

HCD-GRX30/GRX30J/R550/RXD5

SERVICE MANUAL

US Model
Canadian Model
HCD-RXD5

AEP Model
UK Model
HCD-R550/RXD5

E Model
HCD-GRX30/GRX30J

Australian Model
HCD-GRX30


Tourist Model
HCD-GRX30J



Photo: HCD-GRX30

HCD-GRX30/GRX30J/R550/RXD5 is the Amplifier, CD player, Tape Deck and Tuner section in MHC-GRX30/GRX30J/R550/RXD5

Manufactured under license from Dolby Laboratories Licensing Corporation.

"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

CD Section	Model Name Using Similar Mechanism	HCD-GRX5/RX66
	CD Mechanism Type	CDM38LH-5BD32L
	Base Unit Type	BU-5BD32L
	Optical Pick-up Type	KSS-213D/Q-RP
TAPE DECK Section	Model Name Using Similar Mechanism	HCD-GRX5
	Tape Transport Mechanism Type	TCM-230AWR2

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS:

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

US model:

with 6 ohm loads both channels driven, from 70 - 20,000 Hz; rates 60 watts per channel minimum RMS power, with no more than 0.9% total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

North American model:

Continuous RMS power output (reference)
60 + 60 W
(6 Ω at 1 kHz, 10% THD)

European model:

DIN power output (rated) 60 + 60 W
(6 Ω at 1 kHz, DIN)
Continuous RMS power output (reference)
80 + 80 W
(6 Ω at 1 kHz, 10% THD)
Music power output (reference)
140 + 140 W
(6 Ω at 1 kHz, 10% THD)

Other models:

The following measured at AC 110, 220 V 50/60 Hz
DIN power output (rated) 60 + 60 W
(6 Ω at 1 kHz, DIN)

Continuous RMS power output (reference)
80 + 80 W
(6 Ω at 1 kHz, 10% THD)
The following measured at AC 120, 240 V 50/60 Hz
DIN power output (rated) 70 + 70 W
(6 Ω at 1 kHz, DIN)
Continuous RMS power output (reference)
100 + 100 W
(6 Ω at 1 kHz, 10% THD)

Inputs

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

MIX MIC: (phone jack) sensitivity 1 mV,
impedance 10 k Ω

Outputs

MD/VIDEO (AUTO) OUT:
(phono jack) voltage 250 mV
impedance 1 k Ω

PHONES:
(stereo mini jack) accepts headphones of 8 Ω
or more
SPEAKER:
accepts impedance of 6 to 16 Ω

SUPER WOOFER

(except for European model):

Voltage 1V, impedance 1k Ω

CD player section

System Compact disc and digital audio system
Laser Semiconductor laser ($\lambda=780\text{nm}$)
Emission duration: continuous
Max. 44.6 μW^*
Laser output *This output is the value measured at distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.
Frequency response 2 Hz - 20 kHz (± 0.5 dB)
Wavelength 780 - 790 nm
Signal-to-noise ratio More than 85 dB
Dynamic range More than 85 dB
CD OPTICAL DIGITAL OUT (Square optical connector jack, rear panel)
Wavelength 600 nm
Output Level -18 dBm

— Continued on next page —

MINI HI-FI COMPONENT SYSTEM



SONY®

Tape player section

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

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

Tuning range 87.5 - 108.0 MHz
Antenna FM lead antenna
Antenna terminals 75 Ω unbalanced
Intermediate frequency 10.7 MHz

AM tuner section

Tuning range
2 Band type:
North American models: 530 - 1,710 kHz
(with the interval set at 10 kHz)
531 - 1,710 kHz
(with the interval set at 9 kHz)
European model: 531 - 1,602 kHz
(with the interval set at 9 kHz)
Other models: 531 - 1,602 kHz
(with the interval set at 9 kHz)
530 - 1,710 kHz
(with the interval set at 10 kHz)
3 Band type:
Middle Eastern model:
MW: 531 - 1,602 kHz
(with the interval set at 9 kHz)
SW: 5.95 - 17.90 MHz
(with the interval set at 5 kHz)
Other models:
MW: 531 - 1,602 kHz
(with the interval set at 9 kHz)
530 - 1,710 kHz
(with the interval set at 10 kHz)
SW: 5.95 - 1,790 kHz
(with the interval set at 5 kHz)
Antenna AM loop antenna
Antenna terminals External antenna terminal
Intermediate frequency 450 kHz

General

Power requirements
North American model: 120 V AC, 60 Hz
European model: 230 V AC, 50/60 Hz
Australian model: 230 - 240 V AC, 50/60 Hz
Mexican model: 120 V AC, 50/60 Hz
Thailand model: 220 - 240 V AC, 50/60 Hz
Other models: 110 - 120 V or 220 - 240 V AC,
50/60 Hz

Power consumption
U.S.A. model: 130 W
Canadian model: 110 W
East European model: 130 W
Other models: 110 W

Dimensions (w/h/d) Approx. 280 \times 340 \times 380 mm
(11 \times 13 $\frac{3}{8}$ \times 15 in.)

Mass: Approx. 9.5 kg (21 lb.)
Supplied accessories: AM loop antenna (1)
Remote commander (1)
Batteries (2)
FM lead antenna (1)
Speaker cords (2) (for European model only)

Design and specifications are subject to change without notice.

SECTION 1 SERVICING NOTES

TABLE OF CONTENTS

1. SERVICING NOTES	3
2. GENERAL	6
3. DISASSEMBLY	
3-1. Case	8
3-2. Front Panel Section	8
3-3. Tape Mechanism Deck Section (TCM-230AWR2)	9
3-4. CD Mechanism Deck section (CDM38LH-5BD32L)	9
3-5. Main Board	10
4. TEST MODE	11
5. MECHANICAL ADJUSTMENTS	13
6. ELECTRICAL ADJUSTMENTS	13
7. DIAGRAMS	
7-1. Circrit Boards Location	18
7-2. Block Diagrams	19
• CD Section	19
• Tape Deck Section	21
• Main Section	23
• Display/Key Con Section	25
7-3. Printed Wiring Board – CD Section –	29
7-4. Schematic Diagram –CD Section –	31
7-5. Printed Wiring Board – CD Motor Section –	33
7-6. Schematic Diagram – CD Motor Section –	35
7-7. Printed Wirint Board – Tape Deck Section –	37
7-8. Schematic Diagram – Tape Deck Section –	39
7-9. Printed Wiring Board – Leaf SW Section –	41
7-10. Schematic Diagram – Leaf SW Section –	42
7-11. Printed Wiring Board – Main Section –	43
7-12. Schematic Diagram – Main Section (1/4) –	45
7-13. Schematic Diagram – Main Section (2/4) –	47
7-14. Schematic Diagram – Main Section (3/4) –	49
7-15. Schematic Diagram – Main Section (4/4) –	51
7-16. Printed Wiring Board – Panel Section –	53
7-17. Schematic Diagram – Panel Section –	55
7-18. Printed Wiring Board – AC Sec Standby Section –	57
7-19. Schematic Diagram – AC Sec Standby Section –	59
7-20. Printed Wiring Board – CD SW Section –	61
7-21. Schematic Diagram – CD SW Section –	61
7-22. IC Block Diagrams	63
7-23. IC PIN Function Description	66
8. EXPLODED VIEWS	
8-1. Case Section	69
8-2. Front Panel Section	70
8-3. Chassis Section	71
8-4. CD Mechanism Deck Section-1 (CDM38LH-5BD32L)	73
8-5. CD Mechanism Deck Section-2 (CDM38LH-5BD32L)	74
8-6. Base Unit Section (BU-5BD32L)	75
8-7. Tape Mechanism Deck Section-1 (TCM-230AWR2)	76
8-8. Tape Mechanism Deck Section-2 (TCM-230AWR2)	77
9. ELECTRICAL PARTS LIST	78

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.

Notes on chip component replacement

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

Flexible Circuit Board Repairing

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

CAUTION

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

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

CLASS 1 LASER PRODUCT
 LUOKAN 1 LASERLAITE
 KLASS 1 LASERAPPARAT

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

The following caution label is located inside the unit.

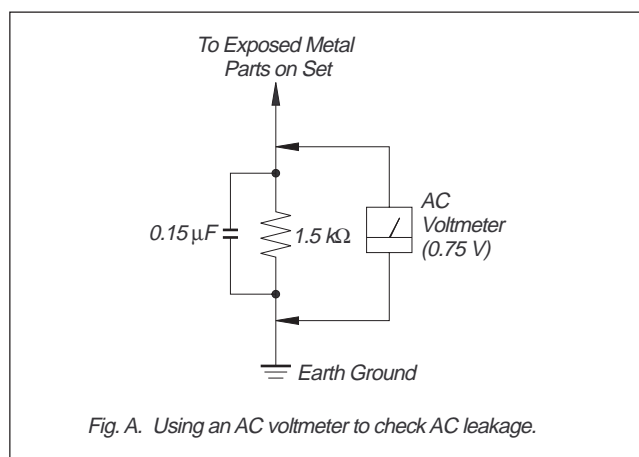
SAFETY CHECK-OUT

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

LEAKAGE

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

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



SAFETY-RELATED COMPONENT WARNING!!

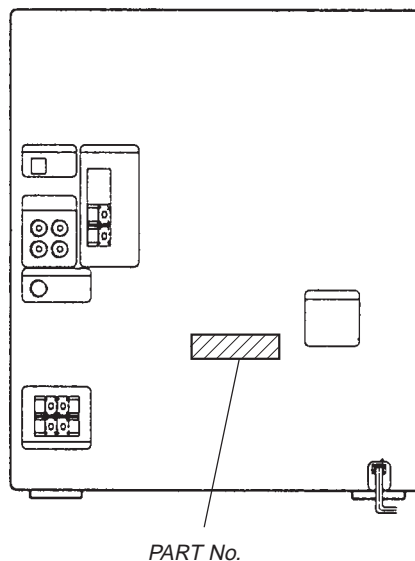
COMPONENTS IDENTIFIED BY MARK \triangle OR DOTTED LINE WITH MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

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

MODEL IDENTIFICATION

– Back Panel –



MODEL	PART No.
GRX30: E2, E3, EA, AR, SP, TW models GRX30J models	4-214-432-0□
R550, RXD5: CIS models	4-214-432-1□
RXD5: US, CND models	4-214-432-2□
R550, RXD5: AEP, AED, UK, G models	4-214-432-3□
GRX30: MX, TH, KR, AUS models	4-214-432-6□

• Abbreviation

- CND : Canadian model
- AUS : Australian model
- G : German model
- AED : North European model
- EA : Saudi Arabia model
- E2 : Central and South America model
- E3 : Middle and Near East model
- MX : Mexican model
- SP : Singapore model
- TH : Thai model
- TW : Taiwan model
- AR : Argentina model
- KR : Korea model

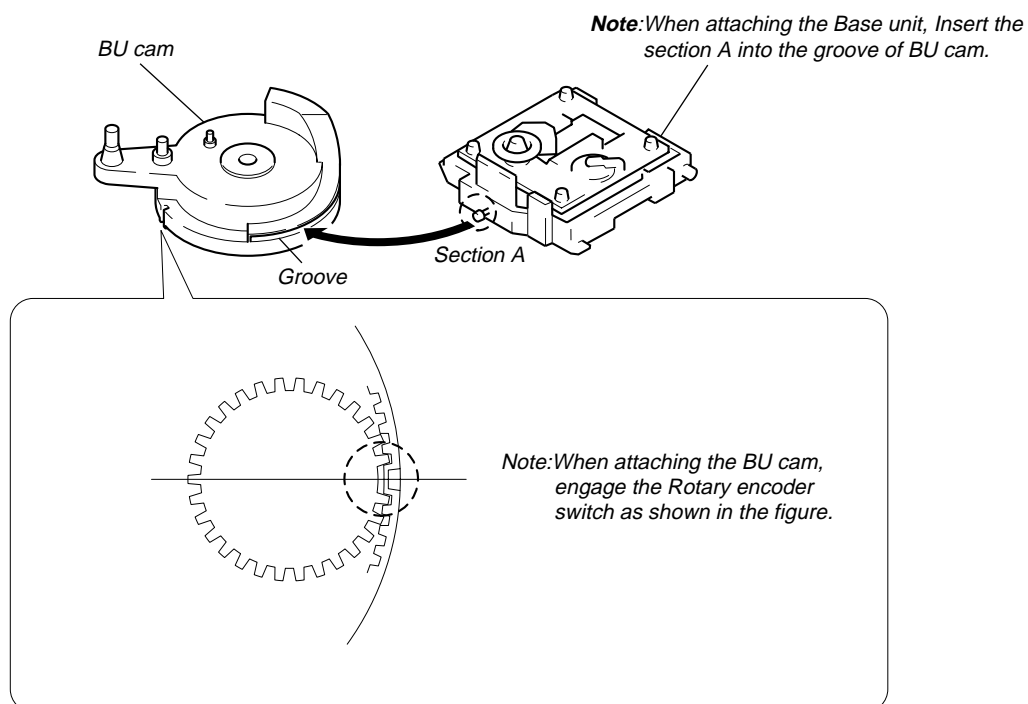
HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF.

❶ Remove the Case.

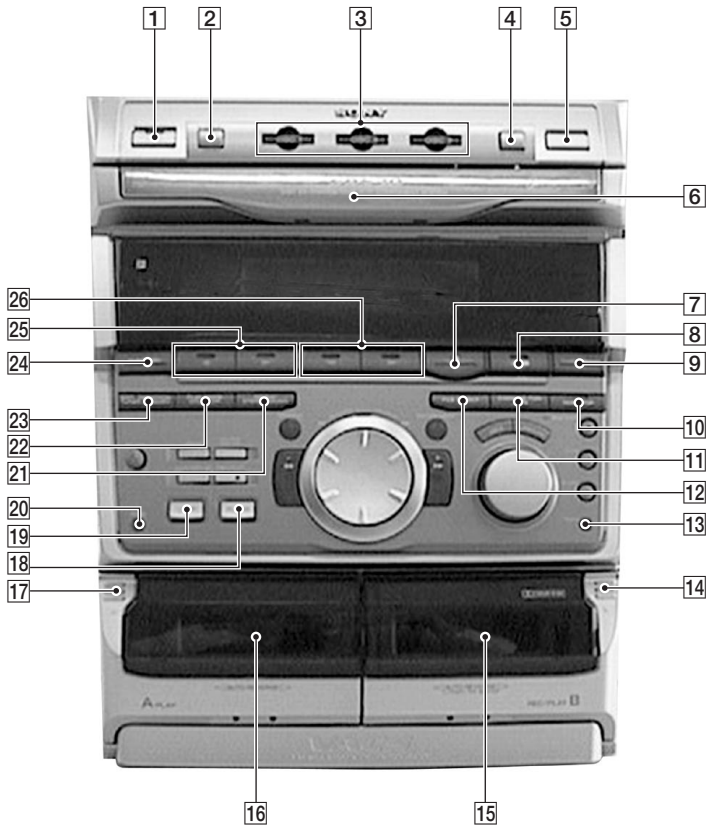
❸ Pull-out the disc tray.

❷ Turn the cam to the direction of arrow.

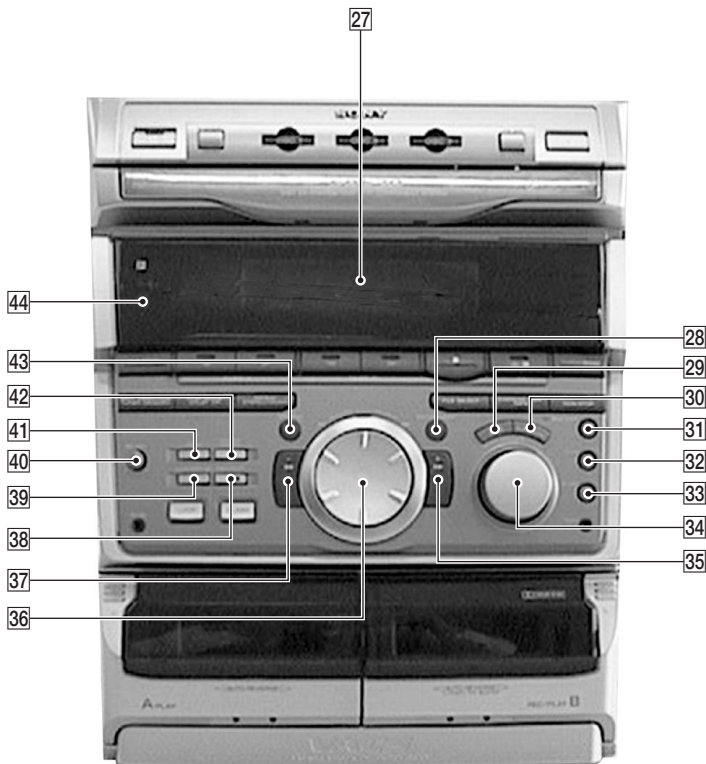
NOTE FOR INSTALLATION (ROTARY ENCODER)



SECTION 2 GENERAL



- 1 I/⏻ (Power) button and indicator
- 2 DEMO/ (STANDBY)/POWER SAVE (North American and European model) button
- 3 DISC 1 to 3 button and indicators
- 4 DISC SKIP/EX-CHANGE button
- 5 ⏻ (CD) button
- 6 CD disc tray
- 7 ■ button
- 8 CD, ▶|| button and indicator
- 9 TUNER/BAND button
- 10 CD NON-STOP button and indicator
- 11 KARAOKE PON/MPX button
- 12 FILE SELECT button
- 13 PHONES jack
- 14 ⏻ (deck B)
- 15 Tape deck B
- 16 Tape deck A
- 17 ⏻ (deck A)
- 18 CD FLASH button
- 19 CD LOOP button
- 20 MIX MIC jack
- 21 REPEAT, STEREO/MONO button
- 22 PLAY MODE, DOLBY NR, PTY (European model) button
- 23 EDIT DIRECTION, TUNER MEMORY button
- 24 FUNCTION button
- 25 TAPE A, ◀ and ▶ buttons and indications
- 26 TAPE B, ◀ and ▶ buttons and indications



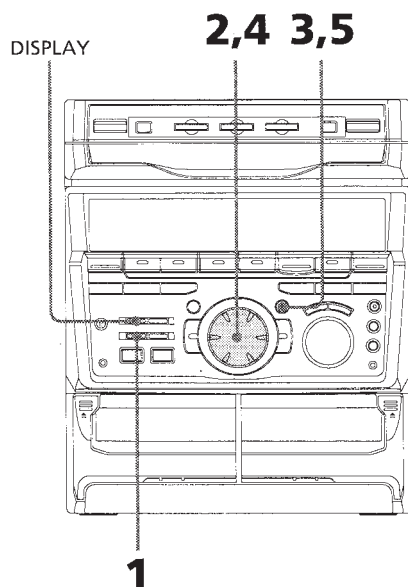
- 27 Fluorescent indicator tube
- 28 ENTER/NEXT button and indicator
- 29 DBFB button
- 30 SURROUND button
- 31 REC, PAUSE/START button and indicator
- 32 HI-DUB button
- 33 CD SYNC button
- 34 VOLUME knob
- 35 +, ▶▶ button and indicator
- 36 JOG dial
- 37 -, ◀◀ button and indicator
- 38 TIMER SELECT button and indicator
- 39 CLOCK/TIMER SET button
- 40 MIC LEVEL knob
- 41 DISPLAY button
- 42 SPECTRUM ANALYZER button
- 43 GROOVE button and indicator
- 44 Remote sensor

Step 2: Setting the time

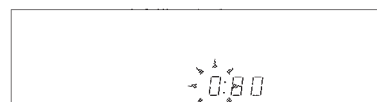
You must set the time before using the timer functions.

The clock is on a 24-hour system for the European model and a 12-hour system for other models.

The 24-hour system model is used for illustration purposes.

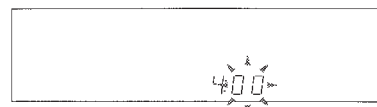


- 1** Press **CLOCK/TIMER SET**.
The hour indication flashes.



- 2** Turn the jog dial to set the hour.

- 3** Press **ENTER/NEXT**.
The minute indication flashes.



- 4** Turn the jog dial to set the minute.

- 5** Press **ENTER/NEXT**.
The clock starts working.

Tip

If you've made a mistake, start over from step 1.

To change the time

The previous explanation shows you how to set the time while the power is off. To change the time while the power is on, do the following:

- 1** Press **CLOCK/TIMER SET**.
- 2** Turn the jog dial to select **SET CLOCK**.
- 3** Press **ENTER/NEXT**.
- 4** Perform steps 2 through 5 above.

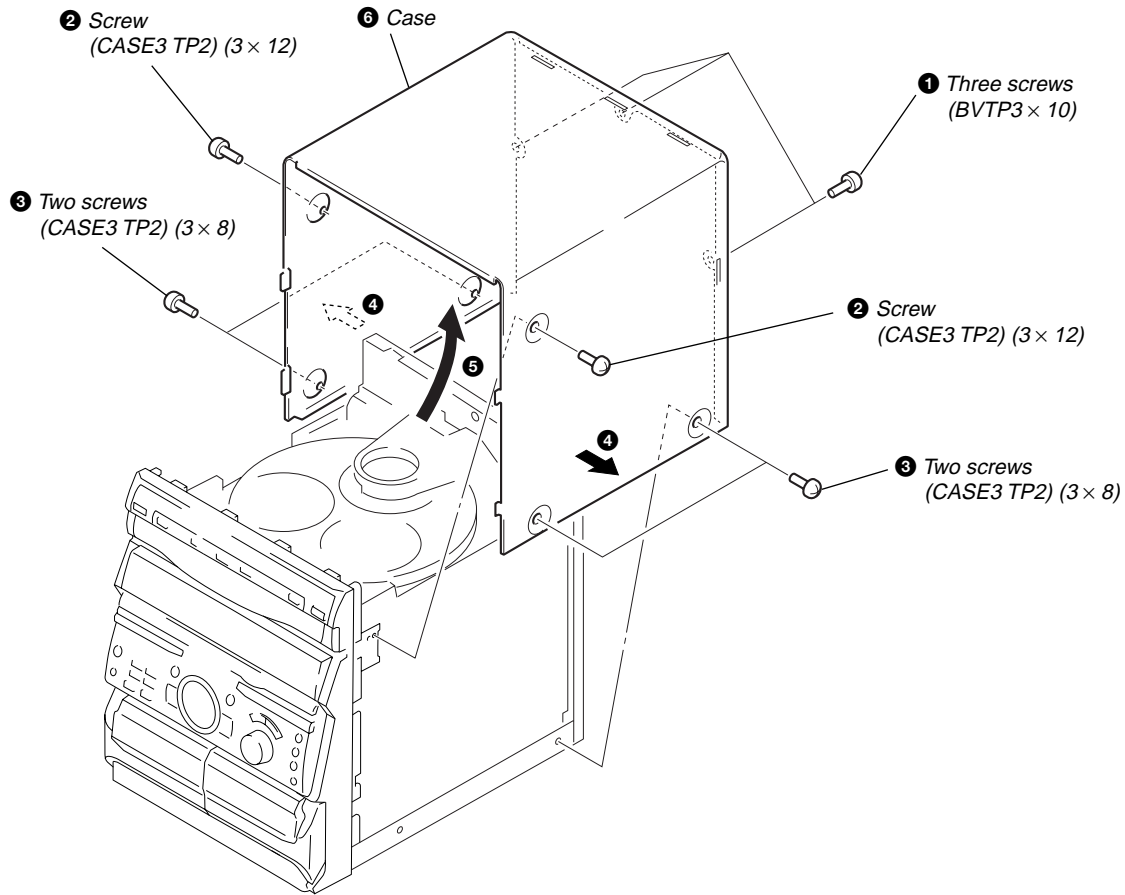
Note

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

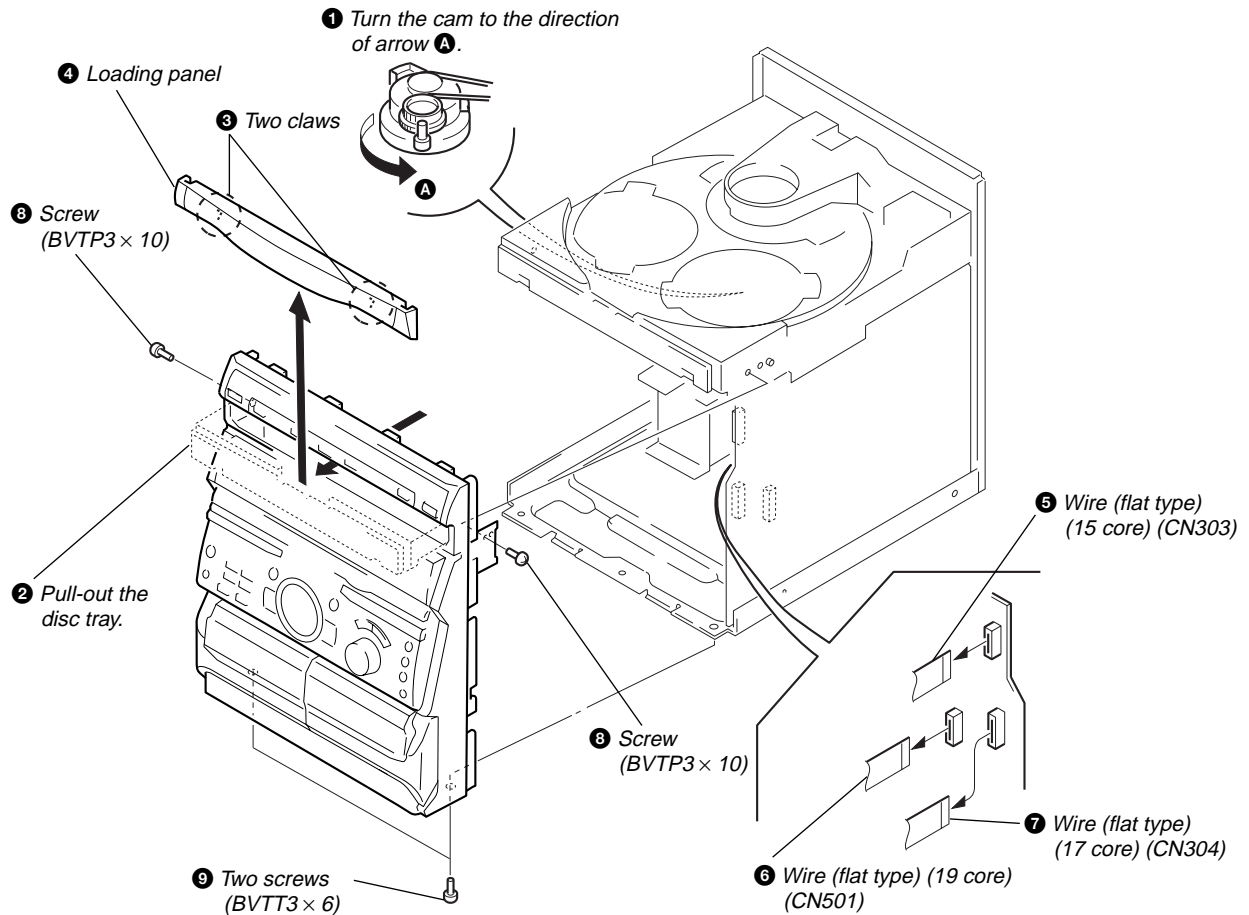
SECTION 3 DISASSEMBLY

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

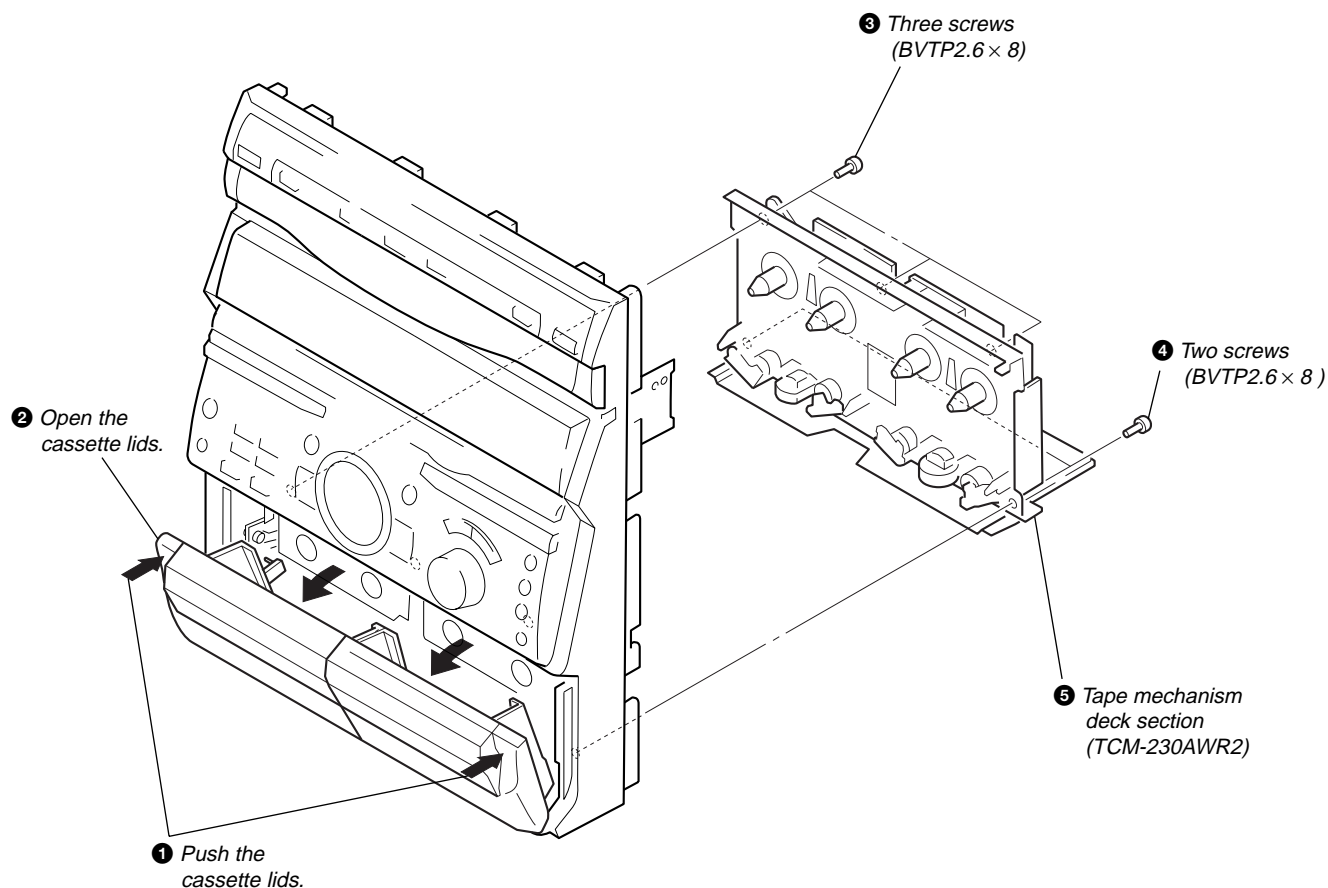
3-1. CASE



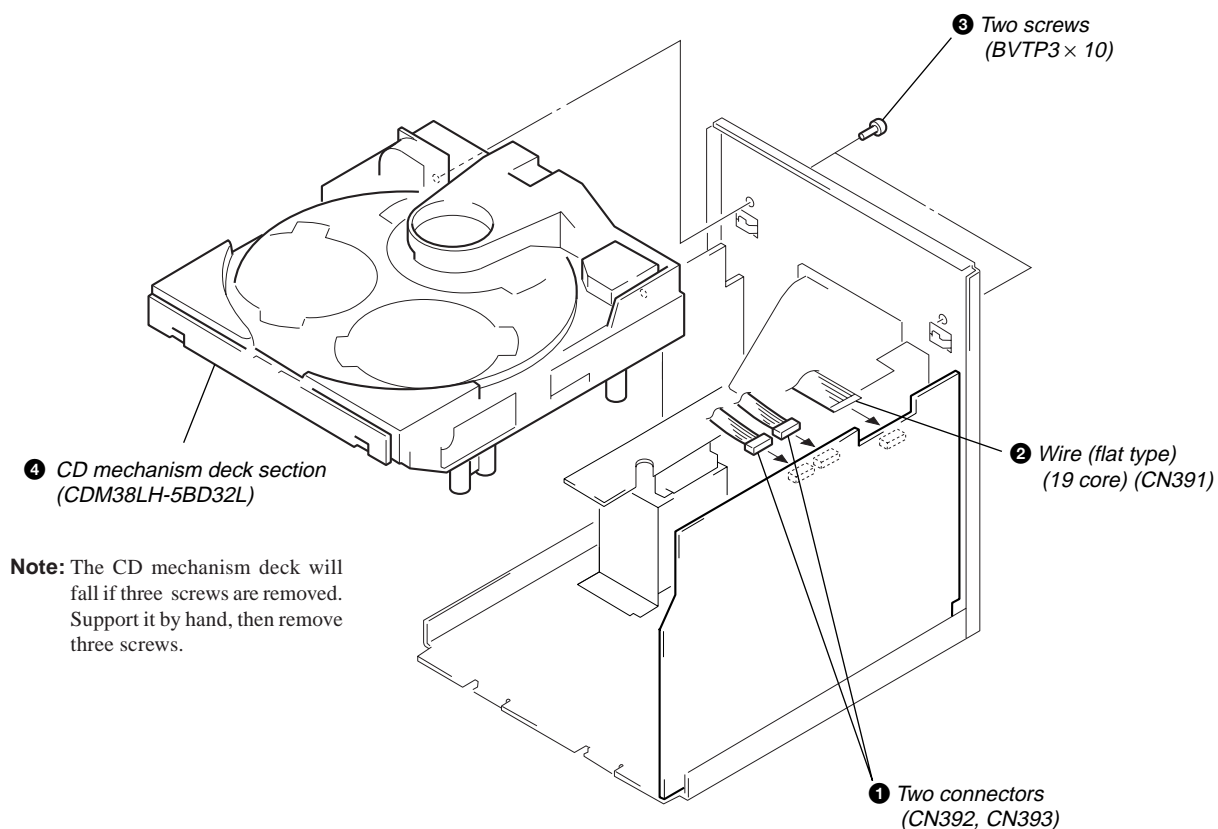
3-2. FRONT PANEL SECTION



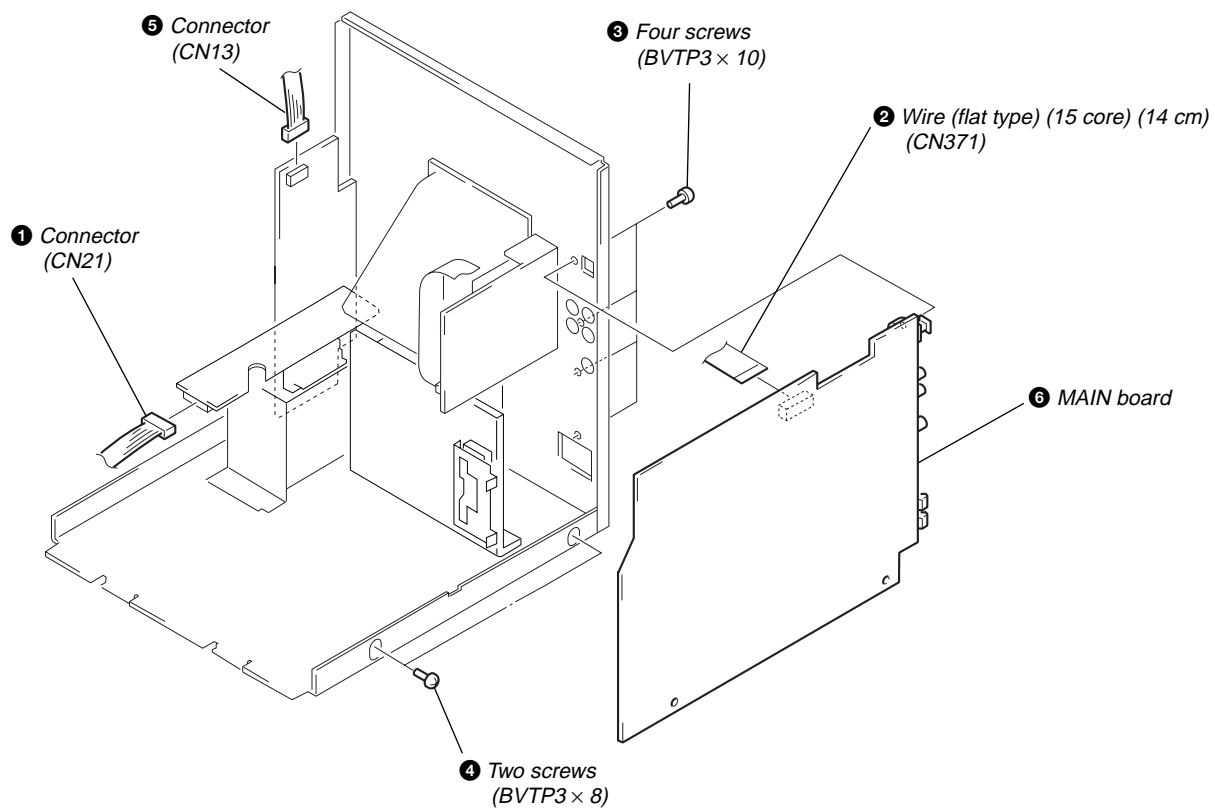
3-3. TAPE MECHANISM DECK SECTION (TCM-230AWR2)



3-4. CD MECHANISM DECK SECTION (CDM38LH-5BD32L)



3-5. MAIN BOARD






SECTION 4

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:

1. Press three buttons , , and  simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[CD Delivery Mode]

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




Procedure:

1. Press  button to turn the set ON.
2. Press  button and  button simultaneously.
3. A message "LOCK" is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

[MC Hot Reset]

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







Procedure:

1. Press three buttons , , and  simultaneously.
2. The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[Sled Servo Mode]

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

Procedure:






1. Press  button to turn the set ON.
2. Select the function "CD".
3. Press three buttons , , and  simultaneously.
4. The Sled Servo mode is selected, if "CD" is blanking on the fluorescent indicator tube.
5. With the CD in stop status, press  button to move the pickup to outside track, or  button to inside track.
6. To exit from this mode, perform as follows:
 - 1) Move the pickup to the most inside track.
 - 2) Press three buttons in the same manner as step 2.

