


Service Manual

AV Control Stereo Receiver

*  **DOLBY SURROUND**
PRO · LOGIC

SA-AX540

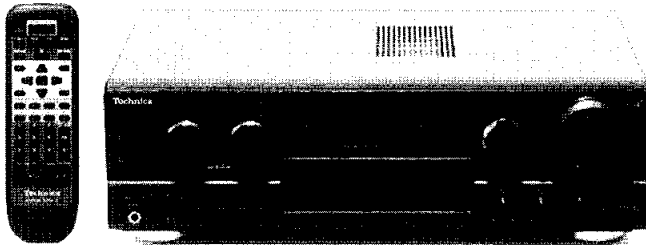
Color

(K) ... Black Type

E ... Europe

EB ... Great Britain

EG ... Germany and Italy



■ FM Tuner Section

Frequency range	87.50-108.00 MHz
Sensitivity	
S/N 30 dB	1.5 μ V, 75 Ω
S/N 26 dB	1.3 μ V, 75 Ω
S/N 20 dB	1.2 μ V, 75 Ω
IHF usable sensitivity (IHF' 58)	1.5 μ V, 75 Ω
IHF 46 dB stereo quieting sensitivity	22 μ V, 75 Ω
Total harmonic distortion	
MONO	0.2%
STEREO	0.3%
S/N	
MONO	60 dB (73 dB, IHF)
STEREO	58 dB (67 dB, IHF)
Frequency response	20 Hz-15 kHz, +1 dB, -2 dB
Alternate channel selectivity \pm 400 kHz	65 dB
Capture ratio	1.5 dB
Image rejection at 98 MHz	40 dB
IF rejection at 98 MHz	70 dB
Spurious response rejection at 98 MHz	70 dB
AM suppression	50 dB
Stereo separation	
1 kHz	40 dB
Carrier leak	
19 kHz	-30 dB (-35 dB, IHF)
38 kHz	-50 dB (-55 dB, IHF)
Channel balance (250 Hz - 6.3 kHz)	\pm 1.5 dB
Limiting point	1.2 μ V
Bandwidth	

IF amplifier	180 kHz
FM demodulator	1000 kHz
Antenna terminal	75 Ω (unbalanced)

■ AM Tuner Section

Frequency range	522-1611 kHz (9 kHz steps) 530-1620 kHz (10 kHz steps)
Sensitivity	20 μ V, 330 μ V/m
Selectivity (at 999 kHz)	55 dB
IF rejection (at 999 kHz)	50 dB

■ Video Section

Output voltage at 1 V input (unbalanced)	1 \pm 0.1 Vp-p
Maximum input voltage	1.5 Vp-p
Input/output impedance	75 Ω (unbalanced)

■ Amplifier Section

Power output (at 240 V)	
DIN 1 kHz (T.H.D. 1%)	2 x 85 W (6 Ω)
40 Hz-20 kHz continuous power output	
both channels driven	2 x 65 W (6 Ω)
Total harmonic distortion	
rated power at 40 Hz-20 kHz	0.8% (6 Ω)
half power at 1 kHz	0.07% (6 Ω)
Power output at 1 kHz each channel driven 1% total harmonic distortion	
Front	2 x 85 W (6 Ω)
Center	85 W (6 Ω)
Surround	2 x 85 W (6 Ω)
Power bandwidth	

Technics[®]

© 2000 Matsushita Electronics (S) Pte. Ltd. All rights reserved. Unauthorized copying and distribution is a violation of law.

both channels driven, -3 dB	10 Hz-40 kHz (6 Ω)	TAPE REC (OUT), VCR OUT	200 mV
Damping factor	30 (6 Ω)	Channel balance (250 Hz - 6.3 kHz)	±1 dB
Load impedance		Channel separation	55 dB
Front		Headphones output level and impedance	430 mV/330 Ω
A or B	4 - 16 Ω	Subwoofer frequency response	7 - 100 Hz, ±3 dB
A and B	8 - 16 Ω		
Center	6 - 16 Ω	■ General	
Surround	6 - 16 Ω	Power supply	AC 230 - 240 V, 50 Hz
Frequency response			(For E/EB only)
PHONO	RIAA standard curve (30 Hz - 15 kHz) ±0.8 dB		AC 230 V, 50 Hz
			(For EG only)
CD, TAPE/MD, DVD, TV, VCR	10 Hz-40 kHz, ±3 dB	Power consumption	300 W
Input sensitivity and impedance		Dimensions (W x H x D)	430 x 136 x 320.6 mm
PHONO	3 mV/47 kΩ	Mass	9.2 kg
CD, TAPE/MD, DVD, TV, VCR	200 mV/22 kΩ	Power consumption in standby mode:	2 W
S/N at rated power (6 Ω)		Notes:	
PHONO	70 dB (IHF, A:80 dB)	1. Specifications are subject to change without notice.	
CD, TAPE/MD, DVD, TV, VCR	75 dB (IHF, A:85 dB)	Mass and dimensions are approximate.	
Tone controls		2. Total harmonic distortion is measured by the digital spectrum analyzer.	
BASS	50 Hz, +10 to -10 dB		
TREBLE	20 kHz, +10 to -10 dB	* Manufactured under license from Dolby Laboratories. "Dolby", "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.	
Output voltage			

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
1 Before Repair and Adjustment	3	7 Type Illustrations of ICs, Transistors & Diodes	12
2 Protection Circuitry	3	8 Terminal Functions of ICs	13
3 Accessories	3	9 Block Diagram	14
4 Caution for AC Mains Lead	4	10 Schematic Diagram	18
5 Operation Procedures	5	11 Printed Circuit Board	31
6 Operation Checks and Main Component Replacement Procedures	7	12 Wiring Connection Diagram	38
		13 Parts Location and Replacement Parts List	39

1 Before Repair and Adjustment

Disconnect AC power, discharge Power Supply Capacitors C753, C755, C757 through a 10 Ω , 5 W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screw driver blade, for instance), as this may destroy solid state devices.

After repairs are completed, restore power gradually using a variac, to avoid over current.

Current consumption at AC 230 V, 50 Hz in NO SIGNAL mode should be 250 mA~450 mA. (For E/EG)

Current consumption at AC 230 V, 240 V, 50 Hz in NO SIGNAL mode should be 250 mA~450 mA. (For EB)

2 Protection Circuitry

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

- No sound is heard when the power is turned on.
- Stops during a performance.

The function 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 the amplifier are used.

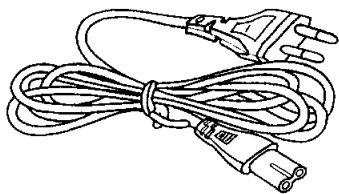
If this occurs, follow the procedure outlines below:

1. Turn off the power.
2. Determine the cause of the problem and correct it.
3. Turn on the power once again after one minute.

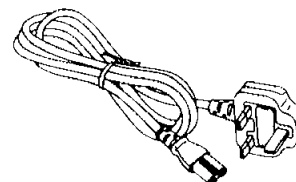
Note:

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

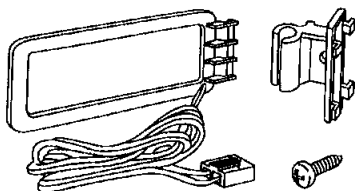
3 Accessories



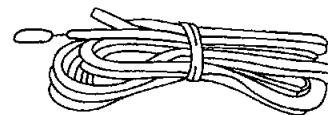
AC power supply cord (E/EG)... 1 pc.



AC power supply cord (EB)
... 1 pc.



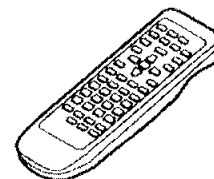
AM Loop Antenna Set
... 1 set.



FM Indoor Antenna... 1 pc.



Attachment
plug (EB)...
1 set.



Remote Control
Transmitter... 1 pc.

4 Caution for AC Mains Lead



(For "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 OFF 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

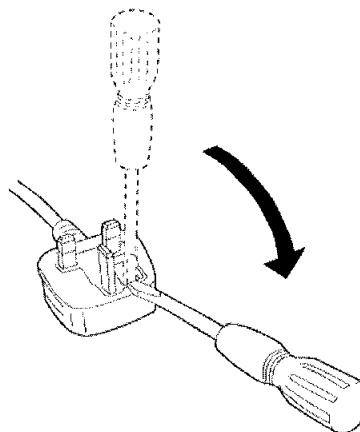
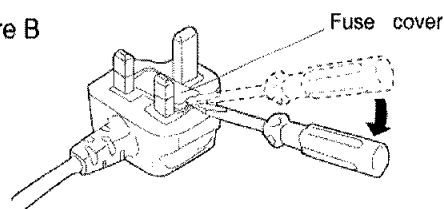


Figure B



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

Figure A

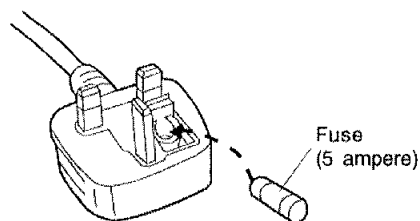
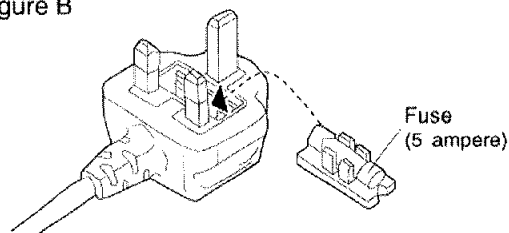
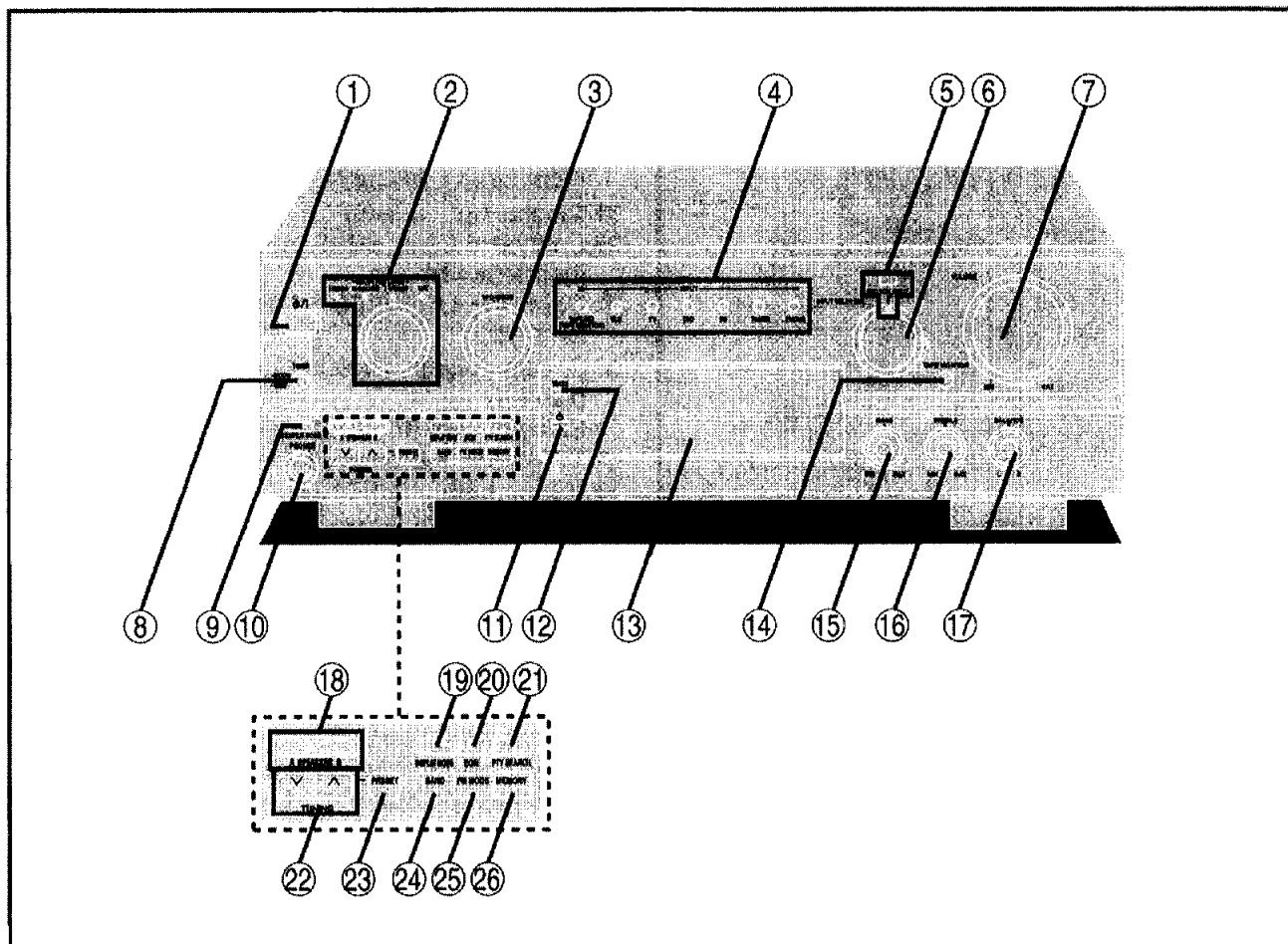


Figure B



5 Operation Procedures

5.1. Front Panel



Main unit

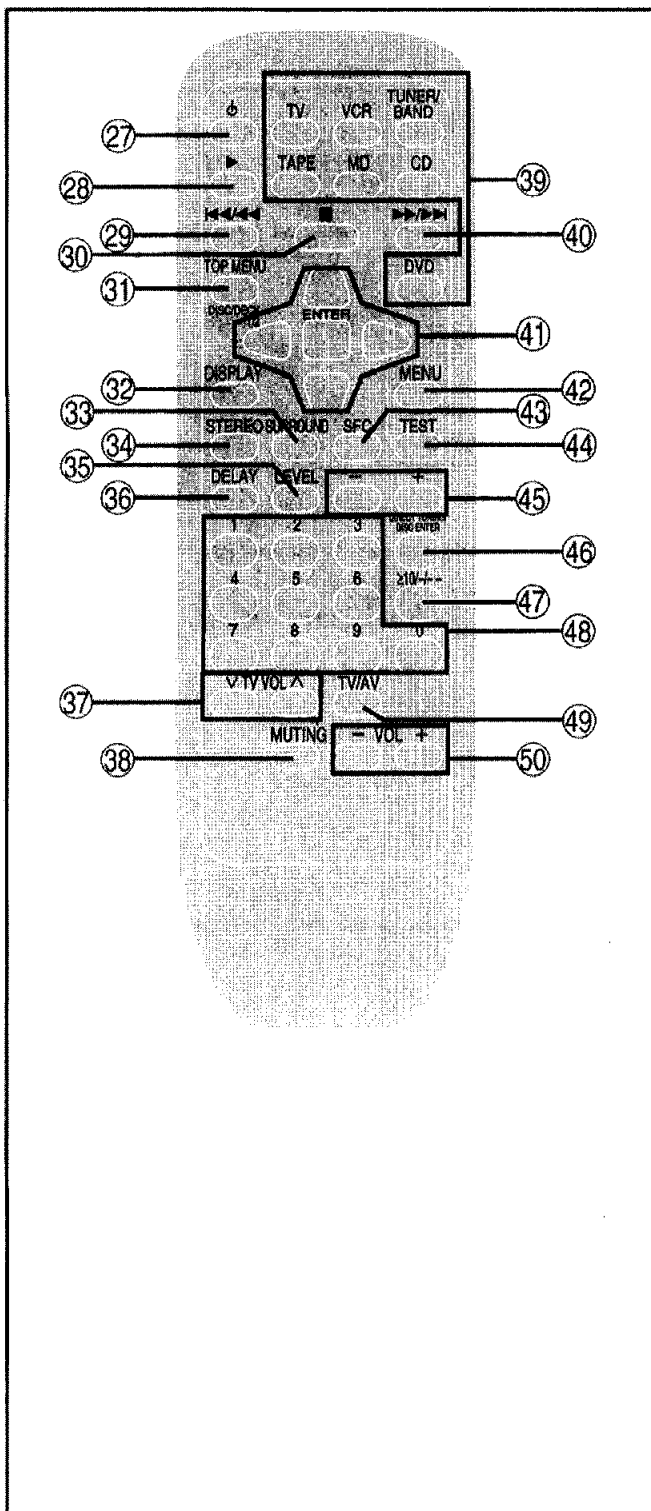
No.	Name
-----	------

- 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 **Sound mode selector/indicators**
- ③ **PTY selector (PTY SELECTOR)**
- ④ **Input indicators (INPUT)**
- ⑤ **DVD 6ch input select button/indicator (DVD 6CH INPUT)**
- ⑥ **Input selector (INPUT SELECTOR)**
- ⑦ **Volume control (VOLUME)**
- ⑧ **Timer button (TIMER, -MODE, -TIME)**
- ⑨ **Center mode select button (CENTER MODE)**
- ⑩ **Headphones jack (PHONES)**
- ⑪ **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.

No.	Name
-----	------

- ⑫ **Wake time indicator (WAKE)**
- ⑬ **Display**
- ⑭ **Tape monitor button (TAPE MONITOR)**
- ⑮ **Bass control (BASS)**
- ⑯ **Treble control (TREBLE)**
- ⑰ **Balance control (BALANCE)**
- ⑱ **Speaker select buttons (SPEAKERS A, B)**
- ⑲ **RDS display mode select button (DISPLAY MODE)**
- ⑳ **EON button (EON)**
- ㉑ **PTY search button (PTY SEARCH)**
- ㉒ **Tuning buttons (TUNING ∇, ▲)**
- ㉓ **Preset channel button (PRESET)**
- ㉔ **Band select button (BAND)**
- ㉕ **FM mode select button (FM MODE)**
- ㉖ **Memory button (MEMORY)**

5.2. Remote Control



No.	Name
27	Standby/on button (⏻)
28	▶ button (▶)
29	◀◀/◀◀ button (◀◀/◀◀)
30	■ button (■)
31	Top menu, disc/deck 1/2 select button (TOP MENU, DISC/DECK 1/2)
32	Display button (DISPLAY)
33	Dolby Pro Logic SURROUND select button (SURROUND)
34	Dolby Pro Logic/SFC off button (STEREO)
35	Speaker channel select button (LEVEL)
36	Delay time button (DELAY)
37	TV volume buttons (∇TV VOL∧)
38	Muting button (MUTING)
39	Input select buttons (TV, VCR, TAPE, MD, CD, TUNER/BAND, DVD)
40	▶▶/▶▶ button (▶▶/▶▶)
41	Cursor/enter buttons
42	Menu button (MENU)
43	SFC mode select button (SFC)
44	Test button (TEST)
45	Delay time/level adjust buttons (-, +)
46	Direct tuning/disc enter button (DIRECT TUNING/DISC ENTER)
47	≥10/-/-- button (≥10/-/--)
48	Numbered buttons
49	TV/AV select button (TV/AV)
50	Volume buttons (- VOL +)

6 Operation Checks and Main Component Replacement Procedures

“ATTENTION SERVICER”

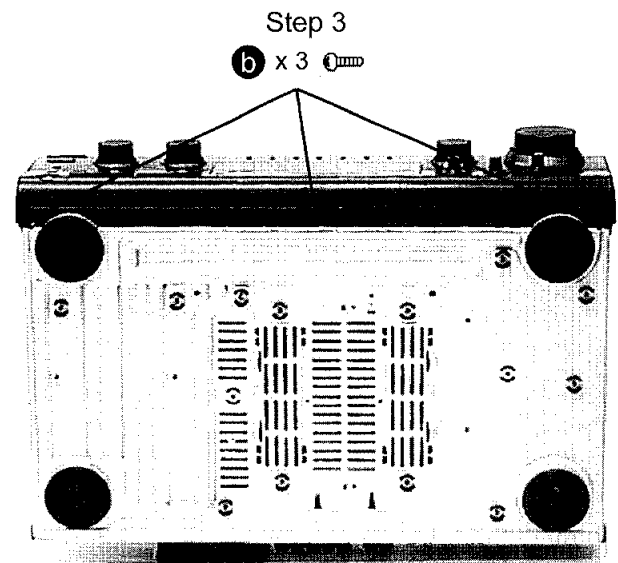
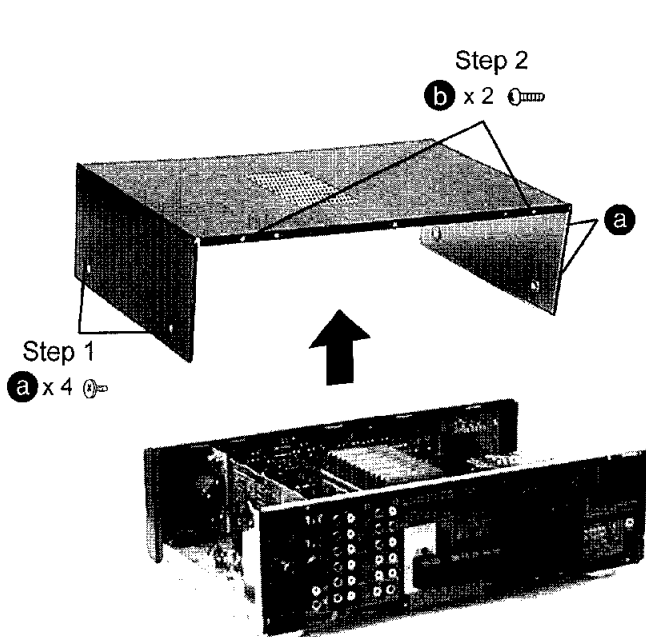
Some chassis components maybe have sharp edges. Be careful when disassembling and servicing.

1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.
Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.

Content

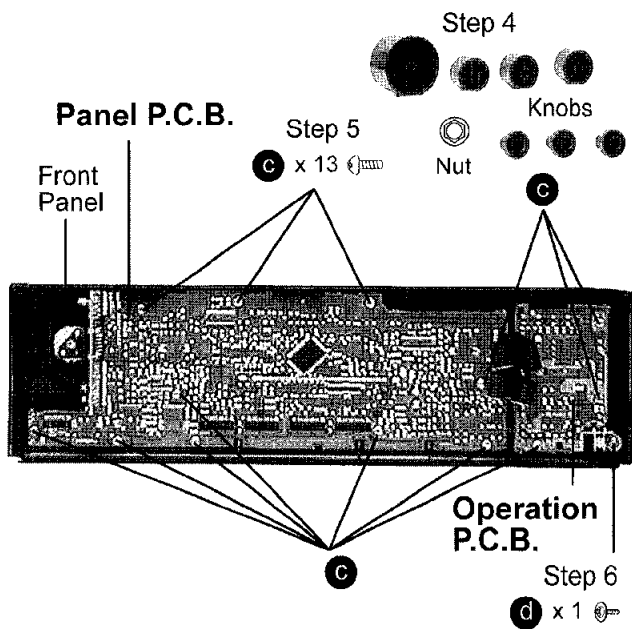
- **Checking Procedure for each major P.C.B.**..... P.g. 7~9
- **Main Component Replacement Procedures**
 1. Replacement of the Power IC and Regulator Transistor..... P.g. 9~10
 2. Installation of the bottom cover after replacement..... P.g. 11

6.1. Checking Procedure for each major P.C.B.

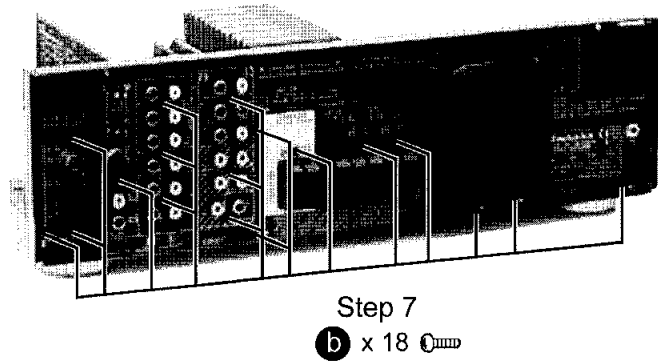


Step 3 Remove all the screws.

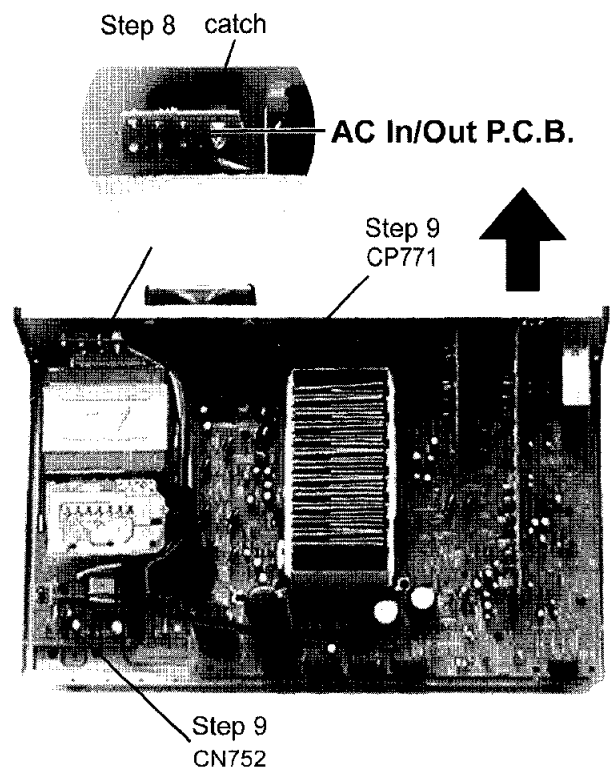
Step 1 & Step 2 Unscrew and remove top cabinet as shown.



