

HCD-GRX9900/RXD9

SERVICE MANUAL



US Model
AEP Model
UK Model
HCD-RXD9
E Model
HCD-GRX9900

HCD-GRX9900/RXD9 are the Amplifier, CD player, Tape Deck and Tuner section in MHC-GRX9900/RXD9.

Photo: HCD-RXD9 (US model)

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CD Section	Model Name Using Similar Mechanism	NEW
	CD Mechanism Type	CDM38LH-5BD32L
	Base Unit Name	BU-5BD32L
	Optical Pick-up Name	KSS-213D/Q-NP
Tape deck Section	Model Name Using Similar Mechanism	NEW
	Tape Transport Mechanism Type	TCM-230AWR2

Amplifier section

US model:

AUDIO POWER SPECIFICATIONS:

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

with 8 ohm loads both channels driven, from 70-20,000 Hz; rates 140 watts per channel minimum RMS power, with no more than 0.9% total harmonic distortion from 250 milliwatts to rated output.

AEP and UK models:

DIN power output (rated) 120 + 120 watts
(8 ohms at 1 kHz, DIN)

Continuous RMS power output (reference) 150 + 150 watts
(8 ohms at 1 kHz, 10% THD)

Music power output (reference) 275 + 275 watts
(8 ohms at 1 kHz, 10% THD)

E models:

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

DIN power output (rated) 200 + 200 watts
(6 ohms at 1 kHz, DIN)

Continuous RMS power output (reference) 250 + 250 watts
(6 ohms at 1 kHz, 10% THD)

– Continued on next page –

SPECIFICATIONS

MINI Hi-Fi COMPONENT SYSTEM



SONY®

Specifications (continued)

Inputs	
MD/VIDEO (AUDIO) IN: (phono jacks)	voltage 450 mV/250mV, impedance 47 kilohms
MIX MIC: (phone jack)	sensitivity 1 mV, impedance 10 kilohms
Outputs	
MD OUT: (phono jacks)	voltage 250 mV, impedance 1 kilohms
PHONES: (stereo phone jack)	accepts headphones of 8 ohms or more
SPEAKER:	
E models:	accepts impedance of 6 to 16 ohms
Other models:	accepts impedance of 8 to 16 ohms
SUPER WOOFER (GRX9900/RXD9: US models):	Voltage 1 V, impedance 1 kilohm

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 90 dB
Dynamic range	More than 90 dB
CD OPTICAL DIGITAL OUT (Square optical connector jack, rear panel)	
Wavelength	600 nm
Output Level	-18 dBm

Tape player section

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

Tuner section

FM stereo, FM/AM superheterodyne tuner

FM tuner section

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

UKV tuner section (3 band (FM-AM-UKV) models only)

Tuning range	65.0 - 74.0 MHz Stereo Plus
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AM tuner section

Tuning range	
2 Band type:	
US model:	530 - 1,710 kHz (with the interval set at 10 kHz) 531 - 1,710 kHz (with the interval set at 9 kHz)
AEP and UK models:	531 - 1,602 kHz (with the interval set at 9 kHz)
Other models:	531 - 1,602 kHz (with the interval set at 9 kHz) 530 - 1,710 kHz (with the interval set at 10 kHz)

3 Band type:	
Saudi Arabia 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 - 17.90 MHz (with the interval set at 5 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements	
US model:	120 V AC, 60 Hz
AEP and UK models:	230 V AC, 50/60 Hz
Mexican model:	120 V AC, 50/60 Hz
Other models:	120 V, 220 V, or 230 - 240 V AC, 50/60 Hz Adjustable with voltage selector

Power consumption	
US model:	170 watts
AEP and UK models:	180 watts
Other models:	240 watts
Dimensions (w/h/d)	Approx. 280 $\times$ 360 $\times$ 395 mm (13 ^{1/8} $\times$ 14 ^{1/4} $\times$ 15 ^{5/8} in.)

Mass	
US model:	Approx. 10.6 kg (23 lb 6 oz.)
AEP and UK models:	Approx. 10.8 kg
Other models:	Approx. 12.2 kg
Supplied accessories:	AM loop antenna (1) Remote Commander (1) Batteries (2) FM lead antenna (1) Speaker cords (2) Front speaker pads (8)

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

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

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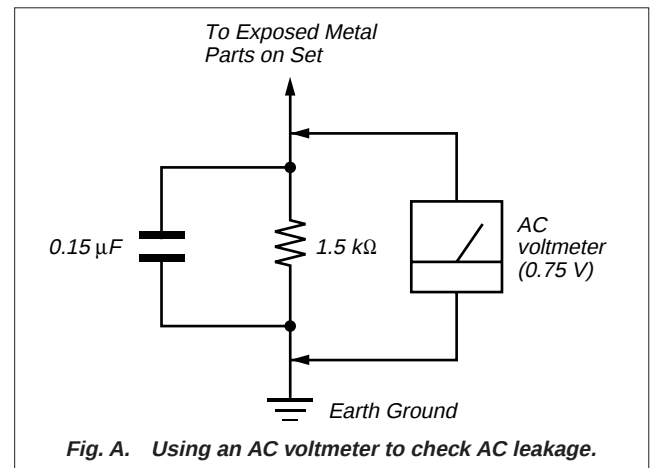
SAFETY CHECK-OUT

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

LEAKAGE TEST

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

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



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



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.



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

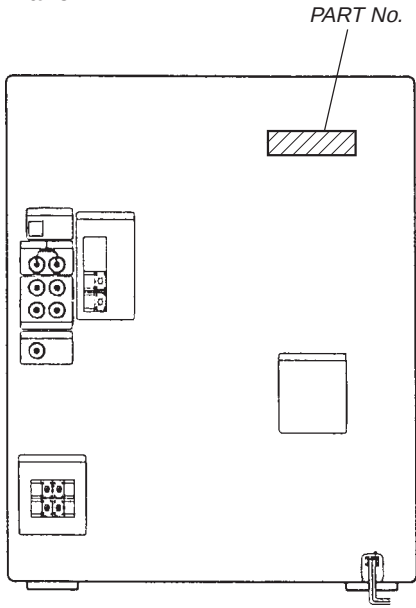
- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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.

MODEL IDENTIFICATION
– Rear Panel –



MODEL	PART No.
Argentine and 120 V AC Area in E models	4-214-457-0□
Saudi Arabia model	4-214-457-1□
Singapore and Malaysia models	4-214-457-2□
Mexican model	4-214-457-3□
AEP, UK, German and North European models	4-214-457-5□
CIS model	4-214-457-6□
US model	4-214-457-7□
240 V AC Area in E model	4-214-457-8□

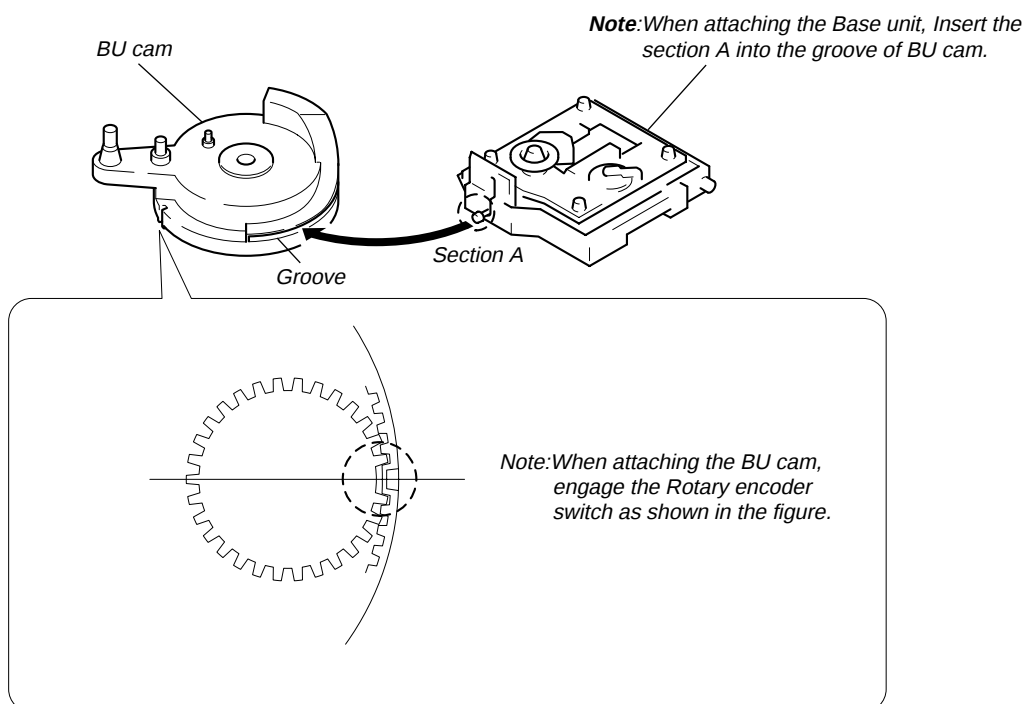
HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF.

❶ Remove the Cover. (Refer to page 8)

❸ Pull-out the disc tray.

❷ Turn the cam to the direction of arrow.

NOTE FOR INSTALLATION (ROTARY ENCODER)

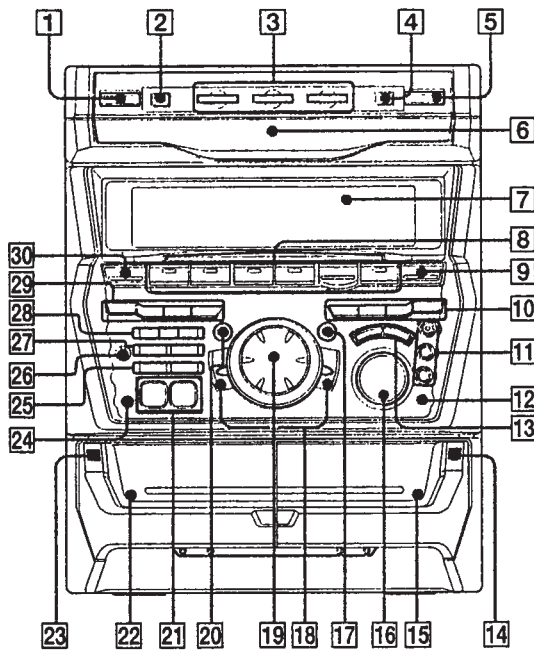


SECTION 2 GENERAL

This section is extracted from instruction manual.

LOCATION OF CONTROLS

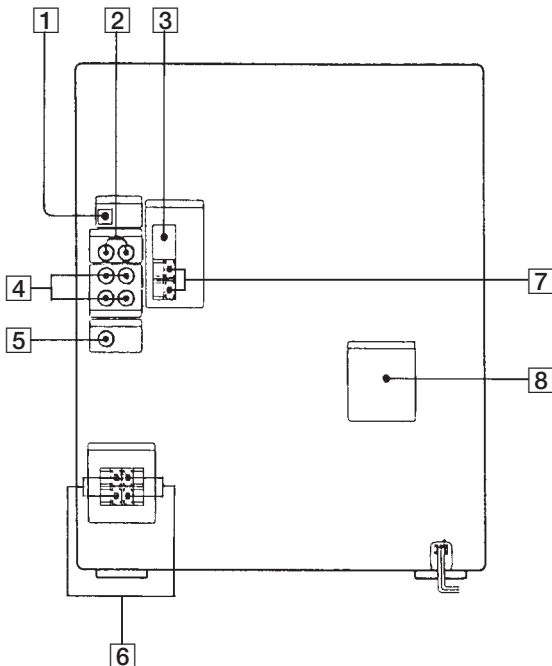
– Front Panel –



- 1 I / ϕ (power) button
- 2 POWER SAVE/DEMO button
- 3 DISC 1-3 buttons
- 4 DISC SKIP/EXCHANGE button
- 5 CD $\triangle$ button
- 6 Disc tray
- 7 Display
- 8 CD/tape operating buttons:
CD $\blacktriangleright$ $\blacksquare$ (play/pause)
TAPE A $\blacktriangleright$ (play)
TAPE A $\blacktriangleleft$ (play)
TAPE B $\blacktriangleright$ (play)
TAPE B $\blacktriangleleft$ (play)
 $\blacksquare$ (stop)
- 9 TUNER/BAND button
- 10 NON-STOP button
KARAOKE PON/MPX button
SYNC EQ button
SYNC BASS button
- 11 Operating buttons for recording:
REC PAUSE/START button
HI-DUB button
CD SYNC button
- 12 PHONES jack
- 13 DBFB button
SURROUND button
- 14 Deck B $\triangle$ button
- 15 Deck B
- 16 VOLUME control
- 17 ENTER/NEXT button
- 18 $\blacktriangleleft$ / $\blacktriangleright$, +/- buttons
- 19 Jog dial
- 20 GROOVE button
- 21 Operating buttons for DJ Effects:
LOOP button
FLASH button
- 22 Deck A
- 23 Deck A $\triangle$ button
- 24 MIX MIC jack
- 25 Clock/timer operating buttons:
CLOCK/TIMER set button
TIMER SELECT button
- 26 MIC LEVEL control
- 27 DISPLAY button
SPECTRUM ANALYZER button
- 28 EDIT, DIRECTION, TUNER MEMORY button
PLAY MODE, DOLBY NR(, PTY*) button
REPEAT, STEREO/MONO button
- 29 EFFECT button
FILE SELECT button
GEQ CONTROL button
P FILE MEMORY button
- 30 FUNCTION button

* For European models only.

– Rear Panel –



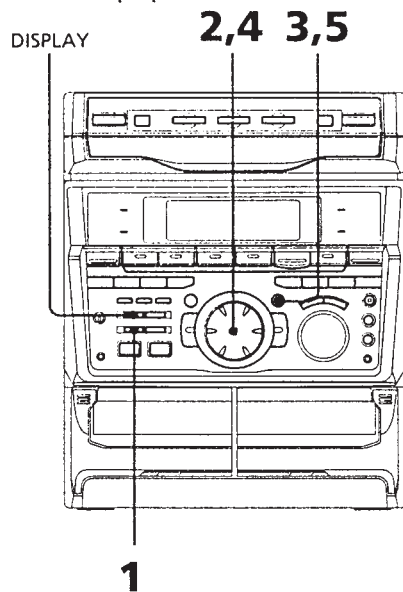
- 1 CD DIGITAL OUT terminal
- 2 VIDEO (AUDIO) IN jack
- 3 FM COAXIAL ANTENNA terminal
(RXD9: AEP and UK models)
FM ANTENNA terminal
(GRX9900/RXD9: US models)
- 4 MD IN/OUT jack
- 5 SUPER WOOFER jack
(GRX9900/RXD9: US models)
- 6 SPEAKER terminal
- 7 AM ANTENNA terminal
- 8 VOLTAGE SELECTOR switch
(GRX9900: 120 V AC Area in E, 240 V AC Area in E, Saudi Arabia, Singapore, Malaysia, Argentine models)

Step 2: Setting the time

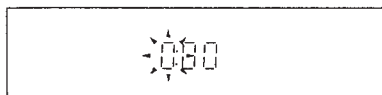
You must set the time before using the timer functions.

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.

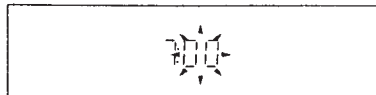


- 2 Turn the jog dial to set the hour.

continued

Step 2: Setting the time (continued)

- 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.

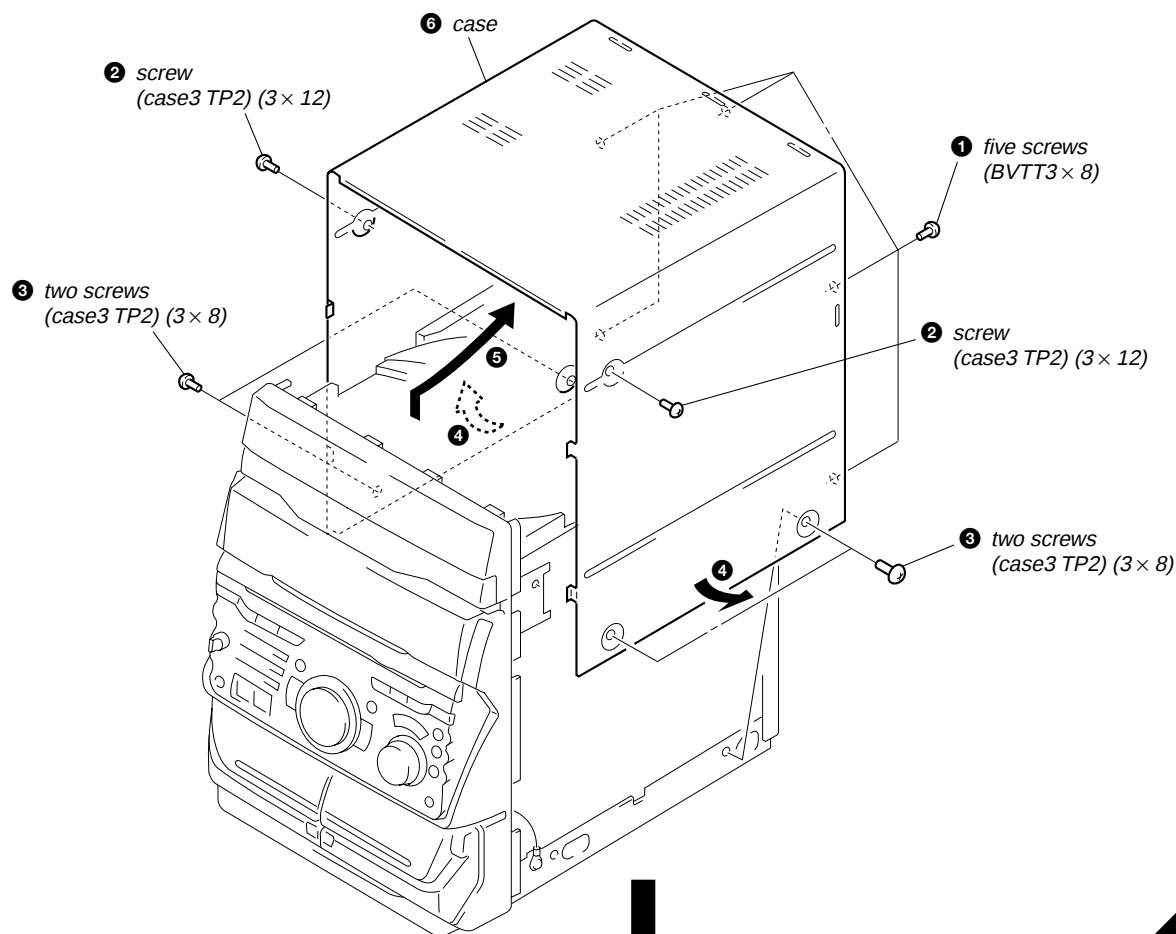
Note

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

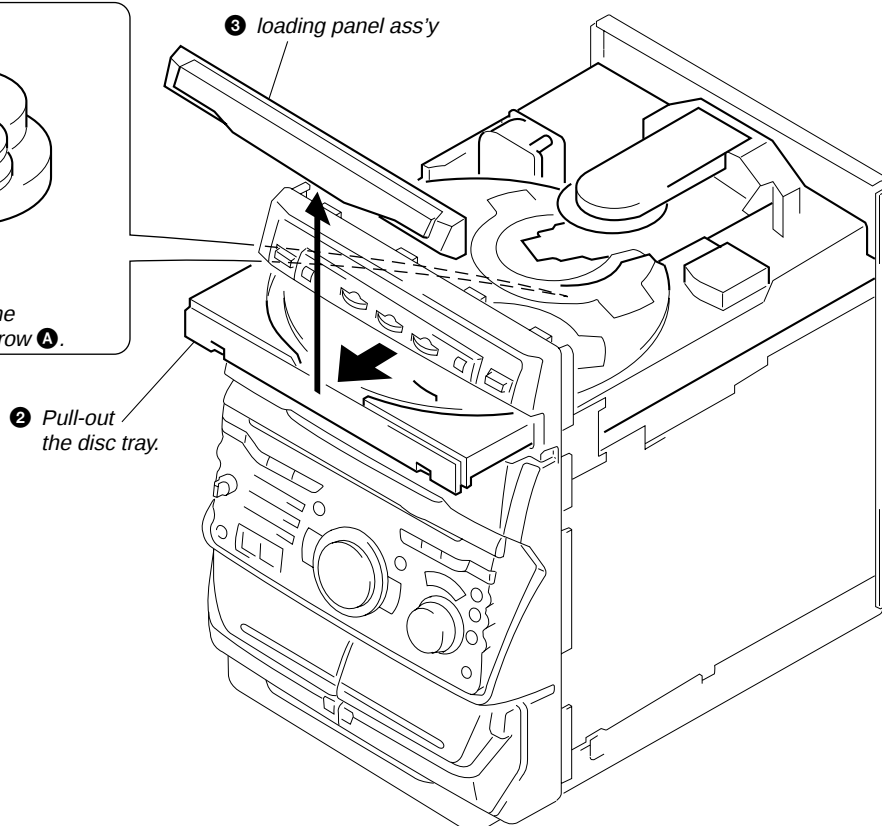
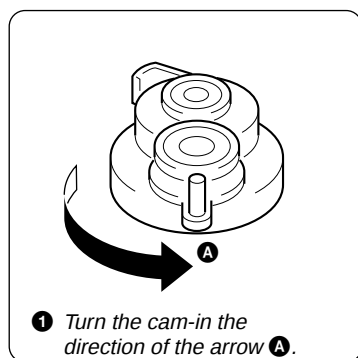
SECTION 3 DISASSEMBLY

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

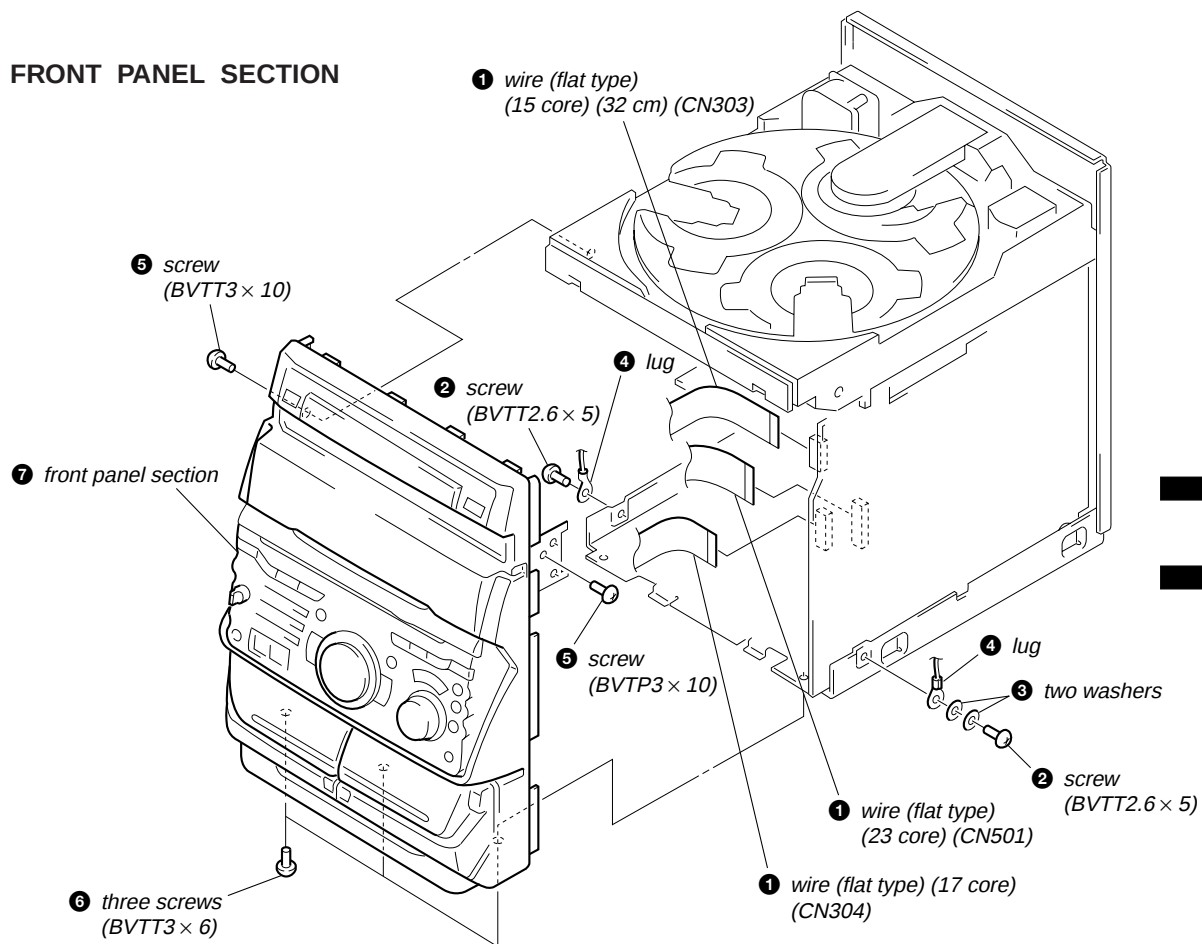
CASE



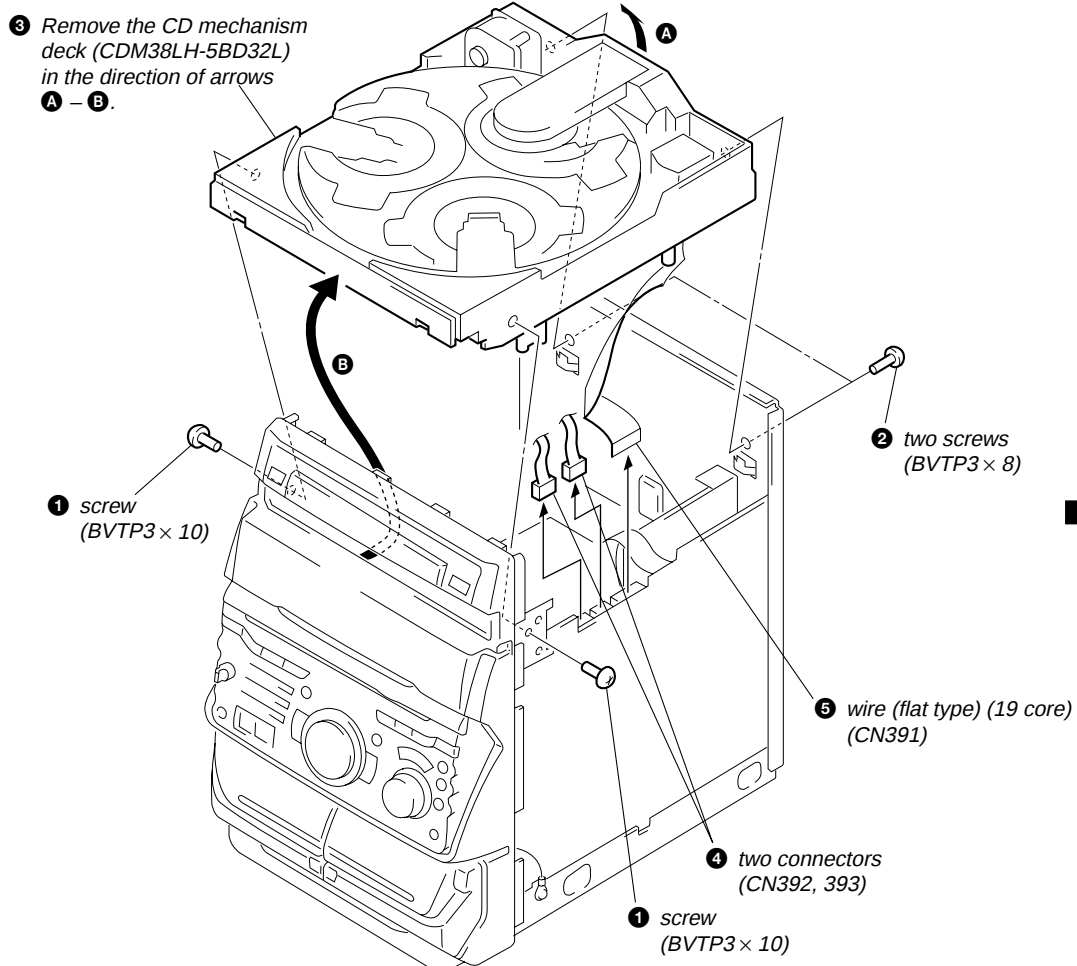
LOADING PANEL ASS'Y



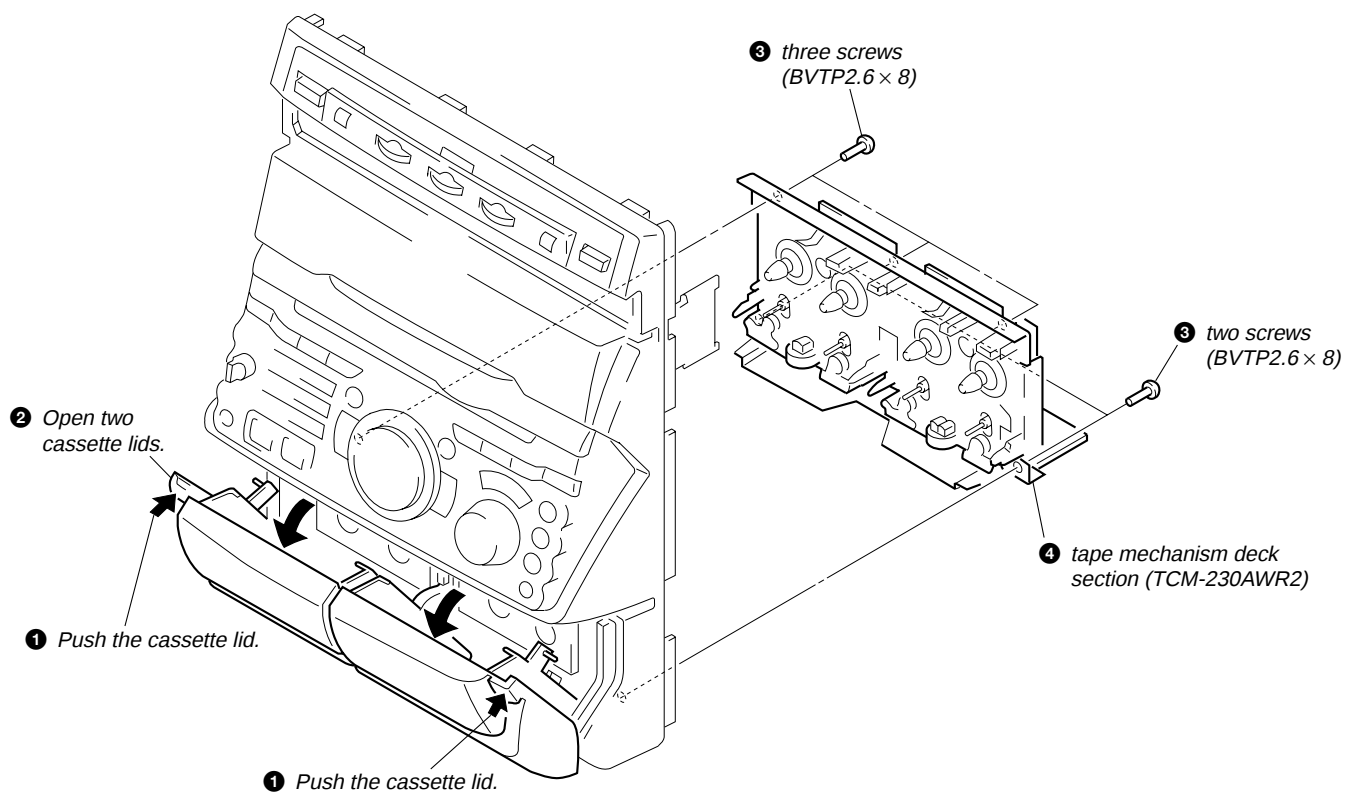
FRONT PANEL SECTION



CD MECHANISM DECK SECTION (CDM38LH-5BD32L)



TAPE MECHANISM DECK SECTION (TCM-230AWR2)



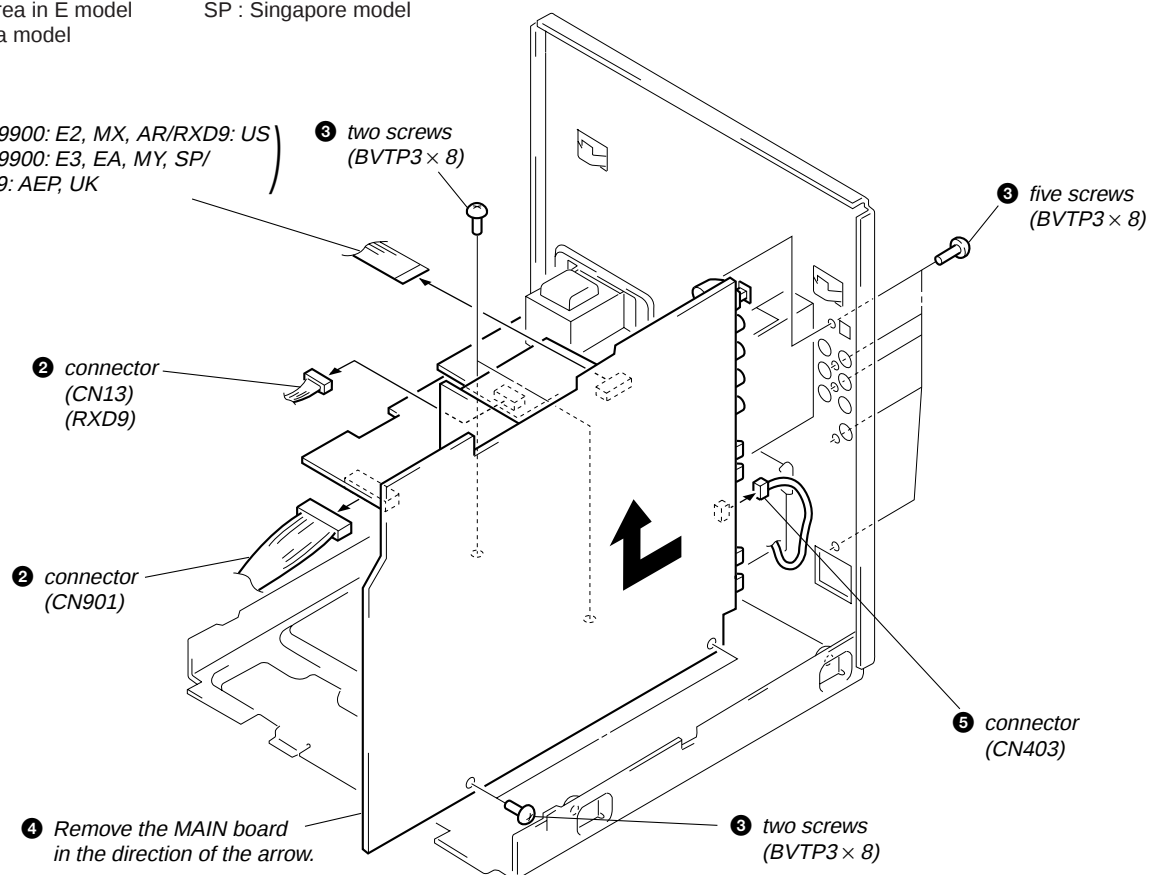
MAIN BOARD

• Abbreviation

AR : Argentine model	MX : Mexican model
E2 : 120 V AC Area in E model	MY : Malaysia model
E3 : 240 V AC Area in E model	SP : Singapore model
EA : Saudi Arabia model	

1 wire (flat type)

13 core: GRX9900: E2, MX, AR/RXD9: US
 15 core: GRX9900: E3, EA, MY, SP/
 RXD9: AEP, UK
 (CN371)



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. Turn the power ON or set to the DEMO mode.
2. Press three buttons of **[■]**, **[ENTER/NEXT]**, and **[I/⏻]** simultaneously.
3. The set is reset, and displays “COLD RESET”, then becomes DEMO mode.

[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. Turn the power ON or set to the DEMO mode.
2. Press three buttons of **[■]**, **[ENTER/NEXT]**, and **[DISC 1]** simultaneously.
3. The set is reset, and becomes standby state.

[Change-over the AM Tuning Interval] (EXCEPT AEP, UK, and Saudi Arabia models)

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

Procedure:

1. Press the **[I/⏻]** button to turn the power ON.
2. Select the function “TUNER”, and press the **[TUNER/BAND]** button to select the BAND “AM”.
3. Press the **[I/⏻]** button to turn the power OFF.
4. Press the **[ENTER/NEXT]** and **[I/⏻]** buttons simultaneously, and the display on the fluorescent indicator tube changes to “AM 9 k STEP” or “AM 10 k STEP”, and thus the tuning interval is changed over.

[CD Delivery Mode]

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

Procedure:

1. Press the **[I/⏻]** button to turn the power ON.
2. Press the **[LOOP]** and **[I/⏻]** buttons simultaneously.
3. A message “LOCK” is displayed on the fluorescent indicator tube, and the CD delivery mode is set.

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

Procedure:

1. Press three buttons of **[■]**, **[ENTER/NEXT]**, and **[DISC 2]** simultaneously.
2. LEDs and fluorescent indicator tube are all turned on. Press the **[DISC 2]** button, and the key check mode is activated.
3. In the key check mode, the fluorescent indicator tube displays “K 0 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 turn the JOG dial clockwise, or it decreases like 0, 9, 8 ... if turn the JOG dial counterclockwise.
“V” value increases like 1, 2, 3 ... if turn the **[VOLUME]** dial clockwise, or it decreases like 0, 9, 8 ... if turn the JOG dial counterclockwise.
4. To exit from this mode, press three buttons in the same manner as step 1, or disconnect the power cord.

[CD Service Mode]

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

Procedure:

1. Press the **[I/⏻]** button to turn the power ON.
2. Select the function “CD”.
3. Press three buttons of **[■]**, **[ENTER/NEXT]**, and **[△]** simultaneously.
4. Set to the Sled Servo mode.
5. With the CD in stop status, turn the JOG dial clockwise to move the optical pick-up to outside track, or turn it counterclockwise to inside track.
6. To exit from this mode, perform as follows.
 - 1) Move the optical pick-up to the most inside track.
 - 2) Disconnect the power cord.

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

[Aging Mode]

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

CD section and tape deck section work in parallel.

- If an error occurred:

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

- If no error occurs:

The aging operation continues repeatedly.

