# D-NE1/NE9

# SERVICE MANUAL

**Ver. 1.6 2006.03**

Photo : D-NE9

*US Model*
*D-NE1*
*Canadian Model*
*AEP Model*
*D-NE1/NE9*
*UK Model*
*D-NE1*
*E Model*
*Australian Model*
*Chinese Model*
*Tourist Model*
*D-NE1/NE9*

US and foreign patents licensed from Dolby Laboratories.

| | |
|---|---|
| Model Name Using Similar Mechanism | NEW |
| CD Mechanism Type | CDM-3325ER2 |
| Optical Pick-up Name | DAX-25E |

## SPECIFICATIONS

**System**
Compact disc digital audio system

**Laser diode properties**
Material: GaAlAs
Wavelength: λ = 780 nm
Emission duration: Continuous
Laser output: Less than 44.6 μW
(This output is the value measured at a distance of 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)

**D-A conversion**
1-bit quartz time-axis control

**Frequency response**
20 - 20 000 Hz $^{+1}_{-2}$ dB (measured by JEITA CP-307)

**Output (at 4.5 V input level)**
Line output (stereo minijack)
Output level 0.7 V rms at 47 kΩ
Recommended load impedance over 10 kΩ
Headphones (stereo minijack)
Approx. 5 mW + Approx. 5 mW at 16 Ω
(Approx. 1.5 mW + Approx. 1.5 mW at 16 Ω)*
*For the customers in Europe
Optical digital output (optical output connector)
Output level: –21 - –15 dBm
Wavelength: 630 - 690 nm at peak level

**Power requirements**
For the area code of the model you purchased, check the upper left side of the bar code on the package.
- Two Sony NH-14WM (A) rechargeable batteries: 1.2 V DC × 2
- Two LR6 (size AA) batteries: 1.5 V DC × 2
- AC power adaptor (DC IN 4.5 V jack):
  US, Canadian and Taiwan models:
  120V, 60 Hz
  UK model: 230 V, 50 Hz
  Australian model: 240V, 50 Hz
  AEP, Tourist, E18, Korean and East Europe models:
  100 - 240 V, 50/60 Hz
  Hong Kong model: 230 V, 50 Hz
  Chinese model: 220 V, 50 Hz

**Battery life*1 (approx. hours)**
(When you use the CD player on a flat and stable surface)
Playing time varies depending on how the CD player is used.

**When using two NH-14WM (A) (charged for about 5 hours*2)**
**< > : NH-10WM**

| | G-PROTECTION "1" | G-PROTECTION "2" |
|---|---|---|
| Audio CD | 35 <25> | 32 <23> |
| ATRAC3plus file*3 | 55 <40> | 55 <40> |
| MP3 file*4 | 50 <35> | 50 <35> |

**When using external battery case (two alkaline batteries*5)**

| | G-PROTECTION "1" | G-PROTECTION "2" |
|---|---|---|
| Audio CD | 55 | 50 |
| ATRAC3plus file*3 | 95 | 95 |
| MP3 file*4 | 85 | 85 |

**When using two NH-14WM (A) and external battery case (two alkaline batteries*5)**
**< > : NH-10WM**

| | G-PROTECTION "1" | G-PROTECTION "2" |
|---|---|---|
| Audio CD | 90 <80> | 82 <73> |
| ATRAC3plus file*3 | 150 <135> | 150 <135> |
| MP3 file*4 | 135 <120> | 135 <120> |

- Abbreviation
  E18: 100-230V AC area in E model

— Continued on next page —

## PORTABLE CD PLAYER

**9-877-308-07**
2006C16-1

**Sony Corporation**
**Personal Audio Division**
**Published by Sony Techno Create Corporation**

SONY

*1 Measured value by the standard of JEITA (Japan Electronics and Information Technology Industries Association)
*2 Charging time varies depending on how the rechargeable battery is used.
*3 Recorded at 48 kbps or 64 kbps
*4 Recorded at 128 kbps
*5 When using Sony alkaline batteries LR6 (SG) (produced in Japan)

**Operating temperature**
5°C - 35°C (41°F - 95°F)

**Dimensions (w/h/d) (excluding projecting parts and controls)**
Approx. 135.4 × 135.4 × 15.8 mm
(5 3/8 × 5 3/8 × 5/8 in.)

**Mass (excluding accessories)**
Approx. 179 g (6.4 oz.)

**Supplied accessories**
AC power adaptor (1)
Rechargeable batteries (2)
Battery carrying case (1)
Headphones / earphones (1)
Remote control (1)
Charging stand (1)
Carrying pouch (1)
External battery case (1)
CD-ROM (Sonic Stage Simple Burner) (1)
User's guide for Sonic Stage Simple Burner (1)

Design and specifications are subject to change without notice.

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


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

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

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

**On AC poweradaptor**
- Use only the AC power adaptor supplied or recommeded in "Accessories (supplied/optional)." Do not use any other AC power adaptor. It may cause a malfunction.

**Polarity of the plug**

## TABLE OF CONTENTS



**Unleaded solder**
Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.
(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size.)

**: LEAD FREE MARK**
Unleaded solder has the following characteristics.
- Unleaded solder melts at a temperature about 40°C higher than ordinary solder.
  Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.
  Soldering irons using a temperature regulator should be set to about 350°C.
  Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!
- Strong viscosity
  Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
  It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

# SECTION 1
# SERVICING NOTE

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

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

## NOTES ON LASER DIODE EMISSION CHECK

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

**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.**

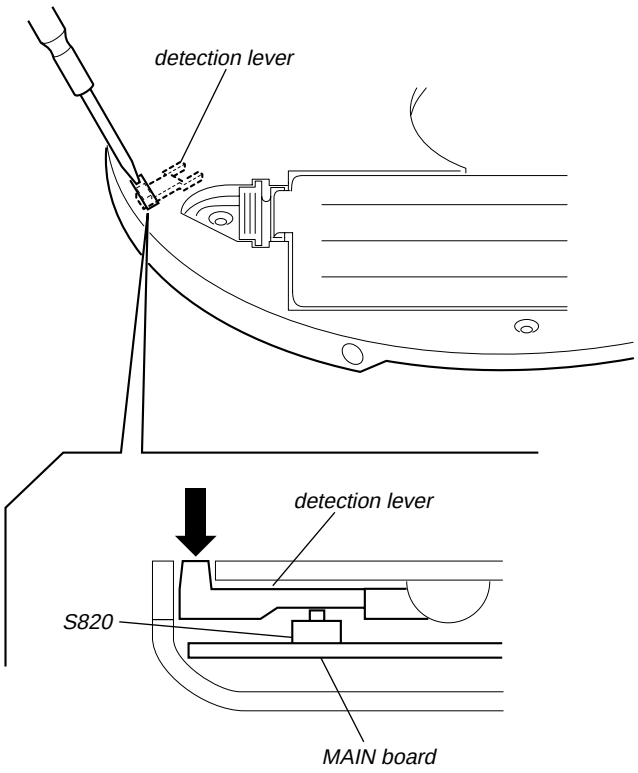


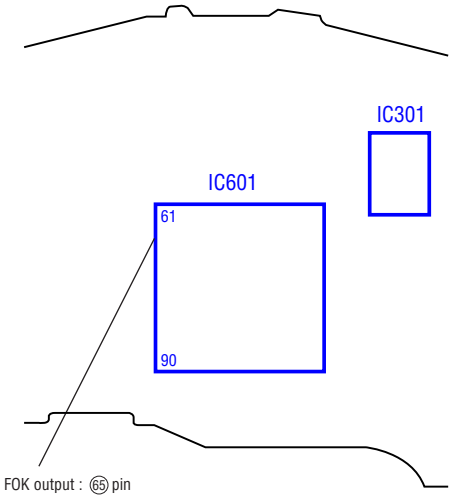

***Fig. 1 Method to push the S820***

## BEFORE REPLACING THE OPTICAL PICK-UP BLOCK

Please be sure to check thoroughly the parameters as par the "Optical Pick-Up Block Checking Procedures" (Part No.: 9-960-027-11) issued separately before replacing the optical pick-up block.
Note and specifications required to check are given below.

- FOK output: IC601 ⑮ pin
  When checking FOK, remove the lead wire to disc motor.
- RF signal P-to-P value: 0.45 to 0.65 Vp-p

**【MAIN BOARD】** (SIDE B)




## LASER DIODE AND FOCUS SEARCH OPERATION CHECK

During normal operation of the equipment, emission of the laser diode is prohibited unless the upper lid is closed while turning ON the S820. (push switch type)
The following checking method for the laser diode is operable.

- **Method:**
  **Emission of the laser diode is visually checked.**

1. Open the upper lid.
2. With a disc not set, turn on the S820 with a screwdriver having a thin tip as shown in Fig.1.
3. Press the ▶II button.
4. Observing the objective lens, check that the laser diode emits light.
   When the laser diode does not emit light, automatic power control circuit or optical pickup is faulty.
   In this operation, the objective lens will move up and down 4 times along with inward motion for the focus search.

## SERVICE MODE

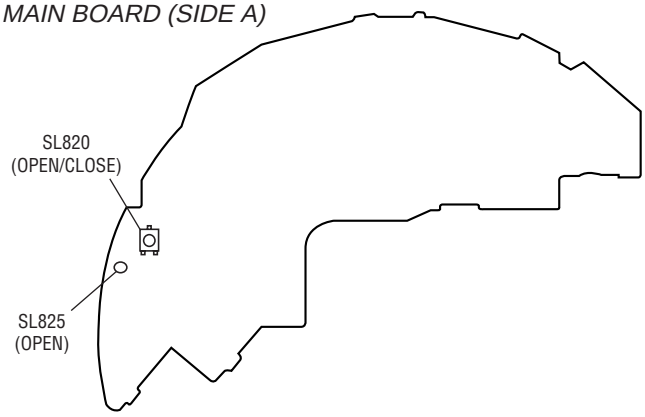
The following confirmation can be performed when the Service Mode is set.

### 1. How to set the Service Mode.

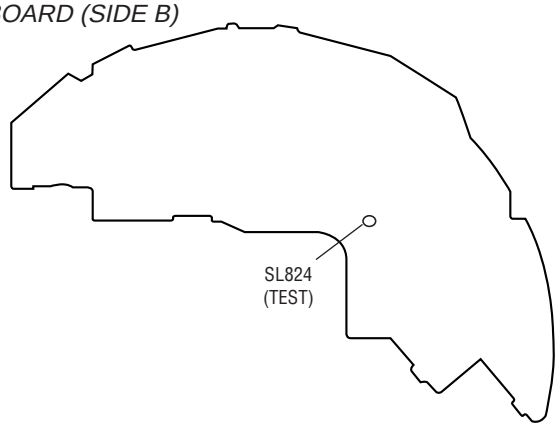
To set the Service Mode, the following method is available.

1) Confirm the set is not powered on.
2) Confirm the following settings.
   OPEN/CLOSE detect switch (S820) ..... OFF
   Solder Land (SL825) ..... OPEN
   AVLS switch (S821) ..... NORM
   HOLD switch (S810) ..... OFF
   G-PROTECTION switch (S811) ..... 1
3) Short the solder land SL824 (TEST) on the MAIN board.
4) Turn on the main power.

*MAIN BOARD (SIDE A)*



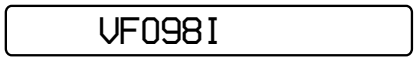

*MAIN BOARD (SIDE B)*




### 2. Operation when the Service Mode is set.

When the Service Mode becomes active, following messages are displayed onthe remote control LCD.

Microcomputer version display



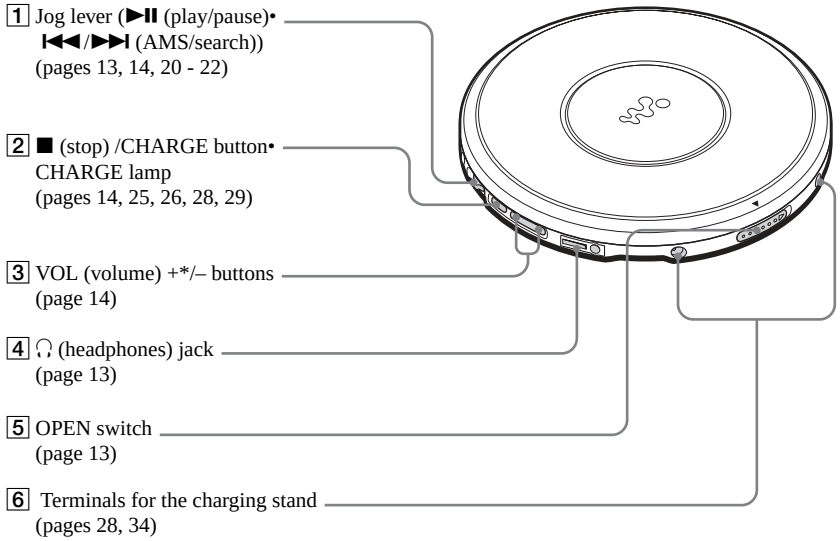

1) Turn off the power.
2) Open the solder land SL824 (TEST) on the MAIN board.
   **Noto** : The solder should be removed clean.

# SECTION 2
# GENERAL

This section is extracted from instruction manual.

## Locating the controls

### CD player (front) (D-NE1)



1 Jog lever (►II (play/pause)• I◄◄/►►I (AMS/search)) (pages 13, 14, 20 - 22)

2 ■ (stop) /CHARGE button• CHARGE lamp (pages 14, 25, 26, 28, 29)

3 VOL (volume) +*/– buttons (page 14)

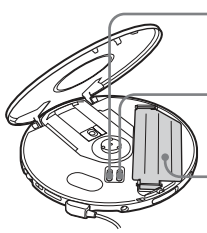
4 ∩ (headphones) jack (page 13)

5 OPEN switch (page 13)

6 Terminals for the charging stand (pages 28, 34)

*The button has a tactile dot.

### CD player (inside)

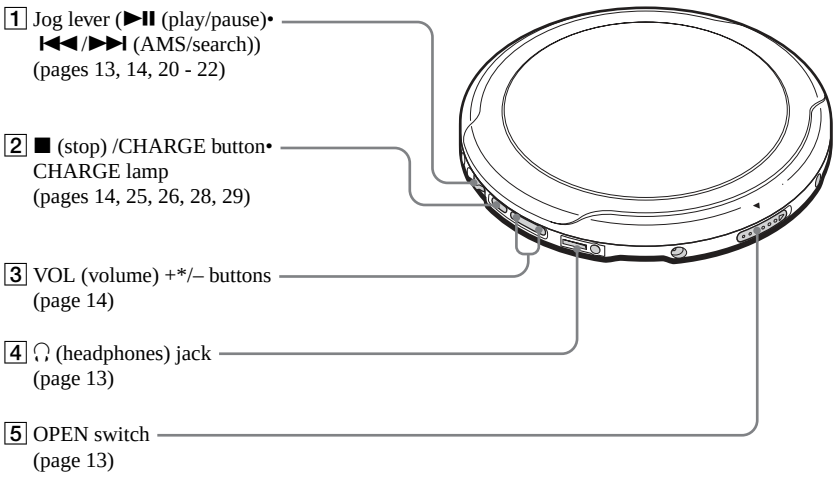


7 AVLS switch (page 25)

8 G-PROTECTION switch (page 23)

9 Battery compartment (page 28, 30)

### CD player (front) (D-NE9)



1 Jog lever (►II (play/pause)• I◄◄/►►I (AMS/search)) (pages 13, 14, 20 - 22)

2 ■ (stop) /CHARGE button• CHARGE lamp (pages 14, 25, 26, 28, 29)

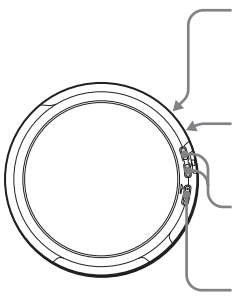
3 VOL (volume) +*/– buttons (page 14)

4 ∩ (headphones) jack (page 13)

5 OPEN switch (page 13)

*The button has a tactile dot.

