MZ-R5ST

SERVICE MANUAL

Ver 1.2 2001. 01

AEP Model
UK Model
Tourist Model

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Model Name Using Similar Mechanism	MZ-R50
Mini Disc Mechanism Type	MT-MZR50-143
Optical Pick-up Type	KMS-280A/J2N

SPECIFICATIONS

System

Audio playing system	MiniDisc digital audio system
Laser diode properties	Material: GaAlAs Wavelength: λ = 780 nm Emission duration : continuous Laser output : less than 44.6 mW This output is the value measured at a distance of 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.
Recording and playback time	Maximum 74 minutes (MDW-74, stereo recording) Maximum 148 minutes (MDW-74, monaural recording)
Revolutions	400 rpm to 900 rpm (CLV)
Error correction	Advanced Cross Interleave Reed Solomon Code (ACIRC)
Sampling frequency	44.1 kHz
Coding	Adaptive TRansform Acoustic Coding (ATRAC)
Modulation system	EFM (Eight to Fourteen Modulation)
Number of channels	2 stereo channels 1 monaural channel
Wow and Flutter	Below measurable limit

Recorder

Frequency response	20 to 20,000 Hz ± 3 dB
Input	MIC (PLUG IN POWER): stereo mini-jack, 0.22 to 0.78 mV
Output	🎧/REMOTE: stereo mini-jack, maximum output level 5 mW + 5 mW, load impedance 16 Ω

Station

Frequency response	5 to 20,000 Hz ± 0.5 dB
Input	LINE (ANALOG) IN: phono jack, rated input level 500 mV DIGITAL IN OPT1, OPT2: rectangular-shaped optical plug, wavelength 660 nm
Output	LINE (ANALOG) IN: phono jack, rated output level 500 mV, load impedance 10 kilohms or greater ACTIVE SP OUT: stereo minijack, rated output level 500 mV, load impedance 4.7 kilohms or greater DIGITAL OUT: rectangular-shaped optical plug, output level -17 dBm, wavelength 660 nm

— Continued on next page —

PORTABLE MINI DISC RECORDER

MICROFILM

SONY®

🎧 HEADPHONES: stereo phone jack, peak output level 5 mW + 5 mW, load impedance 16 Ω

Sampling rate converter

Input: 32 kHz/44.1 kHz/48 kHz
Output: 44.1 kHz

General

Power requirements
Recorder:

Lithium ion rechargeable battery LIP-8 (supplied)
Two LR6 (size AA) alkaline dry batteries (not supplied)

Station:

Sony AC power adaptor (supplied) connected to the DC IN 9V jack:
220 to 230 V AC, 50/60 Hz (European model)
100 to 240 V AC, 50/60 Hz (Other models)

Battery life

For longer recordings, we recommend using the recorder attached to the station.

Batteries	Recording[2)]	Playback
LIP-8 lithium ion rechargeable battery	Approx. 3.5 hours	Approx. 5.5 hours
Two LR6 (size AA) Sony alkaline dry batteries	----- [3)]	Approx. 9 hours
LIP– 8 + two LR6 (size AA)	----- [3)]	Approx. 16 hours

1) The battery life may be shorter due to operating conditions and the temperature of the location.
2) When you record, use a fully charged rechageable battery.
3) Recording time may differ according to the alkaline batteries.

When to replace the batteries

When the dry batteries or rechargeable battery are weak, ▭ or "LoBATT" flashes in the display of the recorder or the remote control. Replace the dry batteries or charge the rechargeable battery.

Dimensions

Recorder: Approx. 104.5 × 20.1 × 77 mm (4 1/8 × 13/16 x 3 1/8 in.)
Station: Approx. 232 × 61 × 154 mm (9 1/4 × 2 1/2 × 6 1/8 in.) (w/h/d) not incl. projecting parts and controls

Mass

Recorder: Approx. 185 g (6.6 oz)
Approx. 235 g (8.3 oz.) incl. a recordable MD, headphones with remote control, and LIP-8 lithium ion rechargeable battery
Station: Approx. 970 g (34.2 oz.)

Supplied accessories

AC power adaptor(1)
Card remote commander (1)
Headphones with remote control (1)
Lithium ion rechargeable battery LIP-8 (1)
Battery case (1)
Optical cable (1) (European model only)
Ear attachment (1)
Carrying pouch (1)

Optional accessories

Battery charger (for LIP-8) BC-LIP8
Lithium ion rechargeable battery LIP-8

Optical Cable

POC-151HG, POC-152HG, POC-MZ1, POC-MZ2, POC-15B, POC-15AB, POC-DA12SP
Line Cable RK-G136
Stereo Microphones ECM-717, ECM-MS907, ECM-MS957
Stereo Headphones MDR-D77, MDR-D55, MDR-CD470, MDR-E888SP
Active Speakers SRS-Z1000
Recordable MDs MDW-series
MiniDisc Carrying Case CK-MD4
MiniDisc Filing Box CK-MD10

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Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

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

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

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

TABLE OF CONTENTS

MAIN FEATURES

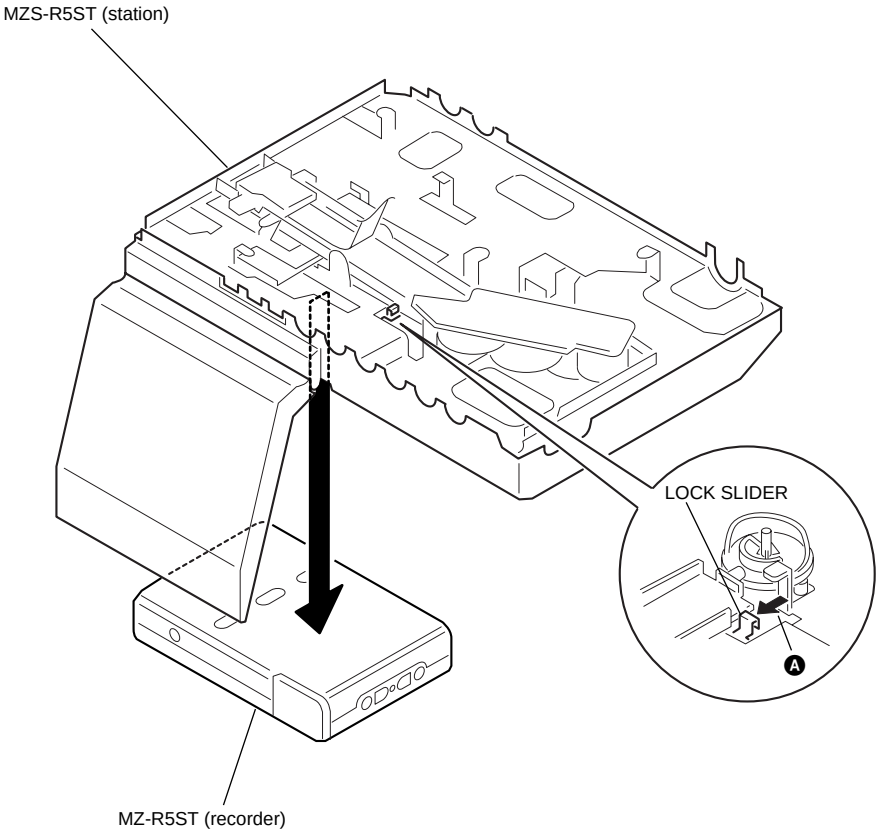
MZ-R5ST is the new Sony portable MiniDisc Recorder using the MiniDisc format.

- The MiniDisc station system – Use the recorder either by itself or attached to the station dock. Use the recorder attached to the station to enjoy full features and connectivity. Use the recorder detached from the station for portability.
- High-fidelity recording – Low-noise, how-distortion, high – fidelity recording through the optical digital input jack.
- Sampling rate converter – This unit enables you to record programs form digital equipment using other sampling rates, such as a BS tuner or DAT deck.
- Variety of recording options
  – Long recording with monaural recording (up to 148 minutes).
  – Time Machine recording enables you to record from the top of a song even if you pressed the button after you heard the beginning of the song.
  – Connect to an audio-timer to record when you are not home.
- Easy editing with the large LCD panel and the editing buttons
  – Title samples (21 words and phrases).
  – UNDO function lets you undo an editing operation.
- Programmed playback – Play any set of tracks in the order of your choice.
- Card remote commander – Operate the station from a distance. Direct Selection available.
- Output jack for active speakers – Connect to the active speakers SRS-Z1000 (not supplied), etc., to enjoy powerful MD playback at your desktop.

SECTION 1
SERVICE NOTES

When MZ-R5ST cannot be removed from MZS-R5ST, remove it as follows:
① Remove the CABINET (LOWER) ASSY and the RADIAL board of MZS-R5ST. (Refer to section 3. DISASSEMBLY on page 16.)
② Move the LOCK SLIDER in the direction (A) as shown by the arrow. (Refer to the illustration shown below.)

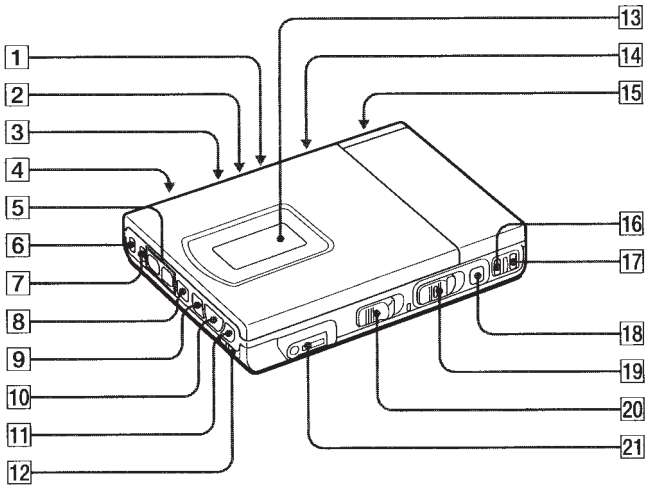
Note : When the above described procedure is performed, MZ-R5ST is removed all of a sudden. Be careful not to drop MZ-R5ST.



SECTION 2
GENERAL

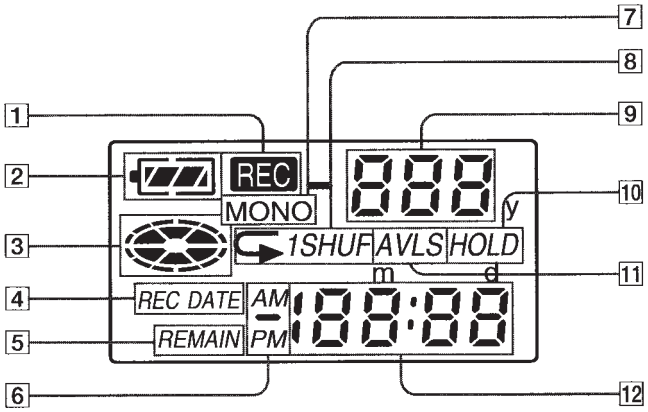
This section is extracted from instruction manual.

The recorder



1 MIC SENS (Mic sensitivity)
2 DIGITAL MEGA BASS switch
3 AVLS (Automatic Volume Limiter System) switch
4 MIC (PLUG IN POWER) jack
5 VOL (volume) –/+ buttons
6 MODE button
7 DISPLAY button
8 ■ (stop) button
9 ⏮ (rewind / AMS) button
10 ► (play) button
11 ⏭ (fast forward / AMS) button
12 HOLD switch
13 Display window
14 CLOCK SET button (at the bottom)
15 Battery compartment
16 END SEARCH button
17 T MARK button
18 ❚❚ (pause) button
19 REC switch
20 OPEN switch
21 🎧 / REMOTE (headphones / remote) jack

The display window of the recorder



1 REC indication
Lights up while recording. When flashing, the recorder is in record standby mode.

2 Battery indication
Shows battery condition. Lights up when a rechargeable battery is inserted. While charging the rechargeable battery, this indication shows the charging condition.

3 Disc indication
Shows that the disc is rotating for recording, playing or editing an MD.

4 REC DATE (recorded/current date) indication
Lights up along with the date and time the MD was recorded. When only "DATE" lights up, the current date and time are displayed.

5 REMAIN (remaining time/tracks) indication
Lights up along with the remaining number of tracks, remaining time of the track, or remaining time of the MD.

6 AM/PM indication
Lights up along with the time indication in the 12-hour system.

7 MONO (Monaural) indication

8 Play mode indication
Shows the play mode of the MD.
- (all repeat) : All tracks play repeatedly.
- *1*(single repeat) : One track plays repeatedly.
- *SHUF*(shuffle repeat) : Tracks will be repeated in random order.

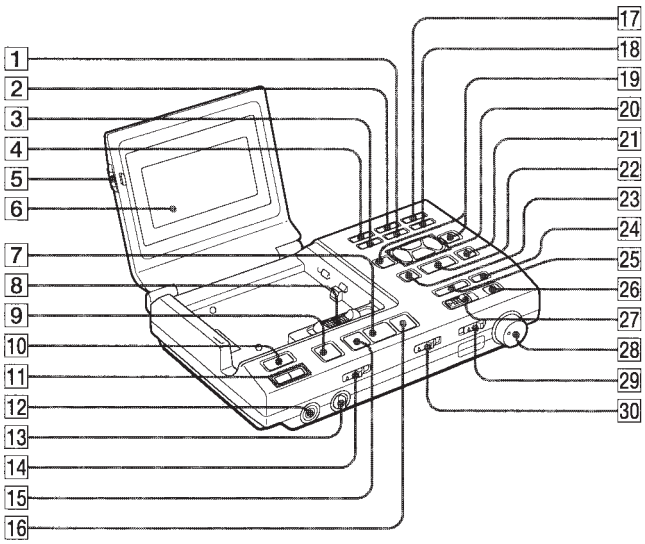
9 Track number indication
Shows the track number playing currently.

10 HOLD indication
Lights up when the HOLD switch is set on.

11 AVLS indication
Lights up when the AVLS switch is set on.

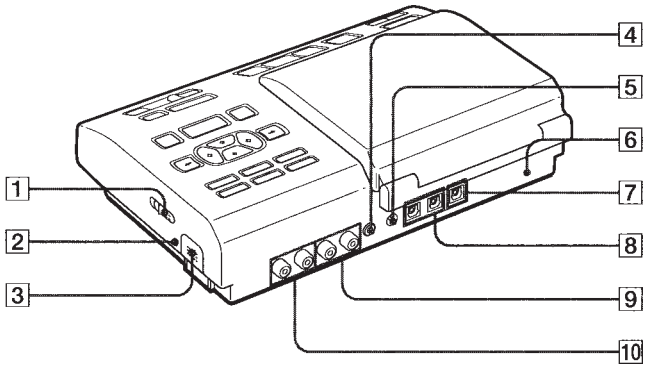
12 Time display
Shows the recorded time, current time, elapsed time of the track being played and the remaining time of the track or the disc.

Front panel of the Station



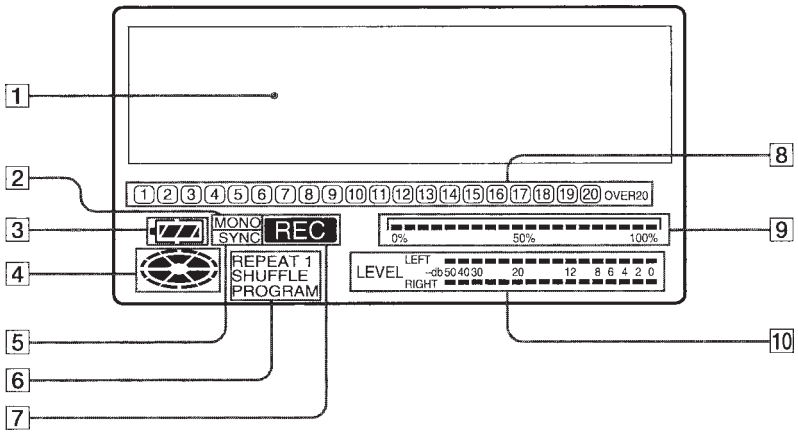
1 ERASE/DELETE button
2 MODE button
3 MOVE/INSERT button
4 DISPLAY button
5 PUSH OPEN button
6 Display window
7 ► (play) button
8 OPEN•RELEASE switch
9 ■ (stop) button
10 POWER switch
11 ACTIVE SP LEVEL –/+ buttons
12 ∩ HEADPHONES jack for stereo plug
13 LEVEL dial
Adjusts the volume of headphones connected to the ∩ HEADPHONES jack on the station, not the recorder.
14 TIMER switch
15 I◄◄ (rewind/AMS) button
16 ►►I (fast forward/AMS) button
17 TRACK MARK button
18 UNDO button
19 INPUT POSITION← / → (position) buttons
20 Cursor buttons
21 TITLE/ENTER button
22 SELECT button
23 CAPS button
24 END SEARCH button
25 TIME MACHINE REC button
26 ❚❚ (pause) button
27 REC switch
28 REC LEVEL (ANALOG) control
29 INPUT switch
30 SYNCHRO REC switch

Back panel of the Station



1 OPEN (open the lid) switch
2 CHARGE lamp
Lights up while charging the rechargeable battery on the station.
3 Rechargeable battery compartment
4 ACTIVE SP OUT jack
5 DC IN 9V jack
6 CLOCK SET button
7 DIGITAL OUT (OPTICAL) jack
8 DIGITAL IN (OPT1, OPT2) jack
9 LINE (ANALOG) OUT jack
10 LINE (ANALOG) IN jack

The display window of the Station



1 Character information display
Displays the disc and track names*, date, error messages, track numbers, etc.
*Disc and track names appear only with MDs that have been electronically labeled.

2 MONO (monaural) indication

3 Battery indication
Shows battery condition. Lights up when a rechargeable battery is inserted. While charging the rechargeable battery, this indication shows the charging condition.

4 Disc indication
Shows that the disc is rotating for recording, playing or editing an MD.

5 SYNC (synchronized recording) indication
Lights up while synchro-recording.

6 Play mode indication
Shows the play mode of the MD.
REPEAT (all repeat): All tracks play repeatedly.
REPEAT1 (single repeat): One track plays repeatedly.
REPEAT SHUFFLE (shuffle repeat): Tracks will be repeated in random order.
PROGRAM (program play): Lights up when programming for program play or executing program play.

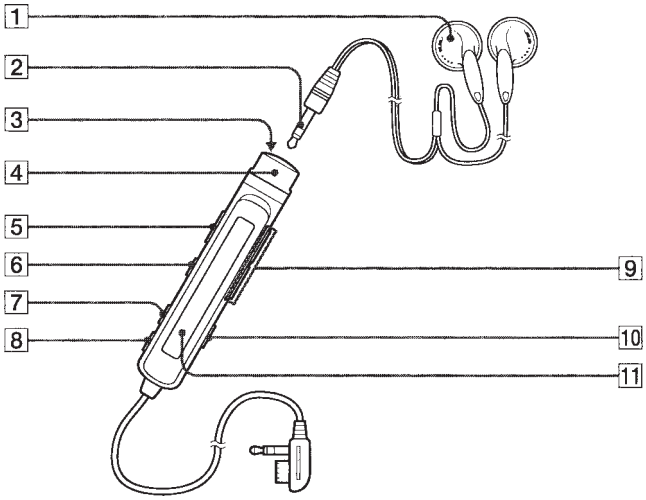
7 REC (record) indication
Lights up while recording. When flashing, the recorder is in record standby mode.

8 Music calendar
Displays the number of tracks recorded in MD, remaining tracks during shuffle play.

9 Position pointer
Shows the current location on the MD.
The point under recording or playing flashes. The recorded position lights up.

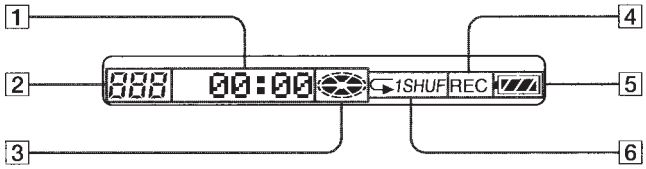
10 Peak level meter
Shows the volume of the MD being played or recorded.

The headphones with a remote control



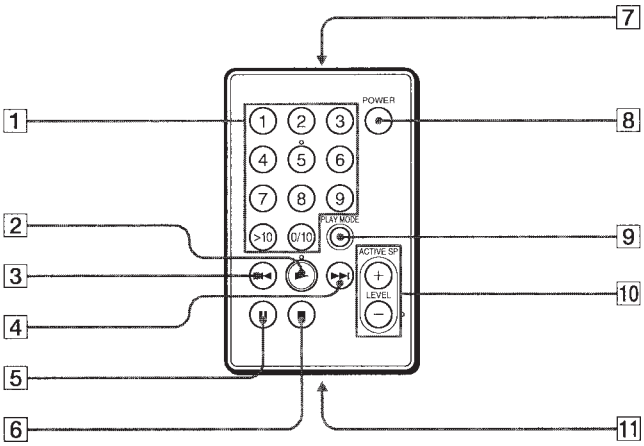
1 Headphones
Can be replaced with optional headphones.
2 Stereo mini plug
3 ■ (stop) button
4 Control
To play, turn to ► • ►►I during stop.
Turn to ► • ►►I during play to search the beginning of the succeeding track; hold in this position to fast-forward.
Turn to I◄◄ during play to search the beginning of the preceeding track; hold in this position to rewind.
5 HOLD switch
Slide to lock the controls of the remote control.
6 ❚❚ (pause) button
7 PLAY MODE button
8 DISPLAY button
9 VOL (volume) –/+ buttons
10 TRACK MARK button
11 Display window

The display window of the remote control



1 Character information display
Displays the disc and track names, date, elapsed time, etc.
2 Track number indication
Shows the track number of the track being recorded or played.
3 Disc indication
Shows that the disc is rotating for recording, playing or editing an MD.
4 REC (record) indication
Lights up while recording. When flashing, the recorder is in record standby mode.
5 Battery indication
Shows battery condition. While charging the rechargeable battery, this indication shows the charging condition.
6 Play mode indication
Shows the play mode of the MD.

Card remote commander



1 Number keys
2 ► (play) button
3 I◄◄ (rewind/AMS) button
4 ►►I (fast forward/AMS) button
5 II (pause) button
6 ■ (stop) button
7 Transmitter
Direct it toward the receiver on the station.
8 POWER switch
9 PLAY MODE button
10 ACTIVE SP (active speaker) LEVEL +/– buttons
11 Battery compartment

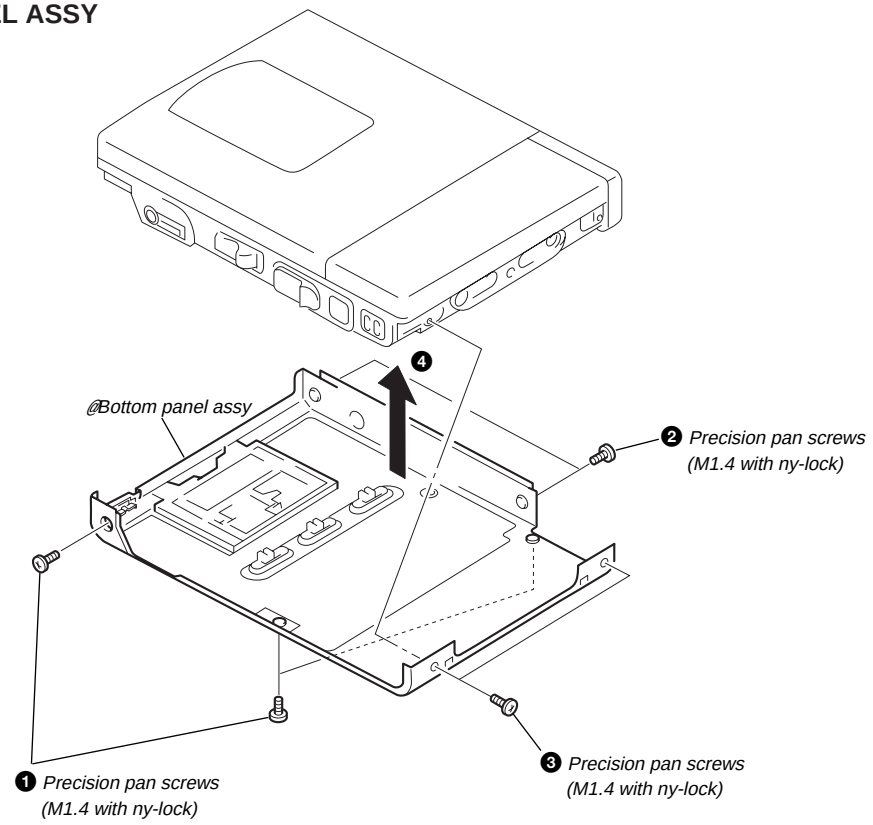
SECTION3
DISASSEMBLY

• MZ-R5ST
• MZ-R5ST can be disassembled in the following order.

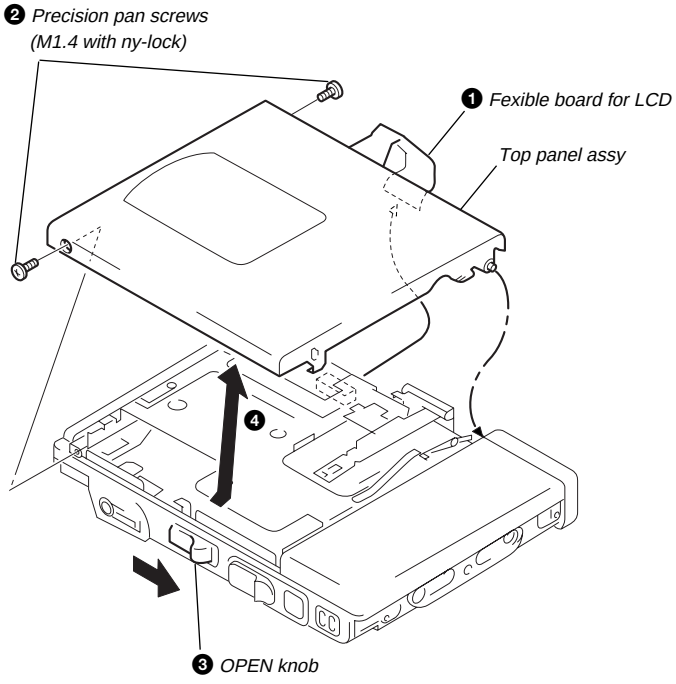
Set → Bottom Panel Assy / Top Panel Assy → MAIN Board → Mechanism Deck → Optical Pick-up Assy, REC Board / CLV Board
MAIN Board → Battery Case Assy → POWER Board, SW Board

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

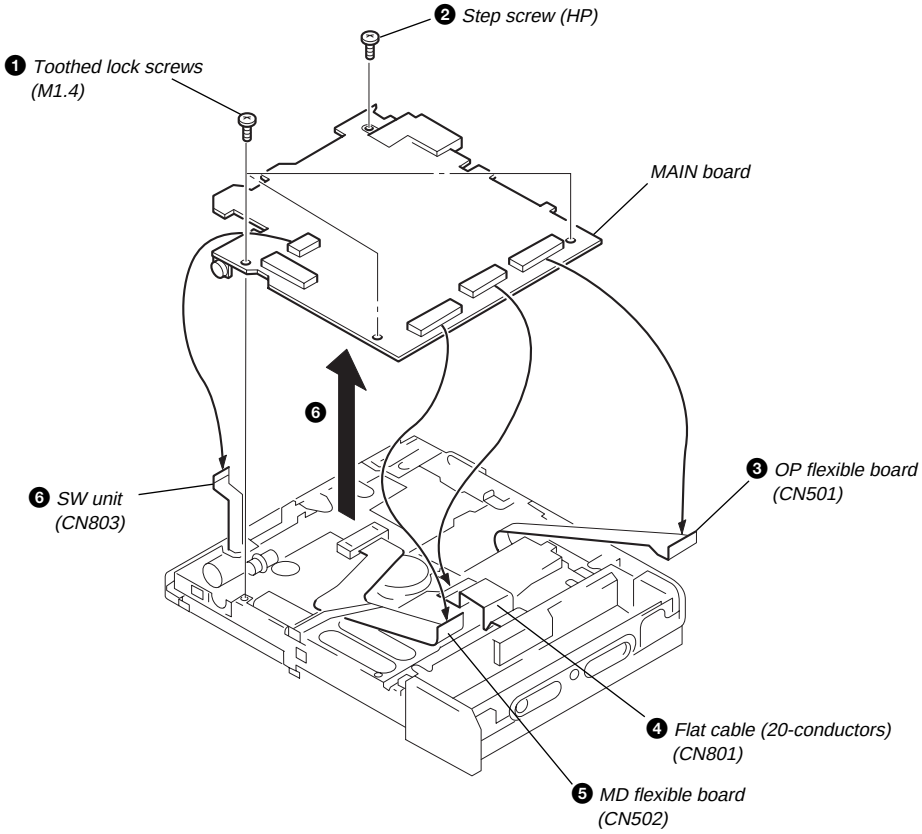
3-1. BOTTOM PANEL ASSY



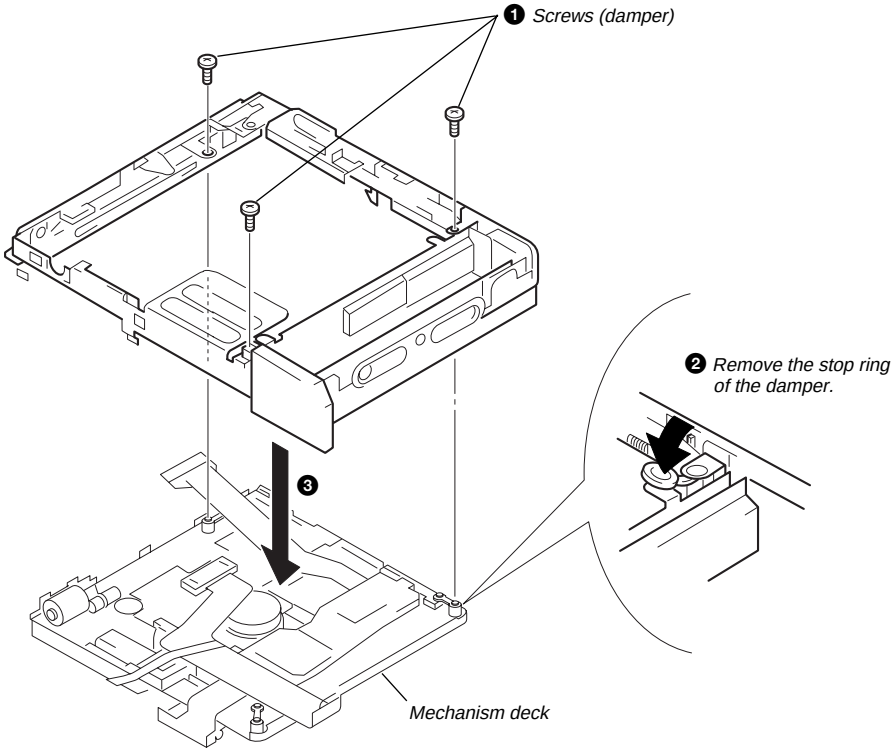
3-2. TOP PANEL ASSY



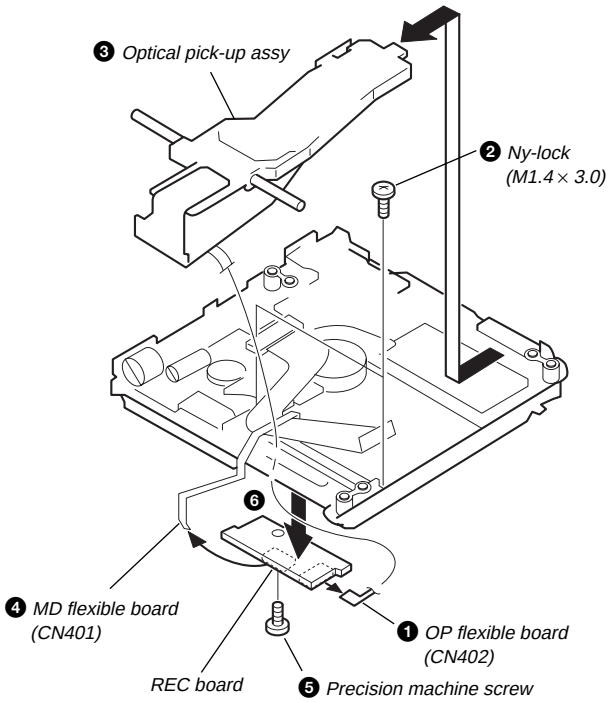
3-3. MAIN BOARD



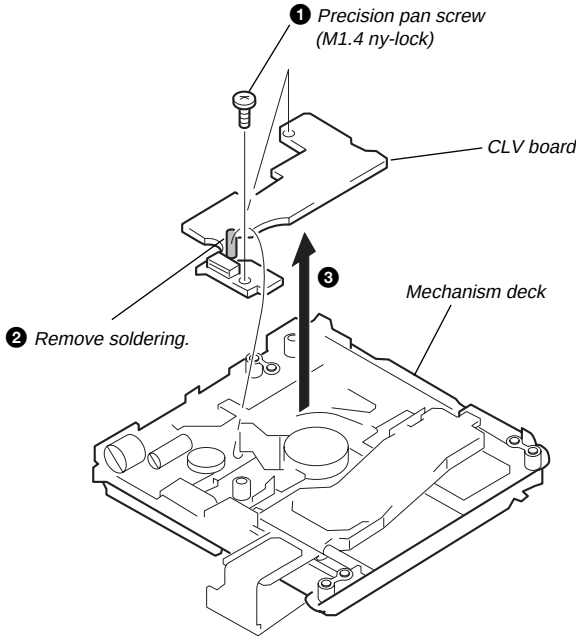
3-4. MECHANISM DECK (MT-MZR50-143)



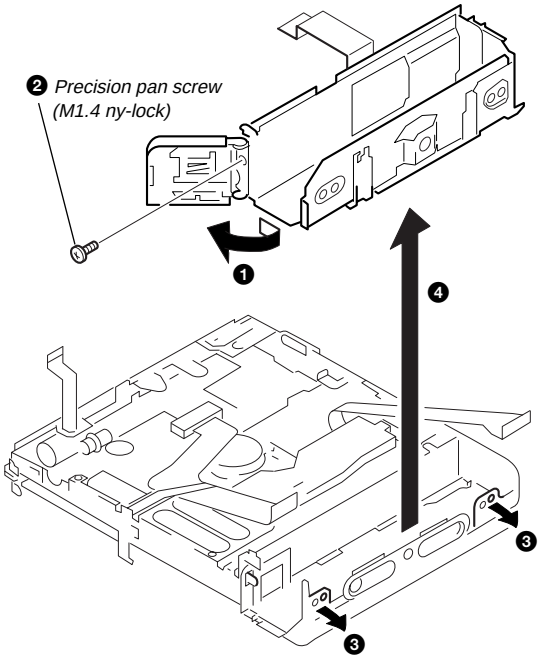
3-5. OPTICAL PICK-UP ASSY, REC BOARD



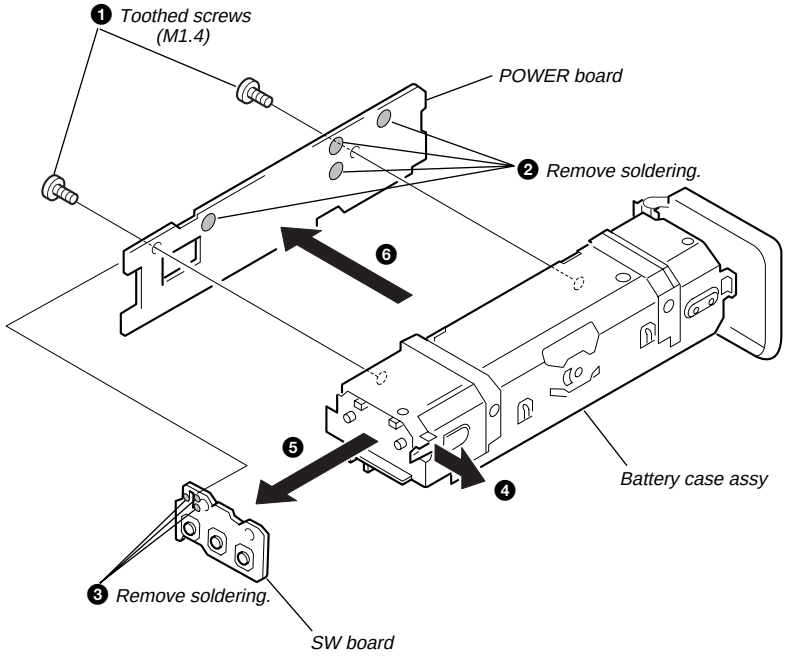
3-6. CLV BOARD



3-7. BATTERY CASE ASSY



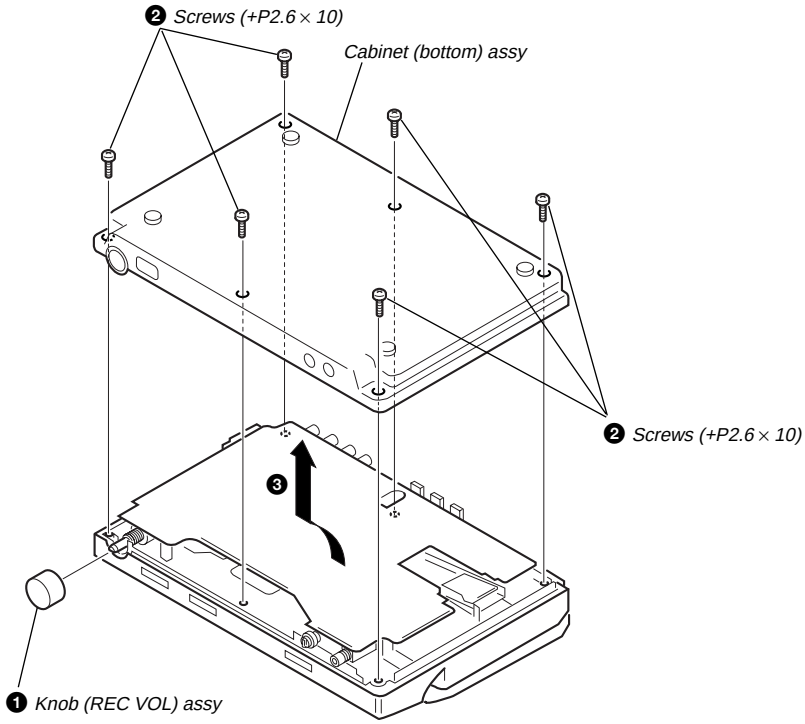
3-8. POWER BOARD, SW BOARD



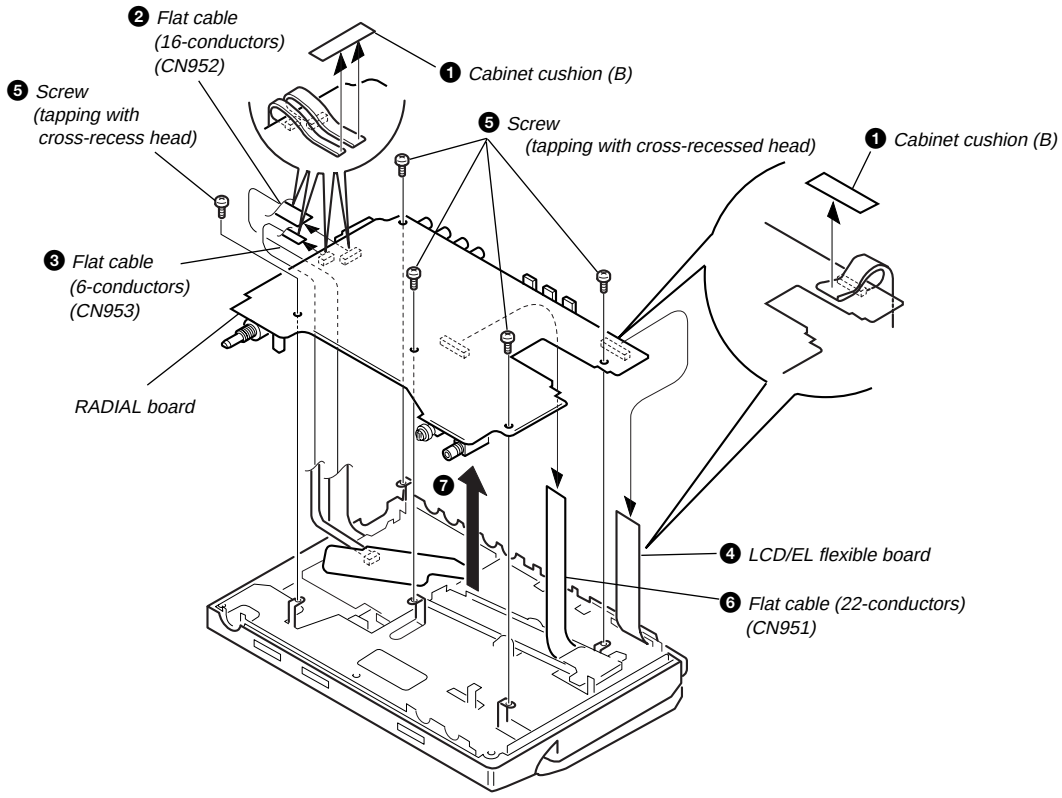
• MZS-R5ST
• MZS-R5ST can be disassembled in the following order.

