

HCD-ZX6/ZX8

SERVICE MANUAL

E Model

Ver 1.1 2004. 09



(Photo: HCD-ZX8)

- HCD-ZX6/ZX8 are the tuner, deck, CD and amplifier section in FST-ZX6/ZX8.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM79B-F1BD81
	Base Unit Name	BU-F1BD81A
	Optical Pick-up Name	KSM-215DCP/C2RP
TAPE Section	Model Name Using Similar Machanism	HCD-GN880
	Tape Mechanism Type	CWM43RR35

SPECIFICATIONS

Amplifier section

HCD-ZX8

Mexican models:

The following measured at AC 127 V, 60 Hz

DIN power output (rated):

140 × 2 + 140 × 2 watts
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):

180 × 2 + 180 × 2 watts
(6 ohms at 1 kHz, 10% THD)

Other models:

The following measured at AC 120, 220, 240 V, 50/60 Hz

DIN power output (rated):

140 × 2 + 140 × 2 watts
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):

180 × 2 + 180 × 2 watts
(6 ohms at 1 kHz, 10% THD)

HCD-ZX6

Mexican models:

The following measured at AC 127 V, 60 Hz

DIN power output (rated):

220 + 220 watts
(4 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):

280 + 280 watts
(4 ohms at 1 kHz, 10% THD)

Other models:

The following measured at AC 120, 220, 240 V, 50/60 Hz

DIN power output (rated):

220 + 220 watts
(4 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):

280 + 280 watts
(4 ohms at 1 kHz, 10% THD)

Inputs

PHONO IN (phono jack):

sensitivity 3 mV,
impedance 47 kOhms
MIC (phone jack):
sensitivity 1 mV,
impedance 10 kOhms

GAME INPUT AUDIO L/R (phono jacks):

sensitivity 250 mV,
impedance 47 kOhms

GAME INPUT VIDEO (phono jack):

1 Vp-p, 75ohms

VIDEO/MD IN L/R (phono jacks):

sensitivity 250 mV/450 mV,
impedance 47 kOhms

– Continued on next page –

COMPONENT Hi-Fi STEREO SYSTEM

9-879-083-02

2004I04-1

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Sony Corporation

Audio Group

Published by Sony Engineering Corporation

SONY®

HCD-ZX6/ZX8

Outputs	
PHONES (stereo phone jack):	accepts headphones of 8 ohms or more
VIDEO/MD OUT L/R (phono jacks):	voltage 250 mV, impedance 1 kOhm
VIDEO OUT (phono jack):	max. output level 1 Vp-p, load impedance 75 ohms
FRONT SPEAKER:	
HCD-ZX8:	
FRONT L/R	Use only the supplied speaker SS-ZX8
SURROUND L/R	Use only the supplied speaker SS-ZX8
HCD-ZX6:	
FRONT L/R	Use only the supplied speaker SS-ZX6

CD/MP3 player section

System	Compact disc and digital audio system
Laser	Semiconductor laser (λ=780 nm) Emission duration: continuous
Laser Output	Max. 44.6 μW* * This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Frequency response	2 Hz – 20 kHz (±0.5 dB)
Wave length	780 – 790 nm
Signal-to-noise-ratio	More than 90 dB
Dynamic range	More than 90 dB
OPTICAL CD DIGITAL OUT (Square optical connector jack, rear panel)	
Wave length	660 nm
Output level	–18 dBm

Tape deck section

Recording system	4-track 2-channel, stereo
Frequency response	50 – 13,000 Hz (±3 dB), using Sony TYPE I tapes

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz (50 kHz step)
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	
Latin American models:	530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,710 kHz (with the tuning interval set at 9 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements	
Mexican models:	127 V, 60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	
HCD-ZX8:	330 watts
HCD-ZX6:	240 watts
Dimensions (w/h/d) (Main Unit)	
	Approx. 362 × 437 × 465 mm

Mass (Main Unit)	
HCD-ZX8:	Approx. 19.0 kg
HCD-ZX6:	Approx. 18.0 kg

Supplied accessories:	AM loop antenna (1)
	FM lead antenna (1)
	Remote Commander (1)
	Batteries (2)
	Speaker cords: • HCD-ZX6 only 2m (2) • HCD-ZX8 only –grey (10m) (2) –white (3m) (2)
	Speaker pads: • HCD-ZX6 only (8) • HCD-ZX8 only (16)

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of soldering iron around 270°C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead.

(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

** : LEAD FREE MARK**

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.
Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
Soldering irons using a temperature regulator should be set to about 350 °C.
Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

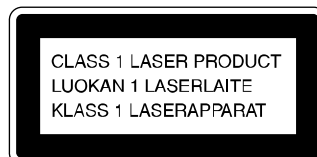
The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

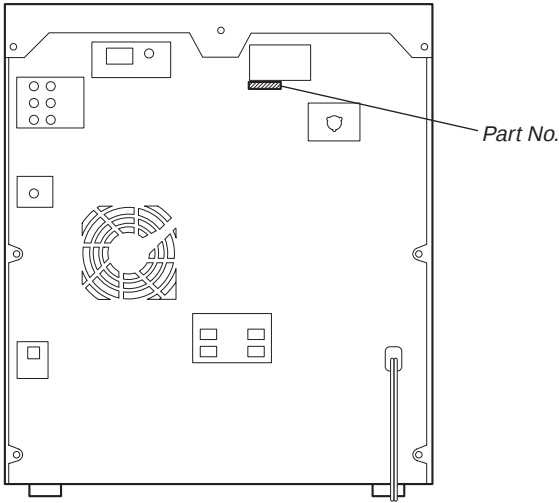
Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.



This appliance is classified as a CLASS 1 LASER product. This label is located on the rear exterior.

MODEL IDENTIFICATION

– BACK PANEL –



MODEL	PARTS No.
ZX8: MX	2-023-457-3□
ZX6: E2	4-252-689-0□
ZX8: E51	4-252-689-1□
ZX6: E51	4-252-689-2□
ZX8: E2	4-252-689-3□

- Abbreviation
E2 : 120 V AC area in E model
E51 : 220 V AC area in E model
MX : Mexican model

PLAYABLE DISC

You can playback the following discs on this system. The other discs cannot be played back.

List of playable discs

Format of discs	Disc logo	Contents
Audio CDs		Audio
CD-R/CD-RW (Audio CDs)		Audio
CD-R/CD-RW (Discs with MP3 audio tracks)		Audio

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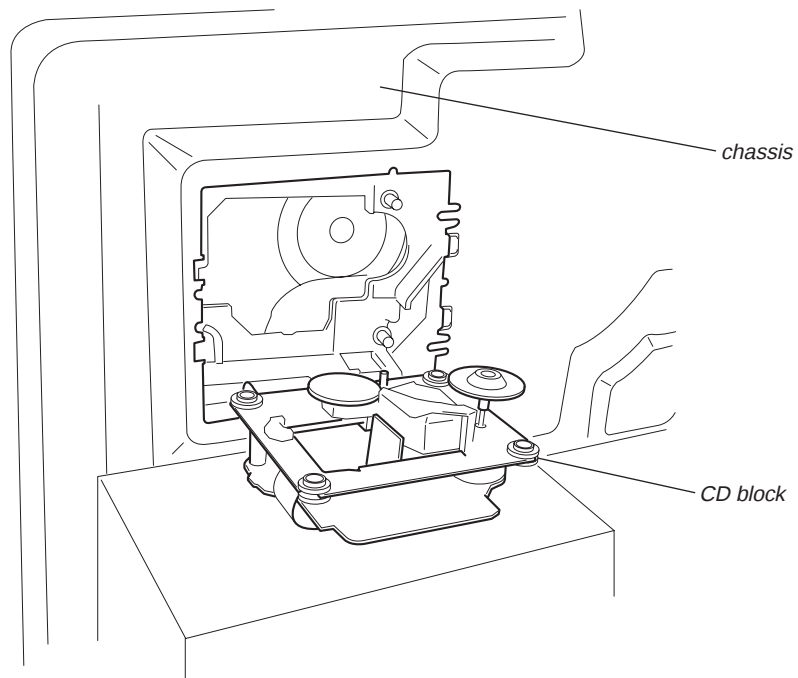
8. EXPLODED VIEWS

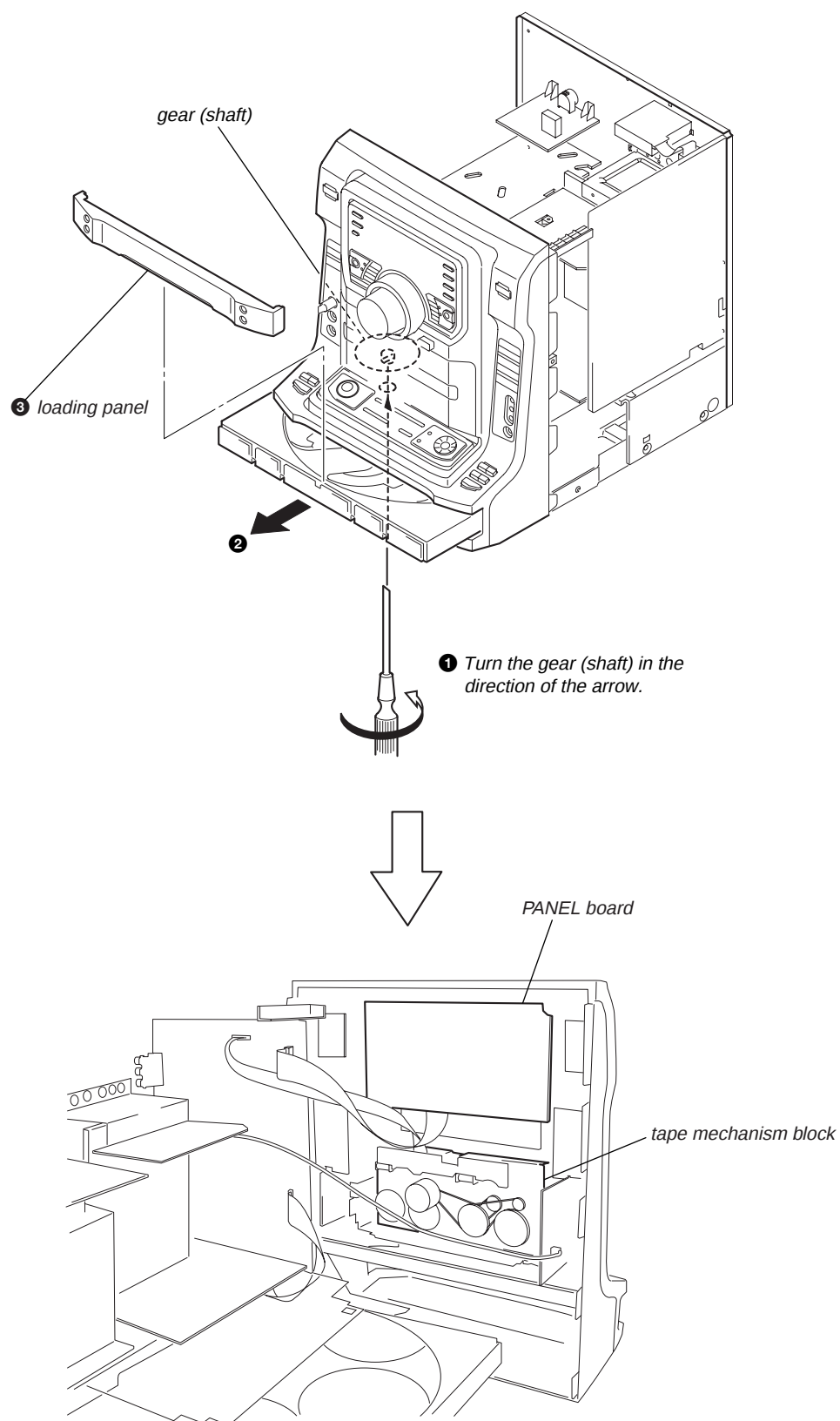
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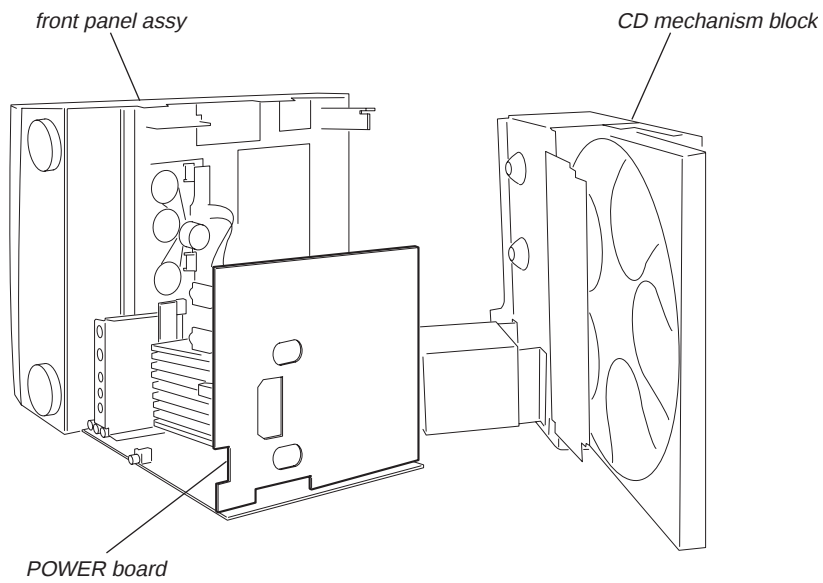
SECTION 1 SERVICE NOTE

1-1. SERVICE POSITION OF CD BU BLOCK

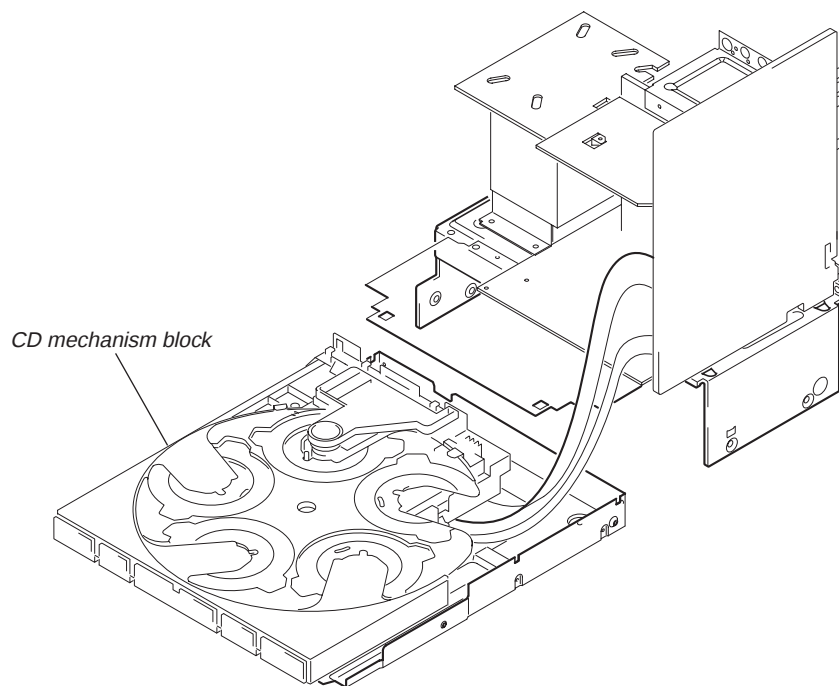


1-2. SERVICE POSITION OF TC MECHANISM, PANEL BOARD

1-3. SERVICE POSITION OF POWER BOARD



1-4. SERVICE POSITION OF CD CHANGER



SECTION 2

GENERAL

This section is extracted from instruction manual.

List of button locations and reference pages

How to use pages 44 to 46

Use this page to find the location of buttons and other parts of the system that are mentioned in the text.

Illustration number	
PLAY MODE 	(13, 15, 37, 39)
Name of button/part	Reference page

Main unit

ALPHABETICAL ORDER

A - D

ALBUM +/-  (13)
 AMP MENU  (31)
 CD SYNC  (19)
 CLOCK/TIMER SELECT  (28, 29)
 CLOCK/TIMER SET  (11, 27, 28)
 Deck A  (18)
 Deck B  (18, 19, 28)
 DIRECTION  (18, 19)
 DISC 1 ~ 5  (13, 15)
 DISC SKIP  (12, 13, 15)
 Disc tray  (12, 39)
 DISPLAY  (29, 30)
 Display  (6)

E - H

EDIT  (20)
 EFFECT ON/OFF  (22)
 ENTER  (11, 27, 28, 29, 31, 32)
 EX-CHANGE  (13)
 FLASH*  (24)
 FM MODE  (17, 38)
 FUNCTION  (12, 15, 17, 20, 34)
 GAME  (25, 29, 34)
 GAME INPUT AUDIO L/R jacks  (26, 33)
 GAME INPUT VIDEO jack  (33)
 GAME MIXING  (21, 26)

I - Q

ILLUMINATION  (31)
 IR (receptor)  (38)
 JOG*  (24)
 MEMORY  (16)
 MIC 1/MIC 2 jacks  (26, 36)
 MIC LEVEL  (26, 36)
 MODE*  (24)
 P FILE  (22)
 PHONES jack  (36)
 PLAY MODE  (13, 15, 37, 39)
 Power illuminator  (31)
 Preset Effect buttons  (22)
 Salsa/REGGAE/POP/
 SAMBA/TANGO/ROCK/
 JAZZ/DANCE/MOVIE/
 GAME

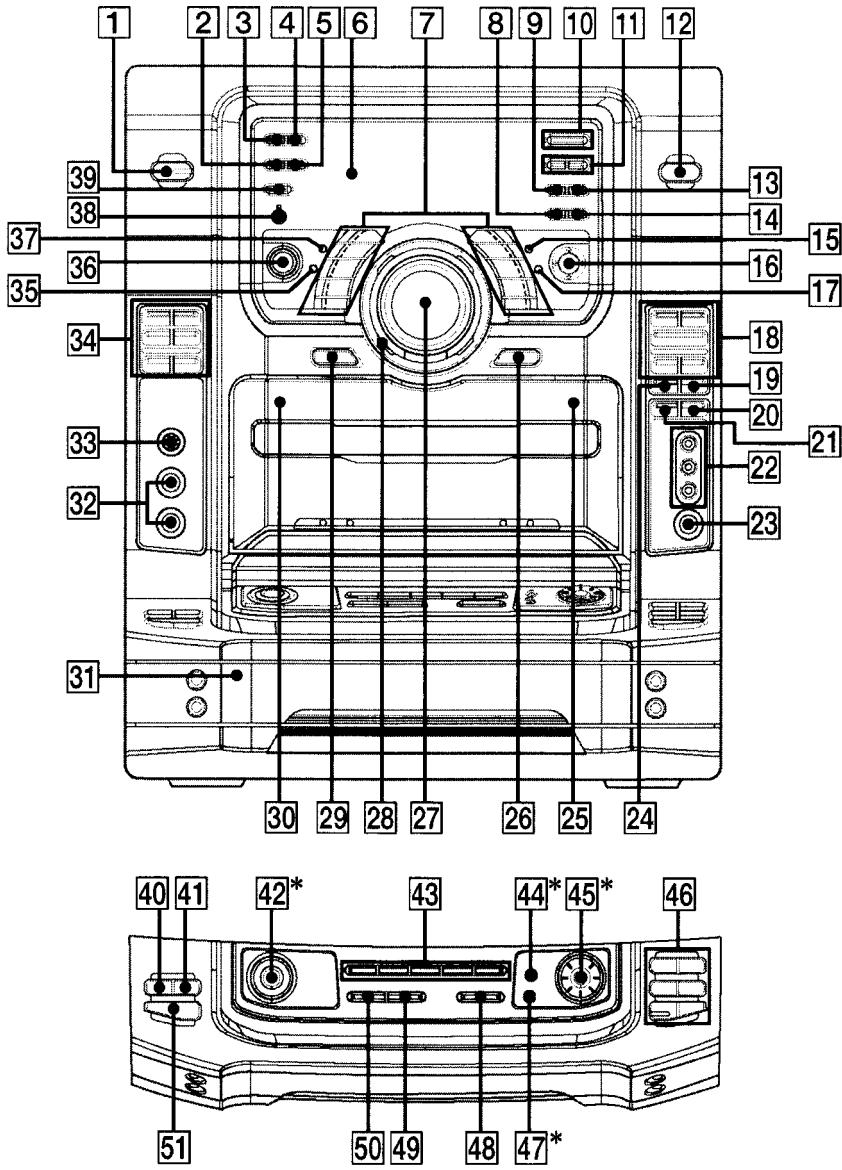
R - Z

REC PAUSE/START  (19, 20, 21)
 REPEAT  (10, 14)
 SLEEP  (27)
 SPEAKERS*  (25)
 SURROUND  (23)
 TUNER ENTER  (16, 17, 38)
 TUNER/BAND  (16, 17, 20, 29)
 TUNING +/-  (16, 17)
 TUNING MODE  (16, 17)
 VOLUME +/-  (27, 31, 36)
 X-GROOVE  (21)
 X-ROUND ON/OFF*  (24)

SYMBOLS

I/⏻ (power)  (9, 11, 17, 28, 29, 34, 36, 38)
 A  (18, 19)
 B  (18, 19)
 ⏮/⏭/⏪/⏩ (11, 27, 28, 29, 32)
 CD Function:
 OPEN/CLOSE  (12, 13)
 play/pause  (13, 15, 37)
 stop  (13, 17)
 ⏮/⏭ (rewind/fast forward)  (13, 39)
 ⏮/⏭ (go backward/go forward)  (13, 15, 21)
 TAPE A function:
 play  (18, 19, 29)
 stop  (18)
 ⏮/⏭/⏪/⏩ (18, 19)
 TAPE B function:
 play  (18, 19, 29)
 stop  (18, 19, 38)
 ⏮/⏭/⏪/⏩ (18, 19)

* FST-ZX8 only.



Additional Information

* FST-ZX8 only.

Remote control

ALPHABETICAL ORDER

A - E

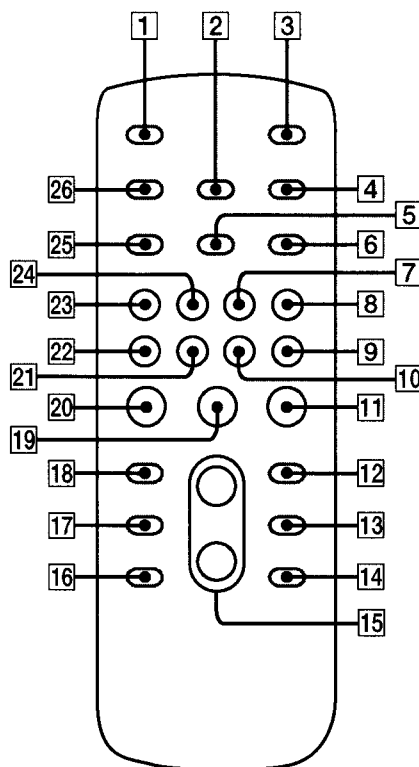
ALBUM + **14** (13)
 ALBUM - **16** (13)
 CD **24**
 CLEAR **18** (15)
 CLOCK/TIMER SELECT **2**
 (28, 29)
 CLOCK/TIMER SET **4** (11, 27,
 28)
 DISC SKIP **13** (12, 13, 15)
 DISPLAY **26** (29, 30)
 ENTER **12** (11, 27, 28, 29, 31,
 32)
 EQ **17**

F - Z

FM MODE **6** (17, 38)
 FUNCTION **8** (12, 15, 17, 20,
 34)
 PLAY MODE **5** (13, 15, 37, 39)
 REPEAT **6** (14)
 SLEEP **1** (27)
 TAPE **23**
 TUNER/BAND **7** (16, 17, 20,
 29)
 TUNER MEMORY **25** (16)
 TUNING MODE **5** (16, 17)
 VOLUME +/- **15** (27, 31, 36)

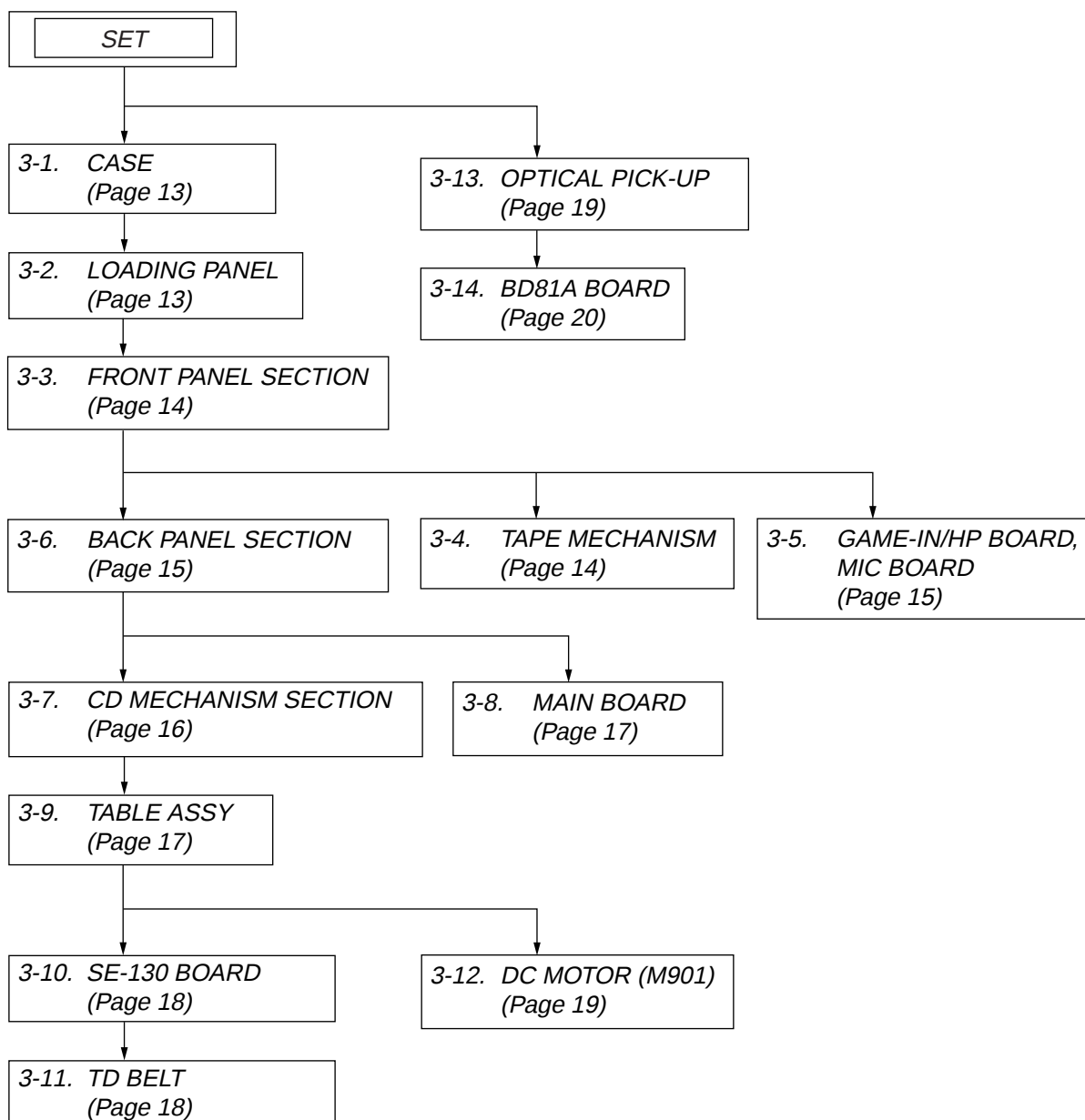
SYMBOLS

I/⏻ (power) **3** (9, 11, 28)
 ■ (stop) **11** (13, 18)
 || (pause) **19**
 ► (play) **20** (18, 19)
 ◀◀ (go backward) **22** (11, 13,
 15, 16, 17, 19, 21, 27, 28, 29)
 ▶▶ (go forward) **21** (11, 13,
 15, 16, 17, 19, 21, 27, 28, 29)
 ◀◀ (rewind) **10** (13, 18)
 ▶▶ (fast forward) **9** (13, 18)



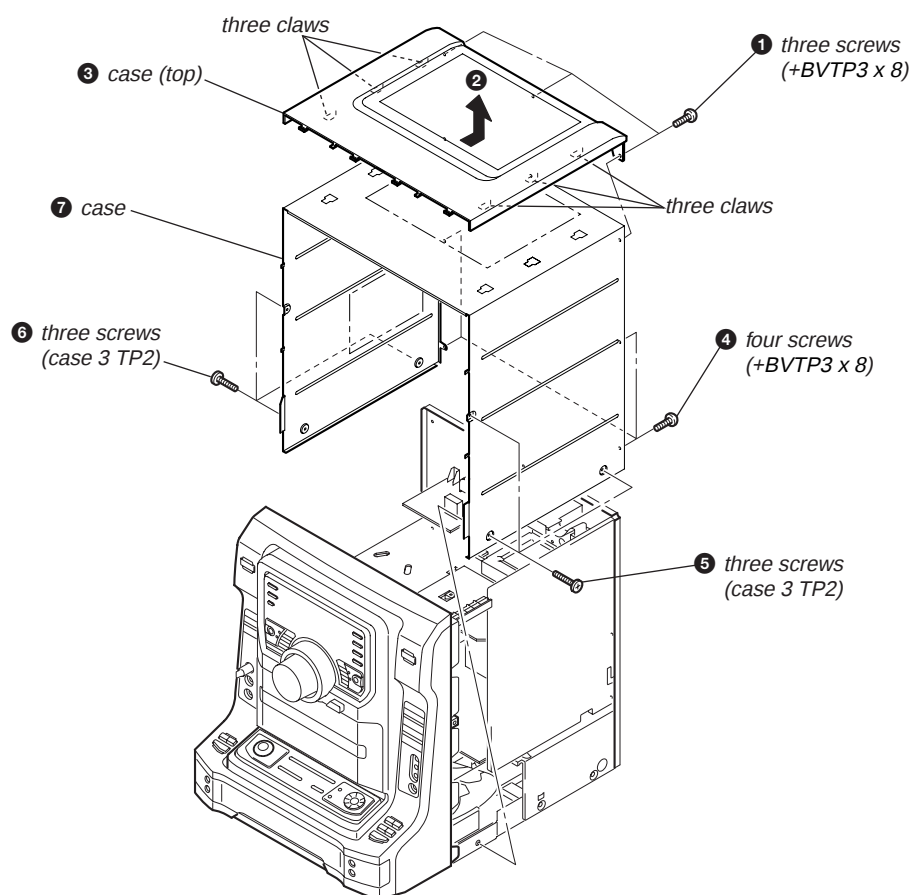
SECTION 3 DISASSEMBLY

Note : Disassemble the unit in the order as shown below.

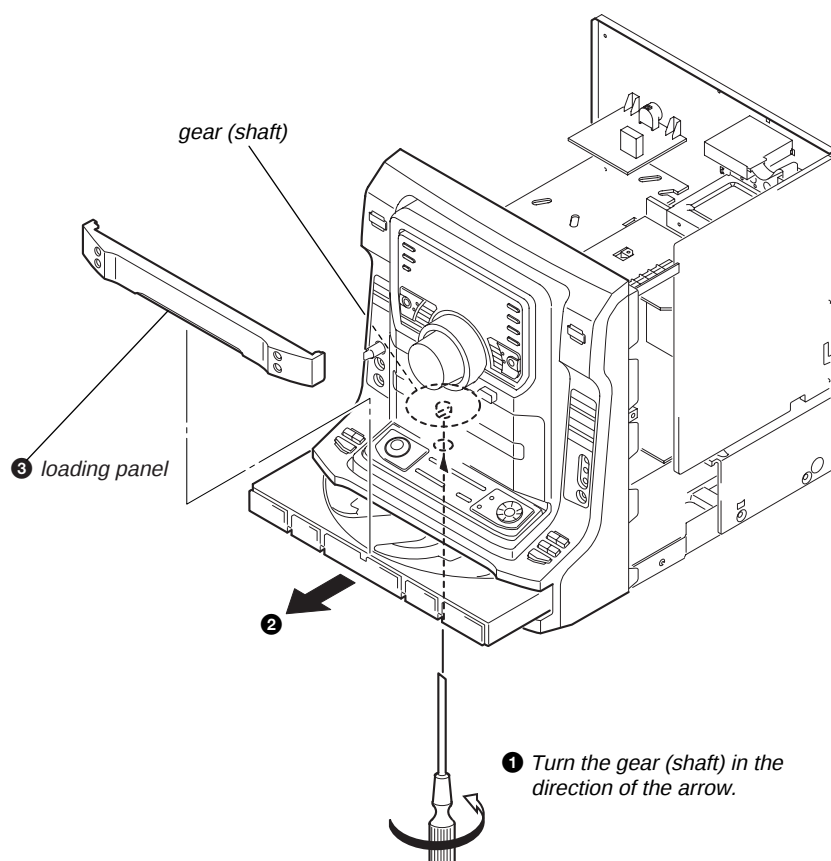


Note : Follow the disassembly procedure in the numerical order given.

