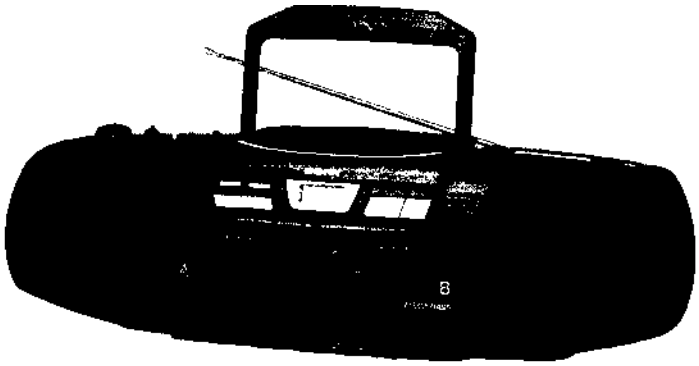
# CFD-222

# SERVICE MANUAL

*US Model*
*Canadian Model*

**Ver. 1.2 2005.09**



| | | |
|---|---|---|
| CD Section | Model Name Using Similar Mechanism | CFD-151 |
| | CD Mechanism Type | KSM-213BAN |
| | Optical Pick-up Name | KSS-213B/K |
| TC Section | Model Name Using Similar Mechanism | NEW |
| | Tape Transport Mechanism Type | MF-W222 |

## SPECIFICATIONS

### AUDIO POWER SPECIFICATIONS (US Model)

POWER OUTPUT AND TOTAL
HARMONIC DISTORTION

With 3.2-ohm loads, both channels driven from 150 -10,000 Hz; rated 2 W per channel minimum RMS power, with no more than 10 % total harmonic distortion in AC operation.

### Other Specifications

#### CD player section

System
Compact disc digital audio system
Laser diode properties
Material: GaAlAs
Wave length: 780 nm
Emission duration: Continuous
Laser output: Less than 44.6 µW
(This output is the value measured at a distance of about 200 mm from the objective lens surface on the optical pick-up block with 7 mm aperture.)
Spindle speed
200 r/min (rpm) to 500 r/min (rpm) (CLV)
Number of channels
2
Frequency response
20 - 20,000 Hz ±1/–2 dB
Wow and flutter
Below measurable limit

#### Radio section

Frequency range
FM: 87.6 - 108 MHz
AM: 530 - 1,710 kHz
Aerials
FM: Telescopic aerial
AM: Built-in ferrite bar aerial

#### Cassette-corder section

Recording system
4-track 2 channel stereo
Fast winding time
Approx. 140 s (sec.) with Sony cassette C-60
Frequency response
TYPE I (normal): 70 - 10,000 Hz

— Continued on next page —

## CD RADIO CASSETTE-CORDER

**9-923-038-13**
2005I16-1

**Sony Corporation**
**Personal Audio Group**
**Published by Sony Engineering Corporation**

SONY®

## General

Speaker
Full range: 10 cm dia., 4 ohms, cone type (2)
Outputs
Headphones jack (stereo minijack)
For 16 - 68 ohms impedance headphones
Power output (excluding US model)
3 W + 3 W (at 4 ohms, 10 % harmonic distortion)
Power requirements
120 V AC, 60 Hz
12 V DC, 8 size D (R20) batteries

Power consumption
AC 26 W
Battery life
For CD radio cassette corder:

| |
|---|
| **FM recording** |
| Sony R20P: approx. 13.5 h |
| Sony alkaline LR20: approx. 19 h |
| **Tape playback** |
| Sony R20P: approx. 7.5 h |
| Sony alkaline LR20: approx. 12 h |
| **CD playback** |
| Sony R20P: approx. 2.5 h |
| Sony alkaline LR20: approx. 4.5 h |

Dimensions
Approx. 580×264×250 mm (w/h/d)
(22 7/8 ×6 1/2 ×9 7/8 inches) (incl. projecting parts)
Mass
Approx. 5 kg (11 lb.) (incl. batteries)
Supplied accessory
AC power cord (1)

Design and specifications are subject to change without notice.

**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.

### 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.

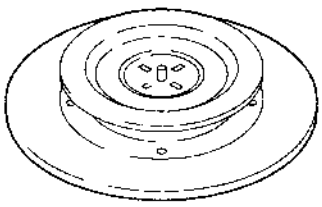
### NOTES ON LASER DIODE EMISSION CHECK

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.

### CHUCK PLATE JIG ON REPAIRING

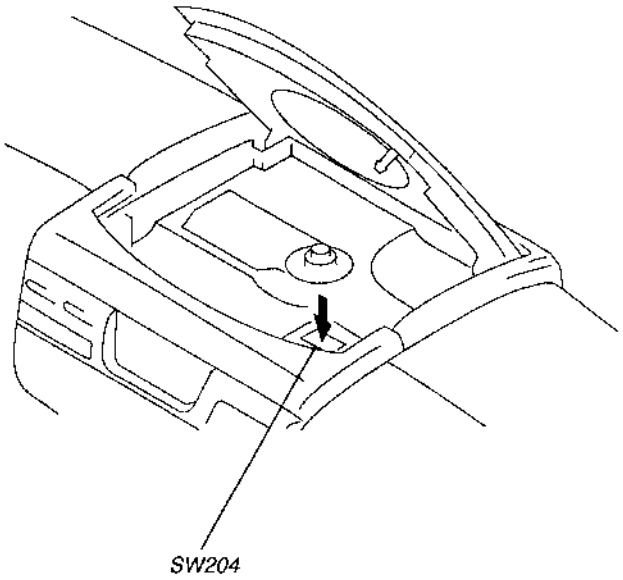
On repairing CD section, playing a disc without the CD lid, use Chuck Plate jig.

- Code number of Chuck Plate jig : X-4918-255-1



## LASER DIODE AND FOCUS SEARCH OPERATION CHECK

1. Open the lid for CD.
2. Push on PUSH SWITCH (SW204) as following figure.
3. Confirm the laser diode emission while observing the objecting lens. When there is no emission, Auto Power Control circuit or Optical Pick-up is broken.
   Objective lens moves up and down once for the focus search.




## SAFETY CHECK-OUT

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

### LEAKAGE TEST

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

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.

2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

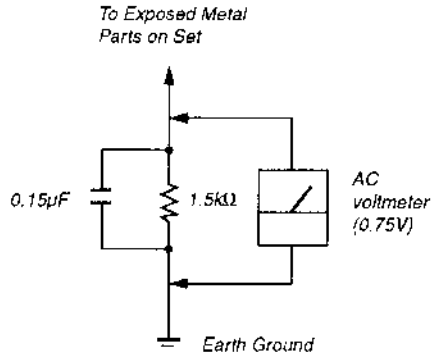



***Fig. A. Using an AC voltmeter to check AC leakage.***

**SAFETY-RELATED COMPONENT WARNING!!**

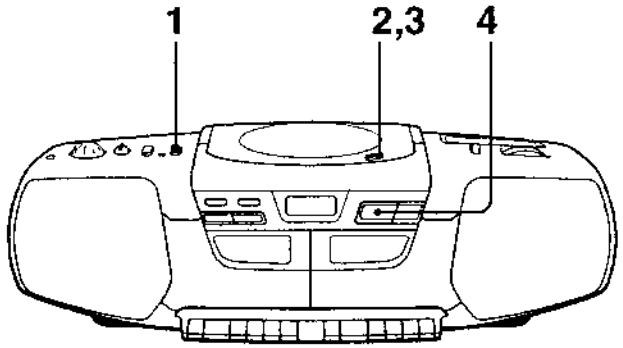
**COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.**

**ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!**

**LES COMPOSANTS IDENTIFIÉS 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 PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.**

## TABLE OF CONTENTS

# Playing a CD



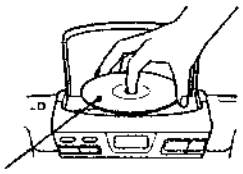

Connect the supplied AC power cord (see page 16).

**1**


Set FUNCTION to CD.

**2**


Press OPEN/CLOSE down to open the CD compartment and place the CD on the CD compartment.

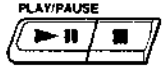


With the label side up

**3**


Close the CD compartment.

**4**



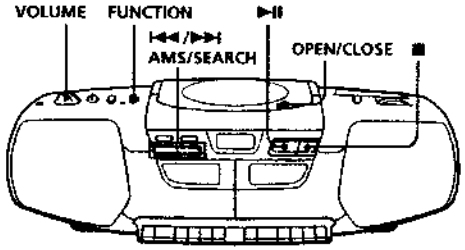

Press ▶II.

The player plays all the tracks once.

Display


Track number Playing time

**Use these buttons for additional operations**

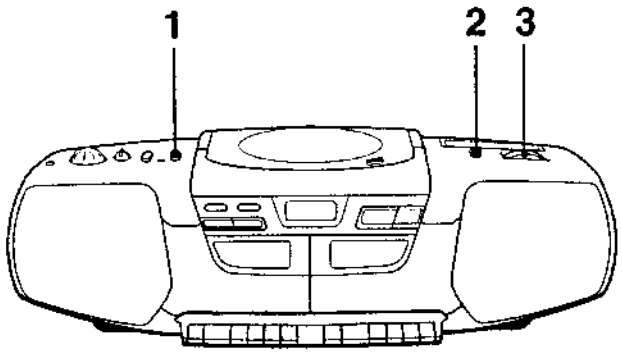



| To | Do this |
|---|---|
| Adjust the volume | Turn VOLUME. |
| Stop playback | Press ■. |
| Pause playback | Press ▶II.<br>Press again to resume play after pause. |
| Go to the next track | Press ▶▶I AMS/SEARCH. |
| Go back to the previous track | Press I◀◀ AMS/SEARCH. |
| Remove the CD | Press OPEN/CLOSE. |
| Turn off the player | Set FUNCTION to TAPE (CD/RADIO OFF). |



SECTION 1
GENERAL

# Listening to the radio




Connect the supplied AC power cord (see page 16).

**1**


Set FUNCTION to RADIO.

**2**


Set BAND to FM or AM.

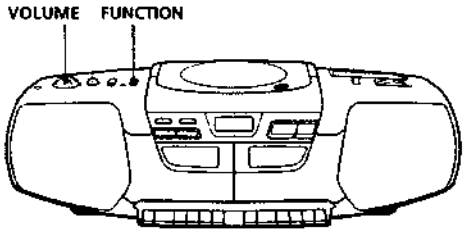
**3**


Turn TUNING to tune in a radio station.

If the received FM stereo is too weak, the reception becomes monaural.



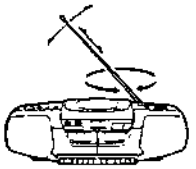
**Use these buttons for additional operations**




| To | Do this |
|---|---|
| Adjust the volume | Turn VOLUME. |
| Turn off the radio | Set FUNCTION to TAPE (CD/RADIO OFF). |

**To improve broadcast reception**

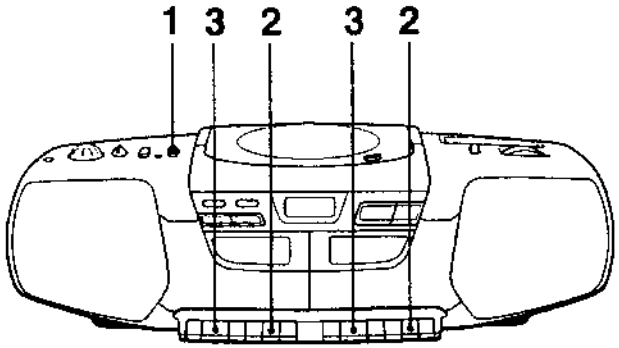
Reorient the antenna for FM. Reorient the player itself for AM.



For FM

For AM

# Playing a tape



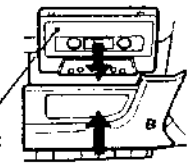

Connect the supplied AC power cord (see page 16).

**1**


Set FUNCTION to TAPE(CD/RADIO OFF).

**2**

Press ■⏏ to open the tape compartment on deck A or deck B and insert a recorded tape. Use TYPE I (normal) tape only. Close the compartment.




With the side you want to play facing forward

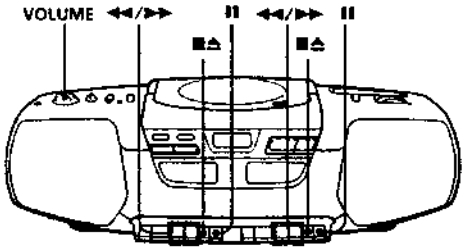
**3**

Press ►.

**Note**

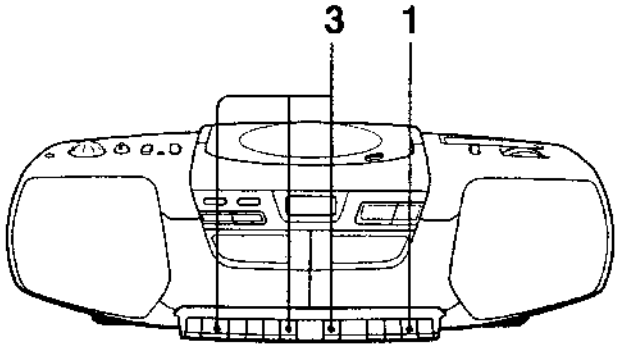
During playback, do not press buttons on the other deck. Otherwise the playback speed may change.

**Use these buttons for additional operations**




| To | Do this |
|---|---|
| Adjust the volume | Turn VOLUME. |
| Stop playback | Press ■⏏ |
| Fast-forward or rewind the tape | Press ►► or ◄◄ |
| Pause playback | Press II. Press the button again to resume play after pause. |
| Eject the cassette | Press ■⏏. |

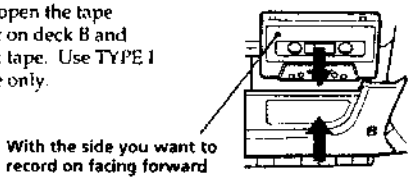
# Recording on a tape




Connect the supplied AC power cord (see page 16).

**1**

Press ■⏏ to open the tape compartment on deck B and insert a blank tape. Use TYPE I (normal) tape only.




**2**

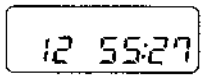

Select the program source you want to record.

To record from the CD player, set FUNCTION to CD and insert a CD (see page 4).

To record from the radio, set FUNCTION to RADIO, select the band, and tune in the station you want (see page 6).

To record from the tape, insert a recorded tape into deck A (see page 8) and set FUNCTION to DUBBING.

**Display**







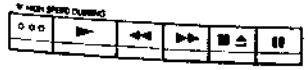

**3**

**Deck B**

Start recording.

To record from the CD player or the radio, press ● on deck B (► is depressed automatically.)

**Deck A**



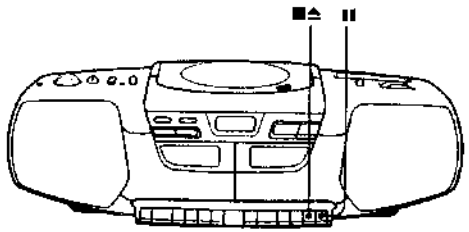
**Deck B**

To record from the tape, press ❚❚ and ► on deck A. (For high speed dubbing, press HIGH SPEED DUBBING instead.) Then press ● on deck B (► is depressed automatically).

**Tips**

- Adjusting the volume or the audio emphasis (see page 17) will not affect the recording level.
- For the best results, use the AC power as a power source for recording.
- If the AM program makes a whistling sound after you've pressed ● in step 3, set the ISS (Interference Suppress Switch) at the rear to the position that most decreases the noise. Normally set the switch to "2".
- To erase a recording, proceed as follows:
  1 Insert the tape whose recording you want to erase into the tape compartment on deck B.
  2 Set FUNCTION to TAPE (CD/RADIO OFF).
  3 Press ● on deck B.