MZS-R5ST Station ➡ Cabinet (LOWER) Assy ➡ RADIAL Board ➡ Chassis Assy
LCD Block Assy ➡ LCD Module, LCD/EL Board

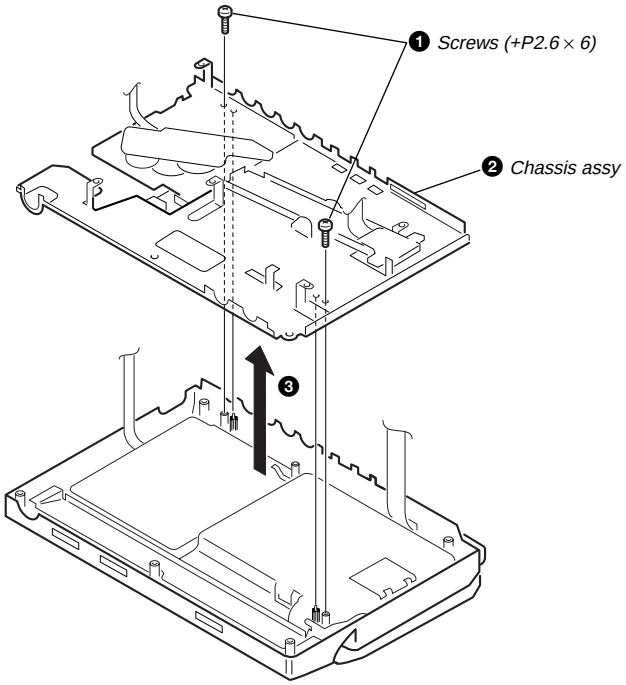
3-9. CABINET (LOWER) ASS'Y



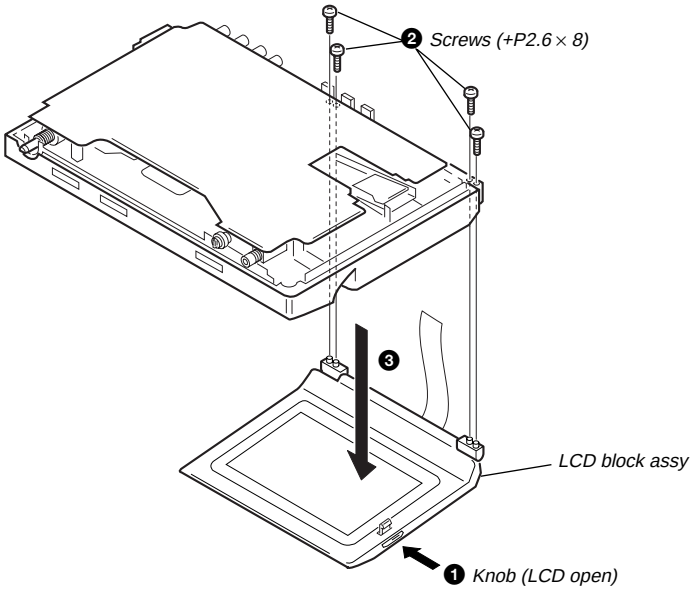
3-10. RADIAL BOARD



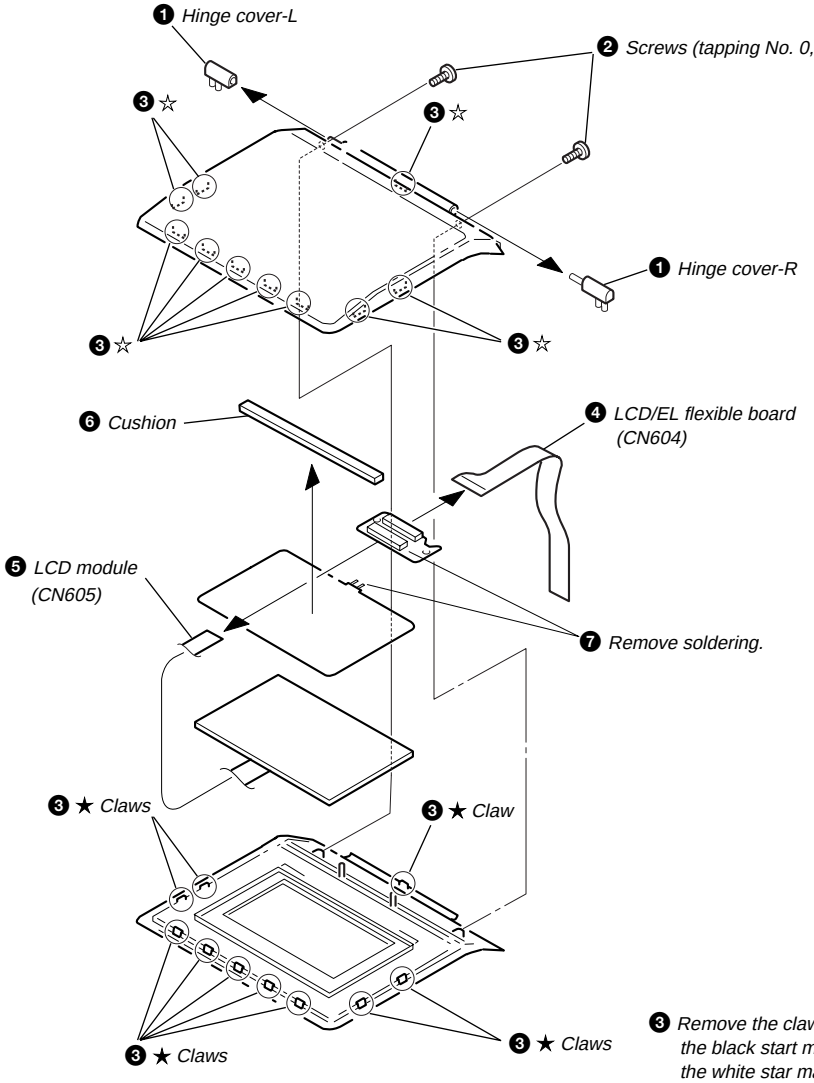
3-11. CHASSIS ASSY



3-12. LCD BLOCK ASSY



3-13. LCD MODULE, LCD/EL BOARD



❸ Remove the claws (10 claws) as shown by the black start marks (★) from the white star marked (☆) positions.

SECTION 4
TEST MODE

MD Block

Outline

- In this machine, the overall adjustment mode in which the automatic adjustments of CD and MO are performed, is established when the machine enters the test mode. In the overall adjustment mode, the loaded disc is identified whether it is CD or MO disc, and the various adjustments are performed in the order as shown below. When a fault is found during the test mode, location of a fault is displayed. In servo mode, the various adjustments are performed automatically too in the order as shown below.

How to enter the test mode

There are two methods to enter the test mode:

1. The method of enter the test mode by shorting the TEST soldering bridge
   Connect the solder bridge TAP803 (TEST) on the MAIN board by soldering (i.e., connecting IC801 ⑮ to GND), and turn on the main power.
2. The method of enter the test mode by pressing the keys
   While depressing the ► key, press the keys ▶▶I , ▶▶I , I◀◀ , I◀◀ , ▶▶I , I◀◀ , ▶▶I , I◀◀ , ❚❚ , ❚❚ in this order.

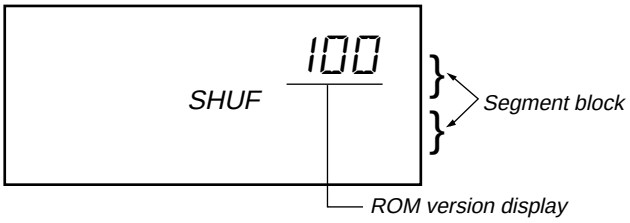
How to exit the test mode

1. When the solder bridge TAP803 is shorted to enter the test mode, turn off the main power and remove soldering from the TAP803 to open the solder bridge.
2. When the machine has entered by pressing the key, turn off the main power of the machine to exit the test mode.

Operation when setting the test mode

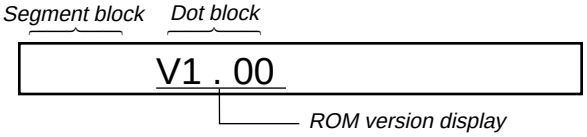
When machine enters the test mode, the following initial display appears on LCD and the display changes as described below.

< LCD display on the machine >



- On the LCD of the machine, the sequence of display starting from the all segments turn on → all segments turn off → ROM version display, is repeated.

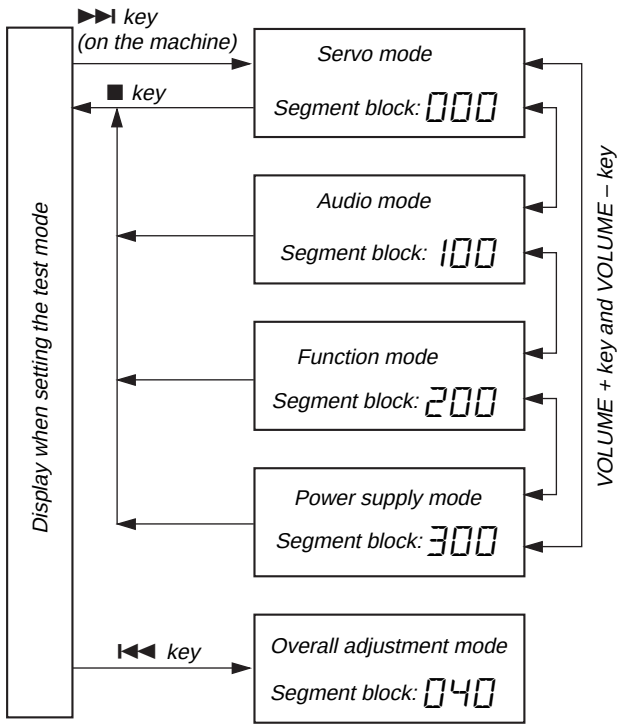
< LCD display on remote control >



- On the LCD of remote control, the sequence of display starting from ROM version display → all segments turn on → all segments turn off, is repeated.
- On both of the machine and remote control, the display is held as long as the ❚❚ key is being pressed which enables to check the LCD display.

Test mode configuration

Test mode of this machine consists of the following five modes.

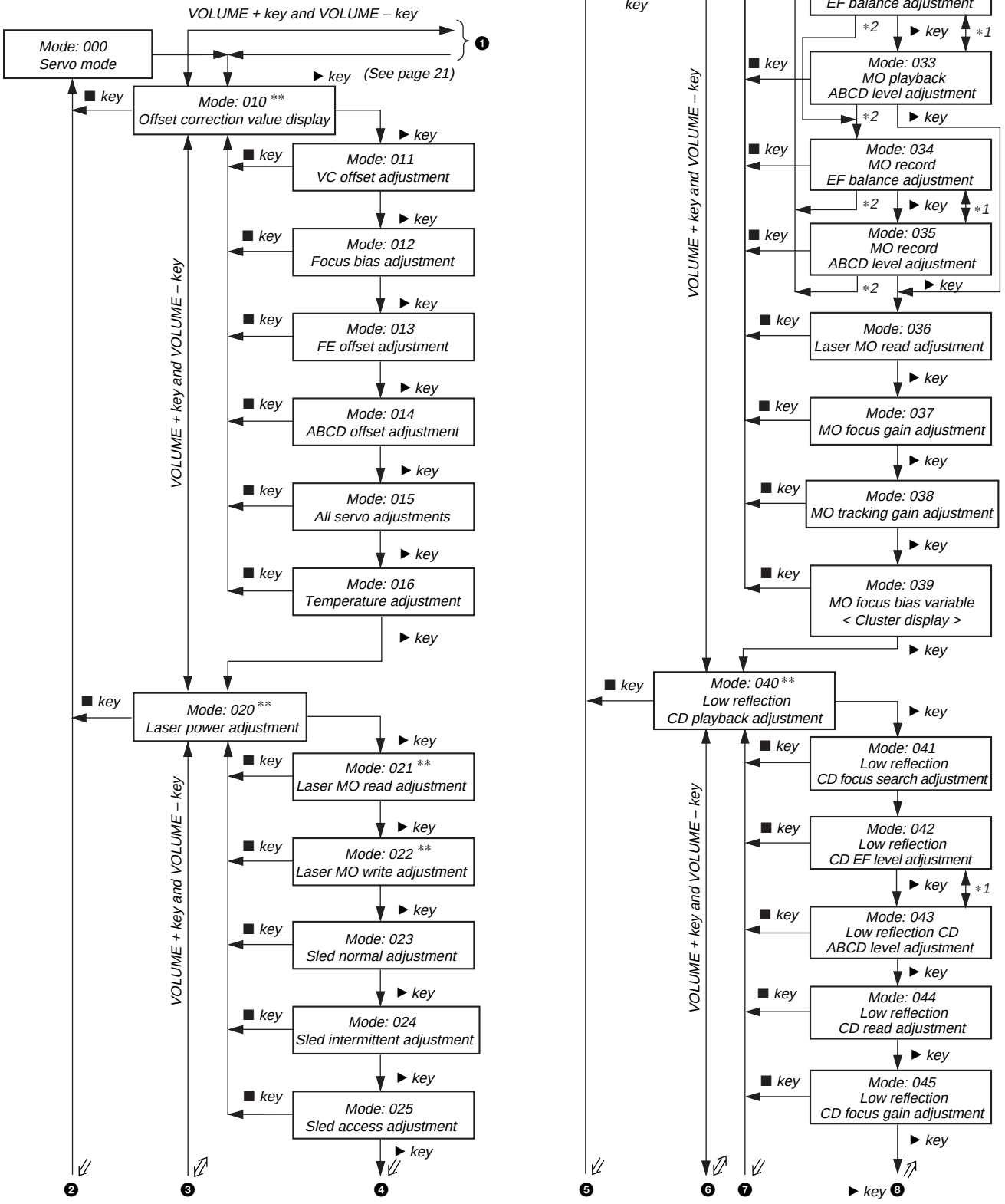


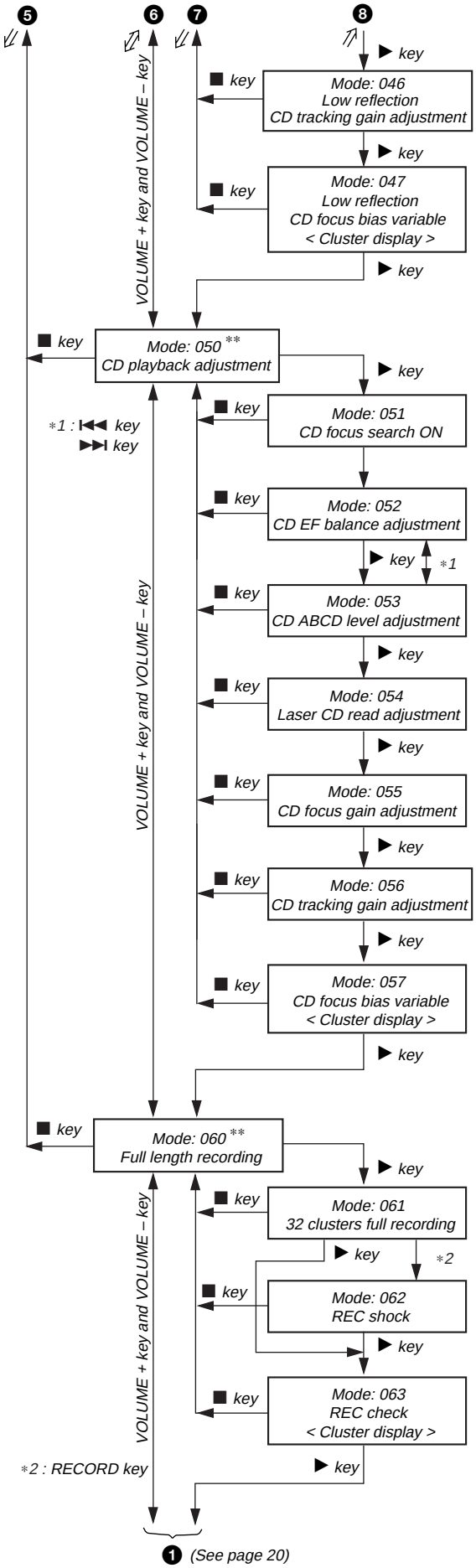
- In the modes other than the overall adjustment mode, the mode number appears in the 000 block.

Servo mode

- How to enter the servo mode
  After entering the test mode, while pressing ▶▶I key, press the VOLUME + key and VOLUME - key to enter the servo mode.
- When the machine enters the servo mode, the optical pickup moves to the outer circumference and to the inner circumference respectively by pressing the ▶▶I key and I◀◀ key. (In the items marked by asterisk ** only)
- To enter the other modes of the test mode, re-enter the test mode again. Refer to the section [Test mode configuration].

- **Servo mode configuration**

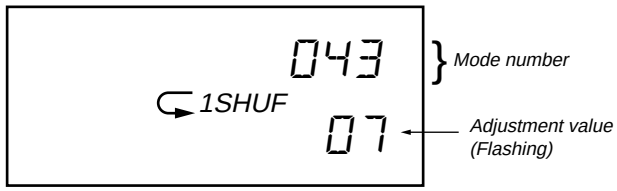




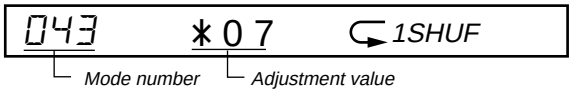
- **Servo adjustment method**

1. The adjustment values stored in EEPROM and the mode numbers are displayed when the machine enters the respective servo adjustment mode in accordance with the procedure shown in the servo mode configuration.

< LCD display on the machine >

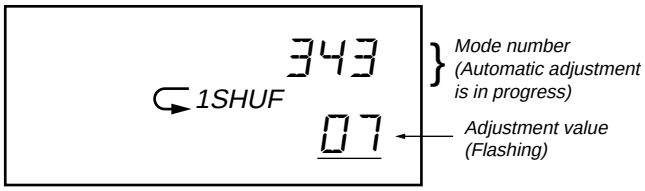


< LCD display on remote control >

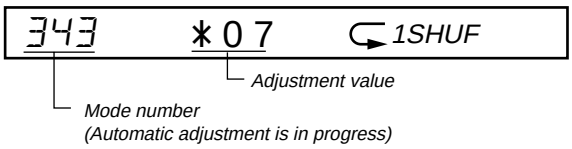


2. When the ❚❚ key is pressed, the following display appears and the automatic adjustment of the servo mode starts.

< LCD display on the machine >



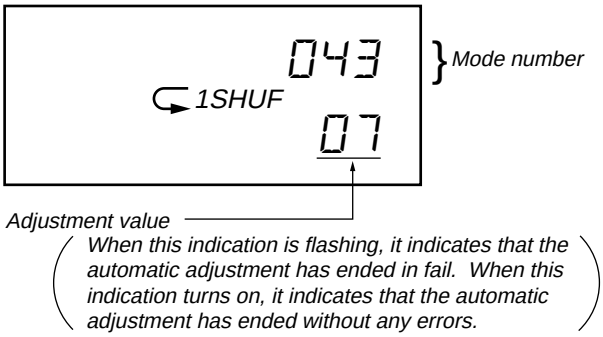
< LCD display on remote control >



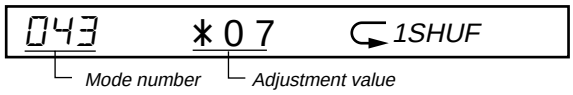
Note : The adjustment values can be changed as you want when the VOLUME + and the VOLUME – key is pressed. However, do not attempt to adjust the servo values because it is dangerous.

3. When all items of the servo mode automatic adjustment are completed, the display returns to the item display on which the adjustment values are shown.

< LCD display on the machine >

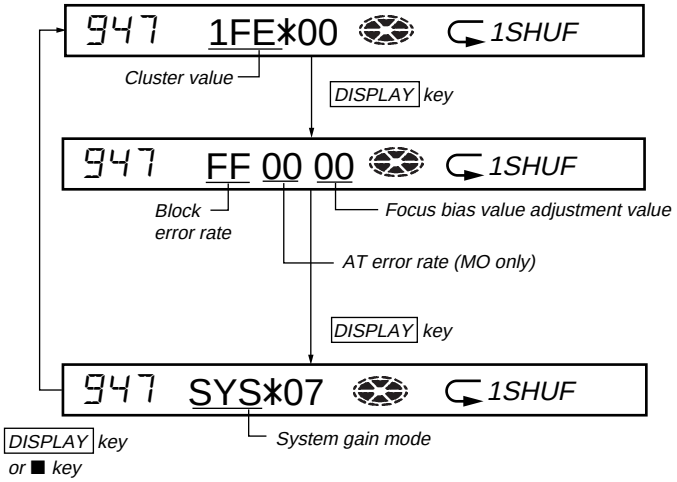


< LCD display on remote control >



- The cluster display (It is not displayed on LCD of the machine.)

< LCD display on remote control >

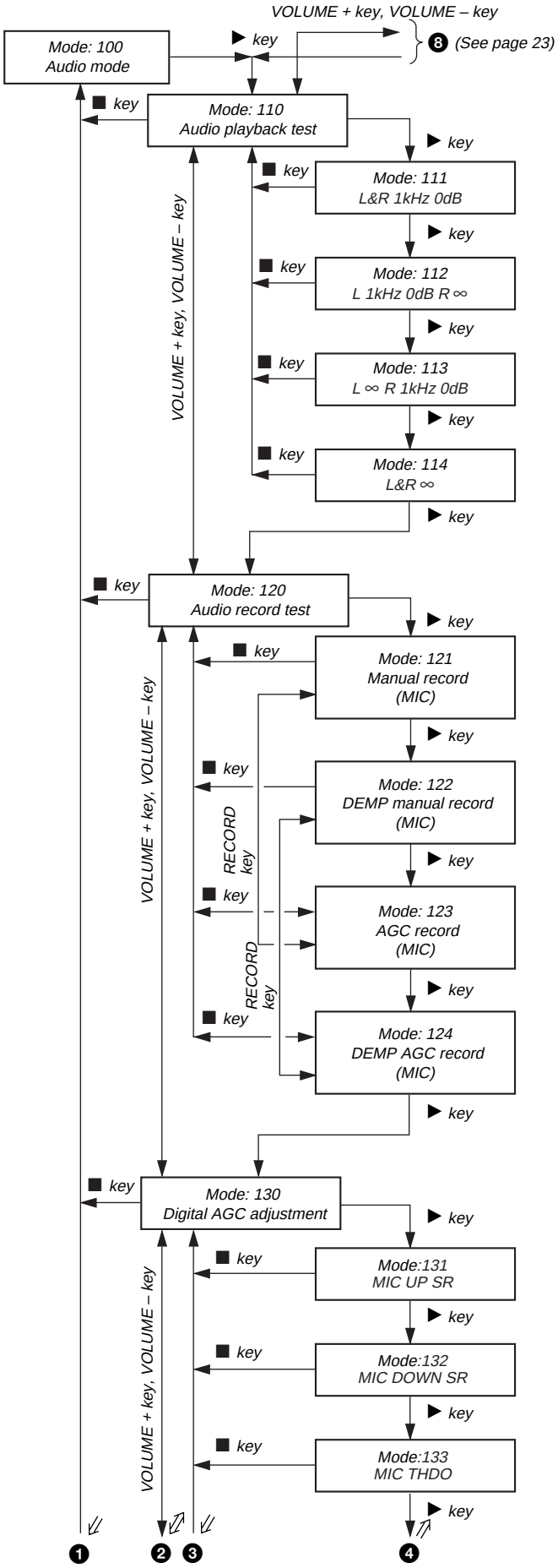


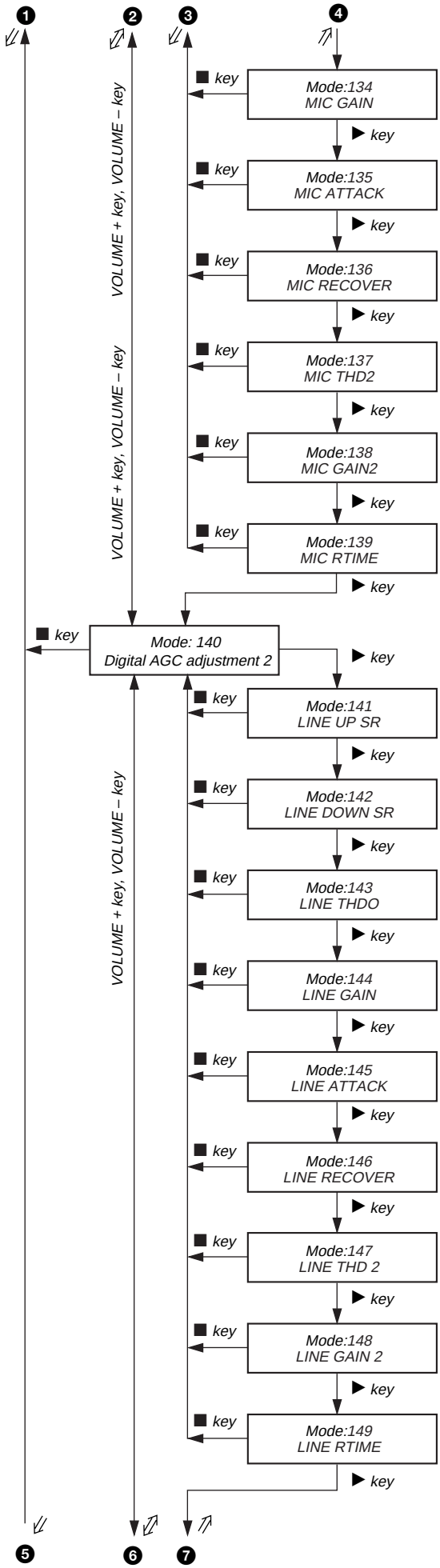
- All key operations must be performed from the remote control.

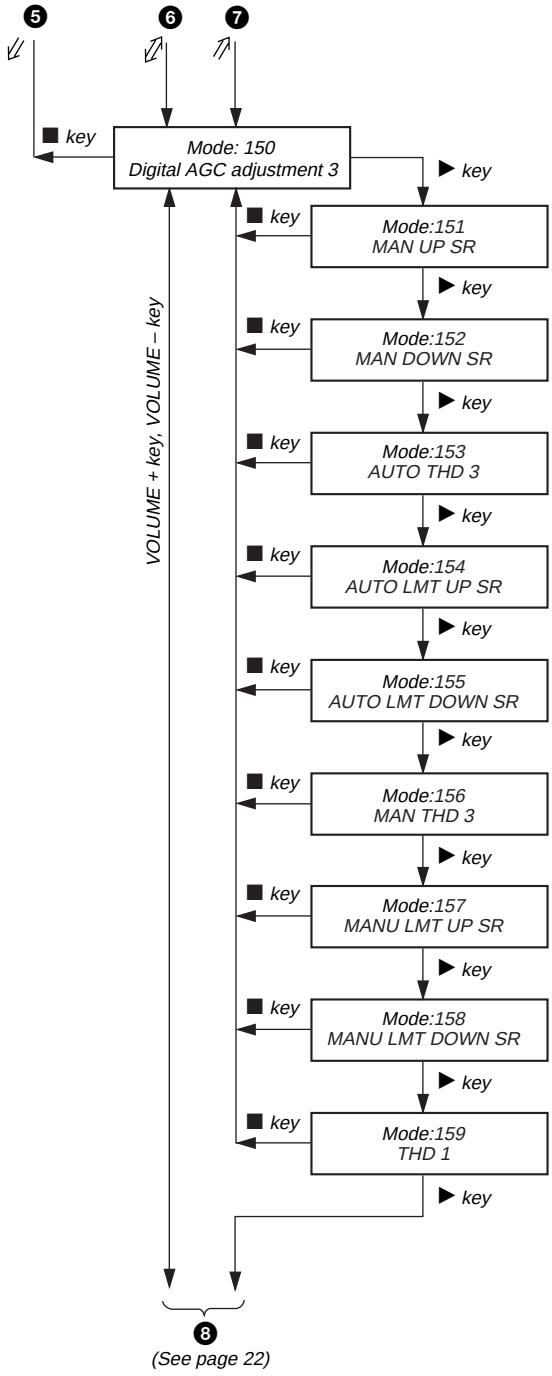
Audio Mode

- How to enter the audio mode
  After entering the test mode, while pressing ▶▶I key, press the VOLUME + key and VOLUME – key to enter the audio mode.
- To enter the other modes of the test mode, re-enter the test mode again. Refer to the section [Test mode configuration].

- **Audio mode configuration**





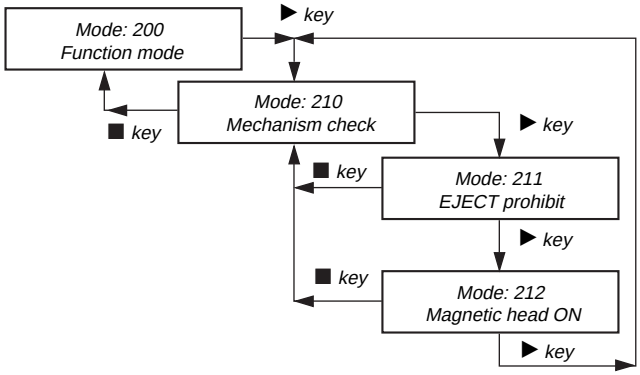


- Buzzer sounds when ❚❚ key is pressed in the audio mode numbers 110 to 114. (Hold switch: OFF)
- Headphone output level increases or decreases when the VOLUME + key or the VOLUME – key is pressed in the audio mode numbers from 111 to 113, 123 or 124. The headphone output goes minimum or maximum when ⏮ key or ⏭ key is pressed.
- The record level increases or decreases when the VOLUME + key or the VOLUME – key is pressed in the audio mode numbers 121 or 122. The record level goes minimum or maximum when ⏮ key or ⏭ key is pressed.
- The record LED flashes in the audio mode numbers from 120 to 124.

Function Mode

- How to enter the function mode
  After entering the test mode, while pressing ▶▶I key, press the VOLUME + key and VOLUME – key to enter the function mode.
- To enter the other modes of the test mode, re-enter the test mode again. Refer to the section [Test mode configuration].

- **Function mode configuration**

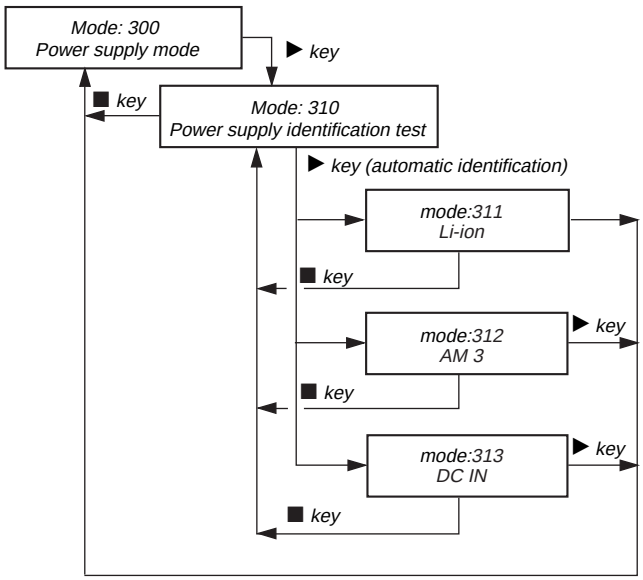


- When the machine enters the function mode Nos. 200, 210 to 212, the optical pickup moves to the outer circumference and to the inner circumference respectively by pressing the I◀◀ key and ▶▶I key.