Procedure:

1. Set disc in DISC1 tray.
2. Load the tapes into the decks A and B respectively.
3. Press the **[PLAY MODE]** button to set the "ALL DISCS" mode, and press the **[REPEAT]** button to "REPEAT" off.
4. Press the **[FUNCTION]** button to select the function "CD".
5. Press three buttons of **[■]**, **[ENTER/NEXT]**, and **[DISC SKIP/EX-CHANGE]** simultaneously.
6. The aging mode is activated, if the indicator of disc tray number on the fluorescent indicator tube is blinking.
7. To exit from the aging mode, press the **[I/O]** button to turn the power OFF and operate the cold reset. (Refer to the "MC Cold Reset")

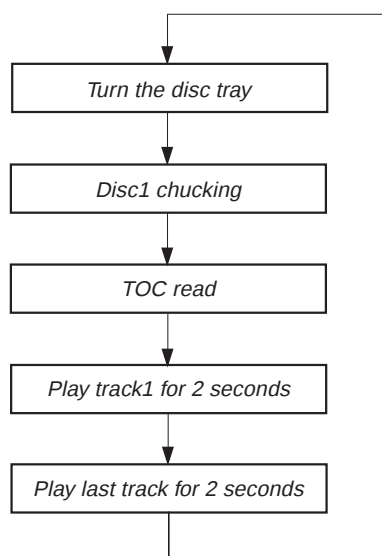
1. Display at the Aging Mode

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

2. CD Section

- Display at the aging mode is the same as the normal operation.
- The sequence during the aging mode is following as below.

Aging mode sequence (CD section) :



- Display at an error occurred

1) Display of the error count

- (1) Press three buttons of **[■]**, **[ENTER/NEXT]**, and **[CD SYNC]** simultaneously.
- (2) Display of the error count following as below.

Display

EMC**EDC**

Notes:

EMC**: The number of mechanical error.

EDC**: The number of no disc error after chucking the disc.

2) Display of mechanical error

Display

E**M##\$\$&&

Notes:

** : The number of mechanical error. ("00" is latest one)

(Press the **[PLAY MODE]** button to changes next error display)

: Not used.

\$\$: Loading error. (Second figure is not used)

D : The error in the midst of close at the except mechanical trouble.

E : The error in the midst of open at the except mechanical trouble.

C : The error in the midst of chuck up at the except mechanical trouble.

F : The error in the midst of EX-open at the except mechanical trouble.

&& : Loading error. (Second figure in not used)

1: The error in the midst of chuck up.

2: The error in the midst of chuck down.

3: Time up of EX-open

4: Time up of EX-close.

3) Display of no disc error

Display

E**D##\$\$&&

Notes:

** : The number of mechanical error. ("00" is latest one)

(Press the **[REPEAT]** button to changes next error display)

:

01: Focus error

02: GFS error

03: Set up error

\$\$:

00: No disc error when does not chucking retry.

02: No disc error when chucking retry to completion.

&& : The state when judged no disc error. (Second figure is not used)

1: Stop

2: Set up

3: TOC read

4: Access

5: Play

6: Pause

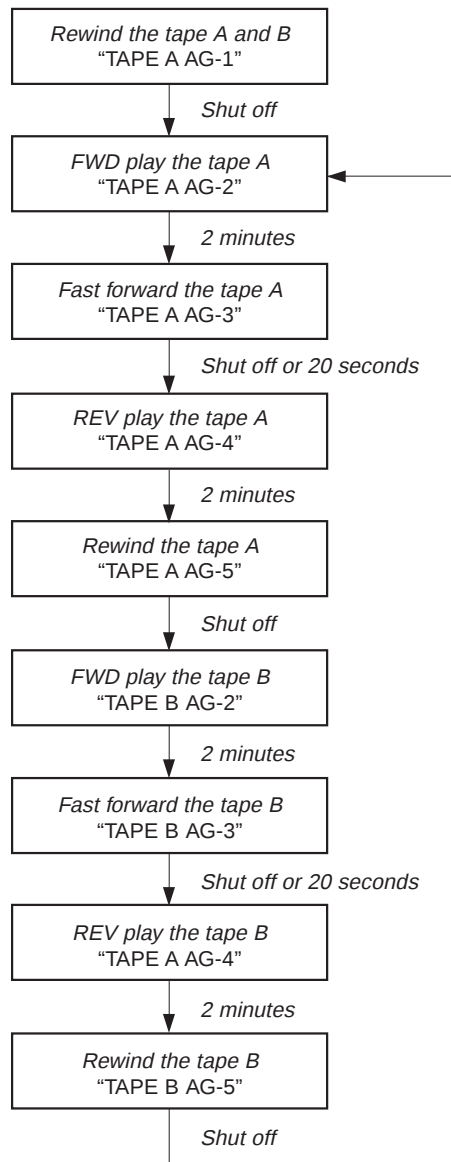
7: Manual search (Play)

8: Manual search (Pause)

3. Tape Deck Section

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

Aging mode sequence (Tape deck section) :



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

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 (0.03 – 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 (0.03 – 0.08 oz • inch)
FF/REW	CQ-201B	71 to 143 g • cm (0.99 – 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.
8. Set to the DOLBY NR OFF.
9. Set to the test mode.
 - (1) Press the **[I/C]** button to turn the power ON.
 - (2) Select the function "TAPE A or B".
 - (3) Press the button of **[■]**, **[ENTER/NEXT]**, and **[DISC 3]** simultaneously, to set the tape deck test mode and blink the indicator of disc tray number on the fluorescent indicator tube.
 - (4) To exit from the test mode, press the **[I/C]** button.

• Test Tape

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

Record/Playback Head Azimuth Adjustment

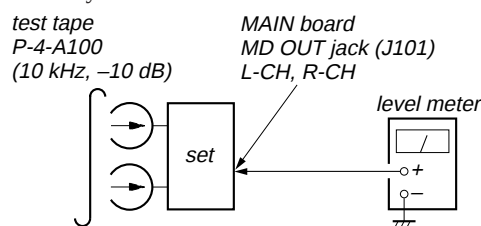
DECK A

DECK B

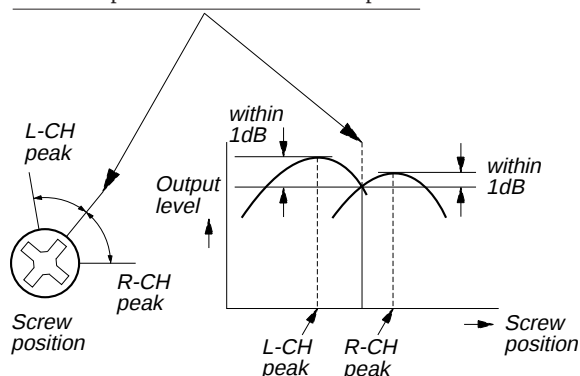
Note: Perform this adjustments for both decks

Procedure:

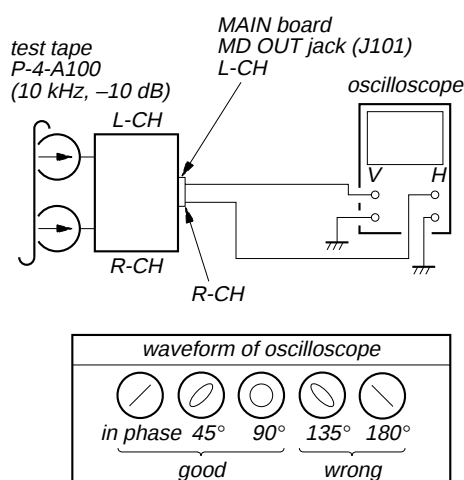
1. Mode: Playback



- 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.

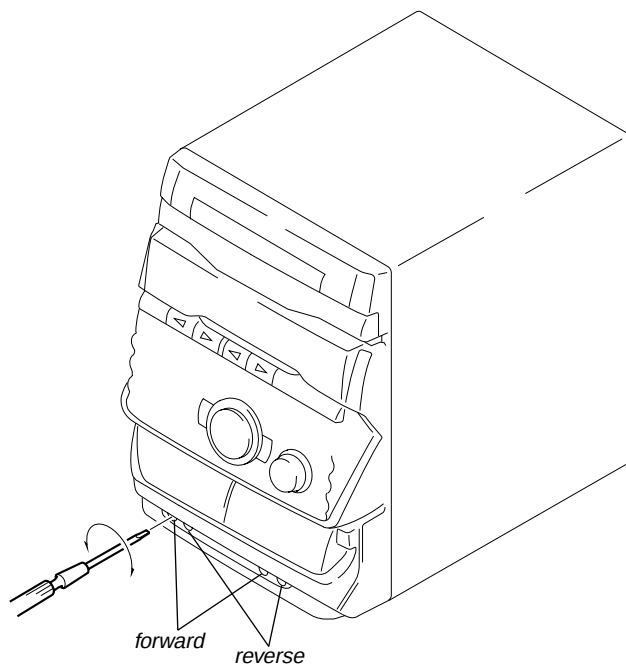


- Mode: Playback



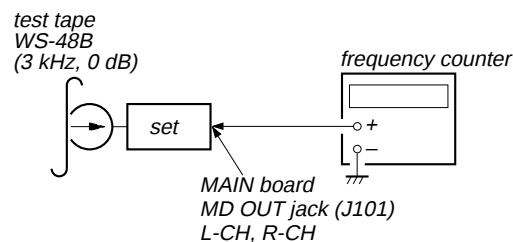
- Repeat step 1 to 3 in playback (REV) mode.
- After the adjustments, apply suitable locking compound to the parts adjusted.

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



Tape Speed Adjustment **DECK B**

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.

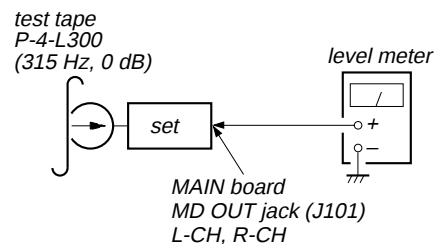
Adjustment Location: LEAF SW board

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

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:

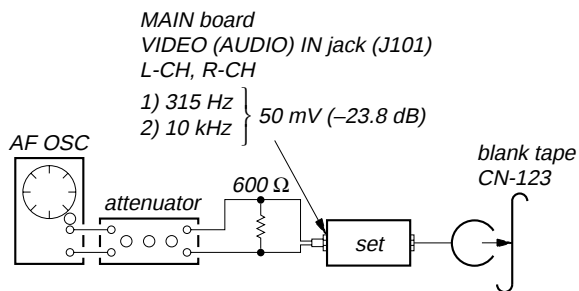
J101 PB level: 301.5 to 338.3 mV (-8.2 to -7.2 dB) level
difference between the channels: within ± 0.5 dB

Adjustment Location: AUDIO board

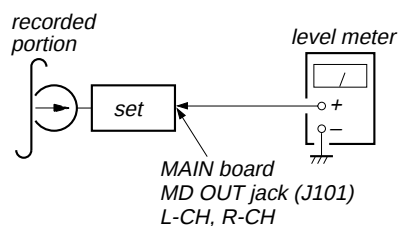
REC Bias Adjustment **DECK B**

Procedure:

1. Mode: Record
FUNCTION: VIDEO



2. Mode: Playback



3. Confirm playback the signal recorded in step 1 become specification values as follows.
If these values are out of specification values, adjust the RV341 (L-CH) and RV441 (R-CH) on the AUDIO board to repeat steps 1 and 2.

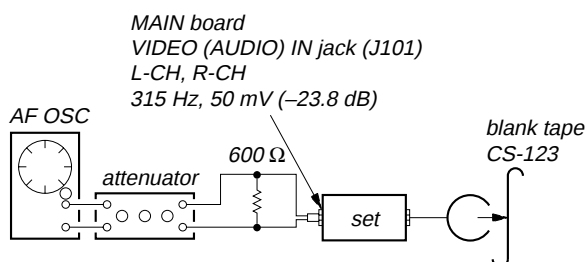
Specification values: Playback output of 315 Hz to playback output of 10 kHz: ± 0.5 dB

Adjustment Location: AUDIO board

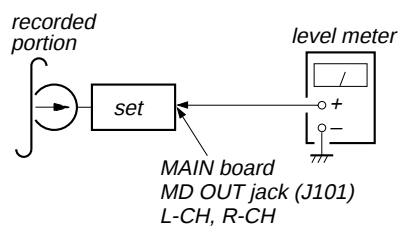
REC Level Adjustment **DECK B**

Procedure:

1. Mode: Record
FUNCTION: VIDEO



2. Mode: Playback



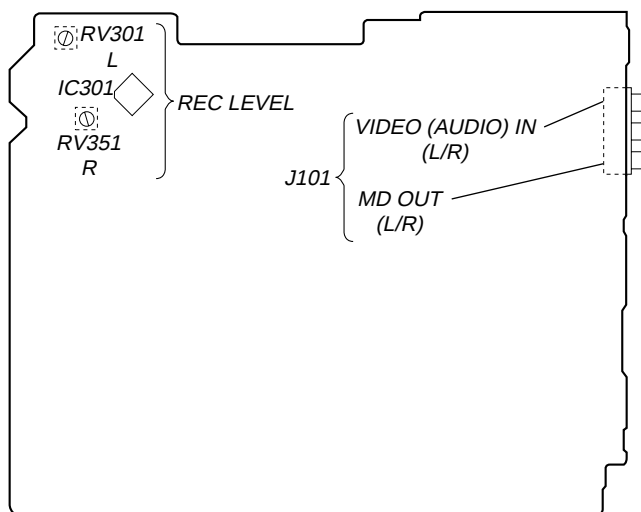
3. Confirm playback the signal recorded in step 1 become specification values as follows.
If these values are out of specification values, adjust the RV301 (L-CH) and RV351 (R-CH) on the MAIN board to repeat steps 1 and 2.

Specification values:

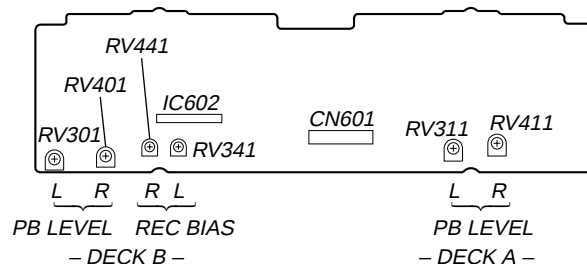
J101 PB level: 47.2 to 53.0 mV (−24.3 to −23.3 dB)

Adjustment Location: MAIN board

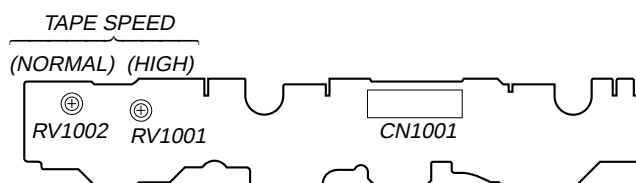
– MAIN BOARD (Conductor Side) –



– AUDIO BOARD (Component Side) –



– LEAF SW BOARD (Component Side) –

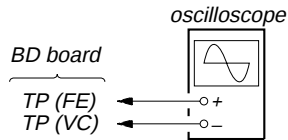


CD SECTION

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 10 MΩ 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.

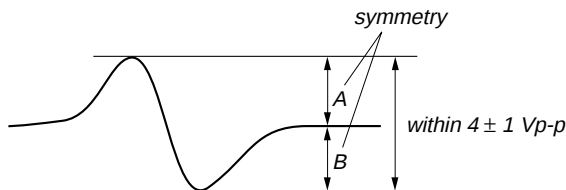
S-Curve Check



Procedure:

1. Connect oscilloscope to TP (FE).
2. Connect between TP (FE1) and TP (VC) by lead wire.
3. Connect between TP (AGCCON) and TP (GND) by lead wire.
4. Turn the power 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.

S-curve waveform

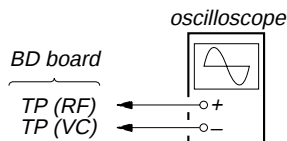


7. After check, remove the lead wire connected in step 2 and 3.

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.

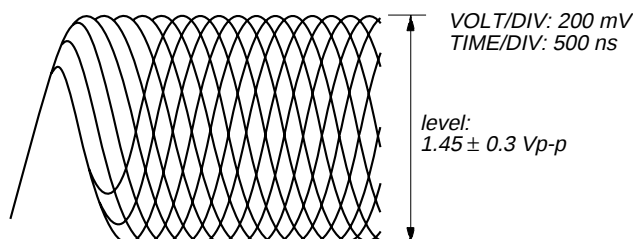
RF Level Check



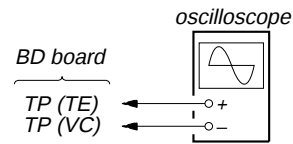
Procedure:

1. Connect oscilloscope to TP (RF).
2. Connect between TP (AGCCON) and TP (GND) by lead wire.
3. Turn the power ON.
4. Load a disc (YEDS-18) and playback.
5. Confirm that the 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 “◇” can be clearly distinguished at the center of the waveform.



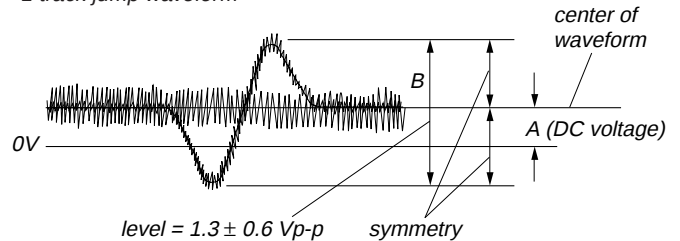
E-F Balance (1 Track Jump) Check



Procedure :

1. Connect oscilloscope to TP (TE) and TP (VC).
2. Turn the power ON.
3. Load a disc (YEDS-18) and playback the number five track.
4. Press the (CD) 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

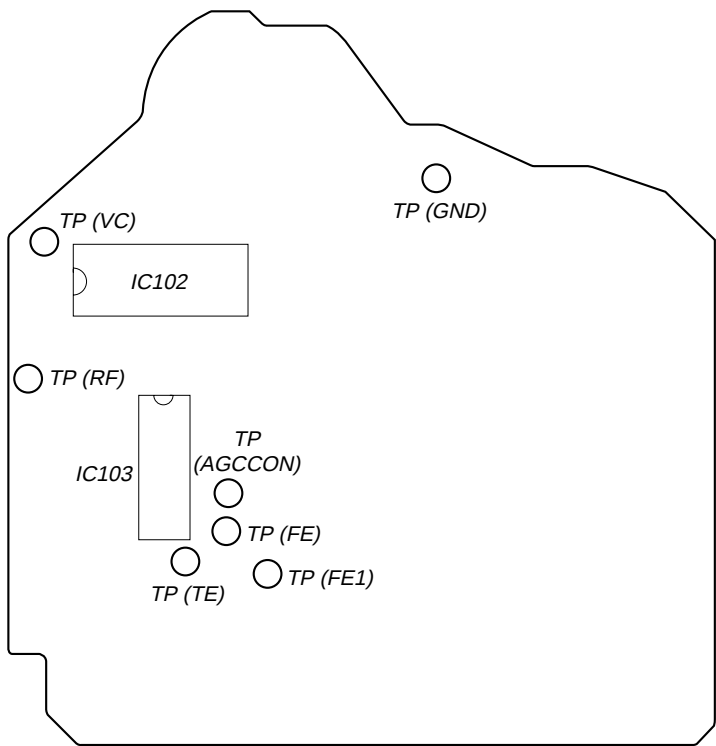


Specified level: $\frac{A}{B} \times 100 = \text{less than } \pm 22\%$

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

Checking Location:

– BD BOARD (Side B) –



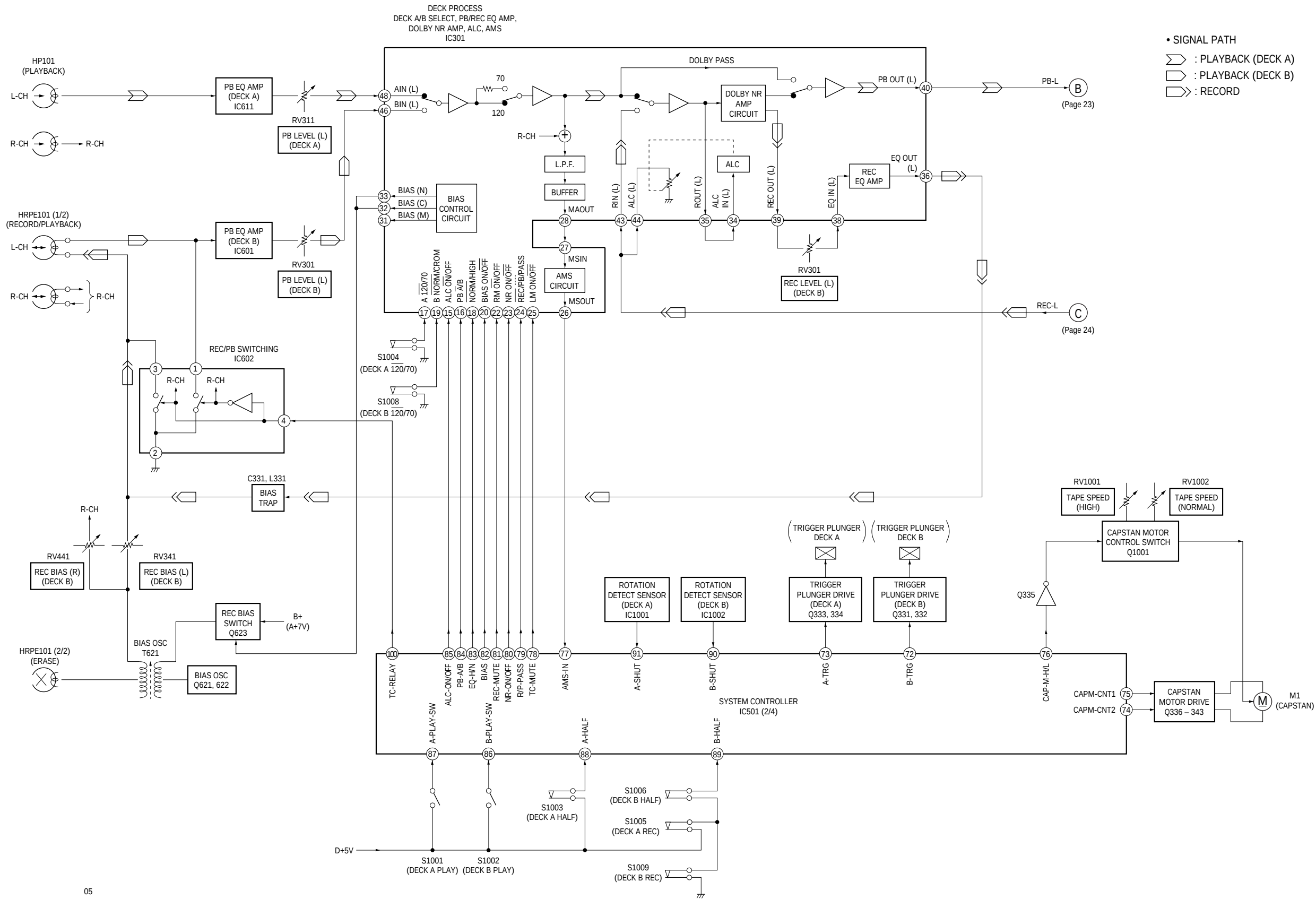
The diagram illustrates the internal circuitry of a CD player, organized into several functional blocks:

- Detector Section (Left):** Includes the DETECTOR (I-V AMP), LASER DIODE (PD/LD), AUTOMATIC POWER CONTROL Q101, and OPTICAL PICK-UP (KSS-213D/Q-NP).
- Analog Processing Section (Top Left):** Features RF AMP, FOCUS/TRACKING ERROR AMP IC103, F I-V AMP, E I-V AMP, TRACKING ERROR AMP, and FOCUS ERROR AMP.
- Digital Signal Processor Section (Top Center):** Contains DIGITAL SIGNAL PROCESSOR, DIGITAL FILTER, D/A CONVERTER IC101 (1/2), ASYMMETRY CORRECTION, DIGITAL PLL, EFM DEMODULATOR, INTERNAL BUS, 16K RAM, D/A INTERFACE, SERIAL IN INTERFACE, DIGITAL FILTER, NOISE SHAPER, PWM & INTEGRATOR, BUFFER, and OPTICAL TRANSCEIVER IC381.
- Servo Control Section (Bottom Center):** Includes CPU INTERFACE, SUBCODE PROCESSOR, SERVO AUTO SEQUENCER, SERVO INTERFACE, DIGITAL CLV, and DIGITAL OUT.
- Mechanical Control Section (Right):** Features SYSTEM CONTROLLER (CD MECHANISM CONTROL) IC501 (1/4), DISC IN DETECT SENSOR IC703, DISC TRAY SENSOR IC702, ROTARY ENCODER S811, DISC TRAY SLIDE MOTOR DRIVE IC801, and DISC TRAY TURN MOTOR DRIVE IC701.
- Motor Drives Section (Bottom Left):** Shows M101 (SPINDLE), M102 (SLED), COIL DRIVE, MOTOR DRIVE, and MUTE control.
- Output Section (Far Right):** Displays CD-L and R-CH outputs, along with timing logic and clock generator components.

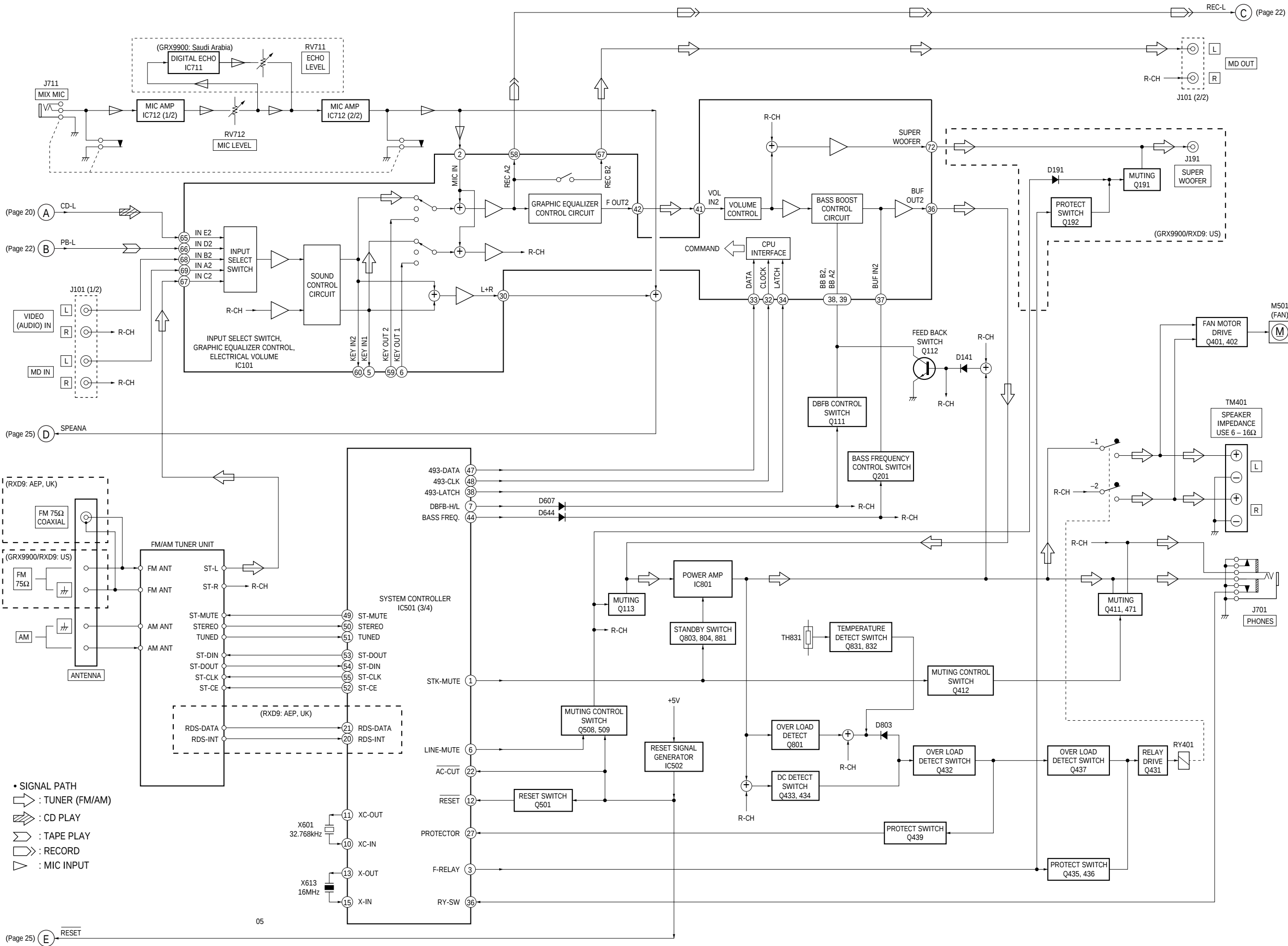
Legend:

- SIGNAL PATH
- ▬ : CD PLAY (ANALOG OUT)
- ▬▬ : CD PLAY (DIGITAL OUT)

7-2. BLOCK DIAGRAM –TAPE DECK Section –



7-3. BLOCK DIAGRAM – MAIN Section –





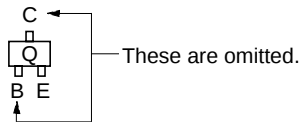
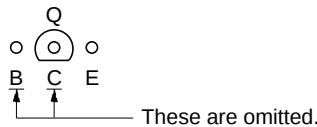
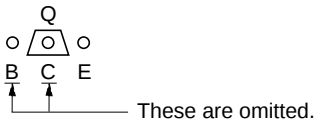
7-5. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block)

Note on Printed Wiring Board:

- : parts extracted from the component side.
 - : parts extracted from the conductor side.
 - : parts mounted on the conductor side.
 - △ : internal component.
 - ▨ : Pattern from the side which enables seeing.
- (The other layers' patterns are not indicated.)

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

• Indication of transistor.



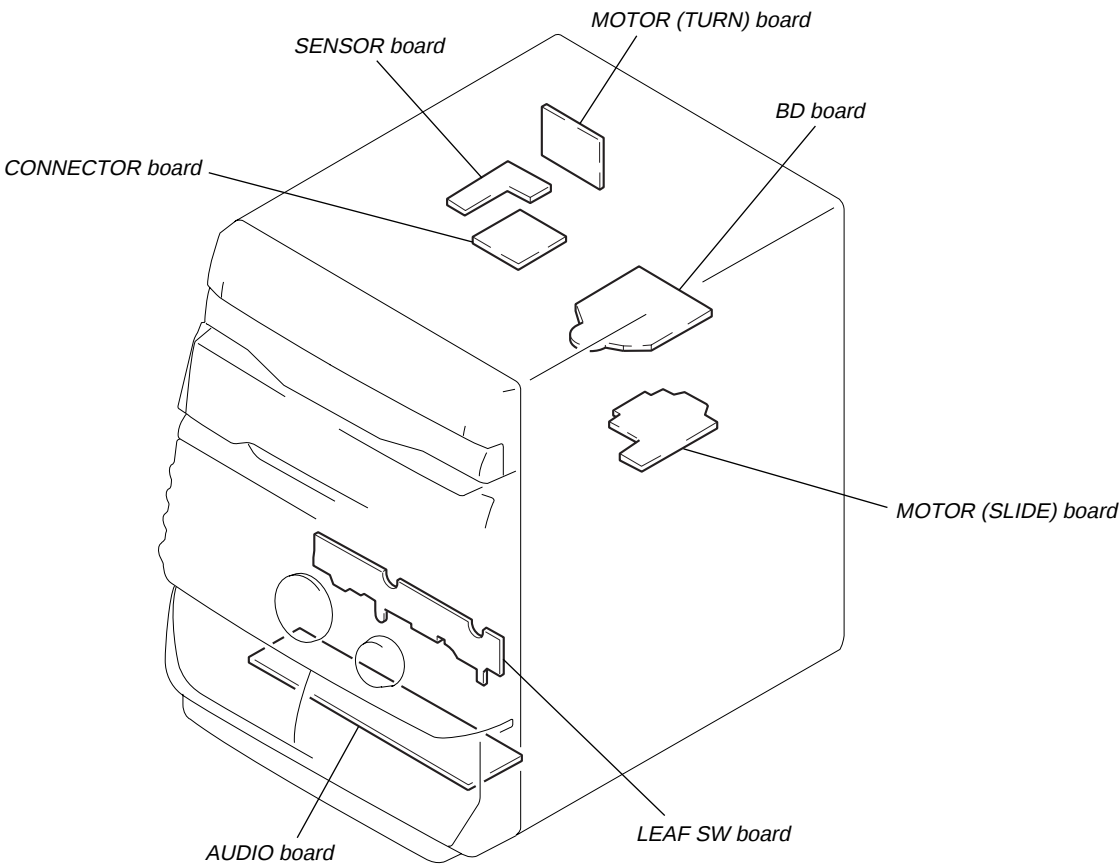
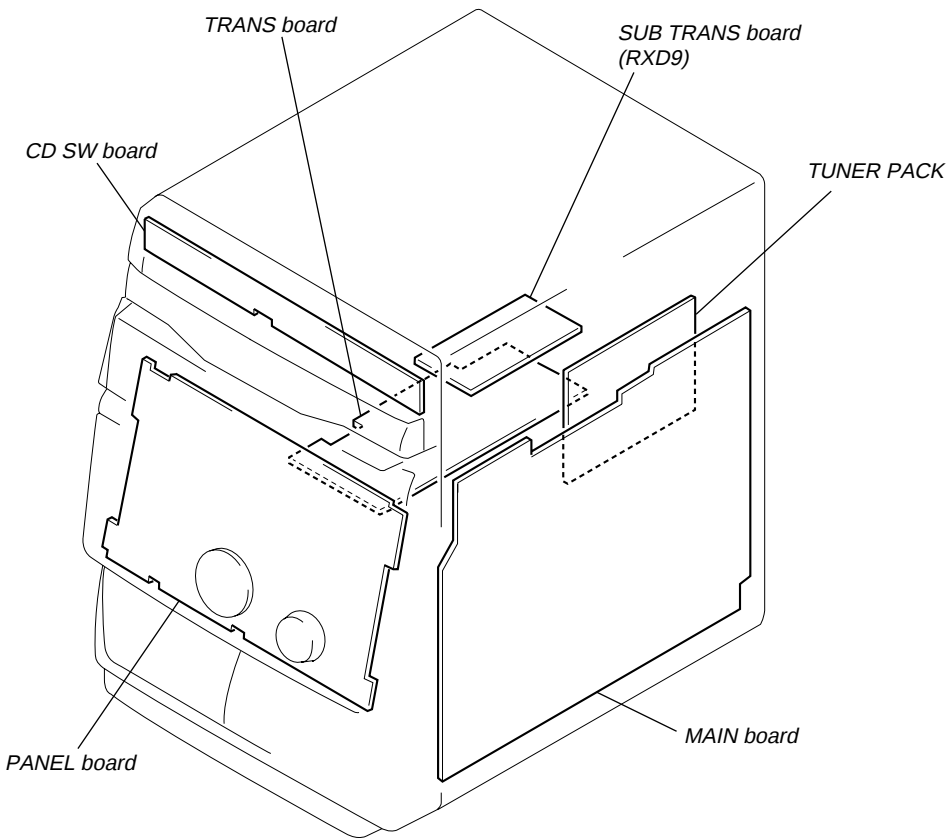
Note on Schematic Diagram:

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

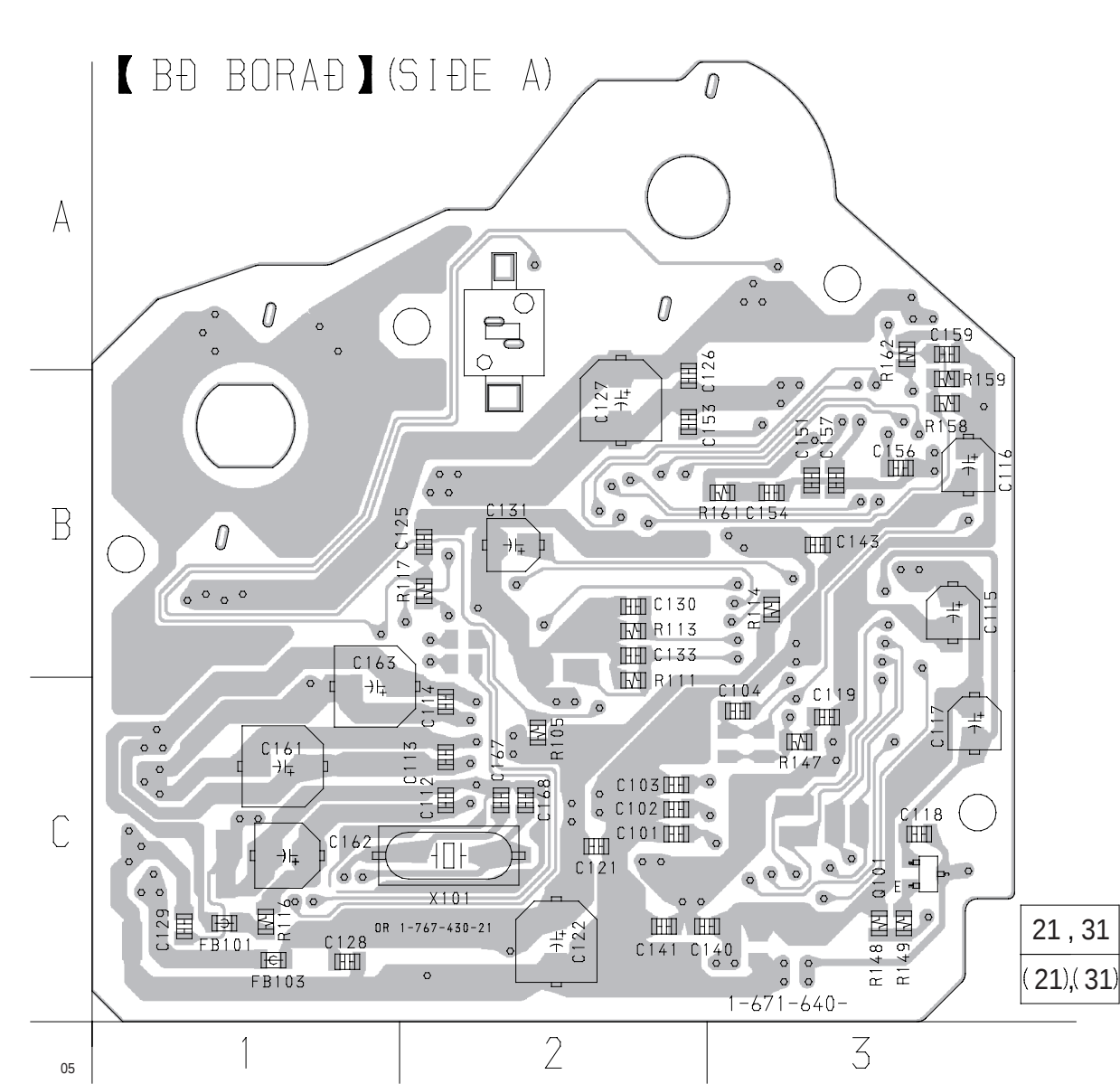
Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

- B+ : B+ Line.
- B- : B- Line.
- : adjustment for repair.
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 - TUNER (FM/AM)
 - PLAYBACK (DECK A)
 - PLAYBACK (DECK B)
 - RECORD
 - CD PLAY (ANALOG OUT)
 - CD PLAY (DIGITAL OUT)
 - MIC INPUT
- Abbreviation
 - AED : North European model
 - AR : Argentine model
 - E2 : 120 V AC Area in E model
 - E3 : 240 V AC Area in E model
 - EA : Saudi Arabia model
 - G : German model
 - MY : Malaysia model
 - MX : Mexican model
 - SP : Singapore model

• Circuit Boards Location

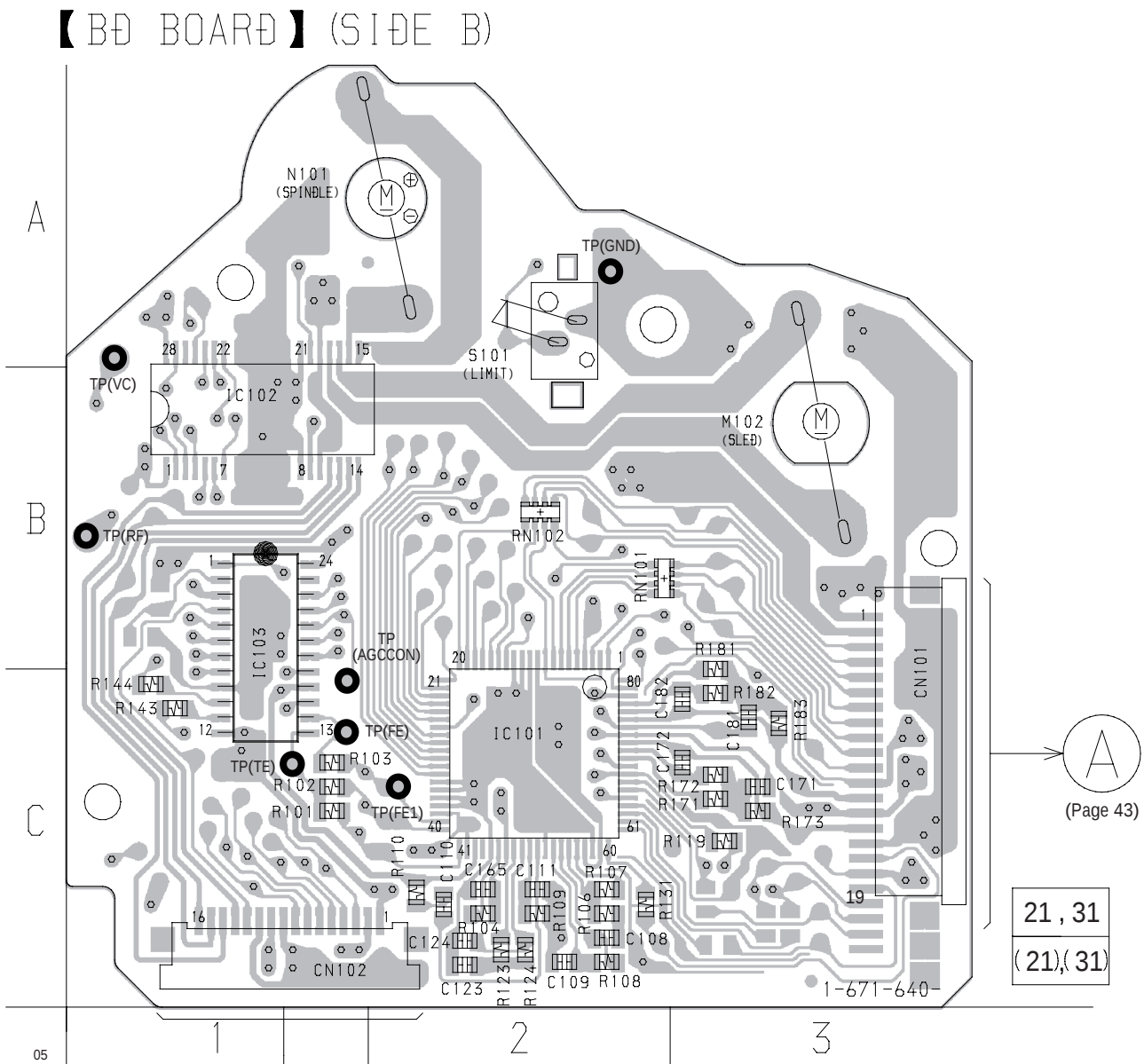


7-6. PRINTED WIRING BOARD – BD Board – • See page 28 for Circuit Boards Location.