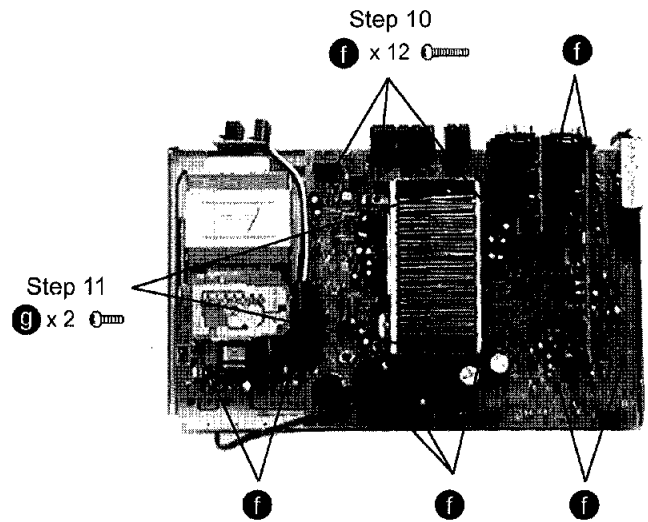
Step 4 Remove all knobs and nuts from Front Panel.
Step 5 & Step 6 Remove all the screws.



Step 7 Remove all the screws.

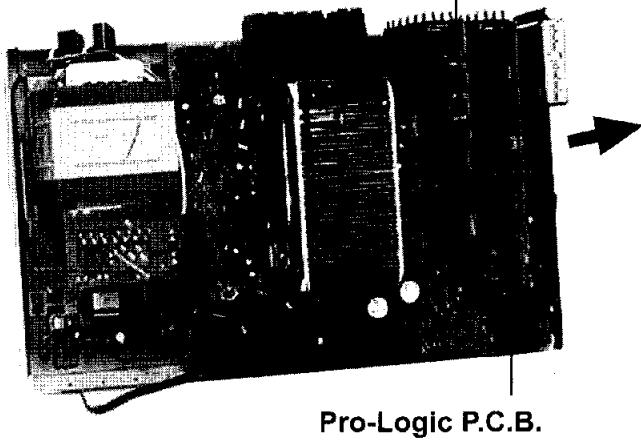


Step 8 Release the AC In/Out P.C.B. catch and the fan motor connector, then pull out the rear panel in the direction of arrow.
Step 9 Release the connectors CN752 and CP771.



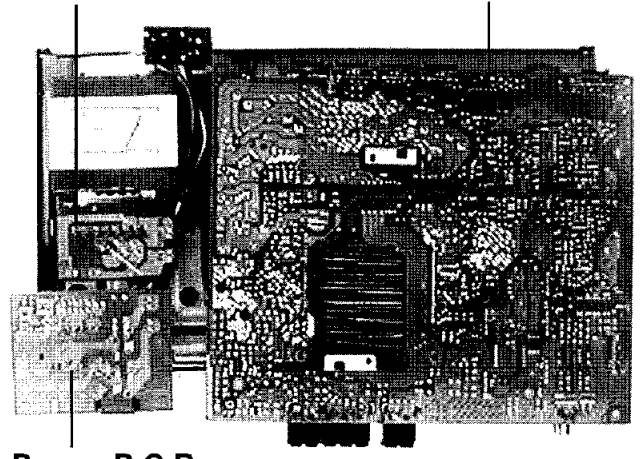
Step 10 & Step 11 Remove the screws.

Step 12
AC-3 P.C.B.



Pro-Logic P.C.B.

Step 13
Transformer P.C.B.



Main P.C.B.

Power P.C.B.

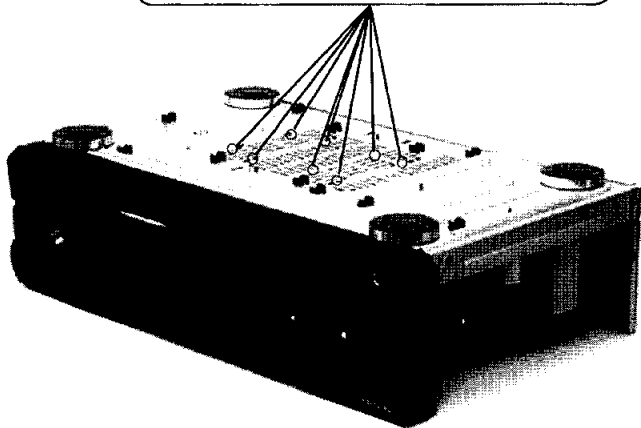
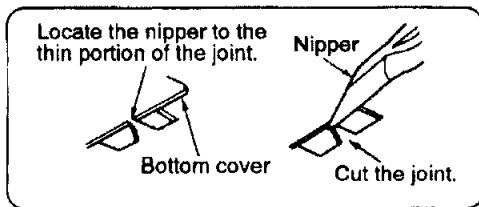
Step 12 Pull out AC-3 P.C.B. and Pro-Logic P.C.B..

6.2. Main Component Replacement Procedures

6.2.1. Replacement of the Power IC and Regulator Transistor

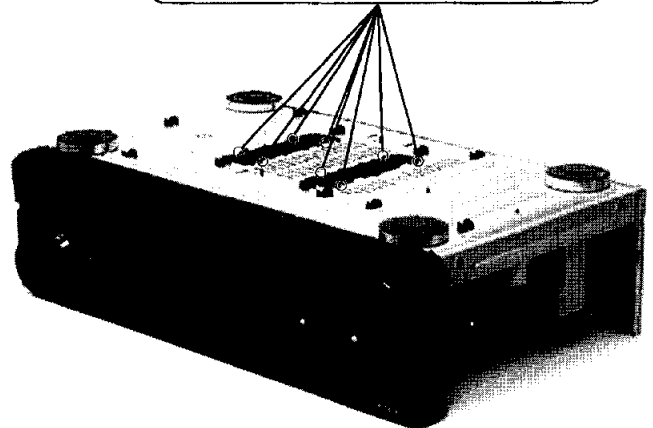
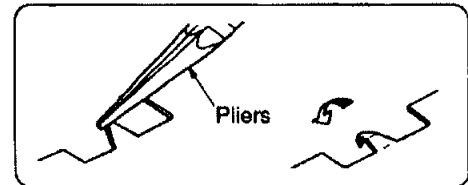
Step 1 Remove the top cabinet.

Step 2



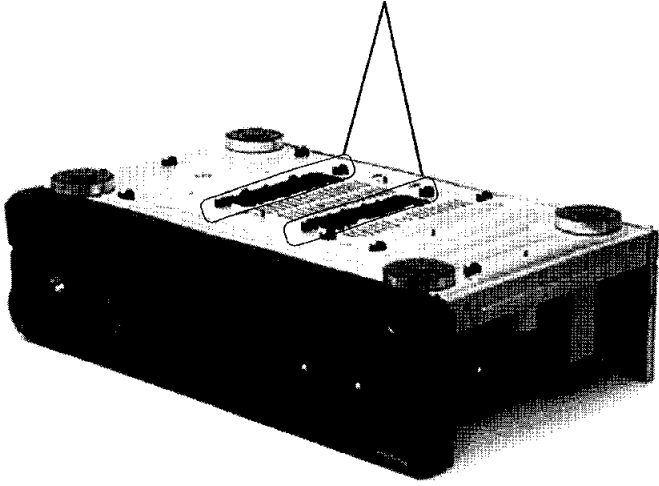
Step 2 Cut the joints as shown below. (8 joints)

Step 3



Step 3 Fold the joints. (8 joints)

Step 4

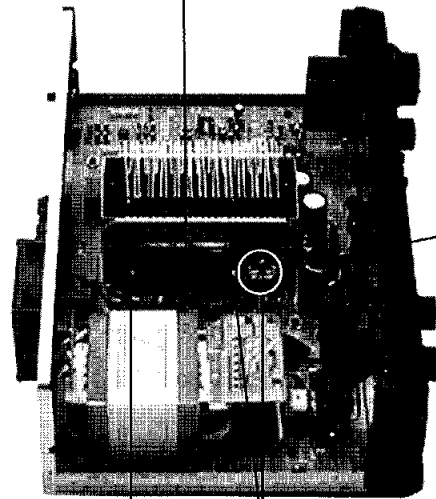


Step 4 Desolder the terminals of Power IC and Regulator Transistor.

Step 5 Remove all the screws at the rear panel and pull out Tuner Pack, Pro-Logic P.C.B. and AC-3 P.C.B. from the Main P.C.B..

Power IC

Regulator transistor



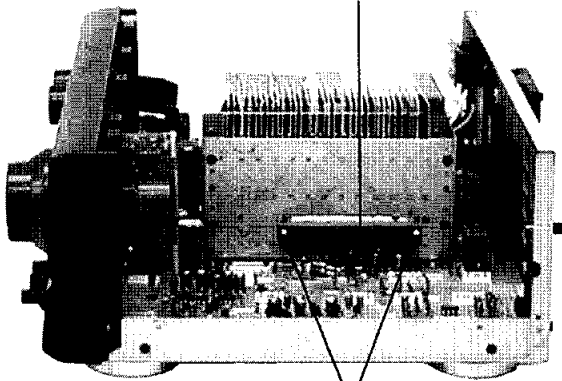
Step 6

g x 3

Step 6 Remove all the screws.

● The PROTO Offset Screwdriver No.34-1/4 is recommended for use in the application above.

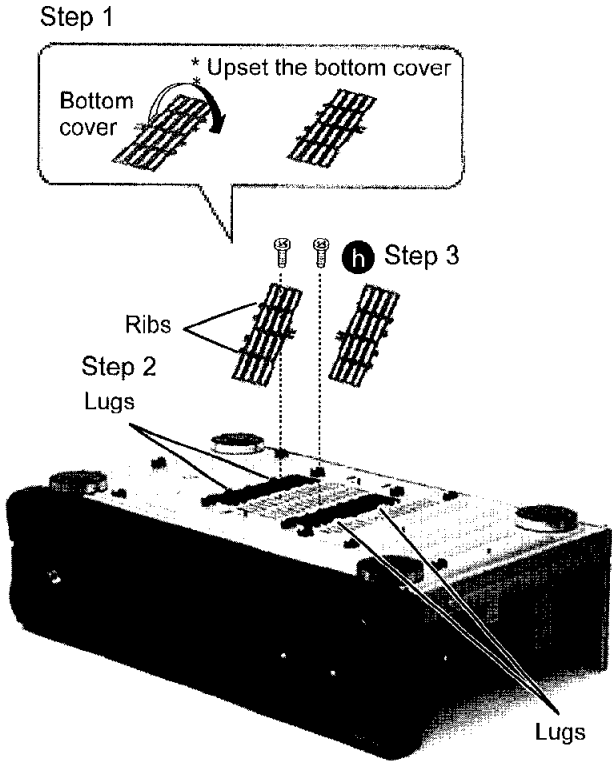
Power IC



Step 5

g x 2

6.2.2. Installation of the bottom cover after replacement

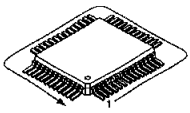
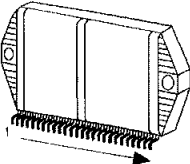
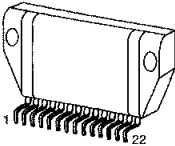
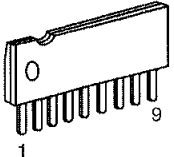
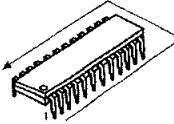
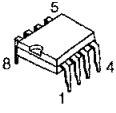
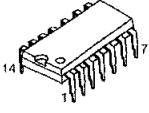
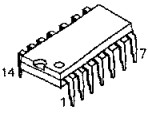
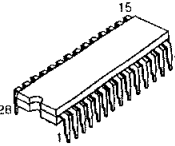
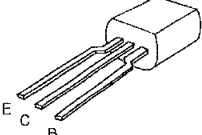
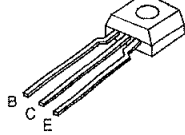
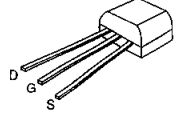
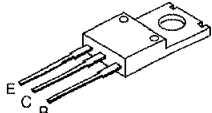
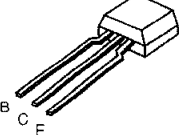
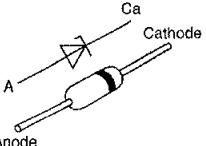
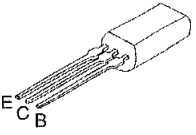
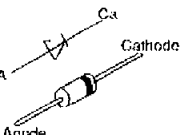
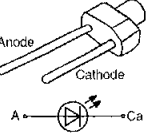
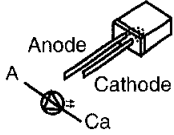


Step 1 Upset the bottom cover.

Step 2 Align the ribs of bottom cover into the lugs.

Step 3 Prepare the screws to fix the bottom cover.

7 Type Illustrations of ICs, Transistors & Diodes

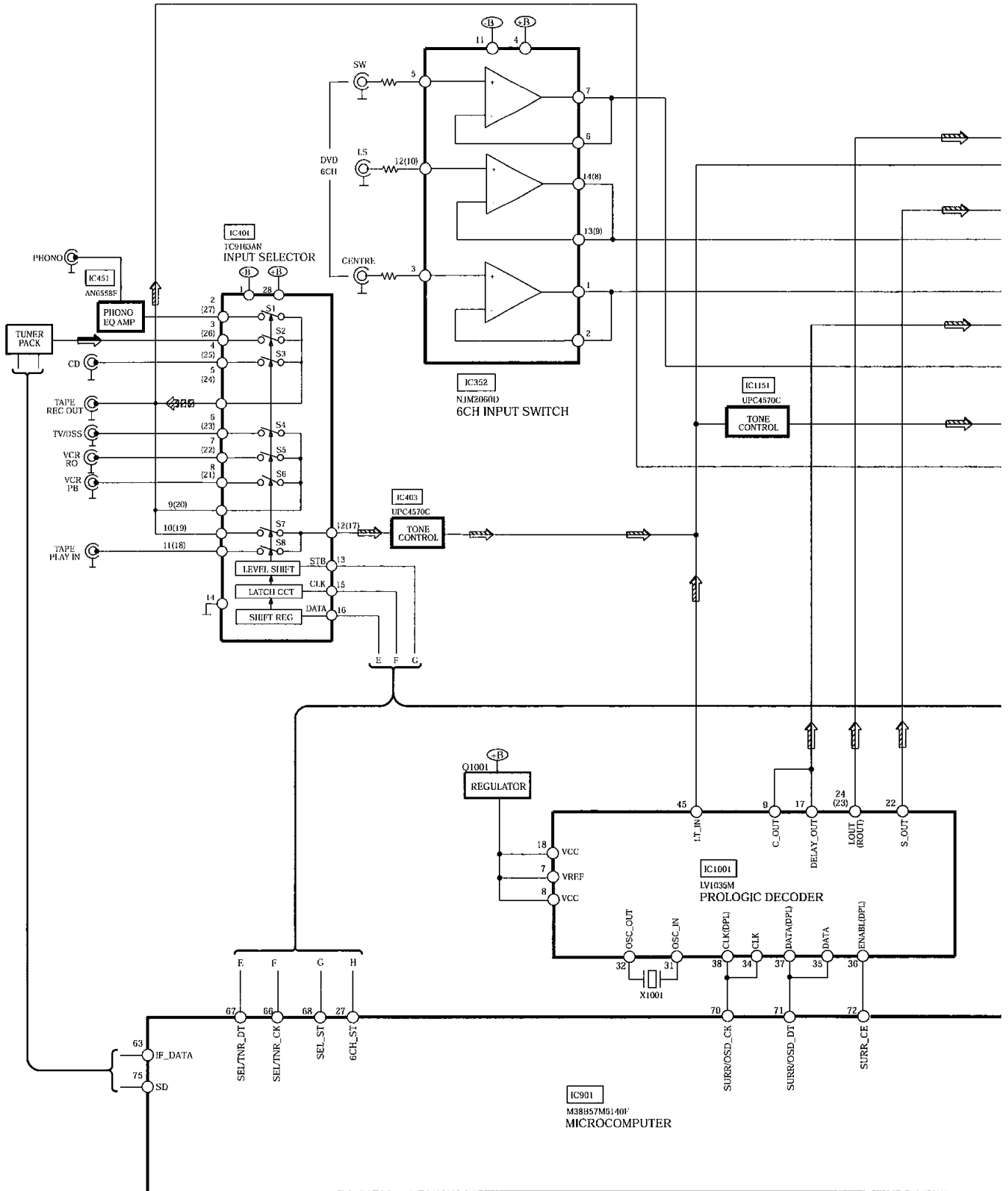
<p>M38B57M6140F (80P) LV1035M (64P)</p> 	<p>RSN310R36-P (24P)</p> 	<p>RSN313H25-P (22P)</p> 	<p>BA6218</p> 	<p>LC72720N (24P)</p> 	<p>AN6558F UPC4570C</p> 
<p>BU2090A</p> 	<p>NJM2060D NJM2279D NJM4580DD</p> 	<p>TC9162AN TC9163AN</p> 	<p>2SB621AQSTA 2SD592AQSTA</p> 	<p>2SD1915FTA</p> 	<p>2SK2880CTA</p> 
<p>2SB1548PQAU 2SD2374PQAU</p> 	<p>2SA933SSTA 2SA933SQRSTA 2SC1740SQSTA RVTDTA113ZST RVTDTA114EST RVTDTA143XST RVTDTA114YST RVTDTA143ZST</p>	<p>RVTDTA114YST</p> 	<p>MTZJ10CTA MTZJ27DTA MTZJ3R3ATA MTZJ3R9ATA MTZJ4R7BTA MTZJ5R6BTA MTZJ6R2BTA MTZJ6R8BTA</p>	<p>MTZJ7R5CTA MTZJ8R2CTA MTZJ16CTA 1SS291TA RVD1SS133TA MA700ATA 1SR35400TB</p>	
<p>2SA1534AQRTA 2SC3940AQSTA</p> 	<p>1N5402BM21 RK306LFU1 MA167ATA</p> 	<p>SLR325MCT31 SLR325VCT31</p> 	<p>LN446YPH LN846RPH</p> 		

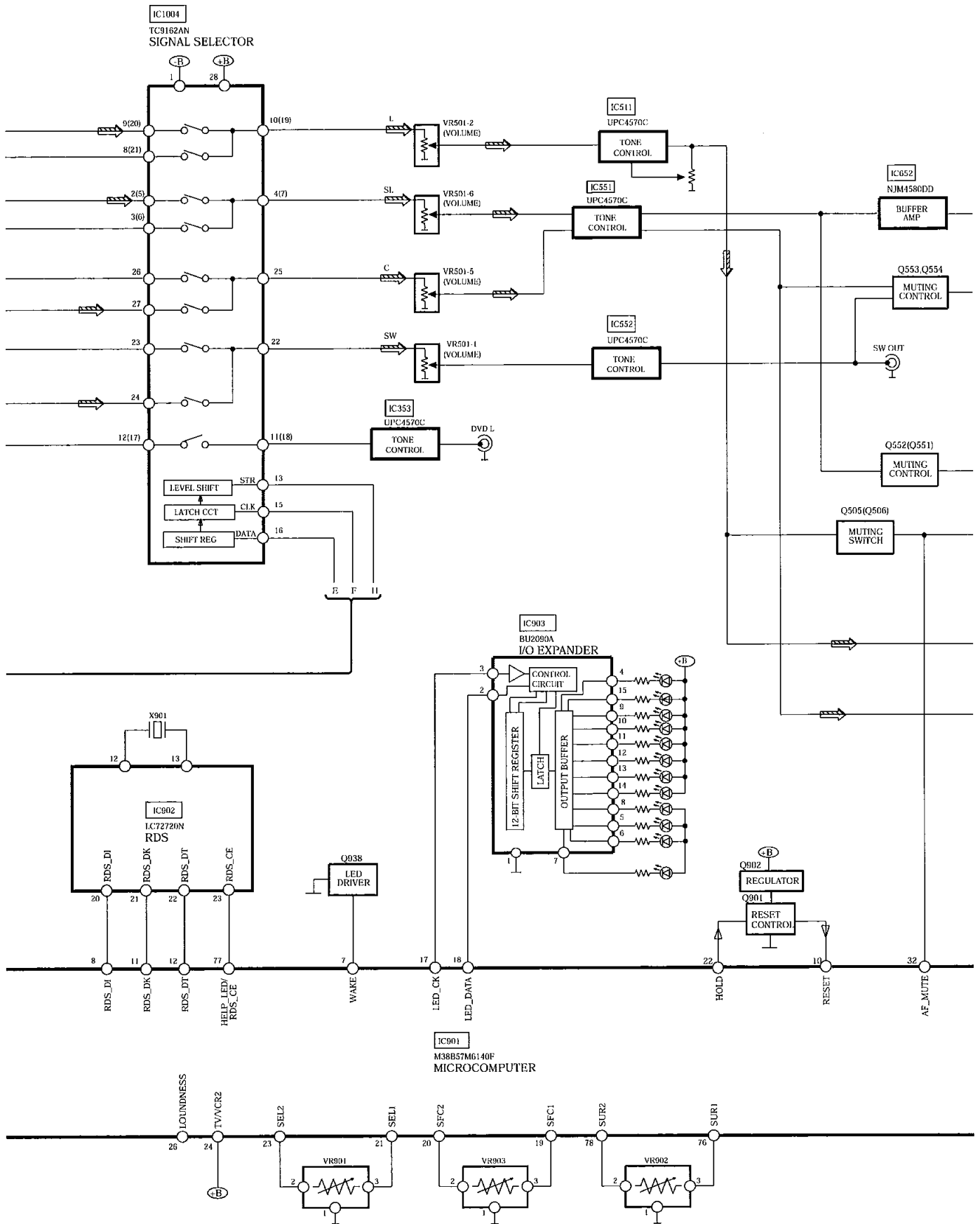
8 Terminal Functions of ICs

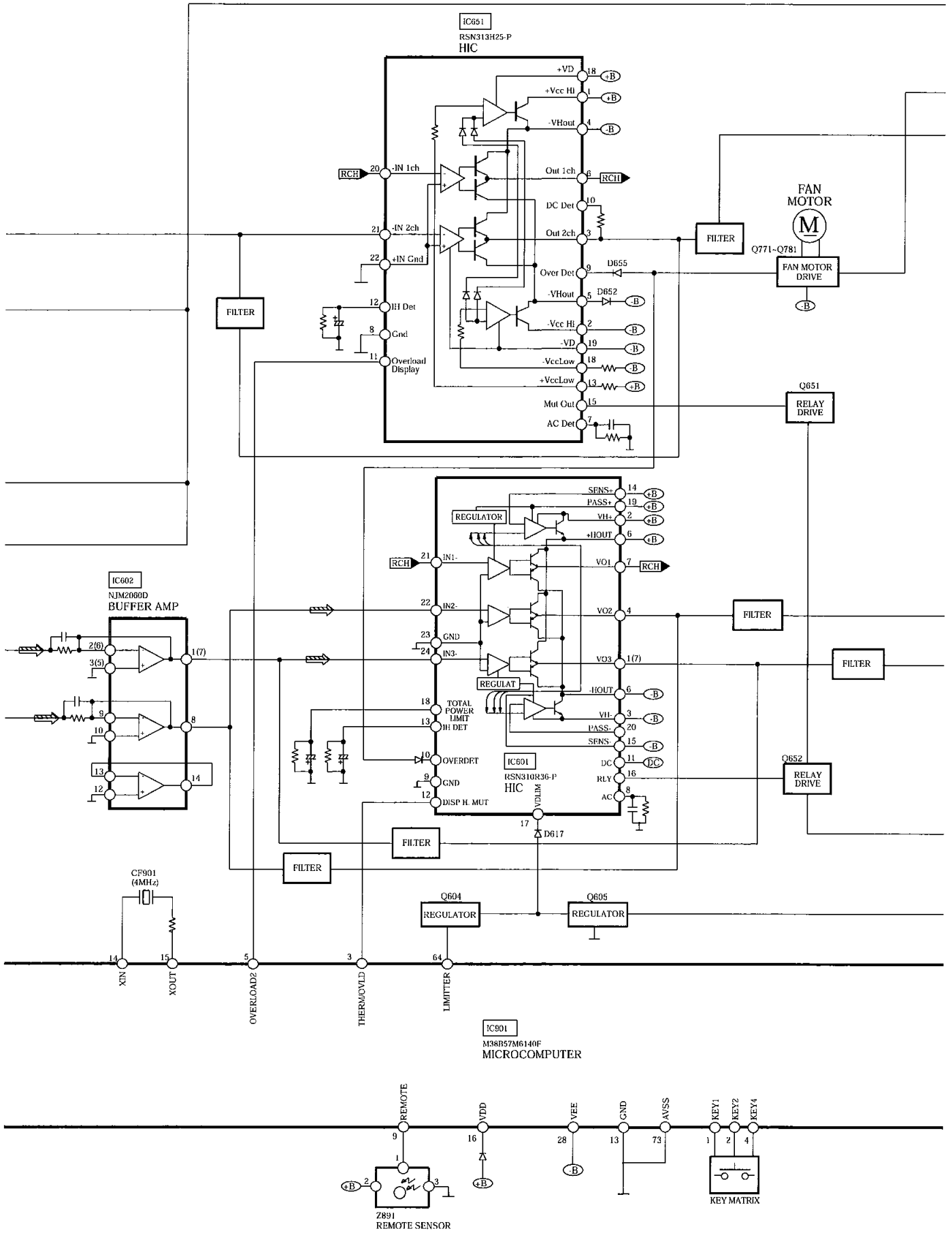
• IC901 (M38B57M6140F)

