HCD-RG66T

SERVICE MANUAL

E Model

Ver 1.1 2002.06

HCD-RG66T is the amplifier, CD player, tape deck and tuner section in MHC-RG66T.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM58ES-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

Amplifier section

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

DIN power output (rated) 100 + 100 watts (6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference) 145 + 145 watts (6 ohms at 1 kHz, 10% THD)

Inputs

GAME (VIDEO): (phono jack) 1 Vp-p, 75 ohms

GAME (AUDIO): (phono jacks) Voltage 250 mV, impedance 47 kilohms

MD/VIDEO (AUDIO) IN: (phono jacks) voltage 450 mV/250 mV, impedance 47 kilohms

MIC: (phone jack) sensitivity 1 mV, impedance 10 kilohms

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 8 ohms or more

FRONT SPEAKER: accepts impedance of 6 to 16 ohms

CD player section

System: Compact disc and digital audio system

Laser: Semiconductor laser (λ=795nm)

Laser Output: Max. 44.6 µW* *This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.

Frequency response: 2 Hz – 20 kHz (±0.5 dB)

Wave length: 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 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

9-873-541-02
2002F0500-1

Sony Corporation
Home Audio Company
Published by Sony Engineering Corporation

SONY®

General

Power requirements	
Mexican model:	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	230 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.

CAUTION

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

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.

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.

TABLE OF CONTENTS

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.

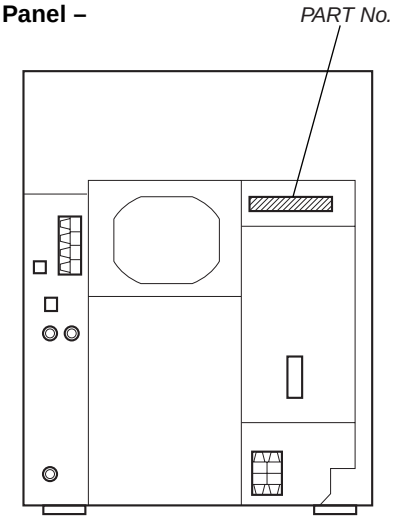
NOTES ON LASER DIODE EMISSION CHECK

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, Chilean and Peruvian models	4-237-780-0□
Mexican and Argentina models	4-237-780-5□

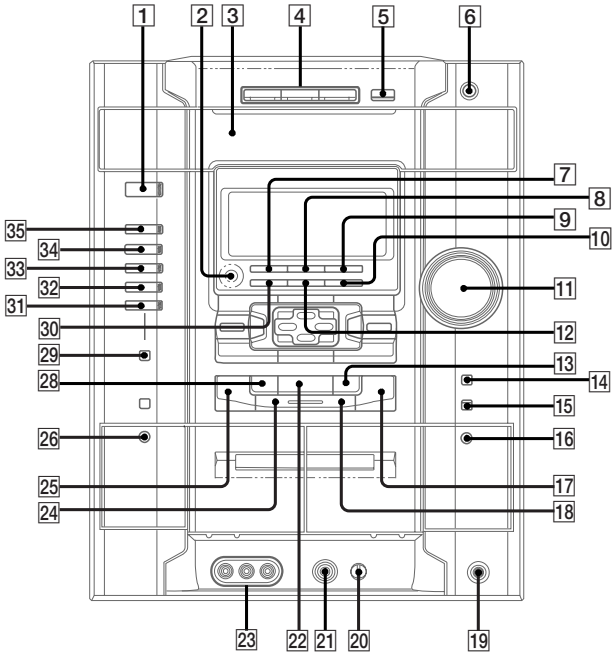
SECTION 2
GENERAL

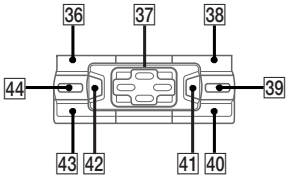
This section is extracted from instruction manual.

LOCATION OF CONTROLS
– Front Panel –

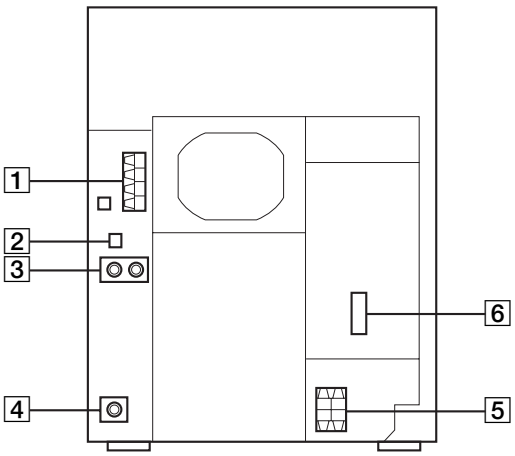
ALPHABETICAL ORDER

BUTTON DESCRIPTIONS





– Back Panel –



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

Remote Control

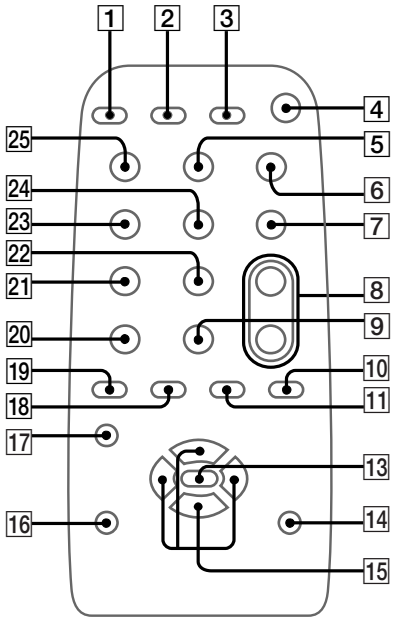
ALPHABETICAL ORDER

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 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.

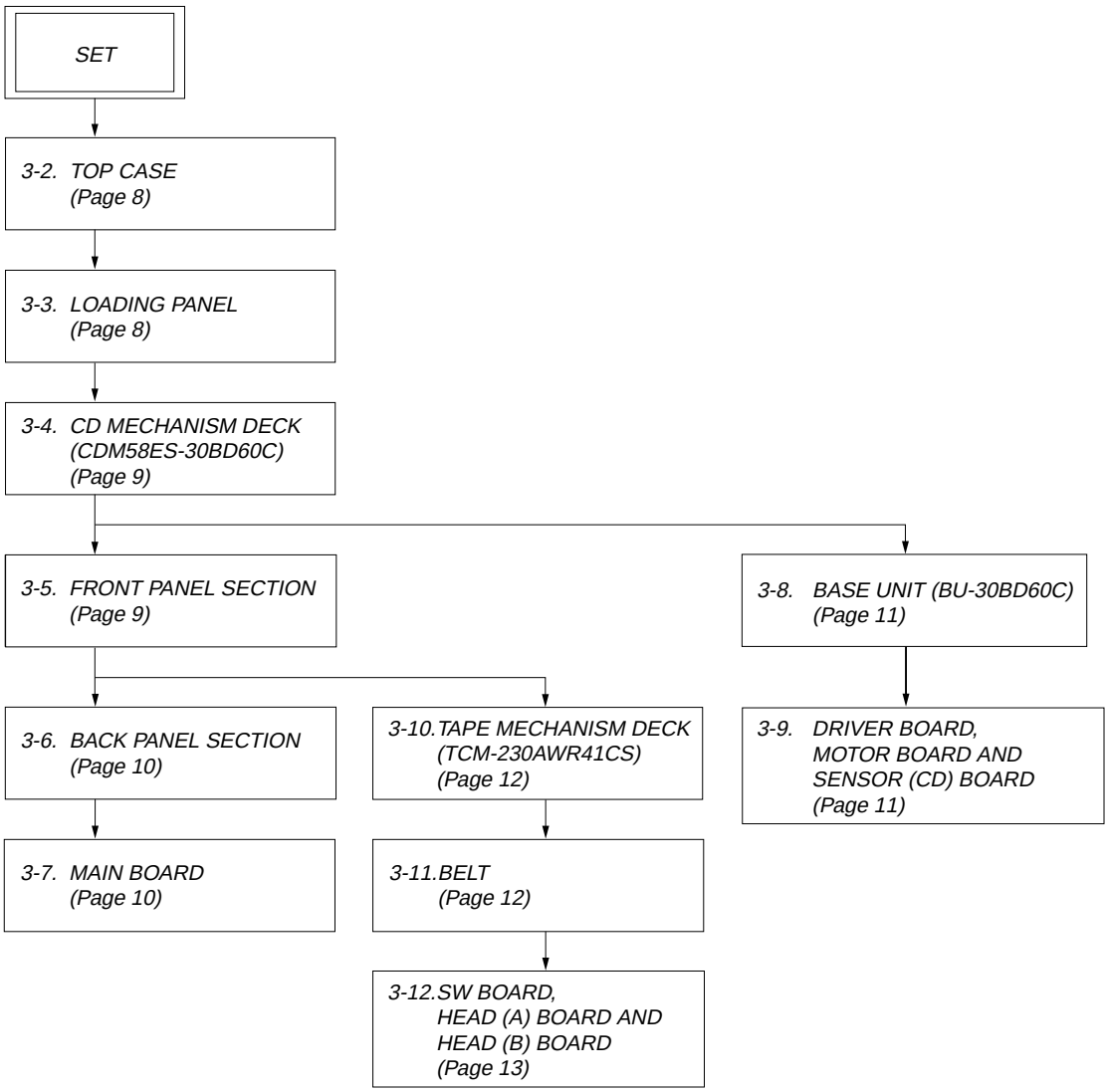
Tip
If you have made a mistake or want to change the time, start over from step 2.

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

SECTION 3
DISASSEMBLY

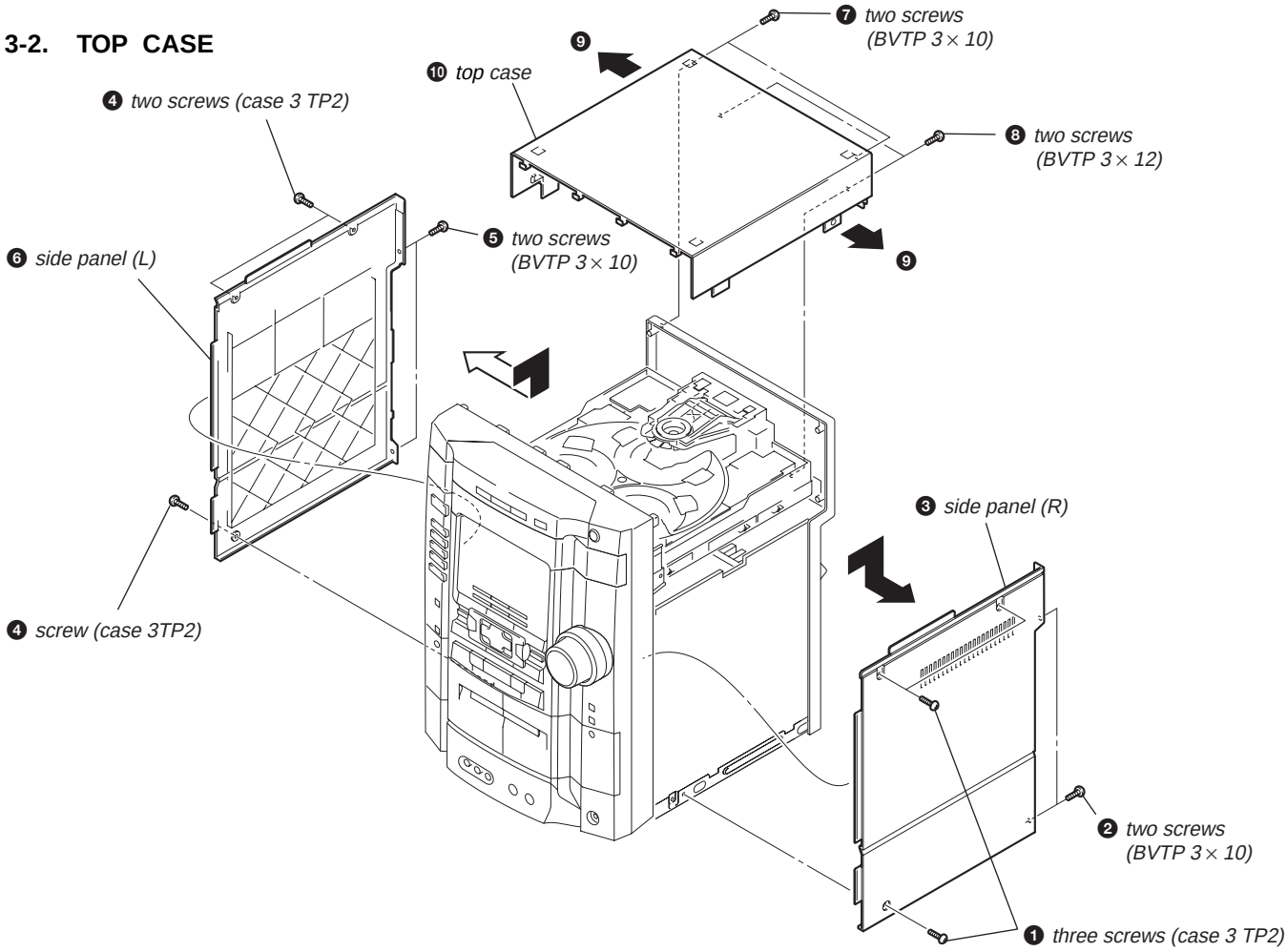
• This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

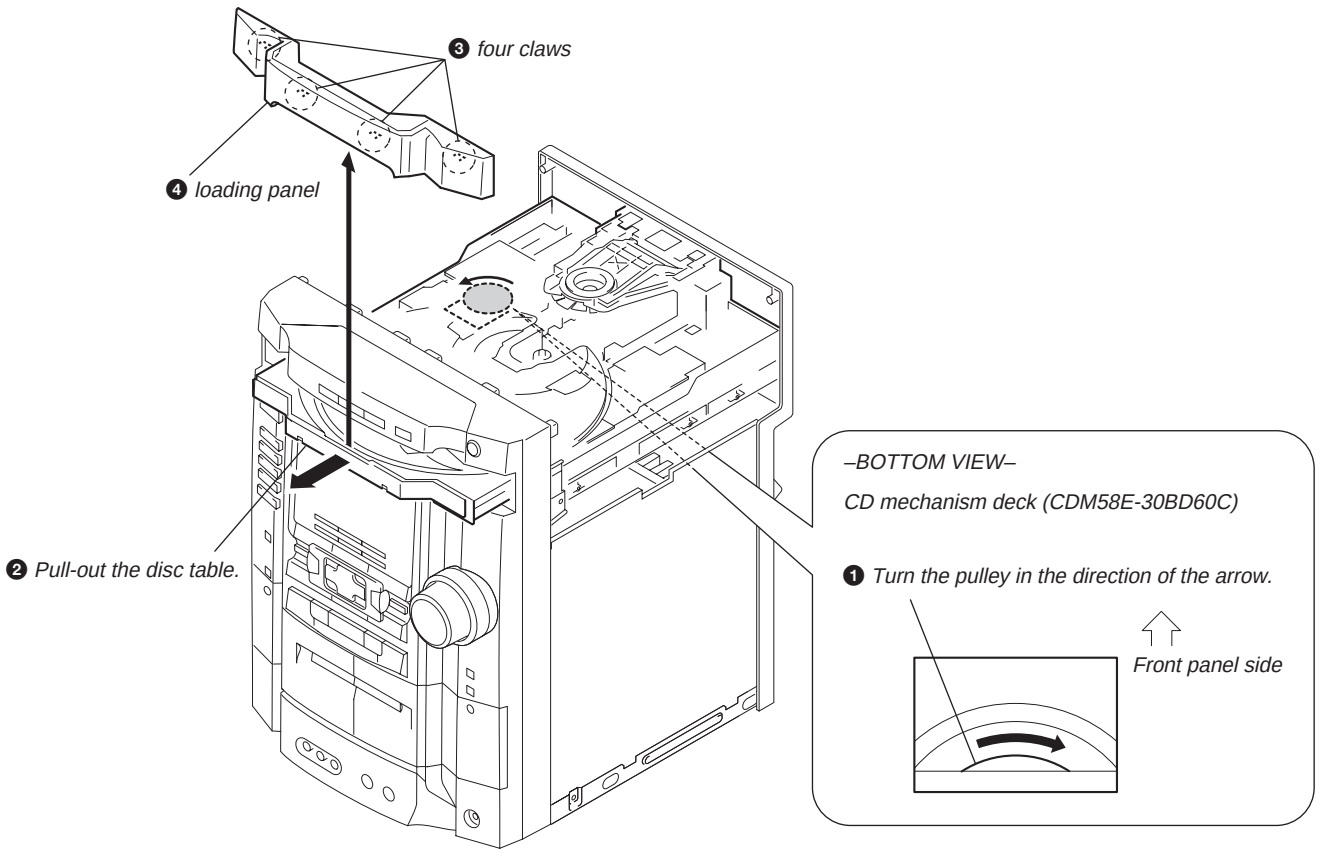


Note: Follow the disassembly procedure in the numerical order given.

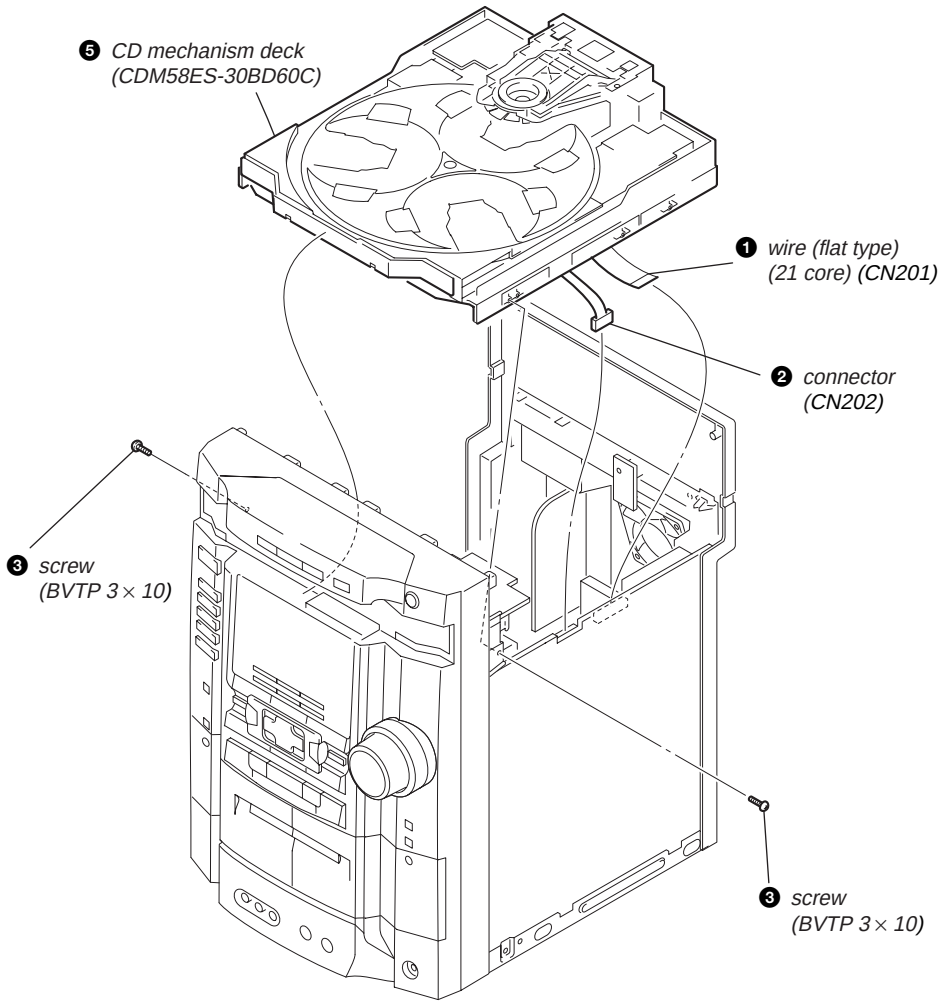
3-2. TOP CASE



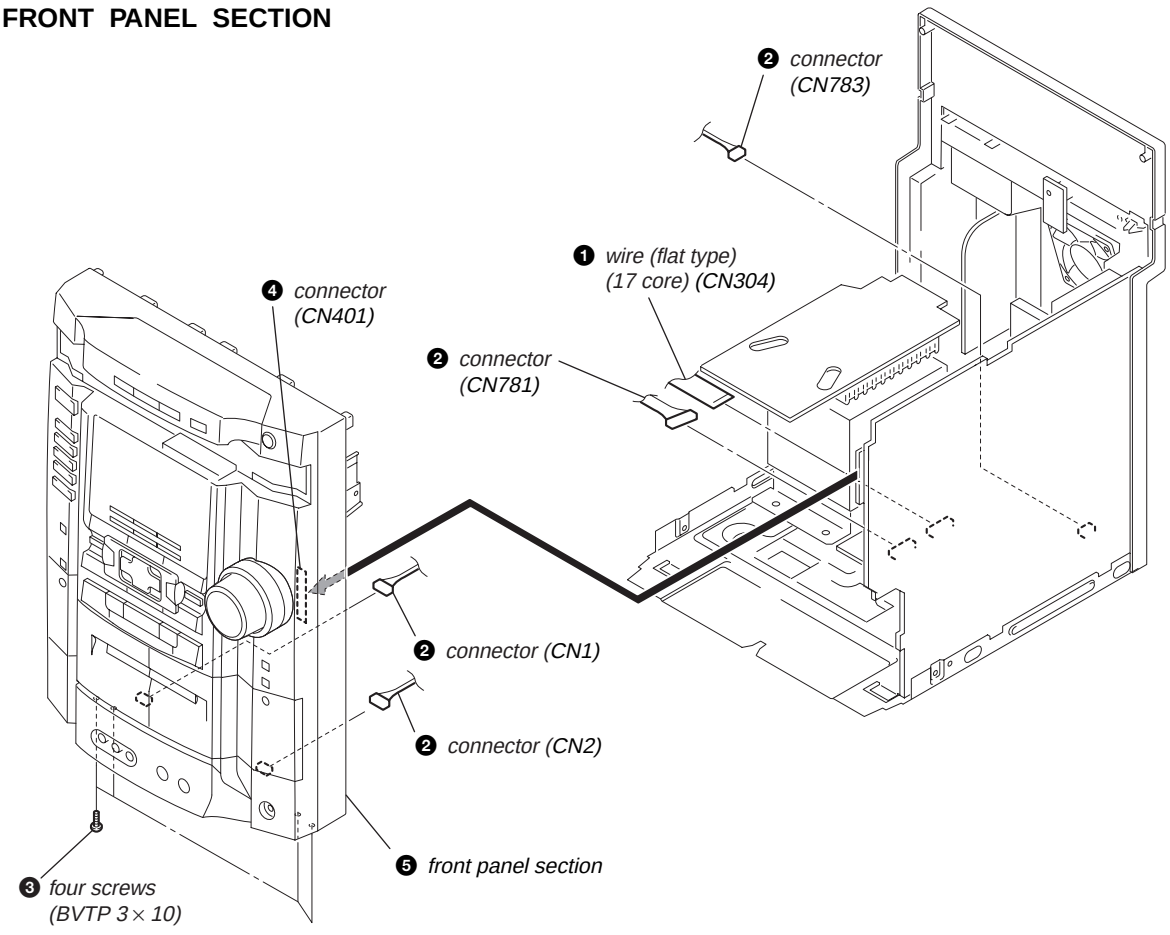
3-3. LOADING PANEL



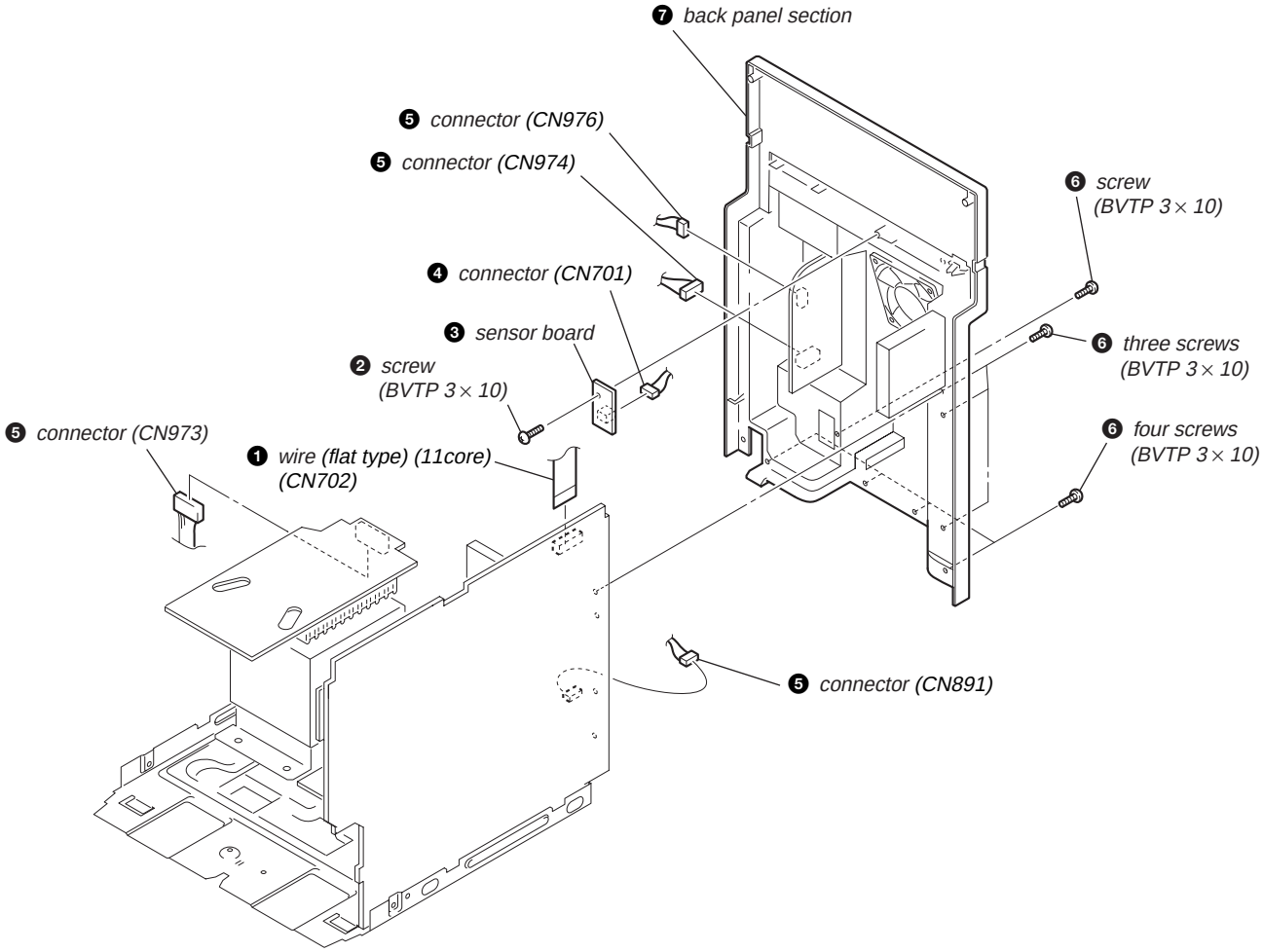
3-4. CD MECHANISM DECK (CDM58ES-30BD60C)



