

HCD-DX50/RG80

SERVICE MANUAL

Ver 1.2 2002. 09



Photo : HCD-DX50

- HCD-DX50/RG80 are the tuner, deck, CD and amplifier section in MHC-DX50/RG80.

Canadian Model
HCD-RG80

Australian Model
E Model
HCD-DX50

CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM58E-30BD60
	Base Unit Name	BU-30BD60
	Optical Pick-up Name	A-MAX.3
Tape deck Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	TCM-230PWR41C

SPECIFICATIONS

Amplifier section

HCD-DX50

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

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

Continuous RMS power output (reference)
140 + 140 watts
(6 ohms at 1 kHz, 10%
THD)

HCD-RG80

Continuous RMS power output (reference)
140 + 140 watts
(6 ohms at 1 kHz, 10%
THD)
Total harmonic distortion less than 0.07%
(6 ohms at 1 kHz, 50 W)

Inputs

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

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

Outputs

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

FRONT SPEAKER: accepts impedance of 6 to
16 ohms

SURROUND SPEAKER: accepts impedance of
(HCD-RG80 only) 24 ohms or more

CD player section

System

Compact disc and digital
audio system

Laser

Semiconductor laser
($\lambda=780\text{nm}$)

Laser Output

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

Frequency response

2 Hz – 20 kHz (± 0.5 dB)

Wave length

780 – 790 nm

Signal-to-noise ratio

More than 90 dB

Dynamic range

More than 90 dB

CD OPTICAL DIGITAL OUT

(Square optical connector jack, rear panel)

Wave length

660 nm

Output Level

-18 dBm

— Continued on next page —

MINI HI-FI COMPONENT SYSTEM

9-929-589-13

2002I1600-1

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Sony Corporation

Home Audio Company

Published by Sony Engineering Corporation

SONY®

Tape player section

Recording system	4-track 2-channel stereo
Frequency response (DOLBY NR OFF*)	40 – 13,000 Hz (± 3 dB), using Sony TYPE I cassette 40 – 14,000 Hz (± 3 dB), using Sony TYPE II cassette*

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

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

AM tuner section

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

General

Power requirements	
Canadian models:	120 V AC, 60 Hz
Australian models:	230 - 240 V AC, 50/60 Hz
Mexican models:	120 V AC, 60 Hz
Thailand models:	220 V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 - 240 V AC, 50/60 Hz Adjustable with voltage selector

Power consumption	
HCD-DX50	220 watts
HCD-RG80	300 VA

Dimensions (w/h/d)	Approx. 280 x 360 x 425 mm
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Mass :	Approx. 10.5 kg
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Design and specifications are subject to change without notice.

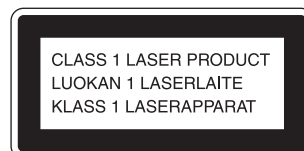
NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

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 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. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.

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.

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.

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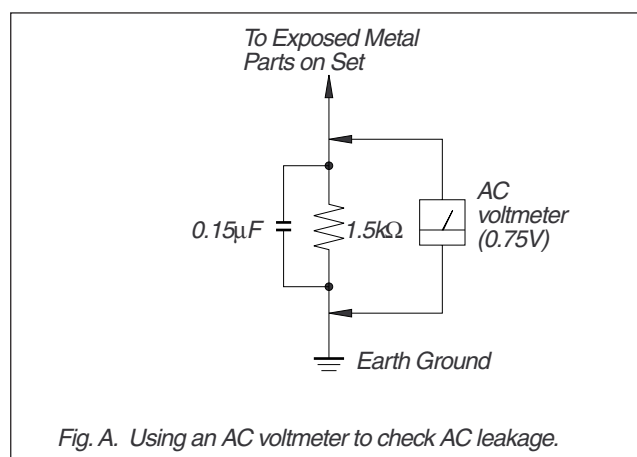
SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks 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

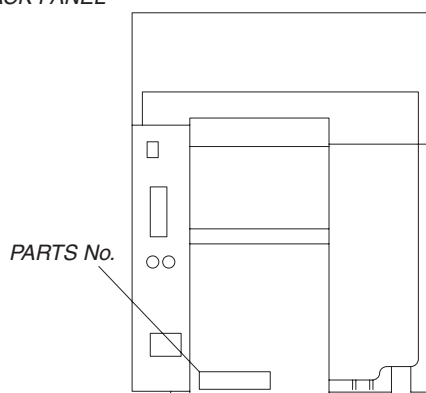
The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

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)



MODEL IDENTIFICATION

— BACK PANEL —



MODEL	PARTS No.
DX50 : E, SP, AR models	4-231-580-0□
DX50 : KR, MX, AUS/RG80 models	4-231-580-2□

- Abbreviation
 - AUS : Australian model MX : Mexican model
 - SP : Singapore model AR : Argentina model
 - KR : Korea model

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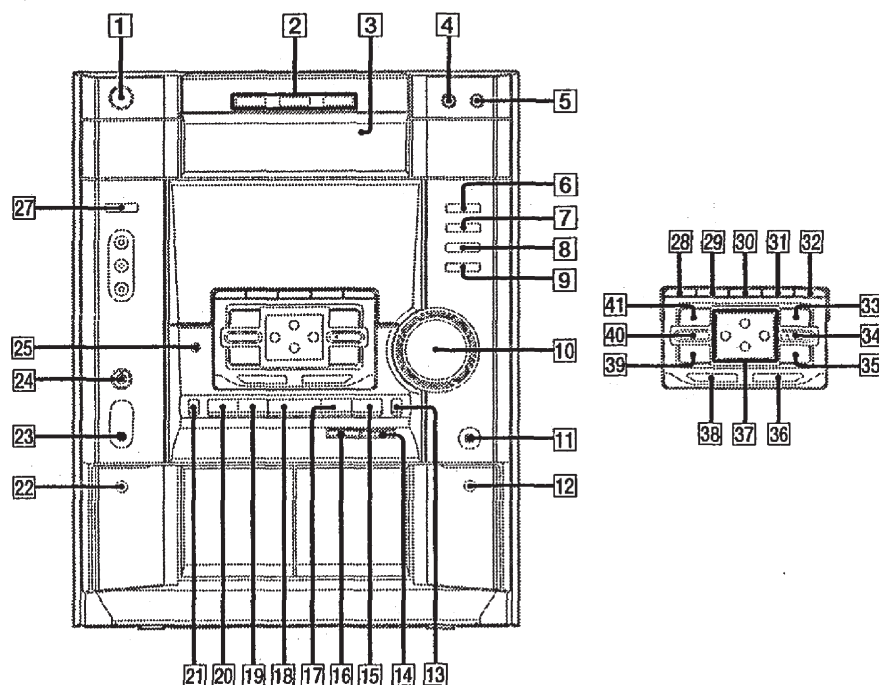
SECTION 1 GENERAL

This section is extracted from
instruction manual.

Parts Identification

Main unit

The items are arranged in alphabetical order. Refer to the pages indicated in parentheses () for details.



CD [6] (9, 10, 15, 16)
CD SYNC HI-DUB [16] (15, 16)

DECK A ▲ [22] (14~16)
DECK B ▲ [12] (15, 16)
DIRECTION [30] (14~16)
DISC 1-3 [2] (9)
DISC SKIP/EX-CHANGE [4] (9)
Disc tray [3] (9)
DISPLAY [28] (8, 11, 13)

EDIT [30] (16)
ENTER [34] (10, 12, 16, 17, 19, 21,
22, 26, 27)
EFFECT ON/OFF [40] (18, 20)

FM MODE [31] (13, 27)

GAME [27] (23)
GAME EQ [39] (18~23)
GROOVE [38] (18)

KARAOKE PON [25] (20)
(Except MHC-RG80)

MD (VIDEO) [9] (23)
MIC [23] (20)
(Except MHC-RG80)
MIC LEVEL [24] (20)
(Except MHC-RG80)
MOVIE EQ [33] (18, 23)
MUSIC EQ [41] (18, 23)

P FILE [35] (19)
PHONES jack [11] (20)
PLAY MODE [32] (9, 10)

REC PAUSE/START [14] (15, 16)
REPEAT [31] (9)

SPECTRUM [29] (20)
SURROUND [36] (19)

TAPE A/B [8] (14~16)
TUNER/BAND [7] (12, 13)
TUNER MEMORY [32] (12)

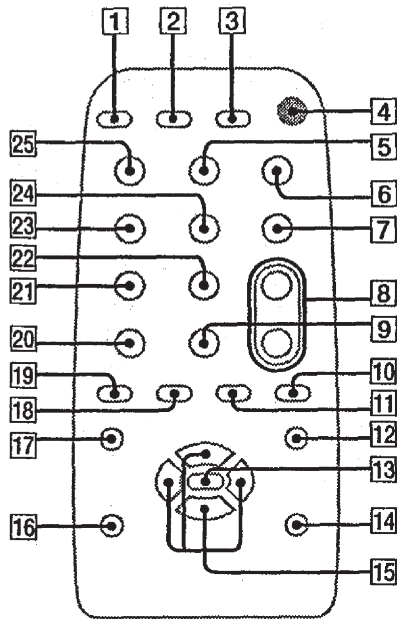
VOLUME control [10]
: Adjusts the volume.

BUTTON DESCRIPTIONS

I/⏻ (power) [1] (7, 8, 13, 23, 27)
▲ OPEN/CLOSE (disc tray)
[5] (9, 10)
■ (stop) [19] (9, 14, 15, 20, 27)
◀▶ (play) [18] (9, 10, 14, 15)
▶▶ (go forward) [15] (9, 10,
12~15)
⏸ (pause) [17] (9, 14)
◀◀ (go back) [20] (9, 10, 12~15)
◀◀/- (rewind) [21] (9, 12~14)
▶▶/+ (fast forward) [13]
(9, 12~14)
▲/▼/◀/▶ (cursor) [37] (8, 16, 17,
19, 21, 22)

Remote Control

The items are arranged in alphabetical order. Refer to the pages indicated in parentheses () for details.



CD **19** (9, 10, 15, 16)
 CLEAR **7** (10)
 CLOCK/TIMER SELECT **2**
 (21, 22)
 CLOCK/TIMER SET **3** (8, 17,
 22)

D.SKIP **9** (9)

ENTER **13** (10, 12, 16, 17, 19,
 21, 22, 26)

EFFECT ON/OFF **14** (18, 20)

GAME **20** (23)

MD (VIDEO) **10** (23)

PRESET EQ **17** (18, 23)

P FILE **16** (19)

SURROUND **12** (19)

SLEEP **1** (21)

TAPE A/B **11** (14-16)

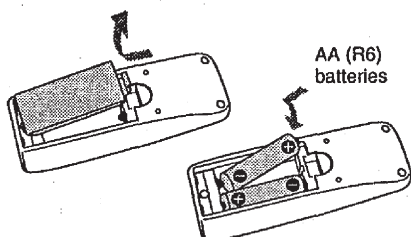
TUNER/BAND **18** (12, 13)

VOL +/- **8**
 : Adjusts the volume.

BUTTON DESCRIPTIONS

I/⏻ (power) **4** (7, 8, 13, 23, 27)
 ▶▶▶ (play) **25** (9, 10, 14, 15)
 ⏸ (pause) **5** (9, 14)
 ■ (stop) **6** (9, 14, 15, 20, 27)
 ◀◀ (go back)/PRESET - **23**
 (9, 10, 12-15)
 ▶▶ (go forward)/PRESET + **24**
 (9, 10, 12-15)
 ◀◀ (rewind)/TUNING - **21**
 (9, 12-14)
 ▶▶ (fast forward)/TUNING + **22**
 (9, 12-14)
 ▲▼/◀▶ (cursor) **15** (8, 16, 17,
 19, 21, 22)

Inserting the batteries into the remote control



Tip

With normal use, the batteries should last for about six months. When the remote no longer operates the system, replace both batteries with new ones.

Note

If you do not use the remote for a long period of time, remove the batteries to avoid possible damage from battery leakage.

Saving the power in standby mode

Press **DISPLAY** repeatedly when the power is off.

Each time you press the button, the system switches cyclically as follows:

Demonstration → Clock → Power Saving Mode

Tips

- The I/⏻ indicator lights up even in the Power Saving Mode.
- The timer works in the Power Saving Mode.

Note

You cannot set the time in the Power Saving Mode.

To cancel the Power Saving Mode

Press **DISPLAY** once to show the demonstration, twice to show the clock display.

Setting the time

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

Tip

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

Note

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

SECTION 2 DISASSEMBLY

- The equipment can be removed using the following procedure.

Set → Upper case (Top)

↓
Loading panel assy

↓
Front panel section

→ Panel board

→ Sub trans board and Main trans board → Main board and Power board

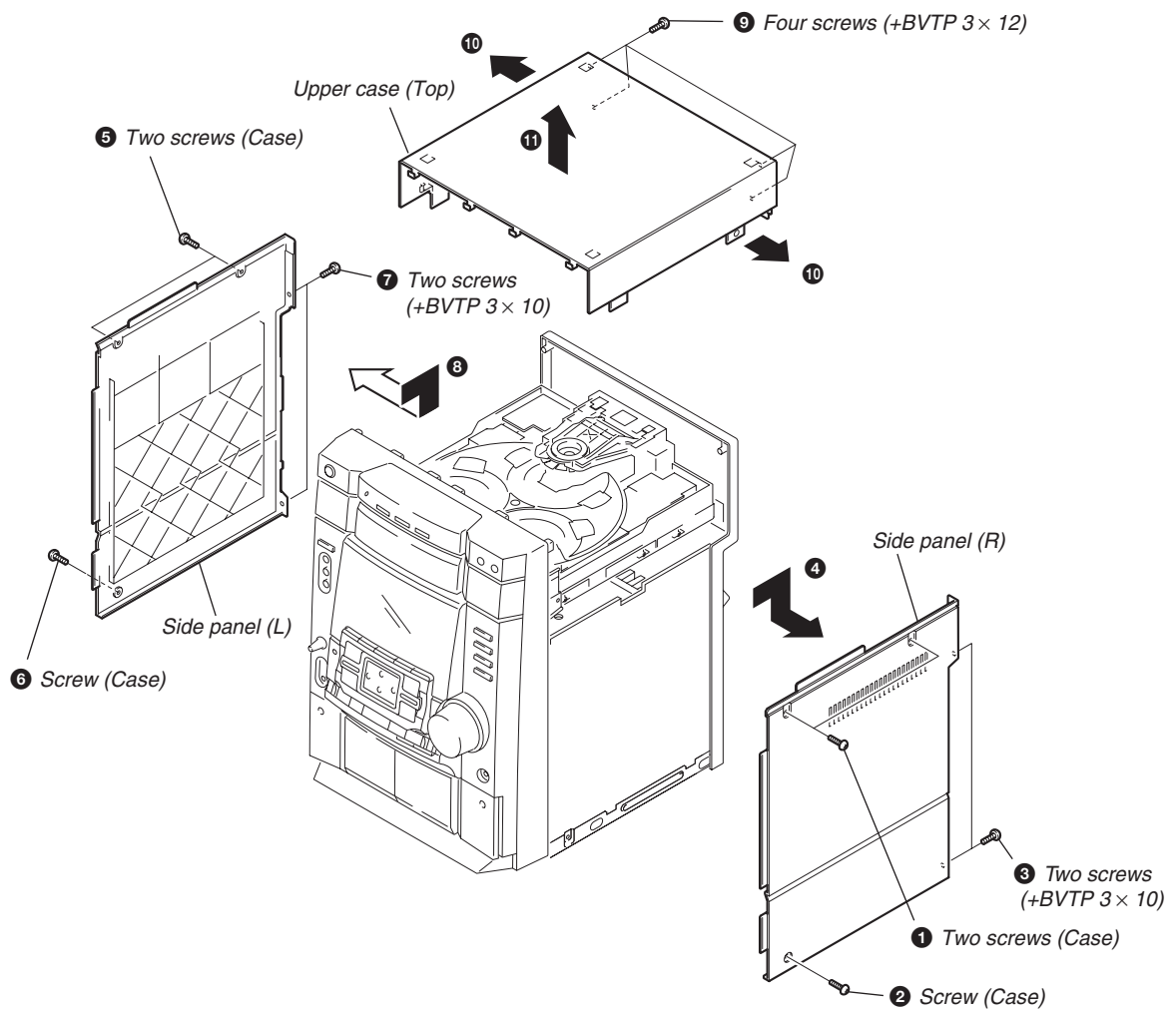
→ Leaf SW board, Head (A) board and Head (B) board

→ Base unit

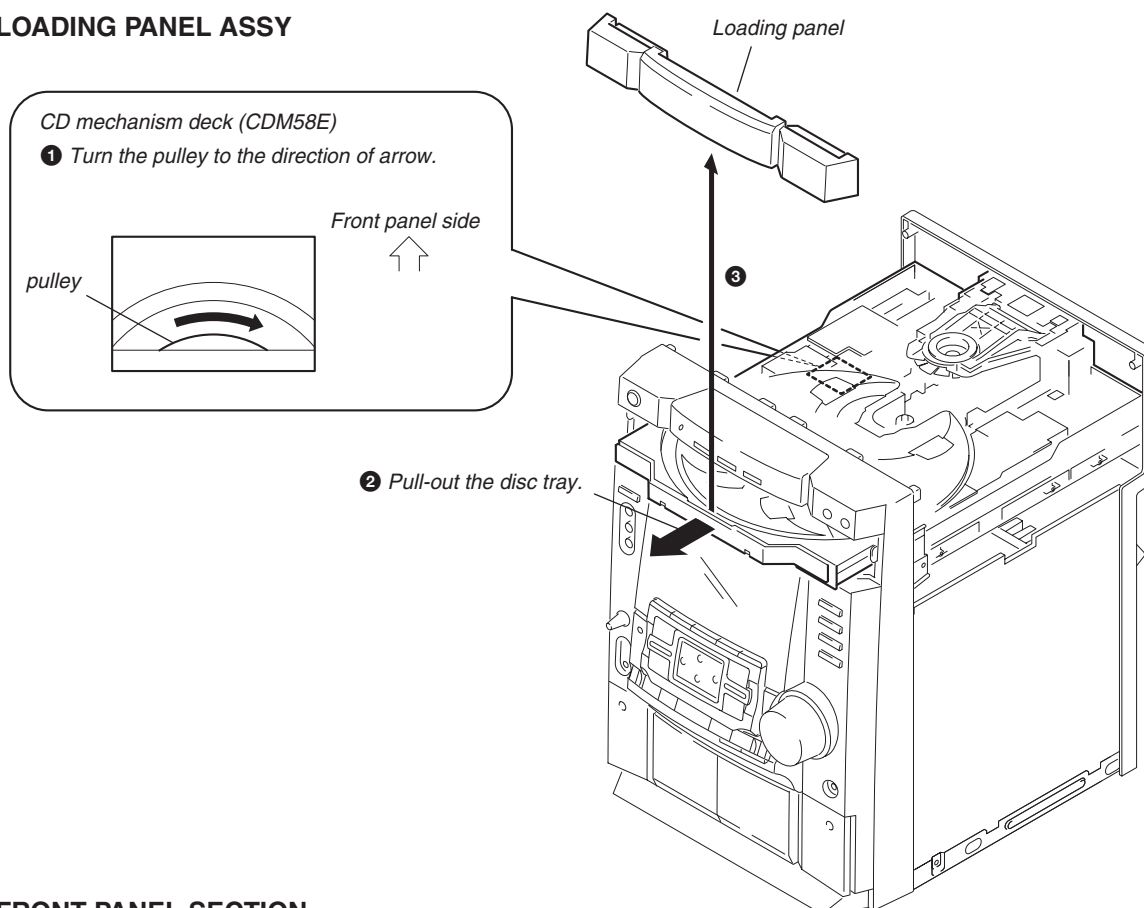
→ Driver board, Moter board and Address sensor board

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

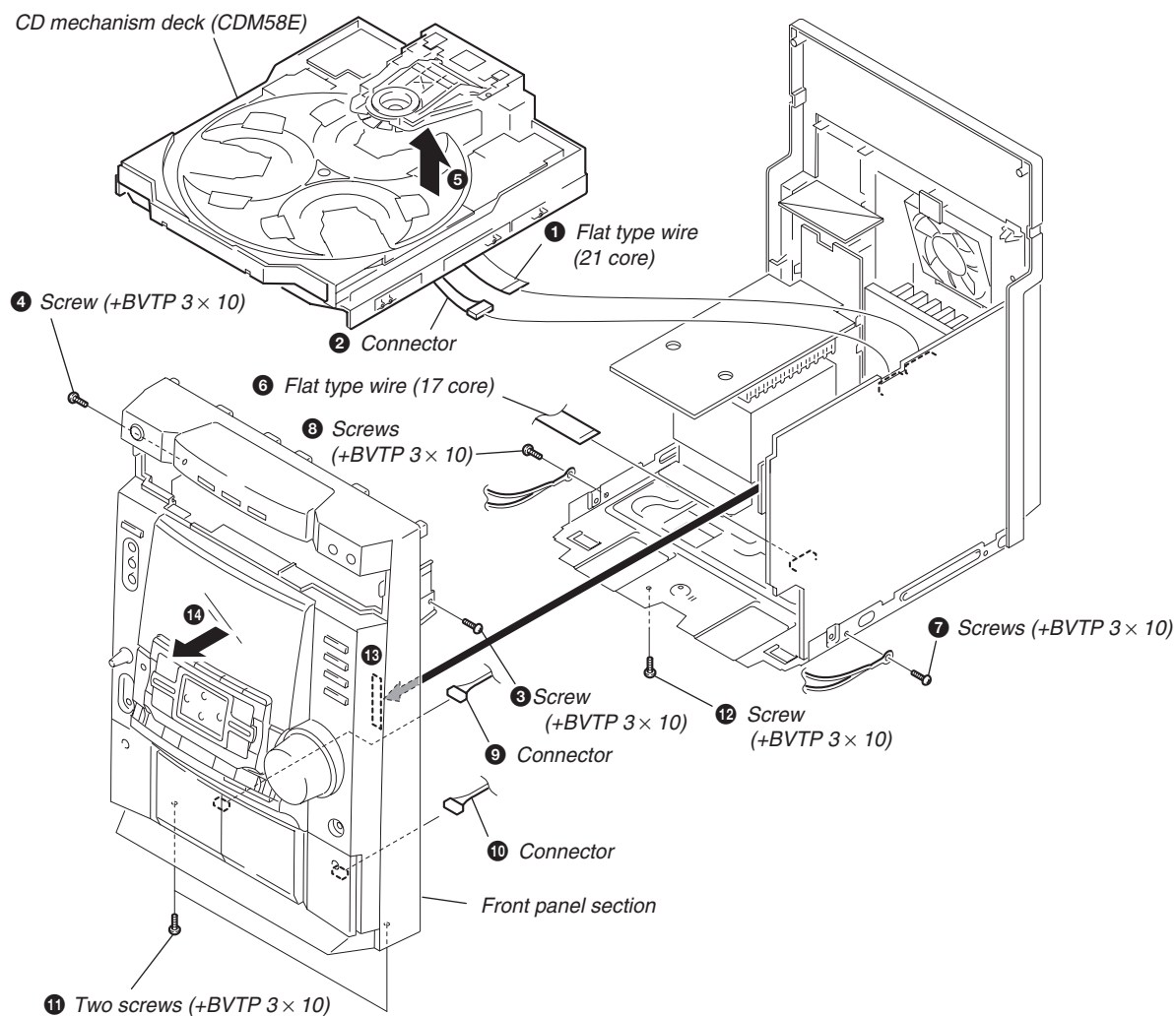
2-1. UPPER CASE (TOP)



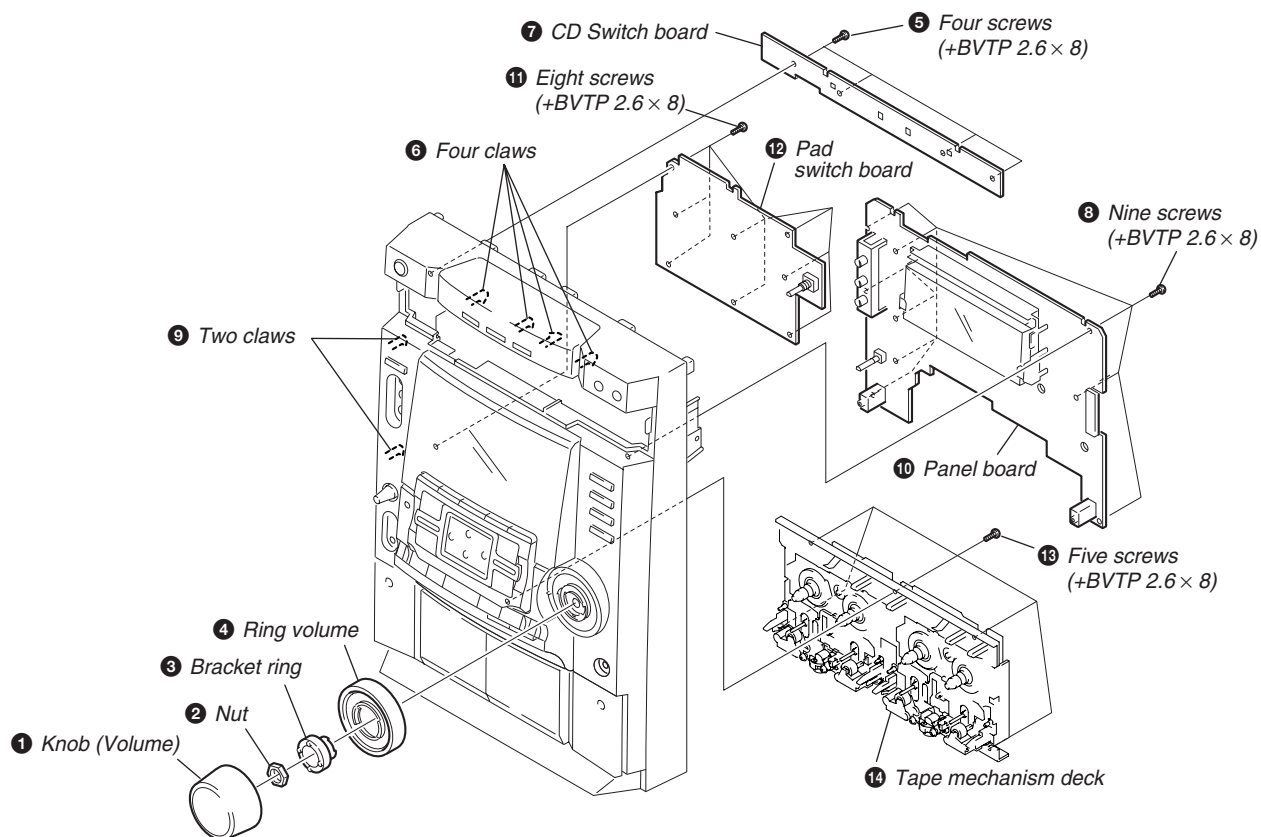
2-2. LOADING PANEL ASSY



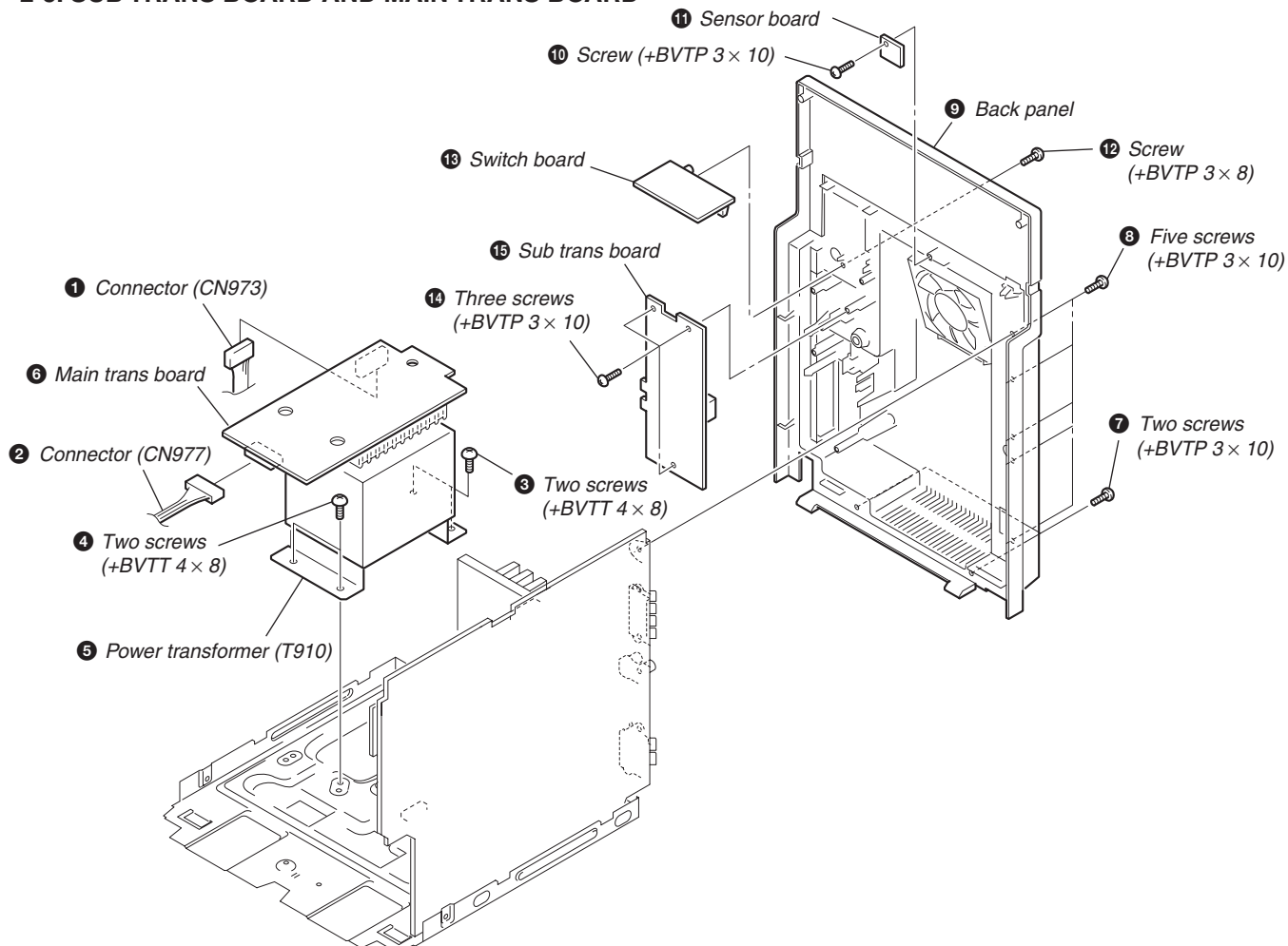
2-3. FRONT PANEL SECTION



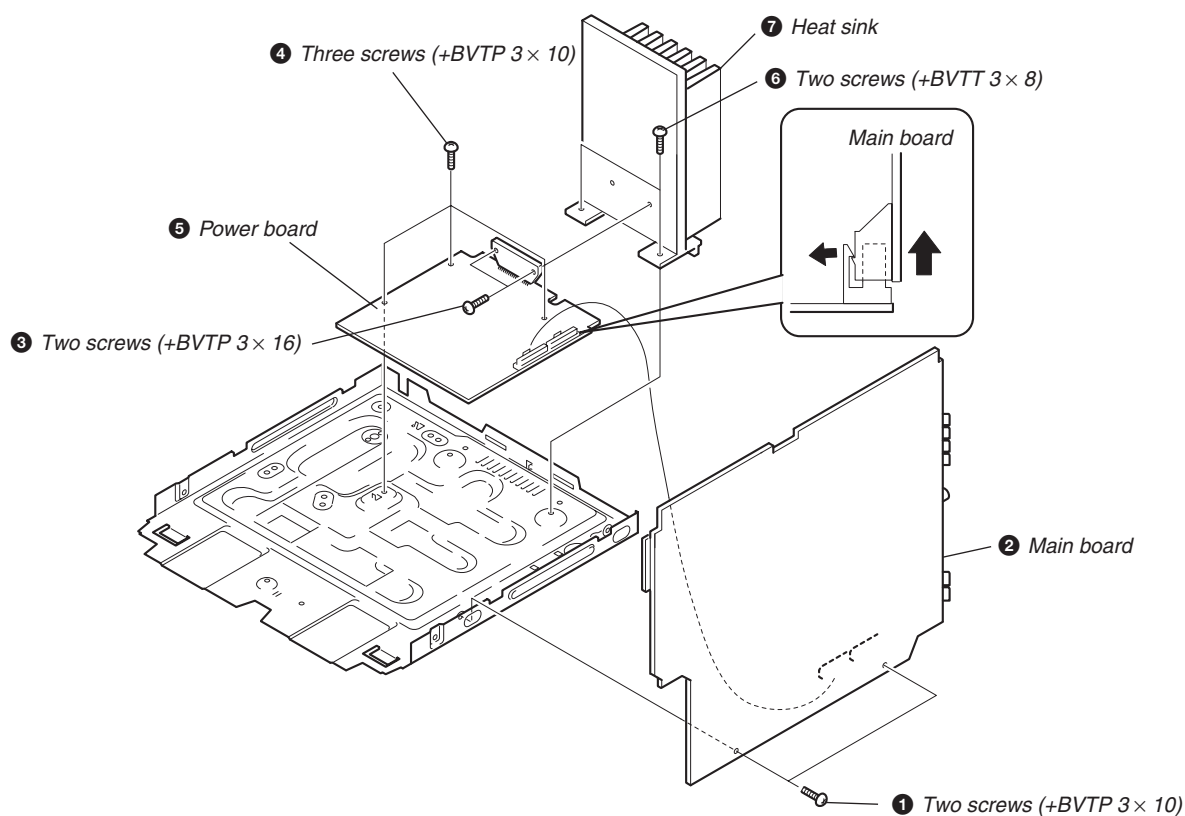
2-4. PANEL BOARD



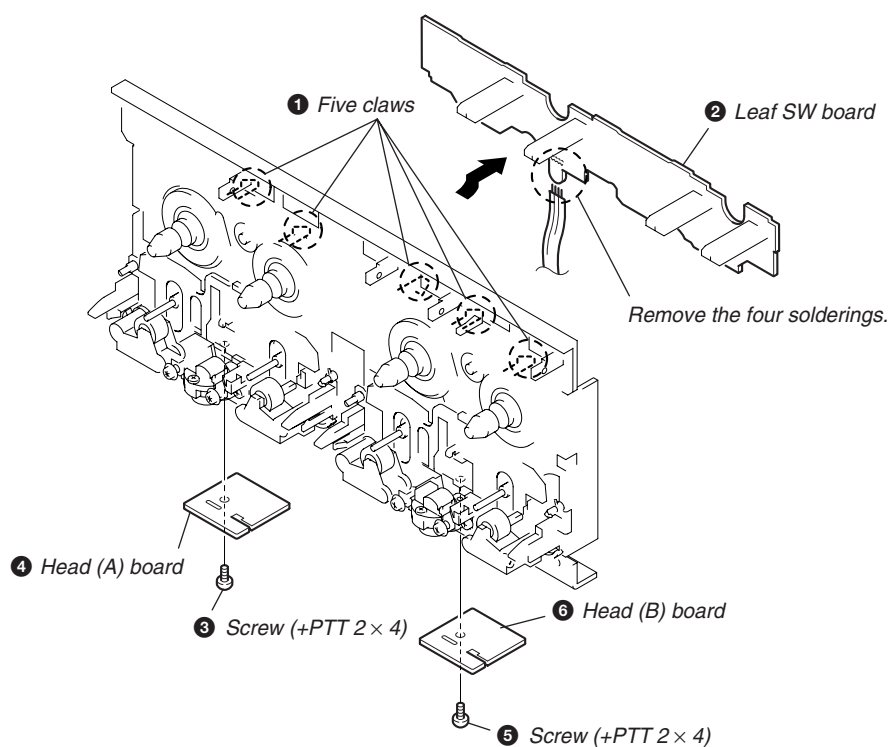
2-5. SUB TRANS BOARD AND MAIN TRANS BOARD



