HCD-GN800

SERVICE MANUAL

E Model
Australian Model

Ver 1.1 2003.06

HCD-GN800 is the amplifier, CD player, tape deck and tuner section in MHC-GN800.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM74-K6BD47S
	Base Unit Name	BU-K6BD47S
	Optical Pick-up Name	KSM-213DCP
TAPE Section	Model Name Using Similar Mechanism	HCD-XGR88
	Tape Transport Mechanism Type	CWM43RR23

SPECIFICATIONS

Amplifier section

The following are measured at AC 127V, 60 Hz
(Mexican model only)
The following are measured at AC 120, 220, 240V
50/60 Hz (except Mexican model)

DIN power output (rated)	170 + 170 watts (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)	220 + 220 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
SURROUND SPEAKER:	accepts impedance of 24 ohms or more

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

– Continued on next page –

MiNi Hi-Fi COMPONENT SYSTEM

9-877-275-02
2003F02-1

Sony Corporation
Home Audio Company
Published by Sony Engineering Corporation

SONY®

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 Americanmodels:	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

General

Power requirements	
Mexican models:	120V or 127V AC, 60 Hz
Argentina models:	220 V AC, 50/60 Hz
Australian model:	240V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 - 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	250 watts
Dimensions (w/h/d)	Approx. 280 x 360 x 386.5 mm
Mass :	Approx. 13.6 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.

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.

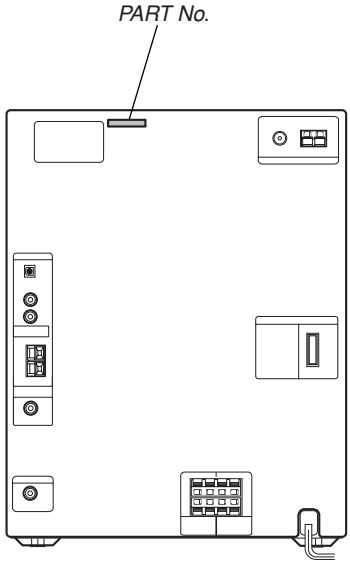
NOTES ON LASER DIODE EMISSION CHECK

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.
E2, E3models	4-244-107-0
E51 model	4-244-107-1
Mexican model	4-244-107-2
Argentina model	4-244-107-3

- Abbreviation
  E2 : 120 V AC Area in E model
  E3 : 240 V AC Area in E model
  E51 : Chilean and Peruvian model

SECTION 2
GENERAL

This section is extracted from instruction manual.

Main unit

ALPHABETICAL ORDER

A - D

ALBUM +/- 15
AMP MENU 43
CD 40
CD SYNC 17
DECK A 28
DECK B 23
DIRECTION 9
DISC 1~3 3
DISC SKIPEX-CHANGE 4
Disc tray 6
DISPLAY 41
Display 2

E - L

EDIT 9
EFFECT ON/OFF 44
FM MODE 8
GAME 36
GAME EQ 31
GAME INPUT (jacks) 27
GAME MIXING 34
GROOVE 33
IR (receptor) 42
ILLUMINATION 29

M - Q

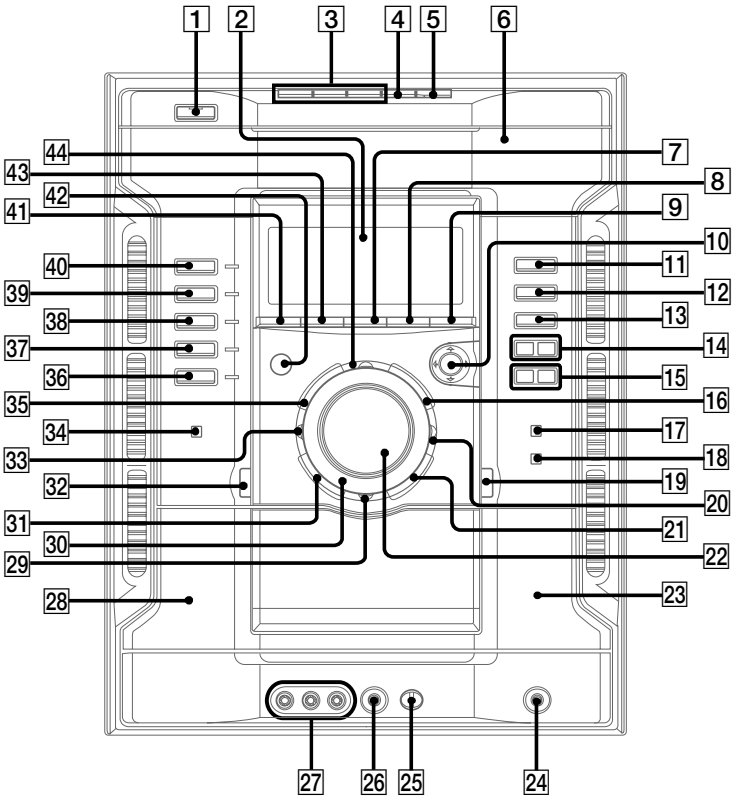
MD (VIDEO) 37
MIC (jack) 26
MIC LEVEL 25
MOVIE EQ 16
MUSIC EQ 35
OPEN/CLOSE ⏏ 5
P FILE 21
PHONES (jack) 24
PLAY MODE 7
Power illuminator 30
PUSH ENTER 10

R - Z

REC PAUSE/START 18
REPEAT 8
SURROUND SPEAKER MODE 20
TAPE A/B 38
TUNER/BAND 39
TUNER MEMORY 7
VOLUME 22

SYMBOLS

I/⏻ (power) 1
◁▷ (play) 11
■ (stop) 12
❚❚ (pause) 13
- ⏮ (go backward) 14
⏭ + (go forward) 14
◀◀ (rewind) 15
▶▶ (fast forward) 15
↑/↓/←/→ 10
⏏ A (Eject A) 32
⏏ B (Eject B) 19



This section is extracted from instruction manual.

Remote Control

ALPHABETICAL ORDER

A - M

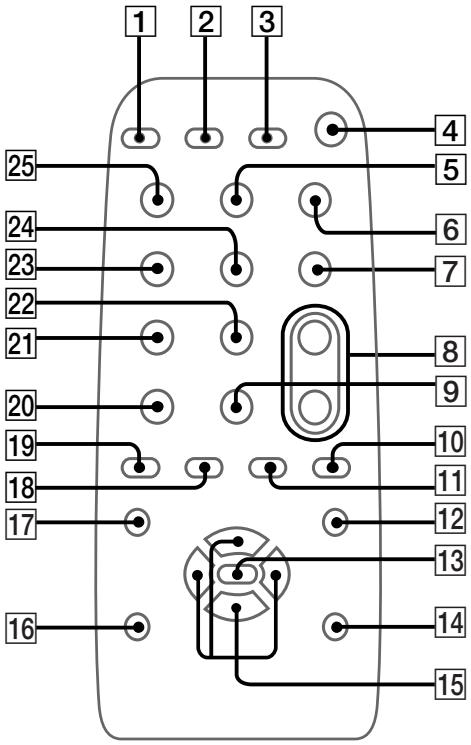
CD 19
CLEAR 7
CLOCK/TIMER SELECT 2
CLOCK/TIMER SET 3
D.SKIP 9
ENTER 13
EFFECT ON/OFF 14
GAME 20
MD (VIDEO) 10

P - Z

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

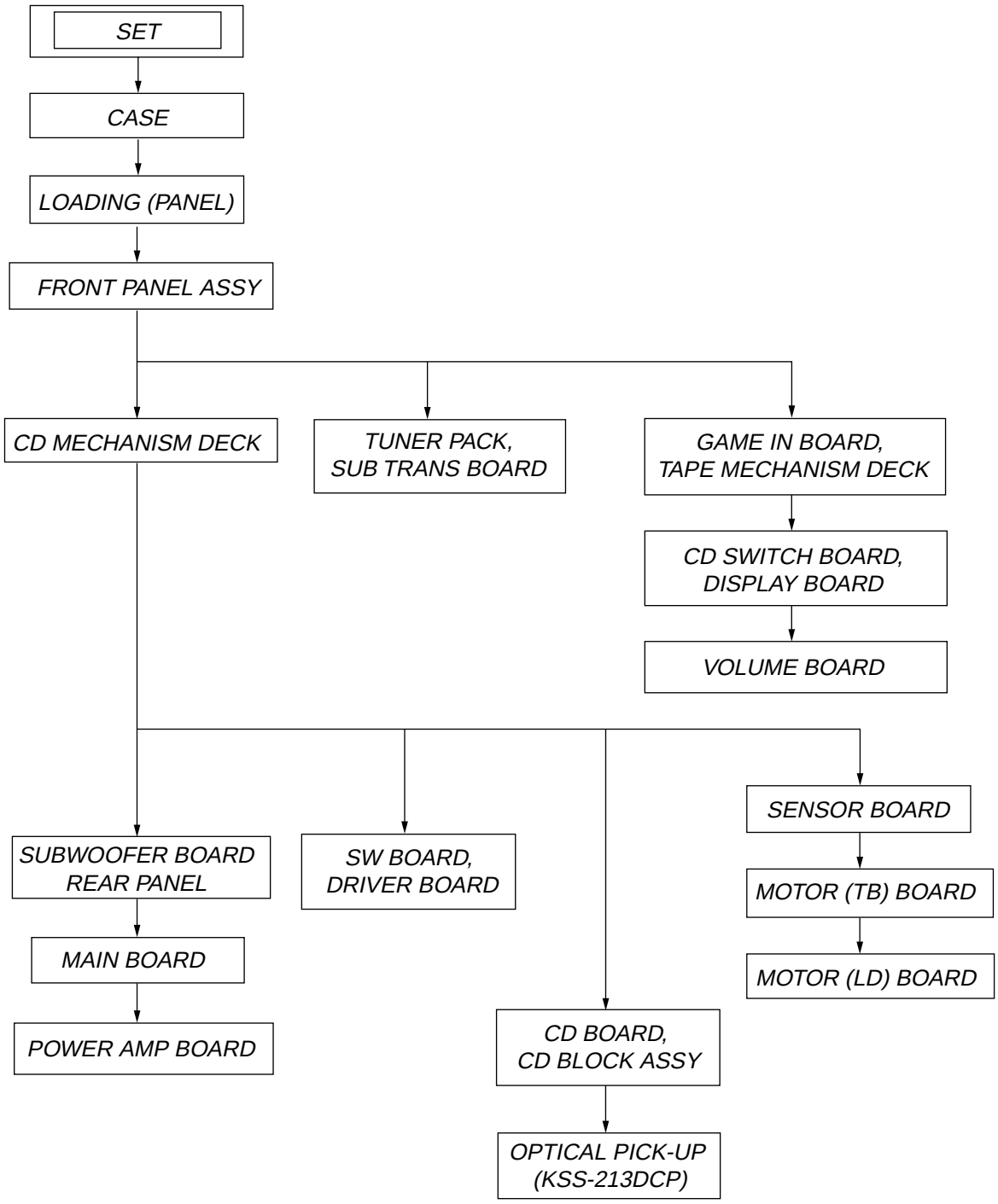
SYMBOLS

I/⏻ (power) 4
◄► (play) 25
II (pause) 5
■ (stop) 6
I◄◄ (go backward) 23
►►I (go forward) 24
◄◄ (rewind) 21
►► (fast forward) 22
↑/↓/←/→ 15



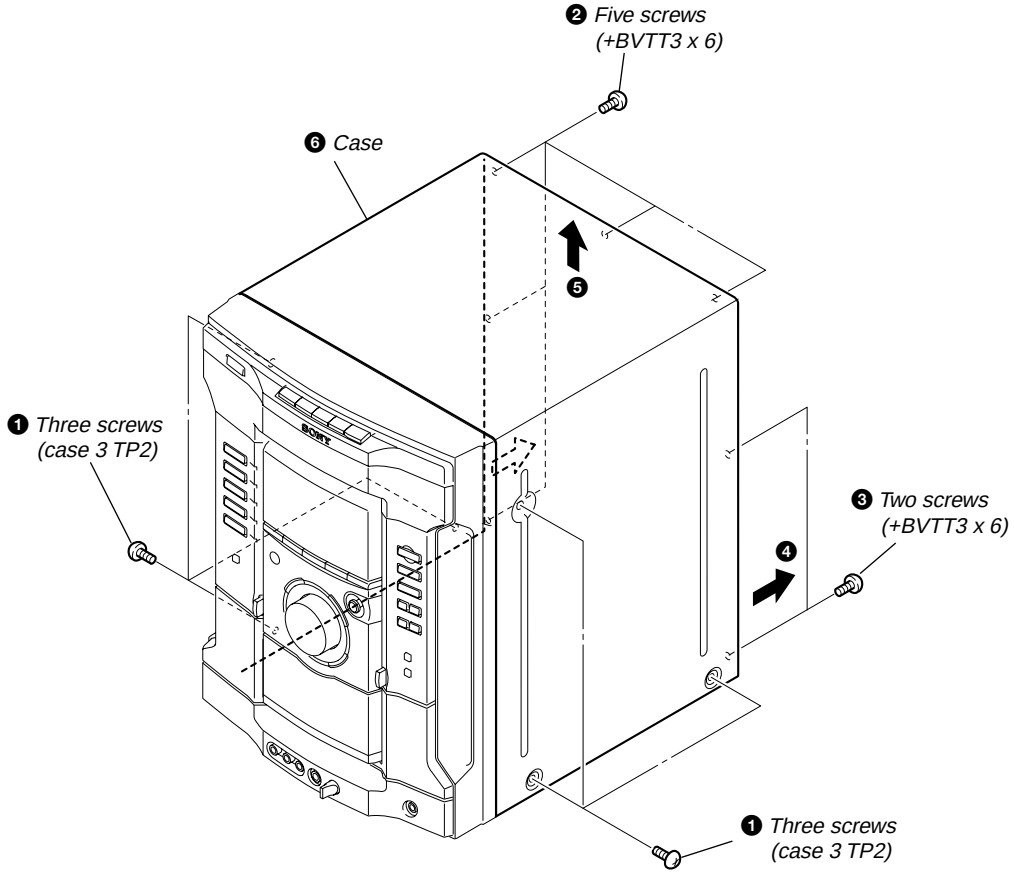
SECTION 3
DISASSEMBLY

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

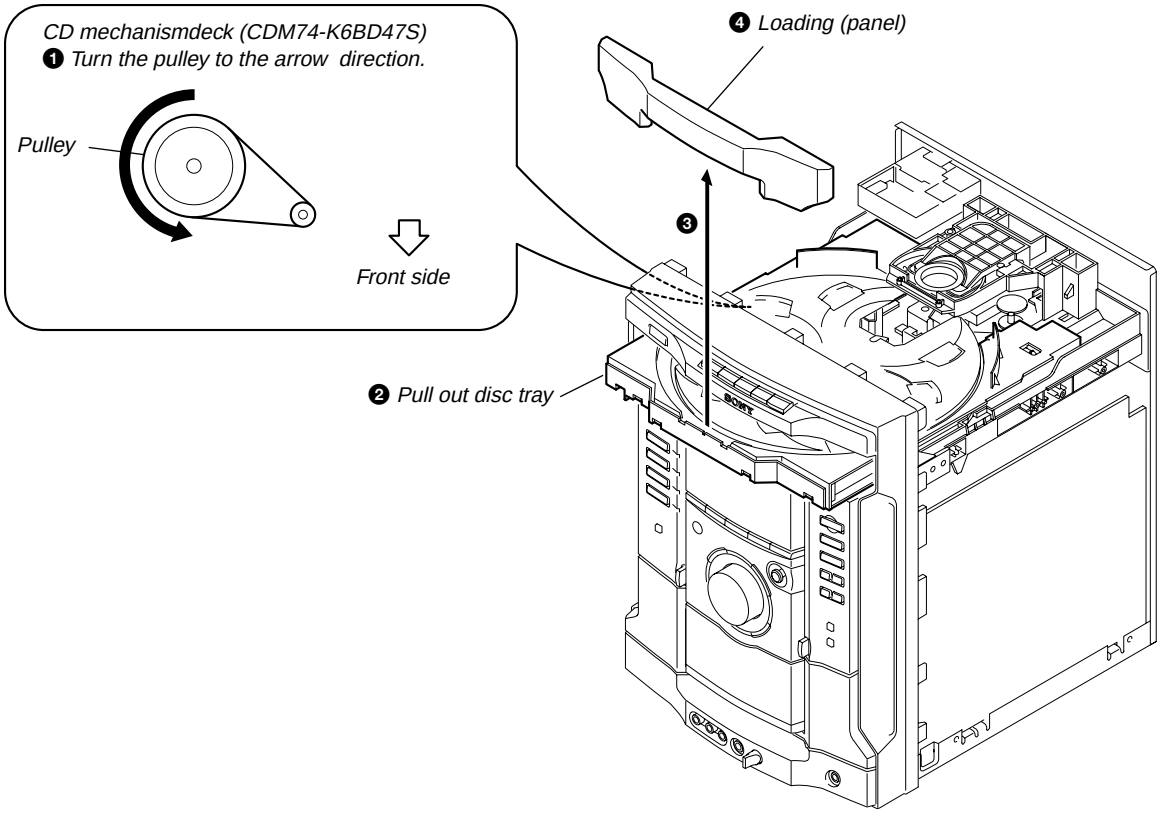


Note: Follow the disassembly procedure in the numerical order given.

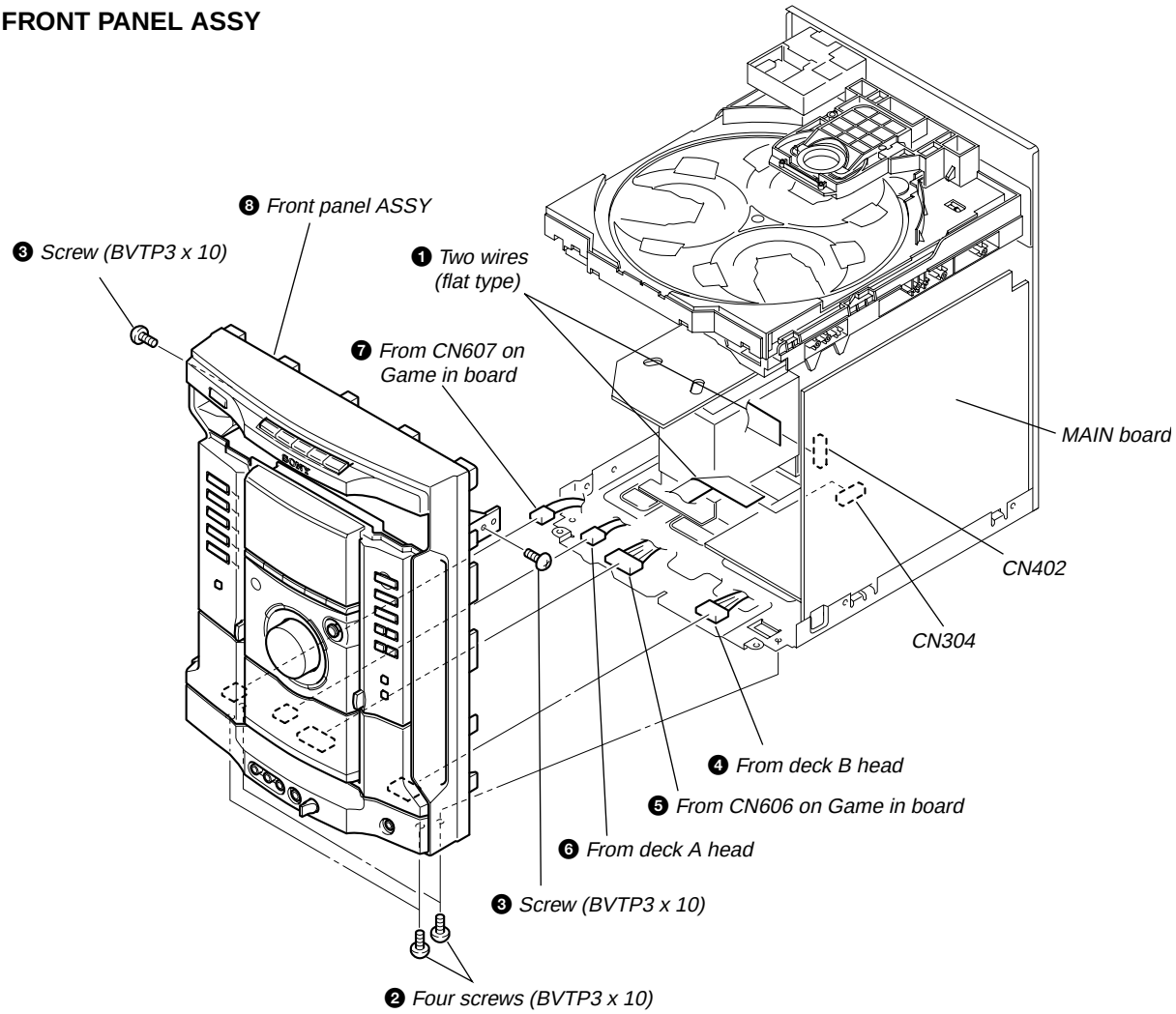
3-1. CASE



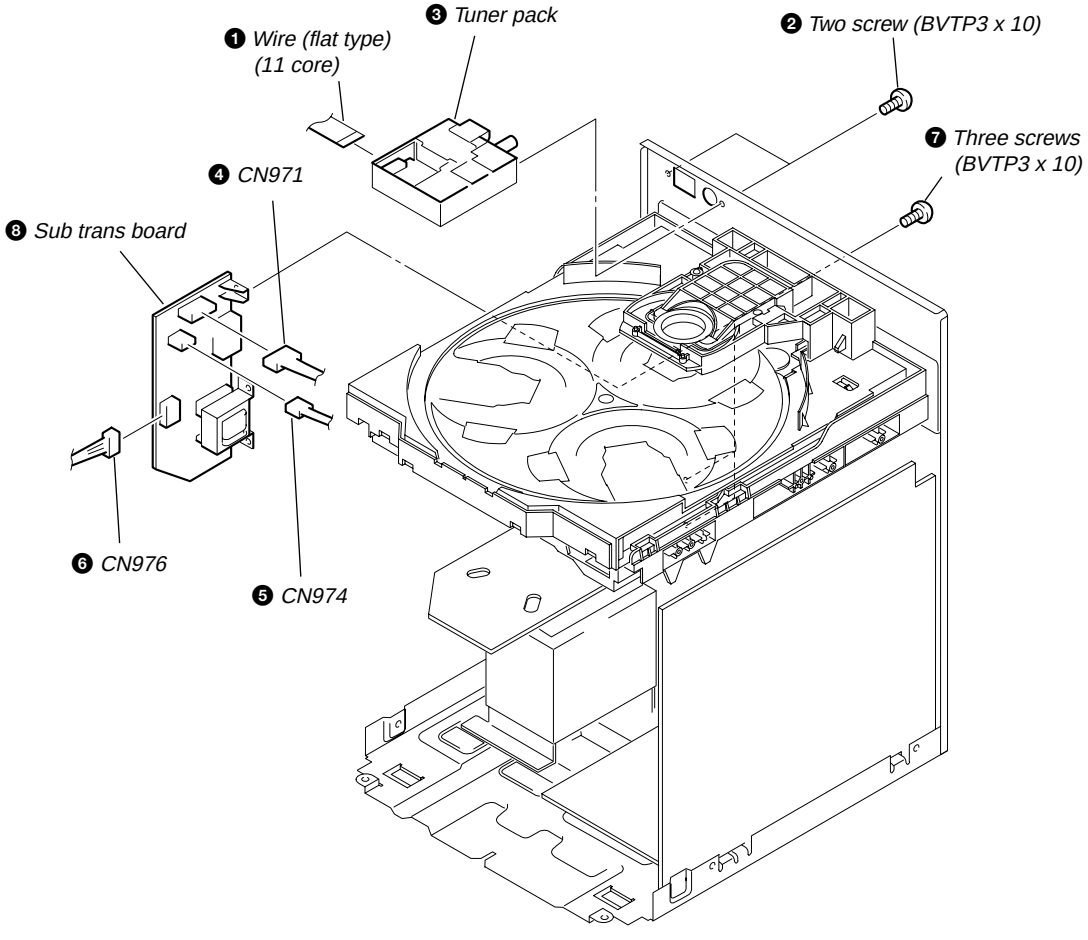
3-2. LOADING (PANEL)