## CD player (rear)



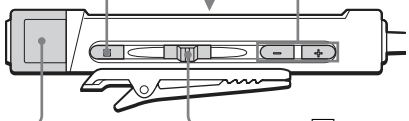
10 EXT BATT (external battery)/ DC IN 4.5 V (external power input) jack (pages 13, 29, 31)

11 LINE OUT (OPTICAL) jack (page 27)

12 🗀 +/– buttons (pages 14, 22)

13 HOLD switch (page 25)

## Remote control



14 ■ (stop) button (pages 14, 26)

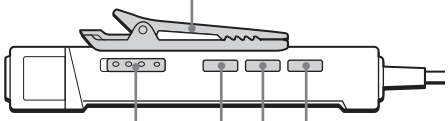
16 Display (pages 15, 18, 21 - 25)

17 🗀 +/– buttons (pages 14, 22)

15 VOL (volume) +/– control (page 14)

18 Jog lever (▶II (play/pause)• ENT (enter)• I◀◀ /▶▶I (AMS/search)) (pages 14, 18, 20 - 22)

19 Clip (page 11)



20 HOLD switch (page 25)

22 SOUND button (page 24)

21 DISPLAY button (pages 15, 23, 24)

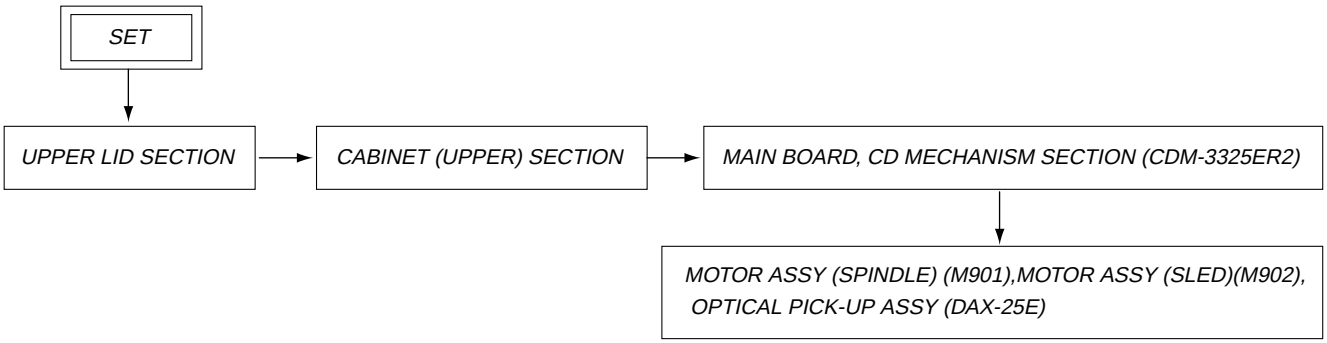
23 P MODE/↻ (play mode/repeat) button (pages 18 - 22, 26)

**Note**

Use only the supplied remote control. You cannot operate this CD player with the remote control supplied with other CD players.

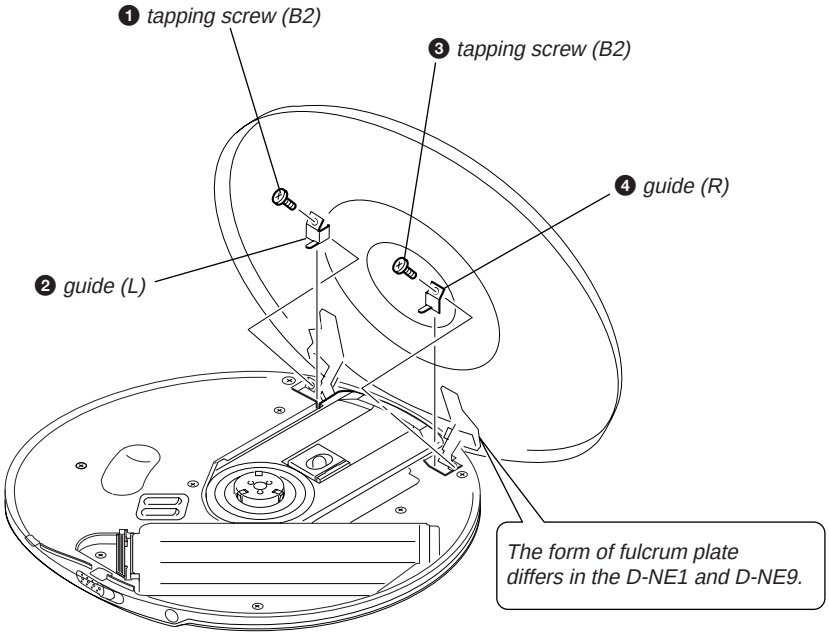
# SECTION 3
# DISASSEMBLY

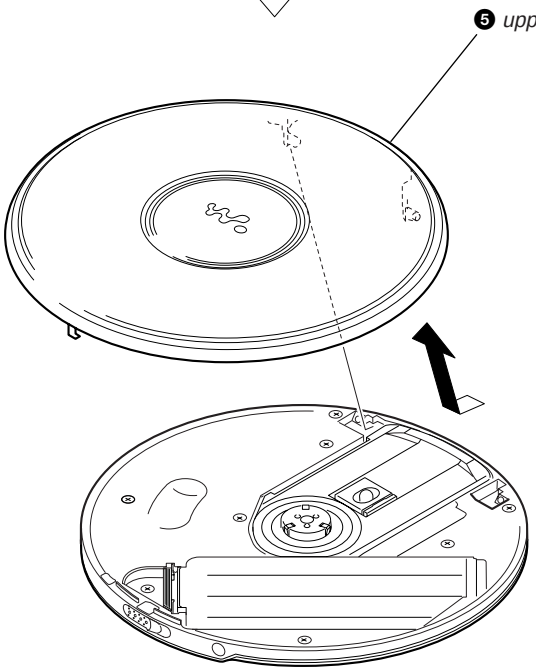
**Note :** Disassemble the unit in the order as shown below.



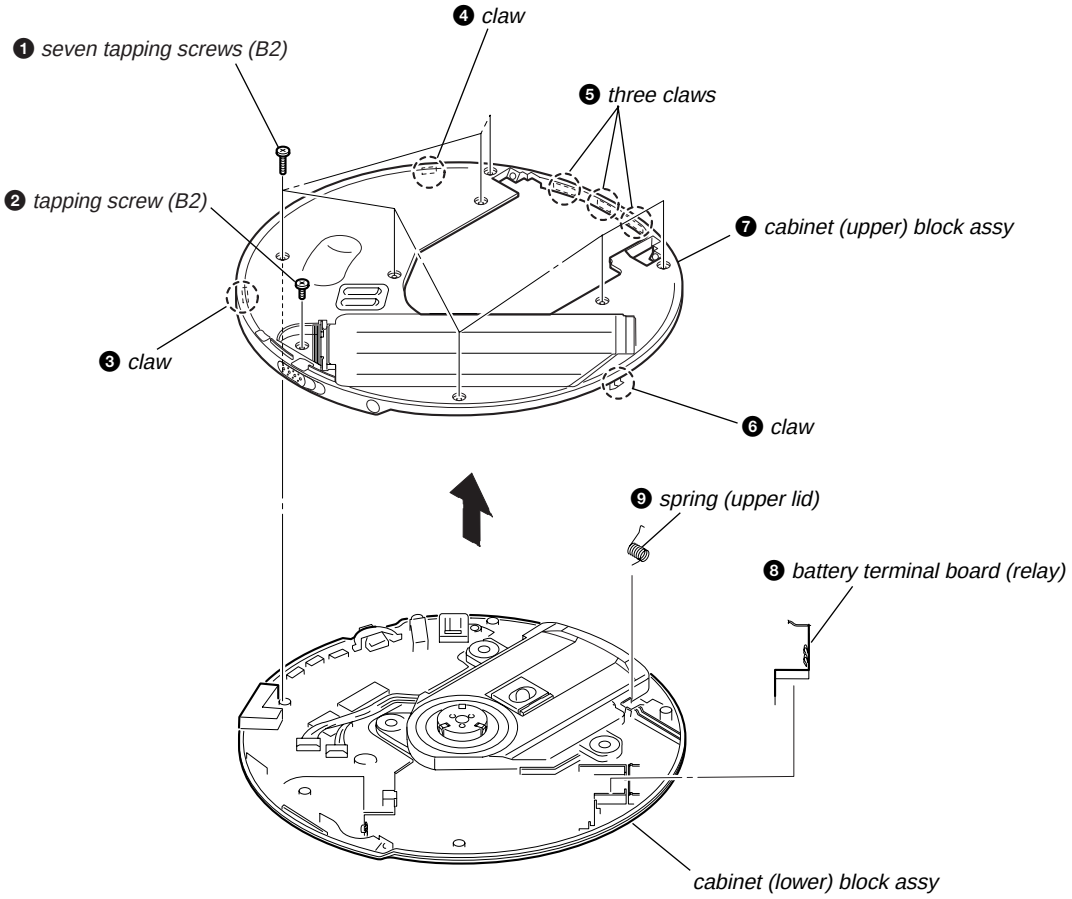

**Note :** Follow the disassembly procedure in the numerical order given.

## 3-1. Upper Lid Section

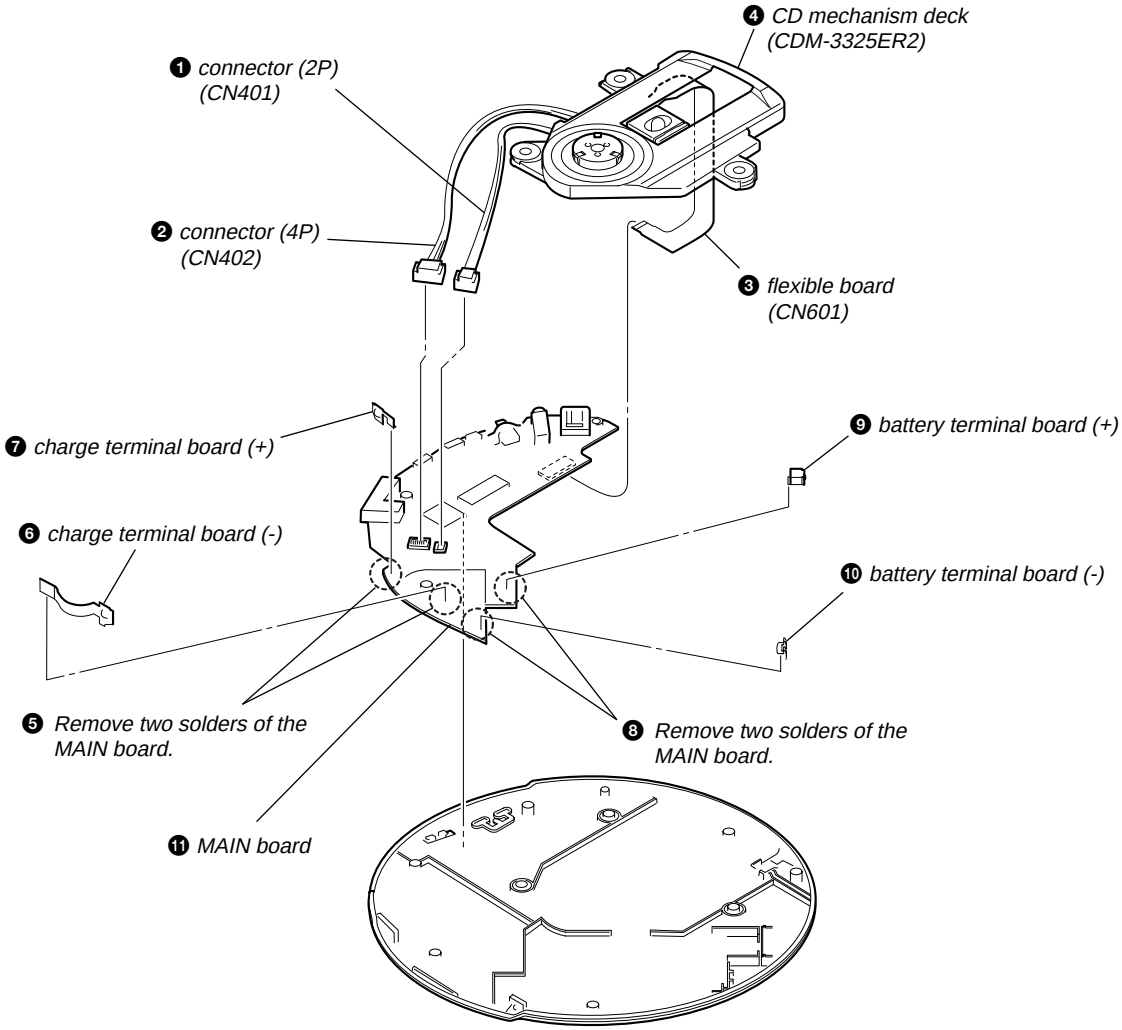


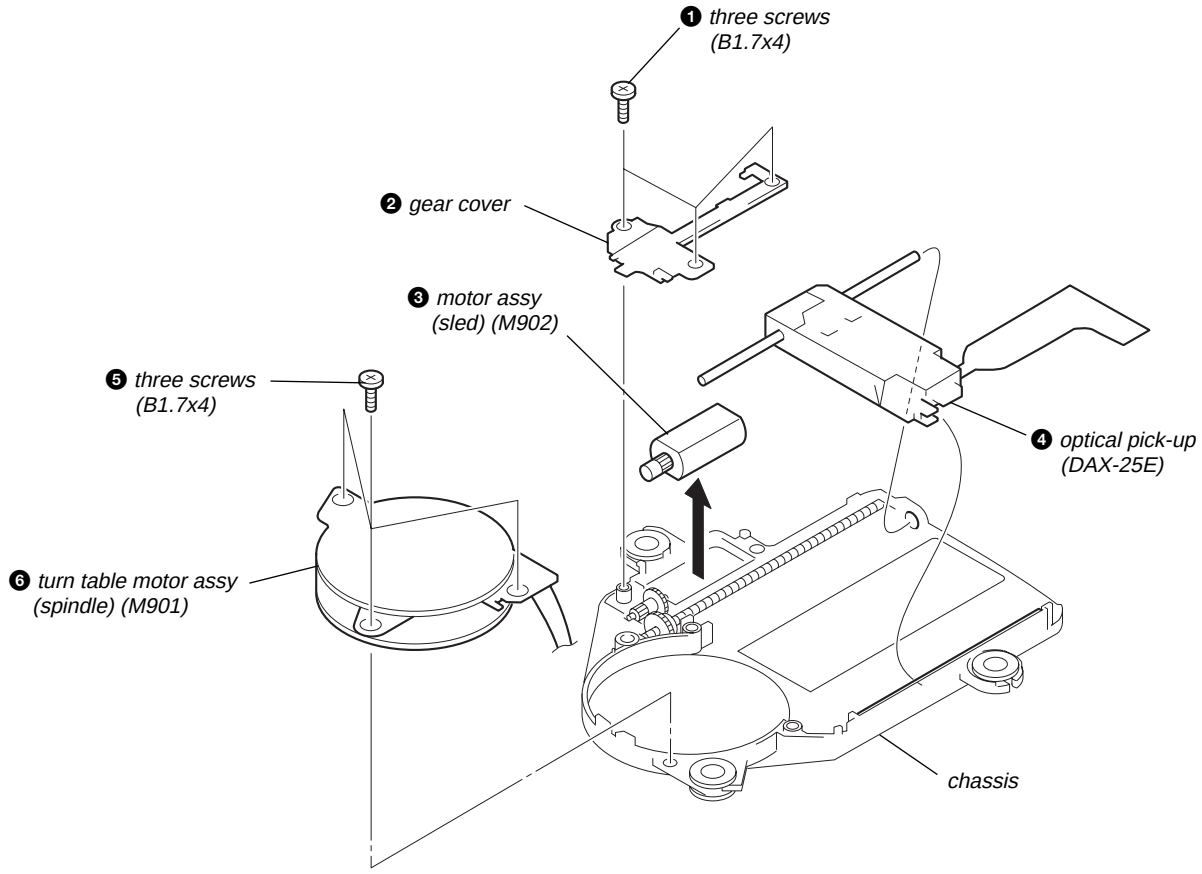
### 3-2. Cabinet (upper) Section



### 3-3. MAIN Board, CD Mechanism Section (CDM-3325ER2)



### 3-4. Motor Assy (Spindle)(M901), Motor Assy (Sled)(M902), Optical Pick-up Assy (DAX-25E)



# SECTION 4
# ELECTRICAL CHECKING

The CD section adjustments are done automatically in this set.
In case of operation check, confirm that RF level.

