

HCD-XGR80


SERVICE MANUAL

E Model

www.planetatecnico.com



- HCD-XGR80 is the Amplifier, CD player, tape deck and tuner
By: Kevin

CD Section	Model Name Using Similar Mechanism	HCD-XGR60
	CD Mechanism Type	CDM37B-30BD60C
	Base Unit Name	BU-30BD60C
	Optical Pick-up Name	A-MAX.3
TAPE Section	Model  Using Similar Mechanism	HCD-XGR60

SPECIFICATIONS

Amplifier section

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

DIN power output (rated) 125W x 2 + 125W x 2
watts
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference)
170 W x 2 + 170 W x 2
(6 ohms at 1 kHz, 10% THD)

Inputs
DJ MIX RETURN*:
(phono jacks)

sensitivity 250 mV,
impedance 47 kilohms

GUITAR:
(phone jack)

sensitivity 75 mV,
impedance 470 kilohms

PHONO IN:
(phono jacks)

sensitivity 3 mV,
impedance 47 kilohms

MIX MIC:
(phone jack)

sensitivity 1 mV,
impedance 10 kilohms

GAME INPUT:
(phono jacks)

sensitivity 250 mV,
impedance 47 kilohms

MD (VIDEO) IN:
(phono jack)

sensitivity 450 mV
(250 mV), impedance
47 kilohms

Outputs
DJ MIX SEND*:
(phono jacks)

sensitivity 250 mV,
impedance 1 kilohms

PHONES:
(stereo phone jack)

accepts headphones of
8 ohms or more

MD (VIDEO) OUT:
(phono jacks)

voltage 250 mV
impedance 1 kilohms

FRONT SPEAKER:

accepts impedance of 6 to
16 ohms (SUPER WOOFER)
accepts impedance of 6 to
16 ohms (TWEETER & WOOFER)

* Mexican model only

— Continued on next page —

COMPACT Hi-Fi STEREO SYSTEM

9-873-638-01
2002C0200-1
© 2002.03

Sony Corporation
Home Audio Company
Published by Sony Engineering Corporation

SONY®

HCD-XGR80

CD player section

System	Compact disc and digital audio system
Laser	Semiconductor laser ($\lambda=795$ nm), Emission duration: continuous
Frequency response	2 Hz – 20 kHz (± 0.5 dB)
Signal-to-noise ratio	More than 90 dB
Dynamic range	More than 90 dB
CD OPTICAL DIGITAL OUT (Square optical connector jack, rear panel)	
Wavelength:	660 nm
Output level	–18 dBm

Tape player section

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

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range	87.5 – 108.0 MHz (50 kHz step)
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz

AM tuner section

Tuning range	530 – 1,710 kHz (with the interval set at 10 kHz)
Pan- American models:	531 – 1,710 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	120 V AC, 60 Hz
Mexican model:	120 V, 220 V or 230 – 240 V
Other models:	AC, 50/60 Hz
	Adjustable with voltage selector
Power consumption	320 watts
Dimensions (w/h/d)	Approx. 355 x 425 x 451 mm
Mass :	Approx. 16.4 kg
Supplied accessories:	AM loop antenna (1) FM lead antenna (1) Speaker cords (4) Speaker pads (8) Remote commander (1) Batteries (2)

Design and specifications are subject to change without notice.

Notes on chip component replacement

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

Flexible Circuit Board Repairing

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

CAUTION

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

CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT

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

CAUTION : INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL : USYNLIG LASERSTRÅLING VED ÅBNING NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VORSICHT : UNSICHTBARE LASERSTRAHLUNG. WENN ABDECKUNG GEÖFFNET UND SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT, NICHT DEM STRAHL AUSSETZEN.
VARO! : AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALT-TIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING : OSYNLIG LASERSTRÅLING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD, BETRÄKTA EJ STRÅLEN.
ADVERSEL : USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN.
VIGYÁZAT! : A BURKOLAT NYITÁSAKOR LÁTHATATLAN LÉZERSUGÁRVESZÉLY! KERÜLJE A BESUGÁRZÁST!

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.

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

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

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

NOTES ON LASER DIODE EMISSION CHECK

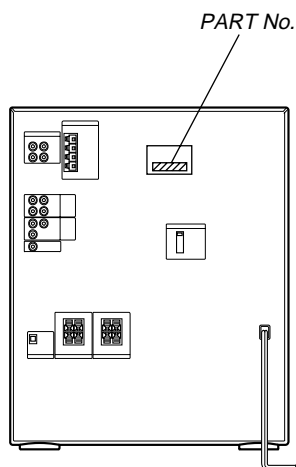
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

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

• MODEL IDENTIFICATION

– Rear Panel –



MODEL	PARTS No.
E model	4-237-748-6□
E51 model	4-237-748-7□
Mexican model	4-237-748-8□
Argentina model	4-237-748-9□

- Abbreviation
E51 : Chilean and Peruvian model

TABLE OF CONTENTS

1. GENERAL	5	6-13. Printed Wiring Board	
2. DISASSEMBLY	7	– CD-L, CD-R, Headphone, Front Input, D-SW Section – ..	34
3. TEST MODE	15	6-14. Schematic Diagram	
4. MECHANICAL ADJUSTMENTS	17	– CD-L, CD-R, Headphone, Front Input, D-SW Section – ..	35
5. ELECTRICAL ADJUSTMENTS	17	6-15. Printed Wiring Board – Panel VR Section –	36
6. DIAGRAMS		6-16. Schematic Diagram – Panel VR Section –	37
6-1. Circuit Board Location	21	6-17. Printed Wiring Board – Panel FL, TC-A, TC-B Section – ..	38
6-2. Block Diagram – CD Servo Section –	22	6-18. Schematic Diagram – Panel FL, TC-A, TC-B Section –	39
Block Diagram – Tuner/Tape Deck Section –	23	6-19. Printed Wiring Board – PA Section –	40
Block Diagram – Main Section –	24	6-20. Schematic Diagram – PA Section –	41
Block Diagram		6-21. Printed Wiring Board – Sub Amp Section –	42
– Display/Key Control/Power Supply Section –	25	6-22. Schematic Diagram – Sub Amp Section –	43
6-3. Printed Wiring Board – BD Section –	26	6-23. Printed Wiring Board – Trans, Sub Trans Section –	44
6-4. Schematic Diagram – BD Section –	27	6-24. Schematic Diagram – Trans, Sub Trans Section –	44
6-5. Printed Wiring Board – Motor, LED Section –	28	6-25. IC Pin Function Description	46
6-6. Schematic Diagram – Motor, LED Section –	28	6-26. IC Block Diagram	51
6-7. Schematic Diagram – MIC/Guitar Section –	29	7. EXPLODED VIEWS	
6-8. Printed Wiring Board – MIC/Guitar Section –	29	7-1. Case, Back Panel Section	54
6-9. Schematic Diagram – Main (1/3) Section –	30	7-2. Front Panel Section-1	55
6-10. Schematic Diagram – Main (2/3) Section –	31	7-3. Front Panel Section-2	56
6-11. Schematic Diagram – Main (3/3) Section –	32	7-4. Chassis Section	57
6-12. Printed Wiring Board – Main Section –	33	7-5. CD Mechanism Deck Section	
		(CDM-30BD60C)	58
		7-6. Base Unit Section (BU-30BD60C)	59
		8. ELECTRICAL PARTS LIST	60

Mainunit

ALPHABETICALORDER

A – D

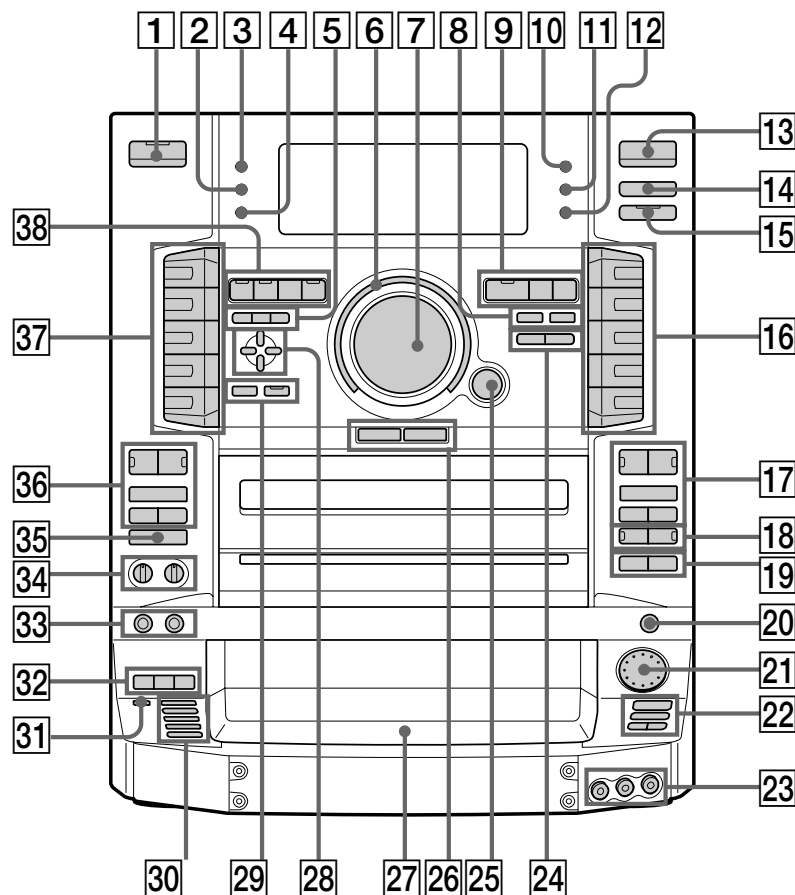
A EJECT ▲/▲ B EJECT [26] (13)
 AMSI ◀◀/▶▶ [21] (9, 10)
 CD SYNC [19] (14, 15)
 Direct equalizer [16] [37] (17)
 GUITAR/ROCK/JAZZ/DANCE/
 GAME
 SALSA/REGGAE/TANGO/
 SAMBA/MOVIE
 DIRECTION [35] (13, 14, 15, 20)
 DISC SKIP [32] (9, 10)
 DISC 1 to 5 [30] (9)
 DISPLAY [2] (23)

E – G

EDIT [31] (15)
 EFFECT [5] (17)
 ENTER [5] (8, 15, 17, 19)
 FM MODE [8] (12)
 FUNCTION [13] (7, 9, 10, 14, 20,
 22, 26)
 GAME [14] (22)
 GAME INPUT AUDIO L/R [23]
 (25)
 GAME INPUT VIDEO [23] (25)
 GAME MIXING [15] (22)
 GROOVE [38] (16)
 GUITAR DISTORTION [29] (21)
 GUITAR jack [33] (21)
 GUITAR LEVEL [34] (21)

H – R

H SPEED DUB [19] (14)
 MIC LEVEL [34] (20)
 MIX GUITAR/KARAOKE [29] (20,
 21)
 MIX MIC jack [33] (20)
 P FILE [5] (17)
 PHONES jack [20]
 PLAY MODE [32] (9, 10)
 POWER SAVE/DEMO
 (STANDBY) [3] (23)
 Power stream indicator [6]
 PUSH OPEN [27] (9)
 REPEAT [32] (10)



S - X

SLEEP [10] (18)
 SPECTRUM ANALYZER [4] (20)
 SUPER WOOFER [38] (16)
 SUPER WOOFER MODE [38] (16)
 SURROUND [38] (18)
 TIMER SELECT [11] (16, 19)
 TUNER/BAND [9] (11, 12)
 TUNER ENTER [24] (11)
 TUNER MEMORY [24] (11)
 TUNING MODE [8] (11, 12)
 TUNING - /+ [9] (11, 12)
 VOLUME control [7] (10)
 X-GROOVE [25] (16)

BUTTON DESCRIPTIONS

I/⏻ [1]
 ⌚/CLOCK SET [12]
 ◀/▶ [17] [36]
 ■ [17] [36]
 ⏮/⏭/⏪/⏩ [17] [36]
 ⏮ [18]
 ● REC [18]
 ▶ ⏮ [22]
 ■ [22]
 ⏮/⏭ [22]
 ↑/↓/←/→ (cursor) [28]

Remote control**ALPHABETICAL ORDER****C - F**

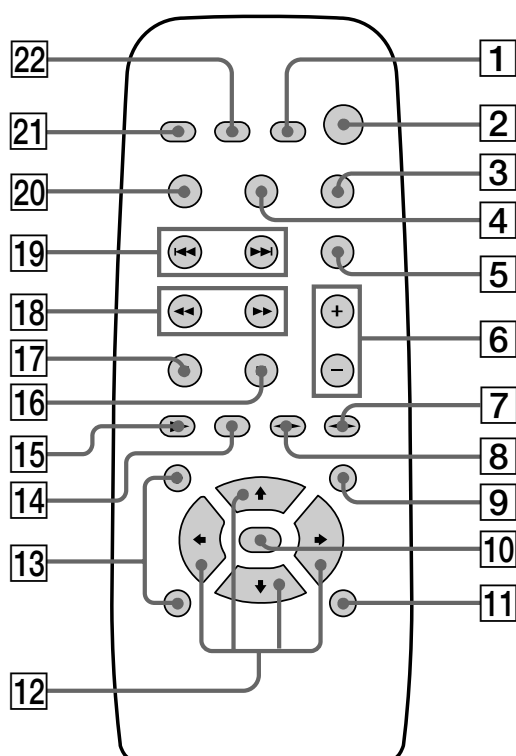
CD ▶ [15] (9)
 CLEAR [4] (10)
 CLOCK/TIMER SELECT [22] (16, 19)
 CLOCK/TIMER SET [1] (8, 15, 19)
 DISC SKIP [20] (9, 10)
 DISPLAY [11] (23)
 EFFECT [9] (17)
 ENTER [10] (8, 15, 17, 19)
 FILE SELECT +/- [13] (17)
 FUNCTION [3] (7, 9, 10, 14, 20, 22, 26)

P - V

PRESET - /+ [19]
 SLEEP [21] (18)
 SURROUND [5] (18)
 TUNER/BAND [14] (11, 12)
 TUNING - /+ [18] (11, 12)
 VOL +/- [6] (10)

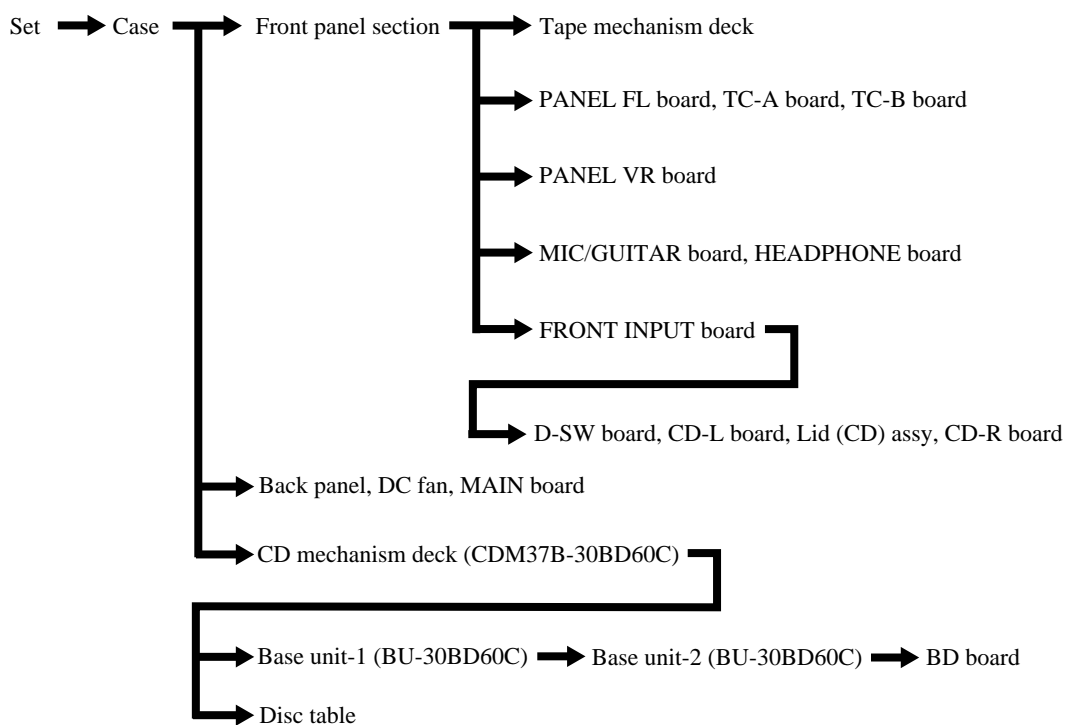
BUTTON DESCRIPTIONS

I/⏻ [2]
 ◀▶ [7] [8]
 ↑/↓/←/→ (cursor) [12]
 ■ [16]
 ⏮ [17]
 ⏮/⏭ [18]
 ⏮/⏭ [19]



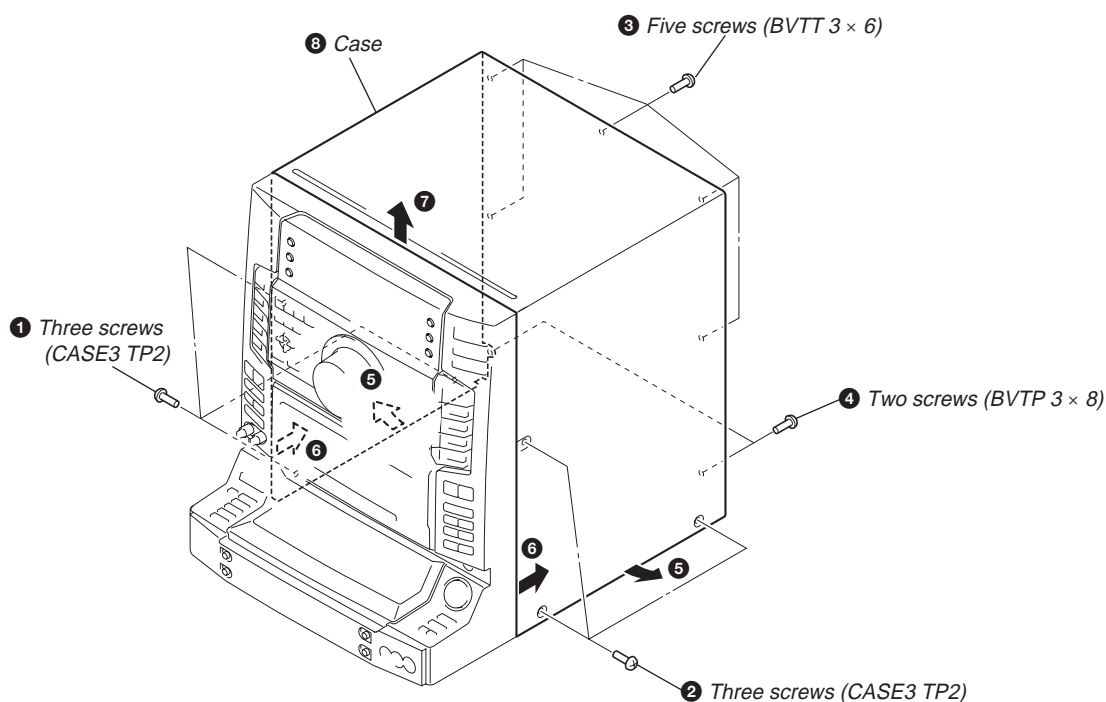
SECTION 2 DISASSEMBLY

- The equipment can be removed using the following procedure.

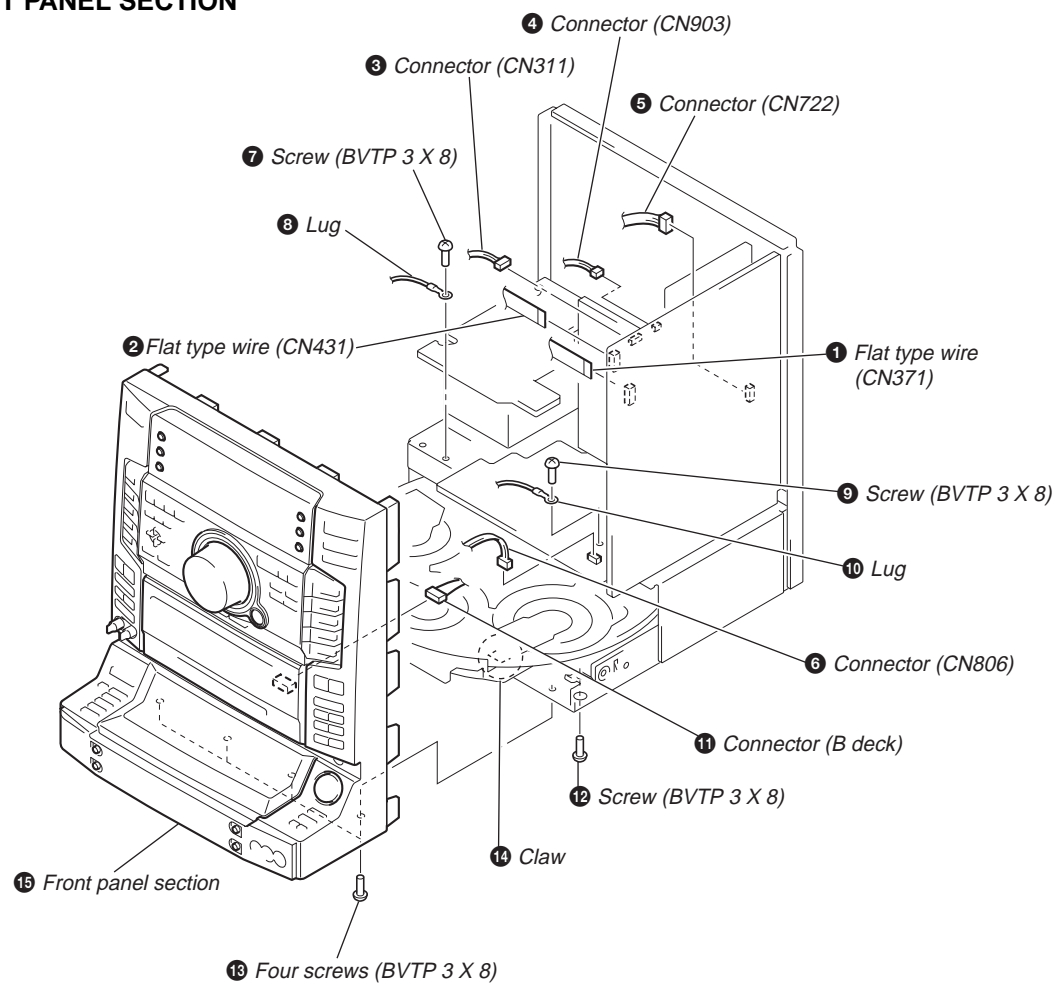


Note : Follow the disassembly procedure in the numerical order given.

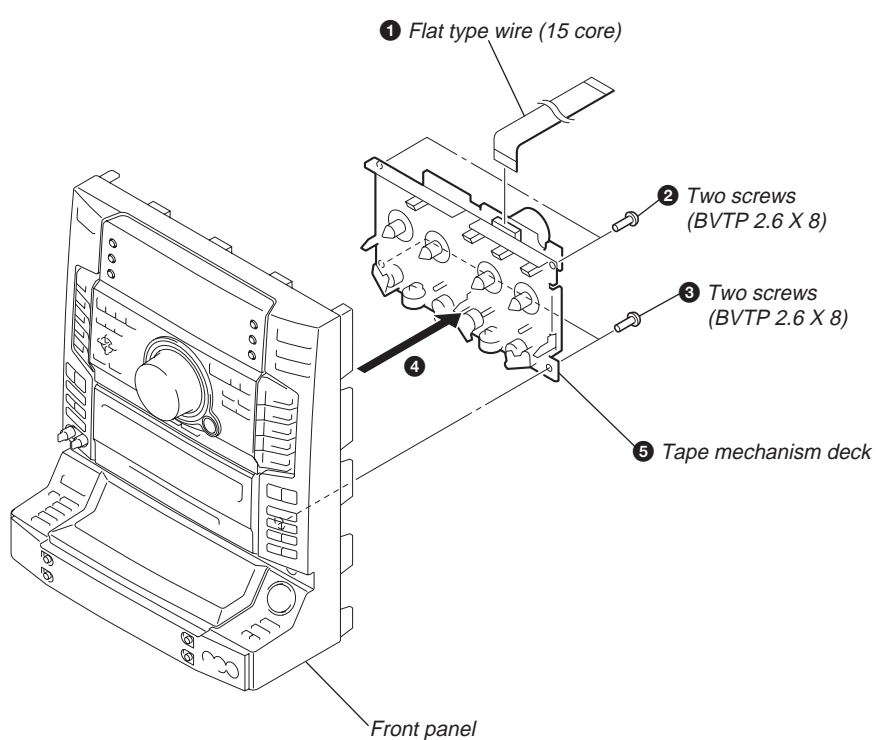
2-1. CASE



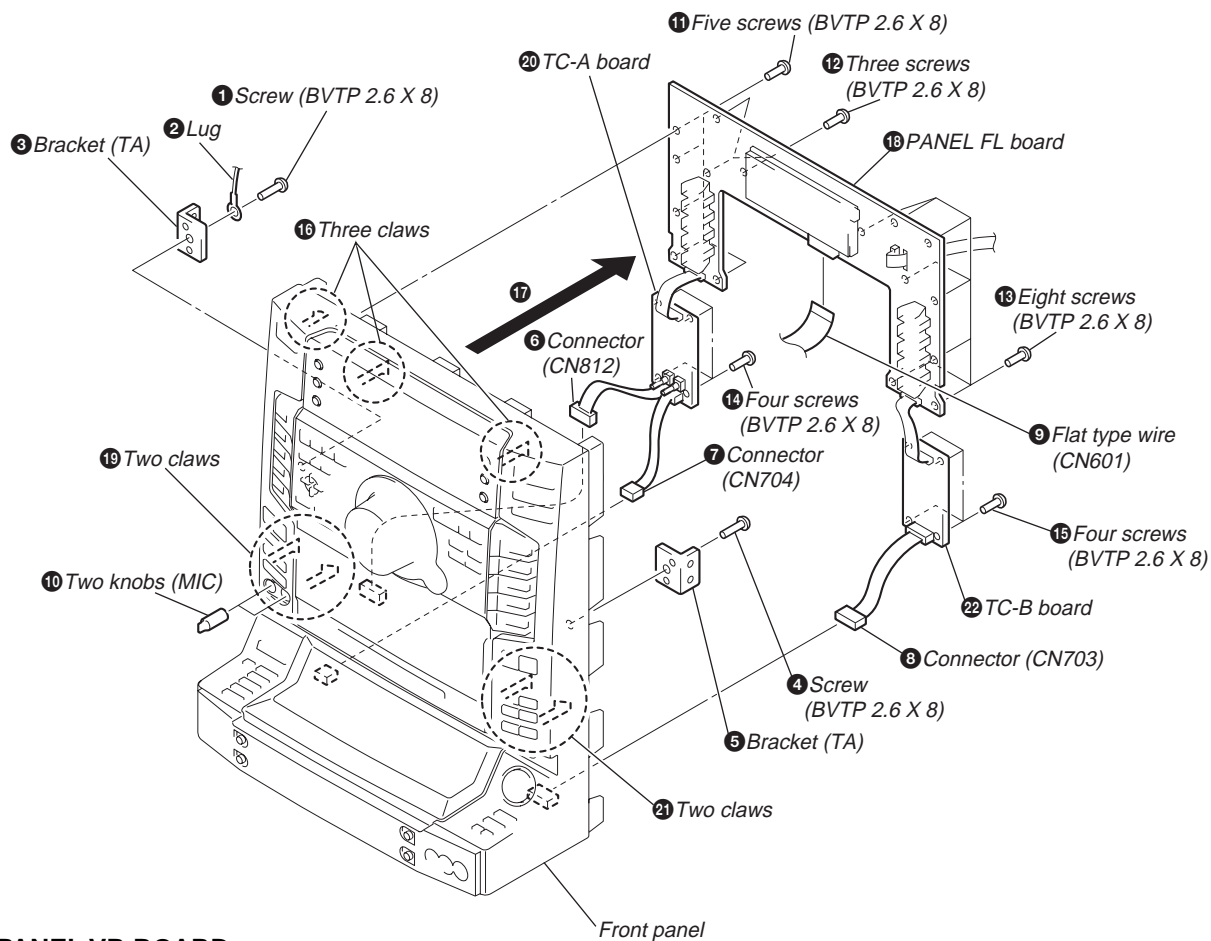
2-2. FRONT PANEL SECTION



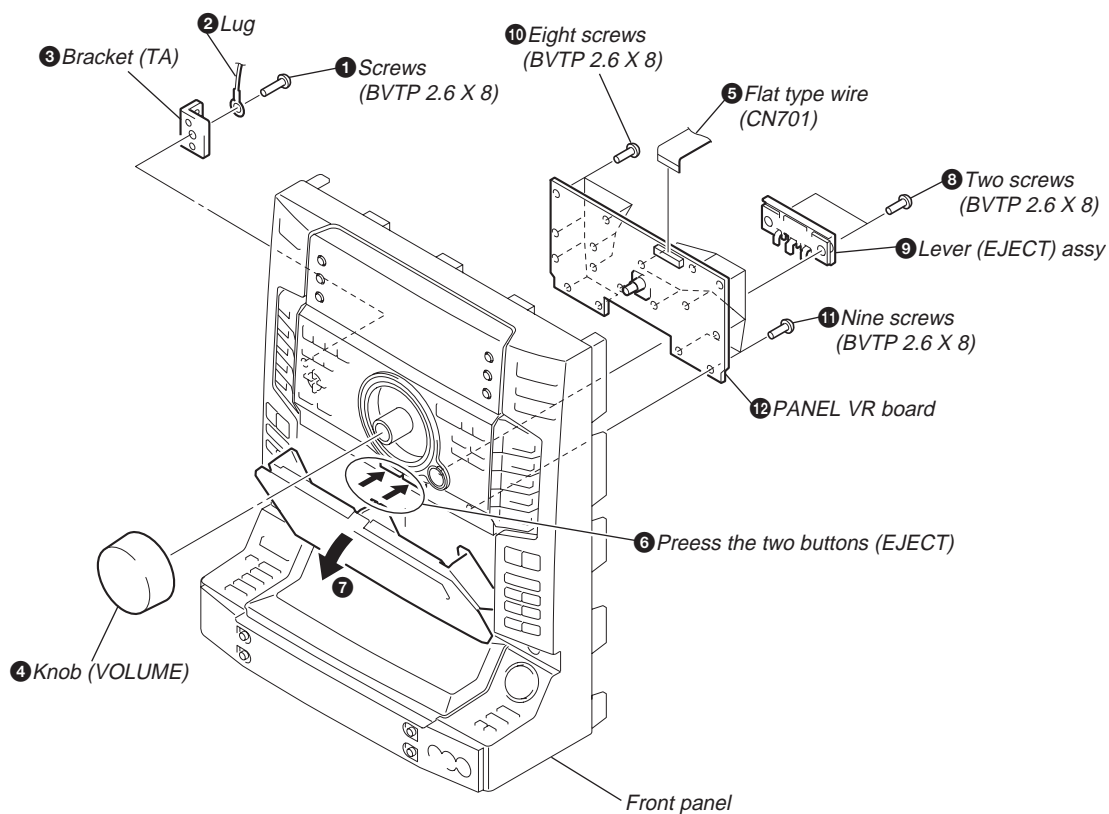
2-3. TAPE MECHANISM DECK



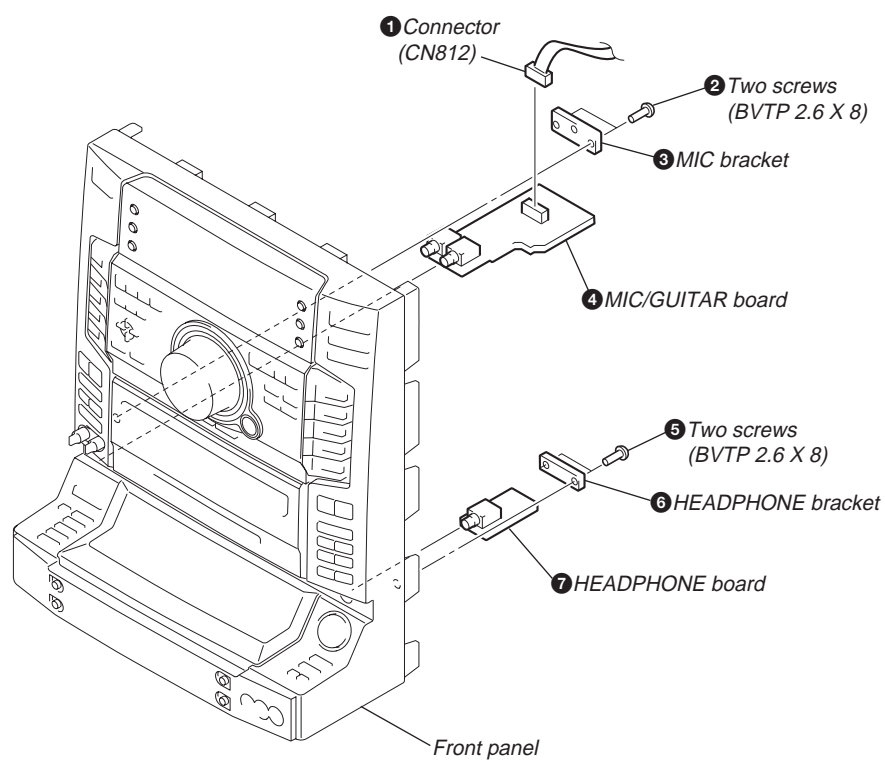
2-4. PANEL FL BOARD, TC-A BOARD, TC-B BOARD