• Semiconductor Location (Side A)

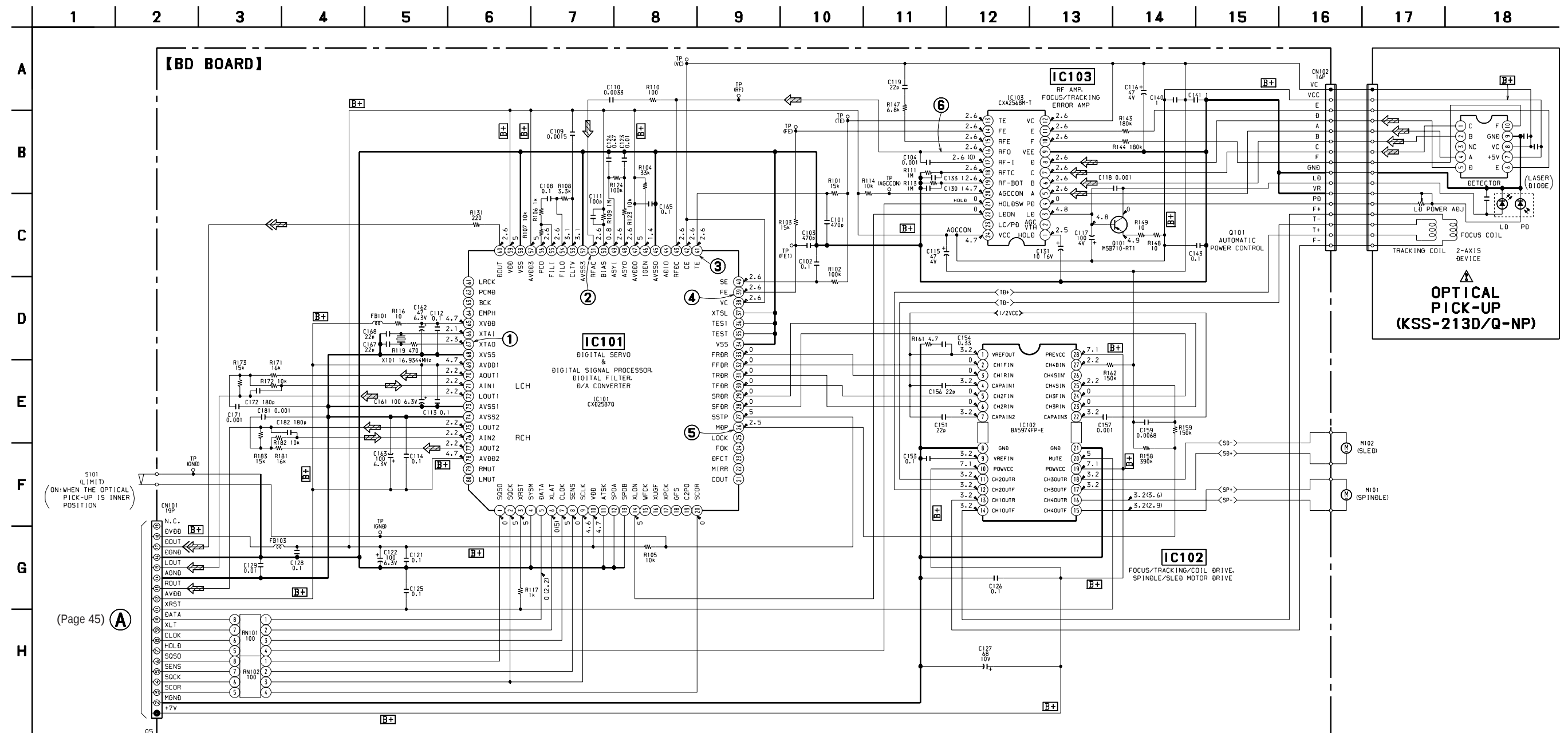
Ref. No.	Location
Q101	C-3



• Semiconductor Location (Side B)

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

7-7. SCHEMATIC DIAGRAM – BD Board – • See page 65 for Waveforms. • See page 66 for IC Block Diagrams.

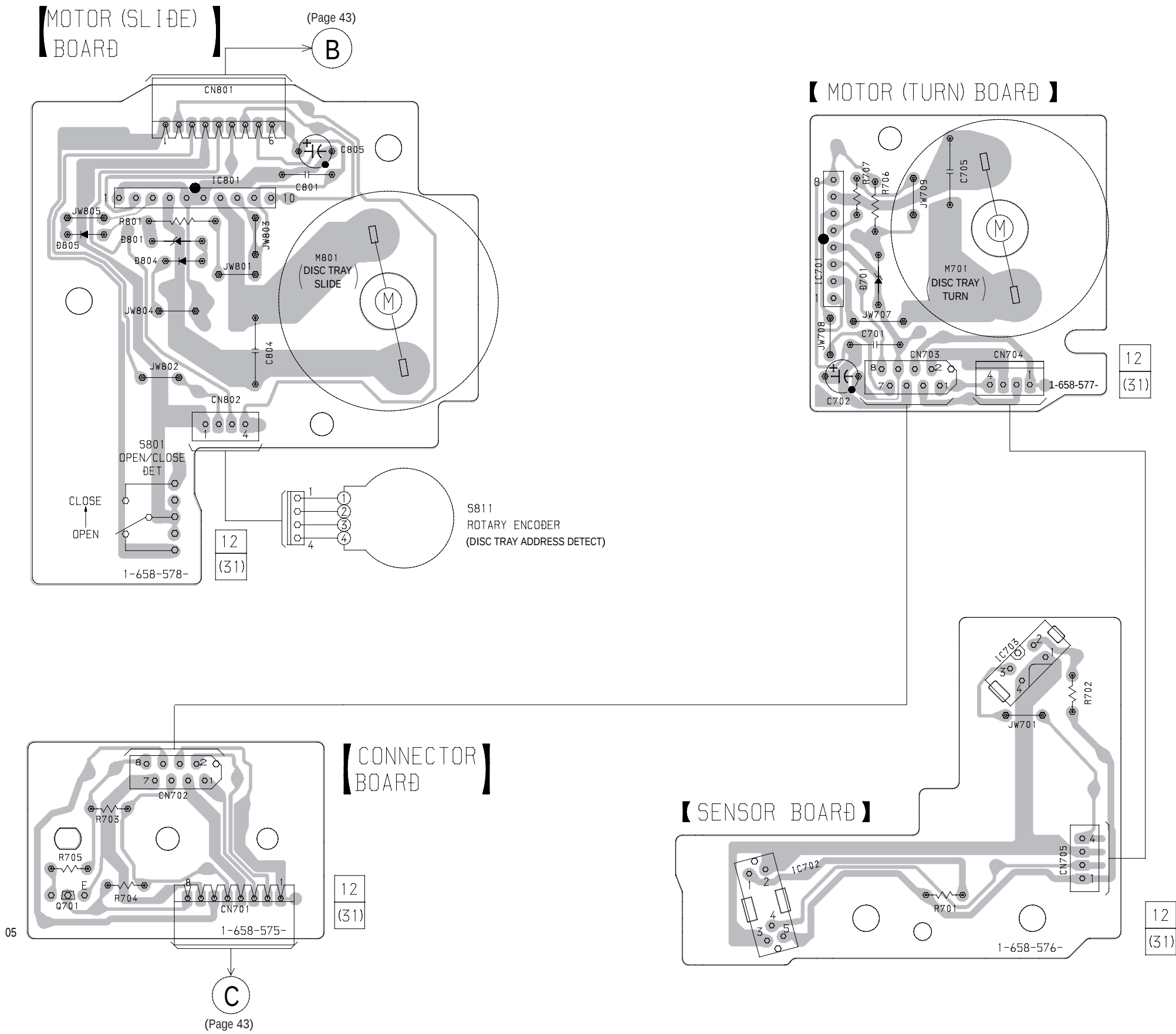


- Voltages and waveforms are dc with respect to ground under no-signal conditions.

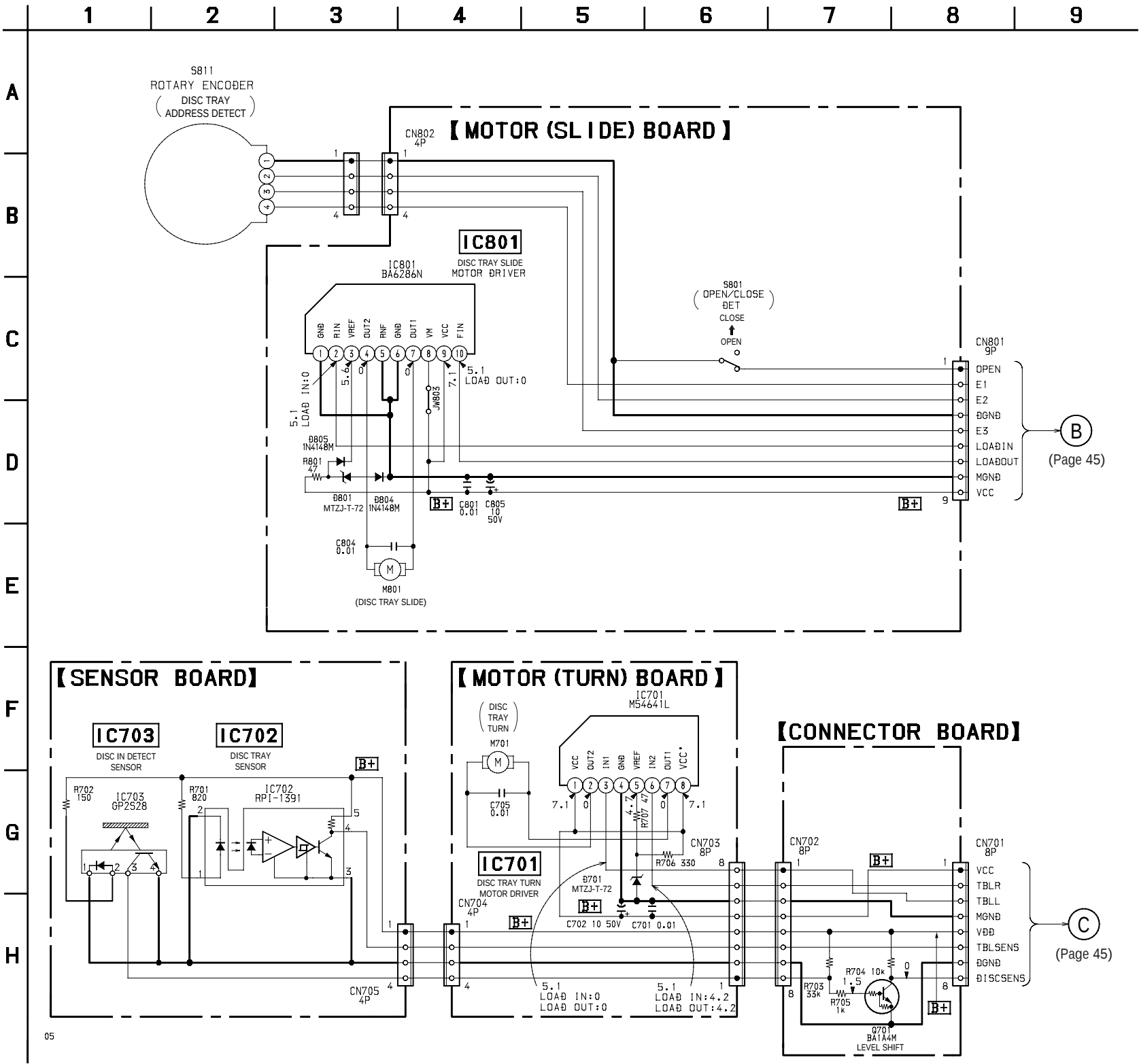
no mark : CD STOP
() : CD PLAY

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

7-8. PRINTED WIRING BOARDS – CD MOTOR Section – • See page 28 for IC Circuit Boards Location.

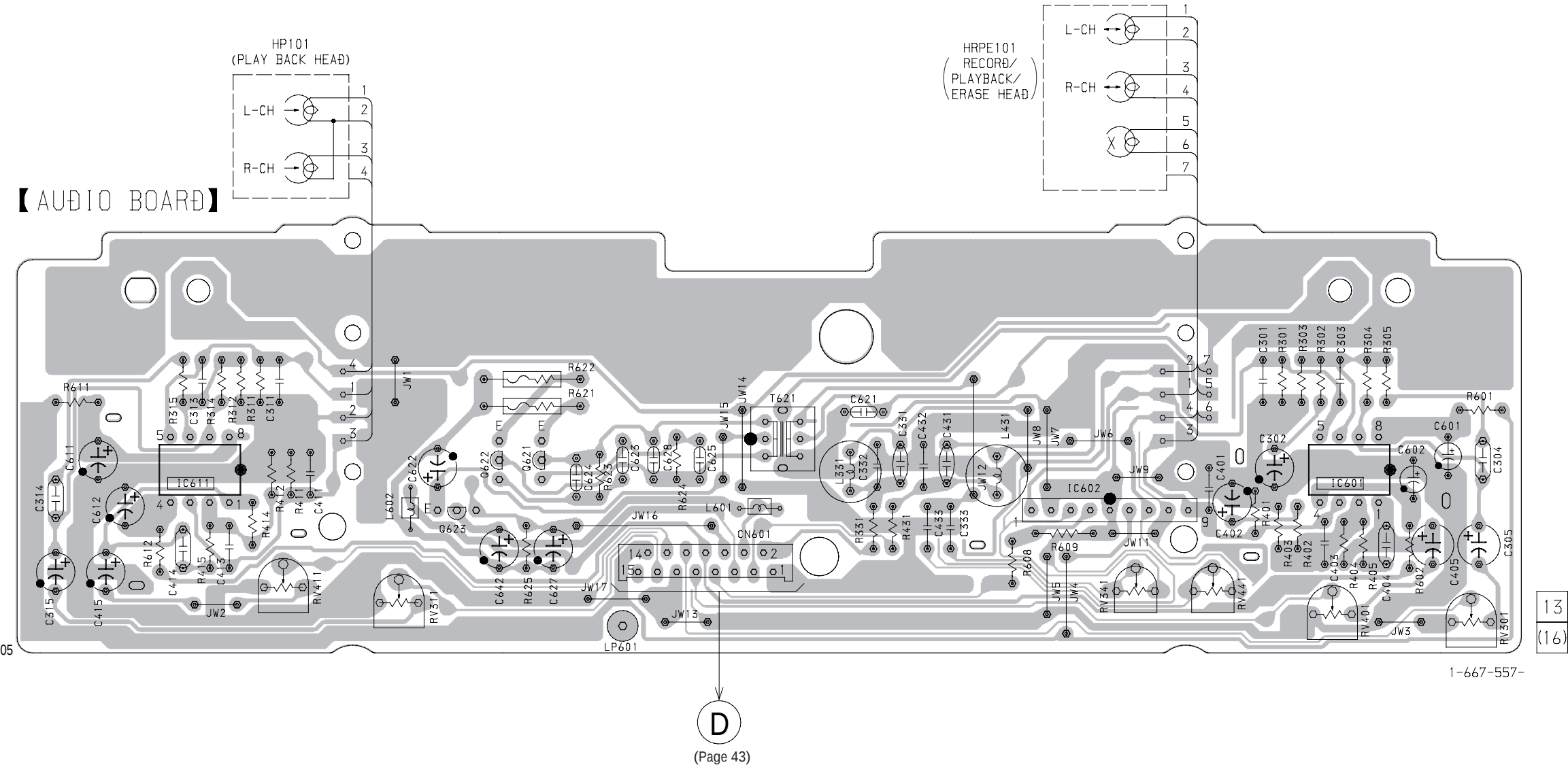


7-9. SCHEMATIC DIAGRAM – CD MOTOR Section – • See page 67 for IC Block Diagrams.

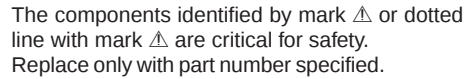


• Voltages are dc with respect to ground under no-signal conditions.
no mark : CD STOP

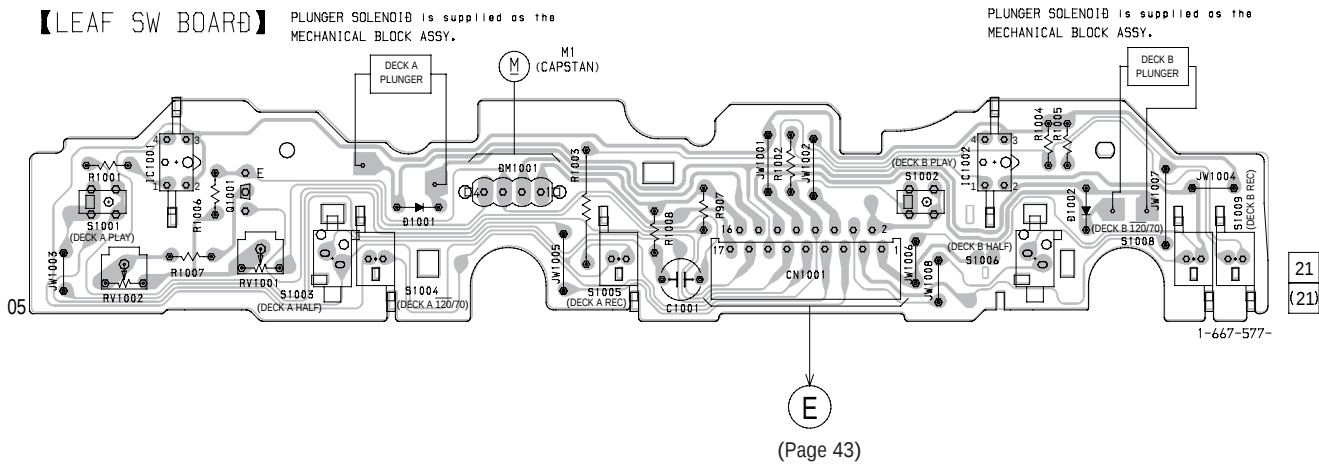
7-10. PRINTED WIRING BOARD – AUDIO Board – • See page 28 for Circuit Boards Location.



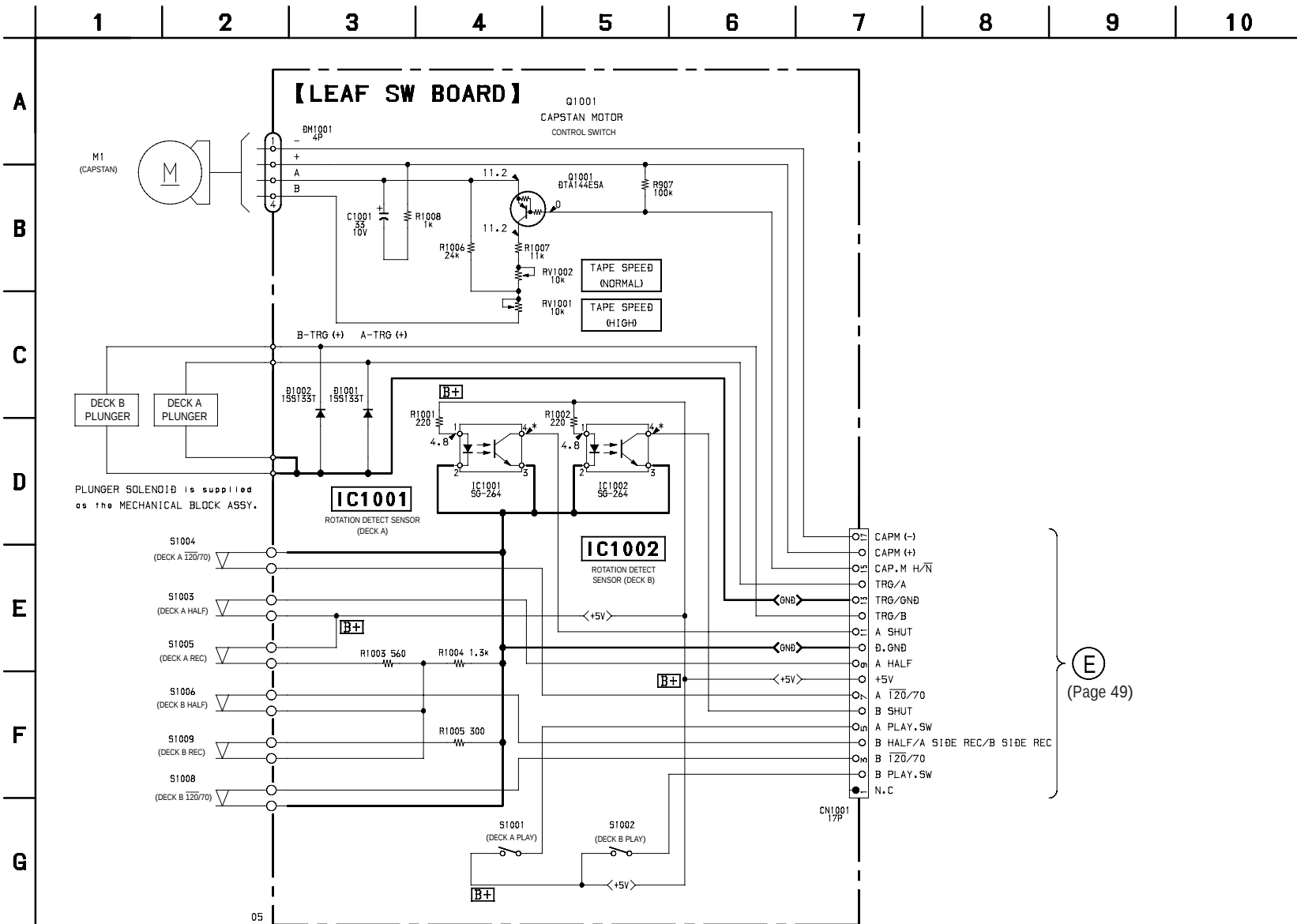
- Voltages are dc with respect to ground under no-signal conditions.
no mark : TAPE PLAY
() : RECORD



7-12. PRINTED WIRING BOARD – LEAF SW Board – • See page 28 for Circuit Boards Location.



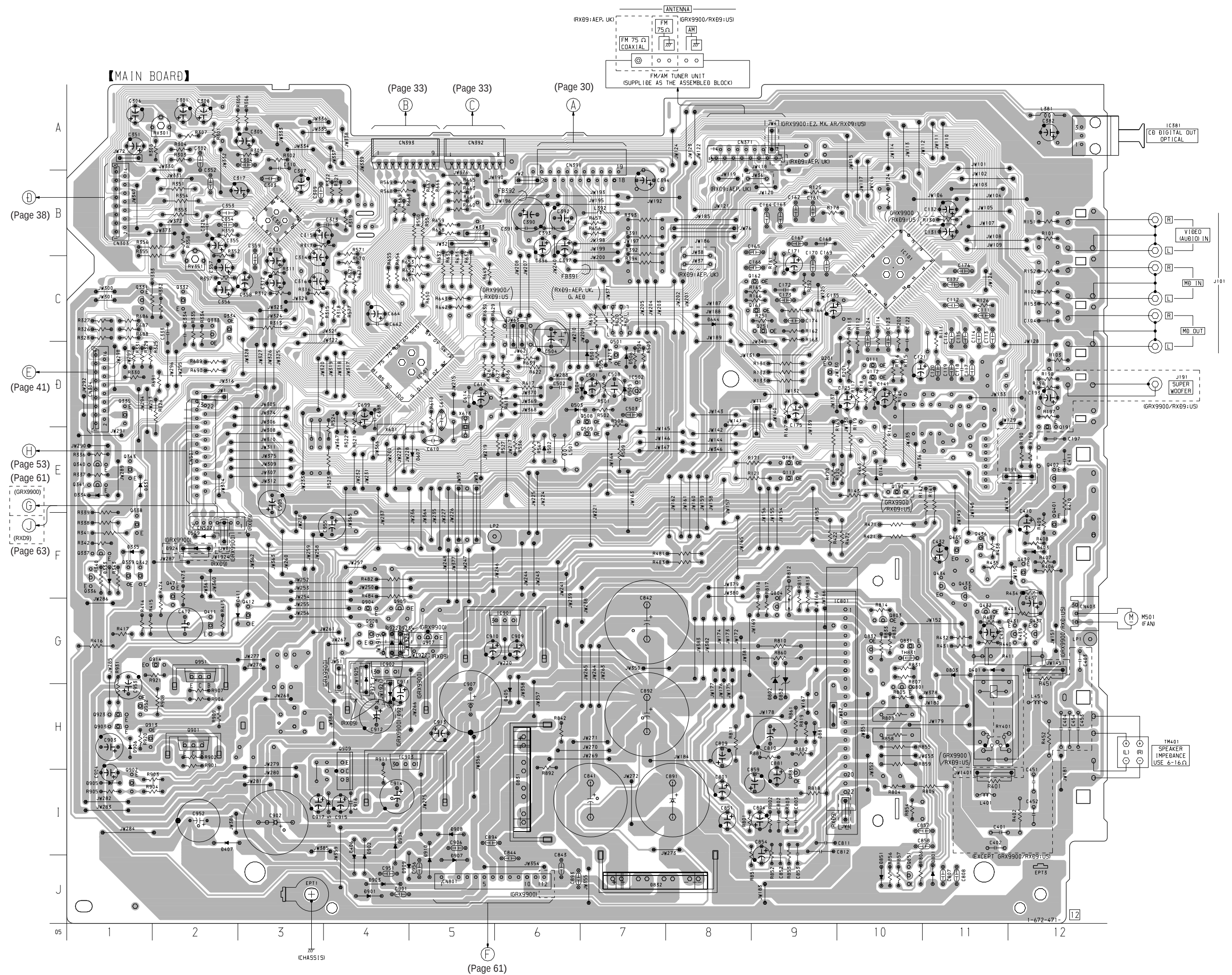
7-13. SCHEMATIC DIAGRAM – LEAF SW Board –



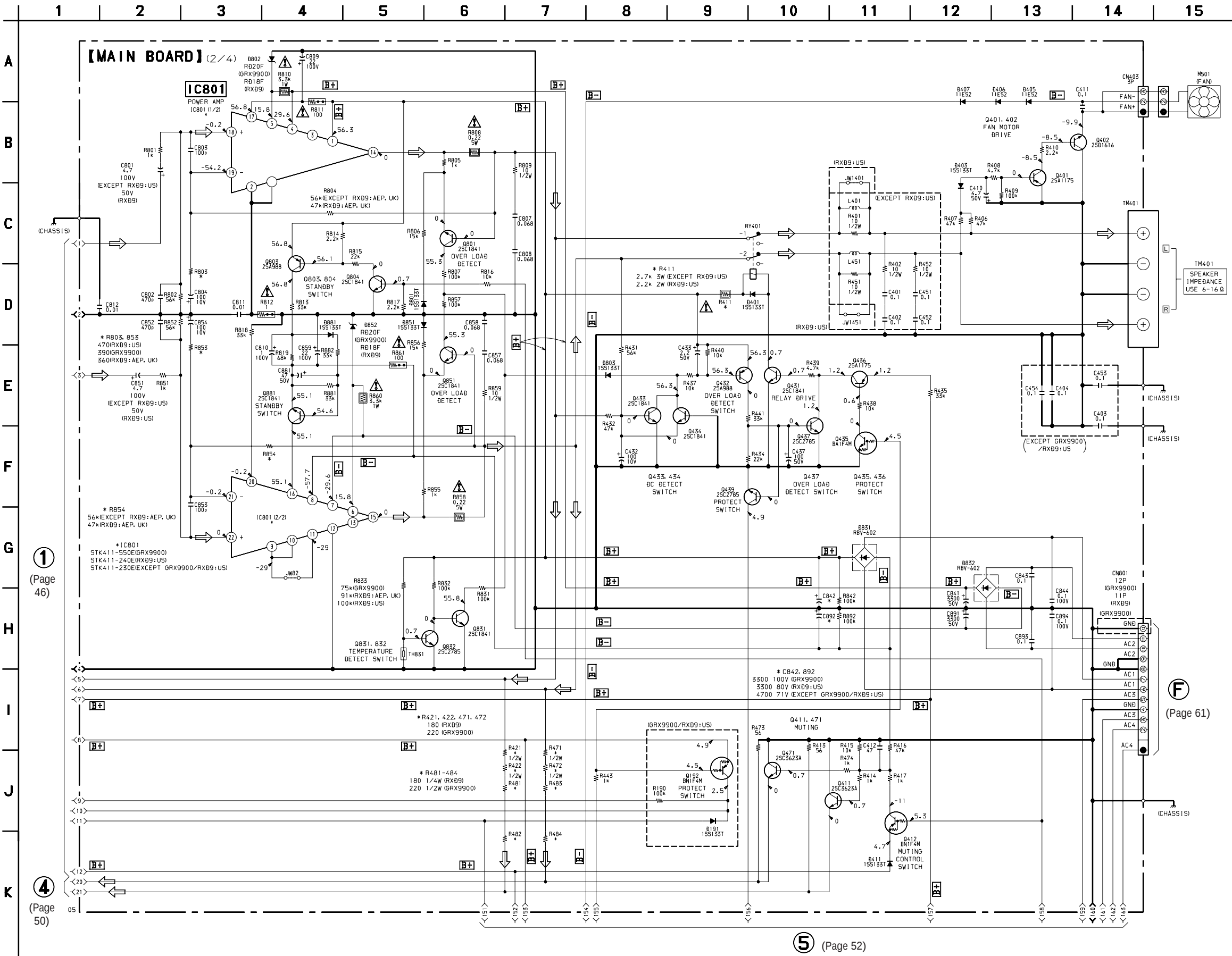
- Voltages are dc with respect to ground under no-signal conditions.
- no mark : TAPE PLAY
 () : RECORD
 * : Impossible to measure

- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D141	E-10	Q113	E-9
D191	E-12	Q161	C-9
D331	E-1	Q162	C-9
D333	F-1	Q163	E-9
D334	E-1	Q191	E-12
D335	F-1	Q192	E-10
D401	G-11	Q201	D-9
D403	F-12	Q251	C-9
D405	H-6	Q331	C-1
D406	J-4	Q332	C-2
D407	I-2	Q333	C-2
D411	G-3	Q334	C-2
D501	D-7	Q335	D-1
D502	E-6	Q336	F-1
D503	D-6	Q337	F-1
D504	D-7	Q338	F-1
D505	D-7	Q339	F-1
D506	D-7	Q340	E-1
D509	F-2	Q341	E-1
D607	E-5	Q342	F-1
D644	C-8	Q343	E-1
D801	J-11	Q401	F-12
D802	G-9	Q402	E-12
D803	G-11	Q411	G-2
D831	I-6	Q412	G-3
D832	J-7	Q431	G-12
D851	J-10	Q432	G-11
D852	G-9	Q433	F-11
D881	H-9	Q434	F-11
D901	J-4	Q435	F-11
D902	J-4	Q436	F-11
D903	J-4	Q437	G-12
D904	I-4	Q439	F-12
D905	I-1	Q471	F-2
D906	H-1	Q501	D-7
D907	J-5	Q508	D-7
D908	I-5	Q509	E-7
D909	J-5	Q801	H-10
D910	J-5	Q803	G-10
D915	I-4	Q804	G-9
D921	H-4	Q831	G-10
D922	G-4	Q832	G-10
D923	G-4	Q851	J-10
D924	F-2	Q881	I-9
D925	G-4	Q901	H-2
		Q902	I-1
IC101	C-10	Q903	H-1
IC301	B-3	Q904	G-4
IC381	A-12	Q905	G-4
IC501	D-5	Q907	G-5
IC502	D-7	Q908	G-4
IC801	H-10	Q909	I-4
IC901	G-6	Q913	H-1
IC902	G-4	Q914	G-2
IC903	H-4	Q923	H-1
		Q951	G-2
Q111	D-10	Q952	H-1
Q112	D-10		



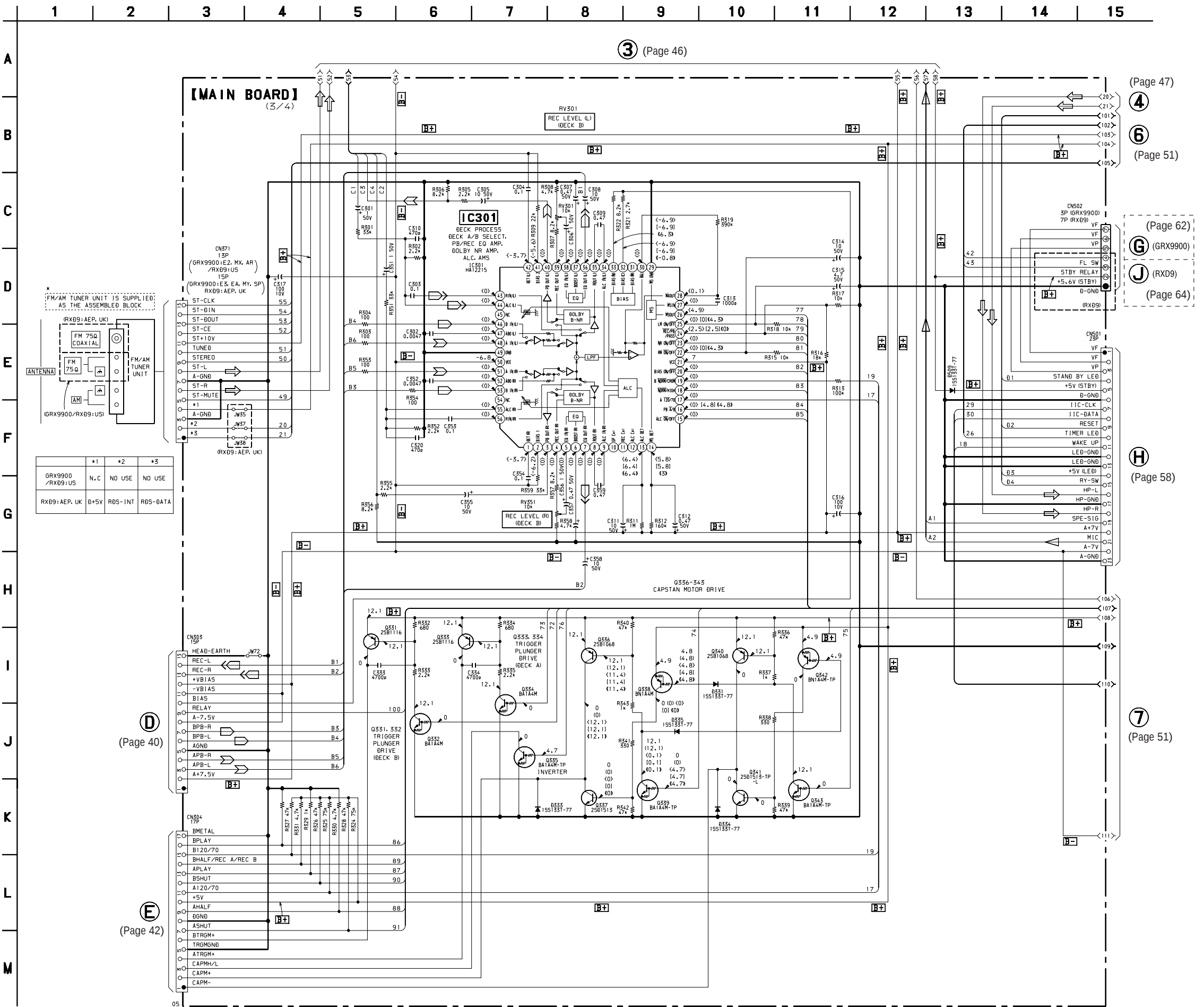
7-16. SCHEMATIC DIAGRAM – MAIN Board (2/4) –



• Voltages are dc with respect to ground under no-signal (detuned) conditions.
no mark : FM

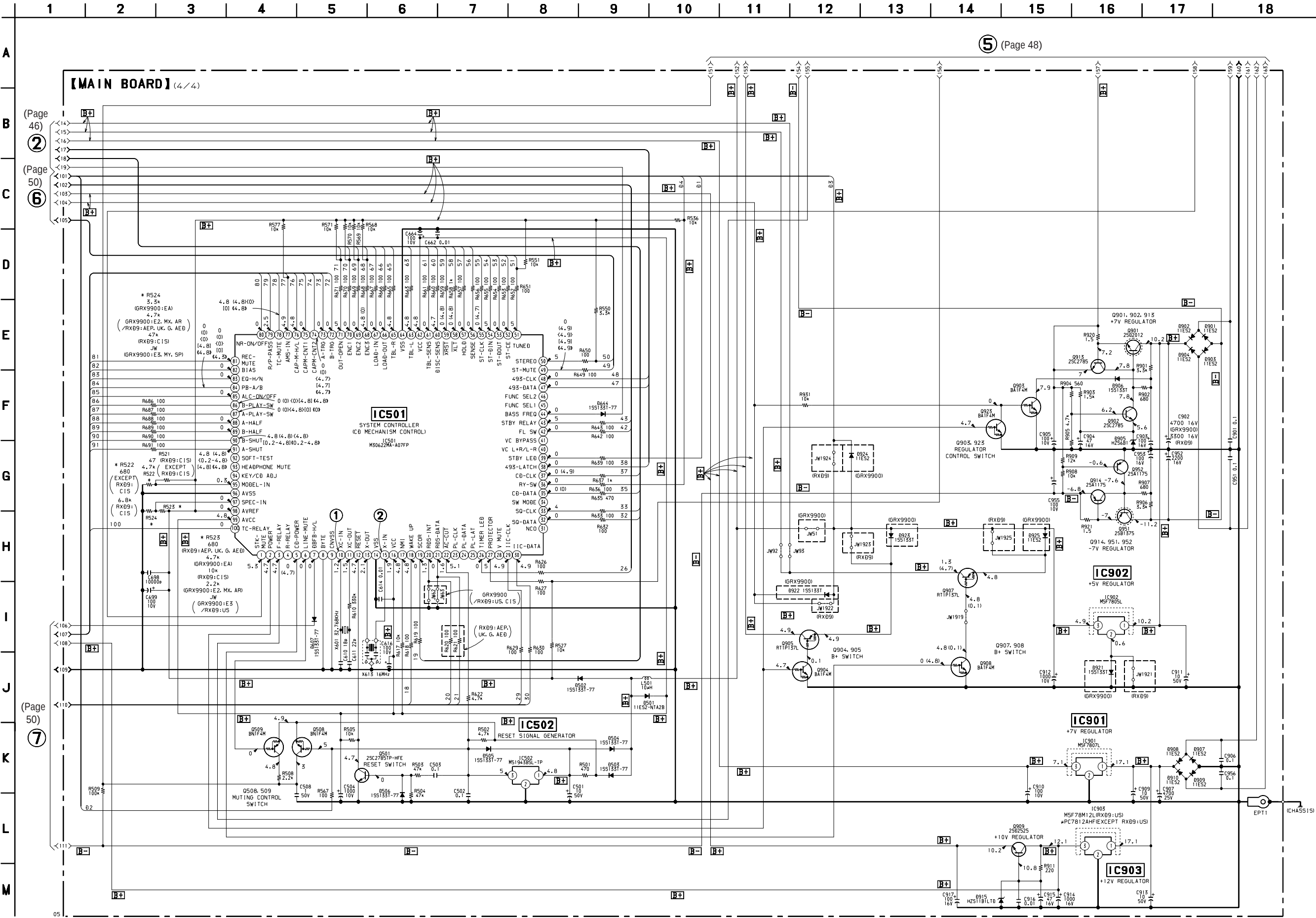
The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.

