

STR-WX5

SERVICE MANUAL

*E Model
Australian Model
Tourist Model*



STR-WX5 is the tuner and amplifier section in MHC-WX5.

SPECIFICATIONS

Amplifier section

The following measured at AC 120, 220, 240V 50/60Hz
DIN power output (Rated) (FRONT)
120 + 120W (6 Ω at 1kHz DIN)
Continuous RMS power output (Reference)
150 + 150 W
(6 Ω at 1kHz, 10% THD)

Inputs MD/VIDEO 1 IN (phono jacks): voltage 450/250mV, impedance 47k Ω
AV INPUT AUDIO (phono jacks): voltage 250mV, impedance 47k Ω
MIX MIC (phone jack): sensitivity 1mV, impedance 10k Ω
Output MD/VIDEO 1 OUT (phono jacks): voltage 450/250mV, impedance 1k Ω
PHONES (stereo phone jack): accepts headphones of 8 Ω or more.
FRONT SPEAKER: accepts impedance of 6 to 16 Ω
REAR SPEAKER: accepts impedance of 16 Ω
SUPER WOOFER: Voltage 1V, impedance 1k Ω

Video section

Inputs AV INPUT VIDEO (phono jack): 1Vp-p, 75 Ω
Outputs MONITOR OUT (phono jack): 1Vp-p, 75 Ω

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range 87.5 – 108.0MHz
Antenna terminals 75 Ω unbalanced
Intermediate frequency 10.7MHz

AM tuner section

Tuning range
Latin America models: 530 – 1,710kHz (10kHz step)
531 – 1,710kHz (9kHz step)
Middle Eastern models: 531 – 1,602kHz (with the MW interval set at 9kHz)
5.95 – 17.90MHz (with the SW interval set at 5kHz)
Australian, Israel, and Thai models :
531 – 1,602kHz (with the AM tuning interval set at 9kHz)
530 – 1,710kHz (with the AM tuning interval set at 10kHz)
Other models: MW :
531 – 1,602kHz (with the MW tuning interval set at 9kHz)
530 – 1,710kHz (with the MW tuning interval set at 10kHz)
SW :
5.95 – 17.90 MHz (with the SW tuning interval set at 5kHz)
Intermediate frequency 450kHz
Antenna AM loop antenna
External antenna terminal

— Continued on next page —

FM STEREO/FM-AM RECEIVER



SONY®

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General

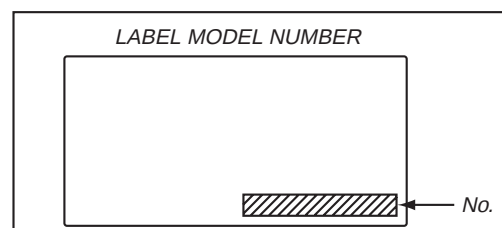
Power requirements	
Australian model:	240V AC, 50/60Hz
Israel and Thailand models:	
	220V AC, 50/60Hz
Other models:	120V or 220V or 230 – 240, 50/60Hz
	Adjustable with voltage selector
Power consumption	290W
Dimensions (w/h/d)	Approx. 288 × 205 × 375mm
Mass	Approx. 7.8kg

Design and specifications are subject to change without notice.

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MODEL IDENTIFICATION

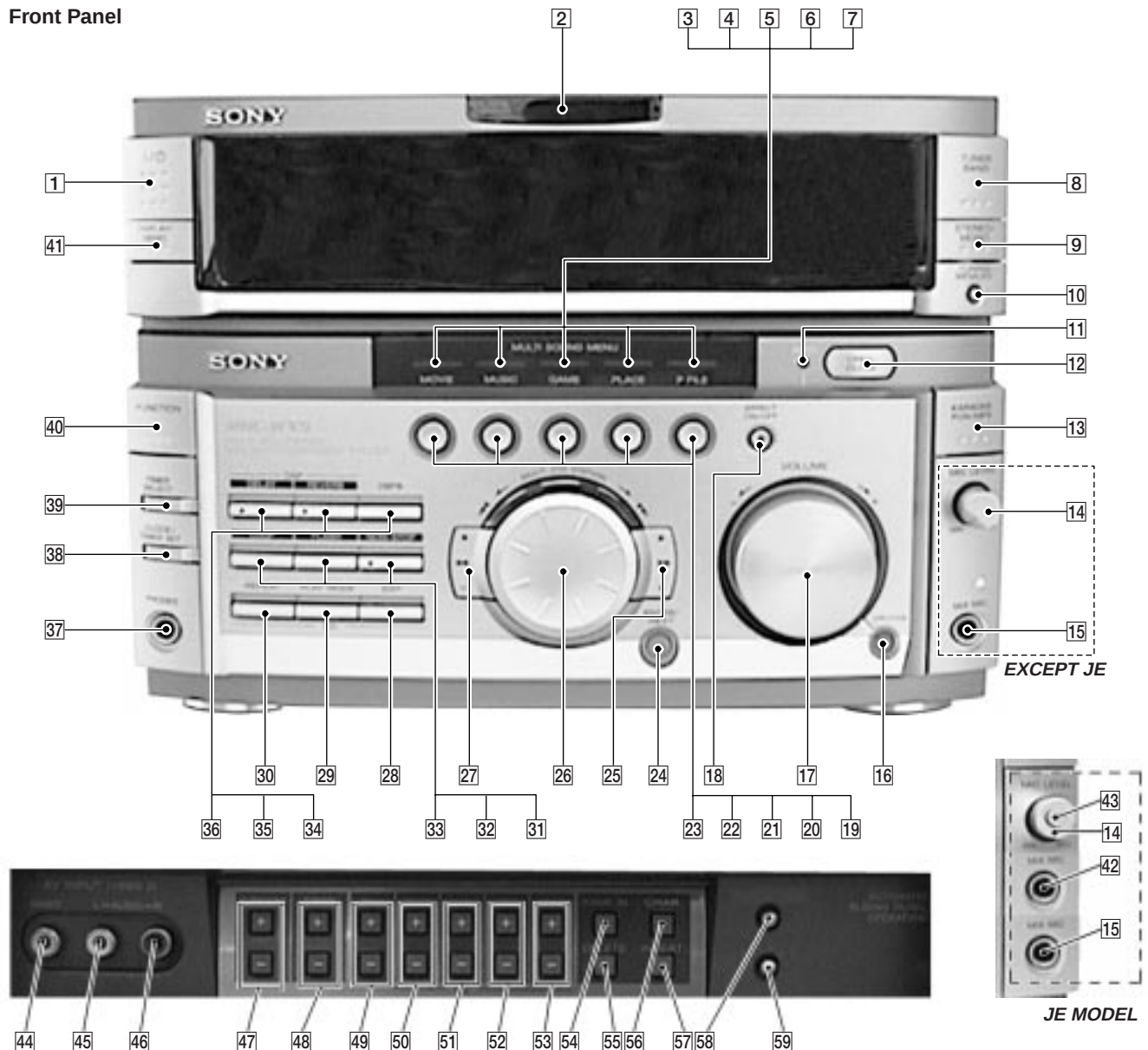
— BACK PANEL —



MODEL	PART No.
EXCEPT Israel, Thai model	4-900-848-0□
Israel, Thai model	4-900-848-1□

SECTION 1 GENERAL

Front Panel



- 1 I/⏻ (Power) button
- 2 SLIDING SENSOR window
- 3 MOVIE indicator
- 4 MUSIC indicator
- 5 GAME indicator
- 6 PLACE indicator
- 7 P FILE indicator
- 8 TUNER/BAND button
- 9 STEREO/MONO button
- 10 MEMORY button
- 11 AUTO indicator
- 12 OPEN/CLOSE button
- 13 KARAOKE PON/MPX button
- 14 MIC LEVEL knob
- 15 MIX MIC jack (EXCEPT JE model)
MIC 1 jack (JE model)
- 16 GROOVE button and indicator
- 17 VOLUME knob
- 18 EFFECT ON/OFF button and indicator
- 19 P FILE button
- 20 PLACE button
- 21 GAME button
- 22 MUSIC button

- 23 MOVIE button
- 24 ENTER/NEXT button and indicator
- 25 ►► + button and indicator
- 26 ◀◀ ◀ MULTI JOG STATION ▶▶ ▶▶ dial
- 27 ◀◀ - button and indicator
- 28 CD EDIT button
- 29 CD PLAY MODE button
- 30 CD REPEAT button
- 31 NON-STOP button and indicator
- 32 FLASH button
- 33 LOOP button
- 34 DBFB button
- 35 DSP REVERB button and indicator
- 36 DSP DELAY button and indicator
- 37 PHONES jack
- 38 CLOCK/TIMER SET button
- 39 TIMER SELECT button
- 40 FUNCTION button
- 41 DISPLAY/DEMO button
- 42 MIC 2 jack (JE model)
- 43 ECHO LEVEL knob (JE model)

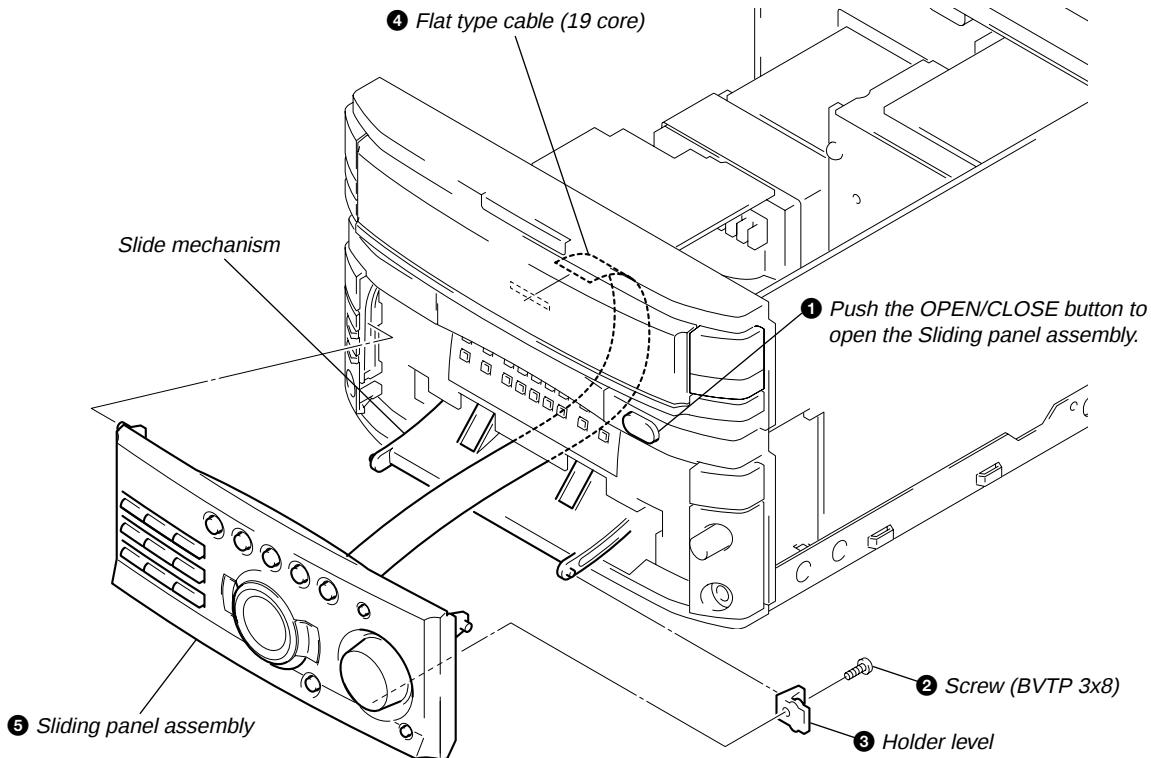
- 44 VIDEO (AV INPUT (VIDEO 2)) jack
- 45 AUDIO-L (AV INPUT (VIDEO 2)) jack
- 46 AUDIO-R (AV INPUT (VIDEO 2)) jack
- 47 SURROUND +/- buttons
- 48 DBFB +/- buttons
- 49 63Hz +/- buttons
- 50 250Hz +/- buttons
- 51 1kHz +/- buttons
- 52 4kHz +/- buttons
- 53 16kHz +/- buttons
- 54 NAME IN button
- 55 DELETE button
- 56 CHAR button
- 57 INSERT button
- 58 OPEN SENSOR ON/OFF button
- 59 EQ MEMORY button

• Abbreviation
JE : Tourist model.

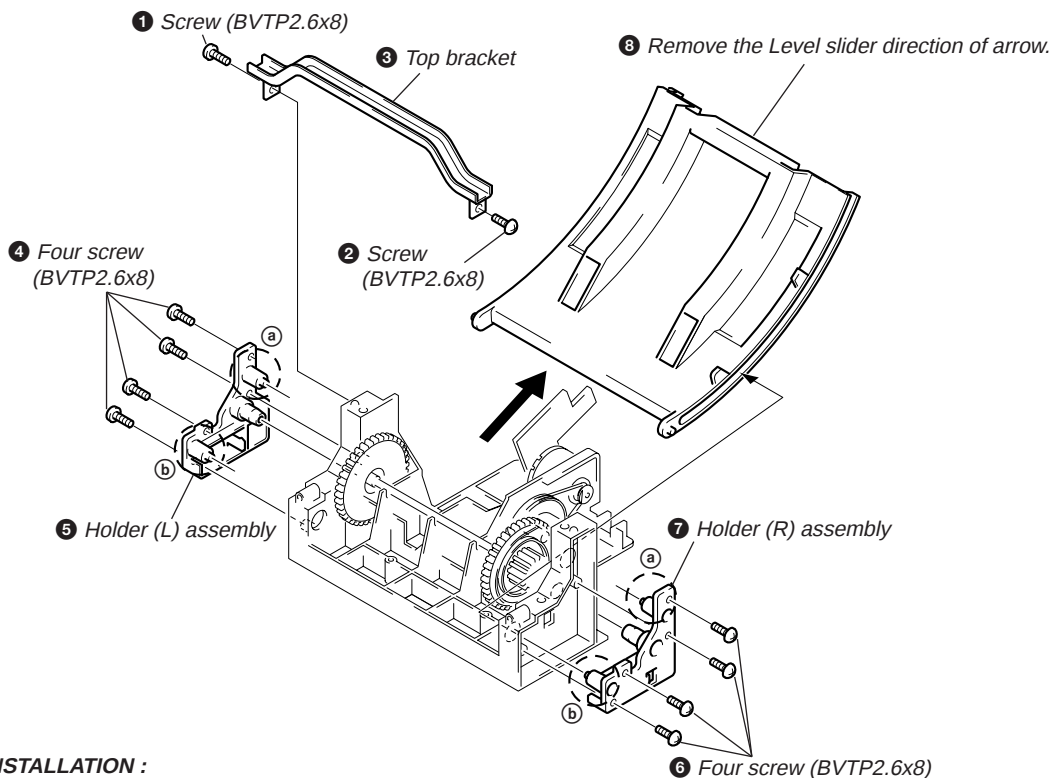
SECTION 2 DISASSEMBLY

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

2-1. SLIDING PANEL ASSEMBLY



2-2. LEVEL SLIDER



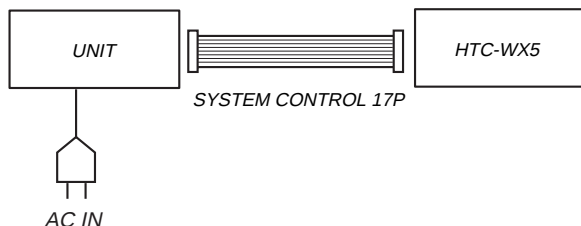
NOTE FOR INSTALLATION :

Attach in the reverse order, but make sure the rollers (a, b) of the holder (L) assembly and holder (R) assembly fit into the grooves of the level slider.

SECTION 3 SERVICE MODE

Connections and Operations When Used Alone

Normally, use the unit connected to the HTC-WX5 as follows.
Basically, when servicing the unit, connect the unit as follows.



Even when not connected to the HTC-WX5, the unit can operate alone as it mounts a power supply (some functions will however not be available).

MC Cold Reset

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

- Press three buttons **[EDIT]**, **[ENTER/NEXT]**, and **[DISPLAY/DEMO]** simultaneously.
- The fluorescent indicator tube becomes blink instantaneously, and the set is reset.

CD Delivery Mode (This mode can be used only when the HTC-WX5 is connected.)

- This mode moves the pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

- Press **[I/O]** button to turn the set ON.
- Press **[LOOP]** button and **[I/O]** button simultaneously.
- A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

MC Hot Reset

- This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

- Press three buttons **[REPEAT]**, **[ENTER/NEXT]**, and **[DISPLAY/DEMO]** simultaneously.
- The fluorescent indicator tube becomes blink instantaneously, and the set is reset.

Sled Servo Mode (This mode can be used only when the HTC-WX5 is connected.)

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the pick-up.

Procedure:

- Select the function "CD".
- Press three buttons **[FLASH]**, **[ENTER/NEXT]**, and **[KARAOKE PON/MIX]** simultaneously.
- The Sled Servo mode is selected, if "CD" is blinking on the fluorescent indicator tube.
- With the CD in stop status, press **[▶▶+]** button move the pick-up to outside track, or **[←◀◀]** button to inside track.
- To exit from this mode, perform as follows:
 - 1) Move the pick-up to the most inside track.
 - 2) Press three buttons in the same manner as step 2.

Note:

- Always move the pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
- Do not run the sled motor excessively, otherwise the gear can be chipped.

Change-over of FUNCTION Name

- The FUNCTION name of external input terminal can be changed over to VIDEO 1 or MD. With the FUNCTION selected to "MD", about 5dB mute is applied to the input gain.

Procedure:

- Press **[I/O]** button to turn the set OFF.
- Press **[I/O]** button together with **[FUNCTION]** button, and the power is turned on, the display of fluorescent indicator tube changes to "MD" or "VIDEO 1" instantaneously, and thus the FUNCTION is changed over.

Change-over of AM Tuner Step between 9kHz and 10kHz

- A step of AM channels can be changed over between 9kHz and 10kHz.

Procedure:

- Press **[I/O]** button to turn the set ON.
- Select the function "TUNER", and press **[TUNER BAND]** button to select the BAND "MW".
- Press **[I/O]** button to turn the set OFF.
- Press **[ENTER/NEXT]** and **[I/O]** buttons simultaneously, and the display of fluorescent indicator tube changes to "MW step 10" or "MW step 9", and thus the channel step is changed over.

LED and Fluorescent Indicator Tube All Lit, Key Check Mode (Do not connect the HTC-WX5.)

Procedure:

1. Press **I/⏻** button to turn the set ON.
2. Press the **OPEN/CLOSE** button to open the sliding panel.
3. Press three buttons **DSP DELAY**, **ENTER/NEXT**, and **DISPLAY/DEMO** simultaneously.
4. LEDs and fluorescent indicator tube are all turned on. Each time the **MOVIE** button is pressed, the fluorescent indicator tube lights up as follows:
lights up completely → lights up partially 1 → lights up partially 2 → lights up completely.
5. Press **GAME** button, and the key check mode is activated.
6. In the key check mode, the fluorescent indicator tube displays “K @@ J0 V0”. Each time a button is pressed, “K” value decreases. However, once a button is pressed, it is no longer taken into account. (@@ means the total of buttons)
“J” Value increases like 1, 2, 3 ... if rotating **JOG** knob in “+” direction, or it decreases like 0, 9, 8 ... if rotating in “-” direction.
“V” Value increases like 1, 2, 3 ... if rotating **VOLUME** knob in “+” direction, or it decreases like 0, 9, 8 ... if rotating in “-” direction.
7. Pressing all buttons lights up the fluorescent indicator tube completely.
8. To exit from this mode, press three buttons **EDIT**, **ENTER/NEXT** and **DISPLAY/DEMO** simultaneously. (COLD RESET)
9. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

CD, TAPE Deck Aging Mode (This mode can be used only when the HTC-WX5 is connected.)

This mode can be used for checking the operations of the CD player and tape deck.

- When problems occur;
Aging stops, and the stopped state is displayed on the fluorescent indicator tube.
- When no problems;
Aging continues.

Preparations:

- Set the CD on the DISC1 tray.
- Insert a commercially available tape for recording (tapes which contents can be erased, etc.) in decks A and B.

Setting the aging mode:

Press the **PLAY MODE** button, **ENTER/NEXT** button, and **STEREO/MONO** button together.

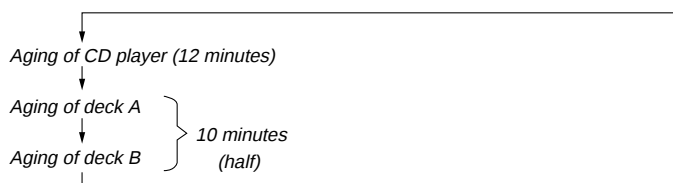
When the aging mode is set, the CD roulette mark blinks. To exit the mode, press the **I/⏻** button and turn OFF the power.

Sequence:

The aging mode is executed in the following sequence.

If the function is set to “CD” when the aging mode is set, aging is performed starting from the CD player. When set to “TAPE A” or “TAPE B”, aging is started from deck A.

If the function is set to others, aging will not be started until the function is switched to CD or TAPE.



Display of status:

- The aging status is displayed on the fluorescent indicator tube.
- Normally, the CD player displays the remaining aging time. But if operations ended abnormally, it displays the cause.
- During the aging of the tape deck, the operations performed will be displayed. If operations ended abnormally, this will be displayed at the fluorescent display tube.

CD Player

- During normal operations:
Display of fluorescent indicator tube

**1-@@

** : Displays “CD” and the remaining aging time (minutes) alternately. The remaining aging time is counted down from 12.

@@ : Track number being accessed.

- When operations end abnormally:

Display of fluorescent display tube

Display	Main Cause
NO DISC ERR	DISC 1 is NO DISC from the beginning
FOCUS1 ERR	Focus is not imposed properly
FOCUS2 ERR	The focus deviated several times after the disc rotated normally
GFS ERR	GFS ERROR
FBIAS ERR	Error during focus bias adjustment
SENSOR ERR	DISC 1 was found to be NO DISC by the disc sensor
TABLE ERR	The table did not rotate normally
TRAY ERR	The tray containing the BD did not operate normally

Tape Deck

Display of Operations	Operation	Timing of Ending
TAPE A AG-1	TAPE A, B REW	Shutoff
TAPE A AG-2	TAPE A FWD	100 seconds playback
TAPE A AG-3	TAPE A FF	20 seconds or shutoff
TAPE A AG-4	TAPE A REV	100 seconds playback
TAPE A AG-5	TAPE A REW	Shutoff
TAPE B AG-1	TAPE B REW	Shutoff
TAPE B AG-2	TAPE B FWD	100 seconds playback
TAPE B AG-3	TAPE B FF	20 seconds or shutoff
TAPE B AG-4	TAPE B REV	100 seconds playback
TAPE B AG-5	TAPE B REW	Shutoff

Operations during aging

- Operations are performed in the following sequence during aging.