**Use these buttons for additional operations**

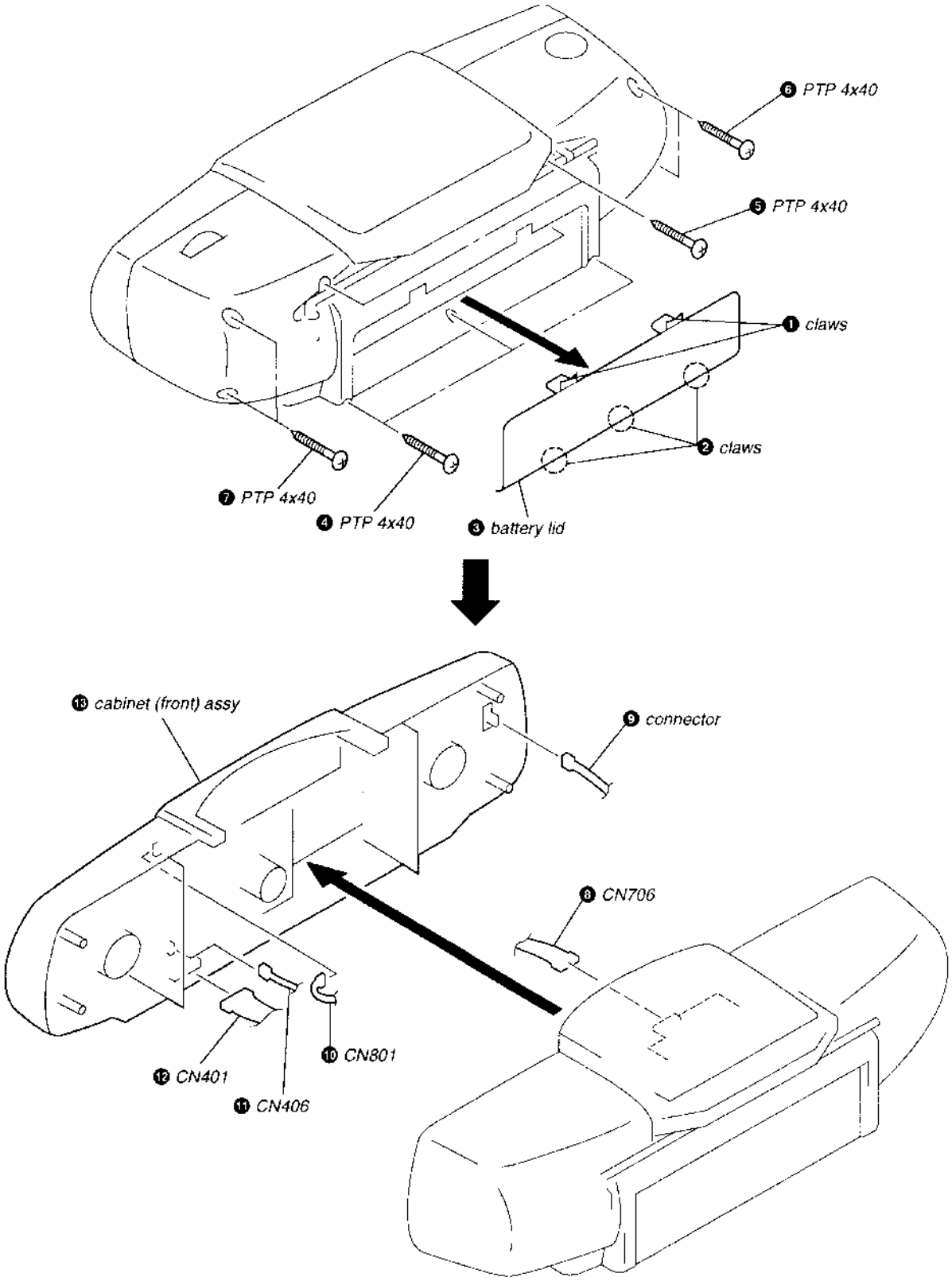



| To | Press |
|---|---|
| Stop recording | ■⏏ on deck B |
| Pause recording | ❚❚ on deck B<br>Press the button again to resume recording. |

