

HCD-GPX6/GPX7

SERVICE MANUAL

Ver 1.0 2004.04



Photo: HCD-GPX7

HCD-GPX6/GPX7 are the amplifier, CD player, tape deck and tuner section in CMT-GPX6/GPX7.

US Model
Australian Model

HCD-GPX6

AEP Model

HCD-GPX7

E Model

HCD-GPX6/GPX7

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM80B-F1BD81
	Base Unit Name	BU-F1BD81A
	Optical Pick-up Block Name	KSM-215DCP
Tape deck Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	CMAL1Z234A

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION: (The United States model only)

With 6 ohm loads, both channels driven, from 120-10,000 Hz; rated 35 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

HCD-GPX7

DIN power output (rated): 40 + 40 W (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference): 60 + 60 W
(6 ohms at 1 kHz, 10% THD)

Music power output (reference): 100 + 100 W

HCD-GPX6

North American model:

Continuous RMS power output (reference): 40 + 40 W
(6 ohms at 1 kHz, 10% THD)

Other models:

The following measured at AC 240 V, AC 220 V or AC 120 V
DIN power output (rated): 30 + 30 W (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference): 35 + 35 W
(6 ohms at 1 kHz, 10% THD)

Inputs

MD/VIDEO: Sensitivity 450/250 mV, impedance 47 kilohms

Outputs

PHONES: Accepts headphones with an impedance of 8 ohms or more

SPEAKER: Accepts impedance of 6 to 16 ohms.

CD player section

Laser

Semiconductor laser ($\lambda=780$ nm)

Emission duration: continuous

Frequency response

20 Hz – 20 kHz

Wavelength

780 – 790 nm

Tape deck section

Recording system

4-track 2-channel, stereo

Frequency response

50 – 13,000 Hz (± 3 dB), using Sony TYPE I cassettes

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range

87.5 – 108.0 MHz

Antenna

FM lead antenna

Antenna terminals

75 ohms unbalanced

Intermediate frequency

10.7 MHz

AM tuner section

Tuning range

Pan-American model:

530 – 1,710 kHz
(with the tuning interval set at 10 kHz)
531 – 1,710 kHz
(with the tuning interval set at 9 kHz)
531 – 1,602 kHz
(with the tuning interval set at 9 kHz)

European model:

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, external antenna terminal

Intermediate frequency

450 kHz

General

Power requirements

North American model: 120 V AC, 60 Hz
European model: 230 V AC, 50/60 Hz
Argentina model: 220 V AC, 50 Hz
Korean model: 220 V AC, 60 Hz
Australian model: 230 – 240 V AC, 50/60 Hz
Other models: 110 – 120 V or 220 – 240 V AC, 50/60 Hz

Adjustable with voltage

Power consumption

HCD-GPX7:

105 W
0.25 W (in Power Saving Mode)

HCD-GPX6:

80 W
Approx. 181.5 × 261.5 × 357.5 mm incl. projecting parts and controls

Dimensions (w/h/d)

Mass

HCD-GPX7:

Approx. 6.3 kg

HCD-GPX6:

Approx. 5.8 kg

Design and specifications are subject to change without notice.

COMPACT DISC DECK RECEIVER

9-877-742-01

2004D05-1

© 2004.04

Sony Corporation

Home Audio Company

Published by Sony Engineering Corporation

SONY®

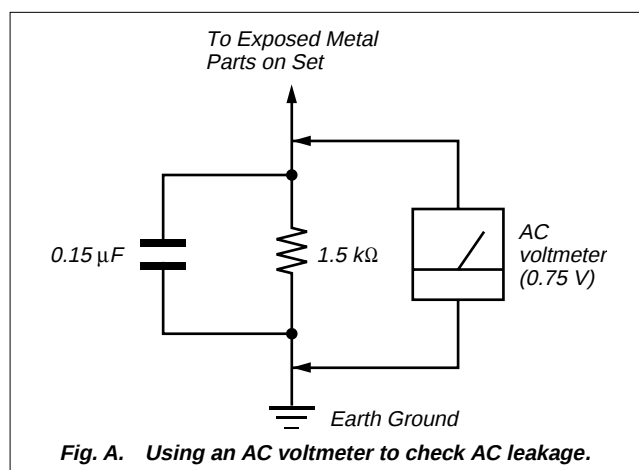
SAFETY CHECK-OUT

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

LEAKAGE TEST

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

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



Notes on chip component replacement

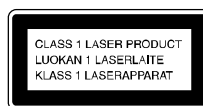
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

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

CAUTION

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



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

DANGER

INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK AND DEFEATED. AVOID DIRECT EXPOSURE TO BEAM.

DANGER

RADIATION DE LASER INVISIBLE LORS D'OUVERTURE. AVEC L'ENCLÈCHEMENT DE SECURITE ANNULÉ. EVITER L'EXPOSITION DIRECTE AU RAYON.

UNLEADED SOLDER

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

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



: LEAD FREE MARK

Unleaded solder has the following characteristics.

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

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.

TABLE OF CONTENTS

1. SERVICING NOTES	4	7. EXPLODED VIEWS	
2. GENERAL		7-1. Side Plates Section	50
Location of Controls	6	7-2. Front Panel Section	51
3. DISASSEMBLY		7-3. Top Block Section	52
3-1. Disassembly Flow	8	7-4. MAIN Section	53
3-2. Side Plate (L)/(R)	9	7-5. Chassis Section	54
3-3. Top Block Assy	9	7-6. CD Mechanism Deck Section-1 (CDM80B-F1BD81) ..	55
3-4. Tape Mechanism Deck (CMAL1Z234A)	10	7-7. CD Mechanism Deck Section-2 (CDM80B-F1BD81) ..	56
3-5. Front Panel Section	10	7-8. CD Mechanism Deck Section-3 (CDM80B-F1BD81) ..	57
3-6. MAIN Board	11	7-9. CD Mechanism Deck Section-4 (CDM80B-F1BD81) ..	58
3-7. CD Mechanism Deck Block	11	7-10. Base Unit Section (BU-F1BD81A)	59
3-8. Base Unit (BU-F1BD81A)	12	8. ELECTRICAL PARTS LIST	60
3-9. Motor Gear Assy (Sled) (M102), CD Board	12		
3-10. Optical Pick-up (KSM-215DCP)	13		
3-11. Chassis (Top)	13		
3-12. Lever (Loading-L/R)	14		
3-13. Lever (Disc Sensor)/(Disc Stop)	15		
3-14. Driver Board	15		
3-15. Holder (BU215) Assy	16		
3-16. Lever (BU Lock)	16		
3-17. Close Lever	17		
3-18. (Lever Dir), Gear (IDL-B)	17		
3-19. Gear (IDL-C)	18		
4. TEST MODE	19		
5. ELECTRICAL ADJUSTMENTS			
Deck Section	21		
CD Section	21		
6. DIAGRAMS			
6-1. Block Diagram – CD SERVO Section –	22		
6-2. Block Diagram – MAIN Section –	23		
6-3. Block Diagram			
– PANEL/POWER SUPPLY Section –	24		
6-4. Note for Printed Wiring Boards and			
Schematic Diagrams	25		
6-5. Printed Wiring Board – CD Board –	26		
6-6. Schematic Diagram – CD Board –	27		
6-7. Printed Wiring Board – DRIVER Board –	28		
6-8. Schematic Diagram – DRIVER Board –	29		
6-9. Printed Wiring Board – MAIN Board –	30		
6-10. Schematic Diagram – MAIN Board (1/3) –	31		
6-11. Schematic Diagram – MAIN Board (2/3) –	32		
6-12. Schematic Diagram – MAIN Board (3/3) –	33		
6-13. Printed Wiring Board – AMP Board –	34		
6-14. Schematic Diagram – AMP Board –	35		
6-15. Printed Wiring Board – PANEL (1) Board –	36		
6-16. Schematic Diagram – PANEL (1) Board –	37		
6-17. Printed Wiring Board – PANEL (2) Board –	38		
6-18. Schematic Diagram – PANEL (2) Board –	39		
6-19. Printed Wiring Board – POWER Board –	40		
6-20. Schematic Diagram – POWER Board –	41		

SECTION 1
SERVICING NOTES

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

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

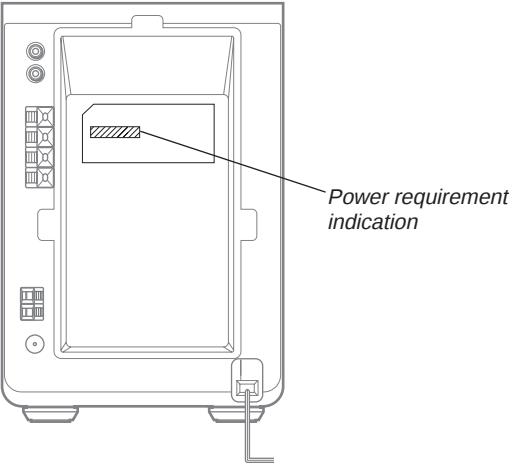
NOTES ON LASER DIODE EMISSION CHECK

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

LASER DIODE AND FOCUS SEARCH OPERATION
CHECK

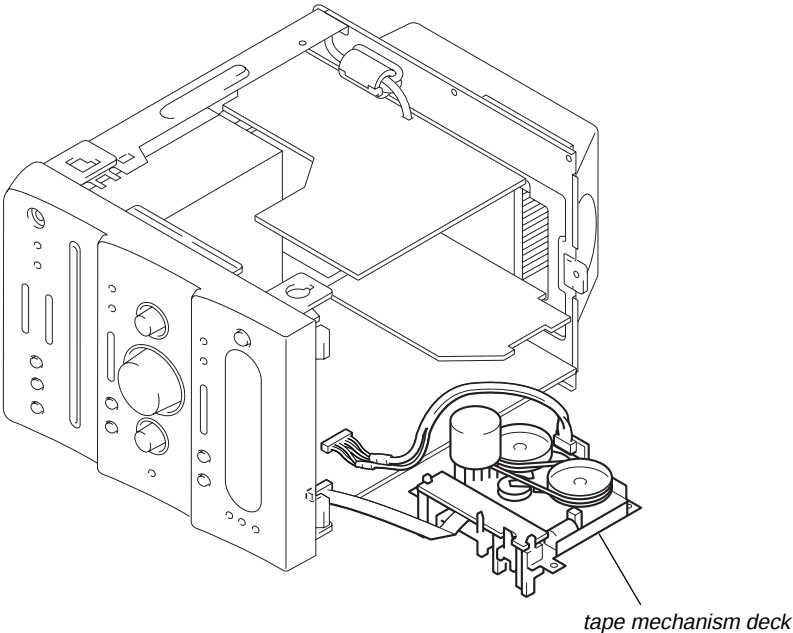
Carry out the “S curve check” in “CD section adjustment” and check that the S curve waveforms is output three times.

• MODEL IDENTIFICATION
– Rear View –

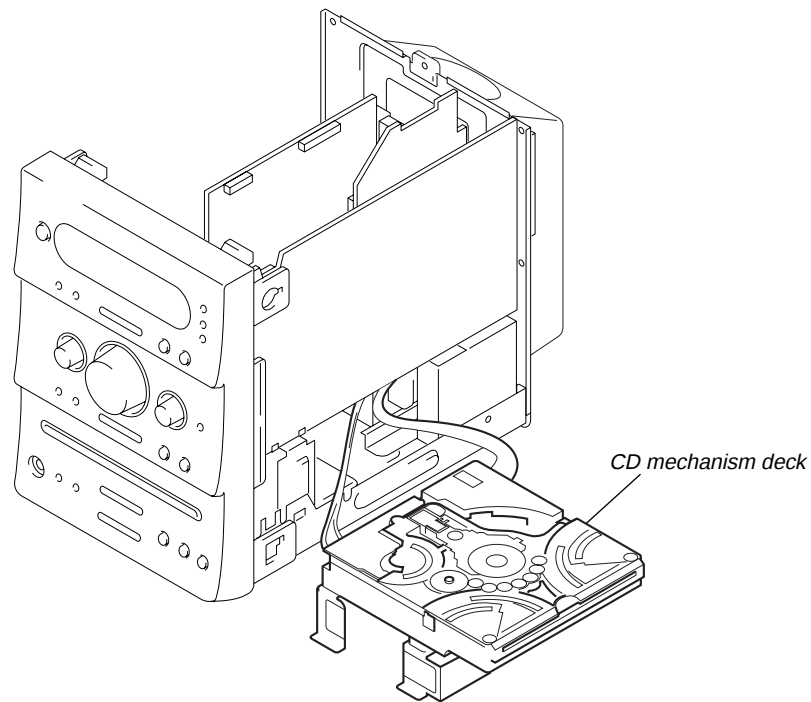


MODEL	Power requirement indication
US model	AC: 120V 60Hz
AEP model	AC: 230V ~ 50/60Hz
Hong Kong, Singapore models	AC: 120V/220V/230-240V ~ 50/60Hz
Argentina model	AC: 220V ~ 50Hz
Korean model	AC: 220V ~ 60Hz
Australian model	AC: 230V-240V ~ 50/60Hz

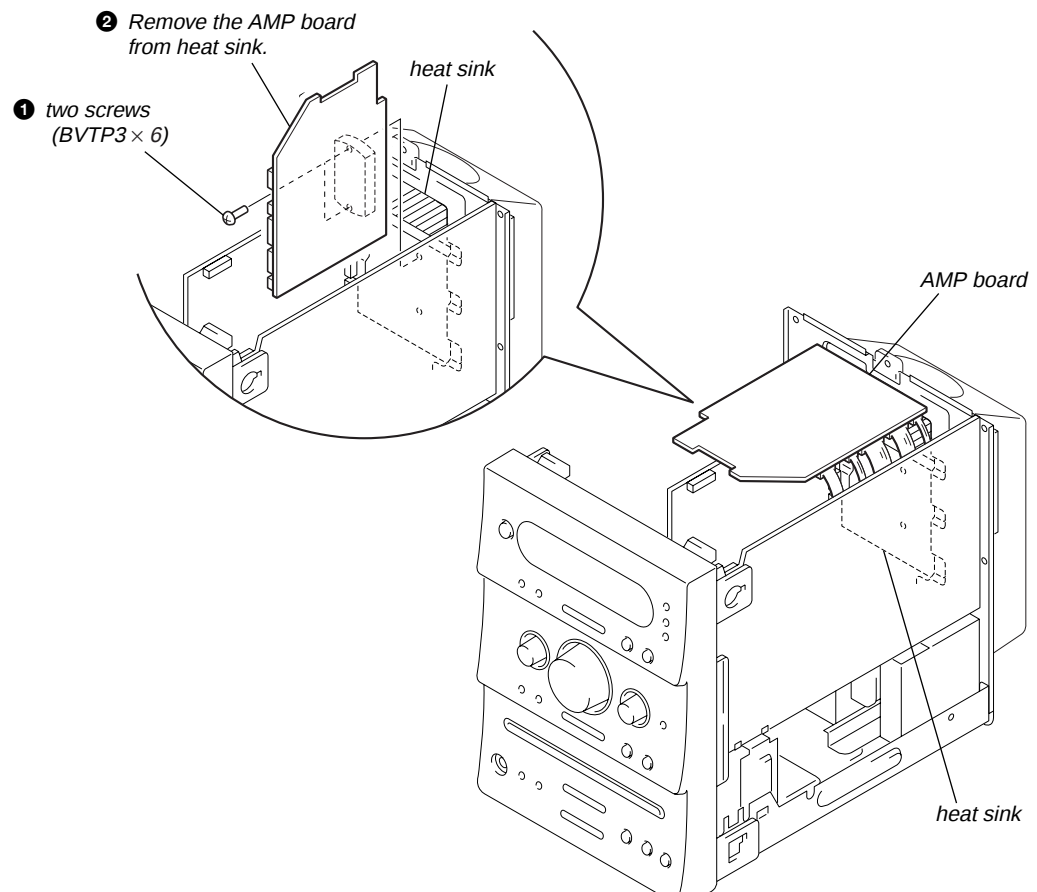
SERVICE POSITION
– TAPE MECHANISM DECK –



– CD MECHANISM DECK –



- AMP BOARD -



This section is extracted from instruction manual.

• LOCATION OF CONTROLS

Main unit

ALPHABETICAL ORDER

A – O

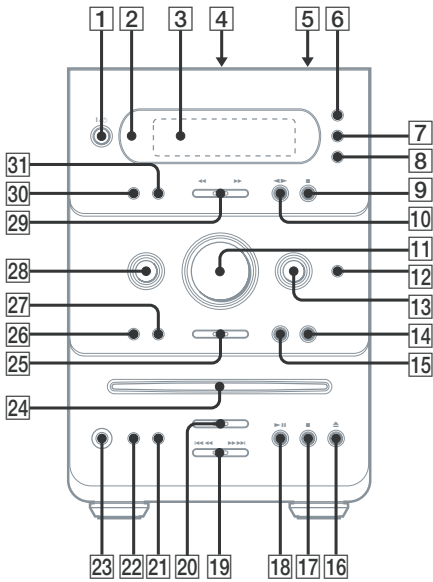
- ALBUM +/- 20
- BASS +/- 28
- Cassette compartment 4
- CD SYNCHRO 7
- DIRECTION 6
- Disc slot 24
- DISPLAY 31
- Display window 3
- DSGX 12
- FM MODE 26
- FUNCTION 30

P – Z

- PHONES jack 23
- PLAY MODE 22
- Remote sensor 2
- REPEAT 21
- TREBLE +/- 13
- TUNER/BAND 15
- TUNER MEMORY 27
- TUNING +/- 25
- TUNING MODE 14
- VOLUME 11

BUTTON DESCRIPTIONS

- I/⏻ (power) 1
- ⏮⏮⏮/⏭⏭⏭ (CD skip back/skip forward, CD rewind/fast forward) 19
- ⏮/⏭ (tape rewind/fast forward) 29
- (CD stop) 17
- (tape stop) 9
- REC PAUSE/START 8
- CD/⏮⏭ (play/pause) 18
- TAPE/⏮⏭ (play) 10
- ⏏ (CD eject) 16
- ⏏ PUSH EJECT (tape open/close) 5



Remote control

ALPHABETICAL ORDER

A – O

- ALBUM +/- 11
- CD 16
- CLEAR 13
- CLOCK/TIMER SELECT 2
- CLOCK/TIMER SET 3
- DISPLAY 19
- ENTER 9
- EQ 12
- FM MODE 4
- FUNCTION 6

P – Z

- PLAY MODE 18
- REPEAT 4
- SLEEP 20
- TAPE 15
- TUNER/BAND 5
- TUNER MEMORY 17
- TUNING MODE 18
- VOLUME +/- 10

BUTTON DESCRIPTIONS

- I/⏻ (power) 1
- ◀◀/▶▶ (rewind/fast forward) 7
- ◀◀/▶▶ (skip back/skip forward) 14
- (stop) 8
- ⏸ (pause) 8
- ▶ (play) 8
- +/- (tuning) 14

Setting the clock

Use buttons on the remote for the operation.

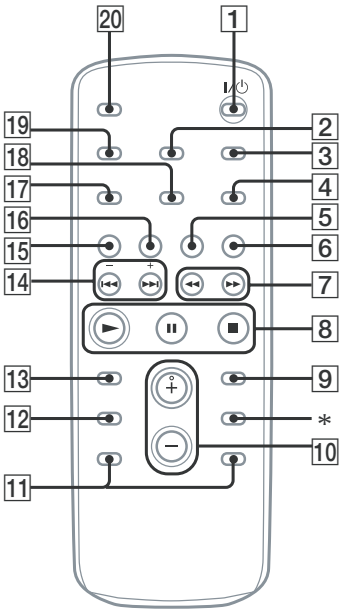
- 1 Press I/⏻ to turn on the system.
- 2 Press CLOCK/TIMER SET.
- 3 Press ◀◀/▶▶ repeatedly to set the hour.
- 4 Press ENTER.
- 5 Press ◀◀/▶▶ repeatedly to set the minute.
- 6 Press ENTER.
The clock starts working.

To adjust the clock

- 1 Press CLOCK/TIMER SET.
- 2 Press ◀◀/▶▶ until "CLOCK SET" appears, then press ENTER.
- 3 Do the same procedures as step 3 to 6 above.

Note
The clock is not displayed in Power Saving Mode.

CMT-GPX7/CMT-GPX6

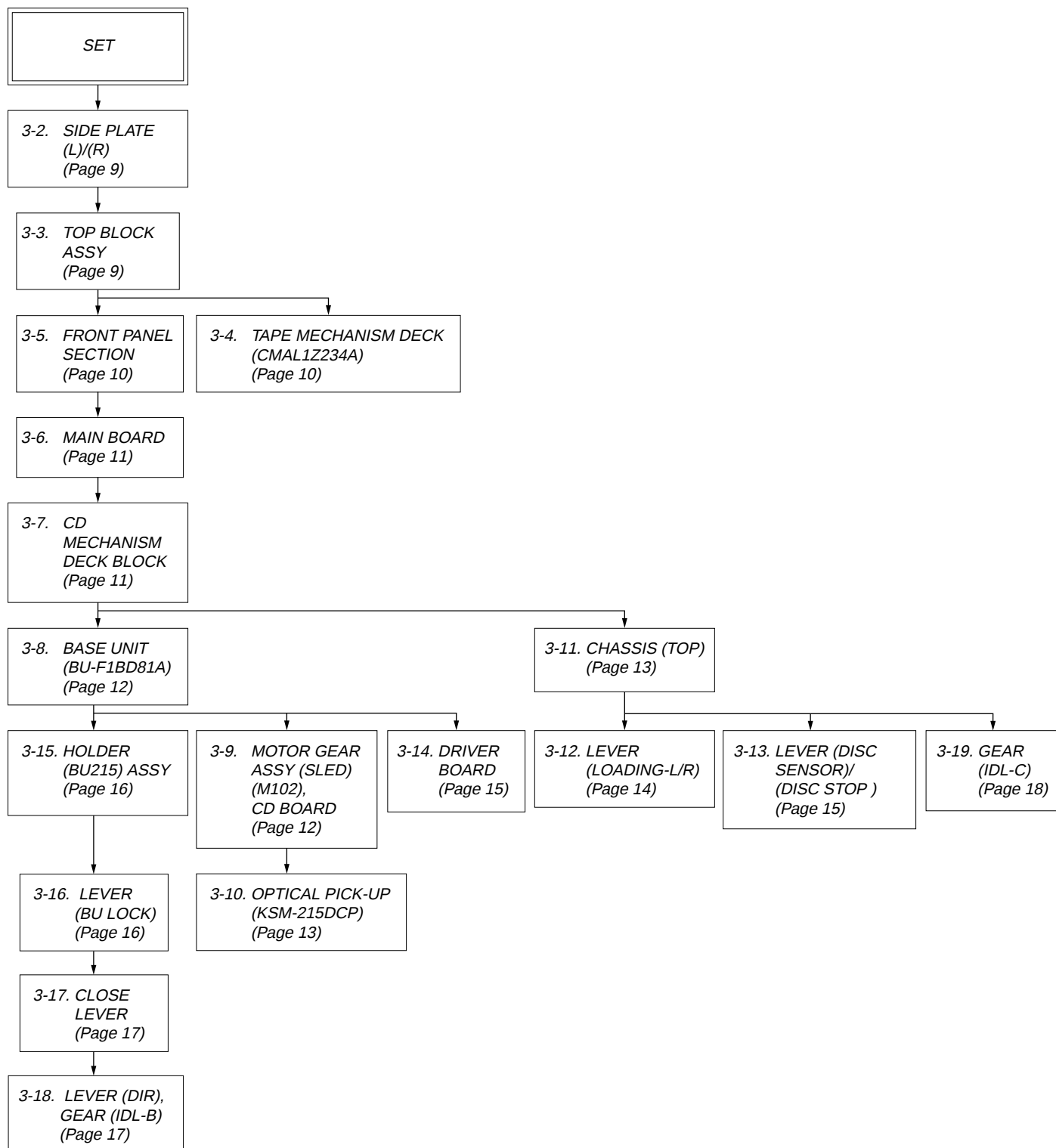


* This button is not available for this model.

SECTION 3 DISASSEMBLY

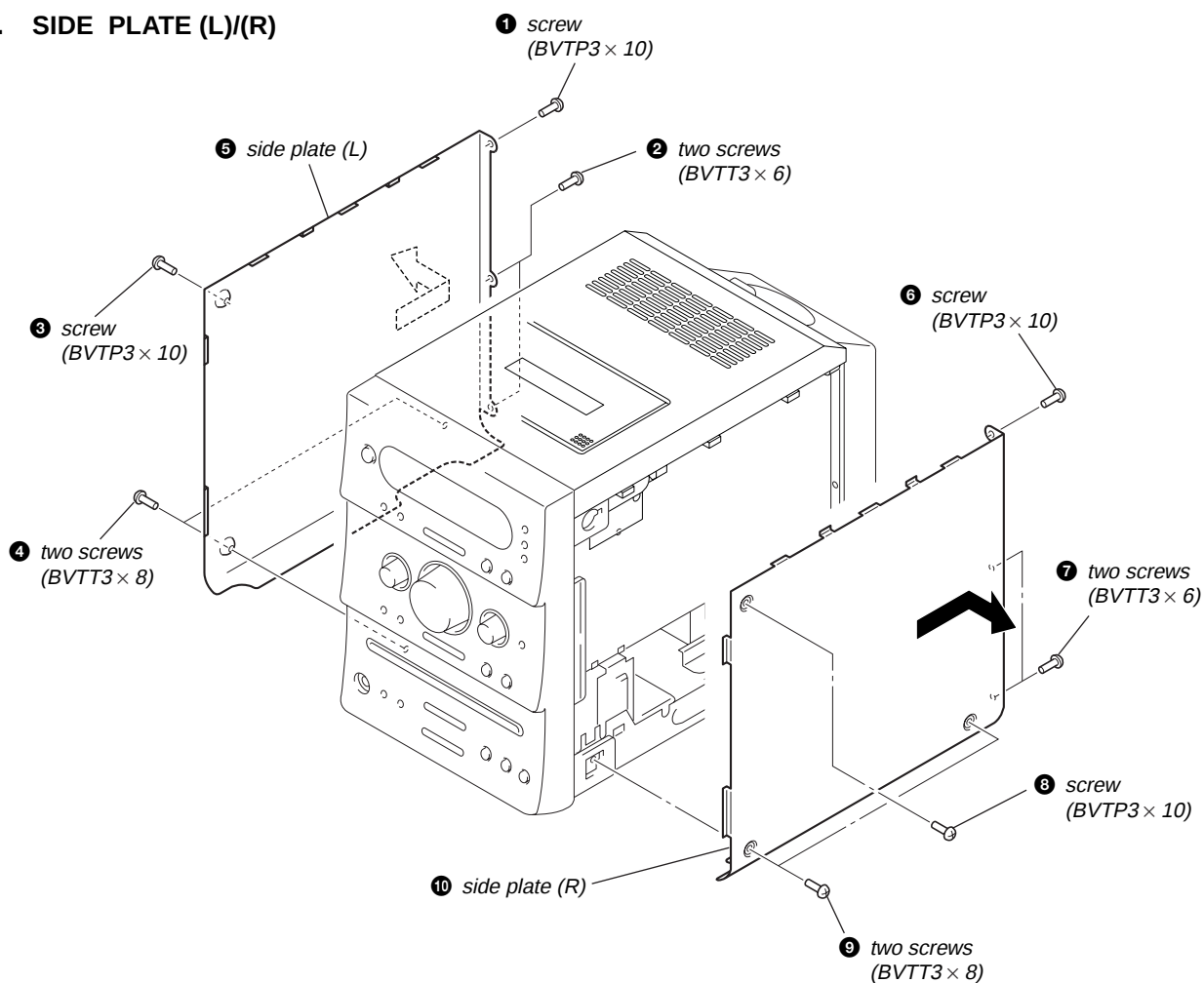
• This set can be disassembled in the order shown below.

3-1. DISASSEMBLY FLOW

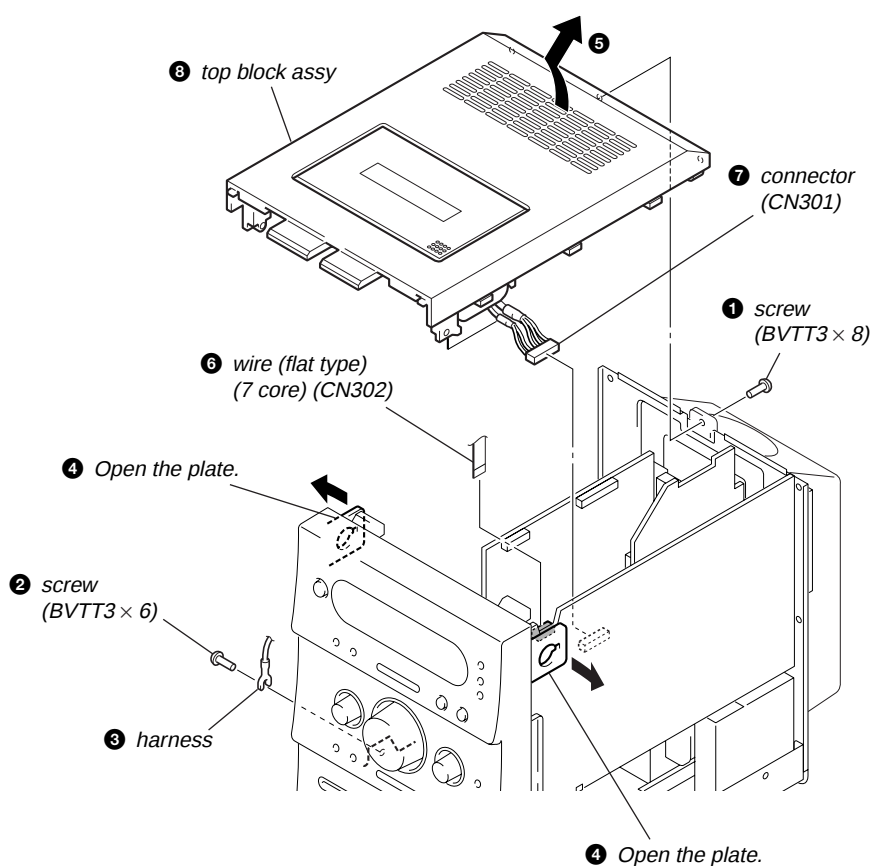


Note: Follow the disassembly procedure in the numerical order given.

