω)
RMS	10 kHz, THD 10 % (High)	2 × 30 W (6 Ω)
	1 kHz, THD 10 % (Mid)	2 × 30 W (6 Ω)
	100 Hz, THD 10 % (Low)	2 × 65 W (8 Ω)

PRO LOGIC mode:

DIN	FRONT	1 kHz, THD 1 %	
		/TTL Imp. (High/Mid);	2 × 20 W (6 Ω)
		100 Hz, THD 1 % (Low);	2 × 43 W (8 Ω)
	SURROUND	1 kHz, THD 1 %;	2 × 22 W (8 Ω)
	CENTER	1 kHz, THD 1 %;	60 W (8 Ω)

RMS	FRONT	1 kHz, THD 10 %	
		/TTL Imp. (High/Mid);	2 × 30 W (6 Ω)
		100 Hz, THD 10 % (Low);	2 × 65 W (8 Ω)

	SURROUND	1 kHz, THD 10 %;	2 × 30 W (8 Ω)
	CENTER	1 kHz, THD 10 %;	80 W (8 Ω)

PMPO 1 kHz: 3,000 W  
(High or Mid 6 Ω, Low, CENT., SURR. 8 Ω)

Total harmonic distortion:

Rated power at 1 kHz;	1 % (6 Ω)
Half power at 1 kHz;	0.1 % (6 Ω)

Load impedance:

FRONT (High/Mid);	total impedance 6 Ω
(Low);	8 Ω
SURROUND;	8 Ω
CENTER;	8 Ω

S.WOOFER:

Center frequency;	70 Hz
LEVEL (VOL-20 dB):	MID +8 dB, MAX +12 dB

### FM tuner section

Frequency range: 87.50 – 108.00 MHz (0.05 MHz steps)

Sensitivity: 1.8 μV (IHF usable)

S/N 26 dB; 1.5 μV

S/N (MONO): 70 dB (75 dB, IHF)

Antenna terminal(s): 75 Ω (unbalanced)

### AM tuner section

Frequency range: 522 – 1629 kHz (9 kHz steps)

520 – 1630 kHz (10 kHz steps)

Sensitivity (S/N 20 dB): 500 μV/m

### Timer section

Clock: Quartz - lock type

Function: Play timer (1 time, daily), Rec timer (1 time, daily),

Sleep timer (120 min, 30 min intervals)

Setting intervals (Play/Rec): 1 minute – 23 hours 59 minutes  
(1 min intervals)

### General

Power supply:

(EB) area; AC 230 – 240 V, 50 Hz

(EG) area; AC 230 V, 50 Hz

Power consumption: 230 W

Standby;

Normal mode 11 W

ECO mode 0.5 W

Dimensions (W×H×D): 293×118.5×346 mm

Mass: 5.3 kg

Notes: Specifications are subject to change without notice.

Mass and dimensions are approximate.

Total harmonic distortion is measured by the digital spectrum analyzer.

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## ⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

# CONTENTS

	Page		Page
<b>1 Before Repairs</b> .....	2	8.2. To return to the normal display .....	10
<b>2 Protection Circuitry</b> .....	2	8.3. Display contents .....	10
<b>3 Accessories</b> .....	3	<b>9 Schematic Diagram Notes</b> .....	11
<b>4 Caution for AC Mains Lead</b> .....	4	<b>10 Schematic Diagram</b> .....	12
<b>5 Location of Controls</b> .....	5	<b>11 Printed Circuit Board Diagram</b> .....	22
<b>6 Operation Checks and Component Replacement Procedures</b>	6	<b>12 Type Illustration of ICs, Transistors and Diodes</b> .....	26
6.1. Checking for the AC IN P.C.B. ....	6	<b>13 Wiring Connection Diagram</b> .....	27
6.2. Checking for the operation P.C.B. ....	6	<b>14 Terminal Function of ICs</b> .....	28
6.3. Checking for the main P.C.B. ....	7	14.1. IC901 (C2BAFD000043):System Control/FL Drive .....	28
6.4. Replacement for the regulator transistor .....	8	<b>15 Block Diagram</b> .....	29
6.5. Replacement for the power IC .....	8	<b>16 Replacement Parts List</b> .....	34
<b>7 To Supply Power Source</b> .....	9	<b>17 Cabinet Parts Location</b> .....	38
<b>8 Self-Diagnostic Function</b> .....	10	<b>18 Packaging</b> .....	39
8.1. To display the malfunction code .....	10		

## 1 Before Repairs

1. Turn off the power supply. Using a 10  $\Omega$ , 10 W resistor, connect both ends of power supply capacitors (C701, C703 and C702, C704) in order to discharge the voltage.
2. Before turning the power supply on, after completion of repair, slowly apply the primary voltage by using a power supply voltage controller to make sure that the consumed current at 50 Hz in NO SIGNAL mode should be shown below with respect to supply voltage 230/240 V.

Power supply voltage	AC 230 V	AC 240 V
Consumed current 50 Hz	130 - 380 mA	

## 2 Protection Circuitry

The protection circuitry may have operated if either of the following conditions is noticed:

- No sound is heard when the power is switched ON.
- Sound stops during a performance.

The functions of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are shorted, or if speaker systems with an impedance less than the indicated rated impedance of this unit are used.

If this occurs, follow the procedures outlined below.

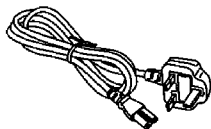
1. Switch OFF the power.
2. Determine the cause of the problem and correct it.
3. Switch ON the power once again.

### Note:

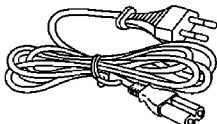
When the protection circuitry functions, the unit will not operate unless the power is first switched OFF and then ON again.

### 3 Accessories

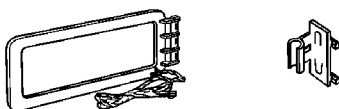
- AC power supply cord for (EB) area  
(RJA0053-2X).....1 pc.



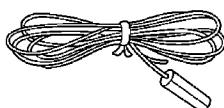
- AC power supply cord for (EG) area  
(RJA0019-X).....1 pc.



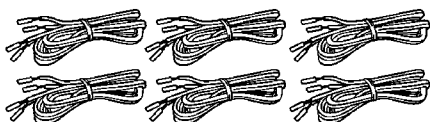
- AM loop antenna set  
(RSA0022-J).....1 pc.



- FM indoor antenna  
(RSA0007).....1 pc.



- Speaker cords  
(REE0393).....2 pcs.  
(REE0984).....2 pcs.  
(REE0985).....2 pcs.



- Video cord  
(RJL1P019B15).....1 pc.



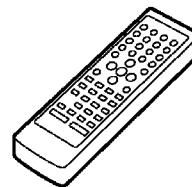
- RCAJ adaptor  
(VFA0151-1).....1 pc.



- FM antenna plug adaptor for (EB) area only  
(SJP9009).....1 pc.

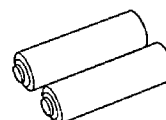


- Remote control transmitter  
(RAK-EHA32WH).....1 pc.



- Remote control batteries  
(R6/LR6, "AA", UM-3).....2 pcs.

**Note:** These are available on sales route.



## 4 Caution for AC Mains Lead

### (For United Kingdom)

("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.

A 5-ampere fuse is fitted in this plug.

Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.

Check for the ASTA mark  or the BSI mark  on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.

If you lose the fuse cover the plug must not be used until a replacement cover is obtained.

A replacement fuse cover can be purchased from your local dealer.

#### CAUTION!

IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.

THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.

If in any doubt please consult a qualified electrician.

#### IMPORTANT


The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral, Brown: Live.

As these colours may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured Blue must be connected to the terminal which is marked with the letter N or coloured Black or Blue.

The wire which is coloured Brown must be connected to the terminal which is marked with the letter L or coloured Brown or Red.

**WARNING: DO NOT CONNECT EITHER WIRE TO THE EARTH TERMINAL WHICH IS MARKED WITH THE LETTER E, BY THE EARTH SYMBOL  OR COLOURED GREEN OR GREEN/YELLOW.**

**THIS PLUG IS NOT WATERPROOF—KEEP DRY.**

#### Before use

Remove the connector cover.

#### How to replace the fuse

The location of the fuse differ according to the type of AC mains plug (figures A and B). Confirm the AC mains plug fitted and follow the instructions below.

Illustrations may differ from actual AC mains plug.

1. Open the fuse cover with a screwdriver.

Figure A

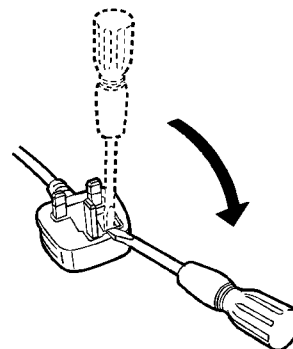
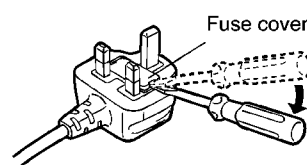


Figure B



2. Replace the fuse and close or attach the fuse cover.

Figure A

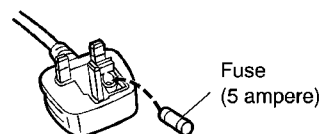
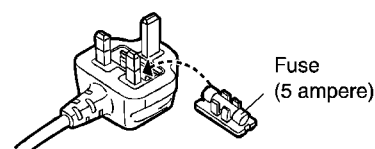
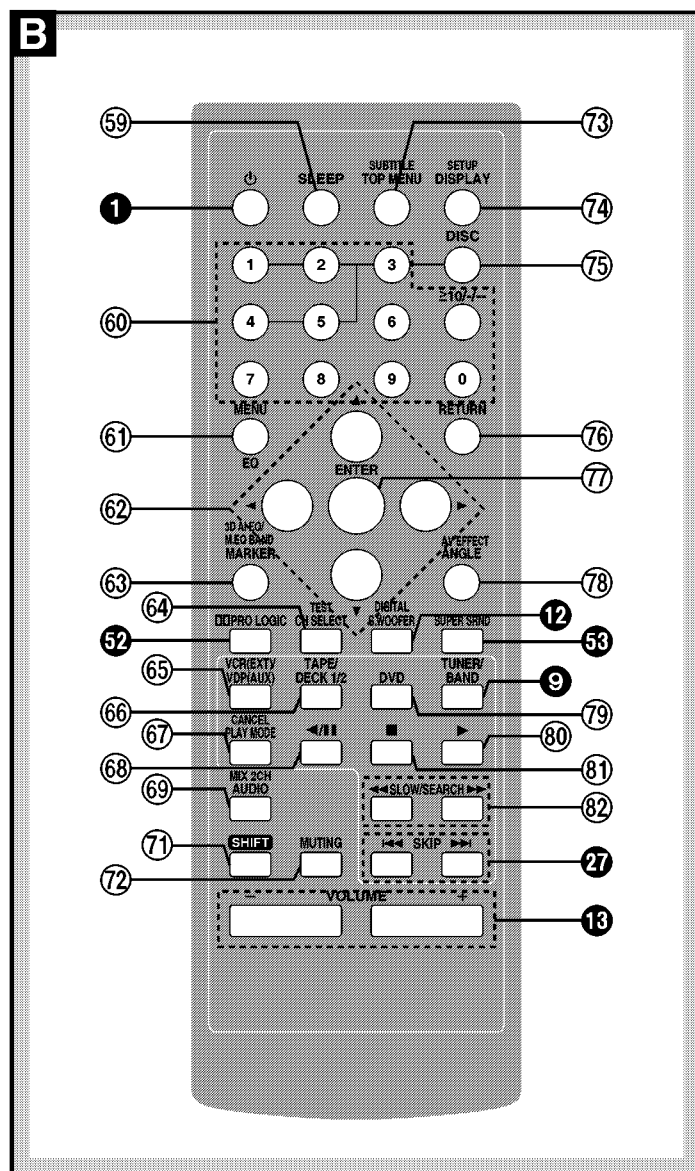
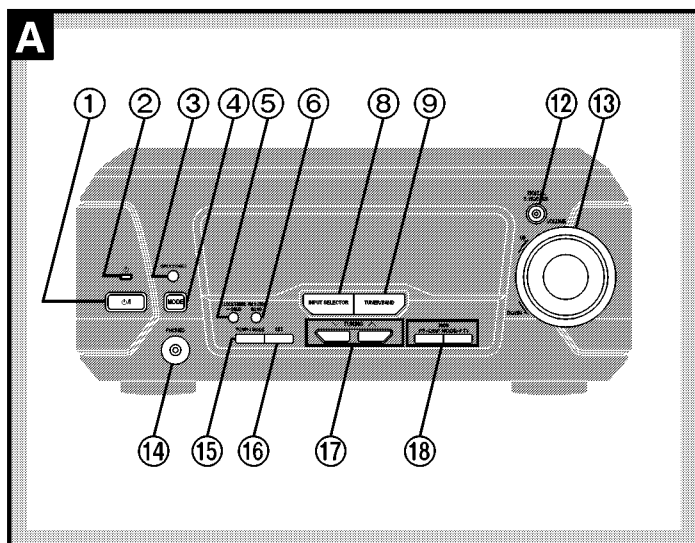


Figure B



## 5 Location of Controls



### A Tuner/amplifier

- ① **Standby/on switch (⏻/⏻)**  
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.
- ② **Standby indicator (⏻)**  
When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.
- ③ **Play timer/record timer button and indicator (⏻/⏻)**
- ④ **ECO mode button (MODE)**
- ⑤ **Clock/timer, Demo button (CLOCK/TIMER, = DEMO)**
- ⑥ **FM mode button (FM AUTO/MONO)**
- ⑧ **Source input button (INPUT SELECTOR)**
- ⑨ **Tuner/band button (TUNER/BAND)**
- ⑫ **Digital super woofer button and indicator (DIGITAL S.WOOFER)**
- ⑬ **Volume control (VOLUME)**
- ⑭ **Headphone jack (PHONES)**
- ⑮ **Tuning mode button (TUNING MODE)**
- ⑯ **Set button (SET)**
- ⑰ **Tuning buttons (V, ^ TUNING)**
- ⑱ **RDS display mode buttons (RDS, PS-DISP MODE-PTY)**

### B Remote control transmitter

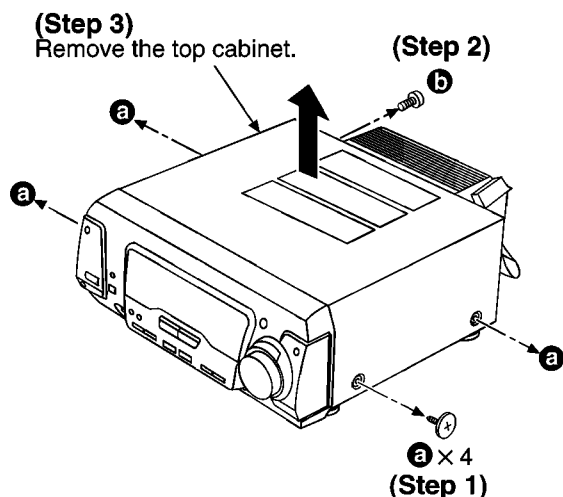
Buttons such as ❶ and ❷ function in the same way as the corresponding controls on the main unit.

- ⑤⑨ **Sleep timer button (SLEEP)**
- ⑥⑩ **Numbered buttons (1-9, 0, ≥ 10/-/-)**
- ⑥⑪ **Menu, EQ button (MENU, EQ)**
- ⑥⑫ **Cursor buttons (◀, ▶, ▲, ▼)**
- ⑥⑬ **Marker, 3D AI EQ, M.EQ BAND button (MARKER, 3D AI EQ/M.EQ BAND)**
- ⑥⑭ **Channel select, Test signal button (CH SELECT, TEST)**
- ⑥⑮ **Input select button [VCR (EXT)/VDP (AUX)]**
- ⑥⑯ **TAPE, Deck 1/deck 2 select button (TAPE/DECK 1/2)**
- ⑥⑰ **Play mode, Cancel button (PLAY MODE, CANCEL)**
- ⑥⑱ **Disc pause, Tape reverse play button (◀/||)**
- ⑥㉑ **Audio select, 2 channel down mixing button (AUDIO, MIX 2CH)**
- ⑦① **Shift button (SHIFT)**  
To operate functions labeled in orange, press [SHIFT] and then the corresponding button at the same time.
- ⑦② **Muting button (MUTING)**
- ⑦③ **Top menu, Subtitle select button (TOP MENU, SUBTITLE)**
- ⑦④ **GUI display, Initial setting button (DISPLAY, SETUP)**
- ⑦⑤ **Disc button (DISC)**
- ⑦⑥ **Return button (RETURN)**
- ⑦⑦ **Enter button (ENTER)**
- ⑦⑧ **Angle select, AV effect button (ANGLE, AV EFFECT)**
- ⑦⑨ **DVD button (DVD)**
- ⑧① **Disc play, Tape forward play button (▶)**
- ⑧② **Disc stop, Tape stop button (■)**
- ⑧③ **Disc slow/search, Tape fast forward/rewind buttons (◀◀, ▶▶ SLOW/SEARCH)**

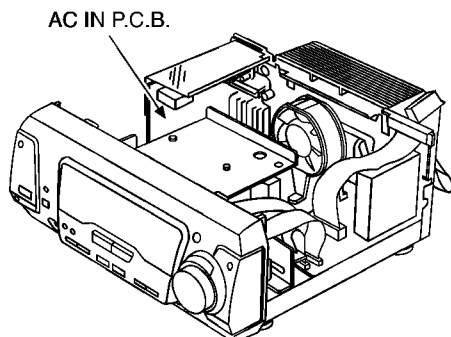
## 6 Operation Checks and Component Replacement Procedures

- This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
- For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.

### 6.1. Checking for the AC IN P.C.B.

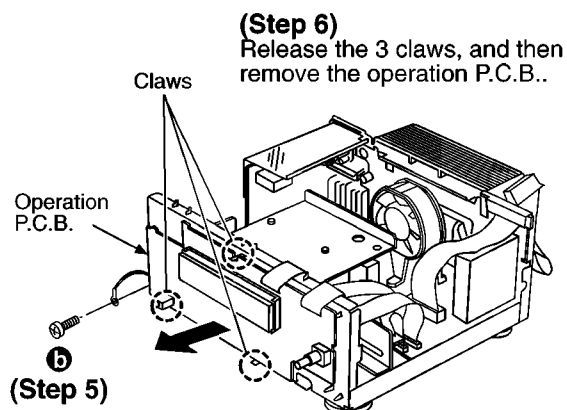
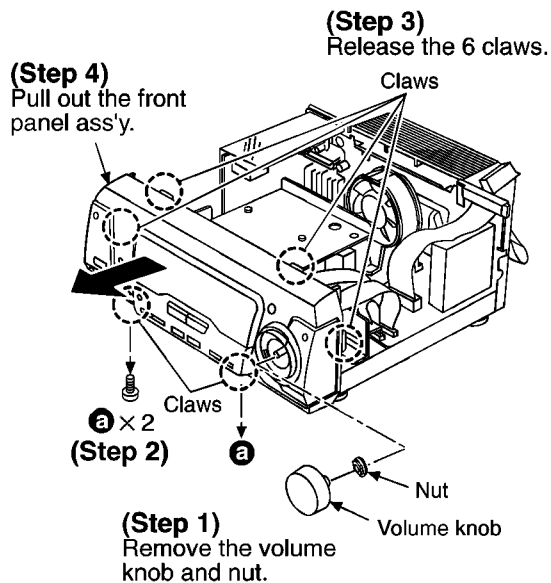


- Check the AC IN P.C.B. as shown below.