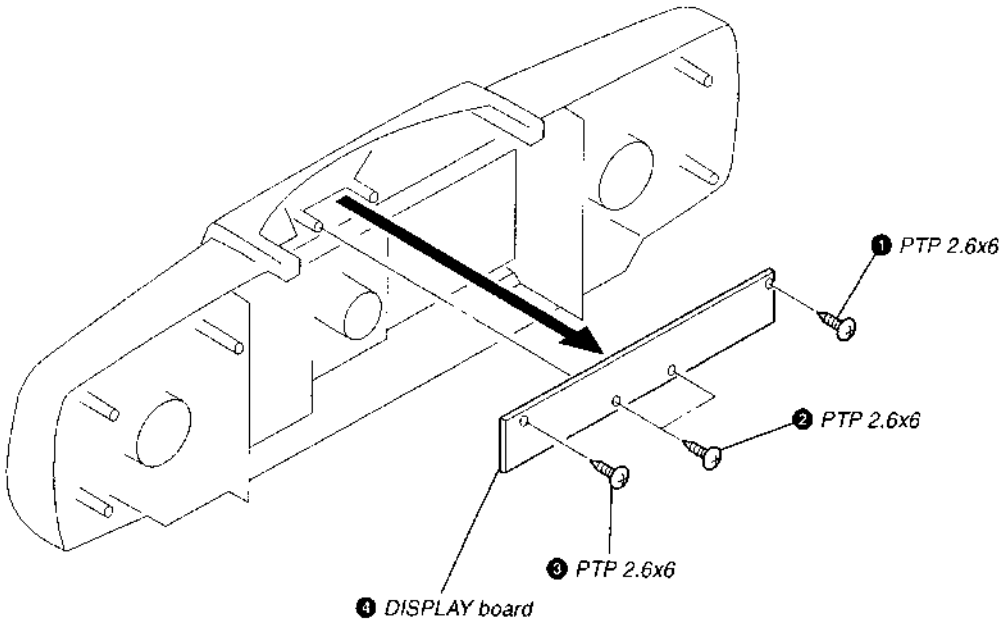
# SECTION 2
# DISASSEMBLY

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

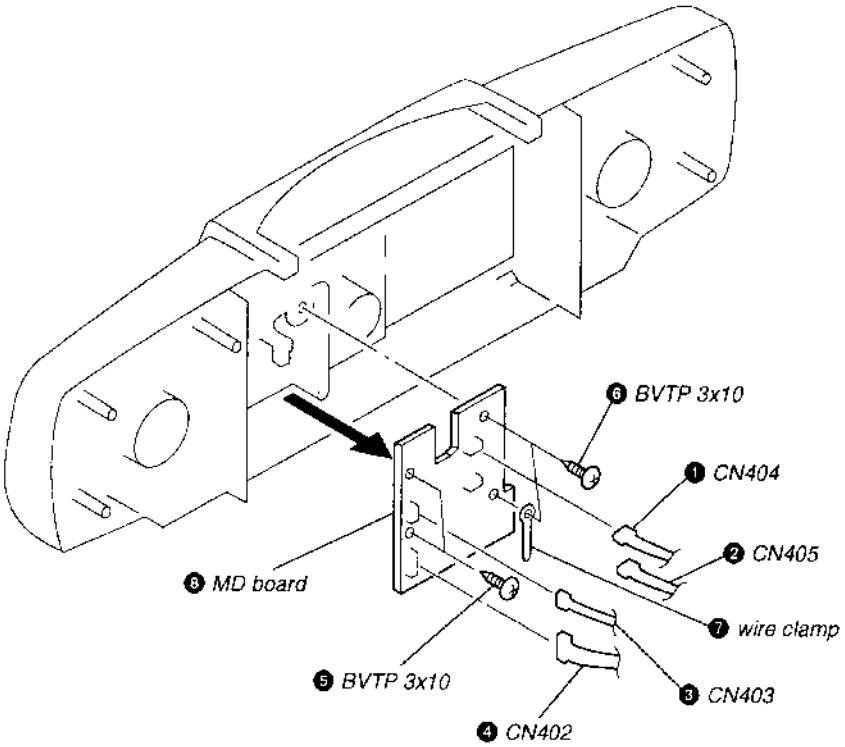
## 2-1. CABINET (FRONT) ASSY



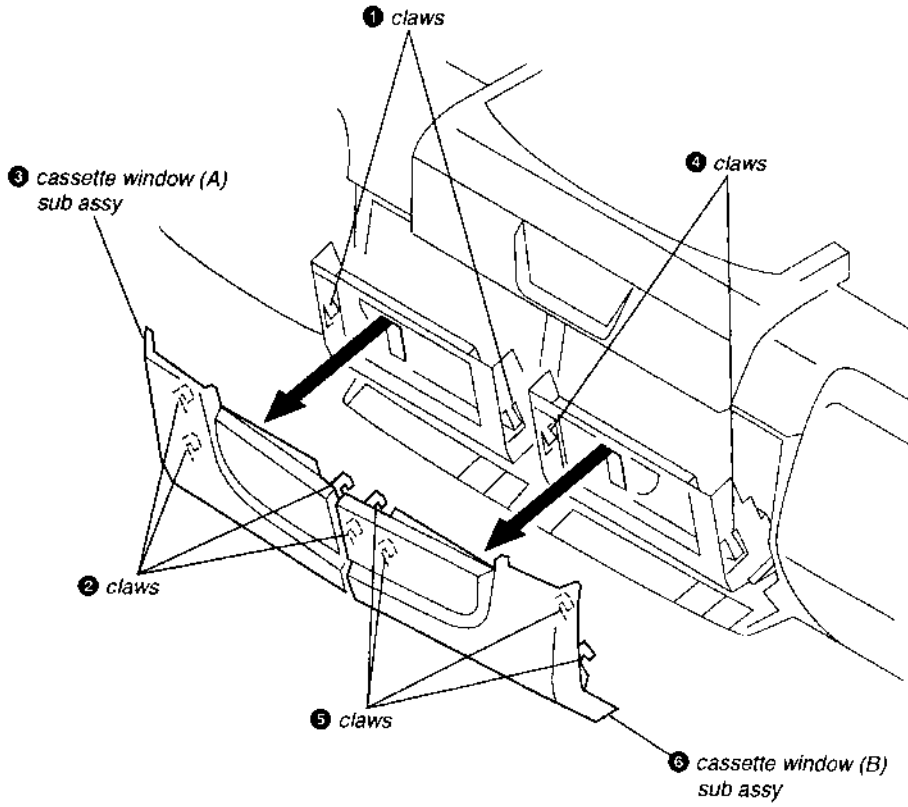
## 2-2. DISPLAY BOARD



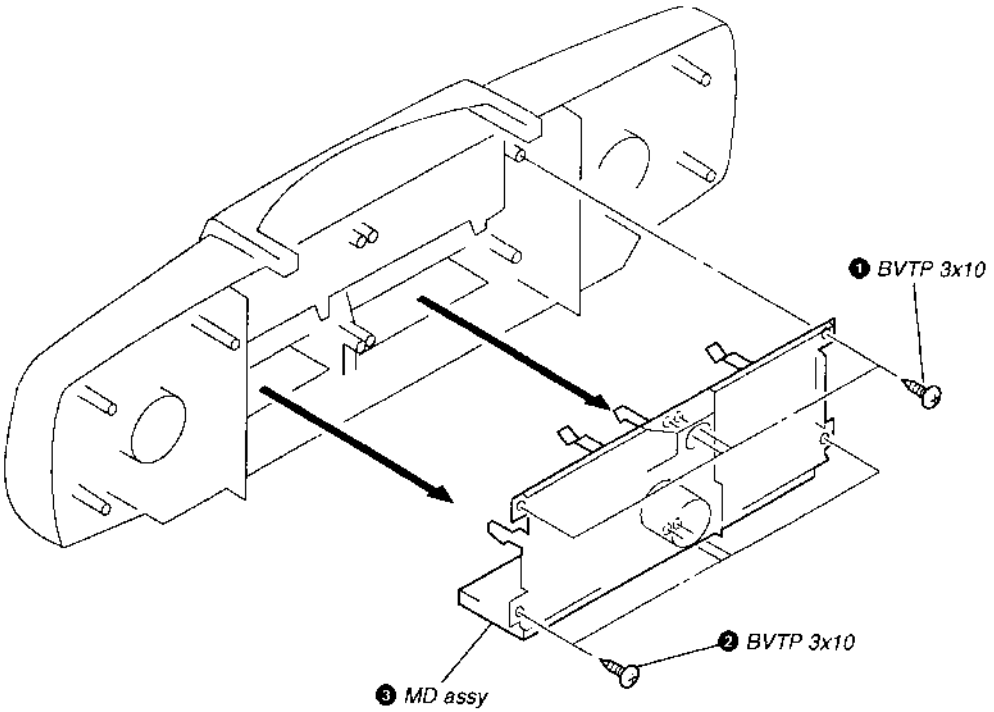

## 2-3. MD BOARD



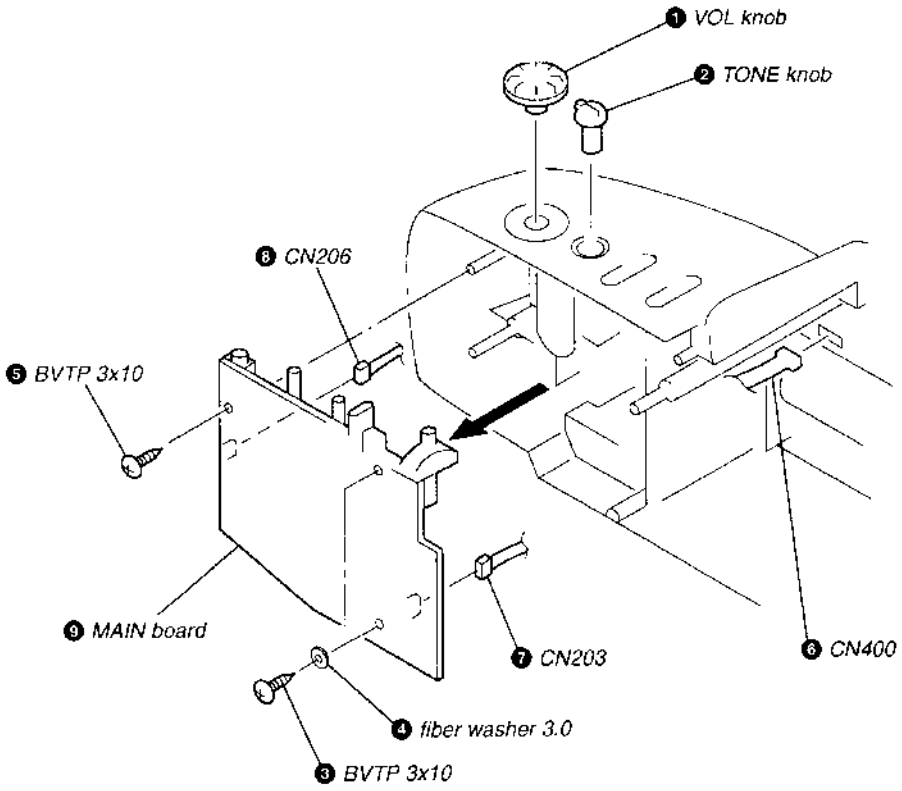
## 2-4. CASSETTE WINDOW



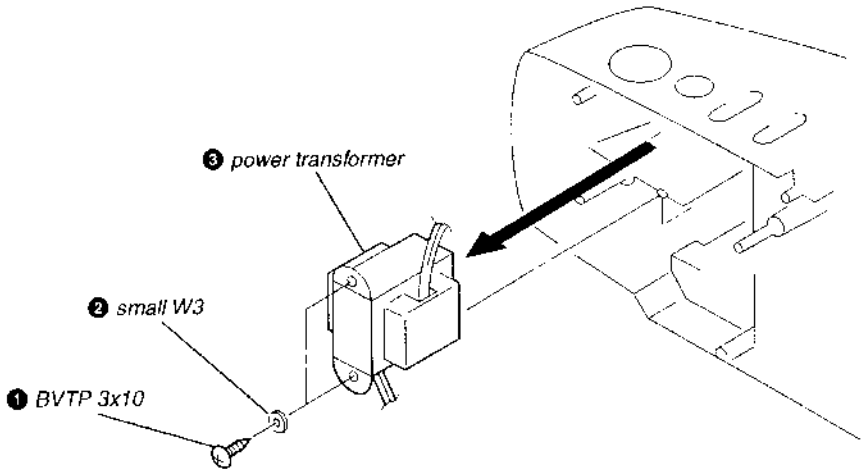

## 2-5. MD ASSY



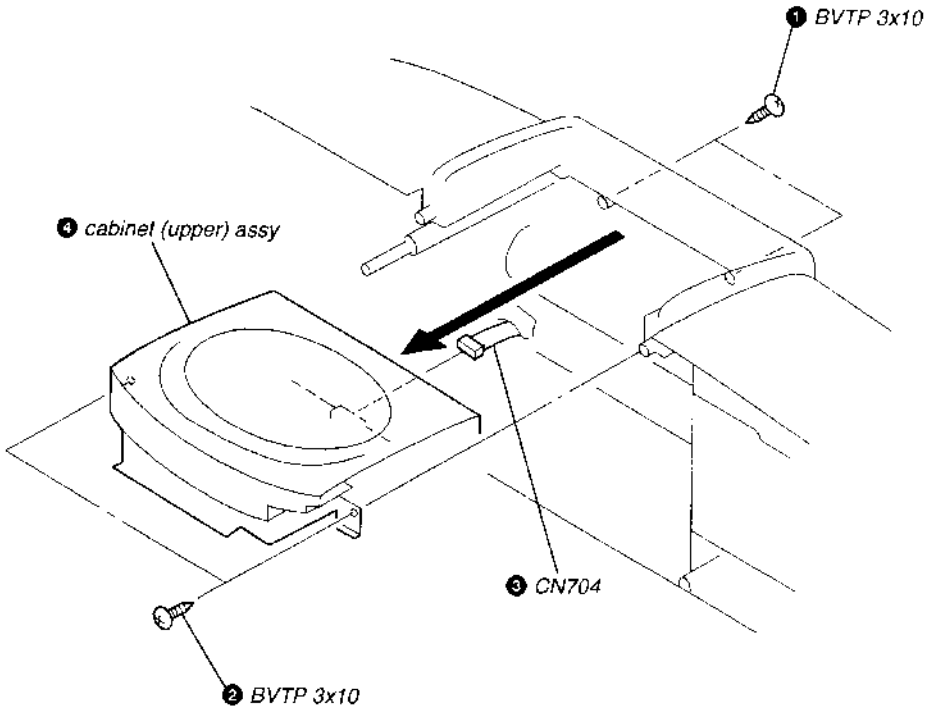
## 2-6. MAIN BOARD



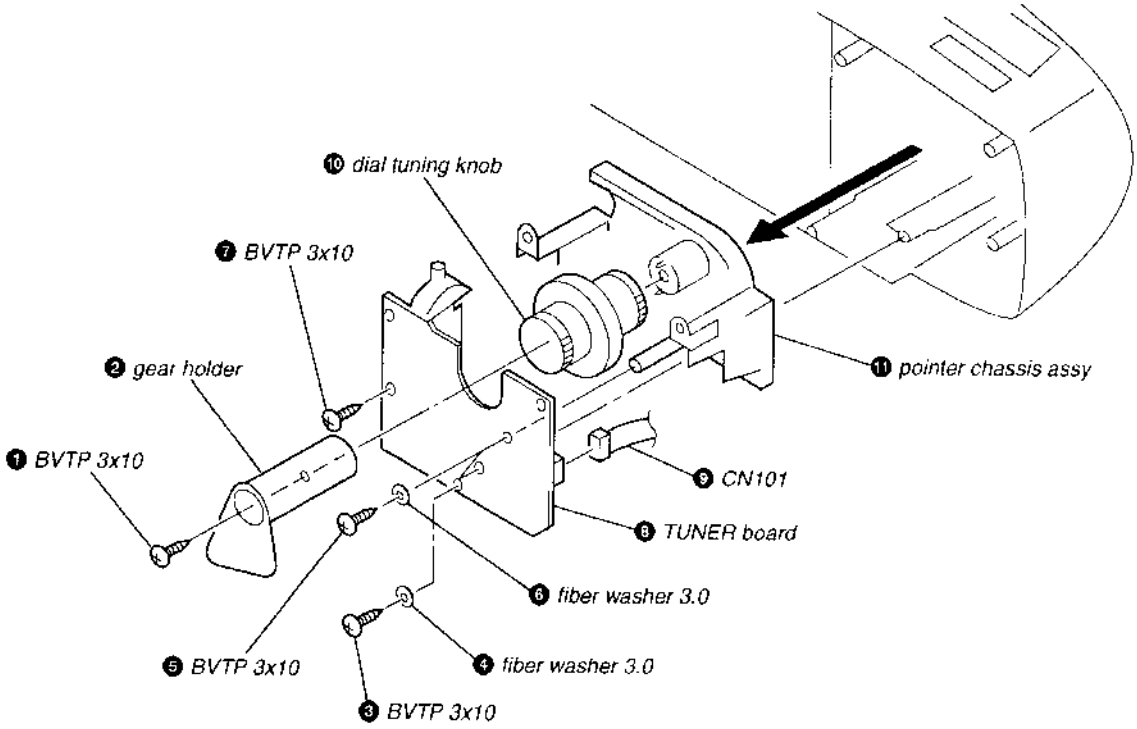

## 2-7. POWER TRANSFORMER



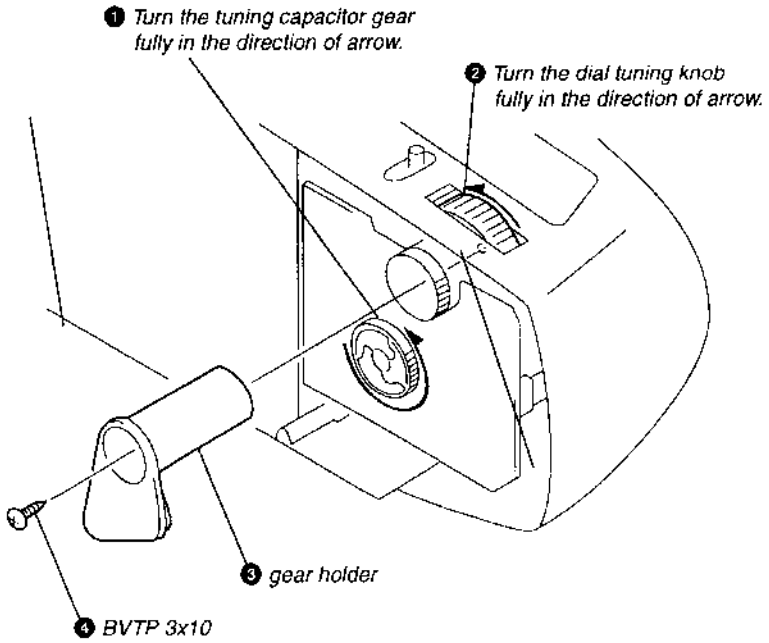
## 2-8. CABINET (UPPER) ASSY




## 2-9. TUNER BOARD



## 2-10. DIAL TUNING KNOB SETTING



# SECTION 3
# MECHANICAL ADJUSTMENTS

## PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab :
   record/playback head — pinch roller
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head magnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

**Torque Measurement** DECK A DECK B

| Mode | Torque Meter | Meter Reading |
|---|---|---|
| FWD | CQ-102C | 30–75 g • cm (0.42–1.04 oz • inch) |
| FWD Back Tension | CQ-102C | 1.5–6.0 g • cm (0.021–0.083 oz • inch) |
| FF | CQ-201B | 50–130 g • cm (0.69–1.81 oz • inch) |
| REW | CQ-201B | 50–130 g • cm (0.69–1.81 oz • inch) |

**Tape Tension Measurement** DECK A DECK B

| Mode | Tension meter | Meter Reading |
|---|---|---|
| FWD | CQ-403A | more than 100 g (more than 3.53 oz) |

# SECTION 4
# ELECTRICAL ADJUSTMENTS

## 4-1. TAPE RECORDER SECTION 0 dB = 0.775 V

**• Standard Output Level**

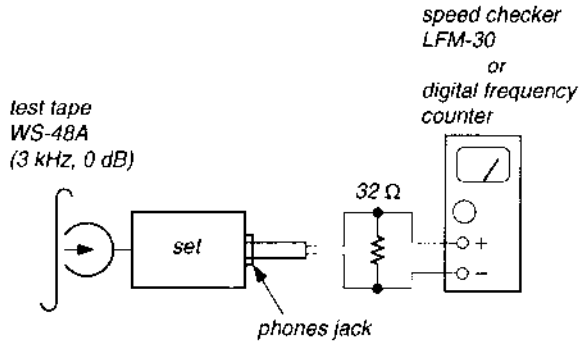
| Output terminal | HP OUT |
|---|---|
| load impedance | 32 Ω |
| output signal level | 0.25 V (–10 dB) |

**• Test Tape**

| Type | Signal | Used for |
|---|---|---|
| WS-48A | 3 kHz, 0 dB | tape speed adjustment |
| P-4-A063 | 6.3 kHz, –10 dB | head azimuth adjustment |

**Tape Speed Adjustment** DECK A DECK B

**Procedure:**
Mode: playback

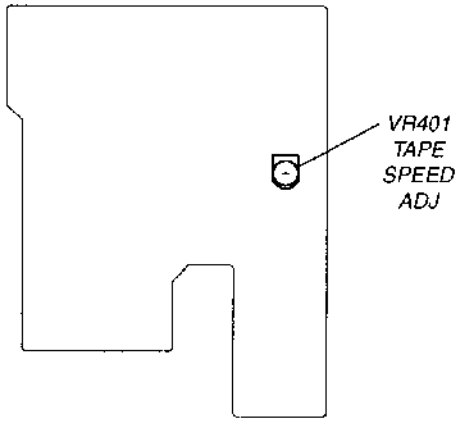



**Adjustment Value :** normal speed

| Adjustment part | Speed checker | Digital frequency counter |
|---|---|---|
| VR401 | –3 to + 3 % | 2,910 to 3,090 Hz |

Frequency difference between the beginning and the end of the tape should be within ± 1 % (30 Hz).

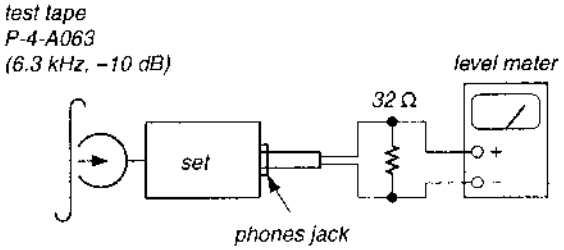
**Adjustment Location:** MD board (component side)



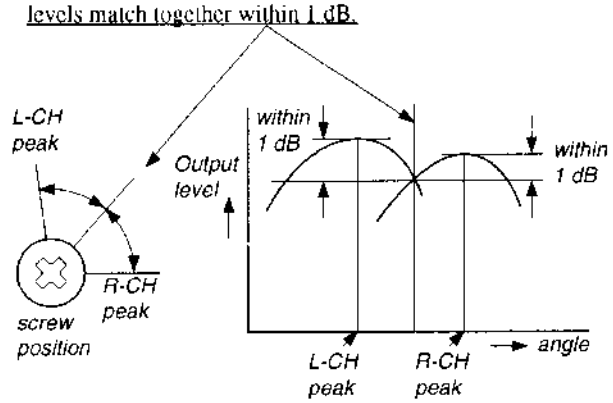
**REC/PB Head Azimuth Adjustment** DECK A DECK B

**Procedure :**

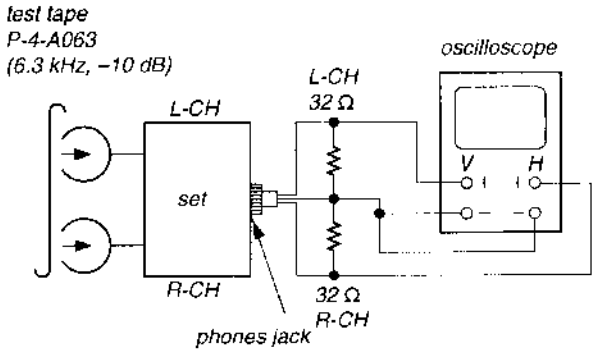
1. Mode : playback

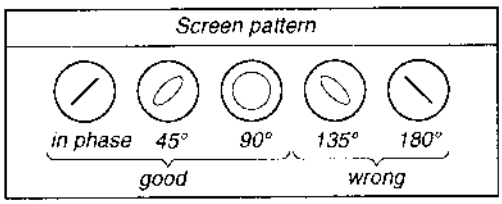



2. Turn the adjustment screw for the maximum output levels. If these levels do not match. Turn the adjustment screw until both of output levels match together within 1 dB.



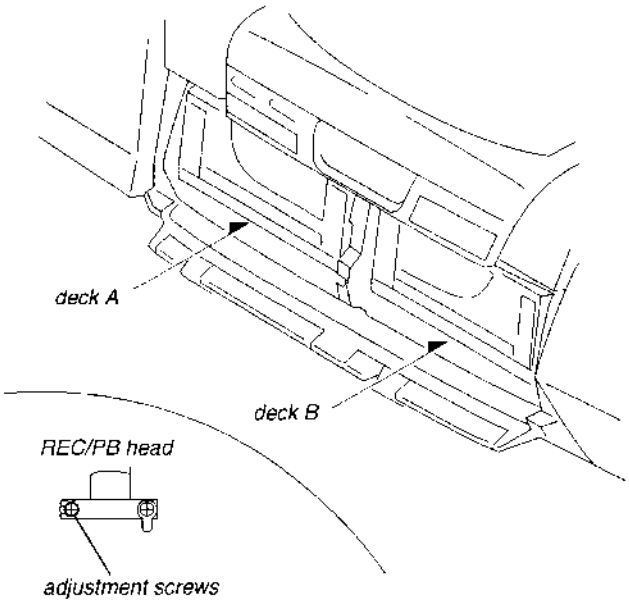

3. Phase Check
   Mode : playback




**Note :** Finish the screw adjustment with a turn in the clockwise direction.
After the adjustment, lock the adjustment screw.

**Adjustment Location :** REC/PB head (deck A, B)



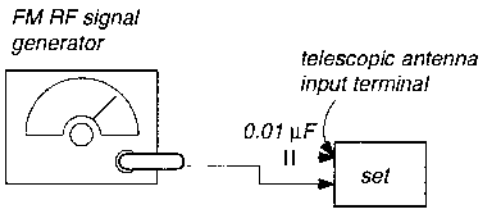
## 4-2. TUNER SECTION 0 dB = 1 µV

**• FM Section**

**Setting :**

FUNCTION switch : RADIO

BAND switch : FM



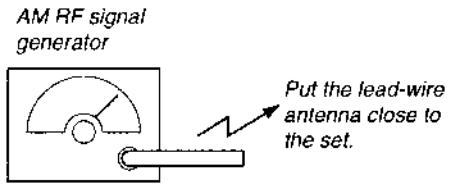

*22.5 kHz frequency deviation by 400 Hz signal*
*Output level : as low as possible*

• AM Section

**Setting :**

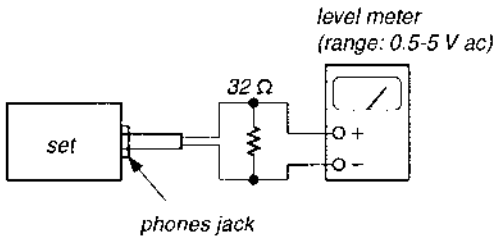
FUNCTION switch : RADIO

BAND switch : AM




*30 % amplitude modulation by 400 Hz signal*
*Output level : as low as possible*

**• Connecting Level Meter (FM and AM)**




- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

| FM FREQUENCY COVERAGE ADJUSTMENT | |
|---|---|
| Adjust for a maximum reading on level meter. | |
| L103 | CT101-1 |
| 86.5 MHz | 109.5 MHz |

| FM TRACKING ADJUSTMENT | |
|---|---|
| Adjust for a maximum reading on level meter. | |
| L102 | CT101-2 |
| 86.5 MHz | 109.5 MHz |

| AM FREQUENCY COVERAGE ADJUSTMENT | |
|---|---|
| Adjust for a maximum reading on level meter. | |
| L104 | CT101-3 |
| 515 kHz | 1,780 kHz |

| AM TRACKING ADJUSTMENT | |
|---|---|
| Adjust for a maximum reading on level meter. | |
| L101 | CT101-4 |
| 600 kHz | 1,400 kHz |

| AM IF ADJUSTMENT |
|---|
| Adjust for a maximum reading on level meter. |
| T101 |
| 455 kHz |

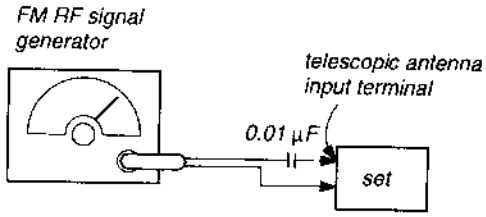
**Adjustment Location** : See page 18.