7-17. SCHEMATIC DIAGRAM – MAIN Board (3/4) –



- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : TUNER (FM/AM)
- () : CD PLAY
- { } : TAPE PLAYBACK (DECK A)
- [] : TAPE PLAYBACK (DECK B)
- << >> : RECOARD

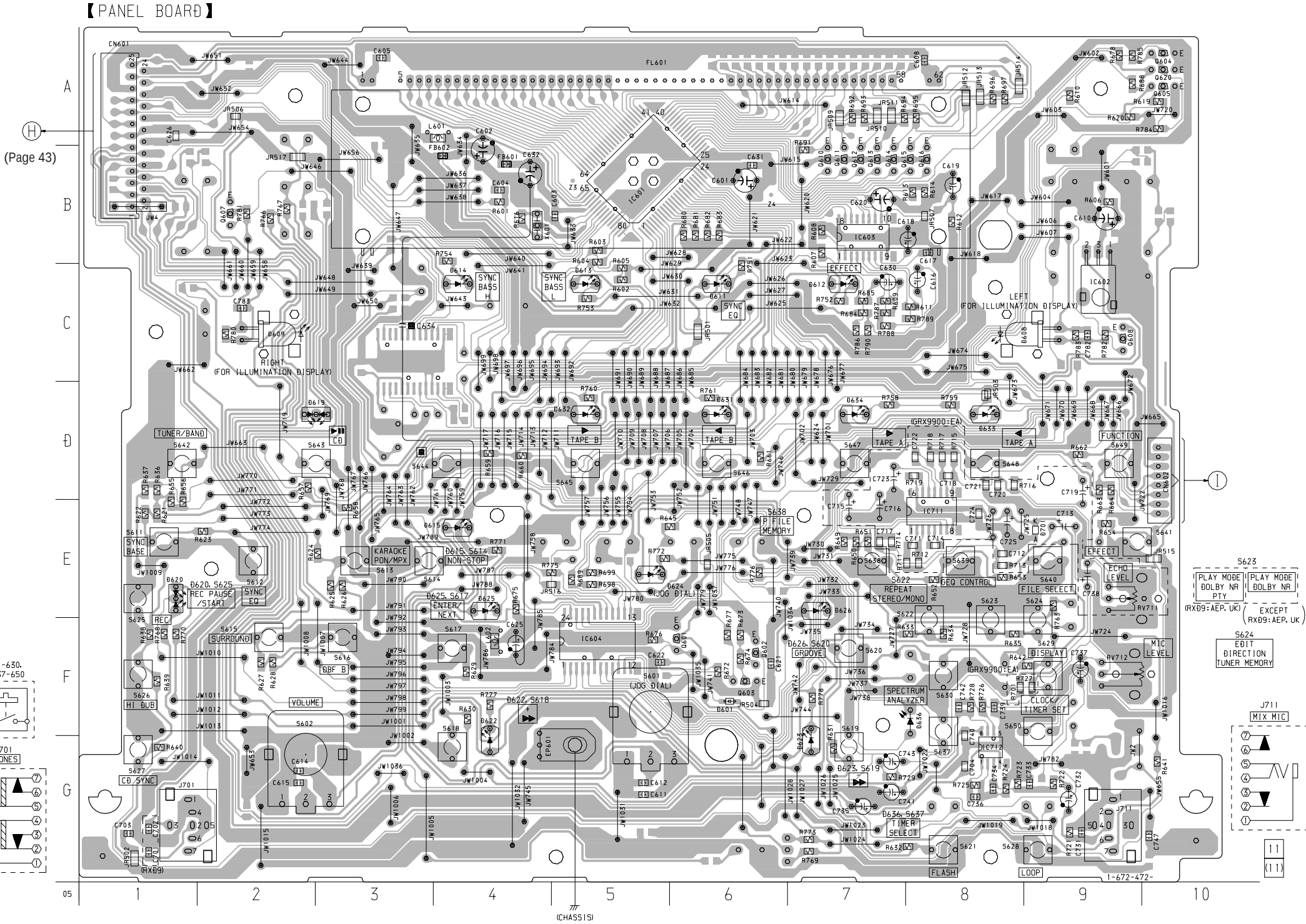
7-18. SCHEMATIC DIAGRAM – MAIN Board (4/4) – • See page 65 for Waveforms.



7-19. PRINTED WIRING BOARDS – PANEL/CD SW Board – • See page 28 for Circuit Boards Location.

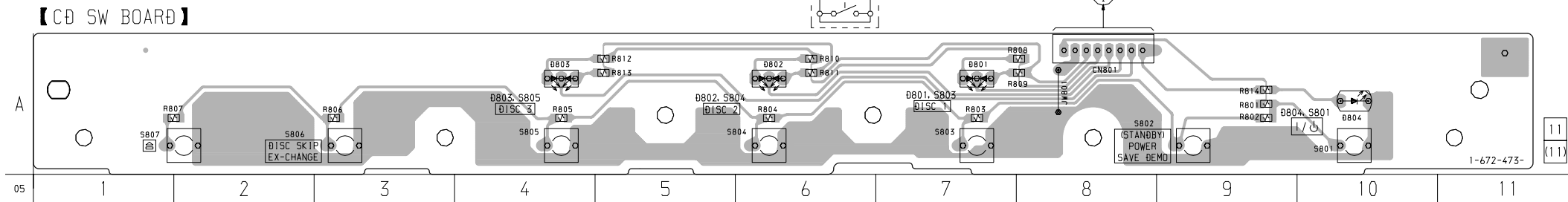
- **Semiconductor Location**

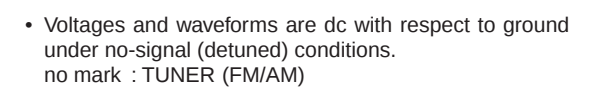
Ref. No.	Location
D601	F-6
D608	C-9
D609	C-2
D611	C-6
D612	C-7
D613	C-5
D614	C-4
D615	E-4
D619	D-3
D620	E-1
D621	G-6
D622	G-4
D623	G-7
D624	E-5
D625	E-4
D626	E-7
D631	D-6
D632	D-5
D633	D-8
D634	D-7
D636	F-8
IC601	B-5
IC602	B-9
IC603	B-7
IC604	F-5
IC711	E-8
IC712	G-8
Q601	F-6
Q602	F-6
Q603	F-6
Q604	A-10
Q605	A-10
Q607	B-2
Q608	C-9
Q610	B-7
Q611	B-7
Q612	B-7
Q613	B-7
Q614	B-7
Q615	B-8
Q616	B-8
Q620	A-10

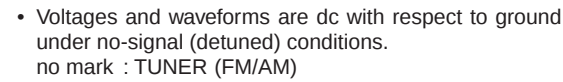


- **Semiconductor Location**

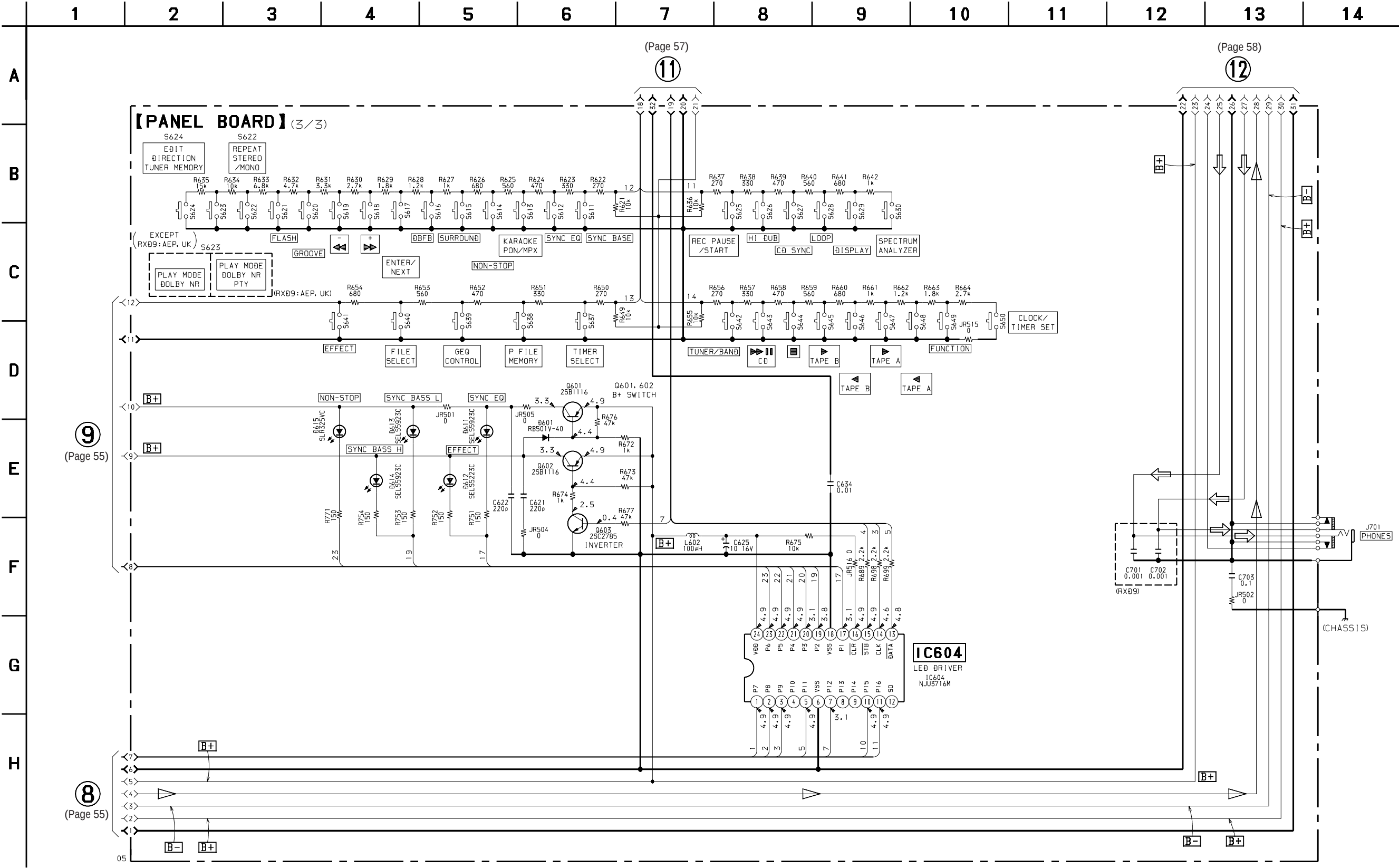
Ref. No.	Location
D801	A-7
D802	A-6
D803	A-4
D804	A-10





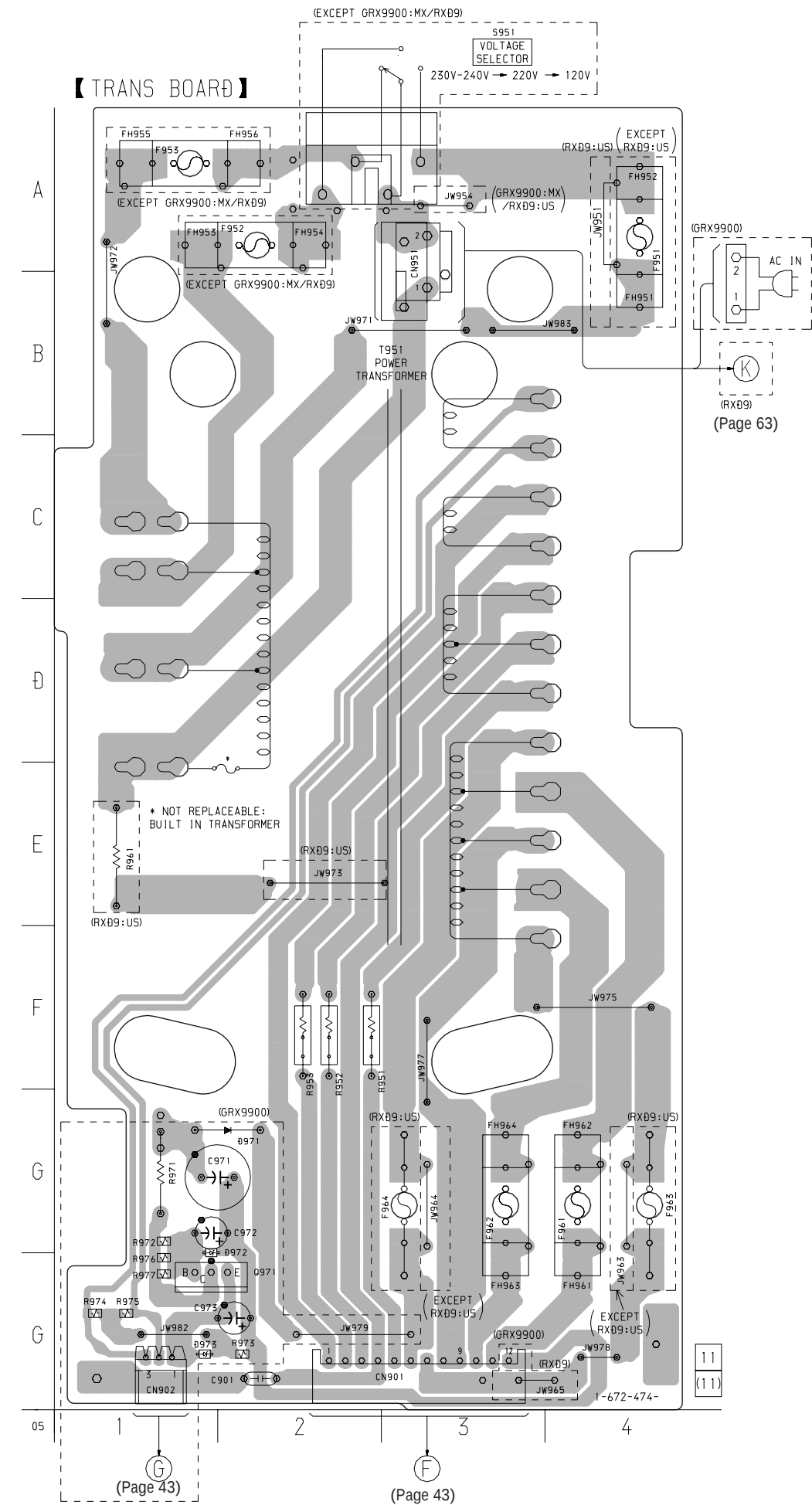


7-22. SCHEMATIC DIAGRAM – PANEL (3/3) Board– • See page 68 for IC Block Diagrams.

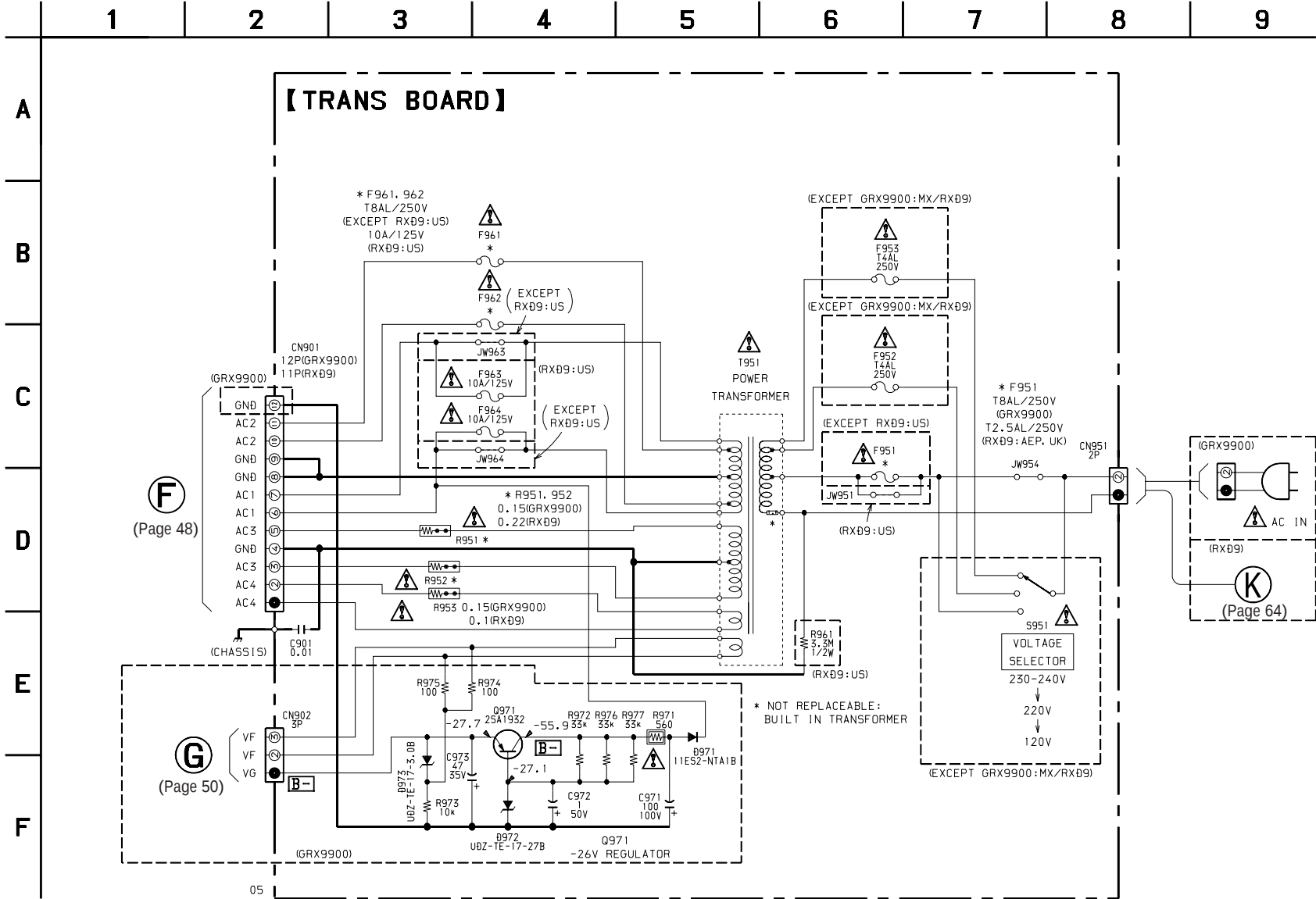


• Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
no mark : TUNER (FM/AM)

7-23. PRINTED WIRING BOARD – TRANS Board –
• See page 28 for Circuit Boards Location.



7-24. SCHEMATIC DIAGRAM – TRANS Board –



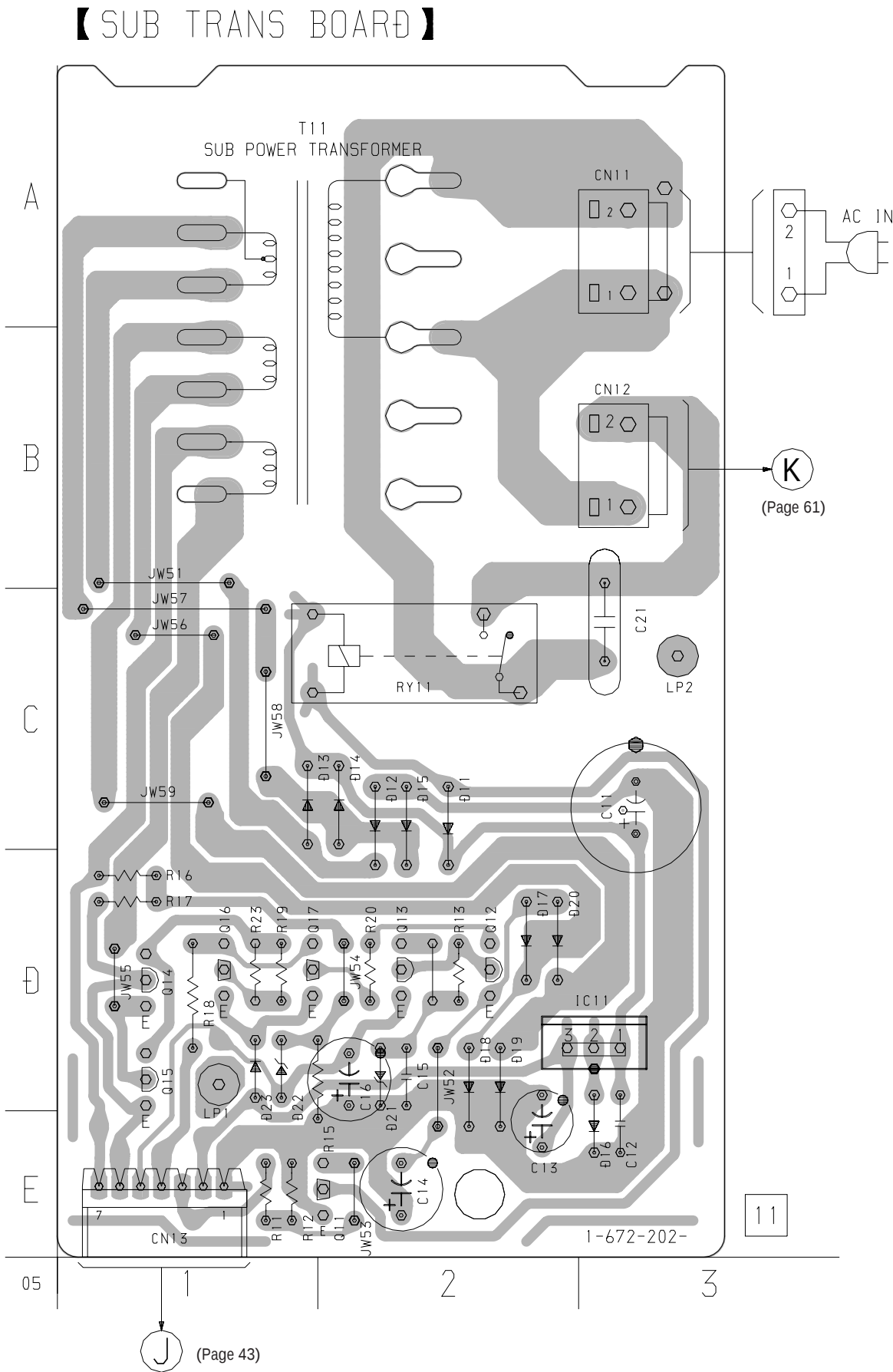
• Voltages are dc with respect to ground under no-signal (detuned) conditions.
no mark : TUNER (FM/AM)

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

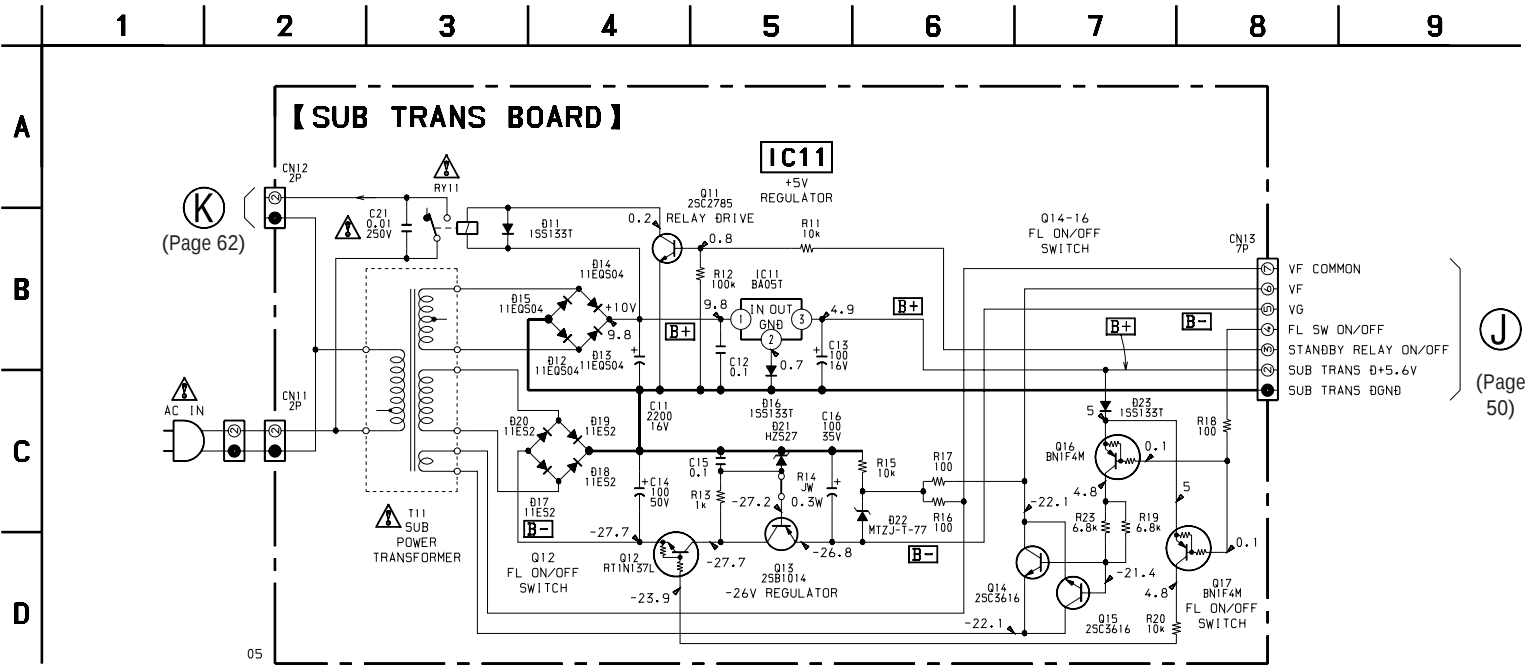
• Semiconductor Location

Ref. No.	Location
D971	G-2
D972	G-1
D973	G-1
Q971	G-1

7-25. PRINTED WIRING BOARD – SUB TRANS Board (RXD9) –
• See page 28 for Circuit Boards Location.



7-26. SCHEMATIC DIAGRAM – SUB TRANS Board (RXD9) –



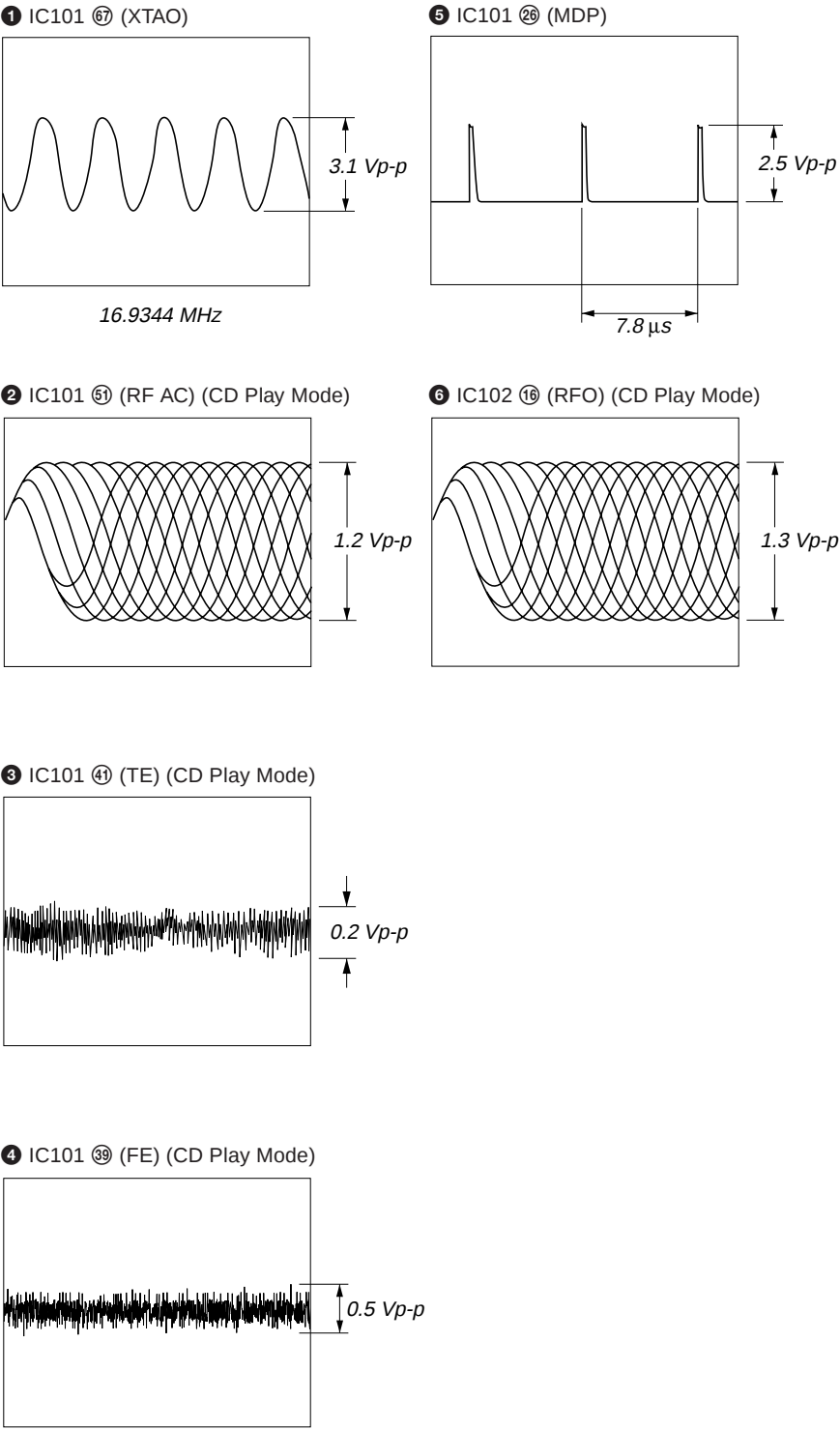
• Voltages are dc with respect to ground under no-signal (detuned) conditions.
no mark : TUNER (FM/AM)

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

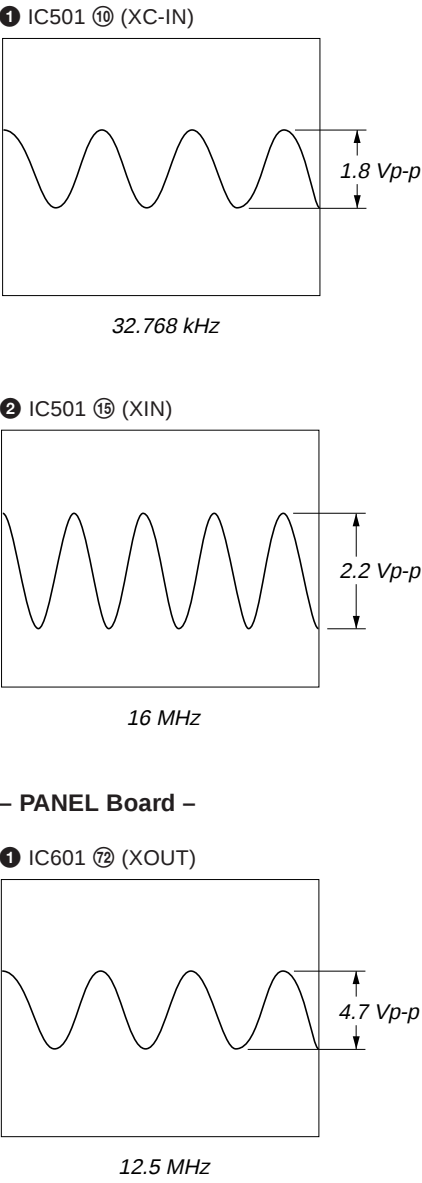
• Semiconductor Location

Ref. No.	Location
D11	C-2
D12	C-2
D13	C-1
D14	C-2
D15	C-2
D16	E-3
D17	D-2
D18	D-2
D19	D-2
D20	D-2
D21	D-2
D22	D-1
D23	D-1
IC11	D-3
Q11	E-2
Q12	D-2
Q13	D-2
Q14	D-1
Q15	D-1
Q16	D-1
Q17	D-1