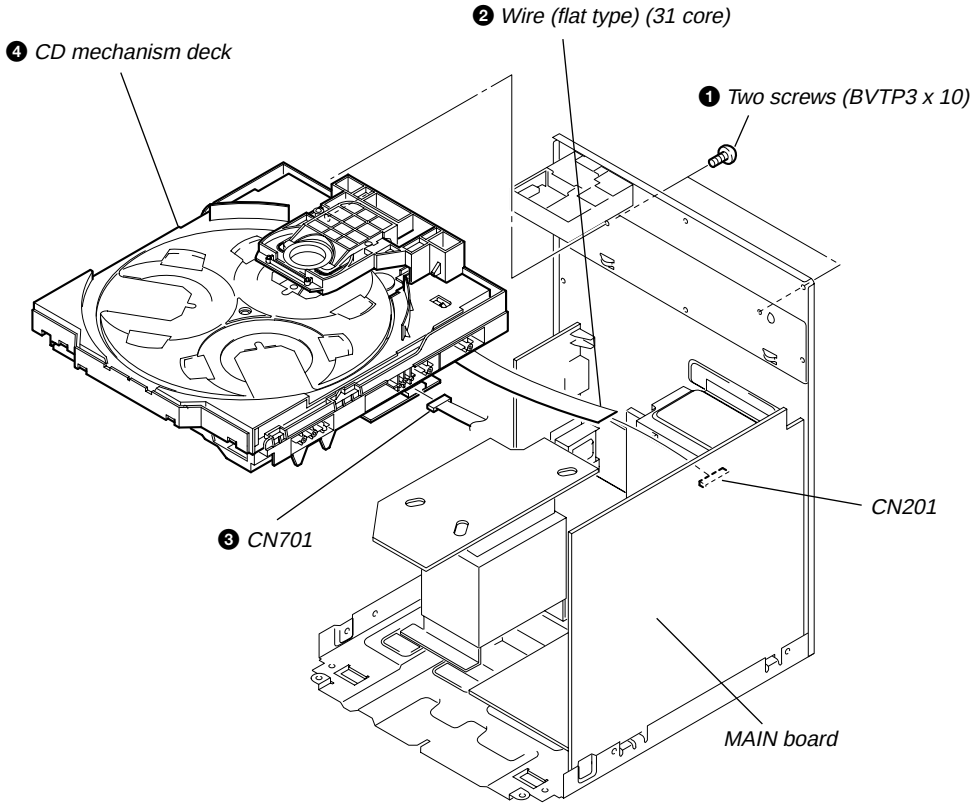
3-3. FRONT PANEL ASSY



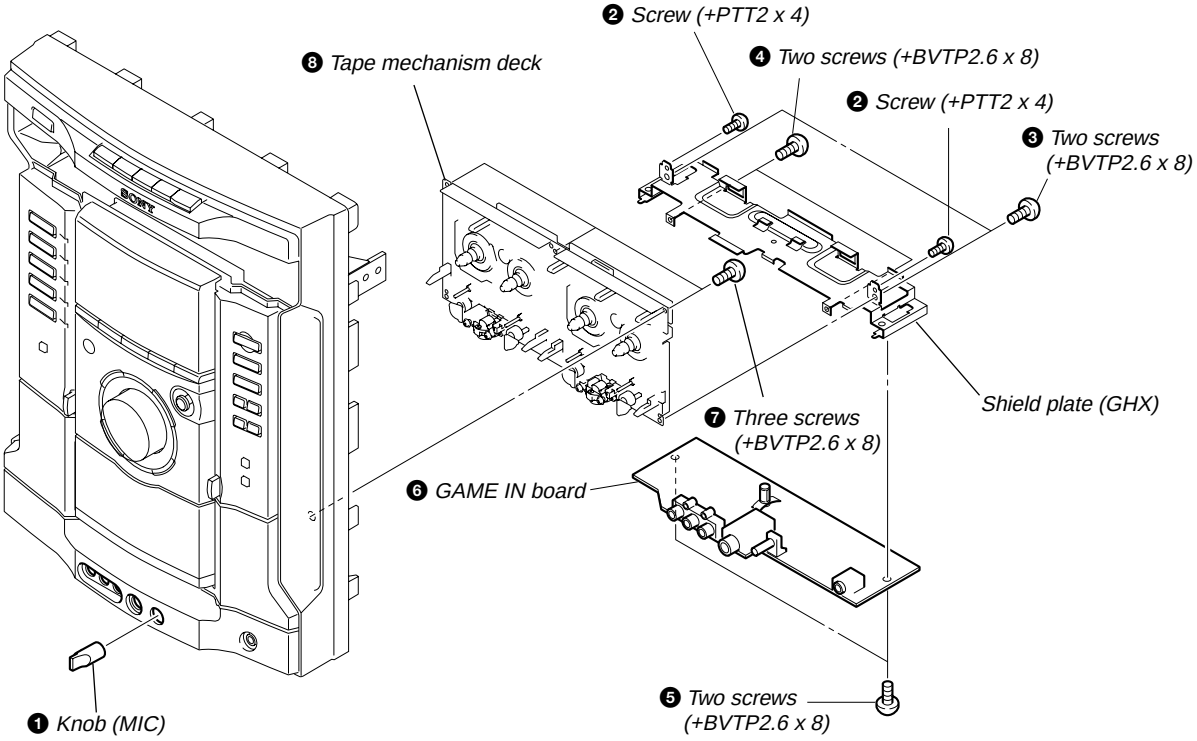
3-4. TUNER PACK, SUB TRANS BOARD



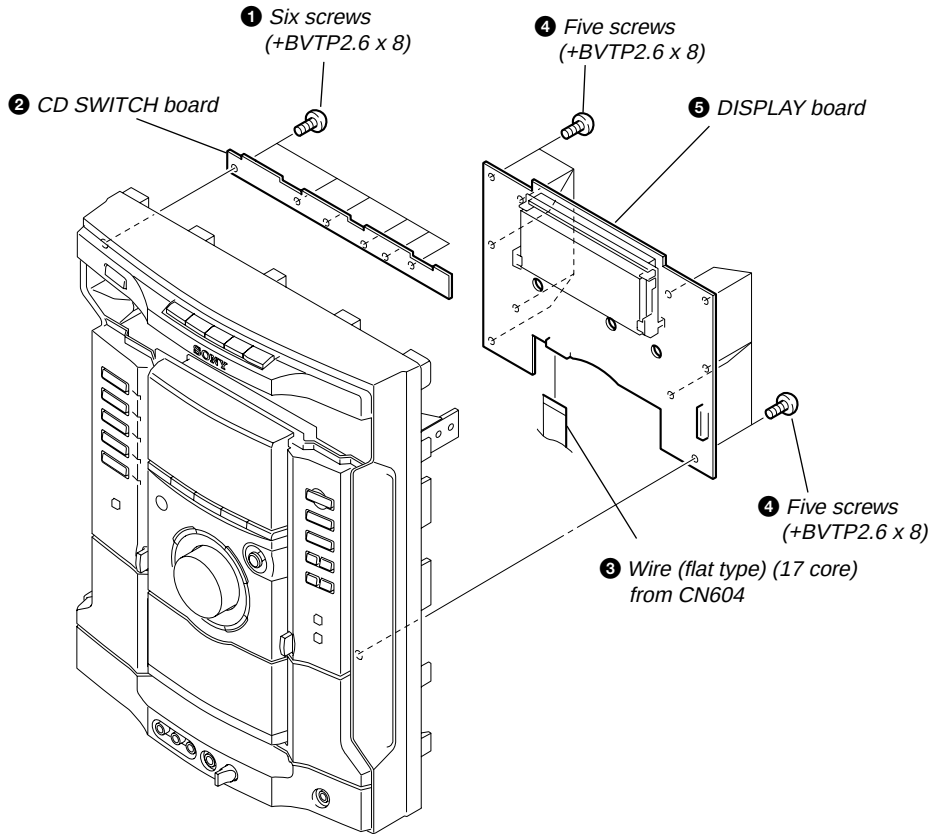
3-5. CD MECHANISM DECK



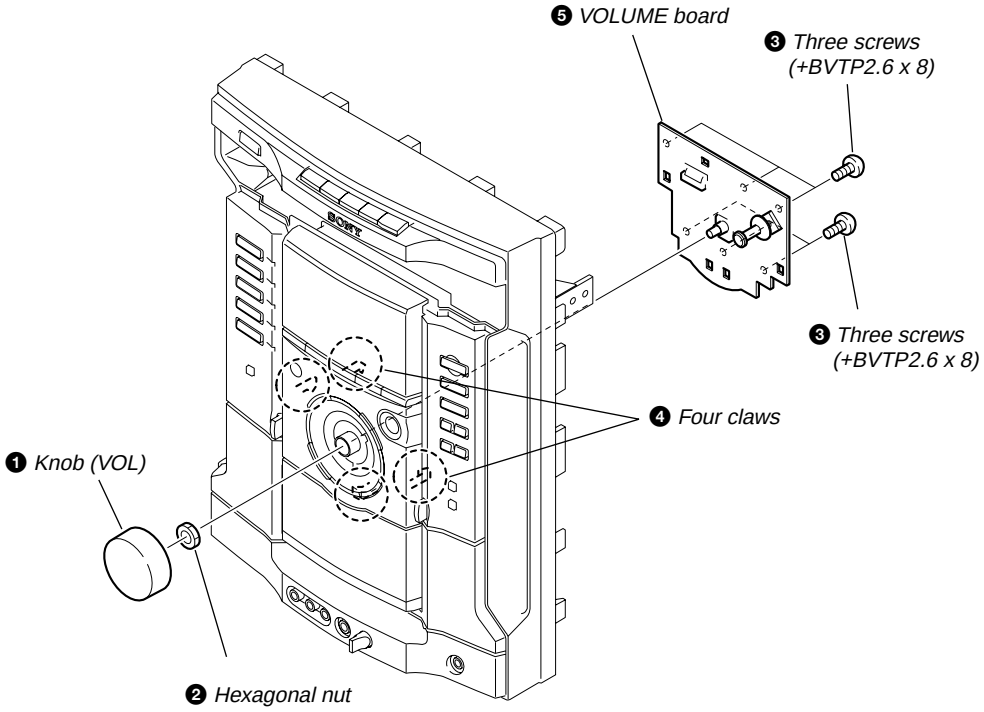
3-6. GAME IN BOARD, TAPE MECHANISM DECK



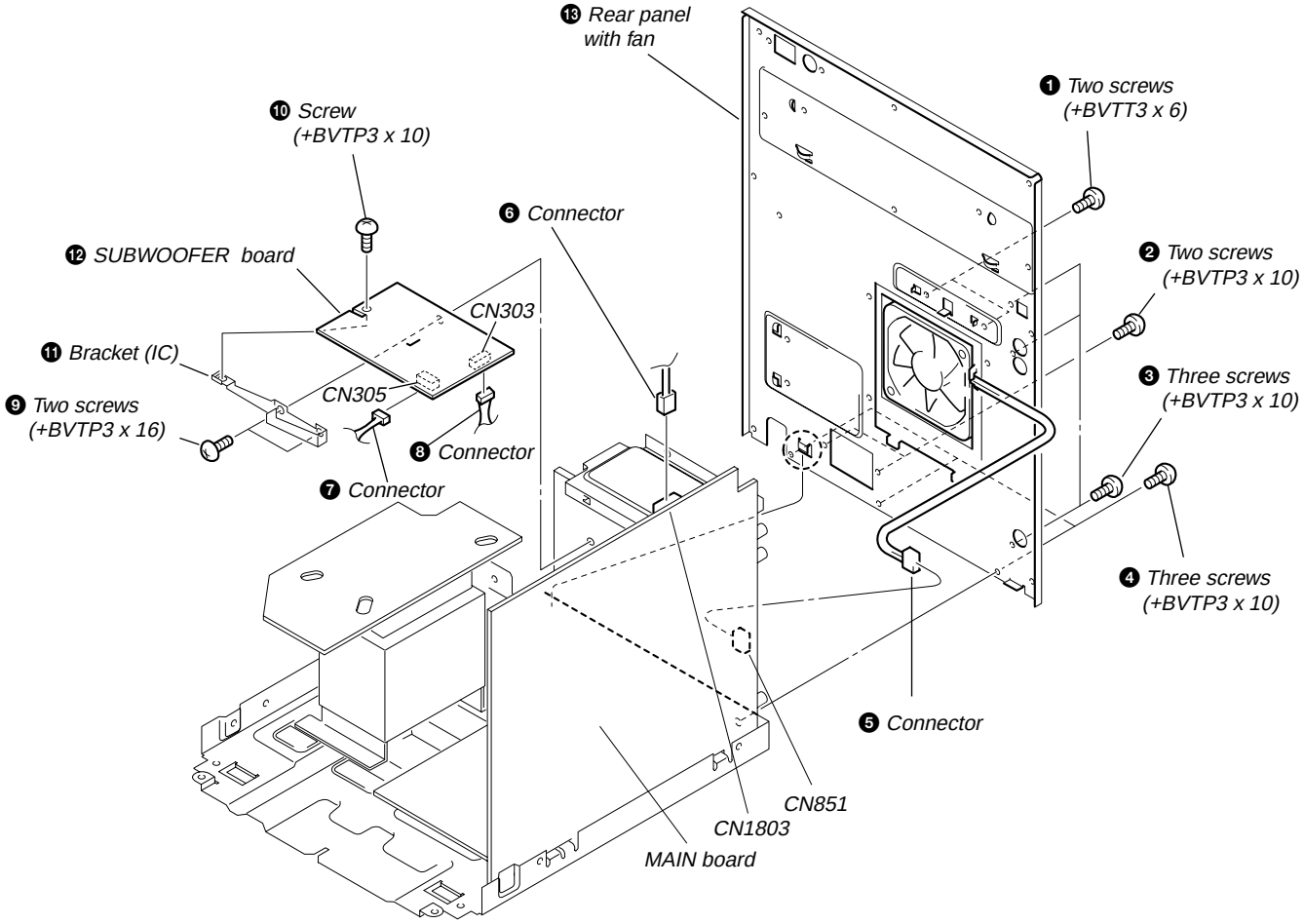
3-7. CD SWITCH BOARD, DISPLAY BOARD



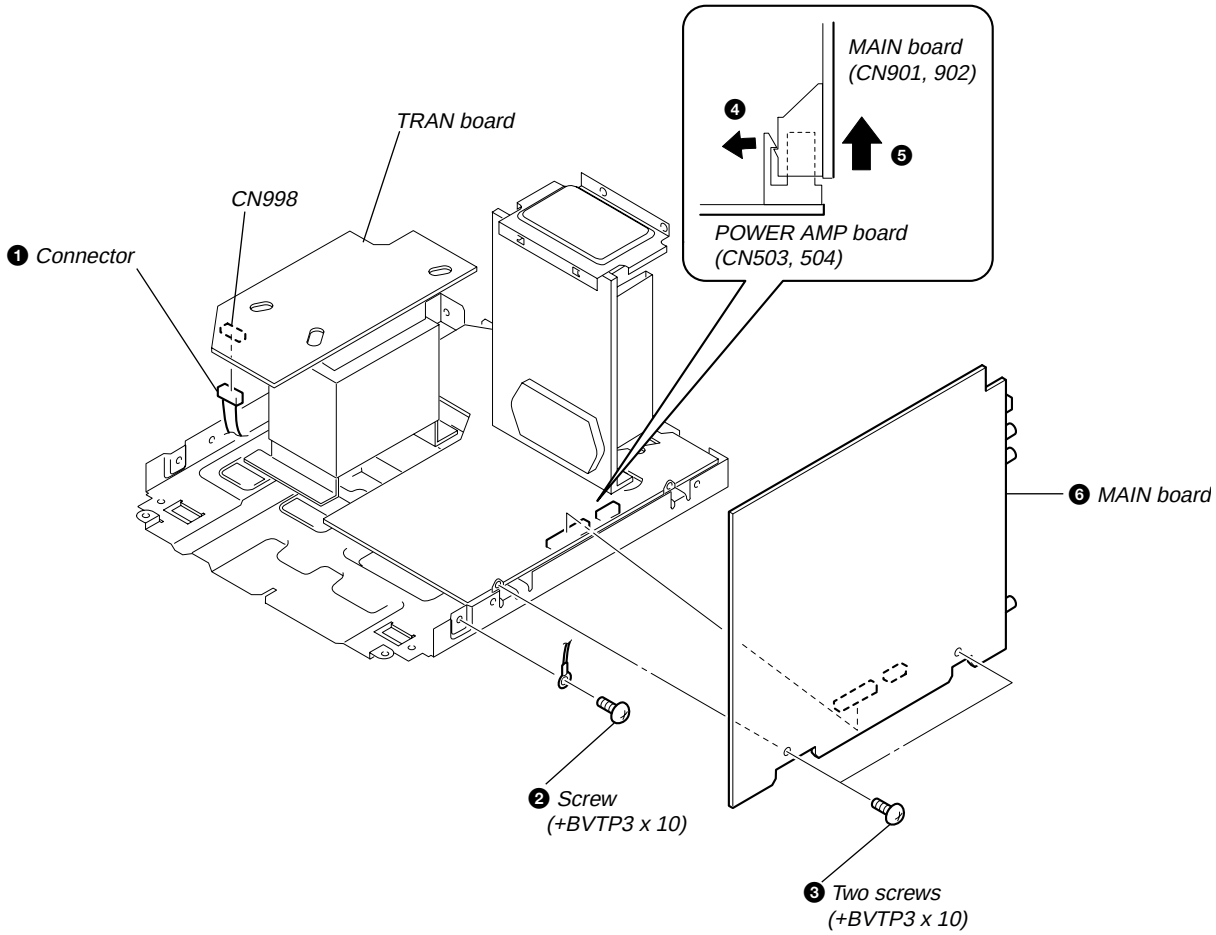
3-8. VOLUME BOARD



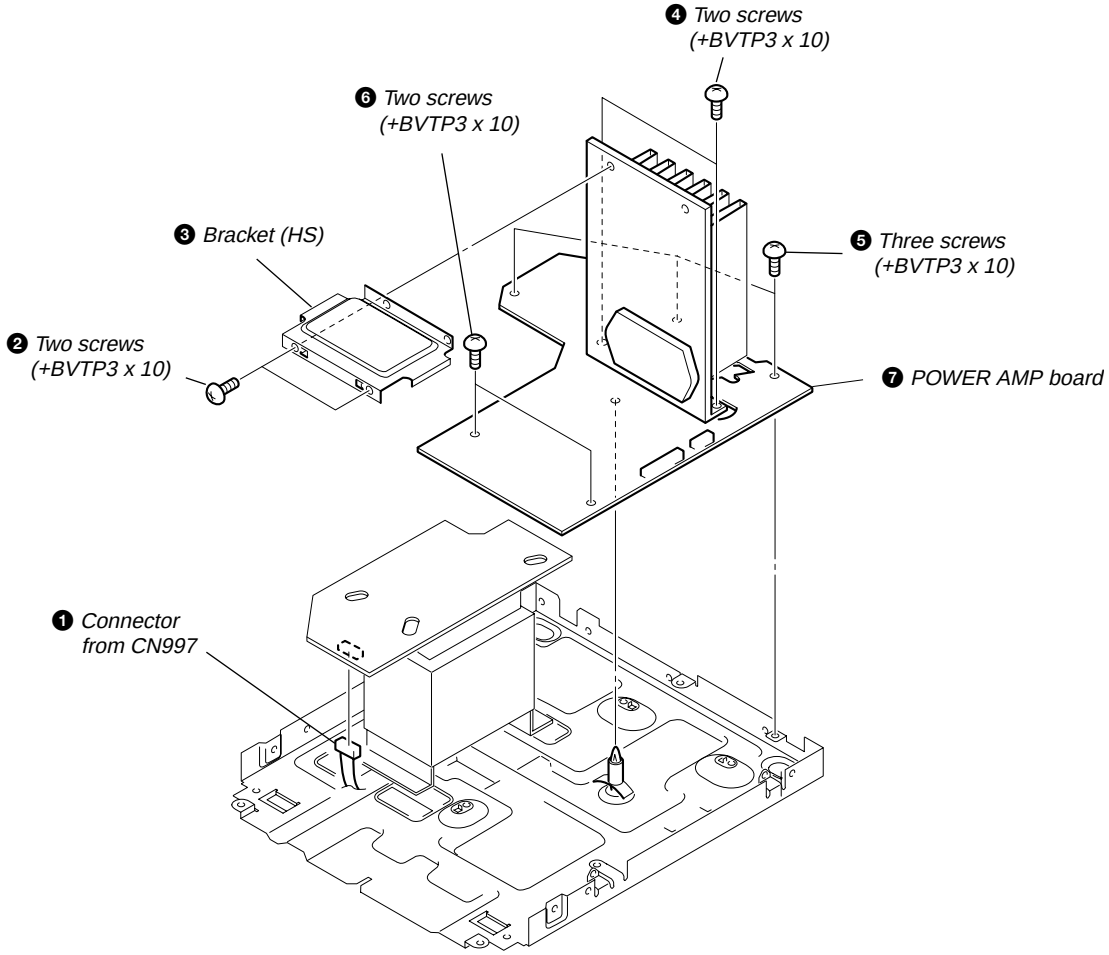
3-9. SUBWOOFER BOARD, REAR PANEL



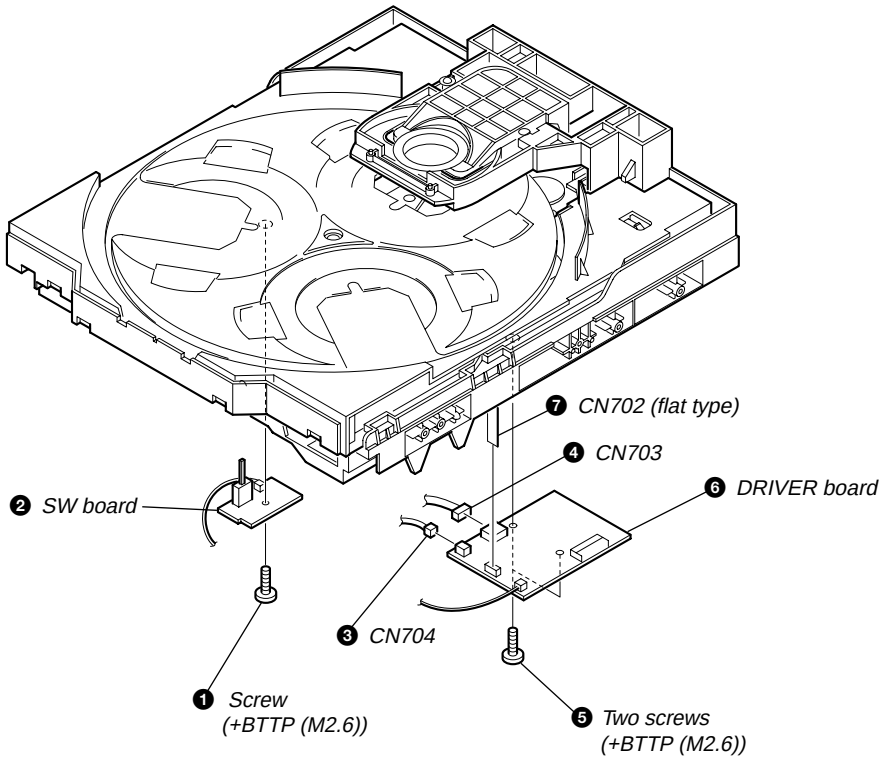
3-10. MAIN BOARD



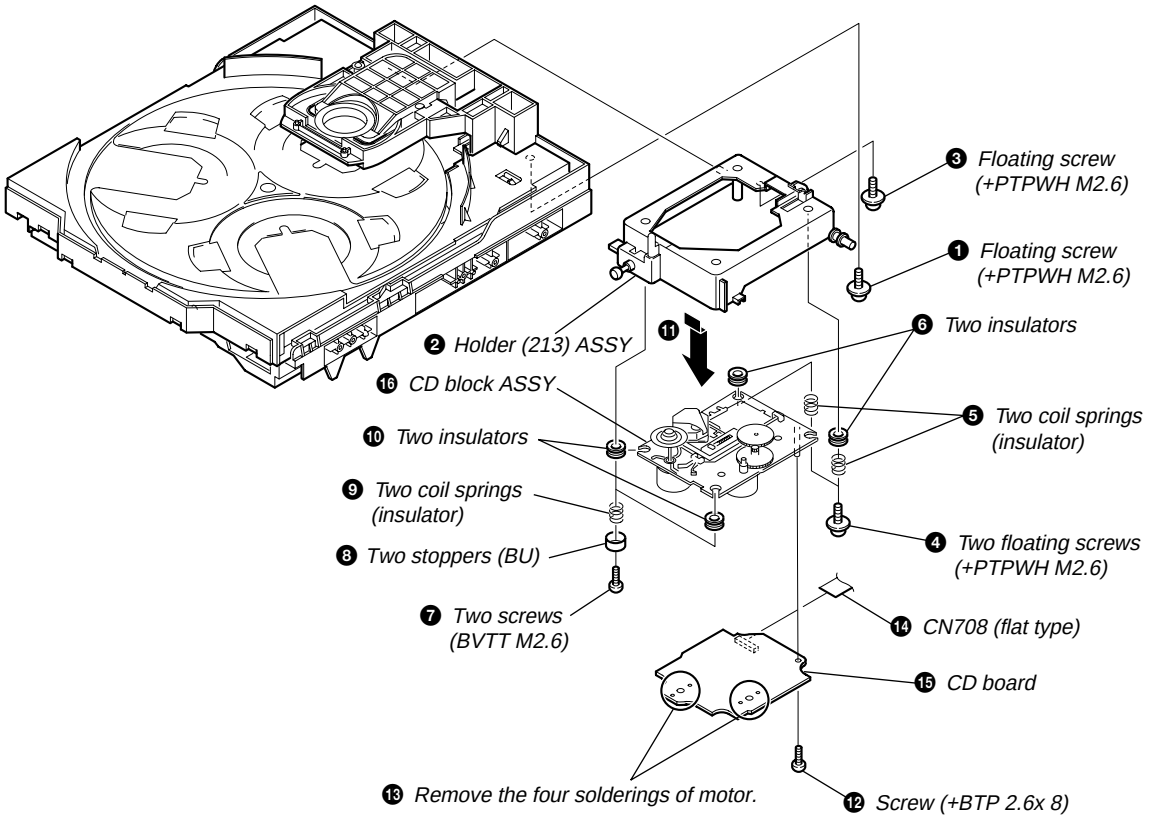
3-11. POWER AMP BOARD



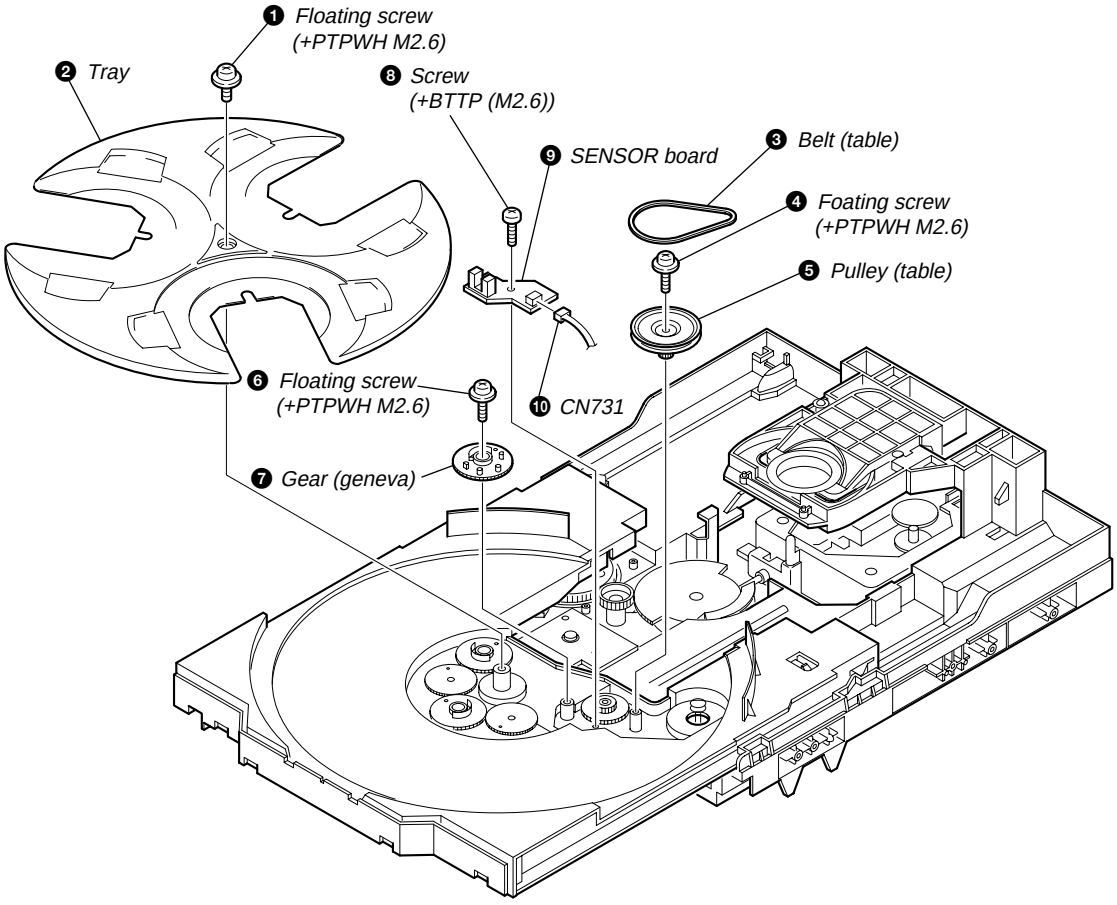
3-12. SW BOARD, DRIVER BOARD



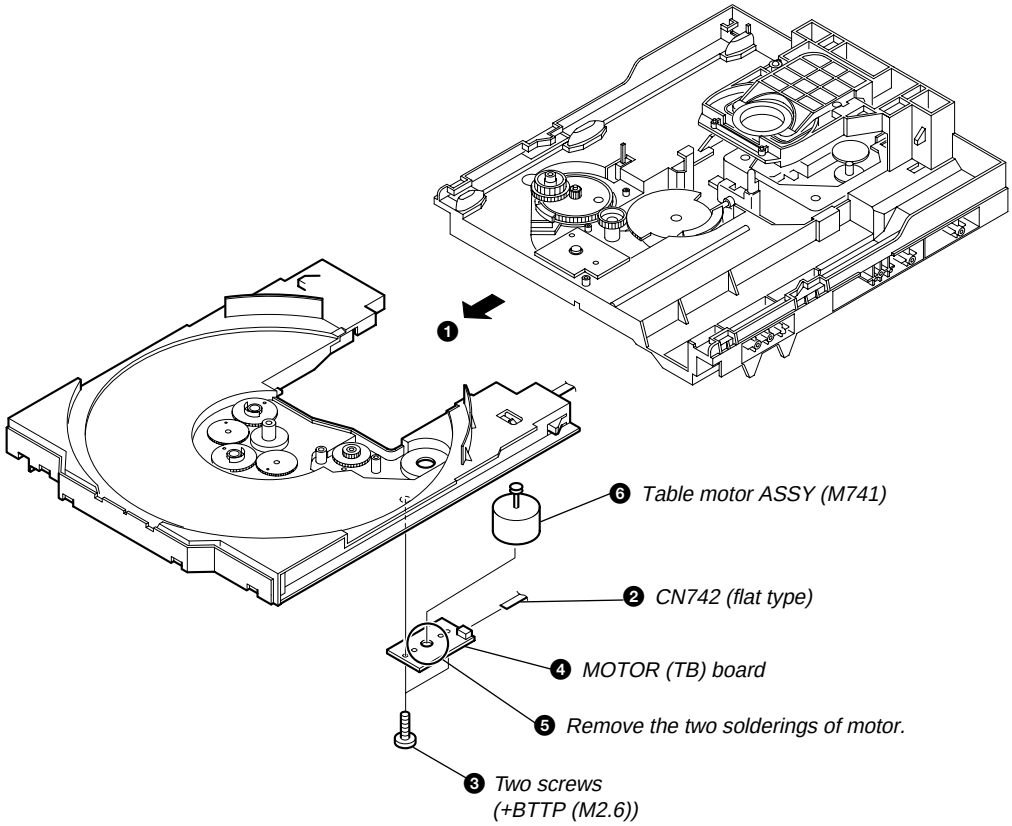
3-13. CD BOARD, CD BLOCK ASSY



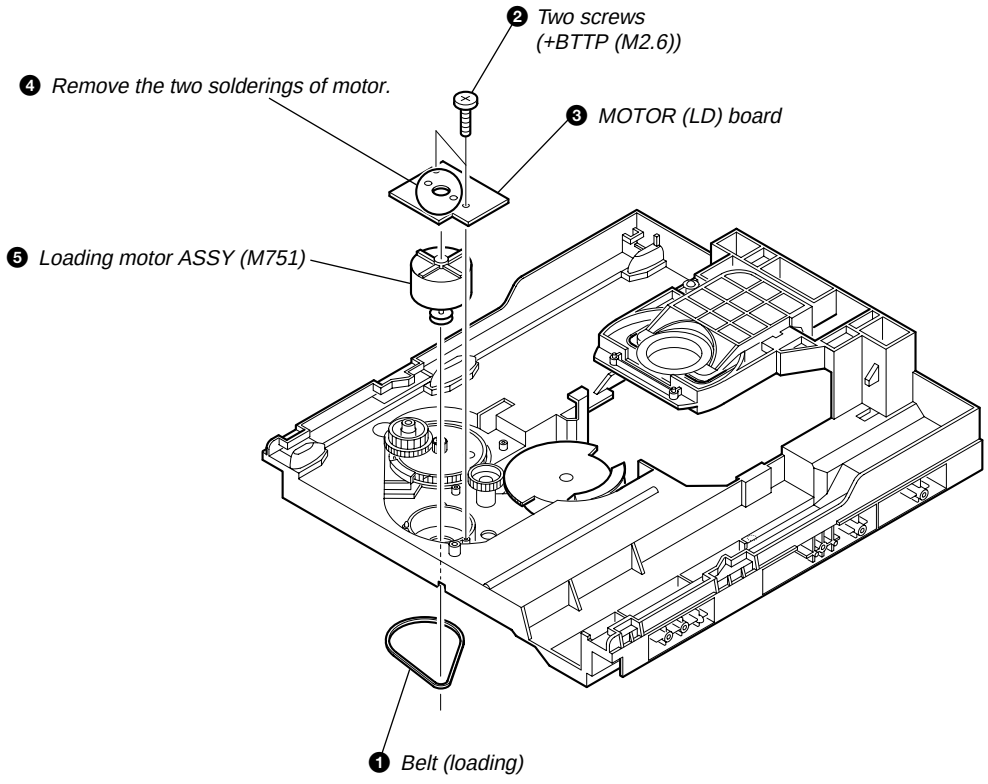
3-14. SENSOR BOARD



3-15. MOTOR (TB) BOARD



3-16. MOTOR (LD) 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 ■ button, AMP MENU button and DISC 2 button simultaneously.
2. All LEDs and segments in fluorescent indicator tube are lighted up.
3. When you want to enter the software version display mode, press DISC 1 button. The model and destination are displayed.
4. Each time DISC 1 button is pressed, the display changes from MC version, GC version, CD version, CDDM version, CDMA version, CDMB version, BDA version, BDB version, ST version, TA version, TM version and TC version in this order, and returns to the MC version display.
5. When DISC 3 button is pressed while the version numbers are being displayed except model and destination, the date of the software creation appear. When DISC 3 button is pressed again, the display returns to the software version display. When DISC 1 button is pressed while the date of the software creation is being displayed, the date of the software creation is displayed in the same order of software version display.
6. Press DISC 2 button, the key check mode is activated.
7. In the key check mode, the fluorescent indicator tube displays "K 0 V 0".
   Each time a button is pressed, "K" value increases. However, once a button has been pressed, it is no longer taken into account. "V" value increases in the manner of 0,1, 2, 3 ... if VOLUME knob is turned clockwise, or it decreases in the manner of 0, 9, 8,7 ... if VOLUME knob is turned counter-clockwise.
8. When DISC 3 button is pressed after all LEDs and segments in fluorescent indicator tube light up, the fluorescent indicator tube displays "VACS A + B". A is VACS level which is trigger by signal level while B is VACS level which is trigger by thermal. Total VACS value would be the sum of A and B.
9. When DISC SKIP/EX-CHANGE button is pressed after all LEDs and segments in fluorescent indicator tube light up, alternate segments in fluorescent indicator tube would light up. If you press DISC SKIP/EX-CHANGE button again, another half of alternate segments in fluorescent indicator tube would light up. Pressing DISC SKIP/EX-CHANGE button again would case all segments lights up.
10. 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 ■ button, AMP MENU button and DISC 3 button simultaneously.
2. The TAPE A and TAPE B segments flash on the fluorescent indicator tube. The function is changed to VIDEO.

* Check of Amplifier

1. When ↑ button is pressed, GEQ increases to its maximum and a message "GEQ MAX" appears on the fluorescent indicator tube.
2. When ↓ button is pressed, GEQ decreases to its minimum and a message "GEQ MIN" appears on the fluorescent indicator tube.
3. When ← button or → button is pressed, GEQ is set to flat and a message "GEQ FLAT" appears on the fluorescent indicator tube.
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 clock of the system, the clock output is available at IC501 pin ㊳ (CLOCK-OUT) on the MAIN board during MC test mode.
2. The frequency is 32.768 kHz.

* Tape function

1. When a tape is inserted in Deck B and recording is started, the function is changed to VIDEO automatically. When CD SYNC button is pressed during recording in function, ALC (Automatic Logic Control) is turned on.
2. After recording is stopped by pressing ■ button, press –◀◀ button will change the function to TAPE B and rewind Tape B until the recording start position and playback of Tape B is started. If the REC PAUSE/ START button is pressed for a pause and pressed again to resume recording during recording time, when tape deck B is rewind, tape deck B will be rewind until the position where the pause is applied.

* AMS Test Mode

1. Select the function "TAPE A" or "TAPE B".
2. Select Loop or Relay direction mode by pressing the DIRECTION button. Insert a test tape AMS-110A or AMS-120 to selected tape deck.
3. Press the AMP MENU button to enter the AMS test mode.
4. After the test tape is rewind to the beginning of the tape, the AMS+ is checked, and the mechanism is shut off after detecting the AMS signal twice.
5. Then the 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 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 ■ button, AMP MENU button, and I/⏻ button simultaneously.
2. The fluorescent indicator tube becomes blank for a while, and the set is reset.

[VACS ON/OFF]

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

Procedure:

1. Press I/⏻ button to turn the set ON.
2. Press AMP MENU button and GAME MIXING button simultaneously. The message "VACS OFF" or "VACS ON" appears.

[TUNER STEP CHANGE]

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

Procedure:

1. Press I/⏻ button to turn the set ON.
2. Press TUNER/BAND button to select the "AM".
3. Press I/⏻ button to turn the set OFF.
4. Press AMP MENU button and I/⏻ button simultaneously. The system will turn ON automatically. The message "AM 9k STEP" or AM 10k STEP" appears and thus the channel step is changed.

[CD SERVICE MODE]

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

Procedure:

1. Press I/⏻ button to turn the set ON.
2. Select CD function.
3. Press ■, AMP MENU button, and ⏏ OPEN/CLOSE button simultaneously.
4. The CD service mode is activated. The message "SERVICE MODE" appears.
5. With the CD in stop status, press ▶▶+ button to move the optical pick-up to outside track, or press −◀◀ button to move to inside track. The message "SLED OUT" or "SLED IN" appears.
6. To release this mode, press I/⏻ button.

[AGING MODE]

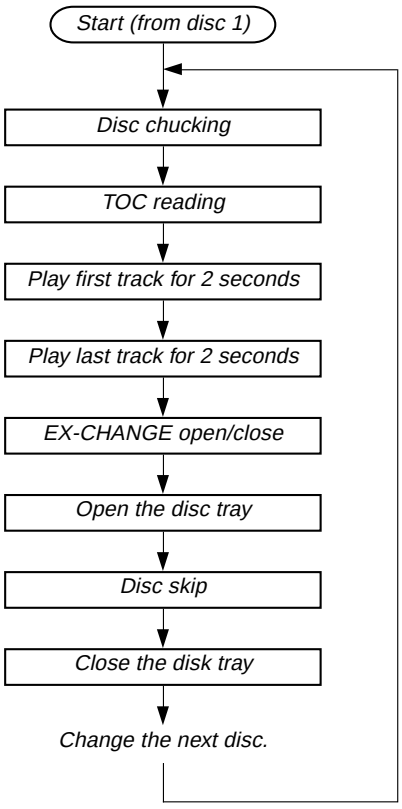
This mode can be used for operation check of CD section.

- If an error occurs, the aging operation would stops and the status is displayed.
- If there are no error occurs, the aging operation would continues repeatedly.

Procedure:

1. Press I/⏻ button to turn the set ON
2. Select CD function.
3. Load three discs on the disc tray.
4. Press PLAY MODE button to select the "ALL DISCS" mode, and press the REPEAT button to select "REPEAT OFF" mode.
5. Press ■ button, AMP MENU button, and DISC SKIP/ EX-CHANGE button simultaneously.
6. Aging operation is started.
7. To release this mode, press I/⏻ button or disconnect the power cord to turn the power OFF.

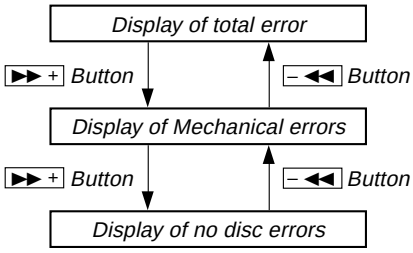
Aging mode sequence:



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

Procedure:

1. Press ■ button, AMP MENU button and DISC 1 button simultaneously to enter the error code display mode.
2. The fluorescent indicator tube displays the number of total error.
3. Each time ▶▶+ button 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 errors.
EDC**: The number of no disc errors after chucking the disc.

2) Display of mechanical errors

Display

M*$$%&&##00

M*: The number of mechanical error ("00" is latest one)
(Press ▶▶I+ button or −I◀◀ button to display next error)
$$: Not used
%%: Loading related error (Second figure is not used)
- D: Stop by the problem other than mechanical problem while closing.
- E: Stop by the problem other than mechanical problem while opening.
- C: Stop by the problem other than mechanical problem while chucking up.
- F: Stop by the problem other than mechanical problem while chucking down.

&&: Emerging error
- 01: Stop while chucking up.
- 02: Stop while chucking up.
- 03: Time-out of EX-CHANGE open.
- 05: Time-out of EX-CHANGE close.

##: Not used

3) Display of no disc errors

Display

D*$$%&&##00

D*: The number of mechanical error ("00" is latest one)
(Press ▶▶I+ button or −I◀◀ button to display next error)
$$: Error type
- 01: Focus error
- 02: GFS error
- 03: Setup error

%%: Not used
&&:
- 00: No disc judgment without chucking retry.
- 01: No disc judgment after chucking retry.

##: The state when judged as no disc
- 01: Stop
- 02: Setup
- 03: TOC reading
- 04: Access
- 05: Playback
- 06: Pause
- 07: Manual search (Play)
- 08: Manual search (Pause)

[CD REPEAT 5 LIMIT OFF MODE]

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

Procedure:

1. Press I/⏻ button to turn the set ON.
2. Select CD function.
3. Press ■ button, REPEAT button and CD button simultaneously to enter the CD repeat 5 limit off mode and the fluorescent indicator tube displays "LIMIT OFF".
3. To release this mode, operate the cold reset. (Refer to the "MC COLD RESET")

[CD SHIP MODE (WITH MEMORY CLEAR)]

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

Procedure:

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

[CD SHIP MODE (WITHOUT MEMORY CLEAR)]

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

Procedure:

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

[CD POWER MANAGE]

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

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select CD function.
3. Press [I/⏻] button to turn the set OFF.
4. Press [■] button and [I/⏻] button simultaneously. The set will power on automatically.
5. The message "CD POWER ON" or "CD POWER OFF" will be displayed on the fluorescent indicator tube.

[CD TRAY LOCK MODE]

- This mode let you lock the disc trays. When this mode is activated, the disc tray will not open when [⏏ OPEN/CLOSE] button or [DISC SKIP/EX-CHANGE] button is pressed. The message "LOCKED" will be displayed in the will be displayed on the fluorescent indicator tube.

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select CD function.
3. Press [■] button and [⏏ OPEN/CLOSE] button simultaneously and hold down until "LOCKED" or "UNLOCKED" displayed on the fluorescent indicator tube (around 5 seconds).

[MD/VIDEO SWITCHING]

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

Procedure:

1. Press [I/⏻] button to turn the set ON.
2. Select MD function.
3. Press [MD (VIDEO)] button and [I/⏻] button simultaneously. The function will change to VIDEO. Press the same buttons again to change from VIDEO to MD.

SECTION 5
MECHANICAL ADJUSTMENTS

Precaution

1. Clean the following parts with a denatured alcohol-moistened swab:
   record/playback heads pinch rollers
   erase head rubber belts
   capstan 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

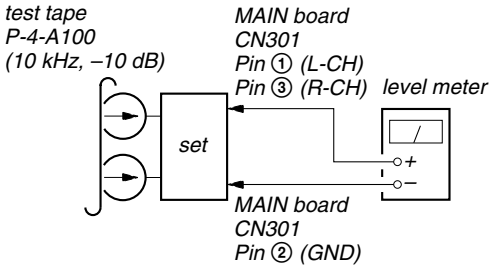
RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

DECK A **DECK B**

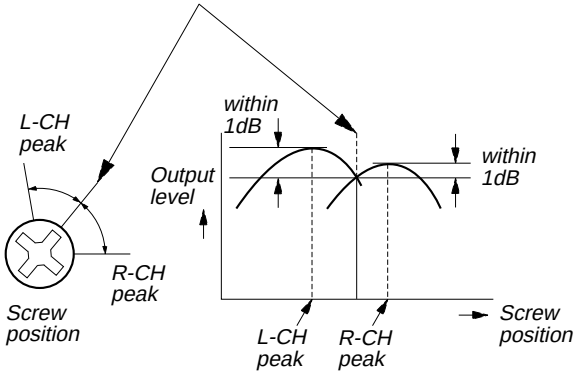
Note: Perform this adjustments for both decks

Procedure:

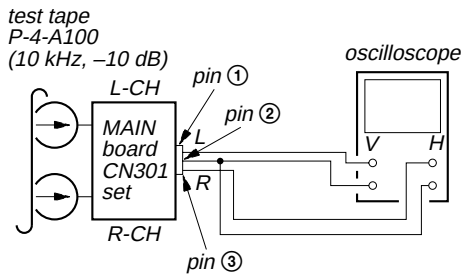
1. Mode: Playback

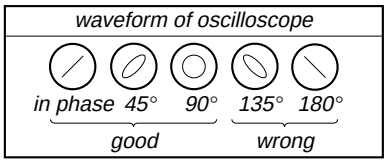


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.



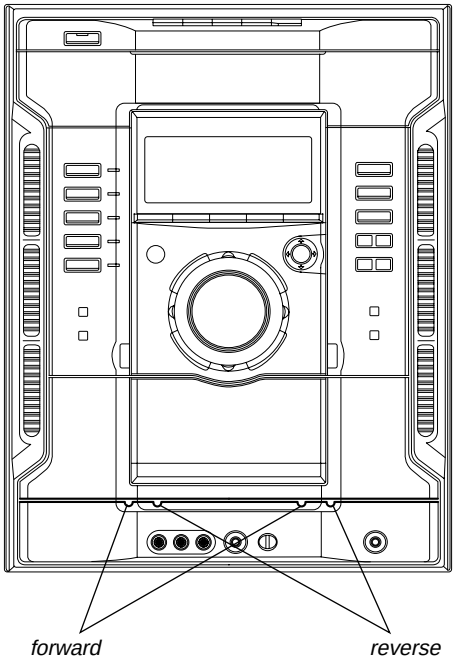
3. Mode: Playback





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

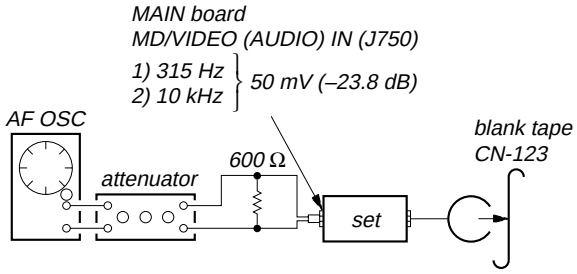
Adjustment Location: Playback Head (Deck A).
Record/Playback/Erase Head (Deck B).



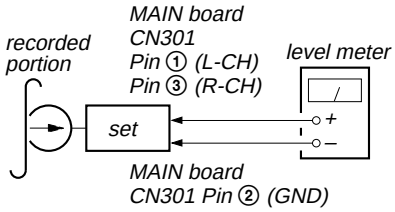
REC BIAS ADJUSTMENT DECK B

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.

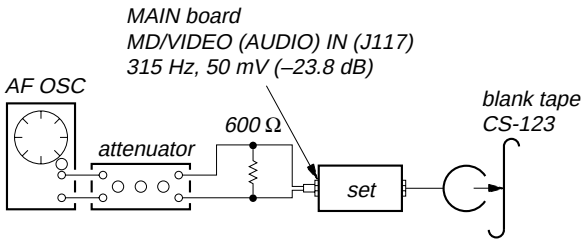
Adjustable level: Playback output of 315 Hz to playback output of 10 kHz: ±1.0 dB

Adjustment Location: MAIN board

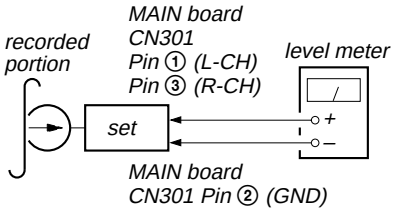
REC LEVEL ADJUSTMENT DECK B

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



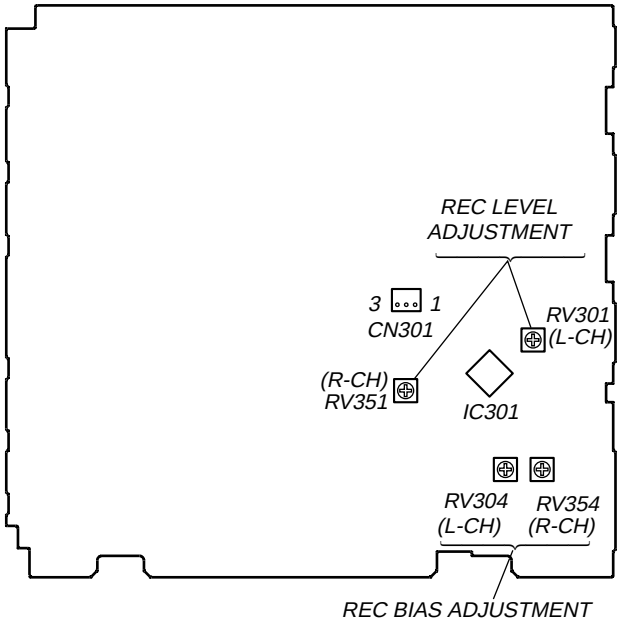
5. Mode: Playback



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

– MAIN BOARD (Component Side) **–**

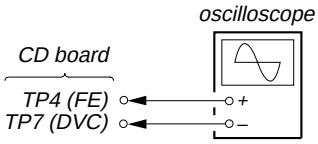


CD SECTION

Note:
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) 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.