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

[Change-over of AM Tuner Step between 9 kHz and 10 kHz]





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


Procedure:


1. Press  button to turn the set ON.
2. Select the function "TUNER", and press  button to select the BAND "AM".
3. Press  button to turn the set OFF.
4. Press  and  buttons simultaneously, and the display of fluorescent indicator tube changes to "AM 9 k STEP" or "AM 10 k STEP", and thus the channel step is changed over.

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

Procedure:

1. Press three buttons , , and  simultaneously.
2. LEDs and fluorescent indicator tube are all turned on. Press  button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays "K 1 J0 V0". Each time a button is pressed, "K" value increases. However, once a button is pressed, it is no longer taken into account.

"J" value increases like 1, 2, 3 ... if rotating  knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.

"V" value increases like 1, 2, 3 ... if rotating  knob in "+" direction, or it decreases like 0, 9, 8 ... if rotating in "-" direction.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

[Aging Mode]

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

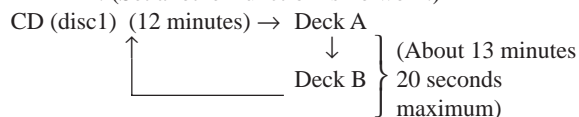
- If an error occurred:
The aging operation stops and display status.
- If no error occurs:
The aging operation continues repeatedly.

1. Operating method of Aging Mode

- 1) Set disc in DISC1 tray.
- 2) Load the tapes recording use into the decks A and B respectively.
- 3) Press three buttons **[■]**, **[ENTER/NEXT]**, and **[DISC SKIP/EX-CHANGE]** simultaneously.
- 4) The aging mode is activated, if a CD roulette mark on the fluorescent indicator tube is blinking.
- 5) To exit from the aging mode, press **[I/⏻]** button to turn the set OFF.

2. Operation sequence

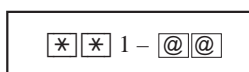
- During the aging mode in the following sequence to below.
- Starting the CD section aging for function set "CD", starting the TAPE section (deck A) aging for function set "TAPE A" or "TAPE B". (Set another function is no work.)



3. Aging Mode in CD section

- 1) Display state
- No error occurs

display



Note:

* * : a letter "CD" and the remainder time (minute) alternately. (remainder time start from 12 minute)

@ @ : track number in access.

- Error occurred

NO.	Display	Main factor
1	NO DISC ERR	Not set disc in DISC1
2	FOCUS1 ERR	Focus does not work
3	FOCUS2 ERR	Focus does not work after the disc rotate as usual
4	GFS ERR	GFS error
5	FBIAS ERR	Error in to the focus bias adjustment
6	SENSOR ERR	Disc sensor sens DISC1 is no disc
7	TABLE ERR	CD tray lotate does not work
8	TRAY ERR	Tray (include BD) move does not work

2) Operation during aging mode

In the aging mode, the program is executed in the following sequence.

- (1) The disc tray turns to select a disc1.
- (2) A disc is chucked.
- (3) TOC of disc is read.
- (4) The pickup accesses to the track 1, and playing 2 seconds.
- (5) The pickup accesses to the last track, and playing 2 seconds.
- (6) Steps 1 through 5 are repeated about 12 minutes.
- (7) Change to deck section aging.

4. Aging Mode in Tape Deck section

- 1) Display state
- No error occurs
Display action now
- Error occurred
Display action last time

NO.	Display action	Action contents	Final timing
1	TAPE A AG-1	Rewind the TAPE A	The top of tape
2	TAPE A AG-2	FWD play the TAPE A	3 minutes playing
3	TAPE A AG-3	F.F. the TAPE A	First either 20 minutes or the end of tape
4	TAPE A AG-4	REV play the TAPE A	3 minutes playing
5	TAPE A AG-5	Rewind the TAPE A	The top of tape
6	TAPE B AG-1	Rewind the TAPE B	The top of tape
7	TAPE B AG-2	FWD play the TAPE B	3 minutes playing
8	TAPE B AG-3	F.F. the TAPE B	First either 20 minutes or the end of tape
9	TAPE B AG-4	REV play the TAPE B	3 minutes playing
10	TAPE B AG-5	Rewind the TAPE B	The top of tape

2) Operation during aging mode

In the aging mode, the program is executed in the following sequence.

- (1) Rewind is executed up to the top of tape.
- (2) A tape on FWD side is played for 3 minutes.
- (3) FF is executed up to either made for 20 minutes or the end of tape.
- (4) A tape is reversed, and the tape on REV side is played for 3 minutes.
- (5) Rewind is executed up to the top of tape.
- (6) Steps 1 through 5 are executed for the other deck.
- (7) Change to CD section aging.

SECTION 5 MECHANICAL ADJUSTMENTS

Precaution

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

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

Torque Measurement

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

SECTION 6 ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775 V

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

• Test Tape

Tape	Signal	Used for
P-4-A100	10 kHz, -10 dB	Azimuth Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment
P-4-L300	315 Hz, 0 dB	Level Adjustment

Record/Playback Head Azimuth Adjustment

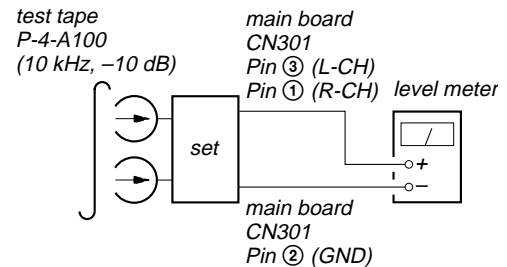
DECK A

DECK B

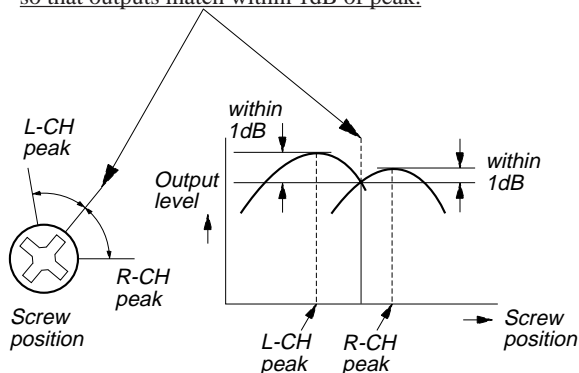
Note: Perform this adjustments for both decks

Procedure:

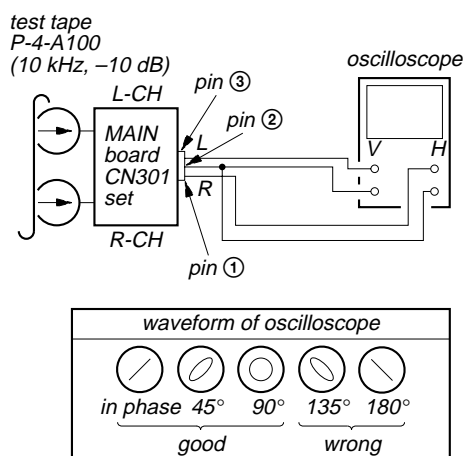
1. Mode: Playback



- 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.

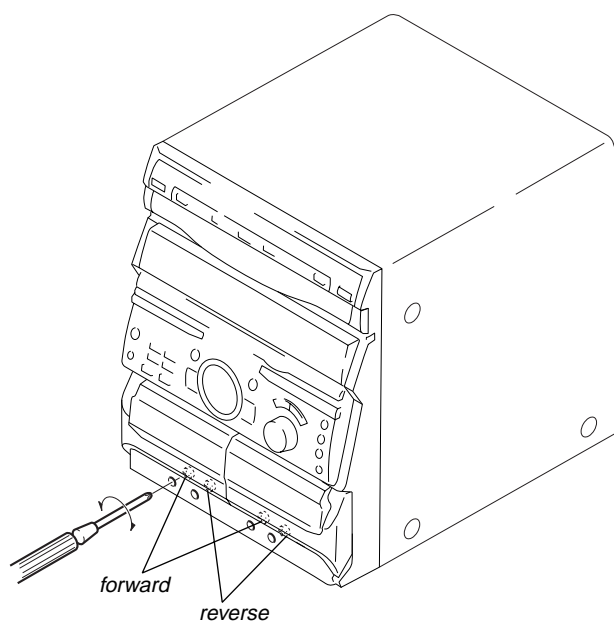


- Mode: Playback



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

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



Tape Speed Adjustment **DECK B**

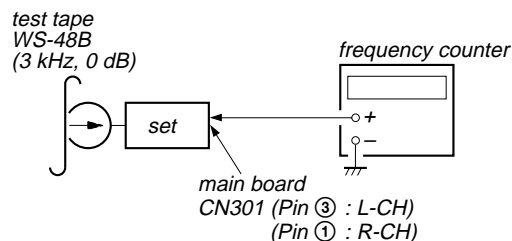
Note: Start the Tape Speed adjustment as below after setting to the test mode.

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

Procedure:

- Turn the power switch on.
- Press the button, **ENTER/NEXT** button and **DISC 3** button simultaneously.
(The "VOLUME" on the fluorescent indicator tube will blink while in the test mode.)
To exit from the test mode, press the button.

Mode: Playback



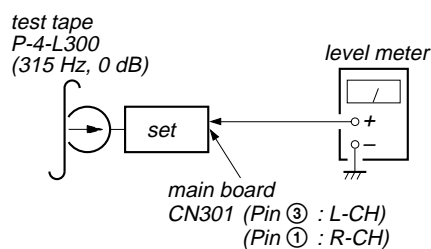
- Insert the WS-48B into the deck B.
- Press the button on the deck B.
- Press the **HI-DUB** button in playback mode.
Then at HIGH speed mode.
- Adjust RV1001 on the LEAF SW board so that frequency counter reads $6,000 \pm 180$ Hz.
- Press the **HI-DUB** button.
Then back to NORMAL speed mode.
- Adjust RV1002 on the LEAF SW board so that frequency counter reads $3,000 \pm 90$ Hz.

Adjustment Location: LEAF SW board

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

Procedure:

Mode: Playback



Deck A is RV311 (L-CH) and RV411 (R-CH), Deck B is RV301 (L-CH) and RV401 (R-CH) so that adjustment within adjustment level as follows.

Adjustment Level:

CN301 PB level: 301.5 to 338.3 mV (-8.2 to -7.2 dB) level
difference between the channels: within ± 0.5 dB

Adjustment Location: AUDIO board

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

REC Bias Adjustment **DECK B**

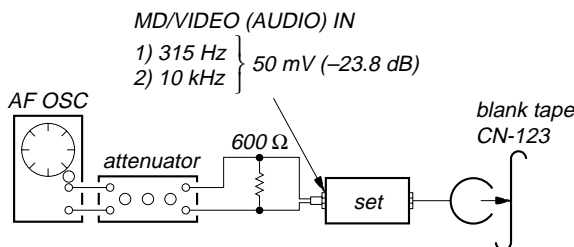
Procedure:

INTRODUCTION

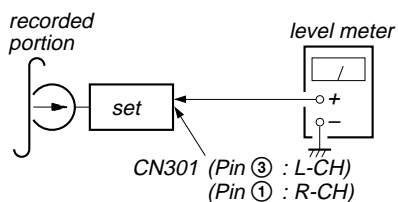
When set to the test mode performed in Tape Speed Adjustment, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set. This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

(If do not operation of stopped from recording complete, and press button then rewind to recording start position.)

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



5. Mode: Playback



6. Confirm playback the signal recorded in step 3 become adjustable level as follows.
If these levels do not adjustable level, adjustment the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 4 and 5.

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

Adjustment Location: AUDIO board

REC Level Adjustment **DECK B**

Procedure:

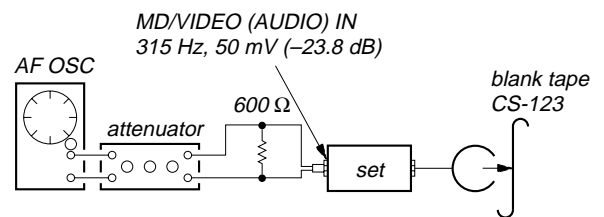
INTRODUCTION

When set to the test mode performed in Tape Speed Adjustment, when the tape is rewound after recording, the "REC memory mode" which rewinds only the recorded portion and playback is set. This "REC memory mode" is convenient for performing this adjustment. During recording, the input signal FUNCTION will automatically switch to VIDEO.

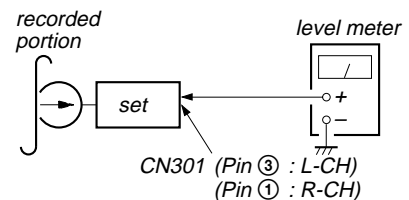
(If do not operation of stopped from recording complete, and press button then rewind to recording start position.)

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

4. Mode: Record



5. Mode: Playback



6. Confirm playback the signal recorded in step 3 become adjustable level as follows.

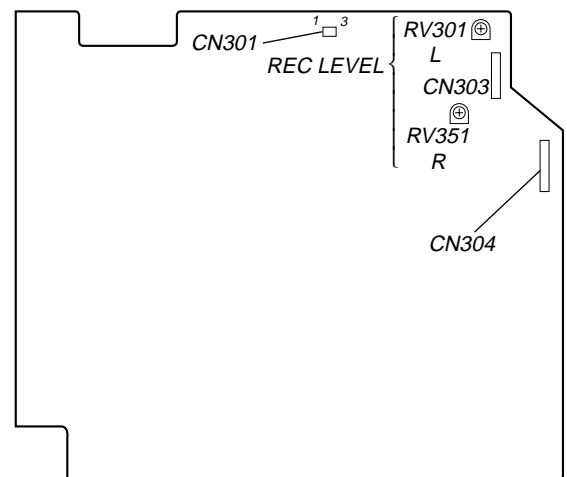
If these levels do not adjustable level, adjustment the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 4 and 5.

Adjustable level:

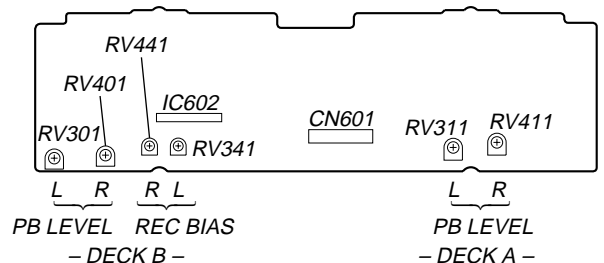
CN301 PB level: 47.2 to 53.0 mV (-24.3 to -23.3 dB)

Adjustment Location: MAIN board

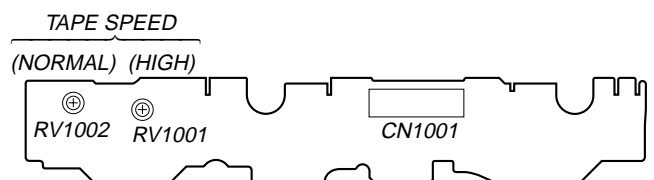
[MAIN BOARD] (Component Side)



[AUDIO BOARD] (Component Side)



[LEAF SW BOARD] (Component Side)

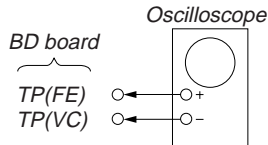


CD SECTION

Note :

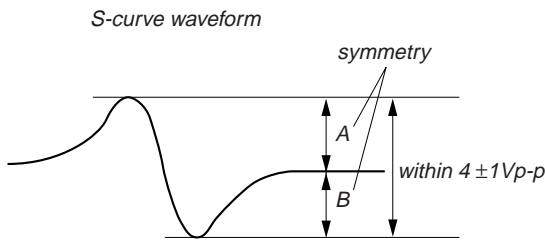
1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10M Ω impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal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

S-Curve Check



Procedure :

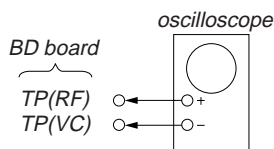
1. Connect oscilloscope to TP (FE).
2. Connect between TP (FEI) and TP (VC) by lead wire.
3. Connect between TP (AGCCON) and TP (GND) by lead wire.
4. Turn Power switch on.
5. Load a disc (YEDS-18) and actuate the focus search. (In consequence of open and close the disc tray, actuate the focus search)
6. Confirm that the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 4 ± 1 Vp-p.



7. After check, remove the lead wire connected in step 2 and 3.

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

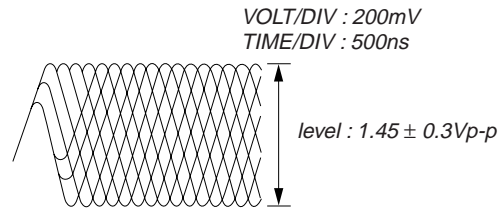


Procedure :

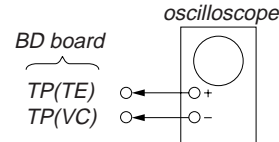
1. Connect oscilloscope to TP (RF).
2. Connect between TP (AGCCON) and TP (GND) by lead wire.
3. Turned Power switch on.
4. Load a disc (YEDS-18) and playback.
5. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.
6. After check, remove the lead wire connected in step 2.

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

RF signal waveform



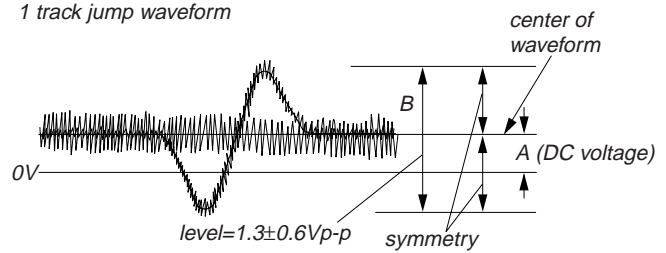
E-F Balance (1 Track jump) Check



Procedure :

1. Connect oscilloscope to TP (TE) and TP (VC).
2. Turned Power switch on.
3. Load a disc (YEDS-18) and playback the number five track.
4. Press the button. (Becomes the 1 track jump mode.)
5. Confirm that the level B and A (DC voltage) on the oscilloscope waveform.

1 track jump waveform



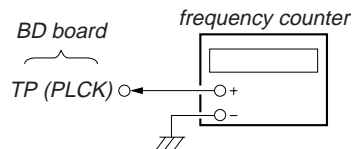
Specified level: $\frac{A}{B} \times 100 = \text{less than } \pm 22\%$

6. After check, remove the lead wire connected in step 1.

RF PLL Free-run Frequency Check

Procedure :

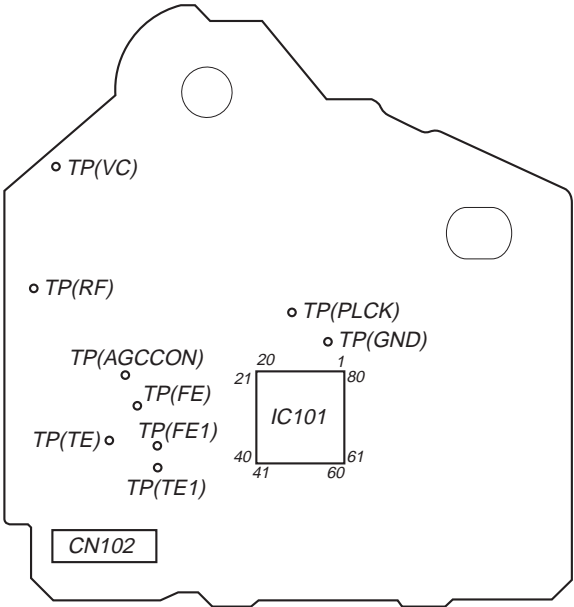
1. Connect frequency counter to test point (PLCK) with lead wire.



2. Turned Power switch on.
3. Put the disc (YEDS-18) in to play the number five track. Confirm that reading on frequency counter is 4.3218MHz.

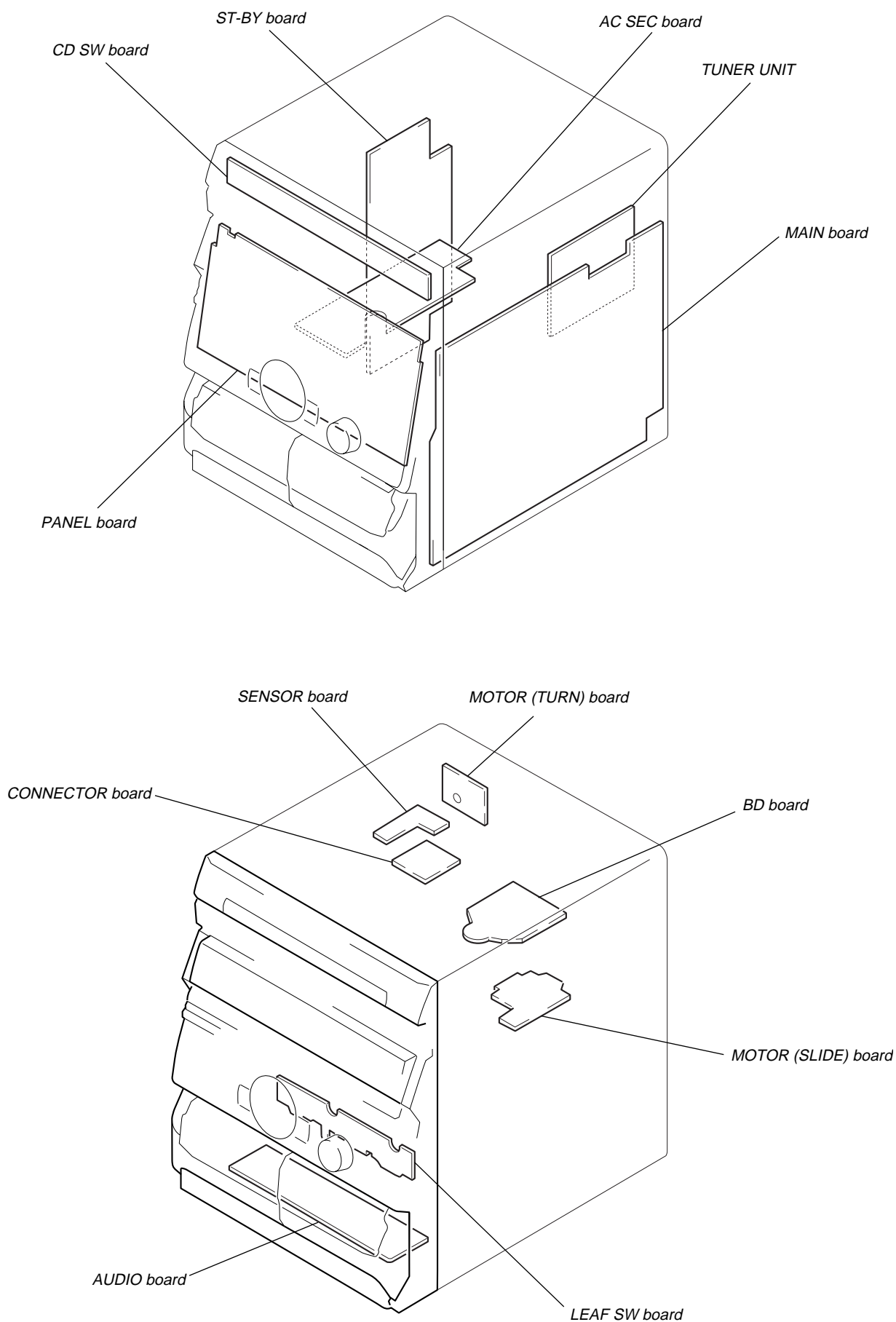
Adjustment Location:

[BD BOARD] (Conductor Side)