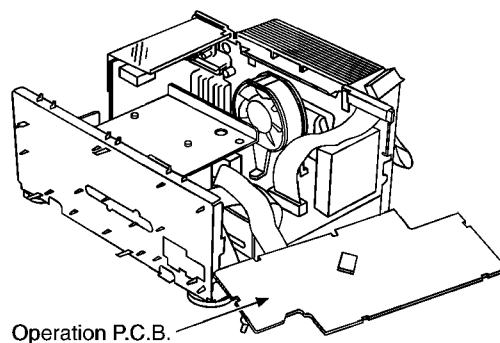


### 6.2. Checking for the operation P.C.B.

- Follow the (Step 1) - (Step 3) of item 6.1.

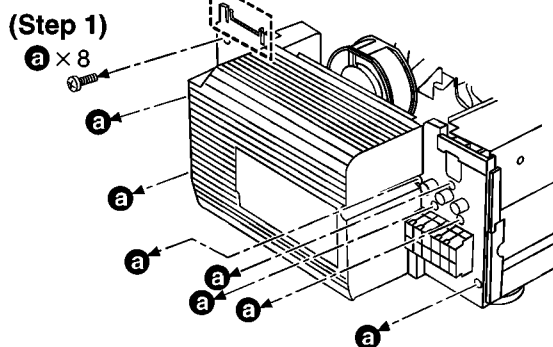
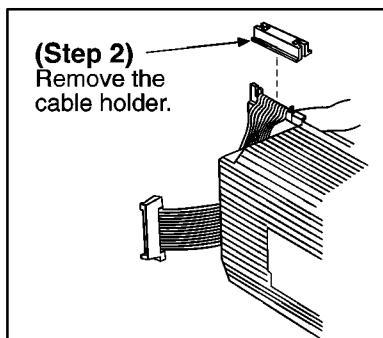


- Check the operation P.C.B. as shown below.

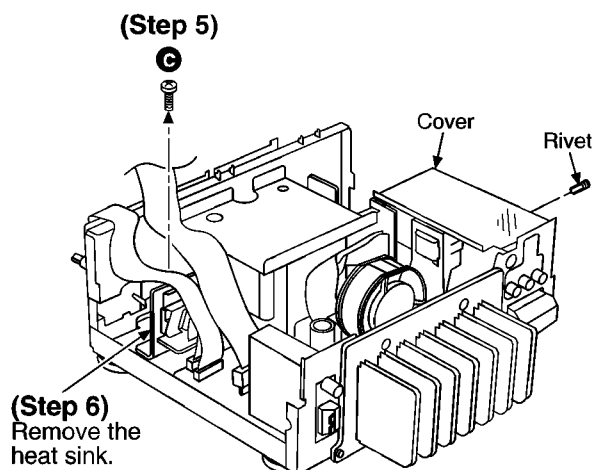
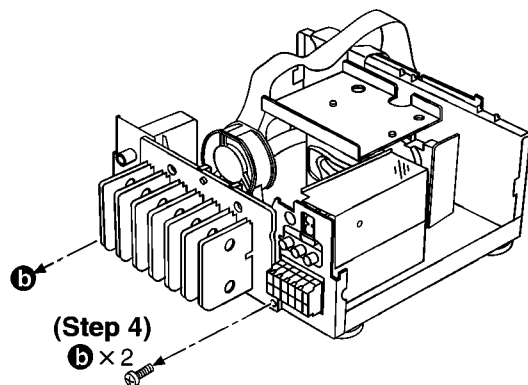
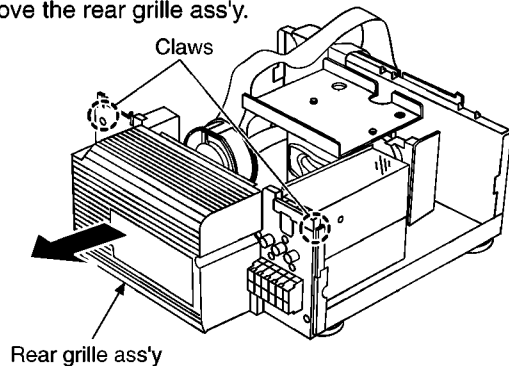


## 6.3. Checking for the main P.C.B.

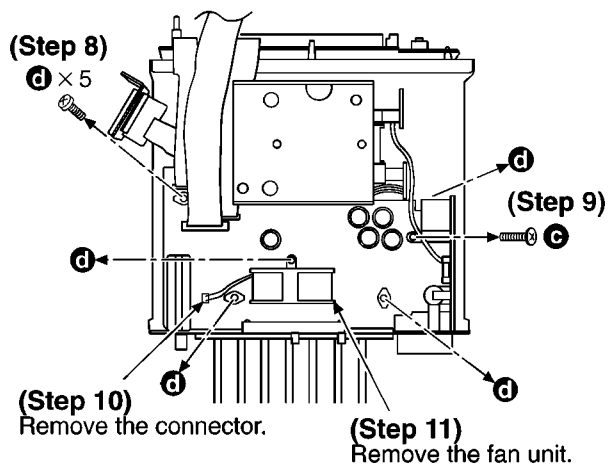
- Follow the (Step 1) - (Step 3) of item 6.1.
- Follow the (Step 1) - (Step 6) of item 6.2.



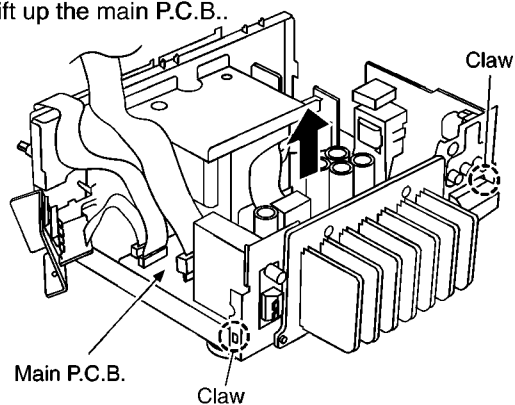
**(Step 3)**  
Release the 2 claws, and then remove the rear grille ass'y.



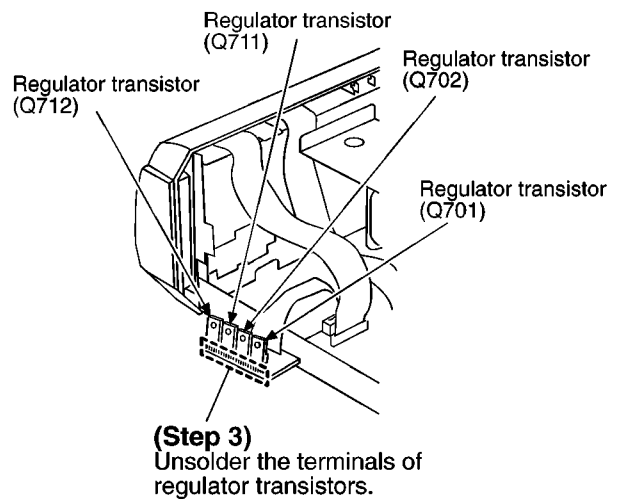
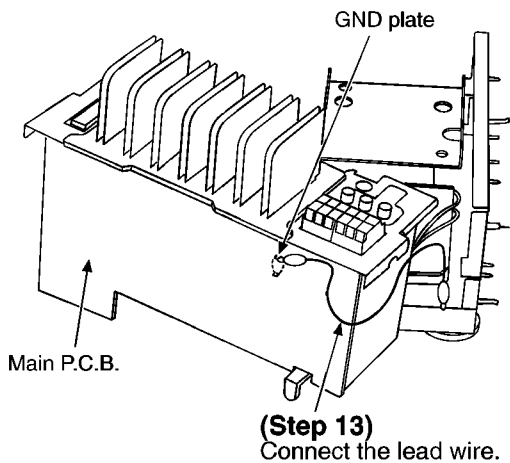
**(Step 7)**  
Remove the rivet, and then remove the cover.



**(Step 12)**  
Release the 2 claws, and then lift up the main P.C.B..

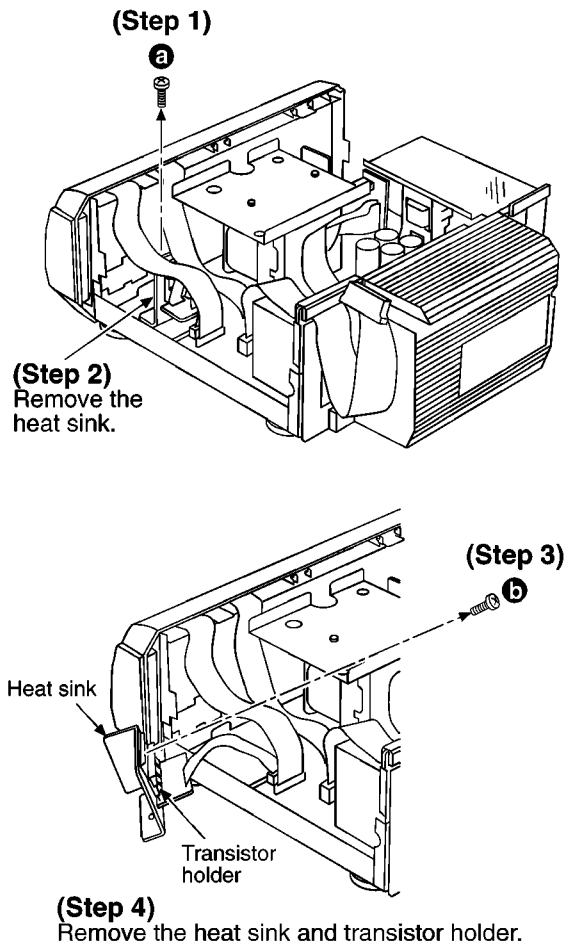


- Check the main P.C.B. as shown below.



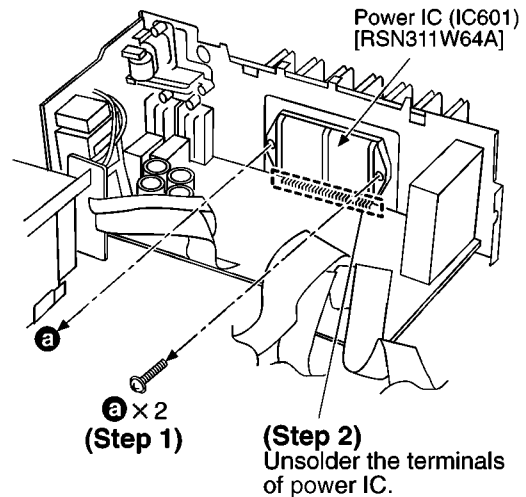
## 6.4. Replacement for the regulator transistor

- Follow the (Step 1) - (Step 3) of item 6.1.



## 6.5. Replacement for the power IC

- Follow the (Step 1) - (Step 3) of item 6.1.
- Follow the (Step 1) - (Step 6) of item 6.2.
- Follow the (Step 1) - (Step 10) of item 6.3.



### NOTE:

When mounting the power IC apply silicone compound (RFKX0002) to the rear side of power IC.



## 7 To Supply Power Source

This unit SA-DV170 is designed to operate on power supplied form system connected.  
For system connection, refer to Fig. 7-1.

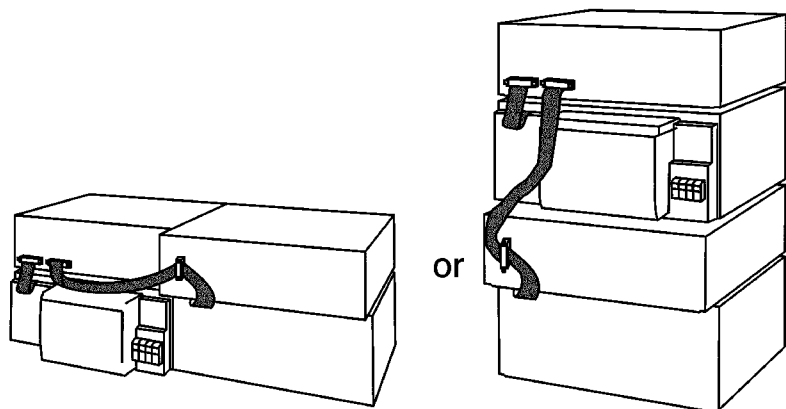


Fig. 7-1.

**When the unit SA-DV170 has to test and service alone, use the following method to supply power source.**

1. Short the section between **W902A Pin 3** and **C740 (-) (GND)**. (Refer to Fig. 7-2.)
2. Connect this unit to an AC power supply cord.  
(This unit come to stand-by mode.)
3. Turn the unit ON.

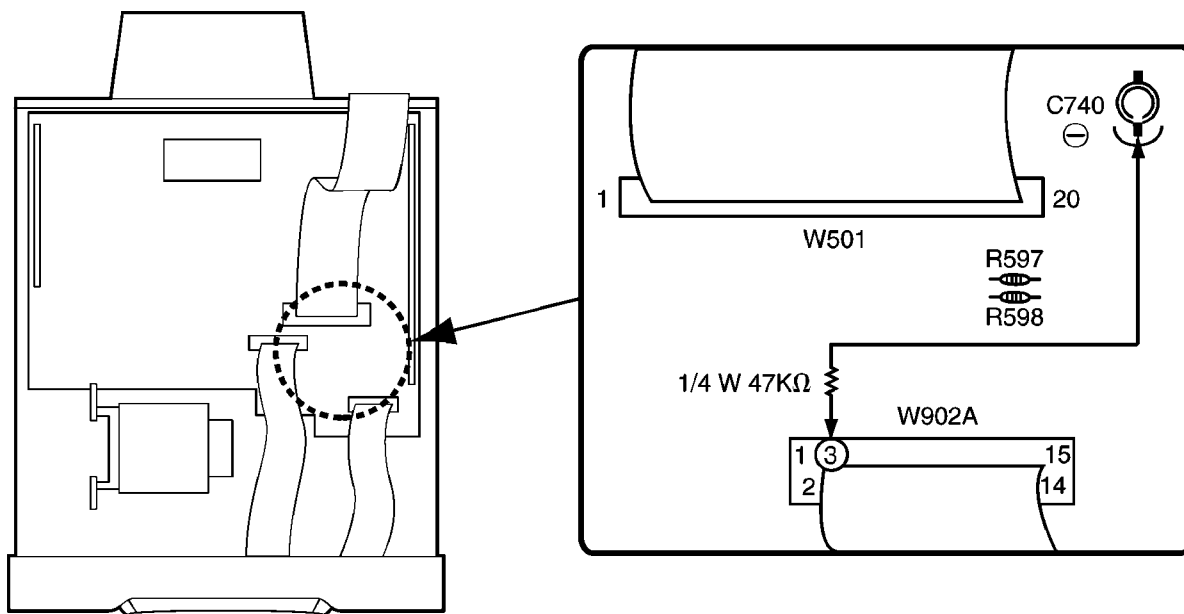


Fig. 7-2.

### Notes:

**Use only this method when checking the voltage etc..**

**In case of checking operations, use the system connections to supply power source.**

## 8 Self-Diagnostic Function

This unit is equipped with a self-diagnostic function which, in the event of a malfunction, automatically displays a code indicating the nature of the malfunction.

Use this self-diagnostic function when servicing the unit.

### 8.1. To display the malfunction code

- U70 DVD:** Automatically displays on the tuner/amplifier when a malfunction occurs. Refer to Fig. 8-1.
- U70 DECK:** Automatically displays on the tuner/amplifier when a malfunction occurs. Refer to Fig. 8-1.
- F61:** Automatically displays on the tuner/amplifier when a malfunction occurs. Refer to Fig. 8-1.

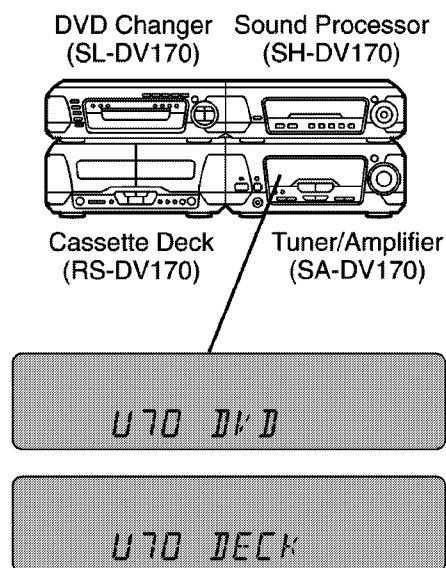


Fig. 8-1.

### 8.2. To return to the normal display

#### 1. For U70 DVD/U70 DECK

- Press any operation button on the tuner/amplifier.
- To re-display the code, switch the power off (POWER STANDBY button), and then switch power back on again.

#### 2. For F61

- If F61 is displayed, the power will automatically be switched off and the standby indicator will light up.
- F61 will be displayed for 3 seconds, and then the clock will be displayed.
- To re-display the code, switch the power on. F61 will be re-displayed, and then after 3 seconds the clock will be displayed and the power will automatically switch off.

### 8.3. Display contents

#### 8.3.1. U70 DVD, U70 DECK (displayed automatically)

##### • Problem or condition

A bus-line communications error has occurred as a result of the flat cables being inserted incorrectly, thus preventing the system from operating.

- If U70 is displayed on the tuner/amplifier, the Cassette deck or DVD Changer cannot be operated by remote control.

##### • Correction Procedure

- To check for correct insertion of the flat cables.
  - Insert each connector until you hear a click.
  - Insert the flat cables at the back of the unit in the order indicated. Refer to Fig. 8-2.

Make sure the white side of the cables is on your right side. Refer to Fig. 8-3.

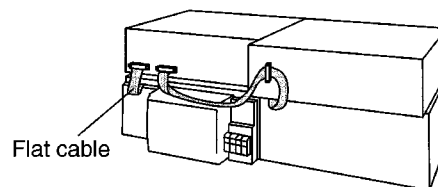


Fig. 8-2.

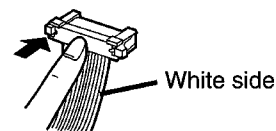


Fig. 8-3.

- Breakage of the flat cables. (Check and replace.)
- If the problem is not corrected by items 1 and 2 above, this indicates a faulty IC.