<CD player>

1. The CD tray rotates and disc 1 is selected.
2. Chucking is performed.
3. TOC is read.
4. Track 1 played back for 2 seconds.
5. The last track is played back for 2 seconds.
6. 1 to 5 is repeated.
7. After 12 minutes of aging, aging is switched to the tape deck.

<Tape Deck>

1. The tape in deck A and B are rewound to the head at the same time.
2. The FWD side is played back for 100 seconds.
3. The tape is fast forwarded (FF) for 20 seconds. The following procedure is performed when the tape end is reached before the 20 seconds.
4. The REV side is played back for 100 seconds.
5. The tape is rewound to the head (REW).
6. The FWD side is played back for 100 seconds.
7. The tape is fast forwarded (FF) for 20 seconds. The following procedure is performed when the tape end is reached before the 20 seconds.
8. The REV side is played back for 100 seconds.
9. The tape is rewound to the head (REW).
10. The tape in deck A is rewound to the head.
11. The FWD side is played back for 100 seconds.
12. The tape is fast forwarded (FF) for 20 seconds.
The following procedure is performed when the end is reached before the 20 seconds.
13. Aging is switched to the CD player.

PANEL Aging Mode

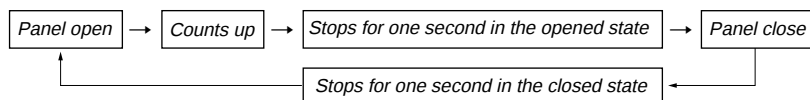
This mode is used for opening and closing the sliding panel continuously.

Setting the aging mode :

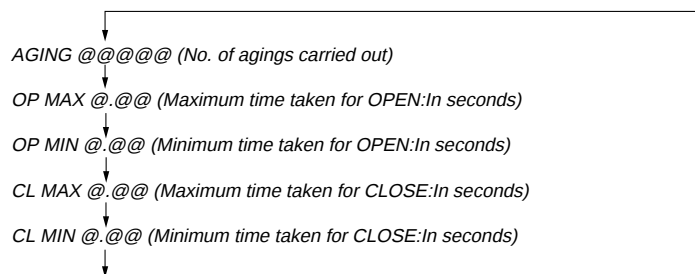
With the set at standby condition, press **FLASH** button, **ENTER/NEXT** button and **STEREO/MONO** button together.
The aging will start and sliding panel will follow aging sequence as described below.

- When problems occur ;
Aging stops and “AGING ERROR” is displayed on the fluorescent indicator tube.
- When no problems;
Aging is carried out repeatedly. After 65000 times, “AGING STOP” is displayed and aging stops.

Aging Sequence

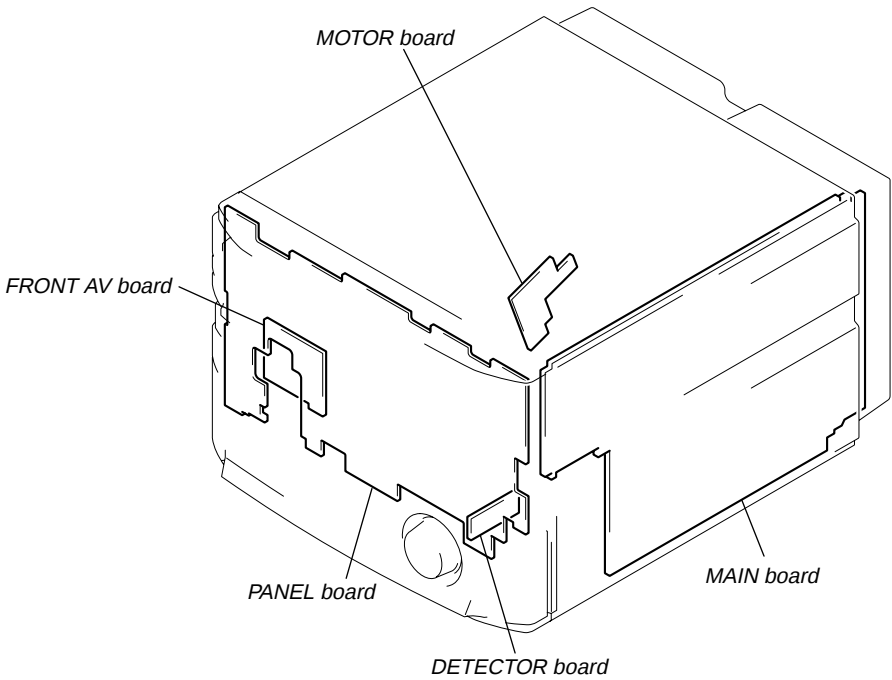
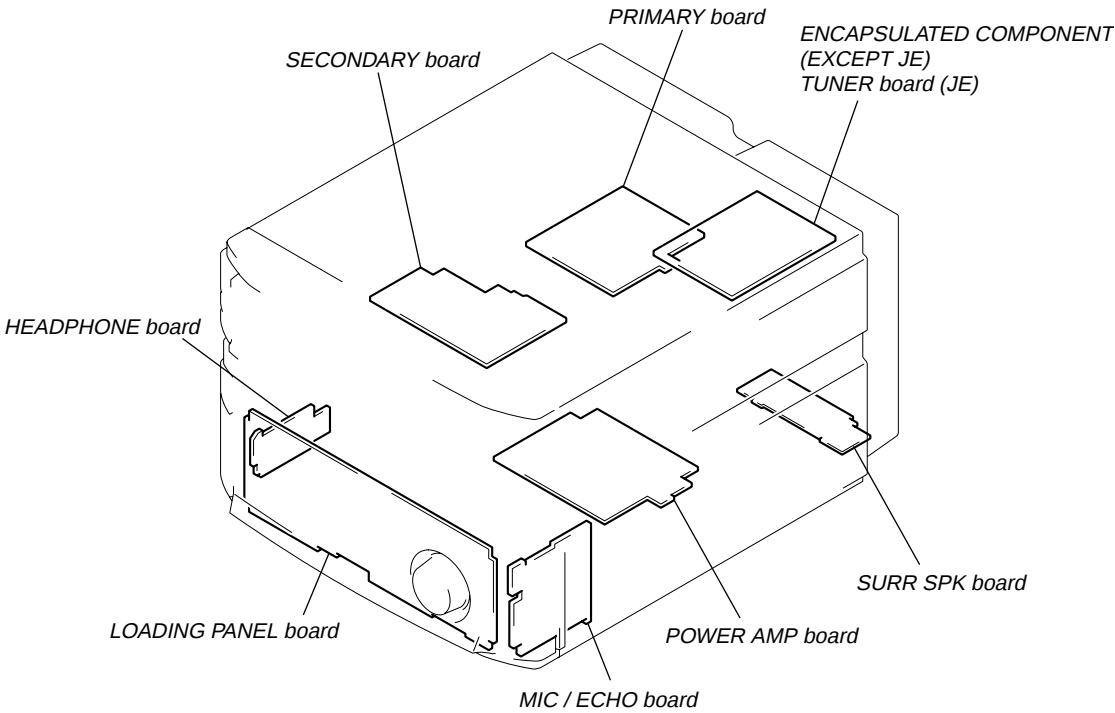


Each time the **DISPLAY/DEMO** button is pressed, the display switches as follows.



SECTION 4
DIAGRAMS

4-1. CIRCUIT BOARDS LOCATION



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

For schematic diagrams.

Note:

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

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

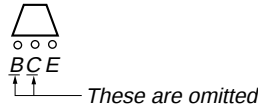
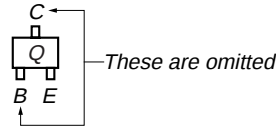
-  : B+ Line.
-  : B- Line.
-  : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 $\text{M}\Omega$). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 -  : FM
 -  : AM
 -  : AUDIO (AV INPUT)
 -  : MD/VIDEO
 -  : VIDEO (AV INPUT)
 -  : PB (DECK A)
 -  : REC (DECK B)
 -  : CD
- Abbreviation
 - EA3 : Saudi Arabia model.
 - EA4 : Israel model.
 - EA : Middle East model. (Saudi Arabia and Israel)
 - AUS : Australian model.
 - SP : Singapore model.
 - MY : Malaysia model.
 - TW : Taiwan model.
 - JE : Tourist model.
 - AR : Argentine model.
 - TH : Thai model.

For printed wiring boards.

Note:

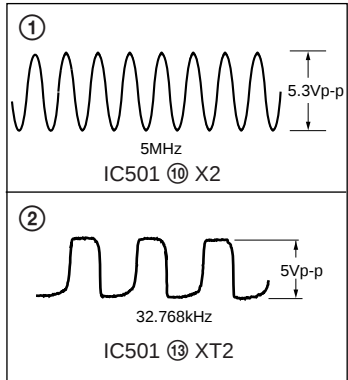
-  : parts extracted from the component side.
-  : parts extracted from the conductor side.
-  : parts mounted on the conductor side.
-  : Through hole.
- Δ : internal component.
-  : Pattern from the side which enables seeing.

• Indication of transistor

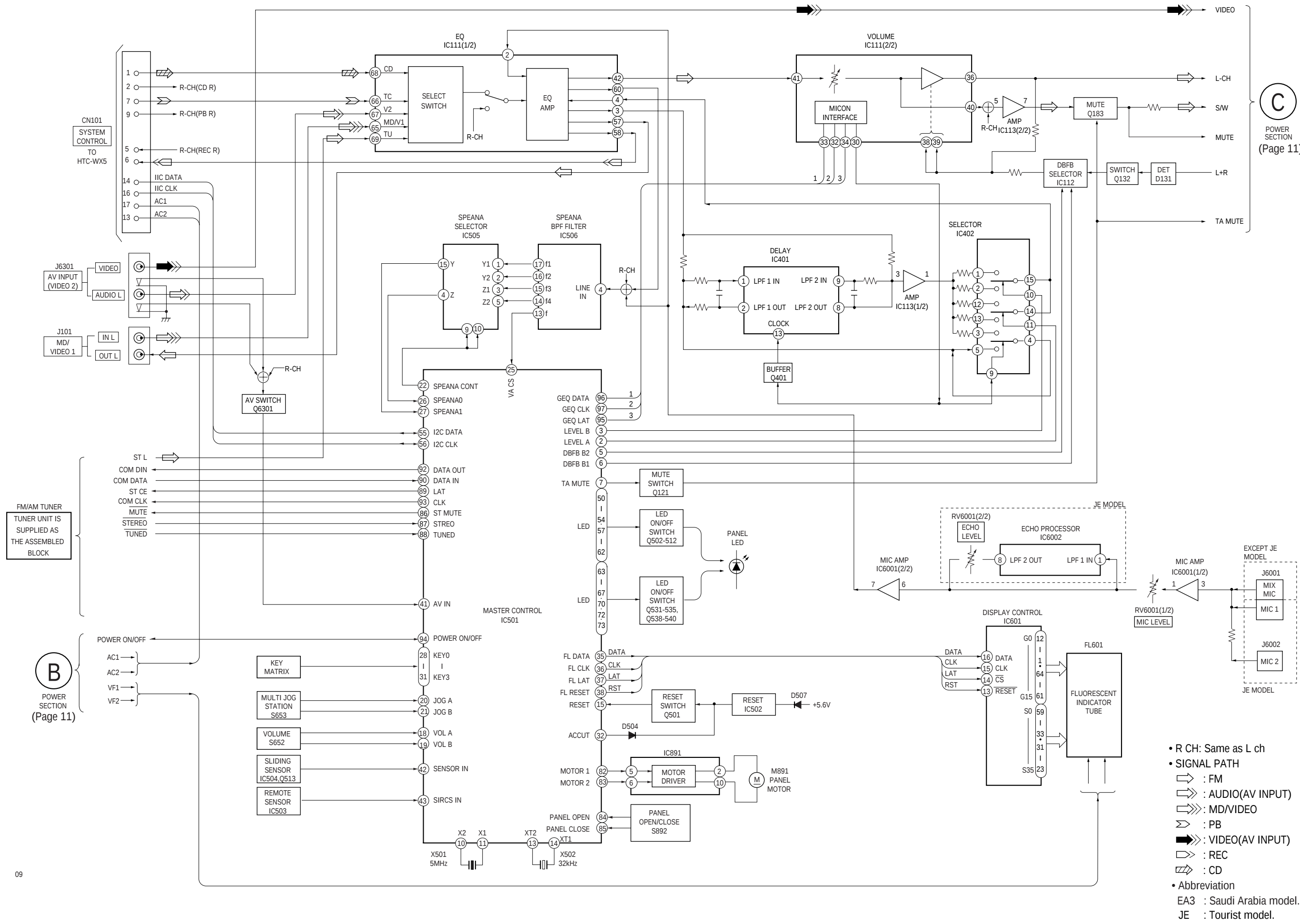


• Waveform

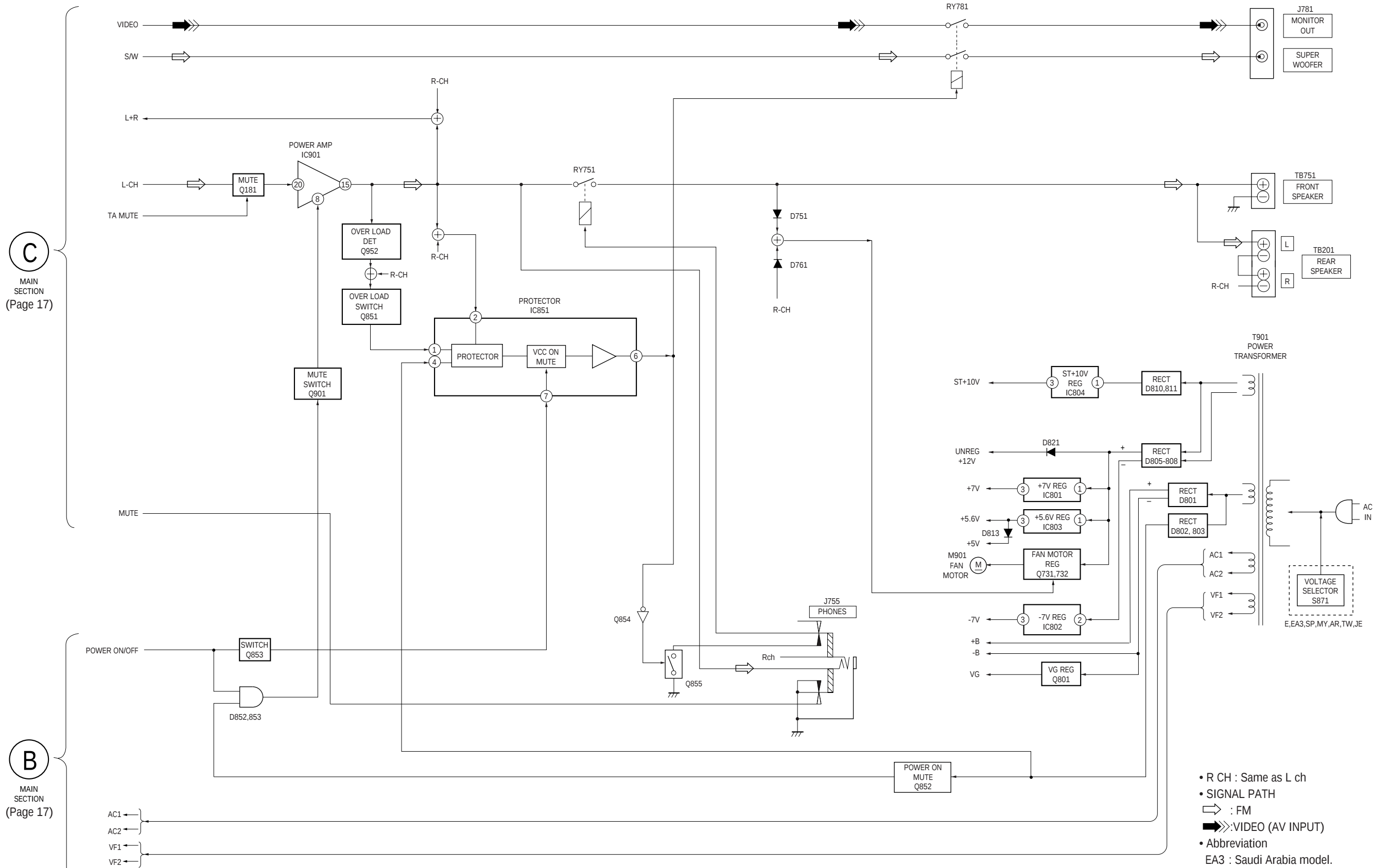
DISPLAY Section



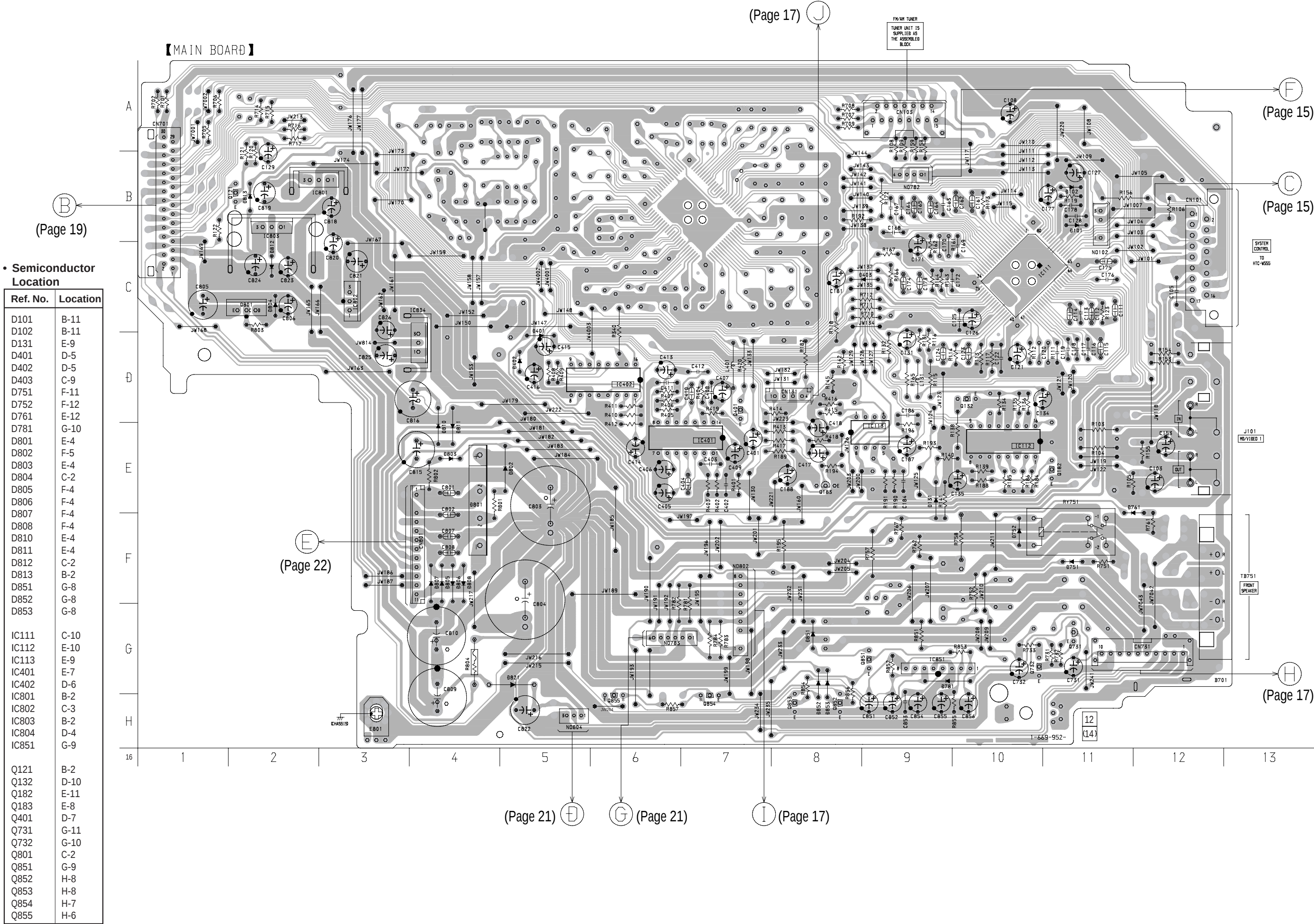
4-2. BLOCK DIAGRAM
MAIN SECTION



POWER SECTION



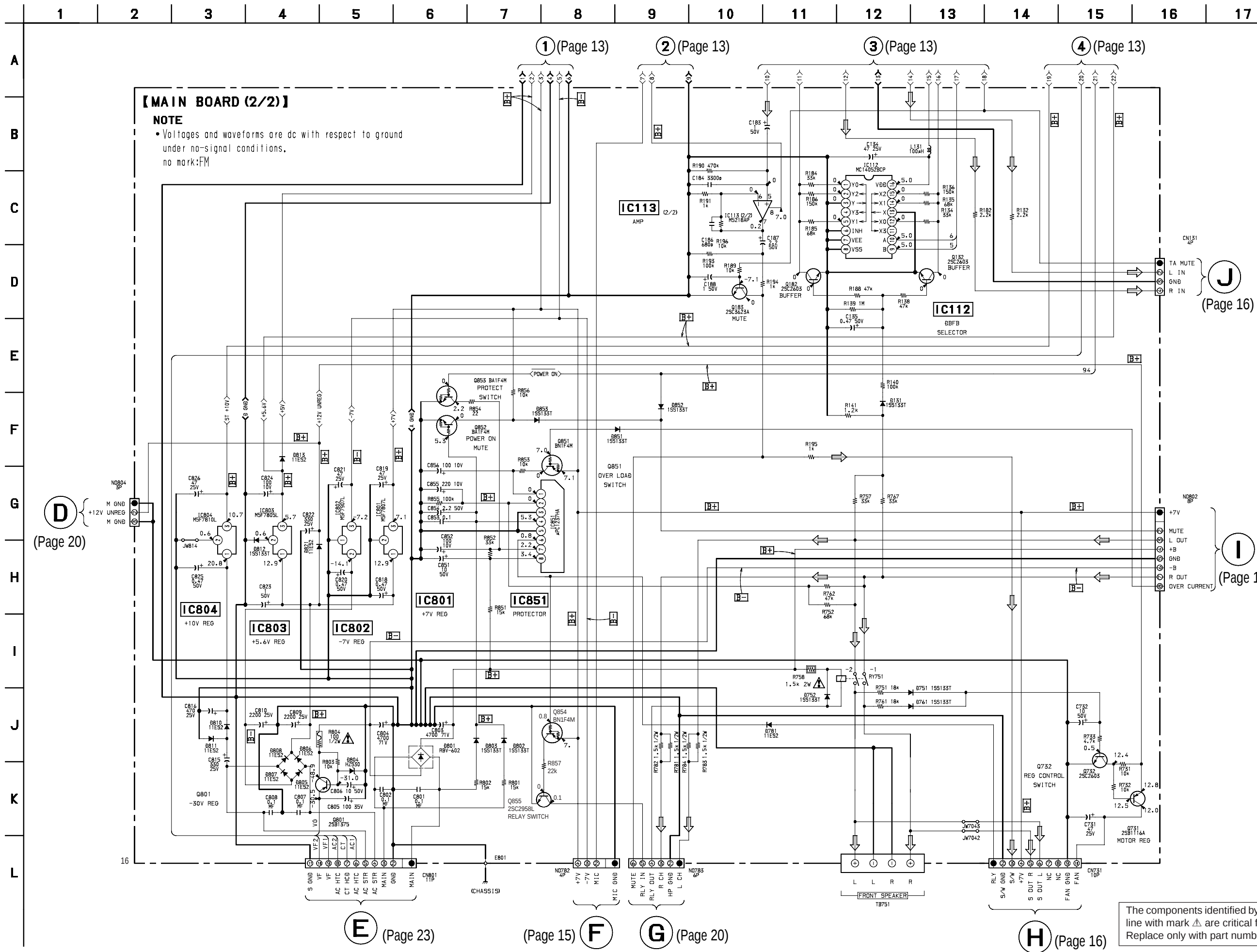
4-3. PRINTED WIRING BOARD MAIN SECTION • Refer to page 9 for Circuit Boards Location.