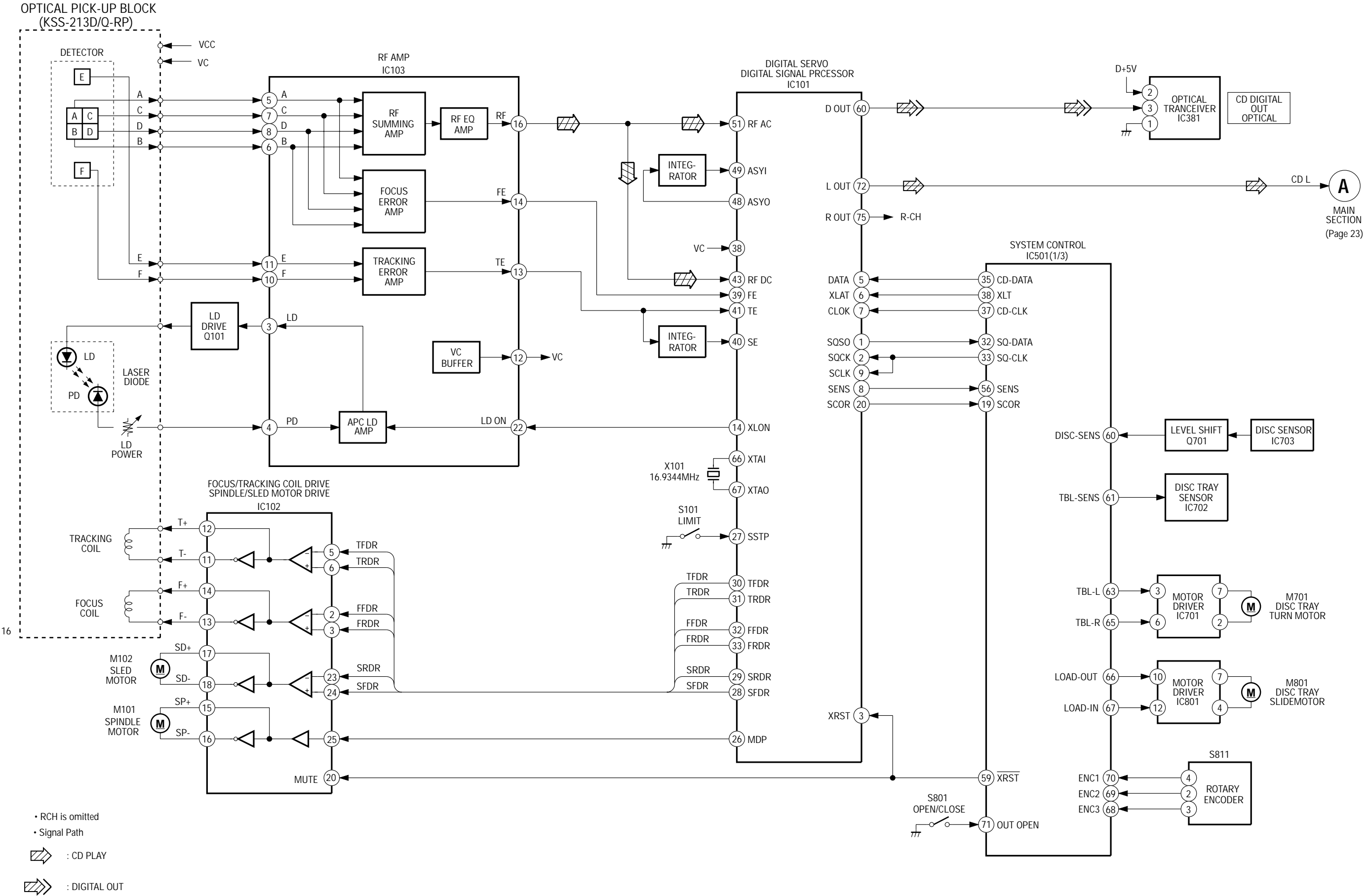


SECTION 7 DIAGRAMS

7-1. CIRCUIT BOARDS LOCATION



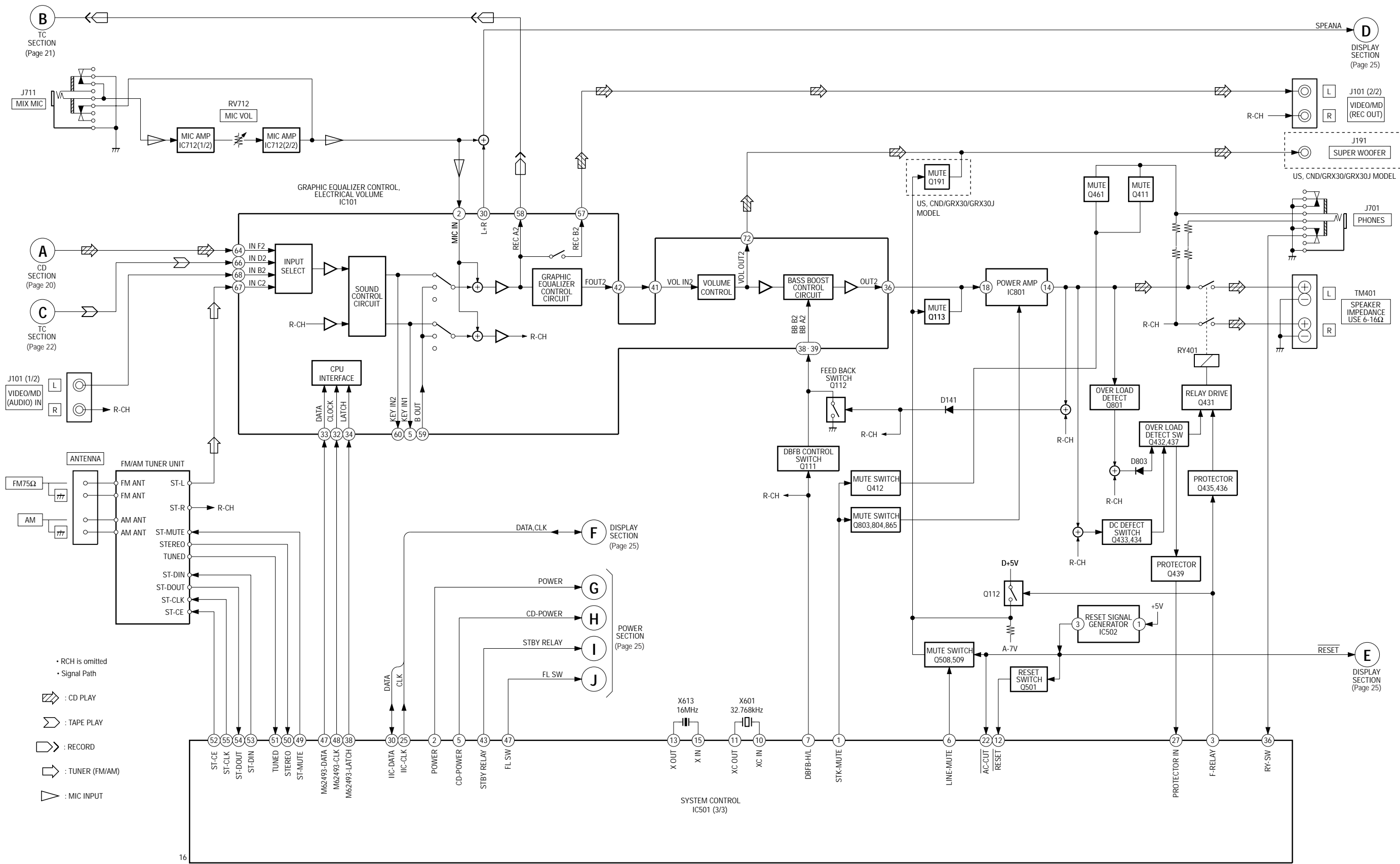
7-2. BLOCK DIAGRAMS
— CD SECTION —



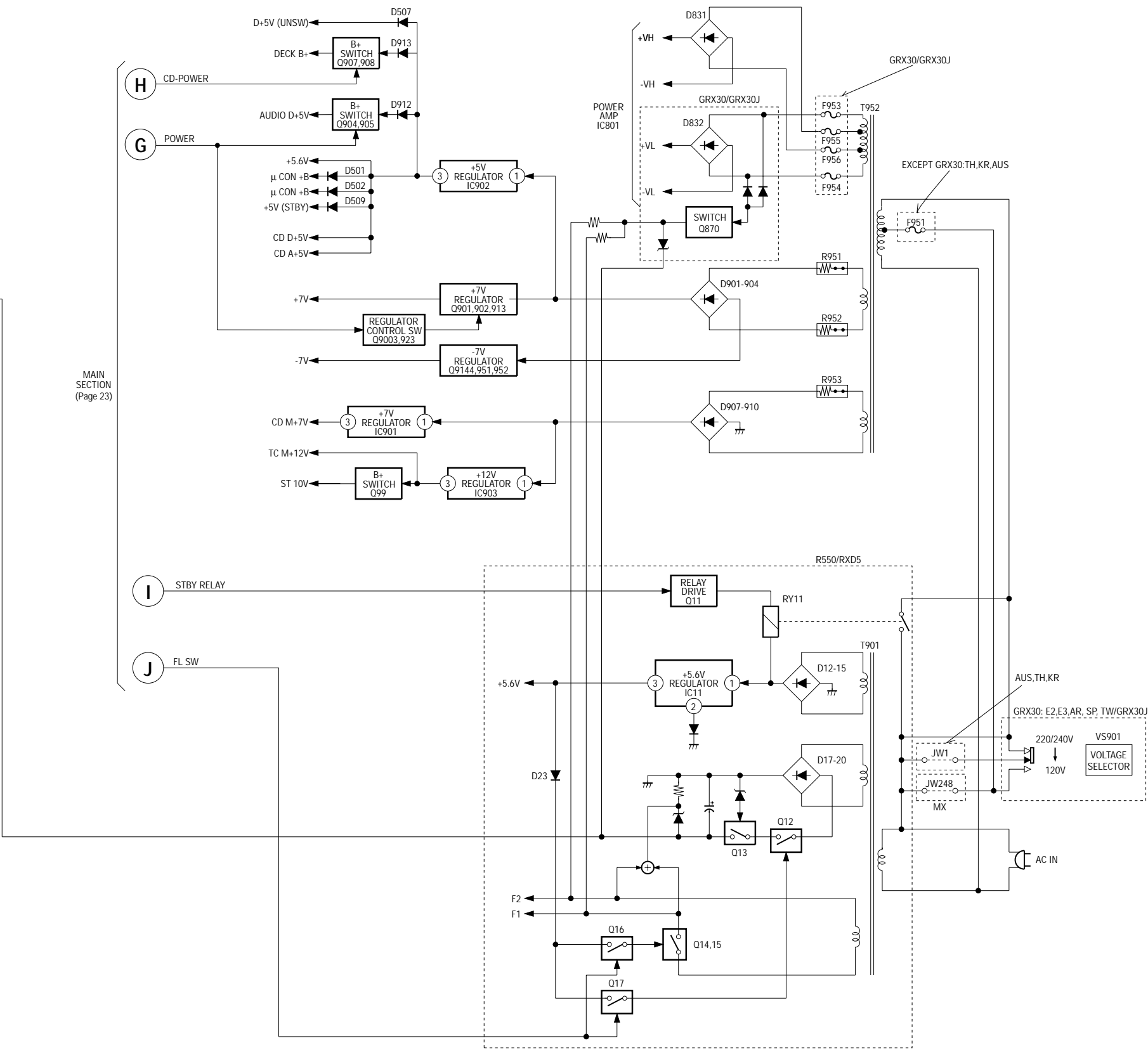
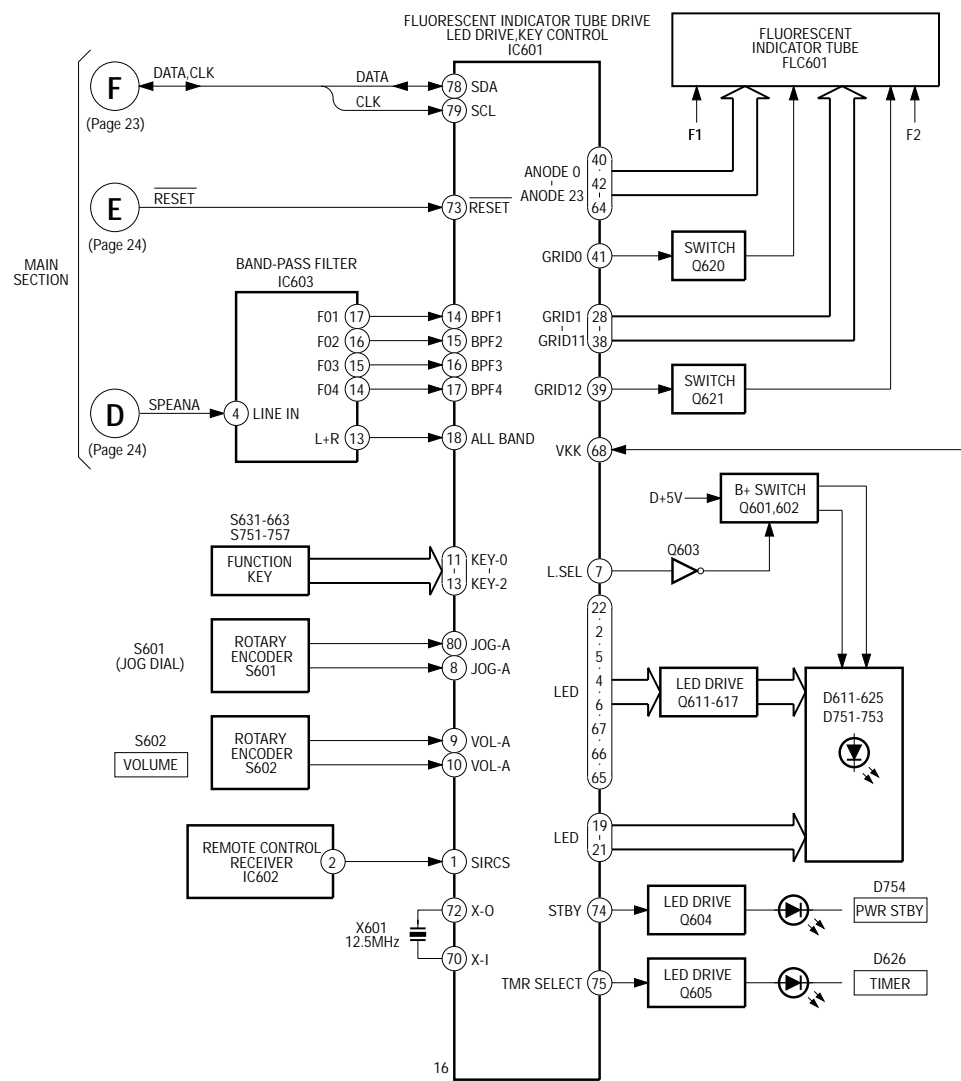


— MAIN SECTION —

• Abbreviation
CND : Canadian model



— DISPLAY/KEY CON SECTION —



- Abbreviation
- AUS : Australian model
- EA : Saudi Arabia model
- E2 : Central and South America models
- E3 : Middle and Near East models
- SP : Singapore model
- TH : Thai model
- TW : Taiwan model
- AR : Argentina model
- KR : Korea model

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

Note on Schematic Diagram:

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

Note:

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

Note:

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

- $\boxed{B+}$: B+ Line.
- $\boxed{B-}$: B- Line.
- $\boxed{}$: adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 - \Rightarrow : FM
 - \Rightarrow : AM
 - \Rightarrow : PB (DECK A)
 - \Rightarrow : PB (DECK B)
 - \Rightarrow : REC (DECK B)
 - \Rightarrow : CD
 - \Rightarrow : digital out
- Abbreviation
 - CND : Canadian model
 - AUS : Australian model
 - G : German model
 - AED : North European model
 - EA : Saudi Arabia model
 - E2 : Central and South America models
 - E3 : Middle and Near East models
 - MX : Mexican model
 - SP : Singapore model
 - TH : Thai model
 - TW : Taiwan model
 - AR : Argentina model
 - KR : Korea model

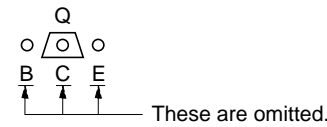
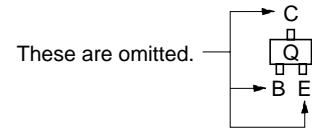
Note on Printed Wiring Boards:

- \circ : parts extracted from the component side.
- \blacksquare : parts mounted on the conductor side.
- \circ : Through hole.
- Pattern : Pattern from the side which enables seeing. (The other layers' patterns are not indicated.)

Caution:

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

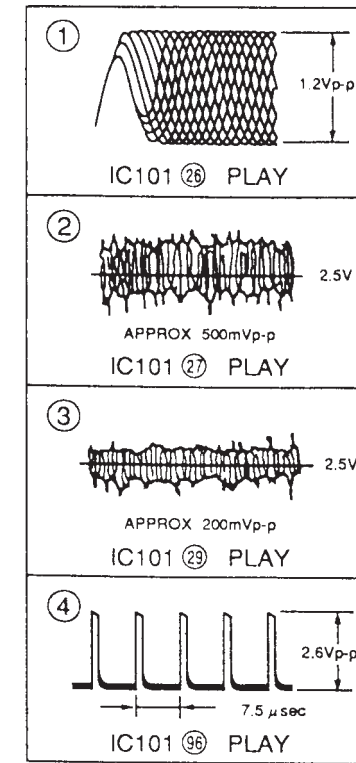
- Indication of transistor.



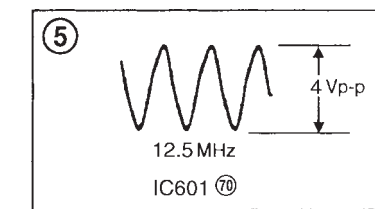
These are omitted.

• Waveform

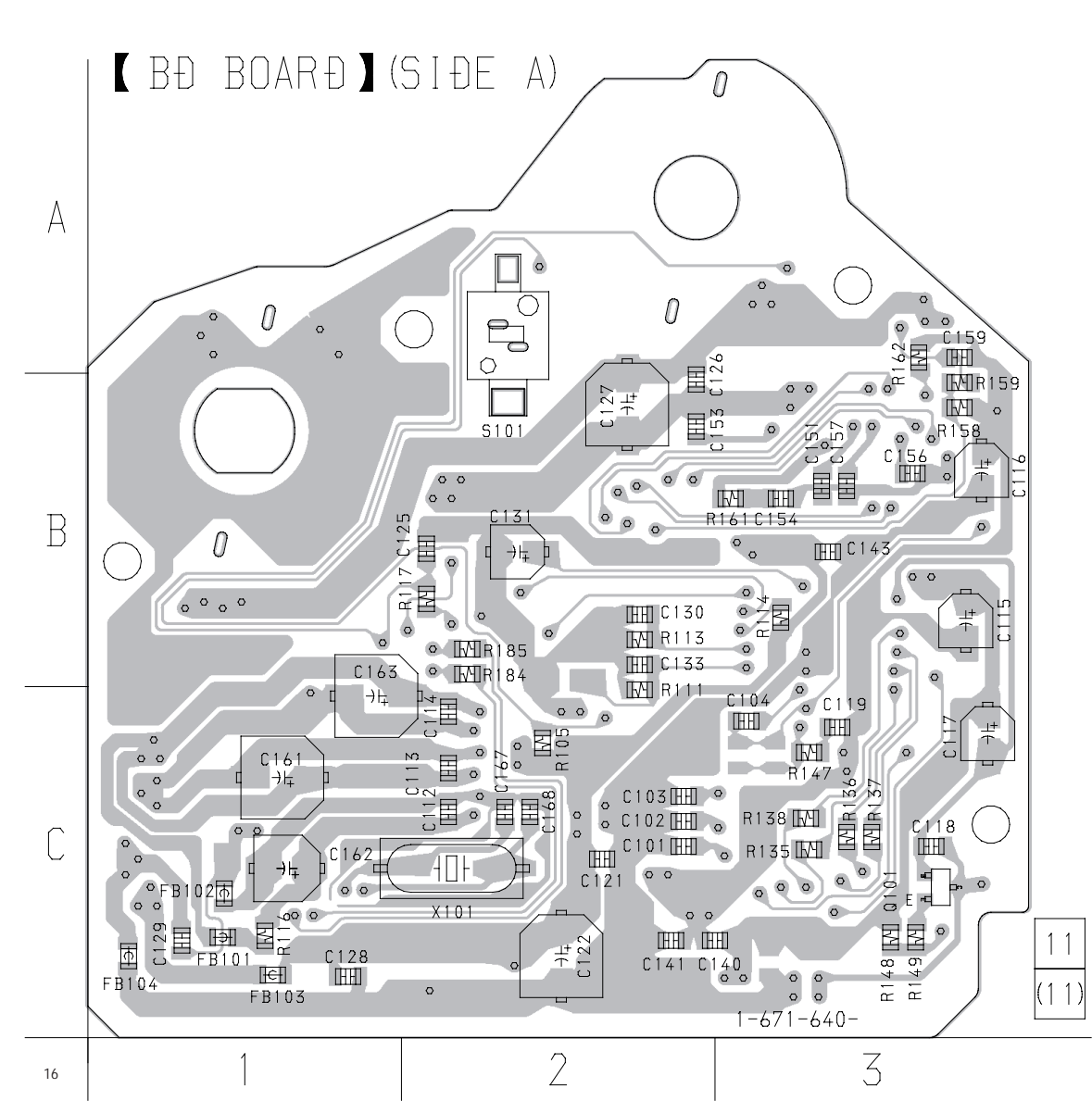
– BD board –



– PANEL board –

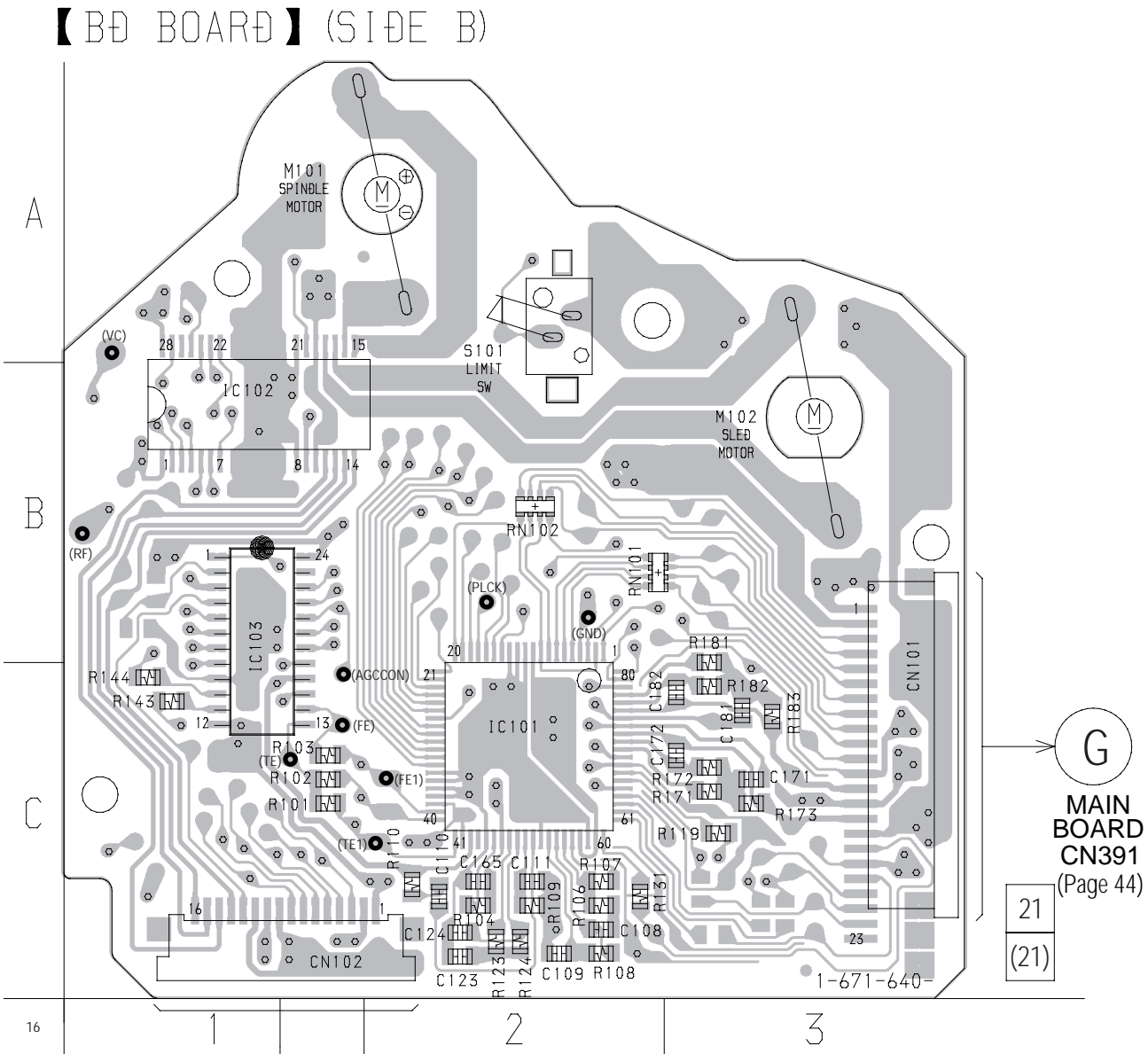


7-3. PRINTED WIRING BOARD — CD SECTION — • Refer to page 18 for Circuit Boards Location. • Refer to page 27 for Note on Printed Wiring Boards.



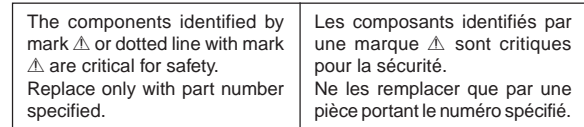
• Semiconductor Location

Ref. No.	Location
Q101	C-3



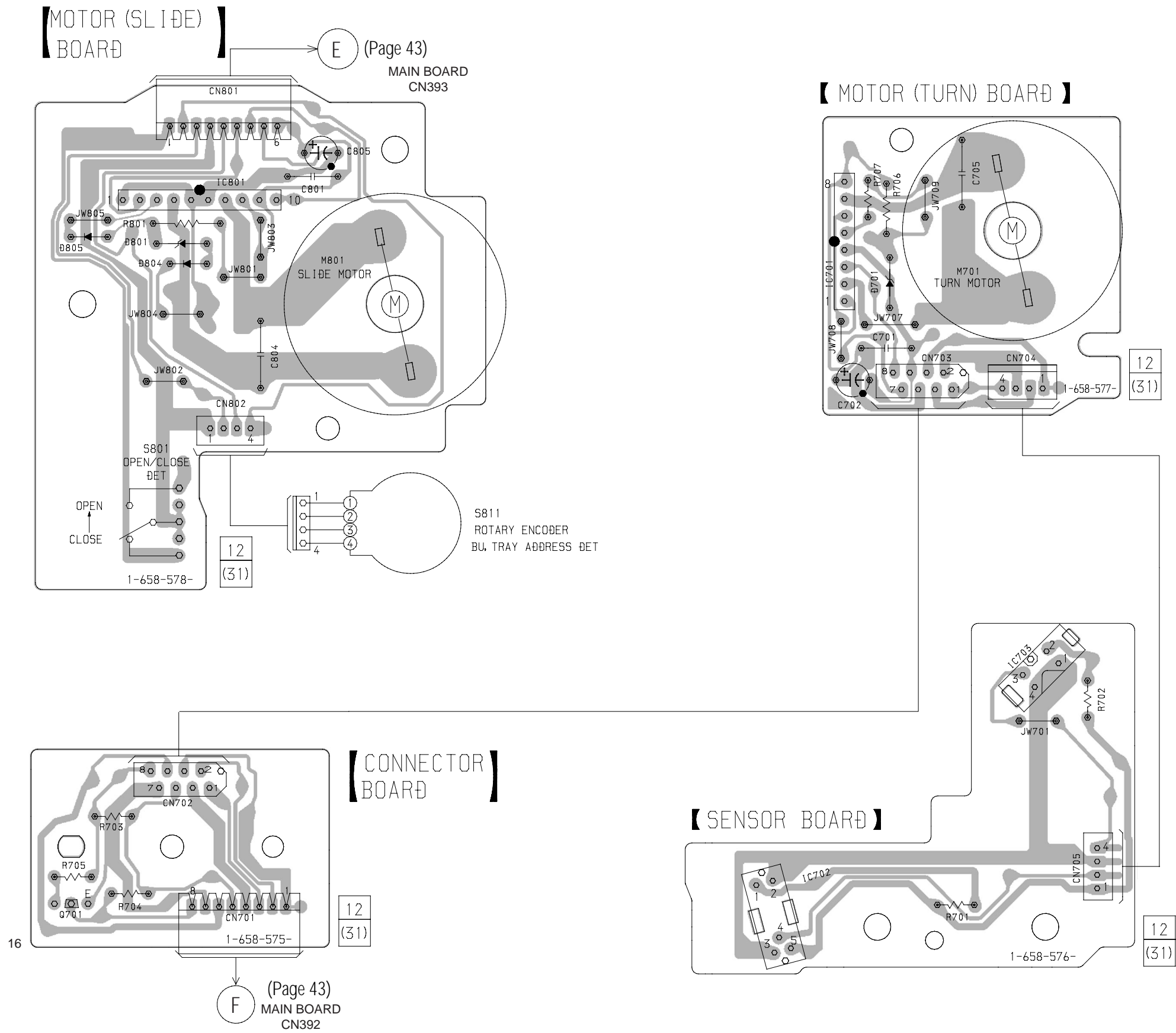
• Semiconductor Location

Ref. No.	Location
IC101	C-2
IC102	B-1
IC103	B-1

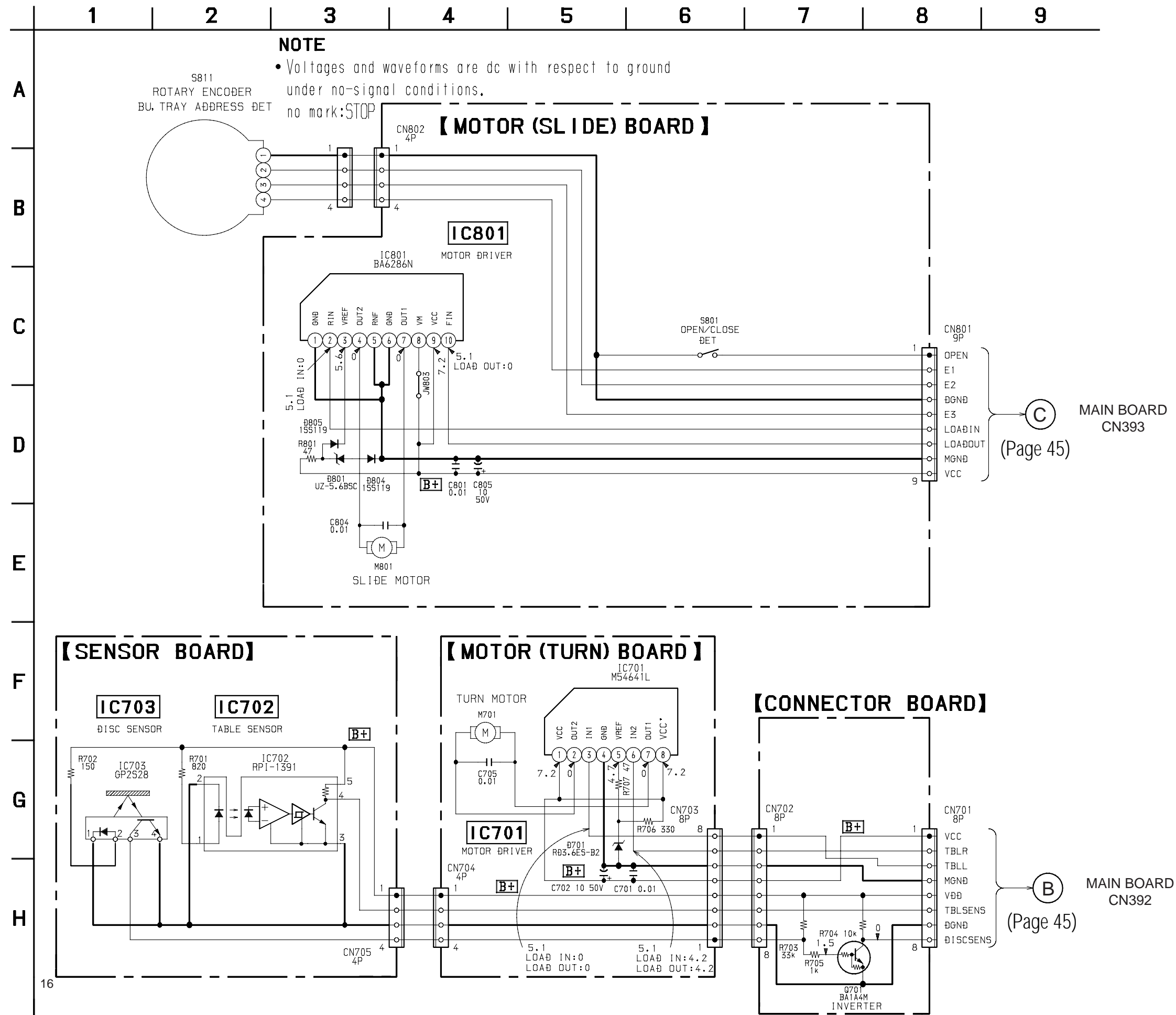


7-5. PRINTED WIRING BOARD — CD MOTOR SECTION —

• Refer to page 18 for Circuit Boards Location. • Refer to page 27 for Note on Printed Wiring Boards.



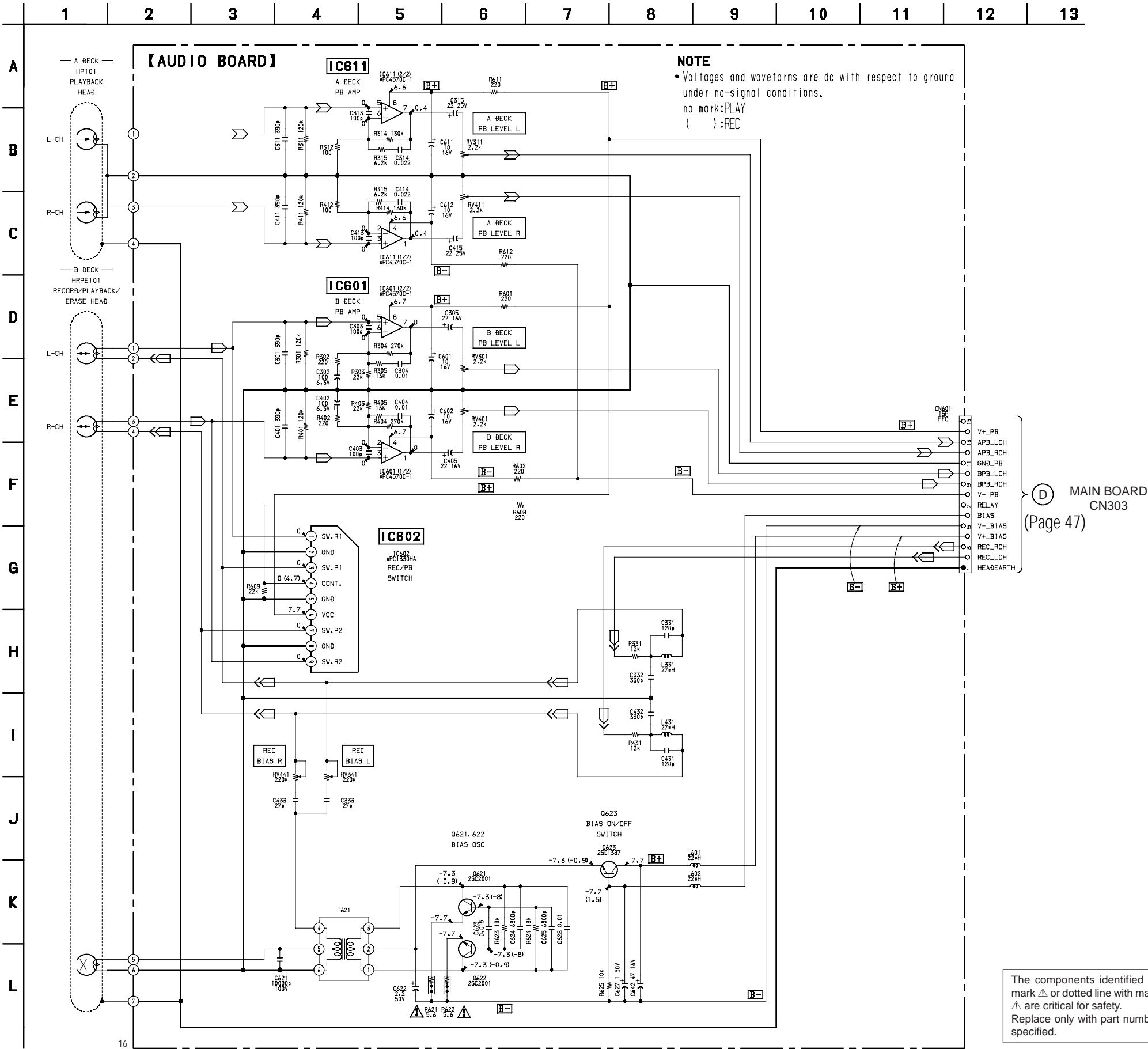
7-6. SCHEMATIC DIAGRAM — CD MOTOR SECTION —



— 37 —



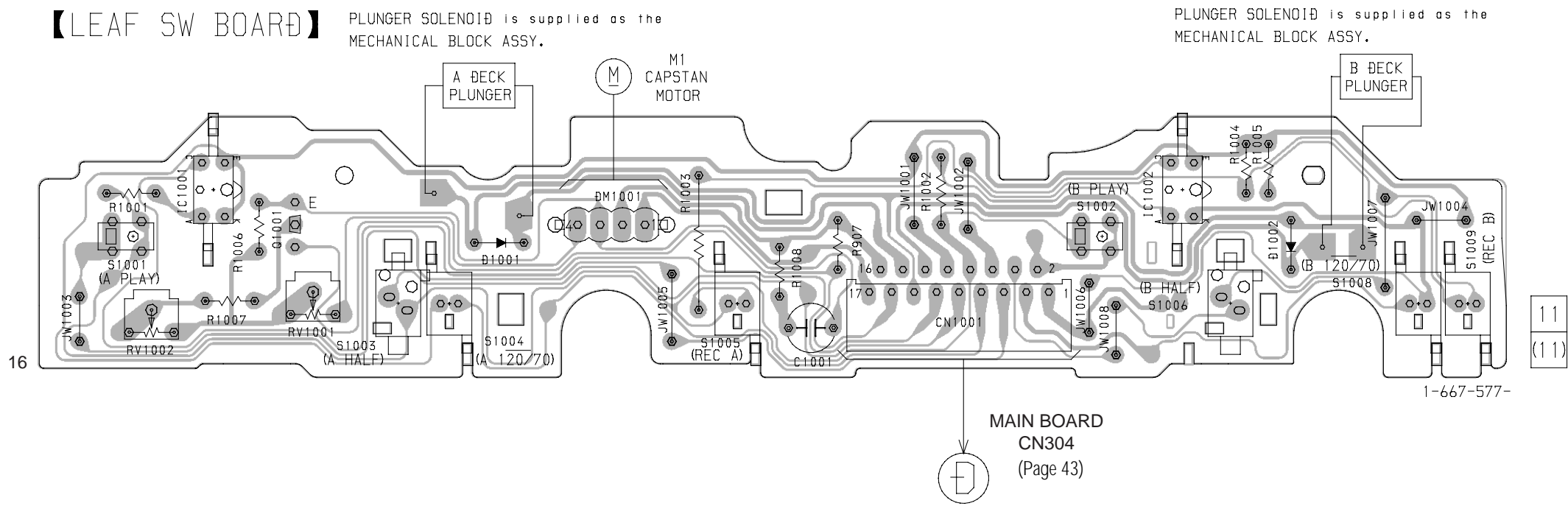
7-8. SCHEMATIC DIAGRAM — TAPE DECK SECTION — • Refer to page 64 for IC Block Diagrams. • Refer to page 27 for Note on Schematic Diagram.