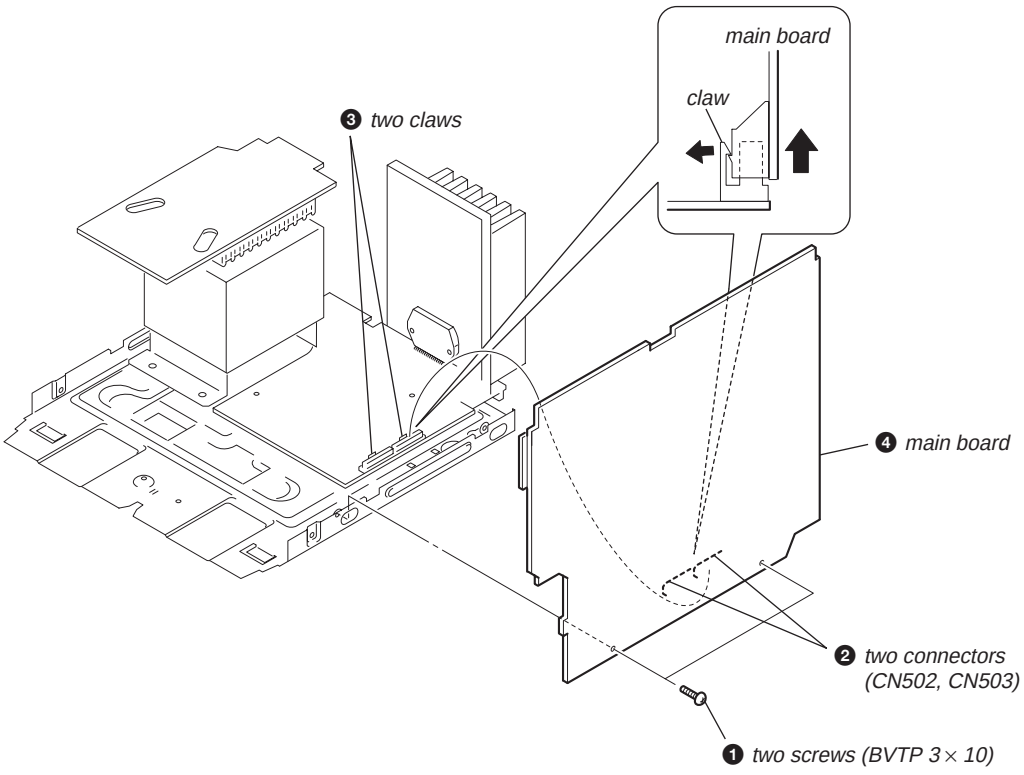
3-5. FRONT PANEL SECTION



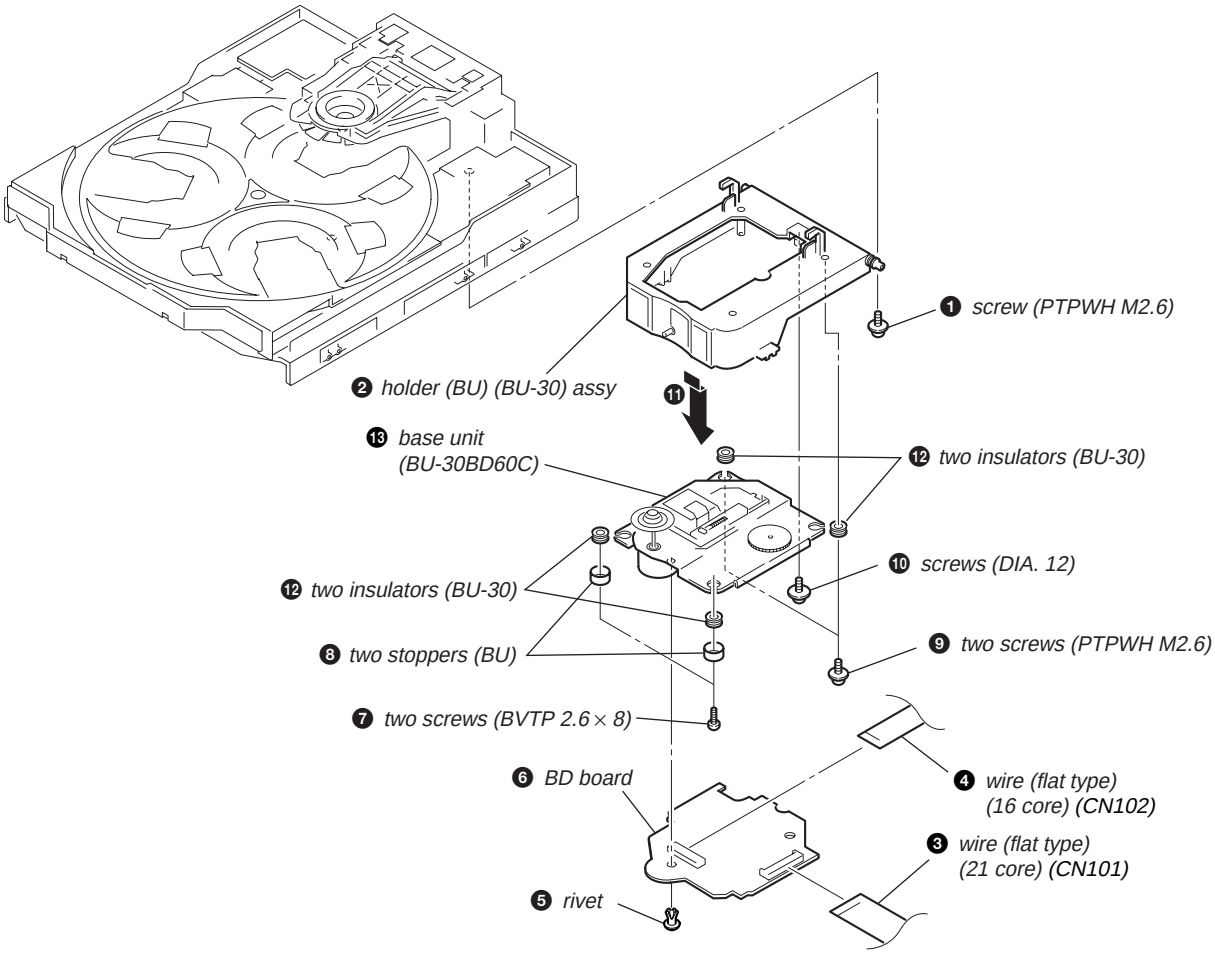
3-6. BACK PANEL SECTION



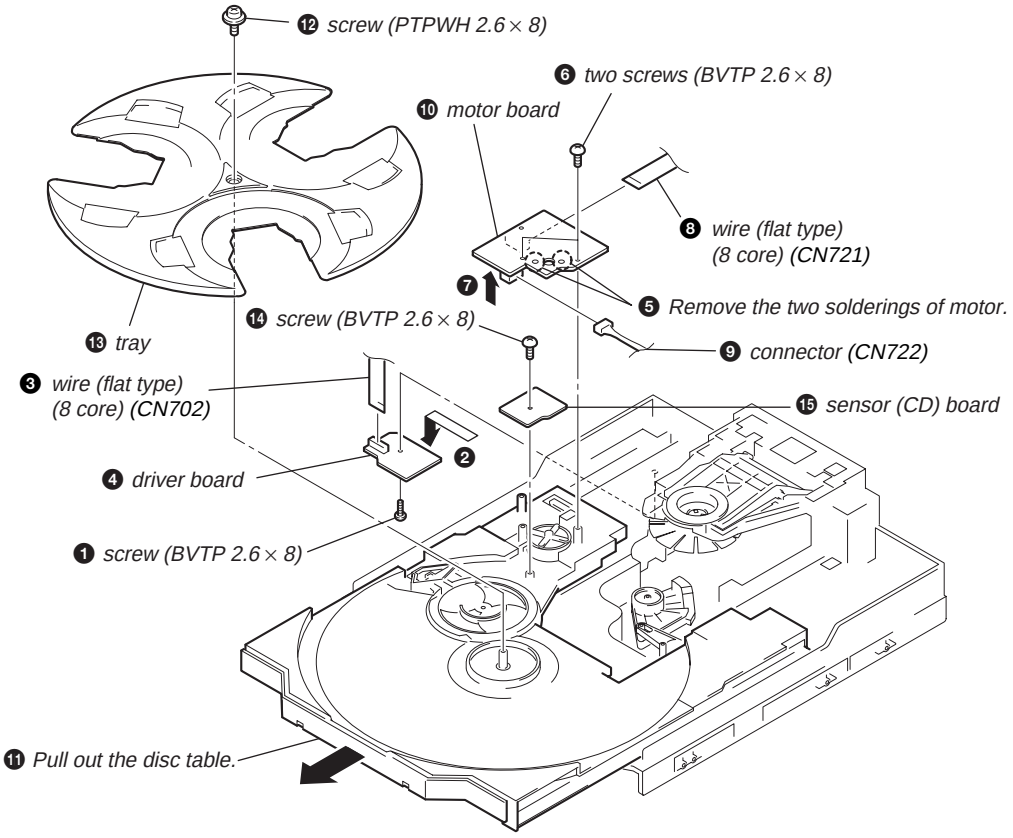
3-7. MAIN BOARD



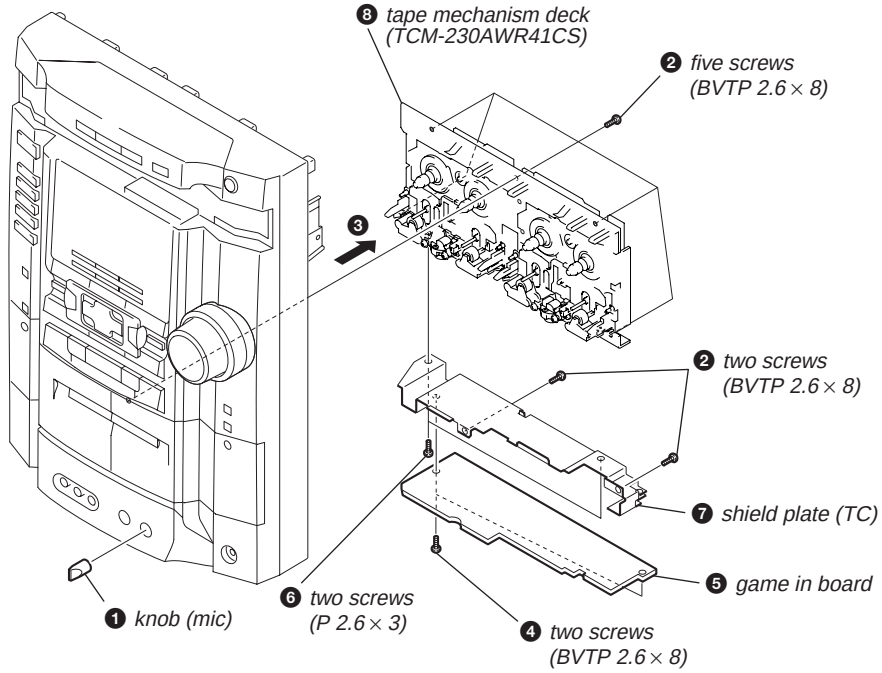
3-8. BASE UNIT (BU-30BD60C)



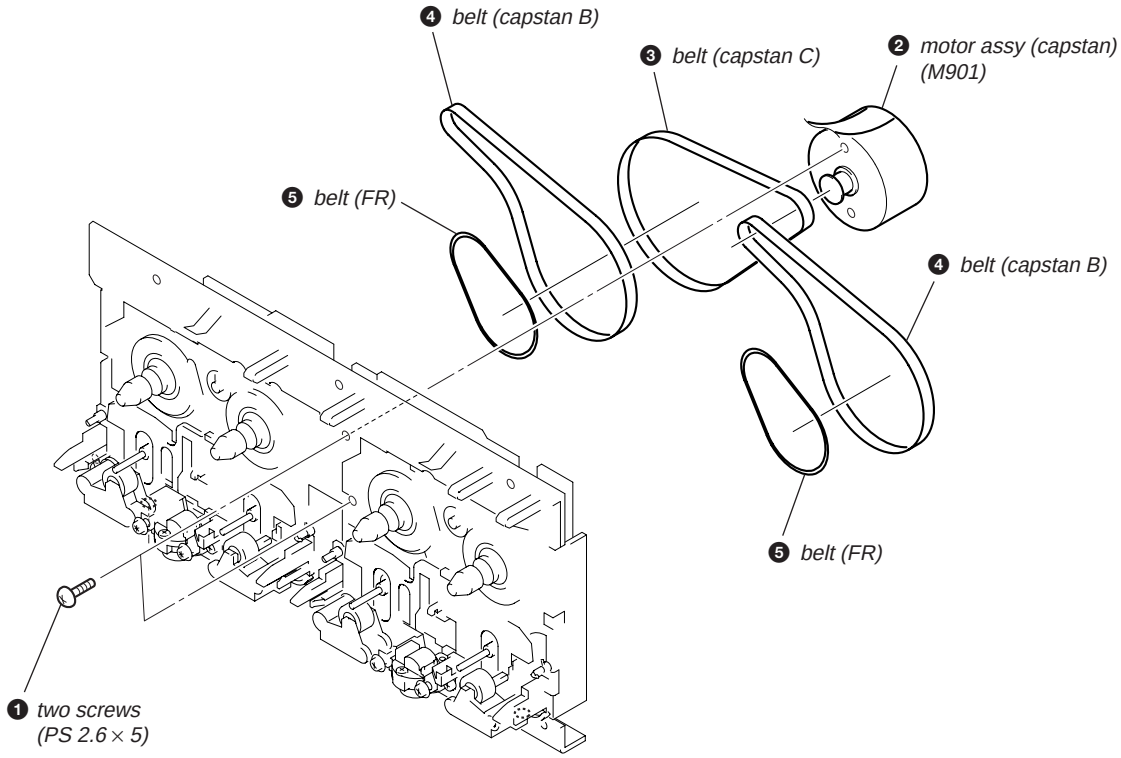
3-9. DRIVER BOARD, MOTOR BOARD AND SENSOR (CD) BOARD



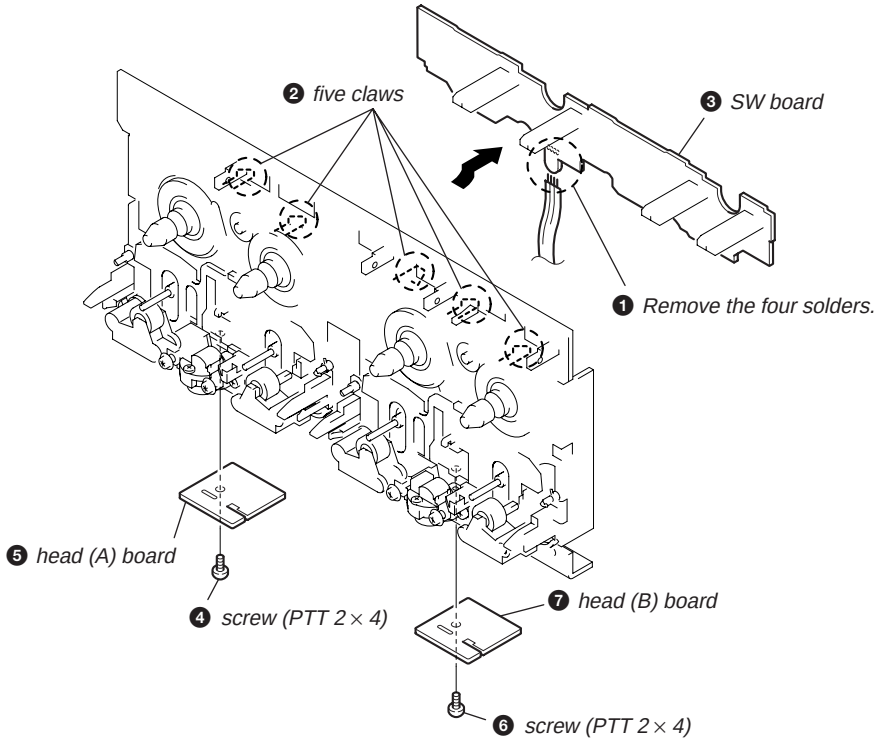
3-10. TAPE MECHANISM DECK (TCM-230AWR41CS)



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:

1. Press three buttons [■] , [ENTER], and [DISC 2] simultaneously.
2. LEDs and fluorescent indicator tube are all turned on.
3. When you want to enter the software version display mode, press [DISC 1]. The model and destination are displayed.
4. 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.
5. 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.
6. Press [DISC 2] button, and the key check mode is activated.
7. 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.
8. Also when [DISC 3] is pressed after lighting of all LEDs and fluorescent indicator tubes, value of VACS level appears.
9. 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

1. Press three buttons of [■] , [ENTER] and [DISC 3] simultaneously.
2. The messages MUSIC, MOVIE, GAME and P FILE flash on the fluorescent indicator tube.
   The input FUNCTION is changed to VIDEO.

* Check of Amplifier

1. When [▲] button is pressed, GEQ increases to its maximum and a message "GEQ MAX" appears.
2. When [▼] button is pressed, GEQ decreases to its minimum and a message "GEQ MIN" appears.
3. When [◄] or [►] button is pressed, GEQ is set to flat and a message "GEQ FLAT" appears.
4. 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.
5. 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

1. To check the frequency of clock used to run the time in the unit, the clock output is available at IC501 pin ㊴ (CLOCK-OUT) on the MAIN board only during MC test mode.
2. The frequency is 32.768 kHz or so.

* Tape function

1. 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.
2. 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.
3. 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

1. Select the function "TAPE A" or "TAPE B".
2. Select the loop and relay by pressing the [DIRECTION] button. Insert a test tape AMS-110A or AMS-120 to selected tape deck.
3. Press the [SPECTRUM] button to enter the AMS test mode.
4. After a tape is rewound first, the FF AMS is checked, and the mechanism is shut off after detecting the AMS signal twice.
5. Then the REW AMS is checked and the mechanism is shut off after detecting the AMS signal twice.
6. When the check is complete, a message of either OK or NG appears.

* To release MC Test mode.

1. To release this mode, press the [I/⏻] button.
2. 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:

1. Press three buttons [■] , [ENTER], and [I/⏻] simultaneously.
2. 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:

1. Press [I/⏻] button to turn the set ON.
2. 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:

1. Press [I/⏻] button to turn the set ON.
2. Select the function "TUNER", and press [TUNER/BAND] button to select the BAND "AM".
3. Press [I/⏻] button to turn the set OFF.
4. Press [ENTER] and [I/⏻] 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:

1. Press [I/⏻] button to turn the set ON.
2. Select the function "CD".
3. Press three buttons [■] , [ENTER] , and [OPEN/CLOSE] simultaneously.
4. The CD service mode is selected.
5. With the CD in stop status, press [►► +] button to move the optical pick-up to outside track, or press [– ◄◄] button to inside track.
6. To release this mode, press the [I/⏻] 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:

1. Press the [I/⏻] button to turn the power ON, and press the [CD] button to select the function "CD".
2. Set discs on all trays, and set tapes into the decks A and B respectively.
3. Press the [PLAY MODE] button to set the "ALL DISCS" mode, and press the [REPEAT] button to "REPEAT" off.
4. Press three buttons of [■] , [ENTER], and [EX-CHANGE/DISC SKIP] simultaneously.
5. Aging operations of CD and tape are started at the same time.
6. To release this mode, press the [I/⏻] 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.

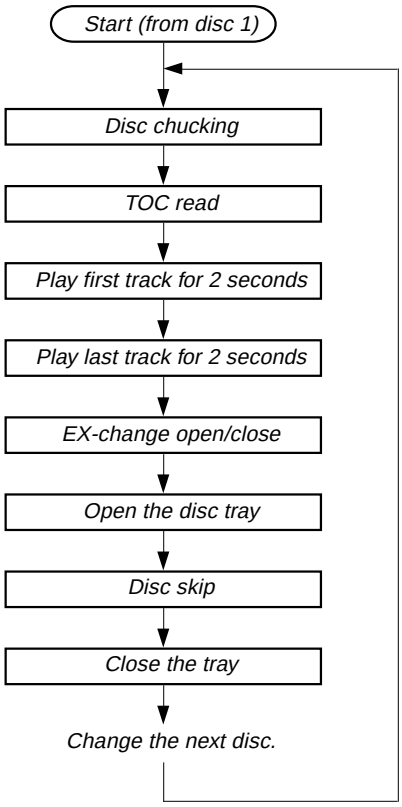
If an error occurred, stop display which that section.

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.

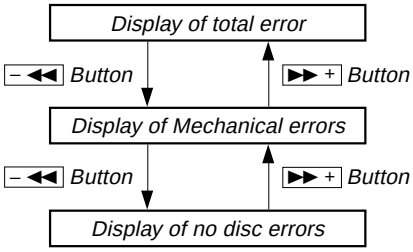
Aging mode sequence (CD section) :



- **Display at an error occurred (Error display mode)**

Procedure:

1. Press three buttons of [■] , [ENTER], and [DISC 1] simultaneously to enter the error display mode.
2. It displays of total error.
3. Each time the [– ◄◄] or [►► +] button is pressed, display change as below.
4. To clear the error record, operate the cold reset. (Refer to the "MC COLD RESET")
5. To release this mode, press the [I/⏻] 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

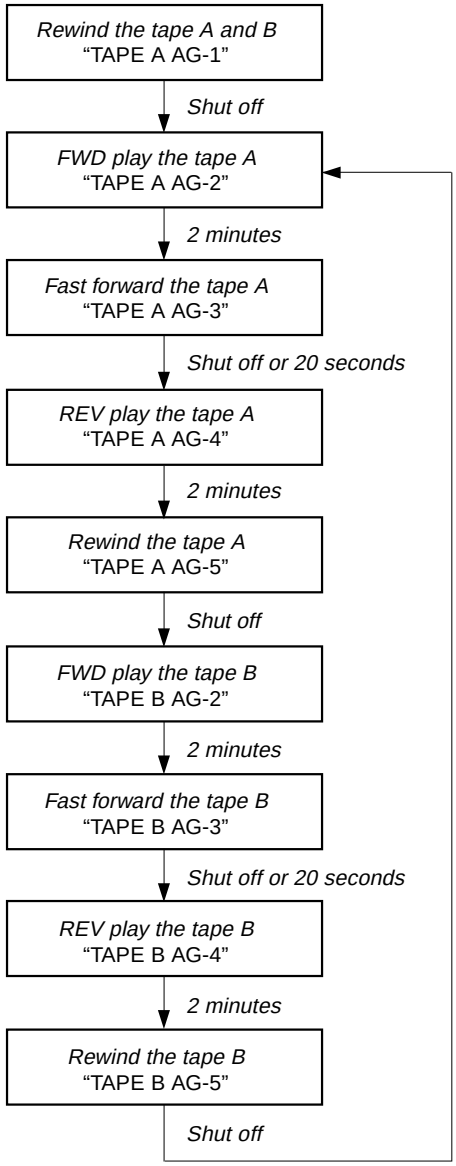
D*$$:&&##00

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/⏻ 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 [I/⏻] 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.

SECTION 5
MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:
   - record/playback heads
   - erase head
   - capstan
   - pinch rollers
   - rubber belts
   - idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. 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

1. Demagnetize the record/playback head with a head demagnetizer.
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjust.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. 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.)
6. The adjustments should be performed for both L-CH and R-CH.
7. 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

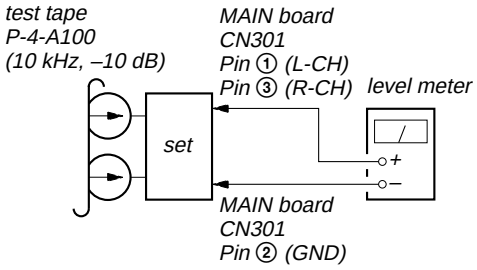
RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

DECK A **DECK B**

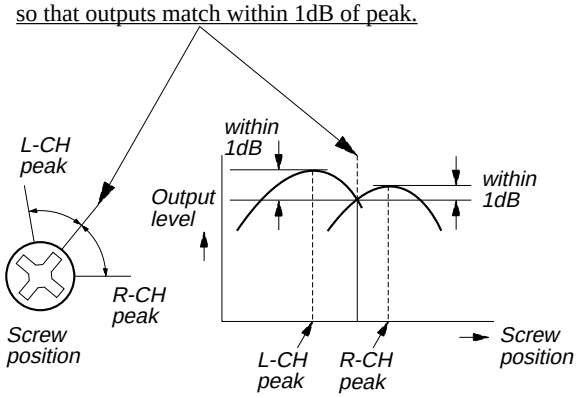
Note: Perform this adjustments for both decks

Procedure:

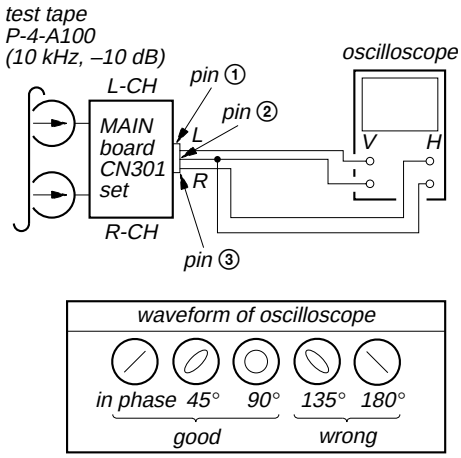
1. Mode: Playback



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.

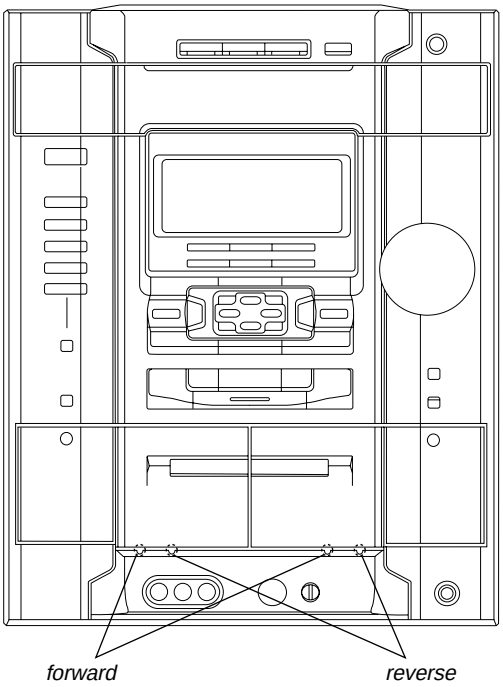


3. Mode: Playback



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

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



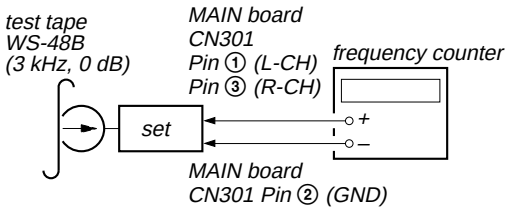
TAPE SPEED ADJUSTMENT DECK B

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:

1. Press I/⏻ button to turn the set ON.
2. Press three buttons ■, ENTER and DISC 3 simultaneously.
   To release from the test mode, press the I/⏻ button.

Mode: Playback



1. Insert the WS-48B into the deck B.
2. Press the ◁▷ button on the deck B.
3. Press the CD SYNC HI-DUB button in playback mode.
   Then at HIGH speed mode.
4. Adjust RV1001 on the SW board so that frequency counter reads 6,000 ± 180 Hz.
5. Press the CD SYNC HI-DUB button.
   Then back to NORMAL speed mode.
6. Adjust RV1002 on the SW board so that frequency counter reads 3,000 ± 90 Hz.

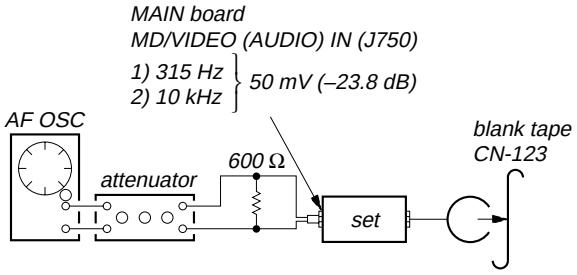
Adjustment Location: SW board

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

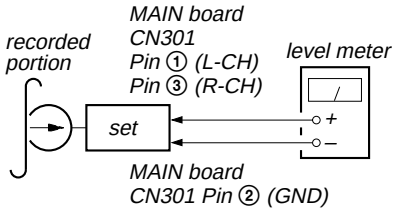
REC BIAS ADJUSTMENT DECK B

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



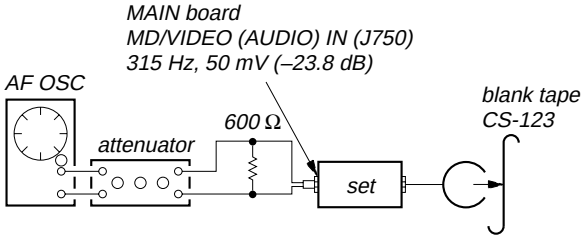
6. Confirm the playback signal recorded in step 3 becomes adjustable level as follows.
   If these levels are not adjustable level, adjust the RV304 (L-CH) and RV354 (R-CH) on the MAIN board to repeat steps 4 and 5.

Adjustable level: Playback output of 315 Hz to playback output of 10 kHz: ±1.0 dB
Adjustment Location: MAIN board

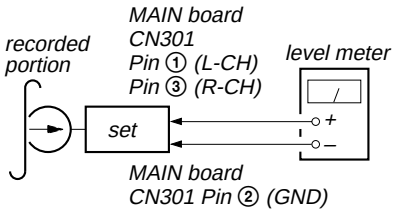
REC LEVEL ADJUSTMENT DECK B

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



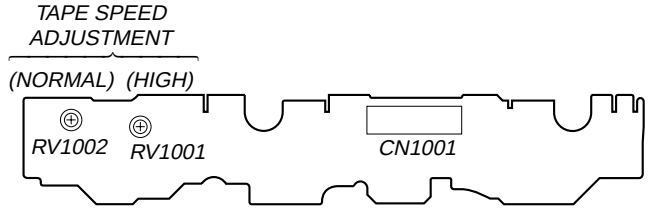
5. Mode: Playback



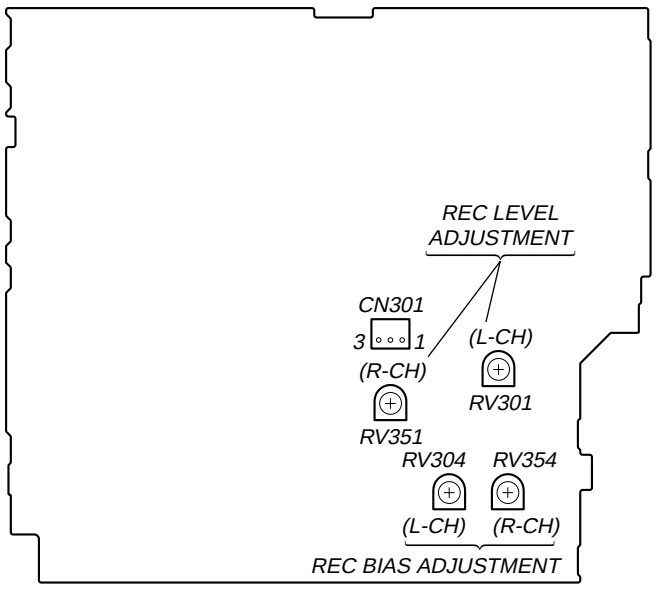
6. Confirm the play back signal recorded in step 3 becomes adjustable level as follows.
   If these levels are not adjustable level, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 4 and 5.

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) **–**



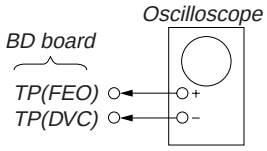
– MAIN BOARD (Component Side) **–**



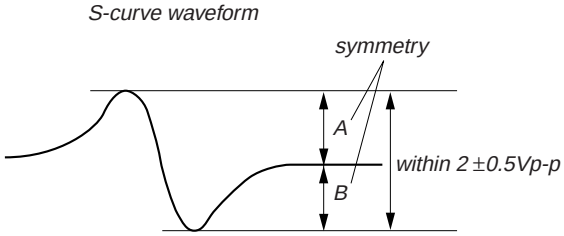
CD SECTION

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 10MΩ 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



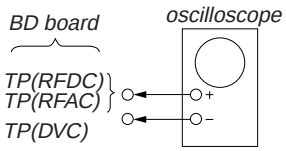
Procedure :
1. Connect an oscilloscope to TP (FEO).
2. Connect between TP (FEI) and TP (DVC) (≒1.65 V) by lead wire.
3. Turn the power ON.
4. Load a disc (LUV-P01) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search)
5. Confirm that the oscilloscope 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.

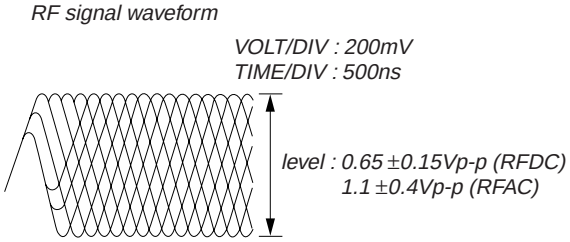
Note:
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF LEVEL CHECK

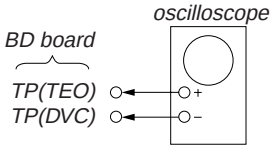


Procedure :
1. Connect an oscilloscope CH1 to TP (RFDC) and CH2 to TP (RFAC).
2. Turn the power ON.
3. Load a disc (LUV-P01) and playback.
4. Confirm that oscilloscope waveform is clear and check if RF signal level is correct or not.

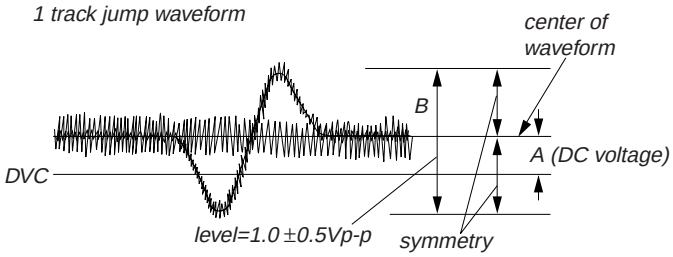
Note: Clear RF signal waveform means that the shape " ◊ " can be clearly distinguished at the center of the waveform.



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 ◁▷ button. (Becomes the 1 track jump mode.)
5. Confirm that the level B and A (DC voltage) on the oscilloscope waveform.