- Refer to page 24 for IC Block Diagrams.

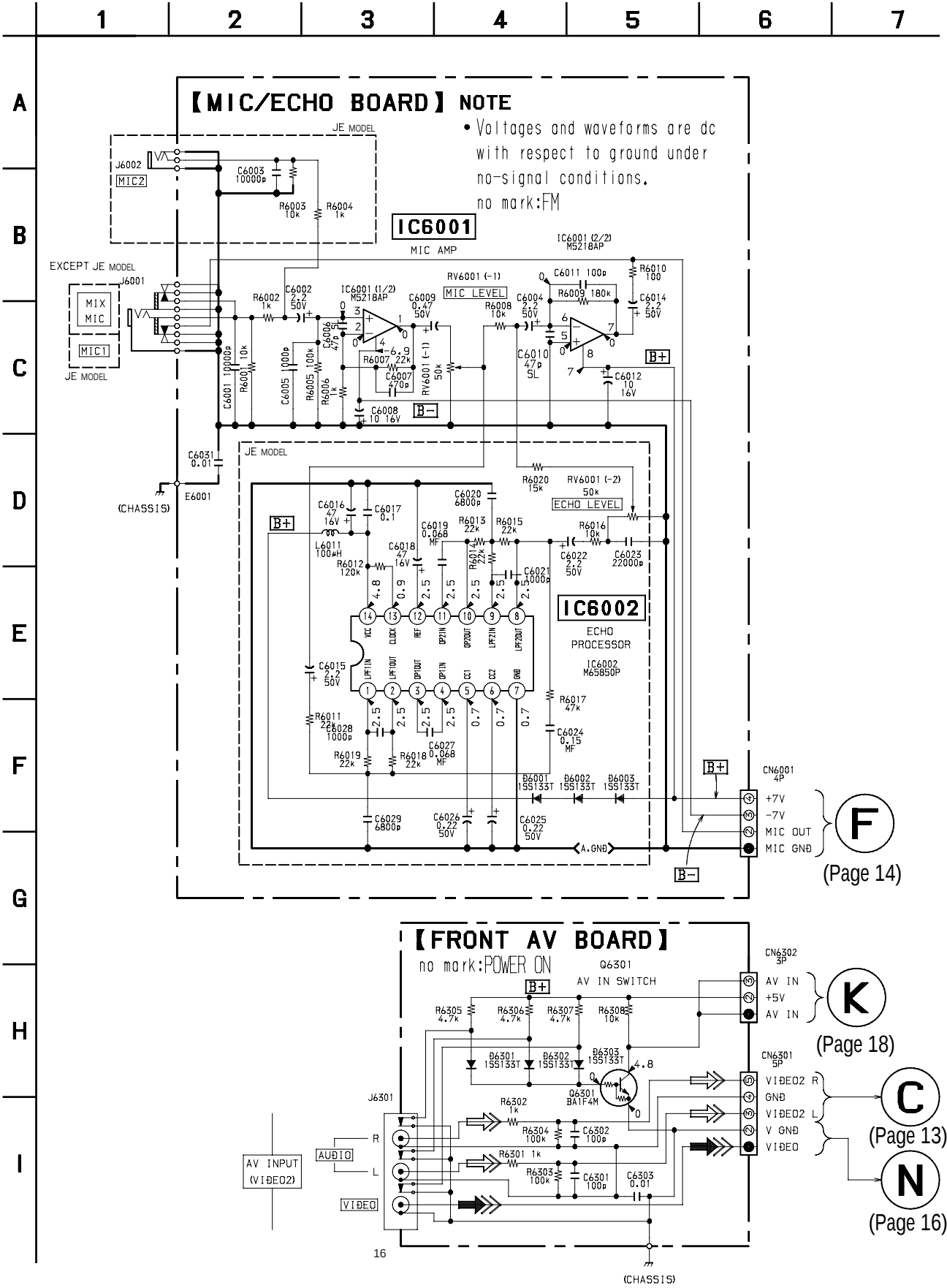


4-5. SCHEMATIC DIARGAM MAIN(2/2) SECTION • Refer to page 12 for Printed Wiring Board. • Refer to page 24 for IC Block Diagrams.

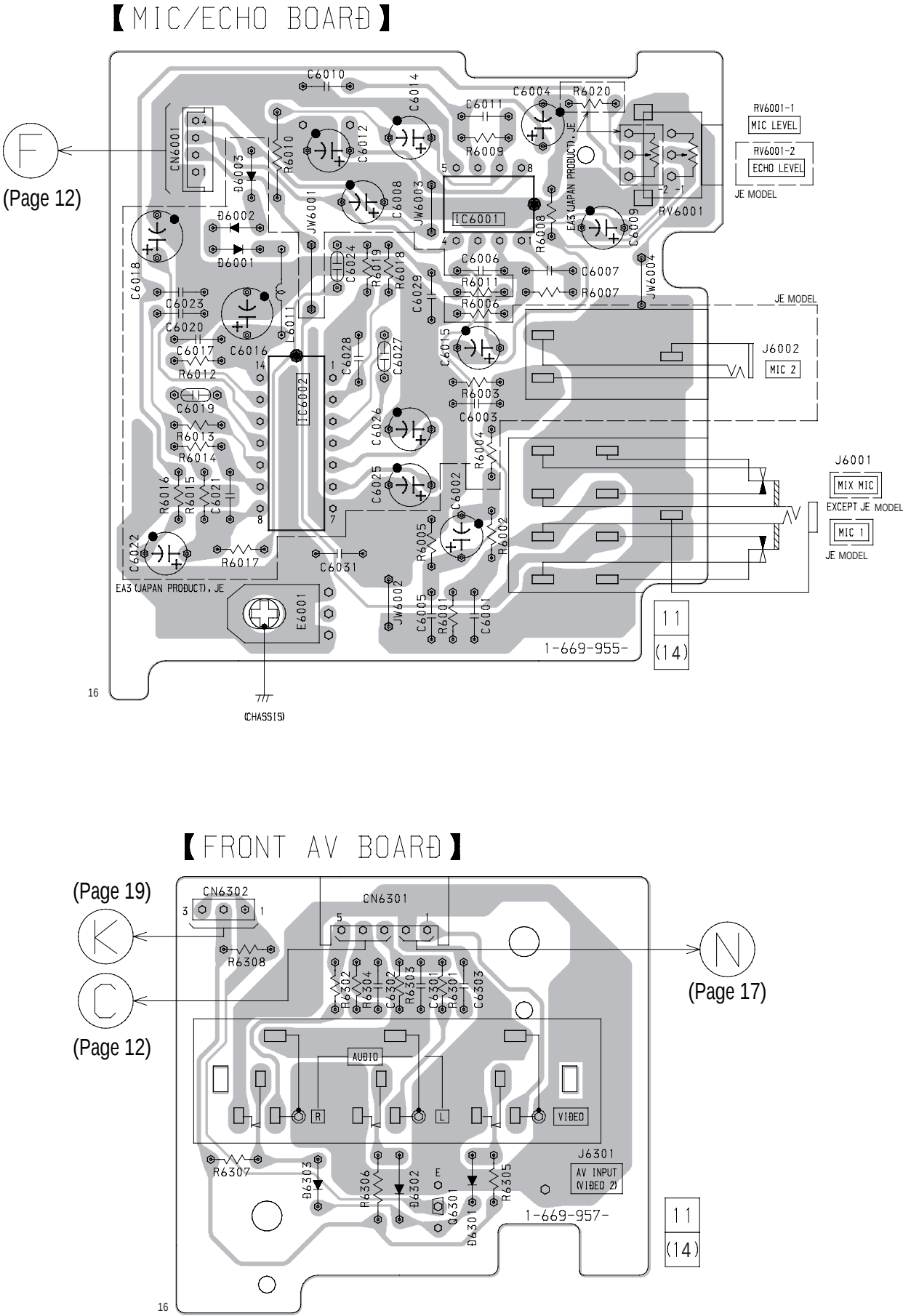


The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

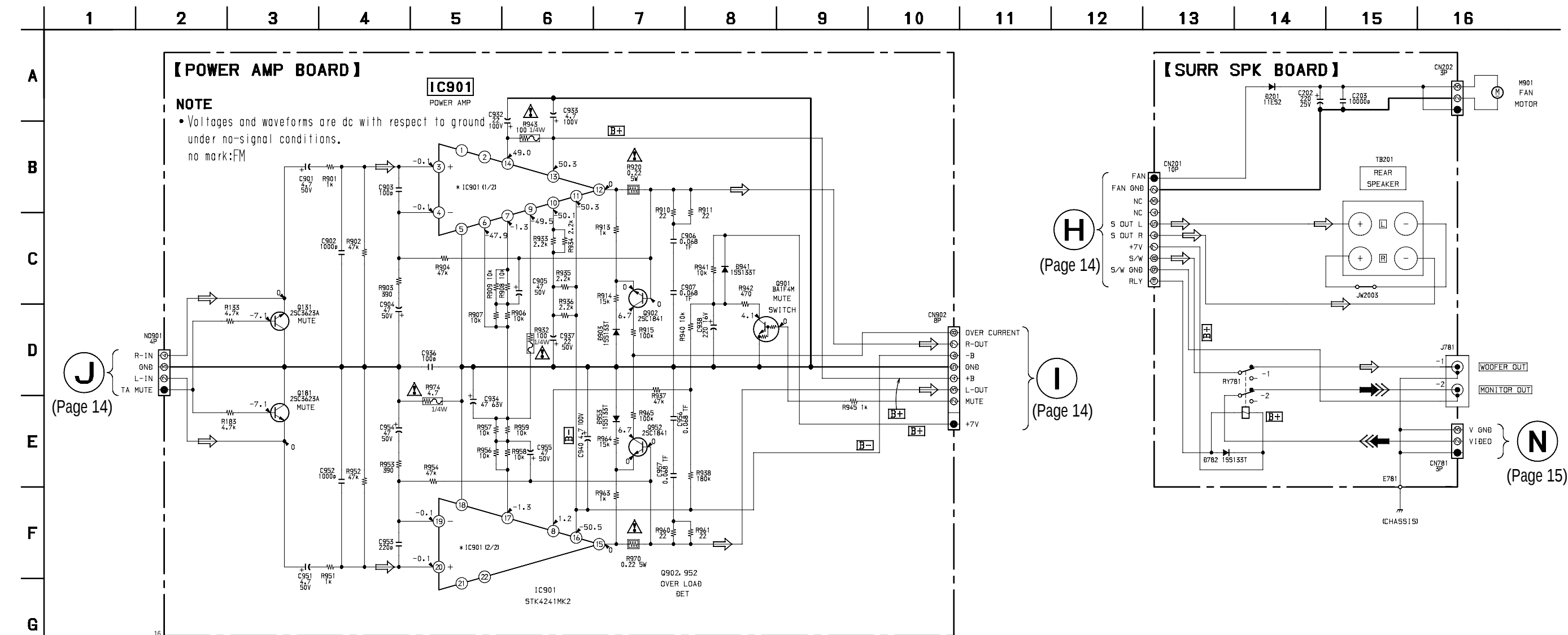
4-6. SCHEMATIC DIAGRAM AV/MIC SECTION • Refer to page 24 for IC Block Diagrams.



4-7. PRINTED WIRING BOARD AV/MIC SECTION • Refer to page 9 for Circuit Boards Location.

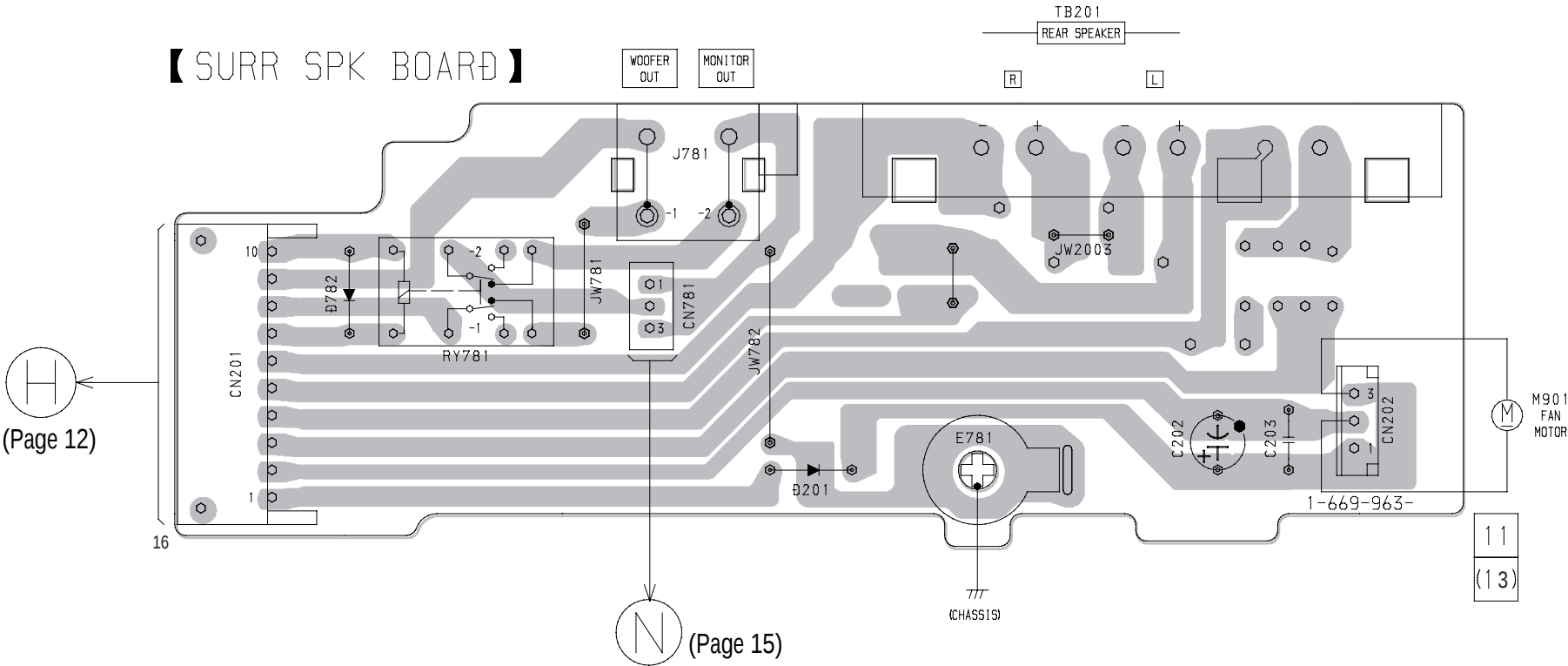


4-8. SCHEMATIC DIAGRAM POWER AMP SECTION

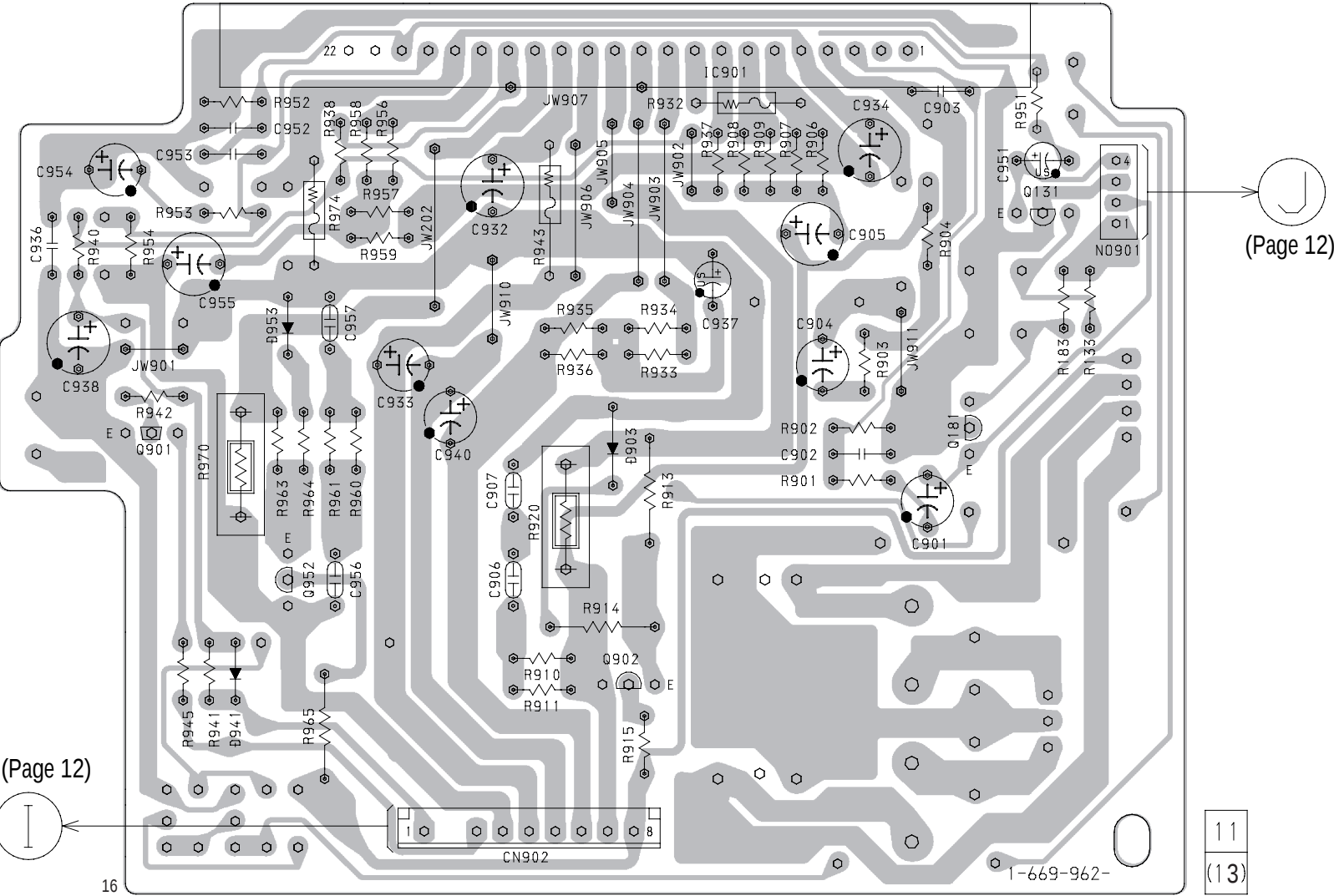


The components identified by mark  or dotted line with mark  are critical for safety.
Replace only with part number specified.

4-9. PRINTED WIRING BOARD POWER AMP SECTION • Refer to page 9 for Circuit Boards Location.