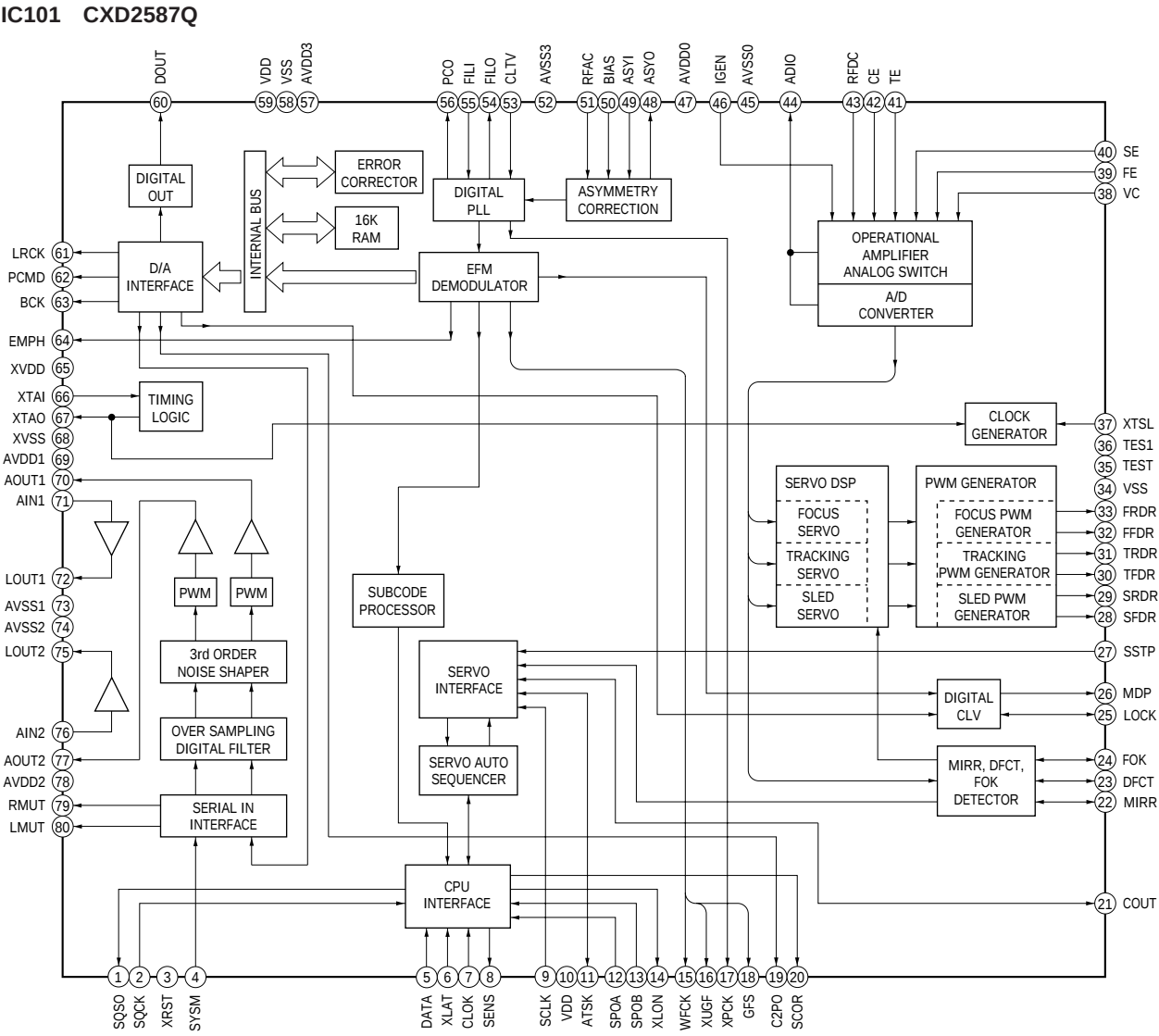
• Waveforms
– BD Board –



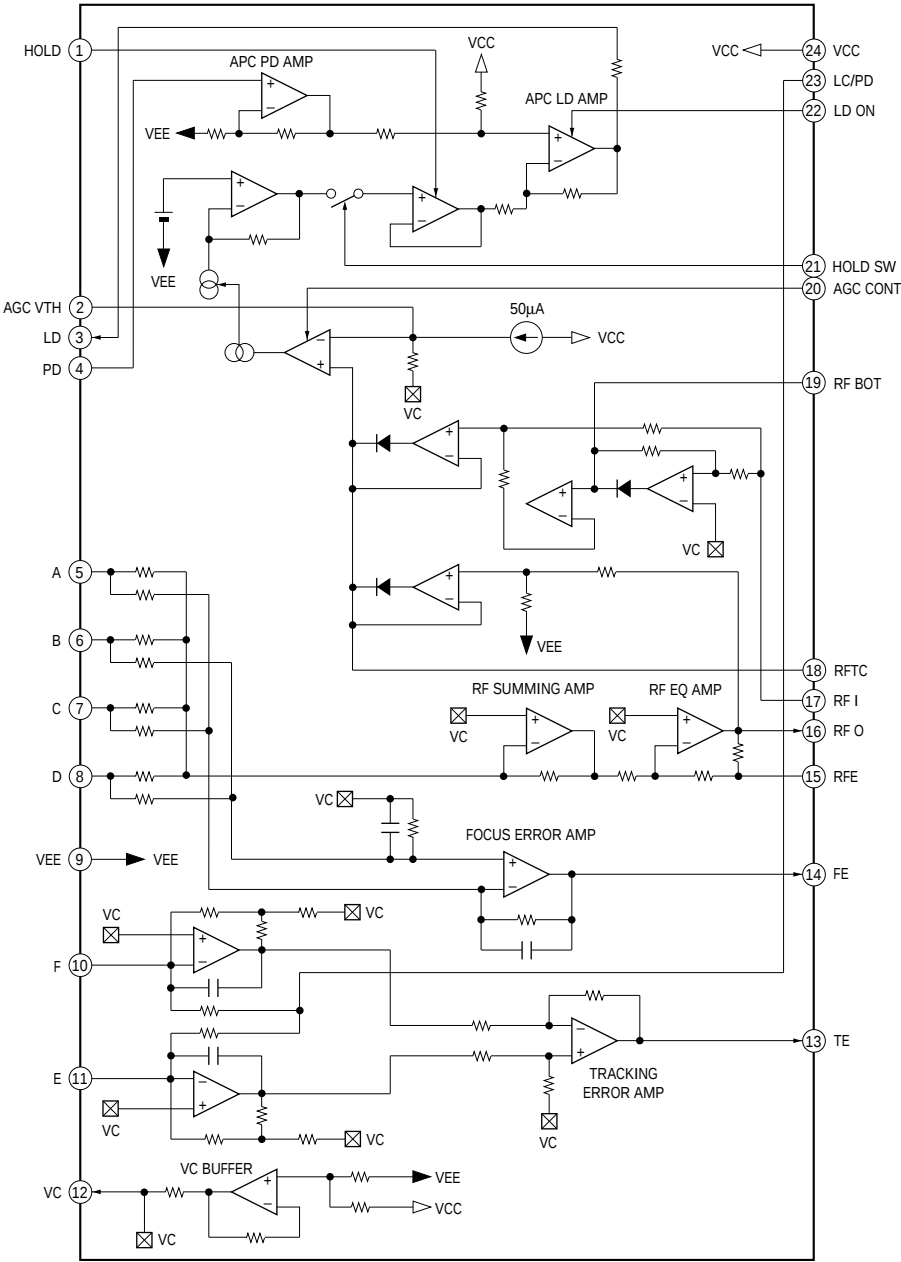
– MAIN Board –



• IC Block Diagrams
– BD Board –

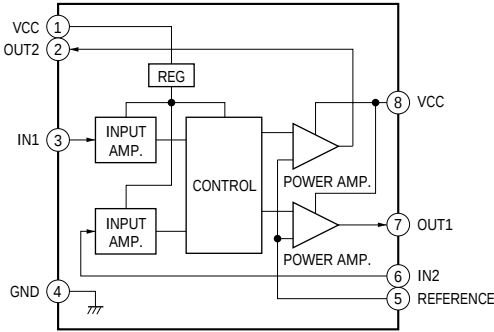


IC103 CXA2568M-T6



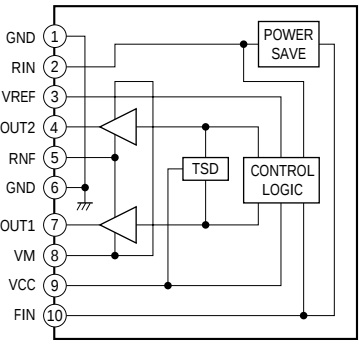
– MOTOR (TURN) Board –

IC701 M54641L



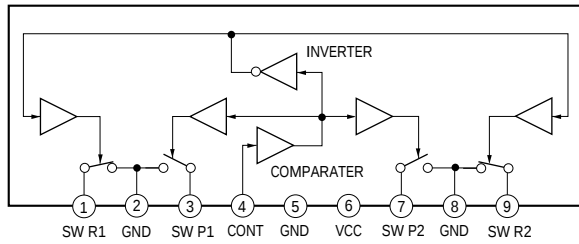
– MOTOR (SLIDE) Board –

IC801 BA6286N



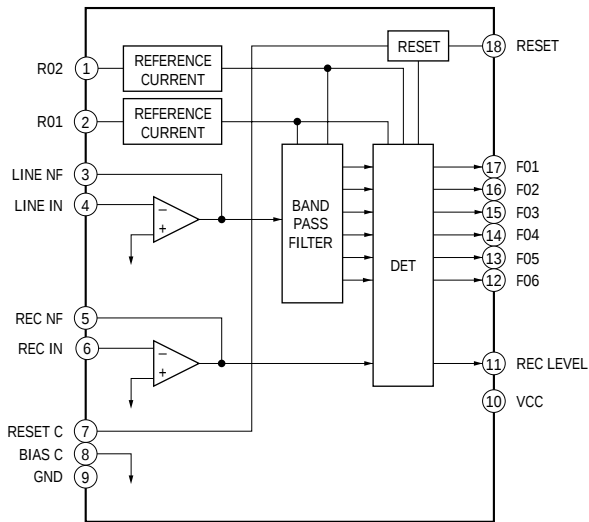
– AUDIO Board –

IC602 μ PC1330HA

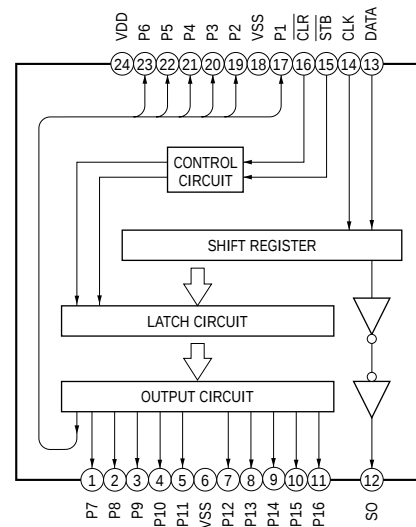


– PANEL Board –

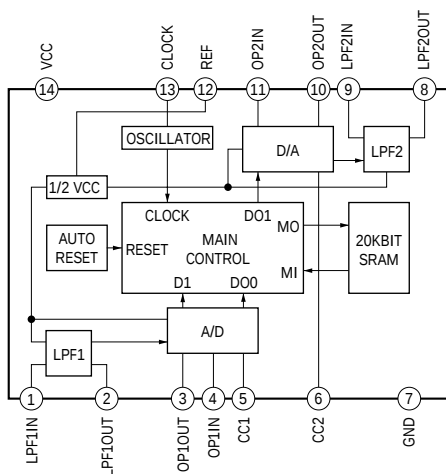
IC603 BA3830F



IC604 NJU3716M-T2



IC711 M65850FP



7-27. IC PIN FUNCTION DESCRIPTION

• MAIN BOARD IC501 M30622MA-A07FP (SYSTEM CONTROLLER (CD MECHANISM CONTROL))

Pin No.	Pin Name	I/O	Description
1	STK-MUTE	O	Power amplifier on/off selection signal output terminal “L”: standby mode, “H”: on
2	POWER	O	Power on/off control signal output for the audio system (+5V) and deck, panel, audio system (+7V) “L”: standby mode, “H”: power on
3	F-RELAY	O	Relay drive signal output for the speaker protect “H”: relay on
4	R-RELAY	O	Relay drive signal output for the speaker protect “H”: relay on Not used (open)
5	CD-POWER	O	Power on/off control signal output for the CD mechanism deck section “L”: standby mode, “H”: power on
6	LINE-MUTE	O	Line muting on/off control signal output terminal “L”: muting on
7	DBFB-H/L	O	DBFB normal/high selection signal output to the M62493FP (IC101) “L”: DBFB high, “H”: DBFB low
8	BYTE	I	External data bus line byte selection signal input terminal Fixed at “L” in this set
9	CNVSS	—	Ground terminal
10	XC-IN	I	Sub system clock input terminal (32.768 kHz)
11	XC-OUT	O	Sub system clock output terminal (32.768 kHz)
12	<u>RESET</u>	I	System reset signal input from the reset signal generator (IC502) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
13	X-OUT	O	Main system clock output terminal (16 MHz)
14	VSS	—	Ground terminal
15	X-IN	I	Main system clock input terminal (16 MHz)
16	VCC	—	Power supply terminal (+5V)
17	NMI	I	Non-maskable interrupt input terminal Fixed at “H” in this set
18	WAKE UP	I	Wakeup control signal input from the fluorescent indicator tube driver (IC601) “H” active
19	SCOR	I	Subcode sync (S0+S1) detection signal input from the CXD2587Q (IC101) on the CD block
20	RDS-INT	I	RDS serial data transfer clock signal input from the FM/AM tuner unit (Used for the AEP, UK, German and North European models only)
21	RDS-DATA	I	RDS serial data input from the FM/AM tuner unit (Used for the AEP, UK, German and North European models only)
22	<u>AC-CUT</u>	I	AC off detection signal input from the reset signal generator (IC502) “L”: AC cut checked
23	PL-CLK	O	Serial data transfer clock signal output to the pro-logic circuit Not used (open)
24	PL-DATA	O	Serial data output to the pro-logic circuit Not used (open)
25	PL-LAT	O	Serial data latch pulse output to the pro-logic circuit Not used (open)
26	TIMER LED	O	LED drive signal output of the TIMER SELECT indicator (D636) “H”: LED on
27	PROTECTOR	I	Protect on/off detection signal input from the speaker protect circuit “L”: protect on, “H”: protect off
28	V MUTE	O	Muting on/off control signal output terminal “L”: muting off Not used (open)
29	IIC-CLK	I/O	Communication data reading clock signal input or transfer clock signal output with the fluorescent indicator tube driver (IC601)
30	IIC-DATA	I/O	Communication data bus with the fluorescent indicator tube driver (IC601)
31	NCO	O	Not used (open)
32	SQ-DATA	I	Subcode Q data input from the CXD2587Q (IC101) on the CD block
33	SQ-CLK	O	Subcode Q data reading clock signal output to the CXD2587Q (IC101) on the CD block
34	SW MODE	O	Not used (open)
35	CD-DATA	O	Serial data output to the CXD2587Q (IC101) on the CD block
36	RY-SW	I	Connection detect signal input of the headphone jack (J701) “L”: no connected, “H”: headphone connected
37	CD-CLK	O	Serial data transfer clock signal output to the CXD2587Q (IC101) on the CD block
38	493-LATCH	O	Serial data latch pulse output to the M62493FP (IC101)

Pin No.	Pin Name	I/O	Description
39	STBY LED	O	LED drive signal output of the I/Ⓞ indicator (D804) “H”: LED on (standby mode)
40	VC L+R/L-R	O	Virtual cinema L+R/L-R selection signal output terminal Not used (open)
41	VC BYPASS	O	Virtual cinema bypass control signal output terminal Not used (open)
42	FL SW	O	Filament on/off selection signal output for the fluorescent indicator tube (FL601) “L”: on, “H”: off Used for the HCD-RXD9 model only
43	STBY RELAY	O	Main power on/off control signal output terminal “L”: standby mode, “H”: power on Used for the HCD-RXD9 model only
44	BASS FREQ.	O	Sync bass frequency normal/high selection signal output to the M62493FP (IC101) “L”: sync bass off (normal), “H”: sync bass high
45	FUNC SEL1	O	Not used (open)
46	FUNC SEL0	O	Not used (open)
47	493-DATA	O	Serial data output to the M62493FP (IC101)
48	493-CLK	O	Serial data transfer clock signal output to the M62493FP (IC101)
49	ST-MUTE	O	Tuner muting control signal output to the FM/AM tuner unit “H”: muting on
50	STEREO	I	FM stereo detection signal input from the FM/AM tuner unit “L”: stereo
51	TUNED	I	Tuning detection signal input from the FM/AM tuner unit “L”: tuned
52	ST-CE	O	PLL chip enable signal output to the FM/AM tuner unit
53	ST-DOUT	O	PLL serial data output to the FM/AM tuner unit
54	ST-DIN	I	PLL serial data input from the FM/AM tuner unit
55	ST-CLK	O	PLL serial data transfer clock signal output to the FM/AM tuner unit
56	SENSE	I	Internal status detection monitor input from the CXD2587Q (IC101) on the CD block
57	HOLD	O	Laser power control signal output to the CXA2568M (IC103) on the CD block
58	$\overline{\text{XLT}}$	O	Serial data latch pulse output to the CXD2587Q (IC101) on the CD block
59	$\overline{\text{XRST}}$	O	Reset signal output to the CXD2587Q (IC101) and BA5974FP (IC102) on the CD block “L”: reset
60	DISC-SENS	I	Disc status detection signal input from the disc sensor (IC703)
61	TBL-SENS	I	Disc tray status detection signal input from the disc tray sensor (IC702)
62	VCC	—	Power supply terminal (+5V)
63	TBL-L	O	Motor drive signal output to the disc tray turn motor driver (IC701) “L” active *1
64	VSS	—	Ground terminal
65	TBL-R	O	Motor drive signal output to the disc tray turn motor driver (IC701) “L” active *1
66	LOAD-OUT	O	Motor drive signal output to the disc tray slide motor driver (IC801) “H” active *2
67	LOAD-IN	O	Motor drive signal output to the disc tray slide motor driver (IC801) “H” active *2
68 to 70	ENC3 to ENC1	I	Detection signal input from the disc tray address detect rotary encoder (S811)
71	OUT-OPEN	I	Detection signal input from the disc tray open/close detect switch (S801) “L”: open, “H”: close
72	B-TRG	O	Deck-B side trigger plunger drive signal output terminal “H”: plunger on
73	A-TRG	O	Deck-A side trigger plunger drive signal output terminal “H”: plunger on

*1 Disc tray turn motor (M701) control

Terminal \ Mode	Stop	Counter-clockwise	Clockwise	Brake
TBL-L (pin ⑥③)	“H”	“L”	“H”	“L”
TBL-R (pin ⑥⑤)	“H”	“H”	“L”	“L”

*2 Disc tray slide motor (M801) control

Terminal \ Mode	Stop	Table In	Table Out	Brake
LOAD-OUT (pin ⑥⑥)	“L”	“L”	“H”	“H”
LOAD-IN (pin ⑥⑦)	“L”	“H”	“L”	“H”

Pin No.	Pin Name	I/O	Description
74	CAPM-CNT2	O	Capstan motor (M1) drive signal output terminal “H” active *3
75	CAPM-CNT1	O	Capstan motor (M1) drive signal output terminal “H” active *3
76	CAP-M-H/L	O	High/normal speed selection signal output of the capstan motor (M1) “L”: normal speed, “H”: high speed
77	AMS-IN	I	Whether a music is present or not from HA12215F (IC301) is detected at automatic music sensor “L”: music is present, “H”: music is not present
78	TC-MUTE	O	Line muting on/off selection signal output to the HA12215F (IC301) “L”: muting off, “H”: muting on
79	R/P-PASS	O	Recording/playback/pass selection signal output to the HA12215F (IC301) “L”: recording mode, “H”: pass, “Hi-z”: playback mode
80	NR-ON/OFF	O	Dolby NR on/off selection signal output to the HA12215F (IC301) “L”: dolby off, “H”: dolby on
81	REC-MUTE	O	Recording muting on/off selection signal output to the HA12215F (IC301) “L”: muting on, “H”: muting off
82	BIAS	O	Recording bias on/off selection signal output to the HA12215F (IC301) “L”: bias off, “H”: bias on
83	EQ-H/N	O	Normal/high speed selection signal output to the HA12215F (IC301) “L”: normal speed, “H”: high speed
84	PB-A/B	O	Deck-A/B selection signal output to the HA12215F (IC301) “L”: deck-A, “H”: deck-B
85	ALC-ON/OFF	O	Automatic limiter control signal output to the HA12215F (IC301) “L”: limiter on
86	B-PLAY-SW	I	Detection input from the deck- B play detect switch (S1002) “H”: deck-B play
87	A-PLAY-SW	I	Detection input from the deck- A play detect switch (S1001) “H”: deck-A play
88	A-HALF	I	Detection input from the deck-A cassette detect switch (S1003) “L”: cassette in, “H”: no cassette
89	B-HALF	I	Detection input from the deck-B half detect switch (S1006)
90	B-SHUT	I	Shut off detection signal input from the deck-B side reel pulse detector (IC1002)
91	A-SHUT	I	Shut off detection signal input from the deck-A side reel pulse detector (IC1001)
92	SOFT-TEST	O	Output terminal for the software test (open)
93	HEADPHONE MUTE	O	Muting on/off control signal output terminal “L”: muting on Not used (open)
94	KEY/CD ADJ	I	Setting terminal for the CD adjustment mode Not used (open)
95	MODEL-IN	I	Destination setting terminal
96	AVSS	—	Ground terminal (for A/D conversion)
97	SPEC-IN	I	Setting terminal for the version
98	AVREF	I	Reference voltage (+5V) input terminal (for A/D conversion)
99	AVCC	—	Power supply terminal (+5V) (for A/D conversion)
100	TC-RELAY	O	Recording/playback select signal output to the REC/PB switch (IC602) “L”: playback, “H”: recording

*3 Capstan motor (M1) control

Mode Terminal	Stop	Forward Direction	Reverse Direction	Brake
CAPM-CNT1 (pin 75)	“L”	“L”	“H”	“H”
CAPM-CNT2 (pin 74)	“L”	“H”	“L”	“H”

• **PANEL BOARD IC601 TMP88CS76F-6004 (FLUORESCENT INDICATOR TUBE DRIVER, KEY CONTROL)**

Pin No.	Pin Name	I/O	Description
1	SIRCS	I	Remote control signal input from the remote control receiver (IC602)
2	JOG-A	I	Jog dial pulse input from the rotary encoder (S601 JOG) (A phase input)
3	LED SCK	O	Serial data transfer clock signal output to the LED driver (IC604)
4	LED LAT	O	Serial data latch pulse signal output to the LED driver (IC604)
5	LED DATA	O	Serial data output to the LED driver (IC604)
6	PAD LAT	O	Not used (open)
7	L SEL	O	LED selection signal output terminal
8	JOG-B	I	Jog dial pulse input from the rotary encoder (S601 JOG) (B phase input)
9	VOL-A	I	Jog dial pulse input from the rotary encoder (S602 VOLUME) (A phase input)
10	VOL-B	I	Jog dial pulse input from the rotary encoder (S602 VOLUME) (B phase input)
11	KEY0	I	Key input terminal (A/D input) (S625 to S630) REC PAUSE/START, HI-DUB, CD SYNC, LOOP, DISPLAY, SPECTRUM ANALYZER keys input
12	KEY1	I	Key input terminal (A/D input) (S611 to S624) SYNC BASS, SYNC EQ, KARAOKE PON/MPX, NON-STOP, SURROUND, DBFB, ENTER/NEXT, + ►►, – ◄◄, GROOVE, FLASH, REPEAT STEREO/MONO, PLAY MODE DOLBY NR, EDIT DIRECTION TUNER MEMORY keys input
13	KEY2	I	Key input terminal (A/D input) (S637 to S641 and S801 to S807) TIMER SELECT, P FILE MEMORY, GEQ CONTROL, FILE SELECT, EFFECT, I/⏻, (STANDBY) POWER SAVE DEMO, DISC 1/2/3, DISC SKIP EX-CHANGE, ⏮ keys input
14	KEY3	I	Key input terminal (A/D input) (S642 to S650) TUNER/BAND, ► CD, ■, ► TAPE B, ◄ TAPE B, ► TAPE A, ◄ TAPE A, FUNCTION, CLOCK/TIMER SET keys input
15	GRADATION L	O	LED drive signal output for the left side illumination display (D608) “H”: LED on
16	S LOW FREQ (BPF0)	I	Spectrum analyzer drive (super low frequency) signal input from the spectrum analyzer band-pass filter (IC603) (for 40 Hz)
17	BPF1	I	Spectrum analyzer drive (low frequency) signal input from the spectrum analyzer band-pass filter (IC603) (for 100 Hz)
18	BPF2	I	Spectrum analyzer drive (low and middle frequency) signal input from the spectrum analyzer band-pass filter (IC603) (for 400 Hz)
19	BPF3	I	Spectrum analyzer drive (middle and high frequency) signal input from the spectrum analyzer band-pass filter (IC603) (for 2 kHz)
20	BPF4	I	Spectrum analyzer drive (high frequency) signal input from the spectrum analyzer band-pass filter (IC603) (for 6 kHz)
21	ALL BAND (L+R)	I	Spectrum analyzer drive signal input from the spectrum analyzer band-pass filter (IC603) (for VACS, non-stop signal)
22	GRADATION R/ WAKE UP	O	LED drive signal output for the right side illumination display (D609) “H”: LED on Wakeup control signal output to the system controller (IC501) “H” active
23	VSS	—	Ground terminal
24	VASS	—	Ground terminal (for A/D conversion)
25	VAREF	I	Reference voltage (+5V) input terminal (for A/D conversion)
26	VDD	—	Power supply terminal (+5V)
27 to 32	G18 to G13	O	Grid drive signal output to the fluorescent indicator tube (FL601)
33 to 40	G12 to G5	O	Grid drive signal output to the fluorescent indicator tube (FL601)
41	VDD	—	Power supply terminal (+5V)
42 to 44	G4 to G2	O	Grid drive signal output to the fluorescent indicator tube (FL601)
45	G1	O	Grid drive signal output to the fluorescent indicator tube (FL601)
46 to 67	S1 to S22	O	Segment drive signal output to the fluorescent indicator tube (FL601)

Pin No.	Pin Name	I/O	Description
68	VKK	—	Power supply terminal (–30V) (for fluorescent indicator tube drive)
69	VDD	—	Power supply terminal (+5V)
70	XIN	I	System clock input terminal (12.5 MHz)
71	VSS	—	Ground terminal
72	XOUT	O	System clock output terminal (12.5 MHz)
73	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC502) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
74	CH	O	Not used (open)
75	BUSY	I	Not used (open)
76	TEST	I	Connected to ground
77	—	—	Not used (fixed at “L”)
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	—	—	Not used (fixed at “L”)

SECTION 8 EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.

Color Indication of Appearance Parts

Example:

KNOB, BALANCE (WHITE) . . . (RED)

↑ ↑
 Parts Color Cabinet's Color

Abbreviation

AED : North European model

G : German model

AR : Argentine model

MX : Mexican model

E2 : 120 V AC Area in E model

MY : Malaysia model

E3 : 240 V AC Area in E model

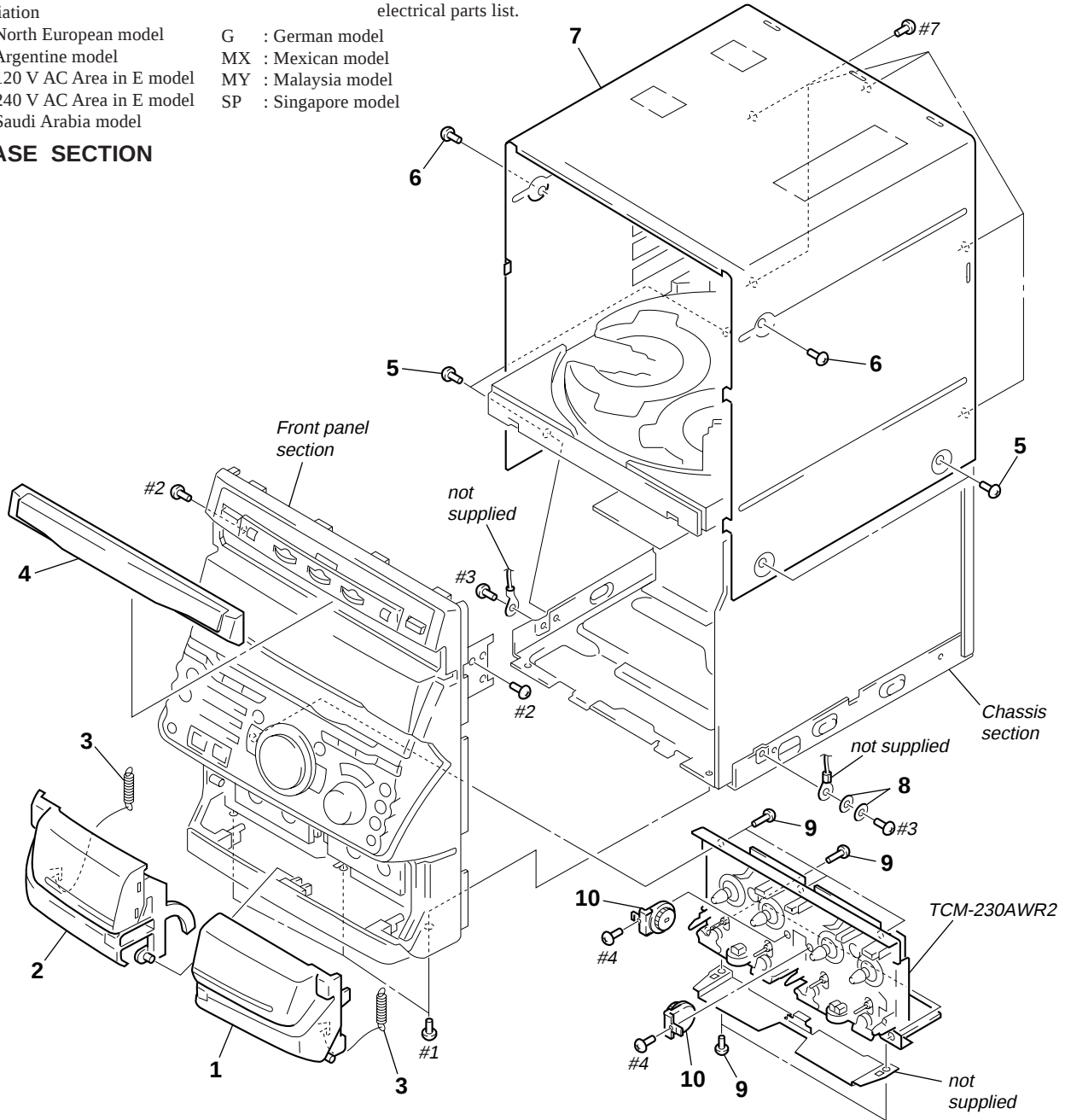
SP : Singapore model

EA : Saudi Arabia model

- 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 the electrical parts list.

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

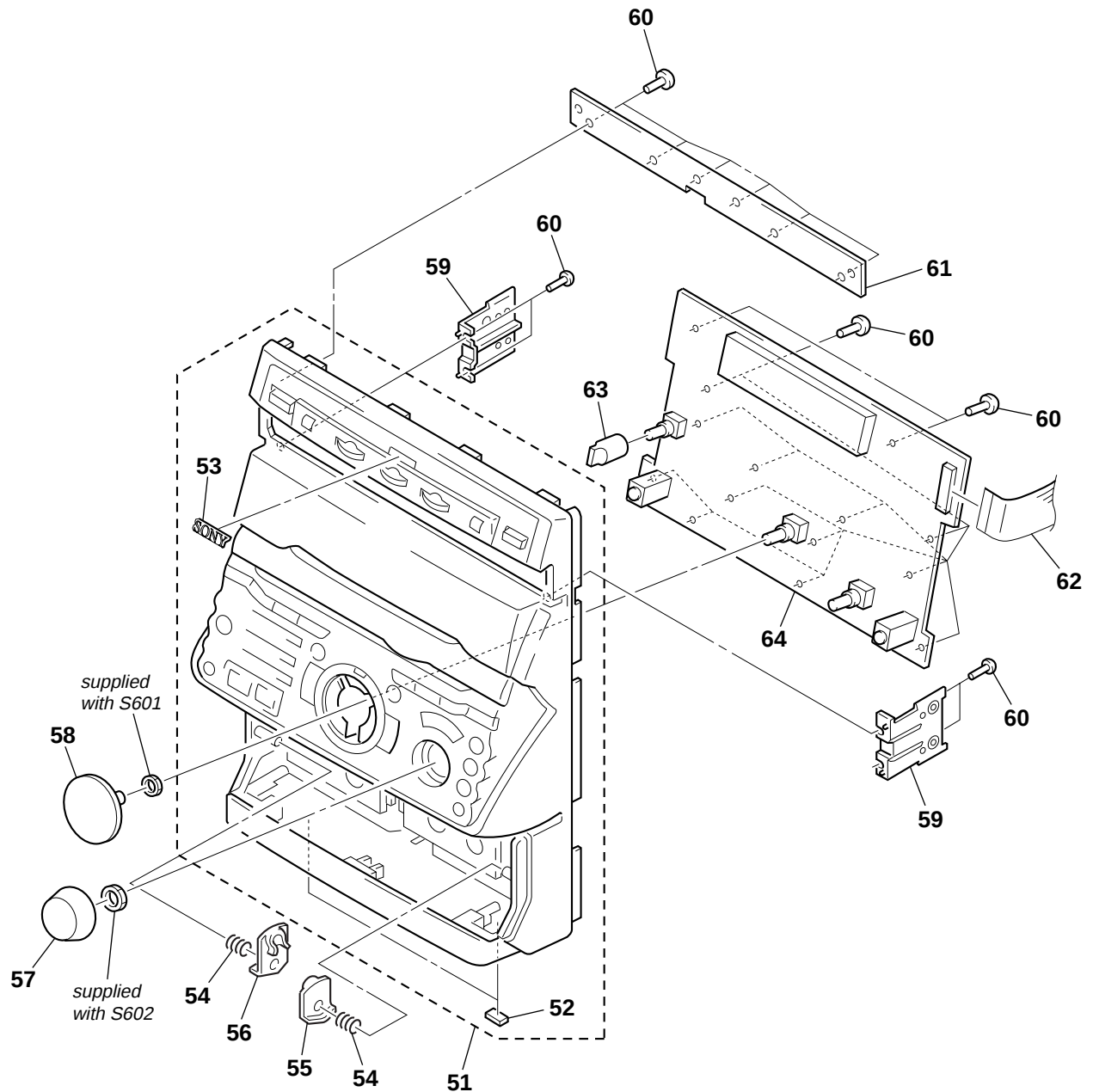
(1) CASE SECTION



Ref. No.	Part No.	Description	Remark
1	X-4950-698-1	HOLDER (R) ASSY, CASSETTE (SILVER)	
1	X-4951-059-1	HOLDER (R) ASSY, CASSETTE (GRAY)	
2	X-4950-697-1	HOLDER (L) ASSY, CASSETTE (SILVER)	
2	X-4951-058-1	HOLDER (L) ASSY, CASSETTE (GRAY)	
3	4-219-087-01	SPRING, TENSION	
4	X-4950-712-1	PANEL ASSY, LOADING (SILVER)	(GRX9900: E2, MY, SP, MX, AR)
4	X-4950-713-1	PANEL ASSY, LOADING (SILVER) (RXD9)	
4	X-4951-011-1	PANEL ASSY, LOADING (GRAY)	
5	3-363-099-01	SCREW (CASE 3 TP2) (3X8) (GRAY)	

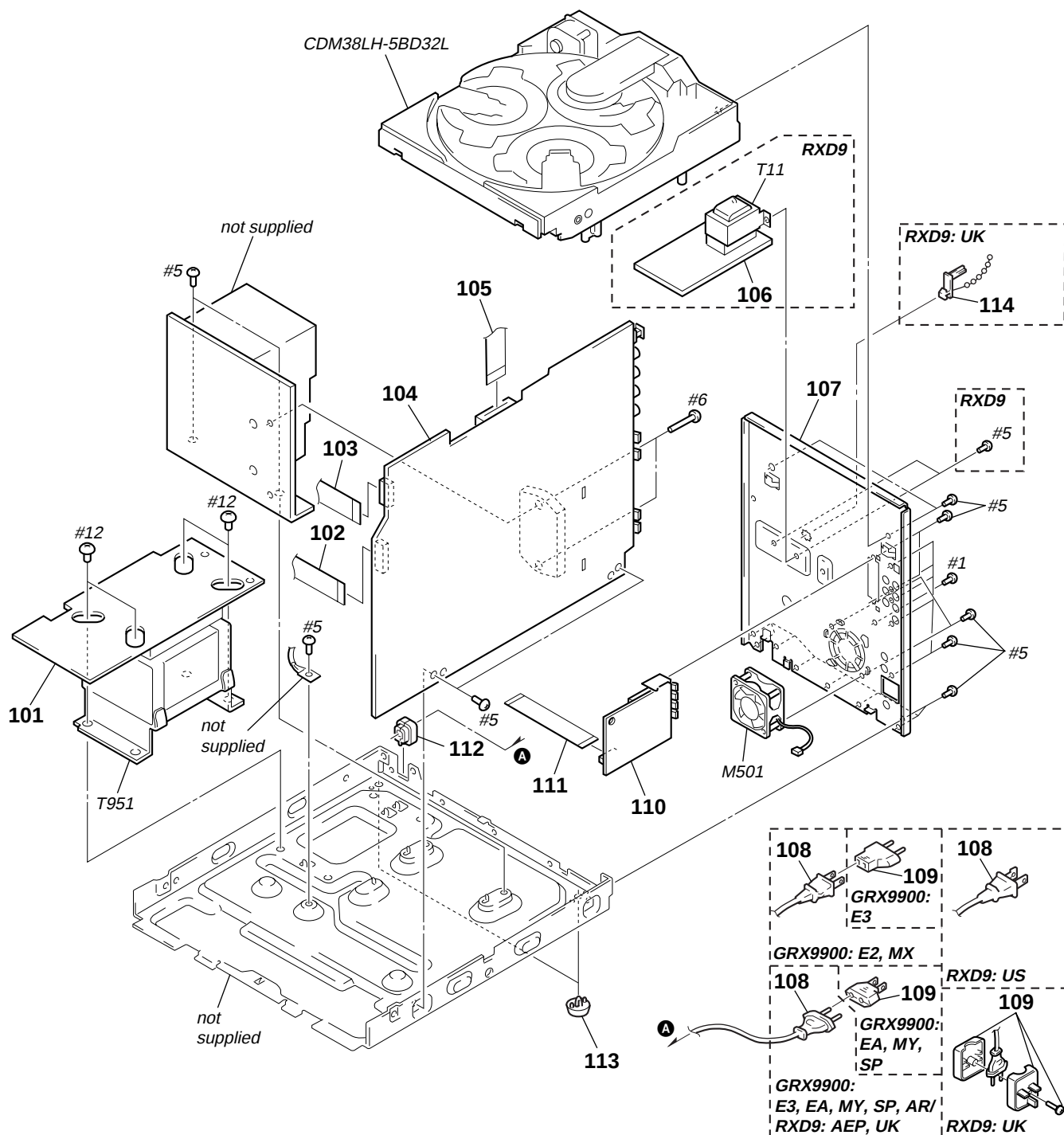
Ref. No.	Part No.	Description	Remark
5	3-363-099-11	SCREW (CASE 3 TP2) (3X8) (SILVER)	
6	3-363-099-41	SCREW (CASE 3 TP2) (3X12) (GRAY)	
6	3-363-099-71	SCREW (CASE 3 TP2) (3X12) (SILVER)	
7	4-214-452-21	CASE (SILVER)	(EXCEPT GRX9900: E3, EA/RXD: US)
7	4-215-753-71	CASE (SILVER) (RXD9: US)	
7	4-215-753-21	CASE (GRAY)	
8	4-949-302-91	WASHER	
9	4-951-620-01	SCREW (2.6X8), +BVTP	
10	4-215-062-01	DAMPER	

(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	X-4951-132-1	PANEL ASSY, FRONT (GRAY)		58	4-214-383-11	KNOB (JOG) (SILVER)	
51	X-4951-133-1	PANEL ASSY, FRONT (SILVER)		58	4-214-383-41	KNOB (JOG) (GRAY)	
		(GRX9900: E2, MY, SP, MX, AR)		59	4-996-716-01	HOLDER (CDM)	
51	X-4951-134-1	PANEL ASSY, FRONT (SILVER)		60	4-951-620-01	SCREW (2.6X8), +BVTP	
		(RXD9: AEP, UK)		61	A-4417-663-A	CD SW BOARD, COMPLETE	
51	X-4951-187-1	PANEL ASSY, FRONT (SILVER) (RXD9: US)		62	1-773-188-11	WIRE (FLAT TYPE) (23 CORE)	
52	4-988-663-01	FOOT (FELT)		63	4-214-385-11	KNOB (MIC) (SILVER)	
				63	4-214-385-41	KNOB (MIC) (GRAY)	
53	4-962-708-81	EMBLEM (4-A), SONY		64	A-4417-608-A	PANEL BOARD, COMPLETE (RXD9: AEP, UK)	
54	4-214-775-02	SPRING, PUSH CATCHER RETURN		64	A-4417-617-A	PANEL BOARD, COMPLETE (RXD9: US)	
55	4-214-761-11	CATCHER (B), PUSH					
56	4-214-760-11	CATCHER (A), PUSH					
57	4-214-384-11	KNOB (VOL) (SILVER)		64	A-4417-630-A	PANEL BOARD, COMPLETE	
						(EXCEPT GRX9900: EA/RXD9)	
57	4-214-384-41	KNOB (VOL) (GRAY)		64	A-4426-646-A	PANEL BOARD, COMPLETE (GRX9900: EA)	