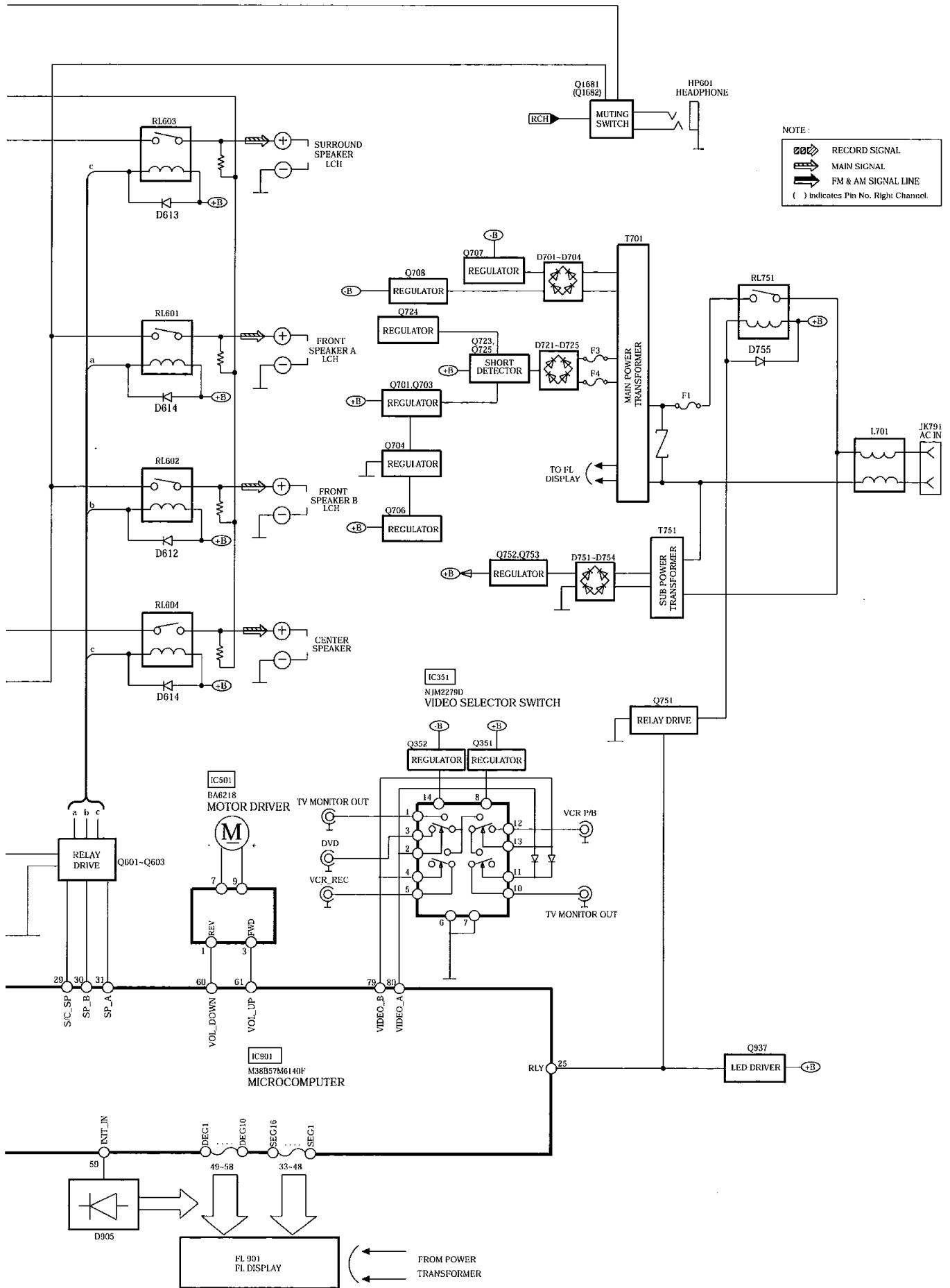
Pin No.	Mark	I/O	Function
1~2	KEY2~KEY1	I	Key Input 2~1
3	THERM/OVLD	I	Thermal/Over load input 1
4	KEY 4	I	Key Input 4
5	OVERLOAD2	I	Thermal/Over load input 2
6	FMST	I	Stereo signal detect terminal
7	WAKE	-	N.C.
8	RDS_DI	-	N.C.
9	REMOTE	I	Remote control terminal
10	RESET	-	Reset detect terminal
11	RDS_CK	-	N.C.
12	RDS_DT	-	N.C.
13	GND	-	GND terminal
14	XIN	I	Crystal oscillator terminal input (4 MHz)
15	XOUT	O	Crystal oscillator terminal output (4 MHz)
16	VDD	-	Power supply terminal +5V
17	LED_CK	O	LED driver IC (CK) clock signal
18	LED_DATA	O	LED driver IC (DT) clock signal
19	SFC1	I	SFC mode encoder input 1
20	SFC2	I	SFC mode encoder input 2
21	SEL1	I	Selector encoder for input 1
22	HOLD	I	Blackout detection terminal
23	SEL2	I	Selector encoder for input 2
24	TV/VCR2	I	TV-VCR2 control input
25	RLY	-	Relay control output
26	LOUDNESS	-	N.C.
27	6CH_ST	O	6CH control output (ST)
28	Vee	-	Power supply for FL driver
29	S/C_SP	O	Surround/Center speaker control output
30	SP_B	O	Speaker B control output
31	SP_A	O	Speaker A control output
32	AF_MUTE	O	Muting control output
33~48	SEG16~ SEG1	O	FL segment signal output
49~58	DEG1~ DEG10	O	FL digit signal output
59	INIT_IN	I	Diode Input initial settings
60	VOL_DOWN	O	Volume control output (Down)
61	VOL_UP	O	Volume control output (Up)
62	REC_MUTE	O	Record mute control
63	IF_DATA	I	Serial data signal
64	LIMMITER	O	Power limiter control output
65	TNR_CE	O	Tuner control (CE) chip enable signal
66	SEL/TNR_CK	O	Selector/Tuner (CK) clock signal
67	SEL/TNR_DT	O	Selector/Tuner (DT) data signal
68	SEL_ST	O	Selector control terminal
69	MMD	O	MMD control terminal
70	SURR/OSD_CK	O	Surround control (CK) clock signal
71	SURR/OSD_DT	O	Surround control (DT) data signal
72	SURR_CE	O	Surround control (CE) chip enable signal
73	AVSS	-	GND for A-D converter
74	VREF	-	Reference voltage for A-D converter
75	SD	I	SD signal detect input
76	SUR1	I	Encoder of surround mode selector input 1
77	HELP_LED/RDS_CE	O	Help LED control output
78	SUR2	I	Encoder of surround mode selector input 2
79	VIDEO_B	O	Video selector control output B
80	VIDEO_A	O	Video selector control output A

9 Block Diagram









10 Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology.)

Notes:

S946	Power Switch
S948	Tape Switch
S950	FM Mode Switch
S951	Band Switch
S952	Tuning Down Switch
S953	Tuning Up Switch
S955	Memory Switch
S956	Tape Mode Switch
S958	CD Mode Switch
S970	Search Switch
S971	EON Switch
S974	Display Switch
S976	6CH Switch
S980	Help Switch
S985	Speaker A Switch
S986	Speaker B Switch

- The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis. Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

< > ...FM
() ...AM

• Importance safety notice:

Components identified by \triangle 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.

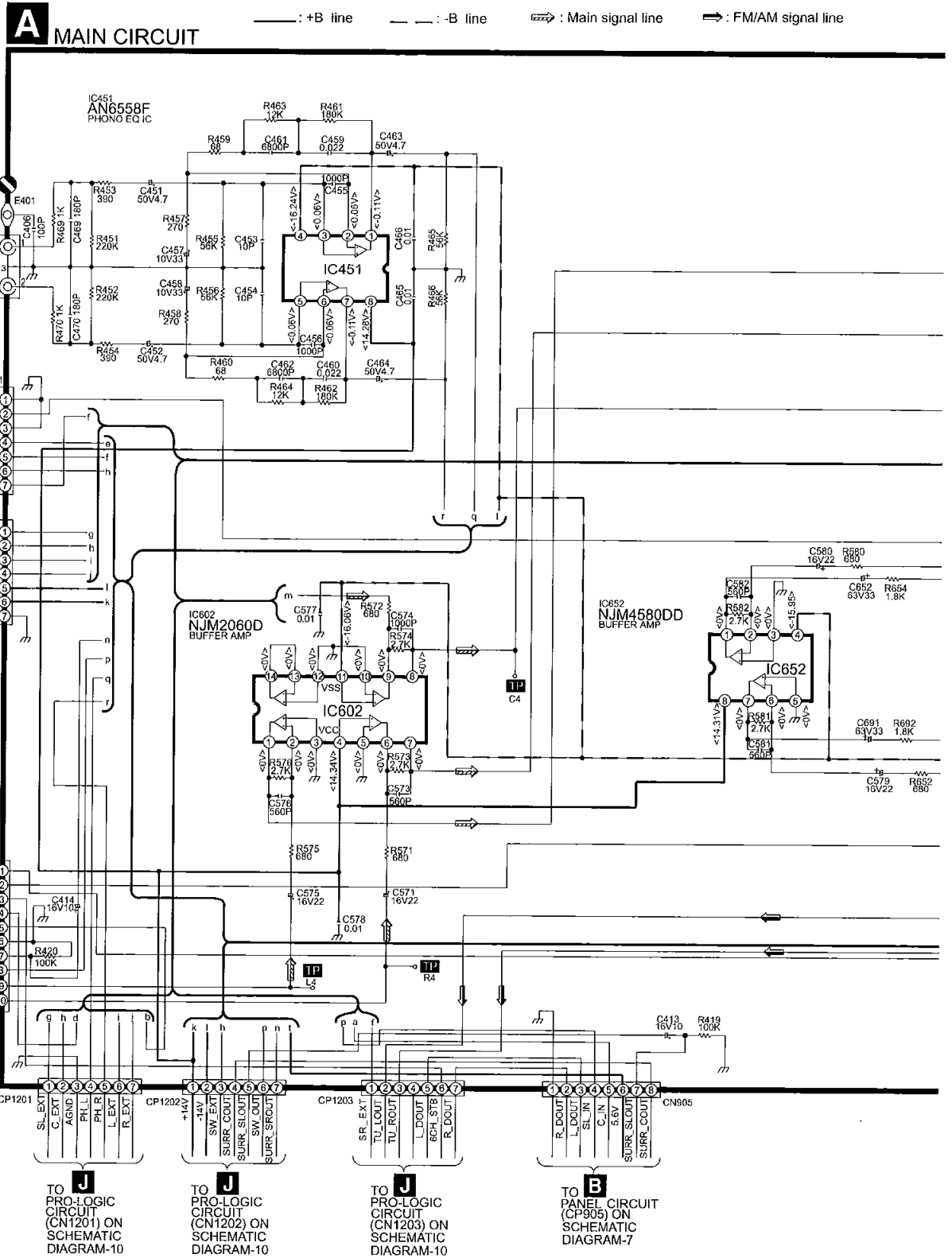
Caution!

IC, LSI and VLSI are sensitive to static electricity.

Secondary trouble can be prevented by taking care during repair.

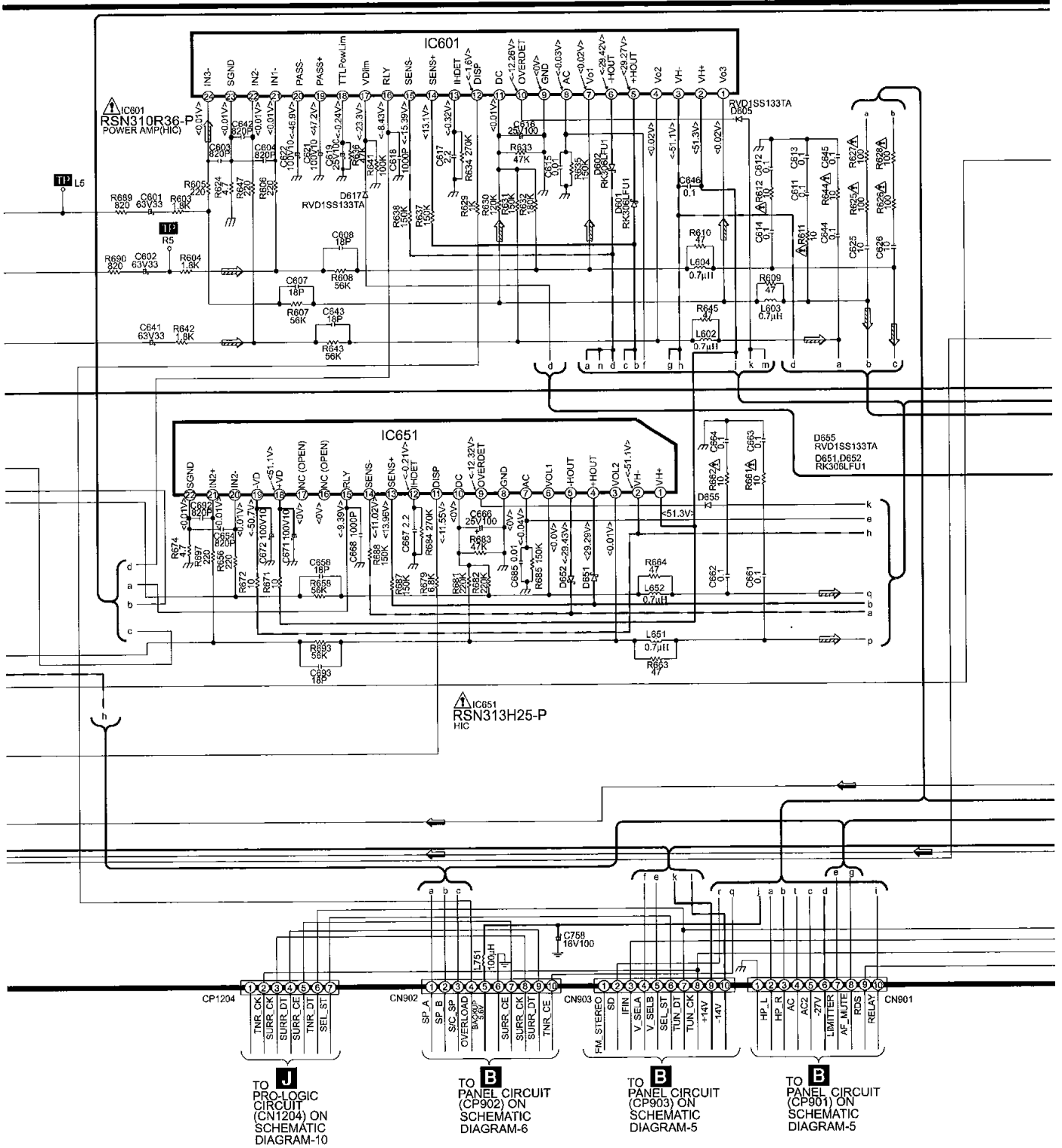
- Cover the parts boxes made of plastics with aluminium foil.
- Put a conductive mat on the work table.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.