**FM VCO Adjustment**

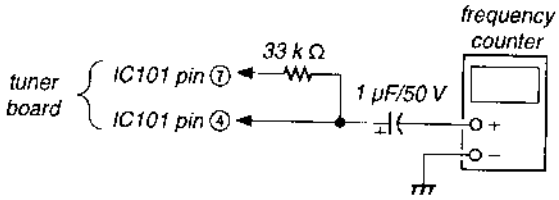
**Setting :**

FUNCTION switch : RADIO

BAND switch : FM



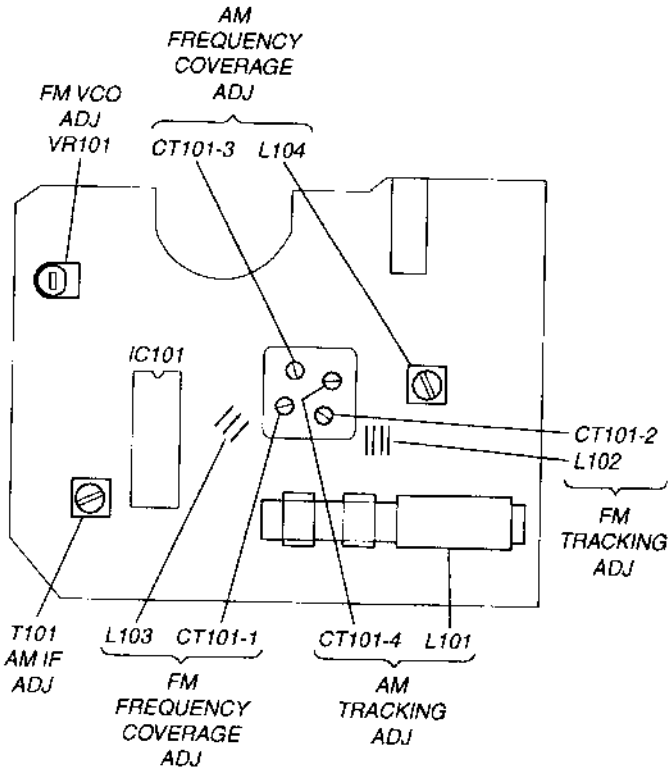

*Carrier frequency : 98.0 MHz*
*Output level : 100 dB (0.1 V)*
*Mode : mono*
*Modulation : 400 Hz*




**Procedure :**

1. Connect frequency counter between IC101 pin ⑦ and pin ④.
2. Tune the set to 98.0 MHz.
3. Adjust VR101 for 76.0 kHz ±500 Hz reading on the frequency counter.

**Adjustment Location :** tuner board (component side)



## 4-3. CD SECTION

### Notes on Adjustment

1. Perform Traverse adjustment in test mode.
   After adjustment, be sure to release test mode.
2. Perform adjustments in the order given.
3. Use the disc (YEDS-18, Part No. 3-702-101-01) only when so indicated.
4. Short the both sides of R720 on the CD board for stop operation of anti-shock circuit. (See page 22.)

• Switch position
FUNCTION switch : CD

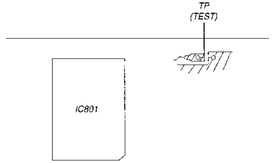
### • In case of Test Mode

1. Short the solder bridge the TP (TEST) on the DISPLAY board.
2. Insert the AC power plug.

### • Release the Test Mode

Release the shorted solder bridge the TP (TEST), the test mode is release.

*– display board (conductor side) –*






### Before Adjustment

Put the set into test mode and perform the following checks. Repair if there are any problems.

### • Sled Motor Check

Press the ▶▶I, I◀◀ buttons and confirm that the optical pick-up moves smoothly from the innermost to outermost circumference and back smoothly and with no catching or abnormal noises.
▶▶I : Optical pick-up moves to the outer circumference
I◀◀ : Optical pick-up moves to the inner circumference

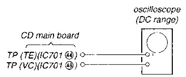
### • Focus Search Check

1. Push the ▶II button. (Focus search operation is performed continuously.)
2. Look at the optical pick-up objective lens and confirm the it moves up and down smoothly, with no catching or abnormal noises.
3. Push the ■ button.
   Confirm that focus search operation stops. If it does not, push the ■ button again longer.

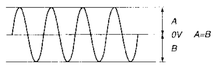
### Traverse Adjustment

This adjustment is to be done when the optical pick up block is replaced.

**Procedure:**




1. Connect the oscilloscope between TP (TE) and TP (VC).
2. Put the set into test mode.
3. Push the CD lid to open and insert disc (YEDS-18).
4. Close the CD lid.
5. Press the ▶▶I and I◀◀ buttons to move the optical pick-up to the center.
6. Push the ▶II button.
7. Push the ■ button.
8. Push the ▶II button.
9. Adjust RV703 so that the oscilloscope traverse waveform is symmetrical, as shown in the figure below.
10. Release test mode after adjustment is completed.




**Adjustment Location :** See page 22.



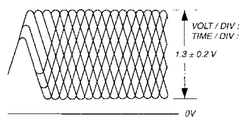
### Focus Bias Adjustment

This adjustment is to be done when the optical pick-up block is replaced.

**Procedure :**


1. Connect the oscilloscope between TP (RF) and TP (VC).
2. Insert disc (YEDS-18) and push the ▶II button.
3. Adjust RV701 so that the oscilloscope waveform is maximum as shown in the figure below (eye pattern).

• RF signal reference waveform (eye pattern)




When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

**Adjustment Location :** See page 22.



**REFERENCE**

### Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.
However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.
Focus/tracking gain determines the pick-up follow-up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2 axis device operate.
However, as these reciprocate, the adjustment is at the point where both are satisfied.

- When gain raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.

When gain adjustment is off, the symptoms below appear.

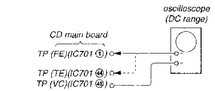
| Symptoms \ Gain | Focus | Tracking |
|---|---|---|
| • The time until music starts becomes longer for ■ →▶II on automatic selection. (I◀◀, ▶▶I buttons pressed.) (Normally, takes about 2 seconds.) | low | low or high |
| • Music does not start and disc continues to rotate for ▶II → ▶II or automatic selection. (I◀◀, ▶▶I buttons pressed.) | – | low |
| • Sound is interrupted during PLAY. Or time counter display stops progressing. | – | low |
| • More noise during 2-axis device operation. | high | high |

The following is a simple adjustment method.

**– Simple Adjustment –**

**Note :** Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

**Procedure:**

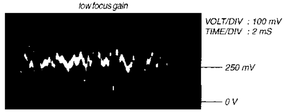



1. Keep the set horizontal.
   If the set not horizontal, this adjustment cannot be performed due to the gravity against the 2-axis device.
2. Insert disc (YEDS-18) and push the ▶II button.
3. Connect the oscilloscope between TP (FE) and TP (VC).
4. Adjustment RV702 so that the waveform is as shown in the figure below. (focus gain adjustment)

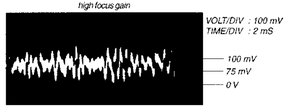
• Correct Example


• Incorrect Examples (DC level changes more than on adjusted waveform)

low focus gain




high focus gain

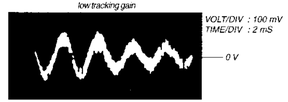



5. Connect the oscilloscope between TP (TE) and TP (VC).
6. Adjust RV704 so that the waveform is as shown in the figure below. (tracking gain adjustment)

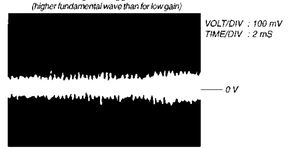
• Correct Example


• Incorrect Examples (fundamental wave appears)

low tracking gain



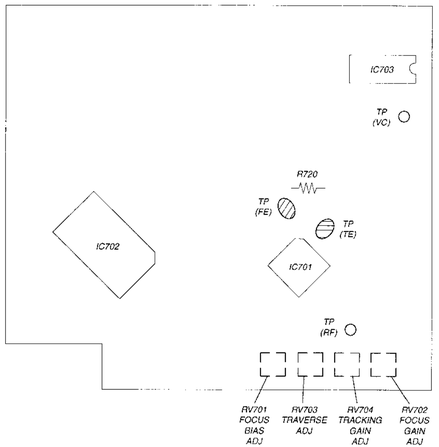

high tracking gain
(higher fundamental wave than for low gain)




**Adjustment Location :** See page 22.

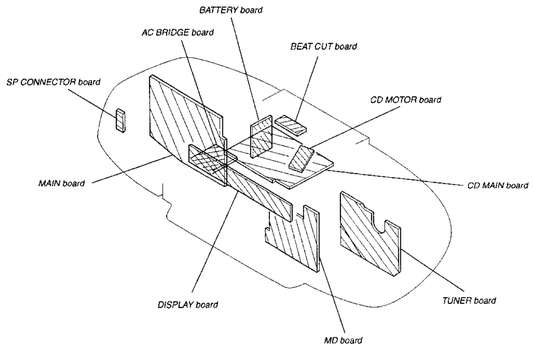


**Adjustment Location :** CD main board (conductor side)



# SECTION 5
# DIAGRAMS

## 5-1. CIRCUIT BOARDS LOCATION






**• Semiconductor Location**

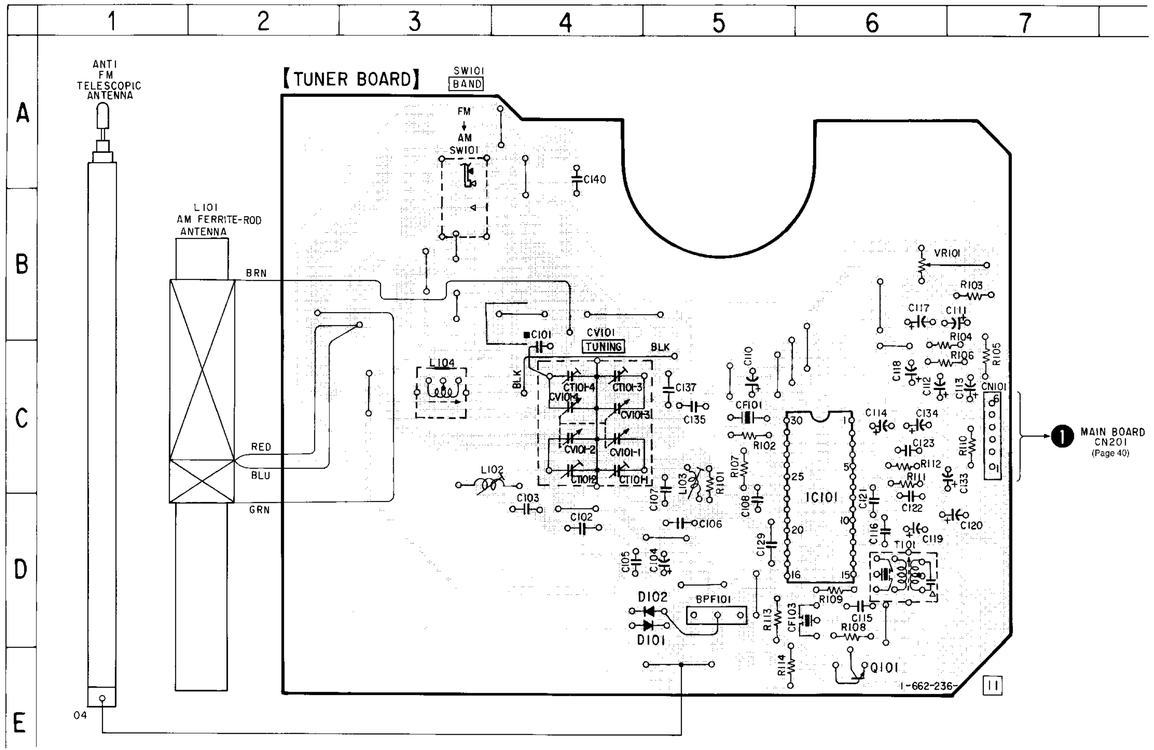
| Ref. No. | Location |
|---|---|
| D101 | D-5 |
| D102 | D-5 |
| IC101 | D-6 |
| Q101 | E-6 |

**Note :**

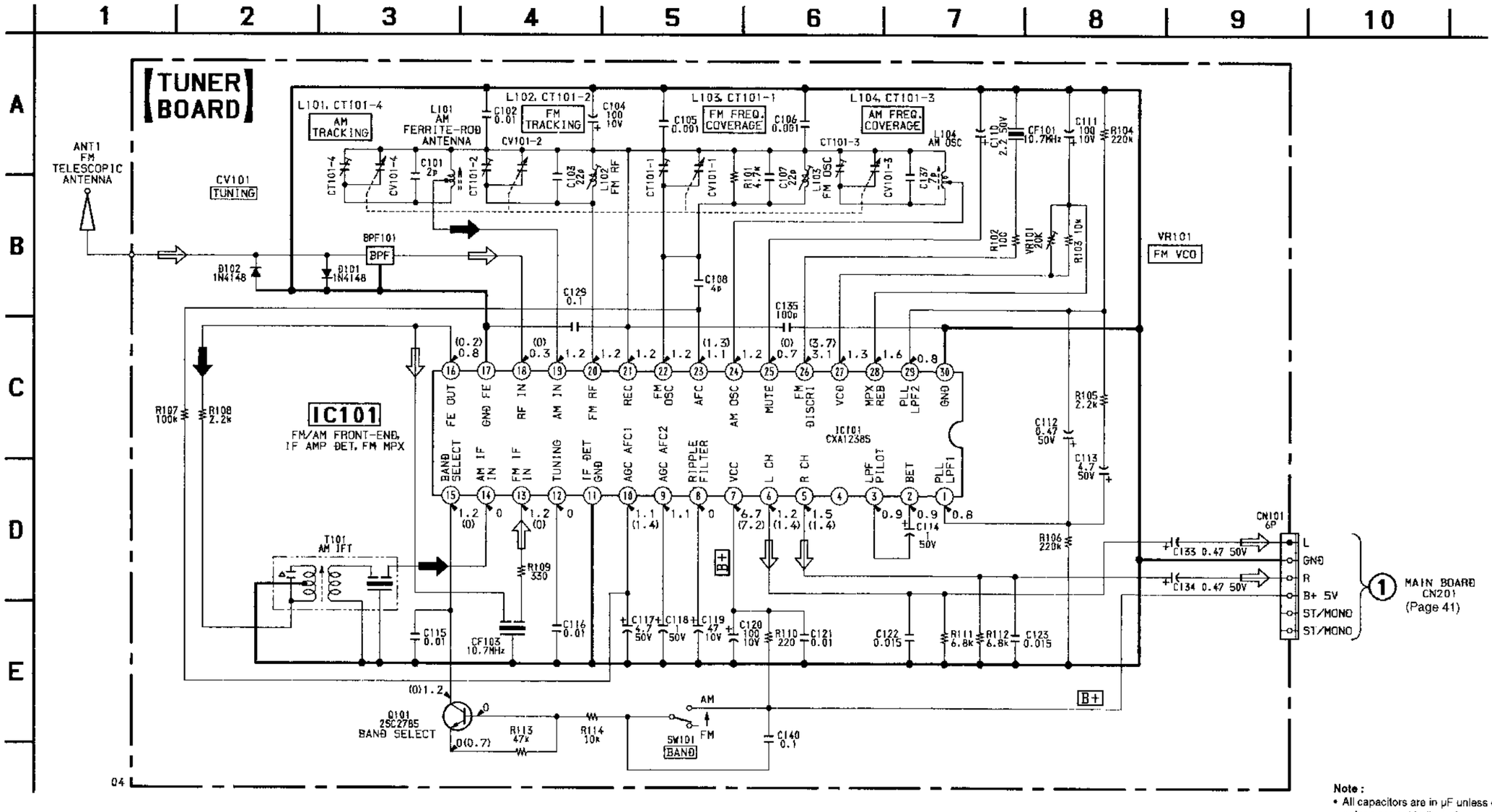
- ⊂— : parts extracted from the component side.
- —⊃ : parts extracted from the conductor side.
- ■ : parts mounted on the conductor side.
- ⊣⊢ indicates side identified with part number.
- ▭ : Pattern on the side which is seen.



## 5-2. PRINTED WIRING BOARD — TUNER SECTION —



5-3. SCHEMATIC DIAGRAM — TUNER SECTION — • Refer to page 46 for IC Block Diagrams.



