

HCD-GX8000/RG77

SERVICE MANUAL

Ver 1.0 2002.02

US Model
HCD-GX8000

E Model
HCD-RG77



HCD-GX8000/RG77 are the amplifier, CD player, tape deck and tuner section in MHC-GX8000/RG77.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM58E-30BD60C
	Base Unit Name	BU-30BD60C
	Optical Pick-up Name	A-MAX.3
TAPE Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	TCM-230AWR41CS

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

(HCD-GX8000 only)

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6-ohm loads, both channels driven, from 120 Hz - 10 kHz; rates 200 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 miliwatts to rated output.

Amplifier section

HCD-GX8000

Total harmonic distortion
Less than 0.1 % (6 ohms at 1 kHz, 100 W)

HCD-RG77

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

DIN power output (rated) 160 + 160 watts
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
200 + 200 watts
(6 ohms at 1 kHz, 10% THD)

Inputs

GAME (VIDEO): 1 Vp-p, 75 ohms
(phono jack)
GAME (AUDIO): Voltage 250 mV, impedance 47 kilohms
(phono jacks)
MD/VIDEO (AUDIO) IN: voltage 450 mV/250 mV, impedance 47 kilohms
(phono jacks)
MIC: sensitivity 1 mV, impedance 10 kilohms
(phone jack)

Outputs
VIDEO OUT:
(phono jacks)

max. output level 1 Vp-p, unbalanced, Sync.
negative load impedance
75 ohms

PHONES:

(stereo mini jack)

accepts headphones of

FRONT SPEAKER:

8 ohms or more
accepts impedance of 6 to 16 ohms

SURROUND SPEAKER:

accepts impedance of 24 ohms or more

CD player section

System

Compact disc and digital audio system
Semiconductor laser
($\lambda=795\text{nm}$)

Laser

Max. 44.6 μW *

Laser Output

*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.
2 Hz - 20 kHz (± 0.5 dB)

Frequency response

Wave length

795 nm

CD OPTICAL DIGITAL OUT

(Square optical connector jack, rear panel)

Wave length

660 nm

Output Level

-18 dBm

Tape player section

Recording system

4-track 2-channel stereo

Frequency response

50 - 13,000 Hz (± 3 dB), using Sony TYPE I cassette

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range 87.5 - 108.0 MHz
Antenna FM lead antenna
Antenna terminals 75 ohm unbalanced
Intermediate frequency 10.7 MHz

AM tuner section

Tuning range
Latin and North American models:
530 - 1,710 kHz
(with the interval set at 10 kHz)
531 - 1,710 kHz
(with the interval set at 9 kHz)
Middle Eastern models: 531 - 1,602 kHz
(with the interval set at 9 kHz)
Other models: 531 - 1,602 kHz
(with the interval set at 9 kHz)
530 - 1,710 kHz
(with the interval set at 10 kHz)
Antenna AM loop antenna
Antenna terminals External antenna terminal
Intermediate frequency 450 kHz

- Continued on next page -

COMPACT DISC DECK RECEIVER

9-873-542-01

2002B0500-1

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Sony Corporation

Home Audio Company

Published by Sony Engineering Corporation

SONY®

General

Power requirements	
North America and Mexican models:	120 V AC, 60 Hz
Argentina model:	220 V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 - 240 V AC, 50/60 Hz
	Adjustable with voltage selector
Power consumption	240 watts
Dimensions (w/h/d)	Approx. 280 x 360 x 445 mm
Mass :	Approx. 11.0 kg

Design and specifications are subject to change without notice.

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 the 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.

SAFETY-RELATED COMPONENT WARNING!!

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

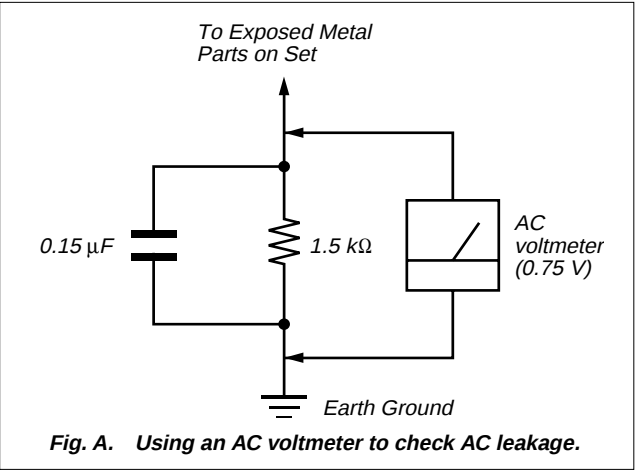
SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer: Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



CAUTION

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

CLASS 1 LASER PRODUCT

LUOKAN 1 LASERLAITE

KLASS 1 LASERAPPARAT

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

The following caution label is located inside the unit.

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED, AVOID EXPOSURE TO BEAM.

ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.

VORSICHT : UNSICHTBARE LASERSTRÄHLUNG, WENN ABDECKUNG GEÖFFNET UND SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT, NICHT DEM STRAHL AUSSETZEN.

VAROITUS : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALT-TIINA NAKYMÄTTÖMÄLLE LASERSÄTEILYLLE, ÄLÄ KATSO SÄTEESEEN.

VARNING : OSYNLIG LASERSTRÅLING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD, BETRÄKTA EJ STRÅLEN.

ADVERSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES, UNNGÅ EKSPONERING FOR STRÅLEN.

VIGYÁZAT! : A BURKOLAT NYITÁSÁKOR LÁTHATATLAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

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SECTION 1
SERVICING NOTES

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

The laser diode in the optical pick-up block may suffer electrostatic break-down 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.

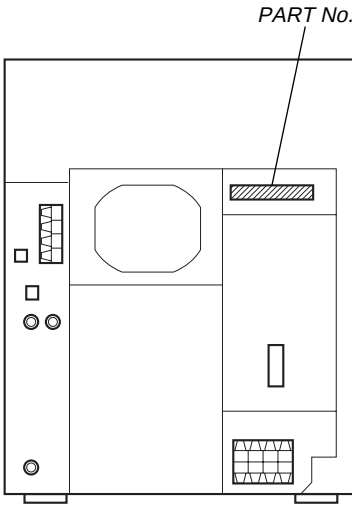
NOTES ON LASER DIODE EMISSION CHECK

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 DIODE AND FOCUS SEARCH OPERATION
CHECK

Carry out the “S curve check” in “CD section adjustment” and check that the S curve waveforms is output three times.

• MODEL IDENTIFICATION
– Back Panel –



MODEL	PART No.
E, Singapore, Chilean and Peruvian models	4-237-780-1□
Mexican and Argentina models	4-237-780-6□
US model	4-237-780-9□

SECTION 2 GENERAL

LOCATION OF CONTROLS

- Front Panel -

ALPHABETICAL ORDER

A - D

CD [35]
CD SYNC HI-DUB [14]
DECK A $\triangle$ [26]
DECK B $\triangle$ [16]
DIMMER [9]
DIRECTION [10]
DISC 1~3 [4]
DISC SKIP EX-CHANGE [5]
Disc tray [3]
DISPLAY [7]

E - L

EDIT [10]
EFFECT ON/OFF [42]
ENTER [41]
FM MODE [12]

GAME [31]
GAME EQ [43]
GAME INPUT [23]
GAME MIXING [29]
GROOVE [44]
IR (receptor) [2]

M - Q

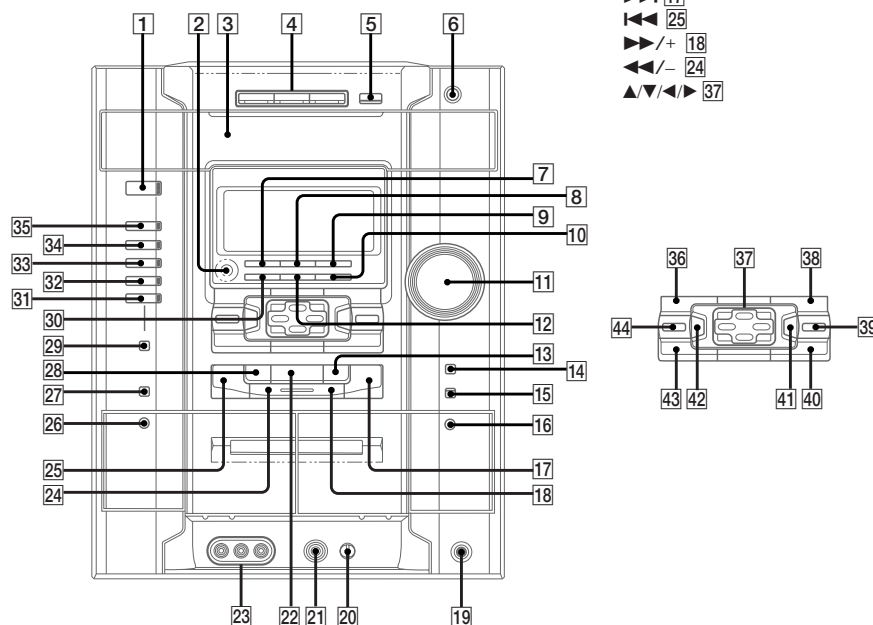
MD (VIDEO) [32]
MIC [21]
MIC LEVEL [20]
MOVIE EQ [38]
MUSIC EQ [36]
OPEN/CLOSE $\blacktriangle$ [6]
P FILE [40]
PHONES (jack) [19]
PLAY MODE [30]

R - Z

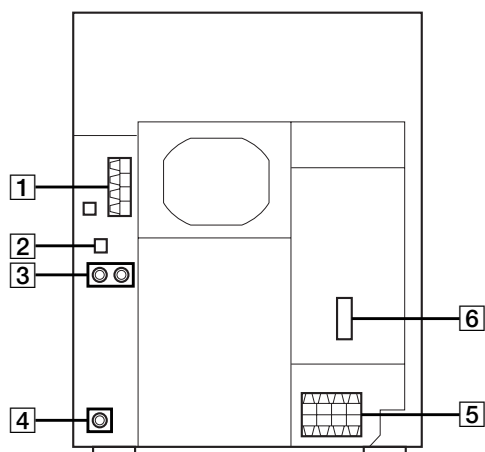
REC PAUSE/START [15]
REPEAT [12]
SPECTRUM [8]
SURROUND [39]
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TAPE A/B [33]
TUNER/BAND [34]
TUNER MEMORY [30]
VOLUME [11]

BUTTON DESCRIPTIONS

I/⏻ [1]
◀▶ [22]
■ [13]
|| [28]
▶▶ [17]
◀◀ [25]
▶▶/+ [18]
◀◀/- [24]
▲▼/◀▶ [37]



– Back Panel –



- 1 ANTENNA terminal
- 2 CD DIGITAL OUT OPTICAL terminal
- 3 MD/VIDEO (AUDIO) IN jack
- 4 VIDEO OUT jack
- 5 FRONT/SURROUND SPEAKER terminal
- 6 VOLTAGE SELECTOR switch
(E and Singapore models)

Remote Control

ALPHABETICAL ORDER

A - M

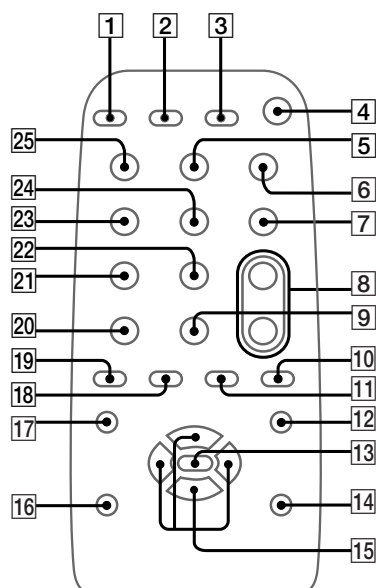
CD 19
 CLEAR 7
 CLOCK/TIMER SELECT 2
 CLOCK/TIMER SET 3
 D.SKIP 9
 ENTER 13
 EFFECT ON/OFF 14
 GAME 20
 MD (VIDEO) 10

P - Z

PRESET - 23
 PRESET + 24
 PRESET EQ 17
 P FILE 16
 SURROUND SPEAKER MODE 12
 SURROUND 12
 SLEEP 1
 TAPE A/B 11
 TUNER/BAND 18
 TUNING - 21
 TUNING + 22
 VOL +/- 8

BUTTON DESCRIPTIONS

I/⏻ 4
 ◀▶ 25
 || 5
 ■ 6
 ◀◀ 23
 ▶▶ 24
 ◀◀ 21
 ▶▶ 22
 ▲▼/◀▶ 15



Setting the clock

- 1 Turn on the system.
- 2 Press **CLOCK/TIMER SET** on the remote.
 When you set the time for the first time, proceed to step 5.
- 3 Press ▼ or ▲ repeatedly to select **CLOCK SET**.
- 4 Press **ENTER**.
- 5 Press ▼ or ▲ repeatedly to set the hour.
- 6 Press **ENTER**.
- 7 Press ▼ or ▲ repeatedly to set the minute.
- 8 Press **ENTER**.
 The clock starts functioning.

Tip

If you have made a mistake or want to change the time, start over from step 2.

Note

The clock settings are canceled when you disconnect the power cord or if a power failure occurs.

SECTION 3 DISASSEMBLY

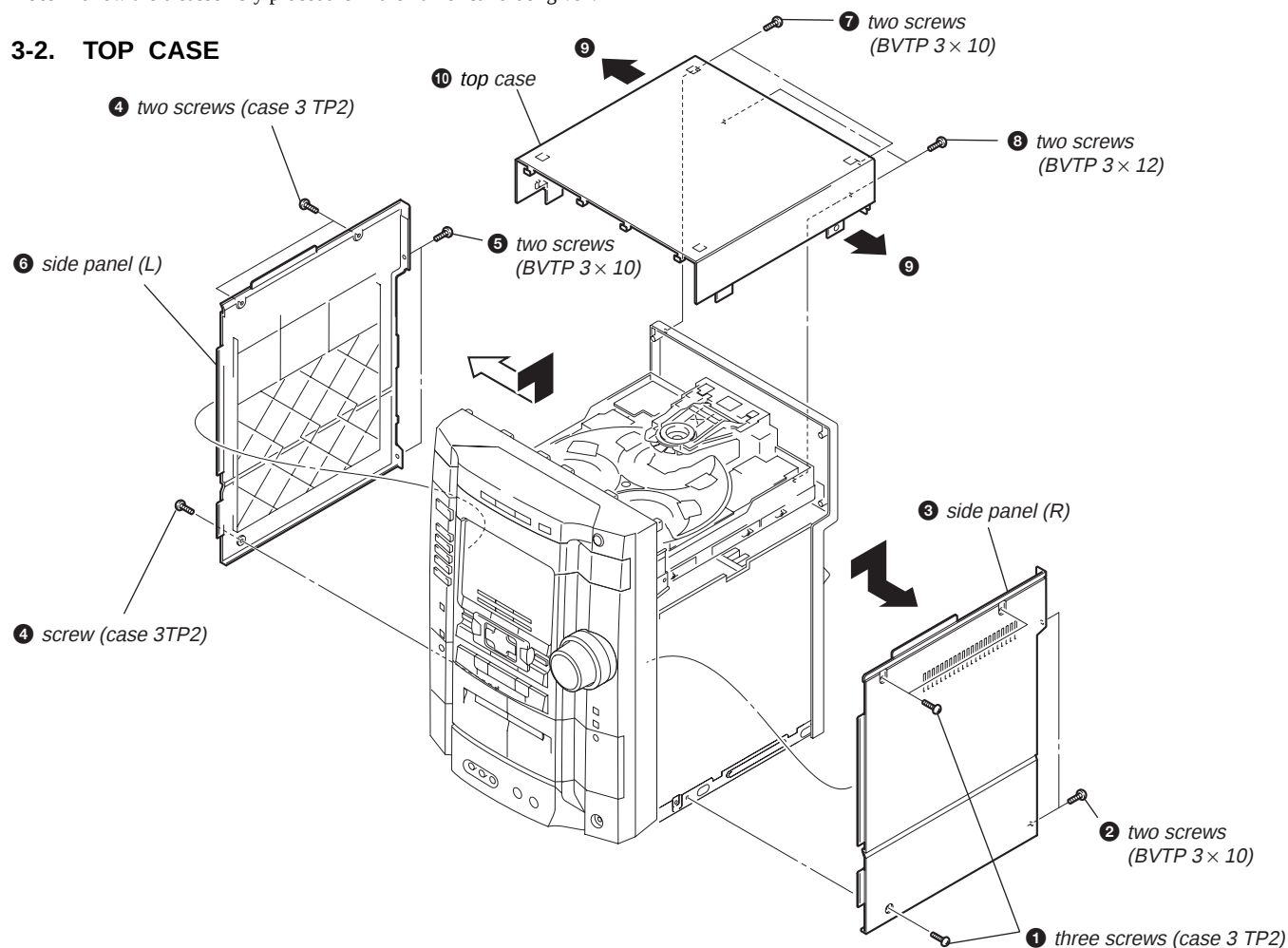
• This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

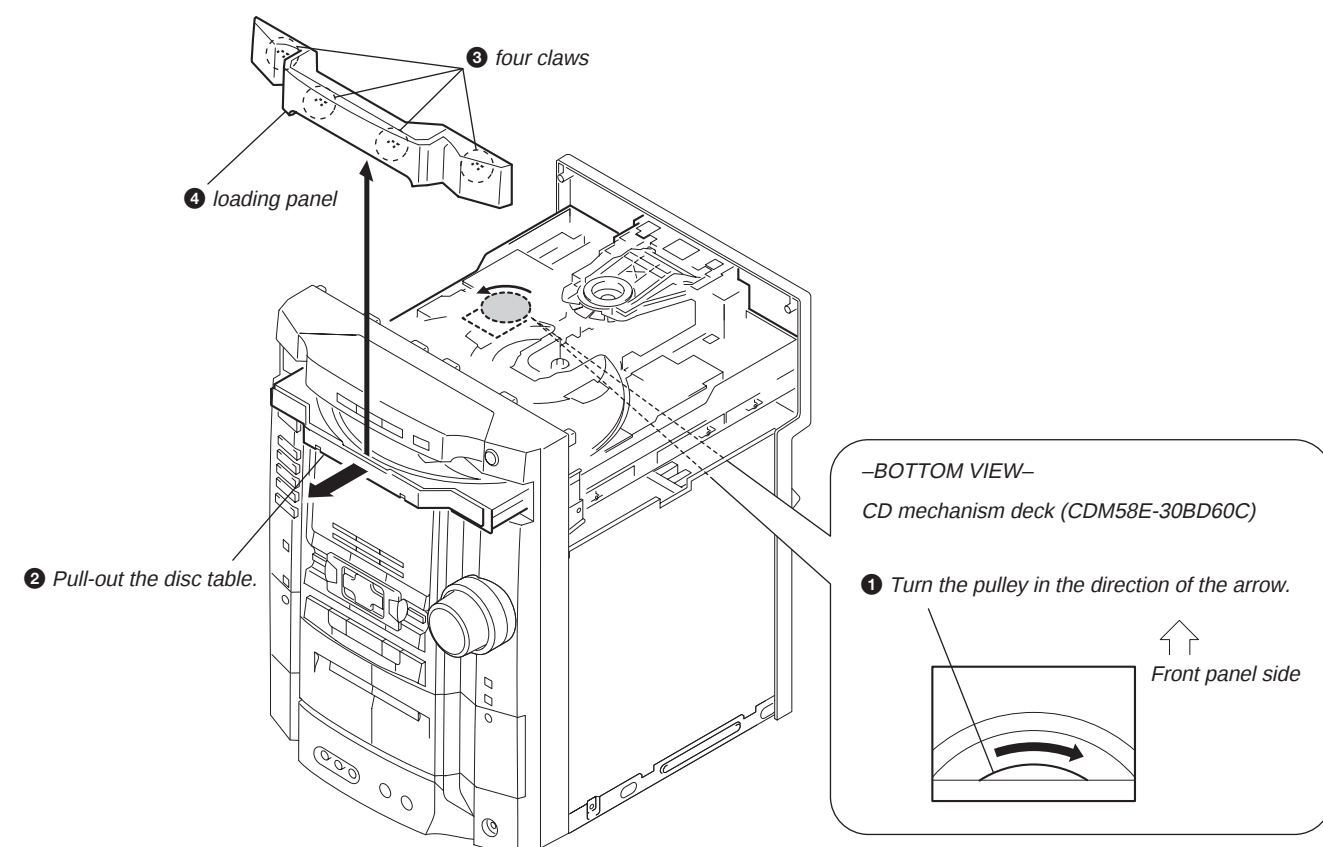


Note: Follow the disassembly procedure in the numerical order given.

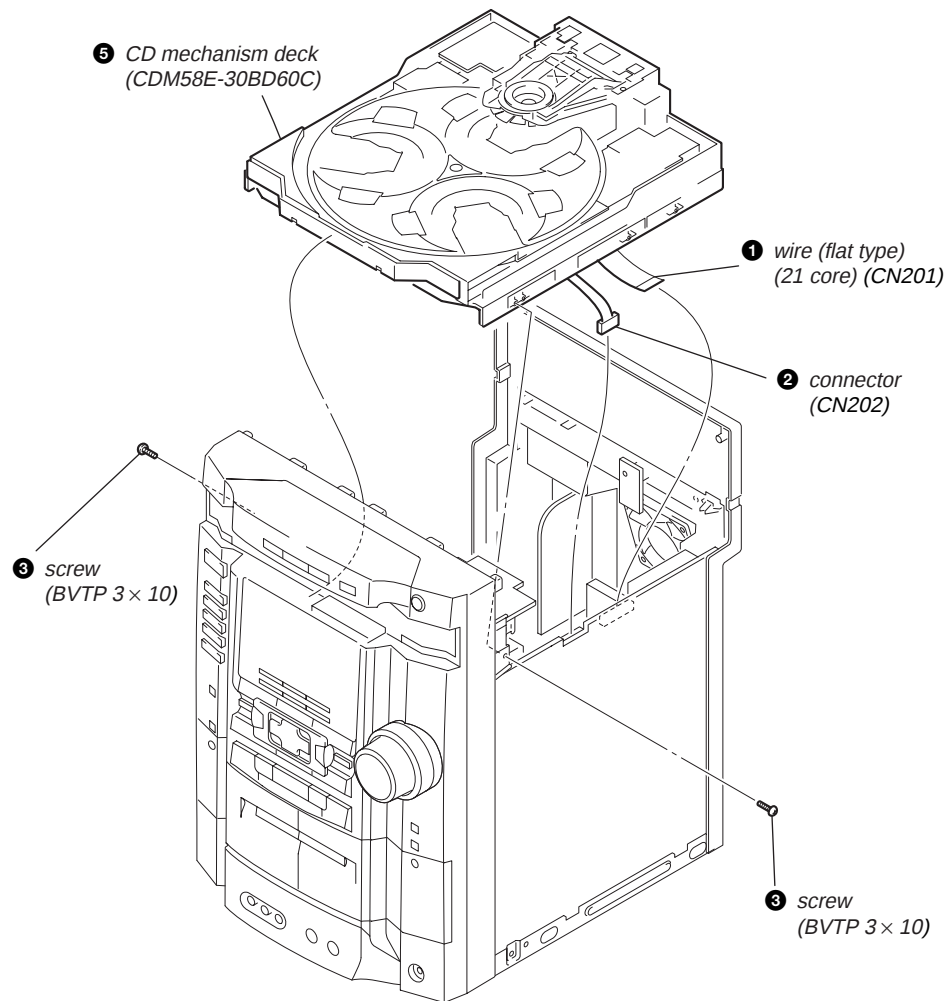
3-2. TOP CASE



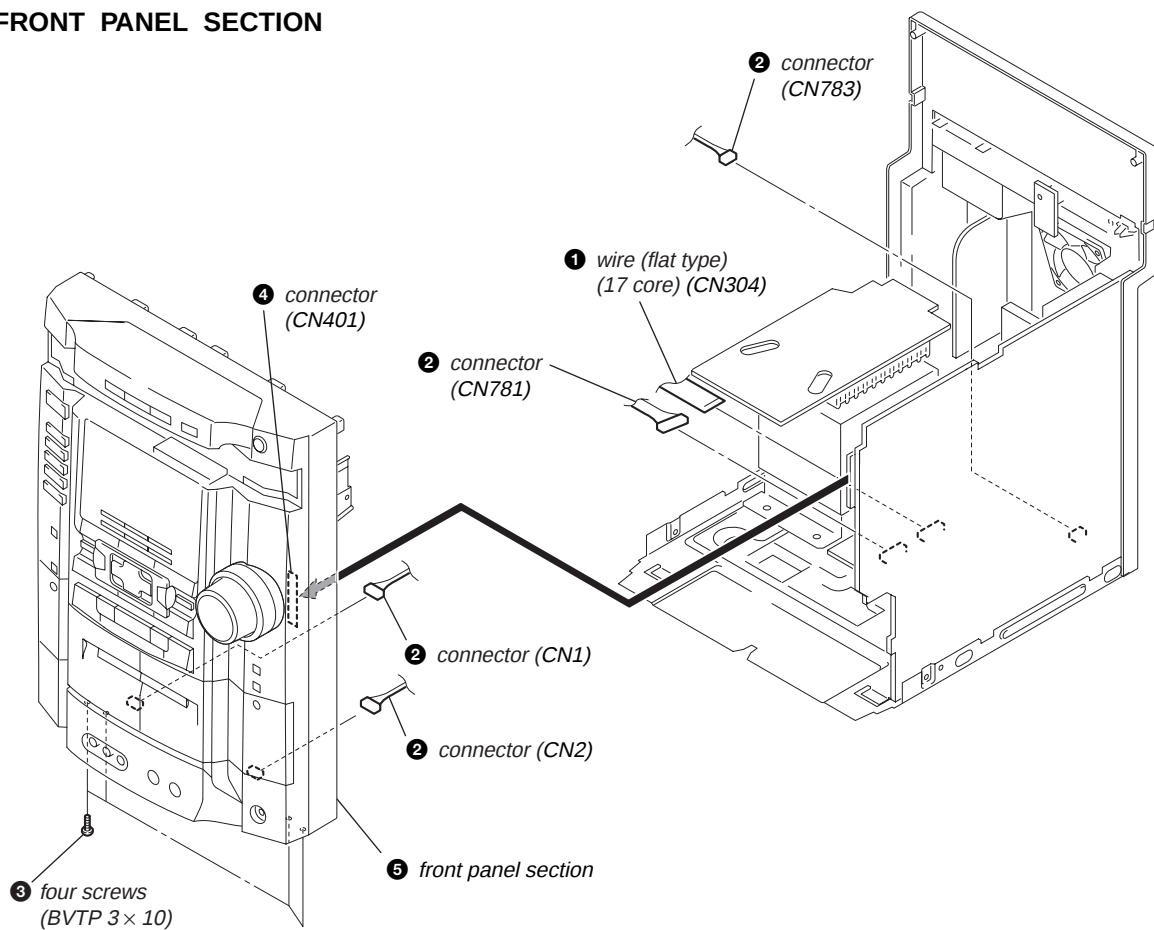
3-3. LOADING PANEL



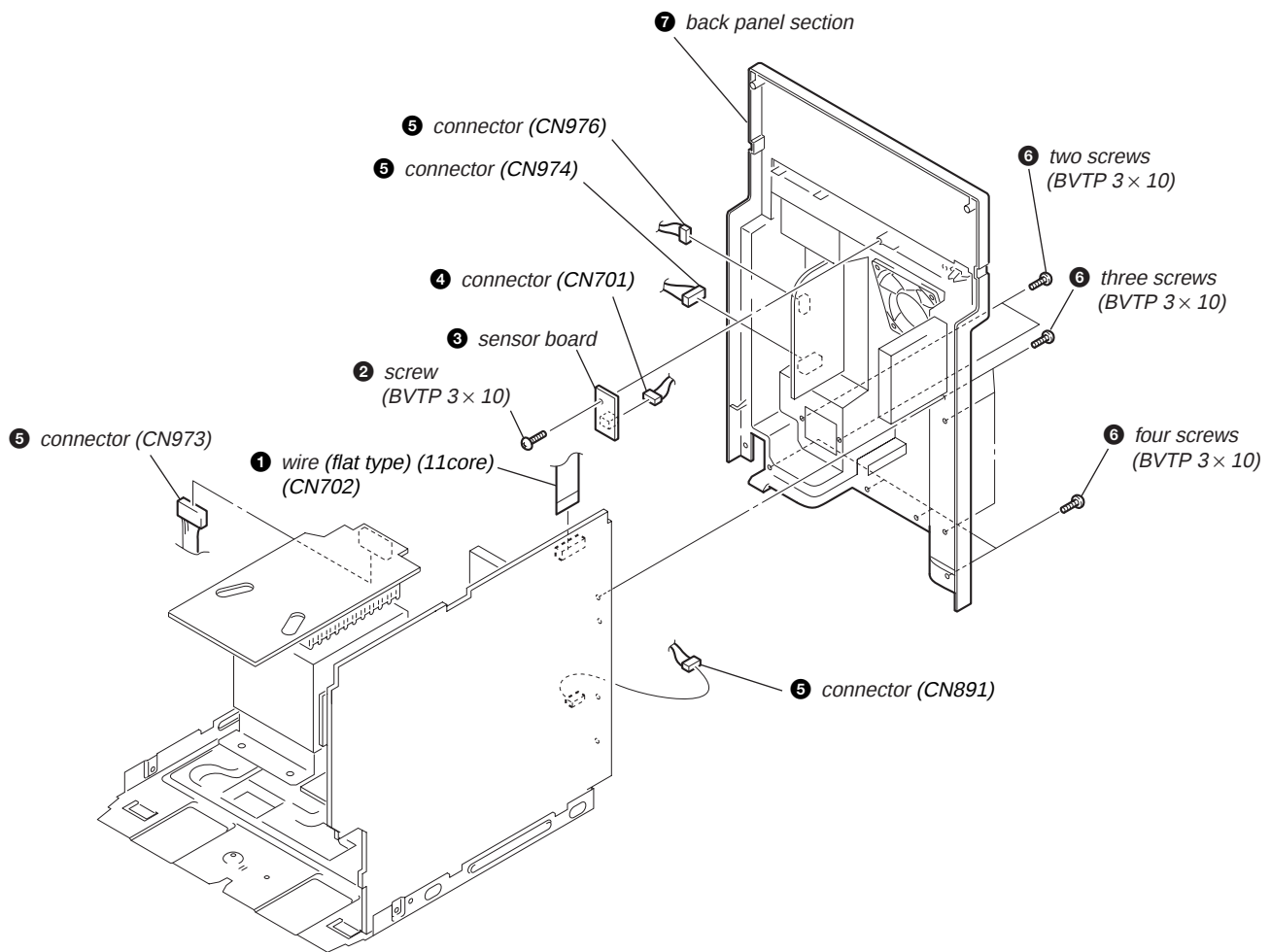
3-4. CD MECHANISM DECK (CDM58E-30BD60C)



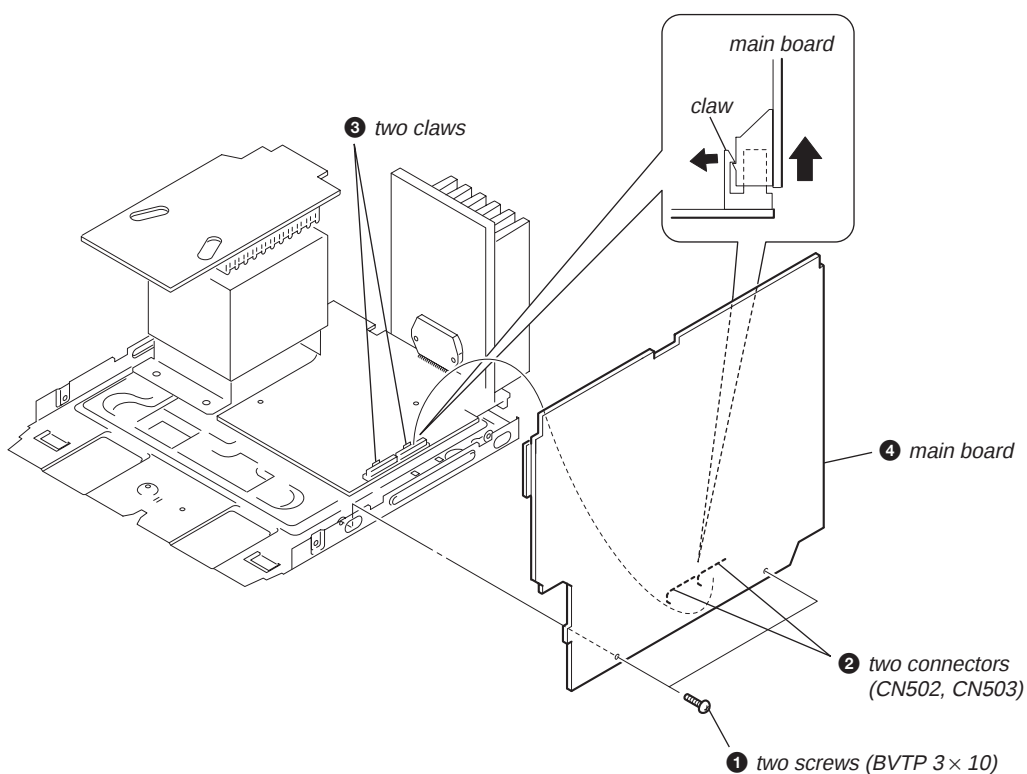
3-5. FRONT PANEL SECTION



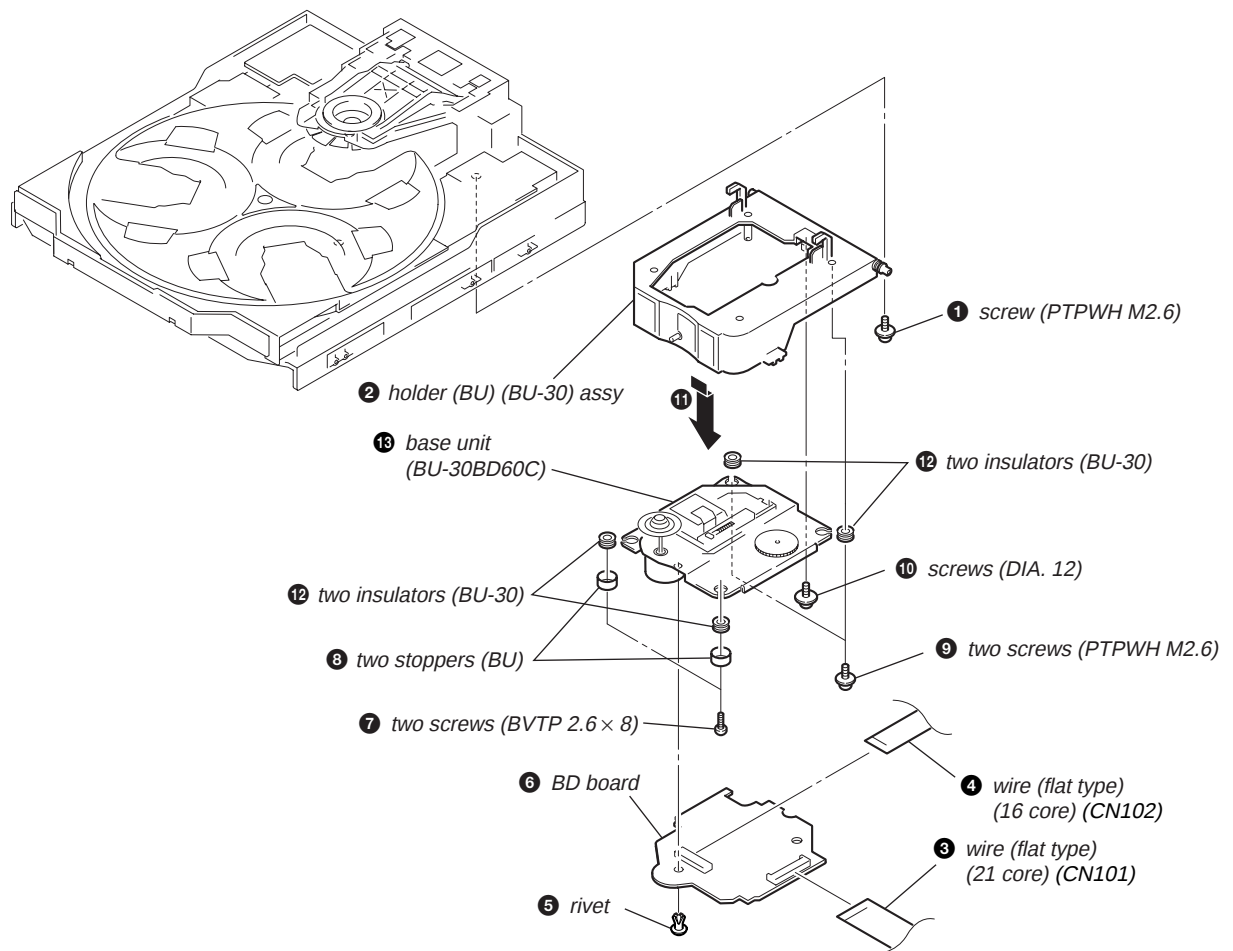
3-6. BACK PANEL SECTION



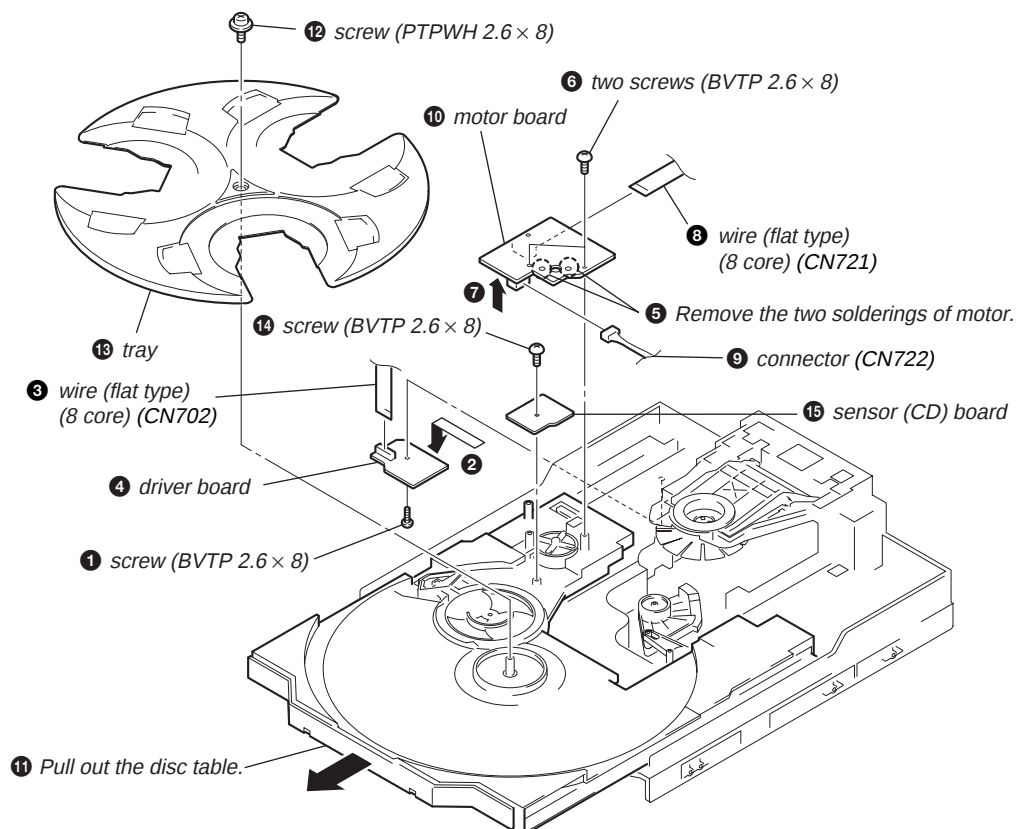
3-7. MAIN BOARD



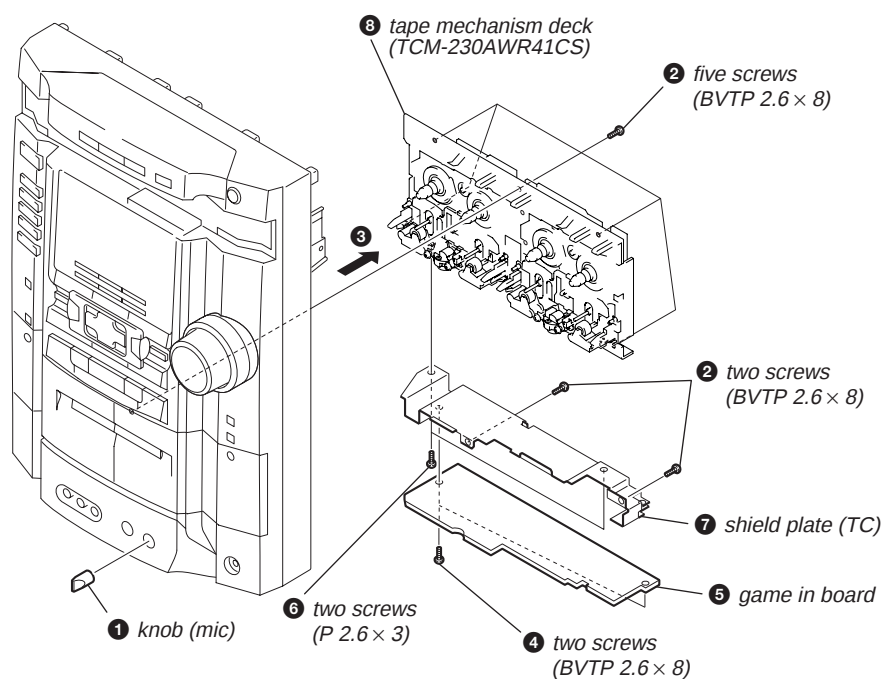
3-8. BASE UNIT (BU-30BD60C)