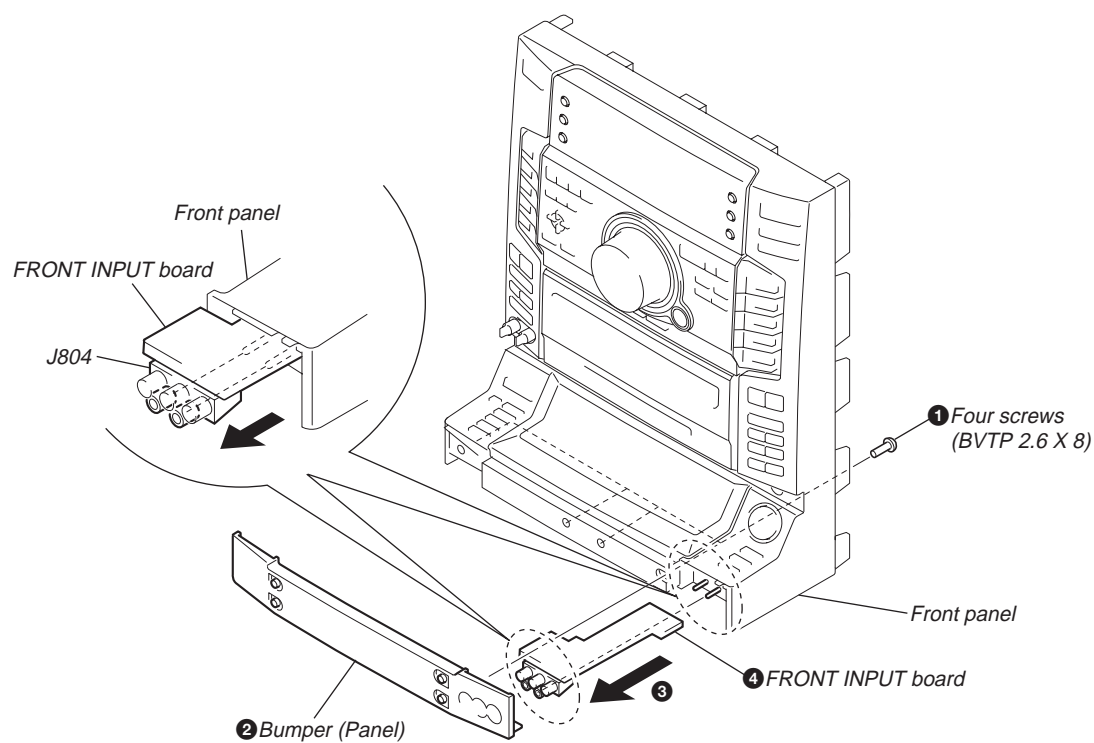
2-5. PANEL VR BOARD



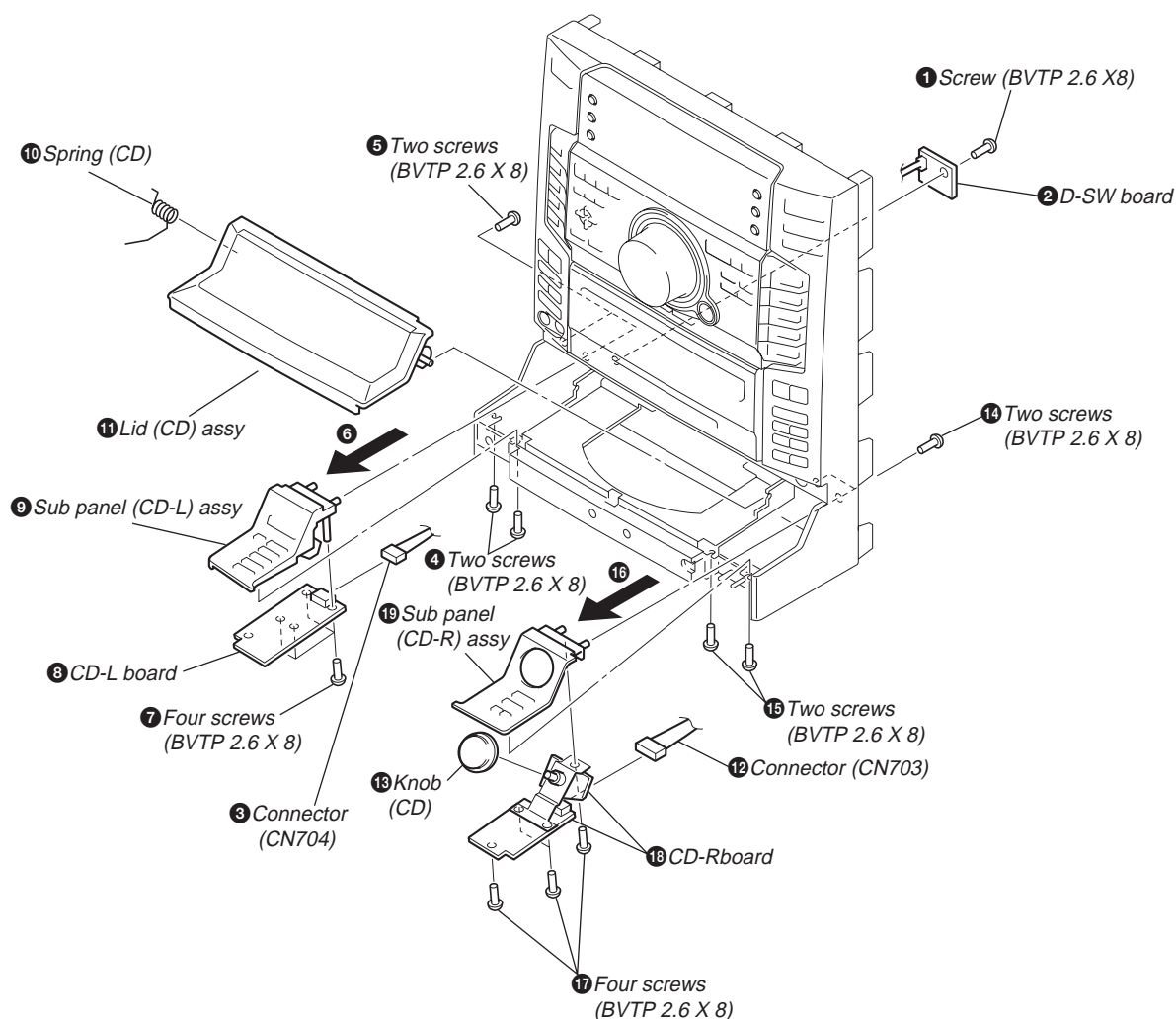
2-6. MIC/GUITAR BOARD, HEADPHONE BOARD



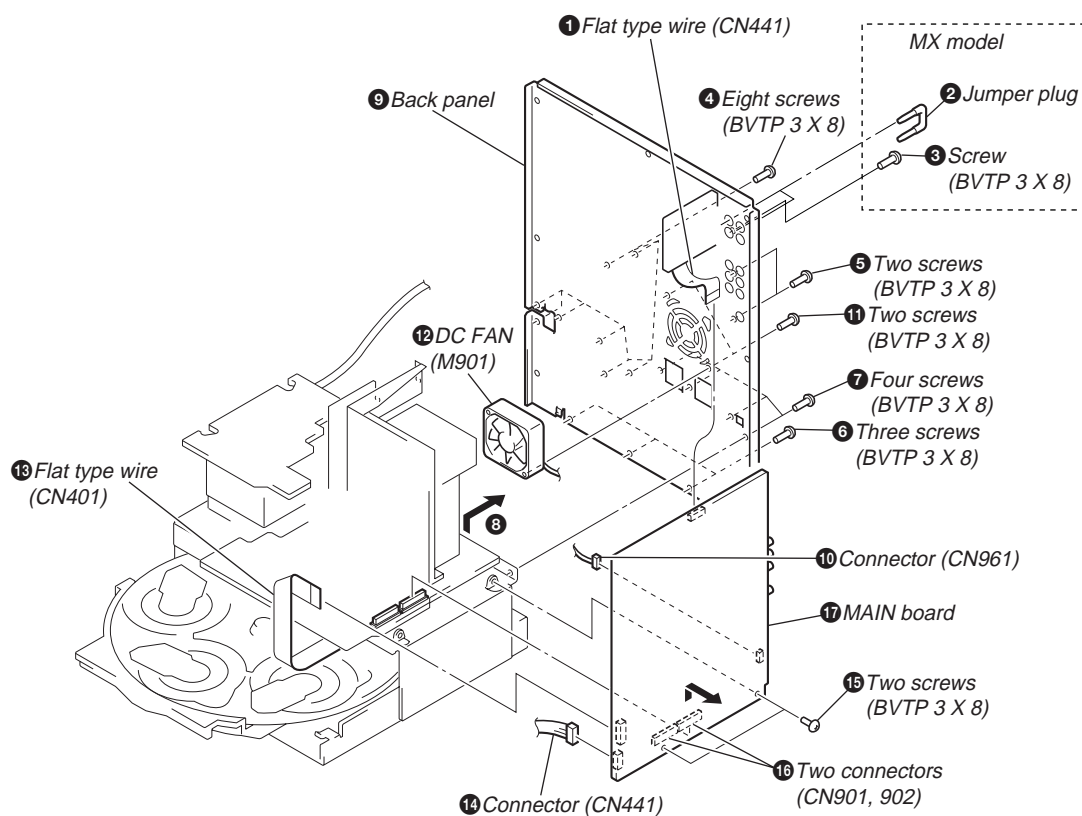
2-7. FRONT INPUT BOARD



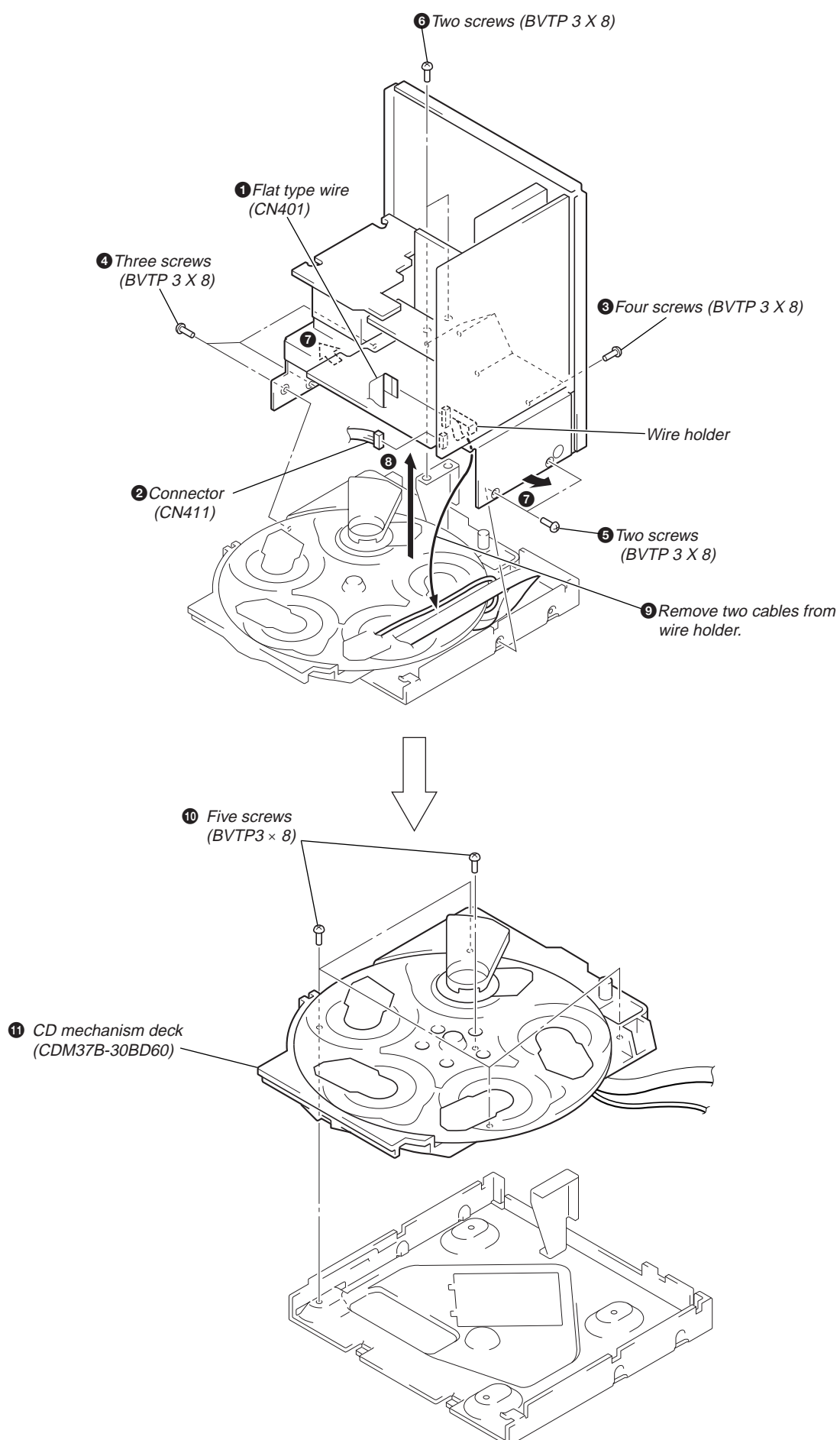
2-8. D-SW BOARD, CD-L BOARD, LID (CD) ASSY, CD-R BOARD



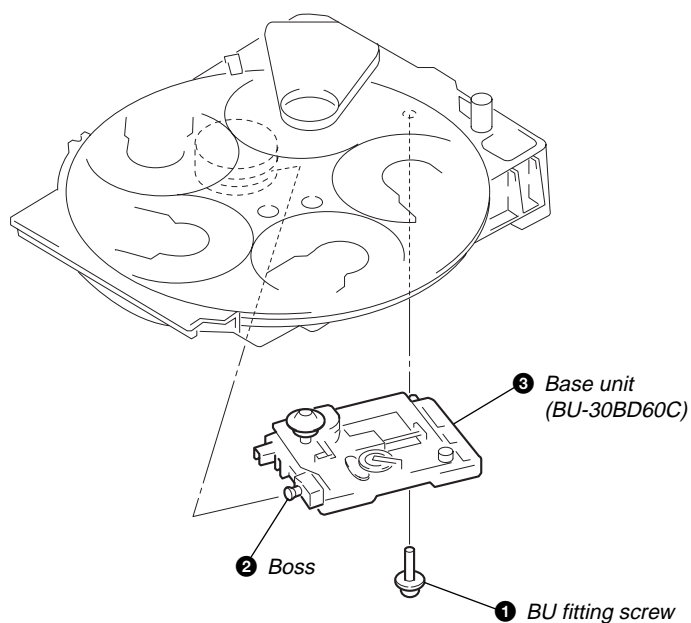
2-9. BACK PANEL, DC FAN, MAIN BOARD



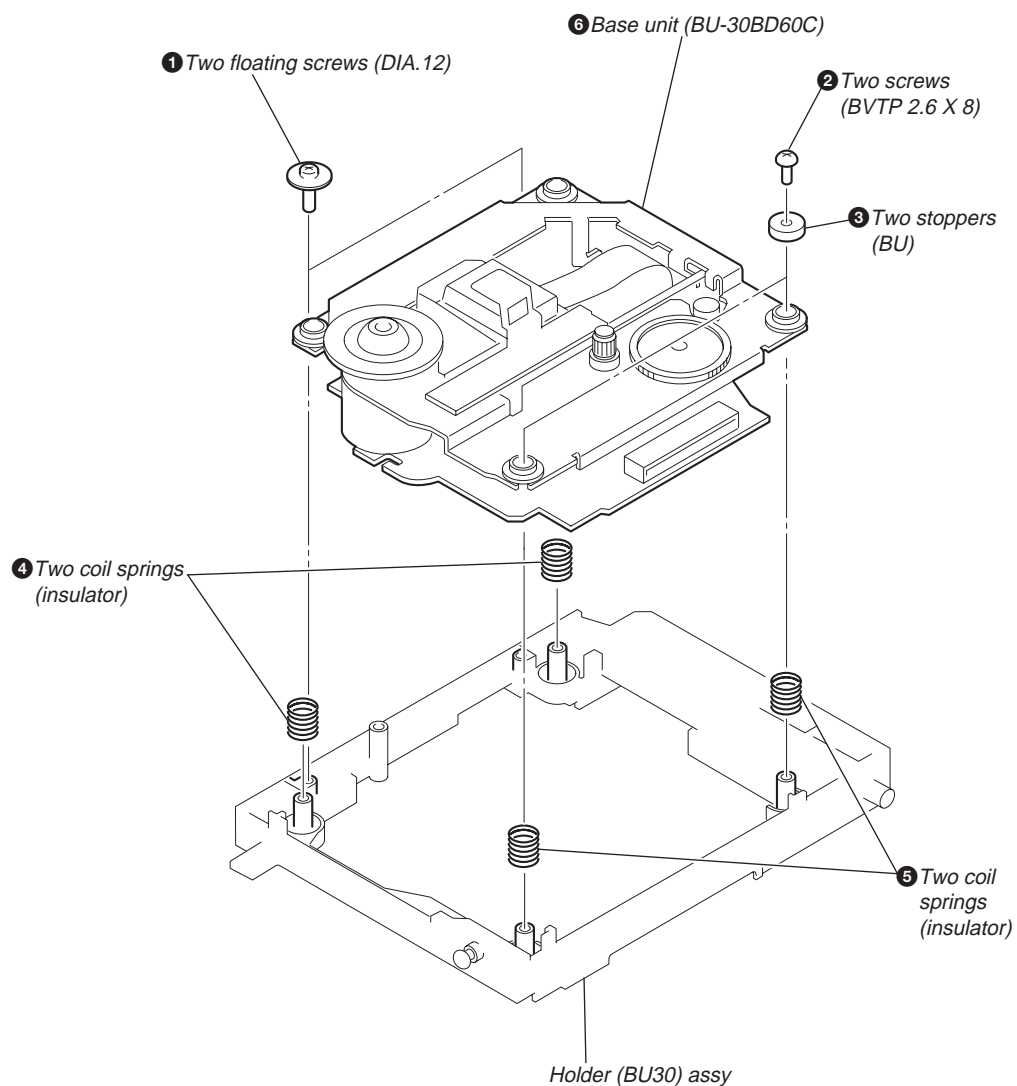
2-10. CD MECHANISM DECK (CDM37B-30BD60C)



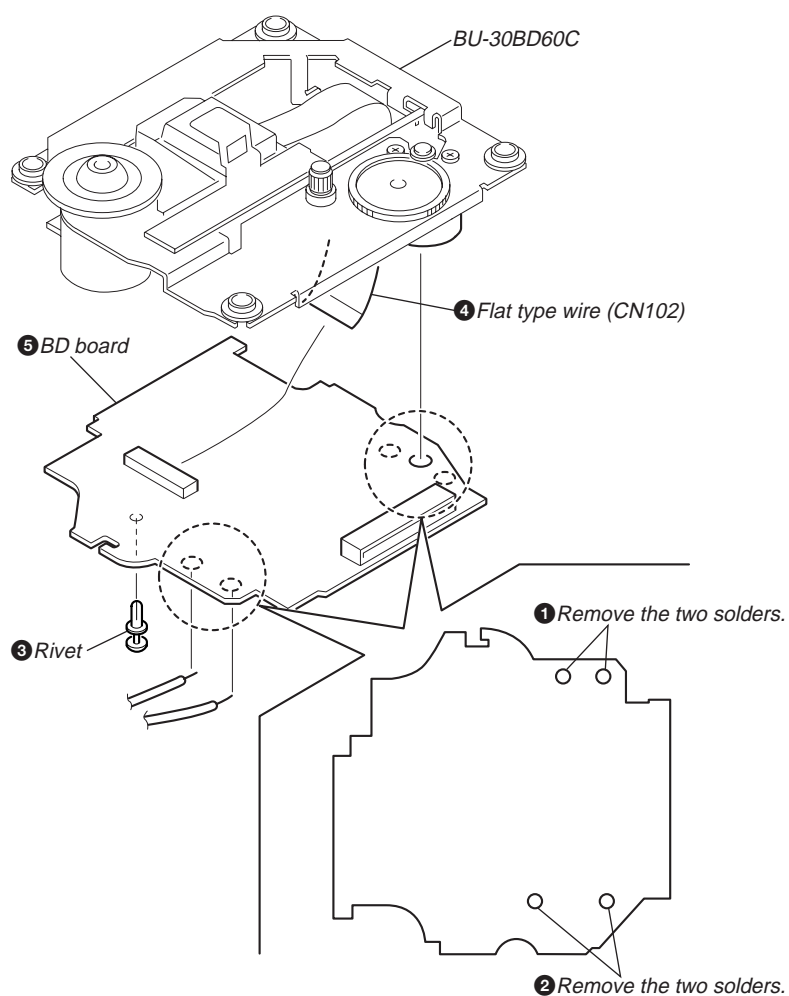
2-11. BASE UNIT-1 (BU-30BD60C)



2-12. BASE UNIT-2 (BU-30BD60C)

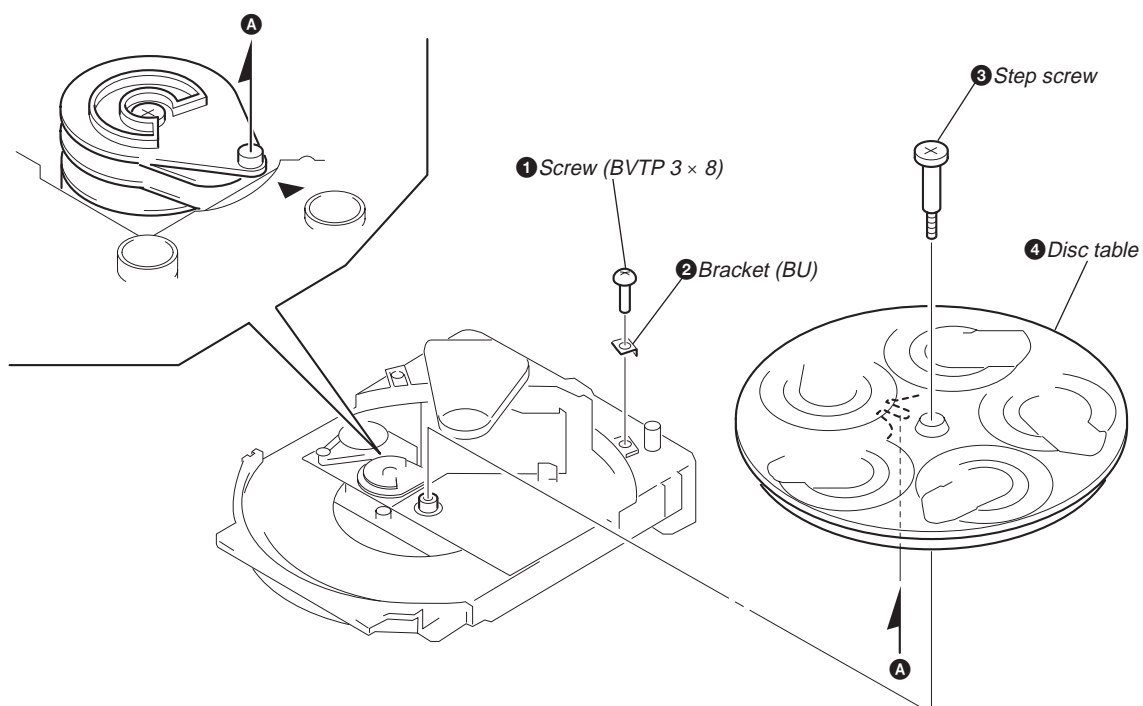


2-13. BD BOARD



2-14. DISC TABLE

Note: When the disc table is installed, adjust the positions of roller cam and mark ► as shown in the figure, then set to the groove of disc table.



SECTION 3 TEST MODE

[MC 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:

- Turn the power ON or set to the DEMO mode.
- Press three buttons of [⏻/CLOCK SET], [TUNER ENTER], and [I/⏻] simultaneously.
- The set is reset, and displays "COLD RESET", then becomes DEMO mode.

[Change-over the AM Tuning Interval]

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

Procedure:

- Press the [I/⏻] button to turn the power ON.
- Select the function "TUNER", and press the [TUNER/BAND] button to select the BAND "AM".
- Press the [I/⏻] button to turn the power OFF.
- Press the [ENTER/NEXT] and [I/⏻] buttons simultaneously, and the display on the fluorescent indicator tube changes to "AM 9 K STEP" or "AM 10 K STEP", and thus the tuning interval is changed over.

[CD Ship Mode] (No memory clear)

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

Procedure:

- Press the [I/⏻] button to turn the power ON.
- Press the [EDIT] and [I/⏻] buttons simultaneously.
- A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

[LED and Fluorescent Indicator Tube All Lit, Key Check Mode]

Procedure:

- Press three buttons of [⏻/CLOCK SET], [ENTER/NEXT], and [DISC 2] simultaneously.
- LEDs and fluorescent indicator tube are all turned on.
- Press the [DISC 1] button, the MODE and DESTINATION are displayed fluorescent indicator tube.
- Each time the [DISC 1] button is pressed, the MC/GC category version is displayed in the following order.
- Press the [DISC 2] button, and the key check mode is activated.



- In the key check mode, the fluorescent indicator tube displays "K 0 J0 V0". Each time a button is pressed, "K" value increases to "K69" call the button is pressed. However, once a button is pressed, it is no longer taken into account. "J" value increases like 1, 2, 3 ... if turn the [◀◀ AMS ▶▶] JOG dial clock-wise, or it decreases like 0, 9, 8 ... if turn the [◀◀ AMS ▶▶] JOG dial counter-clockwise. "V" value increases like 1, 2, 3 ... if turn the [VOLUME] dial clockwise ("+" direction), or it decreases like 0, 9, 8 ... if turn the VOLUME dial counterclockwise ("-" direction).
- To release from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

[Sled Servo Mode] (CD service mode)

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

Procedure:

- Select the function "CD".
- Press three buttons [⏻/CLOCK SET], [TUNER ENTER], and [DISC 5] simultaneously.
- The Sled Servo mode is selected, if "CD" is blanking on the fluorescent indicator tube.
- With the CD in stop status, press [▶▶] button in CD section to move the pick-up to outside track, or [◀◀] button to inside track.
- To exit from this mode, press [I/⏻] button turn to the power OFF.

Note:

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

[Change-over of FUNCTION Name]

- The FUNCTION name of external input terminal can be changed over to VIDEO or MD. With the FUNCTION selected to "MD", about 5dB mute is applied to the input gain.

Procedure:

- Press [I/⏻] button to turn the power OFF.
- Press [I/⏻] button together with [FUNCTION] button for several seconds, and the power is turned on, the display of fluorescent indicator tube changes to "MD" or "VIDEO" instantaneously, and thus the FUNCTION is changed over.

[Aging Mode]

This mode can be used for operation check of tape deck section. Tape deck section work in parallel.

- If an error occurred:
The aging operation stops and display then status.
- If no error occurs:
The aging operation continues repeatedly.

Procedure:

- Load the tapes into the decks A and B respectively.
- Press the [FUNCTION] button to select the function "CD".
- Press the [PLAY MODE] button to set the "ALL DISCS" mode, and press the [REPEAT] button to "REPEAT" off.
- Press three buttons of [⏻/CLOCK SET], [TUNER ENTER], and [DISC 4] simultaneously.
- The aging mode is activated, if the indicator of disc tray number on the fluorescent indicator tube is blinking.
- To release from the aging mode, press the [I/⏻] button to turn the power OFF and operate the cold reset. (Refer to the "MC Cold Reset")

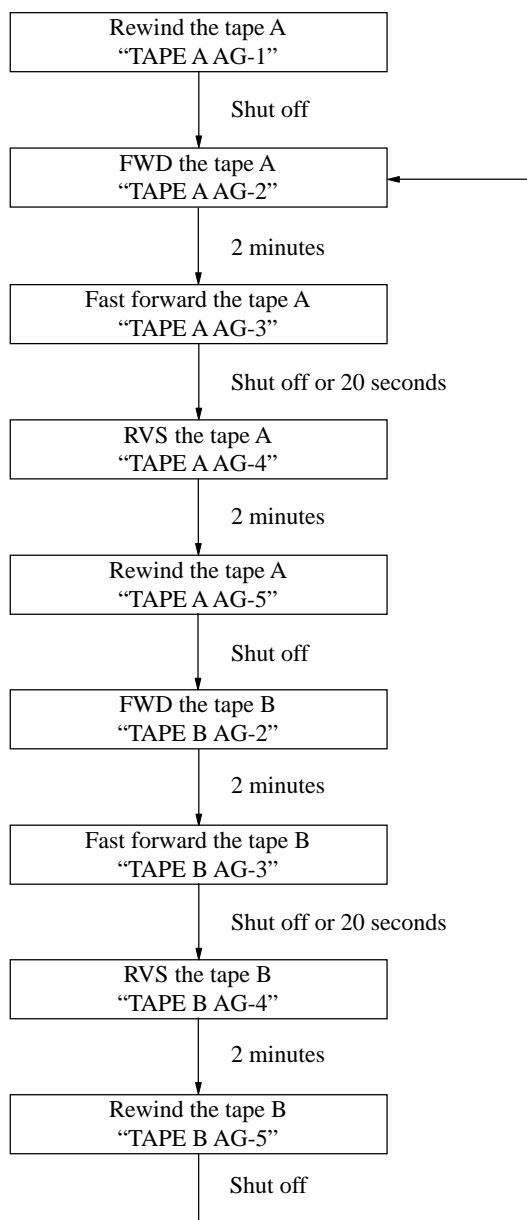
1. Display at the Aging Mode

- Display operating state of tape deck section alternately.
- If an error occurred, stop display.

2. Tape Deck Section

- The sequence during the aging mode is following as below.
- If an error occurred, stop display that step.

Aging mode sequence (Tape deck section):

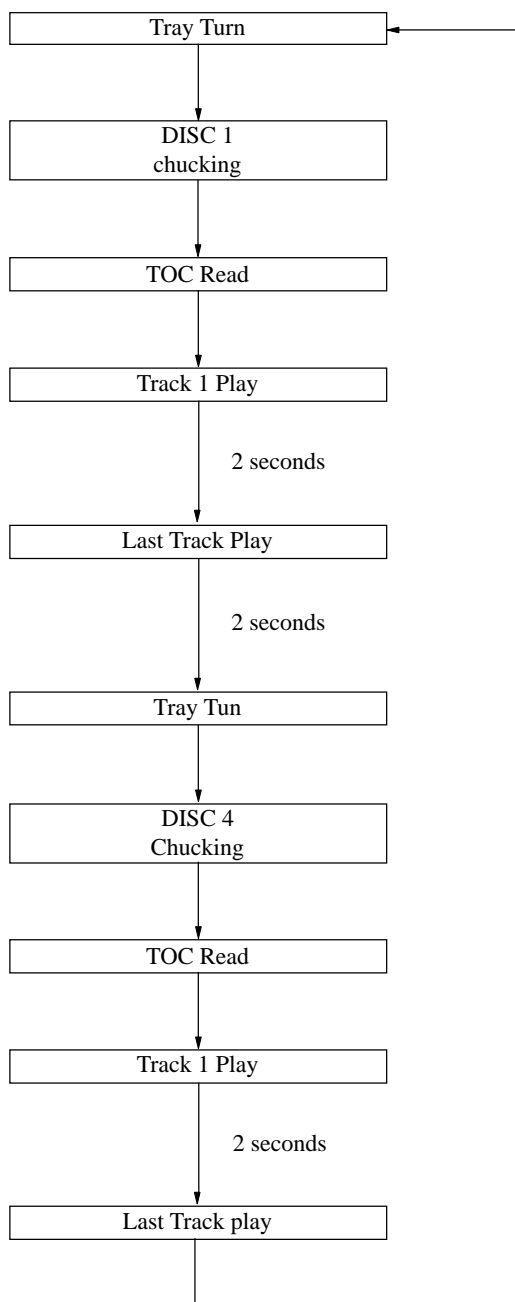


Note: "TAPE * AG- *" is display of each step.

3. CD Section

- The sequence during the aging mode is following as below.
- If an error occurred, stop display that step.




Aging mode sequence (CD section):



[VACS ON/OFF]

- The volume control by VACS is turned ON/OFF.

Procedure:

1. Press the  button to turn the power ON.
2. Press the  and  buttons simultaneously.
3. The reaction display appears when switching ON/OFF.

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	2.9~6.9 mN•m (30 to 70 g•cm) (0.42 – 0.97 oz•inch)
FWD back tension		0.19~0.59 mN•m (2 to 6 g•cm) (0.03 – 0.08 oz•inch)
FF/REW	CQ-201B	7.8~16.7 mN•m (80 to 170 g•cm) (1.11 – 2.36 oz • inch)

SECTION 5 ELECTRICAL ADJUSTMENTS

DECK SECTION	0 dB = 0.775 V
---------------------	----------------

Precaution

- 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.
- Set to the DOLBY NR OFF.
- Set to the test mode.
 - Press the  button to turn the power ON.
 - Select the function "TAPE A or B".
 - Press the button of , , and  simultaneously, to set the tape deck test mode and displays "TEST MODE" on the fluorescent indicator tube.
 - To release from the test mode, press the  button.

• Test Tape

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

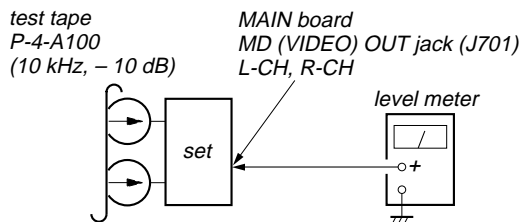
Record/Playback Head Azimuth Adjustment

DECK A **DECK B**

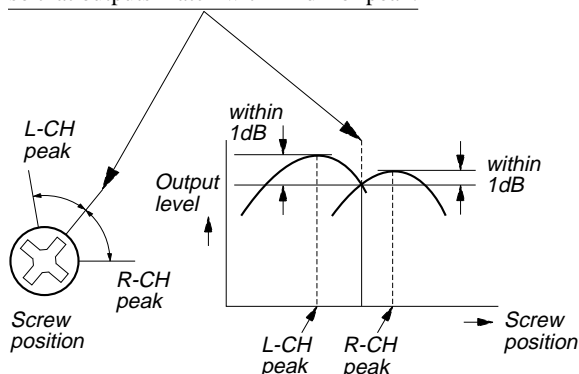
Note: Perform this adjustments for both decks

Procedure:

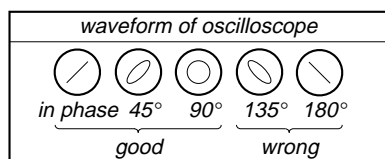
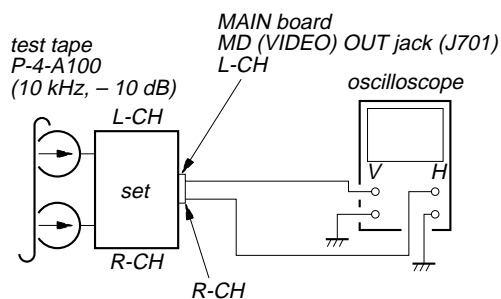
1. Mode: Playback (FWD)



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.

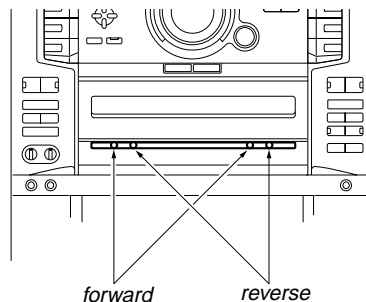


3. Mode: Playback



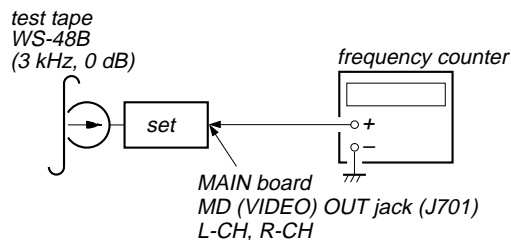
4. Repeat step 1 to 3 in playback (REV) mode.
5. After the adjustments, apply suitable locking compound to the parts adjusted.

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



Tape Speed Adjustment **DECK B**

Mode: Playback



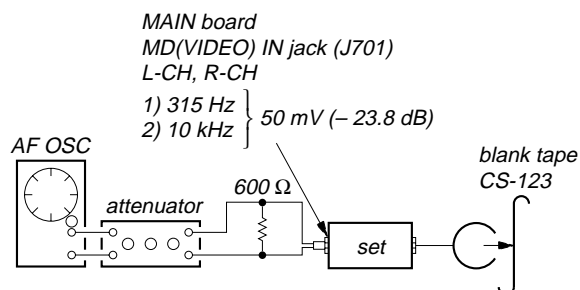
1. Insert the WS-48B into the deck B.
2. Press the button on the deck B.
3. Press the **H SPEED DUB** button in playback mode.
Then at HIGH speed mode.
4. Adjust RV392 on the LEAF SW board do that frequency counter reads $6,000 \pm 180$ Hz.
5. Press the **H SPEED DUB** button.
Then back to NORMAL speed mode.
6. Adjust RV391 on the LEAF SW board so that frequency counter reads $3,000 \pm 90$ Hz.

Adjustment Location: MAIN board

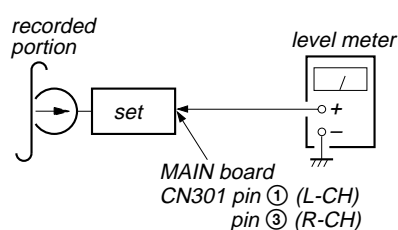
Sample value of Wow and Flutter: 0.3% or less W.RMS (JIS)
(WS-48B)

REC Bias Adjustment**DECK B****Procedure:**

1. Mode: Record
FUNCTION: VIDEO



2. Mode: Playback



3. Confirm playback the signal recorded in step 1 become specification values as follows.

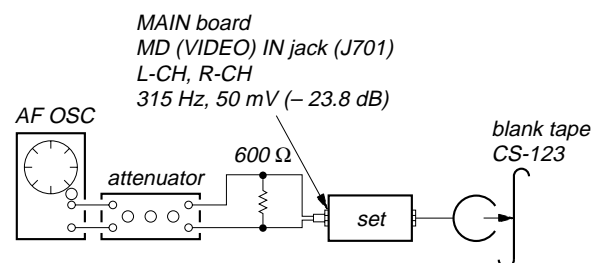
If these values are out of specification values, adjust the RV321 (L-CH) and RV322 (R-CH) on the MAIN board to repeat steps 1 and 2.

Adjustment level: The playback output of 10kHz level difference against 315 Hz reference should ± 0.5 dB.

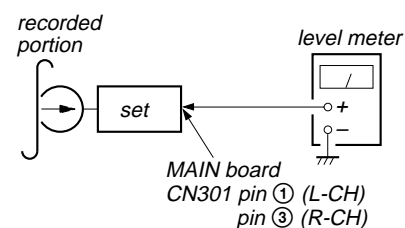
Adjustment Location: MAIN board

REC Level Adjustment**DECK B****Procedure:**

1. Mode: Record
FUNCTION: VIDEO



2. Mode: Playback



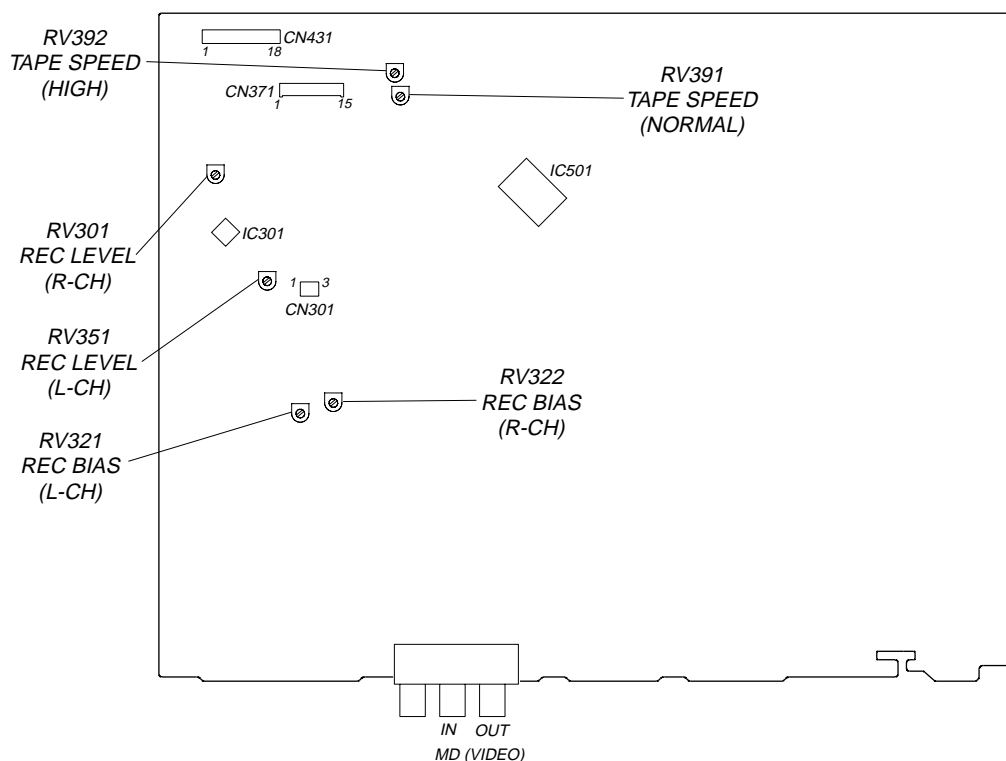
3. Confirm playback the signal recorded in step 1 become specification values as follows.

If these values are out of specification values, adjust the RV351 (L-CH) and RV301 (R-CH) on the MAIN board to repeat steps 1 and 2.

Specification values:

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

Adjustment Location: MAIN board

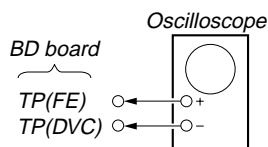
– MAIN BOARD (Component Side) –

CD SECTION

Note :

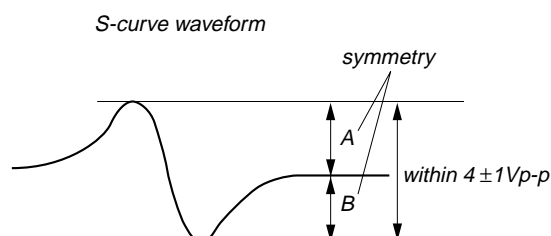
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use LUV-P01 (4-999-032-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10M impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level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

S-Curve Check



Procedure :

1. Connect oscilloscope to TP (FE).
2. Connect between TP (FE) and TP (DVC ($\div 1.65$ V) by lead wire.
3. Press the button to turn the power ON.
4. Load a disc (LUV-P01) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search)
5. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 2 ± 0.5 Vp-p.