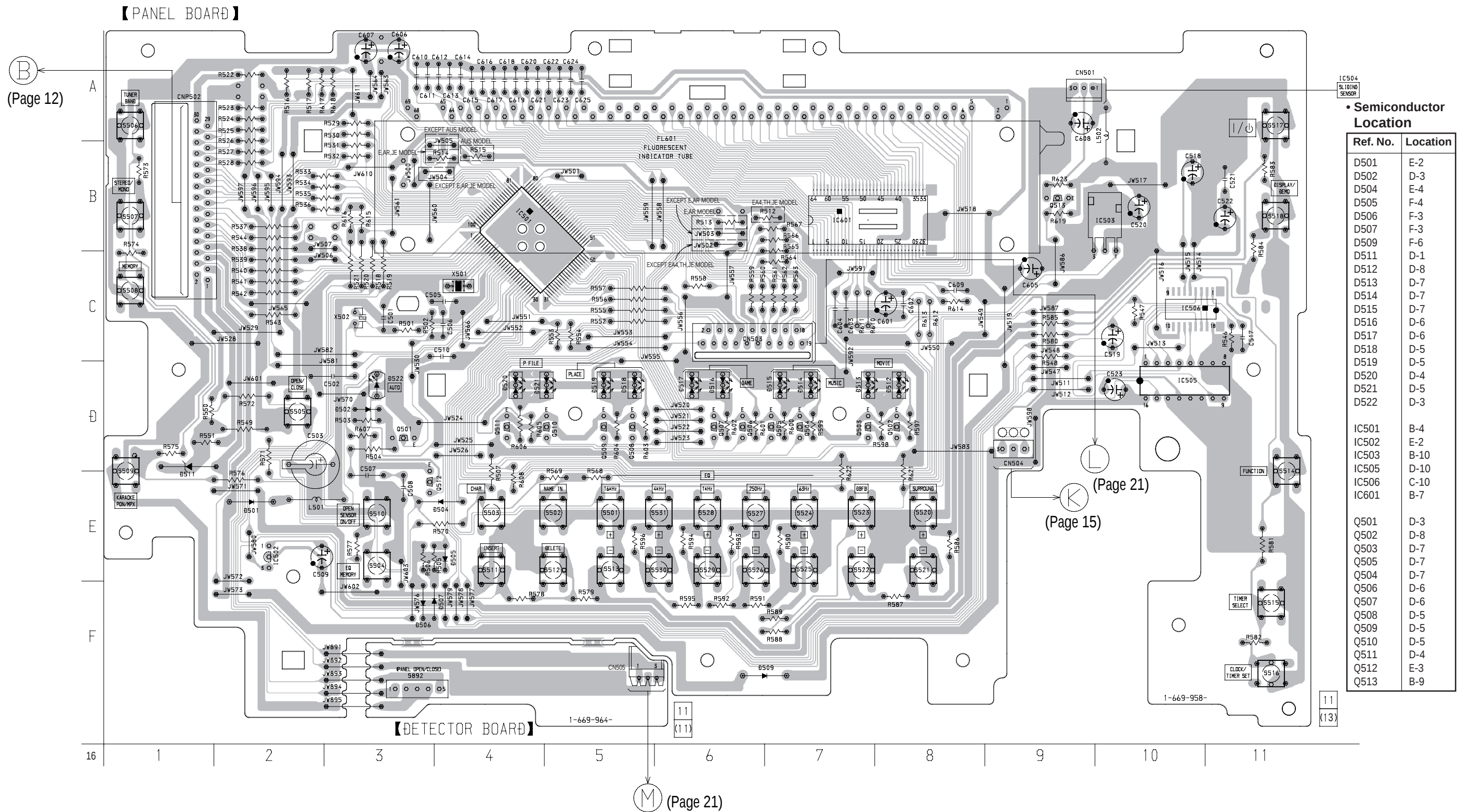


【 POWER AMP BOARD 】

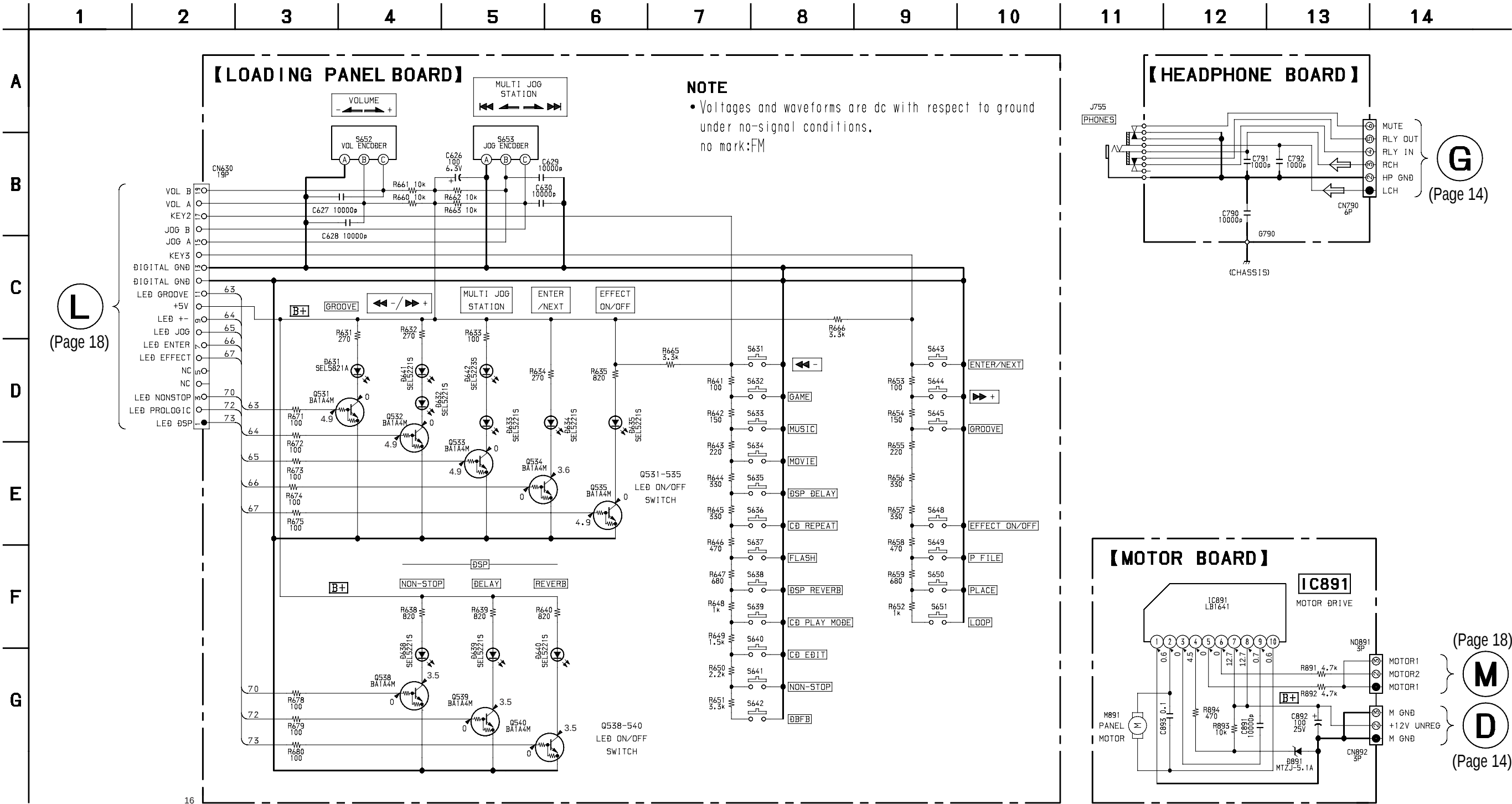




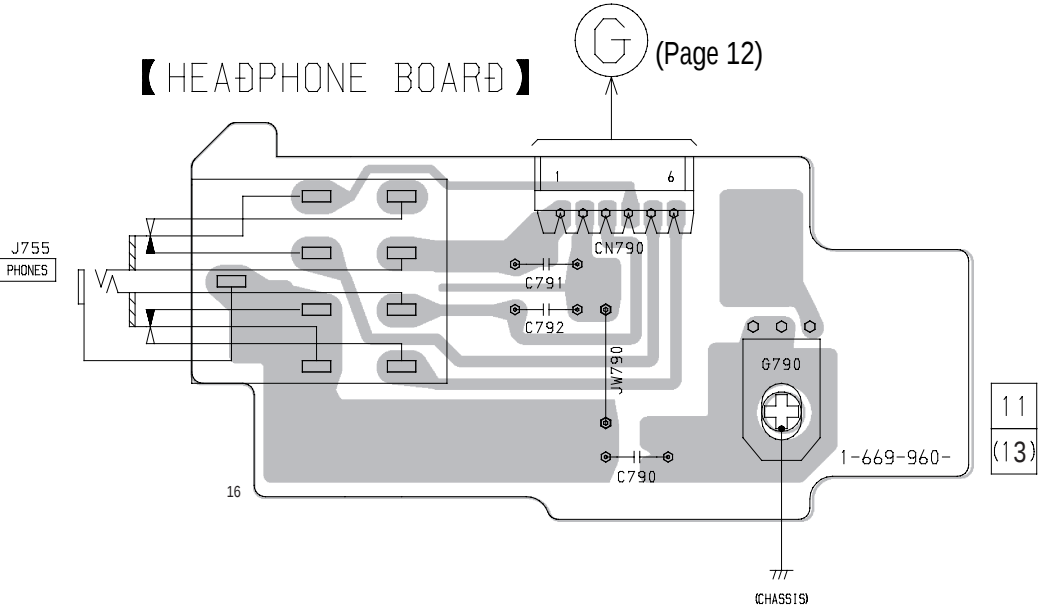
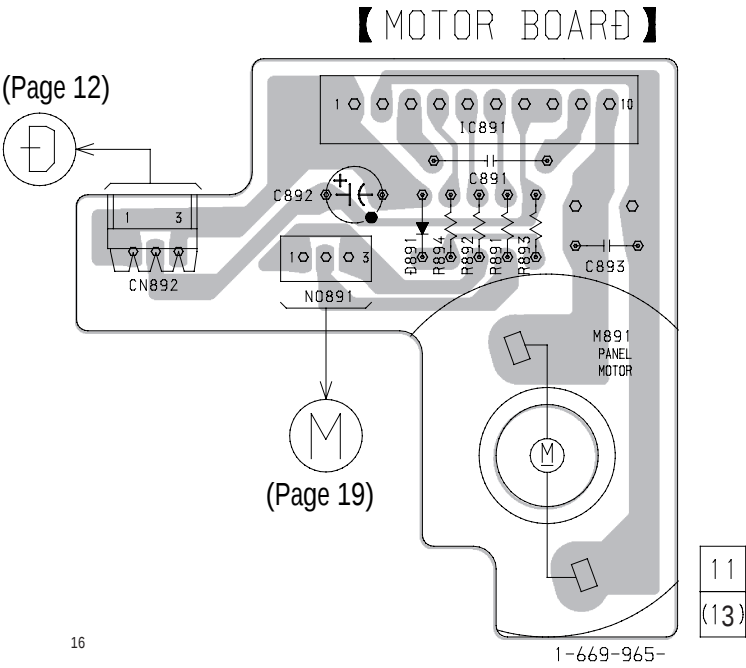
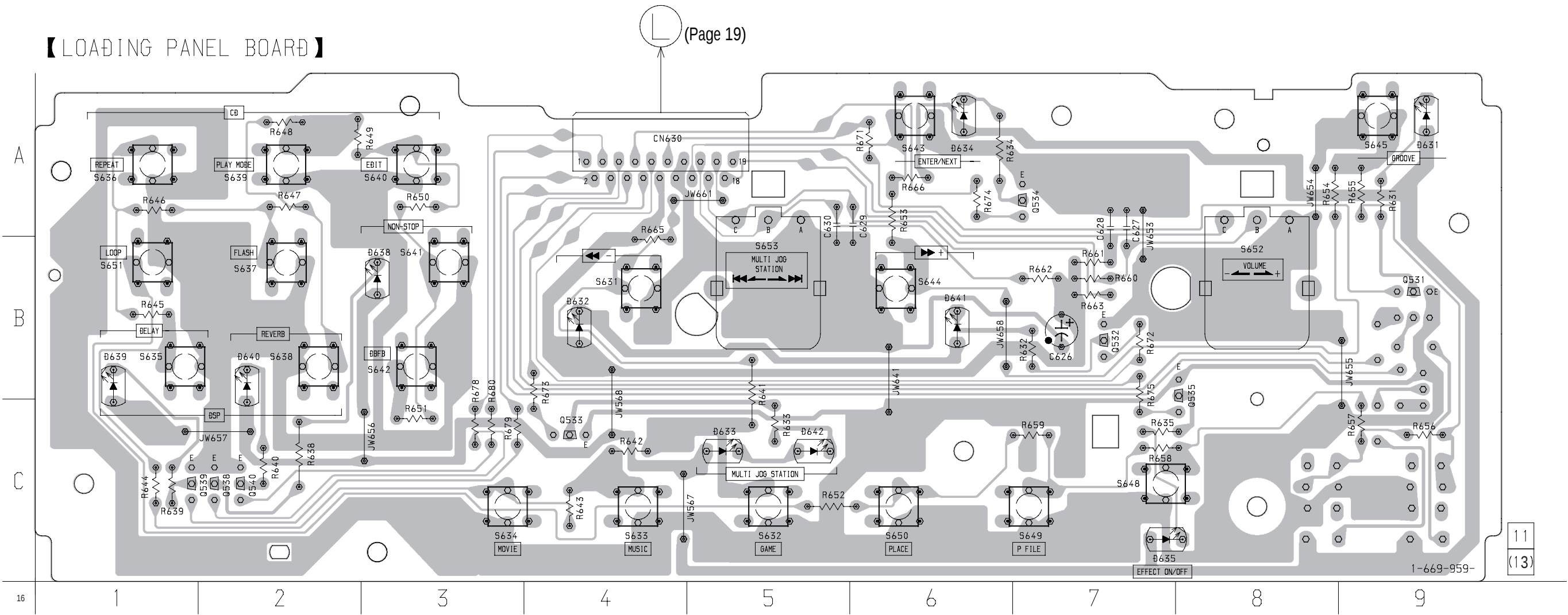
4-11. PRINTED WIRING BOARD DISPLAY SECTION • Refer to page 9 for Circuit Boards Location.



4-12. SCHEMATIC DIAGRAM SLIDING PANEL SECTION • Refer to page 28 for IC Block Diagrams.



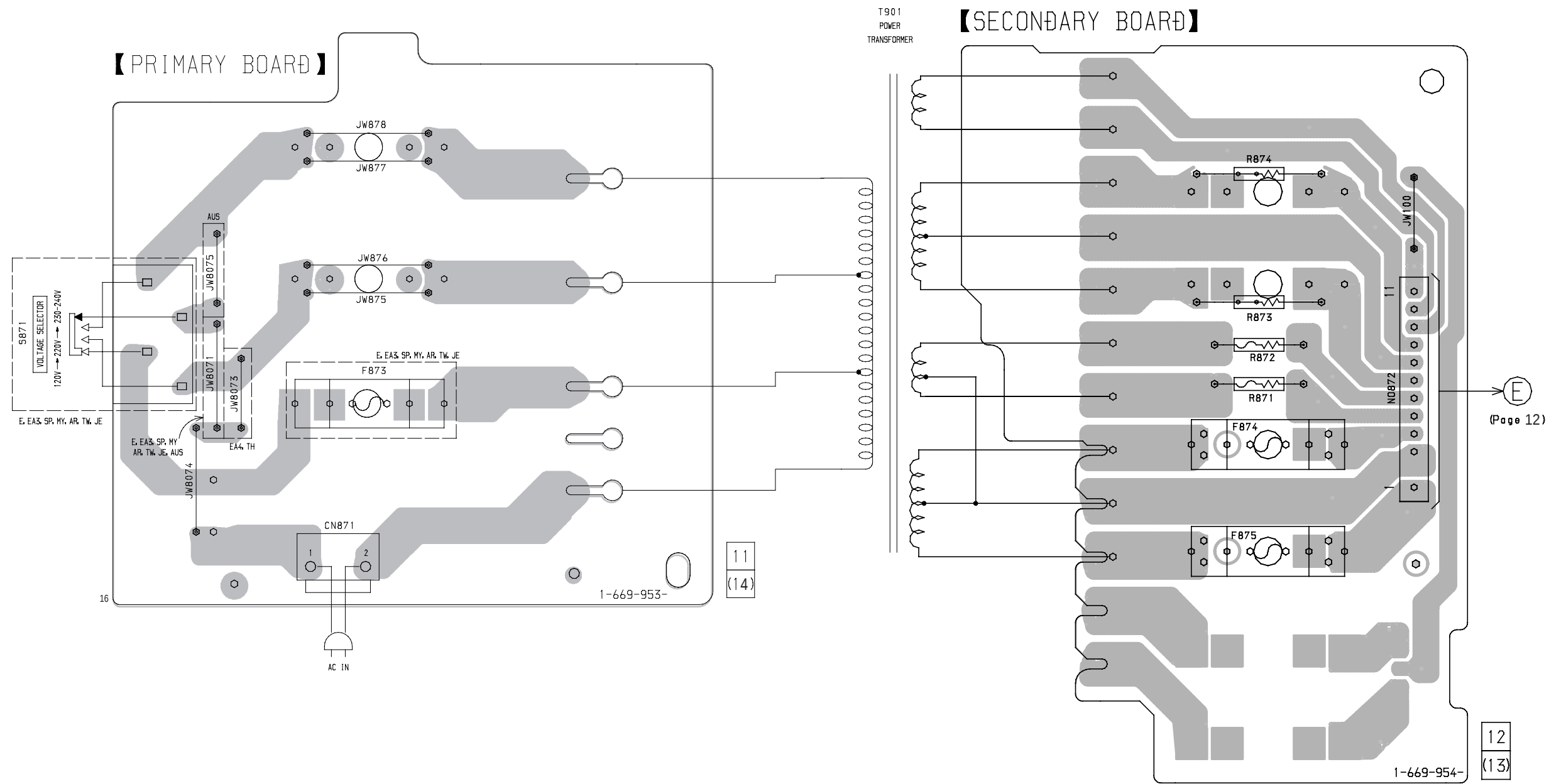
4-13. PRINTED WIRING BOARD SLIDING PANEL SECTION • Refer to page 9 for Circuit Boards Location.



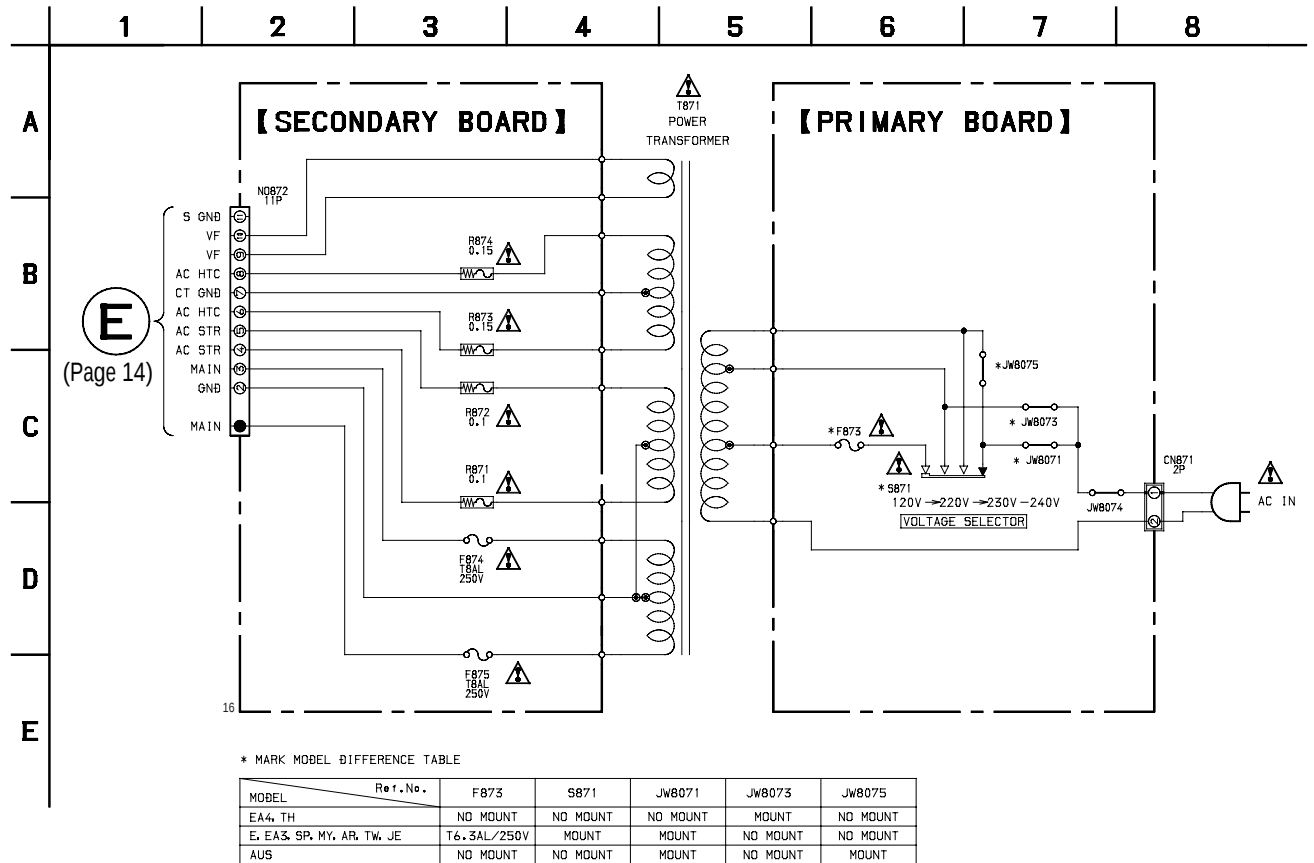
• Semiconductor Location

Ref. No.	Location
D631	A-9
D632	B-4
D633	C-5
D634	A-6
D635	C-7
D638	B-3
D639	B-1
D640	B-2
D641	B-6
D642	C-5
Q531	B-9
Q532	B-7
Q533	C-4
Q534	A-7
Q535	B-8
Q538	C-2
Q539	C-1
Q540	C-2

4-14. PRINTED WIRING BOARD TRANS SECTION • Refer to page 9 for Circuit Boards Location.



4-15. SCHEMATIC DIAGRAM TRANS SECTION

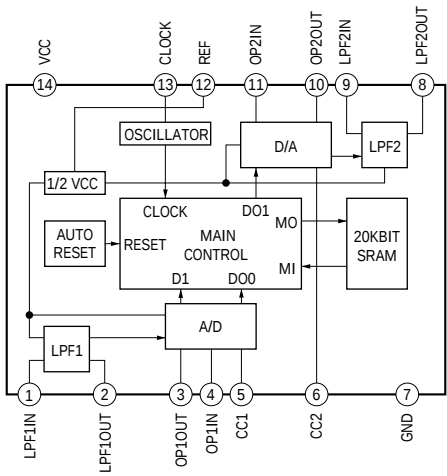


The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety.
Replace only with part number specified.