7-9. PRINTED WIRING BOARD —LEAF SW SECTION —

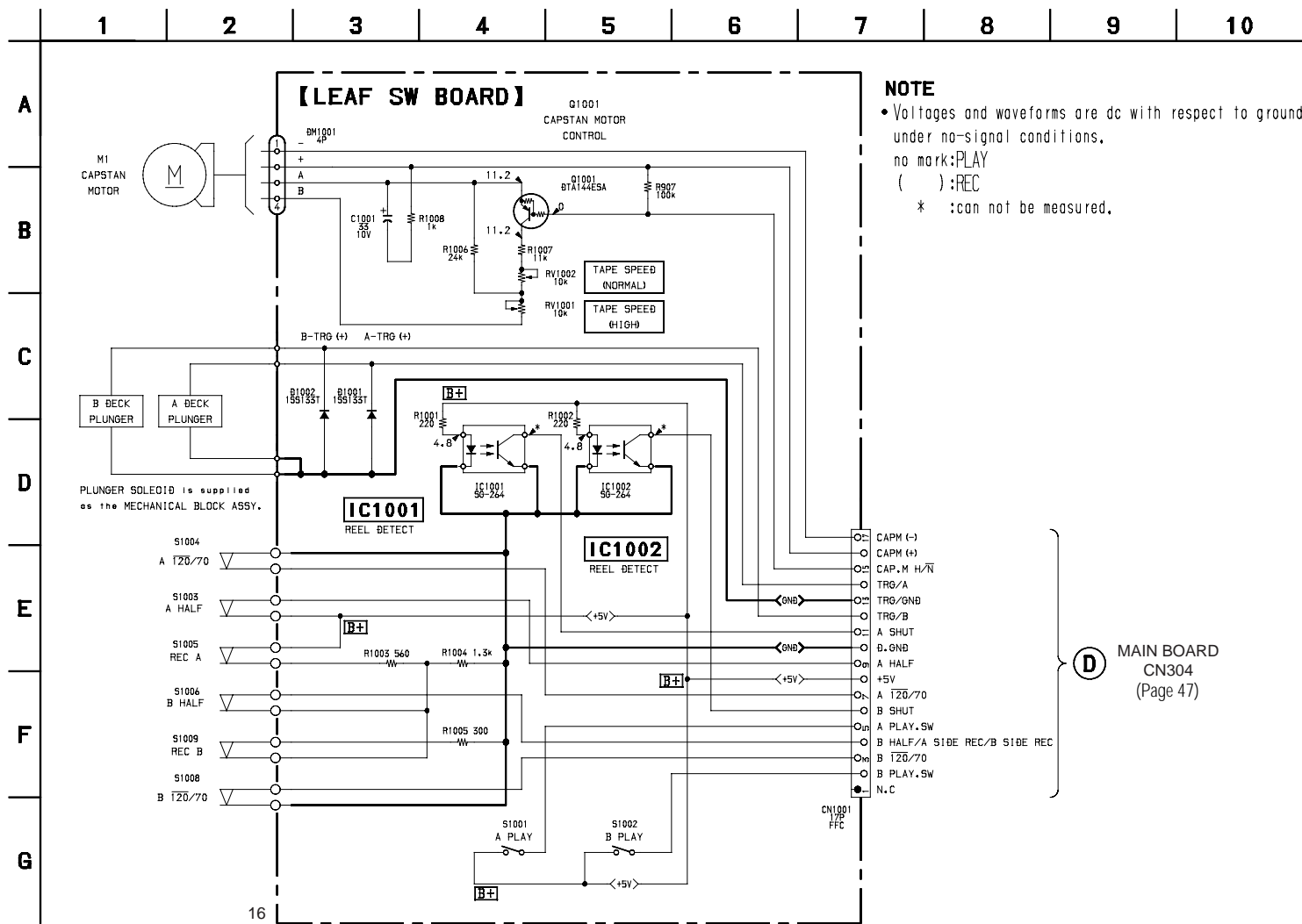
• Refer to page 18 for Circuit Boards Location.

• Refer to page 27 for Note on Printed Wiring Boards.



7-10. SCHEMATIC DIAGRAM —LEAF SW SECTION —

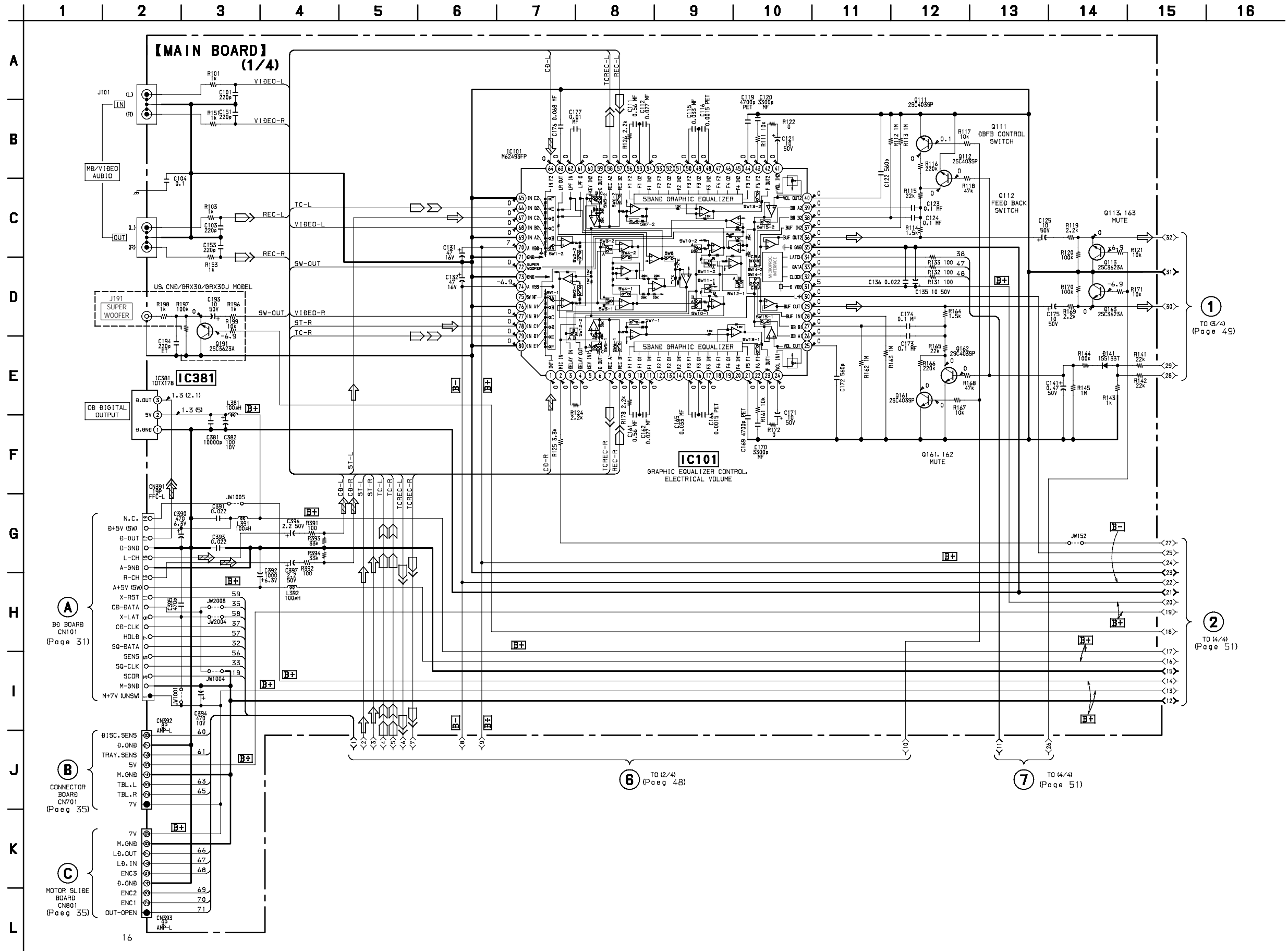
• Refer to page 27 for Note on Schematic Diagram.



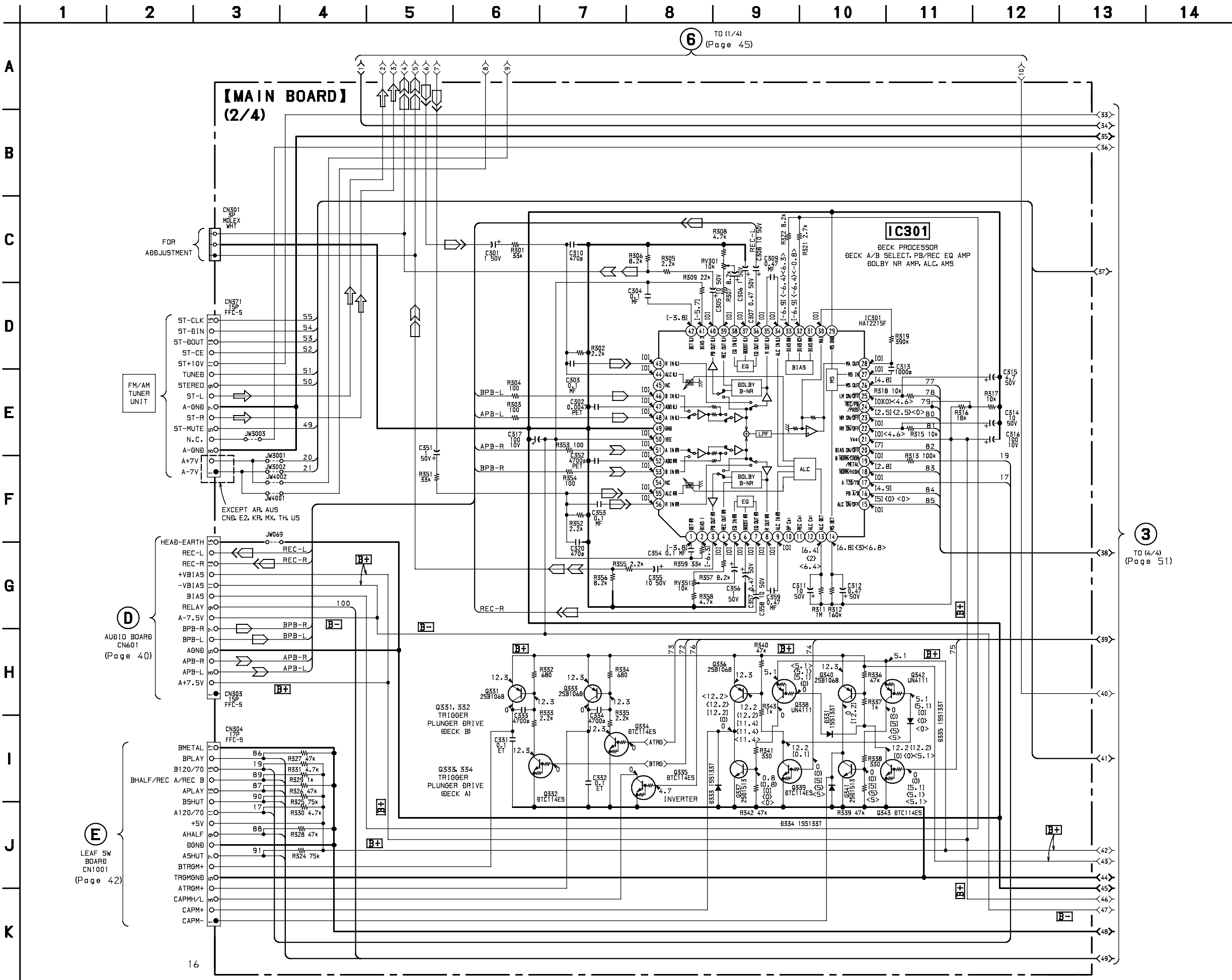


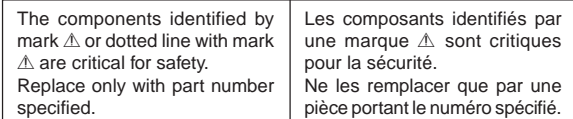
Ref. No.	Location	Ref. No.	Location
D141	F-10	Q112	E-11
D191	F-10	Q113	G-11
D331	F-2	Q161	E-11
D333	G-2	Q162	E-10
D334	F-2	Q163	G-11
D335	G-2	Q191	E-13
D401	I-11	Q192	G-12
D411	H-2	Q331	D-3
D501	F-6	Q332	D-3
D502	E-6	Q333	D-3
D503	F-6	Q334	D-4
D504	E-6	Q335	E-2
D505	E-6	Q336	G-2
D506	F-7	Q337	G-2
D507	F-9	Q338	F-2
D509	G-3	Q339	G-2
D801	J-11	Q340	F-2
D802	J-9	Q341	F-2
D803	H-12	Q342	F-2
D831	I-7	Q343	E-2
D832	K-8	Q411	H-2
D851	J-11	Q412	G-2
D852	I-9	Q431	H-12
D865	H-9	Q432	H-12
D870	J-2	Q433	H-13
D872	J-2	Q434	H-13
D873	K-6	Q435	G-12
D874	K-6	Q436	H-12
D901	K-5	Q437	H-12
D902	J-5	Q439	G-13
D903	K-5	Q461	I-2
D904	J-5	Q501	H-5
D905	I-3	Q508	E-6
D906	H-3	Q509	E-6
D907	J-6	Q801	J-11
D908	J-6	Q803	G-9
D909	J-6	Q804	G-9
D910	J-6	Q831	H-11
D911	I-6	Q832	H-11
D912	H-5	Q851	I-11
D913	H-5	Q865	H-9
D915	J-4	Q870	J-2
		Q901	H-3
IC101	D-11	Q902	I-3
IC301	C-4	Q903	H-3
IC381	B-14	Q904	H-5
IC501	C-6	Q905	G-5
IC502	E-6	Q907	H-6
IC801	H-10	Q908	H-5
IC901	H-7	Q909	I-4
IC902	H-5	Q913	H-4
IC903	I-5	Q914	G-4
		Q923	H-3
Q111	E-11	Q951	G-3
		Q952	H-3

7-12. SCHEMATIC DIAGRAM — MAIN SECTION (1/4) —

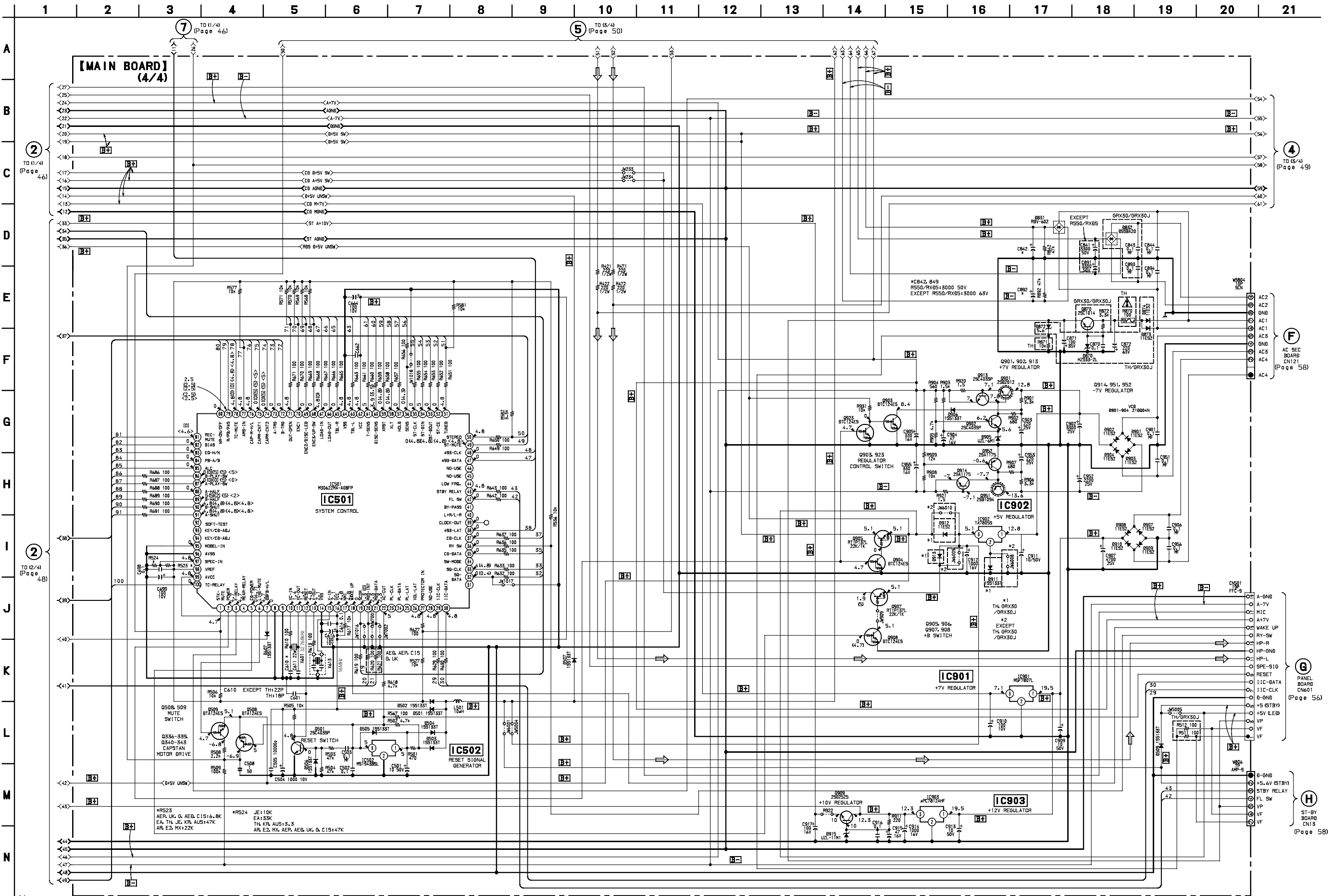


7-13. SCHEMATIC DIAGRAM — MAIN SECTION (2/4) —





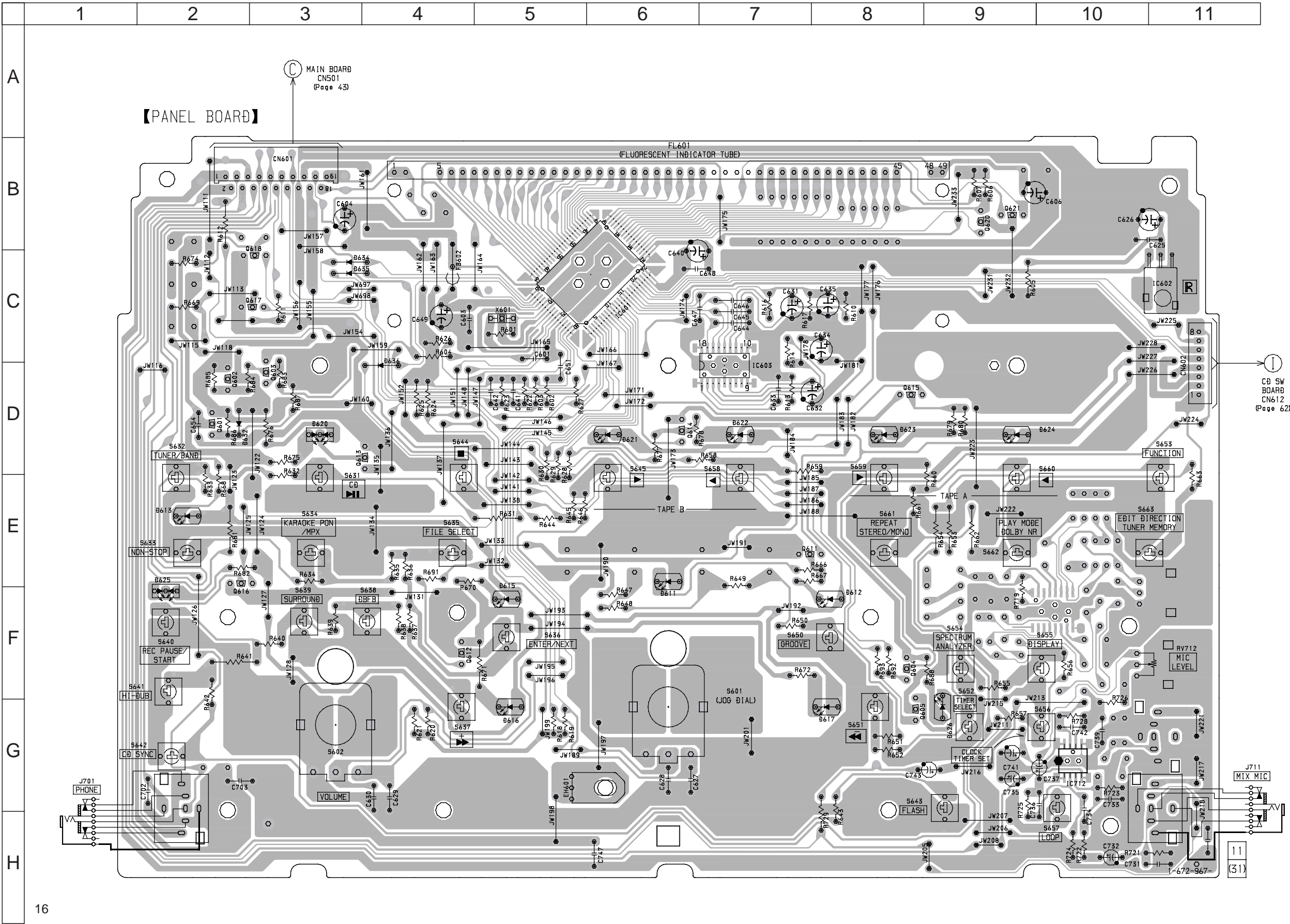
7-15. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) —



7-16. PRINTED WIRING BOARD — PANEL SECTION —

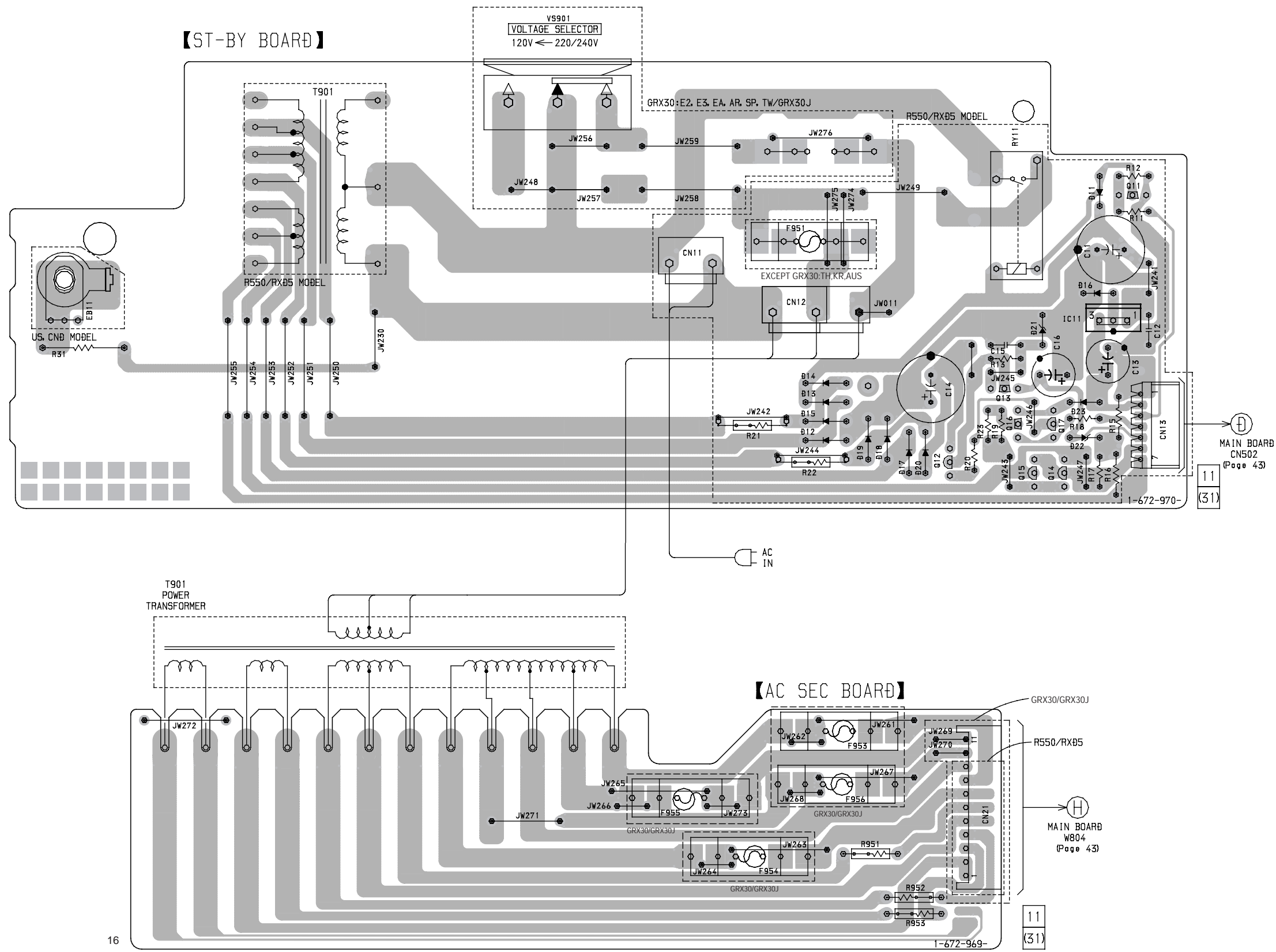
• Semiconductor Location

Ref. No.	Location
D611	E-6
D612	F-8
D613	E-2
D615	F-5
D616	G-5
D617	G-8
D620	D-3
D621	D-6
D622	D-7
D623	D-8
D624	D-9
D625	F-2
D632	D-2
D634	C-3
D635	C-3
D636	C-4
IC601	C-6
IC602	C-11
IC603	D-7
IC712	G-10
Q601	D-2
Q602	D-2
Q603	D-3
Q604	F-8
Q605	G-8
Q611	E-7
Q612	F-4
Q613	D-3
Q614	D-6
Q615	D-8
Q616	F-2
Q617	C-2
Q620	B-9
Q621	B-9

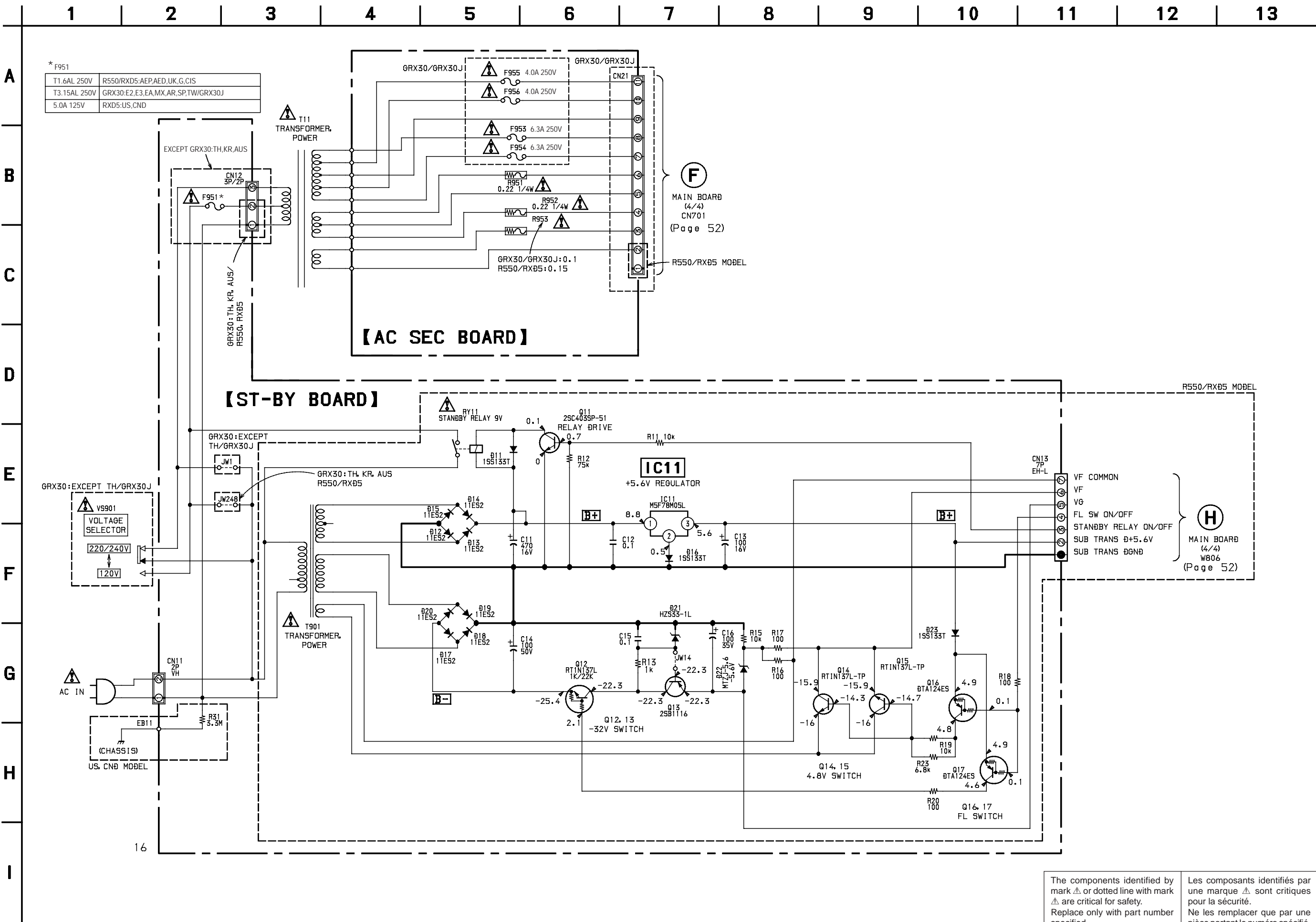




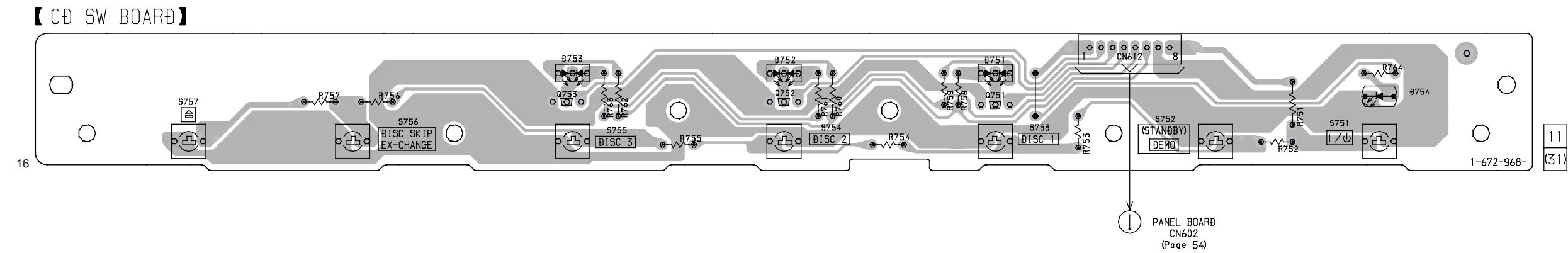
7-18. PRINTED WIRING BOARD — AC SEC STANBY SECTION —



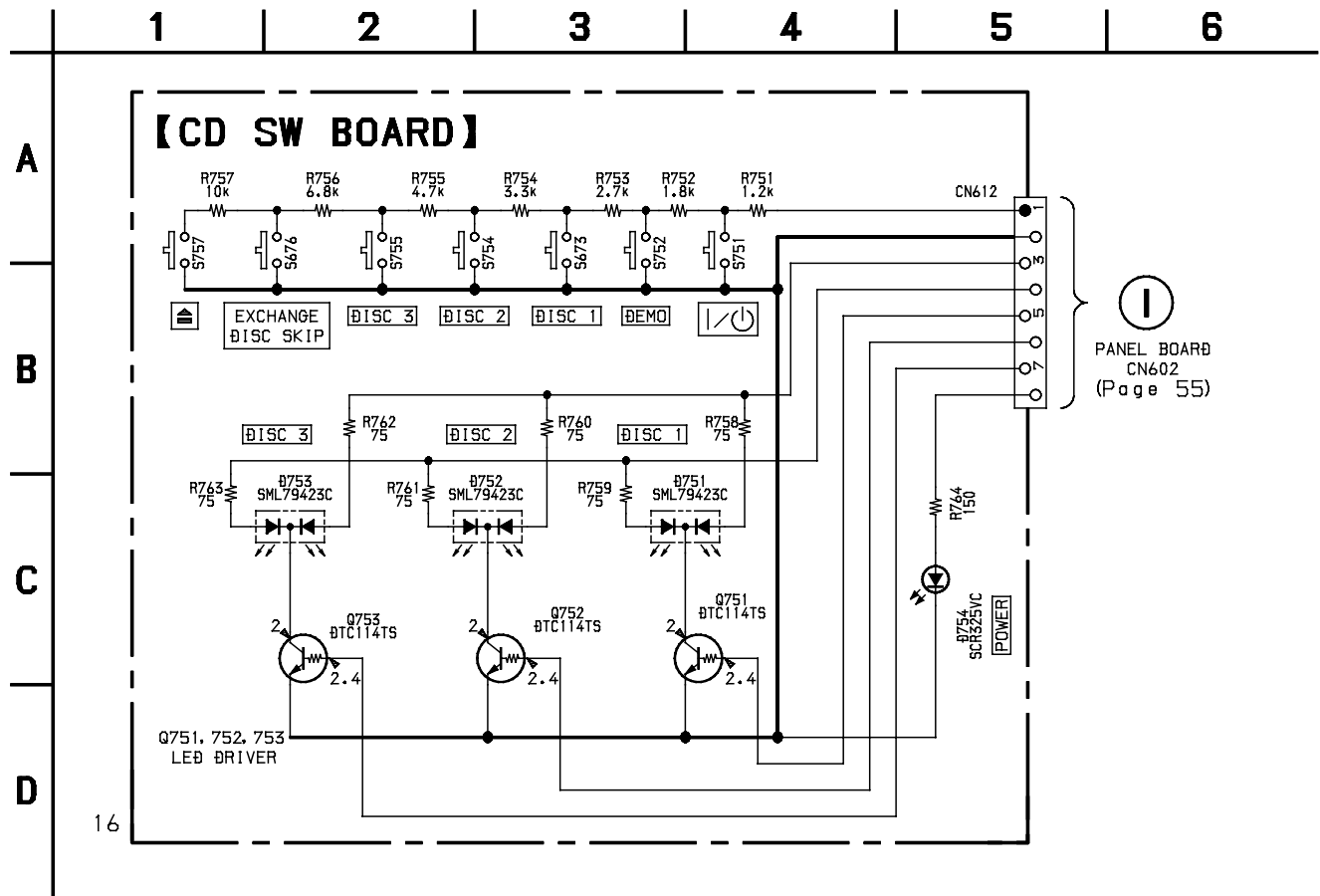
7-19. SCHEMATIC DIAGRAM — AC SEC STANDBY SECTION —



7-20. PRINTED WIRING BOARD — CD SW SECTION —



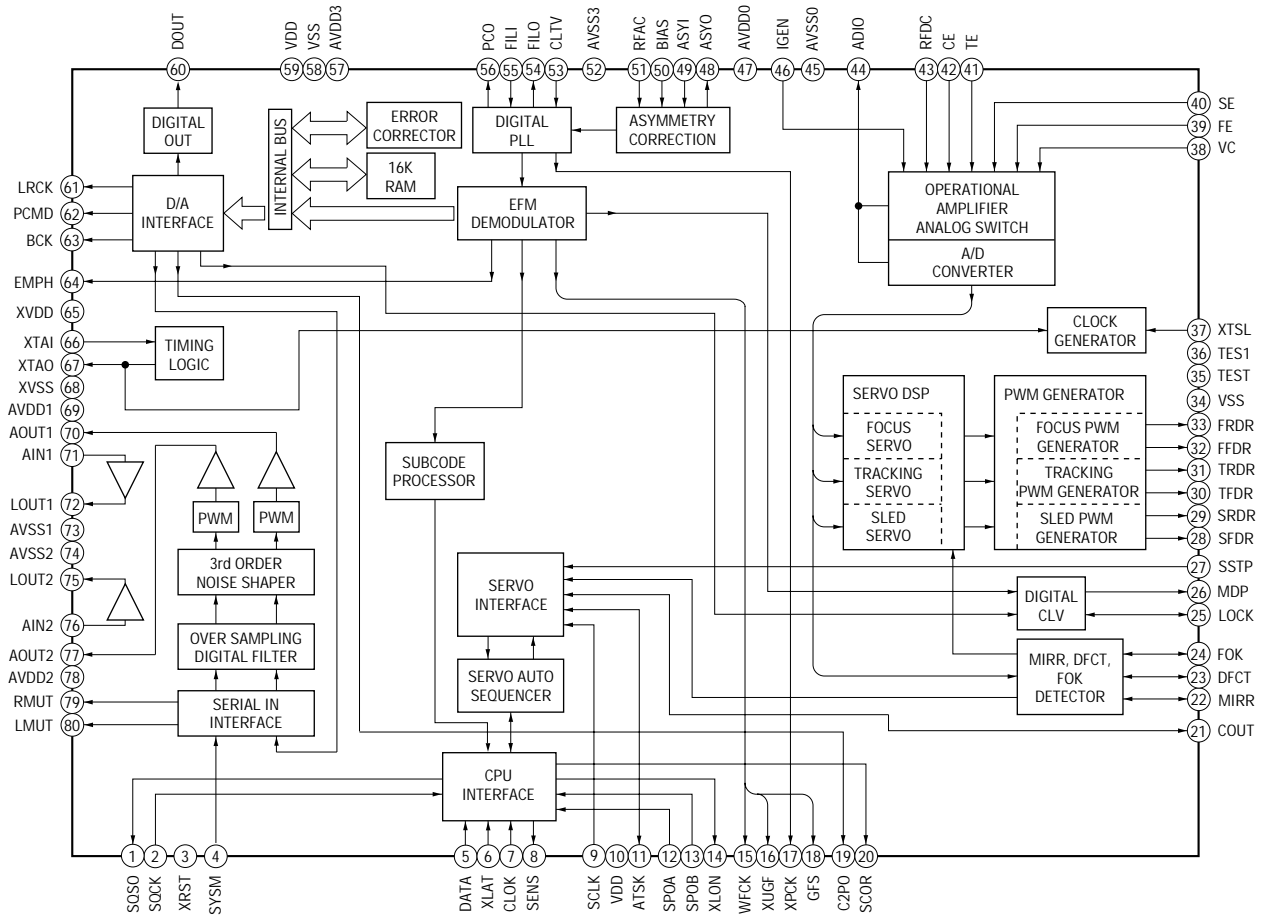
7-21. SCHEMATIC DIAGRAM — CD SW SECTION —