##### SA-DV170:

IC901 (C2BAFD000043)

##### SL-DV170:

IC401 (M38504M6209F)

##### RS-DV170:

IC701 (M38503M2406F)

Check these ICs and replace.

#### 8.3.2. F61

##### • Problem or condition

When the power switch is switched on, it automatically switches back off, making it impossible to switch power on.







##### • Correction procedure

Faulty Tuner/Amplifier (SA-DV170) output IC (IC601). (When a DC voltage is applied to speaker terminals.)

## 9 Schematic Diagram Notes

- This schematic diagram may be modified at any time with the development of new technology.


### Notes:

<b>S901:</b>	Power Standby/on switch (  /I)
<b>S902:</b>	ECO mode switch (MODE)
<b>S903:</b>	Clock/timer, Demo switch (CLOCK/TIMER,  DEMO)
<b>S904:</b>	Play timer/record timer switch (  PLAY/  REC)
<b>S905:</b>	FM mode switch (FM AUTO/MONO)
<b>S906:</b>	Tuning mode switch (TUNING MODE)
<b>S907:</b>	Set switch (SET)
<b>S908:</b>	Source input switch (INPUT SELECTOR)
<b>S910:</b>	Tuning down switch (TUNING,  )
<b>S911:</b>	Tuning up switch (TUNING,  )
<b>S912:</b>	Tuner/band switch (TUNER/BAND)
<b>S913:</b>	Digital super woofer switch (DIGITAL S.WOOFER)
<b>S914:</b>	RDS display mode PS switch (RDS DISP MODE-PS)
<b>S915:</b>	RDS display mode PTY switch (RDS DISP MODE-PTY)
<b>VR901:</b>	Volume control VR (VOLUME)

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

No mark : Power ON (FM or AM)

- Important safety notice:

Components identified by  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

- The supply part number is described alone in the replacement parts.

### • Caution!

IC and LSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.




Cover the parts boxes made of plastics with aluminum foil.







Ground the soldering iron.

Put a conductive mat on the work table.

Do not touch the legs of IC or LSI with the fingers directly.

- Voltage and signal line

	: Positive voltage line
	: Negative voltage line
	: AM signal line

	: AM OSC signal line
	: FM signal line
	: FM OSC signal line
	: Center sp.drive signal line
	: Surround sp.drive signal line
	: Source signal line

# 10 Schematic Diagram

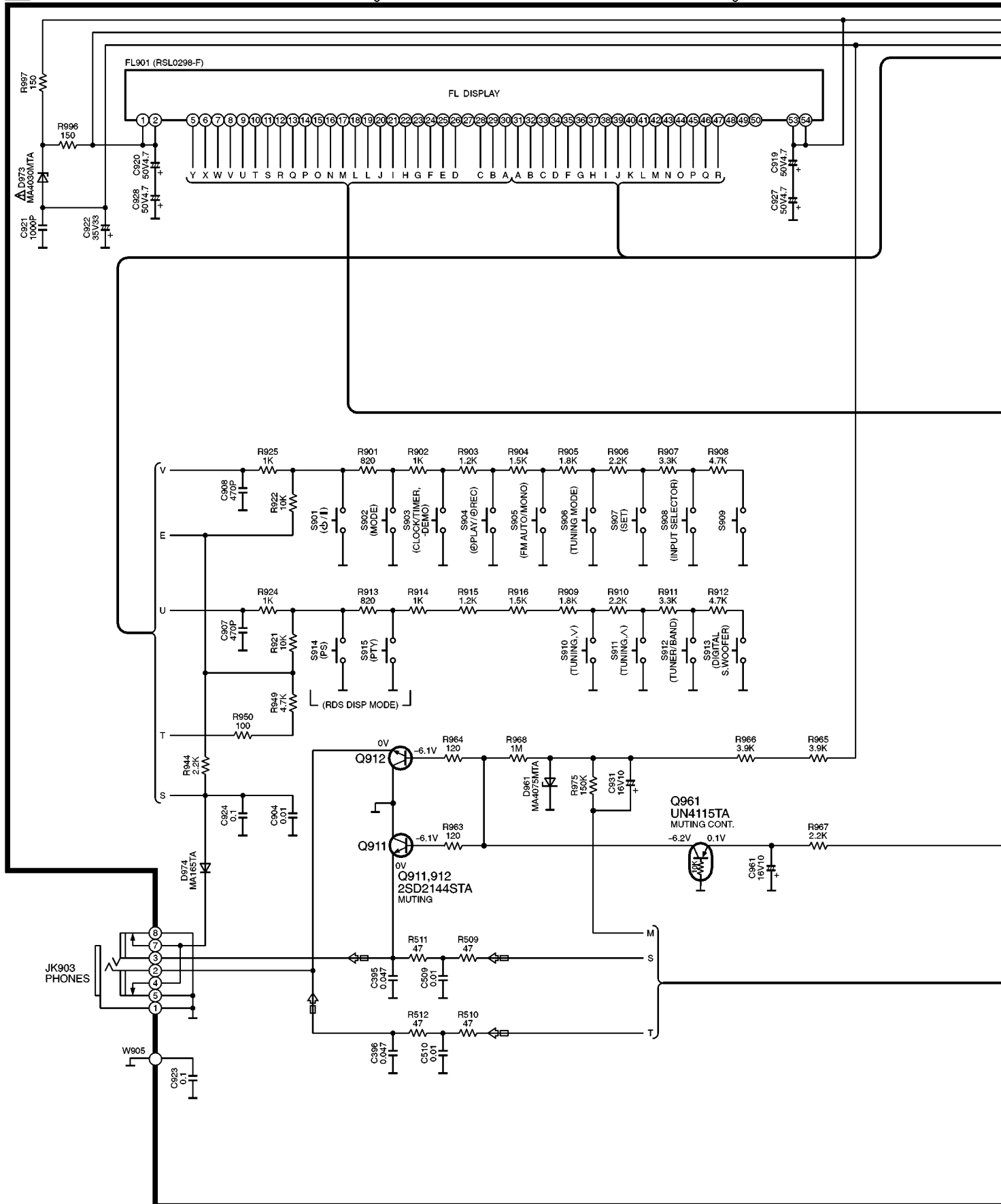
## SCHEMATIC DIAGRAM-1

### A OPERATION CIRCUIT

#### NOTE:

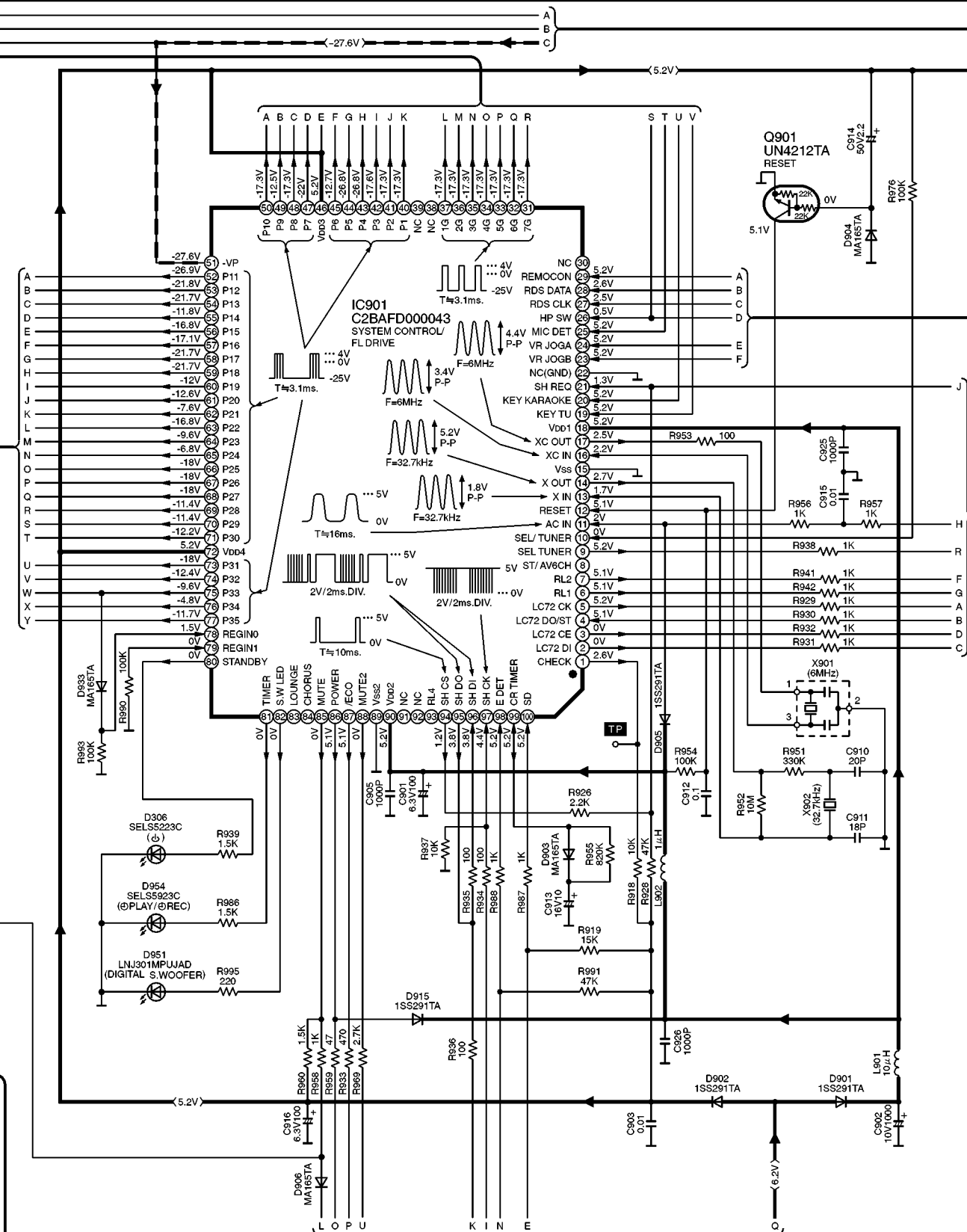
The number which noted at the connectors on the schematic diagram as "SCHEMATIC DIAGRAM-1" or "SCHEMATIC DIAGRAM-2" indicates the schematic diagram serial number located on the left corner in the schematic diagram.

□ : SOURCE SIGNAL LINE



## SCHEMATIC DIAGRAM-2

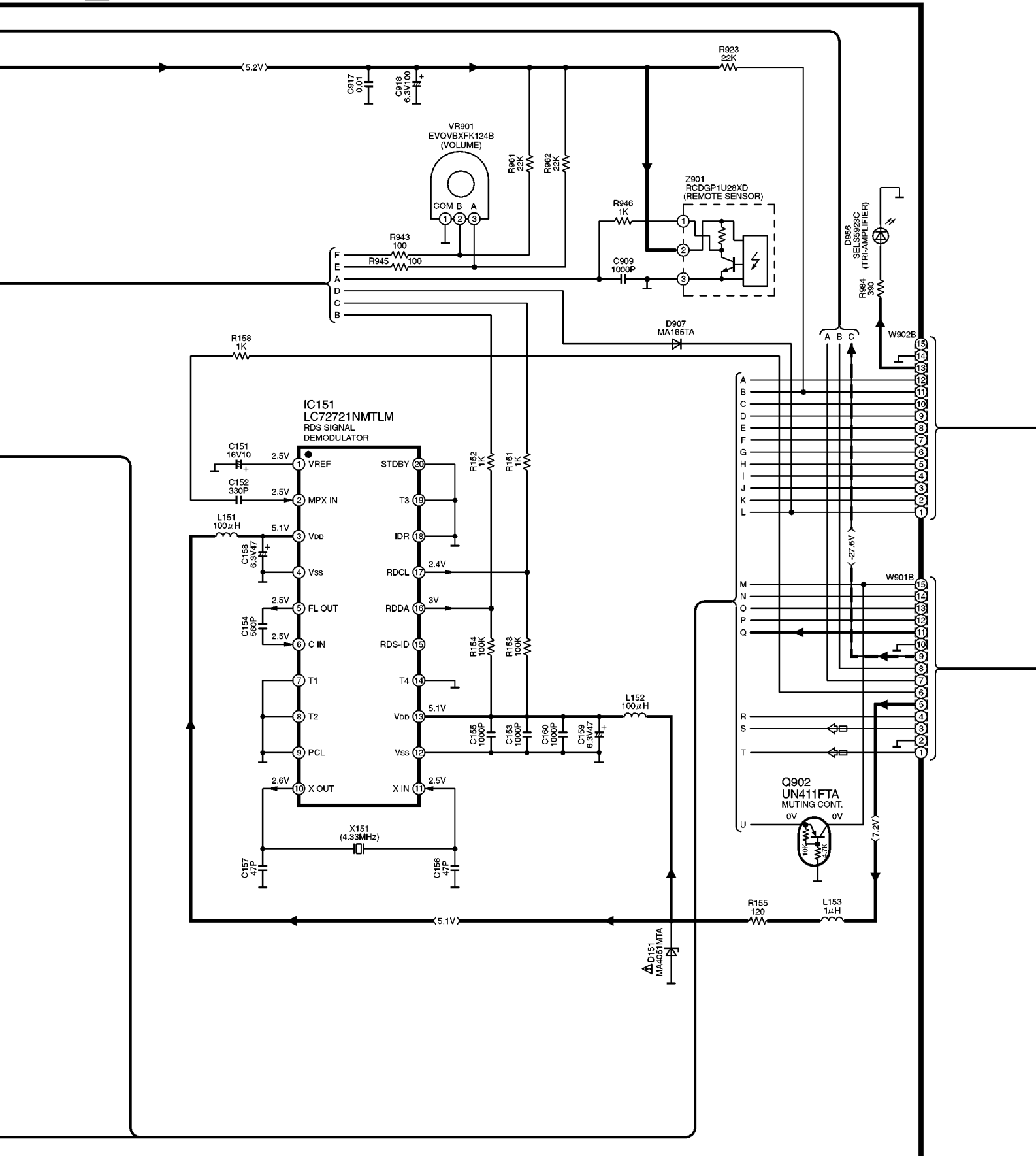
→ : POSITIVE VOLTAGE LINE    → : NEGATIVE VOLTAGE LINE



# SCHEMATIC DIAGRAM-3

## A OPERATION CIRCUIT

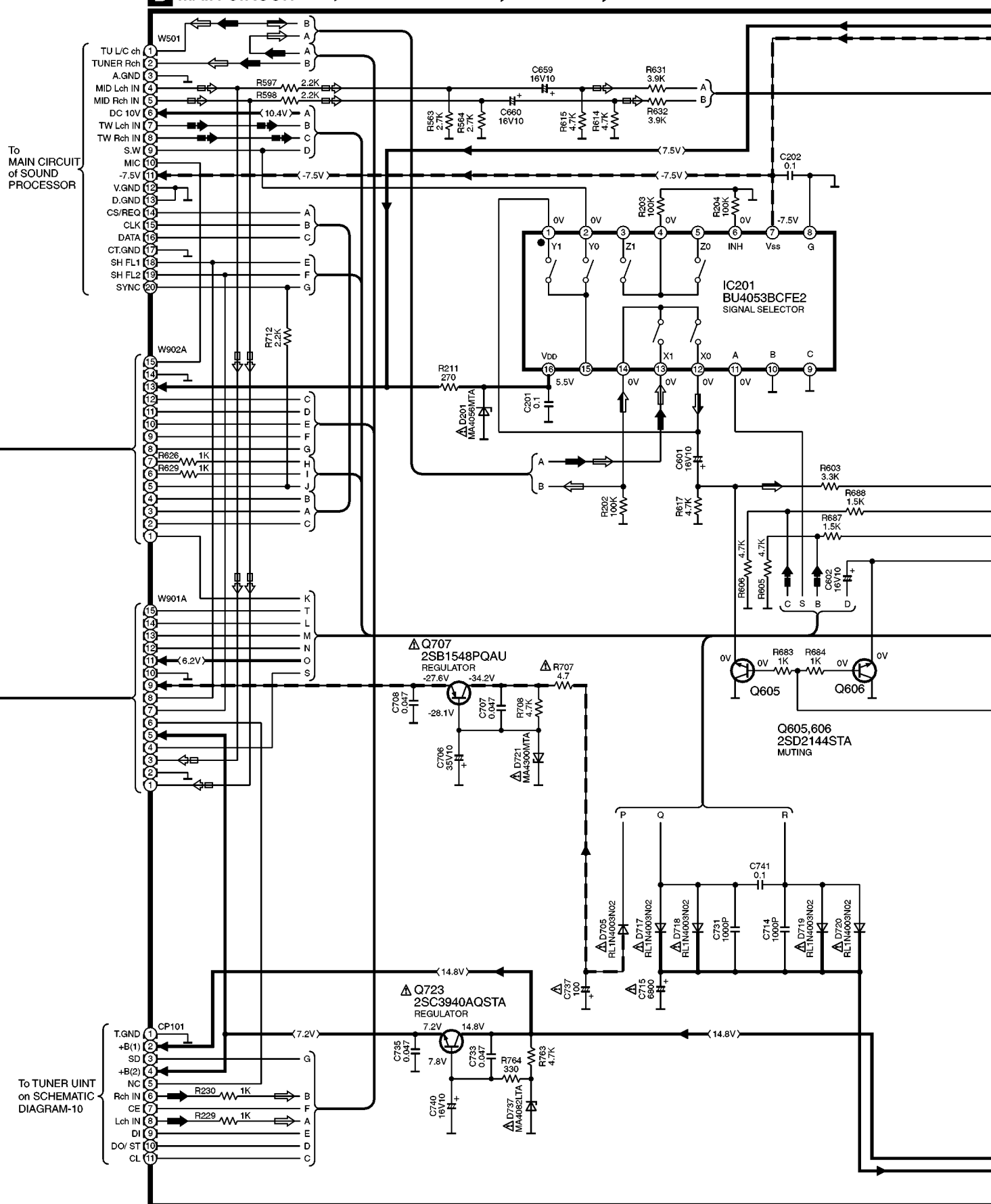
→ : POSITIVE VOLTAGE LINE  
 → : NEGATIVE VOLTAGE LINE    □ : SOURCE SIGNAL LINE