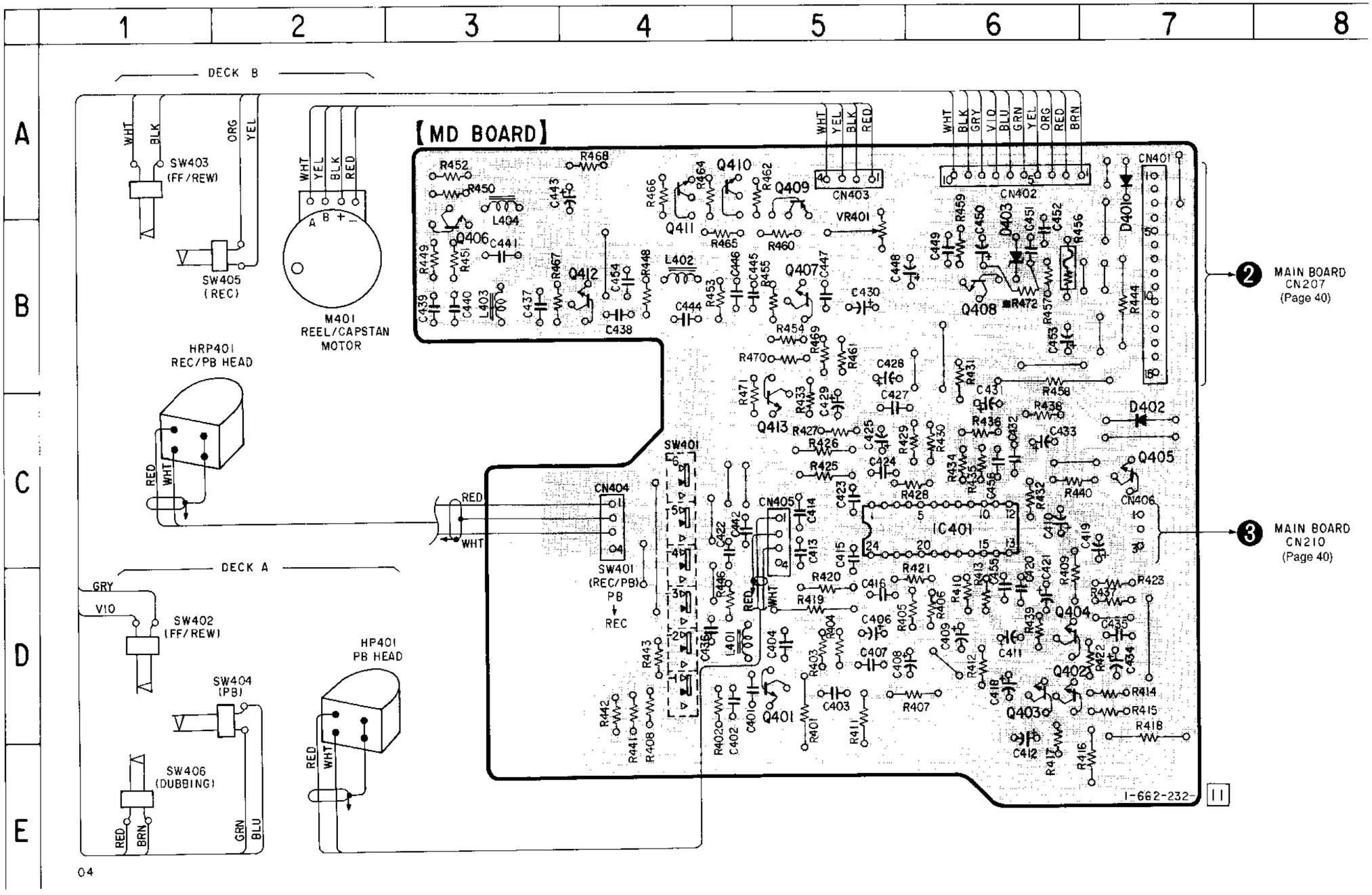

**Note :**

- 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.
- △ : internal component.
- B+ : B+ Line.
- ▭ : adjustment for repair.
- Voltage is dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
  ( ) : AM
- Voltage are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerance.
- Signal path.
  ⇨ : FM
  ➡ : AM

## 5-4. PRINTED WIRING BOARD — MD SECTION —

• **Semiconductor Location**

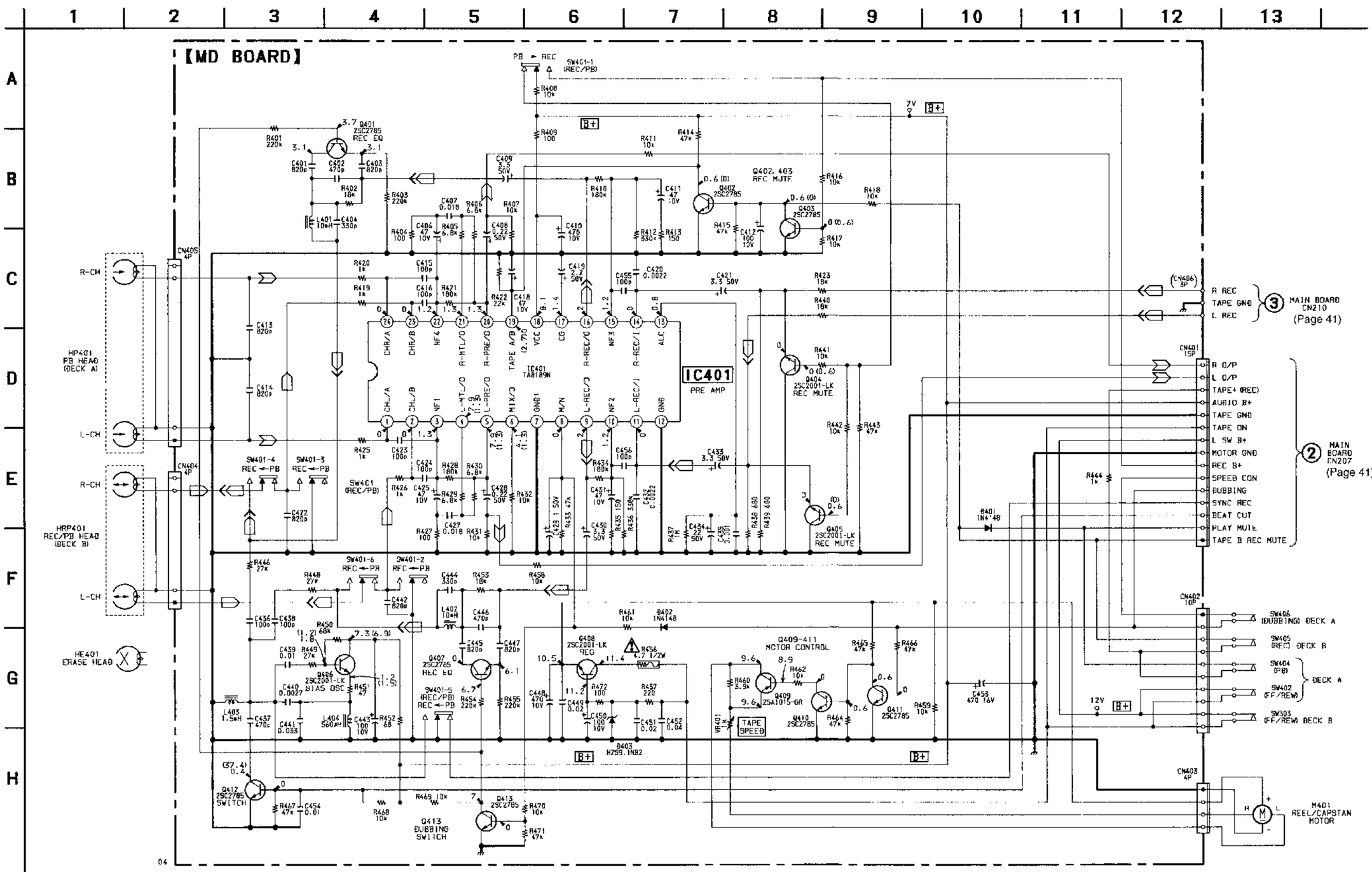
| Ref. No. | Location |
|---|---|
| D401 | A-7 |
| D402 | C-7 |
| D403 | B-6 |
| IC401 | C-6 |
| Q401 | D-5 |
| Q402 | D-6 |
| Q403 | D-6 |
| Q404 | D-6 |
| Q405 | C-7 |
| Q406 | B-3 |
| Q407 | B-5 |
| Q408 | B-6 |
| Q409 | A-5 |
| Q410 | A-4 |
| Q411 | A-4 |
| Q412 | B-4 |
| Q413 | C-5 |




**Note :**

- ○— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ▨ : Pattern on the side which is seen.

5-5. SCHEMATIC DIAGRAM — MD SECTION — • Refer to page 46 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.
- : fusible resistor.
- B+ : B+ Line.
- : adjustment for repair.

| **Note :** | **Note :** |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifies par une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie. |

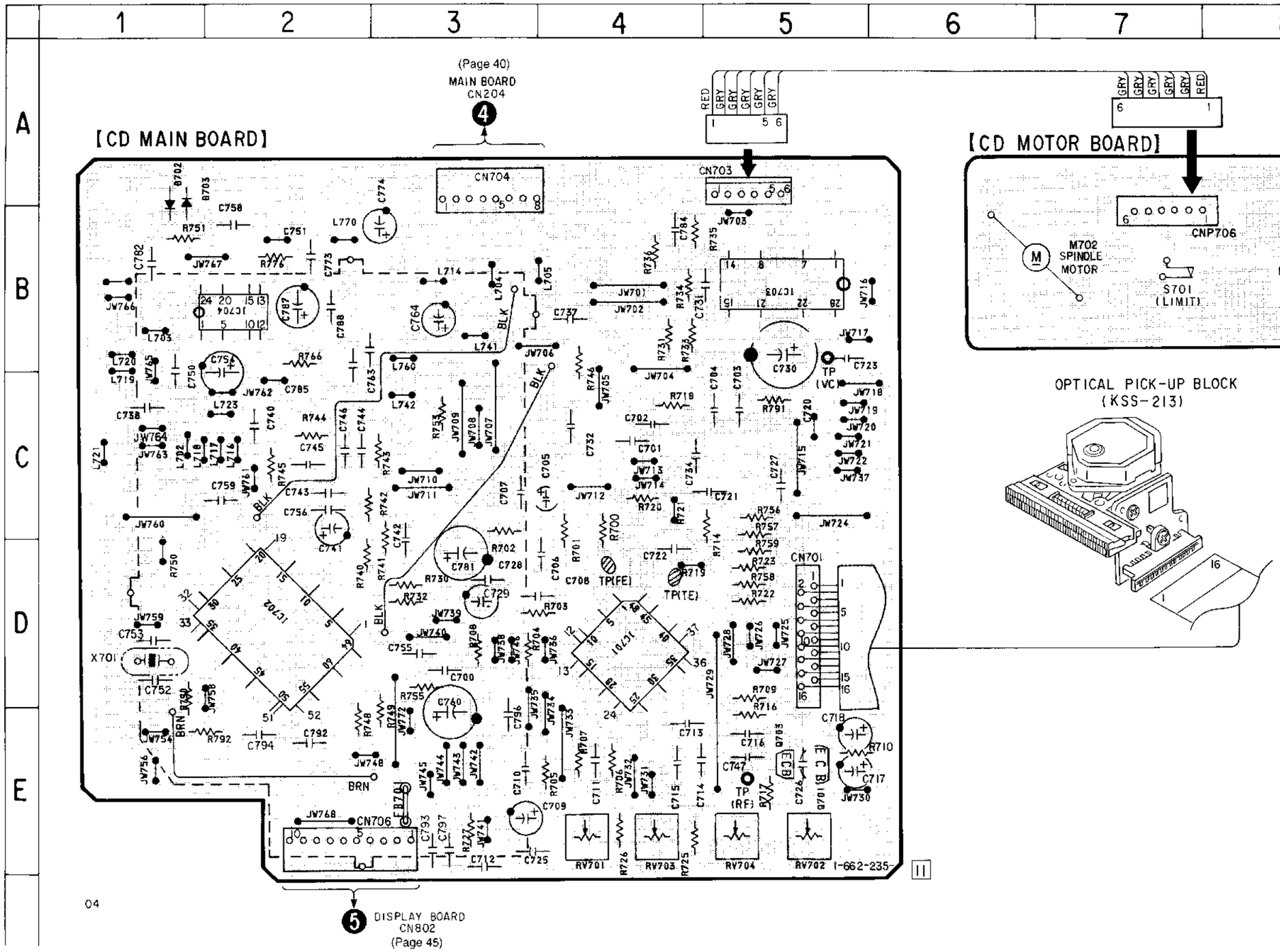
- Voltage is dc with respect to ground under no-signal conditions.
- no mark : PB (DECK A)
  ( ) : REC (DECK B)
- Voltage are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerance.

- Signal path.
  : PB (DECK A)
  : PB (DECK B)
  : REC (DECK B)

## 5-6. PRINTED WIRING BOARDS — CD SECTION —

• **Semiconductor Location**

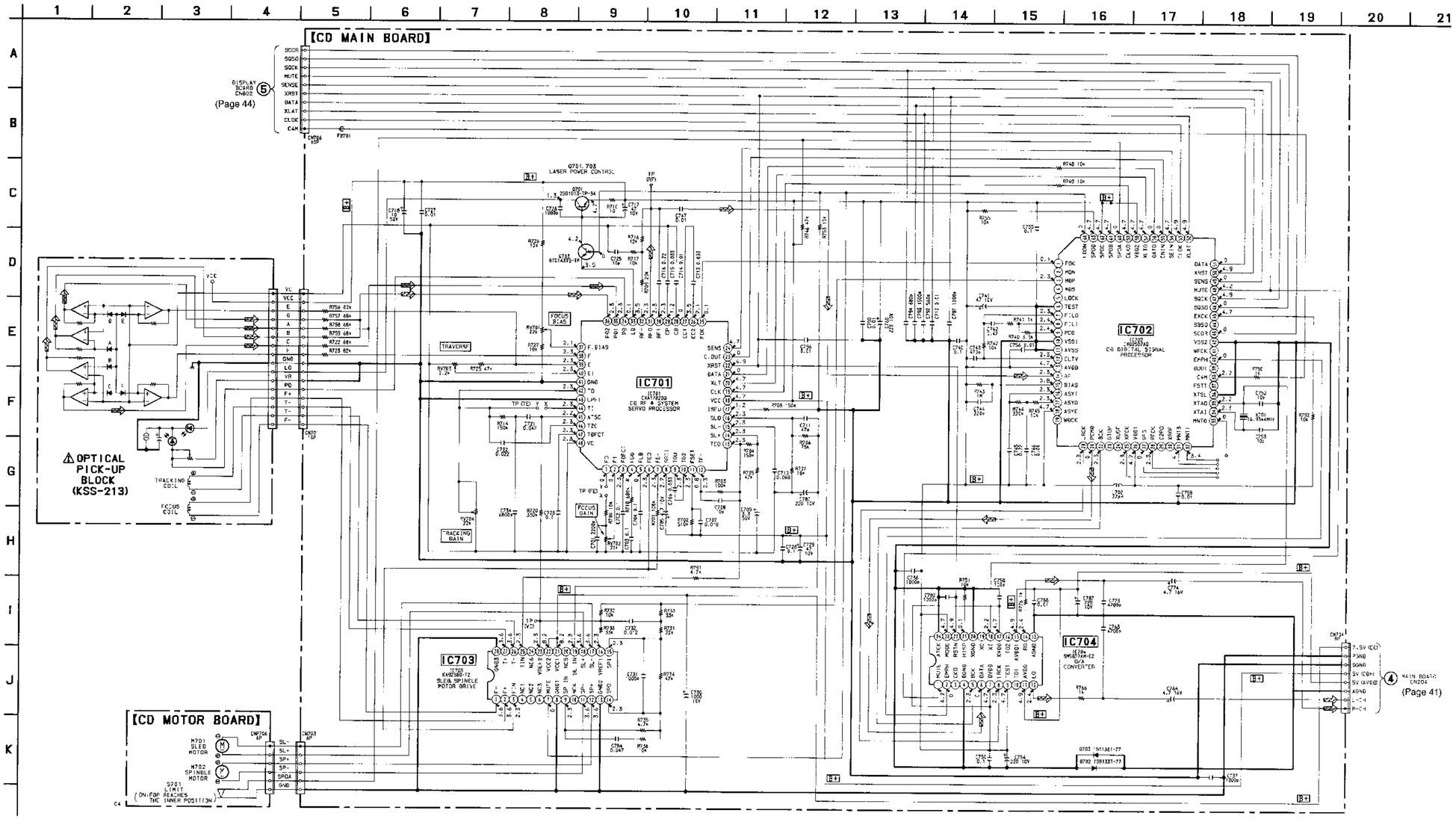
| Ref. No. | Location |
|---|---|
| D702 | A-1 |
| D703 | A-1 |
| IC701 | D-4 |
| IC702 | D-2 |
| IC703 | B-5 |
| IC704 | B-2 |
| Q701 | E-5 |
| Q703 | E-5 |




**Note :**

- ○— : parts extracted from the component side.
- ▒▒ : Pattern on the side which is seen.