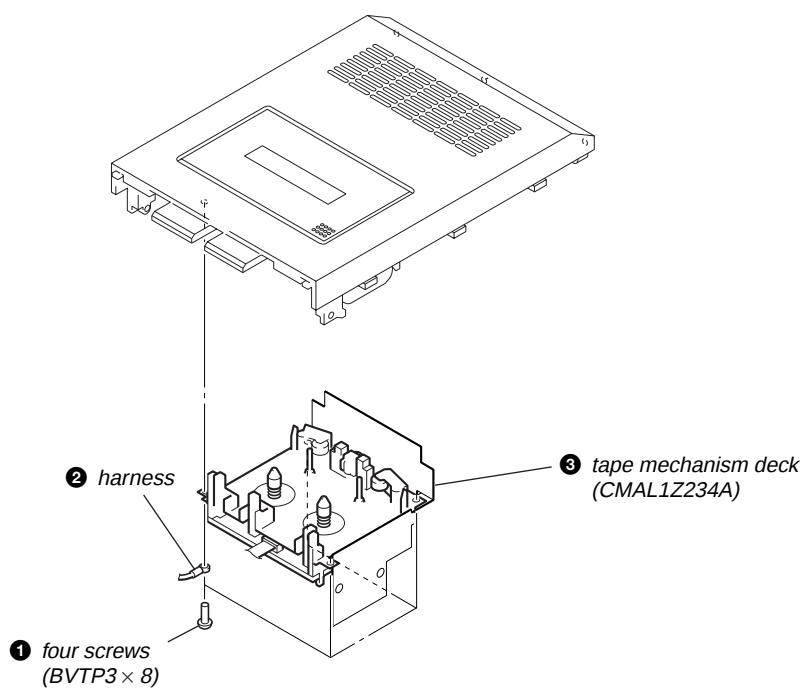
3-2. SIDE PLATE (L)/(R)



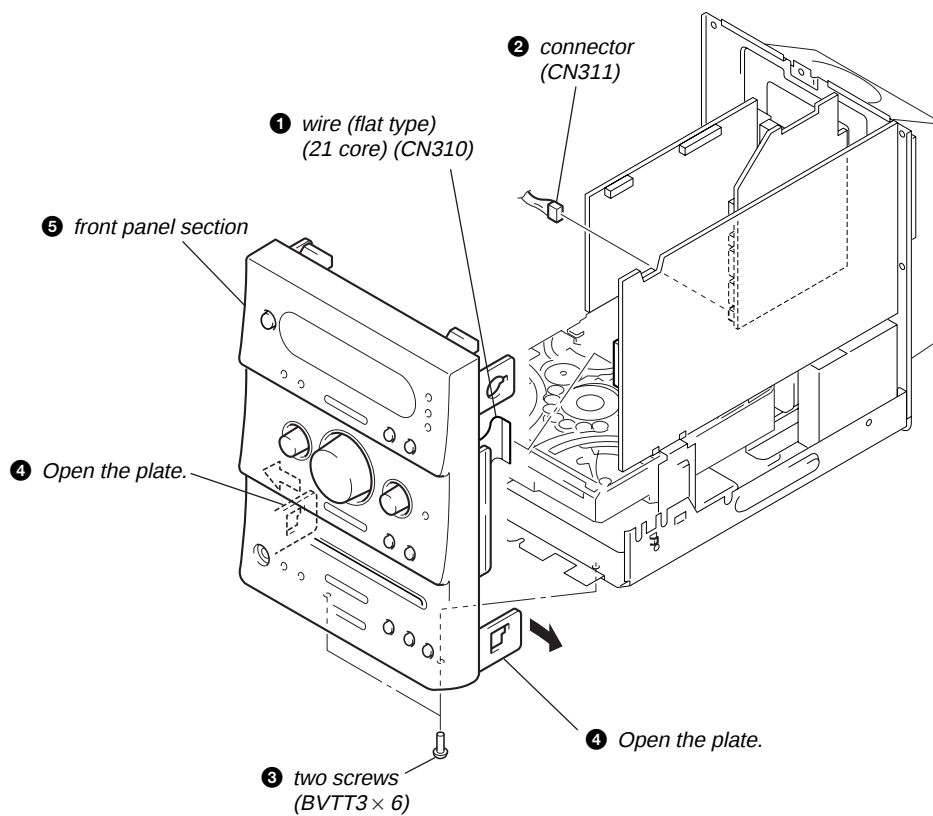
3-3. TOP BLOCK ASSY



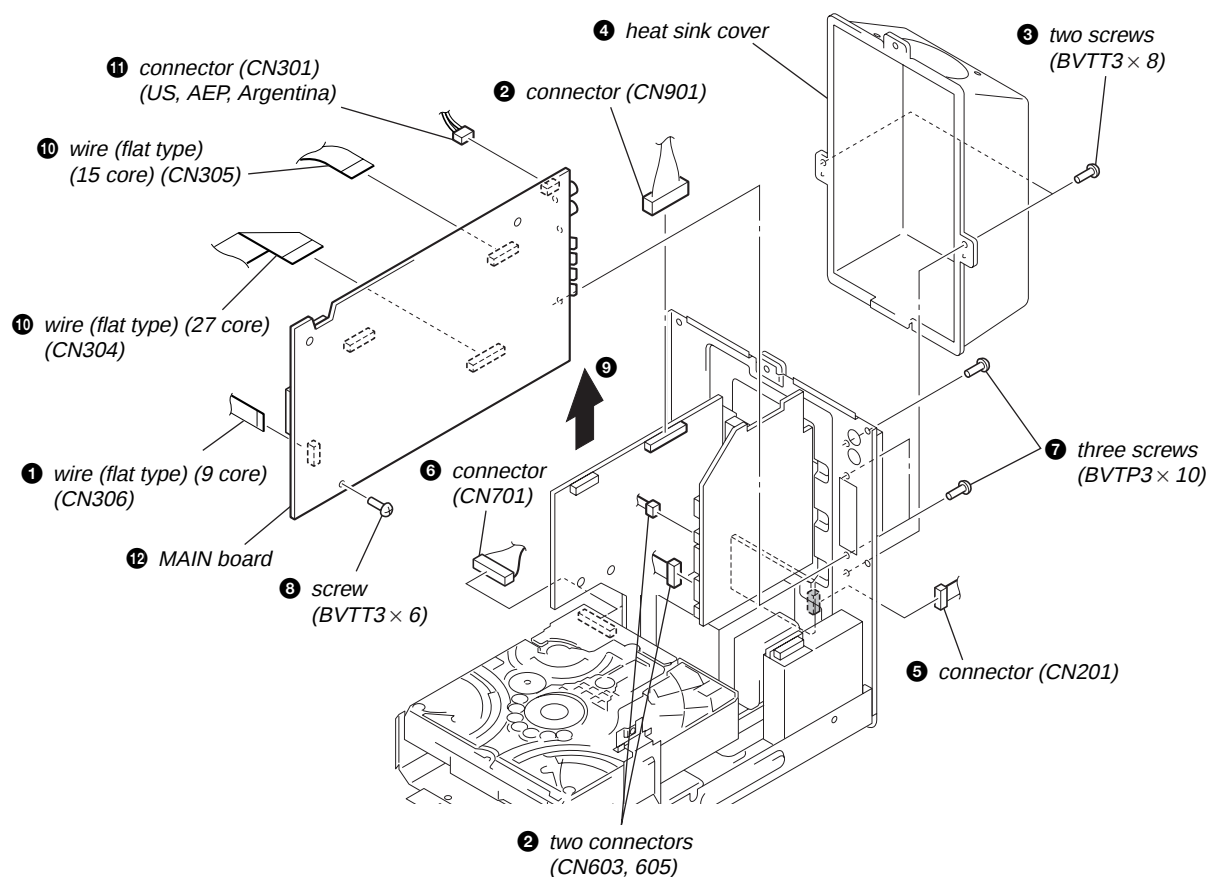
3-4. TAPE MECHANISM DECK (CMAL1Z234A)



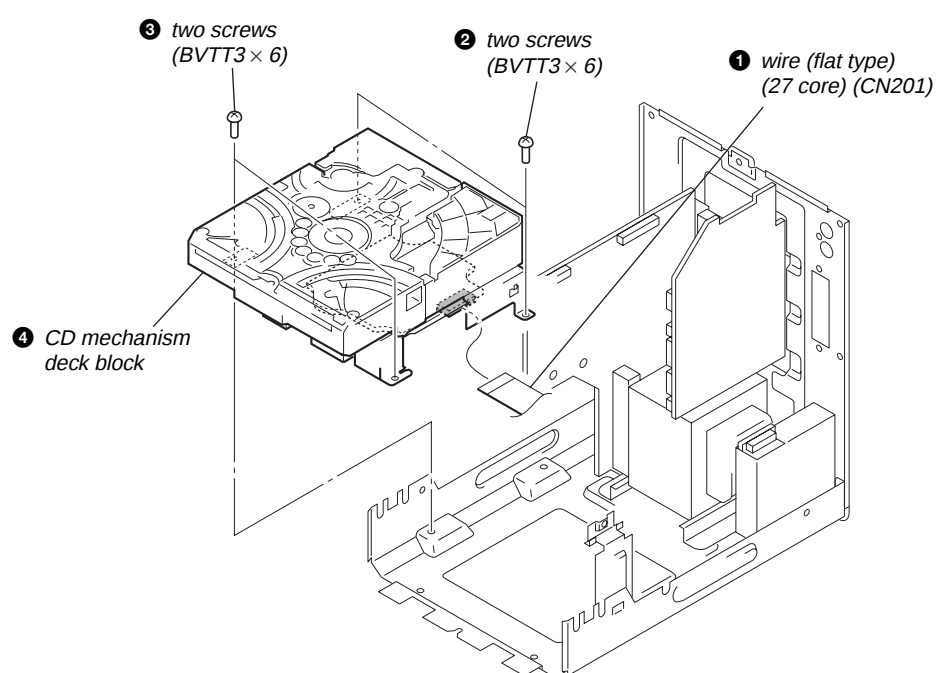
3-5. FRONT PANEL SECTION



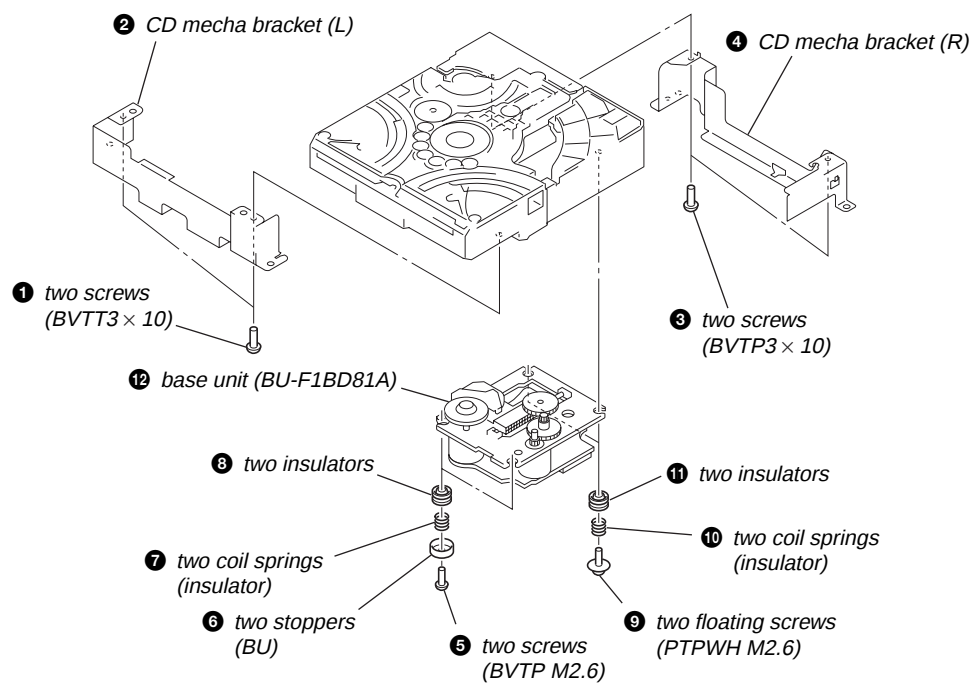
3-6. MAIN BOARD



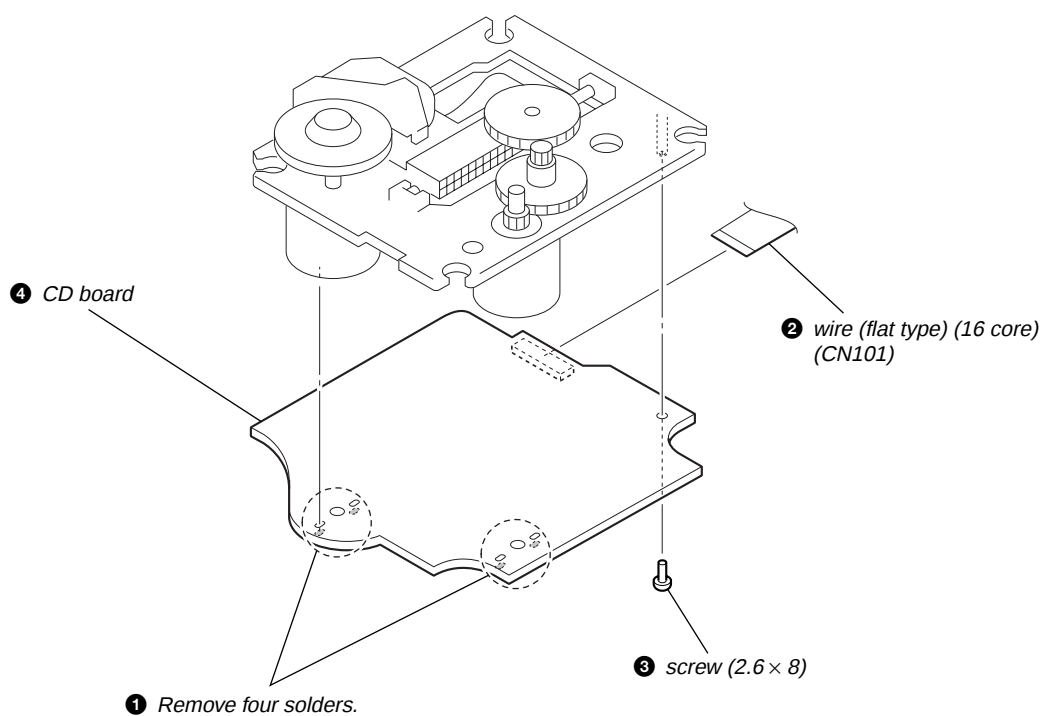
3-7. CD MECHANISM DECK BLOCK



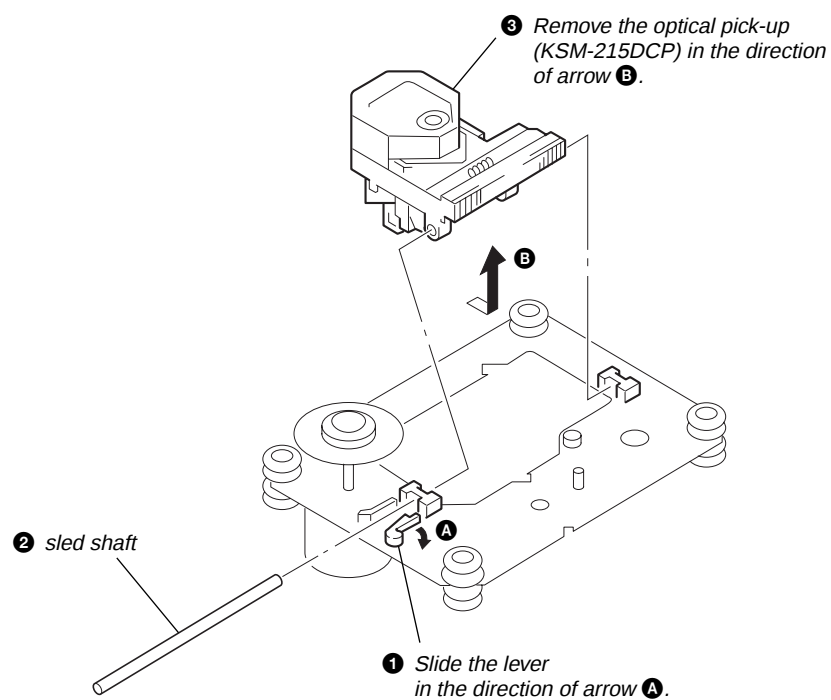
3-8. BASE UNIT (BU-F1BD81A)



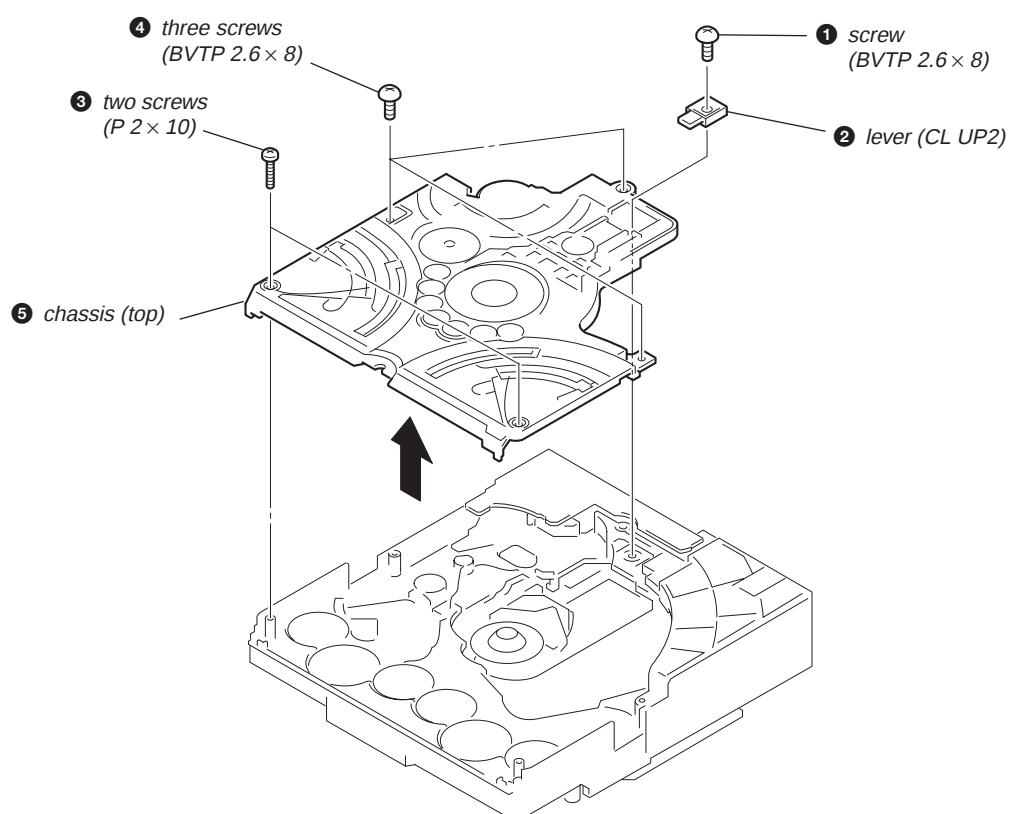
3-9. MOTOR GEAR ASSY (SLED) (M102), CD BOARD



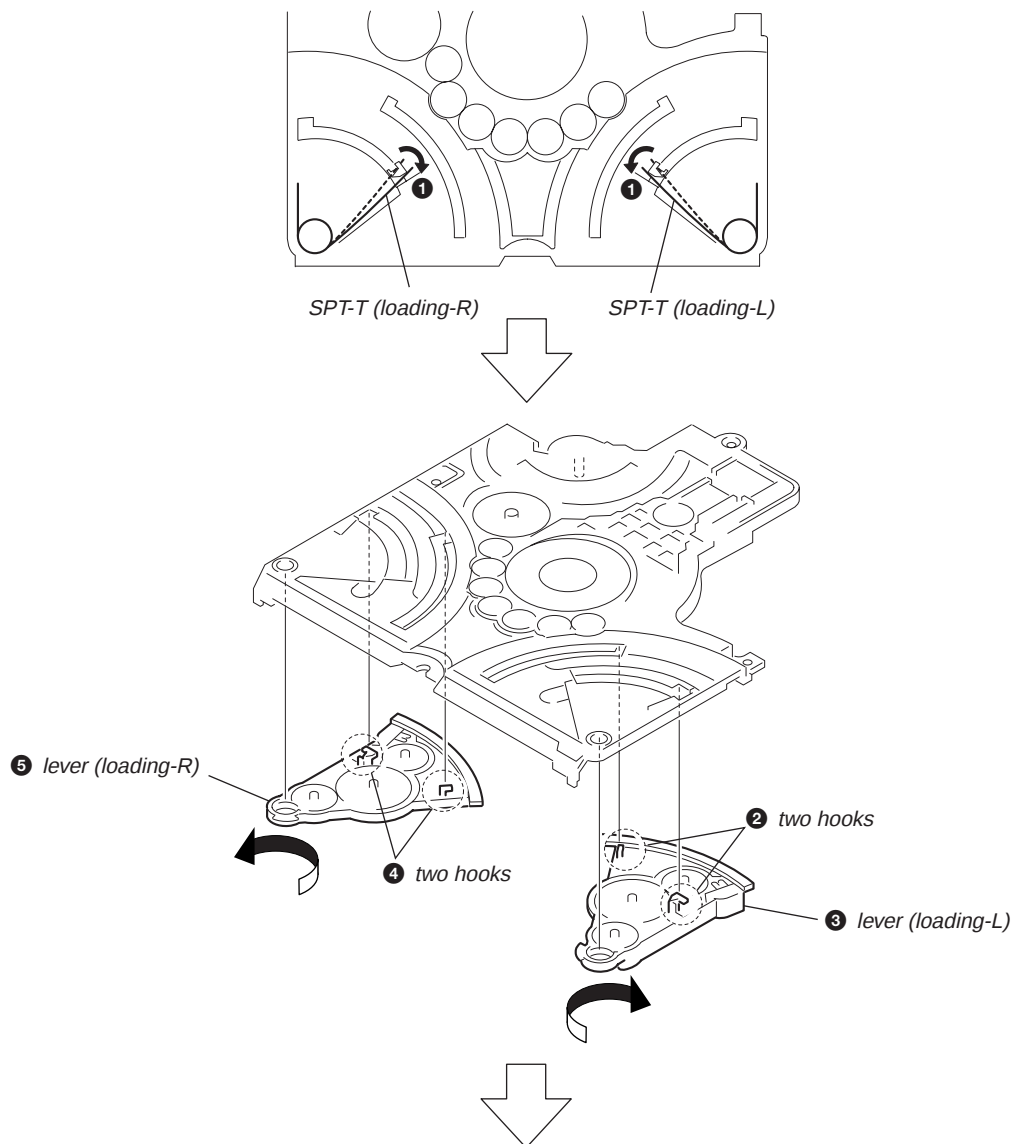
3-10. OPTICAL PICK-UP (KSM-215DCP)



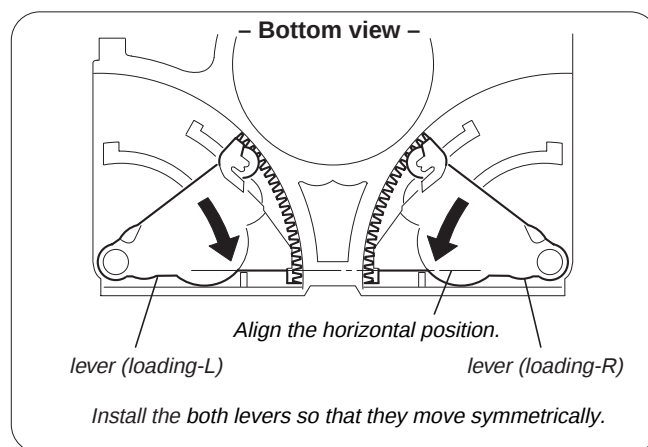
3-11. CHASSIS (TOP)



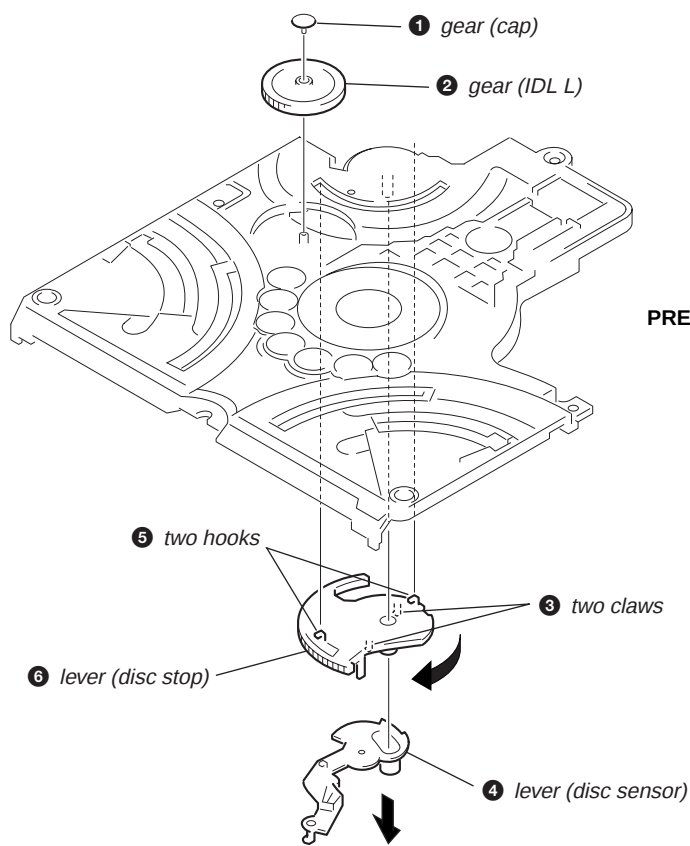
3-12. LEVER (LOADING-L/R)



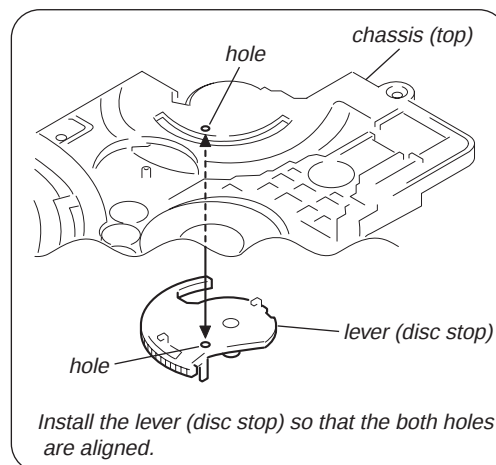
PRECAUTION DURING LEVER (LOADING R / L) INSTALLATION



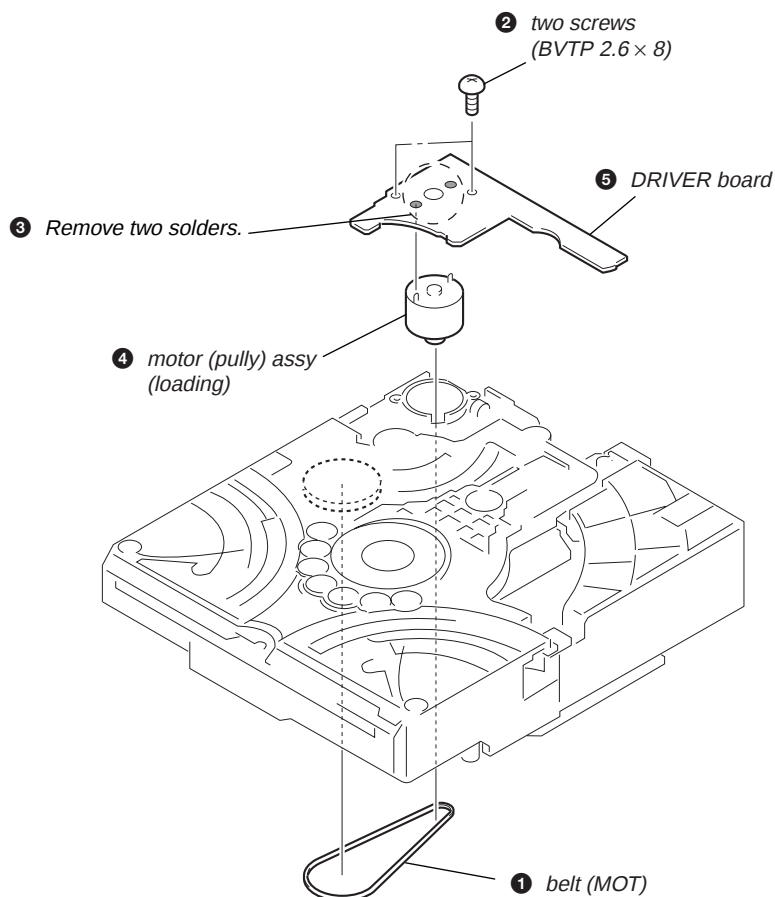
3-13. LEVER (DISC SENSOR)/(DISC STOP)