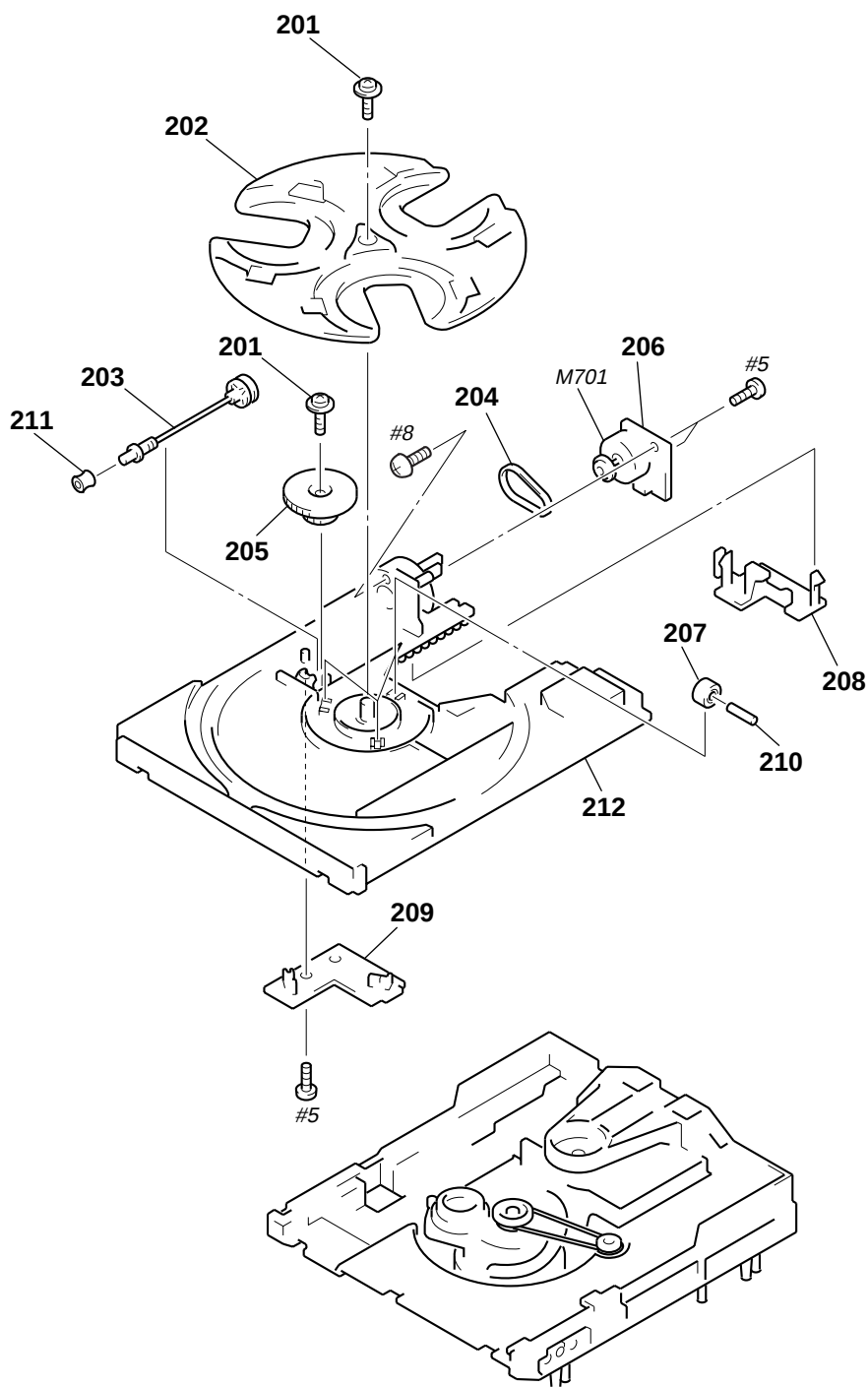
(3) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 101	1-672-474-11	TRANS BOARD		△ 109	1-569-007-11	ADAPTOR, CONVERSION 2P (GRX9900: E3)	
102	1-773-042-11	WIRE (FLAT TYPE) (17 CORE)		△ 109	1-569-008-21	ADAPTOR, CONVERSION 2P (GRX9900: EA, MY, SP)	
103	1-773-024-11	WIRE (FLAT TYPE) (15 CORE)		△ 109	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (RXD9: UK)	
104	A-4417-604-A	MAIN BOARD, COMPLETE (RXD9: AEP, UK, G, AED)		110	1-233-545-11	TUNER PACK (FM/AM) (GRX9900: MY, SP, MX, AR)	
104	A-4417-611-A	MAIN BOARD, COMPLETE (RXD9: CIS)		110	1-233-546-11	TUNER PACK (FM/MW/SW) (GRX9900: E3, EA)	
104	A-4417-613-A	MAIN BOARD, COMPLETE (RXD9: US)		110	1-693-443-11	TUNER PACK (FM/AM) (RXD9: AEP, UK, G, AED)	
104	A-4417-622-A	MAIN BOARD, COMPLETE (GRX9900: EA)		110	1-693-444-11	TUNER PACK (FM/MW/LW) (RXD9: CIS)	
104	A-4417-624-A	MAIN BOARD, COMPLETE (GRX9900: E3, MY, SP)		110	1-693-445-11	TUNER PACK (FM/AM) (RXD9: US)	
104	A-4417-626-A	MAIN BOARD, COMPLETE (GRX9900: E2, MX, AR)		110	1-693-453-11	TUNER PACK (FM/AM) (GRX9900: E2)	
105	1-773-122-11	WIRE (FLAT TYPE) (19 CORE)		111	1-769-977-11	WIRE (FLAT TYPE) (13 CORE) (GRX9900: E2, MX, AR/RXD9: US)	
106	A-4417-584-A	SUB TRANS BOARD, COMPLETE (RXD9: AEP, UK)		111	1-773-009-11	WIRE (FLAT TYPE) (15 CORE) (GRX9900: E3, EA, MY, SP/RXD9: AEP, UK)	
106	A-4417-620-A	SUB TRANS BOARD, COMPLETE (RXD9: US)		112	3-703-244-00	BUSHING (FBS001), CORD (GRX9900: EA, SP, MY, AR/RXD9)	
107	4-214-457-01	PANEL, BACK (GRX9900: E2, AR)		112	4-966-266-01	BUSHING (S) (FBS002), CORD (GRX9900: E2, E3, MX)	
107	4-214-457-11	PANEL, BACK (GRX9900: EA)		113	4-965-822-01	FOOT	
107	4-214-457-21	PANEL, BACK (GRX9900: MY, SP)		114	4-956-370-12	BAND, PLUG FIXED (RXD9: UK)	
107	4-214-457-31	PANEL, BACK (GRX9900: MX)		M501	1-763-072-11	FAN, D.C.	
107	4-214-457-51	PANEL, BACK (RXD9: AEP, UK, G, AED)		△ T11	1-433-590-11	TRANSFORMER, POWER (RXD9: US)	
107	4-214-457-61	PANEL, BACK (RXD9: CIS)		△ T11	1-433-591-11	TRANSFORMER, POWER (RXD9: AEP, UK)	
107	4-214-457-71	PANEL, BACK (RXD9: US)		△ T951	1-433-584-11	TRANSFORMER, POWER (GRX9900)	
107	4-214-457-81	PANEL, BACK (GRX9900: E3)		△ T951	1-433-585-11	TRANSFORMER, POWER (RXD9: US)	
△ 108	1-575-651-11	CORD, POWER (GRX9900: E3, EA, MY, SP/ RXD9: AEP, UK)		△ T951	1-433-586-11	TRANSFORMER, POWER (RXD9: AEP, UK)	
△ 108	1-575-653-11	CORD, POWER (GRX9900: E2, MX)					
△ 108	1-783-531-11	CORD, POWER (RXD9: US)					
△ 108	1-783-941-21	CORD, POWER (GRX9900: AR)					

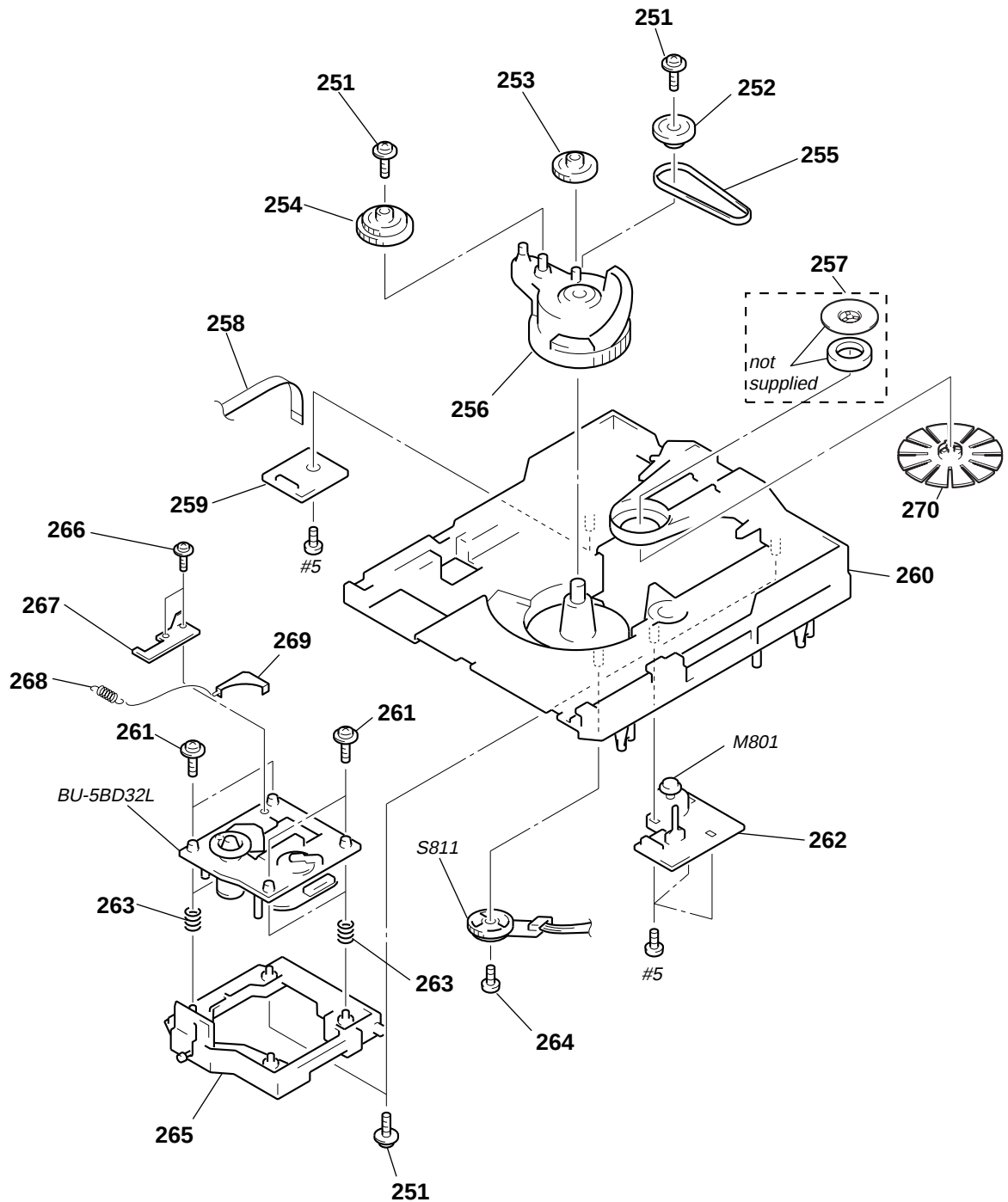
The components identified by mark △ or dotted line with mark △ are critical for safety.
Replace only with part number specified.

(4) CD MECHANISM DECK SECITON-1
(CDM38LH-5BD32L)



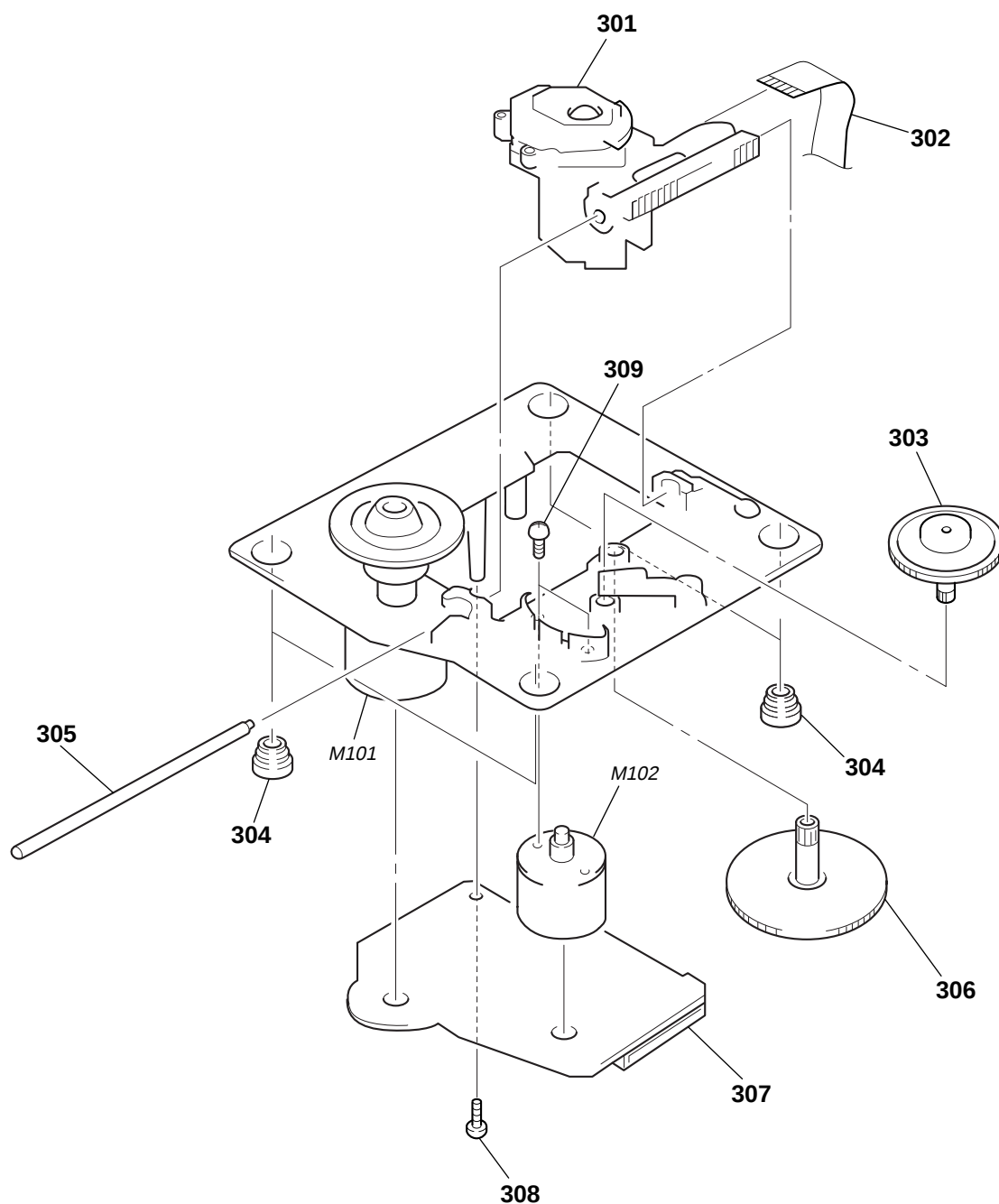
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
201	4-981-789-21	BRACKET (2), YOKE		208	4-977-941-01	BEARING (WORM)	
202	4-977-945-63	TRAY (TURN)		* 209	1-658-576-11	SENSOR BOARD	
203	X-4946-665-1	SHAFT ASSY, WORM		210	4-934-376-01	SHAFT (ROLLER)	
204	4-977-943-01	BELT (TURN) (1.2)		211	4-981-187-01	COLLAR (WORM)	
205	4-977-956-01	WHEEL, WORM		212	4-977-944-01	TRAY (SLIDE)	
* 206	1-658-577-11	MOTOR (TURN) BOARD		M701	A-4672-004-A	MOTOR ASSY (DISC TRAY TURN)	
207	4-988-162-01	ROLLER					

(5) CD MECHANISM DECK SECITON-2
(CDM38LH-5BD32L)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
251	4-981-789-11	BRACKET (2), YOKE		* 262	1-658-578-11	MOTOR (SLIDE) BOARD	
252	4-977-954-01	PULLEY (SL)		263	4-982-447-01	SPRING (BU), COMPRESSION	
253	4-977-953-01	GEAR (SL-A)		264	4-951-620-41	SCREW (2.6), +BVTP	
254	4-977-955-01	GEAR (SL-B)		265	X-4949-570-1	HOLDER (BU) ASSY	
255	4-977-942-01	BELT (SL) (1.4)		266	4-989-494-01	SCREW (SLIDER), STEP	
256	X-4946-667-1	CAM ASSY, BU		267	4-989-492-11	SLIDER (38)	
* 257	1-452-925-21	MAGNET ASSY		268	4-989-819-02	SPRING, TENSION	
258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)		269	4-989-491-11	COVER (2), LENS	
* 259	1-658-575-11	CONNECTOR BOARD		270	4-993-142-21	PULLEY (L), PRESS	
* 260	X-4946-668-1	CHASSIS (CDM) ASSY		M801	A-4672-004-A	MOTOR ASSY (DISC TRAY SLIDE)	
261	4-985-672-01	SCREW (+PTPWHM2.6), FLOATING		S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	

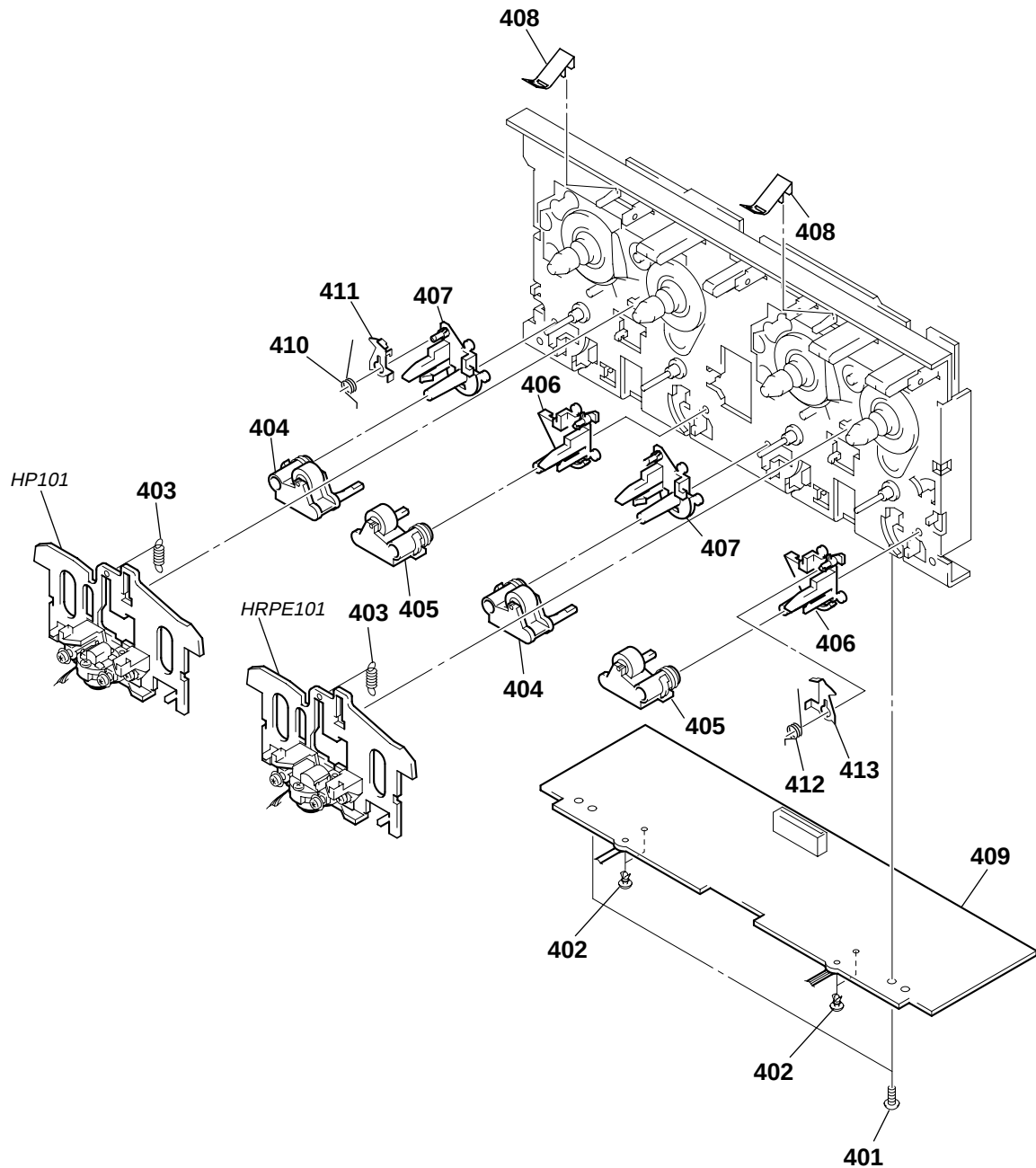
(6) BASE UNIT SECTION
(BU-5BD32L)



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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
$\triangle$ 301	8-820-020-02	OPTICAL PICK-UP KSS-213D/Q-NP		* 307	A-4724-486-A	BD BOARD, COMPLETE	
302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)		308	4-951-620-01	SCREW (2.6X8), +BVTP	
303	4-917-567-01	GEAR (M)		309	3-713-786-51	SCREW +P 2X3	
304	4-951-940-01	INSULATOR (BU)		M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
305	4-917-565-01	SHAFT, SLED		M102	X-4917-504-1	MOTOR ASSY (SLED)	
306	4-917-564-01	GEAR (P), FLATNESS					

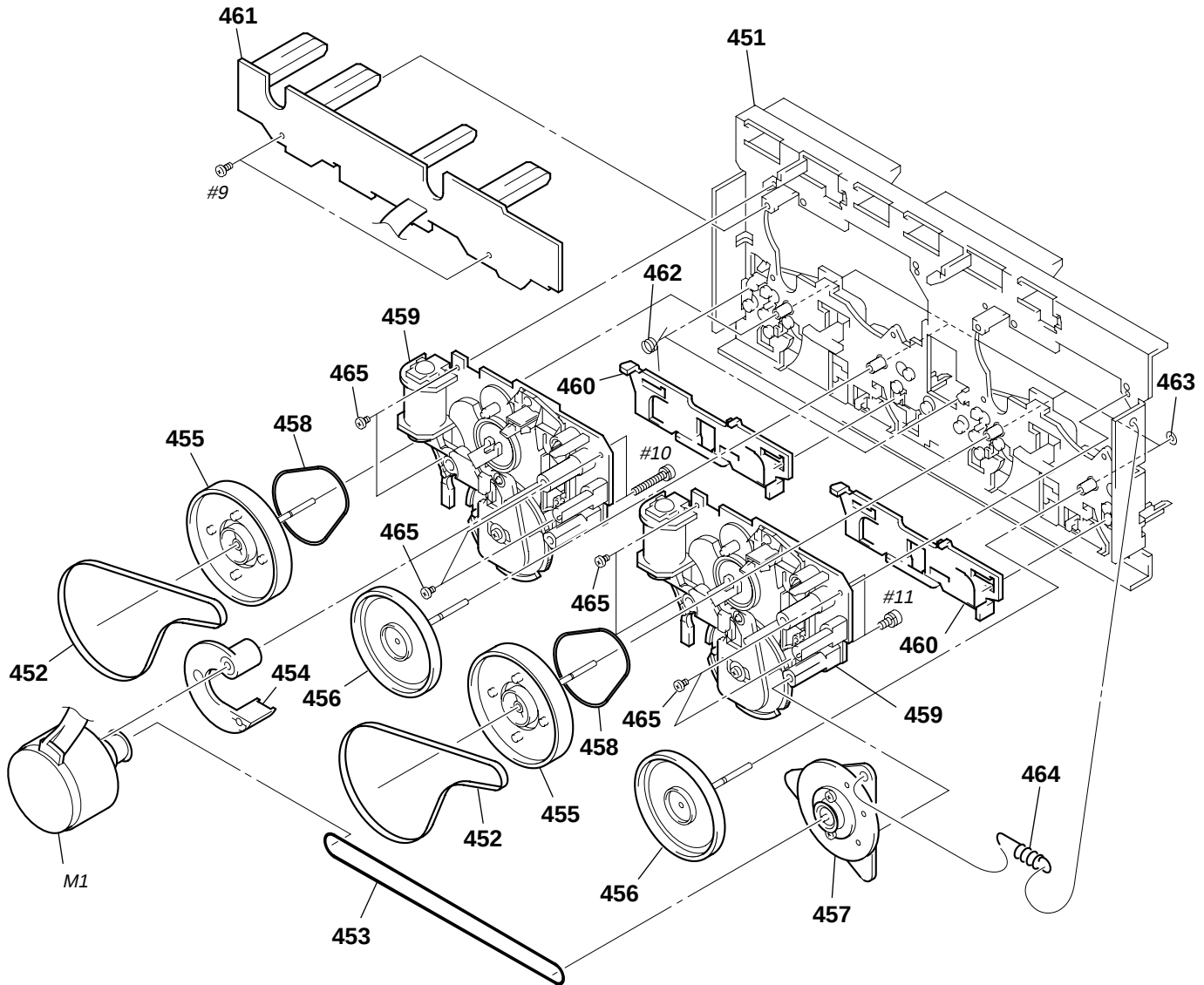
(7) TAPE MECHANISM DECK SECTION-1
(TCM-230AWR2)



Ref. No.	Part No.	Description	Remark
401	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
402	3-036-914-01	RIVET	
403	3-016-574-11	SPRING (HEAD), TENSION	
404	X-3374-156-4	PINCH LEVER (REV) ASSY	
405	X-3374-155-4	PINCH LEVER (FWD) ASSY	
406	3-016-564-01	BASE (PINCH LEVER FWD)	
407	3-016-565-01	BASE (PINCH LEVER REV)	
408	3-026-892-01	SPRING (CASSETTE), LEAF	

Ref. No.	Part No.	Description	Remark
* 409	A-2007-731-A	AUDIO BOARD, COMPLETE	
410	3-032-809-02	SPRING (L), TORSION	
411	3-016-572-01	LEVER (EJECT PREVENTION L)	
412	3-032-810-02	SPRING (R), TORSION	
413	3-016-573-01	LEVER (EJECT PREVENTION R)	
HP101	A-2056-681-A	DECK (A) ASSY, HEAD	
HRPE101A	A-2056-682-A	DECK (B) ASSY, HEAD	

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



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
* 451	X-3374-214-3	CHASSIS ASSY, MAIN		459	A-2004-629-A	MECHANICAL BLOCK ASSY	
452	3-016-570-01	BELT (CAPSTAN)		460	3-016-566-01	SLIDER, REVERSE	
453	3-016-569-01	BELT (TENSION)		* 461	A-2007-732-A	LEAF SW BOARD, COMPLETE	
454	3-017-360-01	BRACKET (MOTOR)		462	3-016-575-11	SPRING, TORSION	
455	X-3376-497-1	FLYWHEEL (FWD) ASSY		463	3-019-208-01	WASHER, STOPPER	
456	X-3374-235-1	FLYWHEEL (REV) ASSY		464	3-027-453-01	SPRING (GROUND), TENSION	
457	X-3374-238-1	PULLEY ASSY, TENSION		465	3-030-823-01	SCREW (+BVTT) (2X3.5)	
458	3-024-405-01	BELT (FR2)		M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	

SECTION 9 ELECTRICAL PARTS LIST

AUDIO

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- Abbreviation
AED : North European model G : German model
AR : Argentine model MY : Malaysia model
E2 : 120 V AC Area in E model MX : Mexican model
E3 : 240 V AC Area in E model SP : Singapore model
EA : Saudi Arabia model

- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u: μ , for example:
uA. . : μ A. . uPA. . : μ PA. .
uPB. . : μ PB. . uPC. . : μ PC. .
uPD. . : μ PD. .
- CAPACITORS
uF: μ F
- COILS
uH: μ H

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2007-731-A	AUDIO BOARD, COMPLETE *****				< CONNECTOR >	
		< CAPACITOR >		CN601	1-568-834-11	SOCKET, CONNECTOR 15P	
						< IC >	
C301	1-162-289-31	CERAMIC	390PF 10% 50V	IC601	8-759-111-44	IC UPC4570C-1	
C302	1-126-968-11	ELECT	100uF 20% 6.3V	IC602	8-759-143-54	IC UPC1330HA	
C303	1-162-282-31	CERAMIC	100PF 10% 50V	IC611	8-759-710-59	IC NJM4580D-D	
C304	1-130-483-00	MYLAR	0.01uF 5% 50V			< COIL >	
C305	1-107-715-11	ELECT	22uF 20% 16V	L331	1-410-780-11	INDUCTOR 27mH	
C311	1-162-289-31	CERAMIC	390PF 10% 50V	L431	1-410-780-11	INDUCTOR 27mH	
C313	1-162-282-31	CERAMIC	100PF 10% 50V	L601	1-414-193-41	INDUCTOR 220uH	
C314	1-130-487-00	MYLAR	0.022uF 5% 50V	L602	1-414-193-41	INDUCTOR 220uH	
C315	1-126-233-11	ELECT	22uF 20% 50V			< TRANSISTOR >	
C331	1-137-427-11	FILM	120PF 5% 50V	Q621	8-729-142-46	TRANSISTOR 2SC2001-LK	
C332	1-162-288-31	CERAMIC	330PF 10% 50V	Q622	8-729-142-46	TRANSISTOR 2SC2001-LK	
C333	1-162-209-31	CERAMIC	27PF 5% 50V	Q623	8-729-801-93	TRANSISTOR 2SD1387	
C401	1-162-289-31	CERAMIC	390PF 10% 50V			< RESISTOR >	
C402	1-126-968-11	ELECT	100uF 20% 6.3V	R301	1-247-881-00	CARBON 120K 5% 1/4W	
C403	1-162-282-31	CERAMIC	100PF 10% 50V	R302	1-249-409-11	CARBON 220 5% 1/4W	
C404	1-130-483-00	MYLAR	0.01uF 5% 50V	R303	1-249-433-11	CARBON 22K 5% 1/4W	
C405	1-107-715-11	ELECT	22uF 20% 16V	R304	1-247-889-00	CARBON 270K 5% 1/4W	
C411	1-162-289-31	CERAMIC	390PF 10% 50V	R305	1-247-858-11	CARBON 13K 5% 1/4W	
C413	1-162-282-31	CERAMIC	100PF 10% 50V	R311	1-247-881-00	CARBON 120K 5% 1/4W	
C414	1-130-487-00	MYLAR	0.022uF 5% 50V	R312	1-247-807-31	CARBON 100 5% 1/4W	
C415	1-126-233-11	ELECT	22uF 20% 50V	R314	1-247-882-11	CARBON 130K 5% 1/4W	
C431	1-137-427-11	FILM	120PF 5% 50V	R315	1-247-850-11	CARBON 6.2K 5% 1/4W	
C432	1-162-288-31	CERAMIC	330PF 10% 50V	R331	1-249-430-11	CARBON 12K 5% 1/4W	
C433	1-162-209-31	CERAMIC	27PF 5% 50V	R401	1-247-881-00	CARBON 120K 5% 1/4W	
C601	1-104-396-11	ELECT	10uF 20% 16V	R402	1-249-409-11	CARBON 220 5% 1/4W	
C602	1-104-396-11	ELECT	10uF 20% 16V	R403	1-249-433-11	CARBON 22K 5% 1/4W	
C611	1-104-396-11	ELECT	10uF 20% 16V	R404	1-247-889-00	CARBON 270K 5% 1/4W	
C612	1-104-396-11	ELECT	10uF 20% 16V	R405	1-247-858-11	CARBON 13K 5% 1/4W	
C621	1-137-150-11	FILM	0.01uF 5% 100V	R411	1-247-881-00	CARBON 120K 5% 1/4W	
C622	1-126-961-11	ELECT	2.2uF 20% 50V	R412	1-247-807-31	CARBON 100 5% 1/4W	
C623	1-136-155-00	FILM	0.015uF 5% 50V	R414	1-247-882-11	CARBON 130K 5% 1/4W	
C624	1-130-481-00	MYLAR	0.0068uF 5% 50V	R415	1-247-850-11	CARBON 6.2K 5% 1/4W	
C625	1-130-481-00	MYLAR	0.0068uF 5% 50V	R431	1-249-430-11	CARBON 12K 5% 1/4W	
C627	1-124-903-11	ELECT	1uF 20% 50V				
C628	1-136-153-00	FILM	0.01uF 5% 50V	R601	1-249-409-11	CARBON 220 5% 1/4W	
C642	1-104-664-11	ELECT	47uF 20% 16V				

Ref. No.	Part No.	Description	Remark		
R602	1-249-409-11	CARBON	220	5%	1/4W
R608	1-249-409-11	CARBON	220	5%	1/4W
R609	1-249-433-11	CARBON	22K	5%	1/4W
R611	1-249-409-11	CARBON	220	5%	1/4W
R612	1-249-409-11	CARBON	220	5%	1/4W
△ R621	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
△ R622	1-212-851-00	FUSIBLE	5.6	5%	1/4W F
R623	1-249-432-11	CARBON	18K	5%	1/4W
R624	1-249-432-11	CARBON	18K	5%	1/4W
R625	1-249-429-11	CARBON	10K	5%	1/4W
< VARIABLE RESISTOR >					
RV301	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV311	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV341	1-241-768-11	RES, ADJ, CARBON 220K			
RV401	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV411	1-238-598-11	RES, ADJ, CARBON 2.2K			
RV441	1-241-768-11	RES, ADJ, CARBON 220K			
< TRANSFORMER >					
T621	1-423-980-11	TRANSFORMER, BIAS OSCILLATION			

*	A-4724-486-A	BD BOARD, COMPLETE			

< CAPACITOR >					
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
C109	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C110	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C112	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C113	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C114	1-163-038-00	CERAMIC CHIP	0.1uF		25V
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
C121	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C122	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C123	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C124	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C125	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C126	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C127	1-128-065-11	ELECT CHIP	68uF	20%	10V
C128	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C129	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C130	1-164-346-11	CERAMIC CHIP	1uF		16V
C131	1-124-779-00	ELECT CHIP	10uF	20%	16V
C133	1-164-346-11	CERAMIC CHIP	1uF		16V
C140	1-164-346-11	CERAMIC CHIP	1uF		16V
C141	1-164-346-11	CERAMIC CHIP	1uF		16V

Ref. No.	Part No.	Description	Remark		
C143	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C151	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C153	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C154	1-110-501-11	CERAMIC CHIP	0.33uF	10%	16V
C156	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C157	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C161	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C162	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C163	1-126-206-11	ELECT CHIP	100uF	20%	6.3V
C165	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C167	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C168	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C171	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C172	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
C181	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C182	1-163-123-00	CERAMIC CHIP	180PF	5%	50V
< CONNECTOR >					
CN101	1-778-874-11	CONNECTOR, FFC (LIF (NON-ZIF)) 19P			
CN102	1-777-937-11	CONNECTOR, FFC/FPC 16P			
< FERRITE BEAD >					
FB101	1-500-445-21	FERRITE	0uH		
FB103	1-500-445-21	FERRITE	0uH		
< IC >					
IC101	8-752-386-85	IC CXD2587Q			
IC102	8-759-549-28	IC BA5974FP-E2			
IC103	8-752-085-51	IC CXA2568M-T6			
< TRANSISTOR >					
Q101	8-729-010-08	TRANSISTOR MSB710-R			
< RESISTOR >					
R101	1-216-077-00	METAL CHIP	15K	5%	1/10W
R102	1-216-097-00	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	1-216-049-11	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	1-216-121-00	RES, CHIP	1M	5%	1/10W
R110	1-216-025-00	RES, CHIP	100	5%	1/10W
R111	1-216-121-00	RES, CHIP	1M	5%	1/10W
R113	1-216-121-00	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	1-216-049-11	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	1-216-097-00	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

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

BD

CD SW

CONNECTOR

LEAF SW

Ref. No.	Part No.	Description			Remark
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 RESISTOR >					
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)			

A-4417-663-A		CD SW BOARD, COMPLETE			

< DIODE >					
D801	8-719-056-13	LED SML79423C-TP15 (DISC 1)			
D802	8-719-056-13	LED SML79423C-TP15 (DISC 2)			
D803	8-719-056-13	LED SML79423C-TP15 (DISC 3)			
D804	8-719-063-93	LED SLR325VC-N-T32 (I/㇏)			
< RESISTOR >					
R801	1-216-049-11	RES, CHIP	1K	5%	1/10W
R802	1-216-051-00	METAL CHIP	1.2K	5%	1/10W
R803	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R804	1-216-059-00	METAL CHIP	2.7K	5%	1/10W
R805	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R806	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R807	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R808	1-216-022-00	METAL CHIP	75	5%	1/10W
R809	1-216-029-00	METAL CHIP	150	5%	1/10W
R810	1-216-022-00	METAL CHIP	75	5%	1/10W
R811	1-216-029-00	METAL CHIP	150	5%	1/10W
R812	1-216-022-00	METAL CHIP	75	5%	1/10W
R813	1-216-029-00	METAL CHIP	150	5%	1/10W
R814	1-216-043-91	RES, CHIP	560	5%	1/10W
< SWITCH >					
S801	1-762-875-21	SWITCH, KEYBOARD (I/㇏)			
S802	1-762-875-21	SWITCH, KEYBOARD			
((STANDBY) POWER SAVE DEMO)					
S803	1-762-875-21	SWITCH, KEYBOARD (DISC 1)			
S804	1-762-875-21	SWITCH, KEYBOARD (DISC 2)			
S805	1-762-875-21	SWITCH, KEYBOARD (DISC 3)			
S806	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP EX-CHANGE)			

Ref. No.	Part No.	Description	Remark			
S807	1-762-875-21	SWITCH, KEYBOARD (㇏)				

*	1-658-575-11	CONNECTOR BOARD				

< CONNECTOR >						
* CN701	1-568-946-11	PIN, CONNECTOR 8P				
CN702	1-785-550-11	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	