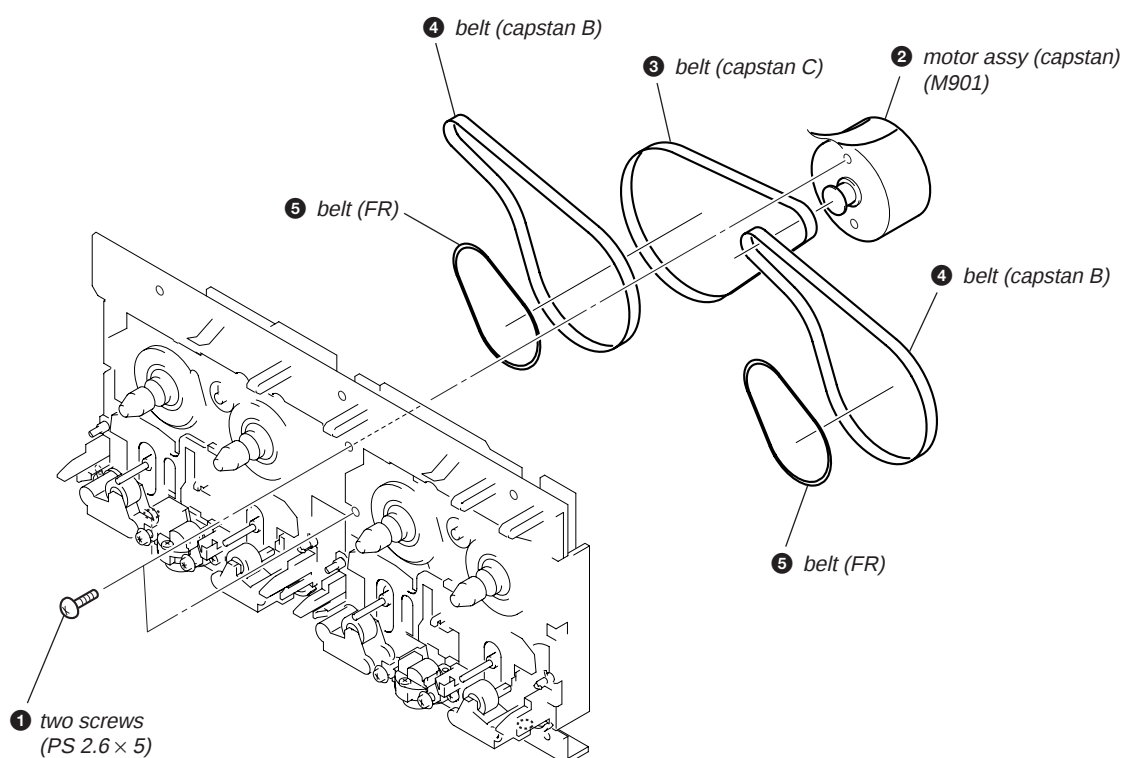
3-9. DRIVER BOARD, MOTOR BOARD AND SENSOR (CD) BOARD

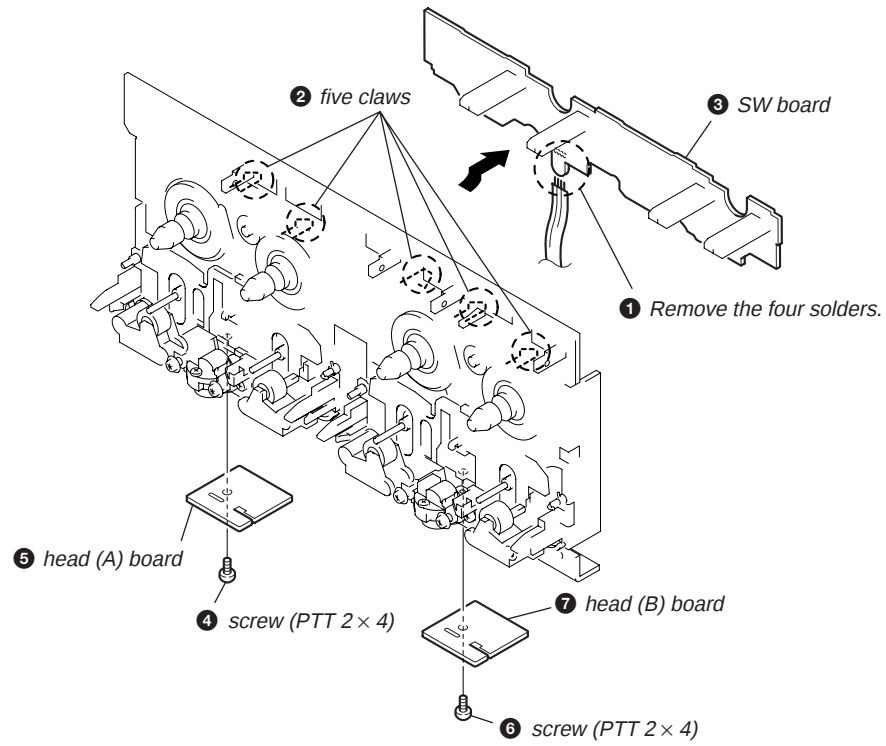


3-10. TAPE MECHANISM DECK (TCM-230AWR41CS)



3-11. BELT



3-12. SW BOARD, HEAD (A) BOARD AND HEAD (B) 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 and VACS level.

Procedure:

- Press three buttons , **[ENTER]**, and **[DISC 2]** simultaneously.
- LEDs and fluorescent indicator tube are all turned on.
- When you want to enter the software version display mode, press **[DISC 1]**. The model and destination are displayed.
- Each time **[DISC 1]** is pressed, the display changes starting from MC version, GC version, CD version, CDDM version, CDMA version, CDMB version, BDA version, BDB version, ST version, TA version, TM version and TC version in this order, and returns to the MC version display.
- When **[DISC 3]** is pressed while the version numbers are being displayed except model and destination, year, month and day of the software creation appear. When **[DISC 3]** is pressed again, the display returns to the software version display. When **[DISC 1]** is pressed while year, month and day of the software creation are being displayed, the year, month and day of creation of the software versions are displayed in the same order of version display.
- Press **[DISC 2]** button, and the key check mode is activated.
- In the key check mode, the fluorescent indicator tube displays "K0 V0". Each time a button is pressed, "K" value increases. However, once a button is pressed, it is no longer taken into account.
"V" value increases like 1, 2, 3 ... if rotating **[VOLUME]** knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
- Also when **[DISC 3]** is pressed after lighting of all LEDs and fluorescent indicator tubes, value of VACS level appears.
- To release 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 three buttons of , **[ENTER]** and **[DISC 3]** simultaneously.
- The messages MUSIC, MOVIE, GAME and P FILE flash on the fluorescent indicator tube.
The input FUNCTION is changed to VIDEO.

* Check of Amplifier

- When  button is pressed, GEQ increases to its maximum and a message "GEQ MAX" appears.
- When  button is pressed, GEQ decreases to its minimum and a message "GEQ MIN" appears.
- When  or  button is pressed, GEQ is set to flat and a message "GEQ FLAT" appears.
- When the **[VOLUME]** knob is turned clockwise even slightly, the sound volume increases to its maximum and a message "VOLUME MAX" appears for two seconds, then the display returns to the original display.
- When the **[VOLUME]** knob is turned counter-clockwise even slightly, the sound volume decreases to its minimum and a message "VOLUME MIN" appears for two seconds, then the display returns to the original display.

* Check of clock frequency

- To check the frequency of clock used to run the time in the unit, the clock output is available at IC501 pin ③ (CLOCK-OUT) on the MAIN board only during MC test mode.
- The frequency is 32.768 kHz or so.

* Tape function

- When a tape is inserted in tape deck B and recording is started, the input source function selects VIDEO automatically.
When **[CD SYNC HI-DUB]** button is pressed during recording in function, ALC is turned on.
- When  button is pressed to stop recording, the tape deck B is selected and tape is rewound, tape is rewound using  button, tape is stops at around the record-starting position and playback of the recorded portion of the tape is started. If the **[REC PAUSE/START]** button is pressed for a pause and pressed again to resume recording, when tape deck B is rewound, tape deck B will be rewound until the position where the pause is applied.
- When **[CD SYNC HI-DUB]** button is pressed during playback of tape deck B, either normal speed or high speed can be selected by this button.

* AMS Test Mode

- Select the function "TAPE A" or "TAPE B".
- Select the loop and relay by pressing the **[DIRECTION]** button.
Insert a test tape AMS-110A or AMS-120 to selected tape deck.
- Press the **[SPECTRUM]** button to enter the AMS test mode.
- After a tape is rewound first, the FF AMS is checked, and the mechanism is shut off after detecting the AMS signal twice.
- Then the REW 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.

* To release MC Test mode.

- To release this mode, press the  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 three buttons , **[ENTER]**, and  simultaneously.
- The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[VACS ON/OFF MODE]

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

Procedure:

- Press  button to turn the set ON.
- Press the **[ENTER]** and **[GAME MIXING]** buttons simultaneously.
The message "VACS OFF" or "VACS ON" appears.

[TUNER STEP CHANGE]

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

Procedure:

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

[CD SERVICE MODE]

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

Procedure:

- Press  button to turn the set ON.
- Select the function "CD".
- Press three buttons , , and  simultaneously.
- The CD service mode is selected.
- With the CD in stop status, press  button to move the optical pick-up to outside track, or press  button to inside track.
- To release this mode, press the  button.

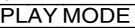
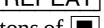
[AGING MODE]

This mode can be used for operation check of CD section and tape deck section.

CD section and tape deck section work in parallel.

- If an error occurred:
The aging operation stops only an error occurred sections and display then status.
- If no error occurs:
The aging operation continues repeatedly.

Procedure:

- Press the  button to turn the power ON, and press the  button to select the function "CD".
- Set discs on all trays, and set tapes into the decks A and B respectively.
- Press the  button to set the "ALL DISCS" mode, and press the  button to "REPEAT" off.
- Press three buttons of , , and  simultaneously.
- Aging operations of CD and tape are started at the same time.
- To release this mode, press the  button or disconnect the power code to turn the power OFF.

1. Display at the Aging Mode

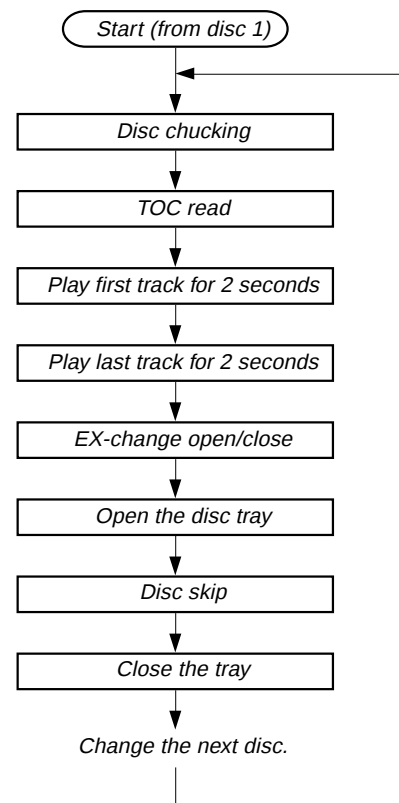
Display operating state of CD section and tape deck section alternately.

If an error occurred, stop display which that section.

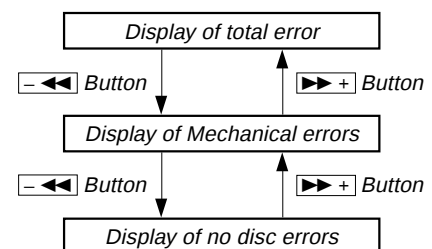
2. CD Section

The sequence during the aging mode is following as below.

Display at the aging mode is the same as the normal operation.

Aging mode sequence (CD section) :**• Display at an error occurred (Error display mode)****Procedure:**

- Press three buttons of , , and  simultaneously to enter the error display mode.
- It displays of total error.
- Each time the  or  button is pressed, display change as below.
- To clear the error record, operate the cold reset. (Refer to the "MC COLD RESET")
- To release this mode, press the  button or disconnect the power plug to turn the power OFF.



1) Display of total error

Display

EMC**EDC**

EMC**: The number of mechanical error.

EDC**: The number of no disc error after chucking the disc.

2) Display of mechanical errors

Display

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

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

(Press the [◀◀] or [▶▶] button to changes next error display)

\$\$: Not used

': Loading error (Second figure is not used)

D: The error in the midst of close at the except mechanical trouble.

E: The error in the midst of open at the except mechanical trouble.

C: The error in the midst of chucking up at the except mechanical trouble.

F: The error in the midst of chucking down at the except mechanical trouble.

&&: Loading error

01: The error in the midst of chucking up.

02: The error in the midst of chucking down.

03: Time-out of EX-open.

05: Time-out of EX-close.

##: Not used

3) Display of no disc errors

Display

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

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

(Press the [◀◀] or [▶▶] button to changes next error display)

\$\$: Error type

01: Focus error

02: GFS error

03: Set up error

': Not used

&&:

00: No disc judgment without chucking retry.

01: No disc judgment after chucking retry.

##: The state when judged no disc error

01: Stop

02: Set up

03: TOC read

04: Access

05: Play

06: Pause

07: Manual search (Play)

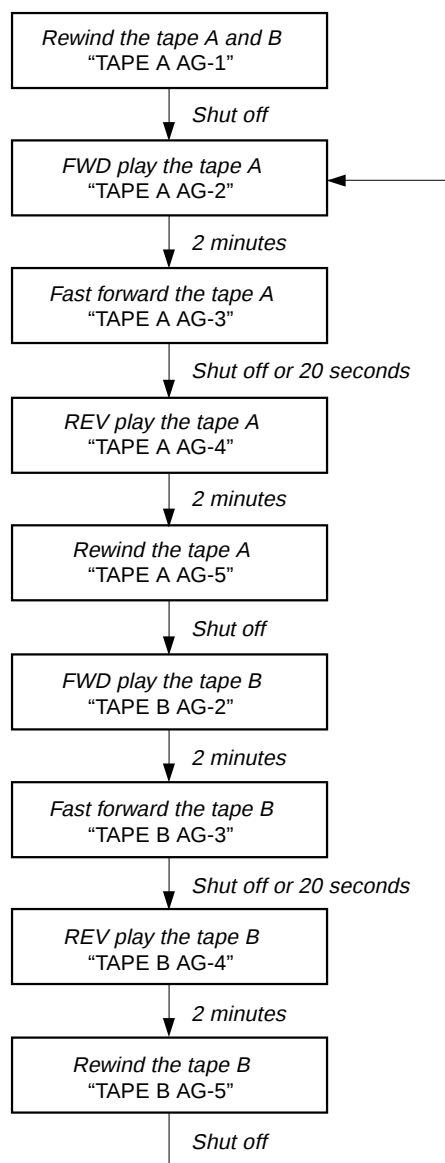
08: Manual search (Pause)

3. Tape Deck Section

The sequence during the aging mode is following as below.

If an error occurred, stop display that step.

Aging mode sequence (Tape deck section) :



Note: "TAPE * AG-*" is display of each step.

[CD REPEAT 5 LIMIT OFF MODE]

Number of repeat for CD playback is 5 times when the repeat mode is "REPEAT". This mode enables CD to repeat playback for limitless times.

Procedure:

1. Press the [I/O] button to turn the power on, and press the [CD] button to select the function "CD".
2. Press three buttons of [■], [REPEAT], and [CD] simultaneously to enter the CD repeat 5 limit off mode and display "REPEAT OFF".
3. To release this mode, operate the cold reset. (Refer to the "MC COLD RESET")

[CD SHIP MODE (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. Set to the standby state.
2. Press three buttons , **[ENTER]** and **[GAME]** simultaneously.
3. After the “STANDBY” display blinks, a message “LOCK” is displayed on the fluorescent indicator tube, and the CD ship mode is set.

[CD SHIP MODE (NO 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. Set to the standby state.
2. Press the **[CD]** and  buttons simultaneously.
3. After the “STANDBY” display blinks, a message “LOCK” is displayed on the fluorescent indicator tube, and the CD ship mode is set.

HCD-GX8000/RG77

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	3.06 N • m to 6.96 N • m 31 to 71 g • cm (0.43 – 0.98 oz • inch)
FWD back tension	CQ-102C	0.19 N • m to 0.58 N • m 2 to 6 g • cm (0.02 – 0.08 oz • inch)
REV	CQ-102RC	3.06 N • m to 6.96 N • m 31 to 71 g • cm (0.43 – 0.98 oz • inch)
REV back tension	CQ-102RC	0.19 N • m to 0.58 N • m 2 to 6 g • cm (0.02 – 0.08 oz • inch)
FF/REW	CQ-201B	6.96 N • m to 14.02 N • m 71 to 143 g • cm (0.98 – 1.99 oz • inch)
FWD tension	CQ-403A	9.80 N • m 100 g or more (3.53 oz or more)
REV tension	CQ-403R	9.80 N • m 100 g or more (3.53 oz or more)

SECTION 6

ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775 V

- 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.

• 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

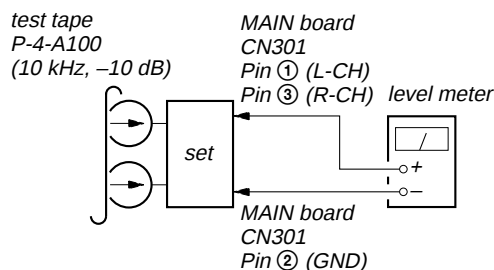
DECK A

DECK B

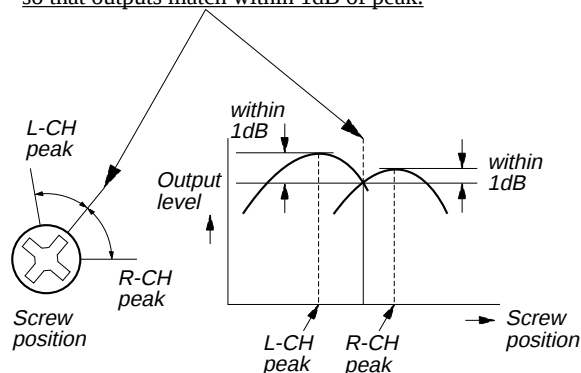
Note: Perform this adjustments for both decks

Procedure:

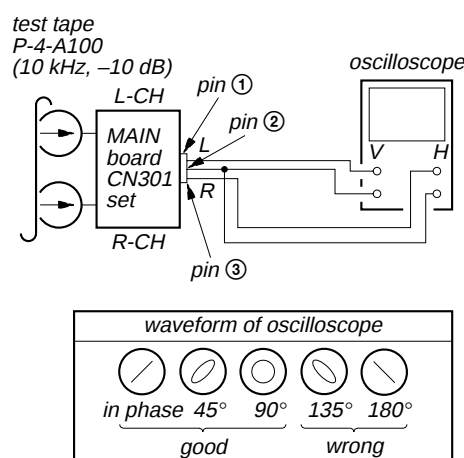
- Mode: Playback



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.

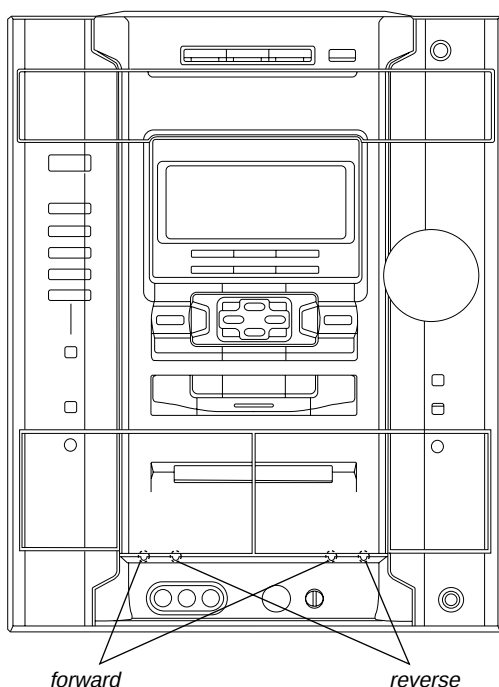


3. Mode: Playback



4. After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location: Playback Head (Deck A).
Record/Playback/Erase Head (Deck B).



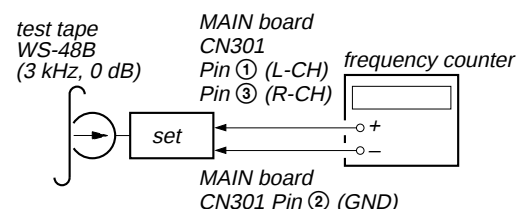
TAPE SPEED ADJUSTMENT DECK B

Note: Start the Tape Speed adjustment as below after setting to the test mode.

In the test mode, the tape speed is high during pressing the CD SYNC HI-DUB button.

Procedure:

- Press I/O button to turn the set ON.
 - Press three buttons ■, ENTER and DISC 3 simultaneously.
To release from the test mode, press the I/O button.
- Mode: Playback



- Insert the WS-48B into the deck B.
- Press the ◀▶ button on the deck B.
- Press the CD SYNC HI-DUB button in playback mode.
Then at HIGH speed mode.
- Adjust RV1001 on the SW board so that frequency counter reads $6,000 \pm 180$ Hz.
- Press the CD SYNC HI-DUB button.
Then back to NORMAL speed mode.
- Adjust RV1002 on the SW board so that frequency counter reads $3,000 \pm 90$ Hz.

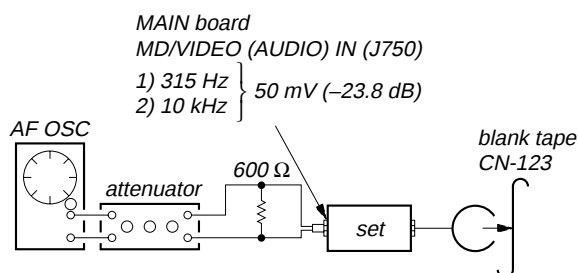
Adjustment Location: SW board

Sample Value of Wow and Flutter: 0.3% or less W. RMS (JIS)
(WS-48B)

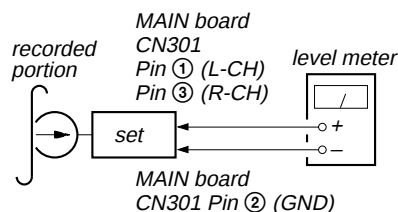
REC BIAS ADJUSTMENT **DECK B****Procedure:**

In the MC test mode, the “REC memory mode” is convenient for this adjustment. In the “REC memory mode”, when the REC starts the input signal FUNCTION is switched to VIDEO automatically. When the REC stops, the tape returns near to the recording start position.

1. Press **[MD (VIDEO)]** button to select VIDEO. (This step is not necessary if the above test mode has already been set)
2. Insert a tape into deck B.
3. After press **[REC PAUSE/START]** button, press **[REC PAUSE/START]** button, then recording start.
4. Mode: Record



5. Mode: Playback



6. Confirm the playback signal recorded in step 3 becomes adjustable level as follows.
If these levels are not adjustable level, adjust the RV304 (L-CH) and RV354 (R-CH) on the MAIN board to repeat steps 4 and 5.

Adjustable level: Playback output of 315 Hz to playback output of 10 kHz: ± 1.0 dB

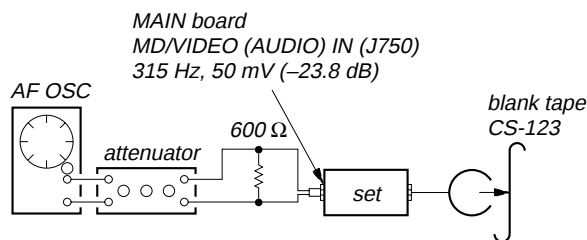
Adjustment Location: MAIN board

REC LEVEL ADJUSTMENT **DECK B****Procedure:**

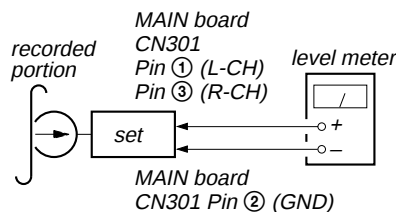
In the MC test mode, the “REC memory mode” is convenient for this adjustment. In the “REC memory mode”, when the REC starts the input signal FUNCTION is switched to VIDEO automatically. When the REC stops, the tape returns near to the recording start position.

1. Press **[MD (VIDEO)]** button to select VIDEO. (This step is not necessary if the above test mode has already been set)
2. Insert a tape into deck B.
3. After press **[REC PAUSE/START]** button, press **[REC PAUSE/START]** button, then recording start.

4. Mode: Record



5. Mode: Playback



6. Confirm the play back signal recorded in step 3 becomes adjustable level as follows.

If these levels are not adjustable level, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 4 and 5.

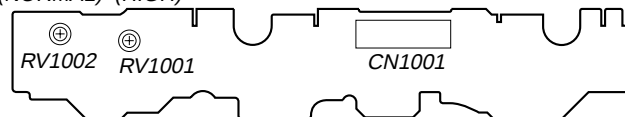
Adjustable level:

CN301 PB level: 47.2 to 53.0 mV (-24.3 to -23.3 dB)

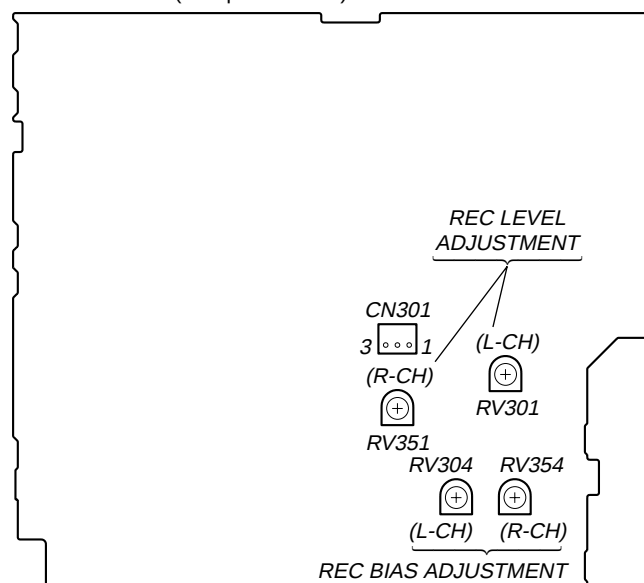
Adjustment Location: MAIN board

- **SW BOARD** (Component Side) -

TAPE SPEED
ADJUSTMENT
(NORMAL) (HIGH)

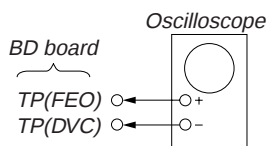


- **MAIN BOARD** (Component Side) -

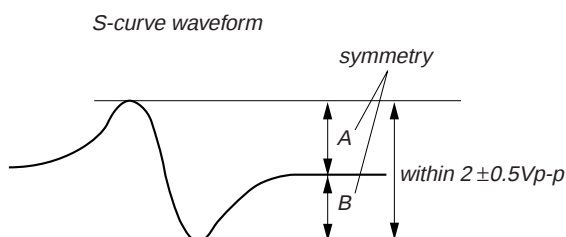


CD SECTION**Note:**

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use LUV-P01 (4-999-032-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10M Ω 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 :**

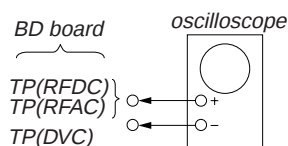
1. Connect an oscilloscope to TP (FEO).
2. Connect between TP (FEI) and TP (DVC) ($\div 1.65$ V) by lead wire.
3. Turn the power ON.
4. Load a disc (LUV-P01) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search)
5. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2 ± 0.5 Vp-p.



6. After check, remove the lead wire connected in step 2.

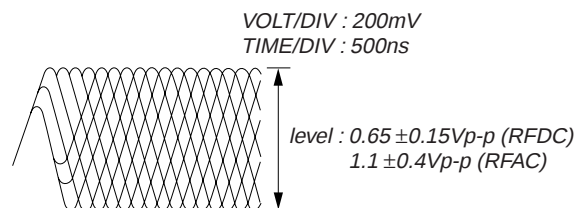
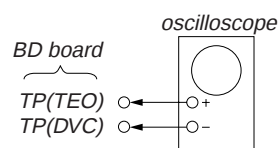
Note:

- 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.

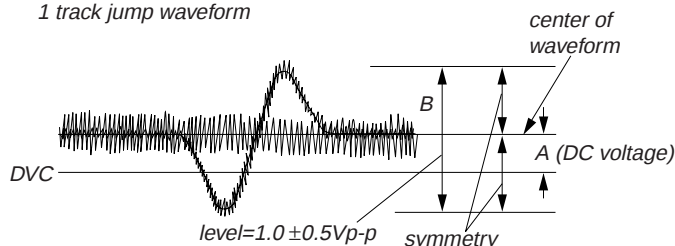
RF LEVEL CHECK**Procedure :**

1. Connect an oscilloscope CH1 to TP (RFDC) and CH2 to TP (RFAC).
2. Turn the power ON.
3. Load a disc (LUV-P01) and playback.
4. Confirm that oscilloscope waveform is clear and check if RF 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.

RF signal waveform**E-F BALANCE (1 TRACK JUMP) ADJUSTMENT****Procedure :**

1. Connect an oscilloscope to TP (TEO) and TP (DVC).
2. Turn the power ON.
3. Load a disc (LUV-P01) and playback the number nine track.
4. Press the $\triangleleft \triangleright$ button. (Becomes the 1 track jump mode.)
5. Confirm that the level B and A (DC voltage) on the oscilloscope waveform.