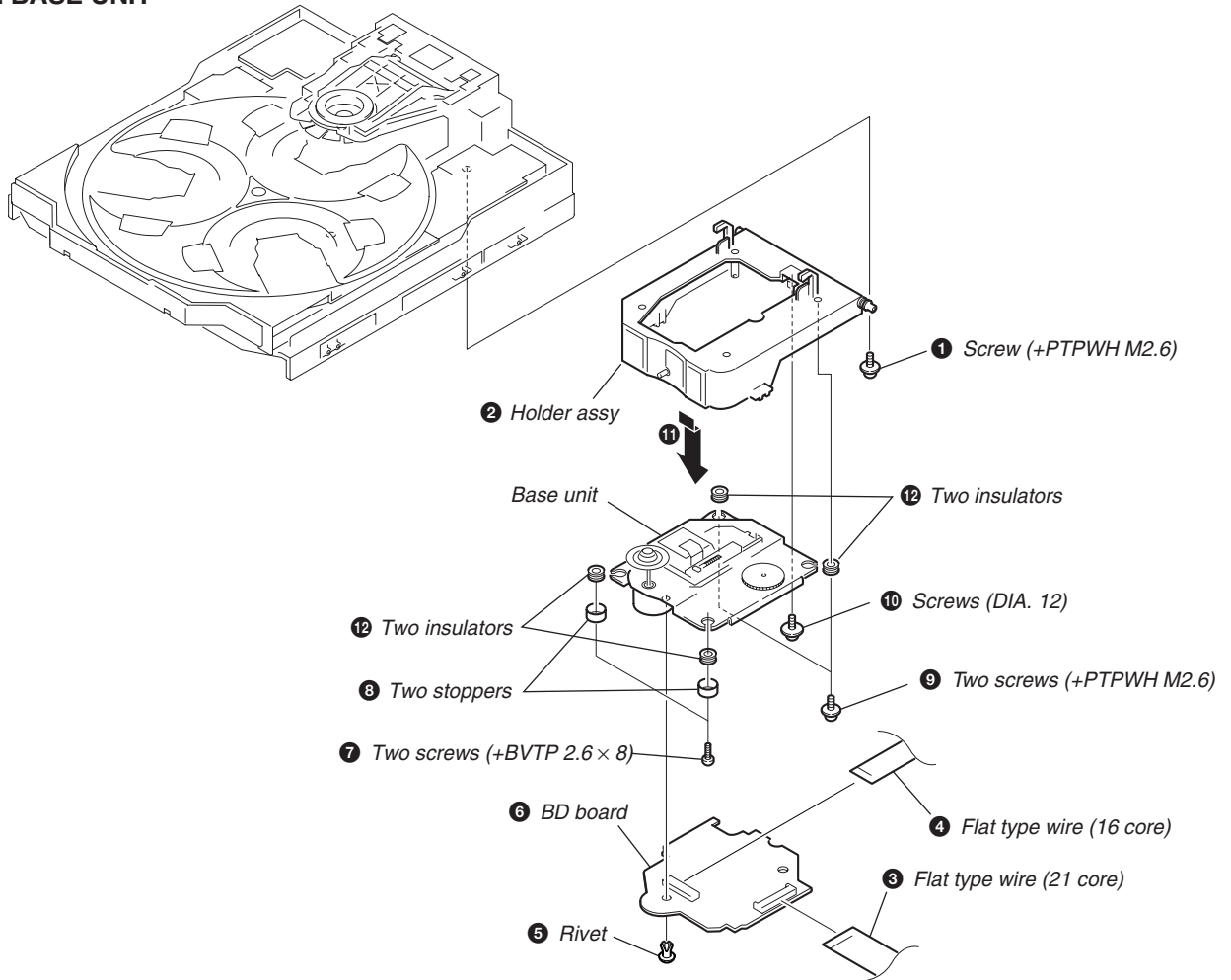
2-6. MAIN BOARD AND POWER BOARD



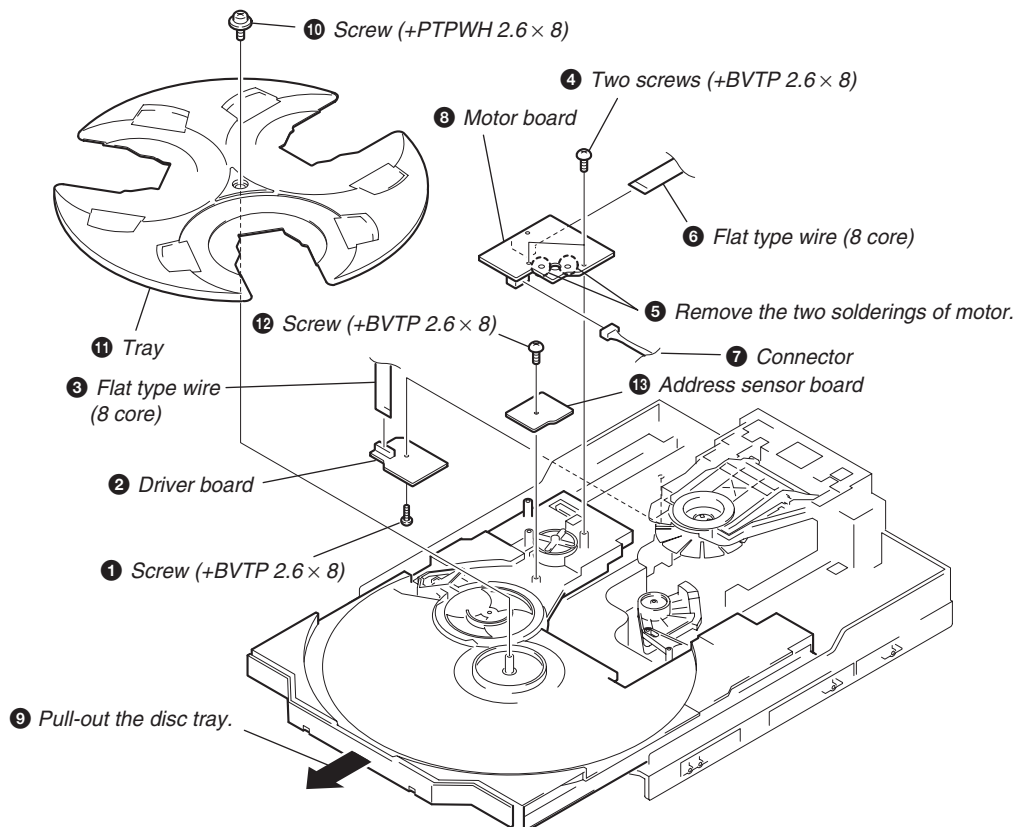
2-7. LEAF SW BOARD, HEAD (A) BOARD AND HEAD (B) BOARD



2-8. BASE UNIT



2-9. DRIVER BOARD, MOTER BOARD AND ADDRESS SENSOR BOARD



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:

- Press three buttons **[■]**, **[ENTER]**, and **[I/O]** simultaneously.
- The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[Hot Reset]

- This mode resets the set with the preset data kept stored in the memory. The hot reset mode functions same as if the power cord is plugged in and out.

Procedure:

- Press three buttons **[■]**, **[ENTER]**, and **[DISPLAY]** simultaneously.
- The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[Tuner Step Change]

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

Procedure:

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

[Function Change Mode]

- Select either VIDEO or MD of the external FUNCTION input.

Procedure:

- Turn on the power.
- Hold down **[MD (VIDEO)]** button then press **[I/O]** button, and release **[I/O]** button first in order not to switch off the set immediately.
The another function of the previous function is selected, the input level is also changed and displayed "MD" or "VIDEO".

[GC Test Mode]

- This mode is used to check the software version, FL tube, LED, keyboard and VACS.

Procedure:

- Press three buttons **[■]**, **[ENTER]**, and **[DISC 2]** simultaneously.
- LEDs and fluorescent indicator tube are all turned on.
- When you want to enter the software version display mode, press **[DISC 1]**. The model number and destination are displayed.
- Each time **[DISC 1]** is pressed, the display changes starting from MC version, GC version, CD version, CDDM version, CDMA version, CDMA version, BDA version, BDB version, ST version, TA version, TM version and TC version in this order, and returns to the model number and destination display.
- When **[DISC 3]** is pressed while the version numbers are being displayed except model number and destination, year, month and day of the software creation appear. When **[DISC 3]** is pressed again, the display returns to the software version display. When **[DISC 1]** is pressed while year, month and day of the software creation are being displayed, the year, month and day of creation of the software versions are displayed in the same order of version display.
- Press **[DISC 2]** button, and the key check mode is activated.

- In the key check mode, the fluorescent indicator tube displays "K0 V0". Each time a button is pressed, "KEY" value increases. However, once a button is pressed, it is no longer taken into account.
"VOL" value increases like 1, 2, 3 ... if rotating **[VOLUME]** knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
- Also when **[DISC 3]** is pressed after lighting of all LEDs and FL tubes, value of VACS appears.
- To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

[MC Test Mode]

- This mode is used to check operations of the respective sections of Amplifier, Tuner, and Tape.

Procedure:

* To enter MC Test Mode

- Press the **[I/O]** button to turn on the set.
- Press the three buttons of **[■]**, **[ENTER]** and **[DISC 3]** simultaneously.
- The messages MUSIC, MOVIE, GAME and P FILE flash on the FL display tube.
The input FUNCTION is Changed to VIDEO.

* Check of Amplifier

- When **[Δ (CURSOR UP)]** button is pressed, GEQ increases to its maximum and a message "GEQ MAX" appears.
- When **[∇ (CURSOR DOWN)]** button is pressed, GEQ decreases to its minimum and a message "GEQ MIN" appears.
- When **[◀ (CURSOR LEFT)]** or **[▶ (CURSOR RIGHT)]** button is pressed, GEQ is set to flat and a message "GEQ FLAT" appears.
- When the **[VOLUME]** control knob is turned clockwise even slightly, the sound volume increases to its maximum and a message "VOLUME MAX" appears for two seconds, then the display returns to the original display.
- When the **[VOLUME]** control knob is turned counter-clockwise even slightly, the sound volume decreases to its minimum and a message "VOLUME MIN" appears for two seconds, then the display returns to the original display.

* Check of clock frequency

- To check the frequency of clock used to run the time in the unit, the clock output is available at pin 39 (IC 501, MASTER CONTROL) only during MC test mode.
- The frequency is 32.768 kHz or so.

* Tuner function

- In the test mode, the default-preset channel is called even when the TUNER is selected and an attempt is made to call the preset channel that has been stored in memory. (It means that the memory is cleared.)
- The minimum, center and maximum frequency of each band is set then.

* Tape function

1. When a tape is inserted in Deck B and recording is started, the input source function selects VIDEO automatically.
When [CD SYNC/HI-DUB] button is pressed during Rec in function, ALC is turned on.
2. When [] button is pressed to stop recording, the Tape (Deck) B is selected and tape is rewound, tape is rewound using [] button, tape is stops at around the record-starting position and playback of the recorded portion of the tape is started. If PAUSE is inserted even once during recording, tape is rewound to the position around the PAUSE position and is played back.
3. When [CD SYNC/ HI-DUB] button is pressed during playback of Deck B, either normal speed or high speed can be selected by this button.

* AMS Test Mode

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

* To return to normal mode again.

1. When you want to exit this mode, press the [I/] button.
2. The cold reset is enforced at the same time.

[VACS ON/OFF Mode]

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

Procedure:

Press the [ENTER] and [SPECTRUM] buttons simultaneously. The message "VACS OFF" or "VACS ON" appears.

[CD Service Mode]

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

Procedure:

1. Press [I/] button to turn the set ON.
2. Select the function "CD".
3. Press three buttons [], [ENTER], and [OPEN/CLOSE] simultaneously.
4. The CD service mode is selected.
5. With the CD in stop status, press [] button to move the pickup to outside track, or press [] button to inside track.
6. To exit from this mode, perform as follows:
 - 1) Move the pickup to the most inside track.
 - 2) Press [I/] button to turn the set OFF.

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

[CD Ship Mode (Memory Clear)]

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

Procedure:

1. Press [I/] button to turn the set ON.
2. Press three buttons [], [ENTER] and [GAME] simultaneously.
3. After the "STANDBY" display blinks six times, a message "LOCK" is displayed on the fluorescent indicator tube, and the CD ship mode is set.

[CD Ship Mode (No Memory Clear)]

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

Procedure:

1. Press [I/] button to turn the set ON.
2. Press [CD] button and [I/] button simultaneously.
3. After the "STANDBY" display blinks six times, a message "LOCK" is displayed on the fluorescent indicator tube, and the CD ship mode is set.

SECTION 4 MECHANICAL ADJUSTMENTS

Precaution

- Clean the following parts with a denatured alcohol-moistened swab:

record/playback heads	pinch rollers
erase head	rubber belts
capstan	idlers
- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

Torque Measurement

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

SECTION 5 ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775 V

- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjust.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.
- The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
- The adjustments should be performed for both L-CH and R-CH.
- Switches and controls should be set as follows unless otherwise specified.

• Test Tape

Tape	Signal	Used for
P-4-A100	10 kHz, -10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300J	315 Hz, 0 dB	Level Adjustment

Record/Playback Head Azimuth Adjustment

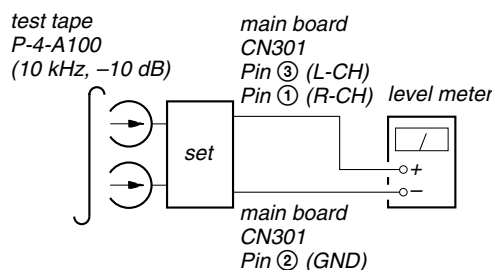
DECK A

DECK B

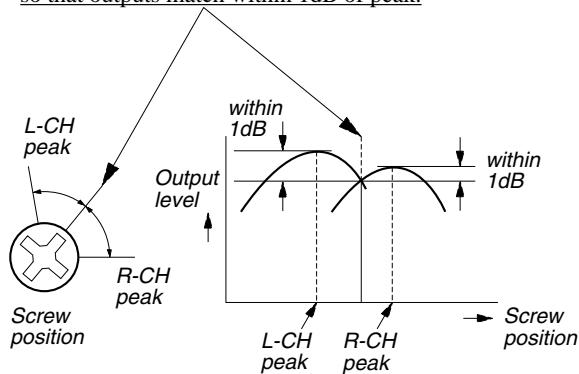
Note: Perform this adjustments for both decks

Procedure:

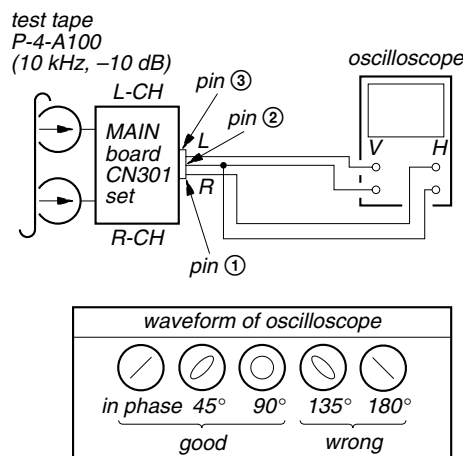
- Mode: Playback



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



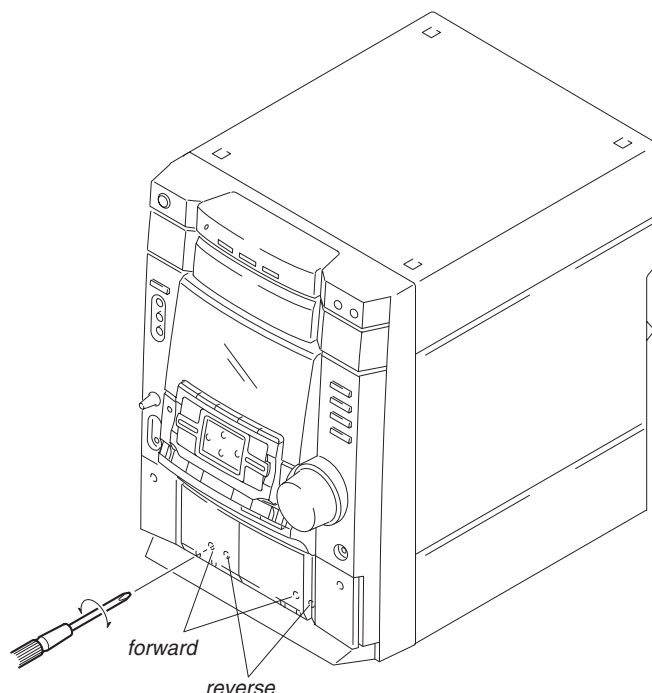
3. Mode: Playback



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

Adjustment Location: Playback Head (Deck A).

Record/Playback/Erase Head (Deck B).



Tape Speed Adjustment **DECK B**

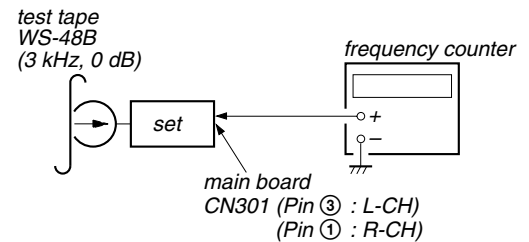
Note: Start the Tape Speed adjustment as below after setting to the test mode.

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

Procedure:

1. Turn the power switch on.
2. Press the **■** button, **ENTER** button and **DISC 3** button simultaneously.
(The "TEST MODE" on the fluorescent indicator tube display while in the test mode.)
To exit from the test mode, press the **I/O** button.

Mode: Playback



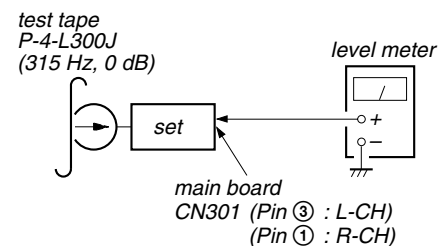
1. Insert the WS-48B into the deck B.
2. Press the **◀▶** button on the deck B.
3. Press the **CD SYNC/HI-DUB** button in playback mode.
Then at HIGH speed mode.
4. Adjust RV1001 on the LEAF SW board so that frequency counter reads $6,000 \pm 30$ Hz.
5. Press the **CD SYNC/HI-DUB** button.
Then back to NORMAL speed mode.
6. Adjust RV1002 on the LEAF SW board so that frequency counter reads $3,000 \pm 15$ Hz.

Adjustment Location: LEAF SW board

Playback level Adjustment **DECK A** **DECK B**

Procedure:

Mode: Playback



1. Confirm that level difference between the channels is within ± 0.5 dB.
2. After check, adjust the following RVs.
Deck A is RV302 (L-CH), Deck B is RV303 (L-CH) so that adjustment within adjustment level as follows.

Adjustment Level:

CN301 PB level: 334.4 to 748.7 mV (-7.3 to -0.3 dB)

Adjustment Location: MAIN board

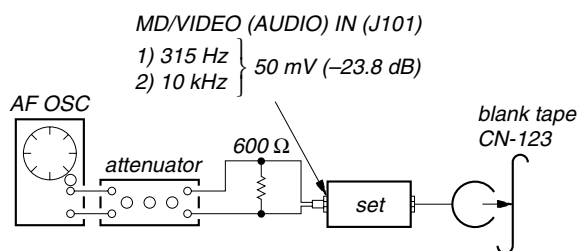
Sample Value of Wow and Flutter: 0.3% or less W. RMS (WS-48B)

REC Bias Adjustment **DECK B**

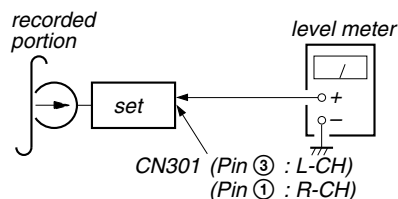
Procedure:

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

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



5. Mode: Playback



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

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

Adjustment Location: MAIN board

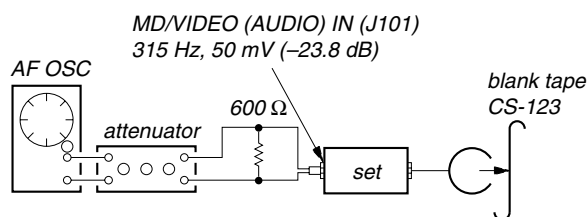
REC Level Adjustment **DECK B**

Procedure:

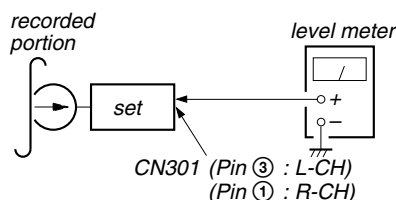
In the MC test mode, the “REC memory mode” is convenient for this adjustment. In the “REC memory mode”, when the REC starts the input signal FUNCTION is switched to VIDEO automatically. When the REC stops, the tape returns near to the recording start position.

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

4. Mode: Record



5. Mode: Playback



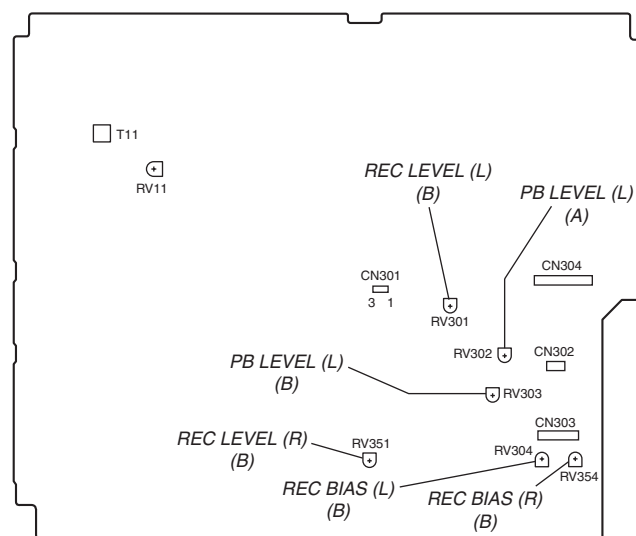
6. Confirm the play back signal recorded in step 3 becomes adjustable level as follows.
If these levels are not adjustable level, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 4 and 5.

Adjustable level:

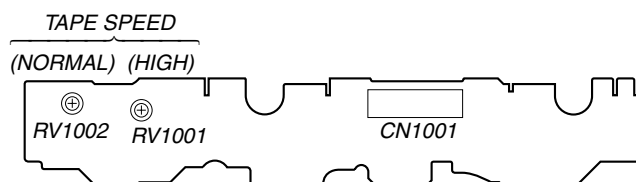
CN301 PB level: 47.2 to 53.0 mV (-24.3 to -23.3 dB)

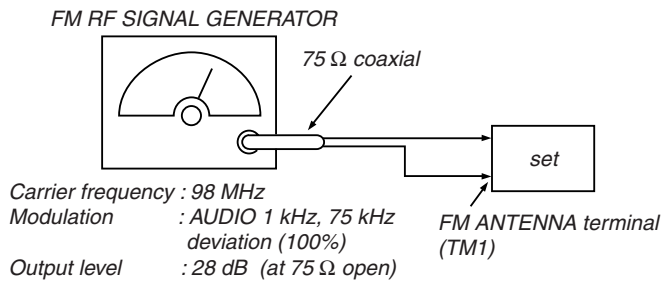
Adjustment Location: MAIN board

[MAIN BOARD] (Component Side)



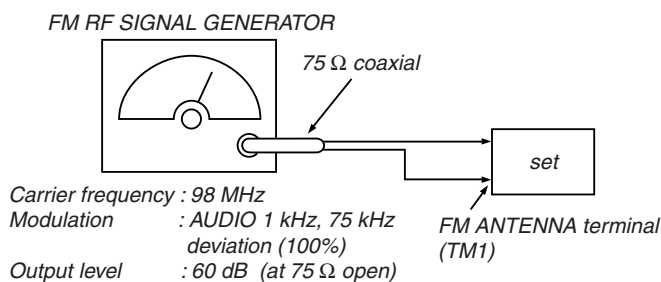
[LEAF SW BOARD] (Component Side)



TUNER SECTION**FM Tuned Level Adjustment****Procedure:**

1. Supply a 98 MHz signal at 28 dB from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Adjust RV11 to the point (moment) when the TUNED indicator will change from going off to going on.

Adjustment Location: MAIN board

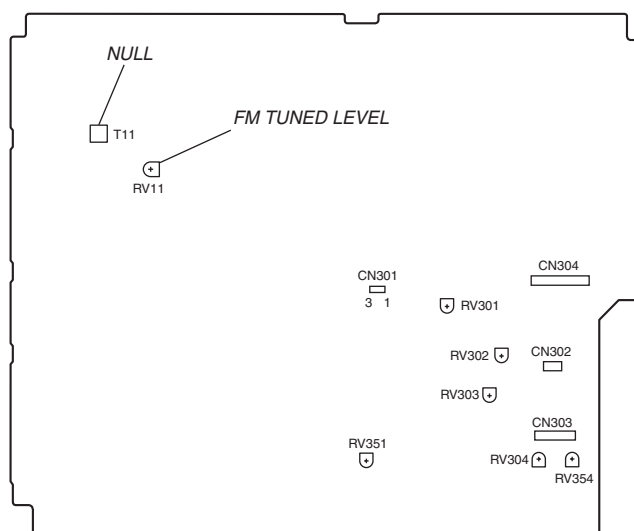
Null Adjustment**Procedure:**

1. Supply a 98 MHz signal at 60 dB from the ANTENNA terminal.
2. Tune the set to 98 MHz.
3. Measure voltage between pin 22 and pin 3 of IC11. Adjust T11 until the voltage becomes 0 V.

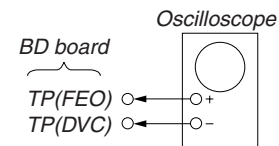
Adjustment Location: MAIN board

Adjustment Location

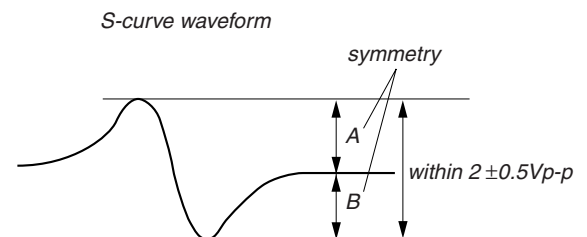
[MAIN BOARD] (Component Side)

**CD SECTION****Note :**

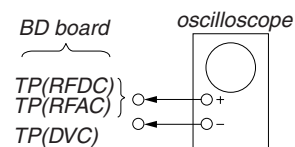
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use LUV-P01 (4-999-032-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

S-Curve Check**Procedure :**

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



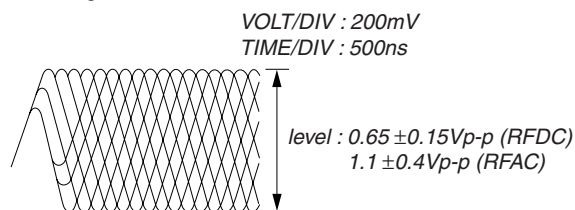
6. After check, remove the lead wire connected in step 2.
- Note :**
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
 - Take sweep time as long as possible and light up the brightness to obtain best waveform.

RF Level Check**Procedure :**

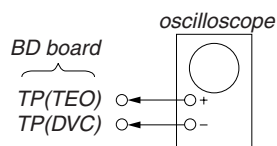
1. Connect an oscilloscope CH1 to TP (RFDC) and CH2 to TP (RFAC).
2. Turn Power switch on.
3. Load a disc (LUV-P01) and playback.
4. Confirm that oscilloscope waveform is clear and check if RF signal level is correct or not.

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

RF signal waveform



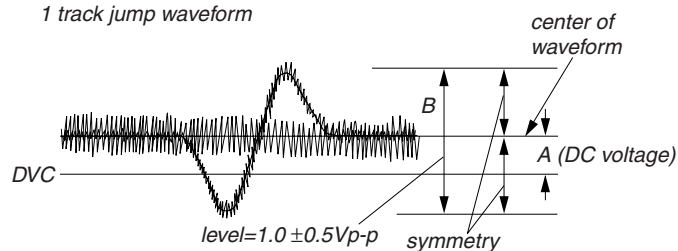
E-F Balance (1 Track jump) Check



Procedure :

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

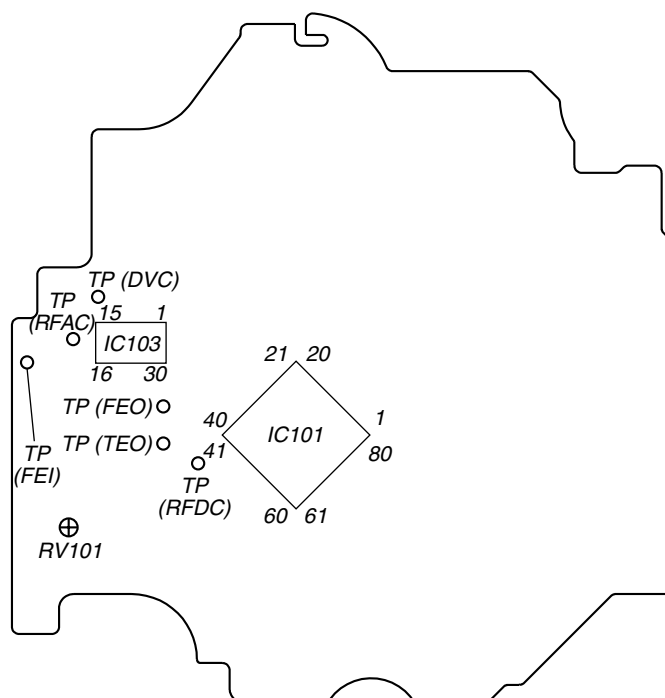
1 track jump waveform



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

Adjustment Location:

[BD BOARD] (Conductor Side)



SECTION 6 DIAGRAMS

THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

Note on Schematic Diagram:

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



Note:

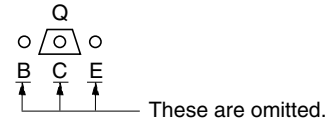
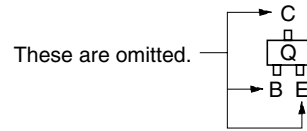
The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.