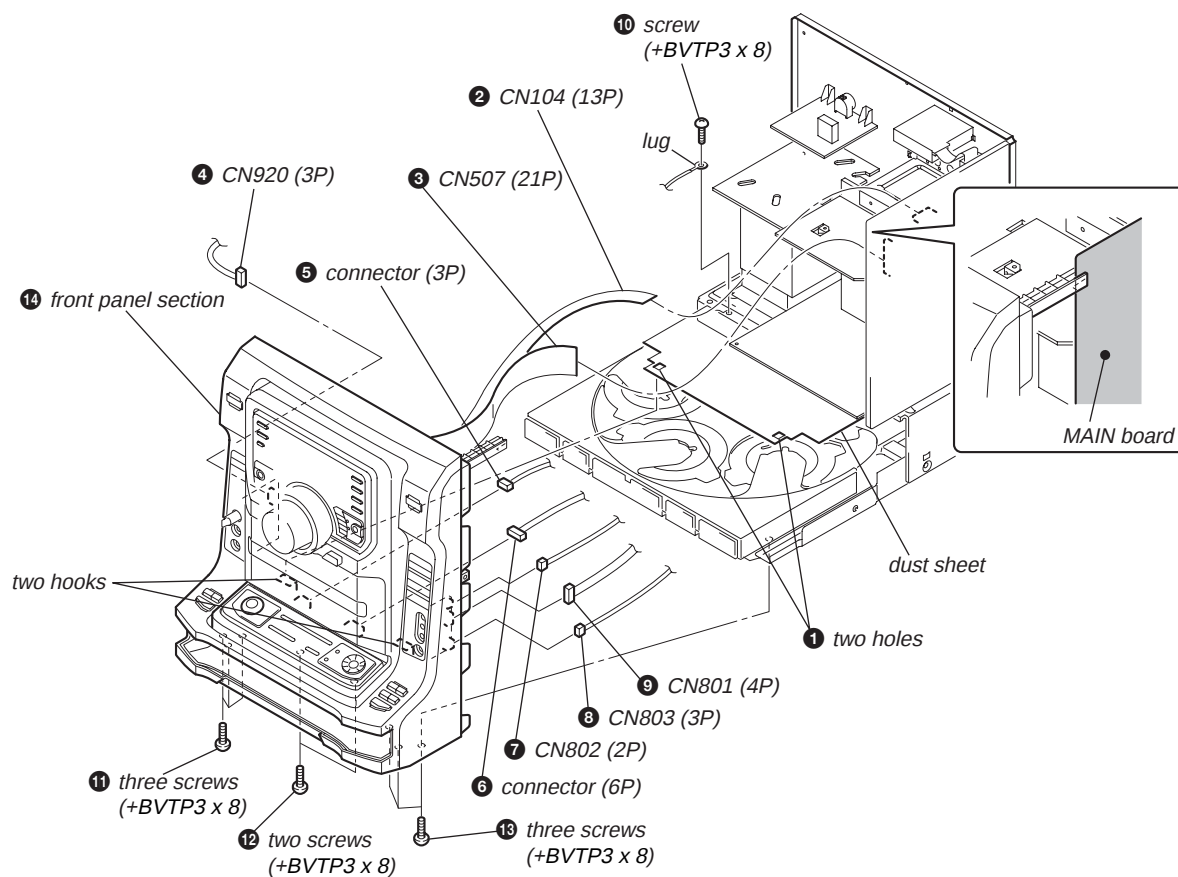
3-1. CASE



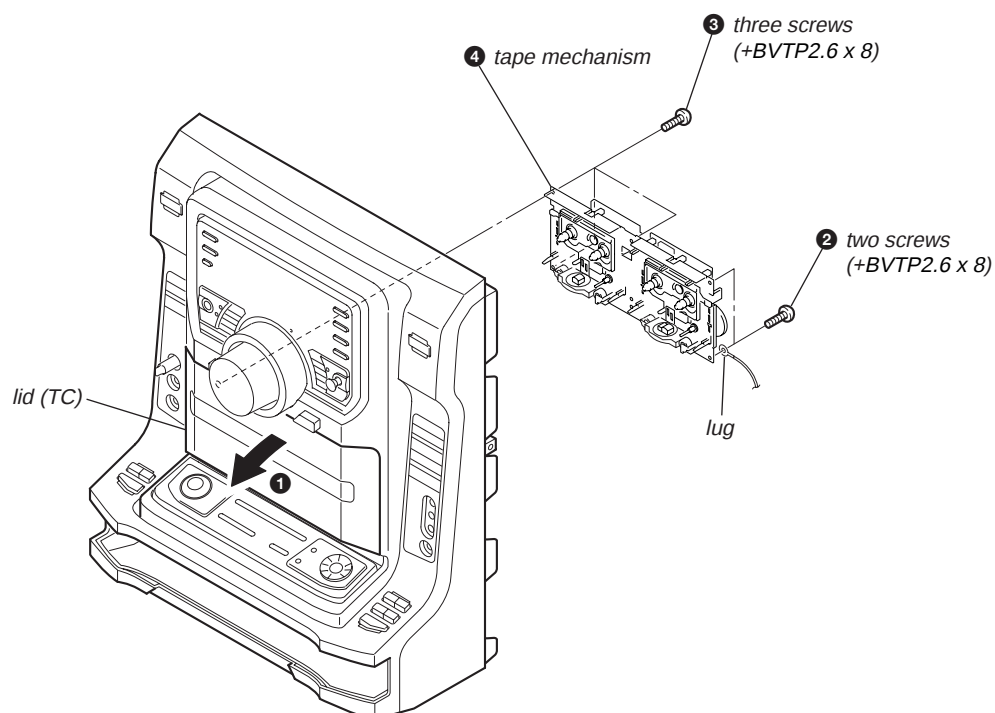
3-2. LOADING PANEL



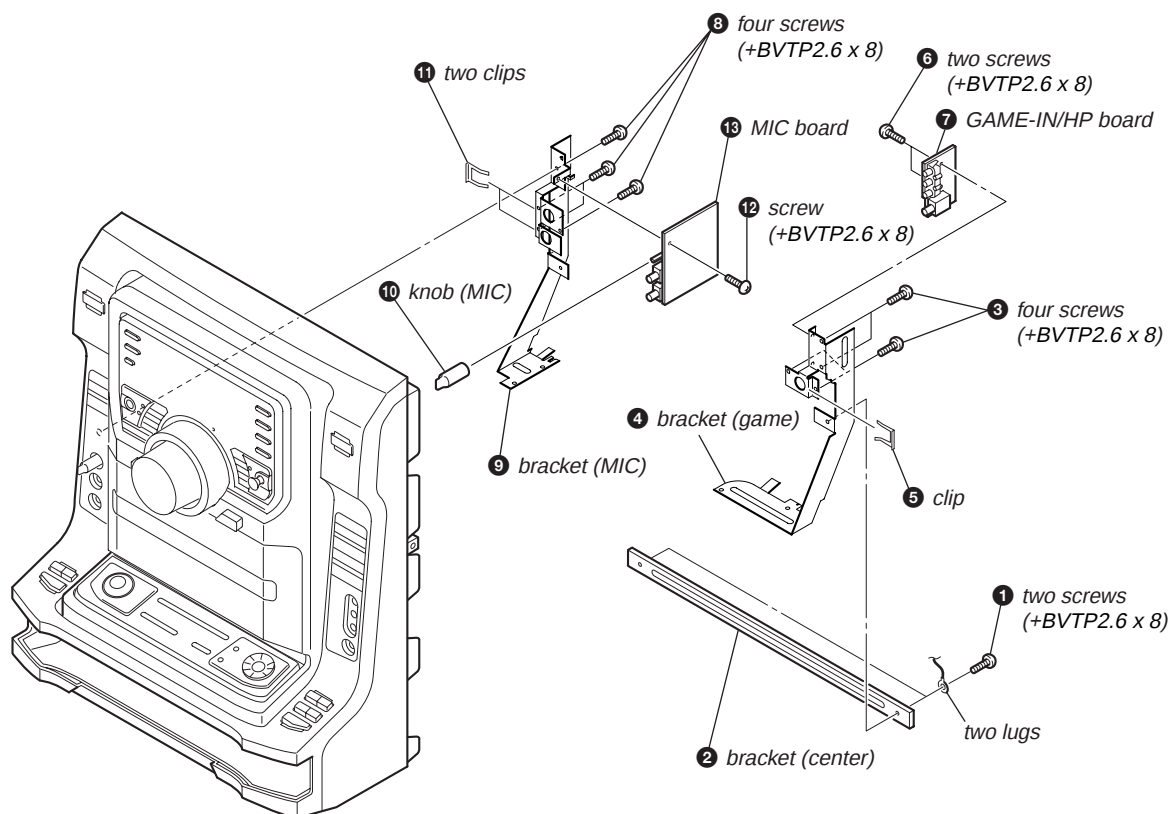
3-3. FRONT PANEL SECTION



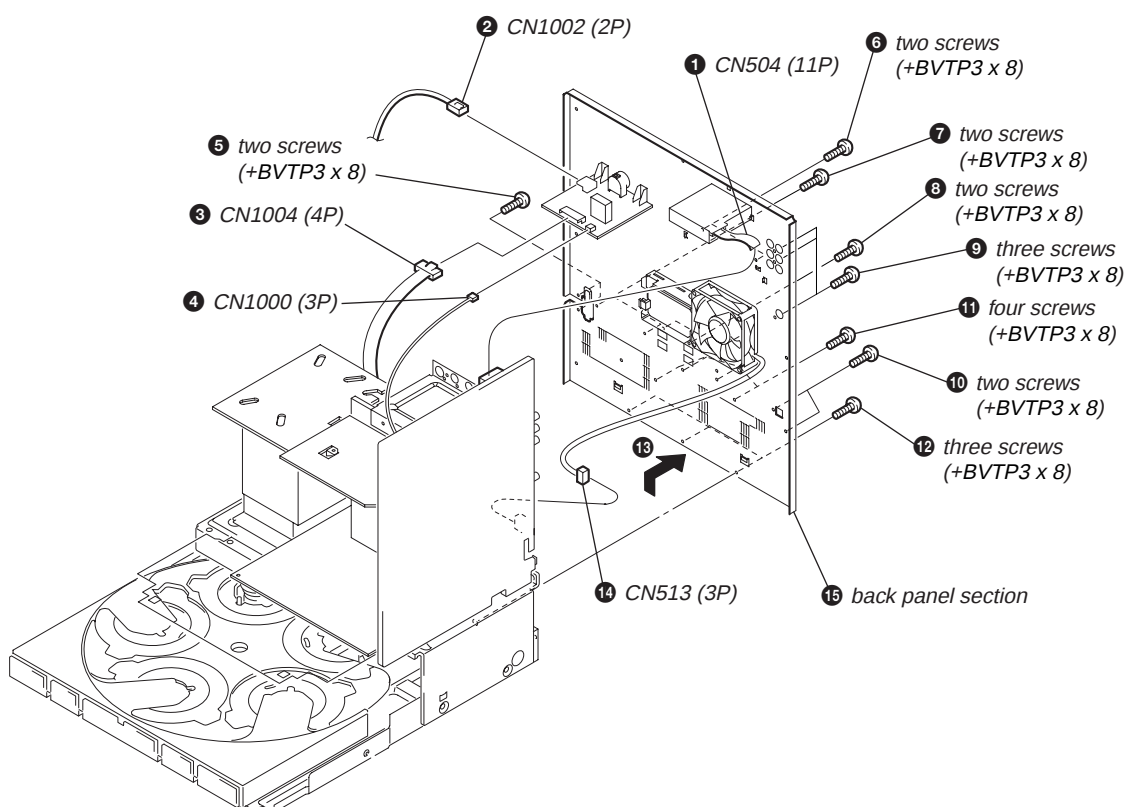
3-4. TAPE MECHANISM



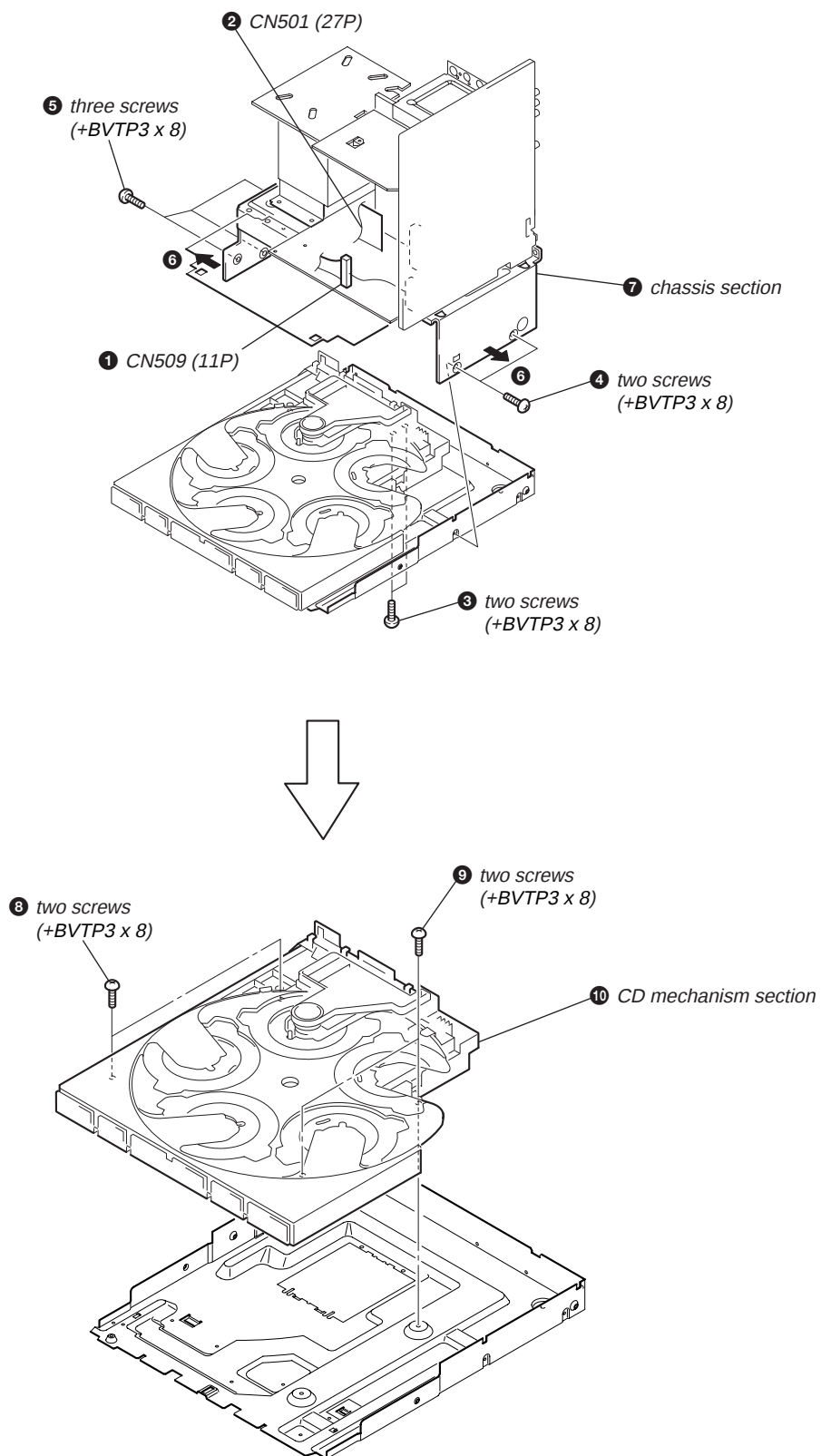
3-5. GAME-IN/HP BOARD, MIC BOARD



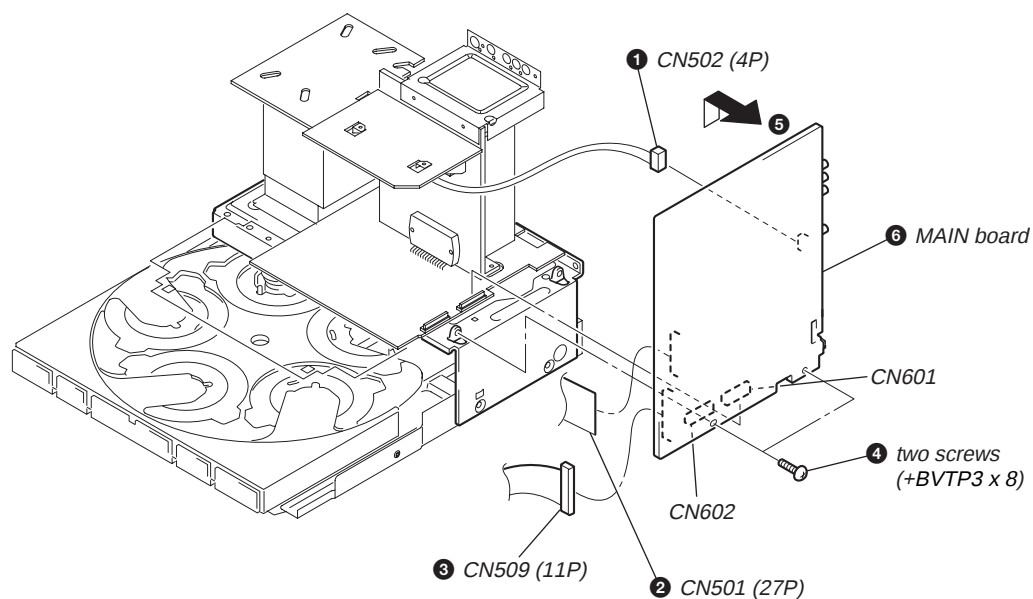
3-6. BACK PANEL SECTION



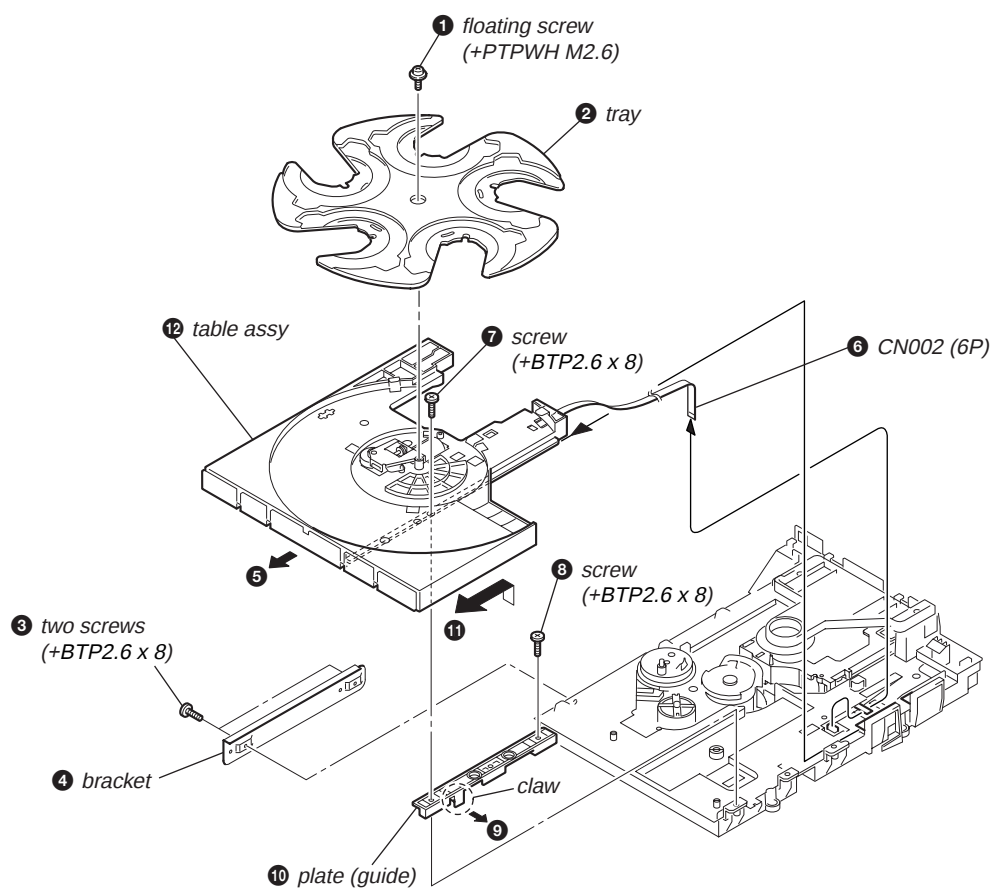
3-7. CD MECHANISM SECTION



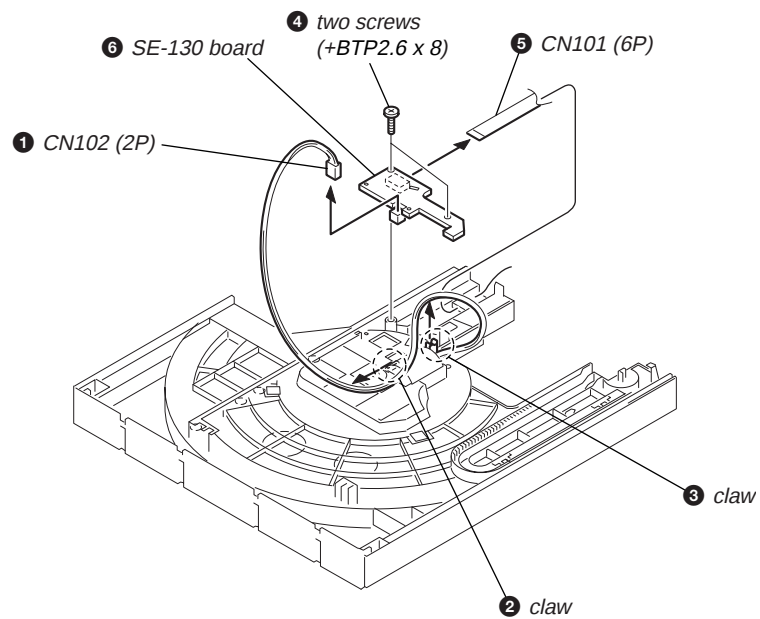
3-8. MAIN BOARD



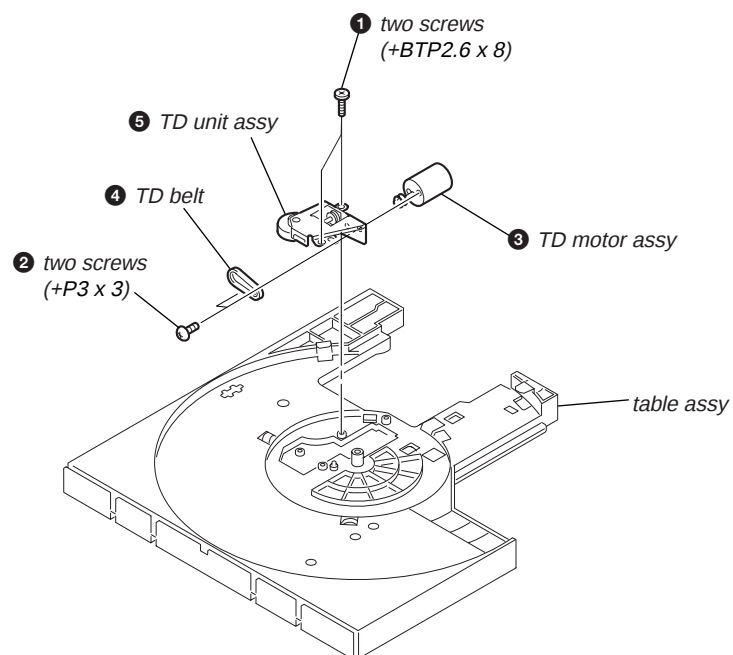
3-9. TABLE ASSY



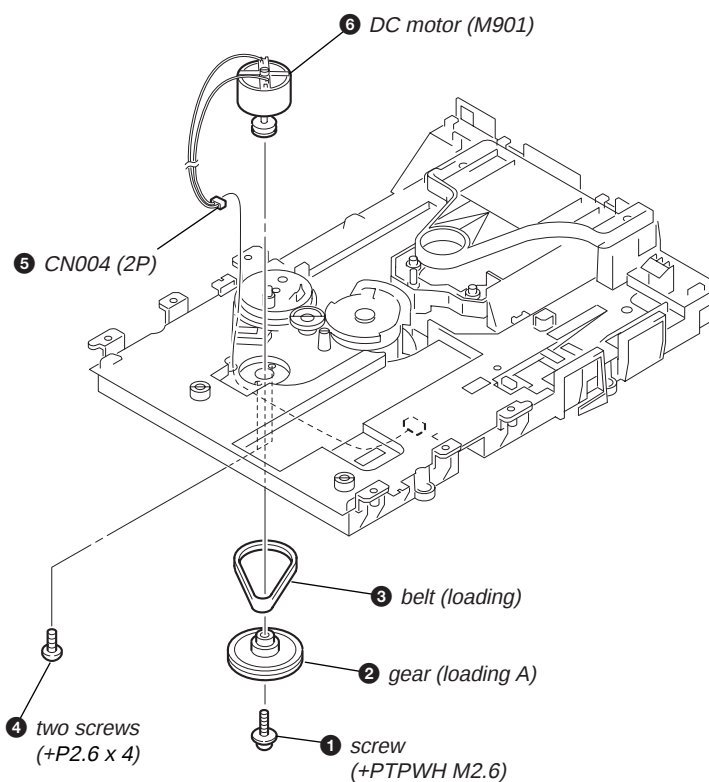
3-10. SE-130 BOARD



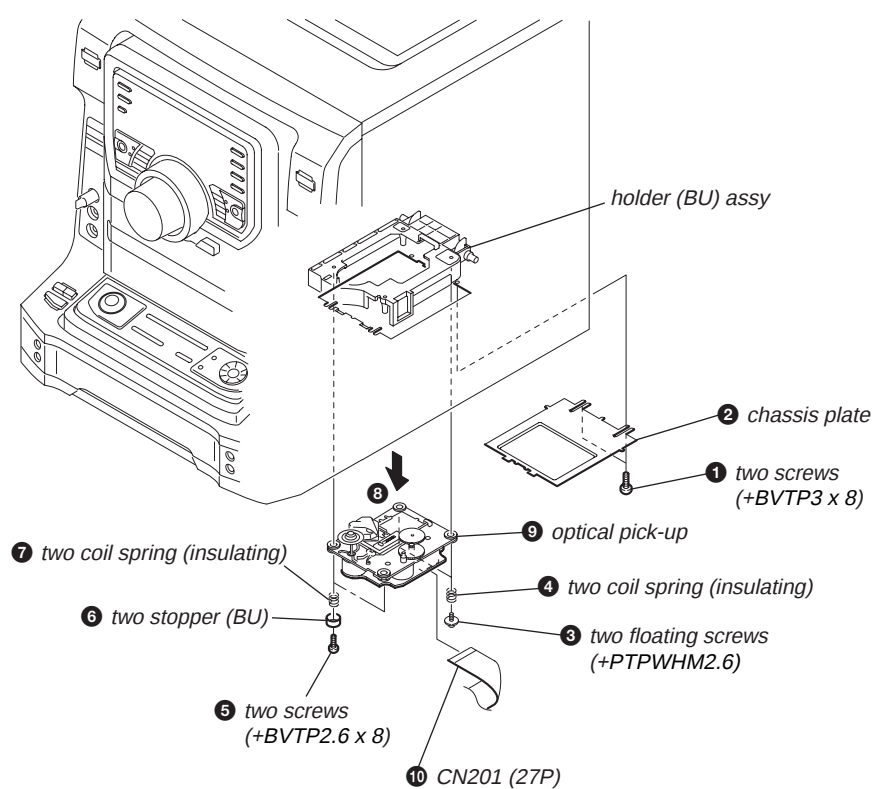
3-11. TD BELT



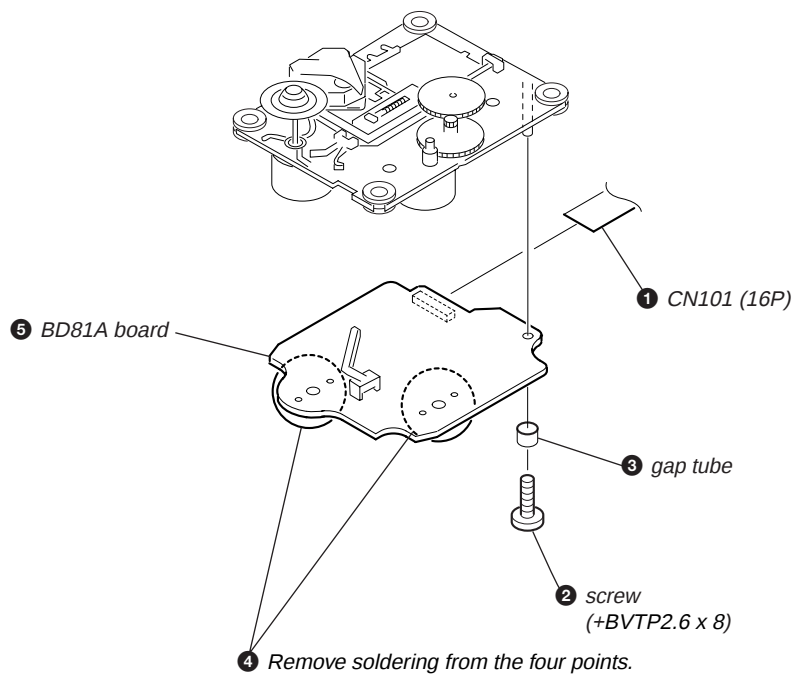
3-12. DC MOTOR (M901)



3-13. OPTICAL PICK-UP



3-14. BD81A BOARD



SECTION 4

TEST MODE

[GC TEST MODE]

- This mode is used to check the fluorescent indicator tube, LED, model, destination, software version, volume, key, jog and VACS level.

Procedure:

- Press **[TAPE B]** button, **[TUNER ENTER]** button and **[DISC 2]** button simultaneously.
- All LEDs and segments in fluorescent indicator tube are lighted up.
- When you want to enter the software version display mode, press **[DISC 1]** button. The model and destination are displayed.
- Each time **[DISC 1]** button is pressed, the display changes from MC version, GC version, CD version, CDDM version, CDMA version, CDMB version, BDA version, BDB version, ST version, TC version, TA version, TM version in this order, and returns to the MC version display.
- When **[DISC 3]** button is pressed while the version numbers are being displayed except model and destination, the date of the software creation appear. When **[DISC 3]** button is pressed again, the display returns to the software version display. When **[DISC 1]** button is pressed while the date of the software creation is being displayed, the date of the software creation is displayed in the same order of software version display.
- Press **[DISC 2]** button, the key check mode is activated.
- In the key check mode, the fluorescent indicator tube displays "K0 J0 V0". Each time a button is pressed, "K" value increases. However, once a button has been pressed, it is no longer taken into account.
"J" value increases in the manner of 0, 1, 2, 3 ... if **[JOG]** is turned clockwise, or it decreases in the manner of 0, 9, 8, 7 ... if **[JOG]** knob is turned counter-clockwise. (only for HCD-ZX8)
"V" value increases in the manner of 0, 1, 2, 3 ... if **[VOLUME]** knob is turned clockwise, or it decreases in the manner of 0, 9, 8, 7 ... if **[VOLUME]** knob is turned counter-clockwise.
- When **[DISC 3]** button is pressed after all LEDs and segments in fluorescent indicator tube light up, the fluorescent indicator tube displays "VACS A APBB". A is VACS level which is trigger by signal level while BB is VACS level which is trigger by APVACS (Abuse Protection VACS).
- When **[EX-CHANGE]** button is pressed after all LEDs and segments in fluorescent indicator tube light up, alternate segments in fluorescent indicator tube would light up. If you press **[EX-CHANGE]** button again, another half of alternate segments in fluorescent indicator tube would light up. Pressing **[EX-CHANGE]** button again would cause all segments lights up.
- To release from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

[MC TEST MODE]

- This mode is used to check operations of the respective sections of Amplifier, Tuner, and Tape.

Procedure:

- To enter MC Test Mode
- Press **[TAPE B]** button, **[TUNER ENTER]** button and **[DISC 3]** button simultaneously.
 - The 4 speaker symbols and CD ring indicators flash on the fluorescent indicator tube. The function is changed to VIDEO.
- Check of Amplifier
- When **[▲]** button is pressed, GEQ increases to its maximum and a message "GEQ MAX" appears on the fluorescent indicator tube.
 - When **[▼]** button is pressed, GEQ decreases to its minimum and a message "GEQ MIN" appears on the fluorescent indicator tube.

- When **[◀]** button or **[▶]** button is pressed, GEQ is set to flat and a message "GEQ FLAT" appears on the fluorescent indicator tube.
- When the **[VOLUME]** knob is turned clockwise even slightly, the sound volume increases to its maximum and a message "VOLUME MAX" appears on the fluorescent indicator tube.
- When the **[VOLUME]** knob is turned counter-clockwise even slightly, the sound volume decreases to its minimum and a message "VOLUME MIN" appears on the fluorescent indicator tube.

Tape function

- When a tape is inserted in Deck B and recording is started, the function is changed to VIDEO automatically. When **[CD SYNC]** button is pressed during recording in function, ALC (Automatic Logic Control) is turned on.
- During recording, press **[◀◀◀]** (TAPE B) button will stop the recording and the function is changed to TAPE B and rewind the tape in Deck B until the recording start position and playback of the tape B is started. If the **[REC PAUSE/START]** button is pressed for a pause and pressed again to resume recording during recording time, when the tape is rewind, the tape will be rewind until the position where the pause is applied.

AMS Test Mode

- Select the function "TAPE A" or "TAPE B".
- Select Loop or Relay direction mode by pressing the **[DIRECTION]** button. Insert a test tape AMS-110A or AMS-120 to selected tape deck.
- Press the **[AMP MENU]** button to enter the AMS test mode.
- After the test tape is rewind to the beginning of the tape, the AMS+ is checked, and the mechanism is shut off after detecting the AMS signal twice.
- Then the AMS- is checked and the mechanism is shut off after detecting the AMS signal twice.
- When the check is complete, a message of either OK or NG appears on the fluorescent indicator tube.

To release from MC Test mode

- To release from this mode, press **[I/⏻]** button.
- The cold reset is enforced at the same time.

[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 **[TAPE B]** button, **[TUNER ENTER]** button, and **[I/⏻]** button simultaneously.
- The fluorescent indicator tube becomes blank for a while, and the set is reset.

[VACS ON/OFF]

- This mode is used to switch ON and OFF the VACS (Variable Attenuation Control System).

Procedure:

- Press **[I/⏻]** button to turn the set ON.
- Press **[PLAY MODE]** button and **[I/⏻]** button simultaneously. The message "VACS OFF" or "VACS ON" appears on the fluorescent indicator tube.

[TUNER STEP CHANGE]

- The step interval of AM channels can be toggled between 9 kHz and 10 kHz.

Procedure:

- Press **I/⏻** button to turn the set ON.
- Press **TUNER BAND** button to select the "AM".
- Press **I/⏻** button to turn the set OFF.
- Press **TUNER ENTER** button and **I/⏻** button simultaneously. The system will turn ON automatically. The message "AM 9k STEP" or "AM 10k STEP" appears on the fluorescent indicator tube and thus the channel step is changed.

[CD SERVICE MODE]

- This mode let you move the CD sled motor freely. Use this mode when you want to clean the optical pick-up.

Procedure:

- Press **I/⏻** button to turn the set ON.
- Select CD function.
- Press **■** (TAPE B) button, **TUNER ENTER** button, and **DISC 5** button simultaneously.
- The CD service mode is activated. The message "SERVICE MODE" appears on the fluorescent indicator tube.
- With the CD in stop status, press **▶▶** (CD) button to move the optical pick-up to outside track, or press **◀◀** (CD) button to move to inside track. The message "SLED OUT" or "SLED IN" appears on the fluorescent indicator tube.
- To turn on or off the laser, press **PLAY MODE** button. The message "LASER ON" or "LASER OFF" appears on the fluorescent indicator tube.
- To release from this mode, press **I/⏻** button.

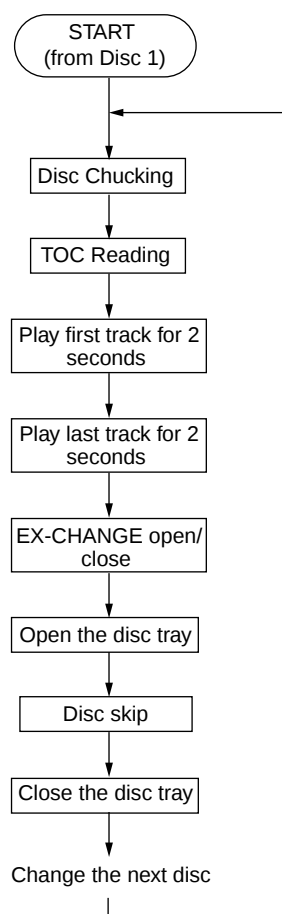
[AGING MODE]

- This mode can be used for operation check of CD section. If an error occurs, the aging operation would stops and the status is displayed. If there were no error occurs, the aging operation would continue repeatedly.

Procedure:

- Press **I/⏻** button to turn the set ON.
- Select CD function.
- Load five discs on the disc tray.
- Press **PLAY MODE** button to select the "ALL DISCS" mode, and press the **REPEAT** button to select "REPEAT OFF" mode.
- Press **■** (TAPE B) button, **TUNER ENTER** button, and **DISC 4** button simultaneously.
- Aging operation is started.
- To release from this mode, press **I/⏻** button or disconnect the power cord to turn the power OFF.

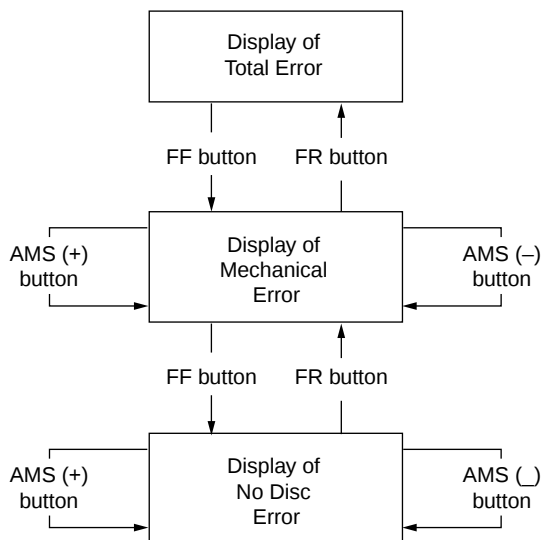
Aging mode sequence:



- Display when an error occurred (CD Error Code Mode)

Procedure:

1. Press **■** (TAPE B) button, **TUNER ENTER** button and **DISC SKIP** button simultaneously to enter the error code display mode.
2. The fluorescent indicator tube displays the number of total error.
3. Each time **▶▶** (CD) button or **◀◀** (CD) button is pressed, display change as below.



4. To clear the error record, operate the cold reset. (Refer to the "MC COLD RESET")
5. To release from this mode, press the **I/⏻** button or disconnect the power plug to turn the power OFF.

- Display of total error

Em **Ed**

Em**: The number of mechanical errors.

Ed**: The number of no disc errors after chucking the disc.

- Display of mechanical errors

M*\$ \$ % % & & ## 00

M*: The number of mechanical error ("00" is latest one)

(Press **▶▶** (CD) button or **◀◀** (CD) button to display next error)

\$\$: Not used

%%: Loading related error (Second figure is not used)

D: Stop by the problem other than mechanical problem while closing.

E: Stop by the problem other than mechanical problem while opening.

C: Stop by the problem other than mechanical problem while chucking up.

F: Stop by the problem other than mechanical problem while chucking down.

&&: Emerging error

01: Stop while chucking up.

02: Stop while chucking up.

03: Time-out of EX-CHANGE open.

05: Time-out of EX-CHANGE close.

##: Not used

- Display of no disc errors

D*\$ \$ % % & & ## 00

D*: The number of no disc error ("00" is latest one)

(Press **▶▶** (CD) button or **◀◀** (CD) button to display next error)

\$\$: Error type

01: Focus error

02: GFS error

03: Setup error

%%: Not used

&&:

00: No disc judgment without chucking retry.

01: No disc judgment after chucking retry.

##: The state when judged as no disc

01: Stop

02: Setup

03: TOC reading

04: Access

05: Playback

06: Pause

07: Manual search (Play)

08: Manual search (Pause)

[CD REPEAT 5 LIMIT OFF MODE]

- The number of repeat for CD playback is 5 times when the repeat mode is "REPEAT ALL". This mode enables CD to repeat playback for limitless times.

Procedure:

1. Press **I/⏻** button to turn the set ON.
2. Select CD function.
3. Press **■** (TAPE B) button, **TUNER ENTER** button and **REPEAT** button simultaneously to enter the CD repeat 5 limit off mode and the fluorescent indicator tube displays "LIMIT OFF".

- To release from this mode, operate the cold reset. (Refer to the "MC COLD RESET")

[CD SHIP MODE (WITH MEMORY CLEAR)]

- This mode moves the optical pick-up to the position durable to vibration and clears all data including preset data stored in the RAM to initial conditions. Use this mode when returning the set to the customer after repair.

Procedure:

1. Press **I/⏻** button to turn the set ON.
2. Select CD function.
3. Press **EXCHANGE** button and **I/⏻** button simultaneously. The set will power off automatically.
4. After the "STANDBY" blinking display finish, a message "LOCK" is displayed on the fluorescent indicator tube and the CD ship mode is set.

HCD-ZX6/ZX8

[CD SHIP MODE (WITHOUT MEMORY CLEAR)]

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

Procedure:

1. Press  button to turn the set ON.
2. Select CD function.
3. Press  button and  button simultaneously. The set will power off automatically.
4. After the “STANDBY” blinking display finish, a message “LOCK” is displayed on the fluorescent indicator tube and the CD ship mode is set.

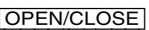
[CD POWER MANAGE]

- This mode let you switch on or off power supply to the BU during TUNER function.
- When CD POWER is set to OFF, the power supply to the BU is cut off during TUNER function. It will increase the time taken to access CD when function change from TUNER to CD but it will improve tuner reception.
- When CD POWER is set to ON, the power supply to the BU is not cut off during TUNER function. It will reduce the time taken to access CD when function change from TUNER to CD but it will decrease tuner reception performance.

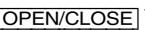
Procedure:

1. Press  button to turn the set ON.
2. Select CD function.
3. Press  button to turn the set OFF.
4. Press  (CD) button and  button simultaneously. The set will power on automatically.
5. The message “CD POWER ON” or “CD POWER OFF” will be displayed on the fluorescent indicator tube.

[CD TRAY LOCK MODE]

- This mode let you lock the disc tray. When this mode is activated, the disc tray will not open when  button or  button is pressed. The message “LOCKED” will be displayed in on the fluorescent indicator tube.

Procedure:

1. Press  button to turn the set ON.
2. Select CD function.
3. Press  (CD) button and  button simultaneously and hold down until “LOCKED” or “UNLOCKED” displayed on the fluorescent indicator tube (around 5 seconds).

[VIDEO/MD SWITCHING]

- This mode let you switch from VIDEO to MD and vice-versa.

Procedure:

1. During Power Off, press  button and  button simultaneously. The set power on automatically and the function will changed to MD. Do the same procedures again to change from MD to VIDEO.

SECTION 5 MECHANICAL ADJUSTMENTS

Precaution

- Clean the following parts with a denatured alcohol-moistened swab:

record/playback heads	pinch rollers
erase head	rubber belts
capstan	idlers
- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	2.9 – 6.9 mN • m (30 to 70 g • cm) (0.42 – 0.97 oz • inch)
FWD back tension		0.19 – 0.59 mN • m (2 to 6 g • cm) (0.03 – 0.08 oz • inch)
FF/REW	CQ-201B	7.8 – 16.7 mN • m (80 to 170 g • cm) (1.11 – 2.36 oz • inch)

SECTION 6 ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775 V

Precaution

- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjust.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.
- The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
- The adjustments should be performed for both L-CH and R-CH.
- Switches and controls should be set as follows unless otherwise specified.
- Set to the test mode.
 - Press the  button to turn the power ON.
 - Select the function "TAPE A or B".
 - Press the button of , , and  simultaneously, to set the tape deck test mode and displays "TEST MODE" on the fluorescent indicator tube.
 - To release from the test mode, press the  button.

• Test Tape

Tape	Signal	Used for
P-4-A100	10 kHz, -10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment

Record/Playback Head Azimuth Adjustment

DECK A DECK B

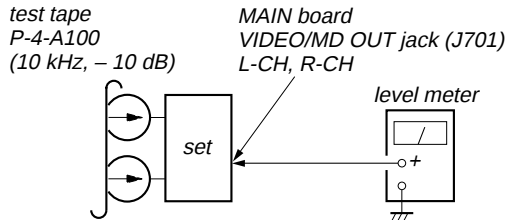
Note: Perform this adjustments for both decks

Procedure:

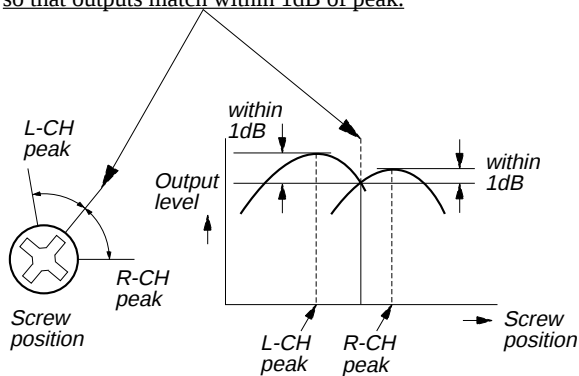
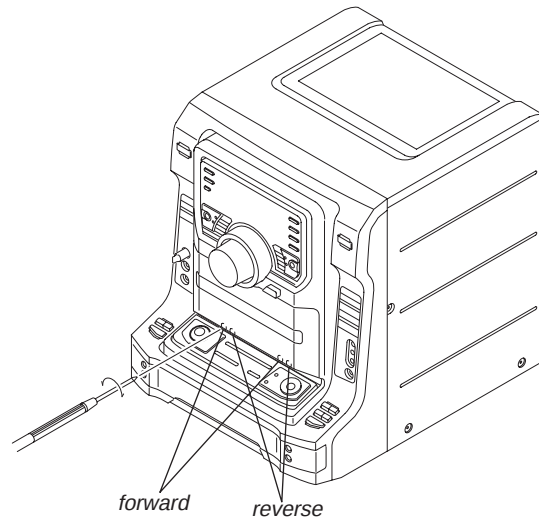
1. Mode: Playback (FWD)

Adjustment Location: Playback Head (Deck A).

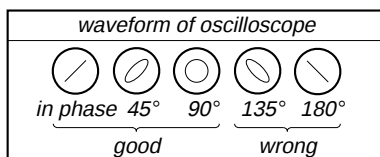
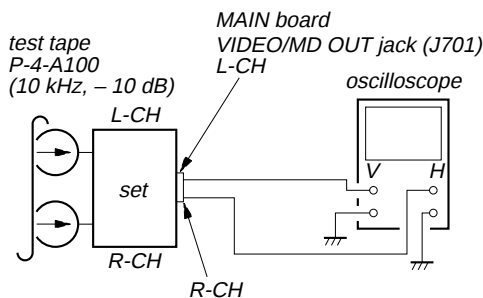
Record/Playback/Erase Head (Deck B).



2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.



3. Mode: Playback



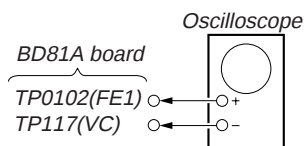
4. Repeat step 1 to 3 in playback (REV) mode.
4. After the adjustments, apply suitable locking compound to the parts adjusted.

CD SECTION

Note:

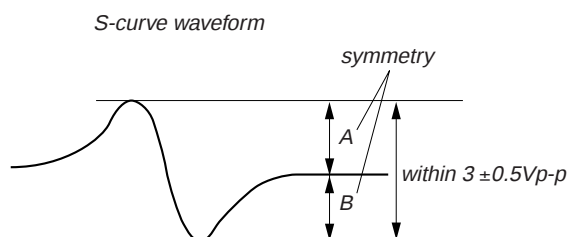
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10M impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-Curve Check



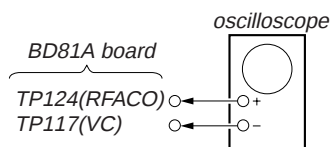
Procedure:

1. Connect oscilloscope to TP102 (FE1) and TP117 (VC).
2. Press the button to turn the power ON.
3. Load a disc (YEDS-18) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search)
4. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within $3 \pm 0.5 \text{ Vp-p}$.



- Note:**
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

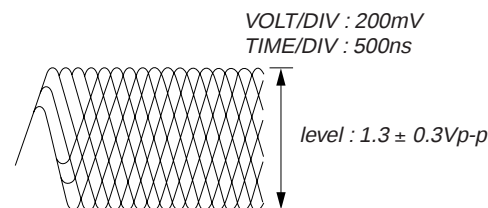
RF Level Check



Procedure:

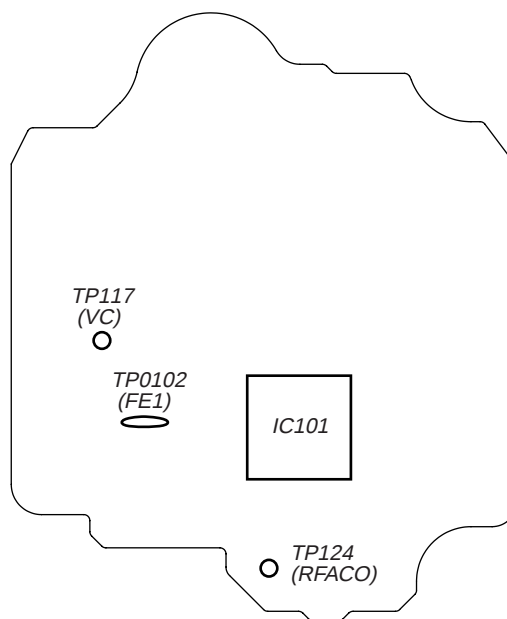
1. Connect oscilloscope to TP124 (RFACO) and TP117 (VC).
2. Press the button to turn the power ON.
3. Load a disc (YEDS-18) and playback.
4. Confirm that oscilloscope waveform is clear and check RFAC signal level is correct or not.

Note: Clear RF signal waveform means that the shape “ $\diamond$ ” can be clearly distinguished at the center of the waveform.