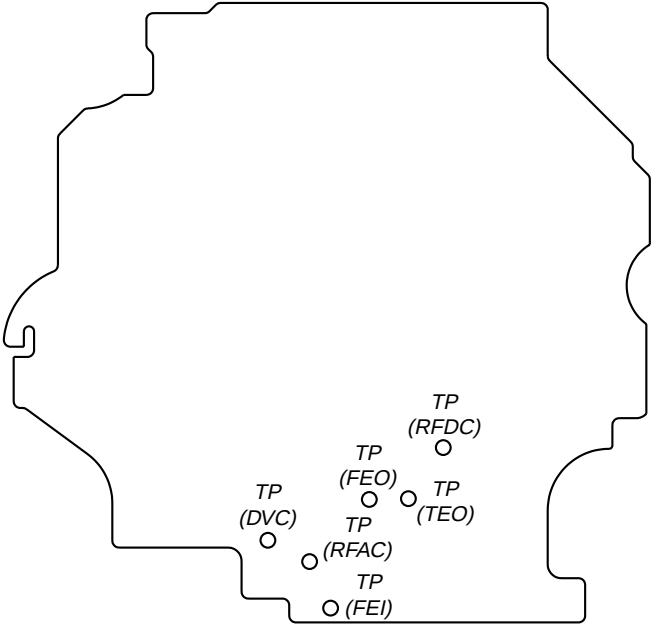
1 track jump waveform

6. Adjust RV101 on the BD board so that the center of waveform becomes the same voltage of DVC. (i.e. A=0V)

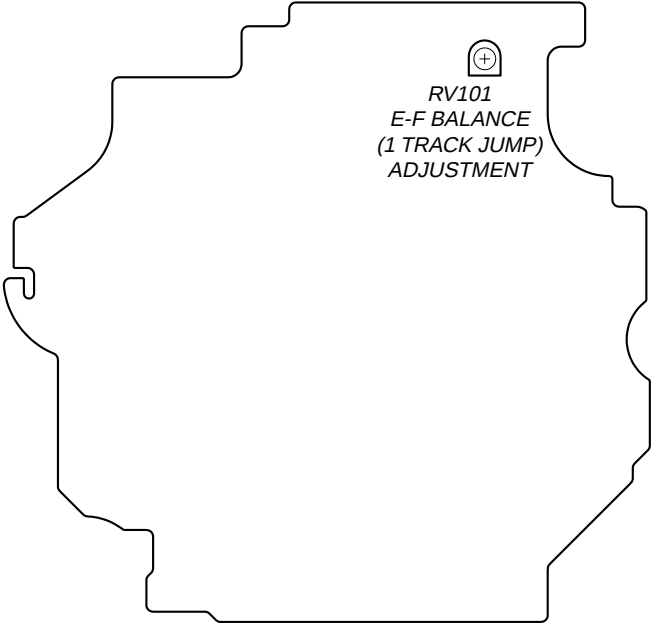
Connecting and Adjustment Location: BD board

Connecting and Adjustment Location:

– BD BOARD (Component Side) –



– BD BOARD (Conductor Side) –



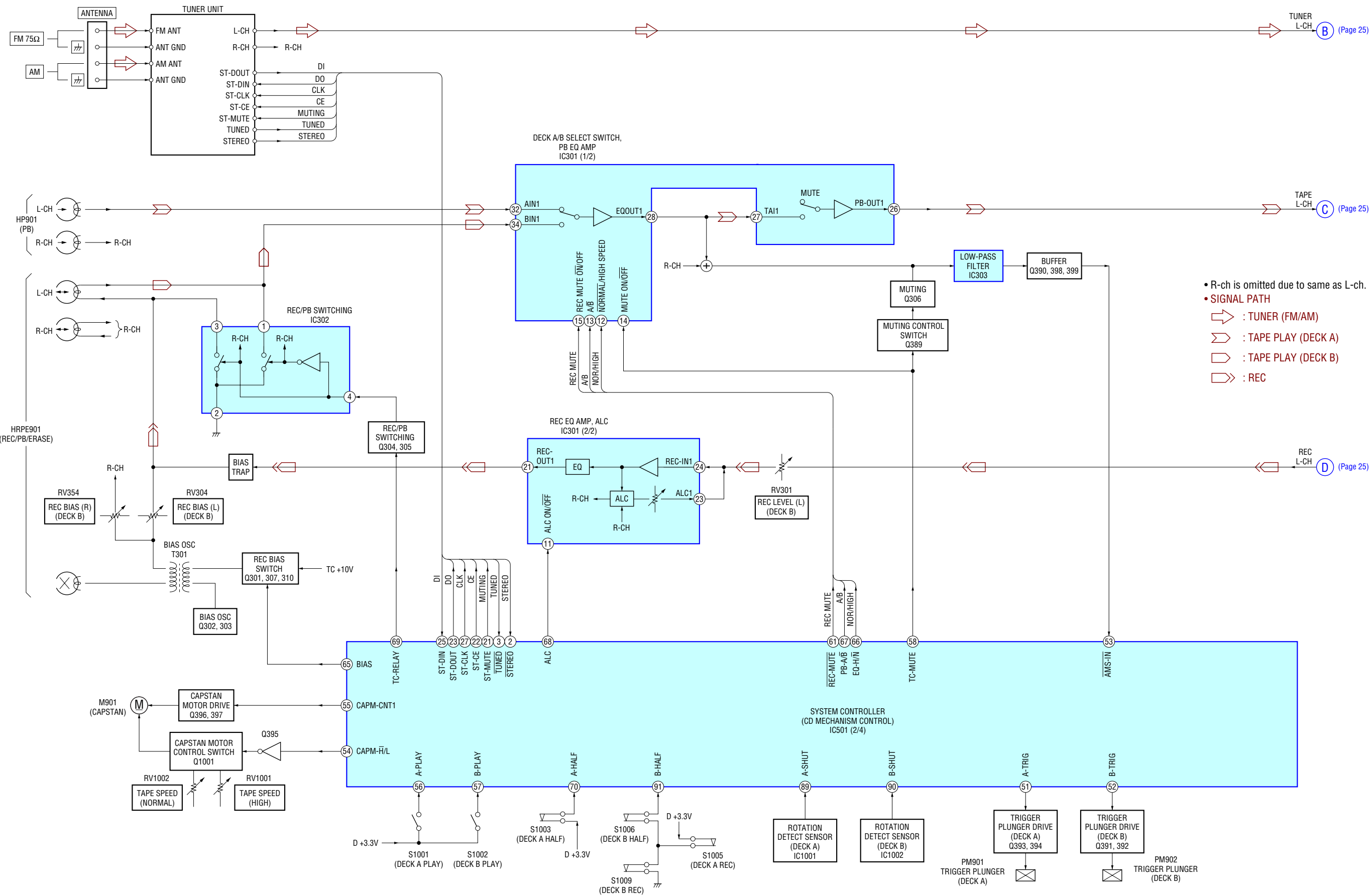
The diagram illustrates the internal circuitry of a CD player, organized into several functional blocks:

- Detector and RF Section:** The signal path starts with the DETECTOR, leading to the RF AMP, FOCUS/TRACKING ERROR AMP (IC103). This section includes an RF SUMMING AMP, FOCUS ERROR AMP, RF DC AMP, F I-V AMP, E I-V AMP, TRACKING ERROR AMP, and an E-F BALANCE (1 TRACK JUMP) section.
- Digital Signal Processor (IC101 1/2):** This central block handles the digital processing. It includes an ASYMMETRY CORRECTION, DIGITAL PLL, EFM DEMODULATOR, INTERNAL BUS, D/A INTERFACE, SERIAL IN INTERFACE, DIGITAL FILTER, NOISE SHAPER, PWM & INTEGRATOR, BUFFER, and a MUTING CONTROL SWITCH (Q206, 207). It also features a 16K RAM and a FILTER.
- Digital Servo Processor (IC101 2/2):** This block manages the servo control. It includes an A/D CONVERTER, FOCUS/TRACKING/SLED PWM GENERATOR, FOCUS/TRACKING/SLED SERVO DSP, and a MIRR/DFCT/FOK DETECTOR. It also has a TO SERVO INTERFACE section.
- System Controller (IC501 1/4):** This block coordinates the overall system. It includes a CD-MUTE, TBL-SENS, BU UP/DOWN-SW, OPEN-SW, CLOSE-SW, LOAD-OUT, LOAD-IN, and a TURN MOTOR DRIVER (IC701).
- Motor and Drive Section:** This section includes the FOCUS/TRACKING COIL DRIVE, SPINDLE/SLED MOTOR DRIVE (IC102), and a 2-AXIS DEVICE. It also features a LASER DIODE ON SWITCH (Q202 - 205) and a TURN MOTOR (M721).
- Control and Timing Section:** This section includes a CPU INTERFACE, SUBCODE PROCESSOR, SERVO AUTO SEQUENCER, SERVO INTERFACE, DIGITAL CLV, and a CLOCK GENERATOR.

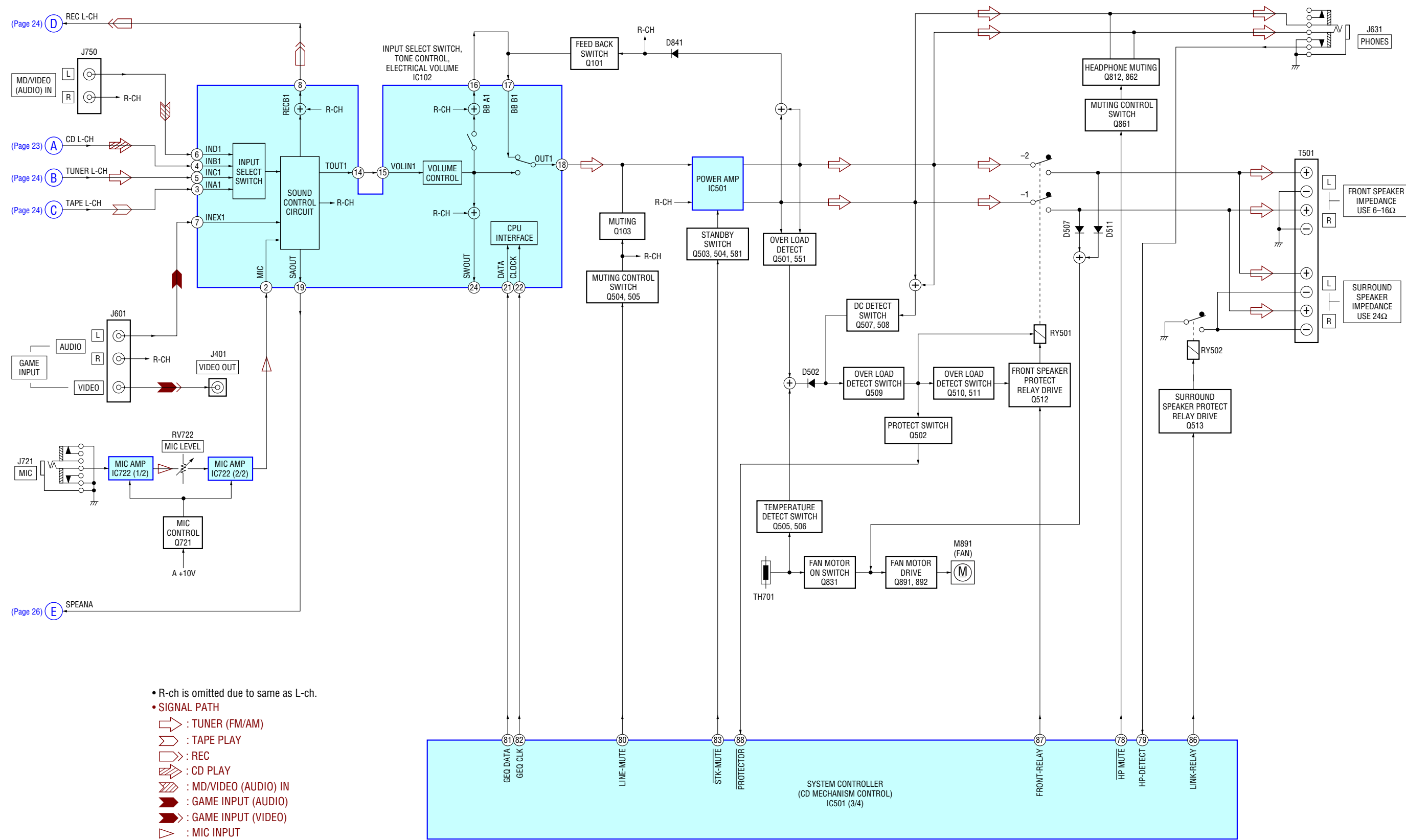
The diagram also shows the connection to a 2-AXIS DEVICE and a TURN MOTOR (M721). The signal path is color-coded: red for CD PLAY (ANALOG) and blue for CD PLAY (DIGITAL OUT). The diagram is labeled with various components and their pin numbers, providing a comprehensive view of the CD player's internal circuitry.

• R-ch is omitted due to same as L-ch.
 • SIGNAL PATH
 : CD PLAY (ANALOG)
 : CD PLAY (DIGITAL OUT)

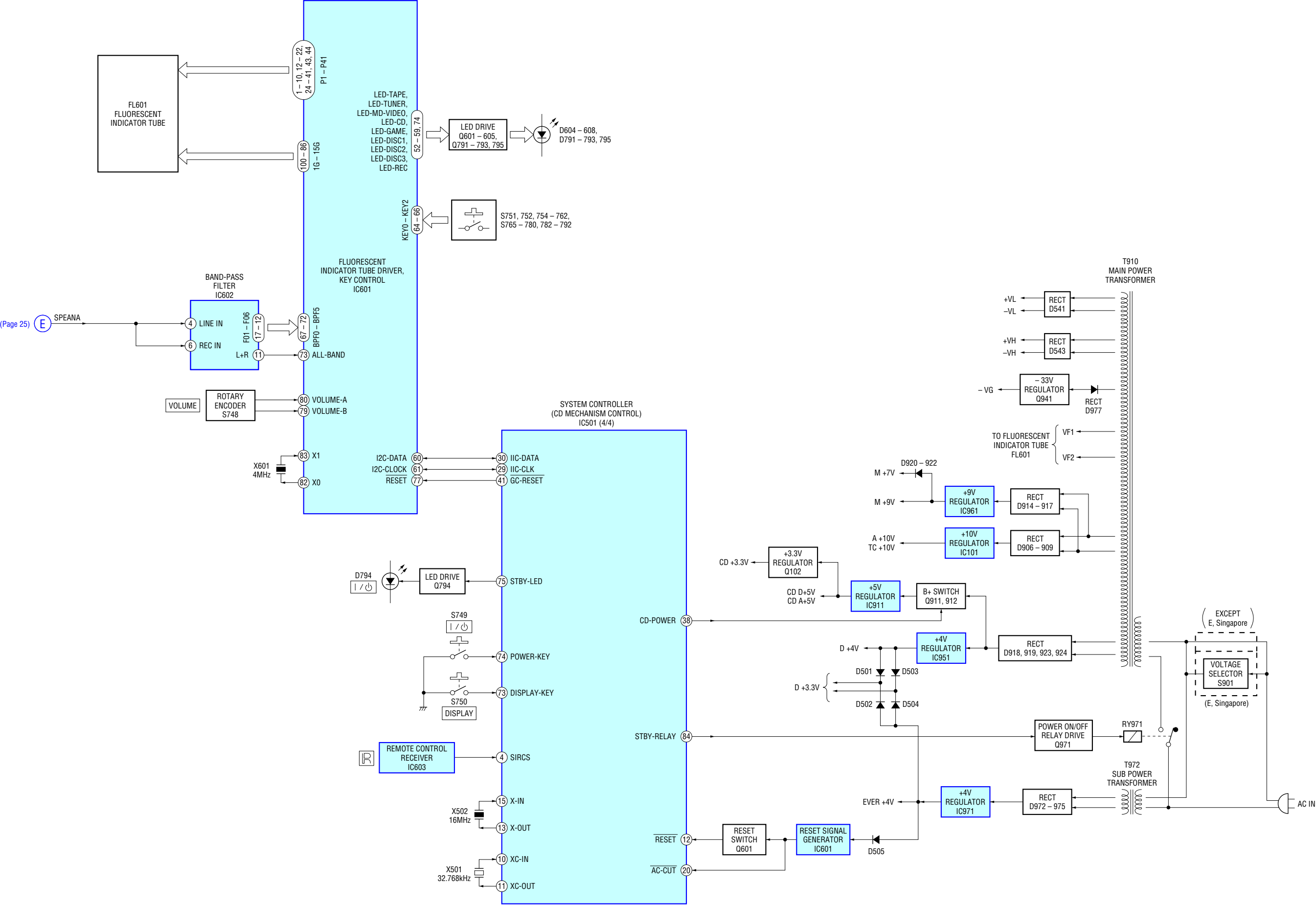
7-2. BLOCK DIAGRAM – TUNER/TAPE DECK Section –



7-3. BLOCK DIAGRAM – MAIN Section –



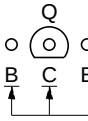
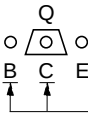
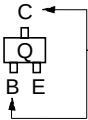
7-4. BLOCK DIAGRAM – DISPLAY/KEY CONTROL/POWER SUPPLY Section –



7-5. 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 layers' patterns are not indicated.)
- Indication of transistor.



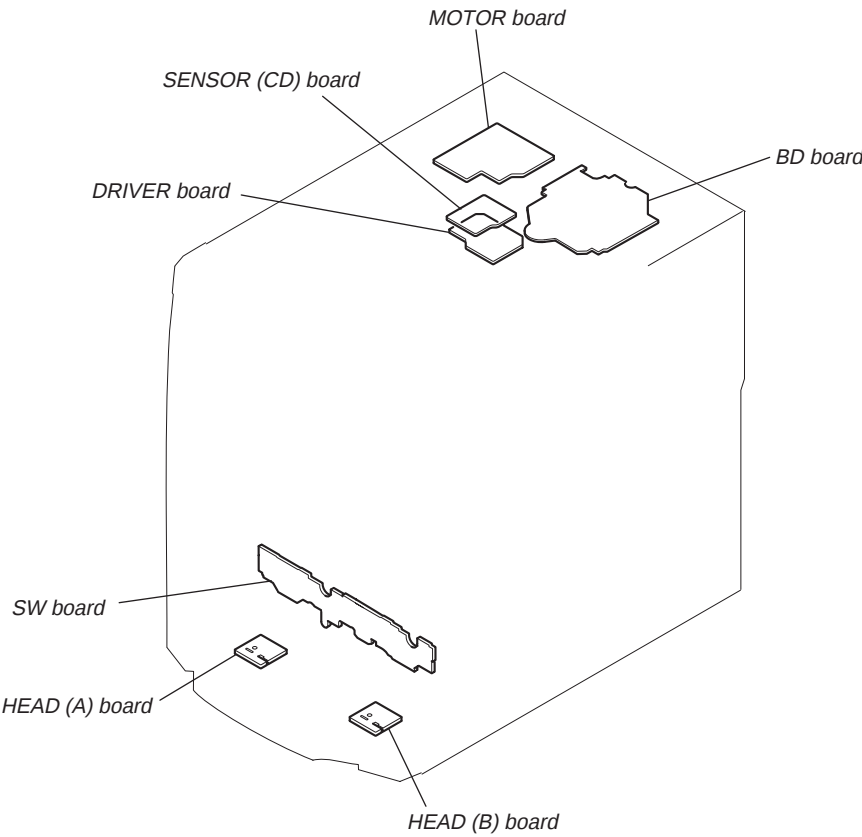
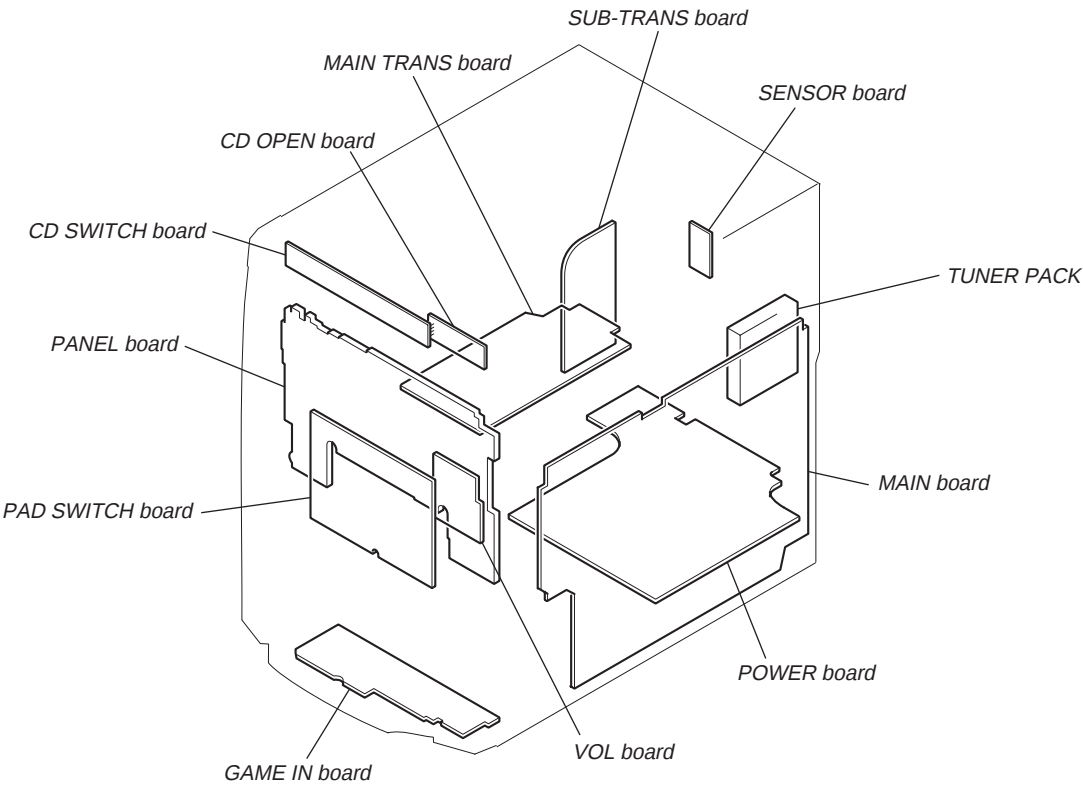
Note on Schematic Diagram:

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

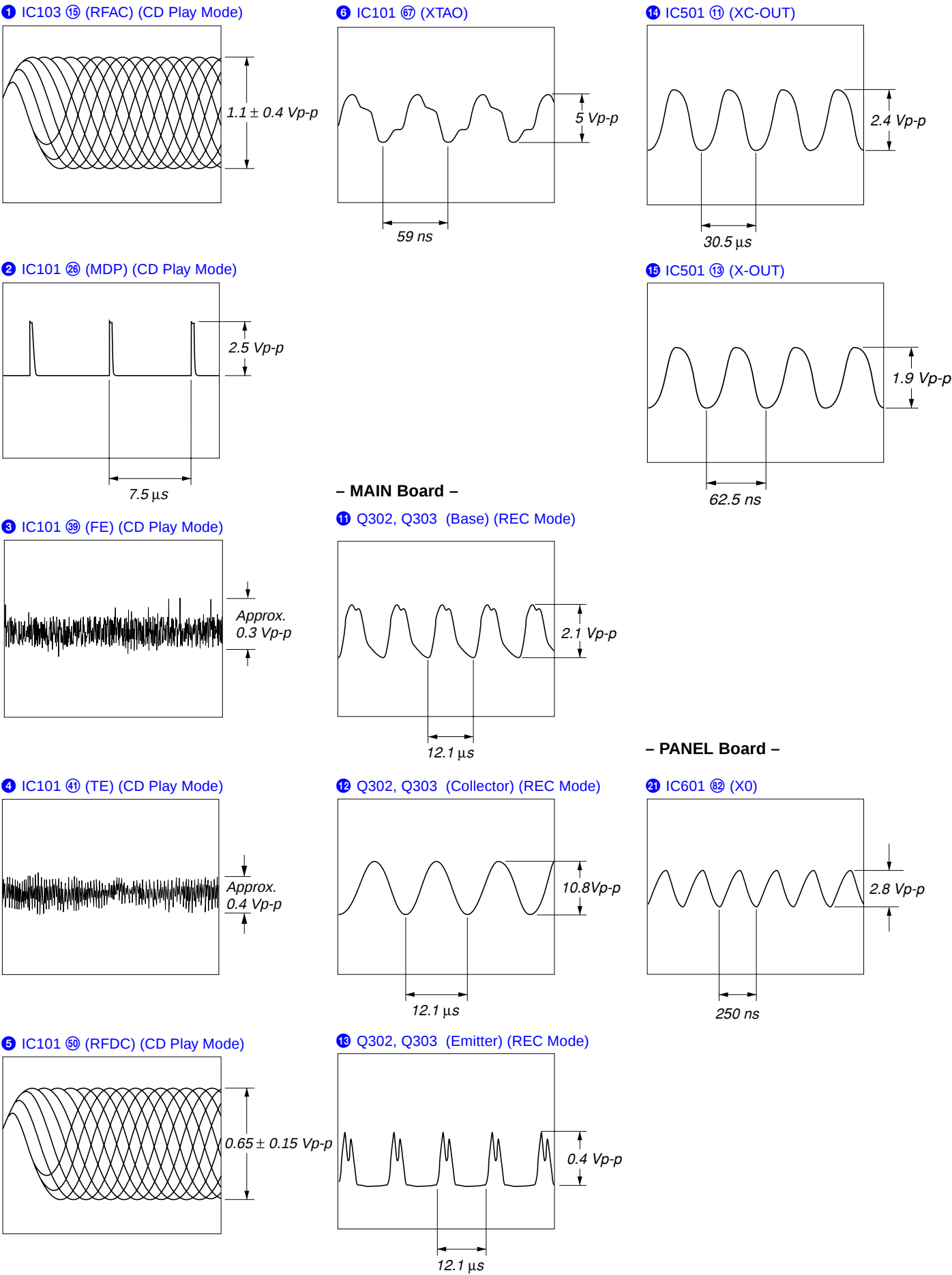
Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

- : B+ Line.
- : B- Line.
- : adjustment for repair.
- Voltagages 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.
 - ➡ : TUNER (FM/AM)
 - ➡ : TAPE PLAY (DECK A)
 - ➡ : TAPE PLAY (DECK B)
 - ➡ : REC
 - ➡ : CD PLAY (ANALOG)
 - ➡ : CD PLAY (DIGITAL OUT)
 - ➡ : MD/VIDEO (AUDIO) IN
 - ➡ : GAME IN (AUDIO)
 - ➡ : GAME IN (VIDEO)
 - ➡ : MIC INPUT
- Abbreviation
 - AR : Argentina model
 - MX : Mexican model
 - SP : Singapore model

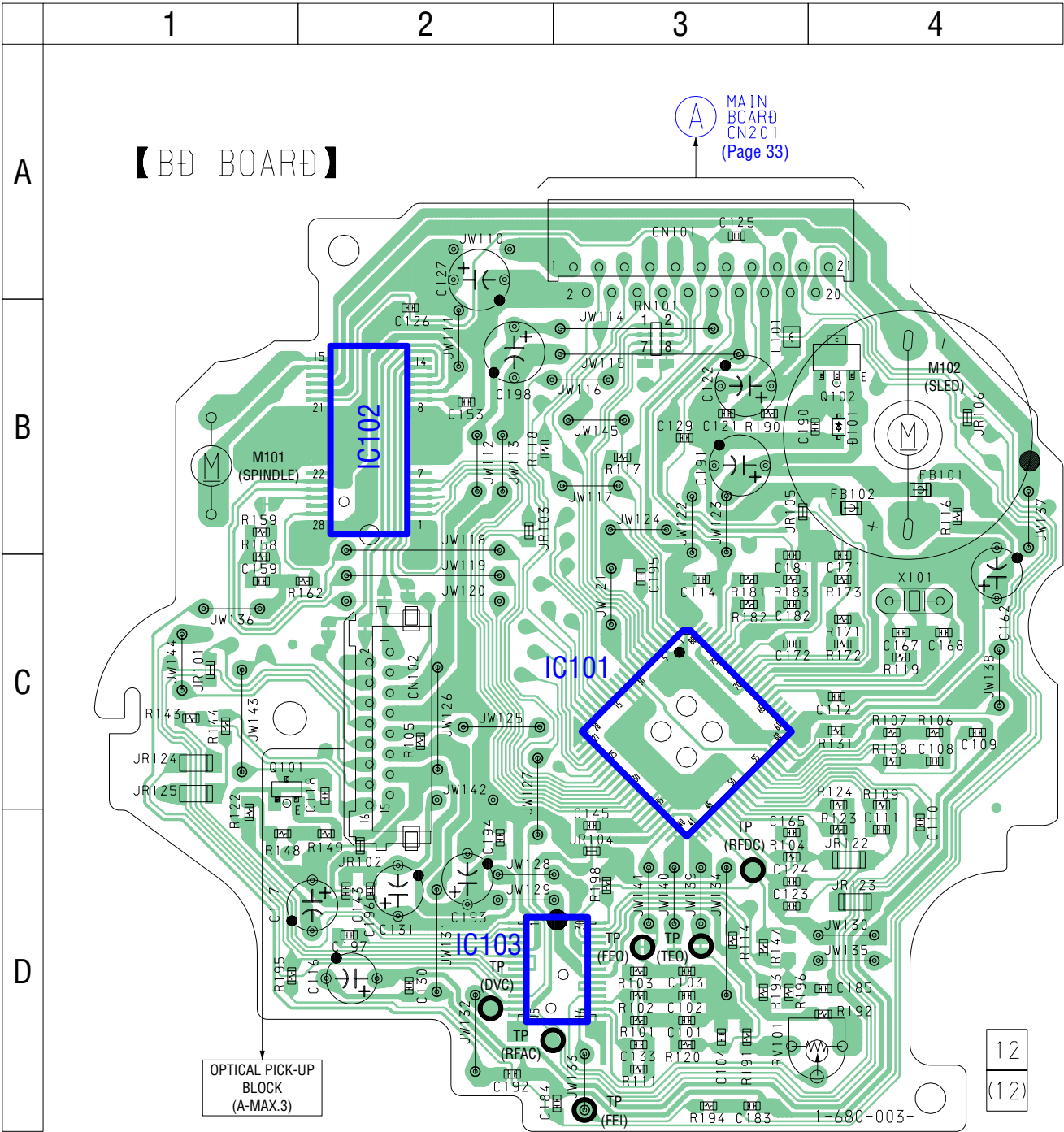
• Circuit Boards Location



• Waveforms
– BD Board –



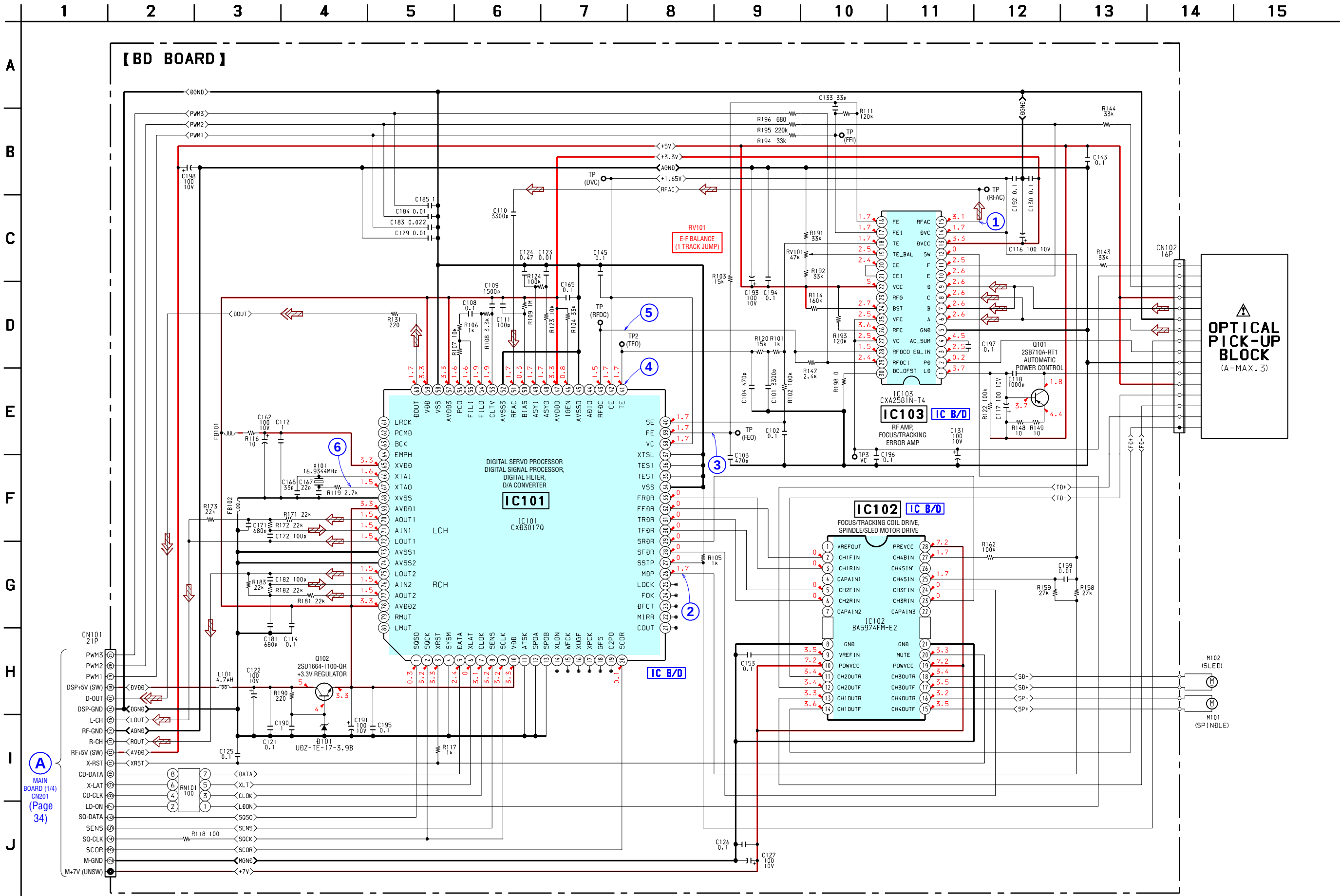
7-6. PRINTED WIRING BOARD – BD Board – • See page 27 for Circuit Boards Location.



• Semiconductor Location

Ref. No.	Location
D101	B-4
IC101	C-3
IC102	B-2
IC103	D-2
Q101	C-1
Q102	B-4

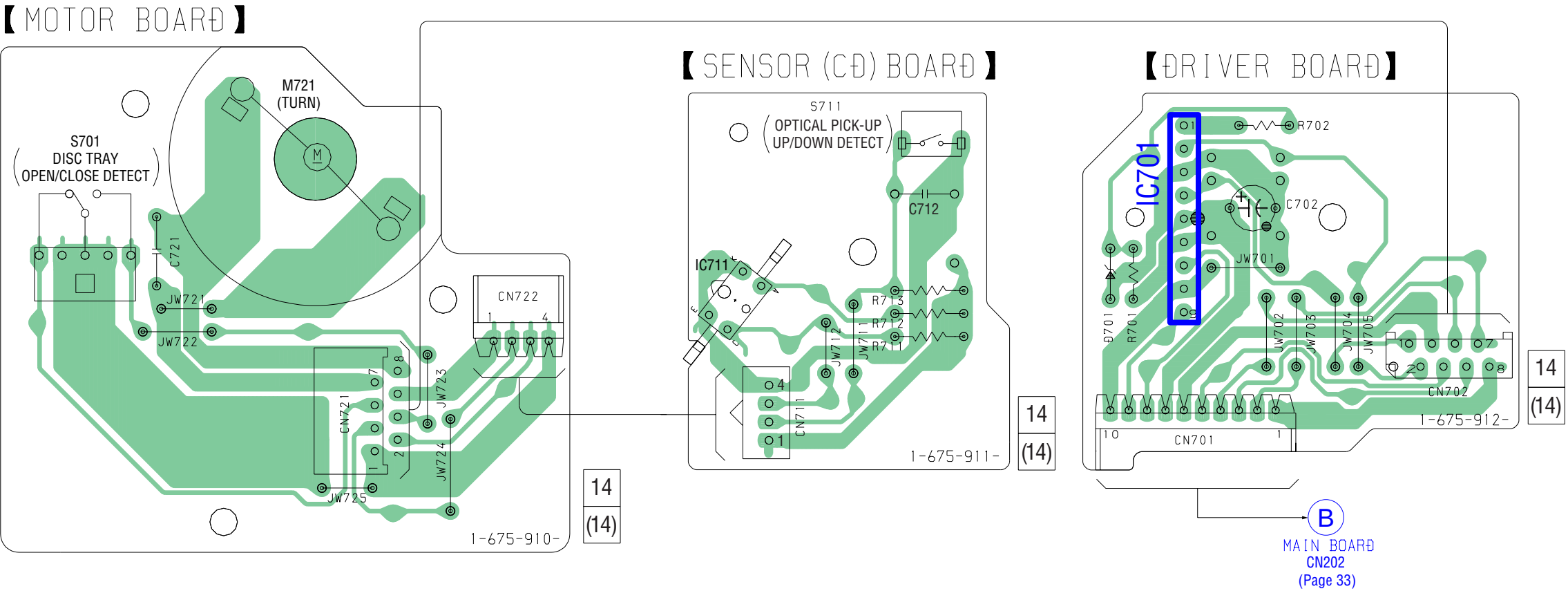
7-7. SCHEMATIC DIAGRAM – BD Board – • See page 28 for Waveforms. • See page 48 for IC Block Diagrams.



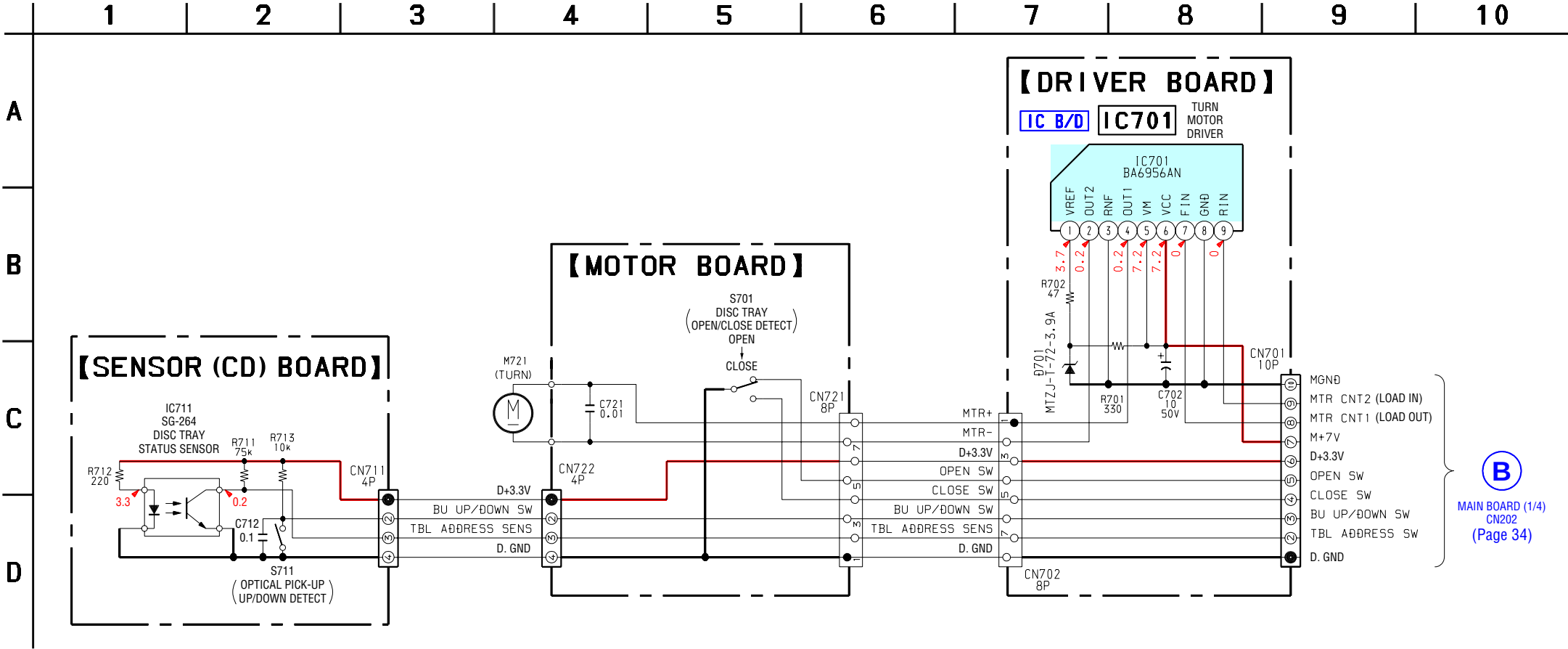
• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark : CD PLAY

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

7-8. PRINTED WIRING BOARDS – DRIVER/MOTOR/SENSOR (CD) Boards – • See page 27 for Circuit Boards Location.