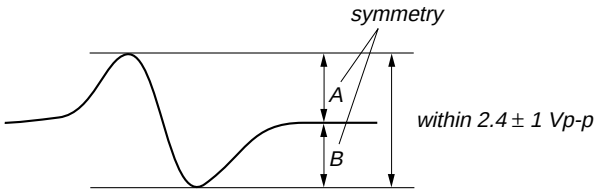
S-curve Check

Connection:



Procedure:
1. Connect an oscilloscope to test point TP4 (FE) and TP 7(DVC) on the CD board.
2. Turn the power on.
3. Put the disc (YEDS-18) in and turned power switch on again and actuate the focus search. (actuate the focus search when disc table is moving in and out)
4. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2.4 ± 1 Vp-p.

S-curve waveform

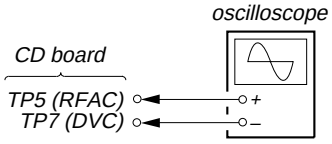


Note: • Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
• Take sweep time as long as possible and light up the brightness to obtain best waveform.

Checking Location: CD board (SIDE B)
(See page 24.)

RFAC Level Check

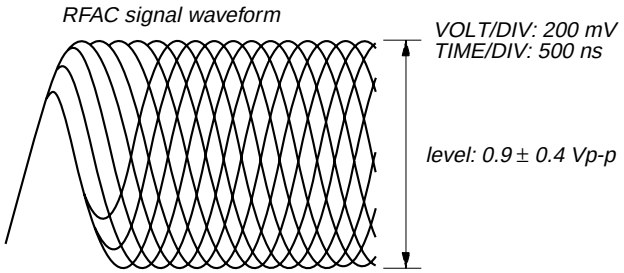
Connection:



Procedure:

1. Connect an oscilloscope to test point TP5 (RFAC) and TP 7(DVC) on the CD board.
2. Turn the power on.
3. Put the disc (YEDS-18) in to playback the number five track.
4. Confirm that oscilloscope waveform is clear and check RFAC signal level is correct or not.

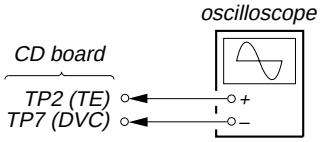
Note: A clear RFAC signal waveform means that the shape "◊" can be clearly distinguished at the center of the waveform.



Checking Location: CD board (SIDE B)
(See page 24.)

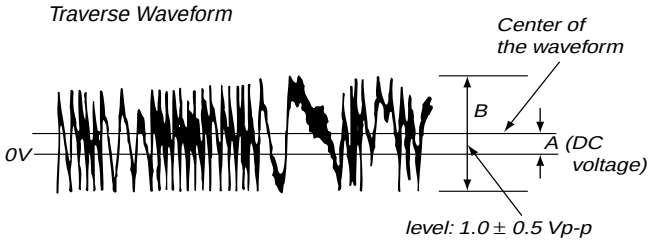
E-F Balance Check

Connection:



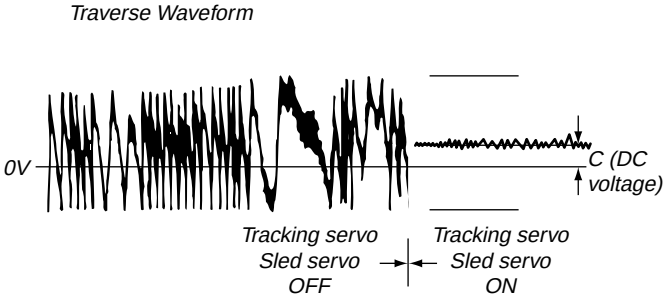
Procedure:

1. Connect an oscilloscpe to test point TP2 (TE) and TP7 (DVC) on the CD board.
2. Turn the power on.
3. Select the function "CD".
4. Press three buttons of [ENTER], [▶▶] , and [SURRUUND MODE] simultaneously to set the CD service mode.
5. Put the disc (YEDS-18) in to playback the number five track.
6. Press the [I◀◀] button. The message "TRAVERSE" is displayed. (The tracking servo and the sledding servo are turned OFF)
7. Check the level B of the oscilliscope's waveform and the A (DC voltage) of the center of the Traverse waveform.
   Confirm the following :
   A/B x 100 = less than ± 22%



8. Press the [I◀◀] button. The message "TRAVERSE" is displayed. (The tracking servo and sledding servo are turned ON)
   Confirm the C (DC voltage) is almost equal to the A (DC voltage) is step 5.
9. To exit from this mode, perform as follows.
   1) Move the optical pick-up to the most inside track.
   2) Press three buttons of [■], [CLEAR], and [DISPLAY] simultaneously. (cold reset)

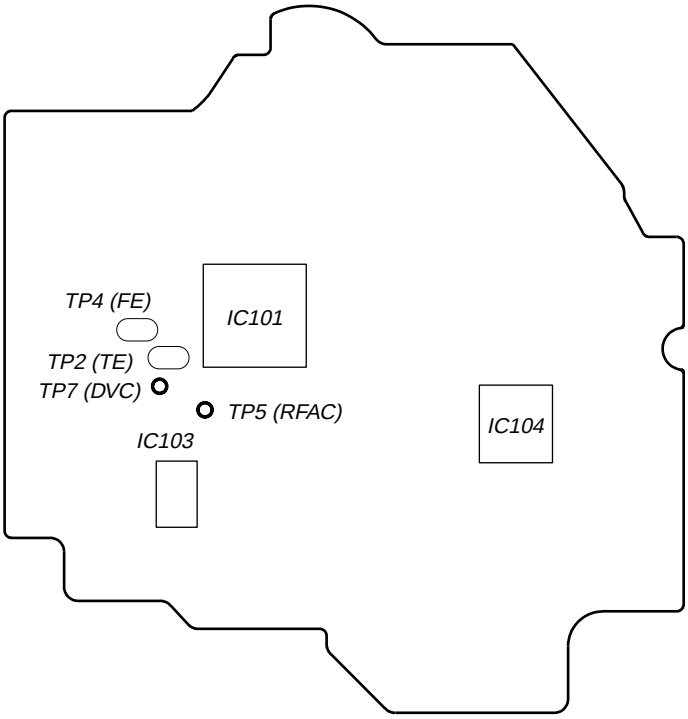
Notes:
- Always move the optical pick-up to most inside track when exiting from this mode. Otherwise, a disc will not be unloaded.
- Do not run the sled motor excessively, otherwise the gear can be chipped.



Checking Location: CD board (SIDE B) (See page 24.)

Checking Location:

– CD BOARD (SIDE B) –



SECTION 7
DIAGRAMS

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.

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

- : panel designation.
- : B+ Line.
- : B– Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
  CD board section
  no mark: CD PLAY
  Other board section
  no mark: TUNER (FM/AM)
  ( ): CD PLAY
  < >: TAPE PLAY
  [ ]: TAPE REC
- 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 PALY (DECK A)
  : TAPE PALY (DECK B)
  : RECORD
  : CD PALY (ANALOG OUT)
  : CD PALY (DIGITAL OUT)
  : MD/VIDEO (AUDIO) IN
  : GAME IN (AUDIO)
  : GAME IN (VIDEO)
  : MIC INPUT

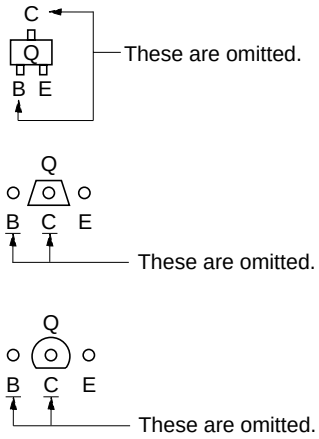
- Abbreviation
  AR : Argentine model
  E2 : 120 V AC Area in E model
  E3 : 240 V AC Area in E model
  MX : Mexican model

Note on Printed Wiring Boards:

- : parts extracted from the component side.
- : Pattern from the side which enables seeing. (The other layers´ Patterns are not indicated.)

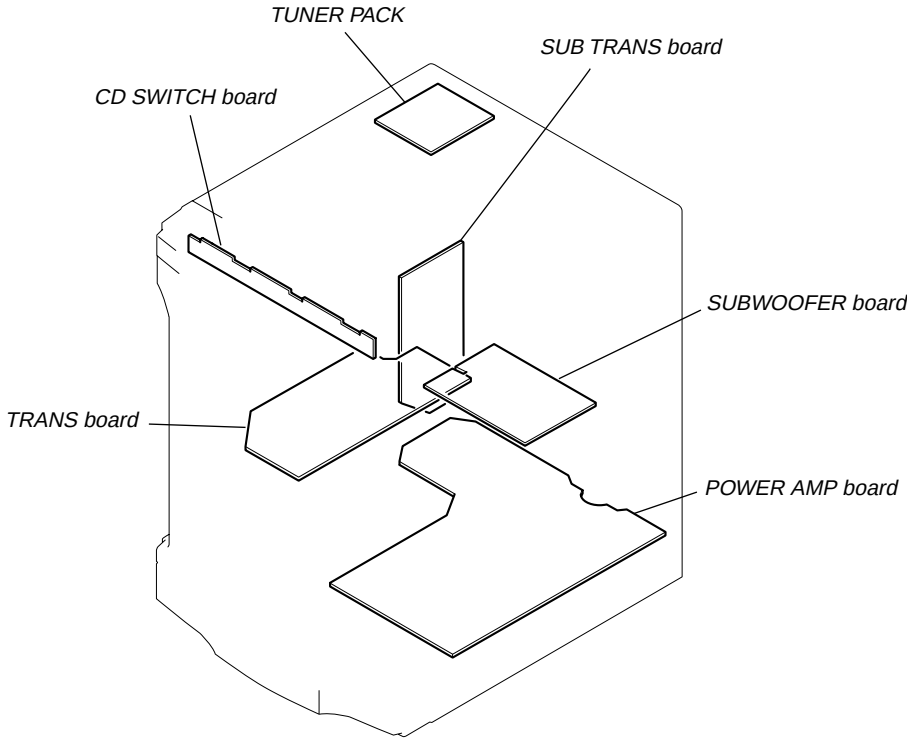
Caution:	
Pattern face side: (Side B)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A)	Parts on the parts face side seen from the parts face are indicated.

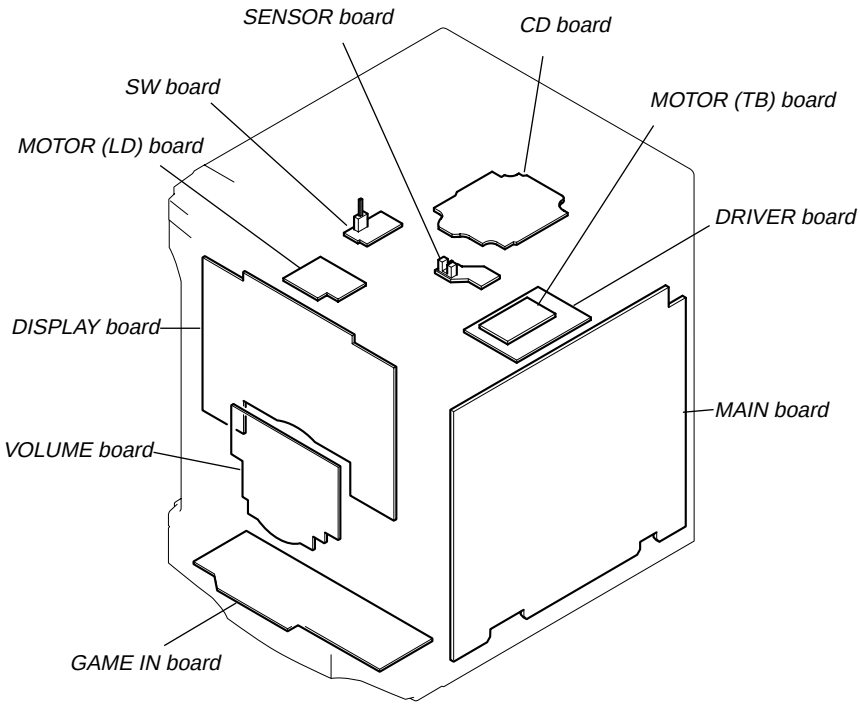
- Indication of transistor.



- Abbreviation
  AR : Argentine model
  E2 : 120 V AC Area in E model
  E3 : 240 V AC Area in E model
  MX : Mexican model

7-1. CIRCUIT BOARD LOCATION

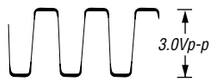




● **WAVEFORMS**

– MAIN BOARD –

① IC501 ⑪ XC-OUT



VOL/DIV : 1V AC
TIME/DIV : 10µsec

② IC501 ⑬ X-OUT

VOL/DIV : 1V AC
TIME/DIV : 50nsec

③ T331 ④
TAPE REC only

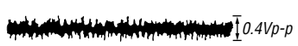
VOL/DIV : 50V AC
TIME/DIV : 10µsec

④ T331 ⑤
TAPE REC only

VOL/DIV : 50V AC
TIME/DIV : 10µsec

– CD BOARD –

① IC101 ㊶ TE

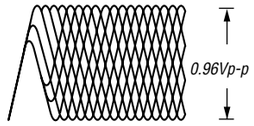


VOL/DIV : 0.2V AC
TIME/DIV : 0.2msec

② IC101 ㊴ FE

VOL/DIV : 0.1V AC
TIME/DIV : 1msec

③ IC101 ㊿ RFAC



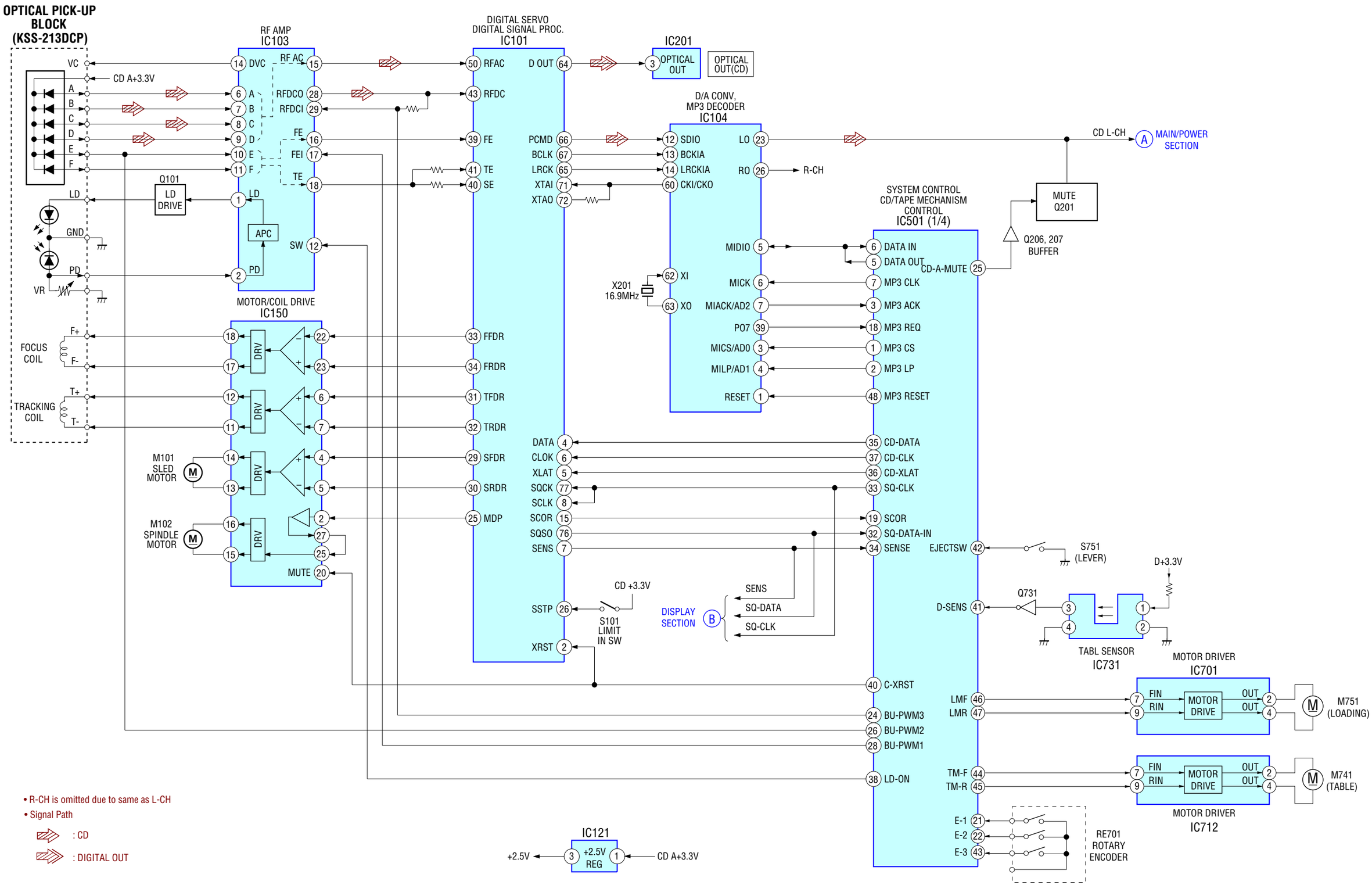
VOL/DIV : 0.2V AC
TIME/DIV : 0.5µsec

– DISPLAY BOARD –

① IC601 ㉜ X OUT

VOL/DIV : 1V AC
TIME/DIV : 0.2µsec

7-2. BLOCK DIAGRAM – CD SERVO Section –

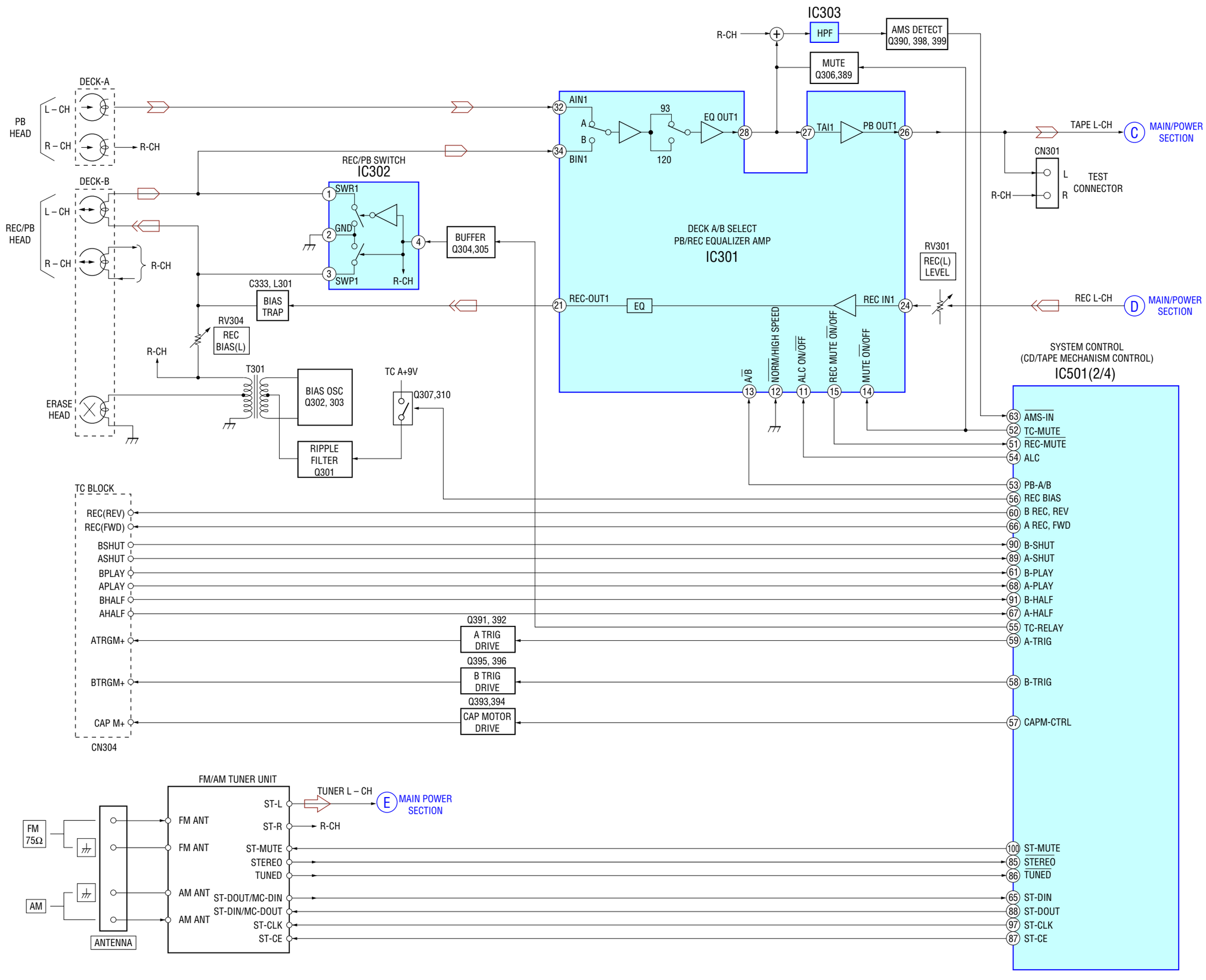


- R-CH is omitted due to same as L-CH
- Signal Path

: CD

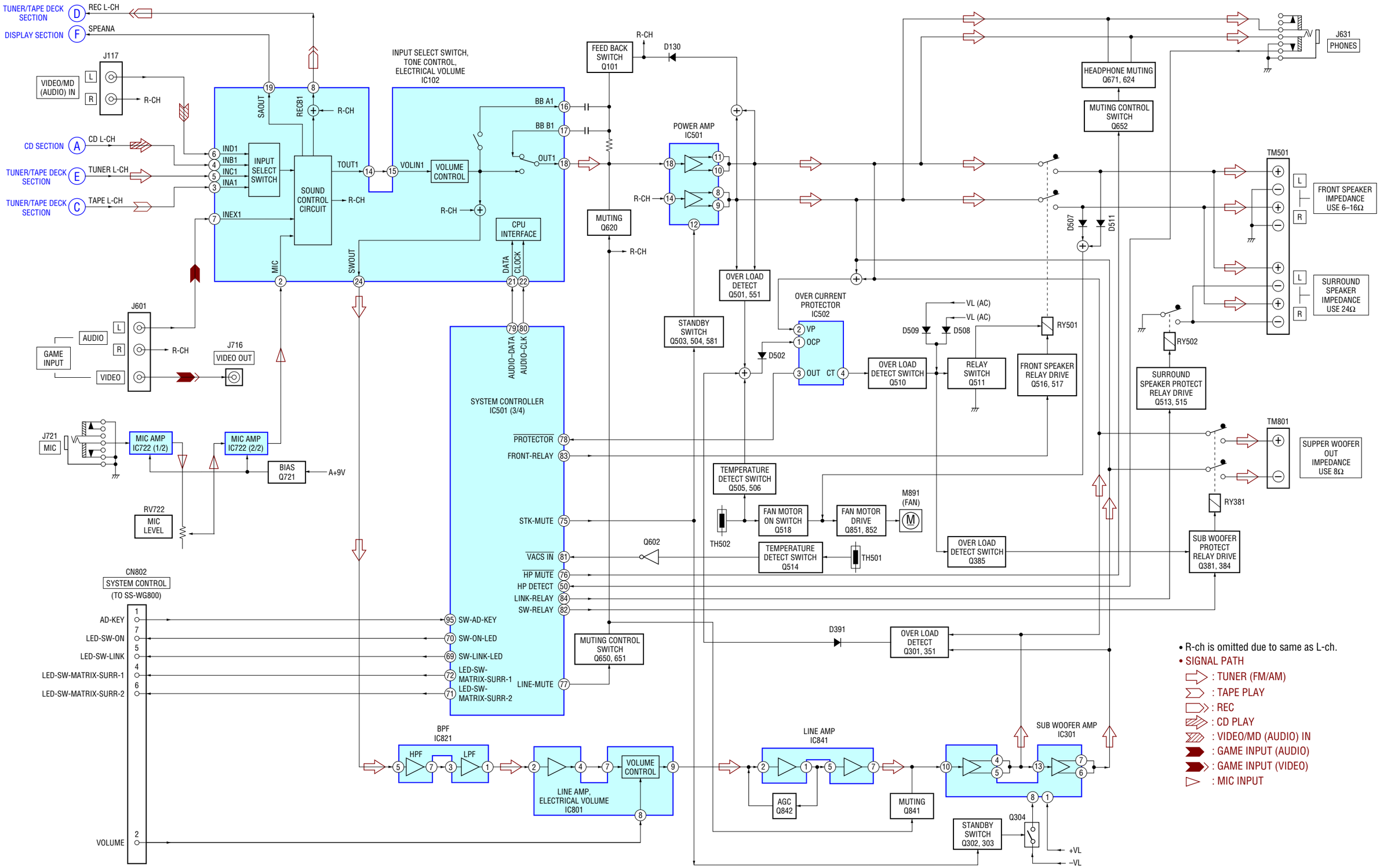
: DIGITAL OUT

– TUNER/TAPE DECK Section –



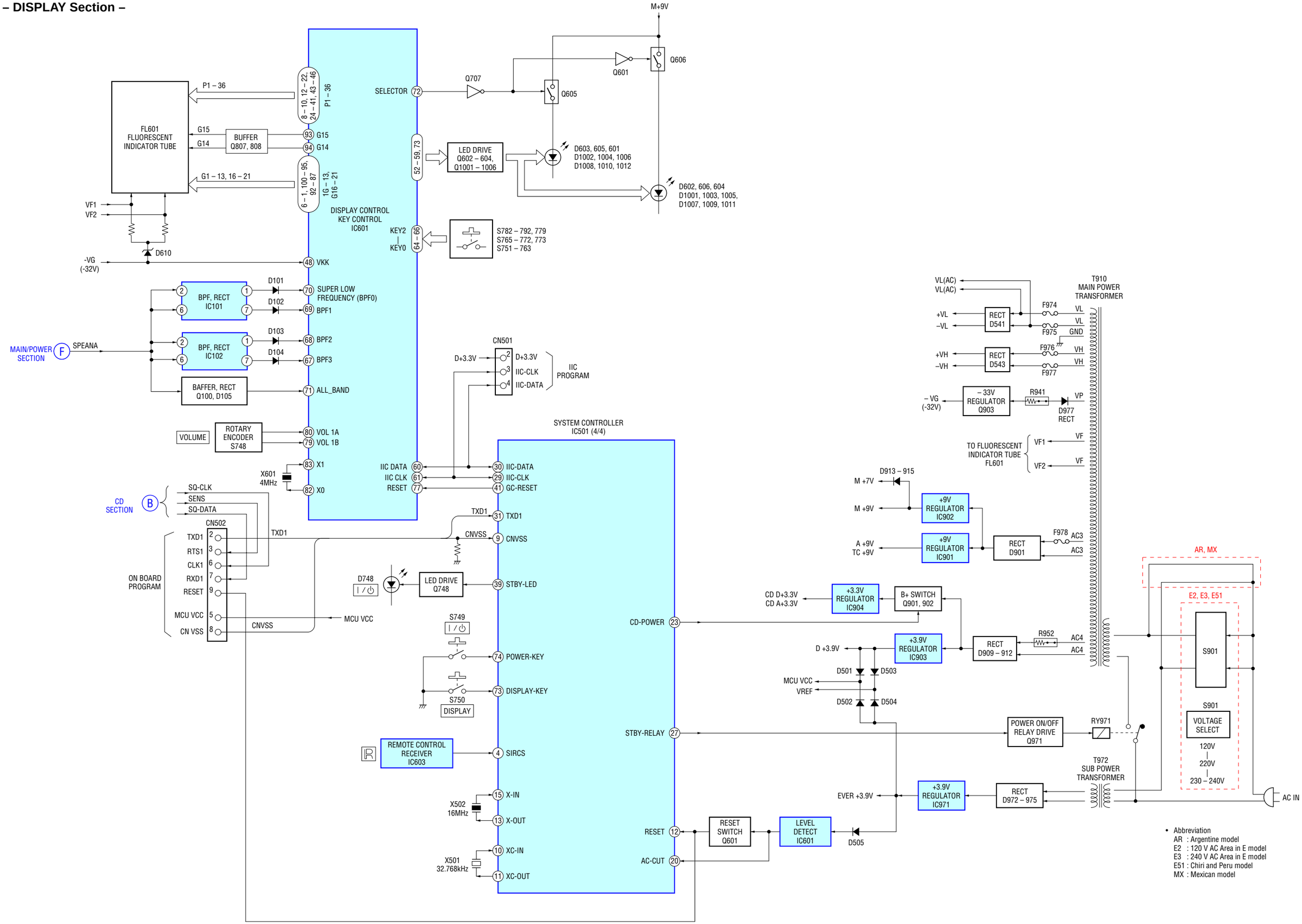
- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  - : TUNER (FM/AM)
  - : PLAYBACK (DECK A)
  - : PLAYBACK (DECK B)
  - : RECORD

– MAIN/POWER Section –



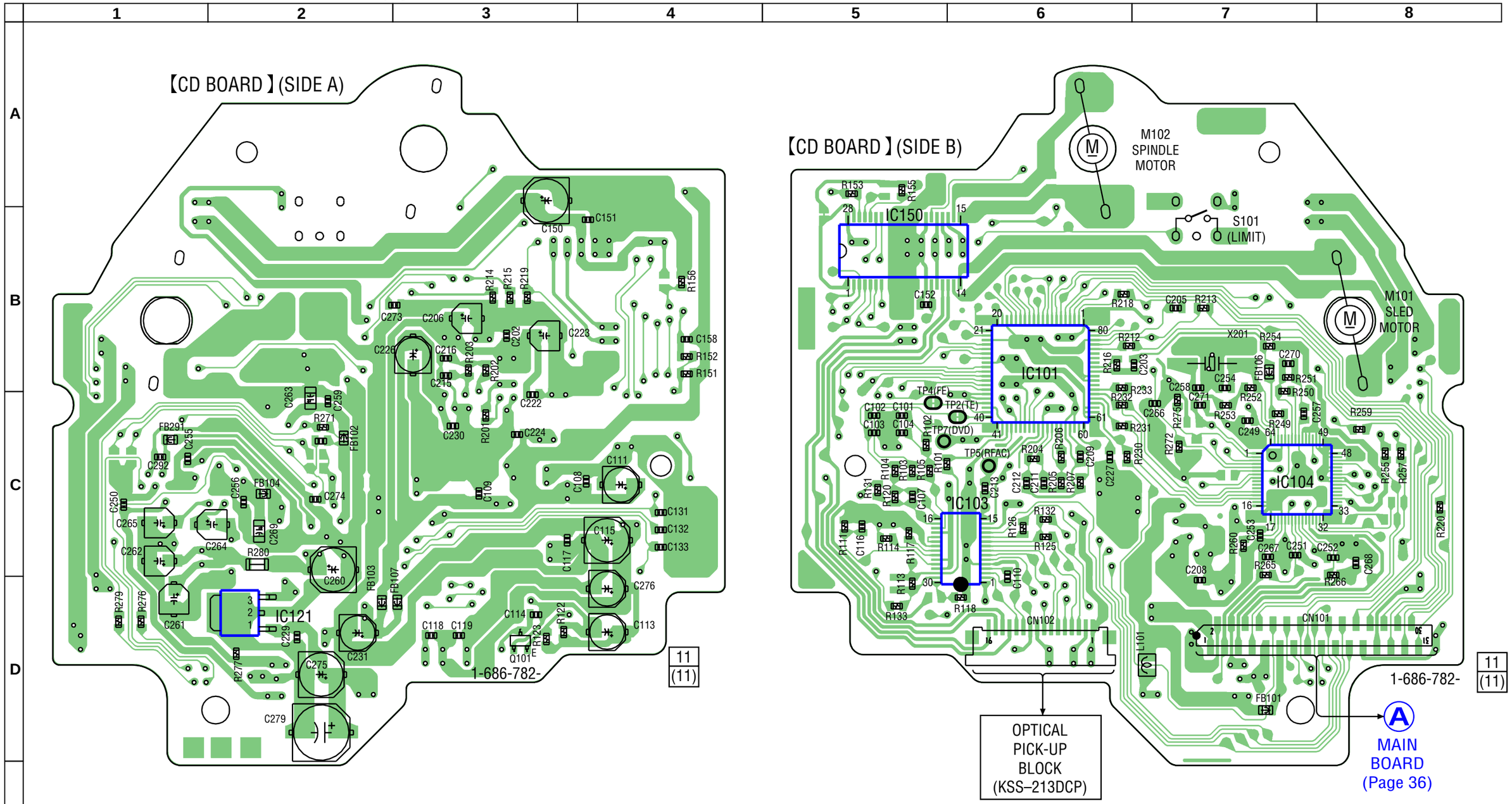
- R-ch is omitted due to same as L-ch.
- SIGNAL PATH
  - : TUNER (FM/AM)
  - : TAPE PLAY
  - : REC
  - : CD PLAY
  - : VIDEO/MD (AUDIO) IN
  - : GAME INPUT (AUDIO)
  - : GAME INPUT (VIDEO)
  - : MIC INPUT

– DISPLAY Section –



• Abbreviation
AR : Argentine model
E2 : 120 V AC Area in E model
E3 : 240 V AC Area in E model
E51 : Chiri and Peru model
MX : Mexican model

7-3. PRINTED WIRING BOARD – CD Board – • See page 26 for Circuit Boards Location.



- **Semiconductor Location**

Ref. No.	Location
IC101	B-6
IC103	C-6
IC104	C-7
IC121	D-2
IC150	B-5
Q101	D-3

7-4. SCHEMATIC DIAGRAM – CD Board – • See page 51 for Pin Function Description.