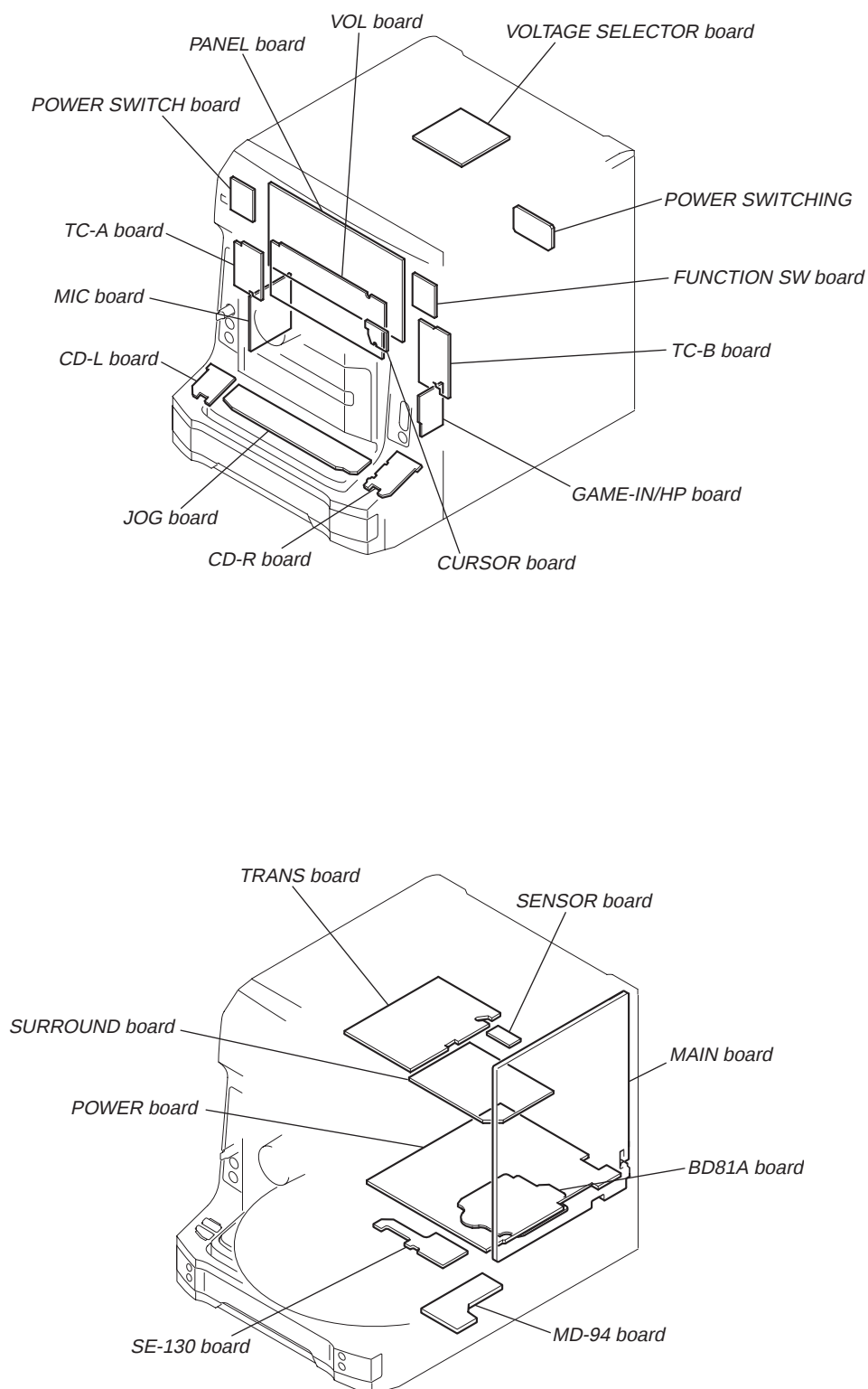
Checking Location:

【BD81A BOARD】(SIDE B)



SECTION 7 DIAGRAMS

7-1. CIRCUIT BOARDS LOCATION



7-2. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

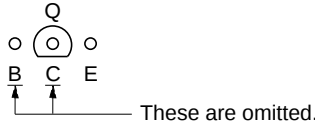
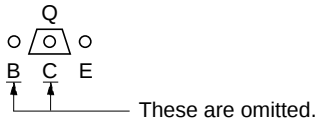
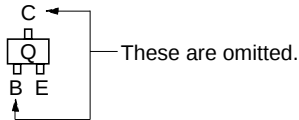
Note on Printed Wiring Board:

- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : Pattern from the side which enables seeing.
(The other layer's patterns are not indicated.)

Caution:

Pattern face side: Parts on the pattern face side seen from
(Conductor Side) the pattern face are indicated.
Parts face side: Parts on the parts face side seen from
(Component Side) the parts face are indicated.

- Indication of transistor.



- Abbreviation
E2 : 120 V AC area in E model
E51 : Chilean and Peruvian model
MX : Mexican model

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead.

(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

LF : LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.

Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.

Soldering irons using a temperature regulator should be set to about 350 °C.

Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

- Strong viscosity

Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.

- Usable with ordinary solder

It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

Note on Schematic Diagram:

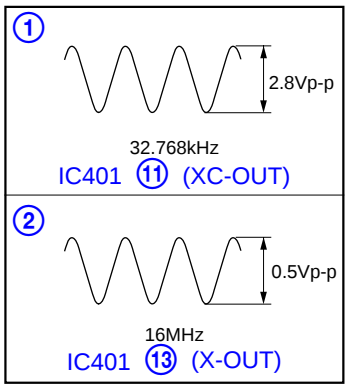
- All capacitors are in μF unless otherwise noted. (p: pF)
- 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}W$ or less unless otherwise specified.
- : nonflammable resistor.
- : panel designation.

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

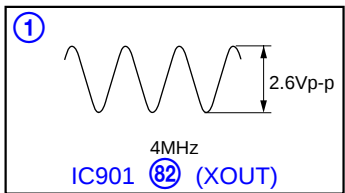
- : B+ Line.
- : B- Line.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : FM
< : CD PLAY
* : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω).
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope.
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
⇒ : AUDIO
⇒ : TUNER
⇒ : TAPE PLAY (DECK A)
⇒ : TAPE PLAY (DECK B)
⇒ : TAPE REC (DECK B)
⇒ : CD PLAY
- Abbreviation
E2 : 120 V AC area in E model
E51 : Chilean and Peruvian model
MX : Mexican model

7-3. WAVEFORMS

— MAIN Board —



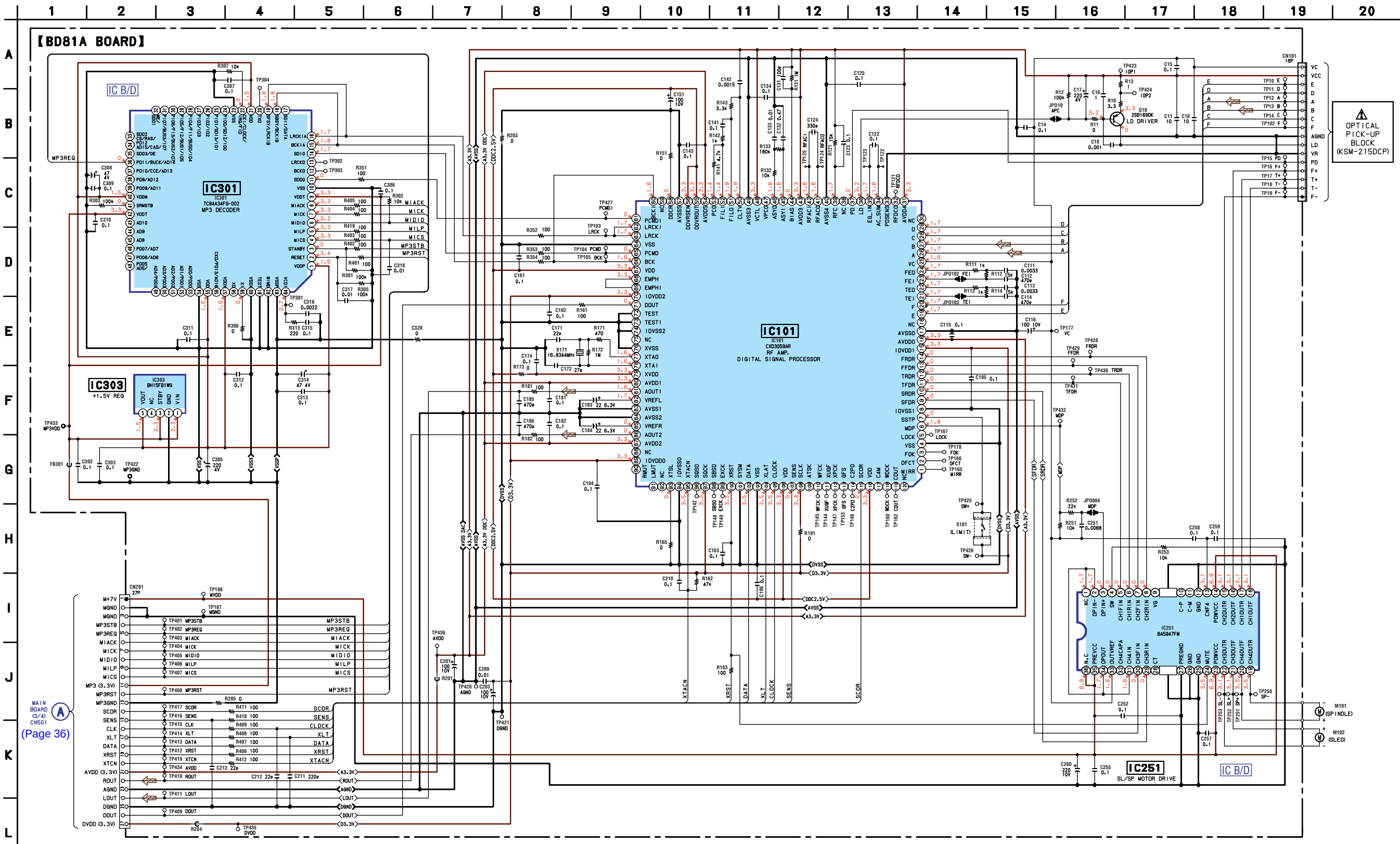
— PANEL Board —



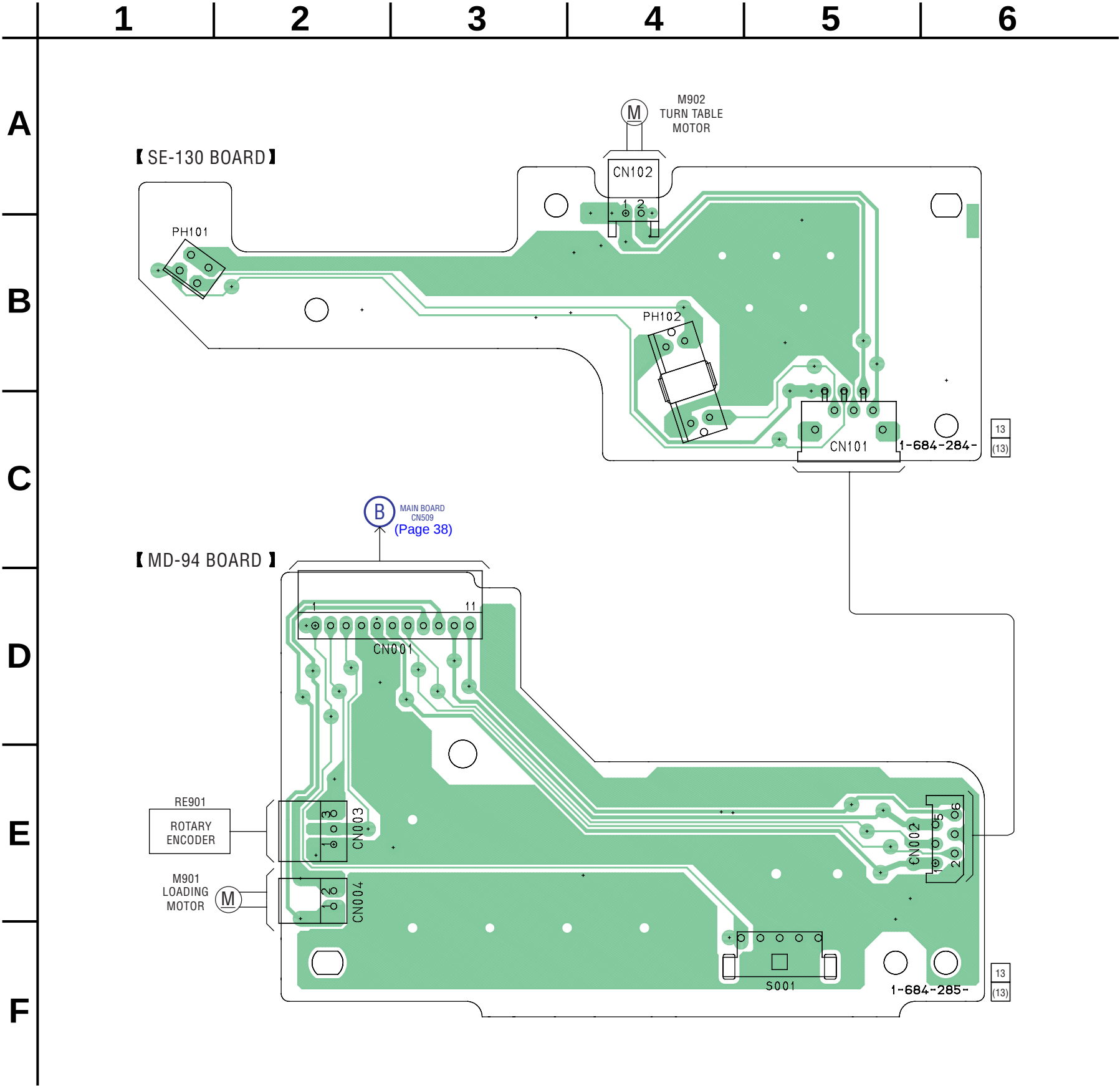
7-5. SCHEMATIC DIAGRAM — BD SECTION —

• Refer to page 56 for IC Block Diagrams.

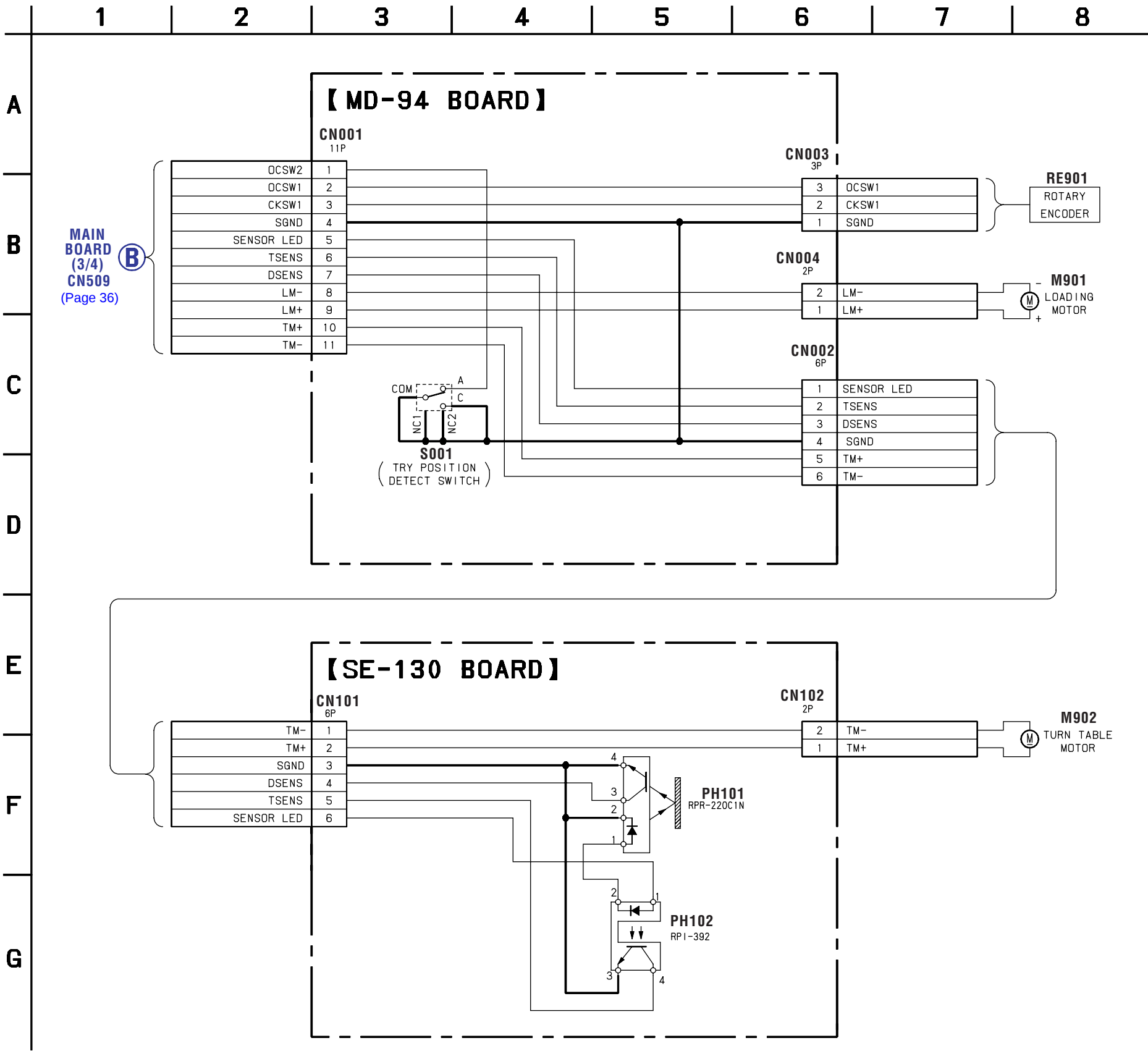
• Refer to page 57 for IC Pin Description of IC101.



7-6. PRINTED WIRING BOARDS — LOADING SECTION — • Refer to page 28 for Circuit Boards Location.  : Uses unleaded solder.



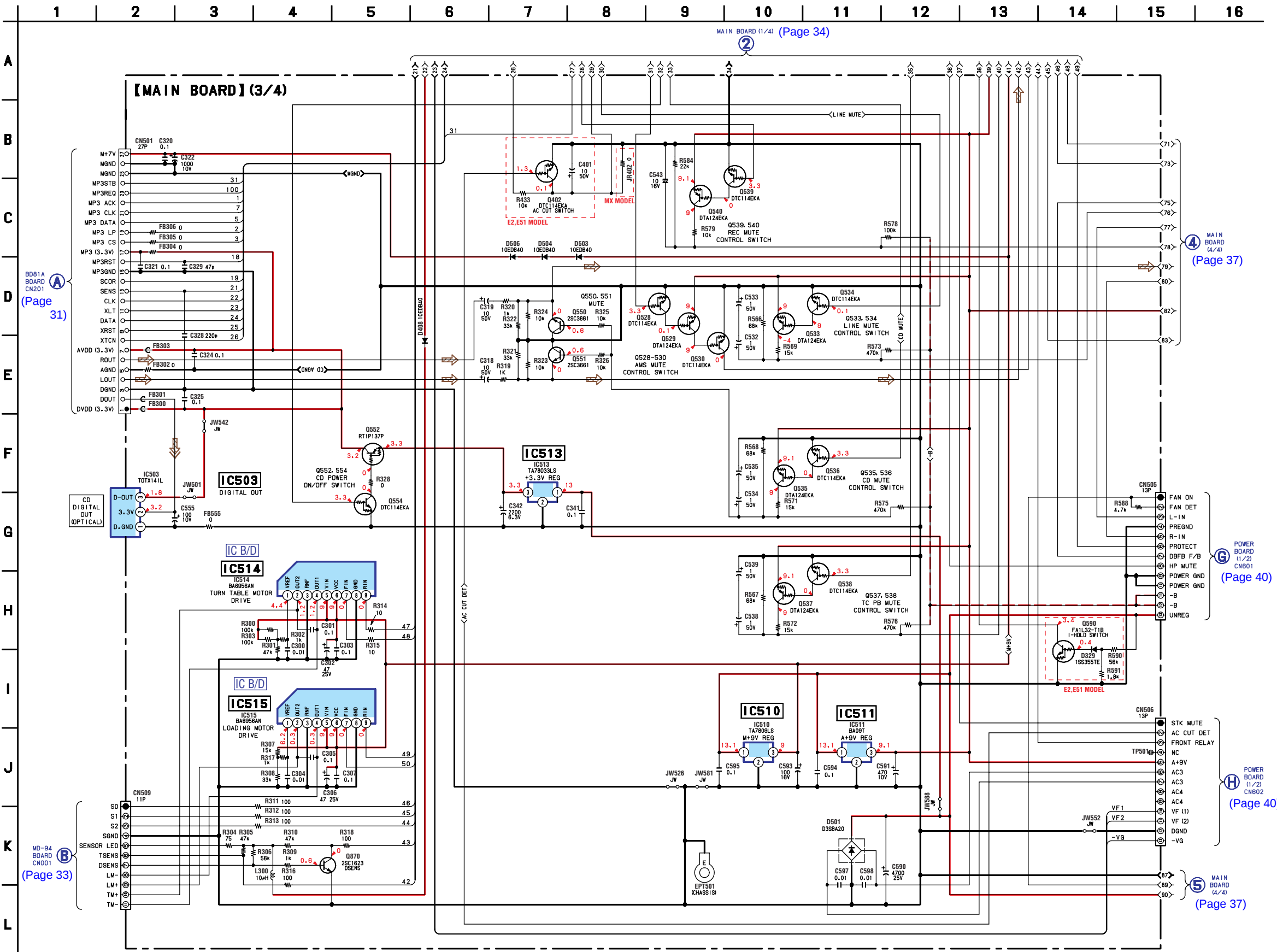
7-7. SCHEMATIC DIAGRAM — LOADING SECTION —



35



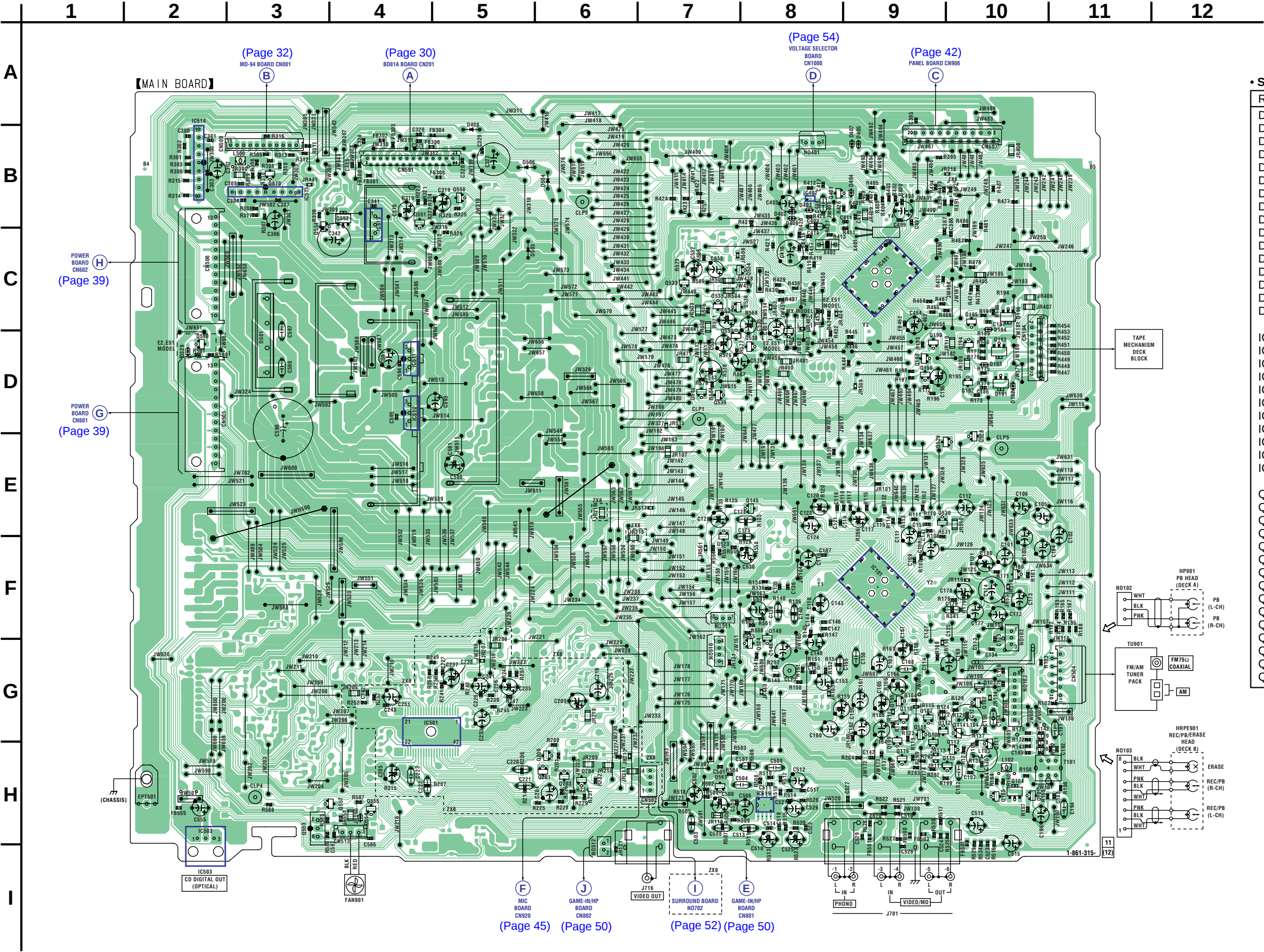
7-10. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) — • Refer to page 56 for IC Block Diagrams.



37

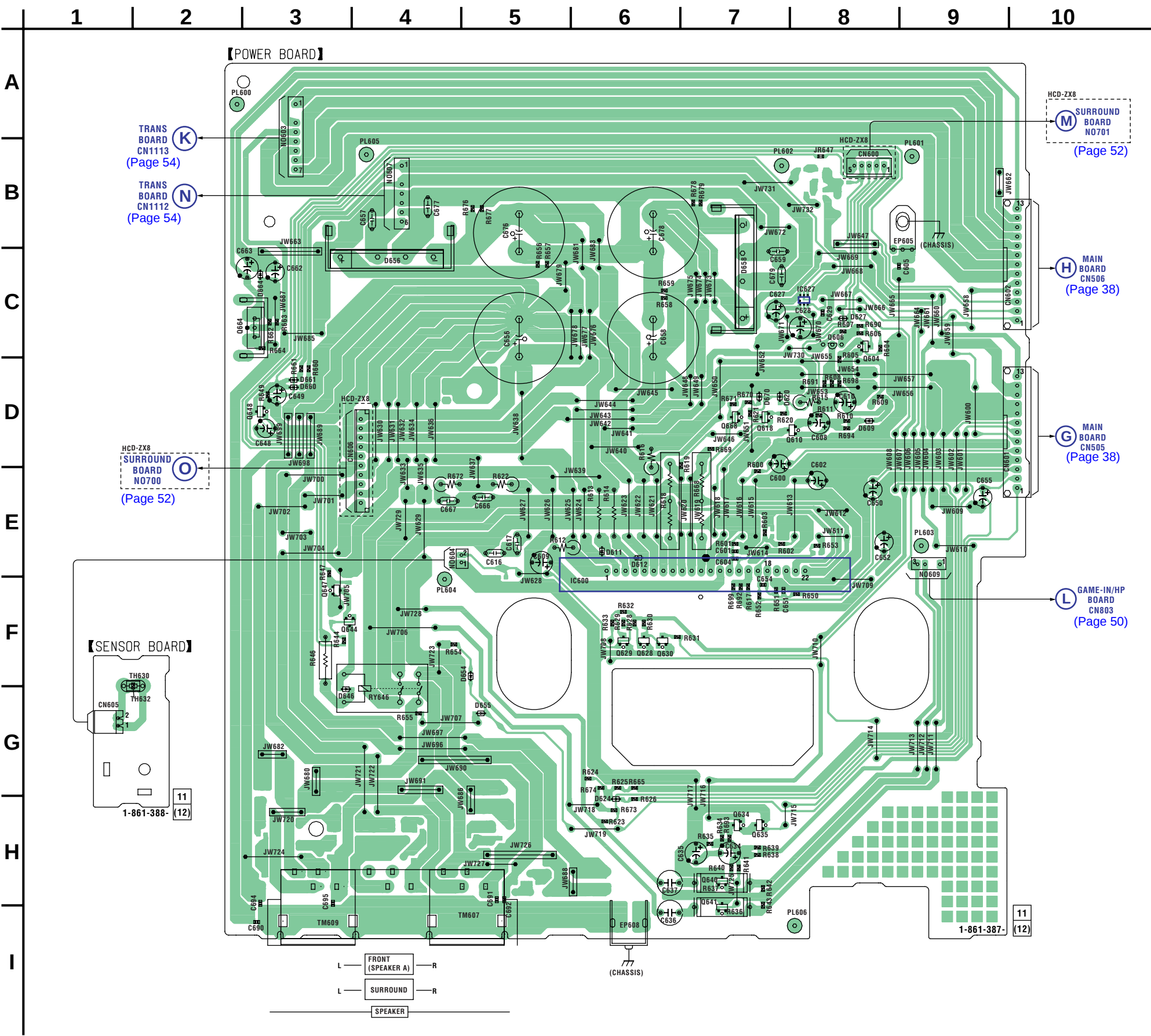


7-12. PRINTED WIRING BOARD — MAIN SECTION — • Refer to page 28 for Circuit Boards Location. : Uses unleaded solder.



• Semiconductor Location			
Ref. No.	Location	Ref. No.	Location
D192	D-10	Q116	H-9
D193	D-10	Q140	F-8
D194	C-10	Q145	E-8
D329	D-2	Q165	G-9
D402	B-8	Q180	F-10
D403	B-8	Q190	D-9
D404	B-9	Q191	D-10
D405	B-9	Q192	D-10
D406	B-8	Q193	D-10
D407	B-9	Q194	D-10
D408	B-5	Q195	C-10
D501	D-3	Q196	C-10
D503	C-5	Q198	D-9
D504	B-6	Q199	D-9
D506	B-5	Q200	H-6
D554	H-4	Q201	H-6
		Q203	H-6
IC101	F-9	Q204	H-6
IC401	C-9	Q401	B-8
IC402	B-8	Q402	D-8
IC501	G-4	Q523	F-7
IC503	H-2	Q524	G-8
IC510	D-4	Q528	E-10
IC511	D-4	Q529	E-9
IC513	B-4	Q530	E-9
IC514	B-2	Q533	C-7
IC515	B-3	Q534	C-7
IC519	H-8	Q535	C-7
		Q536	C-7
		Q537	D-7
Q101	H-10	Q538	D-8
Q102	G-10	Q539	D-7
Q103	G-10	Q540	D-7
Q104	H-10	Q550	B-5
Q105	H-10	Q551	B-4
Q106	G-9	Q552	B-4
Q107	G-9	Q553	H-3
Q108	G-9	Q554	B-3
Q109	G-9	Q555	H-4
Q110	G-9	Q557	H-4
Q111	H-10	Q563	H-6
Q112	G-9	Q590	D-2
Q113	H-10	Q870	B-3
Q114	G-10		
Q115	H-10		

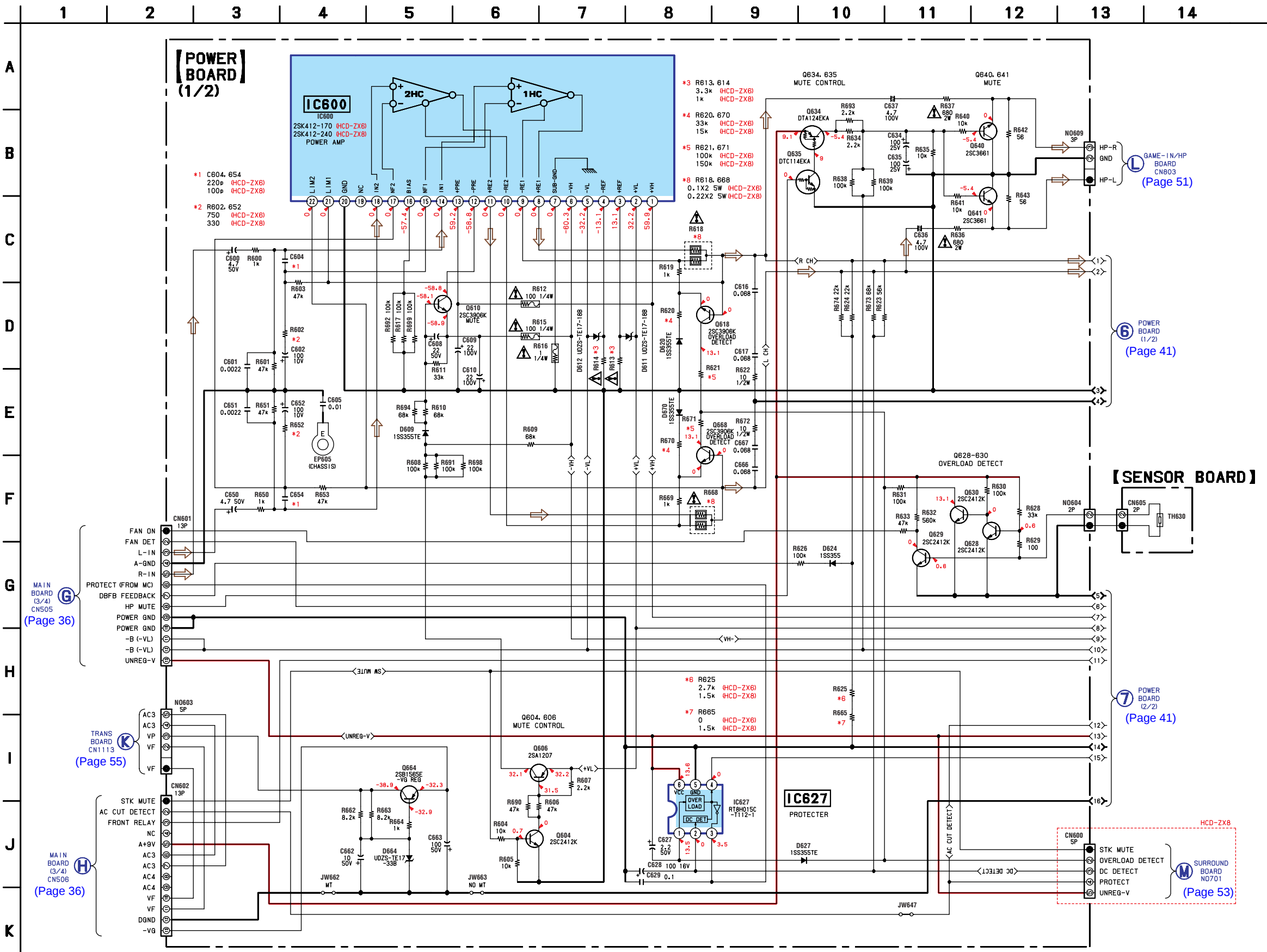
7-13. PRINTED WIRING BOARDS — POWER SECTION — • Refer to page 28 for Circuit Boards Location.  : Uses unleaded solder.



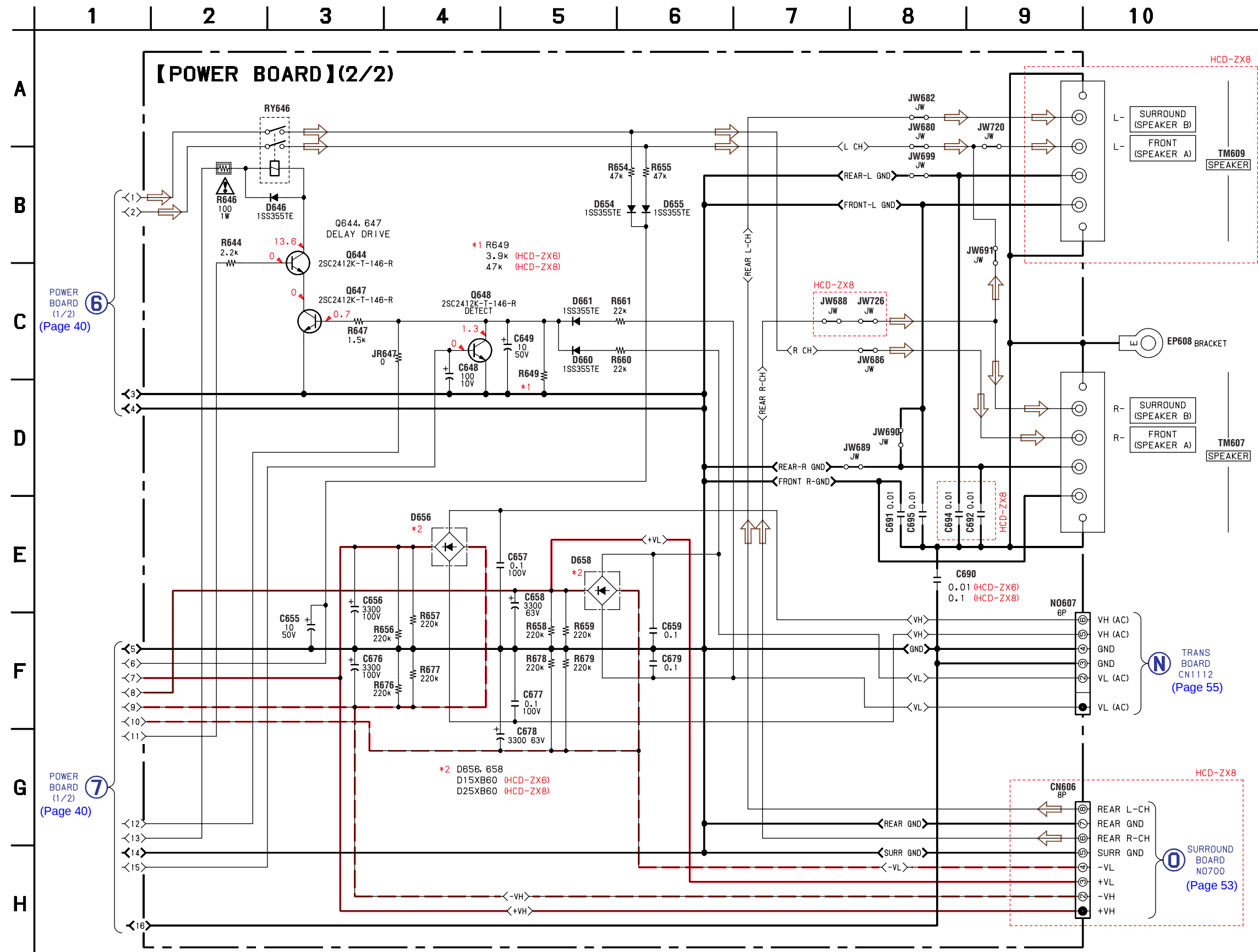
• Semiconductor Location

Ref. No.	Location
D609	D-8
D611	E-6
D612	E-6
D620	D-7
D624	H-6
D627	C-8
D646	G-3
D654	F-5
D655	G-5
D656	C-4
D658	C-7
D660	D-3
D661	D-3
D664	C-3
D670	D-7
IC600	F-6
IC627	C-8
Q604	C-8
Q606	C-8
Q610	D-8
Q618	D-7
Q628	F-6
Q629	F-6
Q630	F-6
Q634	H-7
Q635	H-7
Q640	H-7
Q641	I-7
Q644	F-3
Q647	F-3
Q648	D-3
Q664	C-3
Q668	D-7

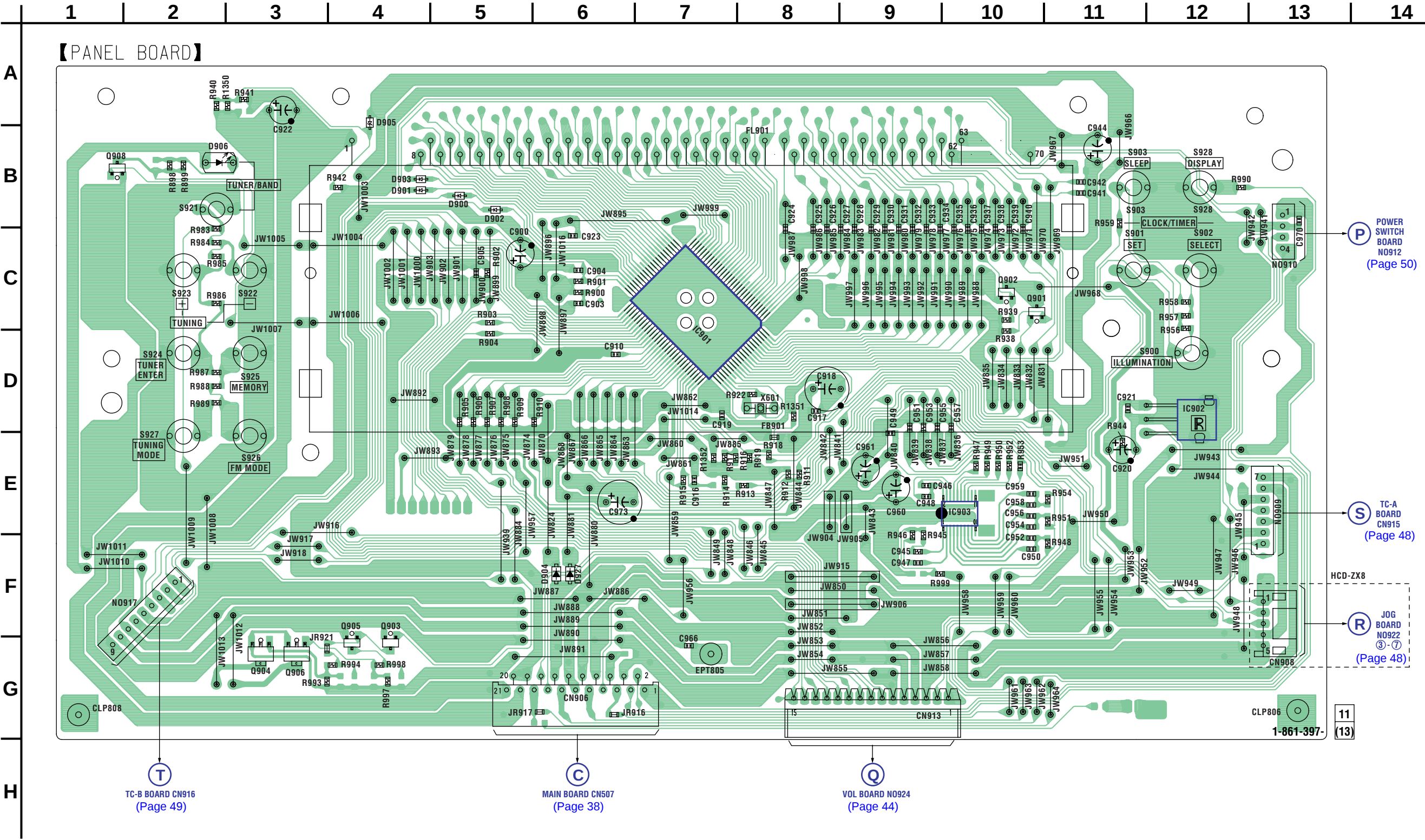
7-14. SCHEMATIC DIAGRAM — POWER SECTION (1/2) —



7-15. SCHEMATIC DIAGRAM — POWER SECTION (2/2) —



7-16. PRINTED WIRING BOARD — PANEL SECTION — • Refer to page 28 for Circuit Boards Location.  : Uses unleaded solder.