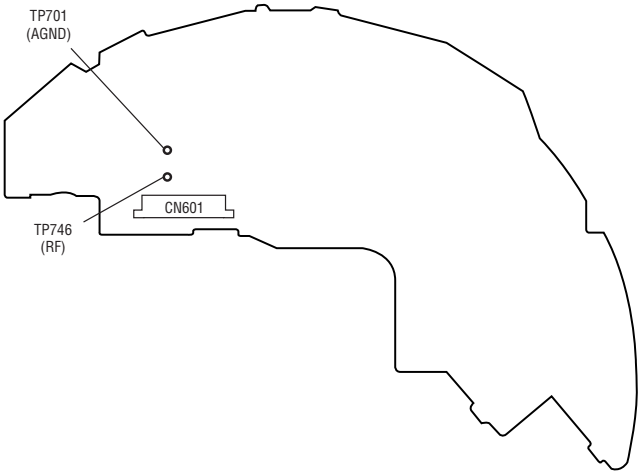
### Precautions for Check

1. Perform check in the order given.
2. Use YEDS-18 disc (Part No.: 3-702-101-01) unless otherwise indicated.
3. Power supply voltage requirement : DC4.5 V in DC IN jack. (J401)

| | |
|---|---|
| VOLUME button | : Minimum |
| AVLS switch | : NORM |
| HOLD switch | : OFF |
| G-PROTECTION switch | : 1 |

**Checking Location:**

**– MAIN board (Side B) –**

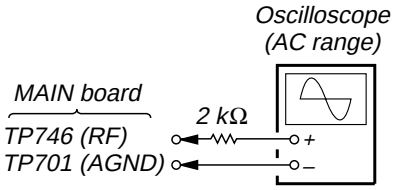



### RF Level Check

**Condition:**

• Hold the set in horizontal state.

**Connection:**

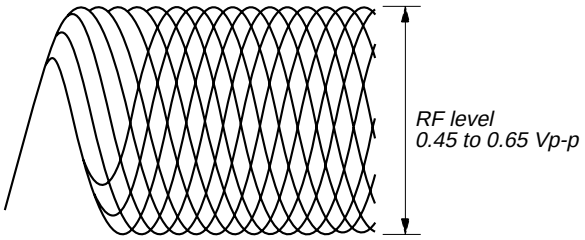



**Procedure:**

1. Connect the oscilloscope to the test points TP746 (RF) and TP701 (AGND) on the MAIN board.
2. Set a disc. (YEDS-18)
3. Press the ▶II button.
4. Check the oscilloscope waveform is as shown below.
   A good eye pattern means that the diamond shape (◊) in the center of the waveform can be clearly distinguished.

***RF Signal reference Waveform (Eye Pattern)***

*VOLT/DIV : 100 mV (With the 10:1 probe in use)*
*TIME/DIV : 500 ns*




*To watch the eye pattern, set the oscilloscope to AC range and increase the vertical sensitivity of the oscilloscope for easy watching.*

5. Stop revolving of the disc motor by pressing the ■ button.

# SECTION 5
# DIAGRAMS

## NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

**Note on Printed Wiring Board**

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

(The other layers' patterns are not indicated.)

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

- MAIN board is multi-layer printed board. However, the patterns of intermediate-layer have not been included in the diagram.

**Note on Schematic Diagram:**

- 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.
- % : indicates tolerance.
- ▭ : panel designation.

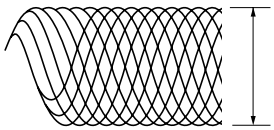
| **Note:** | **Note:** |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.<br>Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.<br>Ne les remplacer que par une pièce portant le numéro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

- ▬ : B+ Line.
- Total current is measured with CD installed.
- Power voltage is dc 4.5 V and fed with regulated dc power supply from DC IN jack (J401).
- Voltages and waveforms are dc with respect to ground in playback mode.
  no mark : CD PLAY
  * : Impossible to measure
- 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.
  ⇨ : CD PLAY (ANALOG OUT)
  ⇨ : CD PLAY (OPTICAL OUT)

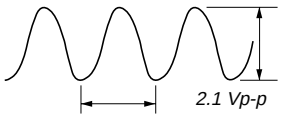
☆When IC803 is damaged, replace the MAIN board.

### • WAVEFORMS

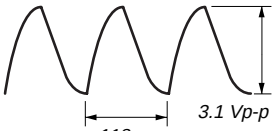
① IC601 ㉞ RFAC
100mV/DIV, 400ns/DIV



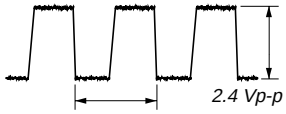

② IC601 ㊽ XTAO
1V/DIV, 20ns/DIV



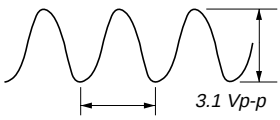

③ IC801 ㉘ XIN
1V/DIV, 40ns/DIV



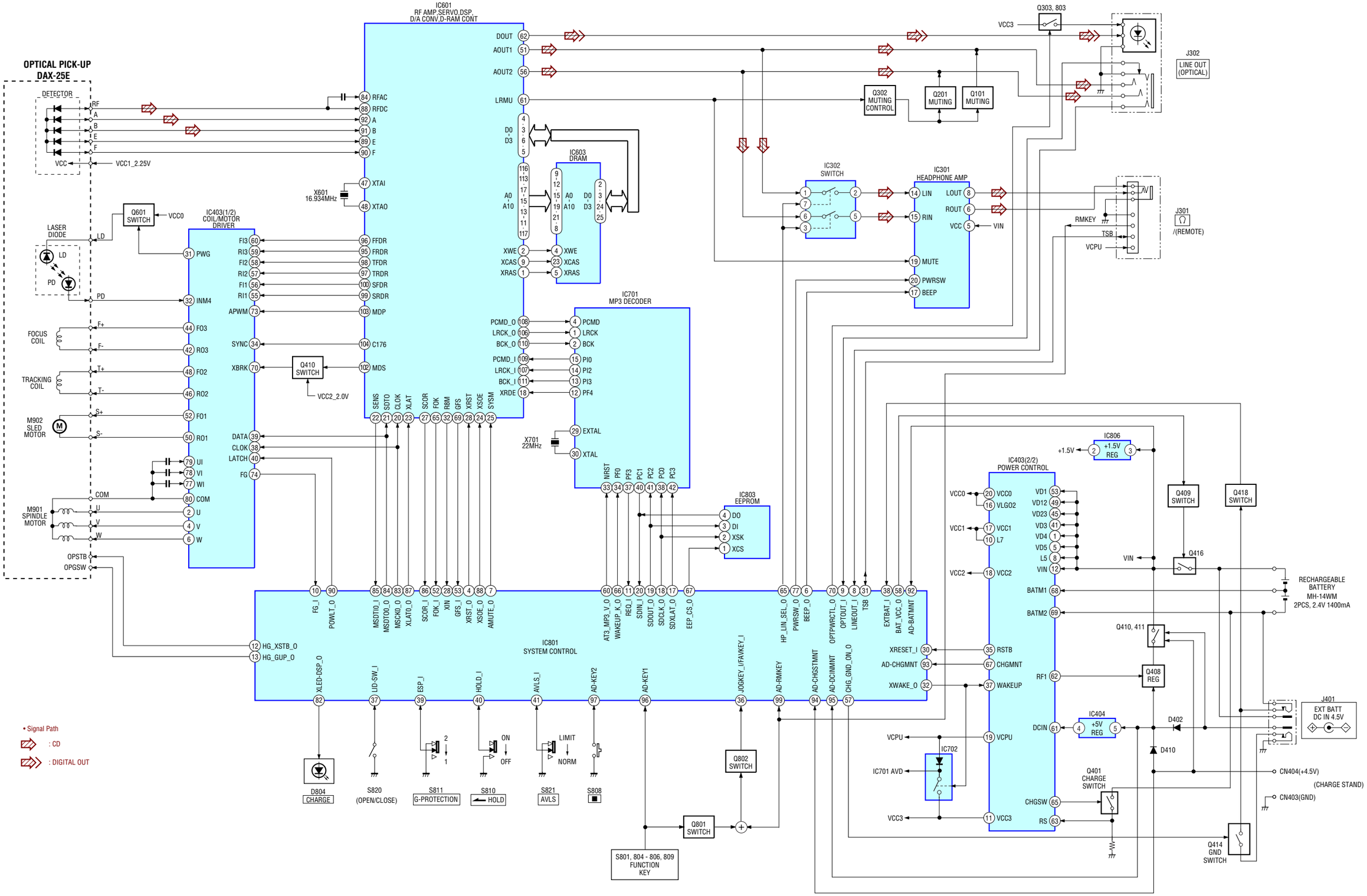

④ IC403 ㉞ SYNC
1V/DIV, 2us/DIV




⑤ IC701 ㉚ XTAL
1V/DIV, 20ns/DIV



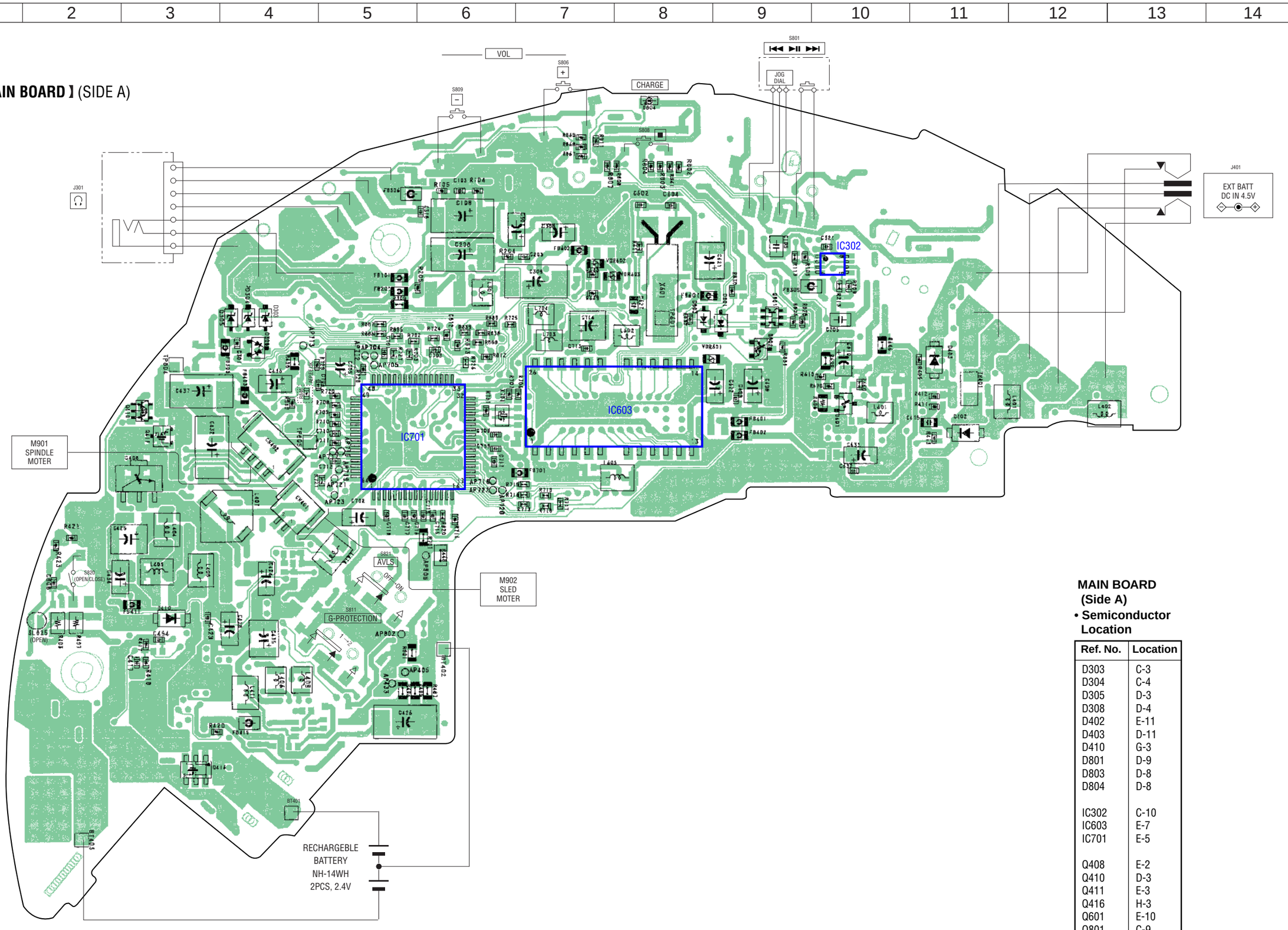
## 5-1. Block Diagram



## 5-2. Printed Wiring Board – MAIN Board (Side A) –

• : Uses unleaded solder.

【MAIN BOARD】(SIDE A)




**MAIN BOARD (Side A)**

**• Semiconductor Location**

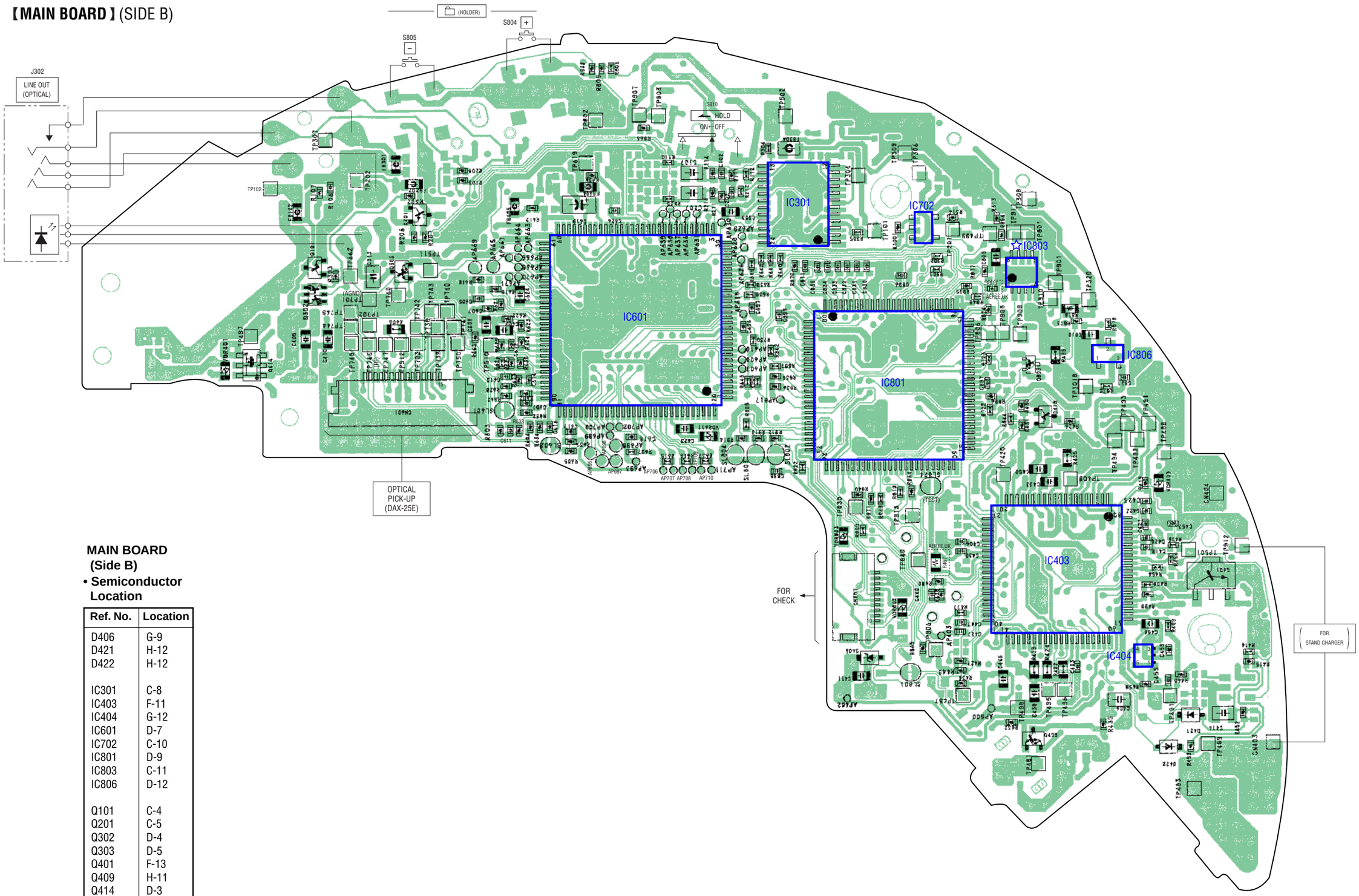
| Ref. No. | Location |
|---|---|
| D303 | C-3 |
| D304 | C-4 |
| D305 | D-3 |
| D308 | D-4 |
| D402 | E-11 |
| D403 | D-11 |
| D410 | G-3 |
| D801 | D-9 |
| D803 | D-8 |
| D804 | D-8 |
| IC302 | C-10 |
| IC603 | E-7 |
| IC701 | E-5 |
| Q408 | E-2 |
| Q410 | D-3 |
| Q411 | E-3 |
| Q416 | H-3 |
| Q601 | E-10 |
| Q801 | C-9 |
| Q802 | D-9 |

## 5-3. Printed Wiring Board – MAIN Board (Side B) –

• : Uses unleaded solder.