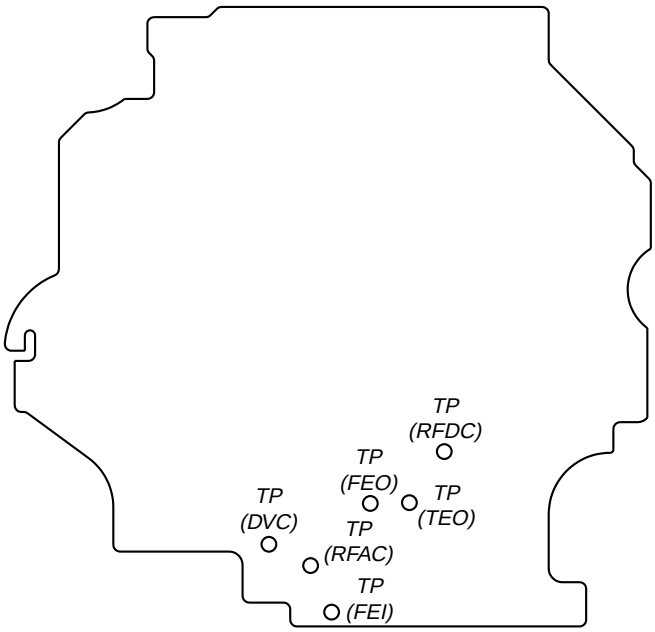


6. Adjust RV101 on the BD board so that the center of waveform becomes the same voltage of DVC. (i.e. A=0V)

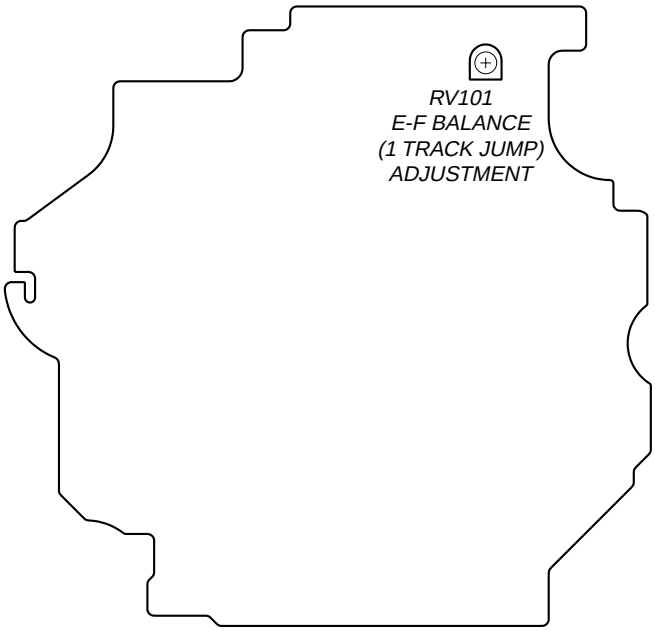
Connecting and Adjustment Location: BD board

Connecting and Adjustment Location:

– BD BOARD (Component Side) **–**

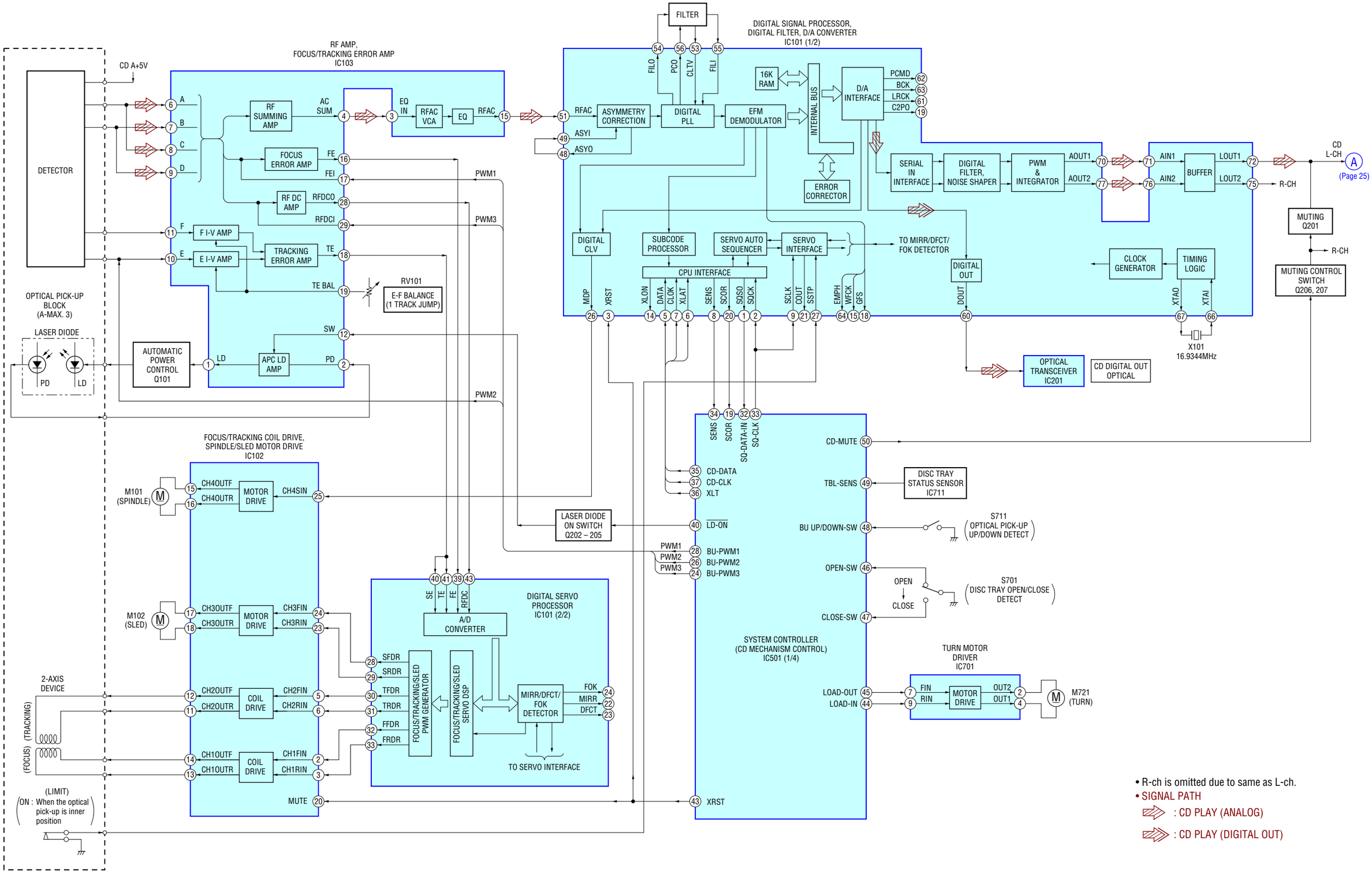


– BD BOARD (Conductor Side) **–**



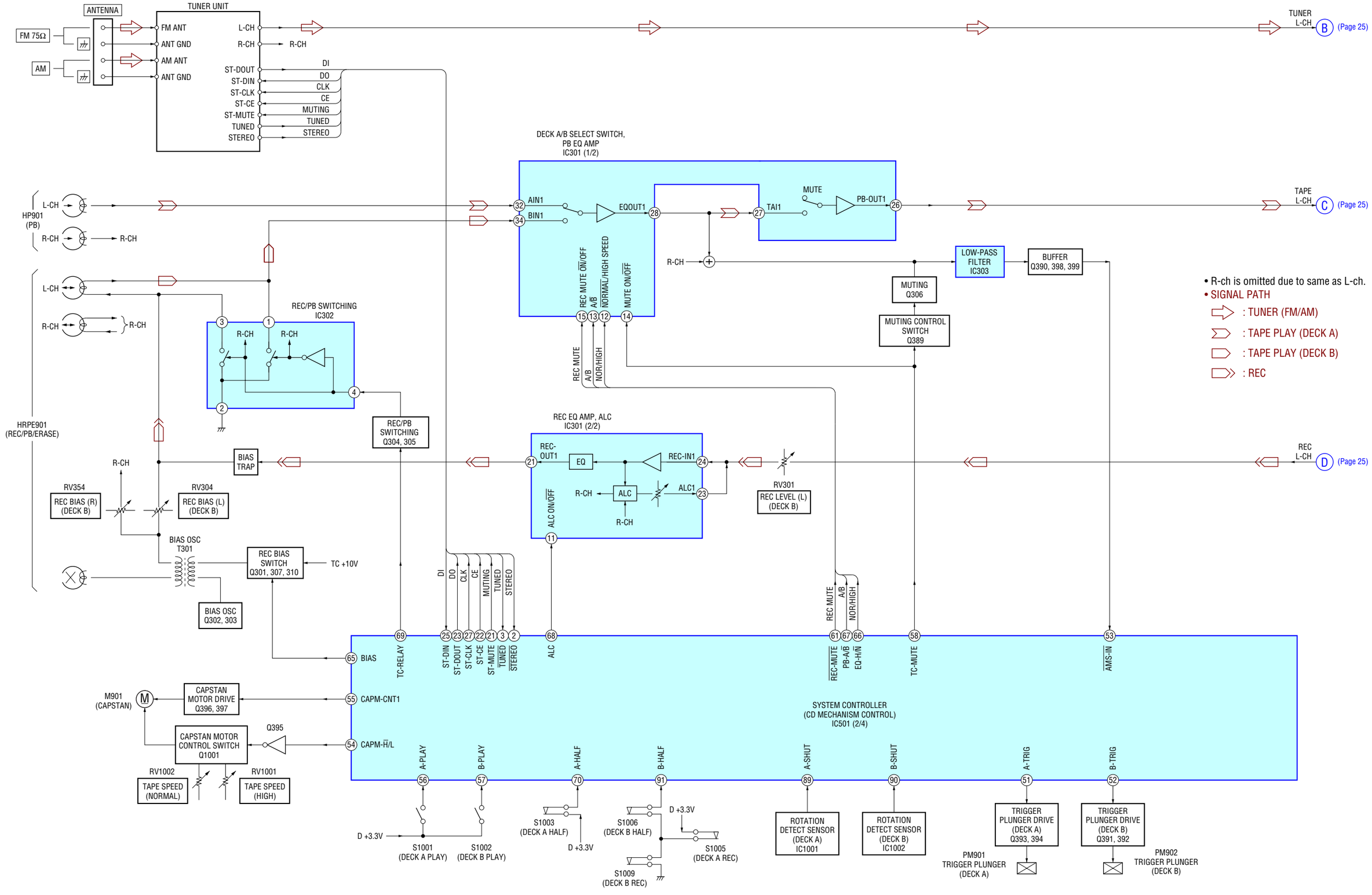
SECTION 7
DIAGRAMS

7-1. BLOCK DIAGRAM – CD SERVO Section –

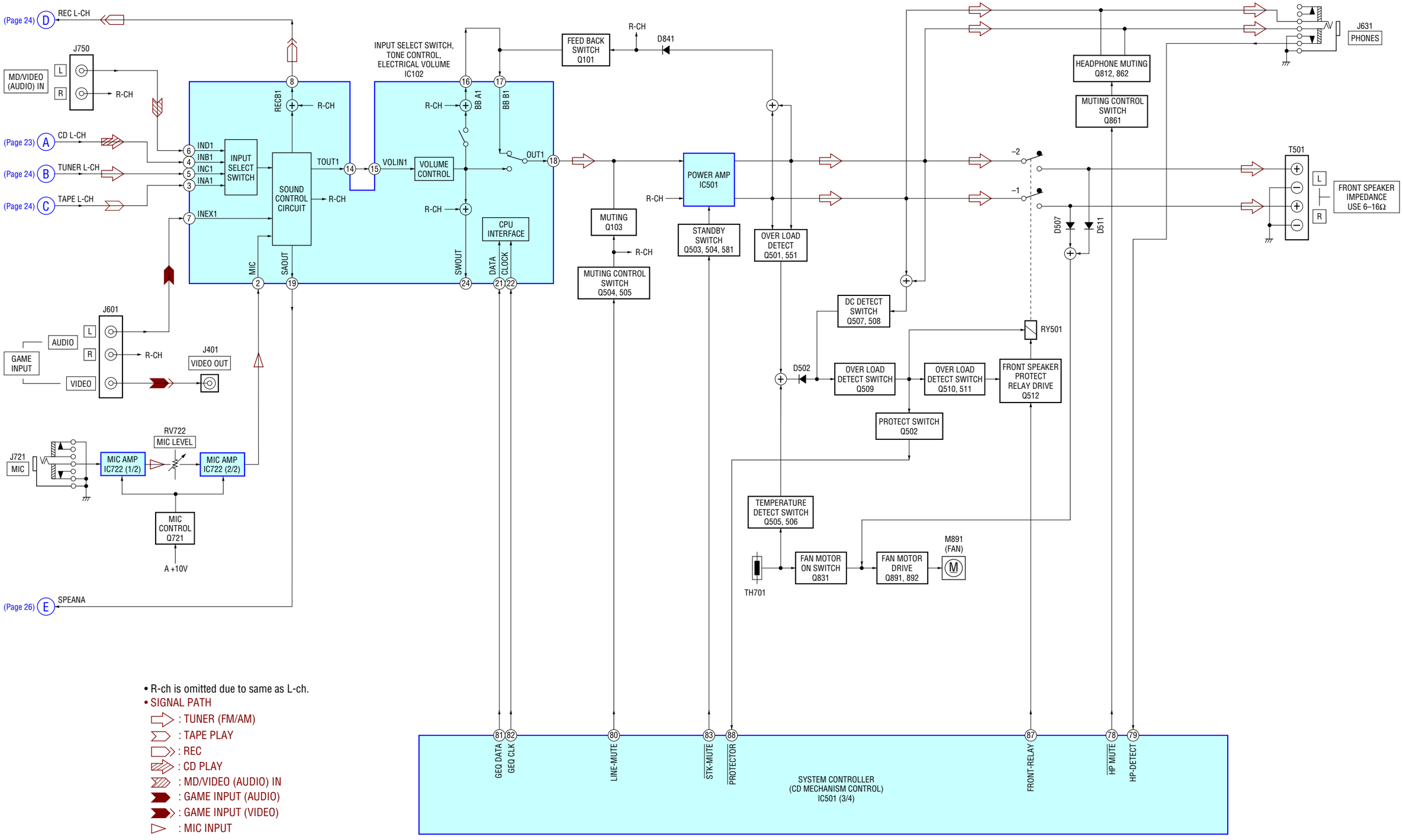


• R-ch is omitted due to same as L-ch.
• SIGNAL PATH
: CD PLAY (ANALOG)
: CD PLAY (DIGITAL OUT)

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

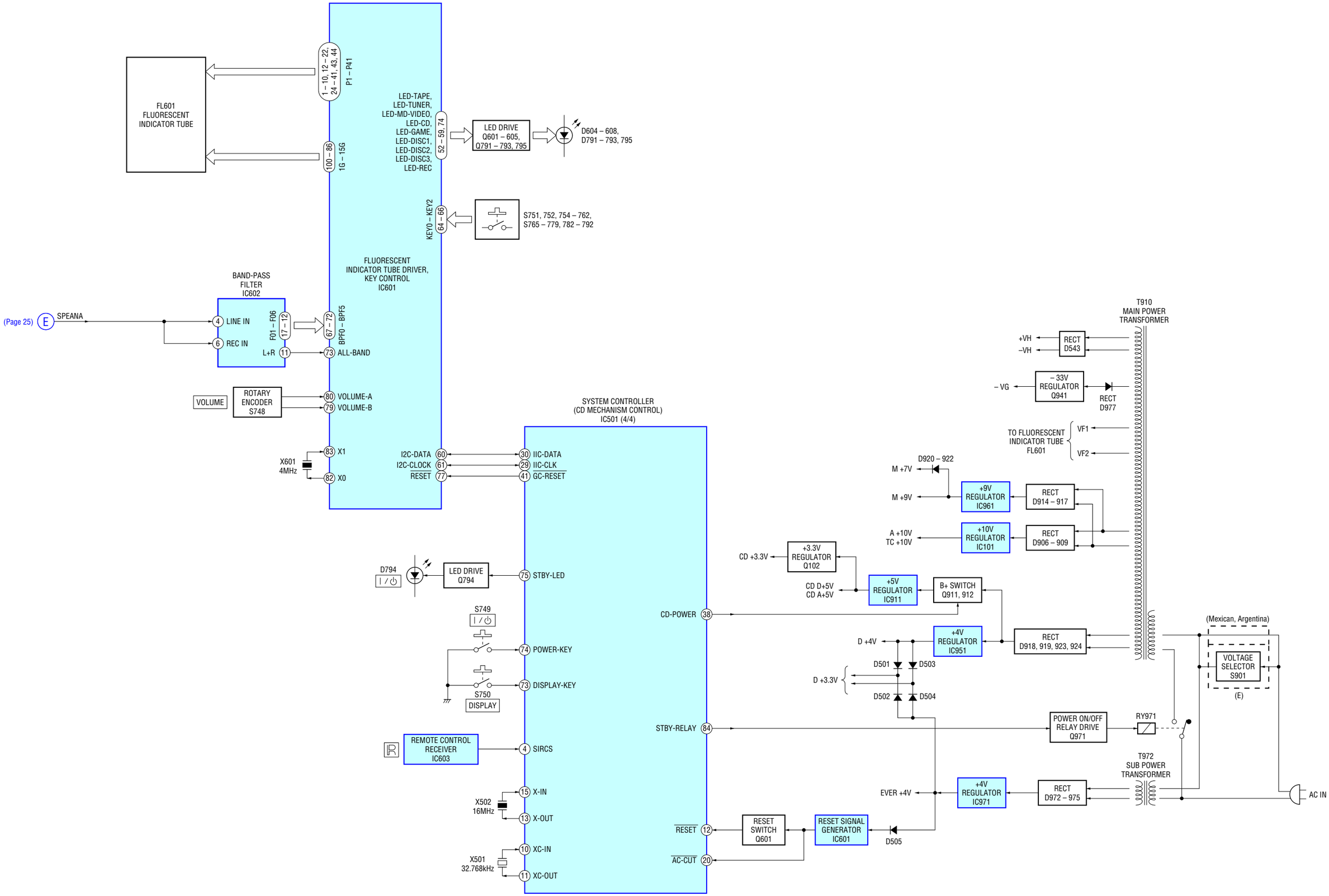


7-3. BLOCK DIAGRAM – MAIN Section –



- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  - : TUNER (FM/AM)
  - : TAPE PLAY
  - : REC
  - : CD PLAY
  - : MD/VIDEO (AUDIO) IN
  - : GAME INPUT (AUDIO)
  - : GAME INPUT (VIDEO)
  - : MIC INPUT

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



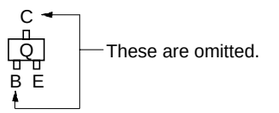
7-5. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

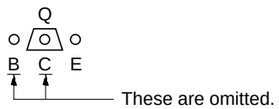
Note on Printed Wiring Board:

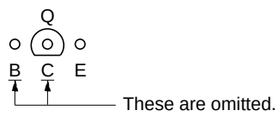
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

- Indication of transistor.







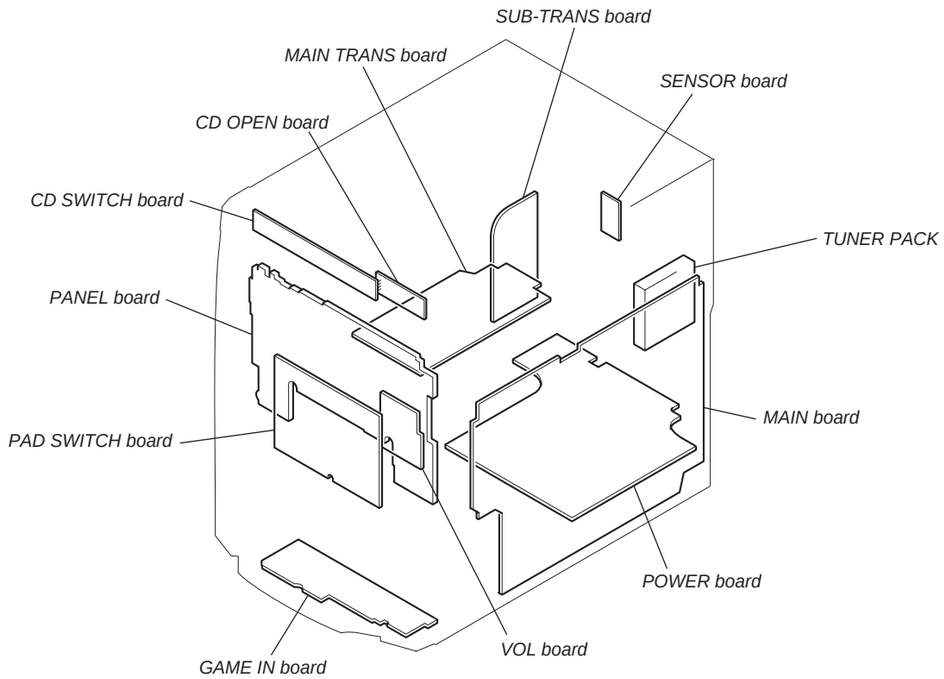
Note on Schematic Diagram:

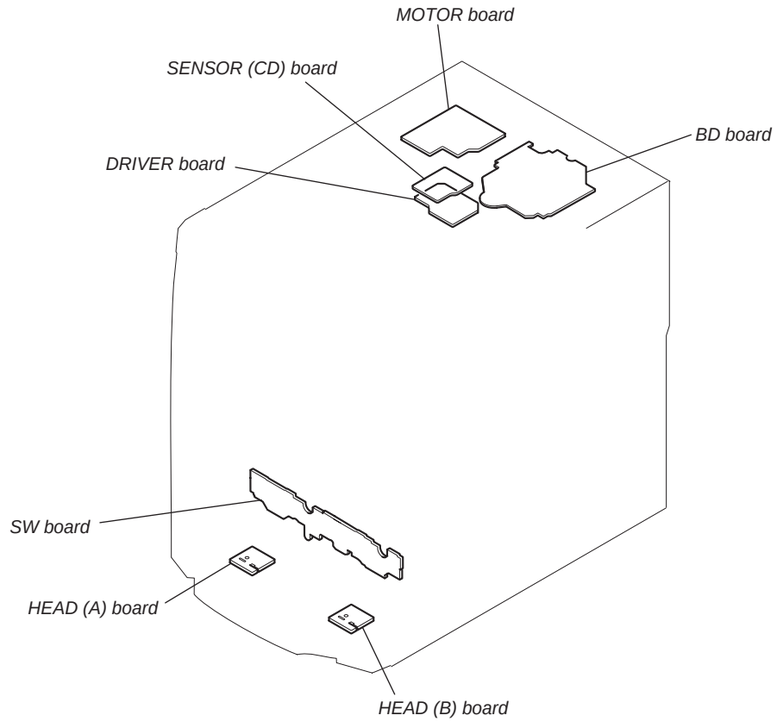
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : panel designation.

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.
- Voltages are taken with a VOM (Input impedance 10 MΩ). 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

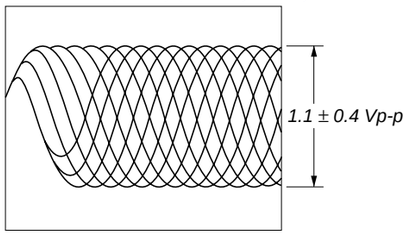
- **Circuit Boards Location**



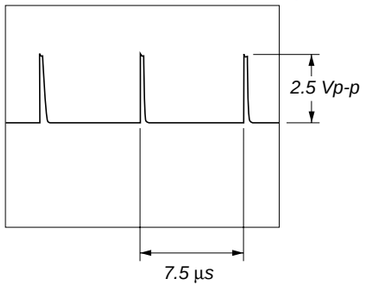


• **Waveforms**
– BD Board –

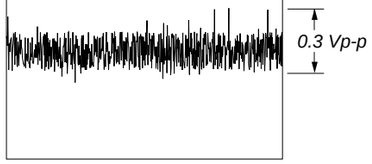
❶ IC103 ⑮ (RFAC) (CD Play Mode)



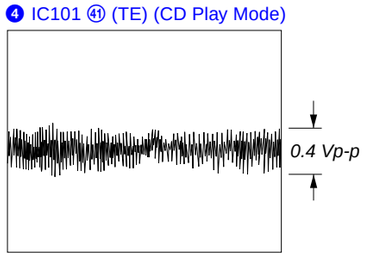
❷ IC101 ㉖ (MDP) (CD Play Mode)



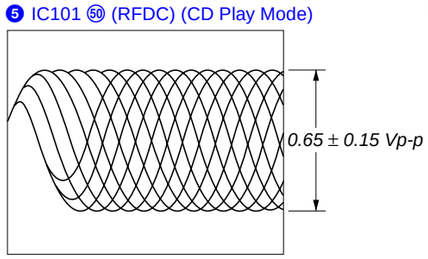
❸ IC101 ㊴ (TE) (CD Play Mode)



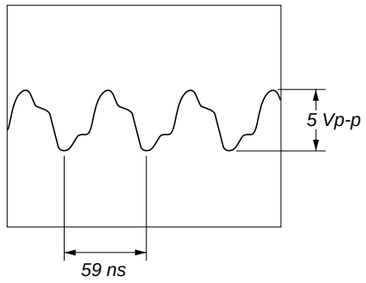
❹ IC101 ㊶ (TE) (CD Play Mode)



❺ IC101 ㊿ (RFDC) (CD Play Mode)

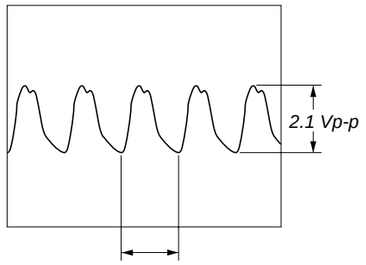


❻ IC101 ㊼ (XTAO)

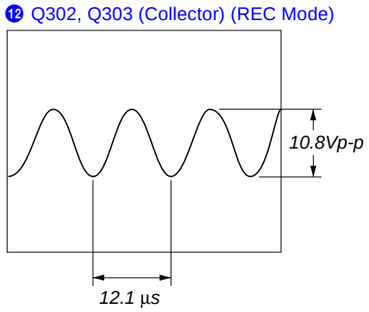


– MAIN Board –

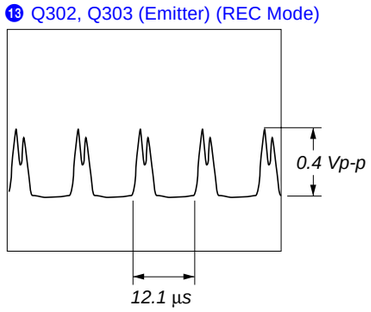
⓫ Q302, Q303 (Base) (REC Mode)



⓬ Q302, Q303 (Collector) (REC Mode)

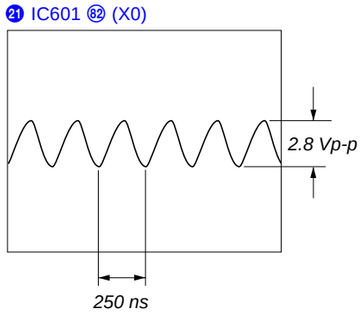


⓭ Q302, Q303 (Emitter) (REC Mode)

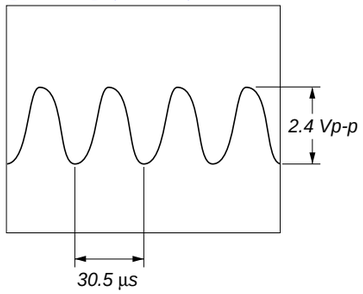


– PANEL Board –

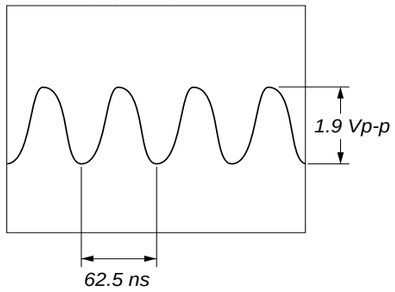
㉑ IC601 ㉜ (X0)



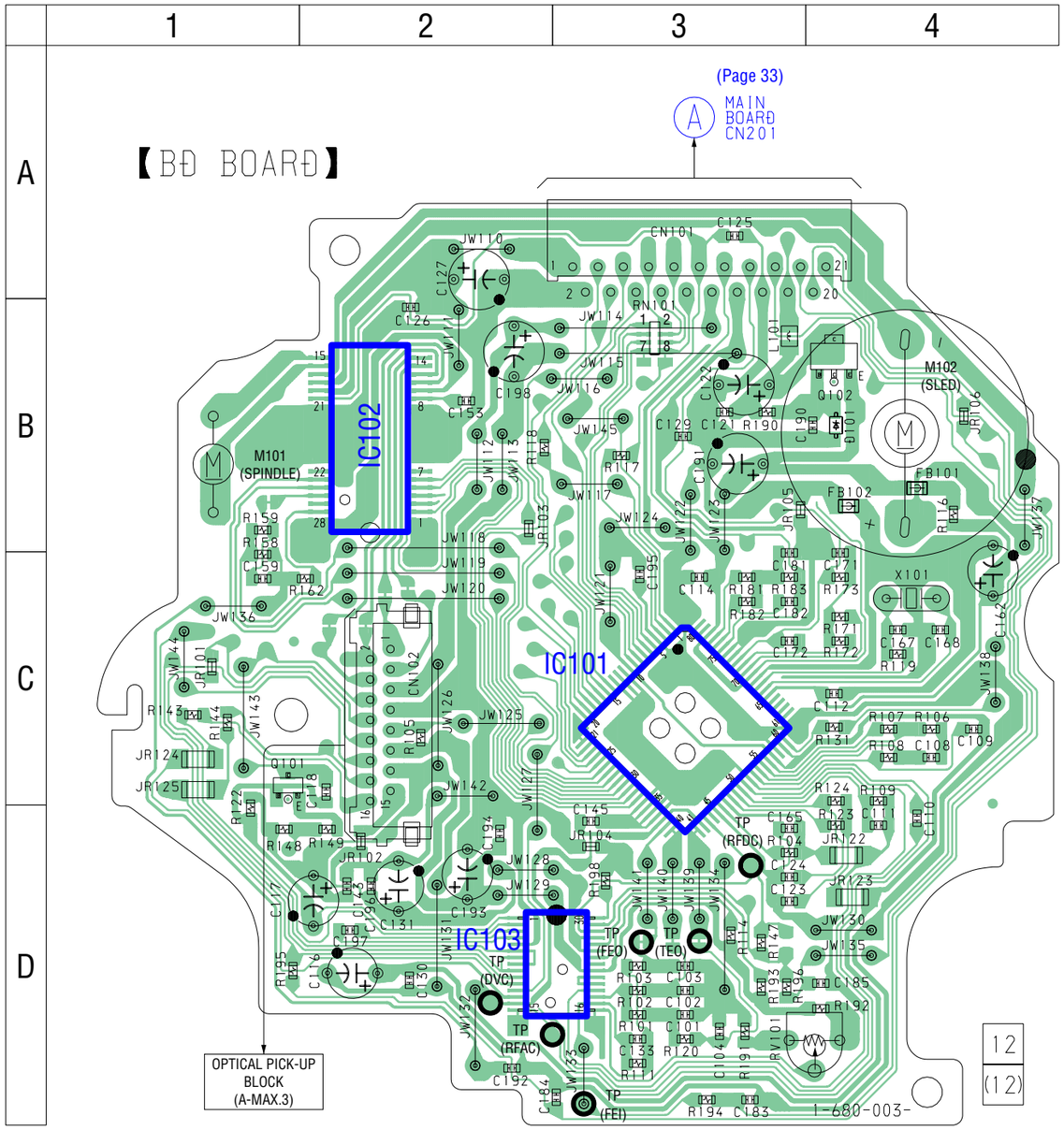
❽ IC501 ⑪ (XC-OUT)



❿ IC501 ⑬ (X-OUT)