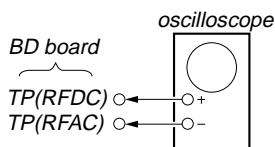


6. After check, remove the lead wire connected in step 2.

Note :

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

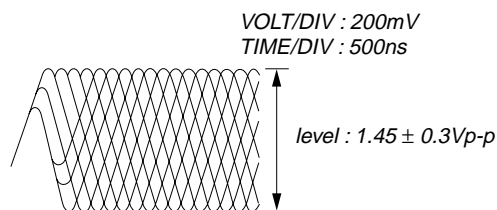
RF Level Check



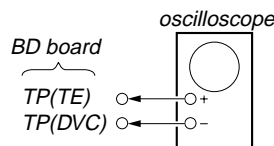
Procedure :

1. Connect oscilloscope to TP2 (RFDC) and TP1 (RFAC).
2. Press the button to turn the power ON.
3. Load a disc (LUV-P01) and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

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

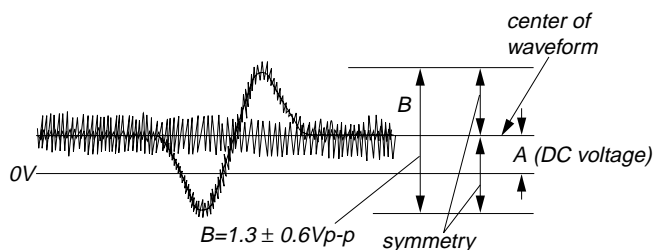


E-F Balance (1 Track jump) Check



Procedure:

1. Connect oscilloscope to TP (TE) and TP (DVC) board.
2. Press the button to turn the power ON.
3. Load a disc (LUV-P01) and playback the number nine track.
4. Press the button. (Becomes the 1track jump mode.)
5. Confirm that the level B and A (DC voltage) on the oscilloscope waveform.

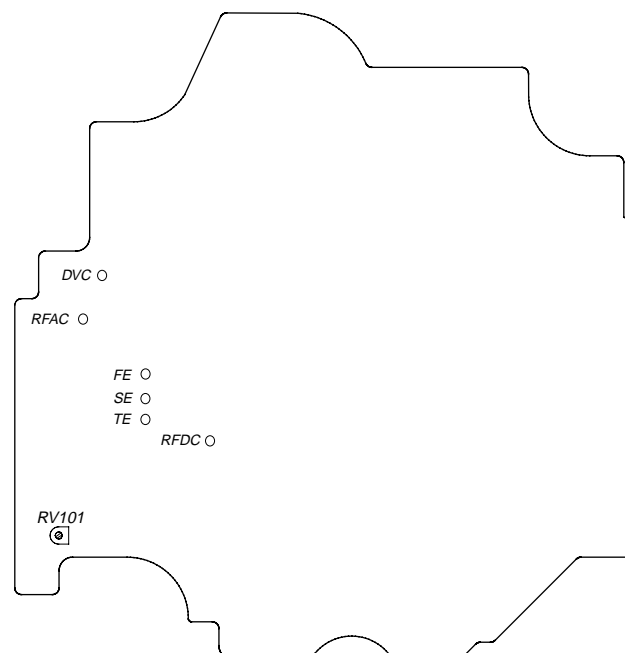


Specified level: $\frac{A}{B} \times 100 = \text{less than } -22\%$

6. Adjust RV101 so that A (DC voltage) becomes 0.

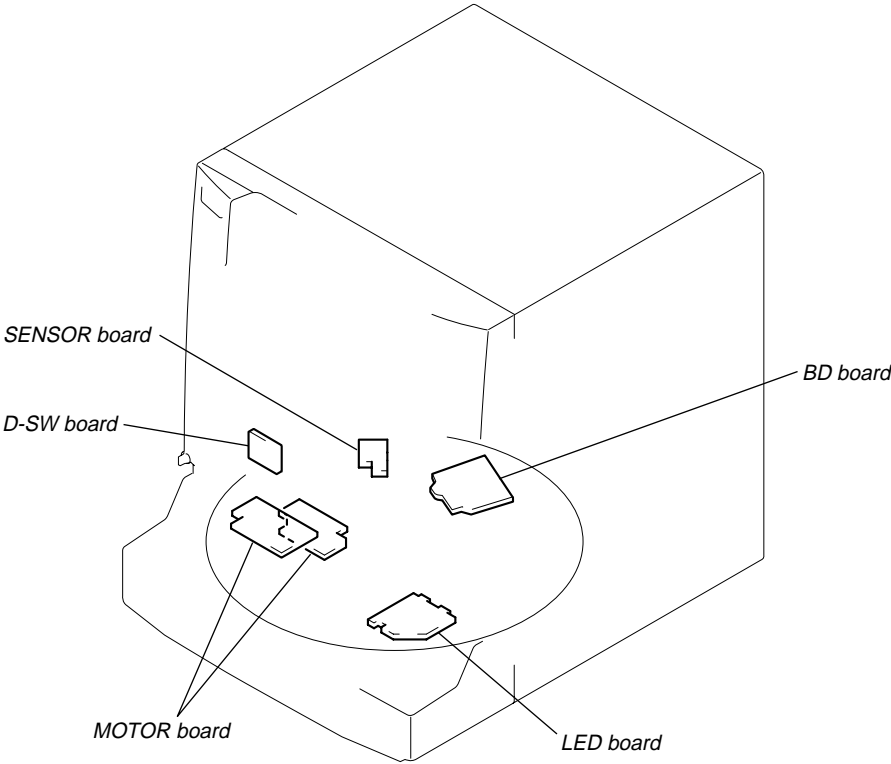
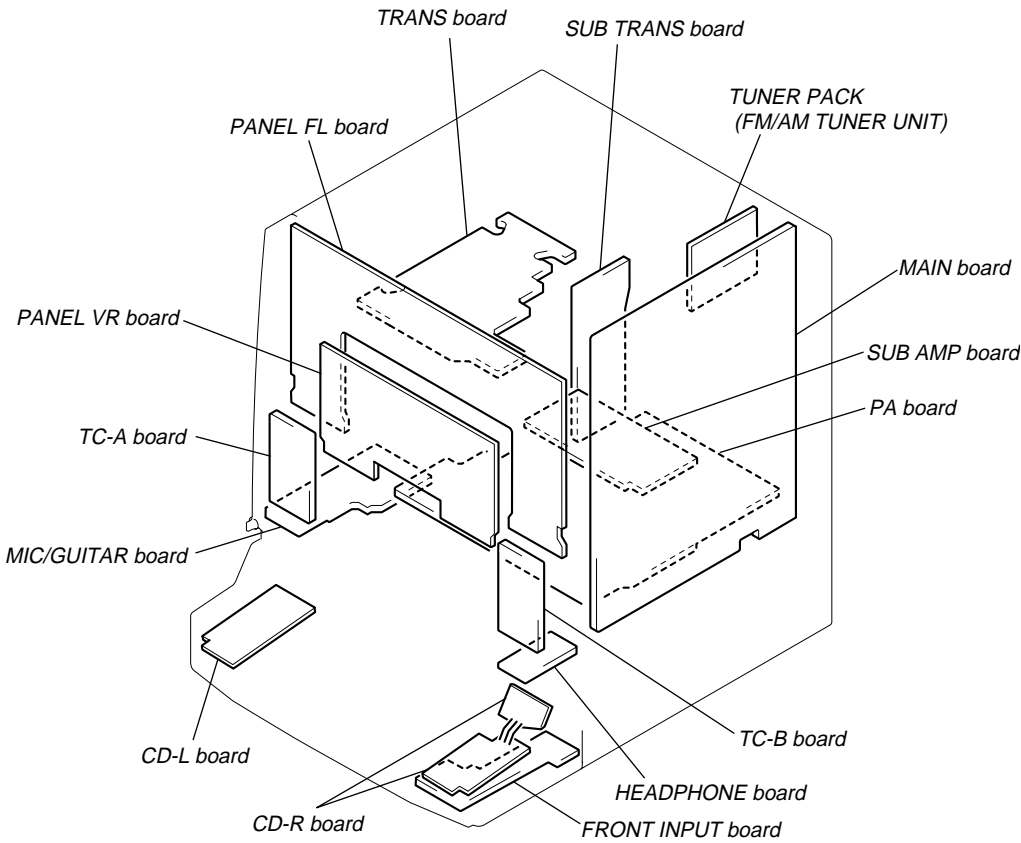
Checking Location:

[BD BOARD]






SECTION 6
DIAGRAMS

6-1. CIRCUIT BOARD LOCATION













Note on Schematic Diagram:



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

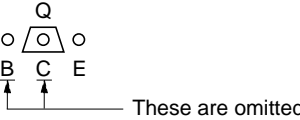
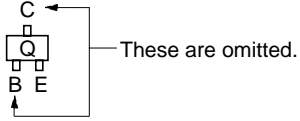
Note:

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

-  : B+ Line.
-  : B- Line.
-  : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
BD board section
no mark: CD PLAY
Other board section
no mark: TUNER (FM/AM)
(): TAPE PLAY
< >: TAPE REC
[]: CD PLAY
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 : TUNER (FM/AM)
 : TAPE PALY (DECK A)
 : TAPE PALY (DECK B)
 : RECORD
 : CD PALY (ANALOG OUT)
 : CD PALY (DIGITAL OUT)
 : MIC INPUT
- Abbreviation
AR : Argentina model
MX : Mexican model
E51 : Chilean and Peruvian model

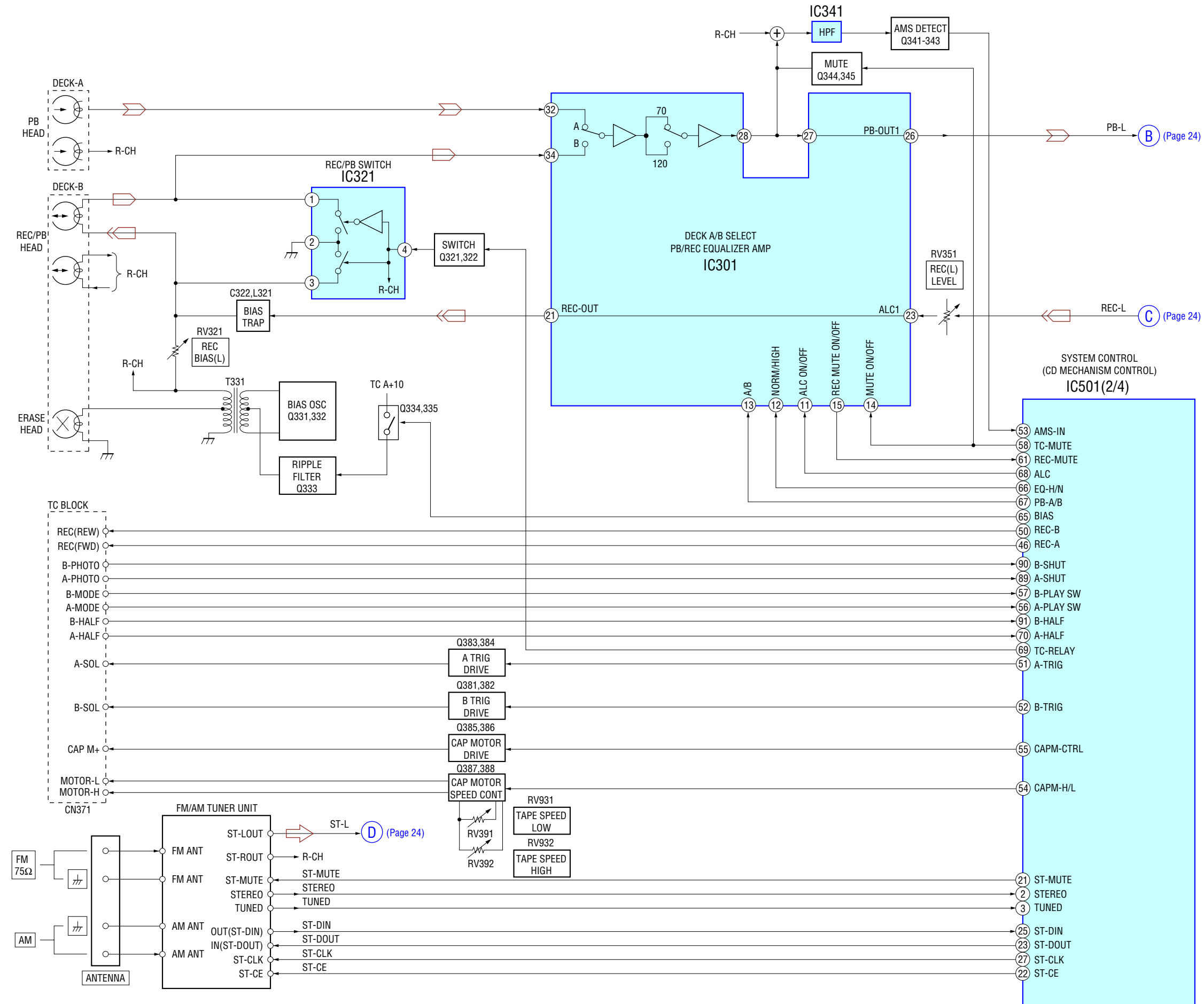
Note on Printed Wiring Boards:

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



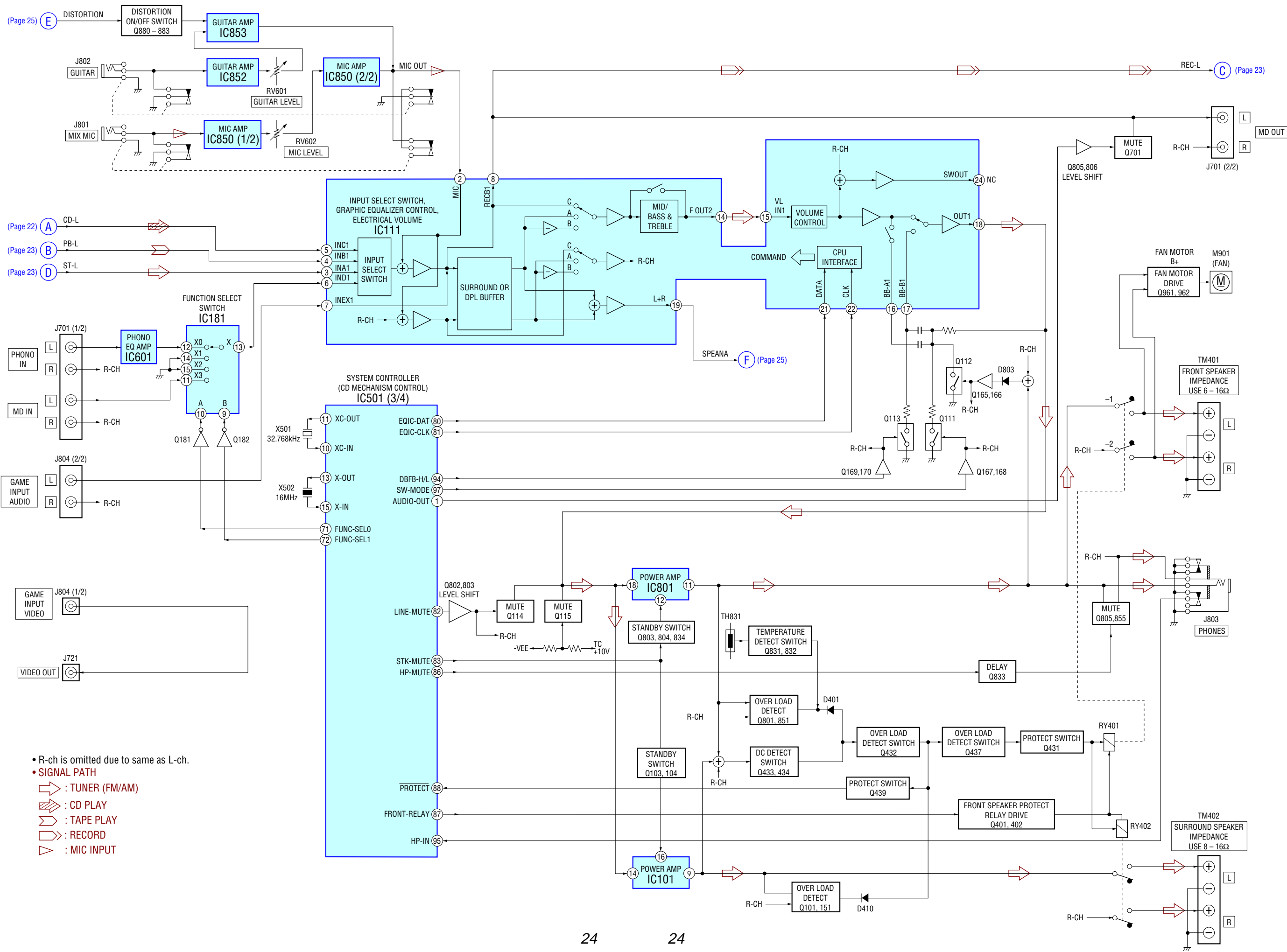


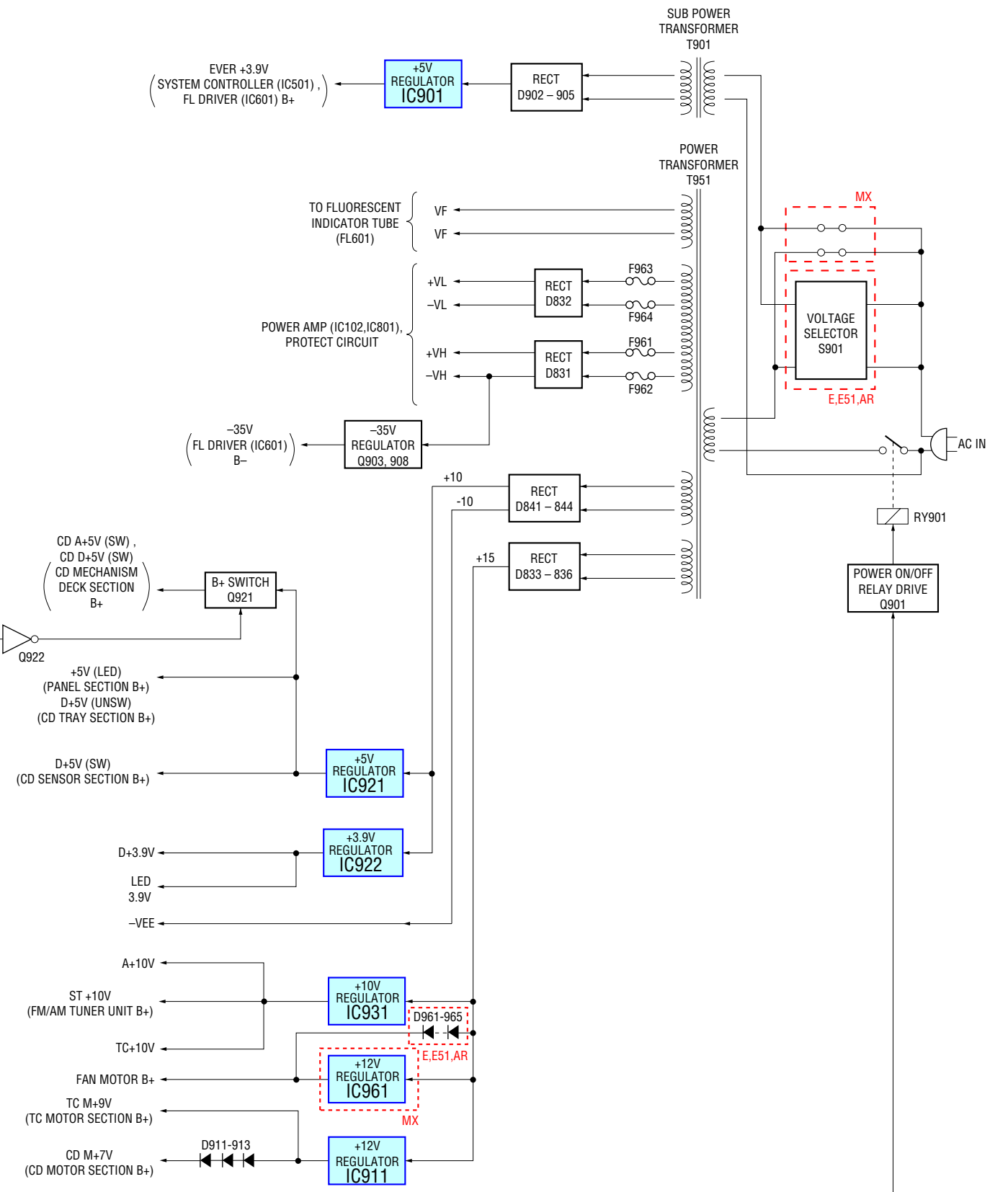
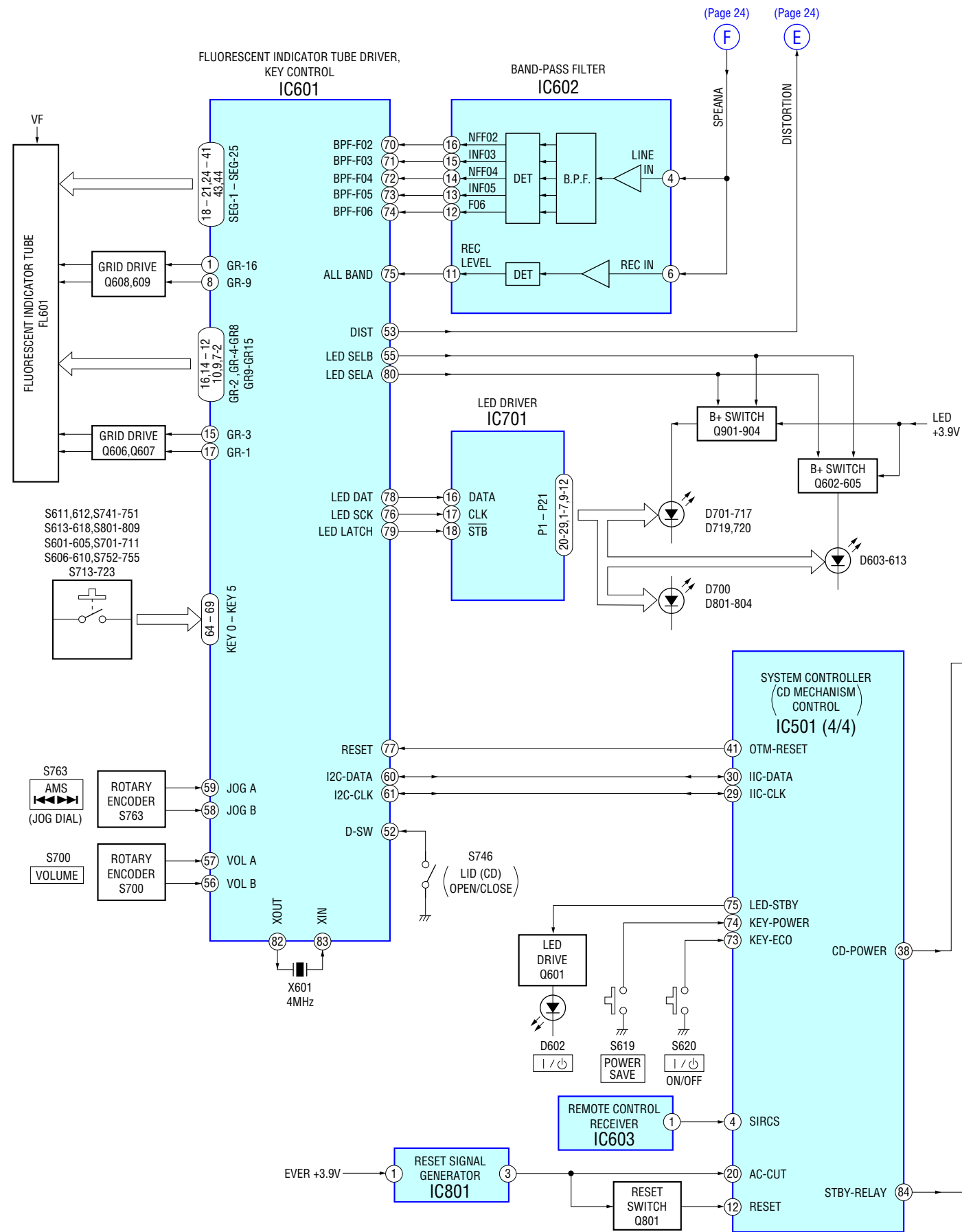
-TUNER/TAPE DECK SECTION -

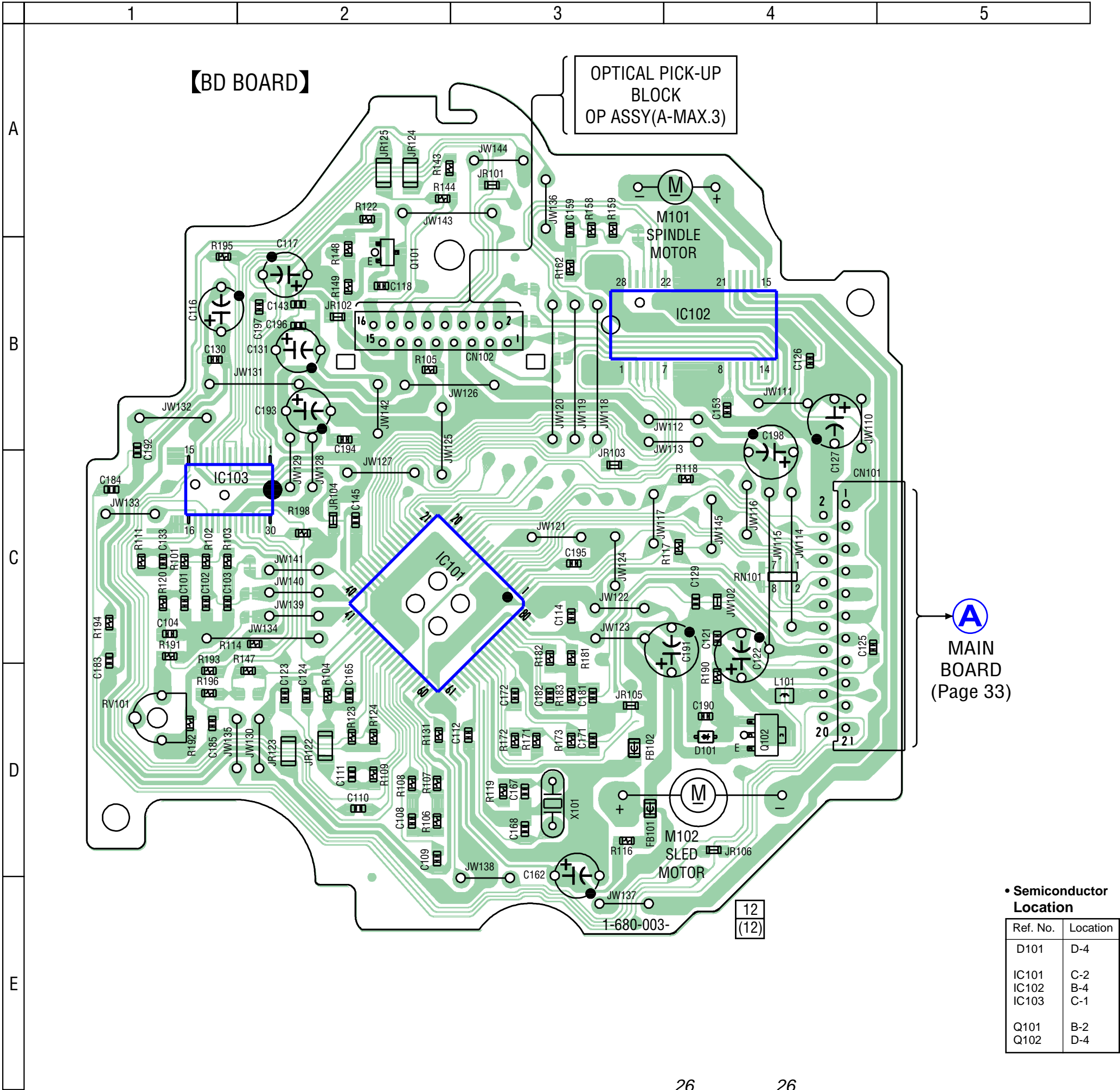


HCD-XGR80

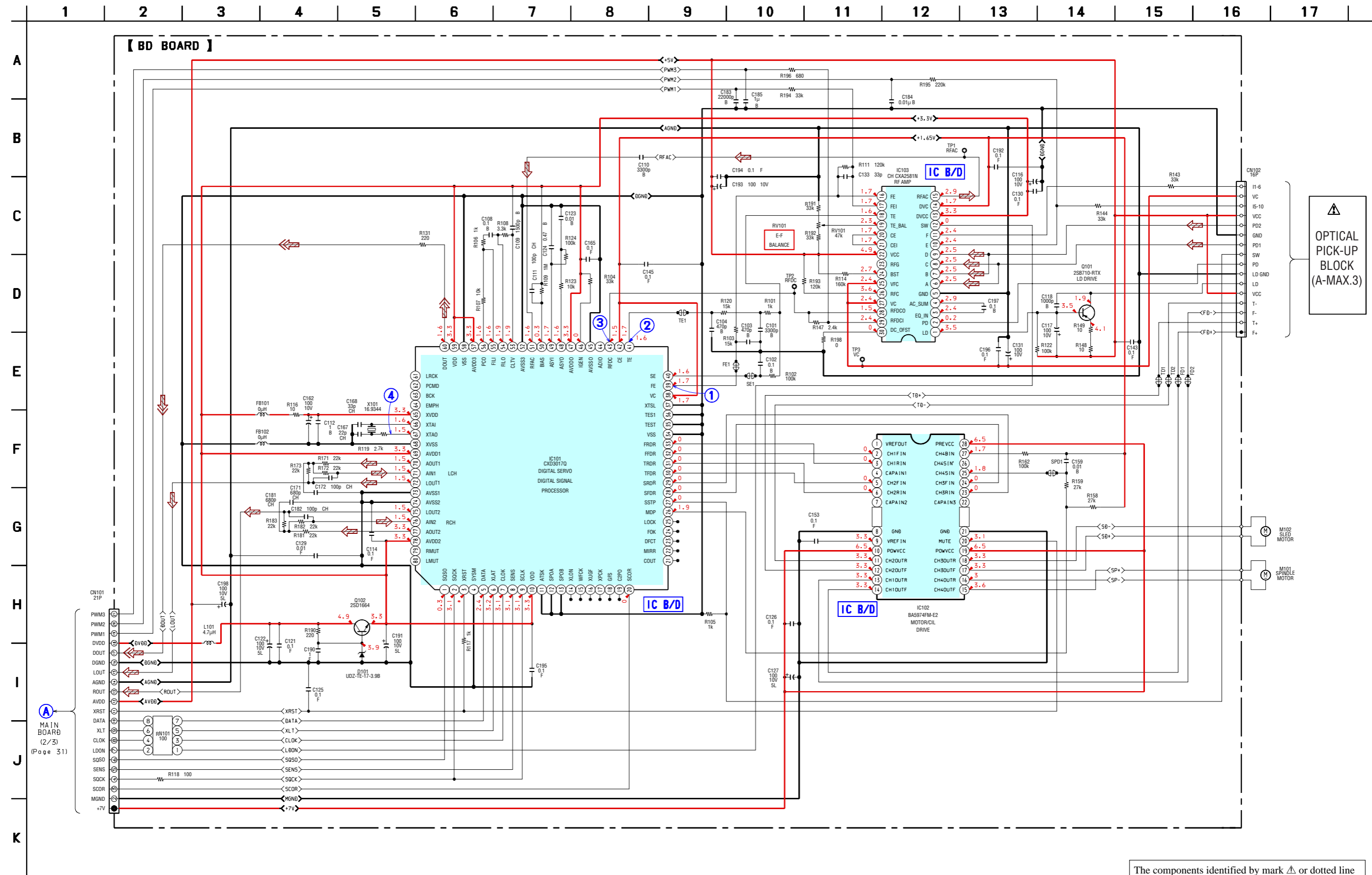
– MAIN SECTION –





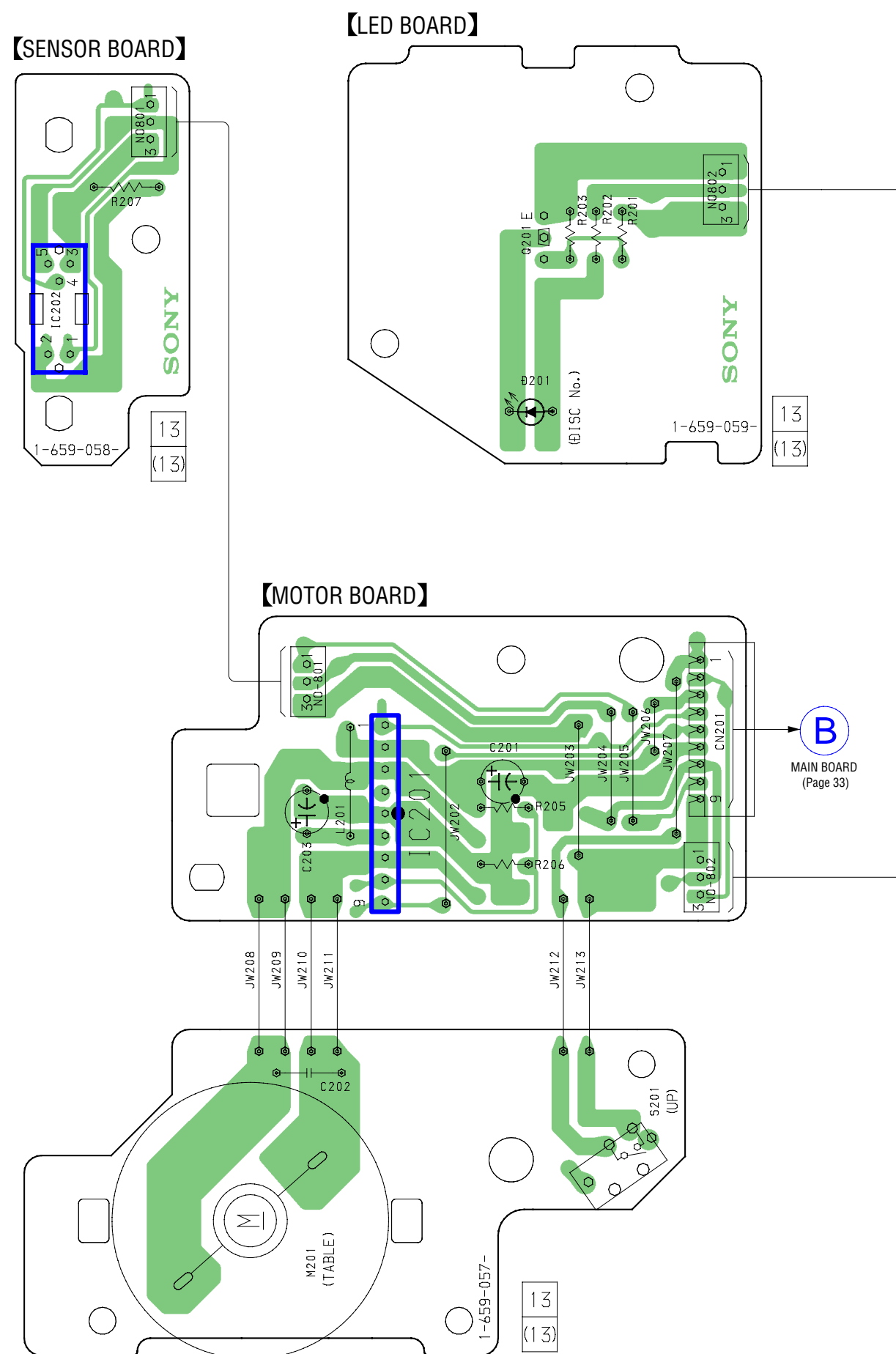


6-4. SCHEMATIC DIAGRAM – BD SECTION – • See page 46 for IC Pin Function.

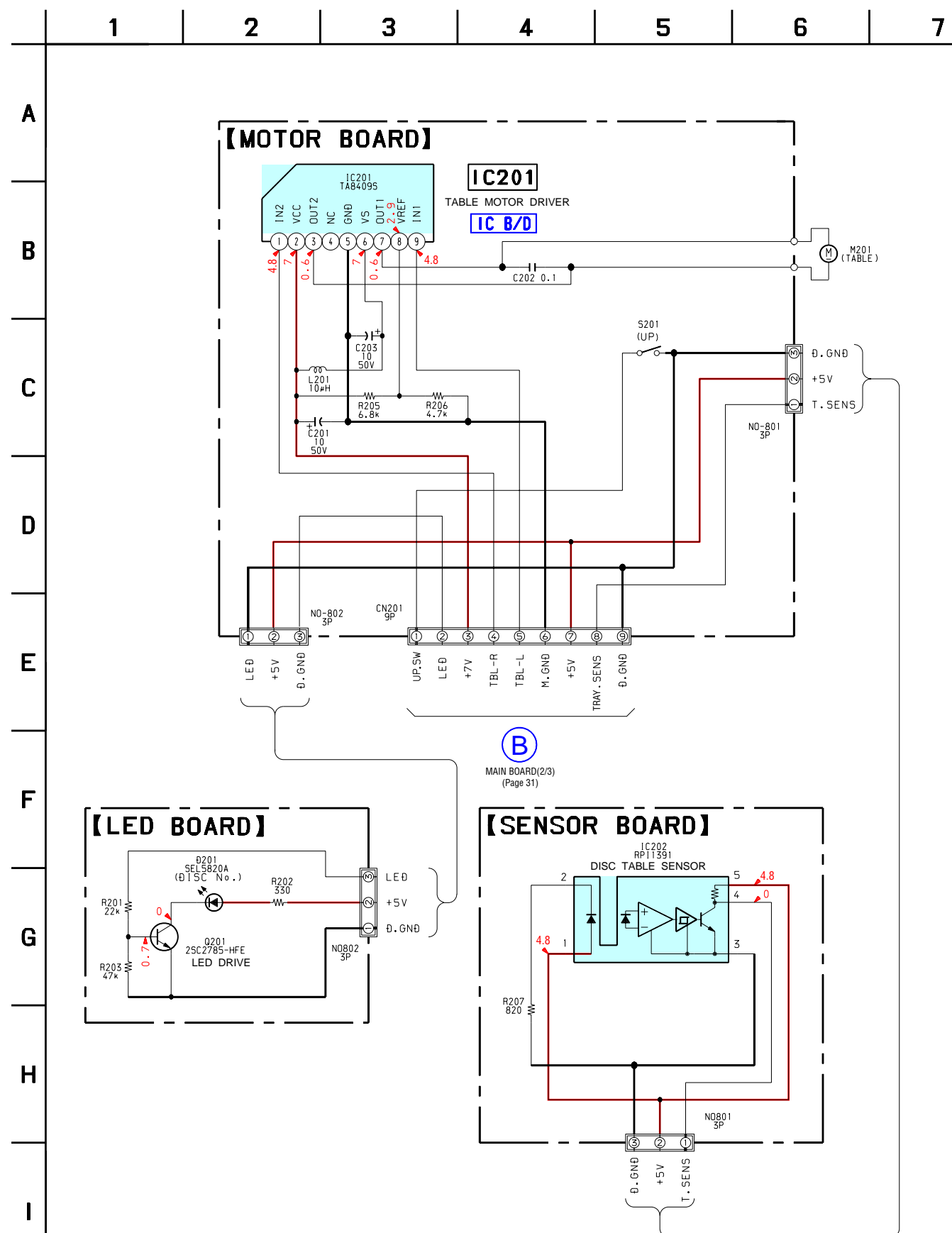


The components identified by mark \triangle or dotted line with mark \triangle are critical for safety.
Replace only with part number specified.