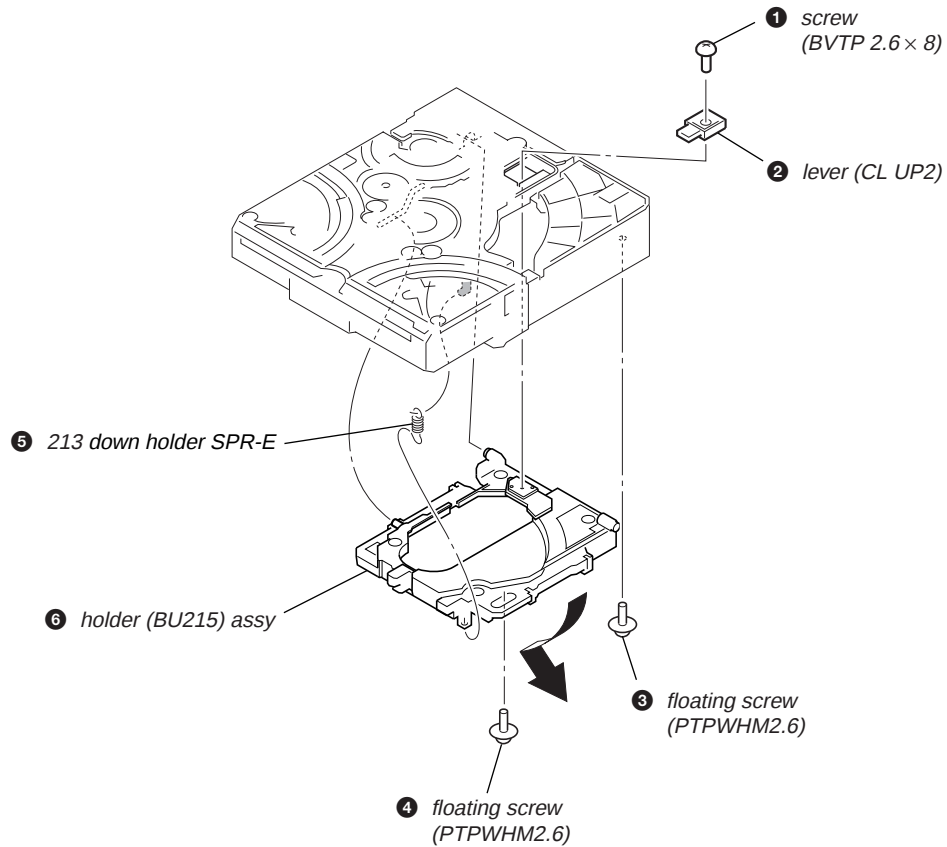
PRECAUTION DURING DISC STOP LEVER INSTALLATION



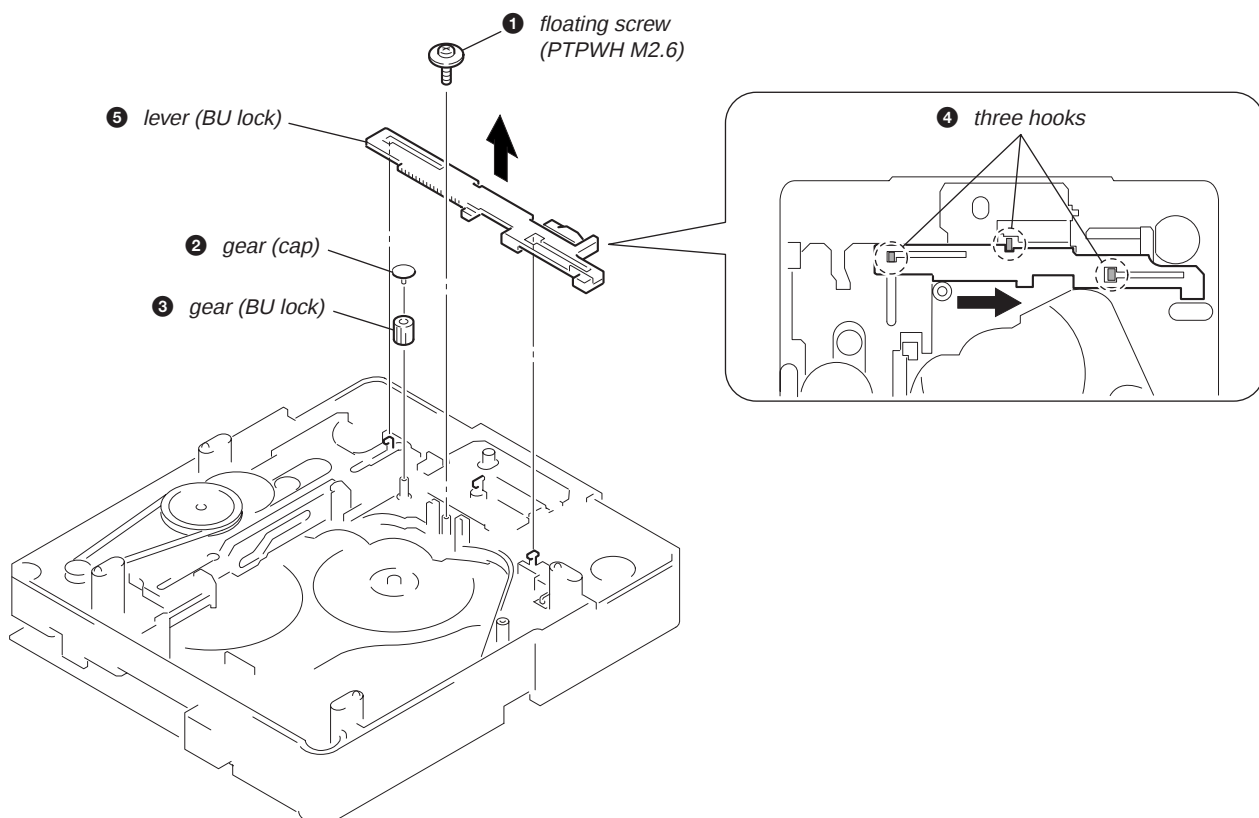
3-14. DRIVER BOARD



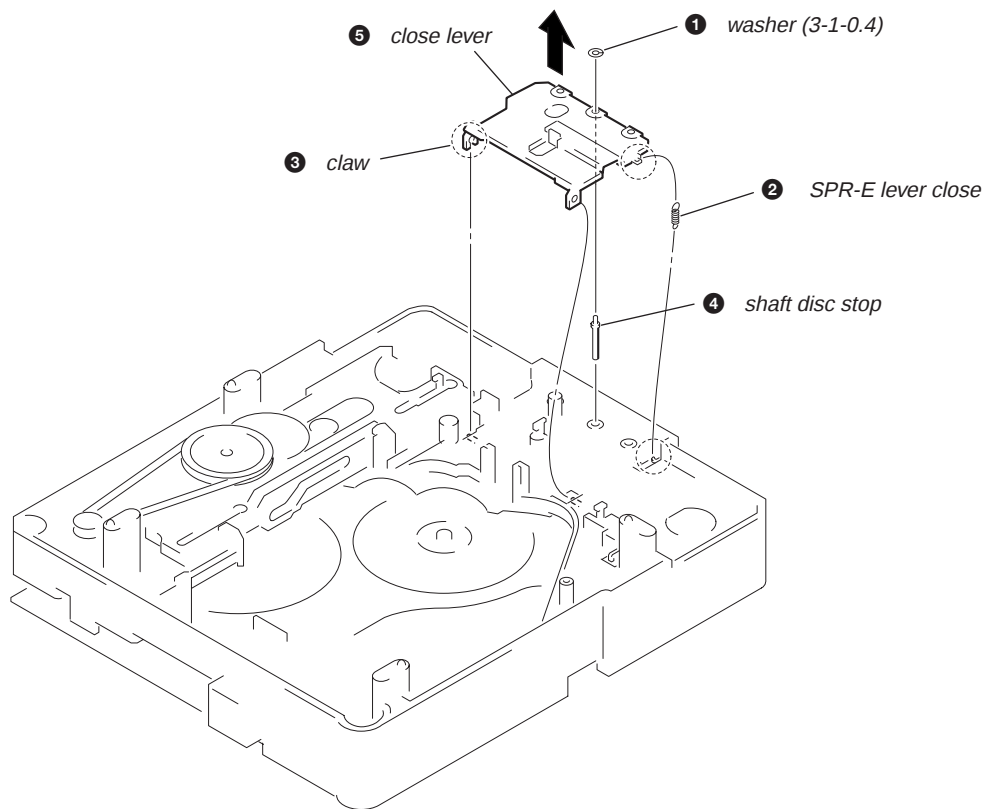
3-15. HOLDER (BU215) ASSY



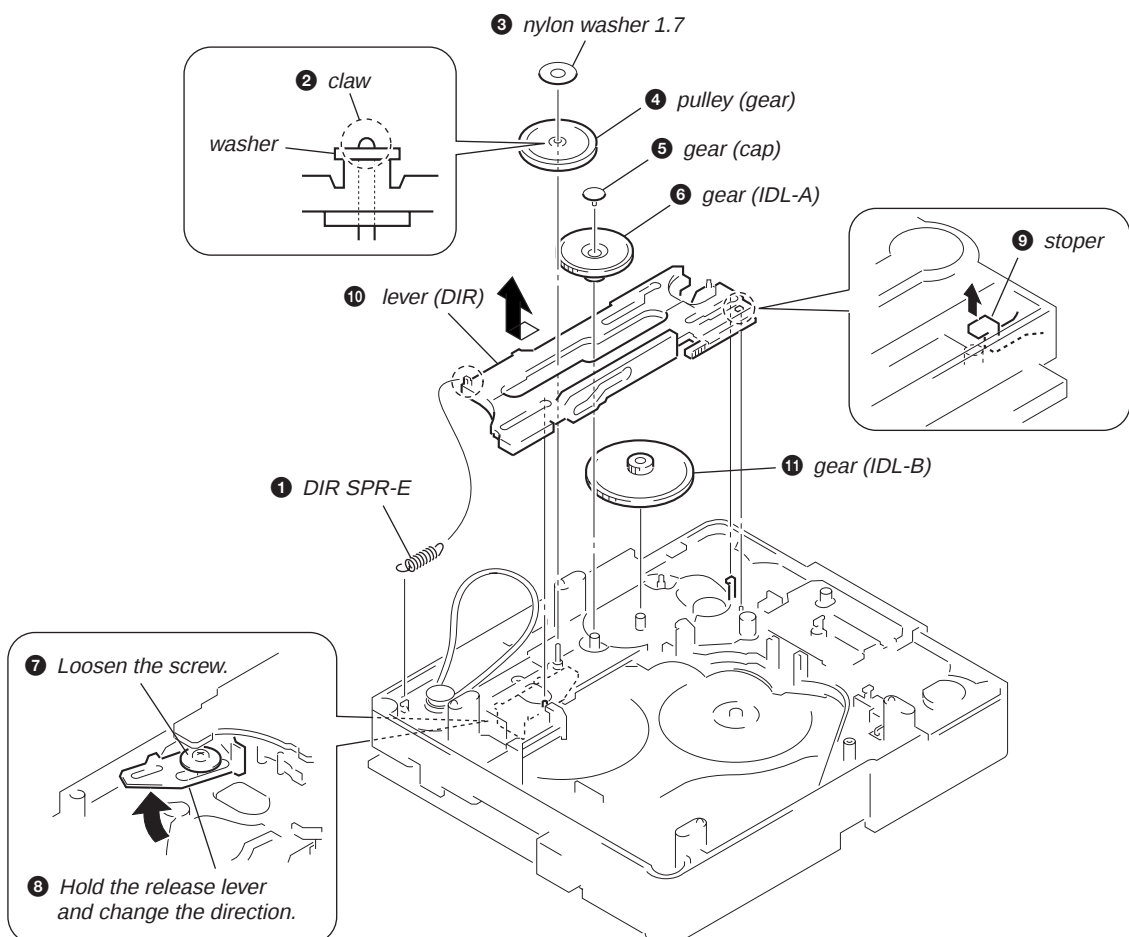
3-16. LEVER (BU LOCK)



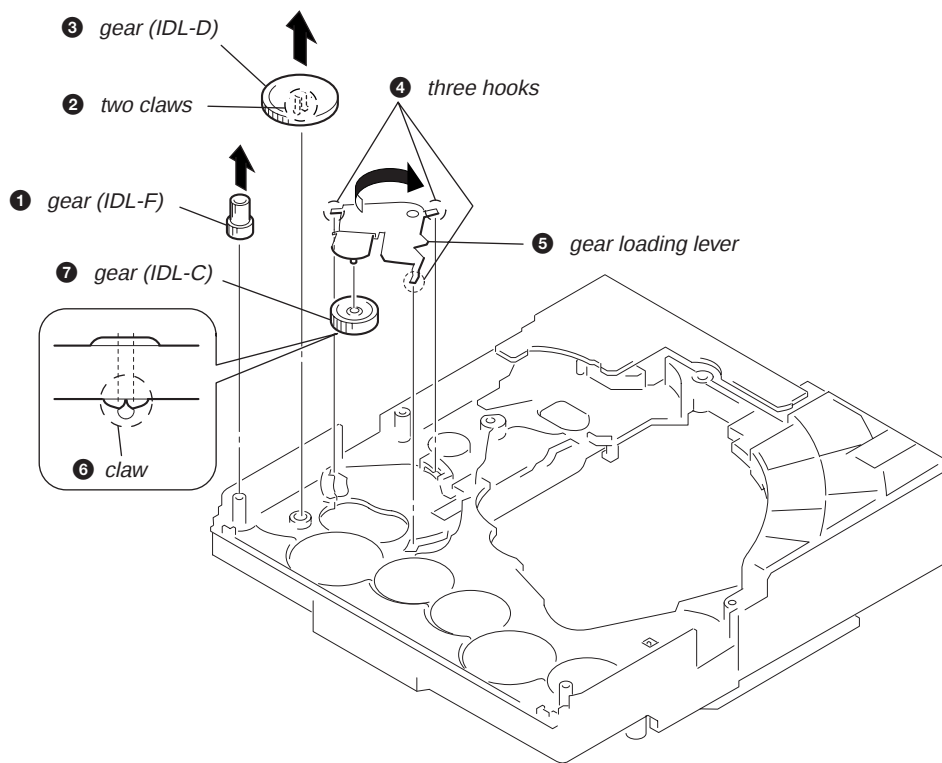
3-17. CLOSE LEVER



3-18. (LEVER DIR), GEAR (IDL-B)



3-19. GEAR (IDL-C)



SECTION 4

TEST MODE

[MC COLD RESET]

The cold reset clears all data including preset data stored in the memory to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

1. In the standby status, press the **[I/O]** button to turn the power on.
2. Press three buttons of **[I/O]**, **[■]** (CD), and **[DSGX]** simultaneously.
3. The set is reset, and become standby status.

[COMMON TEST MODE]

Enter The Common Test Mode

Procedure:

1. In the standby status, press the **[I/O]** button to turn the power on.
2. Press three buttons of **[REPEAT]**, **[■]** (TAPE), and **[DSGX]** simultaneously.
3. When the common test mode is activated, "SLEEP" and "PLAY" icons are blink on the fluorescent indicator tube.

AMP Test

Procedure:

1. In the common test mode, if turn the **[VOLUME]** knob clockwise, it displays "VOL MAX", and if turn the knob counterclockwise, it displays "VOL MIN".
2. If the **[TREBLE]** knobs are turned clockwise or counterclockwise, it displays "TONE FLAT".
3. If the **[BASS]** knobs are turned clockwise, it displays "TONE MAX", and if turn the knob counterclockwise, it displays "TONE MIN".
4. To release from this mode, disconnect the AC plug to turn the power off.

Tape Test

Procedure:

1. In the common test mode, insert a tape.
2. Input any audio signal from the **[VIDEO/MD]** jack (J301) on the MAIN board.
3. Press the **[●REC]** button, and press the **[◀▶ TAPE]** button to select the tape direction.
4. Press the **[●REC]** button again to start recording.
5. If press the **[◀▶]** (TAPE) or **[▶▶]** (TAPE) button, the tape is returned to recording start point by cue or review operation, and starts playback.
6. To release from this mode, disconnect the AC plug to turn the power off.

[PANEL TEST MODE]

Enter The Panel Test Mode

Procedure:

1. In the standby status, press the **[I/O]** button to turn the power on.
2. Press three buttons of **[PLAY MODE]**, **[■]** (TAPE), and **[DSGX]** simultaneously.
3. When the panel test mode is activated, LEDs and segments of fluorescent indicator tube are all turned on.

Version Check

Procedure:

1. In the panel test mode (all LEDs and segments of fluorescent indicator tube are turned on), press the **[TUNING MODE]** button.
2. Destination indication and model type indication are displayed on the fluorescent indicator tube alternately.
3. From this status, each time the **[TUNING MODE]** button is pressed, it changes the version display of each module cyclically as follows.

Display	Module
MC	Main controller
GC	Display
CD	CD system
CDD	CD device master
CDMA	CDM upper module
CDMB	CDM lower module
BDA	BD upper module
BDB	BD lower module
ST	Tuner
TA	Amplifier
TM	Timer
TC	Tape

4. To date of any module, press the **[DSGX]** button.
5. To release from this mode, press three buttons of **[PLAY MODE]**, **[■]** (TAPE), and **[DSGX]** simultaneously.

Key Check

Procedure:

1. In the panel test mode (all LEDs and segments of fluorescent indicator tube are turned on), press the **[PLAY MODE]** button.
2. It displays "K 0 J0 V0" on the fluorescent indicator tube.
3. Each time a button is pressed, "K" value increases. However, once a button is pressed, it is no longer taken into account. All keys are pressed, display becomes "K26".
4. "V" value increases like 1, 2, 3 ... if turn the **[VOLUME]** knob clockwise, or it decreases like 0, 9, 8 ... if turn the knob counterclockwise.
"J" value increases like 1, 2, 3 ... if turn the **[BASS]** or **[TREBLE]** knob clockwise, or it decreases like 0, 9, 8 ... if turn the knob counterclockwise.
5. To release from this mode, press three buttons of **[PLAY MODE]**, **[■]** (TAPE), and **[DSGX]** simultaneously.

[CD REPEAT 5 LIMIT CANCEL MODE]

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

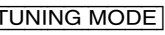
Procedure:

1. Press the  button to turn the power on.
2. Press the  button to select CD function.
3. Press three buttons of  (CD),  (TAPE), and  simultaneously.
4. It enters the CD repeat 5 limit cancel mode and display "LIMIT OFF"
5. To release this mode, press the  button to turn the power off.

[CD SHIP MODE]

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

Procedure:

1. Press the  button to turn the power on.
2. Press the  button to select CD function.
3. Press three buttons of  (CD),  (CD), and  simultaneously. *1
4. Set to the CD ship mode. (chucking on)
5. After blink "STANDBY", "LOCK" is displayed, disconnect the AC plug.

*1) If press three buttons of  (CD),  (CD), and  simultaneously, Activate the CD ship mode and MC cold reset.

[CD SLOT LOCK]

This mode is for the antitheft of CD disc in shop. (not for transport)

Procedure:

1. Press the  button to turn the power on.
2. Press the  button to select CD function.
3. Insert a disc.
4. While pressing the  (CD) button, press the  (CD) button for more 5 seconds.
5. The message "LOCKED" is displayed and the disc slot is locked. (Even if exiting from this mode, the disc slot is still locked)
6. If press the  (CD) button to eject the disc, the message "LOCKED" is displayed and can not eject the disc.
7. To release this lock, while pressing the  (CD) button, press the  (CD) button for 5 seconds again.
8. The message "UNLOCKED" is displayed and the disc slot is unlocked.

[CD POWER MANAGE]

This mode is for switch the CD power supply on/off. Even if this state pulls out AC plug, it is held.

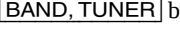
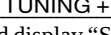
Procedure:

1. Press the  button to turn the power on.
2. Press the  button to select CD function.
3. Press the  button again to turn the power off (standby).
4. While pressing the  (CD) button, press the  button.
5. It turns power on and display "CD POWER", then display "ON" or "OFF".

[CHANGE-OVER THE AM TUNING INTERVAL] (EXCEPT AEP model)

The AM tuning interval can be changed over 9 kHz or 10 kHz.

Procedure:

1. Press the  button to turn the power on.
2. Press the  button to select TUNER (AM) function.
3. Press the  button again to turn the power off (standby).
4. While pressing the  button, press the  button.
5. It turns power on and display "STEP 9kHz" or "STEP 10kHz", and thus the tuning interval is changed over.

[MD/VIDEO FUNCTION CHANGE]

Select either VIDEO or MD of the external input.

Procedure:

1. Press the  button to turn the power on.
2. Press the  button to select MD or VIDEO function.
3. Press the  button again to turn the power off (standby).
4. While pressing the  button, press the  button.
5. The another function of the previous function is selected and display "MD" or "VIDEO".

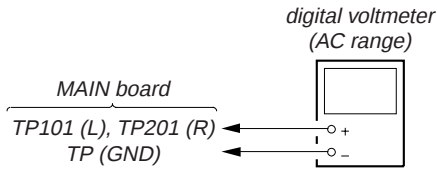
SECTION 5
ELECTRICAL ADJUSTMENTS

DECK SECTION

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

REC BIAS ADJUSTMENT

Setting:

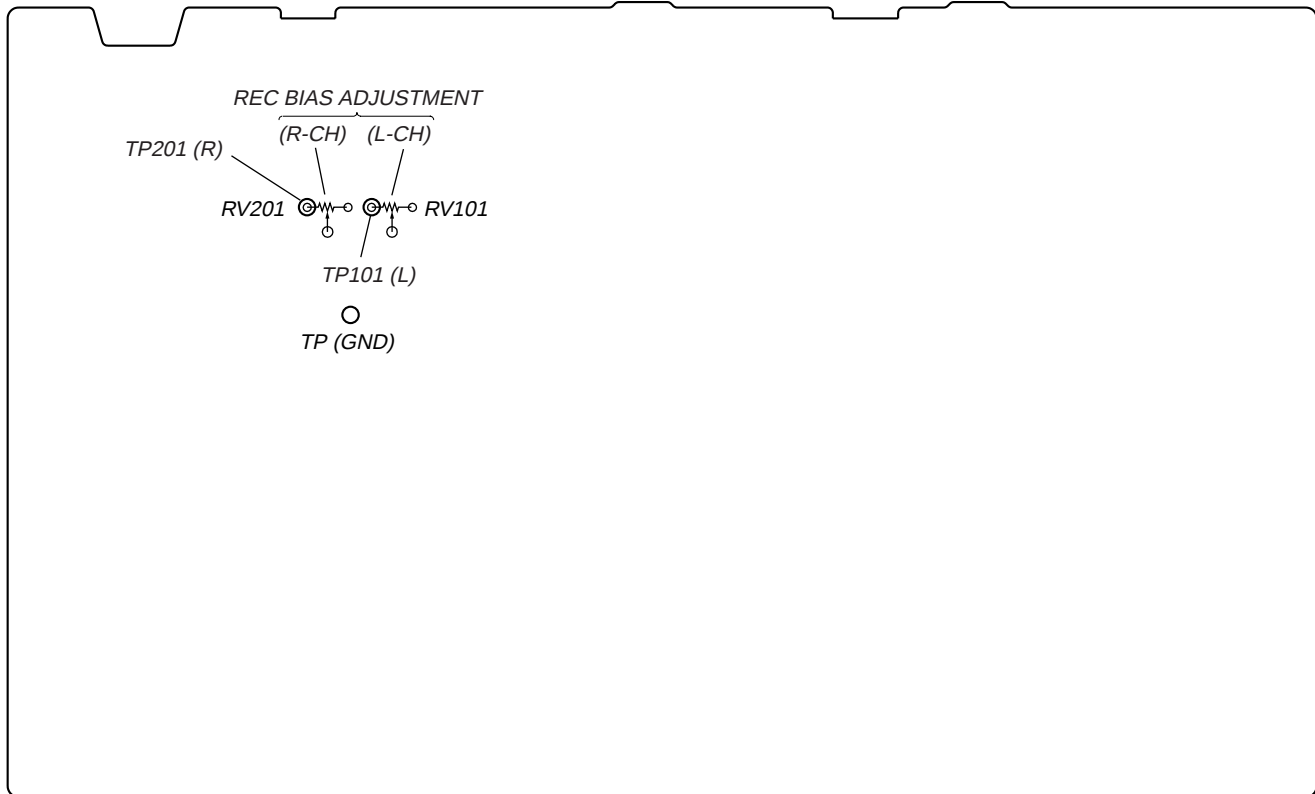


Procedure:

1. Connect a digital voltmeter (AC range) to TP101 (L), TP201 (R) and TP (GND) on the MAIN board.
2. Insert a tape.
3. Press the button to turn the power on, and press the button to select TAPE function.
4. Press the button twice to start recording.
5. Adjust RV101 (L-ch), RV201 (R-ch) on the MAIN board so that the digital voltmeter reads AC 6.15 V.
6. Connect an oscilloscope or frequency counter to TP101 (L), TP201 (R) and TP (GND) on the MAIN board.
7. Confirm that the frequency is 82 kHz $\pm$ 3 kHz.

Adjustment Location:

– MAIN BOARD (Conductor Side) –

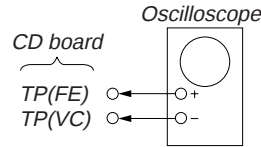


CD SECTION

Note:

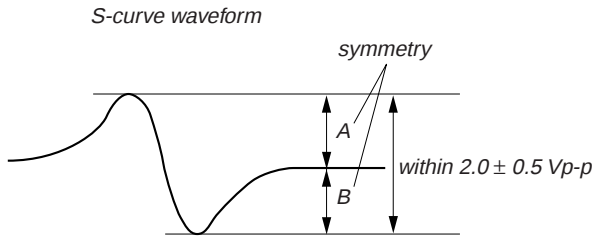
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10M Ω impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal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

S-CURVE CHECK



Procedure :

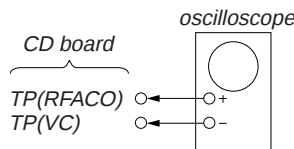
1. Connect an oscilloscope to TP (FE) and TP (VC) on the CD board.
2. Press the button to turn the power ON.
3. Load a disc (YEDS-18) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search)
4. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2.0 $\pm$ 0.5 Vp-p.



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

Connecting Location: CD board

RFAC LEVEL CHECK

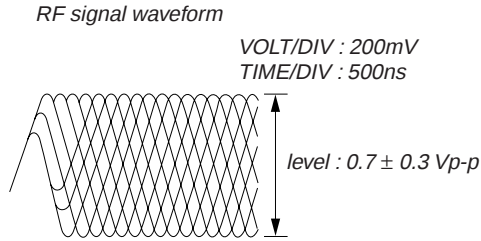


Procedure :

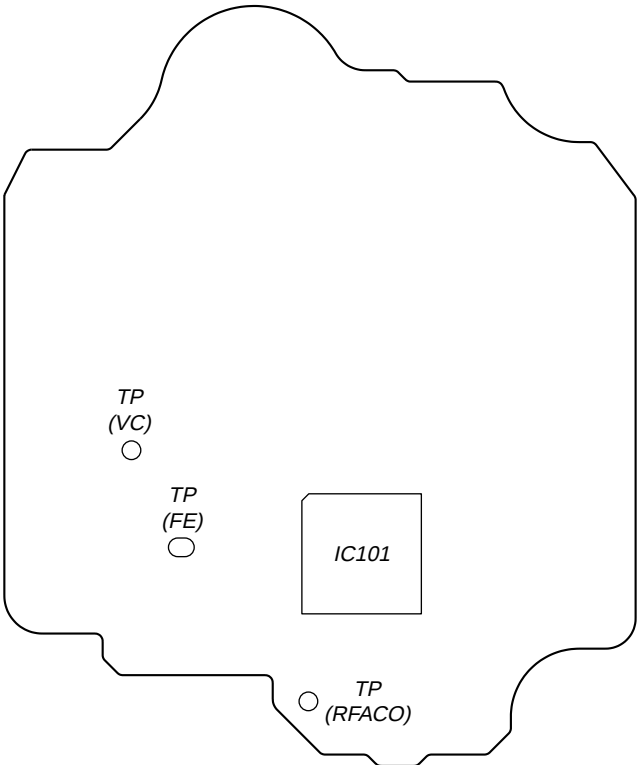
1. Connect an oscilloscope to TP (RFACO) and TP (VC) on the CD board.
2. Press the button to turn the power ON.
3. Load a disc (YEDS-18) and playback.
4. Confirm that oscilloscope waveform is clear and check if RFAC signal level is correct or not.

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

Connecting Location: CD board

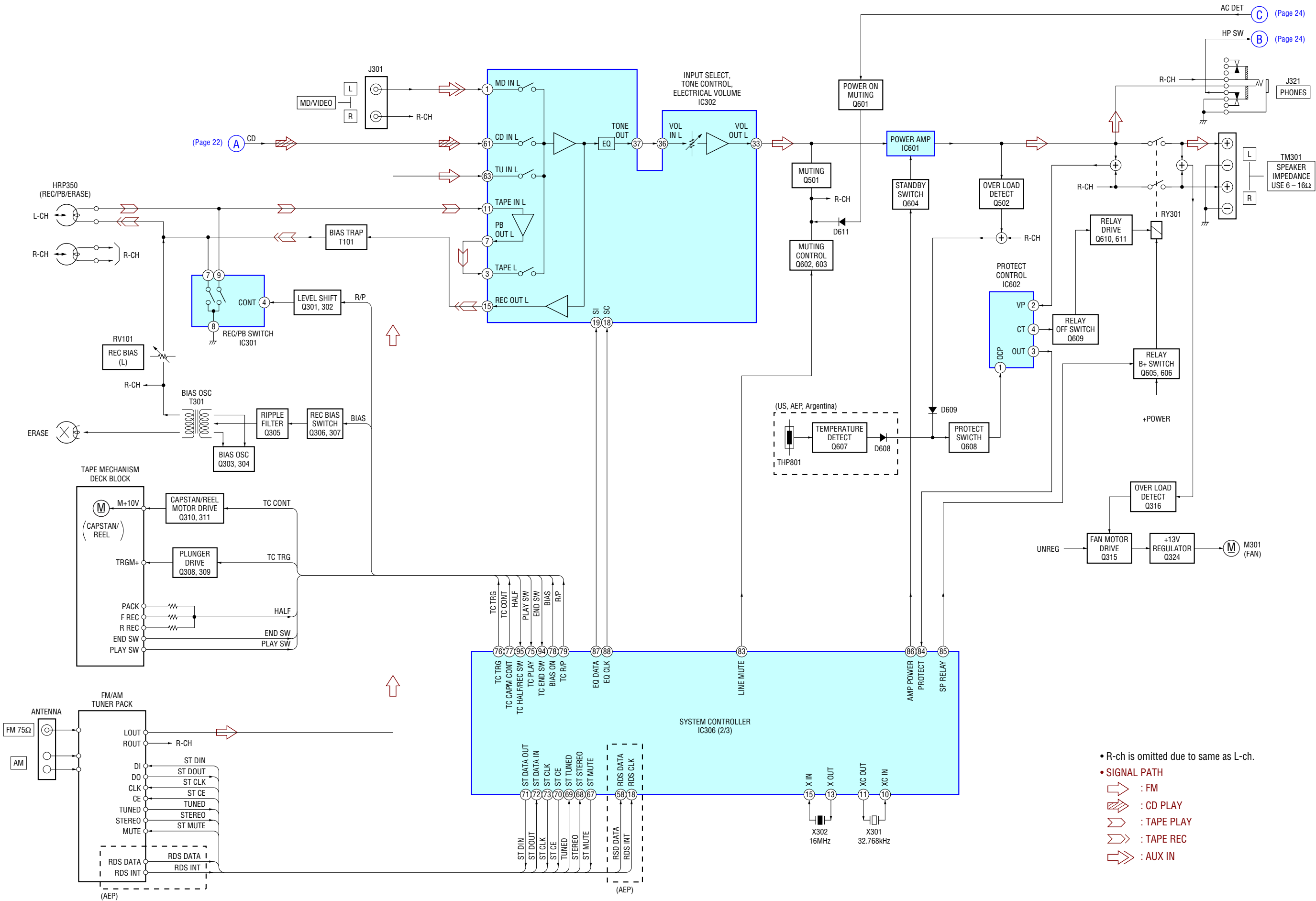


– CD BOARD (Conductor Side) –



• R-ch is omitted due to same as L-ch.
 • SIGNAL PATH
 ⇨ : CD PLAY

6-2. BLOCK DIAGRAM – MAIN Section –

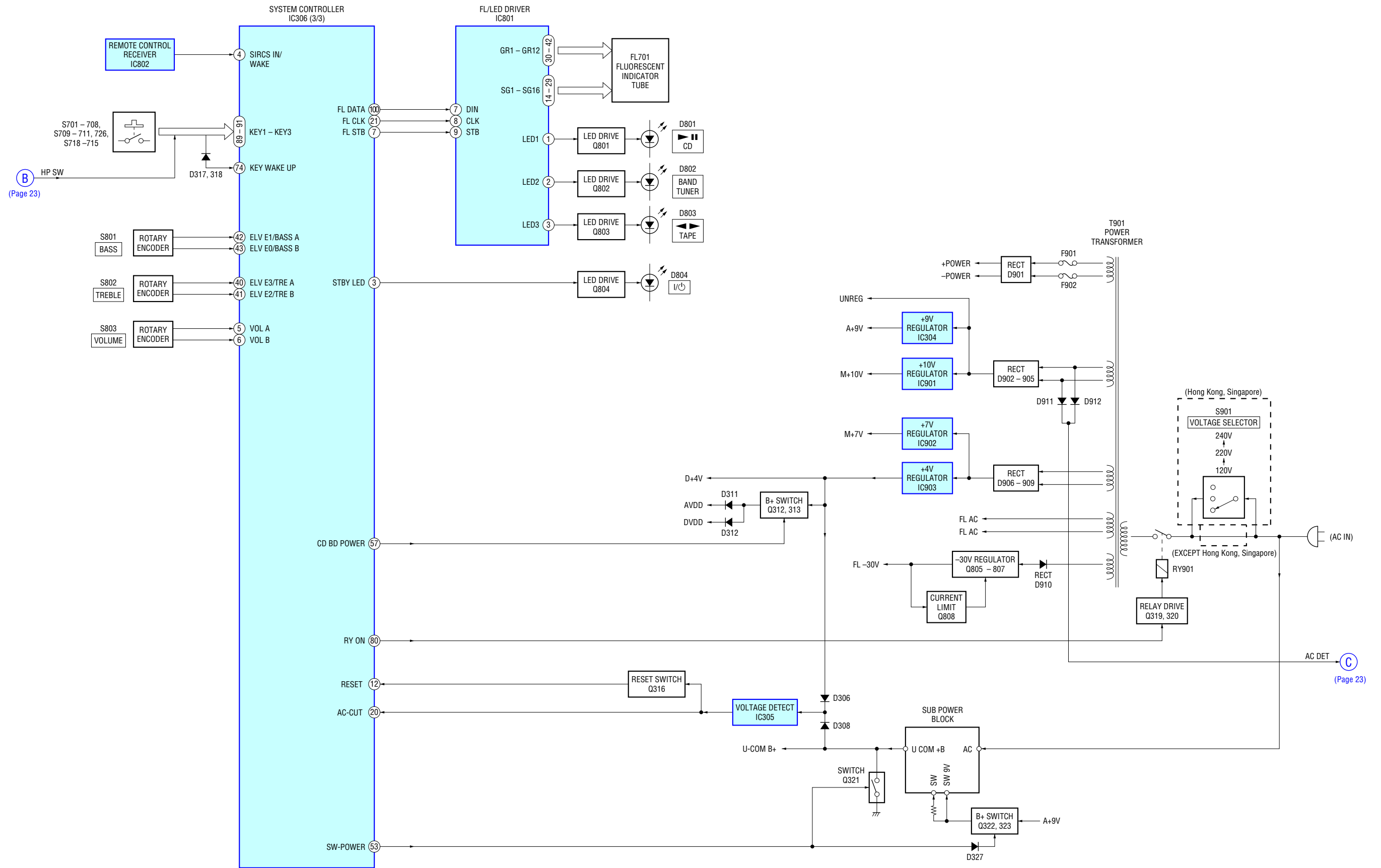


• R-ch is omitted due to same as L-ch.

• SIGNAL PATH

- Red line: FM
- Blue line: CD PLAY
- Green line: TAPE PLAY
- Yellow line: TAPE REC
- Purple line: AUX IN

6-3. BLOCK DIAGRAM – PANEL/POWER SUPPLY Section –



6-4. 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.
- — : indicates side identified with part number.
- △ : internal component.
- : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

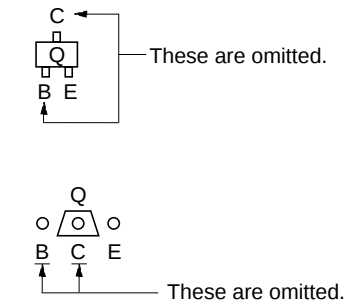
Caution:

Pattern face side: Parts on the pattern face side seen from the pattern face are indicated.

(Conductor Side)

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

- Indication of transistor.



