

# HCD-GX45/RG440

## SERVICE MANUAL

Ver 1.0 2003.07



(Photo: HCD-GX45)

US Model  
Canadian Model  
HCD-GX45  
AEP Model  
UK Model  
Australian Model  
HCD-RG440

- HCD-GX45/RG440 is the tuner, deck, CD and amplifier section in MHC-GX45/RG440S.

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM74F-K6BD71A
	Base Unit Name	BU-K6BD71A
	Optical Pick-up Name	KSS-213DCP
Tape Deck Section	Model Name Using Similar Mechanism	CX-JT8
	Tape Transport Mechanism Type	CWM43FF-13

### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS

(HCD-GX45 USA model only)

#### POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6 ohm loads, both channels driven, from 120 – 10,000 Hz; rated 120 watts per channel minimum RMS power, with no more than 10 % total harmonic distortion from 250 milliwatts to rated output.

#### Amplifier section

North American models:

HCD-GX45:

Front speaker

Continuous RMS power output (reference):  
120 + 120 watts (6 ohms at  
1 kHz, 10% THD)

Total harmonic distortion less than 0.07% (6 ohms at  
1 kHz, 60 W)

Sub woofer

Continuous RMS power output (reference):  
120 watts (6 ohms at  
60 Hz, 10% THD)

Total harmonic distortion less than 0.07% (6 ohms at  
60 Hz, 60 W)

European and Russian models:

HCD-RG440:

Front speaker

DIN power output (rated): 80 + 80 watts  
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):  
100 + 100 watts (6 ohms at  
1 kHz, 10% THD)

Music power output (reference):  
200 + 200 watts (6 ohms at  
1 kHz, 10% THD)

Sub woofer

DIN power output (rated): 80 watts (6 ohms at  
60 Hz, DIN)

Continuous RMS power output (reference):  
100 watts (6 ohms at  
60 Hz, 10% THD)

Music power output (reference):  
200 watts (6 ohms at  
60 Hz, 10% THD)

Other models:

HCD-RG440:

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

DIN power output (rated): 80 + 80 watts  
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference):  
100 + 100 watts (6 ohms at  
1 kHz, 10% THD)

Inputs

GAME INPUT AUDIO L/R (phono jacks):  
voltage 250 mV,  
impedance 47 kilohms

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

Outputs

PHONES (stereo mini jack):  
accepts headphones of  
8 ohms or more

– Continued on next page –

## COMPACT DISC DECK RECEIVER

9-961-068-01

2003G04-1

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Sony Corporation

Home Audio Company

Published by Sony Engineering Corporation

# SONY®

# HCD-GX45/RG440

VIDEO OUT (phono jack):	max. output level 1 Vp-p, unbalanced, Sync negative, load impedance 75 ohms
SPEAKER:	accepts impedance of 6 to 16 ohms
SUB WOOFER OUT:	accepts impedance of 6 to 16 ohms

## CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser ( $\lambda=780$ nm) Emission duration: continuous
Frequency response	2 Hz – 20 kHz ( $\pm 0.5$ dB)
Wavelength	780 – 790 nm
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB

## Tape deck section

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

## Tuner section

FM stereo, FM/AM superheterodyne tuner

### FM tuner section

Tuning range	
Russian models	65.0 – 74.0 MHz (There is no stereo effect) 87.5 – 108.0 MHz
Other models	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

### AM tuner section

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

## Speaker

### North American models:

#### Front speaker SS-RG440 for HCD-GX45:

Speaker system	3-way, 3-unit, bass-reflex type
Speaker units	
Sub Woofer:	13 cm, cone type
Woofer:	13 cm, cone type
Tweeter:	5 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 240 × 325 × 243 mm
Mass	Approx. 4.3 kg net per speaker

### Sub woofer speaker SS-WG990 for HCD-GX45:

Speaker system	Bass-reflex type
Speaker units	
Woofer:	20 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 265 × 325 × 350 mm
Mass	Approx. 6.4 kg

### European and Russian models:

#### Front speaker SS-RG440 for HCD-RG440:

Speaker system	3-way, 3-unit, bass-reflex type
Speaker units	
Woofer:	13 cm, cone type
Sub Woofer:	13 cm, cone type
Tweeter:	5 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 240 × 325 × 243 mm
Mass	Approx. 4.3 kg net per speaker

### Sub woofer speaker SS-WG990 for HCD-RG440:

Speaker system	Bass-reflex type
Speaker units	
Woofer:	20 cm, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 265 × 325 × 350 mm
Mass	Approx. 6.4 kg

## General

Power requirements	
North American models:	120 V AC, 60 Hz
European and Russian models:	230 V AC, 50/60 Hz
Australian model:	230 – 240 V AC, 50/60 Hz
Argentine model:	220 V AC, 50/60 Hz
Mexican model:	127 V AC, 60 Hz
Saudi Arabian model:	120 – 127 V/220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Korean model:	220 V AC, 60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	
USA model:	
HCD-GX45:	180 watts
European and Russian models:	
HCD-RG440:	150 watts 0.35 watts (at the Power Saving Mode)
Other models:	
HCD-RG440:	150 watts
Dimensions (w/h/d)	Approx. 280 × 325 × 407 mm

Mass	
North American models:	
HCD-GX45:	Approx. 9.0 kg
European and Russian models:	
HCD-RG440:	Approx. 9.0 kg
Supplied accessories:	AM loop antenna (1) Remote Commander (1) Batteries (2) FM lead antenna (1) Speaker pads (12)

*Design and specifications are subject to change without notice.*

## SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  $\triangle$  OR DOTTED LINE WITH MARK  $\triangle$  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.

## ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  $\triangle$  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

**CAUTION**

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

**Notes on Chip Component Replacement**

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

**Flexible Circuit Board Repairing**

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

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

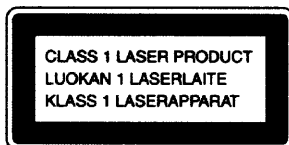
The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body. During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter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

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

**NOTES ON LASER DIODE EMISSION CHECK**

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

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



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

**SETTING AND RELEASING THE CD DISC TRAY LOCK FUNCTION**

This set has a disc tray lock function to prevent discs for demonstration at shops from theft. While this lock function is set, the tray will not be delivered out even when the OPEN/CLOSE button is pressed.

**Setting method:**

Press the OPEN/CLOSE button while pressing the STOP button. After a few seconds, the message "LOCKED" will appear on the fluorescent indicator tube with the tray locked.

**Releasing method:**

Just as the lock is set, press the OPEN/CLOSE button while pressing the STOP button. After a few seconds, the message "UNLOCKED" will appear with the lock released.

**SAFETY CHECK-OUT**

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

**LEAKAGE TEST**

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

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

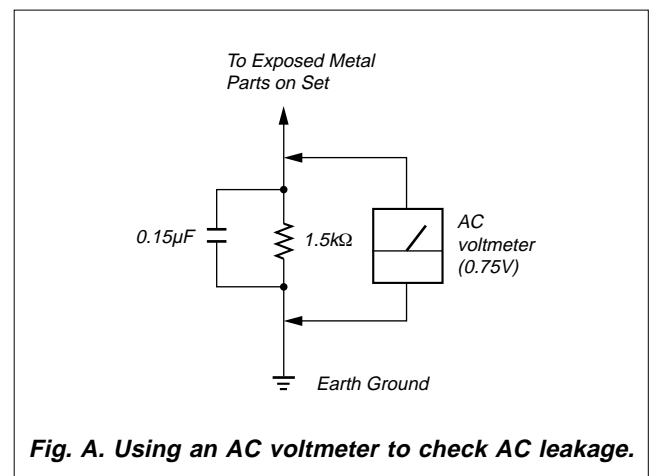


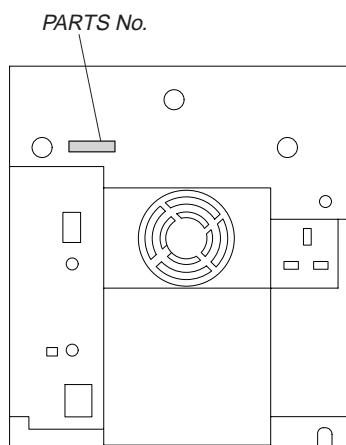
Fig. A. Using an AC voltmeter to check AC leakage.

**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	PARTS No.
GX45: US, CND	4-244-697-31
RG440: AEP, UK, AUS	4-244-697-41

- Abbreviation  
CND : Canadian model  
AUS : Australian model

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### 7. ELECTRICAL PARTS LIST .....

SECTION 1  
GENERAL

This section is extracted from instruction manual.

List of button locations and reference pages

How to use this page

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

Illustration number	Name of button/part	Reference page
↑	TAPE A/B 26	16, 17
↑		
↑		

Main unit

ALPHABETICAL ORDER

A - L

- ALBUM +\* 13 (10, 12)
- ALBUM -\* 20 (10, 12)
- CD 28 (9, 12, 17)
- CD SYNC 24 (17)
- Deck A 21 (16)
- Deck B 14 (16, 17)
- DISC 1 - 3 8 (10, 12)
- DISC SKIP/EX-CHANGE 9 (9, 10)

M - Z

- MOVIE EQ 12 (18)
- MUSIC EQ 12 (18)
- PHONES jack 17
- Power illuminator 5 (24)
- Remote sensor 3
- REC PAUSE/START 23 (17, 19)
- TAPE A/B 26 (16, 17)
- TUNER/BAND 27 (13, 14, 17)
- VOLUME control 16 (18, 20)

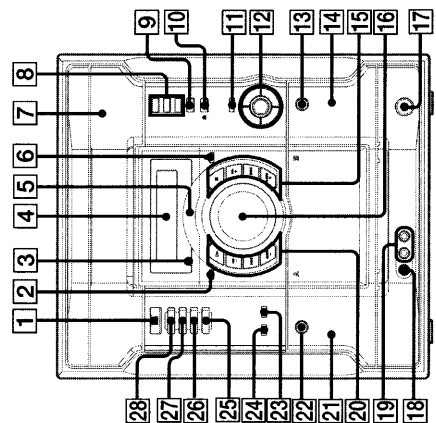
- Disc tray 7 (9)
- DISPLAY 2 (15, 22, 23)
- Display window 4
- EFFECT ON/OFF 11 (18)
- GAME 25 (19, 25)
- GAME EQ 12 (18)
- GAME INPUT AUDIO L/R jacks 19 (25)
- GAME INPUT VIDEO jack 18 (25)
- GAME MIXING 12 (19)
- GROOVE 12 (18, 28)

BUTTON DESCRIPTIONS

- I/⏻ (power) 1 (7, 14, 20, 26, 28)
- ⏮ (pause) 6 (10, 16)
- ⏪ (eject) 10 (9)
- PUSH ▲ (deck B) (eject) 13 (16)
- (stop) 15 (10, 16, 17)
- ▶▶+ (fast forward) 15 (10, 13, 16, 20)
- ▶▶ (go forward) 15 (8, 10, 13, 16, 20)
- ◀ (play) 20 (10, 16)
- ◀◀ (rewind) 20 (10, 13, 16, 20)
- ◀◀ (go back) 20 (8, 10, 13, 16, 20)
- ▶ (PUSH (deck A) (eject) 22 (16)

Additional Information

\* MHC-GX45/GX35/RG440S/RG330/RG310 and MHC-RG220 (European and Russian models) only



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ALPHABETICAL ORDER

A - H

- ALBUM +/- 14 (10, 12)
- CD 19 (9, 12, 17)
- CLEAR 5 (12)
- CLOCK/TIMER SELECT 2 (21, 22)
- CLOCK/TIMER SET 3 (8, 20, 21)
- DISPLAY 6 (15, 22, 23)
- D. SKIP 7 (10)
- ENTER 16 (8, 12, 13, 20, 21)
- FM MODE 21 (15)
- GAME (MD)\* 19 (19, 25)
- GROOVE 13 (18, 28)

I - Z

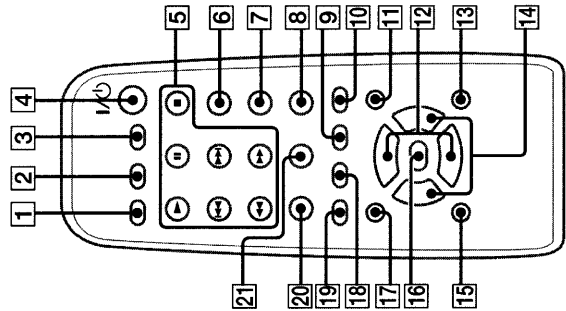
- ILLUMINATION 15 (24)
- PLAY MODE 20 (10, 12, 16)
- PRESET EQ 17 (18)
- PRESET +/- 5 (13, 14)
- REPEAT 21 (11)
- SLEEP 1 (20)
- SURROUND 11 (19)
- TAPE A/B 9 (16, 17)
- TUNER/BAND 18 (13, 14, 17)
- TUNER MEMORY 8 (13)
- TUNING +/- 5 (13, 15)
- VOL +/- 12 (18, 20)

\* This button is used to switch to GAME function.

BUTTON DESCRIPTIONS

- I/⏻ (power) 4 (7, 14, 20, 26, 28)
- ◀◀/▶▶ (rewind/fast forward) 5 (10, 16)
- ◀◀/▶▶ (go back/go forward) 5 (8, 10, 13, 16, 20)
- ▶ (play) 5 (10, 16)
- ⏮ (pause) 5 (10, 16)
- (stop) 5 (10, 16, 17)

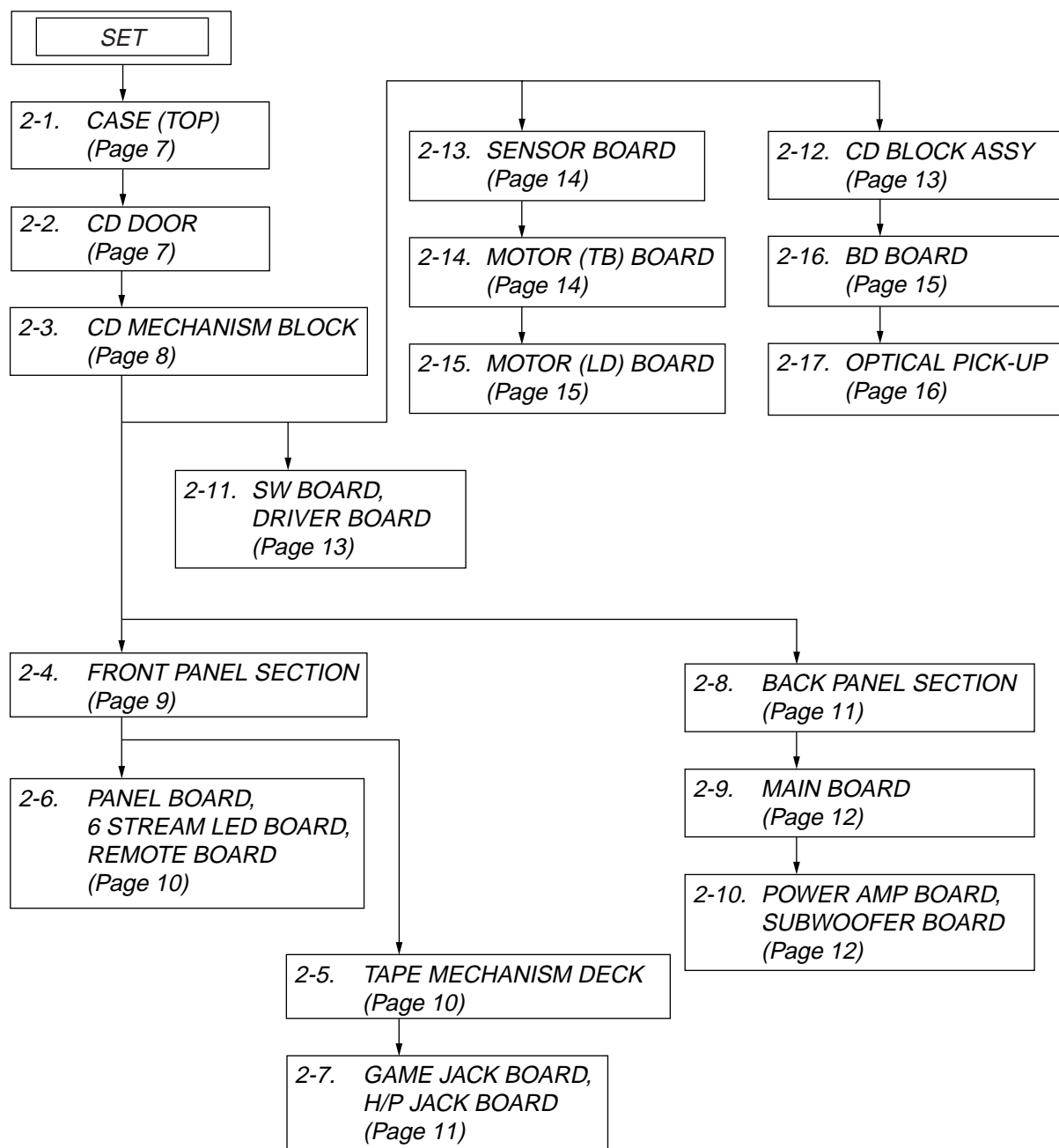
Additional Information



continued 37 GB

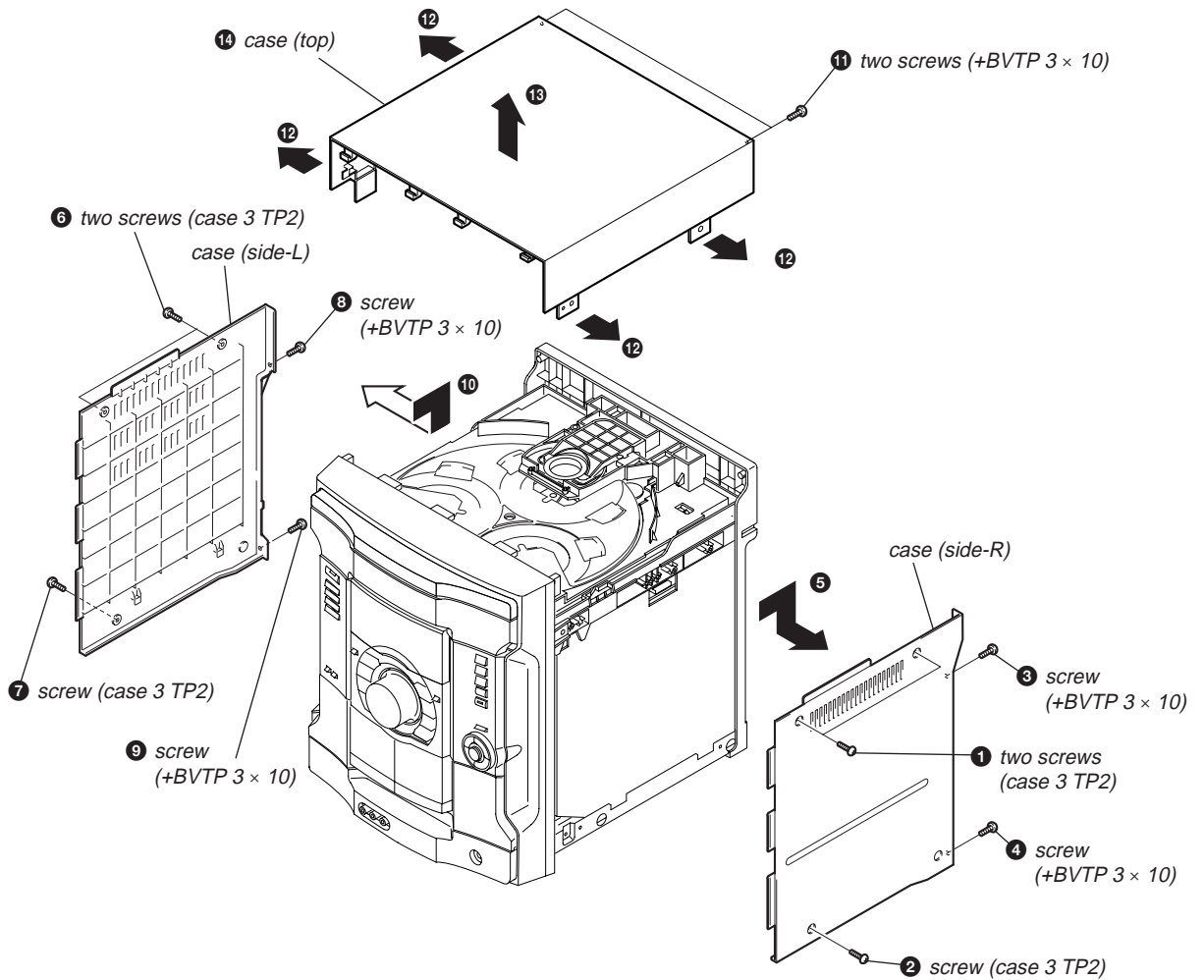
**SECTION 2  
DISASSEMBLY**

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

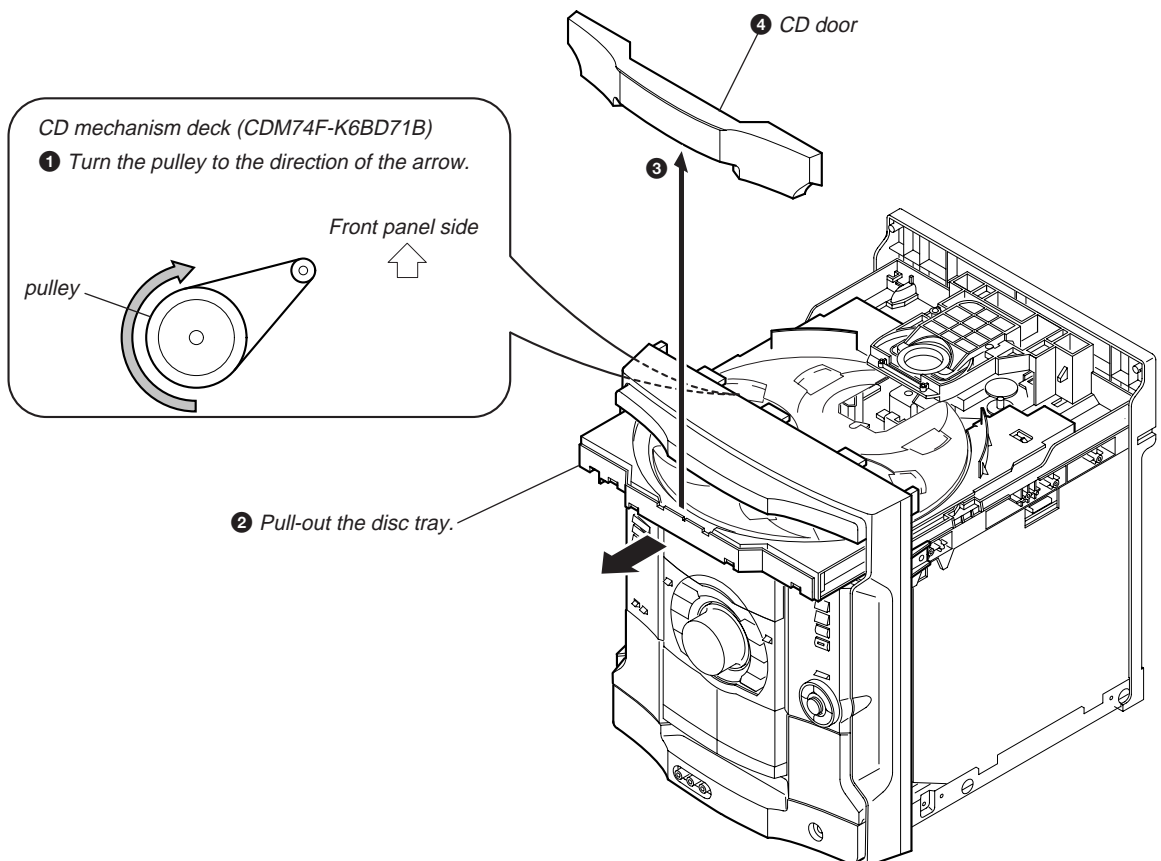


Note : Follow the disassembly procedure in the numerical order given.