6-5.PRINTED WIRING BOARD – MOTOR LED SECTION – • See page 21 for Circuit Boards Location.

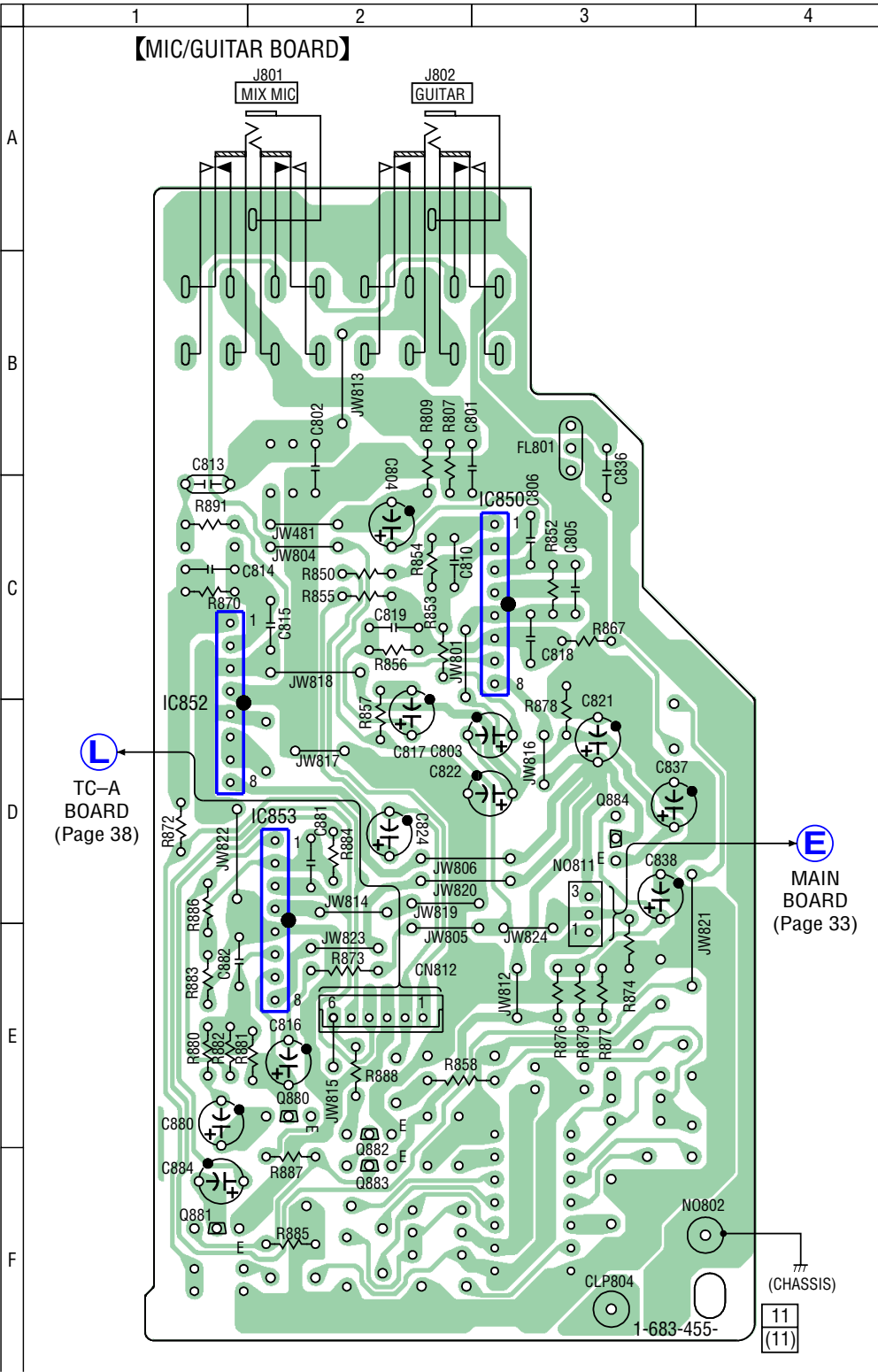
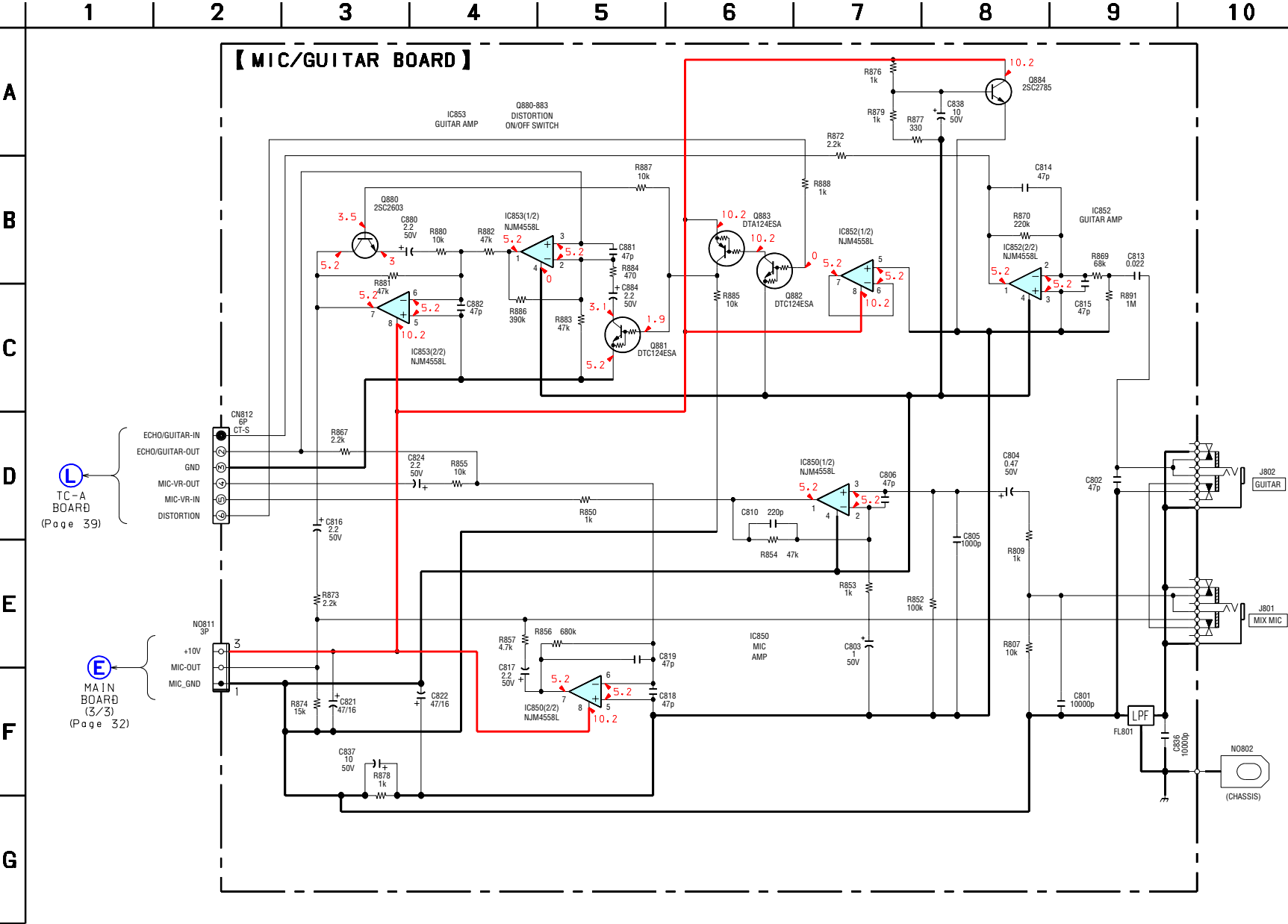


6-6.SCHEMATIC DIAGRAM – MOTOR LED SECTION –



6-7.SCHEMATIC DIAGRAM – MIC/GUITAR SECTION –

6-8.PRINTED WIRING BOARD – MIC/GUITAR SECTION –
• See page 21 for Circuit Boards Location.

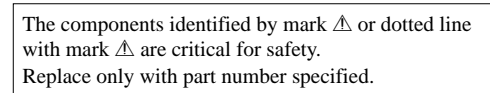


• Semiconductor Location

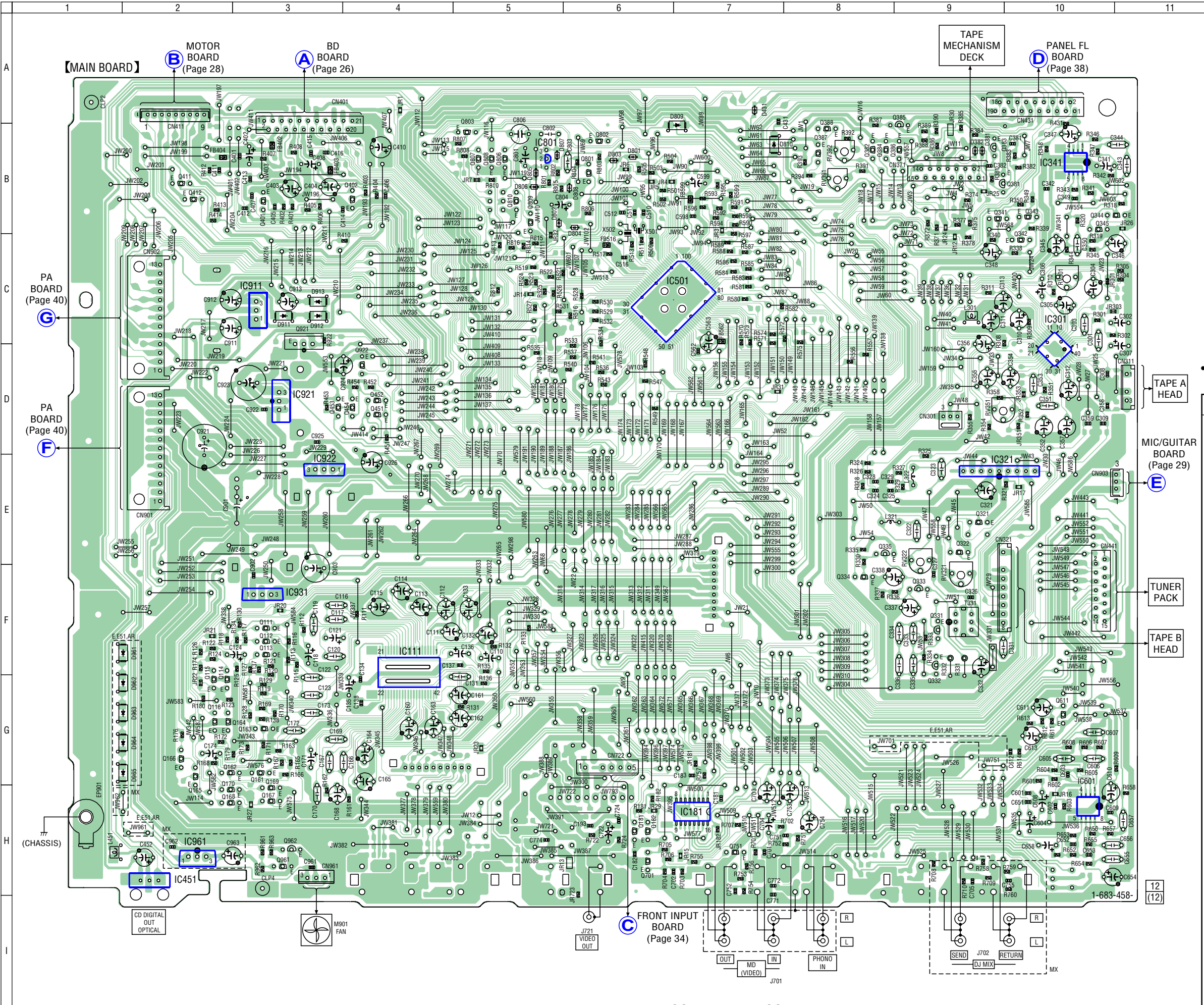
Ref. No.	Location
IC850	B-3
IC852	C-4
IC853	C-5
Q880	C-6
Q881	D-6
Q882	C-6
Q883	C-6
Q884	B-4







6-12.PRINTED WIRING BOARD – MAIN SECTION – • See page 21 for Circuit Boards Location.

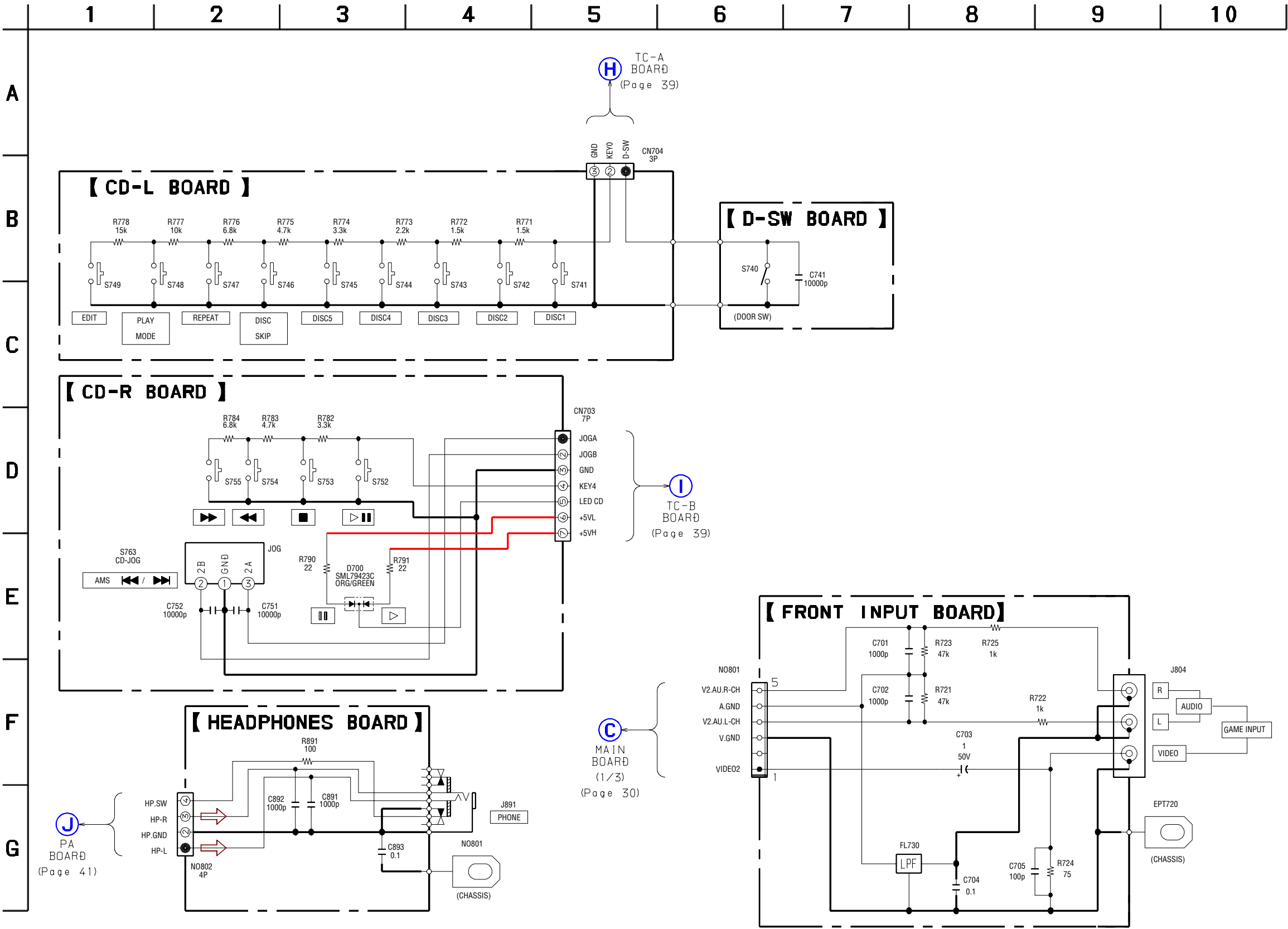


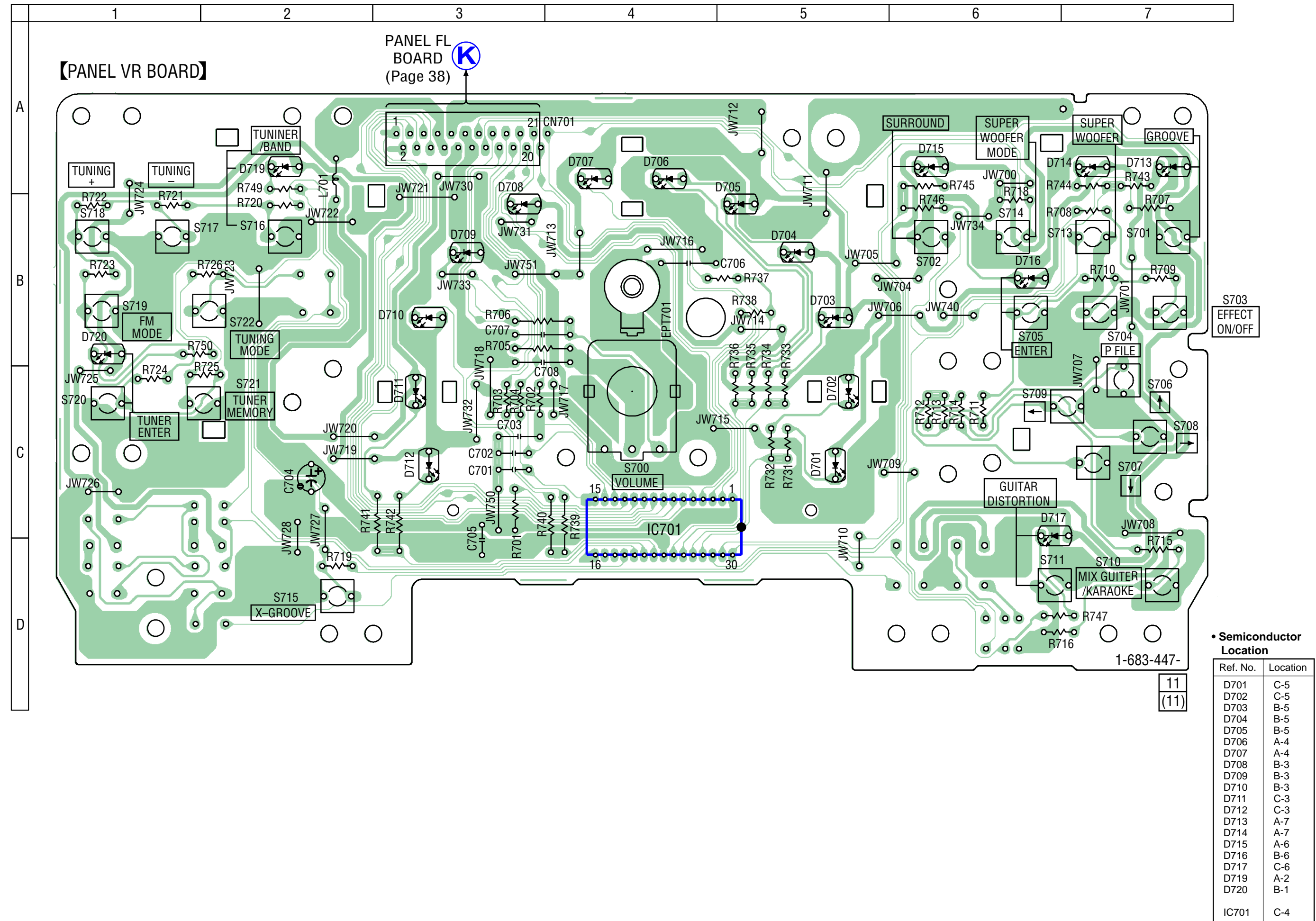
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D381	B-9	Q167	H-3
D382	B-9	Q168	H-2
D431	B-7	Q169	H-3
D801	B-6	Q170	H-2
D802	B-5	Q181	H-6
D803	B-6	Q182	H-6
D804	B-6	Q321	E-9
D805	B-5	Q322	E-9
D806	B-5	Q331	F-9
D807	B-5	Q332	F-9
D808	B-6	Q333	F-9
D809	B-7	Q334	F-8
D810	B-7	Q335	E-8
D911	C-3	Q341	B-9
D912	C-3	Q342	C-10
D913	C-3	Q343	B-10
D961	F-2	Q344	B-11
D962	G-2	Q345	B-10
D963	G-2	Q381	B-9
D964	G-2	Q382	B-8
D965	G-2	Q383	B-9
		Q384	B-8
IC111	F-4	Q385	B-9
IC181	H-7	Q386	B-9
IC301	D-10	Q387	B-8
IC321	E-9	Q388	B-8
IC341	B-10	Q401	B-3
IC451	H-2	Q402	B-4
IC501	C-7	Q411	B-2
IC601	H-10	Q412	B-2
IC801	B-5	Q451	D-4
IC911	C-3	Q452	D-4
IC921	D-3	Q453	D-3
IC922	E-3	Q454	D-4
IC931	F-3	Q611	G-10
IC961	H-2	Q701	H-6
		Q751	H-7
Q111	F-3	Q801	B-6
Q112	F-3	Q802	B-6
Q113	F-3	Q803	B-5
Q114	G-2	Q805	B-5
Q115	G-2	Q806	B-5
Q116	G-2	Q809	B-5
Q161	G-3	Q810	B-5
Q162	G-2	Q921	C-3
Q163	G-3	Q922	D-4
Q164	G-2	Q961	H-3
Q165	G-2	Q962	H-3
Q166	G-2		

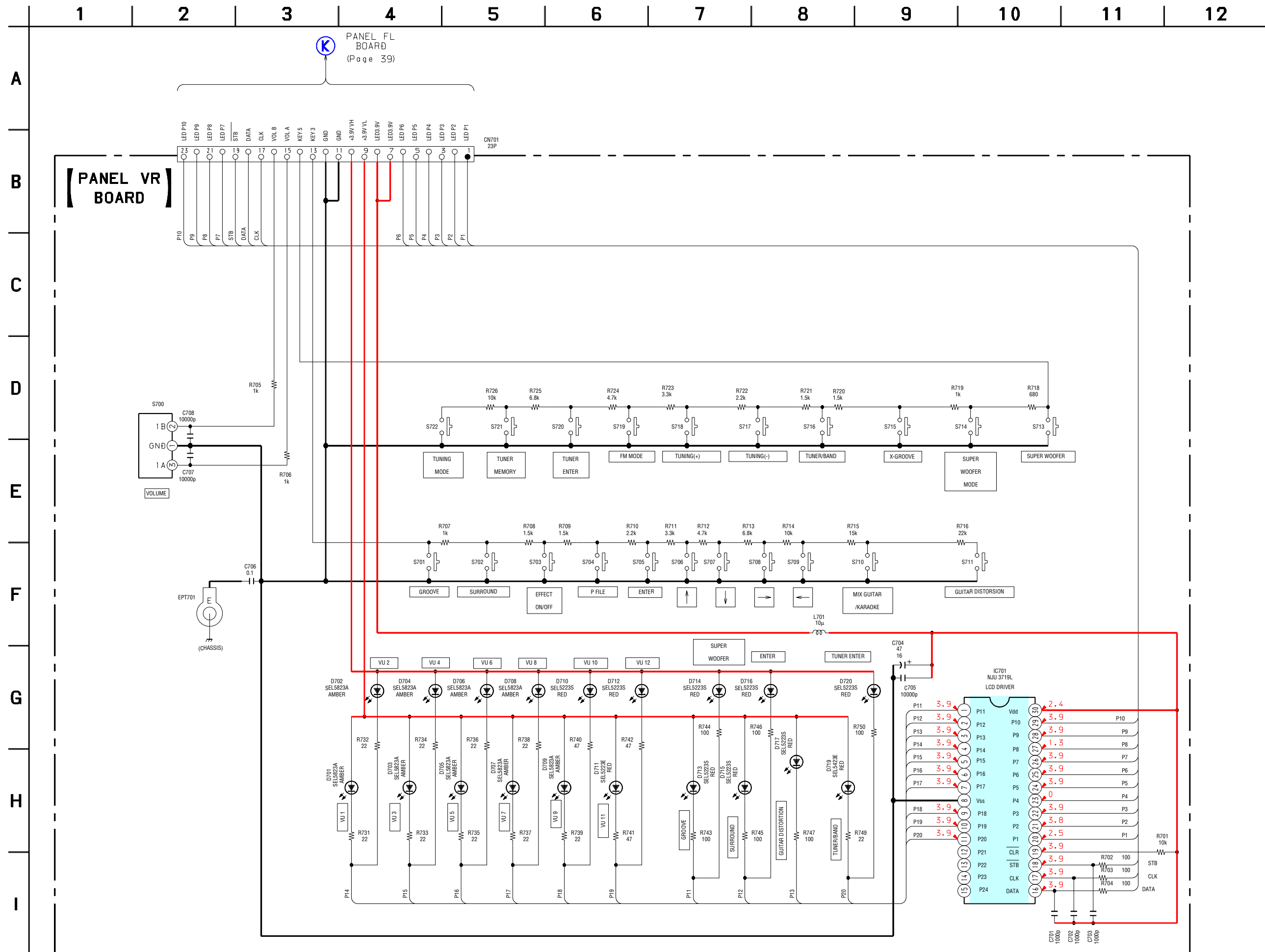


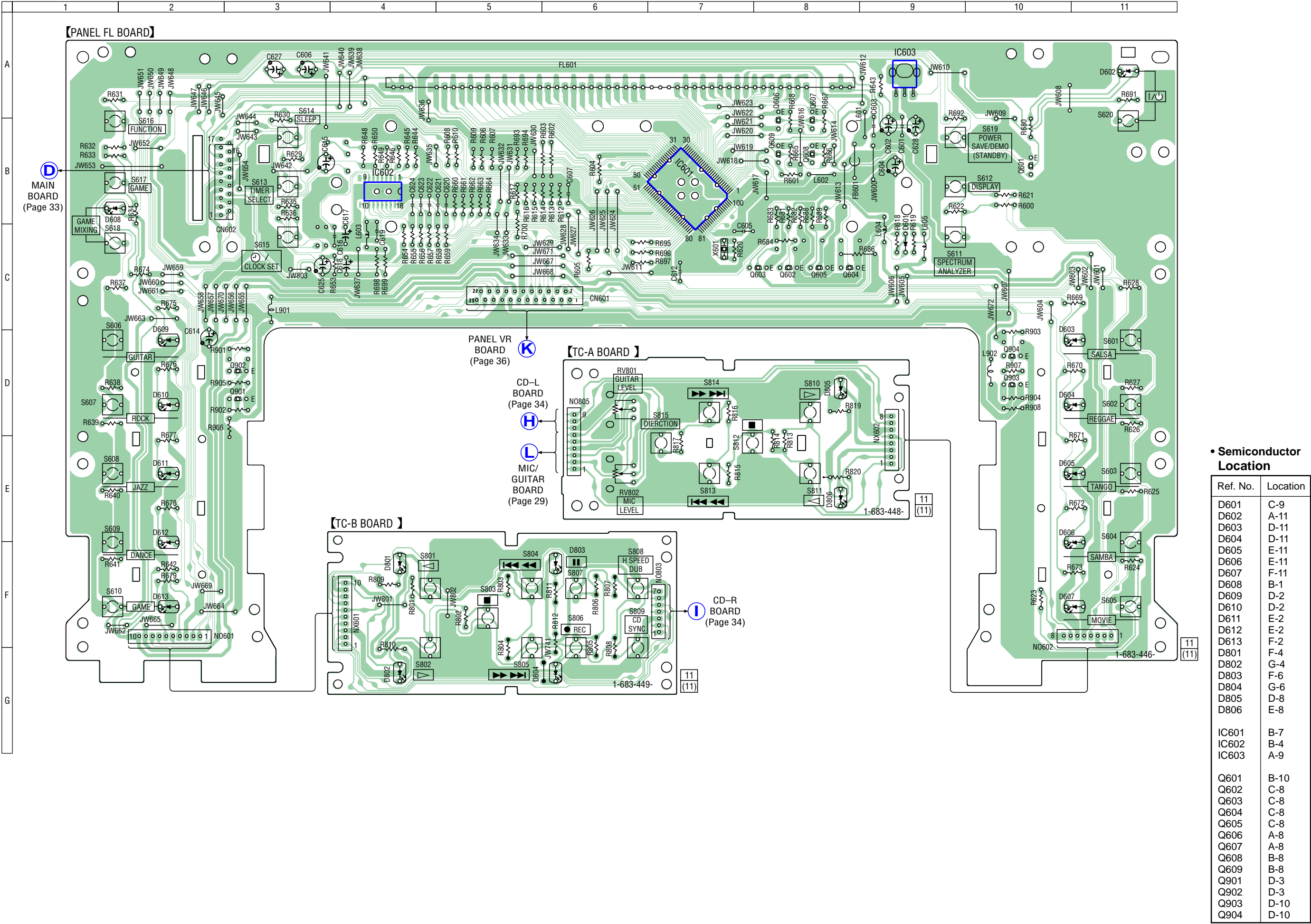
6-14. SCHEMATIC DIAGRAM – CD-L, CD-R, HEADPHONE, FRONT INPUT, D-SW SECTION –



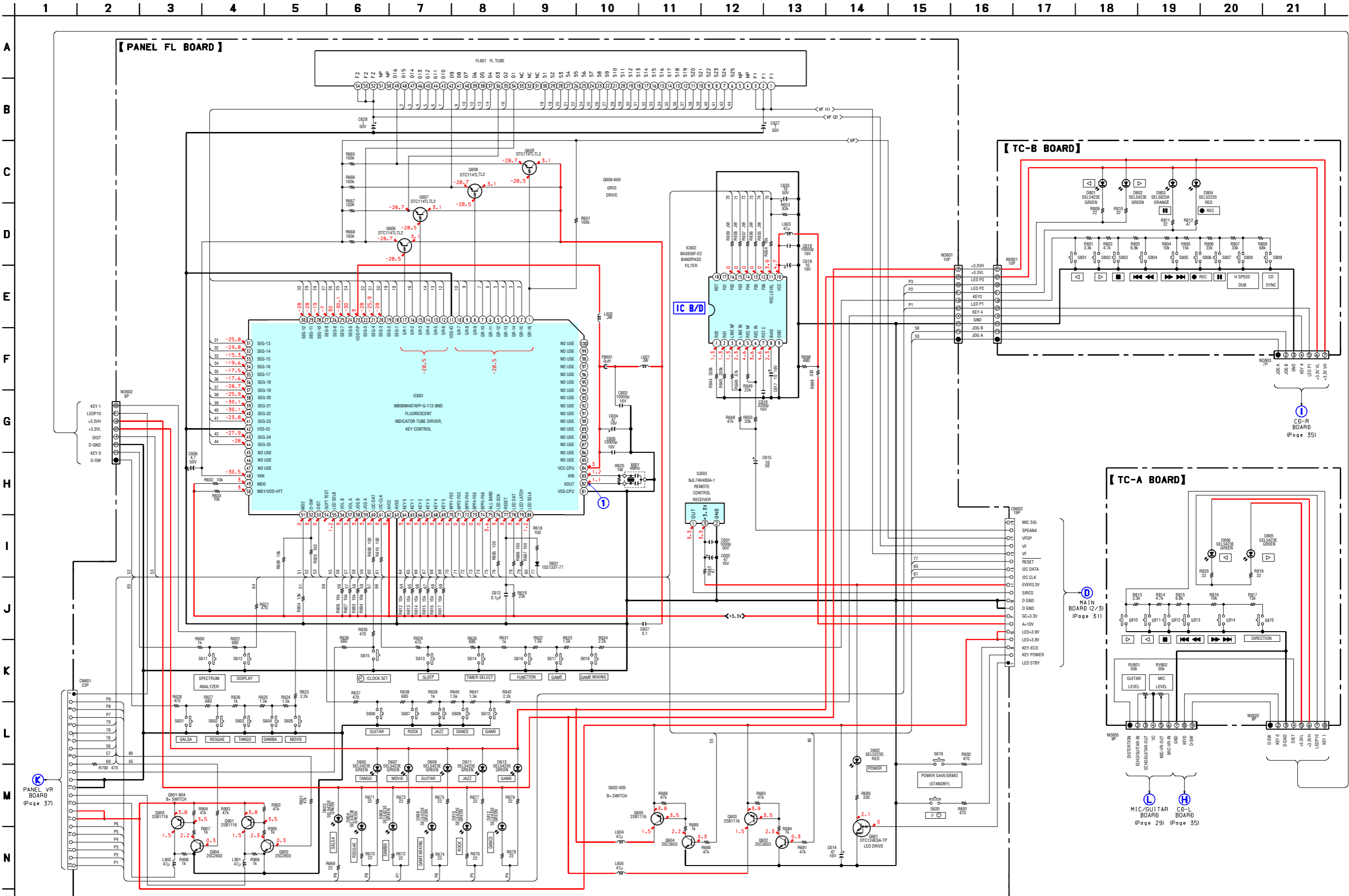


6-16. SCHEMATIC DIAGRAM – PANEL VR SECTION –





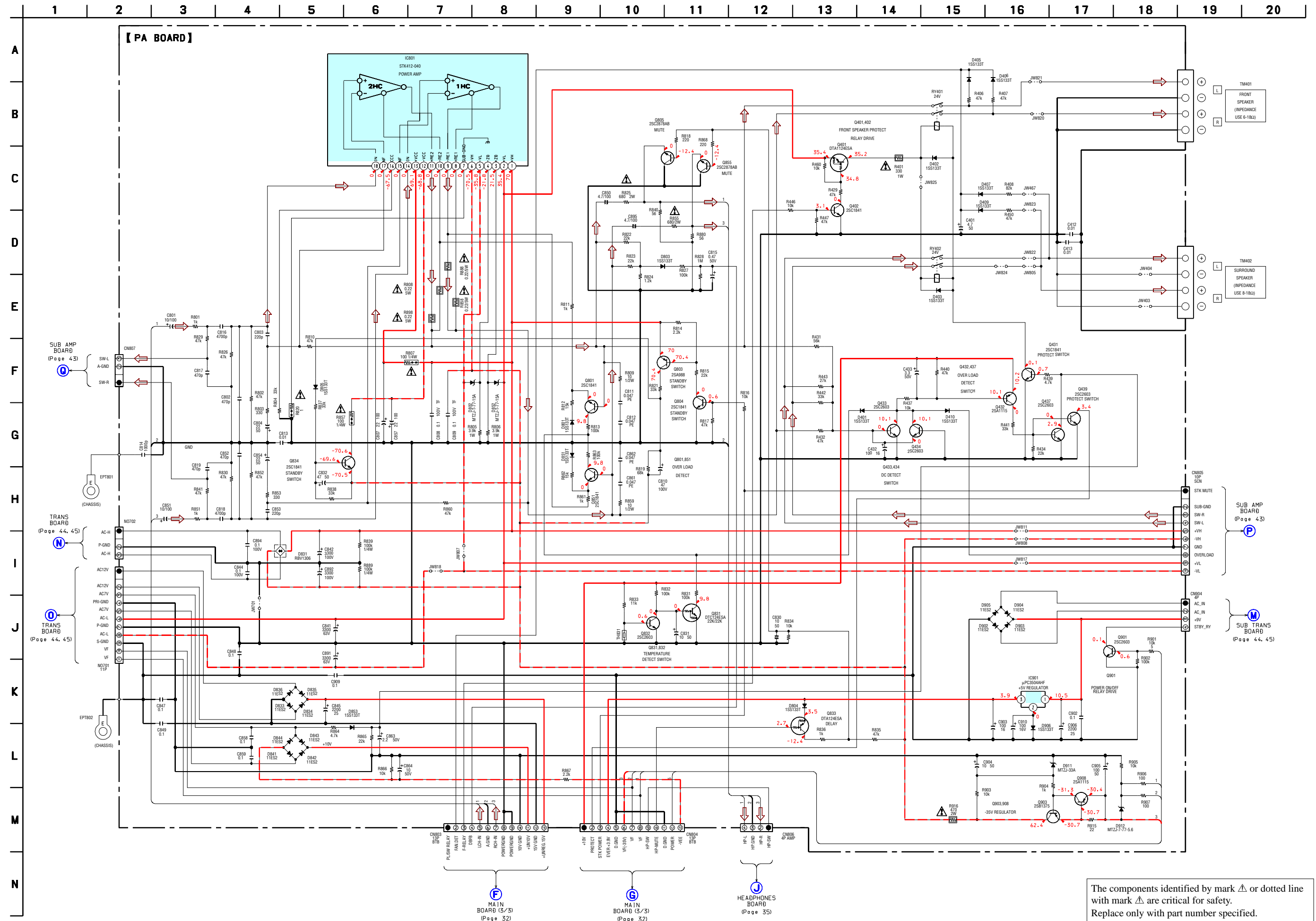
6-18.SCHEMATIC DIAGRAM – PANEL FL,TC-A,TC-B SECTION – • See page 50 for IC Pin Function.