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

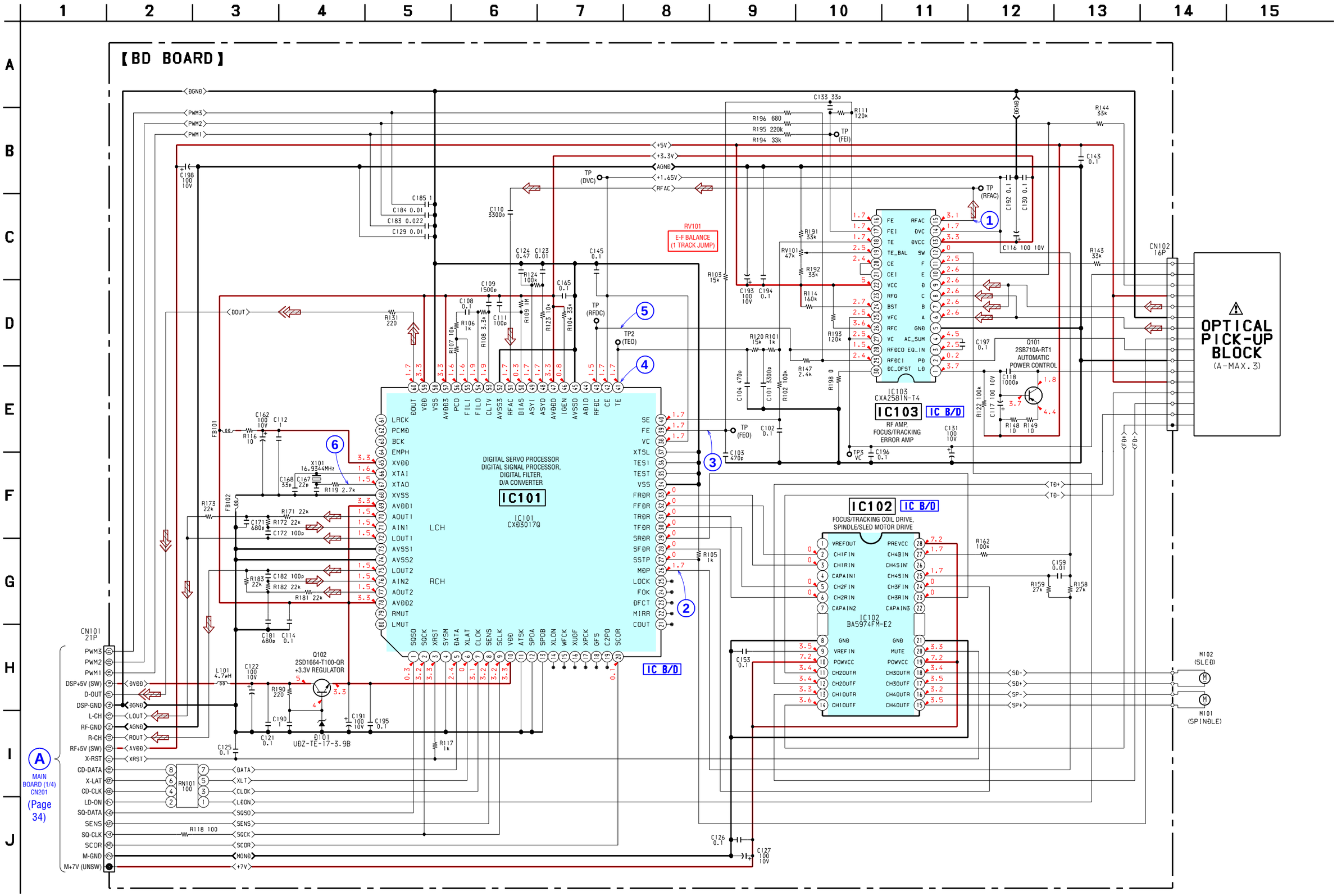


• **Semiconductor Location**

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 –

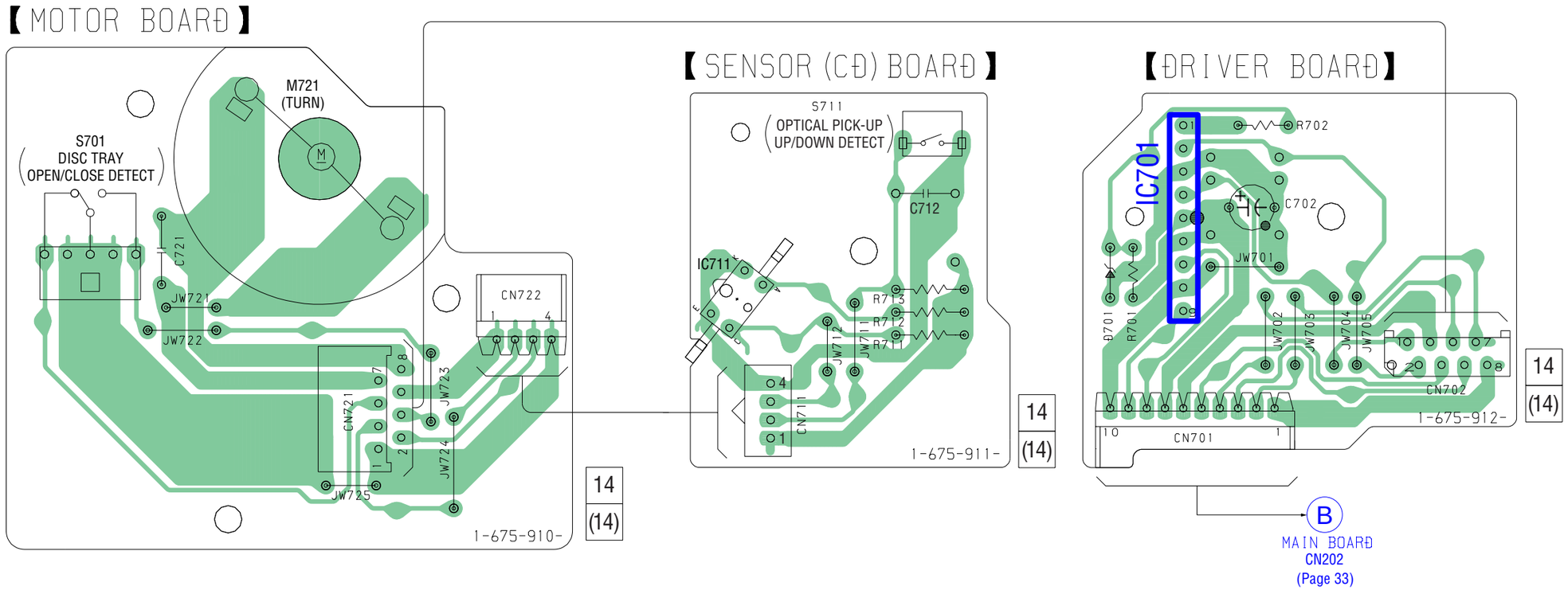
• See page 28 for Waveforms. • See page 48 for IC Block Diagrams.



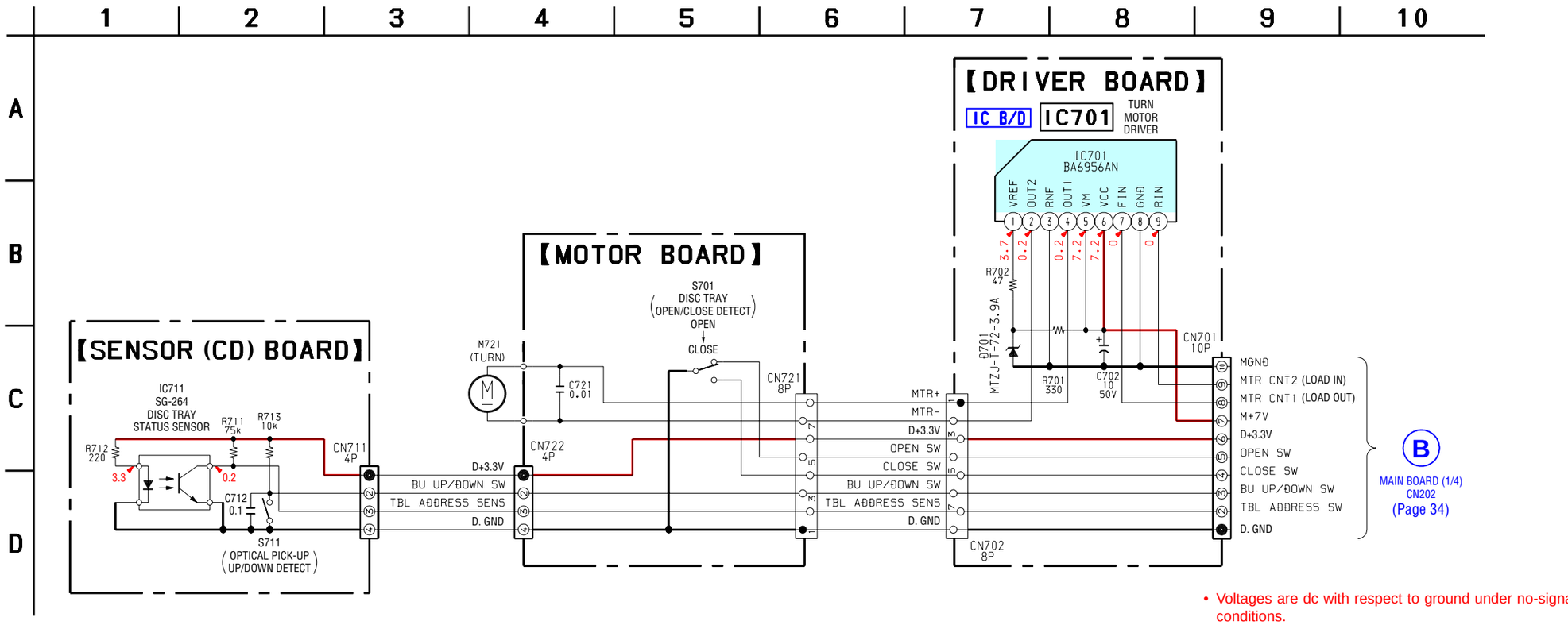
• Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark : CD PLAY

The components identified by mark ⚠ or dotted line with mark ⚠ 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.

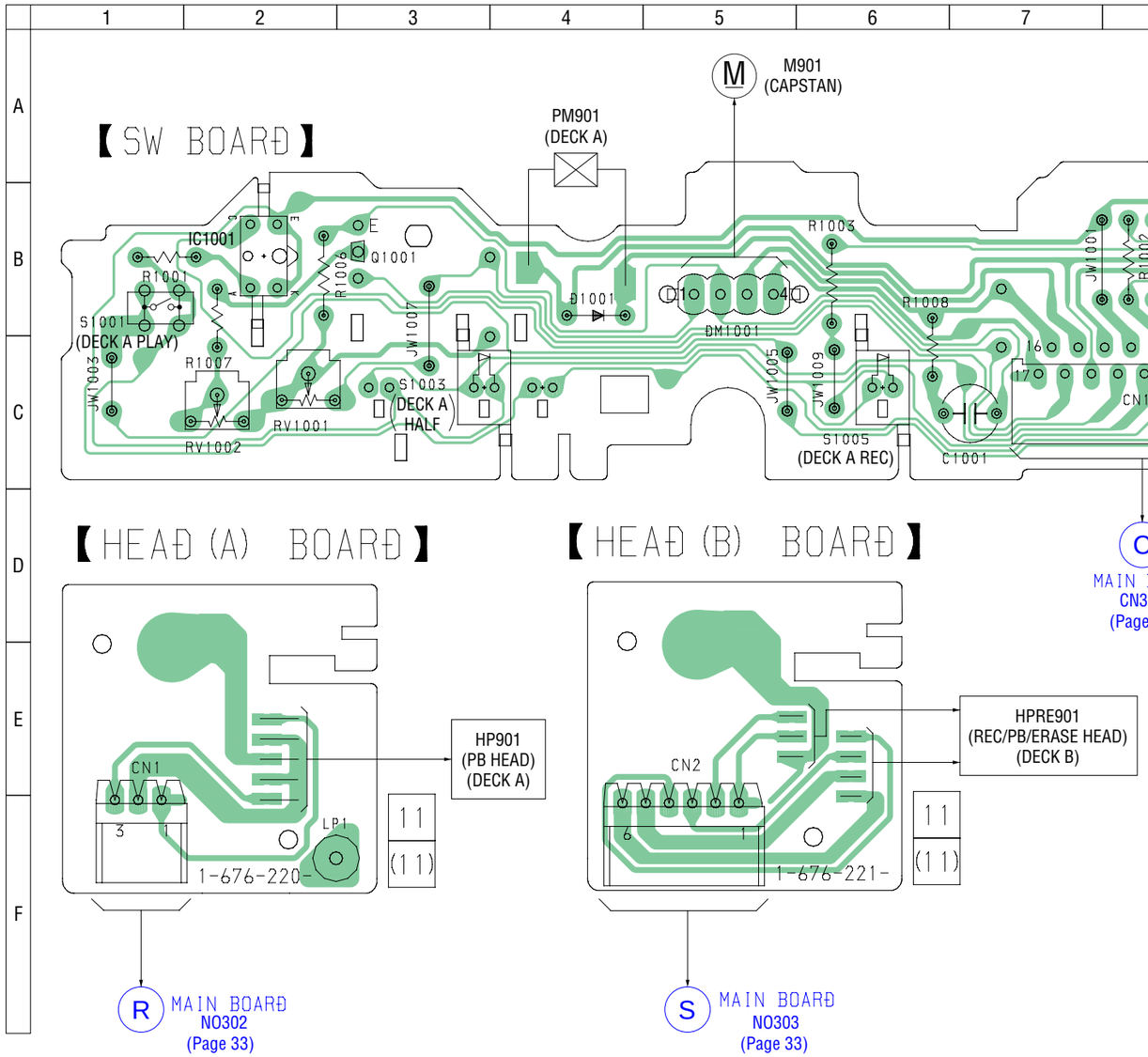


7-9. SCHEMATIC DIAGRAM – DRIVER/MOTOR/SENSOR (CD) Boards – • See page 48 for IC Block Diagram.



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

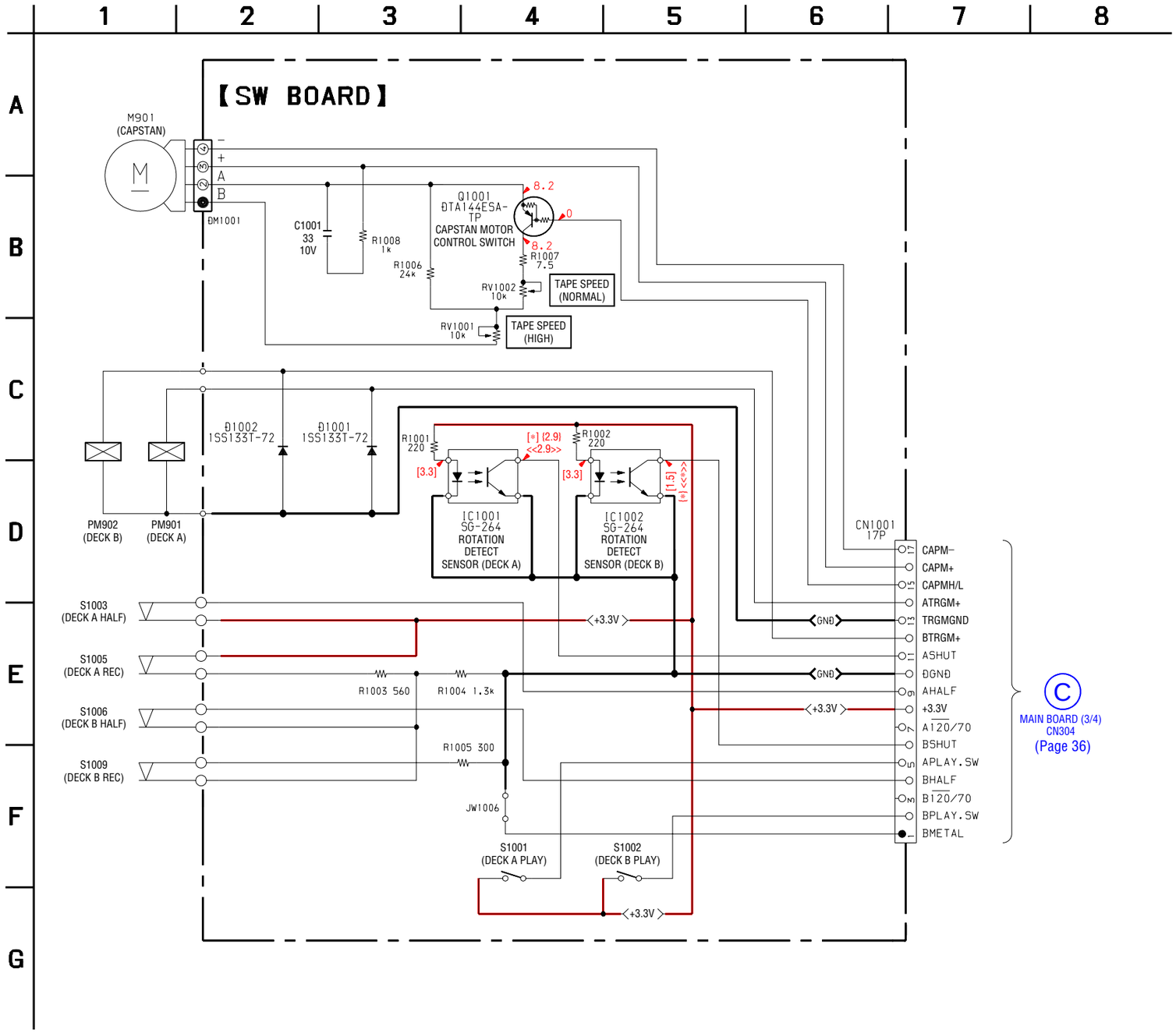
7-10. PRINTED WIRING BOARDS – SW/HEAD (A)/HEAD (B) Boards – • See page 27 for Circuit Boards Location.



- **Semiconductor Location**

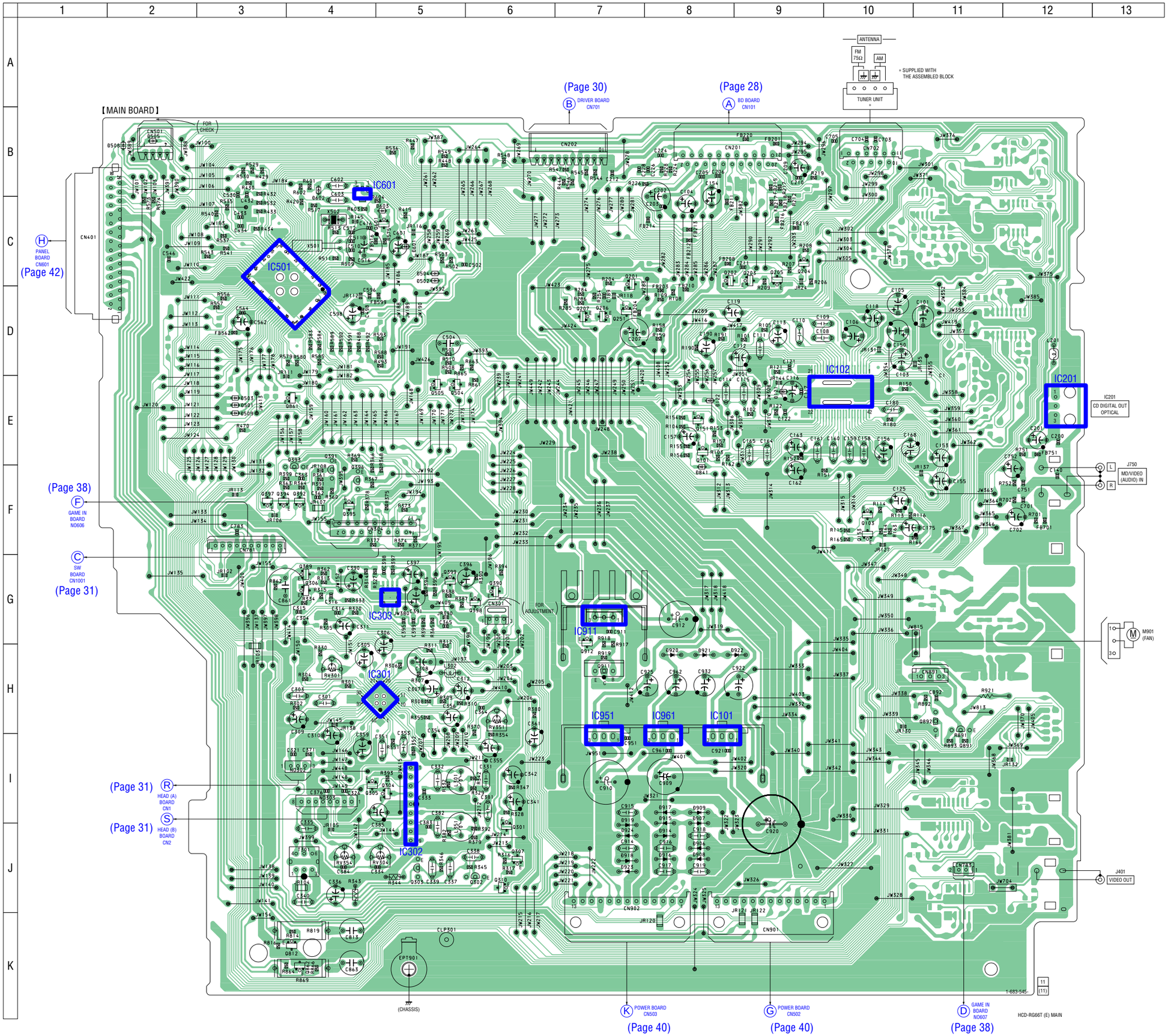
Ref. No.	Location
D1001	B-4
D1002	B-10
IC1001	B-2
IC1002	B-10
Q1001	B-3

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

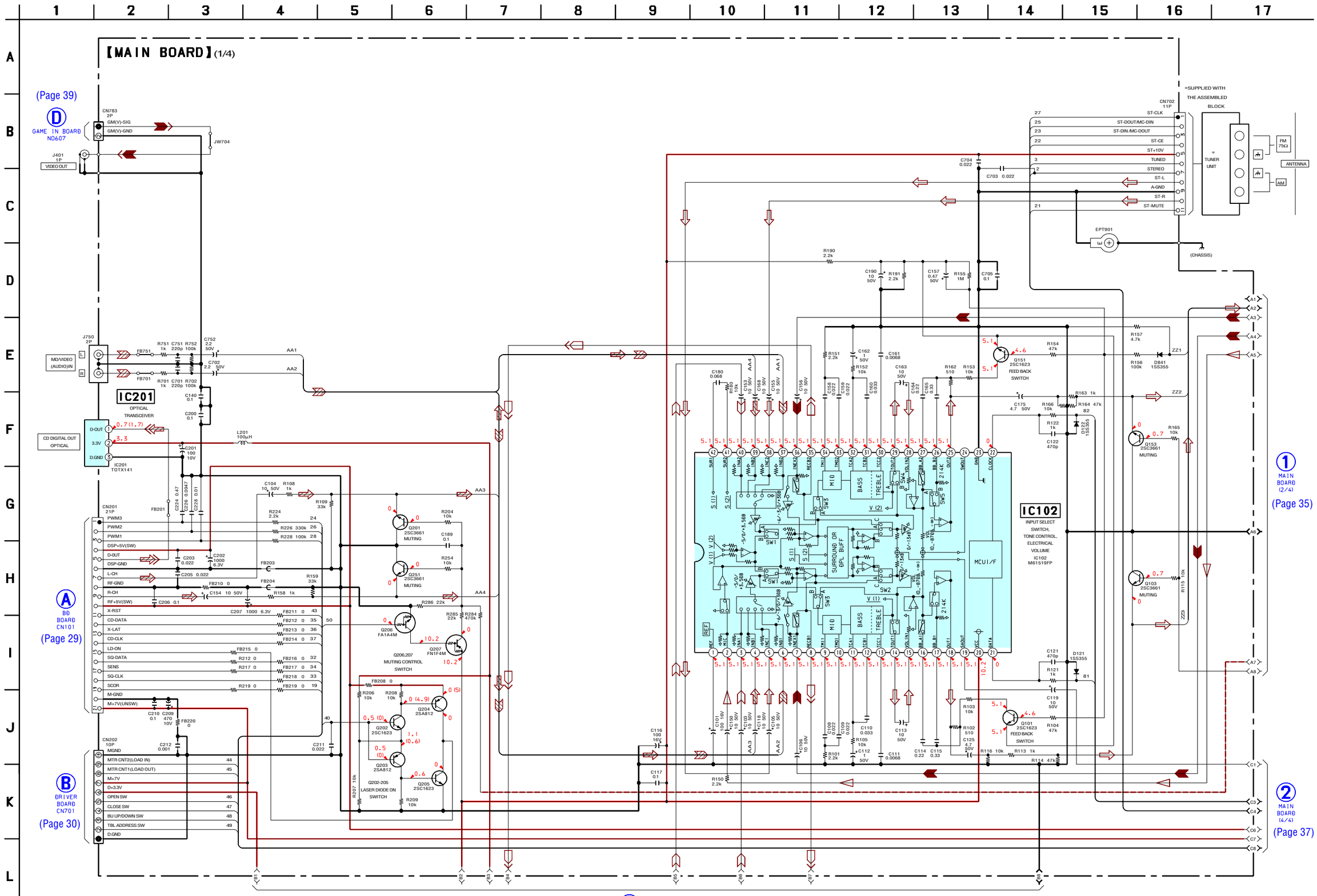
7-12. PRINTED WIRING BOARD – MAIN Board – • See page 27 for Circuit Boards Location.



- **Semiconductor Location**

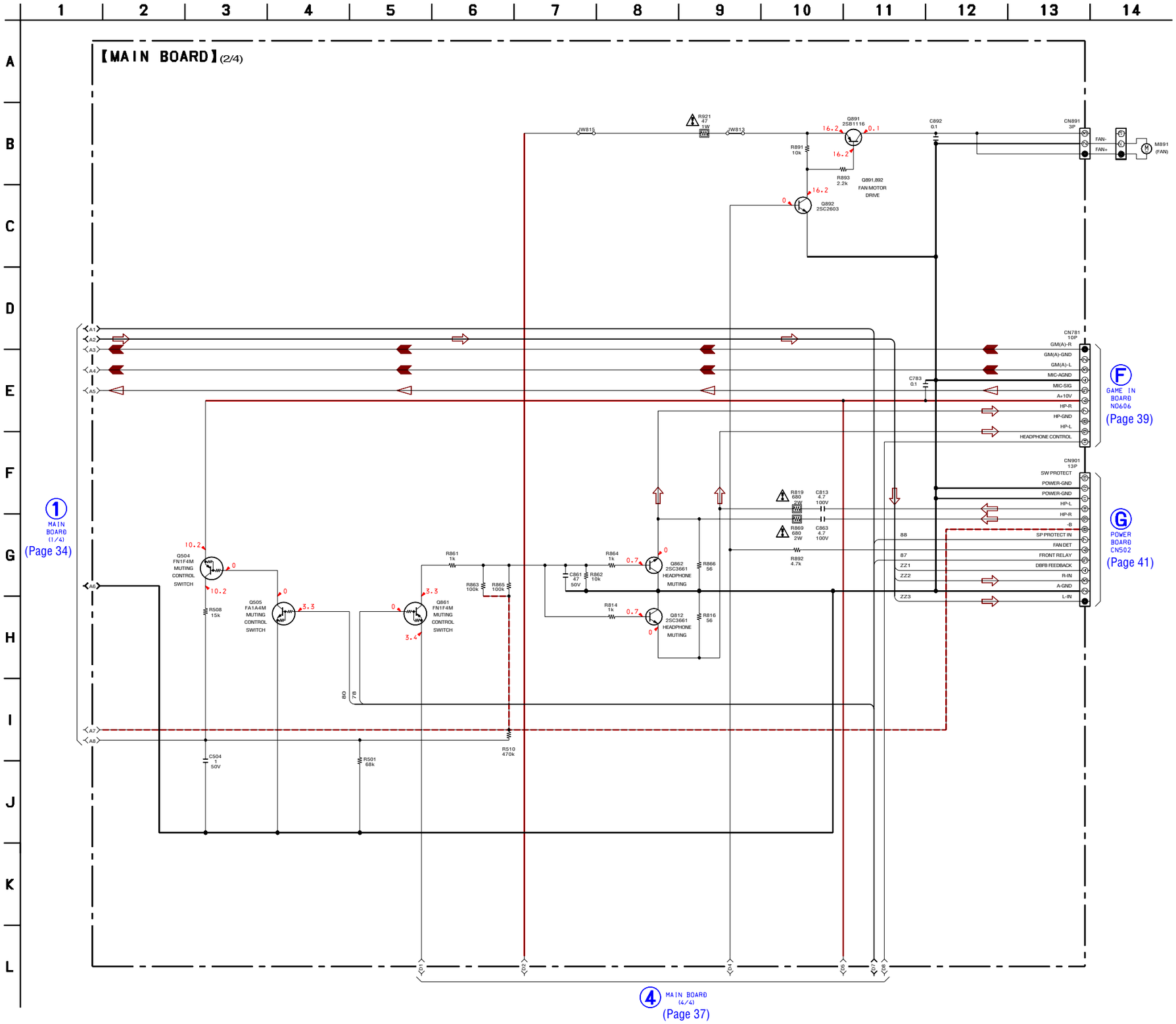
Ref. No.	Location	Ref. No.	Location
D121	E-9	Q101	E-8
D122	E-8	Q103	F-10
D501	E-3	Q151	E-8
D502	C-5	Q153	F-10
D503	E-3	Q201	C-7
D504	C-5	Q202	C-8
D505	B-2	Q203	C-9
D508	B-2	Q204	C-9
D509	E-3	Q205	C-9
D601	C-5	Q206	D-7
D602	B-4	Q207	D-7
D603	C-5	Q251	D-7
D841	F-8	Q301	J-6
D906	J-8	Q302	J-6
D907	J-8	Q303	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

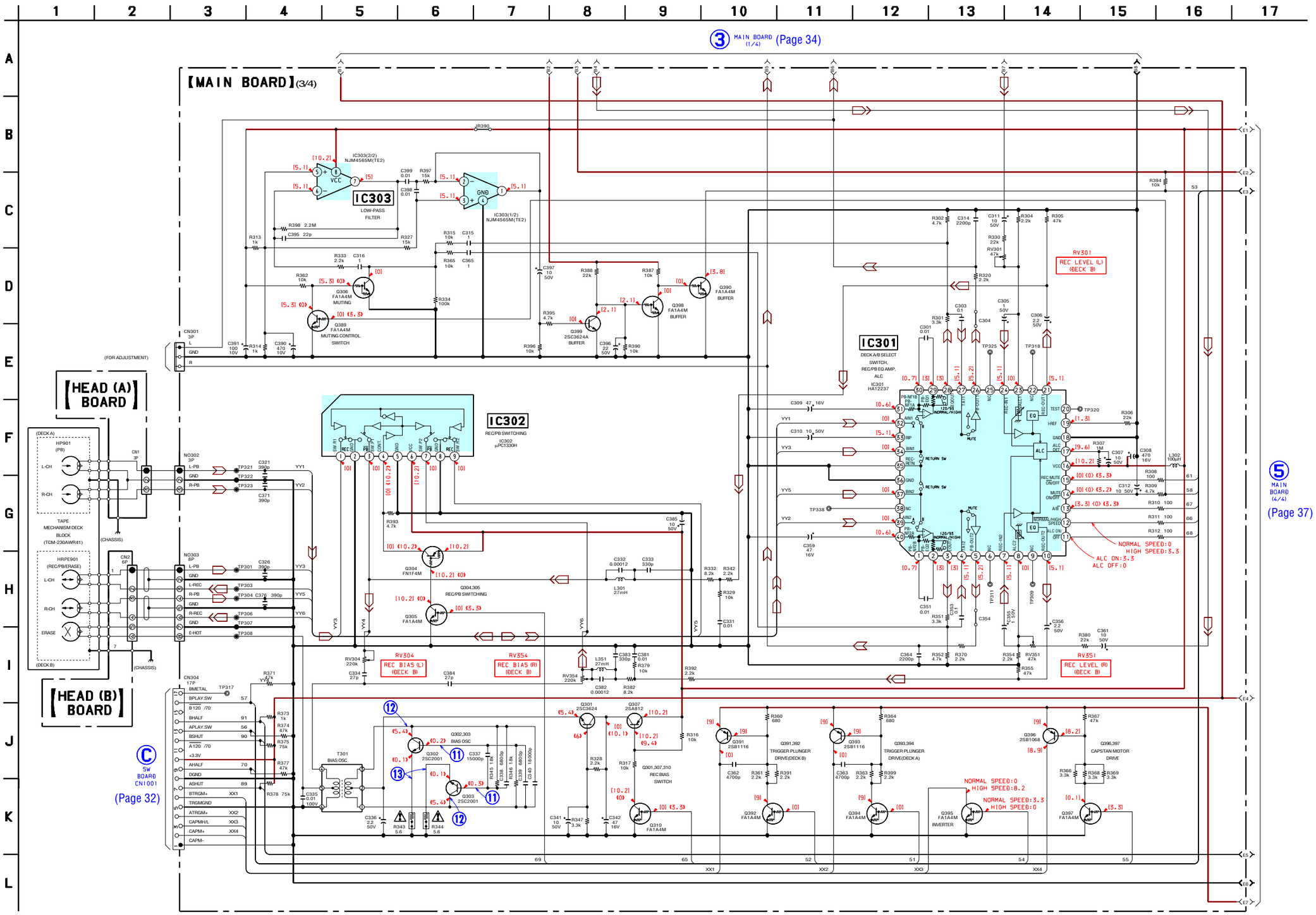
7-14. SCHEMATIC DIAGRAM – MAIN Board (2/4) –