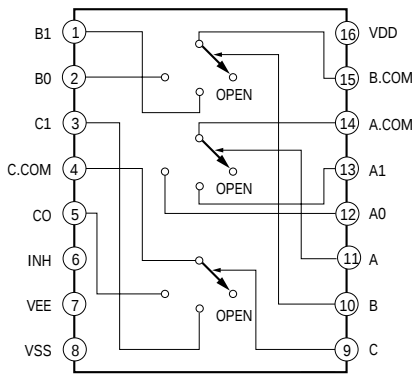
4-16. IC BLOCK DIAGRAMS

• MAIN (1/2) SECTION

IC401 M65850P

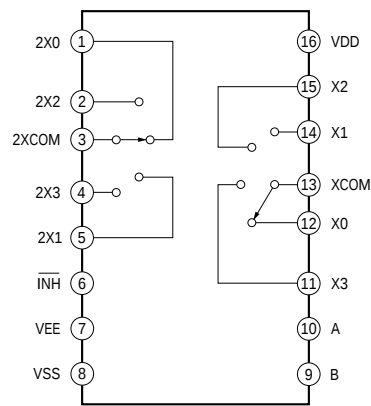


IC402 MC14053BCP

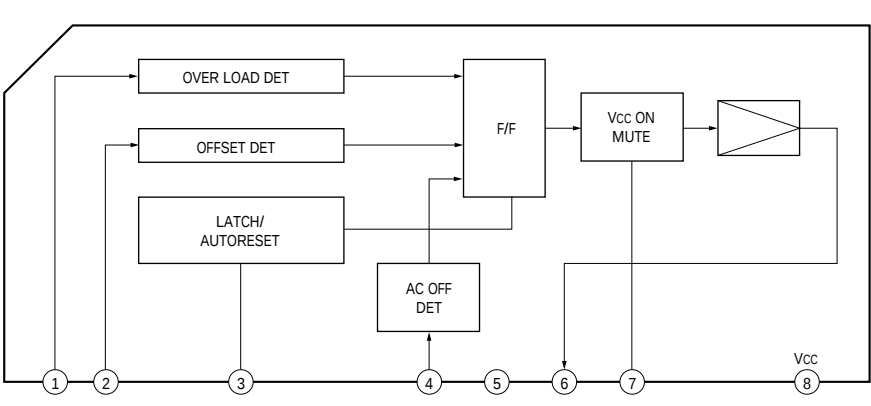


• MAIN (2/2) SECTION

IC112 MC14052BCP

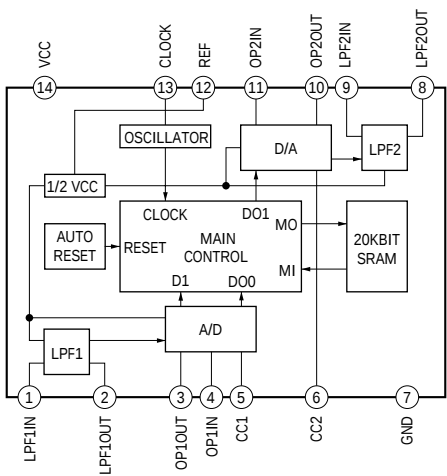


IC851 uPC1237HA



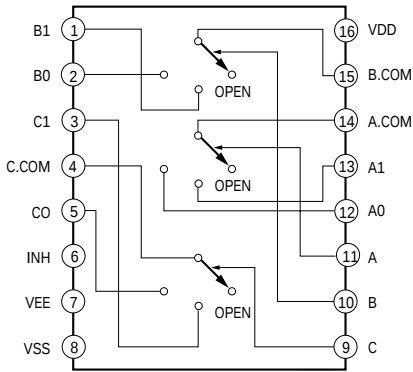
• MIC/ECHO SECTION

IC6002 M65850P

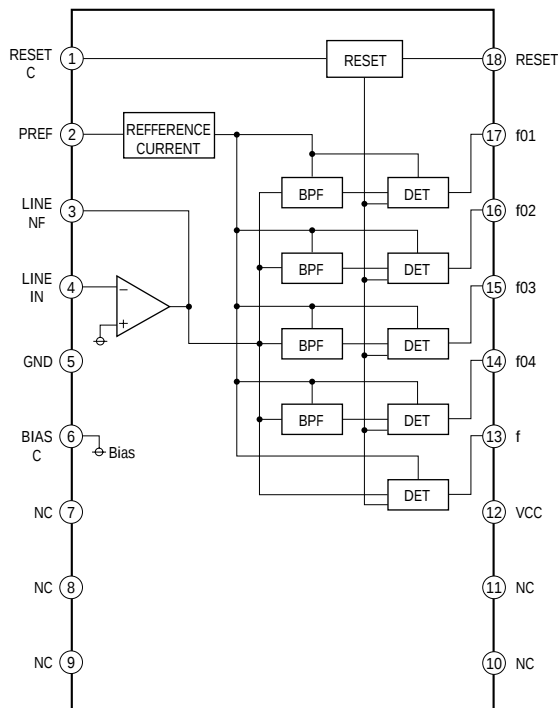


• DISPLAY SECTION

IC505 MC14053BCP

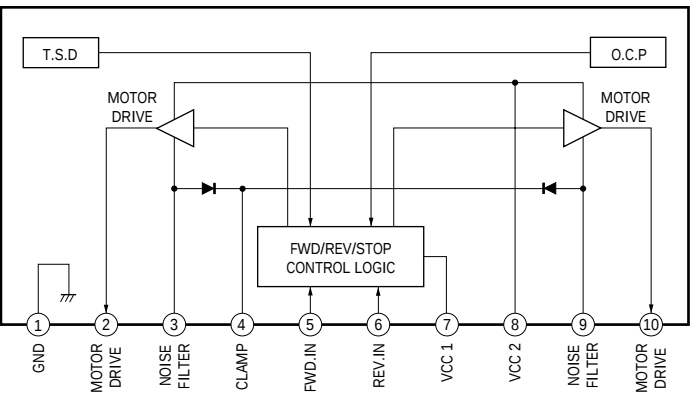


IC506 BA3833F



• SLIDING PANEL SECTION

IC891 LB1641



4-17. IC PIN FUNCTION

• IC501 SYSTEM CONTROL (uPD780016AYGF-012-3BA) PANEL BOARD

Pin No.	Pin Name	I/O	Description
1	CLK	O	Not used
2	LEVEL A	O	Surround level A signal output
3	LEVEL B	O	Surround level B signal output
4	PROLOGIC RLY	O	Not used
5	DBFB B2	O	DBFB level 2 signal output
6	DBFB B1	O	DBFB level 1 signal output
7	TA MUTE	O	Mute signal output
8	GND	–	Ground
9	TEST	–	Test terminal (Connected to ground)
10	X2	O	X'tal (5MHz)
11	X1	I	
12	VDD	–	Power supply (+5V)
13	XT2	O	X'tal (32kHz)
14	XT1	I	
15	RESET	I	Reset signal input
16	RDS CLK	I	RDS clock input
17	RDS DATA	I	RDS data input
18	VOL A	I	Rotary encoder (VOLUME) pulse input
19	VOL B	I	
20	JOG A	I	Rotary encoder (MULTI JOG STATION) pulse input
21	JOG B	I	
22	SPEANA CONT	O	Spectrum analyzer control output
23	VDD	–	Power supply (+5V)
24	A VDD	–	Analog power supply (+5V)
25	VACS	I	Audio input for VACS control
26	SPEANA0	I	Spectrum analyzer data input
27	SPEANA1	I	
28	KEY0	I	Key data input
29	KEY1	I	
30	KEY2	I	
31	KEY3	I	
32	ACCUT	I	Back up signal input
33	A VSS	–	Analog ground
34	GND	–	Ground
35	FL DATA	O	FL data output
36	FL CLK	O	FL clock output
37	FL LAT	O	FL latch output
38	FL RESET	O	FL reset output
39	GND	–	Ground
40	VSS	–	Ground

• Abbreviation

FL : Fluorescent indicator tube

Pin No.	Pin Name	I/O	Description
41	AV IN	I	AV INPUT (VIDEO 2) switch input
42	SENSOR IN	I	Sliding (panel) sensor signal input
43	SIRCS IN	I	Remote sensor signal input
44	SPEANE RST	O	Spectrum analyzer reset output
45	GND	–	Ground
46	GND	–	
47	GND	–	
48	GND	–	
49	SOFT	O	Soft test terminal
50	SEN	O	Auto indicator output
51	MOVIE A	O	LED driver output
52	MOVIE G	O	
53	MUSIC A	O	
54	MUSIC G	O	
55	I2C DATA	I/O	Serial data input/output
56	I2C CLK	I/O	Serial clock input/output
57	GAME A	O	LED driver output
58	GAME G	O	
59	PLACE A	O	
60	PLACE G	O	
61	PFILE A	O	
62	PFILE G	O	
63	GROOVE	O	
64	+/-	O	
65	JOG	O	
66	ENTER	O	
67	EFFECT	O	
68	KEYCON G	O	Not used
69	KEYCON A	O	
70	NON STOP	O	LED driver output
71	VSS	–	Ground
72	DELAY	O	LED driver output
73	REVER B	O	
74	SUFFIX0	I	Destination terminal
75	SUFFIX1	I	
76	SUFFIX2	I	
77	SUFFIX3	I	
78	WJ1/WJ3	I	Model select terminal
79	GND	–	Ground
80	VCD	I	VCD select terminal “L”: NON-VCD (Connected to ground)

Pin No.	Pin Name	I/O	Description
81	GND	–	Ground
82	MOTOR1	O	Panel motor control output
83	MOTOR2	O	
84	PANEL OPEN	O	Panel open switch output
85	PANEL CLOSE	O	Panel close switch output
86	ST.MUTE	O	ST mute signal output
87	STEREO	I	Stereo detection input for tuner
88	TUNED	I	Tuned detection input for tuner
89	LAT	O	Tuner PLL latch output
90	DATA IN	I	Tuner PLL data input
91	PCL OUT	O	Sub clock output
92	DATA OUT	O	Tuner PLL data output
93	CLK	O	Tuner clock output
94	POWER ON/OFF	O	Power on/off control output
95	GEQ LAT	O	GEQ latch output
96	GEQ DATA	O	GEQ data output
97	GEQ CLK	O	GEQ clock output
98	LAT1	O	Not used
99	LAT2	O	
100	DATA	O	

- Abbreviation
GEQ : Graphic Equalizer
PLL : Phase Locked Loop

SECTION 5 EXPLODED VIEWS

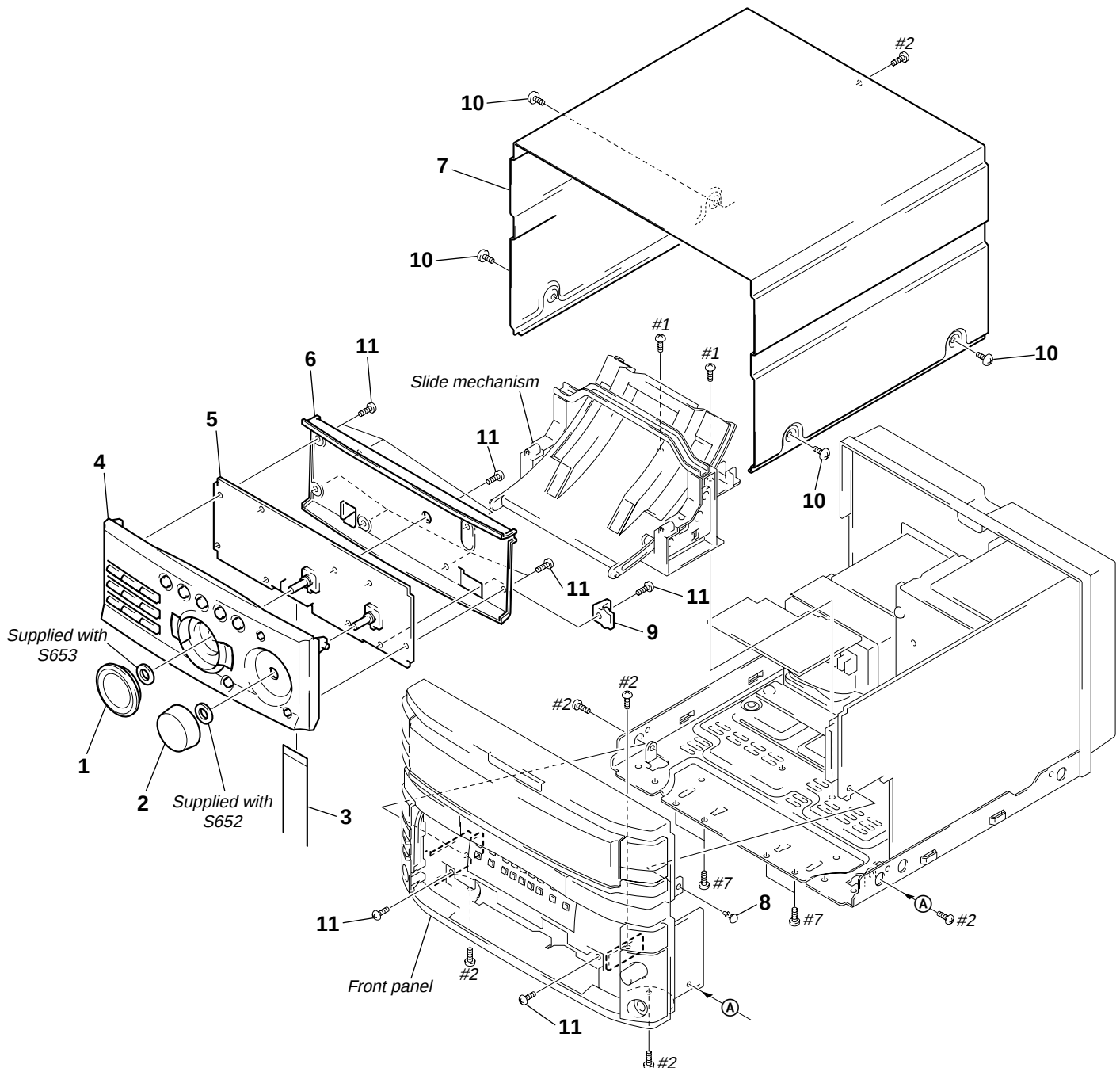
NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
EA4 : Israel model
JE : Tourist model
TH : Thai model.

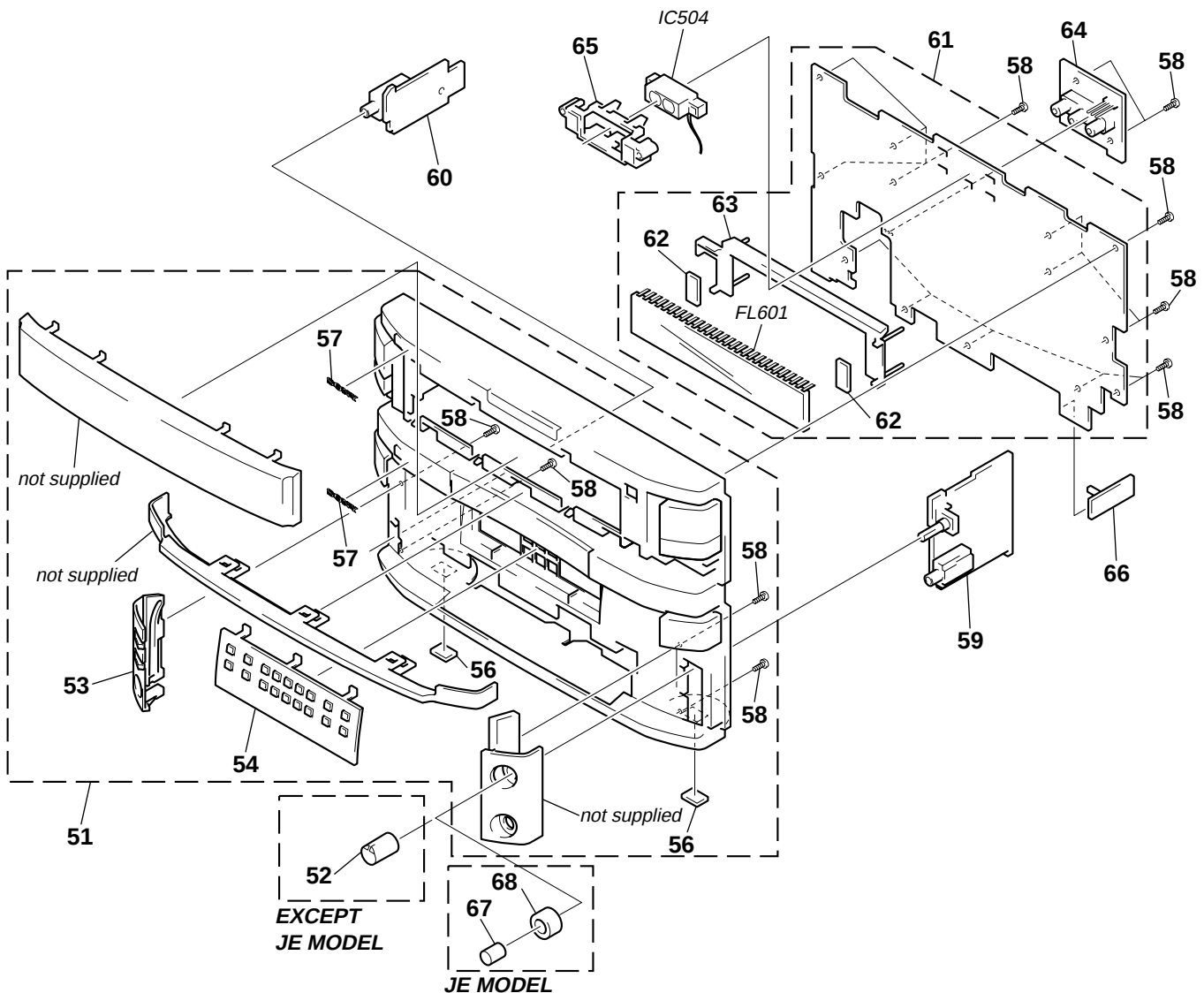
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

6-1. CASE AND SLIDING PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-219-918-01	KNOB (JOG)		6	4-900-855-02	COVER	
2	X-4951-659-1	KNOB (VOL ASSY)		* 7	4-900-858-01	CASE	
3	1-773-125-11	WIRE (FLAT TYPE) (19 CORE)		8	4-812-134-00	RIVET (DIA. 3.5), NYLON	
4	X-4951-660-1	SLIDING PANEL SUB ASSY		* 9	4-900-852-02	HOLDER LEVEL	
* 5	1-669-959-11	LOADING PANEL BOARD		10	3-363-099-01	SCREW (CASE 3 TP2)	
				11	4-951-620-01	SCREW (2.6X8), +BVTP	

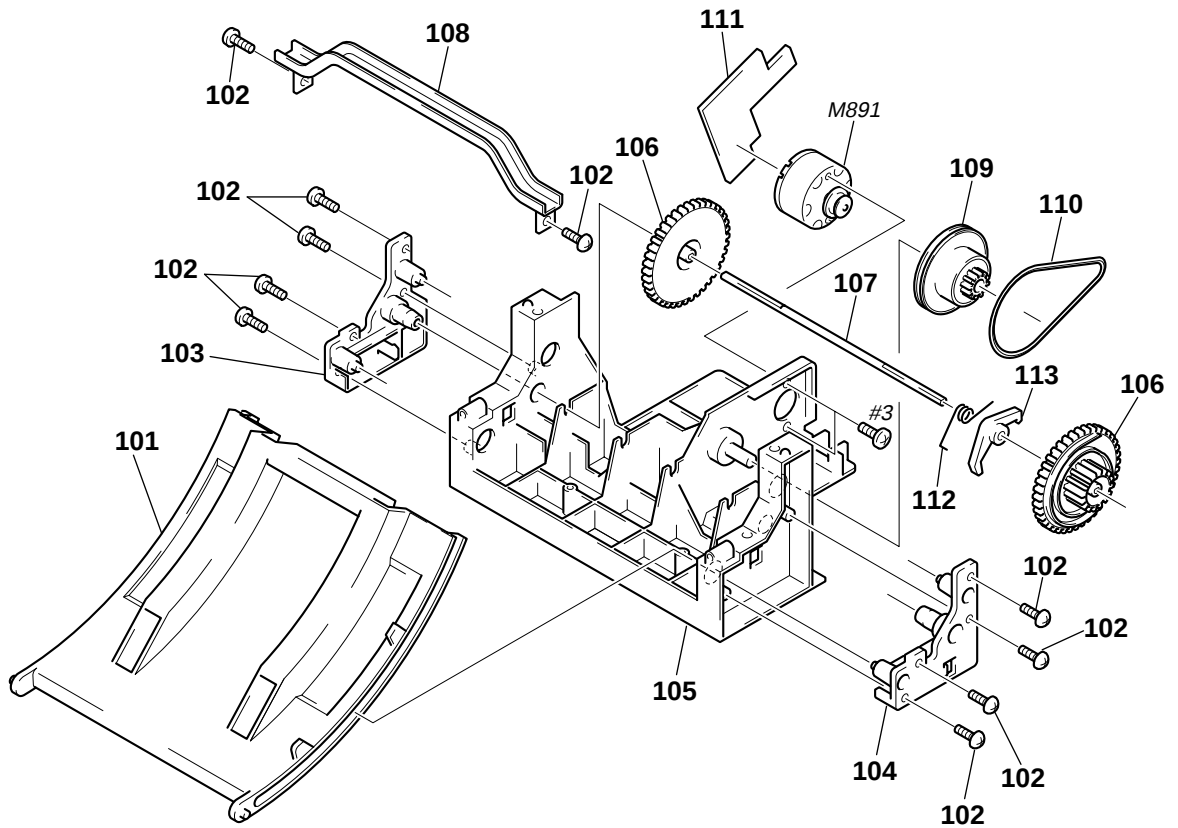
6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-4951-664-1	FRONT PANEL ASSY (EXCEPT JE)	
51	X-4951-776-1	FRONT PANEL ASSY (JE)	
52	4-900-832-11	KNOB (MIC)(EXCEPT JE)	
53	X-4951-665-1	ESCUTCHEON (L) ASSY	
54	X-4949-994-1	ESCUTCHEON (EQ) ASSY	
57	4-962-708-11	EMBLEM (4-A), SONY	
58	4-951-620-01	SCREW (2.6 × 8), +BVTP	
* 59	A-4419-953-A	MIC/ECHO BOARD, COMPLETE	(EXCEPT EA4,TH,JE)
* 59	A-4414-718-A	MIC/ECHO BOARD, COMPLETE (JE)	
* 59	A-4414-778-A	MIC/ECHO BOARD, COMPLETE (EA4,TH)	
* 60	1-669-960-11	HEADPHONE BOARD	
* 61	A-4414-212-A	PANEL BOARD, COMPLETE(EXCEPT EA4,TH,JE)	