SCHEMATIC DIAGRAM-1



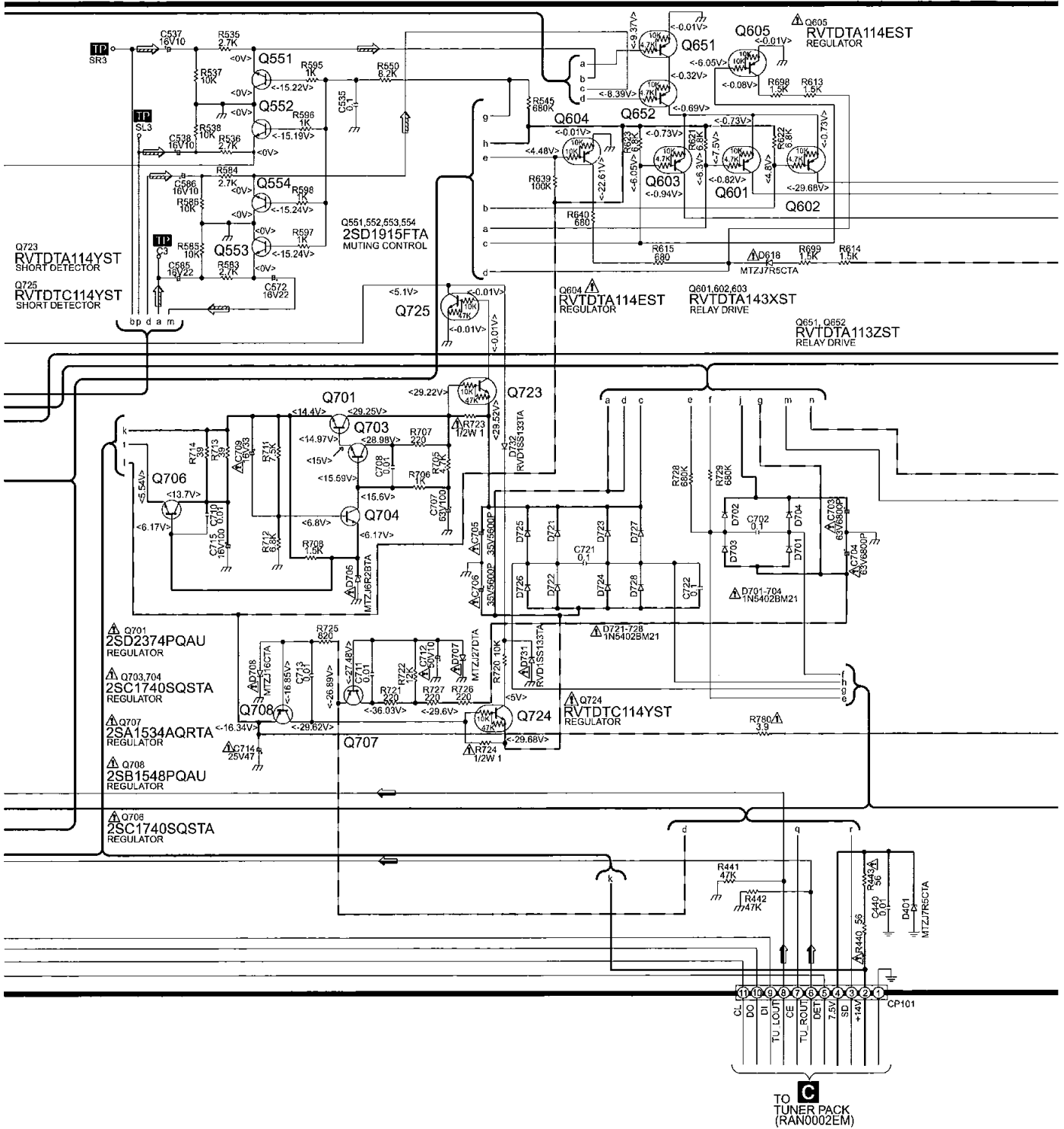
SCHEMATIC DIAGRAM-2

— : +B line - - - : -B line ⇨ : Main signal line ⇨ : FM/AM signal line



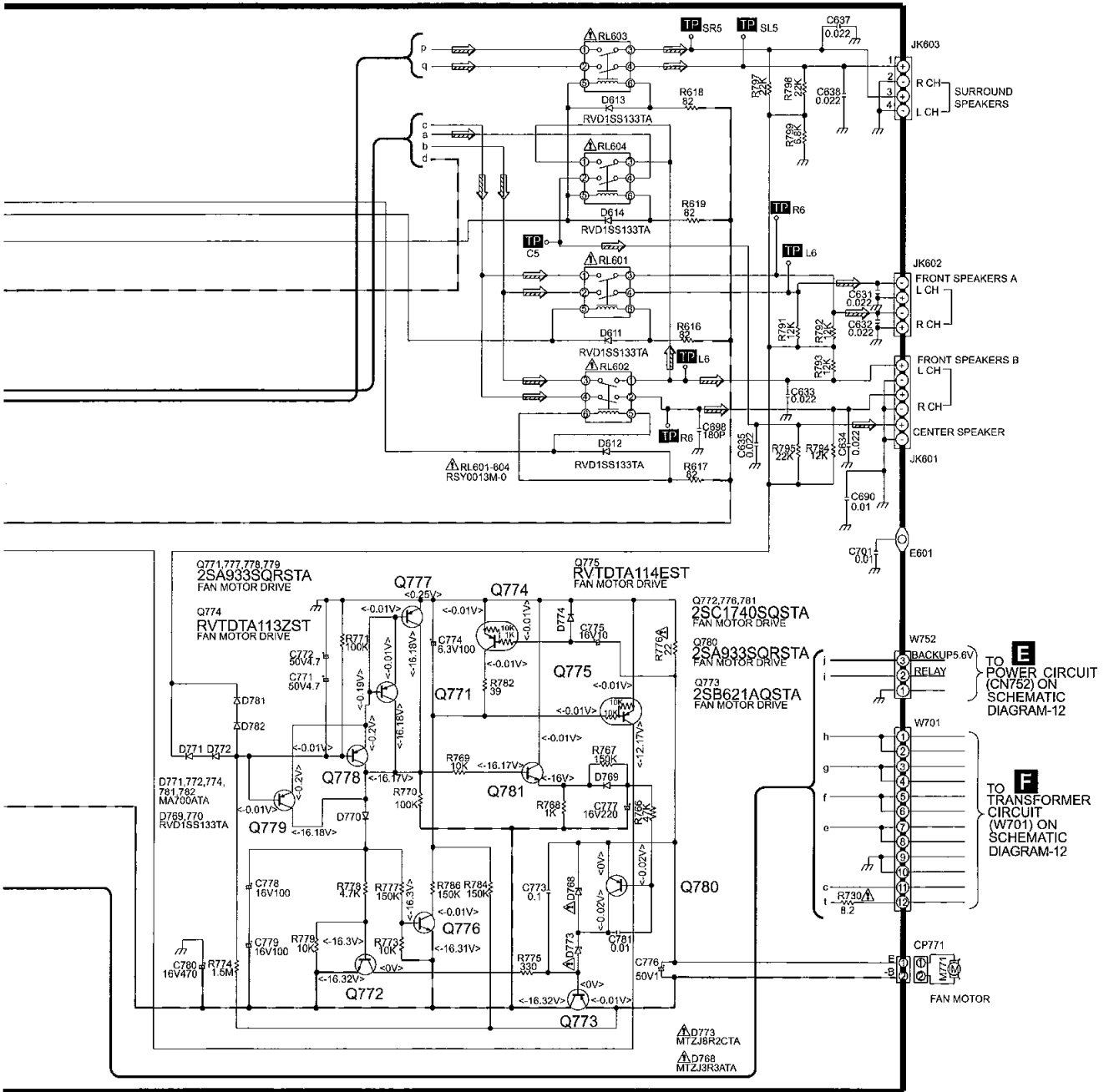
SCHEMATIC DIAGRAM-3

— : +B line - - - : -B line ⇨ : Main signal line ⇨ : FM/AM signal line



SCHEMATIC DIAGRAM-4

— : +B line - - - : -B line ⇨ : Main signal line



SCHEMATIC DIAGRAM-5

: +B Line

- - - - - : -B Line

⇒ : Main Signal Line

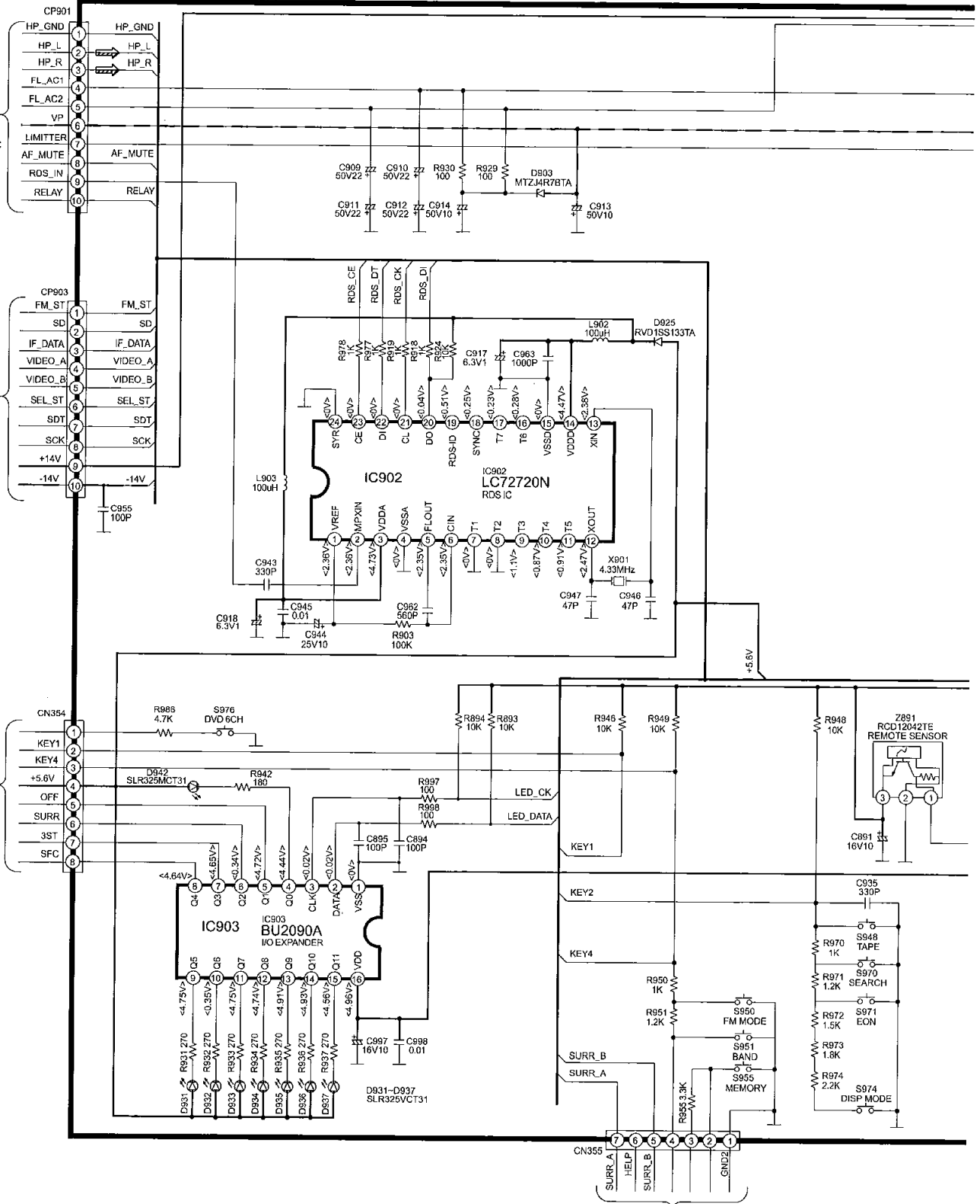
B PANEL CIRCUIT

TO MAIN CIRCUIT (CN901) ON SCHEMATIC DIAGRAM-2

TO MAIN CIRCUIT (CN903) ON SCHEMATIC DIAGRAM-2

TO OPERATION CIRCUIT (W354) ON SCHEMATIC DIAGRAM-11

TO OPERATION CIRCUIT (W355) ON SCHEMATIC DIAGRAM-11

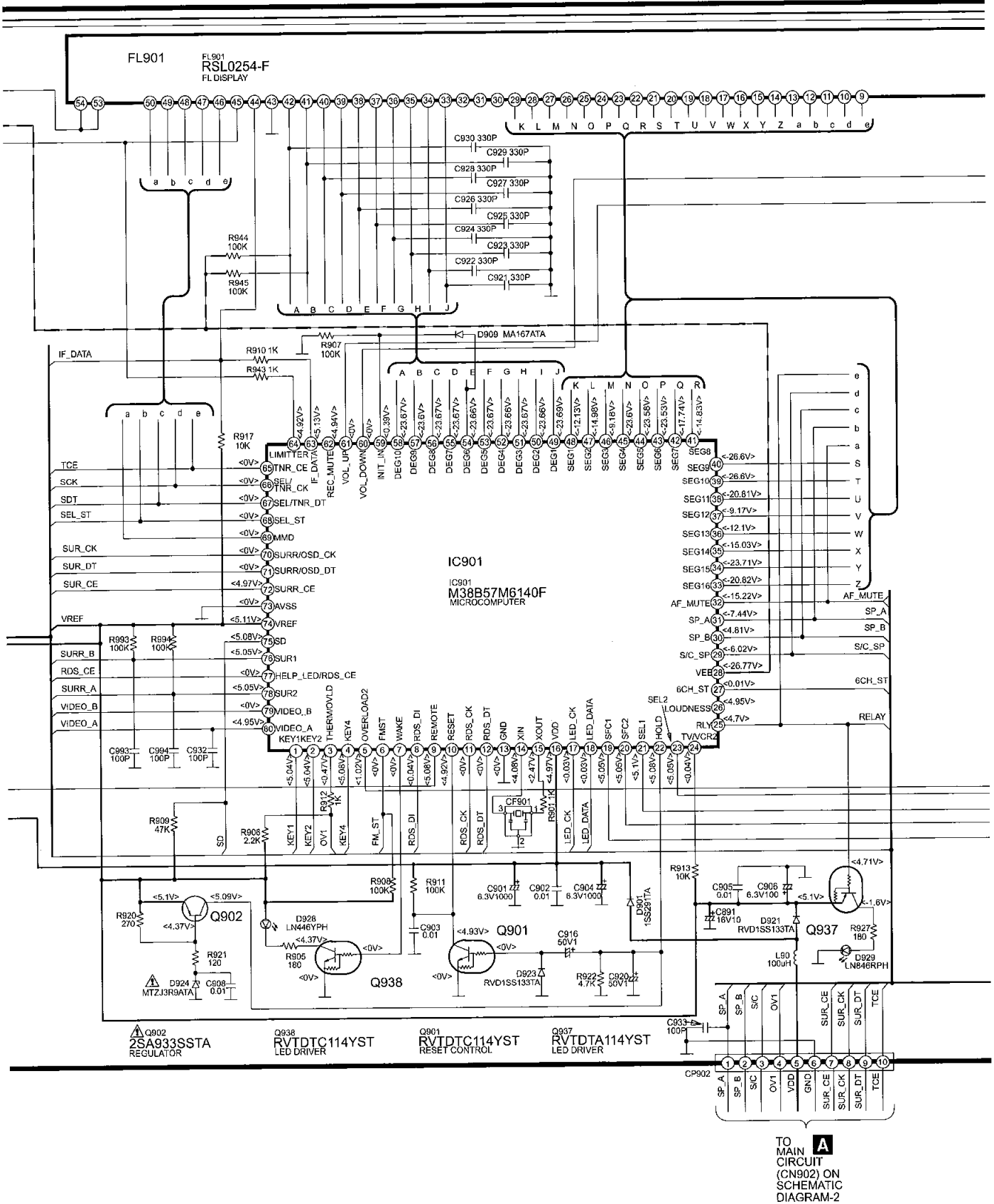


SCHEMATIC DIAGRAM-6

— : +B Line

- - - : -B Line

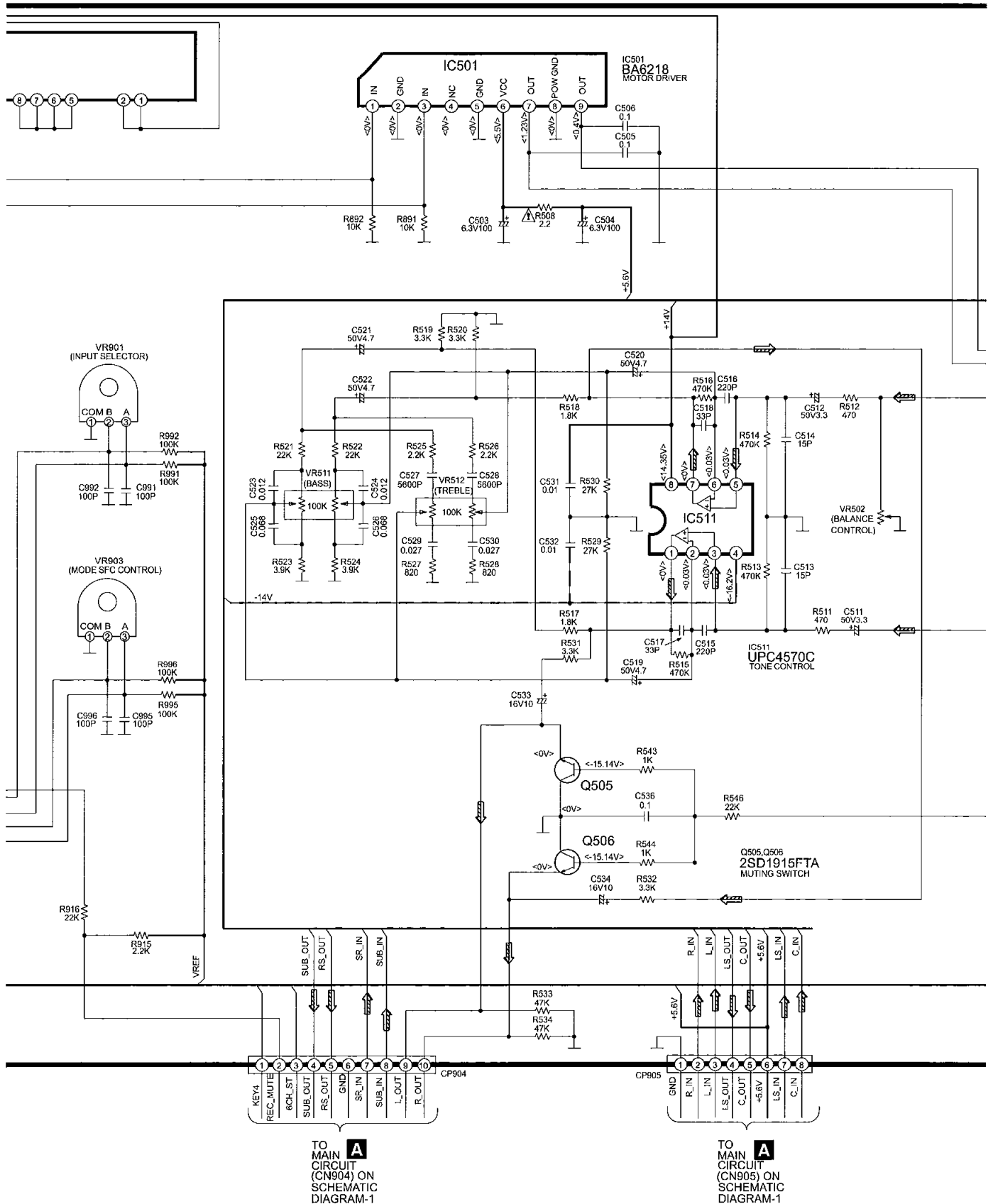
⇨ : Main Signal Line



TO MAIN
CIRCUIT
(CN902) ON
SCHEMATIC
DIAGRAM-2

SCHEMATIC DIAGRAM-7

————— : +B Line - - - - - : -B Line ⇨ : Main Signal Line

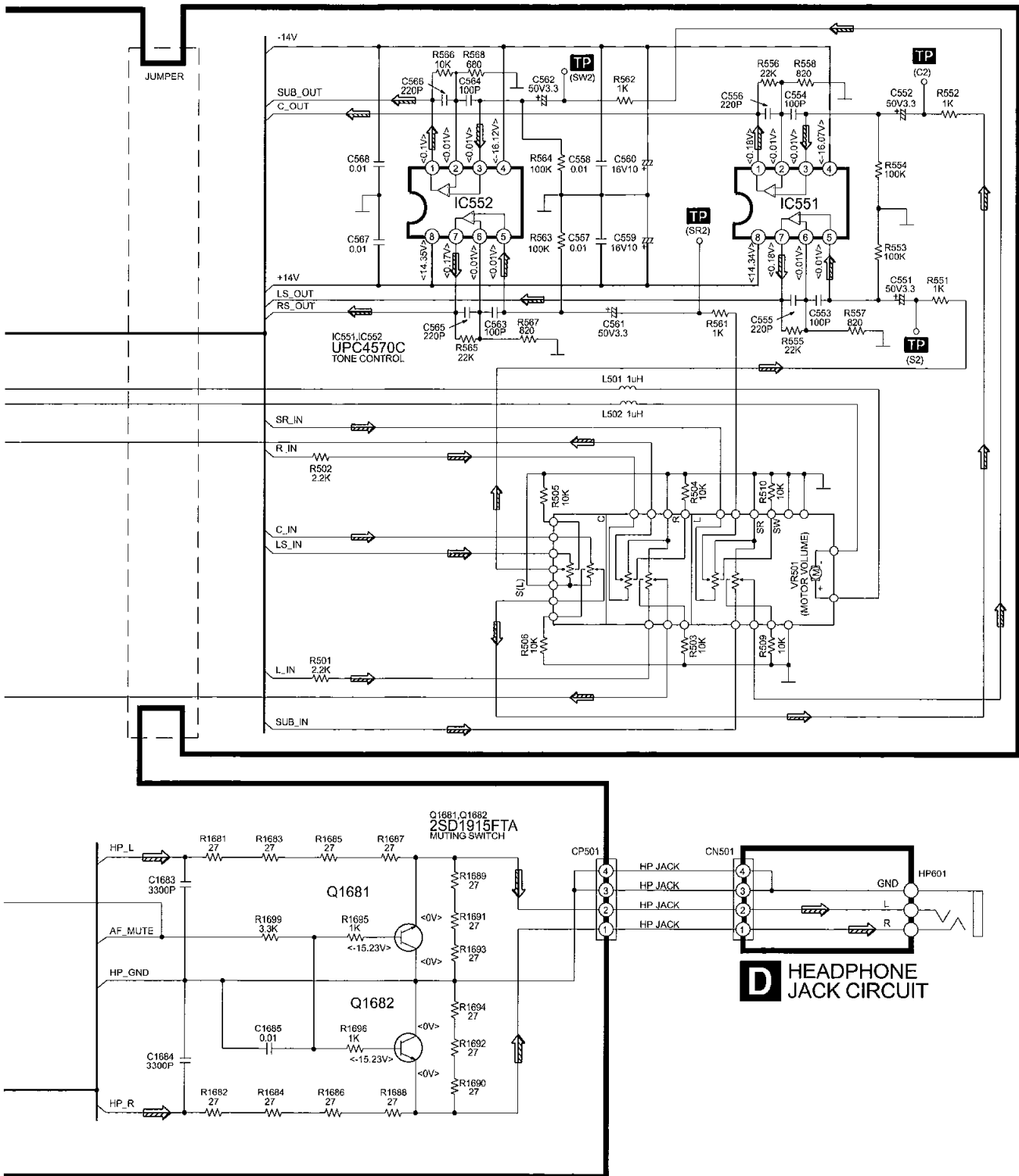


TO MAIN **A**
CIRCUIT
(CN904) ON
SCHEMATIC
DIAGRAM-1

TO MAIN **A**
CIRCUIT
(CN905) ON
SCHEMATIC
DIAGRAM-1

SCHEMATIC DIAGRAM-8

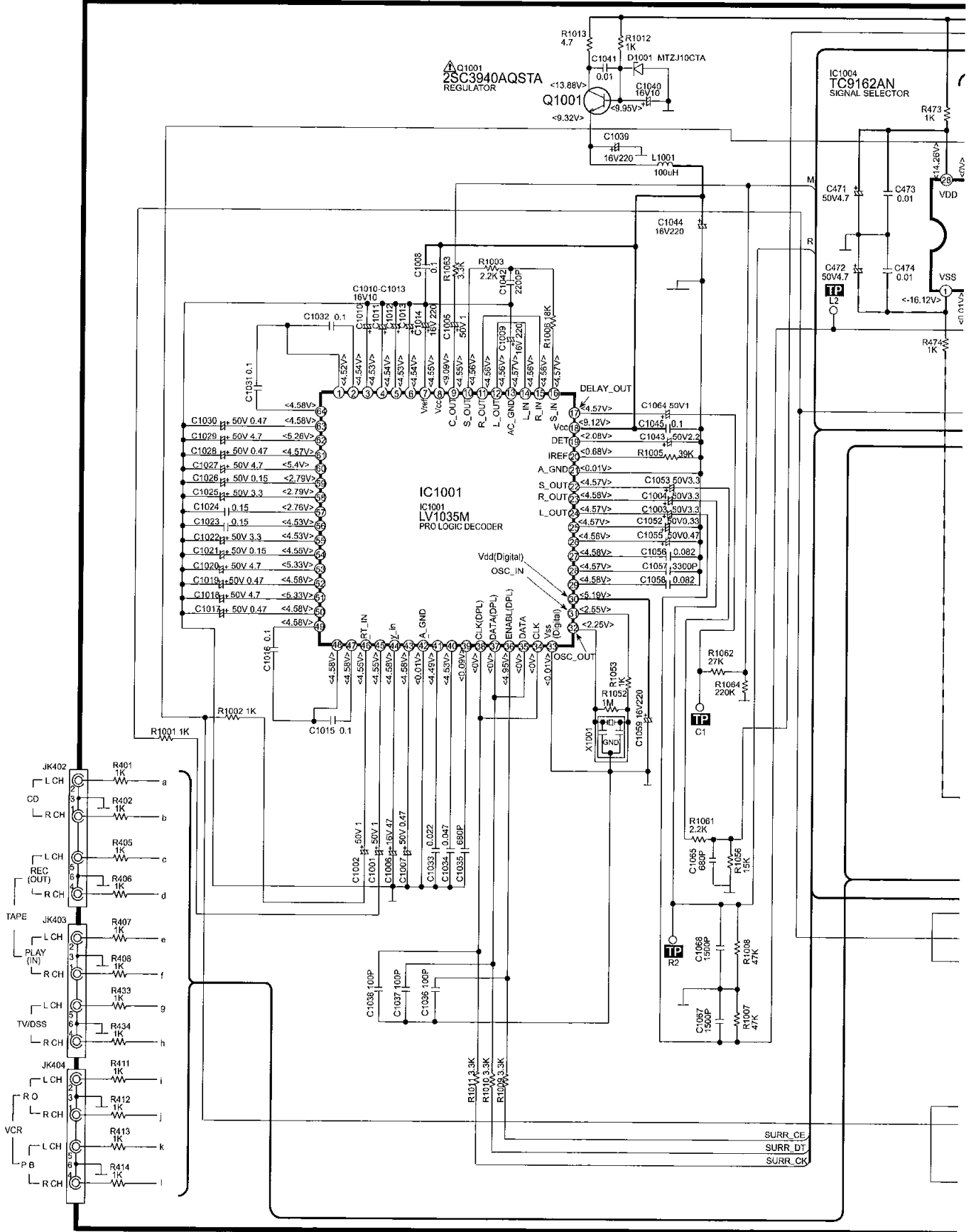
— : +B Line - - - - - : -B Line ⇨ : Main Signal Line



SCHEMATIC DIAGRAM - 9

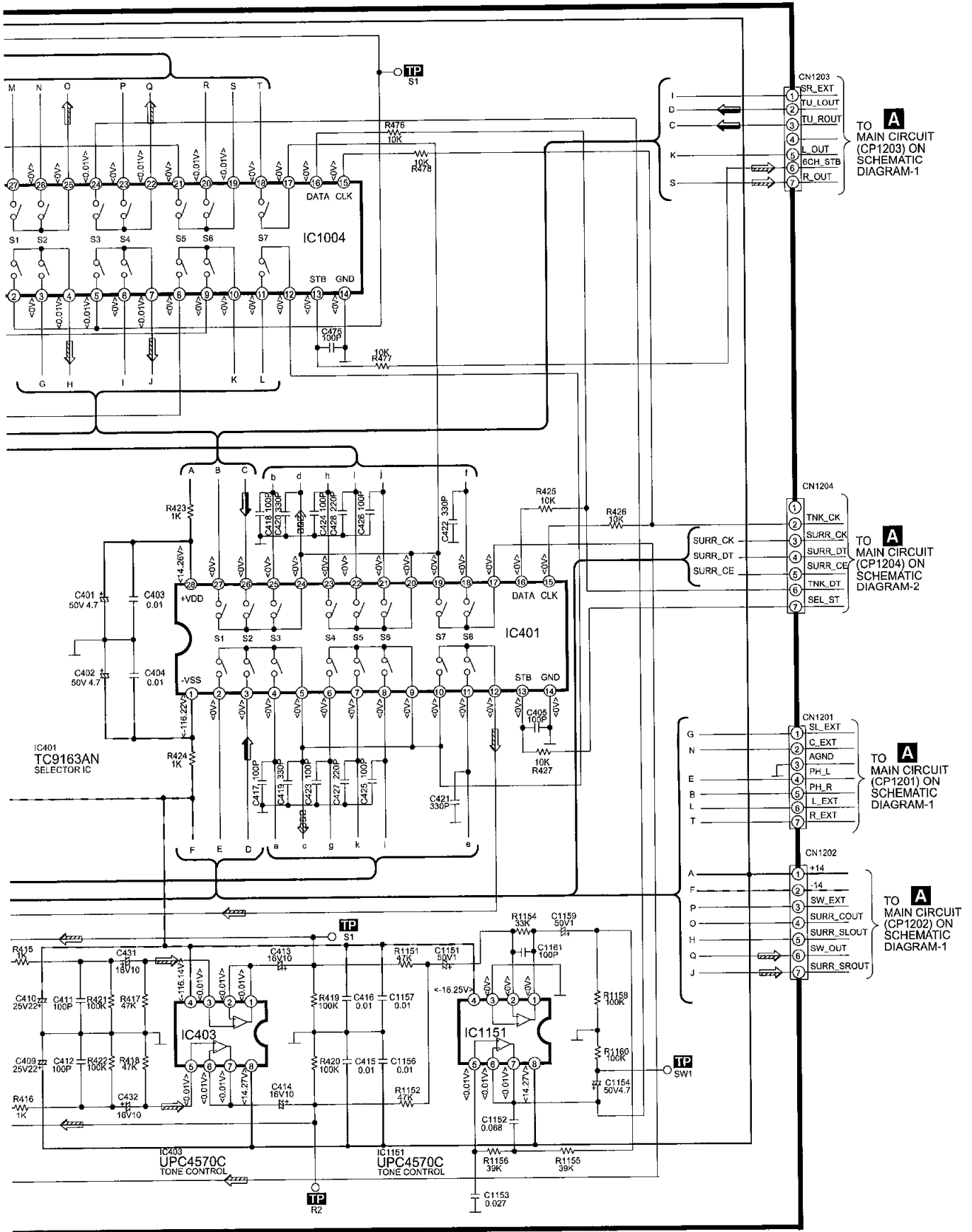
J PRO-LOGIC CIRCUIT

— : +B Line — : -B Line ⇨ : Main Signal Line



SCHEMATIC DIAGRAM - 10

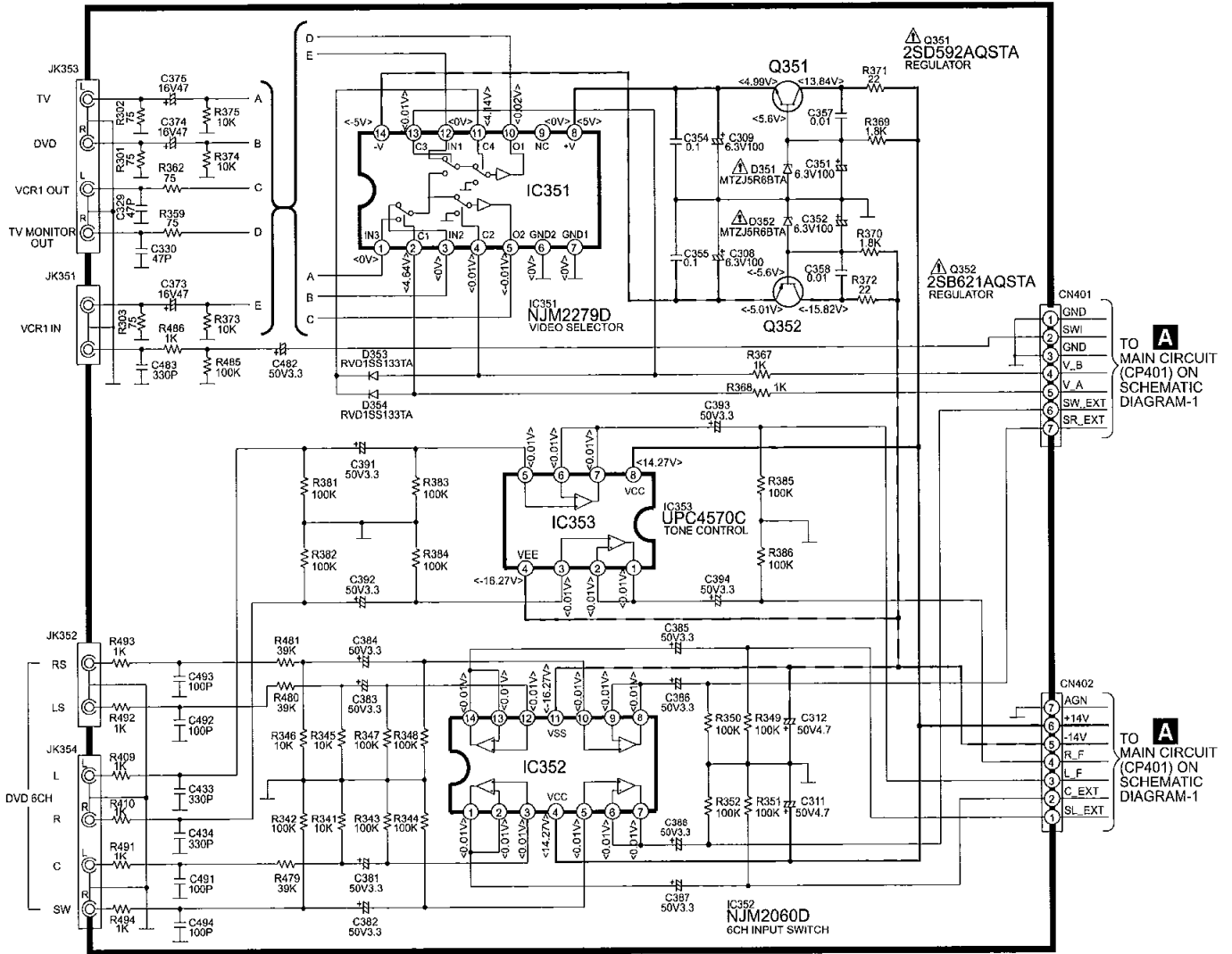
— : +B Line — — : -B Line ⇨ : Main Signal Line ⇨⇨ : Record Signal Line ⇨⇨⇨ : FM/AM signal line