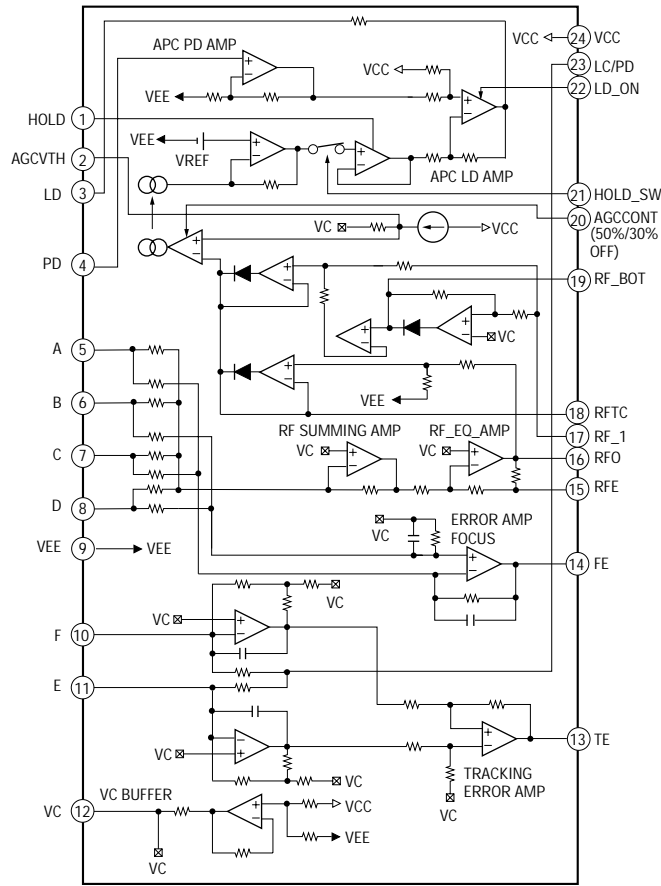
7-22. IC BLOCK DIAGRAMS

— BD Board —

IC101 CXD2587Q

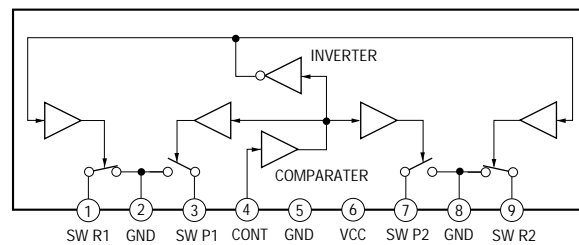


IC103 CXA2568M-T6



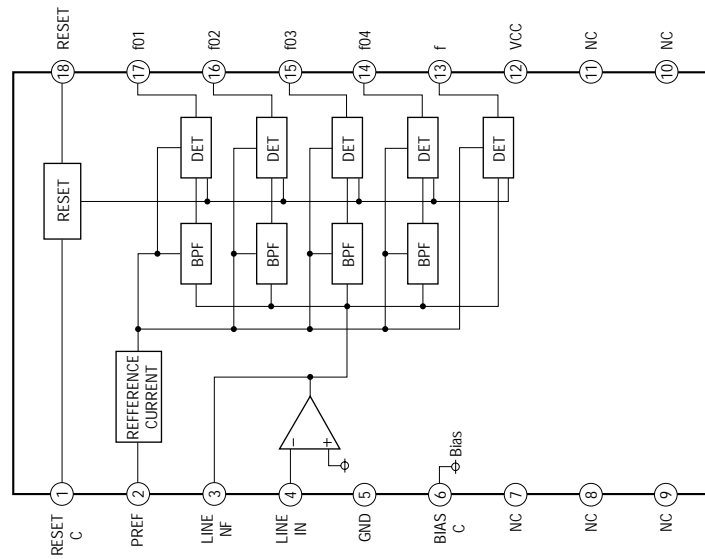
— AUDIO Board —

IC602 μ PC1330HA



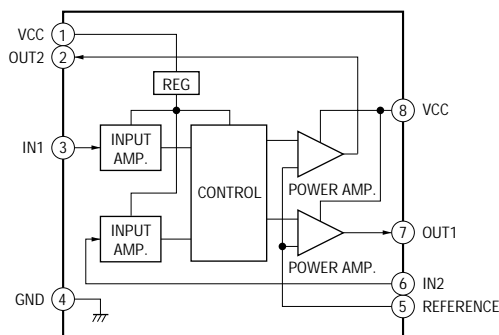
— PANEL Board —

IC603 BA3833FP



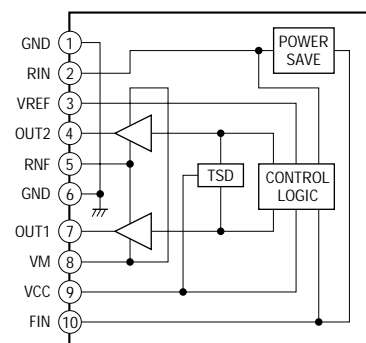
— MOTOR (TURN) Board —

IC701 M54641L



— MOTOR (SLIDE) Board —

IC801 BA6286N



7-23. IC PIN FUNCTION DESCRIPTION
• MAIN BOARD IC501 M30622MA-A07FP

Pin No.	Pin Name	I/O	Description
1	STL-POWER	O	STK ON(H)/OFF(L)
2	POWER	O	POWER ON(H)/OFF(L)
3	F-RELAY	O	FRONT-RELAY ON(H)/OFF(L)
4	R-RELAY	O	REAR-RELAY ON(H)/OFF(L)
5	CD-RELAY	O	CD-POWER ON(H)/OFF(L)
6	LINE-MUTE	O	TA LINE-MUTE ON(L)/OFF(H)
7	DBFB-H/L	O	DBFB-HIGH(L)/LOW(H)/OFF(H)
8	GND	—	Ground
9	GND	—	Ground
10	Xcin	I	SUB CLOCK IN
11	Xcout	O	SUB CLOCK OUT
12	RESET	I	SYSTEM RESET IN
13	Xout	O	MAIN SYSTEM CLOCK OUT
14	Vss	—	Vss
15	Xin	I	MAIN SYSTEM CLOCK IN(16MHz)
16	Vcc	O	POWER SUPPLY(+5V)
17	NIMI	I	PULL UP(EVER+5)CAN'T USE
18	WAKE_UP	I	WAKE UP(L)
19	SCOR	I	CD Q-DATA REQUEST
20	RDS-INT	I	RDS INT
21	RDS-DATA	I	RDS DATA
22	AC-CUT	I	AC CUT ON(L)/OFF(H) CHECK
23	PL-CLK	O	PRO-LOGIC CLOCK
24	PL-DATA	O	PRO-LOGIC DATA
25	PL-LAT	O	PRO-LOGIC LAT1
26	TIMER LED	O	TIMER LED ON(H)/OFF(L)(forFH)
27	EAKER PROTE	I	SPEAKER PROTECT ON(L)/OFF(H)
28	V_MUTE	O	VIDEO MUTE ON(H)/OFF(L)(for LBT)
29	ICC_CLK	O	IIC SCL
30	ICC_DATA	O	IIC SDA
31	N.C.	—	Not used
32	SQ-DATA-IN	I	CD DATA IN
33	SQ-CLK	O	CD DATA CLK
34	N.C.	—	Not used
35	CD-DATA	O	CD DATA
36	HEAD PHONE	I	HEAD PHONE detection Detected (H)/Not detected (L)
37	CD-CLK	O	CD CLK
38	493-LT	O	62493 LAT
39	CK-OUT/STBY	O	CLOCK CHECK/STBY-LED(H)(FH)
40	VC L+R/L-R	O	VIRTUAL CINEMA L+R/L-R(FH LCD)
41	VC BYPASS	O	VIRTUAL CINEMA BYPASS(FH LCD)
42	FL SW	O	FL FILAMENT ON(L)/OFF(H)(for ECO)
43	STBY_RELAY	O	MAIN POWER ON(H)/OFF(L)(for ECO)
44	BASS_FREQ	O	FREQ High(H)/LOW(L)(for SYNC BASS)
45	FUNC_SEL1	O	FUNC_SEL1(LBT)
46	FUNC_SEL0	O	FUNC_SEL0(LBT)/OPT SEL(AMD, MK33)
47	49X-DATA	O	6249X DATA
48	49X-CLK	O	6249X CLOCK
49	ST-MUTE	O	TUNER MUTE
50	STEREO	I	STEREO IN(L)/OFF(H)

Pin No.	Pin Name	I/O	Description
51	TUNED	I	TUNED IN(L)/OFF(H)
52	ST-CE	O	TUNED CHIP ENB
53	ST-DOUT	O	TUNER DATA OUT
54	ST-DIN	I	TUNER DATA IN
55	ST-CLK	O	TUNER CLOCK
56	SENS	I	From CXP2587 SENS
57	HOLD	O	MODE
58	XLT	O	CD LAT
59	XRST	O	CD RESET
60	DISC-SENS	I	DISC SENSOR
61	T-SENS	I	TABLE SENSOR
62	Vcc	O	POWER SUPPLY(+5V)
63	TBL-L	O	TABLE-L
64	Vss	—	Ground terminal
65	TBL-R	O	TABLE-R
66	LOAD-OUT	O	LOAD OUT
67	LOAD-IN	O	LOAD IN
68	ENC3/UP_SW	I	CDM38 ENCODER IN/CDM37 UP SW
69	ENC2/DISC LED	O	DM38 ENCODER IN/CDM37 DISC LE
70	ENC1/IN SW	I	CDM38 ENCODER IN/CDM13 IN SW
71	OUT-OPEN	I	CDM38 OUT OPEN SW
72	B-TRG	O	TCM-B TRIGGER OUT ON(H)/OFF(L)
73	A-TRG	O	TCM-A TRIGGER OUT ON(H)/OFF(L)
74	CAPM-CNT2	O	Capstan L (reverse rotation)/H (normal rotation)/L (STOP)
75	CAPM-CNT1	O	Capstan H (reverse rotation)/L (normal rotation)/L (STOP)
76	CAP-M-H/L	O	CAP-MOTOR High(H)/Low(L)
77	AMS-IN	I	AMS SIGNAL IN (L)/OFF (H)
78	TC-MUTE	O	TC LINE MUTE ON (H)/OFF (L)
79	REC/PB/PASS		REC (L)/PB (Z)/PASS (H)
80	DOLBY NR	O	DOLBY NR ON (H)/OFF (L)
81	REC-MUTE	O	REC MUTE ON (L)/OFF (H)
82	BIAS	O	BIAS ON(H)/OFF(L)
83	EQ-H/N	O	EQ HI(H)/NORM(L)
84	PB-A/B	O	TC A (L)/B (H) SELECT
85	ALC	O	ALC ON (L)/OFF (H)
86	B-PLAY-SW	I	TCM-B PLAY SW IN
87	A-PLAY-SW	I	TCM-A PLAY SW IN
88	A-HALF	I	A deck HALF
89	B-HALF	I	B deck HALF
90	B-SHUT	I	TCM-B REEL PULSE
91	A-SHUT	I	TCM-A REEL PULSE
92	SOFT-TEST	O	SOFT CHECK OUT
93	AD PHONE MU	O	HEAD PHONE MUTE ON (L)/OFF (H)
94	KEY/CD ADJ	I	KEY (for jig)/CD adjustment
95	MODEL-IN	I	MODEL IN
96	Avss	—	Analog Ground
97	SPEC-IN	I	SPEC IN
98	Vref	O	Analog Reference Voltage
99	Avcc	O	Analog Power Supply
100	TC-RELAY	O	TC RELAY ON (H)/PFF (L)

• **PANEL BOARD IC601 TMP88CP76F-6001 (FLUORESCENT INDICATOR TUBE DRIVE, LED DRIVE, KET CONTROL)**

Pin No.	Pin Name	I/O	Description
1	SIRCS	I	Remote control signal input from the remote control receiver (IC602)
2	LED-ENTER-AMS	O	Led For ENTER/AMS
3	WAKE-UP	O	WAKE-UP For Powersave
4	LED-TAPE-B	O	LED For TAPE B FW/RV
5	LED-CD-PLAY	O	LED For CD PLAY/PAUSE
6	LED-TAPE-A	O	LED For TAPE A FW/RV
7	L.SEL	O	Dynamic LED
8	JOG-B	I	Jog dial pulse input from the S601 (JOG)
9	VOL-A	I	Rotary encoder pulse input from the S602 (VOLUME)
10	VOL-B	I	Rotary encoder pulse input from the S602 (VOLUME)
11	KEY-0	I	Key input terminal (A/D input) (S631 to S643)
12	KEY-1	I	Key input terminal (A/D input) (S644 to S657)
13	KEY-2	I	Key input terminal (A/D input) (S658 to S663)
14 to 17	BPF1 to BPF4	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter (IC603)
18	ALL BAND	I/O	Vacs/non-stop
19	LED-DISK-1	O	Led for DISK1
20	LED-DISK-2	O	Led for DISK2
21	LED-DISK-3	O	Led for DISK3
22	LED-GRV-JOG	I	LED for GROOVE/JOG
23	VSS-IO	I/O	Ground terminal
24	VASS	—	Ground terminal
25	VAREF	I	Reference voltage (+5V) input terminal (for A/D conversion)
26	VDD-IO	I/O	Power supply terminal (+5V)
27 to 39	GRID 0 to GRID12	O	Grid drive signal output to the fluorescent indicator tube (FL601)
40	ANODE0	O	Anode drive signal output to the fluorescent indicator tube (FL601)
41	VDD-VFT	—	Power supply terminal (+5V)
42 to 64	ANODE1 to ANODE23	O	Anode drive signal output to the fluorescent indicator tube (FL601)
65	L-VCD-PBC	O	Led for VCD/PBC on
66	LED-NSTOP-PBC-OFF	O	LED for STOP/PBC-OFF
67	L-REC/PAUSE	O	Led for REC/PAUSE
68	VKK	—	Power supply terminal (-30V) (for fluorescent indicator tube drive)
69	VDD-CPU	—	Power supply terminal (+5V)
70	XIN	I	System clock input terminal (12.5MHz)
71	VSS-CPU	—	Ground terminal
72	XOUT	O	System clock output terminal (12.5MHz)
73	RESET	I	System reset signal input from the reset signal generator (IC501)
74	LED-STBY	O	Led for Standby
75	LED-TMR SELECT	O	Led for timer
76	TEST	I	Connected to ground
77	N.C.	—	Not connected
78	I2C DATA	I/O	Communication data bus with the system controller (IC501)
79	I2C CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the system controller (IC501)
80	JOG-A	I	Jog dial pulse input from the S601 (JOG)

SECTION 8 EXPLODED VIEWS

NOTE:

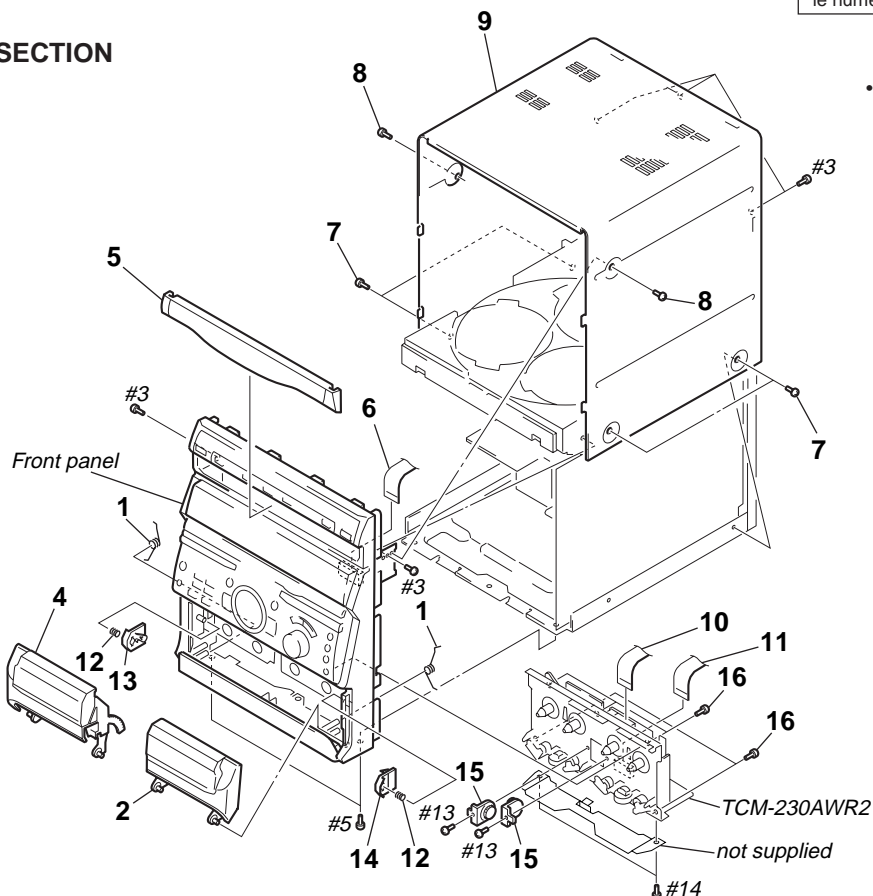
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

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

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

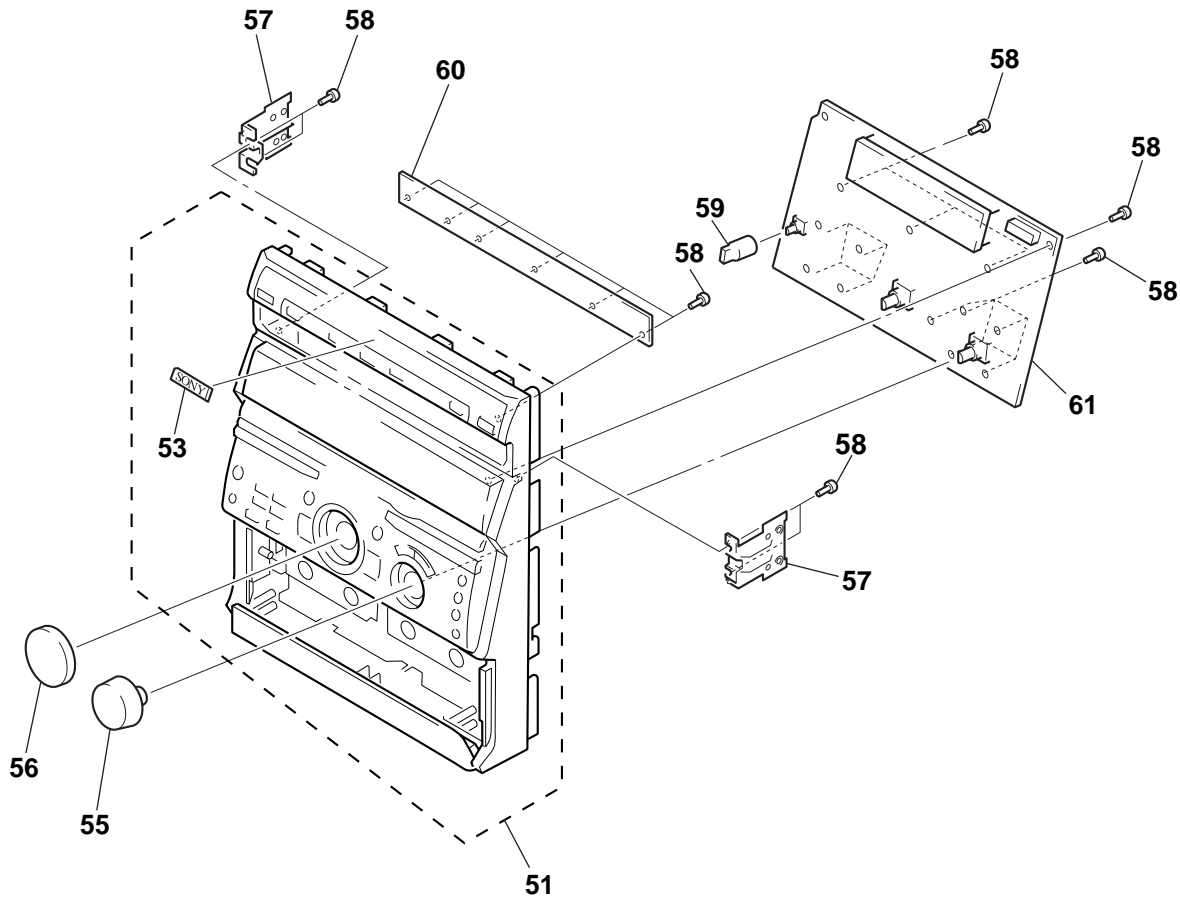
8-1. CASE SECTION



- Abbreviation
- CND : Canadian model
- AUS : Australian model
- G : German model
- AED : North European model
- EA : Saudi Arabia model
- E2 : Central and South America model
- E3 : Middle and Near East model
- MX : Mexican model
- SP : Singapore model
- TH : Thai model
- TW : Taiwan model
- AR : Argentina model
- KR : Korea model




Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	4-219-087-01	SPRING, TENSION		7	3-363-099-11	SCREW (CASE 3 TP2)	
2	X-4950-832-1	HOLDER (R) ASSY, CASSETTE		8	3-363-099-41	SCREW (CASE 3 TP2)	
2	X-4950-834-1	HOLDER (R) ASSY, CASSETTE	(GRX30:E2,MX,AR,SP,TH,TW,KR,AUS/RXD5:US,CND,CIS)	8	3-363-099-71	SCREW (CASE 3 TP2)	
2	X-4950-971-1	HOLDER (R) ASSY, CASSETTE	(RXD5:AEP,AED,UK,G)	9	4-219-394-41	CASE (RXD5:AEP,AED,UK,G)	
2	X-4950-975-1	HOLDER (R) ASSY, CASSETTE	(GRX30:E3,EA/GRX30J/R550:CIS)	9	4-219-394-61	CASE (R550:AEP,AED,UK,G)	
4	X-4950-828-1	HOLDER (L) ASSY, CASSETTE	(R550:AEP,AED,UK,G)	9	4-219-394-81	CASE (GRX30:TH)	
4	X-4950-830-1	HOLDER (L) ASSY, CASSETTE	(GRX30:E2,MX,AR,SP,TH,TW,KR,AUS/RXD5:US,CND,CIS)	9	4-221-585-01	CASE	
4	X-4950-970-1	HOLDER (L) ASSY, CASSETTE	(GRX30:E3,EA/GRX30J/R550:CIS)	9	4-221-585-21	CASE (GRX30:E3,EA/GRX30J/R550:CIS)	
4	X-4950-974-1	HOLDER (L) ASSY, CASSETTE	(RXD5:AEP,AED,UK,G)	10	1-773-043-11	WIRE (FLAT TYPE) (17 CORE)	
5	X-4951-055-1	PANEL ASSY, LOADING (R550:CIS)	(GRX30:E3,EA/GRX30J/R550:CIS)	11	1-773-024-11	WIRE (FLAT TYPE) (15 CORE)	
5	X-4951-376-1	PANEL ASSY, LOADING (RXD5:AEP,AED,UK,G)		12	4-214-775-11	SPRING, PUSH CATCHER RETURN	
5	X-4951-047-1	PANEL ASSY, LOADING	(R550:AEP,AED,UK,G)	13	4-214-760-11	CATCHER (A), PUSH	
5	X-4951-378-1	PANEL ASSY, LOADING (R550:AEP,AED,UK,G)	(GRX30:E2,MX,AR,SP,TH,TW,KR,AUS)	13	4-214-760-31	CATCHER (A), PUSH	
5	X-4951-049-1	PANEL ASSY, LOADING (GRX30:E3,EA/GRX30J)	(R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	14	4-214-761-11	CATCHER (B), PUSH	
5	X-4951-052-1	PANEL ASSY, LOADING (RXD5:US,CND,CIS)	(GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	14	4-214-761-31	CATCHER (B), PUSH	
6	1-773-120-11	WIRE (FLAT TYPE)(19 CORE)	(R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	15	4-215-062-01	DAMPER	
7	3-363-099-01	SCREW (CASE 3 TP2)	(GRX30:E3,EA/GRX30J/R550)	16	4-951-620-01	SCREW (2.6 × 8), +BVTP	

8-2. FRONT PANEL SECTION

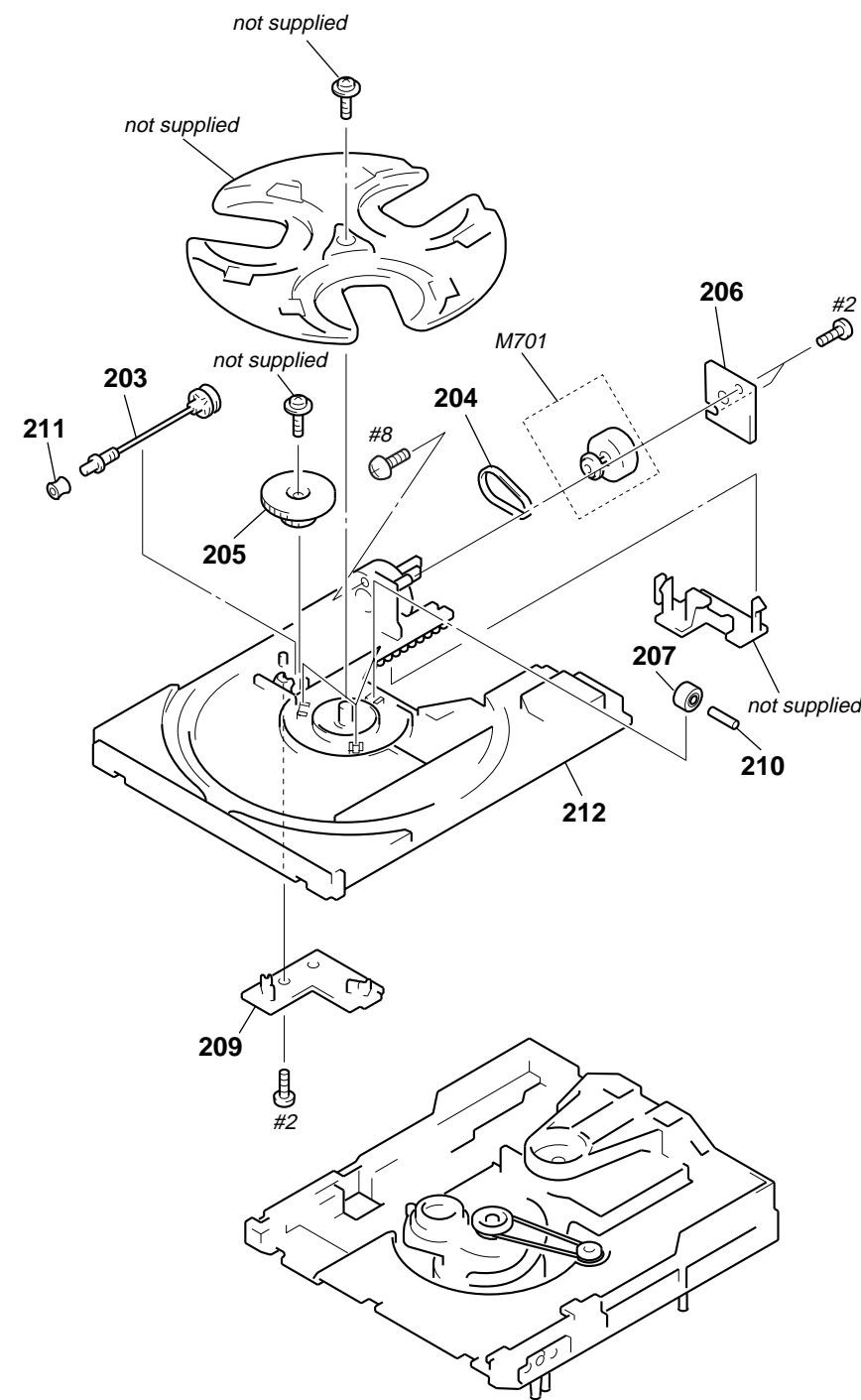


Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
51	X-4951-048-1	FRONT PANEL ASSY (GRX30:E2,MX,AR,SP,TH,TW,KR,AUS)		56	4-214-383-11	KNOB (JOG) (GRX30:E2,MX,AR,SP,TW,KR,AUS/RXD5)	
51	X-4951-050-1	FRONT PANEL ASSY (GRX30:E3,EA/GRX30J)		56	4-214-383-21	KNOB (JOG) (GRX30:TH)	
51	X-4951-051-1	FRONT PANEL ASSY (RXD5:US,CND)		56	4-214-383-51	KNOB (JOG)(GRX30:E3,EA/GRX30J/R550)	
51	X-4951-053-1	FRONT PANEL ASSY (RXD5:CIS)		* 57	4-996-716-01	HOLDER (CDM)	
51	X-4951-054-1	FRONT PANEL ASSY (R550:CIS)		58	4-951-620-01	SCREW (2.6 × 8), +BVTP	
51	X-4951-377-1	FRONT PANEL ASSY (RXD5:AEP,AED,UK,G)		59	4-214-382-21	KNOB (MIC) (GRX30:TH)	
51	X-4951-379-1	FRONT PANEL ASSY (R550:AEP,AED,UK,G)		59	4-214-385-11	KNOB (MIC) (GRX30:E2,MX,AR,SP,TW,KR,AUS/RXD5)	
53	4-962-708-42	EMBLEM (4-A), SONY (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)		59	4-214-385-51	KNOB (MIC)(GRX30:E3,EA/GRX30J/R550)	
53	4-962-708-71	EMBLEM (4-A), SONY (GX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)		60	1-672-968-11	CD SW BOARD	
55	4-214-384-11	KNOB (VOL) (GRX30:E2,MX,AR,SP,TW,KR,AUS/RXD5)		61	A-4419-034-A	PANEL BOARD, COMPLETE (EXCEPT GRX30J, AED,AEP,G,UK,TH)	
55	4-214-384-21	KNOB (VOL) (GRX30:TH)		61	A-4419-624-A	PANEL BOARD, COMPLETE (AEP,AED,UK,G)	
55	4-214-384-51	KNOB (VOL)(GRX30:E3,EA/GRX30J/R550)		61	A-4419-962-A	PANEL BOARD, COMPLETE (TH)	
				61	A-4424-023-A	PANEL BOARD, COMPLETE (GRX30J)	

[illegible]