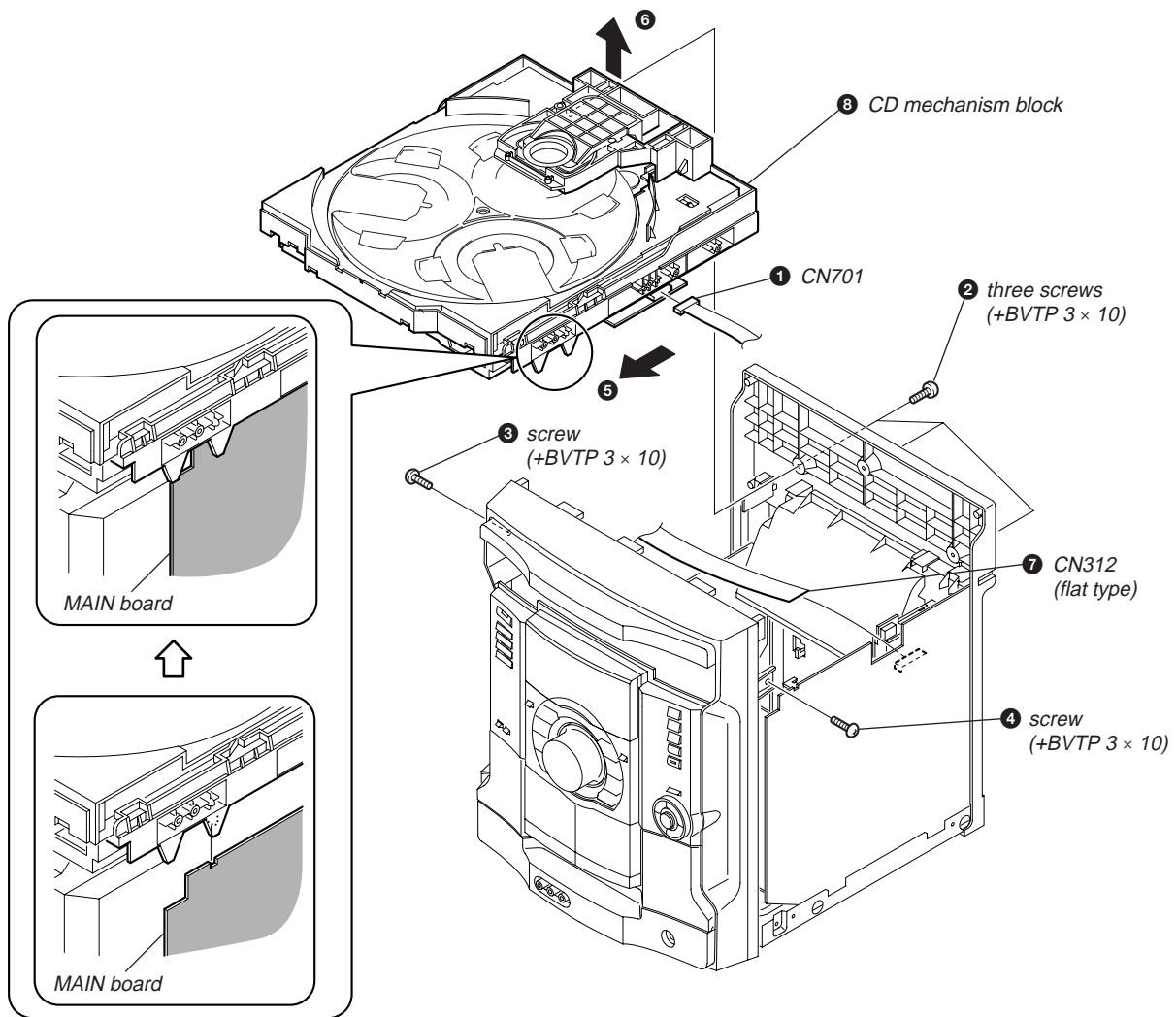
**2-1. CASE (TOP)**



**2-2. CD DOOR**

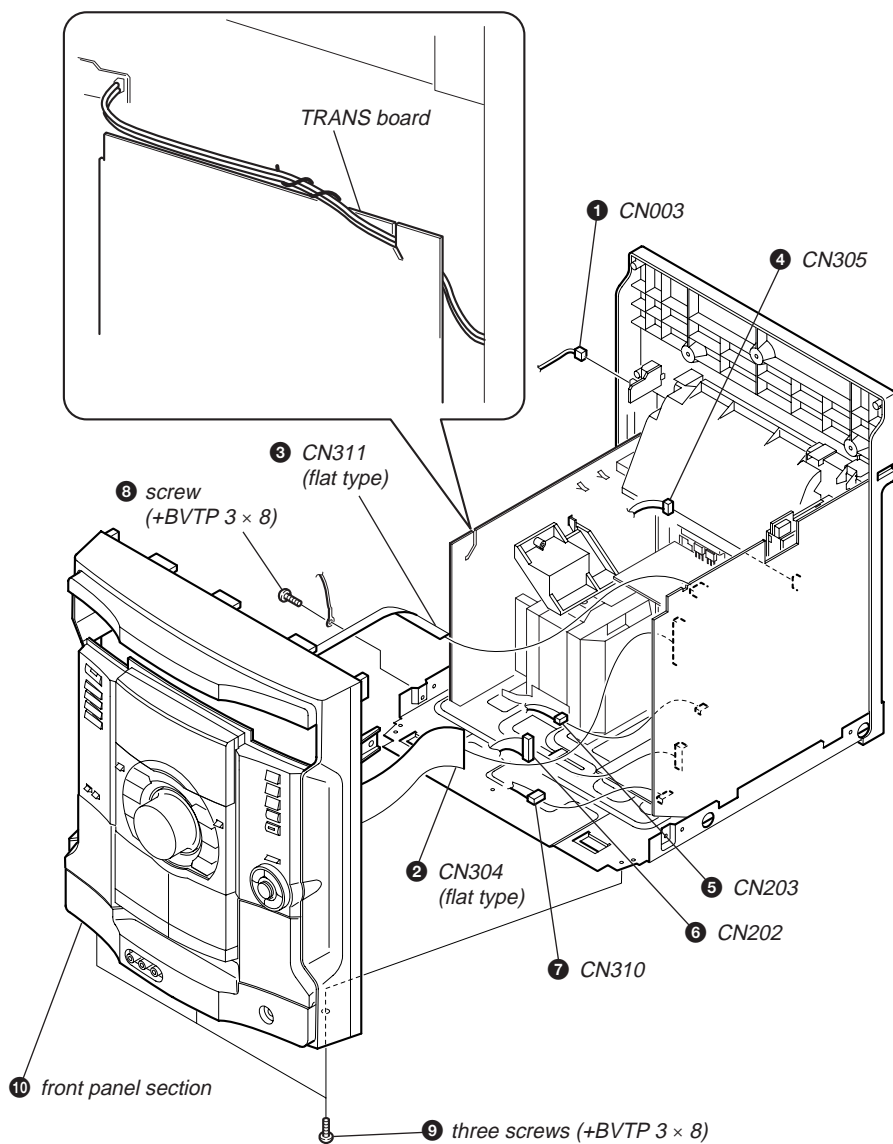


## 2-3. CD MECHANISM BLOCK

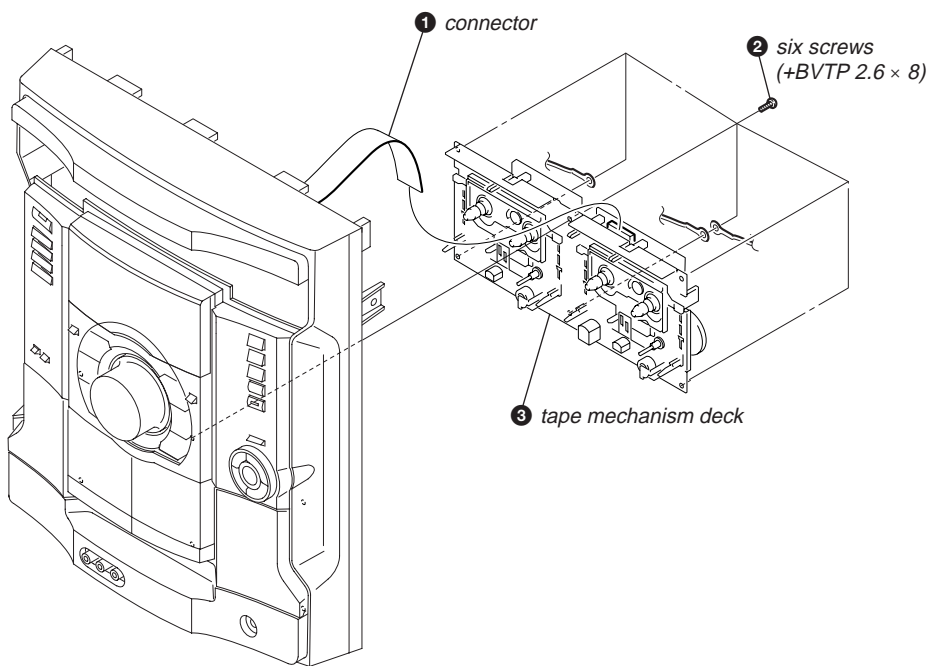




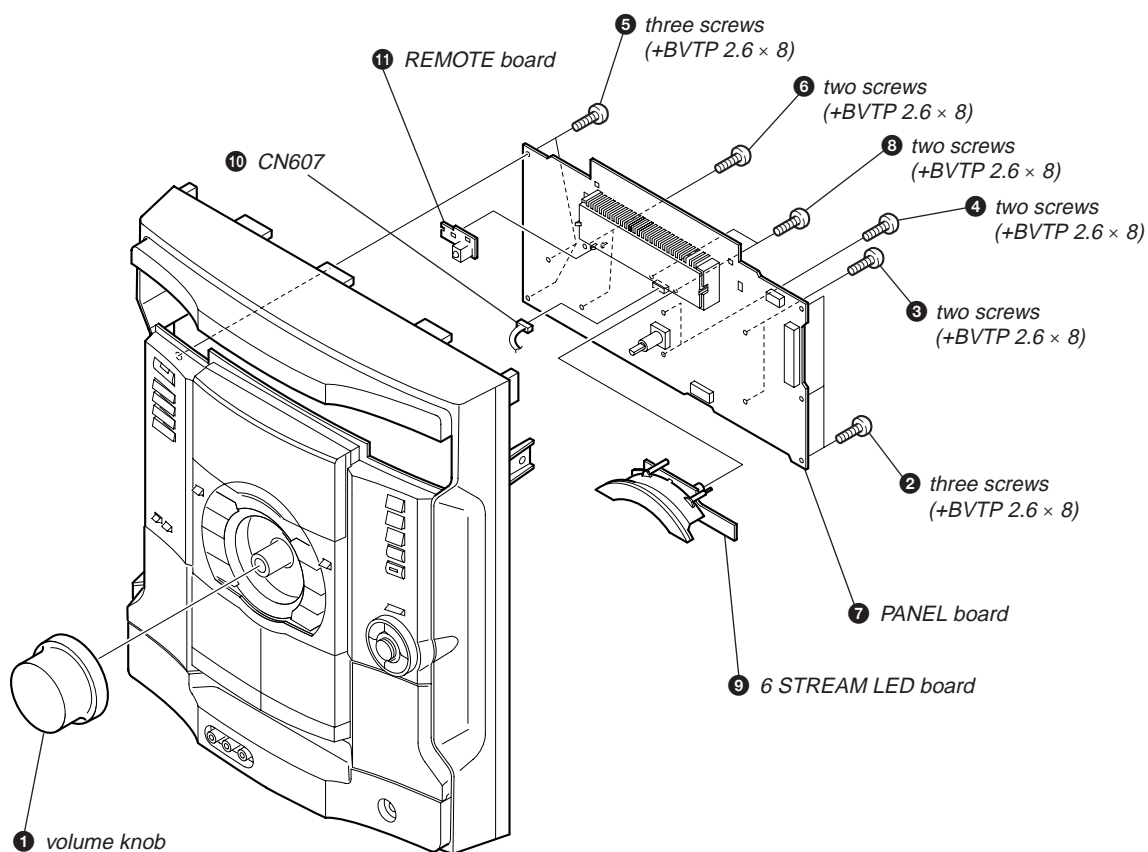
2-4. FRONT PANEL SECTION



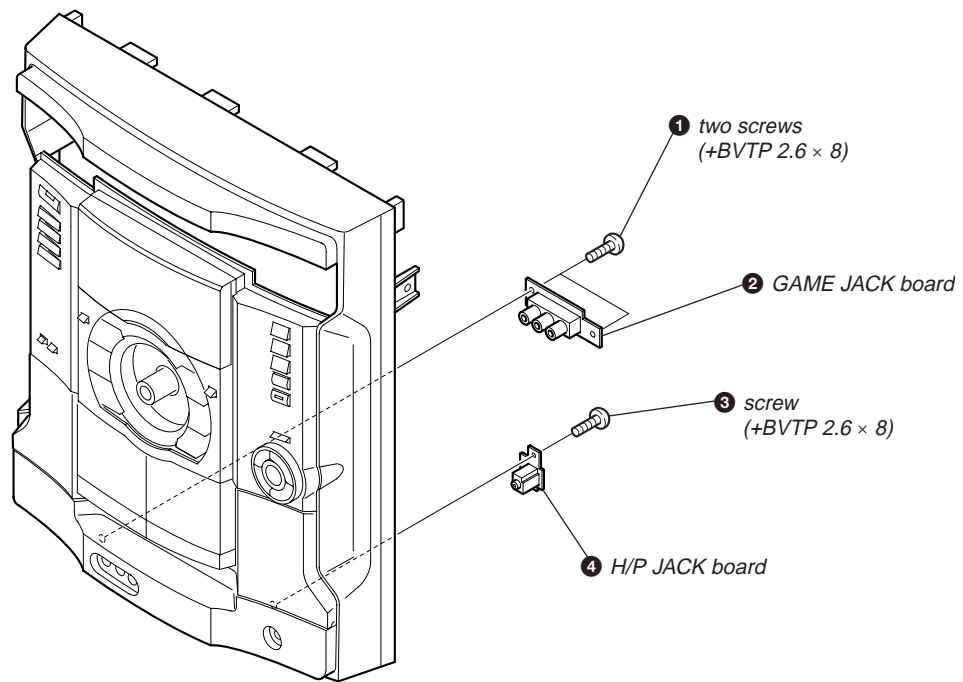
## 2-5. TAPE MECHANISM DECK



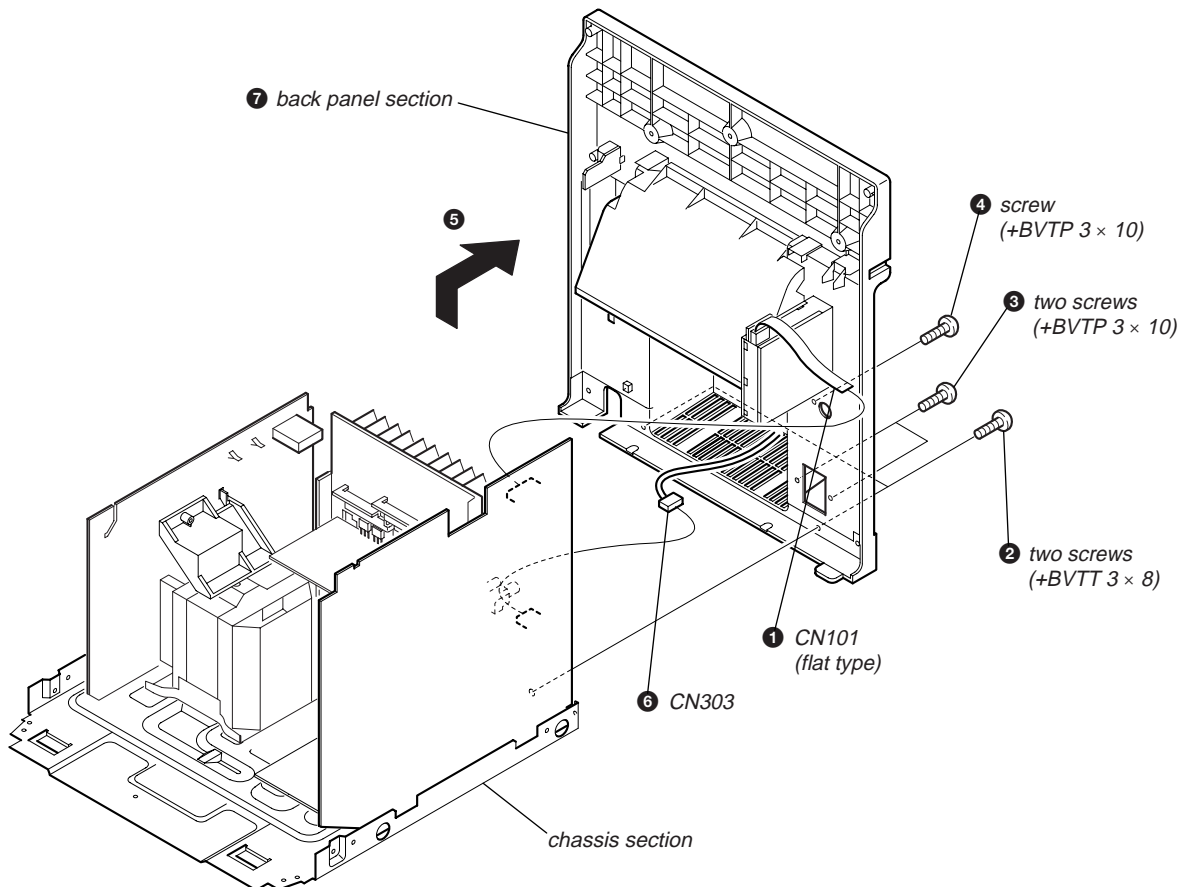
## 2-6. PANEL BOARD, 6 STREAM LED BOARD, REMOTE BOARD



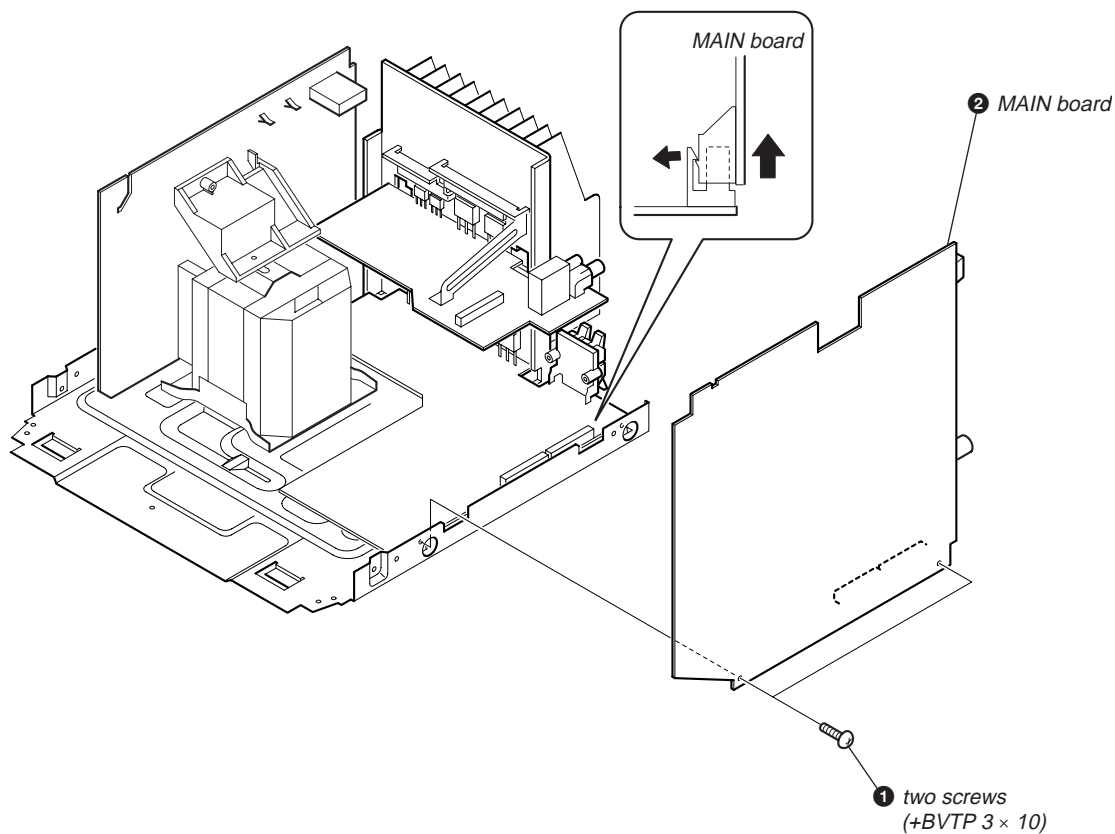
2-7. GAME JACK BOARD, H/P JACK BOARD



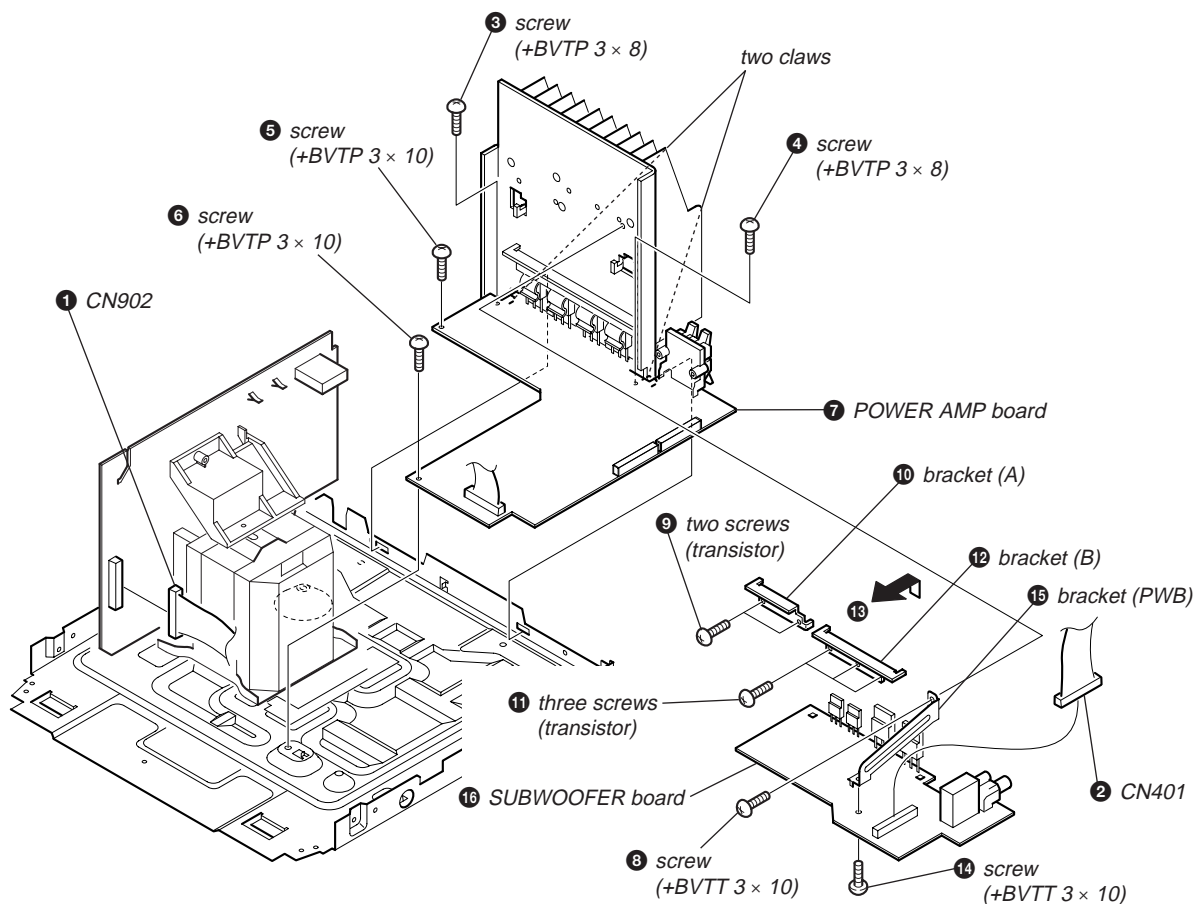
2-8. BACK PANEL SECTION



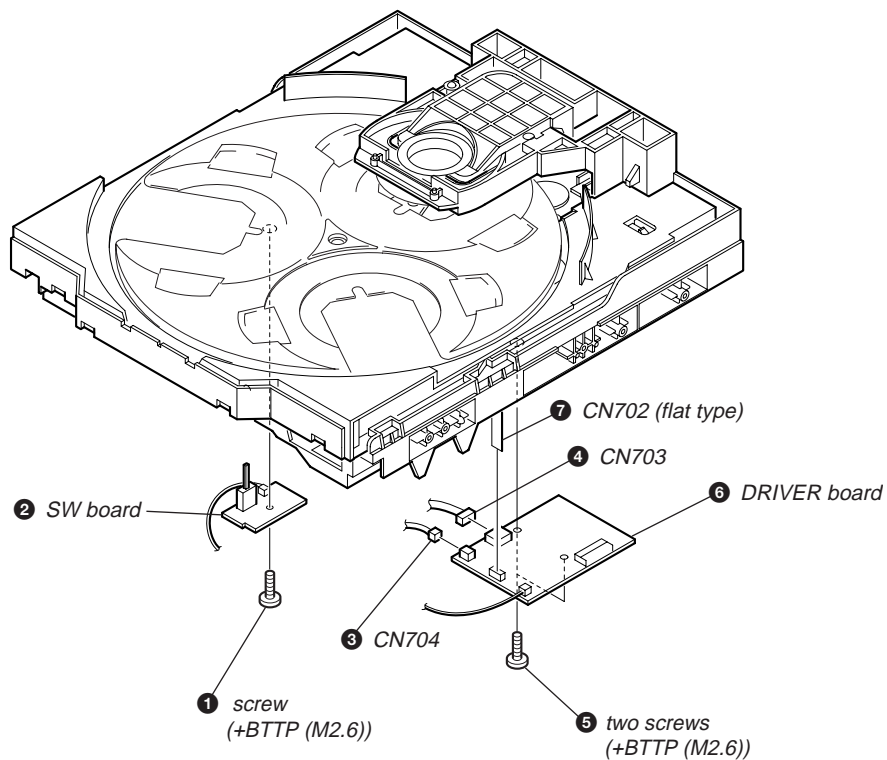
## 2-9. MAIN BOARD



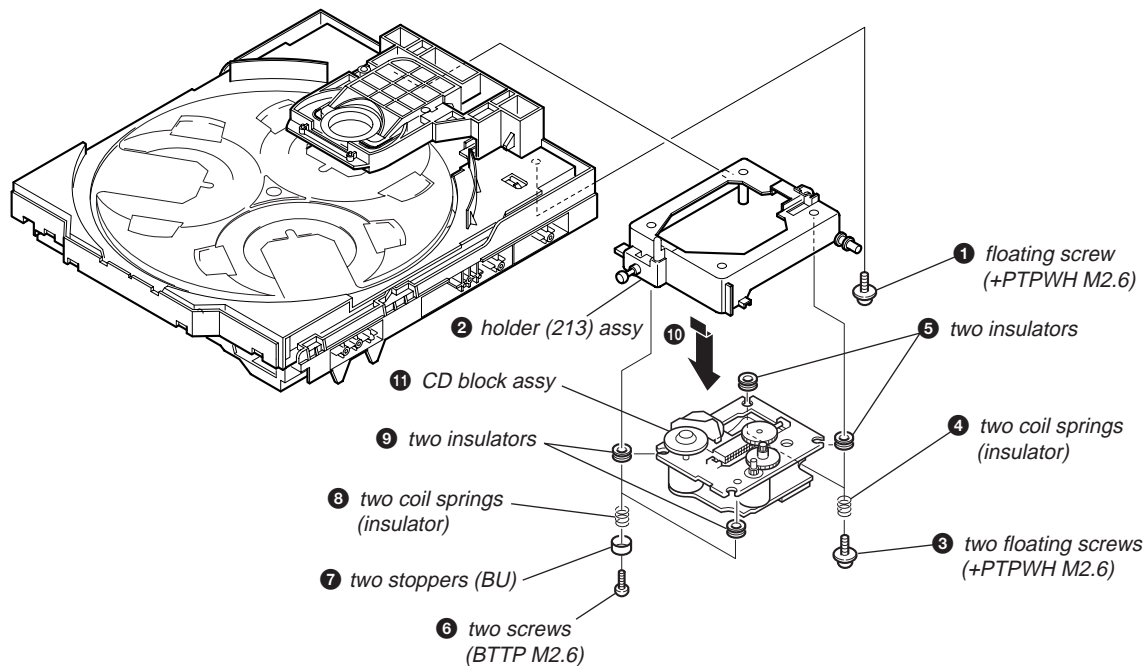
## 2-10. POWER AMP BOARD, SUBWOOFER BOARD



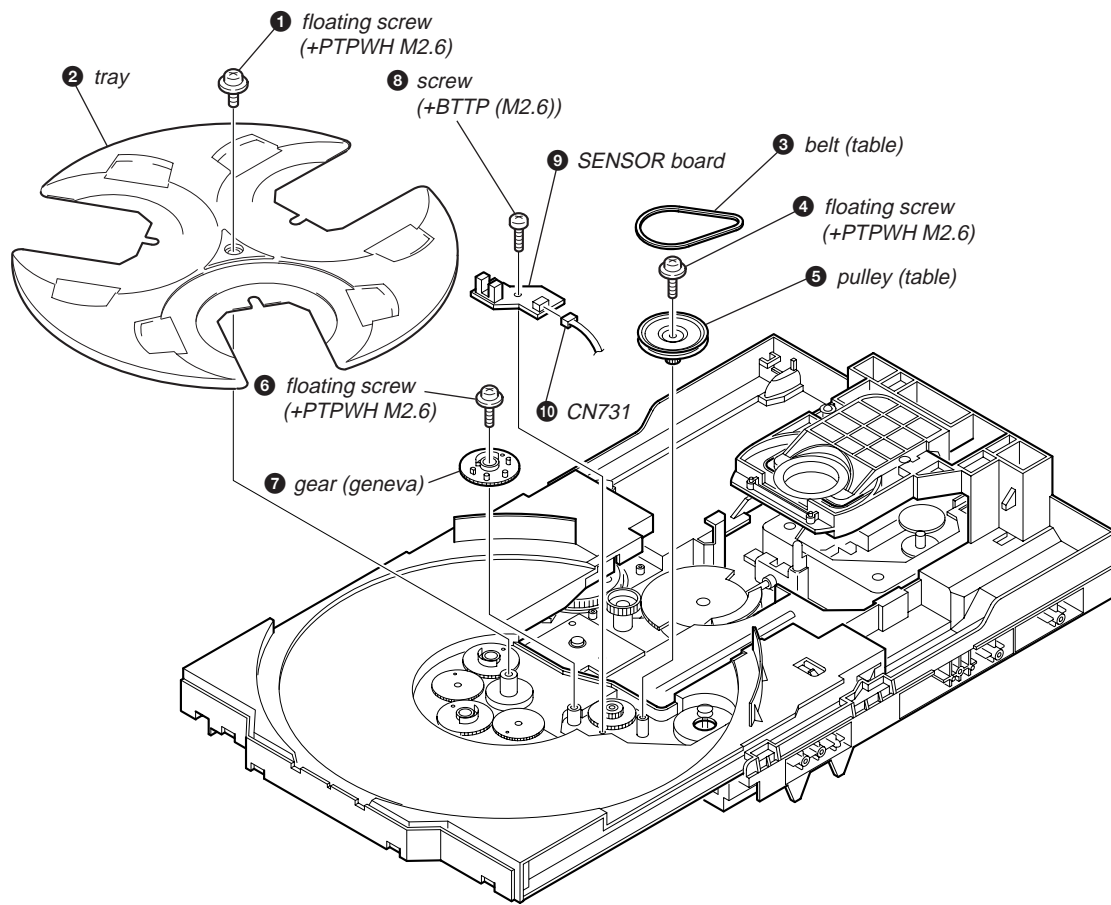
2-11. SW BOARD, DRIVER BOARD



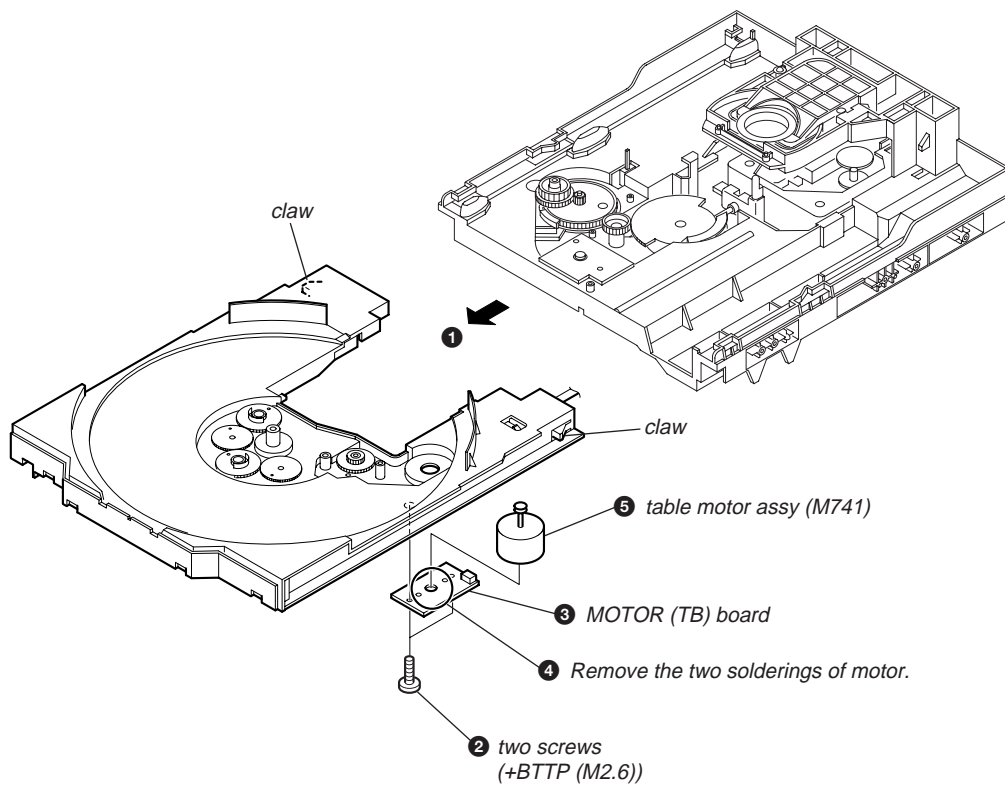
2-12. CD BLOCK ASSY



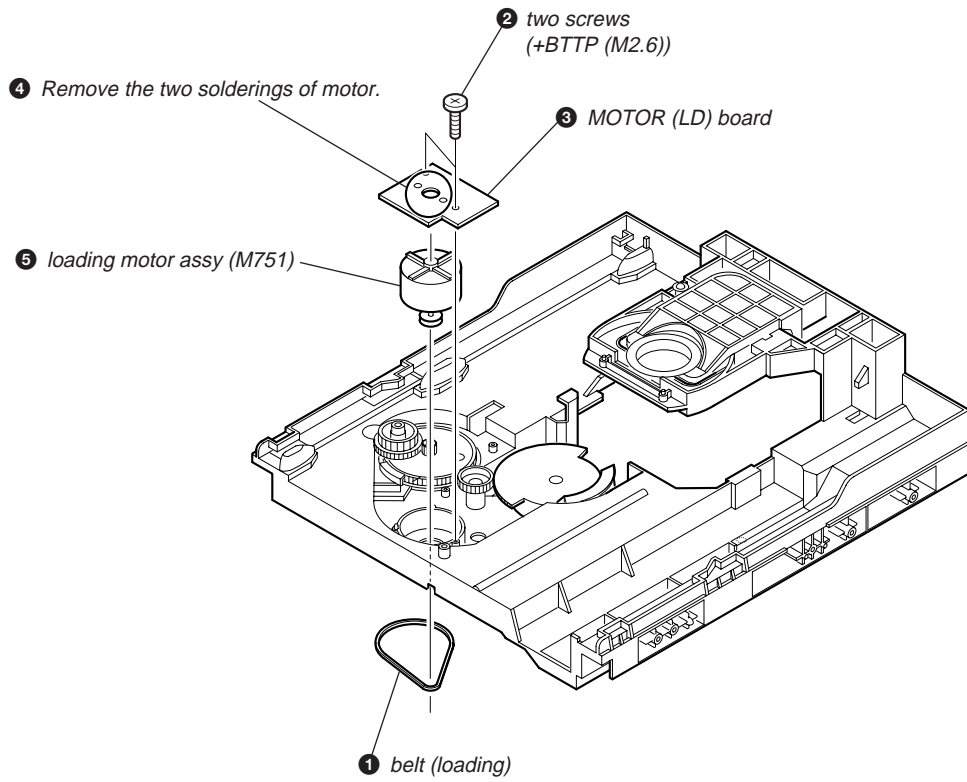
## 2-13. SENSOR BOARD



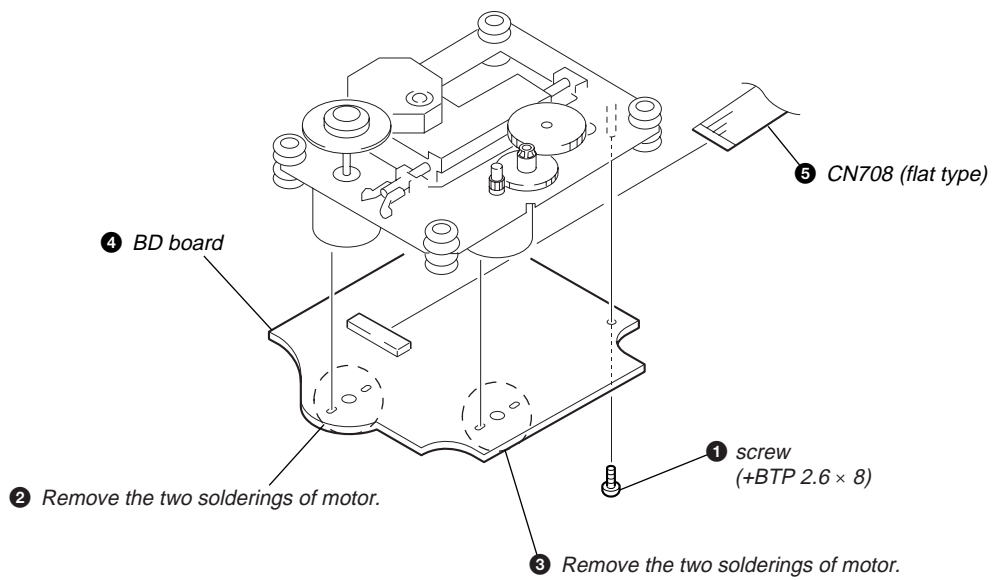
## 2-14. MOTOR (TB) BOARD



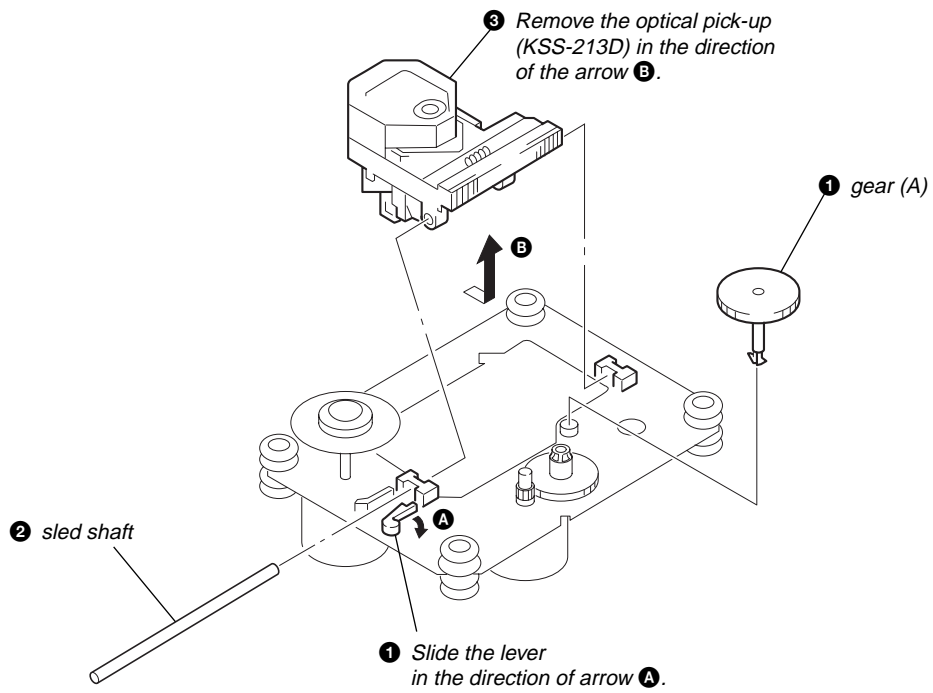
2-15. MOTOR (LD) BOARD



2-16. BD BOARD



## 2-17. OPTICAL PICK-UP





## SECTION 3 TEST MODE

### [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 the **[POWER]** key to turn the power ON.
2. Press three keys of **[■]**, **[GROOVE]** and **[POWER]** simultaneously.
3. The message "COLD RESET" is displayed on the fluorescent indicator tube momentarily, then becomes standby states.

### [TUNER STEP CHANGE-OVER]

#### (Except AEP and UK models)

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

#### Procedure:

1. Press the **[POWER]** key to turn the power ON.
2. Press the **[TUNER BAND]** key to select "AM".
3. Press the **[POWER]** key to turn the power OFF.
4. Press two keys of **[TUNER/BAND]** and **[POWER]** simultaneously.
5. The message "9K STEP" or "10K STEP" is displayed on the fluorescent indicator tube, and thus the channel step is changed over.

### [CD SHIP MODE]

- 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 the **[POWER]** key to turn the power ON.
2. Press the **[CD]** key to select "CD".
3. Press two keys of **[CD]** and **[POWER]** simultaneously.
4. The message "LOCK" is displayed on the fluorescent indicator tube, and the CD ship mode is set.

### [CD TRAY LOCK MODE]

- This mode is used to unable to take sample disc out of tray in the shop.

#### Procedure:

1. Press the **[POWER]** key to turn the power ON.
2. Press the **[CD]** key to select "CD".
3. Set disc on the tray.
4. While pressing the **[■]** key, press the **[▲]** key for 5 seconds.
5. The message "LOCKED" is displayed on the fluorescent indicator tube and the tray is locked. (Even if pressing the **[▲]** key, the message "LOCKED" is displayed on the fluorescent indicator tube and the tray is locked)
6. To release from this mode, while pressing the **[■]** key, press the **[▲]** key for 5 seconds.
7. The message "UNLOCKED" is displayed on the fluorescent indicator tube and the tray is unlocked.

### [AMP TEST MODE]

- This mode is used to set the parameter of AMP IC for adjustment of tone quality and VACS level and display VACS status.

#### Procedure:

1. Press the **[POWER]** key to turn the power ON.
2. Press three keys of **[■]**, **[GAME EQ]** and **[EFFECT ON/OFF]** simultaneously.
3. When the AMP test mode is activated, the message "AMP TEST" is displayed on the fluorescent indicator tube momentarily.
4. Press two keys of **[GAME EQ]** and **[DISC 2]** simultaneously, mode is changed over to parameter setting of AMP IC and display of VACS status.
5. When the VACS status, the message VACS level, VACS signal level, and VACS signal hold level is displayed on the fluorescent indicator tube.
6. Press the **[GROOVE]** key, DBFB ON/OFF is changed over.
7. Press the **[GAME MIXING]** key, surround ON/OFF is changed over.
8. To release from this mode, press two keys of **[GAME EQ]** and **[MOVIE EQ]** simultaneously.

## [AGING MODE]

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

CD section and tape deck section work in parallel.

### If an error occurred:

The aging operation stops only an error occurred sections and display then status.

### If no error occurs:

The aging operation continues repeatedly.

### Procedure:

- Press the [POWER] key to turn the power ON.
- Press the [CD] key to select "CD".
- Set disc on the tray and set tape into the deck.
- Set the "ALL DISCS" mode and "REV OFF" mode.
- Press three keys of [STOP], [GAME EQ] and [DISC SKIP/EX-CHANGE] simultaneously.
- The message "AGING" is displayed on the fluorescent indicator tube momentarily, then aging operations of CD and tape are started at the same time.
- To release from this mode, operate the "COLD RESET".

### 1. Display at the Aging Mode

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

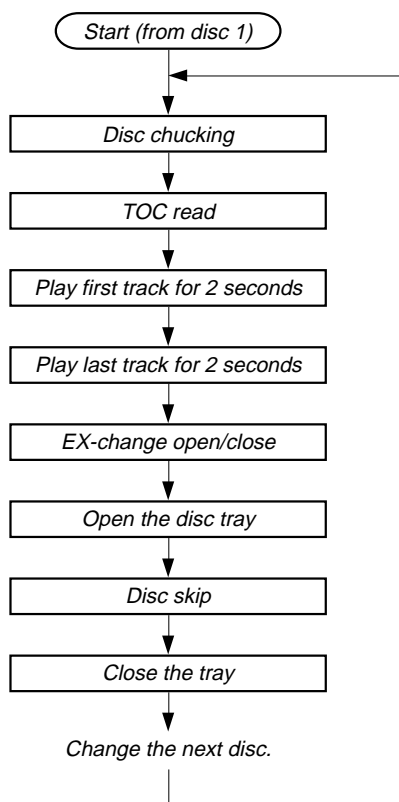
If an error occurred, stop display which that section.

### 2. CD Section

The sequence during the aging mode is following as below.

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

#### Aging mode sequence (CD section) :

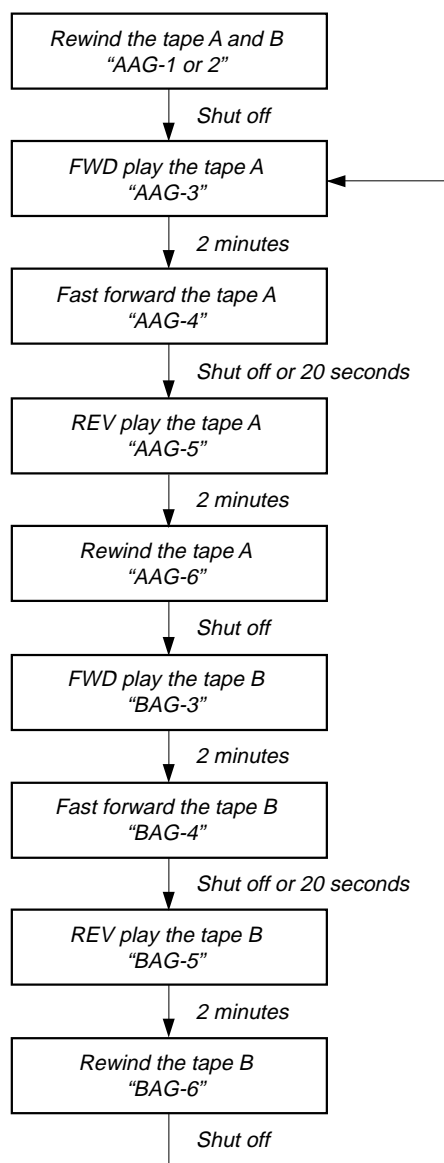


### 3. Tape Deck Section

The sequence during the aging mode is following as below.

If an error occurred, stop display that step.

#### Aging mode sequence (tape deck section) :



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

**[GC TEST MODE]**

- This mode is used to check the fluorescent indicator tube, LED and key.

**Procedure:**

1. Press the **[POWER]** key to turn the power ON.
2. Press three keys of **[■]**, **[GAME EQ]** and **[DISC 2]** simultaneously.
3. Fluorescent indicator tube and LEDs are all turned ON.
4. Press two keys of **[GAME EQ]** and **[DISC 2]** simultaneously, mode is changed over.
5. In the key check mode, press each key, the defined key number of every each key list is displayed on the fluorescent indicator tube.
6. In the key count check mode, "KEYCNT 0" is displayed on the fluorescent indicator tube. Each time a key is pressed, "KEYCNT" value increases. However, once a key is pressed, it is no longer taken into account.
7. In the headphone input check mode, connect the headphone, the message "H\_P ON" is displayed on the fluorescent indicator tube, and disconnect the headphone, the message "H\_P OFF" is displayed on the fluorescent indicator tube.
8. In the volume check mode, turn the **[VOLUME]** knob, the display on the fluorescent indicator tube is changed over to "VOLUME UP", "VOLUME FLAT" or "VOLUME DOWN"

**[MC TEST MODE]**

- This mode is used to check operations of Amplifier.

**Procedure:**

1. Press the **[POWER]** key to turn the power ON.
2. Press three keys of **[■]**, **[GAME EQ]** and **[DISC 3]** simultaneously.
3. When the MC test mode is activated, the message "TEST MODE" is displayed on the fluorescent indicator tube momentarily, then VACS level is displayed on the fluorescent indicator tube.
4. Press the **[MUSIC EQ]** key, the display on the fluorescent indicator tube is changed over to "GEQ MAX", press the **[EFFECT ON/OFF]** key, the display on the fluorescent indicator tube is changed over to "GEQ FLAT", press the **[MOVIE EQ]** key, the display on the fluorescent indicator tube is changed over to "GEQ MIN",
5. Turn the **[VOLUME]** knob, the display on the fluorescent indicator tube is changed over to "VOLUME MAX", "VOLUME 16" or "VOLUME MIN"
6. Press the **[GROOVE]** key, VACS ON/OFF is changed over.
7. When the **[REC PAUSE/START]** key is pressed with a tape set in the deck-B, the function is switched "MD" or "VIDEO" and recording starts. When the **[◀▶]** or **[▶▶]** key is pressed during recording, the tape is rewind back to the beginning of recording, the function is switched to "TAPE B", then playback starts.
8. When the **[CD SYNC]** key is pressed with the test tape (AMS-100, AMS-110A) in the deck, number of space between tunes is counted, then if AMS-110A is set, "OK" is displayed on the fluorescent indicator tube and if AMS-100 is set, "NG" is displayed on the fluorescent indicator tube.
9. To release from this mode, press the **[POWER]** key.

**[MODEL, DESTINATION AND VERSION DISPLAY]**

- This mode is used to check the model, destination and software version.

**Procedure:**

1. Set to the standby state.
2. Press three keys of **[■]**, **[GAME EQ]** and **[MOVIE EQ]** simultaneously.
3. When the model, destination and version display mode is activated, the model and destination is displayed on the fluorescent indicator tube.
4. Press two keys of **[GAME EQ]** and **[DISC 2]** simultaneously, mode is changed over to model and destination display mode and version display mode.
5. To release from this mode, press the two keys of **[GAME EQ]** and **[MOVIE EQ]** simultaneously.

**[CD ERROR CODE DISPLAY]**

- This mode can be used for error display of CD section.

**Procedure:**

1. Press the **[POWER]** key to turn the power ON.
2. Press the **[CD]** key to select "CD".
3. Press three keys of **[■]**, **[GAME EQ]** and **[DISC 1]** simultaneously.

**Note:** Error code is not displayed on the fluorescent indicator tube.

**[CD SERVICE MODE]**

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

**Procedure:**

1. Press the **[POWER]** key to turn the power ON.
2. Press the **[CD]** key to select "CD".
3. Press three keys of **[■]**, **[GAME EQ]** and **[▲]** simultaneously.
4. When the CD service mode is activated, the message "TRAVERS ON" is displayed on the fluorescent indicator tube.
5. Press the **[▶▶]** key, optical pick-up move to outside track and the message "SLED OUT" is displayed on the fluorescent indicator tube.
6. Press the **[◀◀]** key, optical pick-up move to inside track and the message "SLED IN" is displayed on the fluorescent indicator tube..
7. Press the **[MOVIE EQ]** key, traverse ON/OFF is changed over.

**[5 REPEAT LIMIT CANCEL]**

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

**Procedure:**

1. Press the **[POWER]** key to turn the power ON.
2. Press the **[CD]** key to select "CD".
3. Press three keys of **[■]**, **[GAME EQ]** and **[▶]** simultaneously.

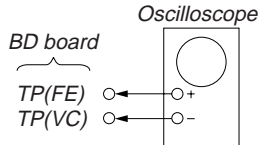
## SECTION 4 ELECTRICAL ADJUSTMENTS

### CD SECTION

**Note:**

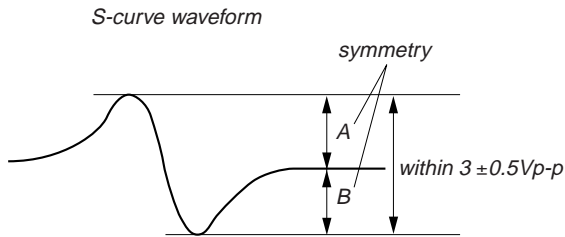
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MW impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal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

### S-CURVE CHECK



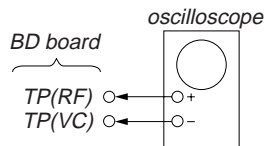
**Procedure :**

1. Connect an oscilloscope to TP (FE) and TP (VC).
2. Turn the power on.
3. Load a disc (YEDS-18) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search)
4. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within  $3 \pm 0.5 V_{p-p}$ .



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

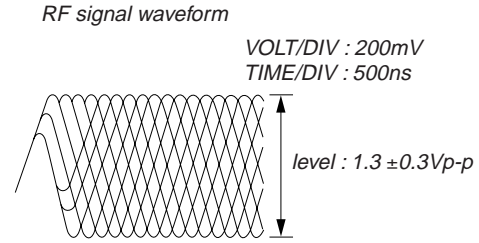
### RF LEVEL CHECK



**Procedure :**

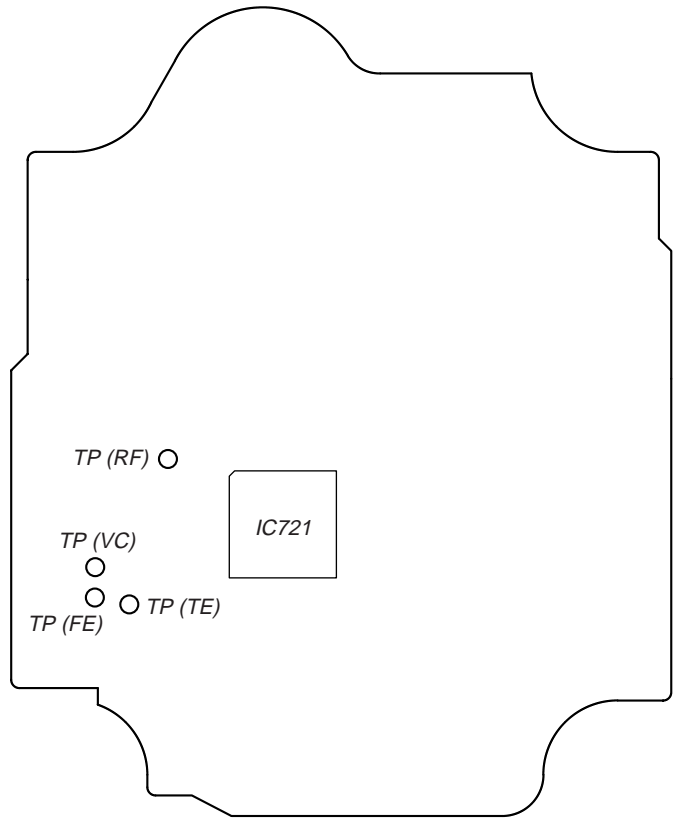
1. Connect an oscilloscope to TP (RF) and TP (VC).
2. Turn the power on.
3. Load a disc (YEDS-18) and playback.
4. Confirm that oscilloscope waveform is clear and check if RF signal level is correct or not.