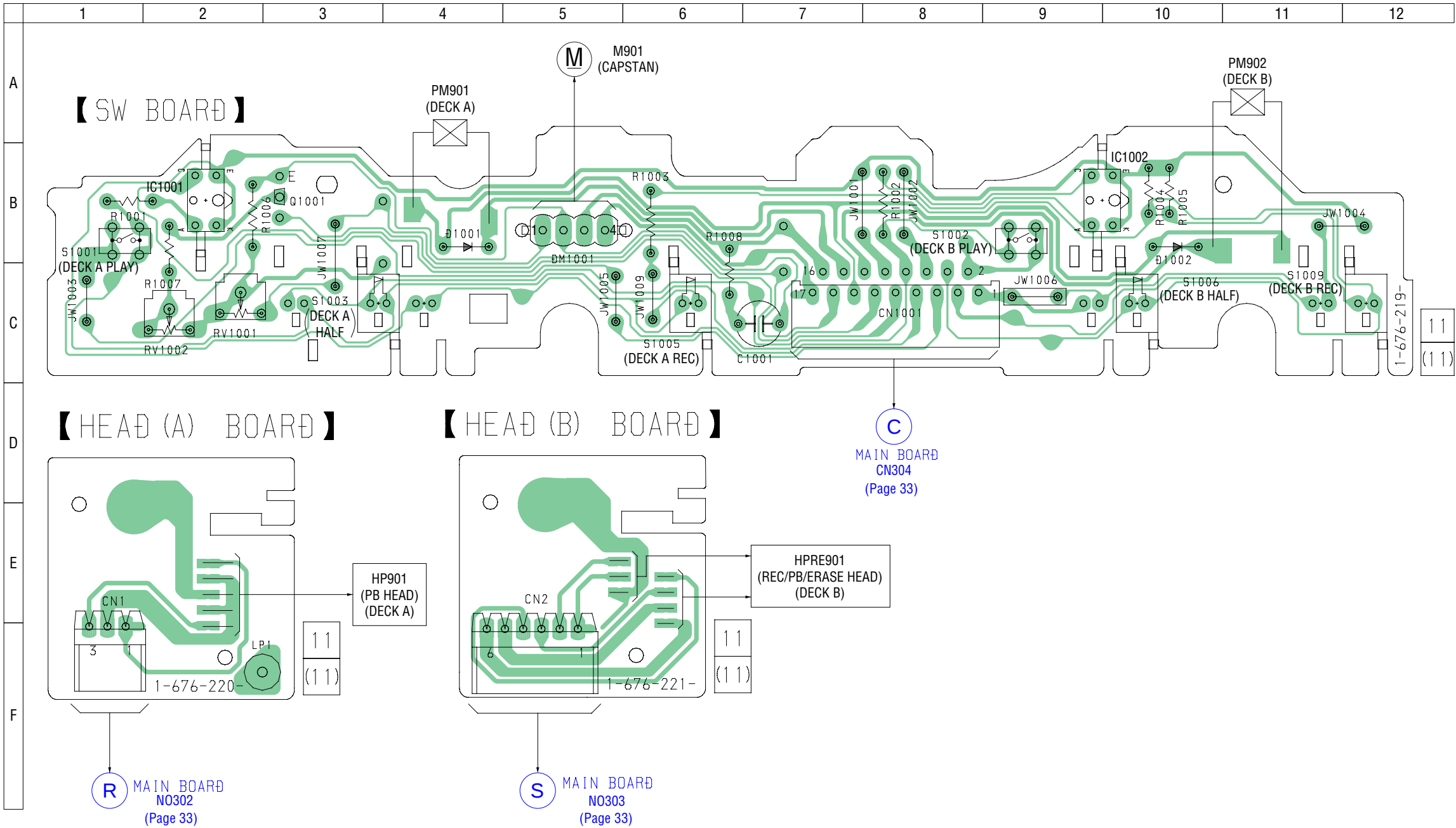


7-9. SCHEMATIC DIAGRAM – DRIVER/MOTOR/SENSOR (CD) Boards – • See page 48 for IC Block Diagram.

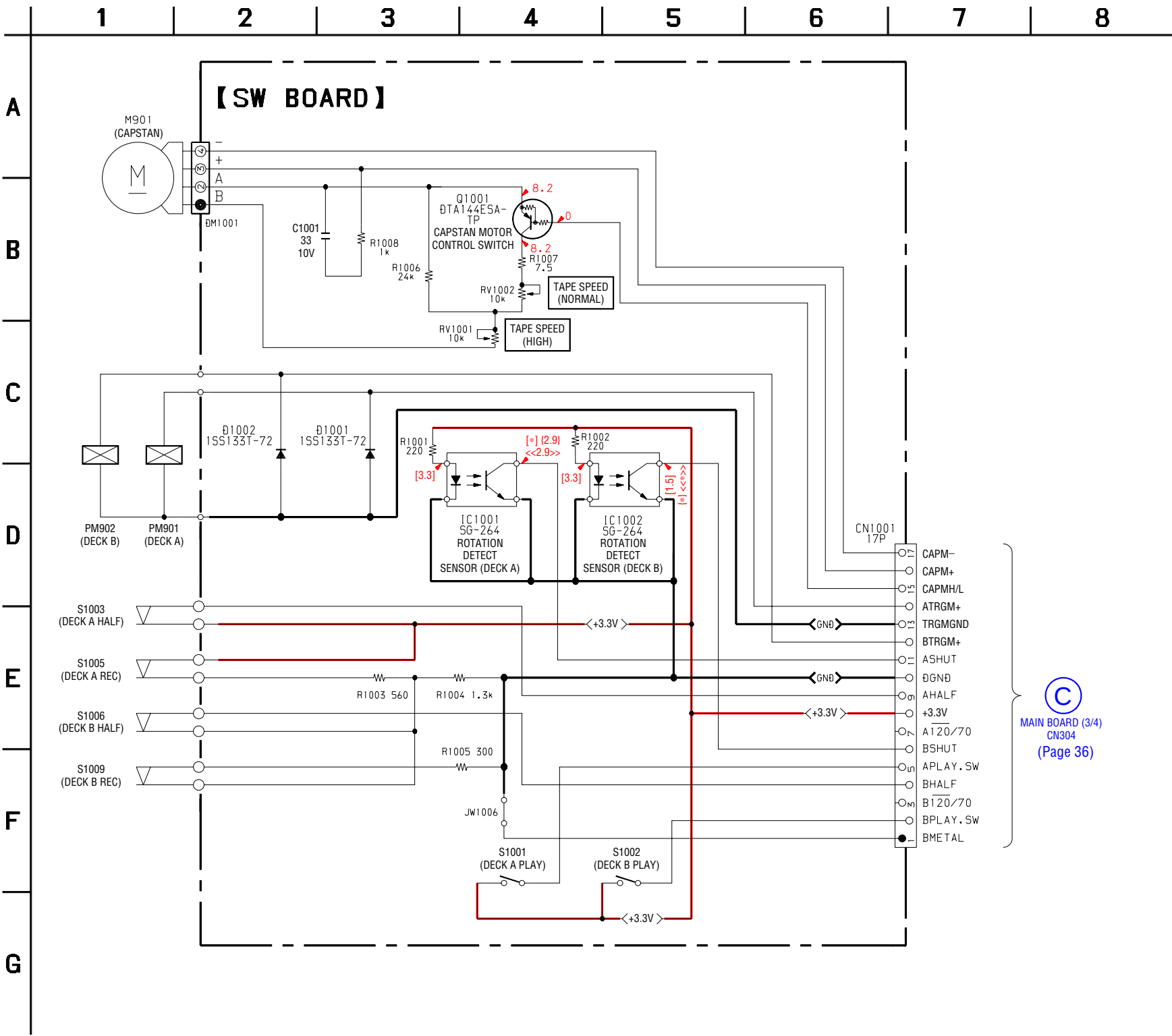


• Voltages are dc with respect to ground under no-signal conditions.
no mark : CD PLAY

7-10. PRINTED WIRING BOARDS – SW/HEAD (A)/HEAD (B) Boards – • See page 27 for Circuit Boards Location.



7-11. SCHEMATIC DIAGRAM – SW Board –

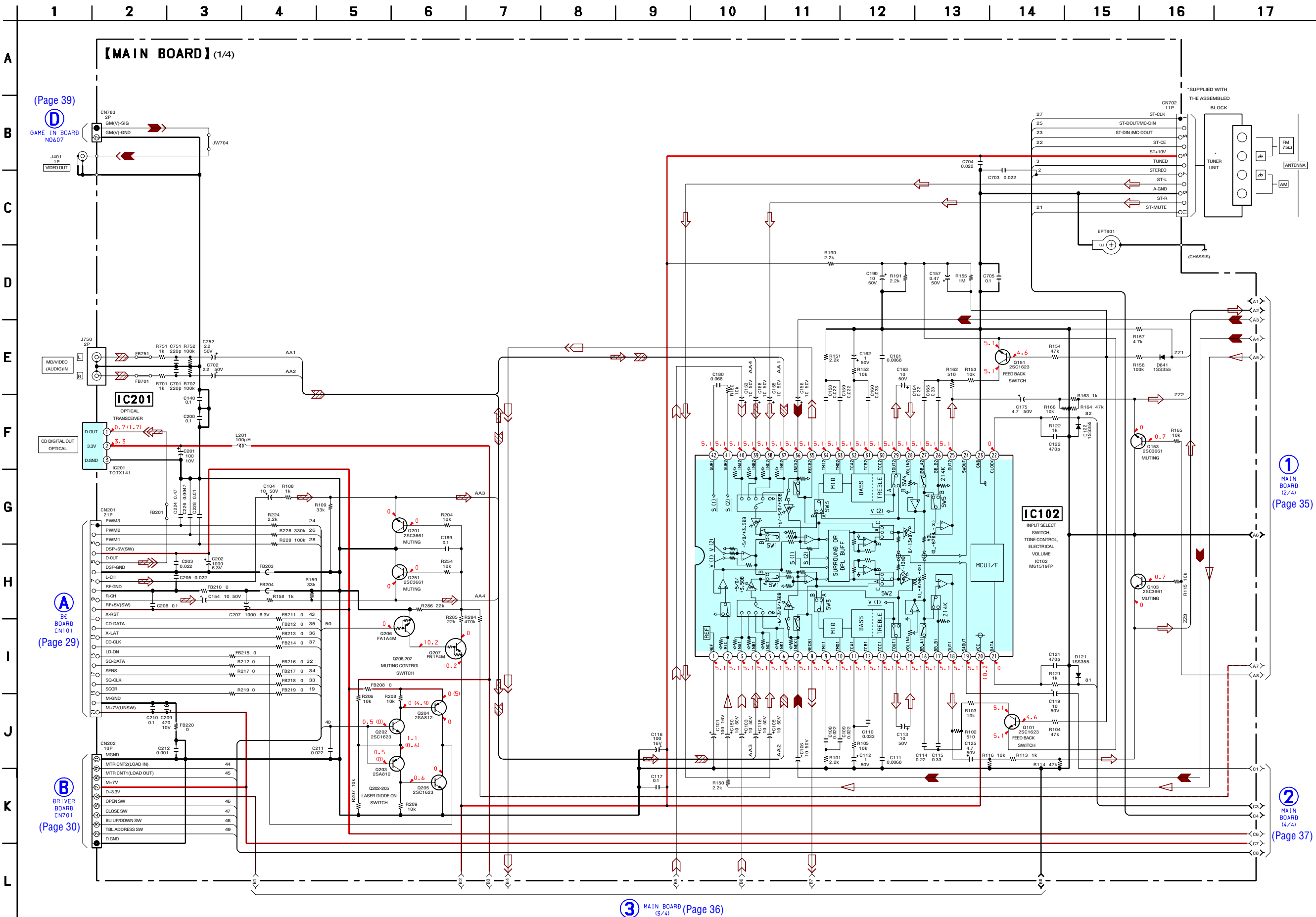


• Voltages are dc with respect to ground under no-signal conditions.
[] : TAPE PLAY (DECK A)
{ } : TAPE PLAY (DECK B)
<< >> : REC
* : Impossible to measure



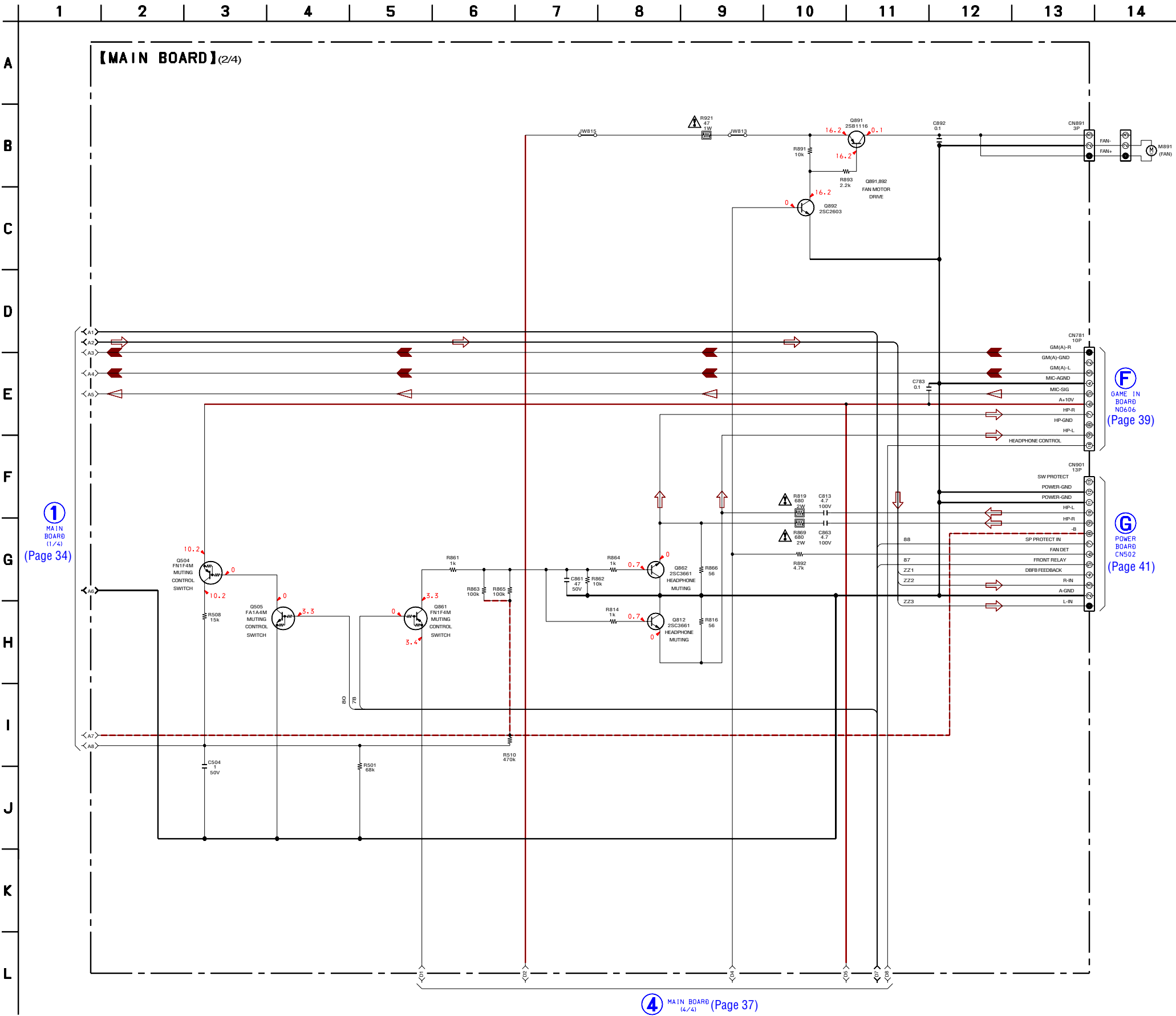
Ref. No.	Location	Ref. No.	Location
D121	E-9	Q101	E-8
D122	E-8	Q103	F-10
D501	E-3	Q151	E-8
D502	C-5	Q153	F-10
D503	E-3	Q201	C-7
D504	C-5	Q202	C-8
D505	B-2	Q203	C-9
D508	B-2	Q204	C-9
D509	E-3	Q205	C-9
D601	C-5	Q206	D-7
D602	B-4	Q207	D-7
D603	C-5	Q251	D-7
D841	F-8	Q301	J-6
D906	J-8	Q302	J-6
D907	J-8	Q303	J-5
D908	J-8	Q304	I-5
D909	I-8	Q305	I-4
D914	J-8	Q306	G-4
D915	J-8	Q307	J-6
D916	J-8	Q310	J-6
D917	I-8	Q389	G-4
D918	J-7	Q390	G-6
D919	J-7	Q391	F-4
D920	H-8	Q392	F-4
D921	H-8	Q393	F-4
D922	H-9	Q394	F-3
D923	J-7	Q395	F-4
D924	J-7	Q396	F-4
		Q397	F-3
IC101	I-8	Q398	G-6
IC102	E-10	Q399	G-5
IC201	E-12	Q504	E-5
IC301	H-5	Q505	E-5
IC302	I-5	Q601	C-5
IC303	G-5	Q812	K-4
IC501	C-3	Q861	E-4
IC601	B-4	Q862	K-4
IC911	G-7	Q891	H-11
IC951	I-7	Q892	H-11
IC961	I-8	Q911	H-7
		Q912	G-7

7-13. SCHEMATIC DIAGRAM – MAIN Board (1/4) –

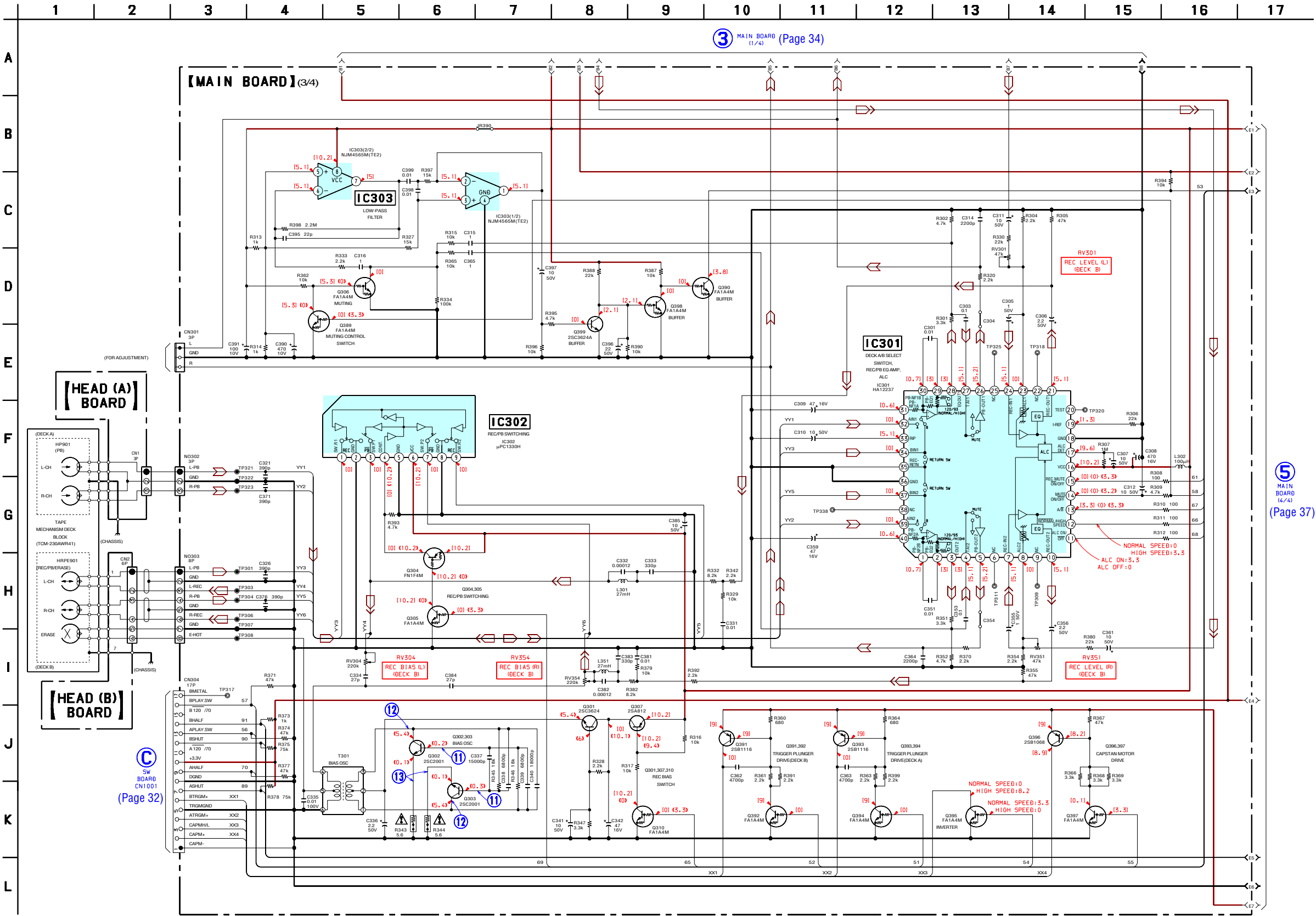


• Voltages are dc with respect to ground under no-signal (detuned) conditions.
no mark : TUNER (FM/AM)
() : CD PLAY

7-14. SCHEMATIC DIAGRAM – MAIN Board (2/4) –

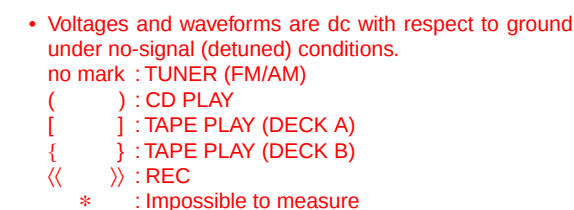


7-15. SCHEMATIC DIAGRAM – MAIN (3/4)/HEAD (A)/HEAD (B) Boards – • See page 28 for Waveforms.



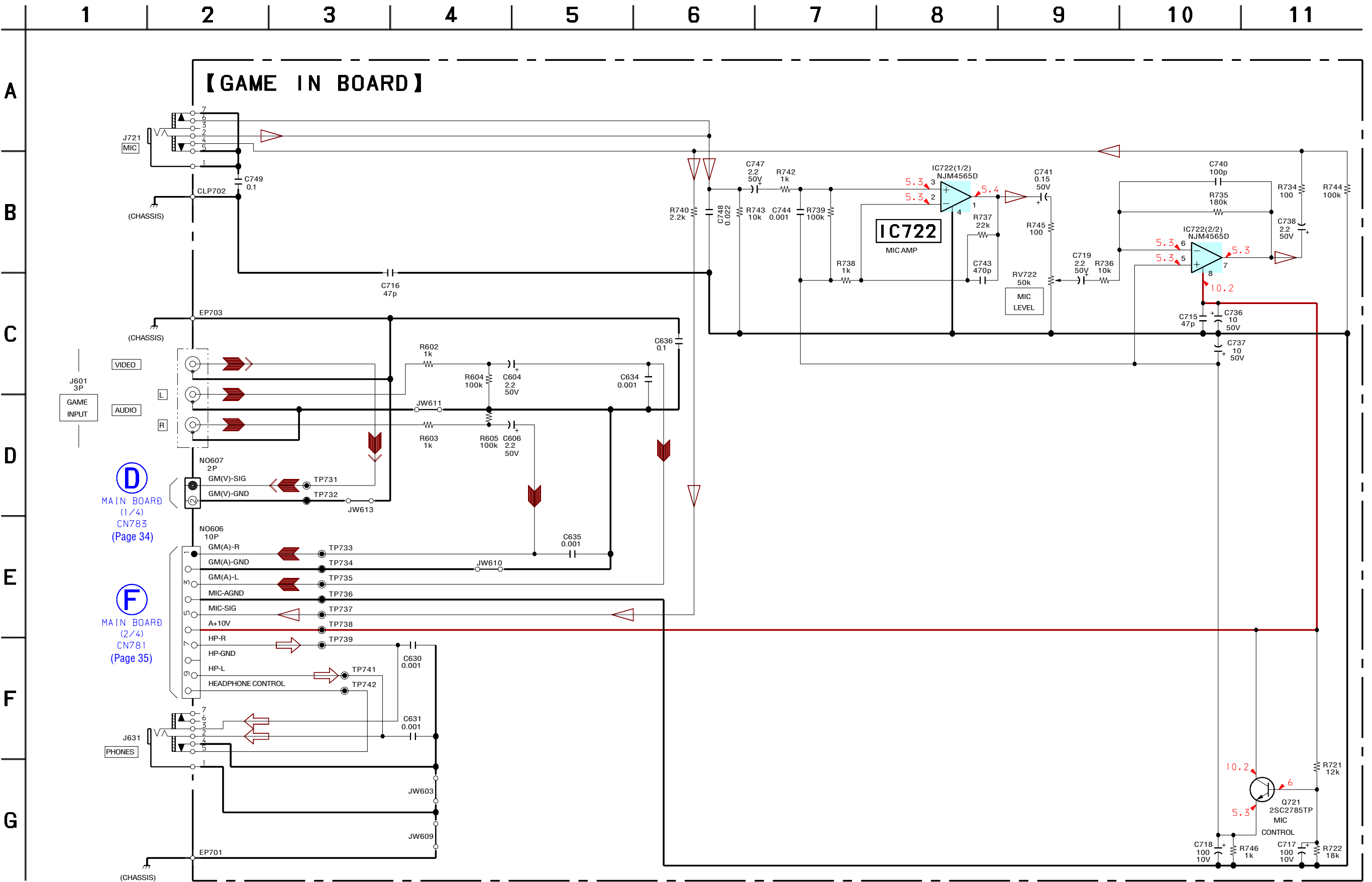
• Voltages and waveforms are dc with respect to ground under no-signal conditions.
[] : TAPE PLAY (DECK A)
{ } : TAPE PLAY (DECK B)
<< >> : REC

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



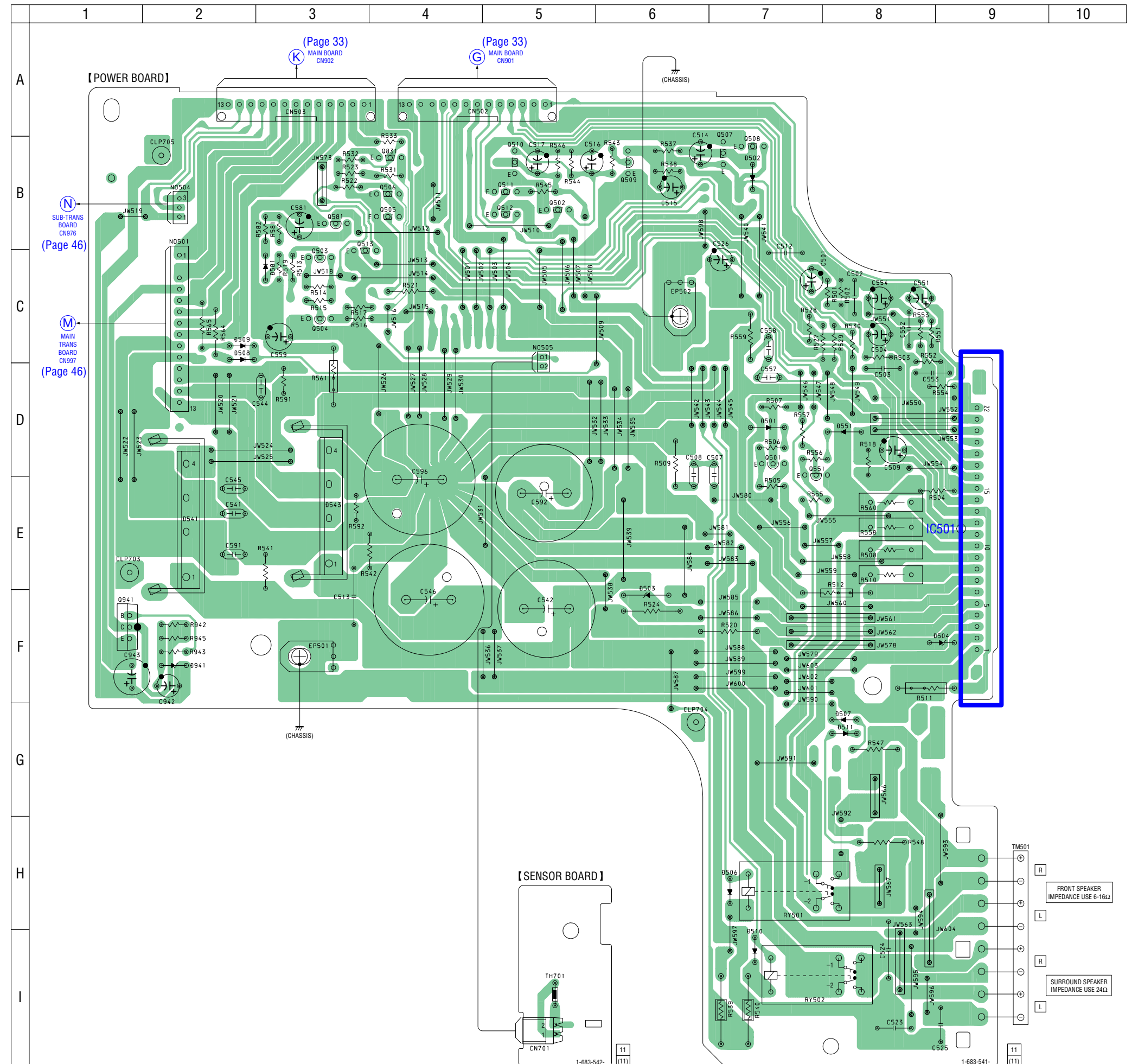


7-18. SCHEMATIC DIAGRAM - GAME IN Board -

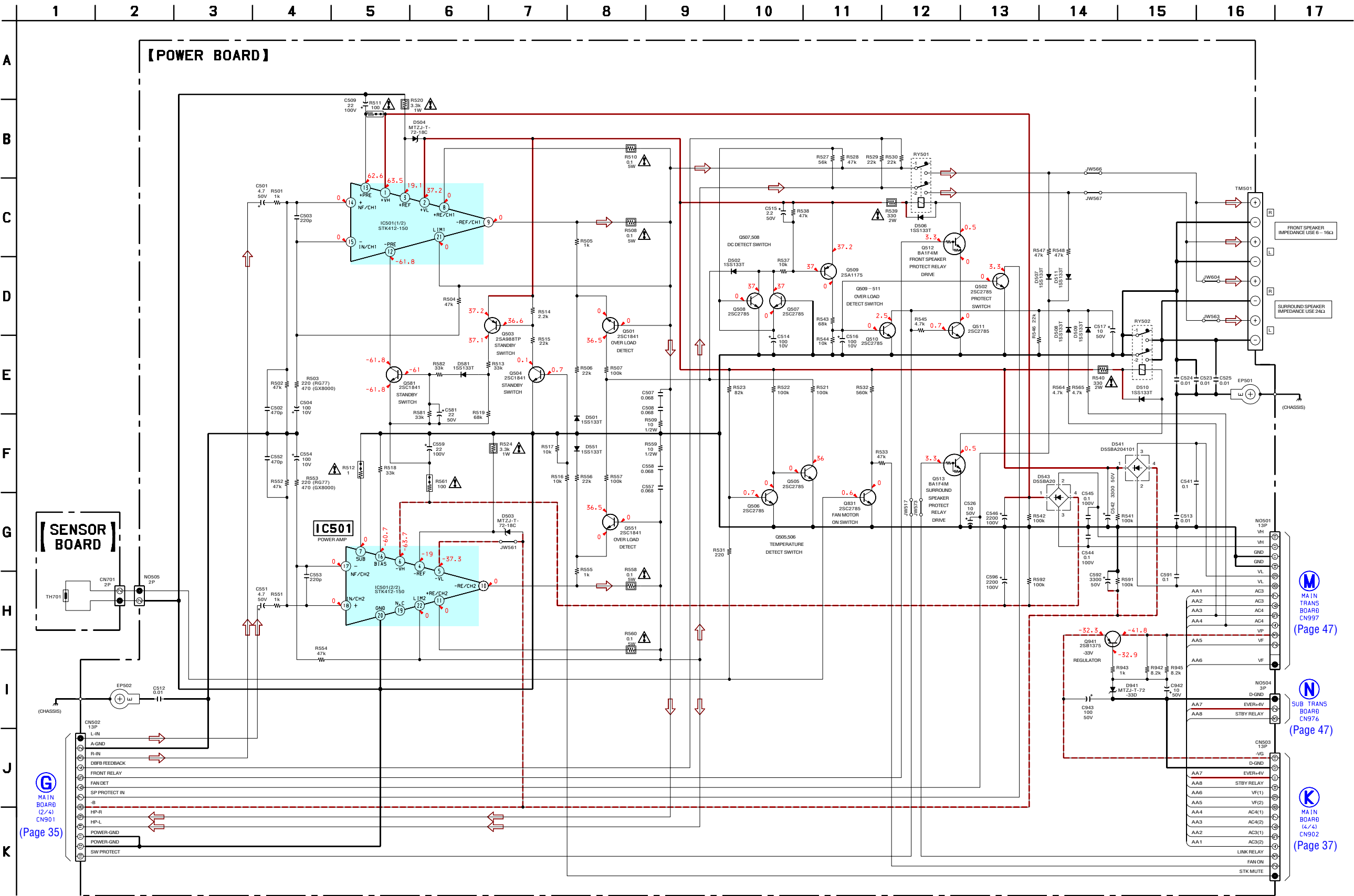


• Voltages are dc with respect to ground under no-signal (detuned) conditions.
no mark : TUNER (FM/AM)

Ref. No.	Location
D501	D-7
D502	B-7
D503	E-6
D504	F-9
D506	H-7
D507	G-8
D508	C-2
D509	C-2
D510	I-7
D511	G-8
D543	E-3
D551	D-8
D581	C-3
D941	F-2
IC501	E-9
Q501	D-7
Q502	B-5
Q503	C-3
Q504	C-3
Q505	B-4
Q506	B-4
Q507	B-7
Q508	B-7
Q509	B-6
Q510	B-5
Q511	B-5
Q512	B-5
Q513	B-3
Q551	D-7
Q581	B-3
Q831	B-4
Q941	F-1