☆When IC803 is damaged, replace the MAIN board.

【MAIN BOARD】(SIDE B)




**MAIN BOARD**
**(Side B)**

**• Semiconductor Location**

| Ref. No. | Location |
|---|---|
| D406 | G-9 |
| D421 | H-12 |
| D422 | H-12 |
| IC301 | C-8 |
| IC403 | F-11 |
| IC404 | G-12 |
| IC601 | D-7 |
| IC702 | C-10 |
| IC801 | D-9 |
| IC803 | C-11 |
| IC806 | D-12 |
| Q101 | C-4 |
| Q201 | C-5 |
| Q302 | D-4 |
| Q303 | D-5 |
| Q401 | F-13 |
| Q409 | H-11 |
| Q414 | D-3 |
| Q418 | E-11 |
| Q803 | D-11 |

## 5-4. Schematic Diagrams – MAIN Board (1/4) –

• See page 12 for Waveforms.

【MAIN BOARD】(1/4)

OPTICAL PICK-UP (DAX-25E)

IC601
RF AMP, SERVO, DSP, D/A CONV, D-RAM CONT
IC601 CXD3039AR

IC302
SWITCH
IC302 SN74LVC2G66DCUR

IC603
DRAM
IC603 MSM51X17400F-10 TFSR1

VDR601
VDR602
VDR603

Q601 2SB1679Q SWITCH

SL601
SL602

X601 16.934MHz

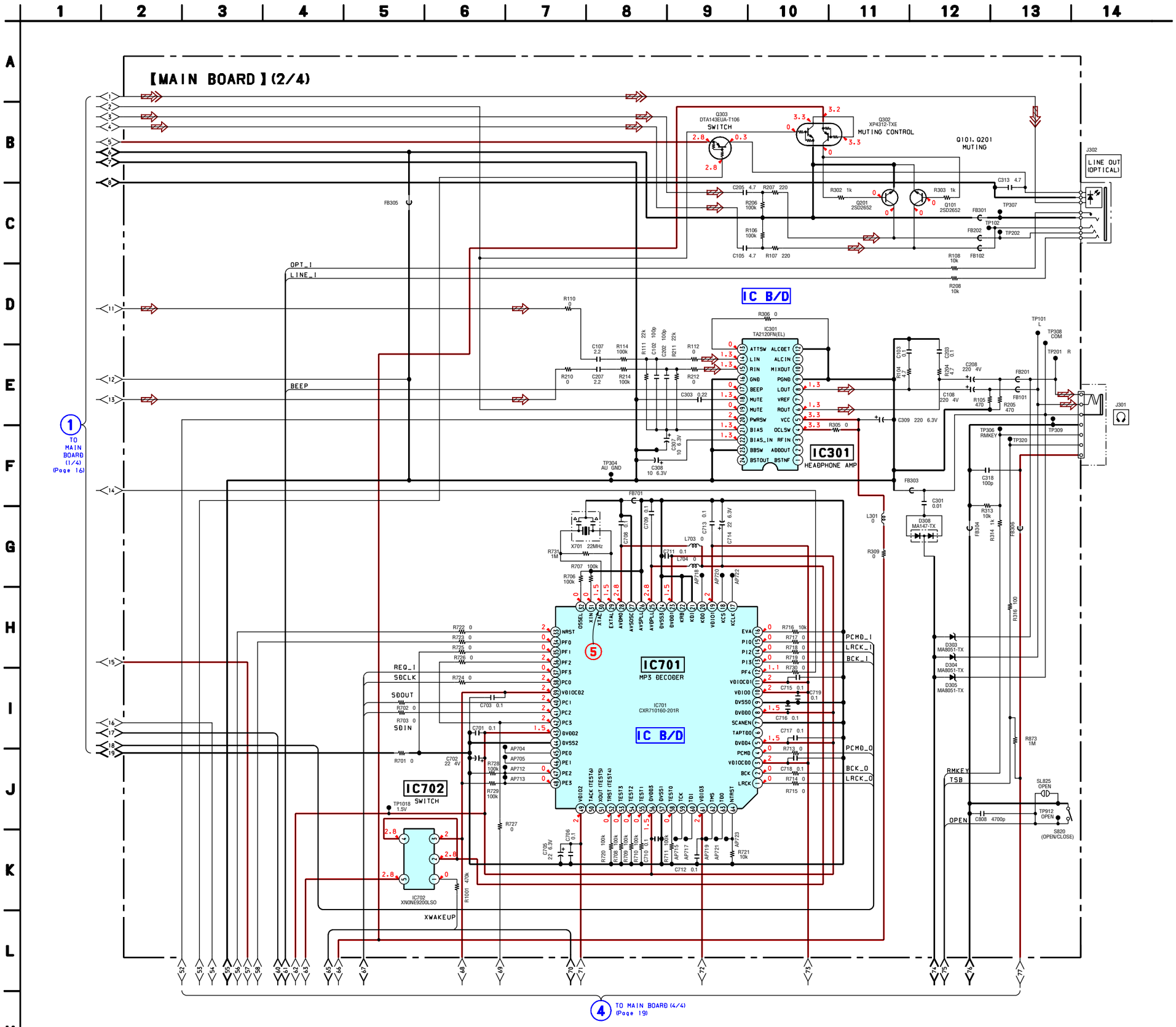
FOK
GFS
RE
RF

1 TO MAIN BOARD (2/4) (Page 17)

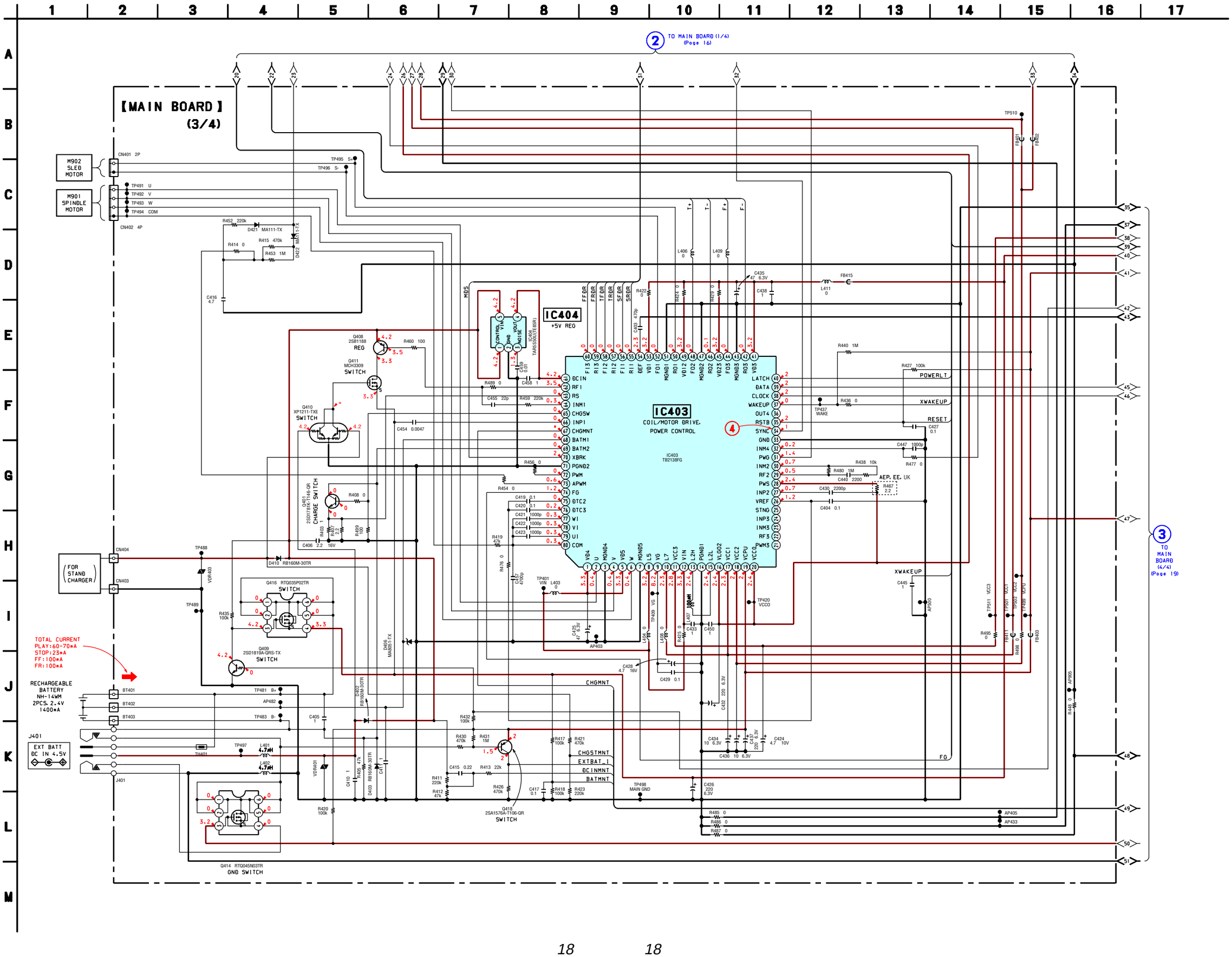
2 TO MAIN BOARD (3/4) (Page 18)

## 5-5. Schematic Diagrams – MAIN Board (2/4) –

• See page 12 for Waveform. • See page 20 for IC Block Diagrams.



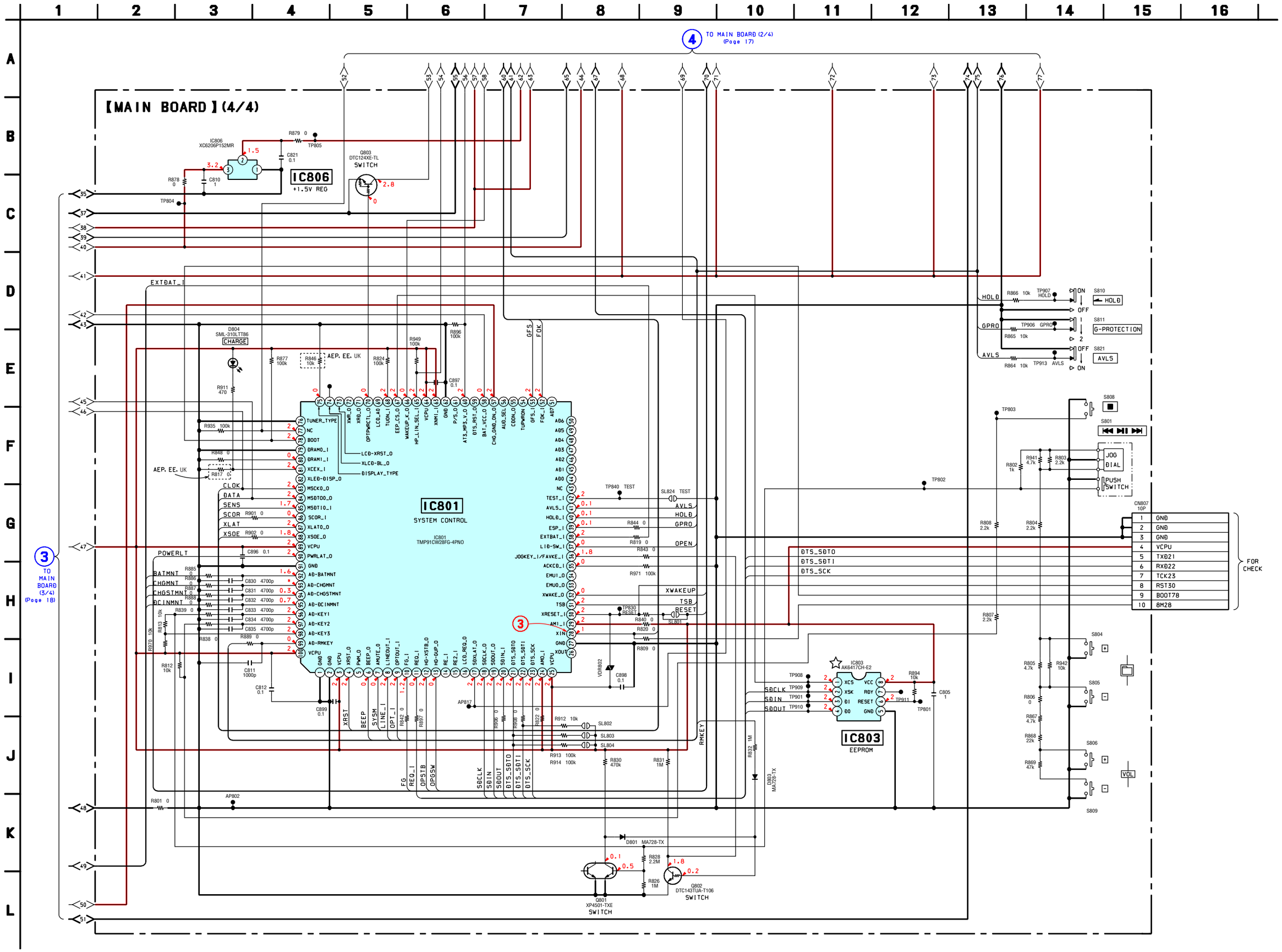
**5-6. Schematic Diagrams – MAIN Board (3/4) –** • See page 12 for Waveform.



## 5-7. Schematic Diagrams – MAIN Board (4/4) –

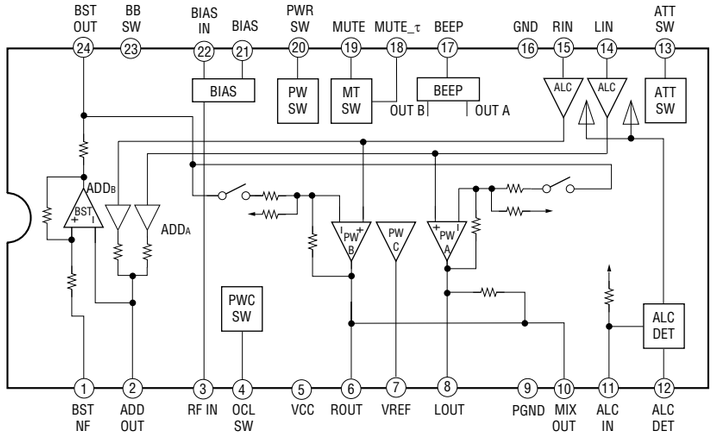
• See page 12 for Waveform.

☆When IC803 is damaged, replace the MAIN board.