【CD BOARD】

IC104 CXD9717R-008 D/A CONV. MP3 DECODER

IC101 CXD3068Q DIGITAL SERVO, DIGITAL SIGNAL PROCESSOR,

IC121 BA25BC0FP +2.5V REG

IC103 CXA2647 RF AMP

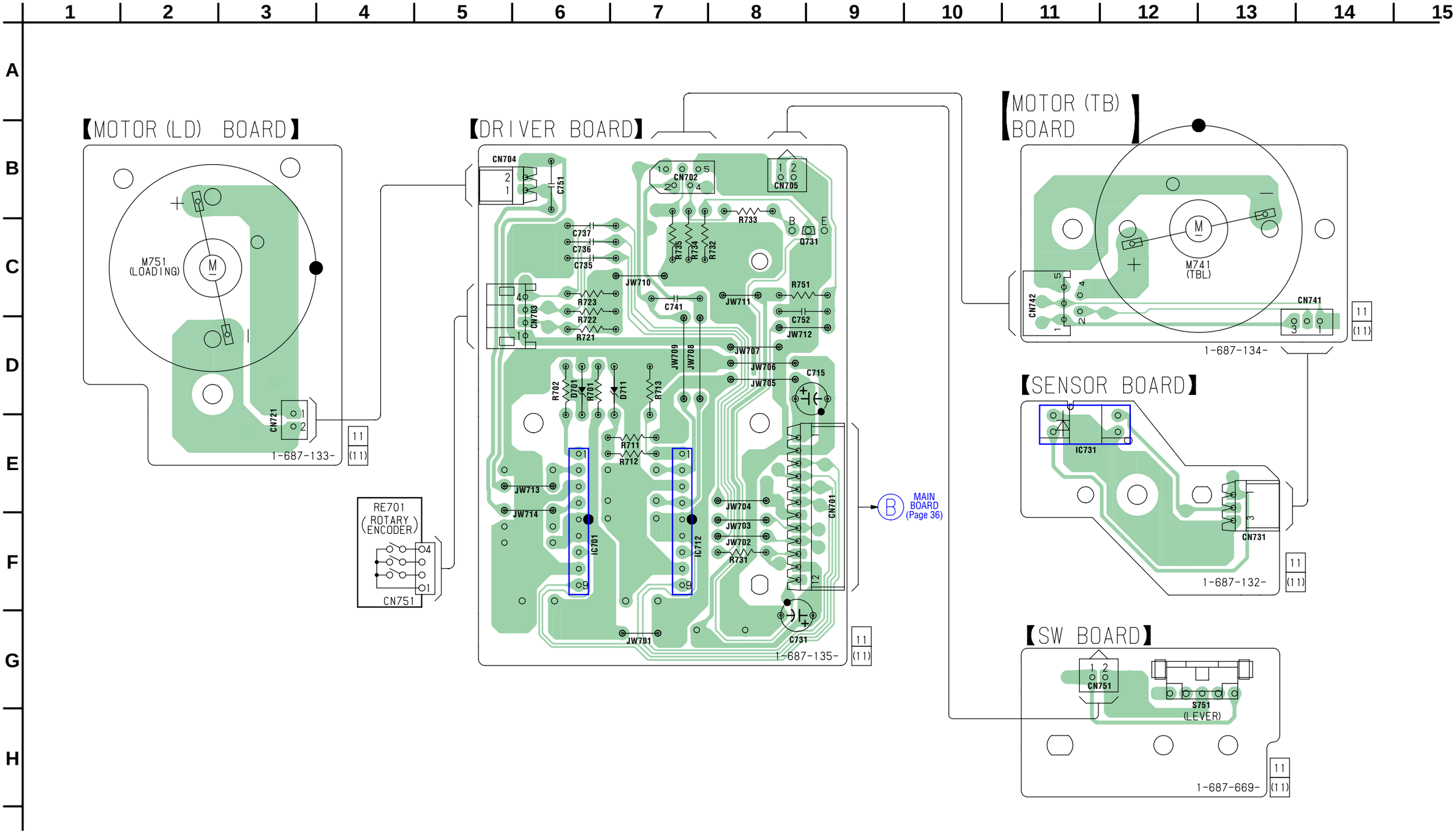
IC B/D

IC150 BA5947FP MOTOR DRIVER

OPTICAL PICK-UP BLOCK (KSS-213DCP)

A MAIN BOARD (2/3) (Page38)

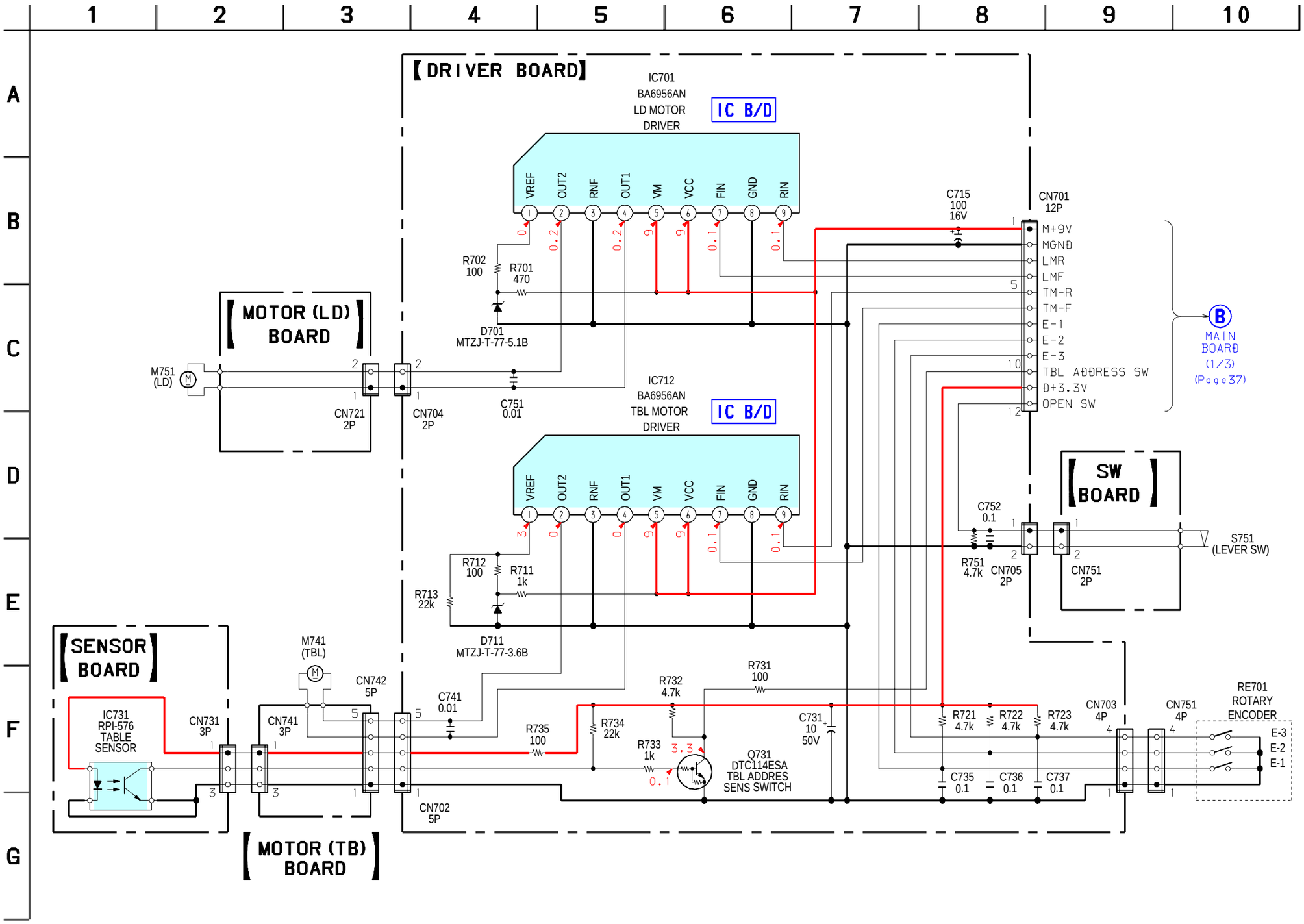
7-5. PRINTED WIRING BOARDS — CD MECHANISM Board — • Refer to page 26 for Circuit Boards Location.



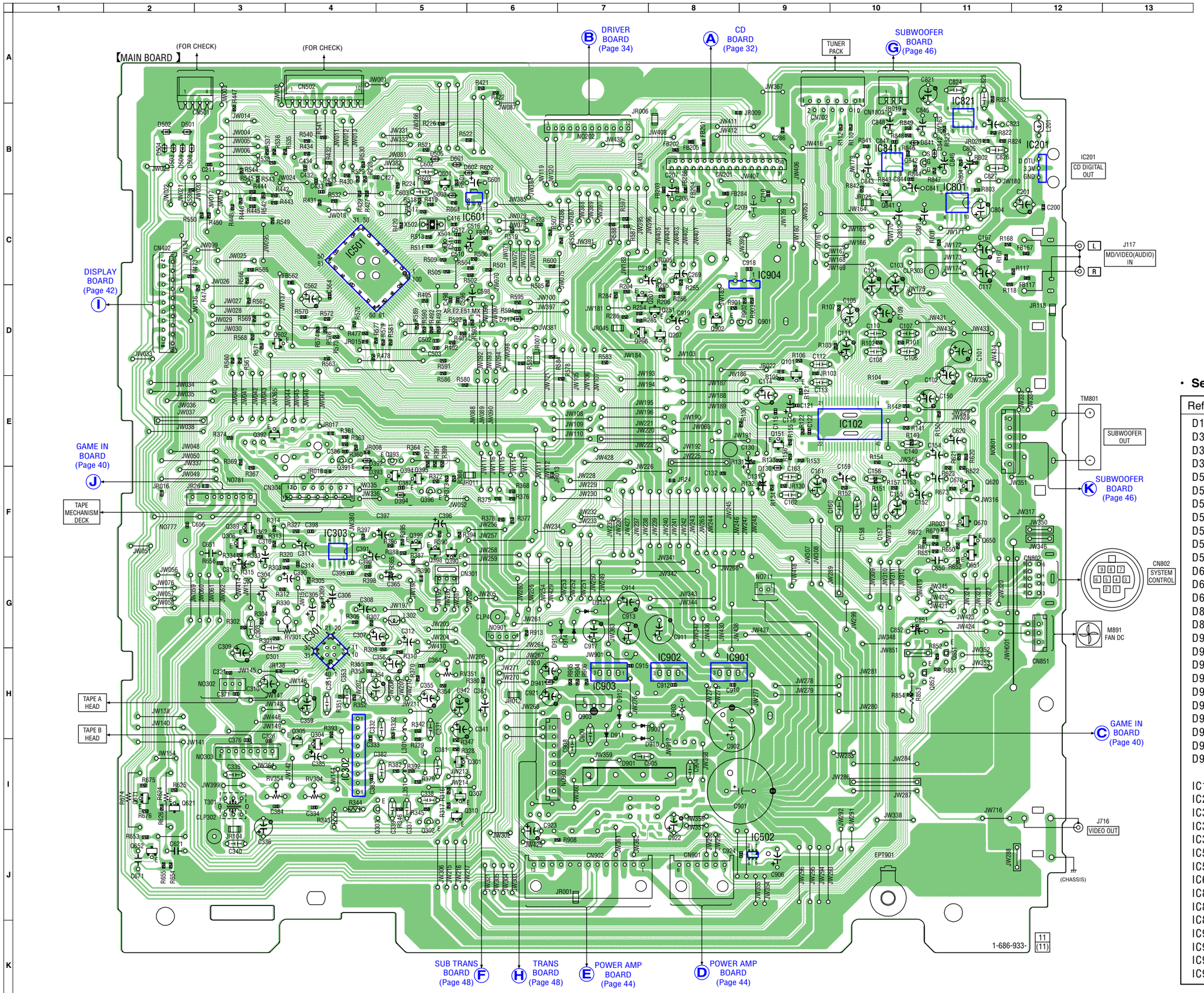
• **Semiconductor Location**

Ref. No.	Location
D701	D-6
D711	D-7
IC701	F-6
IC712	F-7
IC731	E-11
Q731	C-9

7-6. SCHEMATIC DIAGRAM – CD MECHANISM Board –



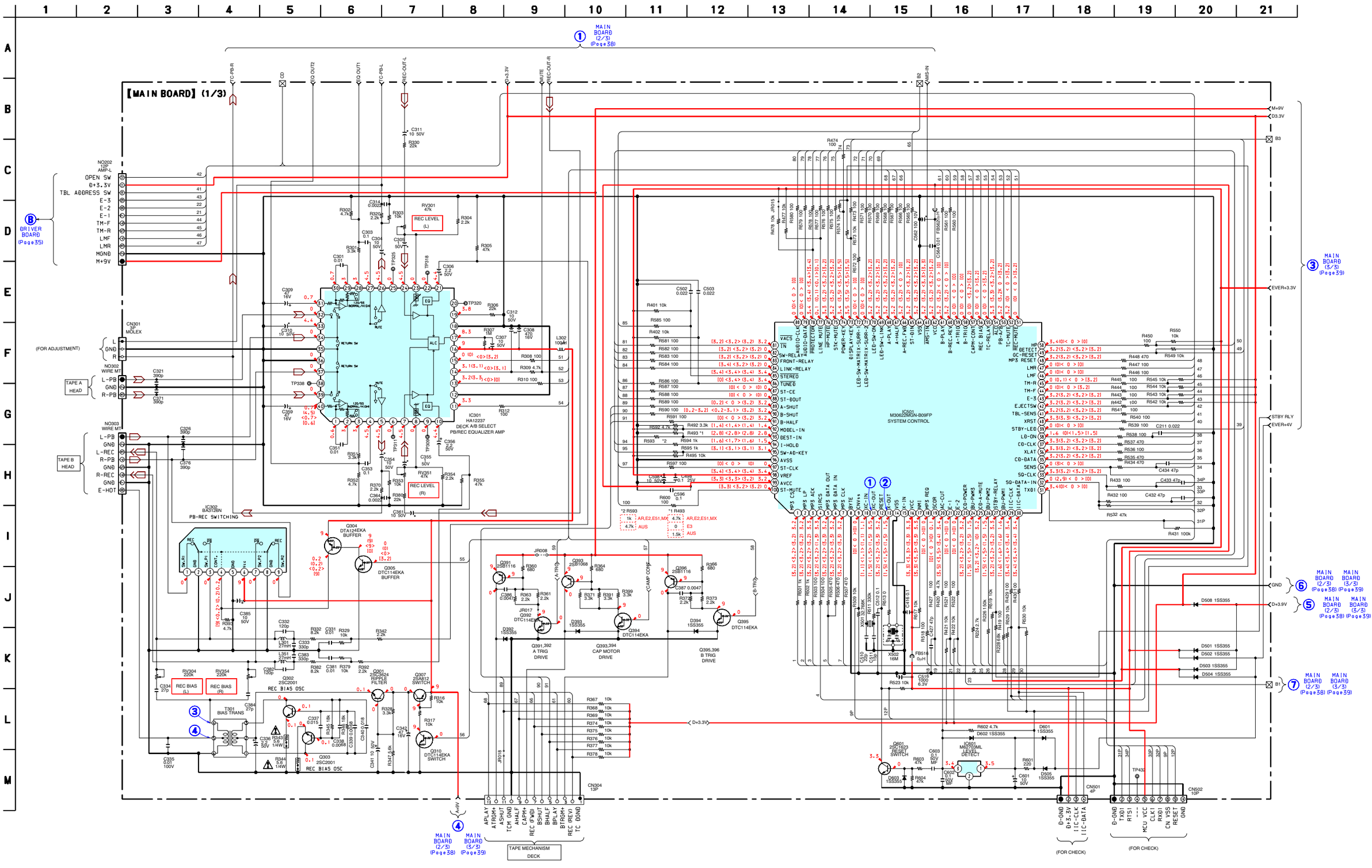
7-7. PRINTED WIRING BOARDS – MAIN Boards – • See page 26 for Circuit Boards Location.



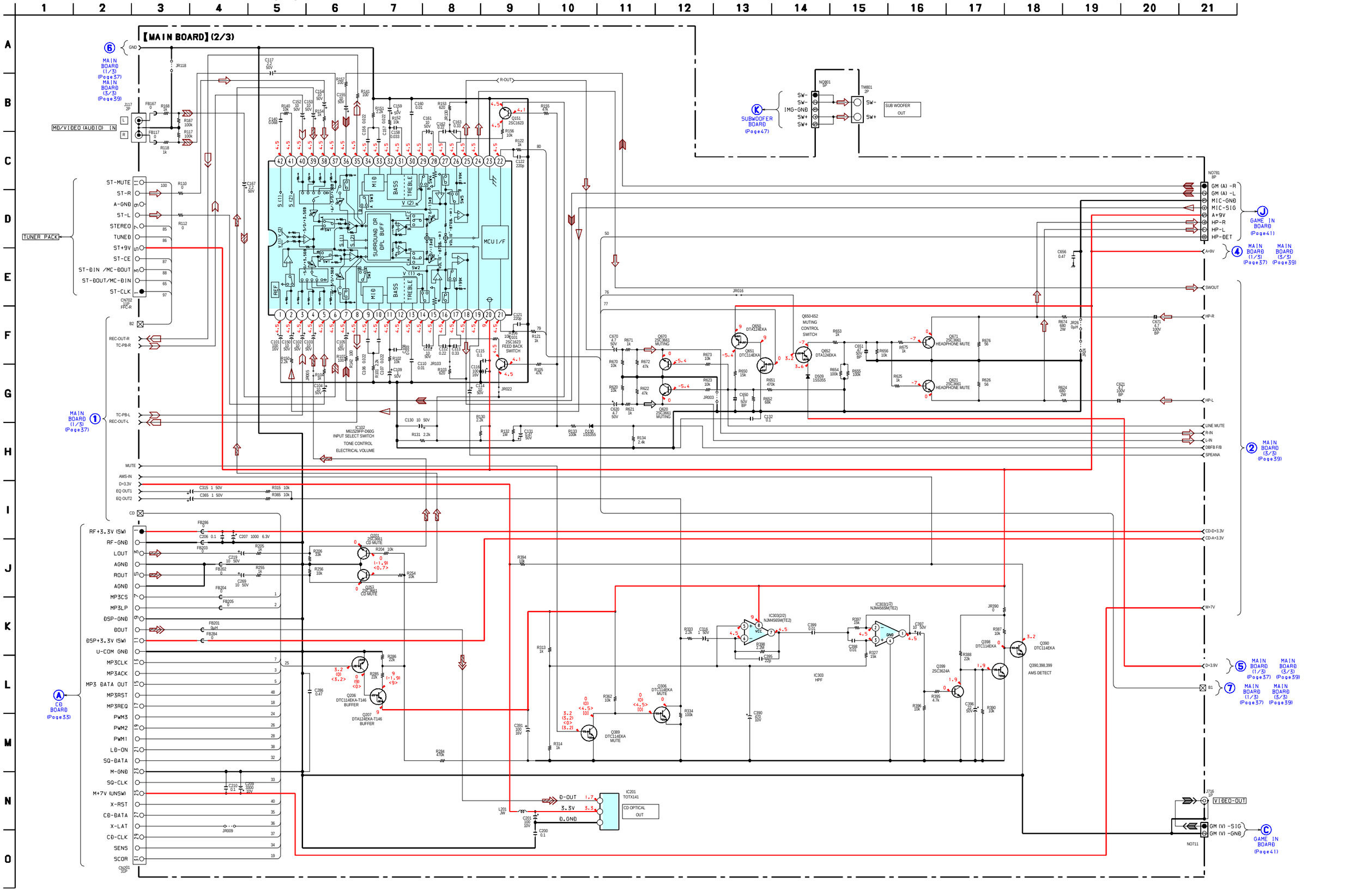
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D130	F-9	Q101	D-9
D392	E-4	Q151	E-9
D393	F-4	Q201	D-7
D394	F-5	Q206	D-7
D501	B-2	Q207	D-8
D502	B-2	Q251	D-8
D503	B-2	Q301	I-5
D504	B-2	Q302	I-5
D505	B-5	Q303	I-5
D508	B-2	Q304	I-4
D509	B-2	Q305	I-4
D601	B-5	Q306	F-3
D602	B-6	Q307	I-5
D603	C-5	Q310	I-5
D841	B-10	Q389	F-3
D842	B-11	Q390	F-5
D901	I-7	Q391	E-4
D909	H-7	Q392	E-3
D910	H-7	Q393	E-5
D911	H-7	Q394	F-5
D912	H-7	Q395	F-5
D913	G-7	Q396	F-5
D914	G-7	Q398	F-5
D915	G-7	Q399	F-5
D917	D-6	Q601	B-5
D941	H-6	Q602	D-3
		Q620	F-11
IC102	E-10	Q621	I-2
IC201	B-12	Q650	F-11
IC301	G-4	Q651	F-11
IC302	I-4	Q652	J-2
IC303	F-4	Q670	F-11
IC501	C-4	Q671	I-2
IC502	J-9	Q841	C-10
IC601	C-6	Q842	B11
IC801	C-11	Q851	G-11
IC821	B-11	Q852	G-11
IC841	B-10	Q901	D-9
IC901	H-8	Q902	D-8
IC902	H-8	Q903	H-7
IC903	H-7		
IC904	C-9		

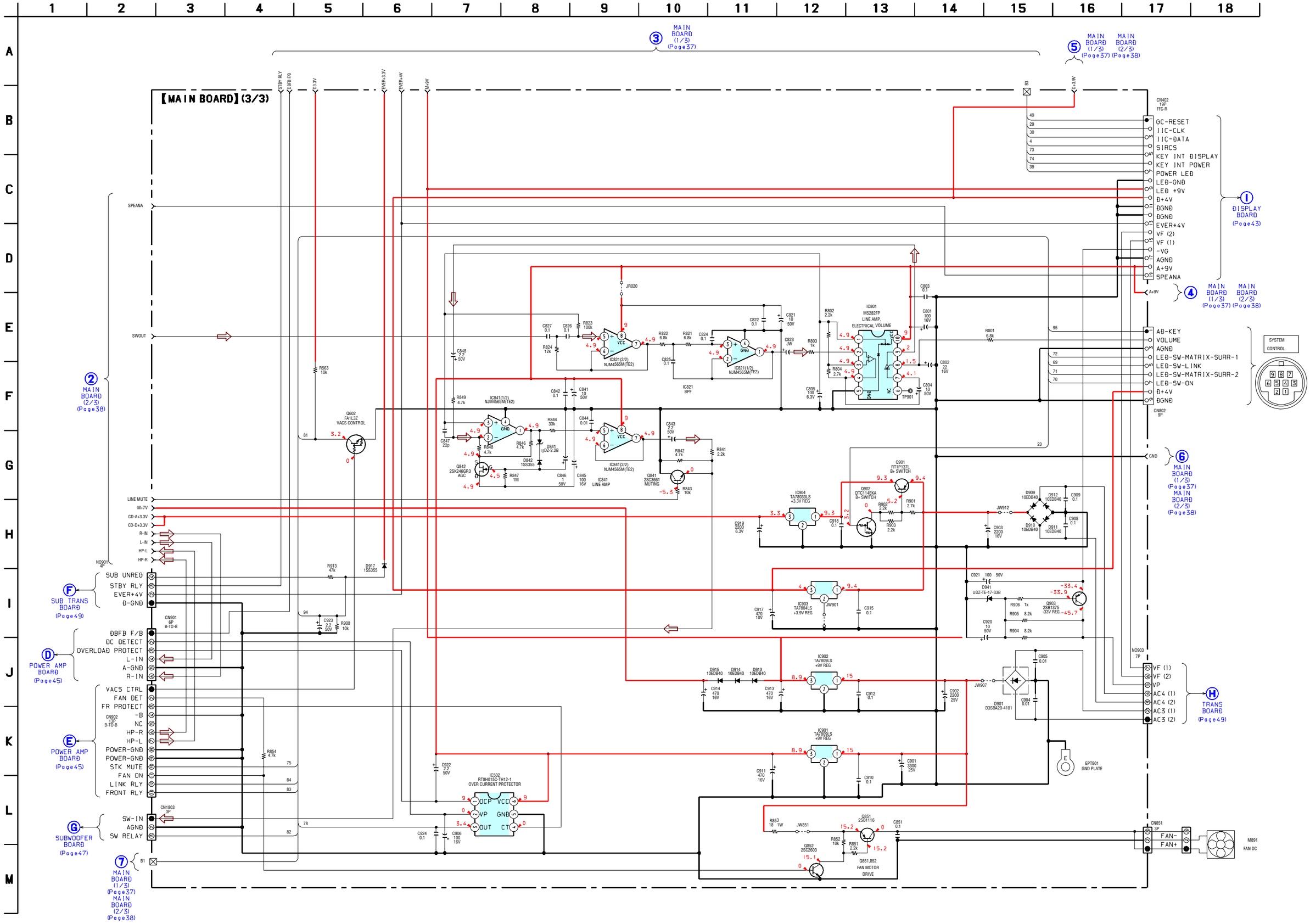
7-8. SCHEMATIC DIAGRAM – MAIN Board (1/3) – • See page 53 for Pin Function Description.



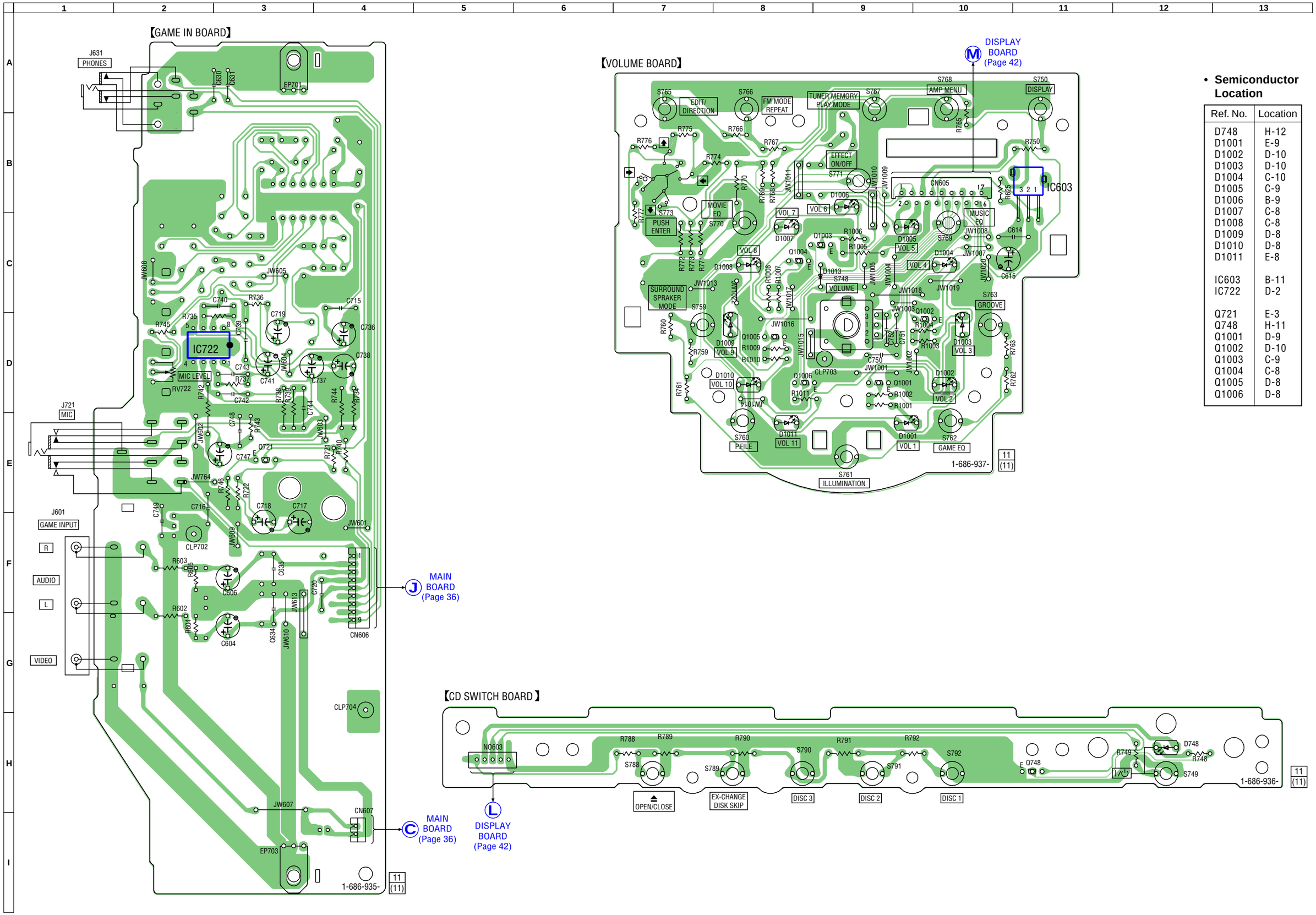
7-9. SCHEMATIC DIAGRAM – MAIN Board (2/3) –



7-10. SCHEMATIC DIAGRAM – MAIN (3/3) Boards –



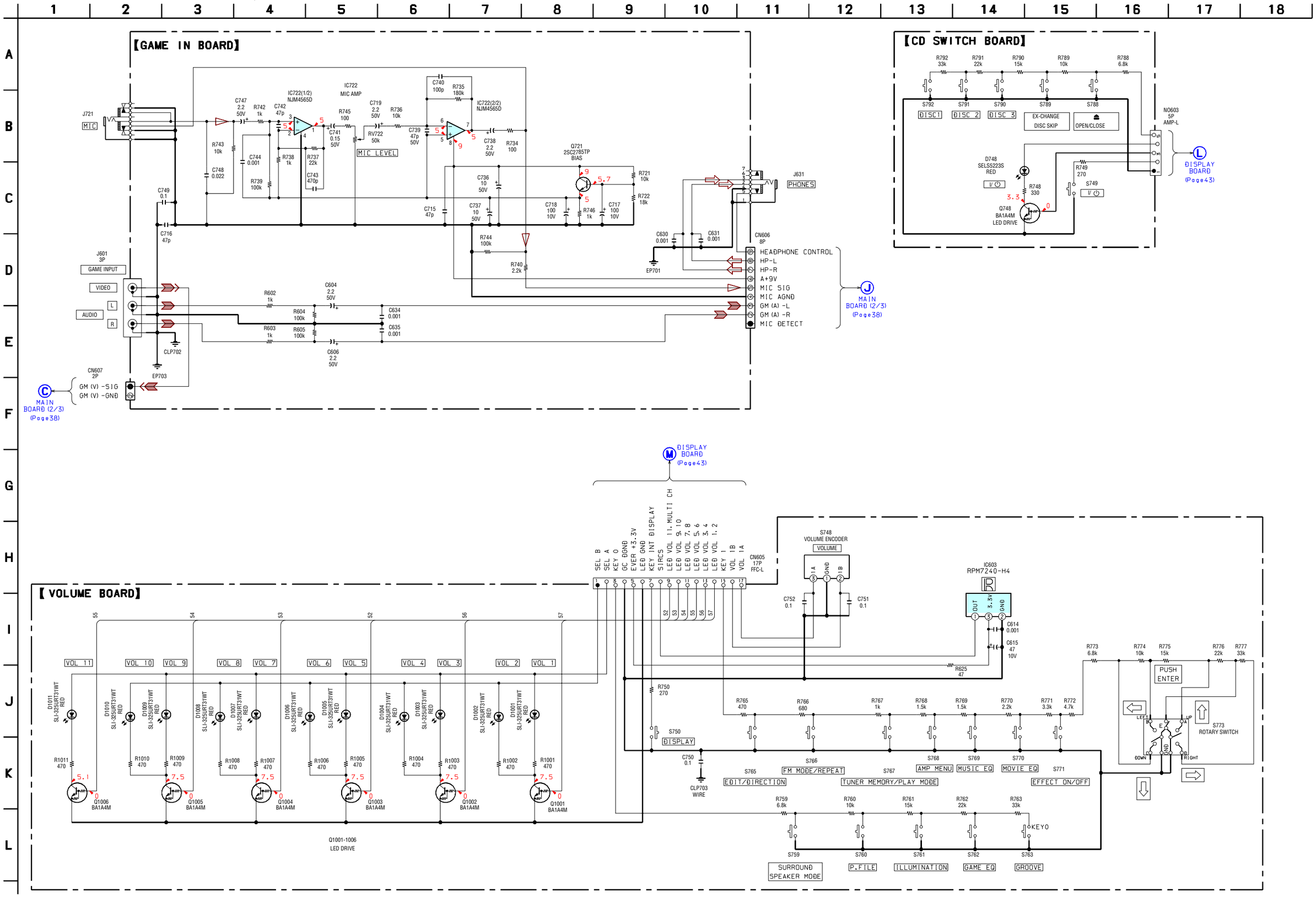
7-11. PRINTED WIRING BOARD – GAME IN, CD SWITCH Board – • See page 26 for Circuit Boards Location.



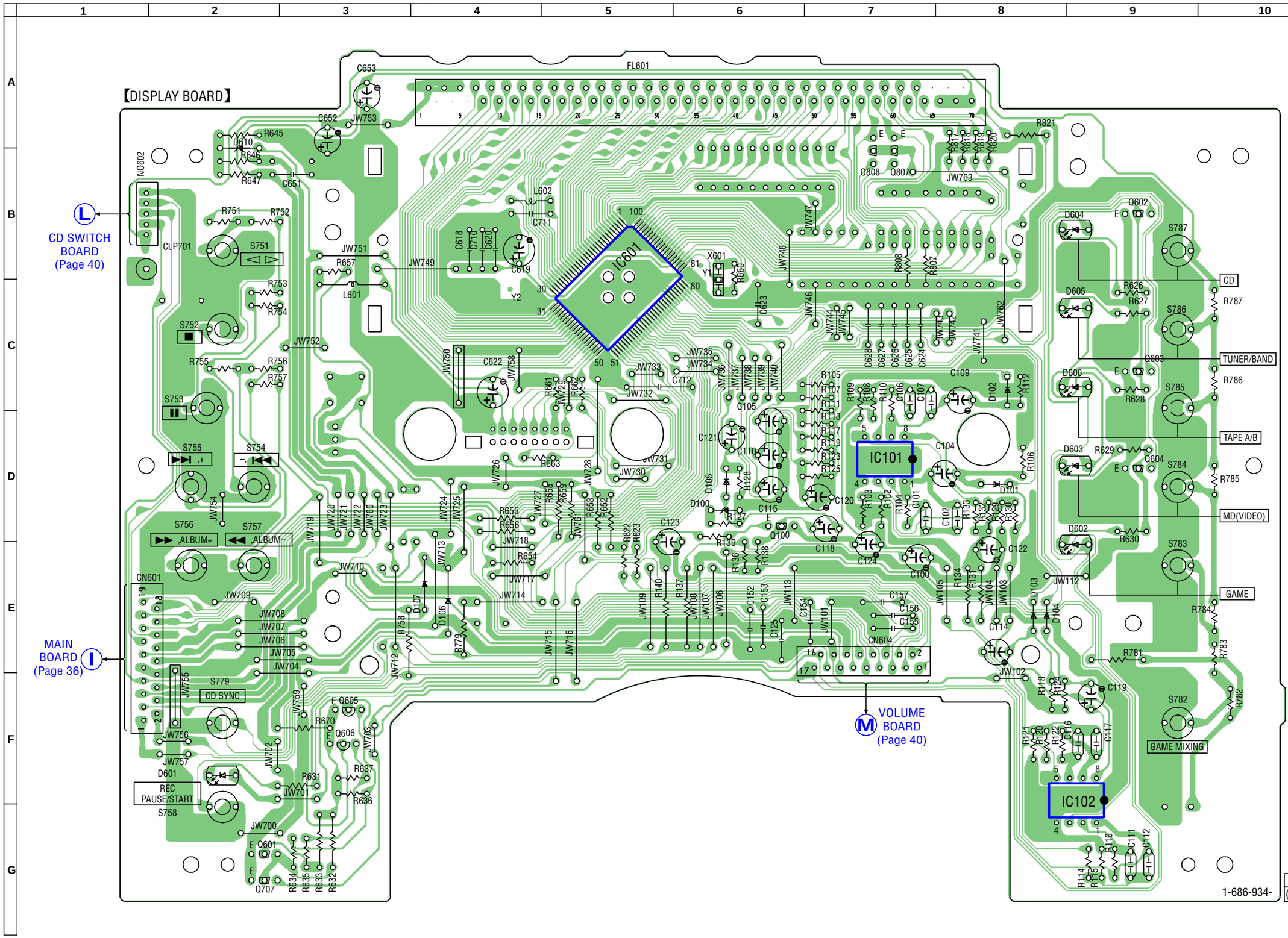
- **Semiconductor Location**

Ref. No.	Location
D748	H-12
D1001	E-9
D1002	D-10
D1003	D-10
D1004	C-10
D1005	C-9
D1006	B-9
D1007	C-8
D1008	C-8
D1009	D-8
D1010	D-8
D1011	E-8
IC603	B-11
IC722	D-2
Q721	E-3
Q748	H-11
Q1001	D-9
Q1002	D-10
Q1003	C-9
Q1004	C-8
Q1005	D-8
Q1006	D-8

7-12. SCHEMATIC DIAGRAM – GAME IN, CD SWITCH Board –



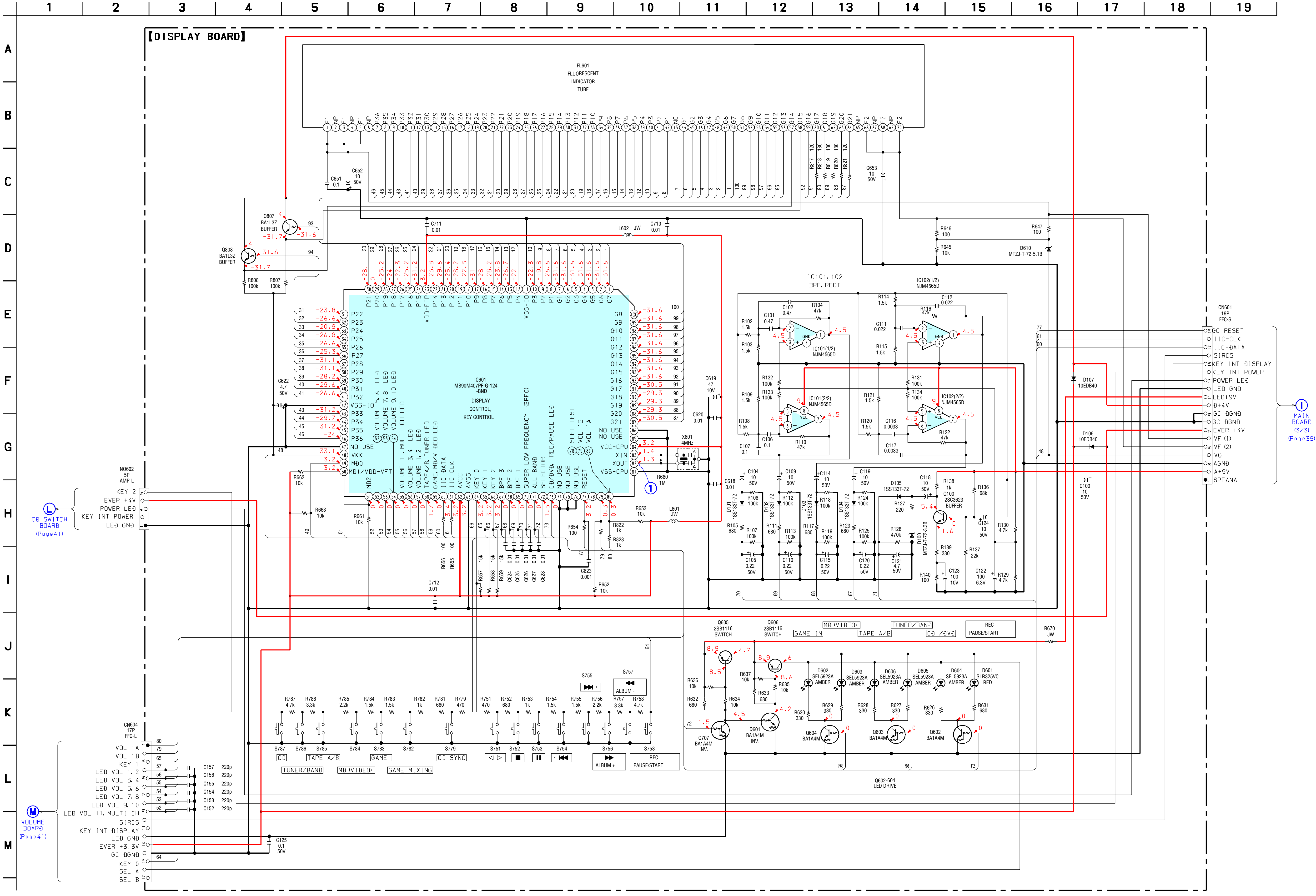
7-13. PRINTED WIRING BOARD – DISPLAY Board – • See page 26 for Circuit Boards Location.