Power Supply Mode

- How to enter the power supply mode
  After entering the test mode, while pressing ▶▶I key, press the VOLUME + key and VOLUME – key to enter the power supply mode.
- To enter the other modes of the test mode, re-enter the test mode again. Refer to the section [Test mode configuration].

- **Power supply mode configuration**

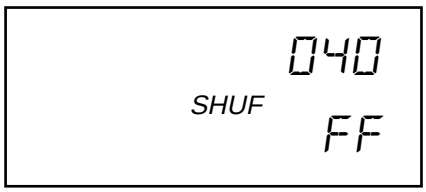


Overall Adjustment Mode

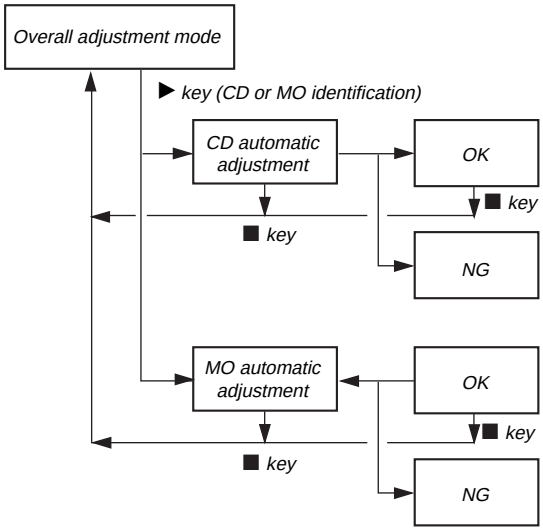
- How to enter the overall adjustment mode
  After entering the test mode, press the I◀◀ key to enter the overall adjustment mode.
- To enter the other modes of the test mode, exit the test mode once, and re-enter the test mode again.
- When the machine enters the overall adjustment mode, the LCD display on the remote control unit and on the station appears as shown below.

< LCD display on remote control >

< LCD display on the machine >



- **Overall adjustment mode configuration**



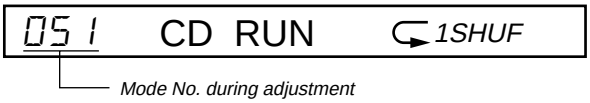
- **Overall adjustment method**

1. Enter the test mode. Press the ⏮ key to enter the overall adjustment mode.
2. Insert the CD test disc (TDYS-1) or commercially available Sony MO disc.
3. Press the ► key. The machine identifies the inserted disc whether it is CD or MO disc, and enter the respective automatic adjustment mode. The following adjustments are performed automatically in the following order.
   - Adjustment items during the CD automatic adjustment mode

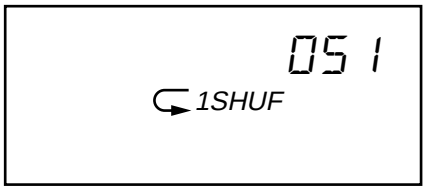
No.	Mode No.	Adjustment contents
1	051	CD focus search
2	052	CD EF balance adjustment
3	053	CD ABCD level adjustment
4	055	CD focus gain adjustment
5	056	CD tracking gain adjustment
6	057	CD focus bias variable

* LCD display during the CD automatic adjustment mode

< LCD display on remote control >



< LCD display on the machine >

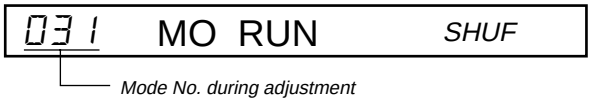


- Adjustment items during the MO automatic adjustment mode

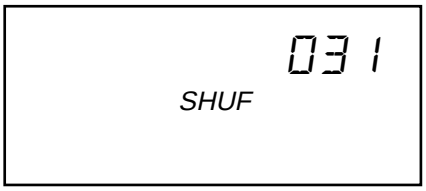
No.	Mode No.	Adjustment contents
1	031	MO focus search
2	032	MO playback EF balance adjustment
3	033	MO playback ABCD level adjustment
4	034	MO record EF balance adjustment
5	035	MO record ABCD level adjustment
6	037	MO focus gain adjustment
7	038	MO tracking gain adjustment
8	061	Full length recording (32 to 45 clusters)
9	082	AT error check
10	062	REC shock
11	063	REC check (32 cluster)
12	039	MO focus bias variable
13	082	AT error check
14	042	Low reflection CD EF balance adjustment
15	043	Low reflection CD ABCD level adjustment
16	045	Low reflection CD focus gain adjustment
17	056	Low reflection CD tracking gain adjustment

* LCD display during the MO automatic adjustment

< LCD display on remote control >

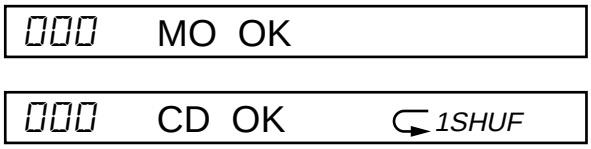


< LCD display on the machine >

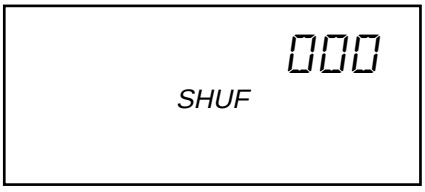


4. When result of the automatic adjustment ended without any errors, the following display appears.

< LCD display on remote control >

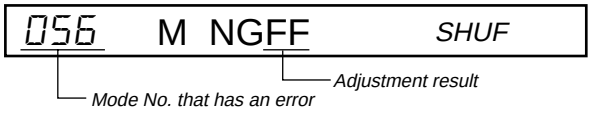


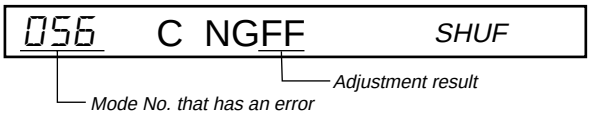
< LCD display on the machine >



5. When result of the automatic adjustment ended in fail, the following display appears.

< LCD display on remote control >





* When the automatic adjustment ended in fail, let's the machine enter the servo mode and perform the automatic adjustment of the item that has caused the error. (Refer to the Servo Mode.)

Station Block

Outline

The following operation of the machine can be checked on the LCD display when the machine enters the test mode.

- ON/OFF control of the charging circuit of the machine (MD)
- ON/OFF control of the charging circuit of the station
- Motor control of the station attachment section of the machine
- Accepting the various key inputs

How to enter the test mode

There are two methods to enter the test mode:

Method 1. The method of enter the test mode by shorting the TEST soldering bridge

1. Connect the solder bridge TAP901 (TEST) on the RADIAL board by soldering.
2. Turn on the main power.
3. Press the RESET switch.

Method 2. The method of enter the test mode by pressing the keys

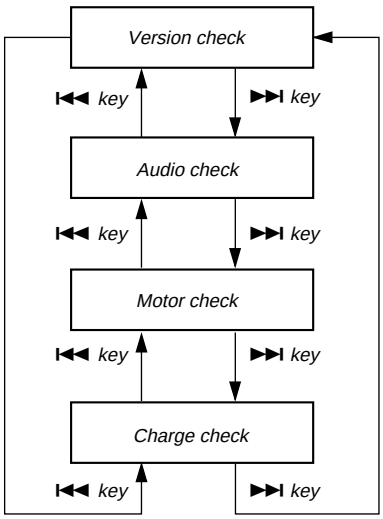
1. Turn on the main power of the machine.
2. While depressing the ▶ key, press the keys ▶▶I , ▶▶I , I◀◀ , I◀◀ , ▶▶I , I◀◀ , ▶▶I , I◀◀ , ▮▮, ▮▮in this order.

How to exit the test mode

1. When the solder bridge TAP901 is shorted to enter the test mode, turn off the main power and remove soldering from the TAP901 to open the solder bridge. Press the RESET switch.
2. When the machine has entered by pressing the key, turn off the main power of the machine to exit the test mode. Press the RESET switch.

Test mode configuration

Test mode of this machine consists of the following five modes.

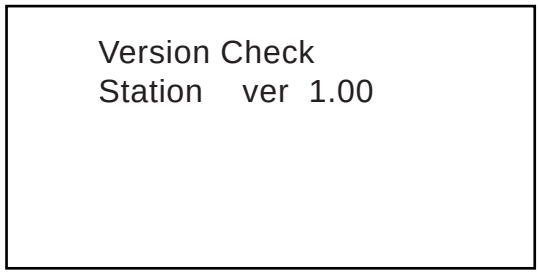


* The machine enters forcibly to the initial check of the motor check mode when the RELEASE ➡ slide switch is moved in the arrow direction during the test mode. However, this slide switch is used to switch ON or OFF of charging when the machine checks the charging during the charge check mode.

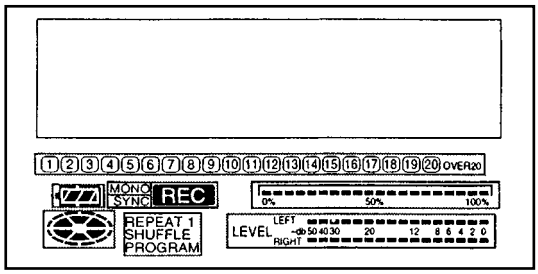
Version check mode

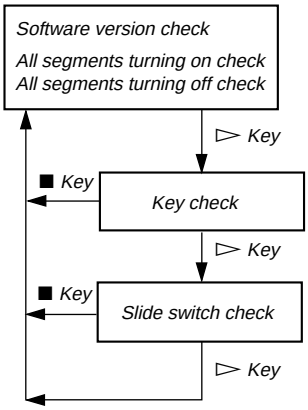
- The machine enters the version check mode when the test mode is established.
- The version check mode is used to check the software version number of the station microprocessor and to check the LCD segments that there are no defective segments.
- The LCD display repeats the LCD screens starting from the " Version check" screen → LCD all segments turning on check screen → LCD all segments turning off check screen at a specified cycle. (Less than one second)
- Cyclic repetition of the LCD screens can be tentatively stopped when the ▮▮ key is pressed. The tentative stop of LCD displays can be released by pressing the ▮▮ key again.

Version check screen



LCD all segments turning on check screen





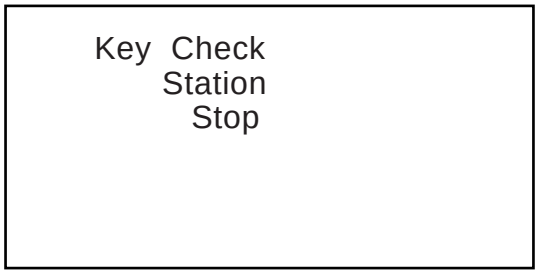
Key check mode

- Name of the key corresponding to the depressed key on the station or on the remote control, is displayed in the key check mode.

Station

Key	LCD display
⏮	FR
⏭	FF
END SEARCH	Ends
REC ●	Rec
PAUSE ⏸	Pause
TIME MACHINE REC	T.REC
CAPS	Caps
SELECT	Select
TITLE/ENTER	Enter
INPUT POSITION ←	<
⬅	Left
⬆	Up
⬇	Down
➡	Right
INPUT POSITION →	>
MOVE/INSERT	Move
ERASE/DELETE	Erase
UNDO	Undo
DISPLAY	Disp
MODE	Mode
TRACK MARK	T mark
ACTIVE SP LEVEL –	–
ACTIVE SP LEVEL +	+
POWER	Power

Key check screen



Remote control unit

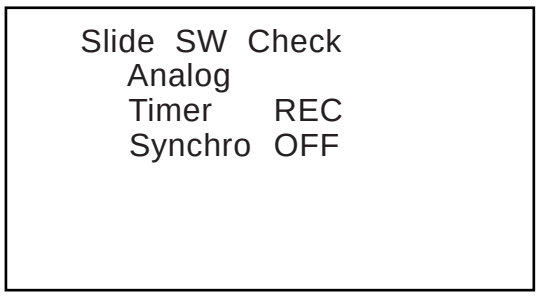
Key	LCD display
1	1
2	2
3	3
4	4
5	5
6	6
7	7
8	8
9	9
0/10	0
>10	>10
▷	Play
⏸	Pause
■	Stop
⏮	FR
⏭	FF
MODE	Mode
SP VOL +	+
SP VOL –	–
POWER	Power

Slide switch check mode

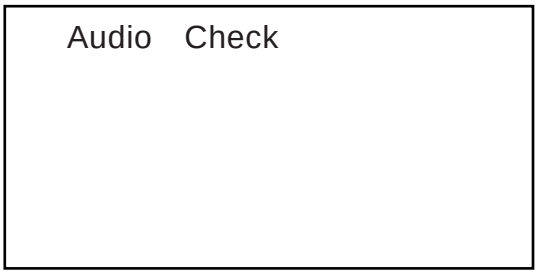
- The slide switch status is displayed in this mode.

Switch/position		*LCD display*
INPUT	*ANALOG*	*Analog*
	OPT1	*Digital 1*
	OPT2	*Digital 2*
TIMER	*(END SEARCH) REC*	*Timer REC*
	OFF	*Timer OFF*
	PLAY	*Timer PLAY*
SYNCHRO REC	*OFF*	*Synchro OFF*
	ON	*Synchro ON*

Slide switch check screen

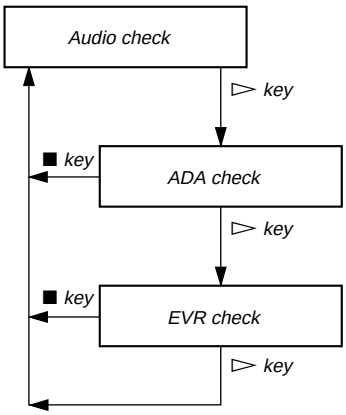


Audio check screen



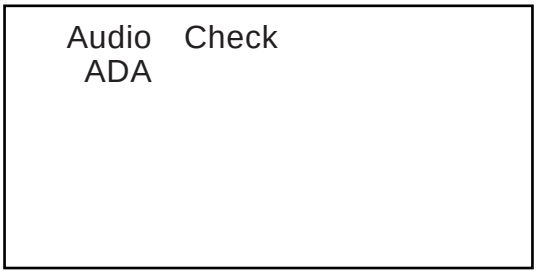
Audio check mode

- The 20-bit ADA and EVR operations can be checked in this mode.



ADA check mode

ADA check screen

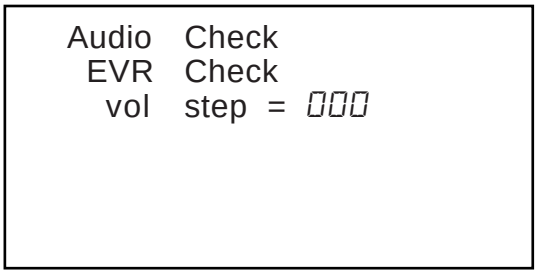


- The above display appears to show that the machine enters the ADA check mode. However, no checks are performed in this mode.

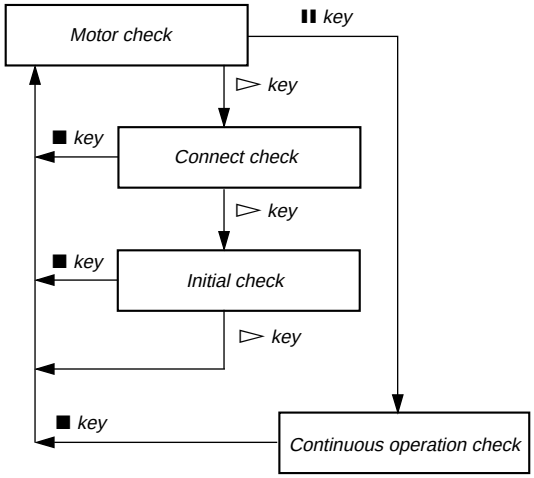
EVR check mode

- When the ACTIVE SP LEVEL + key is pressed, number of the Vol step indication increases. Pressing the ACTIVE SP LEVEL – key decreases number of the Vol step.
- Pressing the ▶▶I key indicates the maximum value (030). Press the I◀◀ key indicates the minimum value (000).

Screen

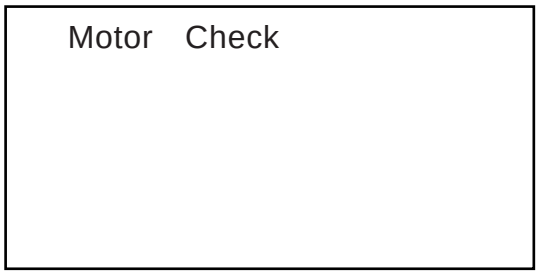


Motor check mode



- How to enter the motor check mode
  Enter the test mode. Then press the ▶▶I key, the I◀◀ key to enter the motor check mode.

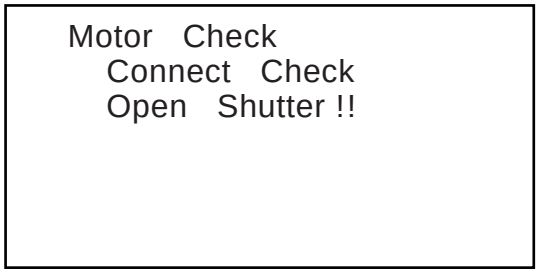
Screen



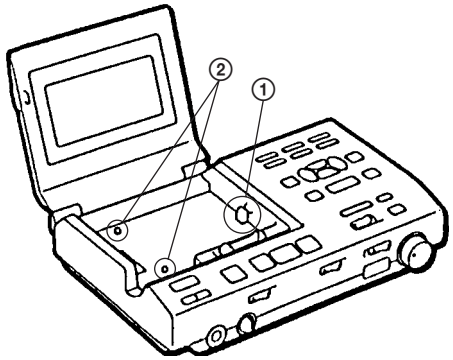
Connection check mode

- The following display appears when the machine enters the connection check mode.

Screen



- To open the shutter, press the two buttons ② at the same time while depressing the slide switch ①.



- The shutter is opened and the connector moves upwards.

Initial check mode

Display screen

```
Motor  Check
  Initial  Check
```

- When the machine enters the initial check mode, the connector that has been moved upwards before, moves down and closes the shutter.

Screen when error occurs

```
Motor  Check
  Initial  Check
  ERROR !!
```

Continuous operation mode

- The continuous operations at the connection position and the initial position are performed successively.

Display screen

```
Motor  Check
   Continuous
```

- The continuous operation mode starts when the shutter is opened. (Refer to the Connection check mode on the procedure of how to open the shutter.)

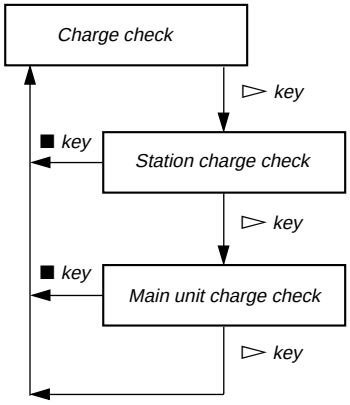
Charge check mode

- How to enter the charge check mode

Enter the test mode. Then press the ▶▶I key, the I◀◀ key to enter the charge check mode.

Screen

```
  Charge  Check
```



Station charge check mode

- This mode checks the station charge operation.

Screen

```
Charge  Check
  Station  Charge
  OFF
```

- The battery charge can be switched ON or OFF by pressing the battery existence/non-existence detect switch inside the battery case. To access the battery case, open the battery insertion slot on the right side of station.
- The CHARGE LED is lit when the battery existence/non-existence detect switch is set to ON.

Main unit charge check mode

- The simulated check of the charge operation of the main unit is performed by this mode.

Screen

```
Charge  Check
  Main Unit  Charge
  OFF
```

- The battery charge can be switched ON or OFF by moving the RELEASE ➡ slide switch in the arrow direction.

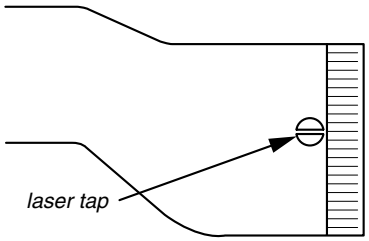
SECTION 5
ELECTRICAL ADJUSTMENTS

Precautions for Checking Laser Diode Emission

To check the emission of the laser diode during adjustments, never view directly from the top as this may lose your eye-sight.

Precautions for Use of optical pick-up (KMS-280A/J2N)

As the laser diode in the optical pick-up is easily damaged by static electricity, solder the laser tap of the flexible board when using it. Before disconnecting the connector, desolder first. Before connecting the connector, be careful not to remove the solder. Also take adequate measures to prevent damage by static electricity. Handle the flexible board with care as it breaks easily.



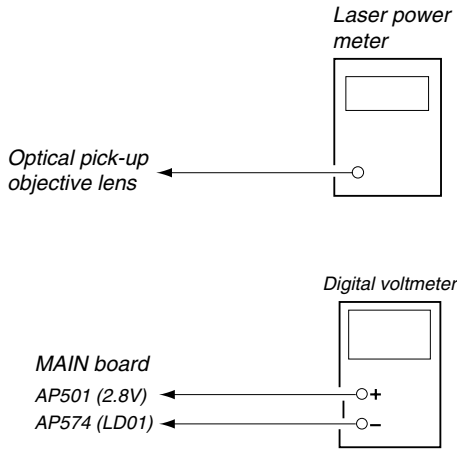
Optical pick-up flexible board

Precautions for Adjustments

1) Use the test mode when performing adjustments. After completing the adjustments, exit the test mode.
2) Use the following tools and measuring devices.
   - Check Disc (CD) TDYS-1 (Parts No. 4-963-646-01)
   - SONY MO disk available on the market.
   - Laser power meter LPM-8001 (Parts No. J-2501-046-A)
   - Oscilloscope (Bandwidth 40 MHz or higher. Calibrate the probes before measurement.)
   - Digital voltmeter
3) As to power supply, supply DC 3.7V using the BATTERY terminal unless otherwise specified.
4) Switch and control knob position : HOLD switch ....OFF

Laser Power Check

Connection:

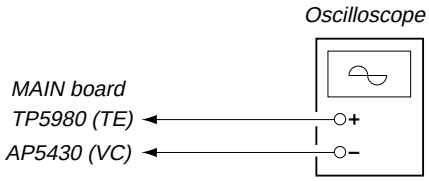


Adjusting Method:

1. Enter the servo test mode (mode: 000) of the adjustment mode of the test mode.
2. Press the ► key, then press the VOLUME + key and VOLUME – key to enter the laser power adjustment mode (mode: 020).
3. Press the ⏮ key to move the optical pickup to the most inner circumference.
4. Open the cabinet lid and set the laser power meter on top of the objective lens of the optical pickup.
5. Press the ► key to enter the laser CD/MO read adjustment mode (mode: 021).
6. Check that the laser power meter reading is 0.85 ±0.08 mW.
7. Check that the voltage between AP574 (LD01) and AP501 (2.8 V), is 44 mV or less.
8. Press the ► key to enter the laser MO write adjustment mode (mode: 022).
9. Check that the laser power meter reading is 6.8 ±0.68 mW.
10. Press the ❚❚ key to set the adjustment data.
11. Check that the voltage between AP574 (LD01) and AP501 (2.8 V), is 88 mV or less.
12. Press the ■ key.
13. Exit the test mode.

MO Traverse Adjustment

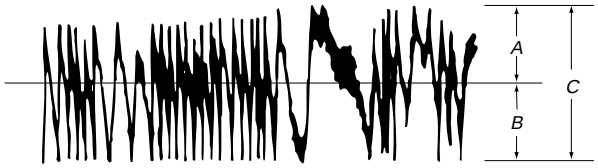
Connection:



Adjusting Method:

1. Enter the servo test mode (mode: 000) of the adjustment mode of the test mode.
2. Press the ► key, then press the VOLUME + key and VOLUME – key to enter the MO test mode (mode: 030).
3. Press the ⏮ key and the ⏭ key to move the optical pickup to almost center of an MO disc.
4. Insert a commercial available MO disc.
5. Press the ► key to enter the MO playback EF balance adjustment mode (mode: 032) after passing through the focus search ON (mode: 031).
6. Press the ❚❚ key to perform the automatic adjustment and check that the traverse waveform is vertically symmetrical.
7. Slide the REC key to enter the MO record EF balance adjustment mode (mode: 034).
8. Press the ❚❚ key to perform the automatic adjustment and check that the traverse waveform is vertically symmetrical.

(Traverse waveform)



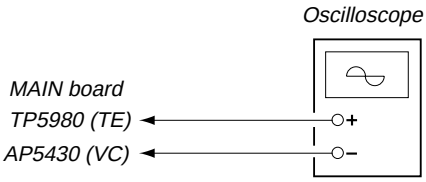
Specification: A = B, C ≧ 1.6 Vp-p

9. Check that the traverse level is 1.6 Vp-p or more.
10. Press the ■ key.
11. Exit the test mode.

Note: When a pre-recorded disc is used for this adjustment, all data that has already been recorded on a disc will be erased.

Low Reflection CD Traverse Adjustment

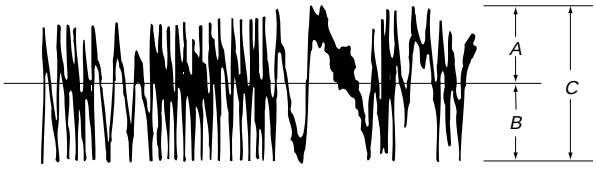
Connection:



Adjusting Method:

1. Enter the servo test mode (mode: 000) of the adjustment mode of the test mode.
2. Press the ► key, then press the VOLUME + key and VOLUME – key to enter the low reflection CD traverse adjustment mode (mode: 040).
3. Insert a commercial available MO disc.
4. Press the ► key to enter the low reflection CD EF balance adjustment mode (mode: 042) after passing through the low reflection CD focus search ON (mode: 041).
5. Press the ❚❚ key to perform the automatic adjustment and check that the traverse waveform is vertically symmetrical.

(Traverse waveform)

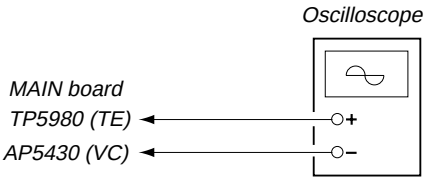


Specification: A = B, C ≧ 0.9 Vp-p

6. Check that the traverse level is 0.9 Vp-p or more.
7. Press the ■ key.
8. Exit the test mode.

CD Traverse Adjustment

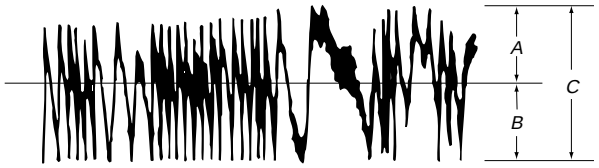
Connection:



Adjusting Method:

1. Enter the servo test mode (mode: 000) of the adjustment mode of the test mode.
2. Press the ► key, then press the VOLUME + key and VOLUME – key to enter the CD test mode (mode: 050).
3. Press the ⏮ key and the ⏭ key to move the optical pickup to almost center of a CD disc.
4. Insert a check disc (CD) TDYS-1.
5. Press the ► key to enter the CD EF balance adjustment mode (mode: 052) after passing through the CD focus search ON (mode: 051).
6. Press the ❚❚ key to perform the automatic adjustment and check that the traverse waveform is vertically symmetrical.

(Traverse waveform)

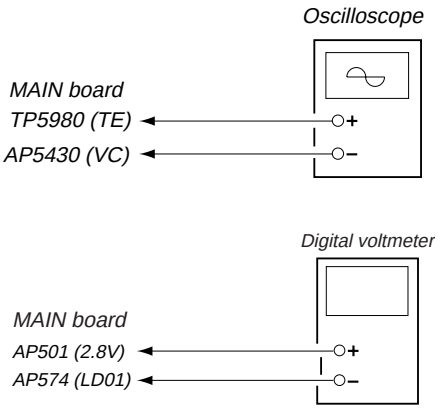


Specification: A = B, C ≧ 1.6 Vp-p

7. Check that the traverse level is 1.6 Vp-p or more.
8. Exit the test mode.

CD RF Level Check

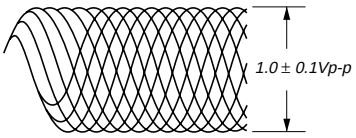
Connection:



Adjusting Method:

1. Enter the servo test mode (mode: 000) of the adjustment mode of the test mode.
2. Press the ► key, then press the VOLUME + key and VOLUME – key to enter the CD test mode (mode: 050).
3. Press the ⏮ key and the ⏭ key to move the optical pickup to almost center of a CD disc.
4. Insert a check disc (CD) TDYS-1.
5. Press the ► key to enter the CD EF balance adjustment mode (mode: 052) after passing through the CD focus search ON (mode: 051).
6. Press the ► key to enter the CD ABCD level adjustment mode (mode: 053).
7. Press the ❚❚ to perform the automatic adjustment and check that the RF level is 1.0 ±0.1 Vp-p.

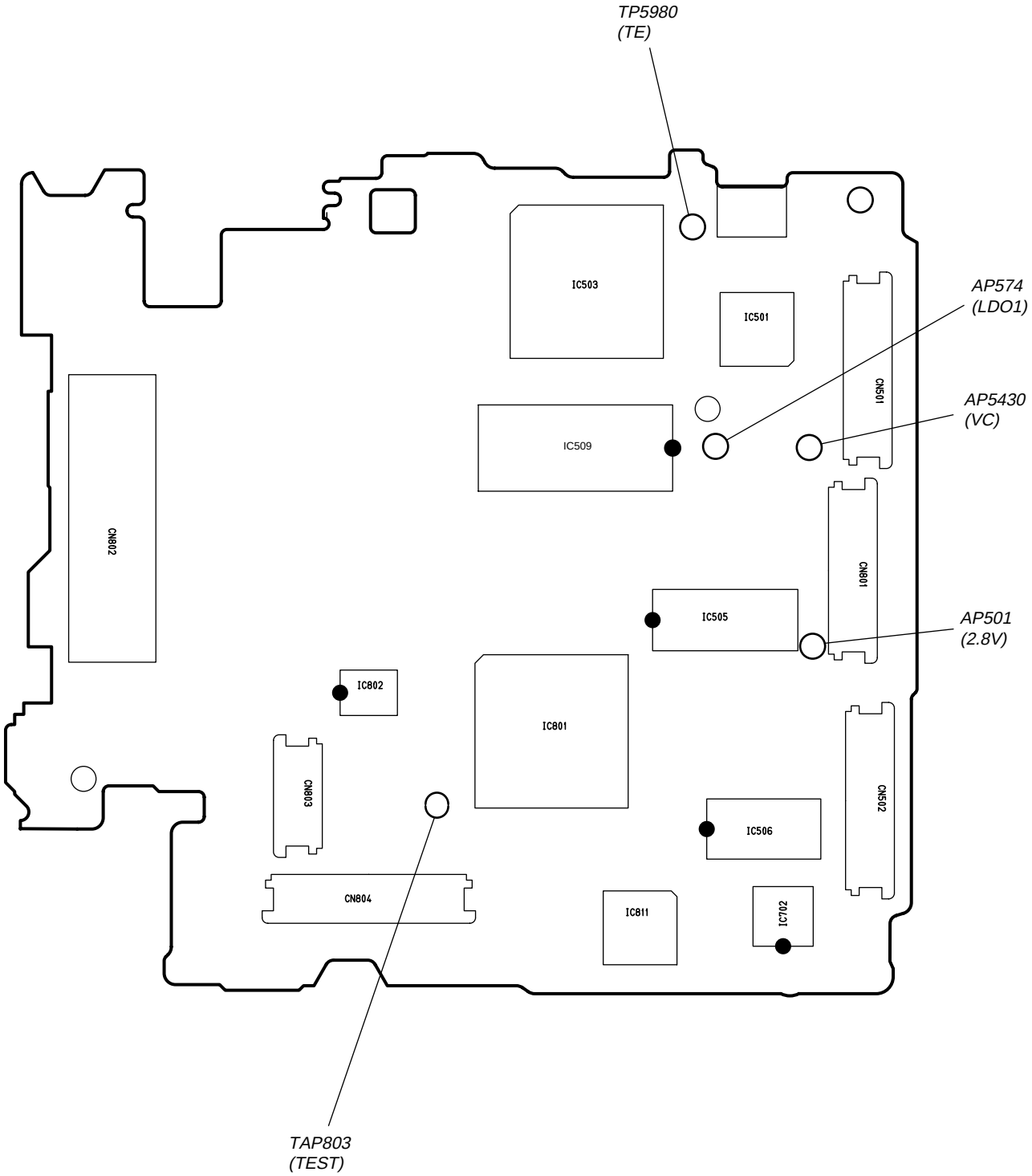
(RF waveform)



8. Check that the voltage between AP574 (LD01) and AP501 (2.8 V) is 44 mV or less.
9. Press the ■ key.
10. Exit the test mode.