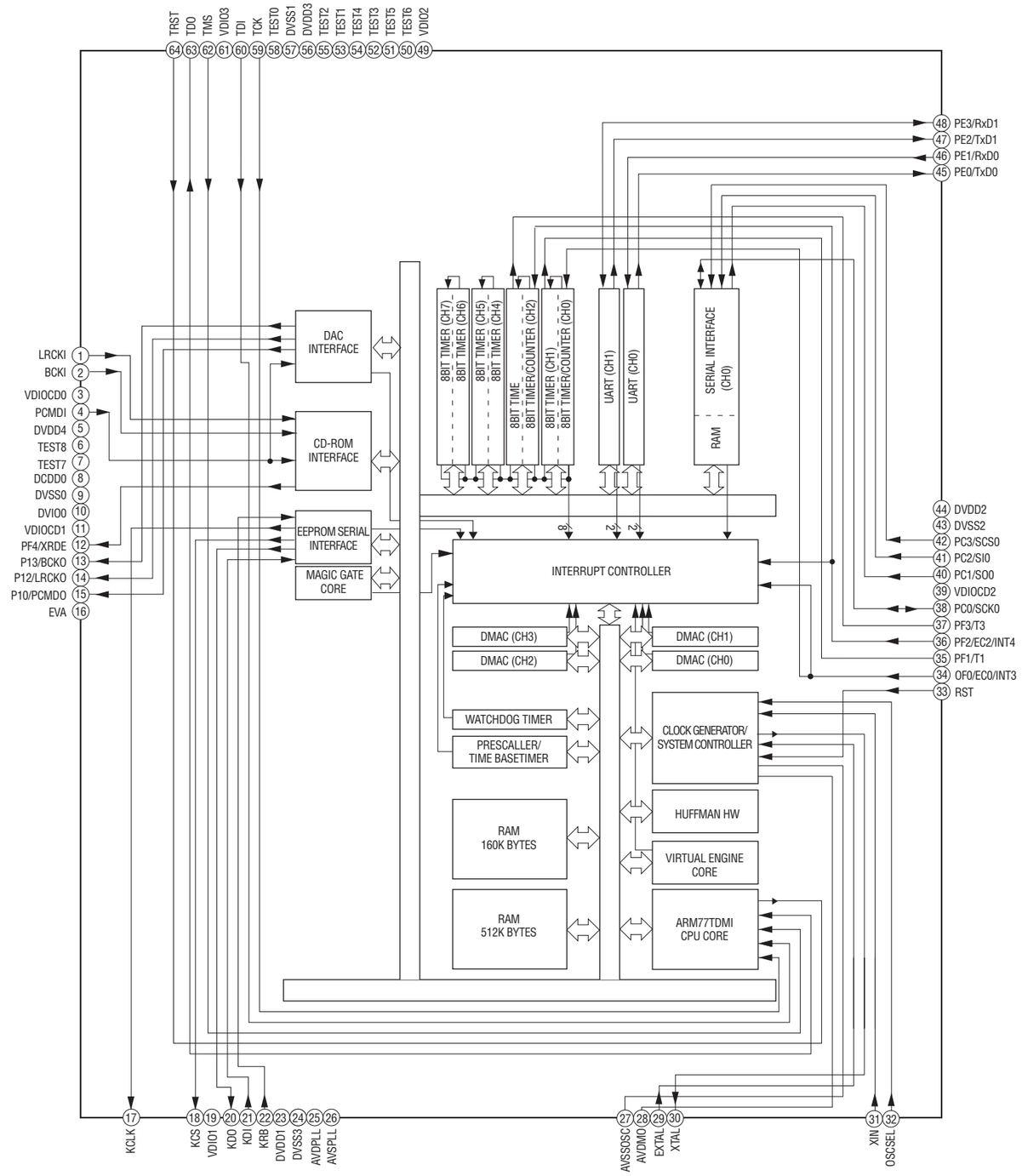


## 5-8. IC Block Diagrams

### IC301 TA2120FN (EL)




### IC701 CXR710160-210R



## 5-9. IC Pin Function Descriptions

**• IC601 CXD3039AR**
**(RF AMP, DIGITAL SIGNAL PROCESSOR, DIGITAL SERVO PROCESSOR, D-RAM CONTROLLER)**

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1 | XRAS | O | Row address strobe signal output to the D-RAM |
| 2 | XWE | O | Data input enable signal output to the D-RAM |
| 3 to 6 | D1, D0, D3, D2 | I/O | Two-way data bus with the D-RAM |
| 7 | DCLK | O | Not used |
| 8 | DCKE | O | Not used |
| 9 | XCAS | O | Column address strobe signal output to the D-RAM |
| 10 | WFCK | O | WFCK signal output terminal Not used |
| 11 to 13 | A9 to A7 | O | Address signal output to the D-RAM |
| 14 | DVSS | — | Ground terminal (for D-RAM interface) |
| 15 to 17 | A6 to A4 | O | Address signal output to the D-RAM |
| 18 | XRDE | I | D-RAM read enable signal input terminal Not used |
| 19 | VDD0 | — | Power supply terminal (digital system) |
| 20 | CLOCK | I | Serial data transfer clock signal input from the system controller |
| 21 | SDTO | I | Serial data input from the system controller |
| 22 | SENS | O | Serial data output to the system controller |
| 23 | XLAT | I | Serial data latch pulse signal input from the system controller |
| 24 | XSOE | I | Serial data output enable signal input from the system controller |
| 25 | SYSM | I | Analog muting on/off control signal input from the system controller “H”: muting on |
| 26 | WDCK | O | GRSCOR signal output to the system controller |
| 27 | SCOR | O | Subcode sync (S0+S1) detection signal output to the system controller |
| 28 | XRST | I | Reset signal input from the system controller “L”: reset |
| 29 | PWMI | I | Spindle motor external control signal input terminal Not used |
| 30 | XQOK | I | Subcode Q OK signal input terminal Not used |
| 31 | XWRE | I | D-RAM write enable signal input terminal Not used |
| 32 | R8M | O | System clock output to the system controller |
| 33 | VSS0 | — | Ground terminal (digital system) |
| 34 | SQCK | I | SQSO readout clock signal input terminal Not used |
| 35 | SCLK | I | SENS serial data read clock signal input terminal Not used |
| 36 | SQSO | O | CD text data output terminal Not used |
| 37 | XEMP | O | D-RAM read prohibition signal output terminal Not used |
| 38 | XWIH | O | D-RAM write prohibition signal output terminal Not used |
| 39 | SBSO | O | Subcode P to W serial data output terminal Not used |
| 40 | EXCK | O | SQSO readout clock signal output terminal Not used |
| 41 | XTSL | I | Input terminal for the system clock frequency setting<br>“L”: 16.9344 MHz, “H”: 33.8688MHz (fixed at “L” in this set) |
| 42 | HVSS | — | Ground terminal (for headphone) |
| 43 | HPL | O | PDM signal output for L-ch headphone to the headphone amplifier |
| 44 | HPR | O | PDM signal output for R-ch headphone to the headphone amplifier |
| 45 | HPVDD | — | Power supply terminal (for headphone) |
| 46 | XVDD | — | Power supply terminal (for master clock) |
| 47 | XTAI | I | System clock input terminal (16.9344 MHz) |
| 48 | XTAO | O | System clock output terminal (16.9344 MHz) |
| 49 | XVSS | — | Ground terminal (for master clock) |
| 50 | AVDD1 | — | Power supply terminal (analog system) |
| 51 | AOUT1 | O | L-ch analog audio signal output |
| 52 | VREFL | O | L-ch reference voltage output terminal |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 53, 54 | AVSS1, AVSS2 | — | Ground terminal (analog system) |
| 55 | VREFR | O | R-ch reference voltage output terminal |
| 56 | AOUT2 | O | R-ch analog audio signal output |
| 57 | AVDD2 | — | Power supply terminal (analog system) |
| 58 | TES1 | I | Input terminal for the test (normally: fixed at “L”) |
| 59 | TEST | I | Input terminal for the test (normally: fixed at “L”) |
| 60 | VSS1 | — | Ground terminal (digital system) |
| 61 | LRMU | O | Muting on/off control signal output to the audio line and the headphone amplifier<br>“H”: muting on |
| 62 | DOUT | O | Digital audio signal output |
| 63 | ATSK | I/O | Input/output terminal for anti-shock Not used |
| 64 | DFCT | I/O | Defect signal input/output terminal Not used |
| 65 | FOK | O | Focus OK signal output to the system controller “L”: NG, “H”: OK |
| 66 | MIRR | I/O | Defect signal input/output terminal Not used |
| 67 | COUT | I/O | Numbers of track counted signal input/output terminal Not used |
| 68 | C2PO | O | C2PO signal output terminal Not used |
| 69 | GFS | O | GFS signal output terminal Not used |
| 70 | XUGF | O | XUGF signal output terminal Not used |
| 71 | XPCK | O | XPCK signal output terminal Not used |
| 72 | VDD1 | — | Power supply terminal (digital system) |
| 73 | PCO | O | Charge pump output for master PLL |
| 74 | FILI | I | Filter input for master PLL |
| 75 | FILO | O | Filter output for master PLL |
| 76 | CLTV | I | VCO1 control voltage input terminal for multiplier |
| 77 | VCTL | I | VCO2 control voltage input terminal for broad-band EFM PLL |
| 78 | VPCO | O | Charge pump output terminal for broad-band EFM PLL |
| 79 | AVSS3 | — | Ground terminal (analog system) |
| 80 | ASYO | O | EFM full-swing output terminal |
| 81 | ASYI | I | Asymmetry comparator voltage input terminal |
| 82 | BIAS | I | Asymmetry circuit constant current input terminal |
| 83 | AVDD3 | — | Power supply terminal (analog system) |
| 84 | RFAC | I | EFM signal input from the optical pick-up |
| 85 | AVDD0 | — | Power supply terminal (analog system) |
| 86 | IGEN | I | Stabilized current input for operational amplifiers |
| 87 | AVSS0 | — | Ground terminal (analog system) |
| 88 | RFDC | I | RF signal input from the optical pick-up |
| 89 | E | I | E signal input from the optical pick-up |
| 90 | F | I | F signal input from the optical pick-up |
| 91 | B | I | B signal input from the optical pick-up |
| 92 | A | I | A signal input from the optical pick-up |
| 93 | VC | I | Middle point voltage input terminal Not used |
| 94 | VSS3 | — | Ground terminal (digital system) |
| 95 | FRDR | O | Focus servo drive signal (–) output to the TB2130AF |
| 96 | FFDR | O | Focus servo drive signal (+) output to the TB2130AF |
| 97 | TRDR | O | Tracking servo drive signal (–) output to the TB2130AF |
| 98 | TFDR | O | Tracking servo drive signal (+) output to the TB2130AF |
| 99 | SRDR | O | Sled servo drive signal (–) output to the TB2130AF |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 100 | SFDR | O | Sled servo drive signal (+) output to the TB2130AF |
| 101 | SSTP | I | Disc inner position detection signal input terminal Not used |
| 102 | MDS | O | Spindle motor drive signal output to the spindle motor driver |
| 103 | MDP | O | Spindle motor servo control signal output to the spindle motor driver |
| 104 | C176 | O | 176.4 kHz clock signal output to the power control and spindle motor driver |
| 105 | VDD2 | — | Power supply terminal (digital system) |
| 106 | LRCK | O | L/R sampling clock signal (44.1 kHz) output terminal |
| 107 | LRCKI | I | L/R sampling clock signal (44.1 kHz) input terminal |
| 108 | PCMD | O | Serial data output terminal |
| 109 | PCMDI | I | Serial data input terminal |
| 110 | BCKO | O | Bit clock signal (2.8224 MHz) output terminal |
| 111 | BCKI | I | Bit clock signal (2.8224 MHz) input terminal |
| 112 | DVDD | — | Power supply terminal (for D-RAM interface) |
| 113 to 117 | A3 to A0, A10 | O | Address signal output to the D-RAM |
| 118 to 120 | A11 to A13 | O | Address signal output terminal to the D-RAM Not used |

**• IC801 TMP91CW28FG-4PNO**

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1 | GND | — | Reference voltage terminal (A/D converter) |
| 2 | GND | — | Ground terminal (A/D converter) |
| 3 | VCPU | — | Power supply terminal (A/D converter) |
| 4 | XRST_O | O | Reset signal output to the DSP (IC601) |
| 5 | PWM_O | O | Not used (open) |
| 6 | BEEP_O | O | BEEP signal output |
| 7 | AMUTE_O | O | Muting signal output to the DSP (IC601) |
| 8 | LINEOUT_I | I | Line plug in detection signal input (“H” : line plug in) |
| 9 | OPTOUT_I | I | Optical plug in detection signal input (“H” : optical plug in) |
| 10 | FG_I | I | FG (3 phase drive) signal input from the power control (IC403) |
| 11 | REQ_I | I | Request signal input from the decoder (IC701) |
| 12 | HG-XSTB_O | O | HG sleep mode signal output to the optical-pickup |
| 13 | HG-GUP_O | O | HG gain up signal output to the optical-pickup |
| 14 | RE1_I | I | Not used (open) |
| 15 | RE2_I | I | Not used (open) |
| 16 | LCD_REQ_O | O | Not used (open) |
| 17 | SDXLAT_O | O | Serial data latch signal output to the decoder (IC701) |
| 18 | SDCLK_O | O | Clock output to the decoder (IC701) |
| 19 | SDOUT_O | O | Serial data output to the decoder (IC701) |
| 20 | SDIN_I | I | Serial data input from the decoder (IC701) |
| 21 | DTS_SDTO | O | Not used |
| 22 | DTS_SDTI | I | Not used |
| 23 | DTS_SCK | O | Not used |
| 24 | AM0_I | I | Not used (fixed at “H”) |
| 25 | VCPU | — | Power supply terminal |
| 26 | XOUT | O | Clock output (not used) |
| 27 | GND | — | Ground terminal |
| 28 | XIN | I | Clock input |
| 29 | AM1_I | I | Not used (fixed at “H”) |
| 30 | XRESET_I | I | Reset signal input (“L” : reset) |
| 31 | TSB | I/O | Data input/output from/to the remote control |
| 32 | XWAKE_O | O | Wake signal output to the power control (IC403) (“L” : running) |
| 33 | EMU0_O | O | Not used (open) |
| 34 | EMU1_O | O | Not used (open) |
| 35 | ACKCD_I | I | Not used (fixed at “L”) |
| 36 | JOGKEY_I/FAVKEY_I | I | Key signal input from the jog key or the remote control key |
| 37 | LID-SW_I | I | Lid open/close detection signal input (“H” : lid open) |
| 38 | EXTBAT_I | I | External battery in detection signal input (“H” : external battery in) |
| 39 | ESP_I | I | G-protection switch detection signal input (“H” : G-protection 2) |
| 40 | HOLD_I | I | HOLD switch detection signal input (“H” : HOLD on) |
| 41 | AVLS_I | I | AVLS switch detection signal input (“H” : AVLS on) |
| 42 | TEST_I | I | Test mode setting terminal (“L” : test mode) |
| 43 | NC | — | Not used (open) |
| 44 to 51 | AD0 to AD7 | I/O | Not used (open) |
| 52 | FOK_I | I | FOK signal input from the DSP (IC601) |
| 53 | GFS_I | I | GFS signal input from the DSP (IC601) |
| 54 | TUPWRON_O | O | Not used (open) |
| 55 | CDON_O | O | Not used (open) |
| 56 | AUD_SEL_O | O | Not used (open) |
| 57 | CHG_GND_ON_O | O | Charge ground switch control signal output |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 58 | BAT_VCC_O | O | Battery power switch control signal output |
| 59 | DTS_RST_O | O | Not used (open) |
| 60 | AT3_MP3_V_O | O | Reset signal output to the decoder (IC701) |
| 61 | P/S_O | O | Not used (open) |
| 62 | GND | — | Ground terminal |
| 63 | XNMI_I | I | Not used (fixed at “H”) |
| 64 | VCPU | — | Power supply terminal |
| 65 | HP_LIN_SEL_O | O | Headphone or line out selection control signal output |
| 66 | WAKEUP_K_O | O | Wakeup signal output to the decoder (IC701) |
| 67 | EEP_CS_O | O | Chip select signal output to the EEPROM (IC803) |
| 68 | TUON_I | I | Not used (fixed at “H”) |
| 69 | LCD_A0 | O | Not used (open) |
| 70 | OPTPWRCTL_O | O | Optical output power supply control signal output |
| 71 | XRD_O | O | Not used (open) |
| 72 | XWR_O | O | Not used (open) |
| 73 | LCD-XRST_O | O | Not used (open) |
| 74 | XLCD-BL_O | O | Not used (open) |
| 75 | DISPLAY_TYPE | I | Not used (open) |
| 76 | TUNER_TYPE | I | Tuner model setting terminal (“H” : tuner model) (fixed at “L”) |
| 77 | HP_PWRSW | O | Headphone amplifier enable signal output (“H” : enable) |
| 78 | BOOT | I | BOOT signal input |
| 79 | DRAM0_I | I | DRAM setting terminal (“H” : 4M, “L” : 16M) |
| 80 | DRAM1_I | I | Not used (fixed at “L”) |
| 81 | XCEX_I | I | Not used (open) |
| 82 | XLED-DISP_O | O | LED control signal output |
| 83 | MSCK0_O | O | Clock signal output to the DSP (IC601) and the power control (IC403) |
| 84 | MSDTO0_O | O | Serial data output to the DSP (IC601) and the power control (IC403) |
| 85 | MSDTI0_I | I | SENS signal input from the DSP (IC601) |
| 86 | SCOR_I | I | SCOR signal input from the DSP (IC601) |
| 87 | XLAT0_O | O | Latch signal output to the DSP (IC601) |
| 88 | XSOE_O | O | Serial data output enable signal output to the DSP (IC601) |
| 89 | VCPU | — | Power supply terminal |
| 90 | PWRLAT_O | O | Data latch signal output to the power control (IC403) |
| 91 | GND | — | Ground terminal |
| 92 | AD-BATMNT | I | Batttery monitoring signal input |
| 93 | AD-CHGMNT | I | Charge monitoring signal input |
| 94 | AD-CHGSTMNT | I | Charge stand monitoring signal input |
| 95 | AD-DCINMNT | I | DC in monitoring signal input |
| 96 | AD-KEY1 | I | Key 1 signal A/D input |
| 97 | AD-KEY2 | I | Key 2 signal A/D input |
| 98 | AD-KEY3 | I | Key 3 signal A/D input |
| 99 | AD-RMKEY | I | Remote control key signal A/D input |
| 100 | VCPU | — | Reference voltage terminal (A/D converter) |