7-20. SCHEMATIC DIAGRAM – POWER/SENSOR Boards –



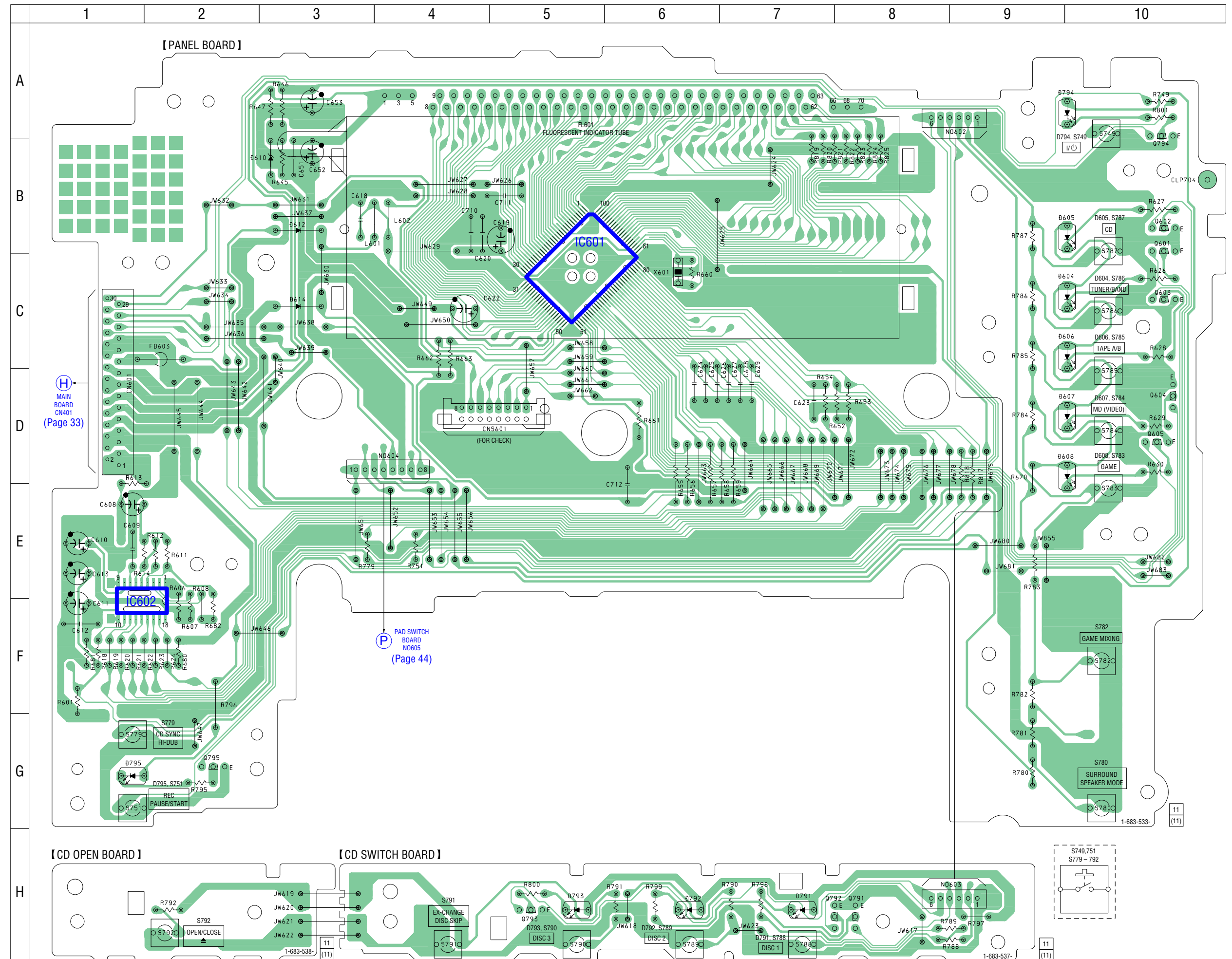
• Voltages are dc with respect to ground under no-signal (detuned) conditions.
no mark : TUNER (FM/AM)

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

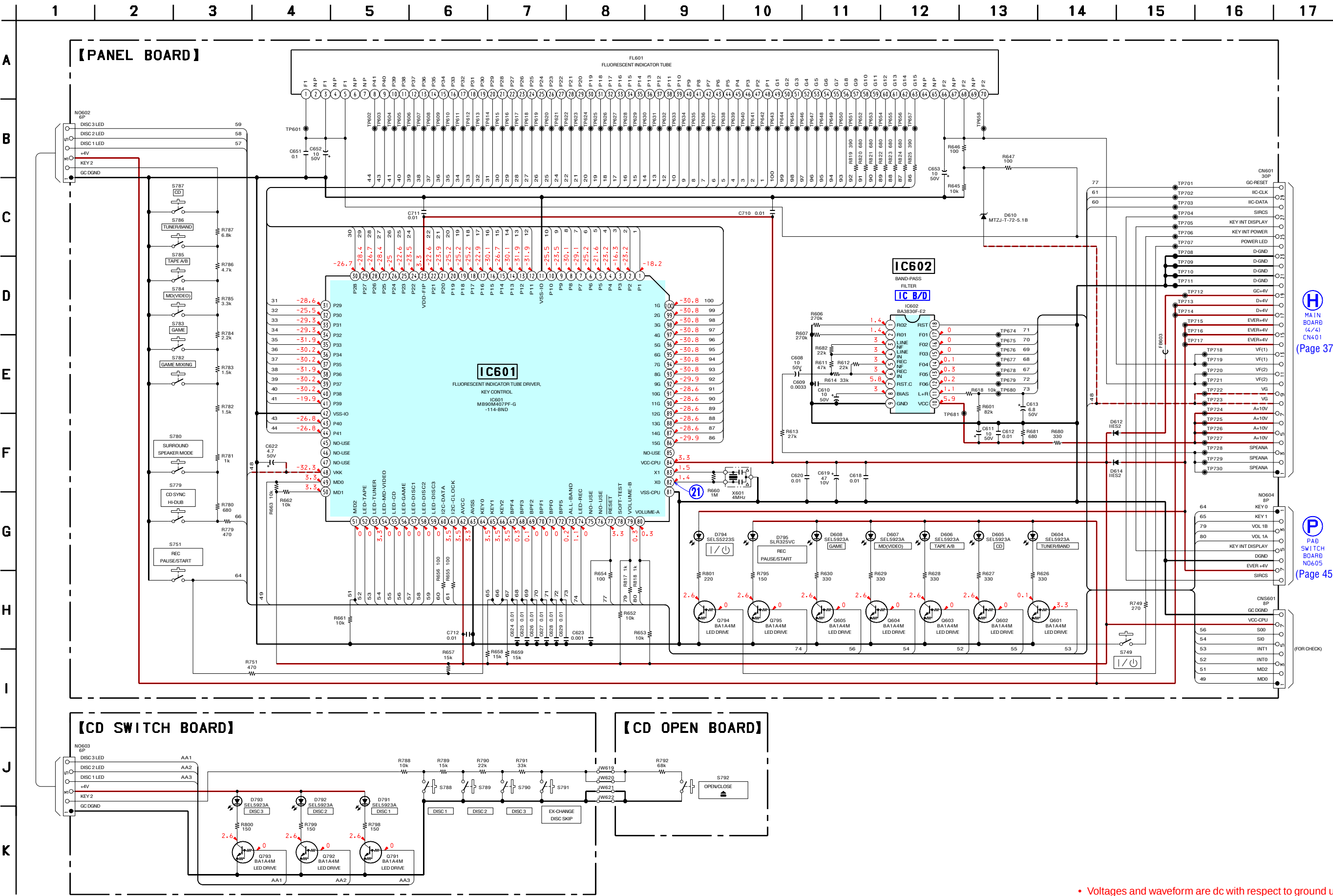
7-21. PRINTED WIRING BOARDS – PANEL/CD OPEN/CD SWITCH Boards – • See page 27 for Circuit Boards Location.

- **Semiconductor Location**

Ref. No.	Location
D604	C-10
D605	B-10
D606	C-10
D607	D-10
D608	D-10
D610	B-3
D612	B-3
D614	C-3
D791	H-7
D792	H-6
D793	H-5
D794	A-10
D795	G-1
IC601	C-5
IC602	F-1
Q601	B-10
Q602	B-10
Q603	C-10
Q604	D-10
Q605	D-10
Q791	H-8
Q792	H-8
Q793	H-5
Q794	A-10
Q795	G-2



7-22. SCHEMATIC DIAGRAM – PANEL/CD OPEN/CD SWITCH Boards – • See page 28 for Waveform. • See page 48 for IC Block Diagram.



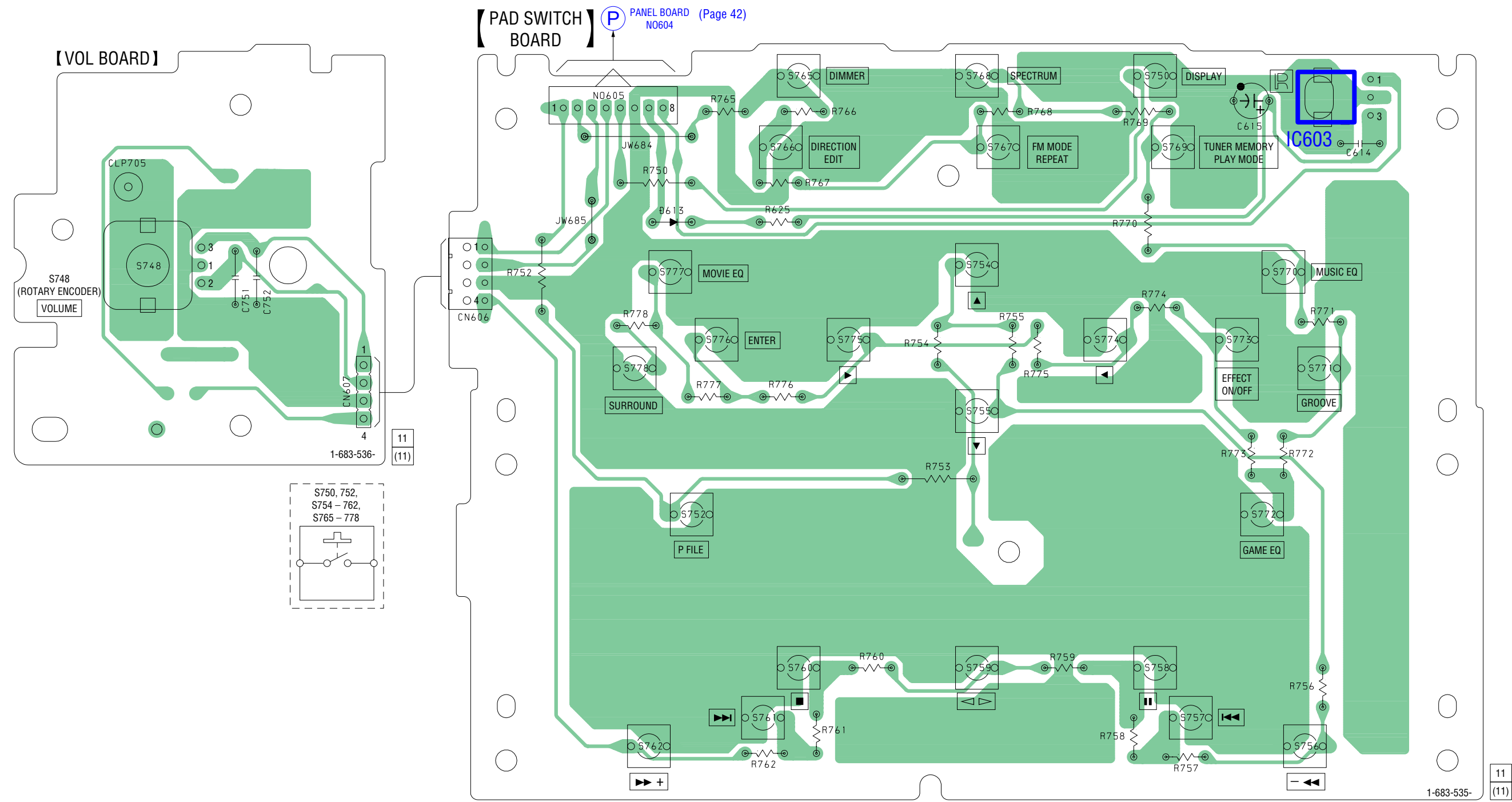
MAIN
BOARD
(4/4)
CN401
(Page 37)

PAD
SWITCH
BOARD
NO605
(Page 45)

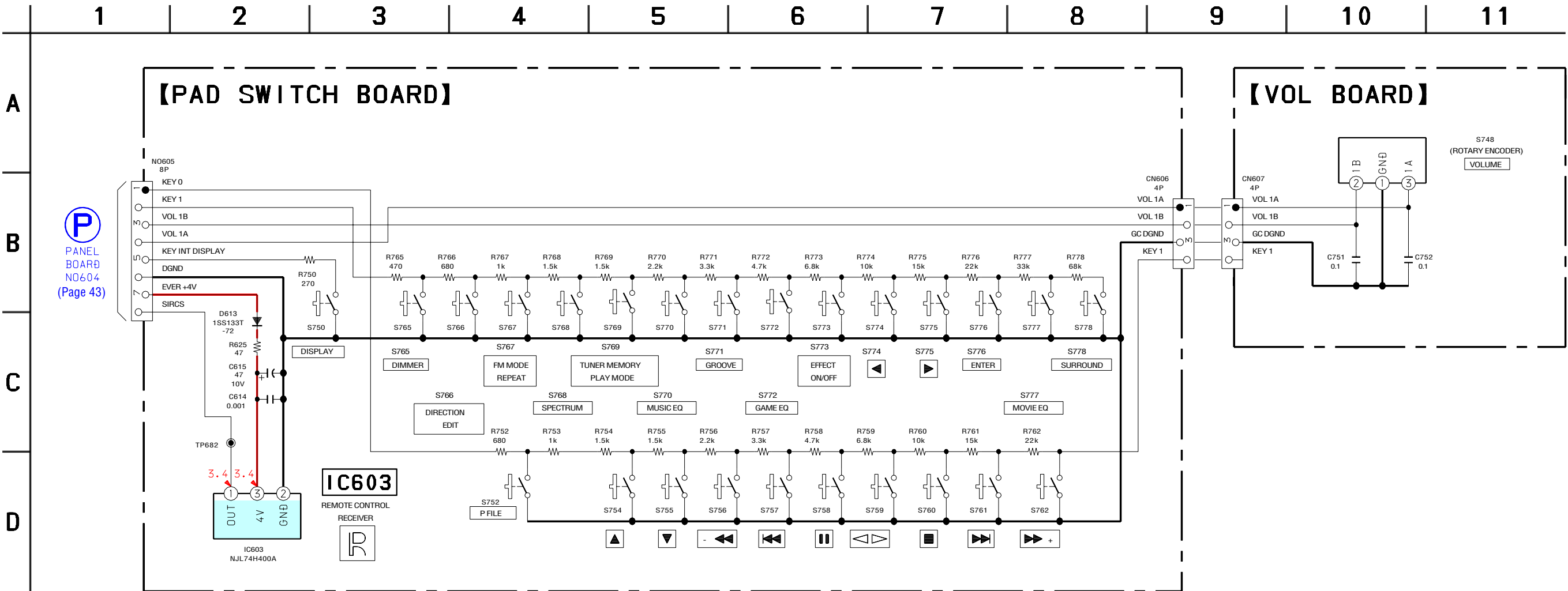
(FOR CHECK)

• Voltages and waveform are dc with respect to ground under no-signal (detuned) conditions.
no mark : TUNER (FM/AM)

7-23. PRINTED WIRING BOARDS – PAD SWITCH/VOL Boards – • See page 27 for Circuit Boards Location.



7-24. SCHEMATIC DIAGRAM – PAD SWITCH/VOL Boards –

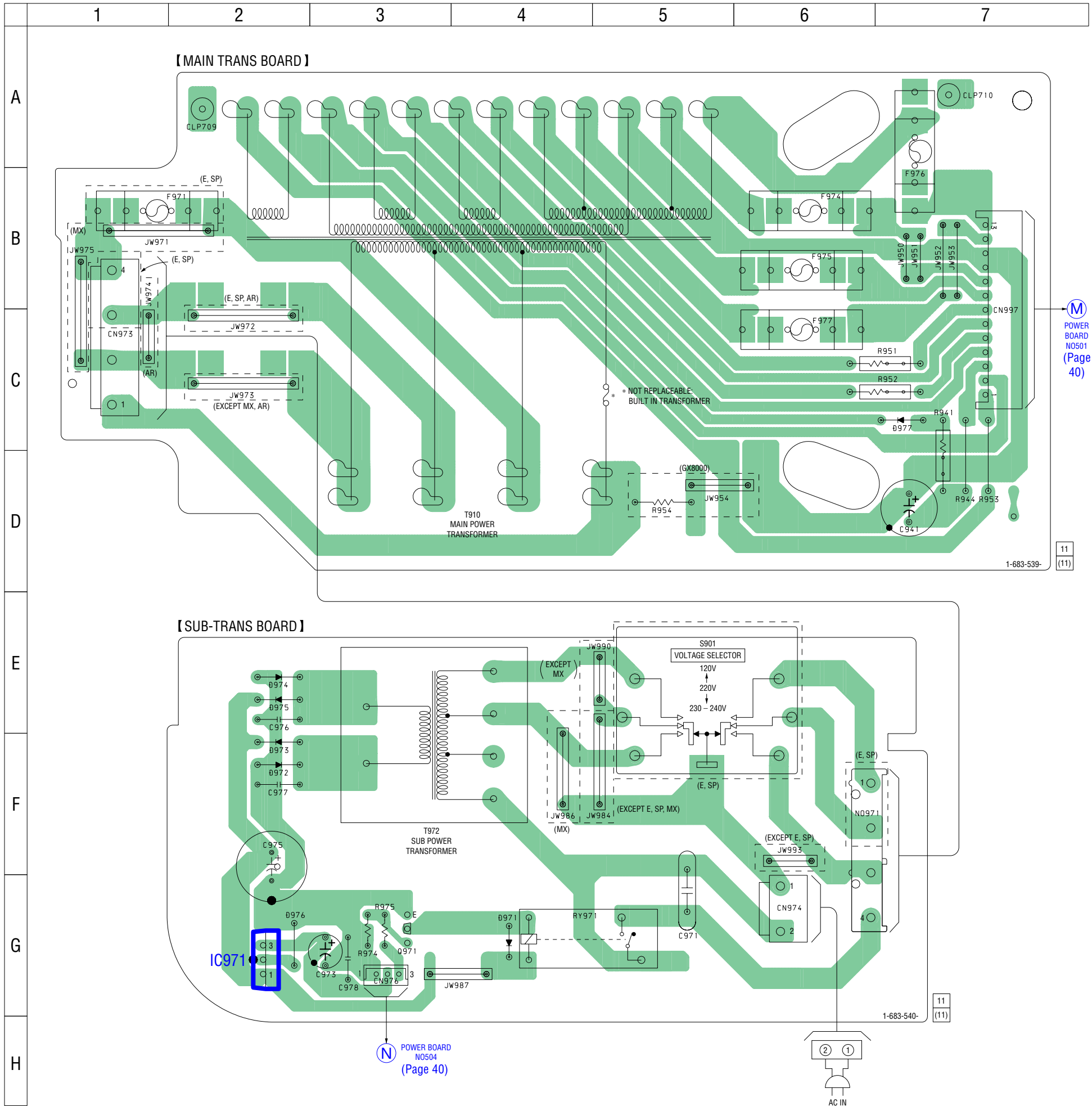


• Voltages are dc with respect to ground under no-signal (detuned) conditions.
no mark : TUNER (FM/AM)

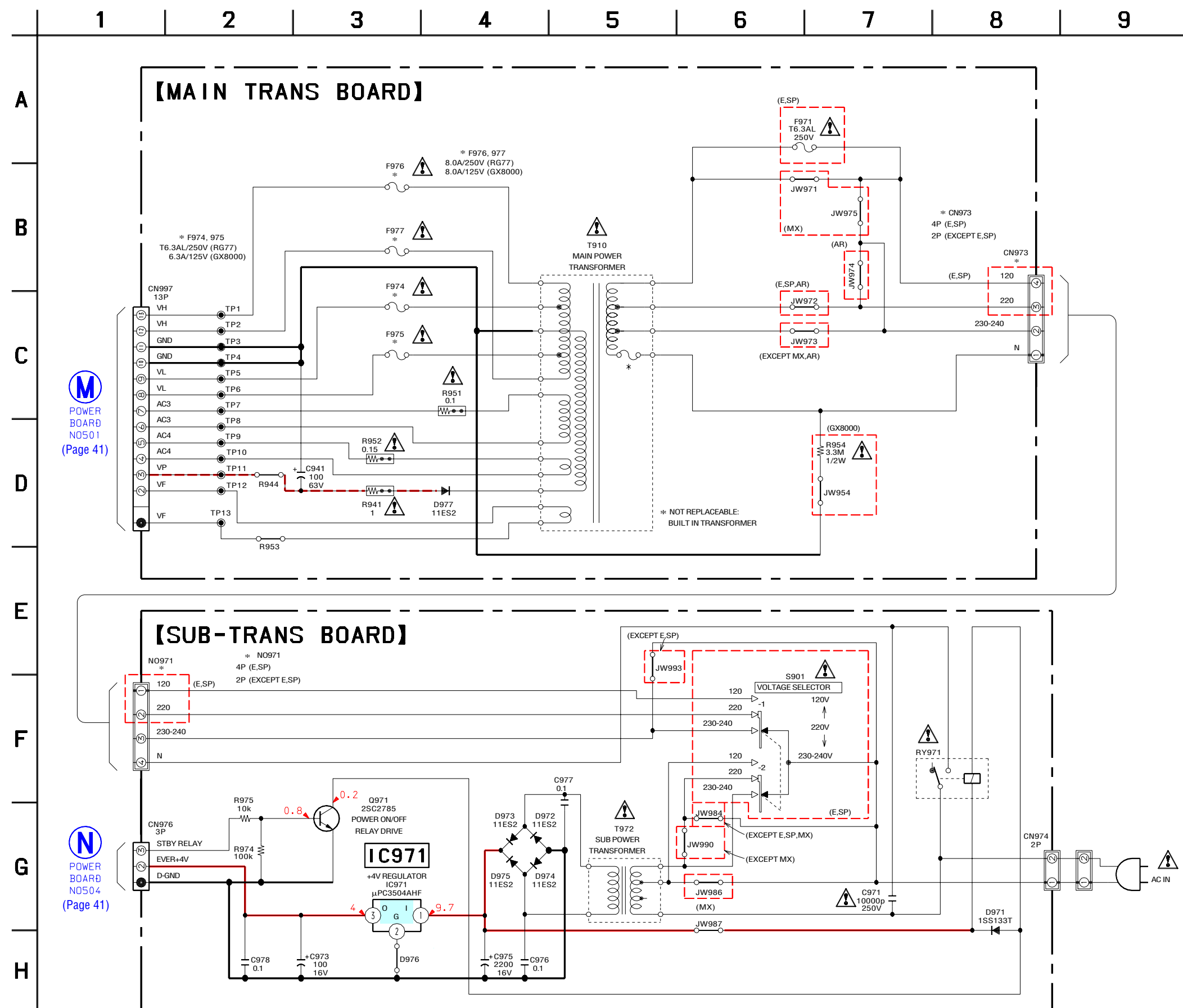
7-25. PRINTED WIRING BOARDS – MAIN TRANS/SUB-TRANS Boards – • See page 27 for Circuit Boards Location.

• Semiconductor Location

Ref. No.	Location
D971	G-4
D972	F-2
D973	F-2
D974	E-2
D975	E-2
D977	C-7
IC971	G-2
Q971	G-3



7-26. SCHEMATIC DIAGRAM – MAIN TRANS/SUB-TRANS Boards –



- Voltages are dc with respect to ground under no-signal (detuned) conditions.

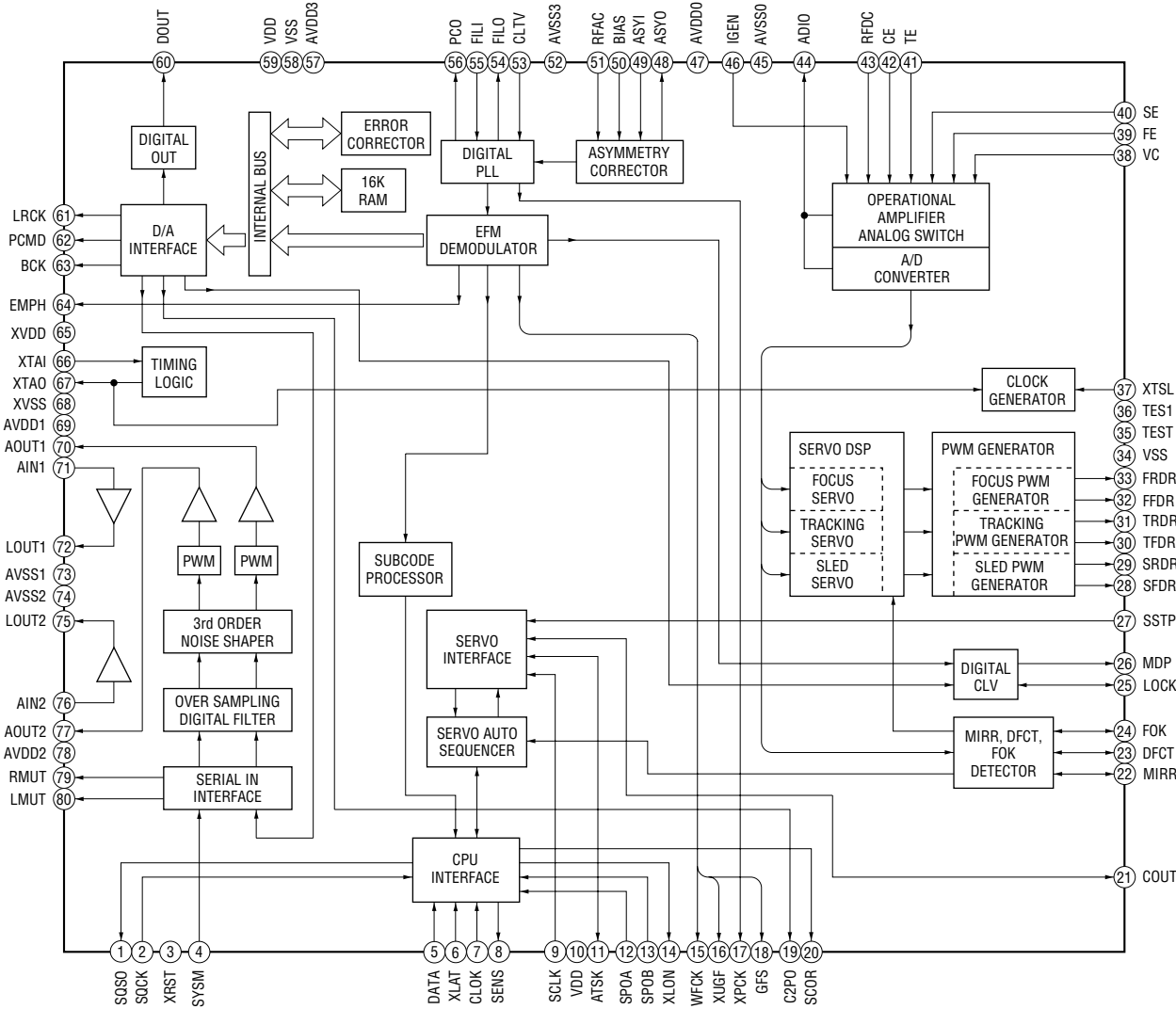
no mark : TUNER (FM/AM)

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

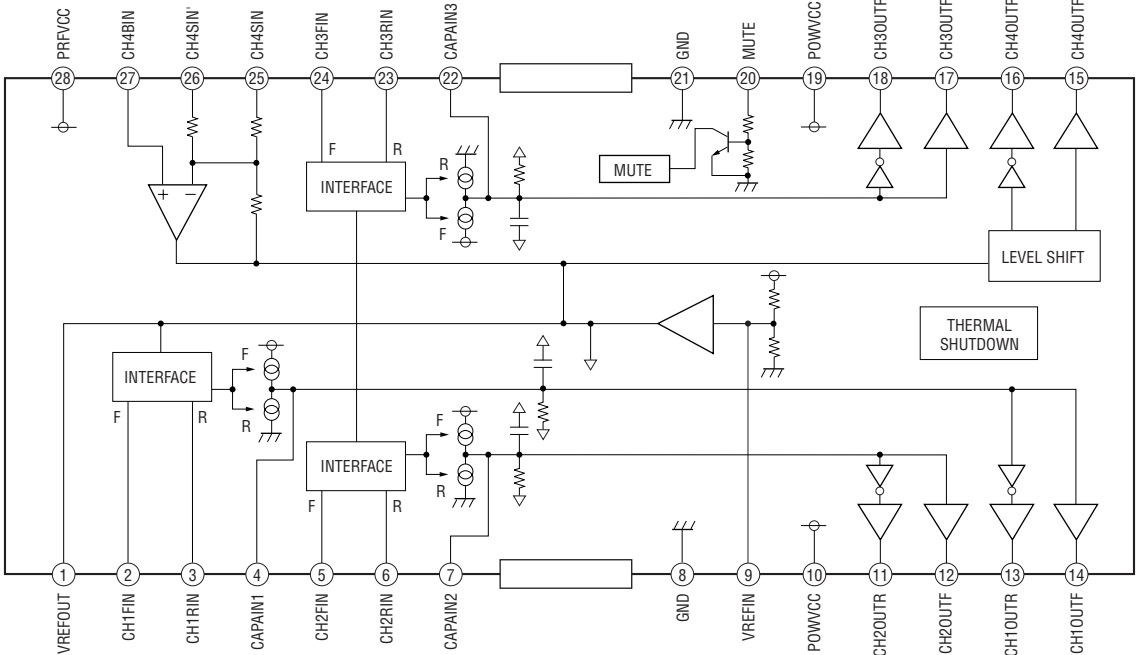
HCD-GX8000/RG77

- IC Block Diagrams
- BD Board –

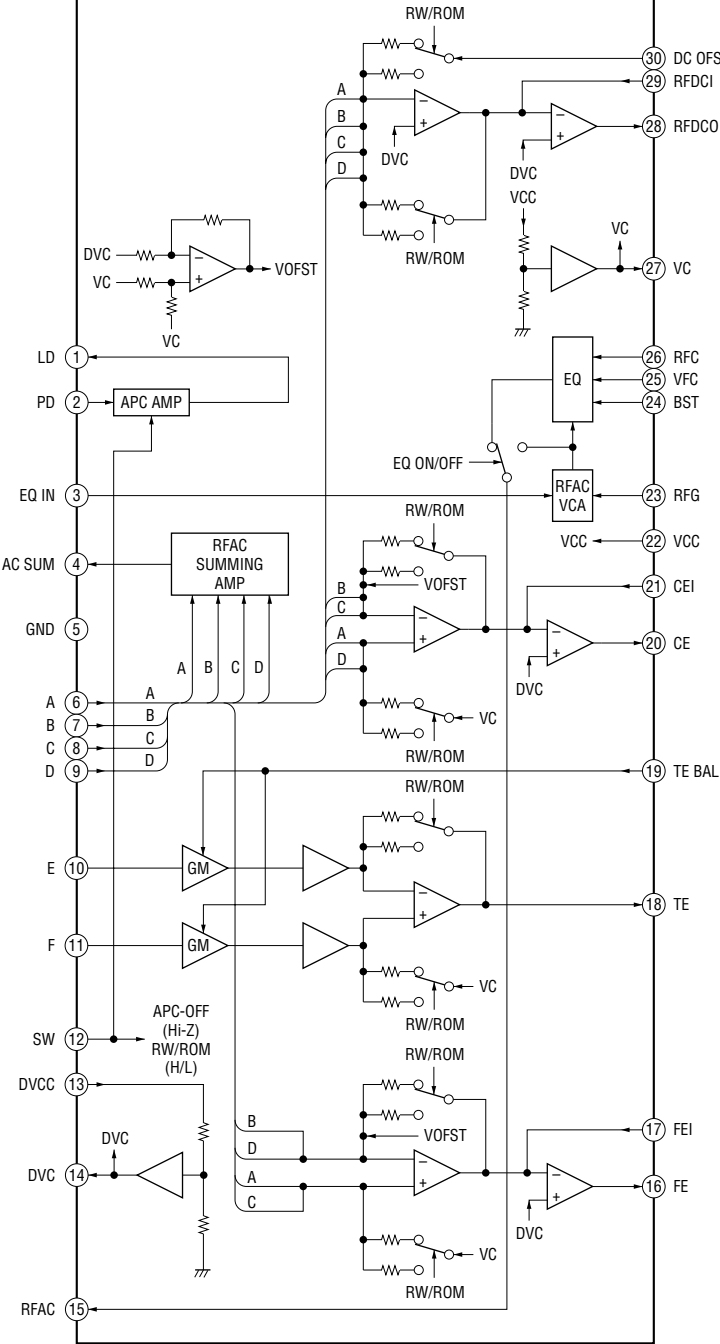
IC101 CXD3017Q



IC102 BA5974FM-E2

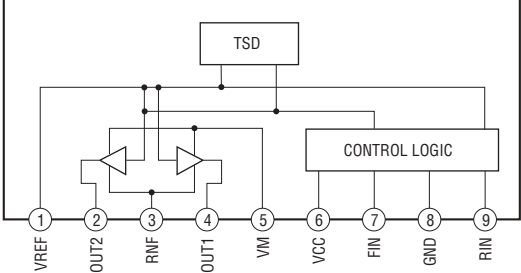


IC103 CXA2581N-T4



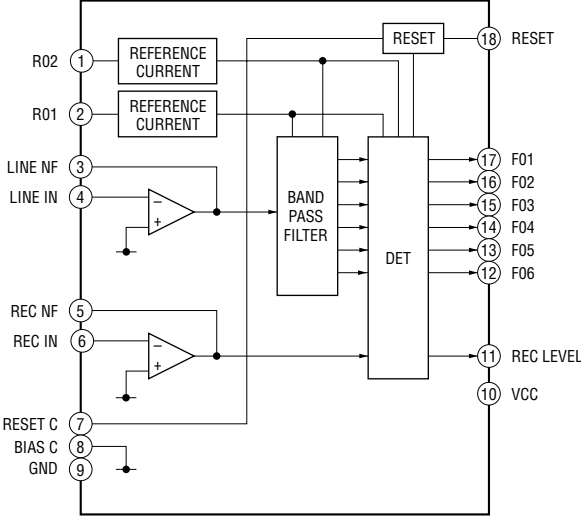
– DRIVER Board –

IC701 BA6956AN



– PANEL Board –

IC602 BA3830F-E2



7-27. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC501 M30620MCN-A00FP (SYSTEM CONTROLLER (CD MECHANISM CONTROL))

Pin No.	Pin Name	I/O	Description
1	NO-USE	—	Not used
2	<u>STEREO</u>	I	FM stereo detection signal input from the tuner unit “L”: stereo
3	<u>TUNED</u>	I	Tuning detection signal input from the tuner unit “L”: tuned
4	SIRCS	I	Remote control signal input
5 to 7	SUR1 to SUR3	O	Surround signal processor control signal output terminal Not used
8, 9	GND	—	Ground terminal
10	XC-IN	I	Sub system clock input terminal (32.768 kHz)
11	XC-OUT	O	Sub system clock output terminal (32.768 kHz)
12	<u>RESET</u>	I	System reset signal input from the reset signal generator “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
13	X-OUT	O	Main system clock output terminal (16 MHz)
14	VSS	—	Ground terminal
15	X-IN	I	Main system clock input terminal (16 MHz)
16	VCC	—	Power supply terminal (+3.3V)
17	NMI	I	Non-maskable interrupt input terminal
18	NO-USE	—	Not used
19	SCOR	I	Subcode sync (S0+S1) detection signal input from the digital signal processor
20	<u>AC-CUT</u>	I	AC off detection signal input from the reset signal generator “L”: AC cut checked
21	ST-MUTE	O	Tuner muting on/off control signal output “H”: muting on
22	ST-CE	O	PLL chip enable signal output to the tuner unit
23	ST-DOUT	O	PLL serial data output to the tuner unit
24	PWM3	O	RFDC PWM signal output to the RF amplifier (for CD-RW)
25	ST-DIN	I	PLL serial data input from the tuner unit
26	PWM2	O	PWM signal output to the RF amplifier (for CD-RW)
27	ST-CLK	O	PLL serial data transfer clock signal output to the tuner unit
28	PWM1	O	Focus servo drive PWM signal output to the RF amplifier (for CD-RW)
29	IIC-CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the fluorescent indicator tube driver
30	IIC-DATA	I/O	Communication data bus with the fluorescent indicator tube driver
31	TXD1	—	Not used
32	SQ-DATA	I	Subcode Q data input from the digital signal processor
33	SQ-CLK	O	Subcode Q data reading clock signal output to the digital signal processor
34	SENS	I	Internal status detection monitor input from the digital signal processor
35	CD-DATA	O	Serial data output to the digital signal processor
36	XLT	O	Serial data latch pulse output to the digital signal processor
37	CD-CLK	O	Serial data transfer clock signal output to the digital signal processor
38	CD-POWER	O	Power on/off control signal output for the CD section “H”: power on
39	CLOCK-OUT	O	Clock (32.768 kHz) signal output terminal (for test mode)
40	<u>LD ON</u>	O	Laser diode on/off control signal output to the RF amplifier “L”: laser diode on
41	<u>GC RESET</u>	I	Reset signal output to the fluorescent indicator tube driver “L”: reset
42	NO-USE	—	Not used
43	XRST	O	Reset signal output to the digital signal processor and motor/coil driver “L”: reset
44	LOAD-IN	O	Turn motor drive signal output
45	LOAD-OUT	O	Turn motor drive signal output
46	OPEN-SW	I	Disc tray open detection signal input terminal “L”: disc tray open
47	CLOSE-SW	I	Disc tray close detection signal input terminal “L”: disc tray close