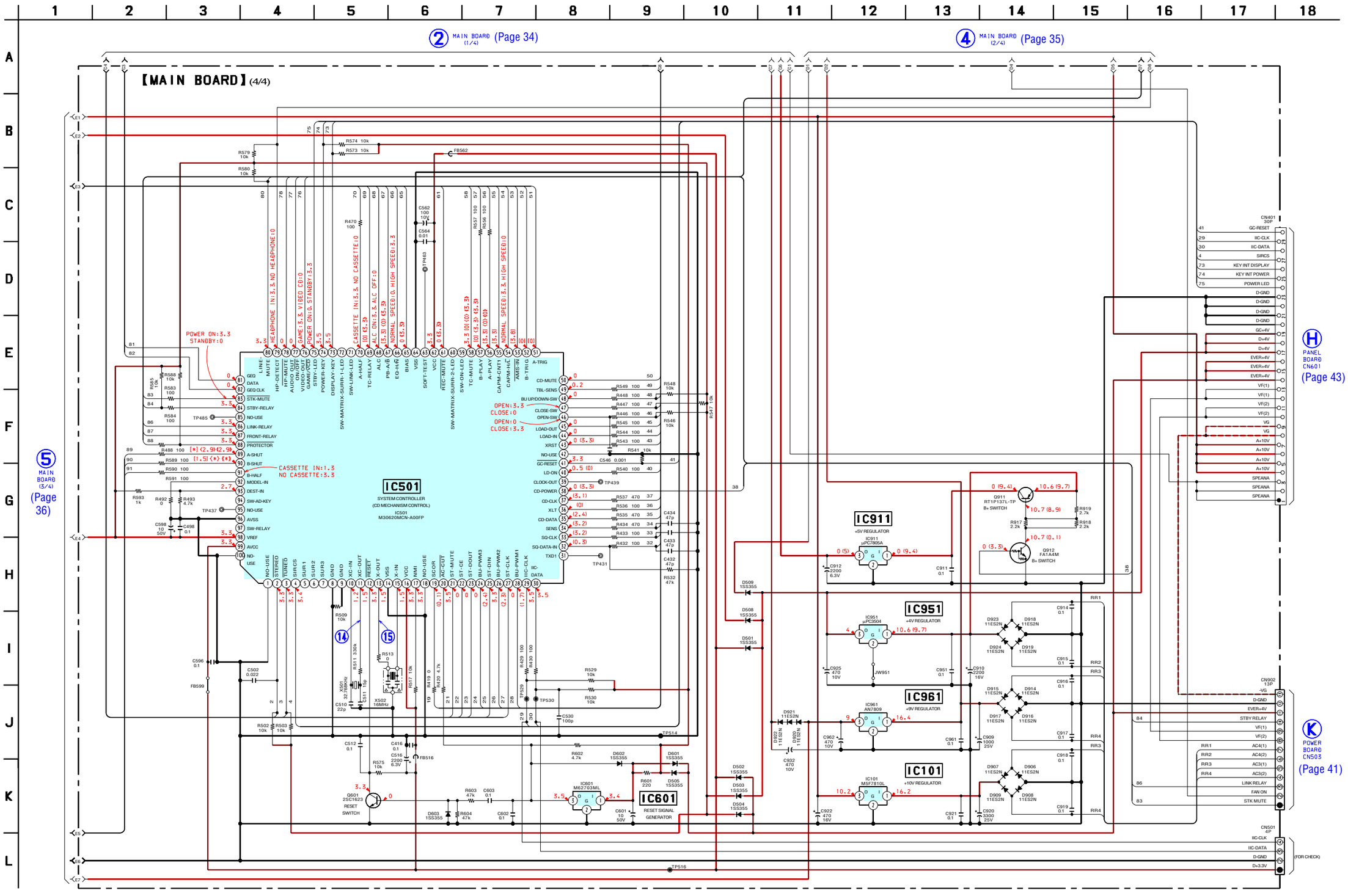
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : TUNER (FM/AM)

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

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

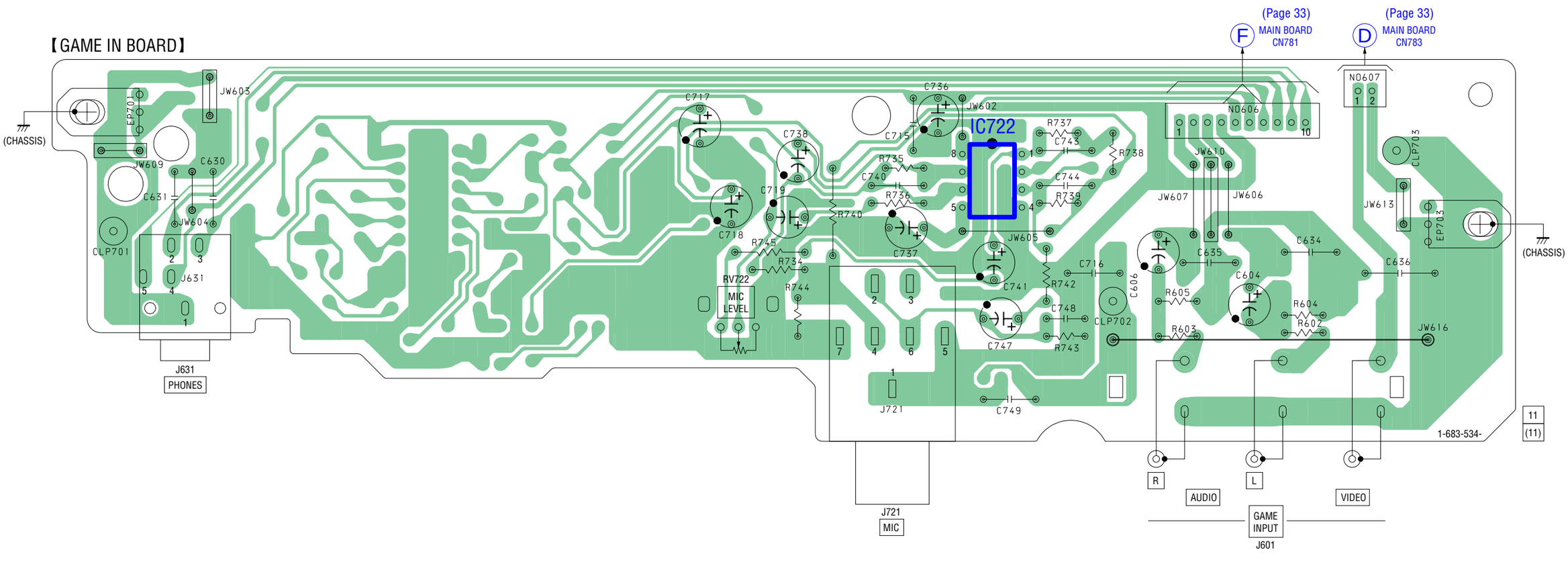


7-16. SCHEMATIC DIAGRAM – MAIN Board (4/4) – • See page 28 for Waveforms.

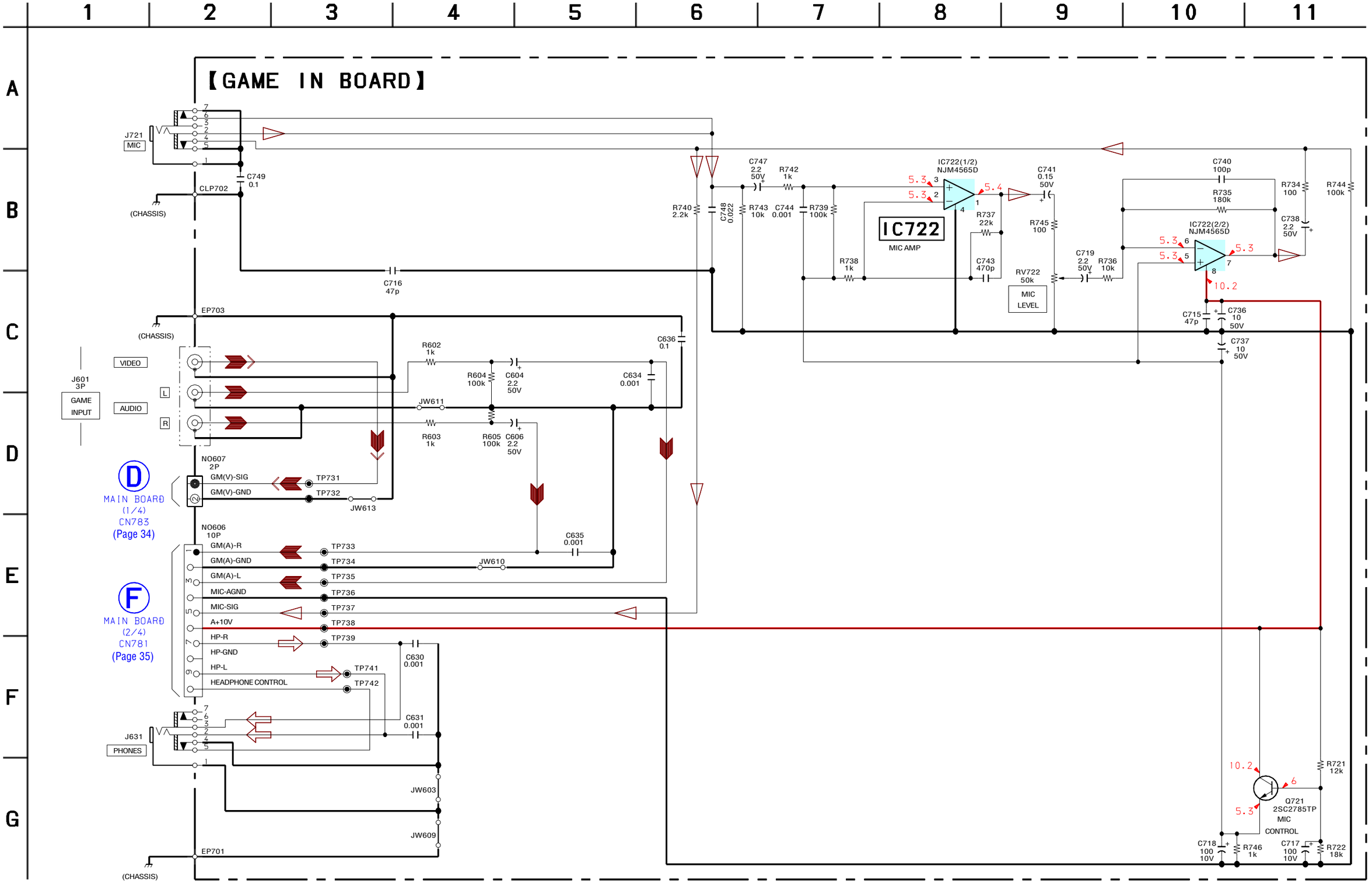


- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : TUNER (FM/AM)
  ( ) : CD PLAY
- [ ] : TAPE PLAY (DECK A)
  { } : TAPE PLAY (DECK B)
  ⟨⟨ ⟩⟩ : REC
  * : Impossible to measure

7-17. PRINTED WIRING BOARD – GAME IN Board – • See page 27 for Circuit Boards Location.

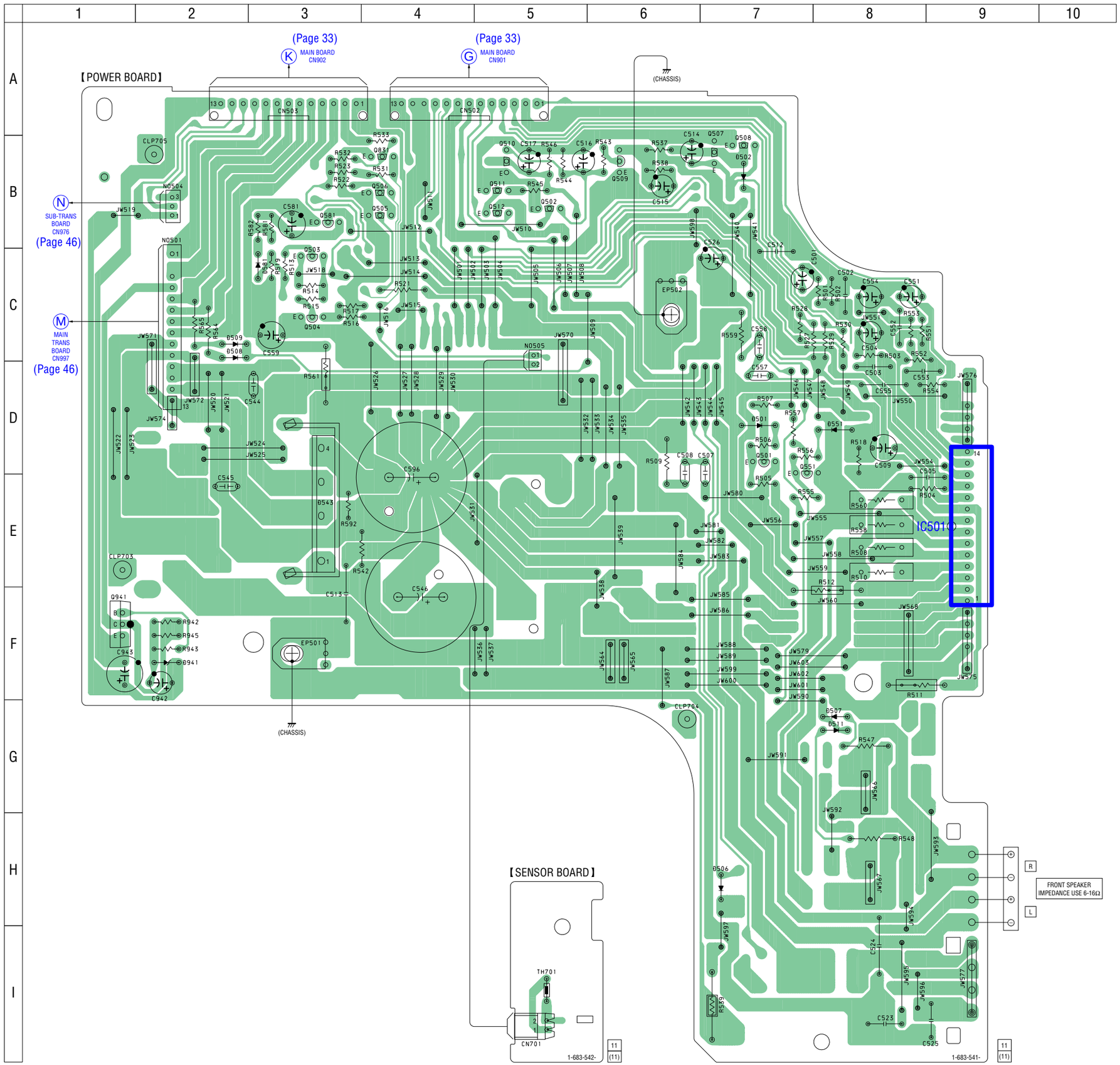


7-18. SCHEMATIC DIAGRAM – GAME IN Board –



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

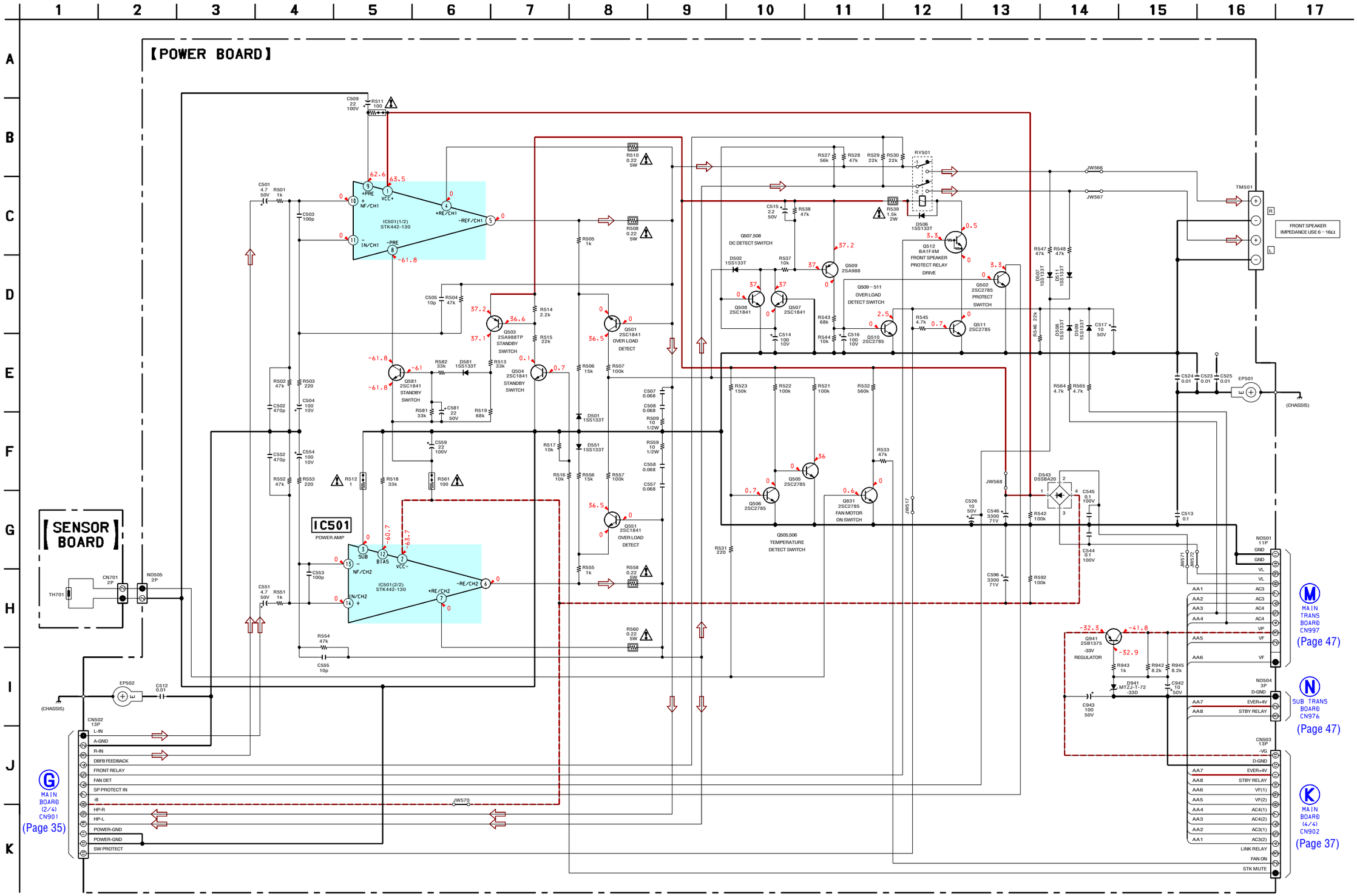
7-19. PRINTED WIRING BOARDS – POWER/SENSOR Boards – • See page 27 for Circuit Boards Location.



- **Semiconductor Location**

Ref. No.	Location
D501	D-7
D502	B-7
D506	H-7
D507	G-8
D508	C-2
D509	C-2
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
Q551	D-7
Q581	B-3
Q831	B-4
Q941	F-1

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

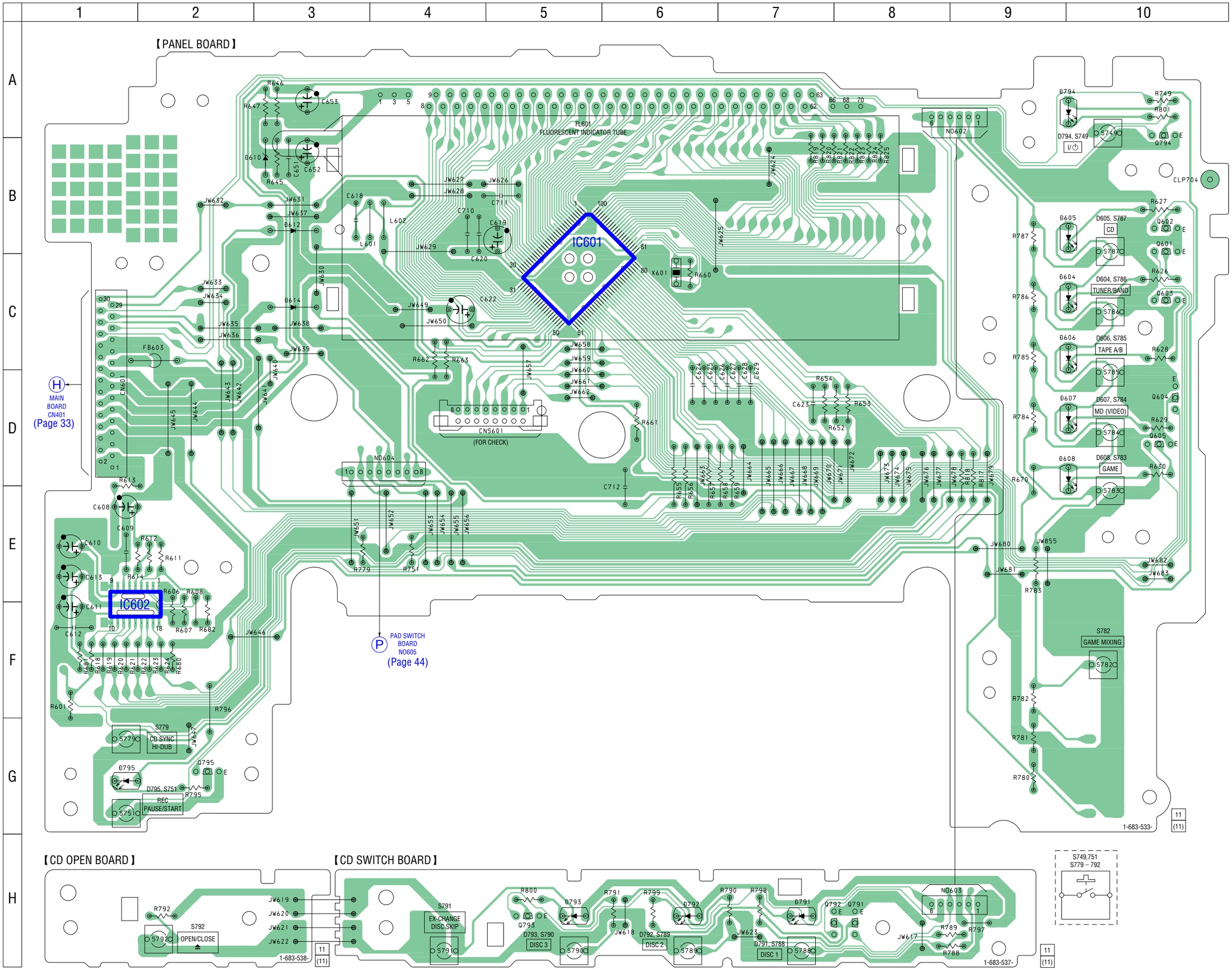


- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : TUNER (FM/AM)

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

7-21. PRINTED WIRING BOARDS – PANEL/CD OPEN/CD SWITCH Boards –

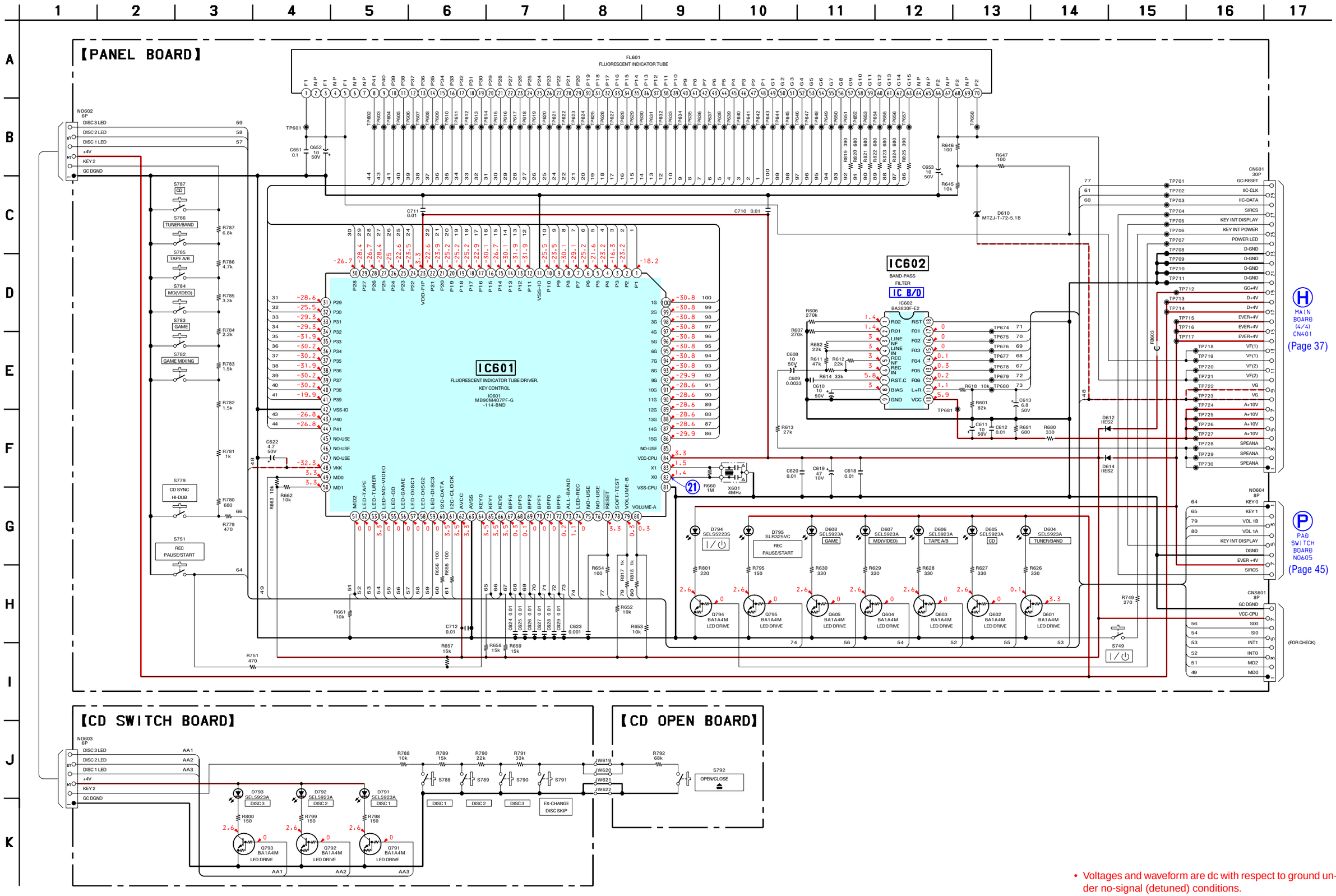
• See page 27 for Circuit Boards Location.