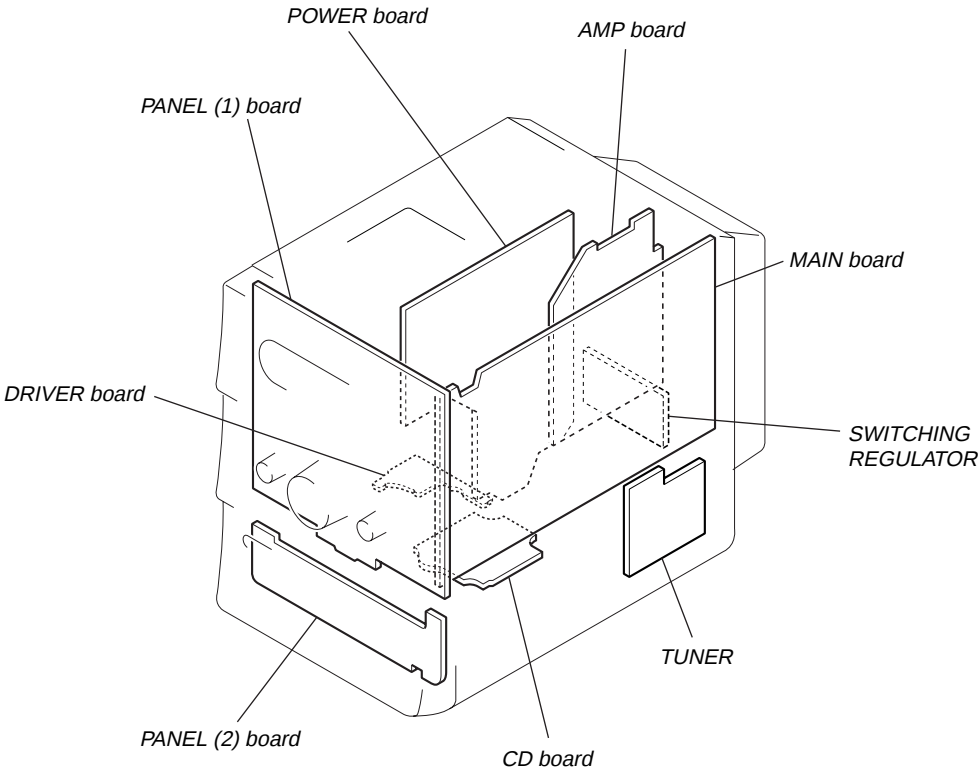
Note on Schematic Diagram:

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

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

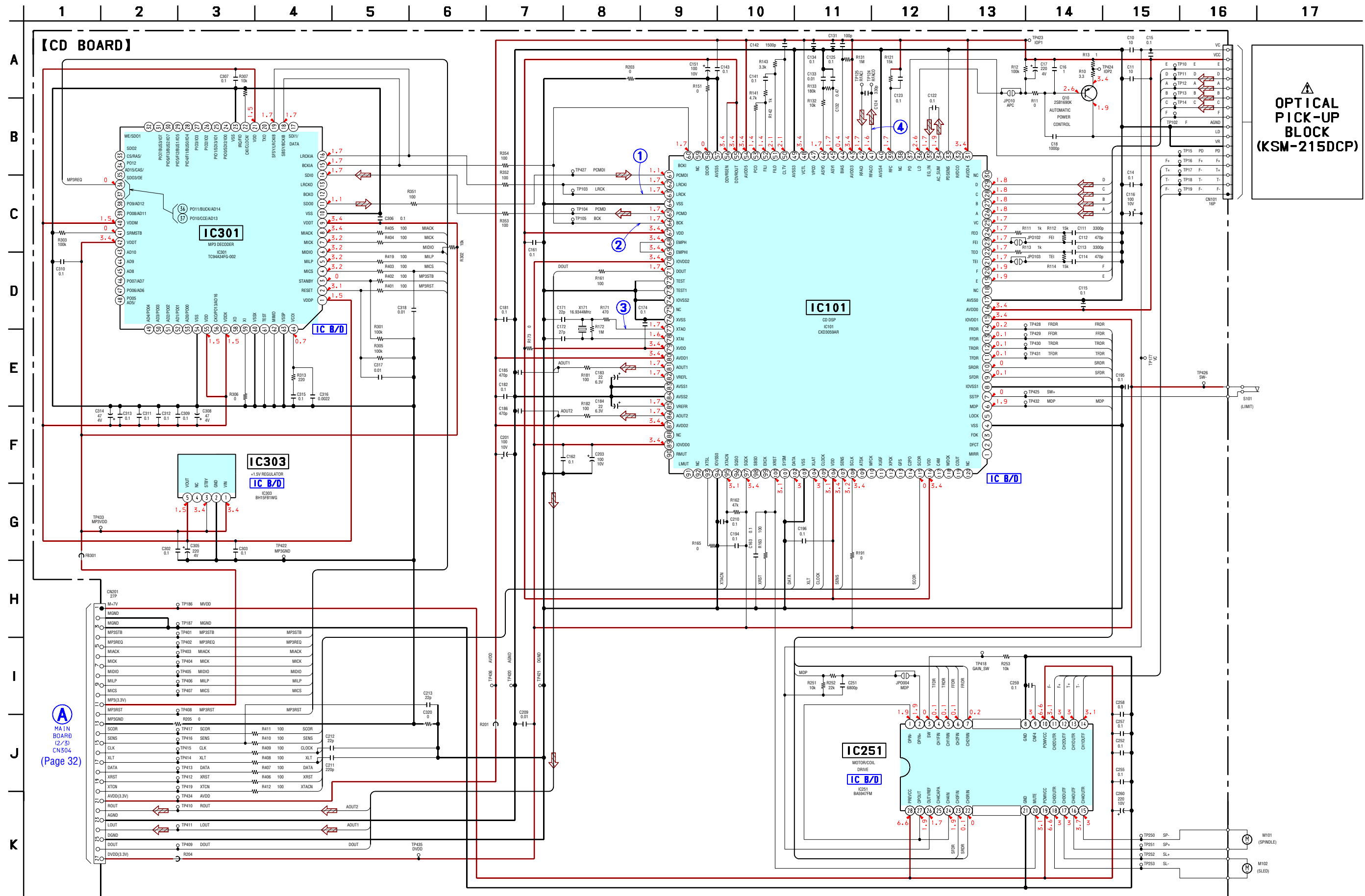
- : B+ Line.
- : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- CD Board —
no mark : CD PLAY
- Other Boards —
no mark : FM
- () : CD PLAY
- [] : TAPE PLAY
- << >> : TAPE REC
- * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- ⇒ : TUNER (FM/AM)
- ⇒ : TAPE PLAY
- ⇒ : TAPE REC
- ⇒ : CD PLAY
- ⇒ : AUX IN
- Abbreviation
- AR : Argentina model
- AUS : Australian model
- HK : Hong Kong model
- KR : Korean model
- SP : Singapore model

• Circuit Boards Location



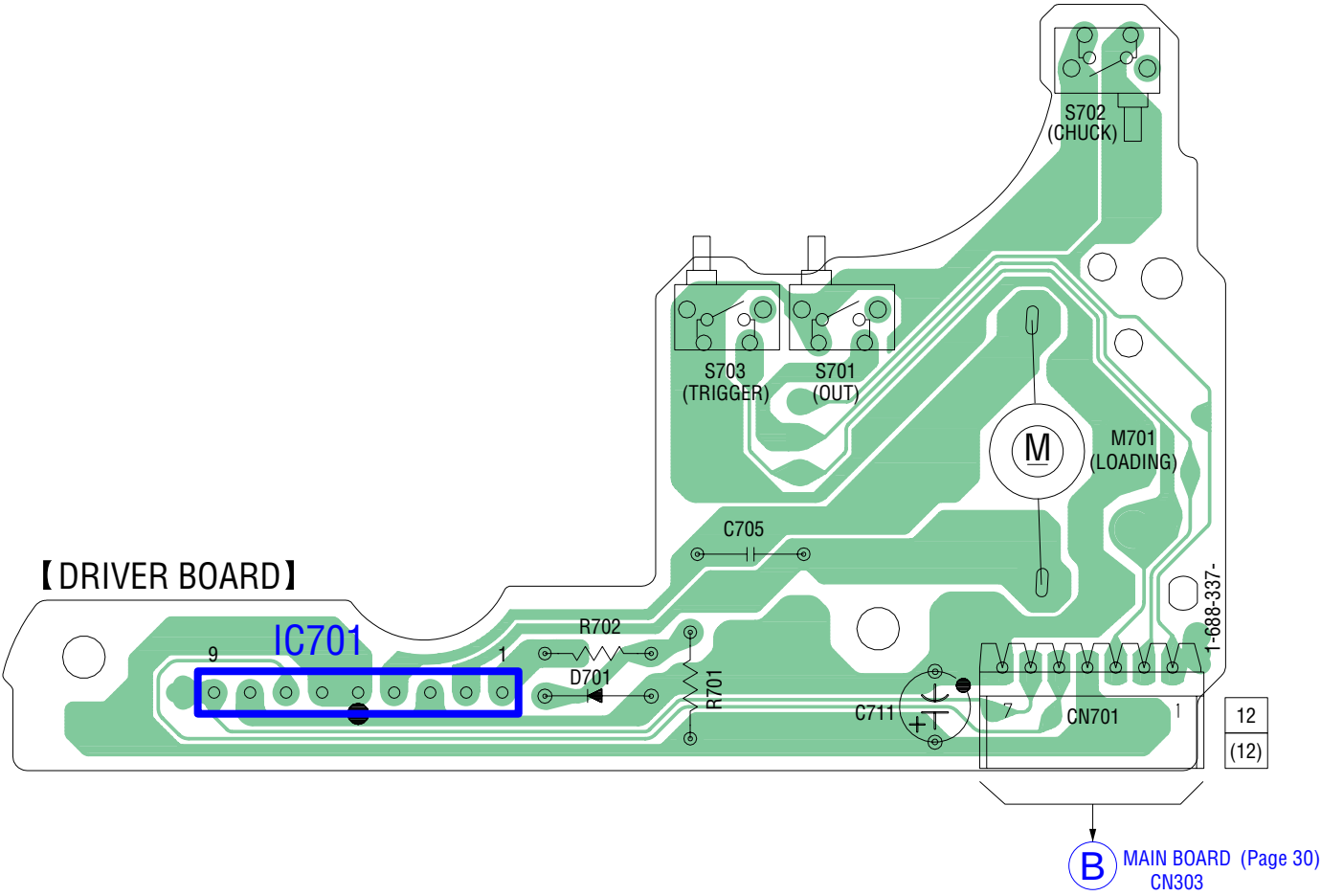


6-6. SCHEMATIC DIAGRAM – CD Board – • See page 42 for IC Block Diagrams. • See page 29 for Waveforms.

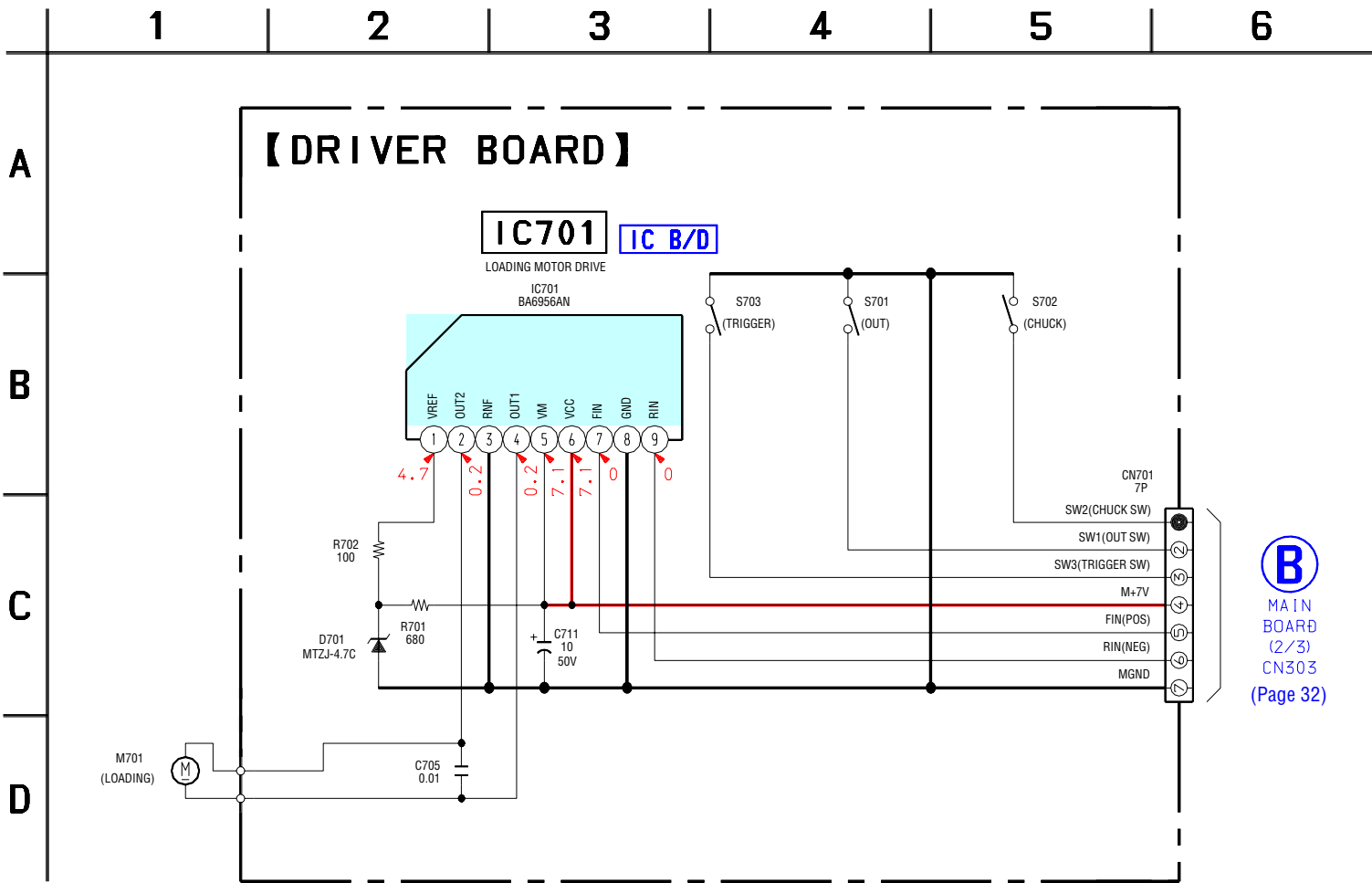


The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

6-7. PRINTED WIRING BOARD – DRIVER Board – • See page 25 for Circuit Boards Location. :Uses unleaded solder.

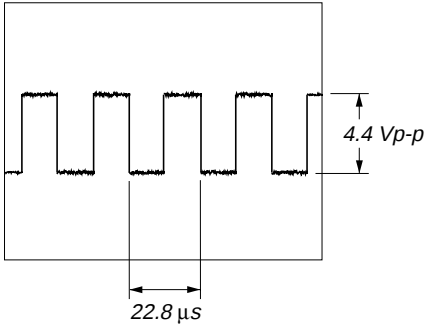


6-8. SCHEMATIC DIAGRAM – DRIVER Board – • See page 42 for IC Block Diagram.



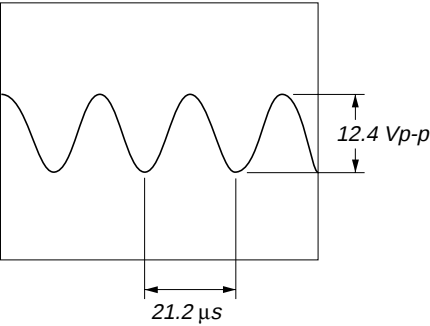
• Waveforms
– CD Board –

① IC101 ⑥③ (LRCK)

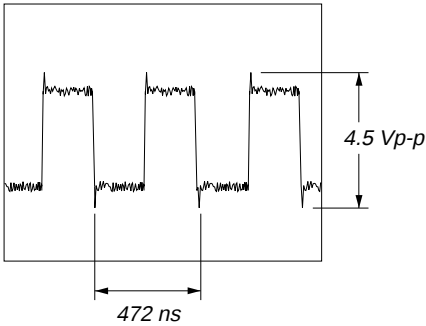


– MAIN Board –

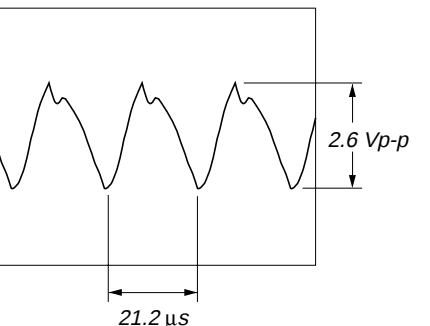
① Q303, 304 (Base) (REC Mode)



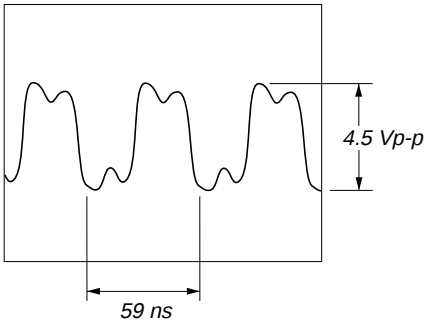
② IC101 ⑥⑥ (BCK)



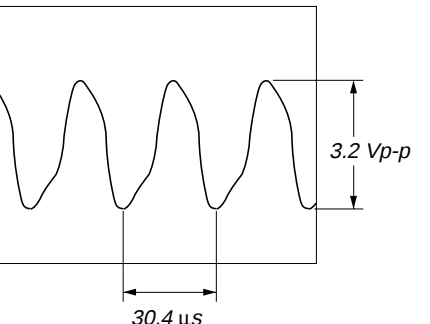
② Q303, 304 (Collector) (REC Mode)



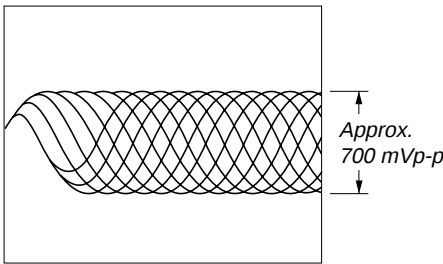
③ IC101 ⑦⑦ (XTAO)



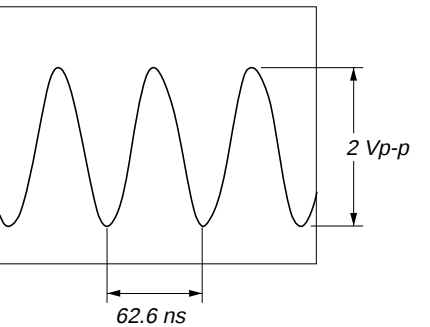
③ IC306 ⑪ (XCOUT)



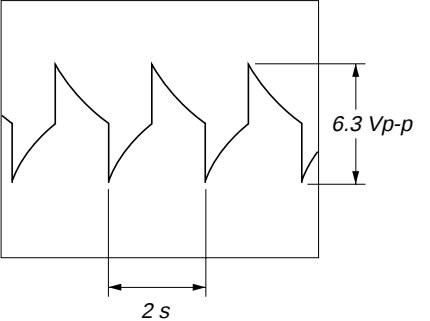
④ IC101 ④① (RFACO)



④ IC306 ⑬ (XOUT)



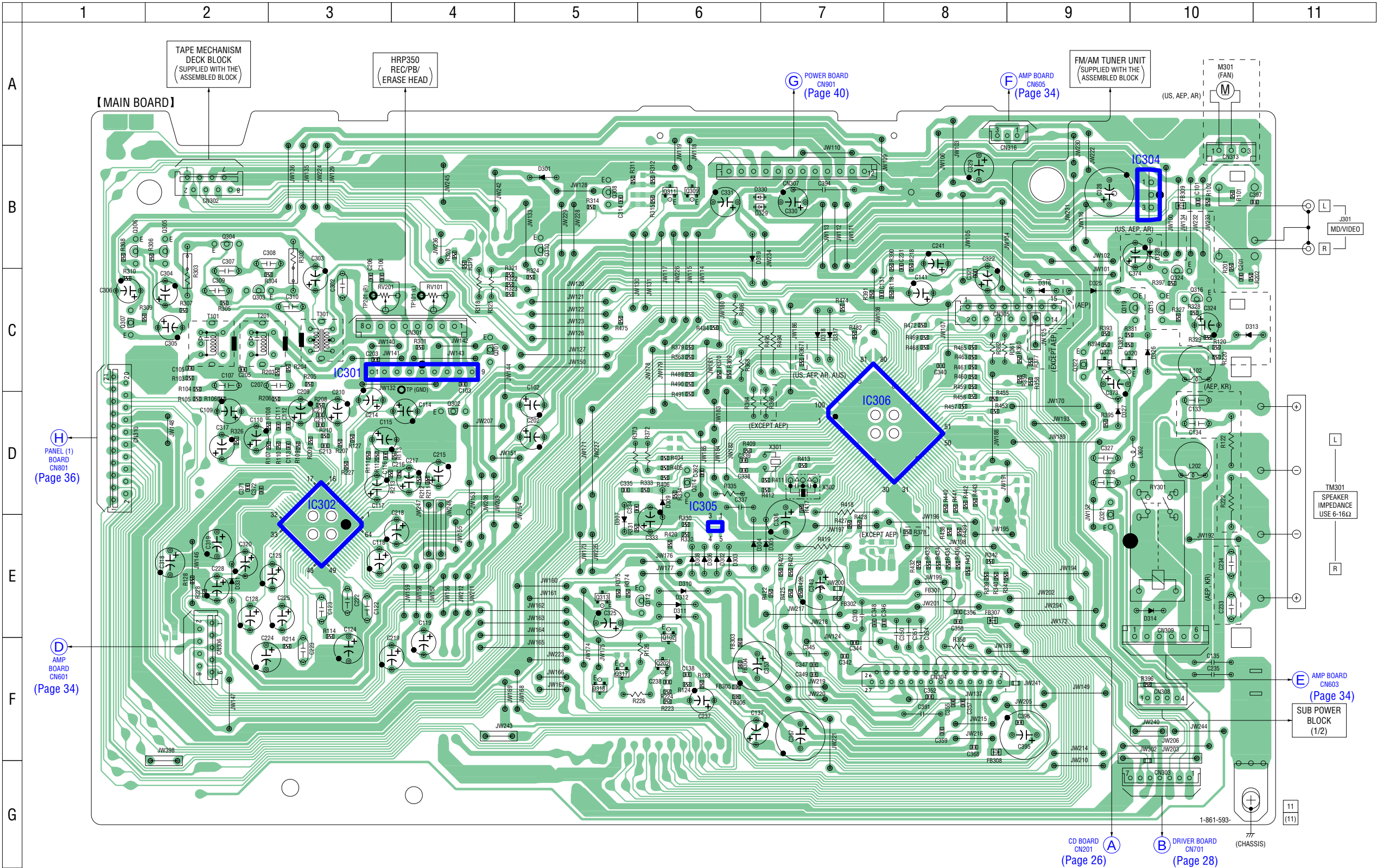
⑤ IC306 ④④ (TC END SW) (Tape Play Mode)

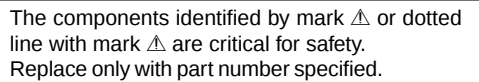


6-9. PRINTED WIRING BOARD – MAIN Board – • See page 25 for Circuit Boards Location. :Uses unleaded solder.

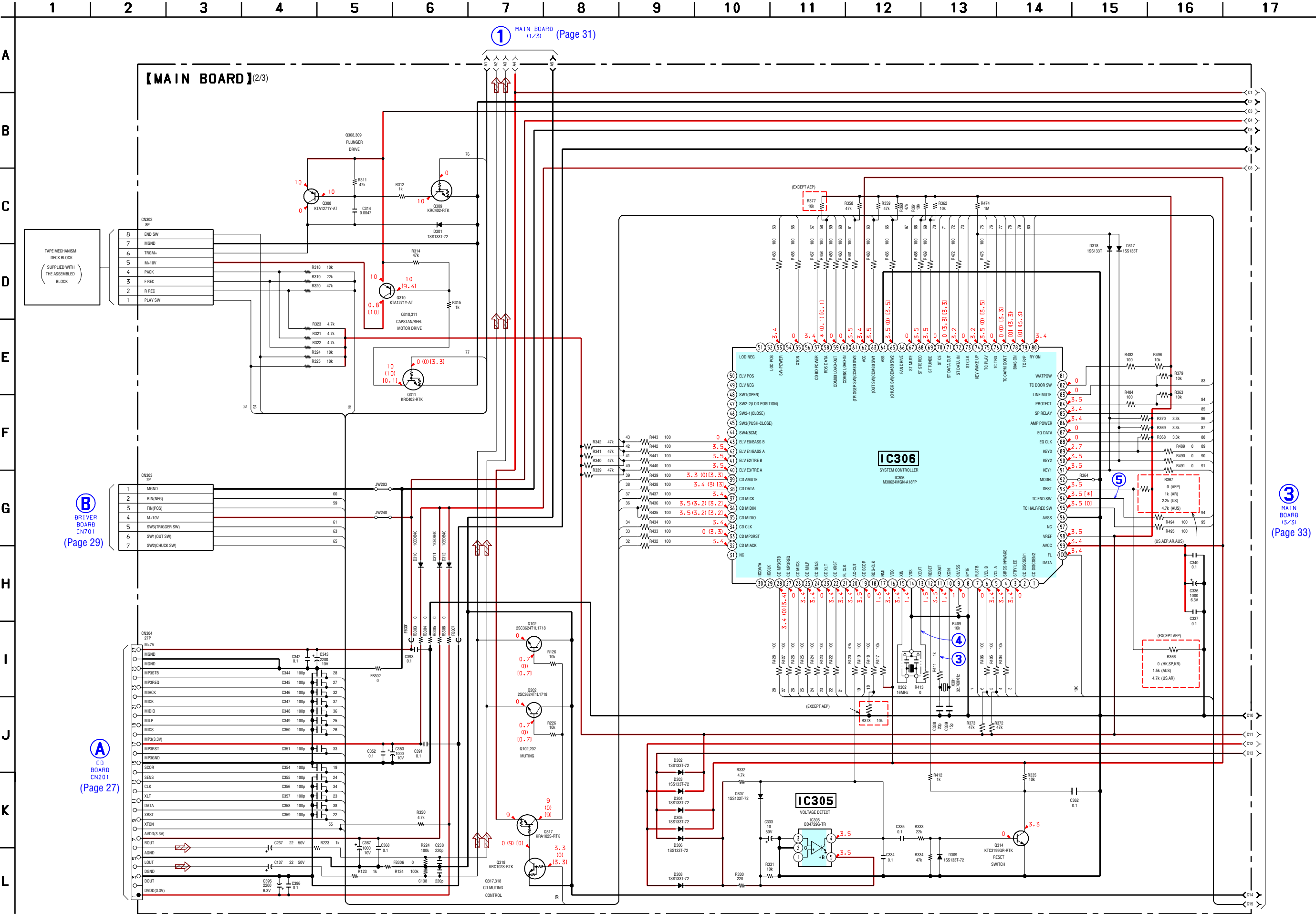
• Semiconductor Location

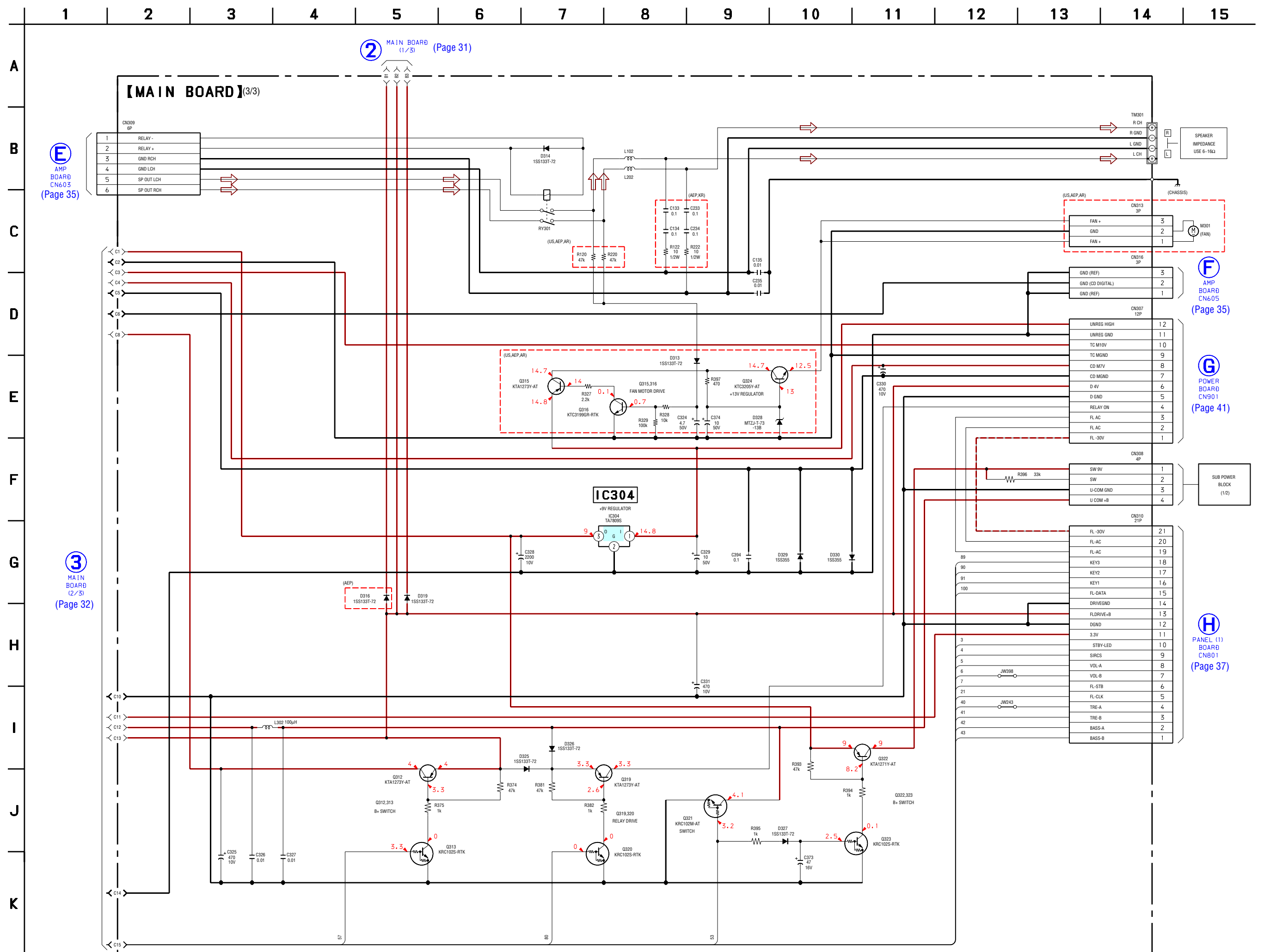
Ref. No.	Location
D301	B-5
D302	E-6
D303	E-6
D304	E-6
D305	E-7
D306	E-6
D307	E-5
D308	E-6
D309	D-6
D310	E-6
D311	E-6
D312	E-6
D313	C-10
D314	E-10
D316	C-9
D317	C-7
D318	C-7
D319	B-6
D325	C-9
D326	C-10
D327	D-9
D328	B-10
D329	B-6
D330	B-6
D331	E-2
IC301	C-4
IC302	E-3
IC304	B-10
IC305	E-6
IC306	D-8
Q102	E-6
Q202	F-6
Q301	C-4
Q302	D-4
Q303	C-2
Q304	B-2
Q305	B-2
Q306	B-1
Q307	C-1
Q308	B-5
Q309	B-6
Q310	B-5
Q311	B-6
Q312	E-6
Q313	E-5
Q314	D-6
Q315	C-10
Q316	C-10
Q317	F-5
Q318	F-5
Q319	C-10
Q320	C-9
Q321	E-9
Q322	C-9
Q323	C-9
Q324	C-10



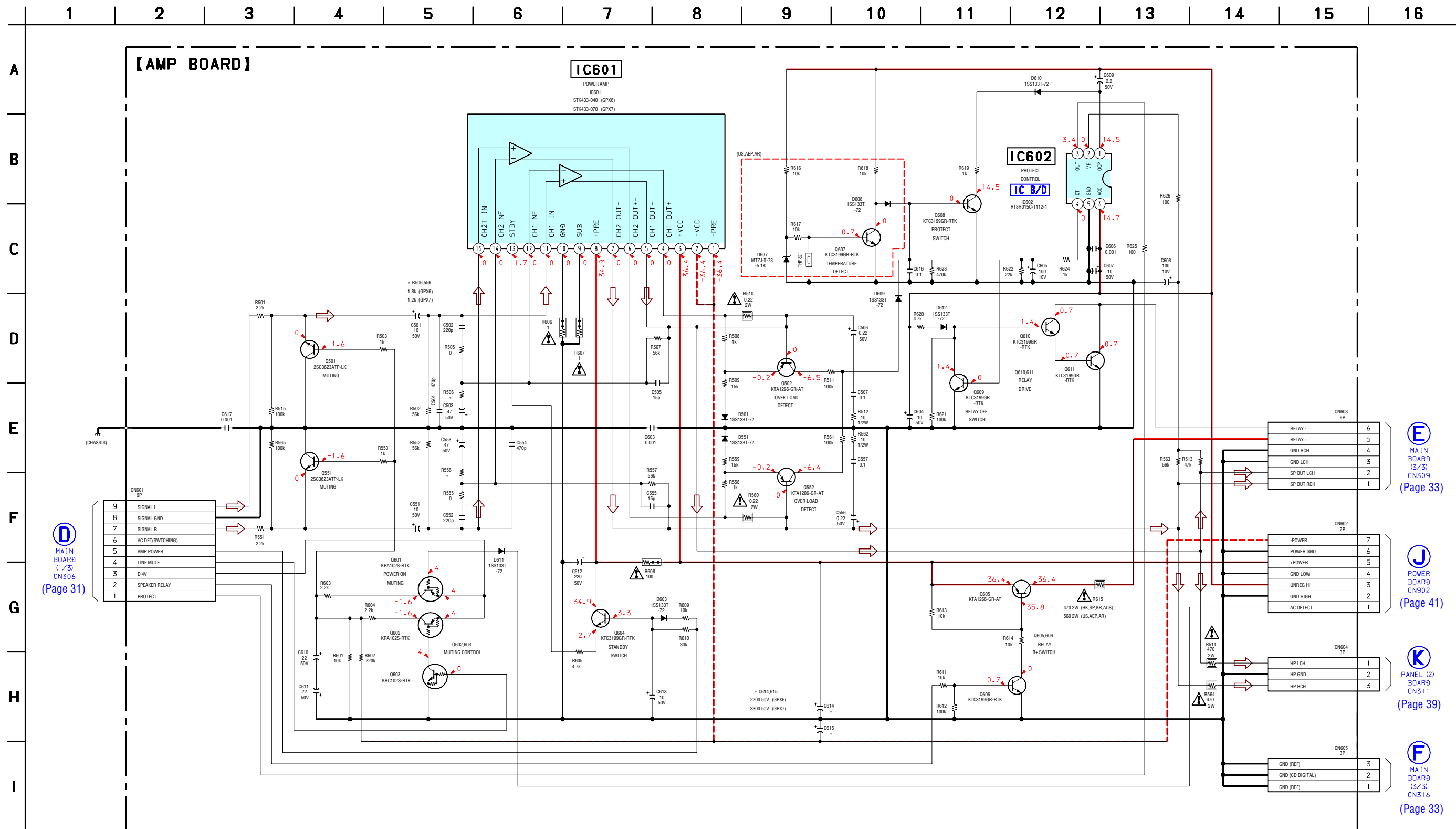


6-11. SCHEMATIC DIAGRAM – MAIN Section (2/3) – • See page 29 for Waveforms. • See page 47 for IC Pin Function Description.