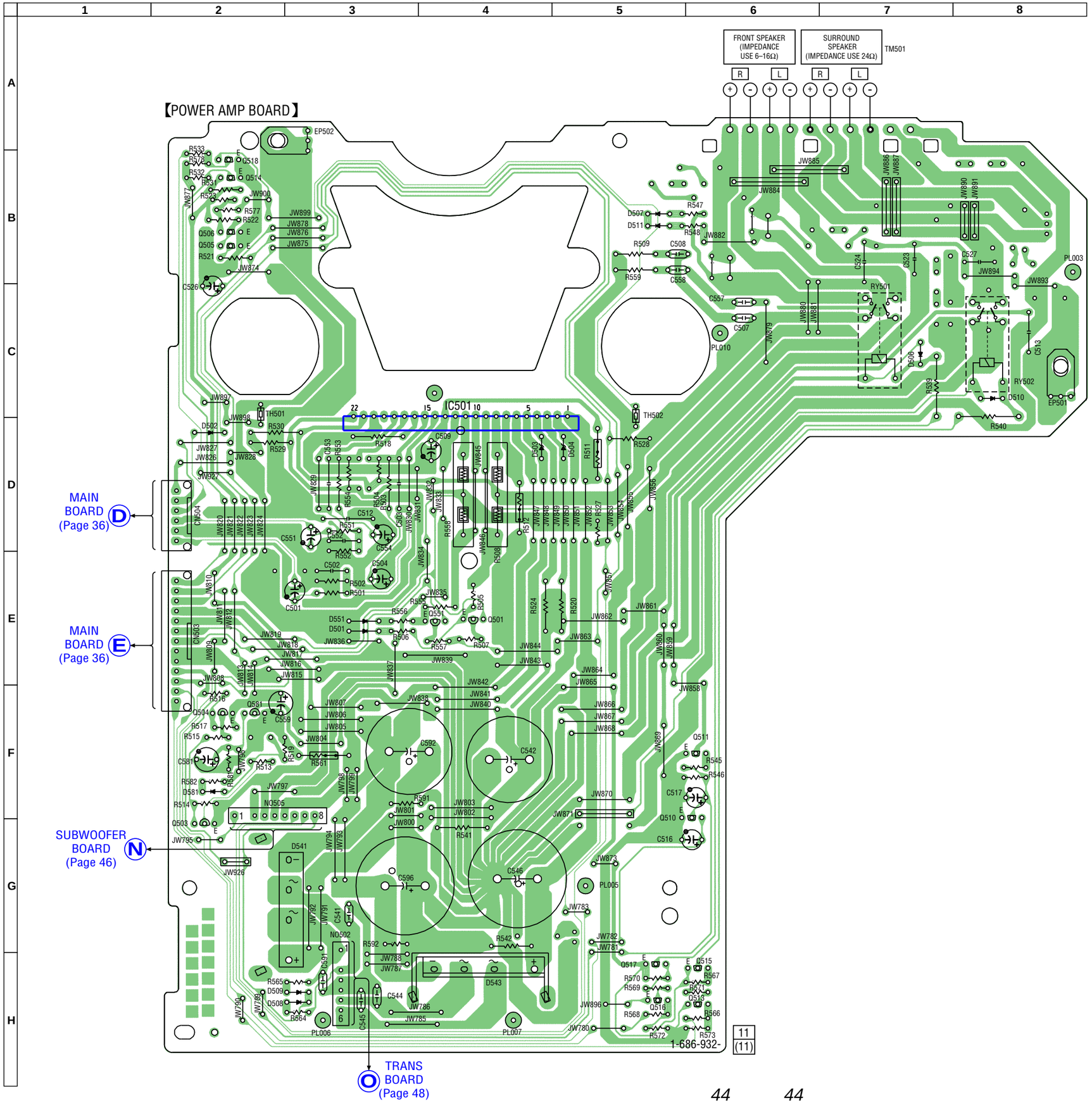
- **Semiconductor Location**

Ref. No.	Location
D100	D-6
D101	D-8
D102	C-8
D103	E-8
D104	E-8
D105	D-6
D106	E-4
D107	E-4
D601	F-2
D602	E-9
D603	D-9
D604	B-9
D605	C-9
D606	C-9
D610	A-2
IC101	D-7
IC102	F-9
IC601	B-5
Q100	D-6
Q601	G-2
Q602	B-9
Q603	C-9
Q604	D-9
Q605	F-2
Q606	F-2
Q707	G-2
Q807	B-7
Q808	B-7

7-14. SCHEMATIC DIAGRAM – DISPLAY Board – • See page 55 for Pin Function Description.



7-15. PRINTED WIRING BOARDS – POWER AMP Boards – • See page 26 for Circuit Boards Location.



- **Semiconductor Location**

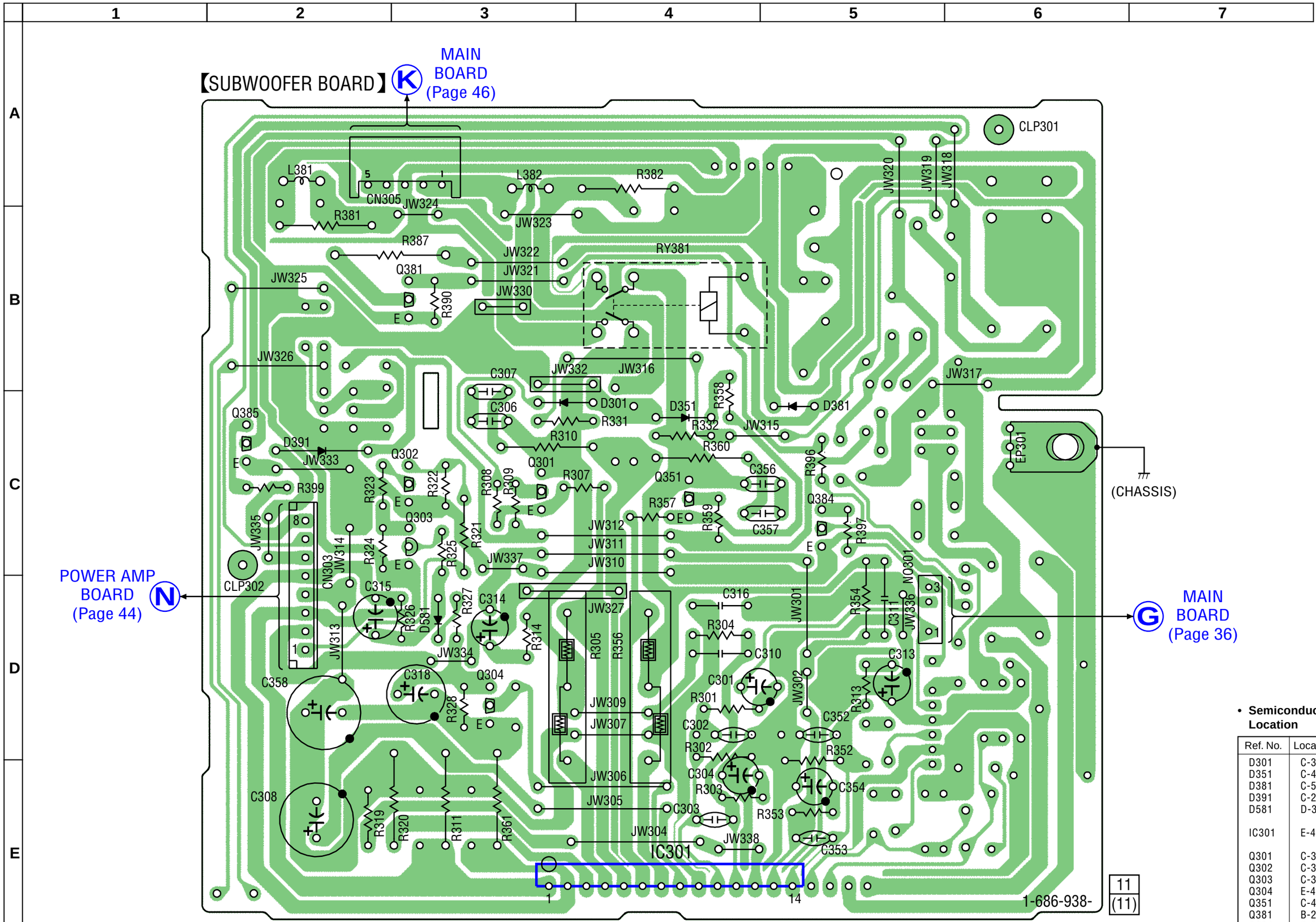
Ref. No.	Location
D501	E-3
D502	D-2
D503	D-4
D504	D-5
D506	C-7
D507	B-5
D508	H-2
D509	H-2
D510	C-8
D511	B-5
D541	G-3
D543	H-4
D551	E-3
D581	F-2
IC501	D-4
Q501	E-4
Q503	G-2
Q504	F-2
Q505	B-2
Q506	B-2
Q510	F-6
Q511	F-6
Q513	H-6
Q514	B-2
Q515	H-6
Q516	H-5
Q517	H-5
Q518	B-2
Q551	E-4
Q581	F-2

7-16. SCHEMATIC DIAGRAM – POWER AMP Boards –

【POWER AMP BOARD】

IC501(1/2) STK412-150 POWER AMP
IC501(2/2) STK412-150 POWER AMP
Q503 2SA1207 STANDBY SWITCH
Q581 2SC1841 STANDBY SWITCH
Q504 2SC1841 STANDBY SWITCH
Q501 2SC1841 OVER LOAD DETECT
Q551 2SC1841 OVER LOAD DETECT
Q517 2SA1175TP-HFE FRONT SPEAKER RELAY DRIVE
Q516 2SC2785 FRONT SPEAKER RELAY DRIVE
Q511 2SC2785 RELAY SWITCH
Q510 2SC2785 OVER LOAD DETECT SWITCH
Q515 2SA1175TP-HFE SURROUND SPEAKER PROTECT RELAY DRIVE
Q505,506,514 TEMPERATURE DETECT SWITCH
Q505 2SC2785
Q506 2SC2785
Q514 2SC2785
Q518 2SC2785 FAN MOTOR ON SWITCH
Q513 2SC2785 SURROUND SPEAKER PROTECT RELAY DRIVE
RY501 RELAY 24V
RY502
D504 MTZJ-T-72-18C
D503 MTZJ-T-72-18C
D502 1SS133T
D506 1SS133T
D507 1SS133T
D511 1SS133T
D510 1SS133T
D509 1SS133T
D508 1SS133T
D543 D5SBA20
D541 RBV-2506
TH502
TH501
EP501 TERMINAL, EARTH
EP502 EARTH
TM501 8P
FRONT SPEAKER (IMPEDANCE USE 6 – 16Ω)
SURROUND SPEAKER (IMPEDANCE USE 24Ω)
R CH
R GND
L CH
L GND
REAR R-CH
REAR R GND
REAR L-CH
NO502
VH
GND
VL
TRANS BOARD (Page49)
CN504 6P
R-IN
A-GND
L-IN
OVERLOAD DETECT
DC DETECT
FEEDBACK
MAIN BOARD (3/3) (Page39)
NO505 8P
SW MUTE
IM GND
+VL
GND
-VL
OVERLOAD DETECT
DC DETECT
AC CUT DETECT
SUBWOOFER BOARD (Page47)
CN503 13P
VACS CTRL
FAN DET
FR RELAY PROTECT
-B
AC CUT DETECT
R-HP
L-HP
POWER GND
POWER GND
STK MUTE
FAN ON
LINK RELAY
FRONT RELAY
MAIN BOARD (3/3) (Page39)
*1 R531 270k AUS 330k EXCEPT AUS
*2 R555 1k AUS 820 EXCEPT AUS

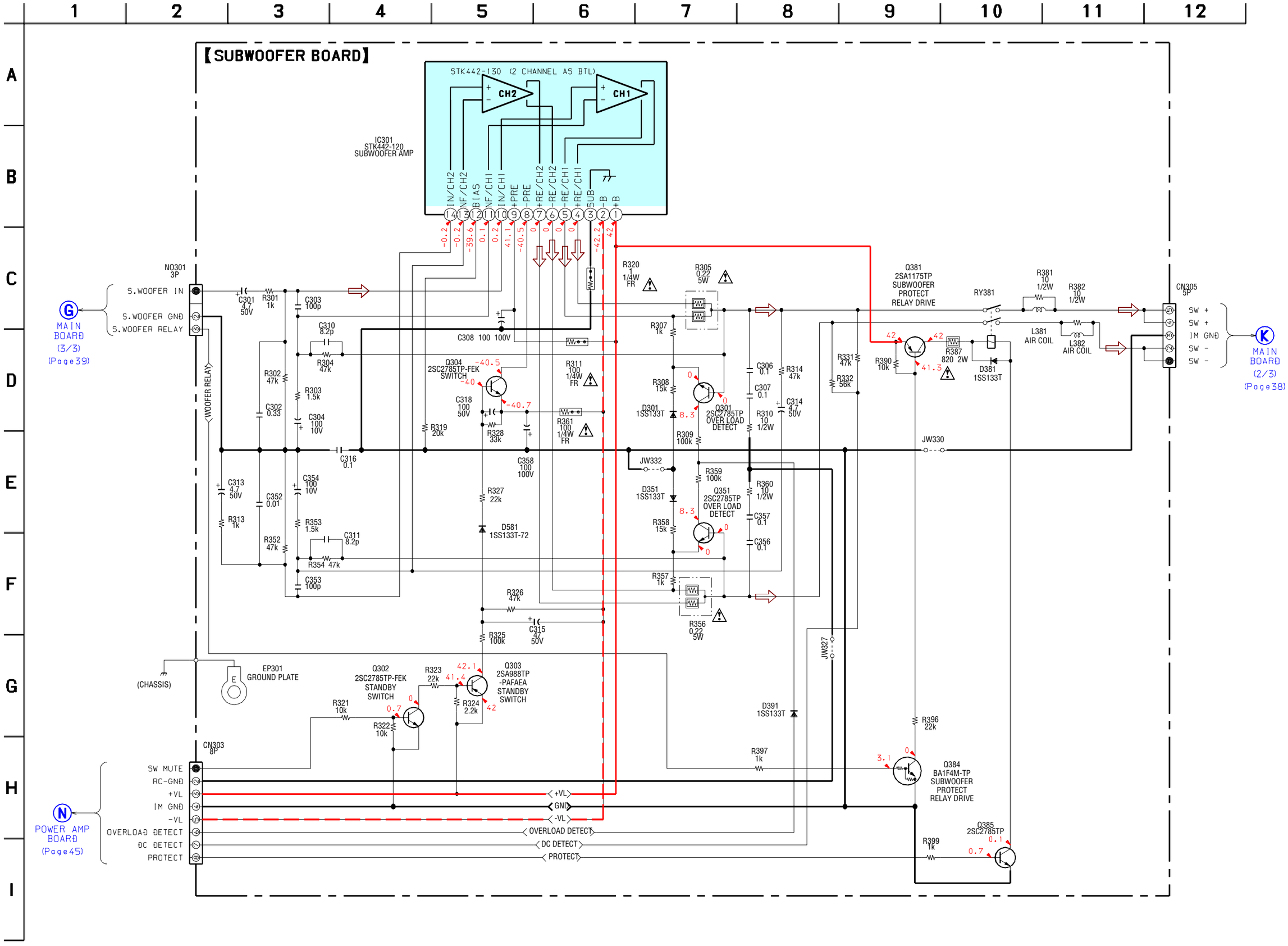
7-17. PRINTED WIRING BOARDS – SUBWOOFER Boards – • See page 26 for Circuit Boards Location.



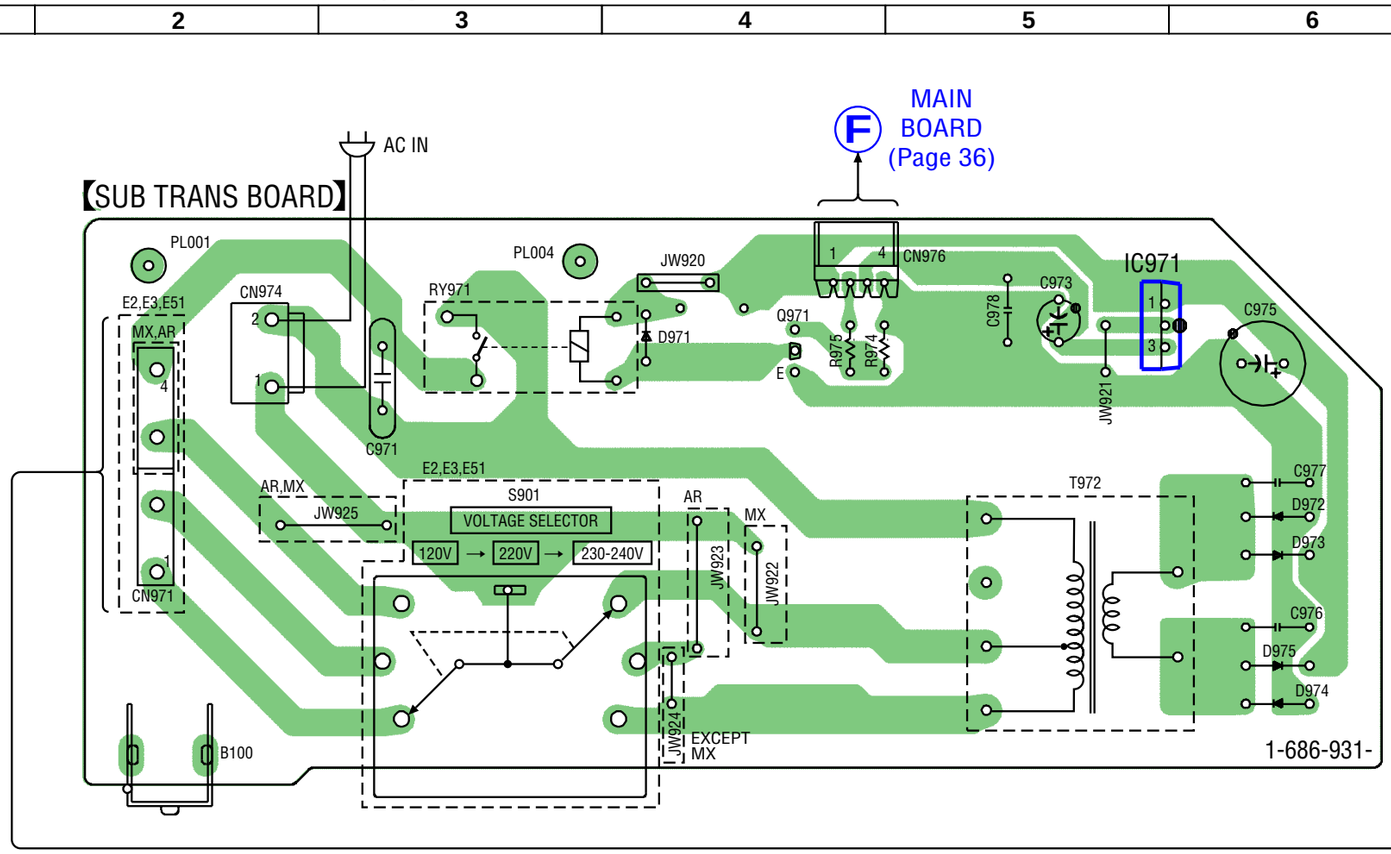
- **Semiconductor Location**

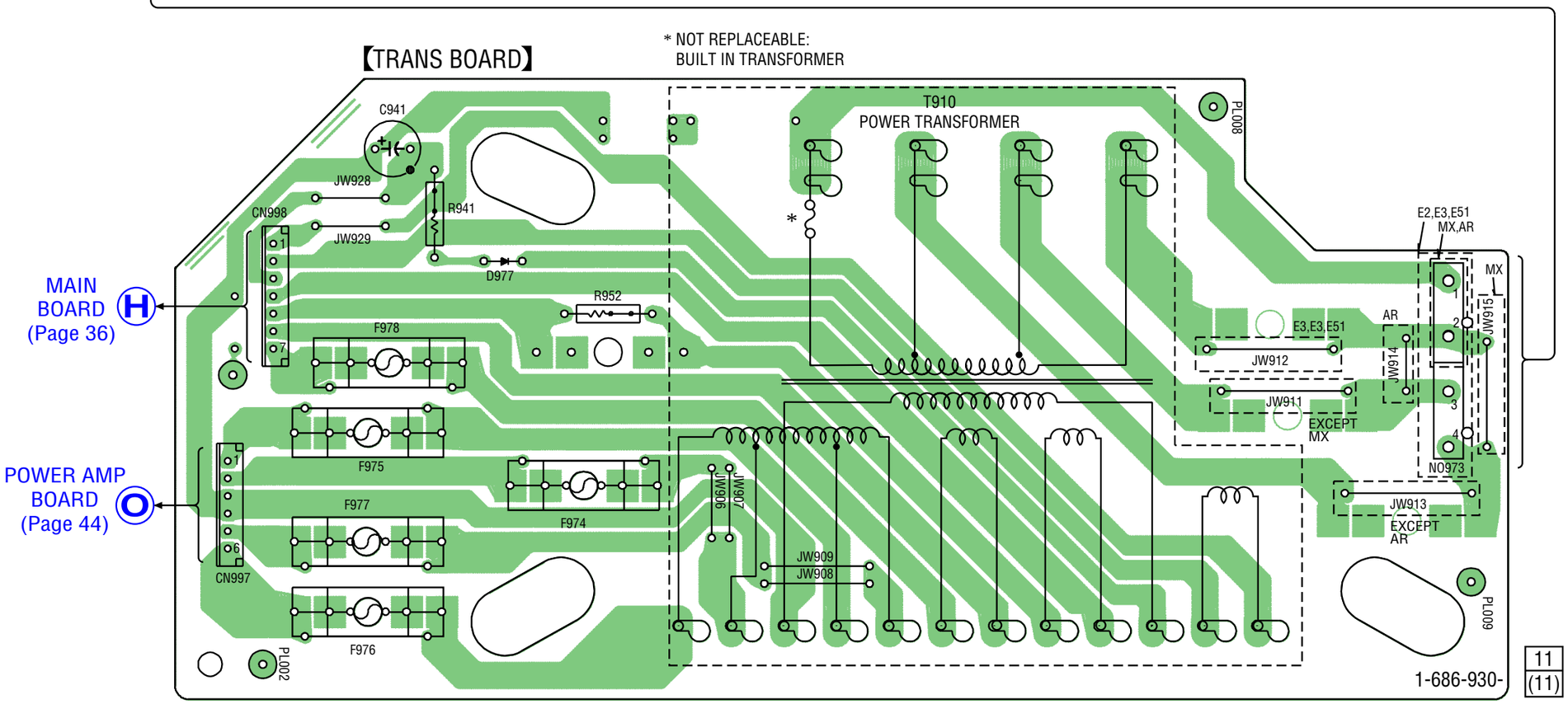
Ref. No.	Location
D301	C-3
D351	C-4
D381	C-5
D391	C-2
D581	D-3
IC301	E-4
Q301	C-3
Q302	C-3
Q303	C-3
Q304	E-4
Q351	C-4
Q381	B-2
Q384	C-5
Q385	C-2

7-18. SCHEMATIC DIAGRAM – SUBWOOFER Boards –



7-19. PRINTED WIRING BOARDS – TRANS Board – • See page 26 for Circuit Boards Location.

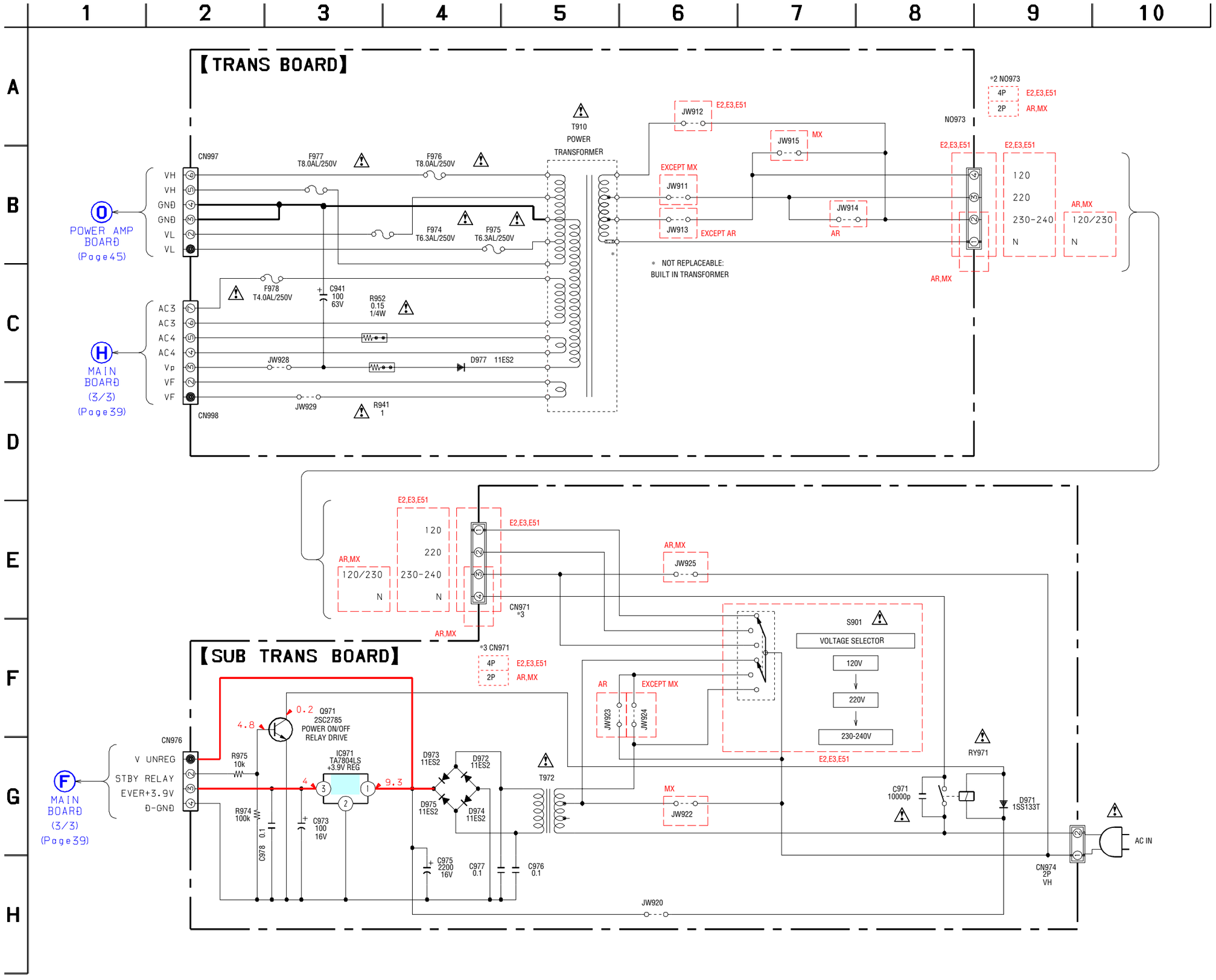




- **Semiconductor Location**

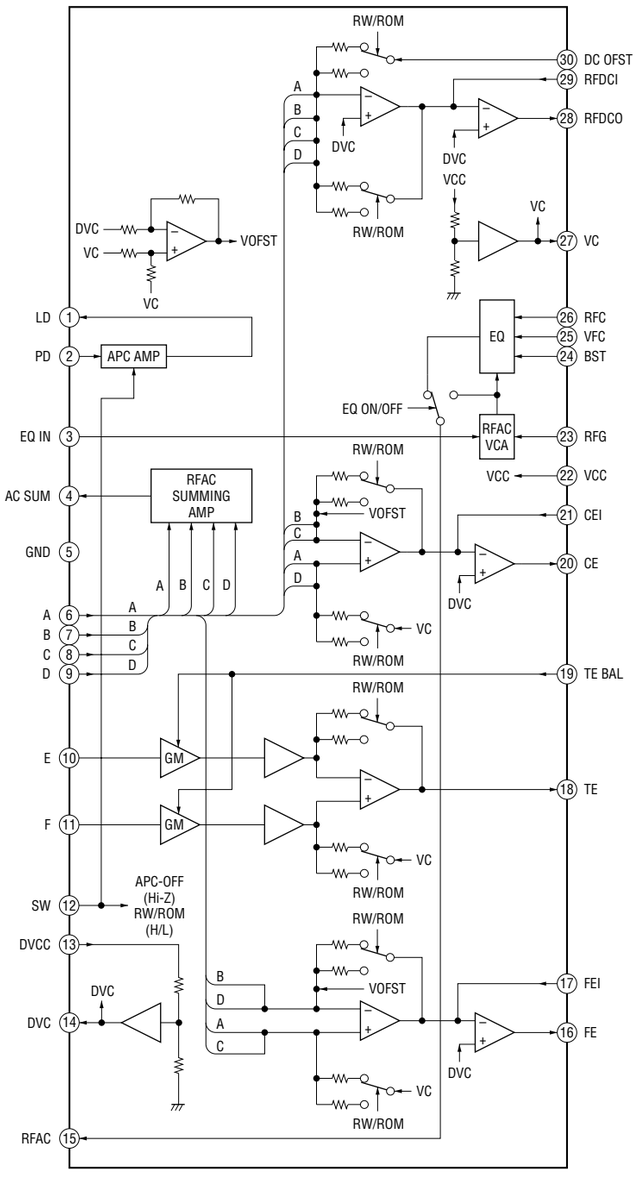
Ref. No.	Location
D971	B-4
D972	B-6
D973	B-6
D974	C-6
D975	C-6
D977	D-3
IC971	A-5
Q971	B-4

7-20. SCHEMATIC DIAGRAM – TRANS Board –

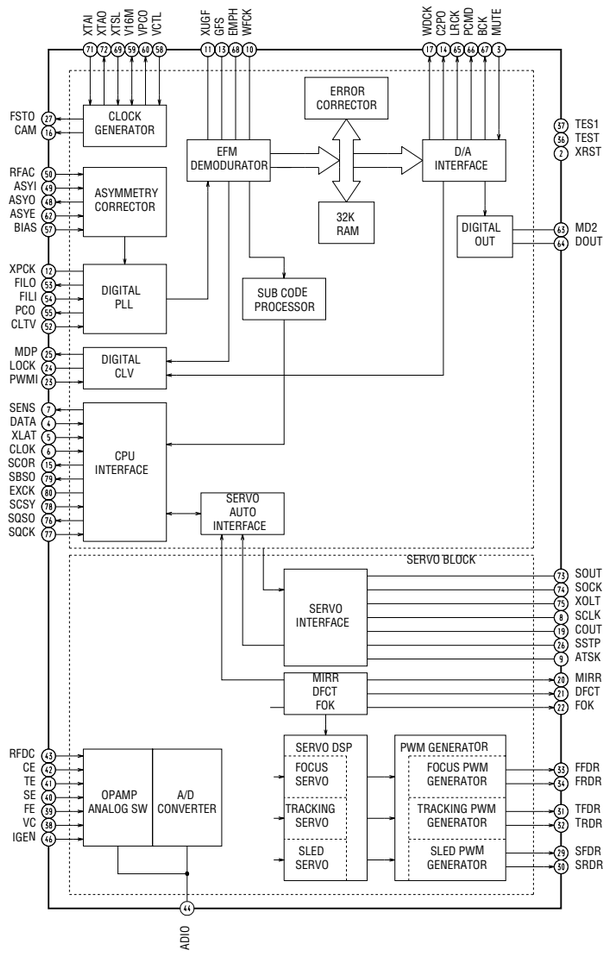


7-21. IC Block Diagrams

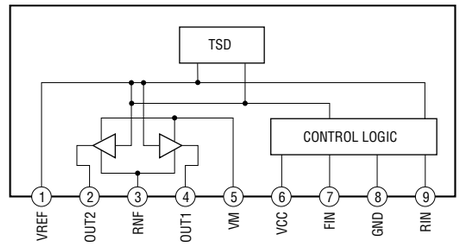
IC103 CXA2647N-T4 (CD BOARD)



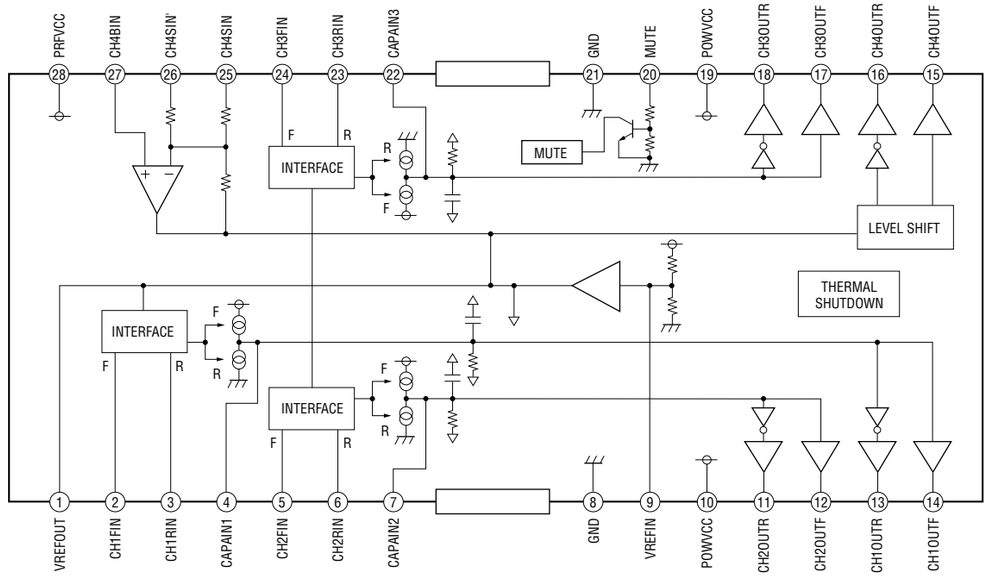
IC101 CXD3068Q (CD BOARD)



IC701 BA6956AN (DRIVER BOARD)
IC712 BA6956AN (DRIVER BOARD)



IC150 BA5974FM-E2 (CD BOARD)



7-22. IC Pin Function Description

• IC104 CXD9717R-008 D/A Converter, MP3 Decoder (CD Board)

Pin No.	Pin Name	I/O	Description
1	RESET	I	Reset input terminal “L”: reset
2	MIMD	I	Microcomputer interface mode selection input “H”: I2C, “L”: TSB (fixed at “L”)
3	MICS/AD0	I	Microcomputer interface chip select signal input
4	MILP/AD1	I	Microcomputer interface latch pulse input
5	MIDIO	I/O	Serial data input/output
6	MICK	I	Serial clock input
7	MIACK/AD2	O	Microcomputer interface acknowledge signal output
8	VDDT	–	Power supply (3.3V) for digital circuit
9	SDO	O	Data output (open)
10	BCKO/AD3	O	Bit output (open)
11	LRCKO/AD4	O	LR clock output (open)
12	SDI0	I	Data input 0
13	BCKIA	I	Bit clock input A
14	LRCKIA	I	LR clock input A
15	SDI1/AD5	I	Data input 1 (fixed at “L”)
16	BCKIB/CE	I	Bit clock input B (fixed at “L”)
17	LRCKIB/OE	I	LR clock input B (fixed at “L”)
18	VDD	–	Power supply (2.5V) for digital circuit
19	STANDBY	I	Standby mode control signal input “H”: STB, “L”: normal (fixed at “H”)
20	VSS	–	Ground for digital circuit
21	VSSL	–	Ground for DAC Lch
22	VRAL	–	Reference voltage terminal for DAC Lch
23	LO	O	DAC Lch signal output
24	VDAL	–	Power supply (2.5V) for DAC Lch
25	VDAR	–	Power supply (2.5V) for DAC Rch
26	RO	O	DAC Rch signal output
27	VRAR	–	Reference voltage terminal for DAC Rch
28	VSSR	–	Ground for DAC Rch
29	TESTP	I	Terminal for test “H”: test mode, “L”: normal (fixed at “L”)
30	CSK	O	SPDIF signal output (open)
31 to 34	PO0/AD12 to PO3/AD09	O	General purpose output (open)
35	VDDT	–	Power supply (3.3V) for digital circuit
36	PO4/AD8	O	General purpose output (open)
37	PO5/AD7	O	General purpose output (open)
38	PO6/AD6	O	General purpose output (open)
39	PO7	O	Interrupt request signal output to the system control
40	VSS	–	Ground for digital circuit
41	FI0/AD13	I	External interrupt signal input (fixed at “L”)
42	FI1/AD14/VDDM	–	Power supply (2.5V) for the internal 1Mbit SRAM
43	FI2/WR	I	Flag signal input 0 (fixed at “L”)
44	FI3/AD16	I	Flag signal input 1 (fixed at “L”)
45	VSSM	–	Ground for the internal 1Mbit SRAM
46, 47	PI0, PI1	I	General purpose input (fixed at “L”)
48	VSS	–	Ground for digital circuit
49, 50	PI2/IO2, PI3/IO3	I	General purpose input (fixed at “L”)
51	PI4/IO4	I	General purpose input (fixed at “L”)
52	VDD	–	Power supply (2.5V) for digital circuit
53	PI5/IO5	I	General purpose input/SUBQ interface data input (fixed at “L”)

Pin No.	Pin Name	I/O	Description
54	BOOT/IO6	I	Terminal for test/SUBQ interface frame sync input (fixed at “L”)
55	TXO/IO7	I	Flag signal input 2/SUBQ interface block sync input (fixed at “L”)
56	VSSP	–	Ground for VCO circuit
57	PDO	O	PLL phase error detection signal output
58	VCOI	I	VCO control voltage input
59	VDDP	–	Power supply (2.5V) for VCO circuit
60	CKO	O	External clock output
61	VDDX	–	Power supply (2.5V) for oscillation circuit
62	XI	I	Resonator terminal (input)
63	XO	O	Resonator terminal (output)
64	VSSX	–	Ground for oscillation circuit