- **CONNECTION POINTS LOCATION DIAGRAM**

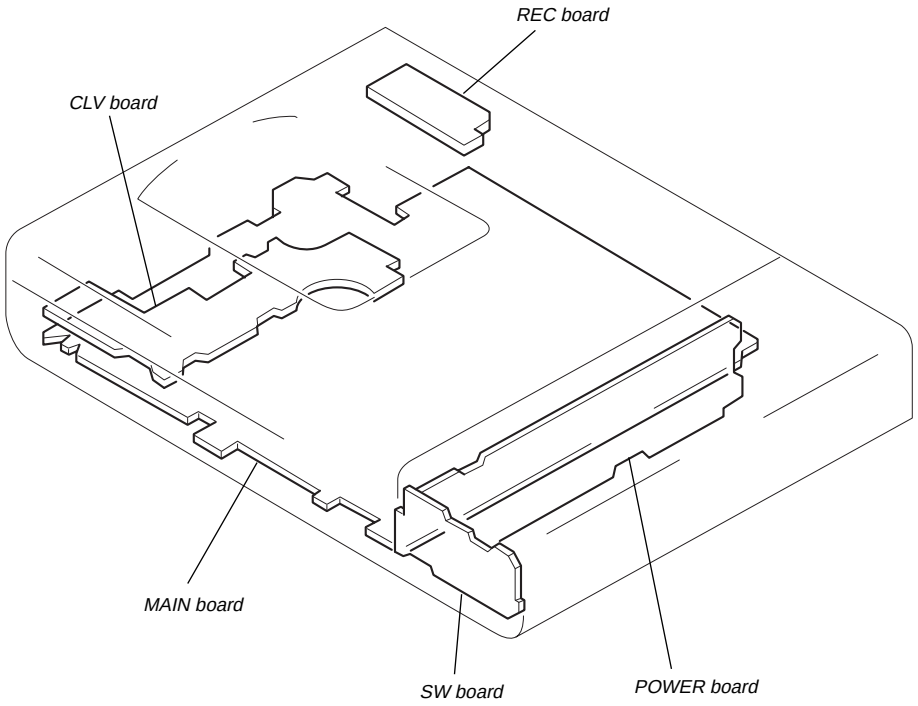
[MAIN BOARD] (CONDUCTOR SIDE)



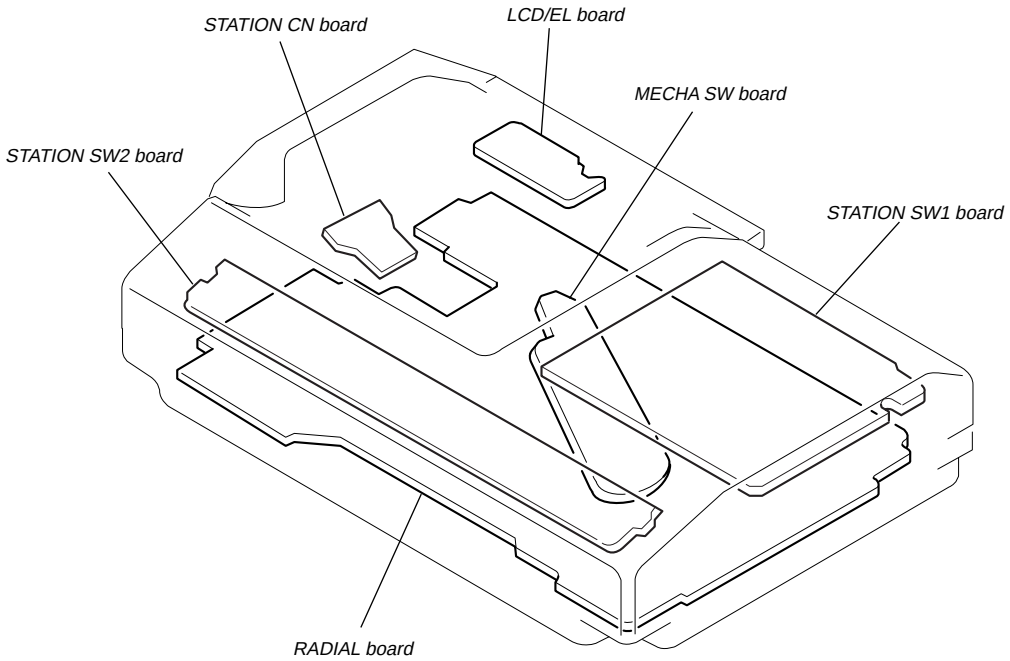
SECTION 6
DIAGRAMS

6-1. CIRCUIT BOARDS LOCATION

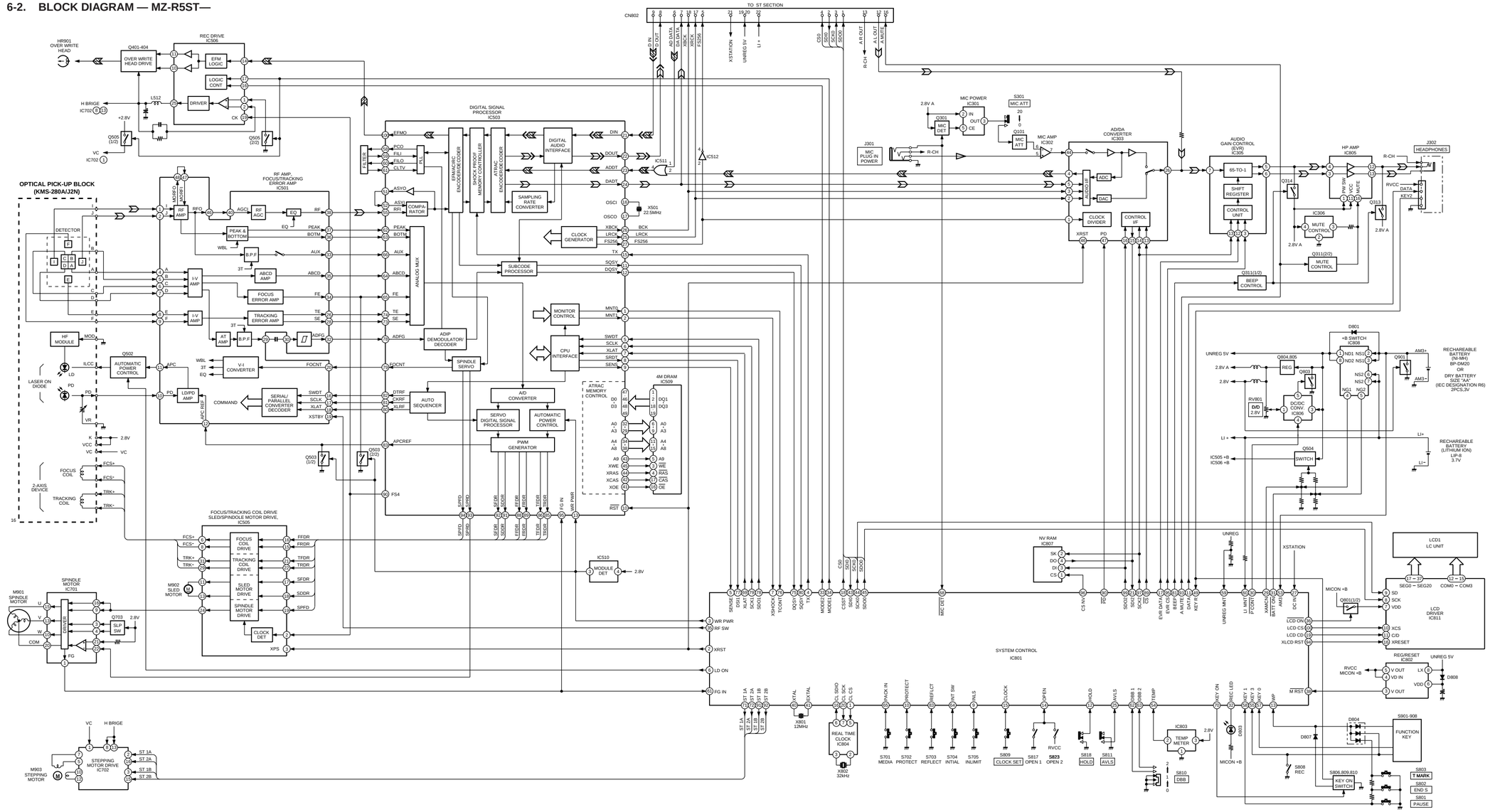
• MZ-R5ST



• MZS-R5ST

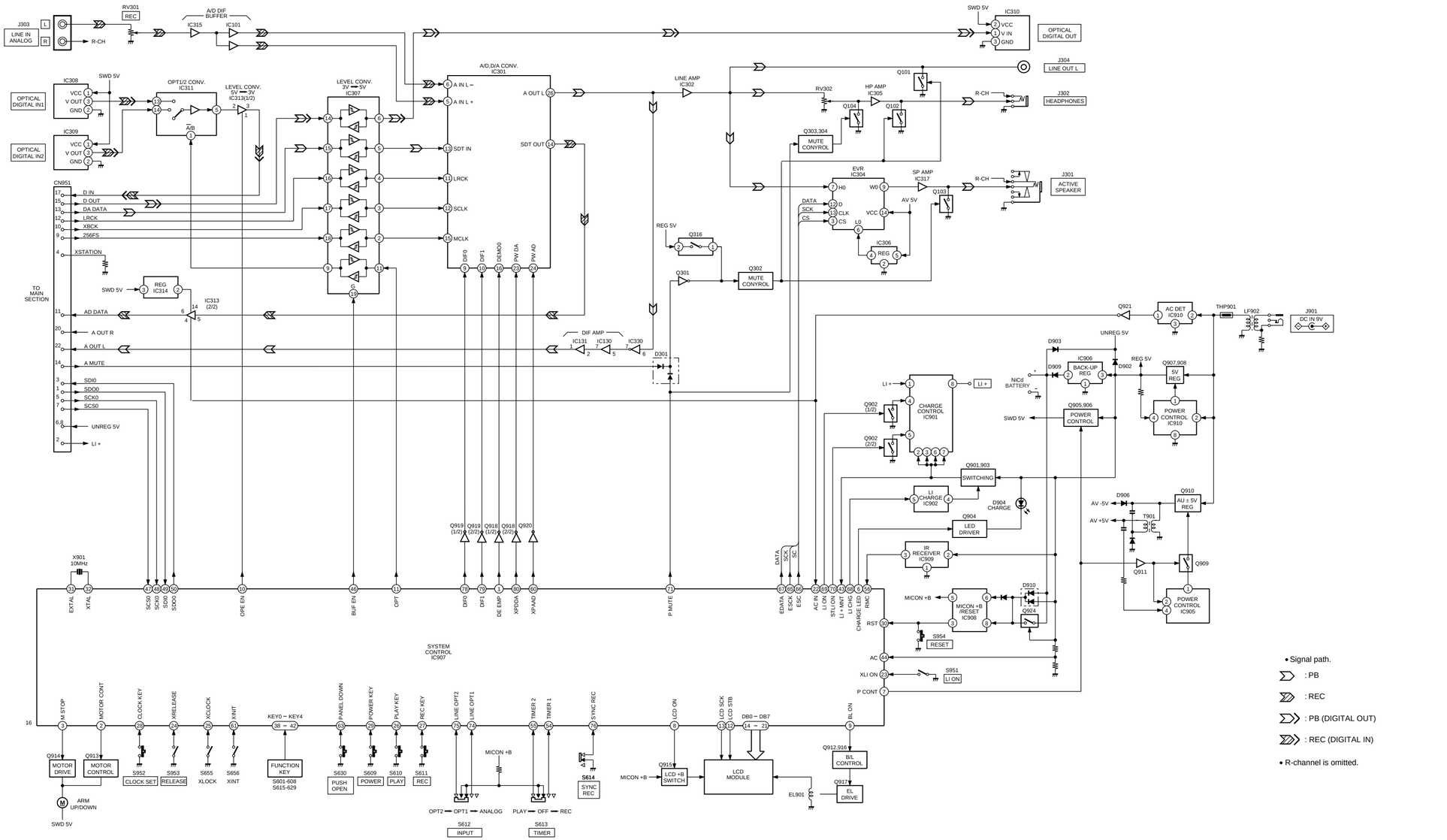


6-2. BLOCK DIAGRAM — MZ-R5ST—



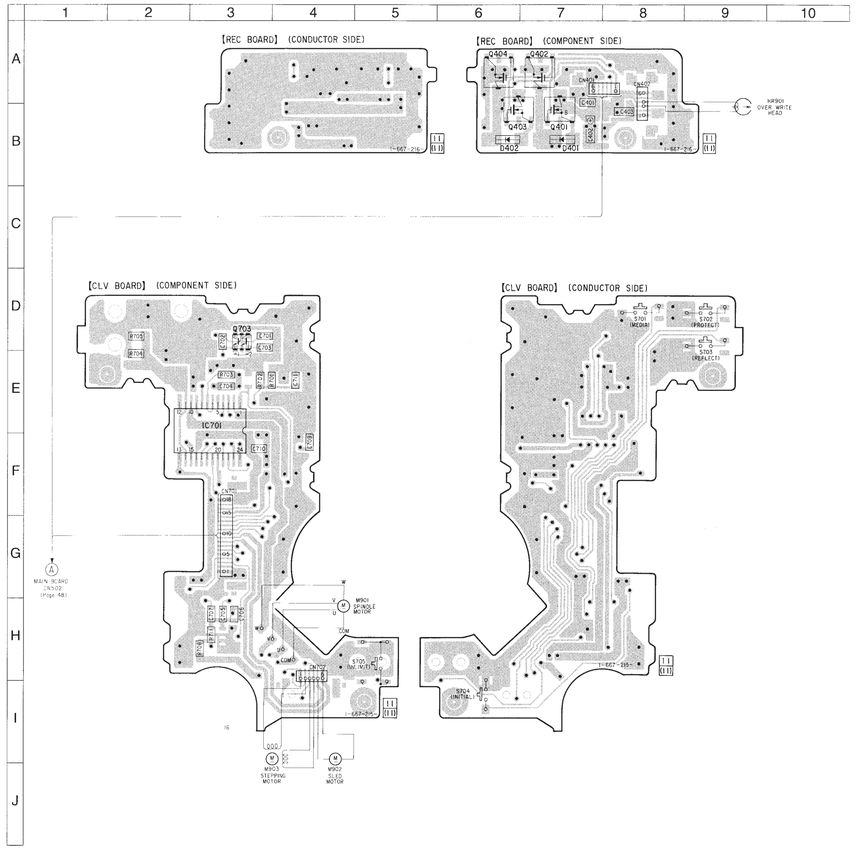
- Signal path.
- : PB
- : REC
- : PB (DIGITAL OUT)
- : REC (DIGITAL IN)
- : MIC
- R-channel is omitted.

6-3. BLOCK DIAGRAM — MZS-R5ST—



6-4. PRINTED WIRING BOARD — MD MECHANISM SECTION —

• Refer to page 34 for Circuit Boards Location.



• **Semiconductor Location**

Ref. No.	Location
D401	B-7
D402	B-6
IC701	E-3
Q401	B-7
Q402	A-7
Q403	B-6
Q404	A-6
Q703	D-3

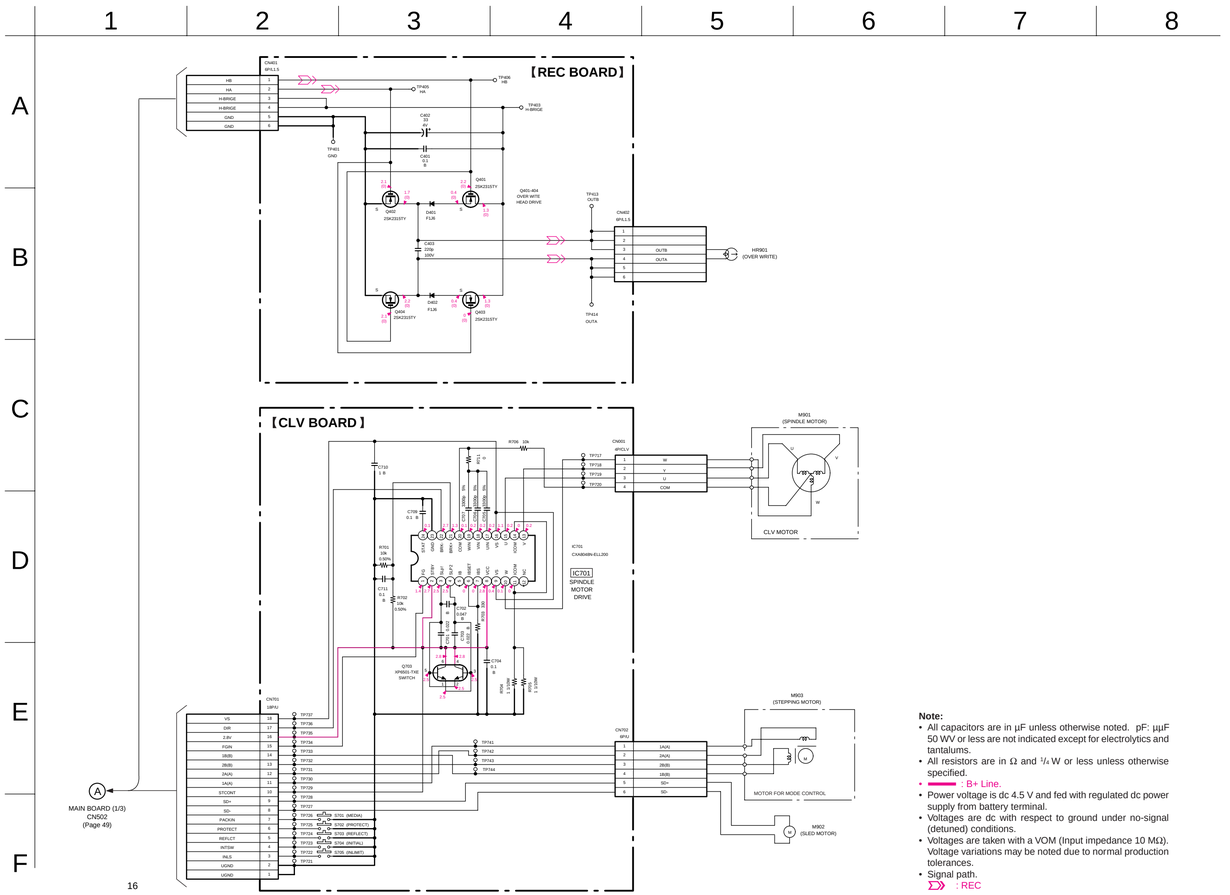
Note:
- ○——: parts extracted from the component side.
- ●: Through hole.
- ▒▒▒: Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

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

6-5. SCHEMATIC DIAGRAM — MD MECHANISM SECTION —

• Refer to page 77 for IC Block Diagrams.



Note:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantaliums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▬▬: B+ Line.
- Power voltage is dc 4.5 V and fed with regulated dc power supply from battery terminal.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⋙: REC

6-6. PRINTED WIRING BOARD — MD MAIN SECTION —

• Refer to page 34 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location
D302	B-5
D303	B-4
D304	E-8
D501	D-10
D502	E-10
D803	A-2
D804	C-8
D806	D-7
D807	D-9
D808	D-9
IC301	D-4
IC302	D-5
IC303	C-5
IC305	B-8
IC306	A-8
IC501	B-11
IC503	B-10
IC505	D-10
IC506	E-11
IC509	C-10
IC510	B-11
IC511	C-9
IC512	C-9
IC702	E-11
IC801	D-9
IC802	D-8
IC803	E-9
IC804	D-5
IC805	B-4
IC807	D-8
IC811	E-10
Q101	D-5
Q201	D-4
Q301	C-8
Q311	B-7
Q313	B-8
Q314	C-8
Q502	C-10
Q503	A-11
Q504	C-9
Q505	E-11
Q801	E-10
Q806	E-4
Q809	E-4
Q810	E-4

Note:

- ◇——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- The MAIN board has the four-layer structure. However the 2nd and the 3rd layer patterns are not shown.
- ▨ : 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 (Conductor Side) the pattern face are indicated.
Parts face side: Parts on the parts face side seen from (Component Side) the parts face are indicated.

【MAIN BOARD】(COMPONENT SIDE)

【MAIN BOARD】(CONDUCTOR SIDE)

MINI DISC OPTICAL PICK- UP (KMS-280A/J2N)

POWER BOARD CN805 (Page 71)

CLV BOARD CN701 REC BOARD CN401 (Page 41)

STATION CN BOARD CN657 (Page 69)

SW UNIT (Page 72)

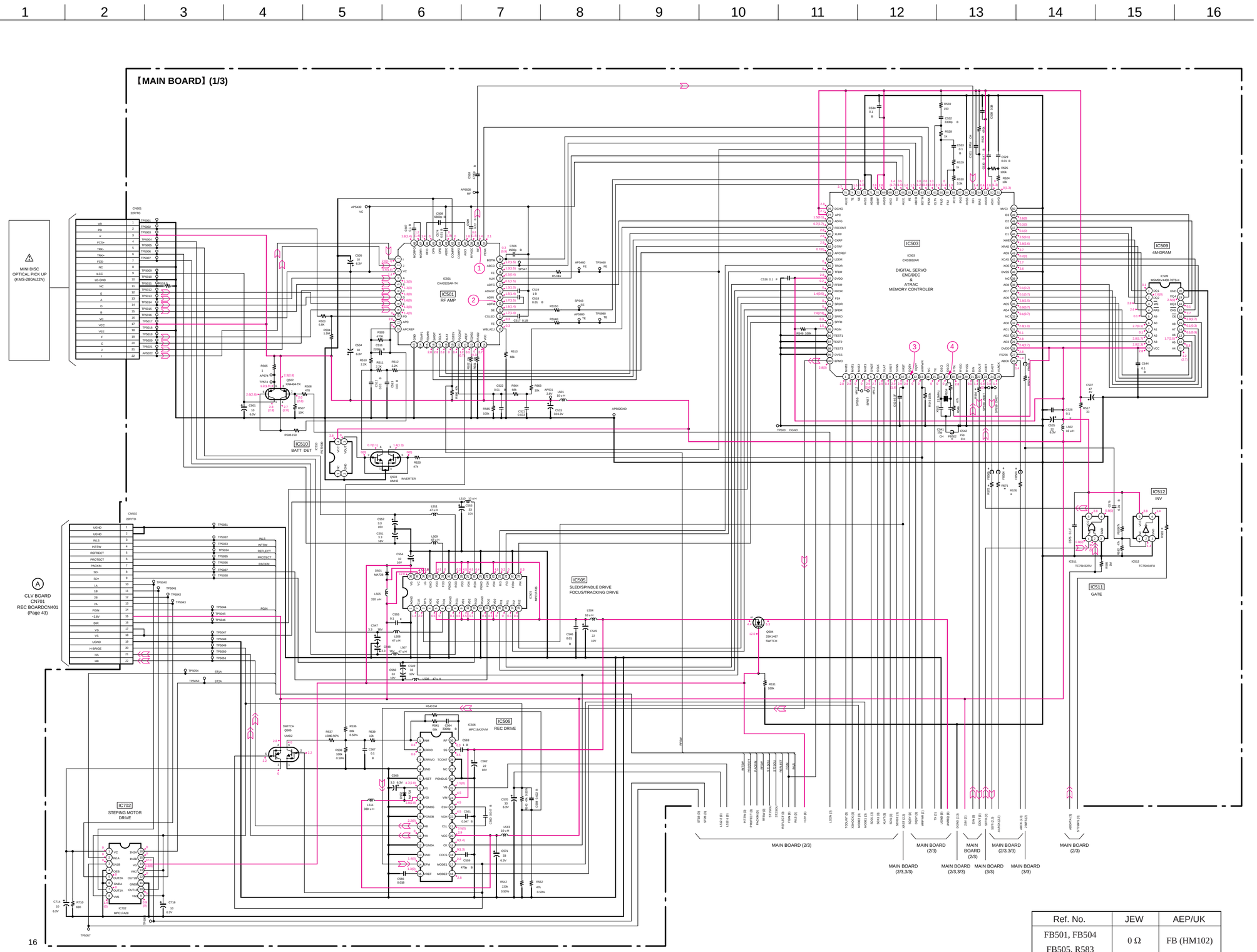
LCD801 LIQUID CRYSTAL DISPLAY

1-667-217-11

6-7. SCHEMATIC DIAGRAM — MD MAIN SECTION (1/3) —

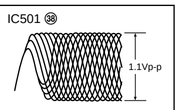
• Refer to page 75 for IC Block Diagrams.

【MAIN BOARD】(1/3)

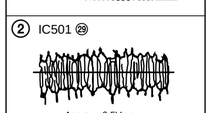


• **Waveform**

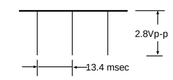
① IC501 ㊳



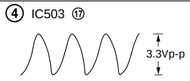
② IC501 ㉙



③ IC503 ⑪



④ IC503 ⑰



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.

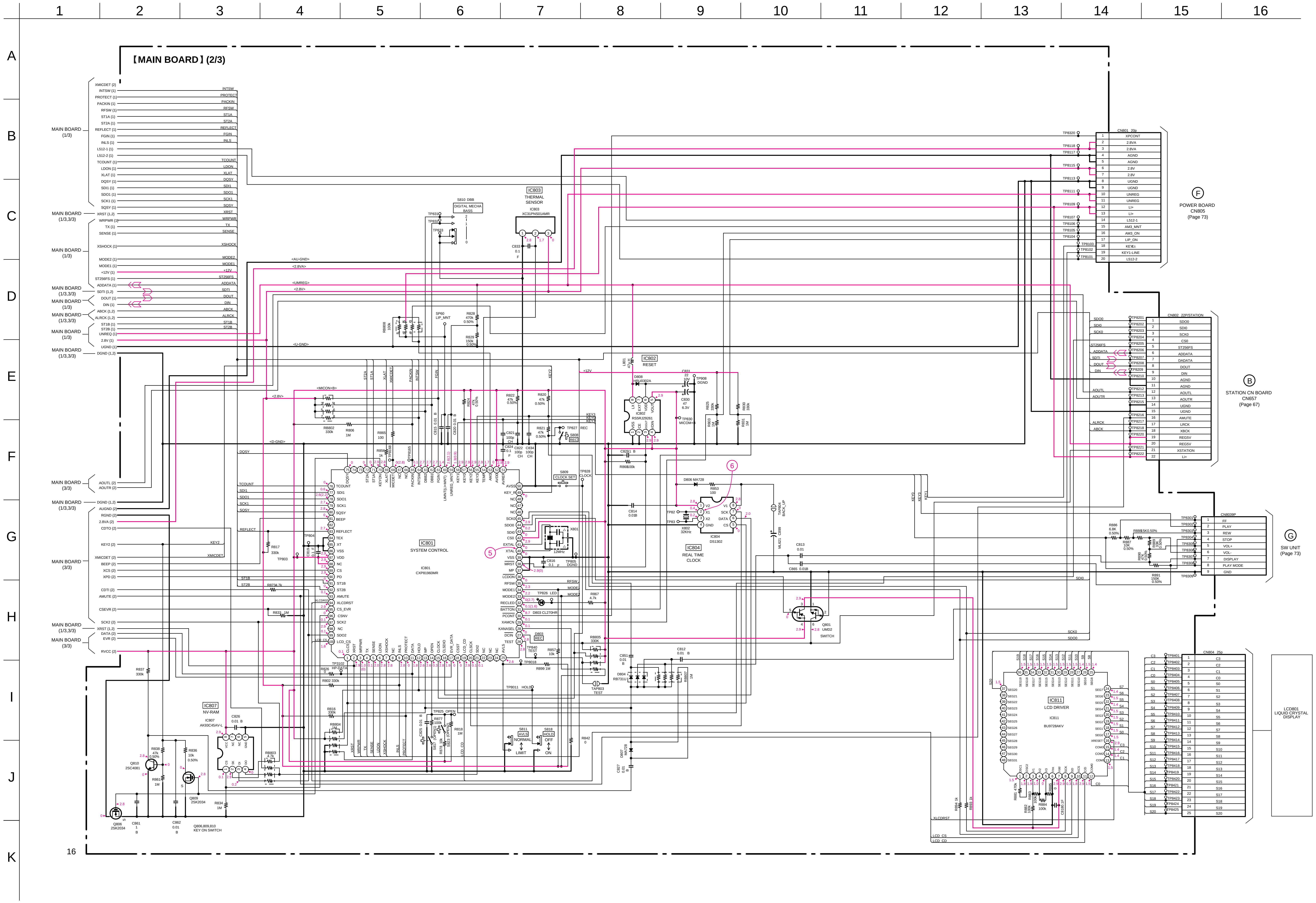
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- ▬▬ : B+ Line.
- Power voltage is dc 4.5 V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : PB
  ( ) : REC
- Voltages are taken with a VOM (Input impedance 10 MΩ). 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.
  ▷▷ : PB
  ▷▷ : REC

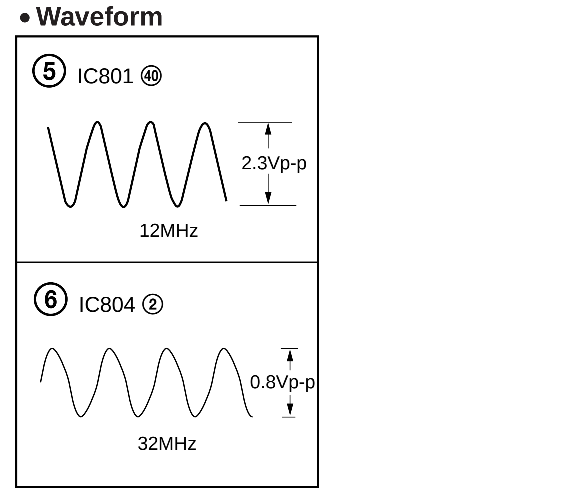
Ref. No.	JEW	AEP/UK
FB501, FB504 FB505, R583	0 Ω	FB (HM102)
FB502	0 Ω	FB (HS102)
FB503	0 Ω	150 Ω
R555, R571 R572, R576	0 Ω	470 Ω
R584	0 Ω	150 Ω

6-8. SCHEMATIC DIAGRAM — MD MAIN SECTION (2/3) —

• Refer to page 75 for IC Block Diagrams.



• Waveform



Note:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.
- ▬ : B+ Line.
- Power voltage is dc 4.5 V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : PB
  ( ) : REC
- Voltages are taken with a VOM (Input impedance 10 MΩ). 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.
  ⊳ : PB
  ⊳⊳ : REC

6-9. SCHEMATIC DIAGRAM — MD MAIN SECTION (3/3) —

• Refer to page 77 for IC Block Diagrams.

【MAIN BOARD】(3/3)

Ref. No.	JEW	AEP/UK
FB302	0 Ω	FB (HM102)
FB303	0 Ω	FB (HM102)
FB304	0 Ω	FB (HM102)
C306	1000p (B)	0.1 (B)

Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▬▬ : B+ Line.
- Power voltage is dc 4.5 V and fed with regulated dc power supply from battery terminal.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
  no mark : PB
  ( ) : REC
- Signal path.
  ≫ : PB
  ≫ : REC

6-10. PRINTED WIRING BOARD — RADIAL SECTION —

• Refer to page 34 for Circuit Boards Location.

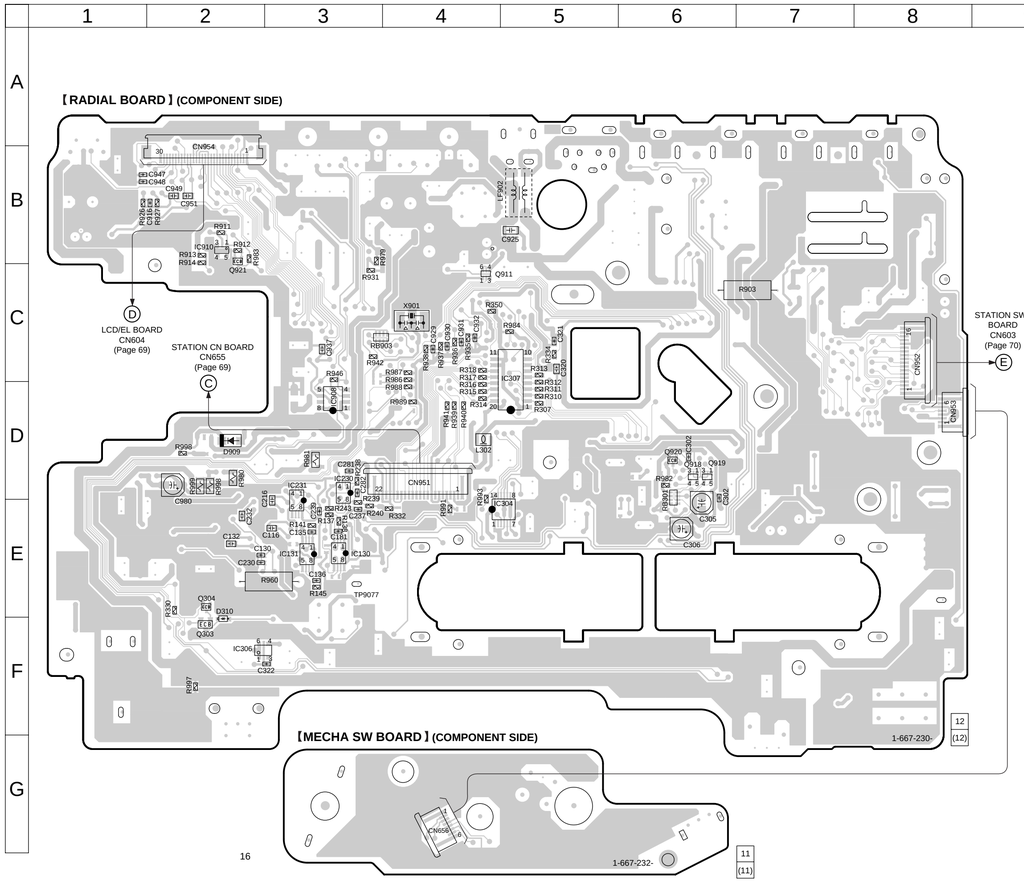
• Semiconductor Location

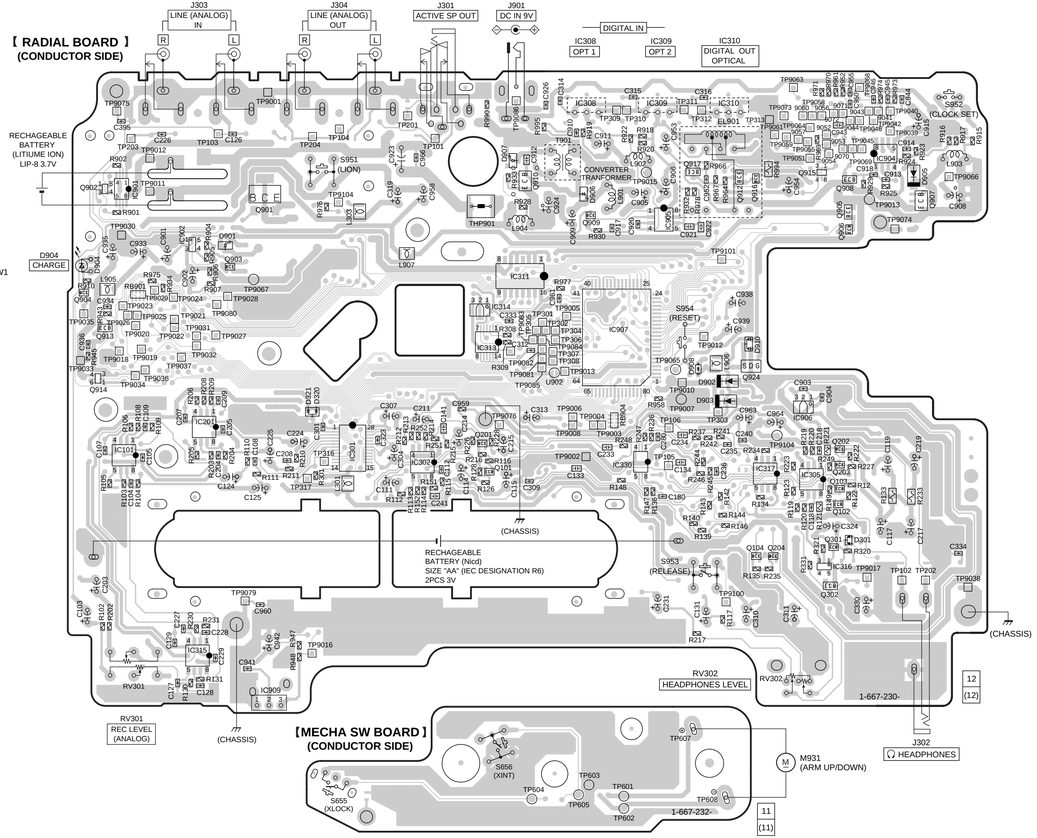
Ref. No.	Location	Ref. No.	Location
D301	E-16	IC906	D-16
D310	F-2	IC907	C-14
D320	D-12	IC908	D-3
D321	D-12	IC909	G-11
D901	C-11	IC910	B-2
D902	D-15		
D903	D-15	Q101	E-13
D904	C-10	Q102	E-16
D905	B-17	Q103	E-16
D906	B-14	Q104	E-15
D907	B-13	Q201	D-13
D908	D-15	Q202	D-16
D909	D-2	Q203	E-16
D910	D-15	Q204	E-16
		Q301	E-16
IC101	D-10	Q302	F-16
IC130	E-3	Q303	F-2
IC131	E-3	Q304	E-2
IC201	D-11	Q901	B-11
IC230	D-3	Q902	B-10
IC231	D-3	Q903	C-11
IC301	D-12	Q904	C-10
IC302	E-13	Q905	B-16
IC304	E-5	Q906	C-16
IC305	E-16	Q907	B-17
IC306	F-2	Q908	B-16
IC307	C-5	Q909	B-14
IC308	A-14	Q910	B-13
IC309	A-14	Q911	C-4
IC310	A-15	Q912	B-15
IC311	C-13	Q913	C-10
IC313	D-13	Q914	D-14
IC314	C-13	Q915	B-15
IC315	F-11	Q916	B-15
IC316	F-16	Q917	B-15
IC317	E-15	Q918	D-6
IC330	E-14	Q919	D-6
IC901	B-10	Q920	D-6
IC902	C-11	Q921	B-2
IC904	B-16	Q924	D-15
IC905	B-15		

Note:
- ⟷ : parts extracted from the component side.
- △ : internal component.
- ▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

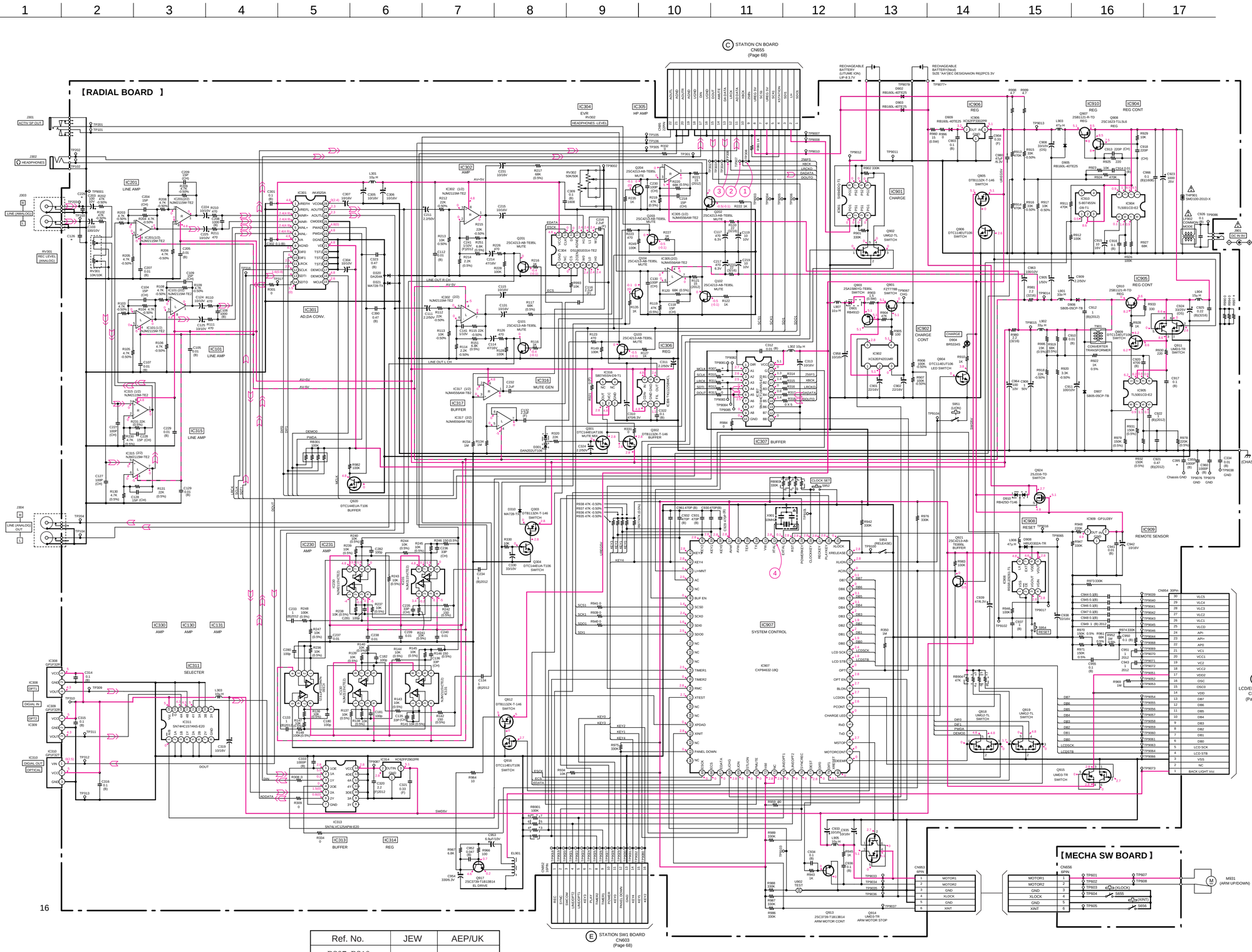
Caution:
Pattern face side: Parts on the pattern face side seen from (Conductor Side) the pattern face are indicated.
Parts face side: Parts on the parts face side seen from (Component Side) the parts face are indicated.