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



**Connecting Location:** BD board

– BD Board (Conductor side) –



## SECTION 5 DIAGRAMS

### 5-1. IC PIN DESCRIPTIONS

#### • IC309 BU2099FV (MULTI CONTROLLER) (MAIN BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	VSS	—	Ground pin
2	NC	—	Not used. (Open)
3	DATA	I	Serial data input from the tape mechanism controller
4	CLOCK	I	Serial data transfer clock signal input from the system controller
5	LCK	I	Serial data latch pulse clock signal input from the system controller
6	$\overline{\text{REC}}$	O	Recording on/off control signal output “L”: recording
7	$\overline{\text{BIAS}}$	O	Recording bias on/off control signal output “L”: bias on
8	$\text{A}/\overline{\text{B}}$	O	Deck-A/B selection signal output to the deck-A/B select switch “L”: deck-B, “H”: deck-A
9	PB MUTE	O	Playback muting on/off control signal output to the recording/playback equalizer amplifier “H”: muting on
10	$\overline{\text{REC MUTE}}$	O	Recording muting on/off control signal output to the recording/playback equalizer amplifier “L”: muting on
11	TUNER MUTE	O	Tuner muting on/off control signal output to the tuner unit “H”: muting on
12	LM-R (CD)	O	Loading motor drive signal output
13	LM-L (CD)	O	Loading motor drive signal output
14	TM-R (CD)	O	Table motor drive signal output
15	TM-L (CD)	O	Table motor drive signal output
16	SP RERAY	O	Front speaker on/off relay drive control signal output “L”: front speaker on
17	LINK/MATRIX	O	Surround speaker on/off relay drive control signal output “H”: surround speaker on
18	SO	O	Serial data output to the bass boost controller
19	$\overline{\text{OE}}$	—	Not used. (Connect to ground.)
20	VDD	—	Power supply pin (+3.3 V)

• IC310 BU2099FV (BASS BOOST CONTROLLER) (MAIN BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	VSS	—	Ground pin
2	NC	—	Not used. (Open)
3	DATA	I	Serial data input from the multi controller
4	CLOCK	I	Serial data transfer clock signal input from the system controller
5	LCK	I	Serial data latch pulse clock signal input from the system controller
6 to 8	NC	—	Not used. (Open)
9	MOTOR VCC	O	Motor power control signal output “L”: motor power on
10	SOL A	O	SOL-A control signal output
11	SOL B	O	SOL-B control signal output
12	LINE OUT MUTE	O	Line out mute signal output terminal “H”: mute on Not used in this set. (Open)
13	CD MUTE	O	CD mute signal output terminal “H”: mute on Not used in this set. (Open)
14 to 16	CONT 1 to 3	O	Bass boost control signal output “H”: bass boost
17	NC	—	Not used. (Open)
18	SO	O	Serial data output Not used. (Open)
19	$\overline{\text{OE}}$	—	Not used. (Connect to ground.)
20	VDD	—	Power supply pin (+3.3 V)

## • IC601 LC876780B-51Y0-E (SYSTEM CONTROL, FLD CONTROL) (PANEL BOARD)

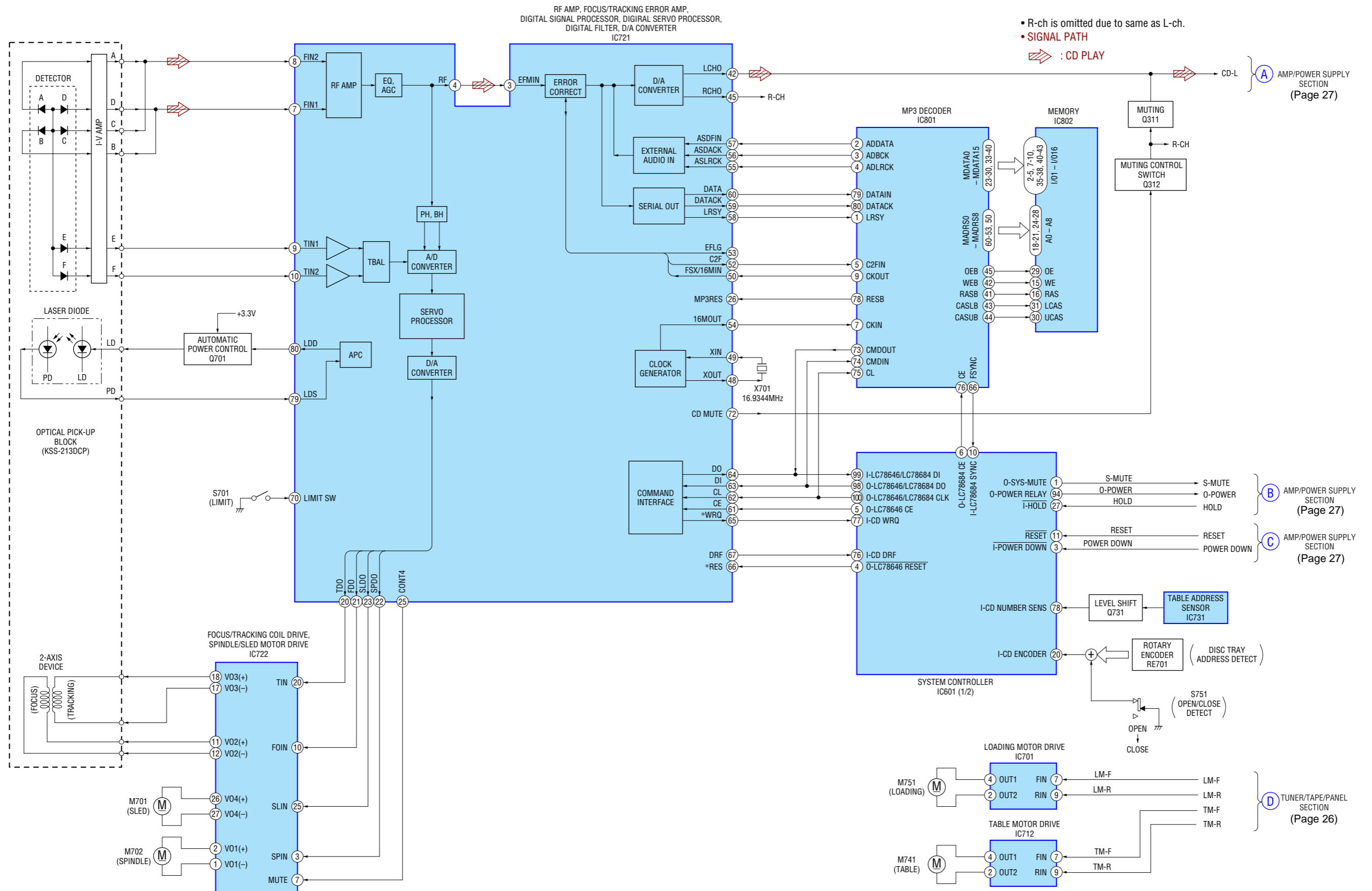
Pin No.	Pin Name	I/O	Pin Description
1	SYS MUTE	O	System mute signal output
2	BU1924 DATA	I	GX45: Not used. (Connected to ground.) RG440: Serial data signal input
3	PWR DOWN	I	Power down signal input
4	LC78646 RESET	O	CD reset signal output
5	LC78646 CE	O	CD CE signal output
6	LC78684 CE (MP3)	O	CD CE (MP3) signal output
7	M61519 CLK	O	Clock signal output
8	BU2099FV LCK	O	LCK signal output
9	LC72121 CE	O	CE signal output
10	LC78684 SYNC	I	SYNC signal input
11	RESET	I	Reset signal input from the IC603
12	XT1	I	Oscillator connect pin (32.768 kHz)
13	XT2	O	Oscillator connect pin (32.768 kHz)
14	VSS1	—	Ground pin
15	CF1	I	Ceramic vibrator connect pin (8.64 MHz)
16	CF2	O	Ceramic vibrator connect pin (8.64 MHz)
17	VDD1	—	Power supply pin (+3.3 V)
18	TAPE A STAT	I	Tape A start signal input
19	TAPE B STAT	I	Tape B start signal input
20	CD ENCODER	I	CD encoder switch signal input
21	SW ON/OFF SENSOR	I	Switch control on/off signal input
22	STREAM IN	I	Stream in signal input
23	VACS	I	VACS signal input
24	KEY2	I	Key signal input 2
25	KEY1	I	Key signal input 1
26	KEY0	I	Key signal input 0
27	PROTECTOR (HOLD)	I	Protector (Hold) signal input
28	REMOCON IN	I	Remote control signal input from the RM602
29	BU1924 CLK	I	GX45: Not used. (Connected to ground.) RG440: Serial clock signal input
30 to 41	G12 – G1	O	FLD control signal output
42 to 45	P1 – P4	O	FLD control signal output
46	VDD3	—	Power supply pin (+3.3 V)
47 to 50	P5 – P8	O	FLD control signal output
51	VPP	—	Ground pin
52 to 55	P9 – P12	O	FLD control signal output
56	SW1 (a) P13	O	FLD control signal output
57	SW2 (b) P14	O	FLD control signal output
58	SW3 (c) P15	O	FLD control signal output
59	SW4 (d) P16	O	FLD control signal output
60	SW5 P17	O	FLD control signal output
61	SW6 P18	O	FLD control signal output
62	SW7 P19	O	FLD control signal output
63	SW8 P20	O	FLD control signal output
64, 65	P21, P22	O	FLD control signal output
66	ENTER LED	O	Not used in this set. (Open)
67	MD/VIDEO LED	O	Not used in this set. (Open)
68	GAME LED	O	GAME LED (LED612) drive signal output
69	TAPE LED	O	TAPE A/B LED (LED609) drive signal output
70	TUNER LED	O	TUNER/BAND LED (LED608) drive signal output
71	CD LED	O	CD LED (LED607) drive signal output
72	VDD4	—	Power supply pin (+3.3 V)
73	CD VDD	O	CD power control signal output

## HCD-GX45/RG440

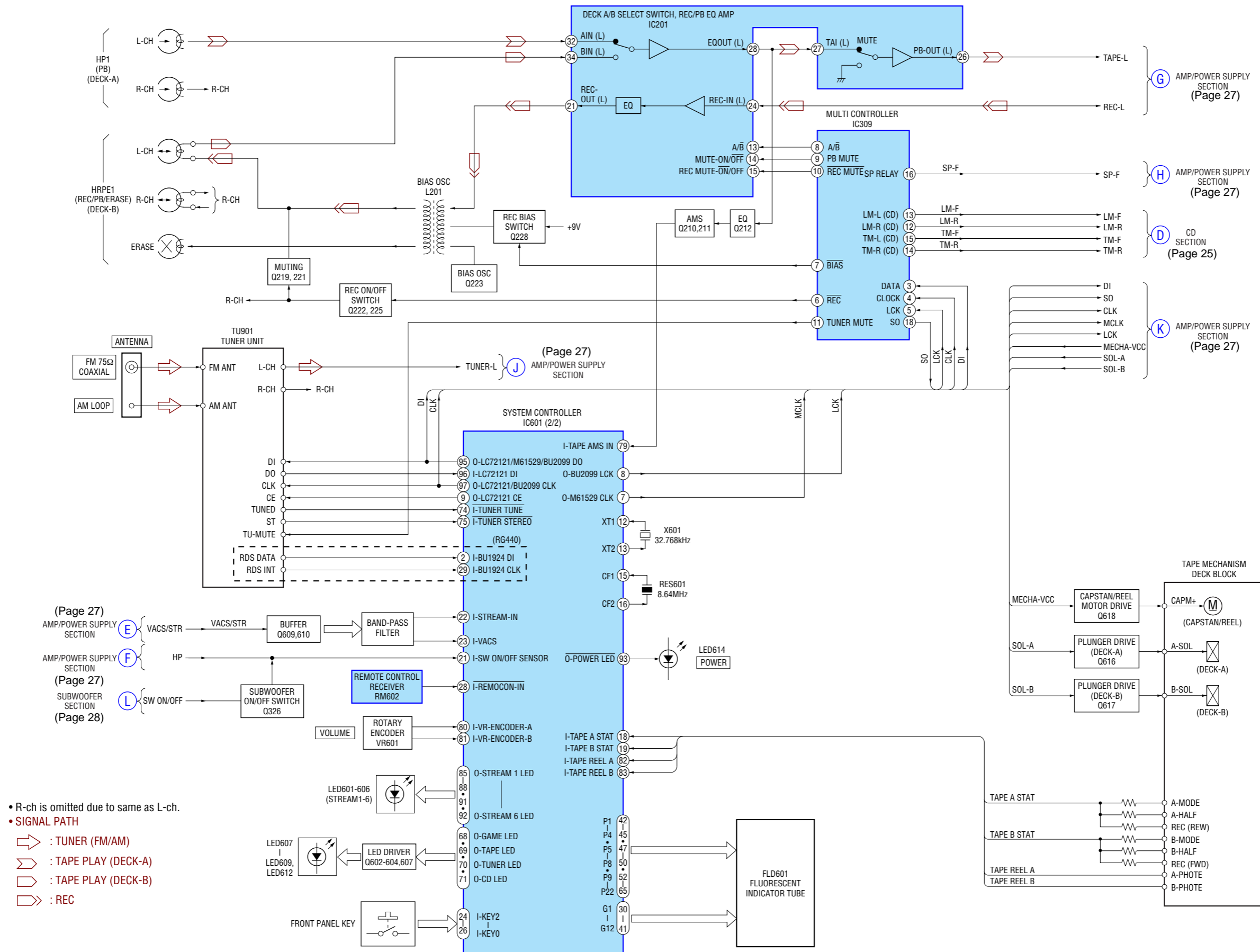
Pin No.	Pin Name	I/O	Pin Description
74	TUNER TUNED	I	Tuner tuning signal input from the tuner unit
75	TUNER STEREO	I	Tuner stereo signal input from the tuner unit
76	CD DRF	I	CD DRF signal input
77	CD WRQ	I	CD WRQ signal input
78	CD NUMBER SENSOR	I	CD number sensor signal input
79	TAPE AMS IN	I	Tape AMS signal input
80	VR ENCODER A	I	VR encoder (VR601) signal input
81	VR ENCODER B	I	VR encoder (VR601) signal input
82	TAPE REEL A	I	Tape reel A signal input
83	TAPE REEL B	I	Tape reel B signal input
84	MODE SW IN	I	Mode switch signal input
85	STREAM 1 LED	O	Stream LED drive signal output
86	STREAM 2 LED/CD MUTE	O	Stream LED drive signal output
87	STREAM 3 LED	O	Stream LED drive signal output
88	STREAM 4 LED/ MECHA VCC	O	Stream LED drive signal output
89	VSS2	—	Ground pin
90	VDD2	—	Power supply pin (+3.3 V)
91	STREAM 5 LED/ TAPE SOL A	O	Stream LED drive signal output
92	STREAM 6 LED/ TAPE SOL B	O	Stream LED drive signal output
93	POWER LED	O	POWER LED (LED614) drive signal output
94	POWER RELAY	O	Power relay signal output
95	LC72121/M61529/ BU2099FV DO	O	Serial data signal output
96	LC72121 DI	I	Serial data signal input
97	LC72121/BU2099FV CLK	O	Serial clock signal output
98	LC78646/LC78684 DO	O	Serial data signal output
99	LC78646/LC78684 DI	I	Serial data signal input
100	LC78646/LC78684 CLK	O	Serial clock signal output



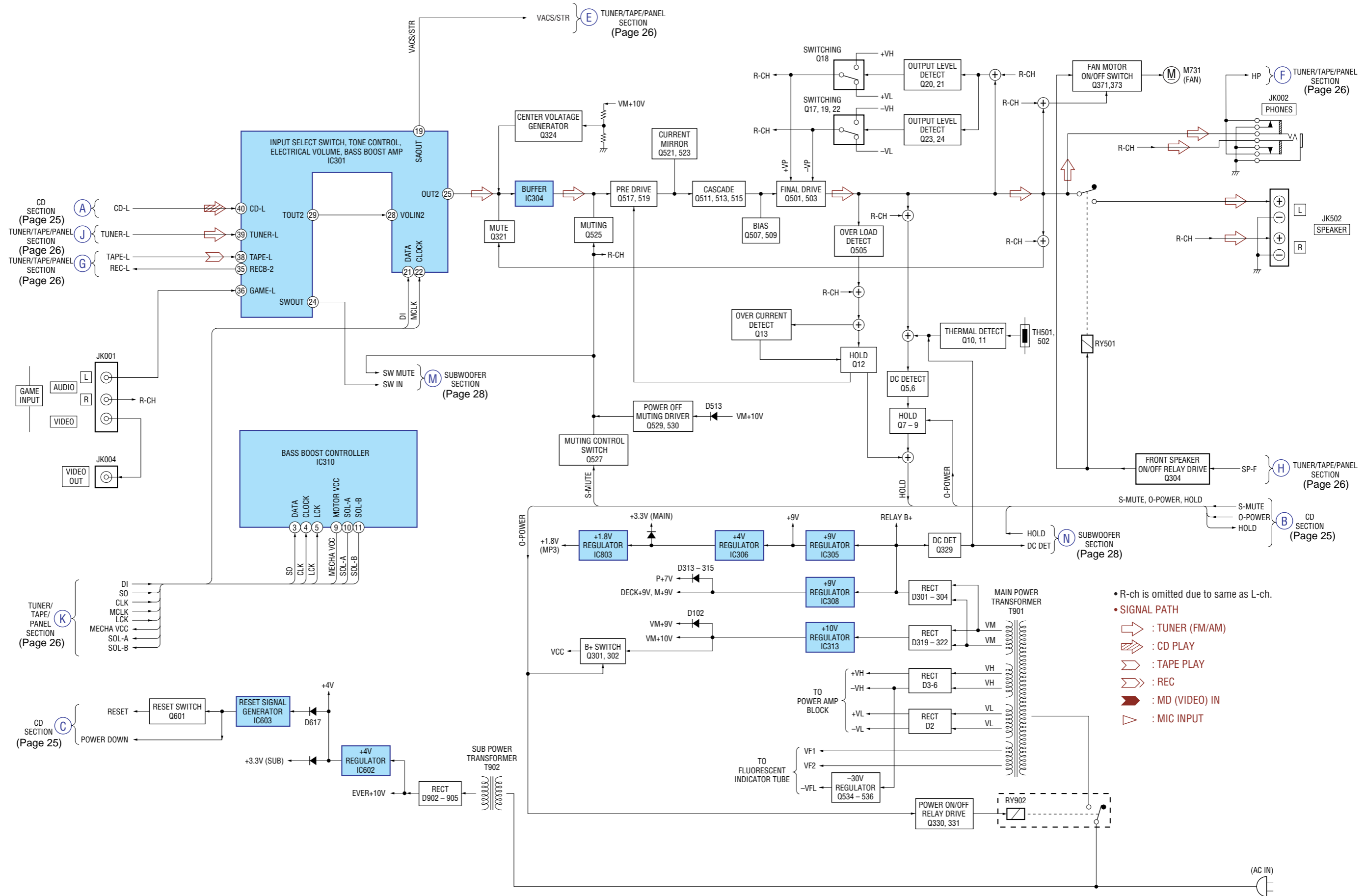
5-2. BLOCK DIAGRAM — CD SECTION —



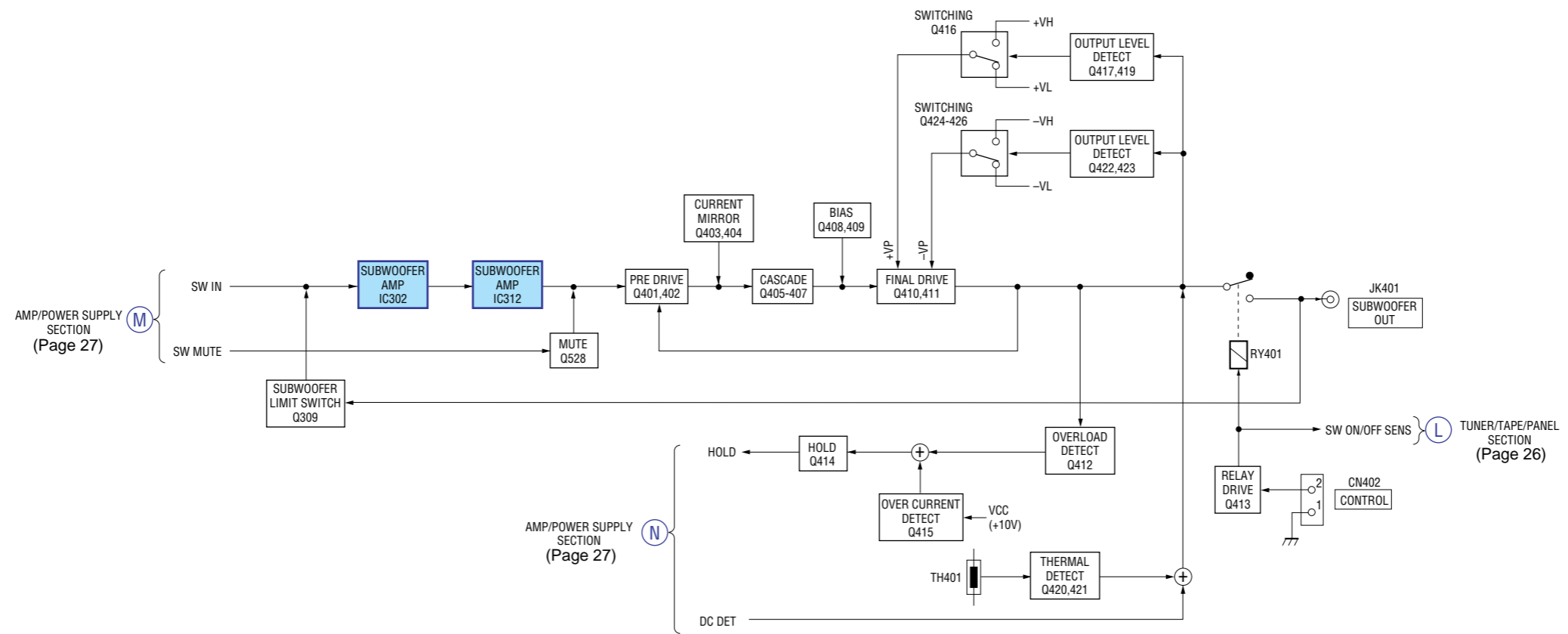
5-3. BLOCK DIAGRAM — TUNER/TAPE/PANEL SECTION —



5-4. BLOCK DIAGRAM — AMP/POWER SUPPLY SECTION —



5-5. BLOCK DIAGRAM — SUB WOOFER SECTION —



5-6. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

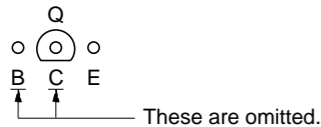
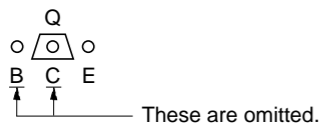
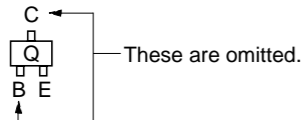
Note on Printed Wiring Board:

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

Caution:

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

Indication of transistor.



Note on Schematic Diagram:

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

Note:

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

Note:

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- : B+ Line.
- : B- Line.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
- ( ) : CD PLAY
- [ ] : TAPE PLAY (DECK-A)
- { } : TAPE PLAY (DECK-B)
- << >> : REC
- \* : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10  $\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- ⇨ : TUNER (FM/AM)
- ⇨ : CD PLAY
- ⇨ : TAPE PLAY (DECK-A)
- ⇨ : TAPE PLAY (DECK-B)
- ⇨ : REC
- ⇨ : MD (VIDEO) IN
- ⇨ : MIC INPUT
- Abbreviation
- CND : Canadian model
- AUS : Australian model

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead free mark (LF) indicating the solder contains no lead. (Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)

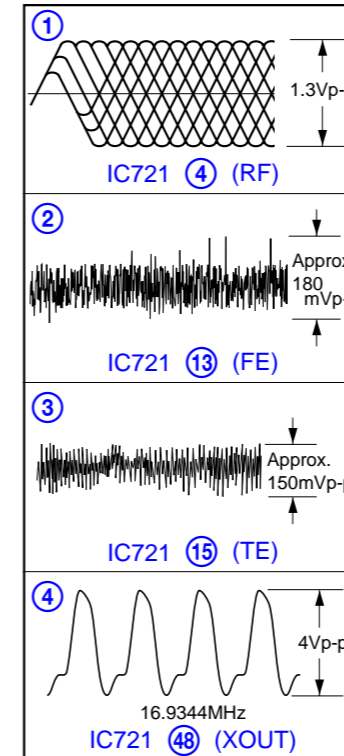
LF : LEAD FREE MARK

Unleaded solder has the following characteristics.

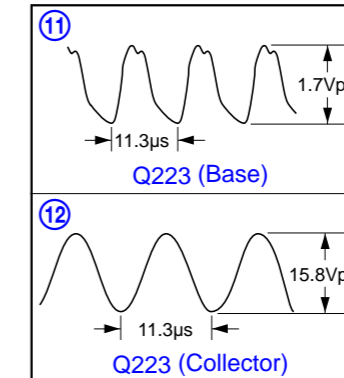
- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder. Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time. Soldering irons using a temperature regulator should be set to about 350 °C. Caution: The printed pattern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

5-7. WAVEFORMS

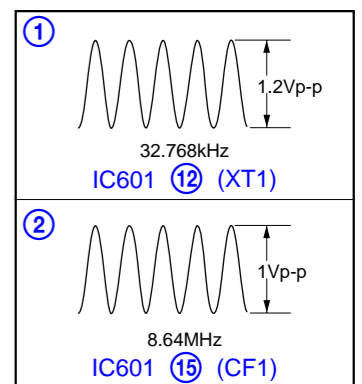
- BD Board - (CD PLAY mode)



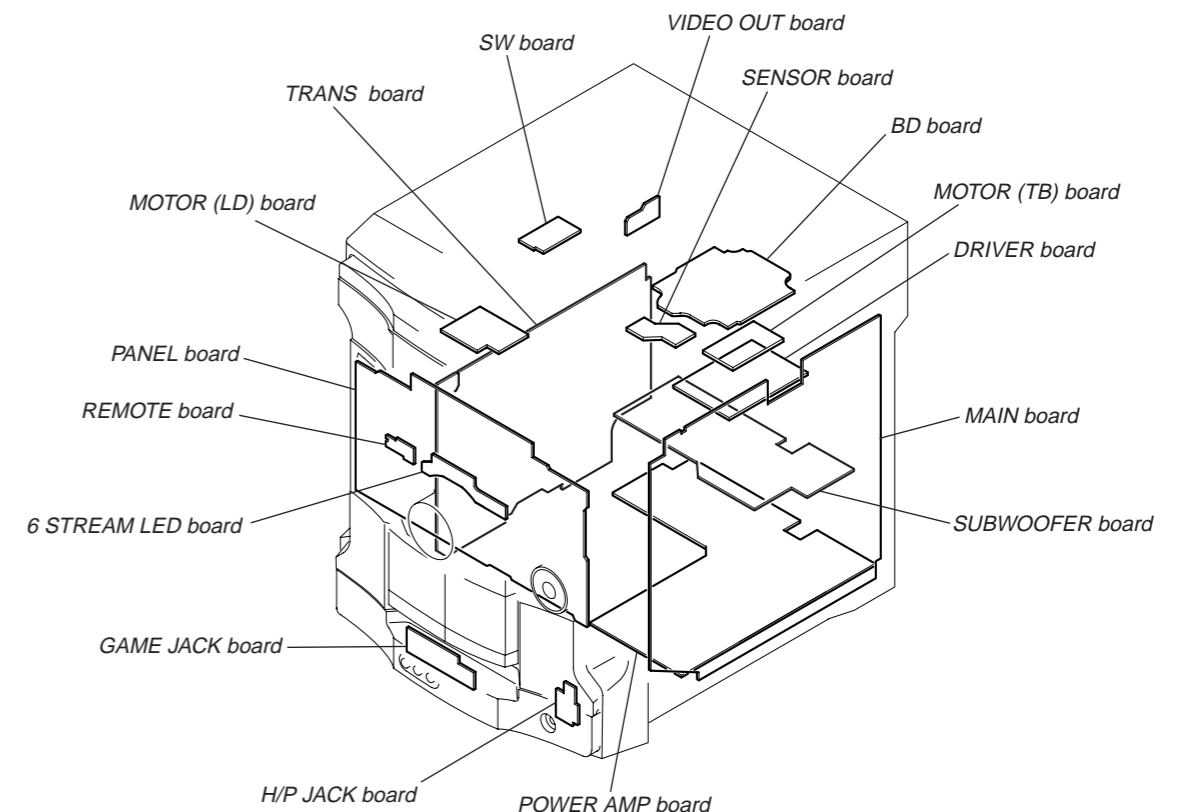
- MAIN Board - (REC mode)



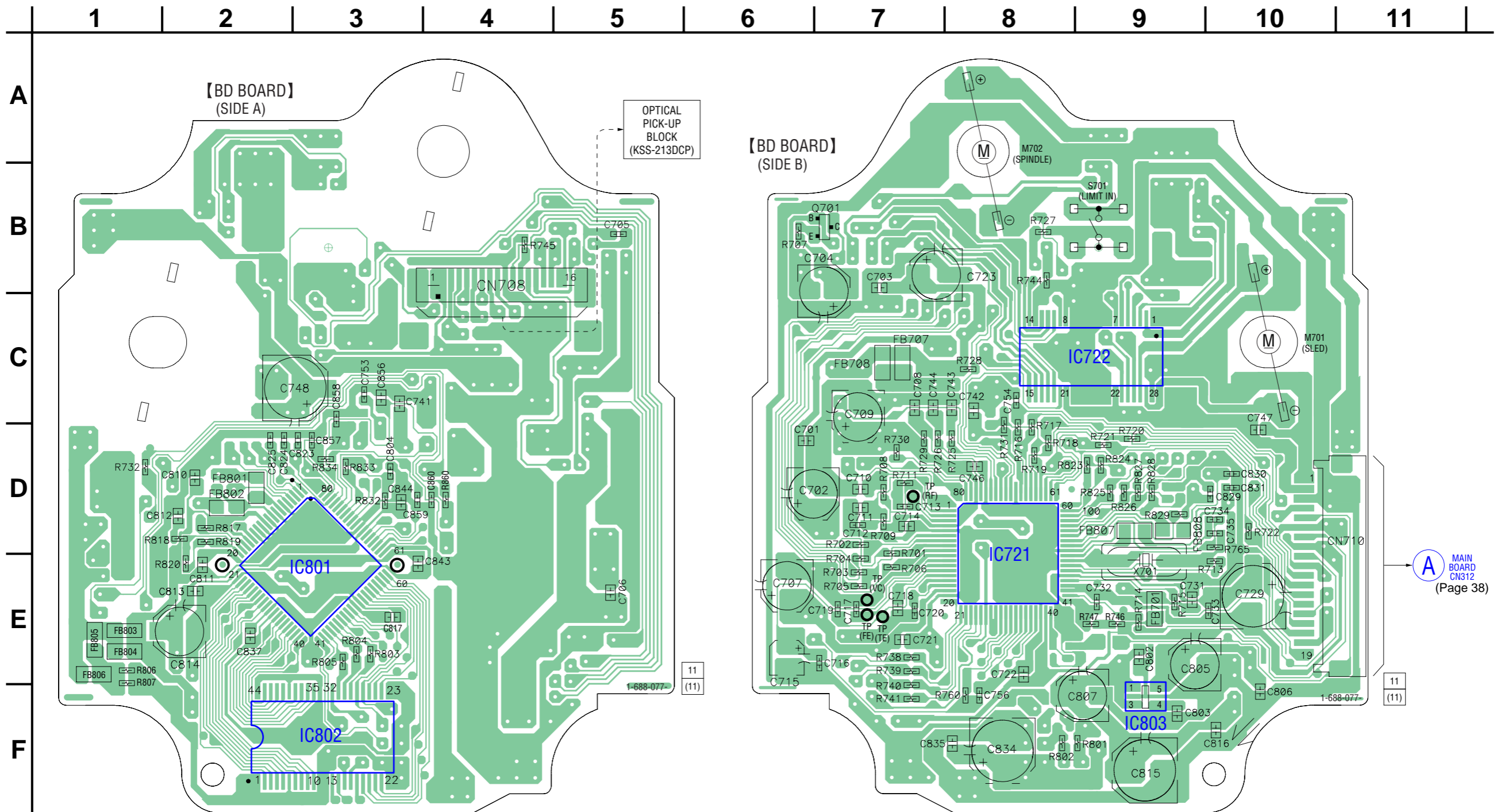
- PANEL Board -



5-8. CIRCUIT BOARDS LOCATION



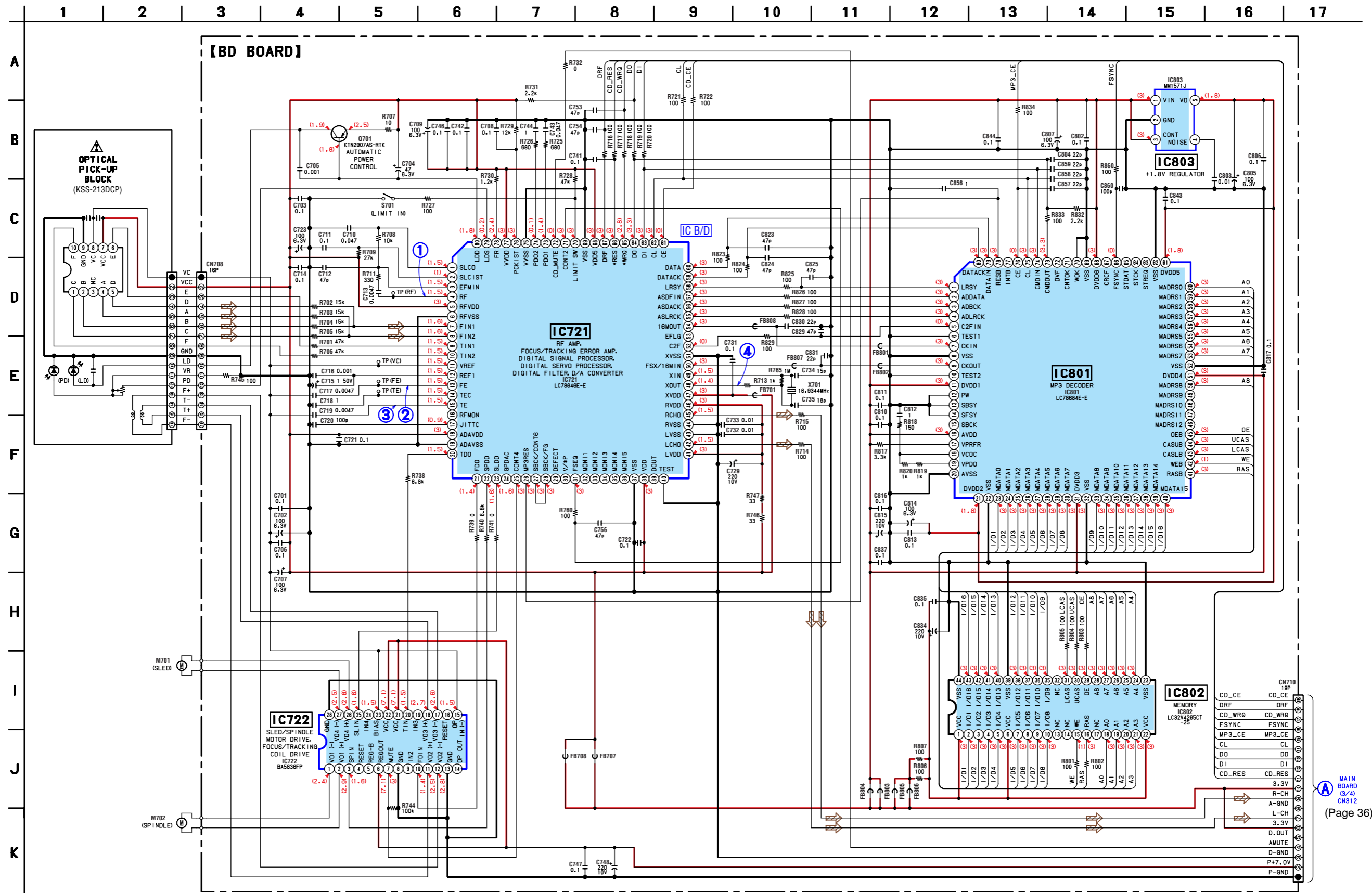
5-9. PRINTED WIRING BOARD — CD MECHANISM SECTION (1/2) — • Refer to page 29 for Circuit Boards Location.  : Uses unleaded solder.



• Semiconductor Location

Ref. No.	Location
IC721	E-8
IC722	C-9
IC801	E-3
IC802	F-3
IC803	F-9
Q701	B-7

5-10. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (1/2) — • Refer to page 29 for Waveforms. • Refer to page 49 for IC Block Diagrams.

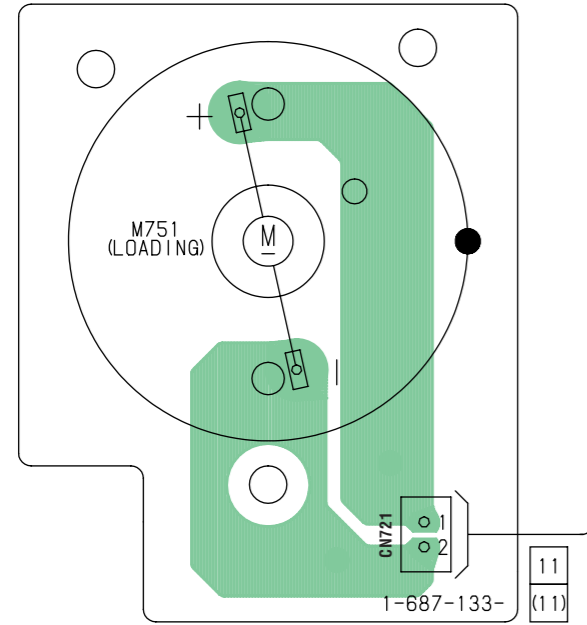


5-11. PRINTED WIRING BOARDS — CD MECHANISM SECTION (2/2) — • Refer to page 29 for Circuit Boards Location.  : Uses unleaded solder.

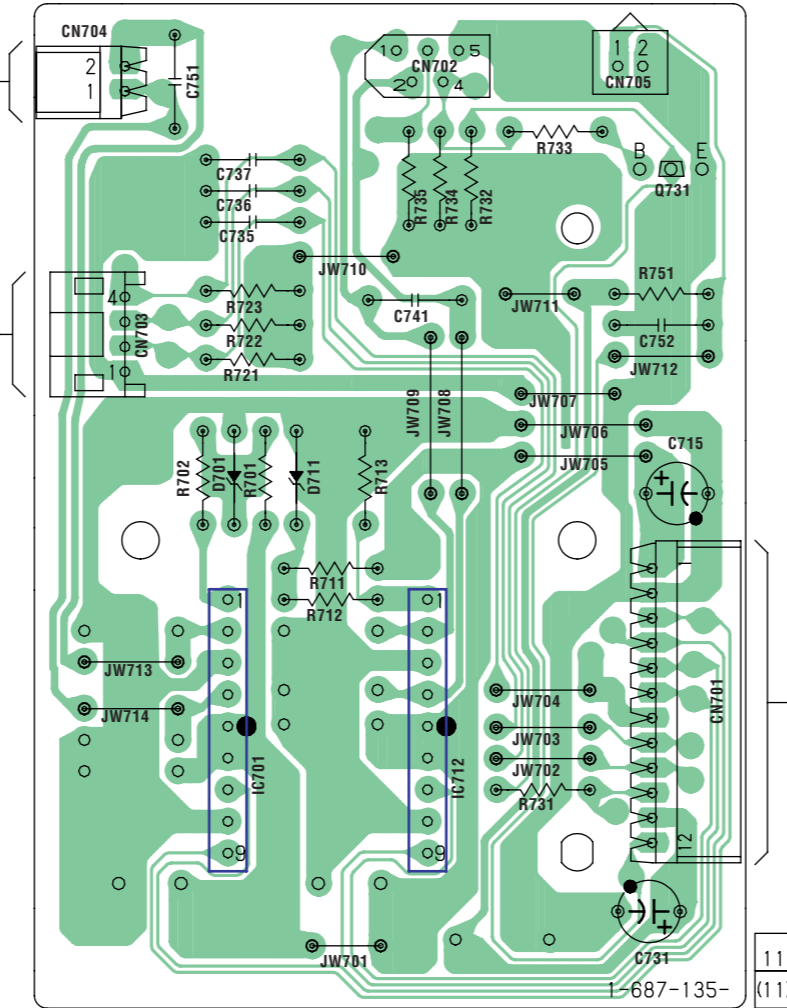
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

A  
B  
C  
D  
E  
F  
G  
H

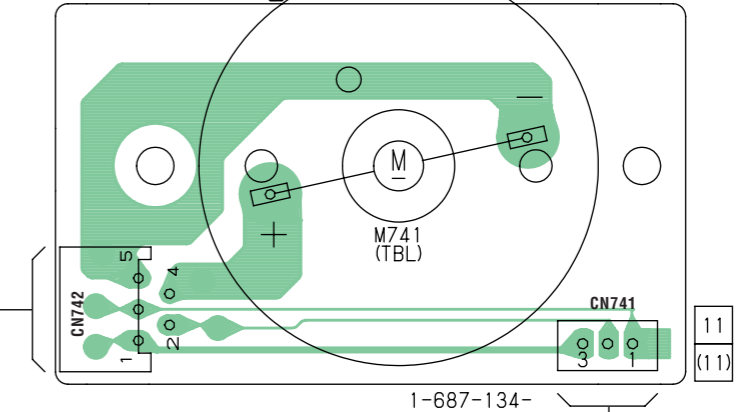
【MOTOR (LD) BOARD】



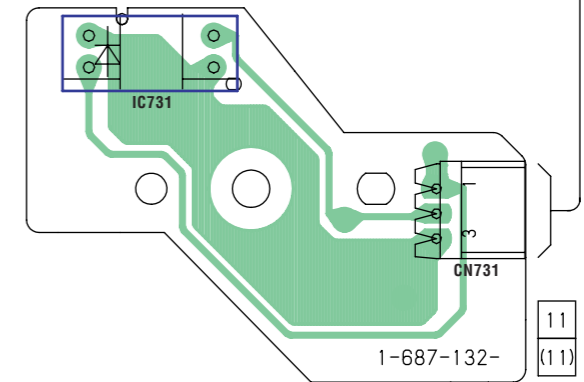
【DRIVER BOARD】



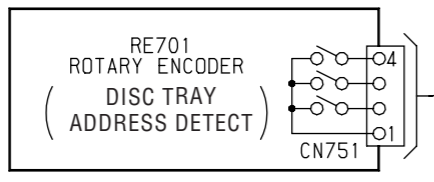
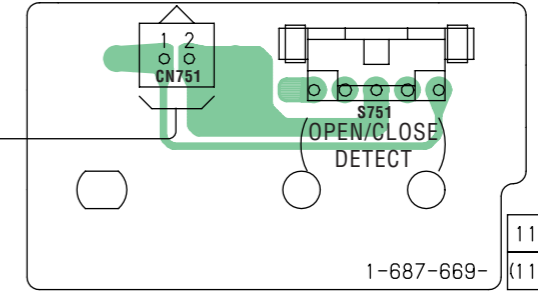
【MOTOR (TB) BOARD】



【SENSOR BOARD】



【SW BOARD】



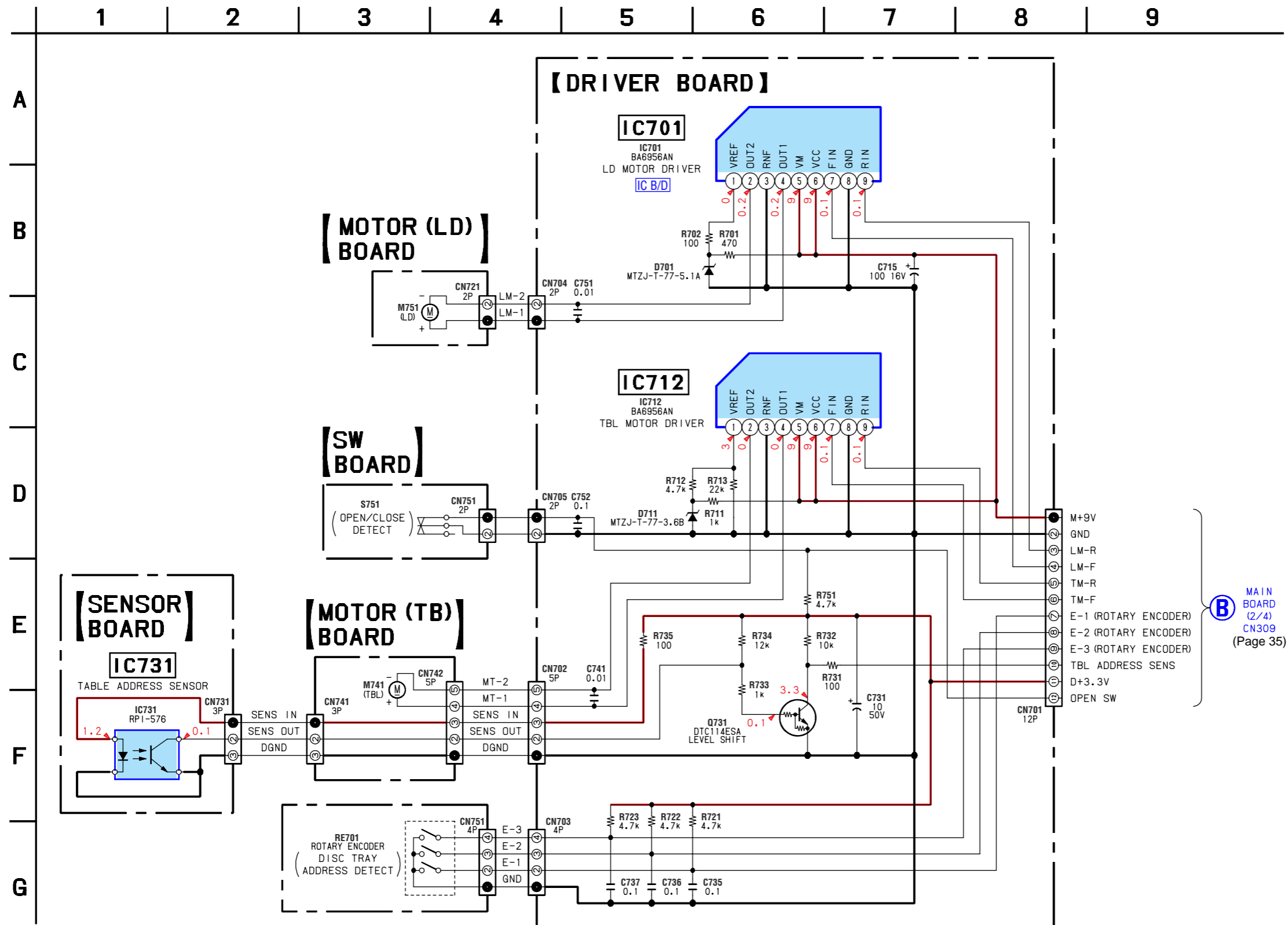
• Semiconductor Location

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

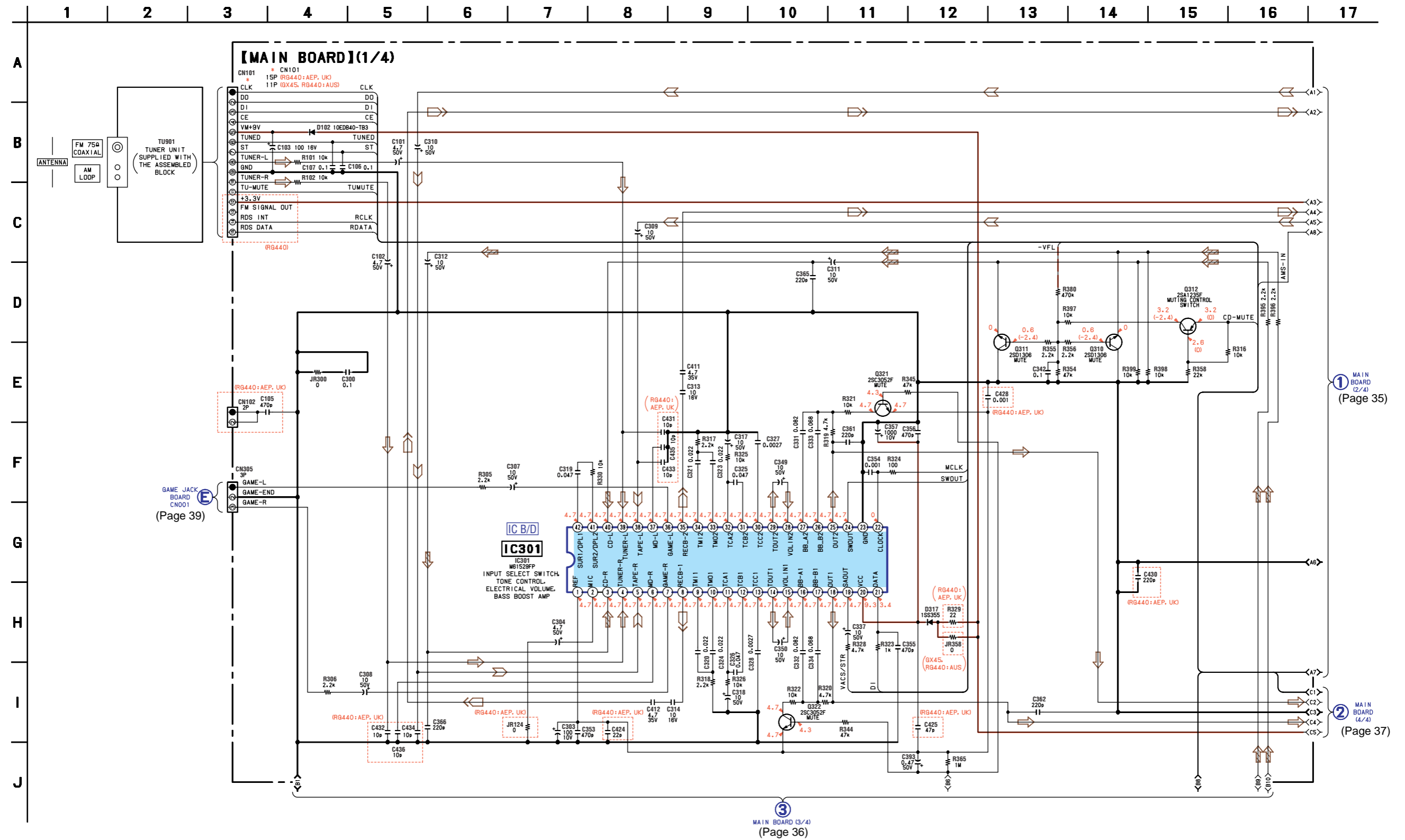
B MAIN BOARD CN309 (Page 38)



5-12. SCHEMATIC DIAGRAM — CD MECHANISM SECTION (2/2) — • Refer to page 50 for IC Block Diagrams.