• **IC501 M30622MGN-B14FP SYSTEM CONTOL (MAIN Board)**

Pin No.	Pin Name	I/O	Description
1	MP3 CS	O	MP3 chip select signal output
2	MP3 LP	O	MP3 latch pules output
3	MP3 ACK	I	MP3 acknowledge signal input
4	SIRCS	I	SIRCS input
5	MP3 DATA OUT	O	Serial data output
6	MP3 DATA IN	I	Serial data input
7	MP3 CLK	O	Serial clock output
8	BYTE	I	Not used (connected to ground)
9	CNVSS	—	Not used (Connected to ground with resistor)
10	XC-IN	I	Sub clock input
11	XC-OUT	O	Sub clock output
12	RESET	I	System reset input
13	X-OUT	O	Main system clock output (16MHz)
14	VSS	—	Ground
15	X-IN	I	Main system clock input (16MHz)
16	VCC	—	Power supply (+5V)
17	NMI	I	Not used (Pull up with resistor)
18	MP3 REQ	I	Interrupt request signal input
19	SCOR	I	Subcode sync (S0+S1) detection signal input
20	AC-CUT	I	AC cut check signal input
21	E-1	I	Disc tray status detection signal input
22	E-2	I	Disc tray status detection signal input
23	CD-POWER	O	CD power on/off signal output
24	BU-PWM3	O	BU PWM 3 (for CD-RW) signal output
25	CD-A-MUTE	O	CD mute signal output
26	BU-PWM2	O	BU PWM 2 (for CD-RW) signal output
27	STBY-RELEY	O	Reley drive signal output
28	BU-PWM1	O	BU PWM 1 (for CD-RW) signal output
29	IIC-CLK	I	IIC serial data clock input
30	IIC-DATA	I	IIC serial data input
31	TXD1	—	Not used
32	SQ-DATA	I	Subcode Q data input
33	SQ-CLK	O	Subcode Q data reading clock signal output
34	SENS	I	SENS signal input from CXD3068Q
35	CD-DATA	O	CD data output
36	XLAT	O	CD latch signal output
37	CD-CLK	O	CD data clock output
38	LD-ON	O	Laser diode control signal output
39	STBY-LED	O	Standby LED drive signal output
40	XRST	O	CD reset signal output
41	TBL-SENS	I	Table sensor signal input
42	EJECTSW	I	Eject switch signal input
43	E-3	I	Disc tray status detection signal input
44	TM-F	O	Table motor control signal output
45	TM-R	O	Table motor control signal output
46	LMF	O	Loading motor control signal output
47	LMR	O	Loading motor control signal output
48	MP3 RESET	O	MP3 reset signal output
49	GC-RESET	O	GC reset signal output
50	HP DETECT	I	Headphone detect input
51	$\overline{\text{REC-MUTE}}$	O	REC mute signal output
52	TC-MUTE	O	TC line mute signal output
53	PB-A/B	O	TC A/B select signal output

Pin No.	Pin Name	I/O	Discription
54	ALC	O	ALC signal output
55	TC-RELAY	O	REC/PB selection signal output
56	REC BIAS	O	Bias on/off signal output
57	CAPM-CONT	O	Capstan motor REV/FWD/STOP control signal output
58	B-TRIG	O	TCM-B Trigger output
59	A-TRIG	O	TCM-A trigger output
60	B-REC, REV	O	Record tab switch for SIDE B signal output
61	B-PLAY	I	TCM-B play switch input
62	VCC	—	Power supply (+3.3V)
63	$\overline{\text{AMS-IN}}$	I	AMS signal input
64	VSS	—	Ground
65	ST-DIN	I	Tuner data input
66	A-REC, FWD	O	Record tab switch for SIDE A signal output
67	A-HALF	I	A deck half detection signal input
68	A-PLAY	I	TCM-A play switch input
69	LED-SW-LINK	O	Subwoofer LED drive signal output
70	LED-SW-ON	O	Subwoofer LED drive signal output
71	LED-MATRIX-SURR-2	O	Subwoofer LED drive signal output
72	LED-MATRIX-SURR-1	O	Subwoofer LED drive signal output
73	KEY-DISPLAY	I	DISPLAY key signal input
74	POWER-KEY	I	Power key signal input
75	STK-MUTE	O	Mute signal output to power IC
76	$\overline{\text{HP-MUTE}}$	O	Headphone mute signal output
77	LINE-MUTE	O	TA LINE mute signal output
78	$\overline{\text{PROTECT}}$	I	Speaker protection signal input
79	AUDIO-DATA	O	Serial data output to Audio EQIC
80	AUDIO-CLK	O	Serial data clock output to Audio EQIC
81	$\overline{\text{VACS IN}}$	I	VACS signal input
82	SW-RELAY	O	Subwoofer relay control signal output
83	FRONT-RELAY	O	Front speaker relay driver signal output
84	LINK-RELAY	O	Surround speaker relay driver signal output
85	$\overline{\text{STEREO}}$	I	Stereo signal input
86	$\overline{\text{TUNED}}$	I	Tuned signal input
87	ST-CE	O	Tuner chip enable signal output
88	ST-DOUT	O	Tuner data output
89	A-SHUT	I	TCM-A reel pulse input
90	B-SHUT	I	TCM-B reel pulse input
91	B-HALF	I	B deck half detection input
92	MODEL-IN	I	Model input
93	DEST-IN	I	Destination input
94	I-HOLD	I	Over-voltage protection detection input termnal
95	SW-AD-KEY	I	Subwoofer key signal input
96	AVSS	—	Ground
97	ST-CLK	O	Tuner clock signal output
98	VREF	I	Reference voltage input
99	AVCC	—	Power supply (+3.3V)
100	ST-MUTE	O	Tuner mute signal output

• IC601 MB90M407APF-G-124-BND DISPLAY CONTROL (DISPLAY Board)

Pin No.	Pin Name	I/O	Description
1 to 7	G7 to G1	O	FLD grid output
8 to 10	P1 to P3	O	FLD segment output
11	VSS-IO	—	Ground
12 to 22	P4 to P14	O	FLD segment output
23	VDD-FIP	—	Power supply (+3.3V)
24 to 41	P15 to P32	O	FLD segment output
42	VSS-IO	—	Ground
43 to 46	P32 to P36	O	FLD segment output
47	NO USED	O	Not used
48	VKK	—	Power supply (-35V)
49	MD0	I	Not used (pull up with resistor)
50	MD1/VDD-VFT	I	Not used (pull up with resistor)
51	MD2	I	Not used (pull down with resistor)
52	VOLUME5,6 LED	O	LED drive signal output
53	VOLUME7,8 LED	O	LED drive signal output
54	VOLUME9,10 LED	O	LED drive signal output
55	VOLUME11,MULTI CH LED	O	LED drive signal output
56	VOLUME3,4 LED	O	LED drive signal output
57	VOLUME1,2 LED	O	LED drive signal output
58	TAPE A/B,TUNER LED	O	LED drive signal output
59	GAME,MD/VIDEO LED	O	LED drive signal output
60	I2C-DATA	O	IIC serial data output
61	I2C-CLOCK	O	IIC clock signal output
62	AVCC	—	Power supply (+3.3V)
63	AVSS	—	Ground
64 to 66	KEY0 to KEY2	I	Key input (A/D port)
67 to 70	BPF3 to BPF0	I	Spectrum analyzer BPF signal input
71	ALL BAND	I	L+R signal input
72	SELECTOR	O	LED group select signal output
73	CD/DVD, REC/PAUSE LED	O	LED drive signal output
74 to 76	NO USE	O	Not used
77	RESET	I	Reset input
78	SOFT TEST	O	Not used (open)
79	VOL 1B	I	Volume encoder signal B input
80	VOL 1A	I	Volume encoder signal A input
81	VSS-CPU	—	Ground
82	XOUT	O	Crystal oscillator output (4MHz)
83	XIN	I	Crystal oscillator input (4MHz)
84	VCC-CPU	—	Power supply (+3.3V)
85, 86	NO USE	—	Not used
87 to 100	G21 to G8	O	FLD grid output

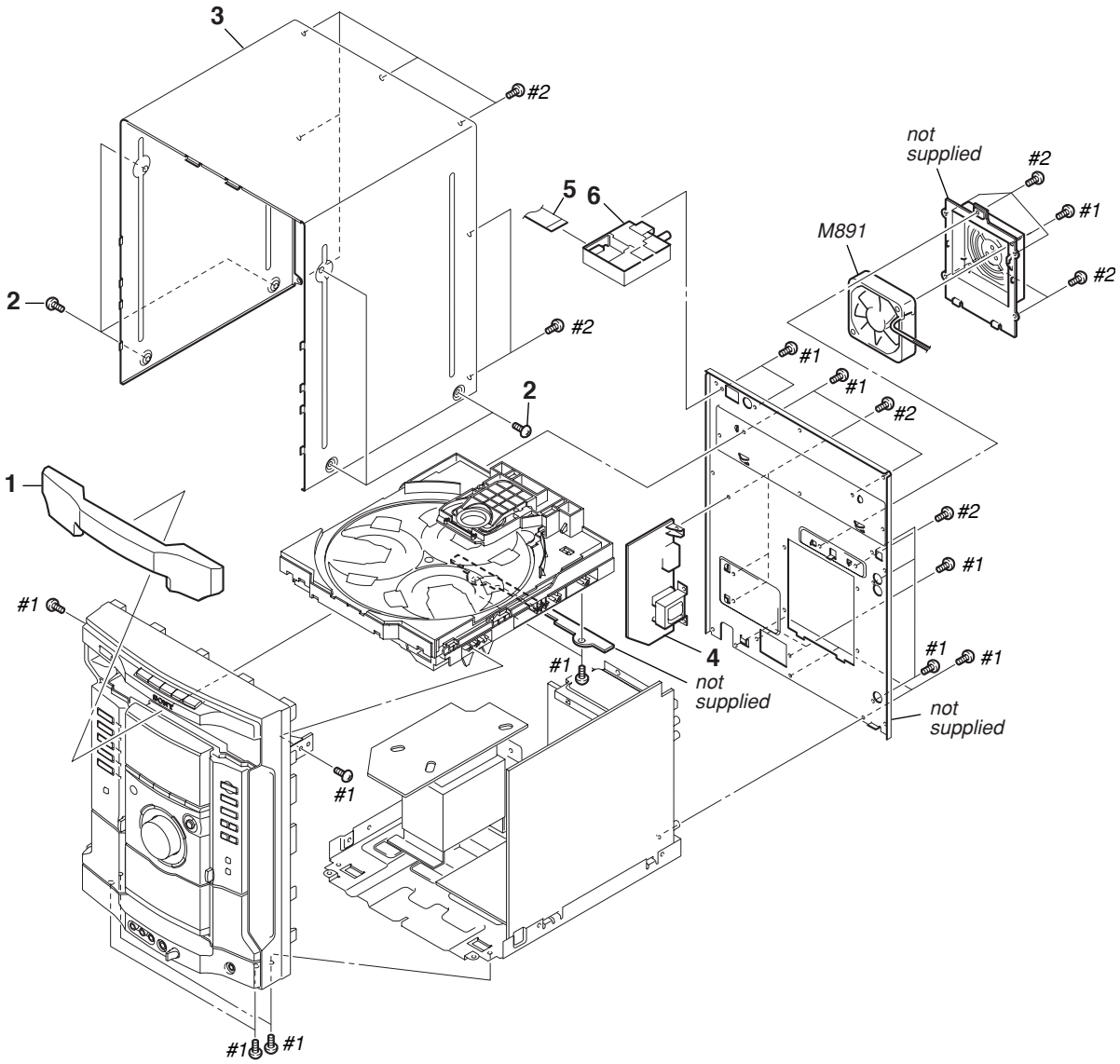
SECTION 8
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Accessories are given in the last of the electrical parts list.

- Abbreviation
  AR : Argentine model
  E2 : 120 V AC Area in E model
  E3 : 240 V AC Area in E model
  MX : Mexican model
  AUS : Australian model

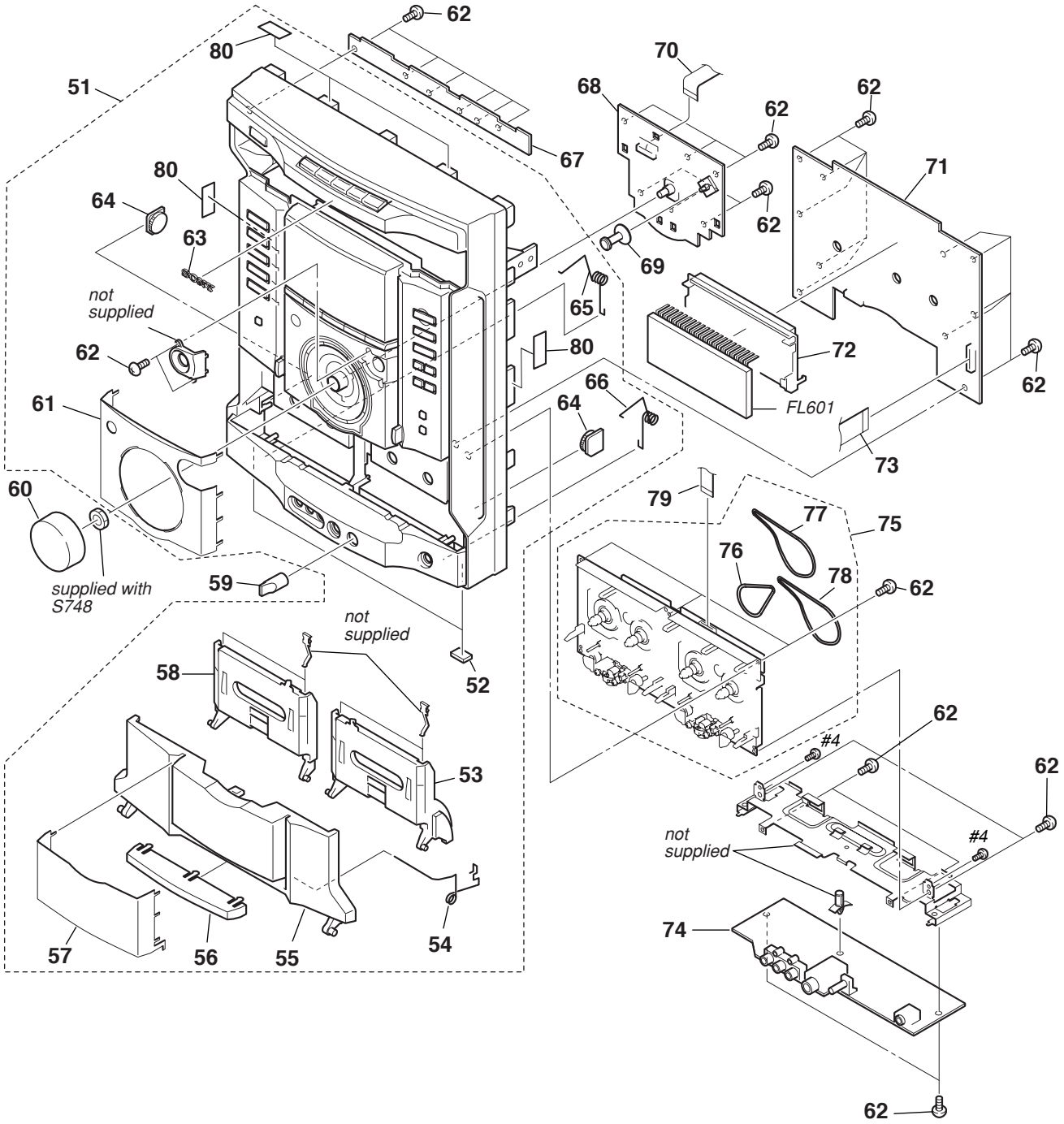
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

8-1. CASE, REAR PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	4-244-102-21	LOADING (PANEL)	
2	3-363-099-41	SCREW (CASE 3 TP2)	
3	4-231-828-31	CASE	
4	A-4731-346-A	SUB TRANS BOARD, COMPLETE (E2,E3,E51)	
4	A-4734-905-A	SUB TRANS BOARD, COMPLETE (MX)	
4	A-4747-608-A	SUB TRANS BOARD, COMPLETE (AR)	
4	A-4749-689-A	SUB TRANS BOARD, COMPLETE (AUS)	
5	1-920-838-32	WIRE (FLAT TYPE) (11 CORE)	
6	1-693-603-11	TUNER (FM/AM)	
M891	1-763-072-11	FAN, DC	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#2	7-685-871-09	SCREW +BVTT 3X6 (S)	

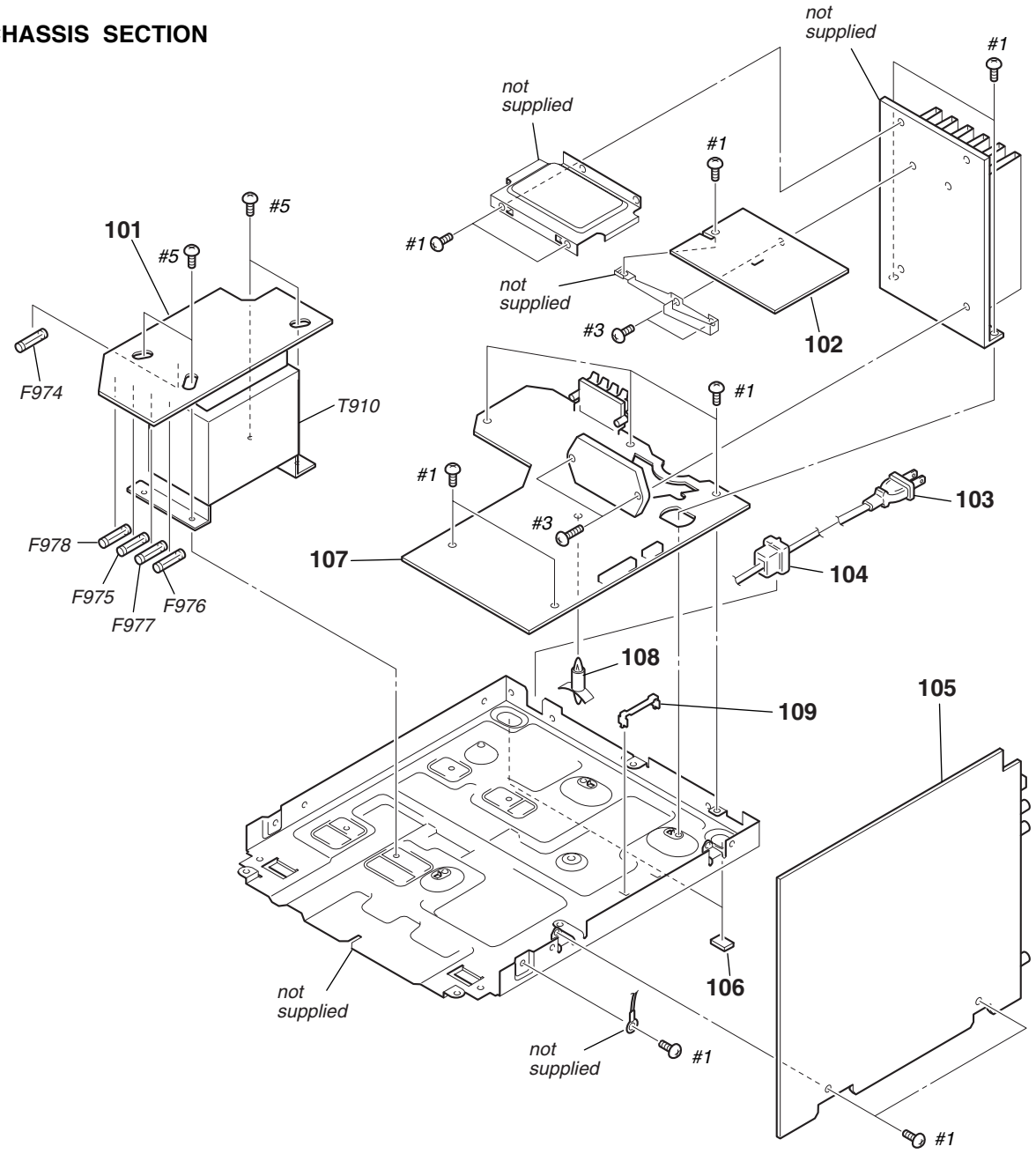
8-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-4955-229-1	FRONT PANEL ASSY	
52	4-225-252-01	CUSHION (FOOT)	
53	4-244-075-01	HOLDER (TC-R)	
54	4-244-093-01	SPRING (LID)	
55	4-244-072-01	LID (TC)	
56	4-244-073-01	WINDOW (TC)	
57	4-244-090-01	COVER (AL-TC)	
58	4-244-074-01	HOLDER (TC-L)	
59	4-224-578-21	KNOB (MIC)	
60	4-244-097-01	KNOB (VOL)	
61	4-244-089-11	COVER (AL-STR)	
62	4-951-620-01	SCREW (2.6X8), +BVTP	
63	4-963-404-21	EMBLEM (5-A), SONY	
64	4-224-104-11	DAMPER	
65	4-244-094-01	SPRING (L)	
66	4-244-095-01	SPRING (R)	

Ref. No.	Part No.	Description	Remark
67	1-686-936-11	CD SWITCH BOARD	
68	A-4731-329-A	VOLUME BOARD, COMPLETE	
69	4-244-096-01	KNOB (CURSOR)	
70	1-773-040-11	WIRE (FLAT TYPE) (17 CORE)	
71	A-4731-330-A	DISPLAY BOARD, COMPLETE	
72	4-231-581-01	HOLDER (FL)	
73	1-773-110-11	WIRE (FLAT TYPE) (19 CORE)	
74	A-4731-327-A	GAME IN BOARD, COMPLETE	
75	1-796-487-31	DECK, MECHANICAL	
76	4-243-609-01	BELT (AF)	
77	4-243-610-01	BELT (AL)	
78	4-243-608-01	BELT (BR)	
79	1-751-688-11	WIRE (FLAT TYPE) (13 CORE)	
80	3-378-434-01	CUSHION, SARANET	
FL601	1-518-862-11	INDICATOR TUBE, FLUORESCENT	
#4	7-685-781-09	SCREW +PTT 2X4 (S)	

8-3. CHASSIS SECTION

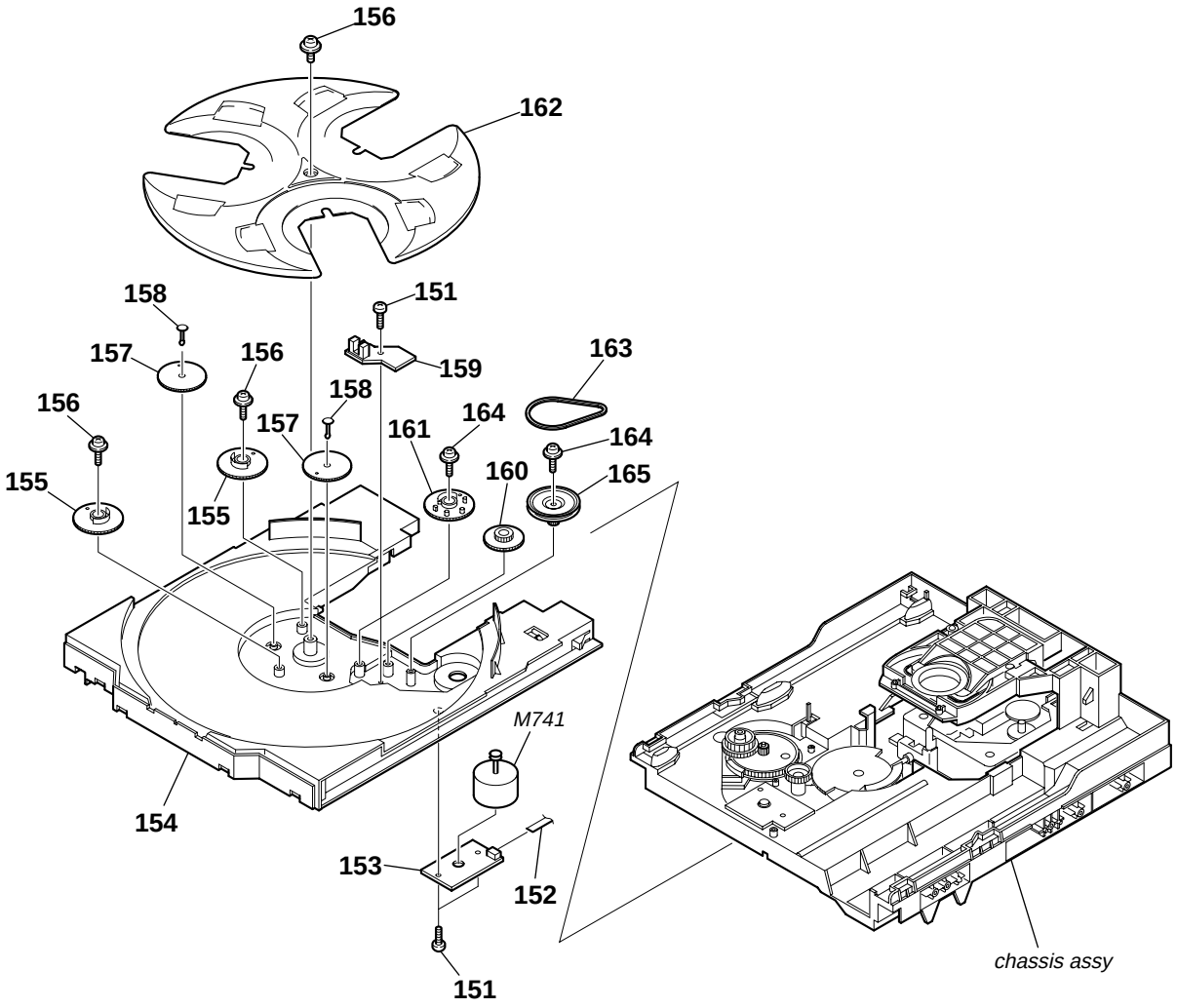


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref. No.	Part No.	Description	Remark
101	1-686-930-11	TRANS BOARD	
102	A-4731-367-A	SUBWOOFER BOARD, COMPLETE	
⚠103	1-696-847-11	CORD, POWER (AUS)	
⚠103	1-777-071-53	CORD, POWER (E51)	
⚠103	1-783-941-12	CORD, POWER (AR)	
⚠103	1-791-901-12	CORD, POWER (E2,E3,MX)	
* 104	3-703-244-00	BUSHING (2104), CORD (AR,AUS,E51)	
104	3-703-571-11	BUSHING (S) (4516), CORD (E2,E3,MX)	
105	A-4731-334-A	MAIN BOARD, COMPLETE (AR,E2,E51,MX)	
105	A-4733-075-A	MAIN BOARD, COMPLETE (E3)	
105	A-4748-310-A	MAIN BOARD, COMPLETE (AUS)	
107	A-4731-364-A	POWER AMP BOARD, COMPLETE	(EXCEPT AUS)

Ref. No.	Part No.	Description	Remark
107	A-4748-308-A	POWER AMP BOARD, COMPLETE (AUS)	
108	4-943-687-01	HOLDER, PC BOARD	
* 109	4-988-533-01	HOLDER, PWB	
⚠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)	
⚠F976	1-576-655-11	FUSE, GLASS TUBE (DIA. 5) (T8AL 250V)	
⚠F977	1-576-655-11	FUSE, GLASS TUBE (DIA. 5) (T8AL 250V)	
⚠F978	1-533-471-11	FUSE, GLASS TUBE (DIA. 5) (T4AL 250V)	
⚠T910	1-439-557-11	POWER TRANSFORMER	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
#5	7-685-881-09	SCREW +BVTT 4X8 (S)	

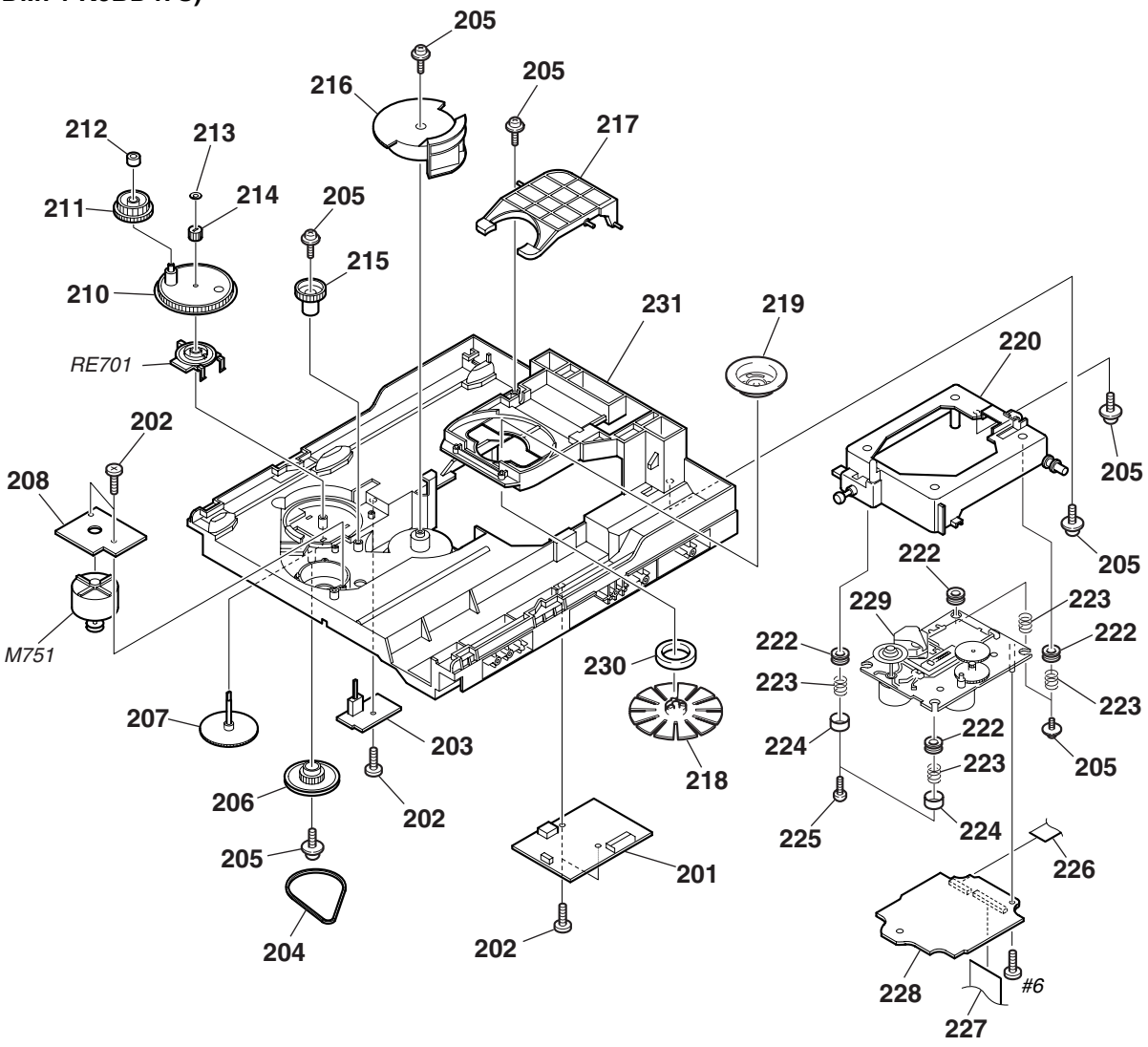
8-4. CD MECHANISM DECK SECTION-1 (CDM74-K6BD47S)



Ref. No.	Part No.	Description	Remark
151	4-218-253-21	SCREW (M2.6), +BTTP	
152	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)	
153	1-687-134-11	MOTOR (TB) BOARD	
154	4-243-815-01	TABLE (LOADING)	
155	4-245-571-01	GEAR (STOPPER)	
156	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING	
157	4-245-570-01	GEAR (JOINT)	
158	4-245-572-01	BUSHING (GEAR)	
159	1-687-132-11	SENSOR BOARD	

Ref. No.	Part No.	Description	Remark
160	4-243-820-01	GEAR (TABLE)	
161	4-243-819-01	GEAR (GENEVA)	
162	4-243-816-01	TRAY	
163	4-243-823-01	BELT (TABLE)	
164	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
165	4-243-821-01	PULLEY (TABLE)	
M741	A-4723-963-A	MOTOR ASSY, TABLE	

8-5. CD MECHANISM DECK SECTION-2 (CDM74-K6BD47S)



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
201	1-687-135-11	DRIVER BOARD	
202	4-218-253-31	SCREW (M2.6), +BTTP	
203	1-687-669-11	SW BOARD	
204	4-244-034-01	BELT (LOADING)	
205	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING	
206	4-225-844-01	GEAR (LOADING A)	
207	4-224-613-01	GEAR (SHAFT)	
208	1-687-133-11	MOTOR (LD) BOARD	
210	4-244-108-01	GEAR, SWING	
211	4-224-609-01	GEAR (LOADING C)	
212	4-224-608-01	COLLAR, SWING	
213	3-016-533-01	WASHER (FR), STOPPER	
214	4-224-611-01	GEAR (LOADING B)	
215	4-224-606-01	GEAR (RV)	
216	4-243-818-01	GEAR (U/D)	
217	4-243-822-01	LEVER (LIFTER)	

Ref. No.	Part No.	Description	Remark
218	X-4955-774-1	PULLEY (SM) ASSY, CHUCKING	
219	4-221-688-01	PULLEY (B), CHUCKING	
220	X-4955-536-1	HOLDER (213) ASSY	
222	4-277-549-11	INSULATOR	
223	4-277-045-11	SPRING (INSULATOR), COIL	
224	4-231-151-01	STOPPER (BU)	
225	4-218-253-31	SCREW (M2.6), +BTTP	
226	1-782-817-11	WIRE (FLAT TYPE) (16 CORE)	
227	1-775-280-11	WIRE (FLAT TYPE) (31 CORE)	
228	A-4731-446-A	CD BOARD, COMPLETE	
⚠229	A-4735-357-A	BASE ASSY, OP (including KSS-213DCP)	
230	1-471-035-11	MAGNET ASSY	
231	4-243-817-11	CHASSIS	
M751	A-4737-553-A	MOTOR ASSY, LOADING	
RE701	1-477-680-11	ENCODER, ROTARY	
#6	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	

SECTION 9
ELECTRICAL PARTS LIST

NOTE:

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

- Abbreviation
  AR : Argentine model
  E2 : 120 V AC Area in E model
  E3 : 240 V AC Area in E model
  MX : Mexican model
  AUS : Australian model

Ref. No.	Part No.	Description			Remarks
	A-4731-446-A	CD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C102	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C103	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C104	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C107	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C108	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C109	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C110	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C111	1-126-209-11	ELECT CHIP	100uF	20%	4V
C113	1-126-209-11	ELECT CHIP	100uF	20%	4V
C114	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C115	1-126-246-11	ELECT CHIP	220uF	20%	4V
C116	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C117	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C118	1-115-156-11	CERAMIC CHIP	1uF		10V
C119	1-115-156-11	CERAMIC CHIP	1uF		10V
C131	1-110-563-11	CERAMIC CHIP	0.068uF	10%	16V
C132	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C133	1-125-838-11	CERAMIC CHIP	2.2uF	10%	6.3V
C150	1-128-995-21	ELECT CHIP	100uF	20%	10V
C151	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C152	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C158	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C202	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C203	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C205	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C206	1-126-607-11	ELECT CHIP	47uF	20%	4V
C208	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C209	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C211	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C212	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C213	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C215	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
C216	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C222	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C223	1-126-607-11	ELECT CHIP	47uF	20%	4V
C224	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C226	1-126-607-11	ELECT CHIP	47uF	20%	4V
C227	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C229	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C230	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C231	1-126-209-11	ELECT CHIP	100uF	20%	4V

Ref. No.	Part No.	Description			Remarks
C249	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C250	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C251	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C252	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C253	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C254	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C255	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C256	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C257	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C258	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C259	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C260	1-126-246-11	ELECT CHIP	220uF	20%	4V
C261	1-126-607-11	ELECT CHIP	47uF	20%	4V
C262	1-126-607-11	ELECT CHIP	47uF	20%	4V
C263	1-125-822-11	TANTAL. CHIP	10uF	20%	10V
C264	1-126-607-11	ELECT CHIP	47uF	20%	4V
C265	1-126-607-11	ELECT CHIP	47uF	20%	4V
C266	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C267	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C268	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C269	1-125-822-11	TANTAL. CHIP	10uF	20%	10V
C270	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C271	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C273	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C274	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C275	1-126-246-11	ELECT CHIP	220uF	20%	4V
C276	1-126-209-11	ELECT CHIP	100uF	20%	4V
C279	1-100-588-21	ELECT CHIP	1000uF	20%	6.3V
C292	1-115-156-11	CERAMIC CHIP	1uF		10V
		< CONNECTOR >			
CN101	1-784-387-11	CONNECTOR, FFC/FPC 31P			
CN102	1-777-937-11	CONNECTOR, FFC/FPC 16P			
		< FERRITE BEAD >			
FB101	1-500-283-11	FERRITE	0uH		
FB102	1-500-283-11	FERRITE	0uH		
FB103	1-500-283-11	FERRITE	0uH		
FB104	1-500-283-11	FERRITE	0uH		
FB106	1-500-283-11	FERRITE	0uH		
FB107	1-500-283-11	FERRITE	0uH		
FB291	1-500-283-11	FERRITE	0uH		
		< IC >			
IC101	8-752-408-73	IC CXD3068Q			