- **Semiconductor Location**

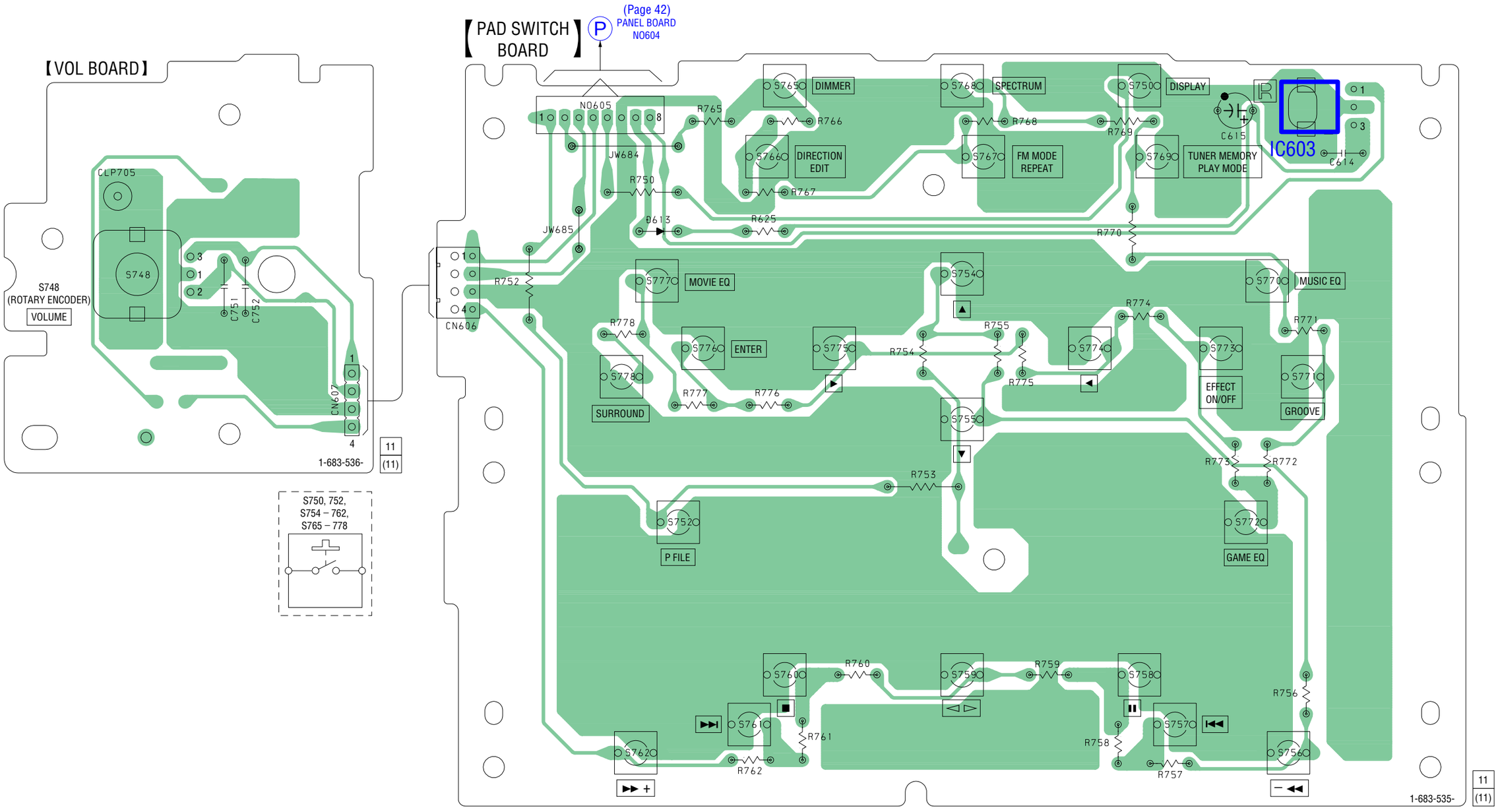
Ref. No.	Location
D604	C-10
D605	B-10
D606	C-10
D607	D-10
D608	D-10
D610	B-3
D612	B-3
D614	C-3
D791	H-7
D792	H-6
D793	H-5
D794	A-10
D795	G-1
IC601	C-5
IC602	F-1
Q601	B-10
Q602	B-10
Q603	C-10
Q604	D-10
Q605	D-10
Q791	H-8
Q792	H-8
Q793	H-5
Q794	A-10
Q795	G-2

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

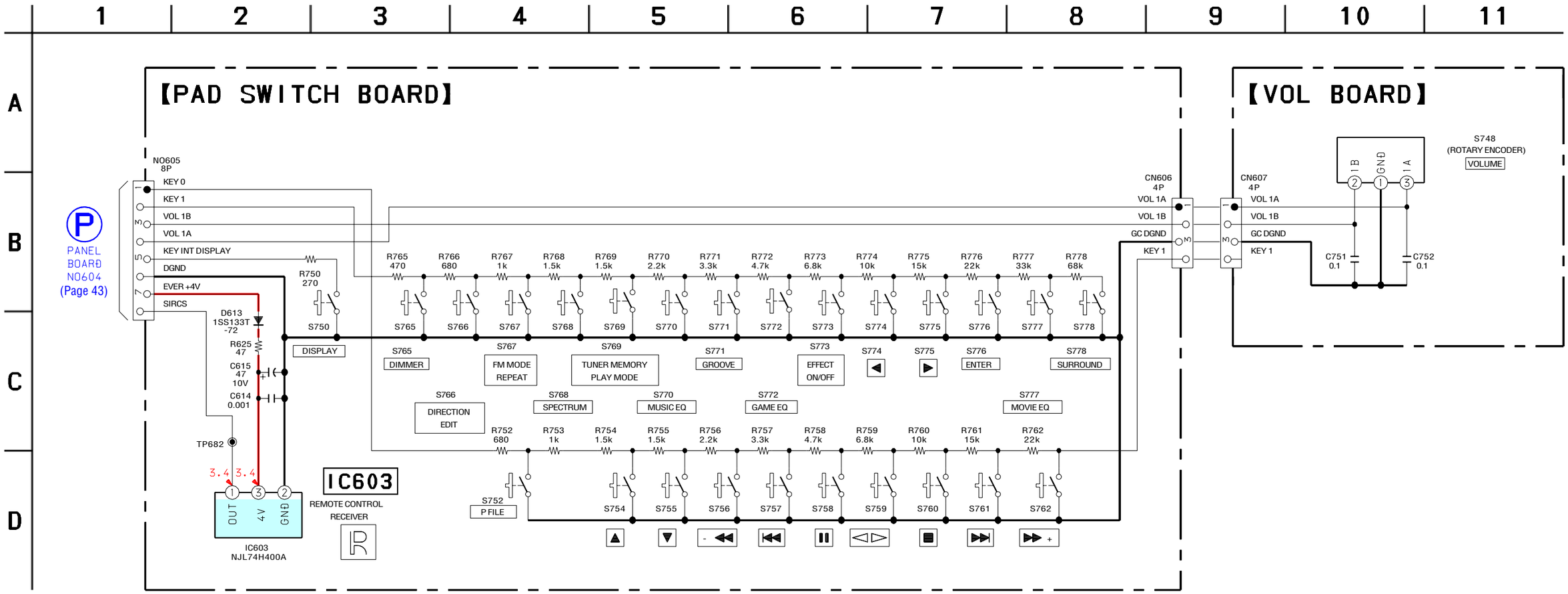


- Voltages and waveform are dc with respect to ground under no-signal (detuned) conditions.
  no mark : TUNER (FM/AM)

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

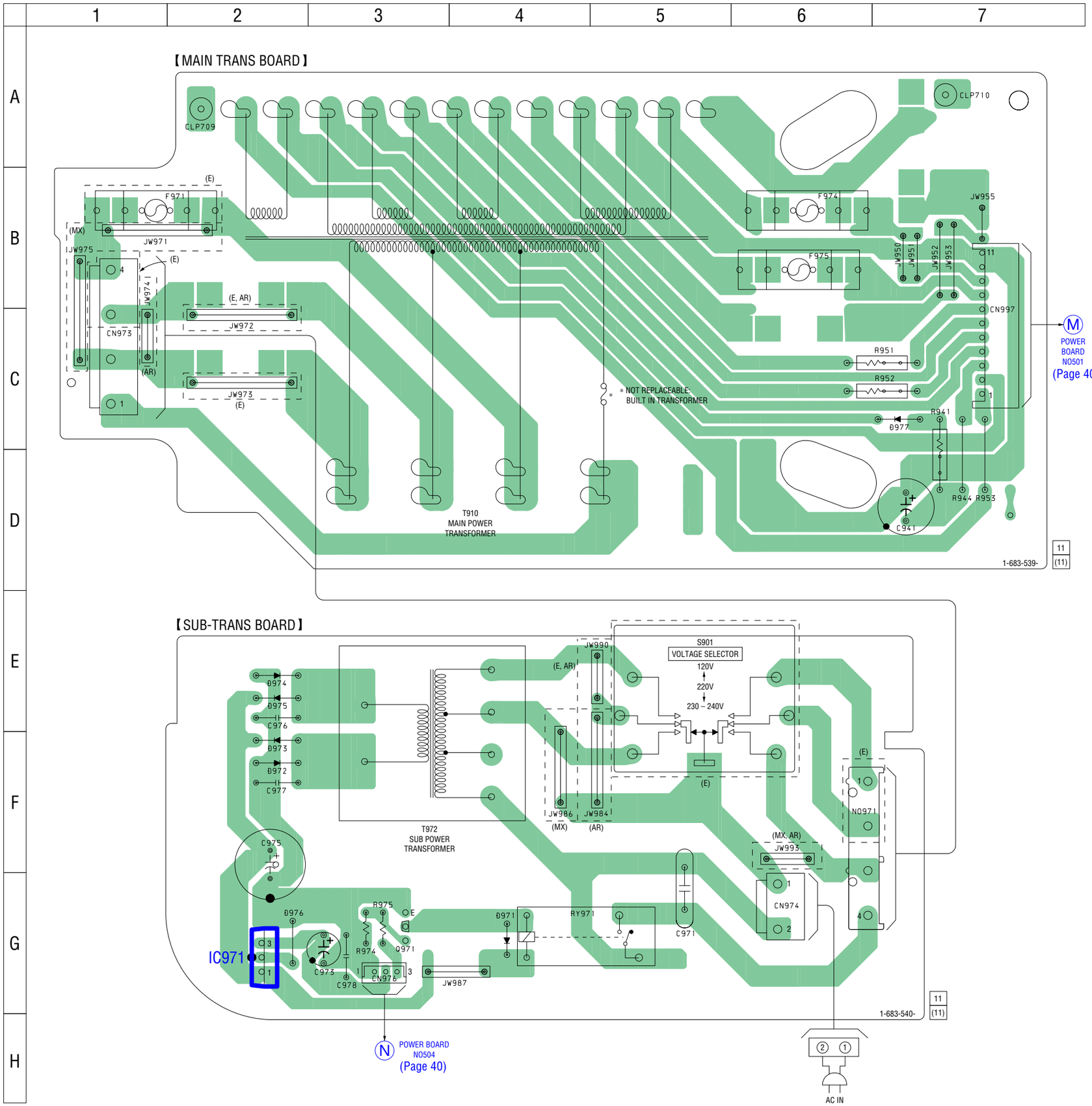


7-24. SCHEMATIC DIAGRAM – PAD SWITCH/VOL Boards –



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

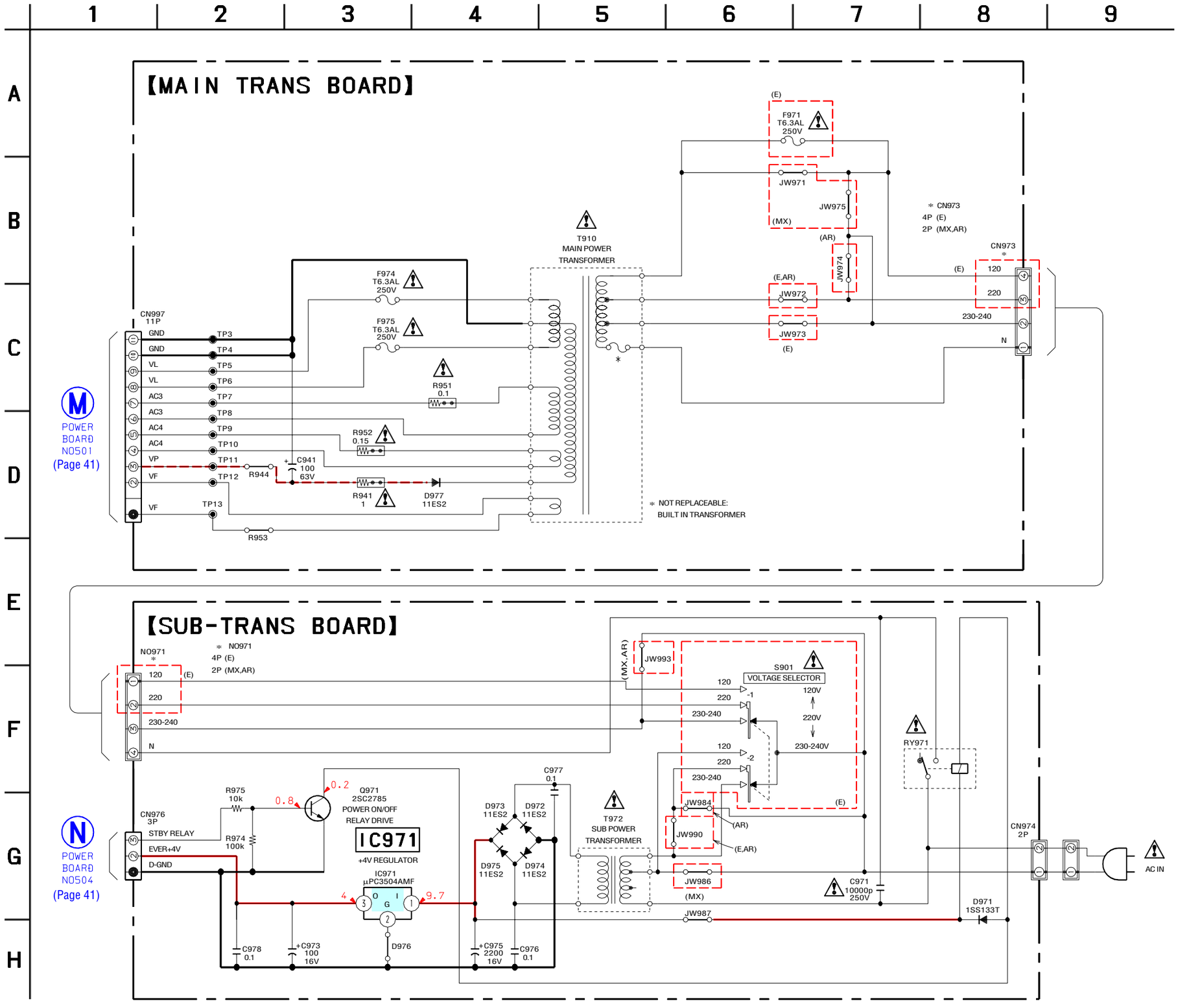
7-25. PRINTED WIRING BOARDS – MAIN TRANS/SUB-TRANS Boards – • See page 27 for Circuit Boards Location.



- **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 –



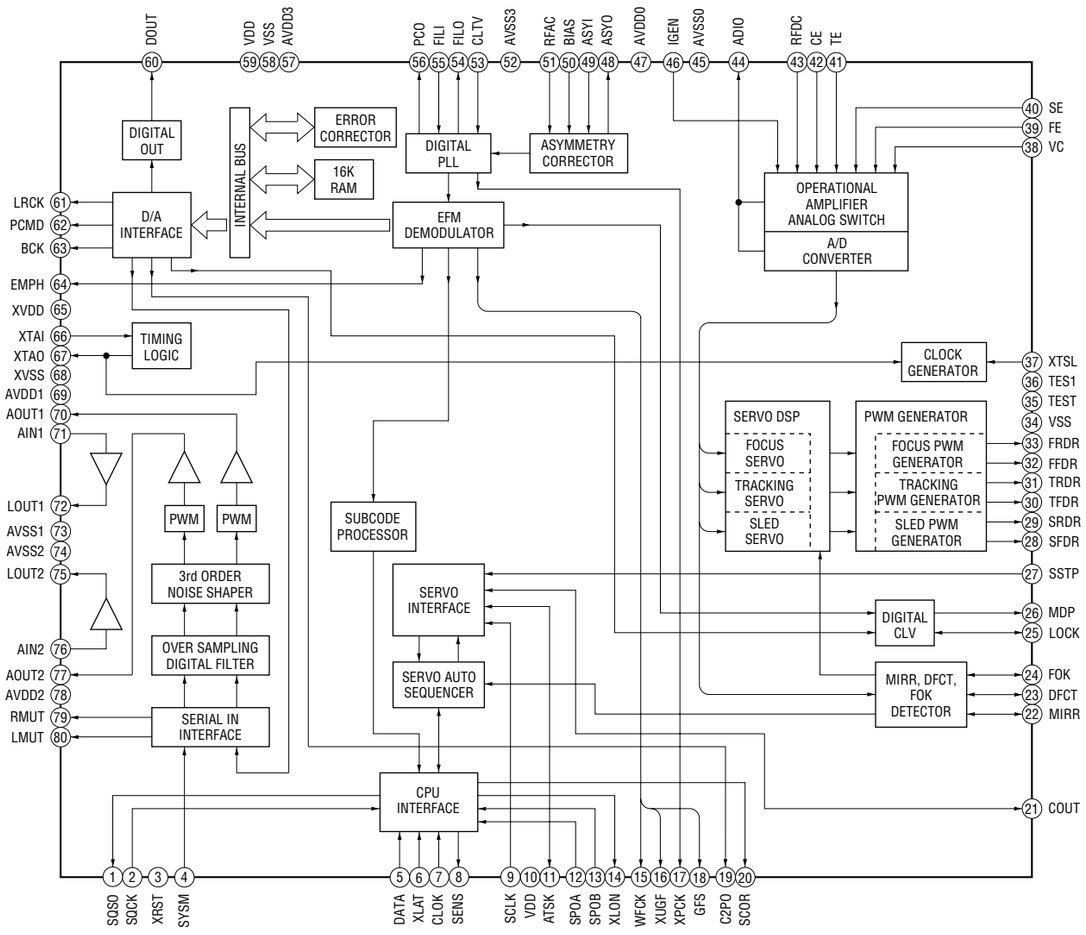
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : TUNER (FM/AM)

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

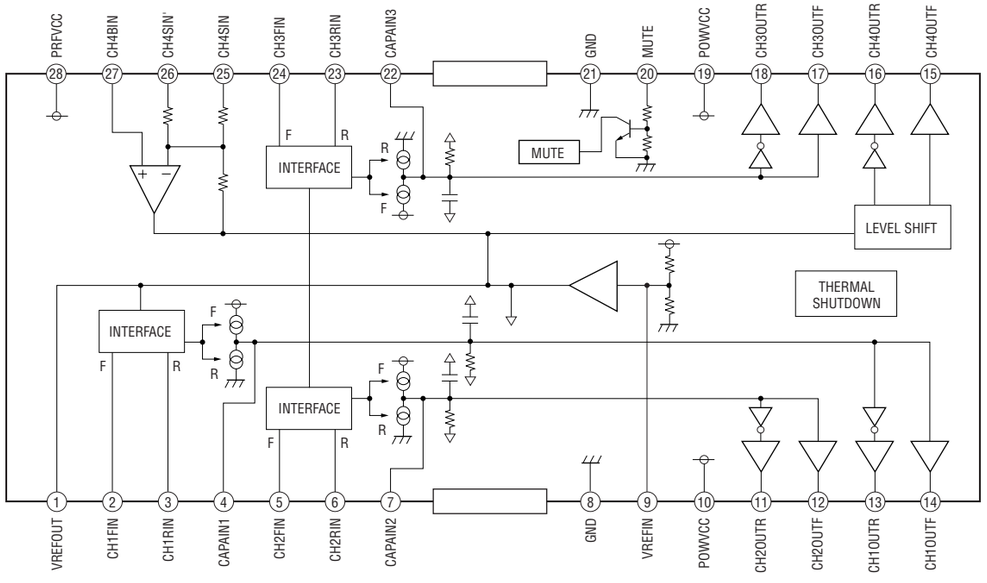
• **IC Block Diagrams**

– BD Board –

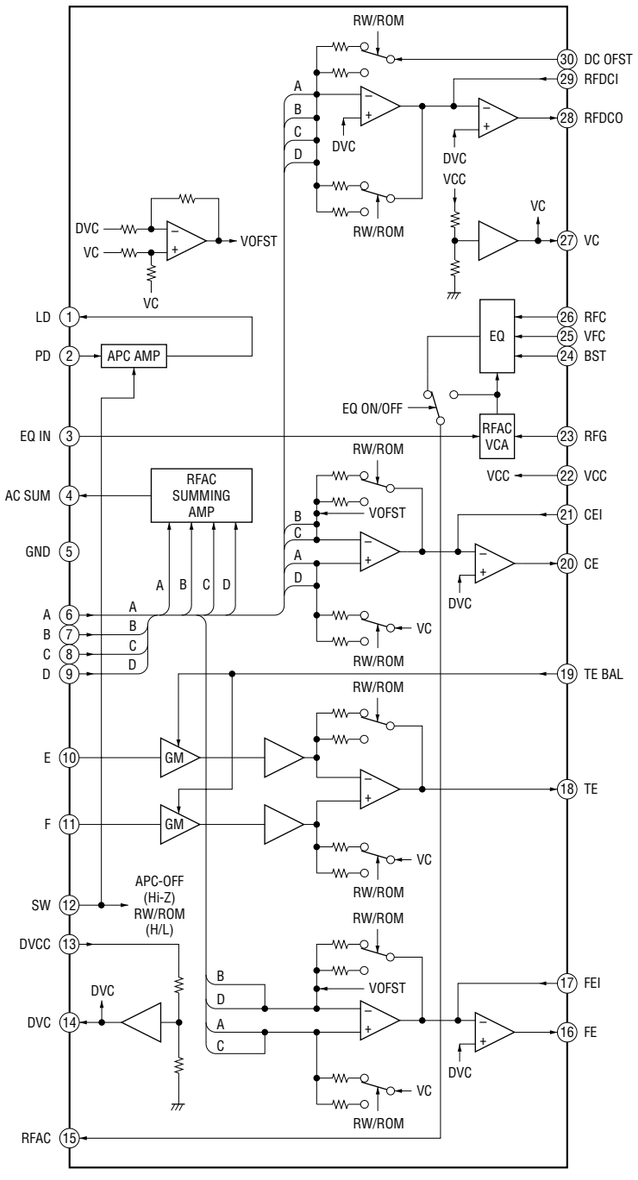
IC101 CXD3017Q



IC102 BA5974FM-E2

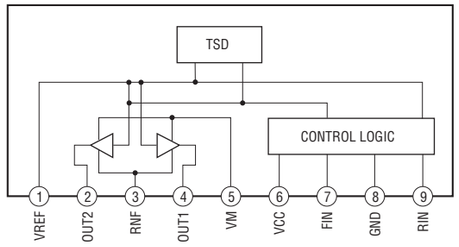


IC103 CXA2581N-T4



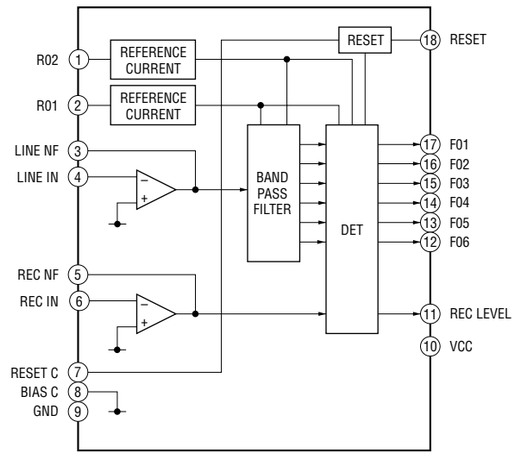
– DRIVER Board –

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	$\overline{\text{STEREO}}$	I	FM stereo detection signal input from the tuner unit "L": stereo
3	$\overline{\text{TUNED}}$	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	$\overline{\text{RESET}}$	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	$\overline{\text{AC-CUT}}$	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	$\overline{\text{LD ON}}$	O	Laser diode on/off control signal output to the RF amplifier "L": laser diode on
41	$\overline{\text{GC RESET}}$	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-$\overline{\text{OUT}}$ GAME/$\overline{\text{VCD}}$	O	Video out game/video CD selection signal output terminal "L": video CD, "H": game Not used
77	AUDIO-$\overline{\text{OUT}}$ ON/$\overline{\text{OFF}}$	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 Not used
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)**

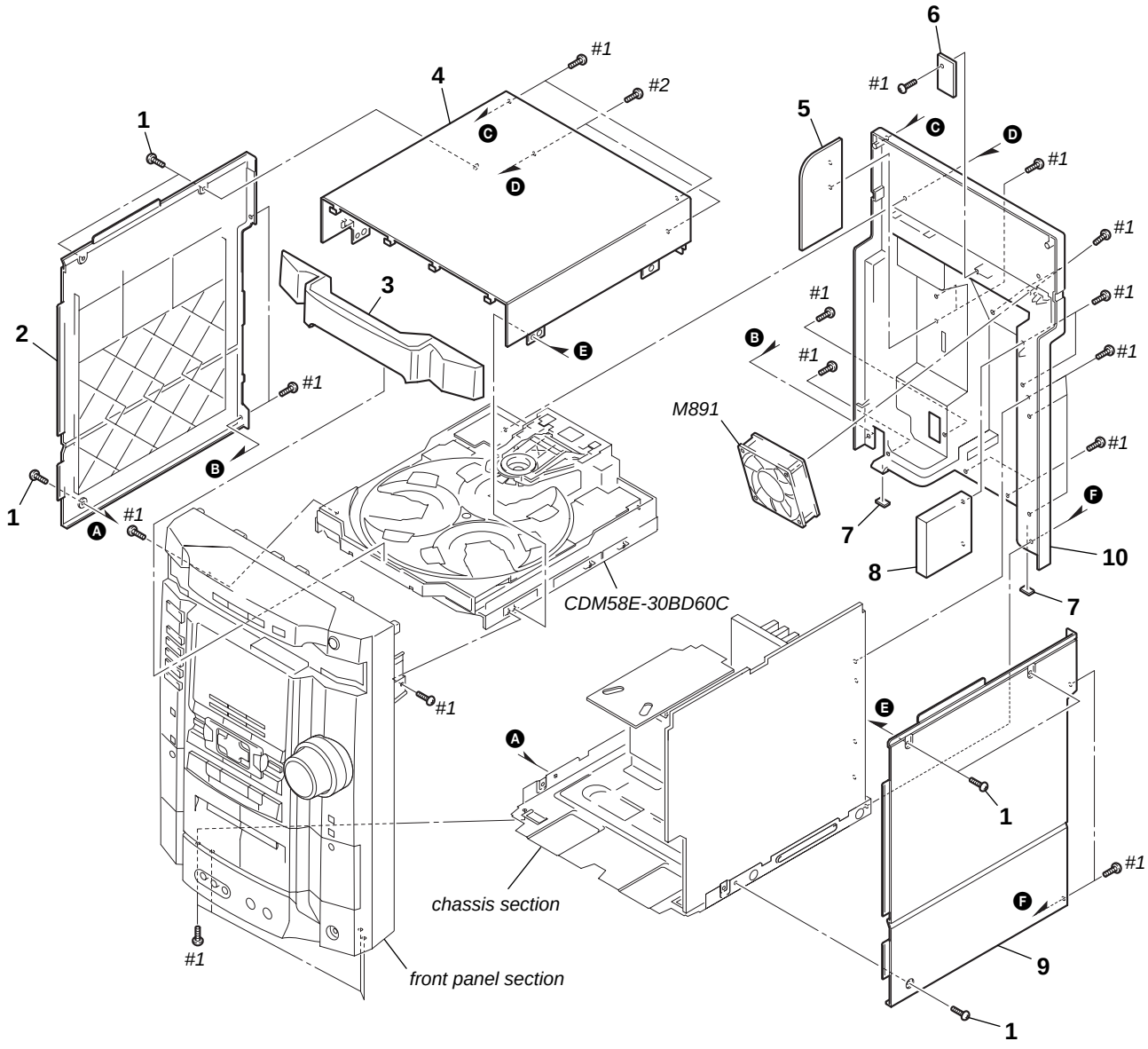
Pin No.	Pin Name	I/O	Description
1 to 10	P1 to P10	O	Segment drive signal output to the fluorescent indicator tube
11	VSS-IO	—	Ground terminal (for I/O port)
12 to 22	P11 to P21	O	Segment drive signal output to the fluorescent indicator tube
23	VDD-FIP	—	Power supply terminal (+3.3V) (for fluorescent 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
- 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.
- Abbreviation
  AR : Argentina model
  E51 : Chilean and Peruvian models
  MX : Mexican model

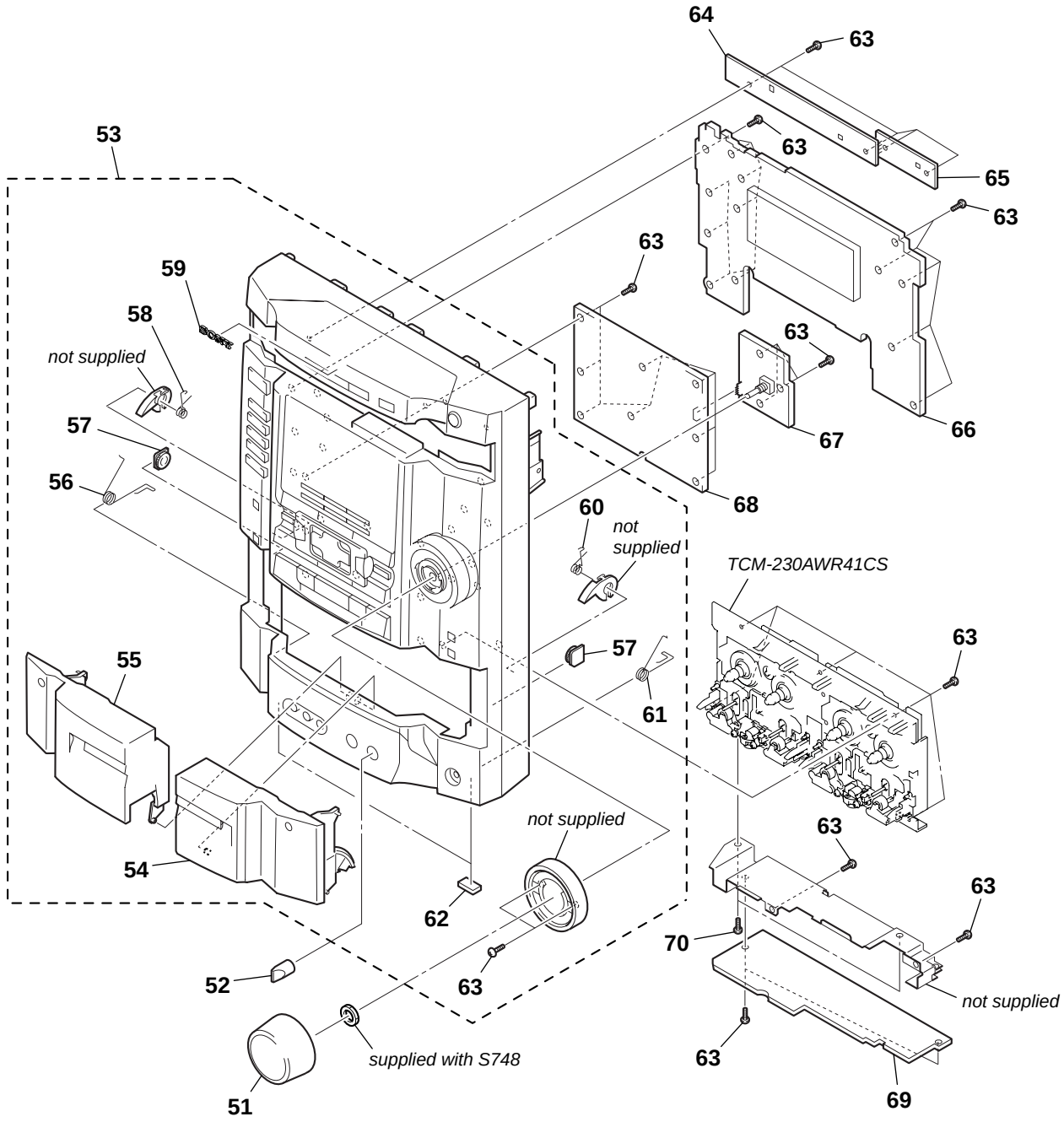
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

8-1. PANEL SECTION



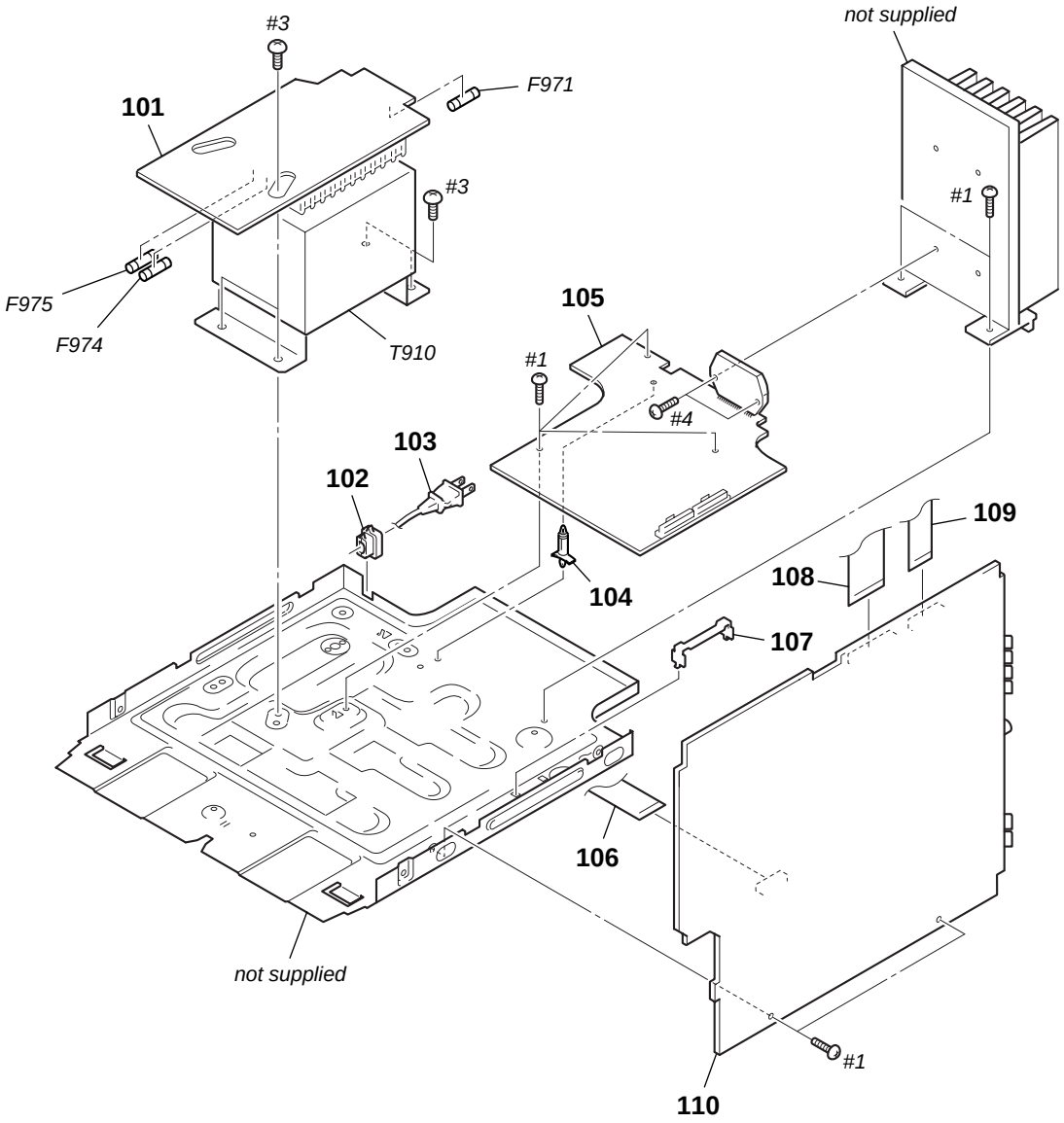
Ref. No.	Part No.	Description	Remark
1	3-363-099-41	SCREW (CASE 3 TP2)	
2	4-225-038-21	SIDE PANEL (L)	
3	4-237-760-01	LOADING PANEL	
4	4-224-550-41	TOP CASE	
5	A-4727-568-A	SUB-TRANS BOARD, COMPLETE (E)	
5	A-4728-130-A	SUB-TRANS BOARD, COMPLETE (AR)	
5	A-4728-717-A	SUB-TRANS BOARD, COMPLETE (MX)	
6	1-683-542-11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