# SECTION 6
# EXPLODED VIEWS

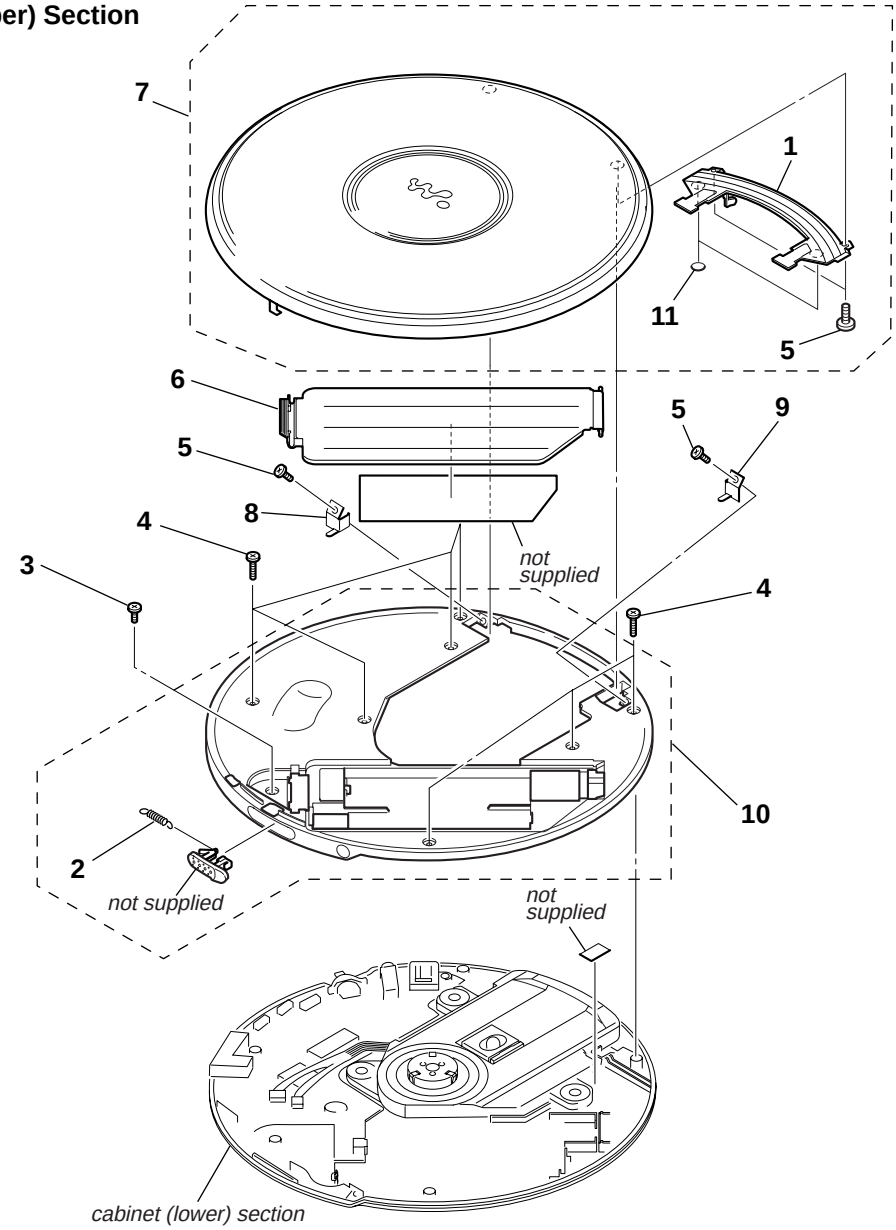
NOTE:

- -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.
- Color Indication of Appearance Parts Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts of Color Cabinet's Color
- Accessories are given in the last of electrical parts list.
- Abbreviation
  AUS : Australian model
  CND: Canadian model
  CH : Chinese model
  E18 : 100-230 V AC area in E model
  EE : East European model
  HK : Hong Kong model
  JE : Tourist model
  KR : Korean model
  TW : Taiwan model

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

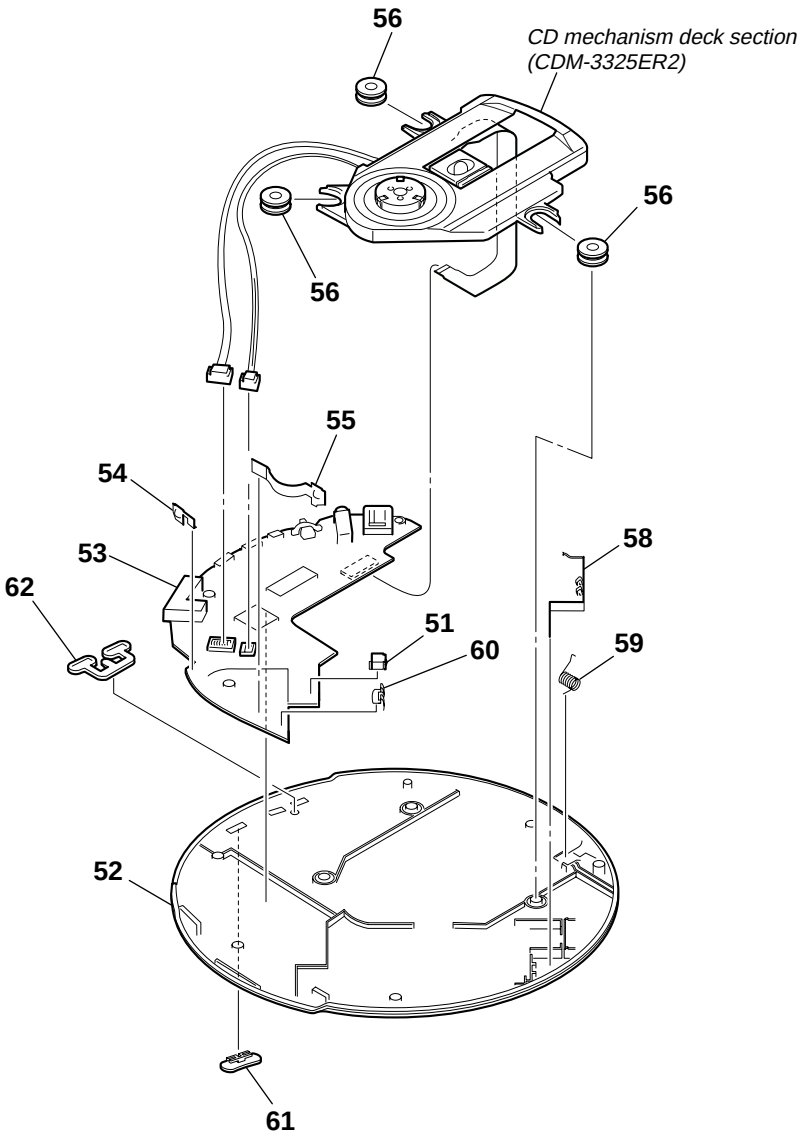
Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

## 6-1. Cabinet (upper) Section



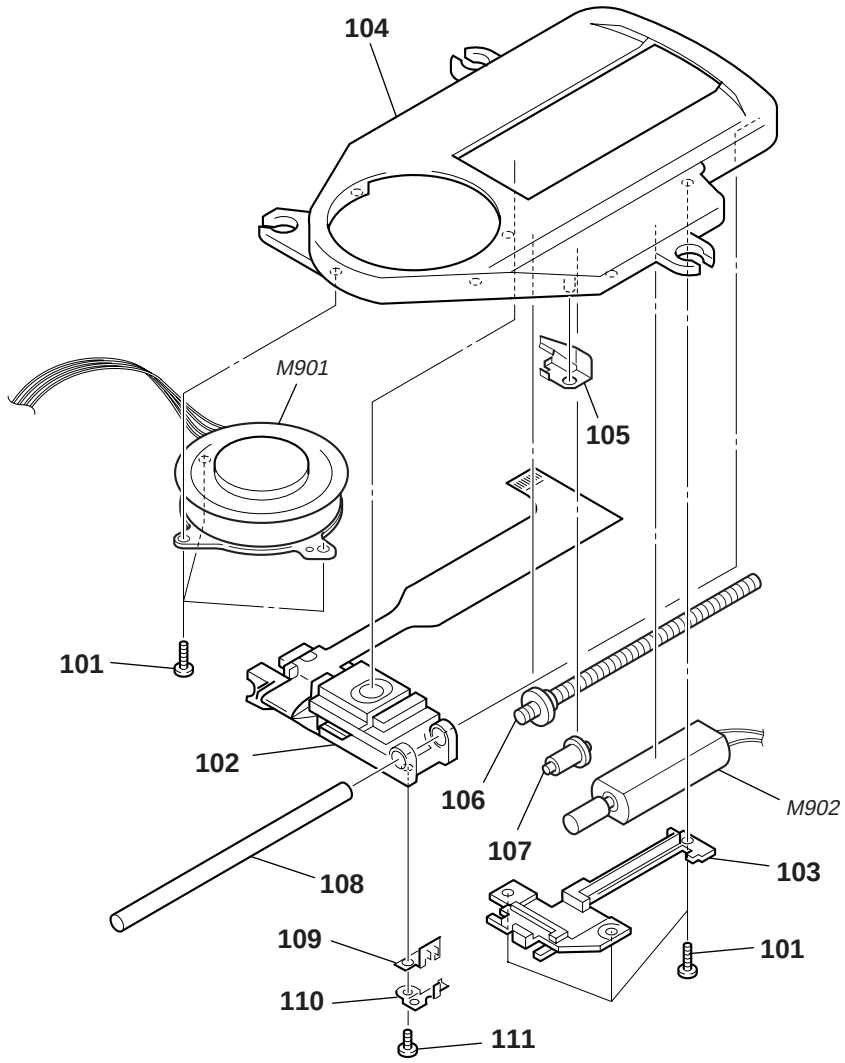

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 1 | 3-252-112-01 | PLATE, FULCRUM (NE1) | |
| 2 | 3-233-998-01 | SPRING, TENSION | |
| 3 | 4-908-792-01 | SCREW (B2) | |
| 4 | 4-908-792-61 | SCREW (B2) | |
| 5 | 3-234-449-27 | SCREW (M1.4) (NE1) | |
| 6 | X-3383-230-1 | LID ASSY, BATTERY CASE (NE9:JE) | |
| 6 | X-3383-231-1 | LID ASSY, BATTERY CASE (NE1/NE9:CND,AEP,EE,E18,AUS,CH) | |
| 6 | X-3383-232-1 | LID ASSY, BATTERY CASE (NE9:HK,KR,TW) | |
| 7 | X-3383-572-1 | LID UPPER ASSY (S) (SILVER) (NE9) | |
| 7 | X-3383-573-1 | LID UPPER ASSY (B) (BLUE) (NE9) | |
| 7 | X-3383-811-1 | LID UPPER ASSY (NE1) | |
| 8 | 3-245-864-01 | GUIDE (L) | |
| 9 | 3-245-865-02 | GUIDE (R) | |
| 10 | X-3382-570-1 | CABINET (UPPER) SUB ASSY (S) (SILVER) | |
| 10 | X-3383-806-1 | CABINET (UPPER) SUB ASSY (ML) (BLUE) | (NE9) |
| 11 | 3-253-773-01 | SPACER (DISC) (NE1) | |

## 6-2. Cabinet (lower) Section




| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 51 | 3-245-312-01 | BATTERY TERMINAL (+) | |
| 52 | X-3383-517-1 | CABINET ASSY, LOWER | (NE1:US,CND,UK,TW,JE) |
| 52 | X-3383-519-1 | CABINET (LOWER) ASSY (NE1:HK,KR,AUS,CH) | |
| 52 | X-3383-520-1 | CABINET (LOWER) ASSY (NE1:AEP,EE,E18) | |
| 52 | X-3383-598-1 | CABINET ASSY (S), LOWER (SILVER) | (NE9:KR,TW,JE) |
| 52 | X-3383-608-1 | CABINET ASSY (S), LOWER (SILVER) | (NE9:KR,TW,JE) |
| 52 | X-3383-609-1 | CABINET ASSY (S), LOWER (SILVER) | (NE9:CND,E18,HK,AUS,CH) |
| 52 | X-3383-610-1 | CABINET ASSY (ML), LOWER (BLUE) | (NE9:E18,HK,AUS,CH) |
| 52 | X-3383-611-1 | CABINET ASSY (S), LOWER (SILVER) | (NE9:AEP,EE) |
| 52 | X-3383-612-1 | CABINET ASSY (ML), LOWER (BLUE) | (NE9:AEP,EE) |
| 53 | X-3383-969-1 | MAIN BOARD, COMPLETE | (EXCEPT AEP,EE,UK) |
| 53 | X-3383-970-1 | MAIN BOARD, COMPLETE (AEP,EE,UK) | |
| 54 | 3-233-988-01 | TERMINAL BOARD (+), CHARGE | |
| 55 | 3-245-837-01 | TERMINAL BOARD (-), CHARGE | |
| 56 | 3-245-331-02 | INSULATOR | |
| 58 | 3-245-863-02 | TERMINAL BOARD (RELAY),BATTERY | |
| 59 | 3-245-866-01 | SPRING (UPPER LID) (NE1) | |
| 59 | 3-248-705-01 | SPRING(LID UPPER-2768) (NE9) | |
| 60 | 3-246-403-01 | TERMINAL BOARD (-), BATTERY | |
| 61 | 3-252-111-01 | KNOB (HOLD) | |
| 62 | 3-252-116-01 | BUTTON (FOLDER) | |

## 6-3. CD Mechanism Deck Section (CDM-3325ER2)




| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| 101 | 3-318-203-61 | SCREW (B1.7X4), TAPPING | |
| ⚠102 | X-3380-950-1 | OPTICAL PICK-UP (DAX-25E) | |
| 103 | 3-221-473-01 | COVER, GEAR | |
| 104 | 3-221-472-02 | CHASSIS | |
| 105 | 3-221-474-01 | SPRING, SLED | |
| 106 | A-3331-663-A | FEED ASSY, SCREW | |
| 107 | 3-221-268-01 | GEAR (B) | |
| 108 | 3-221-475-01 | SHAFT, STANDARD | |
| 109 | 3-222-298-01 | RACK | |
| 110 | 3-222-299-01 | SPRING, RACK RETAINER | |
| 111 | 3-348-998-31 | SCREW (M1.4X2.5), TAPPING, PAN | |
| M901 | A-3608-777-A | MOTOR ASSY, TURN TABLE (SPINDLE) | |
| M902 | A-3174-850-A | MOTOR ASSY, SLED (SLED) | |

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

# SECTION 7
# ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS:
  uF: µF
- RESISTORS
  All resistors are in ohms.
  METAL: metal-film resistor
  METAL OXIDE: Metal Oxide-film resistor
  F: nonflammable
- COILS
  uH: µH
- Abbreviation
  AUS : Australian model
  CND: Canadian model
  CH : Chinese model
  E18 : 100-230 V AC area in E model
  HK : Hong Kong model
  JE : Tourist model
  KR : Korean model
  TW : Taiwan model
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA...: µA... , uPA... , µPA... ,
  uPB... , µPB... , uPC... , µPC... ,
  uPD..., µPD...