CD | **CD SWITCH** | **DISPLAY**

Ref. No.	Part No.	Description			Remarks
IC103	8-752-106-21	IC CXA2647N-T4			
IC104	6-704-150-01	IC CXD9717R-008			
IC121	6-700-394-01	IC BA25BC0FP-E2			
IC150	8-759-677-90	IC BA5947FP-E2			
		< COIL >			
L101	1-412-063-21	INDUCTOR	68uH		
		< TRANSISTOR >			
Q101	8-729-046-90	TRANSISTOR 2SB970-(TX).S0			
		< RESISTOR >			
R101	1-216-864-11	METAL CHIP	0	5%	1/10W
R102	1-216-833-11	METAL CHIP	10K	5%	1/10W
R103	1-216-845-11	METAL CHIP	100K	5%	1/10W
R104	1-216-833-11	METAL CHIP	10K	5%	1/10W
R105	1-216-821-11	METAL CHIP	1K	5%	1/10W
R111	1-216-847-11	METAL CHIP	150K	5%	1/10W
R113	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R114	1-216-852-11	METAL CHIP	390K	5%	1/10W
R117	1-216-846-11	METAL CHIP	120K	5%	1/10W
R118	1-216-833-11	METAL CHIP	10K	5%	1/10W
R120	1-216-846-11	METAL CHIP	120K	5%	1/10W
R122	1-216-845-11	METAL CHIP	100K	5%	1/10W
R123	1-216-791-11	METAL CHIP	3.3	5%	1/10W
R125	1-216-836-11	METAL CHIP	18K	5%	1/10W
R126	1-216-836-11	METAL CHIP	18K	5%	1/10W
R131	1-216-843-11	METAL CHIP	68K	5%	1/10W
R132	1-216-851-11	METAL CHIP	330K	5%	1/10W
R133	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R151	1-216-833-11	METAL CHIP	10K	5%	1/10W
R152	1-216-849-11	METAL CHIP	220K	5%	1/10W
R153	1-216-864-11	METAL CHIP	0	5%	1/10W
R155	1-216-864-11	METAL CHIP	0	5%	1/10W
R156	1-216-864-11	METAL CHIP	0	5%	1/10W
R201	1-216-839-11	METAL CHIP	33K	5%	1/10W
R202	1-216-833-11	METAL CHIP	10K	5%	1/10W
R203	1-216-845-11	METAL CHIP	100K	5%	1/10W
R204	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R205	1-216-821-11	METAL CHIP	1K	5%	1/10W
R206	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R207	1-216-857-11	METAL CHIP	1M	5%	1/10W
R212	1-216-817-11	METAL CHIP	470	5%	1/10W
R213	1-216-817-11	METAL CHIP	470	5%	1/10W
R214	1-216-864-11	METAL CHIP	0	5%	1/10W
R215	1-216-864-11	METAL CHIP	0	5%	1/10W
R216	1-216-857-11	METAL CHIP	1M	5%	1/10W
R218	1-216-821-11	METAL CHIP	1K	5%	1/10W
R219	1-216-821-11	METAL CHIP	1K	5%	1/10W
R220	1-216-821-11	METAL CHIP	1K	5%	1/10W
R230	1-216-813-11	METAL CHIP	220	5%	1/10W
R231	1-216-809-11	METAL CHIP	100	5%	1/10W
R232	1-216-809-11	METAL CHIP	100	5%	1/10W
R233	1-216-809-11	METAL CHIP	100	5%	1/10W
R249	1-216-817-11	METAL CHIP	470	5%	1/10W
R250	1-216-813-11	METAL CHIP	220	5%	1/10W
R251	1-216-813-11	METAL CHIP	220	5%	1/10W
R252	1-216-857-11	METAL CHIP	1M	5%	1/10W
R253	1-216-819-11	METAL CHIP	680	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R254	1-216-845-11	METAL CHIP	100K	5%	1/10W
R255	1-216-809-11	METAL CHIP	100	5%	1/10W
R257	1-216-809-11	METAL CHIP	100	5%	1/10W
R259	1-216-809-11	METAL CHIP	100	5%	1/10W
R260	1-216-821-11	METAL CHIP	1K	5%	1/10W
R265	1-216-813-11	METAL CHIP	220	5%	1/10W
R266	1-216-813-11	METAL CHIP	220	5%	1/10W
R271	1-216-833-11	METAL CHIP	10K	5%	1/10W
R272	1-216-821-11	METAL CHIP	1K	5%	1/10W
R275	1-216-833-11	METAL CHIP	10K	5%	1/10W
R276	1-216-809-11	METAL CHIP	100	5%	1/10W
R277	1-216-864-11	METAL CHIP	0	5%	1/10W
R279	1-216-809-11	METAL CHIP	100	5%	1/10W
R280	1-216-296-11	SHORT CHIP	0		
		< SWITCH >			
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)			
		< VIBRATOR >			
X201	1-767-408-21	VIBRATOR, CRYSTAL (16.9MHz)			
**********					
	1-686-936-11	CD SWITCH BOARD			
		**********			
		< DIODE >			
D748	8-719-058-04	DIODE SEL5223S-TP15 (I/⏻)			
		< TRANSISTOR >			
Q748	8-729-116-02	TRANSISTOR BA1A4M-TP			
		< RESISTOR >			
R748	1-249-411-11	CARBON	330	5%	1/4W
R749	1-249-410-11	CARBON	270	5%	1/4W F
R788	1-249-427-11	CARBON	6.8K	5%	1/4W F
R789	1-249-429-11	CARBON	10K	5%	1/4W
R790	1-249-431-11	CARBON	15K	5%	1/4W
R791	1-249-433-11	CARBON	22K	5%	1/4W
R792	1-249-435-11	CARBON	33K	5%	1/4W
		< SWITCH >			
S749	1-762-875-21	SWITCH, KEYBOARD (I/⏻)			
S788	1-762-875-21	SWITCH, KEYBOARD (⏏,OPEN/CLOSE)			
S789	1-762-875-21	SWITCH, KEYBOARD (EX-CHANGE/DISK SKIP)			
S790	1-762-875-21	SWITCH, KEYBOARD (DISC 3)			
S791	1-762-875-21	SWITCH, KEYBOARD (DISC 2)			
S792	1-762-875-21	SWITCH, KEYBOARD (DISC 1)			
**********					
	A-4731-330-A	DISPLAY BOARD, COMPLETE			
		**********			
	4-231-581-01	HOLDER (FL)			
		< CAPACITOR >			
C100	1-126-964-11	ELECT	10uF	20%	50V
C101	1-137-194-81	FILM	0.47uF	5%	50V
C102	1-137-194-81	FILM	0.47uF	5%	50V
C104	1-126-964-11	ELECT	10uF	20%	50V

Ref. No.	Part No.	Description			Remarks
C105	1-126-957-11	ELECT	0.22uF	20%	50V
C106	1-136-165-00	FILM	0.1uF	5%	50V
C107	1-136-165-00	FILM	0.1uF	5%	50V
C109	1-124-261-00	ELECT	10uF	20%	50V
C110	1-126-957-11	ELECT	0.22uF	20%	50V
C111	1-136-157-00	FILM	0.022uF	5%	50V
C112	1-136-157-00	FILM	0.022uF	5%	50V
C114	1-126-964-11	ELECT	10uF	20%	50V
C115	1-126-957-11	ELECT	0.22uF	20%	50V
C116	1-137-367-11	MYLAR	0.0033uF	5%	50V
C117	1-137-367-11	MYLAR	0.0033uF	5%	50V
C118	1-126-964-11	ELECT	10uF	20%	50V
C119	1-124-261-00	ELECT	10uF	20%	50V
C120	1-126-957-11	ELECT	0.22uF	20%	50V
C121	1-126-963-11	ELECT	4.7uF	20%	50V
C122	1-124-584-00	ELECT	100uF	20%	10V
C123	1-104-665-11	ELECT	100uF	20%	10V
C124	1-126-964-11	ELECT	10uF	20%	50V
C125	1-164-159-11	CERAMIC	0.1uF		50V
C152	1-162-286-31	CERAMIC	220PF	10%	50V
C153	1-162-286-31	CERAMIC	220PF	10%	50V
C154	1-162-286-31	CERAMIC	220PF	10%	50V
C155	1-162-286-31	CERAMIC	220PF	10%	50V
C156	1-162-286-31	CERAMIC	220PF	10%	50V
C157	1-162-286-31	CERAMIC	220PF	10%	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
C651	1-164-159-11	CERAMIC	0.1uF		50V
C652	1-124-261-00	ELECT	10uF	20%	50V
C653	1-124-261-00	ELECT	10uF	20%	50V
C710	1-162-306-11	CERAMIC	0.01uF	30%	16V
C711	1-162-306-11	CERAMIC	0.01uF	30%	16V
C712	1-162-306-11	CERAMIC	0.01uF	30%	16V
		< CONNECTOR >			
* CN601	1-569-935-11	SOCKET, CONNECTOR 19P			
CN604	1-568-860-11	SOCKET, CONNECTOR 17P			
		< DIODE >			
D100	8-719-983-63	DIODE MTZJ-T-72-3.3B			
D101	8-719-991-33	DIODE 1SS133T-72			
D102	8-719-991-33	DIODE 1SS133T-72			
D103	8-719-991-33	DIODE 1SS133T-72			
D104	8-719-991-33	DIODE 1SS133T-72			
D105	8-719-991-33	DIODE 1SS133T-72			
D106	6-500-522-11	DIODE 10EDB40-TA2B5			
D107	6-500-522-11	DIODE 10EDB40-TA2B5			
D601	8-719-063-93	DIODE SLR325VC-N-T32 (REC PAUSE/START)			
D602	8-719-057-97	DIODE SEL5923A-TP15 (GAME)			
D603	8-719-057-97	DIODE SEL5923A-TP15 (MD(VIDEO))			
D604	8-719-057-97	DIODE SEL5923A-TP15 (CD)			

Ref. No.	Part No.	Description			Remarks
D605	8-719-057-97	DIODE SEL5923A-TP15 (TUNER/BAND)			
D606	8-719-057-97	DIODE SEL5923A-TP15 (TAPE A/B)			
D610	8-719-109-85	DIODE MTZJ-T-72-5.1B			
		< FLUORESCENT INDICATOR TUBE >			
FL601	1-518-862-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC101	8-759-167-88	IC NJM4565D			
IC102	8-759-167-88	IC NJM4565D			
IC601	6-802-534-01	IC MB90M407PF-G-124-BND			
		< TRANSISTOR >			
Q100	8-729-141-30	TRANSISTOR 2SC3623ATP-LK			
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	8-729-140-04	TRANSISTOR 2SB1116-TP-LK			
Q606	8-729-140-04	TRANSISTOR 2SB1116-TP-LK			
Q707	8-729-116-02	TRANSISTOR BA1A4M-TP			
Q807	8-729-029-94	TRANSISTOR BA1L3Z-TP			
Q808	8-729-029-94	TRANSISTOR BA1L3Z-TP			
		< RESISTOR >			
R102	1-249-419-11	CARBON	1.5K	5%	1/4W F
R103	1-249-419-11	CARBON	1.5K	5%	1/4W F
R104	1-249-437-11	CARBON	47K	5%	1/4W
R105	1-249-415-11	CARBON	680	5%	1/4W F
R106	1-249-441-11	CARBON	100K	5%	1/4W
R107	1-249-441-11	CARBON	100K	5%	1/4W
R108	1-249-419-11	CARBON	1.5K	5%	1/4W F
R109	1-249-419-11	CARBON	1.5K	5%	1/4W F
R110	1-249-437-11	CARBON	47K	5%	1/4W
R111	1-249-415-11	CARBON	680	5%	1/4W F
R112	1-249-441-11	CARBON	100K	5%	1/4W
R113	1-249-441-11	CARBON	100K	5%	1/4W
R114	1-249-419-11	CARBON	1.5K	5%	1/4W F
R115	1-249-419-11	CARBON	1.5K	5%	1/4W F
R116	1-249-437-11	CARBON	47K	5%	1/4W
R117	1-249-415-11	CARBON	680	5%	1/4W F
R118	1-249-441-11	CARBON	100K	5%	1/4W
R119	1-249-441-11	CARBON	100K	5%	1/4W
R120	1-249-419-11	CARBON	1.5K	5%	1/4W F
R121	1-249-419-11	CARBON	1.5K	5%	1/4W F
R122	1-249-437-11	CARBON	47K	5%	1/4W
R123	1-249-415-11	CARBON	680	5%	1/4W F
R124	1-249-441-11	CARBON	100K	5%	1/4W
R125	1-249-441-11	CARBON	100K	5%	1/4W
R127	1-249-409-11	CARBON	220	5%	1/4W F
R128	1-247-895-00	CARBON	470K	5%	1/4W
R129	1-249-425-11	CARBON	4.7K	5%	1/4W F
R130	1-249-425-11	CARBON	4.7K	5%	1/4W F
R131	1-249-441-11	CARBON	100K	5%	1/4W
R132	1-249-441-11	CARBON	100K	5%	1/4W
R133	1-249-441-11	CARBON	100K	5%	1/4W
R134	1-249-441-11	CARBON	100K	5%	1/4W
R136	1-249-439-11	CARBON	68K	5%	1/4W
R137	1-249-433-11	CARBON	22K	5%	1/4W
R138	1-249-417-11	CARBON	1K	5%	1/4W F

DISPLAY DRIVER

Ref. No.	Part No.	Description			Remarks
R139	1-249-411-11	CARBON	330	5%	1/4W
R140	1-247-807-31	CARBON	100	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
R631	1-249-415-11	CARBON	680	5%	1/4W F
R632	1-249-415-11	CARBON	680	5%	1/4W F
R633	1-249-415-11	CARBON	680	5%	1/4W F
R634	1-249-429-11	CARBON	10K	5%	1/4W
R635	1-249-429-11	CARBON	10K	5%	1/4W
R636	1-249-429-11	CARBON	10K	5%	1/4W
R637	1-249-429-11	CARBON	10K	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
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
R751	1-249-413-11	CARBON	470	5%	1/4W F
R752	1-249-415-11	CARBON	680	5%	1/4W F
R753	1-249-417-11	CARBON	1K	5%	1/4W F
R754	1-249-419-11	CARBON	1.5K	5%	1/4W F
R755	1-249-419-11	CARBON	1.5K	5%	1/4W F
R756	1-249-421-11	CARBON	2.2K	5%	1/4W F
R757	1-247-843-11	CARBON	3.3K	5%	1/4W
R758	1-249-425-11	CARBON	4.7K	5%	1/4W F
R779	1-249-413-11	CARBON	470	5%	1/4W F
R781	1-249-415-11	CARBON	680	5%	1/4W F
R782	1-249-417-11	CARBON	1K	5%	1/4W F
R783	1-249-419-11	CARBON	1.5K	5%	1/4W F
R784	1-249-419-11	CARBON	1.5K	5%	1/4W F
R785	1-249-421-11	CARBON	2.2K	5%	1/4W F
R786	1-247-843-11	CARBON	3.3K	5%	1/4W
R787	1-249-425-11	CARBON	4.7K	5%	1/4W F
R807	1-249-441-11	CARBON	100K	5%	1/4W
R808	1-249-441-11	CARBON	100K	5%	1/4W
R817	1-249-406-11	CARBON	120	5%	1/4W F
R818	1-249-408-11	CARBON	180	5%	1/4W F
R819	1-249-408-11	CARBON	180	5%	1/4W F
R820	1-249-408-11	CARBON	180	5%	1/4W F
R821	1-249-406-11	CARBON	120	5%	1/4W F
R822	1-249-417-11	CARBON	1K	5%	1/4W F
R823	1-249-417-11	CARBON	1K	5%	1/4W F
		< SWITCH >			
S751	1-762-875-21	SWITCH, KEYBOARD (⧏⧐)			
S752	1-762-875-21	SWITCH, KEYBOARD (■)			
S753	1-762-875-21	SWITCH, KEYBOARD (❚❚)			
S754	1-762-875-21	SWITCH, KEYBOARD (-,⏮)			
S755	1-762-875-21	SWITCH, KEYBOARD (⏭,+)			
S756	1-762-875-21	SWITCH, KEYBOARD (⏭,ALBUM +)			
S757	1-762-875-21	SWITCH, KEYBOARD (⏮,ALBUM -)			
S758	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)			
S779	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)			
S782	1-762-875-21	SWITCH, KEYBOARD (GAME MIXING)			
S783	1-762-875-21	SWITCH, KEYBOARD (GAME)			
S784	1-762-875-21	SWITCH, KEYBOARD (MD(VIDEO))			
S785	1-762-875-21	SWITCH, KEYBOARD (TAPE A/B)			
S786	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)			
S787	1-762-875-21	SWITCH, KEYBOARD (CD)			
		< VIBRATOR >			
X601	1-781-282-51	VIBRATOR, CERAMIC (4MHz)			
**********					
	1-687-135-11	DRIVER BOARD			
		**********			
		< CAPACITOR >			
C715	1-126-933-11	ELECT	100uF	20%	16V
C731	1-126-964-51	ELECT	10uF	20%	50V
C735	1-164-159-11	CERAMIC	0.1uF		50V
C736	1-164-159-11	CERAMIC	0.1uF		50V
C737	1-164-159-11	CERAMIC	0.1uF		50V
C741	1-162-306-11	CERAMIC	0.01uF	30%	16V
C751	1-162-306-11	CERAMIC	0.01uF	30%	16V
C752	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN701	1-785-338-11	PIN, CONNECTOR(LIGHT ANGLE)12P			
CN702	1-784-766-11	CONNECTOR, FFC 5P			
* CN703	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P			
CN704	1-785-328-11	PIN, CONNECTOR (LIGHT ANGRE)2P			
		< DIODE >			
D701	8-719-947-16	DIODE MTZJ-T-72-5.1A			
D711	8-719-983-66	DIODE MTZJ-T-72-3.6B			
		< IC >			
IC701	8-759-598-69	IC BA6956AN			
IC712	8-759-598-69	IC BA6956AN			
		< TRANSISTOR >			
Q731	8-729-029-66	TRANSISTOR DTC114ESA-TP			
		< RESISTOR >			
R701	1-249-413-11	CARBON	470	5%	1/4W F
R702	1-247-807-31	CARBON	100	5%	1/4W
R711	1-249-417-11	CARBON	1K	5%	1/4W F
R712	1-249-425-11	CARBON	4.7K	5%	1/4W F
R713	1-249-433-11	CARBON	22K	5%	1/4W
R721	1-249-425-11	CARBON	4.7K	5%	1/4W F
R722	1-249-425-11	CARBON	4.7K	5%	1/4W F
R723	1-249-425-11	CARBON	4.7K	5%	1/4W F
R731	1-247-807-31	CARBON	100	5%	1/4W
R732	1-249-425-11	CARBON	4.7K	5%	1/4W F
R733	1-249-417-11	CARBON	1K	5%	1/4W F
R734	1-249-433-11	CARBON	22K	5%	1/4W

Ref. No.	Part No.	Description			Remarks
R735	1-247-807-31	CARBON	100	5%	1/4W
R751	1-249-425-11	CARBON	4.7K	5%	1/4W F
**********					
	A-4731-327-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
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		25V
C749	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
* CN606	1-564-724-11	PIN, CONNECTOR (SMALL TYPE) 8P			
CN607	1-785-328-11	PIN, CONNECTOR (LIGHT ANGRE) 2P			
		< GROUND TERMINAL >			
EP701	1-537-738-21	TERMINAL, GROUND			
EP703	1-537-738-21	TERMINAL, GROUND			
		< IC >			
IC722	8-759-167-88	IC NJM4565D			
		< JACK >			
J601	1-764-592-11	JACK 3P (GAME INPUT)			
J631	1-794-702-11	JACK, HEADPHONE (PHONES)			
J721	1-817-629-11	JACK (LARGE TYPE) (MIC)			
		< TRANSISTOR >			
Q721	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
		< RESISTOR >			
R602	1-249-417-11	CARBON	1K	5%	1/4W F
R603	1-249-417-11	CARBON	1K	5%	1/4W F
R604	1-249-441-11	CARBON	100K	5%	1/4W
R605	1-249-441-11	CARBON	100K	5%	1/4W
R721	1-249-429-11	CARBON	10K	5%	1/4W
R722	1-249-432-11	CARBON	18K	5%	1/4W
R734	1-247-807-31	CARBON	100	5%	1/4W

Ref. No.	Part No.	Description			Remarks
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 F
R739	1-249-441-11	CARBON	100K	5%	1/4W
R740	1-249-421-11	CARBON	2.2K	5%	1/4W F
R742	1-249-417-11	CARBON	1K	5%	1/4W F
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 F
		< VARIABLE RESISTOR >			
RV722	1-227-452-11	RES, VAR, CARBON 50K (MIC LEVEL)			
**********					
	A-4731-334-A	MAIN BOARD, COMPLETE (AR,E2,E51,MX)			
	A-4733-075-A	MAIN BOARD, COMPLETE (E3)			
	A-4748-310-A	MAIN BOARD, COMPLETE (AUS)			
		**********			
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S			
		< CAPACITOR >			
C101	1-126-933-11	ELECT	100uF	20%	16V
C102	1-126-964-11	ELECT	10uF	20%	50V
C103	1-126-964-11	ELECT	10uF	20%	50V
C104	1-126-964-11	ELECT	10uF	20%	50V
C105	1-126-795-11	ELECT	10uF	20%	50V
C106	1-136-157-00	FILM	0.022uF	5%	50V
C107	1-136-157-00	FILM	0.022uF	5%	50V
C108	1-136-159-00	FILM	0.033uF	5%	50V
C109	1-115-871-11	ELECT	1uF	20%	50V
C110	1-137-150-11	MYLAR	0.01uF	5%	100V
C111	1-126-795-11	ELECT	10uF	20%	50V
C112	1-136-169-00	FILM	0.22uF	5%	50V
C113	1-136-171-00	FILM	0.33uF	5%	50V
C114	1-126-964-11	ELECT	10uF	20%	50V
C115	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C116	1-126-933-11	ELECT	100uF	20%	16V
C117	1-126-961-11	ELECT	2.2uF	20%	50V
C121	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C122	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C130	1-126-964-11	ELECT	10uF	20%	50V
C131	1-126-959-11	ELECT	0.47uF	20%	50V
C132	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C140	1-136-495-11	FILM	0.068uF	5%	50V
C150	1-126-964-11	ELECT	10uF	20%	50V
C152	1-126-964-11	ELECT	10uF	20%	50V
C153	1-126-964-11	ELECT	10uF	20%	50V
C154	1-126-964-11	ELECT	10uF	20%	50V
C155	1-126-964-11	ELECT	10uF	20%	50V
C156	1-136-157-00	FILM	0.022uF	5%	50V
C157	1-136-157-00	FILM	0.022uF	5%	50V
C158	1-136-159-00	FILM	0.033uF	5%	50V
C159	1-115-871-11	ELECT	1uF	20%	50V
C160	1-137-150-11	MYLAR	0.01uF	5%	100V
C161	1-126-795-11	ELECT	10uF	20%	50V
C162	1-136-169-00	FILM	0.22uF	5%	50V
C163	1-136-171-00	FILM	0.33uF	5%	50V
C167	1-126-961-11	ELECT	2.2uF	20%	50V

MAIN

Ref. No.	Part No.	Description			Remarks
C200	1-164-156-11	CERAMIC CHIP	0.1uF	10%	25V
C201	1-104-665-11	ELECT	100uF	20%	10V
C206	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C207	1-126-916-11	ELECT	1000uF	20%	6.3V
C209	1-126-928-11	ELECT	3300uF	20%	10V
C210	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C211	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C219	1-126-964-11	ELECT	10uF	20%	50V
C269	1-126-964-11	ELECT	10uF	20%	50V
C286	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C301	1-130-483-00	MYLAR	0.01uF	5%	50V
C303	1-136-165-00	FILM	0.1uF	5%	50V
C304	1-126-964-11	ELECT	10uF	20%	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	1-126-960-11	ELECT	1uF	20%	50V
C316	1-126-960-11	ELECT	1uF	20%	50V
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
C354	1-126-964-11	ELECT	10uF	20%	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
C364	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C365	1-126-960-11	ELECT	1uF	20%	50V
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
C386	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C387	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C390	1-126-935-11	ELECT	470uF	20%	10V
C391	1-126-933-11	ELECT	100uF	20%	16V
C395	1-162-919-11	CERAMIC CHIP	22PF	5%	50V

Ref. No.	Part No.	Description			Remarks
C396	1-126-965-91	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
C427	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
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
C503	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
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	1-126-916-11	ELECT	1000uF	20%	6.3V
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
C620	1-126-963-11	ELECT	4.7uF	20%	50V
C621	1-107-721-11	ELECT	4.7uF	20%	100V
C650	1-109-889-11	ELECT	1uF	20%	50V
C651	1-107-717-11	ELECT	47uF	20%	50V
C656	1-125-891-11	CERAMIC CHIP	0.47uF	10%	25V
C670	1-126-963-11	ELECT	4.7uF	20%	50V
C671	1-107-721-11	ELECT	4.7uF	20%	100V
C801	1-125-972-91	ELECT	100uF	20%	16V
C802	1-124-234-00	ELECT	22uF	20%	16V
C803	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C804	1-124-261-00	ELECT	10uF	20%	50V
C805	1-124-584-00	ELECT	100uF	20%	10V
C821	1-124-261-00	ELECT	10uF	20%	50V
C822	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C824	1-136-165-00	FILM	0.1uF	5%	50V
C825	1-136-165-00	FILM	0.1uF	5%	50V
C826	1-136-165-00	FILM	0.1uF	5%	50V
C827	1-136-165-00	FILM	0.1uF	5%	50V
C841	1-124-261-00	ELECT	10uF	20%	50V
C842	1-164-156-11	CERAMIC CHIP	0.1uF	10%	25V
C843	1-124-257-00	ELECT	2.2uF	20%	50V
C844	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C845	1-125-972-91	ELECT	100uF	20%	16V
C846	1-126-160-11	ELECT	1uF	20%	50V
C847	1-162-945-11	CERAMIC CHIP	22PF	5%	50V
C848	1-124-257-00	ELECT	2.2uF	20%	50V
C851	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C901	1-126-944-11	ELECT	3300uF	20%	25V
C902	1-126-943-61	ELECT	2200uF	20%	25V
C903	1-126-768-11	ELECT	2200uF	20%	16V
C904	1-130-483-00	MYLAR	0.01uF	5%	50V
C905	1-130-483-00	MYLAR	0.01uF	5%	50V
C906	1-126-933-11	ELECT	100uF	20%	16V
C908	1-136-165-00	FILM	0.1uF	5%	50V
C909	1-136-165-00	FILM	0.1uF	5%	50V
C910	1-164-156-11	CERAMIC CHIP	0.1uF		25V

Ref. No.	Part No.	Description			Remarks
C911	1-126-935-11	ELECT	470uF	20%	16V
C912	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C913	1-126-935-11	ELECT	470uF	20%	16V
C914	1-126-935-11	ELECT	470uF	20%	16V
C915	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C917	1-126-935-11	ELECT	470uF	20%	10V
C918	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C919	1-104-656-11	ELECT	2200uF	20%	6.3V
C920	1-126-964-11	ELECT	10uF	20%	50V
C921	1-126-968-11	ELECT	100uF	20%	50V
C922	1-126-961-11	ELECT	2.2uF	20%	50V
C923	1-126-961-11	ELECT	2.2uF	20%	50V
C924	1-164-156-11	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN201	1-779-299-11	CONNECTOR,FFC(LIF(NON-ZIF))31P			
* CN301	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P			
* CN304	1-569-930-11	SOCKET, CONNECTOR 13P			
* CN402	1-569-935-11	SOCKET, CONNECTOR 19P			
CN501	1-785-330-11	PIN, CONNECTOR (LIGHT ANGLE)4P			
CN502	1-785-336-11	PIN, CONNECTOR(LIGHT ANGLE)10P			
CN702	1-569-906-11	SOCKET, CONNECTOR 11P			
CN802	1-816-304-11	SOCKET, DIN 9P (SYSTEM CONTROL)			
CN851	1-564-506-11	PLUG, CONNECTOR 3P			
CN901	1-770-726-11	CONNECTOR, BOARD TO BOARD 6P			
CN902	1-778-982-11	CONNECTOR, BOARD TO BOARD 13P			
* CN1803	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			
		< DIODE >			
D130	8-719-988-61	DIODE 1SS355TE-17			
D392	8-719-988-61	DIODE 1SS355TE-17			
D393	8-719-988-61	DIODE 1SS355TE-17			
D394	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	8-719-036-66	DIODE UDZ-TE-17-2.2B			
D842	8-719-988-61	DIODE 1SS355TE-17			
D901	8-719-028-23	DIODE D3SBA20-4101			
D909	6-500-522-21	DIODE 10EDB40-TB3			
D910	6-500-522-21	DIODE 10EDB40-TB3			
D911	6-500-522-21	DIODE 10EDB40-TB3			
D912	6-500-522-21	DIODE 10EDB40-TB3			
D913	6-500-522-21	DIODE 10EDB40-TB3			
D914	6-500-522-21	DIODE 10EDB40-TB3			
D915	6-500-522-21	DIODE 10EDB40-TB3			
D917	8-719-988-61	DIODE 1SS355TE-17			
D941	8-719-977-81	DIODE UDZ-TE-17-33B			
		< FERRITE BEAD >			
FB117	1-216-864-11	METAL CHIP	0	5%	1/10W
FB167	1-216-864-11	METAL CHIP	0	5%	1/10W

Ref. No.	Part No.	Description			Remarks
FB201	1-469-152-11	FERRITE	0uH		
FB202	1-216-864-11	METAL CHIP	0	5%	1/10W
FB203	1-216-864-11	METAL CHIP	0	5%	1/10W
FB204	1-216-864-11	METAL CHIP	0	5%	1/10W
FB205	1-216-864-11	METAL CHIP	0	5%	1/10W
FB284	1-216-864-11	METAL CHIP	0	5%	1/10W
FB286	1-216-864-11	METAL CHIP	0	5%	1/10W
FB516	1-414-772-11	FERRITE	0uH		
FB562	1-414-772-11	FERRITE	0uH		
		< IC >			
IC102	6-703-650-11	IC M61529FP-D60G			
IC201	8-749-019-25	IC TOTX141 (CD DIGITAL OUT)			
IC301	6-702-130-01	IC HA12237F			
IC302	8-759-508-69	IC BA3126N			
IC303	8-759-710-97	IC NJM4565M(TE2)			
IC501	6-802-545-01	IC M30622MGN-B09FP			
IC502	6-703-610-01	IC RT8H015C-T112-1			
IC601	8-759-533-04	IC M62703ML-E1			
IC801	8-759-095-35	IC M5282FP-T1			
IC821	8-759-710-97	IC NJM4565M(TE2)			
IC841	8-759-710-97	IC NJM4565M(TE2)			
IC901	8-759-701-59	IC TA7809S			
IC902	8-759-701-59	IC TA7809S			
IC903	6-703-546-01	IC TA7804LS			
IC904	6-702-771-01	IC TA78033LS			
		< JACK >			
J117	1-764-767-21	JACK, PIN 2P (MD/VIDEO(AUDIO) IN)			
J716	1-774-227-11	JACK, PIN 1P (VIDEO OUT)			
		< JUMPER RESISTOR >			
JR001	1-216-296-11	SHORT CHIP	0		
JR003	1-216-864-11	METAL CHIP	0	5%	1/10W
JR005	1-216-864-11	METAL CHIP	0	5%	1/10W
JR006	1-216-296-11	SHORT CHIP	0		
JR007	1-216-296-11	SHORT CHIP	0		
JR008	1-216-864-11	METAL CHIP	0	5%	1/10W
JR009	1-216-864-11	METAL CHIP	0	5%	1/10W
JR011	1-216-296-11	SHORT CHIP	0		
JR012	1-216-296-11	SHORT CHIP	0		
JR013	1-216-864-11	METAL CHIP	0	5%	1/10W
JR015	1-216-864-11	METAL CHIP	0	5%	1/10W
JR016	1-216-864-11	METAL CHIP	0	5%	1/10W
JR017	1-216-864-11	METAL CHIP	0	5%	1/10W
JR018	1-216-864-11	METAL CHIP	0	5%	1/10W
JR019	1-216-864-11	METAL CHIP	0	5%	1/10W
JR020	1-216-864-11	METAL CHIP	0	5%	1/10W
JR022	1-216-864-11	METAL CHIP	0	5%	1/10W
JR024	1-216-864-11	METAL CHIP	0	5%	1/10W
JR025	1-216-296-11	SHORT CHIP	0		
JR026	1-414-760-21	FERRITE	0uH		
JR045	1-216-296-11	SHORT CHIP	0		
JR103	1-216-864-11	METAL CHIP	0	5%	1/10W
JR104	1-216-296-11	SHORT CHIP	0		
JR118	1-216-296-11	SHORT CHIP	0		
JR130	1-216-864-11	METAL CHIP	0	5%	1/10W
JR138	1-216-864-11	METAL CHIP	0	5%	1/10W
JR390	1-216-864-11	METAL CHIP	0	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remarks
		< COIL >			
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-T1-L5L6		
Q151	8-729-120-28	TRANSISTOR	2SC1623-T1-L5L6		
Q201	8-729-802-80	TRANSISTOR	2SC3661-TB		
Q206	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q207	8-729-027-31	TRANSISTOR	DTA124EKA-T146		
Q251	8-729-802-80	TRANSISTOR	2SC3661-TB		
Q301	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16		
Q302	8-729-142-46	TRANSISTOR	2SC2001TP-LK		
Q303	8-729-142-46	TRANSISTOR	2SC2001TP-LK		
Q304	8-729-027-31	TRANSISTOR	DTA124EKA-T146		
Q305	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q306	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q307	8-729-216-22	TRANSISTOR	2SA812-T1-M5M6		
Q310	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q389	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q390	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q391	8-729-140-04	TRANSISTOR	2SB1116-TP-LK		
Q392	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q393	8-729-116-57	TRANSISTOR	2SB1068TP-K		
Q394	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q395	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q396	8-729-140-04	TRANSISTOR	2SB1116-TP-LK		
Q398	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q399	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16		
Q601	8-729-120-28	TRANSISTOR	2SC1623-T1-L5L6		
Q602	8-729-014-97	TRANSISTOR	FA1L3Z-T1B		
Q620	8-729-802-80	TRANSISTOR	2SC3661-TB		
Q621	8-729-802-80	TRANSISTOR	2SC3661-TB		
Q650	8-729-027-31	TRANSISTOR	DTA124EKA-T146		
Q651	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q652	8-729-027-31	TRANSISTOR	DTA124EKA-T146		
Q670	8-729-802-80	TRANSISTOR	2SC3661-TB		
Q671	8-729-802-80	TRANSISTOR	2SC3661-TB		
Q841	8-729-802-80	TRANSISTOR	2SC3661-TB		
Q842	8-729-202-67	TRANSISTOR	2SK246GR3-TPE2		
Q851	8-729-140-04	TRANSISTOR	2SB1116-TP-LK		
Q852	8-729-620-05	TRANSISTOR	2SC2603TP-EF		
Q901	8-729-040-20	TRANSISTOR	RT1P137L-TP		
Q902	8-729-900-53	TRANSISTOR	DTC114EKA-T146		
Q903	8-729-209-60	TRANSISTOR	2SB1375		
		< RESISTOR >			
R101	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R102	1-216-833-11	METAL CHIP	10K	5%	1/10W
R103	1-220-373-11	METAL CHIP	620	5%	1/10W
R104	1-216-821-11	METAL CHIP	1K	5%	1/10W
R105	1-216-841-11	METAL CHIP	47K	5%	1/10W
R106	1-216-833-11	METAL CHIP	10K	5%	1/10W
R107	1-216-809-11	METAL CHIP	100	5%	1/10W
R110	1-216-864-11	METAL CHIP	0	5%	1/10W
R112	1-216-864-11	METAL CHIP	0	5%	1/10W
R117	1-216-845-11	METAL CHIP	100K	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R118	1-216-821-11	METAL CHIP	1K	5%	1/10W
R121	1-216-821-11	METAL CHIP	1K	5%	1/10W
R122	1-216-821-11	METAL CHIP	1K	5%	1/10W
R130	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R131	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R132	1-216-857-11	METAL CHIP	1M	5%	1/10W
R133	1-216-845-11	METAL CHIP	100K	5%	1/10W
R134	1-218-701-11	METAL CHIP	2.4K	5%	1/10W
R140	1-216-833-11	METAL CHIP	10K	5%	1/10W
R141	1-216-809-11	METAL CHIP	100	5%	1/10W
R142	1-216-809-11	METAL CHIP	100	5%	1/10W
R150	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R151	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R152	1-216-833-11	METAL CHIP	10K	5%	1/10W
R153	1-220-373-11	METAL CHIP	620	5%	1/10W
R154	1-216-821-11	METAL CHIP	1K	5%	1/10W
R155	1-216-841-11	METAL CHIP	47K	5%	1/10W
R156	1-216-833-11	METAL CHIP	10K	5%	1/10W
R157	1-216-809-11	METAL CHIP	100	5%	1/10W
R167	1-216-845-11	METAL CHIP	100K	5%	1/10W
R168	1-216-821-11	METAL CHIP	1K	5%	1/10W
R204	1-216-833-11	METAL CHIP	10K	5%	1/10W
R205	1-216-821-11	METAL CHIP	1K	5%	1/10W
R206	1-216-839-11	RES CHIP	33K	5%	1/10W
R224	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R226	1-216-847-11	METAL CHIP	150K	5%	1/10W
R228	1-216-843-11	METAL CHIP	68K	5%	1/10W
R254	1-216-833-11	METAL CHIP	10K	5%	1/10W
R255	1-216-821-11	METAL CHIP	1K	5%	1/10W
R256	1-216-839-11	RES CHIP	33K	5%	1/10W
R284	1-216-853-11	METAL CHIP	470K	5%	1/10W
R285	1-216-837-11	METAL CHIP	22K	5%	1/10W
R286	1-216-837-11	METAL CHIP	22K	5%	1/10W
R301	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R302	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R303	1-216-833-11	METAL CHIP	10K	5%	1/10W
R304	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R305	1-216-841-11	METAL CHIP	47K	5%	1/10W
R306	1-216-837-11	METAL CHIP	22K	5%	1/10W
R307	1-216-857-11	METAL CHIP	1M	5%	1/10W
R308	1-216-809-11	METAL CHIP	100	5%	1/10W
R309	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R310	1-216-809-11	METAL CHIP	100	5%	1/10W
R312	1-216-809-11	METAL CHIP	100	5%	1/10W
R313	1-216-821-11	METAL CHIP	1K	5%	1/10W
R314	1-216-821-11	METAL CHIP	1K	5%	1/10W
R315	1-216-833-11	METAL CHIP	10K	5%	1/10W
R316	1-216-833-11	METAL CHIP	10K	5%	1/10W
R317	1-216-833-11	METAL CHIP	10K	5%	1/10W
R320	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R327	1-216-835-11	METAL CHIP	15K	5%	1/10W
R328	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R329	1-216-833-11	METAL CHIP	10K	5%	1/10W
R330	1-216-837-11	METAL CHIP	22K	5%	1/10W
R332	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R333	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R334	1-216-845-11	METAL CHIP	100K	5%	1/10W
R342	1-216-825-11	METAL CHIP	2.2K	5%	1/10W