6-14. SCHEMATIC DIAGRAM – AMP Board – • See page 42 for IC Block Diagram.

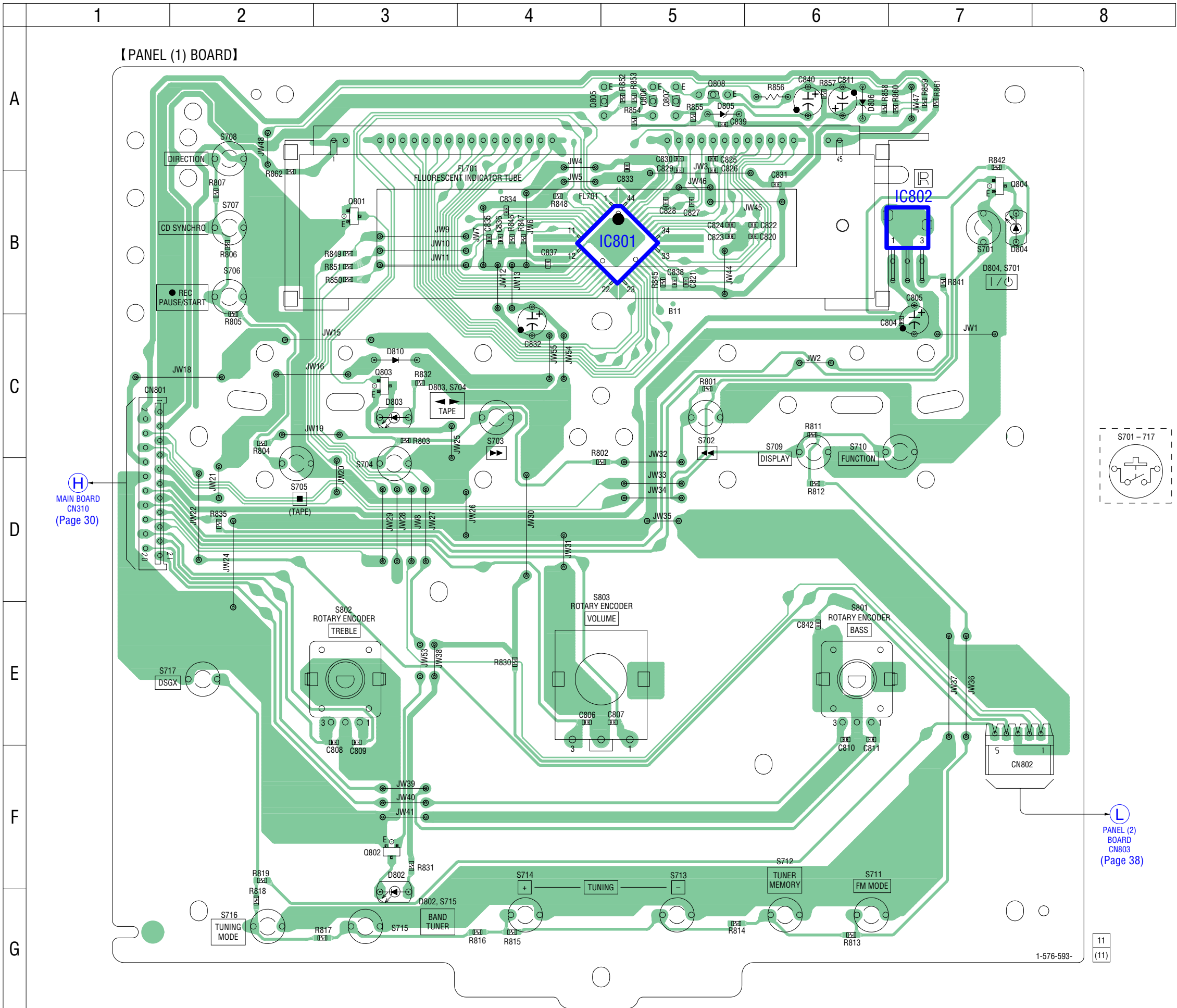


The components identified by mark or dotted line with mark  are critical for safety.
Replace only with part number specified.

6-15. PRINTED WIRING BOARD – PANEL (1) Board – • See page 25 for Circuit Boards Location.  :Uses unleaded solder.

• Semiconductor Location

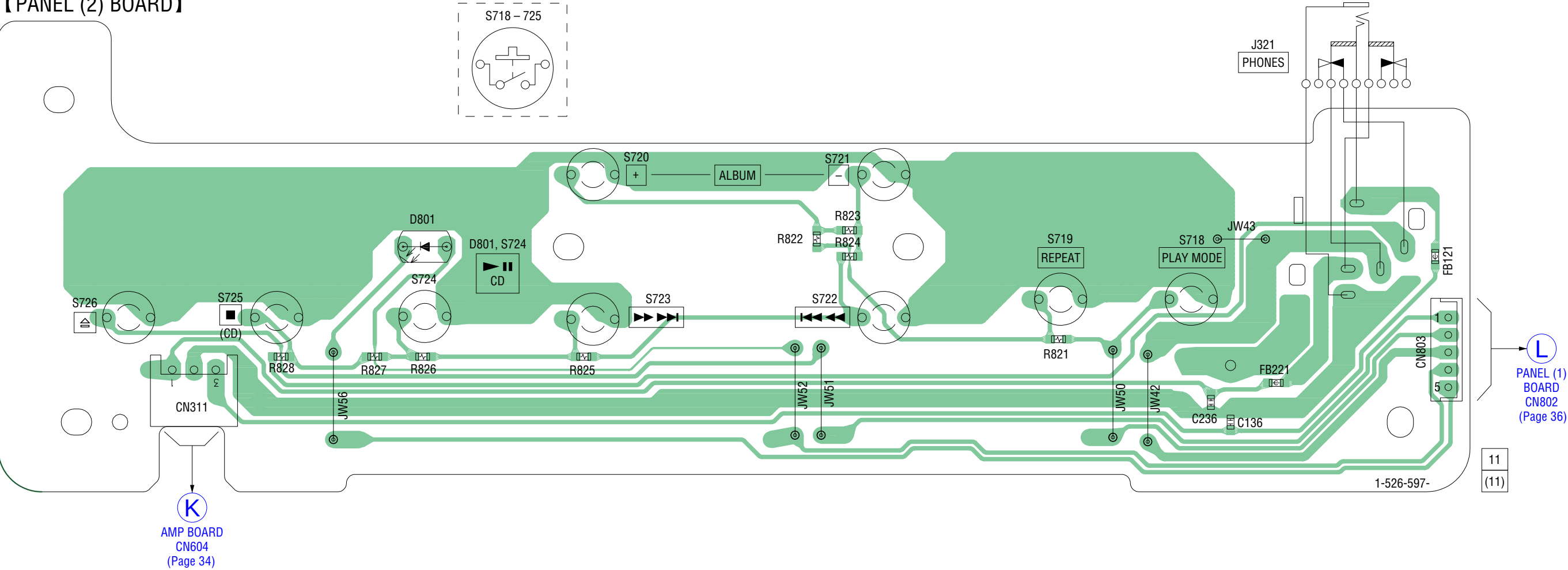
Ref. No.	Location
D802	G-3
D803	C-3
D804	B-7
D805	A-5
D806	A-6
D810	C-3
IC801	B-5
IC802	B-7
Q801	B-3
Q802	F-3
Q803	C-3
Q804	B-7
Q805	A-5
Q806	A-5
Q807	A-5
Q808	A-5



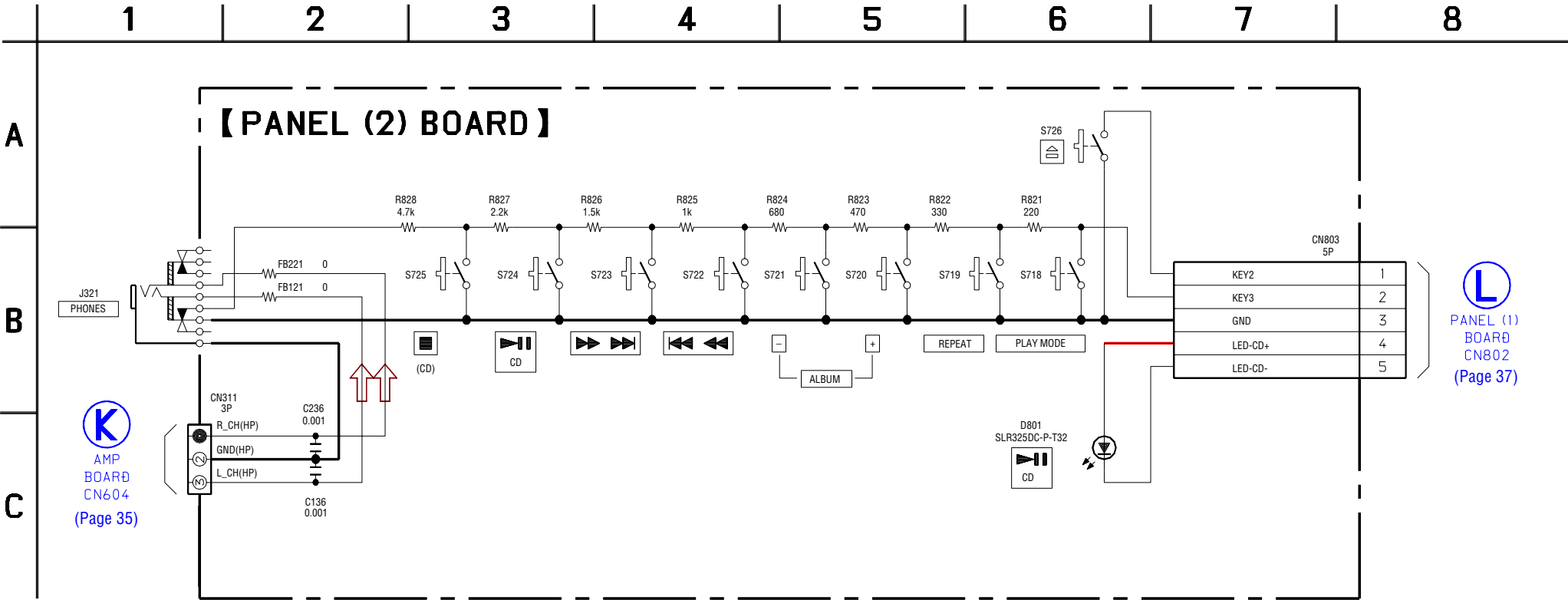


6-17. PRINTED WIRING BOARD – PANEL (2) Board – • See page 25 for Circuit Boards Location. :Uses unleaded solder.

【PANEL (2) BOARD】



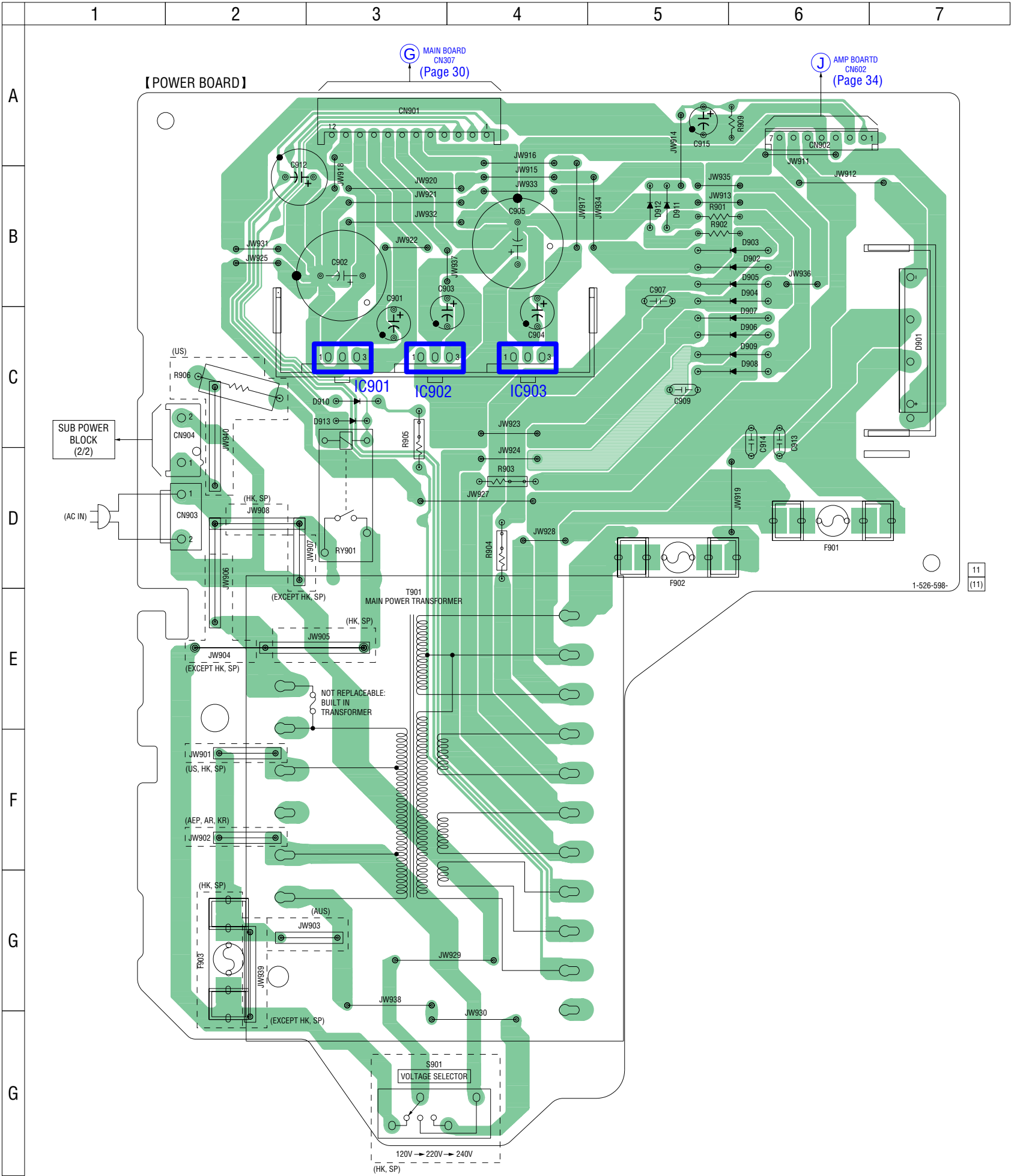
6-18. SCHEMATIC DIAGRAM – PANEL (2) Board –



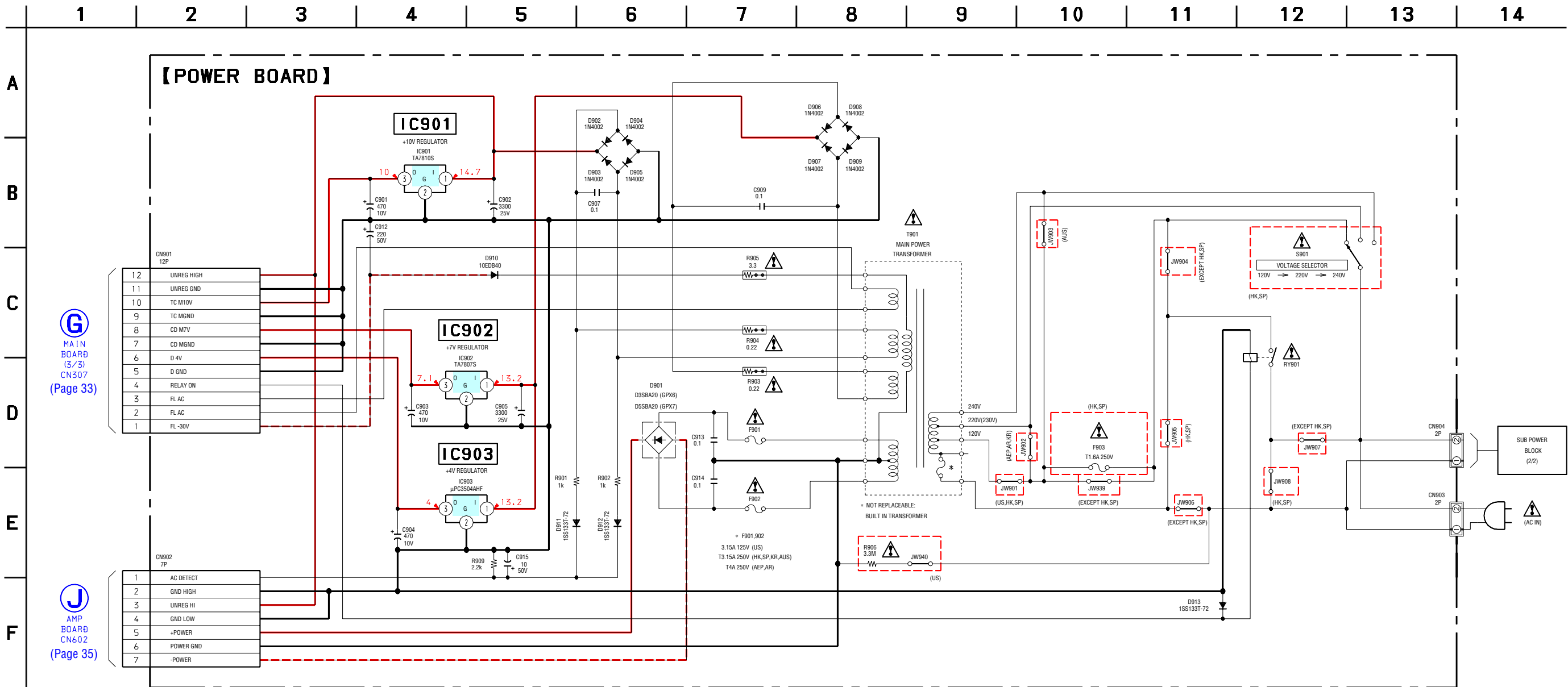
6-19. PRINTED WIRING BOARD – POWER Board – • See page 25 for Circuit Boards Location.  :Uses unleaded solder.

• Semiconductor Location

Ref. No.	Location
D901	C-7
D902	B-6
D903	B-6
D904	B-6
D905	B-6
D906	C-6
D907	C-6
D908	C-6
D909	C-6
D910	C-3
D911	B-5
D912	B-5
D913	C-3
IC901	C-3
IC902	C-3
IC903	C-4



6-20. SCHEMATIC DIAGRAM – POWER Board –

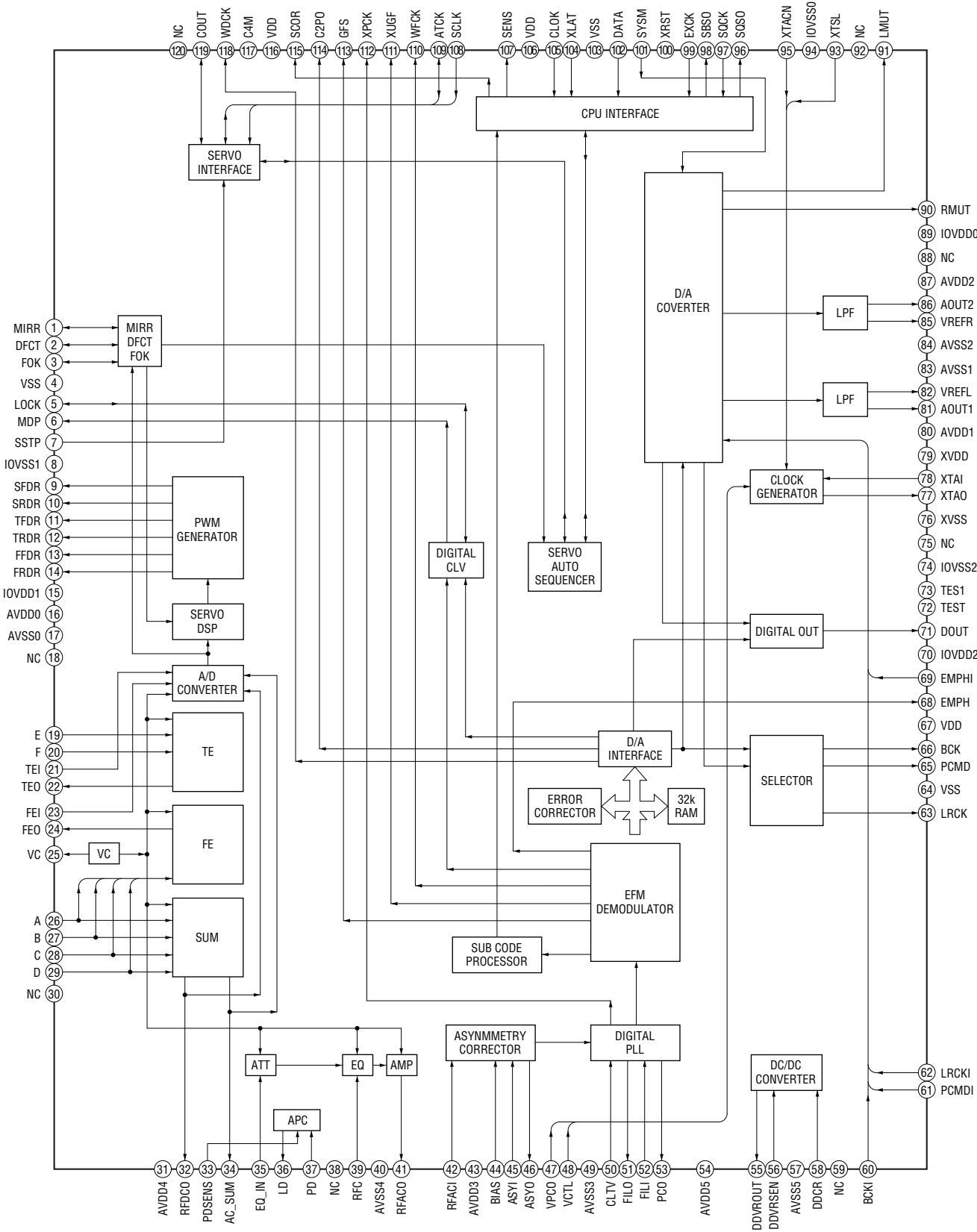


The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety. Replace only with part number specified.

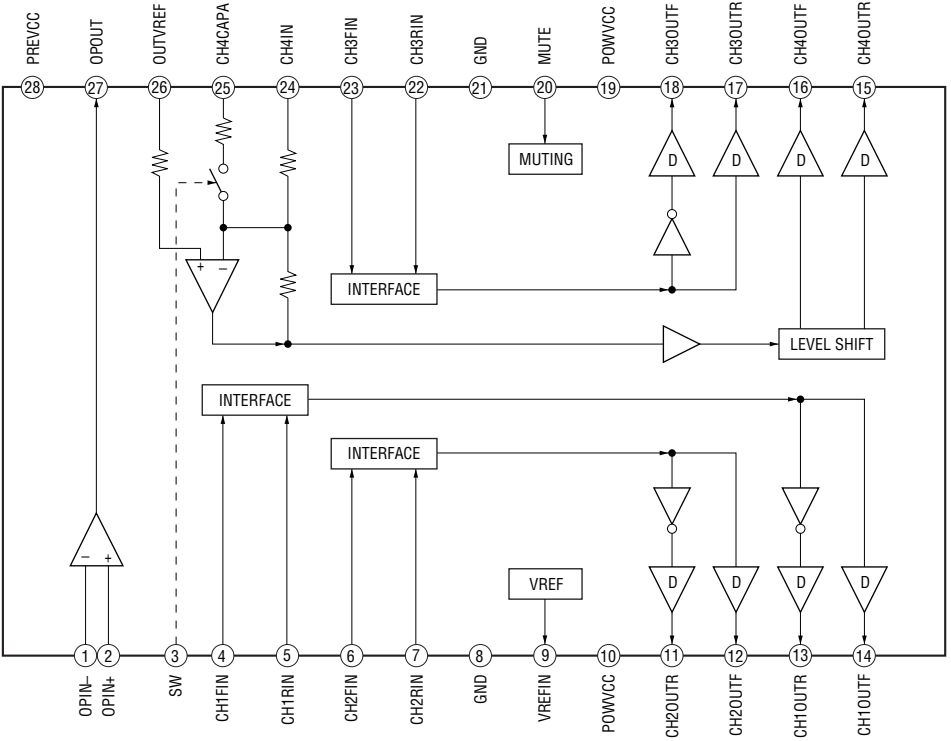
HCD-GPX6/GPX7

- IC Block Diagrams
- BD Board –

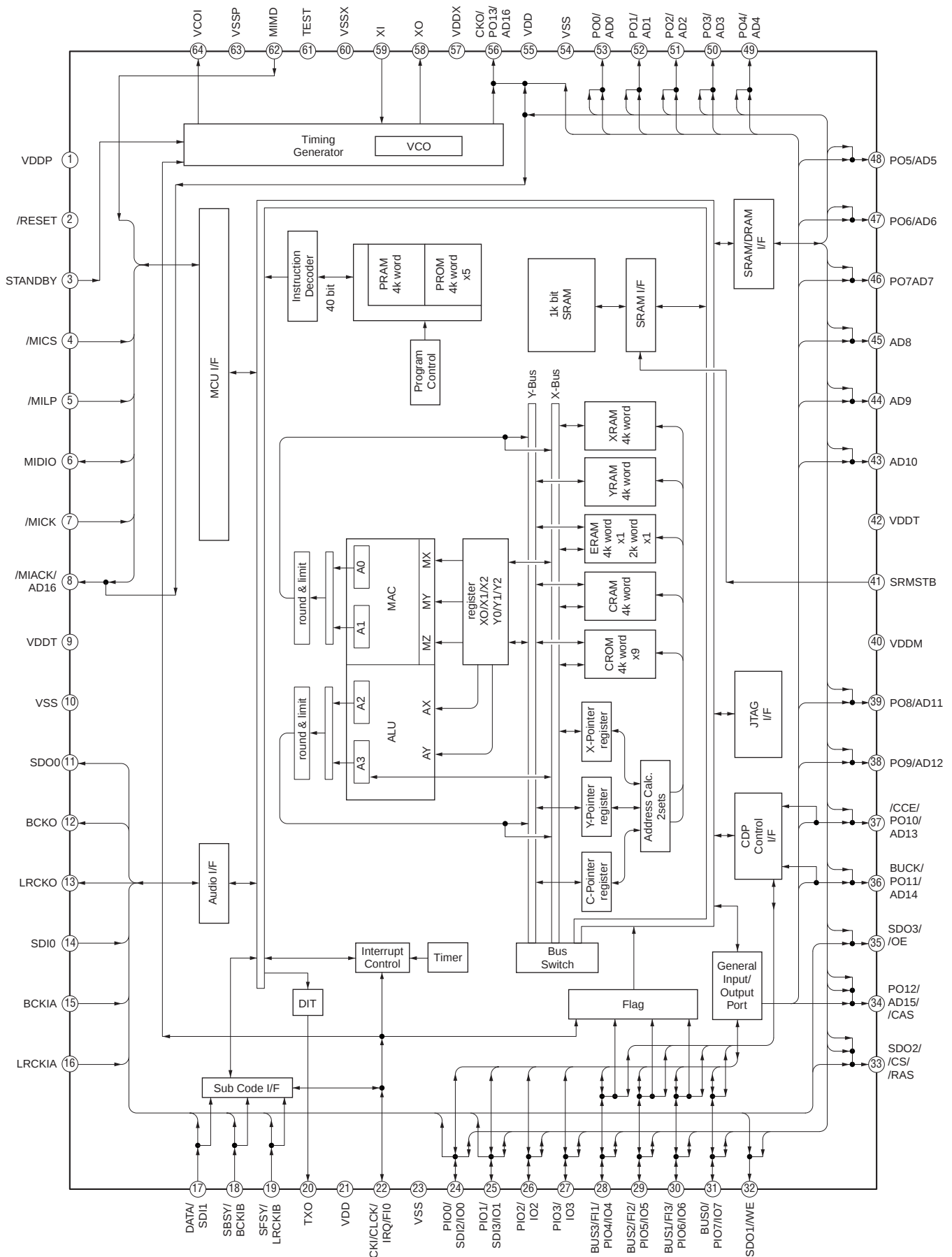
IC101 CXD3059AR



IC251 BA5947FM

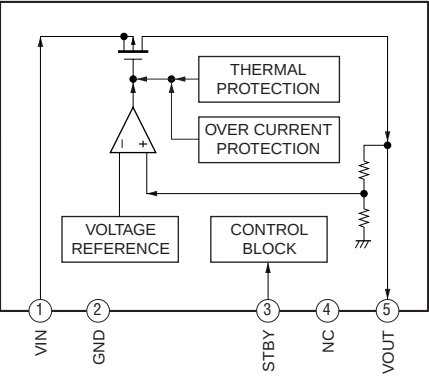


IC301 TC94A34FG-002



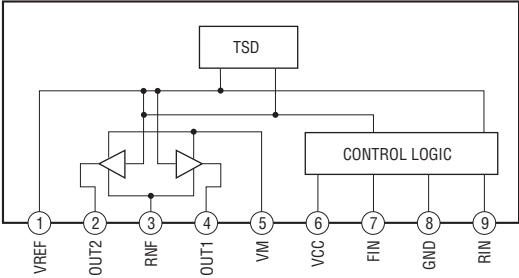
HCD-GPX6/GPX7

IC303 BH15FB1WG



– DRIVER Board –

IC701 BA6956AN

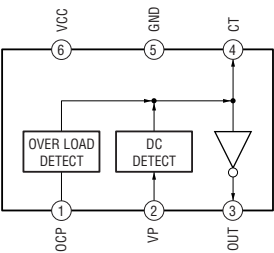




HCD-GPX6/GPX7

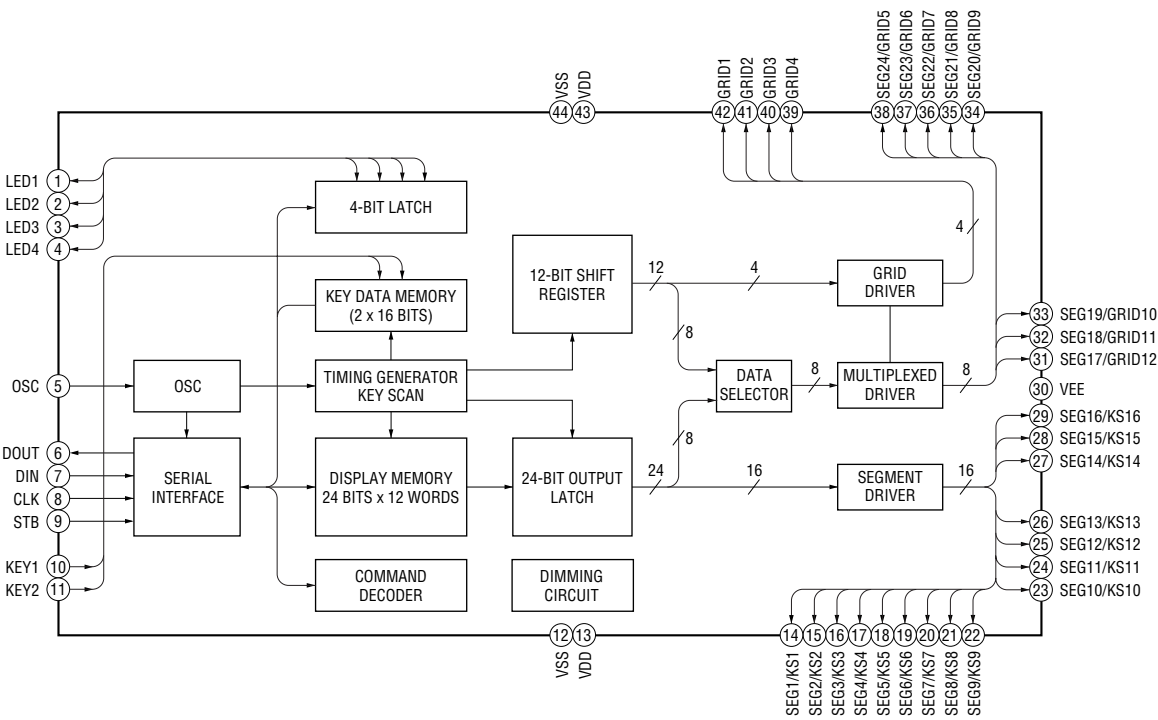
- AMP Board -

IC602 RT8H015C-T112-1



- PANEL Board -

IC801 μ PD16315GB-3BS



• IC Pin Function Description

MAIN BOARD IC306 M3062CMEN-A00FPU0 (SYSTEM CONTROLLER)