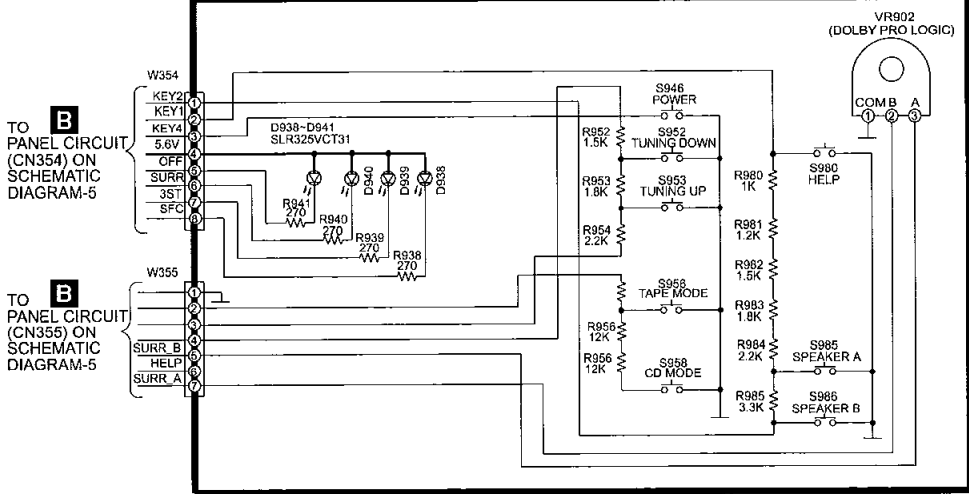
SCHEMATIC DIAGRAM-11

AC-3 CIRCUIT

— : +B Line - - - : -B Line

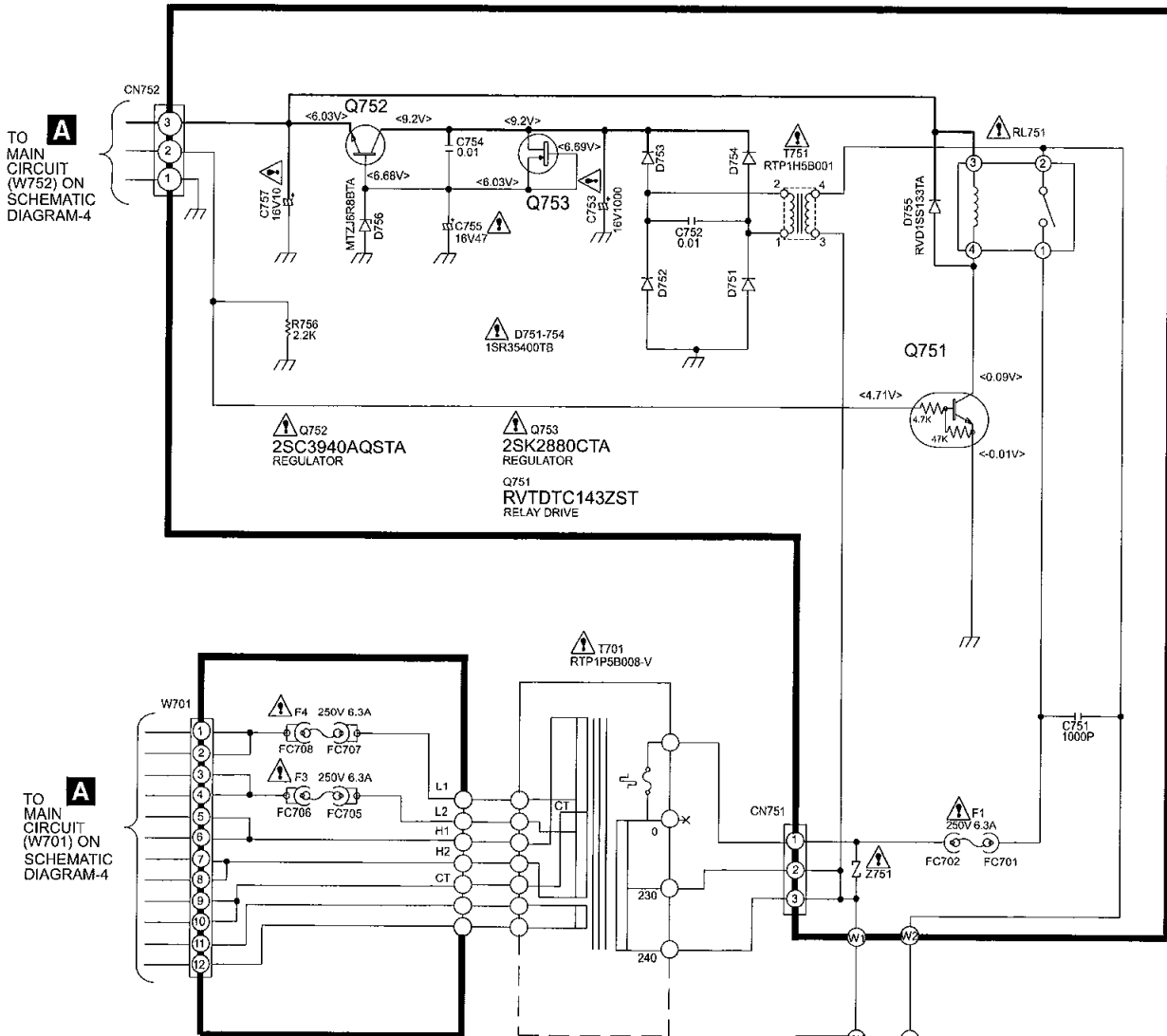


OPERATION CIRCUIT



SCHMATIC DIAGRAM-12

E POWER CIRCUIT ——— : +B line

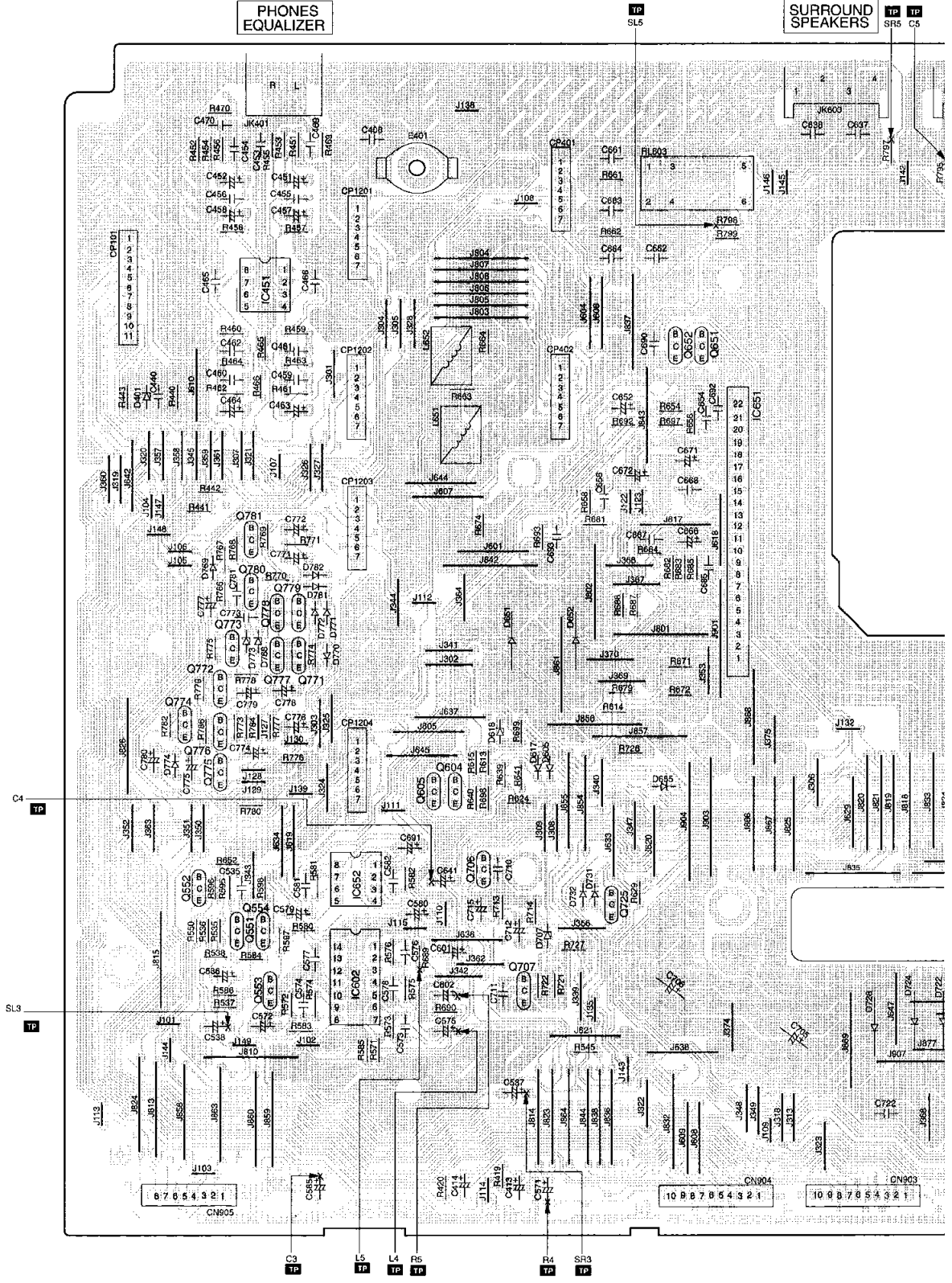


11 Printed Circuit Board

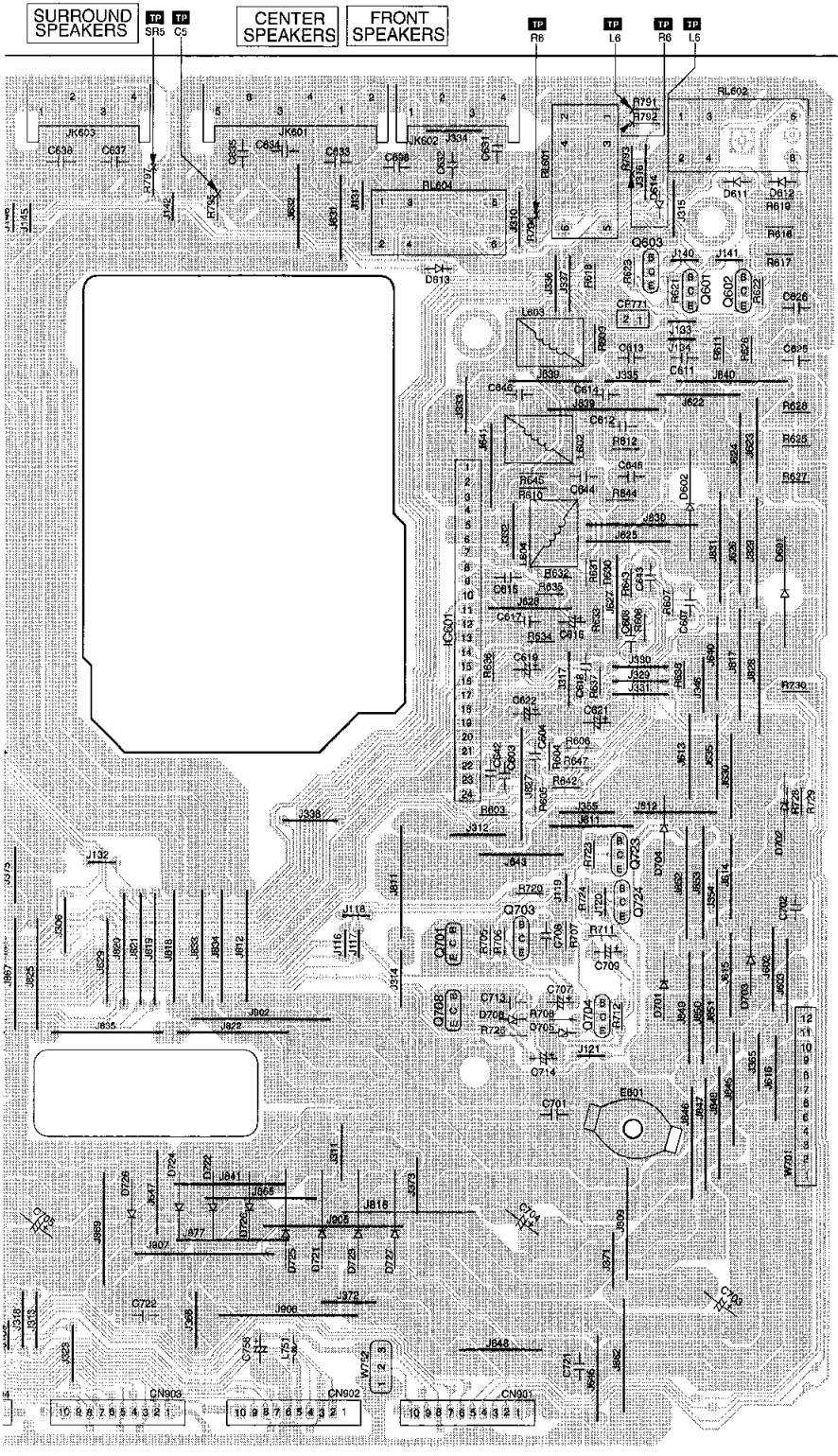
A | B | C | D | E | F | G

1
2
3
4
5
6
7
8
9

A MAIN P.C.B. (REP2927B-M)



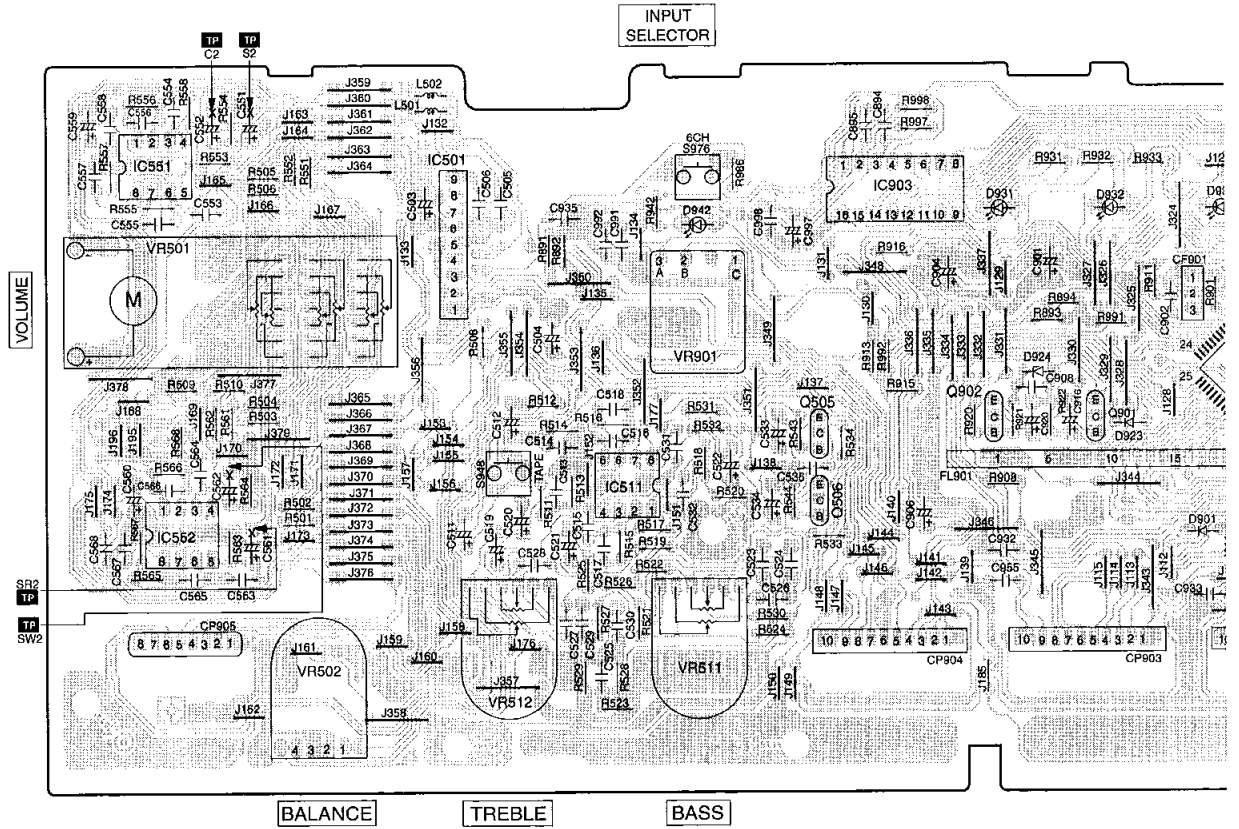
G H I J K L M



A B C D E F G

1

B PANEL P.C.B. (REP2928B-S)



2

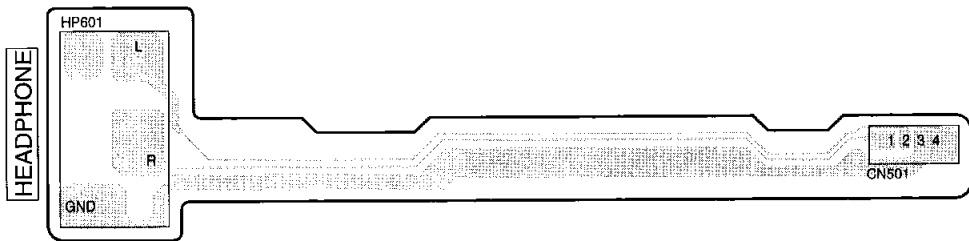
3

4

5

6

D HEADPHONE JACK P.C.B. (REP2928B-S)

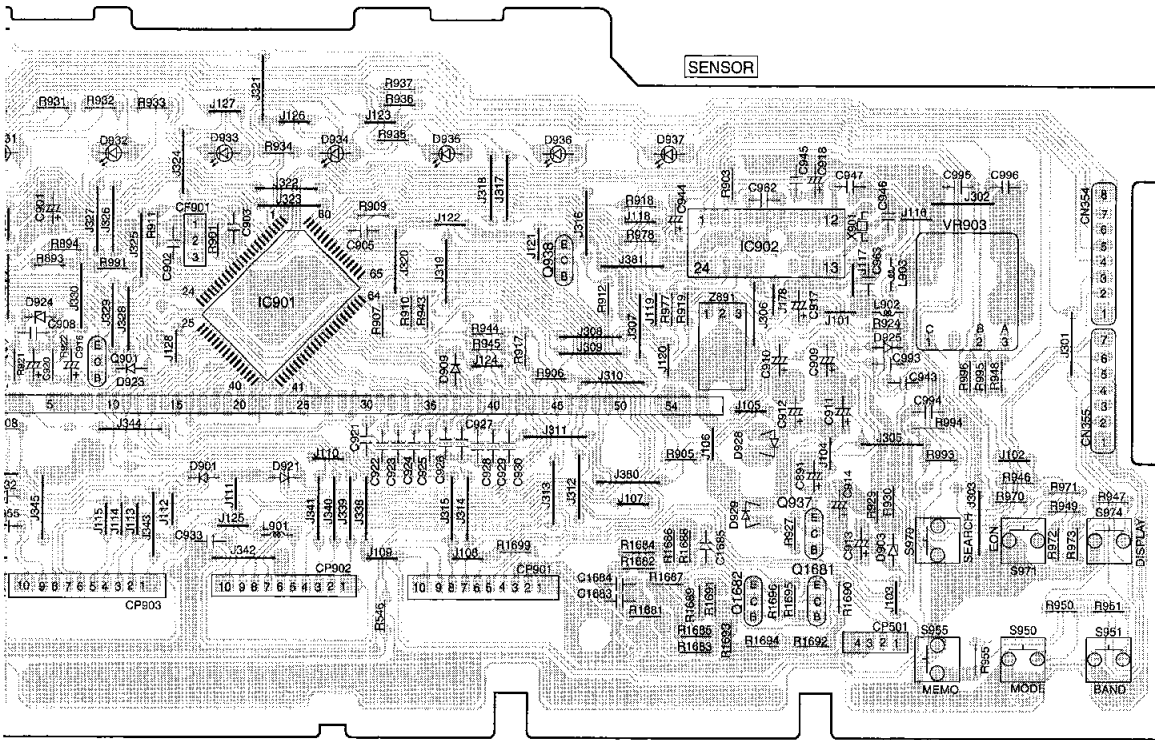


7

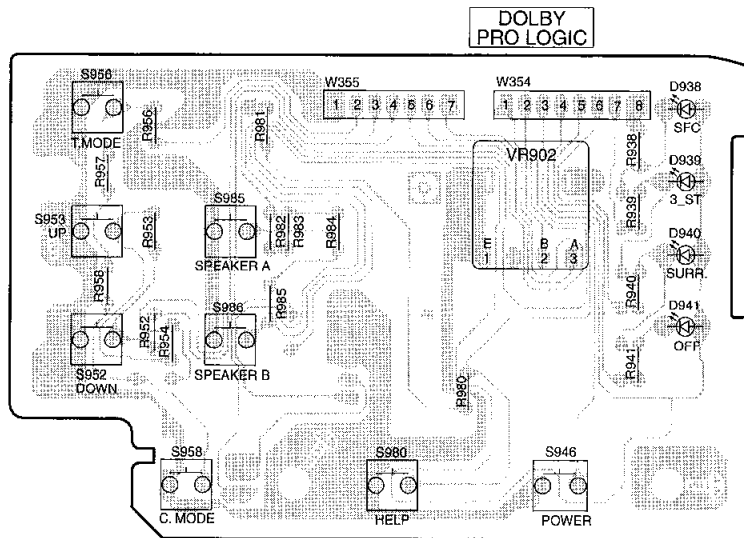
8

9

G | H | I | J | K | L | M



H OPERATION P.C.B. (REP2928B-S)



A B C D E F G

1

F TRANSFORMER P.C.B.
(REP2927B-M)

2

3

4

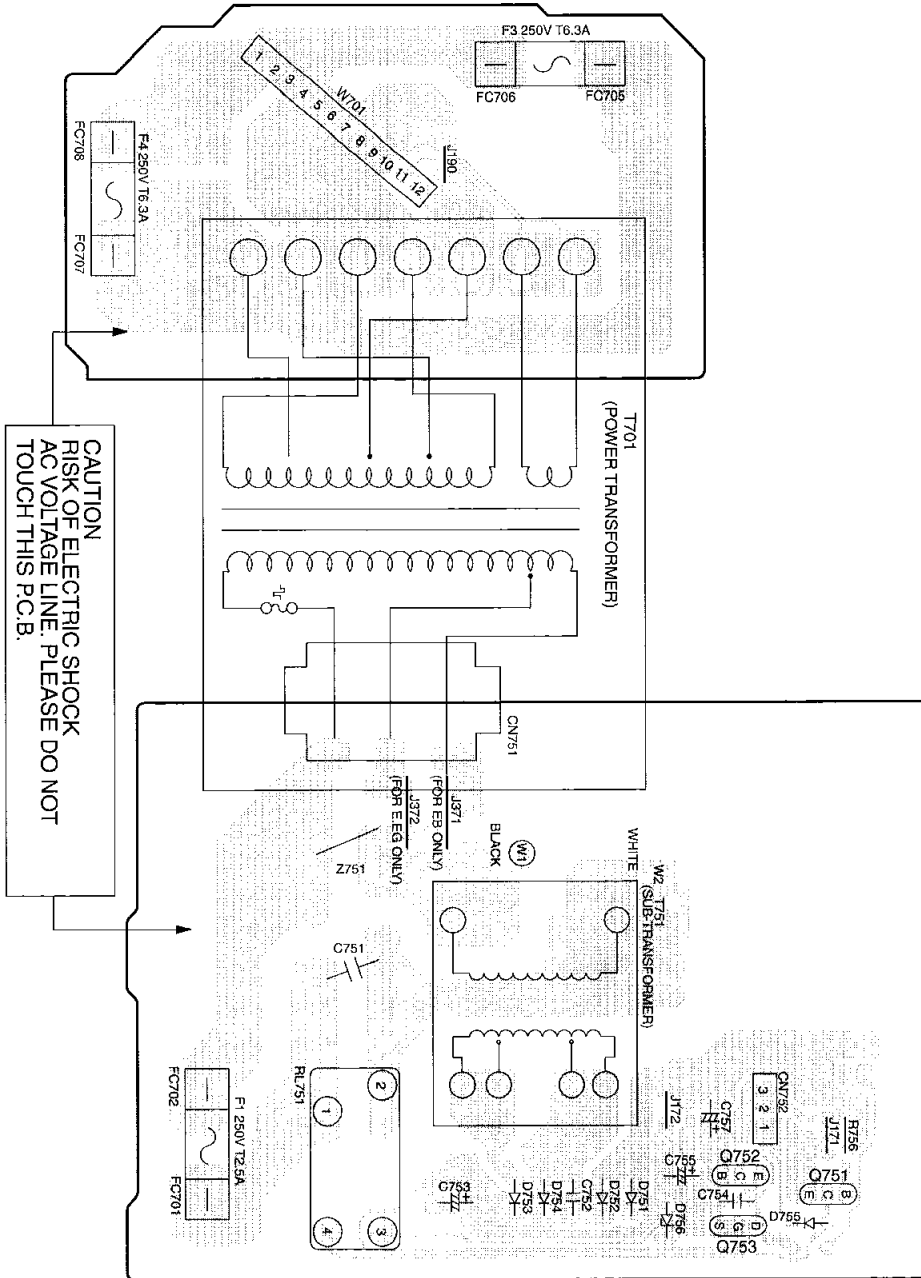
5

6

7

8

9

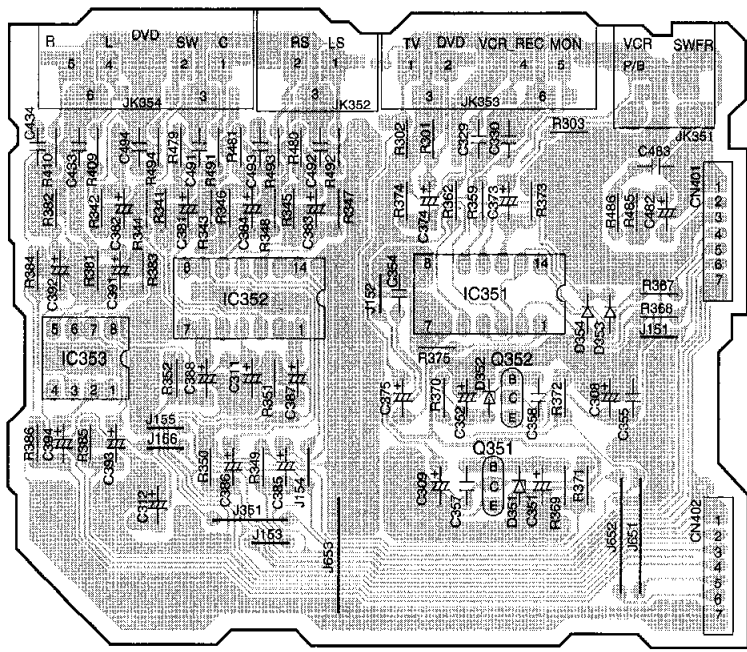


E POWER P.C.B.
(REP2929C-P...E/EG)
(REP2929D-P...EB)