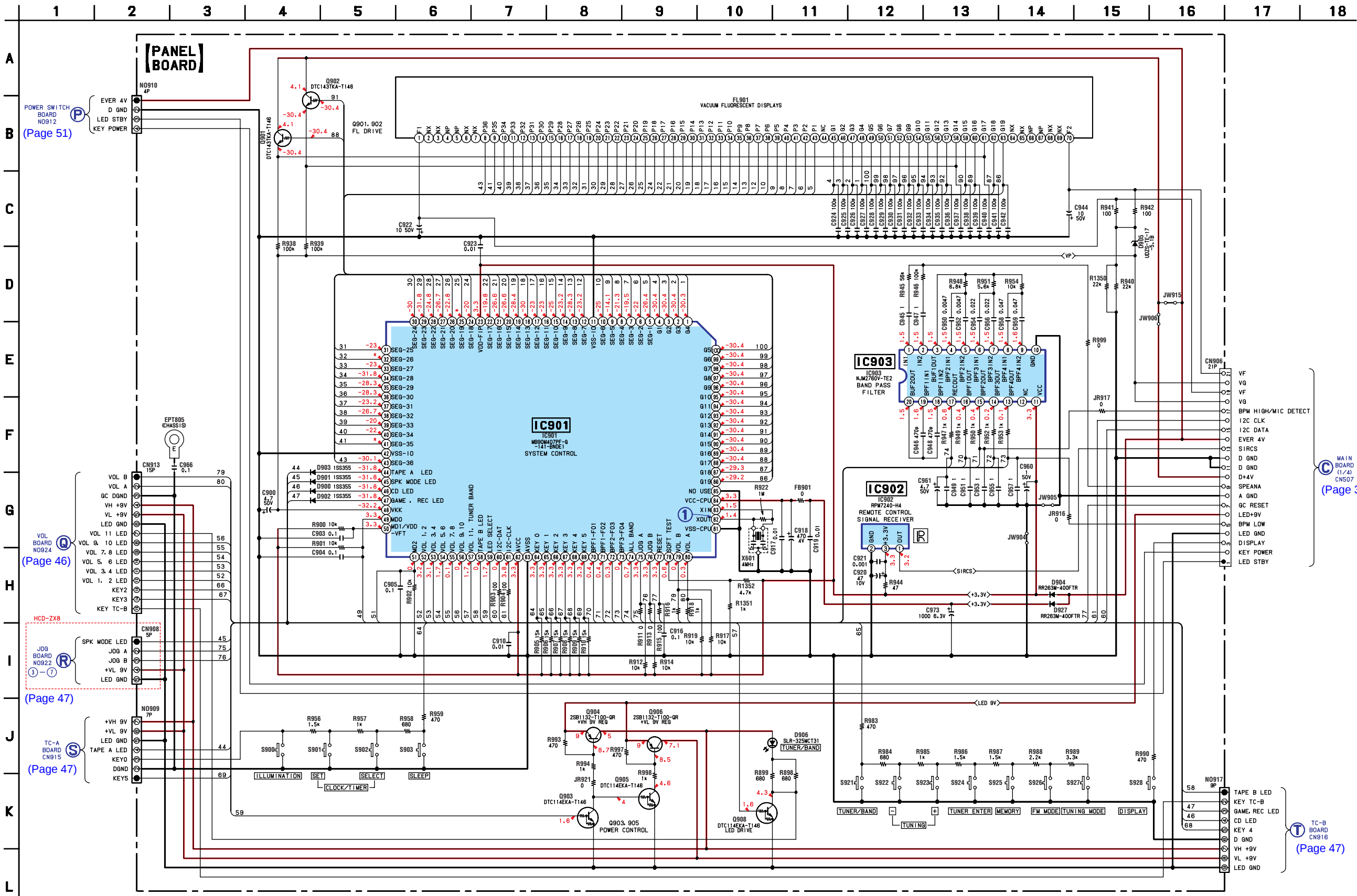


• Semiconductor Location

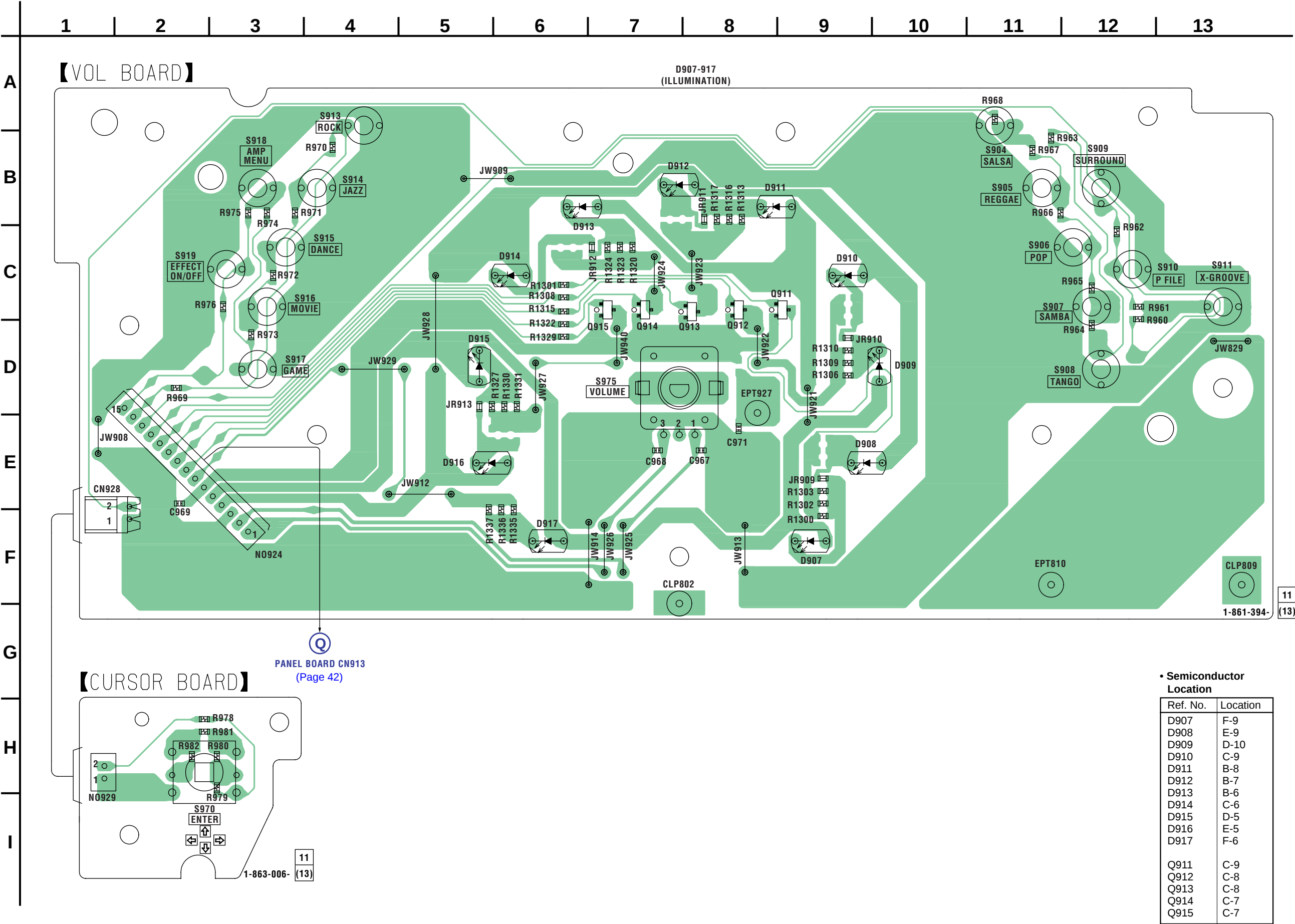
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D900	B-5	D927	F-6	Q902	C-10
D901	B-4	IC901	D-7	Q903	G-4
D902	B-5	IC902	D-12	Q904	G-3
D903	B-4	IC903	E-10	Q905	G-4
D904	F-6			Q906	G-3
D905	A-4			Q908	B-1
D906	B-2	Q901	C-10		

7-17. SCHEMATIC DIAGRAM — PANEL SECTION —

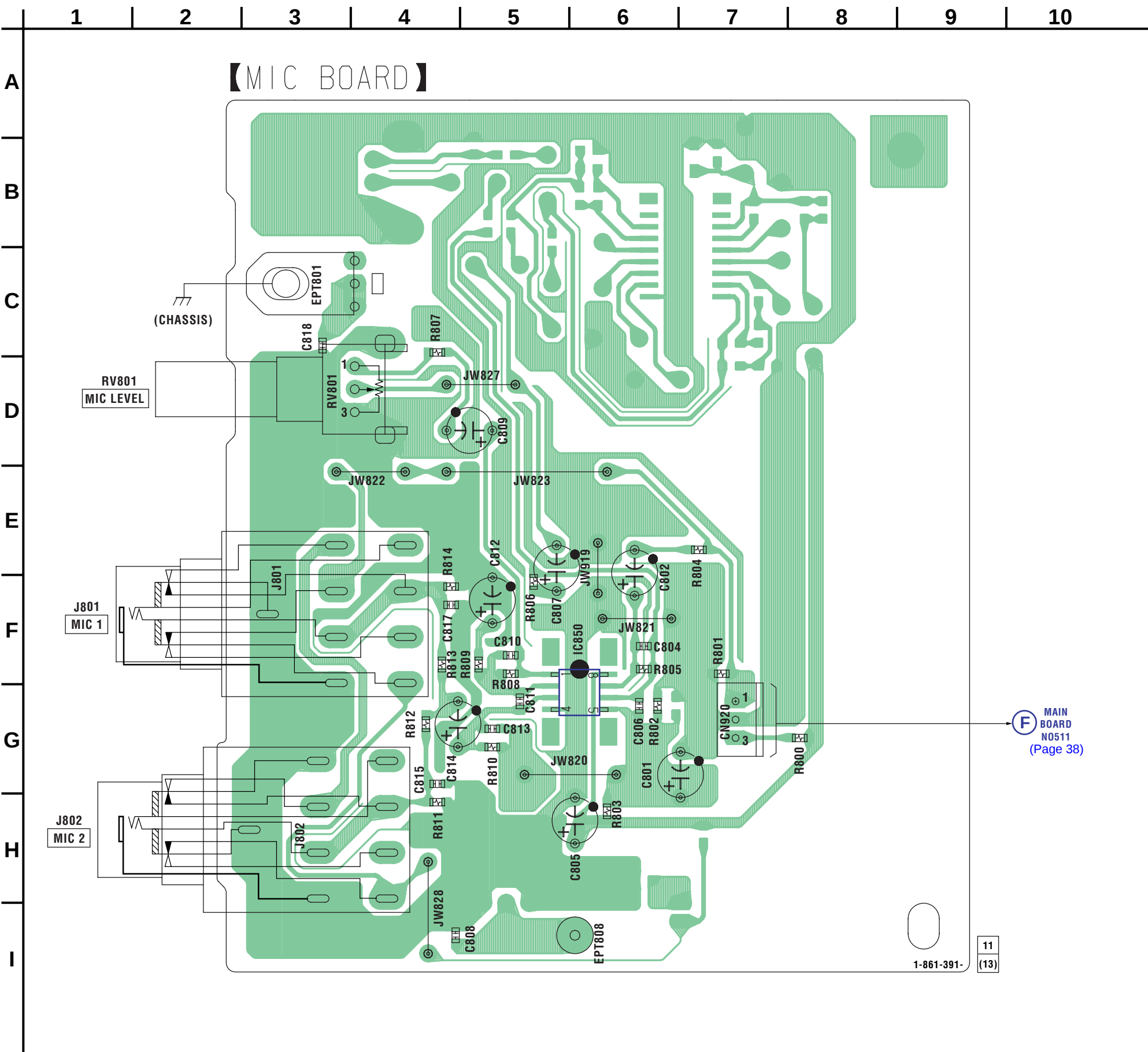
• Refer to page 29 for Waveform.
• Refer to page 63 for IC Pin Description of IC901.



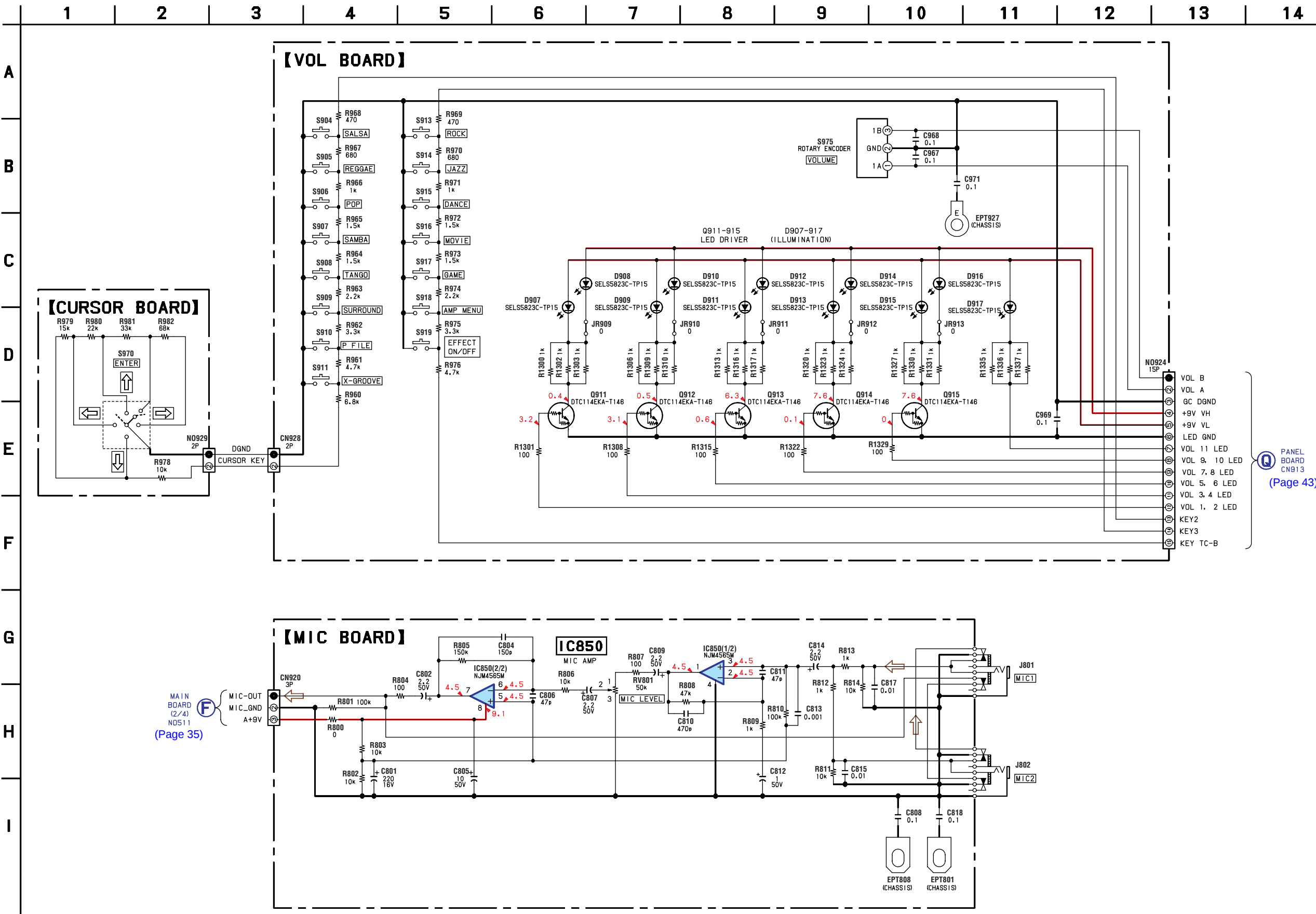
7-18. PRINTED WIRING BOARDS — VOLUME SECTION — • Refer to page 28 for Circuit Boards Location. : Uses unleaded solder.



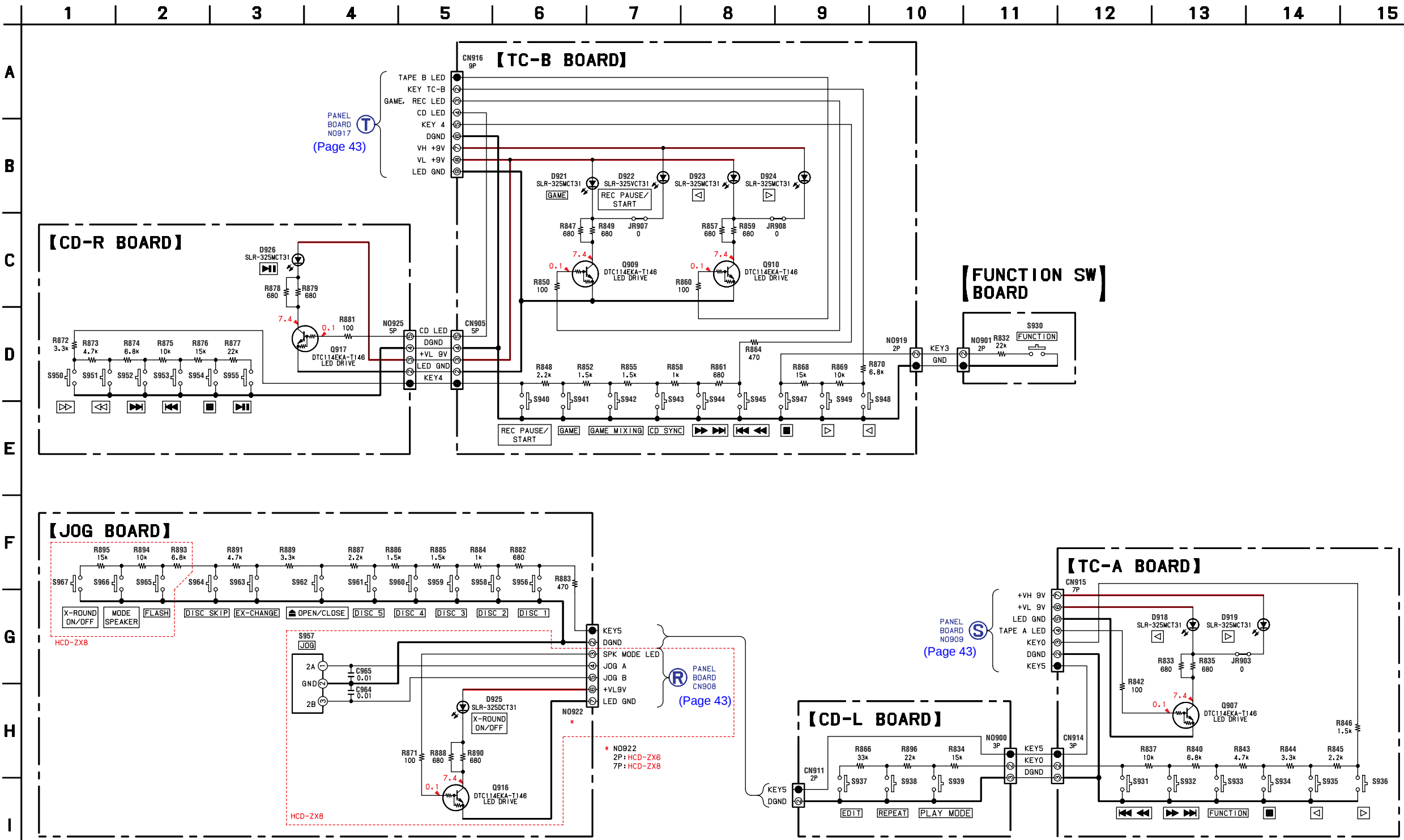
7-19. PRINTED WIRING BOARD — MIC SECTION — • Refer to page 28 for Circuit Boards Location.  : Uses unleaded solder.



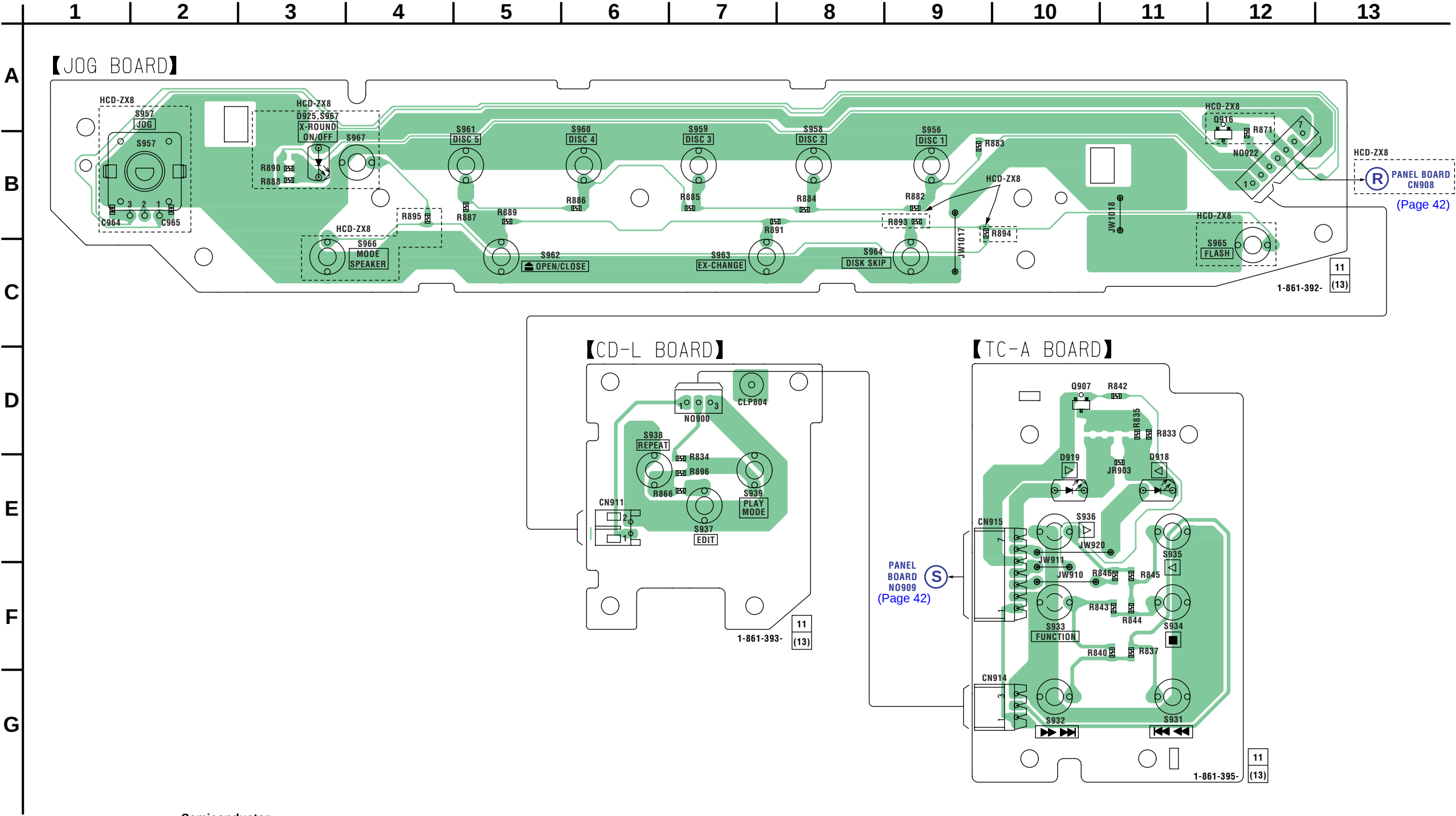
7-20. SCHEMATIC DIAGRAM — VOLUME, MIC SECTION —



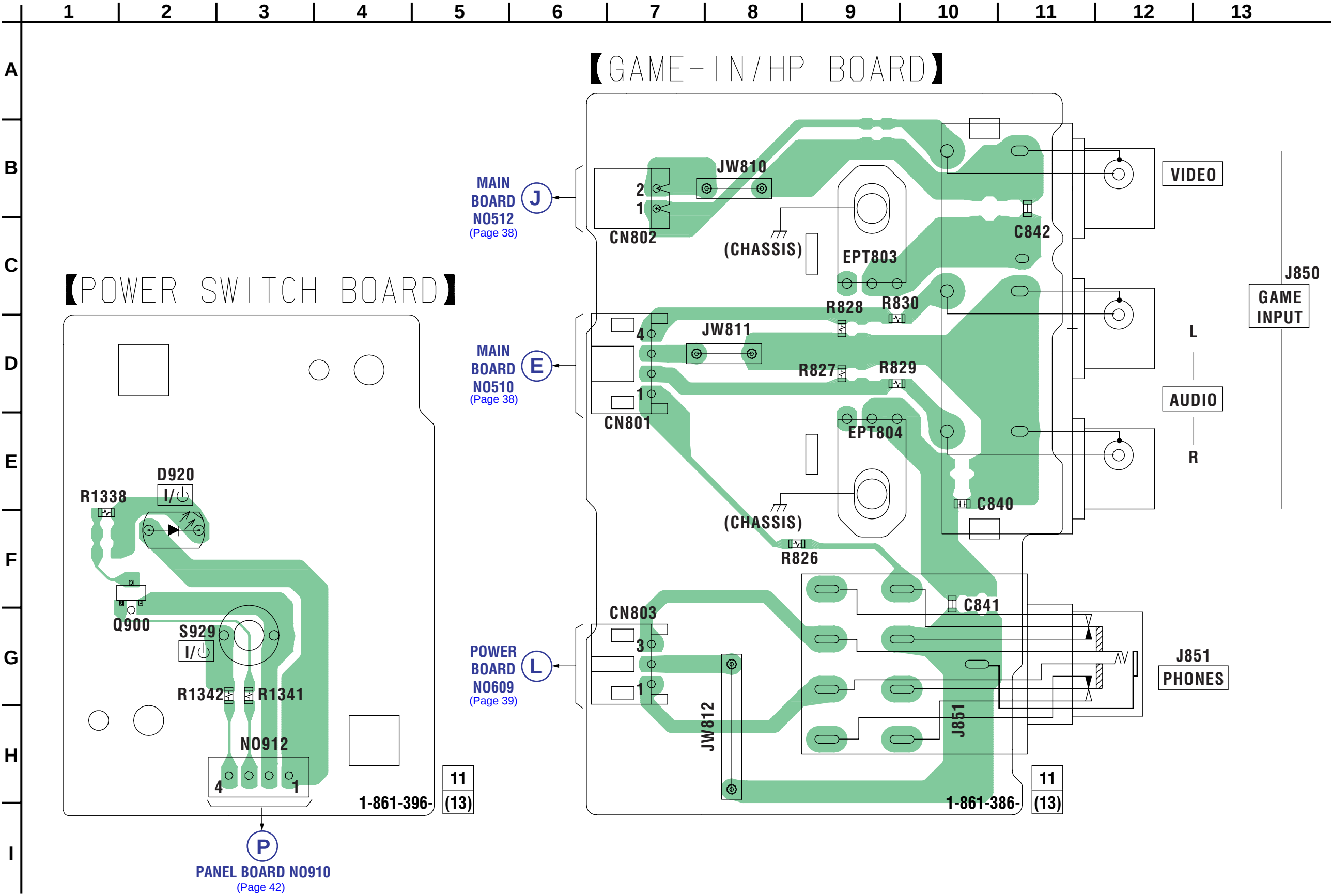
7-21. SCHEMATIC DIAGRAM — SWITCH SECTION —



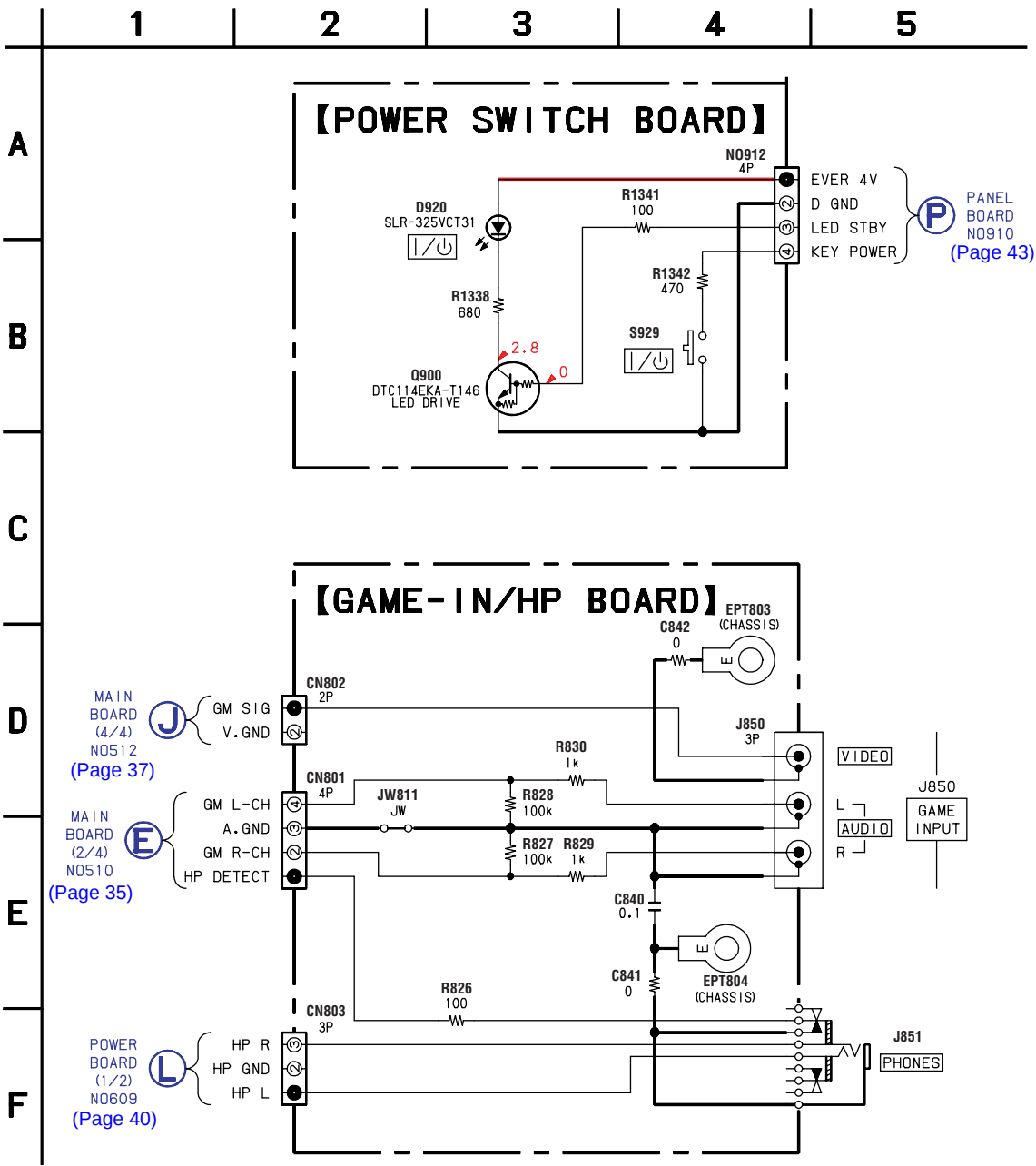
7-22. PRINTED WIRING BOARDS — SWITCH SECTION (1/2) — • Refer to page 28 for Circuit Boards Location.  : Uses unleaded solder.



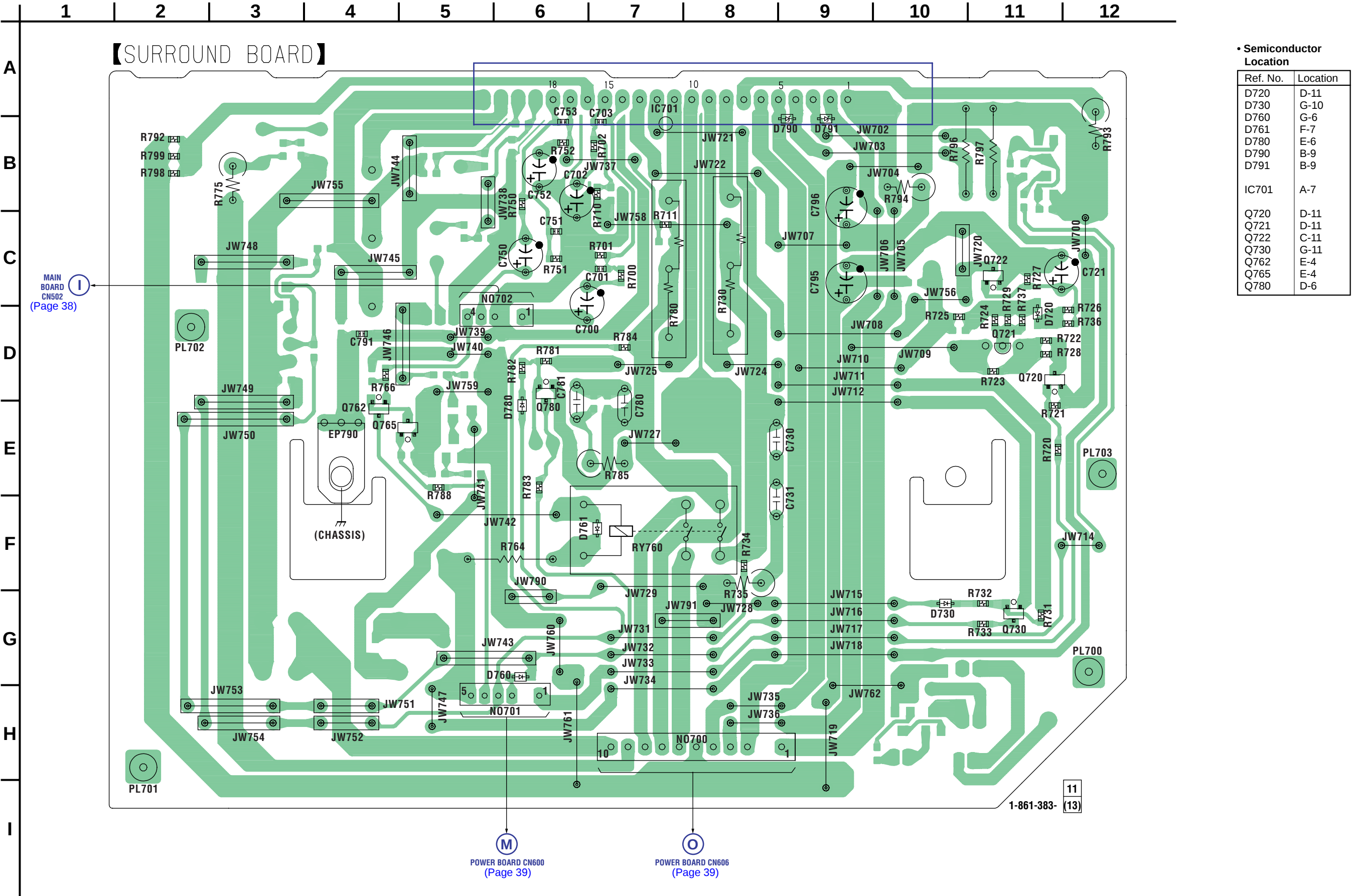
7-24. PRINTED WIRING BOARDS — JACK SECTION — • Refer to page 28 for Circuit Boards Location.  : Uses unleaded solder.



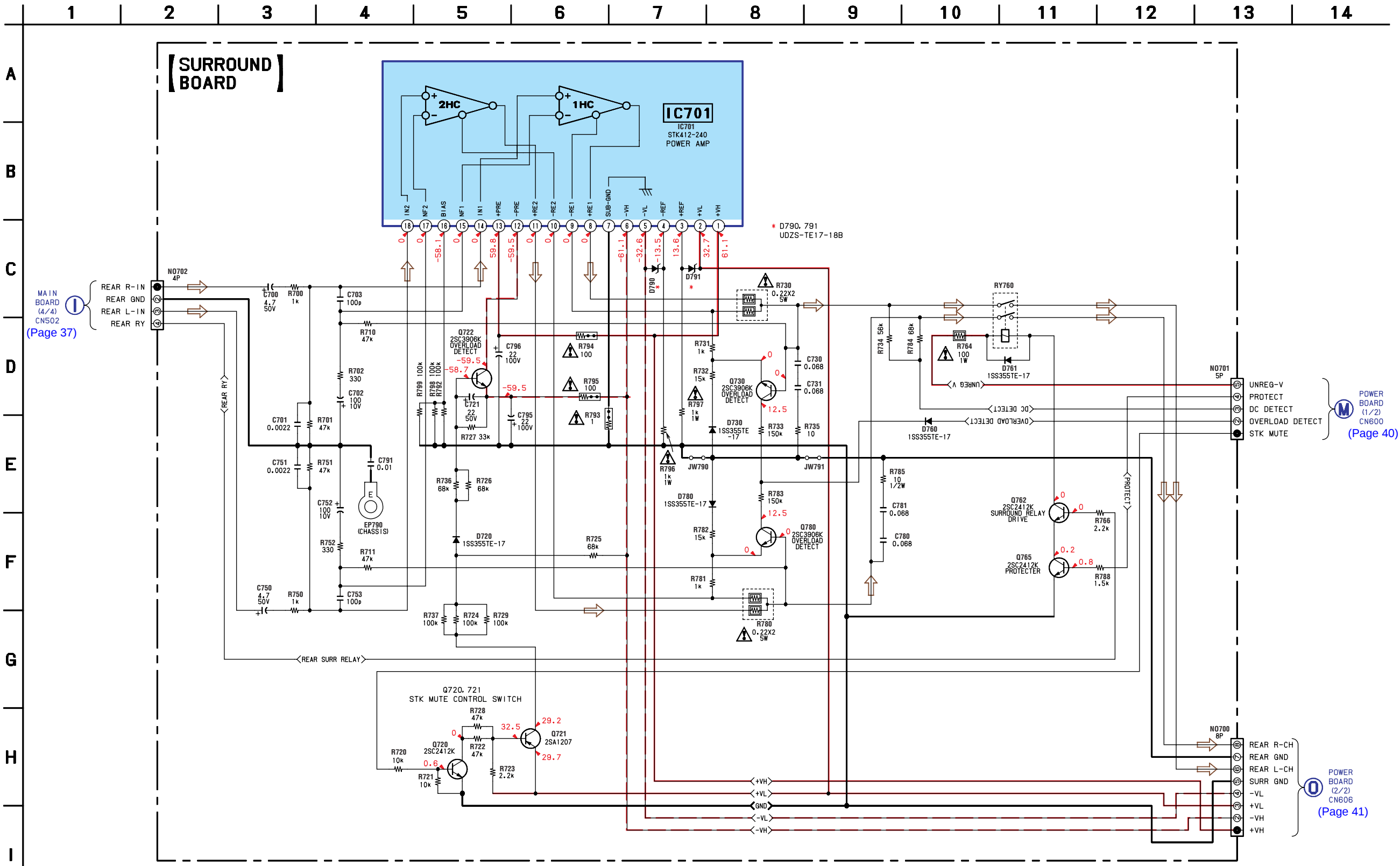
7-25. SCHEMATIC DIAGRAM — JACK SECTION —



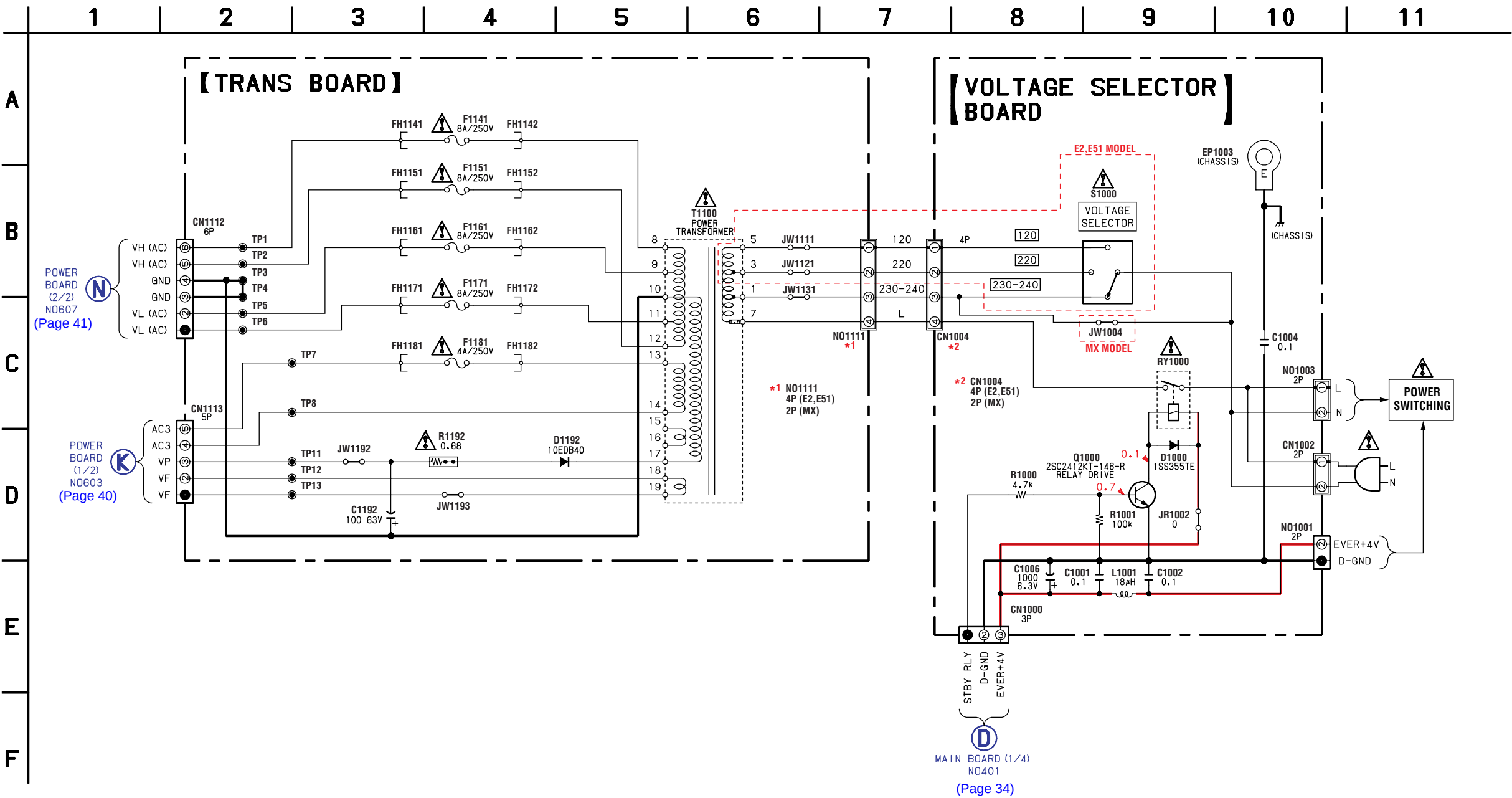
7-26. PRINTED WIRING BOARD — SURROUND SECTION (HCD-ZX8 ONLY) — • Refer to page 28 for Circuit Boards Location.  : Uses unleaded solder.