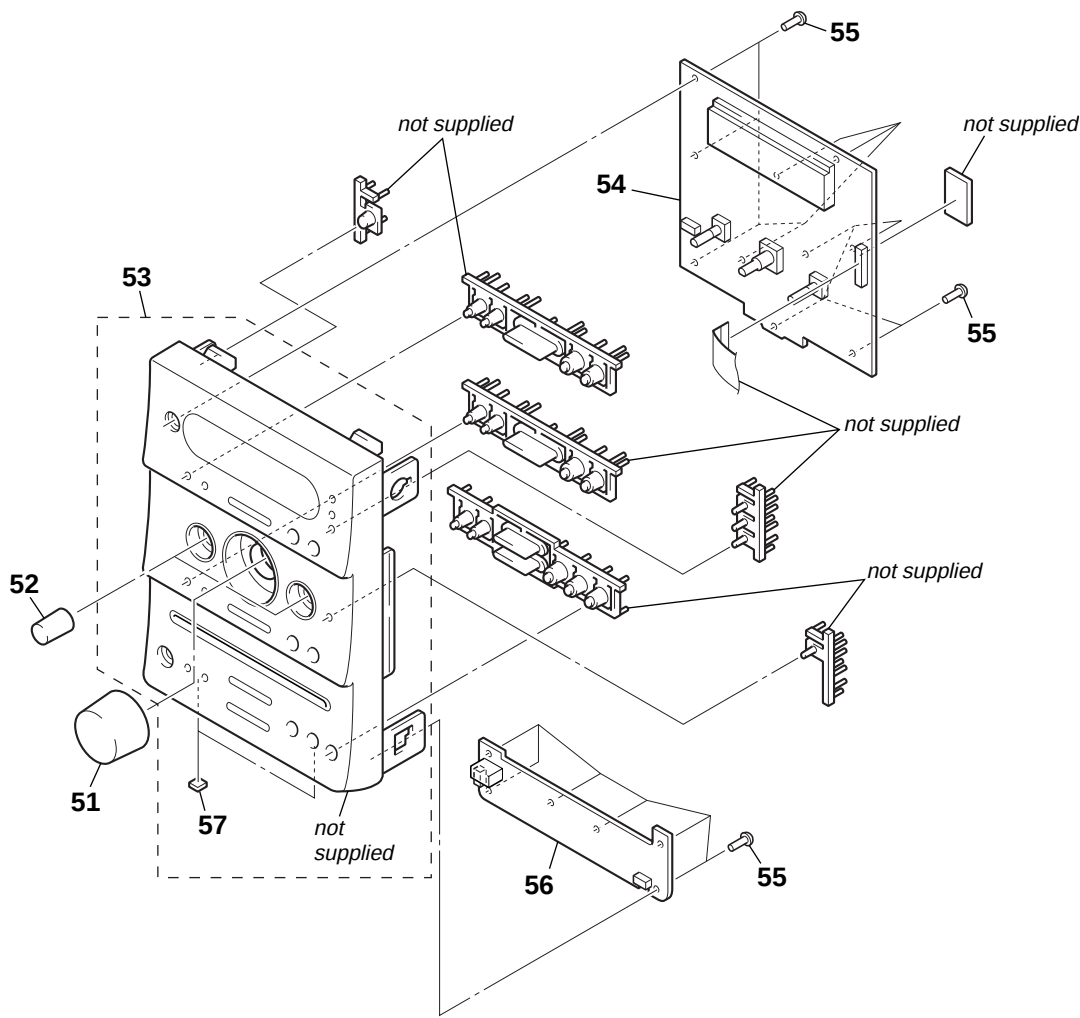
Pin No.	Pin Name	I/O	Description
1	CD DISSENS 2	I	Not used
2	CD DISSENS 1	I	Not used
3	STBY LED	O	LED drive signal output terminal (power)
4	SIRCS IN/WAKE	I	SIRCS signal input terminal
5, 6	VOL A, VOL B	I	Jog dial pulse input terminal (volume)
7	FLSTB	O	Serial data read strobe signal output to the FL/LED driver
8	BYTE	I	External data bus width select signal input terminal
9	CNVSS	—	Ground terminal
10	XCIN	I	Sub system clock input terminal (32.768 kHz)
11	XCOU	O	Sub system clock output terminal (32.768 kHz)
12	RESET	I	System reset signal input terminal “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
13	XOUT	O	Main system clock output terminal (16 MHz)
14	VSS	—	Ground terminal
15	XIN	I	Main system clock input terminal (16 MHz)
16	VCC	—	Power supply terminal (+3.3V)
17	NMI	I	Non-maskable interrupt signal input terminal Not used
18	RDS-CLK	I	RDS serial data transfer clock signal input terminal (AEP only)
19	CD SCOR	I	Subcode Q data request signal input terminal
20	AC-CUT	I	Power down detection signal input terminal “L”: power down
21	FL CLK	O	Serial data transfer clock signal output to the FL/LED driver
22	CD XRST	O	System reset signal output to the CD servo block
23	CD XLT	O	Latch pulse signal output to the CD servo block
24	CD SENS	I	Internal status (SENSE) input from the CD DSP
25	CD MILP	O	Serial data latch pulse output to the MP3 decoder
26	CD MICS	O	Chip select signal output to the MP3 decoder
27	CD MP3REQ	I	Data transfer request signal input from the MP3 decoder
28	CD MP3STB	O	Standby signal output to the MP3 decoder
29	IICCLK	I/O	IIC data transfer clock signal input and output Not used
30	IICDATA	I/O	IIC two-way data bus Not used
31	NC	O	Not used
32	CD MIACK	I	Acknowledge signal input from the MP3 decoder
33	CD MP3RST	O	Reset signal output to the MP3 decoder
34	CD CLK	O	Serial data transfer clock signal output to the CD DSP
35	CD MIDIO	O	Serial data output to the MP3 decoder
36	CD MIDIN	I	Serial data input from the MP3 decoder
37	CD MICK	O	Serial data transfer clock signal output to the MP3 decoder
38	CD DATA	O	Serial data output to the CD DSP
39	CD AMUTE	O	CD muting on/off control signal output terminal
40	ELV E3/TRE A	I	Jog dial pulse input from the rotary encoder (treble)
41	ELV E2/TRE B	I	Jog dial pulse input from the rotary encoder (treble)
42	ELV E1/BASS A	I	Jog dial pulse input from the rotary encoder (bass)
43	ELV E0/BASS B	I	Jog dial pulse input from the rotary encoder (bass)
44	SW4 (8CM)	I	CD disc size detection (8cm/12cm) signal input terminal Not used

HCD-GPX6/GPX7

Pin No.	Pin Name	I/O	Description
45	SW3 (PUSH-CLOSE)	I	CD push-close switch input terminal Not used
46	SW2-1 (CLOSE)	I	CD close switch input terminal Not used
47	SW2-2 (LOD POSITION)	I	CD loading position switch input terminal Not used
48	SW1 (OPEN)	I	CD open switch input terminal Not used
49	ELV NEG	O	Elevator up/down motor control signal output Not used
50	ELV POS	O	Elevator up/down motor control signal output Not used
51	LOD NEG	O	Loading motor control signal output Not used
52	LOD POS	O	Loading motor control signal output Not used
53	SW-POWER	O	Sub power block on/off control signal output terminal
54	—	O	Not used
55	XTCN	O	Oscillator control signal output to the CD DSP
56	—	O	Not used
57	CD BD POWER	O	Power on/off control signal output for CD block
58	RDS DATA	I	RDS serial data input terminal (AEP only)
59	CDM80 LOAD-OUT	O	Loading motor control signal output (loading out direction)
60	CDM80 LOAD-IN	O	Loading motor control signal output (loading in direction)
61	(TRIGGER SW) CDM80 SW3	I	Trigger switch input terminal “L”: switch on
62	VCC	—	Power supply terminal (+3.3V)
63	(OUT SW) CDM80 SW1	I	Out switch input terminal “L”: switch on
64	VSS	—	Ground terminal
65	(CHUCK SW) CDM80 SW2	I	Chuck switch input terminal “L”: switch on
66	FAN DRIVE	O	Fan motor drive signal output terminal Not used
67	ST MUTE	O	Tuner muting on/off control signal output terminal
68	ST STEREO	I	FM stereo detection signal input from the tuner unit “L”: stereo
69	ST TUNED	I	Tuning detection signal input from the tuner unit “L”: tuned
70	ST CE	O	Chip enable signal output to the FM/AM tuner unit
71	ST DATA OUT	O	Serial data output to the FM/AM tuner unit
72	ST DATA IN	I	Serial data input from the FM/AM tuner unit
73	ST CLK	O	Serial data transfer clock signal output to the FM/AM tuner unit
74	KEY WAKE UP	I	System wake up signal input terminal in the standby status
75	TC PLAY	I	Tape play switch input terminal
76	TC TRG	O	Plunger driver signal output terminal “L”: plunger on
77	TC CAPM CONT	O	Capstan/reel motor drive signal output terminal “L”: forward, “H”: reverse
78	BIAS ON	O	REC bias on/off control signal output terminal “H”: REC bias on
79	TC R/P	O	PB/REC switching control signal output terminal “L”: PB
80	RY ON	O	Relay drive signal output for main power supply “H”: power on
81	WATPOW	O	Not used
82	TC DOOR SW	I	Tape deck lid open/close detection signal input terminal Not used
83	LINE MUTE	O	Line muting on/off control signal output terminal “H”: muting on

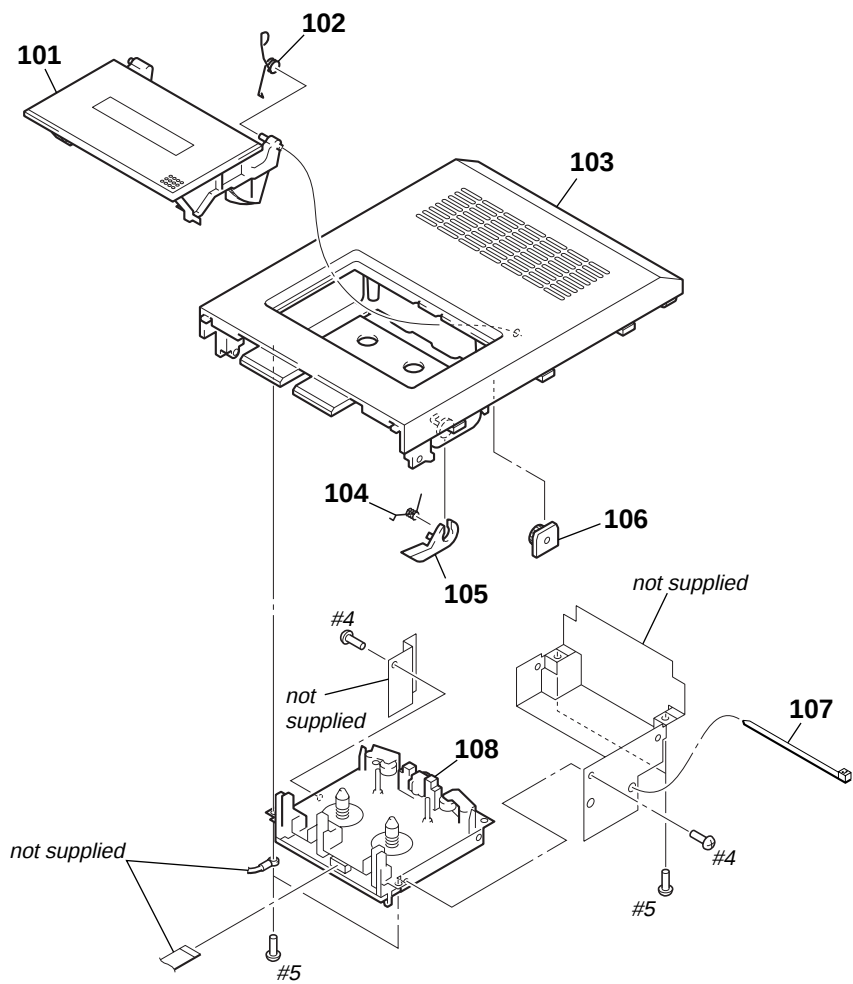
Pin No.	Pin Name	I/O	Description
84	PROTECT	I	Protect signal input from the amplifier circuit “L”: protect
85	SP RELAY	O	Speaker on/off relay drive signal output terminal “L”: speaker off
86	AMP POWER	O	AMP muting on/off control signal output terminal “H”: AMP on
87	EQ DATA	O	Serial data output to the electrical volume
88	EQ CLK	O	Serial data transfer clock signal output to the electrical volume
89 to 91	KEY3 to KEY1	I	Front panel key or headphone detection input terminal (A/D input)
92	MODEL	I	Setting terminal for the model type
93	DEST	I	Setting terminal for the destination
94	TC END SW	I	End switch detection from tape deck block
95	TC HALF/ REC SW	I	Half/REC switch detection from tape deck block
96	AVSS	—	Ground terminal
97	NC	O	Not used
98	VREF	I	Reference voltage (+3.3V) input terminal
99	AVCC	—	Power supply terminal (+3.3V)
100	FL DATA	O	Serial data output to the FL/LED driver

7-2. FRONT PANEL SECTION



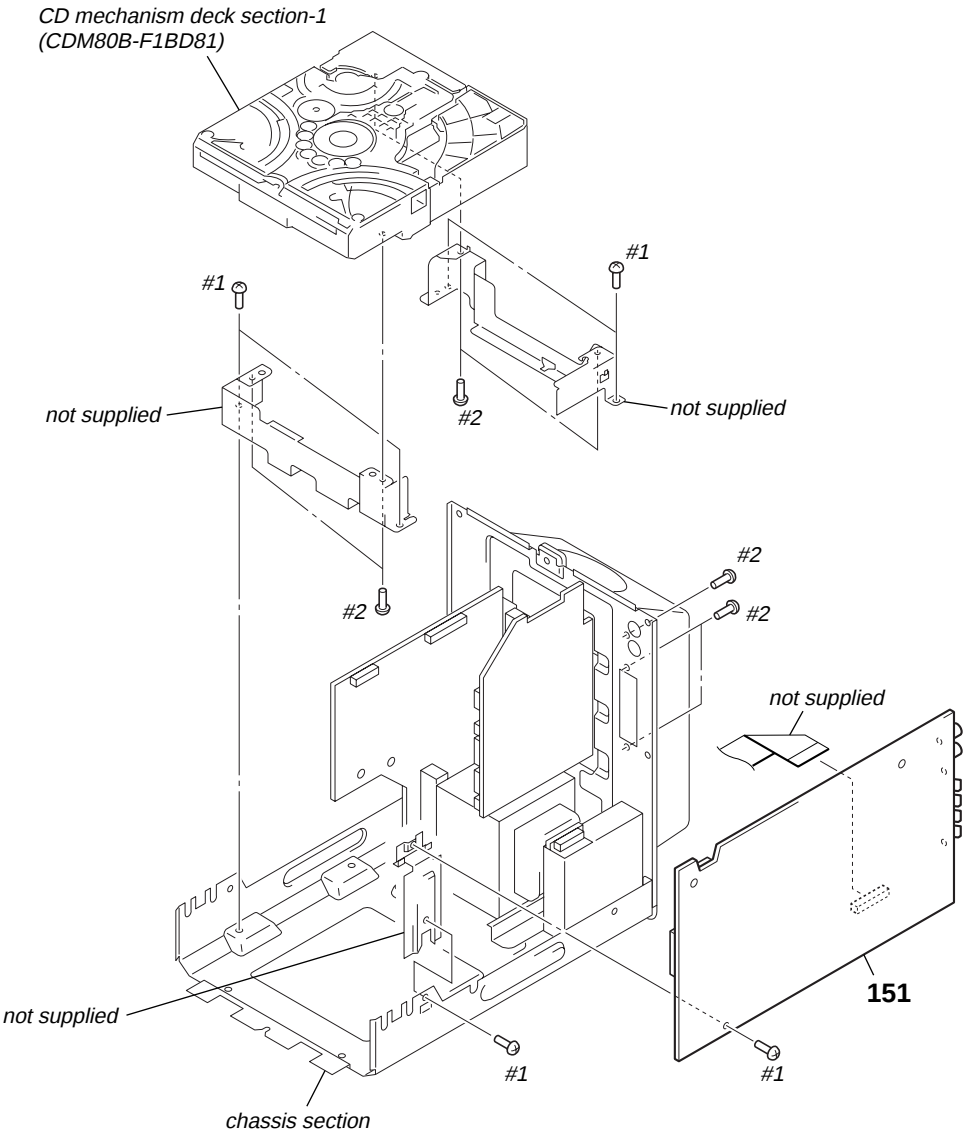
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-251-909-01	KNOB, VOLUME		53	X-4956-426-1	FRONT PANEL ASSY (US)	
52	4-251-910-01	KNOB, B/T		54	A-4750-228-A	PANEL (1) BOARD, COMPLETE	
53	X-2021-488-1	PANEL SUB ASSY, FRONT (AR)		55	4-951-620-01	SCREW (2.6X8), +BVTP	
53	X-2021-539-1	FRONT PANEL ASSY (HK, SP, KR, AUS)		56	A-4750-229-A	PANEL (2) BOARD, COMPLETE	
53	X-4956-090-1	PANEL SUB ASSY, FRONT (AEP)		57	4-247-752-01	RUBBER, FOOT	

7-3. TOP BLOCK SECTION



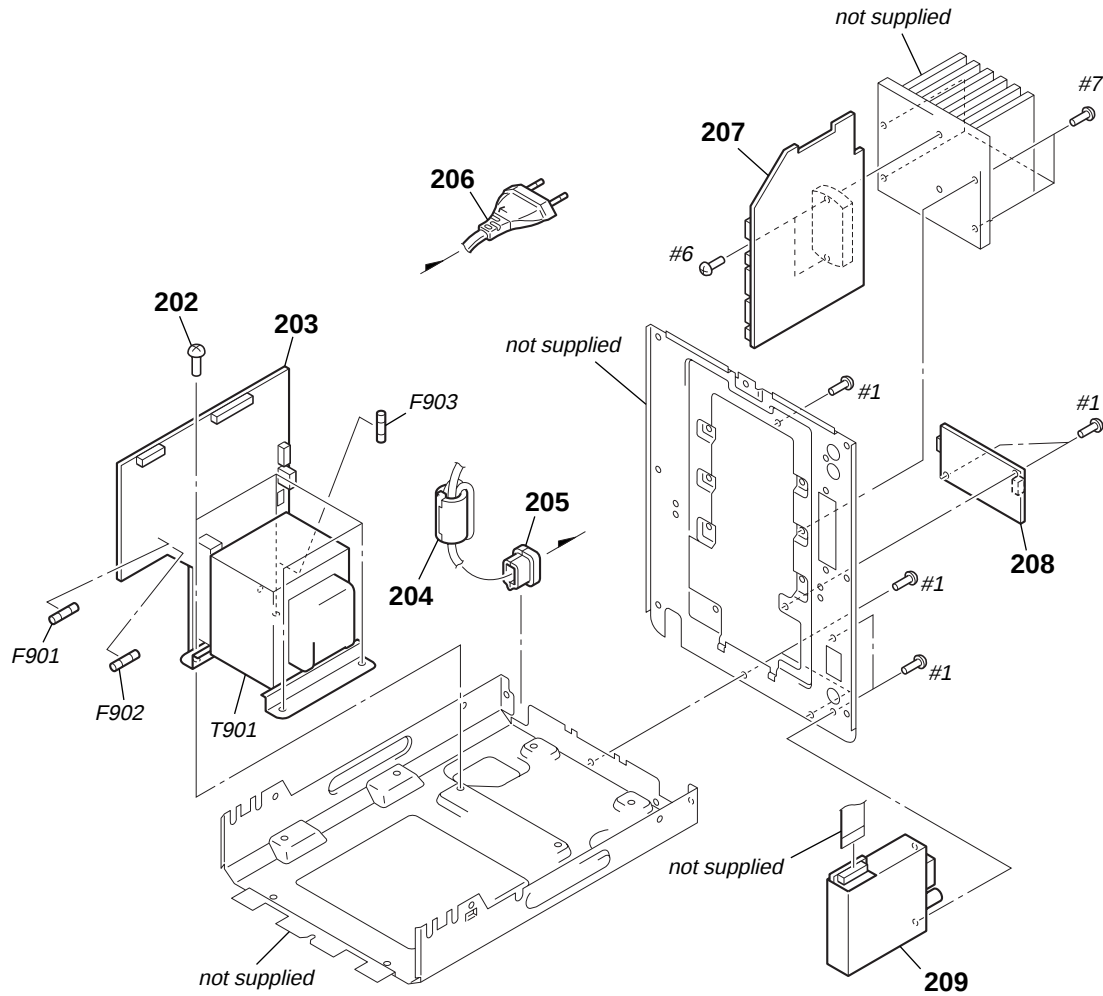
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	X-4956-091-1	HOLDER ASSY, CASSETTE		106	4-224-104-41	DAMPER	
102	4-251-899-01	SPRING, CASSETTE		107	3-701-748-00	CLAMP	
103	4-251-898-01	CABINET, TOP (EXCEPT US)		108	1-796-351-41	MECHANISM, SIGNAL CASSETTE	(CMAL1Z234A)
103	4-251-898-11	CABINET, TOP (US)					
104	4-231-836-01	SPRING (HEART CAM-A)		#4	7-685-862-09	SCREW +BVTT 2.6X6 (S)	
105	4-231-824-01	CAM (A), HEART		#5	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	

7-4. MAIN SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
151	A-1052-489-A	MAIN BOARD, COMPLETE (US)		151	A-1061-983-A	MAIN BOARD, COMPLETE (AR)	
151	A-1059-491-A	MAIN BOARD, COMPLETE (HK, SP)		151	A-4751-274-A	MAIN BOARD, COMPLETE (AEP)	
151	A-1059-528-A	MAIN BOARD, COMPLETE (KR)		#1	7-685-871-01	SCREW +BVTT 3X6 (S)	
151	A-1059-562-A	MAIN BOARD, COMPLETE (AUS)		#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	

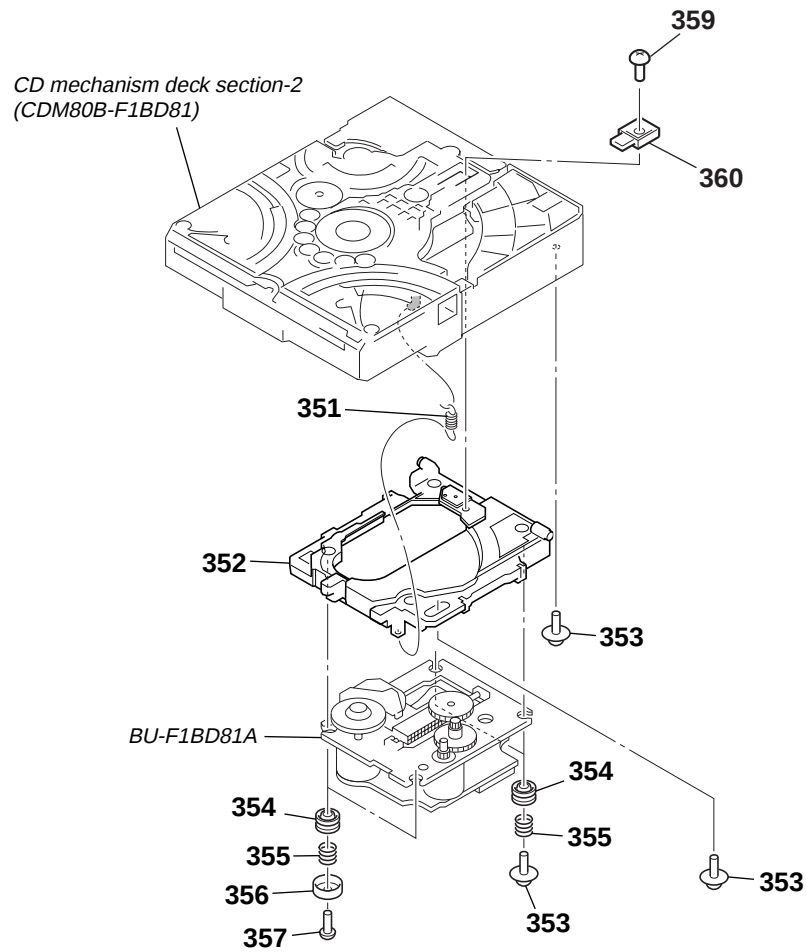
7-5. CHASSIS SECTION



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

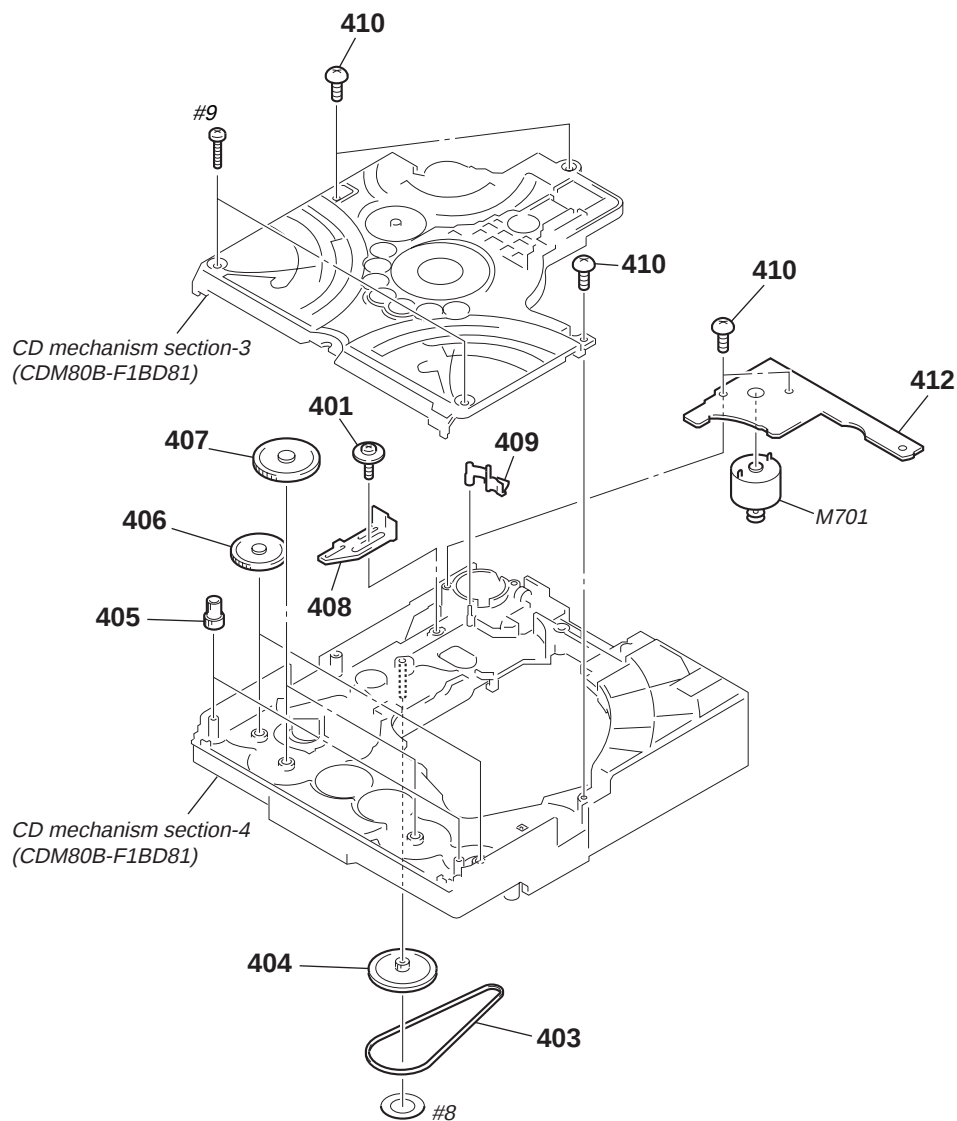
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
202	4-900-386-01	SCREW		209	1-693-628-11	TUNER (FM/AM) (HK, SP, AUS, AR)	
203	A-1052-488-A	POWER BOARD, COMPLETE (US)		209	1-693-629-11	TUNER (FM/AM) (KR)	
203	A-1059-498-A	POWER BOARD, COMPLETE (HK, SP)		Δ F901	1-533-451-12	FUSE, GLASS TUBE (DIA. 5) (3.15A/125V)	(US)
203	A-1059-548-A	POWER BOARD, COMPLETE (KR)		Δ F901	1-533-470-12	FUSE, GLASS TUBE (DIA. 5) (T3.15A/250V)	(HK, SP, KR, AUS)
203	A-1059-564-A	POWER BOARD, COMPLETE (AUS)		Δ F901	1-533-471-12	FUSE, GLASS TUBE (DIA. 5) (T4A/250V)	(AEP, AR)
203	A-1061-979-A	POWER BOARD, COMPLETE (AR)		Δ F902	1-533-451-12	FUSE, GLASS TUBE (DIA. 5) (3.15A/125V)	(US)
203	A-4750-219-A	POWER BOARD, COMPLETE (AEP)		Δ F902	1-533-470-12	FUSE, GLASS TUBE (DIA. 5) (T3.15A/250V)	(HK, SP, KR, AUS)
204	1-500-386-11	FILTER, CLAMP (FERRITE CORE)		Δ F902	1-533-471-12	FUSE, GLASS TUBE (DIA. 5) (T4A/250V)	(AEP, AR)
205	3-703-244-00	BUSHING (2104), CORD		Δ F903	1-533-467-12	FUSE, GLASS TUBE (DIA. 5) (T1.6A/250V)	(HK, SP)
Δ 206	1-769-079-23	CORD, POWER (KR)		Δ T901	1-443-197-11	TRANSFORMER, POWER (AEP, AR)	
Δ 206	1-769-744-52	CORD, POWER (HK, SP, AEP)		Δ T901	1-443-204-11	TRANSFORMER, POWER (US)	
Δ 206	1-775-790-12	CORD, POWER (AUS)		Δ T901	1-443-205-11	TRANSFORMER, POWER (HK, SP, KR, AUS)	
Δ 206	1-783-531-22	CORD, POWER (US)		#1	7-685-871-01	SCREW +BVTT 3X6 (S)	
Δ 206	1-829-387-11	CORD, POWER (AR)		#6	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
207	A-1052-493-A	AMP BOARD, COMPLETE (US)		#7	7-685-874-09	SCREW +BVTT 3X12 (S)	
207	A-1059-502-A	AMP BOARD, COMPLETE (HK, SP, KR, AUS)					
207	A-1061-981-A	AMP BOARD, COMPLETE (AR)					
207	A-4751-271-A	AMP BOARD, COMPLETE (AEP)					
208	1-468-738-11	REGULATOR, SWITCHING					
209	1-693-625-11	TUNER (FM/AM) (US)					
209	1-693-626-11	TUNER (FM/AM) (AEP)					