## SCHEMATIC DIAGRAM-4

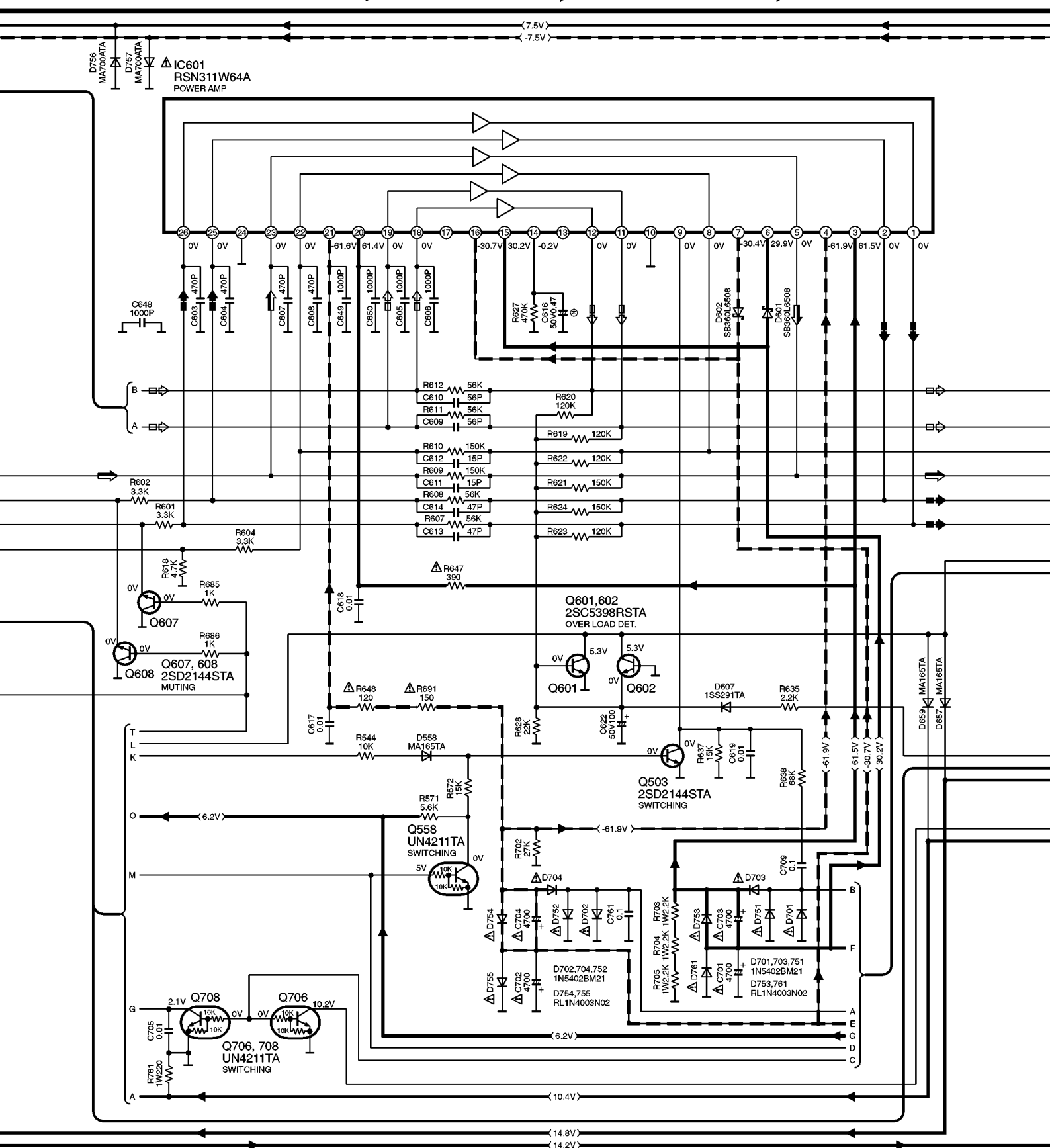
## B MAIN CIRCUIT

— : POSITIVE VOLTAGE LINE    ⇨ : FM SIGNAL LINE    ⇨ : SURROUND SP.DRIVE SIGNAL LINE    ⇨ : SOURCE SIGNAL LINE  
 - - - : NEGATIVE VOLTAGE LINE    ⇨ : AM SIGNAL LINE    ⇨ : CENTER SP.DRIVE SIGNAL LINE



SCHEMATIC DIAGRAM-5

 : POSITIVE VOLTAGE LINE   
  : SURROUND SP.DRIVE SIGNAL LINE  
 : NEGATIVE VOLTAGE LINE   
  : CENTER SP.DRIVE SIGNAL LINE   
  : SOURCE SIGNAL LINE

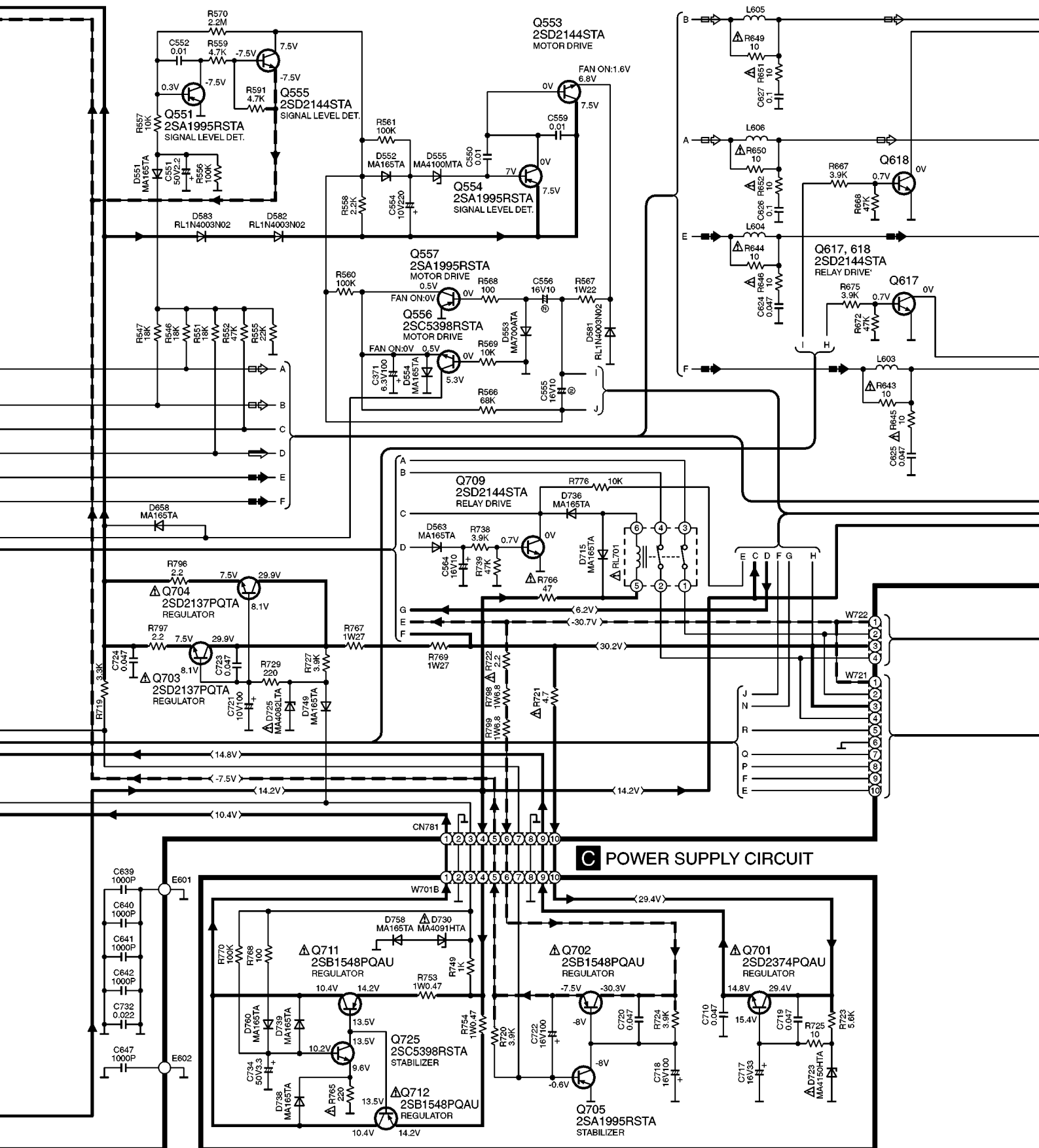




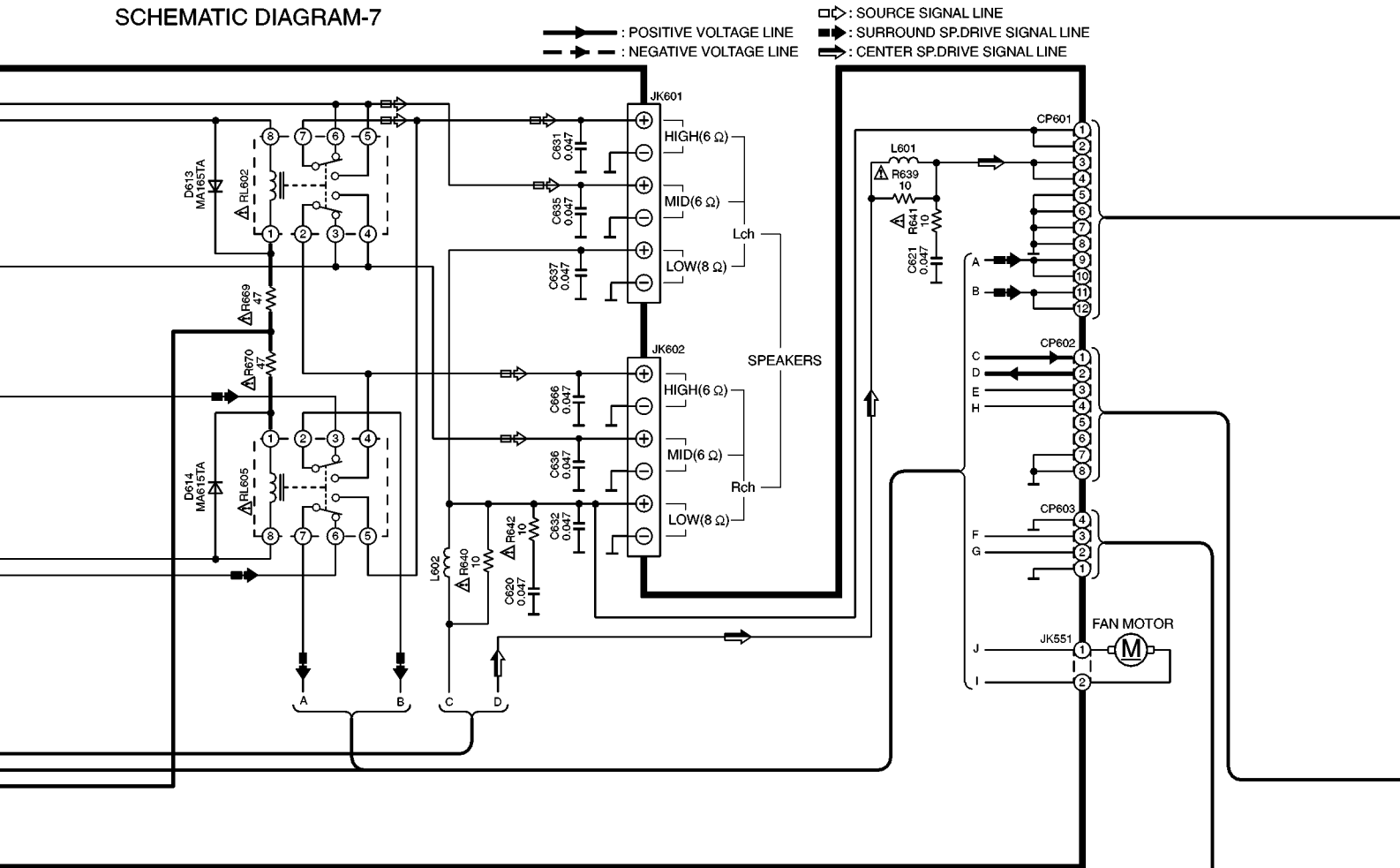
## SCHEMATIC DIAGRAM-6

**B** MAIN CIRCUIT

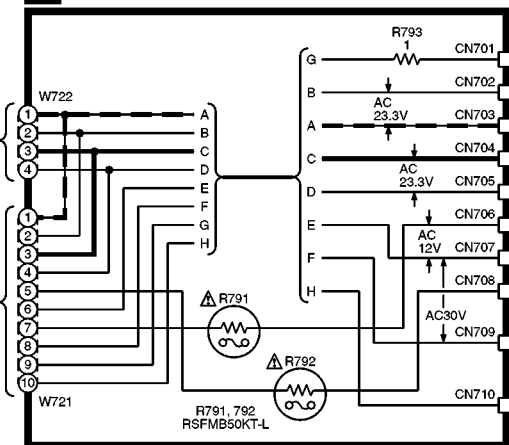
— : POSITIVE VOLTAGE LINE    — : SURROUND SP.DRIVE SIGNAL LINE  
 - - : NEGATIVE VOLTAGE LINE    — : CENTER SP.DRIVE SIGNAL LINE    □ : SOURCE SIGNAL LINE



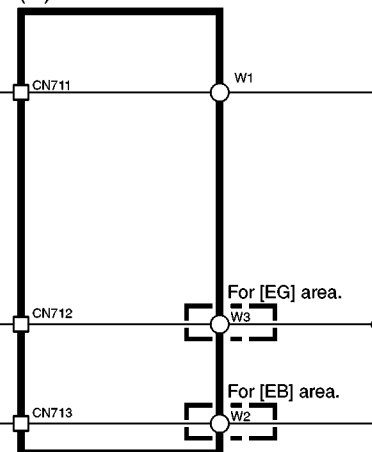
SCHEMATIC DIAGRAM-7



D POWER TRANSFORMER(A) CIRCUIT



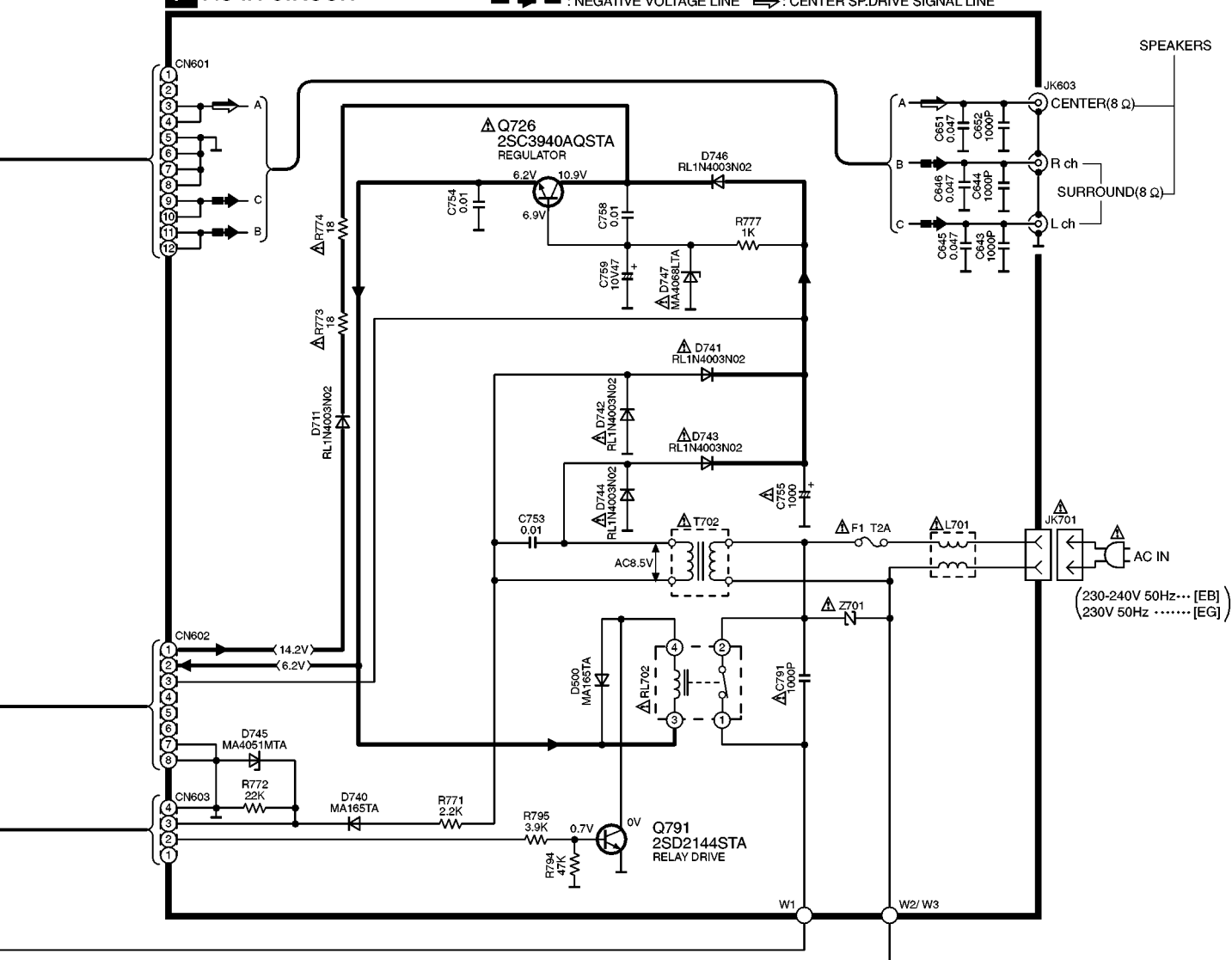
E POWER TRANSFORMER (B) CIRCUIT



## SCHEMATIC DIAGRAM-8

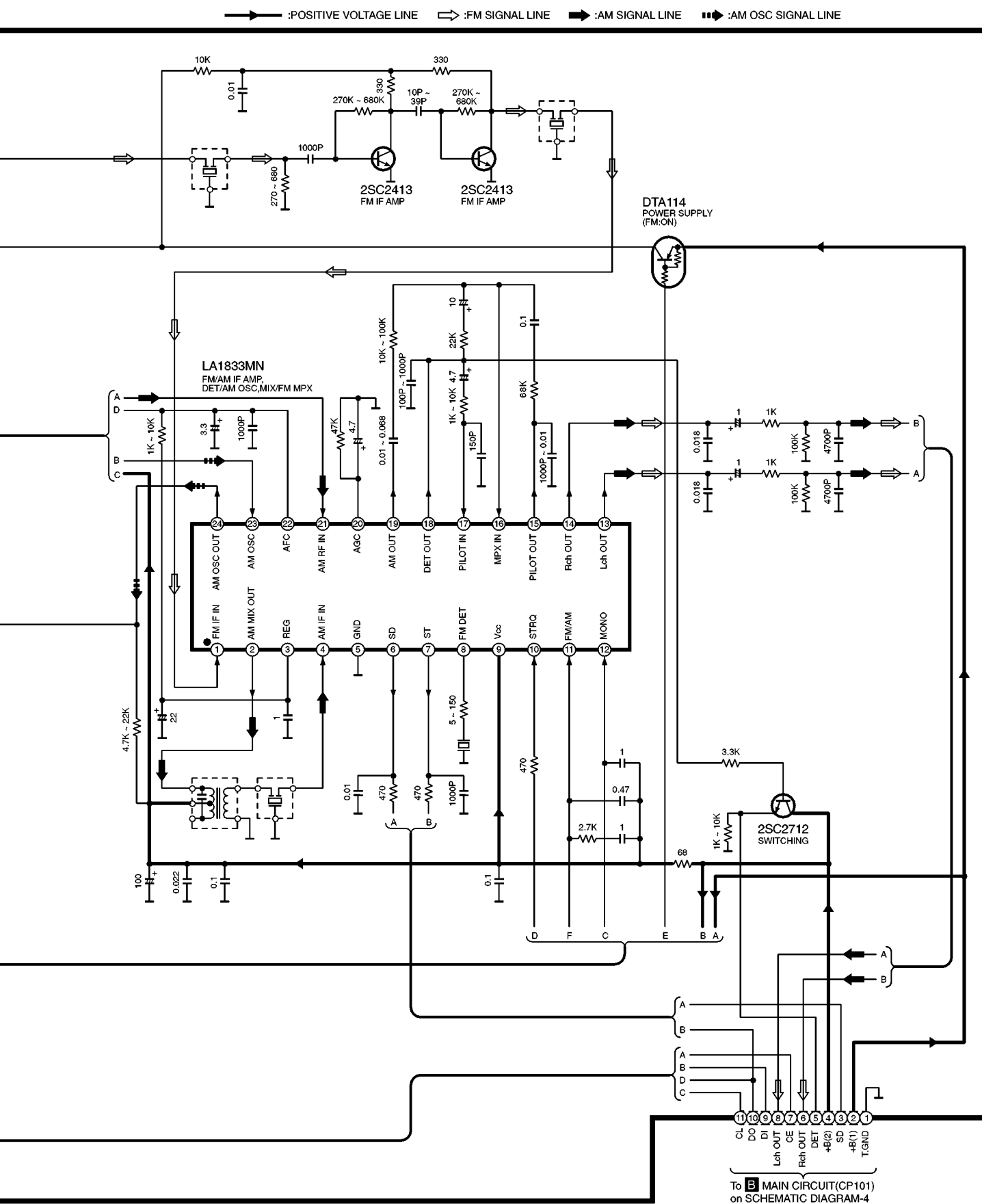
**F** AC IN CIRCUIT

—▶ : POSITIVE VOLTAGE LINE    ■▶ : SURROUND SP.DRIVE SIGNAL LINE  
 - -▶ : NEGATIVE VOLTAGE LINE    ◀ : CENTER SP.DRIVE SIGNAL LINE