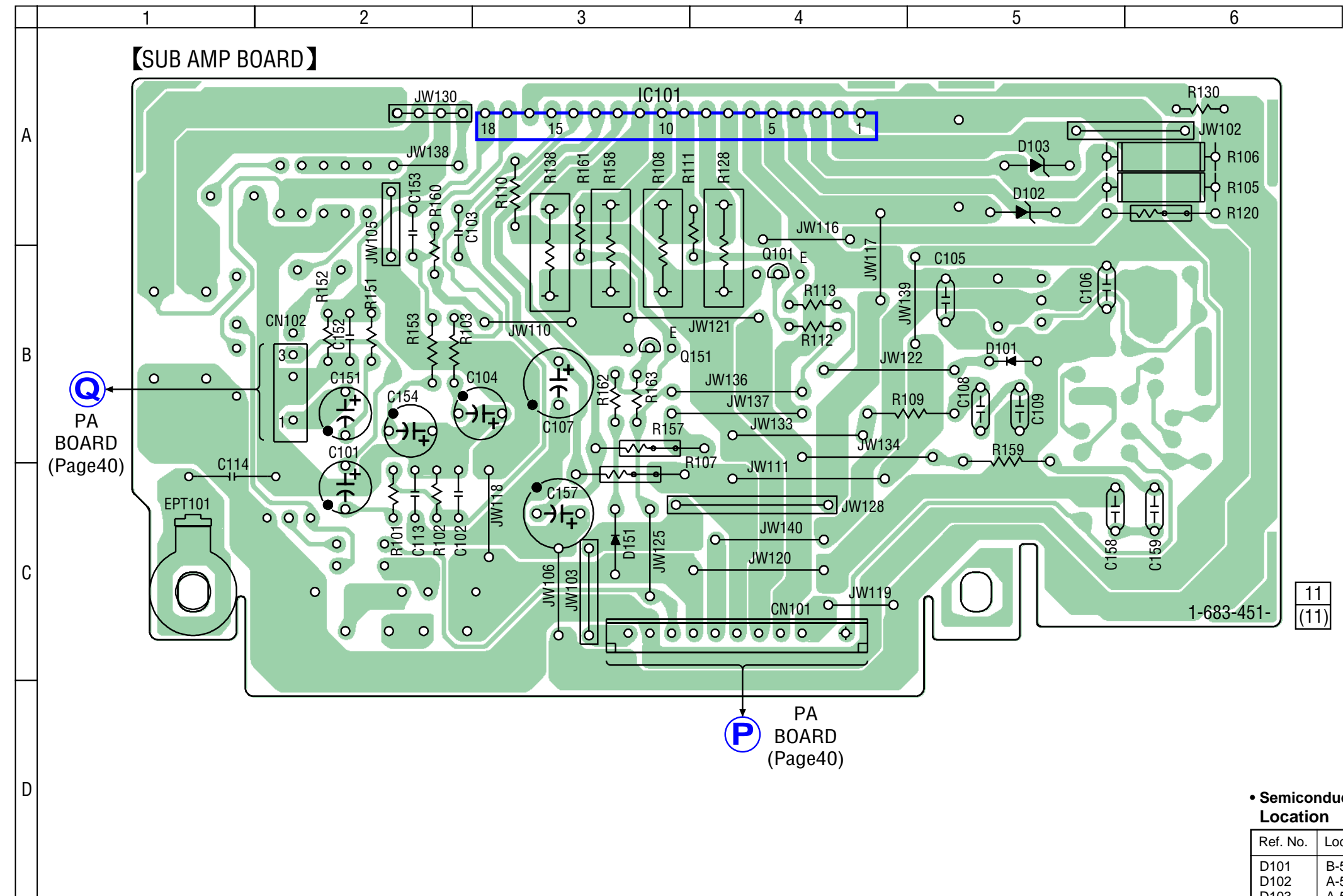




Ref. No.	Location
D401	C-5
D402	E-6
D403	D-2
D405	F-6
D406	F-6
D407	F-4
D409	E-4
D410	C-4
D801	C-5
D802	D-4
D803	D-3
D804	C-6
D805	D-5
D831	B-2
D833	A-4
D834	A-4
D835	A-4
D836	A-4
D841	A-5
D842	A-5
D843	A-5
D844	A-5
D851	C-5
D852	D-4
D853	A-3
D902	C-2
D903	C-1
D904	B-1
D905	B-2
D906	B-1
D911	A-2
D912	A-2
IC801	E-4
IC901	B-1
Q401	E-6
Q402	E-6
Q431	C-2
Q432	C-2
Q433	C-2
Q434	C-2
Q437	C-2
Q439	C-2
Q801	C-5
Q803	C-3
Q804	C-3
Q805	B-5
Q831	C-6
Q832	C-6
Q833	C-5
Q834	C-5
Q851	C-4
Q855	B-5
Q901	C-1
Q903	A-1
Q908	B-1

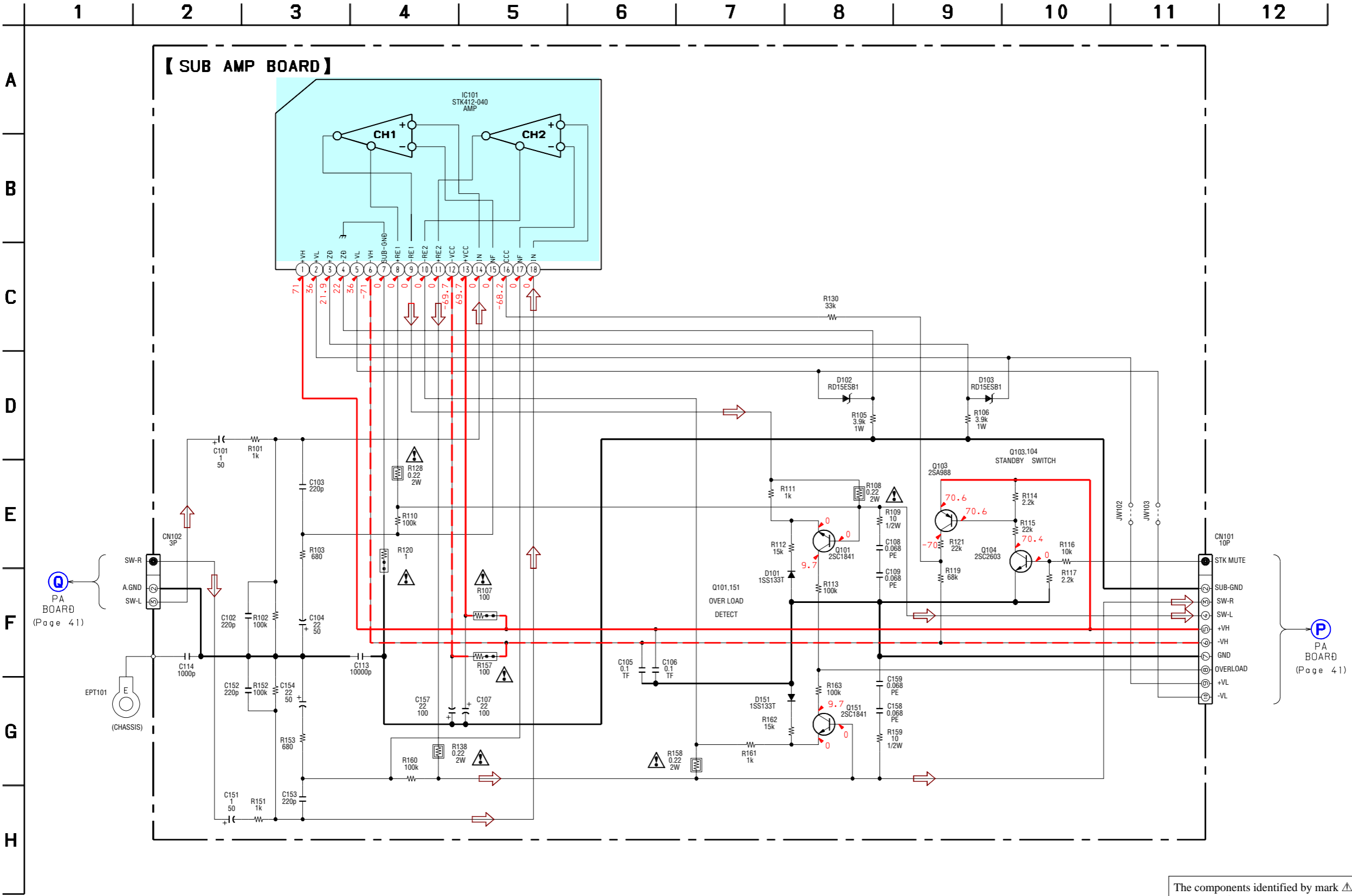
6-20.SCHEMATIC DIAGRAM – PA SECTION –



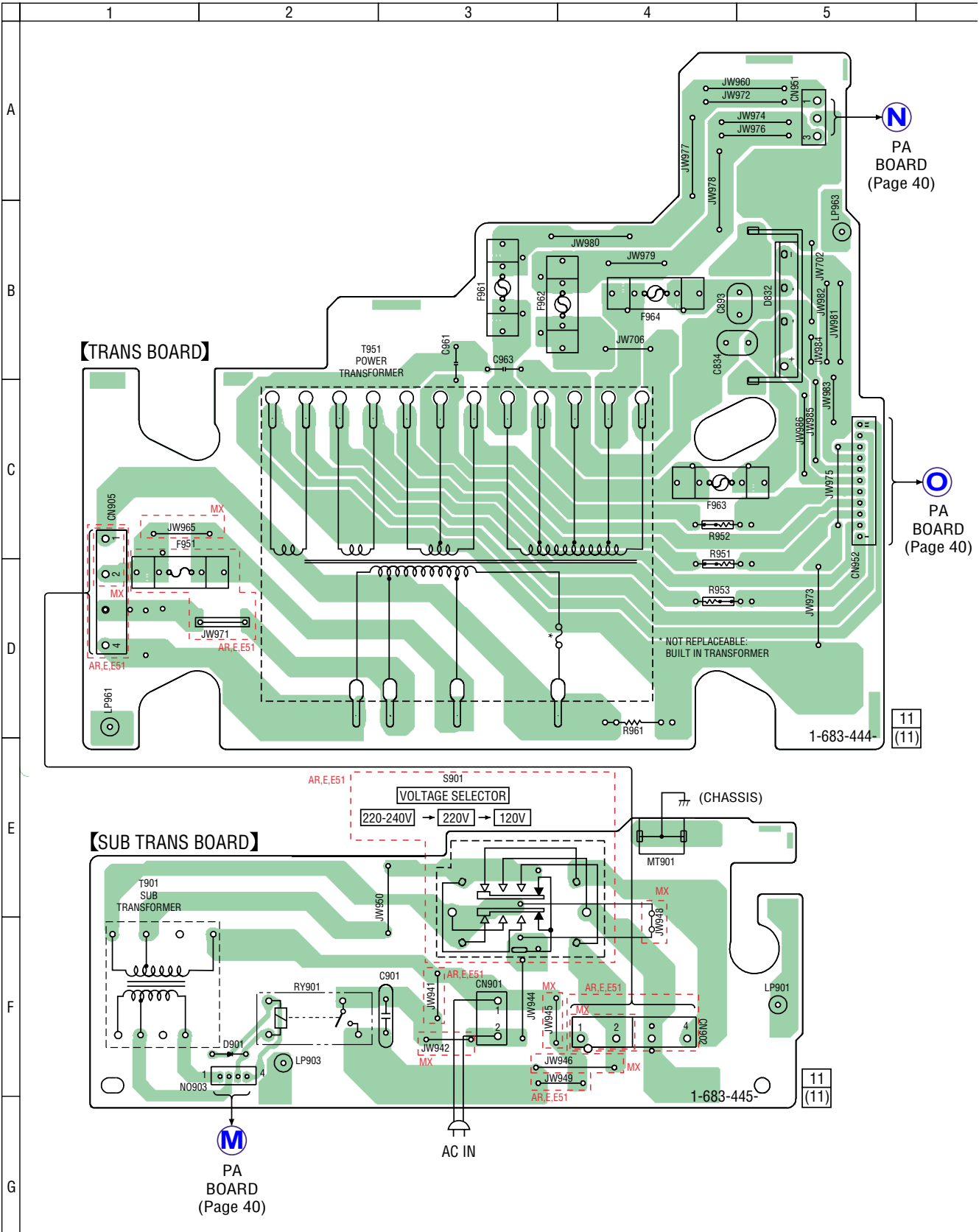


Ref. No.	Location
D101	B-5
D102	A-5
D103	A-5
D151	C-3
IC101	A-3
Q101	B-4
Q151	B-3

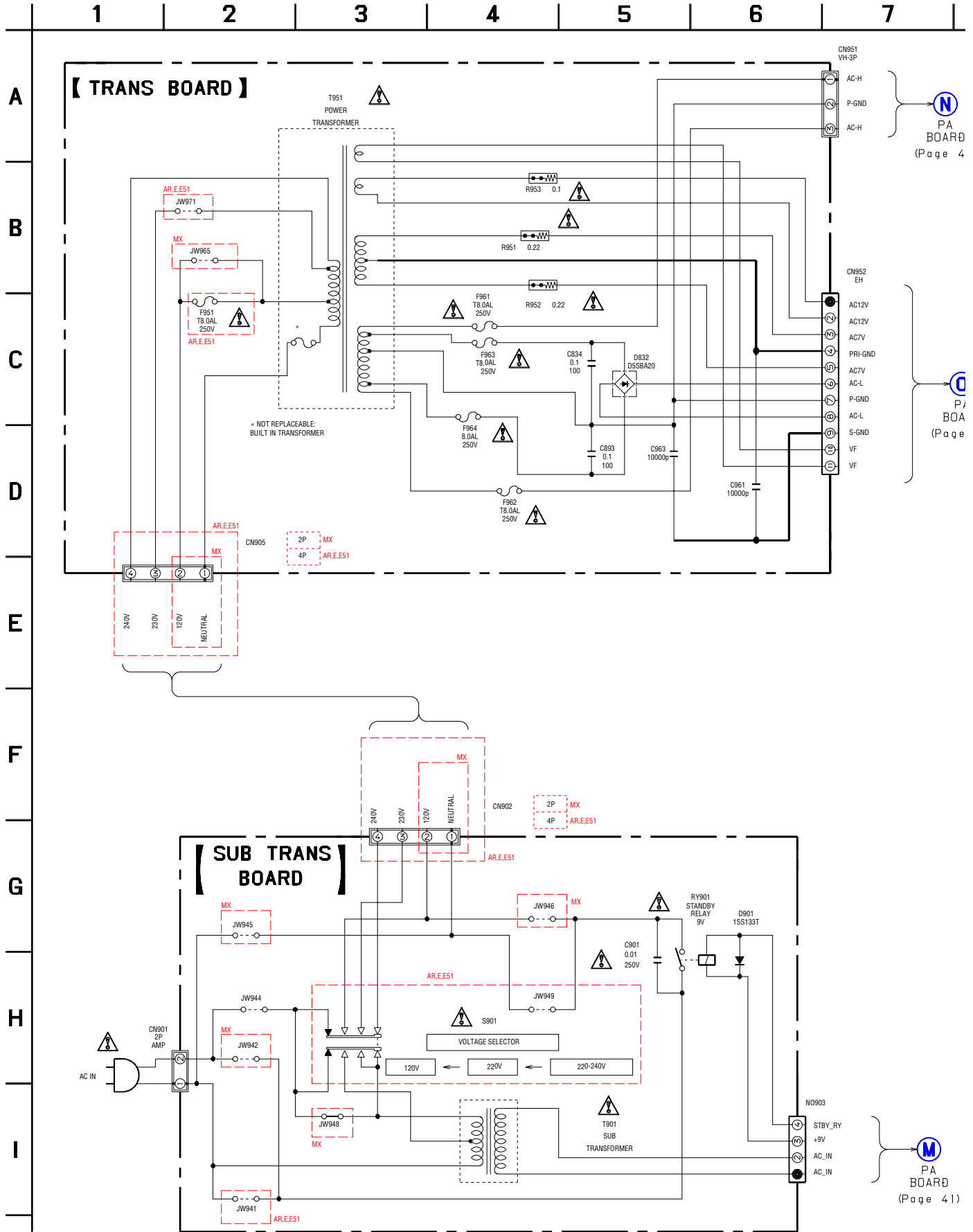
6-22.SCHEMATIC DIAGRAM – SUB AMP SECTION –



6-23.SCHEMATIC DIAGRAM – TRANS, SUB TRANS SECTION –
• See page 21 for Circuit Boards Location.



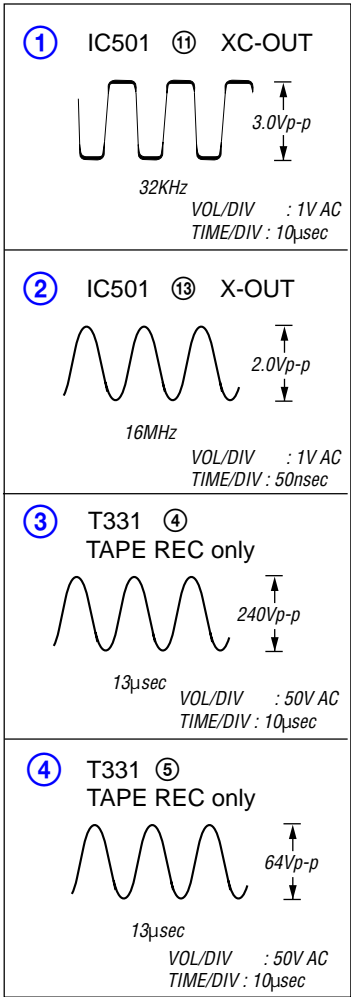
6-24.SCHEMATIC DIAGRAM – TRANS, SUB TRANS SECTION –



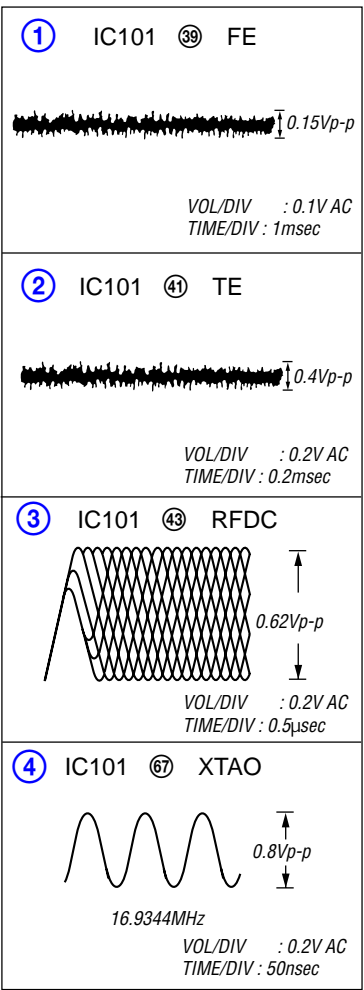
The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

● WAVEFORMS

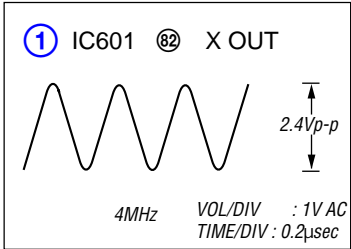
– MAIN BOARD –



– BD BOARD –



– PANEL FL BOARD –



6-25. IC PIN FUNCTIONS

• IC101 DIGITAL SIGNAL PROCESSOR (CXD3017Q) (BD Board)

Pin No.	Pin Name	I/O	Description
1	SOSQ	O	Sub-Q serial output
2	SQCK	I	Clock input for SQSO read-out
3	XRST	I	System reset
4	SYSM	I	Muting input
5	DATA	I	Serial date input,supplied from CPU
6	XLAT	I	Latch input,supplied from CPU
7	CLOK	I	Serial date transfer clock input,supplied from CPU
8	SENS	O	SENS output
9	SCLK	I	SENS serial data read-out clock
10	VDD	—	Power supply (+3.3V)
11	ATSK	—	Input pin for anti-shock (Ground)
12	SPOA	—	Ground
13	SPOB	—	Ground
14	XLON	O	Not used (open)
15	WFKC	O	Not used (open)
16	XUGF	O	Not used (open)
17	XPCK	O	Not used (open)
18	GFS	O	Not used (open)
19	2SPO	O	Not used (open)
20	SCOR	O	Sub-code sync output
21	COUT	I/O	Not used (open)
22	MIRR	I/O	Not used (open)
23	DFCT	I/O	Not used (open)
24	FOK	I/O	Not used (open)
25	LOCK	I/O	Not used (open)
26	MDP	O	Output to control spindle motor servo
27	SSTP	I	Input signal to detect disc inner most trak
28	SFDR	O	Sled drive output
29	SRDR	O	Sled drive output
30	TFDR	O	Tracking drive output
31	TRDR	O	Tracking drive output
32	FFDR	O	Focus drive output
33	FRDR	O	Focus drive output
34	VSS	—	Ground
35	TEST	I	TEST pin (connected to ground)
36	TES1	I	TEST pin (connected to ground)
37	XTSL	I	X'tal selection circuit input (connected to ground)
38	VC	I	Center voltage input
39	FE	I	FOCUS error signal input
40	SE	I	Sled error signal input
41	TE	I	Tracking error signal input
42	CE	I	Center servo analog input
43	RFDC	I	RF signal input
44	ADIO	O	Not used (open)
45	AVSS0	—	Analog ground
46	IGEN	I	Power supply pin operational amplifiers
47	AVDDO	—	Power supply (+3.3V)
48	ASYO	O	EFM full swing output
49	ASYI	I	Asymmetry comparator voltage input
50	BIAS	I	Asymmetry circuit constant current input
51	RFAC	I	EFM signal input
52	AVSS3	—	Ground

Pin No.	Pin Name	I/O	Description
53	CLTV	I	Control voltage input for master VCO
54	FILO	O	Filter output for master PLL
55	FILI	I	Filter input for master PLL
56	PCO	O	Charge-pump output for master PLL
57	AVDD3	—	Power supply (+3.3V)
58	VSS	—	Ground
59	VDD	—	Power supply (+3.3V)
60	DOUT	O	CD data output
61	LRCK	O	Not used (open)
62	PCMD	O	Not used (open)
63	BCK	O	Not used (open)
64	EMPH	O	Not used (open)
65	XVDD	—	Power supply (+3.3V)
66	XTAI	I	X'tal oscillator circuit input (16.9344MHz)
67	XTAO	O	X'tal oscillator circuit output (16.9344MHz)
68	XVSS	—	Ground
69	AVDD1	—	Power supply (+3.3V)
70	AOUT1	O	Lch : Analog output
71	AIN1	I	Lch : OPAMP input
72	LOUT1	O	Lch : LINE output
73	AVSS1	—	Ground
74	AVSS2	—	Ground
75	LOUT2	O	Rch : LINE output
76	AIN2	I	Rch : OPAMP input
77	AOUT2	O	Rch : Analog output
78	AVDD2	—	Power supply (+3.3V)
79	RMUT	O	Not used (open)
80	LMUT	O	Not used (open)

HCD-XGR80

• IC501 M30620MCN-A01FP SYSTEM CONTOL (MAIN Board)

Pin No.	Pin Name	I/O	Description
1	AUDIO-OUT	O	MD output mute signal output
2	STEREO	I	Stereo signal input
3	TUNED	I	Tuned signal input
4	SIRCS	I	SIRCS input
5	CD-MUTE	O	CD mute signal output
6	–	—	Not used (open)
7	–	—	Not used (open)
8	BYTE	I	Not used (connected to ground)
9	CNVSS	—	Not used (Connected to ground with resistor)
10	XC-IN	I	Sub clock input
11	XC-OUT	O	Sub clock output
12	RESET	I	System reset input
13	X-OUT	O	Main system clock output (16MHz)
14	VSS	—	Ground
15	X-IN	I	Main system clock input (16MHz)
16	VCC	—	Power supply (+5V)
17	NMI	I	Not used (Pull up with resistor)
18	RDS-INT	I	Not used (Connected to ground with resistor)
19	SCOR	I	CD Q-Data request input
20	AC-CUT	I	AC cut check signal input
21	ST-MUTE	O	Tuner mute signal output
22	ST-CE	O	Tuner chip enable signal output
23	ST-DOUT	O	Tuner data output
24	BU-PWM3	O	BU PWM 3 (for CD-RW) signal output
25	ST-DIN	I	Tuner data input
26	BU-PWM2	O	BU PWM 2 (for CD-RW) signal output
27	ST-CLK	O	Tuner clock signal output
28	BU-PWM1	O	BU PWM 1 (for CD-RW) signal output
29	IIC-CLK	I	IIC serial data clock input
30	IIC-DATA	I	IIC serial data input
31	–	—	Not used (open)
32	SQ-DATA	I	CD data input
33	SQ-CLK	O	CD data clock output
34	SENS	I	SENS signal input from CXD3017Q
35	CD-DATA	O	CD data output
36	XLT	O	CD latch signal output
37	CD-CLK	O	CD data clock output
38	CD-POWER	O	CD power on/off signal output
39	CLK-OUT	O	Not used (open)
40	HOLD	O	Laser diode control signal output
41	OTM-RESET	O	Other micom reset
42	–	—	Not used (open)
43	XRST	O	CD reset signal output
44	MTR-CTRL1	O	CD motor control 1 output
45	MTR-CTRL2	O	CD motor control 2 output
46	REC-A	I	Record tab switch for SIDE-A signal input
47	LED-DISC	O	DISC LED on/off signal output
48	BU UP/DW SW	I	BU up switch signal input
49	TBL-SENS	I	Table sensor signal input
50	REC-B	I	Record tab switch for SIDE-B signal input
51	A-TRG	O	TCM-A trigger output
52	B-TRG	O	TCM-B Trigger output
53	AMS-IN	I	AMS signal input

Pin No.	Pin Name	I/O	Discription
54	CAPM-H/L	O	Capstan motor high/low signal output
55	CAPM-CTRL	O	Capstan motor REV/FWD/STOP control signal output
56	A-PLAY	I	TCM-A play switch input
57	B-PLAY	I	TCM-B play switch input
58	TC-MUTE	O	TC line mute signal output
59	REC/PB/PASS	O	Not used (open)
60	NR ON/OFF	O	Not used (open)
61	REC-MUTE	O	REC mute signal output
62	VCC	—	Power supply (+3.3V)
63	SOFT-TEST	O	Soft check output
64	VSS	—	Ground
65	BIAS	O	Bias on/off signal output
66	EQ-H/N	O	EQ high/Normal signal output
67	PB-A/B	O	TC A/B select signal output
68	ALC	O	ALC signal output
69	TC-RELAY	O	TC relay control signal output
70	A-HALF	I	A deck half detection signal input
71	FUNC-SEL0	O	Function select A signal output
72	FUNC-SEL1	O	Function select B signal output
73	KEY-ECO	I	ECO key signal input
74	KEY-POWER	I	Power key signal input
75	LED-STBY	O	Standby LED driver signal output
76	VIDEO-MUTE	O	Video mute signal output
77	PL-LAT	O	Not used (open)
78	PL-DAT	O	Not used (open)
79	PL-CLK	O	Not used (open)
80	EQIC-DAT	O	Serial data output to Audio EQIC
81	EQIC-CLK	O	Serial data clock output to Audio EQIC
82	LINE-MUTE	O	TA LINE mute signal output
83	STK-MUTE	O	Mute signal output to power IC
84	STBY-RELAY	O	Standby relay driver signal output
85	REAR-RELAY	O	Rear speaker relay driver signal output
86	HP-MUTE	O	Headphone mute signal output
87	FRONT-RELAY	O	Front speaker relay driver signal output
88	PROTECT	I	Speaker protection signal input
89	A-SHUT	I	TCM-A reel pulse input
90	B-SHUT	I	TCM-B reel pulse input
91	B-HALF	I	B deck half detection input
92	MODEL-IN	I	Model input
93	DEST-IN	I	Destination input
94	DBFB-H/L	O	DBFB high/low signal output
95	HP-IN	I	Headphone detect input
96	AVSS	—	Ground
97	SW-MODE	O	Super woofer mode signal output
98	VREF	I	Reference voltage input
99	AVCC	—	Power supply (+3.3V)
100	RDS-DATA	I	Not used (Connected to ground)

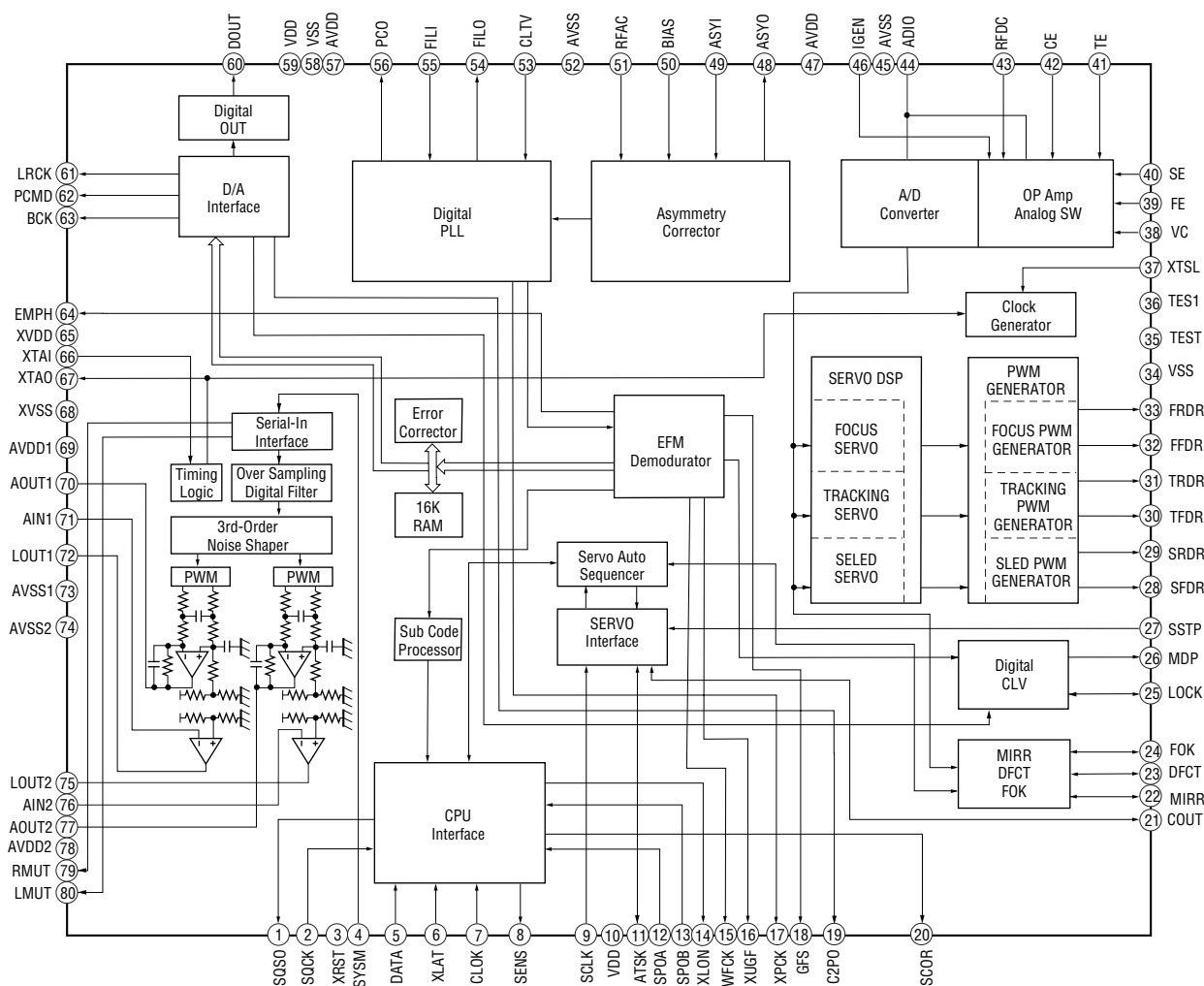
HCD-XGR80

• IC601 MB90M407APF-G-112-BND DISPLAY CONTROL (PANEL FL Board)

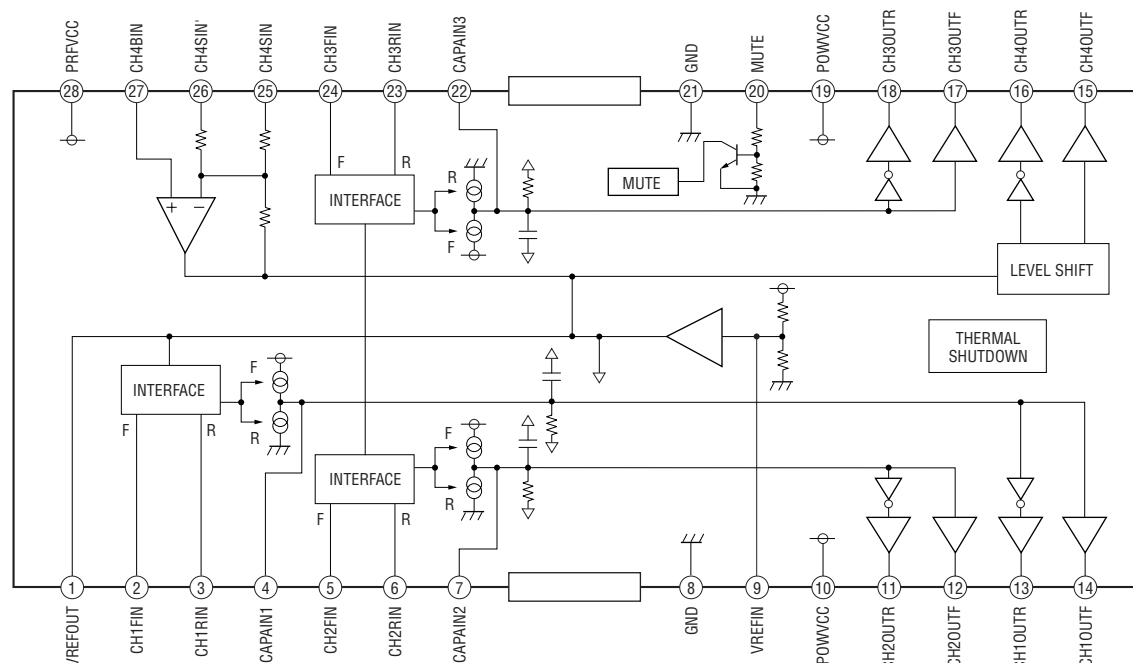
Pin No.	Pin Name	I/O	Description
1 to 10	GR-16 to GR-7	O	FLD grid output
11	VSS-IO	—	Ground
12 to 17	GR-6 to GR-1	O	FLD grid output
18 to 22	SEG-1 to SEG-5	O	FLD segment output
23	VDD-FIP	—	Power supply (+3.3V)
24 to 41	SEG-6 to SEG-23	O	FLD segment output
42	VSS-IO	—	Ground
43,44	SEG-24, SEG-25	O	FLD segment output
45 to 47	NO USED	O	Not used (open)
48	VKK	—	Power supply (-35V)
49	MD0	I	Not used (pull up with resistor)
50	MD1/VDD-VFT	I	Not used (pull up with resistor)
51	MD2	I	Not used (pull down with resistor)
52	D-SW	I	CD lid open/close detect signal input
53	DIST	O	Guitar distortion ON/OFF signal output
54	SOFT TEST	O	Not used (open)
55	LED SELB	O	LED group B select signal output
56	VOL A	I	Volume encoder signal A input
57	VOL B	I	Volume encoder signal B input
58	JOG A	I	AMS jog dial encoder signal A input
59	JOG B	I	AMS jog dial encoder signal B input
60	I2C-DATA	O	IIC serial data output
61	I2C-CLOCK	O	IIC clock signal output
62	AVCC	—	Power supply (+3.3V)
63	AVSS	—	Ground
64 to 69	KEY0 to KEY5	I	Key input (A/D port)
70 to 74	BPF1-F02 to BPF1-F06	I	Spectrum analyzer BPF signal input
75	ALL BAND	I	L+R signal input
76	LED-SCK	O	Serial clock output to LED driver
77	RESET	I	Reset input
78	LED-DAT	O	Serial data output to LED driver
79	LED-LATCH	O	Latch signal output to LED driver
80	LED-SELA	O	LED group A select signal output
81	VSS-CPU	—	Ground
82	XOUT	O	Crystal oscillator output (4MHz)
83	XIN	I	Crystal oscillator input (4MHz)
84	VCC-CPU	—	Power supply (+3.3V)
85 to 100	NO USED	O	Not used (open)