7-6. CD MECHANISM DECK SECTION-1
(CDM80B-F1BD81)



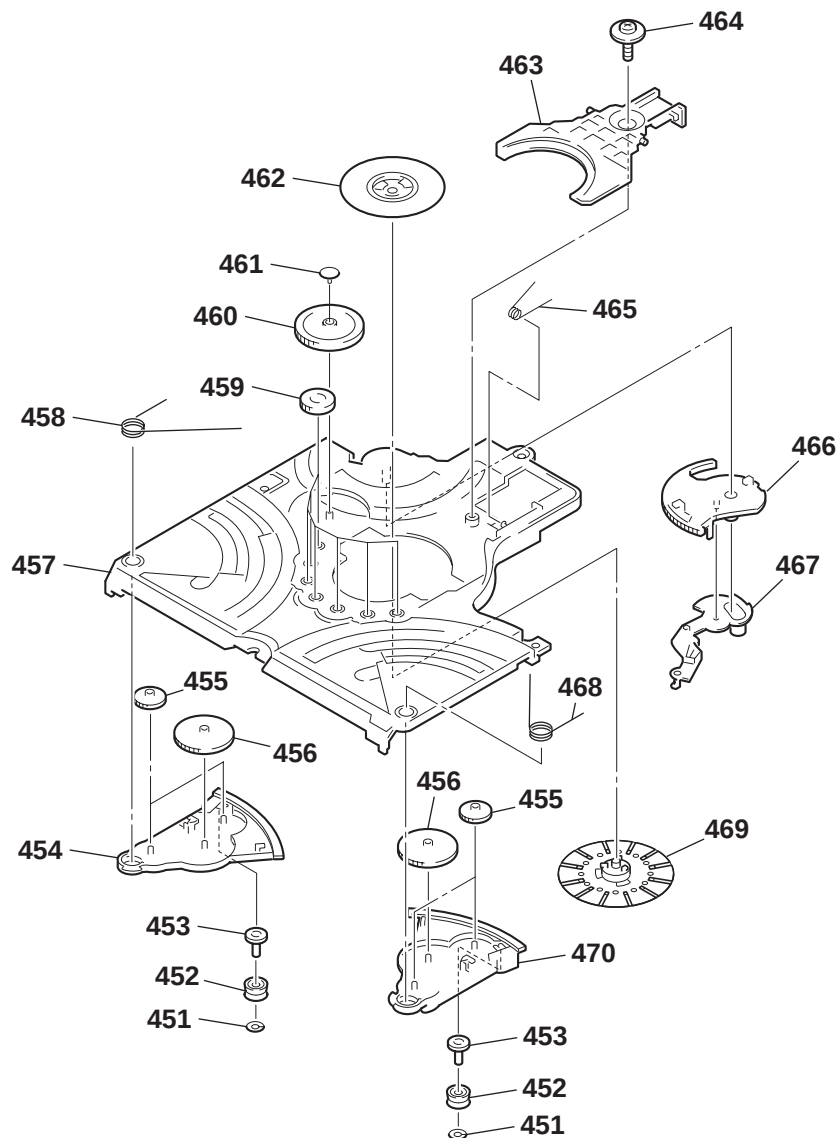
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
351	4-249-825-01	SPR-E, HOLDER, DOWN, 213		356	4-231-151-01	STOPPER (BU)	
352	X-4956-146-1	HOLDER (BU215) ASSY		357	4-218-253-31	+BTTP M2.6	
353	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING		359	4-951-620-01	SCREW (2.6X8), +BVTP	
354	4-227-549-11	INSULATOR		360	4-245-639-01	LEVER (CL UP2)	
355	4-227-045-31	SPRING (INSULATOR), COIL					

7-7. CD MECHANISM DECK SECTION-2
(CDM80B-F1BD81)



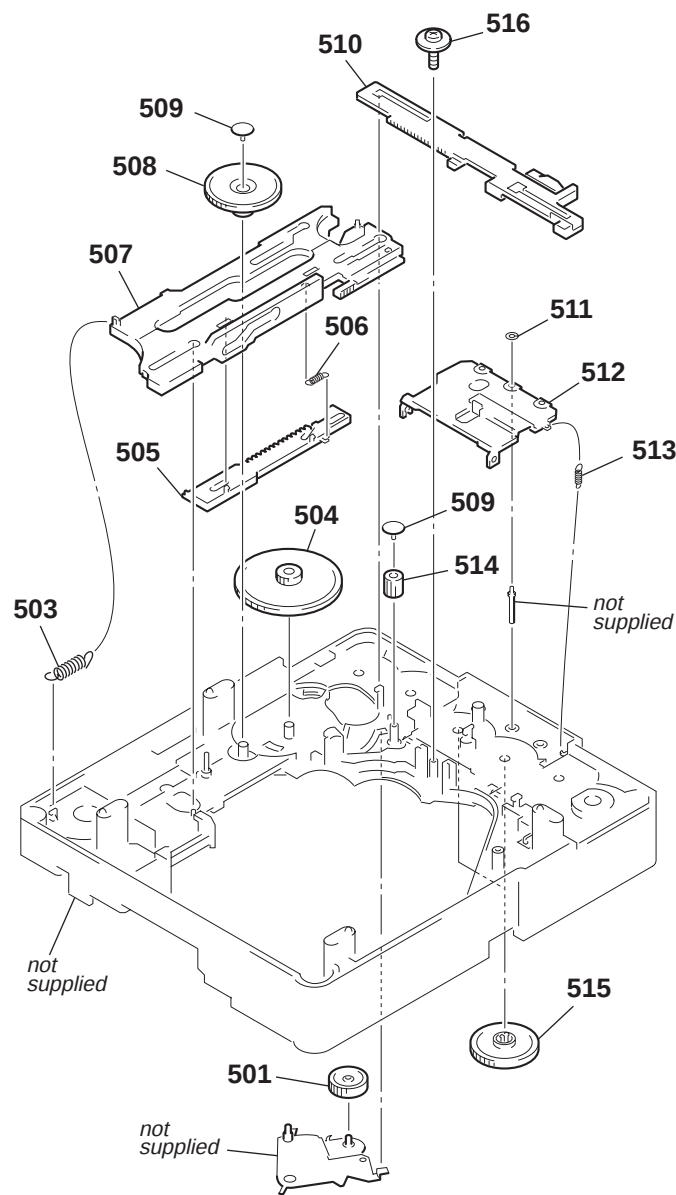
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
401	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING		409	4-245-630-01	LEVER (SW)	
403	4-245-653-01	BELT (MOT)		410	4-951-620-01	SCREW (2.6X8), +BVTP	
404	4-245-662-02	PULLEY (GEAR)		412	1-688-337-11	DRIVER BOARD	
405	4-245-646-01	GEAR (IDL-F)		M701	X-2021-530-1	MOTOR (PULLEY) ASSY (LOADING)	
406	4-245-644-01	GEAR (IDL-D)		#8	7-623-921-01	WASHER 1.7, NYLON	
407	4-245-645-01	GEAR (IDL-E)		#9	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	
408	4-246-203-01	LEVER (RELEASE)					

7-8. CD MECHANISM DECK SECTION-3
(CDM80B-F1BD81)



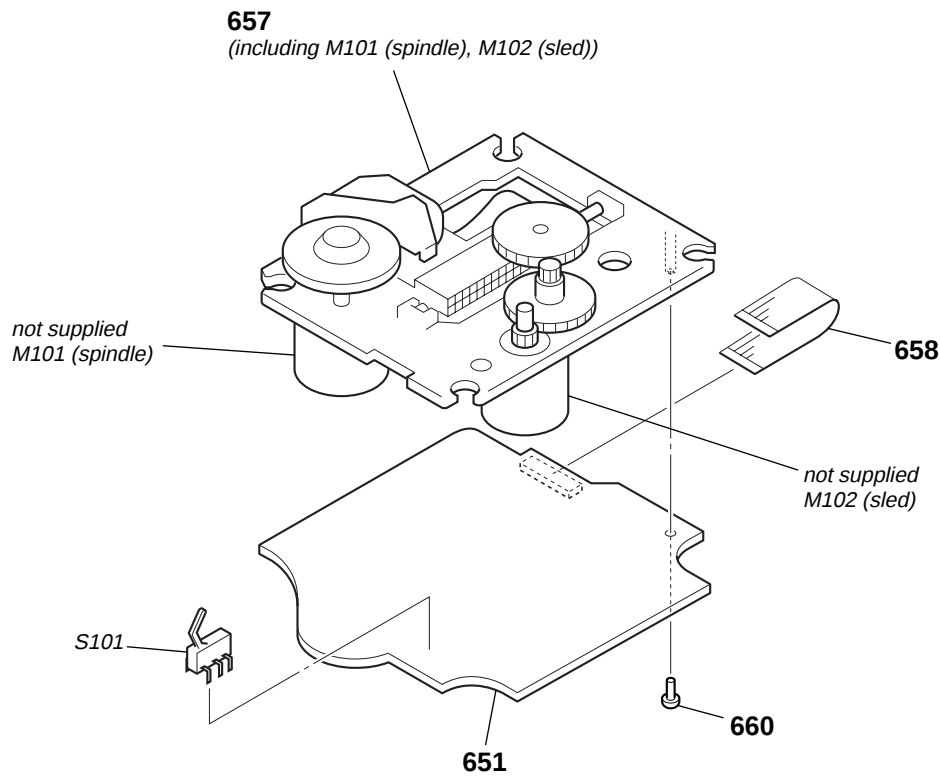
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
451	4-245-627-01	WASHER (6-2.7-0.4)		461	4-245-640-01	GEAR (CAP)	
452	4-245-637-01	ROLLER, RUBBER		462	1-452-925-21	MAGNET ASSY	
453	4-245-649-01	GEAR (IDL-I)		463	4-245-638-01	LEVER (CL UP1)	
454	4-245-657-01	LEVER (LOADING-R)		464	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
455	4-245-647-01	GEAR (IDL-G)		465	4-245-636-01	SPR-T CL DOWN	
456	4-245-648-01	GEAR (IDL-H)		466	4-245-658-01	LEVER (DISC STOP)	
457	4-245-655-01	CHASSIS (TOP)		467	4-245-659-01	LEVER (DISC SENSOR)	
458	4-245-631-01	SPT-T (LOADING-R)		468	4-245-632-01	SPR-T (LOADING-L)	
459	4-245-650-01	GEAR (IDL-J)		469	X-2021-532-1	CLAMPER 213 ASSY	
460	4-245-651-01	GEAR (IDL-L)		470	4-245-656-01	LEVER (LOADING-L)	

7-9. CD MECHANISM DECK SECTION-4
(CDM80B-F1BD81)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
501	4-245-643-01	GEAR (IDL-C)		510	4-245-628-01	LEVER (BU LOCK)	
503	4-248-722-01	SPR-E, DIR		511	4-248-206-01	WASHER (3-1-0.4)	
504	4-245-642-01	GEAR (IDL-B)		512	4-245-624-01	LEVER, CLOSE	
505	4-245-814-01	LEVER (DIR FIRST)		513	4-245-635-01	SPR-E LEVER CLOSE	
506	4-245-633-01	SPR-E DIR BACK		514	4-245-629-01	GEAR (BU LOCK)	
507	4-245-660-01	LEVER (DIR)		515	4-245-644-01	GEAR (IDL-D)	
508	4-245-641-01	GEAR (IDL-A)		516	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
509	4-245-640-01	GEAR (CAP)					

7-10. BASE UNIT SECTION
(BU-F1BD81A)



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
651	A-4751-431-A	CD BOARD, COMPLETE		660	4-951-620-01	SCREW (2.6X8), +BVTP	
Δ 657	8-820-244-11	OPTICAL PICK-UP KSM-215DCP/C2NP		S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	
658	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)					

NOTE:

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

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

60

AMP

CD

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R503	1-216-821-11	METAL CHIP	1K	5%	1/10W	R622	1-216-837-11	METAL CHIP	22K	5%	1/10W
R505	1-216-864-11	SHORT CHIP	0			R624	1-216-821-11	METAL CHIP	1K	5%	1/10W
R506	1-216-822-11	METAL CHIP	1.2K	5%	1/10W (GPX7)	R625	1-216-809-11	METAL CHIP	100	5%	1/10W
R506	1-216-824-11	METAL CHIP	1.8K	5%	1/10W (GPX6)	R626	1-216-809-11	METAL CHIP	100	5%	1/10W
R507	1-216-842-11	METAL CHIP	56K	5%	1/10W	R628	1-216-853-11	METAL CHIP	470K	5%	1/10W
R508	1-216-821-11	METAL CHIP	1K	5%	1/10W	< THERMISTOR (POSITIVE) >					
R509	1-216-835-11	METAL CHIP	15K	5%	1/10W	THP821	1-807-796-11	THERMISTOR (US, AEP, AR)			
△ R510	1-220-755-11	METAL	0.22	10%	2W F	*****					
R511	1-216-845-11	METAL CHIP	100K	5%	1/10W	A-4751-431-A	CD BOARD, COMPLETE				
R512	1-260-076-11	CARBON	10	5%	1/2W	*****					
R513	1-216-841-11	METAL CHIP	47K	5%	1/10W	< CAPACITOR/SHORT >					
△ R514	1-215-890-11	METAL OXIDE	470	5%	2W F	C10	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
R515	1-216-845-11	METAL CHIP	100K	5%	1/10W	C11	1-165-989-11	CERAMIC CHIP	10uF	10%	6.3V
R551	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C14	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R552	1-216-842-11	METAL CHIP	56K	5%	1/10W	C15	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R553	1-216-821-11	METAL CHIP	1K	5%	1/10W	C16	1-115-156-11	CERAMIC CHIP	1uF		10V
R555	1-216-864-11	SHORT CHIP	0			C17	1-126-246-11	ELECT CHIP	220uF	20%	4V
R556	1-216-822-11	METAL CHIP	1.2K	5%	1/10W (GPX7)	C18	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R556	1-216-824-11	METAL CHIP	1.8K	5%	1/10W (GPX6)	C111	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
R557	1-216-842-11	METAL CHIP	56K	5%	1/10W	C112	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
R558	1-216-821-11	METAL CHIP	1K	5%	1/10W	C113	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
R559	1-216-835-11	METAL CHIP	15K	5%	1/10W	C114	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
△ R560	1-220-755-11	METAL	0.22	10%	2W F	C115	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R561	1-216-845-11	METAL CHIP	100K	5%	1/10W	C116	1-128-995-21	ELECT CHIP	100uF	20%	10V
R562	1-260-076-11	CARBON	10	5%	1/2W	C122	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R563	1-216-842-11	METAL CHIP	56K	5%	1/10W	C123	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
△ R564	1-215-890-11	METAL OXIDE	470	5%	2W F	C124	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
R565	1-216-845-11	METAL CHIP	100K	5%	1/10W	C125	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R601	1-216-833-11	METAL CHIP	10K	5%	1/10W	C131	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R602	1-216-849-11	METAL CHIP	220K	5%	1/10W	C132	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V
R603	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C133	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
R604	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C134	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R605	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	C141	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
△ R606	1-202-972-61	FUSIBLE	1	5%	1/4W F	C142	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
△ R607	1-202-972-61	FUSIBLE	1	5%	1/4W F	C143	1-164-360-11	CERAMIC CHIP	0.1uF		16V
△ R608	1-212-881-11	FUSIBLE	100	5%	1/4W F	C151	1-128-995-21	ELECT CHIP	100uF	20%	10V
R609	1-216-833-11	METAL CHIP	10K	5%	1/10W	C161	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R610	1-216-839-11	METAL CHIP	33K	5%	1/10W	C162	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R611	1-216-833-11	METAL CHIP	10K	5%	1/10W	C163	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R612	1-216-845-11	METAL CHIP	100K	5%	1/10W	C171	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
R613	1-216-833-11	METAL CHIP	10K	5%	1/10W	C172	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
R614	1-216-833-11	METAL CHIP	10K	5%	1/10W	C174	1-164-360-11	CERAMIC CHIP	0.1uF		16V
△ R615	1-215-890-11	METAL OXIDE	470	5%	2W F (HK, SP, KR, AUS)	C181	1-164-360-11	CERAMIC CHIP	0.1uF		16V
△ R615	1-216-455-11	METAL OXIDE	560	5%	2W F (US, AEP, AR)	C182	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R616	1-216-833-11	METAL CHIP	10K	5%	1/10W (US, AEP, AR)	C183	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
R617	1-216-833-11	METAL CHIP	10K	5%	1/10W (US, AEP, AR)	C184	1-124-778-00	ELECT CHIP	22uF	20%	6.3V
R618	1-216-833-11	METAL CHIP	10K	5%	1/10W (US, AEP, AR)	C185	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
R619	1-216-821-11	METAL CHIP	1K	5%	1/10W	C186	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
R620	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	C194	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R621	1-216-845-11	METAL CHIP	100K	5%	1/10W	C195	1-164-360-11	CERAMIC CHIP	0.1uF		16V
						C196	1-164-360-11	CERAMIC CHIP	0.1uF		16V
						C201	1-128-995-21	ELECT CHIP	100uF	20%	10V
						C203	1-128-995-21	ELECT CHIP	100uF	20%	10V
						C209	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
						C210	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V

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

HCD-GPX6/GPX7

CD	DRIVER
----	--------

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C211	1-164-230-11	CERAMIC CHIP 220PF 5%	50V	R133	1-216-848-11	METAL CHIP 180K 5%	1/10W
C212	1-162-919-11	CERAMIC CHIP 22PF 5%	50V	R141	1-216-829-11	METAL CHIP 4.7K 5%	1/10W
C213	1-162-919-11	CERAMIC CHIP 22PF 5%	50V	R142	1-216-821-11	METAL CHIP 1K 5%	1/10W
C251	1-162-969-11	CERAMIC CHIP 0.0068uF 10%	25V	R143	1-216-827-11	METAL CHIP 3.3K 5%	1/10W
C252	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R151	1-216-864-11	SHORT CHIP 0	
C255	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R161	1-216-809-11	METAL CHIP 100 5%	1/10W
C257	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R162	1-216-841-11	METAL CHIP 47K 5%	1/10W
C258	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R163	1-216-809-11	METAL CHIP 100 5%	1/10W
C259	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R165	1-216-864-11	SHORT CHIP 0	
C260	1-128-394-11	ELECT CHIP 220uF 20%	10V	R171	1-216-817-11	METAL CHIP 470 5%	1/10W
C302	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R172	1-216-857-11	METAL CHIP 1M 5%	1/10W
C303	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R173	1-216-295-00	SHORT CHIP 0	
C305	1-126-246-11	ELECT CHIP 220uF 20%	4V	R181	1-216-809-11	METAL CHIP 100 5%	1/10W
C306	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R182	1-216-809-11	METAL CHIP 100 5%	1/10W
C307	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R191	1-216-864-11	SHORT CHIP 0	
C308	1-126-208-21	ELECT CHIP 47uF 20%	4V	R201	1-500-445-21	FERRITE, EMI (SMD) (2012)	
C309	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R203	1-216-864-11	SHORT CHIP 0	
C310	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R204	1-500-445-21	FERRITE, EMI (SMD) (2012)	
C311	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R205	1-216-864-11	SHORT CHIP 0	
C312	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R251	1-216-833-11	METAL CHIP 10K 5%	1/10W
C313	1-164-360-11	CERAMIC CHIP 0.1uF	16V	R252	1-216-837-11	METAL CHIP 22K 5%	1/10W
C314	1-126-208-21	ELECT CHIP 47uF 20%	4V	R253	1-216-833-11	METAL CHIP 10K 5%	1/10W
C315	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	R301	1-216-845-11	METAL CHIP 100K 5%	1/10W
C316	1-162-966-11	CERAMIC CHIP 0.0022uF 10%	50V	R302	1-216-833-11	METAL CHIP 10K 5%	1/10W
C317	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	R303	1-216-845-11	METAL CHIP 100K 5%	1/10W
C318	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	R305	1-216-845-11	METAL CHIP 100K 5%	1/10W
C320	1-216-864-11	SHORT CHIP 0		R306	1-216-864-11	SHORT CHIP 0	
< CONNECTOR >				R307	1-216-833-11	METAL CHIP 10K 5%	1/10W
CN101	1-770-425-11	CONNECTOR, FFC/FPC 16P		R313	1-216-813-11	METAL CHIP 220 5%	1/10W
CN201	1-818-350-11	CONNECTOR (FFC) 27P		R351	1-216-809-11	METAL CHIP 100 5%	1/10W
< FERRITE BEAD >				R352	1-216-809-11	METAL CHIP 100 5%	1/10W
FB301	1-500-445-21	FERRITE, EMI (SMD) (2012)		R353	1-216-809-11	METAL CHIP 100 5%	1/10W
< IC >				R354	1-216-809-11	METAL CHIP 100 5%	1/10W
IC101	8-752-425-12	IC CXD3059AR		R401	1-216-809-11	METAL CHIP 100 5%	1/10W
IC251	6-705-808-01	IC BA5947FM		R402	1-216-809-11	METAL CHIP 100 5%	1/10W
IC301	6-705-365-01	IC TC94A34FG-002		R403	1-216-809-11	METAL CHIP 100 5%	1/10W
IC303	6-705-807-01	IC BH15FB1WG		R404	1-216-809-11	METAL CHIP 100 5%	1/10W
< TRANSISTOR >				R405	1-216-809-11	METAL CHIP 100 5%	1/10W
Q10	6-550-363-01	TRANSISTOR 2SB1690KT146		R406	1-216-809-11	METAL CHIP 100 5%	1/10W
< RESISTOR/FERRITE BEAD >				R407	1-216-809-11	METAL CHIP 100 5%	1/10W
R10	1-216-791-11	METAL CHIP 3.3 5%	1/10W	R408	1-216-809-11	METAL CHIP 100 5%	1/10W
R11	1-216-864-11	SHORT CHIP 0		R409	1-216-809-11	METAL CHIP 100 5%	1/10W
R12	1-216-845-11	METAL CHIP 100K 5%	1/10W	R410	1-216-809-11	METAL CHIP 100 5%	1/10W
R13	1-218-446-11	METAL CHIP 1 5%	1/10W	R411	1-216-809-11	METAL CHIP 100 5%	1/10W
R111	1-216-821-11	METAL CHIP 1K 5%	1/10W	R412	1-216-809-11	METAL CHIP 100 5%	1/10W
R112	1-216-835-11	METAL CHIP 15K 5%	1/10W	R419	1-216-809-11	METAL CHIP 100 5%	1/10W
R113	1-216-821-11	METAL CHIP 1K 5%	1/10W	< VIBRATOR >			
R114	1-216-835-11	METAL CHIP 15K 5%	1/10W	X171	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)	
R121	1-216-835-11	METAL CHIP 15K 5%	1/10W	*****			
R131	1-216-857-11	METAL CHIP 1M 5%	1/10W	1-688-337-11	DRIVER BOARD		
R132	1-216-833-11	METAL CHIP 10K 5%	1/10W	*****			
< CAPACITOR >				C705	1-162-306-11	CERAMIC 0.01uF 20%	16V
				C711	1-126-964-11	ELECT 10uF 20%	50V

DRIVER

MAIN

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
		< CONNECTOR >					C133	1-130-495-00	MYLAR	0.1uF	5%	50V (AEP, KR)	
CN701	1-785-333-11	PIN, CONNECTOR (LIGHT ANGLE) 7P					C134	1-130-495-00	MYLAR	0.1uF	5%	50V (AEP, KR)	
		< DIODE >					C135	1-162-306-11	CERAMIC	0.01uF	20%	16V	
D701	8-719-921-40	DIODE MTZJ-4.7C					C137	1-126-965-11	ELECT	22uF	20%	50V	
		< IC >					C138	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	
IC701	8-759-598-69	IC BA6956AN					C141	1-126-964-11	ELECT	10uF	20%	50V	
		< RESISTOR >					C201	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	
R701	1-249-415-11	CARBON	680	5%	1/4W		C202	1-126-964-11	ELECT	10uF	20%	50V	
R702	1-247-807-31	CARBON	100	5%	1/4W		C203	1-162-963-11	CERAMIC CHIP	680PF	10%	50V	
		< SWITCH >					C205	1-162-961-11	CERAMIC CHIP	330PF	10%	50V	
S701	1-762-951-13	SWITCH, PUSH (OUT)					C206	1-162-946-11	CERAMIC CHIP	27PF	5%	50V	
S702	1-762-951-13	SWITCH, PUSH (CHUCK)					C207	1-130-479-00	MYLAR	0.0047uF	5%	50V	
S703	1-762-951-13	SWITCH, PUSH (TRIGGER)					C209	1-126-964-11	ELECT	10uF	20%	50V	
*****							C210	1-126-964-11	ELECT	10uF	20%	50V	
		A-1052-489-A	MAIN BOARD, COMPLETE (US)				C211	1-162-961-11	CERAMIC CHIP	330PF	10%	50V	
		A-1059-491-A	MAIN BOARD, COMPLETE (HK, SP)				C212	1-162-961-11	CERAMIC CHIP	330PF	10%	50V	
		A-1059-528-A	MAIN BOARD, COMPLETE (KR)				C213	1-164-174-11	CERAMIC CHIP	0.0082uF	10%	25V	
		A-1059-562-A	MAIN BOARD, COMPLETE (AUS)				C214	1-126-960-11	ELECT	1uF	20%	50V	
		A-1061-983-A	MAIN BOARD, COMPLETE (AR)				C215	1-126-964-11	ELECT	10uF	20%	50V	
		A-4751-274-A	MAIN BOARD, COMPLETE (AEP)				C216	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	
		*****					C217	1-126-964-11	ELECT	10uF	20%	50V	
		< CAPACITOR >					C218	1-126-964-11	ELECT	10uF	20%	50V	
C101	1-162-960-11	CERAMIC CHIP	220PF	10%	50V		C219	1-126-964-11	ELECT	10uF	20%	50V	
C102	1-126-964-11	ELECT	10uF	20%	50V		C222	1-130-475-00	MYLAR	0.0022uF	5%	50V (GPX6)	
C103	1-162-963-11	CERAMIC CHIP	680PF	10%	50V		C222	1-130-476-00	MYLAR	0.0027uF	5%	50V (GPX7)	
C105	1-162-961-11	CERAMIC CHIP	330PF	10%	50V		C223	1-130-495-00	MYLAR	0.1uF	5%	50V (GPX6)	
C106	1-162-946-11	CERAMIC CHIP	27PF	5%	50V		C223	1-130-499-00	MYLAR	0.22uF	5%	50V (GPX7)	
C107	1-130-479-00	MYLAR	0.0047uF	5%	50V		C224	1-126-967-11	ELECT	47uF	20%	50V	
C109	1-126-964-11	ELECT	10uF	20%	50V		C225	1-126-965-11	ELECT	22uF	20%	50V	
C110	1-126-964-11	ELECT	10uF	20%	50V		C228	1-126-964-11	ELECT	10uF	20%	50V	
C111	1-162-961-11	CERAMIC CHIP	330PF	10%	50V		C231	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	
C112	1-162-961-11	CERAMIC CHIP	330PF	10%	50V		C233	1-130-495-00	MYLAR	0.1uF	5%	50V (AEP, KR)	
C113	1-164-174-11	CERAMIC CHIP	0.0082uF	10%	25V		C234	1-130-495-00	MYLAR	0.1uF	5%	50V (AEP, KR)	
C114	1-126-960-11	ELECT	1uF	20%	50V		C235	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C115	1-126-964-11	ELECT	10uF	20%	50V		C237	1-126-965-11	ELECT	22uF	20%	50V	
C116	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V		C238	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	
C117	1-126-964-11	ELECT	10uF	20%	50V		C241	1-126-964-11	ELECT	10uF	20%	50V	
C118	1-126-964-11	ELECT	10uF	20%	50V		C302	1-137-150-11	FILM	0.01uF	5%	100V	
C119	1-126-964-11	ELECT	10uF	20%	50V		C303	1-124-257-00	ELECT	2.2uF	20%	50V	
C122	1-130-475-00	MYLAR	0.0022uF	5%	50V (GPX6)		C304	1-126-964-11	ELECT	10uF	20%	50V	
C122	1-130-476-00	MYLAR	0.0027uF	5%	50V (GPX7)		C305	1-126-947-11	ELECT	47uF	20%	35V	
C123	1-130-495-00	MYLAR	0.1uF	5%	50V (GPX6)		C306	1-126-964-11	ELECT	10uF	20%	50V	
							C307	1-130-485-00	MYLAR	0.015uF	5%	50V	
							C308	1-130-481-00	MYLAR	0.0068uF	5%	50V	
							C309	1-130-481-00	MYLAR	0.0068uF	5%	50V	
C123	1-130-499-00	MYLAR	0.22uF	5%	50V (GPX7)		C310	1-130-486-00	MYLAR	0.018uF	5%	50V	
C124	1-126-967-11	ELECT	47uF	20%	50V		C314	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
C125	1-126-965-11	ELECT	22uF	20%	50V		C317	1-126-965-11	ELECT	22uF	20%	50V	
C128	1-126-964-11	ELECT	10uF	20%	50V		C318	1-126-935-11	ELECT	470uF	20%	16V	
C131	1-162-962-11	CERAMIC CHIP	470PF	10%	50V		C319	1-126-935-11	ELECT	470uF	20%	16V	
							C320	1-126-934-11	ELECT	220uF	20%	16V	