Note:

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

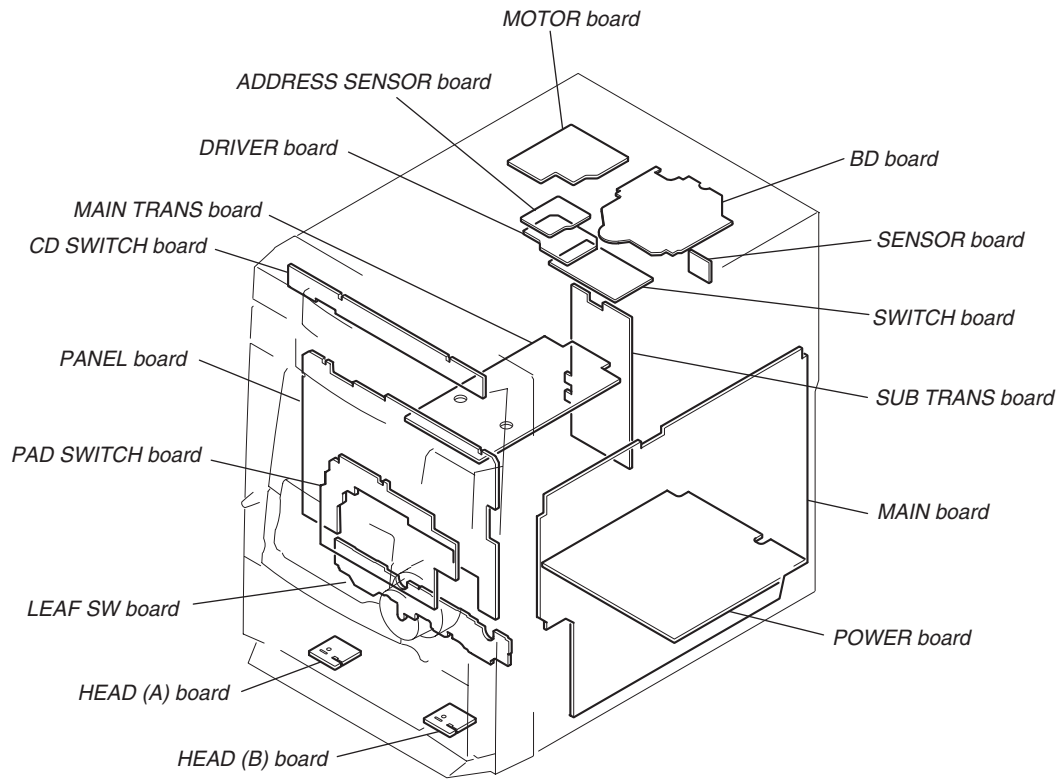
Note on Printed Wiring Boards:

-  : parts extracted from the component side.
-  : Pattern from the side which enables seeing.
- Indication of transistor.



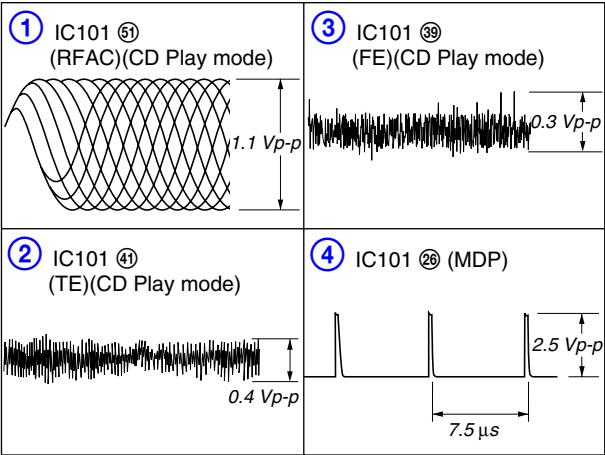
-  : B+ Line.
-  : B- Line.
-  : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 -  : FM
 -  : AM
 -  : PB (DECK A)
 -  : PB (DECK B)
 -  : REC (DECK B)
 -  : CD
 -  : digital out
- Abbreviation
 - AR : Argentina model
 - AUS : Australian model
 - E51 : Chilean and Peruvian model
 - KR : Korea model
 - MX : Mexican model
 - SP : Singapore model

6-1. CIRCUIT BOARD LOCATION

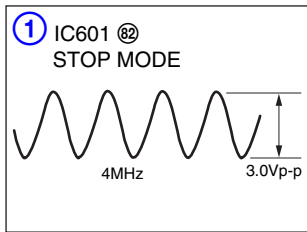


• WAVEFORMS

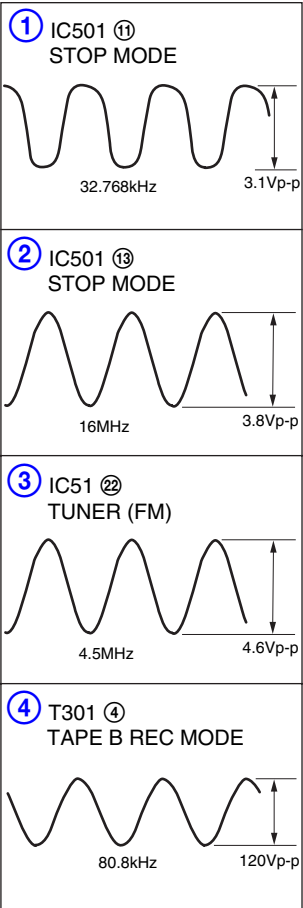
– BD BOARD –



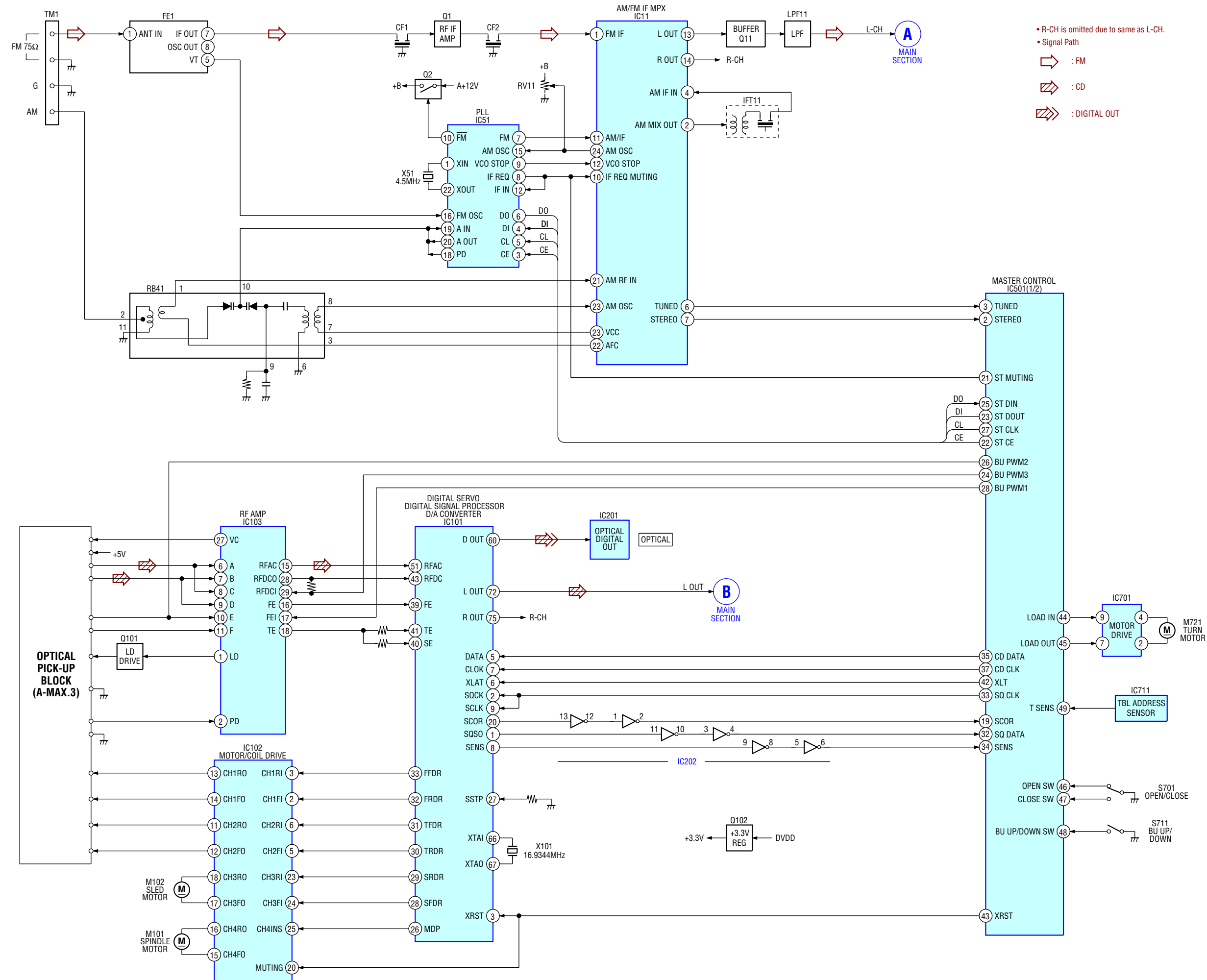
– PANEL BOARD –



– MAIN BOARD –



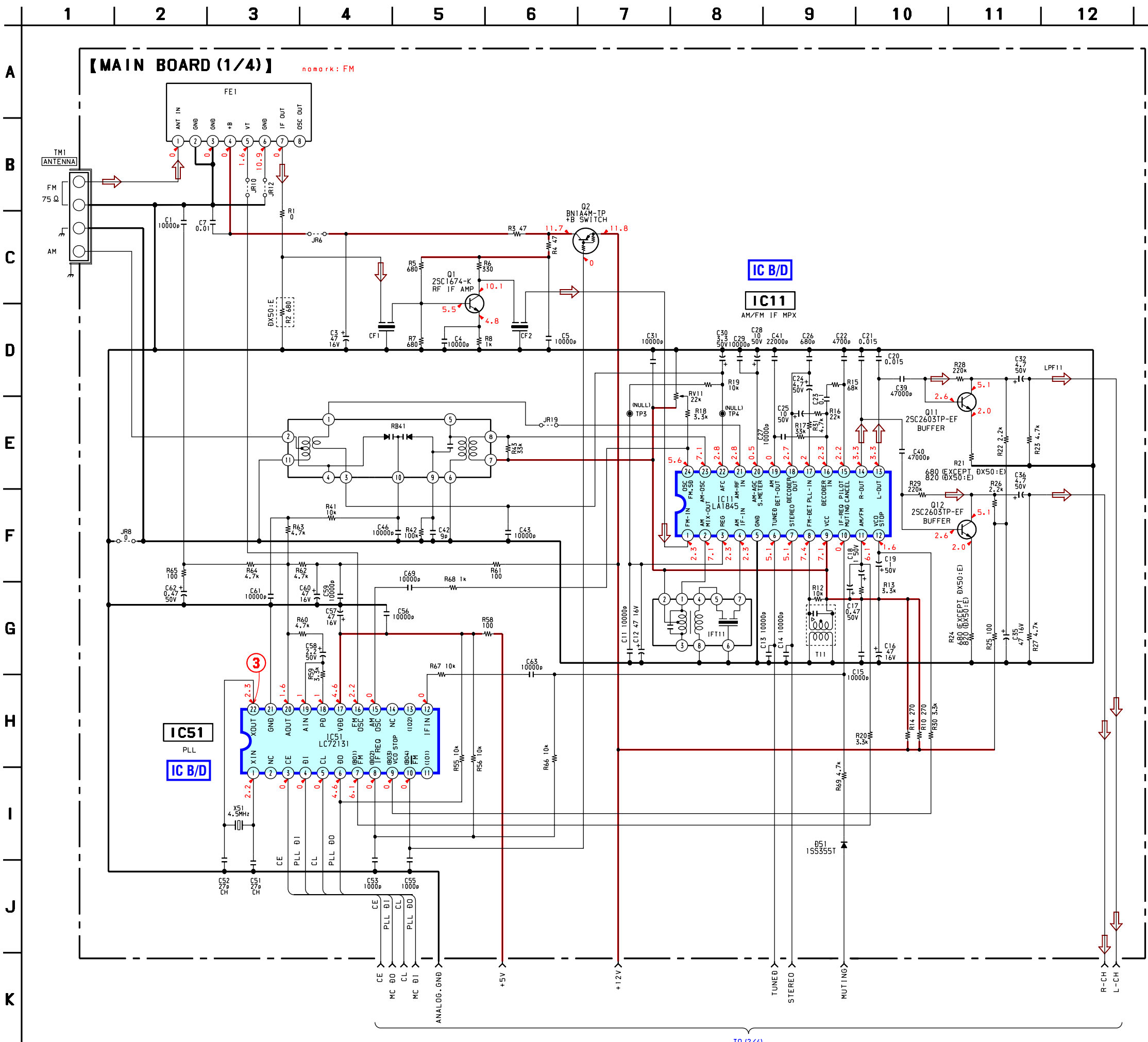
6-2. BLOCK DIAGRAMS
TUNER/CD SECTION



MAIN SECTION



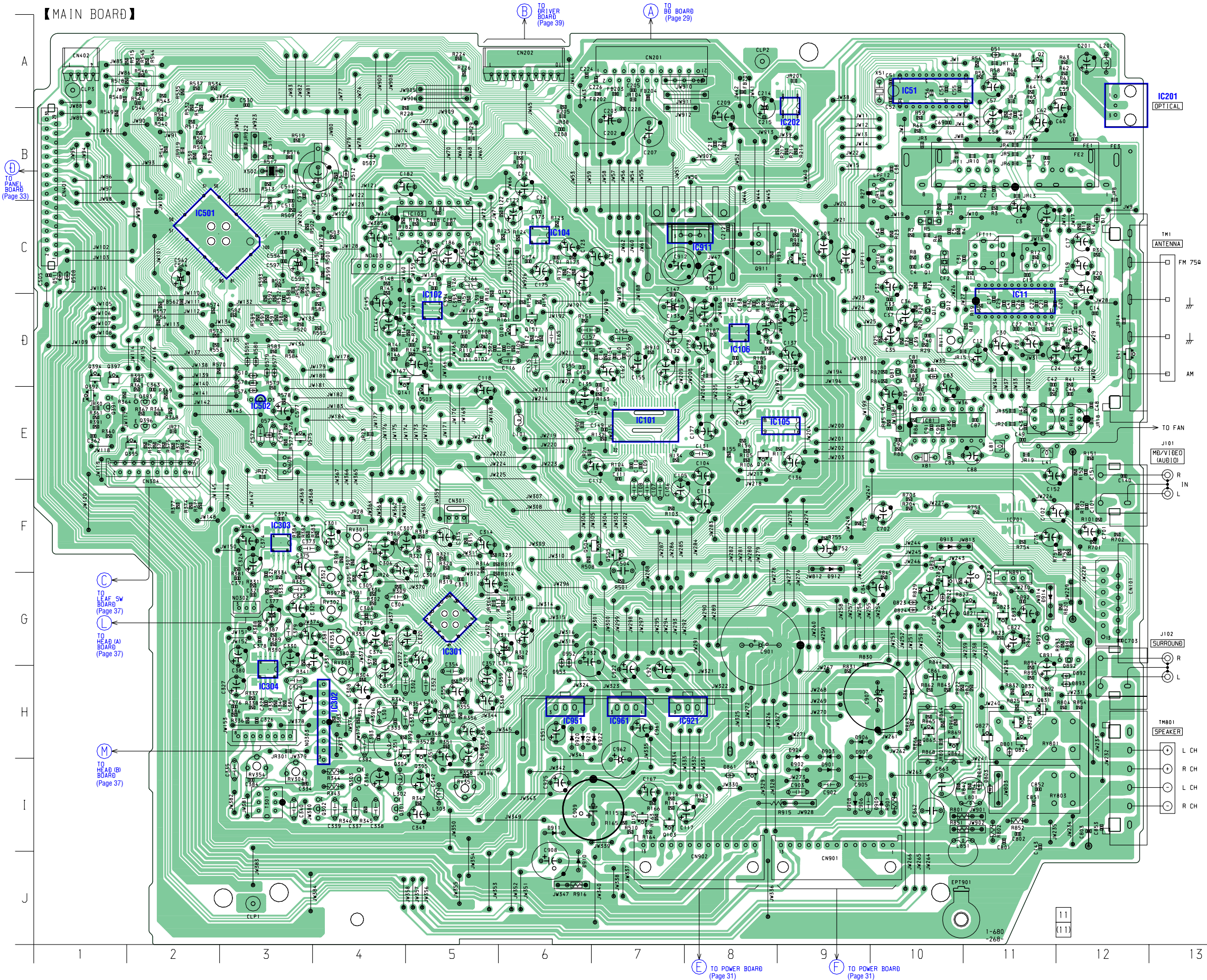
6-3. SCHEMATIC DIAGRAM MAIN SECTION (1/4) • See page 20 for Waveforms. • See page 45 for IC Block Diagrams.



- [illegible]

6-7. PRINTED WIRING BOARD MAIN SECTION • See page 20 for Circuit Boards Location.

There are a few cases that the part printed on this diagram isn't mounted in this model.



Semiconductor Location			
Ref. No.	Location	Ref. No.	Location
D11	C-12	Q1	C-10
D51	A-11	Q2	H-11
D508	C-1	Q11	D-10
D509	D-3	Q12	D-10
D510	D-3	Q101	D-6
D511	C-1	Q102	D-5
D575	E-3	Q103	I-7
D576	E-3	Q104	E-8
D577	D-3	Q141	D-5
D578	D-3	Q151	D-6
D579	D-3	Q152	D-5
D580	D-3	Q153	I-7
D801	H-11	Q301	I-4
D822	G-10	Q302	I-4
D824	G-10	Q303	I-4
D841	I-11	Q304	H-4
D861	I-8	Q305	H-5
D892	H-12	Q391	E-1
D893	H-12	Q392	E-1
D901	I-9	Q393	E-2
D902	I-9	Q394	D-1
D903	H-9	Q395	E-2
D904	H-9	Q396	E-2
D906	H-9	Q397	D-1
D907	I-9	Q503	E-5
D908	I-9	Q504	F-6
D909	I-10	Q505	F-7
D910	J-6	Q575	E-3
D911	I-6	Q821	G-11
D912	F-9	Q822	G-11
D920	H-6	Q823	G-11
D921	H-6	Q824	H-11
D922	H-7	Q825	H-11
D952	G-6	Q828	G-10
D953	G-6	Q829	F-10
IC11	D-11	Q861	I-8
IC51	B-10	Q862	I-10
IC101	E-7	Q863	I-10
IC102	D-5	Q891	G-11
IC104	C-6	Q892	H-12
IC105	E-8	Q911	C-8
IC106	D-8	Q912	C-9
IC201	B-12		
IC202	B-9		
IC301	G-5		
IC302	H-4		
IC303	F-3		
IC304	H-3		
IC501	C-2		
IC502	E-3		
IC911	C-8		
IC921	H-7		
IC951	H-6		
IC961	H-7		

-
- [BD BOARD] nomark: C0**
- IC101: DIGITAL SERVO, DIGITAL SIGNAL PROCESSOR, D/A CONVERTER**
 IC101 CX83017Q
- IC102: MOTOR/COIL DRIVE**
 IC102 BA5974FM-E2
- IC103: RF AMP**
 IC103 CXA2581N-T4
- IC104: OPTICAL PICK-UP BLOCK**
 (A-MAX. 3)
- Other components:**
 - Resistors: R101, R102, R103, R104, R105, R106, R107, R108, R109, R110, R111, R112, R113, R114, R115, R116, R117, R118, R119, R120, R121, R122, R123, R124, R125, R126, R127, R128, R129, R130, R131, R132, R133, R134, R135, R136, R137, R138, R139, R140, R141, R142, R143, R144, R145, R146, R147, R148, R149, R150, R151, R152, R153, R154, R155, R156, R157, R158, R159, R160, R161, R162, R163, R164, R165, R166, R167, R168, R169, R170, R171, R172, R173, R174, R175, R176, R177, R178, R179, R180, R181, R182, R183, R184, R185, R186, R187, R188, R189, R190, R191, R192, R193, R194, R195, R196, R197, R198, R199, R200, R201, R202, R203, R204, R205, R206, R207, R208, R209, R210, R211, R212, R213, R214, R215, R216, R217, R218, R219, R220, R221, R222, R223, R224, R225, R226, R227, R228, R229, R230, R231, R232, R233, R234, R235, R236, R237, R238, R239, R240, R241, R242, R243, R244, R245, R246, R247, R248, R249, R250, R251, R252, R253, R254, R255, R256, R257, R258, R259, R260, R261, R262, R263, R264, R265, R266, R267, R268, R269, R270, R271, R272, R273, R274, R275, R276, R277, R278, R279, R280, R281, R282, R283, R284, R285, R286, R287, R288, R289, R290, R291, R292, R293, R294, R295, R296, R297, R298, R299, R300, R301, R302, R303, R304, R305, R306, R307, R308, R309, R310, R311, R312, R313, R314, R315, R316, R317, R318, R319, R320, R321, R322, R323, R324, R325, R326, R327, R328, R329, R330, R331, R332, R333, R334, R335, R336, R337, R338, R339, R340, R341, R342, R343, R344, R345, R346, R347, R348, R349, R350, R351, R352, R353, R354, R355, R356, R357, R358, R359, R360, R361, R362, R363, R364, R365, R366, R367, R368, R369, R370, R371, R372, R373, R374, R375, R376, R377, R378, R379, R380, R381, R382, R383, R384, R385, R386, R387, R388, R389, R390, R391, R392, R393, R394, R395, R396, R397, R398, R399, R400, R401, R402, R403, R404, R405, R406, R407, R408, R409, R410, R411, R412, R413, R414, R415, R416, R417, R418, R419, R420, R421, R422, R423, R424, R425, R426, R427, R428, R429, R430, R431, R432, R433, R434, R435, R436, R437, R438, R439, R440, R441, R442, R443, R444, R445, R446, R447, R448, R449, R450, R451, R452, R453, R454, R455, R456, R457, R458, R459, R460, R461, R462, R463, R464, R465, R466, R467, R468, R469, R470, R471, R472, R473, R474, R475, R476, R477, R478, R479, R480, R481, R482, R483, R484, R485, R486, R487, R488, R489, R490, R491, R492, R493, R494, R495, R496, R497, R498, R499, R500, R501, R502, R503, R504, R505, R506, R507, R508, R509, R510, R511, R512, R513, R514, R515, R516, R517, R518, R519, R520, R521, R522, R523, R524, R525, R526, R527, R528, R529, R530, R531, R532, R533, R534, R535, R536, R537, R538, R539, R540, R541, R542, R543, R544, R545, R546, R547, R548, R549, R550, R551, R552, R553, R554, R555, R556, R557, R558, R559, R560, R561, R562, R563, R564, R565, R566, R567, R568, R569, R570, R571, R572, R573, R574, R575, R576, R577, R578, R579, R580, R581, R582, R583, R584, R585, R586, R587, R588, R589, R590, R591, R592, R593, R594, R595, R596, R597, R598, R599, R600, R601, R602, R603, R604, R605, R606, R607, R608, R609, R610, R611, R612, R613, R614, R615, R616, R617, R618, R619, R620, R621, R622, R623, R624, R625, R626, R627, R628, R629, R630, R631, R632, R633, R634, R635, R636, R637, R638, R639, R640, R641, R642, R643, R644, R645, R646, R647, R648, R649, R650, R651, R652, R653, R654, R655, R656, R657, R658, R659, R660, R661, R662, R663, R664, R665, R666, R667, R668, R669, R670, R671, R672, R673, R674, R675, R676, R677, R678, R679, R680, R681, R682, R683, R684, R685, R686, R687, R688, R689, R690, R691, R692, R693, R694, R695, R696, R697, R698, R699, R700, R701, R702, R703, R704, R705, R706, R707, R708, R709, R710, R711, R712, R713, R714, R715, R716, R717, R718, R719, R720, R721, R722, R723, R724, R725, R726, R727, R728, R729, R730, R731, R732, R733, R734, R735, R736, R737, R738, R739, R740, R741, R742, R743, R744, R745, R746, R747, R748, R749, R750, R751, R752, R753, R754, R755, R756, R757, R758, R759, R760, R761, R762, R763, R764, R765, R766, R767, R768, R769, R770, R771, R772, R773, R774, R775, R776, R777, R778, R779, R780, R781, R782, R783, R784, R785, R786, R787, R788, R789, R790, R791, R792, R793, R794, R795, R796, R797, R798, R799, R800, R801, R802, R803, R804, R805, R806, R807, R808, R809, R810, R811, R812, R813, R814, R815, R816, R817, R818, R819, R820, R821, R822, R823, R824, R825, R826, R827, R828, R829, R830, R831, R832, R833, R834, R835, R836, R837, R838, R839, R840, R841, R842, R843, R844, R845, R846, R847, R848, R849, R850, R851, R852, R853, R854, R85

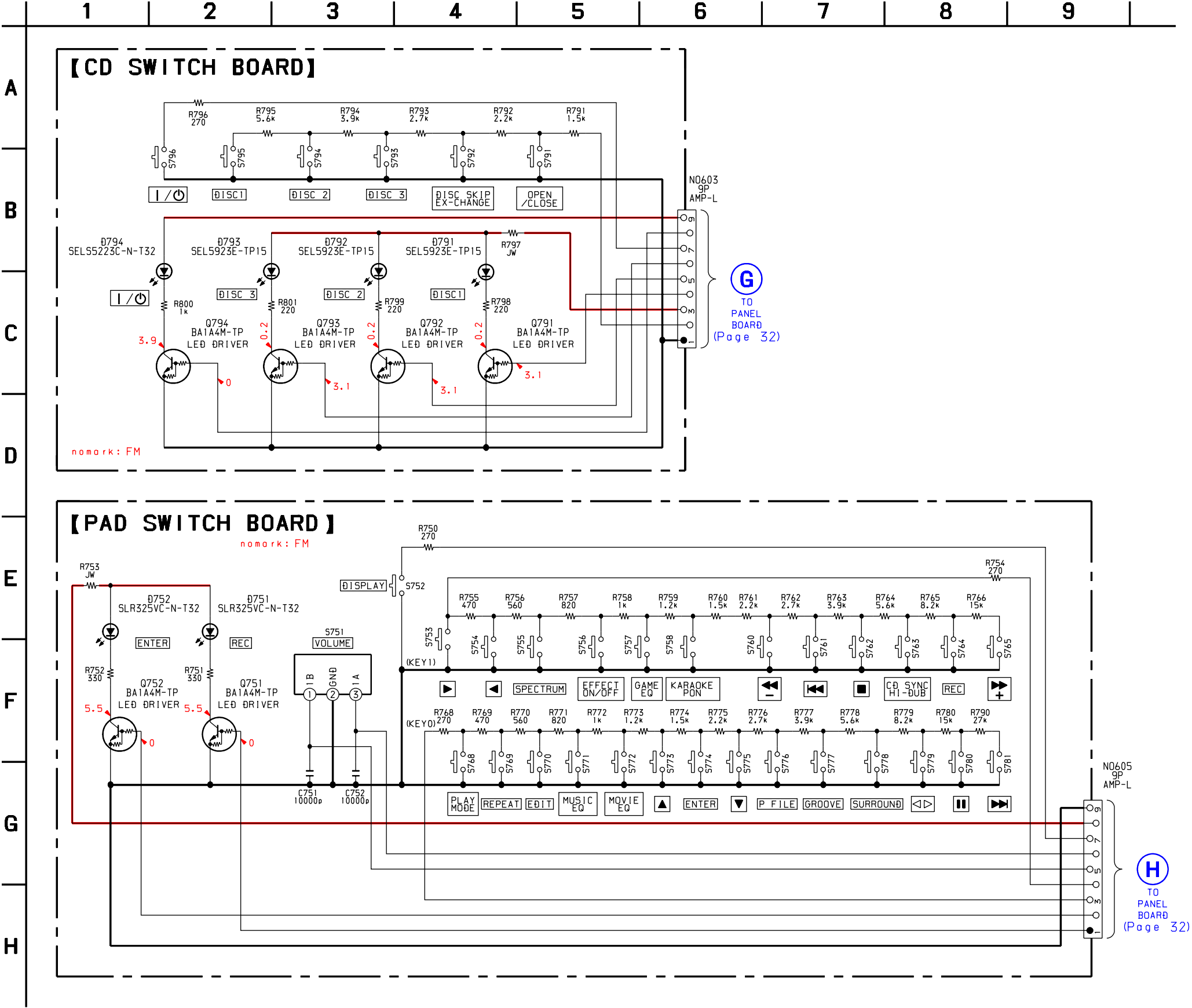


- **Semiconductor Location**

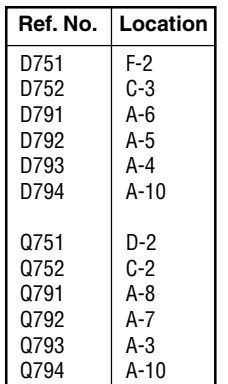
Ref. No.	Location
D501	A-6
D502	A-4
D543	E-2
D551	A-6
D581	E-4
D941	B-2
IC501	D-6
Q501	B-4
Q503	F-1
Q504	F-1
Q505	F-4
Q506	F-5
Q551	B-6
Q581	E-5
Q831	F-4
Q941	B-2

6-12. SCHEMATIC DIAGRAM PANEL SECTION

-



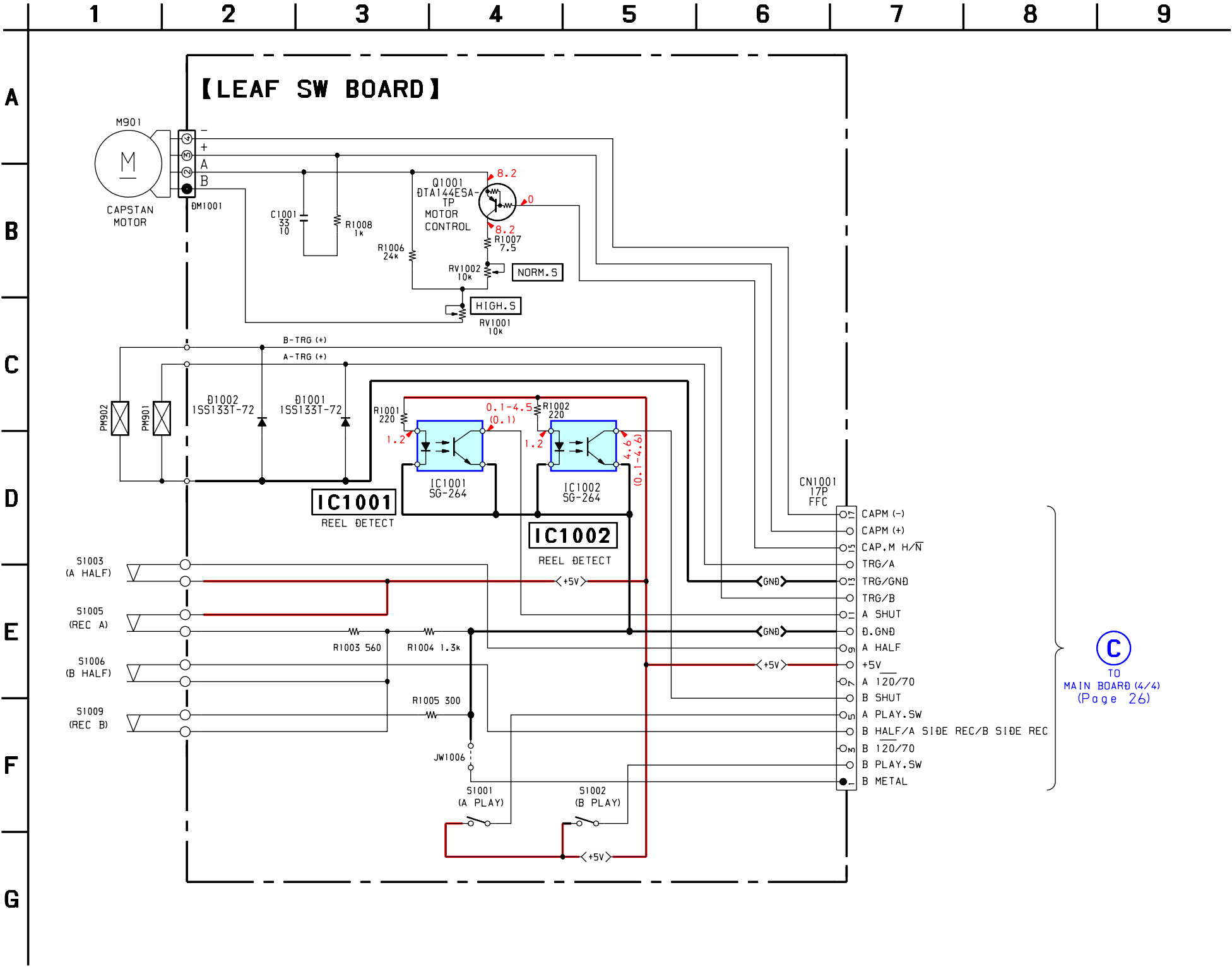
There are a few cases that the part printed on this diagram isn't mounted in this model.