7-27. SCHEMATIC DIAGRAM — SURROUND SECTION (HCD-ZX8 ONLY) —

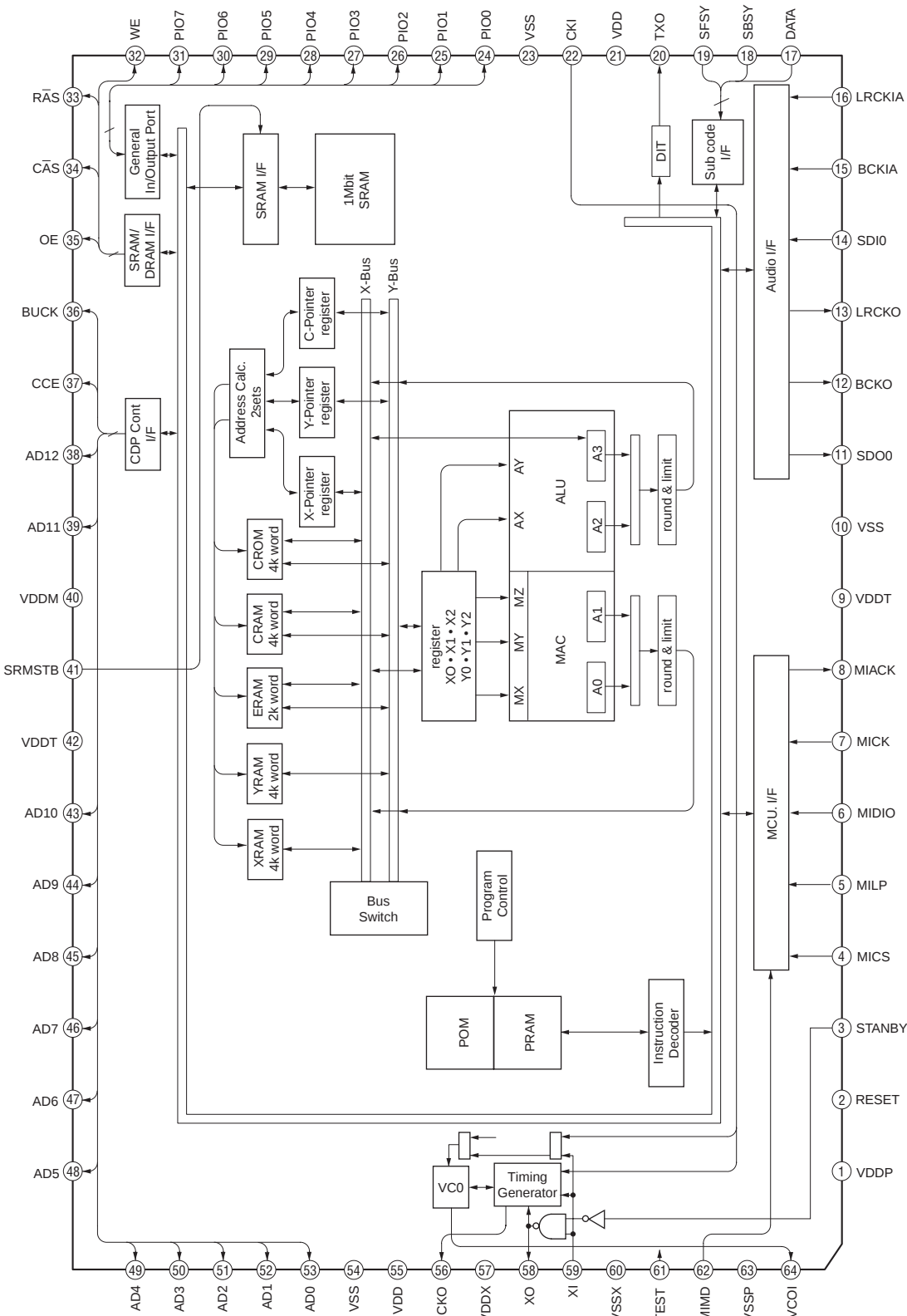


7-29. SCHEMATIC DIAGRAM — TRANSFORMER SECTION —

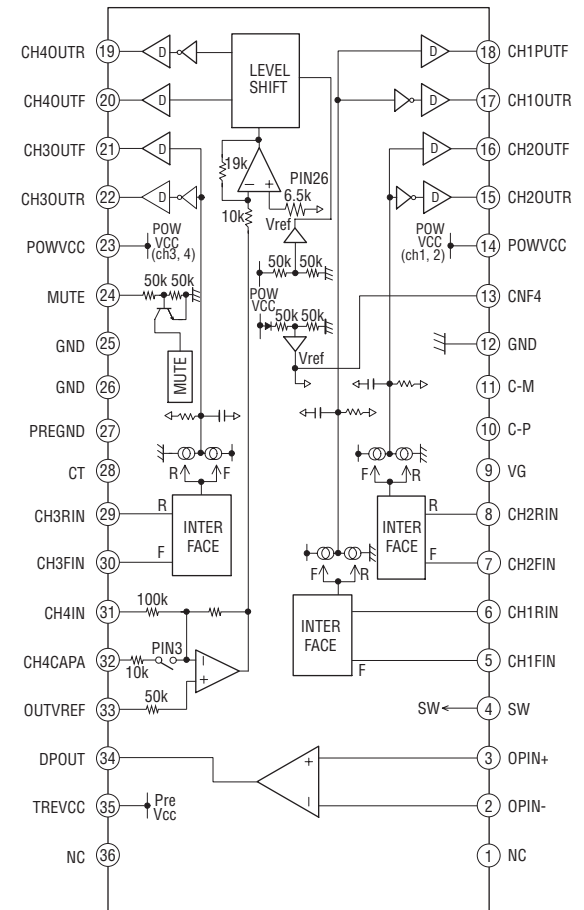


7-30. IC BLOCK DIAGRAMS

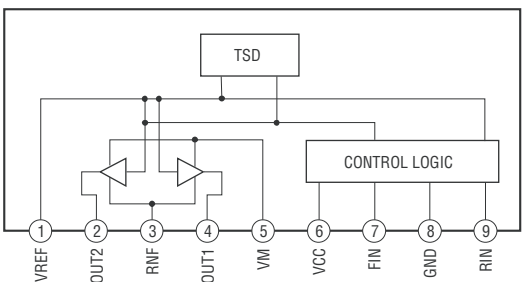
IC301 TC94A34FG-002 (BD81A Board)



IC251 BA5947FM (BD81A Board)



IC514 BA6956AN (MAIN Board)
IC515 BA6956AN (MAIN Board)



7-31. IC PIN DESCRIPTIONS

• IC101 CXD3059AR (RF AMP) (BD81A BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	MIRR	I/O	Mirror signal input/output Not used in this set. (Open)
2	DFCT	I/O	Defect signal input/output Not used in this set. (Open)
3	FOK	I/O	Focus OK signal input/output Not used in this set. (Open)
4	VSS	—	Internal digital ground pin
5	LOCK	I/O	GFS is sampled at 460Hz; when GFS is high , this pin outputs a high signal If GFS is low eight consecutive Not used in this set. (Open)
6	MDP	O	Spindle motor servo control signal output
7	SSTP	I	Disc innermost detection signal input
8	IOVSS1	—	I/O digital ground pin
9	SFDR	O	Sled drive signal output
10	SRDR	O	Sled drive signal output
11	TFDR	O	Tracking drive signal output
12	TRDR	O	Tracking drive signal output
13	FFDR	O	Focus drive signal output
14	FRDR	O	Focus drive signal output
15	IOVDD1	—	I/O digital power supply pin (+3.3 V)
16	AVDD0	—	Analog power supply pin (+3.3 V)
17	AVSS0	—	Analog ground pin
18	NC	—	Not used. (Open)
19	E	I	E signal input
20	F	I	F signal input
21	TEI	I	Tracking error signal input
22	TEO	O	Tracking error signal output
23	FEI	I	Focus error signal input
24	FEO	O	Focus error signal output
25	VC	O	Center voltage output
26	A	I	A signal input
27	B	I	B signal input
28	C	I	C signal input
29	D	I	D signal input
30	NC	—	Not used. (Open)
31	AVDD4	—	Analog power supply pin (+3.3 V)
32	RFDCO	O	RFDC signal output Not used in this set. (Open)
33	PDSSENS	I	Reference voltage pin for PD Connect to ground in this set.
34	AC_SUM	O	RFAC summing amplifier signal output
35	EQ_IN	I	Equalizer circuit signal input
36	LD	O	APC amplifier signal output
37	PD	I	APC amplifier signal input
38	NC	—	Not used. (Open)
39	RFC	I	Equalizer cut-off frequency adjustment pin
40	AVSS4	—	Analog ground pin
41	RFACO	O	RFAC signal output
42	RFACI	I	RFAC signal input or EFM signal input
43	AVDD3	—	Analog power supply pin (+3.3 V)
44	BIAS	I	Asymmetry circuit constant current signal input
45	ASYI	I	Asymmetry comparator voltage signal input
46	ASYO	O	EFM full-swing signal output (Low=VSS, High=VDD)
47	VPCO	O	Wide-band EFM PLL charge pump signal output Not used in this set. (Open)
48	VCTL	I	Wide-band EFM PLL VCO2 control voltage signal input
49	AVSS3	—	Analog ground pin
50	CLTV	I	Multiplier VCO1 control voltage signal input

Pin No.	Pin Name	I/O	Pin Description
51	FILO	O	Master PLL (slave=digital PLL) filter signal output
52	FILI	I	Master PLL filter signal input
53	PCO	O	Master PLL charge pump signal output
54	AVDD5	—	Analog power supply pin (+3.3 V)
55	DDVROUT	O	DC/DC converter signal output
56	DDVRSEN	I	DC/DC converter output voltage monitor pin
57	AVSS5	—	Analog ground pin
58	DDCR	I	DC/DC converter reset pin
59	NC	—	Not used. (Open)
60	BCKI	I	D/A interface bit clock signal input
61	PCMDI	I	D/A interface serial data signal input (2's COMP, MSB first)
62	LRCKI	I	D/A interface LR clock signal input
63	LRCK	O	D/A interface LR clock signal output $f = F_s$
64	VSS	—	Internal digital ground pin
65	PCMD	O	D/A interface serial data signal output (2's COMP, MSB first)
66	BCK	O	D/A interface bit clock signal output
67	VDD	—	Internal digital power supply pin (+3.3 V)
68	EMPH	O	High when the playback disc has emphasis, low it has not
69	EMPHI	I	High when de-emphasis is ON, low when input OFF
70	IOVDD2	—	I/O digital power supply pin (+3.3 V)
71	DOUT	O	Digital signal output
72	TEST	I	Test pin Normally ground
73	TEST1	I	Test pin Normally ground
74	IOVSS2	—	I/O digital ground pin
75	NC	—	Not used. (Open)
76	XVSS	—	Master clock ground pin
77	XTAO	O	Crystal oscillation circuit signal output (16.9344 MHz)
78	XTAI	I	Crystal oscillation circuit signal input (16.9344 MHz)
79	XVDD	—	Master clock power supply pin (+3.3 V)
80	AVDD1	—	Analog power supply pin (+3.3 V)
81	AOUT1	O	Lch analog signal output
82	VREFL	O	Lch reference voltage signal output
83	AVSS1	—	Analog ground pin
84	AVSS2	—	Analog ground pin
85	VREFR	O	Rch reference voltage signal output
86	AOUT2	O	Rch analog signal output
87	AVDD2	—	Analog power supply pin (+3.3 V)
88	NC	—	Not used. (Open)
89	IOVDD0	—	I/O digital power supply pin (+3.3 V)
90	RMUT	O	Rch "0" detection flag Not used in this set. (Open)
91	LMUT	O	Lch "0" detection flag Not used in this set. (Open)
92	NC	—	Not used. (Open)
93	XTSL	I	Crystal selection input Not used in this set. (Connect to ground.)
94	IOVSS0	—	I/O digital ground pin
95	XTACN	I	Oscillation circuit control signal input Self-oscillation when high, oscillation stop when low
96	SQSO	O	Subcode Q 80-bit and PCM peak and level data signal output CD TEXT data signal output Not used in this set. (Open)
97	SQCK	I	SQSO readout clock signal input
98	SBSO	O	Subcode P to W serial signal output Not used in this set. (Open)
99	EXCK	I	SBSO readout clock signal input Not used in this set. (Open)
100	XRST	I	System reset signal input "L": Reset
101	SYSM	I	Mute signal input "H": Mute Connect to ground in this set.

Pin No.	Pin Name	I/O	Pin Description
102	DATA	I	Serial data signal input
103	VSS	—	Internal digital ground pin
104	XLAT	I	Latch signal input The serial data is latched at the falling edge
105	CLOCK	I	Serial data transfer clock signal input
106	VDD	—	Internal digital power supply pin (+3.3 V)
107	SENS	O	SENS signal output
108	SCLK	I	SENS serial data readout clock signal input
109	ATSK	I/O	Anti-shock signal input/output Not used in this set. (Open)
110	WFCK	O	WFCK signal output Not used in this set. (Open)
111	XUGF	O	XUGF signal output Not used in this set. (Open)
112	XPCK	O	XPCK signal output Not used in this set. (Open)
113	GFS	O	GFS signal output Not used in this set. (Open)
114	C2PO	O	C2PO signal output Not used in this set. (Open)
115	SCOR	O	High output when the subcode sync, S0 or S1, is detected
116	VDD	—	Internal digital power supply pin (+3.3 V)
117	C4M	O	4.2336MHz signal output Not used in this set. (Open)
118	WDCK	O	Word clock signal output $f=2Fs$ Not used in this set. (Open)
119	COUT	I/O	Track number count signal input/output Not used in this set. (Open)
120	NC	—	Not used. (Open)

• IC401 M3062CMEN-A04FPUO (MASTER CONTROL) (MAIN BOARD (1/4))

Pin No.	Pin Name	I/O	Pin Description
1	MP3 ACK	I	Acknowledgement signal input from MP3 decoder IC “L”: acknowledged
2	MP3 LP	O	Latch signal output to MP3 decoder IC “L”: enable
3	MP3 CS	O	Chip select signal output MP3 decoder IC “L”: enable
4	SIRCS	I	Remote control signal input
5	MP3 DATA OUT	O	Serial data signal output to MP3 decoder IC
6	MP3 DATA IN	I	Serial data signal input from MP3 decoder IC
7	MP3 CLK	O	Serial data transfer clock signal output to MP3 decoder IC
8	BYTE	—	Ground pin
9	CNVSS	—	Ground pin
10	XC IN	I	Sub system clock signal input (32.768 kHz)
11	XC OUT	O	Sub system clock signal output (32.768 kHz)
12	RESET	I	System reset signal input from the reset signal IC “L”: reset After the power supply rises, “L” is input for several hundreds msec and then change to “H”.
13	X OUT	O	Main system clock signal output (16 MHz)
14	VSS	—	Ground pin
15	X IN	I	Main system clock signal input (16 MHz)
16	VCC	—	Power supply pin (+3.3 V)
17	NMI	I	Non-maskable interrupt input
18	MP3 RESET	O	Reset signal output to MP3 decoder IC
19	SCOR	I	Subcode sync (S0+S1) detection signal input from the digital signal processor
20	AC OUT	I	AC off detection signal input from the reset signal IC “L”: AC cut detected
21	SENS	I	Internal status detection monitor signal input from the digital signal processor
22	CD CLK	O	Serial data transfer clock signal output to the digital signal processor
23	XLAT	O	Serial data latch pulse signal output to the digital signal processor
24	CD DATA	O	Serial data signal output to the digital signal processor
25	XRST	O	Reset signal output to the digital signal processor and the motor/col driver “L”: reset
26	XTCN	O	BD DSP oscillation on/off control signal output “H”: on
27	FAN CTRL	I	Not used in this set. (Open)
28	STBY RELAY	O	Main power on/off control signal output “H”: power on
29	IIC CLK	I/O	Clock signal for IIC communication between master control IC and display control IC
30	IIC DATA	I/O	Data signal for IIC communication between master control IC and display control IC
31	MP3 STB	O	Standby mode signal output to MP3 decoder IC “L”: standby mode
32	REC MUTE	O	Recording muting on/off control signal output “L”: muting on
33	AC CUT MAIN	I	Under voltage protection detection signal input “L”: under voltage detected
34	LINE MUTE	O	Line muting on/off control signal output “H”: muting on
35	VMUTE2	I	Not used in this set. (Open)
36	VMUTE	I	Not used in this set. (Open)
37	SYS RST	I	Not used in this set. (Open)
38	MREQ	I	Not used in this set. (Open)
39	AMS MUTE	O	AMS signal muting on/off control signal output “H”: muting on
40	CD POWER	O	Power on/off control signal output “H”: power on
41	CD A MUTE	O	CD analog signal muting on/off control signal output “H”: power on
42	TSSENS	I	Disc tray position detection signal input from CDM
43	DSSENS	I	Disc existence detection signal input from CDM

Pin No.	Pin Name	I/O	Pin Description
44	OC SW1	I	Disc tray status detection signal input from CDM
45	CHK SW	I	Disc tray status detection signal input from CDM
46	OC SW2	I	Disc tray status detection signal input from CDM
47	TBL NEG	O	CDM turning motor control signal output
48	TBL POS	O	CDM turning motor control signal output
49	LOG NEG	O	CDM loading motor control signal output
50	LOG POS	O	CDM loading motor control signal output
51	A PLAY	I	Deck A playback detection signal input “H”: deck A play
52	A TRIG	O	Deck A side trigger plunger drive signal output “H”: plunger on
53	A HALF	I	Deck A cassette detection signal input “H”: cassette detected
54	CPM CNT2	O	Capstan motor drive signal output
55	REC A	I	Deck B cassette forward side recording tab detection signal input
56	B PLAY	I	Deck B playback detection signal input “H”: deck B play
57	B TRIG	O	Deck B side trigger plunger drive signal output “H”: plunger on
58	REC (REV)	I	Deck B cassette reverse side recording tab detection input
59	TC RELAY	O	Recording/playback selection signal output “H”: recording, “L”: playback
60	BIAS	O	Recording bias on/off control signal output “H”: bias on
61	AMS IN	I	Music detection signal input from automatic music sensor “L”: track playback, “H”: playback of space between track. Use to detect track change.
62	VCC	—	Power supply pin (+3.3 V)
63	TC MUTE	O	Tape playback muting on/off control signal output “H”: muting on
64	VSS	—	Ground pin
65	AUDIO1 DATA	O	Serial data signal output to audio signal processor
66	AUDIO1 CLK	O	Serial data transfer clock signal output to audio signal processor
67	AUDIO2 DATA	O	Serial data signal output to 4-ch volume IC
68	AUDIO2 CLK	O	Serial data transfer clock signal output to 4-ch volume IC
69	ANALOG IN MUTE	O	Soft test signal output Not used in this set. (Open)
70	VIDEO OUT	O	Not used in this set. (Open)
71	C RELAY	I	Not used in this set. (Open)
72	REAR RELAY	O	Relay drive signal output for the surround speakers “H”: relay on
73	DISPLAY KEY	I	DISPLAY key press detection signal input (Interrupt input)
74	POWER KEY	I	POWER key press detection signal input (Interrupt input)
75	GC RESET	O	Reset signal output to display control IC “L”: reset
76	STBY LED	O	LED drive signal output of POWER indicator “H”: LED on
77	HP DET	I	Headphone connection detection signal input “H”: headphone connected
78	FR DET	O	Relay drive signal output for the front speakers “H”: relay on
79	HP MUTE	O	Headphone muting on/off control signal output “L”: muting on
80	STK MUTE	O	Power amplifier and sub woofer amplifier on/off control signal output “H”: amplifier on
81	PROTECT	I	Speaker protect detection signal input from speaker protect circuit “L”: protector on
82	ST CLK	O	PLL serial data transfer clock signal output to the tuner unit
83	ST DIN	I	PLL serial data signal input from the tuner unit
84	ST DOUT	O	PLL serial data signal output to the tuner unit
85	ST CE	O	PLL chip enable signal output to the tuner unit
86	TUNED	I	Tuning detection signal input from the tuner unit “L”: tuned
87	STEREO	I	FM stereo detection signal input from the tuner unit “L”: stereo
88	ST MUTE	O	Tuner muting on/off control signal output “H”: muting on

Pin No.	Pin Name	I/O	Pin Description
89	A SHUT	I	Shut off detection signal input from deck A side reel pulse detection (A/D input)
90	B SHUT	I	Shut off detection signal input from deck A side reel pulse detection (A/D input)
91	B HALF	I	Deck B cassette detection signal input “L”: cassette detected
92	MODEL IN	I	Model setting pin (A/D input)
93	DEST IN	I	Destination setting pin (A/D input)
94	I HOLD	I	Over voltage protection detection signal input “L”: over voltage detected
95	MIC DET	I	BPM value detection for high frequency pin (A/D input)
96	AVSS	—	Ground pin (for A/D conversion)
97	BPM DET LO	I	BPM value detection for high frequency pin (A/D input)
98	VREF	I	A/D converter reference voltage signal input (+3.3 V)
99	AVCC	—	Power supply pin (+3.3 V) (for A/D conversion)
100	MP3 REQ	I	Request signal input from MP3 decoder IC

• IC901 MB90M407PF-G-141-BNDE1 (SYSTEM CONTROL) (PANEL BOARD)

Pin No.	Pin Name	I/O	Pin Description
1 to 4	G4 to G1	O	Grid drive signal output to the fluorescent indicator tube
5 to 10	SEG-1 to SEG-6	O	Segment drive signal output to the fluorescent indicator tube
11	VSS-IO	—	Ground pin (for I/O port)
12 to 22	SEG-7 to SEG-17	O	Segment drive signal output to the fluorescent indicator tube
23	VDD-FIP	—	Power supply pin (+3.3 V) (for fluorescent indicator tube)
24 to 41	SEG-18 to SEG-35	O	Segment drive signal output to the fluorescent indicator tube
42	VSS-IO	—	Ground pin (for I/O port)
43	SEG-36	O	Segment drive signal output to the fluorescent indicator tube
44	TAPE A LED	O	Dynamic LED drive signal output of the TAPE A FWD PLAY indicator and TAPE A REV PLAY indicator “H”: LED on
45	SPK MODE LED	O	Dynamic LED drive signal output of the X-ROUND indicator “H”: LED on
46	CD LED	O	Dynamic LED drive signal output of the CD PLAY PAUSE indicator “H”: LED on
47	GAME, REC LED	O	Dynamic LED drive signal output of the GAME indicator and REC PAUSE indicator “H”: LED on
48	VKK	—	Power supply pin (–33 V) (for fluorescent indicator tube)
49	MD0	I	Setting pin for the CPU operational mode
50	MD1/VDD-VFT	I	Setting pin for the CPU operational mode
51	MD2	I	Setting pin for the CPU operational mode
52	VOL 1, 2	O	Dynamic LED drive signal output of the ILLUMINATION 1st indicator and 2nd indicator “H”: LED on
53	VOL 3, 4	O	Dynamic LED drive signal output of the ILLUMINATION 3rd indicator and 4th indicator “H”: LED on
54	VOL 5, 6	O	Dynamic LED drive signal output of the ILLUMINATION 5th indicator and 6th indicator “H”: LED on
55	VOL 7, 8	O	Dynamic LED drive signal output of the ILLUMINATION 7th indicator and 8th indicator “H”: LED on
56	VOL 9, 10	O	Dynamic LED drive signal output of the ILLUMINATION 9th indicator and 10th indicator “H”: LED on
57	VOL 11, TUNER BAND	O	Dynamic LED drive signal output of the ILLUMINATION 11th indicator and TUNER BAND indicator “H”: LED on
58	TAPE B LED	O	Dynamic LED drive signal output of the TAPE B FWD PLAY indicator and TAPE B REV PLAY indicator “H”: LED on
59	LED SELECT	O	Dynamic LED drive select signal output “L”: LED line ILLUMINATION 1, 3, 5, 7, 9, 11, TAPE B REV PLAY, TAPE A REV PLAY, X-ROUND, CD PLAY PAUSE and GAME is selected. “H”: LED line ILLUMINATION 2, 4, 6, 8, 10, TUNER/BAND, REC PAUSE/START, TAPE B FWD PLAY and TAPE A FWD PLAY is selected.
60	I2C DAT	I/O	Clock signal for IIC communication between master control IC and display control IC
61	I2C CLK	I/O	Data signal for IIC communication between master control IC and display control IC
62	AVCC	—	Power supply pin (+3.3 V) (for A/D conversion)
63	AVSS	—	Ground pin (for A/D conversion)
64 to 69	KEY 0 to KEY 5	I	Key signal input (A/D input)
70 to 73	BPF1-F01 to BPF3-F04	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter (A/D input)
74	ALL-BAND	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter (A/D input)

HCD-ZX6/ZX8

Pin No.	Pin Name	I/O	Pin Description
75	JOG A	I	Jog dial pulse signal input from X-ROUND JOG rotary encoder (B phase input)
76	JOG B	I	Jog dial pulse signal input from X-ROUND JOG rotary encoder (A phase input)
77	RESET	I	System reset signal input from the master control IC “L”; reset
78	SOFT TEST	O	Output for the software test point
79	VOL B	I	Jog dial pulse signal input from VOLUME rotary encoder (B phase input)
80	VOL A	I	Jog dial pulse signal input from VOLUME rotary encoder (A phase input)
81	VSS-CPU	—	Ground pin (for CPU)
82	XOUT	O	System clock signal output (4 MHz)
83	XIN	I	System clock signal input (4 MHz)
84	VCC-CPU	—	Power supply pin (+3.3 V) (for CPU)
85	NO USE	—	Not used. (Fixed at “L” in this set.)
86 to 100	G19 to G5	O	Grid drive signal output to the fluorescent indicator tube

SECTION 8 EXPLODED VIEWS

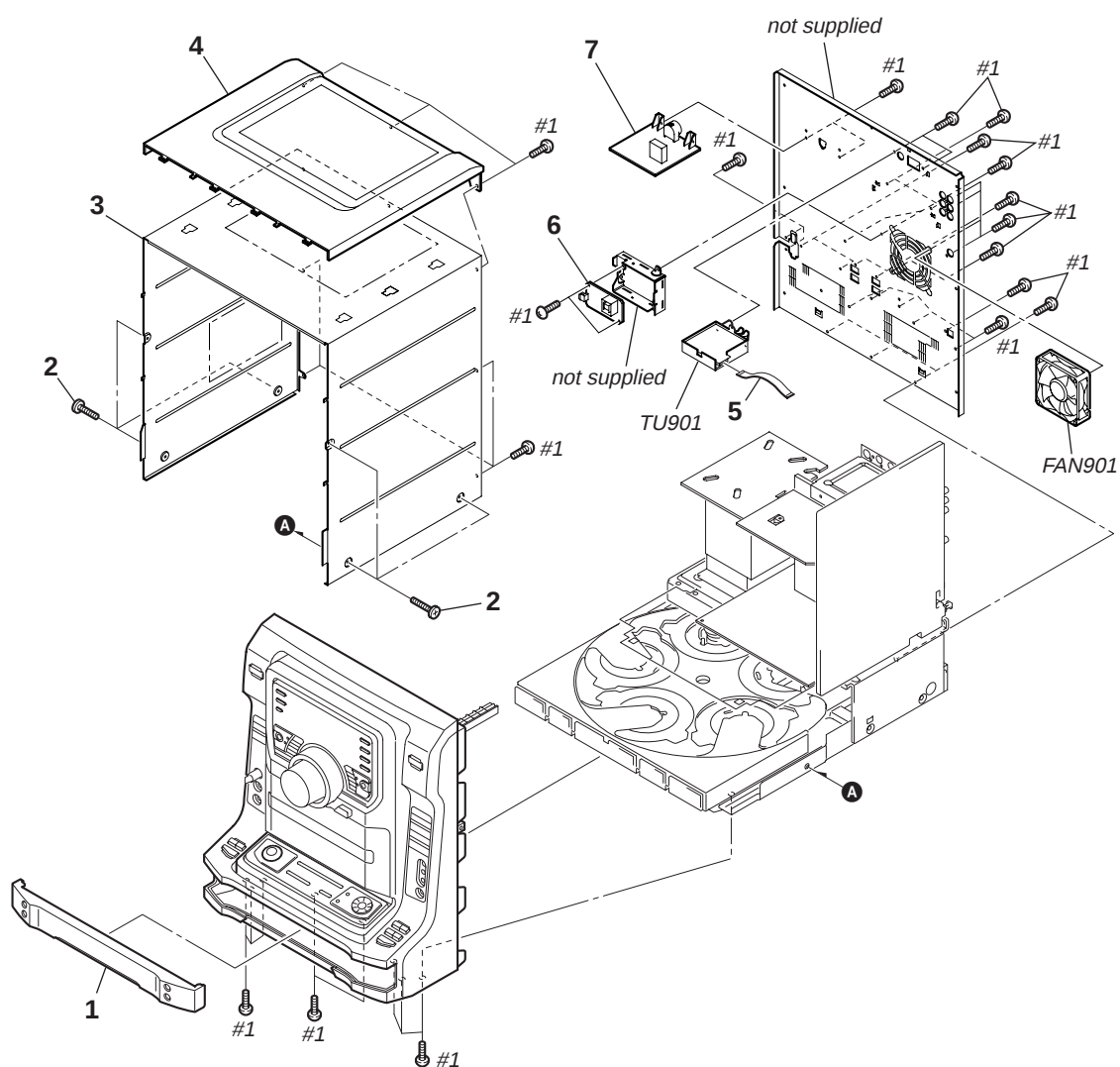
NOTE:

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

- Accessories are given in the last of this parts list.
- Abbreviation
E2 : 120 V AC area in E model
E51 : Chilean and Peruvian model
MX : Mexican model

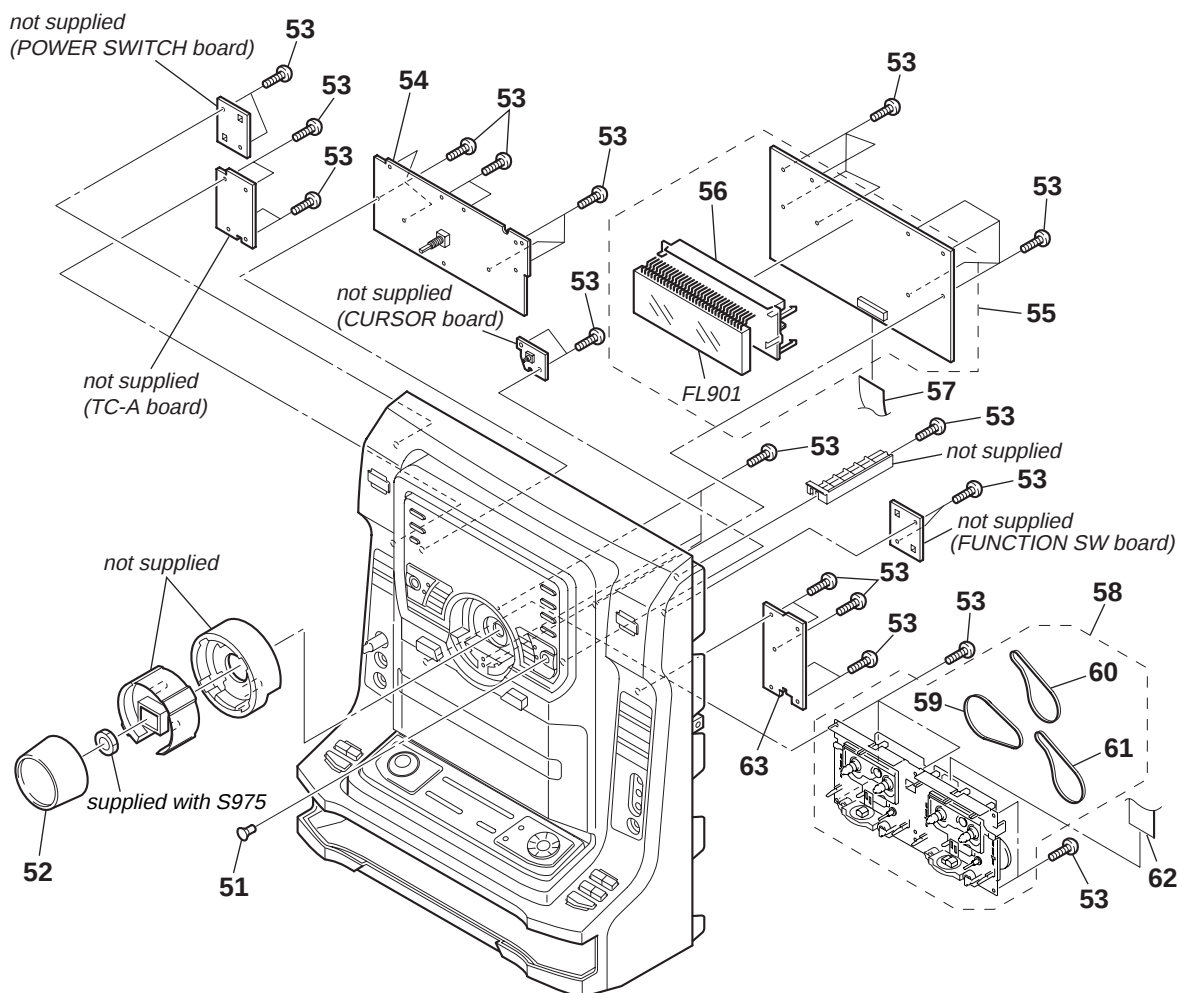
The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety. Replace only with part number specified.

8-1. BACK PANEL SECTION



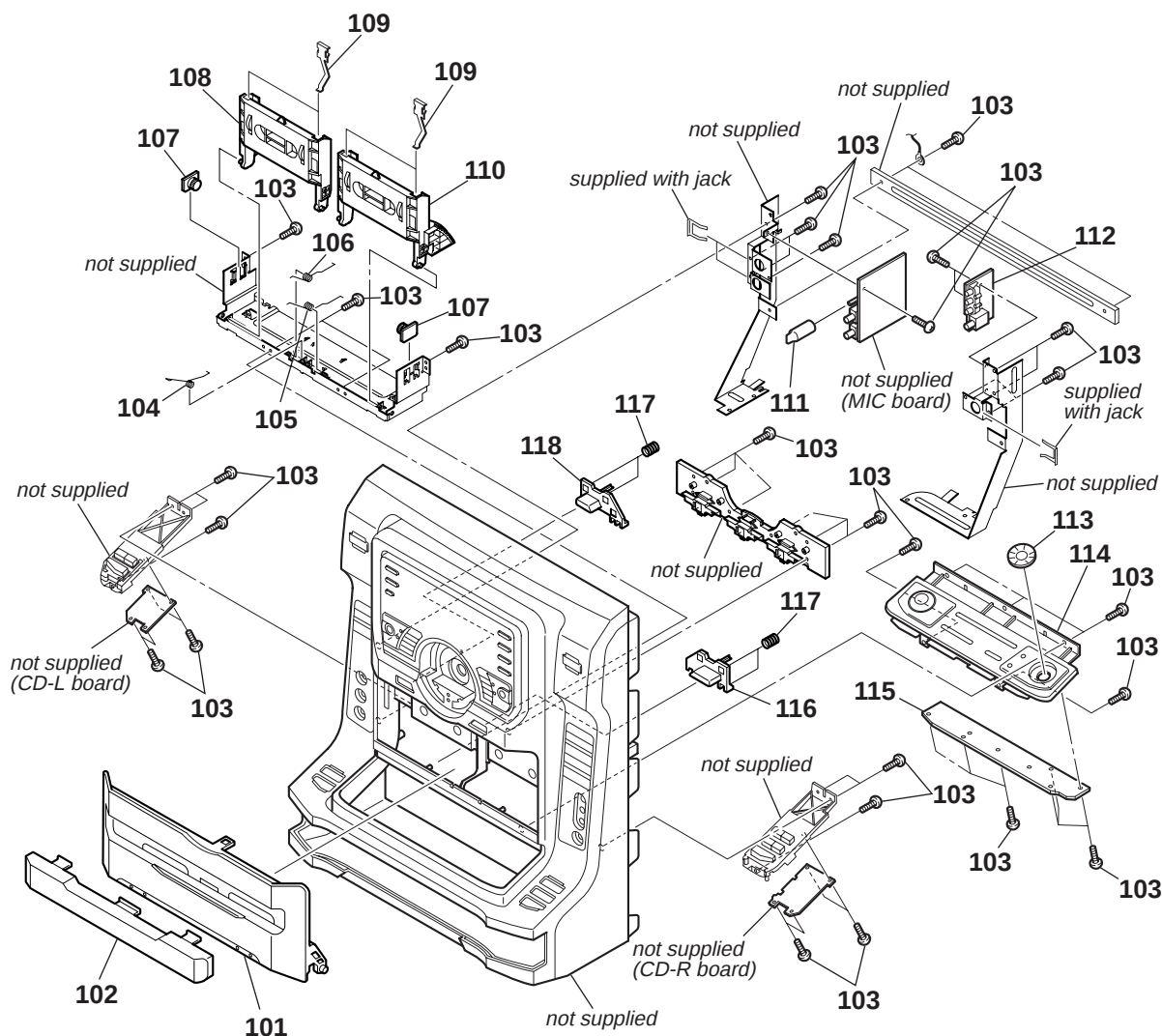
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-252-686-01	PANEL, LOADING		7	1-861-384-11	VOLTAGE SELECTOR BOARD	
2	3-363-099-32	SCREW (CASE 3 TP2)		FAN901	1-763-072-11	FAN, DC (ZX6)	
3	4-237-661-31	CASE		FAN901	1-763-372-11	FAN, DC (ZX8)	
4	4-252-685-01	COVER (TOP)		TU901	1-693-603-11	TUNER (FM/AM) (ANTENNA)	
5	1-769-939-11	WIRE (FLAT TYPE) (11 CORE)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
$\triangle$ 6	1-468-737-21	POWER, SWITCHING					

8-2. FRONT PANEL SECTION (1)



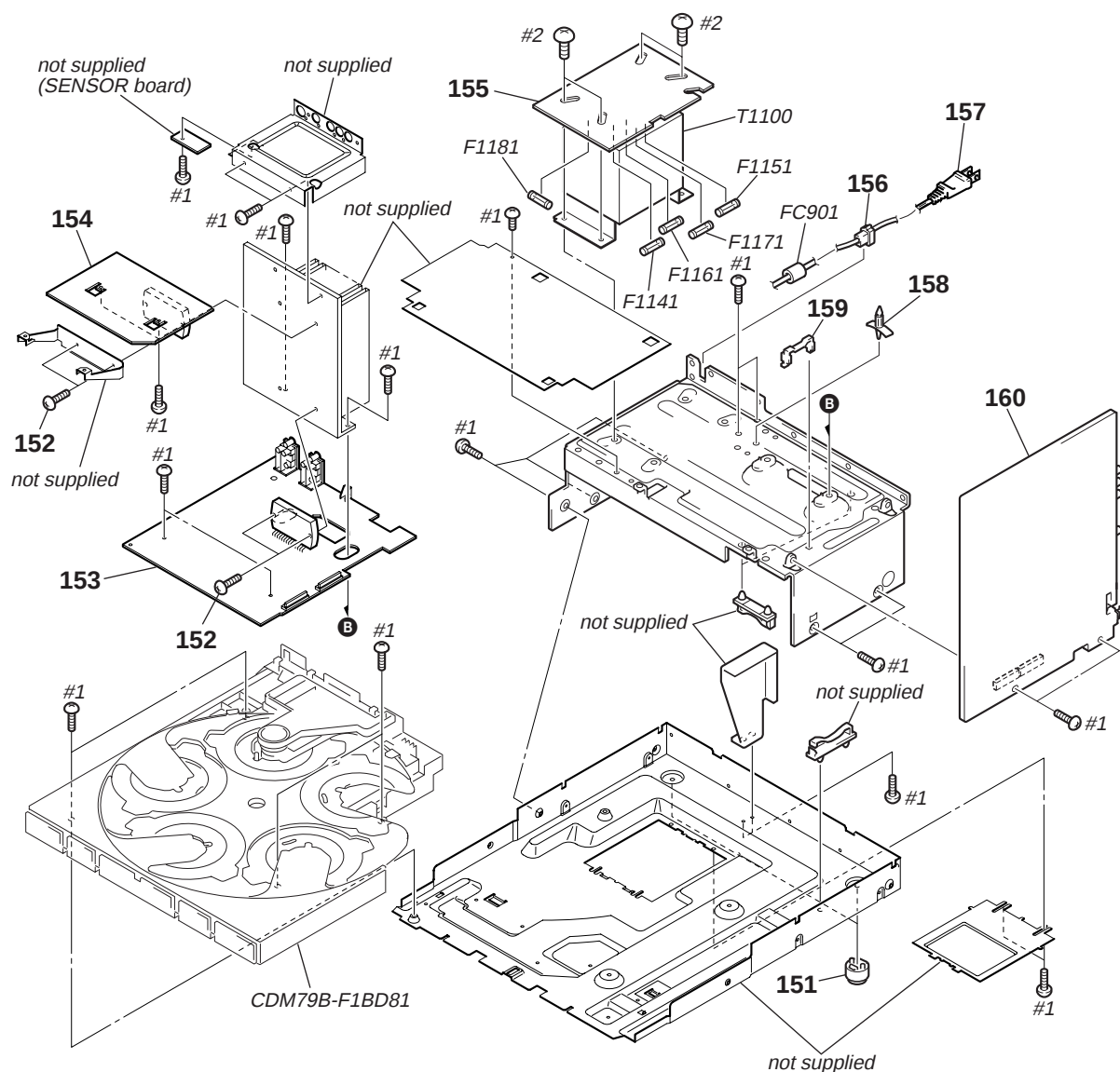
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-252-682-01	KNOB (ENTER)		57	1-773-163-11	WIRE (FLAT TYPE) (21 CORE)	
52	4-252-684-01	KNOB (VOLUME)		58	1-796-487-51	DECK, MECHANICAL (E2,E51)	
53	4-951-620-01	SCREW (2.6X8), +BVTP		58	1-796-487-61	DECK, MECHANICAL (MX)	
54	A-1052-687-A	VOL BOARD, COMPLETE (ZX8:MX)		59	4-243-609-01	BELT (AF)	
54	A-4751-069-A	VOL BOARD, COMPLETE (ZX8:E2,E51)		60	4-243-610-01	BELT (AL)	
54	A-4751-091-A	VOL BOARD, COMPLETE (ZX6)		61	4-243-608-01	BELT (BR)	
55	A-4751-072-A	PANEL BOARD, COMPLETE (ZX8:E2,E51)		62	1-769-992-11	WIRE (FLAT TYPE) (13 CORE)	
55	A-4751-093-A	PANEL BOARD, COMPLETE (ZX6)		63	A-1052-746-A	TC-B BOARD, COMPLETE (MX)	
55	A-4753-562-A	PANEL BOARD, COMPLETE (ZX8:MX)		63	A-4751-063-A	TC-B BOARD, COMPLETE (E2,E51)	
56	4-253-178-01	HOLDER, FL		FL901	1-518-978-11	VACUUM FLUORESCENT DISPLAY	