Ref. No.	Part No.	Description			Remarks
⚠R343	1-219-787-17	FUSIBLE	5.6	5%	1/4W
⚠R344	1-219-787-17	FUSIBLE	5.6	5%	1/4W
R345	1-216-836-11	METAL CHIP	18K	5%	1/10W
R346	1-216-836-11	METAL CHIP	18K	5%	1/10W
R347	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R351	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R352	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R353	1-216-833-11	METAL CHIP	10K	5%	1/10W
R354	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R355	1-216-841-11	METAL CHIP	47K	5%	1/10W
R360	1-216-819-11	METAL CHIP	680	5%	1/10W
R361	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R362	1-216-833-11	METAL CHIP	10K	5%	1/10W
R363	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R364	1-216-819-11	METAL CHIP	680	5%	1/10W
R365	1-216-833-11	METAL CHIP	10K	5%	1/10W
R366	1-216-819-11	METAL CHIP	680	5%	1/10W
R367	1-216-833-11	METAL CHIP	10K	5%	1/10W
R368	1-216-833-11	METAL CHIP	10K	5%	1/10W
R369	1-216-833-11	METAL CHIP	10K	5%	1/10W
R370	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R371	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R372	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R373	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R374	1-216-833-11	METAL CHIP	10K	5%	1/10W
R375	1-216-833-11	METAL CHIP	10K	5%	1/10W
R376	1-216-833-11	METAL CHIP	10K	5%	1/10W
R377	1-216-833-11	METAL CHIP	10K	5%	1/10W
R378	1-216-833-11	METAL CHIP	10K	5%	1/10W
R379	1-216-833-11	METAL CHIP	10K	5%	1/10W
R380	1-216-837-11	METAL CHIP	22K	5%	1/10W
R382	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R387	1-216-833-11	METAL CHIP	10K	5%	1/10W
R388	1-216-837-11	METAL CHIP	22K	5%	1/10W
R390	1-216-833-11	METAL CHIP	10K	5%	1/10W
R391	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R392	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R393	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R394	1-216-833-11	METAL CHIP	10K	5%	1/10W
R395	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R396	1-216-833-11	METAL CHIP	10K	5%	1/10W
R397	1-216-835-11	METAL CHIP	15K	5%	1/10W
R398	1-216-861-11	METAL CHIP	2.2M	5%	1/10W
R399	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R401	1-216-833-11	METAL CHIP	10K	5%	1/10W
R402	1-216-833-11	METAL CHIP	10K	5%	1/10W
R419	1-216-809-11	METAL CHIP	100	5%	1/10W
R420	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R421	1-216-833-11	METAL CHIP	10K	5%	1/10W
R422	1-216-833-11	METAL CHIP	10K	5%	1/10W
R427	1-216-809-11	METAL CHIP	100	5%	1/10W
R429	1-216-809-11	METAL CHIP	100	5%	1/10W
R430	1-216-809-11	METAL CHIP	100	5%	1/10W
R431	1-216-845-11	METAL CHIP	100K	5%	1/10W
R432	1-216-809-11	METAL CHIP	100	5%	1/10W
R433	1-216-809-11	METAL CHIP	100	5%	1/10W
R434	1-216-817-11	METAL CHIP	470	5%	1/10W
R442	1-216-809-11	METAL CHIP	100	5%	1/10W
R443	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R444	1-216-809-11	METAL CHIP	100	5%	1/10W
R445	1-216-809-11	METAL CHIP	100	5%	1/10W
R446	1-216-809-11	METAL CHIP	100	5%	1/10W
R447	1-216-809-11	METAL CHIP	100	5%	1/10W
R448	1-216-817-11	METAL CHIP	470	5%	1/10W
R450	1-216-809-11	METAL CHIP	100	5%	1/10W
R473	1-216-809-11	METAL CHIP	100	5%	1/10W
R474	1-216-809-11	METAL CHIP	100	5%	1/10W
R477	1-216-833-11	METAL CHIP	10K	5%	1/10W
R478	1-216-833-11	METAL CHIP	10K	5%	1/10W
R492	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R493	1-216-823-11	METAL CHIP	1.5K	5%	1/10W (AUS)
R493	1-216-864-11	METAL CHIP	0	5%	1/10W (E3)
R493	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AR,E2,E51,MX)
R495	1-216-833-11	METAL CHIP	10K	5%	1/10W
R501	1-216-821-11	METAL CHIP	1K	5%	1/10W
R502	1-216-821-11	METAL CHIP	1K	5%	1/10W
R503	1-216-809-11	METAL CHIP	100	5%	1/10W
R504	1-216-809-11	METAL CHIP	100	5%	1/10W
R505	1-216-817-11	METAL CHIP	470	5%	1/10W
R506	1-216-817-11	METAL CHIP	470	5%	1/10W
R507	1-216-817-11	METAL CHIP	470	5%	1/10W
R509	1-216-833-11	METAL CHIP	10K	5%	1/10W
R511	1-216-851-11	METAL CHIP	330K	5%	1/10W
R513	1-216-864-11	METAL CHIP	0	5%	1/10W
R517	1-216-833-11	METAL CHIP	10K	5%	1/10W
R518	1-216-809-11	METAL CHIP	100	5%	1/10W
R519	1-216-833-11	METAL CHIP	10K	5%	1/10W
R521	1-216-809-11	METAL CHIP	100	5%	1/10W
R522	1-216-809-11	METAL CHIP	100	5%	1/10W
R523	1-216-833-11	METAL CHIP	10K	5%	1/10W
R529	1-216-833-11	METAL CHIP	10K	5%	1/10W
R530	1-216-833-11	METAL CHIP	10K	5%	1/10W
R532	1-216-841-11	METAL CHIP	47K	5%	1/10W
R535	1-216-817-11	METAL CHIP	470	5%	1/10W
R536	1-216-809-11	METAL CHIP	100	5%	1/10W
R537	1-216-817-11	METAL CHIP	470	5%	1/10W
R538	1-216-809-11	METAL CHIP	100	5%	1/10W
R539	1-216-809-11	METAL CHIP	100	5%	1/10W
R540	1-216-809-11	METAL CHIP	100	5%	1/10W
R541	1-216-809-11	METAL CHIP	100	5%	1/10W
R542	1-216-833-11	METAL CHIP	10K	5%	1/10W
R543	1-216-833-11	METAL CHIP	10K	5%	1/10W
R544	1-216-833-11	METAL CHIP	10K	5%	1/10W
R545	1-216-833-11	METAL CHIP	10K	5%	1/10W
R549	1-216-833-11	METAL CHIP	10K	5%	1/10W
R550	1-216-833-11	METAL CHIP	10K	5%	1/10W
R560	1-216-809-11	METAL CHIP	100	5%	1/10W
R561	1-216-809-11	METAL CHIP	100	5%	1/10W
R563	1-216-833-11	METAL CHIP	10K	5%	1/10W
R565	1-216-809-11	METAL CHIP	100	5%	1/10W
R566	1-216-809-11	METAL CHIP	100	5%	1/10W
R567	1-216-809-11	METAL CHIP	100	5%	1/10W
R568	1-216-809-11	METAL CHIP	100	5%	1/10W
R569	1-216-809-11	METAL CHIP	100	5%	1/10W
R570	1-216-809-11	METAL CHIP	100	5%	1/10W

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

MAIN | MOTOR (LD) | MOTOR (TB) | POWER AMP

Ref. No.	Part No.	Description			Remarks
R571	1-216-809-11	METAL CHIP	100	5%	1/10W
R572	1-216-809-11	METAL CHIP	100	5%	1/10W
R573	1-216-833-11	METAL CHIP	10K	5%	1/10W
R574	1-216-833-11	METAL CHIP	10K	5%	1/10W
R575	1-216-809-11	METAL CHIP	100	5%	1/10W
R576	1-216-809-11	METAL CHIP	100	5%	1/10W
R577	1-216-809-11	METAL CHIP	100	5%	1/10W
R578	1-216-809-11	METAL CHIP	100	5%	1/10W
R579	1-216-809-11	METAL CHIP	100	5%	1/10W
R580	1-216-809-11	METAL CHIP	100	5%	1/10W
R581	1-216-809-11	METAL CHIP	100	5%	1/10W
R582	1-216-809-11	METAL CHIP	100	5%	1/10W
R583	1-216-809-11	METAL CHIP	100	5%	1/10W
R584	1-216-809-11	METAL CHIP	100	5%	1/10W
R585	1-216-809-11	METAL CHIP	100	5%	1/10W
R586	1-216-809-11	METAL CHIP	100	5%	1/10W
R587	1-216-809-11	METAL CHIP	100	5%	1/10W
R588	1-216-809-11	METAL CHIP	100	5%	1/10W
R589	1-216-809-11	METAL CHIP	100	5%	1/10W
R590	1-216-809-11	METAL CHIP	100	5%	1/10W
R591	1-216-809-11	METAL CHIP	100	5%	1/10W
R592	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R593	1-216-821-11	METAL CHIP	1K	5%	1/10W (AR,E2,E51,MX)
R593	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AUS)
R594	1-216-821-11	METAL CHIP	1K	5%	1/10W
R595	1-216-821-11	METAL CHIP	1K	5%	1/10W
R597	1-216-809-11	METAL CHIP	100	5%	1/10W
R600	1-216-809-11	METAL CHIP	100	5%	1/10W
R601	1-216-813-11	METAL CHIP	220	5%	1/10W
R602	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R603	1-216-841-11	METAL CHIP	47K	5%	1/10W
R604	1-216-841-11	METAL CHIP	47K	5%	1/10W
R620	1-216-833-11	METAL CHIP	10K	5%	1/10W
R621	1-216-821-11	METAL CHIP	1K	5%	1/10W
R622	1-216-841-11	METAL CHIP	47K	5%	1/10W
R623	1-216-833-11	METAL CHIP	10K	5%	1/10W
R624	1-215-891-11	METAL OXIDE	680	5%	2W
R625	1-216-821-11	METAL CHIP	1K	5%	1/10W
R626	1-216-806-11	METAL CHIP	56	5%	1/10W
R650	1-216-835-11	METAL CHIP	15K	5%	1/10W
R651	1-216-853-11	METAL CHIP	470K	5%	1/10W
R652	1-216-843-11	METAL CHIP	68K	5%	1/10W
R653	1-216-821-11	METAL CHIP	1K	5%	1/10W
R654	1-216-845-11	METAL CHIP	100K	5%	1/10W
R655	1-216-845-11	METAL CHIP	100K	5%	1/10W
R656	1-216-833-11	METAL CHIP	10K	5%	1/10W
R670	1-216-833-11	METAL CHIP	10K	5%	1/10W
R671	1-216-821-11	METAL CHIP	1K	5%	1/10W
R672	1-216-841-11	METAL CHIP	47K	5%	1/10W
R673	1-216-833-11	METAL CHIP	10K	5%	1/10W
R674	1-215-891-11	METAL OXIDE	680	5%	2W
R675	1-216-821-11	METAL CHIP	1K	5%	1/10W
R676	1-216-806-11	METAL CHIP	56	5%	1/10W
R801	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R802	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R803	1-216-821-11	METAL CHIP	1K	5%	1/10W
R804	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R821	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R822	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R823	1-216-845-11	METAL CHIP	100K	5%	1/10W

Ref. No.	Part No.	Description			Remarks
R824	1-216-834-11	METAL CHIP	12K	5%	1/10W
R841	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R842	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R843	1-216-833-11	METAL CHIP	10K	5%	1/10W
R844	1-216-839-11	METAL CHIP	33K	5%	1/10W
R846	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R847	1-216-857-11	METAL CHIP	1M	5%	1/10W
R848	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R849	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R851	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R852	1-216-833-11	METAL CHIP	10K	5%	1/10W
R853	1-216-422-11	METAL OXIDE	18	5%	1W
R854	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R901	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R902	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R903	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R904	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R905	1-216-832-11	METAL CHIP	8.2K	5%	1/10W
R906	1-216-821-11	METAL CHIP	1K	5%	1/10W
R908	1-216-833-11	METAL CHIP	10K	5%	1/10W
R913	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< VARIABLE RESISTOR >			
RV301	1-238-019-11	RES, ADJ, CARBON 47K (REC LEVEL (L))			
RV304	1-241-768-11	RES, ADJ, CARBON 220K (REC BIAS (L))			
RV351	1-238-019-11	RES, ADJ, CARBON 47K (REC LEVEL (R))			
RV354	1-241-768-11	RES, ADJ, CARBON 220K (REC BIAS (R))			
		< TRANSFORMER >			
T301	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
		< TERMINAL >			
TM801	1-694-885-12	TERMINAL BOARD,PUSH(ANTENNA)2P (SUBWOOFER OUT)			
		< VIBRATOR >			
X501	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X502	1-781-107-21	VIBRATOR, SERAMIC (16MHz)			
**********					
	1-687-133-11	MOTOR (LD) BOARD			
		**********			
**********					
	1-687-134-11	MOTOR (TB) BOARD			
		**********			
		< CONNECTOR >			
CN742	1-784-727-11	CONNECTOR, FFC 5P			
**********					
	A-4731-364-A	POWER AMP BOARD, COMPLETE (EXCEPT AUS)			
	A-4748-308-A	POWER AMP BOARD, COMPLETE (AUS)			
		**********			
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S			
		< CAPASITOR >			
C501	1-126-963-11	ELECT	4.7uF	20%	50V
C502	1-162-294-31	CERAMIC	0.001uF	10%	50V
C503	1-162-286-31	CERAMIC	220PF	10%	50V
C504	1-104-665-11	ELECT	100uF	20%	10V
C507	1-136-495-11	FILM	0.068uF	5%	50V

Ref. No.	Part No.	Description			Remarks
C508	1-136-495-11	FILM	0.068uF	5%	50V
C509	1-128-560-11	ELECT	22uF	20%	100V
C512	1-162-306-11	CERAMIC	0.01uF	20%	16V
C513	1-162-306-11	CERAMIC	0.01uF	20%	16V
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
C526	1-126-964-11	ELECT	10uF	20%	50V
C527	1-162-306-11	CERAMIC	0.01uF	20%	16V
C541	1-136-165-00	FILM	0.1uF	5%	50V
C542	1-127-811-11	ELECT	3300uF	20%	50V
C544	1-130-777-00	MYLAR	0.1uF	5%	100V
C545	1-130-777-00	MYLAR	0.1uF	5%	100V
C546	1-137-843-11	ELECT	2200uF	20%	100V
C551	1-126-963-11	ELECT	4.7uF	20%	50V
C552	1-162-294-31	CERAMIC	0.001uF	10%	50V
C553	1-162-286-31	CERAMIC	220PF	10%	50V
C554	1-104-665-11	ELECT	100uF	20%	10V
C557	1-136-495-11	FILM	0.068uF	5%	50V
C558	1-136-495-11	FILM	0.068uF	5%	50V
C559	1-128-560-11	ELECT	22uF	20%	100V
C581	1-126-965-91	ELECT	22uF	20%	50V
C591	1-136-165-00	FILM	0.1uF	5%	50V
C592	1-127-811-11	ELECT	3300uF	20%	50V
C596	1-137-843-11	ELECT	2200uF	20%	100V
		< CONNECTOR >			
CN503	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P			
CN504	1-770-722-11	CONNECTOR, BOARD TO BOARD 6P			
		< DIODE >			
D501	8-719-991-33	DIODE 1SS133T-72			
D502	8-719-991-33	DIODE 1SS133T-72			
D503	8-719-947-70	DIODE MTZJ-T-72-18C			
D504	8-719-947-70	DIODE MTZJ-T-72-18C			
D506	8-719-991-33	DIODE 1SS133T-72			
D507	8-719-991-33	DIODE 1SS133T-72			
D508	8-719-991-33	DIODE 1SS133T-72			
D509	8-719-991-33	DIODE 1SS133T-72			
D510	8-719-991-33	DIODE 1SS133T-72			
D511	8-719-991-33	DIODE 1SS133T-72			
D541	8-719-060-53	DIODE RBV-2506			
D543	8-719-500-60	DIODE D5SBA20			
D551	8-719-991-33	DIODE 1SS133T-72			
D581	8-719-991-33	DIODE 1SS133T-72			
		< EARTH TERMINAL >			
* EP501	1-537-738-21	TERMINAL, EARTH			
* EP502	1-537-738-21	TERMINAL, EARTH			
		< IC >			
IC501	8-749-017-06	IC STK412-150			
		< TRANSISTOR >			
Q501	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA			
Q503	8-729-821-00	TRANSISTOR 2SA1207-AA			
Q504	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA			
Q505	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
Q506	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			

Ref. No.	Part No.	Description			Remarks
Q510	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
Q511	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
Q513	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
Q514	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
Q515	8-729-119-76	TRANSISTOR 2SA1175TP-HFE			
Q516	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
Q517	8-729-119-76	TRANSISTOR 2SA1175TP-HFE			
Q518	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
Q551	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA			
Q581	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA			
		< RESISTOR >			
R501	1-249-417-11	CARBON	1K	5%	1/4W F
R502	1-249-437-11	CARBON	47K	5%	1/4W
R503	1-249-411-11	CARBON	330	5%	1/4W
R504	1-249-437-11	CARBON	47K	5%	1/4W
R505	1-249-416-11	CARBON	820	5%	1/4W F
R506	1-249-435-11	CARBON	33K	5%	1/4W
R507	1-249-441-11	CARBON	100K	5%	1/4W
⚠R508	1-234-798-11	ENCAPSULATED COMPONENT			
R509	1-260-076-11	CARBON	10	5%	1/2W
⚠R511	1-212-881-11	FUSIBLE	100	5%	1/4W
⚠R512	1-202-972-61	FUSIBLE	1	5%	1/4W
R513	1-249-435-11	CARBON	33K	5%	1/4W
R514	1-249-421-11	CARBON	2.2K	5%	1/4W F
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
⚠R520	1-215-872-11	METAL OXIDE	3.3K	5%	1W
R521	1-249-441-11	CARBON	100K	5%	1/4W
R522	1-249-441-11	CARBON	100K	5%	1/4W
R523	1-249-441-11	CARBON	100K	5%	1/4W
⚠R524	1-215-872-11	METAL OXIDE	3.3K	5%	1W
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	1-247-889-00	CARBON	270K	5%	1/4W (AUS)
R531	1-247-891-00	CARBON	330K	5%	1/4W (EXCEPT AUS)
R532	1-249-441-11	CARBON	100K	5%	1/4W
R533	1-249-437-11	CARBON	47K	5%	1/4W
⚠R539	1-215-891-11	METAL OXIDE	680	5%	2W
⚠R540	1-215-891-11	METAL OXIDE	680	5%	2W
R541	1-249-441-11	CARBON	100K	5%	1/4W
R542	1-249-441-11	CARBON	100K	5%	1/4W
R545	1-249-417-11	CARBON	1K	5%	1/4W F
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 F
R552	1-249-437-11	CARBON	47K	5%	1/4W
R553	1-249-411-11	CARBON	330	5%	1/4W
R554	1-249-437-11	CARBON	47K	5%	1/4W
R555	1-249-416-11	CARBON	820	5%	1/4W (EXCEPT AUS)
R555	1-249-417-11	CARBON	1K	5%	1/4W (AUS)

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

POWER AMP | SENSOR | SUB TRANS | SUBWOOFER

Ref. No.	Part No.	Description			Remarks
R556	1-249-435-11	CARBON	33K	5%	1/4W
R557	1-249-441-11	CARBON	100K	5%	1/4W
⚠R558	1-234-798-11	ENCAPSULATED COMPONENT			
R559	1-260-076-11	CARBON	10	5%	1/2W
⚠R561	1-212-881-11	FUSIBLE	100	5%	1/4W
R564	1-249-433-11	CARBON	22K	5%	1/4W
R565	1-249-433-11	CARBON	22K	5%	1/4W
R566	1-249-429-11	CARBON	10K	5%	1/4W
R567	1-249-429-11	CARBON	10K	5%	1/4W
R568	1-249-429-11	CARBON	10K	5%	1/4W
R569	1-249-437-11	CARBON	47K	5%	1/4W
R570	1-249-429-11	CARBON	10K	5%	1/4W
R571	1-249-437-11	CARBON	47K	5%	1/4W
R572	1-249-441-11	CARBON	100K	5%	1/4W
R573	1-249-441-11	CARBON	100K	5%	1/4W
R577	1-247-807-31	CARBON	100	5%	1/4W
R578	1-247-897-11	CARBON	560K	5%	1/4W
R581	1-249-435-11	CARBON	33K	5%	1/4W
R582	1-249-435-11	CARBON	33K	5%	1/4W
R591	1-249-441-11	CARBON	100K	5%	1/4W
R592	1-249-441-11	CARBON	100K	5%	1/4W
		< RELAY >			
RY501	1-515-920-11	RELAY			
RY502	1-515-920-11	RELAY			
		< THERMISTOR >			
TH501	1-807-796-11	THERMISTOR			
TH502	1-807-796-11	THERMISTOR			
		< TERMINAL >			
TM501	1-694-877-11	TERMINAL BOARD (8P) (FRONT/SURROUND SPEAKER)			
**********					
	1-687-132-11	SENSOR BOARD			
		**********			
		< CONNECTOR >			
CN731	1-785-329-21	PIN, CONNECTOR (LIGHT ANGLE)3P			
**********					
	A-4731-346-A	SUB TRANS BOARD, COMPLETE (E2,E3,E51)			
	A-4734-905-A	SUB TRANS BOARD, COMPLETE (MX)			
	A-4747-608-A	SUB TRANS BOARD, COMPLETE (AR)			
	A-4749-089-A	SUB TRANS BOARD, COMPLETE (AUS)			
		**********			
		< 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 >			
CN971	1-568-106-11	PIN, CONNECTOR(3.96MM PITCH)4P(E2,E3,E51)			
CN971	1-564-321-00	PIN, CONNECTOR(3.96MM PITCH)2P (AR,MX)			
CN974	1-564-321-00	PIN, CONNECTOR(3.96MM PITCH)2P			

Ref. No.	Part No.	Description			Remarks
CN976	1-785-330-11	PIN, CONNECTOR (LIGHT ANGLE)4P			
		< DIODE >			
D971	8-719-991-33	DIODE 1SS133T-72			
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	6-703-546-01	IC TA7804LS			
		< TRANSISTOR >			
Q971	8-729-119-79	TRANSISTOR 2SC2785TP-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 (VOLTAGE SELECTOR) (E2,E3,E51)			
		< TRANSFORMER >			
⚠T972	1-437-775-12	TRANSFORMER, POWER	(MX)		
⚠T972	1-437-751-12	TRANSFORMER, POWER	(AR,E2,E3,E51)		
**********					
	A-4731-367-A	SUBWOOFER BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C301	1-126-963-11	ELECT	4.7uF	20%	50V
C302	1-136-171-00	FILM	0.33uF	5%	50V
C303	1-102-973-00	CERAMIC	100PF	5%	50V
C304	1-104-665-11	ELECT	100uF	20%	10V
C306	1-136-165-00	FILM	0.1uF	5%	50V
C307	1-136-165-00	FILM	0.1uF	5%	50V
C308	1-128-563-11	ELECT	100uF	20%	100V
C310	1-162-198-31	CERAMIC	8.2PF	10%	50V
C311	1-162-198-31	CERAMIC	8.2PF	10%	50V
C313	1-126-963-11	ELECT	4.7uF	20%	50V
C314	1-126-963-11	ELECT	4.7uF	20%	50V
C315	1-126-967-11	ELECT	47uF	20%	50V
C316	1-164-159-11	CERAMIC	0.1uF		50V
C318	1-126-968-11	ELECT	100uF	20%	50V
C352	1-136-153-00	FILM	0.01uF	5%	50V
C353	1-102-973-00	CERAMIC	100PF	5%	50V
C354	1-104-665-11	ELECT	100uF	20%	10V
C356	1-136-165-00	FILM	0.1uF	5%	50V
C357	1-136-165-00	FILM	0.1uF	5%	50V
C358	1-128-563-11	ELECT	100uF	20%	100V

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

Ref. No.	Part No.	Description			Remarks
		< CONNECTOR >			
* CN303	1-564-511-11	PLUG, CONNECTOR 8P			
* CN305	1-564-520-11	PLUG, CONNECTOR 5P			
		< DIODE >			
D301	8-719-991-33	DIODE 1SS133T-72			
D351	8-719-991-33	DIODE 1SS133T-72			
D381	8-719-991-33	DIODE 1SS133T-72			
D391	8-719-991-33	DIODE 1SS133T-72			
D581	8-719-991-33	DIODE 1SS133T-72			
		< GROUND TERMINAL >			
EP301	1-537-738-21	TERMINAL, GROUND			
		< IC >			
IC301	8-749-017-15	IC STK442-120			
		< COIL >			
L381	1-420-872-52	COIL, AIR-CORE			
L382	1-420-872-52	COIL, AIR-CORE			
		< TRANSISTOR >			
Q301	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
Q302	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
Q303	8-729-140-82	TRANSISTOR 2SA988TP-PAFAEA			
Q304	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
Q351	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
Q381	8-729-119-76	TRANSISTOR 2SA1175TP-HFE			
Q384	8-729-900-36	TRANSISTOR BA1F4M-TP			
Q385	8-729-119-79	TRANSISTOR 2SC2785TP-FEK			
		< RESISTOR >			
R301	1-249-417-11	CARBON	1K	5%	1/4W F
R302	1-249-437-11	CARBON	47K	5%	1/4W
R303	1-249-419-11	CARBON	1.5K	5%	1/4W F
R304	1-249-437-11	CARBON	47K	5%	1/4W
⚠ R305	1-234-499-21	ENCAPSULATED COMPONENT			
R307	1-249-417-11	CARBON	1K	5%	1/4W F
R308	1-249-431-11	CARBON	15K	5%	1/4W
R309	1-249-441-11	CARBON	100K	5%	1/4W
R310	1-260-076-11	CARBON	10	5%	1/2W
⚠ R311	1-212-881-11	FUSIBLE	100	5%	1/4W
R313	1-249-417-11	CARBON	1K	5%	1/4W F
R314	1-249-437-11	CARBON	47K	5%	1/4W
R319	1-247-862-11	CARBON	20K	5%	1/4W
⚠ R320	1-202-972-61	FUSIBLE	1	5%	1/4W
R321	1-249-429-11	CARBON	10K	5%	1/4W
R322	1-249-429-11	CARBON	10K	5%	1/4W
R323	1-249-433-11	CARBON	22K	5%	1/4W
R324	1-249-421-11	CARBON	2.2K	5%	1/4W F
R325	1-249-441-11	CARBON	100K	5%	1/4W
R326	1-249-437-11	CARBON	47K	5%	1/4W
R327	1-249-433-11	CARBON	22K	5%	1/4W
R328	1-249-435-11	CARBON	33K	5%	1/4W
R331	1-249-437-11	CARBON	47K	5%	1/4W
R332	1-249-438-11	CARBON	56K	5%	1/4W
R352	1-249-437-11	CARBON	47K	5%	1/4W
R353	1-249-419-11	CARBON	1.5K	5%	1/4W F
R354	1-249-437-11	CARBON	47K	5%	1/4W
⚠ R356	1-234-499-21	ENCAPSULATED COMPONENT			
R357	1-249-417-11	CARBON	1K	5%	1/4W F
R358	1-249-431-11	CARBON	15K	5%	1/4W
R359	1-249-441-11	CARBON	100K	5%	1/4W
R360	1-260-076-11	CARBON	10	5%	1/2W
⚠ R361	1-212-881-11	FUSIBLE	100	5%	1/4W
R381	1-260-076-11	CARBON	10	5%	1/2W
R382	1-260-076-11	CARBON	10	5%	1/2W
⚠ R387	1-216-456-00	METAL OXIDE	820	5%	2W
R390	1-249-429-11	CARBON	10K	5%	1/4W
R396	1-249-433-11	CARBON	22K	5%	1/4W
R397	1-249-417-11	CARBON	1K	5%	1/4W F
R399	1-249-417-11	CARBON	1K	5%	1/4W F
		< RELAY >			
RY381	1-515-920-11	RELAY			
**********					
	1-687-669-11	SW BOARD			
		********			
		< SWITCH >			
S751	1-786-514-11	SWITCH, LEVER (SLIDE) (LEVER)			
**********					
	1-686-930-11	TRANS BOARD			
		**********			
		< CAPACITOR >			
C941	1-128-576-11	ELECT	100uF	20%	63V
		< CONNECTOR >			
CN997	1-564-509-11	PLUG, CONNECTOR 6P			
* CN998	1-564-510-11	PLUG, CONNECTOR 7P			
		< DIODE >			
D977	8-719-024-99	DIODE 11ES2-NTA2B			
		< FUSE HOLDER >			
FH9741	1-533-233-11	FUSE HOLDER			
FH9742	1-533-233-11	FUSE HOLDER			
FH9751	1-533-233-11	FUSE HOLDER			
FH9752	1-533-233-11	FUSE HOLDER			
FH9761	1-533-233-11	FUSE HOLDER			
FH9762	1-533-233-11	FUSE HOLDER			
FH9771	1-533-233-11	FUSE HOLDER			
FH9772	1-533-233-11	FUSE HOLDER			
FH9781	1-533-233-11	FUSE HOLDER			
FH9782	1-533-233-11	FUSE HOLDER			
		< RESISTOR >			
⚠ R941	1-217-637-00	FUSIBLE	1	5%	1/4W
⚠ R952	1-219-120-11	FUSIBLE	0.15	5%	1/4W
**********					

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

VOLUME

Ref. No.	Part No.	Description			Remarks
	A-4731-329-A	VOLUME BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C614	1-162-294-31	CERAMIC	0.001uF	10%	50V
C615	1-124-589-11	ELECT	47uF	20%	16V
C750	1-164-159-11	CERAMIC	0.1uF		50V
C751	1-164-159-11	CERAMIC	0.1uF		50V
C752	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CN605	1-568-860-11	SOCKET, CONNECTOR 17P			
		< DIODE >			
D1001	6-500-529-01	DIODE SLI-325URT31W (VOL 1)			
D1002	6-500-529-01	DIODE SLI-325URT31W (VOL 2)			
D1003	6-500-529-01	DIODE SLI-325URT31W (VOL 3)			
D1004	6-500-529-01	DIODE SLI-325URT31W (VOL 4)			
D1005	6-500-529-01	DIODE SLI-325URT31W (VOL 5)			
D1006	6-500-529-01	DIODE SLI-325URT31W (VOL 6)			
D1007	6-500-529-01	DIODE SLI-325URT31W (VOL 7)			
D1008	6-500-529-01	DIODE SLI-325URT31W (VOL 8)			
D1009	6-500-529-01	DIODE SLI-325URT31W (VOL 9)			
D1010	6-500-529-01	DIODE SLI-325URT31W (VOL 10)			
D1011	6-500-529-01	DIODE SLI-325URT31W (VOL 11)			
		< IC >			
IC603	6-600-174-01	IC RPM7240-H4			
		< TRANSISTOR >			
Q1001	8-729-116-02	TRANSISTOR BA1A4M-TP			
Q1002	8-729-116-02	TRANSISTOR BA1A4M-TP			
Q1003	8-729-116-02	TRANSISTOR BA1A4M-TP			
Q1004	8-729-116-02	TRANSISTOR BA1A4M-TP			
Q1005	8-729-116-02	TRANSISTOR BA1A4M-TP			
Q1006	8-729-116-02	TRANSISTOR BA1A4M-TP			
		< RESISTOR >			
R625	1-249-401-11	CARBON	47	5%	1/4W F
R750	1-249-410-11	CARBON	270	5%	1/4W F
R759	1-249-427-11	CARBON	6.8K	5%	1/4W F
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
R763	1-249-435-11	CARBON	33K	5%	1/4W
R765	1-249-413-11	CARBON	470	5%	1/4W F
R766	1-249-415-11	CARBON	680	5%	1/4W F
R767	1-249-417-11	CARBON	1K	5%	1/4W F
R768	1-249-419-11	CARBON	1.5K	5%	1/4W F
R769	1-249-419-11	CARBON	1.5K	5%	1/4W F
R770	1-249-421-11	CARBON	2.2K	5%	1/4W F
R771	1-247-843-11	CARBON	3.3K	5%	1/4W
R772	1-249-425-11	CARBON	4.7K	5%	1/4W F
R773	1-249-427-11	CARBON	6.8K	5%	1/4W F
R774	1-249-429-11	CARBON	10K	5%	1/4W
R775	1-249-431-11	CARBON	15K	5%	1/4W
R776	1-249-433-11	CARBON	22K	5%	1/4W
R777	1-249-435-11	CARBON	33K	5%	1/4W
R1001	1-249-413-11	CARBON	470	5%	1/4W F
R1002	1-249-413-11	CARBON	470	5%	1/4W F
R1003	1-249-413-11	CARBON	470	5%	1/4W F
R1004	1-249-413-11	CARBON	470	5%	1/4W F
R1005	1-249-413-11	CARBON	470	5%	1/4W F
R1006	1-249-413-11	CARBON	470	5%	1/4W F
R1007	1-249-413-11	CARBON	470	5%	1/4W F
R1008	1-249-413-11	CARBON	470	5%	1/4W F
R1009	1-249-413-11	CARBON	470	5%	1/4W F
R1010	1-249-413-11	CARBON	470	5%	1/4W F
R1011	1-249-413-11	CARBON	470	5%	1/4W F
		< SWITCH >			
S748	1-476-504-11	ENCODER, ROTARY (VOLUME)			
S750	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)			
S759	1-762-875-21	SWITCH, KEYBOARD (SURROUND SPEAKER MODE)			
S760	1-762-875-21	SWITCH, KEYBOARD (P.FILE)			
S761	1-762-875-21	SWITCH, KEYBOARD (ILLUMINATION)			
S762	1-762-875-21	SWITCH, KEYBOARD (GAME EQ)			
S763	1-762-875-21	SWITCH, KEYBOARD (GROOVE)			
S765	1-762-875-21	SWITCH, KEYBOARD (EDIT/DIRECTION)			
S766	1-762-875-21	SWITCH, KEYBOARD (FM MODE/REPEAT)			
S767	1-762-875-21	SWITCH, KEYBOARD (TUNER MEMORY/PLAY MODE)			
S768	1-762-875-21	SWITCH, KEYBOARD (AMP MENU)			
S769	1-762-875-21	SWITCH, KEYBOARD (MUSIC EQ)			
S770	1-762-875-21	SWITCH, KEYBOARD (MOVIE EQ)			
S771	1-762-875-21	SWITCH, KEYBOARD (EFFECT ON/OFF)			
S773	1-786-528-11	SWITCH, ROTARY (←,→,↑,↓,PUSH ENTER)			
**********					
		MISCELLANEOUS			
		**********			
5	1-920-838-32	WIRE (FLAT TYPE) (11 CORE)			
6	1-693-603-11	TUNER (FM/AM)			
70	1-773-040-11	WIRE (FLAT TYPE) (17 CORE)			
73	1-773-110-11	WIRE (FLAT TYPE) (19 CORE)			
75	1-796-487-31	DECK, MECHANICAL			
79	1-751-688-11	WIRE (FLAT TYPE) (13 CORE)			
⚠103	1-777-071-53	CORD, POWER (E51)			
⚠103	1-783-941-12	CORD, POWER (AR)			
⚠103	1-791-901-12	CORD, POWER (E2,E3,MX)			
⚠103	1-696-847-11	CORD, POWER (AUS)			
152	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)			
226	1-782-817-11	WIRE (FLAT TYPE) (16 CORE)			
227	1-775-280-11	WIRE (FLAT TYPE) (31 CORE)			
⚠229	A-4735-357-A	BASE ASSY, OP (including KSS-213DCP)			
230	1-471-035-11	MAGNET ASSY			
⚠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)			
⚠F976	1-576-655-11	FUSE, GLASS TUBE (DIA. 5) (T8AL 250V)			
⚠F977	1-576-655-11	FUSE, GLASS TUBE (DIA. 5) (T8AL 250V)			
⚠F978	1-533-471-11	FUSE, GLASS TUBE (DIA. 5) (T4AL 250V)			
M741	A-4723-963-A	MOTOR ASSY, TABLE			
M751	A-4737-553-A	MOTOR ASSY, LOADING			
M891	1-763-072-11	FAN, DC			
RE701	1-477-680-11	ENCODER, ROTARY			
⚠T910	1-439-557-11	POWER TRANSFORMER			

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MEMO

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	2003.04	New
1.1	2003.06	Addition of Australian model. (ENG-03007)