8-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	4-237-775-01	KNOB (VOL)	
52	4-224-578-21	KNOB (MIC)	
53	X-4954-338-1	FRONT PANEL ASSY	
54	X-4954-340-1	TC HOLDER (R) ASSY	
55	X-4954-339-1	TC HOLDER (L) ASSY	
56	4-237-786-01	SPRING L	
57	4-224-104-11	DAMPER	
58	4-231-836-01	SPRING (HEART CAM-A)	
59	4-963-404-21	EMBLEM (5-A), SONY	
60	4-231-841-01	SPRING (HEART CAM-B)	
61	4-237-787-01	SPRING R	
62	4-225-252-01	CUSHION (FOOT)	
63	4-951-620-01	SCREW (2.6X8), +BVTP	
64	1-683-537-11	CD SWITCH BOARD	
65	1-683-538-11	CD OPEN BOARD	
66	A-4727-552-A	PANEL BOARD, COMPLETE	
67	1-683-536-11	VOL BOARD	
68	A-4727-557-A	PAD SWITCH BOARD, COMPLETE	
69	A-4727-558-A	GAME IN BOARD, COMPLETE	
70	4-240-965-01	SCREW 2.6X3 +P, S-TITE	

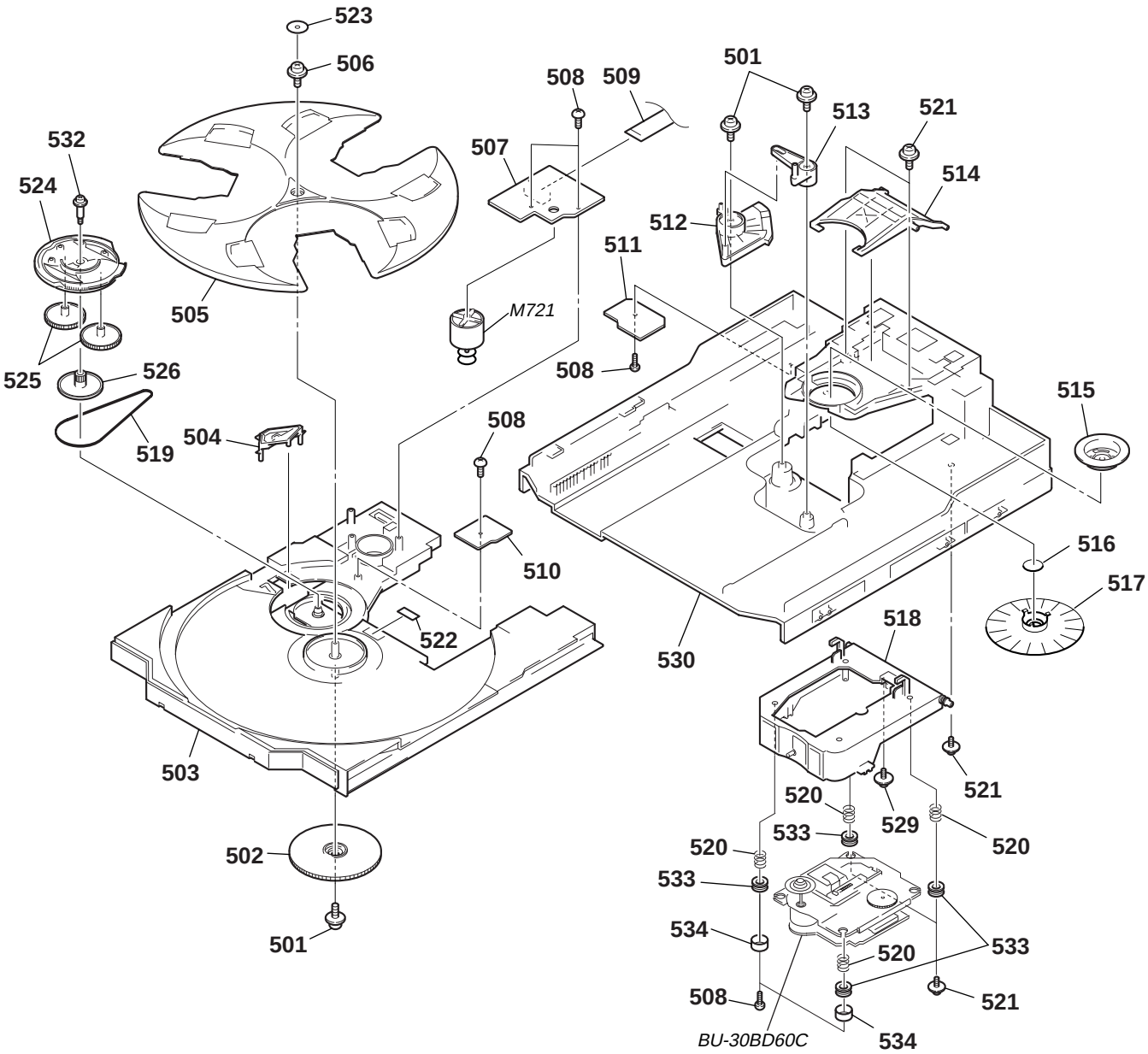
8-3. CHASSIS SECTION



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

Ref. No.	Part No.	Description	Remark
101	1-683-539-11	MAIN TRANS BOARD	
* 102	3-703-244-00	BUSHING (2104), CORD (E51, AR)	
102	3-703-571-11	BUSHING (S) (4516), CORD (E, MX)	
⚠103	1-777-071-51	CORD, POWER (E51)	
⚠103	1-783-941-12	CORD, POWER (AR)	
⚠103	1-791-901-11	CORD, POWER (E, MX)	
104	4-943-687-01	HOLDER, PC BOARD	
105	A-4727-561-A	POWER BOARD, COMPLETE	
106	1-773-045-11	WIRE (FLAT TYPE) (17 CORE)	
* 107	4-988-533-01	HOLDER, PWB	
108	1-823-978-11	WIRE (FLAT TYPE)	
109	1-769-945-11	WIRE (FLAT TYPE) (11 CORE)	
110	A-4727-573-A	MAIN BOARD, COMPLETE (E, MX)	
110	A-4728-229-A	MAIN BOARD, COMPLETE (AR)	
⚠F971	1-533-473-11	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V) (E)	
⚠F974	1-533-473-11	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)	
⚠F975	1-533-473-11	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)	
⚠T910	1-437-585-11	POWER TRANSFORMER	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#3	7-685-881-09	SCREW +BVTT 4X8 (S)	
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	

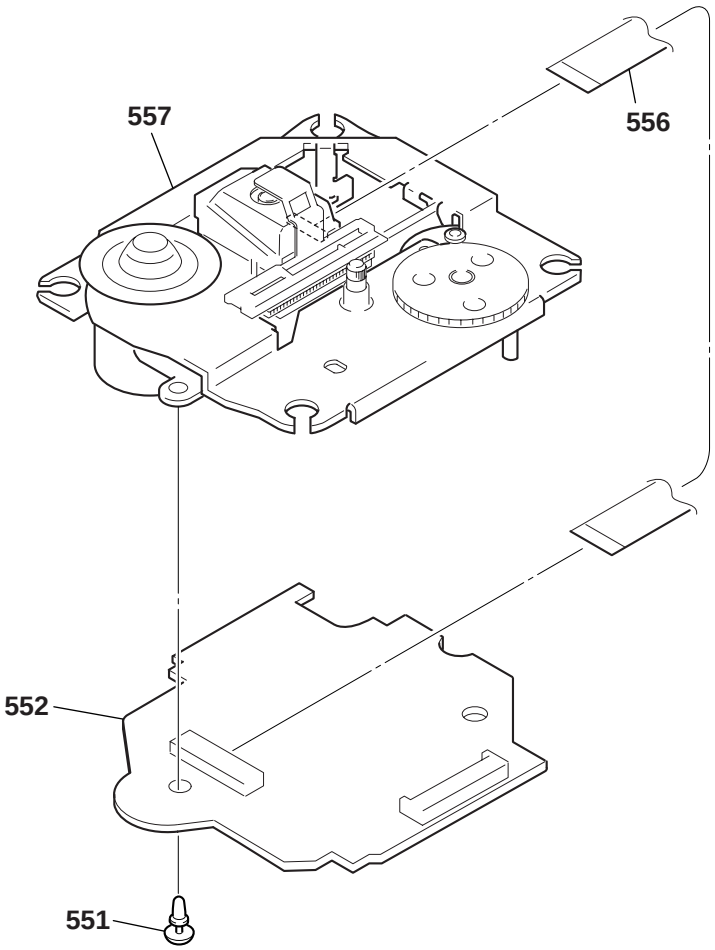
8-4. CD MECHANISM DECK SECTION (CDM58ES-30BD60C)



Ref. No.	Part No.	Description	Remark
501	4-933-134-11	SCREW (+PTPWH M2.6X8)	
502	4-221-679-01	CAM (RELAY)	
503	4-231-452-04	TABLE (NEW)	
504	X-4954-616-1	LEVER (CHANGE 2) ASSY	
505	4-241-135-01	TRAY (ST)	
506	4-933-134-51	SCREW (+PTPWH 2.6X8)	
507	1-675-910-14	MOTOR BOARD	
508	4-951-620-01	SCREW (2.6X8), +BVTP	
509	1-791-983-12	WIRE (FLAT TYPE) (8 CORE)	
510	1-675-911-14	SENSOR (CD) BOARD	
511	1-675-912-14	DRIVER BOARD	
512	X-4952-608-3	CAM (U/D) ASSY	
513	4-221-681-01	LEVER (EX)	
514	4-221-682-01	LEVER (LIFTER)	
515	4-231-513-01	PULLEY (B) (BU-30), CHUCKING	
516	4-228-414-01	BRACKET (YOKE)	

Ref. No.	Part No.	Description	Remark
517	X-4953-307-1	PULLEY (A) ASSY, CHUCKING	
518	X-4953-306-1	HOLDER (BU) (BU-30) ASSY	
519	4-222-095-01	BELT	
520	4-227-045-11	SPRING (INSULATOR), COIL	
521	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
522	4-979-350-41	SPACER (TRAY)	
523	4-241-660-01	WASHER (TRAY)	
524	4-221-678-06	CAM (CONTROL)	
525	4-221-683-01	GEAR (U)	
526	4-221-685-01	PULLEY (S)	
529	4-227-899-01	SCREW (DIA. 12), FROATING	
530	4-221-674-03	CHASSIS	
532	4-222-097-01	SCREW, STEP	
533	4-231-451-01	INSULATOR (BU-30)	
534	4-231-151-01	STOPPER (BU)	
M721	A-4672-826-A	MOTOR ASSY (TURN) (WITH PULLEY) (CD)	

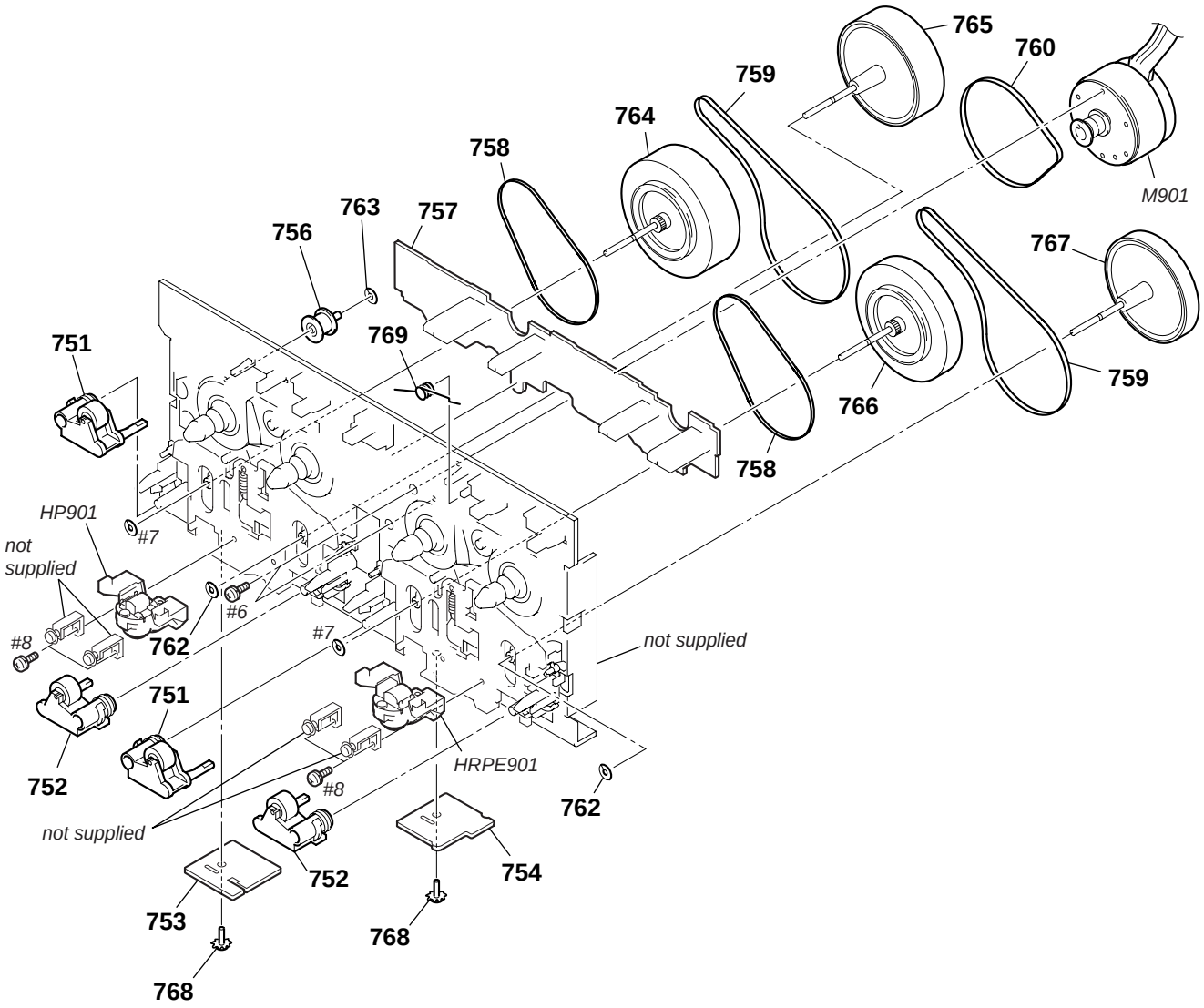
8-5. BASE UNIT SECTION (BU-30BD60C)



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

Ref. No.	Part No.	Description	Remark
551	3-531-576-11	RIVET	
552	A-4728-678-A	BD BOARD, COMPLETE	
556	1-757-710-11	WIRE (FLAT TYPE) (16 CORE)	
⚠557	A-4735-188-A	BU-30 (60) ASSY	

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



Ref. No.	Part No.	Description	Remark
751	X-3374-156-5	PINCH LEVER (REV) ASSY	
752	X-3374-155-5	PINCH LEVER (FWD) ASSY	
753	A-2007-839-A	HEAD (A) BOARD, COMPLETE	
754	A-2007-840-A	HEAD (B) BOARD, COMPLETE	
756	3-040-580-02	PULLEY (TENSION)	
757	A-4676-533-A	SW BOARD, COMPLETE	
758	3-041-947-01	BELT (FR)	
759	3-041-946-01	BELT (CAPSTAN B)	
760	4-227-239-01	BELT (CAPSTAN C)	
762	3-019-208-01	WASHER, STOPPER	
763	3-016-533-01	WASHER (FR), STOPPER	
764	X-3378-041-1	FLYWHEEL (A-REV) ASSY	

Ref. No.	Part No.	Description	Remark
765	X-3378-040-1	FLYWHEEL (A-FWD) ASSY	
766	X-3378-043-1	FLYWHEEL (B-REV) ASSY	
767	X-3378-042-1	FLYWHEEL (B-FWD) ASSY	
768	4-227-872-11	SCREW (+PTT 2X4), GROUND POINT	
769	4-227-455-02	SPRING (HALF), TORSION	
HP901	X-4953-985-1	BLOCK (A) ASSY, HEAD (PB)	
HRPE901	X-4953-986-1	BLOCK (B) ASSY, HEAD (REC/PB/ERASE)	
M901	X-3378-241-1	MOTOR ASSY (CAPSTAN) (WITH PULLEY)	(TAPE)
#6	7-628-254-05	SCREW +PS 2.6X5	
#7	7-623-921-01	RING, RETAINING, CAPSTAN	
#8	7-685-783-09	SCREW +PTT 2X6 (S)	

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
  E2 : 120 V AC area in E model
  E51 : Chilean and Peruvian models
  MX : Mexican 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. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ 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
	A-4728-678-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C102	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C103	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C104	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C108	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C109	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C110	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C111	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C112	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C114	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C116	1-104-665-11	ELECT	100uF	20%	10V
C117	1-104-665-11	ELECT	100uF	20%	10V
C118	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C121	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C122	1-124-584-00	ELECT	100uF	20%	10V
C123	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C124	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C125	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C126	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C127	1-124-584-00	ELECT	100uF	20%	10V
C129	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C130	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C131	1-104-665-11	ELECT	100uF	20%	10V
C133	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C143	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C145	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C153	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C159	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C162	1-104-665-11	ELECT	100uF	20%	10V
C165	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C167	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C168	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C171	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
C172	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C181	1-115-412-11	CERAMIC CHIP	680PF	5%	25V
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
C191	1-124-584-00	ELECT	100uF	20%	10V
C192	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C193	1-104-665-11	ELECT	100uF	20%	10V
C194	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C195	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C196	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C197	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C198	1-124-584-00	ELECT	100uF	20%	10V
		< CONNECTOR >			
CN101	1-568-864-11	CONNECTOR, FFC 21P			
CN102	1-793-907-11	CONNECTOR, FFC/FPC 16P			
		< DIODE >			
D101	8-719-083-58	DIODE UDZSTE-173.9B			
		< FERRITE BEAD >			
FB101	1-500-445-21	FERRITE	0uH		
FB102	1-500-445-21	FERRITE	0uH		
		< IC >			
IC101	8-752-402-31	IC CXD3017Q			
IC102	8-759-827-41	IC BA5974FM-E2			
IC103	8-752-089-74	IC CXA2581N-T4			
		< RESISTOR >			
JR101	1-216-864-11	METAL CHIP	0	5%	1/16W
JR102	1-216-864-11	METAL CHIP	0	5%	1/16W
JR103	1-216-864-11	METAL CHIP	0	5%	1/16W
JR104	1-216-864-11	METAL CHIP	0	5%	1/16W
JR105	1-216-864-11	METAL CHIP	0	5%	1/16W
JR106	1-216-864-11	METAL CHIP	0	5%	1/16W
JR122	1-216-296-11	SHORT	0		
JR123	1-216-296-11	SHORT	0		
JR124	1-216-296-11	SHORT	0		
JR125	1-216-296-11	SHORT	0		
		< COIL >			
L101	1-469-553-21	INDUCTOR	4.7uH		
		< TRANSISTOR >			
Q101	8-729-049-31	TRANSISTOR	2SB710A-RTX		

BD | CD OPEN | CD SWITCH | DRIVER

Ref. No.	Part No.	Description			Remark
Q102	8-729-920-85	TRANSISTOR	2SD1664-QR		
		< RESISTOR >			
R101	1-216-821-11	METAL CHIP	1K	5%	1/16W
R102	1-216-845-11	METAL CHIP	100K	5%	1/16W
R103	1-216-835-11	METAL CHIP	15K	5%	1/16W
R104	1-216-839-11	METAL CHIP	33K	5%	1/16W
R105	1-216-821-11	METAL CHIP	1K	5%	1/16W
R106	1-216-821-11	METAL CHIP	1K	5%	1/16W
R107	1-216-833-11	METAL CHIP	10K	5%	1/16W
R108	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R109	1-216-857-11	METAL CHIP	1M	5%	1/16W
R111	1-216-846-11	METAL CHIP	120K	5%	1/16W
R114	1-218-745-11	RES-CHIP	160K	5%	1/10W
R116	1-216-001-00	METAL CHIP	10	5%	1/10W
R117	1-216-821-11	METAL CHIP	1K	5%	1/16W
R118	1-216-809-11	METAL CHIP	100	5%	1/16W
R119	1-216-826-11	METAL CHIP	2.7K	5%	1/16W
R120	1-216-835-11	METAL CHIP	15K	5%	1/16W
R122	1-216-845-11	METAL CHIP	100K	5%	1/16W
R123	1-216-833-11	METAL CHIP	10K	5%	1/16W
R124	1-216-845-11	METAL CHIP	100K	5%	1/16W
R131	1-216-813-11	METAL CHIP	220	5%	1/16W
R143	1-216-839-11	METAL CHIP	33K	5%	1/16W
R144	1-216-839-11	METAL CHIP	33K	5%	1/16W
R147	1-218-701-11	RES-CHIP	2.4K	5%	1/10W
R148	1-216-797-11	METAL CHIP	10	5%	1/16W
R149	1-216-797-11	METAL CHIP	10	5%	1/16W
R158	1-216-838-11	METAL CHIP	27K	5%	1/16W
R159	1-216-838-11	METAL CHIP	27K	5%	1/16W
R162	1-216-845-11	METAL CHIP	100K	5%	1/16W
R171	1-216-837-11	METAL CHIP	22K	5%	1/16W
R172	1-216-837-11	METAL CHIP	22K	5%	1/16W
R173	1-216-837-11	METAL CHIP	22K	5%	1/16W
R181	1-216-837-11	METAL CHIP	22K	5%	1/16W
R182	1-216-837-11	METAL CHIP	22K	5%	1/16W
R183	1-216-837-11	METAL CHIP	22K	5%	1/16W
R190	1-216-813-11	METAL CHIP	220	5%	1/16W
R191	1-216-839-11	METAL CHIP	33K	5%	1/16W
R192	1-216-839-11	METAL CHIP	33K	5%	1/16W
R193	1-216-846-11	METAL CHIP	120K	5%	1/16W
R194	1-216-839-11	METAL CHIP	33K	5%	1/16W
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)			
**********					
	1-683-538-11	CD OPEN BOARD			
		**********			
		< RESISTOR >			
R792	1-249-439-11	CARBON	68K	5%	1/4W
		< SWITCH >			
S792	1-771-410-21	SWITCH, TACTILE (OPEN/CLOSE ⏏)			
**********					
	1-683-537-11	CD SWITCH BOARD			
		**********			
		< LED >			
D791	8-719-057-97	LED SEL5923A-TP15 (DISC 1)			
D792	8-719-057-97	LED SEL5923A-TP15 (DISC 2)			
D793	8-719-057-97	LED SEL5923A-TP15 (DISC 3)			
		< TRANSISTOR >			
Q791	8-729-116-02	TRANSISTOR	BA1A4M-TP		
Q792	8-729-116-02	TRANSISTOR	BA1A4M-TP		
Q793	8-729-116-02	TRANSISTOR	BA1A4M-TP		
		< RESISTOR >			
R788	1-249-429-11	CARBON	10K	5%	1/4W
R789	1-249-431-11	CARBON	15K	5%	1/4W
R790	1-249-433-11	CARBON	22K	5%	1/4W
R791	1-249-435-11	CARBON	33K	5%	1/4W
R798	1-249-407-11	CARBON	150	5%	1/4W
R799	1-249-407-11	CARBON	150	5%	1/4W
R800	1-249-407-11	CARBON	150	5%	1/4W
		< SWITCH >			
S788	1-771-410-21	SWITCH, TACTILE (DISC 1)			
S789	1-771-410-21	SWITCH, TACTILE (DISC 2)			
S790	1-771-410-21	SWITCH, TACTILE (DISC 3)			
S791	1-771-410-21	SWITCH, TACTILE (EX-CHANGE, DISC SKIP)			
**********					
	1-675-912-14	DRIVER BOARD			
		**********			
		< CAPACITOR >			
C702	1-126-964-51	ELECT	10uF	20%	50V
		< CONNECTOR >			
CN701	1-785-336-11	PIN, CONNECTOR (LIGHT ANGLE) 10P			
CN702	1-785-550-11	CONNECTOR, FFC/FPC 8P			
		< DIODE >			
D701	8-719-983-68	DIODE MTZJ-T-72-3.9A			
		< IC >			
IC701	8-759-598-69	IC BA6956AN			
		< RESISTOR >			
R701	1-249-411-11	CARBON	330	5%	1/4W

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
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-4727-573-A	MAIN BOARD, COMPLETE (E, MX)			
	A-4728-229-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
C158	1-136-157-00	FILM	0.022uF	5%	50V
C159	1-136-157-00	FILM	0.022uF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C160	1-136-159-00	FILM	0.033uF	5%	50V
C161	1-130-481-00	MYLAR	0.0068uF	5%	50V
C162	1-126-960-11	ELECT	1uF	20%	50V
C163	1-126-964-11	ELECT	10uF	20%	50V
C164	1-136-169-00	FILM	0.22uF	5%	50V
C165	1-136-171-00	FILM	0.33uF	5%	50V
C168	1-126-964-11	ELECT	10uF	20%	50V
C175	1-126-963-11	ELECT	4.7uF	20%	50V
C180	1-136-495-11	FILM	0.068uF	5%	50V
C189	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C190	1-126-964-11	ELECT	10uF	20%	50V
C200	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C201	1-104-665-11	ELECT	100uF	20%	10V
C202	1-126-916-11	ELECT	1000uF	20%	6.3V
C203	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C205	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C206	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C207	1-126-916-11	ELECT	1000uF	20%	6.3V
C209	1-126-935-11	ELECT	470uF	20%	10V
C210	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C211	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C212	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C224	1-113-619-11	CERAMIC CHIP	0.47uF		10V
C226	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C228	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C301	1-130-483-00	MYLAR	0.01uF	5%	50V
C303	1-136-165-00	FILM	0.1uF	5%	50V
C305	1-126-960-11	ELECT	1uF	20%	50V
C306	1-126-961-11	ELECT	2.2uF	20%	50V
C307	1-126-964-11	ELECT	10uF	20%	50V
C308	1-126-935-11	ELECT	470uF	20%	16V
C309	1-126-947-11	ELECT	47uF	20%	16V
C310	1-126-964-11	ELECT	10uF	20%	50V
C311	1-126-964-11	ELECT	10uF	20%	50V
C312	1-126-964-11	ELECT	10uF	20%	50V
C314	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C315	1-115-156-11	CERAMIC CHIP	1uF		10V
C316	1-115-156-11	CERAMIC CHIP	1uF		10V
C321	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C326	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C331	1-130-483-00	MYLAR	0.01uF	5%	50V
C332	1-137-427-11	MYLAR	120PF	5%	50V
C333	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C334	1-162-946-11	CERAMIC CHIP	27PF	5%	50V
C335	1-137-150-11	MYLAR	0.01uF	5%	100V
C336	1-126-961-11	ELECT	2.2uF	20%	50V
C337	1-130-485-00	MYLAR	0.015uF	5%	50V
C338	1-130-481-00	MYLAR	0.0068uF	5%	50V
C339	1-130-481-00	MYLAR	0.0068uF	5%	50V
C340	1-130-486-00	MYLAR	0.018uF	10%	50V
C341	1-126-964-11	ELECT	10uF	20%	50V
C342	1-126-947-11	ELECT	47uF	20%	16V
C351	1-130-483-00	MYLAR	0.01uF	5%	50V
C353	1-136-165-00	FILM	0.1uF	5%	50V
C355	1-126-960-11	ELECT	1uF	20%	50V
C356	1-126-961-11	ELECT	2.2uF	20%	50V
C359	1-126-947-11	ELECT	47uF	20%	16V
C361	1-126-964-11	ELECT	10uF	20%	50V
C362	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C363	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C364	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C365	1-115-156-11	CERAMIC CHIP	1uF		10V
C371	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C376	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C381	1-130-483-00	MYLAR	0.01uF	5%	50V
C382	1-137-427-11	MYLAR	120PF	5%	50V
C383	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C384	1-162-946-11	CERAMIC CHIP	27PF	5%	50V
C385	1-126-964-11	ELECT	10uF	20%	50V
C390	1-126-935-11	ELECT	470uF	20%	10V
C391	1-104-665-11	ELECT	100uF	20%	10V
C395	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C396	1-126-965-11	ELECT	22uF	20%	50V
C397	1-126-964-11	ELECT	10uF	20%	50V
C398	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C399	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C416	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C432	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C433	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C434	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C498	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C502	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C504	1-109-889-11	ELECT	1uF	20%	50V
C510	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C511	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C512	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C516	1-104-656-11	ELECT	2200uF	20%	6.3V
C530	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C546	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C562	1-104-665-11	ELECT	100uF	20%	10V
C564	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C596	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C598	1-126-964-11	ELECT	10uF	20%	50V
C601	1-126-964-11	ELECT	10uF	20%	50V
C602	1-136-165-00	FILM	0.1uF	5%	50V
C603	1-136-165-00	FILM	0.1uF	5%	50V
C701	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C702	1-126-961-11	ELECT	2.2uF	20%	50V
C703	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C704	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C705	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C751	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C752	1-126-961-11	ELECT	2.2uF	20%	50V
C783	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C813	1-107-721-11	ELECT	4.7uF	20%	100V
C861	1-107-717-11	ELECT	47uF	20%	50V
C863	1-107-721-11	ELECT	4.7uF	20%	100V
C892	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C909	1-126-942-61	ELECT	1000uF	20%	25V
C910	1-126-768-11	ELECT	2200uF	20%	16V
C911	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C912	1-126-916-11	ELECT	1000uF	20%	6.3V
C914	1-136-165-00	FILM	0.1uF	5%	50V
C915	1-136-165-00	FILM	0.1uF	5%	50V
C916	1-136-165-00	FILM	0.1uF	5%	50V