8-3. FRONT PANEL SECTION (2)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-252-649-01	LID (TC) (ZX6)		112	A-4751-053-A	GAME-IN/HP BOARD, COMPLETE (ZX8:E2,E51)	
101	4-252-649-11	LID (TC) (ZX8)		112	A-4751-095-A	GAME-IN/HP BOARD, COMPLETE (ZX6)	
102	4-252-650-01	WINDOW (TC)		112	A-4753-550-A	GAME-IN/HP BOARD, COMPLETE (ZX8:MX)	
103	4-951-620-01	SCREW (2.6X8), +BVTP		113	4-252-683-01	KNOB (JOG)	
104	4-252-677-01	SPRING (LID)		114	X-4956-237-1	BRACKET CD ASSY (ZX8)	
105	4-252-679-01	SPRING (R)		114	X-4956-239-1	BRACKET CD ASSY (ZX6)	
106	4-252-678-01	SPRING (L)		115	A-1053-210-A	JOG BOARD, COMPLETE (ZX8:MX)	
107	4-224-104-11	DAMPER		115	A-4751-078-A	JOG BOARD, COMPLETE (ZX8:E2,E51)	
108	4-252-651-01	HOLDER (TC-L)		115	A-4751-092-A	JOG BOARD, COMPLETE (ZX6)	
109	4-959-229-11	DETENT, CASSETTE		116	4-252-654-02	BUTTON (EJECT-B)	
110	4-252-652-01	HOLDER (TC-R)		117	4-254-779-01	SPRING (EJECT)	
111	4-237-635-03	KNOB (MIC) (MX)		118	4-252-653-02	BUTTON (EJECT-A)	
111	4-237-635-11	KNOB (MIC) (E2,E51)					

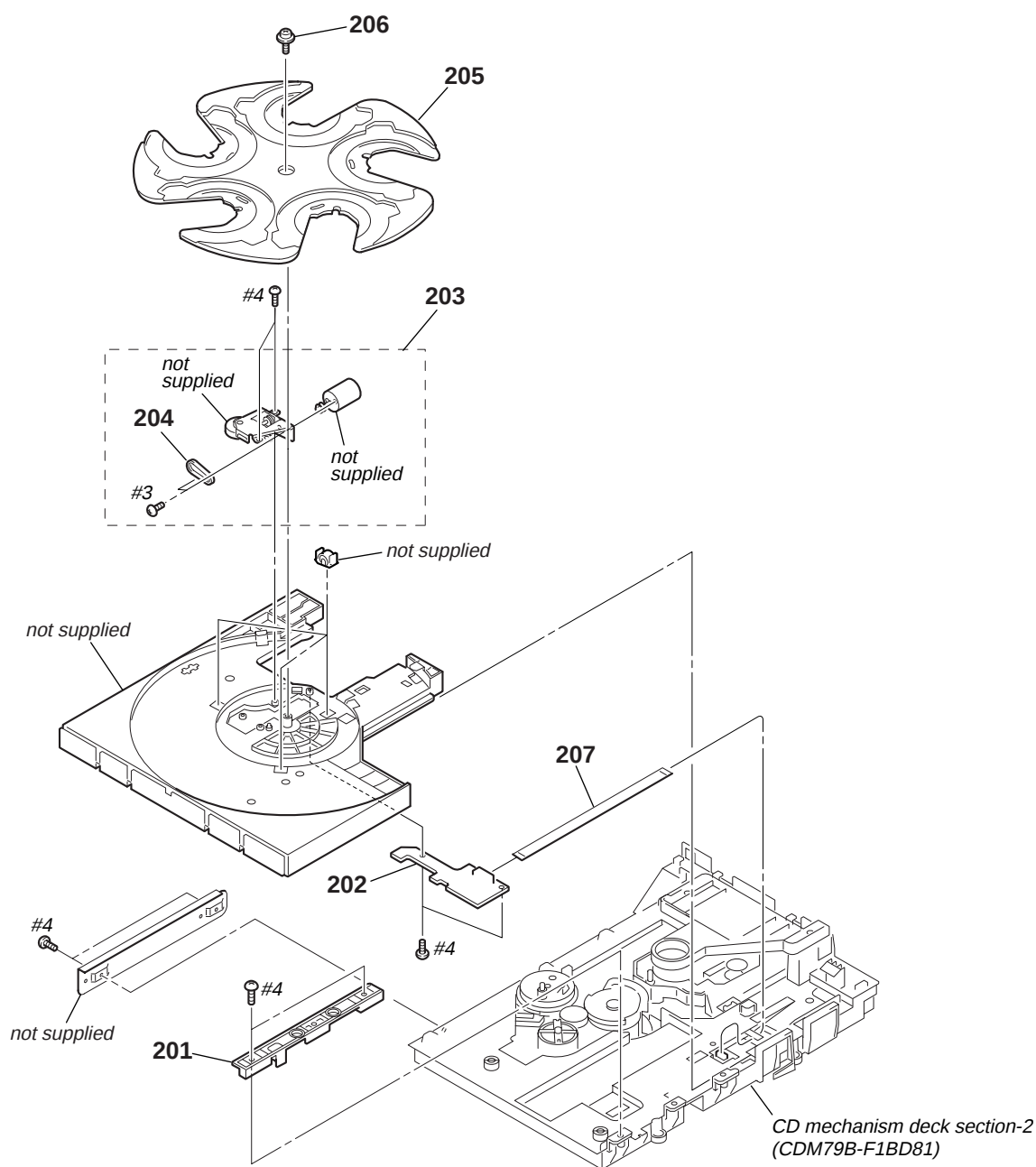
8-4. CHASSIS SECTION



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

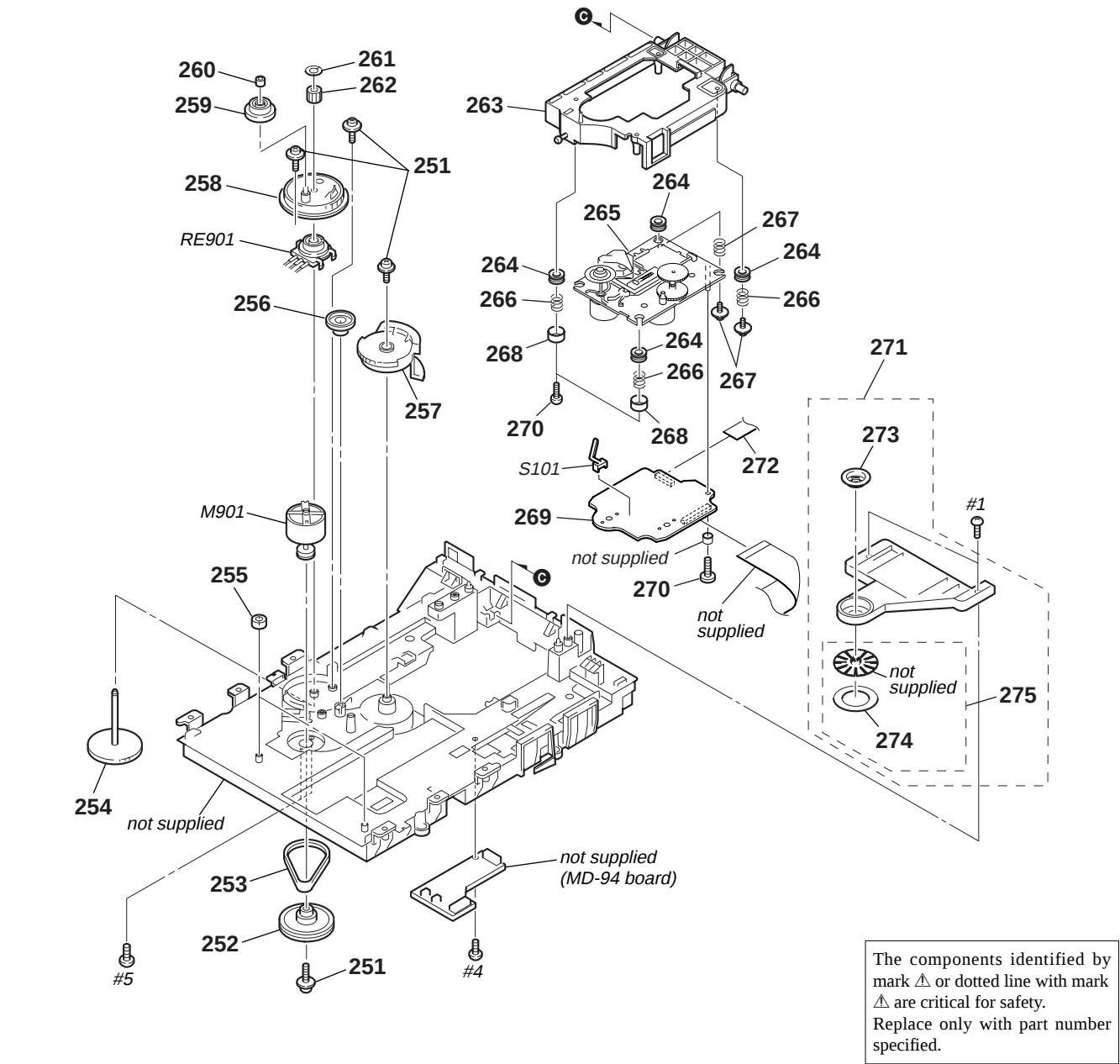
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	4-965-822-01	FOOT		160	A-1058-331-A	MAIN BOARD, COMPLETE (ZX8:MX)	
152	3-905-609-41	SCREW (TRANSISTOR)		160	A-4751-049-A	MAIN BOARD, COMPLETE (ZX8:E2,E51)	
153	A-4751-050-A	POWER BOARD, COMPLETE (ZX8:E2,E51)		160	A-4751-086-A	MAIN BOARD, COMPLETE (ZX6)	
153	A-4751-105-A	POWER BOARD, COMPLETE (ZX6)		$\triangle$ F1141	1-576-655-12	FUSE, GLASS TUBE (DIA.5) (8A/250V)	
153	A-4753-555-A	POWER BOARD, COMPLETE (ZX8:MX)		$\triangle$ F1151	1-576-655-12	FUSE, GLASS TUBE (DIA.5) (8A/250V)	
154	A-1052-527-A	SURROUND BOARD, COMPLETE (ZX8:MX)		$\triangle$ F1161	1-576-655-12	FUSE, GLASS TUBE (DIA.5) (8A/250V)	
154	A-4751-060-A	SURROUND BOARD, COMPLETE (ZX8:E2,E51)		$\triangle$ F1171	1-576-655-12	FUSE, GLASS TUBE (DIA.5) (8A/250V)	
155	1-861-385-11	TRANS BOARD		$\triangle$ F1181	1-533-471-12	FUSE, GLASS TUBE (DIA.5) (4A/250V)	
* 156	3-703-244-00	BUSHING (2104), CORD (E51)		FC901	1-500-497-11	FILTER, CLAMP (FERRITE CORE)	
156	3-703-571-11	BUSHING (S) (4516), CORD (E2,MX)		$\triangle$ T1100	1-443-194-11	TRANSFORMER, POWER (ZX6)	
$\triangle$ 157	1-777-071-53	CORD, POWER (E51)		$\triangle$ T1100	1-443-195-11	TRANSFORMER, POWER (ZX8:MX)	
$\triangle$ 157	1-827-226-11	CORD, POWER (E2,MX)		$\triangle$ T1100	1-443-196-11	TRANSFORMER, POWER (ZX8:E2,E51)	
* 158	4-954-051-41	HOLDER, PC BOARD		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
* 159	4-988-533-01	HOLDER, PWB		#2	7-685-881-09	SCREW +BVTT 4X8 (S)	

8-5. CD MECHANISM SECTION (1)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	3-074-737-01	PLATE (GUIDE)		206	4-218-252-52	SCREW (+PTPWH M2.6), FLOATING	
202	A-6060-642-A	SE-130 BOARD, COMPLETE		207	1-823-921-11	FMS-18	
203	A-6060-640-A	UNIT ASSY, TD		#3	7-682-544-04	+B 3X3	
204	3-074-725-01	BELT, TD		#4	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
205	3-074-717-21	TRAY					

8-6. CD MECHANISM SECTION (2)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	4-218-252-52	SCREW (+PTPWH M2.6), FLOATING		267	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
252	3-074-744-01	GEAR (LOADING A)		268	4-231-151-01	STOPPER (BU)	
253	3-074-745-01	BELT (LOADING)		269	A-4751-045-A	BD81A BOARD, COMPLETE	
254	3-074-742-01	GEAR (SHAFT)		270	4-951-620-01	SCREW (2.6X8), +BVTP	
255	4-951-619-01	CUSHION (A)		271	A-4713-281-A	CHUCK ASSY	
256	3-074-735-01	GEAR (IDOLER)		272	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)	
257	3-074-736-01	GEAR (CHUCK)		273	1-452-925-21	MAGNET ASSY	
258	3-074-741-01	GEAR (LOADING B)		274	4-231-777-02	SHEET (KH2)	
259	3-074-738-01	GEAR (SWING)		275	X-4953-195-3	PULLEY (AT) ASSY	
260	3-074-739-01	COLLAR (SWING)		M901	1-541-632-12	MOTOR, DC (LOADING)	
261	3-016-533-01	WASHER (FR), STOPPER		RE901	1-418-746-11	ENCODER, ROTARY	
262	3-074-740-01	GEAR (LOADING C)		S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	
263	X-4956-104-A	HOLDER (BU) ASSY		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
264	4-227-549-11	INSULATOR		#4	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
$\triangle$ 265	8-820-244-01	OPTICAL PICK-UP (KSM-215DCP/C2RP)		#5	7-621-259-25	SCREW +P 2.6X4	
266	4-227-045-11	SPRING (INSULATOR), COIL					

SECTION 9

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example:
uA.. : μ A.. uPA.. : μ PA..
uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..
- CAPACITORS
uF : μ F
- COILS
uH : μ H

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

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

• Abbreviation

E2 : 120 V AC area in E model
E51 : Chilean and Peruvian model
MX : Mexican model

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
	A-4751-045-A	BD81A BOARD, COMPLETE	*****				C201	1-128-995-21	ELECT CHIP	100uF	20%	10V	
							C203	1-128-995-21	ELECT CHIP	100uF	20%	10V	
		< CAPACITOR >					C209	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
							C210	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
							C211	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	
C10	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V		C212	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
C11	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V		C213	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
C14	1-164-360-11	CERAMIC CHIP	0.1uF		16V		C251	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V	
C15	1-164-360-11	CERAMIC CHIP	0.1uF		16V		C252	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C16	1-115-156-11	CERAMIC CHIP	1uF		10V		C255	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C17	1-126-246-11	ELECT CHIP	220uF	20%	4V		C257	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C18	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V		C258	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C111	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V		C259	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C112	1-164-315-11	CERAMIC CHIP	470PF	5%	50V		C260	1-128-394-11	ELECT CHIP	220uF	20%	10V	
C113	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V		C302	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C114	1-164-315-11	CERAMIC CHIP	470PF	5%	50V		C303	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C115	1-164-360-11	CERAMIC CHIP	0.1uF		16V		C305	1-126-246-11	ELECT CHIP	220uF	20%	4V	
C116	1-128-995-21	ELECT CHIP	100uF	20%	10V		C306	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C122	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V		C307	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C123	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V		C308	1-126-208-21	ELECT CHIP	47uF	20%	4V	
C124	1-162-959-11	CERAMIC CHIP	330PF	5%	50V		C309	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C125	1-164-360-11	CERAMIC CHIP	0.1uF		16V		C310	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C131	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		C311	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C132	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V		C312	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C133	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		C313	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
C134	1-164-360-11	CERAMIC CHIP	0.1uF		16V		C314	1-126-208-21	ELECT CHIP	47uF	20%	4V	
C141	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V		C315	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C142	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V		C316	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	
C143	1-164-360-11	CERAMIC CHIP	0.1uF		16V		C317	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C151	1-128-995-21	ELECT CHIP	100uF	20%	10V		C318	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C161	1-164-360-11	CERAMIC CHIP	0.1uF		16V		C320	1-216-864-11	SHORT CHIP	0			
C162	1-164-360-11	CERAMIC CHIP	0.1uF		16V				< CONNECTOR >				
C163	1-164-360-11	CERAMIC CHIP	0.1uF		16V		CN101	1-770-425-11	CONNECTOR, FFC/FPC 16P				
C171	1-162-919-11	CERAMIC CHIP	22PF	5%	50V		CN201	1-818-350-11	CONNECTOR (FFC) 27P				
C172	1-162-920-11	CERAMIC CHIP	27PF	5%	50V				< FERRITE BEAD >				
C174	1-164-360-11	CERAMIC CHIP	0.1uF		16V		FB301	1-500-445-21	FERRITE, EMI (SMD) (2012)				
C181	1-164-360-11	CERAMIC CHIP	0.1uF		16V				< IC >				
C182	1-164-360-11	CERAMIC CHIP	0.1uF		16V		IC101	8-752-425-12	IC CXD3059AR				
C183	1-124-778-00	ELECT CHIP	22uF	20%	6.3V		IC251	6-705-808-01	IC BA5947FM				
C184	1-124-778-00	ELECT CHIP	22uF	20%	6.3V		IC301	6-705-365-01	IC TC94A34FG-002				
C185	1-164-315-11	CERAMIC CHIP	470PF	5%	50V		IC303	6-705-807-01	IC BH15FB1WG				
C186	1-164-315-11	CERAMIC CHIP	470PF	5%	50V								
C194	1-164-360-11	CERAMIC CHIP	0.1uF		16V								
C195	1-164-360-11	CERAMIC CHIP	0.1uF		16V								
C196	1-164-360-11	CERAMIC CHIP	0.1uF		16V								

HCD-ZX6/ZX8

BD81A	CD-L	CD-R
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Ref. No.	Part No.	Description	Remark		
< TRANSISTOR >					
Q10	6-550-363-01	TRANSISTOR 2SB1690KT146			
< RESISTOR >					
R10	1-216-791-11	METAL CHIP 3.3	5%	1/10W	
R11	1-216-864-11	SHORT CHIP 0			
R12	1-216-845-11	METAL CHIP 100K	5%	1/10W	
R13	1-218-446-11	METAL CHIP 1	5%	1/10W	
R111	1-216-821-11	METAL CHIP 1K	5%	1/10W	
R112	1-216-835-11	METAL CHIP 15K	5%	1/10W	
R113	1-216-821-11	METAL CHIP 1K	5%	1/10W	
R114	1-216-835-11	METAL CHIP 15K	5%	1/10W	
R121	1-216-835-11	METAL CHIP 15K	5%	1/10W	
R131	1-216-857-11	METAL CHIP 1M	5%	1/10W	
R132	1-216-833-11	METAL CHIP 10K	5%	1/10W	
R133	1-216-848-11	METAL CHIP 180K	5%	1/10W	
R141	1-216-829-11	METAL CHIP 4.7K	5%	1/10W	
R142	1-216-821-11	METAL CHIP 1K	5%	1/10W	
R143	1-216-827-11	METAL CHIP 3.3K	5%	1/10W	
R151	1-216-864-11	SHORT CHIP 0			
R161	1-216-809-11	METAL CHIP 100	5%	1/10W	
R162	1-216-841-11	METAL CHIP 47K	5%	1/10W	
R163	1-216-809-11	METAL CHIP 100	5%	1/10W	
R165	1-216-864-11	SHORT CHIP 0			
R171	1-216-817-11	METAL CHIP 470	5%	1/10W	
R172	1-216-857-11	METAL CHIP 1M	5%	1/10W	
R173	1-216-295-11	SHORT CHIP 0			
R181	1-216-809-11	METAL CHIP 100	5%	1/10W	
R182	1-216-809-11	METAL CHIP 100	5%	1/10W	
R191	1-216-864-11	SHORT CHIP 0			
R201	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R203	1-216-864-11	SHORT CHIP 0			
R204	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R205	1-216-864-11	SHORT CHIP 0			
R251	1-216-833-11	METAL CHIP 10K	5%	1/10W	
R252	1-216-837-11	METAL CHIP 22K	5%	1/10W	
R253	1-216-833-11	METAL CHIP 10K	5%	1/10W	
R301	1-216-845-11	METAL CHIP 100K	5%	1/10W	
R302	1-216-833-11	METAL CHIP 10K	5%	1/10W	
R303	1-216-845-11	METAL CHIP 100K	5%	1/10W	
R305	1-216-845-11	METAL CHIP 100K	5%	1/10W	
R306	1-216-864-11	SHORT CHIP 0			
R307	1-216-833-11	METAL CHIP 10K	5%	1/10W	
R313	1-216-813-11	METAL CHIP 220	5%	1/10W	
R351	1-216-809-11	METAL CHIP 100	5%	1/10W	
R352	1-216-809-11	METAL CHIP 100	5%	1/10W	
R353	1-216-809-11	METAL CHIP 100	5%	1/10W	
R354	1-216-809-11	METAL CHIP 100	5%	1/10W	
R401	1-216-809-11	METAL CHIP 100	5%	1/10W	
R402	1-216-809-11	METAL CHIP 100	5%	1/10W	
R403	1-216-809-11	METAL CHIP 100	5%	1/10W	
R404	1-216-809-11	METAL CHIP 100	5%	1/10W	
R405	1-216-809-11	METAL CHIP 100	5%	1/10W	
R406	1-216-809-11	METAL CHIP 100	5%	1/10W	
R407	1-216-809-11	METAL CHIP 100	5%	1/10W	
R408	1-216-809-11	METAL CHIP 100	5%	1/10W	
R409	1-216-809-11	METAL CHIP 100	5%	1/10W	

Ref. No.	Part No.	Description	Remark			
R410	1-216-809-11	METAL CHIP	100	5%	1/10W	
R411	1-216-809-11	METAL CHIP	100	5%	1/10W	
R412	1-216-809-11	METAL CHIP	100	5%	1/10W	
R419	1-216-809-11	METAL CHIP	100	5%	1/10W	
< VIBRATOR >						
X171	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)				

CD-L BOARD						

< CONNECTOR >						
CN911	1-564-718-11	PIN, CONNECTOR (SMALL TYPE) 2P				
< RESISTOR >						
R834	1-216-835-11	METAL CHIP	15K	5%	1/10W	
R866	1-216-839-11	METAL CHIP	33K	5%	1/10W	
R896	1-216-837-11	METAL CHIP	22K	5%	1/10W	
< SWITCH >						
S937	1-771-410-21	SWITCH, TACTILE (EDIT)				
S938	1-771-410-21	SWITCH, TACTILE (REPEAT)				
S939	1-771-410-21	SWITCH, TACTILE (PLAY MODE)				

CD-R BOARD						

< DIODE >						
D926	8-719-060-27	LED SLR-325MCT31 (▶▶)				
< TRANSISTOR >						
Q917	8-729-027-43	TRANSISTOR DTC114EKA-T146				
< RESISTOR >						
R872	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R873	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R874	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W	
R875	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R876	1-216-835-11	METAL CHIP	15K	5%	1/10W	
R877	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R878	1-216-819-11	METAL CHIP	680	5%	1/10W	
R879	1-216-819-11	METAL CHIP	680	5%	1/10W	
R881	1-216-809-11	METAL CHIP	100	5%	1/10W	
< SWITCH >						
S950	1-771-410-21	SWITCH, TACTILE (▶▶▶)				
S951	1-771-410-21	SWITCH, TACTILE (<<<)				
S952	1-771-410-21	SWITCH, TACTILE (▶▶▶)				
S953	1-771-410-21	SWITCH, TACTILE (▶▶▶)				
S954	1-771-410-21	SWITCH, TACTILE (■)				
S955	1-771-410-21	SWITCH, TACTILE (▶▶)				

CURSOR

FUNCTION SW

GAME-IN/HP

JOG

Ref. No.	Part No.	Description	Remark			
		CURSOR BOARD	*****			
		< RESISTOR >				
R978	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R979	1-216-835-11	METAL CHIP	15K	5%	1/10W	
R980	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R981	1-216-839-11	METAL CHIP	33K	5%	1/10W	
R982	1-216-843-11	METAL CHIP	68K	5%	1/10W	
		< SWITCH >				
S970	1-771-879-11	SWITCH, TACTILE (ENTER ↑, ↓, ←, →)	*****			
		FUNCTION SW BOARD	*****			
		< RESISTOR >				
R832	1-216-837-11	METAL CHIP	22K	5%	1/10W	
		< SWITCH >				
S930	1-771-410-21	SWITCH, TACTILE (FUNCTION)	*****			
	A-4751-053-A	GAME-IN/HP BOARD, COMPLETE (ZX8:E2,E51)				
	A-4751-095-A	GAME-IN/HP BOARD, COMPLETE (ZX6)				
	A-4753-550-A	GAME-IN/HP BOARD, COMPLETE (ZX8:MX)	*****			
		< CAPACITOR >				
C840	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C841	1-216-864-11	SHORT CHIP	0			
C842	1-216-864-11	SHORT CHIP	0			
		< CONNECTOR >				
* CN801	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P				
CN802	1-785-328-11	PIN, CONNECTOR (LIGHT ANGLE) 2P				
* CN803	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P				
		< GROUND TERMINAL >				
EPT803	1-537-738-21	TERMINAL, GROUND				
EPT804	1-537-738-21	TERMINAL, GROUND				
		< JACK >				
J850	1-764-592-11	JACK, PIN 3P (GAME INPUT (VIDEO,AUDIO L/R))				
J851	1-770-226-11	JACK (LARGE TYPE) (PHONES)				
		< RESISTOR >				
R826	1-216-809-11	METAL CHIP	100	5%	1/10W	
R827	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R828	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R829	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R830	1-216-821-11	METAL CHIP	1K	5%	1/10W	

Ref. No.	Part No.	Description	Remark			
	A-1053-210-A	JOG BOARD, COMPLETE (ZX8:MX)				
	A-4751-078-A	JOG BOARD, COMPLETE (ZX8:E2,E51)				
	A-4751-092-A	JOG BOARD, COMPLETE (ZX6)	*****			
		< CAPACITOR >				
C964	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	(ZX8)
C965	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	(ZX8)
		< DIODE >				
D925	8-719-061-96	LED SLR-325DCT31 (X-ROUND ON/OFF) (ZX8)				
		< TRANSISTOR >				
Q916	8-729-027-43	TRANSISTOR DTC114EKA-T146 (ZX8)				
		< RESISTOR >				
R871	1-216-809-11	METAL CHIP	100	5%	1/10W	(ZX8)
R882	1-216-819-11	METAL CHIP	680	5%	1/10W	
R883	1-216-817-11	METAL CHIP	470	5%	1/10W	
R884	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R885	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	
R886	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	
R887	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R888	1-216-819-11	METAL CHIP	680	5%	1/10W	(ZX8)
R889	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
R890	1-216-819-11	METAL CHIP	680	5%	1/10W	(ZX8)
R891	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R893	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W	(ZX8)
R894	1-216-833-11	METAL CHIP	10K	5%	1/10W	(ZX8)
R895	1-216-835-11	METAL CHIP	15K	5%	1/10W	(ZX8)
		< SWITCH >				
S956	1-771-410-21	SWITCH, TACTILE (DISC 1)				
S957	1-478-133-11	ENCODER, ROTARY (JOG) (ZX8)				
S958	1-771-410-21	SWITCH, TACTILE (DISC 2)				
S959	1-771-410-21	SWITCH, TACTILE (DISC 3)				
S960	1-771-410-21	SWITCH, TACTILE (DISC 4)				
S961	1-771-410-21	SWITCH, TACTILE (DISC 5)				
S962	1-771-410-21	SWITCH, TACTILE (▲ OPEN/CLOSE)				
S963	1-771-410-21	SWITCH, TACTILE (EX-CHANGE)				
S964	1-771-410-21	SWITCH, TACTILE (DISC SKIP)				
S965	1-771-410-21	SWITCH, TACTILE (FLASH) (ZX8)				
S966	1-771-410-21	SWITCH, TACTILE (MODE SPEAKER) (ZX8)				
S967	1-771-410-21	SWITCH, TACTILE (X-ROUND ON/OFF) (ZX8)	*****			

HCD-ZX6/ZX8

Ver 1.1

MAIN

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
	A-1058-331-A	MAIN BOARD, COMPLETE (ZX8:MX)					C159	1-126-964-11	ELECT	10uF	20%	50V	
	A-4751-049-A	MAIN BOARD, COMPLETE (ZX8:E2,E51)					C160	1-126-960-11	ELECT	1uF	20%	50V	
	A-4751-086-A	MAIN BOARD, COMPLETE (ZX6)					C161	1-126-964-11	ELECT	10uF	20%	50V	
		*****					C162	1-126-964-11	ELECT	10uF	20%	50V	
							C163	1-126-964-11	ELECT	10uF	20%	50V	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S					C164	1-126-964-11	ELECT	10uF	20%	50V	
		< CAPACITOR >					C165	1-126-964-11	ELECT	10uF	20%	50V	
C101	1-126-964-11	ELECT	10uF	20%	50V		C166	1-126-964-11	ELECT	10uF	20%	50V	
C102	1-126-964-11	ELECT	10uF	20%	50V		C167	1-126-960-11	ELECT	1uF	20%	50V	
C103	1-126-964-11	ELECT	10uF	20%	50V		C168	1-130-483-00	MYLAR	0.01uF	5%	50V	
C104	1-126-964-11	ELECT	10uF	20%	50V		C169	1-126-947-11	ELECT	47uF	20%	35V	
C105	1-126-964-11	ELECT	10uF	20%	50V		C170	1-162-961-11	CERAMIC CHIP	330PF	10%	50V	
							C171	1-136-170-00	FILM	0.27uF	5%	50V	
C106	1-126-960-11	ELECT	1uF	20%	50V		C172	1-126-933-11	ELECT	100uF	20%	16V	
C107	1-164-156-11	CERAMIC CHIP	0.1uF		25V		C173	1-126-933-11	ELECT	100uF	20%	16V	
C108	1-126-947-11	ELECT	47uF	20%	35V								
C109	1-162-960-11	CERAMIC CHIP	220PF	10%	50V		C174	1-126-935-11	ELECT	470uF	20%	16V	
C110	1-126-964-11	ELECT	10uF	20%	50V		C175	1-137-194-81	FILM	0.47uF	5%	50V	
							C176	1-162-963-11	CERAMIC CHIP	680PF	10%	50V	
C111	1-126-959-11	ELECT	0.47uF	20%	50V		C177	1-126-947-11	ELECT	47uF	20%	35V	
C112	1-126-964-11	ELECT	10uF	20%	50V		C178	1-126-960-11	ELECT	1uF	20%	50V	
C115	1-164-156-11	CERAMIC CHIP	0.1uF		25V								
C116	1-126-933-11	ELECT	100uF	20%	16V		C179	1-130-483-00	MYLAR	0.01uF	5%	50V	
C117	1-126-961-11	ELECT	2.2uF	20%	50V		C180	1-126-964-11	ELECT	10uF	20%	50V	
							C182	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C118	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V		C186	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
C119	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V		C187	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
C120	1-126-964-11	ELECT	10uF	20%	50V								
C121	1-100-436-11	CERAMIC CHIP	0.033uF	10%	25V		C191	1-137-150-11	FILM	0.01uF	5%	100V	
C122	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V		C192	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
							C194	1-130-481-00	MYLAR	0.0068uF	5%	50V	
C123	1-162-961-11	CERAMIC CHIP	330PF	10%	50V		C195	1-126-965-11	ELECT	22uF	20%	50V	
C124	1-126-964-11	ELECT	10uF	20%	50V		C196	1-126-947-11	ELECT	47uF	20%	35V	
C126	1-162-963-11	CERAMIC CHIP	680PF	10%	50V								
C128	1-126-959-11	ELECT	0.47uF	20%	50V		C200	1-104-658-11	ELECT	100uF	20%	10V	
C133	1-162-963-11	CERAMIC CHIP	680PF	10%	50V							(ZX8)	
							C204	1-126-964-11	ELECT	10uF	20%	50V	
C134	1-162-963-11	CERAMIC CHIP	680PF	10%	50V							(ZX8)	
C135	1-162-960-11	CERAMIC CHIP	220PF	10%	50V		C205	1-126-964-11	ELECT	10uF	20%	50V	
C136	1-162-960-11	CERAMIC CHIP	220PF	10%	50V							(ZX8)	
C137	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		C219	1-104-658-11	ELECT	100uF	20%	10V	
C138	1-137-194-81	FILM	0.47uF	5%	50V							(ZX8)	
							C220	1-137-189-11	FILM	0.18uF	5%	50V	
C139	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V							(ZX8)	
C140	1-136-170-00	FILM	0.27uF	5%	50V								
C141	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V		C221	1-137-193-11	FILM	0.39uF	5%	50V	
C142	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V							(ZX8)	
C143	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V		C222	1-137-189-11	FILM	0.18uF	5%	50V	
												(ZX8)	
C144	1-100-436-11	CERAMIC CHIP	0.033uF	10%	25V		C223	1-137-193-11	FILM	0.39uF	5%	50V	
C145	1-126-964-11	ELECT	10uF	20%	50V							(ZX8)	
C146	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V		C226	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C147	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V							(ZX8)	
C148	1-126-961-11	ELECT	2.2uF	20%	50V		C227	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
												(ZX8)	
C149	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V								
C150	1-164-156-11	CERAMIC CHIP	0.1uF		25V		C233	1-126-964-11	ELECT	10uF	20%	50V	
C151	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V							(ZX8)	
C152	1-137-427-11	MYLAR	120PF	5%	50V		C235	1-126-964-11	ELECT	10uF	20%	50V	
C153	1-126-964-11	ELECT	10uF	20%	50V							(ZX8)	
							C236	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C154	1-137-427-11	MYLAR	120PF	5%	50V							(ZX8)	
C155	1-136-495-11	FILM	0.068uF	5%	50V		C237	1-126-964-11	ELECT	10uF	20%	50V	
C156	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V							(ZX8)	
C157	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V		C238	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
C158	1-137-194-81	FILM	0.47uF	5%	50V							(ZX8)	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C241	1-126-964-11	ELECT	10uF 20% 50V (ZX8)	C514	1-162-953-11	CERAMIC CHIP	100PF 5% 50V
C242	1-162-960-11	CERAMIC CHIP	220PF 10% 50V (ZX8)	C515	1-126-964-11	ELECT	10uF 20% 50V
C243	1-162-960-11	CERAMIC CHIP	220PF 10% 50V (ZX8)	C516	1-126-964-11	ELECT	10uF 20% 50V
C251	1-126-923-11	ELECT	220uF 20% 10V (ZX8)	C517	1-162-953-11	CERAMIC CHIP	100PF 5% 50V
C300	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	C518	1-162-953-11	CERAMIC CHIP	100PF 5% 50V
C301	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C519	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
C302	1-126-947-11	ELECT	47uF 20% 35V	C520	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
C303	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C521	1-162-961-11	CERAMIC CHIP	330PF 10% 50V
C304	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	C522	1-162-961-11	CERAMIC CHIP	330PF 10% 50V
C305	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C523	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
C306	1-126-947-11	ELECT	47uF 20% 35V	C524	1-162-957-11	CERAMIC CHIP	220PF 5% 50V
C307	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C525	1-126-964-11	ELECT	10uF 20% 50V
C318	1-126-964-11	ELECT	10uF 20% 50V	C526	1-126-964-11	ELECT	10uF 20% 50V
C319	1-126-964-11	ELECT	10uF 20% 50V	C527	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C320	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C528	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C321	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C529	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C322	1-126-926-11	ELECT	1000uF 20% 10V	C530	1-126-963-11	ELECT	4.7uF 20% 50V
C324	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C531	1-126-963-11	ELECT	4.7uF 20% 50V
C325	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C532	1-126-960-11	ELECT	1uF 20% 50V
C328	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	C533	1-126-960-11	ELECT	1uF 20% 50V
C329	1-162-923-11	CERAMIC CHIP	47PF 5% 50V	C534	1-126-960-11	ELECT	1uF 20% 50V
C341	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C535	1-126-960-11	ELECT	1uF 20% 50V
C342	1-104-656-11	ELECT	2200uF 20% 6.3V	C538	1-126-960-11	ELECT	1uF 20% 50V
C386	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V	C539	1-126-960-11	ELECT	1uF 20% 50V
C387	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V	C543	1-107-714-11	ELECT	10uF 20% 50V
C395	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C555	1-104-658-11	ELECT	100uF 20% 10V
C401	1-126-964-11	ELECT	10uF 20% 50V (E2,E51)	C586	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C402	1-126-964-11	ELECT	10uF 20% 50V	C587	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C403	1-136-497-81	FILM	0.1uF 5% 50V	C590	1-128-548-11	ELECT	4700uF 20% 25V
C404	1-136-497-81	FILM	0.1uF 5% 50V	C591	1-126-925-11	ELECT	470uF 20% 10V
C410	1-162-919-11	CERAMIC CHIP	22PF 5% 50V	C593	1-126-933-11	ELECT	100uF 20% 16V
C411	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C594	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C412	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C595	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C414	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C597	1-130-483-00	MYLAR	0.01uF 5% 50V
C416	1-104-656-11	ELECT	2200uF 20% 6.3V	C598	1-130-483-00	MYLAR	0.01uF 5% 50V
C462	1-104-658-11	ELECT	100uF 20% 10V	< CONNECTOR >			
C464	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	* CN104	1-569-930-11	SOCKET, CONNECTOR 13P	
C497	1-164-156-11	CERAMIC CHIP	0.1uF 25V	CN501	1-779-295-11	CONNECTOR, FFC (LIF(NON-ZIF)) 27P	
C498	1-126-964-11	ELECT	10uF 20% 50V	* CN502	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P (ZX8)	
C499	1-164-156-11	CERAMIC CHIP	0.1uF 25V	CN504	1-569-906-11	SOCKET, CONNECTOR 11P	
C500	1-126-947-11	ELECT	47uF 20% 35V	CN505	1-778-982-11	CONNECTOR, BOARD TO BOARD 13P	
C501	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	CN506	1-778-982-11	CONNECTOR, BOARD TO BOARD 13P	
C502	1-126-947-11	ELECT	47uF 20% 35V	CN507	1-568-838-11	CONNECTOR, FFC 21P	
C503	1-136-159-00	FILM	0.033uF 5% 50V	CN509	1-785-323-11	PIN, CONNECTOR (STRAIGHT) 11P	
C504	1-136-159-00	FILM	0.033uF 5% 50V	CN513	1-564-506-11	PLUG, CONNECTOR 3P	
C505	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	< DIODE >			
C506	1-126-933-11	ELECT	100uF 20% 16V	D192	8-719-404-50	DIODE MA111-TX	
C507	1-130-473-00	MYLAR	0.0015uF 5% 50V	D193	8-719-404-50	DIODE MA111-TX	
C508	1-130-473-00	MYLAR	0.0015uF 5% 50V	D194	8-719-404-50	DIODE MA111-TX	
C509	1-130-479-00	MYLAR	0.0047uF 5% 50V	D329	8-719-404-50	DIODE MA111-TX (E2,E51)	
C510	1-130-479-00	MYLAR	0.0047uF 5% 50V	D402	8-719-404-50	DIODE MA111-TX	
C511	1-162-953-11	CERAMIC CHIP	100PF 5% 50V	D403	8-719-404-50	DIODE MA111-TX	
C512	1-126-961-11	ELECT	2.2uF 20% 50V	D404	8-719-404-50	DIODE MA111-TX	
C513	1-126-961-11	ELECT	2.2uF 20% 50V	D405	8-719-404-50	DIODE MA111-TX	
				D406	8-719-404-50	DIODE MA111-TX	
				D407	8-719-404-50	DIODE MA111-TX	