6-26. IC BLOCK DIAGRAMS

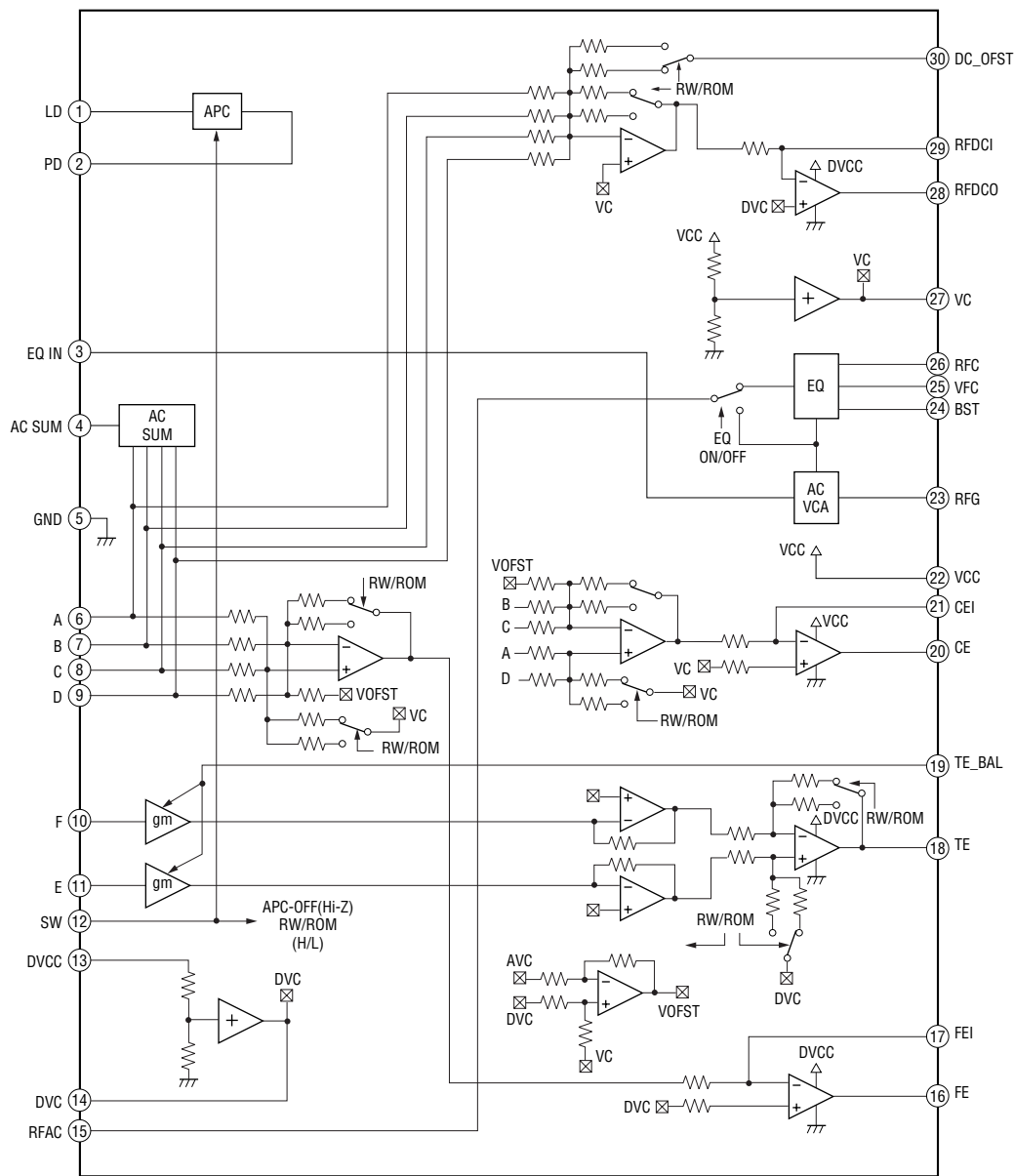
IC101 CXD3017Q (BD BOARD)



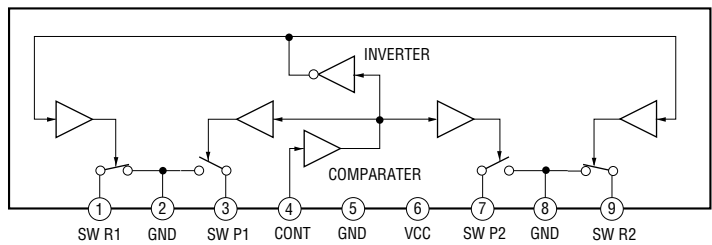
IC102 BA5974FM-E2 (BD BOARD)



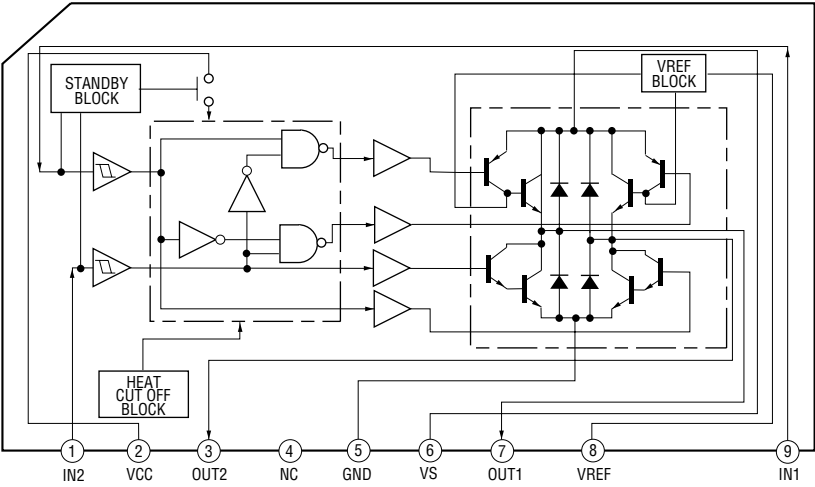
IC103 CXA2581N-T4 (BD BOARD)



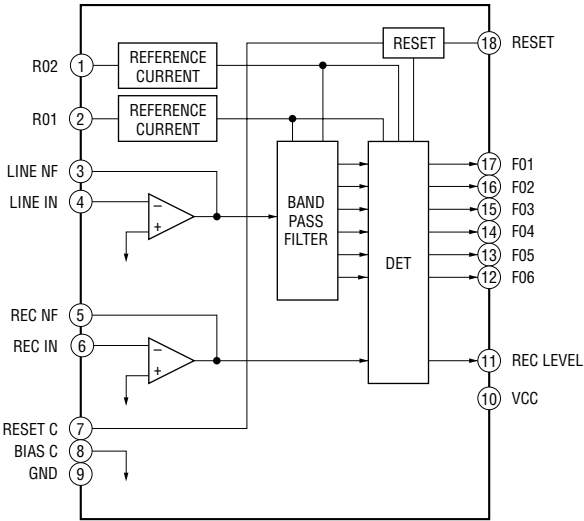
IC321 μ PC1330HA (MAIN BOARD (3/3))



IC201 TA8409S (MOTOR BOARD)





IC602 BA3830F (PANEL FL BOARD)



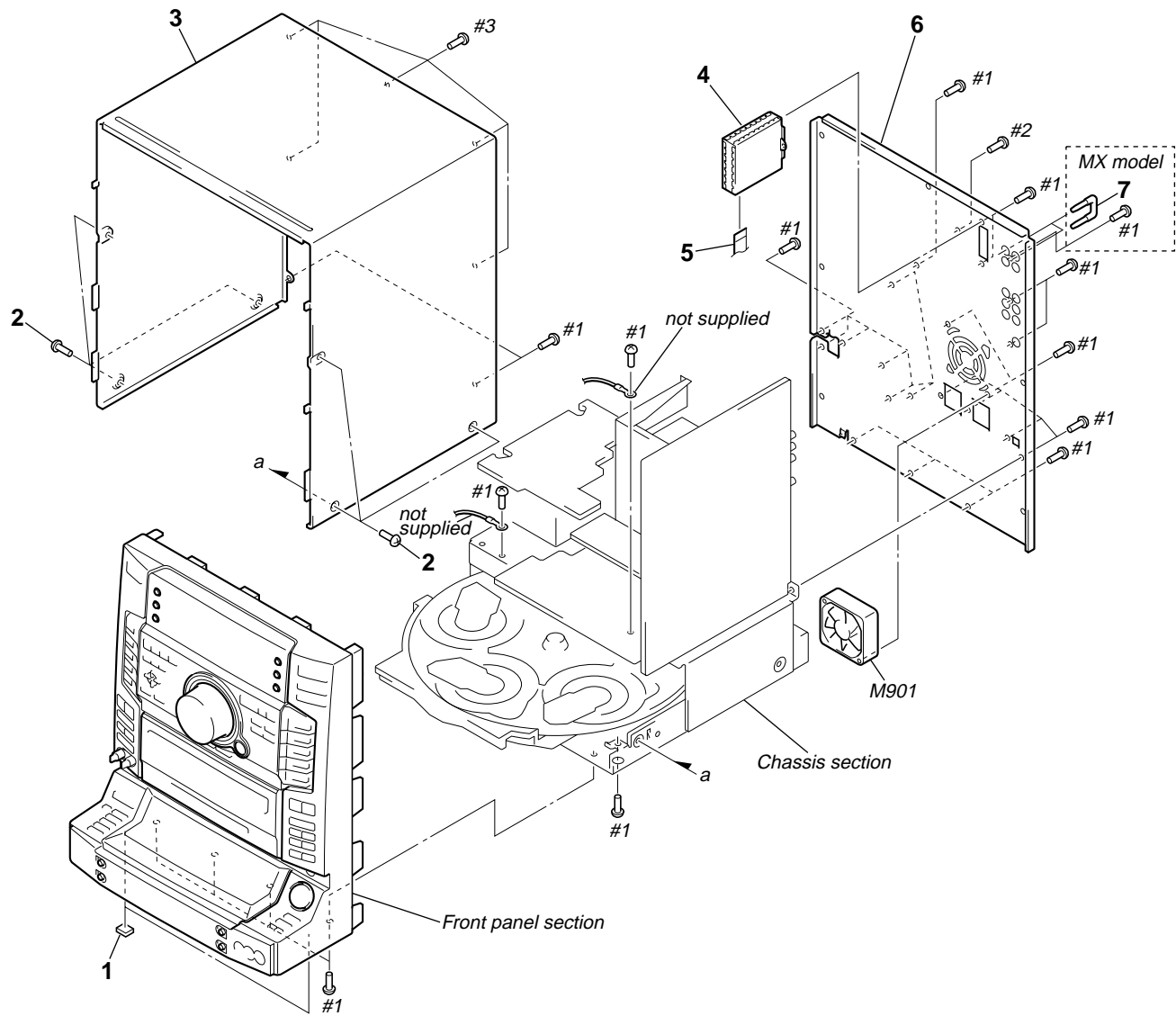
SECTION 7
EXPLODED VIEWS

- 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 are given in the last of this parts list.
- Abbreviation
MX : Mexican model
E51 : Chilean and Peruvian model
AR : Argentina model

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

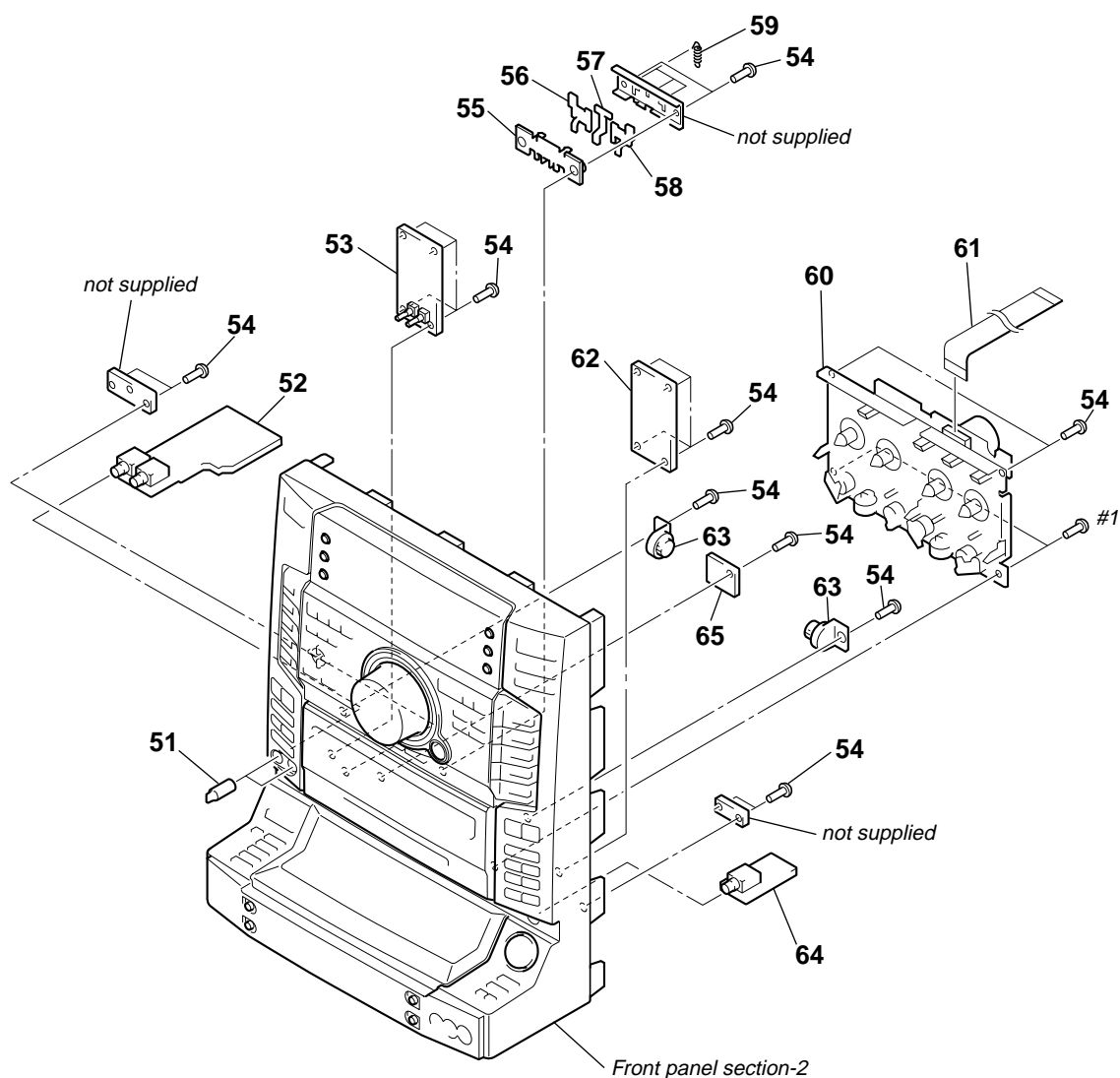
7-1. CASE, BACK PANEL SECTION



Ref. No.	Part No.	Description	Remarks
1	4-948-236-21	CUSHION (107)	
2	3-363-099-01	SCREW (CASE 3 TP2)	
3	4-237-661-11	CASE	
4	1-693-572-11	TUNER (FM/AM) (AR,MX)	
4	1-693-574-11	TUNER (FM/AM) (E,E51)	
5	1-769-945-11	WIRE (FLAT TYPE) (11 CORE)	
6	4-237-748-61	PANEL, BACK (E)	
6	4-237-748-71	PANEL, BACK (E51)	

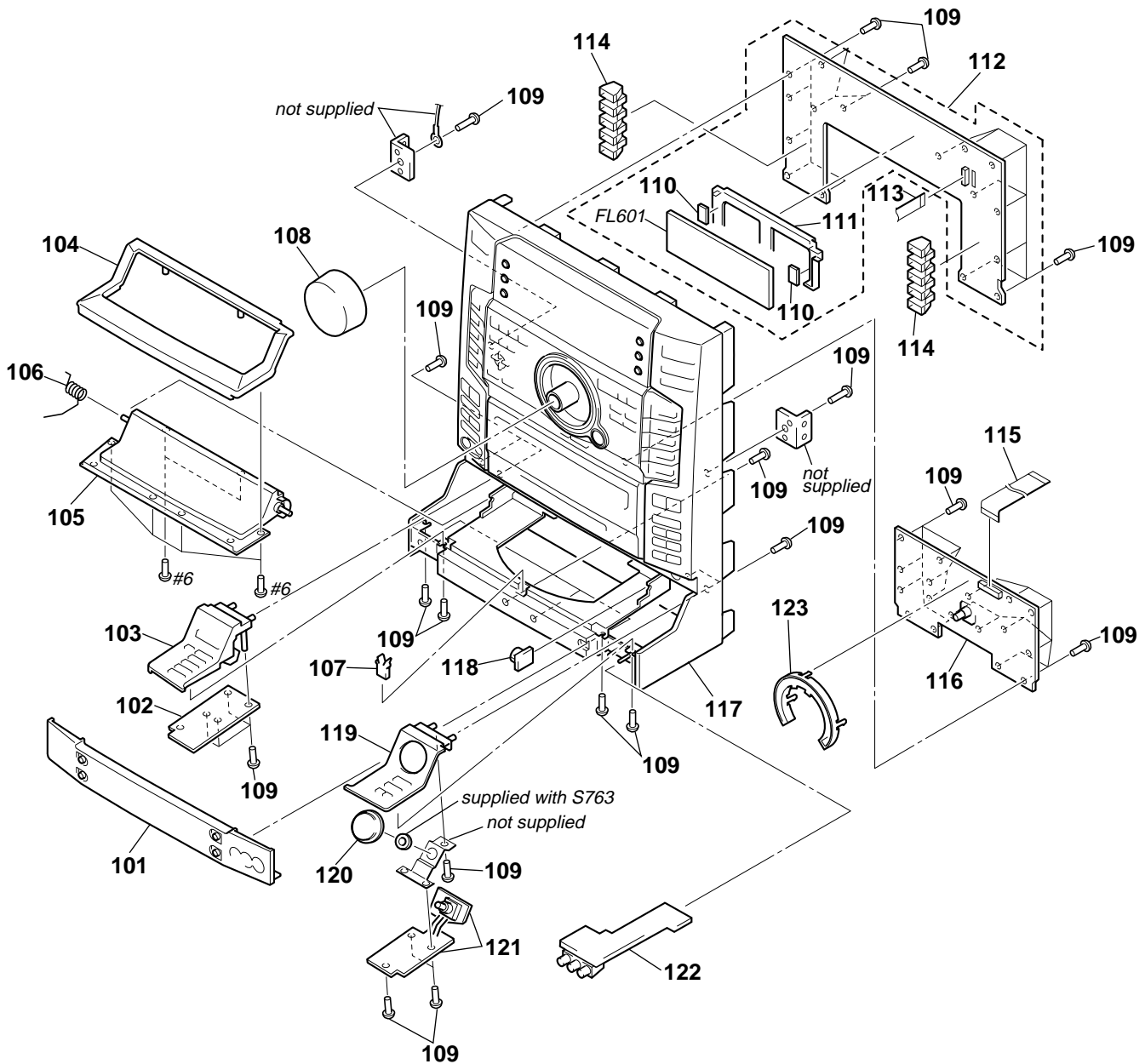
Ref. No.	Part No.	Description	Remarks
6	4-237-748-81	PANEL, BACK (MX)	
6	4-237-748-91	PANEL, BACK (AR)	
7	1-535-706-21	PLUG, JUMPER (MX)	
M901	1-763-072-11	FAN, DC	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-872-09	SCREW +BVTT 3X8 (S)	
#3	7-685-871-01	SCREW +BVTT 3X6 (S)	

7-2. FRONT PANEL SECTION-1



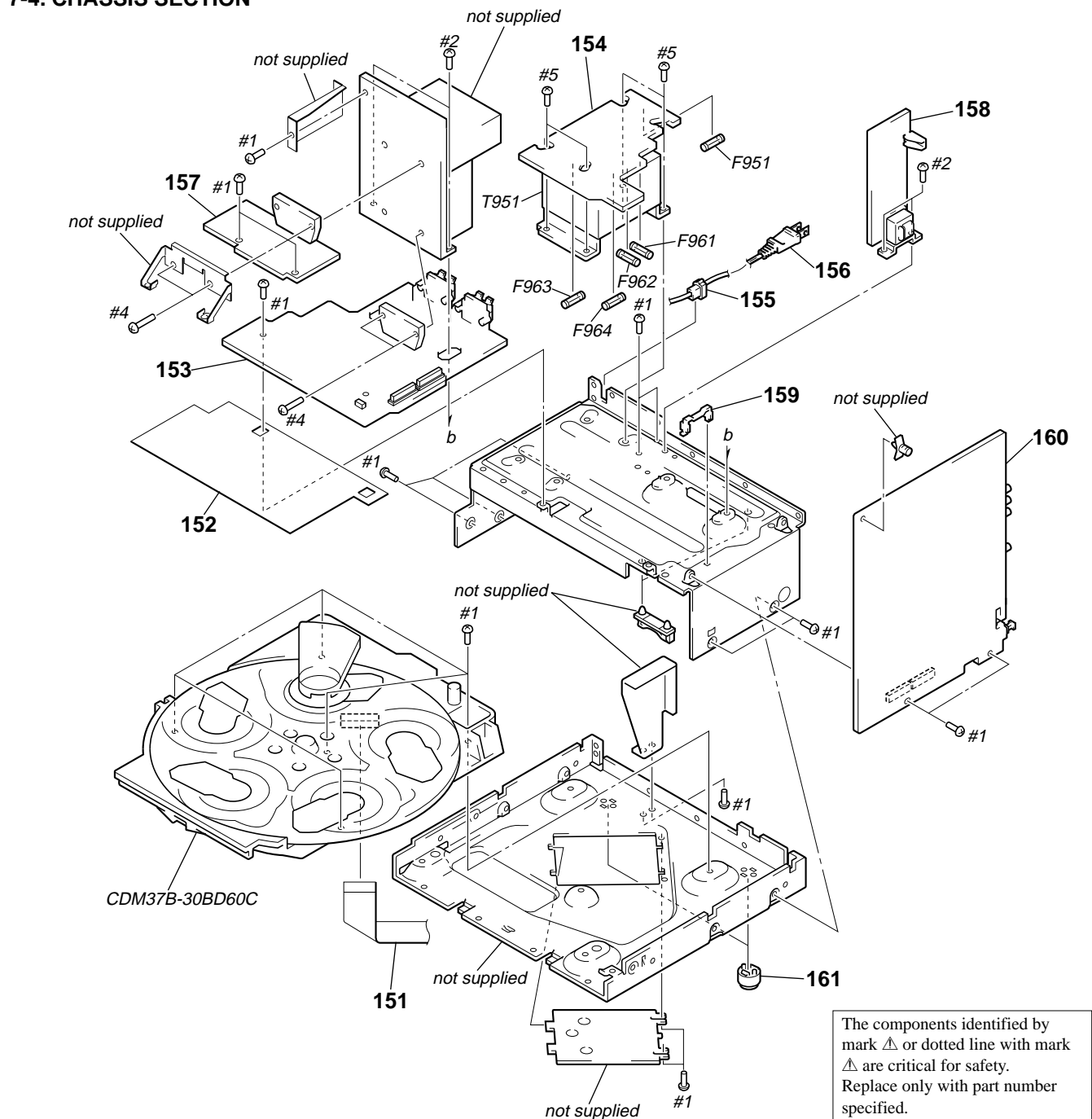
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	4-237-635-01	KNOB (MIC)		59	4-237-659-01	SPRING (LEVER)	
52	A-4727-633-A	MIC/GUITAR BOARD, COMPLETE		60	1-796-333-11	DECK, MECHANICAL	
53	1-683-448-11	TC-A BOARD					
54	4-951-620-01	SCREW (2.6X8), +BVTP		61	1-773-021-11	WIRE (FLAT TYPE) (15 CORE)	
55	4-237-648-01	COVER (EJECT)		62	1-683-449-11	TC-B BOARD	
				63	3-354-963-01	DAMPER	
56	4-237-645-01	LEVER (EJECT-A)		64	1-683-450-11	HEADPHONE BOARD	
57	4-237-647-01	LEVER (EJECT-C)		65	1-684-683-11	D-SW BOARD	
58	4-237-646-01	LEVER (EJECT-B)					
				#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	

7-3. FRONT PANEL SECTION-2



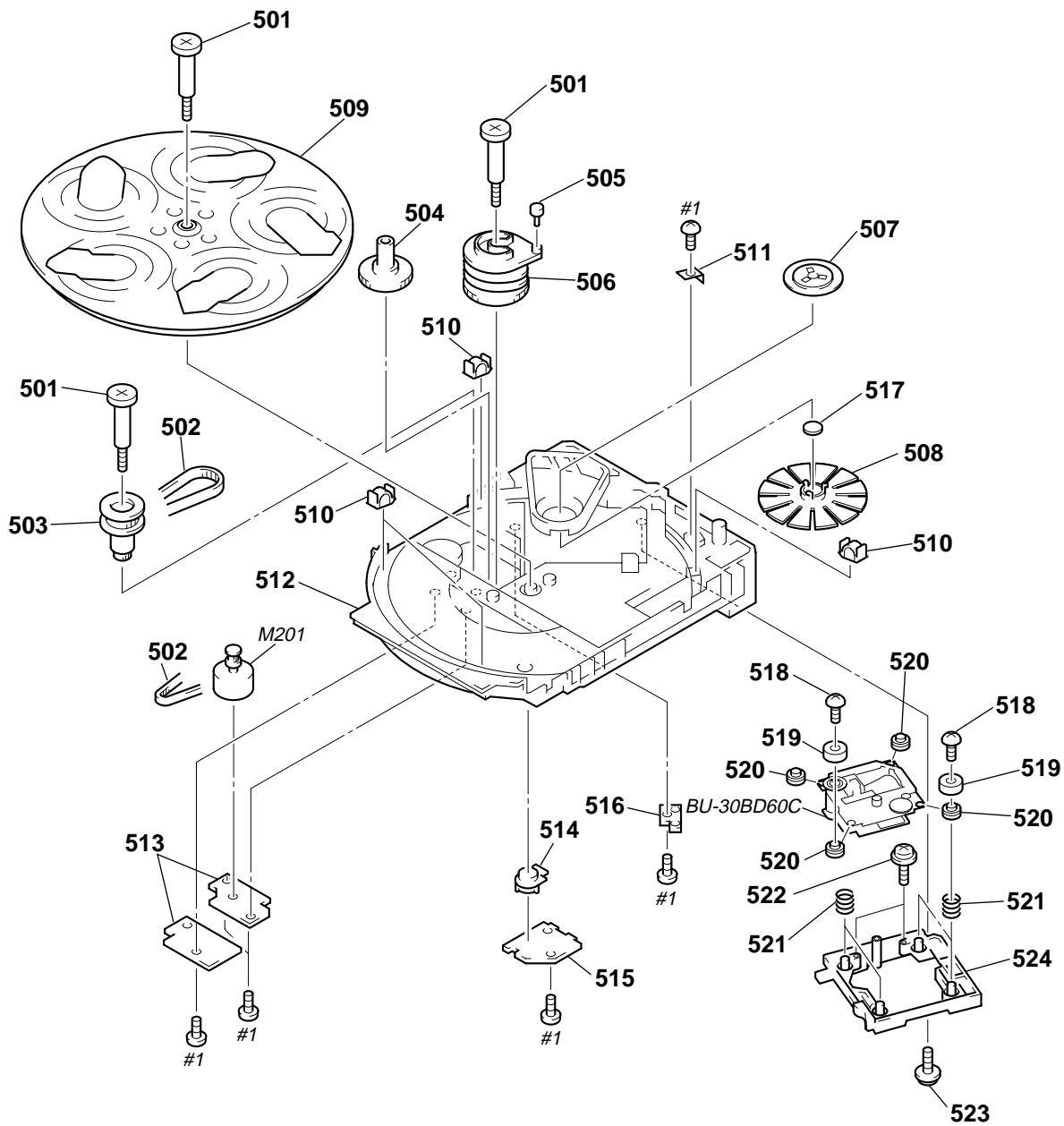
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
101	4-237-649-21	BUMPER (PANEL)		113	1-773-118-11	WIRE (FLAT TYPE) (19 CORE)	
102	1-683-452-11	CD-L BOARD		114	4-237-639-01	HOLDER (LED 1)	
103	X-4954-371-1	SUB PANEL (CD-L) ASSY		115	1-773-178-11	WIRE (FLAT TYPE) (23 CORE)	
104	4-237-638-01	LID(CD)		116	A-4727-624-A	PANEL VR BOARD, COMPLETE	
105	4-237-630-01	WINDOW (CD)		117	X-4954-378-1	FRONT PANEL ASSY	
106	4-237-658-01	SPRING (CD)		118	4-224-104-01	DAMPER	
107	4-040-472-01	LATCH, D.C.		119	X-4954-372-1	SUB PANEL (CD-R) ASSY	
108	4-237-634-01	KNOB (VOLUME)		120	4-237-636-01	KNOB (CD)	
109	4-951-620-01	SCREW (2.6X8), +BVTP		121	1-683-453-11	CD-R BOARD	
* 110	4-949-935-81	CUSHION (FL)		122	1-683-454-11	FRONT INPUT BOARD	
111	4-225-511-01	HOLDER FL TUBE		123	4-237-640-01	HOLDER (LED 2)	
112	A-4727-623-A	PANEL FL BOARD, COMPLETE		FL601	1-518-794-11	INDICATOR TUBE, FLUORESCENT	
				#6	7-685-533-19	SCREW +BTP 2.6X6 TYPE2 N-S	

7-4. CHASSIS SECTION



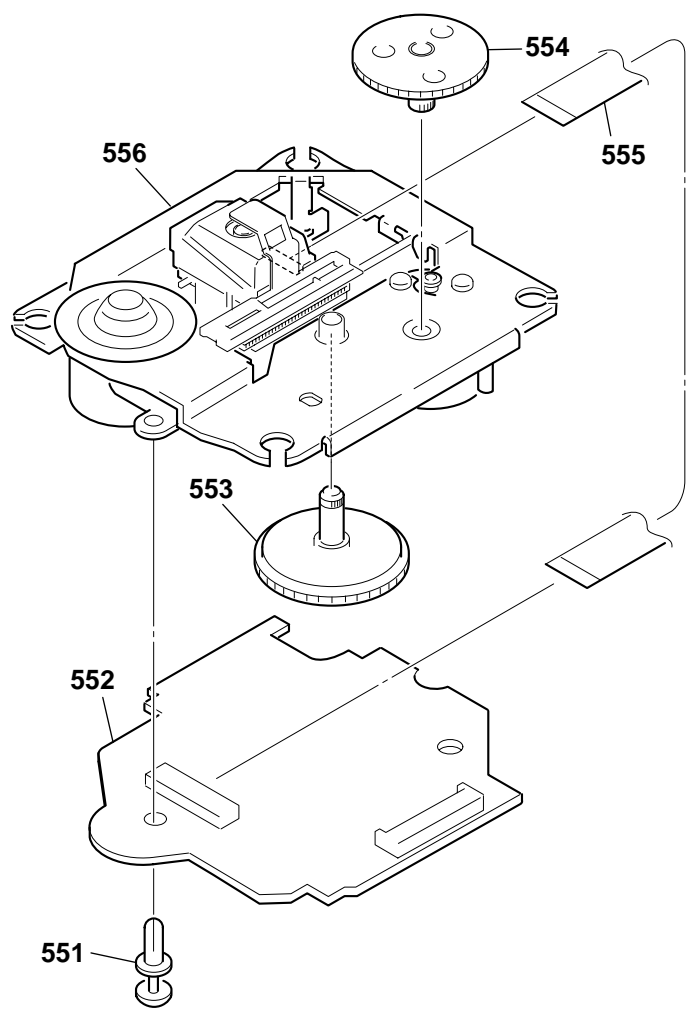
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
151	1-823-750-11	WIRE (FLAT TYPE) (21 CORE)		160	A-4728-676-A	MAIN BOARD, COMPLETE (MX)	
152	4-235-701-01	DUST COVER		161	X-494-122-81	FOOT (F22125H-M)	
153	A-4727-660-A	PA BOARD, COMPLETE		Δ F951	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8.0AL 250V)(AR,E,E51)	
154	1-683-444-11	TRANS BOARD		Δ F961	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8.0AL 250V)	
155	3-703-244-00	BUSHING (FBS001), CORD (AR,E51)		Δ F962	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8.0AL 250V)	
155	4-966-266-01	BUSHING (S) (FBS002), CORD (E,MX)		Δ F963	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8.0AL 250V)	
Δ 156	1-575-653-11	CORD, POWER (MX)		Δ F964	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8.0AL 250V)	
Δ 156	1-777-071-82	CORD, POWER (E51)		Δ T951	1-437-593-11	TRANSFORMER, POWER	
Δ 156	1-783-941-12	CORD, POWER (AR)		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
Δ 156	1-791-901-11	CORD, POWER (E)		#2	7-685-872-09	SCREW +BVTT 3X8 (S)	
157	A-4727-659-A	SUB AMP BOARD, COMPLETE		#4	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
158	1-683-445-11	SUB TRANS BOARD		#5	7-685-881-09	SCREW +BVTT 4X8 (S)	
* 159	4-988-533-01	HOLDER, PWB					
160	A-4727-663-A	MAIN BOARD, COMPLETE (AR,E,E51)					

7-5. CD MECHANISM DECK SECTION (CDM-30BD60C)



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
501	4-987-976-01	SCREW, STEP		* 515	1-659-059-13	LED BOARD	
502	4-944-490-01	BELT (TIMING)					
503	A-4660-978-A	GEAR (PULLEY) ASSY		* 516	1-659-058-13	SENSOR BOARD	
504	4-978-421-01	GEAR (MID)		517	4-228-414-01	BRACKET (YOKE)	
505	4-978-425-01	ROLLER (CAM)		518	4-951-620-01	SCREW (2.6X8), +BVTP	
506	4-978-420-01	CAM (HOLDER)		519	4-231-151-01	STOPPER (BU)	
507	4-237-981-01	PULLEY (B) (30), CHUCKING		520	4-231-451-11	INSULATOR (BU-30)	
508	X-4953-307-1	PULLEY (A) ASSY, CHUCKING		521	4-227-045-11	SPRING (INSULATOR), COIL	
509	4-238-261-01	TABLE, DISK		522	4-227-899-01	SCREW (DIA. 12), FLOATING	
510	X-4947-960-1	ROLLER ASSY		523	4-998-716-01	SCREW, BU FITTING	
* 511	4-978-583-01	BRACKET (BU)		524	X-4954-451-1	HOLDER (BU30) ASSY	
512	4-238-260-01	CHASSIS		M201	A-4660-977-A	MOTOR ASSY	
* 513	A-4673-765-A	MOTOR BOARD, COMPLETE		#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
514	4-978-426-01	INDICATOR (NO.)					