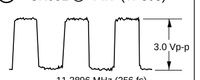
6-11. SCHEMATIC DIAGRAM — RADIAL SECTION —

• Refer to page 78 for IC Block Diagrams.

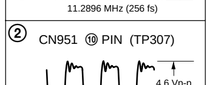


• **Waveform**

① CN951 ⑨ PIN (TP308)

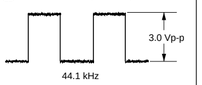


② CN951 ⑩ PIN (TP307)



③ CN951 ⑫ (TP306)

④ IC907 ㉜



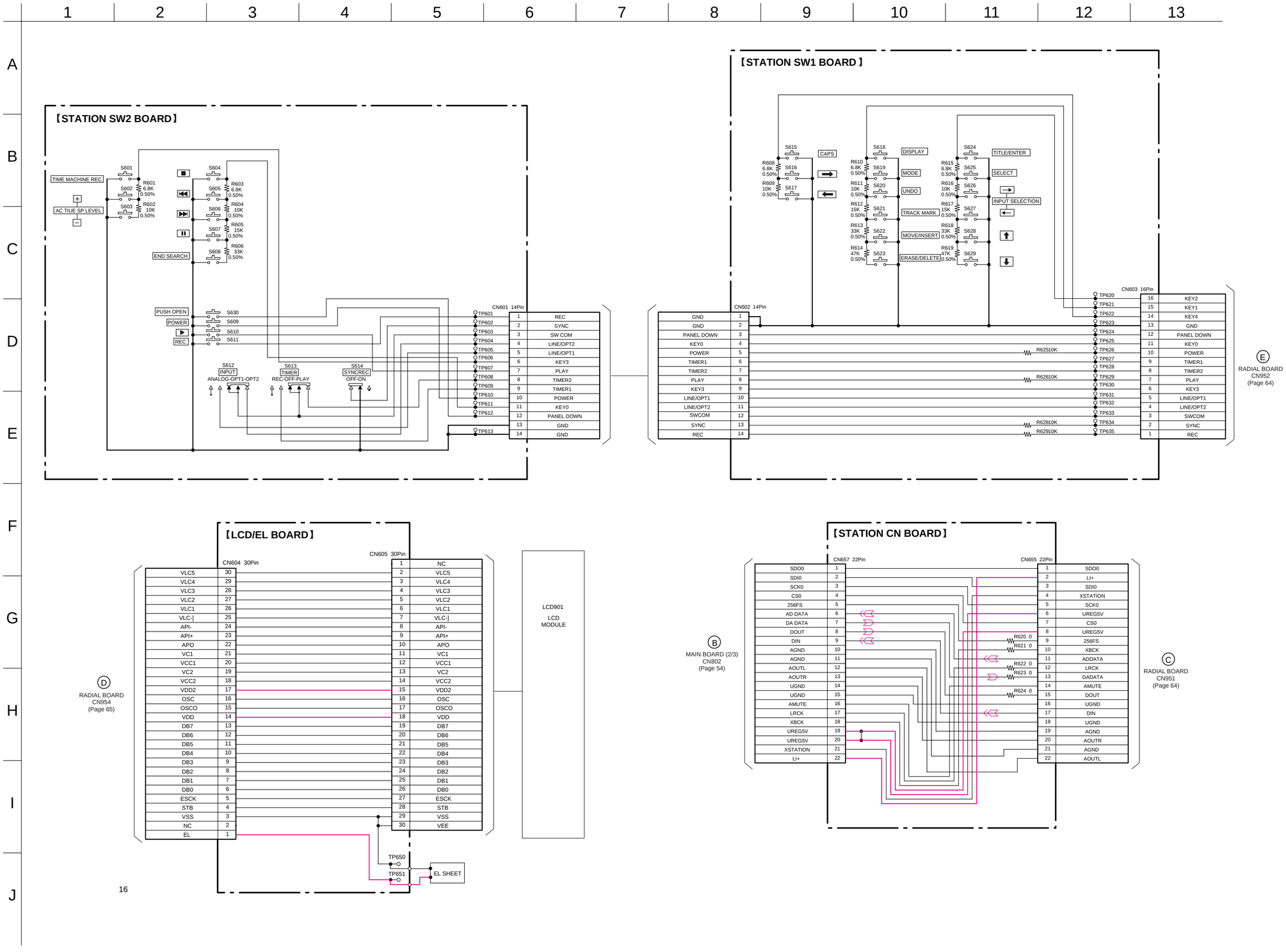
Note:
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

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

- ▬▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- Power voltage is dc 4.5 V and fed with regulated dc power supply from battery terminal.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : PB
  ( ) : REC
- Voltages are taken with a VOM (Input impedance 10 MΩ). 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.
  ≫ : PB
  ≫ : REC

Ref. No.	JEW	AEP/UK
R307, R310 R311, R312	220	680
R997	——	0
C126, C226	——	100P (CH)
C395	——	0.01 (B)

6-12. SCHEMATIC DIAGRAM — STATION CONTROL SECTION —



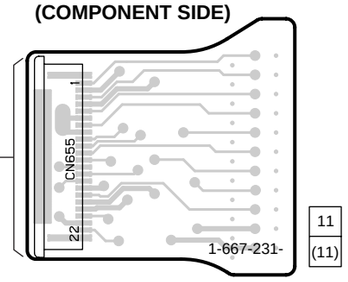
Note:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- ▬ : B+ Line.
- Power voltage is dc 9 V and fed with regulated dc power supply from external power voltage jack.
- Signal path.
  - ▷ : PB
  - ▷▷ : REC

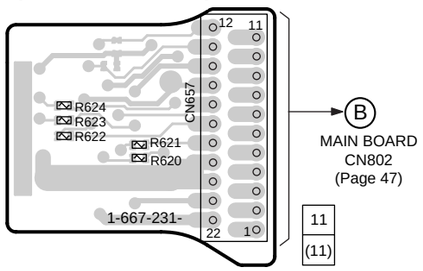
6-13. PRINTED WIRING BOARD — STATION CONTROL SECTION —

• Refer to page 34 for Circuit Boards Location.

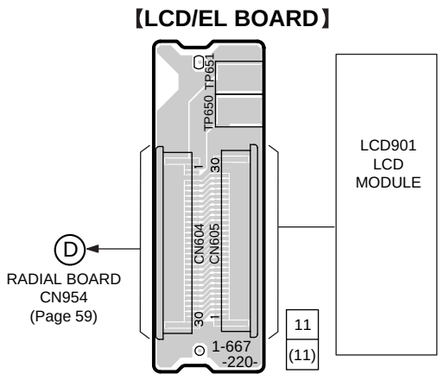
【STATION CN BOARD】
(COMPONENT SIDE)



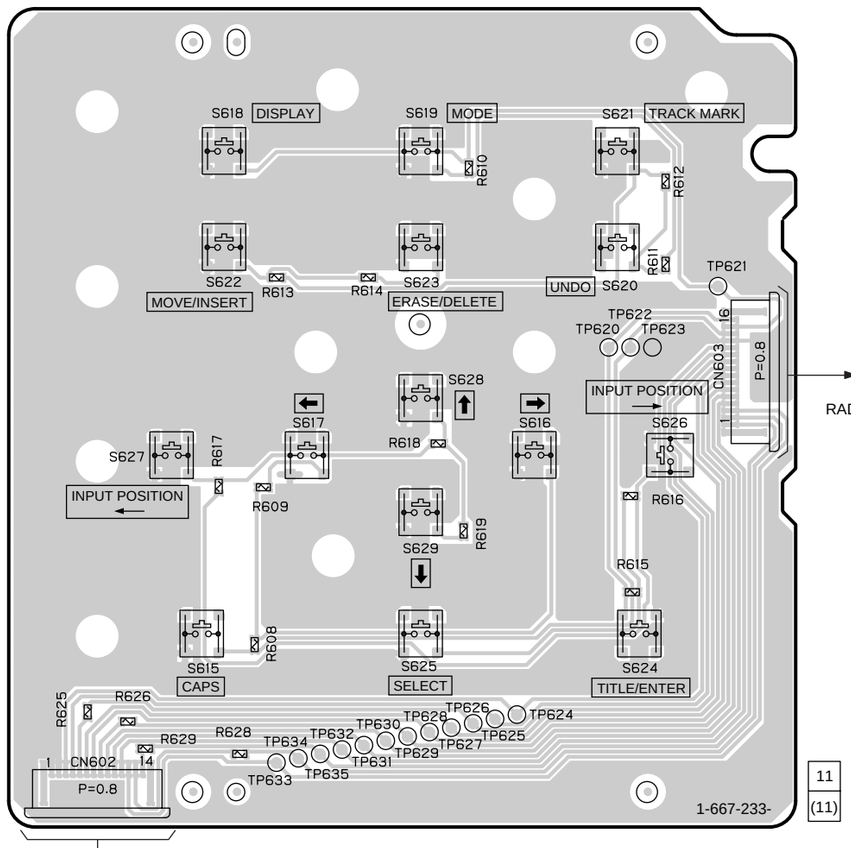
【STATION CN BOARD】
(CONDUCTOR SIDE)



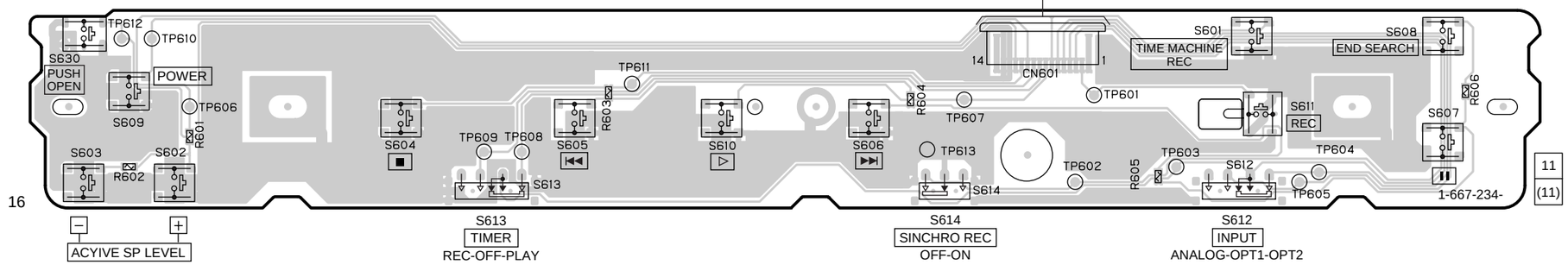
【LCD/EL BOARD】



【STATION SW1 BOARD】



【STATION SW2 BOARD】



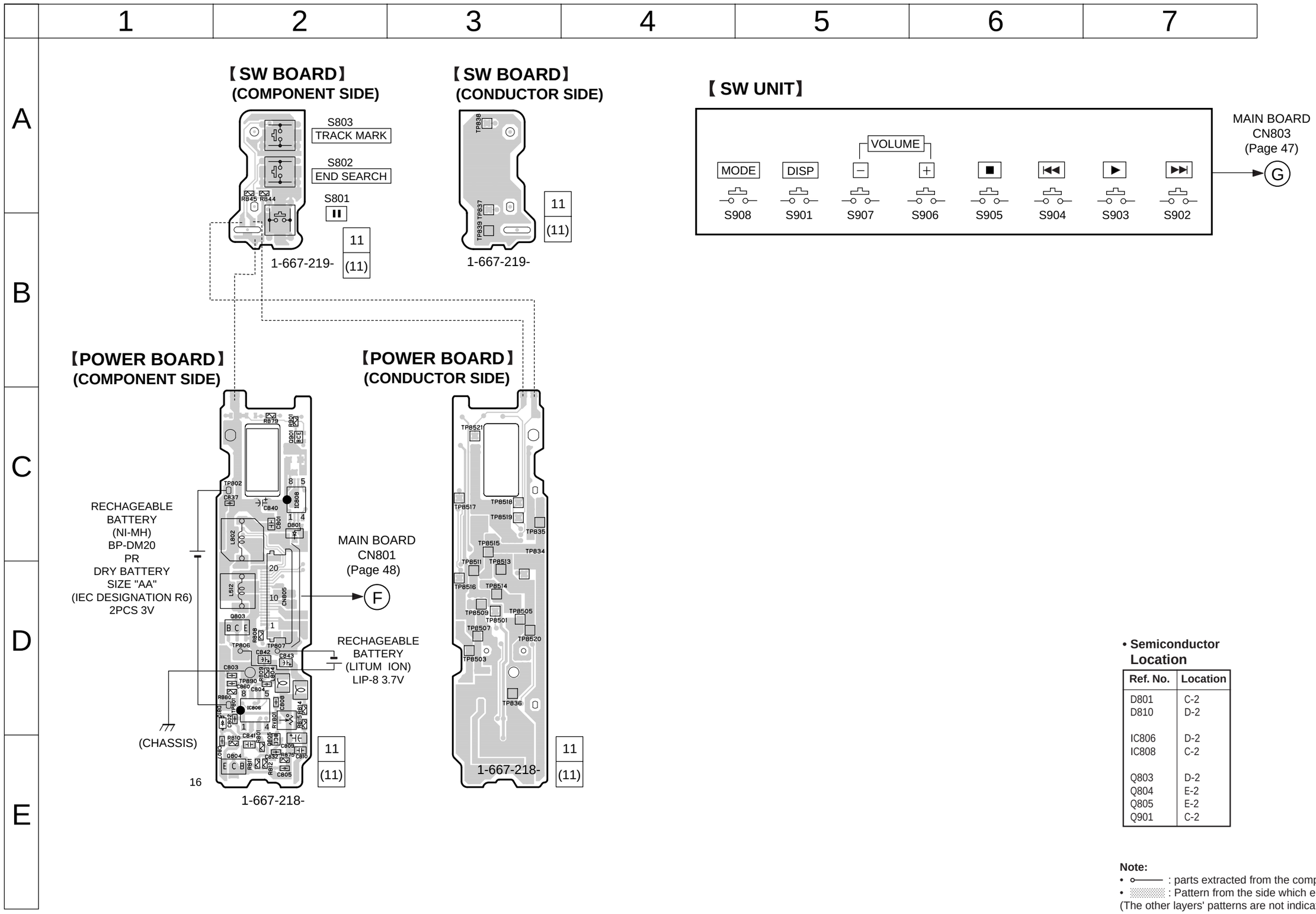
Note:
- ○——— : parts extracted from the component side.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

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

6-14. PRINTED WIRING BOARD — MD POWER SUPPLY, SWITCH SECTION —

• Refer to page 34 for Circuit Boards Location.



- **Semiconductor Location**

Ref. No.	Location
D801	C-2
D810	D-2
IC806	D-2
IC808	C-2
Q803	D-2
Q804	E-2
Q805	E-2
Q901	C-2

Note:

- ○——— : parts extracted from the component side.
- ▒▒▒▒ : Pattern from the side which enables seeing.

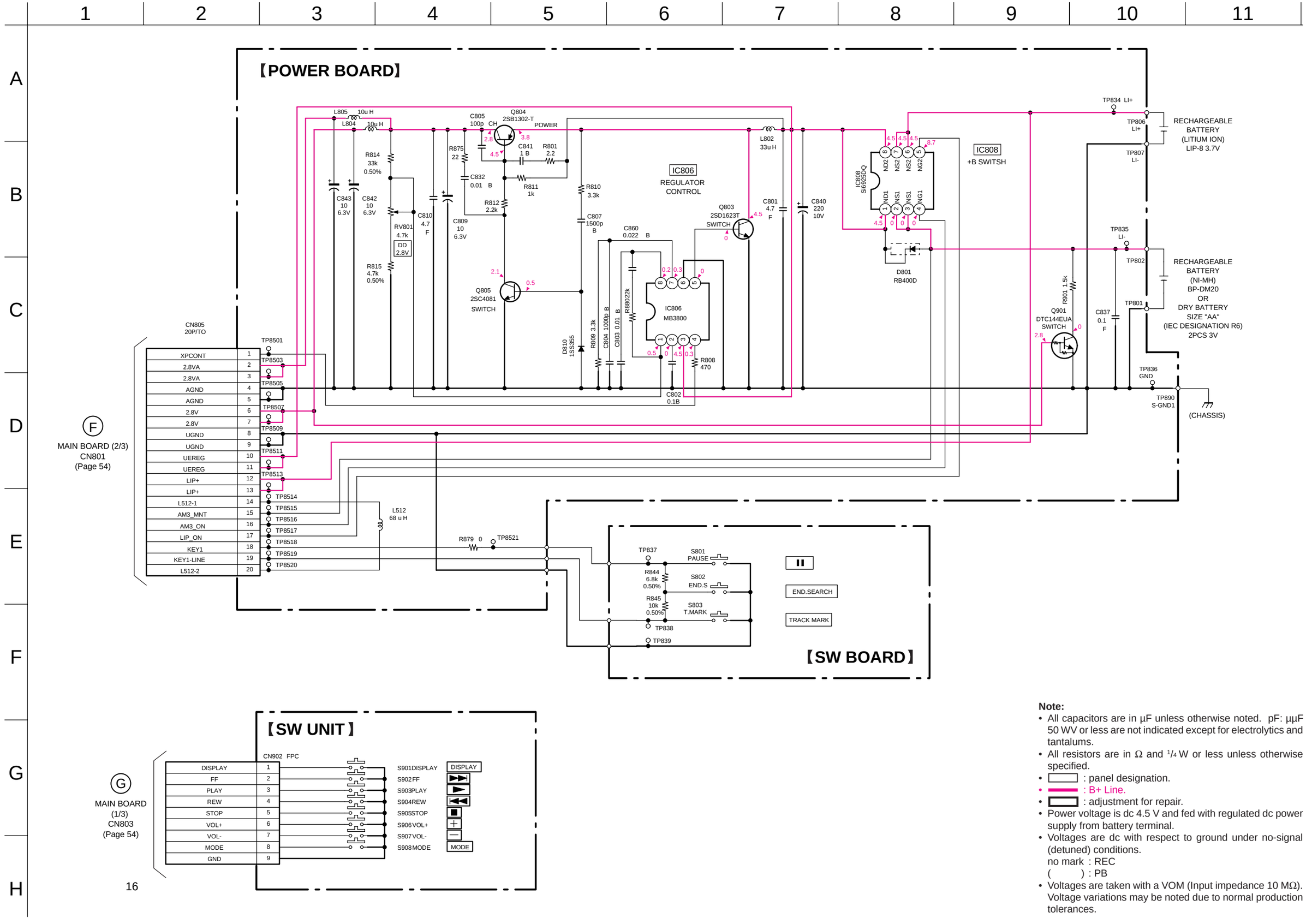
(The other layers' patterns are not indicated.)

Caution:

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

6-15. SCHEMATIC DIAGRAM —MD POWER SUPPLY, SWITCH SECTION –

• Refer to page 75 for IC Block Diagrams.

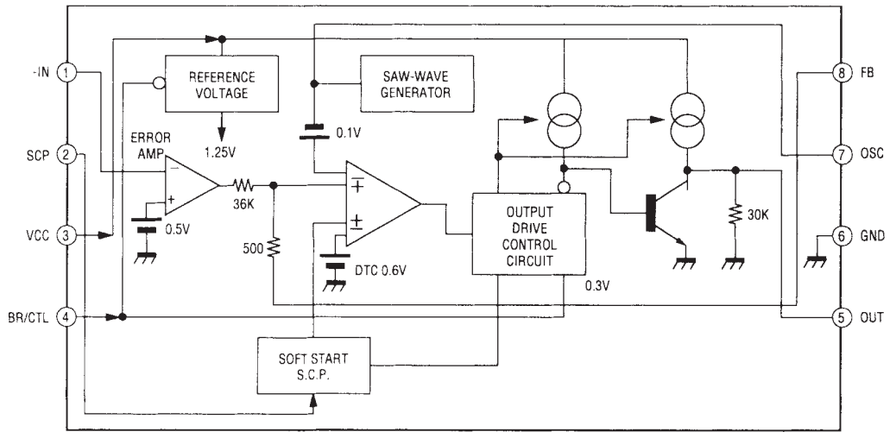


Note:

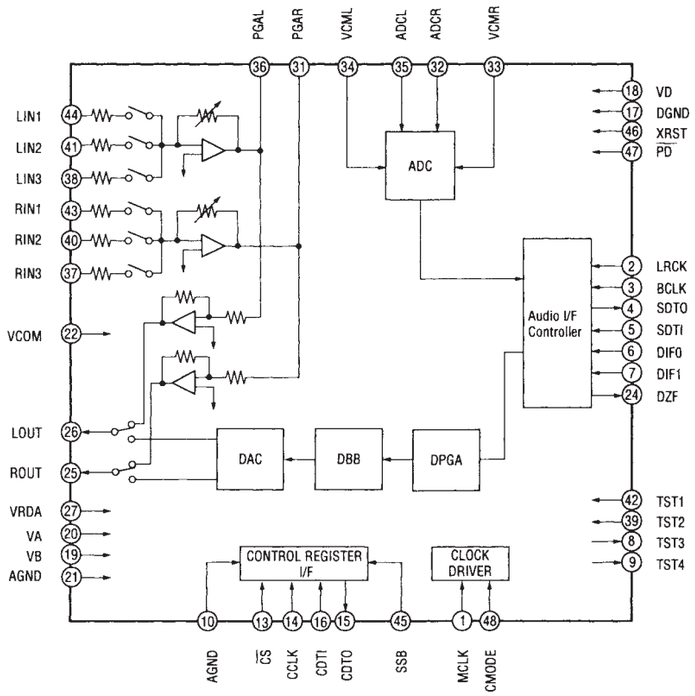
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- ▭ : panel designation.
- ▬ : B+ Line.
- ▭ : adjustment for repair.
- Power voltage is dc 4.5 V and fed with regulated dc power supply from battery terminal.
- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : REC
  ( ) : PB
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

6-16. IC BLOCK DIAGRAMS — MD SECTION —

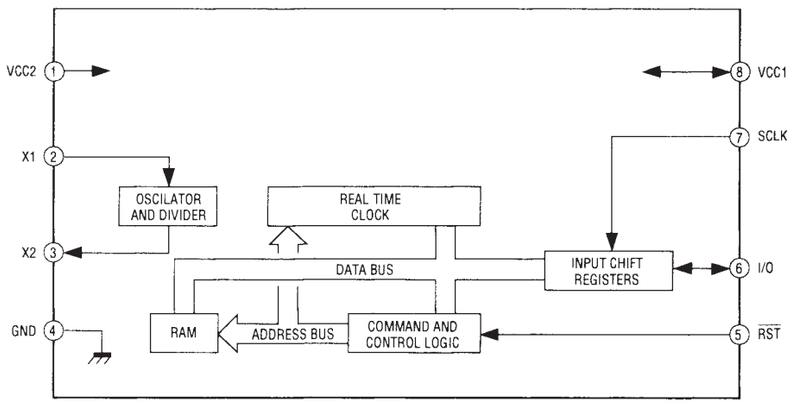
IC806 MB3800PNF



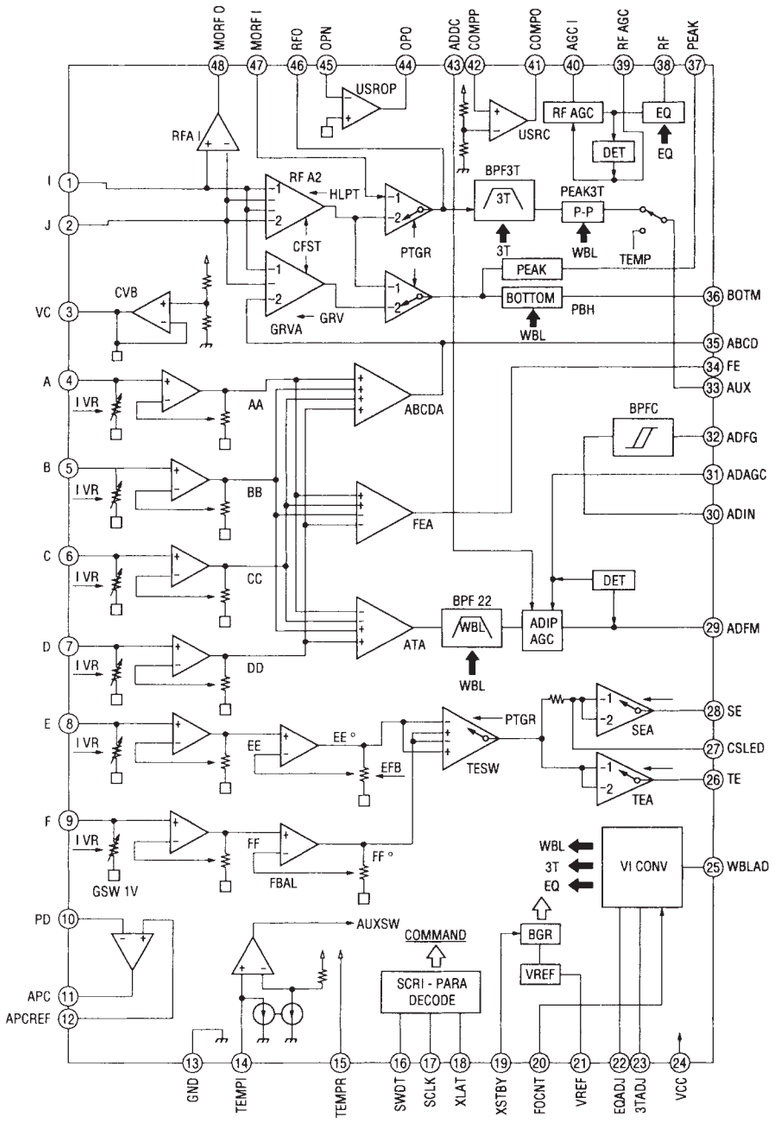
IC303 AK4515-VQ



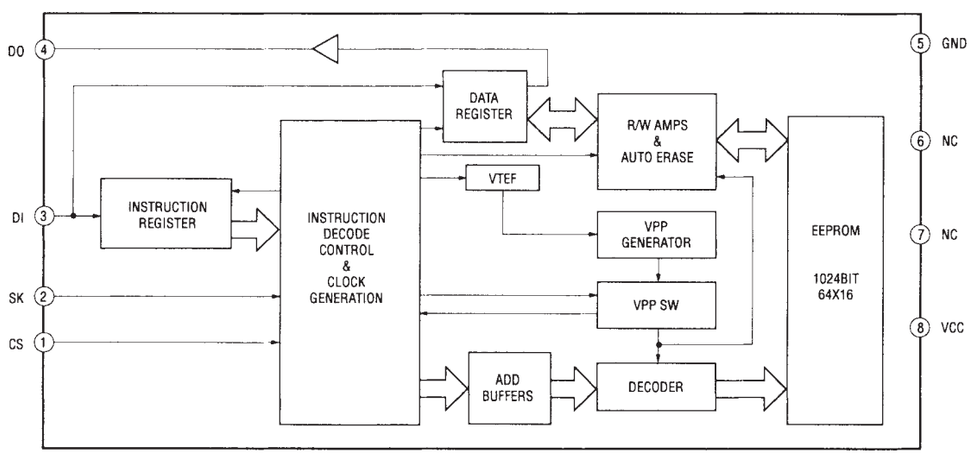
IC804 DS1302Z



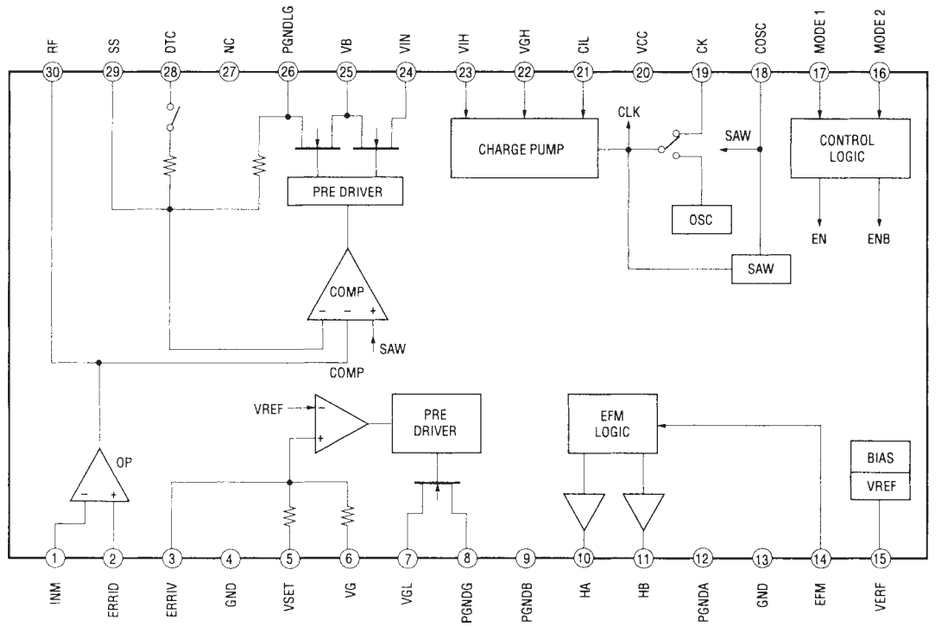
IC501 CXA2523AR



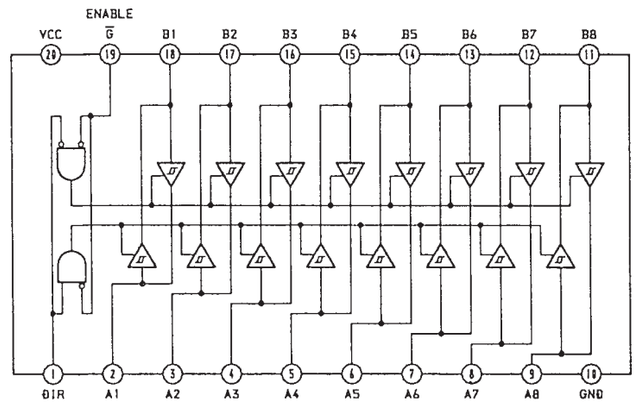
IC807 AK93C45AV-L



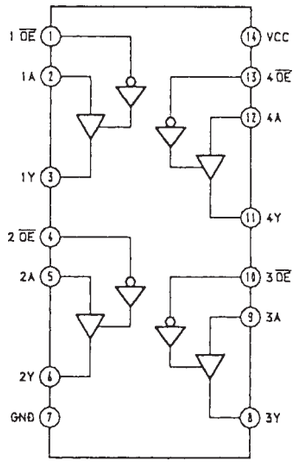
IC506 MPC18A20VM



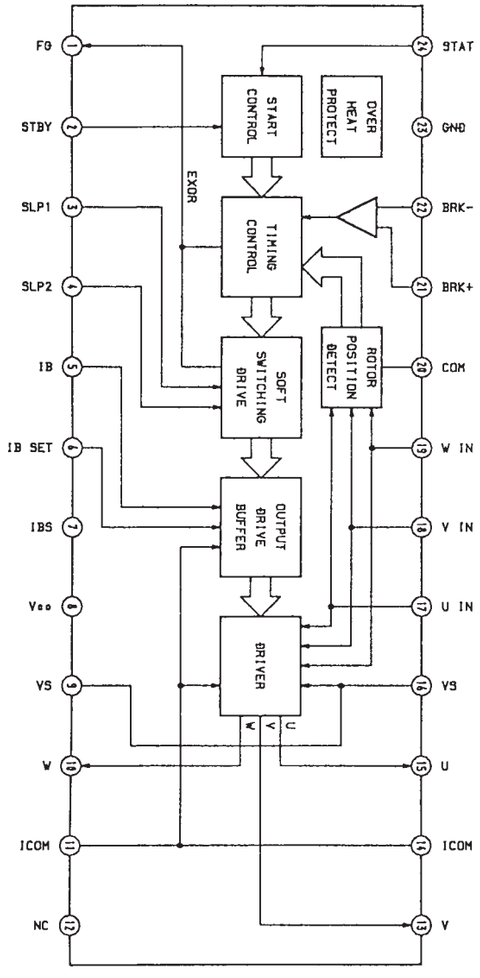
IC307 SN74HCT245ANS-E20



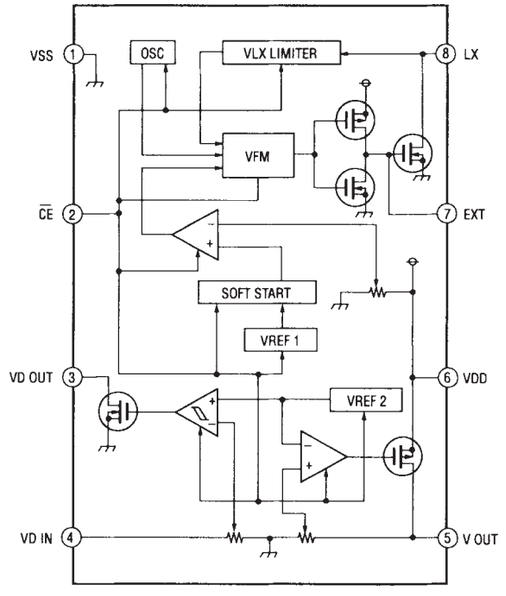
IC313 SN74LVC125APW-E20



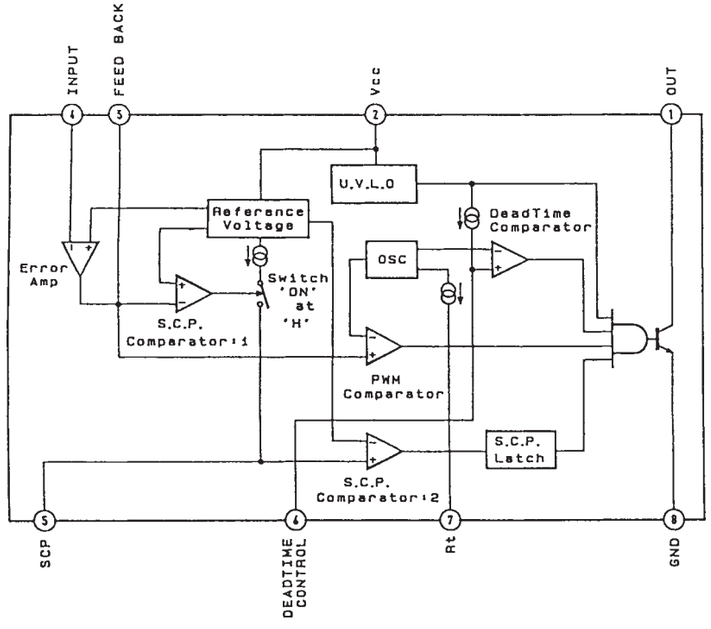
IC701 CXA8048N



IC802 RS5RJ29261



IC904 TL5001CD



6-17. IC PIN FUNCTION

• IC503 CXD2652AR (DIGITAL SERVO ENC/DEC, ATRAC)/MAIN BOARD

Pin No.	Pin Name	I/O	Description
1	MNT0	O	Traverse count signal output.
2	MNT1	O	Track jump detection output.
3	MNT2	—	Not used. (Open).
4	MNT3	—	Not used. (Open).
5	SWDT	I	Write data signal input from system control (IC801).
6	SCLK	I	Serial clock signal input from system control (IC801).
7	XLAT	I	Serial latch signal input from system control (IC801).
8	SRDT	O	Read data signal output to system control (IC801).
9	SENS	O	Internal status (SENSE) signal output to system control (IC801).
10	XRST	I	Reset signal input from system control (IC801). L: reset.
11	SQSY	O	Sub code Q sync (SCOR) signal output to system control (IC801). “L” is output every 13.3 mseconds. “H” is output most of time.
12	DQSY	O	Sub code Q sync (SCOR) of DIGITAL IN U-bit CD format signal output to system control (IC801). “L” is output every 13.3 mseconds. “H” is output most of time. (Not used).
13	WRPWR	I	Laser power switch signal input from system control.
14	NC	—	Not used. (Open).
15	TX	I	Write data send timing input from system control.
16	OSC1	O	Clock output (22.5 MHz).
17	OSC0	I	Clock input (22.5 MHz).
18	XTSL	—	Not used. (Fixed to “H”).
19	RVDD	—	Not used. (GND).
20	RVSS	—	GND.
21	DIN	I	Digital audio signal input terminal (for optical input).
22	DOUT	O	Digital audio signal output terminal (for optical input).
23	ADDT	I	Audio data signal input from A/D and D/A converter (IC303).
24	DADT	O	Monitor/decode audio data signal output to A/D and D/A converter (IC303).
25	ALRCK	O	L/R clock signal output to A/D and D/A converter (IC303).
26	ABCK	O	Bit clock signal output to A/D and D/A converter (IC303).
27	FS256	O	11.2896 MHz clock output (MCLK system).
28	DVDD	—	Digital power supply terminal (+2.8 V).
29 ~ 32	A00 ~ A03	O	Address signal output to RAM (IC509).
33	NC	—	Not used. (Open).
34 ~ 38	A04 ~ A08	O	Address signal output to RAM (IC509).
39	NC	—	Not used. (Open).
40	DVSS	—	GND.
41	XOE	O	Output enable control signal output to RAM (IC509).
42	XCAS	O	Column address strobe signal output to RAM (IC509).
43	A09	O	Address signal output to RAM (IC509).
44	XRAS	O	Load address strobe signal output to RAM (IC509).
45	XWE	O	Read/write control signal output to RAM (IC509).
46 ~ 49	D0 ~ D3	I	Data signal input from RAM (IC509).
50	MVCI	—	Not used. (GND).
51	ASYO	O	Playback EFM full swing output. L: Vss, H: VDD.
52	ASYI	I	Playback EFM asymmetry comparate voltage input.
53	AVDD	—	Analog power supply terminal (+2.8 V).
54	BIAS	I	Playback EFM asymmetry circuit constant current input.
55	RFI	I	Playback EFM RF signal input from RF amplifier (IC501).