6-16. SCHEMATIC DIAGRAM LEAF SW SECTION

- See page 20 for Waveforms.
- See page 45 for IC Block Diagrams.

There are a few cases that the part printed on this diagram isn't mounted in this model.

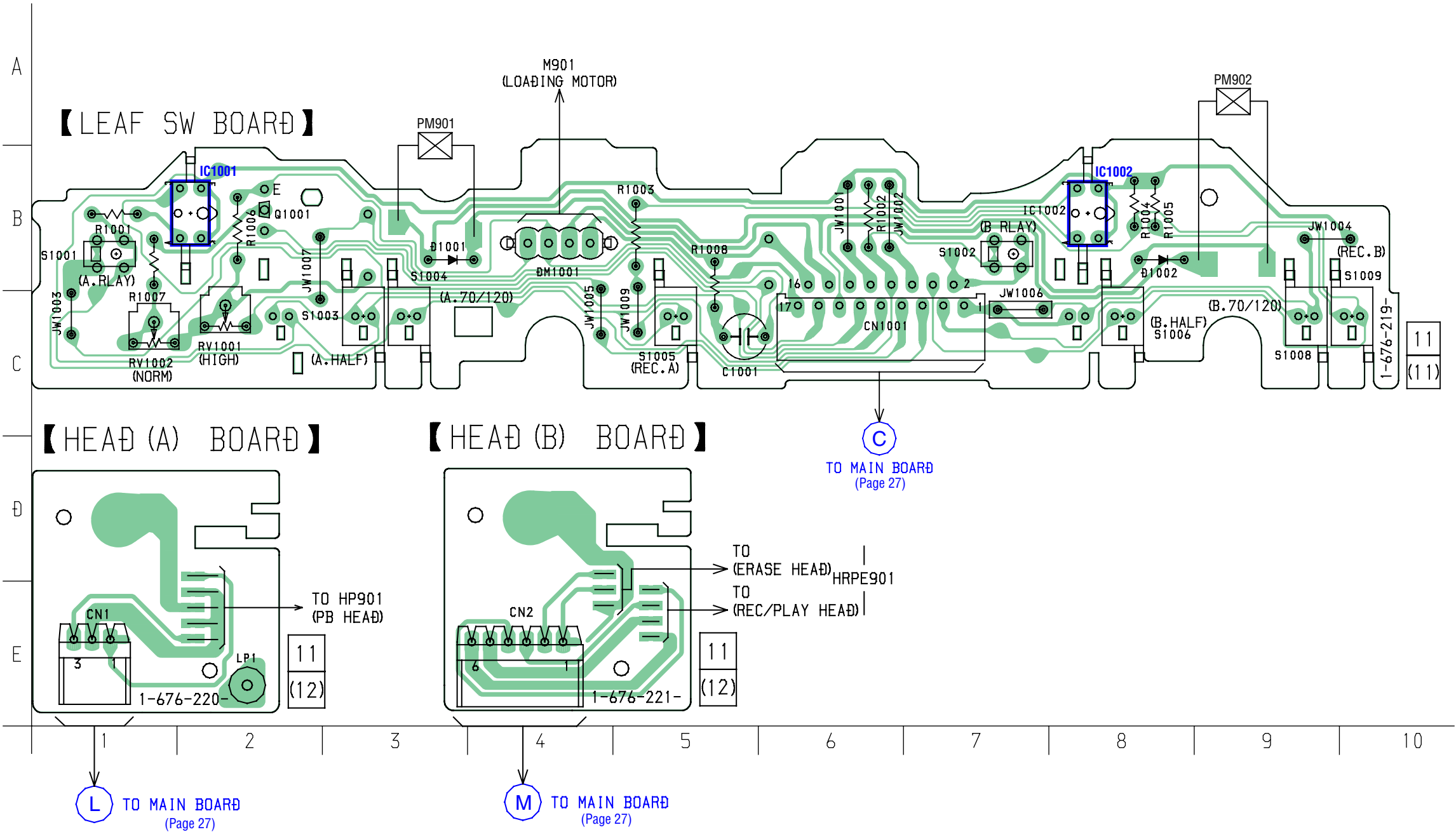


TO
MAIN BOARD (4/4)
(Page 26)

6-17. PRINTED WIRING BOARD LEAF SW SECTION

- See page 20 for Circuit Boards Location.
- See page 25 for Schematic Diagram of Head Board.

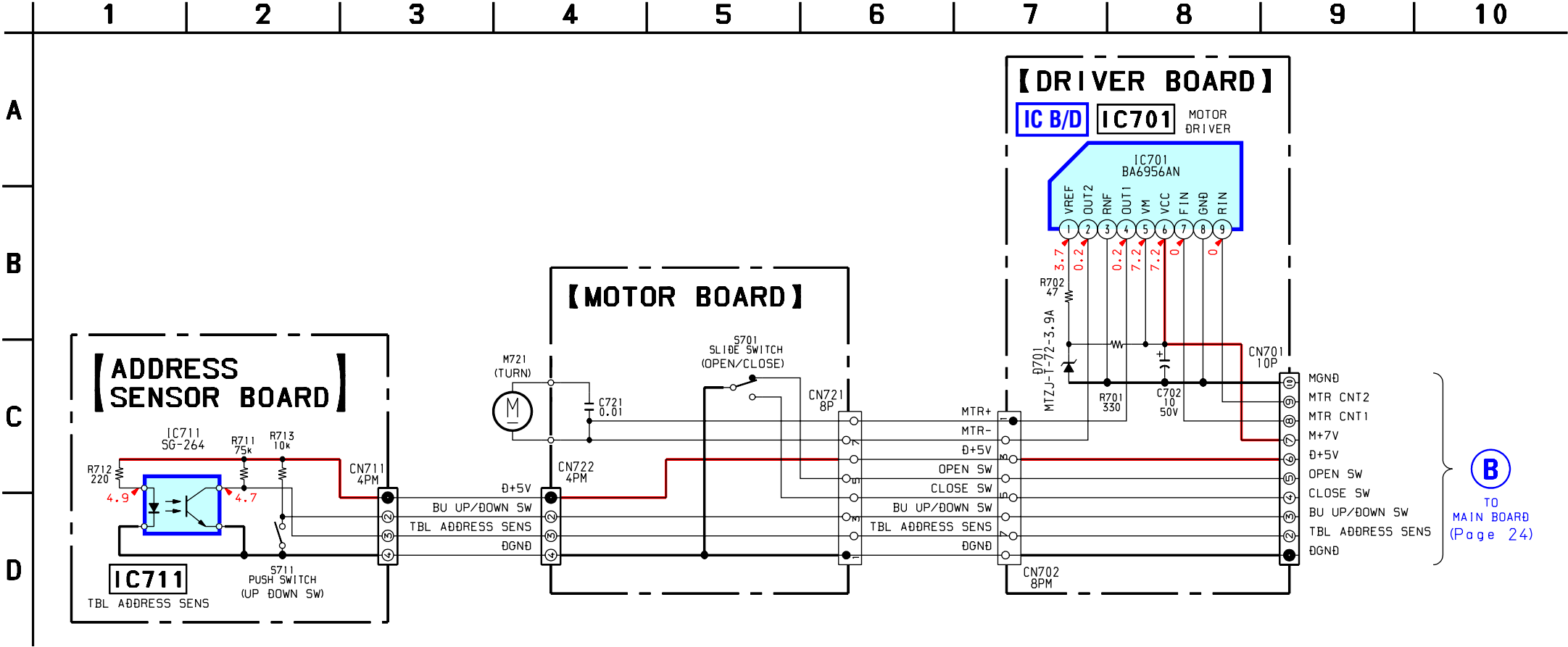
There are a few cases that the part printed on this diagram isn't mounted in this model.



• Semiconductor Location

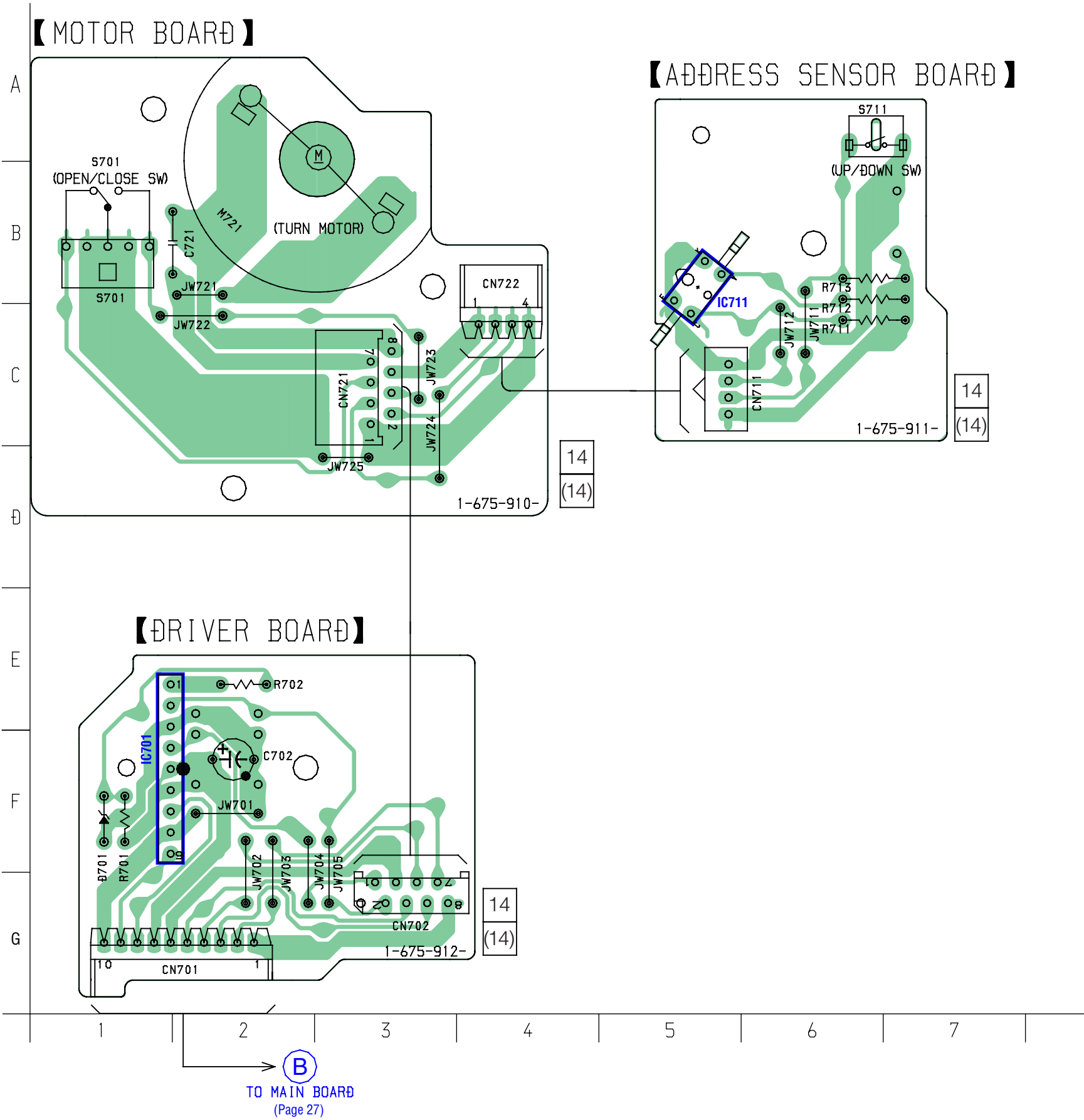
Ref. No.	Location
D1001	B-4
D1002	B-8
IC1001	B-2
IC1002	B-8
Q1001	B-2

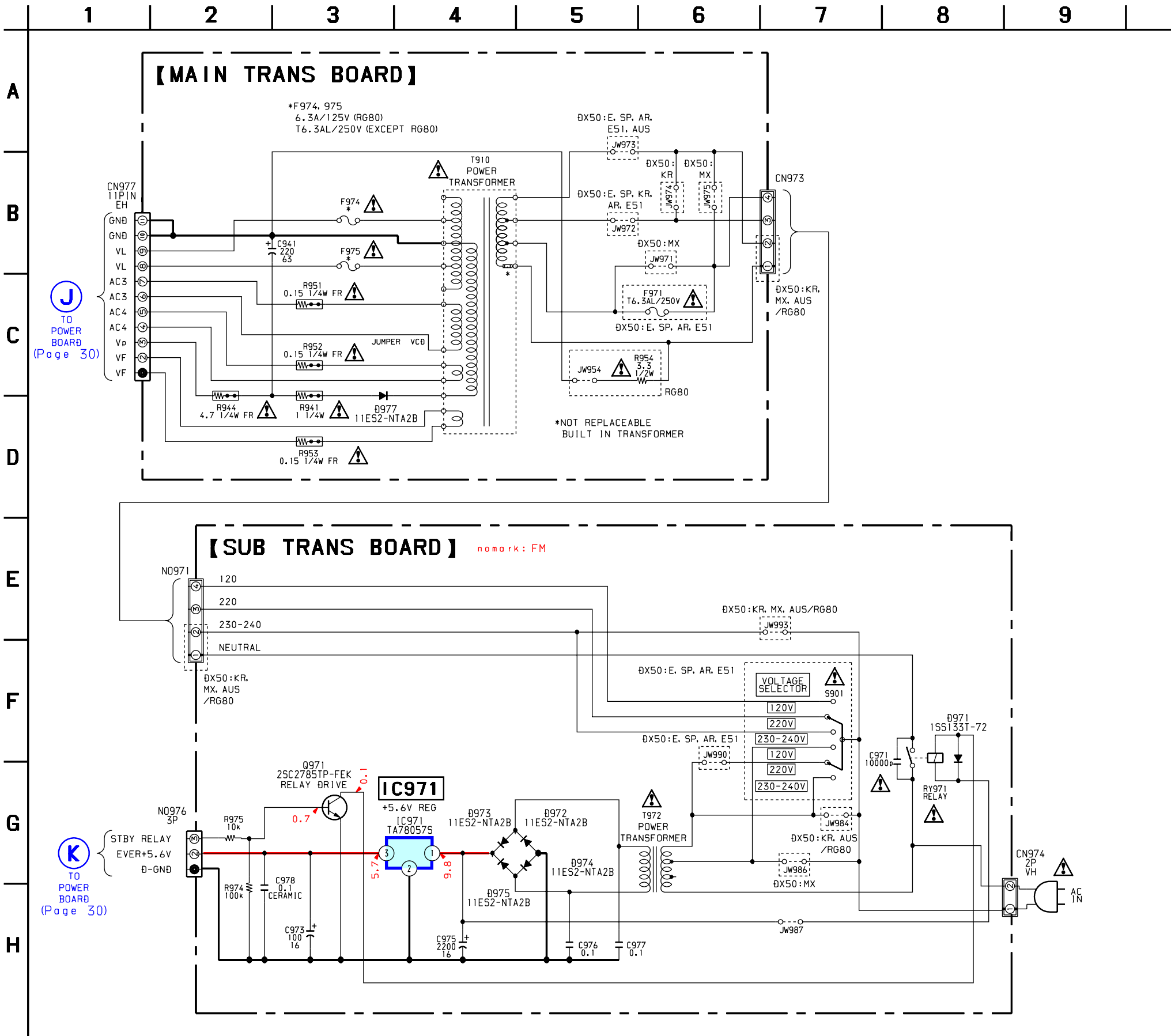
6-18. SCHEMATIC DIAGRAM DRIVER SECTION • See page 46 for IC Block Diagrams.



6-19. PRINTED WIRING BOARD DRIVER SECTION • See page 20 for Circuit Boards Location.

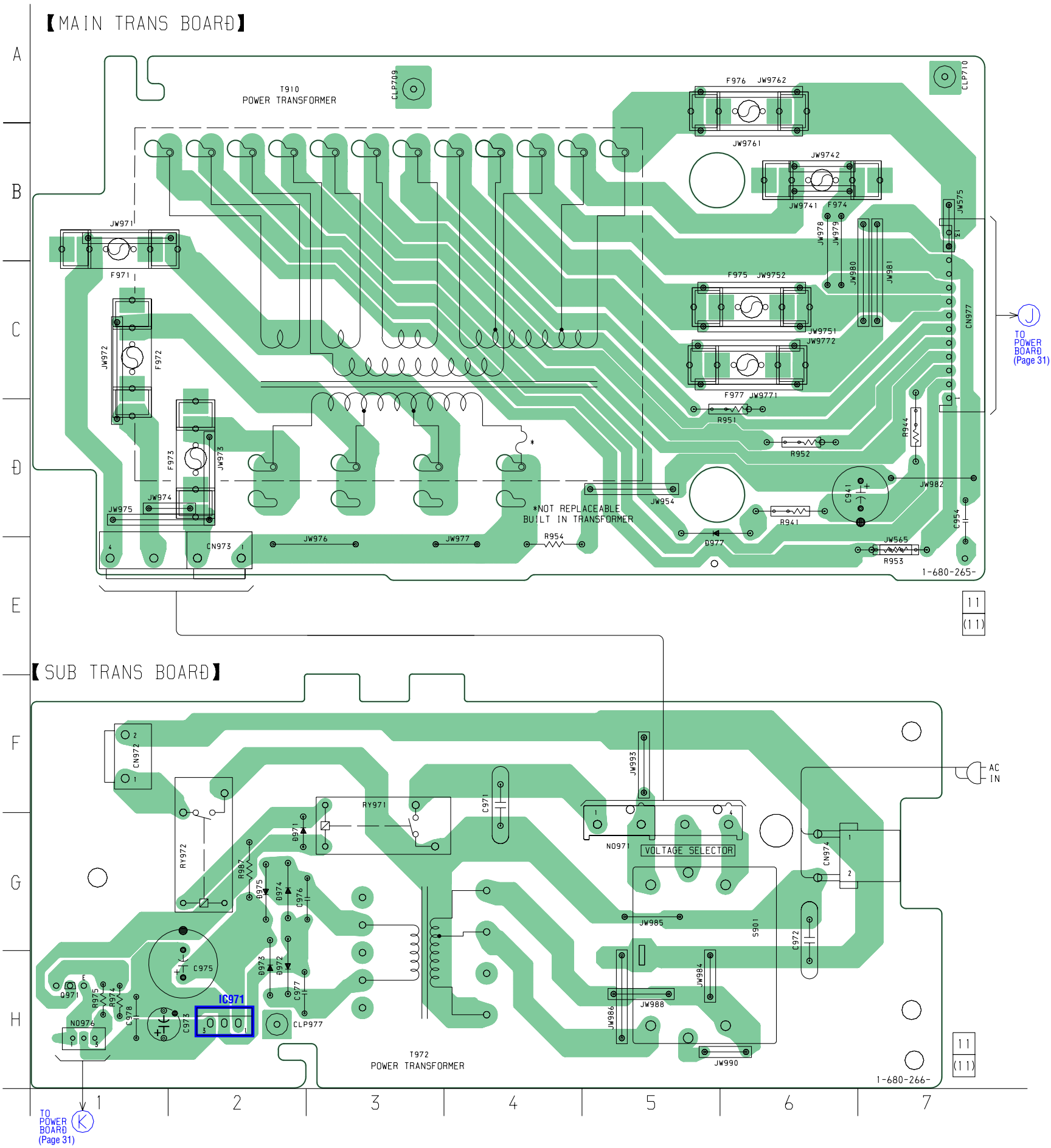
There are a few cases that the part printed on this diagram isn't mounted in this model.





6-21. PRINTED WIRING BOARD TRANS SECTION • See page 20 for Circuit Boards Location.

There are a few cases that the part printed on this diagram isn't mounted in this model.



• Semiconductor Location

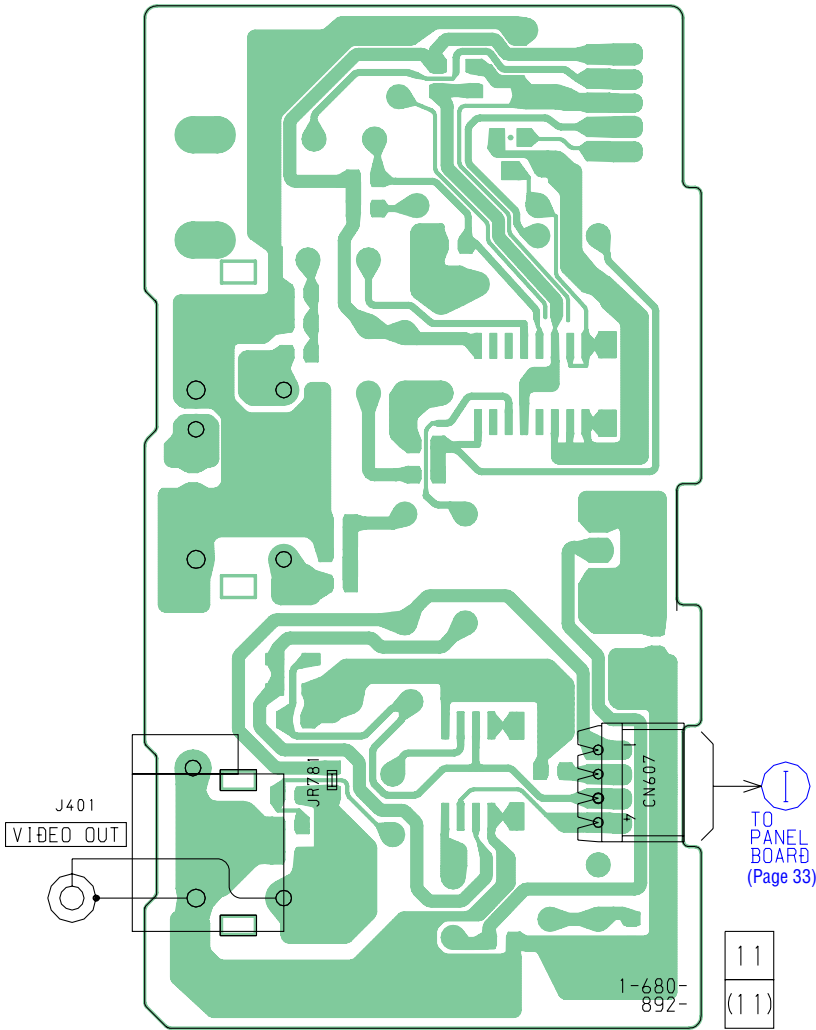
Ref. No.	Location
D971	G-2
D972	H-2
D973	H-2
D974	G-2
D975	G-2
D977	D-5
IC971	H-2
Q971	H-1

6-22. PRINTED WIRING BOARD SWITCH SECTION

• See page 20 for Circuit Boards Location.

There are a few cases that the part printed on this diagram isn't mounted in this model.

【SWITCH BOARD】



6-23. IC PIN FUNCTION DESCRIPTION

• IC501 M30620MCA-A95FP (MASTER CONTROL) (MAIN BOARD)

Pin No.	Pin Name	I/O	Description
1	AUDIO-OUT	O	Audio out ON/OFF signal (H=ON,L=OFF)
2	STEREO	I	STEREO detect signal input (L=ON,H=OFF)
3	TUNED	I	TUNED detect signal input (L=ON,H=OFF)
4	SIRCS	I	Remote control receiver data signal input
5	SUR1	O	Not used
6	SUR2	O	Not used
7	SUR3	O	Not used
8	N.C.	—	Connected to ground
9	N.C.	—	Connected to ground
10	XC-IN	I	Sub clock input
11	XC-OUT	O	Sub clock output
12	RESET	I	System reset input
13	X-OUT	O	Main system clock output
14	VSS	—	Ground
15	X-IN	I	Main system clock input
16	VCC	—	Power supply (+5V)
17	NMI	I	Not used (connected to Vcc)
18	RDS-INT	I	RDS interrupt signal input
19	SCOR	I	CD Q-data signal input
20	RDS-DATA	I	RDS data signal input
21	ST-MUTING	O	Tuner muting signal output
22	ST-CE	O	Tuner chip enable output
23	ST-DOUT	O	Tuner data signal output
24	BU-PWM3	O	BU PWM signal output
25	ST-DIN	I	Tuner data signal input
26	BU-PWM2	O	BU PWM signal output
27	ST-CLK	O	Tuner clock signal output
28	BU-PWM1	O	BU PWM signal output
29	IIC CLK	O	IIC CLS output
30	IIC DATA	O	IIC SDA output
31	N.C.	—	Not used
32	SQ-DATA	I	CD SQ data input
33	SQ-CLK	O	CD SQ clock output
34	SENS	I	BD condition signal input
35	CD-DATA	O	CD data signal output
36	N.C.	—	Not used (connected to ground)
37	CD-CLK	O	CD clock signal output
38	CD-POWER	O	CD power control signal output (H=ON,L=OFF)
39	CLOCK-OUT	O	Test point (clock check)
40	HOLD	O	MODE signal output
41	M-RESET	O	Display control IC reset signal output
42	XLT	O	CD LAT signal output
43	XRST	O	CD reset signal output
44	LOAD-IN	O	Loading motor control signal output
45	LOAD-OUT	O	Loading motor control signal output
46	OPEN-SW	I	Tray open detect signal input
47	CLOSE-SW	I	Tray close detect signal input
48	BU UP/DOWN-SW	I	Pick-up up/down detect signal input
49	T-SENS	I	CD table detect signal input
50	N.C.	I	Not used (connected to ground)

Pin No.	Pin Name	I/O	Description
51	A-TRG	O	A deck trigger control signal output
52	B-TRIG	O	B deck trigger control signal output
53	AMS-IN	I	AMS signal input (L=ON,H=OFF)
54	CAPM-H/L	O	Capstan motor High/Low speed control signal output
55	CAPM-CONTROL	O	Capstan motor REV/FWD/STOP control signal output
56	A-PLAY	I	A deck play detect signal input
57	B-PLAY	I	B deck play detect signal input
58	TC-MUTING	O	Tape deck line muting signal output (H=ON,L=OFF)
59	REC/PB/PAS	I	REC/PB/PAS select signal input (L=REC,Z=PB,H=PAS)
60	NR-ON/OFF	O	DOLBY NR ON/OFF signal output (H=ON,L=OFF)
61	REC-MUTING	O	REC MUTING ON/OFF signal output (L=ON,H=OFF)
62	VCC	—	Power supply (+5V)
63	SOFT-TEST	O	Test point (soft check out)
64	VSS	—	Ground
65	BIAS	O	BIAS ON/OFF signal output (H=ON,L=OFF)
66	EQ-H/N	O	EQ High/Normal select signal output (H=High,L=Normal)
67	PB-A/B	O	Playback deck A/B select signal output (L=A,H=B)
68	ALC	O	ALC ON/OFF signal output (L=ON,H=OFF)
69	TC-RELAY	O	Tape deck relay ON/OFF signal output (H=ON,L=OFF)
70	A-HALF	I	A deck half detect signal input
71	N.C.	—	Not used (connected to ground)
72	N.C.	—	Not used (connected to ground)
73	DISPLAY KEY	I	Display key detect signal input
74	POWER KEY	I	Power key detect signal input
75	STBY LED	O	Standby LED ON/OFF signal output (H=ON,L=OFF)
76	N.C.	—	Not used (connected to ground)
77	N.C.	—	Not used (connected to ground)
78	GAME/VIDEO	O	GAME/VIDEO select signal output (L=GAME,H=VIDEO)
79	DBFB	O	DBFB ON/OFF signal output (L=ON,H=OFF)
80	GEQ-DATA	O	Data signal output for IC101
81	GEQ CLK	O	Clock signal output for IC101
82	LINE-MUTING	O	LINE muting ON/OFF signal output (H=ON,L=OFF)
83	STK-MUTING	O	Power amplifier ON/OFF signal output (H=ON,L=OFF)
84	STBY-RELAY	O	Standby relay ON/OFF signal output
85	REAR-RELAY	O	Not used
86	SURR-RELAY	O	Not used
87	FRONT-RELAY	O	Front speaker relay ON/OFF signal output (H=ON,L=OFF)
88	PROTECT	I	Speaker protect ON/OFF signal input (L=ON,H=OFF)
89	A-SHUT	I	A deck reel pulse signal input
90	B-SHUT	I	B deck reel pulse signal input
91	B-HALF	I	B deck half detect signal input
92	MODEL-IN	I	MODEL input
93	SPEC-IN	I	Version select input
94	FREQ-B	O	Not used
95	FREQ-A	O	Not used
96	AVSS	—	Analog ground
97	BOOSTER-SW	I	Not used
98	VREF	—	Analog reference voltage
99	AVCC	—	Analog power supply
100	AC-CUT	I	AC_CUT ON/OFF check (L=ON,H=OFF)

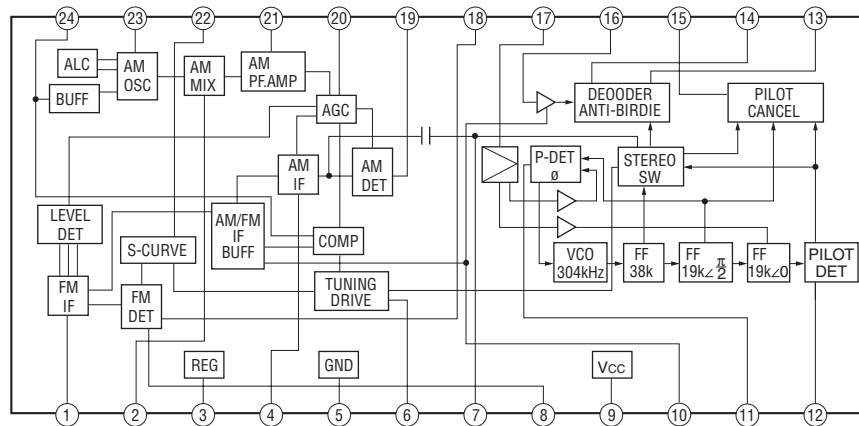
HCD-DX50/RG80

• IC601 MB90M407PF-G-103-BND (DISPLAY CONTROL) (PANEL BOARD)

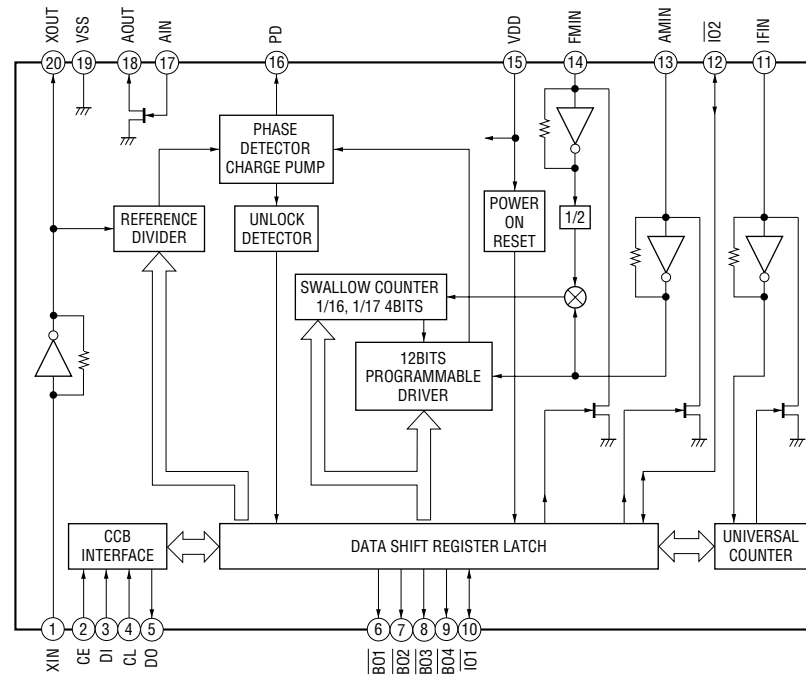
Pin No.	Pin Name	I/O	Description
1 - 5	G5-1	O	FL grid signal output
6 - 10	P1-5	O	FL segment signal output
11	VSS-IO	—	Ground for I/O port
12 - 22	P6-16	O	FL segment signal output
23	VDD-FIP	—	Power supply for FL tube
24 - 42	P17-35	O	FL segment signal output
43	VSS-IO	—	Ground for I/O port
44 - 47	P36-39	O	FL segment signal output
48	VKK	—	-30V for FL tube
49	MD0	I	Micom operation mode (10k pull-up)
50	MD1/VDD-VFT	I	Micom operation mode
51	MD2	I	Micom operation mode (10k pull-down)
52	REC/PAUSE LED	O	REC/PAUSE LED control signal output
53	ENTER LED	O	ENTER LED control signal output
54	TAPE A/B LED	O	TAPE A/B LED control signal output
55	TUNER LED	O	TUNER LED control signal output
56	MD/VIDEO LED	O	MD/VIDEO LED control signal output
57	CD/VCD LED	O	CD/VCD LED control signal output
58	GAME IN LED	O	GAME IN LED control signal output
59	DISC 1 LED	O	DISC 1 LED control signal output
60	IIC DATA	O	IIC DATA signal output
61	IIC CLK	O	IIC CLK signal output
62	AVCC	—	Power supply for A/D
63	AVSS	—	Ground for A/D
64 - 66	KEY0-2	I	Key input (A/D)
67 - 70	BPF4-1	I	BPF input (A/D)
71	BPF0	I	SUPER LOW FREQUENCY (BPF input)
72	BPF5	I	BPF input (A/D)
73	ALL BAND	I	L+R (BPF input)
74	DISC 2 LED	O	DISC 2 LED control signal output
75	DISC 3 LED	O	DISC 3 LED control signal output
76	VIDEO SWITCH	O	Not used
77	RESET	—	Reset signal input
78	HEADPHONE	I	Headphone detect signal input (H=ON,L=OFF)
79	VOL 1B	I	Volume 1B signal input
80	VOL 1A	I	Volume 1A signal input
81	VSS-CPU	—	Ground for CPU
82	X0	—	Oscillator
83	X1	—	Oscillator
84	VCC-CPU	—	Power supply for CPU
85 - 91	N.C.	—	Not used
92	SOFT TEST	O	Not used
93 - 100	G13-6	O	FL grid signal output