Pin No.	Pin Name	I/O	Description
48	BU UP/DOWN-SW	I	Optical pick-up up/down detection signal input terminal
49	TBL-SENS	I	Disc tray status detection signal input
50	CD-MUTE	O	CD analog signal muting on/off control signal output “H”: muting on
51	A-TRG	O	Deck-A side trigger plunger drive signal output “H”: plunger on
52	B-TRG	O	Deck-B side trigger plunger drive signal output “H”: plunger on
53	$\overline{\text{AMS-IN}}$	I	Whether a music is present or not from the automatic music sensor circuit “L”: music is present, “H”: music is not present
54	CAPM- $\overline{\text{H/L}}$	O	High/normal speed selection signal output “L”: high speed, “H”: normal speed
55	CAPM-CNT1	O	Capstan motor drive signal output
56	A-PLAY	I	Deck-A play detection signal input terminal “H”: deck-A play
57	B-PLAY	I	Deck-B play detection signal input terminal “H”: deck-B play
58	TC-MUTE	O	Line muting on/off control signal output to the automatic music sensor circuit “H”: muting on
59	SW-ON-LED	O	LED drive signal output terminal “H”: LED on Not used
60	SW-MATRIX-SURR-2-LED	O	LED drive signal output terminal “H”: LED on Not used
61	$\overline{\text{REC-MUTE}}$	O	Recording muting on/off control signal output “L”: muting on
62	VCC	—	Power supply terminal (+3.3V)
63	SOFT-TEST	O	Output terminal for the software test
64	VSS	—	Ground terminal
65	BIAS	O	Recording bias on/off control signal output “H”: bias on
66	EQ-H $\overline{\text{N}}$	O	Normal/high speed selection signal output “L”: normal speed, “H”: high speed
67	PB-A $\overline{\text{B}}$	O	Deck-A/B selection signal output “L”: deck-B, “H”: deck-A
68	ALC	O	Automatic limiter control signal output “H”: limiter on
69	TC-RELAY	O	Recording/playback selection signal output “L”: playback, “H”: recording
70	A-HALF	I	Deck-A cassette detection signal input terminal “L”: no cassette, “H”: cassette in
71	SW-LINK-LED	O	LED drive signal output terminal “H”: LED on Not used
72	SW-MATRIX-SURR-1-LED	O	LED drive signal output terminal “H”: LED on Not used
73	DISPLAY-KEY	I	DISPLAY key input terminal
74	POWER-KEY	I	I/⏻ key input terminal
75	STBY-LED	O	LED drive signal output of the I/⏻ indicator “H”: LED on
76	AUDIO-OUT GAME/VCD	O	Video out game/video CD selection signal output terminal “L”: video CD, “H”: game Not used
77	AUDIO-OUT ON/OFF	O	Audio out on/off control signal output terminal “H”: audio out on Not used
78	$\overline{\text{HP MUTE}}$	O	Headphone muting on/off control signal output “L”: muting on
79	HP-DETECT	I	Connection detection signal input of the headphone jack “L”: no connected, “H”: headphone connected
80	LINE-MUTE	O	Line muting on/off control signal output “H”: muting on
81	GEQ DATA	O	Serial data output to the audio signal processor
82	GEQ CLK	O	Serial data transfer clock signal output to the audio signal processor
83	$\overline{\text{STK-MUTE}}$	O	Power amplifier on/off control signal output “L”: standby mode, “H”: power amplifier on
84	STBY-RELAY	O	Main power on/off control signal output “H”: power on
85	NO-USE	—	Not used
86	LINK-RELAY	O	Relay drive signal output for the surround speaker protect “H”: relay on
87	FRONT-RELAY	O	Relay drive signal output for the front speaker protect “H”: relay on
88	$\overline{\text{PROTECTOR}}$	I	Protect on/off detection signal input from the speaker protect circuit “L”: protect on

Pin No.	Pin Name	I/O	Description
89	A-SHUT	I	Shut off detection signal input from the deck-A side reel pulse detector
90	B-SHUT	I	Shut off detection signal input from the deck-B side reel pulse detector
91	B-HALF	I	Deck-B cassette detection signal input terminal “L”: cassette in, “H”: no cassette
92	MODEL-IN	I	Model setting terminal
93	DEST-IN	I	Destination setting terminal
94	SW-AD-KEY	I	Key input terminal (A/D input) Not used
95	NO-USE	—	Not used
96	AVSS	—	Ground terminal (for analog system)
97	SW-RELAY	O	Relay drive signal output for the sub woofer out protect “H”: relay on Not used
98	VREF	I	Reference voltage (+3.3V) input terminal (for analog system)
99	AVCC	—	Power supply terminal (+3.3V) (for analog system)
100	NO-USE	—	Not used

• PANEL BOARD IC601 MB90M407PF-G-114-BND (FLUORESCENT INDICATOR TUBE DRIVER, KEY CONTROL)

Pin No.	Pin Name	I/O	Description
1 to 10	P1 to P10	O	Segment drive signal output to the fluorescent indicator tube
11	VSS-IO	—	Ground terminal (for I/O port)
12 to 22	P11 to P21	O	Segment drive signal output to the fluorescent indicator tube
23	VDD-FIP	—	Power supply terminal (+3.3V) (for fluorescent indicator tube)
24 to 41	P22 to P39	O	Segment drive signal output to the fluorescent indicator tube
42	VSS-IO	—	Ground terminal (for I/O port)
43, 44	P40, P41	O	Segment drive signal output to the fluorescent indicator tube
45 to 47	NO-USE	—	Not used
48	VKK	—	Power supply terminal (−33V) (for fluorescent indicator tube)
49 to 51	MD0 to MD2	I	Setting terminal for the CPU operational mode
52	LED-TAPE	O	LED drive signal output of the TAPE A/B “H”: LED on
53	LED-TUNER	O	LED drive signal output of the TUNER/BAND “H”: LED on
54	LED-MD-VIDEO	O	LED drive signal output of the MD (VIDEO) “H”: LED on
55	LED-CD	O	LED drive signal output of the CD “H”: LED on
56	LED-GAME	O	LED drive signal output of the GAME “H”: LED on
57	LED-DISC1	O	LED drive signal output of the DISC1 “H”: LED on
58	LED-DISC2	O	LED drive signal output of the DISC2 “H”: LED on
59	LED-DISC3	O	LED drive signal output of the DISC3 “H”: LED on
60	I2C-DATA	I/O	Communication data bus with the system controller
61	I2C-CLOCK	I/O	Communication data reading clock signal input or transfer clock signal output with the system controller
62	AVCC	—	Power supply terminal (+3.3V) (for A/D conversion)
63	AVSS	—	Ground terminal (for A/D conversion)
64 to 66	KEY0 to KEY2	I	Key input terminal (A/D input)
67 to 72	BPF0 to BPF5	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter
73	ALL-BAND	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter
74	LED-REC	O	LED drive signal output of the REC PAUSE/START “H”: LED on
75, 76	NO-USE	—	Not used
77	$\overline{\text{RESET}}$	I	System reset signal input from the system controller “L”: reset
78	SOFT-TEST	O	Output terminal for the software test
79	VOLUME-B	I	Jog dial pulse input from the rotary encoder (B phase input)
80	VOLUME-A	I	Jog dial pulse input from the rotary encoder (A phase input)
81	VSS-CPU	—	Ground terminal (for CPU)
82	X0	O	System clock output terminal (4 MHz)
83	X1	I	System clock input terminal (4 MHz)
84	VCC-CPU	—	Power supply terminal (+3.3V) (for CPU)
85	NO-USE	—	Not used
86 to 100	1G to 15G	O	Grid drive signal output to the fluorescent indicator tube

SECTION 8
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
Example:
KNOB, BALANCE (WHITE) . . . (RED)

Parts Color Cabinet's Color

• Abbreviation

AR : Argentina model

E51 : Chilean and Peruvian models

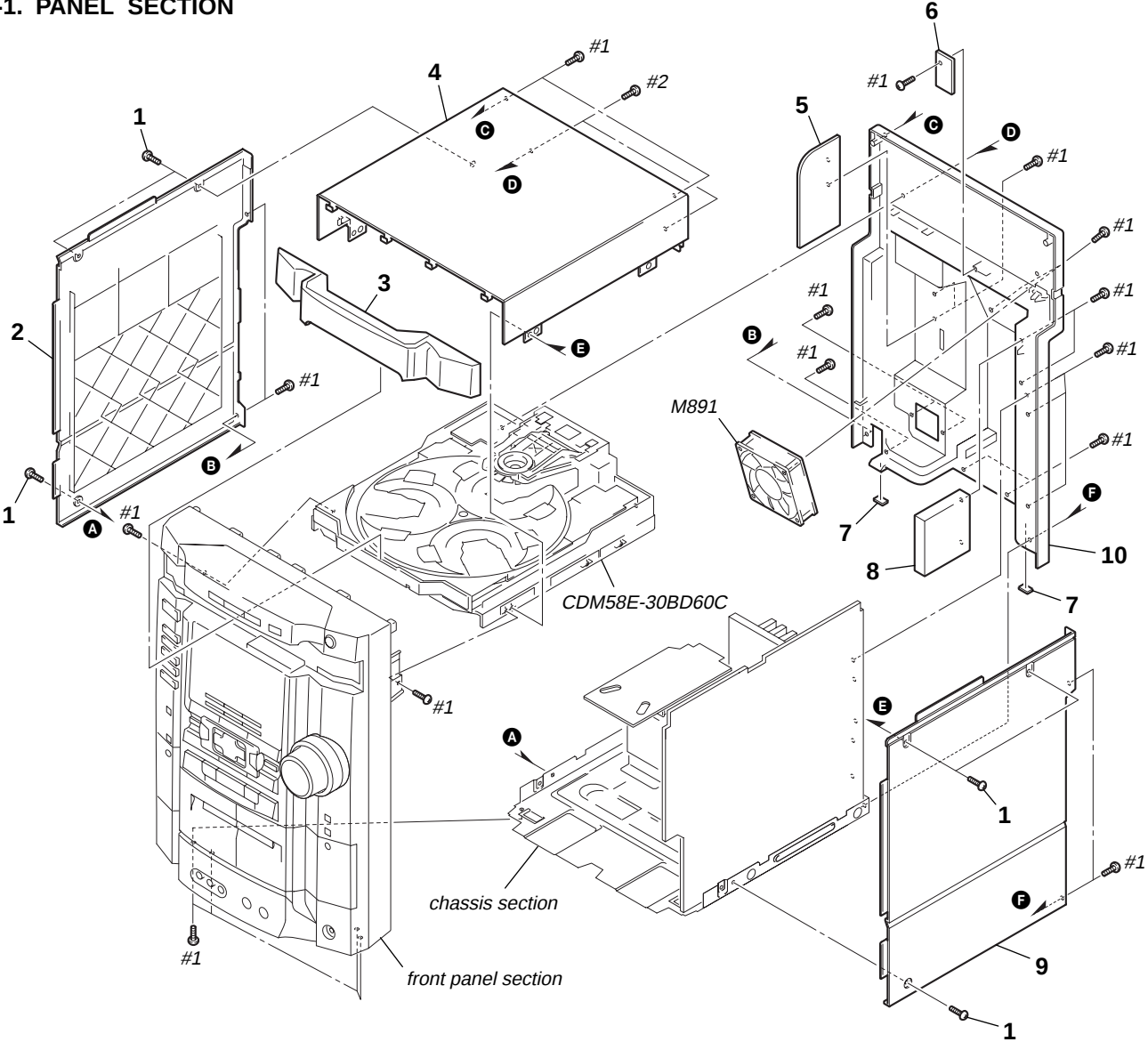
MX : Mexican model

SP : Singapore model

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Accessories are given in the last of the electrical parts list.

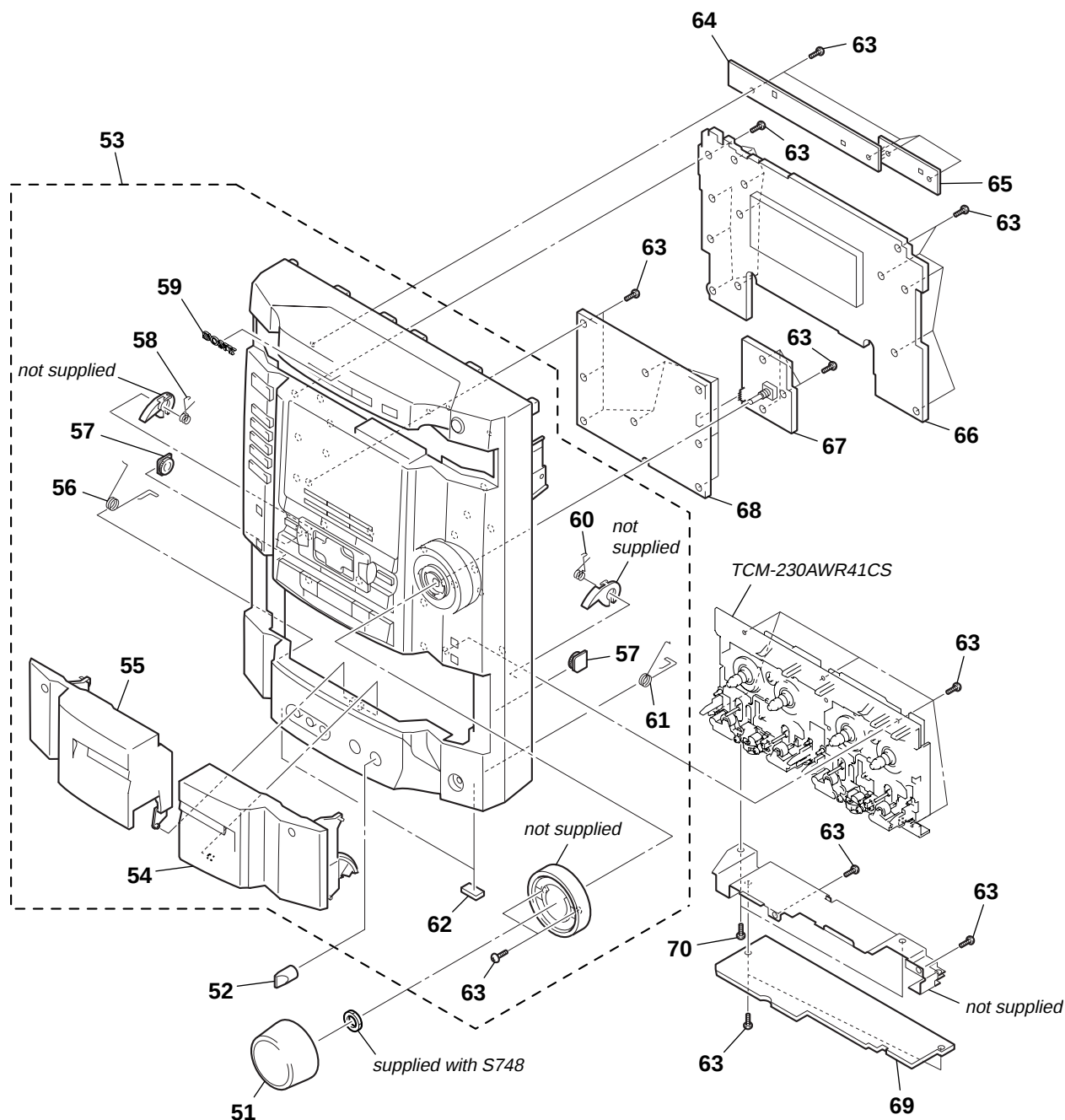
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

8-1. PANEL SECTION



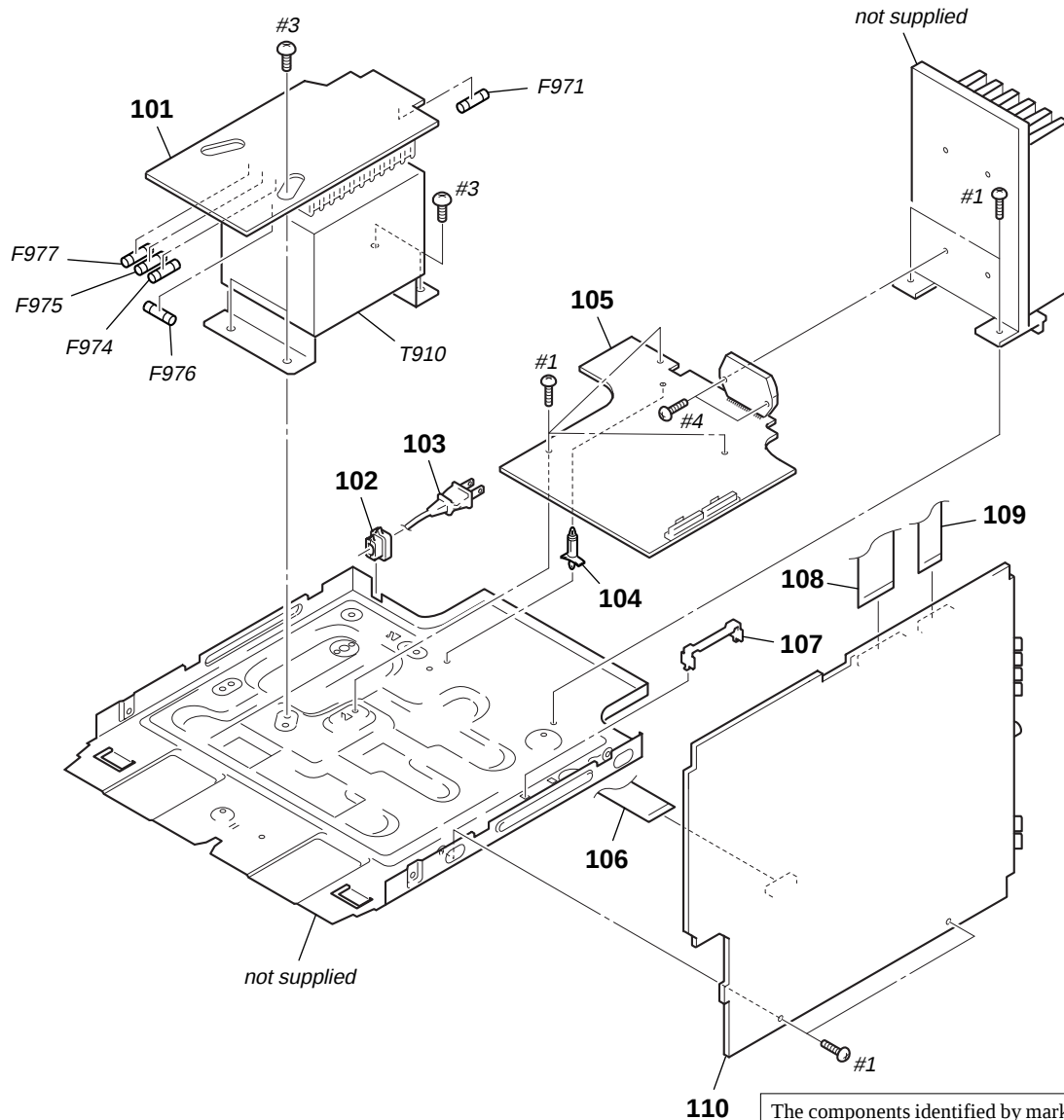
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	3-363-099-41	SCREW (CASE 3 TP2)		7	4-225-252-01	CUSHION (FOOT)	
2	4-225-038-21	SIDE PANEL (L) (RG77)		8	1-693-572-71	TUNER PACK (FM/AM) (RG77: MX, SP, AR)	
2	4-239-740-11	SIDE PANEL (L) (GX8000)		8	1-693-573-71	TUNER PACK (FM/AM) (GX8000: US)	
3	4-237-760-11	LOADING PANEL (RG77)		8	1-693-574-71	TUNER PACK (FM/AM) (RG77: E)	
3	4-237-760-51	LOADING PANEL (GX8000)		9	4-225-039-72	SIDE PANEL (R) (RG77)	
4	4-224-550-41	TOP CASE (RG77)		9	4-239-735-11	SIDE PANEL (R) (GX8000)	
4	4-239-777-11	TOP CASE (GX8000)		10	4-237-780-11	BACK PANEL (RG77: E, SP)	
5	A-4676-765-A	SUB-TRANS BOARD, COMPLETE (GX8000)		10	4-237-780-61	BACK PANEL (RG77: MX, AR)	
5	A-4727-568-A	SUB-TRANS BOARD, COMPLETE (RG77: E, SP)		10	4-237-780-91	BACK PANEL (GX8000)	
5	A-4728-130-A	SUB-TRANS BOARD, COMPLETE (RG77: AR)		M891	1-763-072-11	FAN, DC	
5	A-4728-717-A	SUB-TRANS BOARD, COMPLETE (RG77: MX)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
6	1-683-542-11	SENSOR BOARD		#2	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S	

8-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-237-775-01	KNOB (VOL)		61	4-237-787-01	SPRING R	
52	4-224-578-21	KNOB (MIC)		62	4-225-252-01	CUSHION (FOOT)	
53	X-4954-341-1	FRONT PANEL ASSY (RG77)		63	4-951-620-01	SCREW (2.6X8), +BVTP	
53	X-4954-635-1	FRONT PANEL ASSY (GX8000)		64	1-683-537-11	CD SWITCH BOARD	
54	X-4954-340-1	TC HOLDER (R) ASSY		65	1-683-538-11	CD OPEN BOARD	
55	X-4954-339-1	TC HOLDER (L) ASSY		66	A-4727-587-A	PANEL BOARD, COMPLETE	
56	4-237-786-01	SPRING L		67	1-683-536-11	VOL BOARD	
57	4-224-104-11	DAMPER		68	A-4727-557-A	PAD SWITCH BOARD, COMPLETE	
58	4-231-836-01	SPRING (HEART CAM-A)		69	A-4727-558-A	GAME IN BOARD, COMPLETE	
59	4-963-404-21	EMBLEM (5-A), SONY		70	4-240-965-01	SCREW 2.6X3 +P, S-TITE	
60	4-231-841-01	SPRING (HEART CAM-B)					

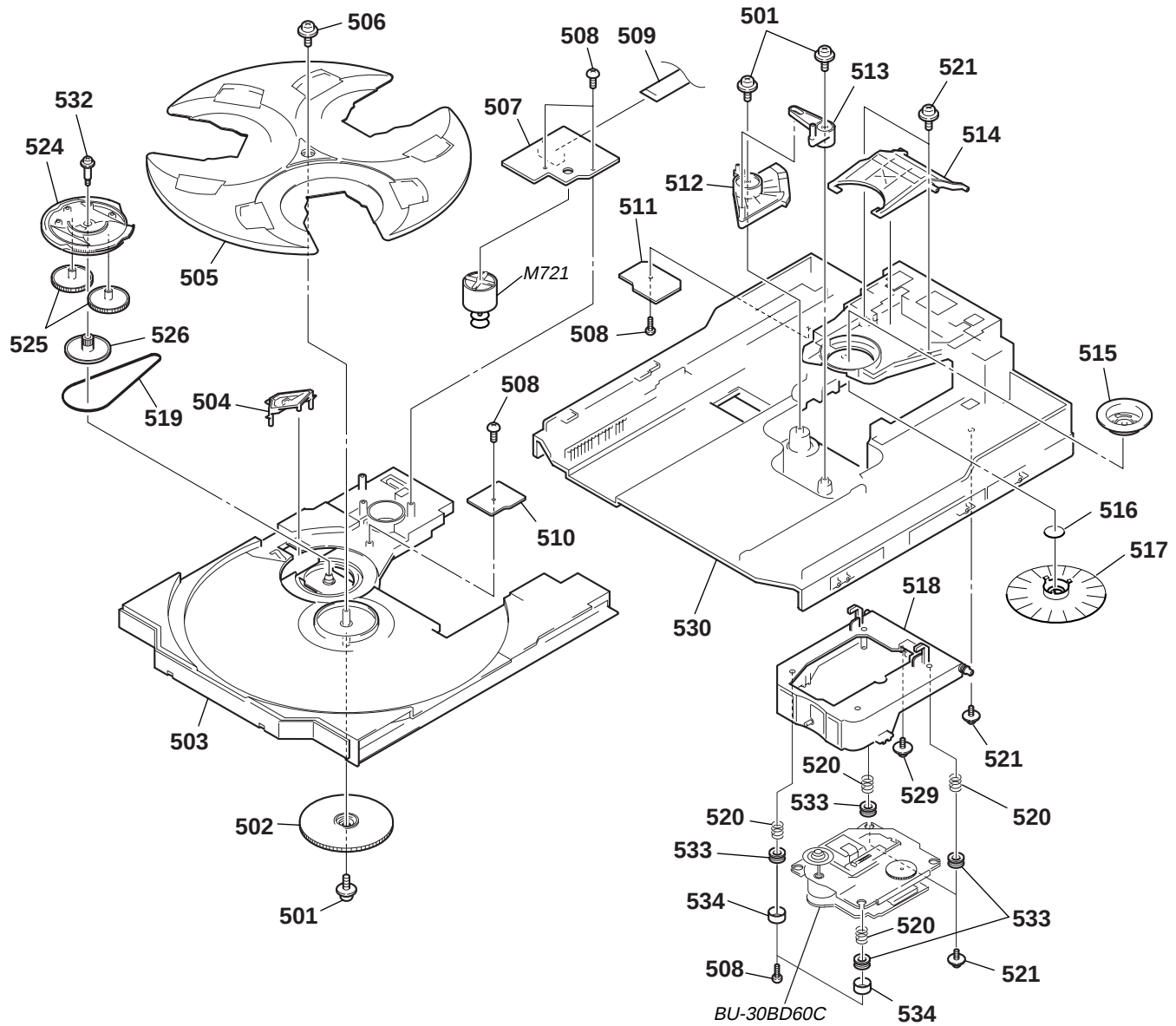
8-3. CHASSIS SECTION



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

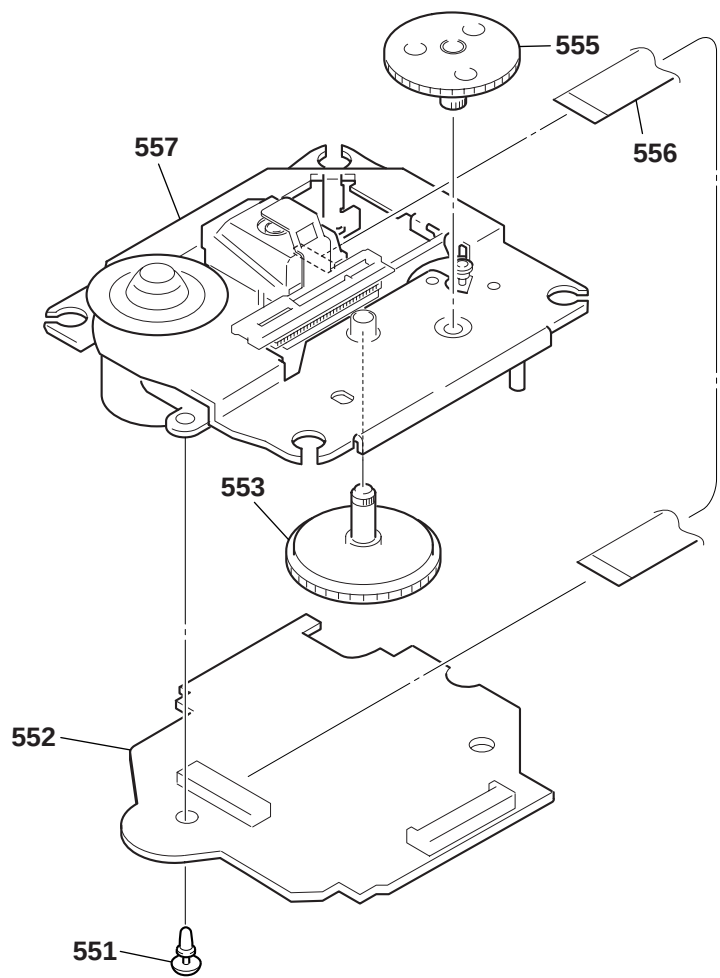
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	1-683-539-11	MAIN TRANS BOARD		Δ F974	1-533-454-11	FUSE, GLASS TUBE (DIA. 5) (6.3A/125V)	(GX8000)
* 102	3-703-244-00	BUSHING (2104), CORD	(GX8000/RG77: E51, SP, AR)	Δ F974	1-533-473-11	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)	(RG77)
102	3-703-571-11	BUSHING (S) (4516), CORD (RG77: E, MX)		Δ F975	1-533-454-11	FUSE, GLASS TUBE (DIA. 5) (6.3A/125V)	(GX8000)
Δ 103	1-777-071-51	CORD, POWER (E51, SP)		Δ F975	1-533-473-11	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)	(RG77)
Δ 103	1-783-820-11	CORD, POWER (US)		Δ F976	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (8.0A/250V)	(RG77)
Δ 103	1-783-941-12	CORD, POWER (AR)		Δ F976	1-576-537-11	FUSE, GLASS TUBE (DIA. 5) (8.0A/125V)	(GX8000)
Δ 103	1-791-901-11	CORD, POWER (E, MX)		Δ F977	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (8.0A/250V)	(RG77)
104	4-943-687-01	HOLDER, PC BOARD		Δ F977	1-576-537-11	FUSE, GLASS TUBE (DIA. 5) (8.0A/125V)	(GX8000)
105	A-4676-767-A	POWER BOARD, COMPLETE (GX8000)		Δ T910	1-437-586-11	POWER TRANSFORMER (RG77)	
105	A-4727-591-A	POWER BOARD, COMPLETE (RG77)		Δ T910	1-437-748-11	POWER TRANSFORMER (GX8000)	
106	1-773-045-11	WIRE (FLAT TYPE) (17 CORE)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
* 107	4-988-533-01	HOLDER, PWB		#3	7-685-881-09	SCREW +BVTT 4X8 (S)	
108	1-823-978-11	WIRE (FLAT TYPE)		#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
109	1-769-945-11	WIRE (FLAT TYPE) (11 CORE)					
110	A-4676-771-A	MAIN BOARD, COMPLETE (GX8000)					
110	A-4727-594-A	MAIN BOARD, COMPLETE (RG77: E, MX)					
110	A-4728-136-A	MAIN BOARD, COMPLETE (RG77: SP)					
110	A-4728-228-A	MAIN BOARD, COMPLETE (RG77: AR)					
Δ F971	1-533-473-11	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)	(RG77: E, SP)				

8-4. CD MECHANISM DECK SECTION (CDM58E-30BD60C)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
501	4-933-134-11	SCREW (+PTPWH M2.6X8)		516	4-228-414-01	BRACKET (YOKE)	
502	4-221-679-01	CAM (RELAY)		517	X-4953-307-1	PULLEY (A) ASSY, CHUCKING	
503	4-231-452-02	TABLE (NEW)		518	X-4953-306-1	HOLDER (BU) (BU-30) ASSY	
504	4-221-686-01	LEVER (CHANGE)		519	4-222-095-01	BELT	
505	4-221-676-03	TRAY		520	4-227-045-11	SPRING (INSULATOR), COIL	
506	4-933-134-51	SCREW (+PTPWH 2.6X8)		521	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
507	1-675-910-14	MOTOR BOARD		524	4-221-678-06	CAM (CONTROL)	
508	4-951-620-01	SCREW (2.6X8), +BVTP		525	4-221-683-01	GEAR (U)	
509	1-791-983-12	WIRE (FLAT TYPE) (8 CORE)		526	4-221-685-01	PULLEY (S)	
510	1-675-911-14	SENSOR (CD) BOARD		529	4-227-899-01	SCREW (DIA. 12), FLOATING	
511	1-675-912-14	DRIVER BOARD		530	4-221-674-03	CHASSIS	
512	X-4952-608-3	CAM (U/D) ASSY		532	4-222-097-01	SCREW, STEP	
513	4-221-681-01	LEVER (EX)		533	4-231-451-01	INSULATOR (BU-30)	
514	4-221-682-01	LEVER (LIFTER)		534	4-231-151-01	STOPPER (BU)	
515	4-231-513-01	PULLEY (B) (BU-30), CHUCKING		M721	A-4672-826-A	MOTOR ASSY (TURN) (WITH PULLEY) (CD)	

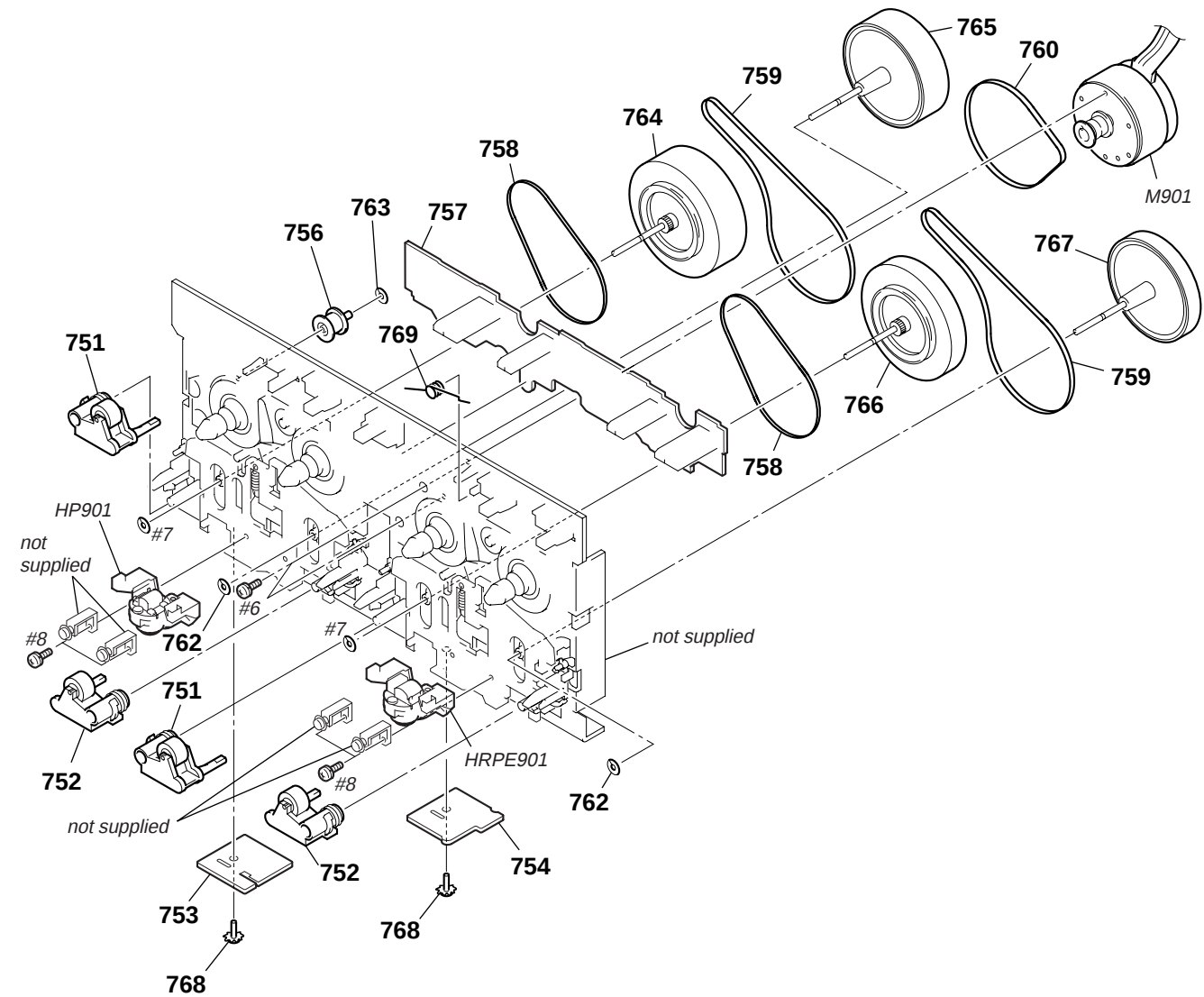
8-5. BASE UNIT SECTION
(BU-30BD60C)



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
551	3-531-576-11	RIVET		555	4-233-831-01	GEAR (LA)	
552	A-4728-678-A	BD BOARD, COMPLETE		556	1-757-710-11	WIRE (FLAT TYPE) (16 CORE)	
553	4-233-832-01	GEAR (LB)		$\triangle$ 557	A-4735-188-A	BU-30 (60) ASSY	

8-6. TAPE MECHANISM DECK SECTION
(TCM-230AWR41CS)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
751	X-3374-156-5	PINCH LEVER (REV) ASSY		765	X-3378-040-1	FLYWHEEL (A-FWD) ASSY	
752	X-3374-155-5	PINCH LEVER (FWD) ASSY		766	X-3378-043-1	FLYWHEEL (B-REV) ASSY	
753	A-2007-839-A	HEAD (A) BOARD, COMPLETE		767	X-3378-042-1	FLYWHEEL (B-FWD) ASSY	
754	A-2007-840-A	HEAD (B) BOARD, COMPLETE		768	4-227-872-11	SCREW (+PTT 2X4), GROUND POINT	
756	3-040-580-02	PULLEY (TENSION)		769	4-227-455-02	SPRING (HALF), TORSION	
757	A-4676-533-A	SW BOARD, COMPLETE		HP901	X-4953-985-1	BLOCK (A) ASSY, HEAD (PB)	
758	3-041-947-01	BELT (FR)		HRPE901	X-4953-986-1	BLOCK (B) ASSY, HEAD (REC/PB/ERASE)	
759	3-041-946-01	BELT (CAPSTAN B)		M901	X-3378-241-1	MOTOR ASSY (CAPSTAN) (WITH PULLEY)	(TAPE)
760	4-227-239-01	BELT (CAPSTAN C)		#6	7-628-254-05	SCREW +PS 2.6X5	
762	3-019-208-01	WASHER, STOPPER		#7	7-623-921-01	RING, RETAINING, CAPSTAN	
763	3-016-533-01	WASHER (FR), STOPPER		#8	7-685-783-09	SCREW +PTT 2X6 (S)	
764	X-3378-041-1	FLYWHEEL (A-REV) ASSY					