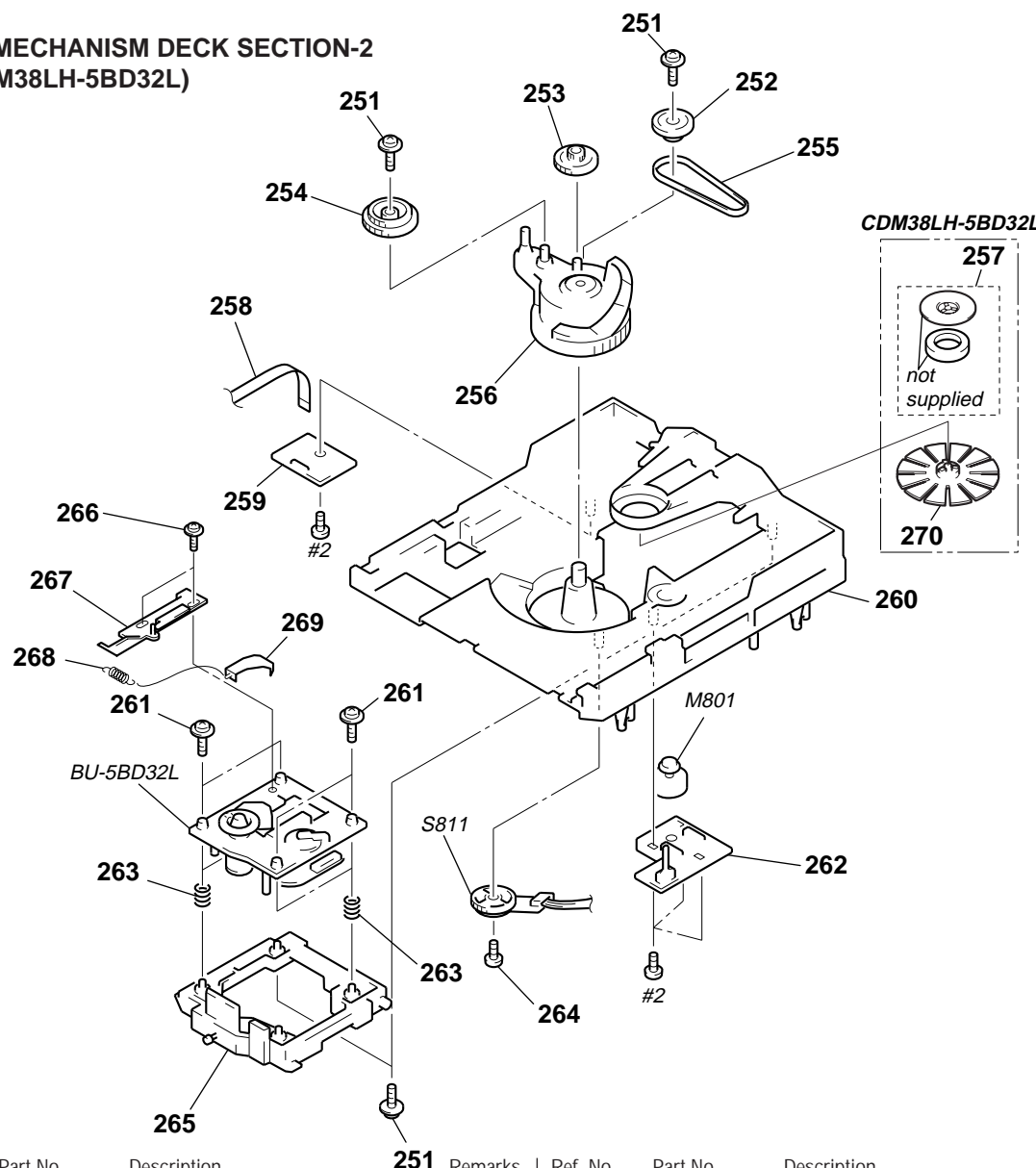
<p>The components identified by mark  or dotted line with mark  are critical for safety.</p> <p>Replace only with part number specified.</p>	<p>Les composants identifiés par une marque  sont critiques pour la sécurité.</p> <p>Ne les remplacer que par une pièce portant le numéro spécifié.</p>
--	--

8-4. CD MLH-5BDECHANISM DECK SECTION-1
(CDM38LH-5BD32L)



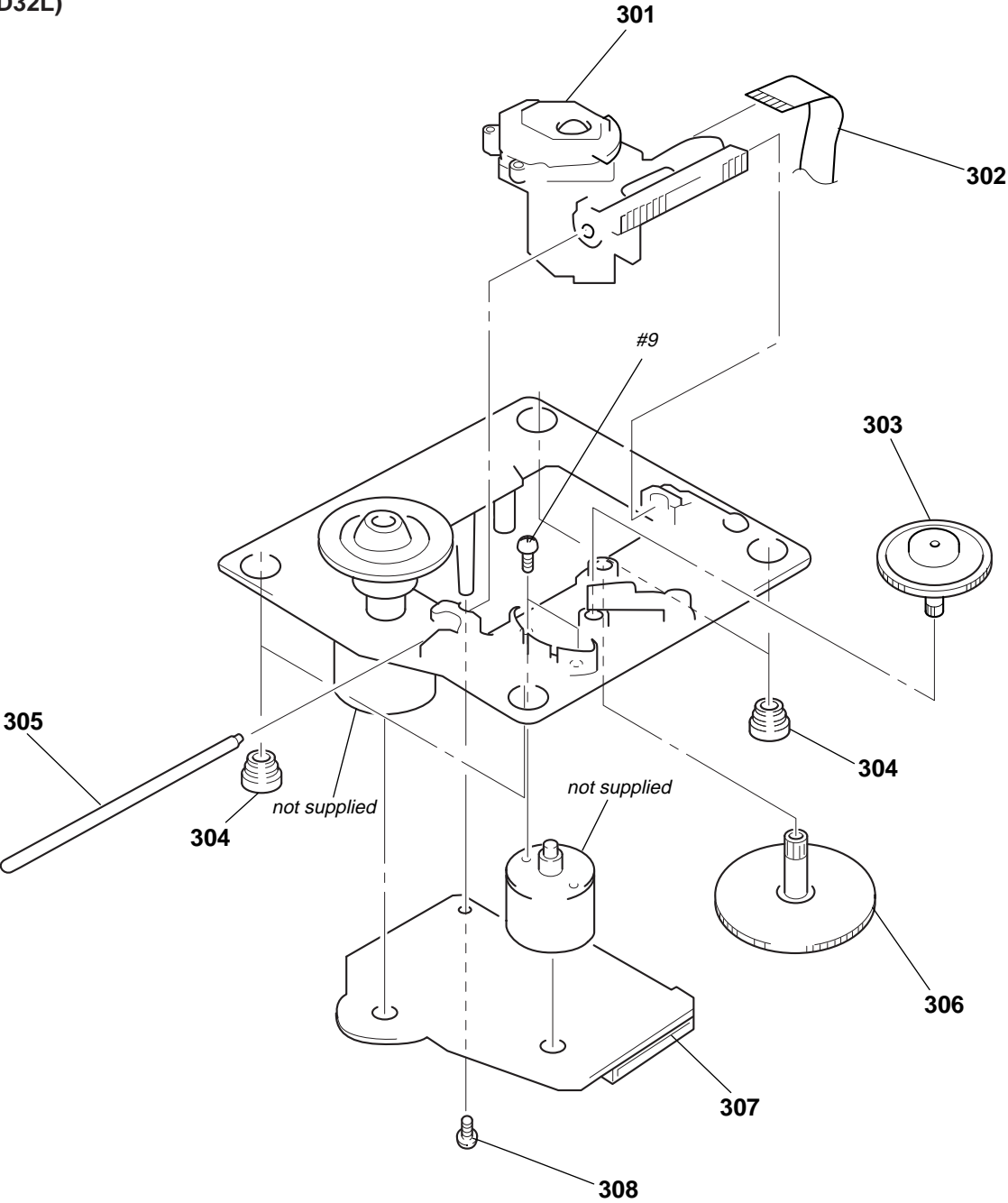
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
203	X-4946-665-1	SHAFT ASSY, WORM (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)		207	4-988-162-01	ROLLER	
203	X-4948-215-1	SHAFT ASSY, WORM (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)		* 209	1-658-576-11	SENSOR BOARD	
204	4-977-943-01	BELT (TURN) (1.2)		210	4-934-376-01	SHAFT (ROLLER)	
205	4-977-956-01	WHEEL, WORM (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)		211	4-981-187-01	COLLAR (WORM)	
205	4-977-956-51	WHEEL, WORM (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)		211	4-981-187-51	COLLAR (WORM) (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
206	1-658-577-11	MOTOR (TURN) BOARD		212	4-977-944-01	TRAY (SLIDE)	
				M701	A-4672-004-A	MOTOR ASSY (TURN)	

8-5. CD MECHANISM DECK SECTION-2
(CDM38LH-5BD32L)



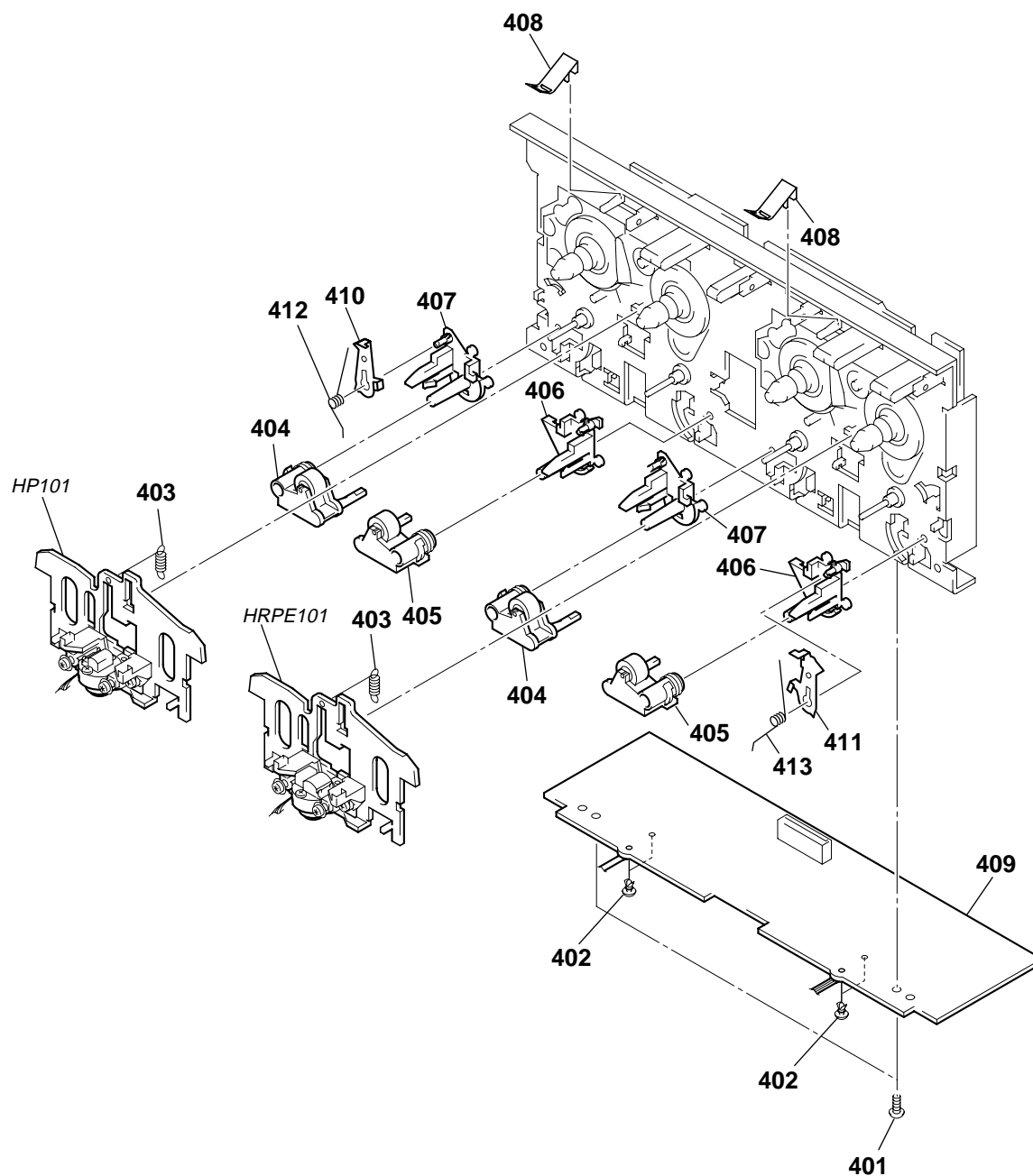
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
251	4-981-789-11	BRACKET (2), YOKE		261	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING	
252	4-977-954-01	PULLEY (SL) (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)		* 262	1-658-578-11	MOTOR (SLIDE) BOARD	
252	4-977-954-51	PULLEY (SL) (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)		263	4-982-447-01	SPRING (BU), COMPRESSION	
253	4-977-953-01	GEAR (SL-A) (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)		264	4-951-620-41	SCREW (2.6), +BVTP	
253	4-977-953-51	GEAR (SL-A) (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)		265	X-4948-217-1	HOLDER (BU) ASSY (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
254	4-977-955-01	GEAR (SL-B) (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)		265	X-4949-570-1	HOLDER (BU) ASSY (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
254	4-977-955-51	GEAR (SL-B) (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)		266	4-989-494-01	SCREW (SLIDER), STEP	
255	4-977-942-01	BELT (SL) (1.4)		267	4-989-492-11	SLIDER (38) (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
256	X-4946-667-1	CAM ASSY, BU (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)		267	4-989-492-52	SLIDER (38) (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
256	X-4948-218-1	CAM ASSY, BU (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)		268	4-989-819-02	SPRING, TENSION	
* 257	1-452-925-21	MAGNET ASSY		269	4-989-491-11	COVER (2), LENS	
* 259	1-658-575-11	CONNECTOR BOARD		270	4-993-142-21	PULLEY (L), PRESS (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
* 260	X-4946-668-1	CHASSIS (CDM) ASSY (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)		270	X-4950-384-2	PULLEY (L) ASSY, PRESS (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
* 260	X-4948-216-3	CHASSIS (CDM) ASSY (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)		M801	A-4672-004-A	MOTOR ASSY (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
				M801	A-4672-312-A	MOTOR (CDM) ASSY (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
				S811	1-473-335-11	ENCODER, ROTARY (BU,TRAY ADDRESS DET)	

8-6. BASE UNIT SECTION
(BU-5BD32L)



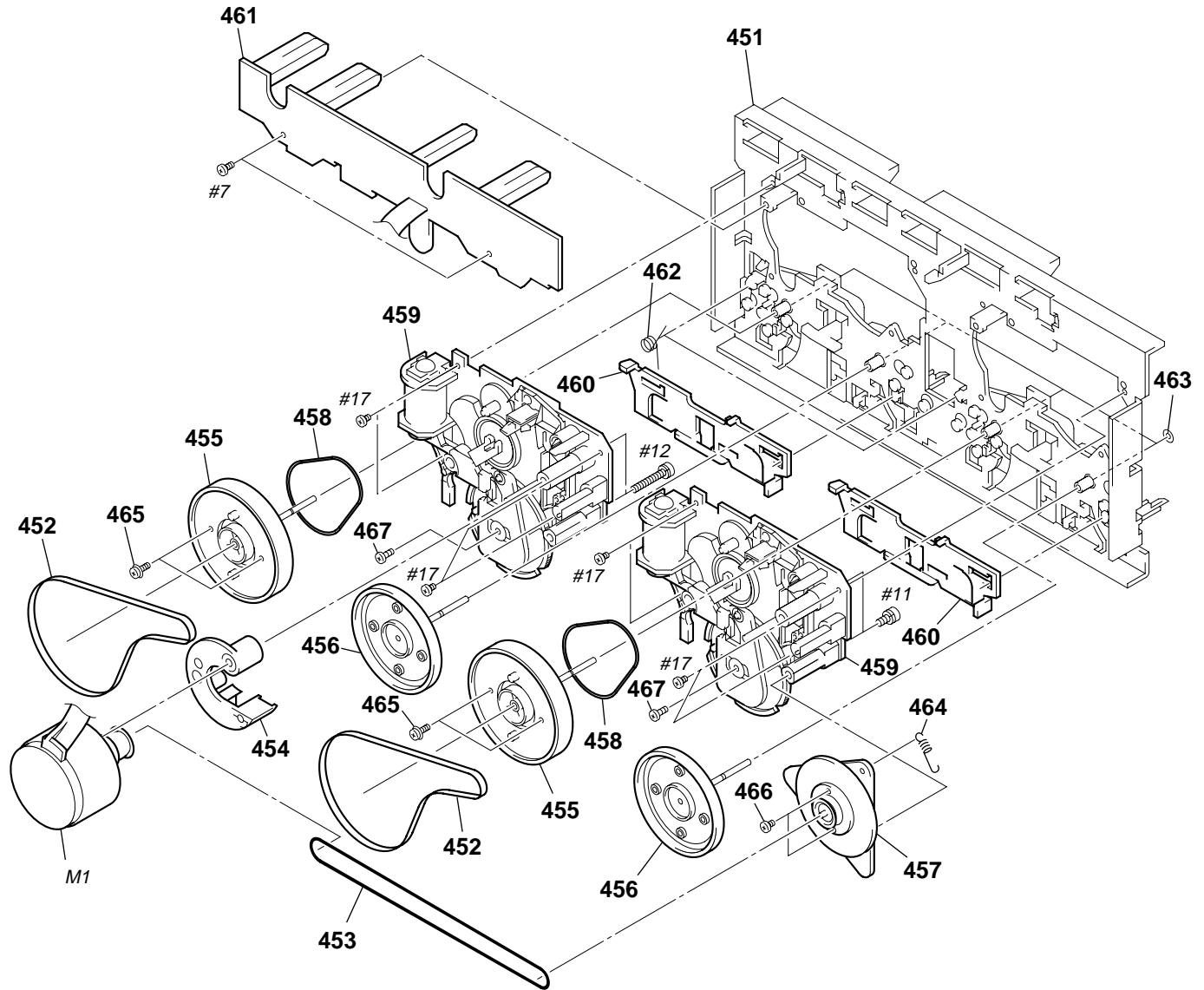
Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
301	8-820-020-02	OPTICAL PICK-UP KSS-213D/Q-RP		305	4-917-565-01	SHAFT, SLED	
302	1-769-069-11	WIRE (FLAT TYPE)(16 CORE)		306	4-917-564-01	GEAR (P), FLATNESS	
303	4-917-567-01	GEAR (M)		* 307	A-4724-486-A	BD BOARD, COMPLETE	
304	4-951-940-01	INSULATOR (BU)		308	4-951-620-01	SCREW (2.6 × 8), +BVTP	

8-7. TAPE MECHANISM DECK SECTION-1 (TCM-230AWR2)



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
401	3-376-464-11	SCREW(+PTT 2.6 × 6),GROUND POINT		408	3-026-892-01	SPRING (CASSETTE), LEAF	
402	3-911-116-42	RIVET, PUSH		* 409	A-2007-731-A	AUDIO BOARD, COMPLETE	
403	3-016-574-11	SPRING (HEAD), TENSION		410	3-016-572-01	LEVER (EJECT PREVENTION L)	
404	X-3374-156-4	PINCH LEVER (REV) ASSY		411	3-016-573-01	LEVER (EJECT PREVENTION R)	
405	X-3374-155-4	PINCH LEVER (FWD) ASSY		412	3-032-809-02	SPRING (L), TORSION	
406	3-016-564-01	BASE (PINCH LEVER FWD)		413	3-032-810-02	SPRING (R), TORSION	
407	3-016-565-01	BASE (PINCH LEVER REV)		HP101	A-2056-681-C	DECK (A) ASSY, HEAD	
				HRPE101	A-2056-682-C	DECK (B) ASSY, HEAD	

8-8. TAPE MECHANISM DECK SECTION-2 (TCM-230AWR2)



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
* 451	X-3374-214-3	CHASSIS ASSY, MAIN		460	3-016-566-01	SLIDER, REVERSE	
452	3-016-570-01	BELT (CAPSTAN)		* 461	A-2007-732-A	LEAF SW BOARD, COMPLETE	
453	3-016-569-01	BELT (TENSION)		462	3-016-575-11	SPRING, TORSION	
454	3-017-360-01	BRACKET (MOTOR)		463	3-019-208-01	WASHER, STOPPER	
455	X-3376-497-1	FLYWHEEL (FWD) ASSY		464	3-027-453-01	SPRING (GROUND), TENSION	
456	X-3374-235-1	FLYWHEEL (REV) ASSY		465	7-685-103-19	+ PTPWH (2 × 5)	
457	X-3374-238-1	PULLEY ASSY, TENSION		466	7-627-553-17	SCREW,PRECISION +P 2 × 2	
458	3-024-405-01	BELT (FR2)		467	7-685-781-09	SCREW +PTT 2 × 4 (S)	
459	A-2004-629-B	MECHANICAL BLOCK ASSY		M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	

SECTION 9 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -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.
- Abbreviation

CND : Canadian model	MX : Mexican model
AUS : Australian model	SP : Singapore model
G : German model	TH : Thai model
AED : North European model	TW : Taiwan model
EA : Saudi Arabia model	AR : Argentina model
E2 : Central and South America model	KR : Korea model
E3 : Middle and Near East model	
- CAPACITORS:
uF: μ F
- RESISTORS
All resistors are in ohms.
METAL: metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F: nonflammable
- COILS
uH: μ H

• SEMICONDUCTORS

In each case, u: μ , for example:

uA...: μ A..., uPA..., μ PA...,
 uPB..., μ PB..., uPC..., μ PC...,
 uPD..., μ PD...

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

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

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

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
5	1-672-969-11	AC SEC BOARD *****		C332	1-162-288-31	CERAMIC 330PF 10%	50V
	1-533-217-31	HOLDER, FUSE (GRX30/GRX30J)		C333	1-162-209-31	CERAMIC 27PF 5%	50V
		< CONNECTOR >		C401	1-162-289-31	CERAMIC 390PF 10%	50V
CN21	1-564-524-11	PLUG, CONNECTOR 9P (R550/RXD5)		C402	1-126-968-11	ELECT 100uF 20%	6.3V
* CN21	1-564-526-11	PLUG, CONNECTOR 11P (GRX30/GRX30J)		C403	1-162-282-31	CERAMIC 100PF 10%	50V
		< FUSE >		C404	1-130-483-00	MYLAR 0.01uF 5%	50V
Δ F953	1-532-506-31	FUSE (6.3A 250V) (GRX30/GRX30J)		C405	1-107-715-11	ELECT 22uF 20%	16V
Δ F954	1-532-506-31	FUSE (6.3A 250V) (GRX30/GRX30J)		C411	1-162-289-31	CERAMIC 390PF 10%	50V
Δ F955	1-532-504-31	FUSE (4.0A 250V) (GRX30/GRX30J)		C413	1-162-282-31	CERAMIC 100PF 10%	50V
Δ F956	1-532-504-31	FUSE (4.0A 250V) (GRX30/GRX30J)		C414	1-130-487-00	MYLAR 0.022uF 5%	50V
		< RESISTOR >		C415	1-126-233-11	ELECT 22uF 20%	50V
Δ R951	1-219-121-11	FUSIBLE 0.22 5% 1/4W F		C431	1-137-427-11	FILM 120PF 5%	50V
Δ R952	1-219-121-11	FUSIBLE 0.22 5% 1/4W F		C432	1-162-288-31	CERAMIC 330PF 10%	50V
Δ R953	1-219-119-81	FUSIBLE 0.1 5% 1/4W F (GRX30/GRX30J)		C433	1-162-209-31	CERAMIC 27PF 5%	50V
Δ R953	1-219-120-11	FUSIBLE 0.15 5% 1/4W F (R550/RXD5)		C601	1-104-396-11	ELECT 10uF 20%	16V
*****				C602	1-104-396-11	ELECT 10uF 20%	16V
* A-2007-731-A	AUDIO BOARD, COMPLETE *****			C611	1-104-396-11	ELECT 10uF 20%	16V
		< CAPACITOR >		C612	1-104-396-11	ELECT 10uF 20%	16V
C301	1-162-289-31	CERAMIC 390PF 10%	50V	C621	1-137-150-11	FILM 0.01uF 5%	100V
C302	1-126-968-11	ELECT 100uF 20%	6.3V	C622	1-126-961-11	ELECT 2.2uF 20%	50V
C303	1-162-282-31	CERAMIC 100PF 10%	50V	C623	1-136-155-00	FILM 0.015uF 5%	50V
C304	1-130-483-00	MYLAR 0.01uF 5%	50V	C624	1-130-481-00	MYLAR 0.0068uF 5%	50V
C305	1-107-715-11	ELECT 22uF 20%	16V	C625	1-130-481-00	MYLAR 0.0068uF 5%	50V
C311	1-162-289-31	CERAMIC 390PF 10%	50V	C627	1-124-903-11	ELECT 1uF 20%	50V
C313	1-162-282-31	CERAMIC 100PF 10%	50V	C628	1-136-153-00	FILM 0.01uF 5%	50V
C314	1-130-487-00	MYLAR 0.022uF 5%	50V	C642	1-104-664-11	ELECT 47uF 20%	16V
C315	1-126-233-11	ELECT 22uF 20%	50V			< CONNECTOR >	
C331	1-137-427-11	FILM 120PF 5%	50V	CN601	1-568-834-11	SOCKET, CONNECTOR 15P	
						< IC >	
				IC601	8-759-111-44	IC UPC4570C-1	
				IC602	8-759-143-54	IC UPC1330HA	
				IC611	8-759-111-44	IC UPC4570C-1	
						< COIL >	
				L331	1-410-780-11	INDUCTOR 27mH	
				L431	1-410-780-11	INDUCTOR 27mH	
				L601	1-414-193-41	INDUCTOR 220uH	
				L602	1-414-193-41	INDUCTOR 220uH	

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks		
< TRANSISTOR >						C109	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
Q621	8-729-142-46	TRANSISTOR 2SC2001-LK				C110	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
						C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
						C112	1-163-038-91	CERAMIC CHIP	0.1uF		25V
Q622	8-729-142-46	TRANSISTOR 2SC2001-LK				C113	1-163-038-91	CERAMIC CHIP	0.1uF		25V
Q623	8-729-801-93	TRANSISTOR 2SD1387				< RESISTOR >					
< RESISTOR >						C114	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R301	1-247-881-00	CARBON	120K	5%	1/4W	C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
						C116	1-126-607-11	ELECT CHIP	47uF	20%	4V
						C117	1-126-209-11	ELECT CHIP	100uF	20%	4V
						C118	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
						C119	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
R302	1-249-409-11	CARBON	220	5%	1/4W	C121	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R303	1-249-433-11	CARBON	22K	5%	1/4W	C122	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
R304	1-247-889-00	CARBON	270K	5%	1/4W	C123	1-163-021-91	CERAMIC CHIP	0.01uF	10%	50V
R305	1-247-858-11	CARBON	13K	5%	1/4W	C124	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
R311	1-247-881-00	CARBON	120K	5%	1/4W	C125	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R312	1-247-807-31	CARBON	100	5%	1/4W	C126	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R314	1-247-882-11	CARBON	130K	5%	1/4W	C127	1-128-065-11	ELECT CHIP	68uF	20%	10V
R315	1-247-850-11	CARBON	6.2K	5%	1/4W	C128	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R331	1-249-430-11	CARBON	12K	5%	1/4W	C129	1-163-031-11	CERAMIC CHIP	0.01uF		50V
R401	1-247-881-00	CARBON	120K	5%	1/4W	C130	1-164-346-11	CERAMIC CHIP	1uF		16V
R402	1-249-409-11	CARBON	220	5%	1/4W	C131	1-124-779-00	ELECT CHIP	10uF	20%	16V
R403	1-249-433-11	CARBON	22K	5%	1/4W	C133	1-164-346-11	CERAMIC CHIP	1uF		16V
R404	1-247-889-00	CARBON	270K	5%	1/4W	C140	1-164-346-11	CERAMIC CHIP	1uF		16V
R405	1-247-858-11	CARBON	13K	5%	1/4W	C141	1-164-346-11	CERAMIC CHIP	1uF		16V
R411	1-247-881-00	CARBON	120K	5%	1/4W	C143	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R412	1-247-807-31	CARBON	100	5%	1/4W	C151	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
R414	1-247-882-11	CARBON	130K	5%	1/4W	C153	1-163-038-91	CERAMIC CHIP	0.1uF		25V
R415	1-247-850-11	CARBON	6.2K	5%	1/4W	C154	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
R431	1-249-430-11	CARBON	12K	5%	1/4W	C156	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
R601	1-249-409-11	CARBON	220	5%	1/4W	C157	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
R602	1-249-409-11	CARBON	220	5%	1/4W	C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
R608	1-249-409-11	CARBON	220	5%	1/4W	C161	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
R609	1-249-433-11	CARBON	22K	5%	1/4W	C162	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
R611	1-249-409-11	CARBON	220	5%	1/4W	C163	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
R612	1-249-409-11	CARBON	220	5%	1/4W	C165	1-163-038-91	CERAMIC CHIP	0.1uF		25V
△ R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W	C167	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
△ R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W	C168	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
R623	1-249-432-11	CARBON	18K	5%	1/4W	C171	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
R624	1-249-432-11	CARBON	18K	5%	1/4W	C172	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
R625	1-249-429-11	CARBON	10K	5%	1/4W	C181	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
< VARIABLE RESISTOR >						C182	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K				< CONNECTOR >					
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K				CN101	1-778-874-11	CONNECTOR,FFC (LIF(NON-ZIF))19P			
RV341	1-241-768-11	RES, ADJ, CARBON 220K				CN102	1-777-937-11	CONNECTOR, FFC/FPC 16P			
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K				< FERRITE BEAD >					
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K				FB101	1-500-445-21	FERRITE	0UH		
RV441	1-241-768-11	RES, ADJ, CARBON 220K				FB103	1-500-445-21	FERRITE	0UH		
< TRANSFORMER >						< IC >					
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION				IC101	8-752-386-85	IC CXD2587Q			
*****						IC102	8-759-549-28	IC BA5974FP-E2			
* A-4724-486-A BD BOARD, COMPLETE						IC103	8-752-085-51	IC CXA2568M-T6			
*****						The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.					
< CAPACITOR >						Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.					
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V						
C102	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V						
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V						
C104	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V						
C108	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V						

BD

CD SW

CONNECTOR

LEAF SW

Ref. No.	Part No.	Description	Remarks			
< TRANSISTOR >						
Q101	8-729-010-08	TRANSISTOR MSB710-R				
< RESISTOR >						
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R102	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R103	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W	
R105	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R106	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R107	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R108	1-216-061-00	METAL CHIP	3.3K	5%	1/10W	
R109	1-216-121-91	RES,CHIP	1M	5%	1/10W	
R110	1-216-025-91	RES,CHIP	100	5%	1/10W	
R111	1-216-121-91	RES,CHIP	1M	5%	1/10W	
R113	1-216-121-91	RES,CHIP	1M	5%	1/10W	
R114	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R116	1-216-001-00	METAL CHIP	10	5%	1/10W	
R117	1-216-049-91	RES,CHIP	1K	5%	1/10W	
R119	1-216-041-00	METAL CHIP	470	5%	1/10W	
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R124	1-216-097-91	RES,CHIP	100K	5%	1/10W	
R131	1-216-033-00	METAL CHIP	220	5%	1/10W	
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W	
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W	
R147	1-216-069-00	METAL CHIP	6.8K	5%	1/10W	
R148	1-216-001-00	METAL CHIP	10	5%	1/10W	
R149	1-216-001-00	METAL CHIP	10	5%	1/10W	
R158	1-216-111-00	METAL CHIP	390K	5%	1/10W	
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W	
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W	
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W	
R171	1-216-078-00	RES,CHIP	16K	5%	1/10W	
R172	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R173	1-216-077-00	METAL CHIP	15K	5%	1/10W	
R181	1-216-078-00	RES,CHIP	16K	5%	1/10W	
R182	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R183	1-216-077-00	METAL CHIP	15K	5%	1/10W	
< NETWORK >						
RN101	1-233-576-11	RES, CHIP NETWORK 100				
RN102	1-233-576-11	RES, CHIP NETWORK 100				
< SWITCH >						
S101	1-572-085-11	SWITCH, LEAF (LIMIT)				
< VIBRATOR >						
X101	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)				

	1-672-968-11	CD SW BOARD				

< DIODE >						
D751	8-719-056-13	DIODE SML79423C-TP15				
D752	8-719-056-13	DIODE SML79423C-TP15				
D753	8-719-056-13	DIODE SML79423C-TP15				
D754	8-719-063-93	DIODE SLR325VC-N-T32				

Ref. No.	Part No.	Description	Remarks			
< TRANSISTOR >						
Q751	8-729-904-39	TRANSISTOR DTC114TS				
Q752	8-729-904-39	TRANSISTOR DTC114TS				
Q753	8-729-904-39	TRANSISTOR DTC114TS				
< RESISTOR >						
R751	1-249-418-11	CARBON	1.2K	5%	1/4W	F
R752	1-249-420-11	CARBON	1.8K	5%	1/4W	F
R753	1-249-422-11	CARBON	2.7K	5%	1/4W	F
R754	1-247-843-11	CARBON	3.3K	5%	1/4W	
R755	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R756	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R757	1-249-429-11	CARBON	10K	5%	1/4W	
R758	1-247-804-11	CARBON	75	5%	1/4W	
R759	1-247-804-11	CARBON	75	5%	1/4W	
R760	1-247-804-11	CARBON	75	5%	1/4W	
R761	1-247-804-11	CARBON	75	5%	1/4W	
R762	1-247-804-11	CARBON	75	5%	1/4W	
R763	1-247-804-11	CARBON	75	5%	1/4W	
R764	1-249-407-11	CARBON	150	5%	1/4W	F
< SWITCH >						
S751	1-762-196-21	SWITCH, TACT (I/⏏)				
S752	1-762-196-21	SWITCH, TACT ((STANBY),DEMO)				
S753	1-762-196-21	SWITCH, TACT (DISC 1)				
S754	1-762-196-21	SWITCH, TACT (DISC 2)				
S755	1-762-196-21	SWITCH, TACT (DISC 3)				
S756	1-762-196-21	SWITCH, TACT (DISC SKIP,EX-CHANGE)				
S757	1-762-196-21	SWITCH, TACT (▲)				