MAIN

Ref. No.	Part No.	Description			Remark
C917	1-136-165-00	FILM	0.1uF	5%	50V
C918	1-136-165-00	FILM	0.1uF	5%	50V
C919	1-136-165-00	FILM	0.1uF	5%	50V
C920	1-126-944-11	ELECT	3300uF	20%	25V
C921	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C922	1-126-935-11	ELECT	470uF	20%	16V
C925	1-126-935-11	ELECT	470uF	20%	10V
C932	1-126-935-11	ELECT	470uF	20%	10V
C951	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C961	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C962	1-126-935-11	ELECT	470uF	20%	10V
		< CONNECTOR >			
CN201	1-569-914-11	SOCKET, CONNECTOR 21P			
CN202	1-785-336-11	PIN, CONNECTOR (LIGHT ANGLE) 10P			
* CN301	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P			
* CN304	1-569-934-11	SOCKET, CONNECTOR 17P			
CN401	1-793-766-11	CONNECTOR, BOARD TO BOARD 30P			
CN501	1-785-330-11	PIN, CONNECTOR (LIGHT ANGLE) 4P			
CN702	1-569-906-11	SOCKET, CONNECTOR 11P			
* CN781	1-568-937-11	PIN, CONNECTOR 10P			
CN783	1-568-951-11	PIN, CONNECTOR 2P			
CN891	1-564-506-11	PLUG, CONNECTOR 3P			
CN901	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P			
CN902	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P			
		< DIODE >			
D121	8-719-988-61	DIODE 1SS355TE-17			
D122	8-719-988-61	DIODE 1SS355TE-17			
D501	8-719-988-61	DIODE 1SS355TE-17			
D502	8-719-988-61	DIODE 1SS355TE-17			
D503	8-719-988-61	DIODE 1SS355TE-17			
D504	8-719-988-61	DIODE 1SS355TE-17			
D505	8-719-988-61	DIODE 1SS355TE-17			
D508	8-719-988-61	DIODE 1SS355TE-17			
D509	8-719-988-61	DIODE 1SS355TE-17			
D601	8-719-988-61	DIODE 1SS355TE-17			
D602	8-719-988-61	DIODE 1SS355TE-17			
D603	8-719-988-61	DIODE 1SS355TE-17			
D841	8-719-988-61	DIODE 1SS355TE-17			
D906	8-719-083-89	DIODE 11ES2N-TB5			
D907	8-719-083-89	DIODE 11ES2N-TB5			
D908	8-719-083-89	DIODE 11ES2N-TB5			
D909	8-719-083-89	DIODE 11ES2N-TB5			
D914	8-719-083-89	DIODE 11ES2N-TB5			
D915	8-719-083-89	DIODE 11ES2N-TB5			
D916	8-719-083-89	DIODE 11ES2N-TB5			
D917	8-719-083-89	DIODE 11ES2N-TB5			
D918	8-719-083-89	DIODE 11ES2N-TB5			
D919	8-719-083-89	DIODE 11ES2N-TB5			
D920	8-719-083-89	DIODE 11ES2N-TB5			
D921	8-719-083-89	DIODE 11ES2N-TB5			
D922	8-719-083-89	DIODE 11ES2N-TB5			
D923	8-719-083-89	DIODE 11ES2N-TB5			
D924	8-719-083-89	DIODE 11ES2N-TB5			

Ref. No.	Part No.	Description			Remark
		< FERRITE BEAD/RESISTOR >			
FB201	1-216-864-11	METAL CHIP	0	5%	1/16W
FB203	1-414-772-21	FERRITE	0		
FB204	1-414-772-21	FERRITE	0		
FB208	1-216-864-11	METAL CHIP	0	5%	1/16W
FB210	1-216-864-11	METAL CHIP	0	5%	1/16W
FB211	1-216-864-11	METAL CHIP	0	5%	1/16W
FB212	1-216-864-11	METAL CHIP	0	5%	1/16W
FB213	1-216-864-11	METAL CHIP	0	5%	1/16W
FB214	1-216-864-11	METAL CHIP	0	5%	1/16W
FB215	1-216-864-11	METAL CHIP	0	5%	1/16W
FB216	1-216-864-11	METAL CHIP	0	5%	1/16W
FB217	1-216-864-11	METAL CHIP	0	5%	1/16W
FB218	1-216-864-11	METAL CHIP	0	5%	1/16W
FB219	1-216-864-11	METAL CHIP	0	5%	1/16W
FB220	1-216-864-11	METAL CHIP	0	5%	1/16W
FB516	1-216-864-11	FERRITE	0		
FB562	1-216-864-11	FERRITE	0		
FB599	1-216-864-11	METAL CHIP	0	5%	1/16W
FB701	1-216-864-11	METAL CHIP	0	5%	1/16W
FB751	1-216-864-11	METAL CHIP	0	5%	1/16W
		< IC >			
IC101	8-759-604-32	IC M5F7810L			
IC102	6-701-686-01	IC M61519FPD60G			
IC201	8-749-019-25	IC TOTX141 (CD DIGITAL OUT OPTICAL)			
IC301	6-702-130-01	IC HA12237F			
IC302	8-759-143-54	IC uPC1330HA			
IC303	8-759-710-97	IC NJM4565M-D			
IC501	6-801-049-01	IC M30620MCN-A00FP			
IC601	8-759-533-04	IC M62703ML-E1			
IC911	8-759-039-69	IC uPC7805AHF			
IC951	6-701-760-01	IC uPC3504AHF			
IC961	8-759-701-59	IC NJM78M09FA			
		< JACK >			
J401	1-774-227-11	JACK, PIN 1P (VIDEO OUT)			
J750	1-793-987-11	JACK, PIN 2P (MD/VIDEO (AUDIO) IN)			
		< RESISTOR >			
JR24	1-216-864-11	METAL CHIP	0	5%	1/16W
JR102	1-216-864-11	METAL CHIP	0	5%	1/16W
JR103	1-216-296-11	SHORT	0		
JR104	1-216-296-11	SHORT	0		
JR105	1-216-864-11	METAL CHIP	0	5%	1/16W
JR106	1-216-864-11	METAL CHIP	0	5%	1/16W
JR107	1-216-296-11	SHORT	0		
JR108	1-216-864-11	METAL CHIP	0	5%	1/16W
JR111	1-216-864-11	METAL CHIP	0	5%	1/16W
JR112	1-216-864-11	METAL CHIP	0	5%	1/16W
JR113	1-216-296-11	SHORT	0		
JR116	1-216-864-11	METAL CHIP	0	5%	1/16W
JR118	1-216-864-11	METAL CHIP	0	5%	1/16W
JR120	1-216-296-11	SHORT	0		
JR121	1-216-296-11	SHORT	0		
JR122	1-216-296-11	SHORT	0		
JR127	1-216-864-11	METAL CHIP	0	5%	1/16W

MAIN

Ref. No.	Part No.	Description			Remark
JR130	1-216-864-11	METAL CHIP	0	5%	1/16W
JR131	1-216-864-11	METAL CHIP	0	5%	1/16W
JR135	1-216-864-11	METAL CHIP	0	5%	1/16W
JR137	1-216-864-11	METAL CHIP	0	5%	1/16W
JR138	1-216-864-11	METAL CHIP	0	5%	1/16W
JR144	1-216-864-11	METAL CHIP	0	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
		< COIL >			
L201	1-414-189-31	INDUCTOR	100uH		
L301	1-410-780-11	INDUCTOR	27mH		
L302	1-414-189-31	INDUCTOR	100uH		
L351	1-410-780-11	INDUCTOR	27mH		
		< TRANSISTOR >			
Q101	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q103	8-729-802-80	TRANSISTOR	2SC3661		
Q151	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q153	8-729-802-80	TRANSISTOR	2SC3661		
Q201	8-729-802-80	TRANSISTOR	2SC3661		
Q202	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q203	8-729-216-22	TRANSISTOR	2SA1162-G		
Q204	8-729-216-22	TRANSISTOR	2SA1162-G		
Q205	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q206	8-729-113-13	TRANSISTOR	FA1A4M-L33		
Q207	8-729-113-69	TRANSISTOR	FN1F4M-M32		
Q251	8-729-802-80	TRANSISTOR	2SC3661		
Q301	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L		
Q302	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q303	8-729-142-46	TRANSISTOR	2SC2001-LK		
Q304	8-729-113-69	TRANSISTOR	FN1F4M-M32		
Q305	8-729-113-13	TRANSISTOR	FA1A4M-L33		
Q306	8-729-113-13	TRANSISTOR	FA1A4M-L33		
Q307	8-729-216-22	TRANSISTOR	2SA1162-G		
Q310	8-729-113-13	TRANSISTOR	FA1A4M-L33		
Q389	8-729-113-13	TRANSISTOR	FA1A4M-L33		
Q390	8-729-113-13	TRANSISTOR	FA1A4M-L33		
Q391	8-729-140-04	TRANSISTOR	2SB1116A-L		
Q392	8-729-113-13	TRANSISTOR	FA1A4M-L33		
Q393	8-729-140-04	TRANSISTOR	2SB1116A-L		
Q394	8-729-113-13	TRANSISTOR	FA1A4M-L33		
Q395	8-729-113-13	TRANSISTOR	FA1A4M-L33		
Q396	8-729-116-57	TRANSISTOR	2SB1068-K		
Q397	8-729-113-13	TRANSISTOR	FA1A4M-L33		
Q398	8-729-113-13	TRANSISTOR	FA1A4M-L33		
Q399	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L		
Q504	8-729-113-69	TRANSISTOR	FN1F4M-M32		
Q505	8-729-113-13	TRANSISTOR	FA1A4M-L33		
Q601	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q812	8-729-802-80	TRANSISTOR	2SC3661		
Q861	8-729-113-69	TRANSISTOR	FN1F4M-M32		
Q862	8-729-802-80	TRANSISTOR	2SC3661		
Q891	8-729-140-04	TRANSISTOR	2SB1116A-L		
Q892	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q911	8-729-040-20	TRANSISTOR	RT1P137L-TP		
Q912	8-729-113-13	TRANSISTOR	FA1A4M-L33		

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R101	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R102	1-218-289-11	RES-CHIP	510	5%	1/10W
R103	1-216-833-11	METAL CHIP	10K	5%	1/16W
R104	1-216-841-11	METAL CHIP	47K	5%	1/16W
R105	1-216-833-11	METAL CHIP	10K	5%	1/16W
R108	1-216-821-11	METAL CHIP	1K	5%	1/16W
R109	1-216-839-11	METAL CHIP	33K	5%	1/16W
R113	1-216-821-11	METAL CHIP	1K	5%	1/16W
R114	1-216-841-11	METAL CHIP	47K	5%	1/16W
R115	1-216-833-11	METAL CHIP	10K	5%	1/16W
R116	1-216-833-11	METAL CHIP	10K	5%	1/16W
R121	1-216-821-11	METAL CHIP	1K	5%	1/16W
R122	1-216-821-11	METAL CHIP	1K	5%	1/16W
R150	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R151	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R152	1-216-833-11	METAL CHIP	10K	5%	1/16W
R153	1-216-833-11	METAL CHIP	10K	5%	1/16W
R154	1-216-841-11	METAL CHIP	47K	5%	1/16W
R155	1-216-857-11	METAL CHIP	1M	5%	1/16W
R156	1-216-845-11	METAL CHIP	100K	5%	1/16W
R157	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R158	1-216-821-11	METAL CHIP	1K	5%	1/16W
R159	1-216-839-11	METAL CHIP	33K	5%	1/16W
R162	1-218-289-11	RES-CHIP	510	5%	1/10W
R163	1-216-821-11	METAL CHIP	1K	5%	1/16W
R164	1-216-841-11	METAL CHIP	47K	5%	1/16W
R165	1-216-833-11	METAL CHIP	10K	5%	1/16W
R166	1-216-833-11	METAL CHIP	10K	5%	1/16W
R180	1-216-833-11	METAL CHIP	10K	5%	1/16W
R190	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R191	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R204	1-216-833-11	METAL CHIP	10K	5%	1/16W
R206	1-216-833-11	METAL CHIP	10K	5%	1/16W
R207	1-216-833-11	METAL CHIP	10K	5%	1/16W
R208	1-216-833-11	METAL CHIP	10K	5%	1/16W
R209	1-216-833-11	METAL CHIP	10K	5%	1/16W
R212	1-216-864-11	METAL CHIP	0	5%	1/16W
R217	1-216-864-11	METAL CHIP	0	5%	1/16W
R219	1-216-864-11	METAL CHIP	0	5%	1/16W
R224	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R226	1-216-851-11	METAL CHIP	330K	5%	1/16W
R228	1-216-845-11	METAL CHIP	100K	5%	1/16W
R254	1-216-833-11	METAL CHIP	10K	5%	1/16W
R284	1-216-833-11	METAL CHIP	470K	5%	1/16W
R285	1-216-837-11	METAL CHIP	22K	5%	1/16W
R286	1-216-837-11	METAL CHIP	22K	5%	1/16W
R301	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R302	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R304	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R305	1-216-841-11	METAL CHIP	47K	5%	1/16W
R306	1-216-837-11	METAL CHIP	22K	5%	1/16W
R307	1-216-857-11	METAL CHIP	1M	5%	1/16W
R308	1-216-809-11	METAL CHIP	100	5%	1/16W
R309	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
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
R312	1-216-809-11	METAL CHIP	100	5%	1/16W
R313	1-216-821-11	METAL CHIP	1K	5%	1/16W
R314	1-216-821-11	METAL CHIP	1K	5%	1/16W
R315	1-216-833-11	METAL CHIP	10K	5%	1/16W
R316	1-216-833-11	METAL CHIP	10K	5%	1/16W
R317	1-216-833-11	METAL CHIP	10K	5%	1/16W
R320	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R327	1-216-835-11	METAL CHIP	15K	5%	1/16W
R328	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R329	1-216-833-11	METAL CHIP	10K	5%	1/16W
R330	1-216-837-11	METAL CHIP	22K	5%	1/16W
R332	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R333	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R334	1-216-845-11	METAL CHIP	100K	5%	1/16W
R342	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
⚠R343	1-219-787-17	FUSIBLE	5.6	5%	1/4W F
⚠R344	1-219-787-17	FUSIBLE	5.6	5%	1/4W F
R345	1-216-836-11	METAL CHIP	18K	5%	1/16W
R346	1-216-836-11	METAL CHIP	18K	5%	1/16W
R347	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R351	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R352	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R354	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R355	1-216-841-11	METAL CHIP	47K	5%	1/16W
R360	1-216-819-11	METAL CHIP	680	5%	1/16W
R361	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R362	1-216-833-11	METAL CHIP	10K	5%	1/16W
R363	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R364	1-216-819-11	METAL CHIP	680	5%	1/16W
R365	1-216-833-11	METAL CHIP	10K	5%	1/16W
R366	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R367	1-216-841-11	METAL CHIP	47K	5%	1/16W
R368	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R369	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R370	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R371	1-216-841-11	METAL CHIP	47K	5%	1/16W
R373	1-216-821-11	METAL CHIP	1K	5%	1/16W
R374	1-216-841-11	METAL CHIP	47K	5%	1/16W
R375	1-218-296-11	RES-CHIP	75K	5%	1/10W
R377	1-216-841-11	METAL CHIP	47K	5%	1/16W
R378	1-218-296-11	RES-CHIP	75K	5%	1/10W
R379	1-216-833-11	METAL CHIP	10K	5%	1/16W
R380	1-216-837-11	METAL CHIP	22K	5%	1/16W
R382	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R387	1-216-833-11	METAL CHIP	10K	5%	1/16W
R388	1-216-837-11	METAL CHIP	22K	5%	1/16W
R390	1-216-833-11	METAL CHIP	10K	5%	1/16W
R391	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R392	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R393	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R394	1-216-833-11	METAL CHIP	10K	5%	1/16W
R395	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R396	1-216-833-11	METAL CHIP	10K	5%	1/16W
R397	1-216-835-11	METAL CHIP	15K	5%	1/16W
R398	1-216-861-11	METAL CHIP	2.2M	5%	1/16W
R399	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R419	1-216-864-11	METAL CHIP	0	5%	1/16W
R420	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R429	1-216-809-11	METAL CHIP	100	5%	1/16W
R430	1-216-809-11	METAL CHIP	100	5%	1/16W
R432	1-216-809-11	METAL CHIP	100	5%	1/16W
R433	1-216-809-11	METAL CHIP	100	5%	1/16W
R434	1-216-817-11	METAL CHIP	470	5%	1/16W
R446	1-216-809-11	METAL CHIP	100	5%	1/16W
R447	1-216-809-11	METAL CHIP	100	5%	1/16W
R448	1-216-809-11	METAL CHIP	100	5%	1/16W
R470	1-216-809-11	METAL CHIP	100	5%	1/16W
R488	1-216-809-11	METAL CHIP	100	5%	1/16W
R492	1-216-864-11	METAL CHIP	0	5%	1/16W
R493	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R501	1-216-843-11	METAL CHIP	68K	5%	1/16W
R502	1-216-833-11	METAL CHIP	10K	5%	1/16W
R503	1-216-833-11	METAL CHIP	10K	5%	1/16W
R508	1-216-835-11	METAL CHIP	15K	5%	1/16W
R509	1-216-833-11	METAL CHIP	10K	5%	1/16W
R510	1-216-853-11	METAL CHIP	470K	5%	1/16W
R511	1-216-851-11	METAL CHIP	330K	5%	1/16W
R513	1-216-864-11	METAL CHIP	0	5%	1/16W
R517	1-216-833-11	METAL CHIP	10K	5%	1/16W
R529	1-216-833-11	METAL CHIP	10K	5%	1/16W
R530	1-216-833-11	METAL CHIP	10K	5%	1/16W
R532	1-216-841-11	METAL CHIP	47K	5%	1/16W
R535	1-216-817-11	METAL CHIP	470	5%	1/16W
R536	1-216-809-11	METAL CHIP	100	5%	1/16W
R537	1-216-817-11	METAL CHIP	470	5%	1/16W
R540	1-216-809-11	METAL CHIP	100	5%	1/16W
R541	1-216-833-11	METAL CHIP	10K	5%	1/16W
R543	1-216-809-11	METAL CHIP	100	5%	1/16W
R544	1-216-809-11	METAL CHIP	100	5%	1/16W
R545	1-216-809-11	METAL CHIP	100	5%	1/16W
R546	1-216-833-11	METAL CHIP	10K	5%	1/16W
R547	1-216-833-11	METAL CHIP	10K	5%	1/16W
R548	1-216-833-11	METAL CHIP	10K	5%	1/16W
R549	1-216-809-11	METAL CHIP	100	5%	1/16W
R556	1-216-809-11	METAL CHIP	100	5%	1/16W
R557	1-216-809-11	METAL CHIP	100	5%	1/16W
R573	1-216-833-11	METAL CHIP	10K	5%	1/16W
R574	1-216-833-11	METAL CHIP	10K	5%	1/16W
R575	1-216-833-11	METAL CHIP	10K	5%	1/16W
R579	1-216-833-11	METAL CHIP	10K	5%	1/16W
R580	1-216-833-11	METAL CHIP	10K	5%	1/16W
R583	1-216-809-11	METAL CHIP	100	5%	1/16W
R584	1-216-809-11	METAL CHIP	100	5%	1/16W
R585	1-216-833-11	METAL CHIP	10K	5%	1/16W
R588	1-216-833-11	METAL CHIP	10K	5%	1/16W
R589	1-216-809-11	METAL CHIP	100	5%	1/16W
R590	1-216-809-11	METAL CHIP	100	5%	1/16W
R591	1-216-809-11	METAL CHIP	100	5%	1/16W
R593	1-216-821-11	METAL CHIP	1K	5%	1/16W
R601	1-216-813-11	METAL CHIP	220	5%	1/16W
R602	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R603	1-216-841-11	METAL CHIP	47K	5%	1/16W
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

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

MAIN | MAIN TRANS | MOTOR | PAD SWITCH

Ref. No.	Part No.	Description			Remark
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 (MX, AR)			
CN973	1-568-106-11	PIN, CONNECTOR 4P (E)			
* CN997	1-564-526-11	PLUG, CONNECTOR 11P			
		< 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
	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
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

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

PAD SWITCH PANEL

Ref. No.	Part No.	Description			Remark
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 (I◀◀)			
S758	1-762-875-21	SWITCH, TACTILE (▮▮)			
S759	1-762-875-21	SWITCH, TACTILE (◁I▷)			
S760	1-762-875-21	SWITCH, TACTILE (■)			
S761	1-762-875-21	SWITCH, TACTILE (▶▶I)			
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-4727-552-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
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

Ref. No.	Part No.	Description			Remark
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
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

PANEL | POWER

Ref. No.	Part No.	Description			Remark
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)			
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)			
**********					
	A-4727-561-A	POWER BOARD, COMPLETE			
		**********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			

Ref. No.	Part No.	Description			Remark
		< CAPACITOR >			
C501	1-126-963-11	ELECT	4.7uF	20%	50V
C502	1-162-290-31	CERAMIC	470PF	10%	50V
C503	1-162-282-31	CERAMIC	100PF	10%	50V
C504	1-104-665-11	ELECT	100uF	20%	10V
C505	1-162-199-31	CERAMIC	10PF	5%	50V
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	1-164-159-11	CERAMIC	0.1uF		50V
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
C544	1-130-777-00	MYLAR	0.1uF	5%	100V
C545	1-130-777-00	MYLAR	0.1uF	5%	100V
C546	1-127-813-11	ELECT	3300uF	20%	71V
C551	1-126-963-11	ELECT	4.7uF	20%	50V
C552	1-162-290-31	CERAMIC	470PF	10%	50V
C553	1-162-282-31	CERAMIC	100PF	10%	50V
C554	1-104-665-11	ELECT	100uF	20%	10V
C555	1-162-199-31	CERAMIC	10PF	5%	50V
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
C596	1-127-813-11	ELECT	3300uF	20%	71V
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			
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			
D511	8-719-911-19	DIODE 1SS119-25			
D543	8-719-500-60	DIODE D5SBA20			
D551	8-719-911-19	DIODE 1SS119-25			
D581	8-719-911-19	DIODE 1SS119-25			
D941	8-719-150-92	DIODE RD33EB3T			
		< EARTH TERMINAL >			
* EP501	1-537-738-21	TERMINAL, EARTH			
* EP502	1-537-738-21	TERMINAL, EARTH			

POWER **SENSOR** **SENSOR (CD)**

Ref. No.	Part No.	Description			Remark
		< IC >			
IC501	8-749-017-16	IC STK442-130			
		< TRANSISTOR >			
Q501	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
Q502	8-729-119-79	TRANSISTOR	2SC2785-FEK		
Q503	8-729-140-82	TRANSISTOR	2SA988-PAFAEA		
Q504	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
Q505	8-729-119-79	TRANSISTOR	2SC2785-FEK		
Q506	8-729-119-79	TRANSISTOR	2SC2785-FEK		
Q507	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
Q508	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
Q509	8-729-140-82	TRANSISTOR	2SA988-PAFAEA		
Q510	8-729-119-79	TRANSISTOR	2SC2785-FEK		
Q511	8-729-119-79	TRANSISTOR	2SC2785-FEK		
Q512	8-729-900-36	TRANSISTOR	DTC124ES		
Q551	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
Q581	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA		
Q831	8-729-119-79	TRANSISTOR	2SC2785-FEK		
Q941	8-729-209-60	TRANSISTOR	2SB1375		
		< RESISTOR >			
R501	1-249-417-11	CARBON	1K	5% 1/4W	
R502	1-249-437-11	CARBON	47K	5% 1/4W	
R503	1-249-409-11	CARBON	220	5% 1/4W	
R504	1-249-437-11	CARBON	47K	5% 1/4W	
R505	1-249-417-11	CARBON	1K	5% 1/4W	
R506	1-249-431-11	CARBON	15K	5% 1/4W	
R507	1-249-441-11	CARBON	100K	5% 1/4W	
⚠R508	1-220-893-11	METAL	0.22	10% 5W	F
R509	1-260-076-11	CARBON	10	5% 1/2W	
⚠R510	1-220-893-11	METAL	0.22	10% 5W	F
⚠R511	1-212-881-11	FUSIBLE	100	5% 1/4W	F
⚠R512	1-202-972-61	FUSIBLE	1	5% 1/4W	F
R513	1-249-435-11	CARBON	33K	5% 1/4W	
R514	1-249-421-11	CARBON	2.2K	5% 1/4W	
R515	1-249-433-11	CARBON	22K	5% 1/4W	
R516	1-249-429-11	CARBON	10K	5% 1/4W	
R517	1-249-429-11	CARBON	10K	5% 1/4W	
R518	1-249-435-11	CARBON	33K	5% 1/4W	
R519	1-249-439-11	CARBON	68K	5% 1/4W	
R521	1-249-441-11	CARBON	100K	5% 1/4W	
R522	1-249-441-11	CARBON	100K	5% 1/4W	
R523	1-247-883-00	CARBON	150K	5% 1/4W	
R527	1-249-438-11	CARBON	56K	5% 1/4W	
R528	1-249-437-11	CARBON	47K	5% 1/4W	
R529	1-249-433-11	CARBON	22K	5% 1/4W	
R530	1-249-433-11	CARBON	22K	5% 1/4W	
R531	1-249-409-11	CARBON	220	5% 1/4W	
R532	1-247-897-11	CARBON	560K	5% 1/4W	
R533	1-249-437-11	CARBON	47K	5% 1/4W	
R537	1-249-429-11	CARBON	10K	5% 1/4W	
R538	1-249-437-11	CARBON	47K	5% 1/4W	
⚠R539	1-215-893-11	METAL OXIDE	1.5K	5% 2W	F
R542	1-249-441-11	CARBON	100K	5% 1/4W	
R543	1-249-439-11	CARBON	68K	5% 1/4W	
R544	1-249-429-11	CARBON	10K	5% 1/4W	
R545	1-249-425-11	CARBON	4.7K	5% 1/4W	
R546	1-249-433-11	CARBON	22K	5% 1/4W	
R547	1-249-437-11	CARBON	47K	5% 1/4W	
R548	1-249-437-11	CARBON	47K	5% 1/4W	
R551	1-249-417-11	CARBON	1K	5% 1/4W	
R552	1-249-437-11	CARBON	47K	5% 1/4W	
R553	1-249-409-11	CARBON	220	5% 1/4W	
R554	1-249-437-11	CARBON	47K	5% 1/4W	
R555	1-249-417-11	CARBON	1K	5% 1/4W	
R556	1-249-431-11	CARBON	15K	5% 1/4W	
R557	1-249-441-11	CARBON	100K	5% 1/4W	
⚠R558	1-220-893-11	METAL	0.22	10% 5W	F
R559	1-260-076-11	CARBON	10	5% 1/2W	
⚠R560	1-220-893-11	METAL	0.22	10% 5W	F
⚠R561	1-212-881-11	FUSIBLE	100	5% 1/4W	F
R564	1-249-425-11	CARBON	4.7K	5% 1/4W	
R565	1-249-425-11	CARBON	4.7K	5% 1/4W	
R581	1-249-435-11	CARBON	33K	5% 1/4W	
R582	1-249-435-11	CARBON	33K	5% 1/4W	
R592	1-249-441-11	CARBON	100K	5% 1/4W	
R942	1-249-428-11	CARBON	8.2K	5% 1/4W	
R943	1-249-417-11	CARBON	1K	5% 1/4W	
R945	1-249-428-11	CARBON	8.2K	5% 1/4W	
		< RELAY >			
RY501	1-515-920-11	RELAY			
		< TERMINAL >			
TM501	1-694-884-11	PUSH TERMINAL (4P) (FRONT SPEAKER)			
**********					
	1-683-542-11	SENSOR BOARD			
		**********			
		< CONNECTOR >			
CN701	1-785-328-11	PIN, CONNECTOR 2P			
		< THERMISTOR >			
TH701	1-807-796-11	THERMISTOR			
**********					
	1-675-911-14	SENSOR (CD) BOARD			
		**********			
		< CAPACITOR >			
C712	1-164-159-11	CERAMIC	0.1uF	50V	
		< PHOTO INTERRUPTER >			
IC711	8-749-014-38	PHOTO INTERRUPTER SG-264			
		< RESISTOR >			
R711	1-247-876-11	CARBON	75K	5% 1/4W	
R712	1-249-409-11	CARBON	220	5% 1/4W	
R713	1-249-429-11	CARBON	10K	5% 1/4W	

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

SENSOR (CD) | SUB-TRANS | SW | VOL

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
S711	1-771-821-11	SWITCH, PUSH (1 KEY) (OPTICAL PICK-UP UP/DOWN DETECT)			
**********					
	A-4727-568-A	SUB-TRANS BOARD, COMPLETE (E)			
	A-4728-130-A	SUB-TRANS BOARD, COMPLETE (AR)			
	A-4728-717-A	SUB-TRANS BOARD, COMPLETE (MX)			
		**********			
		< CAPACITOR >			
⚠C971	1-113-925-11	CERAMIC	0.01uF	20%	250V
C973	1-126-933-11	ELECT	100uF	20%	16V
C975	1-126-768-11	ELECT	2200uF	20%	16V
C976	1-164-159-11	CERAMIC	0.1uF		50V
C977	1-164-159-11	CERAMIC	0.1uF		50V
C978	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
* CN974	1-564-321-21	PIN, CONNECTOR 2P			
CN976	1-506-468-11	PIN, CONNECTOR 3P			
		< DIODE >			
D971	8-719-911-19	DIODE 1SS119-25			
D972	8-719-024-99	DIODE 11ES2-NTA2B			
D973	8-719-024-99	DIODE 11ES2-NTA2B			
D974	8-719-024-99	DIODE 11ES2-NTA2B			
D975	8-719-024-99	DIODE 11ES2-NTA2B			
		< IC >			
IC971	6-701-760-01	IC uPC3504AHF			
		< TRANSISTOR >			
Q971	8-729-119-79	TRANSISTOR	2SC2785-FEK		
		< RESISTOR >			
R974	1-249-441-11	CARBON	100K	5%	1/4W
R975	1-249-429-11	CARBON	10K	5%	1/4W
		< RELAY >			
⚠RY971	1-755-276-11	RELAY, POWER			
		< SWITCH >			
⚠S901	1-786-055-21	SELECTOR, VOLTAGE (VOLATGE SELECTOR) (E)			
		< TRANSFORMER >			
⚠T972	1-435-825-11	TRANSFORMER, POWER			
**********					
	A-4676-533-A	SW BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1001	1-107-716-11	ELECT	33uF	20%	10V

Ref. No.	Part No.	Description			Remark
		< CONNECTOR >			
CN1001	1-568-860-21	SOCKET, CONNECTOR 17P			
		< DIODE >			
D1001	8-719-911-19	DIODE 1SS119-25			
D1002	8-719-911-19	DIODE 1SS119-25			
		< PHOTO INTERRUPTER >			
IC1001	8-749-014-38	PHOTO INTERRUPTER SG-264			
IC1002	8-749-014-38	PHOTO INTERRUPTER SG-264			
		< TRANSISTOR >			
Q1001	8-729-029-56	TRANSISTOR	DTA144ESA		
		< RESISTOR >			
R1001	1-249-409-11	CARBON	220	5%	1/4W
R1002	1-249-409-11	CARBON	220	5%	1/4W
R1003	1-249-414-11	CARBON	560	5%	1/4W
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W
R1005	1-247-818-11	CARBON	300	5%	1/4W
R1006	1-247-864-11	CARBON	24K	5%	1/4W
R1007	1-247-780-00	CARBON	7.5	5%	1/4W
R1008	1-249-417-11	CARBON	1K	5%	1/4W
		< VARIABLE RESISTOR >			
RV1001	1-241-785-11	RES, ADJ, CARBON 10K			
RV1002	1-241-785-11	RES, ADJ, CARBON 10K			
		< SWITCH >			
S1001	1-570-953-11	SWITCH, PUSH (1 KEY) (DECK A PLAY)			
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)			
**********					

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

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
8	1-693-572-71	TUNER PACK (FM/AM) (MX, AR)	
8	1-693-574-71	TUNER PACK (FM/AM) (E)	
⚠103	1-777-071-51	CORD, POWER (E51)	
⚠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) (E)	
⚠F974	1-533-473-11	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)	
⚠F975	1-533-473-11	FUSE, GLASS TUBE (DIA. 5) (T6.3AL/250V)	
HP901	X-4953-985-1	BLOCK (A) ASSY, HEAD (PB)	
HRPE901	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	
M901	X-3378-241-1	MOTOR ASSY (CAPSTAN) (WITH PULLEY)	(TAPE)
⚠T910	1-437-585-11	POWER TRANSFORMER	
**********			
		ACCESSORIES	
		**********	
⚠	1-569-008-21	ADAPTOR, CONVERSION (E51)	

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

REVISION HISTORY

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

Ver.	Date	Description of Revision
1.0	2002.02	New
1.1	2002.06	Change of CD Mechanism deck and of parts supply classification for Base Unit. (ECN-SMB00191)