*	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				
< CONNECTOR >						
* DM1001	1-784-581-11	HOLDER, CABLE (2.5MM PITCH) 4P				
< PHOTO INTERRUPTER >						
IC1001	8-749-014-38	PHOTO INTERRUPTER SG-264				
IC1002	8-749-014-38	PHOTO INTERRUPTER SG-264				
< TRANSISTOR >						
Q1001	8-729-029-56	TRANSISTOR DTA144ESA				
< RESISTOR >						
R907	1-247-879-11	CARBON	100K	5%	1/4W	
R1001	1-249-409-11	CARBON	220	5%	1/4W	
R1002	1-249-409-11	CARBON	220	5%	1/4W	
R1003	1-249-414-11	CARBON	560	5%	1/4W	
R1004	1-247-834-11	CARBON	1.3K	5%	1/4W	
R1005	1-247-818-11	CARBON	300	5%	1/4W	
R1006	1-247-864-11	CARBON	24K	5%	1/4W	
R1007	1-247-856-00	CARBON	11K	5%	1/4W	
R1008	1-249-417-11	CARBON	1K	5%	1/4W	
< VARIABLE RESISTOR >						
RV1001	1-241-785-11	RES, ADJ, CARBON 10K				
RV1002	1-241-785-11	RES, ADJ, CARBON 10K				

Ref. No.	Part No.	Description	Remark
< SWITCH >			
S1001	1-570-953-11	SWITCH, PUSH (1 KEY) (DECK A PLAY)	
S1002	1-570-953-11	SWITCH, PUSH (1 KEY) (DECK B PLAY)	
S1003	1-771-333-11	SWITCH, LEAF (DECK A HALF)	
S1004	1-771-205-11	SWITCH, LEAF (DECK A 120/70)	
S1005	1-771-205-11	SWITCH, LEAF (DECK A REC)	

S1006	1-771-333-11	SWITCH, LEAF (DECK B HALF)	
S1008	1-771-205-11	SWITCH, LEAF (DECK B 120/70)	
S1009	1-771-205-11	SWITCH, LEAF (DECK B REC)	

A-4417-604-A	MAIN BOARD, COMPLETE		(RXD9: AEP, UK, G, AED)
A-4417-611-A	MAIN BOARD, COMPLETE (RXD9: CIS)		
A-4417-613-A	MAIN BOARD, COMPLETE (RXD9: US)		
A-4417-622-A	MAIN BOARD, COMPLETE (GRX9900: EA)		
A-4417-624-A	MAIN BOARD, COMPLETE		(GRX9900: E3, MY, SP)
A-4417-626-A	MAIN BOARD, COMPLETE		(GRX9900: E2, MX, AR)

7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		
< CAPACITOR >			
C104	1-164-159-21	CERAMIC	0.1uF 50V
C111	1-137-195-11	FILM	0.56uF 5% 50V
C112	1-136-158-00	FILM	0.027uF 5% 50V
C113	1-136-167-00	FILM	0.15uF 5% 50V
C114	1-130-480-00	MYLAR	0.0056uF 5% 50V
C115	1-136-159-00	FILM	0.033uF 5% 50V
C116	1-130-473-00	MYLAR	0.0015uF 5% 50V
C117	1-136-153-00	FILM	0.01uF 5% 50V
C118	1-110-341-11	MYLAR	330PF 5% 50V
C119	1-130-479-00	MYLAR	0.0047uF 5% 50V
C120	1-130-483-00	FILM	0.01uF 5% 50V
C121	1-126-964-11	ELECT	10uF 20% 50V
C122	1-162-291-31	CERAMIC	560PF 10% 50V
C123	1-136-169-00	FILM	0.22uF 5% 50V
C124	1-136-169-00	FILM	0.22uF 5% 50V
C125	1-126-964-11	ELECT	10uF 20% 50V
C131	1-104-664-11	ELECT	47uF 20% 16V
C132	1-104-664-11	ELECT	47uF 20% 16V
C135	1-126-964-11	ELECT	10uF 20% 50V
C141	1-126-959-11	ELECT	0.47uF 20% 50V
C161	1-137-195-11	FILM	0.56uF 5% 50V
C162	1-136-158-00	FILM	0.027uF 5% 50V
C163	1-136-167-00	FILM	0.15uF 5% 50V
C164	1-130-480-00	MYLAR	0.0056uF 5% 50V
C165	1-136-159-00	FILM	0.033uF 5% 50V
C166	1-130-473-00	MYLAR	0.0015uF 5% 50V
C167	1-136-153-00	FILM	0.01uF 5% 50V
C168	1-110-341-11	MYLAR	330PF 5% 50V
C169	1-130-479-00	MYLAR	0.0047uF 5% 50V
C170	1-130-483-00	FILM	0.01uF 5% 50V
C171	1-126-964-11	ELECT	10uF 20% 50V
C172	1-162-291-31	CERAMIC	560PF 10% 50V
C173	1-136-169-00	FILM	0.22uF 5% 50V
C174	1-136-169-00	FILM	0.22uF 5% 50V

Ref. No.	Part No.	Description	Remark
C175	1-126-964-11	ELECT	10uF 20% 50V
C176	1-136-495-11	FILM	0.068uF 5% 50V
C177	1-136-153-00	FILM	0.01uF 5% 50V
C193	1-126-964-11	ELECT	10uF 20% 50V (GRX9900/RXD9: US)
C197	1-164-159-21	CERAMIC	0.1uF 50V
C301	1-126-960-11	ELECT	1uF 20% 50V
C302	1-130-479-00	MYLAR	0.0047uF 5% 50V
C303	1-136-165-00	FILM	0.1uF 5% 50V
C304	1-136-165-00	FILM	0.1uF 5% 50V
C305	1-126-964-11	ELECT	10uF 20% 50V
C306	1-126-960-11	ELECT	1uF 20% 50V
C307	1-126-959-11	ELECT	0.47uF 20% 50V
C308	1-126-964-11	ELECT	10uF 20% 50V
C309	1-137-194-81	FILM	0.47uF 5% 50V
C310	1-162-290-31	CERAMIC	470PF 10% 50V
C311	1-126-964-11	ELECT	10uF 20% 50V
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
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
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
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 (EXCEPT GRX9900/RXD9: US)
C402	1-136-165-00	FILM	0.1uF 5% 50V (EXCEPT GRX9900/RXD9: US)
C403	1-164-159-21	CERAMIC	0.1uF 50V (EXCEPT GRX9900/RXD9: US)
C404	1-164-159-21	CERAMIC	0.1uF 50V (EXCEPT GRX9900/RXD9: US)
C410	1-126-963-11	ELECT	4.7uF 20% 50V
C411	1-164-159-21	CERAMIC	0.1uF 50V
C412	1-107-717-11	ELECT	47uF 20% 50V
C432	1-104-665-11	ELECT	100uF 20% 10V
C433	1-126-961-11	ELECT	2.2uF 20% 50V
C437	1-126-968-11	ELECT	100uF 20% 50V

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C451	1-136-165-00	FILM	0.1uF	5%	50V	C891	1-127-751-11	ELECT	3300uF	20%	50V
C452	1-136-165-00	FILM	0.1uF	5%	50V	C891	1-127-811-11	ELECT	3300uF	20%	50V
C453	1-164-159-21	CERAMIC	0.1uF		50V	C892	1-128-493-11	ELECT	4700uF	20%	71V
C454	1-164-159-21	CERAMIC	0.1uF		50V	C892	1-127-754-11	ELECT	3300uF	20%	80V
			(EXCEPT GRX9900/RXD9: US)						(RXD9: US)		
C501	1-126-964-11	ELECT	10uF	20%	50V	C892	1-127-755-11	ELECT	3300uF	20%	100V
C502	1-164-159-21	CERAMIC	0.1uF		50V				(GRX9900: E3, EA, SP)		
C503	1-136-165-00	FILM	0.1uF	5%	50V	C892	1-128-493-11	ELECT	4700uF	20%	100V
C504	1-126-926-11	ELECT	1000uF	20%	10V				(GRX9900: E2, MX, AR)		
C508	1-109-889-11	ELECT	1uF	20%	50V	C893	1-136-165-00	FILM	0.1uF	5%	50V
C610	1-102-953-00	CERAMIC	18PF	5%	50V	C894	1-130-777-00	FILM	0.1uF	10%	100V
C611	1-102-514-11	CERAMIC	22PF	5%	50V	C901	1-136-165-00	FILM	0.1uF	5%	50V
C614	1-162-306-11	CERAMIC	0.01uF	20%	16V	C902	1-126-936-11	ELECT	3300uF	20%	16V
C616	1-104-665-11	ELECT	100uF	20%	10V				(RXD9)		
C662	1-162-306-11	CERAMIC	0.01uF	20%	16V	C902	1-126-937-11	ELECT	4700uF	20%	16V
C664	1-104-665-11	ELECT	100uF	20%	10V				(GRX9900)		
C698	1-162-306-11	CERAMIC	0.01uF	20%	16V	C903	1-126-933-11	ELECT	100uF	20%	16V
C699	1-104-665-11	ELECT	100uF	20%	10V	C904	1-104-664-11	ELECT	47uF	20%	16V
C801	1-128-581-11	ELECT	4.7uF	20%	100V	C905	1-104-665-11	ELECT	100uF	20%	10V
C801	1-126-963-11	ELECT	4.7uF	20%	50V	C906	1-136-165-00	FILM	0.1uF	5%	50V
			(EXCEPT RXD9: US)			C907	1-128-548-11	ELECT	4700uF	20%	25V
C802	1-162-290-31	CERAMIC	470PF	10%	50V	C909	1-126-964-11	ELECT	10uF	20%	50V
C803	1-162-282-31	CERAMIC	100PF	10%	50V	C910	1-104-665-11	ELECT	100uF	20%	10V
C804	1-104-665-11	ELECT	100uF	20%	10V	C911	1-126-964-11	ELECT	10uF	20%	50V
C807	1-136-495-11	FILM	0.068uF	5%	50V	C912	1-126-926-11	ELECT	1000uF	20%	10V
C808	1-136-495-11	FILM	0.068uF	5%	50V	C913	1-126-964-11	ELECT	10uF	20%	50V
C809	1-128-560-11	ELECT	22uF	20%	100V	C914	1-126-767-11	ELECT	1000uF	20%	16V
C810	1-128-578-11	ELECT	1uF	20%	100V	C915	1-104-664-11	ELECT	47uF	20%	16V
C811	1-162-306-11	CERAMIC	0.01uF	20%	16V	C916	1-162-306-11	CERAMIC	0.01uF	20%	16V
C812	1-162-306-11	CERAMIC	0.01uF	20%	16V	C917	1-126-933-11	ELECT	100uF	20%	16V
C841	1-127-751-11	ELECT	3300uF	20%	50V	C951	1-136-165-00	FILM	0.1uF	5%	50V
			(GRX9900: E3, EA, MY, SP/RXD9)			C952	1-126-768-11	ELECT	2200uF	20%	16V
C841	1-127-811-11	ELECT	3300uF	20%	50V	C953	1-126-933-11	ELECT	100uF	20%	16V
			(GRX9900: E2, MX, AR)			C955	1-104-665-11	ELECT	100uF	20%	10V
C842	1-128-493-11	ELECT	4700uF	20%	71V	C956	1-136-165-00	FILM	0.1uF	5%	50V
			(EXCEPT GRX9900/RXD9: US)			< CONNECTOR >					
C842	1-127-754-11	ELECT	3300uF	20%	80V	CN303	1-784-776-11	CONNECTOR, FFC 15P			
			(RXD9: US)			CN304	1-784-778-11	CONNECTOR, FFC 17P			
C842	1-127-755-11	ELECT	3300uF	20%	100V	* CN371	1-568-832-11	SOCKET, CONNECTOR 13P			
			(GRX9900: E3, EA, MY, SP)					(GRX9900: E2, MX, AR/RXD9: US)			
C842	1-128-493-11	ELECT	4700uF	20%	100V	CN371	1-568-834-11	SOCKET, CONNECTOR 15P (GRX9900: E3, EA, MY, SP/RXD9: AEP, UK)			
			(GRX9900: E2, MX, AR)			* CN391	1-568-862-11	SOCKET, CONNECTOR 19P			
C843	1-136-165-00	FILM	0.1uF	5%	50V	CN392	1-785-334-11	PIN, CONNECTOR (LIGHT ANGLE) 8P			
C844	1-130-777-00	FILM	0.1uF	10%	100V	CN393	1-785-335-11	PIN, CONNECTOR (LIGHT ANGLE) 9P			
C851	1-128-581-11	ELECT	4.7uF	20%	100V	* CN403	1-564-518-11	PLUG, CONNECTOR 3P			
			(RXD9: US)			* CN501	1-568-839-11	SOCKET, CONNECTOR 23P			
C851	1-126-963-11	ELECT	4.7uF	20%	50V	< DIODE >					
			(EXCEPT RXD9: US)			D141	8-719-991-33	DIODE 1SS133T-77			
C852	1-162-290-31	CERAMIC	470PF	10%	50V	D191	8-719-991-33	DIODE 1SS133T-77 (GRX9900/RXD9: US)			
C853	1-162-282-31	CERAMIC	100PF	10%	50V	D331	8-719-991-33	DIODE 1SS133T-77			
C854	1-104-665-11	ELECT	100uF	20%	10V	D333	8-719-991-33	DIODE 1SS133T-77			
C857	1-136-495-11	FILM	0.068uF	5%	50V	D334	8-719-991-33	DIODE 1SS133T-77			
C858	1-136-495-11	FILM	0.068uF	5%	50V						
C859	1-128-560-11	ELECT	22uF	20%	100V						
C881	1-126-967-11	ELECT	47uF	20%	50V						

MAIN

Ref. No.	Part No.	Description	Remark
D335	8-719-991-33	DIODE 1SS133T-77	
D401	8-719-991-33	DIODE 1SS133T-77	
D403	8-719-991-33	DIODE 1SS133T-77	
D405	8-719-200-82	DIODE 11ES2	
D406	8-719-200-82	DIODE 11ES2	
D407	8-719-200-82	DIODE 11ES2	
D411	8-719-991-33	DIODE 1SS133T-77	
D501	8-719-200-82	DIODE 11ES2	
D502	8-719-991-33	DIODE 1SS133T-77	
D503	8-719-991-33	DIODE 1SS133T-77	
D504	8-719-991-33	DIODE 1SS133T-77	
D505	8-719-991-33	DIODE 1SS133T-77	
D506	8-719-991-33	DIODE 1SS133T-77	
D509	8-719-991-33	DIODE 1SS133T-77	
D607	8-719-991-33	DIODE 1SS133T-77	
D644	8-719-991-33	DIODE 1SS133T-77	
D801	8-719-991-33	DIODE 1SS133T-77	
D802	8-719-075-67	DIODE RD18F-T8B2 (RXD9)	
D802	8-719-075-68	DIODE RD20F-T8B2 (GRX9900)	
D803	8-719-991-33	DIODE 1SS133T-77	
D831	8-719-302-37	DIODE RBV-602	
D832	8-719-302-37	DIODE RBV-602	
D851	8-719-991-33	DIODE 1SS133T-77	
D852	8-719-075-67	DIODE RD18F-T8B2 (RXD9)	
D852	8-719-075-68	DIODE RD20F-T8B2 (GRX9900)	
D881	8-719-991-33	DIODE 1SS133T-77	
D901	8-719-200-82	DIODE 11ES2	
D902	8-719-200-82	DIODE 11ES2	
D903	8-719-200-82	DIODE 11ES2	
D904	8-719-200-82	DIODE 11ES2	
D905	8-719-935-39	DIODE HZS6B1LTD	
D906	8-719-991-33	DIODE 1SS133T-77	
D907	8-719-200-82	DIODE 11ES2	
D908	8-719-200-82	DIODE 11ES2	
D909	8-719-200-82	DIODE 11ES2	
D910	8-719-200-82	DIODE 11ES2	
D915	8-719-935-69	DIODE HZS11B1LTD	
D921	8-719-991-33	DIODE 1SS133T-77 (GRX9900)	
D922	8-719-991-33	DIODE 1SS133T-77 (GRX9900)	
D923	8-719-991-33	DIODE 1SS133T-77 (GRX9900)	
D924	8-719-200-82	DIODE 11ES2 (GRX9900)	
D925	8-719-200-82	DIODE 11ES2 (GRX9900)	
< COIL >			
FB391	1-412-473-21	INDUCTOR 0uH	
FB392	1-412-473-21	INDUCTOR 0uH	
< IC >			
IC101	8-759-571-54	IC M62493FP	
IC301	8-759-495-26	IC HA12215	
IC381	8-749-923-04	IC TOTX178	
IC501	8-759-588-89	IC M30622MA-A07FP	
IC502	8-759-635-63	IC M51943BSL	
IC801	8-749-015-36	IC STK411-230E	(EXCEPT GRX9900/RXD9: US)
IC801	8-749-015-37	IC STK411-240E (RXD9: US)	
IC801	8-749-015-58	IC STK411-550E (GRX9900)	

Ref. No.	Part No.	Description	Remark
IC901	8-759-604-86	IC M5F7807L	
IC902	8-759-231-53	IC TA7805S	
IC903	8-759-088-08	IC UPC7812AHF (EXCEPT RXD9: US)	
IC903	8-759-604-39	IC M5F78M12 (RXD9: US)	
< JACK >			
J101	1-774-411-11	JACK, PIN 6P	
J191	1-774-785-11	JACK, PIN 1P (GRX9900/RXD9: US)	
< COIL >			
L381	1-410-521-11	INDUCTOR 100uH	
L392	1-410-521-11	INDUCTOR 100uH	
L401	1-420-872-00	COIL, AIR-CORE	(EXCEPT GRX9900/RXD9: US)
L451	1-420-872-00	COIL, AIR-CORE	(EXCEPT GRX9900/RXD9: US)
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	(GRX9900/RXD9: US)
Q192	8-729-900-63	TRANSISTOR DTA124ES	(GRX9900/RXD9: US)
Q201	8-729-900-36	TRANSISTOR DTC124ES	
Q251	8-729-900-36	TRANSISTOR DTC124ES	
Q331	8-729-118-00	TRANSISTOR 2SB1116-L	
Q332	8-729-900-80	TRANSISTOR DTC114ES	
Q333	8-729-118-00	TRANSISTOR 2SB1116-L	
Q334	8-729-900-80	TRANSISTOR DTC114ES	
Q335	8-729-900-80	TRANSISTOR DTC114ES	
Q336	8-729-116-59	TRANSISTOR 2SB1068TP	
Q337	8-729-045-21	TRANSISTOR 2SD1513TP-LK	
Q338	8-729-422-57	TRANSISTOR UN4111	
Q339	8-729-900-80	TRANSISTOR DTC114ES	
Q340	8-729-116-59	TRANSISTOR 2SB1068TP	
Q341	8-729-045-21	TRANSISTOR 2SD1513TP-LK	
Q342	8-729-422-57	TRANSISTOR UN4111	
Q343	8-729-900-80	TRANSISTOR DTC114ES	
Q401	8-729-119-77	TRANSISTOR 2SA1175-FEK	
Q402	8-729-111-29	TRANSISTOR 2SD1616A-K	
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	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q439	8-729-119-79	TRANSISTOR 2SC2785-FEK	
Q471	8-729-141-30	TRANSISTOR 2SC3623A-LK	
Q501	8-729-119-78	TRANSISTOR 2SC403SP-51	

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
Q508	8-729-900-63	TRANSISTOR	DTA124ES			R161	1-249-421-11	CARBON	2.2K	5%	1/4W
Q509	8-729-900-63	TRANSISTOR	DTA124ES								(GRX9900)
Q801	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA			R161	1-249-429-11	CARBON	10K	5%	1/4W
											(RXD9)
Q803	8-729-140-82	TRANSISTOR	2SA988-PAFAEA			R162	1-247-895-91	CARBON	470K	5%	1/4W
Q804	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA			R163	1-247-894-11	CARBON	430K	5%	1/4W
Q831	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA			R164	1-249-415-11	CARBON	680	5%	1/4W
Q832	8-729-119-79	TRANSISTOR	2SC2785-FEK								
Q851	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA			R165	1-247-863-91	CARBON	22K	5%	1/4W
						R166	1-247-887-00	CARBON	220K	5%	1/4W
Q881	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA			R167	1-249-429-11	CARBON	10K	5%	1/4W
Q901	8-729-209-15	TRANSISTOR	2SD2012			R168	1-249-437-11	CARBON	47K	5%	1/4W
Q902	8-729-119-78	TRANSISTOR	2SC403SP-51			R169	1-249-421-11	CARBON	2.2K	5%	1/4W
Q903	8-729-900-36	TRANSISTOR	DTC124ES								
Q904	8-729-900-36	TRANSISTOR	DTC124ES			R170	1-249-441-11	CARBON	100K	5%	1/4W
						R171	1-249-429-11	CARBON	10K	5%	1/4W
Q905	8-729-040-20	TRANSISTOR	RT1P137L-TP			R178	1-249-421-11	CARBON	2.2K	5%	1/4W
Q907	8-729-040-20	TRANSISTOR	RT1P137L-TP			R190	1-249-441-11	CARBON	100K	5%	1/4W
Q908	8-729-900-36	TRANSISTOR	DTC124ES								(GRX9900/RXD9: US)
Q909	8-729-026-68	TRANSISTOR	2SD2525 (TP)			R196	1-249-417-11	CARBON	1K	5%	1/4W
Q913	8-729-119-78	TRANSISTOR	2SC403SP-51								(GRX9900/RXD9: US)
Q914	8-729-119-77	TRANSISTOR	2SA1175-FEK			R197	1-249-441-11	CARBON	100K	5%	1/4W
Q923	8-729-900-36	TRANSISTOR	DTC124ES								(GRX9900/RXD9: US)
Q951	8-729-141-83	TRANSISTOR	2SB1094-LK			R198	1-249-417-11	CARBON	1K	5%	1/4W
Q952	8-729-119-77	TRANSISTOR	2SA1175-FEK								(GRX9900/RXD9: US)
						R199	1-249-429-11	CARBON	10K	5%	1/4W
											(GRX9900/RXD9: US)
		< RESISTOR >				R201	1-247-888-11	CARBON	240K	5%	1/4W
R101	1-249-417-11	CARBON	1K	5%	1/4W	R202	1-247-903-00	CARBON	1M	5%	1/4W
R102	1-249-417-11	CARBON	1K	5%	1/4W						
R103	1-249-417-11	CARBON	1K	5%	1/4W	R251	1-247-888-11	CARBON	240K	5%	1/4W
R111	1-249-421-11	CARBON	2.2K	5%	1/4W	R252	1-247-903-00	CARBON	1M	5%	1/4W
					(GRX9900)	R301	1-249-435-11	CARBON	33K	5%	1/4W
R111	1-249-429-11	CARBON	10K	5%	1/4W	R302	1-249-421-11	CARBON	2.2K	5%	1/4W
					(RXD9)	R303	1-247-807-31	CARBON	100	5%	1/4W
R112	1-247-895-91	CARBON	470K	5%	1/4W	R304	1-247-807-31	CARBON	100	5%	1/4W
R113	1-247-894-11	CARBON	430K	5%	1/4W	R305	1-249-421-11	CARBON	2.2K	5%	1/4W
R114	1-249-415-11	CARBON	680	5%	1/4W	R306	1-249-428-11	CARBON	8.2K	5%	1/4W
R115	1-247-863-91	CARBON	22K	5%	1/4W	R307	1-249-428-11	CARBON	8.2K	5%	1/4W
R116	1-247-887-00	CARBON	220K	5%	1/4W	R308	1-249-425-11	CARBON	4.7K	5%	1/4W
R117	1-249-429-11	CARBON	10K	5%	1/4W	R309	1-247-863-91	CARBON	22K	5%	1/4W
R118	1-249-437-11	CARBON	47K	5%	1/4W	R311	1-247-903-00	CARBON	1M	5%	1/4W
R119	1-249-421-11	CARBON	2.2K	5%	1/4W	R312	1-247-884-11	CARBON	160K	5%	1/4W
R120	1-249-441-11	CARBON	100K	5%	1/4W	R313	1-249-441-11	CARBON	100K	5%	1/4W
R121	1-249-429-11	CARBON	10K	5%	1/4W	R315	1-249-429-11	CARBON	10K	5%	1/4W
R124	1-249-421-11	CARBON	2.2K	5%	1/4W	R316	1-249-432-11	CARBON	18K	5%	1/4W
R125	1-247-843-11	CARBON	3.3K	5%	1/4W	R317	1-249-429-11	CARBON	10K	5%	1/4W
R126	1-249-421-11	CARBON	2.2K	5%	1/4W	R318	1-249-429-11	CARBON	10K	5%	1/4W
R130	1-247-863-91	CARBON	22K	5%	1/4W	R319	1-247-893-11	CARBON	390K	5%	1/4W
					(GRX9900/RXD9: US)	R321	1-249-422-11	CARBON	2.7K	5%	1/4W
R131	1-247-807-31	CARBON	100	5%	1/4W						
						R322	1-249-428-11	CARBON	8.2K	5%	1/4W
R132	1-247-807-31	CARBON	100	5%	1/4W	R324	1-247-876-11	CARBON	75K	5%	1/4W
R133	1-247-807-31	CARBON	100	5%	1/4W	R325	1-247-876-11	CARBON	75K	5%	1/4W
R141	1-247-863-91	CARBON	22K	5%	1/4W	R326	1-249-437-11	CARBON	47K	5%	1/4W
R142	1-247-863-91	CARBON	22K	5%	1/4W	R327	1-249-437-11	CARBON	47K	5%	1/4W
R143	1-249-417-11	CARBON	1K	5%	1/4W						
						R328	1-249-437-11	CARBON	47K	5%	1/4W
R144	1-249-441-11	CARBON	100K	5%	1/4W	R329	1-249-417-11	CARBON	1K	5%	1/4W
R145	1-247-903-00	CARBON	1M	5%	1/4W	R330	1-249-425-11	CARBON	4.7K	5%	1/4W
R151	1-249-417-11	CARBON	1K	5%	1/4W	R331	1-249-425-11	CARBON	4.7K	5%	1/4W
R152	1-249-417-11	CARBON	1K	5%	1/4W	R332	1-249-415-11	CARBON	680	5%	1/4W
R153	1-249-417-11	CARBON	1K	5%	1/4W						
						R333	1-249-421-11	CARBON	2.2K	5%	1/4W
						R334	1-249-415-11	CARBON	680	5%	1/4W

MAIN

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
R335	1-249-421-11	CARBON	2.2K	5%	1/4W		R451	1-260-076-11	CARBON	10	5%	1/2W	
R336	1-249-437-11	CARBON	47K	5%	1/4W							(EXCEPT RXD9: US)	
R337	1-249-417-11	CARBON	1K	5%	1/4W		R452	1-260-076-11	CARBON	10	5%	1/2W	(EXCEPT RXD9: US)
R338	1-249-411-11	CARBON	330	5%	1/4W		R471	1-260-091-11	CARBON	220	5%	1/2W	(GRX9900)
R339	1-249-437-11	CARBON	47K	5%	1/4W								
R340	1-249-437-11	CARBON	47K	5%	1/4W								
R341	1-249-411-11	CARBON	330	5%	1/4W		R471	1-260-090-11	CARBON	180	5%	1/2W	(RXD9)
R342	1-249-437-11	CARBON	47K	5%	1/4W		R472	1-260-091-11	CARBON	220	5%	1/2W	(GRX9900)
R343	1-249-417-11	CARBON	1K	5%	1/4W								
R351	1-249-435-11	CARBON	33K	5%	1/4W		R472	1-260-090-11	CARBON	180	5%	1/2W	(RXD9)
R352	1-249-421-11	CARBON	2.2K	5%	1/4W								
R353	1-247-807-31	CARBON	100	5%	1/4W		R473	1-249-402-11	CARBON	56	5%	1/4W	
R354	1-247-807-31	CARBON	100	5%	1/4W		R474	1-249-417-11	CARBON	1K	5%	1/4W	
R355	1-249-421-11	CARBON	2.2K	5%	1/4W		R481	1-260-090-11	CARBON	180	5%	1/4W	(RXD9)
R356	1-249-428-11	CARBON	8.2K	5%	1/4W								
R357	1-249-428-11	CARBON	8.2K	5%	1/4W		R481	1-260-091-11	CARBON	220	5%	1/2W	(GRX9900)
R358	1-249-425-11	CARBON	4.7K	5%	1/4W								
R359	1-249-435-11	CARBON	33K	5%	1/4W		R482	1-260-090-11	CARBON	180	5%	1/4W	(RXD9)
R391	1-247-807-31	CARBON	100	5%	1/4W		R482	1-260-091-11	CARBON	220	5%	1/2W	(GRX9900)
R392	1-247-807-31	CARBON	100	5%	1/4W								
R393	1-249-435-11	CARBON	33K	5%	1/4W		R483	1-260-090-11	CARBON	180	5%	1/4W	(RXD9)
R394	1-249-435-11	CARBON	33K	5%	1/4W								
R401	1-260-076-11	CARBON	10	5%	1/2W	(EXCEPT RXD9: US)	R483	1-260-091-11	CARBON	220	5%	1/2W	(GRX9900)
R402	1-260-076-11	CARBON	10	5%	1/2W	(EXCEPT RXD9: US)	R484	1-260-090-11	CARBON	180	5%	1/4W	(RXD9)
R406	1-249-437-11	CARBON	47K	5%	1/4W		R484	1-260-091-11	CARBON	220	5%	1/2W	(GRX9900)
R407	1-249-437-11	CARBON	47K	5%	1/4W		R501	1-249-413-11	CARBON	470	5%	1/4W	
R408	1-249-425-11	CARBON	4.7K	5%	1/4W		R502	1-249-425-11	CARBON	4.7K	5%	1/4W	
R409	1-249-441-11	CARBON	100K	5%	1/4W		R503	1-249-437-11	CARBON	47K	5%	1/4W	
R410	1-249-421-11	CARBON	2.2K	5%	1/4W		R504	1-249-437-11	CARBON	47K	5%	1/4W	
△ R411	1-216-483-11	METAL OXIDE	2.7K	5%	3W F	(EXCEPT RXD9: US)	R505	1-249-429-11	CARBON	10K	5%	1/4W	
△ R411	1-215-894-11	METAL OXIDE	2.2K	5%	2W F	(RXD9: US)	R508	1-249-421-11	CARBON	2.2K	5%	1/4W	
R413	1-249-402-11	CARBON	56	5%	1/4W		R509	1-249-441-11	CARBON	100K	5%	1/4W	
R414	1-249-417-11	CARBON	1K	5%	1/4W		R521	1-249-425-11	CARBON	4.7K	5%	1/4W	(EXCEPT RXD9: CIS)
R415	1-249-429-11	CARBON	10K	5%	1/4W		R521	1-249-437-11	CARBON	47K	5%	1/4W	(RXD9: CIS)
R416	1-249-437-11	CARBON	47K	5%	1/4W		R522	1-249-415-11	CARBON	680	5%	1/4W	(EXCEPT RXD9: CIS)
R417	1-249-417-11	CARBON	1K	5%	1/4W		R522	1-249-427-11	CARBON	6.8K	5%	1/4W	(RXD9: CIS)
R421	1-260-090-11	CARBON	180	5%	1/2W	(RXD9)	R523	1-249-415-11	CARBON	680	5%	1/4W	(RXD9: AEP, UK, G, AED)
R421	1-260-091-11	CARBON	220	5%	1/2W	(GRX9900)							
R422	1-260-090-11	CARBON	180	5%	1/2W	(RXD9)	R523	1-249-421-11	CARBON	2.2K	5%	1/4W	(GRX9900: E2, MX, AR)
R422	1-260-091-11	CARBON	220	5%	1/2W	(GRX9900)	R523	1-249-425-11	CARBON	4.7K	5%	1/4W	(GRX9900: EA)
R431	1-249-438-11	CARBON	56K	5%	1/4W		R523	1-249-429-11	CARBON	10K	5%	1/4W	(RXD9: CIS)
R432	1-249-437-11	CARBON	47K	5%	1/4W		R524	1-249-425-11	CARBON	4.7K	5%	1/4W	(GRX9900: E2, MX, AR/
R434	1-247-863-91	CARBON	22K	5%	1/4W							RXD9: US, AEP, UK, G, AED)	
R435	1-249-435-11	CARBON	33K	5%	1/4W							1/4W	(RXD9: CIS)
R437	1-249-429-11	CARBON	10K	5%	1/4W		R524	1-249-437-11	CARBON	47K	5%	1/4W	
R438	1-249-429-11	CARBON	10K	5%	1/4W								
R439	1-249-425-11	CARBON	4.7K	5%	1/4W		R524	1-247-843-11	CARBON	3.3K	5%	1/4W	(GRX9900: EA)
R440	1-249-429-11	CARBON	10K	5%	1/4W								
R441	1-249-435-11	CARBON	33K	5%	1/4W		R527	1-249-429-11	CARBON	10K	5%	1/4W	
R443	1-249-417-11	CARBON	1K	5%	1/4W		R536	1-249-429-11	CARBON	10K	5%	1/4W	

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Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
R550	1-247-843-11	CARBON	3.3K	5%	1/4W	R803	1-247-820-11	CARBON	360	5%	1/4W
R551	1-249-429-11	CARBON	10K	5%	1/4W						(RXD9: AEP, UK)
R567	1-247-807-31	CARBON	100	5%	1/4W	R803	1-249-412-11	CARBON	390	5%	1/4W
R568	1-249-429-11	CARBON	10K	5%	1/4W						(GRX9900)
R569	1-249-429-11	CARBON	10K	5%	1/4W	R803	1-249-413-11	CARBON	470	5%	1/4W
R570	1-249-429-11	CARBON	10K	5%	1/4W						(RXD9: US)
R571	1-249-429-11	CARBON	10K	5%	1/4W	R804	1-249-437-11	CARBON	47K	5%	1/4W
											(EXCEPT RXD9: AEP, UK)
R577	1-249-429-11	CARBON	10K	5%	1/4W	R804	1-249-438-11	CARBON	56K	5%	1/4W
R610	1-247-891-00	CARBON	330K	5%	1/4W						(RXD9: AEP, UK)
R617	1-249-429-11	CARBON	10K	5%	1/4W	R805	1-249-417-11	CARBON	1K	5%	1/4W
R618	1-247-807-31	CARBON	100	5%	1/4W						
R619	1-247-807-31	CARBON	100	5%	1/4W	R806	1-249-431-11	CARBON	15K	5%	1/4W
						R807	1-249-441-11	CARBON	100K	5%	1/4W
R620	1-247-807-31	CARBON	100	5%	1/4W	△ R808	1-220-893-11	METAL	0.22	10%	5W F
					(RXD9: AEP, UK, G, AED)	R809	1-260-076-11	CARBON	10	5%	1/2W
R621	1-247-807-31	CARBON	100	5%	1/4W	△ R810	1-215-872-11	METAL OXIDE	3.3K	5%	1W F
					(RXD9: AEP, UK, G, AED)						
R622	1-249-425-11	CARBON	4.7K	5%	1/4W	△ R811	1-212-881-11	FUSIBLE	100	5%	1/4W F
R626	1-247-807-31	CARBON	100	5%	1/4W	△ R812	1-202-972-61	FUSIBLE	1	5%	1/4W F
R627	1-247-807-31	CARBON	100	5%	1/4W	R813	1-249-435-11	CARBON	33K	5%	1/4W
						R814	1-249-421-11	CARBON	2.2K	5%	1/4W
R629	1-247-807-31	CARBON	100	5%	1/4W	R815	1-247-863-91	CARBON	22K	5%	1/4W
R630	1-247-807-31	CARBON	100	5%	1/4W						
R632	1-247-807-31	CARBON	100	5%	1/4W	R816	1-249-429-11	CARBON	10K	5%	1/4W
R633	1-247-807-31	CARBON	100	5%	1/4W	R817	1-249-421-11	CARBON	2.2K	5%	1/4W
R635	1-249-413-11	CARBON	470	5%	1/4W	R818	1-249-435-11	CARBON	33K	5%	1/4W
						R819	1-249-439-11	CARBON	68K	5%	1/4W
R636	1-247-807-31	CARBON	100	5%	1/4W	R831	1-249-441-11	CARBON	100K	5%	1/4W
R637	1-249-417-11	CARBON	1K	5%	1/4W						
R639	1-247-807-31	CARBON	100	5%	1/4W	R832	1-249-441-11	CARBON	100K	5%	1/4W
R642	1-247-807-31	CARBON	100	5%	1/4W	R833	1-247-876-11	CARBON	75K	5%	1/4W
R643	1-247-807-31	CARBON	100	5%	1/4W						(GRX9900)
						R833	1-247-878-00	CARBON	91K	5%	1/4W
R649	1-247-807-31	CARBON	100	5%	1/4W						(RXD9: AEP, UK)
R650	1-247-807-31	CARBON	100	5%	1/4W	R833	1-249-441-11	CARBON	100K	5%	1/4W
R651	1-247-807-31	CARBON	100	5%	1/4W						(RXD9: US)
R652	1-247-807-31	CARBON	100	5%	1/4W						
R653	1-247-807-31	CARBON	100	5%	1/4W	R842	1-249-441-11	CARBON	100K	5%	1/4W
						R851	1-249-417-11	CARBON	1K	5%	1/4W
R654	1-247-807-31	CARBON	100	5%	1/4W	R852	1-249-438-11	CARBON	56K	5%	1/4W
R655	1-247-807-31	CARBON	100	5%	1/4W	R853	1-247-820-11	CARBON	360	5%	1/4W
R656	1-247-807-31	CARBON	100	5%	1/4W						(RXD9: AEP, UK)
R657	1-247-807-31	CARBON	100	5%	1/4W	R853	1-249-412-11	CARBON	390	5%	1/4W
R658	1-249-417-11	CARBON	1K	5%	1/4W						(GRX9900)
R659	1-247-807-31	CARBON	100	5%	1/4W	R853	1-249-413-11	CARBON	470	5%	1/4W
R660	1-247-807-31	CARBON	100	5%	1/4W						(RXD9: US)
R661	1-247-807-31	CARBON	100	5%	1/4W	R854	1-249-437-11	CARBON	47K	5%	1/4W
R663	1-247-807-31	CARBON	100	5%	1/4W						(EXCEPT RXD9: AEP, UK)
R665	1-247-807-31	CARBON	100	5%	1/4W	R854	1-249-438-11	CARBON	56K	5%	1/4W
											(RXD9: AEP, UK)
R666	1-247-807-31	CARBON	100	5%	1/4W	R855	1-249-417-11	CARBON	1K	5%	1/4W
R667	1-247-807-31	CARBON	100	5%	1/4W	R856	1-249-431-11	CARBON	15K	5%	1/4W
R668	1-247-807-31	CARBON	100	5%	1/4W						
R669	1-247-807-31	CARBON	100	5%	1/4W	R857	1-249-441-11	CARBON	100K	5%	1/4W
R670	1-247-807-31	CARBON	100	5%	1/4W	△ R858	1-220-893-11	METAL	0.22	10%	5W F
						R859	1-260-076-11	CARBON	10	5%	1/2W
R671	1-247-807-31	CARBON	100	5%	1/4W	△ R860	1-215-872-11	METAL OXIDE	3.3K	5%	1W F
R686	1-247-807-31	CARBON	100	5%	1/4W	△ R861	1-212-881-11	FUSIBLE	100	5%	1/4W F
R687	1-247-807-31	CARBON	100	5%	1/4W						
R688	1-247-807-31	CARBON	100	5%	1/4W	R881	1-249-435-11	CARBON	33K	5%	1/4W
R689	1-247-807-31	CARBON	100	5%	1/4W	R882	1-249-435-11	CARBON	33K	5%	1/4W
						R892	1-249-441-11	CARBON	100K	5%	1/4W
R690	1-247-807-31	CARBON	100	5%	1/4W	R901	1-247-843-11	CARBON	3.3K	5%	1/4W
R691	1-247-807-31	CARBON	100	5%	1/4W	R902	1-249-415-11	CARBON	680	5%	1/4W
R801	1-249-417-11	CARBON	1K	5%	1/4W						
R802	1-249-438-11	CARBON	56K	5%	1/4W	R903	1-249-419-11	CARBON	1.5K	5%	1/4W