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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D408	6-500-522-21	DIODE 10EDB40-TB3		JR119	1-216-864-11	SHORT CHIP 0	
D501	8-719-500-56	DIODE D3SBA20		JR121	1-216-864-11	SHORT CHIP 0	
D503	6-500-522-21	DIODE 10EDB40-TB3		JR131	1-216-864-11	SHORT CHIP 0	
D504	6-500-522-21	DIODE 10EDB40-TB3		JR205	1-216-296-11	SHORT CHIP 0 (ZX8)	
D506	6-500-522-21	DIODE 10EDB40-TB3		JR207	1-216-864-11	SHORT CHIP 0 (ZX8)	
D554	8-719-083-63	DIODE UdzSTE-1713B		JR208	1-216-296-11	SHORT CHIP 0 (ZX8)	
		< GROUND TERMINAL >		JR209	1-216-296-11	SHORT CHIP 0 (ZX8)	
EPT501	1-537-738-21	TERMINAL, GROUND		JR210	1-216-296-11	SHORT CHIP 0 (ZX8)	
		< FERRITE BEAD >		JR211	1-216-296-11	SHORT CHIP 0 (ZX8)	
FB300	1-469-152-11	FERRITE, EMI (SMD) (2012)		JR212	1-216-864-11	SHORT CHIP 0 (ZX8)	
FB301	1-469-152-11	FERRITE, EMI (SMD) (2012)		JR213	1-216-296-11	SHORT CHIP 0 (ZX8)	
FB302	1-216-864-11	SHORT CHIP 0		JR215	1-216-296-11	SHORT CHIP 0 (ZX8)	
FB303	1-469-152-11	FERRITE, EMI (SMD) (2012)		JR216	1-216-296-11	SHORT CHIP 0 (ZX8)	
FB304	1-216-864-11	SHORT CHIP 0		JR218	1-216-864-11	SHORT CHIP 0	
FB305	1-216-864-11	SHORT CHIP 0		JR300	1-216-296-11	SHORT CHIP 0	
FB306	1-216-864-11	SHORT CHIP 0		JR400	1-216-296-11	SHORT CHIP 0	
FB416	1-414-864-11	FERRITE, EMI (SMD) (1608)		JR401	1-216-296-11	SHORT CHIP 0	
FB462	1-414-864-11	FERRITE, EMI (SMD) (1608)		JR402	1-216-864-11	SHORT CHIP 0 (MX)	
FB500	1-216-864-11	SHORT CHIP 0		JR403	1-216-864-11	SHORT CHIP 0	
FB501	1-216-864-11	SHORT CHIP 0		JR404	1-216-864-11	SHORT CHIP 0	
FB502	1-216-864-11	SHORT CHIP 0		JR405	1-216-296-11	SHORT CHIP 0	
FB503	1-216-864-11	SHORT CHIP 0		JR406	1-216-296-11	SHORT CHIP 0	
FB555	1-216-864-11	SHORT CHIP 0		JR407	1-216-296-11	SHORT CHIP 0	
		< IC >		JR408	1-216-296-11	SHORT CHIP 0	
IC101	6-705-667-01	IC M61537FP-RF0G		JR409	1-216-296-11	SHORT CHIP 0	
IC401	6-803-976-01	IC M3062CMEN-A04FPU0		JR440	1-216-864-11	SHORT CHIP 0	
IC402	6-705-809-01	IC BD4929G-TR		JR441	1-216-864-11	SHORT CHIP 0	
IC501	6-703-651-11	IC M61530FP-D60G (ZX8)		JR475	1-216-296-11	SHORT CHIP 0	
IC503	6-600-012-01	IC TOTX141L (CD DIGITAL OUT (OPTICAL))		JR500	1-216-296-11	SHORT CHIP 0	
IC510	6-703-550-01	IC TA7809LS		JR501	1-216-864-11	SHORT CHIP 0	
IC511	8-759-394-36	IC BA09T		JR502	1-216-296-11	SHORT CHIP 0	
IC513	6-702-771-01	IC TA78033LS		JR503	1-216-296-11	SHORT CHIP 0	
IC514	8-759-598-69	IC BA6956AN		JR504	1-216-296-11	SHORT CHIP 0	
IC515	8-759-598-69	IC BA6956AN		JR505	1-216-296-11	SHORT CHIP 0	
IC519	8-759-710-97	IC NJM4565M-D		JR506	1-216-864-11	SHORT CHIP 0	
		< JACK >		JR509	1-216-864-11	SHORT CHIP 0	
J701	1-774-411-11	JACK, PIN 6P (VIDEO/MD,PHONO)		JR510	1-216-296-11	SHORT CHIP 0	
J716	1-774-227-11	JACK, PIN 1P (VIDEO OUT)		JR515	1-216-864-11	SHORT CHIP 0	
		< JUMPER RESISTOR >		JR517	1-216-864-11	SHORT CHIP 0	
JR100	1-216-864-11	SHORT CHIP 0		JR518	1-216-864-11	SHORT CHIP 0	
JR101	1-216-864-11	SHORT CHIP 0		JR519	1-216-864-11	SHORT CHIP 0	
JR105	1-216-864-11	SHORT CHIP 0		JR553	1-216-864-11	SHORT CHIP 0	
JR107	1-216-296-11	SHORT CHIP 0				< COIL >	
JR109	1-216-296-11	SHORT CHIP 0		L102	1-412-064-11	INDUCTOR 100uH	
JR110	1-216-296-11	SHORT CHIP 0		L103	1-410-780-11	INDUCTOR 27mH	
JR111	1-216-864-11	SHORT CHIP 0		L104	1-410-780-11	INDUCTOR 27mH	
JR112	1-216-864-11	SHORT CHIP 0		L300	1-412-058-11	INDUCTOR 10uH	
JR113	1-216-864-11	SHORT CHIP 0				< TRANSISTOR >	
JR114	1-216-864-11	SHORT CHIP 0		Q101	8-729-141-75	TRANSISTOR 2SD596DV345	
JR115	1-216-864-11	SHORT CHIP 0		Q102	8-729-802-80	TRANSISTOR 2SC3661	
JR116	1-216-864-11	SHORT CHIP 0		Q103	8-729-802-80	TRANSISTOR 2SC3661	
JR118	1-216-296-11	SHORT CHIP 0		Q104	6-550-185-01	TRANSISTOR RT1P137P-TP-1	
				Q105	8-729-027-43	TRANSISTOR DTC114EKA-T146	
				Q106	8-729-027-43	TRANSISTOR DTC114EKA-T146	
				Q107	8-729-027-31	TRANSISTOR DTA124EKA-T146	
				Q108	8-729-027-43	TRANSISTOR DTC114EKA-T146	

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
Q109	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R107	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q110	8-729-216-22	TRANSISTOR	2SA1162-G			R108	1-216-838-11	METAL CHIP	27K	5%	1/10W
Q111	8-729-802-80	TRANSISTOR	2SC3661			R109	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q112	8-729-802-80	TRANSISTOR	2SC3661			R110	1-216-835-11	METAL CHIP	15K	5%	1/10W
Q113	8-729-802-80	TRANSISTOR	2SC3661			R111	1-216-835-11	METAL CHIP	15K	5%	1/10W
Q114	8-729-802-80	TRANSISTOR	2SC3661			R112	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
Q115	8-729-802-80	TRANSISTOR	2SC3661			R113	1-216-809-11	METAL CHIP	100	5%	1/10W
Q116	8-729-802-80	TRANSISTOR	2SC3661			R114	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q140	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R			R115	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q145	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R			R117	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q165	8-729-802-80	TRANSISTOR	2SC3661			R118	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q180	8-729-802-80	TRANSISTOR	2SC3661			R119	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q190	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R120	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q191	8-729-903-46	TRANSISTOR	2SB1132-P			R121	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q192	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R122	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q193	8-729-903-46	TRANSISTOR	2SB1132-P			R123	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q194	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R124	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q195	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R125	1-216-841-11	METAL CHIP	47K	5%	1/10W
Q196	8-729-903-46	TRANSISTOR	2SB1132-P			R126	1-216-817-11	METAL CHIP	470	5%	1/10W
Q198	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R127	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q199	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16			R128	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q200	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (ZX8)			R129	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q201	8-729-120-28	TRANSISTOR	2SC1623-L5L6 (ZX8)			R132	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
Q203	8-729-802-80	TRANSISTOR	2SC3661 (ZX8)			R133	1-216-857-11	METAL CHIP	1M	5%	1/10W
Q204	8-729-802-80	TRANSISTOR	2SC3661 (ZX8)			R134	1-216-817-11	METAL CHIP	470	5%	1/10W
Q401	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R			R135	1-216-817-11	METAL CHIP	470	5%	1/10W
Q402	8-729-027-43	TRANSISTOR	DTC114EKA-T146 (E2,E51)			R136	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
Q523	8-729-802-80	TRANSISTOR	2SC3661			R137	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
Q524	8-729-802-80	TRANSISTOR	2SC3661			R138	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
Q528	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R139	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
Q529	8-729-027-31	TRANSISTOR	DTA124EKA-T146			R140	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q530	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R141	1-216-841-11	METAL CHIP	47K	5%	1/10W
Q533	8-729-027-31	TRANSISTOR	DTA124EKA-T146			R142	1-216-838-11	METAL CHIP	27K	5%	1/10W
Q534	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R143	1-216-838-11	METAL CHIP	27K	5%	1/10W
Q535	8-729-027-31	TRANSISTOR	DTA124EKA-T146			R145	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q536	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R147	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q537	8-729-027-31	TRANSISTOR	DTA124EKA-T146			R148	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q538	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R150	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q539	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R151	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q540	8-729-027-31	TRANSISTOR	DTA124EKA-T146			R152	1-216-809-11	METAL CHIP	100	5%	1/10W
Q550	8-729-802-80	TRANSISTOR	2SC3661			R154	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q551	8-729-802-80	TRANSISTOR	2SC3661			R155	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q552	6-550-185-01	TRANSISTOR	RT1P137P-TP-1			R156	1-216-805-11	METAL CHIP	47	5%	1/10W
Q553	8-729-026-68	TRANSISTOR	2SD2525 (TP)			R157	1-216-797-11	METAL CHIP	10	5%	1/10W
Q554	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R158	1-216-803-11	METAL CHIP	33	5%	1/10W
Q555	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R			R159	1-216-864-11	SHORT CHIP	0		
Q557	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R			R160	1-216-841-11	METAL CHIP	47K	5%	1/10W
Q563	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R161	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
Q590	8-729-014-97	TRANSISTOR	FA1L3Z-T1B (E2,E51)			R162	1-216-857-11	METAL CHIP	1M	5%	1/10W
Q870	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R			R164	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
< RESISTOR >						R165	1-216-841-11	METAL CHIP	47K	5%	1/10W
R101	1-216-841-11	METAL CHIP	47K	5%	1/10W	R166	1-216-821-11	METAL CHIP	1K	5%	1/10W
R102	1-216-864-11	SHORT CHIP	0			R167	1-216-834-11	METAL CHIP	12K	5%	1/10W
R103	1-216-864-11	SHORT CHIP	0			R168	1-216-851-11	METAL CHIP	330K	5%	1/10W
R104	1-216-833-11	METAL CHIP	10K	5%	1/10W	R169	1-216-812-11	METAL CHIP	180	5%	1/10W
R105	1-216-833-11	METAL CHIP	10K	5%	1/10W	R170	1-216-864-11	SHORT CHIP	0		
R106	1-216-817-11	METAL CHIP	470	5%	1/10W	R171	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R172	1-216-864-11	SHORT CHIP	0		

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Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark	
R173	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R245	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R174	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						(ZX8)	
R175	1-216-819-11	METAL CHIP	680	5%	1/10W	R247	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R176	1-216-827-11	METAL CHIP	3.3K	5%	1/10W						(ZX8)	
R177	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R248	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
											(ZX8)	
R178	1-216-851-11	METAL CHIP	330K	5%	1/10W	R249	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R179	1-216-834-11	METAL CHIP	12K	5%	1/10W						(ZX8)	
R180	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R250	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
R181	1-216-833-11	METAL CHIP	10K	5%	1/10W						(ZX8)	
R182	1-216-809-11	METAL CHIP	100	5%	1/10W	R252	1-216-817-11	METAL CHIP	470	5%	1/10W	
											(ZX8)	
R183	1-216-809-11	METAL CHIP	100	5%	1/10W	R253	1-216-817-11	METAL CHIP	470	5%	1/10W	
R184	1-216-809-11	METAL CHIP	100	5%	1/10W						(ZX8)	
R185	1-216-809-11	METAL CHIP	100	5%	1/10W	R257	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R186	1-216-809-11	METAL CHIP	100	5%	1/10W						(ZX8)	
R187	1-216-809-11	METAL CHIP	100	5%	1/10W	R258	1-216-833-11	METAL CHIP	10K	5%	1/10W	
											(ZX8)	
R188	1-216-809-11	METAL CHIP	100	5%	1/10W	R282	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R189	1-216-819-11	METAL CHIP	680	5%	1/10W							
R190	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R283	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R191	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R284	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R192	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R285	1-216-833-11	METAL CHIP	10K	5%	1/10W	
						R286	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R193	1-216-833-11	METAL CHIP	10K	5%	1/10W	R287	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R194	1-216-819-11	METAL CHIP	680	5%	1/10W							
R195	1-216-833-11	METAL CHIP	10K	5%	1/10W	R299	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R196	1-216-833-11	METAL CHIP	10K	5%	1/10W	R300	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R197	1-216-837-11	METAL CHIP	22K	5%	1/10W	R301	1-216-841-11	METAL CHIP	47K	5%	1/10W	
						R302	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R198	1-216-833-11	METAL CHIP	10K	5%	1/10W	R303	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R199	1-216-845-11	METAL CHIP	100K	5%	1/10W							
R200	1-216-841-11	METAL CHIP	47K	5%	1/10W	R304	1-218-285-11	METAL CHIP	75	5%	1/10W	
					(ZX8)	R305	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R201	1-216-841-11	METAL CHIP	47K	5%	1/10W	R306	1-216-842-11	METAL CHIP	56K	5%	1/10W	
					(ZX8)	R307	1-216-835-11	METAL CHIP	15K	5%	1/10W	
R206	1-216-833-11	METAL CHIP	10K	5%	1/10W	R308	1-216-839-11	METAL CHIP	33K	5%	1/10W	
					(ZX8)							
R207	1-216-833-11	METAL CHIP	10K	5%	1/10W	R309	1-216-821-11	METAL CHIP	1K	5%	1/10W	
					(ZX8)	R310	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R214	1-220-373-11	METAL CHIP	620	5%	1/10W	R311	1-216-809-11	METAL CHIP	100	5%	1/10W	
					(ZX8)	R312	1-216-809-11	METAL CHIP	100	5%	1/10W	
R215	1-220-373-11	METAL CHIP	620	5%	1/10W	R313	1-216-809-11	METAL CHIP	100	5%	1/10W	
					(ZX8)							
R225	1-216-821-11	METAL CHIP	1K	5%	1/10W	R314	1-216-797-11	METAL CHIP	10	5%	1/10W	
					(ZX8)	R315	1-216-797-11	METAL CHIP	10	5%	1/10W	
R226	1-216-841-11	METAL CHIP	47K	5%	1/10W	R316	1-216-809-11	METAL CHIP	100	5%	1/10W	
					(ZX8)	R317	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R227	1-216-833-11	METAL CHIP	10K	5%	1/10W	R318	1-216-809-11	METAL CHIP	100	5%	1/10W	
					(ZX8)							
R228	1-216-833-11	METAL CHIP	10K	5%	1/10W	R319	1-216-821-11	METAL CHIP	1K	5%	1/10W	
					(ZX8)	R320	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R229	1-216-821-11	METAL CHIP	1K	5%	1/10W	R321	1-216-839-11	METAL CHIP	33K	5%	1/10W	
					(ZX8)	R322	1-216-839-11	METAL CHIP	33K	5%	1/10W	
R231	1-216-841-11	METAL CHIP	47K	5%	1/10W	R323	1-216-833-11	METAL CHIP	10K	5%	1/10W	
					(ZX8)							
R232	1-216-833-11	METAL CHIP	10K	5%	1/10W	R324	1-216-833-11	METAL CHIP	10K	5%	1/10W	
					(ZX8)	R325	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R234	1-216-833-11	METAL CHIP	10K	5%	1/10W	R326	1-216-833-11	METAL CHIP	10K	5%	1/10W	
					(ZX8)	R328	1-216-864-11	SHORT CHIP	0			
R239	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R341	1-216-812-11	METAL CHIP	180	5%	1/10W	
					(ZX8)							
R240	1-216-841-11	METAL CHIP	47K	5%	1/10W	R391	1-216-811-11	METAL CHIP	150	5%	1/10W	
					(ZX8)						(ZX8)	
R241	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R391	1-216-864-11	SHORT CHIP	0 (ZX6)			
					(ZX8)	R393	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
						R395	1-216-809-11	METAL CHIP	100	5%	1/10W	
						R400	1-216-809-11	METAL CHIP	100	5%	1/10W	

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R401	1-216-837-11	METAL CHIP	22K	5%	1/10W	R487	1-216-833-11	METAL CHIP	10K	5%	1/10W
R402	1-216-809-11	METAL CHIP	100	5%	1/10W	R492	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R403	1-216-809-11	METAL CHIP	100	5%	1/10W						(ZX8)
R404	1-216-809-11	METAL CHIP	100	5%	1/10W	R493	1-216-821-11	METAL CHIP	1K	5%	1/10W
R405	1-216-864-11	SHORT CHIP	0			R494	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R500	1-216-815-11	METAL CHIP	330	5%	1/10W
R406	1-216-864-11	SHORT CHIP	0								
R407	1-216-864-11	SHORT CHIP	0			R501	1-216-821-11	METAL CHIP	1K	5%	1/10W
R409	1-216-833-11	METAL CHIP	10K	5%	1/10W	R502	1-216-821-11	METAL CHIP	1K	5%	1/10W
R411	1-216-851-11	METAL CHIP	330K	5%	1/10W	R503	1-216-821-11	METAL CHIP	1K	5%	1/10W
R412	1-216-833-11	METAL CHIP	10K	5%	1/10W	R504	1-216-845-11	METAL CHIP	100K	5%	1/10W
						R505	1-216-845-11	METAL CHIP	100K	5%	1/10W
R413	1-216-864-11	SHORT CHIP	0								
R417	1-216-833-11	METAL CHIP	10K	5%	1/10W	R506	1-216-821-11	METAL CHIP	1K	5%	1/10W
R418	1-216-864-11	SHORT CHIP	0			R507	1-216-821-11	METAL CHIP	1K	5%	1/10W
R419	1-216-809-11	METAL CHIP	100	5%	1/10W	R508	1-216-841-11	METAL CHIP	47K	5%	1/10W
R420	1-216-821-11	METAL CHIP	1K	5%	1/10W	R509	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R510	1-216-854-11	METAL CHIP	560K	5%	1/10W
R421	1-216-809-11	METAL CHIP	100	5%	1/10W						
R422	1-216-809-11	METAL CHIP	100	5%	1/10W	R511	1-216-854-11	METAL CHIP	560K	5%	1/10W
R423	1-216-809-11	METAL CHIP	100	5%	1/10W	R512	1-216-821-11	METAL CHIP	1K	5%	1/10W
R424	1-216-809-11	METAL CHIP	100	5%	1/10W	R513	1-216-821-11	METAL CHIP	1K	5%	1/10W
R425	1-216-809-11	METAL CHIP	100	5%	1/10W	R514	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R515	1-216-841-11	METAL CHIP	47K	5%	1/10W
R426	1-216-837-11	METAL CHIP	22K	5%	1/10W						
R427	1-216-821-11	METAL CHIP	1K	5%	1/10W	R516	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R428	1-216-813-11	METAL CHIP	220	5%	1/10W	R517	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R429	1-216-809-11	METAL CHIP	100	5%	1/10W	R518	1-216-809-11	METAL CHIP	100	5%	1/10W
R430	1-216-809-11	METAL CHIP	100	5%	1/10W	R519	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R520	1-216-821-11	METAL CHIP	1K	5%	1/10W
R431	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R432	1-216-809-11	METAL CHIP	100	5%	1/10W	R521	1-216-845-11	METAL CHIP	100K	5%	1/10W
R433	1-216-833-11	METAL CHIP	10K	5%	1/10W	R522	1-216-845-11	METAL CHIP	100K	5%	1/10W
					(E2,E51)	R523	1-216-821-11	METAL CHIP	1K	5%	1/10W
R434	1-216-833-11	METAL CHIP	10K	5%	1/10W	R524	1-216-845-11	METAL CHIP	100K	5%	1/10W
R436	1-216-833-11	METAL CHIP	10K	5%	1/10W	R525	1-216-845-11	METAL CHIP	100K	5%	1/10W
R437	1-216-833-11	METAL CHIP	10K	5%	1/10W	R526	1-216-821-11	METAL CHIP	1K	5%	1/10W
R439	1-216-833-11	METAL CHIP	10K	5%	1/10W	R527	1-216-821-11	METAL CHIP	1K	5%	1/10W
R444	1-216-833-11	METAL CHIP	10K	5%	1/10W	R528	1-216-821-11	METAL CHIP	1K	5%	1/10W
R445	1-216-833-11	METAL CHIP	10K	5%	1/10W	R529	1-216-821-11	METAL CHIP	1K	5%	1/10W
R446	1-216-833-11	METAL CHIP	10K	5%	1/10W	R530	1-216-821-11	METAL CHIP	1K	5%	1/10W
R447	1-216-833-11	METAL CHIP	10K	5%	1/10W	R531	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R448	1-216-833-11	METAL CHIP	10K	5%	1/10W	R554	1-216-833-11	METAL CHIP	10K	5%	1/10W
R449	1-216-833-11	METAL CHIP	10K	5%	1/10W	R555	1-216-833-11	METAL CHIP	10K	5%	1/10W
R450	1-216-833-11	METAL CHIP	10K	5%	1/10W	R556	1-216-841-11	METAL CHIP	47K	5%	1/10W
R451	1-216-833-11	METAL CHIP	10K	5%	1/10W	R557	1-216-841-11	METAL CHIP	47K	5%	1/10W
R452	1-216-833-11	METAL CHIP	10K	5%	1/10W	R558	1-216-821-11	METAL CHIP	1K	5%	1/10W
R453	1-216-833-11	METAL CHIP	10K	5%	1/10W	R559	1-216-833-11	METAL CHIP	10K	5%	1/10W
R454	1-216-833-11	METAL CHIP	10K	5%	1/10W	R560	1-216-821-11	METAL CHIP	1K	5%	1/10W
R465	1-216-809-11	METAL CHIP	100	5%	1/10W	R561	1-216-833-11	METAL CHIP	10K	5%	1/10W
R466	1-216-809-11	METAL CHIP	100	5%	1/10W	R566	1-216-843-11	METAL CHIP	68K	5%	1/10W
R467	1-216-809-11	METAL CHIP	100	5%	1/10W	R567	1-216-843-11	METAL CHIP	68K	5%	1/10W
					(ZX8)	R568	1-216-843-11	METAL CHIP	68K	5%	1/10W
R468	1-216-809-11	METAL CHIP	100	5%	1/10W	R569	1-216-835-11	METAL CHIP	15K	5%	1/10W
					(ZX8)	R571	1-216-835-11	METAL CHIP	15K	5%	1/10W
R473	1-216-833-11	METAL CHIP	10K	5%	1/10W	R572	1-216-835-11	METAL CHIP	15K	5%	1/10W
R474	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R475	1-216-833-11	METAL CHIP	10K	5%	1/10W	R573	1-216-853-11	METAL CHIP	470K	5%	1/10W
						R575	1-216-853-11	METAL CHIP	470K	5%	1/10W
R476	1-216-833-11	METAL CHIP	10K	5%	1/10W	R576	1-216-853-11	METAL CHIP	470K	5%	1/10W
R477	1-216-809-11	METAL CHIP	100	5%	1/10W	R578	1-216-845-11	METAL CHIP	100K	5%	1/10W
R481	1-216-809-11	METAL CHIP	100	5%	1/10W	R579	1-216-833-11	METAL CHIP	10K	5%	1/10W
R482	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R486	1-216-833-11	METAL CHIP	10K	5%	1/10W	R584	1-216-837-11	METAL CHIP	22K	5%	1/10W

HCD-ZX6/ZX8
Ver 1.1

MAIN	MD-94	MIC	PANEL
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Ref. No.	Part No.	Description	Remark		
R585	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (ZX8)
R585	1-216-837-11	METAL CHIP	22K	5%	1/10W (ZX6)
R586	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (ZX8)
R586	1-216-837-11	METAL CHIP	22K	5%	1/10W (ZX6)
R587	1-216-845-11	METAL CHIP	100K	5%	1/10W
R588	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R590	1-216-842-11	METAL CHIP	56K	5%	1/10W (E2,E51)
R591	1-216-824-11	METAL CHIP	1.8K	5%	1/10W (E2,E51)
< TRANSFORMER >					
T101	1-433-372-11	TRANSFORMER, BIAS OSCILLATION			
< VIBRATOR >					
X401	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)			
X402	1-795-482-11	VIBRATOR, CERAMIC (16MHz)			

MD-94 BOARD					

< CONNECTOR >					
CN001	1-506-490-21	PIN, CONNECTOR 11P			
CN002	1-784-767-11	CONNECTOR, FFC 6P			
* CN003	1-564-013-11	PIN, CONNECTOR 3P			
CN004	1-506-481-11	PIN, CONNECTOR 2P			
< SWITCH >					
S001	1-786-514-21	SWITCH, LEVER (SLIDE) (TRY POSITION DETECT)			

MIC BOARD					

< CAPACITOR >					
C801	1-126-934-11	ELECT	220uF	20%	16V
C802	1-126-961-11	ELECT	2.2uF	20%	50V
C804	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C805	1-126-964-11	ELECT	10uF	20%	50V
C806	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C807	1-126-961-11	ELECT	2.2uF	20%	50V
C808	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C809	1-126-961-11	ELECT	2.2uF	20%	50V
C810	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C811	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C812	1-126-960-11	ELECT	1uF	20%	50V
C813	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C814	1-126-961-11	ELECT	2.2uF	20%	50V
C815	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C817	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C818	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V

Ref. No.	Part No.	Description	Remark		
< CONNECTOR >					
* CN920	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
< GROUND TERMINAL >					
EPT801	1-537-738-21	TERMINAL, GROUND			
< IC >					
IC850	8-759-710-97	IC NJM4565M-D			
< JACK >					
J801	1-770-226-11	JACK (LARGE TYPE) (MIC1)			
J802	1-770-226-11	JACK (LARGE TYPE) (MIC2)			
< RESISTOR >					
R800	1-216-864-11	SHORT CHIP	0		
R801	1-216-845-11	METAL CHIP	100K	5%	1/10W
R802	1-216-833-11	METAL CHIP	10K	5%	1/10W
R803	1-216-833-11	METAL CHIP	10K	5%	1/10W
R804	1-216-809-11	METAL CHIP	100	5%	1/10W
R805	1-216-847-11	METAL CHIP	150K	5%	1/10W
R806	1-216-833-11	METAL CHIP	10K	5%	1/10W
R807	1-216-809-11	METAL CHIP	100	5%	1/10W
R808	1-216-841-11	METAL CHIP	47K	5%	1/10W
R809	1-216-821-11	METAL CHIP	1K	5%	1/10W
R810	1-216-845-11	METAL CHIP	100K	5%	1/10W
R811	1-216-833-11	METAL CHIP	10K	5%	1/10W
R812	1-216-821-11	METAL CHIP	1K	5%	1/10W
R813	1-216-821-11	METAL CHIP	1K	5%	1/10W
R814	1-216-833-11	METAL CHIP	10K	5%	1/10W
< VARIABLE RESISTOR >					
RV801	1-227-452-11	RES, VAR, CARBON 50K (MIC LEVEL)			

A-4751-072-A		PANEL BOARD, COMPLETE (ZX8:E2,E51)			
A-4751-093-A		PANEL BOARD, COMPLETE (ZX6)			
A-4753-562-A		PANEL BOARD, COMPLETE (ZX8:MX)			

4-253-178-01		HOLDER, FL			
< CAPACITOR >					
C900	1-126-163-11	ELECT	4.7uF	20%	50V
C903	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C904	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C905	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C910	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C916	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C917	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C918	1-126-518-11	ELECT	470uF	20%	4V
C919	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C920	1-126-947-11	ELECT	47uF	20%	35V
C921	1-115-416-11	CERAMIC CHIP	0.001uF	5%	25V
C922	1-126-964-11	ELECT	10uF	20%	50V
C923	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C924	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C925	1-162-927-11	CERAMIC CHIP	100PF	5%	50V

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
C926	1-162-927-11	CERAMIC CHIP	100PF	5%	50V				< VACUUM FLUORESCENT DISPLAY >				
C927	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C928	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		FL901	1-518-978-11	VACUUM FLUORESCENT DISPLAY				
C929	1-162-927-11	CERAMIC CHIP	100PF	5%	50V				< IC >				
C930	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C931	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		IC901	6-803-973-01	IC MB90M407PF-G-141-BNDE1				
C932	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		IC902	6-600-174-01	IC RPM7240-H4 (IR)				
C933	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		IC903	6-705-678-01	IC NJM2760V-TE2				
C934	1-162-927-11	CERAMIC CHIP	100PF	5%	50V				< JUMPER RESISTOR >				
C935	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C936	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		JR916	1-216-864-11	SHORT CHIP	0			
C937	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		JR917	1-216-864-11	SHORT CHIP	0			
C938	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		JR921	1-216-864-11	SHORT CHIP	0			
C939	1-162-927-11	CERAMIC CHIP	100PF	5%	50V				< TRANSISTOR >				
C940	1-162-927-11	CERAMIC CHIP	100PF	5%	50V								
C941	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		Q901	8-729-027-56	TRANSISTOR	DTC143TKA-T146			
C942	1-162-927-11	CERAMIC CHIP	100PF	5%	50V		Q902	8-729-027-56	TRANSISTOR	DTC143TKA-T146			
C944	1-126-964-11	ELECT	10uF	20%	50V		Q903	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
C945	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V		Q904	8-729-903-46	TRANSISTOR	2SB1132-P			
C946	1-164-315-11	CERAMIC CHIP	470PF	5%	50V		Q905	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
C947	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V		Q906	8-729-903-46	TRANSISTOR	2SB1132-P			
C948	1-164-315-11	CERAMIC CHIP	470PF	5%	50V		Q908	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
C949	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V				< RESISTOR >				
C950	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V								
C951	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V								
C952	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V		R898	1-216-819-11	METAL CHIP	680	5%	1/10W	
C953	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V		R899	1-216-819-11	METAL CHIP	680	5%	1/10W	
C954	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V		R900	1-216-833-11	METAL CHIP	10K	5%	1/10W	
C955	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V		R901	1-216-833-11	METAL CHIP	10K	5%	1/10W	
C956	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V		R902	1-216-833-11	METAL CHIP	10K	5%	1/10W	
C957	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V		R903	1-216-809-11	METAL CHIP	100	5%	1/10W	
C958	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V		R904	1-216-809-11	METAL CHIP	100	5%	1/10W	
C959	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V		R905	1-216-835-11	METAL CHIP	15K	5%	1/10W	
C960	1-126-960-11	ELECT	1uF	20%	50V		R906	1-216-835-11	METAL CHIP	15K	5%	1/10W	
C961	1-126-963-11	ELECT	4.7uF	20%	50V		R907	1-216-835-11	METAL CHIP	15K	5%	1/10W	
C966	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V		R908	1-216-835-11	METAL CHIP	15K	5%	1/10W	
C973	1-126-916-11	ELECT	1000uF	20%	6.3V		R909	1-216-835-11	METAL CHIP	15K	5%	1/10W	
		< CONNECTOR >					R910	1-216-835-11	METAL CHIP	15K	5%	1/10W	
		< DIODE >					R911	1-216-864-11	SHORT CHIP	0			
CN906	1-569-914-11	SOCKET, CONNECTOR 21P					R912	1-216-833-11	METAL CHIP	10K	5%	1/10W	
CN908	1-564-721-11	PIN, CONNECTOR (SMALL TYPE) 5P (ZX8)					R913	1-216-864-11	SHORT CHIP	0			
CN913	1-785-341-11	PIN, CONNECTOR (LIGHT ANGLE) 15P					R914	1-216-833-11	METAL CHIP	10K	5%	1/10W	
		< DIODE >					R915	1-216-809-11	METAL CHIP	100	5%	1/10W	
		< JUMPER RESISTOR >					R916	1-216-821-11	METAL CHIP	1K	5%	1/10W	
D900	8-719-404-50	DIODE MA111-TX					R917	1-216-833-11	METAL CHIP	10K	5%	1/10W	
D901	8-719-404-50	DIODE MA111-TX					R918	1-216-821-11	METAL CHIP	1K	5%	1/10W	
D902	8-719-404-50	DIODE MA111-TX					R919	1-216-833-11	METAL CHIP	10K	5%	1/10W	
D903	8-719-404-50	DIODE MA111-TX					R922	1-216-857-11	METAL CHIP	1M	5%	1/10W	
D904	6-500-508-01	DIODE RR263M-400FTR					R938	1-216-845-11	METAL CHIP	100K	5%	1/10W	
		< JUMPER RESISTOR >					R939	1-216-845-11	METAL CHIP	100K	5%	1/10W	
D905	8-719-069-54	DIODE UDZSTE-175.1B					R940	1-216-837-11	METAL CHIP	22K	5%	1/10W	
D906	8-719-060-27	LED SLR-325MCT31 (TUNER/BAND)					R941	1-216-809-11	METAL CHIP	100	5%	1/10W	
D927	6-500-508-01	DIODE RR263M-400FTR					R942	1-216-809-11	METAL CHIP	100	5%	1/10W	
		< JUMPER RESISTOR >					R944	1-216-805-11	METAL CHIP	47	5%	1/10W	
		< JUMPER RESISTOR >					R945	1-216-842-11	METAL CHIP	56K	5%	1/10W	
FB901	1-216-864-11	SHORT CHIP	0	< JUMPER RESISTOR >									
		< JUMPER RESISTOR >					R946	1-216-845-11	METAL CHIP	100K	5%	1/10W	
		< JUMPER RESISTOR >					R947	1-216-821-11	METAL CHIP	1K	5%	1/10W	
		< JUMPER RESISTOR >					R948	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W	
		< JUMPER RESISTOR >					R949	1-216-821-11	METAL CHIP	1K	5%	1/10W	

HCD-ZX6/ZX8

Ver 1.1

PANEL

POWER

Ref. No.	Part No.	Description			Remark
R950	1-216-821-11	METAL CHIP	1K	5%	1/10W
R951	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R952	1-216-821-11	METAL CHIP	1K	5%	1/10W
R953	1-216-821-11	METAL CHIP	1K	5%	1/10W
R954	1-216-833-11	METAL CHIP	10K	5%	1/10W
R956	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R957	1-216-821-11	METAL CHIP	1K	5%	1/10W
R958	1-216-819-11	METAL CHIP	680	5%	1/10W
R959	1-216-817-11	METAL CHIP	470	5%	1/10W
R983	1-216-817-11	METAL CHIP	470	5%	1/10W
R984	1-216-819-11	METAL CHIP	680	5%	1/10W
R985	1-216-821-11	METAL CHIP	1K	5%	1/10W
R986	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R987	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R988	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R989	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R990	1-216-817-11	METAL CHIP	470	5%	1/10W
R993	1-216-817-11	METAL CHIP	470	5%	1/10W
R994	1-216-821-11	METAL CHIP	1K	5%	1/10W
R997	1-216-817-11	METAL CHIP	470	5%	1/10W
R998	1-216-821-11	METAL CHIP	1K	5%	1/10W
R999	1-216-864-11	SHORT CHIP	0		
R1350	1-216-837-11	METAL CHIP	22K	5%	1/10W
R1351	1-216-821-11	METAL CHIP	1K	5%	1/10W
R1352	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
< SWITCH >					
S900	1-771-410-21	SWITCH, TACTILE (ILLUMINATION)			
S901	1-771-410-21	SWITCH, TACTILE (CLOCK TIMER SET)			
S902	1-771-410-21	SWITCH, TACTILE (CLOCK TIMER SELECT)			
S903	1-771-410-21	SWITCH, TACTILE (SLEEP)			
S921	1-771-410-21	SWITCH, TACTILE (TUNER/BAND)			
S922	1-771-410-21	SWITCH, TACTILE (TUNING -)			
S923	1-771-410-21	SWITCH, TACTILE (TUNING +)			
S924	1-771-410-21	SWITCH, TACTILE (TUNER ENTER)			
S925	1-771-410-21	SWITCH, TACTILE (MEMORY)			
S926	1-771-410-21	SWITCH, TACTILE (FM MODE)			
S927	1-771-410-21	SWITCH, TACTILE (TUNING MODE)			
S928	1-771-410-21	SWITCH, TACTILE (DISPLAY)			
< VIBRATOR >					
X601	1-781-282-51	VIBRATOR, CERAMIC (4MHz)			

	A-4751-050-A	POWER BOARD, COMPLETE (ZX8:E2,E51)			
	A-4751-105-A	POWER BOARD, COMPLETE (ZX6)			
	A-4753-555-A	POWER BOARD, COMPLETE (ZX8:MX)			

	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3			
< CAPACITOR >					
C600	1-126-963-11	ELECT	4.7uF	20%	50V
C601	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C602	1-104-658-11	ELECT	100uF	20%	10V
C604	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
(ZX8)					
C604	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
(ZX6)					

Ref. No.	Part No.	Description	Remark		
C605	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C608	1-126-965-11	ELECT	22uF	20%	50V
C609	1-128-560-11	ELECT	22uF	20%	100V
C610	1-128-560-11	ELECT	22uF	20%	100V
C616	1-136-495-11	FILM	0.068uF	5%	50V
C617	1-136-495-11	FILM	0.068uF	5%	50V
C627	1-126-961-11	ELECT	2.2uF	20%	50V
C628	1-126-933-11	ELECT	100uF	20%	16V
C629	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C634	1-104-665-11	ELECT	100uF	20%	25V
C635	1-104-665-11	ELECT	100uF	20%	25V
C636	1-107-721-11	ELECT	4.7uF	20%	100V
C637	1-107-721-11	ELECT	4.7uF	20%	100V
C648	1-104-658-11	ELECT	100uF	20%	10V
C649	1-126-964-11	ELECT	10uF	20%	50V
C650	1-126-963-11	ELECT	4.7uF	20%	50V
C651	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C652	1-104-658-11	ELECT	100uF	20%	10V
C654	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
(ZX8)					
C654	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
(ZX6)					
C655	1-126-964-11	ELECT	10uF	20%	50V
C656	1-127-815-11	ELECT	3300uF	20%	100V
C657	1-137-749-11	MYLAR	0.1uF		100V
C658	1-127-812-11	ELECT	3300uF	20%	63V
C659	1-136-497-81	FILM	0.1uF	5%	50V
C662	1-126-964-11	ELECT	10uF	20%	50V
C663	1-126-968-11	ELECT	100uF	20%	50V
C666	1-136-495-11	FILM	0.068uF	5%	50V
C667	1-136-495-11	FILM	0.068uF	5%	50V
C676	1-127-815-11	ELECT	3300uF	20%	100V
C677	1-137-749-11	MYLAR	0.1uF		100V
C678	1-127-812-11	ELECT	3300uF	20%	63V
C679	1-136-497-81	FILM	0.1uF	5%	50V
C690	1-162-974-11	CERAMIC CHIP	0.01uF		50V
(ZX6)					
C690	1-164-156-11	CERAMIC CHIP	0.1uF		25V
(ZX8)					
C691	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C692	1-162-974-11	CERAMIC CHIP	0.01uF		50V
(ZX8)					
C694	1-162-974-11	CERAMIC CHIP	0.01uF		50V
(ZX8)					
C695	1-162-974-11	CERAMIC CHIP	0.01uF		50V
< CONNECTOR >					
CN600	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P (ZX8)			
CN601	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P			
CN602	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P			
* CN606	1-564-511-11	PLUG, CONNECTOR 8P (ZX8)			
< DIODE >					
D609	8-719-404-50	DIODE MA111-TX			
D611	8-719-083-66	DIODE UDZSTE-1718B			
D612	8-719-083-66	DIODE UDZSTE-1718B			
D620	8-719-404-50	DIODE MA111-TX			
D624	8-719-404-50	DIODE MA111-TX			
D627	8-719-404-50	DIODE MA111-TX			

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D646	8-719-404-50	DIODE MA111-TX		△ R612	1-245-605-51	FUSIBLE 100 5%	1/4W F
D654	8-719-404-50	DIODE MA111-TX		△ R613	1-215-869-11	METAL OXIDE 1K 5%	1W F
D655	8-719-404-50	DIODE MA111-TX					(ZX8)
D656	8-719-054-89	DIODE D15XB60 (ZX6)		△ R613	1-215-872-11	METAL OXIDE 3.3K 5%	1W F
D656	8-719-073-32	DIODE D25XB60 (ZX8)					(ZX6)
				△ R614	1-215-869-11	METAL OXIDE 1K 5%	1W F
D658	8-719-054-89	DIODE D15XB60 (ZX6)					(ZX8)
D658	8-719-073-32	DIODE D25XB60 (ZX8)		△ R614	1-215-872-11	METAL OXIDE 3.3K 5%	1W F
D660	8-719-404-50	DIODE MA111-TX					(ZX6)
D661	8-719-404-50	DIODE MA111-TX		△ R615	1-245-605-51	FUSIBLE 100 5%	1/4W F
D664	8-719-083-87	DIODE UDZSTE-1733B		△ R616	1-217-637-00	FUSIBLE 1 5%	1/4W F
				R617	1-216-845-11	METAL CHIP 100K 5%	1/10W
D670	8-719-404-50	DIODE MA111-TX		△ R618	1-234-499-21	ENCAPSULATED COMPONENT 0.22X2 5W	(ZX8)
		< GROUND TERMINAL >		△ R618	1-234-798-11	ENCAPSULATED COMPONENT 0.1X2 5W	(ZX6)
EP605	1-537-738-21	TERMINAL, GROUND					
		< IC >		R619	1-216-821-11	METAL CHIP 1K 5%	1/10W
IC600	6-600-169-01	IC STK412-240 (ZX8)		R620	1-216-835-11	METAL CHIP 15K 5%	1/10W
IC600	8-749-017-07	IC STK412-170 (ZX6)					(ZX8)
IC627	6-703-610-01	IC RT8H015C-T112-1		R620	1-216-839-11	METAL CHIP 33K 5%	1/10W
		< JUMPER RESISTOR >					(ZX6)
JR647	1-216-864-11	SHORT CHIP 0		R621	1-216-845-11	METAL CHIP 100K 5%	1/10W
		< TRANSISTOR >					(ZX6)
Q604	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R621	1-216-847-11	METAL CHIP 150K 5%	1/10W
Q606	8-729-821-00	TRANSISTOR 2SA1207					(ZX8)
Q610	8-729-924-99	TRANSISTOR 2SC3722K-E		R622	1-249-625-31	CARBON 10 5%	1/2W F
Q618	8-729-924-99	TRANSISTOR 2SC3722K-E		R623	1-216-842-11	METAL CHIP 56K 5%	1/10W
Q628	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R624	1-216-837-11	METAL CHIP 22K 5%	1/10W
				R625	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
Q629	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R					(ZX8)
Q630	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R625	1-216-826-11	METAL CHIP 2.7K 5%	1/10W
Q634	8-729-027-31	TRANSISTOR DTA124EKA-T146					(ZX6)
Q635	8-729-027-43	TRANSISTOR DTC114EKA-T146		R626	1-216-845-11	METAL CHIP 100K 5%	1/10W
Q640	8-729-802-80	TRANSISTOR 2SC3661		R628	1-216-839-11	METAL CHIP 33K 5%	1/10W
Q641	8-729-802-80	TRANSISTOR 2SC3661		R629	1-216-809-11	METAL CHIP 100 5%	1/10W
Q644	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R630	1-216-845-11	METAL CHIP 100K 5%	1/10W
Q647	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R631	1-216-845-11	METAL CHIP 100K 5%	1/10W
Q648	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R		R632	1-216-854-11	METAL CHIP 560K 5%	1/10W
Q664	8-729-024-93	TRANSISTOR 2SB1565E		R633	1-216-841-11	METAL CHIP 47K 5%	1/10W
Q668	8-729-924-99	TRANSISTOR 2SC3722K-E		R634	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
		< RESISTOR >		R635	1-216-833-11	METAL CHIP 10K 5%	1/10W
R600	1-216-821-11	METAL CHIP 1K 5%	1/10W	△ R636	1-215-891-11	METAL OXIDE 680 5%	2W F
R601	1-216-841-11	METAL CHIP 47K 5%	1/10W	△ R637	1-215-891-11	METAL OXIDE 680 5%	2W F
R602	1-216-815-11	METAL CHIP 330 5%	1/10W	R638	1-216-845-11	METAL CHIP 100K 5%	1/10W
				R639	1-216-845-11	METAL CHIP 100K 5%	1/10W
R602	1-218-484-11	METAL CHIP 750 5%	1/10W	R640	1-216-833-11	METAL CHIP 10K 5%	1/10W
				R641	1-216-833-11	METAL CHIP 10K 5%	1/10W
R603	1-216-841-11	METAL CHIP 47K 5%	1/10W	R642	1-216-806-11	METAL CHIP 56 5%	1/10W
				R643	1-216-806-11	METAL CHIP 56 5%	1/10W
R604	1-216-833-11	METAL CHIP 10K 5%	1/10W	R644	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R605	1-216-833-11	METAL CHIP 10K 5%	1/10W	△ R646	1-215-863-11	METAL OXIDE 100 5%	1W F
R606	1-216-841-11	METAL CHIP 47K 5%	1/10W	R647	1-216-823-11	METAL CHIP 1.5K 5%	1/10W
R607	1-216-825-11	METAL CHIP 2.2K 5%	1/10W				
R608	1-216-845-11	METAL CHIP 100K 5%	1/10W	R649	1-216-828-11	METAL CHIP 3.9K 5%	1/10W
							(ZX6)
R609	1-216-843-11	METAL CHIP 68K 5%	1/10W	R649	1-216-841-11	METAL CHIP 47K 5%	1/10W
R610	1-216-843-11	METAL CHIP 68K 5%	1/10W				(ZX8)
R611	1-216-839-11	METAL CHIP 33K 5%	1/10W	R650	1-216-821-11	METAL CHIP 1K 5%	1/10W
				R651	1-216-841-11	METAL CHIP 47K 5%	1/10W
				R652	1-216-815-11	METAL CHIP 330 5%	1/10W
							(ZX8)