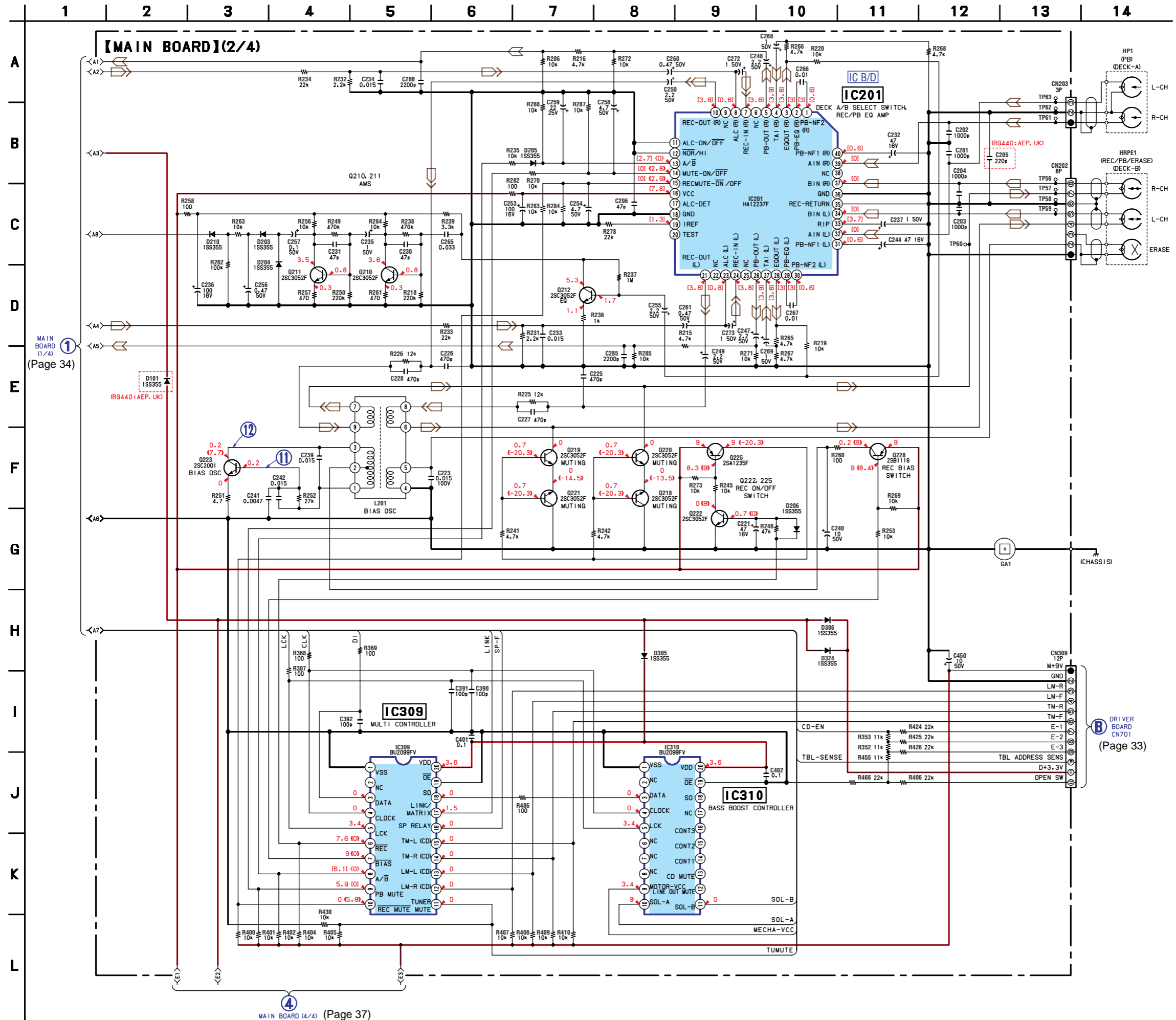


5-13. SCHEMATIC DIAGRAM — MAIN SECTION (1/4) — • Refer to page 50 for IC Block Diagram.

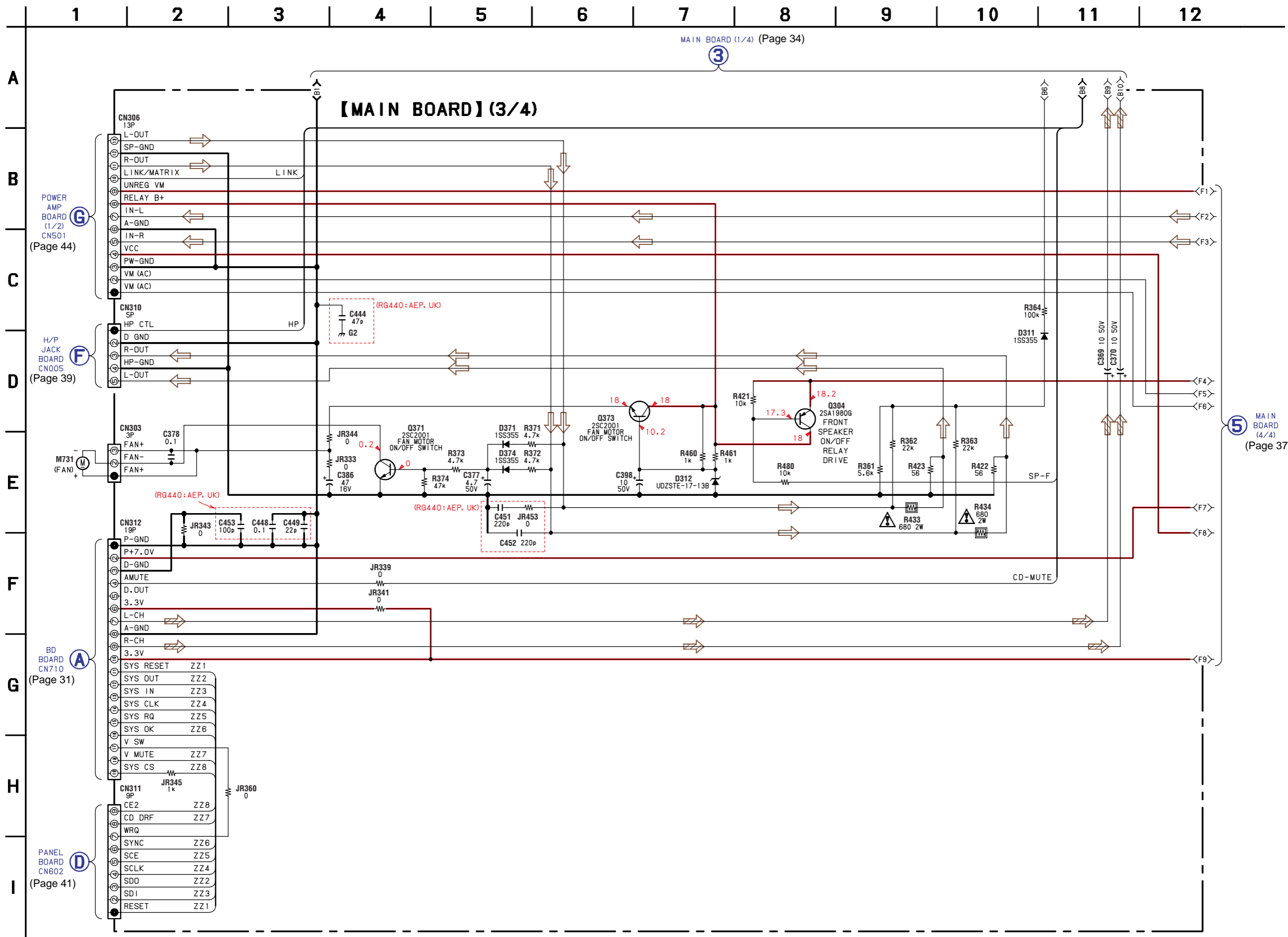


• Refer to page 29 for Waveforms.

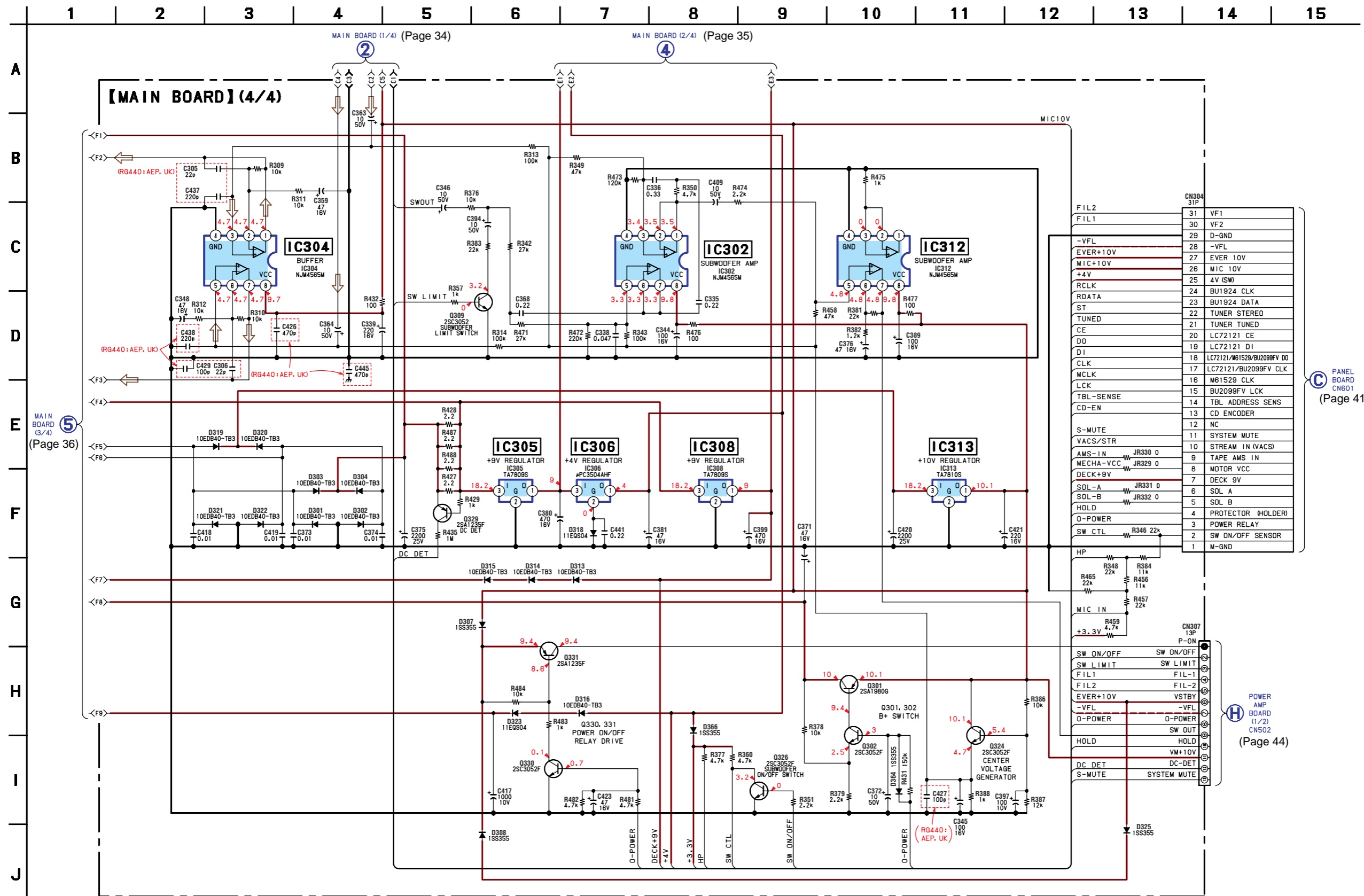
5-14. SCHEMATIC DIAGRAM — MAIN SECTION (2/4) — • Refer to page 51 for IC Block Diagram.




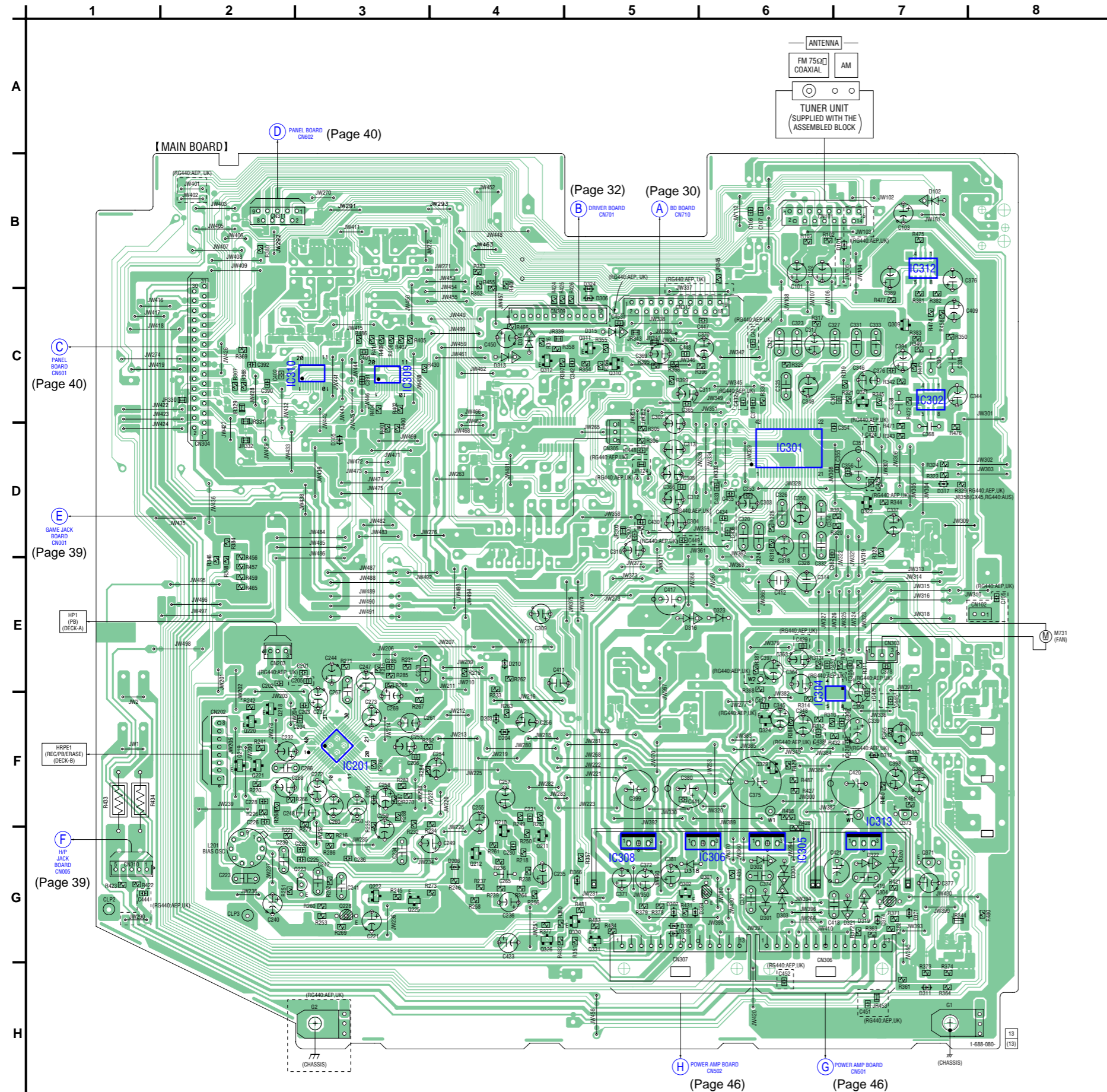
5-15. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) —



5-16. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) —



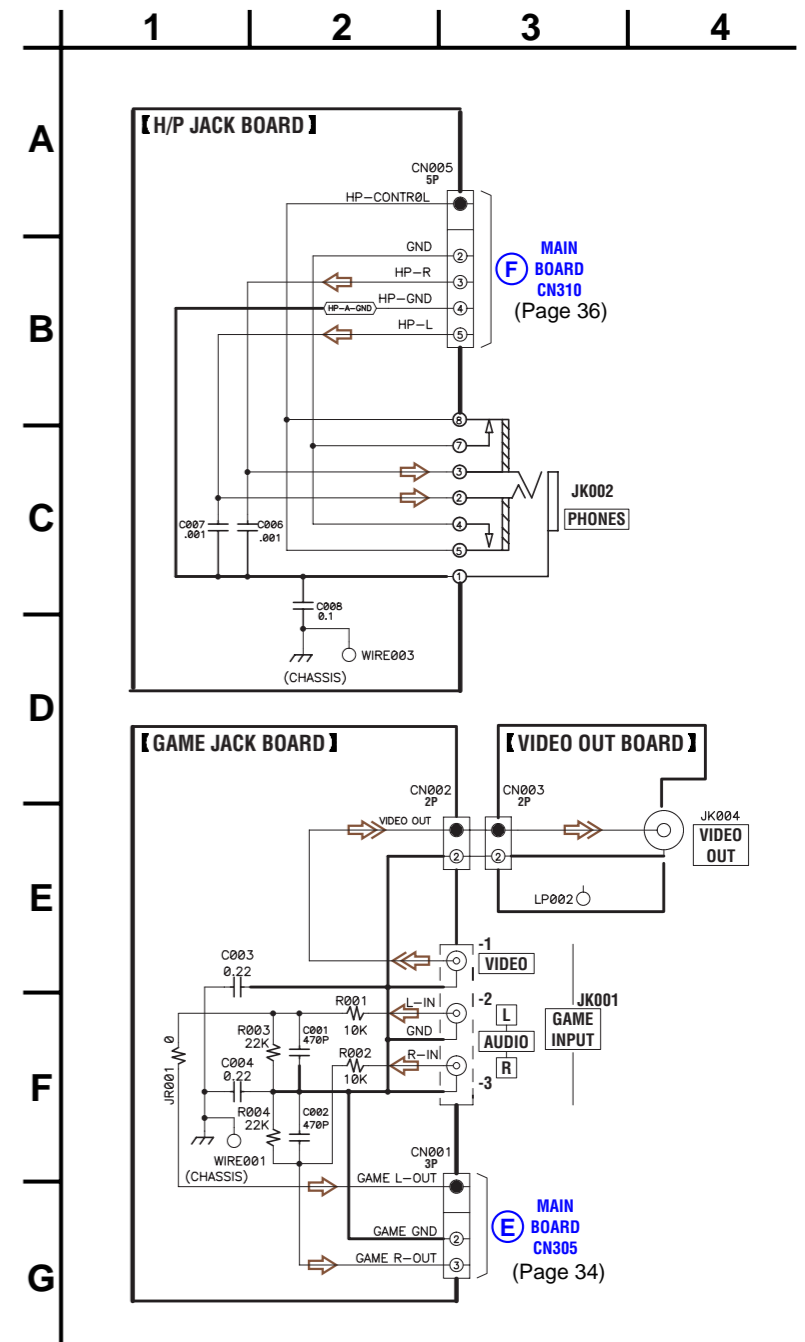
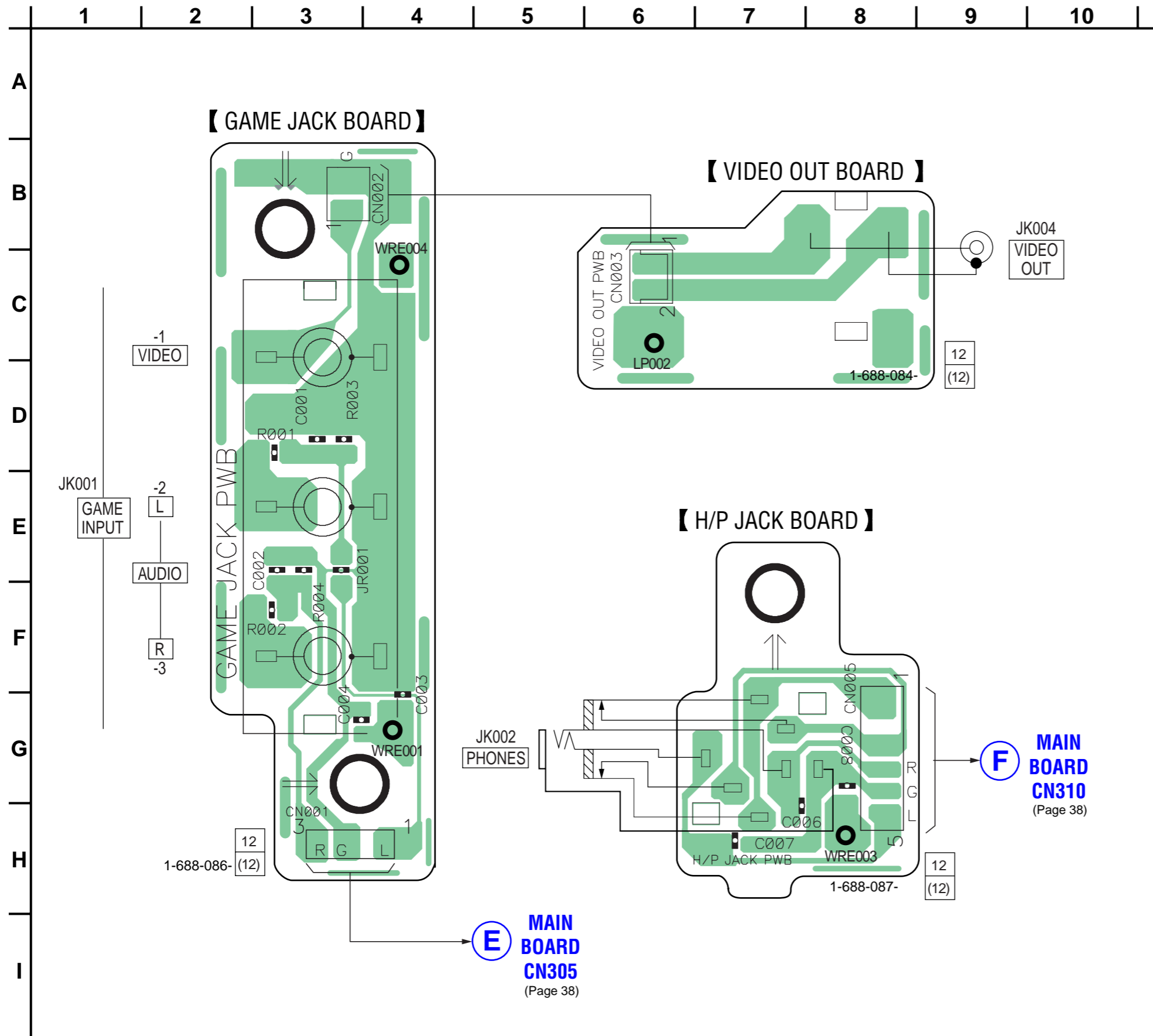
5-17. PRINTED WIRING BOARD — MAIN SECTION — • Refer to page 29 for Circuit Boards Location.  : Uses unleaded solder.



• Semiconductor Location

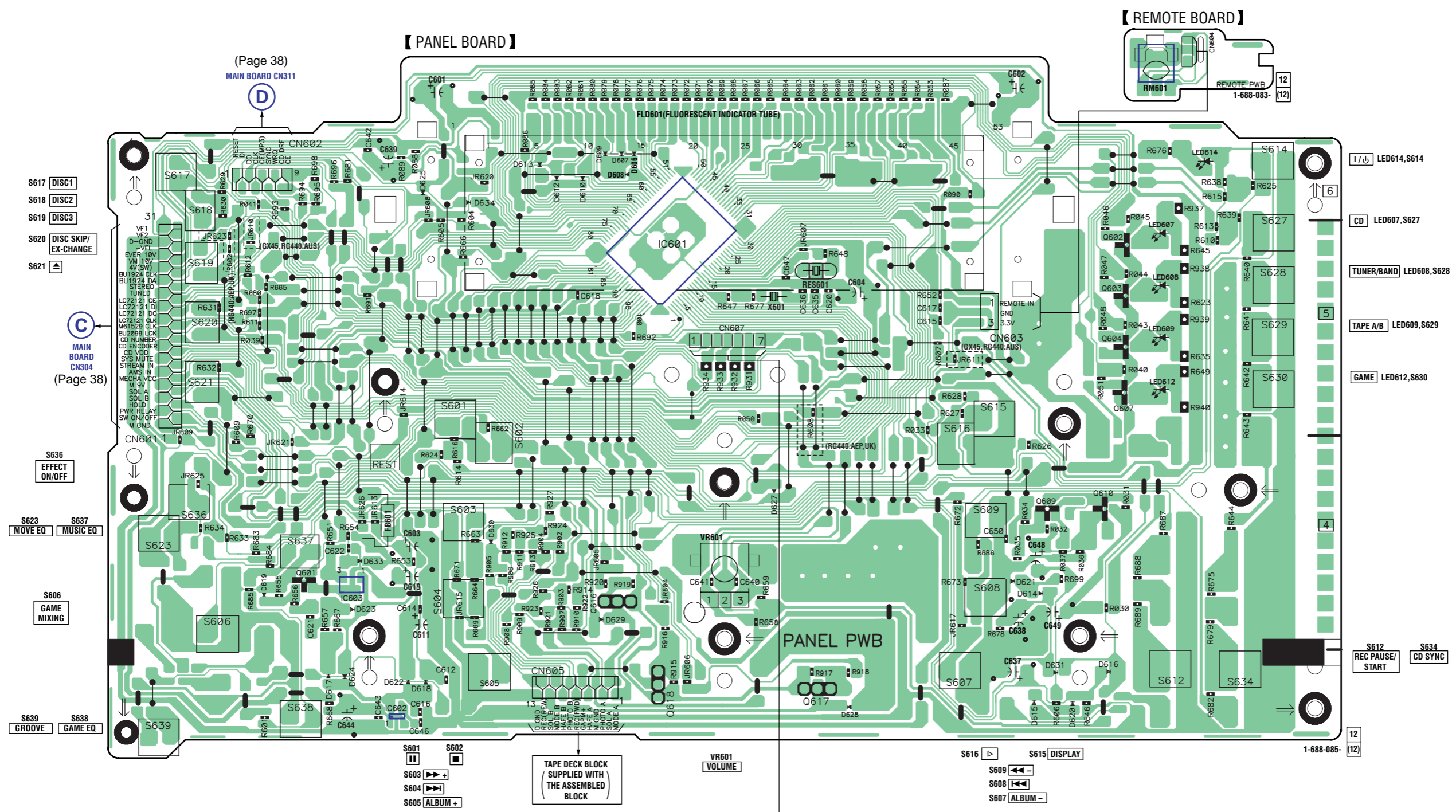
Ref. No.	Location
D101	B-7
D102	B-7
D203	F-4
D204	F-4
D205	F-3
D206	G-4
D210	E-4
D301	G-6
D302	G-6
D303	G-6
D304	G-6
D305	D-3
D306	C-5
D307	G-5
D308	G-5
D311	H-7
D312	F-7
D313	C-4
D314	C-4
D315	C-5
D316	E-5
D317	D-7
D318	G-5
D319	G-7
D320	G-7
D321	G-7
D322	G-7
D323	E-6
D324	C-5
D325	G-5
D364	G-5
D366	G-5
D371	G-7
D374	G-7
IC201	F-3
IC301	D-6
IC302	C-7
IC304	F-6
IC305	G-6
IC306	G-6
IC308	G-5
IC309	C-3
IC310	C-3
IC312	B-7
IC313	G-7
PH301	B-8
Q210	G-4
Q211	G-4
Q212	G-4
Q218	F-2
Q219	F-2
Q220	F-2
Q221	F-2
Q222	G-3
Q223	G-3
Q225	G-3
Q228	G-3
Q301	G-6
Q302	G-5
Q304	G-7
Q309	C-7
Q310	C-5
Q311	C-5
Q312	C-4
Q321	C-7
Q322	D-7
Q324	F-6
Q326	G-4
Q329	F-6
Q330	G-5
Q331	G-5
Q371	G-7
Q373	F-7

5-18. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAM — JACK SECTION — • Refer to page 29 for Circuit Boards Location.



1 2 3 4 5 6 7 8 9 10 11 12 13 14

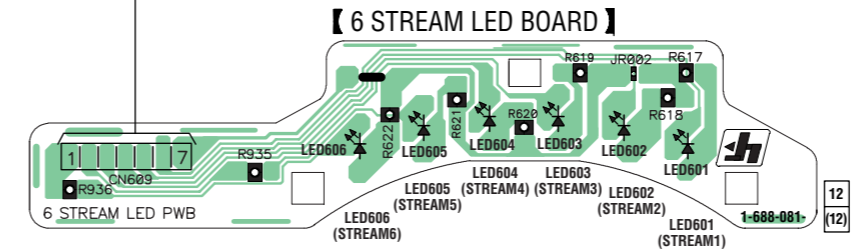
A  
B  
C  
D  
E  
F  
G  
H  
I



- I/ψ LED614,S614
- CD LED607,S627
- TUNER/BAND LED608,S628
- TAPE A/B LED609,S629
- GAME LED612,S630
- S612 REC PAUSE/ START
- S634 CD SYNC

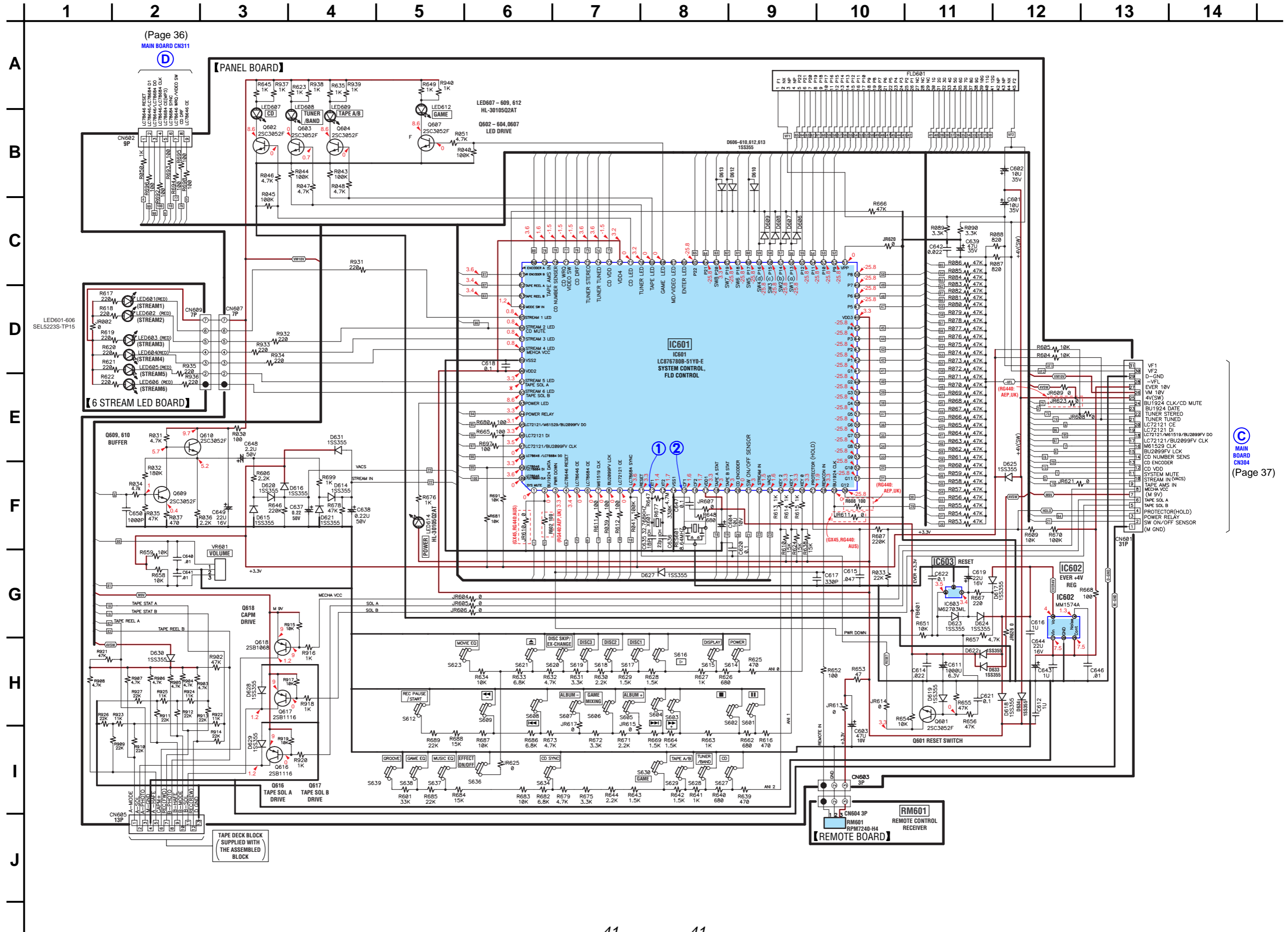
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D606	B-7	D621	F-10	IC602	G-4	Q601	F-3
D607	B-6	D622	G-4	IC603	F-4	Q602	C-11
D608	B-6	D623	F-4	LED601	I-11	Q603	C-11
D609	B-6	D624	G-4	LED602	I-10	Q604	D-11
D610	B-6	D625	B-5	LED603	I-10	Q607	D-11
D612	B-6	D627	E-8	LED604	I-10	Q609	E-10
D613	B-6	D628	G-9	LED605	I-9	Q610	E-11
D614	F-10	D629	F-6	LED606	I-9	Q616	F-6
D615	G-10	D630	F-5	LED607	C-11	Q617	G-8
D616	G-11	D631	G-10	LED608	C-11	Q618	G-7
D617	G-4	D633	F-4	LED609	D-11	RM601	A-11
D618	G-5	D634	C-5	LED612	D-11		
D619	F-3			LED614	B-12		
D620	G-11	IC601	C-7				






5-20. SCHEMATIC DIAGRAM — PANEL SECTION — • Refer to page 29 for Waveforms.

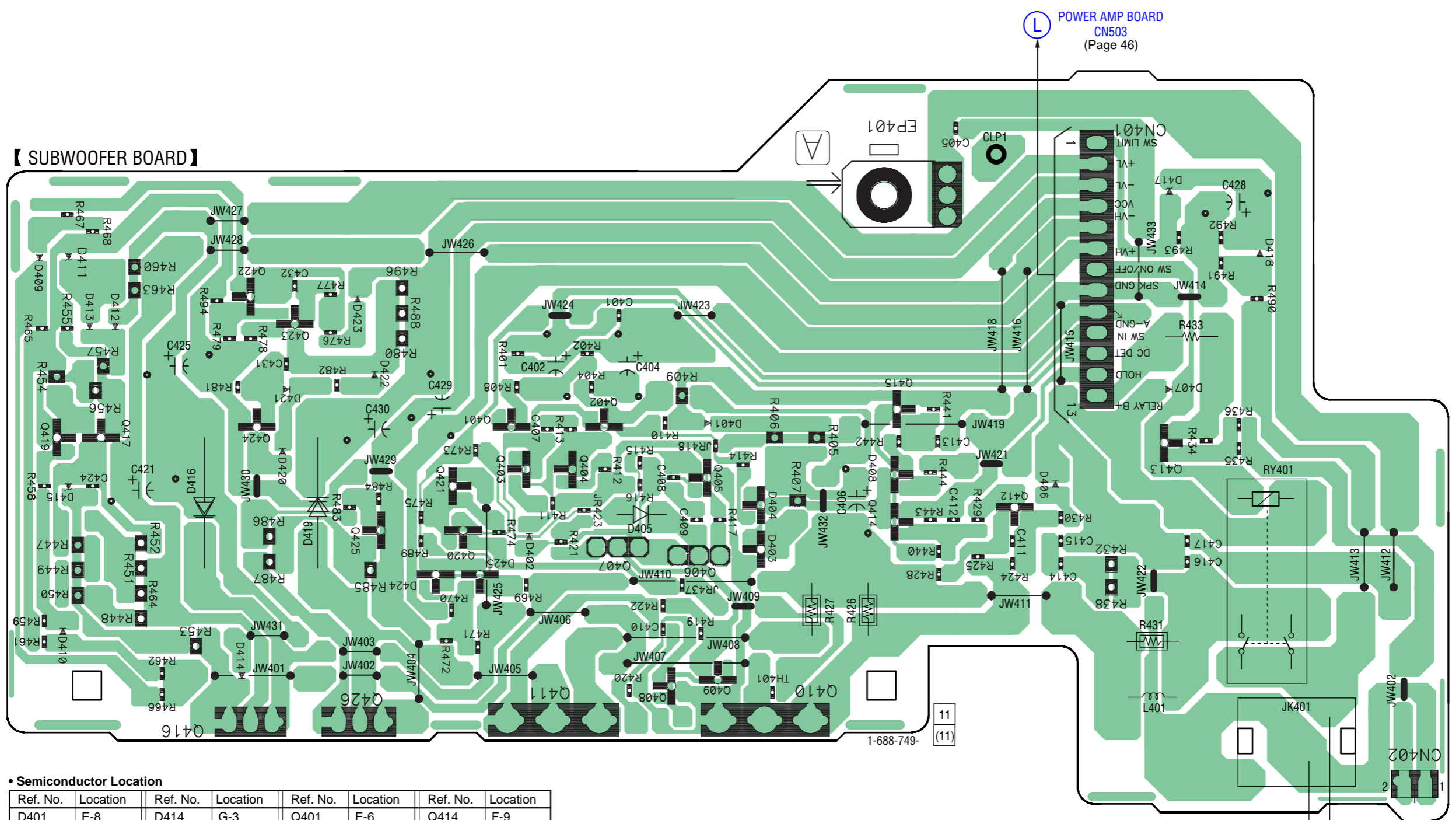


MAIN BOARD CN304 (Page 37)

5-21. PRINTED WIRING BOARD — SUB WOOFER SECTION — • Refer to page 29 for Circuit Boards Location.  : Uses unleaded solder.