5-7. SCHEMATIC DIAGRAM — CD SECTION — • Refer to page 47 for IC Block Diagrams.




Note :
- All capacitors are in µF unless otherwise noted. pF : µpF 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.

| Note : | Note : |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifies par une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie. |

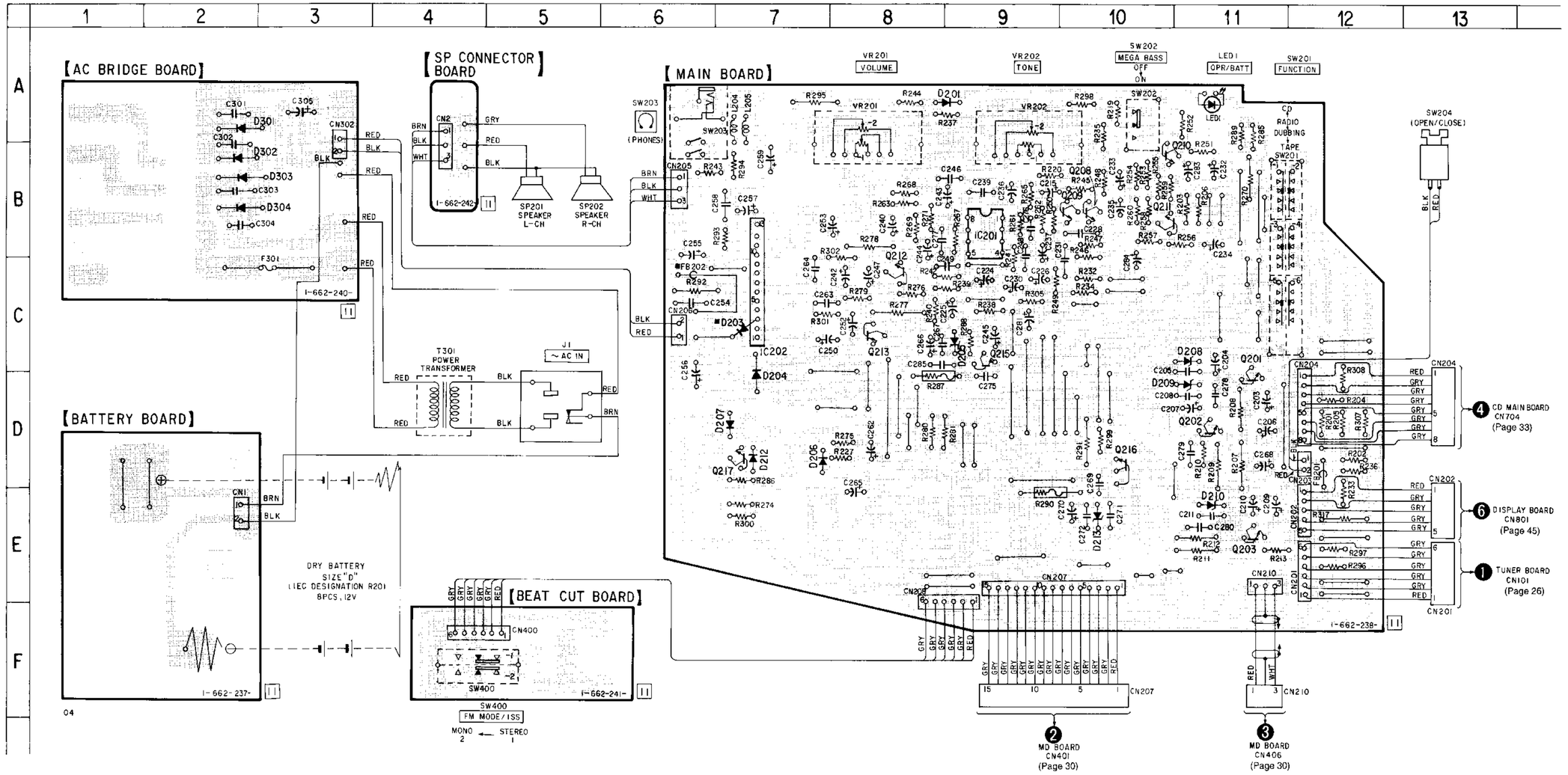
- B+ : B+ Line.
- : adjustment for repair.
- Voltage is dc with respect to ground under no-signal conditions.
- no mark : CD PLAY
- Voltage are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerance.
- Signal path. : CD

## 5-8. PRINTED WIRING BOARDS — MAIN SECTION —

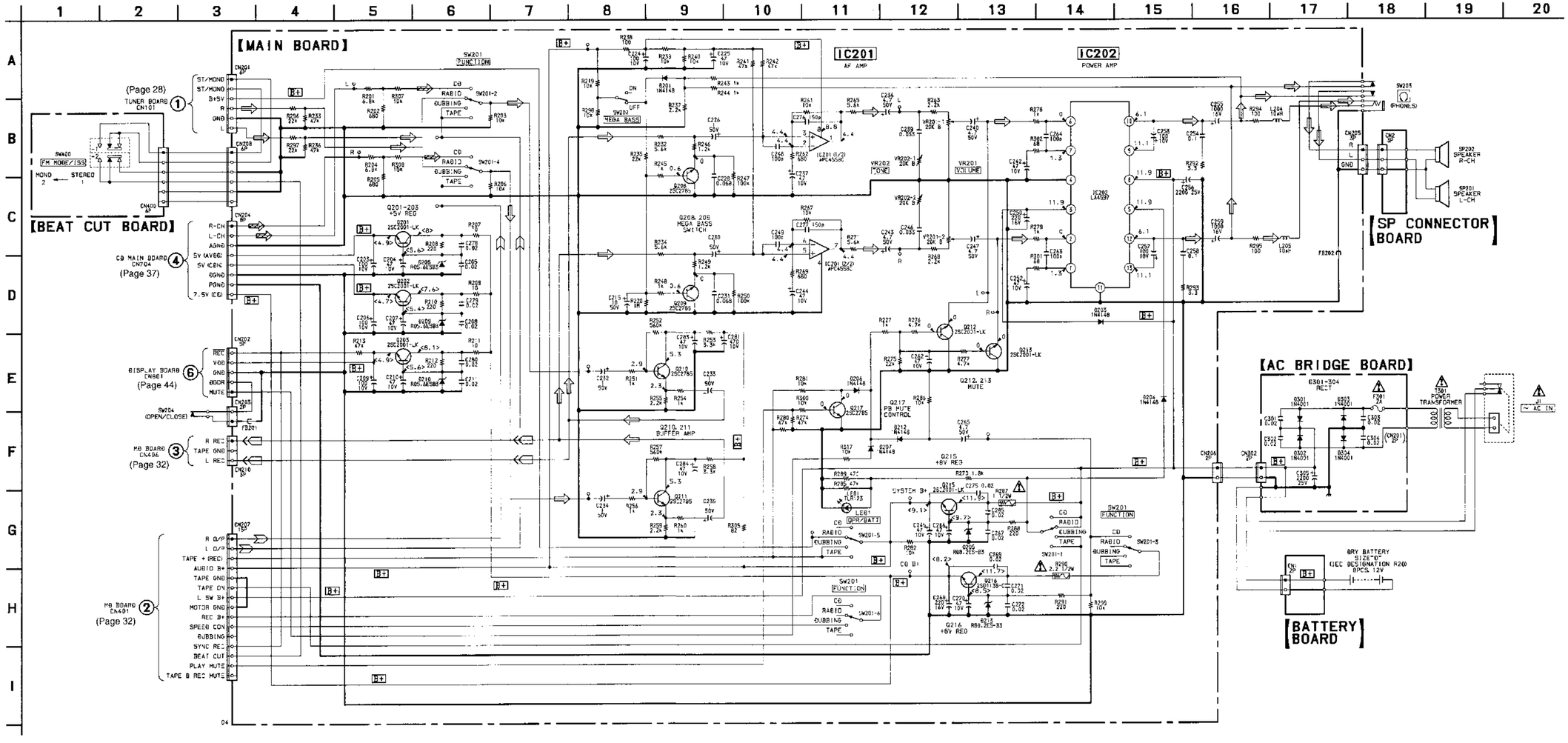
• **Semiconductor Location**

| Ref. No. | Location |
|---|---|
| D201 | A-8 |
| D203 | C-7 |
| D204 | C-7 |
| D205 | C-8 |
| D206 | D-7 |
| D207 | D-7 |
| D208 | C-11 |
| D209 | D-11 |
| D210 | E-11 |
| D212 | D-7 |
| D213 | E-10 |
| D301 | A-2 |
| D302 | B-2 |
| D303 | B-2 |
| D304 | B-2 |
| IC201 | B-9 |
| IC202 | C-7 |
| LED1 | A-11 |
| Q201 | C-11 |
| Q202 | D-11 |
| Q203 | E-11 |
| Q208 | B-10 |
| Q209 | B-10 |
| Q210 | B-10 |
| Q211 | B-10 |
| Q212 | C-8 |
| Q213 | C-8 |
| Q215 | C-9 |
| Q216 | D-10 |
| Q217 | D-7 |

Note :
- ○— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- ▨ : Pattern on the side which is seen.



5-9. SCHEMATIC DIAGRAM — MAIN SECTION — • Refer to page 48 for IC Block Diagrams.

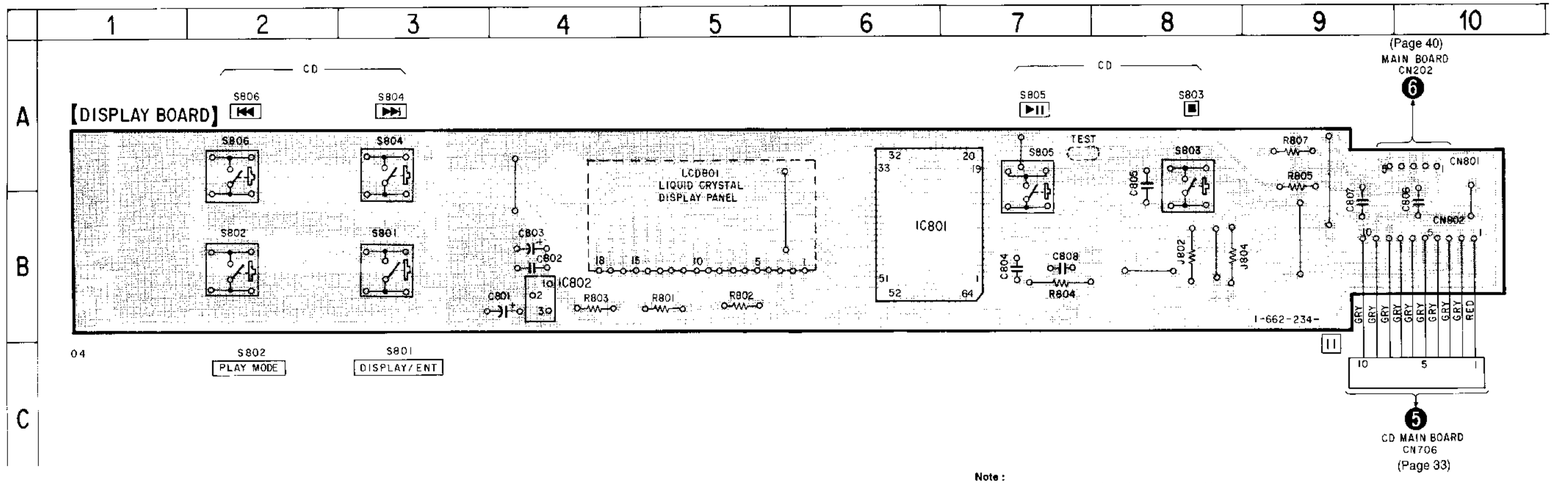



Note :
- All capacitors are in μF unless otherwise noted. pF : μpF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.

| Note : | Note : |
|---|---|
| The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified. | Les composants identifies par une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie. |

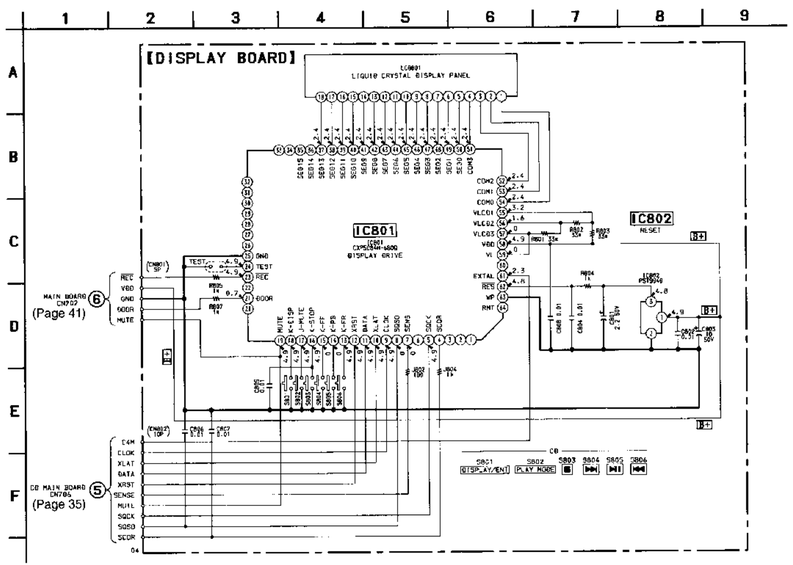
- : fusible resistor.
- [B+] : B+ Line.
- Voltage is dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  < > : CD PLAY
- Voltage are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerance.
- Signal path.
  : FM
  : PB (DECK A)
  : REC (DECK B)
  : CD

## 5-10. PRINTED WIRING BOARDS — DISPLAY SECTION —




Note :
- ○ : parts extracted from the component side.
- ▨ : Pattern on the side which is seen.

## 5-11. SCHEMATIC DIAGRAM — DISPLAY SECTION —



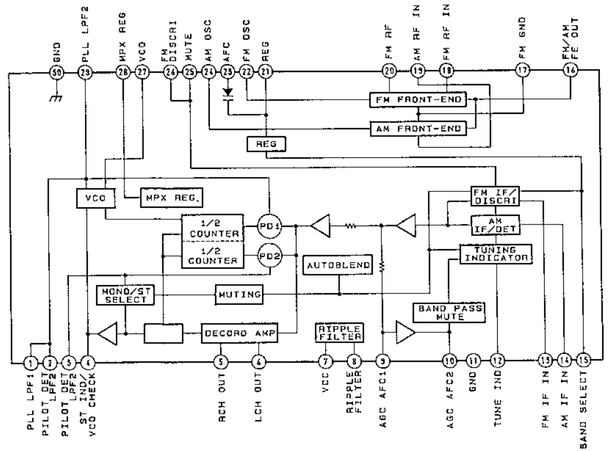

Note :
- All capacitors are in μF unless otherwise noted. pF : μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- B+ : B+ Line.
- Voltage is dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
- Voltage are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerance.