HCD-GPX6/GPX7

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark
C321	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	CN306	1-568-828-11	CONNECTOR, FFC 9P	
C322	1-126-934-11	ELECT	220uF	20%	16V	CN310	1-568-838-11	CONNECTOR, FFC 21P	
C324	1-126-963-11	ELECT	4.7uF	20%	50V	CN313	1-564-506-11	PLUG, CONNECTOR 3P (US, AEP, AR)	
				(US, AEP, AR)					
C325	1-126-935-11	ELECT	470uF	20%	16V			< DIODE >	
C326	1-130-483-00	MYLAR	0.01uF	5%	50V	D301	8-719-991-33	DIODE 1SS133T-77	
C327	1-130-483-00	MYLAR	0.01uF	5%	50V	D302	8-719-991-33	DIODE 1SS133T-77	
C328	1-126-927-11	ELECT	2200uF	20%	10V	D303	8-719-991-33	DIODE 1SS133T-77	
C329	1-126-964-11	ELECT	10uF	20%	50V	D304	8-719-991-33	DIODE 1SS133T-77	
C330	1-126-935-11	ELECT	470uF	20%	16V	D305	8-719-991-33	DIODE 1SS133T-77	
C331	1-126-935-11	ELECT	470uF	20%	16V	D306	8-719-991-33	DIODE 1SS133T-77	
C333	1-126-964-11	ELECT	10uF	20%	50V	D307	8-719-991-33	DIODE 1SS133T-77	
C334	1-164-156-11	CERAMIC CHIP	0.1uF		25V	D308	8-719-991-33	DIODE 1SS133T-77	
C335	1-164-156-11	CERAMIC CHIP	0.1uF		25V	D309	8-719-991-33	DIODE 1SS133T-77	
C336	1-126-916-11	ELECT	1000uF	20%	6.3V	D310	6-500-522-01	DIODE 10EDB40-TA1B2	
C337	1-127-888-21	CERAMIC	0.1uF	10%	50V	D311	6-500-522-01	DIODE 10EDB40-TA1B2	
C338	1-164-160-11	CERAMIC CHIP	20PF	5%	50V	D312	6-500-522-01	DIODE 10EDB40-TA1B2	
C339	1-162-917-11	CERAMIC CHIP	15PF	5%	50V	D313	8-719-991-33	DIODE 1SS133T-77 (US, AEP, AR)	
C340	1-164-156-11	CERAMIC CHIP	0.1uF		25V	D314	8-719-991-33	DIODE 1SS133T-77	
C342	1-164-156-11	CERAMIC CHIP	0.1uF		25V	D316	8-719-991-33	DIODE 1SS133T-77 (AEP)	
C343	1-126-927-11	ELECT	2200uF	20%	10V	D317	8-719-991-33	DIODE 1SS133T-77	
C344	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	D318	8-719-991-33	DIODE 1SS133T-77	
C345	1-128-809-11	CERAMIC	100PF	5%	50V	D319	8-719-991-33	DIODE 1SS133T-77	
C346	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	D325	8-719-991-33	DIODE 1SS133T-77	
C347	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	D326	8-719-991-33	DIODE 1SS133T-77	
C348	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	D327	8-719-991-33	DIODE 1SS133T-77	
C349	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	D328	8-719-921-88	DIODE MTZJ-13B (US, AEP, AR)	
C350	1-128-809-11	CERAMIC	100PF	5%	50V	D329	8-719-988-61	DIODE 1SS355TE-17	
C351	1-128-809-11	CERAMIC	100PF	5%	50V	D330	8-719-988-61	DIODE 1SS355TE-17	
C352	1-164-156-11	CERAMIC CHIP	0.1uF		25V	D331	6-500-522-01	DIODE 10EDB40-TA1B2	
C353	1-126-926-11	ELECT	1000uF	20%	10V			< FERRITE BEAD/SHORT >	
C354	1-128-809-11	CERAMIC	100PF	5%	50V	FB301	1-412-473-21	INDUCTOR (SMALL TYPE)	
C355	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	FB302	1-216-864-11	SHORT CHIP 0	
C356	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	FB303	1-216-864-11	SHORT CHIP 0	
C357	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	FB304	1-216-864-11	SHORT CHIP 0	
C358	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	FB305	1-216-864-11	SHORT CHIP 0	
C359	1-162-927-11	CERAMIC CHIP	100PF	5%	50V				
C362	1-164-156-11	CERAMIC CHIP	0.1uF		25V	FB306	1-216-864-11	SHORT CHIP 0	
C367	1-126-926-11	ELECT	1000uF	20%	10V	FB307	1-500-445-21	FERRITE, EMI (SMD) (2012)	
C368	1-164-156-11	CERAMIC CHIP	0.1uF		25V	FB308	1-216-295-00	SHORT CHIP 0	
C371	1-164-156-11	CERAMIC CHIP	0.1uF		25V	FB309	1-500-445-21	FERRITE, EMI (SMD) (2012)	
C372	1-164-156-11	CERAMIC CHIP	0.1uF		25V			< IC >	
C373	1-126-947-11	ELECT	47uF	20%	35V	IC301	8-759-508-69	IC BA3126N	
C374	1-126-964-11	ELECT	10uF	20%	50V	IC302	6-705-622-01	IC BD3402KS2	
				(US, AEP, AR)		IC304	8-759-701-59	IC NJM78M09FA	
C391	1-127-888-21	CERAMIC	0.1uF	10%	50V	IC305	6-801-402-01	IC BD4729GTR	
C393	1-127-888-21	CERAMIC	0.1uF	10%	50V	IC306	6-803-818-01	IC M3062CMEN-A00FPU0	
C394	1-127-888-21	CERAMIC	0.1uF	10%	50V			< JACK >	
C395	1-104-656-11	ELECT	2200uF	20%	6.3V	J301	1-764-593-21	JACK 2P (MD/VIDEO)	
C396	1-164-156-11	CERAMIC CHIP	0.1uF		25V			< SHORT >	
C397	1-164-156-11	CERAMIC CHIP	0.1uF		25V				
		< CONNECTOR >							
* CN301	1-564-511-11	PLUG, CONNECTOR 8P				JW200	1-216-295-00	SHORT CHIP 0	
CN302	1-770-516-31	FFC/CONNECTOR, FPC (LIF (NON-ZIF)) 8P				JW241	1-216-864-11	SHORT CHIP 0	
CN304	1-779-295-11	CONNECTOR, FFC (LIF (NON-ZIF)) 27P				JW302	1-216-864-11	SHORT CHIP 0	
CN305	1-568-830-11	CONNECTOR, FFC 11P (EXCEPT AEP)							
CN305	1-784-776-11	CONNECTOR, FFC 15P (AEP)							

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
< COIL >							R127	1-216-821-11	METAL CHIP	1K	5%	1/10W	
							R128	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
L102	1-422-009-13	COIL, AIR-CORE					R201	1-216-821-11	METAL CHIP	1K	5%	1/10W	
L202	1-422-009-13	COIL, AIR-CORE					R202	1-216-841-11	METAL CHIP	47K	5%	1/10W	
L302	1-414-857-11	INDUCTOR	100uH				R203	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	
< TRANSISTOR >							R204	1-216-833-11	METAL CHIP	10K	5%	1/10W	
							R205	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
Q102	8-729-107-43	TRANSISTOR	2SC3624-L18				R206	1-216-841-11	METAL CHIP	47K	5%	1/10W	
Q202	8-729-107-43	TRANSISTOR	2SC3624-L18				R207	1-216-845-11	METAL CHIP	100K	5%	1/10W	
Q301	8-729-037-16	TRANSISTOR	KRA103M-AT				R208	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
Q302	8-729-036-58	TRANSISTOR	KRC102M-AT										
Q303	8-729-142-46	TRANSISTOR	2SC2001-LK				R209	1-216-851-11	METAL CHIP	330K	5%	1/10W	
							R210	1-216-853-11	METAL CHIP	470K	5%	1/10W	
Q304	8-729-142-46	TRANSISTOR	2SC2001-LK				R211	1-216-812-11	METAL CHIP	180	5%	1/10W	
Q305	8-729-801-93	TRANSISTOR	2SD1387-3				R212	1-216-830-11	METAL CHIP	5.6K	5%	1/10W	
Q306	8-729-037-03	TRANSISTOR	KTA1266GR-AT				R213	1-216-847-11	METAL CHIP	150K	5%	1/10W	
Q307	8-729-036-58	TRANSISTOR	KRC102M-AT										
Q308	8-729-037-13	TRANSISTOR	KTA1271Y				R214	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	
							R218	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
Q309	8-729-054-16	TRANSISTOR	KRC402-RTK				R220	1-216-841-11	METAL CHIP	47K	5%	1/10W	
Q310	8-729-037-13	TRANSISTOR	KTA1271Y										(US, AEP, AR)
Q311	8-729-054-16	TRANSISTOR	KRC402-RTK				R222	1-260-076-11	CARBON	10	5%	1/2W	
Q312	8-729-040-76	TRANSISTOR	KTA1273-Y-AT										(AEP, KR)
Q313	8-729-038-67	TRANSISTOR	KRC102S				R223	1-216-821-11	METAL CHIP	1K	5%	1/10W	
							R224	1-216-845-11	METAL CHIP	100K	5%	1/10W	
Q314	8-729-016-42	TRANSISTOR	KTC3199GR-TP				R226	1-249-429-11	CARBON	10K	5%	1/4W	
Q315	8-729-040-76	TRANSISTOR	KTA1273-Y-AT (US, AEP, AR)				R227	1-216-821-11	METAL CHIP	1K	5%	1/10W	
Q316	8-729-016-42	TRANSISTOR	KTC3199GR-TP			(US, AEP, AR)	R228	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
Q317	8-729-038-54	TRANSISTOR	KRA102S				R301	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
Q318	8-729-038-67	TRANSISTOR	KRC102S				△ R302	1-212-851-00	FUSIBLE	5.6	5%	1/4W F	
Q319	8-729-040-76	TRANSISTOR	KTA1273-Y-AT				△ R303	1-212-851-00	FUSIBLE	5.6	5%	1/4W F	
Q320	8-729-038-67	TRANSISTOR	KRC102S				R304	1-216-836-11	METAL CHIP	18K	5%	1/10W	
Q321	8-729-036-58	TRANSISTOR	KRC102M-AT				R305	1-216-836-11	METAL CHIP	18K	5%	1/10W	
Q322	8-729-037-13	TRANSISTOR	KTA1271Y				R306	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
Q323	8-729-038-67	TRANSISTOR	KRC102S										
							R307	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W	
Q324	8-729-028-54	TRANSISTOR	KTC3205 (US, AEP, AR)				R308	1-216-837-11	METAL CHIP	22K	5%	1/10W	
< RESISTOR >							R309	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
							R310	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R101	1-216-821-11	METAL CHIP	1K	5%	1/10W		R311	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R102	1-216-841-11	METAL CHIP	47K	5%	1/10W								
R103	1-216-830-11	METAL CHIP	5.6K	5%	1/10W		R312	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R104	1-216-833-11	METAL CHIP	10K	5%	1/10W		R314	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R105	1-216-825-11	METAL CHIP	2.2K	5%	1/10W		R315	1-216-821-11	METAL CHIP	1K	5%	1/10W	
							R318	1-249-429-11	CARBON	10K	5%	1/4W	
R106	1-216-841-11	METAL CHIP	47K	5%	1/10W		R319	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R107	1-216-845-11	METAL CHIP	100K	5%	1/10W								
R108	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		R320	1-216-841-11	METAL CHIP	47K	5%	1/10W	
R109	1-216-851-11	METAL CHIP	330K	5%	1/10W		R321	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R110	1-216-853-11	METAL CHIP	470K	5%	1/10W		R322	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
							R323	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
R111	1-216-812-11	METAL CHIP	180	5%	1/10W		R324	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R112	1-216-830-11	METAL CHIP	5.6K	5%	1/10W								
R113	1-216-847-11	METAL CHIP	150K	5%	1/10W		R325	1-249-429-11	CARBON	10K	5%	1/4W	
R114	1-216-827-11	METAL CHIP	3.3K	5%	1/10W		R326	1-216-845-11	METAL CHIP	100K	5%	1/10W	
R118	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		R327	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	
													(US, AEP, AR)
R120	1-216-841-11	METAL CHIP	47K	5%	1/10W		R328	1-216-833-11	METAL CHIP	10K	5%	1/10W	
					(US, AEP, AR)								(US, AEP, AR)
R122	1-260-076-11	CARBON	10	5%	1/2W		R329	1-216-845-11	METAL CHIP	100K	5%	1/10W	
					(AEP, KR)								(US, AEP, AR)
R123	1-216-821-11	METAL CHIP	1K	5%	1/10W		R330	1-216-813-11	METAL CHIP	220	5%	1/10W	
R124	1-216-845-11	METAL CHIP	100K	5%	1/10W		R331	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R126	1-249-429-11	CARBON	10K	5%	1/4W		R332	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
							R333	1-216-837-11	METAL CHIP	22K	5%	1/10W	

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

HCD-GPX6/GPX7

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R334	1-216-841-11	METAL CHIP	47K	5%	1/10W	R423	1-216-809-11	METAL CHIP	100	5%	1/10W
R335	1-249-429-11	CARBON	10K	5%	1/4W	R424	1-216-809-11	METAL CHIP	100	5%	1/10W
R339	1-216-841-11	METAL CHIP	47K	5%	1/10W	R425	1-216-809-11	METAL CHIP	100	5%	1/10W
R340	1-216-841-11	METAL CHIP	47K	5%	1/10W	R426	1-216-809-11	METAL CHIP	100	5%	1/10W
R341	1-216-841-11	METAL CHIP	47K	5%	1/10W	R427	1-216-809-11	METAL CHIP	100	5%	1/10W
R342	1-216-841-11	METAL CHIP	47K	5%	1/10W	R428	1-216-809-11	METAL CHIP	100	5%	1/10W
R350	1-249-425-11	CARBON	4.7K	5%	1/4W	R432	1-216-809-11	METAL CHIP	100	5%	1/10W
R358	1-216-841-11	METAL CHIP	47K	5%	1/10W	R433	1-216-809-11	METAL CHIP	100	5%	1/10W
R359	1-216-841-11	METAL CHIP	47K	5%	1/10W	R434	1-216-809-11	METAL CHIP	100	5%	1/10W
R360	1-216-841-11	METAL CHIP	47K	5%	1/10W	R435	1-216-809-11	METAL CHIP	100	5%	1/10W
R361	1-249-429-11	CARBON	10K	5%	1/4W	R436	1-216-809-11	METAL CHIP	100	5%	1/10W
R362	1-249-429-11	CARBON	10K	5%	1/4W	R437	1-216-809-11	METAL CHIP	100	5%	1/10W
R363	1-216-833-11	METAL CHIP	10K	5%	1/10W	R438	1-216-809-11	METAL CHIP	100	5%	1/10W
R366	1-216-864-11	SHORT CHIP	0 (HK, SP, KR)			R439	1-216-809-11	METAL CHIP	100	5%	1/10W
R366	1-249-419-11	CARBON	1.5K	5%	1/4W	R440	1-216-809-11	METAL CHIP	100	5%	1/10W
R366	1-249-425-11	CARBON	4.7K	5%	1/4W (AUS) (US, AR)	R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R367	1-216-821-11	METAL CHIP	1K	5%	1/10W (AR)	R442	1-216-809-11	METAL CHIP	100	5%	1/10W
R367	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (US)	R443	1-216-809-11	METAL CHIP	100	5%	1/10W
R367	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AUS)	R453	1-216-809-11	METAL CHIP	100	5%	1/10W
R367	1-216-864-11	SHORT CHIP	0 (AEP)			R455	1-216-809-11	METAL CHIP	100	5%	1/10W
R368	1-247-843-11	CARBON	3.3K	5%	1/4W	R457	1-216-809-11	METAL CHIP	100	5%	1/10W
R369	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R458	1-216-809-11	METAL CHIP	100	5%	1/10W
R370	1-216-827-11	METAL CHIP	3.3K	5%	1/10W	R459	1-216-809-11	METAL CHIP	100	5%	1/10W
R372	1-249-437-11	CARBON	47K	5%	1/4W	R460	1-216-809-11	METAL CHIP	100	5%	1/10W
R373	1-249-437-11	CARBON	47K	5%	1/4W	R461	1-216-809-11	METAL CHIP	100	5%	1/10W
R374	1-216-841-11	METAL CHIP	47K	5%	1/10W	R463	1-216-809-11	METAL CHIP	100	5%	1/10W
R375	1-216-821-11	METAL CHIP	1K	5%	1/10W	R465	1-216-809-11	METAL CHIP	100	5%	1/10W
R377	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT AEP)	R468	1-216-809-11	METAL CHIP	100	5%	1/10W
R378	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT AEP)	R469	1-216-809-11	METAL CHIP	100	5%	1/10W
R379	1-216-833-11	METAL CHIP	10K	5%	1/10W	R472	1-216-809-11	METAL CHIP	100	5%	1/10W
R381	1-216-841-11	METAL CHIP	47K	5%	1/10W	R474	1-216-857-11	METAL CHIP	1M	5%	1/10W
R382	1-216-821-11	METAL CHIP	1K	5%	1/10W	R475	1-216-809-11	METAL CHIP	100	5%	1/10W
R390	1-216-841-11	METAL CHIP	47K	5%	1/10W	R482	1-216-809-11	METAL CHIP	100	5%	1/10W
R391	1-216-841-11	METAL CHIP	47K	5%	1/10W	R484	1-216-809-11	METAL CHIP	100	5%	1/10W
R393	1-216-841-11	METAL CHIP	47K	5%	1/10W	R489	1-216-864-11	SHORT CHIP	0		
R394	1-216-821-11	METAL CHIP	1K	5%	1/10W	R490	1-216-864-11	SHORT CHIP	0		
R395	1-216-821-11	METAL CHIP	1K	5%	1/10W	R491	1-216-864-11	SHORT CHIP	0		
R396	1-216-839-11	METAL CHIP	33K	5%	1/10W	R494	1-247-807-31	CARBON	100	5%	1/4W
R397	1-216-817-11	METAL CHIP	470	5%	1/10W (US, AEP, AR)	R495	1-247-807-31	CARBON	100	5%	1/4W
R404	1-216-833-11	METAL CHIP	10K	5%	1/10W	R496	1-249-429-11	CARBON	10K	5%	1/4W
R405	1-216-809-11	METAL CHIP	100	5%	1/10W	< VARIABLE RESISTOR >					
R406	1-216-809-11	METAL CHIP	100	5%	1/10W	RV101	1-241-768-11	RES, ADJ CERMET		220K	
R409	1-216-833-11	METAL CHIP	10K	5%	1/10W	RV201	1-241-768-11	RES, ADJ CERMET		220K	
R411	1-216-821-11	METAL CHIP	1K	5%	1/10W	< RELAY >					
R412	1-216-821-11	METAL CHIP	1K	5%	1/10W	RY301	1-515-920-11	RELAY (24V)			
R413	1-216-864-11	SHORT CHIP	0			< TRANSFORMER >					
R417	1-216-833-11	METAL CHIP	10K	5%	1/10W	T101	1-419-080-21	COIL			
R418	1-247-807-31	CARBON	100	5%	1/4W	T201	1-419-080-21	COIL			
R419	1-247-807-31	CARBON	100	5%	1/4W	T301	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			
R420	1-216-841-11	METAL CHIP	47K	5%	1/10W	< TERMINAL >					
R422	1-216-809-11	METAL CHIP	100	5%	1/10W	TM301	1-536-708-81	TERMINAL BOARD, PUSH (4P) (SPEAKER IMPEDANCE USE 6-16Ω)			

MAIN

PANEL (1)

Ref. No.	Part No.	Description	Remark
< VIBRATOR >			
X301	1-760-252-12	VIBRATOR, CRYSTAL (32.768kHz)	
X302	1-781-107-21	VIBRATOR, CERAMIC (16MHz)	

A-4750-228-A	PANEL (1) BOARD, COMPLETE		

4-249-151-01	HOLDER, FL TUBE		
4-249-984-01	FILTER (FL TUBE)		
< CAPACITOR >			
C804	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C805	1-126-964-11	ELECT 10uF 20% 50V	
C806	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C807	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C808	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C809	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C810	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C811	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C820	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C821	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C822	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C823	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C824	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C825	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C826	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C827	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C828	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C829	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C830	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C831	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C832	1-126-964-11	ELECT 10uF 20% 50V	
C833	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C834	1-162-971-11	CERAMIC CHIP 0.001uF 10% 50V	
C835	1-162-927-11	CERAMIC CHIP 100PF 5% 50V	
C836	1-162-971-11	CERAMIC CHIP 0.001uF 10% 50V	
C837	1-107-826-11	CERAMIC CHIP 0.1uF 10% 16V	
C838	1-162-960-11	CERAMIC CHIP 220PF 10% 50V	
C839	1-162-974-11	CERAMIC CHIP 0.01uF 50V	
C840	1-126-382-11	ELECT 100uF 20% 16V	
C841	1-126-796-11	ELECT 22uF 20% 50V	
C842	1-162-968-11	CERAMIC CHIP 0.0047uF 10% 50V	
< CONNECTOR >			
CN801	1-568-838-11	CONNECTOR, FFC 21P	
< DIODE >			
D802	8-719-063-91	LED SLR325DC-P-T32 (BAND, TUNER)	
D803	8-719-063-91	LED SLR325DC-P-T32 (◀▶ TAPE)	
D804	8-719-063-93	LED SLR325VC-N-T32 (I/⌢)	
D805	8-719-982-26	DIODE MTZJ-33B	
D806	8-719-109-85	DIODE RD5.1ESB2	
D810	6-500-522-01	DIODE 10EDB40-TA1B2	
< FLUORESCENT INDICATOR TUBE >			
FL701	1-518-965-11	INDICATOR TUBE, FLUORESCENT	

Ref. No.	Part No.	Description	Remark
< IC >			
IC801	8-759-643-83	IC uPD16315GB-3BS	
IC802	6-600-174-01	IC RPM7240-H4	
< TRANSISTOR >			
Q801	8-729-038-67	TRANSISTOR KRC102S	
Q802	8-729-038-67	TRANSISTOR KRC102S	
Q803	8-729-038-67	TRANSISTOR KRC102S	
Q804	8-729-038-67	TRANSISTOR KRC102S	
Q805	8-729-037-03	TRANSISTOR KTA1266GR-AT	
Q806	8-729-037-03	TRANSISTOR KTA1266GR-AT	
Q807	8-729-037-03	TRANSISTOR KTA1266GR-AT	
Q808	8-729-037-03	TRANSISTOR KTA1266GR-AT	
< RESISTOR >			
R801	1-216-813-11	METAL CHIP 220 5% 1/10W	
R802	1-216-815-11	METAL CHIP 330 5% 1/10W	
R803	1-216-817-11	METAL CHIP 470 5% 1/10W	
R804	1-216-819-11	METAL CHIP 680 5% 1/10W	
R805	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R806	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R807	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R811	1-216-813-11	METAL CHIP 220 5% 1/10W	
R812	1-216-815-11	METAL CHIP 330 5% 1/10W	
R813	1-216-817-11	METAL CHIP 470 5% 1/10W	
R814	1-216-819-11	METAL CHIP 680 5% 1/10W	
R815	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R816	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R817	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R818	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R819	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R830	1-216-806-11	METAL CHIP 56 5% 1/10W	
R831	1-216-811-11	METAL CHIP 150 5% 1/10W	
R832	1-216-809-11	METAL CHIP 100 5% 1/10W	
R835	1-216-809-11	METAL CHIP 100 5% 1/10W	
R841	1-216-809-11	METAL CHIP 100 5% 1/10W	
R842	1-216-811-11	METAL CHIP 150 5% 1/10W	
R845	1-216-864-11	SHORT CHIP 0	
R846	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R847	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R848	1-216-844-11	METAL CHIP 82K 5% 1/10W	
R849	1-216-809-11	METAL CHIP 100 5% 1/10W	
R850	1-216-809-11	METAL CHIP 100 5% 1/10W	
R851	1-216-809-11	METAL CHIP 100 5% 1/10W	
R852	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R853	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R854	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R855	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
R856	1-249-393-11	CARBON 10 5% 1/4W	
R857	1-216-845-11	METAL CHIP 100K 5% 1/10W	
R858	1-216-833-11	METAL CHIP 10K 5% 1/10W	
R859	1-216-809-11	METAL CHIP 100 5% 1/10W	
R860	1-216-809-11	METAL CHIP 100 5% 1/10W	
R861	1-216-864-11	SHORT CHIP 0	
R862	1-216-864-11	SHORT CHIP 0	

HCD-GPX6/GPX7

PANEL (1)	PANEL (2)	POWER
-----------	-----------	-------

Ref. No.	Part No.	Description	Remark
< SWITCH >			
S701	1-762-875-21	SWITCH, KEYBOARD (I/⏻)	
S702	1-762-875-21	SWITCH, KEYBOARD (◀◀)	
S703	1-762-875-21	SWITCH, KEYBOARD (▶▶)	
S704	1-762-875-21	SWITCH, KEYBOARD (◀▶ TAPE)	
S705	1-762-875-21	SWITCH, KEYBOARD (■ (TAPE))	
S706	1-762-875-21	SWITCH, KEYBOARD (● REC, PAUSE/START)	
S707	1-762-875-21	SWITCH, KEYBOARD (CD SYNCHRO)	
S708	1-762-875-21	SWITCH, KEYBOARD (DIRECTION)	
S709	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)	
S710	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)	
S711	1-762-875-21	SWITCH, KEYBOARD (FM MODE)	
S712	1-762-875-21	SWITCH, KEYBOARD (TUNER MEMORY)	
S713	1-762-875-21	SWITCH, KEYBOARD (TUNING -)	
S714	1-762-875-21	SWITCH, KEYBOARD (TUNING +)	
S715	1-762-875-21	SWITCH, KEYBOARD (BAND, TUNER)	
S716	1-762-875-21	SWITCH, KEYBOARD (TUNING MODE)	
S717	1-762-875-21	SWITCH, KEYBOARD (DSGX)	
S801	1-418-859-21	ENCODER, ROTARY (BASS)	
S802	1-418-859-21	ENCODER, ROTARY (TREBLE)	
S803	1-476-730-11	ENCODER, ROTARY (VOLUME)	

A-4750-229-A		PANEL (2) BOARD, COMPLETE	

< CAPACITOR >			
C136	1-162-971-11	CERAMIC CHIP 0.001uF 10% 50V	
C236	1-162-971-11	CERAMIC CHIP 0.001uF 10% 50V	
< LED >			
D801	8-719-063-91	LED SLR325DC-P-T32 (▶▶ CD)	
< FERRITE BEAD >			
FB121	1-216-864-11	SHORT CHIP 0	
FB221	1-216-864-11	SHORT CHIP 0	
< JACK >			
J321	1-764-106-21	JACK (PHONES)	
< RESISTOR >			
R821	1-216-813-11	METAL CHIP 220 5% 1/10W	
R822	1-216-815-11	METAL CHIP 330 5% 1/10W	
R823	1-216-817-11	METAL CHIP 470 5% 1/10W	
R824	1-216-819-11	METAL CHIP 680 5% 1/10W	
R825	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R826	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R827	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R828	1-216-829-11	METAL CHIP 4.7K 5% 1/10W	
< SWITCH >			
S718	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE)	
S719	1-762-875-21	SWITCH, KEYBOARD (REPEAT)	
S720	1-762-875-21	SWITCH, KEYBOARD (ALBUM -)	
S721	1-762-875-21	SWITCH, KEYBOARD (ALBUM +)	
S722	1-762-875-21	SWITCH, KEYBOARD (◀◀ ▶▶)	
S723	1-762-875-21	SWITCH, KEYBOARD (▶▶ ▶▶)	

Ref. No.	Part No.	Description	Remark
S724	1-762-875-21	SWITCH, KEYBOARD (▶▶ CD)	
S725	1-762-875-21	SWITCH, KEYBOARD (■ (CD))	
S726	1-762-875-21	SWITCH, KEYBOARD (≡)	

	A-1052-488-A	POWER BOARD, COMPLETE (US)	
	A-1059-498-A	POWER BOARD, COMPLETE (HK, SP)	
	A-1059-548-A	POWER BOARD, COMPLETE (KR)	
	A-1059-564-A	POWER BOARD, COMPLETE (AUS)	
	A-1061-979-A	POWER BOARD, COMPLETE (AR)	
	A-4750-219-A	POWER BOARD, COMPLETE (AEP)	

	1-533-233-31	FUSE HOLDER	
	4-812-134-11	RIVET (DIA. 3.5), NYLON	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
		< CAPACITOR >	
C901	1-126-935-11	ELECT	470uF 20% 16V
C902	1-126-944-11	ELECT	3300uF 20% 25V
C903	1-126-935-11	ELECT	470uF 20% 16V
C904	1-126-935-11	ELECT	470uF 20% 16V
C905	1-126-944-11	ELECT	3300uF 20% 25V
C907	1-130-495-00	MYLAR	0.1uF 5% 50V
C909	1-130-495-00	MYLAR	0.1uF 5% 50V
C912	1-126-969-11	ELECT	220uF 20% 50V
C913	1-130-495-00	MYLAR	0.1uF 5% 50V
C914	1-130-495-00	MYLAR	0.1uF 5% 50V
C915	1-126-964-11	ELECT	10uF 20% 50V
		< CONNECTOR >	
* CN901	1-564-527-11	PLUG, CONNECTOR 12P	
CN903	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P	
		< DIODE >	
D901	6-500-385-01	DIODE	D3SBA20-4100 (AUS)
D901	8-719-500-56	DIODE	D3SBA20 (US, HK, SP, KR)
D901	8-719-500-60	DIODE	D5SBA20 (AEP, AR)
D902	8-719-063-79	DIODE	1N4002B
D903	8-719-063-79	DIODE	1N4002B
D904	8-719-063-79	DIODE	1N4002B
D905	8-719-063-79	DIODE	1N4002B
D906	8-719-063-79	DIODE	1N4002B
D907	8-719-063-79	DIODE	1N4002B
D908	8-719-063-79	DIODE	1N4002B
D909	8-719-063-79	DIODE	1N4002B
D910	6-500-522-01	DIODE	10EDB40-TA1B2 (EXCEPT AUS)
D910	6-500-522-11	DIODE	10EDB40-TA2B5 (AUS)
D911	8-719-991-33	DIODE	1SS133T-77
D912	8-719-991-33	DIODE	1SS133T-77
D913	8-719-991-33	DIODE	1SS133T-77
		< IC >	
IC901	8-759-231-57	IC	TA7810S
IC902	8-759-071-48	IC	TA7807S
IC903	6-701-760-01	IC	uPC3504AHF

POWER

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark			
< RESISTOR >				ACCESSORIES						

R901	1-249-417-11	CARBON	1K 5% 1/4W	1-569-008-32	ADAPTOR, CONVERSION (SP)					
R902	1-249-417-11	CARBON	1K 5% 1/4W							
△ R903	1-219-121-11	FUSIBLE	0.22 5% 1/4W F							
△ R904	1-219-121-11	FUSIBLE	0.22 5% 1/4W F							
△ R905	1-202-973-61	FUSIBLE	3.3 5% 1/4W F							
△ R906	1-219-237-51	SOLID	3.3M 20% 1/2W (US)							
R909	1-249-421-11	CARBON	2.2K 5% 1/4W							
< RELAY >										
△ RY901	1-755-324-11	RELAY								
< SWITCH >										
△ S901	1-771-291-31	SWITCH, POWER (VOLTAGE SELECTOR)	(HK, SP)							

MISCELLANEOUS										

108	1-796-351-41	MECHANISM, SIGNAL CASSETTE	(CMAL1Z234A)							
204	1-500-386-11	FILTER, CLAMP (FERRITE CORE)								
△ 206	1-769-079-23	CORD, POWER (KR)								
△ 206	1-769-744-52	CORD, POWER (HK, SP, AEP)								
△ 206	1-775-790-12	CORD, POWER (AUS)								
△ 206	1-783-531-22	CORD, POWER (US)								
△ 206	1-829-387-11	CORD, POWER (AR)								
208	1-468-738-11	REGULATOR, SWITCHING								
209	1-693-625-11	TUNER (FM/AM) (US)								
209	1-693-626-11	TUNER (FM/AM) (AEP)								
209	1-693-628-11	TUNER (FM/AM) (HK, SP, AUS, AR)								
209	1-693-629-11	TUNER (FM/AM) (KR)								
462	1-452-925-21	MAGNET ASSY								
△ 657	8-820-244-11	OPTICAL PICK-UP KSM-215DCP/C2NP								
658	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)								
△ F901	1-533-451-12	FUSE, GLASS TUBE (DIA. 5) (3.15A/125V)	(US)							
△ F901	1-533-470-12	FUSE, GLASS TUBE (DIA. 5) (T3.15A/250V)	(HK, SP, KR, AUS)							
△ F901	1-533-471-12	FUSE, GLASS TUBE (DIA. 5) (T4A/250V)	(AEP, AR)							
△ F902	1-533-451-12	FUSE, GLASS TUBE (DIA. 5) (3.15A/125V)	(US)							
△ F902	1-533-470-12	FUSE, GLASS TUBE (DIA. 5) (T3.15A/250V)	(HK, SP, KR, AUS)							
△ F902	1-533-471-12	FUSE, GLASS TUBE (DIA. 5) (T4A/250V)	(AEP, AR)							
△ F903	1-533-467-12	FUSE, GLASS TUBE (DIA. 5) (T1.6A/250V)	(HK, SP)							
M301	1-787-103-11	FAN, DC (US, AEP, AR)								
M701	X-2021-530-1	MOTOR (PULLEY) ASSY (LOADING)								
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)								
△ T901	1-443-197-11	TRANSFORMER, POWER (AEP, AR)								
△ T901	1-443-204-11	TRANSFORMER, POWER (US)								
△ T901	1-443-205-11	TRANSFORMER, POWER (HK, SP, KR, AUS)								

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

REVISION HISTORY

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

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

[illegible]