6-24. IC BLOCK DIAGRAMS

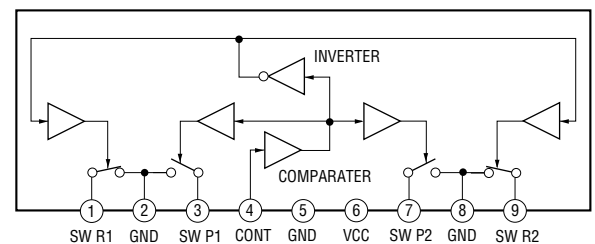
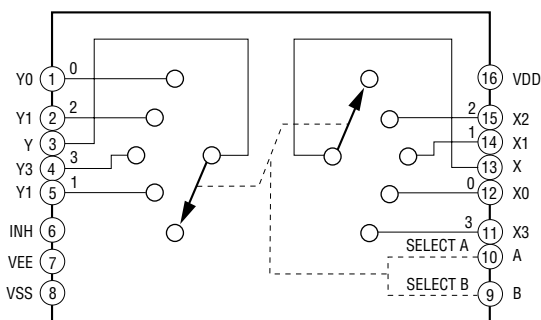
IC11 LA1845 (MAIN BOARD)



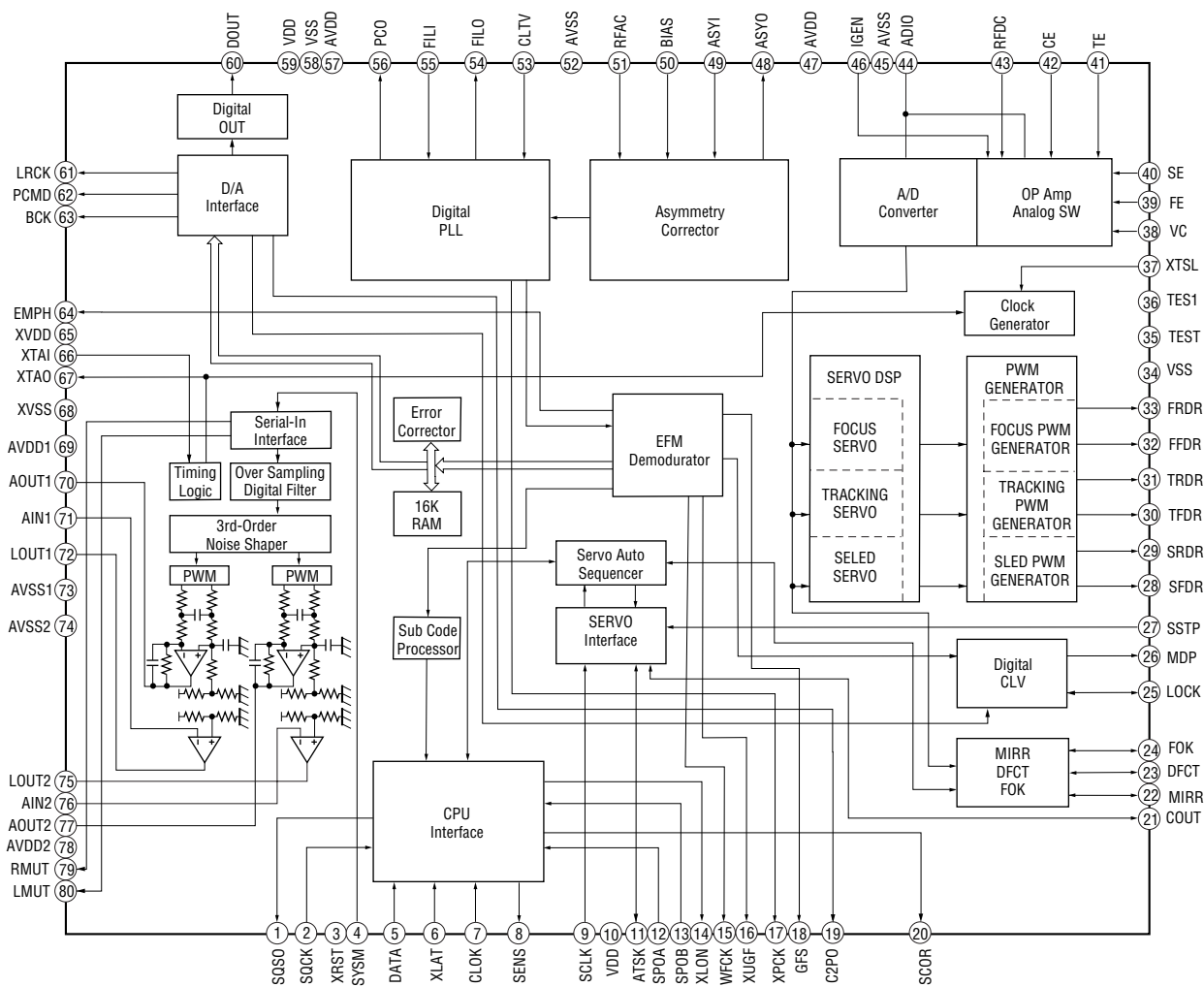
IC51 LC72131 (MAIN BOARD)



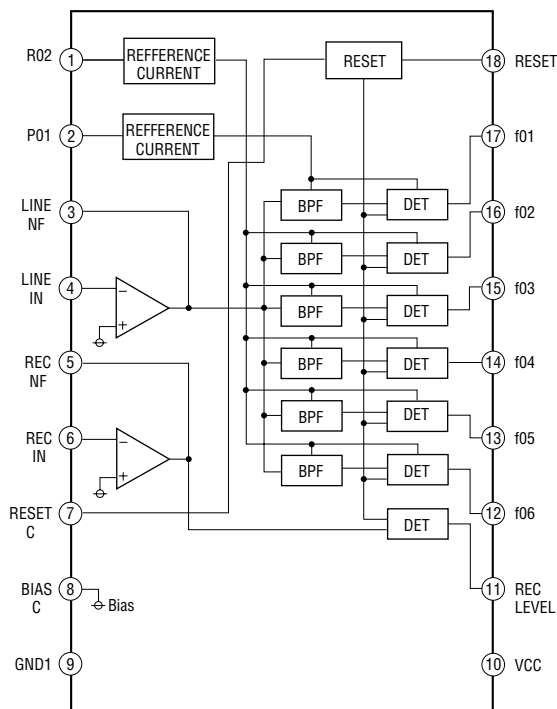
IC105 BU4052BCF-E2 (MAIN BOARD)

IC302 μ PC1330HA (MAIN BOARD)

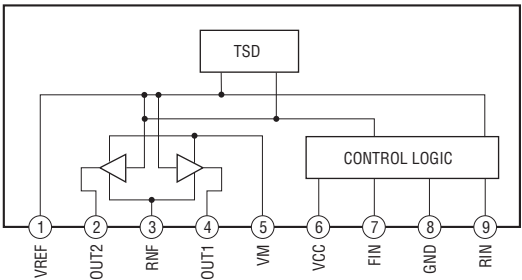
IC101 CXD3017Q (BD BOARD)



IC602 BA3830F-E2 (PANEL BOARD)



IC701 BA6956AN (DRIVER BOARD)



SECTION 7 EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

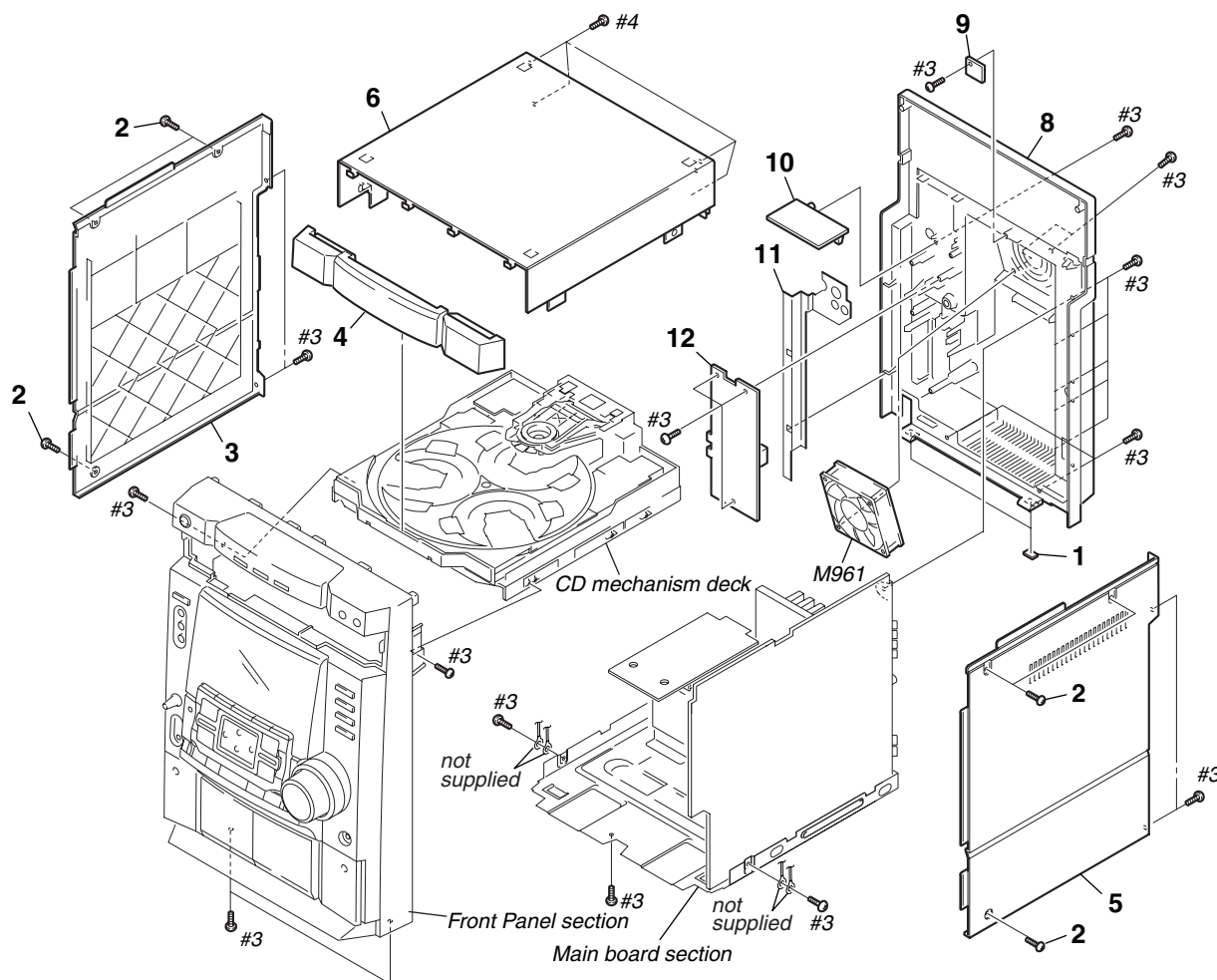
Abbreviation

AR	: Argentina model
AUS	: Australian model
E51	: Chilean and Peruvian model
KR	: Korea model
MX	: Mexican model
SP	: Singapore model

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

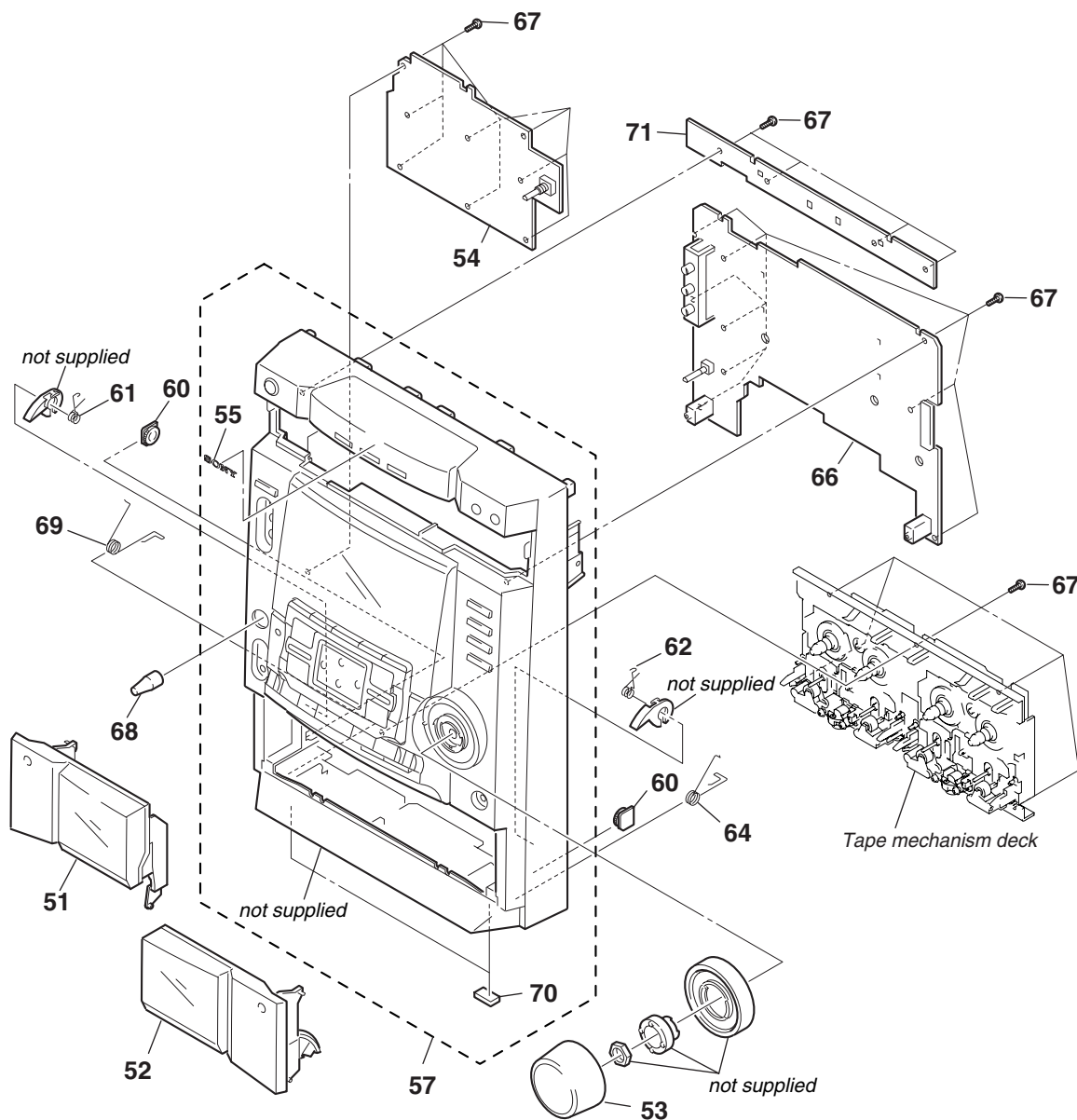
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. CABINET SECTION



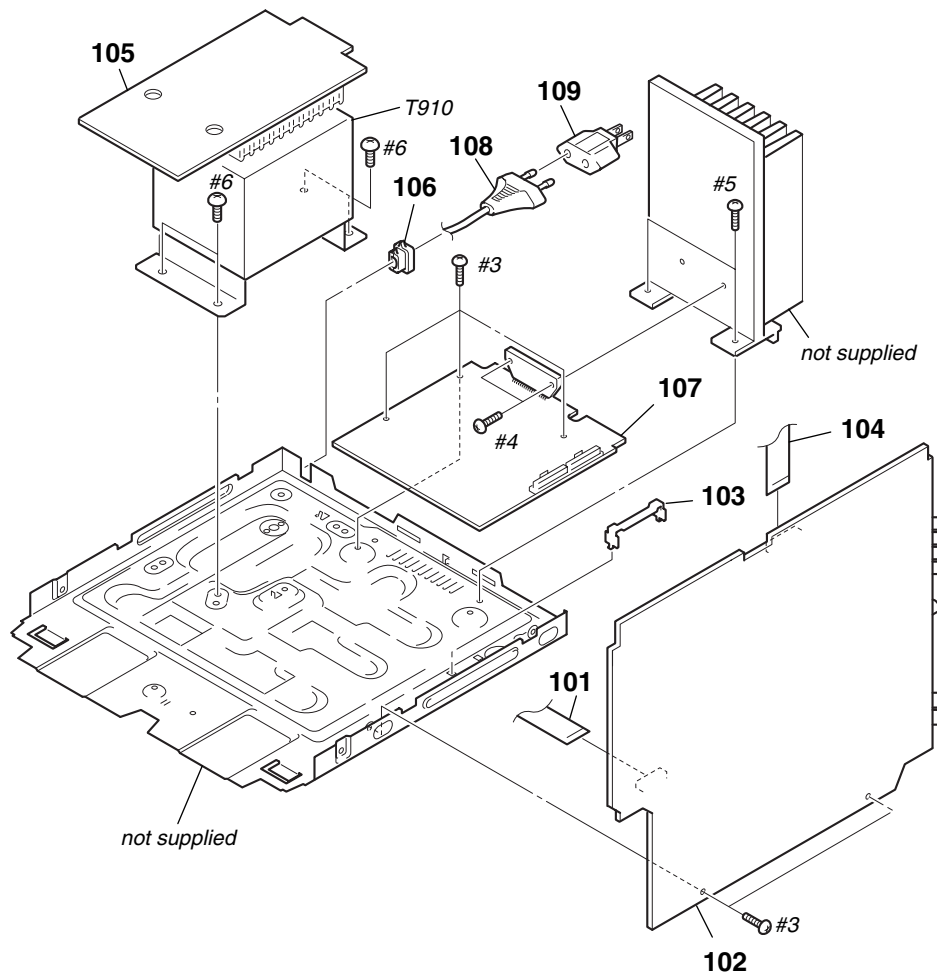
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	4-225-252-01	CUSHION (FOOT)		9	1-681-143-11	SENSOR BOARD	
2	3-363-099-41	SCREW (CASE 3 TP2)		10	1-680-892-11	SWITCH BOARD	
3	4-225-038-22	SIDE PANEL (L)		11	4-233-148-01	GROUND PLATE	
4	4-231-563-01	LOADING PANEL (DX50)		12	A-4475-786-A	SUB TRANS BOARD, COMPLETE (DX50:E,SP,AR)	
4	4-231-563-61	LOADING PANEL (RG80)		12	A-4476-280-A	SUB TRANS BOARD, COMPLETE (DX50:KR,MX,AUS)	
5	4-225-039-72	SIDE PANEL (R)		12	A-4476-979-A	SUB TRANS BOARD, COMPLETE (RG80)	
6	4-224-550-01	CASE (TOP)		M961	1-763-072-11	FAN, D.C.	
8	4-231-580-01	BACK PANEL (DX50:E,SP,AR)		#3	7-685-647-11	SCREW +BVTP 3X10	
8	4-231-580-21	BACK PANEL (DX50:KR,MX,AUS/RG80)		#4	7-685-648-11	SCREW +BVTP 3X12	

7-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	X-4953-360-1	TC HOLDER (L) ASSY		62	4-231-841-01	SPRING (HEART CAM-B)	
52	X-4953-361-1	TC HOLDER (R) ASSY		64	4-231-587-01	SPRING R	
53	4-231-571-01	KNOB VOL		66	A-4475-773-A	PANEL BOARD, COMPLETE (DX50)	
54	A-4475-778-A	PAD SWITCH BOARD, COMPLETE (DX50)		66	A-4476-975-A	PANEL BOARD, COMPLETE (RG80)	
54	A-4476-977-A	PAD SWITCH BOARD, COMPLETE (RG80)		67	4-951-620-01	SCREW (2.6X8), +BVTP	
55	4-963-404-21	EMBLEM (5-A), SONY		68	4-231-805-01	KNOB (MIC) (DX50)	
57	X-4953-359-1	FRONT PANEL ASSY (DX50)		69	4-231-586-01	SPRING L	
57	X-4953-795-1	FRONT PANEL ASSY (RG80)		70	4-225-252-01	CUSHION (FOOT)	
60	4-224-104-11	DAMPER		71	1-680-263-11	CD SWITCH BOARD	
61	4-231-836-01	SPRING (HEART CAM-A)					

7-3. MAIN BOARD SECTION



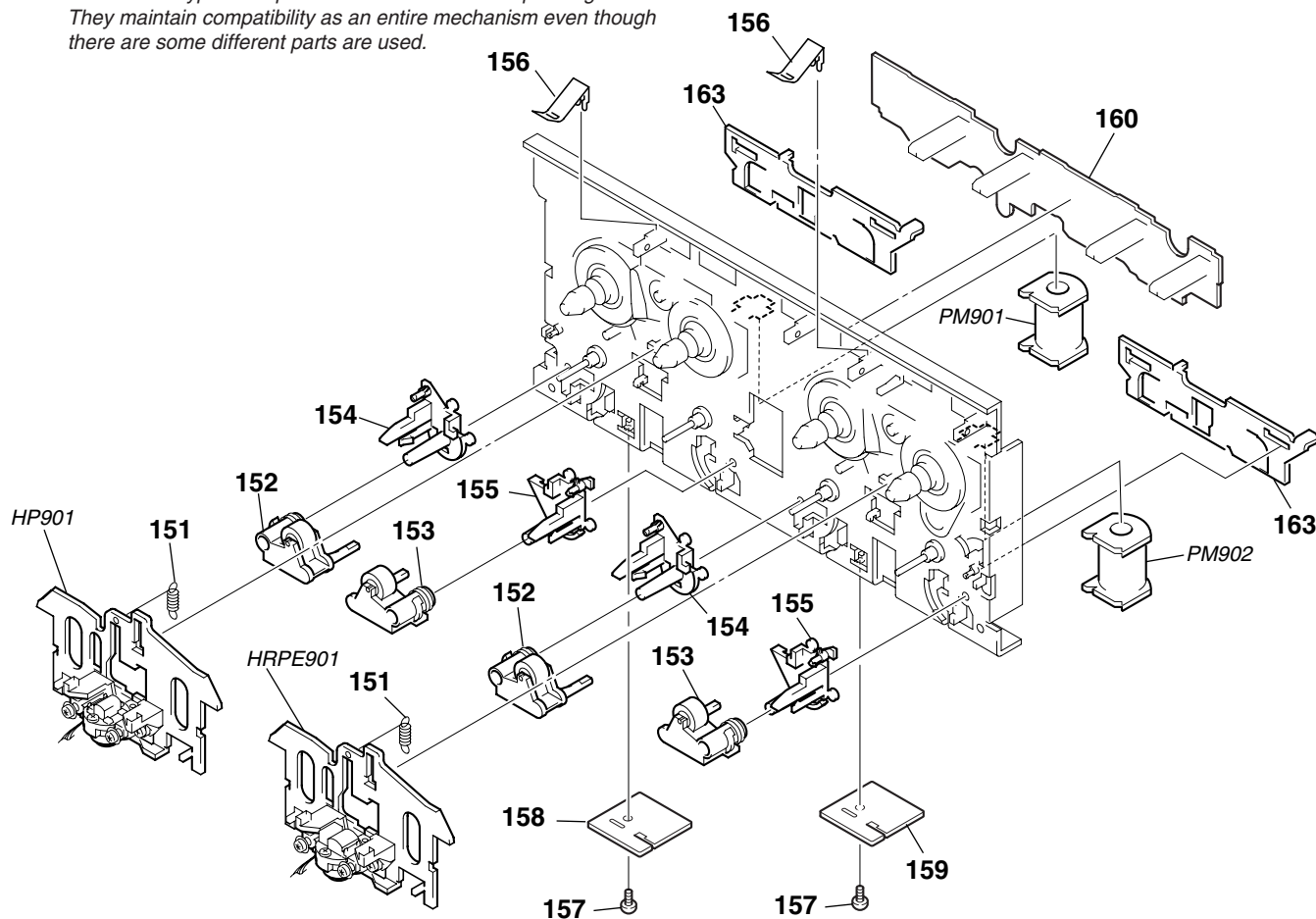
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
101	1-773-045-11	WIRE (FLAT TYPE) (17 CORE)		107	A-4475-781-A	POWER BOARD, COMPLETE (DX50:SP,KR,AUS)	
102	A-4475-789-A	MAIN BOARD, COMPLETE (DX50:SP,AUS)		107	A-4476-324-A	POWER BOARD, COMPLETE (DX50:E,MX,AR)	
102	A-4476-287-A	MAIN BOARD, COMPLETE (DX50:E)		107	A-4476-982-A	POWER BOARD, COMPLETE (RG80)	
102	A-4476-330-A	MAIN BOARD, COMPLETE (DX50:MX,AR)		△ 108	1-696-847-11	CORD, POWER (DX50:AUS)	
102	A-4476-332-A	MAIN BOARD, COMPLETE (DX50:KR)		△ 108	1-769-079-21	CORD, POWER (DX50:KR)	
102	A-4476-984-A	MAIN BOARD, COMPLETE (RG80)		△ 108	1-777-071-51	CORD, POWER (DX50:SP,E51)	
* 103	4-988-533-01	HOLDER, PWB		△ 108	1-783-941-12	CORD, POWER (DX50:AR)	
104	1-757-683-11	CABLE, FLAT (21 CORE)		△ 108	1-791-901-11	CORD, POWER (DX50:E,MX/RG80)	
105	1-680-265-11	MAIN TRANS BOARD		△ 109	1-569-008-21	ADAPTOR, CONVERSION (DX50:SP,E51)	
106	3-703-244-00	BUSHING (FBS001), CORD (DX50:SP,KR,AR,E51,AUS)		△ T910	1-435-861-11	POWER TRANSFORMER (DX50)	
106	4-966-266-01	BUSHING (S) (FBS002), CORD (DX50:E,MX/RG80)		△ T910	1-435-863-11	POWER TRANSFORMER (RG80)	
106	3-701-513-31	BUSHING (S) (4516) (CND,E,MX)		#4	7-685-650-11	SCREW +BVTP 3X16	
				#5	7-685-852-11	SCREW +BVTT 3X8	
				#6	7-685-881-11	SCREW +BVTT 4X8	

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.

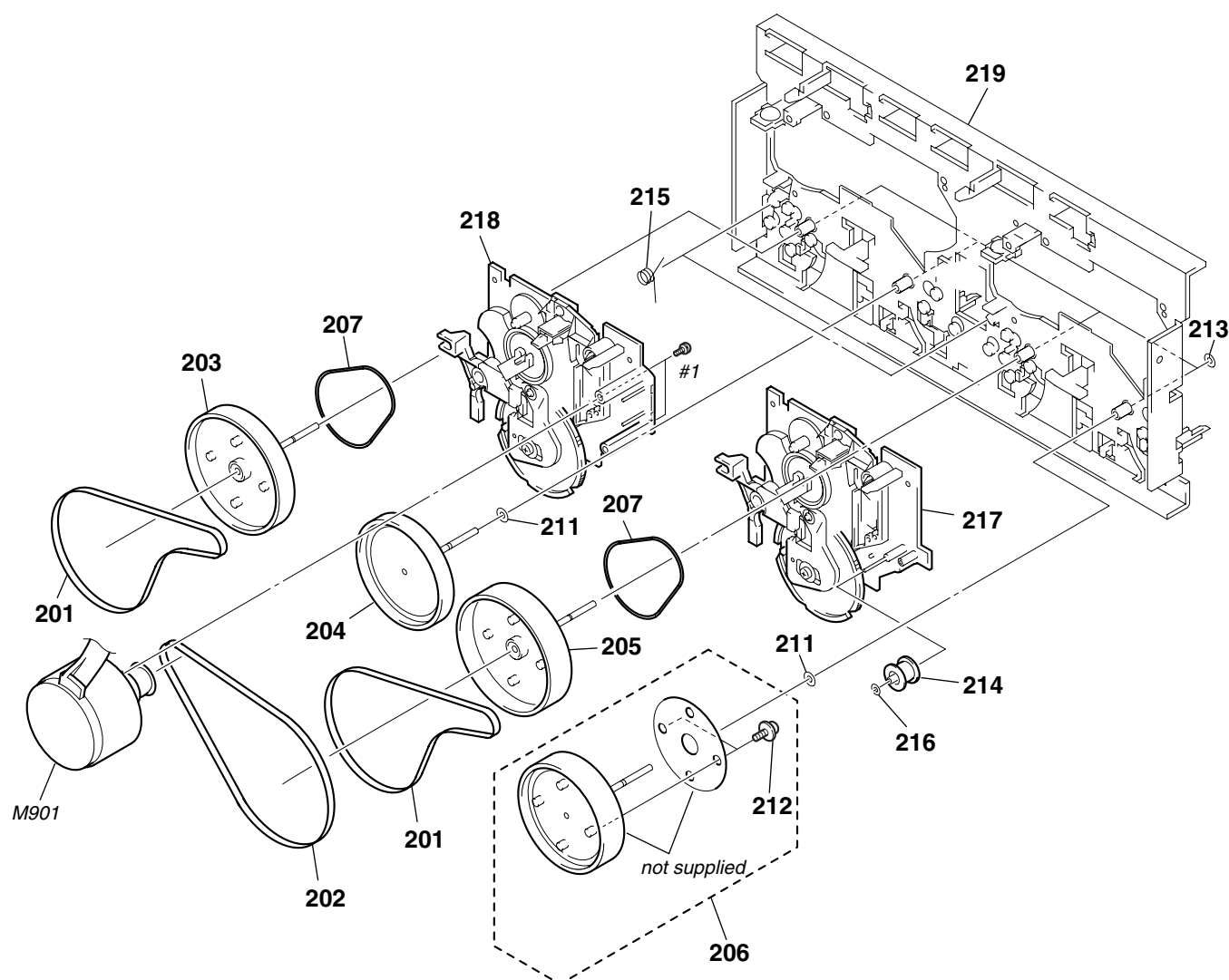
7-4. TAPE MECHANISM DECK SECTION-1 (TCM-230PWR41C)

Note: Two different types of tape mechanism are used depending on models.
They maintain compatibility as an entire mechanism even though there are some different parts are used.