*	1-658-575-11	CONNECTOR BOARD				

< CONNECTOR >						
* CN701	1-568-946-11	PIN, CONNECTOR 8P				
CN702	1-750-413-11	CONNECTOR, FFC/FPC 8P				
< TRANSISTOR >						
Q701	8-729-900-80	TRANSISTOR DTC114ES				
< RESISTOR >						
R703	1-249-435-11	CARBON	33K	5%	1/4W	
R704	1-249-429-11	CARBON	10K	5%	1/4W	
R705	1-249-417-11	CARBON	1K	5%	1/4W	F

*	A-2007-732-A	LEAF SW BOARD, COMPLETE				

< CAPACITOR >						
C1001	1-107-716-11	ELECT	33uF	20%	10V	
< CONNECTOR >						
CN1001	1-568-860-11	SOCKET, CONNECTOR 17P				
< DIODE >						
D1001	8-719-911-19	DIODE 1SS119				
D1002	8-719-911-19	DIODE 1SS119				

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
		< HOLDER >				< CAPACITOR >	
* DM1001	1-784-581-11	HOLDER, CABLE (2.5MM PITCH) 4P		C101	1-162-286-31	CERAMIC 220PF 10% 50V	
		< IC >		C103	1-162-286-31	CERAMIC 220PF 10% 50V	
IC1001	8-749-014-38	IC PHOTO INTERRUPTER SG-264		C104	1-164-159-11	CERAMIC 0.1uF 50V	
IC1002	8-749-014-38	IC PHOTO INTERRUPTER SG-264		C111	1-137-195-11	FILM 0.56uF 5% 50V	
		< TRANSISTOR >		C112	1-136-158-00	FILM 0.027uF 5% 50V	
Q1001	8-729-029-56	TRANSISTOR DTA144ESA		C115	1-136-159-00	FILM 0.033uF 5% 50V	
		< RESISTOR >		C116	1-130-473-00	MYLAR 0.0015uF 5% 50V	
R907	1-247-879-11	CARBON 100K 5% 1/4W		C119	1-130-479-00	MYLAR 0.0047uF 5% 50V	
R1001	1-249-409-11	CARBON 220 5% 1/4W F		C120	1-130-477-00	MYLAR 0.0033uF 5% 50V	
R1002	1-249-409-11	CARBON 220 5% 1/4W F		C121	1-126-964-11	ELECT 10uF 20% 50V	
R1003	1-249-414-11	CARBON 560 5% 1/4W F		C122	1-162-291-31	CERAMIC 560PF 10% 50V	
R1004	1-247-834-11	CARBON 1.3K 5% 1/4W		C123	1-136-165-00	FILM 0.1uF 5% 50V	
R1005	1-247-818-11	CARBON 300 5% 1/4W		C124	1-136-165-00	FILM 0.1uF 5% 50V	
R1006	1-247-864-11	CARBON 24K 5% 1/4W		C125	1-126-964-11	ELECT 10uF 20% 50V	
R1007	1-247-856-00	CARBON 11K 5% 1/4W		C131	1-104-664-11	ELECT 47uF 20% 16V	
R1008	1-249-417-11	CARBON 1K 5% 1/4W F		C132	1-104-664-11	ELECT 47uF 20% 16V	
		< VARIABLE RESISTOR >		C135	1-126-964-11	ELECT 10uF 20% 50V	
RV1001	1-241-785-11	RES, ADJ, CARBON 10K		C136	1-161-494-00	CERAMIC 0.022uF 25V	
RV1002	1-241-785-11	RES, ADJ, CARBON 10K		C141	1-126-959-11	ELECT 0.47uF 20% 50V	
		< SWITCH >		C151	1-162-286-21	CERAMIC 220PF 10% 50V	(AED,AEP,G,UK,TH)
S1001	1-570-953-11	SWITCH, PUSH (1 KEY) (A PLAY)		C151	1-162-286-31	CERAMIC 220PF 10% 50V	(EXCEPT AED,AEP,G,UK,TH)
S1002	1-570-953-11	SWITCH, PUSH (1 KEY) (B PLAY)		C153	1-162-286-21	CERAMIC 220PF 10% 50V	(AED,AEP,G,UK,TH)
S1003	1-771-537-11	SWITCH, LEAF (A HALF)		C153	1-162-286-31	CERAMIC 220PF 10% 50V	(EXCEPT AED,AEP,G,UK,TH)
S1004	1-771-205-11	SWITCH, LEAF (A 1/20/70)		C161	1-137-195-11	FILM 0.56uF 5% 50V	
S1005	1-771-205-11	SWITCH, LEAF (REC A)		C162	1-136-158-00	FILM 0.027uF 5% 50V	
S1006	1-771-537-11	SWITCH, LEAF (B HALF)		C165	1-136-159-00	FILM 0.033uF 5% 50V	
S1008	1-771-205-11	SWITCH, LEAF (B 1/20/70)		C166	1-130-473-00	MYLAR 0.0015uF 5% 50V	
S1009	1-771-205-11	SWITCH, LEAF (REC B)		C169	1-130-479-00	MYLAR 0.0047uF 5% 50V	
*****				C170	1-130-477-00	MYLAR 0.0033uF 5% 50V	
A-4405-774-A	MAIN BOARD, COMPLETE (E2,MX,AR)			C171	1-126-964-11	ELECT 10uF 20% 50V	
	*****			C172	1-162-291-31	CERAMIC 560PF 10% 50V	
A-4405-775-A	MAIN BOARD, COMPLETE (E3,SP,TW)			C173	1-136-165-00	FILM 0.1uF 5% 50V	
	*****			C174	1-136-165-00	FILM 0.1uF 5% 50V	
A-4405-778-A	MAIN BOARD, COMPLETE (GRX30:EA)			C175	1-126-964-11	ELECT 10uF 20% 50V	
	*****			C176	1-136-495-11	FILM 0.068uF 5% 50V	
A-4424-054-A	MAIN BOARD, COMPLETE (TH)			C177	1-136-153-00	FILM 0.01uF 5% 50V	
	*****			C193	1-126-964-11	ELECT 10uF 20% 50V	(US,CND/GRX30/GRX30J)
A-4405-777-A	MAIN BOARD, COMPLETE (KR,AUS)			C194	1-162-286-31	CERAMIC 220PF 10% 50V	
	*****			C197	1-164-159-11	CERAMIC 0.1uF 50V	(US,CND/GRX30/GRX30J)
A-4424-021-A	MAIN BOARD, COMPLETE (E)			C301	1-126-960-11	ELECT 1uF 20% 50V	
	*****			C302	1-130-479-00	MYLAR 0.0047uF 5% 50V	
A-4424-022-A	MAIN BOARD, COMPLETE (GRX30J:EA)			C303	1-136-165-00	FILM 0.1uF 5% 50V	
	*****			C304	1-136-165-00	FILM 0.1uF 5% 50V	
A-4424-025-A	MAIN BOARD, COMPLETE (JE)			C305	1-126-964-11	ELECT 10uF 20% 50V	
	*****			C306	1-126-960-11	ELECT 1uF 20% 50V	
A-4405-963-A	MAIN BOARD, COMPLETE (AEP,AED,UK,G)			C307	1-126-959-11	ELECT 0.47uF 20% 50V	
	*****			C308	1-126-964-11	ELECT 10uF 20% 50V	
A-4405-784-A	MAIN BOARD, COMPLETE (CIS)			C309	1-137-194-81	FILM 0.47uF 5% 50V	
	*****			C310	1-162-290-31	CERAMIC 470PF 10% 50V	
A-4405-780-A	MAIN BOARD, COMPLETE (US)			C311	1-126-964-11	ELECT 10uF 20% 50V	

A-4405-782-A	MAIN BOARD, COMPLETE (CND)						

7-685-646-79	SCREW +BVTP 3 x 8 TYPE2 N-S						

MAIN

Ref. No.	Part No.	Description	Remarks		
C312	1-126-959-11	ELECT	0.47uF	20%	50V
C313	1-162-294-31	CERAMIC	0.001uF	10%	50V
C314	1-126-964-11	ELECT	10uF	20%	50V
C315	1-126-963-11	ELECT	4.7uF	20%	50V
C316	1-104-665-11	ELECT	100uF	20%	10V
C317	1-104-665-11	ELECT	100uF	20%	10V
C320	1-162-290-31	CERAMIC	470PF	10%	50V
C331	1-164-159-11	CERAMIC	0.1uF		50V
C332	1-164-159-11	CERAMIC	0.1uF		50V
C333	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C334	1-162-600-11	CERAMIC	0.0047uF	30%	16V
C351	1-126-960-11	ELECT	1uF	20%	50V
C352	1-130-479-00	MYLAR	0.0047uF	5%	50V
C353	1-136-165-00	FILM	0.1uF	5%	50V
C354	1-136-165-00	FILM	0.1uF	5%	50V
C355	1-126-964-11	ELECT	10uF	20%	50V
C356	1-126-960-11	ELECT	1uF	20%	50V
C357	1-126-959-11	ELECT	0.47uF	20%	50V
C358	1-126-964-11	ELECT	10uF	20%	50V
C359	1-137-194-81	FILM	0.47uF	5%	50V
C381	1-162-306-11	CERAMIC	0.01uF	20%	16V
C382	1-104-665-11	ELECT	100uF	20%	10V
C390	1-126-935-11	ELECT	470uF	20%	6.3V
C391	1-161-494-00	CERAMIC	0.022uF		25V
C392	1-126-916-11	ELECT	1000uF	20%	6.3V
C393	1-161-494-00	CERAMIC	0.022uF		25V
C394	1-126-925-11	ELECT	470uF	20%	10V
C395	1-162-290-31	CERAMIC	470PF	10%	50V
C396	1-126-961-11	ELECT	2.2uF	20%	50V
C397	1-126-961-11	ELECT	2.2uF	20%	50V
C401	1-136-165-00	FILM	0.1uF	5%	50V (AEP,AED,UK,G,CIS)
C402	1-136-165-00	FILM	0.1uF	5%	50V (AEP,AED,UK,G,CIS)
C403	1-164-159-11	CERAMIC	0.1uF		50V (AEP,AED,UK,G,CIS)
C412	1-107-717-11	ELECT	47uF	20%	50V
C431	1-126-934-11	ELECT	220uF	20%	10V
C432	1-104-665-11	ELECT	100uF	20%	10V
C433	1-126-964-11	ELECT	10uF	20%	50V
C437	1-126-968-11	ELECT	100uF	20%	50V
C451	1-136-165-00	FILM	0.1uF	5%	50V (AEP,AED,UK,G,CIS)
C452	1-136-165-00	FILM	0.1uF	5%	50V (AEP,AED,UK,G,CIS)
C453	1-164-159-11	CERAMIC	0.1uF		50V (AEP,AED,UK,G,CIS)
C501	1-126-964-11	ELECT	10uF	20%	50V
C502	1-164-159-11	CERAMIC	0.1uF		50V
C503	1-136-165-00	FILM	0.1uF	5%	50V (TH/GRX30J)
C503	1-137-194-81	FILM	0.47uF	5%	50V
C504	1-126-926-11	ELECT	1000uF	20%	10V
C505	1-162-306-11	CERAMIC	0.01uF	20%	16V
C508	1-109-889-11	ELECT	1uF	20%	50V
C610	1-102-953-00	CERAMIC	18PF	5%	50V (TH)
C610	1-102-514-11	CERAMIC	22PF	5%	50V (EXCEPT TH)

Ref. No.	Part No.	Description	Remarks		
C611	1-102-514-11	CERAMIC	22PF	5%	50V
C614	1-164-159-11	CERAMIC	0.1uF		50V
C616	1-104-665-11	ELECT	100uF	20%	10V
C662	1-164-159-11	CERAMIC	0.1uF		50V
C664	1-104-665-11	ELECT	100uF	20%	10V
C698	1-164-159-11	CERAMIC	0.1uF		50V
C801	1-126-963-11	ELECT	4.7uF	20%	50V (EXCEPT US,CND)
C801	1-128-582-11	ELECT	10uF	20%	100V (US,CND)
C802	1-162-290-31	CERAMIC	470PF	10%	50V
C803	1-162-282-31	CERAMIC	100PF	10%	50V
C804	1-104-665-11	ELECT	100uF	20%	10V
C807	1-136-495-11	FILM	0.068uF	5%	50V
C808	1-136-495-11	FILM	0.068uF	5%	50V
C809	1-126-968-11	ELECT	100uF	20%	50V (AEP,AED,UK,G)
C809	1-128-552-51	ELECT	47uF	20%	63V (EXCEPT AED,AEP,G,UK)
C810	1-128-578-11	ELECT	1uF	20%	100V
C811	1-162-306-11	CERAMIC	0.01uF	20%	16V
C812	1-162-306-11	CERAMIC	0.01uF	20%	16V
C841	1-127-751-11	ELECT	3300uF	20%	50V (EXCEPT R550/RXD5)
C842	1-127-751-11	ELECT	3300uF	20%	50V (R550/RXD5)
C842	1-127-752-11	ELECT	3300uF	20%	63V (EXCEPT R550/RXD5)
C843	1-136-165-00	FILM	0.1uF	5%	50V (GRX30/GRX30J)
C844	1-136-165-00	FILM	0.1uF	5%	50V (US,CND)
C844	1-130-777-00	FILM	0.1uF	10%	100V (EXCEPT US,CND)
C851	1-126-963-11	ELECT	4.7uF	20%	50V (EXCEPT US,CND)
C851	1-128-582-11	ELECT	10uF	20%	100V
C852	1-162-290-31	CERAMIC	470PF	10%	50V
C853	1-162-282-31	CERAMIC	100PF	10%	50V
C854	1-104-665-11	ELECT	100uF	20%	10V
C857	1-136-495-11	FILM	0.068uF	5%	50V (AEP,AED,UK,G)
C858	1-136-495-11	FILM	0.068uF	5%	50V (AEP,AED,UK,G)
C859	1-126-968-11	ELECT	100uF	20%	50V (EXCEPT AED,AEP,G,UK)
C859	1-128-552-51	ELECT	47uF	20%	63V (EXCEPT AED,AEP,G,UK)
C865	1-126-947-11	ELECT	47uF	20%	35V
C870	1-164-159-11	CERAMIC	0.1uF		50V (TH/GRX30J)
C871	1-126-948-11	ELECT	100uF	20%	35V (TH/GRX30J)
C872	1-128-553-11	ELECT	220uF	20%	63V (TH/GRX30J)
C891	1-127-751-11	ELECT	3300uF	20%	50V (EXCEPT R550/RXD5)
C892	1-127-751-11	ELECT	3300uF	20%	50V (R550/RXD5)
C892	1-127-752-11	ELECT	3300uF	20%	63V (EXCEPT R550/RXD5)

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
C893	1-136-165-00	FILM	0.1uF 5% 50V (GRX30/GRX30J)	D503	8-719-911-19	DIODE 1SS119	
C894	1-136-165-00	FILM	0.1uF 5% 50V (US,CND)	D504	8-719-911-19	DIODE 1SS119	
C894	1-130-777-00	FILM	0.1uF 10% 100V (EXCEPT US,CND)	D505	8-719-911-19	DIODE 1SS119	
C901	1-136-165-00	FILM	0.1uF 5% 50V	D506	8-719-911-19	DIODE 1SS119	
C902	1-126-944-11	ELECT	3300uF 20% 25V	D507	8-719-911-19	DIODE 1SS119	
C903	1-104-666-11	ELECT	220uF 20% 25V	D509	8-719-911-19	DIODE 1SS119	
C904	1-104-664-11	ELECT	47uF 20% 16V	D801	8-719-911-19	DIODE 1SS119	
C905	1-104-661-91	ELECT	330uF 20% 16V	D802	8-719-118-86	DIODE RD11F-T7B3 (GRX30/GRX30J)	
C906	1-136-165-00	FILM	0.1uF 5% 50V	D803	8-719-911-19	DIODE 1SS119	
C907	1-128-548-11	ELECT	4700uF 20% 25V	D831	8-719-302-38	DIODE RBV-602-01	
C909	1-126-964-11	ELECT	10uF 20% 50V	D832	8-719-302-38	DIODE RBV-602-01 (GRX30/GRX30J)	
C910	1-104-665-11	ELECT	100uF 20% 10V	D851	8-719-911-19	DIODE 1SS119	
C911	1-126-964-11	ELECT	10uF 20% 50V	D852	8-719-118-86	DIODE RD11F-T7B3 (GRX30/GRX30J)	
C912	1-126-767-11	ELECT	1000uF 20% 16V	D865	8-719-911-19	DIODE 1SS119 (TH/GRX30J)	
C913	1-126-964-11	ELECT	10uF 20% 50V	D870	8-719-934-25	DIODE HZS33-1L (TH/GRX30J)	
C914	1-126-767-11	ELECT	1000uF 20% 16V	D872	8-719-921-48	DIODE MTZJ-T-72-5.6C (TH/GRX30J)	
C915	1-104-664-11	ELECT	47uF 20% 16V	D873	8-719-024-99	DIODE 11ES2-NTA2B (TH/GRX30J)	
C916	1-164-159-11	CERAMIC	0.1uF 50V	D874	8-719-024-99	DIODE 11ES2-NTA2B (TH/GRX30J)	
C917	1-126-933-11	ELECT	100uF 20% 16V	D901	8-719-024-99	DIODE 11ES2-NTA2B	
C951	1-136-165-00	FILM	0.1uF 5% 50V	D902	8-719-024-99	DIODE 11ES2-NTA2B	
C952	1-126-943-11	ELECT	2200uF 20% 25V	D903	8-719-024-99	DIODE 11ES2-NTA2B	
C953	1-104-666-11	ELECT	220uF 20% 25V	D904	8-719-024-99	DIODE 11ES2-NTA2B	
C955	1-104-661-91	ELECT	330uF 20% 16V	D905	8-719-933-36	DIODE HZS6B1L	
C956	1-136-165-00	FILM	0.1uF 5% 50V	D906	8-719-911-19	DIODE 1SS119	
< CONNECTOR >				D907	8-719-024-99	DIODE 11ES2-NTA2B	
* CN103	1-568-935-11	PIN, CONNECTOR 8P (GRX30J)		D908	8-719-024-99	DIODE 11ES2-NTA2B	
* CN104	1-568-936-11	PIN, CONNECTOR 9P (GRX30J)		D909	8-719-024-99	DIODE 11ES2-NTA2B	
* CN301	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P (EXCEPT AED,AEP,G,UK)		D910	8-719-024-99	DIODE 11ES2-NTA2B	
CN303	1-784-776-11	CONNECTOR, FFC 15P		D911	8-719-911-19	DIODE 1SS119 (TH/GRX30J)	
CN304	1-784-778-11	CONNECTOR, FFC 17P		D911	8-719-991-33	DIODE 1SS133T-77 (GRX30/GRX30J)	
CN371	1-784-776-11	CONNECTOR, FFC 15P (EXCEPT AR,AUS,CND,E2,KR,MX,TH,US)		D912	8-719-024-99	DIODE 11ES2-NTA2B (GRX30/GRX30J)	
CN371	1-784-774-11	CONNECTOR, FFC 13P (AR,E2,MX,TH,KR,AUS,US,CND)		D912	8-719-200-82	DIODE 11ES2 (TH)	
CN391	1-764-698-11	SOCKET, CONNECTOR (NON ZIF) 19P		D913	8-719-024-99	DIODE 11ES2-NTA2B (GRX30/GRX30J)	
* CN392	1-568-935-11	PIN, CONNECTOR 8P (EXCEPT GRX30J)		D913	8-719-200-82	DIODE 11ES2 (TH)	
* CN393	1-568-936-11	PIN, CONNECTOR 9P (EXCEPT GRX30J)		D915	8-719-935-69	DIODE HZS11B1LTA	
CN501	1-784-780-11	CONNECTOR, FFC 19P		< TERMINAL >			
* CN502	1-568-934-11	PIN, CONNECTOR 7P (GRX30J)		* EPT3	1-537-738-21	TERMINAL, EARTH (EXCEPT GRX30J)	
< DIODE >				< IC >			
D141	8-719-911-19	DIODE 1SS119		IC101	8-759-571-55	IC M62493FP-A	
D191	8-719-911-19	DIODE 1SS119 (US,CND/GRX30/GRX30J)		IC301	8-759-495-26	IC HA12215	
D331	8-719-911-19	DIODE 1SS119		IC381	8-749-923-04	IC TOTX178 (CD DIGITAL OUT, OPTICAL)	
D333	8-719-911-19	DIODE 1SS119		IC501	8-759-588-90	IC M30622MA-A08FP (US,CND,CIS/GRX30)	
D334	8-719-911-19	DIODE 1SS119		IC502	8-759-635-63	IC M51943BSL	
D335	8-719-911-19	DIODE 1SS119		IC801	8-749-015-45	IC STK407-090E (US,AEP,AED,UK,G,CIS)	
D401	8-719-911-19	DIODE 1SS119		IC801	8-749-015-34	IC STK411-210E (GRX30/GRX30J)	
D411	8-719-911-19	DIODE 1SS119		IC801	8-749-015-44	IC STK407-070E (CND)	
D501	8-719-911-19	DIODE 1SS119		IC901	8-759-604-86	IC M5F7807L	
D502	8-719-911-19	DIODE 1SS119		IC902	8-759-231-53	IC TA7805S	
< JACK >				IC903	8-759-088-08	IC UPC7812AHF	
J101	1-573-028-31	JACK, PIN 4P (MD/VIDEO(AUDIO), IN/OUT) (EXCEPT GRX30J)		J101	1-573-028-31	JACK, PIN 4P (MD/VIDEO(AUDIO), IN/OUT) (EXCEPT GRX30J)	
J101	1-695-188-31	JACK, PIN 4P (MD/VIDEO(AUDIO), IN/OUT) (GRX30J)		J101	1-695-188-31	JACK, PIN 4P (MD/VIDEO(AUDIO), IN/OUT) (GRX30J)	
J191	1-774-785-11	JACK, PIN 1P (SUPER WOOFER) (US,CND/GRX30/GRX30J)		J191	1-774-785-11	JACK, PIN 1P (SUPER WOOFER) (US,CND/GRX30/GRX30J)	

MAIN

Ref. No.	Part No.	Description	Remarks
		< COIL >	
L381	1-410-521-11	INDUCTOR 100uH	
L391	1-410-521-11	INDUCTOR 100uH	
L392	1-410-521-11	INDUCTOR 100uH	
L401	1-420-872-00	COIL, AIR-CORE (AED,AEP,CIS,G,UK)	
L451	1-420-872-00	COIL, AIR-CORE (AED,AEP,CIS,G,UK)	
L501	1-410-509-11	INDUCTOR 10uH	
		< TRANSISTOR >	
Q111	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q112	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q113	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q161	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q162	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q163	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q191	8-729-141-30	TRANSISTOR 2SC3623A-LK (US,CND/GRX30/GRX30J)	
Q192	8-729-900-63	TRANSISTOR DTA124ES (US,CND/GRX30/GRX30J)	
Q331	8-729-116-56	TRANSISTOR 2SB1068-L	
Q332	8-729-900-80	TRANSISTOR DTC114ES	
Q333	8-729-116-56	TRANSISTOR 2SB1068-L	
Q334	8-729-900-80	TRANSISTOR DTC114ES	
Q335	8-729-900-80	TRANSISTOR DTC114ES	
Q336	8-729-116-56	TRANSISTOR 2SB1068-L	
Q337	8-729-045-21	TRANSISTOR 2SD1513TP-LK	
Q338	8-729-422-57	TRANSISTOR UN4111	
Q339	8-729-900-80	TRANSISTOR DTC114ES	
Q340	8-729-116-56	TRANSISTOR 2SB1068-L	
Q341	8-729-045-21	TRANSISTOR 2SD1513TP-LK	
Q342	8-729-422-57	TRANSISTOR UN4111	
Q343	8-729-900-80	TRANSISTOR DTC114ES	
Q411	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q412	8-729-900-63	TRANSISTOR DTA124ES	
Q431	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q432	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q433	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q434	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q435	8-729-900-36	TRANSISTOR DTC124ES	
Q436	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q437	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q439	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q461	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q501	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q508	8-729-900-63	TRANSISTOR DTA124ES	
Q509	8-729-900-63	TRANSISTOR DTA124ES	
Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q803	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q804	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q831	8-729-900-36	TRANSISTOR DTC124ES	
Q832	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q865	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q870	8-729-140-97	TRANSISTOR 2SB734-34 (GRX30/GRX30J)	
Q901	8-729-209-15	TRANSISTOR 2SD2012	
Q902	8-729-119-78	TRANSISTOR 2SC403SP-51	

Ref. No.	Part No.	Description	Remarks
Q903	8-729-900-36	TRANSISTOR DTC124ES	
Q904	8-729-900-36	TRANSISTOR DTC124ES	
Q905	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q907	8-729-040-20	TRANSISTOR RT1P137L-TP	
Q908	8-729-900-36	TRANSISTOR DTC124ES	
Q909	8-729-026-68	TRANSISTOR 2SD2525(TP)	
Q913	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q914	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q923	8-729-900-36	TRANSISTOR DTC124ES	
Q951	8-729-141-83	TRANSISTOR 2SB1094-LK	
Q952	8-729-119-77	TRANSISTOR 2SA1175-FEK	
		< RESISTOR >	
R101	1-249-417-11	CARBON 1K 5%	1/4W F
R103	1-249-417-11	CARBON 1K 5%	1/4W F
R111	1-249-429-11	CARBON 10K 5%	1/4W
R112	1-247-903-00	CARBON 1M 5%	1/4W
R113	1-247-903-00	CARBON 1M 5%	1/4W
R114	1-249-419-11	CARBON 1.5K 5%	1/4W F
R115	1-249-433-11	CARBON 22K 5%	1/4W
R116	1-247-887-00	CARBON 220K 5%	1/4W
R117	1-249-429-11	CARBON 10K 5%	1/4W
R118	1-249-437-11	CARBON 47K 5%	1/4W
R119	1-249-421-11	CARBON 2.2K 5%	1/4W F
R120	1-249-441-11	CARBON 100K 5%	1/4W
R121	1-249-429-11	CARBON 10K 5%	1/4W
R124	1-249-421-11	CARBON 2.2K 5%	1/4W F
R125	1-247-843-11	CARBON 3.3K 5%	1/4W
R126	1-249-421-11	CARBON 2.2K 5%	1/4W F
R131	1-247-807-31	CARBON 100 5%	1/4W
R132	1-247-807-31	CARBON 100 5%	1/4W
R133	1-247-807-31	CARBON 100 5%	1/4W
R141	1-249-433-11	CARBON 22K 5%	1/4W
R142	1-249-433-11	CARBON 22K 5%	1/4W
R143	1-249-417-11	CARBON 1K 5%	1/4W F
R144	1-249-441-11	CARBON 100K 5%	1/4W
R145	1-247-903-00	CARBON 1M 5%	1/4W
R151	1-249-417-11	CARBON 1K 5%	1/4W F
R153	1-249-417-11	CARBON 1K 5%	1/4W F
R161	1-249-429-11	CARBON 10K 5%	1/4W
R162	1-247-903-00	CARBON 1M 5%	1/4W
R163	1-247-903-00	CARBON 1M 5%	1/4W
R164	1-249-419-11	CARBON 1.5K 5%	1/4W F
R165	1-249-433-11	CARBON 22K 5%	1/4W
R166	1-247-887-00	CARBON 220K 5%	1/4W
R167	1-249-429-11	CARBON 10K 5%	1/4W
R168	1-249-437-11	CARBON 47K 5%	1/4W
R169	1-249-421-11	CARBON 2.2K 5%	1/4W F
R170	1-249-441-11	CARBON 100K 5%	1/4W
R171	1-249-429-11	CARBON 10K 5%	1/4W
R178	1-249-421-11	CARBON 2.2K 5%	1/4W F
R190	1-249-441-11	CARBON 100K 5%	1/4W
R196	1-249-417-11	CARBON 1K 5%	1/4W F

(GRX30/GRX30J/RDX5:US,CND)

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks		
R197	1-249-441-11	CARBON	100K	5%	1/4W	R401	1-260-076-11	CARBON	10	5%	1/2W
			(GRX30/GRX30J/RDX5:US,CND)							(AEP,AED,UK,G,CIS)	
R198	1-249-417-11	CARBON	1K	5%	1/4W F	R402	1-260-076-11	CARBON	10	5%	1/2W
			(GRX30/GRX30J/RDX5:US,CND)							(AEP,AED,UK,G,CIS)	
R199	1-249-429-11	CARBON	10K	5%	1/4W	△ R411	1-216-456-00	METAL OXIDE	820	5%	2W F
			(GRX30/GRX30J/RDX5:US,CND)							(US,CND)	
R301	1-249-435-11	CARBON	33K	5%	1/4W	△ R411	1-215-892-11	METAL OXIDE	1K	5%	2W F
R302	1-249-421-11	CARBON	2.2K	5%	1/4W F					(AEP,AED,UK,G,CIS)	
						△ R411	1-215-893-11	METAL OXIDE	1.5K	5%	2W F
										(GRX30/GRX30J)	
R303	1-247-807-31	CARBON	100	5%	1/4W						
R304	1-247-807-31	CARBON	100	5%	1/4W	R413	1-249-402-11	CARBON	56	5%	1/4W F
R305	1-249-421-11	CARBON	2.2K	5%	1/4W F	R414	1-249-417-11	CARBON	1K	5%	1/4W F
R306	1-249-428-11	CARBON	8.2K	5%	1/4W F	R415	1-249-429-11	CARBON	10K	5%	1/4W
R307	1-249-428-11	CARBON	8.2K	5%	1/4W F	R416	1-249-437-11	CARBON	47K	5%	1/4W
						R417	1-249-417-11	CARBON	1K	5%	1/4W F
R308	1-249-425-11	CARBON	4.7K	5%	1/4W F						
R309	1-249-433-11	CARBON	22K	5%	1/4W	R421	1-260-091-11	CARBON	220	5%	1/2W
R311	1-247-903-00	CARBON	1M	5%	1/4W	R422	1-260-091-11	CARBON	220	5%	1/2W
R312	1-247-884-11	CARBON	160K	5%	1/4W	R431	1-249-438-11	CARBON	56K	5%	1/4W
R313	1-249-441-11	CARBON	100K	5%	1/4W	R432	1-249-437-11	CARBON	47K	5%	1/4W
						R434	1-247-863-91	CARBON	22K	5%	1/4W
										(EXCEPT AEP,AED,G,UK)	
R315	1-249-429-11	CARBON	10K	5%	1/4W						
R316	1-249-432-11	CARBON	18K	5%	1/4W	R434	1-247-903-00	CARBON	1M	5%	1/4W
R317	1-249-429-11	CARBON	10K	5%	1/4W					(AEP,AED,G,UK)	
R318	1-249-429-11	CARBON	10K	5%	1/4W	R435	1-249-425-11	CARBON	4.7K	5%	1/4W F
R319	1-247-893-11	CARBON	390K	5%	1/4W	R437	1-249-429-11	CARBON	10K	5%	1/4W
						R438	1-249-429-11	CARBON	10K	5%	1/4W
R321	1-249-422-11	CARBON	2.7K	5%	1/4W F	R439	1-249-425-11	CARBON	4.7K	5%	1/4W F
R322	1-249-428-11	CARBON	8.2K	5%	1/4W F						
R324	1-247-876-11	CARBON	75K	5%	1/4W	R440	1-247-863-91	CARBON	22K	5%	1/4W
R325	1-247-876-11	CARBON	75K	5%	1/4W					(EXCEPT AEP,AED,G,UK)	
R326	1-249-437-11	CARBON	47K	5%	1/4W	R440	1-247-903-00	CARBON	1M	5%	1/4W
										(AEP,AED,G,UK)	
R327	1-249-437-11	CARBON	47K	5%	1/4W	R441	1-249-435-11	CARBON	33K	5%	1/4W
R328	1-249-437-11	CARBON	47K	5%	1/4W	R443	1-249-417-11	CARBON	1K	5%	1/4W
R329	1-249-417-11	CARBON	1K	5%	1/4W F					(AEP,AED,UK,G,CIS)	
R330	1-249-425-11	CARBON	4.7K	5%	1/4W F						
R331	1-249-425-11	CARBON	4.7K	5%	1/4W F						
						R452	1-260-076-11	CARBON	10	5%	1/2W
										(AEP,AED,UK,G,CIS)	
R332	1-249-415-11	CARBON	680	5%	1/4W F	R463	1-249-402-11	CARBON	56	5%	1/4W F
R333	1-249-421-11	CARBON	2.2K	5%	1/4W F	R464	1-249-417-11	CARBON	1K	5%	1/4W F
R334	1-249-415-11	CARBON	680	5%	1/4W F	R471	1-260-091-11	CARBON	220	5%	1/2W
R335	1-249-421-11	CARBON	2.2K	5%	1/4W F	R472	1-260-091-11	CARBON	220	5%	1/2W
R336	1-249-437-11	CARBON	47K	5%	1/4W						
						R501	1-249-413-11	CARBON	470	5%	1/4W F
R337	1-249-417-11	CARBON	1K	5%	1/4W F	R502	1-249-425-11	CARBON	4.7K	5%	1/4W F
R338	1-249-411-11	CARBON	330	5%	1/4W	R503	1-249-437-11	CARBON	47K	5%	1/4W
R339	1-249-437-11	CARBON	47K	5%	1/4W	R504	1-249-437-11	CARBON	47K	5%	1/4W
R340	1-249-437-11	CARBON	47K	5%	1/4W	R505	1-249-429-11	CARBON	10K	5%	1/4W
R341	1-249-411-11	CARBON	330	5%	1/4W						
						R506	1-249-429-11	CARBON	10K	5%	1/4W
R342	1-249-437-11	CARBON	47K	5%	1/4W	R508	1-249-421-11	CARBON	2.2K	5%	1/4W F
R343	1-249-417-11	CARBON	1K	5%	1/4W F	R509	1-249-441-11	CARBON	100K	5%	1/4W
R351	1-249-435-11	CARBON	33K	5%	1/4W	R511	1-247-807-31	CARBON	100	5%	1/4W
R352	1-249-421-11	CARBON	2.2K	5%	1/4W F					(TH/GRX30J)	
R353	1-247-807-31	CARBON	100	5%	1/4W					1/4W	
										(TH/GRX30J)	
R354	1-247-807-31	CARBON	100	5%	1/4W	R512	1-247-807-31	CARBON	100	5%	1/4W
R355	1-249-421-11	CARBON	2.2K	5%	1/4W F						
R356	1-249-428-11	CARBON	8.2K	5%	1/4W F						
R357	1-249-428-11	CARBON	8.2K	5%	1/4W F						
R358	1-249-425-11	CARBON	4.7K	5%	1/4W F						
R359	1-249-435-11	CARBON	33K	5%	1/4W						
R391	1-247-807-31	CARBON	100	5%	1/4W						
R392	1-247-807-31	CARBON	100	5%	1/4W						
R393	1-249-435-11	CARBON	33K	5%	1/4W						
R394	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.