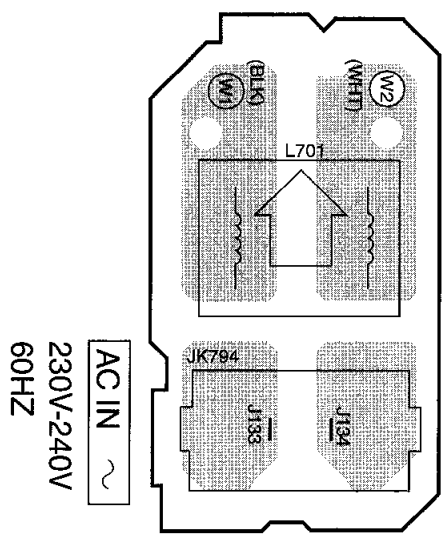
A B C D E F G

1
2
3
4
5
6
7
8
9

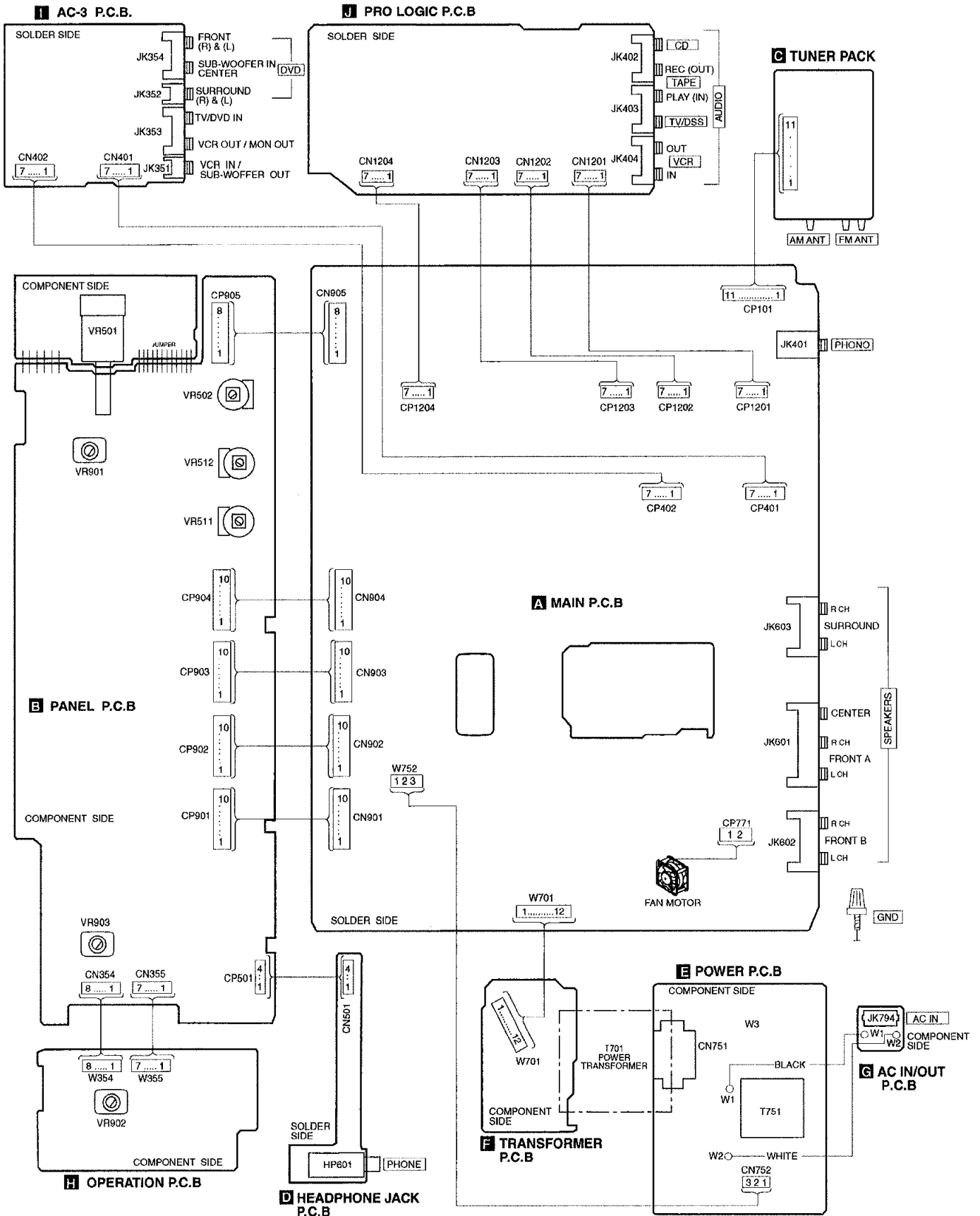
I AC-3 P.C.B.
(REP2929C-P...E/EG)
(REP2929D-P...EB)



G AC IN/OUT P.C.B.
(REP2929C-P...E/EG)
(REP2929D-P...EB)



12 Wiring Connection Diagram



13 Parts Location and Replacement Parts List

Notes:

- Important safety notice:

Components identified by \triangle 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 these components, be sure to use only manufacturers's specified parts shown in the parts list.

- The parenthesized indications in the Remarks column specify the areas or color. (Refer to the cover page for area or color.) Parts without these indications can be used for all areas.
- Capacitor values are in microfarad (μ F) unless specified otherwise, P=Pico-farads(pF); Farads.
- Resistance values are in ohms, unless specified otherwise, 1K=1,000(ohms).
- The marking (RTL) indicates that the 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 dependant 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.
- [M] indicates in the Remarks columns indicates parts that are supplied by **MESA**.
- The "(SF)" mark denotes the standard part.
- Remote Control Unit: Supply period for three years from terminal of production.
- Reference for O/I book languages are as follows :

Ar : Arabic

Cf : Canadian French

Cz : Czech

Da : Danish

Du : Dutch

En : English

Fr : French

Ge : German

It : Italian

Ko : Korean

Po : Polish

Ru : Russian

Sp : Spanish

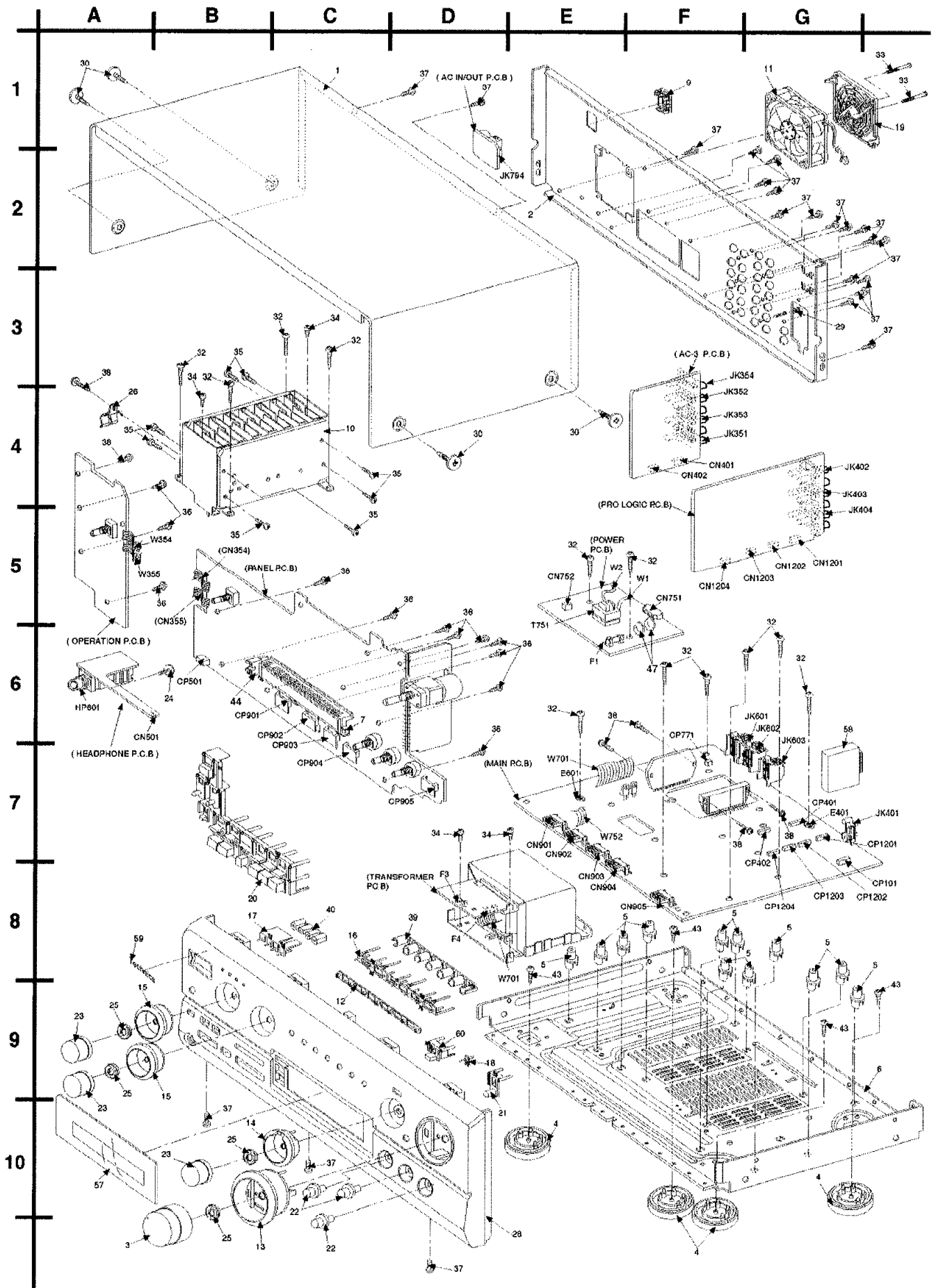
Sw : Swedish

Co : Traditional Chinese

Cn : Simplified Chinese

13.1. Cabinet

13.1.1. Cabinet Parts Location



13.1.2. Cabinet Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	RKM0374D-K	TOP CABINET	[M]
2	RGRV0001B-A	REAR PANEL	[M]EG E
2	RGRV0001B-B	REAR PANEL	[M]EB
3	RGW0278-K	VOLUME KNOB	[M]
4	RKA0079-A	LEG UNIT	[M]
5	RKQ0089-J	PCB HOLDER	[M]
6	RMK0350-3	BOTTOM CHASSIS	[M]
7	RMN0372A	FL HOLDER	[M]
9	SJS9231A	A/C INLET COVER	[M]
10	RXX0207	HEAT SINK UNIT	[M]
11	REM0080B	FAN UNIT	[M]
12	RGK0992-N	LIGHT GUIDE RING	[M]
13	RGK0993-N	VOLUME RING	[M]
14	RGK0994-N	SELECTOR RING	[M]
15	RGK0995-N	PRO LOGIC RING	[M]
16	RGL0401-Q	LIGHT GUIDE	[M]
17	RGL0402-Q	P/L LIGHT GUIDE	[M]
18	RGL0403-Q	6CH LIGHT GUIDE	[M]
19	RGQ0231-K	FAN COVER	[M]
20	RGU1713A-K	MODE BUTTON	[M]
21	RGU1719-K	MONITOR BUTTON	[M]
22	RGW0279-K	TONE KNOB	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
23	RGW0280-K	SELECTOR KNOB	[M]
24	RHD26016	SCREW (PHONE JACK)	[M]
25	RHN90001	M9 NUT	[M]
26	RMC0158-S	TRANSISTOR HOLDER	[M]
28	RGP0702H-K	FRONT PANEL	[M]
29	SNE2123	EARTH TERMINAL	[M]
30	SNE2129-3	SCREW (CABINET)	[M]
32	XTB3+20JFZ	SCREW	[M]
33	XTB3+35JFZ	SCREW (FAN)	[M]
34	XTB3+8FFZ	SCREW	[M]
35	XTB3+8JFZ	SCREW	[M]
36	XTBS26+10J	SCREW	[M]
37	XTBS3+8JFZ1	SCREW	[M]
38	XTW3+15T	SCREW	[M]
39	RMV0158	SEL LED COVER	[M]
40	RMV0159	P-L LED COVER	[M]
43	XTB3+6G	SCREW (FOOT)	[M]
44	RMN0502	LED HOLDER	[M]
47	RMZ0339	ZENER COVER	[M]
57	RKW0533E-Q	FL WINDOW	[M]
58	RAN0002EM	TUNER MODULE	[M]
59	RGB0031-A	TECHNICS BADGE	[M]
60	RGU1718-K	6CH BUTTON	[M]

13.2. Electrical Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		P.C.B.	
	REP2927B-M	MAIN P.C.B./ TRANSFORMER	[M]RTL
	REP2928B-S	PANEL P.C.B./HEADPHONE JACK P.C.B./OPERATION P.C.B.	[M]RTL
	REP2929D-P	PRO-LOGIC P.C.B./POWER P.C.B./AC-3 P.C.B./AC IN/OUT P.C.B.	[M]RTL EB
	REP2929C-P	PRO-LOGIC P.C.B./POWER P.C.B./AC-3 P.C.B./AC IN/OUT P.C.B.	[M]RTL E/EG
		INTEGRATED CIRCUITS	
IC351	NJM2279D	IC VIDEO SELECTOR SW	[M]
IC352	NJM2060D	IC OP AMP	[M]
IC353	UPC4570C	IC TONE CONTROL	[M]
IC401	TC9163AN	IC SELECTOR	[M]
IC403	UPC4570C	IC TONE CONTROL	[M]
IC451	AN6558F	IC OP AMP	[M]
IC501	BA6218	IC MOTOR DRIVER	[M]
IC511	UPC4570C	IC TONE CONTROL	[M]
IC551	UPC4570C	IC TONE CONTROL	[M]
IC552	UPC4570C	IC TONE CONTROL	[M]
IC601	RSN310R36-P	IC HIC	[M] △
IC602	NJM2060D	IC OP AMP	[M]
IC651	RSN313H25-P	IC HIC	[M] △
IC652	NJM4580DD	IC OP AMP	[M]
IC901	M38B57M6140F	IC MICRO COMPUTER	[M]
IC902	LC72720N	IC RDS	[M]
IC903	BU2090A	IC EXPENDER	[M]
IC1001	LV1035M	IC DPL	[M]
IC1004	TC9162AN	IC SELECTOR	[M]
IC1151	UPC4570C	IC TONE CONTROL	[M]
		TRANSISTORS	
Q351	2SD592AQSTA	TRANSISTOR	[M]
Q352	2SB621AQSTA	TRANSISTOR	[M]
Q505	2SD1915FTA	TRANSISTOR	[M]
Q506	2SD1915FTA	TRANSISTOR	[M]
Q551	2SD1915FTA	TRANSISTOR	[M]
Q552	2SD1915FTA	TRANSISTOR	[M]
Q553	2SD1915FTA	TRANSISTOR	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
Q554	2SD1915FTA	TRANSISTOR	[M]
Q601	RVTDTA143XST	TRANSISTOR	[M]
Q602	RVTDTA143XST	TRANSISTOR	[M]
Q603	RVTDTA143XST	TRANSISTOR	[M]
Q604	RVTDTA114EST	TRANSISTOR	[M] △
Q605	RVTDTA114EST	TRANSISTOR	[M] △
Q651	RVTDTA113ZST	TRANSISTOR	[M]
Q652	RVTDTA113ZST	TRANSISTOR	[M]
Q701	2SD2374PQAU	TRANSISTOR	[M] △
Q703	2SC1740SQSTA	TRANSISTOR	[M] △
Q704	2SC1740SQSTA	TRANSISTOR	[M] △
Q706	2SC1740SQSTA	TRANSISTOR	[M] △
Q707	2SA1534AQRSTA	TRANSISTOR	[M] △
Q708	2SB1548PQAU	TRANSISTOR	[M] △
Q723	RVTDTA114YST	TRANSISTOR	[M]
Q724	RVTDTA114YST	TRANSISTOR	[M] △
Q725	RVTDTA114YST	TRANSISTOR	[M]
Q751	RVTDTA143ZST	TRANSISTOR	[M]
Q752	2SC3940AQSTA	TRANSISTOR	[M] △
Q753	2SK2880CTA	TRANSISTOR	[M] △
Q771	2SA933SQRSTA	TRANSISTOR	[M]
Q772	2SC1740SQSTA	TRANSISTOR	[M]
Q773	2SB621AQSTA	TRANSISTOR	[M]
Q774	RVTDTA113ZST	TRANSISTOR	[M]
Q775	RVTDTA114EST	TRANSISTOR	[M]
Q776	2SC1740SQSTA	TRANSISTOR	[M]
Q777	2SA933SQRSTA	TRANSISTOR	[M]
Q778	2SA933SQRSTA	TRANSISTOR	[M]
Q779	2SA933SQRSTA	TRANSISTOR	[M]
Q780	2SA933SQRSTA	TRANSISTOR	[M]
Q781	2SC1740SQSTA	TRANSISTOR	[M]
Q901	RVTDTA114YST	TRANSISTOR	[M]
Q902	2SA933SSTA	TRANSISTOR	[M] △
Q937	RVTDTA114YST	TRANSISTOR	[M]
Q938	RVTDTA114YST	TRANSISTOR	[M]
Q1001	2SC3940AQSTA	TRANSISTOR	[M]
Q1681	2SD1915FTA	TRANSISTOR	[M]
Q1682	2SD1915FTA	TRANSISTOR	[M]
		DIODES	
D351	MTZJ5R6BTA	DIODE	[M] △
D352	MTZJ5R6BTA	DIODE	[M] △
D353	RVD1SS133TA	DIODE	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
D354	RVD1SS133TA	DIODE	[M]
D401	MTZJ7R5CTA	DIODE	[M]
D601	RK306LFU1	DIODE	[M]
D602	RK306LFU1	DIODE	[M]
D605	RVD1SS133TA	DIODE	[M]
D611	RVD1SS133TA	DIODE	[M]
D612	RVD1SS133TA	DIODE	[M]
D613	RVD1SS133TA	DIODE	[M]
D614	RVD1SS133TA	DIODE	[M]
D617	RVD1SS133TA	DIODE	[M]
D618	MTZJ7R5CTA	DIODE	[M] △
D651	RK306LFU1	DIODE	[M]
D652	RK306LFU1	DIODE	[M]
D655	RVD1SS133TA	DIODE	[M]
D701	1N5402BM21	DIODE	[M] △
D702	1N5402BM21	DIODE	[M] △
D703	1N5402BM21	DIODE	[M] △
D704	1N5402BM21	DIODE	[M] △
D705	MTZJ6R2BTA	DIODE	[M] △
D707	MTZJ27DTA	DIODE	[M] △
D708	MTZJ16CTA	DIODE	[M] △
D721	1N5402BM21	DIODE	[M] △
D722	1N5402BM21	DIODE	[M] △
D723	1N5402BM21	DIODE	[M] △
D724	1N5402BM21	DIODE	[M] △
D725	1N5402BM21	DIODE	[M] △
D726	1N5402BM21	DIODE	[M] △
D727	1N5402BM21	DIODE	[M] △
D728	1N5402BM21	DIODE	[M] △
D731	RVD1SS133TA	DIODE	[M] △
D732	RVD1SS133TA	DIODE	[M]
D751	1SR35400TB	DIODE	[M] △
D752	1SR35400TB	DIODE	[M] △
D753	1SR35400TB	DIODE	[M] △
D754	1SR35400TB	DIODE	[M] △
D755	RVD1SS133TA	DIODE	[M]
D756	MTZJ6R8BTA	DIODE	[M]
D768	MTZJ3R3ATA	DIODE	[M] △
D769	RVD1SS133TA	DIODE	[M]
D770	RVD1SS133TA	DIODE	[M]
D771	MA700ATA	DIODE	[M]
D772	MA700ATA	DIODE	[M]
D773	MTZJ8R2CTA	DIODE	[M] △
D774	MA700ATA	DIODE	[M]
D781	MA700ATA	DIODE	[M]
D782	MA700ATA	DIODE	[M]
D901	1SS291TA	DIODE	[M]
D903	MTZJ4R7BTA	DIODE	[M]
D909	MA167ATA	DIODE	[M]
D921	RVD1SS133TA	DIODE	[M]
D923	RVD1SS133TA	DIODE	[M]
D924	MTZJ3R9ATA	DIODE	[M] △
D925	RVD1SS133TA	DIODE	[M]
D928	LN446YPH	DIODE	[M]
D929	LN846RPH	DIODE	[M]
D931	SLR325VCT31	DIODE	[M]
D932	SLR325VCT31	DIODE	[M]
D933	SLR325VCT31	DIODE	[M]
D934	SLR325VCT31	DIODE	[M]
D935	SLR325VCT31	DIODE	[M]
D936	SLR325VCT31	DIODE	[M]
D937	SLR325VCT31	DIODE	[M]
D938	SLR325VCT31	DIODE	[M]
D939	SLR325VCT31	DIODE	[M]
D940	SLR325VCT31	DIODE	[M]
D941	SLR325VCT31	DIODE	[M]
D942	SLR325MCT31	DIODE	[M]
D1001	MTZJ10CTA	DIODE	[M]
		VARIABLE RESISTORS	
VR501	EUWM6A026B15	VR MOTOR VOLUME	[M]
VR502	EW0YAF20G15	VR BALANCE CONTROL	[M]
VR511	EW01XA020C15	VR TONE CONTROL	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
VR512	EW01XA020C15	VR TONE CONTROL	[M]
VR901	EVQVBHF112B	VR BALANCE CONTROL	[M]
VR902	EVQVBHF112B	VR BALANCE CONTROL	[M]
VR903	EVQVBHF112B	VR BALANCE CONTROL	[M]
		SWITCHES	
S946	EVQ21405R	SW POWER	[M]
S948	EVQ21405R	SW TAPE	[M]
S950	EVQ21405R	SW MODE	[M]
S951	EVQ21405R	SW BAND	[M]
S952	EVQ21405R	SW DOWN	[M]
S953	EVQ21405R	SW UP	[M]
S955	EVQ21405R	SW MEMORY	[M]
S956	EVQ21405R	SW T. MODE	[M]
S958	EVQ21405R	SW C. MODE	[M]
S970	EVQ21405R	SW SEARCH	[M]
S971	EVQ21405R	SW EON	[M]
S974	EVQ21405R	SW DISPLAY	[M]
S976	EVQ21405R	6 CH	[M]
S980	EVQ21405R	SW HELP	[M]
S985	EVQ21405R	SW SPEAKER A	[M]
S986	EVQ21405R	SW SPEAKER B	[M]
		CONNECTORS	
CN401	RJU100W07	7P CONNECTOR	[M]
CN402	RJU100W07	7P CONNECTOR	[M]
CN501	RJU100W04	4P CONNECTOR	[M]
CN751	SJS305-1	3P CONNECTOR	[M]
CN752	RJS1A6603T1	3P TAPING CONNECTOR	[M]
CN901	RJU003K010M1	10P B/B CONNECTOR	[M]
CN902	RJU003K010M1	10P B/B CONNECTOR	[M]
CN903	RJU003K010M1	10P B/B CONNECTOR	[M]
CN904	RJU003K010M1	10P B/B CONNECTOR	[M]
CN905	RJU003K008M1	BOAD IN CONNECTOR	[M]
CN1201	RJU100W07	7P CONNECTOR	[M]
CN1202	RJU100W07	7P CONNECTOR	[M]
CN1203	RJU100W07	7P CONNECTOR	[M]
CN1204	RJU100W07	7P CONNECTOR	[M]
CP101	RJT100W11	11P CONNECTOR	[M]
CP401	RJT100W07	7P CONNECTOR	[M]
CP402	RJT100W07	7P CONNECTOR	[M]
CP501	RJT100W04	4P CONNECTOR	[M]
CP771	SJT3213	CONNECTOR (FAN)	[M]
CP901	RJT003K010M1	10P CONNECTOR	[M]
CP902	RJT003K010M1	10P CONNECTOR	[M]
CP903	RJT003K010M1	10P CONNECTOR	[M]
CP904	RJT003K010M1	10P CONNECTOR	[M]
CP905	RJT003K008M1	8P CONNECTOR	[M]
CP1201	RJT100W07	7P CONNECTOR	[M]
CP1202	RJT100W07	7P CONNECTOR	[M]
CP1203	RJT100W07	7P CONNECTOR	[M]
CP1204	RJT100W07	7P CONNECTOR	[M]
		COILS & TRANSFORMERS	
L501	RLQZP1R0KT-Y	AXIAL COIL	[M]
L502	RLQZP1R0KT-Y	AXIAL COIL	[M]
L602	RLQYR73MW-E	CHOKE COIL	[M]
L603	RLQYR73MW-E	CHOKE COIL	[M]
L604	RLQYR73MW-E	CHOKE COIL	[M]
L651	RLQYR73MW-E	CHOKE COIL	[M]
L652	RLQYR73MW-E	CHOKE COIL	[M]
L701	RLQT801M-W	CHOKE COIL	[M] △
L751	RLQB101KTA-Y	CHOKE COIL	[M]
L901	RLQB101KTA-Y	CHOKE COIL	[M]
L902	RLQZP101KT-Y	AXIAL COIL	[M]
L903	RLQZP101KT-Y	AXIAL COIL	[M]
L1001	RLQB101KTA-Y	CHOKE COIL	[M]
T701	RTP1Q5B008-V	TRANSFORMER	[M] △
T751	RTP1H5B001	STANDBY TRANSFORMER	[M] △
		COMPONENT COMBINATION	