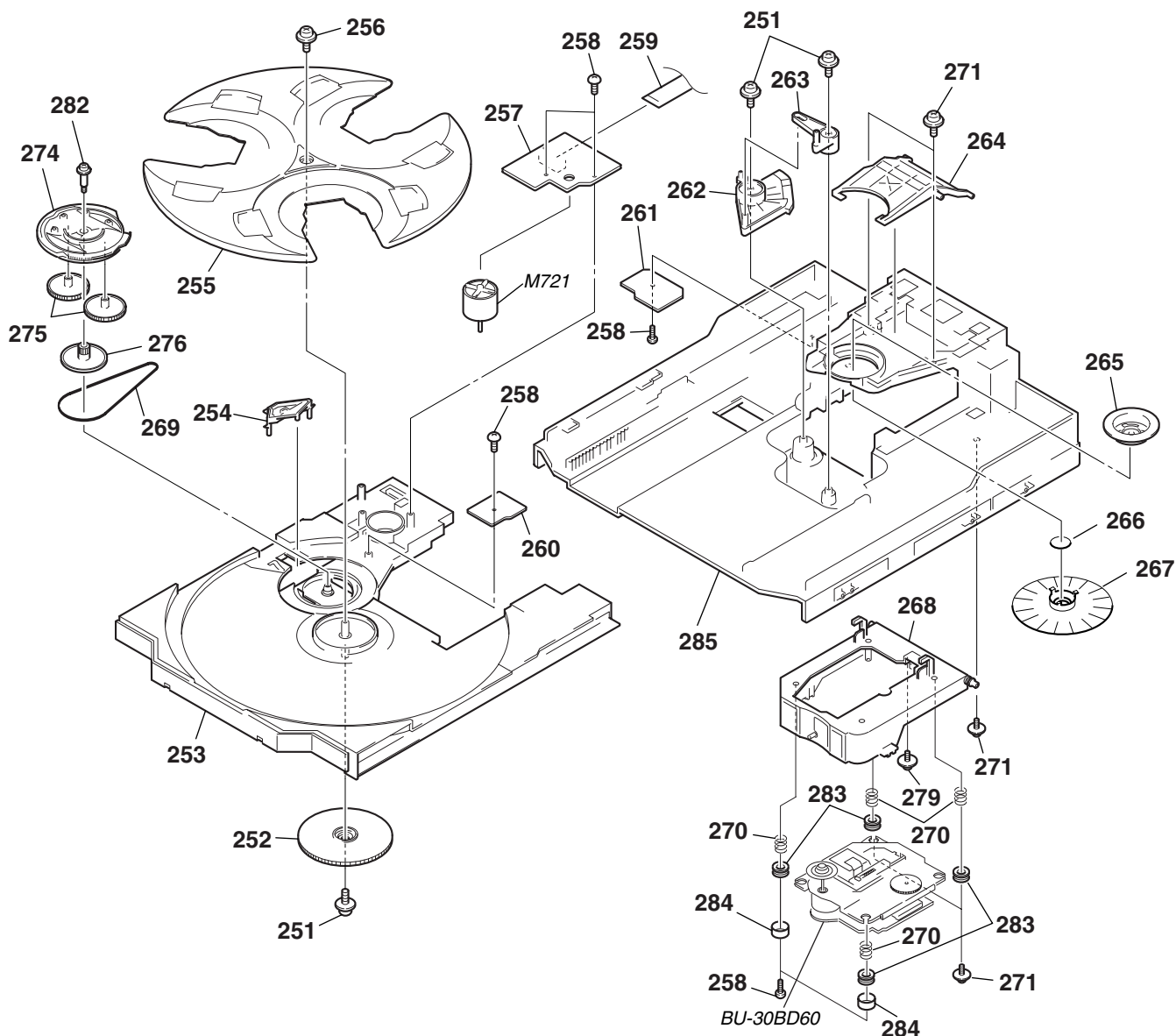
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
151	3-016-574-01	SPRING (HEAD), TENSION		159	A-2007-840-A	HEAD (B) BOARD, COMPLETE	
152	3-017-366-01	BASE (PINCH LEVER REV)		160	A-2007-846-A	LEAF SW BOARD, COMPLETE	
153	3-017-365-01	BASE (PINCH LEVER FWD)		163	3-016-566-01	SLIDER, REVERSE	
154	X-3374-156-1	PINCH LEVER (REV) ASSY		HP901	A-2004-765-A	BASE (A) ASSY, HEAD	
155	X-3374-155-1	PINCH LEVER (FWD) ASSY		HRPE901	A-2004-766-A	BASE (B) ASSY, HEAD	
156	3-016-567-01	SPRING (CASSETTE), LEAF		PM901	1-454-887-11	PLUNGER	
157	4-227-872-01	SCREW (+PTT 2X4), GROUND POINT		PM902	1-454-887-11	PLUNGER	
158	A-2007-839-A	HEAD (A) BOARD, COMPLETE					

7-5. TAPE MECHANISM DECK SECTION-2 (TCM-230PWR41C)



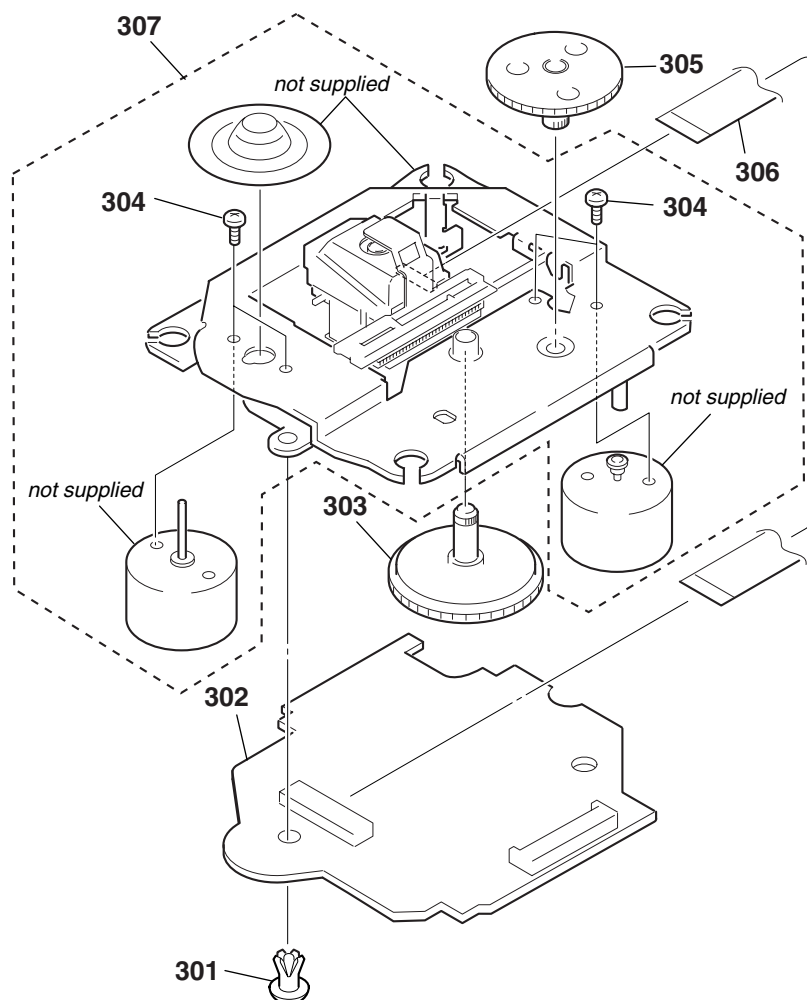
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
201	3-041-946-01	BELT (CAPSTAN B)		214	3-040-580-11	PULLEY (TENSION)	
202	4-227-239-01	BELT (CAPSTAN C)		215	4-228-450-11	SPRING (REVERS SLIDER), TORSION	
203	X-3378-249-1	FLYWHEEL (B-FWD) ASSY		216	3-017-407-01	WASHER (FR LEVER), STOPPER	
204	X-3378-250-1	FLYWHEEL (B-REV) ASSY		217	A-2004-795-A	CHASSIS (A) ASSY, SUB	
205	X-3378-247-1	FLYWHEEL (A-FWD) ASSY		218	A-2004-796-A	CHASSIS (B) ASSY, SUB	
206	X-3378-248-1	FLYWHEEL (A-REV) ASSY		219	X-4952-881-1	CHASSIS, MAIN	
207	3-041-947-01	BELT (FR)		M901	X-3378-241-1	MOTOR ASSY(CAPSTAN)	
211	3-362-267-01	RING, RETAINING, CAPSTAN		#1	7-628-254-00	SCREW +PS2.6X5	
212	3-318-203-62	SCREW (B1.7X4), TAPPING					
213	3-019-208-01	WASHER, STOPPER					

7-6. CD MECHANISM DECK SECTION (CDM58E-30BD60)



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
251	4-933-134-11	SCREW (+PTPWH M2.6X8)		266	4-228-414-01	BRACKET (YOKE)	
252	4-221-679-01	CAM (RELAY)		267	X-4953-307-1	PULLEY (A) ASSY, CHUCKING	
253	4-231-452-01	TABLE (NEW)		268	X-4953-306-1	HOLDER (BU) (BU-30) ASSY	
254	4-221-686-01	LEVER (CHANGE)		269	4-222-095-01	BELT	
255	4-221-676-01	TRAY		270	4-227-045-11	SPRING (INSULATOR), COIL	
256	4-933-134-51	SCREW (+PTPWH 2.6X8)		271	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
257	1-675-910-11	MOTOR BOARD		274	4-221-678-01	CAM (CONTROL)	
258	4-951-620-01	SCREW (2.6X8), +BVTP		275	4-221-683-01	GEAR (U)	
259	1-791-983-11	WIRE (FLAT TYPE) (8 CORE)		276	4-221-685-01	PULLEY (S)	
260	1-675-911-14	ADDRESS SENSOR BOARD		279	4-227-899-01	SCREW (DIA. 12), FLOATING	
261	1-675-912-14	DRIVER BOARD		282	4-222-097-01	SCREW, STEP	
262	X-4952-608-1	CAM (U/D) ASSY		283	4-231-451-01	INSULATOR (BU-30)	
263	4-221-681-01	LEVER (EX)		284	4-231-151-01	STOPPER (BU)	
264	4-221-682-01	LEVER (LIFTER)		285	4-221-674-03	CHASSIS	
265	4-231-513-01	PULLEY (B) (BU-30), CHUCKING		M721	A-4672-826-A	MOTOR ASSY (TURN)	

7-7. BASE UNIT SECTION (BU-30BD60)



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
301	3-531-576-11	RIVET		305	4-233-831-01	GEAR (LA)	
302	A-4725-531-A	BD BOARD, COMPLETE		306	1-757-710-11	WIRE (FLAT TYPE) (16 CORE)	
303	4-233-832-01	GEAR (LB)		△ 307	A-4735-188-A	BU-30 (60) ASSY	
304	7-627-853-28	SCREW, PRECISION +P 2X3 TYPE3					

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.

HCD-DX50/RG80

ADDRESS SENSOR

BD

SECTION 8

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, -X mean standardized parts, so they may have some difference from the original one.
 - Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - CAPACITORS:
uF: μF
 - RESISTORS
All resistors are in ohms.
METAL: metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- COILS
uH: μH
 - SEMICONDUCTORS
In each case, u: μ, for example:
uA...: μA..., uPA..., μPA...,
uPB..., μPB..., uPC..., μPC...,
uPD..., μPD...
 - Abbreviation
AR : Argentina model
AUS : Australian model
E51 : Chilean and Peruvian model
KR : Korea model
MX : Mexican model
SP : Singapore model

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

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

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

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
	1-675-911-14	ADDRESS SENSOR BOARD *****		C129	1-162-974-11	CERAMIC CHIP 0.01uF	50V
		< CAPACITOR >		C130	1-163-038-11	CERAMIC CHIP 0.1uF	25V
C712	1-164-159-11	CERAMIC 0.1uF	50V	C131	1-104-665-11	ELECT 100uF	20.00% 10V
		< IC >		C133	1-162-921-11	CERAMIC CHIP 33PF	5% 50V
IC711	8-749-014-38	PHOTO INTERRUPTER SG-264		C143	1-163-038-11	CERAMIC CHIP 0.1uF	25V
		< RESISTOR >		C145	1-163-038-11	CERAMIC CHIP 0.1uF	25V
R711	1-247-876-11	CARBON 75K 5%	1/4W	C153	1-163-038-11	CERAMIC CHIP 0.1uF	25V
R712	1-249-409-11	CARBON 220 5%	1/4W F	C159	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V
R713	1-249-429-11	CARBON 10K 5%	1/4W	C162	1-104-665-11	ELECT 100uF	20.00% 10V
		< SWITCH >		C165	1-163-038-11	CERAMIC CHIP 0.1uF	25V
S711	1-771-821-11	SWITCH, PUSH (1 KEY) (UP/DOWN)		C167	1-162-919-11	CERAMIC CHIP 22PF	5% 50V
*****				C168	1-162-921-11	CERAMIC CHIP 33PF	5% 50V
A-4725-531-A	BD BOARD, COMPLETE	*****		C171	1-115-412-11	CERAMIC CHIP 680PF	5.00% 25V
		< CAPACITOR >		C172	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C101	1-162-967-11	CERAMIC CHIP 0.0033uF	10% 50V	C181	1-115-412-11	CERAMIC CHIP 680PF	5.00% 25V
C102	1-107-826-11	CERAMIC CHIP 0.1uF	10.00% 16V	C182	1-162-927-11	CERAMIC CHIP 100PF	5% 50V
C103	1-162-962-11	CERAMIC CHIP 470PF	10% 50V	C183	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V
C104	1-162-962-11	CERAMIC CHIP 470PF	10% 50V	C184	1-162-968-11	CERAMIC CHIP 0.0047uF	10% 50V
C108	1-107-826-11	CERAMIC CHIP 0.1uF	10.00% 16V	C185	1-107-823-11	CERAMIC CHIP 0.47uF	10.00% 16V
C109	1-162-965-11	CERAMIC CHIP 0.0015uF	10% 50V	C190	1-115-156-11	CERAMIC CHIP 1uF	10V
C110	1-162-967-11	CERAMIC CHIP 0.0033uF	10% 50V	C191	1-124-584-00	ELECT 100uF	20% 10V
C111	1-162-927-11	CERAMIC CHIP 100PF	5% 50V	C192	1-163-038-11	CERAMIC CHIP 0.1uF	25V
C112	1-109-982-11	CERAMIC CHIP 1uF	10.00% 10V	C193	1-104-665-11	ELECT 100uF	20.00% 10V
C114	1-163-038-11	CERAMIC CHIP 0.1uF	25V	C194	1-163-038-11	CERAMIC CHIP 0.1uF	25V
C116	1-104-665-11	ELECT 100uF	20.00% 10V	C195	1-163-038-11	CERAMIC CHIP 0.1uF	25V
C117	1-104-665-11	ELECT 100uF	20.00% 10V	C196	1-163-038-11	CERAMIC CHIP 0.1uF	25V
C118	1-162-964-11	CERAMIC CHIP 0.001uF	10% 50V	C197	1-107-826-11	CERAMIC CHIP 0.1uF	10.00% 16V
C121	1-163-038-11	CERAMIC CHIP 0.1uF	25V	C198	1-124-584-00	ELECT 100uF	20% 10V
C122	1-124-584-00	ELECT 100uF	20% 10V			< CONNECTOR >	
C123	1-162-970-11	CERAMIC CHIP 0.01uF	10% 25V	CN101	1-568-864-11	CONNECTOR, FFC 21P	
C124	1-107-823-11	CERAMIC CHIP 0.47uF	10.00% 16V	CN102	1-793-907-11	CONNECTOR, FFC/FPC 16P	
C125	1-163-038-11	CERAMIC CHIP 0.1uF	25V			< DIODE >	
C126	1-163-038-11	CERAMIC CHIP 0.1uF	25V	D101	8-719-422-12	DIODE UDZ-TE-17-3.9B	
C127	1-124-584-00	ELECT 100uF	20% 10V			< FERRITE BEAD >	
				FB101	1-500-445-11	FERRITE 0UH	
				FB102	1-500-445-11	FERRITE 0UH	

BD

CD SWITCH

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
< IC >				R182	1-216-081-00	METAL CHIP 22K 5%	1/10W
IC101	8-752-402-31	IC CXD3017Q		R183	1-216-081-00	METAL CHIP 22K 5%	1/10W
IC102	8-759-827-41	IC BA5974FM-E2		R190	1-216-033-00	METAL CHIP 220 5%	1/10W
IC103	8-752-089-74	IC CXA2581N-T4		R191	1-216-085-00	METAL CHIP 33K 5%	1/10W
< JUMPER RESISTOR >				R192	1-216-085-00	METAL CHIP 33K 5%	1/10W
JR101	1-216-295-11	SHORT 0		R193	1-216-099-00	METAL CHIP 120K 5%	1/10W
JR102	1-216-295-11	SHORT 0		R194	1-216-097-00	RES-CHIP 100K 5%	1/10W
JR103	1-216-295-11	SHORT 0		R195	1-216-113-00	METAL CHIP 470K 5%	1/10W
JR104	1-216-295-11	SHORT 0		R196	1-216-057-00	METAL CHIP 2.2K 5%	1/10W
JR105	1-216-295-11	SHORT 0		R198	1-216-295-11	SHORT 0	
JR106	1-216-295-11	SHORT 0		< NETWORK >			
JR122	1-216-296-11	SHORT 0		RN101	1-233-576-11	RES, CHIP NETWORK 100	
JR123	1-216-296-11	SHORT 0		< VARIABLE RESISTOR >			
JR124	1-216-296-11	SHORT 0		RV101	1-238-602-11	RES, ADJ, CARBON 47K	
JR125	1-216-296-11	SHORT 0		< VIBRATOR >			
< COIL >				X101	1-579-280-11	VIBRATOR, CRYSTAL 16.9344MHz	
L101	1-469-553-21	INDUCTOR 4.7uH		*****			
< TRANSISTOR >				1-680-263-11	CD SWITCH BOARD		
Q101	8-729-010-08	TRANSISTOR MSB710-RT1		*****			
Q102	8-729-920-85	TRANSISTOR 2SD1664-T100-QR		< DIODE >			
< RESISTOR >				D791	8-719-057-97	DIODE SEL5923A-TP15 (DISC 1)	
R101	1-216-049-11	RES-CHIP 1K 5%	1/10W	D792	8-719-057-97	DIODE SEL5923A-TP15 (DISC 2)	
R102	1-216-097-00	RES-CHIP 100K 5%	1/10W	D793	8-719-057-97	DIODE SEL5923A-TP15 (DISC 3)	
R103	1-216-077-00	RES-CHIP 15K 5%	1/10W	D794	8-719-071-44	DIODE SELS5223C (1/1)	
R104	1-216-085-00	METAL CHIP 33K 5%	1/10W	< TRANSISTOR >			
R105	1-216-049-11	RES-CHIP 1K 5%	1/10W	Q791	8-729-900-80	TRANSISTOR BA1A4M-TP	
R106	1-216-049-11	RES-CHIP 1K 5%	1/10W	Q792	8-729-900-80	TRANSISTOR BA1A4M-TP	
R107	1-216-073-00	METAL CHIP 10K 5%	1/10W	Q793	8-729-900-80	TRANSISTOR BA1A4M-TP	
R108	1-216-061-00	METAL CHIP 3.3K 5%	1/10W	Q794	8-729-900-80	TRANSISTOR BA1A4M-TP	
R109	1-216-121-11	RES-CHIP 1M 5%	1/10W	< RESISTOR >			
R111	1-216-099-00	METAL CHIP 120K 5%	1/10W	R791	1-249-419-11	CARBON 1.5K 5%	1/4W F
R114	1-218-745-11	RES-CHIP 160K 5%	1/16W	R792	1-249-421-11	CARBON 2.2K 5%	1/4W F
R116	1-216-001-00	METAL CHIP 10 5%	1/10W	R793	1-249-422-11	CARBON 2.7K 5%	1/4W F
R117	1-216-049-11	RES-CHIP 1K 5%	1/10W	R794	1-249-424-11	CARBON 3.9K 5%	1/4W F
R118	1-216-025-11	RES-CHIP 100 5%	1/10W	R795	1-249-426-11	CARBON 5.6K 5%	1/4W
R119	1-216-059-00	METAL CHIP 2.7K 5%	1/10W	R796	1-249-410-11	CARBON 270 5%	1/4W F
R120	1-216-077-00	RES-CHIP 15K 5%	1/10W	R798	1-249-409-11	CARBON 220 5%	1/4W F
R122	1-216-097-00	RES-CHIP 100K 5%	1/10W	R799	1-249-409-11	CARBON 220 5%	1/4W F
R123	1-216-073-00	METAL CHIP 10K 5%	1/10W	R800	1-249-417-11	CARBON 1K 5%	1/4W F
R124	1-216-097-00	RES-CHIP 100K 5%	1/10W	R801	1-249-409-11	CARBON 220 5%	1/4W F
R131	1-216-033-00	METAL CHIP 220 5%	1/10W	< SWITCH >			
R143	1-216-085-00	METAL CHIP 33K 5%	1/10W	S791	1-762-875-21	SWITCH, KEYBOARD (OPEN/CLOSE)	
R144	1-216-085-00	METAL CHIP 33K 5%	1/10W	S792	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP EX-CHANGE)	
R147	1-216-059-00	METAL CHIP 2.7K 5%	1/10W	S793	1-762-875-21	SWITCH, KEYBOARD (DISC 3)	
R148	1-216-001-00	METAL CHIP 10 5%	1/10W	S794	1-762-875-21	SWITCH, KEYBOARD (DISC 2)	
R149	1-216-001-00	METAL CHIP 10 5%	1/10W	S795	1-762-875-21	SWITCH, KEYBOARD (DISC 1)	
R158	1-216-083-00	METAL CHIP 27K 5%	1/10W	S796	1-762-875-21	SWITCH, KEYBOARD (1/1)	
R159	1-216-083-00	METAL CHIP 27K 5%	1/10W	*****			
R162	1-216-097-00	RES-CHIP 100K 5%	1/10W				
R171	1-216-081-00	METAL CHIP 22K 5%	1/10W				
R172	1-216-081-00	METAL CHIP 22K 5%	1/10W				
R173	1-216-081-00	METAL CHIP 22K 5%	1/10W				
R181	1-216-081-00	METAL CHIP 22K 5%	1/10W				

HCD-DX50/RG80

DRIVER	HEAD (A)	HEAD (B)	LEAF SW	MAIN
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Ref. No.	Part No.	Description	Remarks		
	1-675-912-14	DRIVER BOARD *****			
		< CAPACITOR >			
C702	1-126-964-11	ELECT	10uF	20.00%	50V
		< CONNECTOR >			
CN701	1-785-336-11	PIN, CONNECTOR(LIGHT ANGLE)10P			
CN702	1-785-550-11	CONNECTOR, FFC/FPC 8P			
		< DIODE >			
D701	8-719-983-68	DIODE MTZJ-T-72-3.9A			
		< IC >			
IC701	8-759-598-69	IC BA6956AN			
		< RESISTOR >			
R701	1-249-411-11	CARBON	330	5%	1/4W
R702	1-249-401-11	CARBON	47	5%	1/4W F

	1-676-220-11	HEAD (A) BOARD *****			
		< CONNECTOR >			
* CN1	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P			

	1-676-221-11	HEAD (B) BOARD *****			
CN2	1-564-722-11	PIN, CONNECTOR (SMALL TYPE) 6P			

A-2007-846-A	LEAF SW BOARD, COMPLETE *****				
		< CAPACITOR >			
C1001	1-107-716-11	ELECT	33uF	20.00%	10V
		< CONNECTOR >			
CN1001	1-568-860-11	SOCKET, CONNECTOR 17P			
		< DIODE >			
D1001	8-719-911-19	DIODE 1SS133T-72			
D1002	8-719-911-19	DIODE 1SS133T-72			
		< IC >			
IC1001	8-749-014-38	PHOTO INTERRUPTER SG-264			
IC1002	8-749-014-38	PHOTO INTERRUPTER SG-264			
		< TRANSISTOR >			
Q1001	8-729-029-56	TRANSISTOR DTA144ESA-TP			
		< RESISTOR >			
R907	1-247-879-11	CARBON	100K	5%	1/4W
R1001	1-249-409-11	CARBON	220	5%	1/4W F

Ref. No.	Part No.	Description	Remarks		
R1002	1-249-409-11	CARBON	220	5%	1/4W F
R1003	1-249-414-11	CARBON	560	5%	1/4W F
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W
R1005	1-247-818-11	CARBON	300	5%	1/4W
R1006	1-247-864-11	CARBON	24K	5%	1/4W
R1007	1-247-780-00	CARBON	7.5	5%	1/4W
R1008	1-249-417-11	CARBON	1K	5%	1/4W F
		< VARIABLE RESISTOR >			
RV1001	1-241-785-11	RES, ADJ, CARBON 10K			
RV1002	1-241-785-11	RES, ADJ, CARBON 10K			
		< SWITCH >			
S1001	1-570-953-11	SWITCH, PUSH (1 KEY) (A PLAY)			
S1002	1-570-953-11	SWITCH, PUSH (1 KEY) (B PLAY)			
S1003	1-771-333-11	SWITCH, LEAF (A HALF)			
S1005	1-771-205-11	SWITCH, LEAF (REC A)			
S1006	1-771-333-11	SWITCH, LEAF (B HALF)			
S1009	1-771-205-11	SWITCH, LEAF (REC B)			

A-4475-789-A	MAIN BOARD, COMPLETE (DX50: SPAUS) *****				
A-4476-287-A	MAIN BOARD, COMPLETE (DX50: E) *****				
A-4476-330-A	MAIN BOARD, COMPLETE (DX50: MX,AR) *****				
A-4476-332-A	MAIN BOARD, COMPLETE (DX50: KR) *****				
A-4476-984-A	MAIN BOARD, COMPLETE (RG80) *****				
7-685-646-79	SCREW +BVTP	3X8			TYPE2 N-S
7-685-646-79	SCREW +BVTP	3X8			TYPE2 N-S
		< CAPACITOR >			
C1	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C3	1-104-664-11	ELECT	47uF	20.00%	16V
C4	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C5	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C7	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C11	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C12	1-104-664-11	ELECT	47uF	20.00%	16V
C13	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C14	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C15	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C16	1-104-664-11	ELECT	47uF	20.00%	16V
C17	1-126-959-11	ELECT	0.47uF	20.00%	50V
C18	1-126-960-11	ELECT	1uF	20.00%	50V
C19	1-126-960-11	ELECT	1uF	20.00%	50V
C20	1-164-245-11	CERAMIC CHIP	0.015uF	10.00%	25V
					(DX50)
C20	1-164-245-11	CERAMIC CHIP	0.022uF	10.00%	25V
					(RG80)
C21	1-164-245-11	CERAMIC CHIP	0.015uF	10.00%	25V
					(DX50)
C21	1-164-245-11	CERAMIC CHIP	0.022uF	10.00%	25V
					(DX80)
C22	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C23	1-164-360-11	CERAMIC CHIP	0.1uF		16V

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
C24	1-126-963-11	ELECT	4.7uF 20.00% 50V	C130	1-162-947-11	CERAMIC CHIP	33PF 5% 50V
C25	1-126-964-11	ELECT	10uF 20.00% 50V	C131	1-136-169-00	FILM	0.22uF 5.00% 50V
C26	1-164-471-11	CERAMIC CHIP	680PF 5.00% 50V	C132	1-126-964-11	ELECT	10uF 20.00% 50V
C27	1-162-974-11	CERAMIC CHIP	0.01uF 50V	C133	1-126-935-11	ELECT	470uF 20.00% 10V
C28	1-126-964-11	ELECT	10uF 20.00% 50V	C134	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C29	1-162-974-11	CERAMIC CHIP	0.01uF 50V	C135	1-126-964-11	ELECT	10uF 20.00% 50V
C30	1-126-962-11	ELECT	3.3uF 20.00% 50V	C136	1-126-964-11	ELECT	10uF 20.00% 50V
C31	1-162-974-11	CERAMIC CHIP	0.01uF 50V	C137	1-126-964-11	ELECT	10uF 20.00% 50V
C32	1-126-963-11	ELECT	4.7uF 20.00% 50V	C139	1-126-964-11	ELECT	10uF 20.00% 50V
C35	1-104-664-11	ELECT	47uF 20.00% 16V	C140	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C36	1-126-963-11	ELECT	4.7uF 20.00% 50V	C141	1-162-947-11	CERAMIC CHIP	33PF 5% 50V
C39	1-164-361-11	CERAMIC CHIP	0.047uF 16V				(DX50)
C40	1-164-361-11	CERAMIC CHIP	0.047uF 16V	C142	1-164-156-11	CERAMIC CHIP	0.1uF 25V
C41	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V	C143	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C42	1-162-940-11	CERAMIC CHIP	9PF 0.5PF 50V				(DX50: KR)
C43	1-162-974-11	CERAMIC CHIP	0.01uF 50V	C144	1-126-964-11	ELECT	10uF 20.00% 50V
C46	1-162-974-11	CERAMIC CHIP	0.01uF 50V	C146	1-126-935-11	ELECT	470uF 20.00% 10V
C51	1-162-920-11	CERAMIC CHIP	27PF 5% 50V	C147	1-162-970-11	CERAMIC CHIP	0.01uF 10% 25V
C52	1-162-920-11	CERAMIC CHIP	27PF 5% 50V				(DX50: KR)
C53	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C148	1-164-156-11	CERAMIC CHIP	0.1uF 25V
							(DX50: KR)
C55	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V	C151	1-162-960-11	CERAMIC CHIP	220PF 10% 50V
C56	1-162-974-11	CERAMIC CHIP	0.01uF 50V	C152	1-126-961-11	ELECT	2.2uF 20.00% 50V
C57	1-104-664-11	ELECT	47uF 20.00% 16V	C153	1-126-964-11	ELECT	10uF 20.00% 50V
C58	1-126-961-11	ELECT	2.2uF 20.00% 50V	C154	1-126-964-11	ELECT	10uF 20.00% 50V
C59	1-162-974-11	CERAMIC CHIP	0.01uF 50V	C155	1-126-964-11	ELECT	10uF 20.00% 50V
C60	1-104-664-11	ELECT	47uF 20.00% 16V	C156	1-136-161-00	FILM	0.047uF 5.00% 50V
C61	1-162-974-11	CERAMIC CHIP	0.01uF 50V	C157	1-136-495-11	FILM	0.068uF 5.00% 50V
C62	1-126-959-11	ELECT	0.47uF 20.00% 50V	C158	1-136-495-11	FILM	0.068uF 5.00% 50V
C63	1-162-974-11	CERAMIC CHIP	0.01uF 50V	C159	1-162-969-11	CERAMIC CHIP	0.0068uF 10% 25V
C69	1-162-974-11	CERAMIC CHIP	0.01uF 50V	C160	1-162-969-11	CERAMIC CHIP	0.0068uF 10% 25V
C101	1-162-960-11	CERAMIC CHIP	220PF 10% 50V	C161	1-164-172-11	CERAMIC CHIP	0.0056uF 10.00% 25V
C102	1-126-961-11	ELECT	2.2uF 20.00% 50V	C162	1-126-961-11	ELECT	2.2uF 20.00% 50V
C103	1-126-964-11	ELECT	10uF 20.00% 50V	C165	1-136-169-00	FILM	0.22uF 5.00% 50V
C104	1-126-964-11	ELECT	10uF 20.00% 50V	C166	1-136-169-00	FILM	0.22uF 5.00% 50V
C105	1-126-964-11	ELECT	10uF 20.00% 50V	C167	1-126-964-11	ELECT	10uF 20.00% 50V
C106	1-136-161-00	FILM	0.047uF 5.00% 50V	C171	1-126-964-11	ELECT	10uF 20.00% 50V
C107	1-136-495-11	FILM	0.068uF 5.00% 50V				(DX50)
C108	1-136-495-11	FILM	0.068uF 5.00% 50V	C172	1-126-964-11	ELECT	10uF 20.00% 50V
C109	1-162-969-11	CERAMIC CHIP	0.0068uF 10% 25V				(DX50)
C110	1-162-969-11	CERAMIC CHIP	0.0068uF 10% 25V	C175	1-126-964-11	ELECT	10uF 20.00% 50V
							(DX50)
C111	1-164-172-11	CERAMIC CHIP	0.0056uF 10.00% 25V	C177	1-126-961-11	ELECT	2.2uF 20.00% 50V
C112	1-126-961-11	ELECT	2.2uF 20.00% 50V	C178	1-126-963-11	ELECT	4.7uF 20.00% 50V
C113	1-126-957-11	ELECT	0.22uF 20.00% 50V	C179	1-126-963-11	ELECT	4.7uF 20.00% 50V
C115	1-136-169-00	FILM	0.22uF 5.00% 50V	C180	1-162-947-11	CERAMIC CHIP	33PF 5% 50V
C116	1-136-169-00	FILM	0.22uF 5.00% 50V	C191	1-162-947-11	CERAMIC CHIP	33PF 5% 50V
							(DX50)
C117	1-126-964-11	ELECT	10uF 20.00% 50V	C201	1-104-665-11	ELECT	100uF 20.00% 10V
C118	1-126-961-11	ELECT	2.2uF 20.00% 50V	C202	1-126-916-11	ELECT	1000uF 20.00% 6.3V
C121	1-126-964-11	ELECT	10uF 20.00% 50V	C203	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V
			(DX50)	C205	1-164-227-11	CERAMIC CHIP	0.022uF 10% 25V
C122	1-126-964-11	ELECT	10uF 20.00% 50V	C207	1-126-916-11	ELECT	1000uF 20.00% 6.3V
			(DX50)	C208	1-162-953-11	CERAMIC CHIP	100PF 5% 50V
C123	1-126-964-11	ELECT	10uF 20.00% 50V	C209	1-126-935-11	ELECT	470uF 20.00% 10V
			(DX50)	C212	1-162-964-11	CERAMIC CHIP	0.001uF 10% 50V
C124	1-164-156-11	CERAMIC CHIP	0.1uF 25V	C213	1-162-962-11	CERAMIC CHIP	470PF 10% 50V
C125	1-126-964-11	ELECT	10uF 20.00% 50V	C215	1-126-964-11	ELECT	10uF 20.00% 50V
			(DX50)				
C127	1-126-961-11	ELECT	2.2uF 20.00% 50V				
C128	1-126-963-11	ELECT	4.7uF 20.00% 50V				
C129	1-126-963-11	ELECT	4.7uF 20.00% 50V				