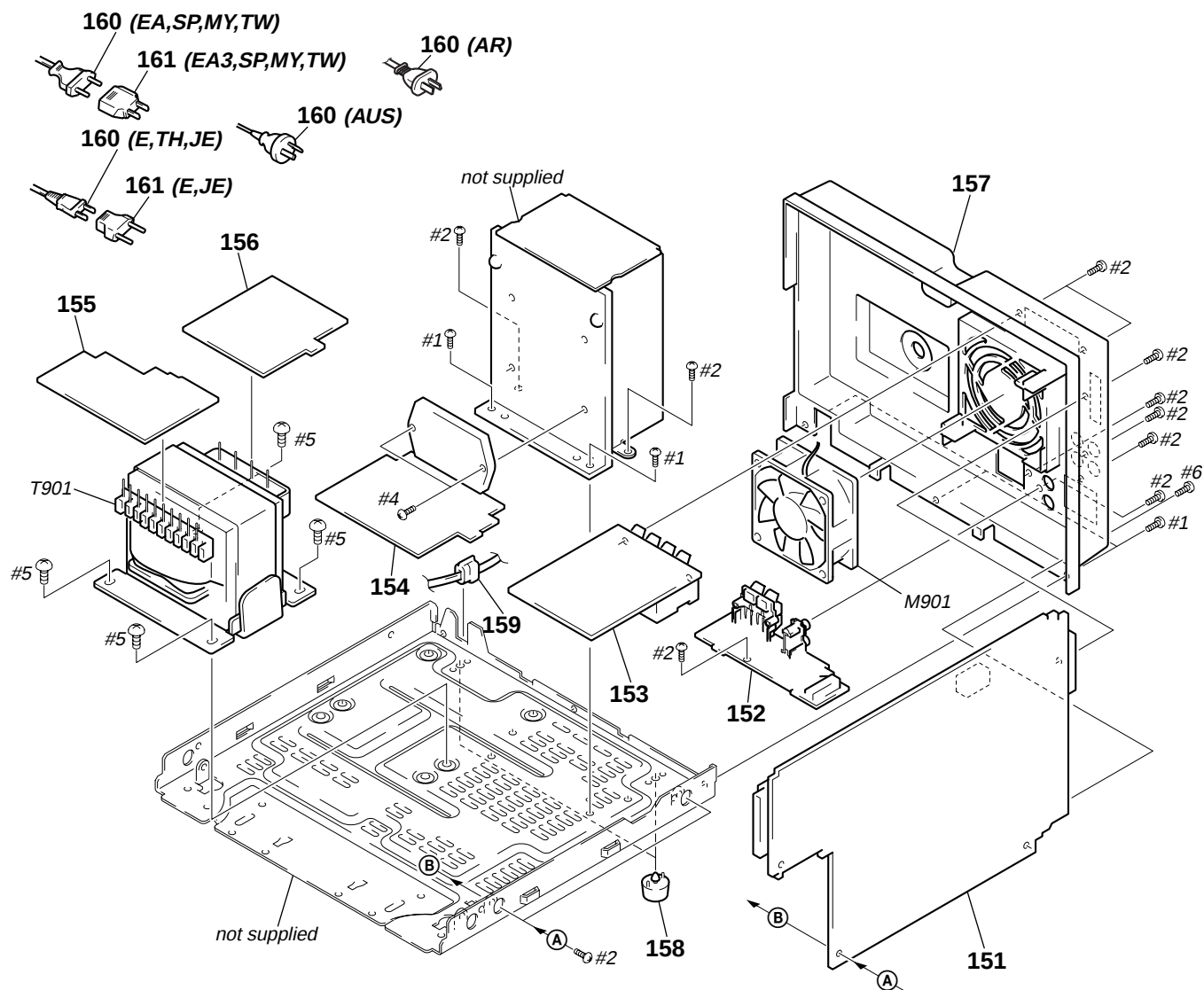
Ref. No.	Part No.	Description	Remark
* 61	A-4414-746-A	PANEL BOARD, COMPLETE (JE)	
* 61	A-4414-793-A	PANEL BOARD, COMPLETE (EA4,TH)	
* 62	4-932-810-11	CUSHION (FL)	
* 63	4-900-849-01	HOLDER (FL)	
* 64	1-669-957-11	FRONT AV BOARD	
* 65	4-210-042-01	BRACKET (SENSOR)	
* 66	1-669-964-11	DETECTOR BOARD	
67	4-900-868-11	KNOB (CENTER) (JE)	
68	4-900-867-11	KNOB (CONTROL) (JE)	
FL601	1-517-775-11	INDICATOR TUBE, FLUORESCENT	
IC504	8-719-070-85	DIODE KU381-40	

6-3. SLIDE MECHANISM SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-900-844-01	LEVEL SLIDER		108	4-900-864-01	BRACKET (TOP)	
102	4-951-620-01	SCREW (2.6X8), +BVTP		109	4-900-847-01	GEAR (2)	
103	X-4950-394-2	HOLDER (L) ASSY		110	3-344-059-01	BELT (L)	
104	X-4950-395-2	HOLDER (R) ASSY		* 111	1-669-965-11	MOTOR BOARD	
105	4-900-845-01	BRACKET SLIDER		112	4-212-966-01	SPRING LEVEL	
106	4-900-846-01	GEAR (1)		113	4-212-965-01	STOPPER LEVEL	
107	4-900-862-01	SHAFT (CENTER)		M891	A-4660-926-A	MOTOR (CDM) ASSY	

6-4. CIRCUIT BOARDS AND BACK PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	A-4419-951-A	MAIN BOARD, COMPLETE (EXCEPT EA4,TH,JE)		* 157	4-900-848-01	BACK PANEL (EXCEPT EA4,TH)	
151	A-4426-830-A	MAIN BOARD, COMPLETE (EA4,TH)		* 157	4-900-848-11	BACK PANEL (EA4,TH)	
151	A-4426-825-A	MAIN BOARD, COMPLETE (JE)		158	4-970-381-11	FOOT (REAR)	
* 152	1-669-963-11	SURR SPK BOARD		* 159	3-703-244-00	BUSHING (2104), CORD (EXCEPT TH)	
153	1-233-545-32	ENCAPSULATED COMPONENT (TUNER UNIT)(E,EA4,TH,AUS,AR)		159	3-703-571-11	BUSHING (S) (4516), CORD (TH)	
153	1-233-546-32	ENCAPSULATED COMPONENT (TUNER UNIT) (EA3,MY,SP,TW)		△ 160	1-575-653-11	CORD, POWER (TH)	
153	1-693-385-31	TUNER (JE)		△ 160	1-696-847-11	CORD, POWER (AUS)	
154	A-4419-954-A	POWER AMP BOARD, COMPLETE (EXCEPT EA4,TH,JE)		△ 160	1-777-071-21	CORD, POWER (EA,SP,MY,TW)	
154	A-4426-833-A	POWER AMP BOARD, COMPLETE (EA4,TH)		△ 160	1-783-525-11	CORD, POWER (TRACKING)(JE)	
154	A-4426-828-A	POWER AMP BOARD, COMPLETE (JE)		△ 160	1-783-940-11	CORD, POWER (AR)	
* 155	1-669-954-12	SECONDARY BOARD		△ 161	1-569-007-11	ADAPTOR, CONVERSION 2P (E,JE)	
* 156	1-669-953-11	PRIMARY BOARD		△ 161	1-569-008-21	ADAPTOR, CONVERSION 2P (EA3,SP,MY,TW)	
				M901	1-763-372-11	FAN, DC	
				△ T901	1-433-932-11	TRANSFORMER, POWER	

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

SECTION 6 ELECTRICAL PARTS LIST

DETECTOR

FRONT AV

HEADPHONE

LOADING PANEL

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
All resistors are in ohms.
METAL: metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable

- Abbreviation
EA3 : Saudi Arabia model
EA4 : Israel model
SP : Singapore model.
MY : Malaysia model.
TW : Taiwan model
AUS : Australian model.
AR : Argentine model
JE : Tourist model
TH : Thai model

- CAPACITORS:
uF: μ F
• COILS
uH: μ H
• SEMICONDUCTORS
In each case, u: μ , for example:
uA...: μ A..., uPA..., μ PA...,
uPB..., μ PB..., uPC..., μ PC...,
uPD..., μ PD...

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

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

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
*	1-669-964-11	DETECTOR BOARD *****		R6306	1-249-425-11	CARBON 4.7K 5% 1/4W F	
		< CONNECTOR >		R6307	1-249-425-11	CARBON 4.7K 5% 1/4W F	
				R6308	1-249-429-11	CARBON 10K 5% 1/4W	

* CN505	1-568-941-11	PIN, CONNECTOR 3P < SWITCH >		*	1-669-960-11	HEADPHONE BOARD *****	
						< CAPACITOR >	
S892	1-571-300-21	SWITCH, ROTARY (PANEL OPEN/CLOSE) *****		C790	1-162-306-11	CERAMIC 0.01uF 20% 16V	
				C791	1-162-294-31	CERAMIC 0.001uF 10% 50V	
*	1-669-957-11	FRONT AV BOARD *****		C792	1-162-294-31	CERAMIC 0.001uF 10% 50V	
						< CONNECTOR >	
	7-685-872-09	SCREW +BVTT 3 $\times$ 8 (S) < CAPACITOR >		* CN790	1-568-944-11	PIN, CONNECTOR 6P < EARTH >	
C6301	1-162-282-31	CERAMIC 100PF 10% 50V					
C6302	1-162-282-31	CERAMIC 100PF 10% 50V		* G790	1-537-738-21	TERMINAL, EARTH < JACK >	
C6303	1-162-306-11	CERAMIC 0.01uF 20% 16V					
C6304	1-164-159-11	CERAMIC 0.1uF 20% 50V < CONNECTOR >		J755	1-774-728-41	JACK (PHONES) *****	
* CN6301	1-564-520-11	PLUG, CONNECTOR 5P		*	1-669-959-11	LOADING PANEL BOARD *****	
* CN6302	1-560-666-00	PIN, CONNECTOR 3P < DIODE >				< CAPACITOR >	
D6301	8-719-911-19	DIODE 1SS119-25		C626	1-124-584-00	ELECT 100uF 20% 10V	
D6302	8-719-911-19	DIODE 1SS119-25		C627	1-162-306-11	CERAMIC 0.01uF 20% 16V	
D6303	8-719-911-19	DIODE 1SS119-25 < JACK >		C628	1-162-306-11	CERAMIC 0.01uF 20% 16V	
				C629	1-162-306-11	CERAMIC 0.01uF 20% 16V	
J6301	1-784-901-11	JACK, PIN 3P (AV INPUT (VIDEO2)) < COIL >		C630	1-162-306-11	CERAMIC 0.01uF 20% 16V	
						< CONNECTOR >	
L6301	1-412-473-21	INDUCTOR OuH < TRANSISTOR >		CN630	1-569-308-11	SOCKET, CONNECTOR (L TYRE) 19P < DIODE >	
Q6301	8-729-900-36	TRANSISTOR DTC124ES < RESISTOR >		D631	8-719-046-39	DIODE SEL5821A-TH15 (GROOVE)	
				D632	8-719-046-44	DIODE SEL5221S ($\blacktriangleleft$ -)	
				D633	8-719-058-04	DIODE SEL5223S-TP15 (MULTI JOG STATION)	
				D634	8-719-046-44	DIODE SEL5221S (ENTER/NEXT)	
				D635	8-719-046-44	DIODE SEL5221S (EFFECT ON/OFF)	
R6301	1-249-417-11	CARBON 1K 5% 1/4W F		D638	8-719-046-44	DIODE SEL5221S (NON-STOP)	
R6302	1-249-417-11	CARBON 1K 5% 1/4W F		D639	8-719-046-44	DIODE SEL5221S (DSP DELAY)	
R6303	1-249-441-11	CARBON 100K 5% 1/4W		D640	8-719-046-44	DIODE SEL5221S (DSP REVERB)	
R6304	1-249-441-11	CARBON 100K 5% 1/4W		D641	8-719-046-44	DIODE SEL5221S ($\blacktriangleright$ +)	
R6305	1-249-425-11	CARBON 4.7K 5% 1/4W F		D642	8-719-058-04	DIODE SEL5223S-TP15 (MULTI JOG STATION)	

LOADING PANEL

MAIN

Ref. No.	Part No.	Description	Remarks			
< TRANSISTOR >						
Q531	8-729-900-80	TRANSISTOR	DTC114ES			
Q532	8-729-900-80	TRANSISTOR	DTC114ES			
Q533	8-729-900-80	TRANSISTOR	DTC114ES			
Q534	8-729-900-80	TRANSISTOR	DTC114ES			
Q535	8-729-900-80	TRANSISTOR	DTC114ES			
Q538	8-729-900-80	TRANSISTOR	DTC114ES			
Q539	8-729-900-80	TRANSISTOR	DTC114ES			
Q540	8-729-900-80	TRANSISTOR	DTC114ES			
< RESISTOR >						
R631	1-249-410-11	CARBON	270	5%	1/4W	F
R632	1-249-407-11	CARBON	150	5%	1/4W	F
R633	1-249-403-11	CARBON	68	5%	1/4W	
R634	1-249-407-11	CARBON	150	5%	1/4W	F
R635	1-249-413-11	CARBON	470	5%	1/4W	F
R638	1-249-413-11	CARBON	470	5%	1/4W	F
R639	1-249-413-11	CARBON	470	5%	1/4W	F
R640	1-249-413-11	CARBON	470	5%	1/4W	F
R641	1-247-807-31	CARBON	100	5%	1/4W	
R642	1-249-407-11	CARBON	150	5%	1/4W	F
R643	1-249-409-11	CARBON	220	5%	1/4W	F
R644	1-249-411-11	CARBON	330	5%	1/4W	
R645	1-249-411-11	CARBON	330	5%	1/4W	
R646	1-249-413-11	CARBON	470	5%	1/4W	F
R647	1-249-415-11	CARBON	680	5%	1/4W	F
R648	1-249-417-11	CARBON	1K	5%	1/4W	F
R649	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R650	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R651	1-247-843-11	CARBON	3.3K	5%	1/4W	
R652	1-249-417-11	CARBON	1K	5%	1/4W	F
R653	1-247-807-31	CARBON	100	5%	1/4W	
R654	1-249-407-11	CARBON	150	5%	1/4W	F
R655	1-249-409-11	CARBON	220	5%	1/4W	F
R656	1-249-411-11	CARBON	330	5%	1/4W	
R657	1-249-411-11	CARBON	330	5%	1/4W	
R658	1-249-413-11	CARBON	470	5%	1/4W	F
R659	1-249-415-11	CARBON	680	5%	1/4W	F
R660	1-249-429-11	CARBON	10K	5%	1/4W	
R661	1-249-429-11	CARBON	10K	5%	1/4W	
R662	1-249-429-11	CARBON	10K	5%	1/4W	
R663	1-249-429-11	CARBON	10K	5%	1/4W	
R665	1-247-843-11	CARBON	3.3K	5%	1/4W	
R666	1-247-843-11	CARBON	3.3K	5%	1/4W	
R671	1-247-807-31	CARBON	100	5%	1/4W	
R672	1-247-807-31	CARBON	100	5%	1/4W	
R673	1-247-807-31	CARBON	100	5%	1/4W	
R674	1-247-807-31	CARBON	100	5%	1/4W	
R675	1-247-807-31	CARBON	100	5%	1/4W	
R678	1-247-807-31	CARBON	100	5%	1/4W	
R679	1-247-807-31	CARBON	100	5%	1/4W	
R680	1-247-807-31	CARBON	100	5%	1/4W	
< SWITCH >						
S631	1-762-378-11	SWITCH, TACTILE (◀◀-)				
S632	1-762-378-11	SWITCH, TACTILE (GAME)				
S633	1-762-378-11	SWITCH, TACTILE (MUSIC)				
S634	1-762-378-11	SWITCH, TACTILE (MOVIE)				
S635	1-762-378-11	SWITCH, TACTILE (DSP DELAY)				

Ref. No.	Part No.	Description	Remarks			
S636	1-762-378-11	SWITCH, TACTILE (CD REPEAT)				
S637	1-762-378-11	SWITCH, TACTILE (FLASH)				
S638	1-762-378-11	SWITCH, TACTILE (DSP REVERB)				
S639	1-762-378-11	SWITCH, TACTILE (CD PLAY MODE)				
S640	1-762-378-11	SWITCH, TACTILE (CD EDIT)				
S641	1-762-378-11	SWITCH, TACTILE (NON-STOP)				
S642	1-762-378-11	SWITCH, TACTILE (DBFB)				
S643	1-762-378-11	SWITCH, TACTILE (ENTER/NEXT)				
S644	1-762-378-11	SWITCH, TACTILE (▶▶+)				
S645	1-762-378-11	SWITCH, TACTILE (GROOVE)				
S648	1-762-378-11	SWITCH, TACTILE (EFFECT ON/OFF)				
S649	1-762-378-11	SWITCH, TACTILE (P FILE)				
S650	1-762-378-11	SWITCH, TACTILE (PLACE)				
S651	1-762-378-11	SWITCH, TACTILE (LOOP)				
S652	1-473-392-11	ENCODER, ROTARY (VOLUME)				
S653	1-467-968-11	ENCODER, ROTARY (MULTI JOG STATION)				

*	A-4419-951-A	MAIN BOARD, COMPLETE (EXCEPT EA4,TH,JE)				

*	A-4426-825-A	MAIN BOARD, COMPLETE (JE)				

*	A-4426-830-A	MAIN BOARD, COMPLETE (EA4,TH)				

< CAPACITOR >						
C103	1-126-963-11	ELECT 4.7uF 20%	50V			
C105	1-164-159-11	CERAMIC 0.1uF	50V			
C108	1-126-960-11	ELECT 1uF 20%	50V			
C111	1-136-171-00	FILM 0.33uF 5%	50V			
C112	1-136-161-00	FILM 0.047uF 5%	50V			
C113	1-164-159-11	CERAMIC 0.1uF	50V			
C114	1-130-480-00	MYLAR 0.0056uF 5%	50V			
C115	1-136-159-00	FILM 0.033uF 5%	50V			
C116	1-162-301-11	CERAMIC 0.0015uF 20%	16V			
C117	1-162-306-11	CERAMIC 0.01uF 20%	16V			
C118	1-162-290-31	CERAMIC 470PF 10%	50V			
C119	1-162-600-11	CERAMIC 0.0047uF 30%	16V			
C121	1-126-964-11	ELECT 10uF 20%	50V			
C122	1-162-291-31	CERAMIC 560PF 10%	50V			
C123	1-136-165-00	FILM 0.1uF 5%	50V			
C124	1-136-165-00	FILM 0.1uF 5%	50V			
C125	1-164-159-11	CERAMIC 0.1uF	50V			
C126	1-126-964-11	ELECT 10uF 20%	50V			
C127	1-104-665-11	ELECT 100uF 20%	10V			
C128	1-164-159-11	CERAMIC 0.1uF	50V			
C129	1-126-964-11	ELECT 10uF 20%	50V			
C131	1-126-961-11	ELECT 2.2uF 20%	50V			
C134	1-104-664-11	ELECT 47uF 20%	25V			
C135	1-126-959-11	ELECT 0.47uF 20%	50V			
C153	1-126-963-11	ELECT 4.7uF 20%	50V			
C161	1-136-171-00	FILM 0.33uF 5%	50V			
C162	1-136-161-00	FILM 0.047uF 5%	50V			
C163	1-164-159-11	CERAMIC 0.1uF	50V			
C164	1-130-480-00	MYLAR 0.0056uF 5%	50V			
C165	1-136-159-00	FILM 0.033uF 5%	50V			
C166	1-162-301-11	CERAMIC 0.0015uF 20%	16V			
C167	1-162-306-11	CERAMIC 0.01uF 20%	16V			
C168	1-162-290-31	CERAMIC 470PF 10%	50V			
C169	1-162-600-11	CERAMIC 0.0047uF 30%	16V			
C171	1-126-964-11	ELECT 10uF 20%	50V			

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks
C172	1-162-291-31	CERAMIC	560PF	10%	50V	< CONNECTOR >			
C173	1-136-165-00	FILM	0.1uF	5%	50V	* CN101	1-764-017-21	HOUSING,CONNECTOR (PC BOARD) 17P	
C174	1-136-165-00	FILM	0.1uF	5%	50V	CN103	1-774-289-11	PIN, CONNECTOR (PC BOARD) 15P	
C175	1-136-495-11	FILM	0.068uF	5%	50V	* CN131	1-564-507-11	PLUG, CONNECTOR 4P	
C176	1-162-306-11	CERAMIC	0.01uF	20%	16V	CN701	1-778-311-11	SOCKET, CONNECTOR (PC BOARD) 30P	
C177	1-104-665-11	ELECT	100uF	20%	10V	* CN731	1-569-496-11	SOCKET, CONNECTOR 10P	
C178	1-164-159-11	CERAMIC	0.1uF		50V	CN801	1-691-773-11	PLUG (MICRO CONNECTOR) 11P	
C181	1-126-961-11	ELECT	2.2uF	20%	50V	< DIODE >			
C183	1-126-960-11	ELECT	1uF	20%	50V	D101	8-719-911-19	DIODE 1SS119-25	
C184	1-162-303-11	CERAMIC	0.0033uF	30%	16V	D102	8-719-911-19	DIODE 1SS119-25	
C186	1-162-292-31	CERAMIC	680PF	10%	50V	D131	8-719-911-19	DIODE 1SS119-25	
C187	1-126-961-11	ELECT	2.2uF	20%	50V	D401	8-719-911-19	DIODE 1SS119-25	
C188	1-126-960-11	ELECT	1uF	20%	50V	D402	8-719-911-19	DIODE 1SS119-25	
C401	1-126-964-11	ELECT	10uF	20%	50V	D403	8-719-911-19	DIODE 1SS119-25	
C402	1-162-306-11	CERAMIC	0.01uF	20%	16V	D751	8-719-911-19	DIODE 1SS119-25	
C403	1-162-294-31	CERAMIC	0.001uF	10%	50V	D752	8-719-911-19	DIODE 1SS119-25	
C404	1-136-495-11	FILM	0.068uF	5%	50V	D761	8-719-911-19	DIODE 1SS119-25	
C405	1-126-957-11	ELECT	0.22uF	20%	50V	D781	8-719-024-99	DIODE 11ES2-NTA2B	
C406	1-126-957-11	ELECT	0.22uF	20%	50V	D801	8-719-302-38	DIODE RBV-602-01	
C407	1-104-664-11	ELECT	47uF	20%	25V	D802	8-719-911-19	DIODE 1SS119-25	
C408	1-164-159-11	CERAMIC	0.1uF		50V	D803	8-719-911-19	DIODE 1SS119-25	
C409	1-104-664-11	ELECT	47uF	20%	25V	D804	8-719-934-22	DIODE HZS30-2L	
C410	1-136-495-11	FILM	0.068uF	5%	50V	D805	8-719-024-99	DIODE 11ES2-NTA2B	
C411	1-162-305-11	CERAMIC	0.0068uF	20%	16V	D806	8-719-024-99	DIODE 11ES2-NTA2B	
C412	1-162-294-31	CERAMIC	0.001uF	10%	50V	D807	8-719-024-99	DIODE 11ES2-NTA2B	
C413	1-126-964-11	ELECT	10uF	20%	50V	D808	8-719-024-99	DIODE 11ES2-NTA2B	
C414	1-126-964-11	ELECT	10uF	20%	50V	D810	8-719-024-99	DIODE 11ES2-NTA2B	
C415	1-104-664-11	ELECT	47uF	20%	25V	D811	8-719-024-99	DIODE 11ES2-NTA2B	
C416	1-104-664-11	ELECT	47uF	20%	25V	D812	8-719-911-19	DIODE 1SS119-25	
C417	1-126-964-11	ELECT	10uF	20%	50V	D813	8-719-024-99	DIODE 11ES2-NTA2B	
C418	1-126-964-11	ELECT	10uF	20%	50V	D821	8-719-024-99	DIODE 11ES2-NTA2B	
C731	1-104-664-11	ELECT	47uF	20%	25V	D851	8-719-911-19	DIODE 1SS119-25	
C732	1-126-964-11	ELECT	10uF	20%	50V	D852	8-719-911-19	DIODE 1SS119-25	
C801	1-136-165-00	FILM	0.1uF	5%	50V	D853	8-719-911-19	DIODE 1SS119-25	
C802	1-136-165-00	FILM	0.1uF	5%	50V	< EARTH >			
C803	1-128-493-11	ELECT	4700uF	20%	71V	* E801	1-537-738-21	TERMINAL, EARTH	
C804	1-128-493-11	ELECT	4700uF	20%	71V	< IC >			
C805	1-126-948-11	ELECT	100uF	20%	35V	IC111	8-759-495-24	IC M62442FP-TP	
C806	1-126-964-11	ELECT	10uF	20%	50V	IC112	8-759-000-48	IC MC14052BCP	
C807	1-136-165-00	FILM	0.1uF	5%	50V	IC113	8-759-634-51	IC M5218AP	
C808	1-136-165-00	FILM	0.1uF	5%	50V	IC401	8-759-450-96	IC M65850P	
C809	1-126-943-11	ELECT	2200uF	20%	25V	IC402	8-759-140-53	IC UPD4053BC	
C810	1-126-943-11	ELECT	2200uF	20%	25V	IC801	8-759-604-86	IC M5F7807L	
C815	1-126-940-11	ELECT	330uF	20%	25V	IC802	8-759-604-90	IC M5F7907L	
C816	1-126-951-11	ELECT	470uF	20%	35V	IC803	8-759-231-53	IC TA7805S	
C818	1-126-959-11	ELECT	0.47uF	20%	50V	IC804	8-759-604-32	IC M5F7810L	
C819	1-104-664-11	ELECT	47uF	20%	25V	IC851	8-759-111-68	IC UPC1237HA	
C820	1-126-959-11	ELECT	0.47uF	20%	50V	< JACK >			
C821	1-104-664-11	ELECT	47uF	20%	25V	J101	1-770-613-11	JACK, PIN 4P (MD/VIDEO1 IN,OUT)	
C822	1-126-940-11	ELECT	330uF	20%	25V	< COIL >			
C823	1-126-960-11	ELECT	1uF	20%	50V	L131	1-410-521-11	INDUCTOR 100uH	
C824	1-104-665-11	ELECT	100uF	20%	10V	L401	1-410-521-11	INDUCTOR 100uH	
C825	1-126-959-11	ELECT	0.47uF	20%	50V				
C826	1-104-664-11	ELECT	47uF	20%	25V				
C851	1-126-964-11	ELECT	10uF	20%	50V				
C852	1-104-665-11	ELECT	100uF	20%	10V				
C853	1-164-159-11	CERAMIC	0.1uF		50V				
C854	1-126-961-11	ELECT	2.2uF	20%	50V				
C855	1-126-934-11	ELECT	220uF	20%	10V				
C856	1-104-665-11	ELECT	100uF	20%	10V				