1 2 3 4 5 6 7 8 9 10 11 12 13 14

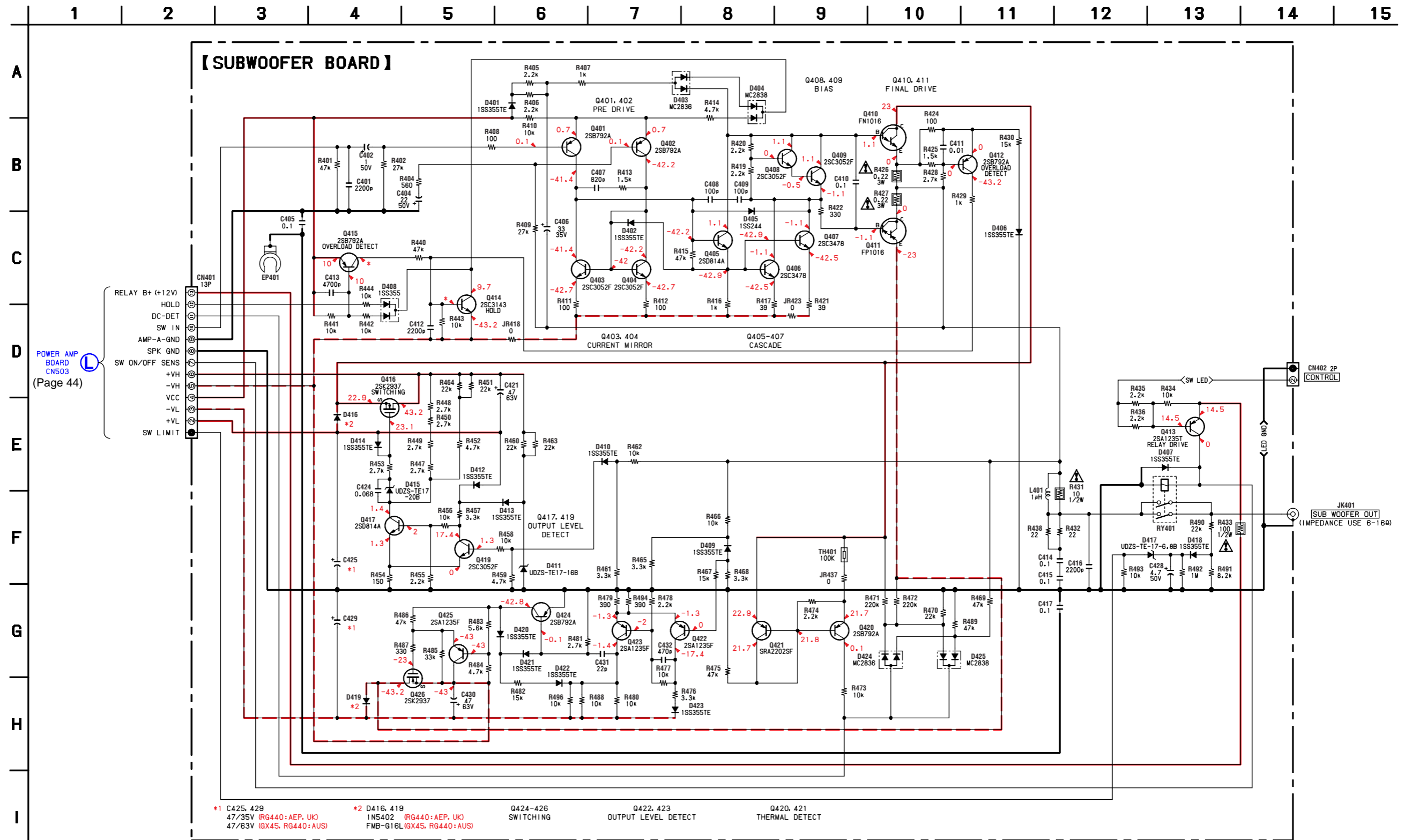
A  
B  
C  
D  
E  
F  
G  
H  
I



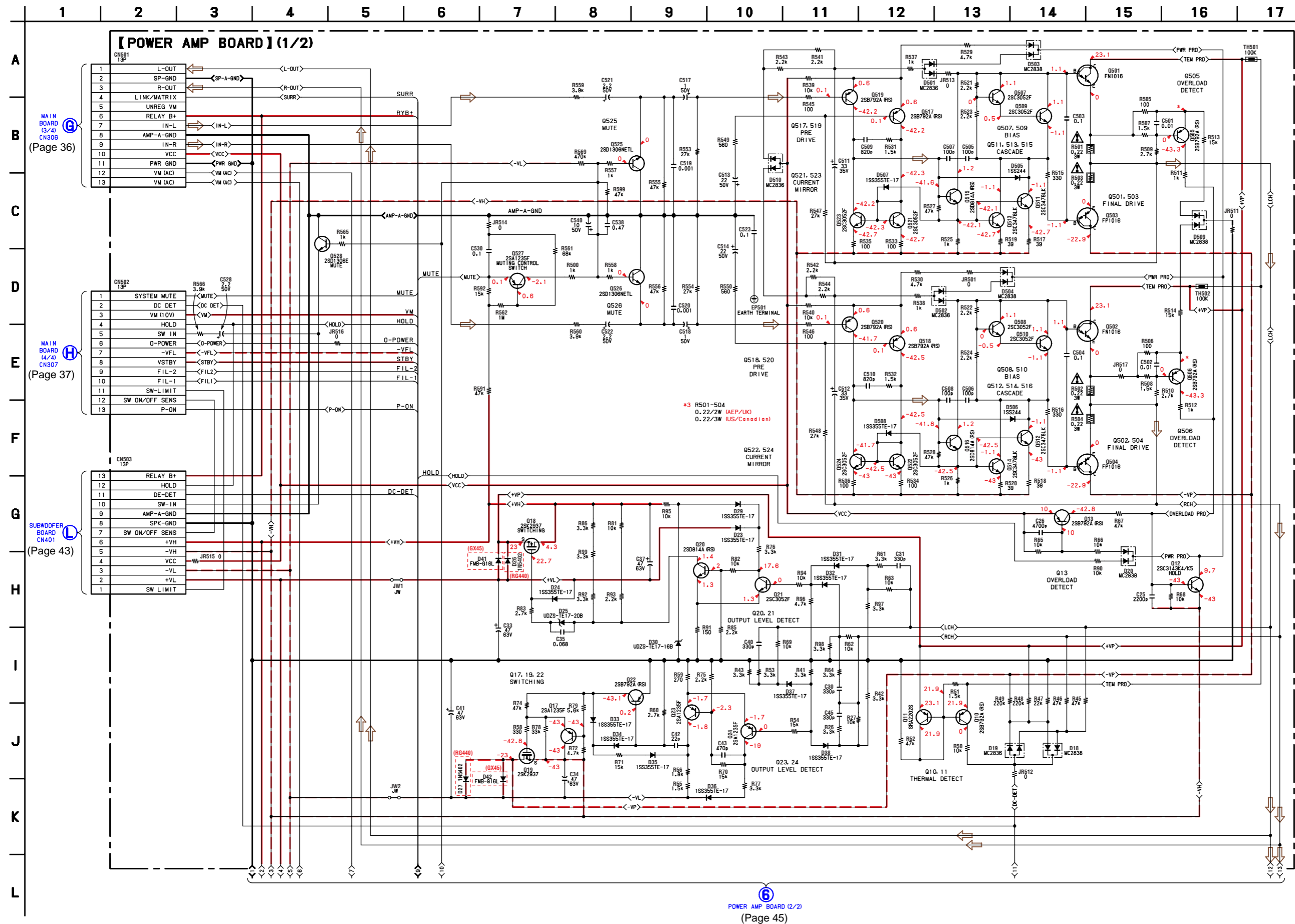
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D401	E-8	D414	G-3	Q401	E-6	Q414	F-9
D402	F-6	D415	F-2	Q402	E-7	Q415	E-9
D403	F-8	D416	F-3	Q403	E-6	Q416	H-3
D404	F-8	D417	C-12	Q404	E-6	Q417	E-2
D405	F-7	D418	C-13	Q405	E-8	Q419	E-2
D406	F-11	D419	F-4	Q406	F-7	Q420	F-5
D407	E-11	D420	E-4	Q407	F-7	Q421	F-5
D408	E-9	D421	E-4	Q408	G-7	Q422	D-3
D409	D-1	D422	E-5	Q409	G-8	Q423	D-4
D410	G-2	D423	D-4	Q410	H-8	Q424	E-3
D411	C-2	D424	F-5	Q411	H-6	Q425	F-4
D412	D-2	D425	F-6	Q412	F-10	Q426	H-3
D413	D-2			Q413	E-12		

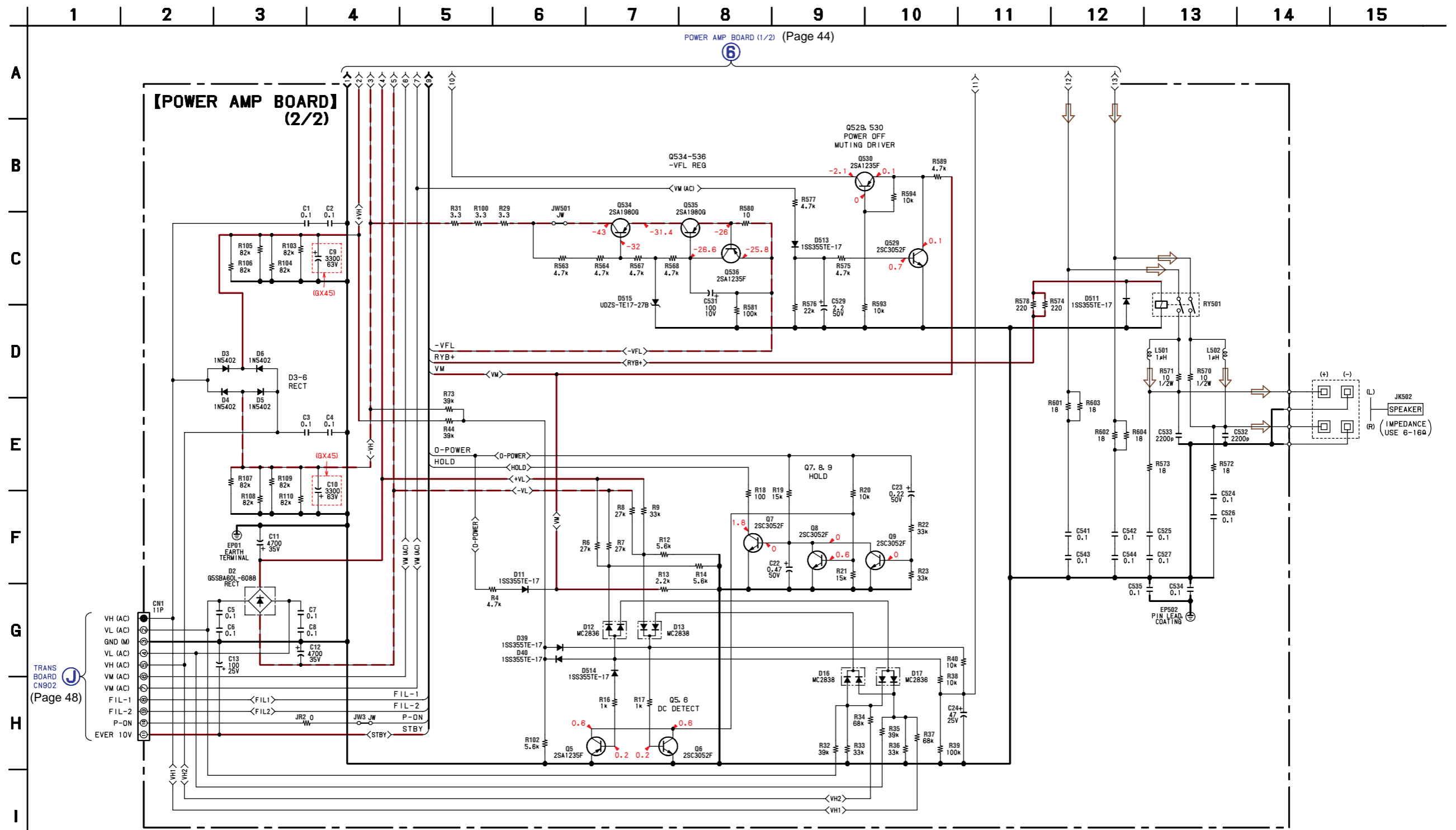
5-22. SCHEMATIC DIAGRAM — SUB WOOFER SECTION —




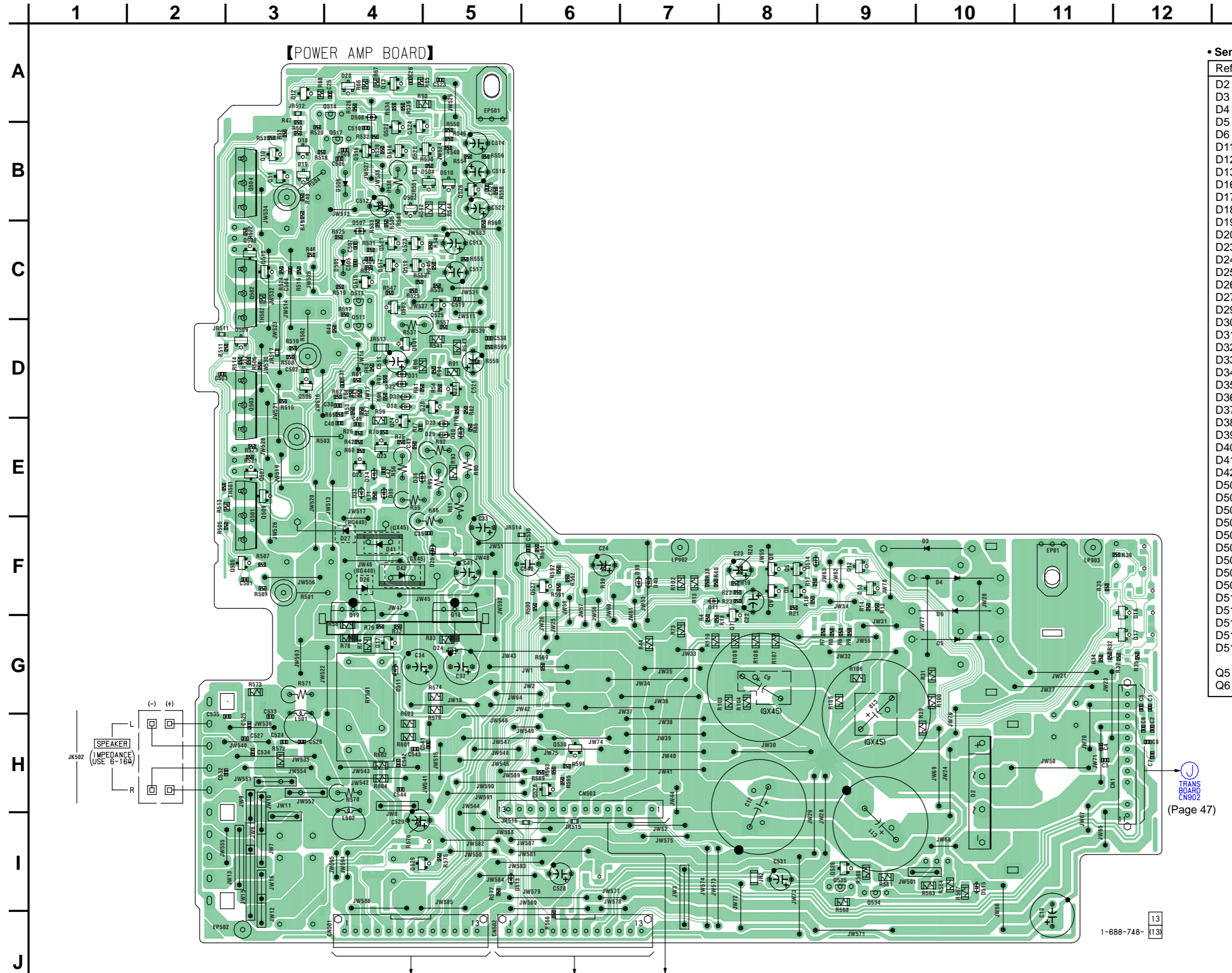
5-23. SCHEMATIC DIAGRAM — POWER AMP SECTION (1/2) —



5-24. SCHEMATIC DIAGRAM — POWER AMP SECTION (2/2) —

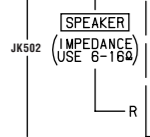



5-25. PRINTED WIRING BOARD — POWER AMP SECTION — • Refer to page 29 for Circuit Boards Location.  : Uses unleaded solder.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D2	H-10	Q7	G-8
D3	F-10	Q8	F-8
D4	F-10	Q9	F-8
D5	G-10	Q10	B-3
D6	F-10	Q11	B-3
D11	F-7	Q12	A-3
D12	F-9	Q13	A-4
D13	F-9	Q17	G-4
D16	G-12	Q18	F-5
D17	G-12	Q19	F-4
D18	B-3	Q20	D-5
D19	B-3	Q21	D-5
D20	A-4	Q22	E-4
D23	E-5	Q23	E-4
D24	G-5	Q24	E-4
D25	F-5	Q501	E-3
D26	F-4	Q502	C-3
D27	F-4	Q503	D-3
D29	E-5	Q504	B-3
D30	E-5	Q505	F-3
D31	D-4	Q506	D-3
D32	D-4	Q507	E-3
D33	E-4	Q508	C-3
D34	E-4	Q509	E-3
D35	E-4	Q510	C-3
D36	E-4	Q511	D-4
D37	D-4	Q512	B-4
D38	D-4	Q513	C-4
D39	F-7	Q514	A-4
D40	F-7	Q515	C-4
D41	F-4	Q516	B-4
D42	F-4	Q517	C-4
D501	D-4	Q518	B-4
D502	B-4	Q519	C-4
D503	C-4	Q520	B-4
D504	B-5	Q521	C-4
D505	C-4	Q522	B-4
D506	B-4	Q523	C-4
D507	C-4	Q524	B-4
D508	A-4	Q525	C-5
D509	D-3	Q526	B-5
D510	B-5	Q527	F-6
D511	G-4	Q528	H-6
D513	I-5	Q529	I-4
D514	F-8	Q530	H-6
D515	I-10	Q534	I-9
		Q535	I-9
Q5	F-8	Q536	I-9
Q6	F-8		





 TRANS BOARD CN902 (Page 47)

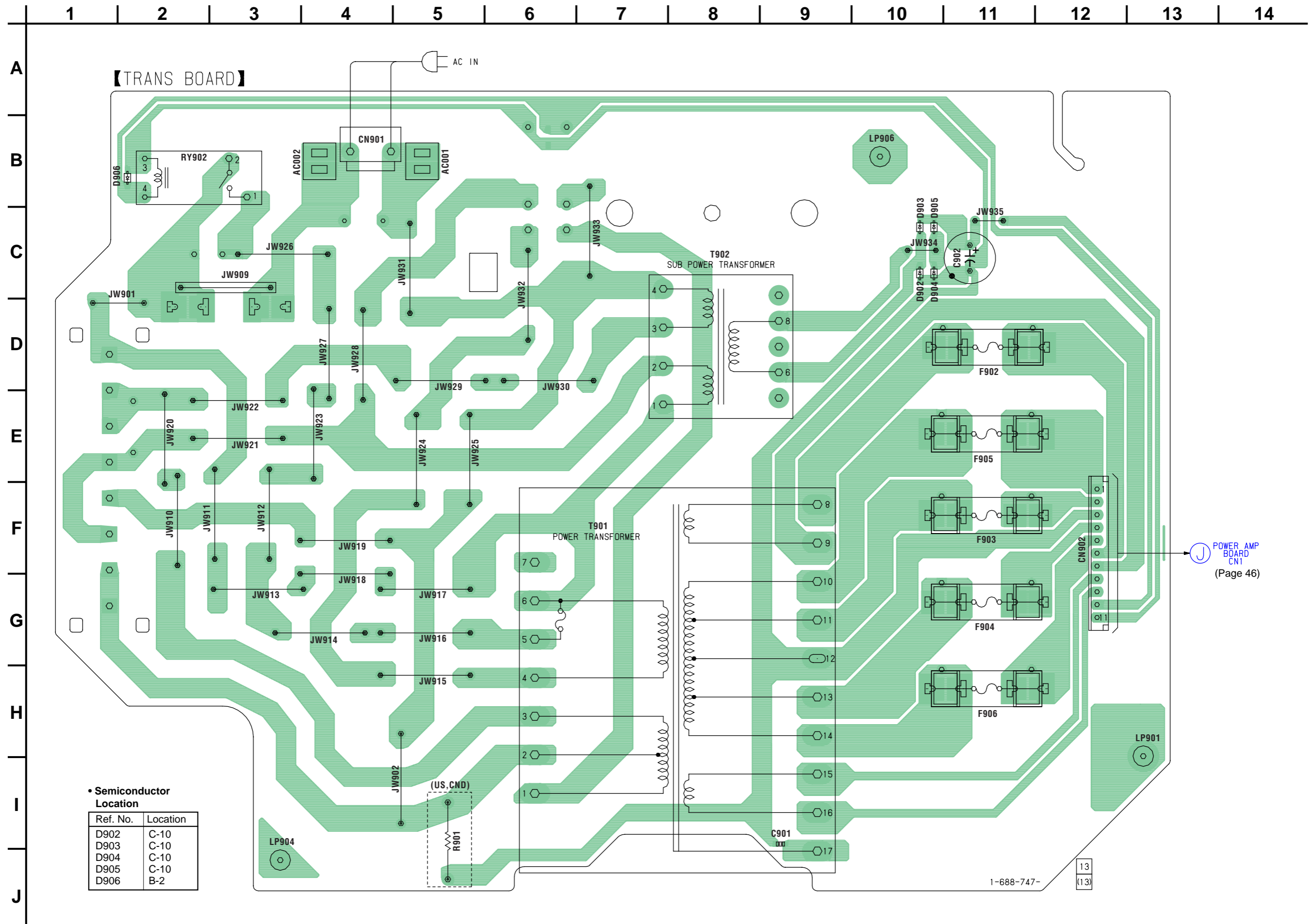
 MAIN BOARD CN306 (Page 38)

 MAIN BOARD CN307 (Page 38)

 SUBWOOFER BOARD CN401 (Page 42)

1-688-748-  


5-26. PRINTED WIRING BOARD — TRANSFORMER SECTION — • Refer to page 29 for Circuit Boards Location.  : Uses unleaded solder.

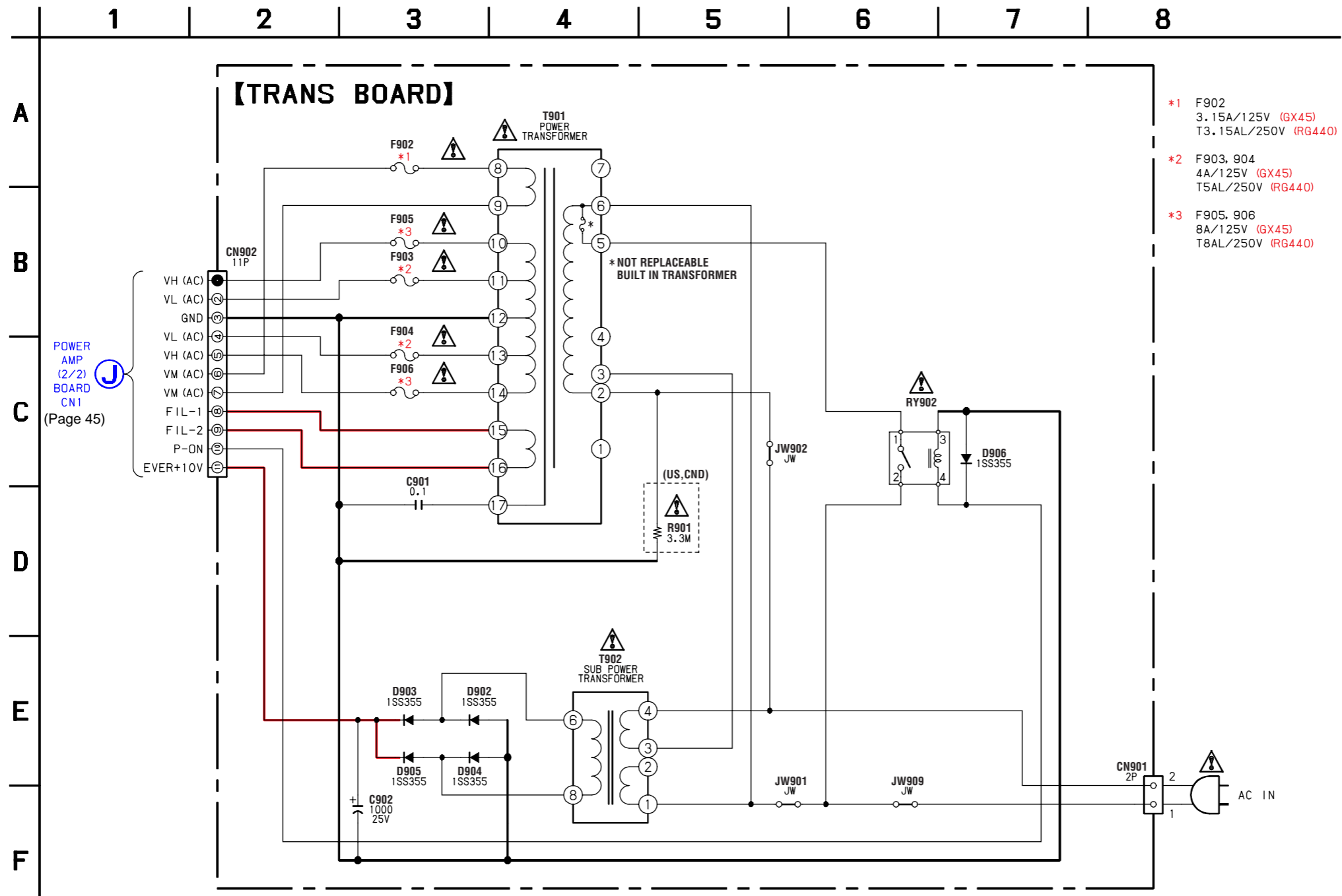


• Semiconductor Location

Ref. No.	Location
D902	C-10
D903	C-10
D904	C-10
D905	C-10
D906	B-2

 POWER AMP BOARD CN1 (Page 46)

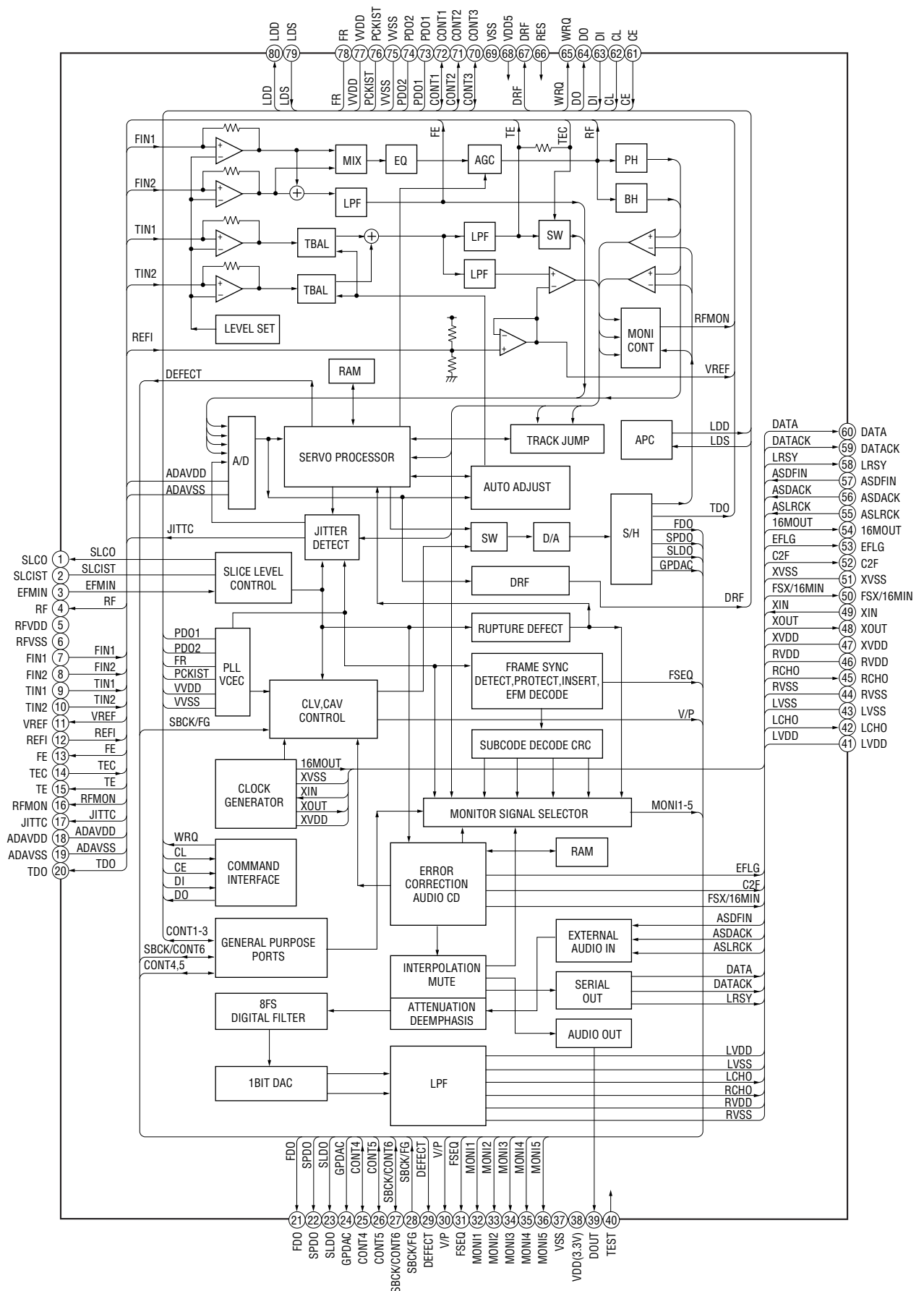
5-27. SCHEMATIC DIAGRAM — TRANSFORMER SECTION —



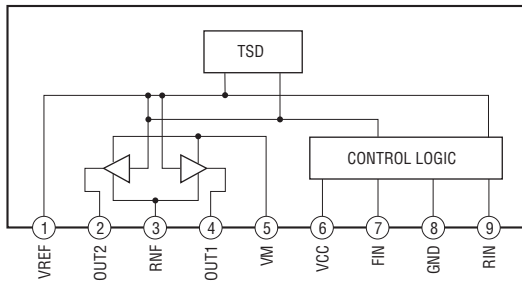


5-28. IC BLOCK DIAGRAMS

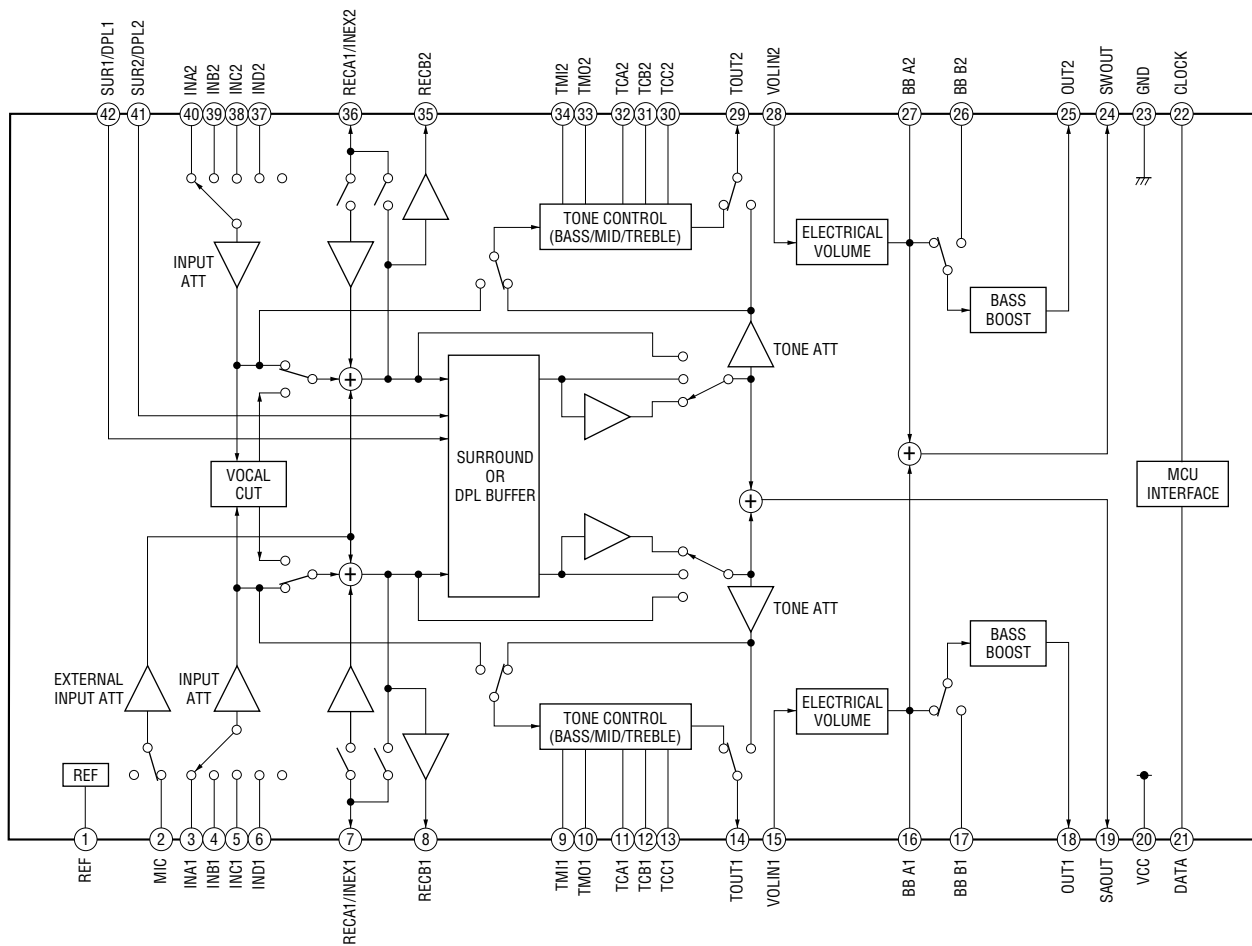
IC721 LC78646E-E (BD Board)



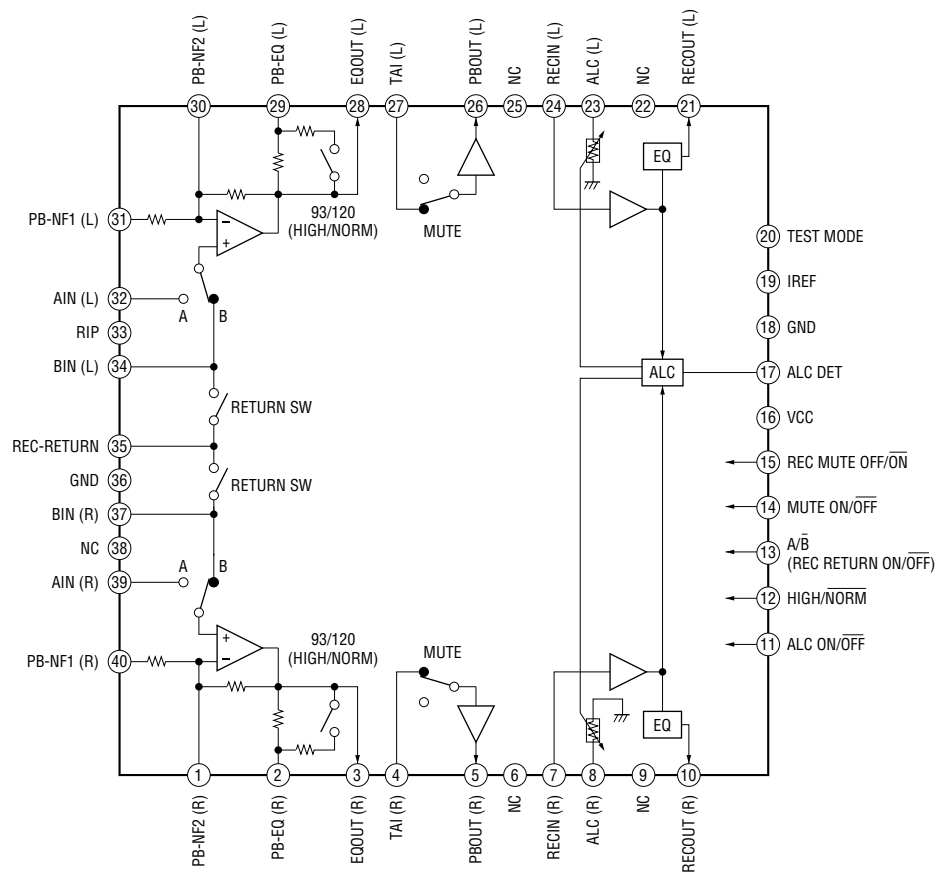
IC701, 712 BA6956AN (DRIVER Board)



IC301 M61529FP (MAIN Board)



IC201 HA12237F (MAIN Board)



## SECTION 6 EXPLODED VIEWS

**NOTE:**

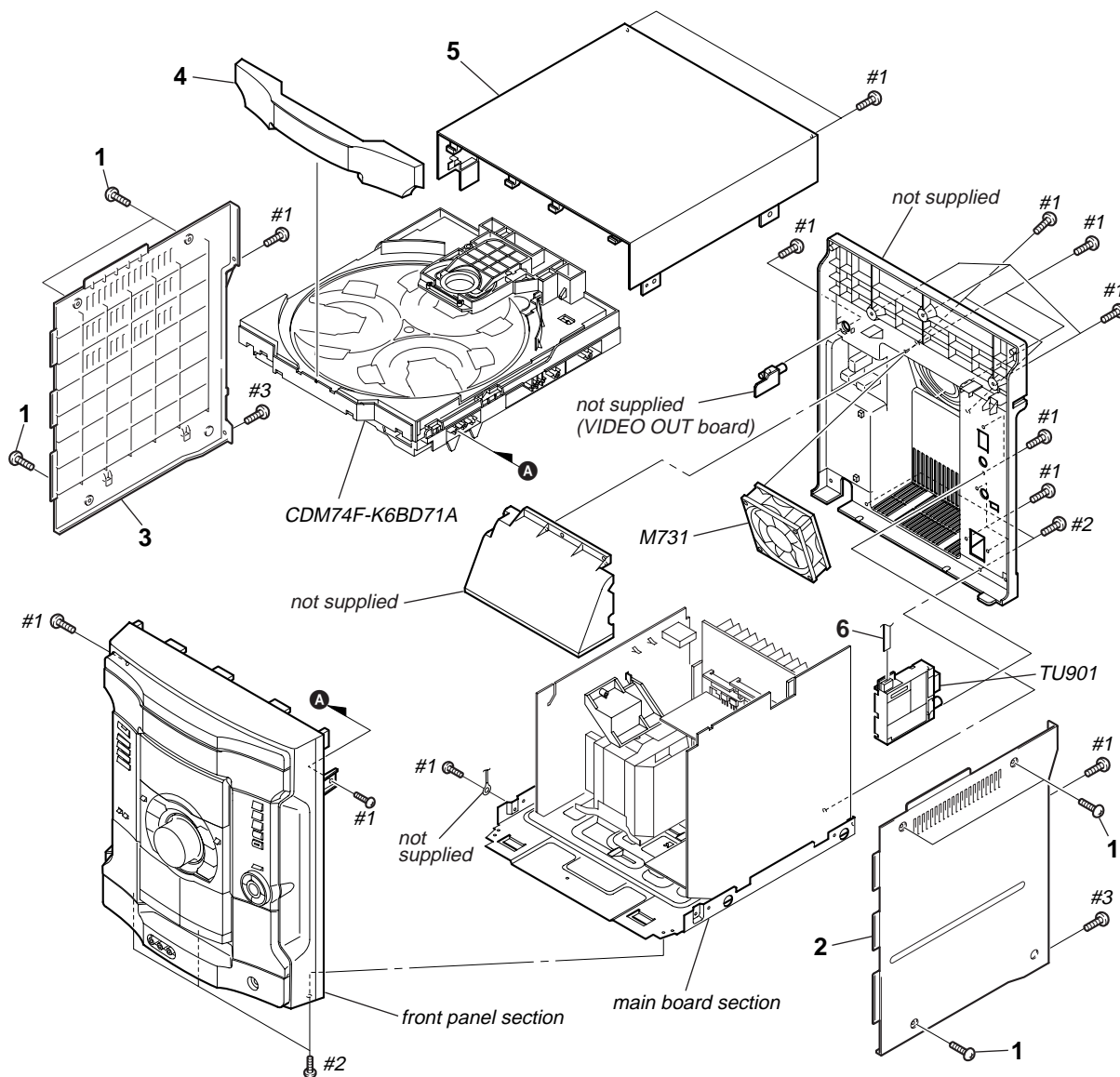
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked “\*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Accessories are given in the last of this parts list.
- Abbreviation  
CND : Canadian model  
AUS : Australian model

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

Les composants identifiés par une marque  $\triangle$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

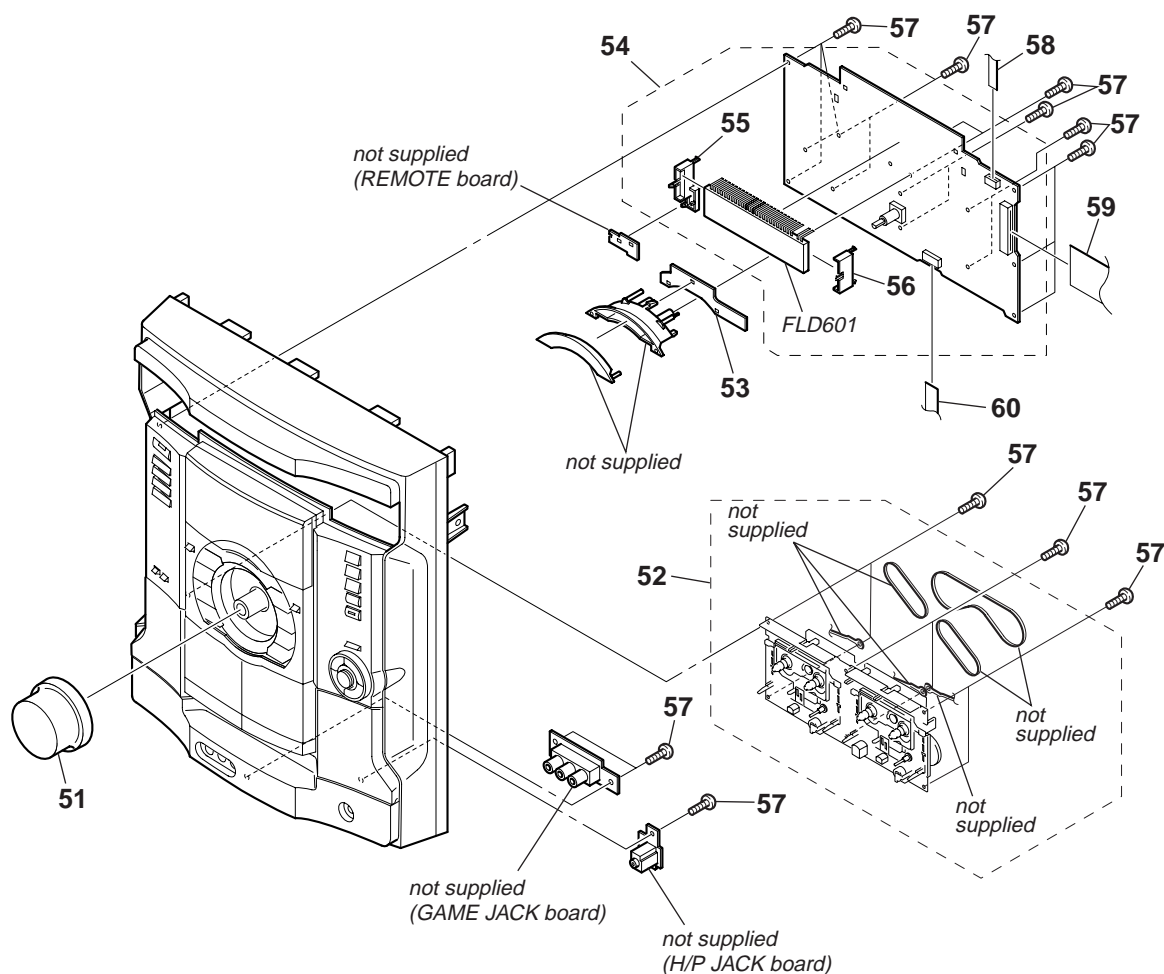
**6-1. MAIN SECTION**



Ref. No.	Part No.	Description	Remark
1	3-363-099-41	SCREW (CASE 3 TP2)	
2	4-245-184-21	CASE (SIDE-R) (GX45)	
2	4-245-184-31	CASE (SIDE-R) (RG440)	
3	4-245-183-21	CASE (SIDE-L) (GX45)	
3	4-245-183-31	CASE (SIDE-L) (RG440)	
4	4-244-662-51	CD DOOR (GX45)	
4	4-244-662-61	CD DOOR (RG440)	
5	4-244-849-01	CASE (TOP) (GX45)	
5	4-244-849-11	CASE (TOP) (RG440)	
6	1-769-939-11	WIRE (FLAT TYPE) (11 CORE) (GX45)	
6	1-773-003-11	WIRE (FLAT TYPE) (15 CORE) (RG440)	