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

HCD-ZX6/ZX8

Ver 1.1

POWER			POWER SWITCH			SE-130			SENSOR			SURROUND		
Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark			
R652	1-218-484-11	METAL CHIP	750	5%	1/10W (ZX6)			< TRANSISTOR >						
R653	1-216-841-11	METAL CHIP	47K	5%	1/10W	Q900	8-729-027-43	TRANSISTOR	DTC114EKA-T146					
R654	1-216-841-11	METAL CHIP	47K	5%	1/10W			< RESISTOR >						
R655	1-216-841-11	METAL CHIP	47K	5%	1/10W									
R656	1-216-849-11	METAL CHIP	220K	5%	1/10W	R1338	1-216-819-11	METAL CHIP	680	5%	1/10W			
R657	1-216-849-11	METAL CHIP	220K	5%	1/10W	R1341	1-216-809-11	METAL CHIP	100	5%	1/10W			
R658	1-216-849-11	METAL CHIP	220K	5%	1/10W	R1342	1-216-817-11	METAL CHIP	470	5%	1/10W			
R659	1-216-849-11	METAL CHIP	220K	5%	1/10W			< SWITCH >						
R660	1-216-837-11	METAL CHIP	22K	5%	1/10W									
R661	1-216-837-11	METAL CHIP	22K	5%	1/10W	S929	1-771-410-21	SWITCH, TACTILE (I/⏻)						
R662	1-216-832-11	METAL CHIP	8.2K	5%	1/10W	*****								
R663	1-216-832-11	METAL CHIP	8.2K	5%	1/10W			A-6060-642-A	SE-130 BOARD, COMPLETE					
R664	1-216-821-11	METAL CHIP	1K	5%	1/10W				*****					
R665	1-216-823-11	METAL CHIP	1.5K	5%	1/10W (ZX8)			< CONNECTOR >						
△ R668	1-234-499-21	ENCAPSULATED COMPONENT	0.22X2 5W		(ZX8)	CN101	1-750-243-11	SOCKET, CONNECTOR	6P					
△ R668	1-234-798-11	ENCAPSULATED COMPONENT	0.1X2 5W		(ZX6)	CN102	1-573-383-11	PIN, CONNECTOR (PC BOARD)	2P					
R669	1-216-821-11	METAL CHIP	1K	5%	1/10W			< PHOTO SENSOR >						
R670	1-216-835-11	METAL CHIP	15K	5%	1/10W (ZX8)	PH101	8-749-017-45	PHOTO SENSOR	RPR-220C1N					
R670	1-216-839-11	METAL CHIP	33K	5%	1/10W (ZX6)	PH102	6-600-072-01	PHOTO SENSOR	RPI-392					

R671	1-216-845-11	METAL CHIP	100K	5%	1/10W (ZX6)			SENSOR BOARD						
R671	1-216-847-11	METAL CHIP	150K	5%	1/10W (ZX8)			< CONNECTOR >						
R672	1-249-625-31	CARBON	10	5%	1/2W F	CN605	1-785-328-11	PIN, CONNECTOR (LIGHT ANGLE)	2P					
R673	1-216-843-11	METAL CHIP	68K	5%	1/10W			< THERMISTOR >						
R674	1-216-837-11	METAL CHIP	22K	5%	1/10W									
R676	1-216-849-11	METAL CHIP	220K	5%	1/10W	TH630	1-807-796-11	THERMISTOR						
R677	1-216-849-11	METAL CHIP	220K	5%	1/10W	*****								
R678	1-216-849-11	METAL CHIP	220K	5%	1/10W			A-1052-527-A	SURROUND BOARD, COMPLETE (ZX8:MX)					
R679	1-216-849-11	METAL CHIP	220K	5%	1/10W			A-4751-060-A	SURROUND BOARD, COMPLETE (ZX8:E2,E51)					
R690	1-216-841-11	METAL CHIP	47K	5%	1/10W				*****					
R691	1-216-845-11	METAL CHIP	100K	5%	1/10W			< CAPACITOR >						
R692	1-216-845-11	METAL CHIP	100K	5%	1/10W	C700	1-126-963-11	ELECT	4.7uF	20%	50V (ZX8)			
R693	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C701	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V (ZX8)			
R694	1-216-843-11	METAL CHIP	68K	5%	1/10W	C702	1-104-658-11	ELECT	100uF	20%	10V (ZX8)			
R698	1-216-845-11	METAL CHIP	100K	5%	1/10W	C703	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (ZX8)			
						C721	1-126-965-11	ELECT	22uF	20%	50V (ZX8)			
R699	1-216-845-11	METAL CHIP	100K	5%	1/10W									
		< RELAY >					C730	1-136-495-11	FILM	0.068uF	5%	50V (ZX8)		
RY646	1-755-372-11	RELAY				C731	1-136-495-11	FILM	0.068uF	5%	50V (ZX8)			
		< TERMINAL BOARD >					C750	1-126-963-11	ELECT	4.7uF	20%	50V (ZX8)		
TM607	1-816-048-11	TERMINAL BOARD (SPEAKER)				C751	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V (ZX8)			
TM609	1-816-048-11	TERMINAL BOARD (SPEAKER) (ZX8)				C752	1-104-658-11	ELECT	100uF	20%	10V (ZX8)			

		POWER SWITCH BOARD												

		< DIODE >												
D920	8-719-053-43	LED SLR-325VCT31 (I/⏻)												

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

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C753	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (ZX8)	R725	1-216-843-11	METAL CHIP	68K	5%	1/10W (ZX8)
C780	1-136-495-11	FILM	0.068uF	5%	50V (ZX8)	R726	1-216-843-11	METAL CHIP	68K	5%	1/10W (ZX8)
C781	1-136-495-11	FILM	0.068uF	5%	50V (ZX8)	R727	1-216-839-11	METAL CHIP	33K	5%	1/10W (ZX8)
C791	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (ZX8)	R728	1-216-841-11	METAL CHIP	47K	5%	1/10W (ZX8)
C795	1-128-560-11	ELECT	22uF	20%	100V (ZX8)	R729	1-216-845-11	METAL CHIP	100K	5%	1/10W (ZX8)
C796	1-128-560-11	ELECT	22uF	20%	100V (ZX8)	△ R730	1-234-499-21	ENCAPSULATED COMPONENT	0.22X2	5W	(ZX8)
< DIODE >						R731	1-216-821-11	METAL CHIP	1K	5%	1/10W (ZX8)
D720	8-719-404-50	DIODE	MA111-TX (ZX8)			R732	1-216-835-11	METAL CHIP	15K	5%	1/10W (ZX8)
D730	8-719-404-50	DIODE	MA111-TX (ZX8)			R733	1-216-847-11	METAL CHIP	150K	5%	1/10W (ZX8)
D760	8-719-404-50	DIODE	MA111-TX (ZX8)			R734	1-216-842-11	METAL CHIP	56K	5%	1/10W (ZX8)
D761	8-719-404-50	DIODE	MA111-TX (ZX8)								
D780	8-719-404-50	DIODE	MA111-TX (ZX8)			R735	1-249-625-31	CARBON	10	5%	1/2W F (ZX8)
D790	8-719-083-66	DIODE	UDZSTE-1718B (ZX8)			R736	1-216-843-11	METAL CHIP	68K	5%	1/10W (ZX8)
D791	8-719-083-66	DIODE	UDZSTE-1718B (ZX8)			R737	1-216-845-11	METAL CHIP	100K	5%	1/10W (ZX8)
< GROUND TERMINAL >						R750	1-216-821-11	METAL CHIP	1K	5%	1/10W (ZX8)
EP790	1-537-738-21	TERMINAL, GROUND (ZX8)				R751	1-216-841-11	METAL CHIP	47K	5%	1/10W (ZX8)
< IC >											
IC701	6-600-169-01	IC	STK412-240 (ZX8)			R752	1-216-815-11	METAL CHIP	330	5%	1/10W (ZX8)
< TRANSISTOR >						△ R764	1-215-863-11	METAL OXIDE	100	5%	1W F (ZX8)
Q720	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R (ZX8)			R766	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (ZX8)
Q721	8-729-821-00	TRANSISTOR	2SA1207 (ZX8)			△ R780	1-234-499-21	ENCAPSULATED COMPONENT	0.22X2	5W	(ZX8)
Q722	8-729-924-99	TRANSISTOR	2SC3722K-E (ZX8)			R781	1-216-821-11	METAL CHIP	1K	5%	1/10W (ZX8)
Q730	8-729-924-99	TRANSISTOR	2SC3722K-E (ZX8)								
Q762	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R (ZX8)			R782	1-216-835-11	METAL CHIP	15K	5%	1/10W (ZX8)
Q765	8-729-901-81	TRANSISTOR	2SC2412K-T-146-R (ZX8)			R783	1-216-847-11	METAL CHIP	150K	5%	1/10W (ZX8)
Q780	8-729-924-99	TRANSISTOR	2SC3722K-E (ZX8)			R784	1-216-843-11	METAL CHIP	68K	5%	1/10W (ZX8)
< RESISTOR >						R785	1-249-625-31	CARBON	10	5%	1/2W F (ZX8)
R700	1-216-821-11	METAL CHIP	1K	5%	1/10W (ZX8)	R788	1-216-823-11	METAL CHIP	1.5K	5%	1/10W (ZX8)
R701	1-216-841-11	METAL CHIP	47K	5%	1/10W (ZX8)	R792	1-216-845-11	METAL CHIP	100K	5%	1/10W (ZX8)
R702	1-216-815-11	METAL CHIP	330	5%	1/10W (ZX8)	△ R793	1-217-637-00	FUSIBLE	1	5%	1/4W F (ZX8)
R710	1-216-841-11	METAL CHIP	47K	5%	1/10W (ZX8)	△ R794	1-245-605-51	FUSIBLE	100	5%	1/4W F (ZX8)
R711	1-216-841-11	METAL CHIP	47K	5%	1/10W (ZX8)	△ R795	1-245-605-51	FUSIBLE	100	5%	1/4W F (ZX8)
R720	1-216-833-11	METAL CHIP	10K	5%	1/10W (ZX8)	△ R796	1-215-869-11	METAL OXIDE	1K	5%	1W F (ZX8)
R721	1-216-833-11	METAL CHIP	10K	5%	1/10W (ZX8)	△ R797	1-215-869-11	METAL OXIDE	1K	5%	1W F (ZX8)
R722	1-216-841-11	METAL CHIP	47K	5%	1/10W (ZX8)						
R723	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (ZX8)						
R724	1-216-845-11	METAL CHIP	100K	5%	1/10W (ZX8)						

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Ver 1.1

SURROUND	TC-A	TC-B	TRANS
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Ref. No.	Part No.	Description	Remark		
R798	1-216-845-11	METAL CHIP	100K	5%	1/10W (ZX8)
R799	1-216-845-11	METAL CHIP	100K	5%	1/10W (ZX8)
< RELAY >					
RY760	1-755-372-11	RELAY (ZX8)			

TC-A BOARD					

< CONNECTOR >					
CN914	1-785-329-11	PIN, CONNECTOR (LIGHT ANGLE) 3P			
CN915	1-785-333-11	PIN, CONNECTOR (LIGHT ANGLE) 7P			
< DIODE >					
D918	8-719-060-27	LED SLR-325MCT31 (<I)			
D919	8-719-060-27	LED SLR-325MCT31 (>I)			
< JUMPER RESISTOR >					
JR903	1-216-864-11	SHORT CHIP	0		
< TRANSISTOR >					
Q907	8-729-027-43	TRANSISTOR DTC114EKA-T146			
< RESISTOR >					
R833	1-216-819-11	METAL CHIP	680	5%	1/10W
R835	1-216-819-11	METAL CHIP	680	5%	1/10W
R837	1-216-833-11	METAL CHIP	10K	5%	1/10W
R840	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R842	1-216-809-11	METAL CHIP	100	5%	1/10W
R843	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R844	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R845	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R846	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
< SWITCH >					
S931	1-771-410-21	SWITCH, TACTILE (I<<< <<I)			
S932	1-771-410-21	SWITCH, TACTILE (>>> >>I)			
S933	1-771-410-21	SWITCH, TACTILE (FUNCTION)			
S934	1-771-410-21	SWITCH, TACTILE (■)			
S935	1-771-410-21	SWITCH, TACTILE (<I)			
S936	1-771-410-21	SWITCH, TACTILE (>I)			

A-1052-746-A		TC-B BOARD, COMPLETE (MX)			
A-4751-063-A		TC-B BOARD, COMPLETE (E2,E51)			

< CONNECTOR >					
CN905	1-785-331-11	PIN, CONNECTOR (LIGHT ANGLE) 5P			
CN916	1-785-335-11	PIN, CONNECTOR (LIGHT ANGLE) 9P			
< DIODE >					
D921	8-719-060-27	LED SLR-325MCT31 (GAME)			
D922	8-719-053-43	LED SLR-325VCT31 (REC PAUSE/START)			
D923	8-719-060-27	LED SLR-325MCT31 (<I)			

Ref. No.	Part No.	Description	Remark		
D924	8-719-060-27	LED SLR-325MCT31 (▷)			
< JUMPER RESISTOR >					
JR907	1-216-864-11	SHORT CHIP	0		
JR908	1-216-864-11	SHORT CHIP	0		
< TRANSISTOR >					
Q909	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q910	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
< RESISTOR >					
R847	1-216-819-11	METAL CHIP	680	5%	1/10W
R848	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R849	1-216-819-11	METAL CHIP	680	5%	1/10W
R850	1-216-809-11	METAL CHIP	100	5%	1/10W
R852	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R855	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R857	1-216-819-11	METAL CHIP	680	5%	1/10W
R858	1-216-821-11	METAL CHIP	1K	5%	1/10W
R859	1-216-819-11	METAL CHIP	680	5%	1/10W
R860	1-216-809-11	METAL CHIP	100	5%	1/10W
R861	1-216-819-11	METAL CHIP	680	5%	1/10W
R864	1-216-817-11	METAL CHIP	470	5%	1/10W
R868	1-216-835-11	METAL CHIP	15K	5%	1/10W
R869	1-216-833-11	METAL CHIP	10K	5%	1/10W
R870	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
< SWITCH >					
S940	1-771-410-21	SWITCH, TACTILE (REC PAUSE/START)			
S941	1-771-410-21	SWITCH, TACTILE (GAME)			
S942	1-771-410-21	SWITCH, TACTILE (GAME MIXING)			
S943	1-771-410-21	SWITCH, TACTILE (CD SYNC)			
S944	1-771-410-21	SWITCH, TACTILE (▶▶▶▶▶▶)			
S945	1-771-410-21	SWITCH, TACTILE (◀◀◀◀◀◀)			
S947	1-771-410-21	SWITCH, TACTILE (■)			
S948	1-771-410-21	SWITCH, TACTILE (▷)			
S949	1-771-410-21	SWITCH, TACTILE (◁)			

	1-861-385-11	TRANS BOARD			

	1-533-217-41	HOLDER, FUSE			
< CAPACITOR >					
C1192	1-128-576-11	ELECT	100uF	20%	63V
< CONNECTOR >					
* CN1112	1-564-521-11	PLUG, CONNECTOR 6P			
* CN1113	1-564-520-11	PLUG, CONNECTOR 5P			
< DIODE >					
D1192	6-500-522-21	DIODE 10EDB40-TB3			
< RESISTOR >					
△ R1192	1-219-124-11	FUSIBLE	0.68	5%	1/4W F

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VOL

VOLTAGE SELECTOR

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
	A-1052-687-A	VOL BOARD, COMPLETE (ZX8:MX)					R976	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
	A-4751-069-A	VOL BOARD, COMPLETE (ZX8:E2,E51)					R1300	1-216-821-11	METAL CHIP	1K	5%	1/10W	
	A-4751-091-A	VOL BOARD, COMPLETE (ZX6)					R1301	1-216-809-11	METAL CHIP	100	5%	1/10W	
		*****					R1302	1-216-821-11	METAL CHIP	1K	5%	1/10W	
		< CAPACITOR >					R1303	1-216-821-11	METAL CHIP	1K	5%	1/10W	
C967	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V		R1306	1-216-821-11	METAL CHIP	1K	5%	1/10W	
C968	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V		R1308	1-216-809-11	METAL CHIP	100	5%	1/10W	
C969	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V		R1309	1-216-821-11	METAL CHIP	1K	5%	1/10W	
C971	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V		R1310	1-216-821-11	METAL CHIP	1K	5%	1/10W	
		< CONNECTOR >					R1313	1-216-821-11	METAL CHIP	1K	5%	1/10W	
CN928	1-785-328-11	PIN, CONNECTOR (LIGHT ANGLE) 2P					R1315	1-216-809-11	METAL CHIP	100	5%	1/10W	
		< DIODE >					R1316	1-216-821-11	METAL CHIP	1K	5%	1/10W	
							R1317	1-216-821-11	METAL CHIP	1K	5%	1/10W	
D907	8-719-075-60	LED	SELS5823C-TP15 (ILLUMINATION)				R1320	1-216-821-11	METAL CHIP	1K	5%	1/10W	
D908	8-719-075-60	LED	SELS5823C-TP15 (ILLUMINATION)				R1322	1-216-809-11	METAL CHIP	100	5%	1/10W	
D909	8-719-075-60	LED	SELS5823C-TP15 (ILLUMINATION)				R1323	1-216-821-11	METAL CHIP	1K	5%	1/10W	
D910	8-719-075-60	LED	SELS5823C-TP15 (ILLUMINATION)				R1324	1-216-821-11	METAL CHIP	1K	5%	1/10W	
D911	8-719-075-60	LED	SELS5823C-TP15 (ILLUMINATION)				R1327	1-216-821-11	METAL CHIP	1K	5%	1/10W	
D912	8-719-075-60	LED	SELS5823C-TP15 (ILLUMINATION)				R1329	1-216-809-11	METAL CHIP	100	5%	1/10W	
D913	8-719-075-60	LED	SELS5823C-TP15 (ILLUMINATION)				R1330	1-216-821-11	METAL CHIP	1K	5%	1/10W	
D914	8-719-075-60	LED	SELS5823C-TP15 (ILLUMINATION)				R1331	1-216-821-11	METAL CHIP	1K	5%	1/10W	
D915	8-719-075-60	LED	SELS5823C-TP15 (ILLUMINATION)				R1335	1-216-821-11	METAL CHIP	1K	5%	1/10W	
D916	8-719-075-60	LED	SELS5823C-TP15 (ILLUMINATION)				R1336	1-216-821-11	METAL CHIP	1K	5%	1/10W	
D917	8-719-075-60	LED	SELS5823C-TP15 (ILLUMINATION)				R1337	1-216-821-11	METAL CHIP	1K	5%	1/10W	
		< JUMPER RESISTOR >					< SWITCH >						
JR909	1-216-864-11	SHORT CHIP	0				S904	1-771-410-21	SWITCH, TACTILE (SALSA)				
JR910	1-216-864-11	SHORT CHIP	0				S905	1-771-410-21	SWITCH, TACTILE (REGGAE)				
JR911	1-216-864-11	SHORT CHIP	0				S906	1-771-410-21	SWITCH, TACTILE (POP)				
JR912	1-216-864-11	SHORT CHIP	0				S907	1-771-410-21	SWITCH, TACTILE (SAMBA)				
JR913	1-216-864-11	SHORT CHIP	0				S908	1-771-410-21	SWITCH, TACTILE (TANGO)				
		< TRANSISTOR >					S909	1-771-410-21	SWITCH, TACTILE (SURROUND)				
Q911	8-729-027-43	TRANSISTOR	DTC114EKA-T146				S910	1-771-410-21	SWITCH, TACTILE (P FILE)				
Q912	8-729-027-43	TRANSISTOR	DTC114EKA-T146				S911	1-771-410-21	SWITCH, TACTILE (X-GROOVE)				
Q913	8-729-027-43	TRANSISTOR	DTC114EKA-T146				S913	1-771-410-21	SWITCH, TACTILE (ROCK)				
Q914	8-729-027-43	TRANSISTOR	DTC114EKA-T146				S914	1-771-410-21	SWITCH, TACTILE (JAZZ)				
Q915	8-729-027-43	TRANSISTOR	DTC114EKA-T146				S915	1-771-410-21	SWITCH, TACTILE (DANCE)				
		< RESISTOR >					S916	1-771-410-21	SWITCH, TACTILE (MOVIE)				
R960	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W		S917	1-771-410-21	SWITCH, TACTILE (GAME)				
R961	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		S918	1-771-410-21	SWITCH, TACTILE (AMP MENU)				
R962	1-216-827-11	METAL CHIP	3.3K	5%	1/10W		S919	1-771-410-21	SWITCH, TACTILE (EFFECT ON/OFF)				
R963	1-216-825-11	METAL CHIP	2.2K	5%	1/10W		S975	1-418-725-51	ENCODER, ROTARY (12 TYPE) (VOLUME)				
R964	1-216-823-11	METAL CHIP	1.5K	5%	1/10W		*****						
							1-861-384-11	VOLTAGE SELECTOR BOARD					

		< CAPACITOR >											
R965	1-216-823-11	METAL CHIP	1.5K	5%	1/10W		C1001	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
R966	1-216-821-11	METAL CHIP	1K	5%	1/10W		C1002	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
R967	1-216-819-11	METAL CHIP	680	5%	1/10W		C1004	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
R968	1-216-817-11	METAL CHIP	470	5%	1/10W		C1006	1-126-916-11	ELECT	1000uF	20%	6.3V	
R969	1-216-817-11	METAL CHIP	470	5%	1/10W		< CONNECTOR >						
R970	1-216-819-11	METAL CHIP	680	5%	1/10W		CN1000	1-785-329-11	PIN, CONNECTOR (LIGHT ANGLE) 3P				
R971	1-216-821-11	METAL CHIP	1K	5%	1/10W		* CN1002	1-568-226-11	PIN, CONNECTOR (3.96mm PITCH) 2P				
R972	1-216-823-11	METAL CHIP	1.5K	5%	1/10W		CN1004	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P (MX)				
R973	1-216-823-11	METAL CHIP	1.5K	5%	1/10W		* CN1004	1-566-664-11	PIN, CONNECTOR (3.96mm PITCH) 4P (E2,E51)				
R974	1-216-825-11	METAL CHIP	2.2K	5%	1/10W								
R975	1-216-827-11	METAL CHIP	3.3K	5%	1/10W								

VOLTAGE SELECTOR

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D1000	8-719-404-50	DIODE MA111-TX	
		< JUMPER RESISTOR >	
JR1002	1-216-864-11	SHORT CHIP 0	
		< COIL >	
L1001	1-410-666-31	INDUCTOR 18uH	
		< TRANSISTOR >	
Q1000	8-729-901-81	TRANSISTOR 2SC2412K-T-146-R	
		< RESISTOR >	
R1000	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R1001	1-216-845-11	METAL CHIP 100K 5% 1/10W	
		< RELAY >	
△RY1000	1-755-299-11	RELAY	
		< SWITCH >	
△S1000	1-771-291-31	SWITCH, POWER (VOLTAGE SELECTOR)	(E2,E51)

		MISCELLANEOUS	

5	1-769-939-11	WIRE (FLAT TYPE) (11 CORE)	
△6	1-468-737-21	POWER, SWITCHING	
57	1-773-163-11	WIRE (FLAT TYPE) (21 CORE)	
58	1-796-487-51	DECK, MECHANICAL (E2,E51)	
58	1-796-487-61	DECK, MECHANICAL (MX)	
62	1-769-992-11	WIRE (FLAT TYPE) (13 CORE)	
△157	1-777-071-53	CORD, POWER (E51)	
△157	1-827-226-11	CORD, POWER (E2,MX)	
207	1-823-921-11	FMS-18	
△265	8-820-244-01	OPTICAL PICK-UP (KSM-215DCP/C2RP)	
272	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)	
273	1-452-925-21	MAGNET ASSY	
△F1141	1-576-655-12	FUSE, GLASS TUBE (DIA.5) (8A/250V)	
△F1151	1-576-655-12	FUSE, GLASS TUBE (DIA.5) (8A/250V)	
△F1161	1-576-655-12	FUSE, GLASS TUBE (DIA.5) (8A/250V)	
△F1171	1-576-655-12	FUSE, GLASS TUBE (DIA.5) (8A/250V)	
△F1181	1-533-471-12	FUSE, GLASS TUBE (DIA.5) (4A/250V)	
FAN901	1-763-072-11	FAN, DC (ZX6)	
FAN901	1-763-372-11	FAN, DC (ZX8)	
FC901	1-500-497-11	FILTER, CLAMP (FERRITE CORE)	
M901	1-541-632-12	MOTOR, DC (LOADING)	
RE901	1-418-746-11	ENCODER, ROTARY	
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	
△T1100	1-443-194-11	TRANSFORMER, POWER (ZX6)	
△T1100	1-443-195-11	TRANSFORMER, POWER (ZX8:MX)	
△T1100	1-443-196-11	TRANSFORMER, POWER (ZX8:E2,E51)	
TU901	1-693-603-11	TUNER (FM/AM) (ANTENNA)	

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

HCD-ZX6/ZX8

SONY[®]

E Model

SERVICE MANUAL

Ver 1.1 2004. 09

SUPPLEMENT-1

File this supplement with the service manual.

Subject : Addition of Block Diagrams.
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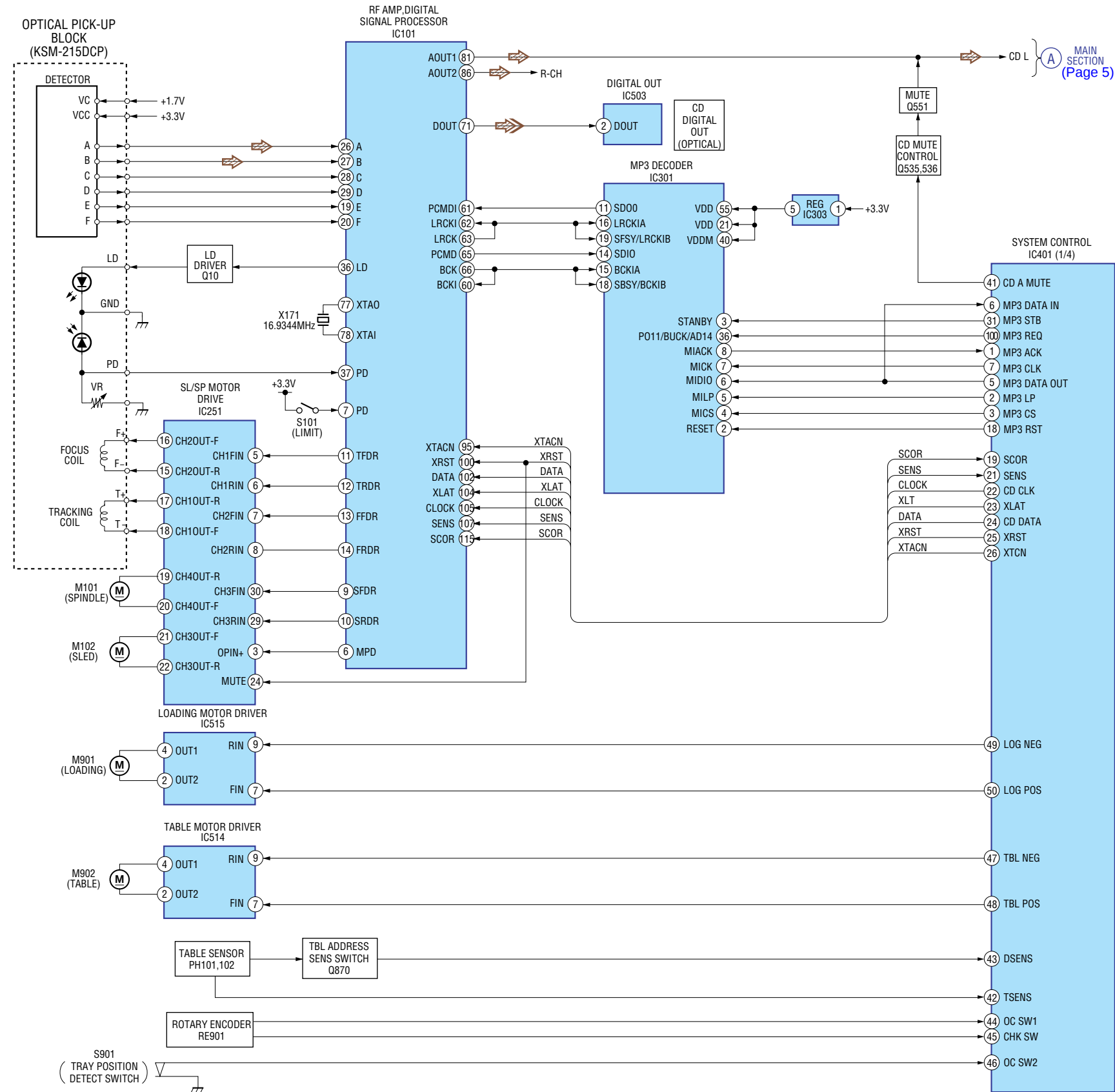
1. Block Diagram –CD Servo Section– 3

2. Block Diagram –Tuner/Tape Deck Section– 4

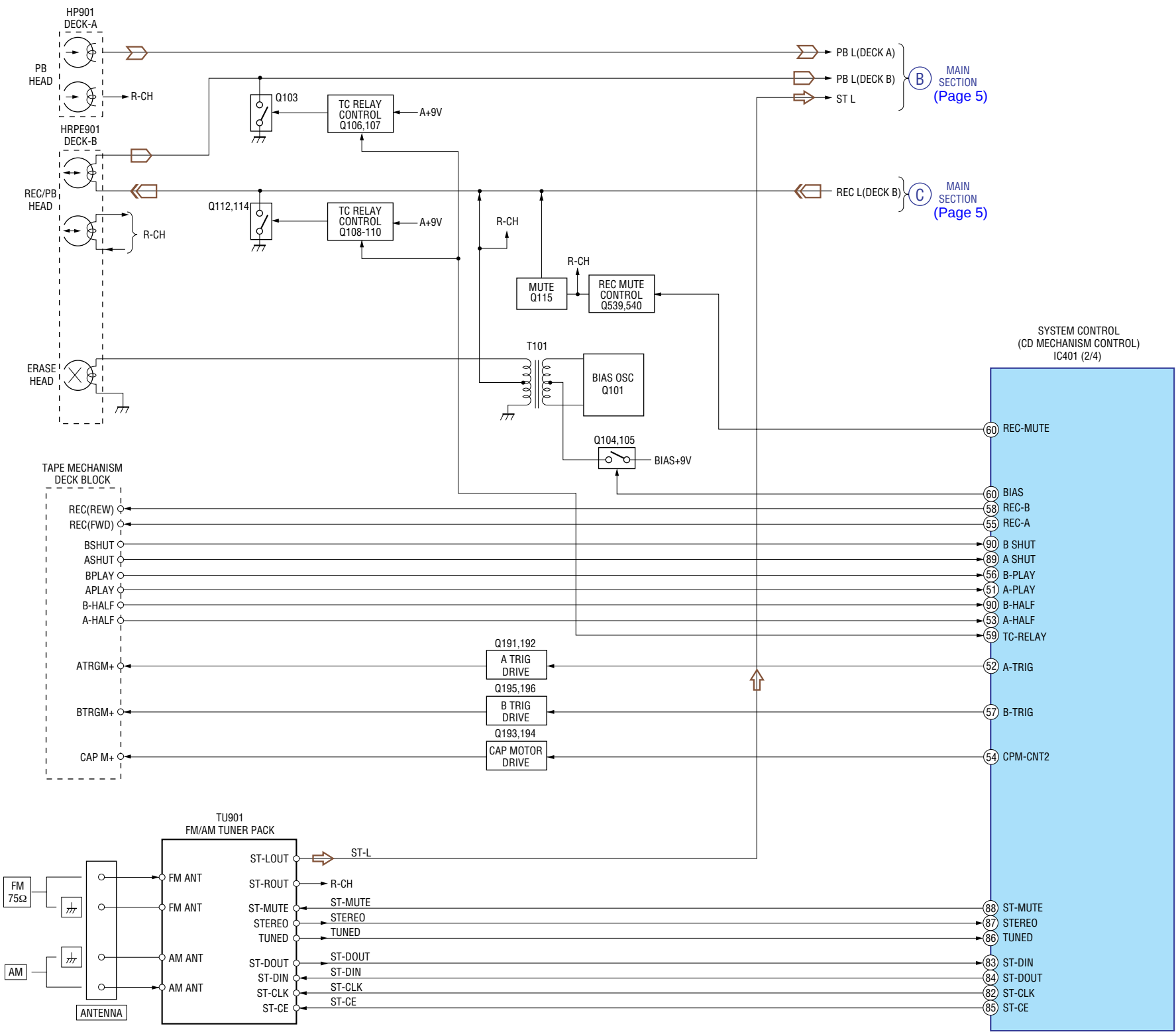
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1. BLOCK DIAGRAM — CD SERVO SECTION —



2. BLOCK DIAGRAM — TUNER/TAPE DECK SECTION —



• R-ch is omitted due to same as L-ch.

• SIGNAL PATH

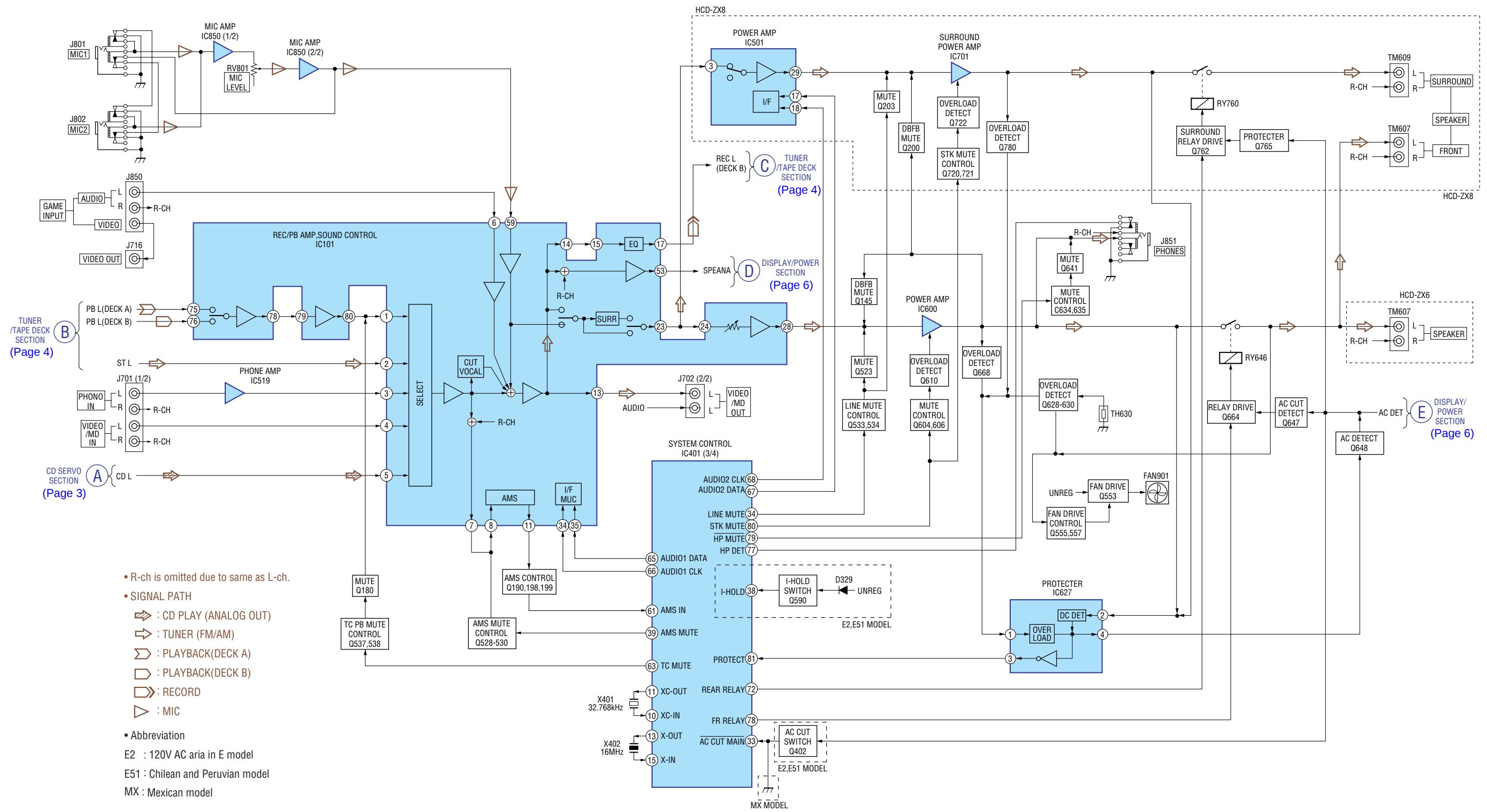
⇒ : TUNER(FM/AM)

⇨ : PLAYBACK(DECK A)

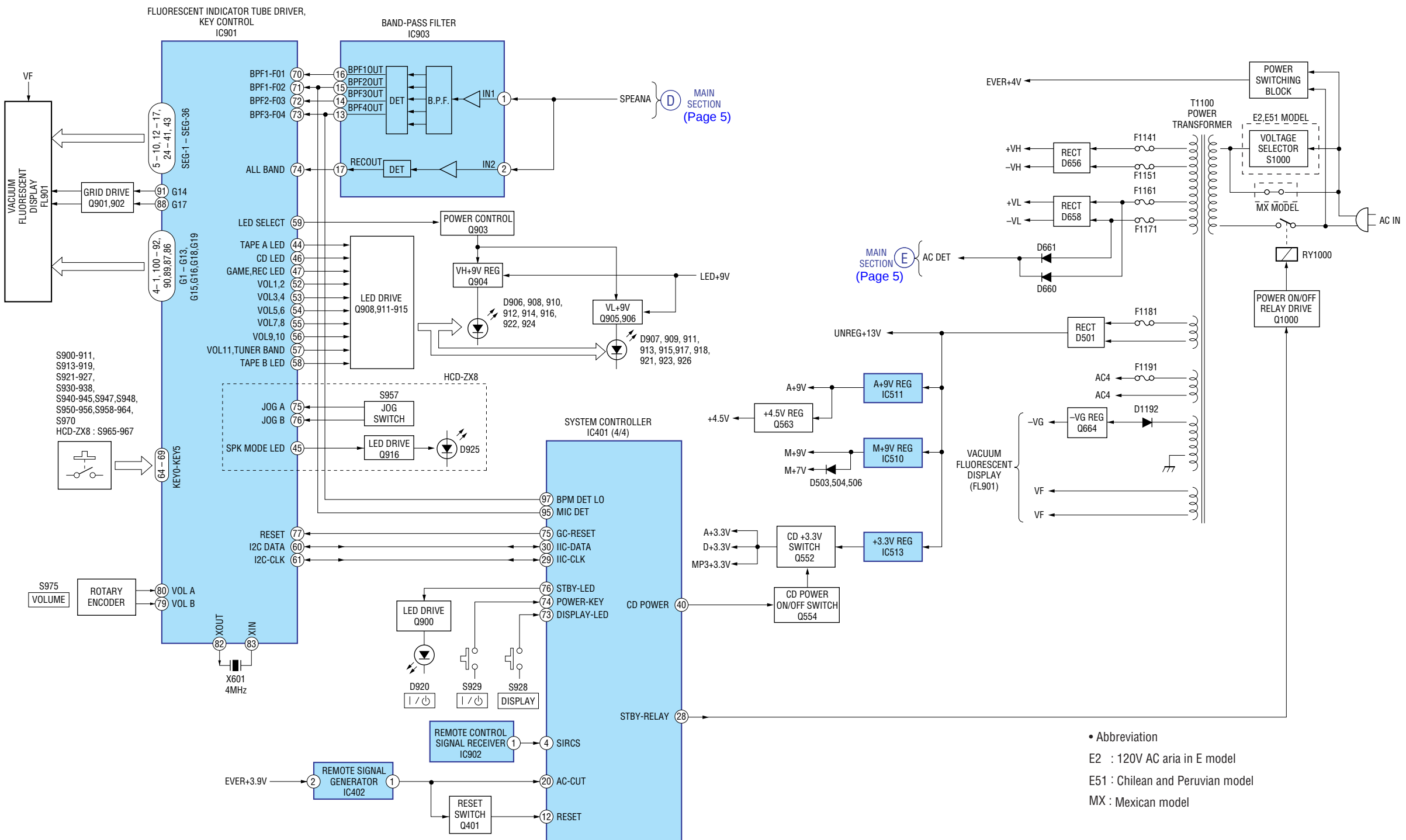
⇩ : PLAYBACK(DECK B)

⇨⇨ : RECORD

3. BLOCK DIAGRAM — MAIN SECTION —



4. BLOCK DIAGRAM — DISPLAY/POWER SECTION —



MEMO

REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

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