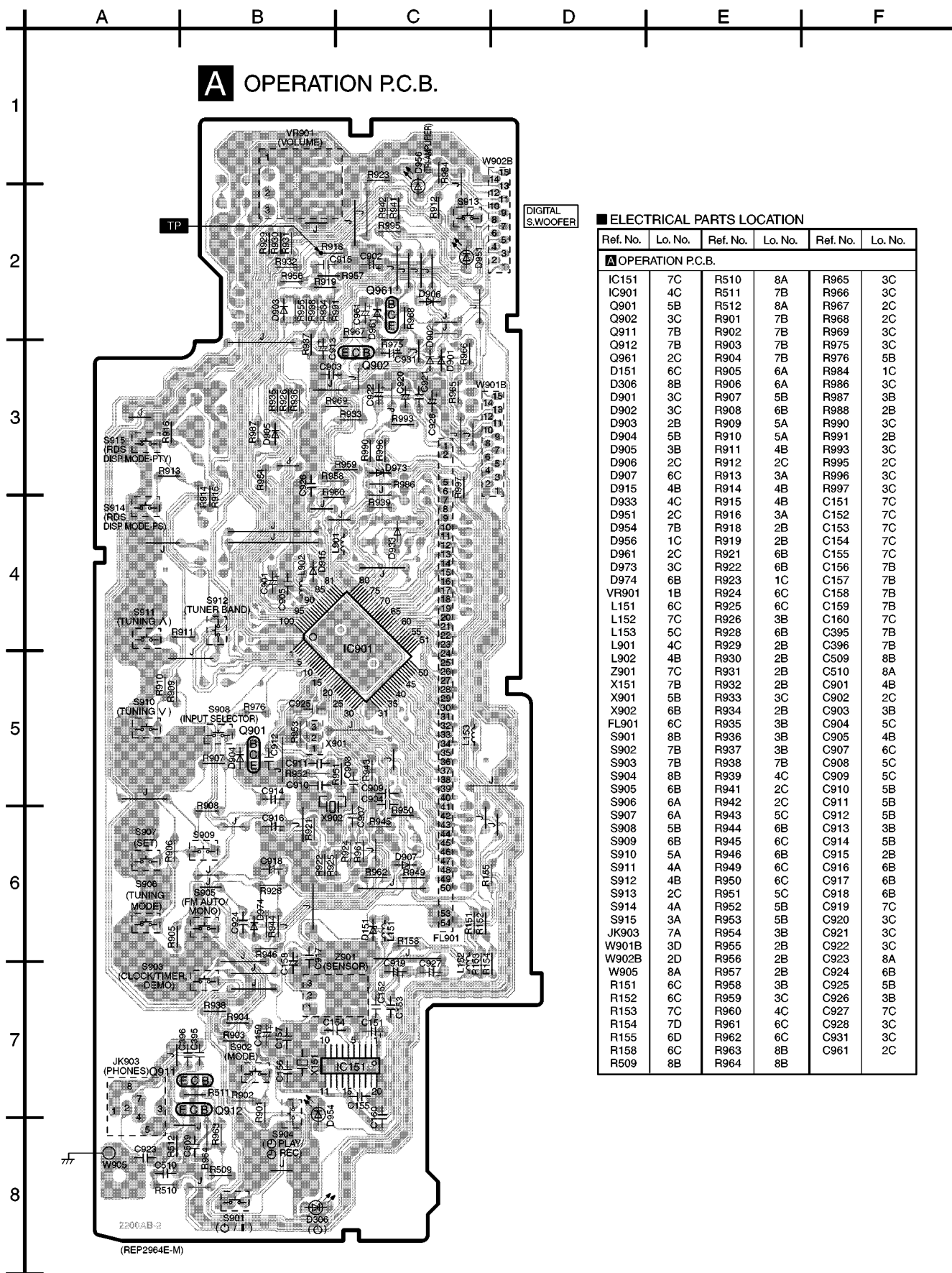




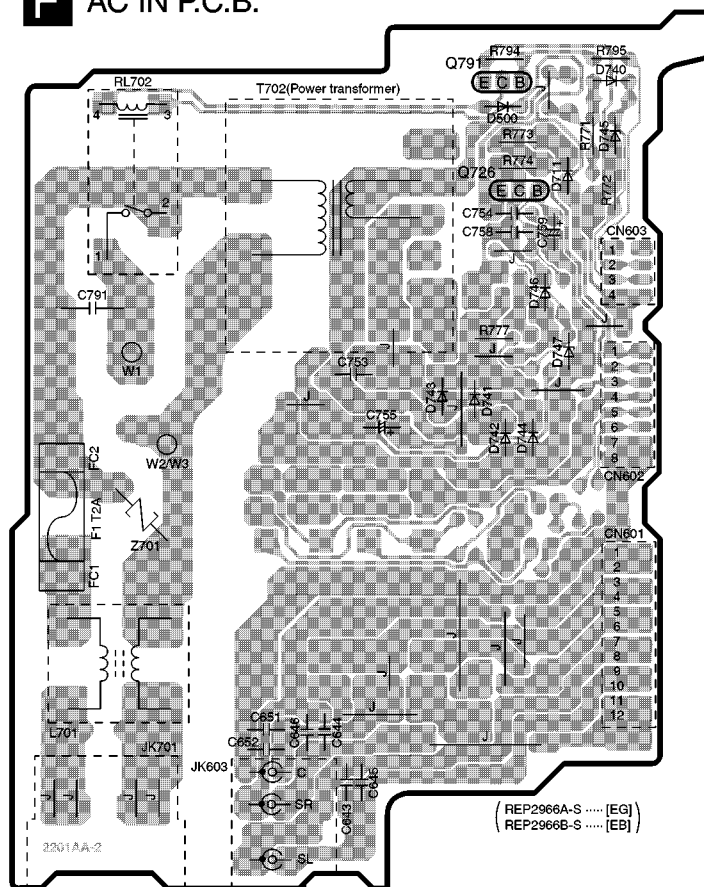
SCHEMATIC DIAGRAM-10



# 11 Printed Circuit Board Diagram



# **F** AC IN P.C.B.



AC IN  
(230V 50Hz ..... [EG]  
230-240V 50Hz ..... [EB])

CENTER/  
SURROUND  
SPEAKERS

## **ELECTRICAL PARTS LOCATION**

Ref. No.	Lo. No.	Ref. No.	Lo. No.
<b>SPEAKER TERMINAL P.C.B.</b>			
Q726	2D	FC2	3A
Q791	1C	W1	2B
D500	1C	W2/W3	3B
D711	2D	R771	1D
D740	1D	R772	2D
D741	3C	R773	1D
D742	3D	R774	2D
D743	3C	R777	2C
D744	3D	R794	1C
D745	1D	R795	1D
D746	2D	C643	4C
D747	2D	C644	4C
L701	4B	C645	4C
T702	2C	C646	4C
Z701	3B	C651	4B
F1	3A	C652	4B
RL702	2B	C753	3C
CN601	4D	C754	2D
CN602	3D	C755	3C
CN603	2D	C758	2D
JK603	5B	C759	2D
JK701	5B	C791	2B
FC1	3A		

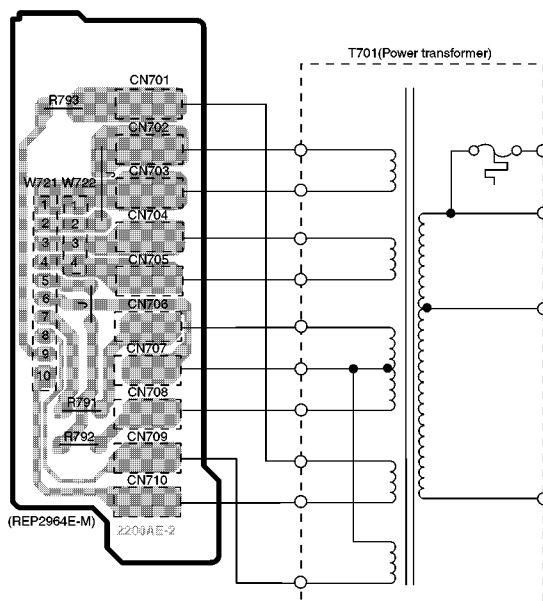
## **POWER TRANSFORMER(A) P.C.B.**

T701	6C	CN708	8B
CN701	6B	CN709	8B
CN702	6B	CN710	8B
CN703	7B	W721	7A
CN704	7B	W722	7A
CN705	7B	R791	8A
CN706	7B	R792	8A
CN707	7B	R793	6A

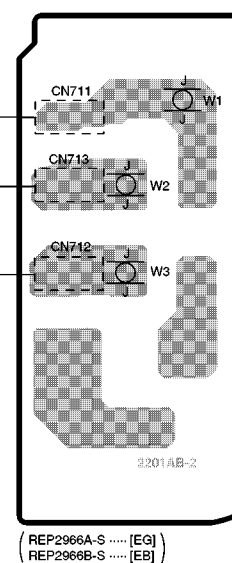
## **POWER TRANSFORMER(B) P.C.B.**

CN711	6D	W1	6E
CN712	7D	W2	7E
CN713	7D	W3	7E

# **D** POWER TRANSFORMER (A) P.C.B.



# **E** POWER TRANSFORMER (B) P.C.B.



A

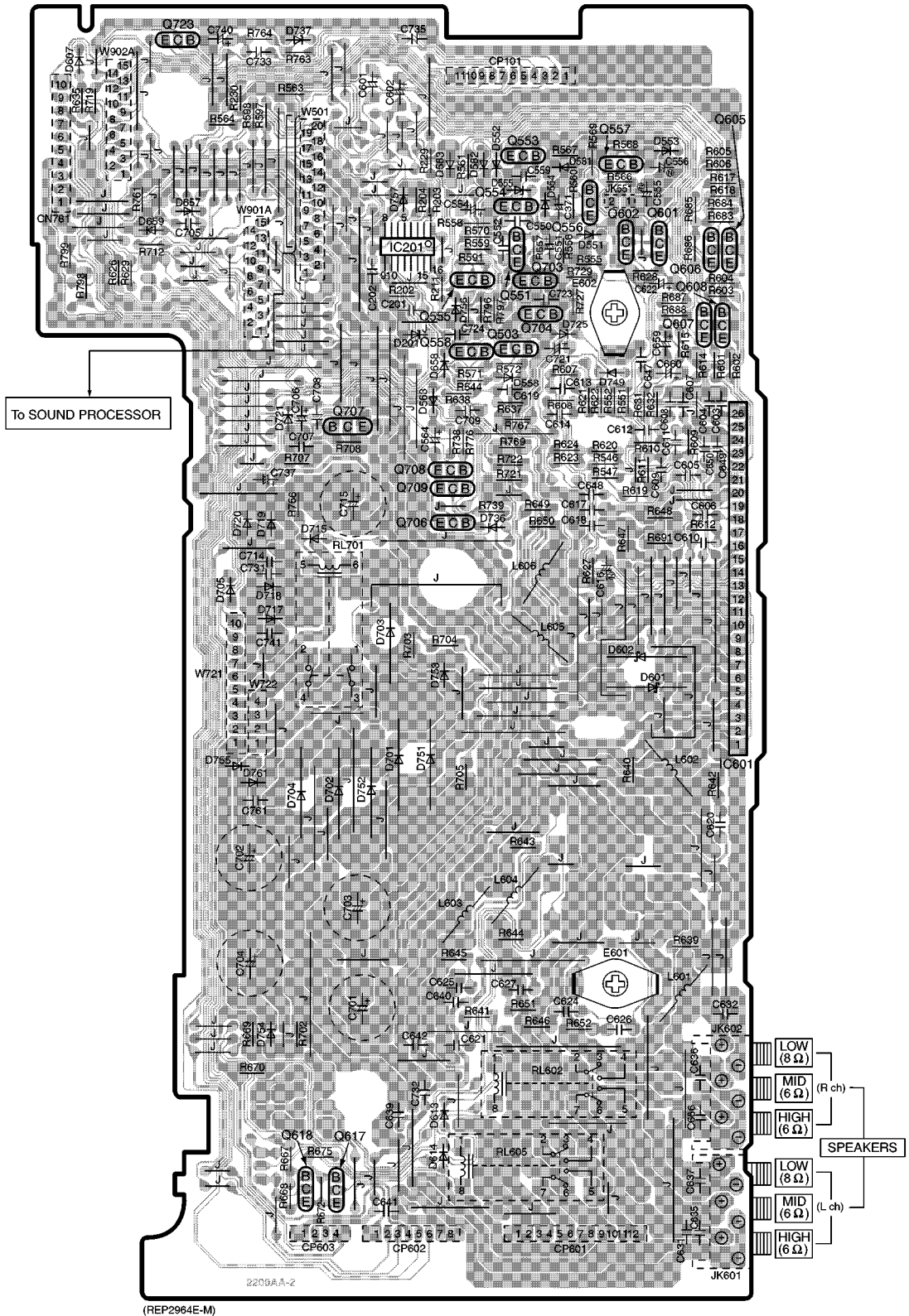
B

C

D

E

F

**B** MAIN P.C.B.



G

H

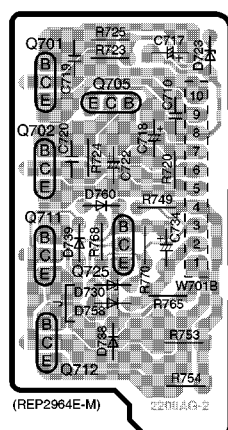
I

J

K

L

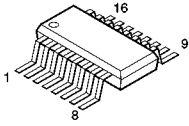
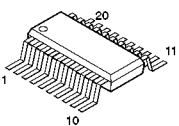
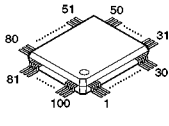
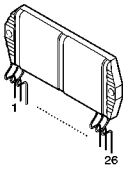

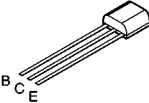
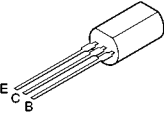
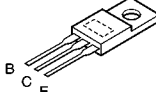
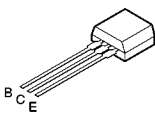
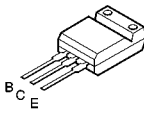
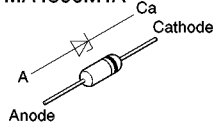
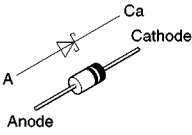
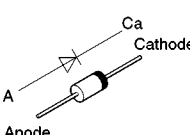
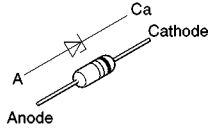
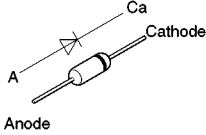
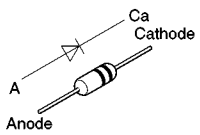
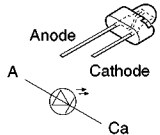
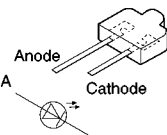
# **C** POWER SUPPLY P.C.B.