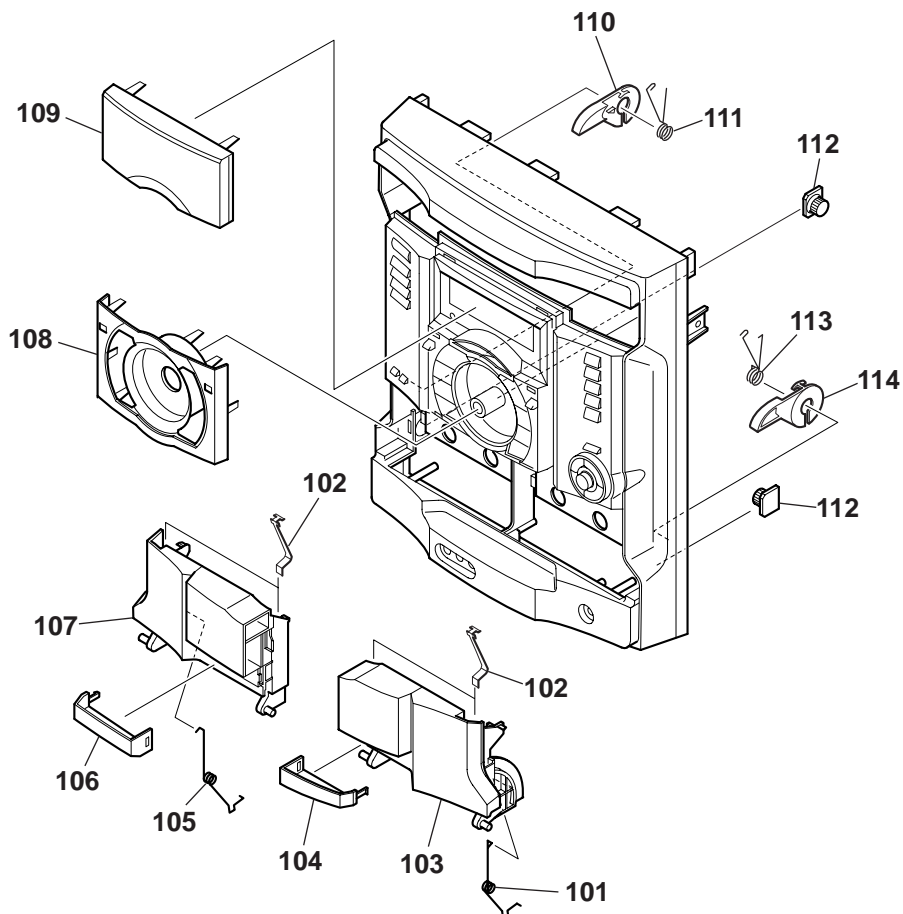
Ref. No.	Part No.	Description	Remark
M731	1-763-072-11	FAN, DC	
TU901	1-693-625-11	TUNER PACK (FM/AM) (ANTENNA) (GX45)	
TU901	1-693-626-11	TUNER PACK (FM/AM) (ANTENNA) (RG440:AEP,UK)	
TU901	1-693-628-11	TUNER PACK (FM/AM) (ANTENNA) (RG440:AUS)	
#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
#2	7-685-872-09	SCREW +BVTT 3X8 (S)	
#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

6-2. FRONT PANEL SECTION (1)



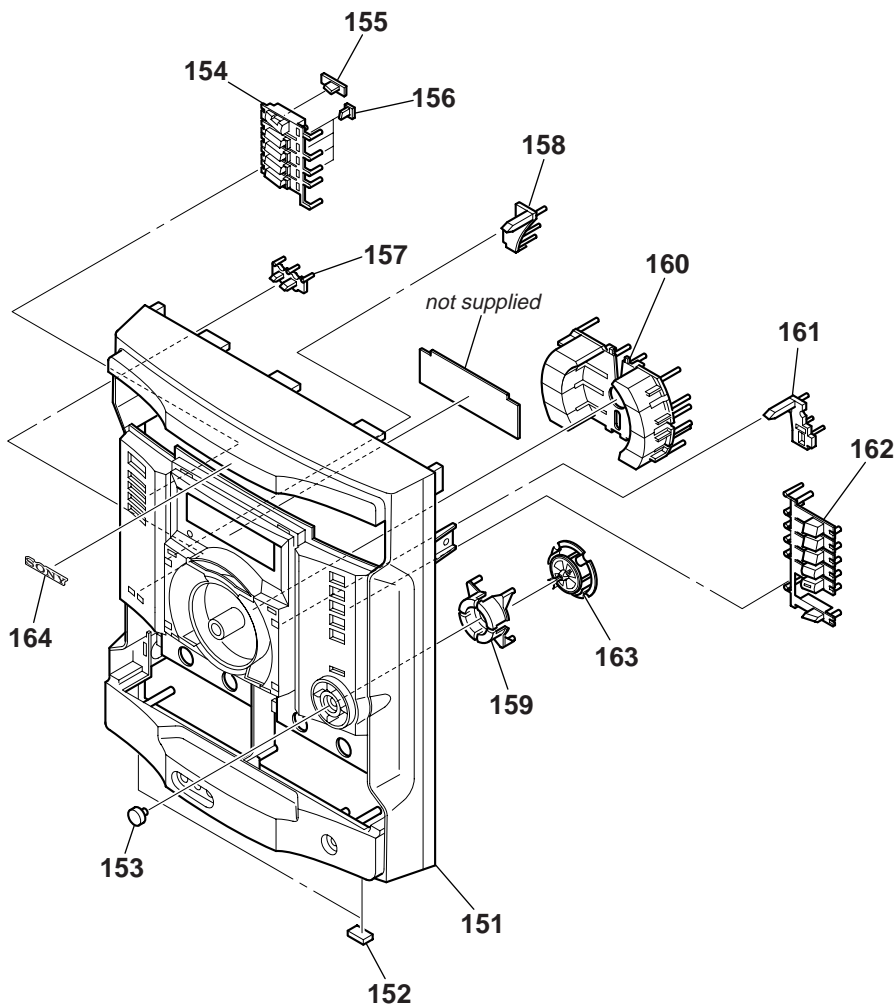
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-244-686-01	VOLUME KNOB		56	4-244-691-01	FL HOLDER (R)	
52	1-796-485-51	DECK, MECHANICAL		57	4-951-620-01	SCREW (2.6X8), +BVTP	
53	1-688-081-21	6 STREAM LED BOARD		58	1-769-914-11	WIRE (FLAT TYPE) (9 CORE)	
54	A-4748-707-A	PANEL BOARD, COMPLETE (GX45)		59	1-773-322-11	WIRE (FLAT TYPE) (31 CORE)	
54	A-4748-713-A	PANEL BOARD, COMPLETE (RG440)		60	1-827-145-11	WIRE (FLAT TYPE) (13 CORE)	
55	4-244-690-01	FL HOLDER (L)		FLD601	1-518-863-11	INDICATOR TUBE, FLUORESCENT	

## 6-3. FRONT PANEL SECTION (2)



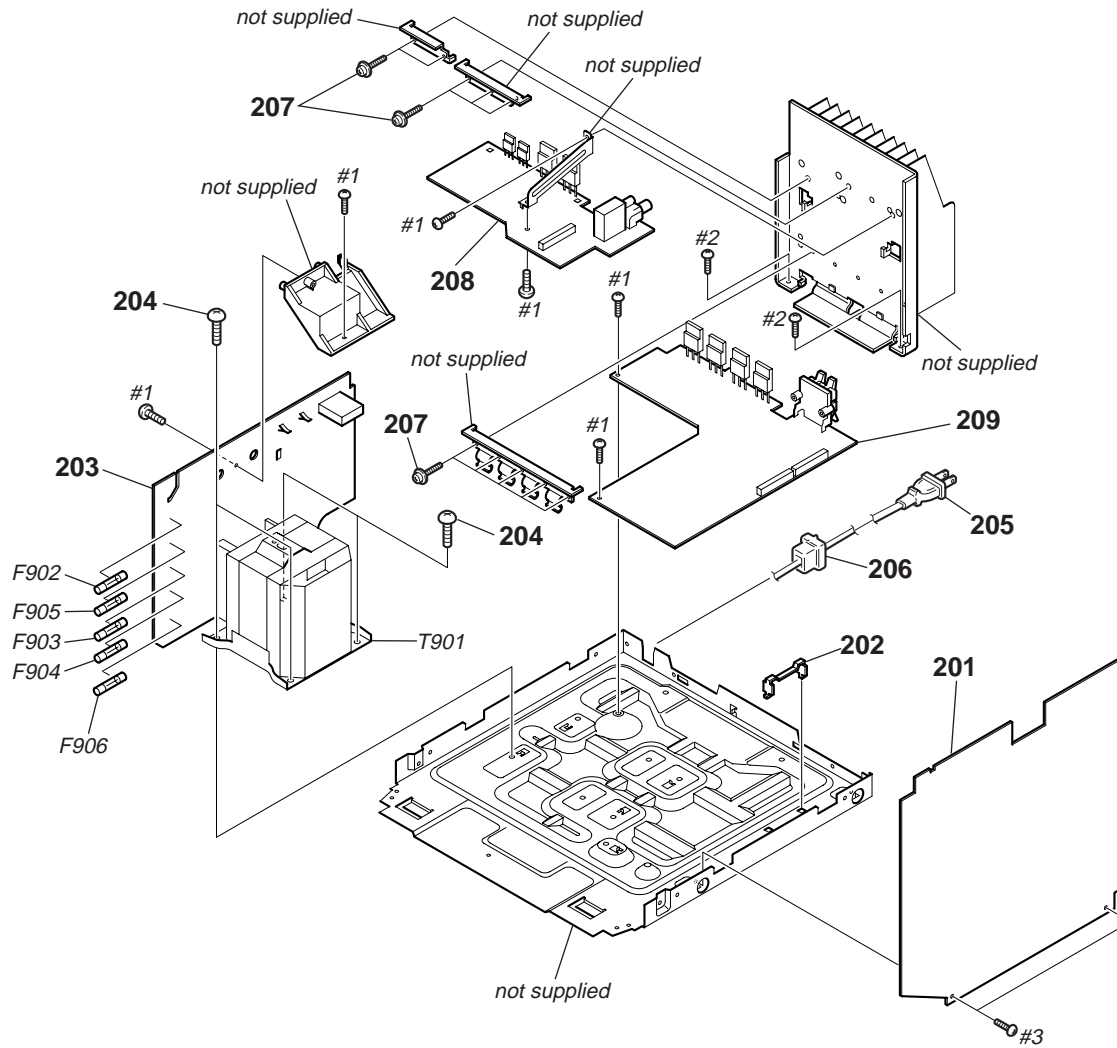
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-244-701-01	CASS DOOR SPRING (B)		108	4-244-661-01	SUB PANEL	
102	4-238-631-01	TAPE SPRING		109	4-244-669-01	DISPLAY WINDOW	
103	4-244-666-01	CASS (DOOR) (R)		110	4-231-824-01	CAM (A), HEART	
104	4-244-668-01	CASS WINDOW (R)		111	4-231-836-01	SPRING (HEART CAM-A)	
105	4-244-700-01	CASS DOOR SPRING (A)		112	4-224-104-41	DAMPER	
106	4-244-667-01	CASS WINDOW (L)		113	4-231-841-01	SPRING (HEART CAM-B)	
107	4-244-663-01	CASS (DOOR) (L)		114	4-231-825-01	CAM (B), HEART	

6-4. FRONT PANEL SECTION (3)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	4-244-660-11	FRONT PANEL (RG440)		158	4-246-086-01	DISPLAY BUTTON (A)	
151	4-244-660-31	FRONT PANEL (GX45)		159	4-244-684-01	EQ BUTTON	
152	4-225-252-01	CUSHION (FOOT)		160	4-244-906-01	CONTROL BUTTON (B)	
153	4-244-680-01	GAME MIXING BUTTON		161	4-246-087-01	PAUSE BUTTON (A)	
154	4-244-676-01	FUNCTION BUTTON		162	4-244-679-01	DISC BUTTON	
155	4-244-677-01	POWER LENS		163	4-244-687-01	GAME MIXING HOLDER	
156	4-244-678-01	FUNCTION LENS		164	3-038-018-01	EMBLEM, SONY	
157	4-244-683-01	RECORD BUTTON (A)					

## 6-5. MAIN BOARD SECTION

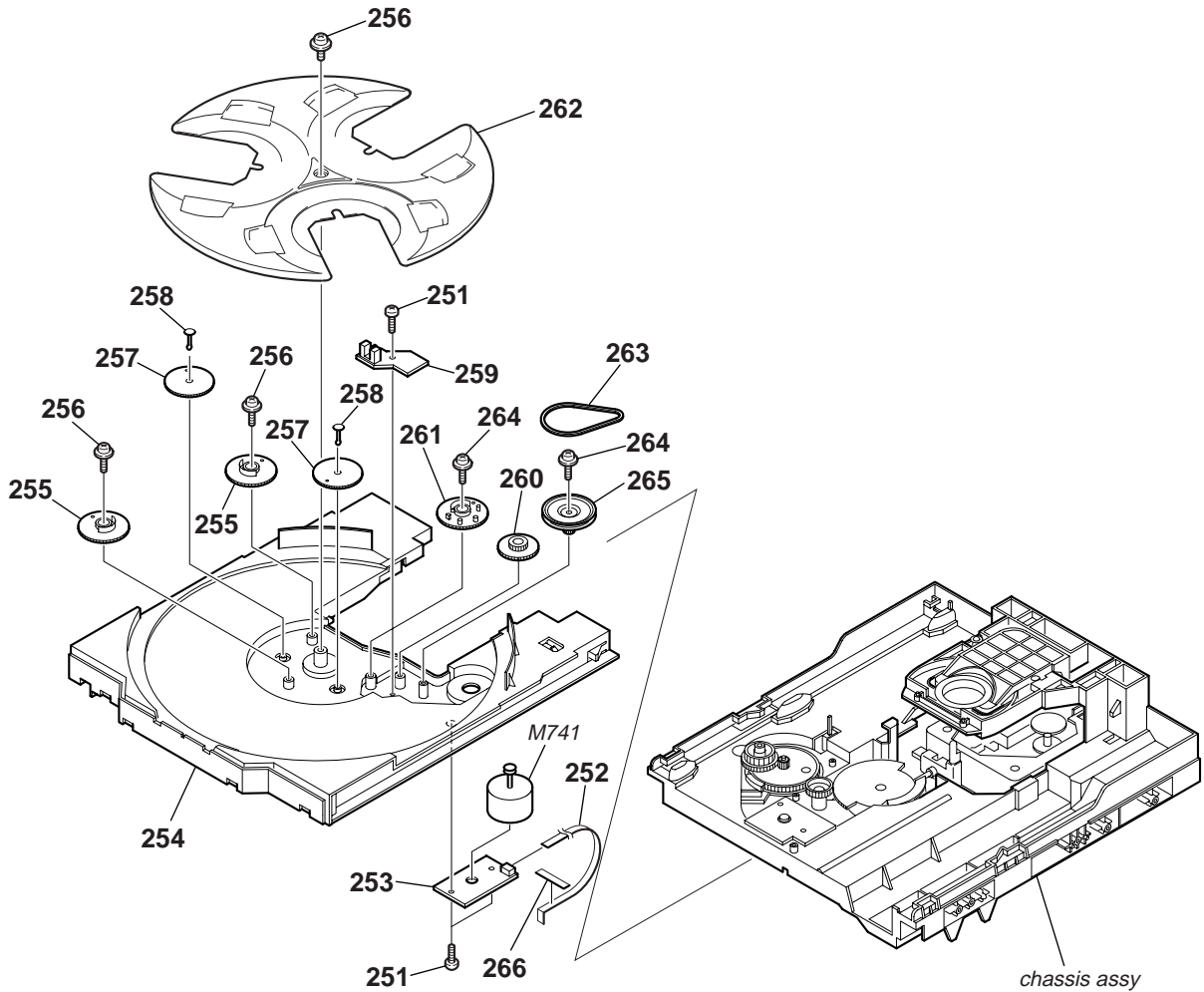


<p>The components identified by mark <math>\triangle</math> or dotted line with mark <math>\triangle</math> are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque <math>\triangle</math> sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	A-4748-704-A	MAIN BOARD, COMPLETE		$\triangle$ F903	1-533-452-12	FUSE, GLASS TUBE (DIA.5) (4A/125V) (GX45)	
202	4-988-533-01	HOLDER, PWB		$\triangle$ F903	1-533-472-11	FUSE, GLASS TUBE (DIA.5) (T5AL/250V) (RG440)	
203	1-688-747-11	TRANS BOARD		$\triangle$ F904	1-533-452-12	FUSE, GLASS TUBE (DIA.5) (4A/125V) (GX45)	
204	4-242-527-01	S-SCREW, ITC+4-8 R		$\triangle$ F904	1-533-472-11	FUSE, GLASS TUBE (DIA.5) (T5AL/250V) (RG440)	
$\triangle$ 205	1-690-608-11	CORD, POWER (RG440:AUS)		$\triangle$ F905	1-576-537-11	FUSE, GLASS TUBE (DIA.5) (8A/125V) (GX45)	
$\triangle$ 205	1-777-071-83	CORD, POWER (RG440:AEP,UK)		$\triangle$ F905	1-576-655-11	FUSE, GLASS TUBE (DIA.5) (T8AL/250V) (RG440)	
$\triangle$ 205	1-783-532-11	CORD, POWER (GX45)		$\triangle$ F906	1-576-537-11	FUSE, GLASS TUBE (DIA.5) (8A/125V) (GX45)	
* 206	3-703-244-00	BUSHING (2104), CORD		$\triangle$ F906	1-576-655-11	FUSE, GLASS TUBE (DIA.5) (T8AL/250V) (RG440)	
207	3-905-609-01	SCREW (TRANSISTOR)		$\triangle$ T901	1-439-810-11	TRANSFORMER, POWER (GX45)	
208	A-4732-797-A	SUBWOOFER BOARD, COMPLETE		$\triangle$ T901	1-439-811-11	TRANSFORMER, POWER (RG440:AEP,UK)	
209	A-4748-696-A	POWER AMP BOARD, COMPLETE (GX45)		$\triangle$ T901	1-443-025-11	TRANSFORMER, POWER (RG440:AUS)	
209	A-4748-701-A	POWER AMP BOARD, COMPLETE (RG440)		#1	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3	
$\triangle$ F902	1-533-451-12	FUSE, GLASS TUBE (DIA.5) (3.15A/125V) (GX45)		#2	7-685-872-09	SCREW +BVTP 3X8 (S)	
$\triangle$ F902	1-533-470-11	FUSE, GLASS TUBE (DIA.5) (T3.15AL/250V) (RG440)		#3	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	

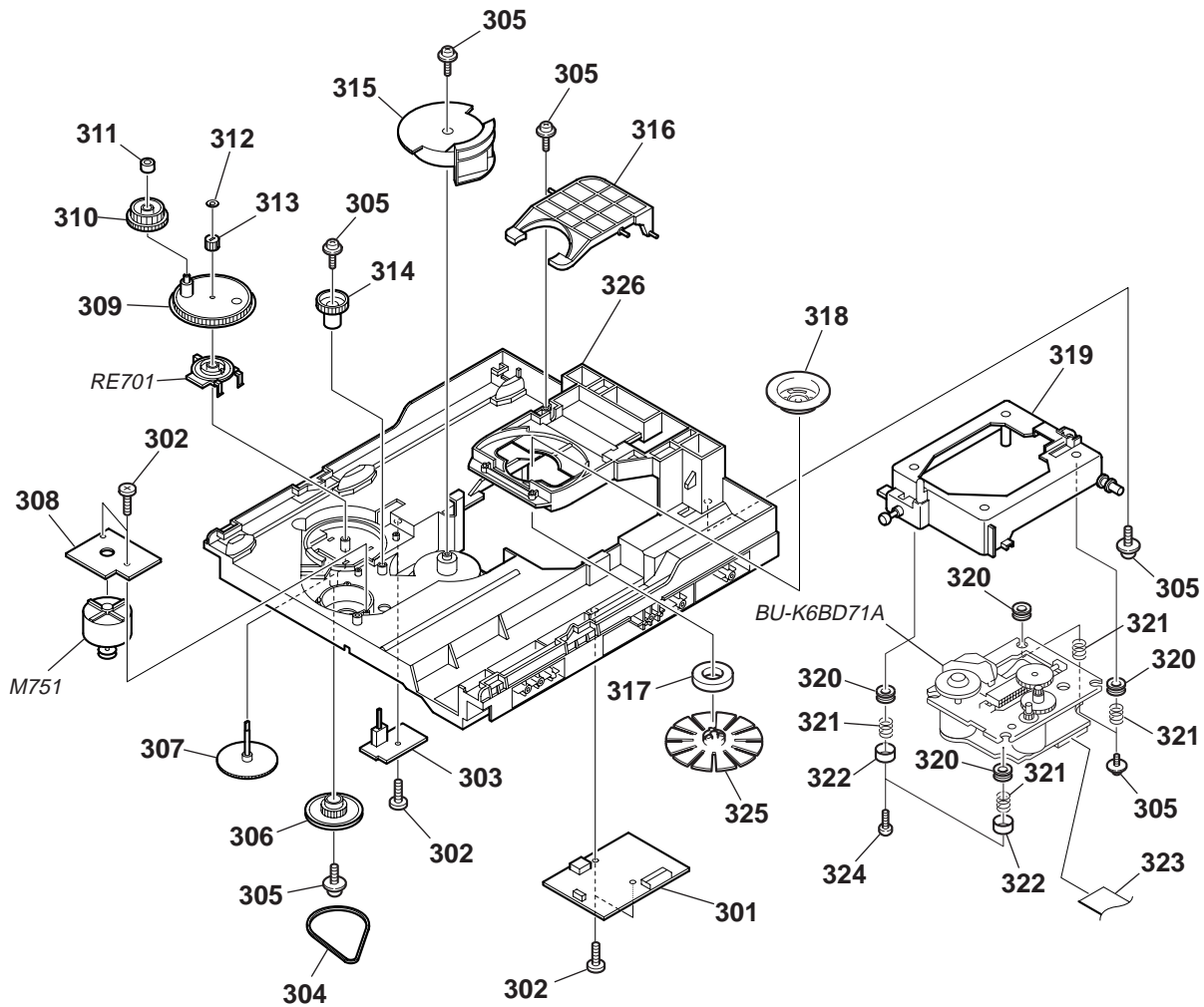


6-6. CD MECHANISM DECK SECTION (1)  
(CDM74F-K6BD71A)



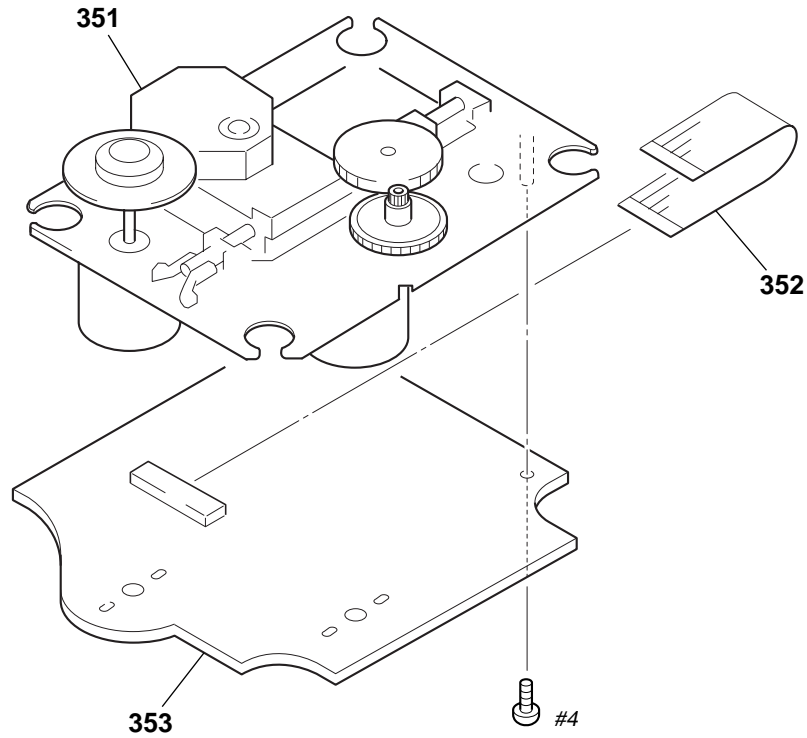
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	4-218-253-21	SCREW (M2.6), +BTTP		260	4-243-820-01	GEAR (TABLE)	
252	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)		261	4-243-819-01	GEAR (GENEVA)	
253	1-687-134-11	MOTOR (TB) BOARD		262	4-243-816-01	TRAY	
254	4-243-815-01	TABLE (LOADING)		263	4-243-823-01	BELT (TABLE)	
255	4-245-571-02	GEAR (STOPPER)		264	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
256	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING		265	4-243-821-01	PULLEY (TABLE)	
257	4-245-570-01	GEAR (JOINT)		266	3-231-598-01	SHEET (BA)	
258	4-245-572-01	BUSHING (GEAR)		M741	A-4723-963-A	MOTOR ASSY, TABLE (TABLE)	
259	1-687-132-11	SENSOR BOARD					

6-7. CD MECHANISM DECK SECTION (2)  
(CDM74F-K6BD71A)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
301	1-687-135-11	DRIVER BOARD		316	4-243-822-01	LEVER (LIFTER)	
302	4-218-253-31	SCREW (M2.6), +BTTP		317	1-471-035-11	MAGNET ASSY	
303	1-687-669-11	SW BOARD		318	4-231-189-01	PULLEY (B), CHUCKING	
304	4-244-034-01	BELT (LOADING)		319	X-4955-536-1	HOLDER (213) ASSY	
305	4-218-252-61	SCREW (+PTPWH M2.6), FLOATING		320	4-227-549-11	INSULATOR	
306	4-225-844-01	GEAR (LOADING A)		321	4-227-045-31	SPRING (INSULATOR), COIL	
307	4-224-613-01	GEAR (SHAFT)		322	4-231-151-01	STOPPER (BU)	
308	1-687-133-11	MOTOR (LD) BOARD		323	1-827-146-11	WIRE (FLAT TYPE) (19 CORE)	
309	4-244-108-01	GEAR, SWING		324	4-218-253-21	SCREW (M2.6), +BTTP	
310	4-224-609-01	GEAR (LOADING C)		325	X-4955-707-1	PULLEY (A5) ASSY, CHUCKING	
311	4-224-608-01	COLLAR, SWING		326	4-243-817-01	CHASSIS	
312	3-016-533-11	WASHER (FR), STOPPER		M751	A-4736-655-A	MOTOR ASSY, LOADING (LOADING)	
313	4-224-611-01	GEAR (LOADING B)		RE701	1-477-680-11	ENCODER, ROTARY (DISC TRAY ADDRESS DETECT)	
314	4-224-606-01	GEAR (RV)					
315	4-243-818-01	GEAR (U/D)					

6-8. BASE UNIT SECTION  
(BU-K6BD71B)



<p>The components identified by mark <math>\triangle</math> or dotted line with mark <math>\triangle</math> are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque <math>\triangle</math> sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
$\triangle$ 351	A-4735-357-A	BASE ASSY, OP		353	A-4732-699-A	BD BOARD, COMPLETE	
352	1-823-859-11	WIRE (FLAT TYPE) (16 CORE)		#4	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	

SECTION 7  
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 :  $\mu$ , for example:  
uA.. :  $\mu$ A.. uPA.. :  $\mu$ PA..  
uPB.. :  $\mu$ PB.. uPC.. :  $\mu$ PC.. uPD.. :  $\mu$ PD..
- CAPACITORS  
uF :  $\mu$ F
- COILS  
uH :  $\mu$ H
- Abbreviation  
CND : Canadian model  
AUS : Australian model

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

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-4732-699-A	BD BOARD, COMPLETE *****					
		< CAPACITOR >					
C701	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C803	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C702	1-126-392-11	ELECT CHIP	100uF 20% 6.3V	C804	1-162-945-11	CERAMIC CHIP	22PF 5% 50V
C703	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C805	1-126-392-11	ELECT CHIP	100uF 20% 6.3V
C704	1-126-391-11	ELECT CHIP	47uF 20% 6.3V	C806	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C705	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C807	1-126-392-11	ELECT CHIP	100uF 20% 6.3V
C706	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C810	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C707	1-126-392-11	ELECT CHIP	100uF 20% 6.3V	C811	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C708	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C812	1-115-156-11	CERAMIC CHIP	1uF 10V
C709	1-126-392-11	ELECT CHIP	100uF 20% 6.3V	C813	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C710	1-165-176-11	CERAMIC CHIP	0.047uF 10% 16V	C814	1-126-392-11	ELECT CHIP	100uF 20% 6.3V
C711	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C815	1-128-360-11	ELECT CHIP	220uF 20% 10V
C712	1-162-949-11	CERAMIC CHIP	47PF 5% 50V	C816	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C713	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V	C817	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C714	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C823	1-162-949-11	CERAMIC CHIP	47PF 5% 50V
C715	1-126-401-21	ELECT CHIP	1uF 20% 50V	C824	1-162-949-11	CERAMIC CHIP	47PF 5% 50V
C716	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C825	1-162-949-11	CERAMIC CHIP	47PF 5% 50V
C717	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V	C829	1-162-949-11	CERAMIC CHIP	47PF 5% 50V
C718	1-115-156-11	CERAMIC CHIP	1uF 10V	C830	1-162-945-11	CERAMIC CHIP	22PF 5% 50V
C719	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V	C831	1-162-945-11	CERAMIC CHIP	22PF 5% 50V
C720	1-162-953-11	CERAMIC CHIP	100PF 5% 50V	C834	1-128-360-11	ELECT CHIP	220uF 20% 10V
C721	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C835	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C722	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C837	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C723	1-126-392-11	ELECT CHIP	100uF 20% 6.3V	C843	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C729	1-128-360-11	ELECT CHIP	220uF 20% 10V	C844	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C731	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C856	1-115-156-11	CERAMIC CHIP	1uF 10V
C732	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	C857	1-162-945-11	CERAMIC CHIP	22PF 5% 50V
C733	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V	C858	1-162-945-11	CERAMIC CHIP	22PF 5% 50V
C734	1-162-917-11	CERAMIC CHIP	15PF 5% 50V	C859	1-162-945-11	CERAMIC CHIP	22PF 5% 50V
C735	1-162-918-11	CERAMIC CHIP	18PF 5% 50V	C860	1-162-953-11	CERAMIC CHIP	100PF 5% 50V
C741	1-164-156-11	CERAMIC CHIP	0.1uF 25V			< CONNECTOR >	
C742	1-164-156-11	CERAMIC CHIP	0.1uF 25V	CN708	1-817-244-11	CONNECTOR, FFC 16P	
C743	1-165-176-11	CERAMIC CHIP	0.047uF 10% 16V	CN710	1-778-874-11	CONNECTOR, FFC (LIF(NON-ZIF)) 19P	
C744	1-125-837-11	CERAMIC CHIP	1uF 10% 6.3V			< FERRITE BEAD >	
C746	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB701	1-550-907-21	BEAD, FERRITE (CHIP)	
C747	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB707	1-550-907-21	BEAD, FERRITE (CHIP)	
C748	1-128-360-11	ELECT CHIP	220uF 20% 10V	FB708	1-550-907-21	BEAD, FERRITE (CHIP)	
C753	1-162-949-11	CERAMIC CHIP	47PF 5% 50V	FB801	1-550-907-21	BEAD, FERRITE (CHIP)	
C754	1-162-949-11	CERAMIC CHIP	47PF 5% 50V	FB802	1-550-907-21	BEAD, FERRITE (CHIP)	
C756	1-162-949-11	CERAMIC CHIP	47PF 5% 50V	FB803	1-550-907-21	BEAD, FERRITE (CHIP)	
C802	1-164-156-11	CERAMIC CHIP	0.1uF 25V	FB804	1-550-907-21	BEAD, FERRITE (CHIP)	
				FB805	1-550-907-21	BEAD, FERRITE (CHIP)	
				FB806	1-550-907-21	BEAD, FERRITE (CHIP)	
				FB807	1-550-907-21	BEAD, FERRITE (CHIP)	

**BD**      **DRIVER**

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
FB808	1-550-907-21	BEAD, FERRITE (CHIP)		R817	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
		< IC >		R818	1-216-811-11	METAL CHIP 150 5%	1/10W
IC721	6-701-796-01	IC LC78646E-E		R819	1-216-821-11	METAL CHIP 1K 5%	1/10W
IC722	6-704-220-01	IC BA5836FP		R820	1-216-821-11	METAL CHIP 1K 5%	1/10W
IC801	6-704-008-01	IC LC78684E-E		R823	1-216-809-11	METAL CHIP 100 5%	1/10W
IC802	6-704-009-01	IC LC32V4265CT-25-MPB-E		R824	1-216-809-11	METAL CHIP 100 5%	1/10W
IC803	6-704-007-01	IC MM1571J		R825	1-216-809-11	METAL CHIP 100 5%	1/10W
		< TRANSISTOR >		R826	1-216-809-11	METAL CHIP 100 5%	1/10W
Q701	8-729-054-57	TRANSISTOR KTN2907AS-RTK		R827	1-216-809-11	METAL CHIP 100 5%	1/10W
		< RESISTOR >		R828	1-216-809-11	METAL CHIP 100 5%	1/10W
R701	1-216-841-11	METAL CHIP 47K 5%	1/10W	R829	1-216-809-11	METAL CHIP 100 5%	1/10W
R702	1-216-835-11	METAL CHIP 15K 5%	1/10W	R832	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R703	1-216-835-11	METAL CHIP 15K 5%	1/10W	R833	1-216-809-11	METAL CHIP 100 5%	1/10W
R704	1-216-835-11	METAL CHIP 15K 5%	1/10W	R834	1-216-809-11	METAL CHIP 100 5%	1/10W
R705	1-216-835-11	METAL CHIP 15K 5%	1/10W	R860	1-216-809-11	METAL CHIP 100 5%	1/10W
		< SWITCH >					
R706	1-216-841-11	METAL CHIP 47K 5%	1/10W	S701	1-771-853-11	SWITCH, DETECTION (LIMIT)	
R707	1-216-797-11	METAL CHIP 10 5%	1/10W			< VIBRATOR >	
R708	1-216-833-11	METAL CHIP 10K 5%	1/10W	X701	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)	
R709	1-216-838-11	METAL CHIP 27K 5%	1/10W			*****	
R711	1-216-815-11	METAL CHIP 330 5%	1/10W		1-687-135-11	DRIVER BOARD	
		< CAPACITOR >				*****	
R713	1-216-821-11	METAL CHIP 1K 5%	1/10W	C715	1-126-933-11	ELECT 100uF 20%	16V
R714	1-216-809-11	METAL CHIP 100 5%	1/10W	C731	1-126-964-11	ELECT 10uF 20%	50V
R715	1-216-809-11	METAL CHIP 100 5%	1/10W	C735	1-164-159-21	CERAMIC 0.1uF	50V
R716	1-216-809-11	METAL CHIP 100 5%	1/10W	C736	1-164-159-21	CERAMIC 0.1uF	50V
R717	1-216-809-11	METAL CHIP 100 5%	1/10W	C737	1-164-159-21	CERAMIC 0.1uF	50V
		< CONNECTOR >		C741	1-162-306-11	CERAMIC 0.01uF 30%	16V
R718	1-216-809-11	METAL CHIP 100 5%	1/10W	C751	1-162-306-11	CERAMIC 0.01uF 30%	16V
R719	1-216-809-11	METAL CHIP 100 5%	1/10W	C752	1-164-159-21	CERAMIC 0.1uF	50V
R720	1-216-809-11	METAL CHIP 100 5%	1/10W			< DIODE >	
R721	1-216-809-11	METAL CHIP 100 5%	1/10W	CN701	1-785-338-11	PIN, CONNECTOR (LIGHT ANGLE) 12P	
R722	1-216-821-11	METAL CHIP 1K 5%	1/10W	CN702	1-784-766-11	CONNECTOR, FFC 5P	
		< DIODE >		* CN703	1-564-720-11	PIN, CONNECTOR (SMALL TYPE) 4P	
R725	1-216-819-11	METAL CHIP 680 5%	1/10W	CN704	1-785-328-11	PIN, CONNECTOR (LIGHT ANGLE) 2P	
R726	1-216-819-11	METAL CHIP 680 5%	1/10W			< DIODE >	
R727	1-216-809-11	METAL CHIP 100 5%	1/10W	D701	8-719-921-42	DIODE MTZJ-5.1A	
R728	1-216-841-11	METAL CHIP 47K 5%	1/10W	D711	8-719-109-69	DIODE RD3.6ES-B2	
R729	1-216-834-11	METAL CHIP 12K 5%	1/10W			< IC >	
		< DIODE >		IC701	8-759-598-69	IC BA6956AN	
R730	1-216-822-11	METAL CHIP 1.2K 5%	1/10W	IC712	8-759-598-69	IC BA6956AN	
R731	1-216-825-11	METAL CHIP 2.2K 5%	1/10W			< TRANSISTOR >	
R732	1-216-864-11	METAL CHIP 0 5%	1/10W	Q731	8-729-029-66	TRANSISTOR DTC114ESA	
R738	1-218-867-11	METAL CHIP 6.8K 5%	1/10W			< RESISTOR >	
R739	1-216-864-11	METAL CHIP 0 5%	1/10W	R701	1-249-413-11	CARBON 470 5%	1/4W
		< DIODE >		R702	1-247-807-31	CARBON 100 5%	1/4W
R740	1-218-867-11	METAL CHIP 6.8K 5%	1/10W	R711	1-249-417-11	CARBON 1K 5%	1/4W
R741	1-216-864-11	METAL CHIP 0 5%	1/10W	R712	1-249-425-11	CARBON 4.7K 5%	1/4W
R744	1-216-845-11	METAL CHIP 100K 5%	1/10W				
R745	1-216-809-11	METAL CHIP 100 5%	1/10W				
R746	1-216-803-11	METAL CHIP 33 5%	1/10W				
		< IC >					
R747	1-216-803-11	METAL CHIP 33 5%	1/10W				
R760	1-216-809-11	METAL CHIP 100 5%	1/10W				
R765	1-216-857-11	METAL CHIP 1M 5%	1/10W				
R801	1-216-809-11	METAL CHIP 100 5%	1/10W				
R802	1-216-809-11	METAL CHIP 100 5%	1/10W				
		< RESISTOR >					
R803	1-216-809-11	METAL CHIP 100 5%	1/10W				
R804	1-216-809-11	METAL CHIP 100 5%	1/10W				
R805	1-216-809-11	METAL CHIP 100 5%	1/10W				
R806	1-216-809-11	METAL CHIP 100 5%	1/10W				
R807	1-216-809-11	METAL CHIP 100 5%	1/10W				

# HCD-GX45/RG440

**DRIVER**      **GAME JACK**      **H/P JACK**      **MAIN**

Ref. No.	Part No.	Description	Remark
R713	1-249-433-11	CARBON 22K 5%	1/4W
R721	1-249-425-11	CARBON 4.7K 5%	1/4W
R722	1-249-425-11	CARBON 4.7K 5%	1/4W
R723	1-249-425-11	CARBON 4.7K 5%	1/4W
R731	1-247-807-31	CARBON 100 5%	1/4W
R732	1-249-429-11	CARBON 10K 5%	1/4W
R733	1-249-417-11	CARBON 1K 5%	1/4W
R734	1-249-430-11	CARBON 12K 5%	1/4W
R735	1-247-807-31	CARBON 100 5%	1/4W
R751	1-249-425-11	CARBON 4.7K 5%	1/4W

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GAME JACK BOARD  
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< CAPACITOR >

C001	1-162-962-11	CERAMIC CHIP 470PF	10% 50V
C002	1-162-962-11	CERAMIC CHIP 470PF	10% 50V
C003	1-127-715-11	CERAMIC CHIP 0.22uF	10% 16V
C004	1-127-715-11	CERAMIC CHIP 0.22uF	10% 16V

< JACK >

JK001	1-815-684-11	JACK, PIN 3P (GAME INPUT)	VIDEO,AUDIO L/R)
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< JUMPER RESISTOR >

JR001	1-216-864-11	METAL CHIP 0	5% 1/10W
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< RESISTOR >

R001	1-216-833-11	METAL CHIP 10K 5%	1/10W
R002	1-216-833-11	METAL CHIP 10K 5%	1/10W
R003	1-216-837-11	METAL CHIP 22K 5%	1/10W
R004	1-216-837-11	METAL CHIP 22K 5%	1/10W

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H/P JACK BOARD  
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< CAPACITOR >

C006	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C007	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C008	1-164-156-11	CERAMIC CHIP 0.1uF	25V

< JACK >

JK002	1-691-293-21	JACK (PHONES)
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A-4748-704-A MAIN BOARD, COMPLETE  
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7-685-872-09 SCREW +BVTT 3X8 (S)

< CAPACITOR >

C101	1-126-963-11	ELECT 4.7uF	20% 50V
C102	1-126-963-11	ELECT 4.7uF	20% 50V
C103	1-126-933-11	ELECT 100uF	20% 16V
C105	1-162-962-11	CERAMIC CHIP 470PF	10% 50V
C106	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C107	1-164-156-11	CERAMIC CHIP 0.1uF	25V

Ref. No.	Part No.	Description	Remark
C201	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C202	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C203	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C204	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V
C205	1-162-960-11	CERAMIC CHIP 220PF	10% 50V
C206	1-162-923-11	CERAMIC CHIP 47PF	5% 50V
C221	1-126-947-11	ELECT 47uF	20% 16V
C223	1-137-350-11	MYLAR 0.015uF	5% 100V
C225	1-162-962-11	CERAMIC CHIP 470PF	10% 50V
C226	1-162-962-11	CERAMIC CHIP 470PF	10% 50V

(RG440:AEP,UK)

C227	1-162-962-11	CERAMIC CHIP 470PF	10% 50V
C228	1-162-962-11	CERAMIC CHIP 470PF	10% 50V
C230	1-162-949-11	CERAMIC CHIP 47PF	5% 50V
C231	1-162-949-11	CERAMIC CHIP 47PF	5% 50V
C232	1-126-947-11	ELECT 47uF	20% 16V