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.

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

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| | X-3383-969-1 | MAIN BOARD, COMPLETE (EXCEPT AEP,EE,UK) | | | |
| | | ********** | | | |
| | X-3383-970-1 | MAIN BOARD, COMPLETE (AEP,EE,UK) | | | |
| | | ********** | | | |
| | | < CAPACITOR > | | | |
| C102 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C103 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C105 | 1-127-760-11 | CERAMIC CHIP | 4.7uF | 10% | 6.3V |
| C107 | 1-125-838-11 | CERAMIC CHIP | 2.2uF | 10% | 6.3V |
| C108 | 1-125-899-11 | TANTAL. CHIP | 220uF | 20.00% | 4V |
| C202 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C203 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C205 | 1-127-760-11 | CERAMIC CHIP | 4.7uF | 10% | 6.3V |
| C207 | 1-125-838-11 | CERAMIC CHIP | 2.2uF | 10% | 6.3V |
| C208 | 1-125-899-11 | TANTAL. CHIP | 220uF | 20.00% | 4V |
| C301 | 1-164-947-11 | CERAMIC CHIP | 0.01uF | | 50V |
| C303 | 1-115-467-11 | CERAMIC CHIP | 0.22uF | 10.00% | 10V |
| C307 | 1-135-259-11 | TANTAL. CHIP | 10uF | 20.00% | 6.3V |
| C308 | 1-135-259-11 | TANTAL. CHIP | 10uF | 20.00% | 6.3V |
| C309 | 1-128-829-91 | TANTAL. CHIP | 220uF | 20% | 6.3V |
| C313 | 1-117-720-11 | CERAMIC CHIP | 4.7uF | | 10V |
| C318 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C321 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C403 | 1-164-935-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C404 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C405 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C406 | 1-164-505-11 | CERAMIC CHIP | 2.2uF | | 16V |
| C410 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C411 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C415 | 1-115-467-11 | CERAMIC CHIP | 0.22uF | 10.00% | 10V |
| C416 | 1-127-760-11 | CERAMIC CHIP | 4.7uF | 10% | 6.3V |
| C417 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C419 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10.00% | 10V |
| C420 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10.00% | 10V |
| C421 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10.00% | 50V |
| C422 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10.00% | 50V |
| C423 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10.00% | 50V |
| C424 | 1-135-210-11 | TANTALUM CHIP | 4.7uF | 20% | 10V |
| C425 | 1-110-569-11 | TANTAL. CHIP | 47uF | 20.00% | 6.3V |
| C426 | 1-128-829-91 | TANTAL. CHIP | 220uF | 20% | 6.3V |
| C427 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10.00% | 10V |
| C428 | 1-107-686-11 | TANTAL. CHIP | 4.7uF | 20.00% | 16V |
| C429 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C430 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10.00% | 50V |
| C432 | 1-128-829-91 | TANTAL. CHIP | 220uF | 20% | 6.3V |
| C433 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C434 | 1-165-851-91 | TANTAL. CHIP | 10uF | 20% | 6.3V |
| C435 | 1-110-569-11 | TANTAL. CHIP | 47uF | 20.00% | 6.3V |
| C436 | 1-135-259-11 | TANTAL. CHIP | 10uF | 20.00% | 6.3V |
| C437 | 1-128-829-91 | TANTAL. CHIP | 220uF | 20% | 6.3V |
| C438 | 1-125-837-91 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C440 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10.00% | 50V |
| C445 | 1-125-837-91 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C447 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10.00% | 50V |
| C450 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C454 | 1-164-941-11 | CERAMIC CHIP | 0.0047uF | 10.00% | 16V |
| C455 | 1-164-858-11 | CERAMIC CHIP | 22PF | 5.00% | 50V |
| C457 | 1-164-941-11 | CERAMIC CHIP | 0.0047uF | 10.00% | 16V |
| C458 | 1-125-837-91 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C459 | 1-164-943-11 | CERAMIC CHIP | 0.01uF | 10.00% | 16V |
| C601 | 1-164-935-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C602 | 1-164-850-11 | CERAMIC CHIP | 10PF | 0.50PF | 50V |
| C604 | 1-164-858-11 | CERAMIC CHIP | 22PF | 5.00% | 50V |
| C605 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10.00% | 10V |
| C606 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10.00% | 50V |
| C607 | 1-164-941-11 | CERAMIC CHIP | 0.0047uF | 10.00% | 16V |
| C608 | 1-117-863-11 | CERAMIC CHIP | 0.47uF | 10.00% | 6.3V |
| C609 | 1-117-863-11 | CERAMIC CHIP | 0.47uF | 10.00% | 6.3V |
| C610 | 1-135-259-11 | TANTAL. CHIP | 10uF | 20.00% | 6.3V |
| C611 | 1-164-935-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C612 | 1-164-874-11 | CERAMIC CHIP | 100PF | 5.00% | 50V |
| C613 | 1-164-939-11 | CERAMIC CHIP | 0.0022uF | 10.00% | 50V |
| C614 | 1-164-858-11 | CERAMIC CHIP | 22PF | 5.00% | 50V |
| C616 | 1-164-935-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C617 | 1-164-935-11 | CERAMIC CHIP | 470PF | 10.00% | 50V |
| C618 | 1-125-777-11 | CERAMIC CHIP | 0.1uF | 10.00% | 10V |
| C619 | 1-119-750-11 | TANTAL. CHIP | 22uF | 20.00% | 6.3V |
| C621 | 1-110-569-11 | TANTAL. CHIP | 47uF | 20.00% | 6.3V |
| C622 | 1-135-259-11 | TANTAL. CHIP | 10uF | 20.00% | 6.3V |
| C623 | 1-125-837-91 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C624 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C626 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C627 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C631 | 1-119-750-11 | TANTAL. CHIP | 22uF | 20.00% | 6.3V |
| C632 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C697 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C698 | 1-131-862-91 | TANTAL. CHIP | 47uF | 20% | 4V |
| C699 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |

# MAIN

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| C701 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C702 | 1-104-847-11 | TANTAL. CHIP | 22uF | 20.00% | 4V |
| C703 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C705 | 1-104-852-11 | TANTAL. CHIP | 22uF | 20.00% | 6.3V |
| C706 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C708 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C709 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C710 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C711 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C712 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C713 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C714 | 1-104-852-11 | TANTAL. CHIP | 22uF | 20.00% | 6.3V |
| C715 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C716 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C717 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C718 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C719 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C805 | 1-115-156-11 | CERAMIC CHIP | 1uF | | 10V |
| C808 | 1-164-941-11 | CERAMIC CHIP | 0.0047uF | 10.00% | 16V |
| C810 | 1-125-837-91 | CERAMIC CHIP | 1uF | 10% | 6.3V |
| C811 | 1-164-937-11 | CERAMIC CHIP | 0.001uF | 10.00% | 50V |
| C812 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C821 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C830 | 1-164-941-11 | CERAMIC CHIP | 0.0047uF | 10.00% | 16V |
| C831 | 1-164-941-11 | CERAMIC CHIP | 0.0047uF | 10.00% | 16V |
| C832 | 1-164-941-11 | CERAMIC CHIP | 0.0047uF | 10.00% | 16V |
| C833 | 1-164-941-11 | CERAMIC CHIP | 0.0047uF | 10.00% | 16V |
| C834 | 1-164-941-11 | CERAMIC CHIP | 0.0047uF | 10.00% | 16V |
| C835 | 1-164-941-11 | CERAMIC CHIP | 0.0047uF | 10.00% | 16V |
| C896 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C897 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C898 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| C899 | 1-107-820-11 | CERAMIC CHIP | 0.1uF | | 16V |
| | | < CONNECTOR > | | | |
| CN401 | 1-784-342-21 | HOUSING, CONNECTOR 2P | | | |
| * CN402 | 1-785-877-21 | HOUSING, CONNECTOR 4P | | | |
| CN601 | 1-573-924-11 | CONNECTOR, FFC/FPC (ZIF) 15P | | | |
| | | < DIODE > | | | |
| D303 | 8-719-422-37 | DIODE MA8051-TX | | | |
| D304 | 8-719-422-37 | DIODE MA8051-TX | | | |
| D305 | 8-719-422-37 | DIODE MA8051-TX | | | |
| D308 | 8-719-421-33 | DIODE MA147-TX | | | |
| D402 | 8-719-081-34 | DIODE RB160M-30TR | | | |
| D403 | 8-719-081-34 | DIODE RB160M-30TR | | | |
| D406 | 8-719-422-37 | DIODE MA8051-TX | | | |
| D410 | 8-719-081-34 | DIODE RB160M-30TR | | | |
| D421 | 8-719-404-50 | DIODE MA111-TX | | | |
| D422 | 8-719-404-50 | DIODE MA111-TX | | | |
| D801 | 8-719-421-27 | DIODE MA728-TX | | | |
| D803 | 8-719-421-27 | DIODE MA728-TX | | | |
| D804 | 8-719-064-07 | DIODE SML-310LTT86 (CHARGE) | | | |
| | | < FERRITE BEAD > | | | |
| FB101 | 1-500-234-22 | FERRITE | 0uH | | |
| FB102 | 1-500-234-22 | FERRITE | 0uH | | |
| FB201 | 1-500-234-22 | FERRITE | 0uH | | |
| FB202 | 1-500-234-22 | FERRITE | 0uH | | |

| Ref. No. | Part No. | Description | | Remarks |
|---|---|---|---|---|
| FB301 | 1-500-234-22 | FERRITE | 0uH | |
| FB303 | 1-500-234-22 | FERRITE | 0uH | |
| FB304 | 1-414-813-21 | FERRITE | 0uH | |
| FB305 | 1-414-813-21 | FERRITE | 0uH | |
| FB306 | 1-414-813-21 | FERRITE | 0uH | |
| FB401 | 1-414-760-21 | FERRITE | 0uH | |
| FB402 | 1-414-760-21 | FERRITE | 0uH | |
| FB403 | 1-414-760-21 | FERRITE | 0uH | |
| FB411 | 1-414-760-21 | FERRITE | 0uH | |
| FB415 | 1-216-295-91 | SHORT CHIP | 0 | |
| FB601 | 1-414-760-21 | FERRITE | 0uH | |
| FB602 | 1-414-760-21 | FERRITE | 0uH | |
| FB604 | 1-216-864-91 | SHORT CHIP | 0 | |
| FB605 | 1-216-864-91 | SHORT CHIP | 0 | |
| FB701 | 1-414-760-21 | FERRITE | 0uH | |
| | | < IC > | | |
| IC301 | 8-759-522-87 | IC TA2120FN(EL) | | |
| * IC302 | 6-703-107-01 | IC SN74LVC2G66DCUR | | |
| IC403 | 6-703-902-01 | IC TB2138FG | | |
| IC404 | 6-704-186-01 | IC TAR5S50U(TE85R) | | |
| IC601 | 8-752-420-71 | IC CXD3039AR | | |
| IC603 | 6-702-737-01 | IC MSM51X17400F-10TFSR1 | | |
| IC701 | 8-752-935-69 | IC CXR710160-201R | | |
| IC702 | 6-550-559-01 | TRANSISTOR XN0NE9200LS0 | | |
| IC801 | 6-802-813-01 | IC TMP91CW28FG-4PNO | | |
| ☆ IC803 | - - - - - - - - - - | IC AK6417CH-E2 (not supplied) | | |
| IC806 | 6-703-916-01 | IC XC6206P152MR | | |
| | | < JACK > | | |
| J301 | 1-815-088-61 | JACK, HEADPHONE (🎧) | | |
| J302 | 1-816-884-11 | JACK, OPTICAL OUT (LINE OUT (OPTICAL) | | |
| J401 | 1-793-156-31 | JACK, DC | | |
| | | < COIL > | | |
| L301 | 1-400-389-21 | INDUCTOR | 0uH | |
| L401 | 1-400-373-21 | INDUCTOR | 4.7uH | |
| L402 | 1-400-373-21 | INDUCTOR | 4.7uH | |
| L403 | 1-400-387-21 | INDUCTOR | 0uH | |
| L404 | 1-400-388-21 | INDUCTOR | 0uH | |
| L406 | 1-400-390-21 | INDUCTOR | 0uH | |
| L407 | 1-456-178-21 | INDUCTOR | 100uH | |
| L408 | 1-400-387-21 | INDUCTOR | 0uH | |
| L409 | 1-400-390-21 | INDUCTOR | 0uH | |
| L411 | 1-400-387-21 | INDUCTOR | 0uH | |
| L601 | 1-400-389-21 | INDUCTOR | 0uH | |
| L602 | 1-400-390-21 | INDUCTOR | 0uH | |
| L603 | 1-400-386-21 | INDUCTOR | 0uH | |
| L703 | 1-400-390-21 | INDUCTOR | 0uH | |
| L704 | 1-400-390-21 | INDUCTOR | 0uH | |
| | | < TRANSISTOR > | | |
| Q101 | 6-550-364-01 | TRANSISTOR | 2SD2652 | |
| Q201 | 6-550-364-01 | TRANSISTOR | 2SD2652 | |
| Q302 | 8-729-429-50 | TRANSISTOR | XP4312-TXE | |
| Q303 | 8-729-028-86 | TRANSISTOR | DTA143EUA-T106 | |
| Q401 | 8-729-921-73 | TRANSISTOR | 2SD1781K-T146-QR | |
| Q408 | 8-729-920-83 | TRANSISTOR | 2SB1188 | |
| Q409 | 8-729-230-63 | TRANSISTOR | 2SD1819A-QRS-TX | |

☆When IC803 is damaged, replace the MAIN board.