7-6. BASE UNIT SECTION
(BU-30BD60C)



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
551	3-531-576-11	RIVET		556	A-4735-188-A	BU-30 (60) ASSY	
552	A-4728-678-A	BD BOARD, COMPLETE					
553	4-233-832-01	GEAR (LB)					
554	4-233-831-01	GEAR (LA)					
555	1-757-710-11	WIRE (FLAT TYPE) (16 CORE)					

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
MX : Mexican model
E51 : Chilean and Peruvian model
AR : Argentina model

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

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

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
	A-4728-678-A	BD BOARD, COMPLETE *****		C193	1-104-665-11	ELECT 100uF 20%	10V
		< CAPACITOR >		C194	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C101	1-162-967-11	CERAMIC CHIP 0.0033uF 10%	50V	C195	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C102	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	C196	1-164-360-11	CERAMIC CHIP 0.1uF	16V
C103	1-162-962-11	CERAMIC CHIP 470PF 10%	50V	C197	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C104	1-162-962-11	CERAMIC CHIP 470PF 10%	50V	C198	1-124-584-00	ELECT 100uF 20%	10V
C108	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V			< CONNECTOR >	
C109	1-162-965-11	CERAMIC CHIP 0.0015uF 10%	50V	CN101	1-568-864-11	CONNECTOR, FFC 21P	
C110	1-162-967-11	CERAMIC CHIP 0.0033uF 10%	50V	CN102	1-793-907-11	CONNECTOR, FFC/FPC 16P	
C111	1-162-927-11	CERAMIC CHIP 100PF 5%	50V			< DIODE >	
C112	1-125-837-91	CERAMIC CHIP 1uF 10%	6.3V	D101	8-719-083-58	DIODE UDZSTE-173.9B	
C114	1-164-360-11	CERAMIC CHIP 0.1uF	16V			< FERRITE BEAD >	
C116	1-104-665-11	ELECT 100uF 20%	10V	FB101	1-500-445-21	FERRITE 0UH	
C117	1-104-665-11	ELECT 100uF 20%	10V	FB102	1-500-445-21	FERRITE 0UH	
C118	1-162-964-11	CERAMIC CHIP 0.001uF 10%	50V			< IC >	
C121	1-164-360-11	CERAMIC CHIP 0.1uF	16V	IC101	8-752-402-31	IC CXD3017Q	
C122	1-124-584-00	ELECT 100uF 20%	10V	IC102	8-759-827-41	IC BA5974FM-E2	
C123	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	IC103	8-752-089-74	IC CXA2581N-T4	
C124	1-125-891-11	CERAMIC CHIP 0.47uF 10%	10V			< JUMPER RESISTOR >	
C125	1-164-360-11	CERAMIC CHIP 0.1uF	16V	JR101	1-216-864-11	METAL CHIP 0 5%	1/16W
C126	1-164-360-11	CERAMIC CHIP 0.1uF	16V	JR102	1-216-864-11	METAL CHIP 0 5%	1/16W
C127	1-124-584-00	ELECT 100uF 20%	10V	JR103	1-216-864-11	METAL CHIP 0 5%	1/16W
C129	1-162-974-11	CERAMIC CHIP 0.01uF	50V	JR104	1-216-864-11	METAL CHIP 0 5%	1/16W
C130	1-164-360-11	CERAMIC CHIP 0.1uF	16V	JR105	1-216-864-11	METAL CHIP 0 5%	1/16W
C131	1-104-665-11	ELECT 100uF 20%	10V	JR106	1-216-864-11	METAL CHIP 0 5%	1/16W
C133	1-162-921-11	CERAMIC CHIP 33PF 5%	50V	JR122	1-216-296-11	SHORT 0	
C143	1-164-360-11	CERAMIC CHIP 0.1uF	16V	JR123	1-216-296-11	SHORT 0	
C145	1-164-360-11	CERAMIC CHIP 0.1uF	16V	JR124	1-216-296-11	SHORT 0	
C153	1-164-360-11	CERAMIC CHIP 0.1uF	16V	JR125	1-216-296-11	SHORT 0	
C159	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V			< COIL >	
C162	1-104-665-11	ELECT 100uF 20%	10V	L101	1-469-553-21	INDUCTOR 4.7uH	
C165	1-164-360-11	CERAMIC CHIP 0.1uF	16V			< TRANSISTOR >	
C167	1-162-919-11	CERAMIC CHIP 22PF 5%	50V	Q101	8-729-049-31	TRANSISTOR 2SB710A-RTX	
C168	1-162-921-11	CERAMIC CHIP 33PF 5%	50V	Q102	8-729-920-85	TRANSISTOR 2SD1664-T100-QR	
C171	1-115-412-11	CERAMIC CHIP 680PF 5%	25V			< RESISTOR >	
C172	1-162-927-11	CERAMIC CHIP 100PF 5%	50V	R101	1-216-821-11	METAL CHIP 1K 5%	1/16W
C181	1-115-412-11	CERAMIC CHIP 680PF 5%	25V	R102	1-216-845-11	METAL CHIP 100K 5%	1/16W
C182	1-162-927-11	CERAMIC CHIP 100PF 5%	50V				
C183	1-164-227-11	CERAMIC CHIP 0.022uF 10%	25V				
C184	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V				
C185	1-125-837-91	CERAMIC CHIP 1uF 10%	6.3V				
C190	1-115-156-11	CERAMIC CHIP 1uF	10V				
C191	1-124-584-00	ELECT 100uF 20%	10V				
C192	1-164-360-11	CERAMIC CHIP 0.1uF	16V				

BD CD-L CD-R D-SW FRONT INPUT

61

HCD-XGR80

FRONT INPUT	HEADPHONE	LED	MAIN
-------------	-----------	-----	------

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
C702	1-162-294-31	CERAMIC	0.001uF	10%	50V	C115	1-126-795-11	ELECT	10uF	20%	50V
C703	1-115-871-11	ELECT	1uF	20%	50V	C116	1-130-487-00	MYLAR	0.022uF	5%	50V
C704	1-164-159-21	CERAMIC	0.1uF		50V	C117	1-130-487-00	MYLAR	0.022uF	5%	50V
C705	1-162-282-31	CERAMIC	100PF	10%	50V	C118	1-126-795-11	ELECT	10uF	20%	50V
		< FILTER >				C119	1-130-489-00	MYLAR	0.033uF	5%	50V
FL730	1-424-228-11	FILTER, NOISE				C120	1-130-479-00	MYLAR	0.0047uF	5%	50V
		< JACK >				C121	1-126-795-11	ELECT	10uF	20%	50V
J804	1-815-310-11	JACK 3P (GAME INPUT)				C122	1-136-171-00	FILM	0.33uF	5%	50V
		< RESISTOR >				C123	1-136-171-00	FILM	0.33uF	5%	50V
R721	1-249-437-11	CARBON	47K	5%	1/4W	C124	1-126-961-11	ELECT	2.2uF	20%	50V
R722	1-249-417-11	CARBON	1K	5%	1/4W F	C131	1-130-493-00	MYLAR	0.068uF	5%	50V
R723	1-249-437-11	CARBON	47K	5%	1/4W	C132	1-125-972-91	ELECT	100uF	20%	16V
R724	1-247-804-11	CARBON	75	5%	1/4W	C133	1-126-795-11	ELECT	10uF	20%	50V
R725	1-249-417-11	CARBON	1K	5%	1/4W F	C134	1-162-974-11	CERAMIC CHIP	0.01uF		50V
*****						C135	1-124-589-11	ELECT	47uF	20%	16V
	1-683-450-11	HEADPHONE BOARD				C136	1-126-795-11	ELECT	10uF	20%	50V
		*****				C137	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
		< CAPACITOR >				C138	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C891	1-162-294-31	CERAMIC	0.001uF	10%	50V	C160	1-126-795-11	ELECT	10uF	20%	50V
C892	1-162-294-31	CERAMIC	0.001uF	10%	50V	C161	1-126-795-11	ELECT	10uF	20%	50V
C893	1-164-159-21	CERAMIC	0.1uF		50V	C162	1-126-795-11	ELECT	10uF	20%	50V
		< JAACK >				C163	1-126-795-11	ELECT	10uF	20%	50V
J891	1-770-226-11	JACK (LARGE TYPE) (PHONES)				C164	1-126-795-11	ELECT	10uF	20%	50V
		< RESISTOR >				C165	1-126-795-11	ELECT	10uF	20%	50V
R891	1-247-807-31	CARBON	100	5%	1/4W	C166	1-130-487-00	MYLAR	0.022uF	5%	50V
*****						C167	1-130-487-00	MYLAR	0.022uF	5%	50V
*	1-659-059-13	LED BOARD				C168	1-126-795-11	ELECT	10uF	20%	50V
		*****				C169	1-130-489-00	MYLAR	0.033uF	5%	50V
		< DIODE >				C170	1-130-479-00	MYLAR	0.0047uF	5%	50V
D201	8-719-032-98	DIODE SEL5820A (DISC No.)				C171	1-126-795-11	ELECT	10uF	20%	50V
		< TRANSISTOR >				C172	1-136-171-00	FILM	0.33uF	5%	50V
Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE				C173	1-136-171-00	FILM	0.33uF	5%	50V
		< RESISTOR >				C174	1-126-961-11	ELECT	2.2uF	20%	50V
R201	1-249-433-11	CARBON	22K	5%	1/4W	C181	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R202	1-249-411-11	CARBON	330	5%	1/4W	C182	1-164-156-11	CERAMIC CHIP	0.1uF		25V
R203	1-249-437-11	CARBON	47K	5%	1/4W	C183	1-164-156-11	CERAMIC CHIP	0.1uF		25V
*****						C301	1-130-483-00	MYLAR	0.01uF	5%	50V
	A-4727-663-A	MAIN BOARD, COMPLETE (AR,E,E51)				C302	1-126-964-11	ELECT	10uF	20%	50V
	A-4728-676-A	MAIN BOARD, COMPLETE (MX)				C303	1-136-165-00	FILM	0.1uF	5%	50V
		*****				C304	1-126-964-11	ELECT	10uF	20%	50V
	4-875-327-31	HEAT SINK				C305	1-136-165-00	FILM	0.1uF	5%	50V
	4-948-236-21	CUSHION (107)				C306	1-126-961-11	ELECT	2.2uF	20%	50V
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S				C307	1-126-947-11	ELECT	47uF	20%	16V
		< CAPACITOR >				C308	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C110	1-126-795-11	ELECT	10uF	20%	50V	C309	1-164-392-11	CERAMIC CHIP	390PF	10%	50V
C111	1-126-795-11	ELECT	10uF	20%	50V	C310	1-126-964-11	ELECT	10uF	20%	50V
C112	1-126-795-11	ELECT	10uF	20%	50V	C311	1-126-933-11	ELECT	100uF	20%	16V
C113	1-126-795-11	ELECT	10uF	20%	50V	C312	1-126-964-11	ELECT	10uF	20%	50V
C114	1-126-795-11	ELECT	10uF	20%	50V	C313	1-126-964-11	ELECT	10uF	20%	50V
						C321	1-126-964-11	ELECT	10uF	20%	50V
						C322	1-135-575-11	MYLAR	120PF	5%	50V
						C323	1-135-575-11	MYLAR	120PF	5%	50V
						C324	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
						C325	1-162-961-11	CERAMIC CHIP	330PF	10%	50V
						C326	1-162-946-11	CERAMIC CHIP	27PF	5%	50V
						C327	1-162-946-11	CERAMIC CHIP	27PF	5%	50V
						C328	1-162-974-11	CERAMIC CHIP	0.01uF		50V
						C329	1-162-974-11	CERAMIC CHIP	0.01uF		50V
						C331	1-137-150-11	MYLAR	0.01uF	5%	100V
						C332	1-126-961-11	ELECT	2.2uF	20%	50V

63

HCD-XGR80

MAIN

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
CN722	1-691-767-11	PLUG (MICRO CONNECTOR) 5P		JR2	1-216-295-91	SHORT	0
CN901	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P		JR3	1-216-295-91	SHORT	0
CN902	1-778-982-21	CONNECTOR, BOARD TO BOARD 13P		JR4	1-216-295-91	SHORT	0
CN903	1-785-315-11	PIN, CONNECTOR (STRAIGHT) 3P		JR5	1-216-295-91	SHORT	0
CN961	1-564-506-11	PLUG, CONNECTOR 3P		JR6	1-216-295-91	SHORT	0
< DIODE >				JR7	1-216-295-91	SHORT	0
D381	8-719-988-61	DIODE 1SS355TE-17		JR12	1-216-295-91	SHORT	0
D382	8-719-988-61	DIODE 1SS355TE-17		JR13	1-216-296-11	SHORT	0
D431	8-719-988-61	DIODE 1SS355TE-17		JR14	1-216-296-11	SHORT	0
D801	8-719-988-61	DIODE 1SS355TE-17		JR15	1-216-295-91	SHORT	0
D802	8-719-988-61	DIODE 1SS355TE-17		JR16	1-216-295-91	SHORT	0
D803	8-719-988-61	DIODE 1SS355TE-17		JR17	1-216-295-91	SHORT	0
D804	8-719-988-61	DIODE 1SS355TE-17		JR18	1-216-295-91	SHORT	0
D805	8-719-988-61	DIODE 1SS355TE-17		JR19	1-216-296-11	SHORT	0
D806	8-719-988-61	DIODE 1SS355TE-17		JR20	1-216-295-91	SHORT	0
D807	8-719-988-61	DIODE 1SS355TE-17		JR21	1-216-295-91	SHORT	0
D808	8-719-988-61	DIODE 1SS355TE-17		JR22	1-216-295-91	SHORT	0
D809	8-719-210-33	DIODE EC10DS2		JR23	1-216-295-91	SHORT	0
D810	8-719-210-33	DIODE EC10DS2		JR25	1-216-295-91	SHORT	0
D911	8-719-210-33	DIODE EC10DS2		JR26	1-216-295-91	SHORT	0
D912	8-719-210-33	DIODE EC10DS2		JR27	1-216-295-91	SHORT	0
D913	8-719-210-33	DIODE EC10DS2		JR28	1-216-296-11	SHORT	0
D961	8-719-210-33	DIODE EC10DS2 (AR,E,E51)		JR29	1-216-295-91	SHORT	0
D962	8-719-210-33	DIODE EC10DS2 (AR,E,E51)		JR30	1-216-296-11	SHORT	0
D963	8-719-210-33	DIODE EC10DS2 (AR,E,E51)		JR31	1-216-295-91	SHORT	0
D964	8-719-210-33	DIODE EC10DS2 (AR,E,E51)		JR181	1-216-295-91	SHORT	0
D965	8-719-210-33	DIODE EC10DS2 (AR,E,E51)		JR182	1-216-295-91	SHORT	0
< FERRITE BEAD >				JR723	1-216-295-91	SHORT	0
FB402	1-414-772-11	FERRITE 0UH		< COIL >			
FB403	1-414-772-11	FERRITE 0UH		L301	1-412-032-11	INDUCTOR CHIP 100uH	
FB404	1-414-772-11	FERRITE 0UH		L321	1-410-780-11	INDUCTOR 27MH	
FB516	1-414-772-11	FERRITE 0UH		L322	1-410-780-11	INDUCTOR 27MH	
FB562	1-414-772-11	FERRITE 0UH		L451	1-412-032-11	INDUCTOR CHIP 100uH	
FB599	1-414-772-11	FERRITE 0UH		< TRANSISTOR >			
< IC >				Q111	8-729-048-96	TRANSISTOR 2SK1825	
IC111	6-701-686-01	IC M61519FPD60G		Q112	8-729-048-96	TRANSISTOR 2SK1825	
IC181	8-759-009-06	IC MC14052BFEL		Q113	8-729-048-96	TRANSISTOR 2SK1825	
IC301	6-702-130-01	IC HA12237F		Q114	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC321	8-759-143-54	IC uPC1330HA		Q115	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC341	8-759-100-96	IC NJM4558M-TE2		Q116	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC451	8-749-019-25	IC TOTX141		Q161	8-729-048-96	TRANSISTOR 2SK1825	
IC501	6-801-051-01	IC M30620MCN-A01FP		Q162	8-729-048-96	TRANSISTOR 2SK1825	
IC601	8-759-100-96	IC NJM4558M-TE2		Q163	8-729-048-96	TRANSISTOR 2SK1825	
IC801	8-759-532-64	IC M62703SL-TP		Q164	8-729-141-30	TRANSISTOR 2SC3623A-LK	
IC911	8-759-231-09	IC TA8662N		Q165	8-729-029-40	TRANSISTOR DTA124ESA	
IC921	8-759-039-69	IC uPC7805AHF		Q166	8-729-620-05	TRANSISTOR 2SC2603-EF	
IC922	6-701-760-01	IC uPC3504AHF		Q167	8-729-029-40	TRANSISTOR DTA124ESA	
IC931	8-759-604-32	IC M5F7810L		Q168	8-729-029-86	TRANSISTOR DTC124ESA	
IC961	8-759-088-08	IC uPC7812AHF (MX)		Q169	8-729-029-40	TRANSISTOR DTA124ESA	
< JACK >				Q170	8-729-029-86	TRANSISTOR DTC124ESA	
J701	1-691-887-11	JACK, PIN 6P (PHONO IN, MD IN/OUT)		Q181	8-729-029-86	TRANSISTOR DTC124ESA	
J702	1-573-028-31	JACK, PIN 4P (DJ MIX)(MX)		Q182	8-729-029-86	TRANSISTOR DTC124ESA	
J721	1-774-227-11	JACK, PIN 1P (VIDEO OUT)		Q321	8-729-029-86	TRANSISTOR DTC124ESA	
< JUMPER RESISTOR >				Q322	8-729-029-40	TRANSISTOR DTA124ESA	
JR1	1-216-295-91	SHORT	0	Q331	8-729-113-07	TRANSISTOR 2SC2001TP-K	
				Q332	8-729-113-07	TRANSISTOR 2SC2001TP-K	
				Q333	8-729-801-93	TRANSISTOR 2SD1387	
				Q334	8-729-029-86	TRANSISTOR DTC124ESA	
				Q335	8-729-140-04	TRANSISTOR 2SB1116A-L	

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks		
Q341	8-729-620-05	TRANSISTOR	2SC2603-EF			R137	1-216-295-91	SHORT	0		
Q342	8-729-029-86	TRANSISTOR	DTC124ESA			R138	1-216-295-91	SHORT	0		
Q343	8-729-029-86	TRANSISTOR	DTC124ESA			R161	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
Q344	8-729-029-86	TRANSISTOR	DTC124ESA			R162	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q345	8-729-029-86	TRANSISTOR	DTC124ESA			R163	1-216-857-11	METAL CHIP	1M	5%	1/16W
Q381	8-729-140-04	TRANSISTOR	2SB1116A-L			R165	1-216-841-11	METAL CHIP	47K	5%	1/16W
Q382	8-729-029-86	TRANSISTOR	DTC124ESA			R166	1-216-841-11	METAL CHIP	47K	5%	1/16W
Q383	8-729-140-04	TRANSISTOR	2SB1116A-L			R167	1-216-849-11	METAL CHIP	220K	5%	1/16W
Q384	8-729-029-86	TRANSISTOR	DTC124ESA			R168	1-216-849-11	METAL CHIP	220K	5%	1/16W
Q385	8-729-116-59	TRANSISTOR	2SB1068TP			R169	1-216-819-11	METAL CHIP	680	5%	1/16W
Q386	8-729-029-86	TRANSISTOR	DTC124ESA			R170	1-216-849-11	METAL CHIP	220K	5%	1/16W
Q387	8-729-029-86	TRANSISTOR	DTC124ESA			R171	1-216-855-11	METAL CHIP	680K	5%	1/16W
Q388	8-729-048-96	TRANSISTOR	2SK1825			R172	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
Q401	8-729-141-30	TRANSISTOR	2SC3623A-LK			R173	1-216-845-11	METAL CHIP	100K	5%	1/16W
Q402	8-729-141-30	TRANSISTOR	2SC3623A-LK			R174	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q411	8-729-029-86	TRANSISTOR	DTC124ESA			R176	1-216-081-00	METAL CHIP	22K	5%	1/10W
Q412	8-729-029-86	TRANSISTOR	DTC124ESA			R179	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q451	8-729-620-05	TRANSISTOR	2SC2603-EF			R180	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q452	8-729-119-76	TRANSISTOR	2SA1175-HFE			R181	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q453	8-729-119-76	TRANSISTOR	2SA1175-HFE			R182	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q454	8-729-620-05	TRANSISTOR	2SC2603-EF			R301	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
Q611	8-729-620-05	TRANSISTOR	2SC2603-EF			R302	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
Q701	8-729-141-30	TRANSISTOR	2SC3623A-LK			R304	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
Q751	8-729-141-30	TRANSISTOR	2SC3623A-LK			R305	1-216-841-11	METAL CHIP	47K	5%	1/16W
Q801	8-729-620-05	TRANSISTOR	2SC2603-EF			R308	1-216-081-00	METAL CHIP	22K	5%	1/10W
Q802	8-729-029-86	TRANSISTOR	DTC124ESA			R309	1-216-857-11	METAL CHIP	1M	5%	1/16W
Q803	8-729-029-40	TRANSISTOR	DTA124ESA			R310	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q805	8-729-029-40	TRANSISTOR	DTA124ESA			R311	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
Q806	8-729-029-86	TRANSISTOR	DTC124ESA			R318	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q809	8-729-029-86	TRANSISTOR	DTC124ESA			R319	1-216-845-11	METAL CHIP	100K	5%	1/16W
Q810	8-729-029-40	TRANSISTOR	DTA124ESA			R321	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q921	8-729-209-60	TRANSISTOR	2SB1375			R324	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
Q922	8-729-029-86	TRANSISTOR	DTC124ESA			R325	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
Q961	8-729-620-05	TRANSISTOR	2SC2603-EF			R326	1-216-833-11	METAL CHIP	10K	5%	1/16W
Q962	8-729-140-04	TRANSISTOR	2SB1116A-L			R327	1-216-833-11	METAL CHIP	10K	5%	1/16W
< RESISTOR >						R328	1-216-834-11	METAL CHIP	12K	5%	1/16W
R111	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R329	1-216-834-11	METAL CHIP	12K	5%	1/16W
R112	1-216-833-11	METAL CHIP	10K	5%	1/16W	R330	1-216-081-00	METAL CHIP	22K	5%	1/10W
R113	1-216-857-11	METAL CHIP	1M	5%	1/16W	△R331	1-219-787-17	FUSIBLE	5.6	5%	1/4W
R115	1-216-841-11	METAL CHIP	47K	5%	1/16W	△R332	1-219-787-17	FUSIBLE	5.6	5%	1/4W
R116	1-216-841-11	METAL CHIP	47K	5%	1/16W	R333	1-216-836-11	METAL CHIP	18K	5%	1/16W
R117	1-216-849-11	METAL CHIP	220K	5%	1/16W	R334	1-216-836-11	METAL CHIP	18K	5%	1/16W
R118	1-216-849-11	METAL CHIP	220K	5%	1/16W	R335	1-216-081-00	METAL CHIP	22K	5%	1/10W
R119	1-216-819-11	METAL CHIP	680	5%	1/16W	R336	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R120	1-216-849-11	METAL CHIP	220K	5%	1/16W	R337	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R121	1-216-855-11	METAL CHIP	680K	5%	1/16W	R338	1-216-081-00	METAL CHIP	22K	5%	1/10W
R122	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R339	1-216-833-11	METAL CHIP	10K	5%	1/16W
R123	1-216-845-11	METAL CHIP	100K	5%	1/16W	R340	1-216-833-11	METAL CHIP	10K	5%	1/16W
R124	1-216-833-11	METAL CHIP	10K	5%	1/16W	R341	1-216-821-11	METAL CHIP	1K	5%	1/16W
R125	1-216-833-11	METAL CHIP	10K	5%	1/16W	R342	1-216-821-11	METAL CHIP	1K	5%	1/16W
R126	1-216-833-11	METAL CHIP	10K	5%	1/16W	R343	1-216-857-11	METAL CHIP	1M	5%	1/16W
R127	1-216-849-11	METAL CHIP	220K	5%	1/16W	R344	1-216-833-11	METAL CHIP	10K	5%	1/16W
R128	1-216-849-11	METAL CHIP	220K	5%	1/16W	R345	1-216-833-11	METAL CHIP	10K	5%	1/16W
R129	1-216-857-11	METAL CHIP	1M	5%	1/16W	R346	1-216-833-11	METAL CHIP	10K	5%	1/16W
R130	1-216-857-11	METAL CHIP	1M	5%	1/16W	R347	1-216-833-11	METAL CHIP	10K	5%	1/16W
R131	1-216-833-11	METAL CHIP	10K	5%	1/16W	R348	1-216-833-11	METAL CHIP	10K	5%	1/16W
R132	1-216-839-11	METAL CHIP	33K	5%	1/16W	R349	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R133	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R350	1-216-833-11	METAL CHIP	10K	5%	1/16W
R134	1-216-857-11	METAL CHIP	1M	5%	1/16W	R351	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R135	1-216-295-91	SHORT	0			The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.					
R136	1-216-295-91	SHORT	0								

HCD-XGR80

MAIN

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R352	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R530	1-216-809-11	METAL CHIP	100	5%	1/16W
R354	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R531	1-216-833-11	METAL CHIP	10K	5%	1/16W
R355	1-216-841-11	METAL CHIP	47K	5%	1/16W	R532	1-216-809-11	METAL CHIP	100	5%	1/16W
R358	1-216-833-11	METAL CHIP	10K	5%	1/16W	R533	1-216-809-11	METAL CHIP	100	5%	1/16W
R371	1-216-833-11	METAL CHIP	10K	5%	1/16W	R534	1-216-809-11	METAL CHIP	100	5%	1/16W
R372	1-216-833-11	METAL CHIP	10K	5%	1/16W	R535	1-216-809-11	METAL CHIP	100	5%	1/16W
R374	1-216-833-11	METAL CHIP	10K	5%	1/16W	R536	1-216-809-11	METAL CHIP	100	5%	1/16W
R375	1-216-833-11	METAL CHIP	10K	5%	1/16W	R537	1-216-809-11	METAL CHIP	100	5%	1/16W
R377	1-216-833-11	METAL CHIP	10K	5%	1/16W	R540	1-216-841-11	METAL CHIP	47K	5%	1/16W
R378	1-216-833-11	METAL CHIP	10K	5%	1/16W	R541	1-216-809-11	METAL CHIP	100	5%	1/16W
R381	1-216-819-11	METAL CHIP	680	5%	1/16W	R543	1-216-809-11	METAL CHIP	100	5%	1/16W
R382	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R547	1-216-809-11	METAL CHIP	100	5%	1/16W
R383	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R548	1-216-809-11	METAL CHIP	100	5%	1/16W
R384	1-216-819-11	METAL CHIP	680	5%	1/16W	R549	1-216-833-11	METAL CHIP	10K	5%	1/16W
R385	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R556	1-216-809-11	METAL CHIP	100	5%	1/16W
R386	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R557	1-216-809-11	METAL CHIP	100	5%	1/16W
R387	1-216-841-11	METAL CHIP	47K	5%	1/16W	R570	1-216-809-11	METAL CHIP	100	5%	1/16W
R388	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R571	1-216-835-11	METAL CHIP	15K	5%	1/16W
R389	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R572	1-216-835-11	METAL CHIP	15K	5%	1/16W
R390	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R573	1-216-809-11	METAL CHIP	100	5%	1/16W
R391	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R574	1-216-809-11	METAL CHIP	100	5%	1/16W
R392	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	R575	1-216-809-11	METAL CHIP	100	5%	1/16W
R393	1-216-833-11	METAL CHIP	10K	5%	1/16W	R580	1-216-809-11	METAL CHIP	100	5%	1/16W
R394	1-216-849-11	METAL CHIP	220K	5%	1/16W	R581	1-216-809-11	METAL CHIP	100	5%	1/16W
R401	1-216-809-11	METAL CHIP	100	5%	1/16W	R582	1-216-833-11	METAL CHIP	10K	5%	1/16W
R402	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R583	1-216-809-11	METAL CHIP	100	5%	1/16W
R403	1-216-809-11	METAL CHIP	100	5%	1/16W	R584	1-216-809-11	METAL CHIP	100	5%	1/16W
R404	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	R585	1-216-809-11	METAL CHIP	100	5%	1/16W
R405	1-216-833-11	METAL CHIP	10K	5%	1/16W	R586	1-216-809-11	METAL CHIP	100	5%	1/16W
R406	1-216-833-11	METAL CHIP	10K	5%	1/16W	R587	1-216-809-11	METAL CHIP	100	5%	1/16W
R407	1-216-295-91	SHORT	0			R588	1-216-809-11	METAL CHIP	100	5%	1/16W
R408	1-216-295-91	SHORT	0			R589	1-216-809-11	METAL CHIP	100	5%	1/16W
R410	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	R590	1-216-809-11	METAL CHIP	100	5%	1/16W
R412	1-216-835-11	METAL CHIP	15K	5%	1/16W	R591	1-216-809-11	METAL CHIP	100	5%	1/16W
R413	1-216-833-11	METAL CHIP	10K	5%	1/16W	R592	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R414	1-216-833-11	METAL CHIP	10K	5%	1/16W	R593	1-216-811-11	METAL CHIP	150	5%	1/16W
R431	1-216-845-11	METAL CHIP	100K	5%	1/16W	R594	1-216-821-11	METAL CHIP	1K	5%	1/16W
R451	1-216-833-11	METAL CHIP	10K	5%	1/16W	R595	1-216-809-11	METAL CHIP	100	5%	1/16W
R452	1-216-833-11	METAL CHIP	10K	5%	1/16W	R596	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R453	1-216-833-11	METAL CHIP	10K	5%	1/16W	R597	1-216-841-11	METAL CHIP	47K	5%	1/16W
R454	1-216-833-11	METAL CHIP	10K	5%	1/16W	R598	1-216-841-11	METAL CHIP	47K	5%	1/16W
R501	1-216-833-11	METAL CHIP	10K	5%	1/16W	R599	1-216-833-11	METAL CHIP	10K	5%	1/16W
R502	1-216-809-11	METAL CHIP	100	5%	1/16W	R601	1-216-821-11	METAL CHIP	1K	5%	1/16W
R503	1-216-809-11	METAL CHIP	100	5%	1/16W	R602	1-216-821-11	METAL CHIP	1K	5%	1/16W
R504	1-216-809-11	METAL CHIP	100	5%	1/16W	R603	1-216-841-11	METAL CHIP	47K	5%	1/16W
R505	1-216-833-11	METAL CHIP	10K	5%	1/16W	R604	1-216-821-11	METAL CHIP	1K	5%	1/16W
R509	1-216-833-11	METAL CHIP	10K	5%	1/16W	R605	1-216-854-11	METAL CHIP	560K	5%	1/16W
R511	1-216-851-11	METAL CHIP	330K	5%	1/16W	R606	1-216-841-11	METAL CHIP	47K	5%	1/16W
R513	1-216-295-91	SHORT	0			R607	1-216-821-11	METAL CHIP	1K	5%	1/16W
R516	1-216-833-11	METAL CHIP	10K	5%	1/16W	R608	1-216-845-11	METAL CHIP	100K	5%	1/16W
R517	1-216-833-11	METAL CHIP	10K	5%	1/16W	R609	1-216-033-00	METAL CHIP	220	5%	1/10W
R519	1-216-809-11	METAL CHIP	100	5%	1/16W	R611	1-216-821-11	METAL CHIP	1K	5%	1/16W
R521	1-216-809-11	METAL CHIP	100	5%	1/16W	R612	1-216-821-11	METAL CHIP	1K	5%	1/16W
R522	1-216-809-11	METAL CHIP	100	5%	1/16W	R613	1-216-815-11	METAL CHIP	330	5%	1/16W
R523	1-216-809-11	METAL CHIP	100	5%	1/16W	R614	1-216-821-11	METAL CHIP	1K	5%	1/16W
R524	1-216-809-11	METAL CHIP	100	5%	1/16W	R651	1-216-821-11	METAL CHIP	1K	5%	1/16W
R525	1-216-809-11	METAL CHIP	100	5%	1/16W	R652	1-216-821-11	METAL CHIP	1K	5%	1/16W
R526	1-216-809-11	METAL CHIP	100	5%	1/16W	R653	1-216-841-11	METAL CHIP	47K	5%	1/16W
R527	1-216-809-11	METAL CHIP	100	5%	1/16W	R654	1-216-821-11	METAL CHIP	1K	5%	1/16W
R528	1-216-809-11	METAL CHIP	100	5%	1/16W	R655	1-216-854-11	METAL CHIP	560K	5%	1/16W
R529	1-216-809-11	METAL CHIP	100	5%	1/16W	R656	1-216-841-11	METAL CHIP	47K	5%	1/16W

MAIN

MIC/GUITAR

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R657	1-216-821-11	METAL CHIP	1K	5%	1/16W			< VIBRATOR >			
R658	1-216-845-11	METAL CHIP	100K	5%	1/16W						
R701	1-216-821-11	METAL CHIP	1K	5%	1/16W	X501	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
R702	1-216-845-11	METAL CHIP	100K	5%	1/16W	X502	1-781-107-21	VIBRATOR, SERAMIC (16MHz)			

R703	1-216-821-11	METAL CHIP	1K	5%	1/16W			A-4727-633-A	MIC/GUITAR BOARD, COMPLETE		
R704	1-216-845-11	METAL CHIP	100K	5%	1/16W				*****		
R705	1-216-833-11	METAL CHIP	10K	5%	1/16W			< CAPACITOR >			
R706	1-216-825-11	METAL CHIP	2.2K	5%	1/16W						
R707	1-216-857-11	METAL CHIP	1M	5%	1/16W						
R708	1-216-821-11	METAL CHIP	1K	5%	1/16W (MX)	C801	1-162-306-11	CERAMIC	0.01uF	30%	16V
						C802	1-162-215-31	CERAMIC	47PF	5%	50V
R709	1-216-821-11	METAL CHIP	1K	5%	1/16W (MX)	C803	1-126-960-11	ELECT	1uF	20%	50V
						C804	1-126-959-11	ELECT	0.47uF	20%	50V
R710	1-216-845-11	METAL CHIP	100K	5%	1/16W (MX)	C805	1-162-294-31	CERAMIC	0.001uF	10%	50V
R722	1-216-804-11	METAL CHIP	39	5%	1/16W	C806	1-162-215-31	CERAMIC	47PF	5%	50V
R724	1-216-833-11	METAL CHIP	10K	5%	1/16W	C810	1-162-286-21	CERAMIC	220PF	10%	50V
						C813	1-137-372-11	MYLAR	0.022uF	5%	50V
R751	1-216-821-11	METAL CHIP	1K	5%	1/16W	C814	1-162-215-31	CERAMIC	47PF	5%	50V
R752	1-216-845-11	METAL CHIP	100K	5%	1/16W	C815	1-162-215-31	CERAMIC	47PF	5%	50V
R753	1-216-821-11	METAL CHIP	1K	5%	1/16W						
R754	1-216-845-11	METAL CHIP	100K	5%	1/16W	C816	1-126-961-11	ELECT	2.2uF	20%	50V
R755	1-216-833-11	METAL CHIP	10K	5%	1/16W	C817	1-126-961-11	ELECT	2.2uF	20%	50V
						C818	1-162-215-31	CERAMIC	47PF	5%	50V
R756	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	C819	1-162-215-31	CERAMIC	47PF	5%	50V
R757	1-216-857-11	METAL CHIP	1M	5%	1/16W	C821	1-126-947-11	ELECT	47uF	20%	16V
R758	1-216-821-11	METAL CHIP	1K	5%	1/16W (MX)						
						C822	1-126-947-11	ELECT	47uF	20%	16V
R759	1-216-821-11	METAL CHIP	1K	5%	1/16W (MX)	C824	1-126-961-11	ELECT	2.2uF	20%	50V
						C836	1-162-306-11	CERAMIC	0.01uF	30%	16V
R760	1-216-845-11	METAL CHIP	100K	5%	1/16W (MX)	C837	1-126-964-11	ELECT	10uF	20%	50V
						C838	1-126-964-11	ELECT	10uF	20%	50V
R801	1-216-033-00	METAL CHIP	220	5%	1/10W	C880	1-126-961-11	ELECT	2.2uF	20%	50V
R802	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	C881	1-162-215-31	CERAMIC	47PF	5%	50V
R803	1-216-829-11	METAL CHIP	4.7K	5%	1/16W	C882	1-162-215-31	CERAMIC	47PF	5%	50V
R804	1-216-841-11	METAL CHIP	47K	5%	1/16W	C884	1-126-961-11	ELECT	2.2uF	20%	50V
R805	1-216-841-11	METAL CHIP	47K	5%	1/16W						
								< CONNECTOR >			
R806	1-216-833-11	METAL CHIP	10K	5%	1/16W	* CN812	1-564-708-11	PIN, CONNECTOR (SMALL TYPE) 6P			
R807	1-216-295-91	SHORT	0								
R808	1-216-845-11	METAL CHIP	100K	5%	1/16W			< FILTER >			
R810	1-216-845-11	METAL CHIP	100K	5%	1/16W						
R812	1-216-827-11	METAL CHIP	3.3K	5%	1/16W	FL801	1-424-228-11	FILTER, NOISE			
R813	1-216-833-11	METAL CHIP	10K	5%	1/16W			< IC >			
R814	1-216-837-11	METAL CHIP	22K	5%	1/16W						
R815	1-216-837-11	METAL CHIP	22K	5%	1/16W	IC850	8-759-505-55	IC NJM4558L			
R816	1-216-845-11	METAL CHIP	100K	5%	1/16W	IC852	8-759-505-55	IC NJM4558L			
R922	1-216-295-91	SHORT	0			IC853	8-759-505-55	IC NJM4558L			
R961	1-216-829-11	METAL CHIP	4.7K	5%	1/16W			< JACK >			
R962	1-216-837-11	METAL CHIP	22K	5%	1/16W						
R963	1-216-825-11	METAL CHIP	2.2K	5%	1/16W	J801	1-770-226-11	JACK (LARGE TYPE) (MIX MIC)			
						J802	1-770-226-11	JACK (LARGE TYPE) (GUITAR)			
		< VARIABLE RESISTOR >									
								< TRANSISTOR >			
RV301	1-241-765-11	RES, ADJ, CARBON 22K (REC LEVEL (R))				Q880	8-729-620-05	TRANSISTOR 2SC2603-EF			
RV321	1-241-768-11	RES, ADJ, CARBON 220K (REC BIAS (L))				Q881	8-729-029-86	TRANSISTOR DTC124ESA			
RV322	1-241-768-11	RES, ADJ, CARBON 220K (REC BIAS (R))				Q882	8-729-029-86	TRANSISTOR DTC124ESA			
RV351	1-241-765-11	RES, ADJ, CARBON 22K (REC LEVEL (L))				Q883	8-729-029-40	TRANSISTOR DTA124ESA			
RV391	1-238-599-11	RES, ADJ, CARBON 4.7K (TAPE SPEED (NORMAL))				Q884	8-729-119-78	TRANSISTOR 2SC2785-HFE			
RV392	1-238-598-11	RES, ADJ, CARBON 2.2K (TAPE SPEED (HIGH))						< RESISTOR >			
		< TRANSFORMER >									
						R807	1-249-429-11	CARBON	10K	5%	1/4W
T331	1-423-980-11	TRANSFORMER, BIAS OSCILLATION				R809	1-249-417-11	CARBON	1K	5%	1/4W F
						R850	1-249-417-11	CARBON	1K	5%	1/4W F

HCD-XGR80

MIC/GUITAR	MOTOR	PA
------------	-------	----

Ref. No.	Part No.	Description			Remarks
R852	1-249-441-11	CARBON	100K	5%	1/4W
R853	1-249-417-11	CARBON	1K	5%	1/4W F
R854	1-249-437-11	CARBON	47K	5%	1/4W
R855	1-249-429-11	CARBON	10K	5%	1/4W
R856	1-247-899-11	CARBON	680K	5%	1/4W
R857	1-249-425-11	CARBON	4.7K	5%	1/4W F
R867	1-249-421-11	CARBON	2.2K	5%	1/4W F
R869	1-249-439-11	CARBON	68K	5%	1/4W
R870	1-247-887-00	CARBON	220K	5%	1/4W
R872	1-249-421-11	CARBON	2.2K	5%	1/4W F
R873	1-249-421-11	CARBON	2.2K	5%	1/4W F
R874	1-249-431-11	CARBON	15K	5%	1/4W
R876	1-249-417-11	CARBON	1K	5%	1/4W F
R877	1-249-411-11	CARBON	330	5%	1/4W
R878	1-249-417-11	CARBON	1K	5%	1/4W F
R879	1-249-417-11	CARBON	1K	5%	1/4W F
R880	1-249-429-11	CARBON	10K	5%	1/4W
R881	1-249-437-11	CARBON	47K	5%	1/4W
R882	1-249-437-11	CARBON	47K	5%	1/4W
R883	1-249-437-11	CARBON	47K	5%	1/4W
R884	1-249-413-11	CARBON	470	5%	1/4W F
R885	1-249-429-11	CARBON	10K	5%	1/4W
R886	1-247-893-11	CARBON	390K	5%	1/4W
R887	1-249-429-11	CARBON	10K	5%	1/4W
R888	1-249-417-11	CARBON	1K	5%	1/4W F
R891	1-247-903-00	CARBON	1M	5%	1/4W

*	A-4673-765-A	MOTOR BOARD, COMPLETE	*****		
*	4-980-385-01	HOLDER (SW)			
		< CAPACITOR >			
C201	1-126-964-11	ELECT	10uF	20%	50V
C202	1-164-159-21	CERAMIC	0.1uF		50V
C203	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
* CN201	1-568-947-11	PIN, CONNECTOR 9P			
		< IC >			
IC201	8-759-365-94	IC TA8409S			
		< COIL >			
L201	1-408-117-00	INDUCTOR	10uH		
		< RESISTOR >			
R205	1-249-427-11	CARBON	6.8K	5%	1/4W F
R206	1-249-425-11	CARBON	4.7K	5%	1/4W F
		< SWITCH >			
S201	1-762-587-11	SWITCH, PUSH (1 KEY) (UP)			

	A-4727-660-A	PA BOARD, COMPLETE	*****		
	4-875-327-31	HEAT SINK			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S			