HCD-DX50/RG80

MAIN

Ref. No.	Part No.	Description	Remarks		
C216	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C224	1-113-619-11	CERAMIC CHIP	0.47uF		10V
C226	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C228	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C301	1-126-960-11	ELECT	1uF	20.00%	50V
C302	1-130-479-00	MYLAR	0.0047uF	5%	50V
C303	1-136-165-00	FILM	0.1uF	5.00%	50V
C305	1-126-964-11	ELECT	10uF	20.00%	50V
C306	1-126-960-11	ELECT	1uF	20.00%	50V
C307	1-126-959-11	ELECT	0.47uF	20.00%	50V
C308	1-126-964-11	ELECT	10uF	20.00%	50V
C309	1-137-194-11	FILM	0.47uF	5.00%	50V
C310	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C311	1-126-964-11	ELECT	10uF	20.00%	50V
C312	1-126-959-11	ELECT	0.47uF	20.00%	50V
C313	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C314	1-126-964-11	ELECT	10uF	20.00%	50V
C315	1-126-963-11	ELECT	4.7uF	20.00%	50V
C316	1-126-933-11	ELECT	100uF	20.00%	16V
C317	1-104-665-11	ELECT	100uF	20.00%	10V
C318	1-126-964-11	ELECT	10uF	20.00%	50V
C319	1-126-961-11	ELECT	2.2uF	20.00%	50V
C320	1-126-961-11	ELECT	2.2uF	20.00%	50V
C321	1-164-392-11	CERAMIC CHIP	390PF	10.00%	50V
C322	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C323	1-130-487-00	MYLAR	0.022uF	5%	50V
C324	1-126-964-11	ELECT	10uF	20.00%	50V
C325	1-126-965-11	ELECT	22uF	20.00%	50V
C326	1-164-392-11	CERAMIC CHIP	390PF	10.00%	50V
C327	1-104-665-11	ELECT	100uF	20.00%	10V
C328	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C329	1-130-483-00	MYLAR	0.01uF	5%	50V
C330	1-126-964-11	ELECT	10uF	20.00%	50V
C331	1-126-965-11	ELECT	22uF	20.00%	50V
C332	1-137-427-11	MYLAR	120PF	5.00%	50V
C333	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C334	1-162-946-11	CERAMIC CHIP	27PF	5%	50V
C335	1-137-150-11	MYLAR	0.01uF	5.00%	100V
C336	1-126-961-11	ELECT	2.2uF	20.00%	50V
C337	1-130-485-00	MYLAR	0.015uF	5%	50V
C338	1-130-481-00	MYLAR	0.0068uF	5%	50V
C339	1-130-481-00	MYLAR	0.0068uF	5%	50V
C340	1-130-486-00	MYLAR	0.018uF	10%	50V
C341	1-126-960-11	ELECT	1uF	20.00%	50V
C342	1-104-664-11	ELECT	47uF	20.00%	16V
C351	1-126-960-11	ELECT	1uF	20.00%	50V
C352	1-130-479-00	MYLAR	0.0047uF	5%	50V
C353	1-136-165-00	FILM	0.1uF	5.00%	50V
C355	1-126-964-11	ELECT	10uF	20.00%	50V
C356	1-126-960-11	ELECT	1uF	20.00%	50V
C357	1-126-959-11	ELECT	0.47uF	20.00%	50V
C358	1-126-964-11	ELECT	10uF	20.00%	50V
C359	1-137-194-11	FILM	0.47uF	5.00%	50V
C360	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C362	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C363	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C368	1-126-964-11	ELECT	10uF	20.00%	50V
C369	1-126-961-11	ELECT	2.2uF	20.00%	50V

Ref. No.	Part No.	Description	Remarks		
C370	1-126-961-11	ELECT	2.2uF	20.00%	50V
C371	1-164-392-11	CERAMIC CHIP	390PF	10.00%	50V
C372	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C373	1-130-487-00	MYLAR	0.022uF	5%	50V
C374	1-126-964-11	ELECT	10uF	20.00%	50V
C375	1-126-965-11	ELECT	22uF	20.00%	50V
C376	1-164-392-11	CERAMIC CHIP	390PF	10.00%	50V
C377	1-104-665-11	ELECT	100uF	20.00%	10V
C378	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C379	1-130-483-00	MYLAR	0.01uF	5%	50V
C380	1-126-964-11	ELECT	10uF	20.00%	50V
C381	1-126-965-11	ELECT	22uF	20.00%	50V
C382	1-137-427-11	MYLAR	120PF	5.00%	50V
C383	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
C384	1-162-946-11	CERAMIC CHIP	27PF	5%	50V
C385	1-126-964-11	ELECT	10uF	20.00%	50V
C395	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C504	1-109-953-11	ELECT	2.2uF	20.00%	50V
C505	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C510	1-162-918-11	CERAMIC CHIP	18PF	5.00%	50V
C511	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C512	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C514	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C516	1-126-916-11	ELECT	1000uF	20.00%	6.3V
C530	1-162-953-11	CERAMIC CHIP	100PF	5%	50V
C546	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C562	1-104-665-11	ELECT	100uF	20.00%	10V
C564	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C575	1-136-165-00	FILM	0.1uF	5.00%	50V
C576	1-136-165-00	FILM	0.1uF	5.00%	50V
C577	1-126-964-11	ELECT	10uF	20.00%	50V
C596	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C598	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C599	1-126-964-11	ELECT	10uF	20.00%	50V
C801	1-164-156-11	CERAMIC CHIP	0.1uF		25V (DX50: KR)
C802	1-164-156-11	CERAMIC CHIP	0.1uF		25V (DX50: KR)
C803	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C821	1-104-665-11	ELECT	100uF	20.00%	10V
C822	1-126-961-11	ELECT	2.2uF	20.00%	50V
C824	1-126-960-11	ELECT	1uF	20.00%	50V
C841	1-126-959-11	ELECT	0.47uF	20.00%	50V
C851	1-164-156-11	CERAMIC CHIP	0.1uF		25V (DX50: KR)
C852	1-164-156-11	CERAMIC CHIP	0.1uF		25V (DX50: KR)
C853	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C861	1-107-717-11	ELECT	47uF	20.00%	50V
C862	1-107-721-11	ELECT	4.7uF	20.00%	100V
C863	1-107-721-11	ELECT	4.7uF	20.00%	100V
C891	1-126-964-11	ELECT	10uF	20.00%	50V
C892	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C901	1-126-944-11	ELECT	3300uF	20.00%	25V (EXCEPT KR)
C902	1-136-165-00	FILM	0.1uF	5.00%	50V
C903	1-136-165-00	FILM	0.1uF	5.00%	50V
C905	1-136-165-00	FILM	0.1uF	5.00%	50V
C906	1-136-165-00	FILM	0.1uF	5.00%	50V
C907	1-128-548-11	ELECT	4700uF	20.00%	25V

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
C908	1-126-942-11	ELECT	1000uF 20.00% 25V	D921	8-719-083-89	DIODE 11ES2N-TB5	
C909	1-126-952-11	ELECT	1000uF 20.00% 35V	D922	8-719-083-89	DIODE 11ES2N-TB5	
C911	1-126-960-11	ELECT	1uF 20.00% 50V	D952	8-719-988-61	DIODE 1SS355TE-17	
C912	1-126-916-11	ELECT	1000uF 20.00% 6.3V	D953	8-719-988-61	DIODE 1SS355TE-17	
C921	1-126-956-91	ELECT	0.1uF 20.00% 50V	< FERRITE BEAD >			
C922	1-126-933-11	ELECT	100uF 20.00% 16V	FB201	1-216-864-11	SHORT	0
C925	1-104-665-11	ELECT	100uF 20.00% 10V	FB203	1-216-864-11	SHORT	0
C932	1-126-935-11	ELECT	470uF 20.00% 10V	FB204	1-216-864-11	SHORT	0
C951	1-126-956-91	ELECT	0.1uF 20.00% 50V	FB516	1-216-864-11	SHORT	0
C961	1-126-960-11	ELECT	1uF 20.00% 50V	FB562	1-216-864-11	SHORT	0
C962	1-126-926-11	ELECT	1000uF 20.00% 10V	FB599	1-216-864-11	SHORT	0
< FILTER >				< FRONT END >			
CF1	1-760-023-11	FILTER, CERAMIC		FE1	1-693-477-11	FRONT END (3 GANGS)	
CF2	1-760-023-11	FILTER, CERAMIC		< IC >			
< CONNECTOR >				IC11	8-759-828-33	IC LA1845	
CN201	1-569-937-11	SOCKET, CONNECTOR 21P		IC51	8-759-584-70	IC LC72131	
* CN301	1-568-449-11	HOUSING, CONNECTOR(PC BOARD)3P		IC101	8-759-652-04	IC M61504FP-TP	
* CN304	1-569-934-11	SOCKET, CONNECTOR 17P		IC102	8-759-106-02	IC uPC4570G2-E2	
CN401	1-793-766-11	CONNECTOR, BOARD TO BOARD 30P		IC104	8-759-106-02	IC uPC4570G2-E2 (DX50)	
CN402	1-785-330-11	PIN, CONNECTOR (LIGHT ANGLE)4P		IC105	8-759-525-25	IC BU4052BCF-E2	
CN891	1-564-506-11	PLUG, CONNECTOR 3P		IC106	8-759-106-02	IC uPC4570G2-E2	
CN901	1-778-982-11	CONNECTOR, BOARD TO BOARD 13P		IC201	8-749-923-04	IC TOTX178A (OPTICAL(CD DIGITAL OUT))	
CN902	1-778-982-11	CONNECTOR, BOARD TO BOARD 13P		IC202	8-759-491-46	IC TC74VHCT04AFT(EL)	
< DIODE >				IC301	8-759-652-80	IC HA12227F	
D51	8-719-988-61	DIODE 1SS355TE-17		IC302	8-759-143-54	IC uPC1330HA	
D508	8-719-988-61	DIODE 1SS355TE-17		IC303	8-759-385-17	IC NJM4580E(Te2)	
D509	8-719-988-61	DIODE 1SS355TE-17		IC304	8-759-385-17	IC NJM4580E(Te2)	
D510	8-719-988-61	DIODE 1SS355TE-17		IC501	8-759-829-45	IC M30620MCA-A95FP	
D511	8-719-988-61	DIODE 1SS355TE-17		IC502	8-759-635-63	IC M51943BSL-TP	
D575	8-719-988-61	DIODE 1SS355TE-17		IC911	8-759-039-69	IC uPC7805AHF	
D576	8-719-988-61	DIODE 1SS355TE-17		IC921	8-759-088-08	IC uPC7812AHF	
D577	8-719-988-61	DIODE 1SS355TE-17		IC951	8-759-158-62	IC TA78057S	
D578	8-719-988-61	DIODE 1SS355TE-17		IC961	8-759-701-59	IC AN7809	
D579	8-719-988-61	DIODE 1SS355TE-17		< IFT >			
D580	8-719-988-61	DIODE 1SS355TE-17		IFT11	1-435-848-11	TRANSFORMER, IF	
D801	8-719-988-61	DIODE 1SS355TE-17		< JACK >			
D822	8-719-988-61	DIODE 1SS355TE-17		J101	1-793-987-11	JACK, PIN 2P (MD/VIDEO AUDIO IN)	
D824	8-719-988-61	DIODE 1SS355TE-17		J102	1-794-472-11	JACK, PIN 2P (SURROUND) (RG80)	
D841	8-719-988-61	DIODE 1SS355TE-17		< JUMPER/RESISTOR >			
D861	8-719-988-61	DIODE 1SS355TE-17		JR1	1-216-864-11	SHORT	0
D892	8-719-988-61	DIODE 1SS355TE-17		JR2	1-216-864-11	SHORT	0
D893	8-719-988-61	DIODE 1SS355TE-17		JR3	1-216-864-11	SHORT	0
D901	8-719-083-89	DIODE 11ES2N-TB5		JR4	1-216-864-11	SHORT	0
D902	8-719-083-89	DIODE 11ES2N-TB5		JR5	1-216-864-11	SHORT	0
D903	8-719-083-89	DIODE 11ES2N-TB5		JR6	1-216-864-11	SHORT	0
D904	8-719-083-89	DIODE 11ES2N-TB5		JR7	1-216-864-11	SHORT	0
D906	8-719-083-89	DIODE 11ES2N-TB5		JR8	1-216-864-11	SHORT	0
D907	8-719-083-89	DIODE 11ES2N-TB5		JR10	1-216-864-11	SHORT	0
D908	8-719-083-89	DIODE 11ES2N-TB5		JR12	1-216-864-11	SHORT	0
D909	8-719-083-89	DIODE 11ES2N-TB5		JR15	1-216-864-11	SHORT	0
D910	8-719-083-89	DIODE 11ES2N-TB5		JR16	1-216-864-11	SHORT	0
D911	8-719-083-89	DIODE 11ES2N-TB5					
D912	8-719-083-89	DIODE 11ES2N-TB5					
D920	8-719-083-89	DIODE 11ES2N-TB5					

HCD-DX50/RG80

MAIN

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
JR17	1-216-864-11	SHORT	0	Q394	8-729-113-13	TRANSISTOR	FA1A4M-T1L33
JR18	1-216-864-11	SHORT	0	Q395	8-729-113-13	TRANSISTOR	FA1A4M-T1L33
JR19	1-216-864-11	SHORT	0	Q396	8-729-116-57	TRANSISTOR	2SB1068TP-K
JR20	1-216-864-11	SHORT	0	Q397	8-729-113-13	TRANSISTOR	FA1A4M-T1L33
JR21	1-216-864-11	SHORT	0	Q503	8-729-113-13	TRANSISTOR	FA1A4M-T1L33
JR22	1-216-864-11	SHORT	0	Q504	8-729-113-69	TRANSISTOR	FN1F4M-T1M32
JR24	1-216-864-11	SHORT	0	Q505	8-729-113-13	TRANSISTOR	FA1A4M-T1L33
JR25	1-216-864-11	SHORT	0	Q575	8-729-120-28	TRANSISTOR	2SC1623-T1-L5L6
JR26	1-216-864-11	SHORT	0	Q821	8-729-120-28	TRANSISTOR	2SC1623-T1-L5L6
JR27	1-216-864-11	SHORT	0	Q822	8-729-120-28	TRANSISTOR	2SC1623-T1-L5L6
JR28	1-216-864-11	SHORT	0	Q823	8-729-216-22	TRANSISTOR	2SA812-T1-M5M6
JR29	1-216-864-11	SHORT	0	Q824	8-729-014-97	TRANSISTOR	FA1L3Z-T1B
JR30	1-216-864-11	SHORT	0	Q825	8-729-120-28	TRANSISTOR	2SC1623-T1-L5L6
JR35	1-216-864-11	SHORT	0	Q828	8-729-120-28	TRANSISTOR	2SC1623-T1-L5L6
JR38	1-216-864-11	SHORT	0	Q829	8-729-120-28	TRANSISTOR	2SC1623-T1-L5L6
JR104	1-216-864-11	SHORT	0	Q861	8-729-113-69	TRANSISTOR	FN1F4M-T1M32
JR201	1-216-864-11	SHORT	0	Q862	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16
JR301	1-216-864-11	SHORT	0	Q863	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16
JR304	1-216-864-11	SHORT	0	Q891	8-729-140-04	TRANSISTOR	2SB1116-TP-LK
JR501	1-216-864-11	SHORT	0	Q892	8-729-620-05	TRANSISTOR	2SC2603TP-EF
JR801	1-216-864-11	SHORT	0	Q911	8-729-141-83	TRANSISTOR	2SB1375
JR907	1-216-864-11	SHORT	0 (RG80)	Q912	8-729-113-13	TRANSISTOR	FA1A4M-T1L33
JR910	1-216-864-11	SHORT	0 (RG80)	< RESISTOR >			
JR922	1-216-845-11	METAL CHIP	100K 5%	1/16W (RG80)			
< COIL >				R1	1-216-864-11	SHORT	0
L101	1-414-189-31	INDUCTOR	100uH	R3	1-216-805-11	METAL CHIP	47 5% 1/16W
L201	1-414-189-31	INDUCTOR	100uH	R4	1-216-805-11	METAL CHIP	47 5% 1/16W
L301	1-410-780-11	INDUCTOR	27MH	R5	1-216-819-11	METAL CHIP	680 5% 1/16W
L302	1-414-193-11	INDUCTOR	220uH	R6	1-216-815-11	METAL CHIP	330 5% 1/16W
L303	1-414-193-11	INDUCTOR	220uH	R7	1-216-819-11	METAL CHIP	680 5% 1/16W
L351	1-410-780-11	INDUCTOR	27MH	R8	1-216-821-11	METAL CHIP	1K 5% 1/16W
L801	1-420-872-00	COIL, AIR-CORE (KR)		R10	1-216-814-11	METAL CHIP	270 5% 1/16W
L851	1-420-872-00	COIL, AIR-CORE (KR)		R12	1-216-833-11	METAL CHIP	10K 5% 1/16W
< TRANSISTOR >				R13	1-216-827-11	METAL CHIP	3.3K 5% 1/16W
Q1	8-729-178-63	TRANSISTOR	2SC1674-K	R14	1-216-814-11	METAL CHIP	270 5% 1/16W
Q2	8-729-422-57	TRANSISTOR	BN1A4M-TP	R15	1-216-843-11	METAL CHIP	68K 5% 1/16W
Q11	8-729-620-05	TRANSISTOR	2SC2603TP-EF	R16	1-216-837-11	METAL CHIP	22K 5% 1/16W
Q12	8-729-620-05	TRANSISTOR	2SC2603TP-EF	R17	1-216-839-11	METAL CHIP	33K 5% 1/16W
Q101	8-729-120-28	TRANSISTOR	2SC1623-T1L6	R18	1-216-827-11	METAL CHIP	3.3K 5% 1/16W
Q102	8-729-144-85	TRANSISTOR	2SK1133-T1B	R19	1-216-833-11	METAL CHIP	10K 5% 1/16W
Q103	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16	R20	1-216-827-11	METAL CHIP	3.3K 5% 1/16W
Q104	8-729-113-13	TRANSISTOR	FA1A4M-T1L33	R21	1-216-819-11	METAL CHIP	680 5% 1/16W
Q141	8-729-120-28	TRANSISTOR	2SC1623-T1-L5L6	(EXCEPT DX50: E)			
Q151	8-729-120-28	TRANSISTOR	2SC1623-T1L6	R21	1-216-820-11	METAL CHIP	820 5% 1/16W
Q152	8-729-144-85	TRANSISTOR	2SK1133-T1B	(DX50: E)			
Q153	8-729-141-73	TRANSISTOR	2SC3624A-T1L15L16	R22	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q301	8-729-801-93	TRANSISTOR	2SD1387-34-TP	R23	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
Q302	8-729-142-46	TRANSISTOR	2SC2001TP-LK	R24	1-216-819-11	METAL CHIP	680 5% 1/16W
Q303	8-729-142-46	TRANSISTOR	2SC2001TP-LK	(EXCEPT DX50: E)			
Q304	8-729-113-69	TRANSISTOR	FN1F4M-T1M32	R24	1-216-820-11	METAL CHIP	820 5% 1/16W
Q305	8-729-113-13	TRANSISTOR	FA1A4M-T1L33	(DX50: E)			
Q391	8-729-140-04	TRANSISTOR	2SB1116-TP-LK	R25	1-216-809-11	METAL CHIP	100 5% 1/16W
Q392	8-729-113-13	TRANSISTOR	FA1A4M-T1L33	R26	1-216-825-11	METAL CHIP	2.2K 5% 1/16W
Q393	8-729-140-04	TRANSISTOR	2SB1116-TP-LK	R27	1-216-829-11	METAL CHIP	4.7K 5% 1/16W
				R28	1-216-849-11	METAL CHIP	220K 5% 1/16W
				R29	1-216-849-11	METAL CHIP	220K 5% 1/16W
				R30	1-216-827-11	METAL CHIP	3.3K 5% 1/16W
				R31	1-216-829-11	METAL CHIP	4.7K 5% 1/16W

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R41	1-216-833-11	METAL CHIP	10K	5%	1/16W	R153	1-216-833-11	METAL CHIP	10K	5%	1/16W
R42	1-216-845-11	METAL CHIP	100K	5%	1/16W	R154	1-216-833-11	METAL CHIP	10K	5%	1/16W
R43	1-216-839-11	METAL CHIP	33K	5%	1/16W	R155	1-216-845-11	METAL CHIP	100K	5%	1/16W
R55	1-216-833-11	METAL CHIP	10K	5%	1/16W	R156	1-216-845-11	METAL CHIP	100K	5%	1/16W
R56	1-216-833-11	METAL CHIP	10K	5%	1/16W	R157	1-216-849-11	METAL CHIP	220K	5%	1/16W
R58	1-216-809-11	METAL CHIP	100	5%	1/16W	R158	1-216-845-11	METAL CHIP	100K	5%	1/16W
R59	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R159	1-216-833-11	METAL CHIP	10K	5%	1/16W
R60	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R160	1-216-819-11	METAL CHIP	680	5%	1/16W
R61	1-216-809-11	METAL CHIP	100	5%	1/16W	R161	1-216-833-11	METAL CHIP	10K	5%	1/16W
R62	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R162	1-216-841-11	METAL CHIP	47K	5%	1/16W
R63	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R163	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R64	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R164	1-216-845-11	METAL CHIP	100K	5%	1/16W
R65	1-216-809-11	METAL CHIP	100	5%	1/16W	R165	1-216-833-11	METAL CHIP	10K	5%	1/16W
R66	1-216-833-11	METAL CHIP	10K	5%	1/16W	R166	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R67	1-216-833-11	METAL CHIP	10K	5%	1/16W	R171	1-216-834-11	METAL CHIP	12K	5%	1/16W (DX50)
R68	1-216-821-11	METAL CHIP	1K	5%	1/16W	R172	1-216-833-11	METAL CHIP	10K	5%	1/16W (DX50)
R69	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R173	1-216-833-11	METAL CHIP	10K	5%	1/16W (DX50)
R101	1-216-821-11	METAL CHIP	1K	5%	1/16W	R175	1-216-833-11	METAL CHIP	10K	5%	1/16W
R102	1-216-845-11	METAL CHIP	100K	5%	1/16W	R185	1-216-839-11	METAL CHIP	33K	5%	1/16W
R103	1-216-833-11	METAL CHIP	10K	5%	1/16W	R187	1-216-837-11	METAL CHIP	22K	5%	1/16W
R104	1-216-833-11	METAL CHIP	10K	5%	1/16W	R189	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R105	1-216-845-11	METAL CHIP	100K	5%	1/16W	R212	1-216-809-11	METAL CHIP	100	5%	1/16W
R106	1-216-845-11	METAL CHIP	100K	5%	1/16W	R217	1-216-809-11	METAL CHIP	100	5%	1/16W
R107	1-216-849-11	METAL CHIP	220K	5%	1/16W	R219	1-216-809-11	METAL CHIP	100	5%	1/16W
R108	1-216-845-11	METAL CHIP	100K	5%	1/16W	R224	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R109	1-216-833-11	METAL CHIP	10K	5%	1/16W	R226	1-216-851-11	METAL CHIP	330K	5%	1/16W
R110	1-216-819-11	METAL CHIP	680	5%	1/16W	R228	1-216-845-11	METAL CHIP	100K	5%	1/16W
R111	1-216-833-11	METAL CHIP	10K	5%	1/16W	R301	1-216-836-11	METAL CHIP	18K	5%	1/16W
R112	1-216-841-11	METAL CHIP	47K	5%	1/16W	R302	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R113	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R303	1-216-809-11	METAL CHIP	100	5%	1/16W
R114	1-216-845-11	METAL CHIP	100K	5%	1/16W	R304	1-216-809-11	METAL CHIP	100	5%	1/16W
R115	1-216-833-11	METAL CHIP	10K	5%	1/16W	R305	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R116	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R306	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R117	1-216-833-11	METAL CHIP	10K	5%	1/16W	R307	1-216-832-11	METAL CHIP	8.2K	5%	1/16W
R121	1-216-834-11	METAL CHIP	12K	5%	1/16W (DX50)	R308	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R122	1-216-833-11	METAL CHIP	10K	5%	1/16W (DX50)	R309	1-216-837-11	METAL CHIP	22K	5%	1/16W
R123	1-216-833-11	METAL CHIP	10K	5%	1/16W (DX50)	R311	1-216-857-11	METAL CHIP	1M	5%	1/16W
R124	1-216-829-11	METAL CHIP	4.7K	5%	1/16W (DX50)	R312	1-218-745-11	RES-CHIP	160K	5%	1/16W
R125	1-216-833-11	METAL CHIP	10K	5%	1/16W	R314	1-216-864-11	SHORT	0		
R132	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R315	1-216-833-11	METAL CHIP	10K	5%	1/16W
R133	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R316	1-216-839-11	METAL CHIP	33K	5%	1/16W
R134	1-216-821-11	METAL CHIP	1K	5%	1/16W	R317	1-216-833-11	METAL CHIP	10K	5%	1/16W
R135	1-216-839-11	METAL CHIP	33K	5%	1/16W	R318	1-216-833-11	METAL CHIP	10K	5%	1/16W
R137	1-216-837-11	METAL CHIP	22K	5%	1/16W	R319	1-216-852-11	METAL CHIP	390K	5%	1/16W
R139	1-216-821-11	METAL CHIP	1K	5%	1/16W	R320	1-216-822-11	METAL CHIP	1.2K	5%	1/16W
R141	1-216-821-11	METAL CHIP	1K	5%	1/16W	R321	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R142	1-216-822-11	METAL CHIP	1.2K	5%	1/16W	R323	1-216-864-11	SHORT	0		
R143	1-216-841-11	METAL CHIP	47K	5%	1/16W	R331	1-216-846-11	METAL CHIP	120K	5%	1/16W
R144	1-216-864-11	SHORT	0			R332	1-216-809-11	METAL CHIP	100	5%	1/16W
R145	1-216-821-11	METAL CHIP	1K	5%	1/16W	R333	1-216-830-11	METAL CHIP	5.6K	5%	1/16W
R146	1-216-821-11	METAL CHIP	1K	5%	1/16W	R334	1-218-332-11	RES-CHIP	130K	5%	1/16W
R147	1-216-821-11	METAL CHIP	1K	5%	1/16W	R335	1-216-813-11	METAL CHIP	220	5%	1/16W
R148	1-216-821-11	METAL CHIP	1K	5%	1/16W	R336	1-216-846-11	METAL CHIP	120K	5%	1/16W
R151	1-216-821-11	METAL CHIP	1K	5%	1/16W	R337	1-216-813-11	METAL CHIP	220	5%	1/16W
R152	1-216-845-11	METAL CHIP	100K	5%	1/16W	R338	1-216-837-11	METAL CHIP	22K	5%	1/16W

HCD-DX50/RG80

MAIN

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks		
R339	1-216-834-11	METAL CHIP	12K	5%	1/16W	R510	1-216-845-11	METAL CHIP	100K	5%	1/16W
R340	1-216-850-11	METAL CHIP	270K	5%	1/16W	R511	1-216-851-11	METAL CHIP	330K	5%	1/16W
R341	1-216-813-11	METAL CHIP	220	5%	1/16W	R512	1-216-809-11	METAL CHIP	100	5%	1/16W
R342	1-216-834-11	METAL CHIP	12K	5%	1/16W	R513	1-216-864-11	SHORT	0		
R343	1-219-787-17	FUSIBLE	5.6	5%	1/4W	R514	1-216-809-11	METAL CHIP	100	5%	1/16W
R344	1-219-787-17	FUSIBLE	5.6	5%	1/4W	R515	1-216-833-11	METAL CHIP	10K	5%	1/16W
R345	1-216-836-11	METAL CHIP	18K	5%	1/16W	R516	1-216-833-11	METAL CHIP	10K	5%	1/16W
R346	1-216-836-11	METAL CHIP	18K	5%	1/16W	R517	1-216-833-11	METAL CHIP	10K	5%	1/16W
R347	1-216-830-11	METAL CHIP	5.6K	5%	1/16W	R518	1-216-833-11	METAL CHIP	10K	5%	1/16W
R351	1-216-836-11	METAL CHIP	18K	5%	1/16W	R519	1-216-809-11	METAL CHIP	100	5%	1/16W
R352	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R520	1-216-833-11	METAL CHIP	10K	5%	1/16W
R353	1-216-809-11	METAL CHIP	100	5%	1/16W	R522	1-216-864-11	SHORT	0		
R354	1-216-809-11	METAL CHIP	100	5%	1/16W	R523	1-216-864-11	SHORT	0 (DX50: SP,KR,AUS)		
R355	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R523	1-216-829-11	METAL CHIP	4.7K	5%	1/16
R356	1-216-832-11	METAL CHIP	8.2K	5%	1/16W				(EXCEPT DX50: SP,KR,AUS)		
R357	1-216-832-11	METAL CHIP	8.2K	5%	1/16W	R529	1-216-809-11	METAL CHIP	100	5%	1/16W
R358	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R530	1-216-809-11	METAL CHIP	100	5%	1/16W
R360	1-216-819-11	METAL CHIP	680	5%	1/16W	R534	1-216-817-11	METAL CHIP	470	5%	1/16W
R361	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R535	1-216-817-11	METAL CHIP	470	5%	1/16W
R363	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R537	1-216-817-11	METAL CHIP	470	5%	1/16W
R364	1-216-819-11	METAL CHIP	680	5%	1/16W	R540	1-216-809-11	METAL CHIP	100	5%	1/16W
R366	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R541	1-216-841-11	METAL CHIP	47K	5%	1/16W
R367	1-216-841-11	METAL CHIP	47K	5%	1/16W	R542	1-216-809-11	METAL CHIP	100	5%	1/16W
R368	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R543	1-216-809-11	METAL CHIP	100	5%	1/16W
R369	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R544	1-216-809-11	METAL CHIP	100	5%	1/16W
R371	1-216-841-11	METAL CHIP	47K	5%	1/16W	R545	1-216-809-11	METAL CHIP	100	5%	1/16W
R372	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R546	1-216-809-11	METAL CHIP	100	5%	1/16W
R374	1-216-841-11	METAL CHIP	47K	5%	1/16W	R547	1-216-809-11	METAL CHIP	100	5%	1/16W
R375	1-218-296-11	RES-CHIP	75K	5%	1/16W	R548	1-216-809-11	METAL CHIP	100	5%	1/16W
R376	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R549	1-216-809-11	METAL CHIP	100	5%	1/16W
R377	1-216-841-11	METAL CHIP	47K	5%	1/16W	R553	1-216-833-11	METAL CHIP	10K	5%	1/16W
R378	1-218-296-11	RES-CHIP	75K	5%	1/16W	R556	1-216-809-11	METAL CHIP	100	5%	1/16W
R379	1-216-821-11	METAL CHIP	1K	5%	1/16W	R557	1-216-809-11	METAL CHIP	100	5%	1/16W
R380	1-216-824-11	METAL CHIP	1.8K	5%	1/16W	R570	1-216-809-11	METAL CHIP	100	5%	1/16W
R381	1-216-846-11	METAL CHIP	120K	5%	1/16W	R573	1-216-833-11	METAL CHIP	10K	5%	1/16W
R382	1-216-809-11	METAL CHIP	100	5%	1/16W	R574	1-216-833-11	METAL CHIP	10K	5%	1/16W
R383	1-216-830-11	METAL CHIP	5.6K	5%	1/16W	R575	1-216-833-11	METAL CHIP	10K	5%	1/16W
R384	1-218-332-11	RES-CHIP	130K	5%	1/16W	R576	1-216-841-11	METAL CHIP	47K	5%	1/16W
R386	1-216-846-11	METAL CHIP	120K	5%	1/16W	R577	1-216-841-11	METAL CHIP	47K	5%	1/16W
R387	1-216-813-11	METAL CHIP	220	5%	1/16W	R578	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R388	1-216-837-11	METAL CHIP	22K	5%	1/16W	R579	1-216-817-11	METAL CHIP	470	5%	1/16W
R389	1-216-834-11	METAL CHIP	12K	5%	1/16W	R582	1-216-833-11	METAL CHIP	10K	5%	1/16W
R390	1-216-850-11	METAL CHIP	270K	5%	1/16W	R583	1-216-809-11	METAL CHIP	100	5%	1/16W
R391	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R584	1-216-809-11	METAL CHIP	100	5%	1/16W
R392	1-216-834-11	METAL CHIP	12K	5%	1/16W	R585	1-216-833-11	METAL CHIP	10K	5%	1/16W
R393	1-216-837-11	METAL CHIP	22K	5%	1/16W	R588	1-216-809-11	METAL CHIP	100	5%	1/16W
R394	1-216-813-11	METAL CHIP	220	5%	1/16W	R589	1-216-809-11	METAL CHIP	100	5%	1/16W
R396	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R590	1-216-809-11	METAL CHIP	100	5%	1/16W
R397	1-216-821-11	METAL CHIP	1K	5%	1/16W	R591	1-216-809-11	METAL CHIP	100	5%	1/16W
R398	1-216-824-11	METAL CHIP	1.8K	5%	1/16W	R593	1-216-821-11	METAL CHIP	1K	5%	1/16W
R399	1-216-825-11	METAL CHIP	2.2K	5%	1/16W				(DX50: E,MX,AR,E51)		
R500	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R593	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R501	1-216-837-11	METAL CHIP	22K	5%	1/16W				(RG80)		
R502	1-216-833-11	METAL CHIP	10K	5%	1/16W	R801	1-260-304-71	CARBON	10	5%	1/2W
R503	1-216-833-11	METAL CHIP	10K	5%	1/16W				(DX50: KR)		
R504	1-216-833-11	METAL CHIP	10K	5%	1/16W	R802	1-260-304-71	CARBON	10	5%	1/2W
R507	1-216-833-11	METAL CHIP	10K	5%	1/16W				(DX50: KR)		
R508	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R804	1-216-841-11	METAL CHIP	47K	5%	1/16W
R509	1-216-833-11	METAL CHIP	10K	5%	1/16W				(DX50: KR)		
						R821	1-216-841-11	METAL CHIP	47K	5%	1/16W