SECTION 9

ELECTRICAL PARTS LIST

BD

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
- Abbreviation
AR : Argentina model MX : Mexican model
E51 : Chilean and Peruvian models SP : Singapore model
- 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 Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
	A-4728-678-A	BD BOARD, COMPLETE									

		< CAPACITOR >									
C101	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V	C191	1-124-584-00	ELECT	100uF	20%	10V
C102	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C192	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C103	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C193	1-104-665-11	ELECT	100uF	20%	10V
C104	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C194	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C108	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C195	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C109	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V			< CONNECTOR >			
C110	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V						
C111	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	CN101	1-568-864-11	CONNECTOR, FFC 21P			
C112	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V	CN102	1-793-907-11	CONNECTOR, FFC/FPC 16P			
C114	1-164-360-11	CERAMIC CHIP	0.1uF		16V			< DIODE >			
C116	1-104-665-11	ELECT	100uF	20%	10V						
C117	1-104-665-11	ELECT	100uF	20%	10V	D101	8-719-083-58	DIODE UDZSTE-173.9B			
C118	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V			< FERRITE BEAD >			
C121	1-164-360-11	CERAMIC CHIP	0.1uF		16V						
C122	1-124-584-00	ELECT	100uF	20%	10V	FB101	1-500-445-21	FERRITE	0uH		
C123	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	FB102	1-500-445-21	FERRITE	0uH		
C124	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V			< IC >			
C125	1-164-360-11	CERAMIC CHIP	0.1uF		16V	IC101	8-752-402-31	IC CXD3017Q			
C126	1-164-360-11	CERAMIC CHIP	0.1uF		16V	IC102	8-759-827-41	IC BA5974FM-E2			
C127	1-124-584-00	ELECT	100uF	20%	10V	IC103	8-752-089-74	IC CXA2581N-T4			
C129	1-162-974-11	CERAMIC CHIP	0.01uF		50V			< RESISTOR >			
C130	1-164-360-11	CERAMIC CHIP	0.1uF		16V	JR101	1-216-864-11	METAL CHIP	0	5%	1/16W
C131	1-104-665-11	ELECT	100uF	20%	10V	JR102	1-216-864-11	METAL CHIP	0	5%	1/16W
C133	1-162-921-11	CERAMIC CHIP	33PF	5%	50V	JR103	1-216-864-11	METAL CHIP	0	5%	1/16W
C143	1-164-360-11	CERAMIC CHIP	0.1uF		16V	JR104	1-216-864-11	METAL CHIP	0	5%	1/16W
C145	1-164-360-11	CERAMIC CHIP	0.1uF		16V	JR105	1-216-864-11	METAL CHIP	0	5%	1/16W
C153	1-164-360-11	CERAMIC CHIP	0.1uF		16V	JR106	1-216-864-11	METAL CHIP	0	5%	1/16W
C159	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	JR122	1-216-296-11	SHORT	0		
C162	1-104-665-11	ELECT	100uF	20%	10V	JR123	1-216-296-11	SHORT	0		
C165	1-164-360-11	CERAMIC CHIP	0.1uF		16V	JR124	1-216-296-11	SHORT	0		
C167	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	JR125	1-216-296-11	SHORT	0		
C168	1-162-921-11	CERAMIC CHIP	33PF	5%	50V			< COIL >			
C171	1-115-412-11	CERAMIC CHIP	680PF	5%	25V	L101	1-469-553-21	INDUCTOR	4.7uH		
C172	1-162-927-11	CERAMIC CHIP	100PF	5%	50V			< TRANSISTOR >			
C181	1-115-412-11	CERAMIC CHIP	680PF	5%	25V	Q101	8-729-049-31	TRANSISTOR	2SB710A-RTX		
C182	1-162-927-11	CERAMIC CHIP	100PF	5%	50V						
C183	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V						
C184	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V						
C185	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V						
C190	1-115-156-11	CERAMIC CHIP	1uF		10V						

HCD-GX8000/RG77

BD	CD OPEN	CD SWITCH	DRIVER
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
Q102	8-729-920-85	TRANSISTOR	2SD1664-QR	1-683-538-11	CD OPEN BOARD	*****	
		< RESISTOR >				< RESISTOR >	
R101	1-216-821-11	METAL CHIP	1K 5% 1/16W	R792	1-249-439-11	CARBON 68K 5% 1/4W	
R102	1-216-845-11	METAL CHIP	100K 5% 1/16W			< SWITCH >	
R103	1-216-835-11	METAL CHIP	15K 5% 1/16W	S792	1-771-410-21	SWITCH, TACTILE (OPEN/CLOSE ▲)	
R104	1-216-839-11	METAL CHIP	33K 5% 1/16W	*****			
R105	1-216-821-11	METAL CHIP	1K 5% 1/16W	1-683-537-11	CD SWITCH BOARD	*****	
R106	1-216-821-11	METAL CHIP	1K 5% 1/16W			< LED >	
R107	1-216-833-11	METAL CHIP	10K 5% 1/16W	D791	8-719-057-97	LED SEL5923A-TP15 (DISC 1)	
R108	1-216-827-11	METAL CHIP	3.3K 5% 1/16W	D792	8-719-057-97	LED SEL5923A-TP15 (DISC 2)	
R109	1-216-857-11	METAL CHIP	1M 5% 1/16W	D793	8-719-057-97	LED SEL5923A-TP15 (DISC 3)	
R111	1-216-846-11	METAL CHIP	120K 5% 1/16W			< TRANSISTOR >	
R114	1-218-745-11	RES-CHIP	160K 5% 1/10W	Q791	8-729-116-02	TRANSISTOR BA1A4M-TP	
R116	1-216-001-00	METAL CHIP	10 5% 1/10W	Q792	8-729-116-02	TRANSISTOR BA1A4M-TP	
R117	1-216-821-11	METAL CHIP	1K 5% 1/16W	Q793	8-729-116-02	TRANSISTOR BA1A4M-TP	
R118	1-216-809-11	METAL CHIP	100 5% 1/16W			< RESISTOR >	
R119	1-216-826-11	METAL CHIP	2.7K 5% 1/16W	R788	1-249-429-11	CARBON 10K 5% 1/4W	
R120	1-216-835-11	METAL CHIP	15K 5% 1/16W	R789	1-249-431-11	CARBON 15K 5% 1/4W	
R122	1-216-845-11	METAL CHIP	100K 5% 1/16W	R790	1-249-433-11	CARBON 22K 5% 1/4W	
R123	1-216-833-11	METAL CHIP	10K 5% 1/16W	R791	1-249-435-11	CARBON 33K 5% 1/4W	
R124	1-216-845-11	METAL CHIP	100K 5% 1/16W	R798	1-249-407-11	CARBON 150 5% 1/4W	
R131	1-216-813-11	METAL CHIP	220 5% 1/16W	R799	1-249-407-11	CARBON 150 5% 1/4W	
R143	1-216-839-11	METAL CHIP	33K 5% 1/16W	R800	1-249-407-11	CARBON 150 5% 1/4W	
R144	1-216-839-11	METAL CHIP	33K 5% 1/16W			< SWITCH >	
R147	1-218-701-11	RES-CHIP	2.4K 5% 1/10W	S788	1-771-410-21	SWITCH, TACTILE (DISC 1)	
R148	1-216-797-11	METAL CHIP	10 5% 1/16W	S789	1-771-410-21	SWITCH, TACTILE (DISC 2)	
R149	1-216-797-11	METAL CHIP	10 5% 1/16W	S790	1-771-410-21	SWITCH, TACTILE (DISC 3)	
R158	1-216-838-11	METAL CHIP	27K 5% 1/16W	S791	1-771-410-21	SWITCH, TACTILE (EX-CHANGE, DISC SKIP)	
R159	1-216-838-11	METAL CHIP	27K 5% 1/16W	*****			
R162	1-216-845-11	METAL CHIP	100K 5% 1/16W	1-675-912-14	DRIVER BOARD	*****	
R171	1-216-837-11	METAL CHIP	22K 5% 1/16W			< CAPACITOR >	
R172	1-216-837-11	METAL CHIP	22K 5% 1/16W	C702	1-126-964-51	ELECT 10uF 20% 50V	
R173	1-216-837-11	METAL CHIP	22K 5% 1/16W			< CONNECTOR >	
R181	1-216-837-11	METAL CHIP	22K 5% 1/16W	CN701	1-785-336-11	PIN, CONNECTOR (LIGHT ANGLE) 10P	
R182	1-216-837-11	METAL CHIP	22K 5% 1/16W	CN702	1-785-550-11	CONNECTOR, FFC/FPC 8P	
R183	1-216-837-11	METAL CHIP	22K 5% 1/16W			< DIODE >	
R189	1-216-813-11	METAL CHIP	220 5% 1/16W	D701	8-719-983-68	DIODE MTZJ-T-72-3.9A	
R191	1-216-839-11	METAL CHIP	33K 5% 1/16W			< IC >	
R192	1-216-839-11	METAL CHIP	33K 5% 1/16W	IC701	8-759-598-69	IC BA6956AN	
R193	1-216-846-11	METAL CHIP	120K 5% 1/16W			< RESISTOR >	
R194	1-216-839-11	METAL CHIP	33K 5% 1/16W	R701	1-249-411-11	CARBON 330 5% 1/4W	
R195	1-216-849-11	METAL CHIP	220K 5% 1/16W				
R196	1-216-819-11	METAL CHIP	680 5% 1/16W				
R198	1-216-864-11	METAL CHIP	0 5% 1/16W				
		< COMPOSITION CIRCUIT BLOCK >					
RN101	1-233-576-11	RES, CHIP NETWORK 100					
		< VARIABLE RESISTOR >					
RV101	1-238-602-11	RES, ADJ, CARBON 47K					
		< VIBRATOR >					
X101	1-579-280-11	VIBRATOR, CRYSTAL (16.9344MHz)	*****				

DRIVER

GAME IN

HEAD (A)

HEAD (B)

MAIN

Ref. No.	Part No.	Description	Remark		
R702	1-249-401-11	CARBON	47	5%	1/4W

A-4727-558-A		GAME IN BOARD, COMPLETE			

< CAPACITOR >					
C604	1-124-257-00	ELECT	2.2uF	20%	50V
C606	1-124-257-00	ELECT	2.2uF	20%	50V
C630	1-162-294-31	CERAMIC	0.001uF	10%	50V
C631	1-162-294-31	CERAMIC	0.001uF	10%	50V
C634	1-162-294-31	CERAMIC	0.001uF	10%	50V
C635	1-162-294-31	CERAMIC	0.001uF	10%	50V
C636	1-164-159-11	CERAMIC	0.1uF		50V
C715	1-162-215-31	CERAMIC	47PF	5%	50V
C716	1-162-215-31	CERAMIC	47PF	5%	50V
C717	1-124-584-00	ELECT	100uF	20%	10V
C718	1-124-584-00	ELECT	100uF	20%	10V
C719	1-124-257-00	ELECT	2.2uF	20%	50V
C736	1-124-261-00	ELECT	10uF	20%	50V
C737	1-124-261-00	ELECT	10uF	20%	50V
C738	1-124-257-00	ELECT	2.2uF	20%	50V
C739	1-162-215-31	CERAMIC	47PF	5%	50V
C740	1-162-282-31	CERAMIC	100PF	10%	50V
C741	1-124-250-11	ELECT	0.15uF	20%	50V
C742	1-162-215-31	CERAMIC	47PF	5%	50V
C743	1-162-290-31	CERAMIC	470PF	10%	50V
C744	1-162-294-31	CERAMIC	0.001uF	10%	50V
C747	1-124-257-00	ELECT	2.2uF	20%	50V
C748	1-161-494-00	CERAMIC	0.022uF	30%	25V
C749	1-164-159-11	CERAMIC	0.1uF		50V
< IC >					
IC722	8-759-167-88	IC NJM4565D			
< JACK >					
J601	1-764-592-11	JACK 3P (GAME INPUT VIDEO/AUDIO)			
J631	1-794-702-11	JACK, HEADPHONE (PHONES)			
J721	1-816-493-11	JACK, LARGE TYPE (MIC)			
< TRANSISTOR >					
Q721	8-729-119-79	TRANSISTOR	2SC2785-FEK		
< RESISTOR >					
R602	1-249-417-11	CARBON	1K	5%	1/4W
R603	1-249-417-11	CARBON	1K	5%	1/4W
R604	1-249-441-11	CARBON	100K	5%	1/4W
R605	1-249-441-11	CARBON	100K	5%	1/4W
R721	1-249-430-11	CARBON	12K	5%	1/4W
R722	1-249-432-11	CARBON	18K	5%	1/4W
R734	1-247-807-31	CARBON	100	5%	1/4W
R735	1-247-885-00	CARBON	180K	5%	1/4W
R736	1-249-429-11	CARBON	10K	5%	1/4W
R737	1-249-433-11	CARBON	22K	5%	1/4W
R738	1-249-417-11	CARBON	1K	5%	1/4W
R739	1-249-441-11	CARBON	100K	5%	1/4W
R740	1-249-421-11	CARBON	2.2K	5%	1/4W
R742	1-249-417-11	CARBON	1K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R743	1-249-429-11	CARBON	10K	5%	1/4W
R744	1-249-441-11	CARBON	100K	5%	1/4W
R745	1-247-807-31	CARBON	100	5%	1/4W
R746	1-249-417-11	CARBON	1K	5%	1/4W
< VARIABLE RESISTOR >					
RV722	1-227-452-11	RES, VAR 50K (MIC LEVEL)			

A-2007-839-A		HEAD (A) BOARD, COMPLETE			

< CONNECTOR >					
* CN1	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			

A-2007-840-A		HEAD (B) BOARD, COMPLETE			

< CONNECTOR >					
CN2	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P			

A-4676-771-A		MAIN BOARD, COMPLETE (GX8000)			
A-4727-594-A		MAIN BOARD, COMPLETE (E, MX)			
A-4728-136-A		MAIN BOARD, COMPLETE (SP)			
A-4728-228-A		MAIN BOARD, COMPLETE (AR)			

7-685-646-79		SCREW +BVTP 3X8 TYPE2 N-S			
< CAPACITOR >					
C101	1-125-972-11	ELECT	100uF	20%	16V
C103	1-124-261-00	ELECT	10uF	20%	50V
C104	1-126-964-11	ELECT	10uF	20%	50V
C105	1-124-261-00	ELECT	10uF	20%	50V
C106	1-124-261-00	ELECT	10uF	20%	50V
C108	1-136-157-00	FILM	0.022uF	5%	50V
C109	1-136-157-00	FILM	0.022uF	5%	50V
C110	1-136-159-00	FILM	0.033uF	5%	50V
C111	1-130-481-00	MYLAR	0.0068uF	5%	50V
C112	1-126-960-11	ELECT	1uF	20%	50V
C113	1-126-964-11	ELECT	10uF	20%	50V
C114	1-136-169-00	FILM	0.22uF	5%	50V
C115	1-136-171-00	FILM	0.33uF	5%	50V
C116	1-125-972-11	ELECT	100uF	20%	16V
C117	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C118	1-126-964-11	ELECT	10uF	20%	50V
C119	1-126-964-11	ELECT	10uF	20%	50V
C121	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C122	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C125	1-126-963-11	ELECT	4.7uF	20%	50V
C140	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C150	1-124-261-00	ELECT	10uF	20%	50V
C153	1-124-261-00	ELECT	10uF	20%	50V
C154	1-126-964-11	ELECT	10uF	20%	50V
C155	1-126-964-11	ELECT	10uF	20%	50V
C156	1-126-964-11	ELECT	10uF	20%	50V
C157	1-126-959-11	ELECT	0.47uF	20%	50V

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C158	1-136-157-00	FILM	0.022uF	5%	50V	C359	1-126-947-11	ELECT	47uF	20%	16V
C159	1-136-157-00	FILM	0.022uF	5%	50V	C361	1-126-964-11	ELECT	10uF	20%	50V
C160	1-136-159-00	FILM	0.033uF	5%	50V	C362	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C161	1-130-481-00	MYLAR	0.0068uF	5%	50V	C363	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C162	1-126-960-11	ELECT	1uF	20%	50V	C364	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C163	1-126-964-11	ELECT	10uF	20%	50V	C365	1-115-156-11	CERAMIC CHIP	1uF		10V
C164	1-136-169-00	FILM	0.22uF	5%	50V	C371	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C165	1-136-171-00	FILM	0.33uF	5%	50V	C376	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C168	1-126-964-11	ELECT	10uF	20%	50V	C381	1-130-483-00	MYLAR	0.01uF	5%	50V
C175	1-126-963-11	ELECT	4.7uF	20%	50V	C382	1-137-427-11	MYLAR	120PF	5%	50V
C180	1-136-495-11	FILM	0.068uF	5%	50V	C383	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C189	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C384	1-162-946-11	CERAMIC CHIP	27PF	5%	50V
C190	1-126-964-11	ELECT	10uF	20%	50V	C385	1-126-964-11	ELECT	10uF	20%	50V
C200	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C390	1-126-935-11	ELECT	470uF	20%	10V
C201	1-104-665-11	ELECT	100uF	20%	10V	C391	1-104-665-11	ELECT	100uF	20%	10V
C202	1-126-916-11	ELECT	1000uF	20%	6.3V	C395	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C203	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C396	1-126-965-11	ELECT	22uF	20%	50V
C205	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C397	1-126-964-11	ELECT	10uF	20%	50V
C206	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C398	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C207	1-126-916-11	ELECT	1000uF	20%	6.3V	C399	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C209	1-126-935-11	ELECT	470uF	20%	10V	C416	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C210	1-164-156-11	CERAMIC CHIP	0.1uF		25V	C432	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C211	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	C433	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C212	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C434	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C224	1-113-619-11	CERAMIC CHIP	0.47uF		10V	C498	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C226	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	C502	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C228	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C504	1-109-889-11	ELECT	1uF	20%	50V
C301	1-130-483-00	MYLAR	0.01uF	5%	50V	C510	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C303	1-136-165-00	FILM	0.1uF	5%	50V	C511	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C305	1-126-960-11	ELECT	1uF	20%	50V	C512	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C306	1-126-961-11	ELECT	2.2uF	20%	50V	C516	1-104-656-11	ELECT	2200uF	20%	6.3V
C307	1-126-964-11	ELECT	10uF	20%	50V	C530	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C308	1-126-935-11	ELECT	470uF	20%	16V	C546	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C309	1-126-947-11	ELECT	47uF	20%	16V	C562	1-104-665-11	ELECT	100uF	20%	10V
C310	1-126-964-11	ELECT	10uF	20%	50V	C564	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C311	1-126-964-11	ELECT	10uF	20%	50V	C596	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C312	1-126-964-11	ELECT	10uF	20%	50V	C598	1-126-964-11	ELECT	10uF	20%	50V
C314	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C601	1-126-964-11	ELECT	10uF	20%	50V
C315	1-115-156-11	CERAMIC CHIP	1uF		10V	C602	1-136-165-00	FILM	0.1uF	5%	50V
C316	1-115-156-11	CERAMIC CHIP	1uF		10V	C603	1-136-165-00	FILM	0.1uF	5%	50V
C321	1-164-392-11	CERAMIC CHIP	390PF	10%	50V	C701	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C326	1-164-392-11	CERAMIC CHIP	390PF	10%	50V	C702	1-126-961-11	ELECT	2.2uF	20%	50V
C331	1-130-483-00	MYLAR	0.01uF	5%	50V	C703	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C332	1-137-427-11	MYLAR	120PF	5%	50V	C704	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C333	1-162-961-11	CERAMIC CHIP	330PF	10%	50V	C705	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C334	1-162-946-11	CERAMIC CHIP	27PF	5%	50V	C751	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C335	1-137-150-11	MYLAR	0.01uF	5%	100V	C752	1-126-961-11	ELECT	2.2uF	20%	50V
C336	1-126-961-11	ELECT	2.2uF	20%	50V	C783	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C337	1-130-485-00	MYLAR	0.015uF	5%	50V	C813	1-107-721-11	ELECT	4.7uF	20%	100V
C338	1-130-481-00	MYLAR	0.0068uF	5%	50V	C861	1-107-717-11	ELECT	47uF	20%	50V
C339	1-130-481-00	MYLAR	0.0068uF	5%	50V	C863	1-107-721-11	ELECT	4.7uF	20%	100V
C340	1-130-486-00	MYLAR	0.018uF	10%	50V	C892	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C341	1-126-964-11	ELECT	10uF	20%	50V	C909	1-126-942-61	ELECT	1000uF	20%	25V
C342	1-126-947-11	ELECT	47uF	20%	16V	C910	1-126-768-11	ELECT	2200uF	20%	16V
C351	1-130-483-00	MYLAR	0.01uF	5%	50V	C911	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C353	1-136-165-00	FILM	0.1uF	5%	50V	C912	1-104-656-11	ELECT	2200uF	20%	6.3V
C355	1-126-960-11	ELECT	1uF	20%	50V	C914	1-136-165-00	FILM	0.1uF	5%	50V
C356	1-126-961-11	ELECT	2.2uF	20%	50V						

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C915	1-136-165-00	FILM	0.1uF 5% 50V	< FERRITE BEAD/RESISTOR >			
C916	1-136-165-00	FILM	0.1uF 5% 50V	FB201	1-216-864-11	METAL CHIP	0 5% 1/16W
C917	1-136-165-00	FILM	0.1uF 5% 50V	FB203	1-414-772-21	FERRITE	0
C918	1-136-165-00	FILM	0.1uF 5% 50V	FB204	1-414-772-21	FERRITE	0
C919	1-136-165-00	FILM	0.1uF 5% 50V	FB208	1-216-864-11	METAL CHIP	0 5% 1/16W
C920	1-126-944-11	ELECT	3300uF 20% 25V	FB210	1-216-864-11	METAL CHIP	0 5% 1/16W
C921	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB211	1-216-864-11	METAL CHIP	0 5% 1/16W
C922	1-126-935-11	ELECT	470uF 20% 16V	FB212	1-216-864-11	METAL CHIP	0 5% 1/16W
C925	1-126-935-11	ELECT	470uF 20% 10V	FB213	1-216-864-11	METAL CHIP	0 5% 1/16W
C932	1-126-935-11	ELECT	470uF 20% 10V	FB214	1-216-864-11	METAL CHIP	0 5% 1/16W
C951	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB215	1-216-864-11	METAL CHIP	0 5% 1/16W
C961	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB216	1-216-864-11	METAL CHIP	0 5% 1/16W
C962	1-126-935-11	ELECT	470uF 20% 10V	FB217	1-216-864-11	METAL CHIP	0 5% 1/16W
< CONNECTOR >				FB218	1-216-864-11	METAL CHIP	0 5% 1/16W
CN201	1-569-914-11	SOCKET, CONNECTOR 21P		FB219	1-216-864-11	METAL CHIP	0 5% 1/16W
CN202	1-785-336-11	PIN, CONNECTOR (LIGHT ANGLE) 10P		FB220	1-216-864-11	METAL CHIP	0 5% 1/16W
* CN301	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P		FB516	1-216-864-11	FERRITE	0
* CN304	1-569-934-11	SOCKET, CONNECTOR 17P		FB562	1-216-864-11	FERRITE	0
CN401	1-793-766-11	CONNECTOR, BOARD TO BOARD 30P		FB599	1-216-864-11	METAL CHIP	0 5% 1/16W
CN501	1-785-330-11	PIN, CONNECTOR (LIGHT ANGLE) 4P		FB701	1-216-864-11	METAL CHIP	0 5% 1/16W
CN702	1-569-906-11	SOCKET, CONNECTOR 11P		FB751	1-216-864-11	METAL CHIP	0 5% 1/16W
* CN781	1-568-937-11	PIN, CONNECTOR 10P		< IC >			
CN783	1-568-951-11	PIN, CONNECTOR 2P		IC101	8-759-604-32	IC M5F7810L	
CN891	1-564-506-11	PLUG, CONNECTOR 3P		IC102	6-701-686-01	IC M61519FPD60G	
CN901	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P		IC201	8-749-019-25	IC TOTX141 (CD DIGITAL OUT OPTICAL)	
CN902	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P		IC301	6-702-130-01	IC HA12237F	
< DIODE >				IC302	8-759-143-54	IC uPC1330HA	
D121	8-719-988-61	DIODE 1SS355TE-17		IC303	8-759-710-97	IC NJM4565M-D	
D122	8-719-988-61	DIODE 1SS355TE-17		IC501	6-801-049-01	IC M30620MCN-A00FP	
D501	8-719-988-61	DIODE 1SS355TE-17		IC601	8-759-533-04	IC M62703ML-E1	
D502	8-719-988-61	DIODE 1SS355TE-17		IC911	8-759-039-69	IC uPC7805AHF	
D503	8-719-988-61	DIODE 1SS355TE-17		IC951	6-701-760-01	IC uPC3504AHF	
D504	8-719-988-61	DIODE 1SS355TE-17		IC961	8-759-701-59	IC NJM78M09FA	
D505	8-719-988-61	DIODE 1SS355TE-17		< JACK >			
D508	8-719-988-61	DIODE 1SS355TE-17		J401	1-774-227-11	JACK, PIN 1P (VIDEO OUT)	
D509	8-719-988-61	DIODE 1SS355TE-17		J750	1-793-987-11	JACK, PIN 2P (MD/VIDEO (AUDIO) IN)	
D601	8-719-988-61	DIODE 1SS355TE-17		< RESISTOR >			
D602	8-719-988-61	DIODE 1SS355TE-17		JR24	1-216-864-11	METAL CHIP	0 5% 1/16W
D603	8-719-988-61	DIODE 1SS355TE-17		JR102	1-216-864-11	METAL CHIP	0 5% 1/16W
D841	8-719-988-61	DIODE 1SS355TE-17		JR103	1-216-296-11	SHORT	0
D906	8-719-083-89	DIODE 11ES2N-TB5		JR104	1-216-296-11	SHORT	0
D907	8-719-083-89	DIODE 11ES2N-TB5		JR105	1-216-864-11	METAL CHIP	0 5% 1/16W
D908	8-719-083-89	DIODE 11ES2N-TB5		JR106	1-216-864-11	METAL CHIP	0 5% 1/16W
D909	8-719-083-89	DIODE 11ES2N-TB5		JR107	1-216-296-11	SHORT	0
D914	8-719-083-89	DIODE 11ES2N-TB5		JR108	1-216-864-11	METAL CHIP	0 5% 1/16W
D915	8-719-083-89	DIODE 11ES2N-TB5		JR111	1-216-864-11	METAL CHIP	0 5% 1/16W
D916	8-719-083-89	DIODE 11ES2N-TB5		JR112	1-216-864-11	METAL CHIP	0 5% 1/16W
D917	8-719-083-89	DIODE 11ES2N-TB5		JR113	1-216-296-11	SHORT	0
D918	8-719-083-89	DIODE 11ES2N-TB5		JR116	1-216-864-11	METAL CHIP	0 5% 1/16W
D919	8-719-083-89	DIODE 11ES2N-TB5		JR118	1-216-864-11	METAL CHIP	0 5% 1/16W
D920	8-719-083-89	DIODE 11ES2N-TB5		JR120	1-216-296-11	SHORT	0
D921	8-719-083-89	DIODE 11ES2N-TB5		JR121	1-216-296-11	SHORT	0
D922	8-719-083-89	DIODE 11ES2N-TB5		JR122	1-216-296-11	SHORT	0
D923	8-719-083-89	DIODE 11ES2N-TB5		JR127	1-216-864-11	METAL CHIP	0 5% 1/16W
D924	8-719-083-89	DIODE 11ES2N-TB5					

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
JR130	1-216-864-11	METAL CHIP	0	5%	1/16W			< RESISTOR >			
JR131	1-216-864-11	METAL CHIP	0	5%	1/16W						
JR135	1-216-864-11	METAL CHIP	0	5%	1/16W	R101	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
						R102	1-218-289-11	RES-CHIP	510	5%	1/10W
JR137	1-216-864-11	METAL CHIP	0	5%	1/16W	R103	1-216-833-11	METAL CHIP	10K	5%	1/16W
JR138	1-216-864-11	METAL CHIP	0	5%	1/16W	R104	1-216-841-11	METAL CHIP	47K	5%	1/16W
JR144	1-216-864-11	METAL CHIP	0	5%	1/16W	R105	1-216-833-11	METAL CHIP	10K	5%	1/16W
JR145	1-216-864-11	METAL CHIP	0	5%	1/16W						
JR390	1-216-864-11	METAL CHIP	0	5%	1/16W	R108	1-216-821-11	METAL CHIP	1K	5%	1/16W
		< COIL >				R109	1-216-839-11	METAL CHIP	33K	5%	1/16W
						R113	1-216-821-11	METAL CHIP	1K	5%	1/16W
L201	1-414-189-31	INDUCTOR	100uH			R114	1-216-841-11	METAL CHIP	47K	5%	1/16W
L301	1-410-780-11	INDUCTOR	27mH			R115	1-216-833-11	METAL CHIP	10K	5%	1/16W
L302	1-414-189-31	INDUCTOR	100uH								
L351	1-410-780-11	INDUCTOR	27mH			R116	1-216-833-11	METAL CHIP	10K	5%	1/16W
		< TRANSISTOR >				R121	1-216-821-11	METAL CHIP	1K	5%	1/16W
						R122	1-216-821-11	METAL CHIP	1K	5%	1/16W
Q101	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R150	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
Q103	8-729-802-80	TRANSISTOR	2SC3661			R151	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
Q151	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R152	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q153	8-729-802-80	TRANSISTOR	2SC3661			R153	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q201	8-729-802-80	TRANSISTOR	2SC3661			R154	1-216-841-11	METAL CHIP	47K	5%	1/16W
						R155	1-216-857-11	METAL CHIP	1M	5%	1/16W
Q202	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R156	1-216-845-11	METAL CHIP	100K	5%	1/16W
Q203	8-729-216-22	TRANSISTOR	2SA1162-G								
Q204	8-729-216-22	TRANSISTOR	2SA1162-G			R157	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
Q205	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R158	1-216-821-11	METAL CHIP	1K	5%	1/16W
Q206	8-729-113-13	TRANSISTOR	FA1A4M-L33			R159	1-216-839-11	METAL CHIP	33K	5%	1/16W
						R162	1-218-289-11	RES-CHIP	510	5%	1/10W
Q207	8-729-113-69	TRANSISTOR	FN1F4M-M32			R163	1-216-821-11	METAL CHIP	1K	5%	1/16W
Q251	8-729-802-80	TRANSISTOR	2SC3661								
Q301	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L			R164	1-216-841-11	METAL CHIP	47K	5%	1/16W
Q302	8-729-142-46	TRANSISTOR	2SC2001-LK			R165	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q303	8-729-142-46	TRANSISTOR	2SC2001-LK			R166	1-216-833-11	METAL CHIP	10K	5%	1/16W
						R180	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q304	8-729-113-69	TRANSISTOR	FN1F4M-M32			R190	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
Q305	8-729-113-13	TRANSISTOR	FA1A4M-L33								
Q306	8-729-113-13	TRANSISTOR	FA1A4M-L33			R191	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
Q307	8-729-216-22	TRANSISTOR	2SA1162-G			R204	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q310	8-729-113-13	TRANSISTOR	FA1A4M-L33			R206	1-216-833-11	METAL CHIP	10K	5%	1/16W
						R207	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q389	8-729-113-13	TRANSISTOR	FA1A4M-L33			R208	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q390	8-729-113-13	TRANSISTOR	FA1A4M-L33								
Q391	8-729-140-04	TRANSISTOR	2SB1116A-L			R209	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q392	8-729-113-13	TRANSISTOR	FA1A4M-L33			R212	1-216-864-11	METAL CHIP	0	5%	1/16W
Q393	8-729-140-04	TRANSISTOR	2SB1116A-L			R217	1-216-864-11	METAL CHIP	0	5%	1/16W
						R219	1-216-864-11	METAL CHIP	0	5%	1/16W
Q394	8-729-113-13	TRANSISTOR	FA1A4M-L33			R224	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
Q395	8-729-113-13	TRANSISTOR	FA1A4M-L33								
Q396	8-729-116-57	TRANSISTOR	2SB1068-K			R226	1-216-851-11	METAL CHIP	330K	5%	1/16W
Q397	8-729-113-13	TRANSISTOR	FA1A4M-L33			R228	1-216-845-11	METAL CHIP	100K	5%	1/16W
Q398	8-729-113-13	TRANSISTOR	FA1A4M-L33			R254	1-216-833-11	METAL CHIP	10K	5%	1/16W
						R284	1-216-833-11	METAL CHIP	470K	5%	1/16W
Q399	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L			R285	1-216-837-11	METAL CHIP	22K	5%	1/16W
Q504	8-729-113-69	TRANSISTOR	FN1F4M-M32								
Q505	8-729-113-13	TRANSISTOR	FA1A4M-L33			R286	1-216-837-11	METAL CHIP	22K	5%	1/16W
Q601	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R301	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
Q812	8-729-802-80	TRANSISTOR	2SC3661			R302	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
						R304	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
Q861	8-729-113-69	TRANSISTOR	FN1F4M-M32			R305	1-216-841-11	METAL CHIP	47K	5%	1/16W
Q862	8-729-802-80	TRANSISTOR	2SC3661								
Q891	8-729-140-04	TRANSISTOR	2SB1116A-L			R306	1-216-837-11	METAL CHIP	22K	5%	1/16W
Q892	8-729-620-05	TRANSISTOR	2SC2603-EF			R307	1-216-857-11	METAL CHIP	1M	5%	1/16W
Q911	8-729-040-20	TRANSISTOR	RT1P137L-TP			R308	1-216-809-11	METAL CHIP	100	5%	1/16W
						R309	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
Q912	8-729-113-13	TRANSISTOR	FA1A4M-L33			R310	1-216-809-11	METAL CHIP	100	5%	1/16W
						R311	1-216-809-11	METAL CHIP	100	5%	1/16W

MAIN

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R312	1-216-809-11	METAL CHIP	100	5%	1/16W	R429	1-216-809-11	METAL CHIP	100	5%	1/16W
R313	1-216-821-11	METAL CHIP	1K	5%	1/16W	R430	1-216-809-11	METAL CHIP	100	5%	1/16W
R314	1-216-821-11	METAL CHIP	1K	5%	1/16W	R432	1-216-809-11	METAL CHIP	100	5%	1/16W
R315	1-216-833-11	METAL CHIP	10K	5%	1/16W	R433	1-216-809-11	METAL CHIP	100	5%	1/16W
R316	1-216-833-11	METAL CHIP	10K	5%	1/16W	R434	1-216-817-11	METAL CHIP	470	5%	1/16W
R317	1-216-833-11	METAL CHIP	10K	5%	1/16W	R446	1-216-809-11	METAL CHIP	100	5%	1/16W
R320	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R447	1-216-809-11	METAL CHIP	100	5%	1/16W
R327	1-216-835-11	METAL CHIP	15K	5%	1/16W	R448	1-216-809-11	METAL CHIP	100	5%	1/16W
R328	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R470	1-216-809-11	METAL CHIP	100	5%	1/16W
R329	1-216-833-11	METAL CHIP	10K	5%	1/16W	R488	1-216-809-11	METAL CHIP	100	5%	1/16W
R330	1-216-837-11	METAL CHIP	22K	5%	1/16W	R492	1-216-815-11	METAL CHIP	330	5%	1/16W
R332	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	R493	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R333	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R501	1-216-843-11	METAL CHIP	68K	5%	1/16W
R334	1-216-845-11	METAL CHIP	100K	5%	1/16W	R502	1-216-833-11	METAL CHIP	10K	5%	1/16W
R342	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R503	1-216-833-11	METAL CHIP	10K	5%	1/16W
△ R343	1-219-787-17	FUSIBLE	5.6	5%	1/4W F	R508	1-216-835-11	METAL CHIP	15K	5%	1/16W
△ R344	1-219-787-17	FUSIBLE	5.6	5%	1/4W F	R509	1-216-833-11	METAL CHIP	10K	5%	1/16W
R345	1-216-836-11	METAL CHIP	18K	5%	1/16W	R510	1-216-853-11	METAL CHIP	470K	5%	1/16W
R346	1-216-836-11	METAL CHIP	18K	5%	1/16W	R511	1-216-851-11	METAL CHIP	330K	5%	1/16W
R347	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R513	1-216-864-11	METAL CHIP	0	5%	1/16W
R351	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R517	1-216-833-11	METAL CHIP	10K	5%	1/16W
R352	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R529	1-216-833-11	METAL CHIP	10K	5%	1/16W
R354	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R530	1-216-833-11	METAL CHIP	10K	5%	1/16W
R355	1-216-841-11	METAL CHIP	47K	5%	1/16W	R532	1-216-841-11	METAL CHIP	47K	5%	1/16W
R360	1-216-819-11	METAL CHIP	680	5%	1/16W	R535	1-216-817-11	METAL CHIP	470	5%	1/16W
R361	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R536	1-216-809-11	METAL CHIP	100	5%	1/16W
R362	1-216-833-11	METAL CHIP	10K	5%	1/16W	R537	1-216-817-11	METAL CHIP	470	5%	1/16W
R363	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R540	1-216-809-11	METAL CHIP	100	5%	1/16W
R364	1-216-819-11	METAL CHIP	680	5%	1/16W	R541	1-216-833-11	METAL CHIP	10K	5%	1/16W
R365	1-216-833-11	METAL CHIP	10K	5%	1/16W	R543	1-216-809-11	METAL CHIP	100	5%	1/16W
R366	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R544	1-216-809-11	METAL CHIP	100	5%	1/16W
R367	1-216-841-11	METAL CHIP	47K	5%	1/16W	R545	1-216-809-11	METAL CHIP	100	5%	1/16W
R368	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R546	1-216-833-11	METAL CHIP	10K	5%	1/16W
R369	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R547	1-216-833-11	METAL CHIP	10K	5%	1/16W
R370	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R548	1-216-833-11	METAL CHIP	10K	5%	1/16W
R371	1-216-841-11	METAL CHIP	47K	5%	1/16W	R549	1-216-809-11	METAL CHIP	100	5%	1/16W
R373	1-216-821-11	METAL CHIP	1K	5%	1/16W	R556	1-216-809-11	METAL CHIP	100	5%	1/16W
R374	1-216-841-11	METAL CHIP	47K	5%	1/16W	R557	1-216-809-11	METAL CHIP	100	5%	1/16W
R375	1-218-296-11	RES-CHIP	75K	5%	1/10W	R573	1-216-833-11	METAL CHIP	10K	5%	1/16W
R377	1-216-841-11	METAL CHIP	47K	5%	1/16W	R574	1-216-833-11	METAL CHIP	10K	5%	1/16W
R378	1-218-296-11	RES-CHIP	75K	5%	1/10W	R575	1-216-833-11	METAL CHIP	10K	5%	1/16W
R379	1-216-833-11	METAL CHIP	10K	5%	1/16W	R579	1-216-833-11	METAL CHIP	10K	5%	1/16W
R380	1-216-837-11	METAL CHIP	22K	5%	1/16W	R580	1-216-833-11	METAL CHIP	10K	5%	1/16W
R382	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	R583	1-216-809-11	METAL CHIP	100	5%	1/16W
R387	1-216-833-11	METAL CHIP	10K	5%	1/16W	R584	1-216-809-11	METAL CHIP	100	5%	1/16W
R388	1-216-837-11	METAL CHIP	22K	5%	1/16W	R585	1-216-833-11	METAL CHIP	10K	5%	1/16W
R390	1-216-833-11	METAL CHIP	10K	5%	1/16W	R588	1-216-833-11	METAL CHIP	10K	5%	1/16W
R391	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R589	1-216-809-11	METAL CHIP	100	5%	1/16W
R392	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R590	1-216-809-11	METAL CHIP	100	5%	1/16W
R393	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R591	1-216-809-11	METAL CHIP	100	5%	1/16W
R394	1-216-833-11	METAL CHIP	10K	5%	1/16W	R592	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R395	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R593	1-216-821-11	METAL CHIP	1K	5%	1/16W
R396	1-216-833-11	METAL CHIP	10K	5%	1/16W	R593	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R397	1-216-835-11	METAL CHIP	15K	5%	1/16W						(E, MX, AR)
R398	1-216-861-11	METAL CHIP	2.2M	5%	1/16W						(GX8000)
R399	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R601	1-216-813-11	METAL CHIP	220	5%	1/16W
R419	1-216-864-11	METAL CHIP	0	5%	1/16W	R602	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R420	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R603	1-216-841-11	METAL CHIP	47K	5%	1/16W