Ref. No.	Part No.	Description			Remarks
		< CAPACITOR >			
C401	1-126-963-11	ELECT	4.7uF	20%	50V
C412	1-162-306-11	CERAMIC	0.01uF	30%	16V
C413	1-162-306-11	CERAMIC	0.01uF	30%	16V
C415	1-162-306-11	CERAMIC	0.01uF	30%	16V
C416	1-162-306-11	CERAMIC	0.01uF	30%	16V
C432	1-126-933-11	ELECT	100uF	20%	16V
C433	1-126-962-11	ELECT	3.3uF	20%	50V
C801	1-128-582-11	ELECT	10uF	20%	100V
C802	1-162-290-31	CERAMIC	470PF	10%	50V
C803	1-162-286-21	CERAMIC	220PF	10%	50V
C804	1-126-965-91	ELECT	22uF	20%	50V
C807	1-128-560-11	ELECT	22uF	20%	100V
C808	1-137-749-11	MYLAR	0.1uF		100V
C809	1-137-749-11	MYLAR	0.1uF		100V
C810	1-128-562-11	ELECT	47uF	20%	100V
C811	1-130-491-00	MYLAR	0.047uF	5%	50V
C812	1-130-491-00	MYLAR	0.047uF	5%	50V
C813	1-162-306-11	CERAMIC	0.01uF	30%	16V
C814	1-162-294-31	CERAMIC	0.001uF	10%	50V
C815	1-126-959-11	ELECT	0.47uF	20%	50V
C816	1-130-479-00	MYLAR	0.0047uF	5%	50V
C817	1-130-467-00	MYLAR	470PF	5%	50V
C817	1-162-600-11	CERAMIC	0.0047uF	20%	16V
C818	1-130-479-00	MYLAR	0.0047uF	5%	50V
C819	1-130-467-00	MYLAR	470PF	5%	50V
C819	1-162-600-11	CERAMIC	0.0047uF	20%	16V
C830	1-107-714-11	ELECT	10uF	20%	50V
C831	1-126-964-11	ELECT	10uF	20%	50V
C832	1-126-967-11	ELECT	47uF	20%	50V
C841	1-127-812-11	ELECT	3300uF	20%	63V
C842	1-127-815-11	ELECT	3300uF	20%	100V
C844	1-137-749-11	MYLAR	0.1uF		100V
C845	1-126-943-11	ELECT	2200uF	20%	25V
C847	1-164-159-21	CERAMIC	0.1uF		50V
C848	1-164-159-21	CERAMIC	0.1uF		50V
C849	1-164-159-21	CERAMIC	0.1uF		50V
C850	1-107-721-11	ELECT	4.7uF	20%	100V
C851	1-128-582-11	ELECT	10uF	20%	100V
C852	1-162-290-31	CERAMIC	470PF	10%	50V
C853	1-162-286-21	CERAMIC	220PF	10%	50V
C854	1-126-965-91	ELECT	22uF	20%	50V
C857	1-128-560-11	ELECT	22uF	20%	100V
C858	1-164-159-21	CERAMIC	0.1uF		50V
C859	1-164-159-21	CERAMIC	0.1uF		50V
C861	1-130-491-00	MYLAR	0.047uF	5%	50V
C862	1-130-491-00	MYLAR	0.047uF	5%	50V
C863	1-126-961-11	ELECT	2.2uF	20%	50V
C864	1-126-964-11	ELECT	10uF	20%	50V
C891	1-127-812-11	ELECT	3300uF	20%	63V
C892	1-127-815-11	ELECT	3300uF	20%	100V
C894	1-137-749-11	MYLAR	0.1uF		100V
C895	1-107-721-11	ELECT	4.7uF	20%	100V
C902	1-164-159-21	CERAMIC	0.1uF		50V
C903	1-126-933-11	ELECT	100uF	20%	16V
C904	1-126-964-11	ELECT	10uF	20%	50V
C905	1-126-968-11	ELECT	100uF	20%	50V
C906	1-126-943-11	ELECT	2200uF	20%	25V
C909	1-164-159-21	CERAMIC	0.1uF		50V
C910	1-126-933-11	ELECT	100uF	20%	16V

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
< CONNECTOR >							
CN803	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P		Q834	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
CN804	1-778-981-21	CONNECTOR, BOARD TO BOARD 13P		Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
CN806	1-785-316-11	PIN, CONNECTOR (STRAIGHT) 4P		Q855	8-729-231-55	TRANSISTOR 2SC2878-AB	
CN904	1-785-316-11	PIN, CONNECTOR (STRAIGHT) 4P		Q901	8-729-620-05	TRANSISTOR 2SC2603-EF	
< DIODE >				Q903	8-729-209-60	TRANSISTOR 2SB1375	
D401	8-719-991-33	DIODE 1SS133T-77		Q908	8-729-119-76	TRANSISTOR 2SA1175-HFE	
D402	8-719-991-33	DIODE 1SS133T-77		< RESISTOR >			
D403	8-719-991-33	DIODE 1SS133T-77		△R401	1-215-866-11	METAL OXIDE 330 5% 1W	
D405	8-719-991-33	DIODE 1SS133T-77		R406	1-249-437-11	CARBON 47K 5% 1/4W	
D406	8-719-991-33	DIODE 1SS133T-77		R407	1-249-437-11	CARBON 47K 5% 1/4W	
D407	8-719-991-33	DIODE 1SS133T-77		R408	1-249-440-11	CARBON 82K 5% 1/4W	
D409	8-719-991-33	DIODE 1SS133T-77		R429	1-249-437-11	CARBON 47K 5% 1/4W	
D410	8-719-991-33	DIODE 1SS133T-77		R431	1-249-438-11	CARBON 56K 5% 1/4W	
D801	8-719-991-33	DIODE 1SS133T-77		R432	1-249-437-11	CARBON 47K 5% 1/4W	
D802	8-719-110-39	DIODE RD15ESB1		R434	1-249-433-11	CARBON 22K 5% 1/4W	
D803	8-719-991-33	DIODE 1SS133T-77		R437	1-249-429-11	CARBON 10K 5% 1/4W	
D804	8-719-991-33	DIODE 1SS133T-77		R439	1-249-425-11	CARBON 4.7K 5% 1/4W	F
D805	8-719-991-33	DIODE 1SS133T-77		R440	1-249-437-11	CARBON 47K 5% 1/4W	
D831	8-719-066-42	DIODE RBV1306		R441	1-249-435-11	CARBON 33K 5% 1/4W	
D833	8-719-200-82	DIODE 11ES2		R442	1-249-435-11	CARBON 33K 5% 1/4W	
D834	8-719-200-82	DIODE 11ES2		R443	1-249-434-11	CARBON 27K 5% 1/4W	
D835	8-719-200-82	DIODE 11ES2		R446	1-249-429-11	CARBON 10K 5% 1/4W	
D836	8-719-200-82	DIODE 11ES2		R447	1-249-437-11	CARBON 47K 5% 1/4W	
D841	8-719-200-82	DIODE 11ES2		R450	1-249-437-11	CARBON 47K 5% 1/4W	
D842	8-719-200-82	DIODE 11ES2		R460	1-249-429-11	CARBON 10K 5% 1/4W	
D843	8-719-200-82	DIODE 11ES2		R801	1-249-417-11	CARBON 1K 5% 1/4W	F
D844	8-719-200-82	DIODE 11ES2		R802	1-249-437-11	CARBON 47K 5% 1/4W	
D851	8-719-991-33	DIODE 1SS133T-77		R803	1-249-411-11	CARBON 330 5% 1/4W	F
D852	8-719-110-39	DIODE RD15ESB1		R804	1-249-435-11	CARBON 33K 5% 1/4W	
D853	8-719-991-33	DIODE 1SS133T-77		R805	1-216-436-00	METAL OXIDE 3.9K 5% 1W	
D902	8-719-200-82	DIODE 11ES2		R806	1-216-436-00	METAL OXIDE 3.9K 5% 1W	
D903	8-719-200-82	DIODE 11ES2		△R807	1-212-881-11	FUSIBLE 100 5% 1/4W	
D904	8-719-200-82	DIODE 11ES2		△R808	1-220-893-11	METAL 0.22 10% 5W	
D905	8-719-200-82	DIODE 11ES2		R809	1-260-076-11	CARBON 10 5% 1/2W	
D906	8-719-991-33	DIODE 1SS133T-77		R810	1-249-437-11	CARBON 47K 5% 1/4W	
D911	8-719-982-24	DIODE MTZJ-33A		R811	1-249-417-11	CARBON 1K 5% 1/4W	F
D912	8-719-109-89	DIODE RD5.6ESB2		R812	1-249-431-11	CARBON 15K 5% 1/4W	
< IC >				R813	1-249-441-11	CARBON 100K 5% 1/4W	
IC801	8-749-017-05	IC STK412-040		R814	1-249-421-11	CARBON 2.2K 5% 1/4W	F
IC901	6-701-760-01	IC uPC3504AHF		R815	1-249-433-11	CARBON 22K 5% 1/4W	
< TRANSISTOR >				R816	1-249-429-11	CARBON 10K 5% 1/4W	
Q401	8-729-029-40	TRANSISTOR DTA124ESA		R817	1-249-437-11	CARBON 47K 5% 1/4W	
Q402	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		R818	1-249-409-11	CARBON 220 5% 1/4W	F
Q431	8-729-620-05	TRANSISTOR 2SC2603-EF		R819	1-249-439-11	CARBON 68K 5% 1/4W	
Q432	8-729-119-76	TRANSISTOR 2SA1175-HFE		△R820	1-202-972-61	FUSIBLE 1 5% 1/4W	
Q433	8-729-620-05	TRANSISTOR 2SC2603-EF		R821	1-249-435-11	CARBON 33K 5% 1/4W	
Q434	8-729-620-05	TRANSISTOR 2SC2603-EF		R822	1-249-433-11	CARBON 22K 5% 1/4W	
Q437	8-729-620-05	TRANSISTOR 2SC2603-EF		R823	1-249-433-11	CARBON 22K 5% 1/4W	
Q439	8-729-620-05	TRANSISTOR 2SC2603-EF		R824	1-249-418-11	CARBON 1.2K 5% 1/4W	F
Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		△R825	1-215-891-11	METAL OXIDE 680 5% 2W	
Q803	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R826	1-249-437-11	CARBON 47K 5% 1/4W	
Q804	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA		R827	1-249-441-11	CARBON 100K 5% 1/4W	
Q805	8-729-231-55	TRANSISTOR 2SC2878-AB		R828	1-247-903-00	CARBON 1M 5% 1/4W	
Q831	8-729-029-86	TRANSISTOR DTC124ESA		R829	1-249-437-11	CARBON 47K 5% 1/4W	
Q832	8-729-620-05	TRANSISTOR 2SC2603-EF		R830	1-249-437-11	CARBON 47K 5% 1/4W	
Q833	8-729-029-40	TRANSISTOR DTA124ESA		R831	1-249-441-11	CARBON 100K 5% 1/4W	
				R832	1-249-441-11	CARBON 100K 5% 1/4W	

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

PA PANEL FL

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

Ref. No.	Part No.	Description	Remarks				Ref. No.	Part No.	Description	Remarks			
Q606	8-729-047-58	TRANSISTOR	DTC114TLTL2				R666	1-249-441-11	CARBON	100K	5%	1/4W	
Q607	8-729-047-58	TRANSISTOR	DTC114TLTL2				R667	1-249-441-11	CARBON	100K	5%	1/4W	
Q608	8-729-047-58	TRANSISTOR	DTC114TLTL2				R668	1-249-441-11	CARBON	100K	5%	1/4W	
Q609	8-729-047-58	TRANSISTOR	DTC114TLTL2										
Q901	8-729-140-04	TRANSISTOR	2SB1116A-L				R669	1-247-791-91	CARBON	22	5%	1/4W	
							R670	1-247-791-91	CARBON	22	5%	1/4W	
Q902	8-729-620-05	TRANSISTOR	2SC2603-EF				R671	1-247-791-91	CARBON	22	5%	1/4W	
Q903	8-729-140-04	TRANSISTOR	2SB1116A-L				R672	1-247-791-91	CARBON	22	5%	1/4W	
Q904	8-729-620-05	TRANSISTOR	2SC2603-EF				R673	1-247-791-91	CARBON	22	5%	1/4W	
< RESISTOR >													
R600	1-249-417-11	CARBON	1K	5%	1/4W	F	R674	1-247-791-91	CARBON	22	5%	1/4W	
R601	1-249-441-11	CARBON	100K	5%	1/4W		R675	1-247-791-91	CARBON	22	5%	1/4W	
R602	1-249-429-11	CARBON	10K	5%	1/4W		R676	1-247-791-91	CARBON	22	5%	1/4W	
R603	1-249-429-11	CARBON	10K	5%	1/4W		R677	1-247-791-91	CARBON	22	5%	1/4W	
R604	1-249-429-11	CARBON	10K	5%	1/4W		R678	1-247-791-91	CARBON	22	5%	1/4W	
R605	1-247-807-31	CARBON	100	5%	1/4W		R679	1-247-791-91	CARBON	22	5%	1/4W	
R606	1-249-429-11	CARBON	10K	5%	1/4W		R680	1-249-411-11	CARBON	330	5%	1/4W	
R607	1-249-429-11	CARBON	10K	5%	1/4W		R681	1-249-437-11	CARBON	47K	5%	1/4W	
R608	1-247-807-31	CARBON	100	5%	1/4W		R683	1-249-437-11	CARBON	47K	5%	1/4W	
R609	1-249-429-11	CARBON	10K	5%	1/4W		R684	1-249-417-11	CARBON	1K	5%	1/4W	F
R610	1-247-807-31	CARBON	100	5%	1/4W		R686	1-249-437-11	CARBON	47K	5%	1/4W	
R612	1-249-431-11	CARBON	15K	5%	1/4W		R688	1-249-437-11	CARBON	47K	5%	1/4W	
R613	1-249-431-11	CARBON	15K	5%	1/4W		R689	1-249-417-11	CARBON	1K	5%	1/4W	F
R614	1-249-431-11	CARBON	15K	5%	1/4W		R691	1-249-413-11	CARBON	470	5%	1/4W	F
R615	1-249-431-11	CARBON	15K	5%	1/4W		R692	1-249-413-11	CARBON	470	5%	1/4W	F
R616	1-249-431-11	CARBON	15K	5%	1/4W		R693	1-249-429-11	CARBON	10K	5%	1/4W	
R617	1-249-431-11	CARBON	15K	5%	1/4W		R694	1-249-429-11	CARBON	10K	5%	1/4W	
R618	1-247-807-31	CARBON	100	5%	1/4W		R695	1-247-807-31	CARBON	100	5%	1/4W	
R619	1-249-433-11	CARBON	22K	5%	1/4W		R696	1-247-807-31	CARBON	100	5%	1/4W	
R620	1-247-903-00	CARBON	1M	5%	1/4W		R697	1-247-807-31	CARBON	100	5%	1/4W	
R621	1-249-413-11	CARBON	470	5%	1/4W	F	R698	1-249-415-11	CARBON	680	5%	1/4W	F
R622	1-249-415-11	CARBON	680	5%	1/4W	F	R699	1-249-411-11	CARBON	330	5%	1/4W	
R623	1-249-421-11	CARBON	2.2K	5%	1/4W	F	R700	1-249-413-11	CARBON	470	5%	1/4W	F
R624	1-249-419-11	CARBON	1.5K	5%	1/4W	F	R901	1-249-437-11	CARBON	47K	5%	1/4W	
R625	1-249-419-11	CARBON	1.5K	5%	1/4W	F	R902	1-249-437-11	CARBON	47K	5%	1/4W	
R626	1-249-417-11	CARBON	1K	5%	1/4W	F	R903	1-249-437-11	CARBON	47K	5%	1/4W	
R627	1-249-415-11	CARBON	680	5%	1/4W	F	R904	1-249-437-11	CARBON	47K	5%	1/4W	
R628	1-249-413-11	CARBON	470	5%	1/4W	F	R905	1-249-417-11	CARBON	1K	5%	1/4W	F
R629	1-249-413-11	CARBON	470	5%	1/4W	F	R906	1-249-417-11	CARBON	1K	5%	1/4W	F
R630	1-249-415-11	CARBON	680	5%	1/4W	F	R907	1-249-417-11	CARBON	1K	5%	1/4W	F
R631	1-249-417-11	CARBON	1K	5%	1/4W	F	R908	1-249-417-11	CARBON	1K	5%	1/4W	F
R632	1-249-419-11	CARBON	1.5K	5%	1/4W	F	< SWITCH >						
R633	1-249-419-11	CARBON	1.5K	5%	1/4W	F	S601	1-762-875-21	SWITCH, KEYBOARD (SALSA)				
R634	1-249-421-11	CARBON	2.2K	5%	1/4W	F	S602	1-762-875-21	SWITCH, KEYBOARD (REGGAE)				
R635	1-249-413-11	CARBON	470	5%	1/4W	F	S603	1-762-875-21	SWITCH, KEYBOARD (TANGO)				
							S604	1-762-875-21	SWITCH, KEYBOARD (SAMBA)				
R636	1-249-415-11	CARBON	680	5%	1/4W	F	S605	1-762-875-21	SWITCH, KEYBOARD (MOVIE)				
R637	1-249-413-11	CARBON	470	5%	1/4W	F							
R638	1-249-415-11	CARBON	680	5%	1/4W	F	S606	1-762-875-21	SWITCH, KEYBOARD (GUITAR)				
R639	1-249-417-11	CARBON	1K	5%	1/4W	F	S607	1-762-875-21	SWITCH, KEYBOARD (ROCK)				
R640	1-249-419-11	CARBON	1.5K	5%	1/4W	F	S608	1-762-875-21	SWITCH, KEYBOARD (JAZZ)				
							S609	1-762-875-21	SWITCH, KEYBOARD (DANCE)				
R641	1-249-419-11	CARBON	1.5K	5%	1/4W	F	S610	1-762-875-21	SWITCH, KEYBOARD (GAME)				
R642	1-249-421-11	CARBON	2.2K	5%	1/4W	F							
R643	1-249-401-11	CARBON	47	5%	1/4W	F	S611	1-762-875-21	SWITCH, KEYBOARD (SPECTRUM ANALYZER)				
R644	1-247-891-00	CARBON	330K	5%	1/4W		S612	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)				
R645	1-247-891-00	CARBON	330K	5%	1/4W		S613	1-762-875-21	SWITCH, KEYBOARD (SLEEP)				
							S614	1-762-875-21	SWITCH, KEYBOARD (TIMER SELECT)				
R646	1-249-437-11	CARBON	47K	5%	1/4W		S615	1-762-875-21	SWITCH, KEYBOARD (⌚/CLOCK SET)				
R648	1-249-437-11	CARBON	47K	5%	1/4W								
R649	1-249-433-11	CARBON	22K	5%	1/4W		S616	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)				
R650	1-249-435-11	CARBON	33K	5%	1/4W		S617	1-762-875-21	SWITCH, KEYBOARD (GAME)				
R653	1-249-440-11	CARBON	82K	5%	1/4W		S618	1-762-875-21	SWITCH, KEYBOARD (GAME MIXING)				
							S619	1-762-875-21	SWITCH, KEYBOARD				
R654	1-249-429-11	CARBON	10K	5%	1/4W		(POWER SAVE/DEMO (STANDBY))						
R665	1-249-441-11	CARBON	100K	5%	1/4W		S620	1-762-875-21	SWITCH, KEYBOARD (⏻/⏻)				

HCD-XGR80

PANEL VR

SENSOR

Ref. No.	Part No.	Description	Remarks			
< VIBRATOR >						
X601	1-577-358-21	VIBRATOR, CERAMIC (4MHz)				

A-4727-624-A	PANEL VR BOARD, COMPLETE					

< CAPACITOR >						
C701	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C702	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C703	1-162-294-31	CERAMIC	0.001uF	10%	50V	
C704	1-126-947-11	ELECT	47uF	20%	16V	
C705	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C706	1-164-159-21	CERAMIC	0.1uF		50V	
C707	1-162-306-11	CERAMIC	0.01uF	30%	16V	
C708	1-162-306-11	CERAMIC	0.01uF	30%	16V	
< CONNECTOR >						
* CN701	1-568-865-11	SOCKET, CONNECTOR 23P				
< DIODE >						
D701	8-719-058-64	DIODE	SEL5823A-TP15 (VU 1)			
D702	8-719-058-64	DIODE	SEL5823A-TP15 (VU 2)			
D703	8-719-058-64	DIODE	SEL5823A-TP15 (VU 3)			
D704	8-719-058-64	DIODE	SEL5823A-TP15 (VU 4)			
D705	8-719-058-64	DIODE	SEL5823A-TP15 (VU 5)			
D706	8-719-058-64	DIODE	SEL5823A-TP15 (VU 6)			
D707	8-719-058-64	DIODE	SEL5823A-TP15 (VU 7)			
D708	8-719-058-64	DIODE	SEL5823A-TP15 (VU 8)			
D709	8-719-058-64	DIODE	SEL5823A-TP15 (VU 9)			
D710	8-719-058-04	DIODE	SEL5223S-TP15 (VU 10)			
D711	8-719-058-04	DIODE	SEL5223S-TP15 (VU 11)			
D712	8-719-058-04	DIODE	SEL5223S-TP15 (VU 12)			
D713	8-719-058-04	DIODE	SEL5223S-TP15 (GROOVE)			
D714	8-719-058-04	DIODE	SEL5223S-TP15 (SUPER WOOFER)			
D715	8-719-058-04	DIODE	SEL5223S-TP15 (SURROUND)			
D716	8-719-058-04	DIODE	SEL5223S-TP15 (ENTER)			
D717	8-719-058-04	DIODE	SEL5223S-TP15 (GUITAR DISTORSION)			
D719	8-719-058-03	DIODE	SEL5423E-TP15 (TUNER/BAND)			
D720	8-719-058-04	DIODE	SEL5223S-TP15 (TUNER ENTER)			
< IC >						
IC701	8-759-373-50	IC NJU3719L				
< COIL >						
L701	1-410-509-11	INDUCTOR	10uH			
< RESISTOR >						
R701	1-249-429-11	CARBON	10K	5%	1/4W	
R702	1-247-807-31	CARBON	100	5%	1/4W	
R703	1-247-807-31	CARBON	100	5%	1/4W	
R704	1-247-807-31	CARBON	100	5%	1/4W	
R705	1-249-417-11	CARBON	1K	5%	1/4W	F
R706	1-249-417-11	CARBON	1K	5%	1/4W	F
R707	1-249-417-11	CARBON	1K	5%	1/4W	F
R708	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R709	1-249-419-11	CARBON	1.5K	5%	1/4W	F
R710	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R711	1-247-843-11	CARBON	3.3K	5%	1/4W	
R712	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R713	1-249-427-11	CARBON	6.8K	5%	1/4W	F

Ref. No.	Part No.	Description			Remarks
R714	1-249-429-11	CARBON	10K	5%	1/4W
R715	1-249-431-11	CARBON	15K	5%	1/4W
R716	1-249-433-11	CARBON	22K	5%	1/4W
R718	1-249-415-11	CARBON	680	5%	1/4W F
R719	1-249-417-11	CARBON	1K	5%	1/4W F
R720	1-249-419-11	CARBON	1.5K	5%	1/4W F
R721	1-249-419-11	CARBON	1.5K	5%	1/4W F
R722	1-249-421-11	CARBON	2.2K	5%	1/4W F
R723	1-247-843-11	CARBON	3.3K	5%	1/4W
R724	1-249-425-11	CARBON	4.7K	5%	1/4W F
R725	1-249-427-11	CARBON	6.8K	5%	1/4W F
R726	1-249-429-11	CARBON	10K	5%	1/4W
R731	1-247-791-91	CARBON	22	5%	1/4W
R732	1-247-791-91	CARBON	22	5%	1/4W
R733	1-247-791-91	CARBON	22	5%	1/4W
R734	1-247-791-91	CARBON	22	5%	1/4W
R735	1-247-791-91	CARBON	22	5%	1/4W
R736	1-247-791-91	CARBON	22	5%	1/4W
R737	1-247-791-91	CARBON	22	5%	1/4W
R738	1-247-791-91	CARBON	22	5%	1/4W
R739	1-247-791-91	CARBON	22	5%	1/4W
R740	1-249-401-11	CARBON	47	5%	1/4W F
R741	1-249-401-11	CARBON	47	5%	1/4W F
R742	1-249-401-11	CARBON	47	5%	1/4W F
R743	1-247-807-31	CARBON	100	5%	1/4W
R744	1-247-807-31	CARBON	100	5%	1/4W
R745	1-247-807-31	CARBON	100	5%	1/4W
R746	1-247-807-31	CARBON	100	5%	1/4W
R747	1-247-807-31	CARBON	100	5%	1/4W
R749	1-247-791-91	CARBON	22	5%	1/4W
R750	1-247-807-31	CARBON	100	5%	1/4W
< SWITCH >					
S700	1-473-392-11	ENCODER, ROTARY (VOLUME)			
S701	1-762-875-21	SWITCH, KEYBOARD (GROOVE)			
S702	1-762-875-21	SWITCH, KEYBOARD (SURROUND)			
S703	1-762-875-21	SWITCH, KEYBOARD (EFFECT ON/OFF)			
S704	1-762-875-21	SWITCH, KEYBOARD (P FILE)			
S705	1-762-875-21	SWITCH, KEYBOARD (ENTER)			
S706	1-762-875-21	SWITCH, KEYBOARD (↑)			
S707	1-762-875-21	SWITCH, KEYBOARD (↓)			
S708	1-762-875-21	SWITCH, KEYBOARD (→)			
S709	1-762-875-21	SWITCH, KEYBOARD (←)			
S710	1-762-875-21	SWITCH, KEYBOARD (MIX GUITAR/KARAOKE)			
S711	1-762-875-21	SWITCH, KEYBOARD (GUITAR DISTORSION)			
S713	1-762-875-21	SWITCH, KEYBOARD (SUPER WOOFER)			
S714	1-762-875-21	SWITCH, KEYBOARD (SUPER WOOFER MODE)			
S715	1-762-875-21	SWITCH, KEYBOARD (X-GROOVE)			
S716	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)			
S717	1-762-875-21	SWITCH, KEYBOARD (TUNING -)			
S718	1-762-875-21	SWITCH, KEYBOARD (TUNING +)			
S719	1-762-875-21	SWITCH, KEYBOARD (FM MODE)			
S720	1-762-875-21	SWITCH, KEYBOARD (TUNER ENTER)			
S721	1-762-875-21	SWITCH, KEYBOARD (TUNER MEMORY)			
S722	1-762-875-21	SWITCH, KEYBOARD (TUNING MODE)			

*	1-659-058-13	SENSOR BOARD			

< IC >					
IC202	8-749-924-18	PHOTO INTERRUPTER RPI-1391			

						SUB AMP		SUB TRANS		TC-A	
Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks		
< RESISTOR >											
R207	1-249-416-11	CARBON	820	5%	1/4W F	△ R138	1-220-893-11	METAL	0.22	10%	5W
*****						R151	1-249-417-11	CARBON	1K	5%	1/4W F
						R152	1-249-441-11	CARBON	100K	5%	1/4W
						R153	1-249-415-11	CARBON	680	5%	1/4W F
						△ R157	1-212-881-11	FUSIBLE	100	5%	1/4W
A-4727-659-A SUB AMP BOARD, COMPLETE						△ R158	1-220-893-11	METAL	0.22	10%	5W
*****						R159	1-260-076-11	CARBON	10	5%	1/2W
< CAPACITOR >						R160	1-249-441-11	CARBON	100K	5%	1/4W
C101	1-126-960-11	ELECT	1uF	20%	50V	R161	1-249-417-11	CARBON	1K	5%	1/4W F
C102	1-162-286-21	CERAMIC	220PF	10%	50V	R162	1-249-431-11	CARBON	15K	5%	1/4W
C103	1-162-286-21	CERAMIC	220PF	10%	50V						
C104	1-126-965-91	ELECT	22uF	20%	50V	R163	1-249-441-11	CARBON	100K	5%	1/4W
C105	1-136-165-00	MYLAR	0.1uF	5%	50V	*****					
						1-683-445-11 SUB TRANS BOARD					
C106	1-136-165-00	MYLAR	0.1uF	5%	50V	*****					
C107	1-128-560-11	ELECT	22uF	20%	100V	< CAPACITOR >					
C108	1-136-495-11	FILM	0.068uF	5%	50V						
C109	1-136-495-11	FILM	0.068uF	5%	50V	△ C901	1-113-925-11	CERAMIC	0.01uF	20%	250V
C113	1-162-306-11	CERAMIC	0.01uF	30%	16V	< CONNECTOR >					
C114	1-162-294-31	CERAMIC	0.001uF	10%	50V	CN901	1-564-321-00	PIN, CONNECTOR 2P			
C151	1-126-960-11	ELECT	1uF	20%	50V	* CN902	1-564-321-21	PIN, CONNECTOR 2P (MX)			
C152	1-162-286-21	CERAMIC	220PF	10%	50V	CN902	1-568-106-11	PIN, CONNECTOR 4P (AR,E,E51)			
C153	1-162-286-21	CERAMIC	220PF	10%	50V	< DIODE >					
C154	1-126-965-91	ELECT	22uF	20%	50V						
C157	1-128-560-11	ELECT	22uF	20%	100V	D901	8-719-991-33	DIODE 1SS133T-77			
C158	1-136-495-11	FILM	0.068uF	5%	50V	< RELAY >					
C159	1-136-495-11	FILM	0.068uF	5%	50V						
< CONNECTOR >						△ RY901	1-755-276-11	RELAY, POWER			
CN101	1-691-772-11	PLUG (MICRO CONNECTOR) 10P				< SWITCH >					
CN102	1-691-765-11	PLUG (MICRO CONNECTOR) 3P									
< DIODE >											
D101	8-719-991-33	DIODE 1SS133T-77				△ S901	1-786-055-21	SELECTOR, VOLTAGE (VOLTAGE SELECTOR)	(AR,E,E51)		
D102	8-719-110-39	DIODE RD15ESB1				< TRANSFORMER >					
D103	8-719-110-39	DIODE RD15ESB1									
D151	8-719-991-33	DIODE 1SS133T-77				△ T901	1-437-331-11	TRANSFORMER, POWER	*****		
< IC >											
IC101	8-749-017-05	IC STK412-040				1-683-448-11 TC-A BOARD					
< TRANSISTOR >											
< DIODE >											
Q101	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				D805	8-719-058-03	DIODE SEL5423E-TP15 (▷)			
Q151	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				D806	8-719-058-03	DIODE SEL5423E-TP15 (◁)			
< RESISTOR>											
R101	1-249-417-11	CARBON	1K	5%	1/4W F	R813	1-247-843-11	CARBON	3.3K	5%	1/4W
R102	1-249-441-11	CARBON	100K	5%	1/4W	R814	1-249-425-11	CARBON	4.7K	5%	1/4W F
R103	1-249-415-11	CARBON	680	5%	1/4W F	R815	1-249-427-11	CARBON	6.8K	5%	1/4W F
R105	1-216-436-00	METAL OXIDE	3.9K	5%	1W	R816	1-249-429-11	CARBON	10K	5%	1/4W
R106	1-216-436-00	METAL OXIDE	3.9K	5%	1W	R817	1-249-431-11	CARBON	15K	5%	1/4W
△ R107	1-212-881-11	FUSIBLE	100	5%	1/4W						
△ R108	1-220-893-11	METAL	0.22	10%	5W	R819	1-247-791-91	CARBON	22	5%	1/4W
R109	1-260-076-11	CARBON	10	5%	1/2W	R820	1-247-791-91	CARBON	22	5%	1/4W
R110	1-249-441-11	CARBON	100K	5%	1/4W	< VARIABLE RESISTOR >					
R111	1-249-417-11	CARBON	1K	5%	1/4W F						
R112	1-249-431-11	CARBON	15K	5%	1/4W	RV801	1-225-739-11	RES, VAR CARBON 50K (GUITAR LEVEL)			
R113	1-249-441-11	CARBON	100K	5%	1/4W	RV802	1-225-739-11	RES, VAR CARBON 50K (MIC LEVEL)			
△ R120	1-217-637-00	FUSIBLE	1	5%	1/4W	The components identified by mark △ or dotted line with mark △ are critical for safety.					
△ R128	1-220-893-11	METAL	0.22	10%	5W						
R130	1-249-435-11	CARBON	33K	5%	1/4W						

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

HCD-XGR80

TC-A	TC-B	TRANS
------	------	-------

Ref. No.	Part No.	Description	Remarks
< SWITCH >			
S810	1-762-875-21	SWITCH, KEYBOARD (▷)	
S811	1-762-875-21	SWITCH, KEYBOARD (◁)	
S812	1-762-875-21	SWITCH, KEYBOARD (■)	
S813	1-762-875-21	SWITCH, KEYBOARD (◀◀◀◀)	
S814	1-762-875-21	SWITCH, KEYBOARD (▶▶▶▶)	
S815	1-762-875-21	SWITCH, KEYBOARD (DIRECTION)	

	1-683-449-11	TC-B BOARD	

< DIODE >			
D801	8-719-058-03	DIODE SEL5423E-TP15 (◁)	
D802	8-719-058-03	DIODE SEL5423E-TP15 (▷)	
D803	8-719-057-97	DIODE SEL5923A-TP15 (■)	
D804	8-719-058-04	DIODE SEL5223S-TP15 (● REC)	
< RESISTOR >			
R801	1-247-843-11	CARBON 3.3K 5% 1/4W	
R802	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R803	1-249-427-11	CARBON 6.8K 5% 1/4W F	
R804	1-249-429-11	CARBON 10K 5% 1/4W	
R805	1-249-431-11	CARBON 15K 5% 1/4W	
R806	1-249-433-11	CARBON 22K 5% 1/4W	
R807	1-249-435-11	CARBON 33K 5% 1/4W	
R808	1-249-439-11	CARBON 68K 5% 1/4W	
R809	1-247-791-91	CARBON 22 5% 1/4W	
R810	1-247-791-91	CARBON 22 5% 1/4W	
R811	1-247-791-91	CARBON 22 5% 1/4W	
R812	1-249-401-11	CARBON 47 5% 1/4W F	
< SWITCH >			
S801	1-762-875-21	SWITCH, KEYBOARD (◁)	
S802	1-762-875-21	SWITCH, KEYBOARD (▷)	
S803	1-762-875-21	SWITCH, KEYBOARD (■)	
S804	1-762-875-21	SWITCH, KEYBOARD (◀◀◀◀)	
S805	1-762-875-21	SWITCH, KEYBOARD (▶▶▶▶)	
S806	1-762-875-21	SWITCH, KEYBOARD (● REC)	
S807	1-762-875-21	SWITCH, KEYBOARD (■)	
S808	1-762-875-21	SWITCH, KEYBOARD (H SPEED DUB)	
S809	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)	

	1-683-444-11	TRANS BOARD	

	7-685-646-79	SCREW +BVTP3X8 TYPE2 N-S	
< CAPACITOR >			
C834	1-137-749-11	MYLAR 0.1uF 100V	
C893	1-137-749-11	MYLAR 0.1uF 100V	
C961	1-162-306-11	CERAMIC 0.01uF 30% 16V	
C963	1-162-306-11	CERAMIC 0.01uF 30% 16V	
< CONNECTOR >			
* CN951	1-564-214-11	PIN, CONNECTOR (B3PS-VH) 3P	
* CN952	1-564-526-11	PLUG, CONNECTOR 11P	
< DIODE >			
D832	8-719-066-42	DIODE RBV1306	

Ref. No.	Part No.	Description	Remarks
< FUSE HOLDER >			
FH951	1-533-217-31	HOLDER, FUSE (AR,E,E51)	
FH952	1-533-217-31	HOLDER, FUSE (AR,E,E51)	
FH961	1-533-217-31	HOLDER, FUSE	
FH962	1-533-217-31	HOLDER, FUSE	
FH963	1-533-217-31	HOLDER, FUSE	
FH964	1-533-217-31	HOLDER, FUSE	
FH965	1-533-217-31	HOLDER, FUSE	
FH966	1-533-217-31	HOLDER, FUSE	
FH967	1-533-217-31	HOLDER, FUSE	
FH968	1-533-217-31	HOLDER, FUSE	
< RESISTOR >			
△ R951	1-219-121-11	FUSIBLE 0.22 5% 1/4W	
△ R952	1-219-121-11	FUSIBLE 0.22 5% 1/4W	
△ R953	1-219-591-11	FUSIBLE 0.1 5% 1/2W	

MISCELLANEOUS			

△	1-569-008-21	ADAPTOR, CONVERSION (E51)	
4	1-693-572-11	TUNER (FM/AM) (AR,MX)	
4	1-693-574-11	TUNER (FM/AM) (E,E51)	
5	1-769-945-11	WIRE (FLAT TYPE) (11 CORE)	
7	1-535-706-21	PLUG, JUMPER (MX)	
60	1-796-333-11	DECK, MECHANICAL	
61	1-773-021-11	WIRE (FLAT TYPE) (15 CORE)	
113	1-773-118-11	WIRE (FLAT TYPE) (19 CORE)	
115	1-773-178-11	WIRE (FLAT TYPE) (23 CORE)	
151	1-823-750-11	WIRE (FLAT TYPE) (21 CORE)	
△ 156	1-575-653-11	CORD, POWER (MX)	
△ 156	1-777-071-82	CORD, POWER (E51)	
△ 156	1-783-941-12	CORD, POWER (AR)	
△ 156	1-791-901-11	CORD, POWER (E)	
555	1-757-710-11	WIRE (FLAT TYPE) (16 CORE)	
556	A-4735-188-A	BU-30 (60) ASSY	
△ F951	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8.0AL 250V) (AR,E,E51)	
△ F961	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8.0AL 250V)	
△ F962	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8.0AL 250V)	
△ F963	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8.0AL 250V)	
△ F964	1-533-949-31	FUSE, CYLINDRICAL (TIME LUG) (T8.0AL 250V)	
M201	A-4660-977-A	MOTOR ASSY	
M901	1-763-072-11	FAN, DC	
△ T951	1-437-593-11	TRANSFORMER, POWER	

ACCESSORIES			

1-477-078-11	REMOTE CONTROL (RM-SR6)		
1-501-374-11	ANTENNA, LOOP (AM)		
1-501-659-41	ANTENNA (FM)		
4-228-953-01	COVER, BATTERY (For RM-SR6)		
4-238-809-11	MANUAL, INSTRUCTION (ENGLISH)		
4-238-809-21	MANUAL, INSTRUCTION (FRENCH) (E)		
4-238-809-31	MANUAL, INSTRUCTION (SPANISH)		

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

MEMO

REVISION HISTORY

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

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

[illegible]