Ref. No.	Part No.	Description			Remarks	
< TRANSISTOR >						
Q121	8-729-422-57	TRANSISTOR	UN4111			
Q132	8-729-620-05	TRANSISTOR	2SC2603-EF			
Q182	8-729-620-05	TRANSISTOR	2SC2603-EF			
Q183	8-729-141-30	TRANSISTOR	2SC3623A-LK			
Q401	8-729-119-77	TRANSISTOR	2SA1175-FEK			
Q731	8-729-140-04	TRANSISTOR	2SB1116A-L			
Q732	8-729-620-05	TRANSISTOR	2SC2603-EF			
Q801	8-729-141-83	TRANSISTOR	2SB1094-LK			
Q851	8-729-900-63	TRANSISTOR	DTA124ES			
Q852	8-729-900-36	TRANSISTOR	DTC124ES			
Q853	8-729-900-36	TRANSISTOR	DTC124ES			
Q854	7-729-900-63	TRANSISTOR	DTA124ES			
Q855	8-729-195-82	TRANSISTOR	2SC2958-TL			
< RESISTOR >						
R103	1-249-417-11	CARBON	1K	5%	1/4W	F
R104	1-249-441-11	CARBON	100K	5%	1/4W	
R105	1-249-441-11	CARBON	100K	5%	1/4W	
R106	1-249-417-11	CARBON	1K	5%	1/4W	F
R108	1-249-417-11	CARBON	1K	5%	1/4W	F
R109	1-249-441-11	CARBON	100K	5%	1/4W	
R113	1-247-897-11	CARBON	560K	5%	1/4W	
R114	1-247-897-11	CARBON	560K	5%	1/4W	
R115	1-249-433-11	CARBON	22K	5%	1/4W	
R116	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R117	1-247-895-00	CARBON	470K	5%	1/4W	
R118	1-249-429-11	CARBON	10K	5%	1/4W	
R119	1-249-441-11	CARBON	100K	5%	1/4W	
R120	1-249-441-11	CARBON	100K	5%	1/4W	
R121	1-249-417-11	CARBON	1K	5%	1/4W	F
R122	1-249-417-11	CARBON	1K	5%	1/4W	F
R123	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R132	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R134	1-249-435-11	CARBON	33K	5%	1/4W	
R135	1-249-439-11	CARBON	68K	5%	1/4W	
R136	1-247-883-00	CARBON	150K	5%	1/4W	
R138	1-249-437-11	CARBON	47K	5%	1/4W	
R139	1-247-903-00	CARBON	1M	5%	1/4W	
R140	1-249-441-11	CARBON	100K	5%	1/4W	
R141	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R142	1-249-437-11	CARBON	47K	5%	1/4W	
R145	1-247-887-00	CARBON	220K	5%	1/4W	
R153	1-249-417-11	CARBON	1K	5%	1/4W	F
R154	1-249-441-11	CARBON	100K	5%	1/4W	
R155	1-249-441-11	CARBON	100K	5%	1/4W	
R156	1-249-417-11	CARBON	1K	5%	1/4W	F
R158	1-249-417-11	CARBON	1K	5%	1/4W	F
R159	1-249-441-11	CARBON	100K	5%	1/4W	
R163	1-247-897-11	CARBON	560K	5%	1/4W	
R164	1-247-897-11	CARBON	560K	5%	1/4W	
R165	1-249-433-11	CARBON	22K	5%	1/4W	
R166	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R167	1-247-895-00	CARBON	470K	5%	1/4W	
R172	1-249-429-11	CARBON	10K	5%	1/4W	
R173	1-249-421-11	CARBON	2.2K	5%	1/4W	

Ref. No.	Part No.	Description	Remarks			
R182	1-249-421-11	CARBON 2.2K	5%	1/4W	F	
R184	1-249-435-11	CARBON 33K	5%	1/4W		
R185	1-249-439-11	CARBON 68K	5%	1/4W		
R186	1-247-883-00	CARBON 150K	5%	1/4W		
R188	1-249-437-11	CARBON 47K	5%	1/4W		
R189	1-249-429-11	CARBON 10K	5%	1/4W		
R190	1-247-895-00	CARBON 470K	5%	1/4W		
R191	1-249-417-11	CARBON 1K	5%	1/4W	F	
R192	1-249-437-11	CARBON 47K	5%	1/4W		
R193	1-249-441-11	CARBON 100K	5%	1/4W		
R194	1-249-417-11	CARBON 1K	5%	1/4W	F	
R195	1-249-417-11	CARBON 1K	5%	1/4W	F	
R196	1-249-429-11	CARBON 10K	5%	1/4W		
R340	1-247-843-11	CARBON 3.3K	5%	1/4W		
R401	1-249-421-11	CARBON 2.2K	5%	1/4W	F	
R402	1-249-422-11	CARBON 2.7K	5%	1/4W	F	
R403	1-249-426-11	CARBON 5.6K	5%	1/4W		
R404	1-249-439-11	CARBON 68K	5%	1/4W		
R405	1-249-433-11	CARBON 22K	5%	1/4W		
R406	1-249-433-11	CARBON 22K	5%	1/4W		
R407	1-249-433-11	CARBON 22K	5%	1/4W		
R408	1-249-425-11	CARBON 4.7K	5%	1/4W	F	
R409	1-249-437-11	CARBON 47K	5%	1/4W		
R410	1-249-421-11	CARBON 2.2K	5%	1/4W	F	
R411	1-249-429-11	CARBON 10K	5%	1/4W		
R412	1-249-429-11	CARBON 10K	5%	1/4W		
R413	1-249-421-11	CARBON 2.2K	5%	1/4W	F	
R414	1-247-903-00	CARBON 1M	5%	1/4W		
R415	1-249-433-11	CARBON 22K	5%	1/4W		
R416	1-249-437-11	CARBON 47K	5%	1/4W		
R417	1-249-437-11	CARBON 47K	5%	1/4W		
R418	1-247-903-00	CARBON 1M	5%	1/4W		
R419	1-249-433-11	CARBON 22K	5%	1/4W		
R420	1-249-429-11	CARBON 10K	5%	1/4W		
R701	1-247-807-31	CARBON 100	5%	1/4W		
R702	1-247-807-31	CARBON 100	5%	1/4W		
R705	1-247-807-31	CARBON 100	5%	1/4W		
R706	1-247-807-31	CARBON 100	5%	1/4W		
R707	1-247-807-31	CARBON 100	5%	1/4W		
R708	1-247-807-31	CARBON 100	5%	1/4W		
R709	1-247-807-31	CARBON 100	5%	1/4W		
R710	1-247-807-31	CARBON 100	5%	1/4W		
R711	1-247-807-31	CARBON 100	5%	1/4W		
R712	1-247-807-31	CARBON 100	5%	1/4W		
R714	1-247-807-31	CARBON 100	5%	1/4W		
R715	1-247-807-31	CARBON 100	5%	1/4W		
R716	1-247-807-31	CARBON 100	5%	1/4W		
R717	1-247-807-31	CARBON 100	5%	1/4W		
R731	1-249-429-11	CARBON 10K	5%	1/4W		
R732	1-249-429-11	CARBON 10K	5%	1/4W		
R733	1-249-425-11	CARBON 4.7K	5%	1/4W	F	
R751	1-249-432-11	CARBON 18K	5%	1/4W		
R752	1-249-439-11	CARBON 68K	5%	1/4W		
R757	1-249-435-11	CARBON 33K	5%	1/4W		
△ R758	1-215-893-11	METAL OXIDE 1.5K	5%	2W	F	

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

Ref. No.	Part No.	Description	Remarks		
R761	1-249-432-11	CARBON	18K	5%	1/4W
R762	1-249-437-11	CARBON	47K	5%	1/4W
R767	1-249-435-11	CARBON	33K	5%	1/4W
R781	1-260-101-11	CARBON	1.5K	5%	1/2W
R782	1-260-101-11	CARBON	1.5K	5%	(EXCEPT EA4,TH,JE)
				5%	(EXCEPT EA4,TH,JE)
R783	1-260-101-11	CARBON	1.5K	5%	1/2W
R784	1-260-101-11	CARBON	1.5K	5%	(EXCEPT EA4,TH,JE)
				5%	(EXCEPT EA4,TH,JE)
R801	1-249-431-11	CARBON	15K	5%	1/4W
R802	1-249-431-11	CARBON	15K	5%	1/4W
R803	1-249-429-11	CARBON	10K	5%	1/4W
△R804	1-212-982-00	FUSIBLE	100	5%	1/2W F
R851	1-249-431-11	CARBON	15K	5%	1/4W
R852	1-249-435-11	CARBON	33K	5%	1/4W
R853	1-249-429-11	CARBON	10K	5%	1/4W
R854	1-249-397-11	CARBON	22	5%	1/4W F
R855	1-249-441-11	CARBON	100K	5%	1/4W
R856	1-249-429-11	CARBON	10K	5%	1/4W
R857	1-249-433-11	CARBON	22K	5%	1/4W
< RELAY >					
RY751	1-755-168-11	RELAY			
< TERMINAL >					
TB751	1-537-240-31	TERMINAL BOARD (CHECKER PIN)			
(FRONT SPEAKER)					

*	A-4419-953-A	MIC/ECHO BOARD, COMPLETE			

(EXCEPT EA4,TH,JE)					
*	A-4414-778-A	MIC/ECHO BOARD, COMPLETE (EA4,TH)			

*	A-4414-718-A	MIC/ECHO BOARD, COMPLETE (JE)			

< CAPACITOR >					
C6001	1-162-306-11	CERAMIC	0.01uF	20%	16V
C6002	1-124-257-00	ELECT	2.2uF	20%	50V
C6003	1-126-157-11	CERAMIC	0.01uF	20%	16V (JE)
C6004	1-124-257-00	ELECT	2.2uF	20%	50V
C6005	1-162-294-31	CERAMIC	0.001uF	10%	50V
C6006	1-162-215-31	CERAMIC	47PF	5%	50V
C6007	1-162-290-31	CERAMIC	470PF	10%	50V
C6008	1-126-157-11	ELECT	10uF	20%	16V
C6009	1-124-465-00	ELECT	0.47uF	20%	50V
C6010	1-162-215-31	CERAMIC	47PF	5%	50V
C6011	1-162-282-31	CERAMIC	100PF	10%	50V
C6012	1-126-157-11	ELECT	10uF	20%	16V
C6014	1-124-257-00	ELECT	2.2uF	20%	50V
C6015	1-126-160-11	ELECT	1uF	20%	50V (JE)
C6016	1-126-967-11	ELECT	47uF	20%	16V (JE)
C6017	1-164-159-11	CERAMIC	0.1uF		50V (JE)
C6018	1-126-967-11	ELECT	47uF	20%	16V (JE)
C6019	1-136-495-11	FILM	0.068uF	5%	50V (JE)
C6020	1-162-305-11	CERAMIC	0.0068uF	30%	16V (JE)
C6021	1-162-294-31	CERAMIC	0.001uF	10%	50V (JE)

Ref. No.	Part No.	Description	Remarks		
C6022	1-126-160-11	ELECT	1uF	20%	50V (JE)
C6023	1-161-494-00	CERAMIC	0.022uF		25V (JE)
C6024	1-136-167-00	FILM	0.15uF	5%	50V (JE)
C6025	1-126-957-11	ELECT	0.22uF	20%	50V (JE)
C6026	1-126-957-11	ELECT	0.22uF	20%	50V (JE)
C6027	1-136-495-11	FILM	0.068uF	5%	50V (JE)
C6028	1-162-294-31	CERAMIC	0.001uF	10%	50V (JE)
C6029	1-162-305-11	CERAMIC	0.0068uF	30%	16V (JE)
C6031	1-162-306-11	CERAMIC	0.01uF	20%	16V (JE)
< CONNECTOR >					
CN6001	1-506-469-11	PIN, CONNECTOR 4P			
< DIODE >					
D6001	8-719-911-19	DIODE 1SS119-25 (JE)			
D6002	8-719-911-19	DIODE 1SS119-25 (JE)			
D6003	8-719-911-19	DIODE 1SS119-25 (JE)			
< EARTH >					
* E6001	1-537-738-21	TERMINAL, EARTH			
< IC >					
IC6001	8-759-634-51	IC M5218AP			
IC6002	8-759-450-96	IC M65850P (JE)			
< JACK >					
J6001	1-770-226-11	JACK (LARGE TYPE)			
		(MIX MIC:EXCEPT JE)(MIC1:JE)			
J6002	1-750-733-11	JACK (LARGE TYPE)(MIC2) (JE)			
< COIL >					
L6011	1-410-521-11	INDUCTOR 100uH (JE)			
< RESISTOR >					
R6001	1-249-429-11	CARBON	10K	5%	1/4W
R6002	1-249-417-11	CARBON	1K	5%	1/4W F
R6003	1-249-429-11	CARBON	10K	5%	1/4W (JE)
R6004	1-249-417-11	CARBON	1K	5%	1/4W F (JE)
R6005	1-249-441-11	CARBON	100K	5%	1/4W
R6006	1-249-417-11	CARBON	1K	5%	1/4W F
R6007	1-249-433-11	CARBON	22K	5%	1/4W
R6008	1-249-429-11	CARBON	10K	5%	1/4W
R6009	1-247-885-00	CARBON	180K	5%	1/4W
R6010	1-247-807-31	CARBON	100	5%	1/4W
R6011	1-249-433-11	CARBON	22K	5%	1/4W (JE)
R6012	1-247-881-00	CARBON	120K	5%	1/4W (JE)
R6013	1-249-433-11	CARBON	22K	5%	1/4W (JE)
R6014	1-249-433-11	CARBON	22K	5%	1/4W (JE)
R6015	1-249-433-11	CARBON	22K	5%	1/4W (JE)

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

MIC/ECHO

MOTOR

PANEL

Ref. No.	Part No.	Description	Remarks		
R6016	1-249-429-11	CARBON	10K	5%	1/4W F (JE)
R6017	1-249-437-11	CARBON	47K	5%	1/4W (JE)
R6018	1-249-433-11	CARBON	22K	5%	1/4W (JE)
R6019	1-249-433-11	CARBON	22K	5%	1/4W (JE)
R6020	1-249-431-11	CARBON	15K	5%	1/4W (JE)
< VARIABLE RESISTOR >					
RV6001	1-225-410-11	RES, VAR, CARBON 50K (MIC LEVEL) (EXECEPT JE)			
RV6001	1-225-511-21	RES, VAR, CARBON 50K/50K (MIC LEVEL, ECHO LEVEL)(JE)			

*	1-669-965-11	MOTOR BOARD	*****		
< CAPACITOR >					
C891	1-162-306-11	CERAMIC	0.01uF	20%	16V
C892	1-124-478-11	ELECT	100uF	20%	25V
C893	1-164-159-11	CERAMIC	0.1uF		50V
< CONNECTOR >					
* CN892	1-568-941-11	PIN, CONNECTOR 3P			
< DIODE >					
D891	8-719-947-16	DIODE MTZJ-T-72-5.1A			
< IC >					
IC891	8-759-822-09	IC LB1641			
< RESISTOR >					
R891	1-249-425-11	CARBON	4.7K	5%	1/4W F
R892	1-249-425-11	CARBON	4.7K	5%	1/4W F
R893	1-249-429-11	CARBON	10K	5%	1/4W
R894	1-249-413-11	CARBON	470	5%	1/4W F

*	A-4414-212-A	PANEL BOARD, COMPLETE(EXCEPT EA4,TH,JE) *****			
*	A-4414-746-A	PANEL BOARD, COMPLETE (JE) *****			
*	A-4414-793-A	PANEL BOARD, COMPLETE (EA4,TH) *****			
*	4-900-849-01	HOLDER (FL)			
*	4-932-810-11	CUSHION (FL)			
< CAPACITOR >					
C501	1-162-205-31	CERAMIC	18PF	5%	50V
C502	1-162-205-31	CERAMIC	18PF	5%	50V
C503	1-104-905-11	CAPACITOR	0.22F		5.5V
C505	1-164-159-11	CERAMIC	0.1uF		50V
C506	1-164-159-11	CERAMIC	0.1uF		50V
C507	1-164-159-11	CERAMIC	0.1uF		50V
C508	1-164-159-11	CERAMIC	0.1uF		50V
C509	1-124-589-11	ELECT	47uF	20%	16V
C510	1-162-306-11	CERAMIC	0.01uF	20%	16V
C513	1-162-284-31	CERAMIC	150PF	10%	50V

Ref. No.	Part No.	Description	Remarks		
C514	1-162-284-31	CERAMIC	150PF	10%	50V
C517	1-162-303-11	CERAMIC	0.0033uF	30%	16V
C518	1-126-157-11	ELECT	10uF	20%	16V
C519	1-126-157-11	ELECT	10uF	20%	16V
C520	1-126-157-11	ELECT	10uF	20%	16V
C521	1-162-306-11	CERAMIC	0.01uF	20%	16V
C522	1-126-157-11	ELECT	10uF	20%	16V
C523	1-126-157-11	ELECT	10uF	20%	16V
C601	1-126-157-11	ELECT	10uF	20%	16V
C602	1-162-306-11	CERAMIC	0.01uF	20%	16V
C603	1-162-294-31	CERAMIC	0.001uF	10%	50V
C604	1-162-294-31	CERAMIC	0.001uF	10%	50V
C605	1-124-261-00	ELECT	10uF	20%	50V
C606	1-124-261-00	ELECT	10uF	20%	50V
C607	1-124-261-00	ELECT	10uF	20%	50V
C608	1-124-589-11	ELECT	47uF	20%	16V
C609	1-162-282-31	CERAMIC	100PF	10%	50V
C610	1-162-288-31	CERAMIC	330PF	10%	50V
C611	1-162-288-31	CERAMIC	330PF	10%	50V
C612	1-162-288-31	CERAMIC	330PF	10%	50V
C613	1-162-288-31	CERAMIC	330PF	10%	50V
C614	1-162-288-31	CERAMIC	330PF	10%	50V
C615	1-162-288-31	CERAMIC	330PF	10%	50V
C616	1-162-288-31	CERAMIC	330PF	10%	50V
C617	1-162-288-31	CERAMIC	330PF	10%	50V
C618	1-162-288-31	CERAMIC	330PF	10%	50V
C619	1-162-288-31	CERAMIC	330PF	10%	50V
C620	1-162-288-31	CERAMIC	330PF	10%	50V
C621	1-162-288-31	CERAMIC	330PF	10%	50V
C622	1-162-288-31	CERAMIC	330PF	10%	50V
C623	1-162-288-31	CERAMIC	330PF	10%	50V
C624	1-162-288-31	CERAMIC	330PF	10%	50V
C625	1-162-288-31	CERAMIC	330PF	10%	50V
< CONNECTOR >					
* CN501	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
CN503	1-691-650-11	SOCKET, CONNECTOR 19P			
* CN504	1-565-835-11	SOCKET, CONNECTOR 3P			
CNP502	1-778-312-11	PLUG, CONNECTOR (PC BOARD) 30P			
< DIODE >					
D501	8-719-024-99	DIODE	11ES2-NTA2B		
D502	8-719-911-19	DIODE	1SS119-25		
D504	8-719-911-19	DIODE	1SS119-25		
D505	8-719-911-19	DIODE	1SS119-25		
D506	8-719-911-19	DIODE	1SS119-25		
D507	8-719-911-19	DIODE	1SS119-25		
D509	8-719-024-99	DIODE	11ES2-NTA2B		
D511	8-719-118-62	DIODE	RD5.6F-T7B1		
D512	8-719-046-80	DIODE	SML19416W-TP4 (MOVIE)		
D513	8-719-046-80	DIODE	SML19416W-TP4 (MOVIE)		
D514	8-719-046-80	DIODE	SML19416W-TP4 (MUSIC)		
D515	8-719-046-80	DIODE	SML19416W-TP4 (MUSIC)		
D516	8-719-046-80	DIODE	SML19416W-TP4 (GAME)		
D517	8-719-046-80	DIODE	SML19416W-TP4 (GAME)		
D518	8-719-046-80	DIODE	SML19416W-TP4 (PLACE)		
D519	8-719-046-80	DIODE	SML19416W-TP4 (PLACE)		
D520	8-719-046-80	DIODE	SML19416W-TP4 (P FILE)		
D521	8-719-046-80	DIODE	SML19416W-TP4 (P FILE)		
D522	8-719-046-44	DIODE	SEL5221S (AUTO)		