Pin No.	Pin Name	I/O	Description
56	AVSS	—	GND.
57	PDO	—	Not used. (Open).
58	PCO	O	Phase comparison output from master clock PLL of the decoder PLL.
59	FILI	I	Filter input to master clock PLL of the decoder PLL.
60	FILO	O	Filter output from master clock PLL of the decoder PLL.
61	CLTV	I	VCO control voltage input from master clock PLL of the decoder PLL.
62	PEAK	I	Optical light amount signal - peak hold signal input from RF amplifier (IC501).
63	BOTM	I	Optical light amount signal - bottom hold signal input from RF amplifier (IC501).
64	ABCD	I	Optical light amount signal input from RF amplifier (IC501).
65	FE	I	Focus error signal input from RF amplifier (IC501).
66	AUX 1	I	Auxiliary signal input from RF amplifier (IC501).
67	VC	I	Center voltage input from RF amplifier (IC501).
68	ADIO	—	Not used. (Open).
69	AVDD	—	Analog power supply terminal (+2.8 V).
70	ADRT	—	Not used. (Connected to +2.8 V).
71	ADRB	—	Not used. (GND).
72	AVSS	—	GND.
73	SE	I	Sled error signal input from RF amplifier (IC501).
74	TE	I	Tracking error signal input from RF amplifier (IC501).
75	AUX 2	—	Not used. (Connected to +2.8 V).
76	DCHG	—	Not used. (Connected to +2.8 V).
77	APC	—	Not used. (Connected to +2.8 V).
78	ADFG	I	ADIP duplexed FM signal input (22.05 kHz ±1 kHz) input from RF amplifier (IC501). (Schmitt input).
79	FO CONT	O	Focus control output to RF amplifier (IC501).
80	XLRF	I	Latch signal input RF amplifier (IC501).
81	CKRF	O	RFCK clock (7.35 kHz) signal output.
82	DTRF	I	Serial data input from microprocessor (IC801).
83	APCREF	I	Input terminal for setting the laser power.
84	LDDR	—	Not used. (Open).
85	TRDR	O	Tracking servo drive signal output (–).
86	TFDR	O	Tracking servo drive signal output (+).
87	DVDD	—	Digital power supply terminal (+2.8 V).
88	FFDR	O	Focus servo drive signal output (–).
89	FRDR	O	Focus servo drive signal output (+).
90	FS 4	O	176.4 kHz clock signal output (MCLK system).
91	SRDR	O	Sled servo drive signal output (–).
92	SFDR	O	Sled servo drive signal output (+).
93	SPRD	O	Spindle servo drive signal output (–).
94	SPFD	O	Spindle servo drive signal output (+).
95	FGIN	I	FG input terminal from spindle motor driver (IC701).
96 ~ 98	TEST 1 ~ 3	—	Not used. (GND).
99	DVSS	—	GND.
100	EFMO	O	EFM signal output (for recording).

• **IC801 CXP801960M-644R (SYSTEM CONTROL)/MAIN BOARD**

Pin No.	Pin Name	I/O	Description
1	CLCS	O	Chip select output to real time clock (IC804).
2	XRST	O	Reset output. L: reset.
3	WRPWR	O	Laser power select signal output.
4	TX	O	Write data transmission timing output.
5	SENSE	I	Sense input.
6	LDON	O	"H": APC circuit ON, "L": APC circuit OFF.
7	XSHOCK	I	Track jump detection signal input from IC503.
8	NC	—	Not used. (Open).
9	INLS	I	Input from sled switch detecting internal circumference. L: internal circumference.
10	PROTECT	I	Disc write protect switch input. H: Protect.
11	DATA	O	Remote control data output.
12	HOLD	I	Input from HOLD switch of the machine. L: Hold.
13	WP	I	Wake-up signal input from key input.
14	OPEN	I	Input from top lid open/close detection switch of the machine. L: Close.
15	CLOCK	I	CLOCK SET switch input.
16	CLS DIO	I	Clock data input.
17	EVR DATA	O	Electronic volume control output.
18	CSST	O	Serial communication chip select output to system control (IC907).
19	LCD CD	O	LCD command data output.
20	CLSCK	O	Serial clock output to real time clock (IC804).
21	SDI2	I	Serial data input.
22 ~ 24	NC	—	Not used. (Open).
25	AVLS	I	Audio volume limit switch input. L: ON.
26	TEST	I	Test mode terminal. L: Test mode.
27	$\overline{\text{DCIN}}$	I	DC IN input detection. L: DC IN.
28	KANA SEL	I	Not used. (Connected GND).
29	XAM CN	O	"H" output when operating on external battery.
30	$\overline{\text{P CONT}}$	O	Power control output. L: ON.
31	$\overline{\text{BATT ON}}$	O	"H" output when operating on lithium battery.
32	REC LED	O	REC LED control output. L: ON.
33	MODE2	O	Control signal output to head drive (IC506).
34	MODE1	O	Control signal output to head drive (IC506).
35	RFSW	O	Power control output to RF amplifier (IC501).
36	$\overline{\text{LCD ON}}$	O	LCD ON/OFF control. L: ON.
37	MP	—	Microprocessor mode input. (Connected GND).
38	$\overline{\text{MRST}}$	I	Microprocessor reset.
39	VSS	—	GND.
40	XTAL	—	Terminal to which external system clock (12 MHz) crystal is connected.
41	EXTAL	—	Terminal to which external system clock (12 MHz) crystal is connected.
42	CS0	—	Serial chip select input. (Connected VDD).
43	SDI0	I	Serial communication input from system control (IC907).
44	SDO0	O	Serial communication output to LCD and system control (IC907).
45	SCK0	O	Serial clock output to LCD and system control (IC907).
46 ~ 48	NC	—	Not used. (GND).
49	KEYR	I	Remote control key input.
50	AVSS	—	GND terminal of A/D converter.

Pin No.	Pin Name	I/O	Description
51	AVREF	—	Reference voltage input of A/D converter.
52	AVDD	—	Power supply terminal of A/D converter.
53	AM3	I	External battery detection input.
54	TEMP	I	Thermal sensor (IC803) input.
55	KEY3	I	PLAY key/REC key input.
56	KEY2	—	Key input from the machine. (Connected to VDD).
57	KEY0	I	Key input from the machine.
58	KEY1	I	Key input from the machine.
59	UNREG MNT	I	Unregulated voltage monitor input.
60	LIMNT	I	Lithium battery voltage monitor input.
61	FGIN	I	FG input from spindle motor driver (IC701).
62	DBB1	I	Digital Mega-base select input. #1.
63	DBB2	I	Digital Mega-base select input. #2.
64	INTSW	I	INITIAL switch input.
65	PACK IN	I	MEDIA switch input.
66	NC	—	Not used. (Open).
67	NC	—	Not used. (Open).
68	$\overline{\text{MICDET}}$	I	MIC jack detection input.
69	XLAT	O	Latch output.
70	KEYON	O	L: During SLEEP mode. H: During operation.
71	ST1A	O	Stepping motor control output.
72	ST2A	O	Stepping motor control output.
73	—	—	Not used. (Open).
74	—	—	Not used. (Open).
75	DQSY	I	Sub code Q sync (SCOR) of DIGITAL IN U-bit CD format signal input from IC503.
76	TCOUNT	I	Traverse count signal input.
77	SDI1	I	Serial data input.
78	SDO1	O	Serial data output.
79	SCK1	O	Serial clock output.
80	SQSY	I	Sub-Q/ADIP sync input.
81	BEEP	O	Beep sound output control. H: Beep sound is output.
82	—	—	Not used. (Open).
83	REFLECT	I	CD/MO identification switch.
84	TEX	—	Not used. (Connected GND).
85	XT	—	Not used. (Open).
86	VSS	—	GND.
87	VDD	—	Microprocessor power supply.
88	NC	—	Not used. (Connected VDD).
89	CS	O	Chip select output to D/A converter.
90	$\overline{\text{PD}}$	O	D/A converter power down signal output during recording.
91	ST1B	O	Stepping motor control signal output.
92	ST2B	O	Stepping motor control signal output.
93	AMUTE	O	Analog mute control. H: Mute.
94	XLCDRST	O	LCD reset signal output.
95	CS EVR	O	Chip select signal output to audio gain control.
96	CSNV	O	Chip select signal output to NV-RAM.
97	SCK2	O	Serial clock output.
98	NC	—	Not used. (GND).
99	SDO2	O	Serial data output.
100	LCD CS	O	Chip select signal output to LCD.

• **IC907 CXP84632-18Q (SYSTEM CONTROL) / RADIAL BOARD**

Pin No.	Pin Name	I/O	Description
1	DEEMP	O	Emphasis ON/OFF switching signal output. 1: OFF.
2	MOTOR CONT	O	Motor (M931) speed control signal output.
3	MSTOP	O	Motor (M931) stop signal output. 0: Motor stop.
4	TXD	—	Not used. (Open).
5	RXD	—	Not used. (Open).
6	CHARGE LED	O	Control signal output to charge LED. 1: LED ON.
7	PCONT	O	Power supply control output. 1: Power supply ON.
8	LCD ON	O	Power supply control output to LCD MODULE (LCD901). 1: LCD ON.
9	BLON	O	Back-light ON/OFF switching signal output. 1: Back-light ON.
10	OPT EN	O	Optical light output enable signal output.
11	OPT	O	OPT1/OPT2 select signal output.
12	LCD STB	O	Strobe signal output to LCD driver.
13	LCD SCK	O	Serial clock output to LCD driver.
14 ~ 21	DB0-DB7	O	Data output to LCD driver.
22	AC IN	I	AC IN detection. 0: Active pull up.
23	XLION	I	Detection input from LION switch (S951). 0: Li battery.
24	XRELEASE	I	Detection input from RELEASE switch (S953). 0: RELEASE switch ON.
25	XLOCK	I	Detection input from XLOCK switch (S655).
26	PLAY KEY	I	Playback key input.
27	REC KEY	I	Record key input.
28	CLOCK KEY	I	CLOCK SET key input.
29	POWER KEY	I	POWER key input.
30	RST	I	System reset signal input.
31	EXTAL	—	Terminal to which external system clock (10 MHz) crystal is connected.
32	XTAL	—	Terminal to which external system clock (10 MHz) crystal is connected.
33	VSS	—	GND.
34	TX	—	Not used. (Open).
35	TEX	—	Not used. (Open).
36	AVSS	—	GND terminal of A/D converter.
37	AVREF	—	Reference voltage input of A/D converter. (Connected VDD).
38	KEY0	I	A/D key input 0.
39	KEY1	I	A/D key input 1.
40	KEY2	I	A/D key input 2.
41	KEY3	I	A/D key input 3.
42	KEY4	I	A/D key input 4.
43	LI+MNT	I	Lithium ion battery + voltage monitor input.
44	AC	I	AC voltage value detection input (Sampling detection).
45	NC	—	Not used. (Open).
46	BUF EN	O	3 V → 5 V output switch signal output.
47	SCS0	I	Serial communication chip select signal input from system control (IC801).
48	SCK0	I	Serial clock input from system control (IC801).
49	SDI0	O	Serial communication output to system control (IC801).
50	SDO0	I	Serial communication input from system control (IC801).

Pin No.	Pin Name	I/O	Description
51 ~ 53	NC	—	Not used. (Open).
54	TIMER1	I	TIMER switch (S613) signal input.
55	TIMER2	I	TIMER switch (S613) signal input.
56	RMC	I	Remote control signal input.
57	X TEST	I	Test mode setting terminal.
58	NC	—	Not used. (Open).
59	NC	—	Not used. (Open).
60	XPDAD	O	A/D converter ON/OFF signal output.
61	XINIT	I	Machine's initial position detection signal input from XINT switch (S650).
62	NC	—	Not used. (Open).
63	PANEL DOWN	I	LCD panel closed detected signal input.
64	NC	—	Not used. (Open).
65	ESCK	O	Serial clock output of EVR communication.
66	ECS	O	Chip select signal output of EVR communication.
67	EDATA	O	Data signal output of EVR communication.
68	LICHG	O	Lithium ion rechargeable battery select output.
69	LION	O	Machine's lithium ion rechargeable battery select output.
70	STLION	O	Station's lithium ion rechargeable battery select output.
71	PMUTE	O	Mute signal output at the time when main power is turned on.
72	VDD	—	Power supply terminal.
73	NC	—	Not used. (Connected to VDD).
74	LINE OPT1	I	Input select signal input.
75	LINE OPT2	I	Input select signal input.
76	SYNCREC	I	Sync record ON/OFF signal input.
77	DEST	I	Destination setting terminal. 0: Japan model.
78	DIF0	O	ADA data setting 0.
79	DIF1	O	ADA data setting 1.
80	XRESET	O	Reset signal output to A/D, D/A converters.

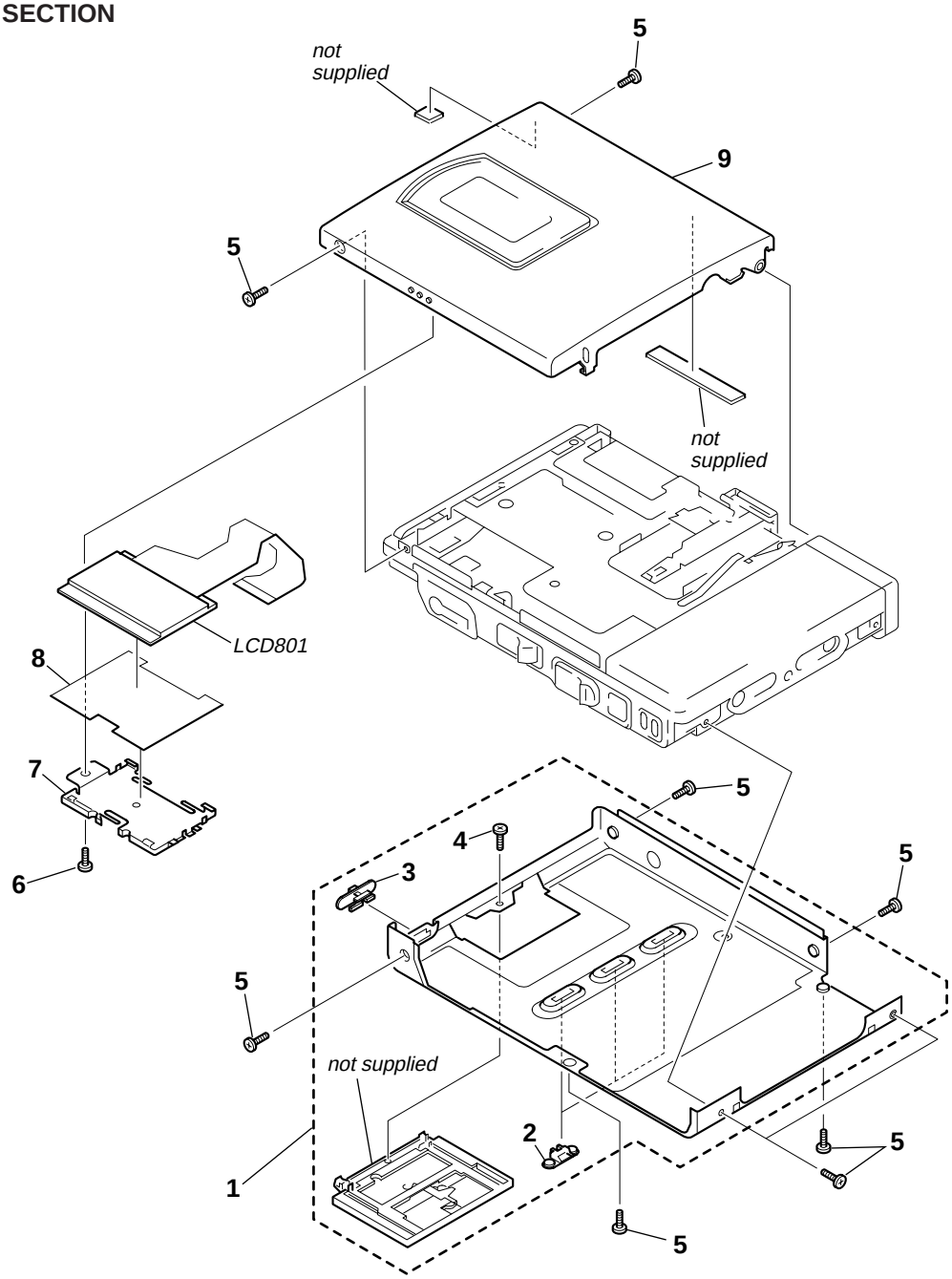
SECTION 7
EXPLODED VIEWS

NOTE:

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

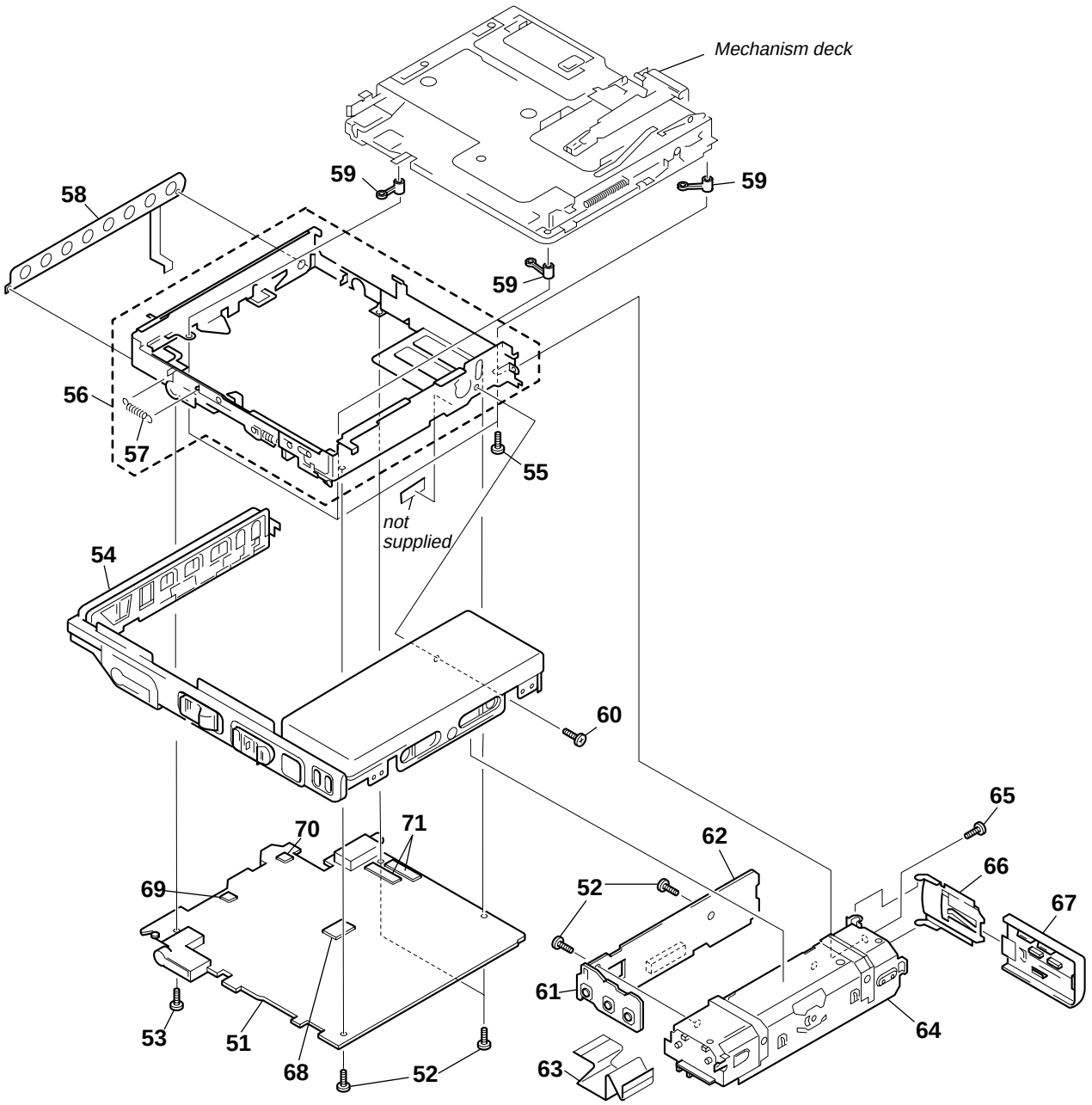
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

7-1. PANEL SECTION



Ref. No.	Part No.	Description	Remarks
1	X-4949-157-1	PANEL ASSY, BOTTOM	
2	3-938-805-01	KNOB (DOLBY)	
3	3-919-630-01	KNOB (AVLS)	
4	3-348-998-31	SCREW (M1.4X2.5), TAPPING, PAN	
5	4-963-883-61	SCREW (M1.4), PRECISION PAN	
6	3-366-890-11	SCREW (M1.4)	
7	4-983-979-01	HOLDER (LCD)	
8	4-985-621-01	SPACER (LCD)	
9	X-4949-156-1	PANEL ASSY, UPPER	
LCD801	1-801-903-11	LCD	

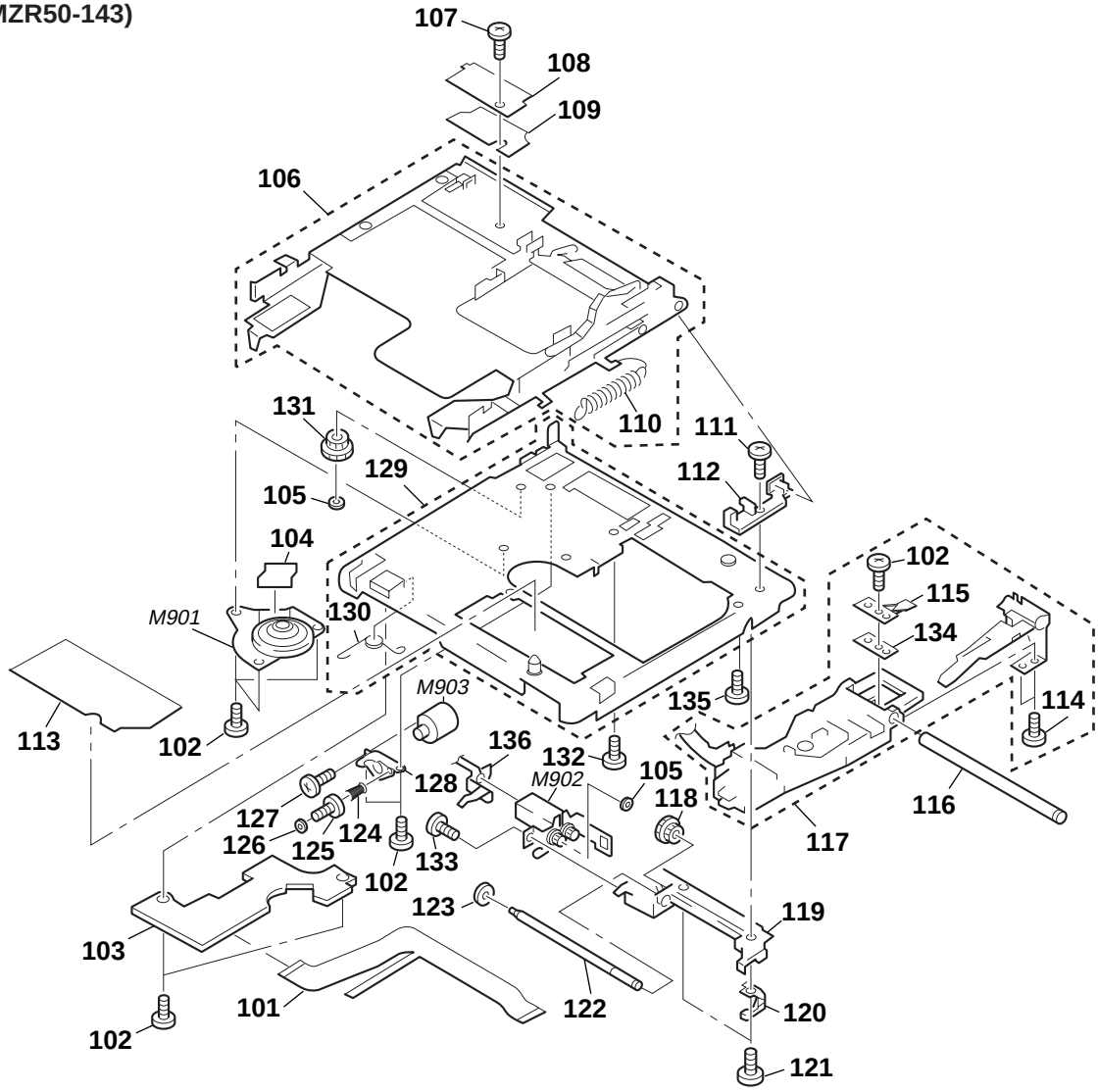
7-2. MAIN BOARD SECTION



Ref. No.	Part No.	Description	Remarks
51	A-3293-769-A	MAIN BOARD ASSY	
52	3-335-797-91	SCREW (M1.4), TOOTHED LOCK	
53	4-995-436-01	SCREW (HP), STEP	
54	X-4949-155-1	BELT ASSY, ORNAMENTAL	
55	4-995-437-01	SCREW (DAMPER)	
56	X-4949-154-1	CHASSIS (MAIN ST) ASSY	
57	4-995-402-01	SPRING (LOCK), TENSION	
58	1-475-368-11	SW UNIT	
59	4-995-435-01	DAMPER (R50)	
60	3-349-825-51	SCREW	
* 61	1-667-219-11	SW BOARD	

Ref. No.	Part No.	Description	Remarks
62	A-3293-770-A	POWER BOARD ASSY	
63	1-782-708-11	WIRE (FLAT TYPE) (20 CORE)	
64	X-4949-116-1	CASE ASSY, BATTERY	
65	4-963-883-61	SCREW (M1.4), PRECISION PAN	
66	4-995-432-01	HINGE, BATTERY	
67	4-995-722-01	LID, BATTERY CASE	
68	4-998-405-01	SHEET (CLV)	
69	4-998-407-01	HIMERON TAPE (DAMPER)	
70	4-998-844-01	SHEET (SW)	
71	4-998-406-01	SHEET (LCD)	

7-3. MD MECHANISM SECTION (MT-MZR50-143)

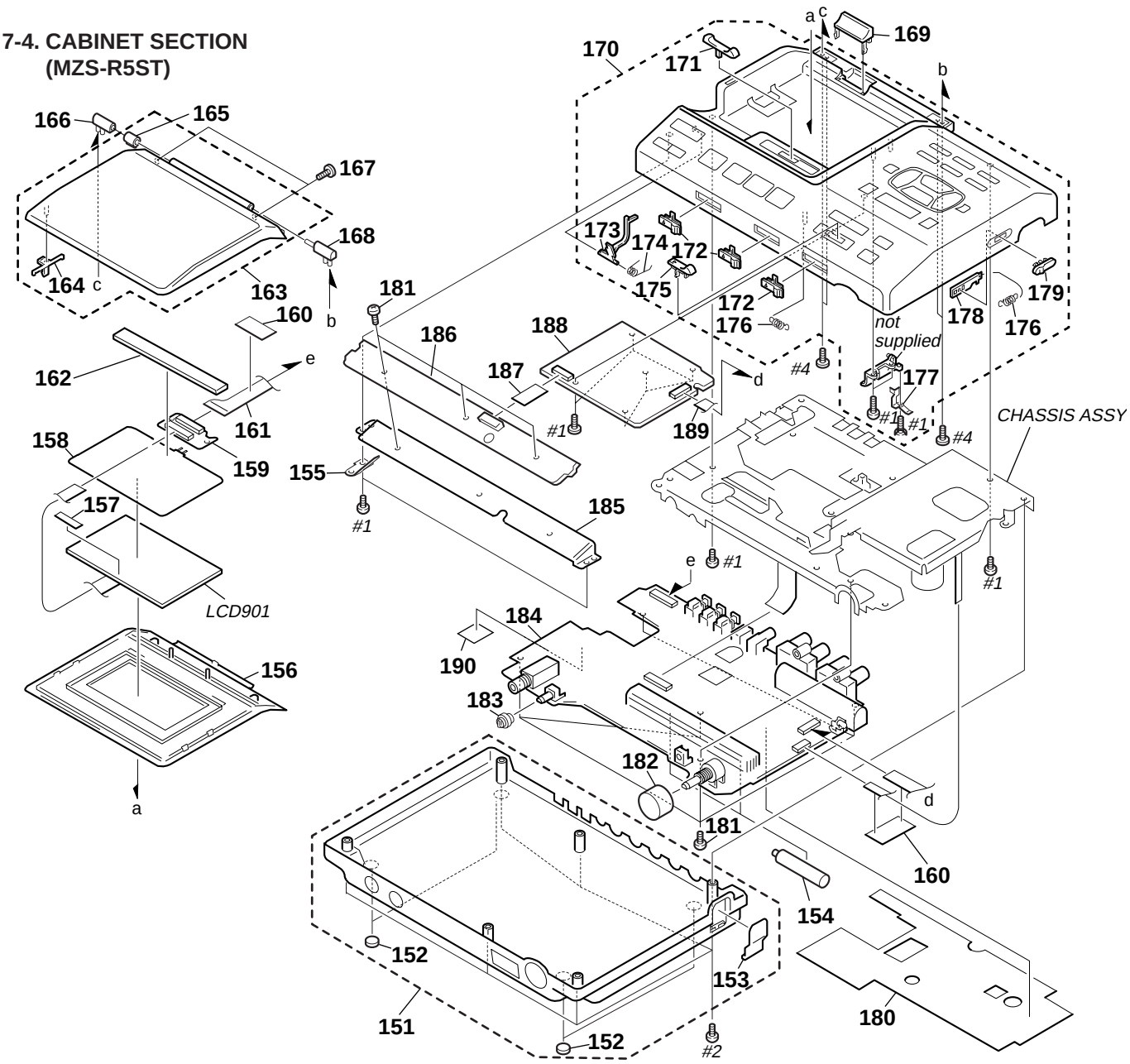


Ref. No.	Part No.	Description	Remarks
101	1-667-210-11	MD FLEXIBLE BOARD	
102	4-963-883-01	SCREW (M1.4), PRECISION PAN	
103	A-3293-756-A	CLV BOARD, COMPLETE	
104	1-667-690-11	CLV FLEXIBLE BOARD	
105	3-338-645-31	WASHER (0.8-2.5)	
106	X-4949-129-1	HOLDER ASSY	
107	3-349-825-41	SCREW	
108	A-3293-755-A	REC BOARD, COMPLETE	
109	4-995-575-01	SHEET, INSULATING	
110	4-995-573-01	SPRING, TENSION	
111	3-704-246-13	SCREW (P1.4X2.0)	
* 112	4-995-568-01	GUIDE, HOLDER	
113	4-995-572-01	SHEET, BLIND	
114	4-955-841-01	SCREW	
115	4-995-570-01	SPRING, RACK	
116	4-995-567-01	SHAFT, MAIN	
⚠117	X-4949-256-1	OPTICAL PICK-UP ASSY (KMS-280A/JZN)	
118	4-995-578-01	GEAR (SC)	
119	X-4949-131-1	BRACKET (S) ASSY	
120	4-995-571-01	SPRING, THRUST	