## ■ ELECTRICAL PARTS LOCATION

Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.	Ref. No.	Lo. No.
<b>■ MAIN P.C.B.</b>															
IC201	2D	D583	2D	L604	6D	R558	2D	R622	3E	R686	2E	C554	2D	C639	7D
IC601	5F	D601	5E	L605	5D	R559	2D	R623	4E	R687	3E	C555	2E	C640	7D
Q503	3D	D602	5E	L606	4D	R560	2E	R624	4E	R688	3E	C556	2E	C641	8D
Q551	2D	D607	1B	RL602	7D	R561	2D	R626	3B	R691	4E	C559	2D	C642	7D
Q553	2D	D613	7D	RL605	7D	R563	2C	R627	4E	R702	7C	C564	3D	C647	3E
Q554	2D	D614	7D	RL701	4C	R564	2C	R628	3E	R703	5D	C601	2C	C648	4E
Q555	3D	D657	2B	CN781	2B	R566	2E	R629	3B	R704	5D	C602	2D	C649	4E
Q556	2E	D658	3D	CP101	1D	R567	2E	R631	3E	R705	5D	C603	3E	C650	4E
Q557	2E	D659	2B	CP601	8E	R568	2E	R632	3E	R707	4C	C604	3E	C659	3E
Q558	3D	D701	5D	CP602	8D	R569	2E	R635	2B	R708	4C	C605	4E	C660	3E
Q601	2E	D702	5C	CP603	8C	R570	2D	R637	3D	R712	2B	C606	4E	C666	7E
Q602	2E	D703	5D	JK551	2E	R571	3D	R638	3D	R719	2B	C607	3E	C701	7C
Q605	2E	D704	5C	JK601	8E	R572	3D	R639	6E	R721	4D	C608	3E	C702	6C
Q606	2E	D705	4C	JK602	7E	R591	2D	R640	5E	R722	4D	C609	4E	C703	6C
Q607	3E	D715	4C	E601	7E	R597	2C	R641	7D	R727	3E	C610	4E	C704	6C
Q608	3E	D717	4C	E602	3E	R598	2C	R642	5E	R729	3E	C611	4E	C705	2B
Q617	8C	D718	4C	W501	2C	R601	3E	R643	6D	R738	3D	C612	3E	C706	3C
Q618	8C	D719	4C	W721	5C	R602	3E	R644	6D	R739	4D	C613	3E	C707	4C
Q703	3D	D720	4C	W722	5C	R603	3E	R645	6D	R761	2B	C614	3E	C708	3C
Q704	3D	D721	3C	W901A	3C	R604	3E	R646	7D	R763	1C	C616	4E	C709	3D
Q706	4D	D725	3E	W902A	2B	R605	2E	R647	4E	R764	1C	C617	4E	C714	4C
Q707	3C	D736	4D	R202	3D	R606	2E	R648	4E	R766	4C	C618	4E	C715	4C
Q708	4D	D737	1C	R203	2D	R607	3E	R649	4D	R767	3D	C619	3D	C721	3E
Q709	4D	D749	3E	R204	2D	R608	3E	R650	4D	R769	4D	C620	6E	C723	3D
Q723	1B	D751	5D	R211	3D	R609	4E	R651	7D	R776	3D	C621	7D	C724	3D
D201	3D	D752	5C	R229	2D	R610	4E	R652	7E	R796	3D	C622	3E	C731	4C
D551	2E	D753	5D	R230	2C	R611	4E	R667	8C	R797	3D	C624	7E	C732	7D
D552	2D	D754	7C	R544	3D	R612	4E	R668	8C	R798	3B	C625	7D	C733	1C
D553	2E	D755	5C	R546	4E	R614	3E	R669	7C	R799	2B	C626	7E	C735	1D
D554	2D	D756	3D	R547	4E	R615	3E	R670	7C	C201	3D	C627	7D	C737	4C
D555	2D	D757	2D	R551	3E	R617	2E	R672	8C	C202	3C	C631	8E	C740	1C
D558	3D	D761	5C	R552	3E	R618	2E	R675	7C	C371	2E	C632	7E	C741	5C
D563	3D	L601	7E	R555	2E	R619	4E	R683	2E	C550	2D	C635	8E	C761	6C
D581	2E	L602	5E	R556	2E	R620	4E	R684	2E	C551	2D	C636	7E		
D582	2D	L603	6D	R557	2D	R621	3E	R685	2E	C552	2D	C637	8E		
<b>■ POWER SUPPLY P.C.B.</b>															
Q701	2I	Q712	3I	D738	3I	W701B	2I	R725	1I	R765	3I	C717	2I	C722	2I
Q702	2I	Q725	2I	D739	2I	R720	2I	R749	2I	R768	2I	C718	2I	C734	2I
Q705	2I	D723	2I	D758	3I	R723	2I	R753	3I	R770	2I	C719	2I		
Q711	2I	D730	3I	D760	2I	R724	2I	R754	3I	C710	2I	C720	2I		

12 Type Illustration of ICs, Transistors and Diodes

<p>BU4053BCFE2</p> 	<p>LC72721NMTLM</p> 	<p>C2BAFD000043</p> 	<p>RSN311W64A</p> 	 <p>UN411FTA UN4115TA UN4211TA UN4212TA</p>	
<p>2SA1995RSTA 2SC5398RSTA</p> 	<p>2SC3940AQSTA</p> 	<p>2SB1548PQAU 2SD2374PQAU</p> 	<p>2SD2144STA</p> 	<p>2SD2137PQTA</p> 	<p>MA4091HTA MA4100MTA MA4150HTA MA4300MTA</p> 
<p>SB360L6508</p> 	<p>1N5402BM21 RL1N4003N02</p> 	 <p>MA4030MTA MA4051MTA MA4056MTA MA4068LTA MA4075MTA MA4082LTA</p>		<p>MA165TA</p> 	<p>MA700ATA 1SS291TA</p> 
<p>LNJ301MPUJAD</p> 	<p>SELS5223C SELS5923C</p> 				



# 14 Terminal Function of ICs

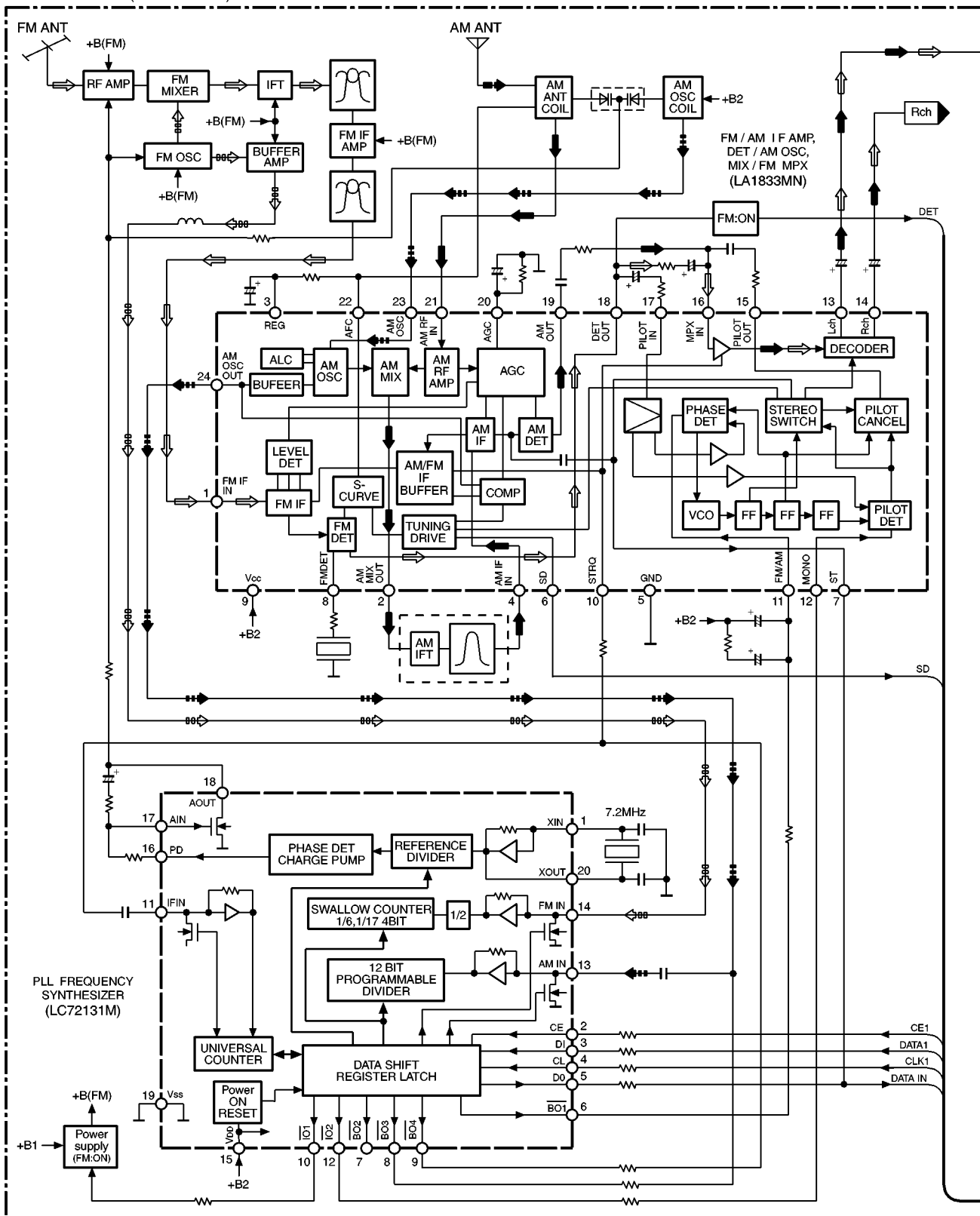
## 14.1. IC901 (C2BAFD000043): System Control/FL Drive

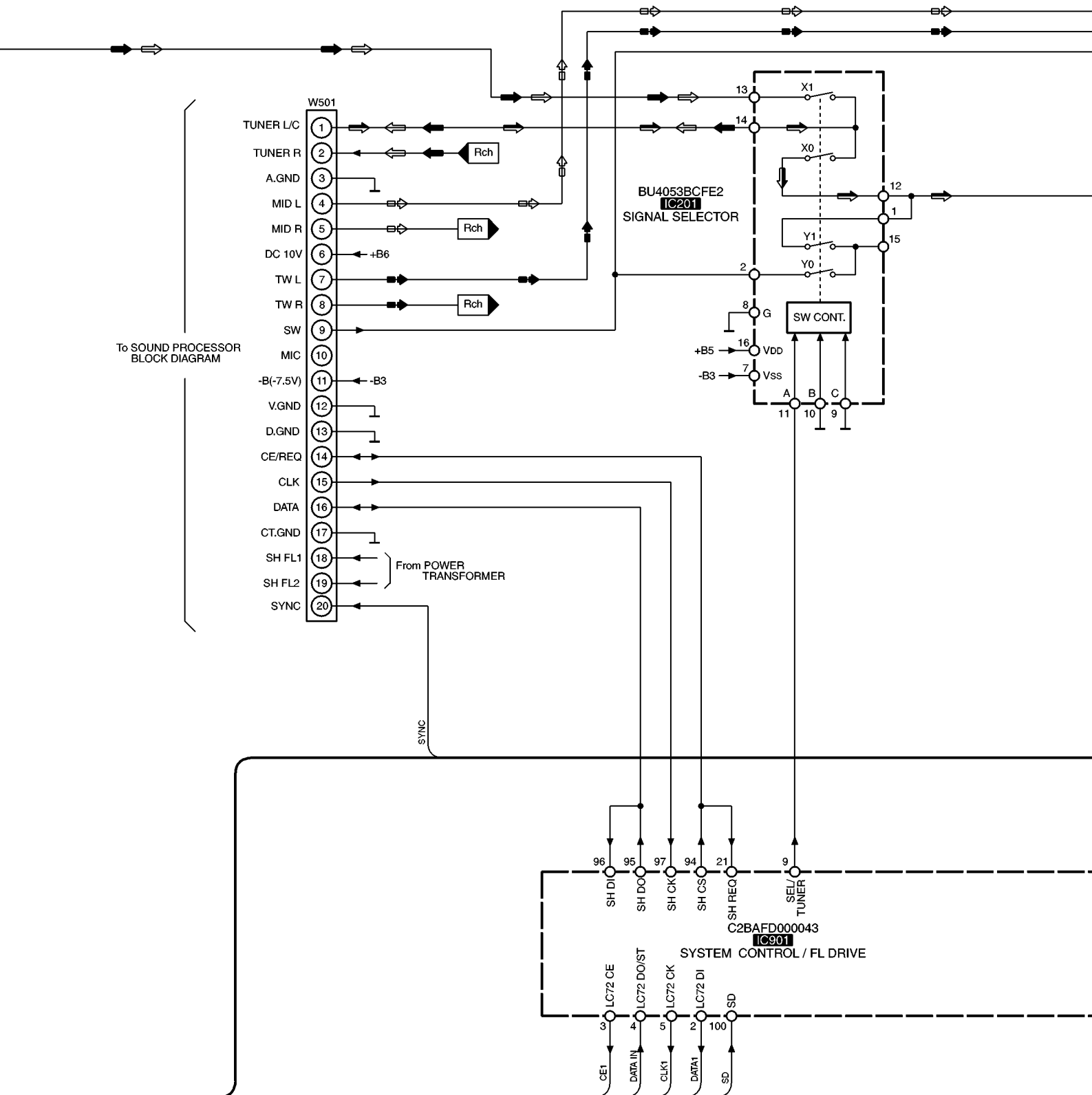
Pin No.	Terminal Name	I/O	Function
1	CHECK	O	Clock check signal output
2	LC72 DI	O	PLL data signal output
3	LC72 CE	O	Chip enable signal output
4	LC72 DO/ST	I	IF count data/stereo detect signal input
5	LC72 CK	O	Clock signal output
6	RL1	O	Speaker select signal output
7	RL2	O	Speaker select signal output
8	ST/AV6CH	-	Not used, open
9	SEL TUNER	O	Tuner select signal output
10	SEL/ TUNER	I	Tuner select signal input (Not used, connected to $V_{DD}$ )
11	AC IN	I	Power failure detect signal input
12	RESET	I	Reset signal input
13	X IN	I	Oscillator connected terminal (32.7 kHz)
14	X OUT	O	
15	$V_{SS}$	-	GND terminal
16	XC IN	I	Oscillator connected terminal (6 MHz)
17	XC OUT	O	
18	$V_{DD1}$	I	Power supply terminal
19	KEY TU	I	Operation key signal input
20	KEY KARAOKE	I	Operation key signal input
21	SH REQ	I	Request signal input from Sound Processor
22	NC(GND)	-	Not used, connected to GND
23	VR JOGB	I	Volume control signal input
24	VR JOGA	I	
25	MIC DET	I	Microphone connecting detect signal input (Not used)
26	HP SW	I	Headphone connecting detect signal input
27	RDS CLK	I	RDS clock signal input
28	RDS DATA	I	RDS data signal input
29	REMOCO N	I	Remote control signal input
30	NC	-	Not used, open
31   37	7G   1G	O	Grid signal output
38 39	NC	-	Not used, open
40   45	P1   P6	O	Segment signal output
46	$V_{DD3}$	I	Power supply terminal
47   50	P7   P10	O	Segment signal output
51	-VP	I	Power supply terminal (negative)
52   71	P11   P30	O	Segment signal output
72	$V_{DD4}$	I	Power supply terminal
73   77	P31   P35	O	Segment signal output
78	REGIN0	I	Area select signal input
79	REGIN1	I	
80	STANDBY	O	LED (STANDBY) drive signal output
81	TIMER	O	LED (TIMER) drive signal output

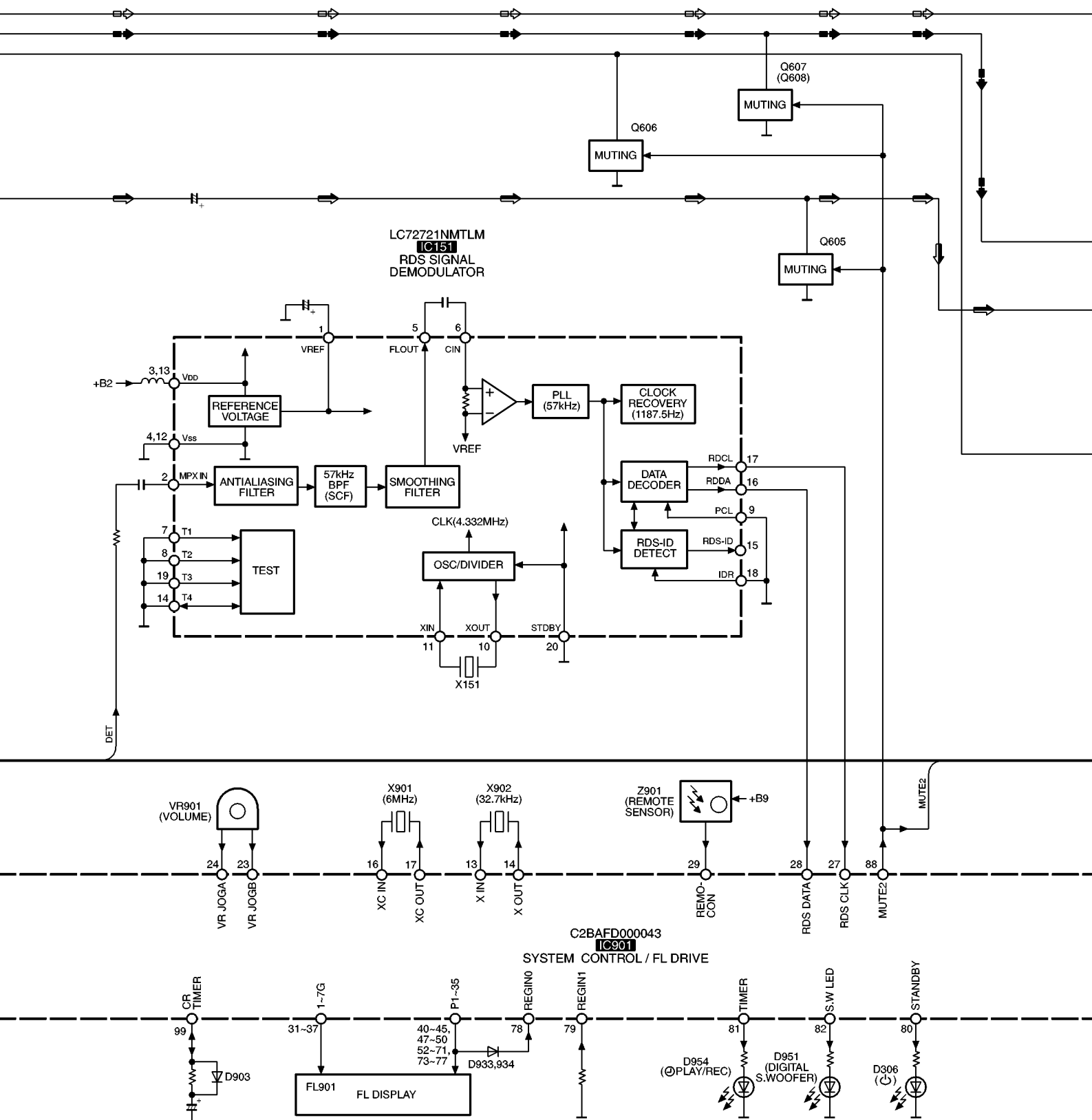
Pin No.	Terminal Name	I/O	Function
82	S.W LED	O	LED (DIGITAL S.WOOFER) drive signal output
83	LOUNGE	-	LED (LOUNGE) drive signal output (Not used, open)
84	CHORUS	-	LED (CHORUS) drive signal output (Not used, open)
85	MUTE	O	Muting signal output
86	POWER	O	Power control signal output
87	/ECO	O	ECO signal output
88	MUTE2	O	Muting signal output
89	$V_{SS2}$	-	GND terminal
90	$V_{DD2}$	I	Power supply terminal
91	NC	-	Not used, open
92			
93	RL4	-	Not used, open
94	SH CS	O	Chip select signal output for Sound Processor
95	SH DO	O	Serial communication signal to Sound Processor (Data signal output)
96	SH DI	I	Serial communication signal to Sound Processor (Data signal input)
97	SH CK	I	Serial communication signal to Sound Processor (Clock signal input)
98	E DET	I	Unusual condition detect signal input
99	CR TIMER	I/O	TIME CONSTANT terminal
100	SD	I	Station detector signal input from tuner circuit