Ref. No.	Part No.	Part Name & Description	Remarks
Z751	ERZV10V511CS	ZENER	[M] △
Z891	RCDRPM6937H4	REMOTE SENSOR	[M]
		CERAMIC FILTERS	
CF901	RVCST4R00MT	CERAMIC OSCILLATOR	[M]
		RELAY	
RL601	RSY0013M-0	RELAY	[M] △
RL602	RSY0013M-0	RELAY	[M] △
RL603	RSY0013M-0	RELAY	[M] △
RL604	RSY0013M-0	RELAY	[M] △
RL751	RSY0040M-0	RELAY	[M] △
		OSCILLATORS	
X901	RSXC4M33S02T	CRYSTAL OSILLATOR	[M]
X1001	RSXY8M00D01T	CERAMIC OSILLATOR	[M]
		DISPLAY TUBE	
FL901	RSL0254-F	FL	[M]
		FUSES	
F1	XBA2C25TB0	FUSE	[M] △
F3	XBA2C63TB0	FUSE	[M] △
F4	XBA2C63TB0	FUSE	[M] △
		FUSE HOLDERS	
FC701	EYF52BC	FUSE HOLDER	[M]
FC702	EYF52BC	FUSE HOLDER	[M]
FC705	EYF52BC	FUSE HOLDER	[M]
FC706	EYF52BC	FUSE HOLDER	[M]
FC707	EYF52BC	FUSE HOLDER	[M]
FC708	EYF52BC	FUSE HOLDER	[M]
		JACK	
HP601	RJJ63TA01	HP JACK	[M]
JK351	RJH3210N	JK 2P RCA PIN	[M]
JK352	SJF3068-7N	JK RCA TERMINAL	[M]
JK353	SJF3069-3N	JK RCA PIN	[M]
JK354	SJF3069-13N	JK LINE IN	[M]
JK401	SJF3068-7N	JK RCA TERMINAL	[M]
JK402	SJF3069N	JK LINE IN	[M]
JK403	SJF3069N	JK LINE IN	[M]
JK404	SJF3069N	JK LINE IN	[M]
JK601	RJH5601	JK SPEAKER TERMINAL	[M]
JK602	RJR0054	JK SPEAKER TERMINAL	[M]
JK603	RJR0054	JK SPEAKER TERMINAL	[M]
JK794	SJS9231-1B	SOCKET	[M] △
		EARTH TERMINAL	
E401	SNE1004-2	EARTH TERMINAL	[M]
E601	SNE1004-2	EARTH TERMINAL	[M]
		WIRES	
W1	REE0889	WIRE	[M]
W2	REE0890	WIRE	[M]
W354	RWJ1808200SS	8P WIRE	[M]
W355	RWJ1807200SS	7P WIRE	[M]
W701	RWJ1812250SS	WIRE	[M]
W752	RWJ1803290SQ	3P WIRE	[M]
		RESISTORS	
R301	ERDS2TJ750T	75 1/4W	[M]
R302	ERDS2TJ750T	75 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R303	ERDS2TJ750T	75 1/4W	[M]
R341	ERDS2TJ103T	10K 1/4W	[M]
R342	ERDS2TJ104T	100K 1/4W	[M]
R343	ERDS2TJ104T	100K 1/4W	[M]
R344	ERDS2TJ104T	100K 1/4W	[M]
R345	ERDS2TJ103T	10K 1/4W	[M]
R346	ERDS2TJ103T	10K 1/4W	[M]
R347	ERDS2TJ104T	100K 1/4W	[M]
R348	ERDS2TJ104T	100K 1/4W	[M]
R349	ERDS2TJ104T	100K 1/4W	[M]
R350	ERDS2TJ104T	100K 1/4W	[M]
R351	ERDS2TJ104T	100K 1/4W	[M]
R352	ERDS2TJ104T	100K 1/4W	[M]
R359	ERDS2TJ750T	75 1/4W	[M]
R362	ERDS2TJ750T	75 1/4W	[M]
R367	ERDS2TJ102T	1K 1/4W	[M]
R368	ERDS2TJ102T	1K 1/4W	[M]
R369	ERDS2TJ182T	1.8K 1/4W	[M]
R370	ERDS2TJ182T	1.8K 1/4W	[M]
R371	ERD2FCVVG220T	22 1/4W	[M]
R372	ERD2FCVVG220T	22 1/4W	[M]
R373	ERDS2TJ103T	10K 1/4W	[M]
R374	ERDS2TJ103T	10K 1/4W	[M]
R375	ERDS2TJ103T	10K 1/4W	[M]
R381	ERDS2TJ104T	100K 1/4W	[M]
R382	ERDS2TJ104T	100K 1/4W	[M]
R383	ERDS2TJ104T	100K 1/4W	[M]
R384	ERDS2TJ104T	100K 1/4W	[M]
R385	ERDS2TJ104T	100K 1/4W	[M]
R386	ERDS2TJ104T	100K 1/4W	[M]
R401	ERDS2TJ102T	1K 1/4W	[M]
R402	ERDS2TJ102T	1K 1/4W	[M]
R405	ERDS2TJ102T	1K 1/4W	[M]
R406	ERDS2TJ102T	1K 1/4W	[M]
R407	ERDS2TJ102T	1K 1/4W	[M]
R408	ERDS2TJ102T	1K 1/4W	[M]
R409	ERDS2TJ102T	1K 1/4W	[M]
R410	ERDS2TJ102T	1K 1/4W	[M]
R411	ERDS2TJ102T	1K 1/4W	[M]
R412	ERDS2TJ102T	1K 1/4W	[M]
R413	ERDS2TJ102T	1K 1/4W	[M]
R414	ERDS2TJ102T	1K 1/4W	[M]
R415	ERDS2TJ102T	1K 1/4W	[M]
R416	ERDS2TJ102T	1K 1/4W	[M]
R417	ERDS2TJ473T	47K 1/4W	[M]
R418	ERDS2TJ473T	47K 1/4W	[M]
R419	ERDS2TJ104T	100K 1/4W	[M]
R420	ERDS2TJ104T	100K 1/4W	[M]
R421	ERDS2TJ104T	100K 1/4W	[M]
R422	ERDS2TJ104T	100K 1/4W	[M]
R423	ERDS2TJ102T	1K 1/4W	[M]
R424	ERDS2TJ102T	1K 1/4W	[M]
R425	ERDS2TJ103T	10K 1/4W	[M]
R426	ERDS2TJ103T	10K 1/4W	[M]
R427	ERDS2TJ103T	10K 1/4W	[M]
R433	ERDS2TJ102T	1K 1/4W	[M]
R434	ERDS2TJ102T	1K 1/4W	[M]
R440	ERDS1FVJ560T	56 1/2W	[M] △
R441	ERDS2TJ473T	47K 1/4W	[M]
R442	ERDS2TJ473T	47K 1/4W	[M]
R443	ERDS1FVJ560T	56 1/2W	[M] △
R451	ERDS2TJ224T	220K 1/4W	[M]
R452	ERDS2TJ224T	220K 1/4W	[M]
R453	ERDS2TJ391T	390 1/4W	[M]
R454	ERDS2TJ391T	390 1/4W	[M]
R455	ERDS2TJ563T	56K 1/4W	[M]
R456	ERDS2TJ563T	56K 1/4W	[M]
R457	ERDS2TJ271T	270 1/4W	[M]
R458	ERDS2TJ271T	270 1/4W	[M]
R459	ERDS2TJ680T	68 1/4W	[M]
R460	ERDS2TJ680T	68 1/4W	[M]
R461	ERDS2TJ184T	180K 1/4W	[M]
R462	ERDS2TJ184T	180K 1/4W	[M]
R463	ERDS2TJ123T	12K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R464	ERDS2TJ123T	12K 1/4W	[M]
R465	ERDS2TJ563T	56K 1/4W	[M]
R466	ERDS2TJ563T	56K 1/4W	[M]
R469	ERDS2TJ102T	1K 1/4W	[M]
R470	ERDS2TJ102T	1K 1/4W	[M]
R473	ERDS2TJ102T	1K 1/4W	[M]
R474	ERDS2TJ102T	1K 1/4W	[M]
R476	ERDS2TJ103T	10K 1/4W	[M]
R477	ERDS2TJ103T	10K 1/4W	[M]
R478	ERDS2TJ103T	10K 1/4W	[M]
R479	ERDS2TJ393T	39K 1/4W	[M]
R480	ERDS2TJ393T	39K 1/4W	[M]
R481	ERDS2TJ393T	39K 1/4W	[M]
R485	ERDS2TJ104T	100K 1/4W	[M]
R486	ERDS2TJ102T	1K 1/4W	[M]
R491	ERDS2TJ102T	1K 1/4W	[M]
R492	ERDS2TJ102T	1K 1/4W	[M]
R493	ERDS2TJ102T	1K 1/4W	[M]
R494	ERDS2TJ102T	1K 1/4W	[M]
R501	ERDS2TJ222T	2.2K 1/4W	[M]
R502	ERDS2TJ222T	2.2K 1/4W	[M]
R503	ERDS2TJ103T	10K 1/4W	[M]
R504	ERDS2TJ103T	10K 1/4W	[M]
R505	ERDS2TJ103T	10K 1/4W	[M]
R506	ERDS2TJ103T	10K 1/4W	[M]
R508	ERDS1FVJ2R2T	2.2 1/2W	[M] △
R509	ERDS2TJ103T	10K 1/4W	[M]
R510	ERDS2TJ103T	10K 1/4W	[M]
R511	ERDS2TJ471T	470 1/4W	[M]
R512	ERDS2TJ471T	470 1/4W	[M]
R513	ERDS2TJ474T	470K 1/4W	[M]
R514	ERDS2TJ474T	470K 1/4W	[M]
R515	ERDS2TJ474T	470K 1/4W	[M]
R516	ERDS2TJ474T	470K 1/4W	[M]
R517	ERDS2TJ182T	1.8K 1/4W	[M]
R518	ERDS2TJ182T	1.8K 1/4W	[M]
R519	ERDS2TJ332T	3.3K 1/4W	[M]
R520	ERDS2TJ332T	3.3K 1/4W	[M]
R521	ERDS2TJ223T	22K 1/4W	[M]
R522	ERDS2TJ223T	22K 1/4W	[M]
R523	ERDS2TJ392T	3.9K 1/4W	[M]
R524	ERDS2TJ392T	3.9K 1/4W	[M]
R525	ERDS2TJ222T	2.2K 1/4W	[M]
R526	ERDS2TJ222T	2.2K 1/4W	[M]
R527	ERDS2TJ821T	820 1/4W	[M]
R528	ERDS2TJ821T	820 1/4W	[M]
R529	ERDS2TJ273T	27K 1/4W	[M]
R530	ERDS2TJ273T	27K 1/4W	[M]
R531	ERDS2TJ332T	3.3K 1/4W	[M]
R532	ERDS2TJ332T	3.3K 1/4W	[M]
R533	ERDS2TJ473T	47K 1/4W	[M]
R534	ERDS2TJ473T	47K 1/4W	[M]
R535	ERDS2TJ272T	2.7K 1/4W	[M]
R536	ERDS2TJ272T	2.7K 1/4W	[M]
R537	ERDS2TJ103T	10K 1/4W	[M]
R538	ERDS2TJ103T	10K 1/4W	[M]
R543	ERDS2TJ102T	1K 1/4W	[M]
R544	ERDS2TJ102T	1K 1/4W	[M]
R545	ERDS2TJ684T	680K 1/4W	[M]
R546	ERDS2TJ223T	22K 1/4W	[M]
R550	ERDS2TJ822T	8.2K 1/4W	[M]
R551	ERDS2TJ102T	1K 1/4W	[M]
R552	ERDS2TJ102T	1K 1/4W	[M]
R553	ERDS2TJ104T	100K 1/4W	[M]
R554	ERDS2TJ104T	100K 1/4W	[M]
R555	ERDS2TJ223T	22K 1/4W	[M]
R556	ERDS2TJ223T	22K 1/4W	[M]
R557	ERDS2TJ821T	820 1/4W	[M]
R558	ERDS2TJ821T	820 1/4W	[M]
R561	ERDS2TJ102T	1K 1/4W	[M]
R562	ERDS2TJ102T	1K 1/4W	[M]
R563	ERDS2TJ104T	100K 1/4W	[M]
R564	ERDS2TJ104T	100K 1/4W	[M]
R565	ERDS2TJ223T	22K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R566	ERDS2TJ103T	10K 1/4W	[M]
R567	ERDS2TJ821T	820 1/4W	[M]
R568	ERDS2TJ681T	680 1/4W	[M]
R571	ERDS2TJ681T	680 1/4W	[M]
R572	ERDS2TJ681T	680 1/4W	[M]
R573	ERDS2TJ272T	2.7K 1/4W	[M]
R574	ERDS2TJ272T	2.7K 1/4W	[M]
R575	ERDS2TJ681T	680 1/4W	[M]
R576	ERDS2TJ272T	2.7K 1/4W	[M]
R580	ERDS2TJ681T	680 1/4W	[M]
R581	ERDS2TJ272T	2.7K 1/4W	[M]
R582	ERDS2TJ272T	2.7K 1/4W	[M]
R583	ERDS2TJ272T	2.7K 1/4W	[M]
R584	ERDS2TJ272T	2.7K 1/4W	[M]
R585	ERDS2TJ103T	10K 1/4W	[M]
R586	ERDS2TJ103T	10K 1/4W	[M]
R595	ERDS2TJ102T	1K 1/4W	[M]
R596	ERDS2TJ102T	1K 1/4W	[M]
R597	ERDS2TJ102T	1K 1/4W	[M]
R598	ERDS2TJ102T	1K 1/4W	[M]
R603	ERDS2TJ182T	1.8K 1/4W	[M]
R604	ERDS2TJ182T	1.8K 1/4W	[M]
R605	ERDS2TJ221T	220 1/4W	[M]
R606	ERDS2TJ221T	220 1/4W	[M]
R607	ERDS2TJ563T	56K 1/4W	[M]
R608	ERDS2TJ563T	56K 1/4W	[M]
R609	ERDS2TJ470T	47 1/4W	[M]
R610	ERDS2TJ470T	47 1/4W	[M]
R611	ERDS1FVJ100T	10 1/2W	[M] △
R612	ERDS1FVJ100T	10 1/2W	[M] △
R613	ERDS2TJ152T	1.5K 1/4W	[M]
R614	ERDS2TJ152T	1.5K 1/4W	[M]
R615	ERDS2TJ681T	680 1/4W	[M]
R616	ERD25FVJ820T	82 1/4W	[M]
R617	ERD25FVJ820T	82 1/4W	[M]
R618	ERD25FVJ820T	82 1/4W	[M]
R619	ERD25FVJ820T	82 1/4W	[M]
R621	ERDS2TJ682T	6.8K 1/4W	[M]
R622	ERDS2TJ682T	6.8K 1/4W	[M]
R623	ERDS2TJ682T	6.8K 1/4W	[M]
R624	ERD25FVJ4R7T	4.7 1/4W	[M]
R625	ERG1S101E	100 1W	[M] △
R626	ERG1S101E	100 1W	[M] △
R627	ERG1S101E	100 1W	[M] △
R628	ERG1S101E	100 1W	[M] △
R629	ERDS2TJ102T	1K 1/4W	[M]
R630	ERDS2TJ124T	120K 1/4W	[M]
R631	ERDS2TJ154T	150K 1/4W	[M]
R632	ERDS2TJ184T	180K 1/4W	[M]
R633	ERDS2TJ473T	47K 1/4W	[M]
R634	ERDS2TJ274T	270K 1/4W	[M]
R635	ERDS2TJ154T	150K 1/4W	[M]
R636	ERDS2TJ473T	47K 1/4W	[M]
R637	ERDS2TJ154T	150K 1/4W	[M]
R638	ERDS2TJ154T	150K 1/4W	[M]
R639	ERDS2TJ104T	100K 1/4W	[M]
R640	ERDS2TJ681T	680 1/4W	[M]
R641	ERDS2TJ104T	100K 1/4W	[M]
R642	ERDS2TJ182T	1.8K 1/4W	[M]
R643	ERDS2TJ563T	56K 1/4W	[M]
R644	ERDS1FVJ100T	10 1/2W	[M] △
R645	ERDS2TJ470T	47 1/4W	[M]
R647	ERDS2TJ221T	220 1/4W	[M]
R652	ERDS2TJ681T	680 1/4W	[M]
R654	ERDS2TJ182T	1.8K 1/4W	[M]
R656	ERDS2TJ221T	220 1/4W	[M]
R658	ERDS2TJ563T	56K 1/4W	[M]
R661	ERDS1FVJ100T	10 1/2W	[M] △
R662	ERDS1FVJ100T	10 1/2W	[M] △
R663	ERDS2TJ470T	47 1/4W	[M]
R664	ERDS2TJ470T	47 1/4W	[M]
R671	ERD25FVJ100T	10 1/4W	[M]
R672	ERD25FVJ100T	10 1/4W	[M]
R674	ERD25FVJ4R7T	4.7 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R679	ERDS2TJ682T	6.8K 1/4W	[M]
R681	ERDS2TJ224T	220K 1/4W	[M]
R682	ERDS2TJ224T	220K 1/4W	[M]
R683	ERDS2TJ473T	47K 1/4W	[M]
R684	ERDS2TJ274T	270K 1/4W	[M]
R685	ERDS2TJ154T	150K 1/4W	[M]
R687	ERDS2TJ154T	150K 1/4W	[M]
R688	ERDS2TJ154T	150K 1/4W	[M]
R689	ERDS2TJ821T	820 1/4W	[M]
R690	ERDS2TJ821T	820 1/4W	[M]
R692	ERDS2TJ182T	1.8K 1/4W	[M]
R693	ERDS2TJ563T	56K 1/4W	[M]
R697	ERDS2TJ221T	220 1/4W	[M]
R698	ERDS2TJ152T	1.5K 1/4W	[M]
R699	ERDS2TJ152T	1.5K 1/4W	[M]
R705	ERDS2TJ472T	4.7K 1/4W	[M]
R706	ERDS2TJ102T	1K 1/4W	[M]
R707	ERD25FVJ221T	220 1/4W	[M]
R708	ERDS2TJ152T	1.5K 1/4W	[M]
R711	ERDS2TJ752T	7.5K 1/4W	[M]
R712	ERDS2TJ682T	6.8K 1/4W	[M]
R713	ERDS2TJ390T	39 1/4W	[M]
R714	ERDS2TJ390T	39 1/4W	[M]
R720	ERDS2TJ103T	10K 1/4W	[M]
R721	ERD25FVJ221T	220 1/4W	[M]
R722	ERDS2TJ123T	12K 1/4W	[M]
R723	ERDS1FVJ1R0T	1 1/2W	[M] △
R724	ERDS1FVJ1R0T	1 1/2W	[M] △
R725	ERDS2TJ821T	820 1/4W	[M]
R726	ERD25FVJ221T	220 1/4W	[M]
R727	ERD25FVJ221T	220 1/4W	[M]
R728	ERDS2TJ684T	680K 1/4W	[M]
R729	ERDS2TJ684T	680K 1/4W	[M]
R730	ERDS1FVJ8R2T	8.2 1/2W	[M] △
R756	ERDS2TJ222T	2.2K 1/4W	[M]
R766	ERDS2TJ473T	47K 1/4W	[M]
R767	ERDS2TJ154T	150K 1/4W	[M]
R768	ERDS2TJ102T	1K 1/4W	[M]
R769	ERDS2TJ103T	10K 1/4W	[M]
R770	ERDS2TJ104T	100K 1/4W	[M]
R771	ERDS2TJ104T	100K 1/4W	[M]
R773	ERDS2TJ103T	10K 1/4W	[M]
R774	ERDS2TJ155T	1.5M 1/4W	[M]
R775	ERDS2TJ331T	330 1/4W	[M]
R776	ERDS1FVJ220T	22 1/2W	[M] △
R777	ERDS2TJ154T	150K 1/4W	[M]
R778	ERDS2TJ472T	4.7K 1/4W	[M]
R779	ERDS2TJ103T	10K 1/4W	[M]
R780	ERDS1FVJ3R9T	3.9 1/2W	[M] △
R782	ERDS2TJ390T	39 1/4W	[M]
R784	ERDS2TJ154T	150K 1/4W	[M]
R786	ERDS2TJ154T	150K 1/4W	[M]
R791	ERDS2TJ123T	12K 1/4W	[M]
R792	ERDS2TJ123T	12K 1/4W	[M]
R793	ERDS2TJ123T	12K 1/4W	[M]
R794	ERDS2TJ123T	12K 1/4W	[M]
R795	ERDS2TJ223T	22K 1/4W	[M]
R797	ERDS2TJ223T	22K 1/4W	[M]
R798	ERDS2TJ223T	22K 1/4W	[M]
R799	ERDS2TJ682T	6.8K 1/4W	[M]
R891	ERDS2TJ103T	10K 1/4W	[M]
R892	ERDS2TJ103T	10K 1/4W	[M]
R893	ERDS2TJ103T	10K 1/4W	[M]
R894	ERDS2TJ103T	10K 1/4W	[M]
R901	ERDS2TJ102T	1K 1/4W	[M]
R903	ERDS2TJ104T	100K 1/4W	[M]
R905	ERDS2TJ181T	180 1/4W	[M]
R906	ERDS2TJ222T	2.2K 1/4W	[M]
R907	ERDS2TJ104T	100K 1/4W	[M]
R908	ERDS2TJ104T	100K 1/4W	[M]
R909	ERDS2TJ473T	47K 1/4W	[M]
R910	ERDS2TJ102T	1K 1/4W	[M]
R911	ERDS2TJ104T	100K 1/4W	[M]
R912	ERDS2TJ223T	22K 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R913	ERDS2TJ103T	10K 1/4W	[M]
R915	ERDS2TJ222T	2.2K 1/4W	[M]
R916	ERDS2TJ223T	22K 1/4W	[M]
R917	ERDS2TJ103T	10K 1/4W	[M]
R918	ERDS2TJ102T	1K 1/4W	[M]
R919	ERDS2TJ102T	1K 1/4W	[M]
R920	ERDS2TJ271T	270 1/4W	[M]
R921	ERDS2TJ121T	120 1/4W	[M]
R922	ERDS2TJ472T	4.7K 1/4W	[M]
R924	ERDS2TJ103T	10K 1/4W	[M]
R927	ERDS2TJ181T	180 1/4W	[M]
R929	ERDS2TJ101T	100 1/4W	[M]
R930	ERDS2TJ101T	100 1/4W	[M]
R931	ERDS2TJ271T	270 1/4W	[M]
R932	ERDS2TJ271T	270 1/4W	[M]
R933	ERDS2TJ271T	270 1/4W	[M]
R934	ERDS2TJ271T	270 1/4W	[M]
R935	ERDS2TJ271T	270 1/4W	[M]
R936	ERDS2TJ271T	270 1/4W	[M]
R937	ERDS2TJ271T	270 1/4W	[M]
R938	ERDS2TJ271T	270 1/4W	[M]
R939	ERDS2TJ271T	270 1/4W	[M]
R940	ERDS2TJ271T	270 1/4W	[M]
R941	ERDS2TJ271T	270 1/4W	[M]
R942	ERDS2TJ181T	180 1/4W	[M]
R943	ERDS2TJ102T	1K 1/4W	[M]
R944	ERDS2TJ104T	100K 1/4W	[M]
R945	ERDS2TJ104T	100K 1/4W	[M]
R946	ERDS2TJ103T	10K 1/4W	[M]
R948	ERDS2TJ103T	10K 1/4W	[M]
R949	ERDS2TJ103T	10K 1/4W	[M]
R950	ERDS2TJ102T	1K 1/4W	[M]
R951	ERDS2TJ122T	1.2K 1/4W	[M]
R952	ERDS2TJ152T	1.5K 1/4W	[M]
R953	ERDS2TJ182T	1.8K 1/4W	[M]
R954	ERDS2TJ222T	2.2K 1/4W	[M]
R955	ERDS2TJ332T	3.3K 1/4W	[M]
R956	ERDS2TJ472T	4.7K 1/4W	[M]
R957	ERDS2TJ682T	6.8K 1/4W	[M]
R958	ERDS2TJ123T	12K 1/4W	[M]
R970	ERDS2TJ102T	1K 1/4W	[M]
R971	ERDS2TJ122T	1.2K 1/4W	[M]
R972	ERDS2TJ152T	1.5K 1/4W	[M]
R973	ERDS2TJ182T	1.8K 1/4W	[M]
R974	ERDS2TJ222T	2.2K 1/4W	[M]
R977	ERDS2TJ102T	1K 1/4W	[M]
R978	ERDS2TJ102T	1K 1/4W	[M]
R980	ERDS2TJ102T	1K 1/4W	[M]
R981	ERDS2TJ122T	1.2K 1/4W	[M]
R982	ERDS2TJ152T	1.5K 1/4W	[M]
R983	ERDS2TJ182T	1.8K 1/4W	[M]
R984	ERDS2TJ222T	2.2K 1/4W	[M]
R985	ERDS2TJ332T	3.3K 1/4W	[M]
R986	ERDS2TJ472T	4.7K 1/4W	[M]
R991	ERDS2TJ104T	100K 1/4W	[M]
R992	ERDS2TJ104T	100K 1/4W	[M]
R993	ERDS2TJ104T	100K 1/4W	[M]
R994	ERDS2TJ104T	100K 1/4W	[M]
R995	ERDS2TJ104T	100K 1/4W	[M]
R996	ERDS2TJ104T	100K 1/4W	[M]
R997	ERDS2TJ101T	100 1/4W	[M]
R998	ERDS2TJ101T	100 1/4W	[M]
R1001	ERDS2TJ102T	1K 1/4W	[M]
R1002	ERDS2TJ102T	1K 1/4W	[M]
R1003	ERDS2TJ222T	2.2K 1/4W	[M]
R1005	ERDS2TJ393T	39K 1/4W	[M]
R1006	ERDS2TJ183T	18K 1/4W	[M]
R1007	ERDS2TJ473T	47K 1/4W	[M]
R1008	ERDS2TJ473T	47K 1/4W	[M]
R1009	ERDS2TJ332T	3.3K 1/4W	[M]
R1010	ERDS2TJ332T	3.3K 1/4W	[M]
R1011	ERDS2TJ332T	3.3K 1/4W	[M]
R1012	ERDS2TJ102T	1K 1/4W	[M]
R1013	ERD25FVJ4R7T	4.7 1/4W	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
R1052	ERDS2TJ105T	1M 1/4W	[M]
R1053	ERDS2TJ102T	1K 1/4W	[M]
R1056	ERDS2TJ153T	15K 1/4W	[M]
R1061	ERDS2TJ222T	2.2K 1/4W	[M]
R1062	ERDS2TJ273T	27K 1/4W	[M]
R1063	ERDS2TJ332T	3.3K 1/4W	[M]
R1064	ERDS2TJ224T	220K 1/4W	[M]
R1151	ERDS2TJ473T	47K 1/4W	[M]
R1152	ERDS2TJ473T	47K 1/4W	[M]
R1154	ERDS2TJ333T	33K 1/4W	[M]
R1155	ERDS2TJ393T	39K 1/4W	[M]
R1156	ERDS2TJ393T	39K 1/4W	[M]
R1158	ERDS2TJ104T	100K 1/4W	[M]
R1160	ERDS2TJ104T	100K 1/4W	[M]
R1681	ERDS2TJ270T	27 1/4W	[M]
R1682	ERDS2TJ270T	27 1/4W	[M]
R1683	ERDS2TJ270T	27 1/4W	[M]
R1684	ERDS2TJ270T	27 1/4W	[M]
R1685	ERDS2TJ270T	27 1/4W	[M]
R1686	ERDS2TJ270T	27 1/4W	[M]
R1687	ERDS2TJ270T	27 1/4W	[M]
R1688	ERDS2TJ270T	27 1/4W	[M]
R1689	ERDS2TJ270T	27 1/4W	[M]
R1690	ERDS2TJ270T	27 1/4W	[M]
R1691	ERDS2TJ270T	27 1/4W	[M]
R1692	ERDS2TJ270T	27 1/4W	[M]
R1693	ERDS2TJ270T	27 1/4W	[M]
R1694	ERDS2TJ270T	27 1/4W	[M]
R1695	ERDS2TJ102T	1K 1/4W	[M]
R1696	ERDS2TJ102T	1K 1/4W	[M]
R1699	ERDS2TJ332T	3.3K 1/4W	[M]
		CAPACITORS	
C308	ECA0JAK101XB	100 6.3V	[M]
C309	ECA0JAK101XB	100 6.3V	[M]
C311	ECA1HAK4R7XB	4.7 50V	[M]
C312	ECA1HAK4R7XB	4.7 50V	[M]
C329	ECBT1H470J5	47P 50V	[M]
C330	ECBT1H470J5	47P 50V	[M]
C351	ECA0JAK101XB	100 6.3V	[M]
C352	ECA0JAK101XB	100 6.3V	[M]
C354	ECBT1H104KB5	0.1 50V	[M]
C355	ECBT1H104KB5	0.1 50V	[M]
C357	ECBT1H103KB5	0.01 50V	[M]
C358	ECBT1H103KB5	0.01 50V	[M]
C373	ECA1CAK470XB	47 16V	[M]
C374	ECA1CAK470XB	47 16V	[M]
C375	ECA1CAK470XB	47 16V	[M]
C381	ECA1HAK3R3XB	3.3 50V	[M]
C382	ECA1HAK3R3XB	3.3 50V	[M]
C383	ECA1HAK3R3XB	3.3 50V	[M]
C384	ECA1HAK3R3XB	3.3 50V	[M]
C385	ECA1HAK3R3XB	3.3 50V	[M]
C386	ECA1HAK3R3XB	3.3 50V	[M]
C387	ECA1HAK3R3XB	3.3 50V	[M]
C388	ECA1HAK3R3XB	3.3 50V	[M]
C391	ECA1HAK3R3XB	3.3 50V	[M]
C392	ECA1HAK3R3XB	3.3 50V	[M]
C393	ECA1HAK3R3XB	3.3 50V	[M]
C394	ECA1HAK3R3XB	3.3 50V	[M]
C401	ECA1HAK4R7XB	4.7 50V	[M]
C402	ECA1HAK4R7XB	4.7 50V	[M]
C403	ECBT1H103KB5	0.01 50V	[M]
C404	ECBT1H103KB5	0.01 50V	[M]
C405	ECBT1H101KB5	100P 50V	[M]
C406	ECBT1H101KB5	100P 50V	[M]
C409	ECA1EAK220XB	22 25V	[M]
C410	ECA1EAK220XB	22 25V	[M]
C411	ECBT1H101KB5	100P 50V	[M]
C412	ECBT1H101KB5	100P 50V	[M]
C413	ECA1CAK100XB	10 16V	[M]
C414	ECA1CAK100XB	10 16V	[M]
C415	ECBT1H103KB5	0.01 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C416	ECBT1H103KB5	0.01 50V	[M]
C417	ECBT1H101KB5	100P 50V	[M]
C418	ECBT1H101KB5	100P 50V	[M]
C419	ECBT1H331KB5	330P 50V	[M]
C420	ECBT1H331KB5	330P 50V	[M]
C421	ECBT1H331KB5	330P 50V	[M]
C422	ECBT1H331KB5	330P 50V	[M]
C423	ECBT1H101KB5	100P 50V	[M]
C424	ECBT1H101KB5	100P 50V	[M]
C425	ECBT1H101KB5	100P 50V	[M]
C426	ECBT1H101KB5	100P 50V	[M]
C427	ECBT1H221KB5	220P 50V	[M]
C428	ECBT1H221KB5	220P 50V	[M]
C431	ECA1CAK100XB	10 16V	[M]
C432	ECA1CAK100XB	10 16V	[M]
C433	ECBT1H331KB5	330P 50V	[M]
C434	ECBT1H331KB5	330P 50V	[M]
C440	ECBT1H103KB5	0.01 50V	[M]
C451	ECA1HAK4R7XB	4.7 50V	[M]
C452	ECA1HAK4R7XB	4.7 50V	[M]
C453	ECBT1H100JC5	10P 50V	[M]
C454	ECBT1H100JC5	10P 50V	[M]
C455	ECBT1H102KB5	1000P 50V	[M]
C456	ECBT1H102KB5	1000P 50V	[M]
C457	ECA1AAK330XB	33 10V	[M]
C458	ECA1AAK330XB	33 10V	[M]
C459	ECFR1E223KR	0.022 25V	[M]
C460	ECFR1E223KR	0.022 25V	[M]
C461	ECFR1E682KR	6800P 25V	[M]
C462	ECFR1E682KR	6800P 25V	[M]
C463	ECA1HAK4R7XB	4.7 50V	[M]
C464	ECA1HAK4R7XB	4.7 50V	[M]
C465	ECBT1H103KB5	0.01 50V	[M]
C466	ECBT1H103KB5	0.01 50V	[M]
C469	ECBT1H181KB5	180P 50V	[M]
C470	ECBT1H181KB5	180P 50V	[M]
C471	ECA1HAK4R7XB	4.7 50V	[M]
C472	ECA1HAK4R7XB	4.7 50V	[M]
C473	ECBT1H103KB5	0.01 50V	[M]
C474	ECBT1H103KB5	0.01 50V	[M]
C475	ECBT1H101KB5	100P 50V	[M]
C482	ECA1HAK3R3XB	3.3 50V	[M]
C483	ECBT1H331KB5	330P 50V	[M]
C491	ECBT1H101KB5	100P 50V	[M]
C492	ECBT1H101KB5	100P 50V	[M]
C493	ECBT1H101KB5	100P 50V	[M]
C494	ECBT1H101KB5	100P 50V	[M]
C503	ECA0JAK101XB	100 6.3V	[M]
C504	ECA0JAK101XB	100 6.3V	[M]
C505	ECFR1C104MR	0.1 16V	[M]
C506	ECFR1C104MR	0.1 16V	[M]
C511	ECA1HAK3R3XB	3.3 50V	[M]
C512	ECA1HAK3R3XB	3.3 50V	[M]
C513	ECBT1H150J5	15P 50V	[M]
C514	ECBT1H150J5	15P 50V	[M]
C515	ECBT1H221KB5	220P 50V	[M]
C516	ECBT1H221KB5	220P 50V	[M]
C517	ECBT1H330J5	33P 50V	[M]
C518	ECBT1H330J5	33P 50V	[M]
C519	ECA1HAK4R7XB	4.7 50V	[M]
C520	ECA1HAK4R7XB	4.7 50V	[M]
C521	ECA1HAK4R7XB	4.7 50V	[M]
C522	ECA1HAK4R7XB	4.7 50V	[M]
C523	ECFR1E123KR	0.012 25V	[M]
C524	ECFR1E123KR	0.012 25V	[M]
C525	ECQV1H683JZ3	0.068 50V	[M]
C526	ECQV1H683JZ3	0.068 50V	[M]
C527	ECBT1C562KR5	5600P 16V	[M]
C528	ECBT1C562KR5	5600P 16V	[M]
C529	ECQB1H273JM3	0.027 50V	[M]
C530	ECQB1H273JM3	0.027 50V	[M]
C531	ECBT1H103KB5	0.01 50V	[M]
C532	ECBT1H103KB5	0.01 50V	[M]
C533	ECA1CAK100XB	10 16V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C534	ECA1CAK100XB	10 16V	[M]
C535	ECBT1H104KB5	0.1 50V	[M]
C536	ECBT1H104KB5	0.1 50V	[M]
C537	ECA1CAK100XB	10 16V	[M]
C538	ECA1CAK100XB	10 16V	[M]
C551	ECA1HAK3R3XB	3.3 50V	[M]
C552	ECA1HAK3R3XB	3.3 50V	[M]
C553	ECBT1H101KB5	100P 50V	[M]
C554	ECBT1H101KB5	100P 50V	[M]
C555	ECBT1H221KB5	220P 50V	[M]
C556	ECBT1H221KB5	220P 50V	[M]
C557	ECBT1H103KB5	0.01 50V	[M]
C558	ECBT1H103KB5	0.01 50V	[M]
C559	ECA1CAK100XB	10 16V	[M]
C560	ECA1CAK100XB	10 16V	[M]
C561	ECA1HAK3R3XB	3.3 50V	[M]
C562	ECA1HAK3R3XB	3.3 50V	[M]
C563	ECBT1H101KB5	100P 50V	[M]
C564	ECBT1H101KB5	100P 50V	[M]
C565	ECBT1H221KB5	220P 50V	[M]
C566	ECBT1H221KB5	220P 50V	[M]
C567	ECBT1H103KB5	0.01 50V	[M]
C568	ECBT1H103KB5	0.01 50V	[M]
C571	ECA1CAK220XB	22 16V	[M]
C572	ECA1CAK220XB	22 16V	[M]
C573	ECBT1H561KB5	560P 50V	[M]
C574	ECBT1H102KB5	1000P 50V	[M]
C575	ECA1CAK220XB	22 16V	[M]
C576	ECBT1H561KB5	560P 50V	[M]
C577	ECBT1H103KB5	0.01 50V	[M]
C578	ECBT1H103KB5	0.01 50V	[M]
C579	ECA1CAK220XB	22 16V	[M]
C580	ECA1CAK220XB	22 16V	[M]
C581	ECBT1H561KB5	560P 50V	[M]
C582	ECBT1H561KB5	560P 50V	[M]
C585	ECA1CAK220XB	22 16V	[M]
C586	ECA1CAK100XB	10 16V	[M]
C601	ECA1JAM330XB	33 63V	[M]
C602	ECA1JAM330XB	33 63V	[M]
C603	ECBT1H821KB5	820P 50V	[M]
C604	ECBT1H821KB5	820P 50V	[M]
C607	ECCR1H180KC5	18P 50V	[M]
C608	ECCR1H180KC5	18P 50V	[M]
C611	ECQV1H104JZ3	0.1 50V	[M]
C612	ECQV1H104JZ3	0.1 50V	[M]
C613	ECQV1H104JZ3	0.1 50V	[M]
C614	ECQV1H104JZ3	0.1 50V	[M]
C615	ECBT1H103KB5	0.01 50V	[M]
C616	ECA1EAM101XB	100 25V	[M]
C617	ECEA2AN2R2SB	2.2 100V	[M]
C618	ECBT1H102KB5	1000P 50V	[M]
C619	ECA1EAM101XB	100 25V	[M]
C621	ECEA2AU100B	10 100V	[M]
C622	ECEA2AU100B	10 100V	[M]
C625	ECEA1HN100SB	10 50V	[M]
C626	ECEA1HN100SB	10 50V	[M]
C631	ECKR1H223ZF5	0.022 50V	[M]
C632	ECKR1H223ZF5	0.022 50V	[M]
C633	ECKR1H223ZF5	0.022 50V	[M]
C634	ECKR1H223ZF5	0.022 50V	[M]
C635	ECKR1H223ZF5	0.022 50V	[M]
C637	ECKR1H223ZF5	0.022 50V	[M]
C638	ECKR1H223ZF5	0.022 50V	[M]
C641	ECA1JAM330XB	33 63V	[M]
C642	ECBT1H821KB5	820P 50V	[M]
C643	ECCR1H180KC5	18P 50V	[M]
C644	ECQV1H104JZ3	0.1 50V	[M]
C645	ECQV1H104JZ3	0.1 50V	[M]
C646	ECQE2104KF3	0.1 250V	[M]
C652	ECA1JAM330XB	33 63V	[M]
C654	ECBT1H821KB5	820P 50V	[M]
C658	ECCR1H180KC5	18P 50V	[M]
C661	ECQV1H104JZ3	0.1 50V	[M]
C662	ECQV1H104JZ3	0.1 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C663	ECQV1H104JZ3	0.1 50V	[M]
C664	ECQV1H104JZ3	0.1 50V	[M]
C666	ECA1EAM101XB	100 25V	[M]
C667	ECEA2AN2R2SB	2.2 100V	[M]
C668	ECBT1H102KB5	1000P 50V	[M]
C671	ECEA2AU100B	10 100V	[M]
C672	ECEA2AU100B	10 100V	[M]
C685	ECBT1H103KB5	0.01 50V	[M]
C690	ECBT1H103KB5	0.01 50V	[M]
C691	ECA1JAM330XB	33 63V	[M]
C692	ECBT1H821KB5	820P 50V	[M]
C693	ECCR1H180KC5	18P 50V	[M]
C698	ECKR1H181KB5	180P 50V	[M]
C701	ECBT1H103KB5	0.01 50V	[M]
C702	ECQE2104KF3	0.1 250V	[M]
C703	ECOS1JP682CB	6800P 63V	[M] △
C704	ECOS1JP682CB	6800P 63V	[M] △
C705	ECOS1VP562BB	5600P 35V	[M] △
C706	ECOS1VP562BB	5600P 35V	[M] △
C707	ECA1VAM101XB	100 63V	[M]
C708	ECKR1H103ZF5	0.01 50V	[M]
C709	ECA1CAK330XB	33 16V	[M] △
C710	ECBT1H103KB5	0.01 50V	[M]
C711	ECKR1H103ZF5	0.01 50V	[M]
C712	ECA1HAK100XB	10 50V	[M] △
C713	ECKR1H103ZF5	0.01 50V	[M]
C714	ECA1EAK470XB	47 25V	[M] △
C715	ECA1CAK101XB	100 16V	[M]
C721	ECQE2104KF3	0.1 250V	[M]
C722	ECQE2104KF3	0.1 250V	[M]
C751	ECKR1H102MBC	1000P 400V	[M]
C752	ECKR1H103ZF5	0.01 50V	[M]
C753	ECA1CAM102XB	1000 16V	[M] △
C754	ECBT1H103KB5	0.01 50V	[M]
C755	ECA1CAK470XB	47 16V	[M] △
C757	ECA1CAK100XB	10 16V	[M] △
C758	ECA1CAK101XB	100 16V	[M]
C771	ECA1HAK4R7XB	4.7 50V	[M]
C772	ECA1HAK4R7XB	4.7 50V	[M]
C773	ECBT1H104KB5	0.1 50V	[M]
C774	ECA0JAK101XB	100 6.3V	[M]
C775	ECA1CAK100XB	10 16V	[M]
C776	ECA1HAK010XB	1 50V	[M]
C777	ECA1CAM221XB	220 16V	[M]
C778	ECA1CAK101XB	100 16V	[M]
C779	ECA1CAK101XB	100 16V	[M]
C780	ECA1CAM471XB	470 16V	[M]
C781	ECBT1H103KB5	0.01 50V	[M]
C891	ECA1CAK100XB	10 16V	[M]
C894	ECBT1H101KB5	100P 50V	[M]
C895	ECBT1H101KB5	100P 50V	[M]
C901	ECEA0JU102B	1000 6.3V	[M]
C902	ECBT1H104KB5	0.1 50V	[M]
C903	ECBT1H103KB5	0.01 50V	[M]
C904	ECEA0JU102B	1000 6.3V	[M]
C905	ECBT1H103KB5	0.01 50V	[M]
C906	ECA0JAK101XB	100 6.3V	[M]
C908	ECBT1H103KB5	0.01 50V	[M]
C909	ECA1HAK220XB	22 50V	[M]
C910	ECA1HAK220XB	22 50V	[M]
C911	ECA1HAK220XB	22 50V	[M]
C912	ECA1HAK220XB	22 50V	[M]
C913	ECA1HAK100XB	10 50V	[M]
C914	ECA1HAK100XB	10 50V	[M]
C916	ECA1HAK010XB	1 50V	[M]
C917	ECA0JM101B	01 6.3V	[M]
C918	ECA0JM101B	01 6.3V	[M]
C920	ECA1HAK010XB	1 50V	[M]
C921	ECBT1H331KB5	330P 50V	[M]
C922	ECBT1H331KB5	330P 50V	[M]
C923	ECBT1H331KB5	330P 50V	[M]
C924	ECBT1H331KB5	330P 50V	[M]
C925	ECBT1H331KB5	330P 50V	[M]
C926	ECBT1H331KB5	330P 50V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C927	ECBT1H331KB5	330P 50V	[M]
C928	ECBT1H331KB5	330P 50V	[M]
C929	ECBT1H331KB5	330P 50V	[M]
C930	ECBT1H331KB5	330P 50V	[M]
C932	ECBT1H101KB5	100P 50V	[M]
C933	ECBT1H101KB5	100P 50V	[M]
C935	ECBT1H331KB5	330P 50V	[M]
C943	ECBT1H331KB5	330P 50V	[M]
C944	ECA1EPXS100B	10 25V	[M]
C945	ECBT1H103KB5	0.01 50V	[M]
C946	ECBT1H470J5	47P 50V	[M]
C947	ECBT1H470J5	47P 50V	[M]
C955	ECBT1H101KB5	100P 50V	[M]
C962	ECBT1H561KB5	560P 50V	[M]
C963	ECBT1H102KB5	1000P 50V	[M]
C991	ECBT1H101KB5	100P 50V	[M]
C992	ECBT1H101KB5	100P 50V	[M]
C993	ECBT1H101KB5	100P 50V	[M]
C994	ECBT1H101KB5	100P 50V	[M]
C995	ECBT1H101KB5	100P 50V	[M]
C996	ECBT1H101KB5	100P 50V	[M]
C997	ECA1CAK100XB	10 16V	[M]
C998	ECBT1H103KB5	0.01 50V	[M]
C1001	ECA1HAK010XB	1 50V	[M]
C1002	ECA1HAK010XB	1 50V	[M]
C1003	ECA1HAK3R3XB	3.3 50V	[M]
C1004	ECA1HAK3R3XB	3.3 50V	[M]
C1005	ECA1HAK010XB	1 50V	[M]
C1006	ECA1CAK470XB	47 16V	[M]
C1007	ECA1HAKR47XB	0.47 50V	[M]
C1008	ECBT1H104KB5	0.1 50V	[M]
C1009	ECA1CAM221XB	220 16V	[M]
C1010	ECA1CAK100XB	10 16V	[M]
C1011	ECA1CAK100XB	10 16V	[M]
C1012	ECA1CAK100XB	10 16V	[M]
C1013	ECA1CAK100XB	10 16V	[M]
C1014	ECA1CAM221XB	220 16V	[M]
C1015	ECQV1H104JZ3	0.1 50V	[M]
C1016	ECQV1H104JZ3	0.1 50V	[M]
C1017	ECA1HAKR47XB	0.47 50V	[M]
C1018	ECA1HAK4R7XB	4.7 50V	[M]
C1019	ECA1HAKR47XB	0.47 50V	[M]
C1020	ECA1HAK4R7XB	4.7 50V	[M]
C1021	ECA1HAKR15XB	0.15 50V	[M]
C1022	ECA1HAK3R3XB	3.3 50V	[M]
C1023	ECQV1H154JZ3	0.15 50V	[M]
C1024	ECQV1H154JZ3	0.15 50V	[M]
C1025	ECA1HAK3R3XB	3.3 50V	[M]
C1026	ECA1HAKR15XB	0.15 50V	[M]
C1027	ECA1HAK4R7XB	4.7 50V	[M]
C1028	ECA1HAKR47XB	0.47 50V	[M]
C1029	ECA1HAK4R7XB	4.7 50V	[M]
C1030	ECA1HAKR47XB	0.47 50V	[M]
C1031	ECQV1H104JZ3	0.1 50V	[M]
C1032	ECQV1H104JZ3	0.1 50V	[M]
C1033	ECFR1C223KR	0.022 16V	[M]
C1034	ECFR1C473KR	0.047 16V	[M]
C1035	ECBT1H681KB5	680P 50V	[M]
C1036	ECBT1H101KB5	100P 50V	[M]
C1037	ECBT1H101KB5	100P 50V	[M]
C1038	ECBT1H101KB5	100P 50V	[M]
C1039	ECA1CAM221XB	220 16V	[M]
C1040	ECA1CAK100XB	10 16V	[M]
C1041	ECBT1H103KB5	0.01 50V	[M]
C1042	ECBT1C222KR5	2200P 16V	[M]
C1043	ECA1HAK2R2XB	2.2 50V	[M]
C1044	ECA1CAM221XB	220 16V	[M]
C1045	ECBT1H104KB5	0.1 50V	[M]
C1052	ECA1HAKR33XB	0.33 50V	[M]
C1053	ECA1HAK3R3XB	3.3 50V	[M]
C1055	ECA1HAKR47XB	0.47 50V	[M]
C1056	ECFR1E823KR	0.082 25V	[M]
C1057	ECBT1C332KR5	3300P 16V	[M]
C1058	ECFR1E823KR	0.082 25V	[M]