Ref. No.	Part No.	Description	Remarks
121	4-963-883-41	SCREW (M1.4), PRECISION PAN	
122	4-995-580-01	SCREW, LEAD	
123	4-995-586-01	GEAR (SD)	
124	4-972-546-01	SPRING (WORM GEAR),COMPRESSION	
125	4-963-901-01	GEAR, WORM	
126	3-315-384-11	WASHER, STOPPER	
127	4-964-564-01	SCREW (M1.2X1.6)	
128	X-4949-127-1	CHASSIS ASSY, GEAR	
129	X-4949-126-1	CHASSIS ASSY	
130	4-995-585-01	SPRING (LIMITTER), TORSION	
131	4-963-898-11	GEAR (WORM WHEEL)	
132	3-704-197-31	SCREW (M1.4X3.0), LOCKING	
133	3-015-033-01	SCREW (DIA. 1.4X4), PRECISION	
134	4-997-228-11	SPACER (RACK SPRING)	
135	4-997-172-01	SCREW (M1.4X3)	
136	1-667-211-11	MOTOR FLEXIBLE BOARD	
M901	1-763-011-11	MOTOR	
M902	A-3311-972-A	MOTOR BLOCK ASSY, SLED	
M903	A-3320-037-A	STEPPER BLOCK ASSY	

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

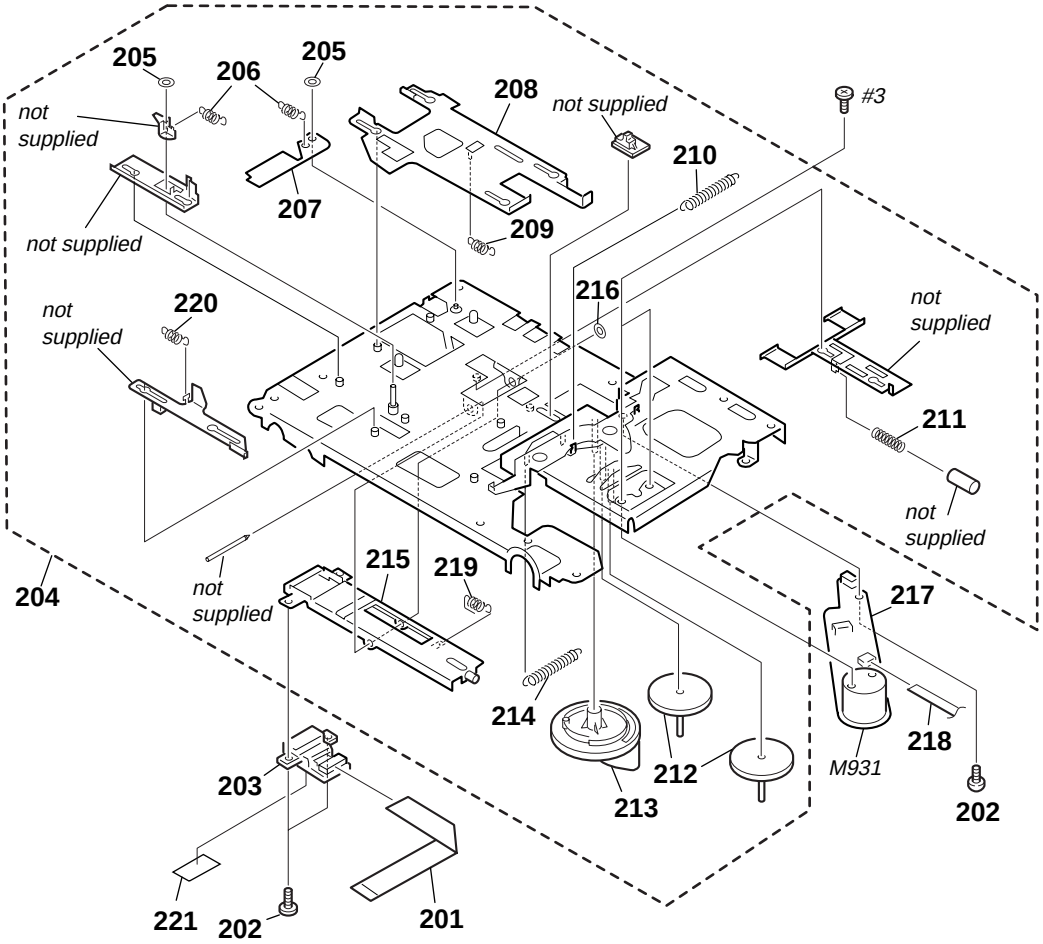
7-4. CABINET SECTION (MZS-R5ST)



Ref. No.	Part No.	Description	Remarks
151	X-4948-958-1	CABINET (LOWER) ASSY	
152	3-329-013-01	FOOT, RUBBER	
153	4-994-423-01	LID, BATTERY CASE	
* 154	1-528-797-21	BATTERY, NI-CD (JEW)	
* 154	1-528-797-31	BATTERY, NI-CD (AEP, UK)	
155	4-996-753-01	TERMINAL, GROUND	
156	X-4949-300-1	PANEL (LCD) ASSY, INNER	
157	4-994-432-01	SHEET (LCD) (B), ADHESIVE	
158	1-801-897-11	ELEMENT, EL LUMINOUS	
* 159	1-667-220-11	LCD/EL BOARD	
160	3-831-441-99	CUSHION (B), CABINET	
161	1-667-281-11	LCD/EL FLEXIBLE BOARD	
162	4-998-442-01	CUSHION	
163	X-4948-959-1	PANEL (LCD) BLOCK ASSY, OUTER	
164	4-994-435-01	KNOB (LCD OPEN)	
165	X-4948-642-1	FULCRUM ASSY, 1200 LCD LID	
166	4-994-436-01	COVER (L), HINGE	
167	3-334-565-51	SCREW (B1.7), TAPPING	
168	4-994-437-01	COVER (R), HINGE	
169	4-994-438-01	COVER (FLEXIBLE)	
170	X-4948-953-1	CABINET (UPPER) ASSY	

Ref. No.	Part No.	Description	Remarks
171	4-994-416-01	KNOB (RELEASE)	
172	4-983-880-11	KNOB (D/A)	
173	4-994-417-01	LEVER (LCD)	
174	4-994-418-01	SPRING, TORSION	
175	4-983-881-01	KNOB (REC)	
176	3-539-226-00	SPRING, TENSION	
177	4-994-421-01	CONTACT (GROUND)	
178	4-994-415-01	LEVER (LID LOCK)	
179	4-983-290-31	KNOB (OPEN)	
180	4-996-867-01	PAPER, SHIELD	
181	4-987-714-01	SCREW	
182	X-4949-239-1	KNOB (REC VOL) ASSY	
183	4-973-220-21	KNOB (VOL)	
184	A-3306-961-A	RADIAL BOARD, COMPLETE	
* 185	4-994-419-01	BRACKET (SW PC BOARD)	
* 186	1-667-234-11	STATION SW2 BOARD	
187	1-782-719-11	WIRE (FLAT TYPE) (14 CORE)	
* 188	1-667-233-11	STATION SW1 BOARD	
189	1-782-851-11	WIRE (FLAT TYPE) (16 CORE)	
190	3-831-441-99	CUSHION (B), CABINET	
LCD901	1-801-898-11	LCD MODULE	

7-5. SHASSIS SECTION
(MZS-R5ST)



Ref. No.	Part No.	Description	Remarks
201	1-782-852-11	WIRE (FLAT TYPE) (22 CORE)	
202	4-987-714-01	SCREW	
* 203	1-667-231-11	STATION CN BOARD	
204	X-4948-960-1	CHASSIS ASSY	
205	3-341-752-11	WASHER, POLYETHYLENE	
206	3-305-902-00	SPRING, TENSION	
207	4-983-862-01	SHUTTER (ST)	
208	4-983-861-11	LOCK SLIDER	
209	4-998-235-01	SPRING, TENSION	
210	3-440-152-03	SPRING, TENSION	
211	3-655-233-01	SPRING	

Ref. No.	Part No.	Description	Remarks
212	4-983-867-01	GEAR (STEP)	
213	4-983-868-11	GEAR (CAM)	
214	3-542-481-00	SPRING, TENSION	
215	X-4947-409-1	ARM ASSY, CONNECTOR	
216	4-988-064-01	WASHER (ARM)	
217	1-667-232-11	MECHA SW BOARD	
218	1-782-850-11	WIRE (FLAT TYPE) (6 CORE)	
219	4-987-869-01	SPRING, TENSION	
220	4-954-160-01	SPRING, TENSION	
* 221	3-344-749-01	RETAINER (B)	
M931	A-3304-761-A	MOTOR ASSY	

CLV | LCD/EL | MAIN

SECTION 8
ELECTRICAL PARTS LIST

NOTE:

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

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

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: µH
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

Ref. No.	Part No.	Description			Remarks
	A-3293-756-A	CLV BOARD			
		**********			
		< CAPACITOR >			
C701	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C702	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C703	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C704	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C705	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C706	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C707	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C709	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C710	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C711	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN701	1-573-927-11	CONNECTOR, FFC/FPC (ZIF) 18P			
CN702	1-573-915-11	CONNECTOR, FFC/FPC (ZIF) 6P			
		< IC >			
IC701	8-759-335-44	IC CXA8048N			
		< TRANSISTOR >			
Q703	8-729-427-83	TRANSISTOR XP6501			
		< RESISTOR >			
R701	1-218-871-11	RES, CHIP	10K (1608)		
R702	1-218-871-11	RES, CHIP	10K (1608)		
R703	1-216-815-11	METAL CHIP	330	5%	1/16W
R704	1-217-671-11	METAL CHIP	1	5%	1/10W
R705	1-217-671-11	METAL CHIP	1	5%	1/10W
R706	1-216-833-11	METAL CHIP	10K	5%	1/16W
R711	1-216-864-11	METAL CHIP	0	5%	1/16W
		< SWITCH >			
S701	1-762-805-41	SWITCH, PUSH (1 KEY)(MEDIA)			
S702	1-762-835-11	SWITCH, PUSH (1 KEY)(PROTECT)			
S703	1-762-805-41	SWITCH, PUSH (1 KEY)(REFLECT)			
S704	1-771-092-21	SWITCH, PUSH (1 KEY)(INITIAL)			
S705	1-572-467-41	SWITCH, PUSH (1 KEY)(INLIMIT)			

****

Ref. No.	Part No.	Description			Remarks
*	1-667-220-11	LCD/EL BOARD			
		**********			
		< CONNECTOR >			
CN604	1-569-532-11	HOUSING, CONNECTOR 30P			
CN605	1-569-532-11	HOUSING, CONNECTOR 30P			

****

	A-3293-769-A	MAIN BOARD			
		**********			
		< CAPACITOR >			
C101	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C103	1-135-337-11	TANTAL. CHIP	1uF	20%	6.3V
C104	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C105	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C106	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C107	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C109	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C110	1-135-337-11	TANTAL. CHIP	1uF	20%	6.3V
C117	1-119-660-11	TANTAL. CHIP	4.7uF	20%	6.3V
C118	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C120	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C124	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C125	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C161	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C168	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C201	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C203	1-135-337-11	TANTAL. CHIP	1uF	20%	6.3V
C204	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C205	1-164-217-11	CERAMIC CHIP	150PF	5%	50V
C206	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C207	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C209	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C210	1-135-337-11	TANTAL. CHIP	1uF	20%	6.3V
C217	1-119-660-11	TANTAL. CHIP	4.7uF	20%	6.3V
C218	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C220	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C224	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C225	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C261	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C268	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C292	1-119-660-11	TANTAL. CHIP	4.7uF	20%	6.3V
C293	1-104-912-11	TANTAL. CHIP	3.3uF	20%	6.3V
C294	1-104-847-11	TANTAL. CHIP	22uF	20%	4V
C295	1-119-660-11	TANTAL. CHIP	4.7uF	20%	6.3V
C296	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V

Ref. No.	Part No.	Description			Remarks
C301	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C303	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C304	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C305	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C306	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V (JEW)
C306	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (AEP, UK)
C307	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C310	1-164-361-11	CERAMIC CHIP	0.047uF		16V
C315	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C318	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C320	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C321	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C322	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C327	1-104-852-11	TANTAL. CHIP	22uF	20%	6.3V
C338	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C345	1-119-661-11	TANTAL. CHIP	33uF	20%	6.3V
C346	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C359	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C365	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C366	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C368	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C369	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C399	1-107-816-11	TANTAL. CHIP	0.68uF	20%	10V
C501	1-115-169-11	TANTALUM	10uF	20%	6.3V
C504	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C505	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C506	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C507	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C508	1-162-969-11	CERAMIC CHIP	0.0068uF	10%	25V
C509	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C510	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C511	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C512	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C513	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C515	1-119-661-11	TANTAL. CHIP	33uF	20%	6.3V
C517	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C518	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C519	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C521	1-164-677-11	CERAMIC CHIP	0.033uF	10%	16V
C522	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C524	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C525	1-104-852-11	TANTAL. CHIP	22uF	20%	6.3V
C526	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C529	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C530	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C531	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C532	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C533	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C534	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C536	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C537	1-104-908-11	TANTAL. CHIP	47uF	20%	4V
C538	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C541	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C542	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C544	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V

Ref. No.	Part No.	Description			Remarks
C545	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C546	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C547	1-104-912-11	TANTAL. CHIP	3.3uF	20%	16V
C548	1-104-912-11	TANTAL. CHIP	3.3uF	20%	16V
C549	1-113-682-11	TANTAL. CHIP	33uF	20%	10V
C550	1-113-682-11	TANTAL. CHIP	33uF	20%	10V
C551	1-104-912-11	TANTAL. CHIP	3.3uF	20%	16V
C552	1-104-912-11	TANTAL. CHIP	3.3uF	20%	16V
C553	1-113-682-11	TANTAL. CHIP	33uF	20%	10V
C554	1-104-913-11	TANTAL. CHIP	10uF	20%	16V
C555	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C559	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C560	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C561	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C562	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C563	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C564	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C565	1-135-180-21	TANTALUM CHIP	3.3uF	20%	6.3V
C566	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C567	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C569	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C570	1-119-661-11	TANTAL. CHIP	33uF	20%	6.3V
C571	1-119-661-11	TANTAL. CHIP	33uF	20%	6.3V
C574	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C575	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C576	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C714	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C716	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C812	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C813	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C814	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C815	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C816	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C818	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C819	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C820	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C821	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C822	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C824	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C825	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C826	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C827	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C829	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C830	1-110-569-11	TANTAL. CHIP	47uF	20%	6.3V
C831	1-104-852-11	TANTAL. CHIP	22uF	20%	10V
C833	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C834	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C851	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C861	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C862	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C865	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C899	1-251-641-11	ELEMENT, STORAGE			
		< CONNECTOR >			
CN501	1-573-931-11	CONNECTOR, FFC/FPC (ZIF) 22P			
CN502	1-573-362-11	CONNECTOR, FFC/FPC 22P			
CN801	1-573-360-21	CONNECTOR, FFC/FPC 20P			
CN803	1-573-918-11	CONNECTOR, FFC/FPC (ZIF) 9P			
CN804	1-573-365-21	CONNECTOR, FFC/FPC 25P			

MAIN

Ref. No.	Part No.	Description	Remarks
		< DIODE >	
D302	8-719-066-17	DIODE FTZ6.8E-T148	
D303	8-719-066-17	DIODE FTZ6.8E-T148	
D304	8-719-941-23	DIODE DA204U	
D501	8-719-421-27	DIODE MA728	
D502	8-719-421-27	DIODE MA728	
D803	8-719-066-44	DIODE CL-270HR-C-TS (REC)	
D804	8-719-045-67	DIODE RB731U-T108	
D806	8-719-421-27	DIODE MA728	
D807	8-719-421-27	DIODE MA728	
D808	8-719-047-73	DIODE HRU0302A-TR	
		< FERRITE BEAD >	
FB135	1-216-864-11	METAL CHIP 0 5%	1/16W
FB235	1-216-864-11	METAL CHIP 0 5%	1/16W
FB301	1-414-385-11	INDUCTOR 0uH	
FB302	1-216-864-11	METAL CHIP 0 5%	1/16W (JEW)
FB302	1-414-385-11	INDUCTOR 0uH (AEP, UK)	
FB303	1-216-864-11	METAL CHIP 0 5%	1/16W (JEW)
FB303	1-414-385-11	INDUCTOR 0uH (AEP, UK)	
FB304	1-216-864-11	METAL CHIP 0 5%	1/16W (JEW)
FB304	1-414-385-11	INDUCTOR 0uH (AEP, UK)	
FB305	1-216-864-11	METAL CHIP 0 5%	1/16W
FB350	1-216-864-11	METAL CHIP 0 5%	1/16W
FB501	1-216-864-11	METAL CHIP 0 5%	1/16W (JEW)
FB501	1-414-385-11	INDUCTOR 0uH (AEP, UK)	
FB502	1-216-864-11	METAL CHIP 0 5%	1/16W (JEW)
FB502	1-414-385-11	INDUCTOR 0uH (AEP, UK)	
FB503	1-216-864-11	METAL CHIP 0 5%	1/16W (JEW)
FB503	1-216-811-11	METAL CHIP 150 5%	1/16W (AEP, UK)
FB504	1-216-864-11	METAL CHIP 0 5%	1/16W (JEW)
FB504	1-414-385-11	INDUCTOR 0uH (AEP, UK)	
FB505	1-216-864-11	METAL CHIP 0 5%	1/16W (JEW)
FB505	1-414-385-11	INDUCTOR 0uH (AEP, UK)	
		< IC >	
IC301	8-759-482-09	IC RN5RZ25BA-TL	
IC302	8-759-252-90	IC TLV2362IPW-ELM1500	
IC303	8-759-439-74	IC AK4515-VQ	
IC305	8-759-481-66	IC DS1801E-014TE2	
IC306	8-759-487-19	IC PST9322UL	
IC501	8-752-085-60	IC CXA2523AR-T4	
IC503	8-752-384-47	IC CXD2652AR	
IC505	8-759-460-34	IC MPC17A36VMEL	
IC506	8-759-329-43	IC MPC18A20VM	
IC509	8-759-334-38	IC MSM51V4400-70TS-K	
IC509	8-759-349-44	IC MB81V4400C-60PFTN	
IC509	8-759-334-38	IC MSM51V4400-70TS-K	
IC510	8-759-487-20	IC PST9330UL	
IC511	8-759-196-97	IC TC7SH32FU-TE85R	
IC512	8-759-271-86	IC TC7SH04FU	
IC702	8-759-482-07	IC MPC17A28SVMEL	
IC801	8-782-893-71	IC	
IC802	8-759-343-90	IC RS5RJ29261	
IC803	8-759-332-25	IC XC31PNS01AMR	
IC804	8-759-343-88	IC DS1302Z	
IC805	8-759-497-20	IC LA4800V-S-TLM	
IC807	8-759-457-68	IC AK93C45AV-L	
IC811	8-759-465-98	IC BU9728AKV-E2	
		< JACK >	
J301	1-779-881-21	JACK (MIC)	
J302	1-778-179-11	JACK (🎧 /REMOTE)	
		< COIL >	
L303	1-414-398-11	INDUCTOR 10uH	
L304	1-414-398-11	INDUCTOR 10uH	
L501	1-414-398-11	INDUCTOR 10uH	
L502	1-414-398-11	INDUCTOR 10uH	
L504	1-414-410-21	INDUCTOR 10uH	
L505	1-412-034-11	INDUCTOR CHIP 330uH	
L506	1-414-402-11	INDUCTOR 47uH	
L507	1-414-402-11	INDUCTOR 47uH	
L508	1-414-402-11	INDUCTOR 47uH	
L509	1-414-402-11	INDUCTOR 47uH	
L510	1-414-410-21	INDUCTOR 10uH	
L511	1-414-402-11	INDUCTOR 47uH	
L513	1-414-398-11	INDUCTOR 10uH	
L514	1-412-034-11	INDUCTOR CHIP 330uH	
L801	1-414-402-11	INDUCTOR 47uH	
		< TRANSISTOR >	
Q101	8-729-013-37	TRANSISTOR 2SC4213-AB-TE85L	
Q201	8-729-013-37	TRANSISTOR 2SC4213-AB-TE85L	
Q301	8-729-028-91	TRANSISTOR DTA144EUA-T106	
Q311	8-729-930-00	TRANSISTOR UMD2	
Q313	8-729-929-80	TRANSISTOR UMB2	
Q314	8-729-929-80	TRANSISTOR UMB2	
Q502	8-729-422-39	TRANSISTOR XN4404	
Q503	8-729-930-13	TRANSISTOR UMH2	
Q504	8-729-019-25	TRANSISTOR 2SK1467-TD	
Q505	8-729-930-00	TRANSISTOR UMD2	
Q801	8-729-930-00	TRANSISTOR UMD2	
Q806	8-729-031-34	TRANSISTOR 2SK2034	
Q809	8-729-031-34	TRANSISTOR 2SK2034	
Q810	8-729-905-35	TRANSISTOR 2SC4081-R	
		< RESISTOR >	
R101	1-218-867-11	RES, CHIP 6.8K (1608)	
R103	1-218-867-11	RES, CHIP 6.8K (1608)	
R105	1-216-837-11	METAL CHIP 22K 5%	1/16W
R107	1-218-883-11	RES, CHIP 33K (1608)	
R108	1-218-843-11	RES, CHIP 680 (1608)	
R119	1-216-789-11	METAL CHIP 2.2 5%	1/16W
R136	1-218-863-11	RES, CHIP 4.7K (1608)	
R137	1-216-827-11	METAL CHIP 3.3K 5%	1/16W
R160	1-216-857-11	METAL CHIP 1M 5%	1/16W
R161	1-218-847-11	RES, CHIP 1.0K (1608)	

Ref. No.	Part No.	Description			Remarks
R201	1-218-867-11	RES, CHIP	6.8K (1608)		
R203	1-218-867-11	RES, CHIP	6.8K (1608)		
R205	1-216-837-11	METAL CHIP	22K	5%	1/16W
R207	1-218-883-11	RES, CHIP	33K (1608)		
R208	1-218-843-11	RES, CHIP	680 (1608)		
R219	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R236	1-218-863-11	RES, CHIP	4.7K (1608)		
R237	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R260	1-216-857-11	METAL CHIP	1M	5%	1/16W
R261	1-218-847-11	RES, CHIP	1.0K (1608)		
R306	1-216-797-11	METAL CHIP	10	5%	1/16W
R364	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R365	1-216-809-11	METAL CHIP	100	5%	1/16W
R374	1-216-845-11	METAL CHIP	100K	5%	1/16W
R380	1-216-864-11	METAL CHIP	0	5%	1/16W
R381	1-216-809-11	METAL CHIP	100	5%	1/16W
R382	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R383	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R501	1-216-835-11	METAL CHIP	15K	5%	1/16W
R502	1-216-835-11	METAL CHIP	15K	5%	1/16W
R503	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R504	1-216-859-11	RES, CHIP	1.5M (1608)		
R505	1-218-446-11	METAL CHIP	1	5%	1/16W
R506	1-216-811-11	METAL CHIP	150	5%	1/16W
R507	1-216-833-11	METAL CHIP	10K	5%	1/16W
R508	1-216-817-11	METAL CHIP	470	5%	1/16W
R509	1-216-853-11	METAL CHIP	470K	5%	1/16W
R510	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R511	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R512	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R513	1-216-843-11	METAL CHIP	68K	5%	1/16W
R514	1-216-864-11	METAL CHIP	0	5%	1/16W
R515	1-216-864-11	METAL CHIP	0	5%	1/16W
R516	1-216-821-11	METAL CHIP	1K	5%	1/16W
R517	1-216-803-11	METAL CHIP	33	5%	1/16W
R518	1-216-864-11	METAL CHIP	0	5%	1/16W
R520	1-216-841-11	METAL CHIP	47K	5%	1/16W
R524	1-216-833-11	METAL CHIP	10K	5%	1/16W
R525	1-216-845-11	METAL CHIP	100K	5%	1/16W
R526	1-216-853-11	METAL CHIP	470K	5%	1/16W
R528	1-216-821-11	METAL CHIP	1K	5%	1/16W
R529	1-216-821-11	METAL CHIP	1K	5%	1/16W
R530	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R531	1-216-845-11	METAL CHIP	100K	5%	1/16W
R536	1-218-891-11	RES, CHIP	68K (1608)		
R537	1-218-899-11	RES, CHIP	150K (1608)		
R538	1-218-895-11	RES, CHIP	100K (1608)		
R539	1-216-833-11	METAL CHIP	10K	5%	1/16W
R540	1-216-857-11	METAL CHIP	1M	5%	1/16W
R541	1-216-843-11	METAL CHIP	68K	5%	1/16W
R542	1-218-903-11	RES, CHIP	220K (1608)		
R543	1-218-887-11	RES, CHIP	47K (1608)		
R545	1-216-845-11	METAL CHIP	100K	5%	1/16W
R546	1-216-841-11	METAL CHIP	47K	5%	1/16W
R549	1-216-845-11	METAL CHIP	100K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
R554	1-216-821-11	METAL CHIP	1K	5%	1/16W
R555	1-216-864-11	METAL CHIP	0	5%	1/16W (JEW)
R555	1-216-817-11	METAL CHIP	470	5%	1/16W (AEP,UK)
R559	1-216-811-11	METAL CHIP	150	5%	1/16W
R562	1-218-887-11	RES, CHIP	47K (1608)		
R563	1-216-833-11	METAL CHIP	10K	5%	1/16W
R564	1-216-843-11	METAL CHIP	68K	5%	1/16W
R565	1-216-845-11	METAL CHIP	100K	5%	1/16W
R566	1-216-841-11	METAL CHIP	47K	5%	1/16W
R571	1-216-864-11	METAL CHIP	0	5%	1/16W (JEW)
R571	1-216-817-11	METAL CHIP	470	5%	1/16W (AEP, UK)
R572	1-216-864-11	METAL CHIP	0	5%	1/16W (JEW)
R572	1-216-817-11	METAL CHIP	470	5%	1/16W (AEP, UK)
R576	1-216-864-11	METAL CHIP	0	5%	1/16W (JEW)
R576	1-216-817-11	METAL CHIP	470	5%	1/16W (AEP, UK)
R581	1-216-841-11	METAL CHIP	47K	5%	1/16W
R582	1-216-841-11	METAL CHIP	47K	5%	1/16W
R583	1-216-864-11	METAL CHIP	0	5%	1/16W (JEW)
R583	1-414-385-11	INDUCTOR CHIP	0uH (AEP, UK)		
R584	1-216-864-11	METAL CHIP	0	5%	1/16W (JEW)
R584	1-216-811-11	METAL CHIP	150	5%	1/16W (AEP, UK)
R585	1-216-857-11	METAL CHIP	1M	5%	1/16W
R710	1-216-819-11	METAL CHIP	680	5%	1/16W
R802	1-216-851-11	METAL CHIP	330K	5%	1/16W
R803	1-216-857-11	METAL CHIP	1M	5%	1/16W
R806	1-216-857-11	METAL CHIP	1M	5%	1/16W
R816	1-216-851-11	METAL CHIP	330K	5%	1/16W
R817	1-216-851-11	METAL CHIP	330K	5%	1/16W
R818	1-216-857-11	METAL CHIP	1M	5%	1/16W
R820	1-218-887-11	RES, CHIP	47K (1608)		
R821	1-218-887-11	RES, CHIP	47K (1608)		
R822	1-218-887-11	RES, CHIP	47K (1608)		
R824	1-218-887-11	RES, CHIP	47K (1608)		
R825	1-216-851-11	METAL CHIP	330K	5%	1/16W
R826	1-216-864-11	METAL CHIP	0	5%	1/16W
R828	1-218-911-11	RES, CHIP	470K (1608)		
R829	1-218-899-11	RES, CHIP	150K (1608)		
R830	1-216-851-11	METAL CHIP	330K	5%	1/16W
R831	1-216-857-11	METAL CHIP	1M	5%	1/16W
R833	1-216-857-11	METAL CHIP	1M	5%	1/16W
R834	1-216-857-11	METAL CHIP	1M	5%	1/16W
R836	1-218-871-11	RES, CHIP	10K (1608)		
R837	1-216-851-11	METAL CHIP	330K	5%	1/16W
R838	1-218-887-11	RES, CHIP	47K (1608)		
R842	1-216-864-11	METAL CHIP	0	5%	1/16W
R853	1-216-809-11	METAL CHIP	100	5%	1/16W
R856	1-216-821-11	METAL CHIP	1K	5%	1/16W
R857	1-216-833-11	METAL CHIP	10K	5%	1/16W
R861	1-216-857-11	METAL CHIP	1M	5%	1/16W
R865	1-216-809-11	METAL CHIP	100	5%	1/16W

MAIN **MECHA SW** **POWER**

Ref. No.	Part No.	Description			Remarks
R867	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R868	1-216-845-11	METAL CHIP	100K	5%	1/16W
R873	1-216-829-11	METAL CHIP	4.7K	5%	1/16W
R877	1-216-845-11	METAL CHIP	100K	5%	1/16W
R878	1-216-833-11	METAL CHIP	10K	5%	1/16W
R881	1-216-853-11	METAL CHIP	470K	5%	1/16W
R882	1-216-845-11	METAL CHIP	100K	5%	1/16W
R883	1-216-845-11	METAL CHIP	100K	5%	1/16W
R884	1-216-845-11	METAL CHIP	100K	5%	1/16W
R885	1-216-864-11	METAL CHIP	0	5%	1/16W
R886	1-218-867-11	RES, CHIP	6.8K (1608)		
R887	1-218-871-11	RES, CHIP	10K (1608)		
R888	1-218-875-11	RES, CHIP	15K (1608)		
R889	1-218-883-11	RES, CHIP	33K (1608)		
R890	1-218-887-11	RES, CHIP	47K (1608)		
R891	1-218-899-11	RES, CHIP	150K (1608)		
R893	1-216-821-11	METAL CHIP	1K	5%	1/16W
R894	1-216-821-11	METAL CHIP	1K	5%	1/16W
R899	1-216-857-11	METAL CHIP	1M	5%	1/16W
		< CONPOSITION CIRCUIT BLOCK >			
RB301	1-233-971-11	RES, NETWORK (CHIP TYPE) 47K			
RB802	1-233-976-11	RES, NETWORK (CHIP TYPE) 330K			
RB803	1-233-965-11	RES, NETWORK (CHIP TYPE) 4.7K			
RB804	1-233-979-11	RES, NETWORK (CHIP TYPE) 1M			
RB805	1-233-976-11	RES, NETWORK (CHIP TYPE) 330K			
RB807	1-233-979-11	RES, NETWORK (CHIP TYPE) 1M			
RB808	1-233-973-11	RES, NETWORK (CHIP TYPE) 100K			
		< SWITCH >			
S301	1-762-078-11	SWITCH, SLIDE (MIC SENS)			
S808	1-771-091-21	SWITCH, PUSH (1 KEY) (REC)			
S809	1-572-921-11	SWITCH, KEY BOARD (CLOCK SET)			
S810	1-762-079-11	SWITCH, SLIDE (DIGITAL MEGA BASS)			
S811	1-762-078-11	SWITCH, SLIDE (AVLS)			
S817	1-762-805-41	SWITCH, PUSH (1 KEY) (OPEN1)			
S818	1-762-078-11	SWITCH, SLIDE (HOLD)			
S823	1-572-467-41	SWITCH, PUSH (1 KEY) (OPEN2)			
		< VIBRATOR >			
X501	1-767-722-21	VIBRATOR, CRYSTAL 22.5MHz			
X801	1-760-174-31	VIBRATOR, CERAMIC 12MHz			
X802	1-579-886-21	VIBRATOR, CRYSTAL 32KHz			

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*	1-667-232-11	MECHA SW BOARD	
		**********	
		< CONNECTOR >	
CN656	1-778-367-11	CONNECTOR HOSING 6P	
		< SWITCH >	
S655	1-692-163-11	MICRO SWITCH (X LOCK)	
S656	1-771-218-11	MICRO SWITCH (X INT)	

****

Ref. No.	Part No.	Description			Remarks
	A-3293-770-A	POWER BOARD			
		**********			
		< CAPACITOR >			
C801	1-117-720-11	CERAMIC CHIP	4.7uF		10V
C802	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C803	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C804	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C805	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C807	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C809	1-115-169-11	TANTALUM	10uF	20%	6.3V
C810	1-117-720-11	CERAMIC CHIP	4.7uF		10V
C832	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C837	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C840	1-126-923-11	ELECT	220uF	20%	10V
C841	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C842	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C843	1-117-919-11	TANTAL. CHIP	10uF	20%	6.3V
C860	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
		< CONNECTOR >			
CN805	1-573-929-11	CONNECTOR, FFC/FPC (ZIF) 20P			
		< DIODE >			
D801	8-719-988-07	DIODE RB400D			
D810	8-719-988-62	DIODE 1SS355			
		< IC >			
IC806	8-759-331-73	IC MB3800PNF			
IC808	8-729-039-08	IC TRANSISTOR SI6946DQ-T1			
		< COIL >			
L512	1-416-436-11	COIL, CHOKE 68uH			
L802	1-411-803-21	COIL, CHOKE 33uH			
L804	1-414-410-21	INDUCTOR 10uH			
L805	1-414-410-21	INDUCTOR 10uH			
		< TRANSISTOR >			
Q803	8-729-807-52	TRANSISTOR 2SD1623-T			
Q804	8-729-822-62	TRANSISTOR 2SB1302-T			
Q805	8-729-905-35	TRANSISTOR 2SC4081-R			
Q901	8-729-029-14	TRANSISTOR DTC144EUA-T106			
		< RESISTOR >			
R801	1-216-789-11	METAL CHIP	2.2	5%	1/16W
R808	1-216-817-11	METAL CHIP	470	5%	1/16W
R809	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R810	1-216-827-11	METAL CHIP	3.3K	5%	1/16W
R811	1-216-821-11	METAL CHIP	1K	5%	1/16W
R812	1-216-825-11	METAL CHIP	2.2K	5%	1/16W
R814	1-218-883-11	RES, CHIP	33K (1608)		
R815	1-218-863-11	RES, CHIP	4.7K (1608)		
R875	1-216-801-11	METAL CHIP	22	5%	1/16W
R879	1-216-864-11	METAL CHIP	0	5%	1/16W
R880	1-216-837-11	METAL CHIP	22K	5%	1/16W
R901	1-216-823-11	METAL CHIP	1.5K	5%	1/16W