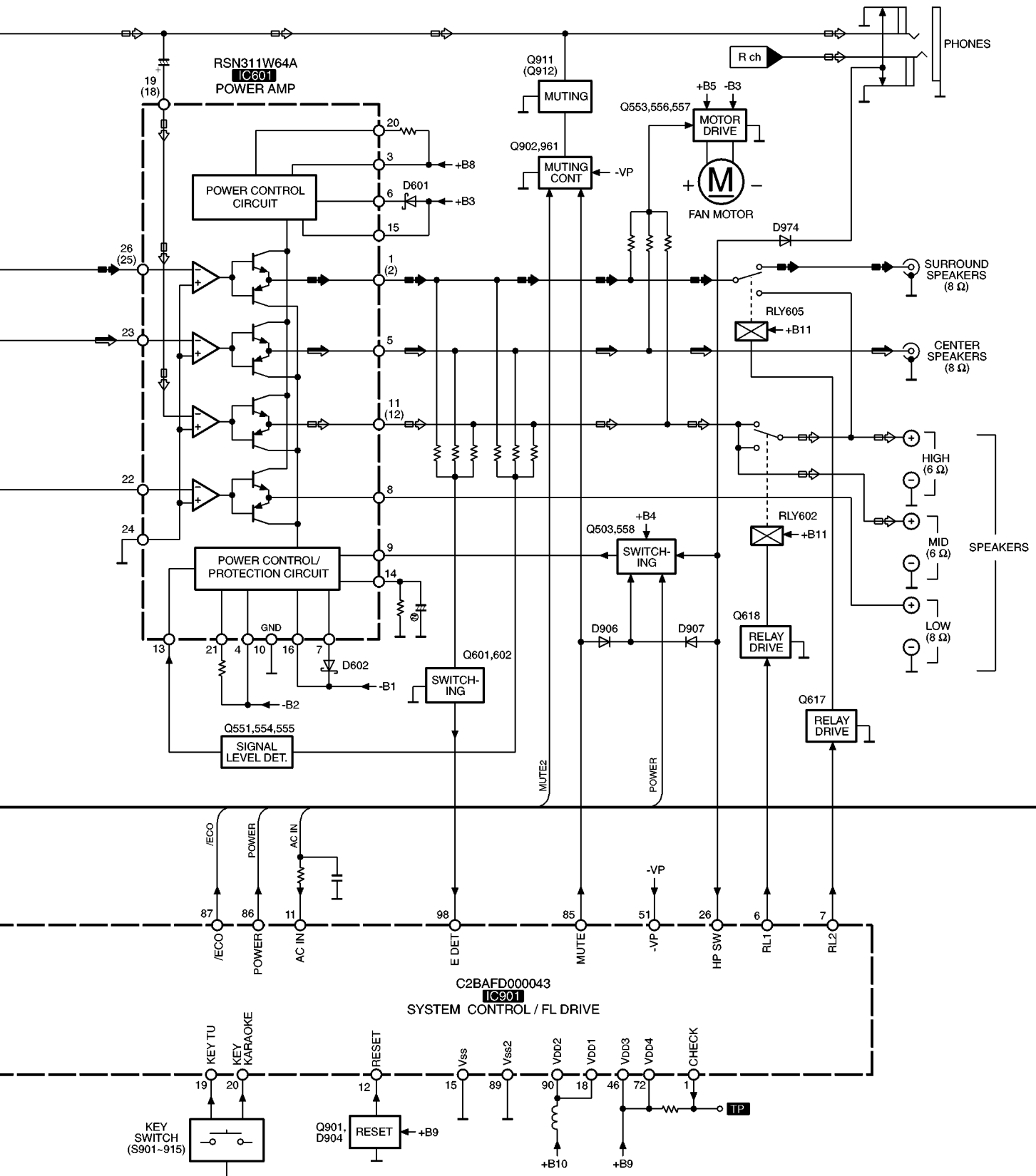
## 15 Block Diagram

Z101 TUNER UNIT (RAN0005EM-1)

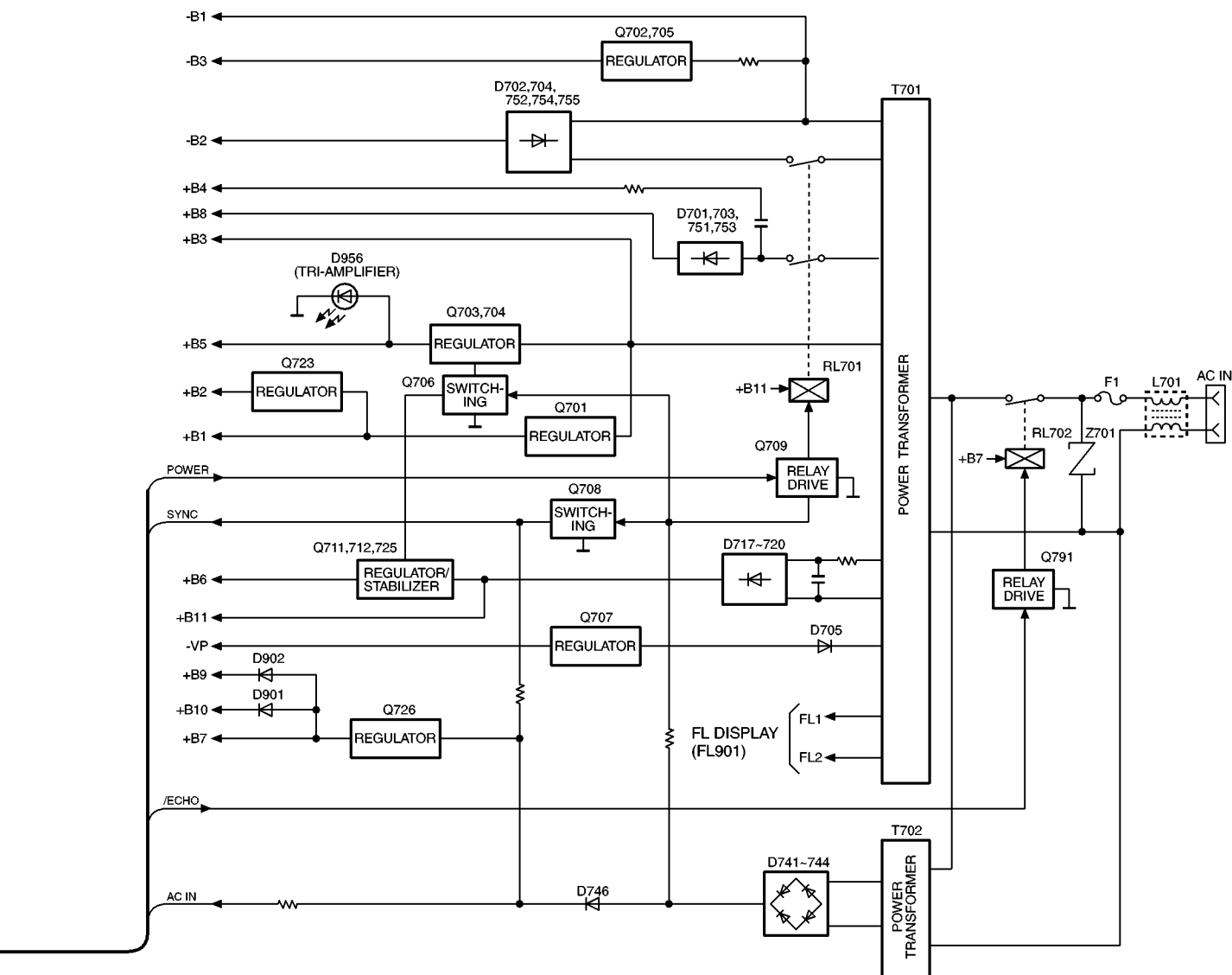












NOTES :

- SIGNAL LINE
- ◀ : FM SIGNAL
- ▶ : AM SIGNAL
- ◀◀ : FM OSC SIGNAL
- ▶▶ : AM OSC SIGNAL
- ◀◀◀ : SOURCE SIGNAL
- ▶▶▶ : CENTER SP. DRIVE SIGNAL
- ◀◀◀◀ : SURROUND SP. DRIVE SIGNAL
- ( ) indicates pin No. Right channel.

# 16 Replacement Parts List

## Notes:

- Important safety notice:

Components identified by  $\Delta$  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.

When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.

- The <IA> <IB> <IC> marks in Remarks indicate language of instruction manual.

<IA>: German, French, Italian, Netherlands

<IB>: Spanish, Swedish, Polish, Danish

<IC>: English

- The parenthesized indications in the Remarks columns specify the areas. (Refer to the cover page for area.)
- The marking [RTL] indicates that Retention Time is Limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.
- All parts are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	RKM0395C-S	CABINET	1	
2	RHD30007-S	SCREW	4	
3	XTBS3+10JFZ1	SCREW	1	
4	RGN1877-K	NAME PLATE	1	(EB)
4	RGN1876-K1	NAME PLATE	1	(EG)
5	REM0057	FAN UNIT	1	
6	REX0967	WIRE ASS'Y	1	
7	RLBT4001-N	FERRITE CORE	1	
8	RMZ0339	ZNR COVER	1	
9	RGW0343-S1	KNOB, VOLUME	1	
10	RHN90001	NUT	1	
11	RKA0106-N	FOOT RING	4	
12	RKF0606C-K	REAR COVER	1	
13	RKW0581-1V	FL WINDOW	1	
14	RYP0946C-S	FRONT PANEL	1	
14-1	RGB0025-A	TECHNICS BADGE	1	
15	SHG1654	RUBBER	4	
16	XTB3+10JFZ	SCREW	11	
17	XTB3+8JFZ	SCREW	14	
18	XTW3+15T	SCREW	2	
19	XTBS3+8JFZ1	SCREW	2	
20	SHR9112	RIVET	1	
21	XTB3+20JFZ	SCREW	1	
A1	RAK-EHA32WH	REMOTE CONT. TRANSMITTER	1	
A1-1	RKK0123-H	BATTERY COVER	1	
A2	REE0393	SPEAKER CORD	2	
A3	REE0984	SPEAKER CORD	2	
A4	REE0985	SPEAKER CORD	2	
A5	RJA0053-2X	AC POWER SUPPLY CORD	1	(EB) $\Delta$
A5	RJA0019-X	AC POWER SUPPLY CORD	1	(EG) $\Delta$
A6	RJL1P019B15	PIN CORD (VIDEO)	1	
A7	RQA0117	WARRANTY CARD	1	
A8	RQCA0775	CORRECTION SHEET	1	(EG)
A9	RQCB0169	SERVICE CENTER LIST	1	
A10	RQT5468-D	OPERATING INSTRUCTIONS	1	(EG) <IA>

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
A11	RQT5469-E	OPERATING INSTRUCTIONS	1	(EG) <IB>
A12	RQT5471-B	OPERATING INSTRUCTIONS	1	(EB) <IC>
A13	RSA0007	FM INDOOR ANTENNA	1	
A14	RSA0022-J	AM LOOP ANTENNA	1	
A15	VFA0151-1	RCAJ ADAPTOR	1	
A16	SJP9009	FM ANTENNA PLUG ADAPTOR	1	(EB)
A17	RQCA0750	QUICK SET-UP GUIDE	1	(EB)
C151	ECEA1CKS100	16V 10U	1	
C152	ECBT1H331KB5	50V 330P	1	
C153	ECBT1H102KB5	50V 1000P	1	
C154	ECBT1H561KB5	50V 560P	1	
C155	ECBT1H102KB5	50V 1000P	1	
C156, 57	ECBT1H470J5	50V 47P	2	
C158, 59	ECA0JAK470XH	6.3V 47U	2	
C160	ECBT1H102KB5	50V 1000P	1	
C201, 02	ECBT1H104KB5	50V 0.1U	2	
C371	ECA0JAK101XB	6.3V 100U	1	
C395, 96	ECBT1H473KB5	50V 0.047U	2	
C509, 10	ECBT1H103KB5	50V 0.01U	2	
C550	ECBT1C103NS5	16V 0.01U	1	
C551	ECA1HAK2R2XB	50V 2.2U	1	
C552	ECBT1H103KB5	50V 0.01U	1	
C554	ECA1AAK221XH	10V 220U	1	
C555, 56	ECEA1CKN100B	16V 10U	2	
C559	ECBT1C103NS5	16V 0.01U	1	
C564	ECA1CAK100XB	16V 10U	1	
C601, 02	ECA1CAK100XB	16V 10U	2	
C603, 04	ECBT1H471KB5	50V 470P	2	
C605, 06	ECBT1H102KB5	50V 1000P	2	
C607, 08	ECBT1H471KB5	50V 470P	2	
C609, 10	ECBT1H560J5	50V 56P	2	
C611, 12	ECBT1H150JC5	50V 15P	2	
C613, 14	ECBT1H470J5	50V 47P	2	
C616	ECEA1HKNR47B	50V 0.47U	1	
C617, 18	ECKR2H103ZU	500V 0.01U	2	
C619	ECBT1H104KB5	50V 0.1U	1	
C620, 21	ECQV1H473JM3	50V 0.047U	2	
C622	ECA1HM101	50V 100U	1	
C624, 25	ECQV1H473JM3	50V 0.047U	2	
C626, 27	ECQV1H104JM3	50V 0.1U	2	
C631, 32	ECBT1H473KB5	50V 0.047U	2	
C635-37	ECBT1H473KB5	50V 0.047U	3	
C639-44	ECBT1H102KB5	50V 1000P	6	
C645, 46	ECBT1H473KB5	50V 0.047U	2	
C647-50	ECBT1H102KB5	50V 1000P	4	
C651	ECBT1H473KB5	50V 0.047U	1	
C652	ECBT1H102KB5	50V 1000P	1	
C659, 60	ECA1CAK100XB	16V 10U	2	
C666	ECBT1H473KB5	50V 0.047U	1	
C701-04	ECA1VM472E	4700U	4	$\Delta$
C705	ECBT1H103KB5	50V 0.01U	1	
C706	RCE1VKA100BG	35V 10U	1	
C707, 08	ECBT1H473KB5	50V 0.047U	2	
C709	ECQV1H104JM3	50V 0.1U	1	
C710	ECBT1H473KB5	50V 0.047U	1	
C714	ECBT1H102KB5	50V 1000P	1	
C715	ECA1EAM682XE	6800U	1	$\Delta$
C717	ECA1CAK330XB	16V 33U	1	
C718	ECA1CAK101XB	16V 100U	1	
C719, 20	ECBT1H473KB5	50V 0.047U	2	
C721	RCE1AKA101BG	10V 100U	1	
C722	ECA1CM101	16V 100U	1	
C723, 24	ECBT1H473KB5	50V 0.047U	2	
C731	ECBT1H102KB5	50V 1000P	1	
C732	ECBT1H223KB5	50V 0.022U	1	
C733	ECBT1H473KB5	50V 0.047U	1	
C734	RCE1HKA3R3BG	50V 3.3U	1	
C735	ECBT1H473KB5	50V 0.047U	1	
C737	ECA1HM101	100U	1	$\Delta$

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C740	ECA1CAK100XB	16V 10U	1	
C741	ECQE1104KF3	100V 0.1U	1	
C753	ECKR1H103ZF5	50V 0.01U	1	
C754	ECBT1H103KB5	50V 0.01U	1	
C755	ECA1CAM102XB	1000U	1	△
C758	ECBT1H103KB5	50V 0.01U	1	
C759	RCE1AKA470BG	10V 47U	1	
C761	ECQE1104KF3	100V 0.1U	1	
C791	ECKWRS102MBC	1000P	1	△
C901	EEAFC0J101B	6.3V 100U	1	
C902	RCE1AM102BV	10V 1000U	1	
C903,04	ECBT1H103KB5	50V 0.01U	2	
C905	ECBT1H102KB5	50V 1000P	1	
C907,08	ECBT1H471KB5	50V 470P	2	
C909	ECBT1H102KB5	50V 1000P	1	
C910	ECBT1H200JC5	50V 20P	1	
C911	ECBT1H180J5	50V 18P	1	
C912	ECBT1H104KB5	50V 0.1U	1	
C913	ECA1CAK100XB	16V 10U	1	
C914	ECEALHKS2R2	50V 2.2U	1	
C915	ECBT1H103KB5	50V 0.01U	1	
C916	EEAFC0J101B	6.3V 100U	1	
C917	ECBT1H103KB5	50V 0.01U	1	
C918	ECEA0JKS101	6.3V 100U	1	
C919,20	RCE1HKA4R7BG	50V 4.7U	2	
C921	ECBT1H102KB5	50V 1000P	1	
C922	ECA1VAK330XB	35V 33U	1	
C923,24	ECBT1H104KB5	50V 0.1U	2	
C925,26	ECBT1H102KB5	50V 1000P	2	
C927,28	RCE1HKA4R7BG	50V 4.7U	2	
C931	ECA1CAK100XB	16V 10U	1	
C961	ECEA1CKS100	16V 10U	1	
CN601	RJU057W012	CONNECTOR (12P)	1	
CN602	RJU057W008	CONNECTOR (8P)	1	
CN603	RJU057W004	CONNECTOR (4P)	1	
CN701-13	RJS1A1101T1	CONNECTOR (1P)	13	
CN781	RJS10T5ZA	CONNECTOR (10P)	1	
CP101	RJT100W11	CONNECTOR (11P)	1	
CP601	RJT057W012-1	CONNECTOR (12P)	1	
CP602	RJT057W008-1	CONNECTOR (8P)	1	
CP603	RJT057W004-1	CONNECTOR (4P)	1	
D151	MA4051M	DIODE	1	△
D201	MA4056M	DIODE	1	△
D306	SELS5223C	LED	1	
D500	MA165	DIODE	1	
D551,52	MA165	DIODE	2	
D553	MA700	DIODE	1	
D554	MA165	DIODE	1	
D555	MA4100M	DIODE	1	
D558	MA165	DIODE	1	
D563	MA165	DIODE	1	
D581-83	RL1N4003N02	DIODE	3	
D601,02	SB360L6508	DIODE	2	
D607	1SS291TA	DIODE	1	
D613,14	MA165	DIODE	2	
D657-59	MA165	DIODE	3	
D701-04	1N5402BF	DIODE	4	△
D705	RL1N4003N02	DIODE	1	△
D711	RL1N4003N02	DIODE	1	
D715	MA165	DIODE	1	
D717-20	RL1N4003N02	DIODE	4	△
D721	MA4300M	DIODE	1	△
D723	MA4150M	DIODE	1	△
D725	MA4082LTA	DIODE	1	△
D730	MA4091H	DIODE	1	△
D736	MA165	DIODE	1	
D737	MA4082LTA	DIODE	1	△
D738-40	MA165	DIODE	3	
D741-44	RL1N4003N02	DIODE	4	△
D745	MA4051M	DIODE	1	
D746	RL1N4003N02	DIODE	1	