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MAIN	MOTOR (SLIDE)	MOTOR (TURN)	PANEL
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Ref. No.	Part No.	Description			Remark
R904	1-249-414-11	CARBON	560	5%	1/4W
R905	1-249-425-11	CARBON	4.7K	5%	1/4W
R906	1-247-843-11	CARBON	3.3K	5%	1/4W
R907	1-249-415-11	CARBON	680	5%	1/4W
R908	1-249-429-11	CARBON	10K	5%	1/4W
R909	1-249-430-11	CARBON	12K	5%	1/4W
R911	1-247-815-91	CARBON	220	5%	1/4W
R920	1-249-383-11	CARBON	1.5	5%	1/6W
R921	1-249-383-11	CARBON	1.5	5%	1/6W
R931	1-249-429-11	CARBON	10K	5%	1/4W
< VARIABLE RESISTOR >					
RV301	1-238-600-11	RES, ADJ, CARBON 10K			
RV351	1-238-600-11	RES, ADJ, CARBON 10K			
< RELAY >					
RY401	1-755-168-11	RELAY			
< THERMISTOR >					
TH831	1-807-796-11	THERMISTOR			
< TERMINAL >					
TM401	1-537-240-31	TERMINAL BOARD (CHECKER PIN) (SPEAKER) (GRX9900/RXD9: US)			
TM401	1-694-302-11	TERMINAL BOARD (CHECKER PIN) (SPEAKER) (EXCEPT GRX9900/RXD9: US)			
< VIBRATOR >					
X601	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X613	1-781-107-21	VIBRATOR, SERAMIC (16MHz)			

*	1-658-578-11	MOTOR (SLIDE) BOARD *****			
< CAPACITOR >					
C801	1-162-306-11	CERAMIC	0.01uF	20%	16V
C804	1-162-306-11	CERAMIC	0.01uF	20%	16V
C805	1-126-964-11	ELECT	10uF	20%	50V
< CONNECTOR >					
* CN801	1-568-947-11	PIN, CONNECTOR 9P			
< DIODE >					
D801	8-719-921-48	DIODE MTZJ-T-72-5.6C			
D804	8-719-911-19	DIODE 1SS119			
D805	8-719-911-19	DIODE 1SS119			
< IC >					
IC801	8-759-274-09	IC BA6286N			
< RESISTOR >					
R801	1-249-401-11	CARBON	47	5%	1/4W
< SWITCH >					
S801	1-762-527-11	SWITCH, ROTARY (OPEN/CLOSE DET)			

Ref. No.	Part No.	Description	Remark		

*	1-658-577-11	MOTOR (TURN) BOARD	*****		
< CAPACITOR >					
C701	1-162-306-11	CERAMIC	0.01uF	20%	16V
C702	1-126-964-11	ELECT	10uF	20%	50V
C705	1-162-306-11	CERAMIC	0.01uF	20%	16V
< CONNECTOR >					
CN703	1-750-413-11	CONNECTOR, FFC/FPC 8P			
CN704	1-506-469-11	PIN, CONNECTOR 4P			
< DIODE >					
D701	8-719-983-66	DIODE MTZJ-T-72-3.6B			
< IC >					
IC701	8-759-633-65	IC M54641L			
< RESISTOR >					
R706	1-249-411-11	CARBON	330	5%	1/4W
R707	1-249-401-11	CARBON	47	5%	1/4W

	A-4417-608-A	PANEL BOARD, COMPLETE (RXD9: AEP, UK)			
	A-4417-617-A	PANEL BOARD, COMPLETE (RXD9: US)			
	A-4417-630-A	PANEL BOARD, COMPLETE			
		(EXCEPT GRX9900: EA/RXD9)			
	A-4426-646-A	PANEL BOARD, COMPLETE (GRX9900: EA)			

	4-214-439-01	HOLDER, FL TUBE			
*	4-949-935-81	CUSHION (FL)			
< CAPACITOR >					
C601	1-124-589-11	ELECT	47uF	20%	16V
C602	1-126-163-11	ELECT	4.7uF	20%	50V
C603	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C604	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C605	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C608	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C610	1-124-589-11	ELECT	47uF	20%	16V
C611	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C612	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C614	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C615	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C616	1-126-157-11	ELECT	10uF	20%	16V
C617	1-164-182-11	CERAMIC CHIP	0.0033uF	10%	50V
C618	1-126-157-11	ELECT	10uF	20%	16V
C619	1-126-157-11	ELECT	10uF	20%	16V
C620	1-126-163-11	ELECT	4.7uF	20%	50V
C621	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C622	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C625	1-126-157-11	ELECT	10uF	20%	16V
C626	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C630	1-126-157-11	ELECT	10uF	20%	16V
C631	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C632	1-124-589-11	ELECT	47uF	20%	16V

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C634	1-130-483-00	FILM	0.01uF 5% 50V	D608	8-719-074-27	LED SELUIE10CXM-LC (ILLUMINATION)	
C701	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V (RXD9)	D609	8-719-074-24	LED SELUD10CXM-LC (ILLUMINATION)	
C702	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V (RXD9)	D611	8-719-071-41	LED SELS5923C-TP15 (SYNC EQ)	
C703	1-163-038-00	CERAMIC CHIP	0.1uF 25V	D612	8-719-071-44	LED SELS5223C-TP15 (EFFECT)	
C704	1-163-031-11	CERAMIC CHIP	0.01uF 50V	D613	8-719-071-41	LED SELS5923C-TP15 (SYNC BASS L)	
C711	1-162-294-31	CERAMIC	0.001uF 10% 50V (GRX9900: EA)	D614	8-719-071-41	LED SELS5923C-TP15 (SYNC BASS H)	
C712	1-162-305-11	CERAMIC	0.0068uF 30% 16V (GRX9900: EA)	D615	8-719-063-93	LED SLR325VC-N-T32 (NON-STOP)	
C713	1-126-160-11	ELECT	1uF 20% 50V (GRX9900: EA)	D619	8-719-056-13	LED SML79423C-TP15 (▶ CD)	
C714	1-136-495-11	FILM	0.068uF 5% 50V (GRX9900: EA)	D620	8-719-073-47	LED SML72923C-TP15 (REC PAUSE/START)	
C715	1-124-465-00	ELECT	0.47uF 20% 50V (GRX9900: EA)	D622	8-719-057-97	LED SEL5923A-TP15 (+ ▶▶)	
C716	1-124-465-00	ELECT	0.47uF 20% 50V (GRX9900: EA)	D623	8-719-057-97	LED SEL5923A-TP15 (- ◀◀)	
C717	1-1136-167-00	FILM	0.15uF 5% 50V (GRX9900: EA)	D624	8-719-063-93	LED SLR325VC-N-T32 (JOG DIAL)	
C718	1-162-294-31	CERAMIC	0.001uF 10% 50V (GRX9900: EA)	D625	8-719-063-93	LED SLR325VC-N-T32 (ENTER/NEXT)	
C719	1-126-160-11	ELECT	1uF 20% 50V (GRX9900: EA)	D626	8-719-057-97	LED SEL5923A-TP15 (GROOVE)	
C720	1-161-494-00	CERAMIC	0.022uF 25V (GRX9900: EA)	D631	8-719-058-03	LED SEL5423E-TP15 (◀ TAPE B)	
C721	1-162-305-11	CERAMIC	0.0068uF 30% 16V (GRX9900: EA)	D632	8-719-058-03	LED SEL5423E-TP15 (▶ TAPE B)	
C722	1-136-495-11	FILM	0.068uF 5% 50V (GRX9900: EA)	D633	8-719-058-03	LED SEL5423E-TP15 (◀ TAPE A)	
C723	1-124-589-11	ELECT	47uF 20% 16V (GRX9900: EA)	D634	8-719-058-03	LED SEL5423E-TP15 (▶ TAPE A)	
C724	1-136-165-00	FILM	0.1uF 5% 50V (GRX9900: EA)	D636	8-719-063-93	LED SLR325VC-N-T32 (TIMER SELECT)	
C725	1-124-589-11	ELECT	47uF 20% 16V (GRX9900: EA)	D701	8-719-976-99	DIODE DTZ5.1B (GRX9900: EA)	
C731	1-163-031-11	CERAMIC CHIP	0.01uF 50V			< GROUND TERMINAL >	
C732	1-124-257-00	ELECT	2.2uF 20% 50V	EP601	1-537-770-21	TERMINAL BOARD, GROUND	
C733	1-163-009-11	CERAMIC CHIP	0.001uF 10% 50V			< COIL >	
C734	1-163-109-00	CERAMIC CHIP	47PF 5% 50V	FB601	1-414-234-22	INDUCTOR CHIP 0uH	
C735	1-126-157-11	ELECT	10uF 20% 16V	FB602	1-414-234-22	INDUCTOR CHIP 0uH	
C736	1-163-005-11	CERAMIC CHIP	470PF 10% 50V			< FLUORESCENT INDICATOR TUBE >	
C737	1-124-463-00	ELECT	0.1uF 20% 50V	FL601	1-517-831-31	INDICATOR TUBE, FLUORESCENT	
C738	1-124-257-00	ELECT	2.2uF 20% 50V (GRX9900: EA)			< IC >	
C739	1-163-109-00	CERAMIC CHIP	47PF 5% 50V	IC601	8-759-589-13	IC TMP88CS76F-6004	
C740	1-163-031-11	CERAMIC CHIP	0.01uF 50V	IC602	8-749-011-05	IC GP1U28X	
C741	1-126-157-11	ELECT	10uF 20% 16V	IC603	8-759-083-77	IC BA3830F	
C742	1-163-251-11	CERAMIC CHIP	100PF 5% 50V	IC604	8-759-342-19	IC NJU3716M-T2	
C743	1-124-257-00	ELECT	2.2uF 20% 50V	IC711	8-759-496-40	IC M65850FP (GRX9900: EA)	
C747	1-163-038-00	CERAMIC CHIP	0.1uF 25V	IC712	8-759-636-55	IC M5218AFP	
C782	1-163-031-11	CERAMIC CHIP	0.01uF 50V			< JACK >	
C783	1-163-031-11	CERAMIC CHIP	0.01uF 50V	J701	1-785-569-11	JACK (SMALL TYPE)	
		< CONNECTOR >		J711	1-785-569-11	JACK (SMALL TYPE)	
* CN601	1-568-865-11	SOCKET, CONNECTOR 23P				< SHORT >	
		< DIODE >		JR501	1-216-296-00	SHORT 0	
D601	8-719-058-24	DIODE RB501V-40TE-17		JR502	1-216-296-00	SHORT 0	
				JR503	1-216-295-00	SHORT 0	
				JR504	1-216-295-00	SHORT 0	
				JR505	1-216-295-00	SHORT 0	
				JR506	1-216-295-00	SHORT 0	
				JR507	1-216-295-00	SHORT 0	
				JR509	1-216-296-00	SHORT 0	
				JR510	1-216-296-00	SHORT 0	
				JR511	1-216-296-00	SHORT 0	
				JR512	1-216-296-00	SHORT 0	
				JR513	1-216-296-00	SHORT 0	

PANEL

Ref. No.	Part No.	Description	Remark
JR514	1-216-296-00	SHORT 0	
JR515	1-216-296-00	SHORT 0	
JR516	1-216-295-00	SHORT 0	
JR517	1-216-296-00	SHORT 0	
< COIL >			
L601	1-412-029-11	INDUCTOR CHIP 10uH	
L602	1-412-032-11	INDUCTOR CHIP 100uH	
< 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	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q605	8-729-119-78	TRANSISTOR 2SC403SP-51	
Q607	8-729-900-36	TRANSISTOR DTC124ES	
Q608	8-729-900-36	TRANSISTOR DTC124ES	
Q610	8-729-900-74	TRANSISTOR DTC143TS	
Q611	8-729-900-74	TRANSISTOR DTC143TS	
Q612	8-729-900-74	TRANSISTOR DTC143TS	
Q613	8-729-900-74	TRANSISTOR DTC143TS	
Q614	8-729-900-74	TRANSISTOR DTC143TS	
Q615	8-729-900-74	TRANSISTOR DTC143TS	
Q616	8-729-900-74	TRANSISTOR DTC143TS	
Q620	8-729-119-76	TRANSISTOR 2SA1175-HFE	
< RESISTOR >			
R601	1-216-025-00	RES, CHIP 100 5% 1/10W	
R602	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R603	1-216-025-00	RES, CHIP 100 5% 1/10W	
R604	1-216-025-00	RES, CHIP 100 5% 1/10W	
R605	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R606	1-216-017-00	RES, CHIP 47 5% 1/10W	
R607	1-216-111-00	METAL CHIP 390K 5% 1/10W	
R608	1-216-111-00	METAL CHIP 390K 5% 1/10W	
R609	1-216-097-00	RES, CHIP 100K 5% 1/10W	
R610	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R611	1-216-097-00	RES, CHIP 100K 5% 1/10W	
R612	1-216-017-00	RES, CHIP 47 5% 1/10W	
R613	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R614	1-216-113-00	METAL CHIP 470K 5% 1/10W	
R616	1-216-121-00	RES, CHIP 1M 5% 1/10W	
R619	1-216-043-91	RES, CHIP 560 5% 1/10W	
R620	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R621	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R622	1-216-035-00	METAL CHIP 270 5% 1/10W	
R623	1-216-037-00	METAL CHIP 330 5% 1/10W	
R624	1-216-041-00	METAL CHIP 470 5% 1/10W	
R625	1-216-043-91	RES, CHIP 560 5% 1/10W	
R626	1-216-045-00	METAL CHIP 680 5% 1/10W	
R627	1-216-049-11	RES, CHIP 1K 5% 1/10W	
R628	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R629	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R630	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R631	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R632	1-216-065-00	RES, CHIP 4.7K 5% 1/10W	
R633	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	

Ref. No.	Part No.	Description	Remark
R634	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R635	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R636	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R637	1-216-035-00	METAL CHIP 270 5% 1/10W	
R638	1-216-037-00	METAL CHIP 330 5% 1/10W	
R639	1-216-041-00	METAL CHIP 470 5% 1/10W	
R640	1-216-043-91	RES, CHIP 560 5% 1/10W	
R641	1-216-045-00	METAL CHIP 680 5% 1/10W	
R642	1-216-049-11	RES, CHIP 1K 5% 1/10W	
R649	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R650	1-216-035-00	METAL CHIP 270 5% 1/10W	
R651	1-216-037-00	METAL CHIP 330 5% 1/10W	
R652	1-216-041-00	METAL CHIP 470 5% 1/10W	
R653	1-216-043-91	RES, CHIP 560 5% 1/10W	
R654	1-216-045-00	METAL CHIP 680 5% 1/10W	
R655	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R656	1-216-035-00	METAL CHIP 270 5% 1/10W	
R657	1-216-037-00	METAL CHIP 330 5% 1/10W	
R658	1-216-041-00	METAL CHIP 470 5% 1/10W	
R659	1-216-043-91	RES, CHIP 560 5% 1/10W	
R660	1-216-045-00	METAL CHIP 680 5% 1/10W	
R661	1-216-049-11	RES, CHIP 1K 5% 1/10W	
R662	1-216-051-00	METAL CHIP 1.2K 5% 1/10W	
R663	1-216-055-00	METAL CHIP 1.8K 5% 1/10W	
R664	1-216-059-00	METAL CHIP 2.7K 5% 1/10W	
R672	1-216-049-11	RES, CHIP 1K 5% 1/10W	
R673	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R674	1-216-049-11	RES, CHIP 1K 5% 1/10W	
R675	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R676	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R677	1-216-089-00	RES, CHIP 47K 5% 1/10W	
R678	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R680	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R681	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R682	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R683	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R684	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R685	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R688	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R689	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R691	1-216-097-00	RES, CHIP 100K 5% 1/10W	
R692	1-216-097-00	RES, CHIP 100K 5% 1/10W	
R693	1-216-097-00	RES, CHIP 100K 5% 1/10W	
R694	1-216-097-00	RES, CHIP 100K 5% 1/10W	
R695	1-216-097-00	RES, CHIP 100K 5% 1/10W	
R696	1-216-097-00	RES, CHIP 100K 5% 1/10W	
R697	1-216-097-00	RES, CHIP 100K 5% 1/10W	
R698	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R699	1-216-057-00	METAL CHIP 2.2K 5% 1/10W	
R701	1-249-401-11	CARBON 47 5% 1/4W	(GRX9900: EA)
R711	1-249-433-11	CARBON 22K 5% 1/4W	(GRX9900: EA)
R712	1-249-433-11	CARBON 22K 5% 1/4W	(GRX9900: EA)
R713	1-249-433-11	CARBON 22K 5% 1/4W	(GRX9900: EA)
R714	1-249-437-11	CARBON 47K 5% 1/4W	(GRX9900: EA)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R715	1-249-433-11	CARBON	22K 5% 1/4W (GRX9900: EA)	S602	1-473-392-11	ENCODER, ROTARY (VOLUME)	
R716	1-249-431-11	CARBON	15K 5% 1/4W (GRX9900: EA)	S611	1-762-875-21	SWITCH, KEYBOARD (SYNC BASE)	
R717	1-249-433-11	CARBON	22K 5% 1/4W (GRX9900: EA)	S612	1-762-875-21	SWITCH, KEYBOARD (SYNC EQ)	
R718	1-249-433-11	CARBON	22K 5% 1/4W (GRX9900: EA)	S613	1-762-875-21	SWITCH, KEYBOARD (KARAOKE PON/MIX)	
R719	1-247-881-00	CARBON	120K 5% 1/4W (GRX9900: EA)	S614	1-762-875-21	SWITCH, KEYBOARD (NON-STOP)	
R721	1-216-073-00	METAL CHIP	10K 5% 1/10W	S615	1-762-875-21	SWITCH, KEYBOARD (SURROUND)	
R722	1-216-049-11	RES, CHIP	1K 5% 1/10W	S616	1-762-875-21	SWITCH, KEYBOARD (DBF B)	
R723	1-216-097-00	RES, CHIP	100K 5% 1/10W	S617	1-762-875-21	SWITCH, KEYBOARD (ENTER/NEXT)	
R724	1-216-049-11	RES, CHIP	1K 5% 1/10W	S618	1-762-875-21	SWITCH, KEYBOARD (+ ►►)	
R725	1-216-081-00	METAL CHIP	22K 5% 1/10W	S619	1-762-875-21	SWITCH, KEYBOARD (– ◀◀)	
R726	1-216-073-00	METAL CHIP	10K 5% 1/10W	S620	1-762-875-21	SWITCH, KEYBOARD (GROOVE)	
R727	1-249-431-11	CARBON	15K 5% 1/4W (GRX9900: EA)	S621	1-762-875-21	SWITCH, KEYBOARD (FLASH)	
R728	1-216-103-00	METAL CHIP	180K 5% 1/10W	S622	1-762-875-21	SWITCH, KEYBOARD (REPEAT STEREO/MONO)	
R729	1-216-025-00	RES, CHIP	100 5% 1/10W	S623	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE DOLBY NR PTY) (RXD9: AEP, UK)	
R751	1-216-029-00	METAL CHIP	150 5% 1/10W	S623	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE DOLBY NR) (EXCEPT RXD9: AEP, UK)	
R752	1-216-029-00	METAL CHIP	150 5% 1/10W	S624	1-762-875-21	SWITCH, KEYBOARD (EDIT DIRECTION TUNER MEMORY)	
R753	1-216-029-00	METAL CHIP	150 5% 1/10W	S625	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)	
R754	1-216-029-00	METAL CHIP	150 5% 1/10W	S626	1-762-875-21	SWITCH, KEYBOARD (HI DUB)	
R758	1-216-022-00	METAL CHIP	75 5% 1/10W	S627	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)	
R759	1-216-022-00	METAL CHIP	75 5% 1/10W	S628	1-762-875-21	SWITCH, KEYBOARD (LOOP)	
R760	1-216-022-00	METAL CHIP	75 5% 1/10W	S629	1-762-875-21	SWITCH, KEYBOARD (DISPLAY)	
R761	1-216-022-00	METAL CHIP	75 5% 1/10W	S630	1-762-875-21	SWITCH, KEYBOARD (SPECTRUM ANALYZER)	
R766	1-216-029-00	METAL CHIP	150 5% 1/10W	S637	1-762-875-21	SWITCH, KEYBOARD (TIMER SELECT)	
R767	1-216-022-00	METAL CHIP	75 5% 1/10W	S638	1-762-875-21	SWITCH, KEYBOARD (P FILE MEMORY)	
R768	1-216-029-00	METAL CHIP	150 5% 1/10W	S639	1-762-875-21	SWITCH, KEYBOARD (GEQ CONTROL)	
R769	1-216-029-00	METAL CHIP	150 5% 1/10W	S640	1-762-875-21	SWITCH, KEYBOARD (FILE SELECT)	
R770	1-216-029-00	METAL CHIP	150 5% 1/10W	S641	1-762-875-21	SWITCH, KEYBOARD (EFFECT))	
R771	1-216-029-00	METAL CHIP	150 5% 1/10W	S642	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)	
R772	1-216-029-00	METAL CHIP	150 5% 1/10W	S643	1-762-875-21	SWITCH, KEYBOARD (►► CD)	
R773	1-216-022-00	METAL CHIP	75 5% 1/10W	S644	1-762-875-21	SWITCH, KEYBOARD (■)	
R775	1-216-029-00	METAL CHIP	150 5% 1/10W	S645	1-762-875-21	SWITCH, KEYBOARD (► TAPE B)	
R776	1-216-019-00	METAL CHIP	56 5% 1/10W	S646	1-762-875-21	SWITCH, KEYBOARD (◀ TAPE B)	
R777	1-216-025-00	RES, CHIP	100 5% 1/10W	S647	1-762-875-21	SWITCH, KEYBOARD (► TAPE A)	
R778	1-216-025-00	RES, CHIP	100 5% 1/10W	S648	1-762-875-21	SWITCH, KEYBOARD (◀ TAPE A)	
R780	1-216-073-00	METAL CHIP	10K 5% 1/10W	S649	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)	
R781	1-216-029-00	METAL CHIP	150 5% 1/10W	S650	1-762-875-21	SWITCH, KEYBOARD (CLOCK/TIMER SET)	
R782	1-216-029-00	METAL CHIP	150 5% 1/10W	< VIBRATOR >			
R783	1-216-073-00	METAL CHIP	10K 5% 1/10W	X601	1-781-312-11	VIBRATOR, CERAMIC (12.5MHz)	
R784	1-216-081-00	METAL CHIP	22K 5% 1/10W	*****			
R785	1-216-081-00	METAL CHIP	22K 5% 1/10W	*	1-658-576-11	SENSOR BOARD	
R786	1-216-049-11	RES, CHIP	1K 5% 1/10W	*****			
R787	1-216-095-00	METAL CHIP	82K 5% 1/10W	< PHOTO INTERRUPTER >			
R788	1-216-089-00	RES, CHIP	47K 5% 1/10W	IC702	8-749-924-18	PHOTO INTERRUPTER RPI-1391	
R789	1-216-095-00	METAL CHIP	82K 5% 1/10W	< PHOTO REFLECTOR >			
R790	1-216-055-00	METAL CHIP	1.8K 5% 1/10W	IC703	8-749-924-30	PHOTO REFLECTOR GP2S28	
< VARIABLE RESISTOR >				< RESISTOR >			
RV711	1-225-739-11	RES, VAR 50K (ECHO LEVEL) (GRX9900: EA)		R701	1-249-416-11	CARBON	820 5% 1/4W
RV712	1-225-739-11	RES, VAR 50K (MIC LEVEL)					
< SWITCH >							
S601	1-473-534-11	ENCODER, ROTARY (JOG DIAL)					

SENSOR	SUB TRANS	TRANS
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Ref. No.	Part No.	Description	Remark		
R702	1-249-407-11	CARBON	150	5%	1/4W

	A-4417-584-A	SUB TRANS BOARD, COMPLETE (RXD9: AEP, UK)			
	A-4417-620-A	SUB TRANS BOARD, COMPLETE (RXD9: US) *****			
< CAPACITOR >					
C11	1-126-768-11	ELECT	2200uF	20%	16V
C12	1-164-159-21	CERAMIC	0.1uF		50V
C13	1-126-933-11	ELECT	10uF	20%	16V
C14	1-126-968-11	ELECT	100uF	20%	50V
C15	1-164-159-21	CERAMIC	0.1uF		50V
C16	1-126-948-11	ELECT	100uF	20%	35V
△ C21	1-113-925-11	CERAMIC	0.01uF	20%	250V
< CONNECTOR >					
CN11	1-564-321-00	PIN, CONNECTOR 2P			
* CN12	1-564-321-21	PIN, CONNECTOR 2P			
CN13	1-785-333-11	PIN, CONNECTOR (LIGHT ANGLE)7P			
< DIODE >					
D11	8-719-991-33	DIODE	1SS133T-77		
D12	8-719-210-21	DIODE	11EQS04		
D13	8-719-210-21	DIODE	11EQS04		
D14	8-719-210-21	DIODE	11EQS04		
D15	8-719-210-21	DIODE	11EQS04		
D16	8-719-991-33	DIODE	1SS133T-77		
D17	8-719-200-82	DIODE	11ES2		
D18	8-719-200-82	DIODE	11ES2		
D19	8-719-200-82	DIODE	11ES2		
D20	8-719-200-82	DIODE	11ES2		
D21	8-719-936-43	DIODE	HZS27-3LTD		
D22	8-719-109-63	DIODE	RD3.0ESB2		
D23	8-719-991-33	DIODE	1SS133T-77		
< IC >					
IC11	8-759-450-47	IC BA05T			
< TRANSISTOR >					
Q11	8-729-119-78	TRANSISTOR	2SC403SP-51		
Q12	8-729-040-19	TRANSISTOR	RT1N137L-TP		
Q13	8-729-118-01	TRANSISTOR	2SB1116		
Q14	8-729-040-19	TRANSISTOR	2SC3616-KLM-T1		
Q15	8-729-040-19	TRANSISTOR	2SC3616-KLM-T1		
Q16	8-729-900-63	TRANSISTOR	DTA124ES		
Q17	8-729-900-63	TRANSISTOR	DTA124ES		
< RESISTOR >					
R11	1-249-429-11	CARBON	10K	5%	1/4W
R12	1-249-441-11	CARBON	100K	5%	1/4W
R13	1-249-417-11	CARBON	1K	5%	1/4W
R15	1-249-429-11	CARBON	10K	5%	1/4W
R16	1-247-807-31	CARBON	100	5%	1/4W
R17	1-247-807-31	CARBON	100	5%	1/4W
R18	1-247-807-31	CARBON	100	5%	1/4W
R19	1-249-427-11	CARBON	6.8K	5%	1/4W

Ref. No.	Part No.	Description	Remark		
R20	1-249-429-11	CARBON	10K	5%	1/4W
R23	1-249-427-11	CARBON	6.8K	5%	1/4W
< RELAY >					
△ RY11	1-755-276-11	RELAY, POWER			
< TRANSFORMER >					
△ T11	1-433-590-11	TRANSFORMER, POWER (RXD9: US)			
△ T11	1-433-591-11	TRANSFORMER, POWER (RXD9: AEP, UK)			

*	1-672-474-11	TRANS BOARD			

	1-533-233-21	HOLDER, FUSE			
< CAPACITOR >					
C901	1-101-004-00	CERAMIC	0.01uF		50V
C971	1-128-563-11	ELECT	100uF	20%	100V
(GRX9900)					
C972	1-126-960-11	ELECT	1uF	20%	50V
(GRX9900)					
C973	1-126-947-11	ELECT	47uF	20%	35V
(GRX9900)					
< CONNECTOR >					
* CN901	1-564-526-11	PLUG, CONNECTOR 11P (RXD9)			
* CN901	1-564-527-11	PLUG, CONNECTOR 12P (GRX9900)			
CN902	1-785-329-11	PIN, CONNECTOR (LIGHT ANGLE) 3P			
(GRX9900)					
CN951	1-564-321-00	PIN, CONNECTOR 2P (GRX9900)			
< DIODE >					
D971	8-719-200-82	DIODE 11ES2 (GRX9900)			
D972	8-719-056-97	DIODE UDZ-TE-17-27B (GRX9900)			
D973	8-719-056-74	DIODE UDZ-TE-17-3.0B (GRX9900)			
< FUSE >					
△ F951	1-532-464-31	FUSE (T2.5AL/250V) (RXD9: AEP, UK)			
△ F951	1-533-949-31	FUSE, CYLINDRICAL (TIME LAG) (8A/250V)			
(GRX9900)					
△ F952	1-532-504-31	FUSE (T4AL/250V)			
(EXCEPT GRX9900: MX/RXD9)					
△ F953	1-532-504-31	FUSE (T4AL/250V)			
(EXCEPT GRX9900: MX/RXD9)					
△ F961	1-533-949-31	FUSE, CYLINDRICAL (TIME LAG) (8A/250V)			
(EXCEPT RXD9: US)					
△ F961	1-533-312-11	FUSE, GLASS CYLINDRICAL(DIA.5)			
(10A/125V) (RXD9: US)					
△ F962	1-533-949-31	FUSE, CYLINDRICAL (TIME LAG) (8A/250V)			
(EXCEPT RXD9: US)					
△ F962	1-533-312-11	FUSE, GLASS CYLINDRICAL(DIA.5)			
(10A/125V) (RXD9: US)					
△ F963	1-533-312-11	FUSE, GLASS CYLINDRICAL(DIA.5)			
(10A/125V) (RXD9: US)					
△ F964	1-533-312-11	FUSE, GLASS CYLINDRICAL(DIA.5)			
(10A/125V) (RXD9: US)					
< TRANSISTOR >					
Q971	8-729-048-52	TRANSISTOR 2SA1932(TP) (GRX9900)			

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< RESISTOR >							
△ R951	1-219-120-11	FUSIBLE	0.15 5% 1/4W F (GRX9900)	110	1-693-445-11	TUNER PACK (FM/AM) (RXD9: US)	
△ R951	1-219-121-11	FUSIBLE	0.22 5% 1/4W F (RXD9)	110	1-693-453-11	TUNER PACK (FM/AM) (GRX9900: E2)	
△ R952	1-219-120-11	FUSIBLE	0.15 5% 1/4W F (GRX9900)	111	1-769-977-11	WIRE (FLAT TYPE) (13 CORE) (GRX9900: E2, MX, AR/RXD9: US)	
△ R952	1-219-121-11	FUSIBLE	0.22 5% 1/4W F (RXD9)	111	1-773-009-11	WIRE (FLAT TYPE) (15 CORE) (GRX9900: E3, EA, MY, SP/RXD9: AEP, UK)	
△ R953	1-219-119-81	FUSIBLE	0.1 5% 1/4W F (RXD9)	* 257	1-452-925-21	MAGNET ASSY	
△ R953	1-219-120-11	FUSIBLE	0.15 5% 1/4W F (GRX9900)	258	1-776-042-11	WIRE (FLAT TYPE) (8 CORE)	
R961	1-202-725-00	SOLID	3.3M 10% 1/2W (RXD9: US)	△ 301	8-820-020-02	OPTICAL PICK-UP KSS-213D/Q-NP	
△ R971	1-215-866-11	METAL OXIDE	330 5% 1W F (GRX9900)	302	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
R972	1-216-085-00	METAL CHIP	33K 5% 1/10W (GRX9900)	HP101	A-2056-681-A	DECK (A) ASSY, HEAD	
R973	1-216-073-00	METAL CHIP	10K 5% 1/10W (GRX9900)	HRPE101A	A-2056-682-A	DECK (B) ASSY, HEAD	
R974	1-216-025-00	RES, CHIP	100 5% 1/10W (GRX9900)	M1	A-2004-628-A	MOTOR ASSY, CAPSTAN	
R975	1-216-025-00	RES, CHIP	100 5% 1/10W (GRX9900)	M101	X-4917-523-4	MOTOR ASSY (SPINDLE)	
R976	1-216-085-00	METAL CHIP	33K 5% 1/10W (GRX9900)	M102	X-4917-504-1	MOTOR ASSY (SLED)	
R977	1-216-085-00	METAL CHIP	33K 5% 1/10W (GRX9900)	M501	1-763-072-11	FAN, D.C.	
< SWITCH >				M701	A-4672-004-A	MOTOR ASSY (DISC TRAY TURN)	
S951	1-771-291-11	SWITCH, POWER (VOLTAGE SELECTOR) (EXCEPT GRX9900: MX/RXD9)		M801	A-4672-004-A	MOTOR ASSY (DISC TRAY SLIDE)	
< TRANSFORMER >				S811	1-473-335-11	ENCODER, ROTARY (BU, TRAY ADDRESS DET)	
△ T951	1-433-584-11	TRANSFORMER, POWER (GRX9900)		△ T11	1-433-590-11	TRANSFORMER, POWER (RXD9: US)	
△ T951	1-433-585-11	TRANSFORMER, POWER (RXD9: US)		△ T11	1-433-591-11	TRANSFORMER, POWER (RXD9: AEP, UK)	
△ T951	1-433-586-11	TRANSFORMER, POWER (RXD9: AEP, UK)		△ T951	1-433-584-11	TRANSFORMER, POWER (GRX9900)	
*****				△ T951	1-433-585-11	TRANSFORMER, POWER (RXD9: US)	
MISCELLANEOUS				△ T951	1-433-586-11	TRANSFORMER, POWER (RXD9: AEP, UK)	
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62	1-773-188-11	WIRE (FLAT TYPE) (23 CORE)		HARDWARE LIST			
102	1-773-042-11	WIRE (FLAT TYPE) (17 CORE)		#1	7-685-871-01	SCREW +BVTT 3X6 (S)	
103	1-773-024-11	WIRE (FLAT TYPE) (15 CORE)		#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
105	1-773-122-11	WIRE (FLAT TYPE) (19 CORE)		#3	7-685-861-01	SCREW +BVTT 2X5 (S)	
△ 108	1-575-651-11	CORD, POWER (GRX9900: E3, EA, MY, SP/RXD9: AEP, UK)		#4	7-685-852-04	SCREW +BVTT 2X5 (S)	
△ 108	1-575-653-11	CORD, POWER (GRX9900: E2, MX)		#5	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
△ 108	1-783-531-11	CORD, POWER (RXD9: US)		#6	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
△ 108	1-783-941-21	CORD, POWER (GRX9900: AR)		#7	7-685-872-09	SCREW +BVTT 3X8 (S)	
△ 109	1-569-007-11	ADAPTOR, CONVERSION 2P (GRX9900: E3)		#8	7-621-775-10	SCREW +B 2.6X4	
△ 109	1-569-008-21	ADAPTOR, CONVERSION 2P (GRX9900: EA, MY, SP)		#9	7-685-851-04	SCREW +BVTT 2X4 (S)	
△ 109	1-770-019-11	ADAPTOR, CONVERSION PLUG 3P (RXD9: UK)		#10	7-628-254-50	SCREW +PS 2.6X16	
110	1-233-545-11	TUNER PACK (FM/AM) (GRX9900: MY, SP, MX, AR)		#11	7-628-254-15	SCREW +PS 2.6X6	
110	1-233-546-11	TUNER PACK (FM/MW/SW) (GRX9900: E3, EA)		#12	7-685-880-09	SCREW +BVTT 4X6 (S)	
110	1-693-443-11	TUNER PACK (FM/AM) (RXD9: AEP, UK, G, AED)		*****			
110	1-693-444-11	TUNER PACK (FM/MW/LW) (RXD9: CIS)		ACCESSORIES & PACKING MATERIALS			

				1-475-572-11	COMMANDER, STANDARD (RM-SR5)(SILVER)		
				1-475-572-41	COMMANDER, STANDARD (RM-SR5B) (BLACK)		
				1-501-374-11	ANTENNA, LOOP (AM) (GRX9900/RXD9: AEP, UK)		
				1-501-659-41	ANTENNA (FM) (GRX9900/RXD9: CIS)		
				1-501-804-11	ANTENNA (FM) (RXD9: AEP, UK, G, AED)		
				3-865-601-11	MANUAL, INSTRUCTION (ENGLISH) (GRX9900/RXD9: AEP, UK, CIS)		
				3-865-601-21	MANUAL, INSTRUCTION (FRENCH) (GRX9900: EA)		
				3-865-601-31	MANUAL, INSTRUCTION (SPANISH) (GRX9900: MX, AR)		

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

HCD-GRX9900/RXD9

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
	3-865-601-41	MANUAL, INSTRUCTION (FRENCH, SPANISH) (GRX9900: E2, E3, MY, SP/RXD9: AEP)	
	3-865-601-51	MANUAL, INSTRUCTION (CHINESE) (GRX9900: E3, MY, SP)	
	3-865-601-61	MANUAL, INSTRUCTION (ARABIC) (GRX9900: E3, EA)	
	3-865-601-71	MANUAL, INSTRUCTION (GERMAN) (RXD9: AEP, G)	
	3-865-601-81	MANUAL, INSTRUCTION (DUTCH, ITALIAN, PORTUGUESE) (RXD9: AEP)	
	3-865-601-91	MANUAL, INSTRUCTION (POLISH, RUSSIAN) (RXD9: AEP, CIS)	
	3-865-602-11	MANUAL, INSTRUCTION (DANISH, FINNISH, SWEDISH) (RXD9: AED)	
	3-865-603-11	MANUAL, INSTRUCTION (CZECH) (RXD9: AEP)	
	3-865-603-21	MANUAL, INSTRUCTION (HUNGARIAN) (RXD9: AEP)	
	3-865-603-31	MANUAL, INSTRUCTION (TURKISH) (RXD9: AEP)	
	3-865-603-41	MANUAL, INSTRUCTION (GREEK) (RXD9: AEP)	
	4-210-254-01	CUSHION (FOOT) (GRX9900/RXD9: AEP, UK)	
	4-991-151-21	COVER, BATTERY (FOR RM-SR5) (SILVER)	
	4-991-151-41	COVER, BATTERY (FOR RM-SR5B) (BLACK)	