Ref. No.	Part No.	Description			Remarks
		< VARIABLE RESISTOR >			
RV801	1-223-994-21	RES, CARBON ADJ VAR 4.7K			
**********					
	A-3306-961-A	RADIAL BOARD,COMPLETE			
		**********			
	3-561-902-00	CLOTH, RETAINING, CASSETTE			
	4-984-015-01	TERMINAL, BATTERY			
	4-985-124-01	SPRING (POP UP ST), COIL			
	4-994-426-01	CASE, BU BATTERY			
	4-994-427-01	SPRING, BATTERY COIL			
	4-994-428-01	CASE, BATTERY			
	4-994-454-01	TERMINAL (BU)			
	4-996-642-01	SHEET, BLIND			
	7-685-104-19	SCREW +P 2X6 TYPE2 NON-SLIT			
		< CAPACITOR >			
C103	1-124-584-00	ELECT	100uF	20%	10V
C104	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C105	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C107	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C108	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C109	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C111	1-124-257-00	ELECT	2.2uF	20%	50V
C112	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C114	1-124-589-11	ELECT	47uF	20%	16V
C115	1-126-157-11	ELECT	10uF	20%	16V
C116	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C117	1-126-935-11	ELECT	470uF	20%	6.3V
C118	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C119	1-126-157-11	ELECT	10uF	20%	16V
C124	1-126-157-11	ELECT	10uF	20%	10V
C125	1-126-157-11	ELECT	10uF	20%	10V
C126	1-126-927-11	CERAMIC CHIP	100PF	5%	50V (AEP, UK)
C127	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C128	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C129	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C130	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C131	1-126-157-11	ELECT	10uF	20%	16V
C132	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C133	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C134	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C135	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C136	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C141	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C180	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C181	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C182	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C203	1-124-584-00	ELECT	100uF	20%	10V
C204	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C205	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C207	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C208	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C209	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C211	1-124-257-00	ELECT	2.2uF	20%	50V
C214	1-124-589-11	ELECT	47uF	20%	16V
C215	1-126-157-11	ELECT	10uF	20%	16V
C216	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C217	1-126-935-11	ELECT	470uF	20%	6.3V
C218	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C219	1-126-157-11	ELECT	10uF	20%	16V
C224	1-126-157-11	ELECT	10uF	20%	10V
C225	1-126-157-11	ELECT	10uF	20%	10V
C226	1-162-927-11	CERAMIC CHIP	100PF	5%	50V (AEP, UK)
C227	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C228	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C229	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C230	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C231	1-126-157-11	ELECT	10uF	20%	16V
C232	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C233	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C234	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C235	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C236	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C237	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C238	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C239	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C240	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C241	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C280	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C281	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C282	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C301	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C302	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C304	1-126-157-11	ELECT	10uF	20%	16V
C305	1-124-779-00	ELECT CHIP	10uF	20%	16V
C306	1-124-779-00	ELECT CHIP	10uF	20%	16V
C307	1-126-157-11	ELECT	10uF	20%	16V
C309	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C310	1-126-935-11	ELECT	470uF	20%	6.3V
C311	1-124-257-00	ELECT	2.2uF	20%	50V
C312	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C313	1-126-157-11	ELECT	10uF	20%	16V
C314	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C315	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C316	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C319	1-126-157-11	ELECT	10uF	20%	16V
C320	1-164-505-11	CERAMIC CHIP	2.2uF		16V
C321	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C322	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C323	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C324	1-124-257-00	ELECT	2.2uF	20%	50V
C330	1-124-229-00	ELECT	33uF	20%	10V
C333	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C334	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C390	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C395	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (AEP, UK)
C901	1-124-234-00	ELECT	22uF	20%	16V
C902	1-124-234-00	ELECT	22uF	20%	16V
C903	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C904	1-165-112-11	CERAMIC CHIP	0.33uF		16V
C905	1-126-160-11	ELECT	1uF	20%	50V

RADIAL

Ref. No.	Part No.	Description			Remarks
C906	1-126-160-11	ELECT	1uF	20%	50V
C908	1-127-531-11	CAPACITOR	33uF	20%	10V
C909	1-124-257-00	ELECT	2.2uF	20%	50V
C910	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C911	1-124-584-00	ELECT	100uF	20%	10V
C912	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C913	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C914	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C915	1-126-157-11	ELECT	10uF	20%	16V
C916	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C917	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C918	1-162-957-11	CERAMIC CHIP	220PF	5%	50V
C920	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C921	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C922	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C923	1-126-942-61	ELECT	1000uF	20%	25V
C924	1-127-509-00	CAPACITOR	3.3uF	20%	25V
C925	1-164-299-11	CERAMIC CHIP	0.22uF	10%	25V
C926	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C929	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C930	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C931	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C932	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C933	1-126-157-11	ELECT	10uF	20%	16V
C934	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C935	1-126-157-11	ELECT	10uF	20%	16V
C936	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C937	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C938	1-124-234-00	ELECT	22uF	20%	16V
C939	1-126-154-11	ELECT	47uF	20%	6.3V
C941	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C942	1-126-157-11	ELECT	10uF	20%	16V
C943	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C944	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C945	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C946	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C947	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C948	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C949	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C950	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C951	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C952	1-165-176-11	CERAMIC CHIP	0.047uF	10%	16V
C953	1-124-239-00	ELECT	6.9uF	20%	10V
C954	1-128-057-11	ELECT	330uF	20%	6.3V
C955	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C958	1-126-157-11	ELECT	10uF	20%	16V
C959	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C960	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C961	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C963	1-124-584-00	ELECT	100uF	20%	10V
C964	1-124-584-00	ELECT	100uF	20%	10V
C965	1-126-205-11	ELECT CHIP	47uF	20%	6.3V
C966	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C980	1-126-205-11	ELECT	47uF	20%	6.3V (AEP, UK)

Ref. No.	Part No.	Description	Remarks
		< CONNECTOR >	
* CN951	1-691-798-11	HOUSING, CONNECTOR 22P	
* CN952	1-784-005-21	HOUSING,CONNECTOR (FPC/FFC) 16P	
CN953	1-778-365-11	HOUSING, CONNECTOR (FPC/FFC) 6P	
* CN954	1-784-006-21	CONNECTOR, FPC (ZIF) 30P	
		< DIODE >	
D301	8-719-941-86	DIODE DAN202U	
D310	8-719-421-27	DIODE MA728	
D320	8-719-914-42	DIODE DA204K	
D901	8-719-066-16	DIODE RB491D-T146	
D902	8-719-048-98	DIODE RB160L-40TE25	
D903	8-719-048-98	DIODE RB160L-40TE25	
D904	8-719-976-06	DIODE BR5334S (CHARGE)	
D905	8-719-048-98	DIODE RB160L-40TE25	
D906	8-719-938-75	DIODE SB05-05CP	
D907	8-719-938-75	DIODE SB05-05CP	
D908	8-719-047-73	DIODE HRU0302A-TR	
D909	8-719-048-98	DIODE RB160L-40TE25	
D910	8-719-991-75	DIODE RB425D	
		< EL LUMINOUS ELEMENT >	
EL901	1-431-541-11	TRANSFORMER, EL OSCILLATION	
		< IC >	
IC101	8-759-357-68	IC NJM2115M-TE2	
IC130	8-759-358-47	IC NJM2115V (TE2)	
IC131	8-759-358-47	IC NJM2115V (TE2)	
IC201	8-759-357-68	IC NJM2115M-TE2	
IC230	8-759-358-47	IC NJM2115V (TE2)	
IC231	8-759-358-47	IC NJM2115V (TE2)	
IC301	8-759-471-38	IC AK4520A-VF-E2	
IC302	8-759-357-68	IC NJM2115M-TE2	
IC304	8-759-481-66	IC DS1801E-014TE2	
IC305	8-759-369-74	IC NJM4556AM-TE2	
IC306	8-759-462-30	IC TK11225BMCL	
IC307	8-759-269-65	IC SN74HCT245ANS-E20	
IC308	8-749-921-11	IC GP1F32R (DIGITAL IN (OPT1))	
IC309	8-749-921-11	IC GP1F32R (DIGITAL IN (OPT2))	
IC310	8-749-921-12	IC GP1F32T (DIGITAL OUT (OPTICAL)	
IC311	8-759-926-18	IC SN74HC157ANS	
IC313	8-759-481-73	IC SN74LVC125APW-E20	
IC314	8-759-460-32	IC XC62FP2902PR	
IC315	8-759-357-68	IC NJM2115M-TE2	
IC316	8-759-327-80	IC S-80745SN-D9-T1	
IC317	8-759-369-74	IC NJM4556AM-TE2	
IC330	8-759-358-47	IC NJM2115V (TE2)	
IC901	8-729-039-07	IC TRANSISTOR SI6943DQ-T1	
IC902	8-759-482-08	IC XC62EP4201MR	
IC904	8-759-521-35	IC TL5001CD	
IC905	8-759-521-35	IC TL5001CD	
IC906	8-759-486-73	IC XC62FP3302PR	
IC907	8-752-893-86	IC CXP84632-018Q	
IC908	8-759-343-90	IC RS5RJ29261	
IC909	8-719-066-43	IC DIODE GP1U28Y	
IC910	8-759-327-80	IC S-80745SN-D9-T1	

Ref. No.	Part No.	Description	Remarks
		< JACK >	
J301	1-568-267-21	JACK (ACTIVE SP OUT)	
J302	1-750-735-11	JACK (LARGE TYPE) (HEADPHONES)	
J303	1-778-355-11	JACK, PIN (LINE IN (ANALOG))	
J304	1-778-355-11	JACK, PIN (LINE OUT (ANALOG))	
J901	1-778-380-11	JACK,DC (POLARITY UNIFIED TYPE)	(DC IN 9V)
		< COIL >	
L301	1-414-398-11	INDUCTOR 10uH	
L302	1-414-398-11	INDUCTOR 10uH	
L303	1-414-398-11	INDUCTOR 10uH	
L901	1-416-416-11	COIL, CHOKE 33uH	
L902	1-416-416-11	COIL, CHOKE 33uH	
L903	1-410-626-11	COIL, CHOKE 47uH	
L904	1-416-415-11	COIL, CHOKE 15uH	
L905	1-414-398-11	INDUCTOR 10uH	
L906	1-414-402-11	INDUCTOR 47uH	
L907	1-414-398-11	INDUCTOR 10uH	
		< LINE FILTER >	
⚠LF902	1-239-581-21	FILTER, EMI	
		< TRANSISTOR >	
Q101	8-729-013-37	TRANSISTOR 2SC4213-AB-TE85L	
Q102	8-729-013-37	TRANSISTOR 2SC4213-AB-TE85L	
Q103	8-729-013-37	TRANSISTOR 2SC4213-AB-TE85L	
Q104	8-729-013-37	TRANSISTOR 2SC4213-AB-TE85L	
Q201	8-729-013-37	TRANSISTOR 2SC4213-AB-TE85L	
Q202	8-729-013-37	TRANSISTOR 2SC4213-AB-TE85L	
Q203	8-729-013-37	TRANSISTOR 2SC4213-AB-TE85L	
Q204	8-729-013-37	TRANSISTOR 2SC4213-AB-TE85L	
Q301	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q302	8-729-904-60	TRANSISTOR DTB113ZK	
Q303	8-729-904-60	TRANSISTOR DTB113ZK	
Q304	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q901	8-729-042-81	TRANSISTOR FZT788BTC	
Q902	8-729-927-74	TRANSISTOR UMG2	
Q903	8-729-230-60	TRANSISTOR 2SA1586-YG	
Q904	8-729-907-00	TRANSISTOR DTC114EU	
Q905	8-729-904-60	TRANSISTOR DTB113ZK	
Q906	8-729-907-00	TRANSISTOR DTC114EU	
Q907	8-729-805-25	TRANSISTOR 2SB1121	
Q908	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q909	8-729-907-00	TRANSISTOR DTC114EU	
Q910	8-729-805-25	TRANSISTOR 2SB1121	
Q911	8-729-930-04	TRANSISTOR UMD3	
Q912	8-729-904-60	TRANSISTOR DTB113ZK	
Q913	8-729-019-14	TRANSISTOR 2SC3739-T1B13B14	
Q914	8-729-930-04	TRANSISTOR UMD3	
Q915	8-729-930-04	TRANSISTOR UMD3	
Q916	8-729-907-00	TRANSISTOR DTC114EU	
Q917	8-729-019-14	TRANSISTOR 2SC3739-T1B13B14	
Q918	8-729-927-74	TRANSISTOR UMG2	
Q919	8-729-927-74	TRANSISTOR UMG2	
Q920	8-729-029-14	TRANSISTOR DTC144EUA-T106	
Q921	8-729-013-37	TRANSISTOR 2SC4213-AB-TE85L	
Q924	8-729-015-60	TRANSISTOR 2SJ316	

Ref. No.	Part No.	Description	Remarks
		< RESISTOR >	
R102	1-218-887-11	RES, CHIP 47K (1608)	
R103	1-218-863-11	RES, CHIP 4.7K (1608)	
R104	1-218-863-11	RES, CHIP 4.7K (1608)	
R105	1-218-863-11	RES, CHIP 4.7K (1608)	
R106	1-218-863-11	RES, CHIP 4.7K (1608)	
R108	1-218-863-11	RES, CHIP 4.7K (1608)	
R109	1-218-863-11	RES, CHIP 4.7K (1608)	
R110	1-216-817-11	METAL CHIP 470 5%	1/16W
R111	1-216-817-11	METAL CHIP 470 5%	1/16W
R112	1-218-879-11	RES, CHIP 22K (1608)	
R113	1-218-871-11	RES, CHIP 10K (1608)	
R114	1-218-855-11	RES, CHIP 2.2K (1608)	
R115	1-218-879-11	RES, CHIP 22K (1608)	
R116	1-216-821-11	METAL CHIP 1K 5%	1/16W
R117	1-218-891-11	RES, CHIP 68K (1608)	
R119	1-218-887-11	RES, CHIP 47K (1608)	
R120	1-218-891-11	RES, CHIP 68K (1608)	
R121	1-216-005-00	METAL CHIP 15 5%	1/10W
R122	1-216-821-11	METAL CHIP 1K 5%	1/16W
R123	1-216-817-11	METAL CHIP 470 5%	1/16W
R126	1-216-817-11	METAL CHIP 470 5%	1/16W
R127	1-216-821-11	METAL CHIP 1K 5%	1/16W
R128	1-216-845-11	METAL CHIP 100K 5%	1/16W
R130	1-218-863-11	RES, CHIP 4.7K (1608)	
R131	1-218-879-11	RES, CHIP 22K (1608)	
R133	1-216-158-00	RES, CHIP 22 (3216)	
R134	1-216-857-11	METAL CHIP 1M 5%	1/16W
R135	1-216-821-11	METAL CHIP 1K 5%	1/16W
R136	1-218-871-11	RES, CHIP 10K (1608)	
R137	1-218-871-11	RES, CHIP 10K (1608)	
R138	1-218-871-11	RES, CHIP 10K (1608)	
R139	1-218-871-11	RES, CHIP 10K (1608)	
R140	1-218-871-11	RES, CHIP 10K (1608)	
R141	1-218-871-11	RES, CHIP 10K (1608)	
R142	1-218-827-11	RES, CHIP 150 (1608)	
R143	1-218-871-11	RES, CHIP 10K (1608)	
R144	1-218-871-11	RES, CHIP 10K (1608)	
R145	1-218-871-11	RES, CHIP 10K (1608)	
R146	1-218-827-11	RES, CHIP 150 (1608)	
R147	1-218-871-11	RES, CHIP 10K (1608)	
R148	1-218-895-11	RES, CHIP 100K (1608)	
R149	1-216-845-11	METAL CHIP 100K 5%	1/16W
R151	1-218-867-11	RES, CHIP 6.8K (1608)	
R152	1-218-855-11	RES, CHIP 2.2K (1608)	
R202	1-218-887-11	RES, CHIP 47K (1608)	
R203	1-218-863-11	RES, CHIP 4.7K (1608)	
R204	1-218-863-11	RES, CHIP 4.7K (1608)	
R205	1-218-863-11	RES, CHIP 4.7K (1608)	
R206	1-218-863-11	RES, CHIP 4.7K (1608)	
R208	1-218-863-11	RES, CHIP 4.7K (1608)	
R209	1-218-863-11	RES, CHIP 4.7K (1608)	
R210	1-216-817-11	METAL CHIP 470 5%	1/16W
R211	1-216-817-11	METAL CHIP 470 5%	1/16W
R212	1-218-879-11	RES, CHIP 22K (1608)	
R213	1-218-871-11	RES, CHIP 10K (1608)	

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

RADIAL

Ref. No.	Part No.	Description			Remarks
R214	1-218-855-11	RES, CHIP	2.2K (1608)		
R215	1-218-879-11	RES, CHIP	22K (1608)		
R216	1-216-821-11	METAL CHIP	1K	5%	1/16W
R217	1-218-891-11	RES, CHIP	68K (1608)		
R219	1-218-887-11	RES, CHIP	47K (1608)		
R220	1-218-891-11	RES, CHIP	68K (1608)		
R221	1-216-005-00	METAL CHIP	15	5%	1/10W
R222	1-216-821-11	METAL CHIP	1K	5%	1/16W
R223	1-216-817-11	METAL CHIP	470	5%	1/16W
R226	1-216-817-11	METAL CHIP	470	5%	1/16W
R227	1-216-821-11	METAL CHIP	1K	5%	1/16W
R228	1-216-845-11	METAL CHIP	100K	5%	1/16W
R230	1-218-863-11	RES, CHIP	4.7K (1608)		
R231	1-218-879-11	RES, CHIP	22K (1608)		
R233	1-216-158-00	RES, CHIP	22 (3216)		
R234	1-216-857-11	METAL CHIP	1M	5%	1/16W
R235	1-216-821-11	METAL CHIP	1K	5%	1/16W
R236	1-218-871-11	RES, CHIP	10K (1608)		
R237	1-218-871-11	RES, CHIP	10K (1608)		
R238	1-218-871-11	RES, CHIP	10K (1608)		
R239	1-218-871-11	RES, CHIP	10K (1608)		
R240	1-218-871-11	RES, CHIP	10K (1608)		
R241	1-218-871-11	RES, CHIP	10K (1608)		
R242	1-218-827-11	RES, CHIP	150 (1608)		
R243	1-218-871-11	RES, CHIP	10K (1608)		
R244	1-218-871-11	RES, CHIP	10K (1608)		
R245	1-218-871-11	RES, CHIP	10K (1608)		
R246	1-218-827-11	RES, CHIP	150 (1608)		
R247	1-218-871-11	RES, CHIP	10K (1608)		
R248	1-218-895-11	RES, CHIP	100K (1608)		
R249	1-216-845-11	METAL CHIP	100K	5%	1/16W
R251	1-218-867-11	RES, CHIP	6.8K (1608)		
R252	1-218-855-11	RES, CHIP	2.2K (1608)		
R301	1-216-864-11	METAL CHIP	0	5%	1/16W
R307	1-216-813-11	METAL CHIP	220	5%	1/16W (JEW)
R307	1-216-819-11	METAL CHIP	680	5%	1/16W (AEP, UK)
R308	1-216-864-11	METAL CHIP	0	5%	1/16W
R309	1-216-864-11	METAL CHIP	0	5%	1/16W
R310	1-216-813-11	METAL CHIP	220	5%	1/16W (JEW)
R310	1-216-819-11	METAL CHIP	680	5%	1/16W (AEP, UK)
R311	1-216-813-11	METAL CHIP	220	5%	1/16W (JEW)
R311	1-216-819-11	METAL CHIP	680	5%	1/16W (AEP, UK)
R312	1-216-813-11	METAL CHIP	220	5%	1/16W (JEW)
R312	1-216-819-11	METAL CHIP	680	5%	1/16W (AEP, UK)
R313	1-216-864-11	METAL CHIP	0	5%	1/16W
R314	1-216-864-11	METAL CHIP	0	5%	1/16W
R315	1-216-864-11	METAL CHIP	0	5%	1/16W
R316	1-216-864-11	METAL CHIP	0	5%	1/16W
R317	1-216-864-11	METAL CHIP	0	5%	1/16W
R318	1-216-864-11	METAL CHIP	0	5%	1/16W
R320	1-216-837-11	METAL CHIP	22K	5%	1/16W
R321	1-216-864-11	METAL CHIP	0	5%	1/16W
R330	1-216-833-11	METAL CHIP	10K	5%	1/16W
R331	1-216-864-11	METAL CHIP	0	5%	1/16W
R332	1-216-864-11	METAL CHIP	0	5%	1/16W
R334	1-216-864-11	METAL CHIP	0	5%	1/16W
R350	1-216-857-11	METAL CHIP	1M	5%	1/16W
R901	1-216-851-11	METAL CHIP	330K	5%	1/16W
R902	1-216-851-11	METAL CHIP	330K	5%	1/16W
R903	1-249-476-11	CARBON	1.5	5%	1/2W F
R904	1-216-841-11	METAL CHIP	47K	5%	1/16W
R905	1-216-809-11	METAL CHIP	100	5%	1/16W
R906	1-218-895-11	RES, CHIP	100K (1608)		
R907	1-218-895-11	RES, CHIP	100K (1608)		
R910	1-216-821-11	METAL CHIP	1K	5%	1/16W
R911	1-216-853-11	METAL CHIP	470K	5%	1/16W
R912	1-216-845-11	METAL CHIP	100K	5%	1/16W
R913	1-216-853-11	METAL CHIP	470K	5%	1/16W
R914	1-216-853-11	METAL CHIP	470K	5%	1/16W
R915	1-218-883-11	RES, CHIP	33K (1608)		
R916	1-218-883-11	RES, CHIP	33K (1608)		
R917	1-218-871-11	RES, CHIP	10K (1608)		
R918	1-218-879-11	RES, CHIP	22K (1608)		
R919	1-218-891-11	RES, CHIP	68K (1608)		
R920	1-218-859-11	RES, CHIP	3.3K (1608)		
R922	1-218-847-11	RES, CHIP	1.0K (1608)		
R923	1-216-833-11	METAL CHIP	10K	5%	1/16W
R924	1-216-853-11	METAL CHIP	470K	5%	1/16W
R925	1-216-813-11	METAL CHIP	220	5%	1/16W
R926	1-216-845-11	METAL CHIP	100K	5%	1/16W
R927	1-216-843-11	METAL CHIP	68K	5%	1/16W
R928	1-216-821-11	METAL CHIP	1K	5%	1/16W
R929	1-216-833-11	METAL CHIP	10K	5%	1/16W
R930	1-216-813-11	METAL CHIP	220	5%	1/16W
R931	1-218-899-11	RES, CHIP	150K (1608)		
R932	1-218-899-11	RES, CHIP	150K (1608)		
R933	1-216-815-11	METAL CHIP	330	5%	1/16W
R934	1-216-833-11	METAL CHIP	10K	5%	1/16W
R935	1-218-887-11	RES, CHIP	47K (1608)		
R936	1-218-887-11	RES, CHIP	47K (1608)		
R937	1-218-887-11	RES, CHIP	47K (1608)		
R938	1-218-887-11	RES, CHIP	47K (1608)		
R939	1-216-864-11	METAL CHIP	0	5%	1/16W
R940	1-216-864-11	METAL CHIP	0	5%	1/16W
R941	1-216-864-11	METAL CHIP	0	5%	1/16W
R942	1-216-851-11	METAL CHIP	330K	5%	1/16W
R943	1-216-821-11	METAL CHIP	1K	5%	1/16W
R945	1-216-821-11	METAL CHIP	1K	5%	1/16W
R946	1-216-845-11	METAL CHIP	100K	5%	1/16W
R947	1-216-851-11	METAL CHIP	330K	5%	1/16W
R948	1-216-849-11	METAL CHIP	220K	5%	1/16W
R952	1-216-857-11	METAL CHIP	1M	5%	1/16W
R958	1-216-864-11	METAL CHIP	0	5%	1/16W
R960	1-247-729-11	CARBON	15	5%	1/2W F
R961	1-218-891-11	RES, CHIP	68K (1608)		
R964	1-216-797-11	METAL CHIP	10	5%	1/16W
R966	1-216-809-11	METAL CHIP	100	5%	1/16W
R967	1-216-831-11	METAL CHIP	6.8K	5%	1/16W
R969	1-216-857-11	METAL CHIP	1M	5%	1/16W
R970	1-218-899-11	RES, CHIP	150K (1608)		

Ref. No.	Part No.	Description			Remarks
R971	1-218-899-11	RES, CHIP	150K (1608)		
R973	1-216-851-11	METAL CHIP	330K	5%	1/16W
R974	1-216-851-11	METAL CHIP	330K	5%	1/16W
R975	1-216-851-11	METAL CHIP	330K	5%	1/16W
R976	1-216-851-11	METAL CHIP	330K	5%	1/16W
R977	1-218-887-11	RES, CHIP	47K (1608)		
R978	1-218-903-11	RES, CHIP	220K (1608)		
R979	1-218-899-11	RES, CHIP	150K (1608)		
R980	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R981	1-216-134-00	METAL CHIP	2.2	5%	1/8W
R982	1-216-845-11	METAL CHIP	100K	5%	1/16W
R983	1-216-845-11	METAL CHIP	100K	5%	1/16W
R984	1-216-864-11	METAL CHIP	0	5%	1/16W
R986	1-216-851-11	METAL CHIP	330K	5%	1/16W
R987	1-216-851-11	METAL CHIP	330K	5%	1/16W
R988	1-216-851-11	METAL CHIP	330K	5%	1/16W
R989	1-216-851-11	METAL CHIP	330K	5%	1/16W
R990	1-216-864-11	METAL CHIP	0	5%	1/16W
R991	1-216-821-11	METAL CHIP	1K	5%	1/16W
R993	1-216-833-11	METAL CHIP	10K	5%	1/16W
R994	1-216-296-91	SHORT	0		
R995	1-218-875-11	RES, CHIP	15K (1608)		
R996	1-216-864-11	METAL CHIP	0	5%	1/16W
R997	1-216-864-11	METAL CHIP	0	5%	1/16W (AEP, UK)
R998	1-216-142-11	RES, CHIP	4.7	5%	1/8W (AEP, UK)
R999	1-216-142-11	RES, CHIP	4.7	5%	1/8W (AEP, UK)
		< CONPOSITION CIRCUIT BLOCK >			
RB301	1-236-907-11	NETWORK RESISTOR (CHIP) 100K			
RB901	1-236-907-11	NETWORK RESISTOR (CHIP) 100K			
RB903	1-239-446-11	NETWORK RESISTOR (CHIP) 330K			
RB904	1-239-389-11	NWTWORK RESISTOR (CHIP) 47K			
		< VARIABLE RESISTOR >			
RV301	1-225-549-11	RES, VAR, CARBON 10K/10K (REC LEVEL (ANALOG))			
RV302	1-223-889-11	RES, VAR, CARBON 50K/50K (HEADPHONES-LEVEL)			
		< SWITCH >			
S951	1-771-218-11	SWITCH, MICRO (LION)			
S952	1-571-914-11	SWITCH, KEY BOARD (CLOCK SET)			
S953	1-771-218-11	SWITCH, MICRO (RELEASE)			
S954	1-572-473-11	SWITCH, TACTIL (RESET)			
		< TRANSFORMER >			
T901	1-431-542-11	TRANSFORMER, CONVERTER			
		< THERMISTOR(POSITIVE) >			
⚠THP901	1-810-792-11	THERMISTOR, POSITIVE			
		< VIBRATOR >			
X901	1-767-690-11	VIBRATOR, CERAMIC 10MHz			

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Ref. No.	Part No.	Description			Remarks
	A-3293-755-A	REC BOARD			
		**********			
		< CAPACITOR >			
C401	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C402	1-107-810-11	TANTAL. CHIP	33uF	20%	4V
C403	1-109-814-11	CAPACITOR	220PF	5%	100V
		< DIODE >			
D401	8-719-046-86	DIODE F1J6TP			
D402	8-719-046-86	DIODE F1J6TP			
		< TRANSISTOR >			
Q401	8-729-024-44	TRANSISTOR 2SK2315TYTR			
Q402	8-729-024-44	TRANSISTOR 2SK2315TYTR			
Q403	8-729-024-44	TRANSISTOR 2SK2315TYTR			
Q404	8-729-024-44	TRANSISTOR 2SK2315TYTR			

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*	1-667-231-11	STATION CN BOARD			
		**********			
		< CONNECTOR >			
CN655	1-766-559-21	CONNECTOR, FFC/FPC(NON-ZIF)22P			
		< RESISTOR >			
R620	1-216-864-11	METAL CHIP	0	5%	1/16W
R622	1-216-864-11	METAL CHIP	0	5%	1/16W
R623	1-216-864-11	METAL CHIP	0	5%	1/16W
R624	1-216-864-11	METAL CHIP	0	5%	1/16W
R921	1-216-864-11	METAL CHIP	0	5%	1/16W

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*	1-667-233-11	STATION SW1 BOARD			
		**********			
	3-708-377-01	SLIDER, SURF LOCK (16P)			
		< CONNECTOR >			
* CN602	1-569-529-11	HOUSING, CONNECTOR 14P			
CN603	1-569-530-11	HOUSING, CONNECTOR 16P			
		< RESISTOR >			
R608	1-218-867-11	RES, CHIP	6.8K (1608)		
R609	1-218-871-11	RES, CHIP	10K (1608)		
R610	1-218-867-11	RES, CHIP	6.8K (1608)		
R611	1-218-871-11	RES, CHIP	10K (1608)		
R612	1-218-875-11	RES, CHIP	15K (1608)		
R613	1-218-883-11	RES, CHIP	33K (1608)		
R614	1-218-887-11	RES, CHIP	47K (1608)		
R615	1-218-867-11	RES, CHIP	6.8K (1608)		
R616	1-218-871-11	RES, CHIP	10K (1608)		
R617	1-218-875-11	RES, CHIP	15K (1608)		

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

STATION SW1 | STATION SW2 | SW

Ref. No.	Part No.	Description			Remarks
R618	1-218-883-11	RES, CHIP	33K (1608)		
R619	1-218-887-11	RES, CHIP	47K (1608)		
R625	1-216-833-11	METAL CHIP	10K	5%	1/16W
R626	1-216-833-11	METAL CHIP	10K	5%	1/16W
R628	1-216-833-11	METAL CHIP	10K	5%	1/16W
R629	1-216-833-11	METAL CHIP	10K	5%	1/16W
		< SWITCH >			
S615	1-771-053-21	SWITCH, KEY BOARD (CAPS)			
S616	1-771-053-21	SWITCH, KEY BOARD (➡)			
S617	1-771-053-21	SWITCH, KEY BOARD (⬅)			
S618	1-771-053-21	SWITCH, KEY BOARD (DISPLAY)			
S619	1-771-053-21	SWITCH, KEY BOARD (MODE)			
S620	1-771-053-21	SWITCH, KEY BOARD (UNDO)			
S621	1-771-053-21	SWITCH, KEY BOARD (TRACK MARK)			
S622	1-771-053-21	SWITCH, KEY BOARD (MOVE/INSERT)			
S623	1-771-053-21	SWITCH, KEY BOARD (ERASE/DELETE)			
S624	1-771-053-21	SWITCH, KEY BOARD (TITLE/ENTER)			
S625	1-771-053-21	SWITCH, KEY BOARD (SELECT)			
S626	1-771-053-21	SWITCH, KEY BOARD (INPUT POSITION ➡)			
S627	1-771-053-21	SWITCH, KEY BOARD (INPUT POSITION ⬅)			
S628	1-771-053-21	SWITCH, KEY BOARD (⬆)			
S629	1-771-053-21	SWITCH, KEY BOARD (⬇)			

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*	1-667-234-11	STATION SW2 BOARD			
		**********			
		< CONNECTOR >			
* CN601	1-569-529-11	HOUSING, CONNECTOR 14P			
		< RESISTOR >			
R601	1-218-867-11	RES, CHIP	6.8K (1608)		
R602	1-218-871-11	RES, CHIP	10K (1608)		
R603	1-218-867-11	RES, CHIP	6.8K (1608)		
R604	1-218-871-11	RES, CHIP	10K (1608)		
R605	1-218-875-11	RES, CHIP	15K (1608)		
R606	1-218-883-11	RES, CHIP	33K (1608)		
R630	1-216-864-11	METAL CHIP	0	5%	1/16W
R631	1-216-864-11	METAL CHIP	0	5%	1/16W
R632	1-216-864-11	METAL CHIP	0	5%	1/16W
		< SWITCH >			
S601	1-771-053-21	SWITCH, KEY BOARD (TIME MACHINE REC)			
S602	1-771-053-21	SWITCH, KEY BOARD (ACTIVE SP LEVEL+)			
S603	1-771-053-21	SWITCH, KEY BOARD (ACTIVE SP LEVEL–)			
S604	1-771-053-21	SWITCH, KEY BOARD (■)			
S605	1-771-053-21	SWITCH, KEY BOARD (⏮)			
S606	1-771-053-21	SWITCH, KEY BOARD (⏭)			
S607	1-771-053-21	SWITCH, KEY BOARD (⏸)			
S608	1-771-053-21	SWITCH, KEY BOARD (END SEARCH)			
S609	1-771-053-21	SWITCH, KEY BOARD (POWER)			
S610	1-771-053-21	SWITCH, KEY BOARD (▷)			
S611	1-572-467-41	SWITCH, PUSH (1 KEY) (REC)			
S612	1-762-079-11	SWITCH, SLIDE (INPUT)			
S613	1-762-079-11	SWITCH, SLIDE (TIMER)			
S614	1-762-078-11	SWITCH, SLIDE (SYNCREC)			
S630	1-572-467-41	SWITCH, PUSH (1 KEY) (PUSH OPEN)			

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*	1-667-219-11	SW BOARD		
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		< RESISTOR >		
R844	1-218-867-11	RES, CHIP	6.8K (1608)	
R845	1-218-871-11	RES, CHIP	10K (1608)	
		< SWITCH >		
S801	1-572-921-11	SWITCH, KEY BOARD (⏸)		
S802	1-572-921-11	SWITCH, KEY BOARD (END. SEARCH)		
S803	1-572-921-11	SWITCH, KEY BOARD (TRACK MARK)		

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		MISCELLANEOUS		
		**********		
	1-778-356-11	CONNECTOR, CONTACT		
58	1-475-368-11	SW UNIT		
63	1-782-708-11	WIRE (FLAT TYPE) (20 CORE)		
101	1-667-210-11	MD FLEXIBLE BOARD		
104	1-667-690-11	CLV FLEXIBLE BOARD		
⚠117	X-4949-256-1	OPTICAL PICK-UP ASSY (KMS-280A/JZN)		
136	1-667-211-11	MOTOR FLEXIBLE BOARD		
* 154	1-528-797-21	BATTERY, NI-CD (JEW)		
* 154	1-528-797-31	BATTERY, NI-CD (AEP, UK)		
158	1-801-897-11	ELEMENT, EL LUMINOUS		
161	1-667-281-11	LCD/EL FLEXIBLE BOARD		
187	1-782-719-11	WIRE (FLAT TYPE) (14 CORE)		
189	1-782-851-11	WIRE (FLAT TYPE) (16 CORE)		
201	1-782-852-11	WIRE (FLAT TYPE) (22 CORE)		
218	1-782-850-11	WIRE (FLAT TYPE) (6 CORE)		
LCD801	1-801-903-11	LCD		
LCD901	1-801-898-11	LCD MODULE		
M901	1-763-011-11	MOTOR		
M902	A-3311-972-A	MOTOR BLOCK ASSY, SLED		
M903	A-3320-037-A	STEPPER BLOCK ASSY		
M931	A-3304-761-A	MOTOR ASSY		

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Replace only with part number specified.

Ref. No.	Part No.	Description	Remarks
		ACCESSORIES & PACKING MATERIALS	
		**********	
	3-860-705-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, GERMAN, SPANISH)	
	3-860-705-21	MANUAL, INSTRUCTION (UK) (ENGLISH)	
	3-860-705-31	MANUAL, INSTRUCTION (AEP) (DUTCH, SWEDISH, FINNISH, ITALIAN, PORTUGUESE)	
	3-860-705-41	MANUAL, INSTRUCTION (JEW) (JAPANESE, CHINESE, KOREAN)	
	X-3329-657-1	ATTACHMENT ASSY	
	1-475-375-21	REMOTE CONTROL UNIT (RM-MZR50)	
	1-475-455-11	ADAPTOR, AC (AC-MZR5ST) (JEW)	
	1-475-751-11	ADAPTOR, AC (AC220-230V) (AEP, UK)	
	1-569-007-11	ADAPTOR, CONVERSION 2P (JEW)	
	1-696-212-21	CORD (WITH CONNECTOR) (AEP, UK)	
	1-759-277-21	CASE, BATTERY (EBP-MZR4)	
	1-770-019-12	ADAPTOR, CONVERSION PLUG 3P (UK)	
	3-704-275-01	BAG (STANDARD), PROTECTION	
	4-972-888-01	CASE, CARRYING	
	8-917-614-90	REMOTE COMMANDER RMT-CR5ST SET	
	8-953-218-90	HEADPHONE MDR-E838SP//K SET	

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HARDWARE LIST
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#1	7-685-104-11	SCREW +P 2 × 6 TYPE2 NON-SLIT
#2	7-685-135-14	SCREW +P 2.6 × 10 TYPE2 NON-SLIT
#3	7-627-554-07	SCREW,PRECISION +P 2 × 2.2
#4	7-685-105-14	SCREW,PRECISION +P 2 × 8 TYPE2 NON-SLIT

9-923-279-12

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