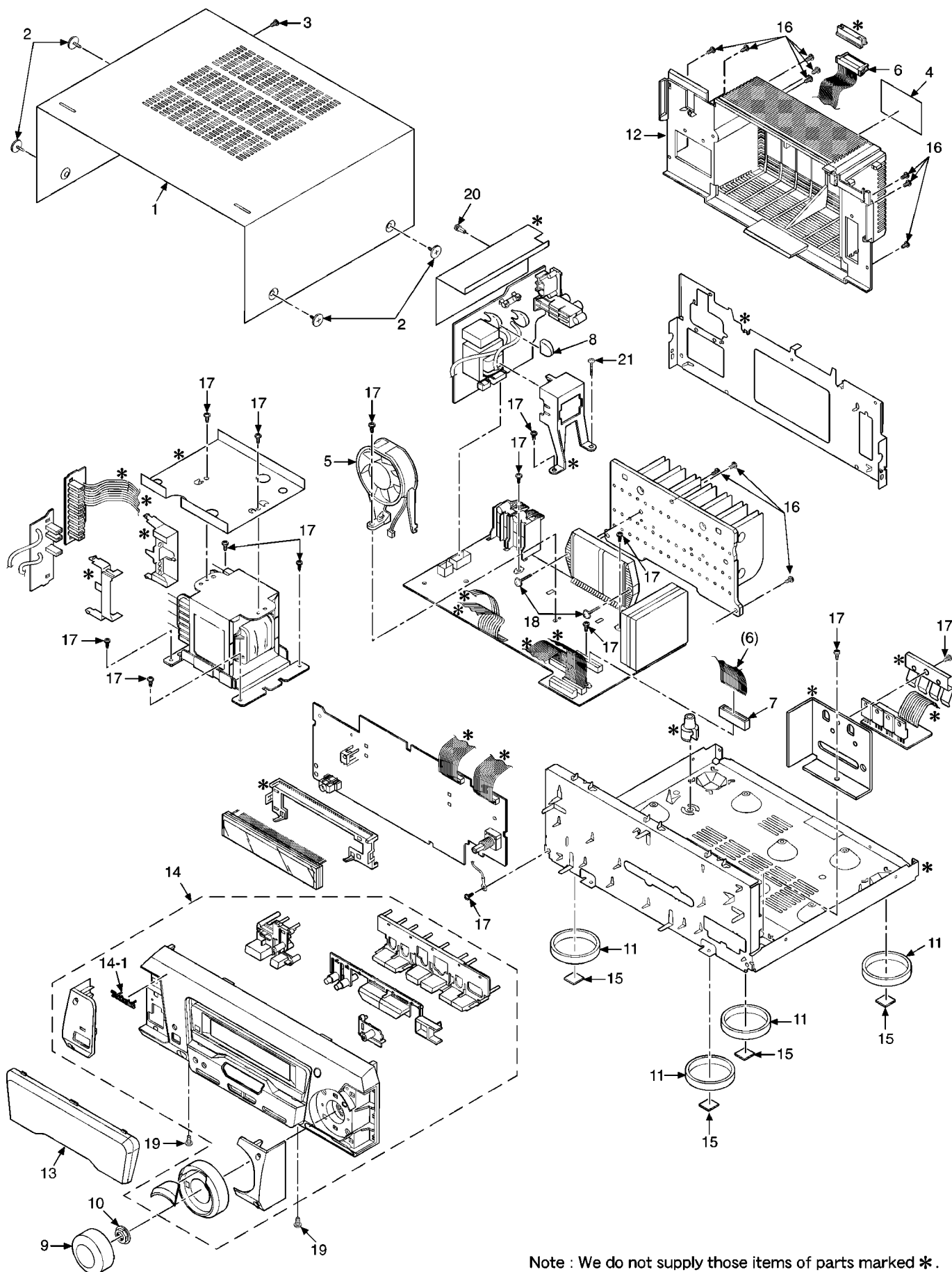
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
D747	MA4068L	DIODE	1	△
D749	MA165	DIODE	1	
D751,52	1N5402BF	DIODE	2	△
D753-55	RL1N4003N02	DIODE	3	△
D756,57	MA700	DIODE	2	
D758	MA165	DIODE	1	
D760	MA165	DIODE	1	
D761	RL1N4003N02	DIODE	1	△
D901,02	1SS291TA	DIODE	2	
D903,04	MA165	DIODE	2	
D905	1SS291TA	DIODE	1	
D906,07	MA165	DIODE	2	
D915	1SS291TA	DIODE	1	
D933	MA165	DIODE	1	
D951	LNJ301MPUJAD	LED	1	
D954	SELS5923C	LED	1	
D956	SELS5923C	LED	1	
D961	MA4075M	DIODE	1	
D973	MA4030M	DIODE	1	△
D974	MA165	DIODE	1	
F1	XBA2C20TB0	FUSE, T2A	1	△
FL901	RSL0298-F	FL	1	
IC151	LC72721NMTLM	IC	1	
IC201	BU4053BCPE2	IC	1	
IC601	RSN311W64A	IC	1	△
IC901	C2BAFD000043	IC	1	
JK551	SJT3213	CONNECTOR, FAN MOTOR	1	
JK601,02	RJH5603-1J	JACK, SP	2	
JK603	RJH2308	JACK, SP	1	
JK701	SJS9236	JACK, AC INLET	1	△
JK903	RJJ37TN02-C	JACK, HEADPHONE	1	
L151,52	ELEXT101KA9	COIL	2	
L153	RLQA1R0JT1-Y	COIL	1	
L601-06	RLQYR73MW1-0	COIL	6	
L701	RLQZ371	COIL	1	△
L901	RLQA100JT1-Y	COIL	1	
L902	RLQA1R0JT1-Y	COIL	1	
P1	RPG4397	PACKING CASE (RS)	1	
P1	RPG4396	PACKING CASE (SA)	1	
P1	RPG4398	PACKING CASE (SH)	1	
P1	RPG4399	PACKING CASE (SL)	1	
P2	RPN1195-2	PAD (RS)	1	
P2	RPN1194	PAD (SA)	1	
P2	RPN1196	PAD (SH)	1	
P2	RPN1197	PAD (SL)	1	
P3	SPP740-1	SHEET	1	
P4	RPF0139-1	PROTECTION BAG (F.B.)	1	
P5	RPG4947	PACKING CASE (SYSTEM)	1	(EB)
P5	RPG4946	PACKING CASE (SYSTEM)	1	(EG)
P6	RPQ0951	PAD (SYSTEM)	1	
PCB1	REP2964E-M	MAIN P.C.B.	1	[RTL]
PCB2	REP2966B-S	SUB P.C.B.	1	(EB) [RTL]
PCB2	REP2966A-S	SUB P.C.B.	1	(EG) [RTL]
Q503	2SC3327A	TRANSISTOR	1	
Q551	2SA1995RSTA	TRANSISTOR	1	
Q553	2SC3327A	TRANSISTOR	1	
Q554	2SA1995RSTA	TRANSISTOR	1	
Q555	2SC3327A	TRANSISTOR	1	
Q556	2SC5398RSTA	TRANSISTOR	1	
Q557	2SA1995RSTA	TRANSISTOR	1	
Q558	UN4211	TRANSISTOR	1	
Q601,02	2SC5398RSTA	TRANSISTOR	2	
Q605-08	2SC3327A	TRANSISTOR	4	
Q617,18	2SC3327A	TRANSISTOR	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
Q701	2SD2374PQAU	TRANSISTOR	1	△
Q702	2SB1548PQAU	TRANSISTOR	1	△
Q703,04	2SD2137PQTA	TRANSISTOR	2	△
Q705	2SA1995RSTA	TRANSISTOR	1	
Q706	UN4211	TRANSISTOR	1	
Q707	2SB1548PQAU	TRANSISTOR	1	△
Q708	UN4211	TRANSISTOR	1	
Q709	2SC3327A	TRANSISTOR	1	
Q711,12	2SB1548PQAU	TRANSISTOR	2	△
Q723	2SC3940AQSTA	TRANSISTOR	1	△
Q725	2SC5398RSTA	TRANSISTOR	1	
Q726	2SC3940AQSTA	TRANSISTOR	1	△
Q791	2SC3327A	TRANSISTOR	1	
Q901	UN4212TA	TRANSISTOR	1	
Q902	UN4111FTA	TRANSISTOR	1	
Q911,12	2SC3327A	TRANSISTOR	2	
Q961	UN4115	TRANSISTOR	1	
R151,52	ERDS2FJ102	1/4W 1K	2	
R153,54	ERDS2FJ104	1/4W 100K	2	
R155	ERDS2FJ121	1/4W 120	1	
R158	ERDS2FJ102	1/4W 1K	1	
R202-04	ERDS2FJ104	1/4W 100K	3	
R211	ERDS2FJ271	1/4W 270	1	
R229,30	ERDS2FJ102	1/4W 1K	2	
R509-12	ERDS2FJ470	1/4W 47	4	
R544	ERDS2FJ103	1/4W 10K	1	
R546,47	ERDS2FJ183	1/4W 18K	2	
R551	ERDS2FJ183	1/4W 18K	1	
R552	ERDS2FJ473	1/4W 47K	1	
R555	ERDS2FJ223	1/4W 22K	1	
R556	ERDS2FJ104	1/4W 100K	1	
R557	ERDS2FJ103	1/4W 10K	1	
R558	ERDS2FJ222	1/4W 2.2K	1	
R559	ERDS2FJ472	1/4W 4.7K	1	
R560,61	ERDS2FJ104	1/4W 100K	2	
R563,64	ERDS2FJ272	1/4W 2.7K	2	
R566	ERDS2FJ683	1/4W 68K	1	
R567	ERG1SJ220	1W 22	1	
R568	ERDS2FJ101	1/4W 100	1	
R569	ERDS2FJ103	1/4W 10K	1	
R570	ERDS2TJ225	1/4W 2.2M	1	
R571	ERDS2FJ562	1/4W 5.6K	1	
R572	ERDS2FJ153	1/4W 15K	1	
R591	ERDS2FJ472	1/4W 4.7K	1	
R597,98	ERDS2FJ222	1/4W 2.2K	2	
R601-04	ERDS2FJ332	1/4W 3.3K	4	
R605,06	ERDS2FJ472	1/4W 4.7K	2	
R607,08	ERDS2FJ563	1/4W 56K	2	
R609,10	ERDS2FJ154	1/4W 150K	2	
R611,12	ERDS2FJ563	1/4W 56K	2	
R614,15	ERDS2FJ472	1/4W 4.7K	2	
R617,18	ERDS2FJ472	1/4W 4.7K	2	
R619,20	ERDS2FJ124	1/4W 120K	2	
R621	ERDS2FJ154	1/4W 150K	1	
R622,23	ERDS2FJ124	1/4W 120K	2	
R624	ERDS2FJ154	1/4W 150K	1	
R626	ERDS2FJ102	1/4W 1K	1	
R627	ERDS2FJ474	1/4W 470K	1	
R628	ERDS2FJ223	1/4W 22K	1	
R629	ERDS2FJ102	1/4W 1K	1	
R631,32	ERDS2FJ392	1/4W 3.9K	2	
R635	ERDS2FJ222	1/4W 2.2K	1	
R637	ERDS2FJ153	1/4W 15K	1	
R638	ERDS2FJ683	1/4W 68K	1	
R639,40	ERDS1FJ100	10	2	△
R641,42	ERD2FCG100	10	2	△
R643,44	ERDS1FJ100	10	2	△
R645,46	ERD2FCG100	10	2	△
R647	ERDS2FJ391	390	1	△
R648	ERDS2FJ121	120	1	△
R649,50	ERDS1FJ100	10	2	△
R651,52	ERD2FCG100	10	2	△
R667	ERDS2FJ392	1/4W 3.9K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R668	ERDS2FJ473	1/4W 47K	1	
R669,70	ERDS1FJ470	47	2	△
R672	ERDS2FJ473	1/4W 47K	1	
R675	ERDS2FJ392	1/4W 3.9K	1	
R683-86	ERDS2FJ102	1/4W 1K	4	
R687,88	ERDS2FJ152	1/4W 1.5K	2	
R691	ERDS1FJ151	150	1	△
R702	ERDS2FJ273	1/4W 27K	1	
R703-05	ERG1SJ222	1W 2.2K	3	
R707	ERD2FCJ4R7	4.7	1	△
R708	ERDS2FJ472	1/4W 4.7K	1	
R712	ERDS2FJ222	1/4W 2.2K	1	
R719	ERDS2FJ332	1/4W 3.3K	1	
R720	ERDS2FJ392	1/4W 3.9K	1	
R721	ERD2FCJ4R7	4.7	1	△
R722	ERQ16NKKW2R2E	2.2	1	△
R723	ERDS2FJ562	1/4W 5.6K	1	
R724	ERDS2FJ392	1/4W 3.9K	1	
R725	ERDS2FJ100	1/4W 10	1	
R727	ERDS2FJ392	1/4W 3.9K	1	
R729	ERDS2FJ221	1/4W 220	1	
R738	ERDS2FJ392	1/4W 3.9K	1	
R739	ERDS2FJ473	1/4W 47K	1	
R749	ERDS2FJ102	1/4W 1K	1	
R753,54	ERX1SJR47	1W 0.47	2	
R761	ERG1SJ221	1W 220	1	
R763	ERDS2FJ472	1/4W 4.7K	1	
R764	ERDS2FJ331	1/4W 330	1	
R765	ERDS1FJ221	220	1	△
R766	ERDS1FJ470	47	1	△
R767	ERG1SJ270	1W 27	1	
R768	ERDS2FJ101	1/4W 100	1	
R769	ERG1SJ270	1W 27	1	
R770	ERDS2FJ104	1/4W 100K	1	
R771	ERDS2FJ222	1/4W 2.2K	1	
R772	ERDS2FJ223	1/4W 22K	1	
R773,74	ERDS1FJ180	18	2	△
R776	ERDS2FJ103	1/4W 10K	1	
R777	ERDS2FJ102	1/4W 1K	1	
R791,92	RSFMB50KT-L	FUSE PROTECTOR	2	△
R793	ERDS2FJ1R0	1/4W 1	1	
R794	ERDS2FJ473	1/4W 47K	1	
R795	ERDS2FJ392	1/4W 3.9K	1	
R796,97	ERDS2FJ2R2	1/4W 2.2	2	
R798,99	ERX1SJ6R8	1W 6.8	2	
R901	ERDS2FJ821	1/4W 820	1	
R902	ERDS2FJ102	1/4W 1K	1	
R903	ERDS2FJ122	1/4W 1.2K	1	
R904	ERDS2FJ152	1/4W 1.5K	1	
R905	ERDS2FJ182	1/4W 1.8K	1	
R906	ERDS2FJ222	1/4W 2.2K	1	
R907	ERDS2FJ332	1/4W 3.3K	1	
R908	ERDS2FJ472	1/4W 4.7K	1	
R909	ERDS2FJ182	1/4W 1.8K	1	
R910	ERDS2FJ222	1/4W 2.2K	1	
R911	ERDS2FJ332	1/4W 3.3K	1	
R912	ERDS2FJ472	1/4W 4.7K	1	
R913	ERDS2FJ821	1/4W 820	1	
R914	ERDS2FJ102	1/4W 1K	1	
R915	ERDS2FJ122	1/4W 1.2K	1	
R916	ERDS2FJ152	1/4W 1.5K	1	
R918	ERDS2FJ103	1/4W 10K	1	
R919	ERDS2FJ153	1/4W 15K	1	
R921,22	ERDS2FJ103	1/4W 10K	2	
R923	ERDS2FJ223	1/4W 22K	1	
R924,25	ERDS2FJ102	1/4W 1K	2	
R926	ERDS2FJ222	1/4W 2.2K	1	
R928	ERDS2FJ473	1/4W 47K	1	
R929-32	ERDS2FJ102	1/4W 1K	4	
R933	ERDS2FJ471	1/4W 470	1	
R934-36	ERDS2FJ101	1/4W 100	3	
R937	ERDS2FJ103	1/4W 10K	1	
R938	ERDS2FJ102	1/4W 1K	1	
R939	ERDS2FJ152	1/4W 1.5K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R941,42	ERDS2FJ102	1/4W 1K	2	
R943	ERDS2FJ101	1/4W 100	1	
R944	ERDS2FJ222	1/4W 2.2K	1	
R945	ERDS2FJ101	1/4W 100	1	
R946	ERDS2FJ102	1/4W 1K	1	
R949	ERDS2FJ472	1/4W 4.7K	1	
R950	ERDS2FJ101	1/4W 100	1	
R951	ERDS2FJ334	1/4W 330K	1	
R952	ERDS2TJ106T	1/4W 10M	1	
R953	ERDS2FJ101	1/4W 100	1	
R954	ERDS2FJ104	1/4W 100K	1	
R955	ERDS2FJ824	1/4W 820K	1	
R956-58	ERDS2FJ102	1/4W 1K	3	
R959	ERDS2FJ470	1/4W 47	1	
R960	ERDS2FJ152	1/4W 1.5K	1	
R961,62	ERDS2FJ223	1/4W 22K	2	
R963,64	ERDS2FJ121	1/4W 120	2	
R965,66	ERDS2FJ392	1/4W 3.9K	2	
R967	ERDS2FJ222	1/4W 2.2K	1	
R968	ERDS2FJ105	1/4W 1M	1	
R969	ERDS2FJ272	1/4W 2.7K	1	
R975	ERDS2FJ154	1/4W 150K	1	
R976	ERDS2FJ104	1/4W 100K	1	
R984	ERDS2FJ391	1/4W 390	1	
R986	ERDS2FJ152	1/4W 1.5K	1	
R987,88	ERDS2FJ102	1/4W 1K	2	
R990	ERDS2FJ104	1/4W 100K	1	
R991	ERDS2FJ473	1/4W 47K	1	
R993	ERDS2FJ104	1/4W 100K	1	
R995	ERDS2FJ221	1/4W 220	1	
R996,97	ERDS2FJ151	1/4W 150	2	
RL602	RSY0050-0	RELAY	1	△
RL605	RSY0050-0	RELAY	1	△
RL701	RSY0030M-0	RELAY	1	△
RL702	RSY0040M-0	RELAY	1	△
S901-15	EVQ11G05R	SW,PUSH	15	
T701	RTP2N5B013	POWER TRANSFORMER	1	△
T702	RTP1H3E001	POWER TRANSFORMER	1	△
VR901	EVQVBXFK124B	V.R., VOLUME	1	
X151	RSXC4M33S02T	OSCILLATOR	1	
X901	EF0EC6004T4	OSCILLATOR	1	
X902	RSXD32K7S02	OSCILLATOR	1	
Z101	RAN0005EM-1	TUNER UNIT	1	
Z701	ERZV10V511CS	ZNR	1	△
Z901	RCDGP1U28XD	REMOTE SENSOR	1	

## 17 Cabinet Parts Location



Note : We do not supply those items of parts marked \*.

# 18 Packaging