C233	1-130-485-00	MYLAR 0.015uF	5% 50V
C234	1-130-485-00	MYLAR 0.015uF	5% 50V
C235	1-126-960-11	ELECT 1uF	20% 50V
C236	1-126-933-11	ELECT 100uF	20% 16V
C237	1-126-960-11	ELECT 1uF	20% 50V

C239	1-130-485-00	MYLAR 0.015uF	5% 50V
C240	1-126-964-11	ELECT 10uF	20% 50V
C241	1-130-479-00	MYLAR 0.0047uF	5% 50V
C242	1-130-485-00	MYLAR 0.015uF	5% 50V
C244	1-126-947-11	ELECT 47uF	20% 16V

C247	1-126-961-11	ELECT 2.2uF	20% 50V
C248	1-126-961-11	ELECT 2.2uF	20% 50V
C249	1-126-961-11	ELECT 2.2uF	20% 50V
C250	1-126-961-11	ELECT 2.2uF	20% 50V
C253	1-126-933-11	ELECT 100uF	20% 16V

C254	1-126-963-11	ELECT 4.7uF	20% 50V
C255	1-126-961-11	ELECT 2.2uF	20% 50V
C256	1-126-959-11	ELECT 0.47uF	20% 50V
C257	1-126-956-11	ELECT 0.1uF	20% 50V
C258	1-126-963-11	ELECT 4.7uF	20% 50V

C259	1-128-551-11	ELECT 22uF	20% 25V
C260	1-126-959-11	ELECT 0.47uF	20% 50V
C261	1-126-959-11	ELECT 0.47uF	20% 50V
C265	1-130-489-00	MYLAR 0.033uF	5% 50V
C266	1-130-483-00	MYLAR 0.01uF	5% 50V

C267	1-130-483-00	MYLAR 0.01uF	5% 50V
C268	1-126-960-11	ELECT 1uF	20% 50V
C269	1-126-960-11	ELECT 1uF	20% 50V
C272	1-126-960-11	ELECT 1uF	20% 50V
C273	1-126-960-11	ELECT 1uF	20% 50V

C285	1-162-966-11	CERAMIC CHIP 0.0022uF	10% 50V
C286	1-162-966-11	CERAMIC CHIP 0.0022uF	10% 50V
C300	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C303	1-104-665-11	ELECT 100uF	20% 10V
C304	1-126-963-11	ELECT 4.7uF	20% 50V

C305	1-162-919-11	CERAMIC CHIP 22PF	5% 50V
C306	1-162-919-11	CERAMIC CHIP 22PF	5% 50V
C307	1-126-964-11	ELECT 10uF	20% 50V
C308	1-126-964-11	ELECT 10uF	20% 50V
C309	1-126-964-11	ELECT 10uF	20% 50V

(RG440:AEP,UK)

(RG440:AEP,UK)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C310	1-126-964-11	ELECT	10uF 20% 50V	C389	1-126-933-11	ELECT	100uF 20% 16V
C311	1-126-964-11	ELECT	10uF 20% 50V	C390	1-162-953-11	CERAMIC CHIP	100PF 5% 50V
C312	1-126-964-11	ELECT	10uF 20% 50V	C391	1-162-953-11	CERAMIC CHIP	100PF 5% 50V
C313	1-107-714-11	ELECT	10uF 20% 16V	C392	1-162-953-11	CERAMIC CHIP	100PF 5% 50V
C314	1-107-714-11	ELECT	10uF 20% 16V	C393	1-126-959-11	ELECT	0.47uF 20% 50V
C317	1-126-964-11	ELECT	10uF 20% 50V	C394	1-126-964-11	ELECT	10uF 20% 50V
C318	1-126-964-11	ELECT	10uF 20% 50V	C397	1-104-665-11	ELECT	100uF 20% 10V
C319	1-165-176-11	CERAMIC CHIP	0.047uF 10% 16V	C398	1-126-964-11	ELECT	10uF 20% 50V
C320	1-130-487-00	MYLAR	0.022uF 5% 50V	C399	1-126-935-11	ELECT	470uF 20% 16V
C321	1-130-487-00	MYLAR	0.022uF 5% 50V	C401	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C323	1-130-487-00	MYLAR	0.022uF 5% 50V	C402	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C324	1-130-487-00	MYLAR	0.022uF 5% 50V	C409	1-126-964-11	ELECT	10uF 20% 50V
C325	1-130-491-00	MYLAR	0.047uF 5% 50V	C411	1-107-713-11	ELECT	4.7uF 20% 35V
C326	1-130-491-00	MYLAR	0.047uF 5% 50V	C412	1-107-713-11	ELECT	4.7uF 20% 35V
C327	1-130-476-00	MYLAR	0.0027uF 5% 50V	C417	1-126-926-11	ELECT	1000uF 20% 10V
C328	1-130-476-00	MYLAR	0.0027uF 5% 50V	C418	1-130-483-00	MYLAR	0.01uF 5% 50V
C331	1-130-494-11	MYLAR	0.082uF 5% 50V	C419	1-130-483-00	MYLAR	0.01uF 5% 50V
C332	1-130-494-11	MYLAR	0.082uF 5% 50V	C420	1-126-943-11	ELECT	2200uF 20% 25V
C333	1-130-493-00	MYLAR	0.068uF 5% 50V	C421	1-126-934-11	ELECT	220uF 20% 16V
C334	1-130-493-00	MYLAR	0.068uF 5% 50V	C423	1-126-947-11	ELECT	47uF 20% 16V
C335	1-136-169-00	FILM	0.22uF 5% 50V	C424	1-162-919-11	CERAMIC CHIP	22PF 5% 50V (RG440:AEP,UK)
C336	1-136-171-00	FILM	0.33uF 5% 50V	C425	1-162-923-11	CERAMIC CHIP	47PF 5% 50V (RG440:AEP,UK)
C337	1-126-964-11	ELECT	10uF 20% 50V	C426	1-162-962-11	CERAMIC CHIP	470PF 10% 50V (RG440:AEP,UK)
C338	1-130-491-00	MYLAR	0.047uF 5% 50V	C427	1-162-962-11	CERAMIC CHIP	470PF 10% 50V (RG440:AEP,UK)
C339	1-126-934-11	ELECT	220uF 20% 16V	C428	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V (RG440:AEP,UK)
C342	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C429	1-162-927-11	CERAMIC CHIP	100PF 5% 50V (RG440:AEP,UK)
C344	1-126-933-11	ELECT	100uF 20% 16V	C430	1-162-960-11	CERAMIC CHIP	220PF 10% 50V (RG440:AEP,UK)
C345	1-126-933-11	ELECT	100uF 20% 16V	C431	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V (RG440:AEP,UK)
C346	1-126-964-11	ELECT	10uF 20% 50V	C432	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V (RG440:AEP,UK)
C348	1-126-947-11	ELECT	47uF 20% 16V	C433	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V (RG440:AEP,UK)
C349	1-126-964-11	ELECT	10uF 20% 50V	C434	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V (RG440:AEP,UK)
C350	1-126-964-11	ELECT	10uF 20% 50V	C435	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V (RG440:AEP,UK)
C353	1-162-962-11	CERAMIC CHIP	470PF 10% 50V	C436	1-162-915-11	CERAMIC CHIP	10PF 0.5PF 50V (RG440:AEP,UK)
C354	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C437	1-162-960-11	CERAMIC CHIP	220PF 10% 50V (RG440:AEP,UK)
C355	1-162-962-11	CERAMIC CHIP	470PF 10% 50V	C438	1-162-960-11	CERAMIC CHIP	220PF 10% 50V (RG440:AEP,UK)
C356	1-162-962-11	CERAMIC CHIP	470PF 10% 50V	C441	1-165-128-11	CERAMIC CHIP	0.22uF 16V (RG440:AEP,UK)
C357	1-126-926-11	ELECT	1000uF 20% 10V	C444	1-162-923-11	CERAMIC CHIP	47PF 5% 50V (RG440:AEP,UK)
C359	1-126-947-11	ELECT	47uF 20% 16V	C445	1-162-962-11	CERAMIC CHIP	470PF 10% 50V (RG440:AEP,UK)
C361	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	C448	1-164-156-11	CERAMIC CHIP	0.1uF 25V (RG440:AEP,UK)
C362	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	C449	1-162-919-11	CERAMIC CHIP	22PF 5% 50V (RG440:AEP,UK)
C363	1-126-964-11	ELECT	10uF 20% 50V	C450	1-126-964-11	ELECT	10uF 20% 50V
C364	1-126-964-11	ELECT	10uF 20% 50V				
C365	1-162-960-11	CERAMIC CHIP	220PF 10% 50V				
C366	1-162-960-11	CERAMIC CHIP	220PF 10% 50V				
C368	1-136-169-00	FILM	0.22uF 5% 50V				
C369	1-126-964-11	ELECT	10uF 20% 50V				
C370	1-126-964-11	ELECT	10uF 20% 50V				
C371	1-126-947-11	ELECT	47uF 20% 16V				
C372	1-126-964-11	ELECT	10uF 20% 50V				
C373	1-130-483-00	MYLAR	0.01uF 5% 50V				
C374	1-130-483-00	MYLAR	0.01uF 5% 50V				
C375	1-126-943-11	ELECT	2200uF 20% 25V				
C376	1-126-947-11	ELECT	47uF 20% 16V				
C377	1-126-963-11	ELECT	4.7uF 20% 50V				
C378	1-164-156-11	CERAMIC CHIP	0.1uF 25V				
C380	1-126-935-11	ELECT	470uF 20% 16V				
C381	1-126-947-11	ELECT	47uF 20% 16V				
C386	1-126-947-11	ELECT	47uF 20% 16V				

# HCD-GX45/RG440

## MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C451	1-162-960-11	CERAMIC CHIP 220PF	10% 50V (RG440:AEP,UK)			< EARTH TERMINAL >	
C452	1-162-960-11	CERAMIC CHIP 220PF	10% 50V (RG440:AEP,UK)	* G1	1-537-738-21	TERMINAL, EARTH	
C453	1-162-927-11	CERAMIC CHIP 100PF	5% 50V (RG440:AEP,UK)	* G2	1-537-738-21	TERMINAL, EARTH (RG440:AEP,UK)	
		< CONNECTOR >				< IC >	
CN101	1-568-830-11	CONNECTOR, FFC 11P (GX45/RG440:AUS)		IC201	6-702-130-01	IC HA12237F	
CN101	1-784-776-11	CONNECTOR, FFC 15P (RG440:AEP,UK)		IC301	6-703-650-11	IC M61529FP-D60G	
* CN102	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P (RG440:AEP,UK)		IC302	8-759-710-97	IC NJM4565M-D	
* CN202	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P		IC304	8-759-710-97	IC NJM4565M-D	
* CN203	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P		IC305	8-759-701-59	IC NJM78M09FA	
* CN303	1-564-506-11	PLUG, CONNECTOR 3P		IC306	6-701-760-01	IC uPC3504AHF	
CN304	1-784-792-11	CONNECTOR, FFC 31P		IC308	8-759-701-59	IC NJM78M09FA	
* CN305	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P		IC309	6-704-046-01	IC BU2099FV	
CN306	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P		IC310	6-704-046-01	IC BU2099FV	
CN307	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P		IC312	8-759-710-97	IC NJM4565M-D	
CN310	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P		IC313	8-759-231-57	IC TA7810S	
CN311	1-568-828-11	CONNECTOR, FFC 9P				< JUMPER RESISTOR >	
CN312	1-784-780-11	CONNECTOR, FFC 19P		JR124	1-216-864-11	METAL CHIP 0 5% 1/10W (RG440:AEP,UK)	
		< DIODE >		JR300	1-216-864-11	METAL CHIP 0 5% 1/10W	
D101	8-719-988-61	DIODE 1SS355TE-17 (RG440:AEP,UK)		JR329	1-216-864-11	METAL CHIP 0 5% 1/10W	
D102	6-500-522-21	DIODE 10EDB40-TB3		JR330	1-216-864-11	METAL CHIP 0 5% 1/10W	
D203	8-719-988-61	DIODE 1SS355TE-17		JR331	1-216-864-11	METAL CHIP 0 5% 1/10W	
D204	8-719-988-61	DIODE 1SS355TE-17		JR332	1-216-864-11	METAL CHIP 0 5% 1/10W	
D205	8-719-988-61	DIODE 1SS355TE-17		JR333	1-216-864-11	METAL CHIP 0 5% 1/10W	
D206	8-719-988-61	DIODE 1SS355TE-17		JR339	1-216-864-11	METAL CHIP 0 5% 1/10W	
D210	8-719-988-61	DIODE 1SS355TE-17		JR341	1-216-864-11	METAL CHIP 0 5% 1/10W	
D301	6-500-522-21	DIODE 10EDB40-TB3		JR343	1-216-864-11	METAL CHIP 0 5% 1/10W	
D302	6-500-522-21	DIODE 10EDB40-TB3		JR344	1-216-864-11	METAL CHIP 0 5% 1/10W	
D303	6-500-522-21	DIODE 10EDB40-TB3		JR358	1-216-864-11	METAL CHIP 0 5% 1/10W (GX45/RG440:AUS)	
D304	6-500-522-21	DIODE 10EDB40-TB3		JR453	1-216-864-11	METAL CHIP 0 5% 1/10W (RG440:AEP,UK)	
D305	8-719-988-61	DIODE 1SS355TE-17				< COIL >	
D306	8-719-988-61	DIODE 1SS355TE-17		L201	1-424-849-11	COIL, OSCILLATION (BIAS)	
D307	8-719-988-61	DIODE 1SS355TE-17				< TRANSISTOR >	
D308	8-719-988-61	DIODE 1SS355TE-17		Q210	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D311	8-719-988-61	DIODE 1SS355TE-17		Q211	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D312	8-719-083-63	DIODE UDZS-TE17-13B		Q212	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D313	6-500-522-21	DIODE 10EDB40-TB3		Q218	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D314	6-500-522-21	DIODE 10EDB40-TB3		Q219	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D315	6-500-522-21	DIODE 10EDB40-TB3		Q220	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D316	6-500-522-21	DIODE 10EDB40-TB3		Q221	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D317	8-719-988-61	DIODE 1SS355TE-17		Q222	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D318	8-719-085-36	DIODE 11EQS04-TB5		Q223	8-729-142-46	TRANSISTOR 2SC2001-LK	
D319	6-500-522-21	DIODE 10EDB40-TB3		Q225	6-550-289-01	TRANSISTOR 2SA1235F	
D320	6-500-522-21	DIODE 10EDB40-TB3		Q228	8-729-140-04	TRANSISTOR 2SB1116A-L	
D321	6-500-522-21	DIODE 10EDB40-TB3		Q301	6-550-296-01	TRANSISTOR 2SA1980G	
D322	6-500-522-21	DIODE 10EDB40-TB3		Q302	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D323	8-719-085-36	DIODE 11EQS04-TB5		Q304	6-550-296-01	TRANSISTOR 2SA1980G	
D324	8-719-988-61	DIODE 1SS355TE-17		Q309	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D325	8-719-988-61	DIODE 1SS355TE-17		Q310	8-729-052-79	TRANSISTOR 2SD1306NETL	
D364	8-719-988-61	DIODE 1SS355TE-17		Q311	8-729-052-79	TRANSISTOR 2SD1306NETL	
D366	8-719-988-61	DIODE 1SS355TE-17		Q312	6-550-289-01	TRANSISTOR 2SA1235F	
D371	8-719-988-61	DIODE 1SS355TE-17					
D374	8-719-988-61	DIODE 1SS355TE-17					



Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
Q321	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R284	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q322	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R285	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q324	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R286	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q326	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R287	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q329	6-550-289-01	TRANSISTOR	2SA1235F			R288	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q330	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R305	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q331	6-550-289-01	TRANSISTOR	2SA1235F			R306	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
Q371	8-729-142-46	TRANSISTOR	2SC2001-LK			R307	1-216-809-11	METAL CHIP	100	5%	1/10W
Q373	8-729-142-46	TRANSISTOR	2SC2001-LK			R309	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< RESISTOR >				R310	1-216-833-11	METAL CHIP	10K	5%	1/10W
R101	1-216-833-11	METAL CHIP	10K	5%	1/10W	R311	1-216-833-11	METAL CHIP	10K	5%	1/10W
R102	1-216-833-11	METAL CHIP	10K	5%	1/10W	R312	1-216-833-11	METAL CHIP	10K	5%	1/10W
R215	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R313	1-216-845-11	METAL CHIP	100K	5%	1/10W
R216	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R314	1-216-845-11	METAL CHIP	100K	5%	1/10W
R218	1-216-849-11	METAL CHIP	220K	5%	1/10W	R316	1-216-833-11	METAL CHIP	10K	5%	1/10W
R219	1-216-833-11	METAL CHIP	10K	5%	1/10W	R317	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R220	1-216-833-11	METAL CHIP	10K	5%	1/10W	R318	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R225	1-216-834-11	METAL CHIP	12K	5%	1/10W	R319	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R226	1-216-834-11	METAL CHIP	12K	5%	1/10W	R320	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R231	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R321	1-216-833-11	METAL CHIP	10K	5%	1/10W
R232	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R322	1-216-833-11	METAL CHIP	10K	5%	1/10W
R233	1-216-837-11	METAL CHIP	22K	5%	1/10W	R323	1-216-821-11	METAL CHIP	1K	5%	1/10W
R234	1-216-837-11	METAL CHIP	22K	5%	1/10W	R324	1-216-809-11	METAL CHIP	100	5%	1/10W
R235	1-216-833-11	METAL CHIP	10K	5%	1/10W	R325	1-216-833-11	METAL CHIP	10K	5%	1/10W
R236	1-216-821-11	METAL CHIP	1K	5%	1/10W	R326	1-216-833-11	METAL CHIP	10K	5%	1/10W
R237	1-216-857-11	METAL CHIP	1M	5%	1/10W	R328	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R238	1-216-853-11	METAL CHIP	470K	5%	1/10W	R329	1-216-801-11	METAL CHIP	22	5%	1/10W
R239	1-216-827-11	METAL CHIP	3.3K	5%	1/10W						(RG440:AEP,UK)
R241	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R330	1-216-833-11	METAL CHIP	10K	5%	1/10W
R242	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R341	1-216-821-11	METAL CHIP	1K	5%	1/10W
R245	1-216-833-11	METAL CHIP	10K	5%	1/10W	R342	1-216-838-11	METAL CHIP	27K	5%	1/10W
R246	1-216-841-11	METAL CHIP	47K	5%	1/10W	R343	1-216-845-11	METAL CHIP	100K	5%	1/10W
R249	1-216-853-11	METAL CHIP	470K	5%	1/10W	R344	1-216-841-11	METAL CHIP	47K	5%	1/10W
R250	1-216-849-11	METAL CHIP	220K	5%	1/10W	R345	1-216-841-11	METAL CHIP	47K	5%	1/10W
R251	1-216-793-11	METAL CHIP	4.7	5%	1/10W	R346	1-216-837-11	METAL CHIP	22K	5%	1/10W
R252	1-216-838-11	METAL CHIP	27K	5%	1/10W	R348	1-216-837-11	METAL CHIP	22K	5%	1/10W
R253	1-216-833-11	METAL CHIP	10K	5%	1/10W	R349	1-216-841-11	METAL CHIP	47K	5%	1/10W
R256	1-216-833-11	METAL CHIP	10K	5%	1/10W	R350	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R257	1-216-817-11	METAL CHIP	470	5%	1/10W	R351	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R258	1-216-809-11	METAL CHIP	100	5%	1/10W	R352	1-218-717-11	METAL CHIP	11K	5%	1/10W
R260	1-216-809-11	METAL CHIP	100	5%	1/10W	R353	1-218-717-11	METAL CHIP	11K	5%	1/10W
R261	1-216-817-11	METAL CHIP	470	5%	1/10W	R354	1-216-841-11	METAL CHIP	47K	5%	1/10W
R262	1-216-845-11	METAL CHIP	100K	5%	1/10W	R355	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R263	1-216-833-11	METAL CHIP	10K	5%	1/10W	R356	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R264	1-216-833-11	METAL CHIP	10K	5%	1/10W	R357	1-216-821-11	METAL CHIP	1K	5%	1/10W
R265	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R358	1-216-837-11	METAL CHIP	22K	5%	1/10W
R266	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R360	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R267	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R361	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R268	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R362	1-216-837-11	METAL CHIP	22K	5%	1/10W
R269	1-216-833-11	METAL CHIP	10K	5%	1/10W	R363	1-216-837-11	METAL CHIP	22K	5%	1/10W
R270	1-216-833-11	METAL CHIP	10K	5%	1/10W	R364	1-216-845-11	METAL CHIP	100K	5%	1/10W
R271	1-216-833-11	METAL CHIP	10K	5%	1/10W	R365	1-216-857-11	METAL CHIP	1M	5%	1/10W
R272	1-216-833-11	METAL CHIP	10K	5%	1/10W	R368	1-216-809-11	METAL CHIP	100	5%	1/10W
R273	1-216-833-11	METAL CHIP	10K	5%	1/10W	R369	1-216-809-11	METAL CHIP	100	5%	1/10W
R278	1-216-837-11	METAL CHIP	22K	5%	1/10W	R371	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R282	1-216-809-11	METAL CHIP	100	5%	1/10W	R372	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R283	1-216-833-11	METAL CHIP	10K	5%	1/10W	R373	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
						R374	1-216-841-11	METAL CHIP	47K	5%	1/10W

# HCD-GX45/RG440

<b>MAIN</b>	<b>MOTOR (LD)</b>	<b>MOTOR (TB)</b>	<b>PANEL</b>
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Ref. No.	Part No.	Description			Remark
R376	1-216-833-11	METAL CHIP	10K	5%	1/10W
R377	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R378	1-216-833-11	METAL CHIP	10K	5%	1/10W
R379	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R380	1-216-853-11	METAL CHIP	470K	5%	1/10W
R381	1-216-837-11	METAL CHIP	22K	5%	1/10W
R382	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R383	1-216-837-11	METAL CHIP	22K	5%	1/10W
R384	1-218-717-11	METAL CHIP	11K	5%	1/10W
R386	1-216-833-11	METAL CHIP	10K	5%	1/10W
R387	1-216-834-11	METAL CHIP	12K	5%	1/10W
R388	1-216-821-11	METAL CHIP	1K	5%	1/10W
R395	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R396	1-216-833-11	METAL CHIP	2.2K	5%	1/10W
R397	1-216-833-11	METAL CHIP	10K	5%	1/10W
R398	1-216-833-11	METAL CHIP	10K	5%	1/10W
R399	1-216-833-11	METAL CHIP	10K	5%	1/10W
R400	1-216-833-11	METAL CHIP	10K	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
R404	1-216-833-11	METAL CHIP	10K	5%	1/10W
R405	1-216-833-11	METAL CHIP	10K	5%	1/10W
R406	1-216-837-11	METAL CHIP	22K	5%	1/10W
R407	1-216-833-11	METAL CHIP	10K	5%	1/10W
R408	1-216-833-11	METAL CHIP	10K	5%	1/10W
R409	1-216-833-11	METAL CHIP	10K	5%	1/10W
R410	1-216-833-11	METAL CHIP	10K	5%	1/10W
R421	1-216-833-11	METAL CHIP	10K	5%	1/10W
R422	1-216-806-11	METAL CHIP	56	5%	1/10W
R423	1-216-806-11	METAL CHIP	56	5%	1/10W
R424	1-216-837-11	METAL CHIP	22K	5%	1/10W
R425	1-216-837-11	METAL CHIP	22K	5%	1/10W
R426	1-216-837-11	METAL CHIP	22K	5%	1/10W
R427	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R428	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R429	1-216-821-11	METAL CHIP	1K	5%	1/10W
R430	1-216-833-11	METAL CHIP	10K	5%	1/10W
R431	1-216-847-11	METAL CHIP	150K	5%	1/10W
R432	1-216-809-11	METAL CHIP	100	5%	1/10W
△ R433	1-215-891-11	METAL OXIDE	680	5%	2W F
△ R434	1-215-891-11	METAL OXIDE	680	5%	2W F
R435	1-216-857-11	METAL CHIP	1M	5%	1/10W
R455	1-218-717-11	METAL CHIP	11K	5%	1/10W
R456	1-218-717-11	METAL CHIP	11K	5%	1/10W
R457	1-216-837-11	METAL CHIP	22K	5%	1/10W
R458	1-216-841-11	METAL CHIP	47K	5%	1/10W
R459	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R460	1-216-821-11	METAL CHIP	1K	5%	1/10W
R461	1-216-821-11	METAL CHIP	1K	5%	1/10W
R465	1-216-837-11	METAL CHIP	22K	5%	1/10W
R466	1-216-837-11	METAL CHIP	22K	5%	1/10W
R471	1-216-838-11	METAL CHIP	27K	5%	1/10W
R472	1-216-849-11	METAL CHIP	220K	5%	1/10W
R473	1-216-846-11	METAL CHIP	120K	5%	1/10W
R474	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R475	1-216-821-11	METAL CHIP	1K	5%	1/10W
R476	1-216-809-11	METAL CHIP	100	5%	1/10W
R477	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R480	1-216-833-11	METAL CHIP	10K	5%	1/10W
R481	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R482	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R483	1-216-821-11	METAL CHIP	1K	5%	1/10W
R484	1-216-833-11	METAL CHIP	10K	5%	1/10W
R486	1-216-809-11	METAL CHIP	100	5%	1/10W
R487	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R488	1-216-134-00	METAL CHIP	2.2	5%	1/8W
*****					
		1-687-133-11	MOTOR (LD) BOARD		
		*****			
*****					
		1-687-134-11	MOTOR (TB) BOARD		
		*****			
< CONNECTOR >					
CN742	1-784-727-11	CONNECTOR, FFC 5P			
*****					
		A-4748-707-A	PANEL BOARD, COMPLETE (GX45)		
		A-4748-713-A	PANEL BOARD, COMPLETE (RG440)		
		*****			
		4-244-690-01	FL HOLDER (L)		
		4-244-691-01	FL HOLDER (R)		
< CAPACITOR >					
C601	1-124-247-11	ELECT	10uF	20%	35V
C602	1-124-247-11	ELECT	10uF	20%	35V
C603	1-124-589-11	ELECT	47uF	20%	16V
C604	1-124-261-00	ELECT	10uF	20%	50V
C611	1-126-916-11	ELECT	1000uF	20%	6.3V
C612	1-115-156-11	CERAMIC CHIP	1uF		10V
C614	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C615	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C616	1-115-156-11	CERAMIC CHIP	1uF		10V
C617	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C618	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C619	1-124-234-00	ELECT	22uF	20%	16V
C620	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C621	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C622	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C635	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C636	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
C637	1-124-464-11	ELECT	0.22uF	20%	50V
C638	1-124-464-11	ELECT	0.22uF	20%	50V
C639	1-126-947-11	ELECT	47uF	20%	35V
C640	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C641	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C642	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C643	1-115-156-11	CERAMIC CHIP	1uF		10V
C644	1-124-234-00	ELECT	22uF	20%	16V
C646	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C647	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C648	1-124-257-00	ELECT	2.2uF	20%	50V
C649	1-124-234-00	ELECT	22uF	20%	16V
C650	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

<p>The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.</p>	<p>Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< CONNECTOR >					
CN601	1-784-753-11	CONNECTOR, FFC 31P		JR613	1-216-864-11	METAL CHIP 0 5% 1/10W	
CN602	1-784-731-11	CONNECTOR, FFC 9P		JR614	1-216-864-11	METAL CHIP 0 5% 1/10W	
CN603	1-816-422-11	PIN, CONNECTOR 3P		JR615	1-216-864-11	METAL CHIP 0 5% 1/10W	
CN605	1-784-735-11	CONNECTOR, FFC 13P		JR617	1-216-864-11	METAL CHIP 0 5% 1/10W	
* CN607	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P		JR620	1-216-864-11	METAL CHIP 0 5% 1/10W	
		< DIODE >		JR621	1-216-864-11	METAL CHIP 0 5% 1/10W	
D606	8-719-988-61	DIODE 1SS355TE-17 (GX45)		JR623	1-216-864-11	METAL CHIP 0 5% 1/10W	(RG440:AEP,UK)
D607	8-719-988-61	DIODE 1SS355TE-17 (GX45)		JR625	1-216-864-11	METAL CHIP 0 5% 1/10W	
D608	8-719-988-61	DIODE 1SS355TE-17		JR626	1-216-864-11	METAL CHIP 0 5% 1/10W	
D609	8-719-988-61	DIODE 1SS355TE-17				< DIODE >	
D610	8-719-988-61	DIODE 1SS355TE-17		LED607	6-500-414-01	LED HL-30105Q2AT (CD)	
D612	8-719-988-61	DIODE 1SS355TE-17		LED608	6-500-414-01	LED HL-30105Q2AT (TUNER/BAND)	
D613	8-719-988-61	DIODE 1SS355TE-17		LED609	6-500-414-01	LED HL-30105Q2AT (TAPE A/B)	
D614	8-719-988-61	DIODE 1SS355TE-17		LED612	6-500-414-01	LED HL-30105Q2AT (GAME)	
D615	8-719-988-61	DIODE 1SS355TE-17		LED614	6-500-414-01	LED HL-30105Q2AT (POWER)	
D616	8-719-988-61	DIODE 1SS355TE-17				< TRANSISTOR >	
D617	8-719-988-61	DIODE 1SS355TE-17		Q601	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D618	8-719-988-61	DIODE 1SS355TE-17		Q602	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D619	8-719-988-61	DIODE 1SS355TE-17		Q603	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D620	8-719-988-61	DIODE 1SS355TE-17		Q604	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D621	8-719-988-61	DIODE 1SS355TE-17		Q607	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D622	8-719-988-61	DIODE 1SS355TE-17		Q609	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D623	8-719-988-61	DIODE 1SS355TE-17		Q610	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
D624	8-719-988-61	DIODE 1SS355TE-17		Q616	8-729-140-04	TRANSISTOR 2SB1116A-L	
D625	8-719-988-61	DIODE 1SS355TE-17		Q617	8-729-140-04	TRANSISTOR 2SB1116A-L	
D627	8-719-988-61	DIODE 1SS355TE-17		Q618	8-729-116-56	TRANSISTOR 2SB1068-L	
D628	8-719-988-61	DIODE 1SS355TE-17				< RESISTOR >	
D629	8-719-988-61	DIODE 1SS355TE-17		R030	1-216-809-11	METAL CHIP 100 5% 1/10W	
D630	8-719-988-61	DIODE 1SS355TE-17		R031	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
D631	8-719-988-61	DIODE 1SS355TE-17		R032	1-216-848-11	METAL CHIP 180K 5% 1/10W	
D633	8-719-988-61	DIODE 1SS355TE-17		R033	1-216-837-11	METAL CHIP 22K 5% 1/10W	
D634	8-719-988-61	DIODE 1SS355TE-17		R034	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
		< COIL >		R035	1-216-841-11	METAL CHIP 47K 5% 1/10W	
FB601	1-412-473-21	INDUCTOR (SMALL TYPE)		R036	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
		< FLUORESCENT INDICATOR >		R037	1-216-817-11	METAL CHIP 470 5% 1/10W	
FLD601	1-518-863-11	INDICATOR TUBE, FLUORESCENT		R039	1-216-809-11	METAL CHIP 100 5% 1/10W	
		< IC >		R040	1-216-845-11	METAL CHIP 100K 5% 1/10W	
IC601	6-803-327-01	IC LC876780B-51Y0-E		R041	1-216-845-11	METAL CHIP 100K 5% 1/10W	(GX45)
IC602	6-704-045-01	IC MM1574A		R043	1-216-845-11	METAL CHIP 100K 5% 1/10W	
IC603	8-759-533-04	IC M62703ML-E1		R044	1-216-845-11	METAL CHIP 100K 5% 1/10W	
		< JUMPER RESISTOR >		R045	1-216-845-11	METAL CHIP 100K 5% 1/10W	
JR604	1-216-864-11	METAL CHIP 0 5% 1/10W		R046	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
JR605	1-216-864-11	METAL CHIP 0 5% 1/10W		R047	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
JR606	1-216-864-11	METAL CHIP 0 5% 1/10W		R048	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
JR607	1-216-864-11	METAL CHIP 0 5% 1/10W		R050	1-216-821-11	METAL CHIP 1K 5% 1/10W	
JR608	1-216-864-11	METAL CHIP 0 5% 1/10W		R051	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
JR609	1-216-864-11	METAL CHIP 0 5% 1/10W		R053	1-216-841-11	METAL CHIP 47K 5% 1/10W	
JR610	1-216-864-11	METAL CHIP 0 5% 1/10W		R054	1-216-841-11	METAL CHIP 47K 5% 1/10W	
JR611	1-216-864-11	METAL CHIP 0 5% 1/10W	(GX45/RG440:AUS)	R055	1-216-841-11	METAL CHIP 47K 5% 1/10W	
			(GX45/RG440:AUS)	R056	1-216-841-11	METAL CHIP 47K 5% 1/10W	
				R057	1-216-841-11	METAL CHIP 47K 5% 1/10W	
				R058	1-216-841-11	METAL CHIP 47K 5% 1/10W	
				R059	1-216-841-11	METAL CHIP 47K 5% 1/10W	
				R060	1-216-841-11	METAL CHIP 47K 5% 1/10W	

# HCD-GX45/RG440

## PANEL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R061	1-216-841-11	METAL CHIP	47K 5% 1/10W	R634	1-216-833-11	METAL CHIP	10K 5% 1/10W
R062	1-216-841-11	METAL CHIP	47K 5% 1/10W	R635	1-216-198-11	RES-CHIP	1K 5% 1/8W
R063	1-216-841-11	METAL CHIP	47K 5% 1/10W	R638	1-216-835-11	METAL CHIP	15K 5% 1/10W
R064	1-216-841-11	METAL CHIP	47K 5% 1/10W	R639	1-216-817-11	METAL CHIP	470 5% 1/10W
R065	1-216-841-11	METAL CHIP	47K 5% 1/10W	R640	1-216-819-11	METAL CHIP	680 5% 1/10W
R066	1-216-841-11	METAL CHIP	47K 5% 1/10W	R641	1-216-821-11	METAL CHIP	1K 5% 1/10W
R067	1-216-841-11	METAL CHIP	47K 5% 1/10W	R642	1-216-823-11	METAL CHIP	1.5K 5% 1/10W
R068	1-216-841-11	METAL CHIP	47K 5% 1/10W	R643	1-216-823-11	METAL CHIP	1.5K 5% 1/10W
R069	1-216-841-11	METAL CHIP	47K 5% 1/10W	R644	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R070	1-216-841-11	METAL CHIP	47K 5% 1/10W	R645	1-216-198-11	RES-CHIP	1K 5% 1/8W
R071	1-216-841-11	METAL CHIP	47K 5% 1/10W	R646	1-216-849-11	METAL CHIP	220K 5% 1/10W
R072	1-216-841-11	METAL CHIP	47K 5% 1/10W	R647	1-200-397-11	METAL	4.7M 5% 1/10W F
R073	1-216-841-11	METAL CHIP	47K 5% 1/10W	R648	1-216-819-11	METAL CHIP	680 5% 1/10W
R074	1-216-841-11	METAL CHIP	47K 5% 1/10W	R649	1-216-198-11	RES-CHIP	1K 5% 1/8W
R075	1-216-841-11	METAL CHIP	47K 5% 1/10W	R651	1-216-833-11	METAL CHIP	10K 5% 1/10W
R076	1-216-841-11	METAL CHIP	47K 5% 1/10W	R652	1-216-809-11	METAL CHIP	100 5% 1/10W
R077	1-216-841-11	METAL CHIP	47K 5% 1/10W	R653	1-216-805-11	METAL CHIP	47 5% 1/10W
R078	1-216-841-11	METAL CHIP	47K 5% 1/10W	R654	1-216-833-11	METAL CHIP	10K 5% 1/10W
R079	1-216-841-11	METAL CHIP	47K 5% 1/10W	R655	1-216-841-11	METAL CHIP	47K 5% 1/10W
R080	1-216-841-11	METAL CHIP	47K 5% 1/10W	R656	1-216-841-11	METAL CHIP	47K 5% 1/10W
R081	1-216-841-11	METAL CHIP	47K 5% 1/10W	R657	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R082	1-216-841-11	METAL CHIP	47K 5% 1/10W	R658	1-216-833-11	METAL CHIP	10K 5% 1/10W
R083	1-216-841-11	METAL CHIP	47K 5% 1/10W	R659	1-216-833-11	METAL CHIP	10K 5% 1/10W
R084	1-216-841-11	METAL CHIP	47K 5% 1/10W	R662	1-216-819-11	METAL CHIP	680 5% 1/10W
R085	1-216-841-11	METAL CHIP	47K 5% 1/10W	R663	1-216-821-11	METAL CHIP	1K 5% 1/10W
R086	1-216-841-11	METAL CHIP	47K 5% 1/10W	R664	1-216-823-11	METAL CHIP	1.5K 5% 1/10W
R087	1-216-820-11	METAL CHIP	820 5% 1/10W	R665	1-216-809-11	METAL CHIP	100 5% 1/10W
R088	1-216-820-11	METAL CHIP	820 5% 1/10W	R666	1-216-841-11	METAL CHIP	47K 5% 1/10W
R089	1-216-827-11	METAL CHIP	3.3K 5% 1/10W	R667	1-216-813-11	METAL CHIP	220 5% 1/10W
R090	1-216-827-11	METAL CHIP	3.3K 5% 1/10W	R668	1-216-809-11	METAL CHIP	100 5% 1/10W
R601	1-216-839-11	METAL CHIP	33K 5% 1/10W	R669	1-216-823-11	METAL CHIP	1.5K 5% 1/10W
R602	1-216-809-11	METAL CHIP	100 5% 1/10W (RG440:AEP,UK)	R670	1-216-845-11	METAL CHIP	100K 5% 1/10W
R604	1-216-833-11	METAL CHIP	10K 5% 1/10W	R671	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R605	1-216-833-11	METAL CHIP	10K 5% 1/10W	R672	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
R606	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R673	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R607	1-216-849-11	METAL CHIP	220K 5% 1/10W	R675	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
R608	1-216-809-11	METAL CHIP	100 5% 1/10W (RG440:AEP,UK)	R676	1-216-821-11	METAL CHIP	1K 5% 1/10W
R609	1-216-833-11	METAL CHIP	10K 5% 1/10W	R677	1-216-851-11	METAL CHIP	330K 5% 1/10W
R610	1-216-835-11	METAL CHIP	15K 5% 1/10W	R678	1-216-841-11	METAL CHIP	47K 5% 1/10W
R611	1-216-809-11	METAL CHIP	100 5% 1/10W	R679	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R612	1-216-809-11	METAL CHIP	100 5% 1/10W	R680	1-216-809-11	METAL CHIP	100 5% 1/10W
R613	1-216-821-11	METAL CHIP	1K 5% 1/10W	R681	1-216-833-11	METAL CHIP	10K 5% 1/10W
R614	1-216-821-11	METAL CHIP	1K 5% 1/10W	R682	1-218-867-11	METAL CHIP	6.8K 5% 1/10W
R615	1-216-821-11	METAL CHIP	1K 5% 1/10W	R683	1-216-833-11	METAL CHIP	10K 5% 1/10W
R616	1-216-817-11	METAL CHIP	470 5% 1/10W	R684	1-216-835-11	METAL CHIP	15K 5% 1/10W
R623	1-216-198-11	RES-CHIP	1K 5% 1/8W	R685	1-216-837-11	METAL CHIP	22K 5% 1/10W
R624	1-216-835-11	METAL CHIP	15K 5% 1/10W	R686	1-218-867-11	METAL CHIP	6.8K 5% 1/10W
R625	1-216-817-11	METAL CHIP	470 5% 1/10W	R687	1-216-833-11	METAL CHIP	10K 5% 1/10W
R626	1-216-819-11	METAL CHIP	680 5% 1/10W	R688	1-216-835-11	METAL CHIP	15K 5% 1/10W
R627	1-216-821-11	METAL CHIP	1K 5% 1/10W	R689	1-216-837-11	METAL CHIP	22K 5% 1/10W
R628	1-216-823-11	METAL CHIP	1.5K 5% 1/10W	R691	1-216-833-11	METAL CHIP	10K 5% 1/10W
R629	1-216-823-11	METAL CHIP	1.5K 5% 1/10W	R692	1-216-809-11	METAL CHIP	100 5% 1/10W
R630	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R693	1-216-809-11	METAL CHIP	100 5% 1/10W
R631	1-216-827-11	METAL CHIP	3.3K 5% 1/10W	R694	1-216-809-11	METAL CHIP	100 5% 1/10W
R632	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R695	1-216-809-11	METAL CHIP	100 5% 1/10W
R633	1-218-867-11	METAL CHIP	6.8K 5% 1/10W	R696	1-216-809-11	METAL CHIP	100 5% 1/10W
				R697	1-216-809-11	METAL CHIP	100 5% 1/10W
				R698	1-216-809-11	METAL CHIP	100 5% 1/10W