Ref. No.	Part No.	Part Name & Description	Remarks
C1059	ECA1CAM221XB	220 16V	[M]
C1064	ECA1HAK010XB	1 50V	[M]
C1065	ECBT1H681KB5	680P 50V	[M]
C1067	ECBT1C152KR5	1500P 16V	[M]
C1068	ECBT1C152KR5	1500P 16V	[M]
C1151	ECA1HAK010XB	1 50V	[M]
C1152	ECFR1C683KR	0.068 16V	[M]
C1153	ECFR1C273KR	0.027 16V	[M]
C1154	ECA1HAK4R7XB	4.7 50V	[M]
C1156	ECBT1H103KB5	0.01 50V	[M]
C1157	ECBT1H103KB5	0.01 50V	[M]
C1159	ECA1HAK010XB	1 50V	[M]
C1161	ECBT1H101KB5	100P 50V	[M]
C1683	ECBT1C332KR5	3300P 16V	[M]
C1684	ECBT1C332KR5	3300P 16V	[M]
C1685	ECBT1H103KB5	0.01 50V	[M]

13.3. Packing Materials & Accessories Parts List

Ref. No.	Part No.	Part Name & Description	Remarks
		PACKING MATERIALS	
P1	RPG4663	PACKING CASE	[M]E
P1	RPG4664	PACKING CASE	[M]EB EG
P2	RPN1153	POLYFOAM	[M]
P3	RPFX0005	MIRAMAT BAG	[M]
		ACCESSORIES	
A1	EUR647134	REMOTE CONTROL	[M]
A1-1	UR64EC1987B	R/C BATTERY COVER	[M]
A2	RJA0019-2K	AC CORD (SF)	[M]EG E
A2	VJA0733	AC CORD (SF)	[M]EB
A3	RQT5214-E	O/I BOOK (Sw/Sp/En)	[M]E

Ref. No.	Part No.	Part Name & Description	Remarks
A3	RQT5215-R	O/I BOOK (Po/Cz/Ru)	[M]E
A3	RQT5216-D	O/I BOOK (Fr/It/Ge)	[M]EG
A3	RQT5217-H	O/I BOOK (Du/Da)	[M]EG
A3	RQT5218-B	O/I BOOK (En)	[M]EB
A3	RQT5428-E	O/I BOOK FOR REMOTE (Sw/Sp/En)	[M]E
A3	RQT5429-R	O/I BOOK FOR REMOTE (Po/Cz/Ru)	[M]E
A3	RQT5430-D	O/I BOOK FOR REMOTE (Fr/It/Ge)	[M]EG
A3	RQT5431-H	O/I BOOK FOR REMOTE (Du/Da)	[M]EG
A3	RQT5432-B	O/I BOOK FOR REMOTE (En)	[M]EB
A4	RSA0007	FM ANTENNA	[M]
A5	RSA0012	AM LOOP ANTENNA	[M]
A6	SJP9009	ANTENNA ADAPTER	[M]EB

13.4. Packaging

ACCESSORY CASE

A1 : REMOTE CONTROL

A2 : AC CORD

A3 : O/I BOOK

A4 : FM ANTENNA WIRE

A5 : AM LOOP ANT