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| Q410 | 8-729-426-24 | TRANSISTOR | XP1211-TXE | | |
| Q411 | 8-729-055-99 | TRANSISTOR | MCH3309 | | |
| Q414 | 6-550-355-01 | TRANSISTOR | RTQ045N03TR | | |
| Q416 | 6-550-354-01 | TRANSISTOR | RTQ035P02TR | | |
| Q418 | 8-729-026-53 | TRANSISTOR | 2SA1576A-T106-QR | | |
| Q601 | 8-729-054-79 | TRANSISTOR | 2SB16790 | | |
| Q801 | 8-729-427-72 | TRANSISTOR | XP4501-TXE | | |
| Q802 | 8-729-029-10 | TRANSISTOR | DTC143TUA-T106 | | |
| Q803 | 8-729-929-02 | TRANSISTOR | DTC124XE-TL | | |
| | | < RESISTOR > | | | |
| R104 | 1-220-803-81 | RES-CHIP | 4.7 | 5% | 1/16W |
| R105 | 1-218-949-11 | RES-CHIP | 470 | 5% | 1/16W |
| R106 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R107 | 1-218-945-11 | RES-CHIP | 220 | 5% | 1/16W |
| R108 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R109 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R110 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R111 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R112 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R113 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R114 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R204 | 1-220-803-81 | RES-CHIP | 4.7 | 5% | 1/16W |
| R205 | 1-218-949-11 | RES-CHIP | 470 | 5% | 1/16W |
| R206 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R207 | 1-218-945-11 | RES-CHIP | 220 | 5% | 1/16W |
| R208 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R209 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R210 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R211 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R212 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R213 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R214 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R302 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R303 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R305 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R306 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R309 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R313 | 1-208-707-11 | METAL CHIP | 10K | 0.5% | 1/16W |
| R314 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R315 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R316 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R403 | 1-217-671-11 | METAL CHIP | 1 | 5% | 1/10W |
| R405 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R407 | 1-216-298-00 | METAL CHIP | 2.2 | 5% | 1/10W |
| R408 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R411 | 1-208-943-11 | METAL CHIP | 220K | 0.5% | 1/16W |
| R412 | 1-208-927-11 | METAL CHIP | 47K | 0.5% | 1/16W |
| R413 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R414 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R415 | 1-218-985-11 | METAL CHIP | 470K | 0.5% | 1/16W |
| R417 | 1-208-935-11 | METAL CHIP | 100K | 0.5% | 1/16W |
| R418 | 1-208-935-11 | METAL CHIP | 100K | 0.5% | 1/16W |
| R419 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R420 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R421 | 1-218-985-11 | METAL CHIP | 470K | 0.5% | 1/16W |
| R422 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R423 | 1-208-943-11 | METAL CHIP | 220K | 0.5% | 1/16W |
| R424 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R425 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R426 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| R427 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R429 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R430 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| R431 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R432 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R435 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R436 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R438 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R440 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R448 | 1-216-295-91 | SHORT CHIP | 0 | | |
| R452 | 1-208-943-11 | METAL CHIP | 220K | 0.5% | 1/16W |
| R453 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R454 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R456 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R459 | 1-218-981-11 | RES-CHIP | 220K | 5% | 1/16W |
| R460 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R467 | 1-216-789-11 | METAL CHIP | 2.2 | 5% | 1/16W (AEP,EE,UK) |
| R476 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R477 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R480 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R485 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R486 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R487 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R489 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R495 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R498 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R499 | 1-218-941-81 | RES-CHIP | 100 | 5% | 1/16W |
| R602 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R603 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R604 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R605 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R606 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R607 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R608 | 1-216-789-11 | METAL CHIP | 2.2 | 5% | 1/16W |
| R610 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R611 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R612 | 1-218-937-11 | RES-CHIP | 47 | 5% | 1/16W |
| R618 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R619 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R621 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R622 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R623 | 1-218-981-11 | RES-CHIP | 220K | 5% | 1/16W |
| R624 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R625 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| R626 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R628 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R629 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R630 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R632 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R633 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R636 | 1-218-949-11 | RES-CHIP | 470 | 5% | 1/16W |
| R638 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R639 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R640 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R641 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R642 | 1-218-990-11 | SHORT CHIP | 0 | | |

## MAIN

| Ref. No. | Part No. | Description | | | Remarks |
|---|---|---|---|---|---|
| R643 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R645 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R646 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R648 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R649 | 1-218-949-11 | RES-CHIP | 470 | 5% | 1/16W |
| R650 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R662 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R663 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R670 | 1-218-961-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R699 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R701 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R702 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R703 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R706 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R707 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R708 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R709 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R710 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R711 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R713 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R714 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R715 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R716 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R717 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R718 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R719 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R720 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R721 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R722 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R723 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R724 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R725 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R726 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R727 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R728 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R729 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R730 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R731 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R801 | 1-216-864-11 | METAL CHIP | 0 | 5% | 1/16W |
| R802 | 1-218-953-11 | RES-CHIP | 1K | 5% | 1/16W |
| R803 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R804 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R805 | 1-218-961-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R806 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R807 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R808 | 1-218-957-11 | RES-CHIP | 2.2K | 5% | 1/16W |
| R809 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R812 | 1-208-707-11 | METAL CHIP | 10K | 0.5% | 1/16W |
| R813 | 1-208-707-11 | METAL CHIP | 10K | 0.5% | 1/16W |
| R817 | 1-218-990-11 | SHORT CHIP | 0 (AEP,EE,UK) | | |
| R819 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R820 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R822 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R824 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R826 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R828 | 1-220-804-11 | RES-CHIP | 2.2M | 5% | 1/16W |
| R830 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| R831 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R832 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R838 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R839 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R840 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R842 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R843 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R844 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R846 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W (AEP,EE,UK) |
| R848 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R864 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R865 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R866 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R867 | 1-218-961-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R868 | 1-218-969-11 | RES-CHIP | 22K | 5% | 1/16W |
| R869 | 1-218-973-11 | RES-CHIP | 47K | 5% | 1/16W |
| R873 | 1-218-989-11 | RES-CHIP | 1M | 5% | 1/16W |
| R877 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R878 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R879 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R885 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R886 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R887 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R888 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R889 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R894 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R896 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R897 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R901 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R902 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R906 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R908 | 1-218-990-11 | SHORT CHIP | 0 | | |
| R911 | 1-218-949-11 | RES-CHIP | 470 | 5% | 1/16W |
| R912 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R913 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R914 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R935 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R941 | 1-218-961-11 | RES-CHIP | 4.7K | 5% | 1/16W |
| R942 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R949 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R970 | 1-218-965-11 | RES-CHIP | 10K | 5% | 1/16W |
| R971 | 1-218-977-11 | RES-CHIP | 100K | 5% | 1/16W |
| R1001 | 1-218-985-11 | RES-CHIP | 470K | 5% | 1/16W |
| | | < SWITCH > | | | |
| S801 | 1-786-407-41 | SWITCH, PUSH (3 DIRECTION) (I◄◄ ►II►►I) | | | |
| S804 | 1-771-053-21 | SWITCH, KEY BOARD (+ (HOLDER)) | | | |
| S805 | 1-771-053-21 | SWITCH, KEY BOARD (- (HOLDER)) | | | |
| S806 | 1-771-248-11 | SWITCH, TACTILE (+ (VOLUME)) | | | |
| S808 | 1-771-248-11 | SWITCH, TACTILE (■) | | | |
| S809 | 1-771-248-11 | SWITCH, TACTILE (+ (VOLUME)) | | | |
| S810 | 1-762-078-11 | SWITCH, SLIDE (▬) | | | |
| S811 | 1-762-078-11 | SWITCH, SLIDE (G-PROTECTION) | | | |
| S820 | 1-762-805-41 | SWITCH, PUSH (1 KEY) | | | |
| S821 | 1-762-078-11 | SWITCH, SLIDE (AVLS) | | | |
| | | < THERMISTOR > | | | |
| TH401 | 1-805-064-21 | THERMISTOR, POSITIVE | | | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| | | < VARISTOR > | |
| VDR401 | 1-801-864-21 | VARISTOR, CHIP (1608) | |
| VDR403 | 1-801-864-21 | VARISTOR, CHIP (1608) | |
| VDR601 | 1-801-862-11 | VARISTOR, CHIP (1608) | |
| VDR602 | 1-801-862-11 | VARISTOR, CHIP (1608) | |
| VDR603 | 1-801-862-11 | VARISTOR, CHIP (1608) | |
| VDR802 | 1-801-862-11 | VARISTOR, CHIP (1608) | |
| | | < VIBRATOR > | |
| X601 | 1-795-003-21 | VIBRATOR, CRYSTAL 16.934MHz | |
| X701 | 1-795-891-21 | VIBRATOR, CERAMIC 22MHz | |
| ********** | | | |
| | | MISCELLANEOUS | |
| | | ********** | |
| ⚠102 | X-3380-950-1 | OPTICAL PICK-UP (DAX-25E) | |
| M901 | A-3608-777-A | MOTOR ASSY, TURN TABLE (SPINDLE) | |
| M902 | A-3174-850-A | MOTOR ASSY, SLED (SLED) | |
| | | ACCESSORIES | |
| | | ********** | |
| ⚠ | 1-477-496-21 | ADAPTOR, AC (AC-ES455K) (NE9:JE) | |
| ⚠ | 1-477-496-41 | ADAPTOR, AC (AC-ES455K) (NE1:JE/NE9:JE) | |
| ⚠ | 1-477-497-21 | ADAPTOR, AC (AC-ES455K) (NE9:KR) | |
| ⚠ | 1-477-497-41 | ADAPTOR, AC (AC-ES455K) (NE1:KR/NE9:KR) | |
| ⚠ | 1-477-499-21 | ADAPTOR, AC (AC-ES455K) (NE1:CH/NE9:CH) | |
| ⚠ | 1-477-500-21 | ADAPTOR, AC (AC-ES455K) (NE9:AEP,EE,E18) | |
| ⚠ | 1-477-500-41 | ADAPTOR, AC (AC-ES455K) (NE1:AEP,EE,E18/NE9:AEP,EE,E18) | |
| ⚠ | 1-477-501-21 | ADAPTOR, AC (AC-ES455K) (NE9:HK) | |
| ⚠ | 1-477-501-41 | ADAPTOR, AC (AC-ES455K) (NE1:UK,HK/NE9:HK) | |
| ⚠ | 1-477-502-21 | ADAPTOR, AC (AC-ES455K) (NE9:CND,TW) | |
| ⚠ | 1-477-502-41 | ADAPTOR, AC (AC-ES455K) (NE1:US,CND,TW/NE9:CND,TW) | |
| ⚠ | 1-477-503-11 | ADAPTOR, AC (AC-ES455K) (NE1:AUS) | |
| ⚠ | 1-477-503-21 | ADAPTOR, AC (AC-ES455K) (NE9:AUS) | |
| ⚠ | 1-477-503-41 | ADAPTOR, AC (AC-ES455K) (NE9:AUS) | |
| | 1-477-573-11 | REMOTE COMMANDER (RM-MC33EL) | |
| ⚠ | 1-569-007-12 | ADAPTOR, CONVERSION 2P (NE1:JE/NE9:JE) | |
| | 1-756-120-23 | BATTERY, NICKEL HYDROGEN (NE1:AEP,UK,EE,E18,HK,KR,TW,AUS,CH,JE) | |
| | 1-756-120-32 | BATTERY, NICKEL HYDROGEN (NE1:US,CND) | |
| | 1-756-294-11 | EXTERNAL BATERRY CASE (NE1:US,CND,UK,EE,HK,KR,AUS,CH,JE/NE9:CND,HK,KR,TW,AUS,CH,JE) | |
| | 1-756-306-22 | BATTERY, NICKEL HYDRIGEN (NE9) | |
| | 1-756-342-11 | STAND, CHARGE (NE1/NE9:AEP,E18) | |
| | 3-021-018-01 | LABEL, FRANCE (NE1:AEP,UK/NE9:AEP,EE,E18) | |
| | 3-235-292-02 | POUCH, CARRYING | |
| | 3-252-232-11 | MANUAL, INSTRUCTION (ENGLISH,SPANISH,PORTUGUESE) (NE1:AEP,UK,AUS/NE9:AEP,AUS) | |
| | 3-252-648-01 | CRIP (REMOTE CONTROL) | |
| | 3-252-232-21 | MANUAL, INSTRUCTION (FOR SONIC STAGE,SIMPLE BURNER) (FRENCH,DUTCH,SWEDISH)(NE1:AEP/NE9:AEP) | |
| | 3-252-232-31 | MANUAL, INSTRUCTION (FOR SONIC STAGE,SIMPLE BURNER) (GERMAN,ITALIAN,FINNISH)(NE1:AEP/NE9:AEP) | |
| | 3-252-232-41 | MANUAL, INSTRUCTION (FOR SONIC STAGE,SIMPLE BURNER) (ENGLISH,HUNGARIAN,RUSSIAN)(NE1:EE/NE9:EE) | |

| Ref. No. | Part No. | Description | Remarks |
|---|---|---|---|
| | 3-252-232-51 | MANUAL, INSTRUCTION (FOR SONIC STAGE,SIMPLE BURNER) (POLISH,CZECH,SLOVAK)(NE1:EE/NE9:EE) | |
| | 3-252-232-61 | MANUAL, INSTRUCTION (FOR SONIC STAGE,SIMPLE BURNER) (KOREAN) (NE1:KR,JE/NE9:KR,JE) | |
| | 3-252-232-71 | MANUAL, INSTRUCTION (FOR SONIC STAGE,SIMPLE BURNER) (ENGLISH) (NE1:US) | |
| | 3-252-232-81 | MANUAL, INSTRUCTION (FOR SONIC STAGE,SIMPLE BURNER) (ENGLISH,FRENCH) (CND) | |
| | 3-252-309-01 | CASE, CHARGE (*) | |
| | 3-253-604-11 | MANUAL, INSTRUCTION (ENGLISH,SPANISH,PORTUGUESE)(NE1:AEP,UK,AUS) | |
| | 3-253-604-21 | MANUAL, INSTRUCTION (FRENCH,DUTCH,SWEDISH)(NE1:AEP) | |
| | 3-253-604-31 | MANUAL, INSTRUCTION (GERMAN,ITALIAN,FINNISH)(NE1:AEP) | |
| | 3-253-604-41 | MANUAL, INSTRUCTION (ENGLISH,HUNGARIAN,RUSSIAN)(NE1:EE) | |
| | 3-253-604-51 | MANUAL, INSTRUCTION (POLISH,CZECH,SLOVAK)(NE1:EE) | |
| | 3-253-604-61 | MANUAL, INSTRUCTION (ENGLISH) (NE1:US) | |
| | 3-253-604-71 | MANUAL, INSTRUCTION (KOREAN)(NE1:KR,JE) | |
| | 3-253-604-81 | MANUAL, INSTRUCTION (ENGLISH,FRENCH) (NE1:CND) | |
| | 3-253-605-11 | MANUAL, INSTRUCTION (ENGLISH,CHINESE) (NE1:E18,HK,TW,CH,JE) | |
| | 3-253-976-11 | MANUAL, INSTRUCTION (ENGLISH,CHINESE) (NE1:E18,HK,TW,CH,JE/NE9:E18,HK,TW,CH,JE) | |
| | 3-254-273-11 | CD-ROM,APPLICATION (NE1:US/CND) | |
| | 3-254-273-21 | CD-ROM,APPLICATION (NE1:AEP,UK,EE/NE9:AEP,EE,E18) | |
| | 3-254-273-31 | CD-ROM,APPLICATION (NE1:E18,HK,KR,TW,AUS,CH/NE9:CND,HK,KR,TW,AUS,CH) | |
| | 3-254-273-41 | CD-ROM,APPLICATION (NE1:JE/NE9:JE) | |
| | 3-254-767-11 | MANUAL, INSTRUCTION (ENGLISH,SPANISH,PORTUGUESE) (NE9:AEP,AUS) | |
| | 3-254-767-21 | MANUAL, INSTRUCTION (FRENCH,DUTCH,SWEDISH) (NE9:AEP) | |
| | 3-254-767-31 | MANUAL, INSTRUCTION (GERMAN,ITALIAN,FINNISH) (NE9:AEP) | |
| | 3-254-767-41 | MANUAL, INSTRUCTION (ENGLISH,HUNGALIAN,SLOVAK) (NE9:EE) | |
| | 3-254-767-51 | MANUAL, INSTRUCTION (POLISH,CZECH,SLOVAK) (NE9:EE) | |
| | 3-254-767-61 | MANUAL, INSTRUCTION (KOREAN)(NE9:KR,JE) | |
| | 3-254-767-71 | MANUAL, INSTRUCTION (ENGLISH,FRENCH)(NE9:CND) | |
| | 3-254-769-11 | MANUAL, INSTRUCTION (NO INDICATION OF COUNTRY OF ORIGIN) (ENGLISH,CHINESE) (NE9:E18,HK,TW,CH,JE) | |
| | 8-954-007-91 | RECEIVER, EAR MDR-027SP/1 SET (NE1:US) | |
| | 8-954-008-90 | RECEIVER, EAR MDR-E808SP/C SET (EXCEPT NE1:US) | |

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

## REVISION HISTORY

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

| Ver. | Date | Description of Revision |
|---|---|---|
| 1.0 | 2003.04 | New |
| 1.1 | 2003.04 | Deletion of part number for cabinet (upper) sub assy and MAIN board (SPM-03005) |
| 1.2 | 2003.06 | Addition of Canadian model (D-NE9) |
| 1.3 | 2003.08 | Addition of part number for cabinet (upper) sub assy and MAIN board (SVX) (SPM-03023) |
| 1.4 | 2004.02 | Deletion of Ref.No.1 and 5 for NE9 (SPM-04005) |
| 1.5 | 2004.08 | Addition of Dolby note, correction of IC301 Part No. on Electrical Parts List, correction of M901 and M902 on Exploded Views (SPM-04066) |
| 1.6 | 2006.03 | Changed into “ not supplied ” from Ref. No. 12 and Ref. No. 13 (SPM-06036) |
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