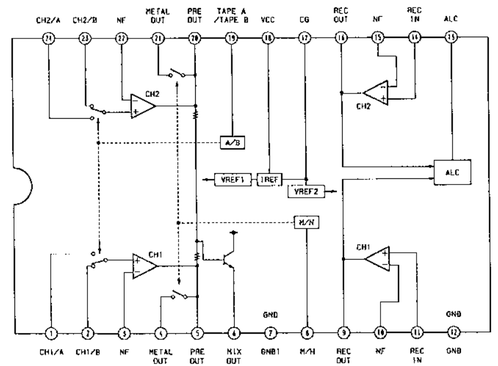


## • IC Block Diagrams

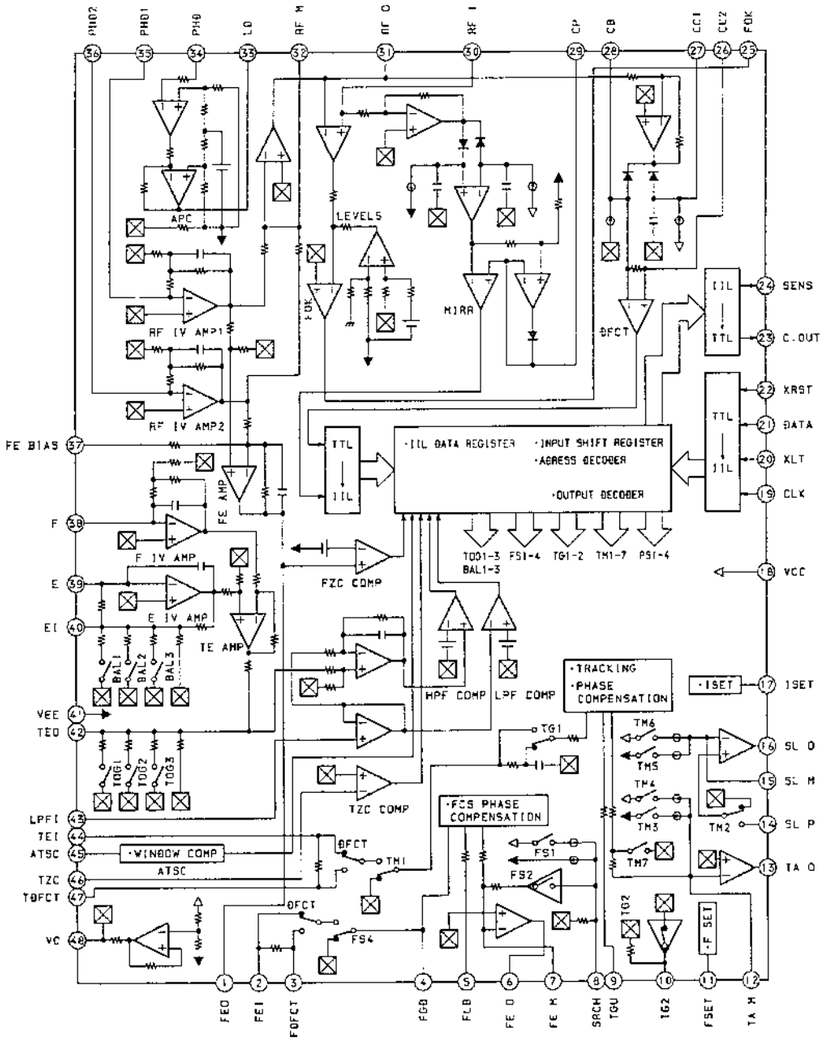
### IC101 CXA1238S



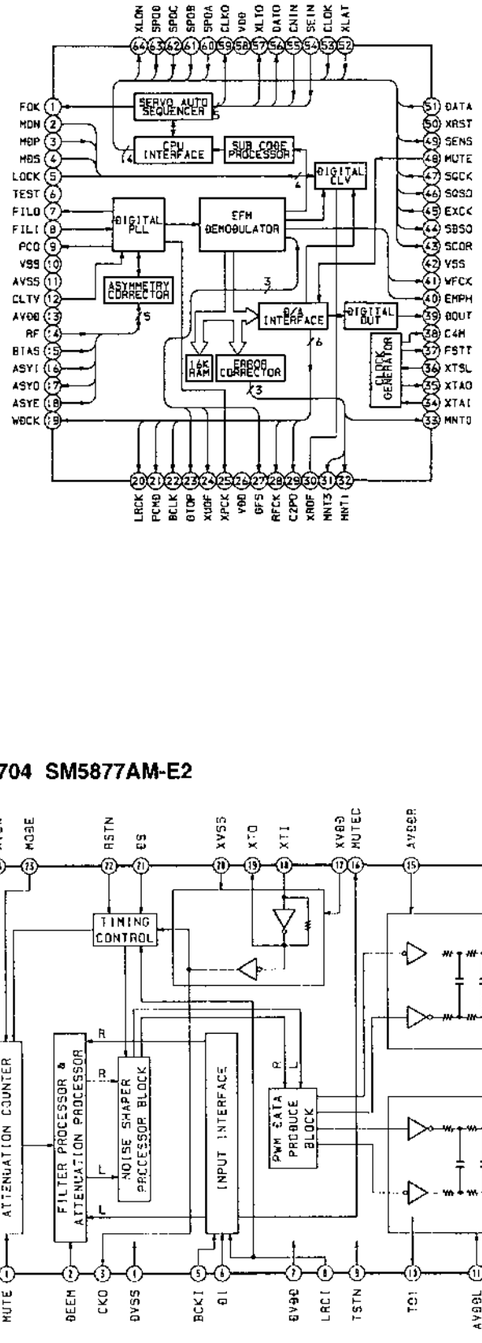

### IC401 TA8189N



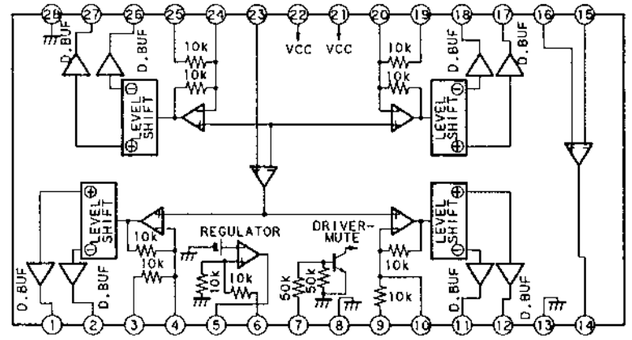
## IC701 CXA1782BQ



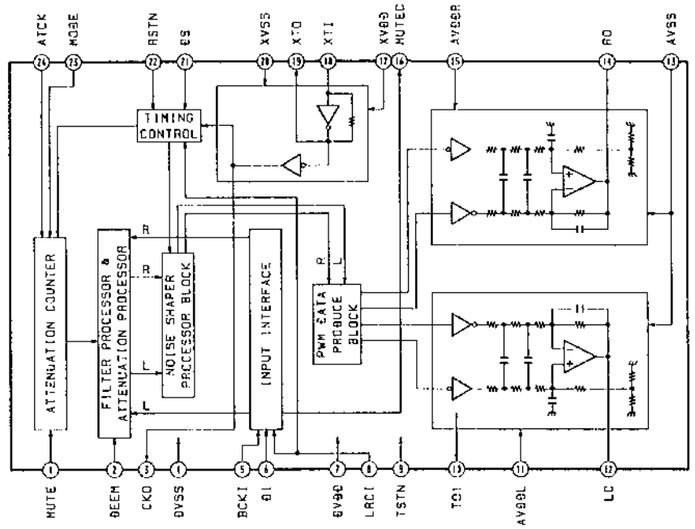

## IC702 CXD2507AQ



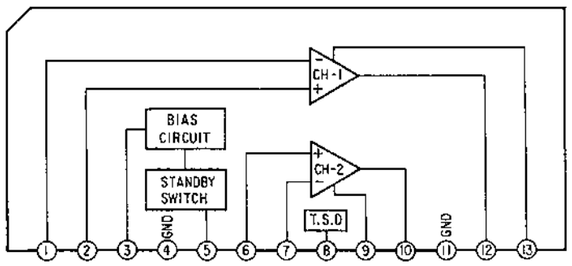

## IC703 KA9258D-T2




## IC704 SM5877AM-E2




## IC202 LA4597



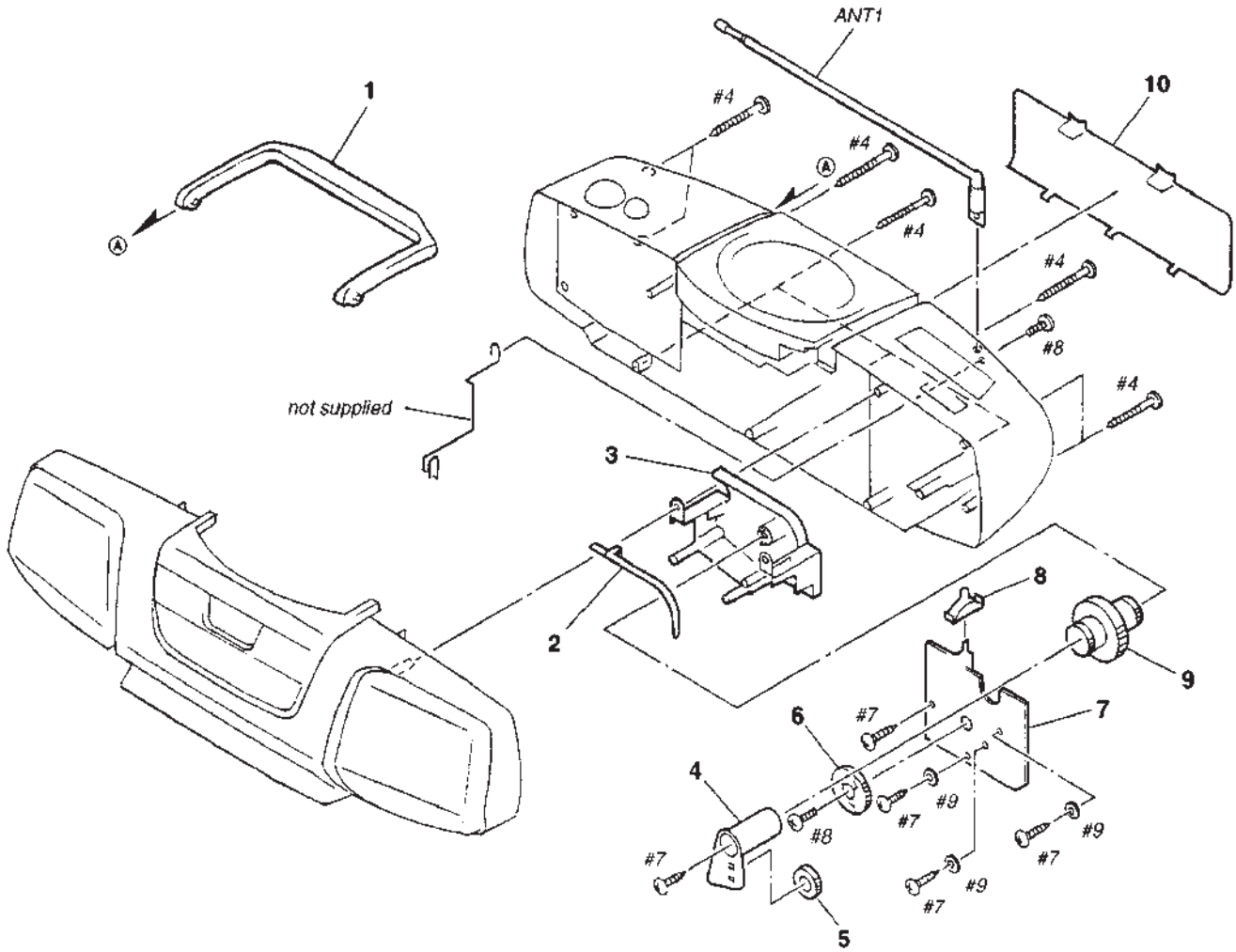
*MEMO*

# SECTION 6
# EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.

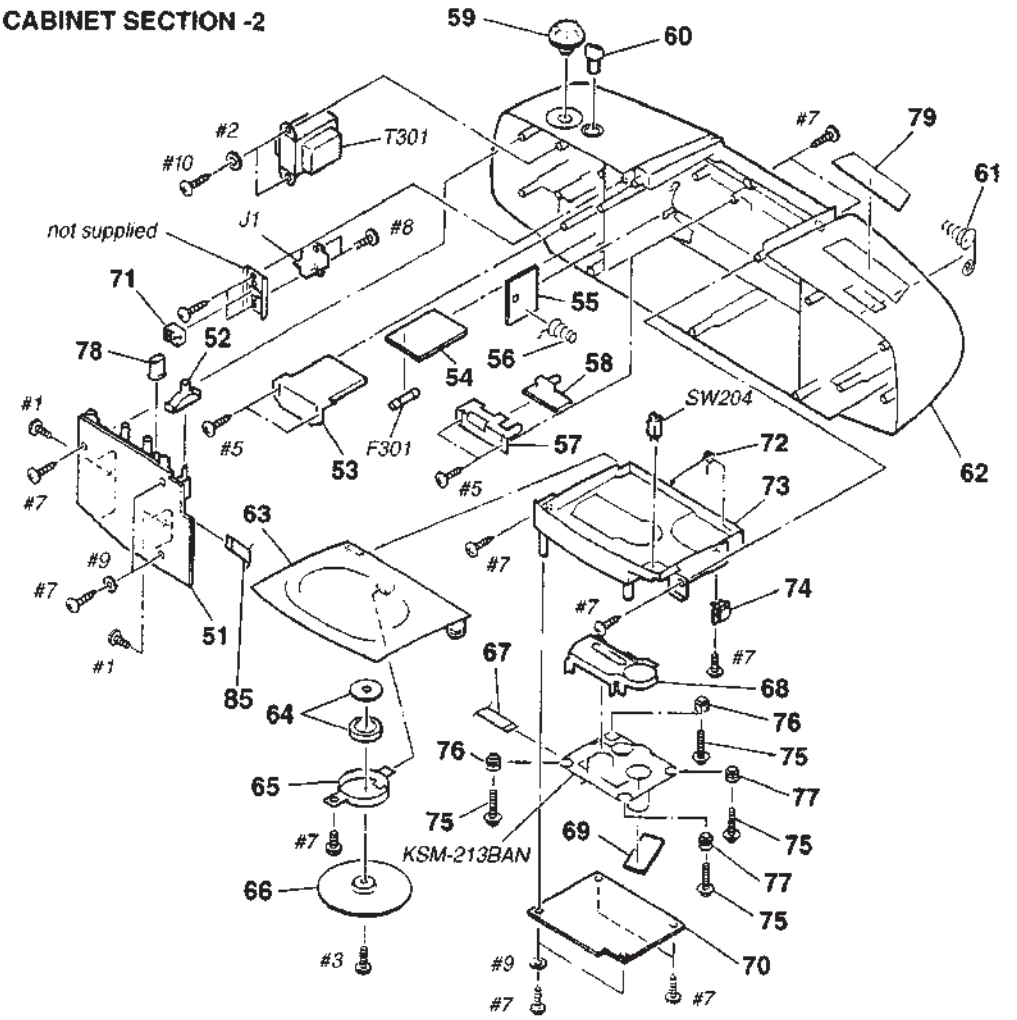
| |
|---|
| The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified. |
| Les composants identifiés par une marque ⚠ sont critiques pour la sécurite. Ne les remplacer que par une pièce portant le numéro spécifié. |

## 6-1. REAR CABINET SECTION -1




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 1 | 3-937-598-01 | HANDLE | |
| 2 | 3-937-609-01 | POINTER, DIAL | |
| * 3 | X-3372-884-1 | CHASSIS ASSY, POINTER | |
| * 4 | 3-007-679-01 | HOLDER, GEAR | |
| 5 | 3-007-677-01 | GEAR, MIDWAY | |
| 6 | 3-007-680-01 | GEAR, TUNING CAPACITOR | |
| * 7 | A-3306-207-A | TUNER BOARD, COMPLETE | |
| 8 | 3-937-626-01 | KNOB, FUNCTION | |
| 9 | 3-937-608-01 | KNOB, DIAL TUNING | |
| 10 | 3-937-599-01 | LID, BATTERY | |
| ANT1 | 1-501-874-11 | ANTENNA, TELESCOPIC | |