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

HCD-GX8000/RG77

MAIN	MAIN TRANS	MOTOR	PAD SWITCH
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Ref. No.	Part No.	Description	Remark
R604	1-216-841-11	METAL CHIP 47K 5%	1/16W
R701	1-216-821-11	METAL CHIP 1K 5%	1/16W
R702	1-216-845-11	METAL CHIP 100K 5%	1/16W
R751	1-216-821-11	METAL CHIP 1K 5%	1/16W
R752	1-216-845-11	METAL CHIP 100K 5%	1/16W
R814	1-216-821-11	METAL CHIP 1K 5%	1/16W
R816	1-216-806-11	RES-CHIP 56 5%	1/10W
△ R819	1-215-891-11	METAL OXIDE 680 5%	2W F
R861	1-216-821-11	METAL CHIP 1K 5%	1/16W
R862	1-216-833-11	METAL CHIP 10K 5%	1/16W
R863	1-216-845-11	METAL CHIP 100K 5%	1/16W
R864	1-216-821-11	METAL CHIP 1K 5%	1/16W
R865	1-216-845-11	METAL CHIP 100K 5%	1/16W
R866	1-216-806-11	RES-CHIP 56 5%	1/10W
△ R869	1-215-891-11	METAL OXIDE 680 5%	2W F
R891	1-216-833-11	METAL CHIP 10K 5%	1/16W
R892	1-216-829-11	METAL CHIP 4.7K 5%	1/16W
R893	1-216-825-11	METAL CHIP 2.2K 5%	1/16W
R917	1-216-825-11	METAL CHIP 2.2K 5%	1/16W
R918	1-216-825-11	METAL CHIP 2.2K 5%	1/16W
R919	1-216-826-11	METAL CHIP 2.7K 5%	1/16W
△ R921	1-215-861-00	METAL OXIDE 47 5%	1W F
< VARIABLE RESISTOR >			
RV301	1-238-019-11	RES, ADJ, CARBON 47K	
RV304	1-241-768-11	RES, ADJ, CARBON 220K	
RV351	1-238-019-11	RES, ADJ, CARBON 47K	
RV354	1-241-768-11	RES, ADJ, CARBON 220K	
< TRANSFORMER >			
T301	1-423-980-11	TRANSFORMER, BIAS OSCILLATION	
< VIBRATOR >			
X501	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)	
X502	1-781-107-21	VIBRATOR, CERAMIC (16MHz)	

	1-683-539-11	MAIN TRANS BOARD	*****
	1-533-233-11	HOLDER, FUSE	
< CAPACITOR >			
C941	1-128-576-11	ELECT 100uF 20%	63V
< CONNECTOR >			
CN973	1-564-321-00	PIN, CONNECTOR 2P (EXCEPT E, SP)	
CN973	1-568-106-11	PIN, CONNECTOR 4P (E, SP)	
CN997	1-564-528-11	PLUG, CONNECTOR 13P	
< DIODE >			
D977	8-719-024-99	DIODE 11ES2-NTA2B	
< RESISTOR >			
△ R941	1-217-637-00	FUSIBLE 1 5%	1/4W F
△ R951	1-219-119-11	FUSIBLE 0.1 5%	1/4W F
△ R952	1-219-120-11	FUSIBLE 0.15 5%	1/4W F

Ref. No.	Part No.	Description	Remark
△ R954	1-219-237-91	SOLID 3.3M 20%	1/2W (GX8000)

	1-675-910-14	MOTOR BOARD	*****
< CAPACITOR >			
C721	1-162-306-11	CERAMIC 0.01uF 30%	16V
< CONNECTOR >			
CN721	1-770-516-31	CONNECTOR, FFC 8P	
CN722	1-785-330-11	PIN, CONNECTOR (LIGHT ANGLE) 4P	
< SWITCH >			
S701	1-771-822-11	SWITCH, LEVER (SLIDE)	(DISC TRAY OPEN/CLOSE DETECT)

	A-4727-557-A	PAD SWITCH BOARD, COMPLETE	*****
< CAPACITOR >			
C614	1-162-294-31	CERAMIC 0.001uF 10%	50V
C615	1-124-589-11	ELECT 47uF 20%	16V
< CONNECTOR >			
CN606	1-573-105-11	CONNECTOR, PC BOARD 4P	
< DIODE >			
D613	8-719-911-19	DIODE 1SS119-25	
< IC >			
IC603	8-759-826-34	IC NJL74H400A	(REMOTE CONTROL RECEIVER)
< RESISTOR >			
R625	1-249-401-11	CARBON 47 5%	1/4W
R750	1-249-410-11	CARBON 270 5%	1/4W
R752	1-249-415-11	CARBON 680 5%	1/4W
R753	1-249-417-11	CARBON 1K 5%	1/4W
R754	1-249-419-11	CARBON 1.5K 5%	1/4W
R755	1-249-419-11	CARBON 1.5K 5%	1/4W
R756	1-249-421-11	CARBON 2.2K 5%	1/4W
R757	1-247-843-11	CARBON 3.3K 5%	1/4W
R758	1-249-425-11	CARBON 4.7K 5%	1/4W
R759	1-249-427-11	CARBON 6.8K 5%	1/4W
R760	1-249-429-11	CARBON 10K 5%	1/4W
R761	1-249-431-11	CARBON 15K 5%	1/4W
R762	1-249-433-11	CARBON 22K 5%	1/4W
R765	1-249-413-11	CARBON 470 5%	1/4W
R766	1-249-415-11	CARBON 680 5%	1/4W
R767	1-249-417-11	CARBON 1K 5%	1/4W
R768	1-249-419-11	CARBON 1.5K 5%	1/4W
R769	1-249-419-11	CARBON 1.5K 5%	1/4W
R770	1-249-421-11	CARBON 2.2K 5%	1/4W
R771	1-247-843-11	CARBON 3.3K 5%	1/4W

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Replace only with part number specified.

PAD SWITCH

PANEL

Ref. No.	Part No.	Description	Remark		
R772	1-249-425-11	CARBON	4.7K	5%	1/4W
R773	1-249-427-11	CARBON	6.8K	5%	1/4W
R774	1-249-429-11	CARBON	10K	5%	1/4W
R775	1-249-431-11	CARBON	15K	5%	1/4W
R776	1-249-433-11	CARBON	22K	5%	1/4W
R777	1-249-435-11	CARBON	33K	5%	1/4W
R778	1-249-439-11	CARBON	68K	5%	1/4W
< SWITCH >					
S750	1-762-875-21	SWITCH, TACTILE (DISPLAY)			
S752	1-762-875-21	SWITCH, TACTILE (P FILE)			
S754	1-786-348-21	SWITCH, TACTILE (▲)			
S755	1-786-348-21	SWITCH, TACTILE (▼)			
S756	1-762-875-21	SWITCH, TACTILE (←◀▶→)			
S757	1-762-875-21	SWITCH, TACTILE (◀▶▶▶)			
S758	1-762-875-21	SWITCH, TACTILE (■)			
S759	1-762-875-21	SWITCH, TACTILE (◀▶▶▶)			
S760	1-762-875-21	SWITCH, TACTILE (■)			
S761	1-762-875-21	SWITCH, TACTILE (▶▶▶▶)			
S762	1-762-875-21	SWITCH, TACTILE (▶▶▶▶ +)			
S765	1-762-875-21	SWITCH, TACTILE (DIMMER)			
S766	1-762-875-21	SWITCH, TACTILE (DIRECTION, EDIT)			
S767	1-762-875-21	SWITCH, TACTILE (FM MODE, REPEAT)			
S768	1-762-875-21	SWITCH, TACTILE (SPECTRUM)			
S769	1-762-875-21	SWITCH, TACTILE (TUNER MEMORY, PLAY MODE)			
S770	1-762-875-21	SWITCH, TACTILE (MUSIC EQ)			
S771	1-762-875-21	SWITCH, TACTILE (GROOVE)			
S772	1-762-875-21	SWITCH, TACTILE (GAME EQ)			
S773	1-762-875-21	SWITCH, TACTILE (EFFECT ON/OFF)			
S774	1-786-348-21	SWITCH, TACTILE (◀)			
S775	1-786-348-21	SWITCH, TACTILE (▶)			
S776	1-762-875-21	SWITCH, TACTILE (ENTER)			
S777	1-762-875-21	SWITCH, TACTILE (MOVIE EQ)			
S778	1-762-875-21	SWITCH, TACTILE (SURROUND)			

A-4727-587-A	PANEL BOARD, COMPLETE				

4-231-581-01	HOLDER (FL)				
< CAPACITOR >					
C608	1-124-261-00	ELECT	10uF	20%	50V
C609	1-162-303-11	CERAMIC	0.0033uF	30%	16V
C610	1-124-261-00	ELECT	10uF	20%	50V
C611	1-126-964-11	ELECT	10uF	20%	50V
C612	1-162-306-11	CERAMIC	0.01uF	30%	16V
C613	1-124-260-00	ELECT	6.8uF	20%	50V
C618	1-162-306-11	CERAMIC	0.01uF	30%	16V
C619	1-124-589-11	ELECT	47uF	20%	16V
C620	1-162-306-11	CERAMIC	0.01uF	30%	16V
C622	1-126-163-11	ELECT	4.7uF	20%	50V
C623	1-162-294-31	CERAMIC	0.001uF	10%	50V
C624	1-162-306-11	CERAMIC	0.01uF	30%	16V
C625	1-162-306-11	CERAMIC	0.01uF	30%	16V
C626	1-162-306-11	CERAMIC	0.01uF	30%	16V
C627	1-162-306-11	CERAMIC	0.01uF	30%	16V
C628	1-162-306-11	CERAMIC	0.01uF	30%	16V

Ref. No.	Part No.	Description	Remark			
C629	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C651	1-164-159-11	CERAMIC	0.1uF		50V	
C652	1-124-261-00	ELECT	10uF	20%	50V	
C653	1-124-261-00	ELECT	10uF	20%	50V	
C710	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C711	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C712	1-162-306-11	CERAMIC	0.01uF	30%	16V	
< CONNECTOR >						
CN601	1-793-767-11	CONNECTOR, BOARD TO BOARD 30P				
< DIODE >						
D604	8-719-057-97	LED SEL5923A-TP15 (TUNER/BAND)				
D605	8-719-057-97	LED SEL5923A-TP15 (CD)				
D606	8-719-057-97	LED SEL5923A-TP15 (TAPE A/B)				
D607	8-719-057-97	LED SEL5923A-TP15 (MD (VIDEO))				
D608	8-719-057-97	LED SEL5923A-TP15 (GAME)				
D610	8-719-109-85	DIODE RD5.1ESB2				
D612	8-719-024-99	DIODE 11ES2-NTA2B				
D614	8-719-024-99	DIODE 11ES2-NTA2B				
D794	8-719-058-04	LED SELS5223S-TP15 (I/Ⓢ)				
D795	8-719-063-93	LED SLR325VC-N-T32 (REC PAUSE/START)				
< FERRITE BEAD >						
FB603	1-412-473-21	FERRITE	0uH			
< FLUORESCENT INDICATOR TUBE >						
FL601	1-518-791-11	INDICATOR TUBE FLUORESCENT				
< IC >						
IC601	6-801-050-01	IC MB90M407PF-G-114-BND				
IC602	8-759-570-21	IC BA3830F-E2				
< TRANSISTOR >						
Q601	8-729-116-02	TRANSISTOR	BA1A4M-TP			
Q602	8-729-116-02	TRANSISTOR	BA1A4M-TP			
Q603	8-729-116-02	TRANSISTOR	BA1A4M-TP			
Q604	8-729-116-02	TRANSISTOR	BA1A4M-TP			
Q605	8-729-116-02	TRANSISTOR	BA1A4M-TP			
Q794	8-729-116-02	TRANSISTOR	BA1A4M-TP			
Q795	8-729-116-02	TRANSISTOR	BA1A4M-TP			
< RESISTOR >						
R601	1-249-440-11	CARBON	82K	5%	1/4W	
R606	1-247-889-00	CARBON	270K	5%	1/4W	
R607	1-247-889-00	CARBON	270K	5%	1/4W	
R611	1-249-437-11	CARBON	47K	5%	1/4W	
R612	1-249-433-11	CARBON	22K	5%	1/4W	
R613	1-249-434-11	CARBON	27K	5%	1/4W	
R614	1-249-435-11	CARBON	33K	5%	1/4W	
R618	1-249-429-11	CARBON	10K	5%	1/4W	
R626	1-249-411-11	CARBON	330	5%	1/4W	
R627	1-249-411-11	CARBON	330	5%	1/4W	
R628	1-249-411-11	CARBON	330	5%	1/4W	
R629	1-249-411-11	CARBON	330	5%	1/4W	
R630	1-249-411-11	CARBON	330	5%	1/4W	
R645	1-249-429-11	CARBON	10K	5%	1/4W	

HCD-GX8000/RG77

PANEL

POWER

Ref. No.	Part No.	Description			Remark
R646	1-247-807-31	CARBON	100	5%	1/4W
R647	1-247-807-31	CARBON	100	5%	1/4W
R652	1-249-429-11	CARBON	10K	5%	1/4W
R653	1-249-429-11	CARBON	10K	5%	1/4W
R654	1-247-807-31	CARBON	100	5%	1/4W
R655	1-247-807-31	CARBON	100	5%	1/4W
R656	1-247-807-31	CARBON	100	5%	1/4W
R657	1-249-431-11	CARBON	15K	5%	1/4W
R658	1-249-431-11	CARBON	15K	5%	1/4W
R659	1-249-431-11	CARBON	15K	5%	1/4W
R660	1-247-903-00	CARBON	1M	5%	1/4W
R661	1-249-429-11	CARBON	10K	5%	1/4W
R662	1-249-429-11	CARBON	10K	5%	1/4W
R663	1-249-429-11	CARBON	10K	5%	1/4W
R680	1-249-411-11	CARBON	330	5%	1/4W
R681	1-249-415-11	CARBON	680	5%	1/4W
R682	1-249-433-11	CARBON	22K	5%	1/4W
R749	1-249-410-11	CARBON	270	5%	1/4W
R751	1-249-413-11	CARBON	470	5%	1/4W
R779	1-249-413-11	CARBON	470	5%	1/4W
R780	1-249-415-11	CARBON	680	5%	1/4W
R781	1-249-417-11	CARBON	1K	5%	1/4W
R782	1-249-419-11	CARBON	1.5K	5%	1/4W
R783	1-249-419-11	CARBON	1.5K	5%	1/4W
R784	1-249-421-11	CARBON	2.2K	5%	1/4W
R785	1-247-843-11	CARBON	3.3K	5%	1/4W
R786	1-249-425-11	CARBON	4.7K	5%	1/4W
R787	1-249-427-11	CARBON	6.8K	5%	1/4W
R795	1-249-407-11	CARBON	150	5%	1/4W
R801	1-249-409-11	CARBON	220	5%	1/4W
R817	1-249-417-11	CARBON	1K	5%	1/4W
R818	1-249-417-11	CARBON	1K	5%	1/4W
R819	1-249-412-11	CARBON	390	5%	1/4W
R820	1-249-415-11	CARBON	680	5%	1/4W
R821	1-249-415-11	CARBON	680	5%	1/4W
R822	1-249-415-11	CARBON	680	5%	1/4W
R823	1-249-415-11	CARBON	680	5%	1/4W
R824	1-249-415-11	CARBON	680	5%	1/4W
R825	1-249-412-11	CARBON	390	5%	1/4W
< SWITCH >					
S749	1-762-875-21	SWITCH, TACTILE (I/⏻)			
S751	1-762-875-21	SWITCH, TACTILE (REC PAUSE/START)			
S779	1-762-875-21	SWITCH, TACTILE (CD SYNC, HI-DUB)			
S780	1-762-875-21	SWITCH, TACTILE (SURROUND SPEAKER MODE)			
S782	1-762-875-21	SWITCH, TACTILE (GAME MIXING)			
S783	1-762-875-21	SWITCH, TACTILE (GAME)			
S784	1-762-875-21	SWITCH, TACTILE (MD (VIDEO))			
S785	1-762-875-21	SWITCH, TACTILE (TAPE A/B)			
S786	1-762-875-21	SWITCH, TACTILE (TUNER/BAND)			
S787	1-762-875-21	SWITCH, TACTILE (CD)			
< VIBRATOR >					
X601	1-577-358-21	VIBRATOR, CERAMIC (4MHz)			

Ref. No.	Part No.	Description	Remark		
	A-4676-767-A	POWER BOARD, COMPLETE (GX8000)			
	A-4727-591-A	POWER BOARD, COMPLETE (RG77)			

	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			
	< CAPACITOR >				
C501	1-126-963-11	ELECT	4.7uF	20%	50V
C502	1-162-290-31	CERAMIC	470PF	10%	50V
C503	1-162-286-31	CERAMIC	220PF	10%	50V
C504	1-104-665-11	ELECT	100uF	20%	10V
C507	1-136-495-11	FILM	0.068uF	5%	50V
C508	1-136-495-11	FILM	0.068uF	5%	50V
C509	1-128-560-11	ELECT	22uF	20%	100V
C512	1-162-306-11	CERAMIC	0.01uF	20%	16V
C513	1-162-306-11	CERAMIC	0.01uF	30%	16V
C514	1-104-665-11	ELECT	100uF	20%	10V
C515	1-126-961-11	ELECT	2.2uF	20%	50V
C516	1-104-665-11	ELECT	100uF	20%	10V
C517	1-126-964-11	ELECT	10uF	20%	50V
C523	1-162-306-11	CERAMIC	0.01uF	30%	16V
C524	1-162-306-11	CERAMIC	0.01uF	30%	16V
C525	1-162-306-11	CERAMIC	0.01uF	30%	16V
C526	1-126-964-11	ELECT	10uF	20%	50V
C541	1-136-165-00	FILM	0.1uF	5%	50V
C542	1-127-811-11	ELECT	3300uF	20%	50V
C544	1-130-777-00	MYLAR	0.1uF	5%	100V
C545	1-130-777-00	MYLAR	0.1uF	5%	100V
C546	1-137-843-11	ELECT	2200uF	20%	100V
C551	1-126-963-11	ELECT	4.7uF	20%	50V
C552	1-162-290-31	CERAMIC	470PF	10%	50V
C553	1-162-286-31	CERAMIC	220PF	10%	50V
C554	1-104-665-11	ELECT	100uF	20%	10V
C557	1-136-495-11	FILM	0.068uF	5%	50V
C558	1-136-495-11	FILM	0.068uF	5%	50V
C559	1-128-560-11	ELECT	22uF	20%	100V
C581	1-126-965-11	ELECT	22uF	20%	50V
C591	1-136-165-00	FILM	0.1uF	5%	50V
C592	1-127-811-11	ELECT	3300uF	20%	50V
C596	1-137-843-11	ELECT	2200uF	20%	100V
C942	1-126-964-11	ELECT	10uF	20%	50V
C943	1-126-968-11	ELECT	100uF	20%	50V
	< CONNECTOR >				
CN502	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P			
CN503	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P			
	< DIODE >				
D501	8-719-911-19	DIODE 1SS119-25			
D502	8-719-911-19	DIODE 1SS119-25			
D503	8-719-947-70	DIODE MTZJ-T-72-18C			
D504	8-719-947-70	DIODE MTZJ-T-72-18C			
D506	8-719-911-19	DIODE 1SS119-25			
D507	8-719-911-19	DIODE 1SS119-25			
D508	8-719-911-19	DIODE 1SS119-25			
D509	8-719-911-19	DIODE 1SS119-25			
D510	8-719-911-19	DIODE 1SS133T-72			
D511	8-719-911-19	DIODE 1SS119-25			

POWER

Ref. No.	Part No.	Description	Remark		Ref. No.	Part No.	Description	Remark	
D541	8-719-510-68	DIODE D5SBA204101			R523	1-249-440-11	CARBON 82K	5%	1/4W
D543	8-719-500-60	DIODE D5SBA20			△ R524	1-215-872-11	METAL OXIDE 3.3K	5%	1W F
D551	8-719-911-19	DIODE 1SS119-25			R527	1-249-438-11	CARBON 56K	5%	1/4W
D581	8-719-911-19	DIODE 1SS119-25			R528	1-249-437-11	CARBON 47K	5%	1/4W
D941	8-719-150-92	DIODE RD33EB3T			R529	1-249-433-11	CARBON 22K	5%	1/4W
< EARTH TERMINAL >					R530	1-249-433-11	CARBON 22K	5%	1/4W
* EP501	1-537-738-21	TERMINAL, EARTH			R531	1-249-409-11	CARBON 220	5%	1/4W
* EP502	1-537-738-21	TERMINAL, EARTH			R532	1-247-897-11	CARBON 560K	5%	1/4W
< IC >					R533	1-249-437-11	CARBON 47K	5%	1/4W
IC501	8-749-017-06	IC STK412-150			R537	1-249-429-11	CARBON 10K	5%	1/4W
< TRANSISTOR >					R538	1-249-437-11	CARBON 47K	5%	1/4W
Q501	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			△ R539	1-215-889-00	METAL OXIDE 330	5%	2W F
Q502	8-729-119-79	TRANSISTOR 2SC2785-FEK			△ R540	1-215-889-00	METAL OXIDE 330	5%	2W F
Q503	8-729-140-82	TRANSISTOR 2SA988-PAFAEA			R541	1-249-441-11	CARBON 100K	5%	1/4W
Q504	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			R542	1-249-441-11	CARBON 100K	5%	1/4W
Q505	8-729-119-79	TRANSISTOR 2SC2785-FEK			R543	1-249-439-11	CARBON 68K	5%	1/4W
Q506	8-729-119-79	TRANSISTOR 2SC2785-FEK			R544	1-249-429-11	CARBON 10K	5%	1/4W
Q507	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			R545	1-249-425-11	CARBON 4.7K	5%	1/4W
Q508	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			R546	1-249-433-11	CARBON 22K	5%	1/4W
Q509	8-729-119-76	TRANSISTOR 2SA1175TP-HFE			R547	1-249-437-11	CARBON 47K	5%	1/4W
Q510	8-729-119-79	TRANSISTOR 2SC2785-FEK			R548	1-249-437-11	CARBON 47K	5%	1/4W
Q511	8-729-119-79	TRANSISTOR 2SC2785-FEK			R551	1-249-417-11	CARBON 1K	5%	1/4W
Q512	8-729-900-36	TRANSISTOR DTC124ES			R552	1-249-437-11	CARBON 47K	5%	1/4W
Q513	8-729-900-36	TRANSISTOR BA1F4M-TP			R553	1-249-409-11	CARBON 220	5%	1/4W
Q551	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			(RG77)				
Q581	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			R553	1-249-413-11	CARBON 470	5%	1/4W
Q831	8-729-119-79	TRANSISTOR 2SC2785-FEK			(GX8000)				
Q941	8-729-209-60	TRANSISTOR 2SB1375			R554	1-249-437-11	CARBON 47K	5%	1/4W
< RESISTOR >					R555	1-249-417-11	CARBON 1K	5%	1/4W
R501	1-249-417-11	CARBON 1K	5%	1/4W	R556	1-249-433-11	CARBON 22K	5%	1/4W
R502	1-249-437-11	CARBON 47K	5%	1/4W	R557	1-249-441-11	CARBON 100K	5%	1/4W
R503	1-249-409-11	CARBON 220	5%	1/4W	△ R558	1-219-718-11	METAL 0.1	10%	5W F
(RG77)					R559	1-260-076-11	CARBON 10	5%	1/2W
R503	1-249-413-11	CARBON 470	5%	1/4W	△ R560	1-219-718-11	METAL 0.1	10%	5W F
(GX8000)					△ R561	1-212-881-11	FUSIBLE 100	5%	1/4W F
R504	1-249-437-11	CARBON 47K	5%	1/4W	R564	1-249-425-11	CARBON 4.7K	5%	1/4W
R505	1-249-417-11	CARBON 1K	5%	1/4W	R565	1-249-425-11	CARBON 4.7K	5%	1/4W
R506	1-249-433-11	CARBON 22K	5%	1/4W	R581	1-249-435-11	CARBON 33K	5%	1/4W
R507	1-249-441-11	CARBON 100K	5%	1/4W	R582	1-249-435-11	CARBON 33K	5%	1/4W
△ R508	1-219-718-11	METAL 0.1	10%	5W F	R591	1-249-441-11	CARBON 100K	5%	1/4W
R509	1-260-076-11	CARBON 10	5%	1/2W	R592	1-249-441-11	CARBON 100K	5%	1/4W
△ R510	1-219-718-11	METAL 0.1	10%	5W F	R942	1-249-428-11	CARBON 8.2K	5%	1/4W
△ R511	1-212-881-11	FUSIBLE 100	5%	1/4W F	R943	1-249-417-11	CARBON 1K	5%	1/4W
△ R512	1-202-972-61	FUSIBLE 1	5%	1/4W F	R945	1-249-428-11	CARBON 8.2K	5%	1/4W
R513	1-249-435-11	CARBON 33K	5%	1/4W	< RELAY >				
R514	1-249-421-11	CARBON 2.2K	5%	1/4W	RY501	1-515-920-11	RELAY		
R515	1-249-433-11	CARBON 22K	5%	1/4W	RY502	1-515-920-11	RELAY		
R516	1-249-429-11	CARBON 10K	5%	1/4W	< TERMINAL >				
R517	1-249-429-11	CARBON 10K	5%	1/4W	TM501	1-694-877-11	PUSH TARMINAL (8P)		
R518	1-249-435-11	CARBON 33K	5%	1/4W	(FRONT/SURROUND SPEAKER)				
R519	1-249-439-11	CARBON 68K	5%	1/4W	*****				
△ R520	1-215-872-11	METAL OXIDE 3.3K	5%	1W F					
R521	1-249-441-11	CARBON 100K	5%	1/4W					
R522	1-249-441-11	CARBON 100K	5%	1/4W					

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

HCD-GX8000/RG77

SENSOR	SENSOR (CD)	SUB-TRANS	SW
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Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
	1-683-542-11	SENSOR BOARD *****							< TRANSISTOR >				
		< CONNECTOR >					Q971	8-729-119-79	TRANSISTOR	2SC2785-FEK			
		< THERMISTOR >							< RESISTOR >				
CN701	1-785-328-11	PIN, CONNECTOR 2P					R974	1-249-441-11	CARBON	100K	5%	1/4W	
		< THERMISTOR >					R975	1-249-429-11	CARBON	10K	5%	1/4W	
TH701	1-807-796-11	THERMISTOR	*****						< RELAY >				
	1-675-911-14	SENSOR (CD) BOARD *****					△RY971	1-755-276-11	RELAY, POWER				
		< CAPACITOR >							< SWITCH >				
C712	1-164-159-11	CERAMIC	0.1uF	50V			△S901	1-786-055-21	SELECTOR, VOLTAGE (VOLATGE SELECTOR)	(E, SP)			
		< PHOTO INTERRUPTER >							< TRANSFORMER >				
IC711	8-749-014-38	PHOTO INTERRUPTER	SG-264				△T972	1-435-823-11	TRANSFORMER, POWER (GX8000)				
		< RESISTOR >					△T972	1-435-825-11	TRANSFORMER, POWER (RG77)	*****			
R711	1-247-876-11	CARBON	75K	5%	1/4W		A-4676-533-A	SW BOARD, COMPLETE	*****				
R712	1-249-409-11	CARBON	220	5%	1/4W			< CAPACITOR >					
R713	1-249-429-11	CARBON	10K	5%	1/4W								
		< SWITCH >					C1001	1-107-716-11	ELECT	33uF	20%	10V	
S711	1-771-821-11	SWITCH, PUSH (1 KEY) (OPTICAL PICK-UP UP/DOWN DETECT)	*****						< CONNECTOR >				
	A-4676-765-A	SUB-TRANS BOARD, COMPLETE (GX8000)					CN1001	1-568-860-21	SOCKET, CONNECTOR 17P				
	A-4727-568-A	SUB-TRANS BOARD, COMPLETE (E, SP)							< DIODE >				
	A-4728-130-A	SUB-TRANS BOARD, COMPLETE (AR)					D1001	8-719-911-19	DIODE	1SS119-25			
	A-4728-717-A	SUB-TRANS BOARD, COMPLETE (MX)	*****				D1002	8-719-911-19	DIODE	1SS119-25			
		< CAPACITOR >							< PHOTO INTERRUPTER >				
△C971	1-113-925-11	CERAMIC	0.01uF	20%	250V		IC1001	8-749-014-38	PHOTO INTERRUPTER	SG-264			
C973	1-126-933-11	ELECT	100uF	20%	16V		IC1002	8-749-014-38	PHOTO INTERRUPTER	SG-264			
C975	1-126-768-11	ELECT	2200uF	20%	16V				< TRANSISTOR >				
C976	1-164-159-11	CERAMIC	0.1uF	50V			Q1001	8-729-029-56	TRANSISTOR	DTA144ESA			
C977	1-164-159-11	CERAMIC	0.1uF	50V					< RESISTOR >				
C978	1-164-159-11	CERAMIC	0.1uF	50V			R1001	1-249-409-11	CARBON	220	5%	1/4W	
		< CONNECTOR >					R1002	1-249-409-11	CARBON	220	5%	1/4W	
* CN974	1-564-321-21	PIN, CONNECTOR 2P					R1003	1-249-414-11	CARBON	560	5%	1/4W	
CN976	1-506-468-11	PIN, CONNECTOR 3P					R1004	1-247-834-11	CARBON	1.3K	5%	1/4W	
		< DIODE >					R1005	1-247-818-11	CARBON	300	5%	1/4W	
D971	8-719-911-19	DIODE	1SS119-25				R1006	1-247-864-11	CARBON	24K	5%	1/4W	
D972	8-719-024-99	DIODE	11ES2-NTA2B				R1007	1-247-780-00	CARBON	7.5	5%	1/4W	
D973	8-719-024-99	DIODE	11ES2-NTA2B				R1008	1-249-417-11	CARBON	1K	5%	1/4W	
D974	8-719-024-99	DIODE	11ES2-NTA2B						< VARIABLE RESISTOR >				
D975	8-719-024-99	DIODE	11ES2-NTA2B				RV1001	1-241-785-11	RES, ADJ, CARBON	10K			
		< IC >					RV1002	1-241-785-11	RES, ADJ, CARBON	10K			
IC971	6-701-760-01	IC uPC3504AHF							< SWITCH >				
							S1001	1-570-953-11	SWITCH, PUSH (1 KEY) (DECK A PLAY)				

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

SW

VOL

Ref. No.	Part No.	Description	Remark
S1002	1-570-953-11	SWITCH, PUSH (1 KEY) (DECK B PLAY)	
S1003	1-771-333-11	SWITCH, LEAF (DECK A HALF)	
S1005	1-771-536-12	SWITCH, LEAF (DECK A REC)	
S1006	1-771-333-11	SWITCH, LEAF (DECK B HALF)	
S1009	1-771-536-12	SWITCH, LEAF (DECK B REC)	

	1-683-536-11	VOL BOARD	

		< CAPACITOR >	
C751	1-164-159-11	CERAMIC 0.1uF	50V
C752	1-164-159-11	CERAMIC 0.1uF	50V
		< CONNECTOR >	
* CN607	1-573-107-11	CONNECTOR, PC BOARD (PLUG) 4P	
		< ROTARY ENCODER >	
S748	1-476-504-11	ENCODER, ROTARY (VOLUME)	

		MISCELLANEOUS	

8	1-693-572-71	TUNER PACK (FM/AM) (RG77: MX, SP, AR)	
8	1-693-573-71	TUNER PACK (FM/AM) (GX8000: US)	
8	1-693-574-71	TUNER PACK (FM/AM) (RG77: E)	
△ 103	1-777-071-51	CORD, POWER (E51, SP)	
△ 103	1-783-820-11	CORD, POWER (US)	
△ 103	1-783-941-12	CORD, POWER (AR)	
△ 103	1-791-901-11	CORD, POWER (E, MX)	
106	1-773-045-11	WIRE (FLAT TYPE) (17 CORE)	
108	1-823-978-11	WIRE (FLAT TYPE)	
109	1-769-945-11	WIRE (FLAT TYPE) (11 CORE)	
509	1-791-983-12	WIRE (FLAT TYPE) (8 CORE)	
556	1-757-710-11	WIRE (FLAT TYPE) (16 CORE)	
△ 557	A-4735-188-A	BU-30 (60) ASSY	
△ F971	1-533-473-11	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)	
		(RG77: E, SP)	
△ F974	1-533-454-11	FUSE, GLASS TUBE (DIA. 5) (6.3A/125V)	
		(GX8000)	
△ F974	1-533-473-11	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)	
		(RG77)	
△ F975	1-533-454-11	FUSE, GLASS TUBE (DIA. 5) (6.3A/125V)	
		(GX8000)	
△ F975	1-533-473-11	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)	
		(RG77)	
△ F976	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (8.0A/250V)	
		(RG77)	
△ F976	1-576-537-11	FUSE, GLASS TUBE (DIA. 5) (8.0A/125V)	
		(GX8000)	
△ F977	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (8.0A/250V)	
		(RG77)	
△ F977	1-576-537-11	FUSE, GLASS TUBE (DIA. 5) (8.0A/125V)	
		(GX8000)	
HP901	X-4953-985-1	BLOCK (A) ASSY, HEAD (PB)	
HRPE901X	X-4953-986-1	BLOCK (B) ASSY, HEAD (REC/PB/ERASE)	
M721	A-4672-826-A	MOTOR ASSY (TURN) (WITH PULLEY) (CD)	
M891	1-763-072-11	FAN, DC	

Ref. No.	Part No.	Description	Remark
M901	X-3378-241-1	MOTOR ASSY (CAPSTAN) (WITH PULLEY)	
		(TAPE)	
△ T910	1-437-586-11	POWER TRANSFORMER (RG77)	
△ T910	1-437-748-11	POWER TRANSFORMER (GX8000)	

		ACCESSORIES	

△	1-569-008-21	ADAPTOR, CONVERSION (E51, SP)	

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REVISION HISTORY

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