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


MAIN

Ref. No.	Part No.	Description	Remarks			Ref. No.	Part No.	Description	Remarks		
R523	1-249-427-11	CARBON	6.8K	5%	1/4W F (AEP,UK,G,AED,CIS)	R667	1-247-807-31	CARBON	100	5%	1/4W
R523	1-249-437-11	CARBON	47K	5%	1/4W (EA,TH,JE,KR,AUS)	R668	1-247-807-31	CARBON	100	5%	1/4W
R523	1-249-433-11	CARBON	22K	5%	1/4W (AR,E2,MX)	R669	1-247-807-31	CARBON	100	5%	1/4W
R524	1-249-429-11	CARBON	10K	5%	1/4W (JE)	R670	1-247-807-31	CARBON	100	5%	1/4W
R524	1-247-843-11	CARBON	3.3K	5%	1/4W (TH,KR,AUS)	R671	1-247-807-31	CARBON	100	5%	1/4W
R524	1-249-435-11	CARBON	33K	5%	1/4W (EA)	R686	1-247-807-31	CARBON	100	5%	1/4W
R524	1-249-437-11	CARBON	47K	5%	1/4W (AR,E2,MX,AEP,AED,UK,G,CIS)	R687	1-247-807-31	CARBON	100	5%	1/4W
R527	1-249-429-11	CARBON	10K	5%	1/4W	R688	1-247-807-31	CARBON	100	5%	1/4W
R536	1-249-429-11	CARBON	10K	5%	1/4W	R689	1-247-807-31	CARBON	100	5%	1/4W
R567	1-247-807-31	CARBON	100	5%	1/4W	R690	1-247-807-31	CARBON	100	5%	1/4W
R568	1-249-429-11	CARBON	10K	5%	1/4W	R691	1-247-807-31	CARBON	100	5%	1/4W
R569	1-249-429-11	CARBON	10K	5%	1/4W	R801	1-249-417-11	CARBON	1K	5%	1/4W F
R570	1-249-429-11	CARBON	10K	5%	1/4W	R802	1-249-438-11	CARBON	56K	5%	1/4W
R571	1-249-429-11	CARBON	10K	5%	1/4W	R803	1-249-413-11	CARBON	470	5%	1/4W F (TH/GRX30J)
R577	1-249-429-11	CARBON	10K	5%	1/4W	R803	1-249-415-11	CARBON	680	5%	1/4W F (R550/RXD5)
R581	1-249-429-11	CARBON	10K	5%	1/4W	R804	1-249-438-11	CARBON	56K	5%	1/4W
R582	1-247-843-11	CARBON	3.3K	5%	1/4W	R805	1-249-417-11	CARBON	1K	5%	1/4W F
R610	1-247-807-31	CARBON	100	5%	1/4W	R806	1-249-431-11	CARBON	15K	5%	1/4W
R613	1-247-807-31	CARBON	100	5%	1/4W	R807	1-249-441-11	CARBON	100K	5%	1/4W
R617	1-249-429-11	CARBON	10K	5%	1/4W	△ R808	1-220-755-11	METAL	0.22	10%	2W (AEP,AED,UK,G,CIS)
R618	1-249-425-11	CARBON	4.7K	5%	1/4W F	△ R808	1-220-893-11	METAL	0.22	10%	5W (EXCEPT AEP,AED,UK,G,CIS)
R619	1-247-807-31	CARBON	100	5%	1/4W	R809	1-260-076-11	CARBON	10	5%	1/2W
R620	1-247-807-31	CARBON	100	5%	1/4W (AEP,AED,UK,G,CIS)	R810	1-249-419-11	CARBON	1.5K	5%	1/4W F (GRX30/GRX30J)
R621	1-247-807-31	CARBON	100	5%	1/4W (AEP,AED,UK,G,CIS)	△ R811	1-212-881-11	FUSIBLE	100	5%	1/4W F
R627	1-247-807-31	CARBON	100	5%	1/4W	△ R812	1-202-972-61	FUSIBLE	1	5%	1/4W F
R629	1-247-807-31	CARBON	100	5%	1/4W	R813	1-249-435-11	CARBON	33K	5%	1/4W
R630	1-247-807-31	CARBON	100	5%	1/4W	R814	1-249-421-11	CARBON	2.2K	5%	1/4W F
R632	1-247-807-31	CARBON	100	5%	1/4W	R815	1-249-433-11	CARBON	22K	5%	1/4W
R633	1-247-807-31	CARBON	100	5%	1/4W	R816	1-249-429-11	CARBON	10K	5%	1/4W
R635	1-247-807-31	CARBON	100	5%	1/4W	R817	1-249-421-11	CARBON	2.2K	5%	1/4W F
R636	1-247-807-31	CARBON	100	5%	1/4W	R818	1-249-435-11	CARBON	33K	5%	1/4W
R637	1-247-807-31	CARBON	100	5%	1/4W	R819	1-249-439-11	CARBON	68K	5%	1/4W
R642	1-247-807-31	CARBON	100	5%	1/4W	R831	1-249-441-11	CARBON	100K	5%	1/4W
R643	1-247-807-31	CARBON	100	5%	1/4W	R832	1-249-441-11	CARBON	100K	5%	1/4W
R649	1-247-807-31	CARBON	100	5%	1/4W	R833	1-247-843-11	CARBON	3.3K	5%	1/4W
R650	1-247-807-31	CARBON	100	5%	1/4W	R842	1-249-437-11	CARBON	47K	5%	1/4W
R651	1-247-807-31	CARBON	100	5%	1/4W	R851	1-249-417-11	CARBON	1K	5%	1/4W F
R652	1-247-807-31	CARBON	100	5%	1/4W	R852	1-249-438-11	CARBON	56K	5%	1/4W
R653	1-247-807-31	CARBON	100	5%	1/4W	R853	1-249-418-11	CARBON	1.2K	5%	1/4W F (US,CND)
R654	1-247-807-31	CARBON	100	5%	1/4W	R853	1-249-416-11	CARBON	820	5%	1/4W F (AEP,AED,UK,G,CIS)
R655	1-247-807-31	CARBON	100	5%	1/4W	R853	1-249-413-11	CARBON	470	5%	1/4W F (GRX31/GRX30J)
R656	1-247-807-31	CARBON	100	5%	1/4W	R853	1-249-415-11	CARBON	680	5%	1/4W F (R550/RXD5)
R657	1-247-807-31	CARBON	100	5%	1/4W	R854	1-249-438-11	CARBON	56K	5%	1/4W
R658	1-247-807-31	CARBON	100	5%	1/4W	R855	1-249-417-11	CARBON	1K	5%	1/4W F
R659	1-247-807-31	CARBON	100	5%	1/4W	R856	1-249-431-11	CARBON	15K	5%	1/4W
R660	1-247-807-31	CARBON	100	5%	1/4W						
R661	1-247-807-31	CARBON	100	5%	1/4W						
R663	1-247-807-31	CARBON	100	5%	1/4W						
R665	1-247-807-31	CARBON	100	5%	1/4W						
R666	1-247-807-31	CARBON	100	5%	1/4W						

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

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

MOTOR (TURN)

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

PANEL

Ref. No.	Part No.	Description	Remarks
	A-4419-034-A	PANEL BOARD, COMPLETE ***** (EXCEPT GRX30J,AED,AEP,G,UK,TH) *****	
	A-4419-962-A	PANEL BOARD, COMPLETE (TH) *****	
	A-4424-023-A	PANEL BOARD, COMPLETE (GRX30J) *****	
	A-4419-624-A	PANEL BOARD, COMPLETE (AEP,AED,UK,G) *****	
*	4-996-796-01	HOLDER, FL TUBE < CAPACITOR >	
C601	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C603	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C604	1-126-163-11	ELECT 4.7uF 20% 50V	
C606	1-126-160-11	ELECT 1uF 20% 50V	
C625	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C626	1-124-589-11	ELECT 47uF 20% 16V	
C627	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C628	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C629	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C630	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C631	1-126-157-11	ELECT 10uF 20% 16V	
C632	1-126-157-11	ELECT 10uF 20% 16V	
C633	1-162-303-11	CERAMIC 0.0033uF 30% 16V	
C634	1-126-157-11	ELECT 10uF 20% 16V	
C635	1-126-163-11	ELECT 4.7uF 20% 50V	
C640	1-124-589-11	ELECT 47uF 20% 16V	
C644	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C645	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C646	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C647	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C648	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C649	1-124-589-11	ELECT 47uF 20% 16V	
C703	1-164-159-11	CERAMIC 0.1uF 50V	
C731	1-162-306-11	CERAMIC 0.01uF 20% 16V	
C732	1-124-257-00	ELECT 2.2uF 20% 50V	
C733	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C734	1-162-215-31	CERAMIC 47PF 5% 50V	
C735	1-124-261-00	ELECT 10uF 20% 50V	
C736	1-162-290-31	CERAMIC 470PF 10% 50V	
C737	1-124-463-00	ELECT 0.1uF 20% 50V	
C739	1-162-215-31	CERAMIC 47PF 5% 50V	
C741	1-124-261-00	ELECT 10uF 20% 50V	
C742	1-162-282-31	CERAMIC 100PF 10% 50V	
C743	1-124-257-00	ELECT 2.2uF 20% 50V	
C747	1-164-159-11	CERAMIC 0.1uF 50V	
		< CONNECTOR >	
CN601	1-784-461-11	CONNECTOR, FFC/FPC 19P	
		< DIODE >	
D611	8-719-063-93	DIODE SLR325VC-N-T32 ()	
D612	8-719-057-97	DIODE SEL5923A-TP15	
D613	8-719-063-93	DIODE SLR325VC-N-T32	
D615	8-719-063-93	DIODE SLR325VC-N-T32	
D616	8-719-057-97	DIODE SEL5923A-TP15	

Ref. No.	Part No.	Description	Remarks
D617	8-719-057-97	DIODE SEL5923A-TP15	
D620	8-719-056-13	DIODE SML79423C-TP15	
D621	8-719-058-03	DIODE SEL5423E-TP15	
D622	8-719-058-03	DIODE SEL5423E-TP15	
D623	8-719-058-03	DIODE SEL5423E-TP15	
D624	8-719-058-03	DIODE SEL5423E-TP15	
D625	8-719-073-47	DIODE SML72923C-TP15	
D626	8-719-057-97	DIODE SEL5923A-TP15	
D631	8-719-911-19	DIODE 1SS119 (GRX30J)	
D632	8-719-050-84	DIODE RB441Q-40T-72	
D634	8-719-911-19	DIODE 1SS119 (GRX30J)	
D635	8-719-911-19	DIODE 1SS119 (GRX30J)	
D636	8-719-991-33	DIODE 1SS133T-77	
		< TERMINAL >	
* EH601	1-537-738-21	TERMINAL, EARTH	
		< FERRITE BEAD >	
FB602	1-410-397-21	FERRITE BEAD INDUCTOR	
		< FLUORESCENT TUBE >	
FL601	1-517-731-21	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC601	8-759-578-51	IC TMP88CP76F-6001	
IC602	8-749-011-05	IC GP1U28X	
IC603	8-759-495-25	IC BA3833F-E2	
IC712	8-759-636-55	IC M5218AFP	
		< JACK >	
J701	1-785-569-11	JACK (SMALL TYPE) (PHONES)	
		< TRANSISTOR >	
Q601	8-729-118-00	TRANSISTOR 2SB1116-L	
Q602	8-729-118-00	TRANSISTOR 2SB1116-L	
Q603	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q604	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q605	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q611	8-729-904-39	TRANSISTOR DTC114TS	
Q612	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q613	8-729-904-39	TRANSISTOR DTC114TS	
Q614	8-729-904-39	TRANSISTOR DTC114TS	
Q615	8-729-904-39	TRANSISTOR DTC114TS	
Q616	8-729-904-39	TRANSISTOR DTC114TS	
Q617	8-729-900-80	TRANSISTOR DTC114ES	
Q620	8-729-904-39	TRANSISTOR DTC114TS	
Q621	8-729-904-39	TRANSISTOR DTC114TS	
		< RESISTOR >	
R601	1-247-903-00	CARBON 1M 5% 1/4W	
R602	1-247-807-31	CARBON 100 5% 1/4W	
R603	1-247-807-31	CARBON 100 5% 1/4W	
R604	1-247-807-31	CARBON 100 5% 1/4W	
R605	1-249-401-11	CARBON 47 5% 1/4W	F
R606	1-249-441-11	CARBON 100K 5% 1/4W	
R607	1-249-441-11	CARBON 100K 5% 1/4W	
R610	1-249-401-11	CARBON 47 5% 1/4W	F
R611	1-249-437-11	CARBON 47K 5% 1/4W	
R612	1-249-437-11	CARBON 47K 5% 1/4W	

Ref. No.	Part No.	Description			Remarks	Ref. No.	Part No.	Description			Remarks
R613	1-249-441-11	CARBON	100K	5%	1/4W	R683	1-249-421-11	CARBON	2.2K	5%	1/4W F
R614	1-249-437-11	CARBON	47K	5%	1/4W						(TH)
R616	1-249-435-11	CARBON	33K	5%	1/4W	R683	1-249-409-11	CARBON	220	5%	1/4W F
R617	1-247-895-00	CARBON	470K	5%	1/4W						(EXCEPT TH)
R618	1-249-429-11	CARBON	10K	5%	1/4W	R684	1-249-409-11	CARBON	220	5%	1/4W F
						R685	1-249-421-11	CARBON	2.2K	5%	1/4W F
R619	1-249-429-11	CARBON	10K	5%	1/4W	R686	1-249-429-11	CARBON	10K	5%	1/4W
R620	1-249-429-11	CARBON	10K	5%	1/4W						
R621	1-249-429-11	CARBON	10K	5%	1/4W	R687	1-249-421-11	CARBON	2.2K	5%	1/4W F
R622	1-249-429-11	CARBON	10K	5%	1/4W	R688	1-249-407-11	CARBON	150	5%	1/4W F
R623	1-249-429-11	CARBON	10K	5%	1/4W	R691	1-249-417-11	CARBON	1K	5%	1/4W F
						R692	1-249-417-11	CARBON	1K	5%	1/4W F
R628	1-249-429-11	CARBON	10K	5%	1/4W	R693	1-249-417-11	CARBON	1K	5%	1/4W F
R629	1-249-429-11	CARBON	10K	5%	1/4W						
R630	1-249-429-11	CARBON	10K	5%	1/4W	R721	1-249-429-11	CARBON	10K	5%	1/4W
R631	1-249-410-11	CARBON	270	5%	1/4W F	R722	1-249-417-11	CARBON	1K	5%	1/4W F
R632	1-249-411-11	CARBON	330	5%	1/4W	R723	1-249-441-11	CARBON	100K	5%	1/4W
						R724	1-249-421-11	CARBON	2.2K	5%	1/4W F
R633	1-249-413-11	CARBON	470	5%	1/4W F	R725	1-249-437-11	CARBON	47K	5%	1/4W
R634	1-249-414-11	CARBON	560	5%	1/4W F						
R635	1-249-415-11	CARBON	680	5%	1/4W F	R726	1-249-429-11	CARBON	10K	5%	1/4W
R636	1-249-417-11	CARBON	1K	5%	1/4W F	R728	1-247-885-00	CARBON	180K	5%	1/4W
R637	1-249-418-11	CARBON	1.2K	5%	1/4W F	R729	1-247-807-31	CARBON	100	5%	1/4W
								< VARIABLE RESISTOR >			
R638	1-249-420-11	CARBON	1.8K	5%	1/4W F						
R639	1-249-422-11	CARBON	2.7K	5%	1/4W F	RV712	1-225-739-11	RES, VAR 50K			
R640	1-247-843-11	CARBON	3.3K	5%	1/4W			< SWITCH >			
R641	1-249-425-11	CARBON	4.7K	5%	1/4W F						
R642	1-249-427-11	CARBON	6.8K	5%	1/4W F						
						S601	1-473-534-11	ENCODER, ROTARY (JOGDIAL)			
R643	1-249-429-11	CARBON	10K	5%	1/4W	S602	1-473-392-11	ENCODER, ROTARY (VOLUME)			
R644	1-249-410-11	CARBON	270	5%	1/4W F	S631	1-762-196-21	SWITCH, TACT (CD ►►►)			
R645	1-249-411-11	CARBON	330	5%	1/4W	S632	1-762-196-21	SWITCH, TACT (TUNER/BAND)			
R646	1-249-413-11	CARBON	470	5%	1/4W F	S633	1-762-196-21	SWITCH, TACT (NON-STOP)			
R647	1-249-414-11	CARBON	560	5%	1/4W F						
						S634	1-762-196-21	SWITCH, TACT (KARAOKE PON/MPX)			
R648	1-249-415-11	CARBON	680	5%	1/4W F	S635	1-762-196-21	SWITCH, TACT (FILE SELECT)			
R649	1-249-417-11	CARBON	1K	5%	1/4W F	S636	1-762-196-21	SWITCH, TACT (ENTER/NEXT)			
R650	1-249-418-11	CARBON	1.2K	5%	1/4W F	S637	1-762-196-21	SWITCH, TACT (+ ►►►)			
R651	1-249-420-11	CARBON	1.8K	5%	1/4W F	S638	1-762-196-21	SWITCH, TACT (DBFB)			
R652	1-249-422-11	CARBON	2.7K	5%	1/4W F						
						S639	1-762-196-21	SWITCH, TACT (SURROUND)			
R653	1-247-843-11	CARBON	3.3K	5%	1/4W	S640	1-762-196-21	SWITCH, TACT (REC PAUSE/START)			
R654	1-249-425-11	CARBON	4.7K	5%	1/4W F	S641	1-762-196-21	SWITCH, TACT (HI-DUB)			
R655	1-249-427-11	CARBON	6.8K	5%	1/4W F	S642	1-762-196-21	SWITCH, TACT (CD SYNC)			
R656	1-249-429-11	CARBON	10K	5%	1/4W	S643	1-762-196-21	SWITCH, TACT (FLASH)			
R657	1-249-431-11	CARBON	15K	5%	1/4W						
						S644	1-762-196-21	SWITCH, TACT (■)			
R658	1-249-410-11	CARBON	270	5%	1/4W F	S645	1-762-196-21	SWITCH, TACT (TAPE B ►►)			
R659	1-249-411-11	CARBON	330	5%	1/4W	S650	1-762-196-21	SWITCH, TACT (GROOVE)			
R660	1-249-413-11	CARBON	470	5%	1/4W F	S651	1-762-196-21	SWITCH, TACT (- ◄◄)			
R661	1-249-414-11	CARBON	560	5%	1/4W F	S652	1-762-196-21	SWITCH, TACT (TIMER SELECT)			
R662	1-249-415-11	CARBON	680	5%	1/4W F						
						S653	1-762-196-21	SWITCH, TACT (FUNCTION)			
R663	1-249-417-11	CARBON	1K	5%	1/4W F	S654	1-762-196-21	SWITCH, TACT (SPECTRUM ANALYZER)			
R666	1-249-407-11	CARBON	150	5%	1/4W F	S655	1-762-196-21	SWITCH, TACT (DISPLAY)			
R667	1-247-807-31	CARBON	100	5%	1/4W	S656	1-762-196-21	SWITCH, TACT (CLOCK/TIMER SET)			
R668	1-249-407-11	CARBON	150	5%	1/4W F	S657	1-762-196-21	SWITCH, TACT (LOOP)			
R670	1-249-407-11	CARBON	150	5%	1/4W F						
						S658	1-762-196-21	SWITCH, TACT (TAPE B ◄◄)			
R671	1-247-804-11	CARBON	75	5%	1/4W	S659	1-762-196-21	SWITCH, TACT (TAPE A ►►)			
R672	1-247-804-11	CARBON	75	5%	1/4W	S660	1-762-196-21	SWITCH, TACT (TAPE A ◄◄)			
R675	1-247-804-11	CARBON	75	5%	1/4W	S661	1-762-196-21	SWITCH, TACT (REPEAT,STEREO/MONO)			
R676	1-247-804-11	CARBON	75	5%	1/4W	S662	1-762-196-21	SWITCH, TACT (PLAY MODE,DOLBY NR)			
R677	1-247-804-11	CARBON	75	5%	1/4W						
						S663	1-762-196-21	SWITCH, TACT			
R678	1-247-804-11	CARBON	75	5%	1/4W			(EDIT DIRECTION,TUNER MEMORY)			
R679	1-247-804-11	CARBON	75	5%	1/4W			*****			
R680	1-247-804-11	CARBON	75	5%	1/4W						
R681	1-249-407-11	CARBON	150	5%	1/4W F						
R682	1-247-807-31	CARBON	100	5%	1/4W						

SENSOR

ST-BY

Ref. No.	Part No.	Description	Remarks
*	1-658-576-11	SENSOR BOARD *****	
		< IC >	
IC702	8-749-924-18	IC PHOTO INTERRUPTER RPI-1391	
IC703	8-749-924-30	IC PHOTO REFLECTOR GP2S28	
		< RESISTOR >	
R701	1-249-416-11	CARBON 820 5% 1/4W F	
R702	1-249-407-11	CARBON 150 5% 1/4W F	

	A-4419-055-A	ST-BY BOARD, COMPLETE (CIS) *****	
	A-4419-048-A	ST-BY BOARD, COMPLETE (US) *****	
	A-4419-052-A	ST-BY BOARD, COMPLETE (CND) *****	
	A-4419-867-A	ST-BY BOARD, COMPLETE (GRX30J) *****	
	A-4419-037-A	ST-BY BOARD, COMPLETE ***** (GRX30:E2,E3,EA,AR,SP,TW)	
	A-4419-965-A	ST-BY BOARD, COMPLETE (TH) *****	
	A-4419-045-A	ST-BY BOARD, COMPLETE (KR,AUS) *****	
	A-4419-627-A	ST-BY BOARD, COMPLETE (AEP,AED,UK,G) *****	
	A-4419-304-A	ST-BY BOARD, COMPLETE (MX) *****	
	1-533-217-31	HOLDER, FUSE < CAPACITOR >	
C11	1-126-767-11	ELECT 1000uF 20% 16V (R550/RXD5)	
C12	1-164-159-21	CERAMIC 0.1uF 50V (R550/RXD5)	
C13	1-126-933-11	ELECT 100uF 20% 16V (R550/RXD5)	
C14	1-126-968-11	ELECT 100uF 20% 50V (R550/RXD5)	
C15	1-164-159-21	CERAMIC 0.1uF 50V (R550/RXD5)	
C16	1-126-948-11	ELECT 100uF 20% 35V (R550/RXD5)	
C22	1-164-159-11	CERAMIC 0.1uF 50V (R550/RXD5)	
		< CONNECTOR >	
CN11	1-564-321-00	PIN, CONNECTOR 2P	
CN12	1-564-321-00	PIN, CONNECTOR 2P (GRX:30TH,KR,AUS/R550/RXD5)	
* CN12	1-564-687-11	PIN, CONNECTOR 3P (GRX30:E2,E3,EA,MX,AR,SP,TW/GRX30J)	
CN13	1-506-486-11	PIN, CONNECTOR 7P (R550/RXD5)	
		< DIODE >	
D11	8-719-991-33	DIODE 1SS133T-77 (R550/RXD5)	
D12	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)	
D13	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)	
D14	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)	
D15	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)	

Ref. No.	Part No.	Description	Remarks
D16	8-719-991-33	DIODE 1SS133T-77 (R550/RXD5)	
D17	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)	
D18	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)	
D19	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)	
D20	8-719-024-99	DIODE 11ES2-NTA2B (R550/RXD5)	
D21	8-719-934-25	DIODE HZS33-1L (R550/RXD5)	
D22	8-719-921-48	DIODE MTZJ-T-72-5.6C (R550/RXD5)	
D23	8-719-991-33	DIODE 1SS133T-77 (R550/RXD5)	
		< TERMINAL >	
* EB11	1-537-738-21	TERMINAL, EARTH (US,CND)	
		< FUSE >	
△ F951	1-532-503-31	FUSE (T1.6AL 250V) (R550/RXD5:AEP,AED,UK,G,CIS)	
△ F951	1-532-465-31	FUSE (T3.15AL 250V) (GRX30:E2,E3,EA,MX,AR,SP,TW,KR,AUS/GRX30J)	
△ F951	1-576-109-11	FUSE (5.0A 125V) (RXD5:US, CND)	
		< IC >	
IC11	8-759-604-35	IC M5F78M05L (R550/RXD5)	
		< TRANSISTOR >	
△ Q11	8-729-119-78	TRANSISTOR 2SC403SP-51 (R550/RXD5)	
Q12	8-729-040-19	TRANSISTOR RT1N137L-TP (R550/RXD5)	
Q13	8-729-118-01	TRANSISTOR 2SB1116 (R550/RXD5)	
Q14	8-729-040-19	TRANSISTOR RT1N137L-TP (R550/RXD5)	
Q15	8-729-040-19	TRANSISTOR RT1N137L-TP (R550/RXD5)	
Q16	8-729-900-63	TRANSISTOR DTA124ES (R550/RXD5)	
Q17	8-729-900-63	TRANSISTOR DTA124ES (R550/RXD5)	
		< RESISTOR >	
R11	1-249-429-11	CARBON 10K 5% 1/4W (R550/RXD5)	
R12	1-247-876-11	CARBON 75K 5% 1/4W (R550/RXD5)	
R13	1-249-417-11	CARBON 1K 5% 1/4W F (R550/RXD5)	
R15	1-249-429-11	CARBON 10K 5% 1/4W (R550/RXD5)	
R16	1-247-807-31	CARBON 100 5% 1/4W (R550/RXD5)	
R17	1-247-807-31	CARBON 100 5% 1/4W (R550/RXD5)	
R18	1-247-807-31	CARBON 100 5% 1/4W (R550/RXD5)	
R19	1-249-427-11	CARBON 6.8K 5% 1/4W (R550/RXD5)	
R20	1-249-429-11	CARBON 10K 5% 1/4W (R550/RXD5)	
△ R21	1-202-972-61	FUSIBLE 1 5% 1/4W F (R550/RXD5)	
△ R22	1-202-972-61	FUSIBLE 1 5% 1/4W F (R550/RXD5)	
R31	1-202-725-00	SOLID 3.3M 10% 1/2W (US,CND)	

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

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

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
		< RELAY >					
△ RY11	1-755-276-11	RELAY, POWER (R550/RXD5)		206	1-658-577-11	MOTOR (TURN) BOARD	
		< TRANSFORMER >		257	1-452-925-21	MAGNET ASSY	
△ T901	1-433-763-21	TRANSFORMER, POWER (AEP,AED,UK,G)		258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
△ T901	1-433-763-11	TRANSFORMER, POWER (CIS)		302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
△ T901	1-433-764-11	TRANSFORMER, POWER (US,CND)		△ F951	1-532-503-31	FUSE (T1.6AL 250V) (R550/RXD5:AEP,AED,UK,G,CIS)	
		< SWITCH >		△ F951	1-532-465-31	FUSE (T3.15AL 250V) (GRX30:E2,E3,EA,MX,AR,SP,TW/GRX30J)	
VS901	1-572-675-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR)(GRX30:E2,E3,EA,AR,SP,TW/GRX30J)		△ F951	1-576-109-11	FUSE (5.0A 125V) (RXD5:US,CND)	
*****				△ F953	1-532-506-31	FUSE (6.3A 250V) (GRX30/GRX30J)	
		MISCELLANEOUS		△ F954	1-532-506-31	FUSE (6.3A 250V) (GRX30/GRX30J)	
		*****		△ F955	1-532-504-31	FUSE (4.0A 250V) (GRX30/GRX30J)	
10	1-773-043-11	WIRE (FLAT TYPE) (17 CORE)		△ F956	1-532-504-31	FUSE (4.0A 250V) (GRX30/GRX30J)	
11	1-773-024-11	WIRE (FLAT TYPE) (15 CORE)		M801	A-4672-004-A	MOTOR ASSY (GRX30/GRX30J/R550:CIS/RXD5:US,CND,CIS)	
108	1-769-976-11	WIRE (FLAT TYPE) (13 CORE) (E2,MX,AR,TH,KR,AUS,US,CND)		M801	A-4672-312-A	MOTOR (CDM) ASSY (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)	
108	1-773-008-11	WIRE (FLAT TYPE) (15 CORE) (E3,EA,SP,TW,AEP,AED,UK,G,CIS)		S811	1-473-335-11	ENCODER, ROTARY (BU, TRAT ADDRESS DET)	
108	1-773-011-11	WIRE (FLAT TYPE) (15 CORE) (GRX30J)		△ T11	1-433-755-11	TRANSFORMER, POWER (CIS)	
109	1-233-544-11	TUNER (FM/AM) (US,CND)		△ T11	1-433-755-21	TRANSFORMER, POWER (AEP,AED,UK,G)	
109	1-233-545-14	TUNER (FM/AM) (MX,AR,TH,KR,AUS)		△ T11	1-433-756-11	TRANSFORMER, POWER (CND)	
109	1-233-546-11	TUNER (FM/MW/SW) (GRX30:E3,EA,SP,TW/GRX30J)		△ T11	1-433-757-11	TRANSFORMER, POWER (US)	
109	1-693-443-11	TUNER (FM/AM) (AEP,AED,UK,G,CIS)		△ T11	1-433-902-11	TRANSFORMER, POWER (GRX30/GRX30J)	
109	1-693-453-11	TUNER (FM/AM) (E2)		*****			
△ 114	1-575-651-11	CORD, POWER (GRX30:EA,AR,SP,TW/R550:CIS/RXD5:CIS)		*****			
△ 114	1-575-653-11	CORD, POWER (GRX30:E2,E3,MX,TH/GRX30J)		*****			
△ 114	1-696-847-11	CORD, POWER (GRX30:AUS)		*****			
△ 114	1-769-079-21	CORD, POWER (GRX30:KR)		*****			
△ 114	1-775-787-71	CORD, POWER (R550:AEP,AED,UK,G/RXD5:AEP,AED,UK,G)		*****			
△ 114	1-783-820-11	CORD, POWER (RXD5:US)		*****			
115	1-569-007-11	ADAPTOR, CONVERSION 2P (GRX30:E3/GRX30J)		*****			
115	1-569-008-21	ADAPTOR, CONVERSION 2P (GRX30:EA,AR,SP,TW)		*****			
115	1-569-008-31	ADAPTOR, CONVERSION (GRX30:EA,AR,SP,TW)		*****			
115	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (R550:UK/RXD5:UK)		*****			

HCD-GRX30/GRX30J/R550/RXD5

SONY[®]

SERVICE MANUAL

US Model
Canadian Model

HCD-RXD5

AEP Model

UK Model

HCD-R550/RXD5

E Model

HCD-GRX30/GRX30J

Australian Model

HCD-GRX30

Tourist Model

HCD-GRX30J

CORRECTION-1

Correct your service manual as shown below.

Subject: CORRECTION OF MECHANICAL PART

PARTS CHANGE

Page	INCORRECT			CORRECT		
	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
74	258	_____		258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)

(SPM-00008)

HCDRXD5

Subject
CD SKIPS - CLEANED OPTICAL LENS

SYMPTOMS

The CD would skip.

RESOLUTION

Cleaned the FOP lens as outlined in HFP S/B #375.

HCDRXD5

Subject
NO AUDIO IN ANY MODE - REPLACED OUTPUT IC STK407-090E

SYMPTOMS

No audio output in any mode.

RESOLUTION

Replaced output IC, restored unit to normal operation.

Part Number	Reference Number	Description	Symptom Code	Section Code	PCB Reference	Defect Code	Repair Code
874901545	IC801	STK407-090E	1510	NA	MAIN	A	A

HCDRXD5

Subject
NO DISPLAY - REPLACED Q13

SYMPTOMS

NO DISPLAY. AFTER TROUBLE SHOOTING POWER SUPPLY, FOUND Q13 SHORTED.

RESOLUTION

REPLACED Q13 AND UNIT RETURNED TO NORMAL OPERATION.

Part Number	Reference Number	Description	Symptom Code	Section Code	PCB Reference	Defect Code	Repair Code
872911801	Q13	Transistor	1130	NA	MAIN	A	A

HCDRXD5

Subject

P/N'S SPINDLE AND SLED MOTOR SHOWN AS NOT SUPPLIED IN S/M

SYMPTOMS

Part numbers for spindle and sled motor shown as not supplied on pg 75 of HCDRXD5 s/m.

RESOLUTION

Spindle motor is p/n X49175234 and sled motor is X49175041.

HCDRX55, HCDRXD2, HCDRXD3, HCDRXD5, HCDRXD6AV, HCDRXD7AV

Subject

DISC DOES NOT SEAT CORRECTLY IN DISC TRAY

SYMPTOMS

The disc does not always sit correctly in the disc tray (P/N 422190101) after it has been played and dropped back into the tray.

RESOLUTION

Tokyo has been notified and an improved disc tray is being prepared. UPDATE 5/15/00: A Service Bulletin has been written outlining the part number for the improved disc tray.

Unit/Model Detail

Unit(s):	SN Start	SN End	Factory	Family Name	Product Category
HCDRX55					HFP
HCDRXD2	All	All			HFP
HCDRXD3					HFP

HCDRXD5	HFP
HCDRXD6AV	HFP
HCDRXD7AV	HFP

Parts

Part Number	Reference Number	Description	Symptom Code	Section Code	PCB Reference	Defect Code	Repair Code
422952901	NA	TURNTABLE	2161	NA	NA	A	A

HCDRXD5
Subject Missing part for J711

SYMPTOMS

Missing part for J711

CAUSE

Missing reference and part # in electrical part list.

RESOLUTION

Ref #j711, mic input jack part 178556911.