MAIN

MAIN TRANS

MOTOR

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
R822	1-216-842-11	METAL CHIP	56K 5% 1/16W			< TERMINAL >	
R823	1-216-833-11	METAL CHIP	10K 5% 1/16W				
R824	1-216-841-11	METAL CHIP	47K 5% 1/16W	TM1	1-694-555-21	TERMINAL BOARD (4P)(ANTENNA)	(EXCEPT DX50: KR)
R825	1-216-827-11	METAL CHIP	3.3K 5% 1/16W	TM1	1-694-556-12	TERMINAL BOARD (ANT.PAL)(ANTENNA)	(DX50: KR)
R826	1-216-839-11	METAL CHIP	33K 5% 1/16W	TM801	1-694-635-11	TERMINAL BOARD (4P)(SPEAKER)	
R827	1-216-837-11	METAL CHIP	22K 5% 1/16W			< VIBRATOR >	
R829	1-216-837-11	METAL CHIP	22K 5% 1/16W	X51	1-760-549-31	VIBRATOR, CRYSTAL 4.5MHz	
R830	1-216-829-11	METAL CHIP	4.7K 5% 1/16W	X501	1-567-098-41	VIBRATOR, CRYSTAL 32.768kHz	
R831	1-216-829-11	METAL CHIP	4.7K 5% 1/16W	X502	1-781-107-21	VIBRATOR, SERAMIC 16MHz	
R841	1-216-837-11	METAL CHIP	22K 5% 1/16W			*****	
R842	1-216-837-11	METAL CHIP	22K 5% 1/16W				
R843	1-216-829-11	METAL CHIP	4.7K 5% 1/16W (E51)				
R843	1-216-828-11	METAL CHIP	3.9K 5% 1/16W (EXCEPT DX50: E51)		1-680-265-11	MAIN TRANS BOARD	*****
R844	1-216-845-11	METAL CHIP	100K 5% 1/16W				
R845	1-216-857-11	METAL CHIP	1M 5% 1/16W		1-533-217-31	HOLDER, FUSE	
R851	1-260-304-71	CARBON	10 5% 1/2W (DX50: KR)			< CAPACITOR >	
R852	1-260-304-71	CARBON	10 5% 1/2W (DX50: KR)	C941	1-128-553-11	ELECT 220uF 20.00% 63V	
R854	1-216-841-11	METAL CHIP	47K 5% 1/16W	C977	1-164-159-11	CERAMIC 0.1uF 50V	
R861	1-216-821-11	METAL CHIP	1K 5% 1/16W			< CONNECTOR >	
R862	1-216-833-11	METAL CHIP	10K 5% 1/16W	* CN977	1-564-526-11	PLUG, CONNECTOR 11P	
R863	1-216-841-11	METAL CHIP	47K 5% 1/16W			< DIODE >	
R864	1-216-821-11	METAL CHIP	1K 5% 1/16W				
R865	1-216-821-11	METAL CHIP	1K 5% 1/16W	D977	8-719-024-99	DIODE 11ES2-NTA2B	
R866	1-216-806-11	RES-CHIP	56 5% 1/16W			< FUSE >	
R868	1-215-891-11	METAL OXIDE	680 5% 2W	△F971	1-533-473-11	FUSE, GLASS TUBE (DIA.5) (T6.3AL/250V)	(DX50: E,SP,AR,E51)
R869	1-215-891-11	METAL OXIDE	680 5% 2W	△F974	1-533-454-11	FUSE, GLASS TUBE (DIA.5) (6.3A/125V) (RG80)	
R891	1-216-833-11	METAL CHIP	10K 5% 1/16W	△F974	1-533-473-11	FUSE, GLASS TUBE (DIA.5) (T6.3AL/250V)	(EXCEPT RG80)
R892	1-216-829-11	METAL CHIP	4.7K 5% 1/16W	△F975	1-533-454-11	FUSE, GLASS TUBE (DIA.5) (6.3A/125V) (RG80)	
R893	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	△F975	1-533-473-11	FUSE, GLASS TUBE (DIA.5) (T6.3AL/250V)	(EXCEPT RG80)
R895	1-216-864-11	SHORT	0			< RESISTOR >	
△R901	1-249-405-11	CARBON	100 5% 1/4W F	△R941	1-219-120-11	FUSIBLE 0.15 5% 1/4W	
R911	1-216-826-11	METAL CHIP	2.7K 5% 1/16W	△R944	1-249-389-11	CARBON 4.7 5% 1/4W F	
R912	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	△R951	1-219-120-11	FUSIBLE 0.15 5% 1/4W	
R914	1-216-825-11	METAL CHIP	2.2K 5% 1/16W	△R952	1-219-120-11	FUSIBLE 0.15 5% 1/4W	
R966	1-216-806-11	RES-CHIP	56 5% 1/16W	△R953	1-219-120-11	FUSIBLE 0.15 5% 1/4W	
		< COMPOSITION CIRCUIT BLOCK >		△R954	1-202-725-00	SOLID 3.3M 10% 1/2W (RG80)	
RB41	1-234-575-11	ENCAPSULATED COMPONENT				*****	
		< VARIABLE RESISTOR >					
RV11	1-241-765-11	RES, ADJ, CARBON 22K			1-675-910-14	MOTOR BOARD	*****
RV301	1-241-764-11	RES, ADJ, CARBON 10K				< CAPACITOR >	
RV302	1-241-762-11	RES, ADJ, CARBON 2.2K					
RV303	1-241-762-11	RES, ADJ, CARBON 2.2K					
RV304	1-241-768-11	RES, ADJ, CARBON 220K					
RV351	1-241-764-11	RES, ADJ, CARBON 10K					
RV354	1-241-768-11	RES, ADJ, CARBON 220K					
		< RELAY >		C721	1-162-306-11	CERAMIC 0.01uF 30.00% 16V	
RY801	1-755-372-11	RELAY					
		< TRANSFORMER >					
T11	1-435-792-11	TRANSFORMER, DISCRIMINATOR					
T301	1-423-980-11	TRANSFORMER, BIAS OSCILLATION					

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.

HCD-DX50/RG80

MOTOR

PAD SWITCH

PANEL

Ref. No.	Part No.	Description	Remarks			
< CONNECTOR >						
CN721	1-770-516-31	CONNECTOR, FFC 8P				
CN722	1-785-330-11	PIN, CONNECTOR (LIGHT ANGLE)4P				
< SWITCH >						
S701	1-771-822-11	SWITCH, LEVER (SLIDE)				

A-4475-778-A	PAD SWITCH BOARD, COMPLETE (DX50)					

A-4476-977-A	PAD SWITCH BOARD, COMPLETE (RG80)					

< CAPACITOR >						
C751	1-162-306-11	CERAMIC	0.01uF	30.00%	16V	
C752	1-162-306-11	CERAMIC	0.01uF	30.00%	16V	
< DIODE >						
D751	8-719-063-93	DIODE	SLR325VC-N-T32 (REC)			
D752	8-719-063-93	DIODE	SLR325VC-N-T32 (ENTER)			
< TRANSISTOR >						
Q751	8-729-900-80	TRANSISTOR	BA1A4M-TP			
Q752	8-729-900-80	TRANSISTOR	BA1A4M-TP			
< RESISTOR >						
R750	1-249-410-11	CARBON	270	5%	1/4W	F
R751	1-249-411-11	CARBON	330	5%	1/4W	
R752	1-249-411-11	CARBON	330	5%	1/4W	
R754	1-249-410-11	CARBON	270	5%	1/4W	F
R755	1-249-413-11	CARBON	470	5%	1/4W	F
R756	1-249-414-11	CARBON	560	5%	1/4W	F
R757	1-249-416-11	CARBON	820	5%	1/4W	F
R758	1-249-417-11	CARBON	1K	5%	1/4W	F
R759	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R760	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R761	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R762	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R763	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R764	1-249-426-11	CARBON	5.6K	5%	1/4W	
R765	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R766	1-249-431-11	CARBON	15K	5%	1/4W	
R768	1-249-410-11	CARBON	270	5%	1/4W	F
R769	1-249-413-11	CARBON	470	5%	1/4W	F
R770	1-249-414-11	CARBON	560	5%	1/4W	F
R771	1-249-416-11	CARBON	820	5%	1/4W	F
R772	1-249-417-11	CARBON	1K	5%	1/4W	F
R773	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R774	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R775	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R776	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R777	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R778	1-249-426-11	CARBON	5.6K	5%	1/4W	
R779	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R780	1-249-431-11	CARBON	15K	5%	1/4W	
R790	1-249-434-11	CARBON	27K	5%	1/4W	

Ref. No.	Part No.	Description	Remarks			
< SWITCH >						
S751	1-476-504-11	ENCODER-ROTARY (VOLUME)				
S752	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)				
S753	1-762-875-21	SWITCH, KEYBOARD (▶)				
S754	1-762-875-21	SWITCH, KEYBOARD (◀)				
S755	1-762-875-21	SWITCH, KEYBOARD (SPECTRUM)				
S756	1-762-875-21	SWITCH, KEYBOARD (EFFECT ON/OFF)				
S757	1-762-875-21	SWITCH, KEYBOARD (GAME EQ)				
S758	1-762-875-21	SWITCH, KEYBOARD (KARAOKE PONG)(DX50)				
S760	1-762-875-21	SWITCH, KEYBOARD (◀◀ -)				
S761	1-762-875-21	SWITCH, KEYBOARD (◀◀◀)				
S762	1-762-875-21	SWITCH, KEYBOARD (■)				
S763	1-762-875-21	SWITCH, KEYBOARD (HI-DUB)				
S764	1-762-875-21	SWITCH, KEYBOARD (REC)				
S765	1-762-875-21	SWITCH, KEYBOARD (▶▶▶ +)				
S768	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE)				
S769	1-762-875-21	SWITCH, KEYBOARD (REPEAT)				
S770	1-762-875-21	SWITCH, KEYBOARD (EDIT)				
S771	1-762-875-21	SWITCH, KEYBOARD (MUSIC EQ)				
S772	1-762-875-21	SWITCH, KEYBOARD (MOVIE EQ)				
S773	1-762-875-21	SWITCH, KEYBOARD (▲)				
S774	1-762-875-21	SWITCH, KEYBOARD (ENTER)				
S775	1-762-875-21	SWITCH, KEYBOARD (▼)				
S776	1-762-875-21	SWITCH, KEYBOARD (P FILE)				
S777	1-762-875-21	SWITCH, KEYBOARD (GROOVE)				
S778	1-762-875-21	SWITCH, KEYBOARD (SURROUND)				
S779	1-762-875-21	SWITCH, KEYBOARD (<D>)				
S780	1-762-875-21	SWITCH, KEYBOARD (■)				
S781	1-762-875-21	SWITCH, KEYBOARD (▶▶▶)				

A-4475-773-A	PANEL BOARD, COMPLETE (DX50)					

A-4476-975-A	PANEL BOARD, COMPLETE (RG80)					

4-231-581-01	HOLDER FL					
< CAPACITOR >						
C603	1-162-286-31	CERAMIC	220PF	10.00%	50V	
C604	1-124-257-00	ELECT	2.2uF	20%	50V	
C605	1-162-286-31	CERAMIC	220PF	10.00%	50V	
C606	1-124-257-00	ELECT	2.2uF	20%	50V	
C607	1-126-157-11	ELECT	10uF	20%	16V	(DX50)
C608	1-126-157-11	ELECT	10uF	20%	16V	
C609	1-162-303-11	CERAMIC	0.0033uF	30.00%	16V	
C610	1-126-157-11	ELECT	10uF	20%	16V	
C611	1-126-157-11	ELECT	10uF	20%	16V	
C612	1-162-306-11	CERAMIC	0.01uF	30.00%	16V	
C613	1-124-261-00	ELECT	10uF	20%	50V	
C614	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C615	1-104-664-11	ELECT	47uF	20.00%	10V	
C616	1-126-934-11	ELECT	220uF	20.00%	16V	
C617	1-124-589-11	ELECT	47uF	20%	16V	
C618	1-162-306-11	CERAMIC	0.01uF	30.00%	16V	
C619	1-124-589-11	ELECT	47uF	20%	16V	
C620	1-162-306-11	CERAMIC	0.01uF	30.00%	16V	
C622	1-126-163-11	ELECT	4.7uF	20%	50V	
C623	1-164-159-21	CERAMIC	0.1uF		50V	

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks			
C624	1-162-306-11	CERAMIC	0.01uF	30.00%	16V	FL601	1-518-739-11	< FILTER >				
C625	1-162-306-11	CERAMIC	0.01uF	30.00%	16V							
C626	1-162-306-11	CERAMIC	0.01uF	30.00%	16V							
C627	1-162-306-11	CERAMIC	0.01uF	30.00%	16V							
C628	1-162-306-11	CERAMIC	0.01uF	30.00%	16V			< IC >				
C629	1-162-306-11	CERAMIC	0.01uF	30.00%	16V	IC601	8-759-828-89	IC MB90M407PF-G-103-BND				
C630	1-162-294-31	CERAMIC	0.001uF	10%	50V	IC602	8-759-570-21	IC BA3830F-E2				
C631	1-162-294-31	CERAMIC	0.001uF	10%	50V	IC603	8-759-827-70	IC NJL64H400A-1 (■)				
C651	1-164-159-11	CERAMIC	0.1uF		50V	IC616	8-719-647-10	IC 2933				
C652	1-126-960-11	ELECT	1uF	20.00%	50V	IC722	8-759-167-88	IC NJM4565D (DX50)				
C653	1-126-960-11	ELECT	1uF	20.00%	50V	< JACK >						
C717	1-124-584-00	ELECT	100uF	20%	10V	J601	1-793-724-11	JACK BLOCK, PIN 3P (INPUT(GAME)				
C718	1-124-584-00	ELECT	100uF	20%	10V	J631	1-785-569-11	JACK (SMALL TYPE) (PHONES)				
C719	1-124-257-00	ELECT	2.2uF	20%	50V	J722	1-785-569-11	JACK (SMALL TYPE) (MIC) (DX50)				
C736	1-124-261-00	ELECT	10uF	20%	50V	< TRANSISTOR >						
C737	1-124-261-00	ELECT	10uF	20%	50V	Q601	8-729-900-80	TRANSISTOR	BA1A4M-TP			
C738	1-124-257-00	ELECT	2.2uF	20%	50V	Q602	8-729-900-80	TRANSISTOR	BA1A4M-TP			
C739	1-162-215-31	CERAMIC	47PF	5%	50V	Q603	8-729-900-80	TRANSISTOR	BA1A4M-TP			
C740	1-162-282-31	CERAMIC	100PF	10%	50V	Q604	8-729-900-80	TRANSISTOR	BA1A4M-TP			
C741	1-124-463-00	ELECT	0.1uF	20%	50V	Q605	8-729-900-80	TRANSISTOR	BA1A4M-TP			
C742	1-162-215-31	CERAMIC	47PF	5%	50V	Q721	8-729-119-79	TRANSISTOR	2SC2785TP-FEK (DX50)			
C743	1-162-290-31	CERAMIC	470PF	10%	50V	< RESISTOR >						
C744	1-162-294-31	CERAMIC	0.001uF	10%	50V	R602	1-249-417-11	CARBON	1K	5%	1/4W F	
C747	1-126-961-11	ELECT	2.2uF	20.00%	50V	R603	1-249-417-11	CARBON	1K	5%	1/4W F	
C748	1-162-306-11	CERAMIC	0.01uF	30.00%	16V	R604	1-249-441-11	CARBON	100K	5%	1/4W	
C749	1-164-159-11	CERAMIC	0.1uF		50V	R605	1-249-441-11	CARBON	100K	5%	1/4W	
CN601	1-793-767-11	CONNECTOR, BOARD TO BOARD 30P				R606	1-247-889-00	CARBON	270K	5%	1/4W	
D608	8-719-057-97	DIODE	SEL5923A-TP15 (GAME)			R607	1-247-889-00	CARBON	270K	5%	1/4W	
D609	8-719-057-97	DIODE	SEL5923A-TP15 (TUNER/BAND)			R608	1-249-421-11	CARBON	2.2K	5%	1/4W F	
D610	8-719-109-85	DIODE	MTZJ-T-77-5.1B			R609	1-249-440-11	CARBON	82K	5%	1/4W	
D611	8-719-991-33	DIODE	1SS133T-77			R610	1-249-441-11	CARBON	100K	5%	1/4W	
D612	8-719-057-97	DIODE	SEL5923A-TP15 (TUNER/BAND)			R611	1-249-437-11	CARBON	47K	5%	1/4W	
D613	8-719-057-97	DIODE	SEL5923A-TP15 (CD)			R612	1-249-435-11	CARBON	33K	5%	1/4W	
D614	8-719-057-97	DIODE	SEL5923A-TP15 (CD)			R613	1-249-429-11	CARBON	10K	5%	1/4W	
D615	8-719-057-97	DIODE	SEL5923A-TP15 (TAPE A/B)			R614	1-249-435-11	CARBON	33K	5%	1/4W	
D616	8-719-057-97	DIODE	SEL5923A-TP15 (TAPE A/B)			R615	1-249-433-11	CARBON	22K	5%	1/4W	
D617	8-719-057-97	DIODE	SEL5923A-TP15 (MD(VIDEO))			R616	1-249-429-11	CARBON	10K	5%	1/4W	
D618	8-719-057-97	DIODE	SEL5923A-TP15 (MD(VIDEO))			R617	1-249-439-11	CARBON	68K	5%	1/4W	
						R618	1-249-429-11	CARBON	10K	5%	1/4W	
						R625	1-249-401-11	CARBON	47	5%	1/4W F	
						R626	1-249-404-00	CARBON	82	5%	1/4W F	
						R627	1-249-404-00	CARBON	82	5%	1/4W F	
						R628	1-249-404-00	CARBON	82	5%	1/4W F	
						R629	1-249-404-00	CARBON	82	5%	1/4W F	
						R630	1-249-409-11	CARBON	220	5%	1/4W F	
						R631	1-249-418-11	CARBON	1.2K	5%	1/4W F	
						R632	1-249-417-11	CARBON	1K	5%	1/4W F	
						R633	1-249-416-11	CARBON	820	5%	1/4W F	
						R634	1-249-414-11	CARBON	560	5%	1/4W F	
						R635	1-249-413-11	CARBON	470	5%	1/4W F	
						R636	1-249-410-11	CARBON	270	5%	1/4W F	
						R645	1-249-429-11	CARBON	10K	5%	1/4W	

HCD-DX50/RG80

PANEL	POWER
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Ref. No.	Part No.	Description	Remarks
R646	1-247-807-31	CARBON	100 5% 1/4W
R647	1-247-807-31	CARBON	100 5% 1/4W
R650	1-249-429-11	CARBON	10K 5% 1/4W
R651	1-247-807-31	CARBON	100 5% 1/4W
R652	1-249-429-11	CARBON	10K 5% 1/4W
R653	1-249-429-11	CARBON	10K 5% 1/4W
R654	1-249-417-11	CARBON	1K 5% 1/4W F
R655	1-247-807-31	CARBON	100 5% 1/4W
R656	1-247-807-31	CARBON	100 5% 1/4W
R657	1-249-429-11	CARBON	10K 5% 1/4W
R658	1-249-429-11	CARBON	10K 5% 1/4W
R659	1-249-429-11	CARBON	10K 5% 1/4W
R660	1-247-903-00	CARBON	1M 5% 1/4W
R661	1-249-429-11	CARBON	10K 5% 1/4W
R662	1-249-429-11	CARBON	10K 5% 1/4W
R663	1-249-429-11	CARBON	10K 5% 1/4W
R680	1-249-411-11	CARBON	330 5% 1/4W
R681	1-247-843-11	CARBON	3.3K 5% 1/4W
R682	1-249-434-11	CARBON	27K 5% 1/4W
R721	1-249-429-11	CARBON	10K 5% 1/4W (DX50)
R722	1-249-430-11	CARBON	12K 5% 1/4W (DX50)
R734	1-247-807-31	CARBON	100 5% 1/4W (DX50)
R735	1-247-885-00	CARBON	180K 5% 1/4W (DX50)
R736	1-249-429-11	CARBON	10K 5% 1/4W (DX50)
R737	1-249-433-11	CARBON	22K 5% 1/4W (DX50)
R738	1-249-417-11	CARBON	1K 5% 1/4W F (DX50)
R739	1-249-441-11	CARBON	100K 5% 1/4W (DX50)
R742	1-249-417-11	CARBON	1K 5% 1/4W F (DX50)
R743	1-249-429-11	CARBON	10K 5% 1/4W (DX50)
R744	1-249-441-11	CARBON	100K 5% 1/4W (DX50)
R745	1-247-807-31	CARBON	100 5% 1/4W (DX50)
R746	1-249-417-11	CARBON	1K 5% 1/4W F (DX50)
R748	1-249-441-11	CARBON	100K 5% 1/4W
R811	1-249-417-11	CARBON	1K 5% 1/4W F
R812	1-249-417-11	CARBON	1K 5% 1/4W F

< VARIABLE RESISTOR >

RV722	1-227-360-11	VARIABLE RESISTOR (MIC LEVEL)(DX50)
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< SWITCH >

S601	1-762-875-21	SWITCH, KEYBOARD (MD(VIDEO))
S602	1-762-875-21	SWITCH, KEYBOARD (TAPE A/B)
S603	1-762-875-21	SWITCH, KEYBOARD (CD)
S604	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)
S605	1-762-875-21	SWITCH, KEYBOARD (GAME)

Ref. No.	Part No.	Description	Remarks
		< VIBRATOR >	
X601	1-577-358-21	VIBRATOR, CERAMIC 4MHz	*****
	A-4475-781-A	POWER BOARD, COMPLETE (DX50:SP,KR,AUS)	*****
	A-4476-324-A	POWER BOARD, COMPLETE (DX50:E,MX,AR)	*****
	A-4476-982-A	POWER BOARD, COMPLETE (RG80)	*****
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
		< CAPACITOR >	
C501	1-126-963-11	ELECT 4.7uF 20.00% 50V	
C502	1-162-286-21	CERAMIC 220PF 10% 50V	
C503	1-162-282-31	CERAMIC 100PF 10.00% 50V	
C504	1-104-665-11	ELECT 100uF 20.00% 10V	
C505	1-162-199-31	CERAMIC 10PF 5% 50V	
C507	1-136-495-11	FILM 0.068uF 5.00% 50V	
C508	1-136-495-11	FILM 0.068uF 5.00% 50V	
C509	1-128-560-11	ELECT 22uF 20.00% 100V	
C511	1-162-306-11	CERAMIC 0.01uF 30.00% 16V	
C512	1-162-306-11	CERAMIC 0.01uF 30.00% 16V	
C514	1-164-159-11	CERAMIC 0.1uF 50V	
C544	1-137-749-11	MYLAR 0.1uF 100V	
C545	1-137-749-11	MYLAR 0.1uF 100V	
C546	1-137-847-11	ELECT 2200uF 20% 71V (DX50: SP,KR,AUS/RG80)	
C546	1-137-841-11	ELECT 2200uF 20% 71V (DX50: E,MX,AR)	
C551	1-126-963-11	ELECT 4.7uF 20.00% 50V	
C552	1-162-286-21	CERAMIC 220PF 10% 50V	
C553	1-162-282-31	CERAMIC 100PF 10.00% 50V	
C554	1-104-665-11	ELECT 100uF 20.00% 10V	
C555	1-162-199-31	CERAMIC 10PF 5% 50V	
C557	1-136-495-11	FILM 0.068uF 5.00% 50V	
C558	1-136-495-11	FILM 0.068uF 5.00% 50V	
C559	1-128-560-11	ELECT 22uF 20.00% 100V	
C581	1-104-664-11	ELECT 47uF 20.00% 16V	
C596	1-137-847-11	ELECT 2200uF 20% 71V (DX50: SP,KR,AUS/RG80)	
C596	1-137-841-11	ELECT 2200uF 20% 71V (DX50: E,MX,AR)	
C942	1-126-964-11	ELECT 10uF 20.00% 50V	
C943	1-126-968-11	ELECT 100uF 20.00% 50V	
		< CONNECTOR >	
CN502	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P	
CN503	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P	
CN504	1-506-468-11	PIN, CONNECTOR 3P	
CN505	1-568-951-11	PIN, CONNECTOR 2P	
		< DIODE >	
D501	8-719-911-19	DIODE 1SS133T-72	
D502	8-719-911-19	DIODE 1SS133T-72	
D543	8-719-302-38	DIODE RBV-602-01	
D551	8-719-911-19	DIODE 1SS133T-72	
D581	8-719-911-19	DIODE 1SS133T-72	
D941	8-719-150-92	DIODE MTZJ-T-72-33D	

POWER

SENSOR

SUB TRANS

Ref. No.	Part No.	Description	Remarks
		< EARTH >	
* EP501	1-537-738-21	TERMINAL, EARTH	
* EP502	1-537-738-21	TERMINAL, EARTH	
		< IC >	
IC501	8-749-017-16	IC STK442-130	
		< TRANSISTOR >	
Q501	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q503	8-729-140-82	TRANSISTOR 2SA988TP-PAFAEA	
Q504	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q505	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q506	8-729-119-79	TRANSISTOR 2SC2785TP-FEK	
Q551	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q581	8-729-140-84	TRANSISTOR 2SC1841TP-PAFAEA	
Q831	8-729-119-79	TRANSISTOR 2SC2785TP-FEK	
Q941	8-729-141-83	TRANSISTOR 2SB1375	
		< RESISTOR >	
R501	1-249-417-11	CARBON 1K 5% 1/4W F	
R502	1-249-438-11	CARBON 56K 5% 1/4W	
R503	1-249-412-11	CARBON 390 5% 1/4W F	
		(EXCEPT DX50: SP,KR,AUS)	
R503	1-249-414-11	CARBON 560 5% 1/4W F	
		(DX50: SP,KR,AUS)	
R504	1-249-438-11	CARBON 56K 5% 1/4W	
R505	1-249-417-11	CARBON 1K 5% 1/4W F	
R506	1-249-431-11	CARBON 15K 5% 1/4W	
R507	1-249-441-11	CARBON 100K 5% 1/4W	
△ R508	1-217-156-00	METAL 0.22 20% 5W	
R509	1-260-076-11	CARBON 10 5% 1/2W	
△ R510	1-217-156-00	METAL 0.22 20% 5W	
△ R511	1-212-881-11	FUSIBLE 100 5% 1/4W	
△ R512	1-202-972-61	FUSIBLE 1 5% 1/4W	
R513	1-249-435-11	CARBON 33K 5% 1/4W	
R514	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R515	1-249-433-11	CARBON 22K 5% 1/4W	
R516	1-249-429-11	CARBON 10K 5% 1/4W	
R517	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R518	1-249-435-11	CARBON 33K 5% 1/4W	
R519	1-249-439-11	CARBON 68K 5% 1/4W	
R521	1-249-441-11	CARBON 100K 5% 1/4W	
R522	1-249-441-11	CARBON 100K 5% 1/4W	
R523	1-247-883-00	CARBON 150K 5% 1/4W	
R531	1-249-409-11	CARBON 220 5% 1/4W F	
R532	1-247-897-11	CARBON 560K 5% 1/4W	
R533	1-249-437-11	CARBON 47K 5% 1/4W	
R542	1-249-441-11	CARBON 100K 5% 1/4W	
R551	1-249-417-11	CARBON 1K 5% 1/4W F	
R552	1-249-438-11	CARBON 56K 5% 1/4W	
R553	1-249-412-11	CARBON 390 5% 1/4W F	
		(EXCEPT DX50: SP,KR,AUS)	
R503	1-249-414-11	CARBON 560 5% 1/4W	
		(DX50: SP,KR,AUS)	
R554	1-249-438-11	CARBON 56K 5% 1/4W	
R555	1-249-417-11	CARBON 1K 5% 1/4W F	
R556	1-249-431-11	CARBON 15K 5% 1/4W	
R557	1-249-441-11	CARBON 100K 5% 1/4W	

Ref. No.	Part No.	Description	Remarks
△ R558	1-217-156-00	METAL 0.22 20% 5W	
R559	1-260-076-11	CARBON 10 5% 1/2W	
△ R560	1-217-156-00	METAL 0.22 20% 5W	
△ R561	1-212-881-11	FUSIBLE 100 5% 1/4W	
R581	1-249-435-11	CARBON 33K 5% 1/4W	
R582	1-249-435-11	CARBON 33K 5% 1/4W	
R592	1-249-441-11	CARBON 100K 5% 1/4W	
R942	1-249-428-11	CARBON 8.2K 5% 1/4W F	
R943	1-249-428-11	CARBON 8.2K 5% 1/4W F	

	1-681-143-11	SENSOR BOARD	

		< THERMISTOR >	
TH701	1-807-796-11	THERMISTOR	

	A-4476-280-A	SUB TRANS BOARD, COMPLETE	
		(DX50: KR,MX,AUS)	

	A-4475-786-A	SUB TRANS BOARD, COMPLETE (DX50: E,SP,AR)	

	A-4476-979-A	SUB TRANS BOARD, COMPLETE (RG80)	

		< CAPACITOR >	
△ C971	1-113-925-11	CERAMIC 0.01uF 20.00% 250V	
C973	1-126-933-11	ELECT 100uF 20.00% 16V	
C975	1-126-768-11	ELECT 2200uF 20.00% 16V	
C976	1-164-159-11	CERAMIC 0.1uF 50V	
C978	1-164-159-11	CERAMIC 0.1uF 50V	
		< CONNECTOR >	
* CN974	1-568-226-11	PIN, CONNECTOR 2P	
		< DIODE >	
D971	8-719-911-19	DIODE 1SS133T-72	
D972	8-719-024-99	DIODE 11ES2-NTA2B	
D973	8-719-024-99	DIODE 11ES2-NTA2B	
D974	8-719-024-99	DIODE 11ES2-NTA2B	
D975	8-719-024-99	DIODE 11ES2-NTA2B	
		< IC >	
IC971	8-759-158-62	IC TA78057S	
		< TRANSISTOR >	
Q971	8-729-119-79	TRANSISTOR 2SC2785TP-FEK	
		< RESISTOR >	
R974	1-249-429-11	CARBON 10K 5% 1/4W	
R975	1-249-429-11	CARBON 10K 5% 1/4W	
		< RELAY >	
△ RY971	1-755-276-11	RELAY, POWER	

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.

HCD-DX50/RG80

SUB TRANS

SWITCH

Ref. No.	Part No.	Description	Remarks
		< SWITCH >	
△ S901	1-786-055-11	SELECTOR, VOLTAGE (DX50: E,SP,AR)	
		< TRANSFORMER >	
△ T972	1-435-867-11	POWER TRANSFORMER (DX50)	
△ T972	1-435-864-11	POWER TRANSFORMER (RG80)	

	1-680-892-11	SWITCH BOARD	

		< CONNECTOR >	
CN607	1-785-328-11	PIN, CONNECTOR (LIGHT ANGRE)2P	
		< JACK >	
J401	1-774-227-11	JACK, PIN 1P (VIDEO OUT)	
		< JUMPER RESISTOR >	
JR781	1-216-864-11	SHORT 0	

		MISCELLANEOUS	

101	1-773-045-11	WIRE (FLAT TYPE) (17 CORE)	
104	1-757-683-11	CABLE, FLAT (21 CORE)	
△ 108	1-696-847-11	CORD, POWER (DX50: AUS)	
△ 108	1-777-071-51	CORD, POWER (DX50: E51,SP)	
△ 108	1-783-941-12	CORD, POWER (DX50: AR)	
△ 108	1-791-901-11	CORD, POWER (DX50: E2,MX/RG80)	

Ref. No.	Part No.	Description	Remarks
△ 109	1-569-008-21	ADAPTOR, CONVERSION (DX50: E51,SP)	
259	1-791-983-11	WIRE (FLAT TYPE) (8 CORE)	
306	1-757-710-11	WIRE (FLAT TYPE) (16 CORE)	
△ 307	A-4735-188-A	BU-30 (60) ASSY	
HP901	A-2004-765-A	BASE (A) ASSY, HEAD	
HRPE901	A-2004-766-A	BASE (B) ASSY, HEAD	
M721	A-4672-826-A	MOTOR ASSY (TURN)	
M901	X-3378-246-1	MOTOR ASSY (CAPSTAN)	
M961	1-763-072-11	FAN, D.C.	
PM901	1-454-887-11	PLUNGER	
PM902	1-454-887-11	PLUNGER	
△ T910	1-435-861-11	POWER TRANSFORMER (DX50)	
△ T910	1-435-863-11	POWER TRANSFORMER (RG80)	

		HARDWARE LIST	

#1	7-628-254-00	SCREW +PS 2.6X5	
#2	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#3	7-685-647-11	SCREW +BVTP 3X10	
#4	7-685-648-11	SCREW +BVTP 3X12	
#5	7-685-872-11	SCREW +BVTT 3X8	
#6	7-685-881-11	SCREW +BVTT 4X8	

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.
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MEMO

REVISION HISTORY

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