Ref. No.	Part No.	Description				Remarks	Ref. No.	Part No.	Description				Remarks
< FLUORESCENT INDICATOR >							R532	1-247-807-31	CARBON	100	5%	1/4W	
FL601	1-517-775-11	INDICATOR TUBE, FLUORESCENT					R533	1-247-807-31	CARBON	100	5%	1/4W	
							R534	1-247-807-31	CARBON	100	5%	1/4W	
							R535	1-247-807-31	CARBON	100	5%	1/4W	
							R536	1-247-807-31	CARBON	100	5%	1/4W	
							< IC >						
IC501	8-759-525-50	IC uPD780016AYGF-012-3BA				R537	1-247-807-31	CARBON	100	5%	1/4W		
IC502	8-759-165-82	IC PST600E-T				R538	1-247-807-31	CARBON	100	5%	1/4W		
IC503	8-749-011-22	IC GP1U27X				R539	1-247-807-31	CARBON	100	5%	1/4W		
IC505	8-759-140-53	IC UPD4053BC				R540	1-247-807-31	CARBON	100	5%	1/4W		
IC506	8-759-495-25	IC BA3833F-E2				R541	1-247-807-31	CARBON	100	5%	1/4W		
IC601	8-759-261-63	IC M66004M6FP					R542	1-247-807-31	CARBON	100	5%	1/4W	
							R543	1-247-807-31	CARBON	100	5%	1/4W	
							R544	1-247-807-31	CARBON	100	5%	1/4W	
							R546	1-249-441-11	CARBON	100K	5%	1/4W	
							R547	1-247-881-00	CARBON	120K	5%	1/4W	
L501	1-408-074-00	INDUCTOR	56uH										
L502	1-410-521-11	INDUCTOR	100uH										
< TRANSISTOR >							R548	1-249-433-11	CARBON	22K	5%	1/4W	
Q501	8-729-620-05	TRANSISTOR	2SC2603-EF					R549	1-249-429-11	CARBON	10K	5%	1/4W
								R550	1-249-409-11	CARBON	220	5%	1/4W
								R551	1-249-409-11	CARBON	220	5%	1/4W
								R552	1-247-807-31	CARBON	100	5%	1/4W
								R553	1-247-807-31	CARBON	100	5%	1/4W
Q502	8-729-422-57	TRANSISTOR	UN4111				R554	1-247-807-31	CARBON	100	5%	1/4W	
Q503	8-729-422-57	TRANSISTOR	UN4111				R555	1-247-807-31	CARBON	100	5%	1/4W	
Q504	8-729-422-57	TRANSISTOR	UN4111				R556	1-247-807-31	CARBON	100	5%	1/4W	
Q505	8-729-422-57	TRANSISTOR	UN4111				R557	1-247-807-31	CARBON	100	5%	1/4W	
Q506	8-729-422-57	TRANSISTOR	UN4111				R558	1-247-807-31	CARBON	100	5%	1/4W	
Q507	8-729-422-57	TRANSISTOR	UN4111				R559	1-247-807-31	CARBON	100	5%	1/4W	
Q508	8-729-422-57	TRANSISTOR	UN4111				R560	1-247-807-31	CARBON	100	5%	1/4W	
Q509	8-729-422-57	TRANSISTOR	UN4111				R561	1-247-807-31	CARBON	100	5%	1/4W	
Q510	8-729-422-57	TRANSISTOR	UN4111				R562	1-247-807-31	CARBON	100	5%	1/4W	
Q511	8-729-422-57	TRANSISTOR	UN4111					R563	1-247-807-31	CARBON	100	5%	1/4W
								R564	1-247-807-31	CARBON	100	5%	1/4W
								R565	1-247-807-31	CARBON	100	5%	1/4W
								R566	1-247-807-31	CARBON	100	5%	1/4W
								R567	1-247-807-31	CARBON	100	5%	1/4W
Q512	8-729-900-80	TRANSISTOR	DTC114ES				R568	1-247-807-31	CARBON	100	5%	1/4W	
Q513	8-729-900-80	TRANSISTOR	DTC114ES				R569	1-249-407-11	CARBON	150	5%	1/4W	
< RESISTOR >							R570	1-249-409-11	CARBON	220	5%	1/4W	
R501	1-247-891-00	CARBON	330K	5%	1/4W		R571	1-249-411-11	CARBON	330	5%	1/4W	
R502	1-249-433-11	CARBON	22K	5%	1/4W		R572	1-249-411-11	CARBON	330	5%	1/4W	
R503	1-249-437-11	CARBON	47K	5%	1/4W		R573	1-249-413-11	CARBON	470	5%	1/4W	
R504	1-249-437-11	CARBON	47K	5%	1/4W		R574	1-249-415-11	CARBON	680	5%	1/4W	
R505	1-249-429-11	CARBON	10K	5%	1/4W		R575	1-249-417-11	CARBON	1K	5%	1/4W	
R506	1-249-429-11	CARBON	10K	5%	1/4W	(EA4,TH)	R576	1-249-419-11	CARBON	1.5K	5%	1/4W	
							R577	1-249-421-11	CARBON	2.2K	5%	1/4W	
							R578	1-247-843-11	CARBON	3.3K	5%	1/4W	
							R579	1-249-425-11	CARBON	4.7K	5%	1/4W	
							R580	1-249-429-11	CARBON	10K	5%	1/4W	
R507	1-249-441-11	CARBON	100K	5%	1/4W		R581	1-249-433-11	CARBON	22K	5%	1/4W	
R512	1-249-429-11	CARBON	10K	5%	1/4W		R582	1-249-439-11	CARBON	68K	5%	1/4W	
R514	1-249-429-11	CARBON	10K	5%	1/4W		R583	1-247-807-31	CARBON	100	5%	1/4W	
R516	1-249-427-11	CARBON	6.8K	5%	1/4W	(JE)	R584	1-249-407-11	CARBON	150	5%	1/4W	
							R585	1-249-409-11	CARBON	220	5%	1/4W	
							R586	1-249-411-11	CARBON	330	5%	1/4W	
							R587	1-249-411-11	CARBON	330	5%	1/4W	
							R588	1-249-413-11	CARBON	470	5%	1/4W	
R517	1-249-427-11	CARBON	6.8K	5%	1/4W		R589	1-249-415-11	CARBON	680	5%	1/4W	
R518	1-247-807-31	CARBON	100	5%	1/4W		R590	1-249-417-11	CARBON	1K	5%	1/4W	
R519	1-247-807-31	CARBON	100	5%	1/4W		R591	1-249-419-11	CARBON	1.5K	5%	1/4W	
R520	1-247-807-31	CARBON	100	5%	1/4W								
R521	1-247-807-31	CARBON	100	5%	1/4W								
R522	1-247-807-31	CARBON	100	5%	1/4W								
R523	1-247-807-31	CARBON	100	5%	1/4W								
R524	1-247-807-31	CARBON	100	5%	1/4W								
R525	1-247-807-31	CARBON	100	5%	1/4W								
R526	1-247-807-31	CARBON	100	5%	1/4W								
R527	1-247-807-31	CARBON	100	5%	1/4W								
R528	1-247-807-31	CARBON	100	5%	1/4W								
R529	1-247-807-31	CARBON	100	5%	1/4W								
R530	1-247-807-31	CARBON	100	5%	1/4W								
R531	1-247-807-31	CARBON	100	5%	1/4W								

PANEL

POWER AMP

Ref. No.	Part No.	Description	Remarks
R593	1-247-843-11	CARBON 3.3K 5%	1/4W
R594	1-249-425-11	CARBON 4.7K 5%	1/4W F
R595	1-249-429-11	CARBON 10K 5%	1/4W
R596	1-249-433-11	CARBON 22K 5%	1/4W
R597	1-249-403-11	CARBON 68 5%	1/4W F
R598	1-249-403-11	CARBON 68 5%	1/4W F
R599	1-249-403-11	CARBON 68 5%	1/4W F
R600	1-249-403-11	CARBON 68 5%	1/4W F
R601	1-249-403-11	CARBON 68 5%	1/4W F
R602	1-249-403-11	CARBON 68 5%	1/4W F
R603	1-249-403-11	CARBON 68 5%	1/4W F
R604	1-249-403-11	CARBON 68 5%	1/4W F
R605	1-249-403-11	CARBON 68 5%	1/4W F
R606	1-249-403-11	CARBON 68 5%	1/4W F
R607	1-249-415-11	CARBON 680 5%	1/4W F
R608	1-247-807-31	CARBON 100 5%	1/4W
R614	1-249-434-11	CARBON 27K 5%	1/4W
R615	1-249-429-11	CARBON 10K 5%	1/4W
R616	1-249-429-11	CARBON 10K 5%	1/4W
R617	1-249-417-11	CARBON 1K 5%	1/4W F
R618	1-247-843-11	CARBON 3.3K 5%	1/4W
R619	1-249-437-11	CARBON 47K 5%	1/4W
R621	1-247-843-11	CARBON 3.3K 5%	1/4W
R622	1-247-843-11	CARBON 3.3K 5%	1/4W
R623	1-249-425-11	CARBON 4.7K 5%	1/4W F
< SWITCH >			
S501	1-762-378-11	SWITCH, TACTILE (EQ 16kHz +)	
S502	1-762-378-11	SWITCH, TACTILE (NAME IN)	
S503	1-762-378-11	SWITCH, TACTILE (CHAR)	
S504	1-762-378-11	SWITCH, TACTILE (EQ MEMORY)	
S505	1-762-378-11	SWITCH, TACTILE (OPEN/CLOSE)	
S506	1-762-378-11	SWITCH, TACTILE (TUNER BAND)	
S507	1-762-378-11	SWITCH, TACTILE (STEREO/MONO)	
S508	1-762-378-11	SWITCH, TACTILE (MEMORY)	
S509	1-762-875-21	SWITCH, KEY BOARD (KARAOKE PONMPX)	
S510	1-762-378-11	SWITCH, TACTILE (OPEN SENSOR ON/OFF)	
S511	1-762-378-11	SWITCH, TACTILE (INSERT)	
S512	1-762-378-11	SWITCH, TACTILE (DELETE)	
S513	1-762-378-11	SWITCH, TACTILE (EQ 16kHz -)	
S514	1-762-378-11	SWITCH, TACTILE (FUNCTION)	
S515	1-762-378-11	SWITCH, TACTILE (TIMER SELECT)	
S516	1-762-378-11	SWITCH, TACTILE (CLOCK/TIMER SET)	
S517	1-762-378-11	SWITCH, TACTILE (1/u)	
S518	1-762-378-11	SWITCH, TACTILE (DISPLAY/DEMO)	
S520	1-762-378-11	SWITCH, TACTILE (SURROUND +)	
S521	1-762-378-11	SWITCH, TACTILE (SURROUND -)	
S522	1-762-378-11	SWITCH, TACTILE (DBFB -)	
S523	1-762-378-11	SWITCH, TACTILE (DBFB +)	
S524	1-762-378-11	SWITCH, TACTILE (EQ 63Hz +)	
S525	1-762-378-11	SWITCH, TACTILE (EQ 63Hz -)	
S526	1-762-378-11	SWITCH, TACTILE (EQ 250Hz -)	
S527	1-762-378-11	SWITCH, TACTILE (EQ 250Hz +)	
S528	1-762-378-11	SWITCH, TACTILE (EQ 1kHz +)	
S529	1-762-378-11	SWITCH, TACTILE (EQ 1kHz -)	
S530	1-762-378-11	SWITCH, TACTILE (EQ 4kHz -)	
S531	1-762-378-11	SWITCH, TACTILE (EQ 4kHz +)	

Ref. No.	Part No.	Description	Remarks
< VIBRATOR >			
X501	1-760-489-11	VIBRATOR, CERAMIC (5MHz)	
X502	1-567-098-41	VIBRATOR, CRYSTAL (32kHz)	

*	A-4419-954-A	POWER AMP BOARD, COMPLETE	

(EXCEPT EA4,TH,JE)			
*	A-4426-828-A	POWER AMP BOARD, COMPLETE (JE)	

*	A-4414-793-A	POWER AMP BOARD, COMPLETE (EA4,TH)	

< CAPACITOR >			
C901	1-126-963-11	ELECT 4.7uF 20%	50V
C902	1-162-294-31	CERAMIC 0.001uF 10%	50V
C903	1-162-282-31	CERAMIC 100PF 10%	50V
C904	1-126-967-11	ELECT 47uF 20%	50V
C905	1-126-967-11	ELECT 47uF 20%	50V
C906	1-136-495-11	FILM 0.068uF 5%	50V
C907	1-136-495-11	FILM 0.068uF 5%	50V
C932	1-128-560-11	ELECT 22uF 20%	100V
C933	1-128-581-11	ELECT 4.7uF 20%	100V
C934	1-128-552-51	ELECT 47uF 20%	63V
C936	1-162-282-31	CERAMIC 100PF 10%	50V
C937	1-128-560-11	ELECT 22uF 20%	100V
C938	1-126-934-11	ELECT 220uF 20%	16V
C940	1-128-581-11	ELECT 4.7uF 20%	100V
C951	1-126-963-11	ELECT 4.7uF 20%	50V
C952	1-162-294-31	CERAMIC 0.001uF 10%	50V
C953	1-162-282-31	CERAMIC 100PF 10%	50V
C954	1-126-967-11	ELECT 47uF 20%	50V
C955	1-126-967-11	ELECT 47uF 20%	50V
C956	1-136-495-11	FILM 0.068uF 5%	50V
C957	1-136-495-11	FILM 0.068uF 5%	50V
< CONNECTOR >			
CN902	1-691-770-11	PLUG (MICRO CONNECTOR) 8P	
< DIODE >			
D903	8-719-911-19	DIODE 1SS119-25	
D941	8-719-911-19	DIODE 1SS119-25	
D953	8-719-911-19	DIODE 1SS119-25	
< IC >			
IC901	8-749-010-34	IC STK-4241MK-2	
< TRANSISTOR >			
Q131	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q181	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q901	8-729-900-36	TRANSISTOR DTC124ES	
Q902	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q952	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q971	8-729-900-36	TRANSISTOR DTC124ES	
Q972	8-729-119-76	TRANSISTOR 2SC2785TP-HFE	

POWER AMP

PRIMARY

SECONDARY

SURR SPK

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks	
< RESISTOR >				< FUSE >				
R133	1-249-425-11	CARBON	4.7K 5% 1/4W F	△ F873	1-532-506-51	FUSE T6.3AL/250V (E,EA3,SP,MY,AR,TW,JE)		
R134	1-249-437-11	CARBON	47K 5% 1/4W	*****				
R183	1-249-425-11	CARBON	4.7K 5% 1/4W F	*	1-669-954-12	SECONDARY BOARD		
R184	1-249-437-11	CARBON	47K 5% 1/4W		*****			
R901	1-249-417-11	CARBON	1K 5% 1/4W F					
R902	1-249-437-11	CARBON	47K 5% 1/4W		1-533-293-11	FUSE HOLDER		
R903	1-249-412-11	CARBON	390 5% 1/4W F	< FUSE >				
R904	1-249-437-11	CARBON	47K 5% 1/4W					
R906	1-249-429-11	CARBON	10K 5% 1/4W	△ F874	1-532-949-31	FUSE TIME LAG 8A 250V		
R907	1-249-429-11	CARBON	10K 5% 1/4W	△ F875	1-532-949-31	FUSE TIME LAG 8A 250V		
R908	1-249-429-11	CARBON	10K 5% 1/4W	< RESISTOR >				
R909	1-249-429-11	CARBON	10K 5% 1/4W	△ R871	1-219-119-81	FUSIBLE 0.1 5% 1/4W F		
R910	1-249-397-11	CARBON	22 5% 1/4W F	△ R872	1-219-119-81	FUSIBLE 0.1 5% 1/4W F		
R911	1-249-397-11	CARBON	22 5% 1/4W F	△ R873	1-219-120-11	FUSIBLE 0.15 5% 1/4W F		
R913	1-249-417-11	CARBON	1K 5% 1/4W F	△ R874	1-219-120-11	FUSIBLE 0.15 5% 1/4W F		
R914	1-249-431-11	CARBON	15K 5% 1/4W	< SWITCH >				
R915	1-249-441-11	CARBON	100K 5% 1/4W	△ S871	1-771-291-11	SWITCH, POWER (VOLTAGE SELECTOR)		
△ R920	1-217-156-00	REGISTER	0.22 10% 5W F	(E,EA3,SP,MY,AR,TW,JE)				
△ R932	1-212-881-11	FUSIBLE	100 5% 1/4W F	*****				
R933	1-249-421-11	CARBON	2.2K 5% 1/4W F	*	1-669-963-11	SURR SPK BOARD		
R934	1-249-421-11	CARBON	2.2K 5% 1/4W F		*****			
R935	1-249-421-11	CARBON	2.2K 5% 1/4W F					
R936	1-249-421-11	CARBON	2.2K 5% 1/4W F		< CAPACITOR >			
R937	1-249-429-11	CARBON	10K 5% 1/4W		C202	1-104-666-11	ELECT 220uF 20% 25V	
R938	1-247-885-00	CARBON	180K 5% 1/4W		C203	1-162-306-11	CERAMIC 0.01uF 20% 16V	
R940	1-249-429-11	CARBON	10K 5% 1/4W	< CONNECTOR >				
R941	1-249-429-11	CARBON	10K 5% 1/4W	* CN201	1-569-505-11	PIN, CONNECTOR 10P		
R942	1-249-413-11	CARBON	470 5% 1/4W F	CN202	1-564-506-11	PLUG, CONNECTOR 3P		
△ R943	1-212-881-11	FUSIBLE	100 5% 1/4W F	CN781	1-506-468-11	PIN, CONNECTOR 3P		
R945	1-249-417-11	CARBON	1K 5% 1/4W F	< DIODE >				
R951	1-249-417-11	CARBON	1K 5% 1/4W F	D201	8-719-024-99	DIODE 11ES2-NTA2B		
R952	1-249-437-11	CARBON	47K 5% 1/4W	D782	8-719-911-19	DIODE 1SS119-25		
R953	1-249-412-11	CARBON	390 5% 1/4W F	< GROUND >				
R954	1-249-437-11	CARBON	47K 5% 1/4W	* E781	4-870-539-11	PLATE, GROUND		
R956	1-249-429-11	CARBON	10K 5% 1/4W	< JACK >				
R957	1-249-429-11	CARBON	10K 5% 1/4W	J781	1-785-011-11	JACK, PIN 2P (MONITOR/WOOFER OUT)		
R958	1-249-429-11	CARBON	10K 5% 1/4W	< RELAY >				
R959	1-249-429-11	CARBON	10K 5% 1/4W	RY781	1-515-622-11	RELAY		
R960	1-249-397-11	CARBON	22 5% 1/4W F	< TERMINAL >				
R961	1-249-397-11	CARBON	22 5% 1/4W F	TB201	1-537-925-31	TERMINAL BOARD (REAR SPEAKER)		
R963	1-249-417-11	CARBON	1K 5% 1/4W F	*****				
R964	1-249-431-11	CARBON	15K 5% 1/4W	*	1-669-953-11	PRIMARY BOARD		
R965	1-249-441-11	CARBON	100K 5% 1/4W		*****			
△ R970	1-220-893-11	METAL	0.22 10% 5W		1-533-293-11	FUSE HOLDER (E,EA3,SP,MY,AR,TW,JE)		
R971	1-249-441-11	CARBON	100K 5% 1/4W	< CONNECTOR >				
R972	1-247-885-00	CARBON	180K 5% 1/4W	CN871	1-564-321-00	PIN, CONNECTOR 2P		
R973	1-249-441-11	CARBON	100K 5% 1/4W					
△ R974	1-212-849-00	FUSIBLE	4.7 5% 1/4W F					

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

Ref. No.	Part No.	Description	Remarks
		MISCELLANEOUS	

3	1-773-125-11	WIRE (FLAT TYPE) (19 CORE)	
153	1-233-545-32	ENCAPSULATED COMPONENT	
		(TUNER UNIT)(E,EA4,TH,AUS,AR)	
153	1-233-546-32	ENCAPSULATED COMPONENT (TUNER UNIT)	
		(EA3,MY,SP,TW)	
153	1-693-385-31	TUNER (JE)	
△ 160	1-575-653-11	CORD, POWER (TH)	
△ 160	1-696-847-11	CORD, POWER (AUS)	
△ 160	1-777-071-21	CORD, POWER (EA,SP,MY,TW)	
△ 160	1-783-525-11	CORD, POWER (TRACKING)(JE)	
△ 160	1-783-940-11	CORD, POWER (AR)	
△ 161	1-569-007-11	ADAPTOR, CONVERSION 2P (E,JE)	
△ 161	1-569-008-21	ADAPTOR, CONVERSION 2P (EA3,SP,MY,TW)	
FL601	1-517-775-11	INDICATOR TUBE, FLUORESCENT	
IC504	8-719-070-85	DIODE KU381-40	
M891	A-4660-926-A	MOTOR (CDM) ASSY	
M901	1-763-372-11	FAN, DC	
△ T901	1-433-932-11	TRANSFORMER, POWER	

HARDWARE LIST

#1	7-685-647-79	SCREW +BVTP 3 × 10 TYPE2 N-S
#2	7-685-646-79	SCREW +BVTP 3 × 8 TYPE2 N-S
#3	7-621-775-20	SCREW +B 2.6 × 5
#4	7-685-650-79	SCREW +BVTP 3 × 16 TYPE2 IT-3
#5	7-685-881-09	SCREW +BVTT 4 × 8 (S)
#6	7-685-872-09	SCREW +BVTT 3 × 8 (S)
#7	7-685-546-19	SCREW +BVP 3 × 8

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