## PANEL

## POWER AMP

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R699	1-216-821-11	METAL CHIP	1K 5% 1/10W	S619	1-762-875-21	SWITCH, KEYBOARD (DISC 3)	
R902	1-216-841-11	METAL CHIP	47K 5% 1/10W	S620	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)	
R903	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	S621	1-762-875-21	SWITCH, KEYBOARD (▲)	
R904	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	S623	1-762-875-21	SWITCH, KEYBOARD (MOVIE EQ)	
R905	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	S627	1-762-875-21	SWITCH, KEYBOARD (CD)	
R906	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	S628	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)	
R907	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	S629	1-762-875-21	SWITCH, KEYBOARD (TAPE A/B)	
R908	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	S630	1-762-875-21	SWITCH, KEYBOARD (GAME)	
R909	1-216-837-11	METAL CHIP	22K 5% 1/10W	S634	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)	
R910	1-216-837-11	METAL CHIP	22K 5% 1/10W	S636	1-762-875-21	SWITCH, KEYBOARD (EFFECT ON/OFF)	
R911	1-216-837-11	METAL CHIP	22K 5% 1/10W	S637	1-762-875-21	SWITCH, KEYBOARD (MUSIC EQ)	
R912	1-216-837-11	METAL CHIP	22K 5% 1/10W	S638	1-762-875-21	SWITCH, KEYBOARD (GAME EQ)	
R913	1-216-837-11	METAL CHIP	22K 5% 1/10W	S639	1-762-875-21	SWITCH, KEYBOARD (GROOVE)	
R914	1-216-833-11	METAL CHIP	22K 5% 1/10W			< ROTARY ENCODER >	
R915	1-216-833-11	METAL CHIP	10K 5% 1/10W				
R916	1-216-821-11	METAL CHIP	1K 5% 1/10W	VR601	1-477-194-11	ENCODER, ROTARY (12 TYPE) (VOLUME)	
R917	1-216-833-11	METAL CHIP	10K 5% 1/10W			< VIBRATOR >	
R918	1-216-821-11	METAL CHIP	1K 5% 1/10W				
R919	1-216-833-11	METAL CHIP	10K 5% 1/10W	X601	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)	
R920	1-216-821-11	METAL CHIP	1K 5% 1/10W				
R921	1-216-841-11	METAL CHIP	47K 5% 1/10W				
R922	1-218-717-11	METAL CHIP	11K 5% 1/10W	A-4748-696-A		POWER AMP BOARD, COMPLETE (GX45)	
R923	1-218-717-11	METAL CHIP	11K 5% 1/10W	A-4748-701-A		POWER AMP BOARD, COMPLETE (RG440)	
R924	1-218-717-11	METAL CHIP	11K 5% 1/10W			*****	
R925	1-218-717-11	METAL CHIP	11K 5% 1/10W			< CAPACITOR >	
R926	1-216-837-11	METAL CHIP	22K 5% 1/10W				
R927	1-216-837-11	METAL CHIP	22K 5% 1/10W	C1	1-165-319-11	CERAMIC CHIP	0.1uF 50V
R931	1-216-813-11	METAL CHIP	220 5% 1/10W	C2	1-165-319-11	CERAMIC CHIP	0.1uF 50V
R932	1-216-182-00	RES-CHIP	220 5% 1/8W (GX45)	C3	1-165-319-11	CERAMIC CHIP	0.1uF 50V
R933	1-216-182-00	RES-CHIP	220 5% 1/8W (GX45)	C4	1-165-319-11	CERAMIC CHIP	0.1uF 50V
R934	1-216-182-00	RES-CHIP	220 5% 1/8W (GX45)	C5	1-165-319-11	CERAMIC CHIP	0.1uF 50V
R937	1-216-198-11	RES-CHIP	1K 5% 1/8W	C6	1-165-319-11	CERAMIC CHIP	0.1uF 50V
R938	1-216-198-11	RES-CHIP	1K 5% 1/8W	C7	1-165-319-11	CERAMIC CHIP	0.1uF 50V
R939	1-216-198-11	RES-CHIP	1K 5% 1/8W	C8	1-165-319-11	CERAMIC CHIP	0.1uF 50V
R940	1-216-198-11	RES-CHIP	1K 5% 1/8W	C9	1-135-516-11	ELECT	3300uF 20% 63V (GX45)
		< VIBRATOR >		C10	1-135-516-11	ELECT	3300uF 20% 63V (GX45)
RES601	1-795-880-11	VIBRATOR, CERAMIC (8.64MHz)		C11	1-126-955-11	ELECT	4700uF 20% 35V
		< SWITCH >		C12	1-126-955-11	ELECT	4700uF 20% 35V
S601	1-762-875-21	SWITCH, KEYBOARD (■)		C13	1-104-665-11	ELECT	100uF 20% 25V
S602	1-762-875-21	SWITCH, KEYBOARD (■)		C22	1-126-959-11	ELECT	0.47uF 20% 50V
S603	1-762-875-21	SWITCH, KEYBOARD (▶▶ +)		C23	1-126-957-11	ELECT	0.22uF 20% 50V
S604	1-762-875-21	SWITCH, KEYBOARD (▶▶▶)		C24	1-126-947-11	ELECT	47uF 20% 25V
S605	1-762-875-21	SWITCH, KEYBOARD (ALBUM +)		C25	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V
S606	1-762-875-21	SWITCH, KEYBOARD (GAME MIXING)		C26	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V
S607	1-762-875-21	SWITCH, KEYBOARD (ALBUM -)		C30	1-162-961-11	CERAMIC CHIP	330PF 10% 50V
S608	1-762-875-21	SWITCH, KEYBOARD (I◀◀)		C31	1-162-961-11	CERAMIC CHIP	330PF 10% 50V
S609	1-762-875-21	SWITCH, KEYBOARD (◀◀-)		C33	1-128-552-51	ELECT	47uF 20% 63V
S612	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)		C34	1-128-552-51	ELECT	47uF 20% 63V
S614	1-762-875-21	SWITCH, KEYBOARD (POWER)		C35	1-164-344-11	CERAMIC CHIP	0.068uF 10% 25V
S615	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)		C37	1-128-552-51	ELECT	47uF 20% 63V
S616	1-762-875-21	SWITCH, KEYBOARD (▷)		C40	1-162-961-11	CERAMIC CHIP	330PF 10% 50V
S617	1-762-875-21	SWITCH, KEYBOARD (DISC 1)		C41	1-128-552-51	ELECT	47uF 20% 63V
S618	1-762-875-21	SWITCH, KEYBOARD (DISC 2)		C42	1-162-945-11	CERAMIC CHIP	22PF 5% 50V
				C43	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
				C45	1-162-961-11	CERAMIC CHIP	330PF 10% 50V
				C501	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V

# HCD-GX45/RG440

## POWER AMP

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C502	1-163-021-11	CERAMIC CHIP	0.01uF 10%	50V	D23	8-719-988-61	DIODE 1SS355TE-17
C503	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D24	8-719-988-61	DIODE 1SS355TE-17
C504	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D25	8-719-083-67	DIODE UDZS-TE17-20B
C505	1-162-927-11	CERAMIC CHIP	100PF 5%	50V	D26	6-500-378-01	DIODE 1N5402GW(F20) (RG440)
C506	1-162-927-11	CERAMIC CHIP	100PF 5%	50V	D27	6-500-378-01	DIODE 1N5402GW(F20) (RG440)
C507	1-162-927-11	CERAMIC CHIP	100PF 5%	50V	D29	8-719-988-61	DIODE 1SS355TE-17
C508	1-162-927-11	CERAMIC CHIP	100PF 5%	50V	D30	8-719-083-52	DIODE UDZS-TE17-16B
C509	1-164-733-11	CERAMIC CHIP	820PF 10%	50V	D31	8-719-988-61	DIODE 1SS355TE-17
C510	1-164-733-11	CERAMIC CHIP	820PF 10%	50V	D32	8-719-988-61	DIODE 1SS355TE-17
C511	1-126-966-11	ELECT	33uF 20%	35V	D33	8-719-988-61	DIODE 1SS355TE-17
C512	1-126-966-11	ELECT	33uF 20%	35V	D34	8-719-988-61	DIODE 1SS355TE-17
C513	1-126-965-11	ELECT	22uF 20%	50V	D35	8-719-988-61	DIODE 1SS355TE-17
C514	1-126-965-11	ELECT	22uF 20%	50V	D36	8-719-988-61	DIODE 1SS355TE-17
C517	1-126-960-11	ELECT	1uF 20%	50V	D37	8-719-988-61	DIODE 1SS355TE-17
C518	1-126-960-11	ELECT	1uF 20%	50V	D38	8-719-988-61	DIODE 1SS355TE-17
C519	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V	D39	8-719-988-61	DIODE 1SS355TE-17
C520	1-162-964-11	CERAMIC CHIP	0.001uF 10%	50V	D40	8-719-988-61	DIODE 1SS355TE-17
C521	1-126-961-11	ELECT	2.2uF 20%	50V	D41	8-719-312-08	DIODE FMB-G16L (GX45)
C522	1-126-961-11	ELECT	2.2uF 20%	50V	D42	8-719-312-08	DIODE FMB-G16L (GX45)
C523	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D501	6-500-334-01	DIODE MC2836
C524	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D502	6-500-334-01	DIODE MC2836
C525	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D503	6-500-335-01	DIODE MC2838
C526	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D504	6-500-335-01	DIODE MC2838
C527	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D505	8-719-970-83	DIODE HSS82-TJ
C528	1-126-961-11	ELECT	2.2uF 20%	50V	D506	8-719-970-83	DIODE HSS82-TJ
				(GX45)	D507	8-719-988-61	DIODE 1SS355TE-17
C529	1-126-961-11	ELECT	2.2uF 20%	50V	D508	8-719-988-61	DIODE 1SS355TE-17
C530	1-164-156-11	CERAMIC CHIP	0.1uF	25V	D509	6-500-335-01	DIODE MC2838
C531	1-104-665-11	ELECT	100uF 20%	10V	D510	6-500-334-01	DIODE MC2836
C532	1-162-966-11	CERAMIC CHIP	0.0022uF 10%	50V	D511	8-719-988-61	DIODE 1SS355TE-17
C533	1-162-966-11	CERAMIC CHIP	0.0022uF 10%	50V	D513	8-719-988-61	DIODE 1SS355TE-17
C534	1-165-319-11	CERAMIC CHIP	0.1uF	50V	D514	8-719-988-61	DIODE 1SS355TE-17
C535	1-165-319-11	CERAMIC CHIP	0.1uF	50V	D515	8-719-083-70	DIODE UDZS-TE17-27B
C538	1-164-005-11	CERAMIC CHIP	0.47uF	25V			< EARTH TERMINAL >
C540	1-126-964-11	ELECT	10uF 20%	50V	* EP01	1-537-738-21	TERMINAL, EARTH
C541	1-165-319-11	CERAMIC CHIP	0.1uF	50V	* EP501	1-537-738-21	TERMINAL, EARTH
C542	1-165-319-11	CERAMIC CHIP	0.1uF	50V			< TERMINAL BOARD >
C543	1-165-319-11	CERAMIC CHIP	0.1uF	50V			
C544	1-165-319-11	CERAMIC CHIP	0.1uF	50V			
				< CONNECTOR >	JK502	1-694-884-11	TERMINAL BOARD (4P) (SPEAKER)
CN501	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P					< JUMPER RESISTOR >
CN502	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P					
				< DIODE >	JR2	1-216-864-11	METAL CHIP 0 5% 1/10W
D2	6-500-340-01	DIODE G5SBA60L-6088			JR501	1-216-864-11	METAL CHIP 0 5% 1/10W
D3	6-500-378-01	DIODE 1N5402GW(F20)			JR511	1-216-864-11	METAL CHIP 0 5% 1/10W
D4	6-500-378-01	DIODE 1N5402GW(F20)			JR512	1-216-864-11	METAL CHIP 0 5% 1/10W
D5	6-500-378-01	DIODE 1N5402GW(F20)			JR513	1-216-864-11	METAL CHIP 0 5% 1/10W
D6	6-500-378-01	DIODE 1N5402GW(F20)			JR514	1-216-864-11	METAL CHIP 0 5% 1/10W
D11	8-719-988-61	DIODE 1SS355TE-17			JR515	1-216-864-11	METAL CHIP 0 5% 1/10W
D12	6-500-334-01	DIODE MC2836			JR516	1-216-864-11	METAL CHIP 0 5% 1/10W
D13	6-500-335-01	DIODE MC2838			JR517	1-216-864-11	METAL CHIP 0 5% 1/10W
D16	6-500-335-01	DIODE MC2838					< COIL >
D17	6-500-334-01	DIODE MC2836			L501	1-422-009-13	COIL, AIR-CORE
D18	6-500-335-01	DIODE MC2838			L502	1-422-009-13	COIL, AIR-CORE
D19	6-500-334-01	DIODE MC2836					
D20	6-500-335-01	DIODE MC2838					

## POWER AMP

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >		R12	1-216-830-11	METAL CHIP	5.6K 5% 1/10W
Q5	6-550-289-01	TRANSISTOR 2SA1235F		R13	1-216-206-00	RES-CHIP	2.2K 5% 1/8W
Q6	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R14	1-216-830-11	METAL CHIP	5.6K 5% 1/10W
Q7	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R16	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q8	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R17	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q9	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R18	1-216-809-11	METAL CHIP	100 5% 1/10W
Q10	6-550-316-01	TRANSISTOR 2SB792A(RS)		R19	1-216-835-11	METAL CHIP	15K 5% 1/10W
Q11	8-729-055-91	TRANSISTOR SRA2202SF		R20	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q12	6-550-645-01	TRANSISTOR 2SC3143K4-TB		R21	1-216-835-11	METAL CHIP	15K 5% 1/10W
Q13	6-550-316-01	TRANSISTOR 2SB792A(RS)		R22	1-216-839-11	METAL CHIP	33K 5% 1/10W
Q17	6-550-289-01	TRANSISTOR 2SA1235F		R23	1-216-839-11	METAL CHIP	33K 5% 1/10W
Q18	6-550-293-01	FET 2SK2937		R26	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
Q19	6-550-293-01	FET 2SK2937		R27	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q20	6-550-317-01	TRANSISTOR 2SD814A(RS)		R29	1-216-138-00	METAL CHIP	3.3 5% 1/8W
Q21	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R31	1-216-138-00	METAL CHIP	3.3 5% 1/8W
Q22	6-550-316-01	TRANSISTOR 2SB792A(RS)		R32	1-216-840-11	METAL CHIP	39K 5% 1/10W
Q23	6-550-289-01	TRANSISTOR 2SA1235F		R33	1-216-839-11	METAL CHIP	33K 5% 1/10W
Q24	6-550-289-01	TRANSISTOR 2SA1235F		R34	1-216-843-11	METAL CHIP	68K 5% 1/10W
Q501	6-550-291-01	TRANSISTOR FN1016		R35	1-216-840-11	METAL CHIP	39K 5% 1/10W
Q502	6-550-291-01	TRANSISTOR FN1016		R36	1-216-839-11	METAL CHIP	33K 5% 1/10W
Q503	6-550-292-01	TRANSISTOR FP1016		R37	1-216-843-11	METAL CHIP	68K 5% 1/10W
Q504	6-550-292-01	TRANSISTOR FP1016		R38	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q505	6-550-316-01	TRANSISTOR 2SB792A(RS)		R39	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q506	6-550-316-01	TRANSISTOR 2SB792A(RS)		R40	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q507	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R41	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
Q508	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R42	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
Q509	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R43	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
Q510	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R44	1-216-236-11	RES-CHIP	39K 5% 1/8W
Q511	6-550-413-01	TRANSISTOR 2SC3478LK		R45	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q512	6-550-413-01	TRANSISTOR 2SC3478LK		R46	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q513	6-550-413-01	TRANSISTOR 2SC3478LK		R47	1-216-837-11	METAL CHIP	22K 5% 1/10W
Q514	6-550-413-01	TRANSISTOR 2SC3478LK		R48	1-216-849-11	METAL CHIP	220K 5% 1/10W
Q515	6-550-317-01	TRANSISTOR 2SD814A(RS)		R49	1-216-849-11	METAL CHIP	220K 5% 1/10W
Q516	6-550-317-01	TRANSISTOR 2SD814A(RS)		R50	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q517	6-550-316-01	TRANSISTOR 2SB792A(RS)		R51	1-216-823-11	METAL CHIP	1.5K 5% 1/10W
Q518	6-550-316-01	TRANSISTOR 2SB792A(RS)		R52	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q519	6-550-316-01	TRANSISTOR 2SB792A(RS)		R53	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
Q520	6-550-316-01	TRANSISTOR 2SB792A(RS)		R54	1-216-835-11	METAL CHIP	15K 5% 1/10W
Q521	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R55	1-260-101-11	CARBON	1.5K 5% 1/2W F
Q522	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R56	1-249-420-11	CARBON	1.8K 5% 1/4W
Q523	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R58	1-216-186-00	RES-CHIP	330 5% 1/8W
Q524	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R59	1-216-184-00	RES-CHIP	270 5% 1/8W
Q525	8-729-052-79	TRANSISTOR 2SD1306NETL		R60	1-216-826-11	METAL CHIP	2.7K 5% 1/10W
Q526	8-729-052-79	TRANSISTOR 2SD1306NETL		R61	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
Q527	6-550-289-01	TRANSISTOR 2SA1235F		R62	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q528	8-729-052-79	TRANSISTOR 2SD1306NETL (GX45)		R63	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q529	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R64	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
Q530	6-550-289-01	TRANSISTOR 2SA1235F		R65	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q534	6-550-296-01	TRANSISTOR 2SA1980G		R66	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q535	6-550-296-01	TRANSISTOR 2SA1980G		R67	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q536	6-550-289-01	TRANSISTOR 2SA1235F		R68	1-216-833-11	METAL CHIP	10K 5% 1/10W
		< RESISTOR >		R69	1-216-833-11	METAL CHIP	10K 5% 1/10W
R4	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R70	1-216-835-11	METAL CHIP	15K 5% 1/10W
R6	1-216-838-11	METAL CHIP	27K 5% 1/10W	R71	1-216-835-11	METAL CHIP	15K 5% 1/10W
R7	1-216-838-11	METAL CHIP	27K 5% 1/10W	R72	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R8	1-216-838-11	METAL CHIP	27K 5% 1/10W	R73	1-216-236-11	RES-CHIP	39K 5% 1/8W
R9	1-216-838-11	METAL CHIP	27K 5% 1/10W	R74	1-216-238-11	RES-CHIP	47K 5% 1/8W
				R75	1-216-825-11	METAL CHIP	2.2K 5% 1/10W

# HCD-GX45/RG440

## POWER AMP

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R76	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R529	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R77	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R530	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R78	1-216-234-00	RES-CHIP	33K	5%	1/8W	R531	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R79	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	R532	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R81	1-260-111-11	CARBON	10K	5%	1/2W F	R533	1-216-809-11	METAL CHIP	100	5%	1/10W
R82	1-216-833-11	METAL CHIP	10K	5%	1/10W	R534	1-216-809-11	METAL CHIP	100	5%	1/10W
R83	1-216-208-00	RES-CHIP	2.7K	5%	1/8W	R535	1-216-809-11	METAL CHIP	100	5%	1/10W
R85	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R536	1-216-809-11	METAL CHIP	100	5%	1/10W
R86	1-260-105-11	CARBON	3.3K	5%	1/2W F	R537	1-260-328-11	CARBON	1K	5%	1/2W F
R90	1-216-222-00	RES-CHIP	10K	5%	1/8W	R538	1-260-328-11	CARBON	1K	5%	1/2W F
R91	1-216-178-00	RES-CHIP	150	5%	1/8W	R539	1-216-833-11	METAL CHIP	10K	5%	1/10W
R92	1-260-105-11	CARBON	3.3K	5%	1/2W F	R540	1-216-833-11	METAL CHIP	10K	5%	1/10W
R93	1-216-206-00	RES-CHIP	2.2K	5%	1/8W	R541	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R94	1-216-833-11	METAL CHIP	10K	5%	1/10W	R542	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R95	1-260-111-11	CARBON	10K	5%	1/2W F	R543	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R96	1-216-214-00	RES-CHIP	4.7K	5%	1/8W	R544	1-216-206-00	RES-CHIP	2.2K	5%	1/8W
R97	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R545	1-216-809-11	METAL CHIP	100	5%	1/10W
R98	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R546	1-216-809-11	METAL CHIP	100	5%	1/10W
R99	1-260-105-11	CARBON	3.3K	5%	1/2W F	R547	1-216-838-11	METAL CHIP	27K	5%	1/10W
R100	1-216-138-00	METAL CHIP	3.3	5%	1/8W	R548	1-216-838-11	METAL CHIP	27K	5%	1/10W
R102	1-216-216-00	RES-CHIP	5.6K	5%	1/8W	R549	1-216-818-11	METAL CHIP	560	5%	1/10W
R103	1-216-244-00	RES-CHIP	82K	5%	1/8W	R550	1-216-818-11	METAL CHIP	560	5%	1/10W
R104	1-216-244-00	RES-CHIP	82K	5%	1/8W	R553	1-216-838-11	METAL CHIP	27K	5%	1/10W
R105	1-216-244-00	RES-CHIP	82K	5%	1/8W	R554	1-216-838-11	METAL CHIP	27K	5%	1/10W
R106	1-216-244-00	RES-CHIP	82K	5%	1/8W	R555	1-216-841-11	METAL CHIP	47K	5%	1/10W
R107	1-216-244-00	RES-CHIP	82K	5%	1/8W	R556	1-216-841-11	METAL CHIP	47K	5%	1/10W
R108	1-216-244-00	RES-CHIP	82K	5%	1/8W	R557	1-216-821-11	METAL CHIP	1K	5%	1/10W
R109	1-216-244-00	RES-CHIP	82K	5%	1/8W	R558	1-216-821-11	METAL CHIP	1K	5%	1/10W
R110	1-216-244-00	RES-CHIP	82K	5%	1/8W	R559	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
R500	1-216-821-11	METAL CHIP	1K	5%	1/10W	R560	1-216-828-11	METAL CHIP	3.9K	5%	1/10W
△ R501	1-245-545-11	METAL OXIDE	0.22	5%	3W F	R561	1-216-843-11	METAL CHIP	68K	5%	1/10W
△ R502	1-245-545-11	METAL OXIDE	0.22	5%	3W F	R562	1-216-857-11	METAL CHIP	1M	5%	1/10W
△ R503	1-245-545-11	METAL OXIDE	0.22	5%	3W F	R563	1-216-214-00	RES-CHIP	4.7K	5%	1/8W
△ R504	1-245-545-11	METAL OXIDE	0.22	5%	3W F	R564	1-216-214-00	RES-CHIP	4.7K	5%	1/8W
R505	1-216-809-11	METAL CHIP	100	5%	1/10W	R565	1-216-821-11	METAL CHIP	1K	5%	1/10W (GX45)
R506	1-216-809-11	METAL CHIP	100	5%	1/10W	R566	1-216-828-11	METAL CHIP	3.9K	5%	1/10W (GX45)
R507	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R567	1-216-214-00	RES-CHIP	4.7K	5%	1/8W
R508	1-216-823-11	METAL CHIP	1.5K	5%	1/10W	R568	1-216-214-00	RES-CHIP	4.7K	5%	1/8W
R509	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R569	1-216-853-11	METAL CHIP	470K	5%	1/10W
R510	1-216-826-11	METAL CHIP	2.7K	5%	1/10W	R570	1-260-076-21	CARBON	10	5%	1/2W F
R511	1-216-821-11	METAL CHIP	1K	5%	1/10W	R571	1-260-076-21	CARBON	10	5%	1/2W F
R512	1-216-821-11	METAL CHIP	1K	5%	1/10W	R572	1-216-156-00	RES-CHIP	18	5%	1/8W
R513	1-216-835-11	METAL CHIP	15K	5%	1/10W	R573	1-216-156-00	RES-CHIP	18	5%	1/8W
R514	1-216-835-11	METAL CHIP	15K	5%	1/10W	R574	1-216-182-00	RES-CHIP	220	5%	1/8W
R515	1-216-815-11	METAL CHIP	330	5%	1/10W	R575	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R516	1-216-815-11	METAL CHIP	330	5%	1/10W	R576	1-216-837-11	METAL CHIP	22K	5%	1/10W
R517	1-216-804-11	METAL CHIP	39	5%	1/10W	R577	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R518	1-216-804-11	METAL CHIP	39	5%	1/10W	R578	1-216-182-00	RES-CHIP	220	5%	1/8W
R519	1-216-804-11	METAL CHIP	39	5%	1/10W	R580	1-216-150-11	RES-CHIP	10	5%	1/8W
R520	1-216-804-11	METAL CHIP	39	5%	1/10W	R581	1-216-246-00	RES-CHIP	100K	5%	1/8W
R521	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R589	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R522	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R591	1-216-841-11	METAL CHIP	47K	5%	1/10W
R523	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R592	1-216-835-11	METAL CHIP	15K	5%	1/10W
R524	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R593	1-216-833-11	METAL CHIP	10K	5%	1/10W
R525	1-216-821-11	METAL CHIP	1K	5%	1/10W	R594	1-216-833-11	METAL CHIP	10K	5%	1/10W
R526	1-216-821-11	METAL CHIP	1K	5%	1/10W	R599	1-216-841-11	METAL CHIP	47K	5%	1/10W
R527	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R528	1-216-841-11	METAL CHIP	47K	5%	1/10W						

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

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



**POWER AMP**

**REMOTE**

**SENSOR**

**SUBWOOFER**

Ref. No.	Part No.	Description	Remark
R601	1-216-156-00	RES-CHIP	18 5% 1/8W
R602	1-216-156-00	RES-CHIP	18 5% 1/8W
R603	1-216-156-00	RES-CHIP	18 5% 1/8W
R604	1-216-156-00	RES-CHIP	18 5% 1/8W
< RELAY >			
RY501	1-755-373-11	RELAY	
< THERMISTOR >			
TH501	1-805-217-11	THERMISTOR (1012)	
TH502	1-805-217-11	THERMISTOR (1012)	
*****			
REMOTE BOARD			
*****			
< CONNECTOR >			
CN604	1-816-423-11	SOCKET, CONNECTOR 3P	
< IC >			
RM601	6-600-174-01	IC RPM7240-H4 (IR)	
*****			
1-687-132-11	SENSOR BOARD		
*****			
< CONNECTOR >			
CN731	1-785-329-21	PIN, CONNECTOR (LIGHT ANGLE) 3P	
< IC >			
IC731	6-600-174-01	IC RPI-576	
*****			
A-4732-797-A	SUBWOOFER BOARD, COMPLETE		
*****			
< CAPACITOR >			
C401	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V
C402	1-126-960-11	ELECT	1uF 20% 50V
C404	1-126-965-11	ELECT	22uF 20% 50V
C405	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C406	1-126-966-11	ELECT	33uF 20% 35V
C407	1-164-733-11	CERAMIC CHIP	820PF 10% 50V
C408	1-162-927-11	CERAMIC CHIP	100PF 5% 50V
C409	1-162-953-11	CERAMIC CHIP	100PF 5% 50V
C410	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C411	1-163-021-11	CERAMIC CHIP	0.01uF 10% 50V
C412	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V
C413	1-162-968-11	CERAMIC CHIP	0.0047uF 10% 50V
C414	1-165-319-11	CERAMIC CHIP	0.1uF 50V
C415	1-165-319-11	CERAMIC CHIP	0.1uF 50V
C416	1-162-966-11	CERAMIC CHIP	0.0022uF 10% 50V
C417	1-165-319-11	CERAMIC CHIP	0.1uF 50V
C421	1-128-552-51	ELECT	47uF 20% 63V
C424	1-164-344-11	CERAMIC CHIP	0.068uF 10% 25V
C425	1-126-947-11	ELECT	47uF 20% 35V
(RG440:AEP,UK)			

Ref. No.	Part No.	Description	Remark
C425	1-128-552-51	ELECT	47uF 20% 63V
(GX45/RG440:AUS)			
C428	1-126-963-11	ELECT	4.7uF 20% 50V
C429	1-126-947-11	ELECT	47uF 20% 35V
(RG440:AEP,UK)			
C429	1-128-552-51	ELECT	47uF 20% 63V
(GX45/RG440:AUS)			
C430	1-128-552-51	ELECT	47uF 20% 63V
C431	1-162-945-11	CERAMIC CHIP	22PF 5% 50V
C432	1-164-315-11	CERAMIC CHIP	470PF 5% 50V
< CONNECTOR >			
* CN401	1-564-516-11	PLUG, CONNECTOR 13P	
* CN402	1-564-517-11	PLUG, CONNECTOR 2P (CONTROL)	
< DIODE >			
D401	8-719-988-61	DIODE 1SS355TE-17	
D402	8-719-988-61	DIODE 1SS355TE-17	
D403	6-500-334-01	DIODE MC2836	
D404	6-500-334-01	DIODE MC2836	
D405	8-719-970-83	DIODE HSS82-TJ	
D406	8-719-988-61	DIODE 1SS355TE-17	
D407	8-719-988-61	DIODE 1SS355TE-17	
D408	8-719-988-61	DIODE 1SS355TE-17	
D409	8-719-988-61	DIODE 1SS355TE-17	
D410	8-719-988-61	DIODE 1SS355TE-17	
D411	8-719-083-52	DIODE UDZS-TE17-16B	
D412	8-719-988-61	DIODE 1SS355TE-17	
D413	8-719-988-61	DIODE 1SS355TE-17	
D414	8-719-988-61	DIODE 1SS355TE-17	
D415	8-719-083-67	DIODE UDZS-TE17-20B	
D416	6-500-802-01	DIODE 1N5042TM (RG440:AEP,UK)	
D416	8-719-312-08	DIODE FMB-G16L (GX45/RG440:AUS)	
D417	8-719-978-33	DIODE UDZS-TE17-6.8B	
D418	8-719-988-61	DIODE 1SS355TE-17	
D419	6-500-802-01	DIODE 1N5042TM (RG440:AEP,UK)	
D419	8-719-312-08	DIODE FMB-G16L (GX45/RG440:AUS)	
D420	8-719-988-61	DIODE 1SS355TE-17	
D421	8-719-988-61	DIODE 1SS355TE-17	
D422	8-719-988-61	DIODE 1SS355TE-17	
D423	8-719-988-61	DIODE 1SS355TE-17	
D424	6-500-334-01	DIODE MC2836	
D425	6-500-584-01	DIODE MC2838TP-1F	
< EARTH TERMINAL >			
* EP401	1-537-738-21	TERMINAL, EARTH	
< JACK >			
JK401	1-774-785-11	JACK, PIN 1P (SUBWOOFER OUT)	
< JUMPER RESISTOR >			
JR418	1-216-864-11	METAL CHIP	0 5% 1/10W
JR423	1-216-864-11	METAL CHIP	0 5% 1/10W
JR437	1-216-864-11	METAL CHIP	0 5% 1/10W
< COIL >			
L401	1-422-009-13	COIL, AIR-CORE	

# HCD-GX45/RG440

## SUBWOOFER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< TRANSISTOR >							
Q401	6-550-316-01	TRANSISTOR 2SB792A(RS)		R434	1-216-833-11	METAL CHIP 10K 5%	1/10W
Q402	6-550-316-01	TRANSISTOR 2SB792A(RS)		R435	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
Q403	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R436	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
Q404	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R438	1-216-158-00	RES-CHIP 22 5%	1/8W
Q405	6-550-317-01	TRANSISTOR 2SD814A(RS)		R440	1-216-841-11	METAL CHIP 47K 5%	1/10W
Q406	6-550-413-01	TRANSISTOR 2SC3478LK		R441	1-216-833-11	METAL CHIP 10K 5%	1/10W
Q407	6-550-413-01	TRANSISTOR 2SC3478LK		R442	1-216-833-11	METAL CHIP 10K 5%	1/10W
Q408	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R443	1-216-833-11	METAL CHIP 10K 5%	1/10W
Q409	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R444	1-216-833-11	METAL CHIP 10K 5%	1/10W
Q410	6-550-291-01	TRANSISTOR FN1016		R447	1-216-208-00	RES-CHIP 2.7K 5%	1/8W
Q411	6-550-292-01	TRANSISTOR FP1016		R448	1-216-208-00	RES-CHIP 2.7K 5%	1/8W
Q412	6-550-316-01	TRANSISTOR 2SB792A(RS)		R449	1-216-208-00	RES-CHIP 2.7K 5%	1/8W
Q413	6-550-289-01	TRANSISTOR 2SA1235F		R450	1-216-208-00	RES-CHIP 2.7K 5%	1/8W
Q414	6-550-645-01	TRANSISTOR 2SC3143K4-TB		R451	1-216-230-00	RES-CHIP 22K 5%	1/8W
Q415	6-550-316-01	TRANSISTOR 2SB792A(RS)		R452	1-216-206-00	RES-CHIP 2.2K 5%	1/8W
Q416	6-550-293-01	FET 2SK2937		R453	1-216-208-00	RES-CHIP 2.7K 5%	1/8W
Q417	6-550-317-01	TRANSISTOR 2SD814A(RS)		R454	1-216-178-00	RES-CHIP 150 5%	1/8W
Q419	8-729-120-28	TRANSISTOR 2SC1623-L5L6		R455	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
Q420	6-550-316-01	TRANSISTOR 2SB792A(RS)		R456	1-216-222-00	RES-CHIP 10K 5%	1/8W
Q421	8-729-055-91	TRANSISTOR SRA2202SF		R457	1-216-210-00	RES-CHIP 3.3K 5%	1/8W
Q422	6-550-289-01	TRANSISTOR 2SA1235F		R458	1-216-833-11	METAL CHIP 10K 5%	1/10W
Q423	6-550-289-01	TRANSISTOR 2SA1235F		R459	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
Q424	6-550-316-01	TRANSISTOR 2SB792A(RS)		R460	1-216-230-00	RES-CHIP 22K 5%	1/8W
Q425	6-550-289-01	TRANSISTOR 2SA1235F		R461	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
Q426	6-550-293-01	FET 2SK2937		R462	1-216-833-11	METAL CHIP 10K 5%	1/10W
< RESISTOR >							
R401	1-216-841-11	METAL CHIP 47K 5%	1/10W	R463	1-216-230-00	RES-CHIP 22K 5%	1/8W
R402	1-216-838-11	METAL CHIP 27K 5%	1/10W	R464	1-216-230-00	RES-CHIP 22K 5%	1/8W
R404	1-216-818-11	METAL CHIP 560 5%	1/10W	R465	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
R405	1-216-206-00	RES-CHIP 2.2K 5%	1/8W	R466	1-216-833-11	METAL CHIP 10K 5%	1/10W
R406	1-216-206-00	RES-CHIP 2.2K 5%	1/8W	R467	1-216-835-11	METAL CHIP 15K 5%	1/10W
R407	1-216-198-00	RES-CHIP 1K 5%	1/8W	R468	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
R408	1-216-809-11	METAL CHIP 100 5%	1/10W	R469	1-216-841-11	METAL CHIP 47K 5%	1/10W
R409	1-216-232-00	RES-CHIP 27K 5%	1/8W	R470	1-216-837-11	METAL CHIP 22K 5%	1/10W
R410	1-216-833-11	METAL CHIP 10K 5%	1/10W	R471	1-216-849-11	METAL CHIP 220K 5%	1/10W
R411	1-216-809-11	METAL CHIP 100 5%	1/10W	R472	1-216-849-11	METAL CHIP 220K 5%	1/10W
R412	1-216-809-11	METAL CHIP 100 5%	1/10W	R473	1-216-833-11	METAL CHIP 10K 5%	1/10W
R413	1-216-823-11	METAL CHIP 1.5K 5%	1/10W	R474	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R414	1-216-829-11	METAL CHIP 4.7K 5%	1/10W	R475	1-216-841-11	METAL CHIP 47K 5%	1/10W
R415	1-216-841-11	METAL CHIP 47K 5%	1/10W	R476	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
R416	1-216-821-11	METAL CHIP 1K 5%	1/10W	R477	1-216-833-11	METAL CHIP 10K 5%	1/10W
R417	1-216-804-11	METAL CHIP 39 5%	1/10W	R478	1-216-825-11	METAL CHIP 2.2K 5%	1/10W
R419	1-216-825-11	METAL CHIP 2.2K 5%	1/10W	R479	1-216-816-11	METAL CHIP 390 5%	1/10W
R420	1-216-825-11	METAL CHIP 2.2K 5%	1/10W	R480	1-216-222-00	RES-CHIP 10K 5%	1/8W
R421	1-216-804-11	METAL CHIP 39 5%	1/10W	R481	1-216-826-11	METAL CHIP 2.7K 5%	1/10W
R422	1-216-815-11	METAL CHIP 330 5%	1/10W	R482	1-216-835-11	METAL CHIP 15K 5%	1/10W
R424	1-216-809-11	METAL CHIP 100 5%	1/10W	R483	1-216-830-11	METAL CHIP 5.6K 5%	1/10W
R425	1-216-823-11	METAL CHIP 1.5K 5%	1/10W	R484	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
△ R426	1-245-545-11	METAL OXIDE 0.22 5%	3W F	R485	1-216-234-00	RES-CHIP 33K 5%	1/8W
△ R427	1-245-545-11	METAL OXIDE 0.22 5%	3W F	R486	1-216-238-11	RES-CHIP 47K 5%	1/8W
R428	1-216-826-11	METAL CHIP 2.7K 5%	1/10W	R487	1-216-186-00	RES-CHIP 330 5%	1/8W
R429	1-216-821-11	METAL CHIP 1K 5%	1/10W	R488	1-216-222-00	RES-CHIP 10K 5%	1/8W
R430	1-216-835-11	METAL CHIP 15K 5%	1/10W	R489	1-216-238-11	RES-CHIP 47K 5%	1/8W
△ R431	1-260-076-11	CARBON 10 5%	1/2W F	R490	1-216-837-11	METAL CHIP 22K 5%	1/10W
R432	1-216-158-00	RES-CHIP 22 5%	1/8W	R491	1-216-832-11	METAL CHIP 8.2K 5%	1/10W
△ R433	1-260-087-11	CARBON 100 5%	1/2W F	R492	1-216-857-11	METAL CHIP 1M 5%	1/10W
				R493	1-216-833-11	METAL CHIP 10K 5%	1/10W
				R494	1-216-816-11	METAL CHIP 390 5%	1/10W
				R496	1-216-222-00	RES-CHIP 10K 5%	1/8W

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**SUBWOOFER**

**SW**

**TRANS**

**VIDEO OUT**

**6 STREAM LED**

Ref. No.	Part No.	Description	Remark
		< RELAY >	
RY401	1-755-373-11	RELAY	
		< THERMISTOR >	
TH401	1-805-217-11	THERMISTOR (1012)	
*****			
	1-687-669-11	SW BOARD *****	
		< SWITCH >	
S751	1-786-514-11	SWITCH, LEVER (SLIDE) (OPEN/CLOSE DETECT)	
*****			
	1-688-747-11	TRANS BOARD *****	
*	1-533-213-31	HOLDER, FUSE  < CAPACITOR >	
C901	1-164-156-11	CERAMIC CHIP 0.1uF 25V	
C902	1-126-942-61	ELECT 1000uF 20% 25V	
		< CONNECTOR >	
CN901	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P	
* CN902	1-764-334-11	PLUG, CONNECTOR 11P	
		< DIODE >	
D902	8-719-988-61	DIODE 1SS355TE-17	
D903	8-719-988-61	DIODE 1SS355TE-17	
D904	8-719-988-61	DIODE 1SS355TE-17	
D905	8-719-988-61	DIODE 1SS355TE-17	
D906	8-719-988-61	DIODE 1SS355TE-17	
		< RESISTOR >	
△ R901	1-219-237-11	SOLID 3.3M 20% 1/2W F	
		< RELAY >	
△ RY902	1-755-276-11	RELAY, POWER	
		< TRANSFORMER >	
△ T902	1-439-734-11	TRANSFORMER, POWER (GX45)	
△ T902	1-439-735-11	TRANSFORMER, POWER (RG440:AEP,UK)	
△ T902	1-439-736-11	TRANSFORMER, POWER (RG440:EXCEPT AEP,UK)	
*****			
		VIDEO OUT BOARD *****	
		< CONNECTOR >	
* CN003	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P  < JACK >	
JK004	1-774-227-11	JACK, PIN 1P (VIDEO OUT)	
*****			

Ref. No.	Part No.	Description	Remark
	1-688-081-21	6 STREAM LED BOARD *****	
		< JUMPER RESISTOR >	
JR002	1-216-864-11	METAL CHIP 0 5% 1/10W	
		< DIODE >	
LED601	8-719-058-04	LED SEL5223S-TP15 (STREAM 1)	
LED602	8-719-058-04	LED SEL5223S-TP15 (STREAM 2)	
LED603	8-719-058-04	LED SEL5223S-TP15 (STREAM 3)	
LED604	8-719-058-04	LED SEL5223S-TP15 (STREAM 4)	
LED605	8-719-058-04	LED SEL5223S-TP15 (STREAM 5)	
LED606	8-719-058-04	LED SEL5223S-TP15 (STREAM 6)	
		< RESISTOR >	
R617	1-216-182-00	RES-CHIP 220 5% 1/8W	
R618	1-216-182-00	RES-CHIP 220 5% 1/8W	
R619	1-216-182-00	RES-CHIP 220 5% 1/8W	
R620	1-216-182-00	RES-CHIP 220 5% 1/8W	
R621	1-216-182-00	RES-CHIP 220 5% 1/8W	
R622	1-216-182-00	RES-CHIP 220 5% 1/8W	
R935	1-216-182-00	RES-CHIP 220 5% 1/8W	
R936	1-216-182-00	RES-CHIP 220 5% 1/8W	

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# HCD-GX45/RG440

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS *****	
6	1-769-939-11	WIRE (FLAT TYPE) (11 CORE) (GX45)	
6	1-773-003-11	WIRE (FLAT TYPE) (15 CORE) (RG440)	
52	1-796-485-51	DECK, MECHANICAL	
58	1-769-914-11	WIRE (FLAT TYPE) (9 CORE)	
59	1-773-322-11	WIRE (FLAT TYPE) (31 CORE)	
60	1-827-145-11	WIRE (FLAT TYPE) (13 CORE)	
△ 205	1-690-608-11	CORD, POWER (RG440:AUS)	
△ 205	1-777-071-83	CORD, POWER (RG440:AEP,UK)	
△ 205	1-783-532-11	CORD, POWER (GX45)	
252	1-776-182-11	WIRE (FLAT TYPE) (5 CORE)	
317	1-471-035-11	MAGNET ASSY	
323	1-827-146-11	WIRE (FLAT TYPE) (19 CORE)	
352	1-823-859-11	WIRE (FLAT TYPE) (16 CORE)	
△ F902	1-533-451-12	FUSE, GLASS TUBE (DIA.5) (3.15A/125V) (GX45)	
△ F902	1-533-470-11	FUSE, GLASS TUBE (DIA.5) (T3.15AL/250V) (RG440)	
△ F903	1-533-452-12	FUSE, GLASS TUBE (DIA.5) (4A/125V) (GX45)	
△ F903	1-533-472-11	FUSE, GLASS TUBE (DIA.5) (T5AL/250V) (RG440)	
△ F904	1-533-452-12	FUSE, GLASS TUBE (DIA.5) (4A/125V) (GX45)	
△ F904	1-533-472-11	FUSE, GLASS TUBE (DIA.5) (T5AL/250V) (RG440)	
△ F905	1-576-537-11	FUSE, GLASS TUBE (DIA.5) (8A/125V) (GX45)	
△ F905	1-576-655-11	FUSE, GLASS TUBE (DIA.5) (T8AL/250V) (RG440)	
△ F906	1-576-537-11	FUSE, GLASS TUBE (DIA.5) (8A/125V) (GX45)	
△ F906	1-576-655-11	FUSE, GLASS TUBE (DIA.5) (T8AL/250V) (RG440)	
M731	1-763-072-11	FAN, DC	
M741	A-4723-963-A	MOTOR ASSY, TABLE (TABLE)	
M751	A-4736-655-A	MOTOR ASSY, LOADING (LOADING)	
RE701	1-477-680-11	ENCODER, ROTARY (DISC TRAY ADDRESS DETECT)	
△ T901	1-439-810-11	TRANSFORMER, POWER (GX45)	
△ T901	1-439-811-11	TRANSFORMER, POWER (RG440:AEP,UK)	
△ T901	1-443-025-11	TRANSFORMER, POWER (RG440:AUS)	
TU901	1-693-625-11	TUNER PACK (FM/AM) (ANTENNA) (GX45)	
TU901	1-693-626-11	TUNER PACK (FM/AM) (ANTENNA) (RG440:AEP,UK)	
TU901	1-693-628-11	TUNER PACK (FM/AM) (ANTENNA) (RG440:AUS)	

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**MEMO**