## 6-2. REAR CABINET SECTION -2

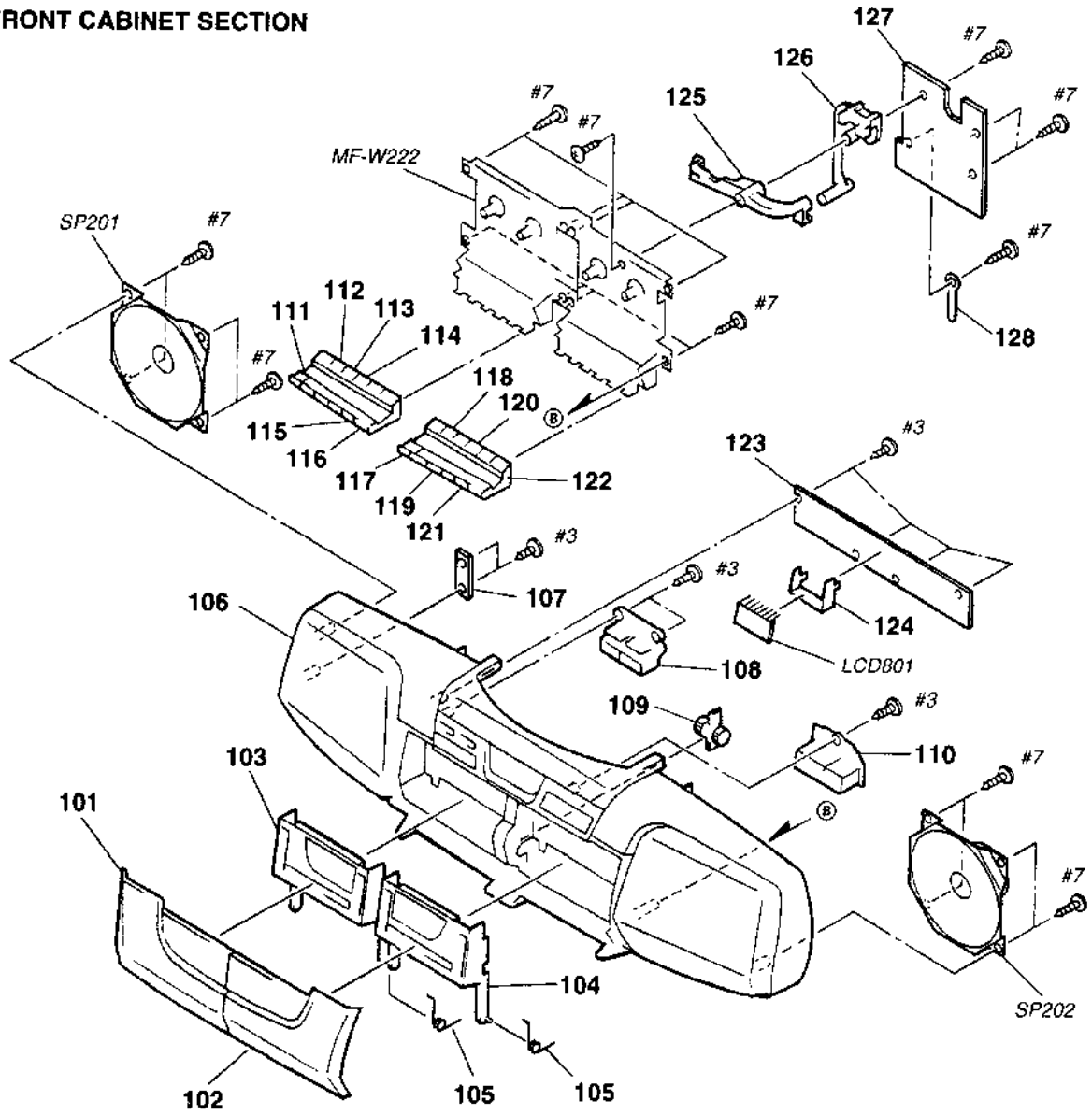



| The components identified by mark ⚠ or dotted line with mark, ⚠ are critical for safety.<br>Replace only with part number specified. | Les composants identifiés par une marque ⚠ sont critiques pour la sécurite.<br>Ne les remplacer que par une pièce portant le numéro spécifié. |
|---|---|

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| * 51 | A-3306-205-A | MAIN BOARD, COMPLETE | |
| 52 | 3-937-626-01 | KNOB, FUNCTION | |
| * 53 | 3-007-927-01 | COVER | |
| * 54 | 1-662-240-11 | AC BRIDGE BOARD | |
| * 55 | 1-662-237-11 | BATTERY BOARD | |
| 56 | 3-007-993-01 | TERMINAL (-), BATTERY | |
| * 57 | 3-007-929-01 | COVER, BEAT CUT BOARD | |
| * 58 | 1-662-241-11 | BEAT CUT BOARD | |
| 59 | 3-937-625-01 | KNOB, VOL | |
| 60 | 3-007-682-01 | KNOB, TONE | |
| 61 | 3-007-931-01 | TERMINAL (+,-), BATTERY | |
| 62 | 3-937-583-01 | CABINET, REAR | |
| 63 | 3-937-591-01 | LID, CD | |
| 64 | 1-452-531-11 | MAGNET | |
| 65 | 3-007-957-01 | HOLDER, CHUCKING | |
| 66 | 3-007-958-01 | PLATE, CHUCK | |
| 67 | 1-776-184-11 | WIRE (FLAT TYPE) (16 CORE) | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 68 | 3-007-959-01 | COVER, CD | |
| * 69 | 1-662-233-11 | CD MOTOR BOARD | |
| * 70 | A-3306-201-A | CD MAIN BOARD, COMPLETE | |
| * 71 | 3-007-928-01 | COVER, AC INLET | |
| 72 | 3-007-997-01 | SPRING (CD LID) | |
| 73 | 3-937-590-01 | CABINET, CD | |
| 74 | 3-007-994-01 | DAMPER (CD LID) | |
| 75 | 3-916-006-01 | SCREW (2.6X16) | |
| 76 | 3-910-095-01 | RUBBER, VIBRATION PROOF | |
| 77 | 3-910-095-11 | RUBBER, VIBRATION PROOF | |
| 78 | 3-937-627-01 | KNOB, MEGA BASS | |
| 79 | 3-937-607-01 | WINDOW, DIAL | |
| 85 | 1-757-301-11 | CABLE, FLAT 8P | |
| ⚠F301 | 1-576-104-11 | FUSE (2A) | |
| ⚠J1 | 1-251-474-11 | INLET, AC (~ AC IN) | |
| SW204 | 1-692-960-11 | SWITCH, PUSH (1 KEY) (OPEN/CLOSE) | |
| ⚠T301 | 1-429-914-11 | TRANSFORMER, POWER (US) | |
| ⚠T301 | 1-431-133-11 | TRANSFORMER, POWER (Canadian) | |

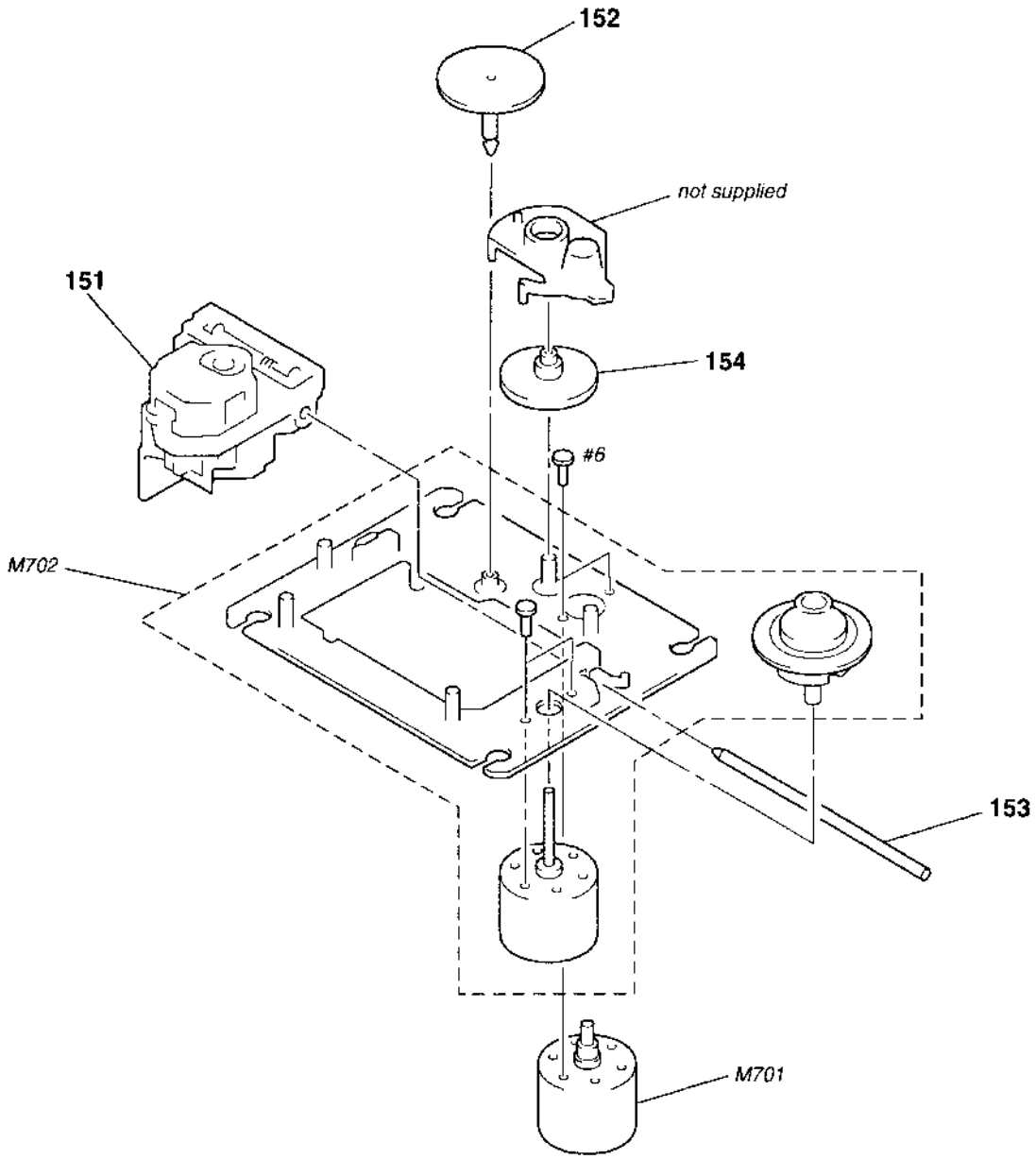
## 6-3. FRONT CABINET SECTION




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 101 | X-3372-792-1 | WINDOW (A) SUB ASSY, CASSETTE | |
| 102 | X-3372-793-1 | WINDOW (B) SUB ASSY, CASSETTE | |
| 103 | 3-937-584-01 | HOLDER (A), CASSETTE | |
| 104 | 3-937-585-01 | HOLDER (B), CASSETTE | |
| 105 | 3-008-003-01 | CASSETTE SPRING | |
| 106 | X-3372-791-1 | CABINET SUB ASSY, FRONT | |
| * 107 | 1-662-242-11 | SP CONNECTOR BOARD | |
| 108 | 3-007-985-01 | KNOB (AMS), CD | |
| 109 | 3-007-986-01 | DAMPER, CASSETTE HOLDER | |
| 110 | 3-007-984-01 | KNOB (PLAY), CD | |
| 111 | 3-937-613-01 | KNOB, HI-SPEED DUBBING | |
| 112 | 3-937-614-01 | KNOB, PLAY (A) | |
| 113 | 3-937-615-01 | KNOB, REW (A) | |
| 114 | 3-937-616-01 | KNOB, FF (A) | |
| 115 | 3-937-617-01 | KNOB, STOP (A) | |
| 116 | 3-937-618-01 | KNOB, PAUSE (A) | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 117 | 3-937-619-01 | KNOB, REC | |
| 118 | 3-937-620-01 | KNOB, PLAY (B) | |
| 119 | 3-937-621-01 | KNOB, REW (B) | |
| 120 | 3-937-622-01 | KNOB, FF (B) | |
| 121 | 3-937-623-01 | KNOB, STOP (B) | |
| 122 | 3-937-624-01 | KNOB, PAUSE (B) | |
| * 123 | 1-662-234-11 | DISPLAY BOARD | |
| 124 | 3-008-004-01 | BRACKET, LCD | |
| * 125 | 3-937-628-01 | ARM, REC | |
| * 126 | 3-937-629-01 | HOLDER, REC ARM | |
| * 127 | A-3306-210-A | MD BOARD, COMPLETE | |
| 128 | 3-465-175-00 | CLAMP, WIRE | |
| LCD801 | 1-801-118-51 | DISPLAY PANEL, LIQUID CRYSTAL | |
| SP201 | 1-504-736-12 | SPEAKER (10CM) (L-CH) | |
| SP202 | 1-504-736-12 | SPEAKER (10CM) (R-CH) | |

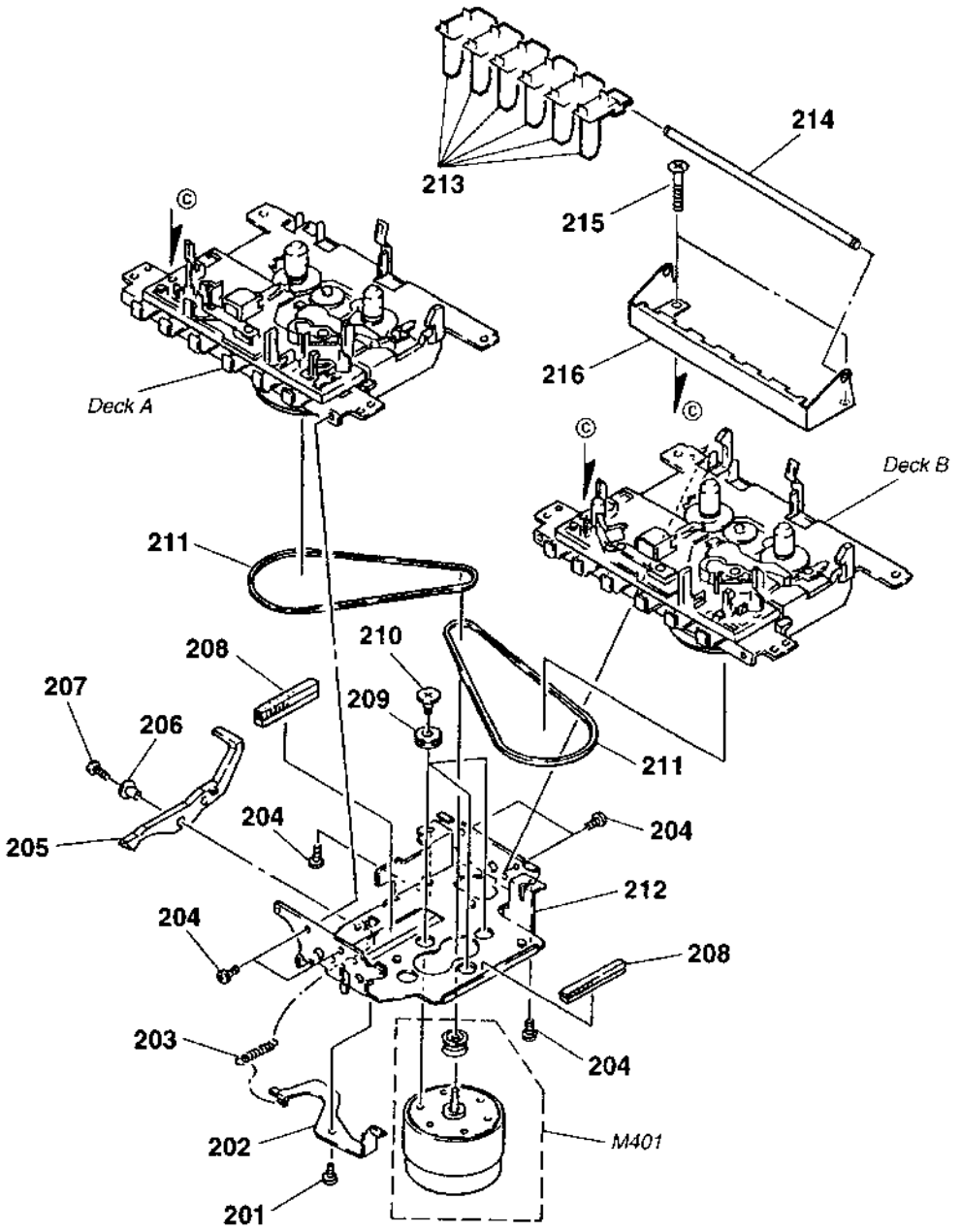
## 6-4. OPTICAL PICK-UP BLOCK (KSM-213BAN)




| | |
|---|---|
| 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. |

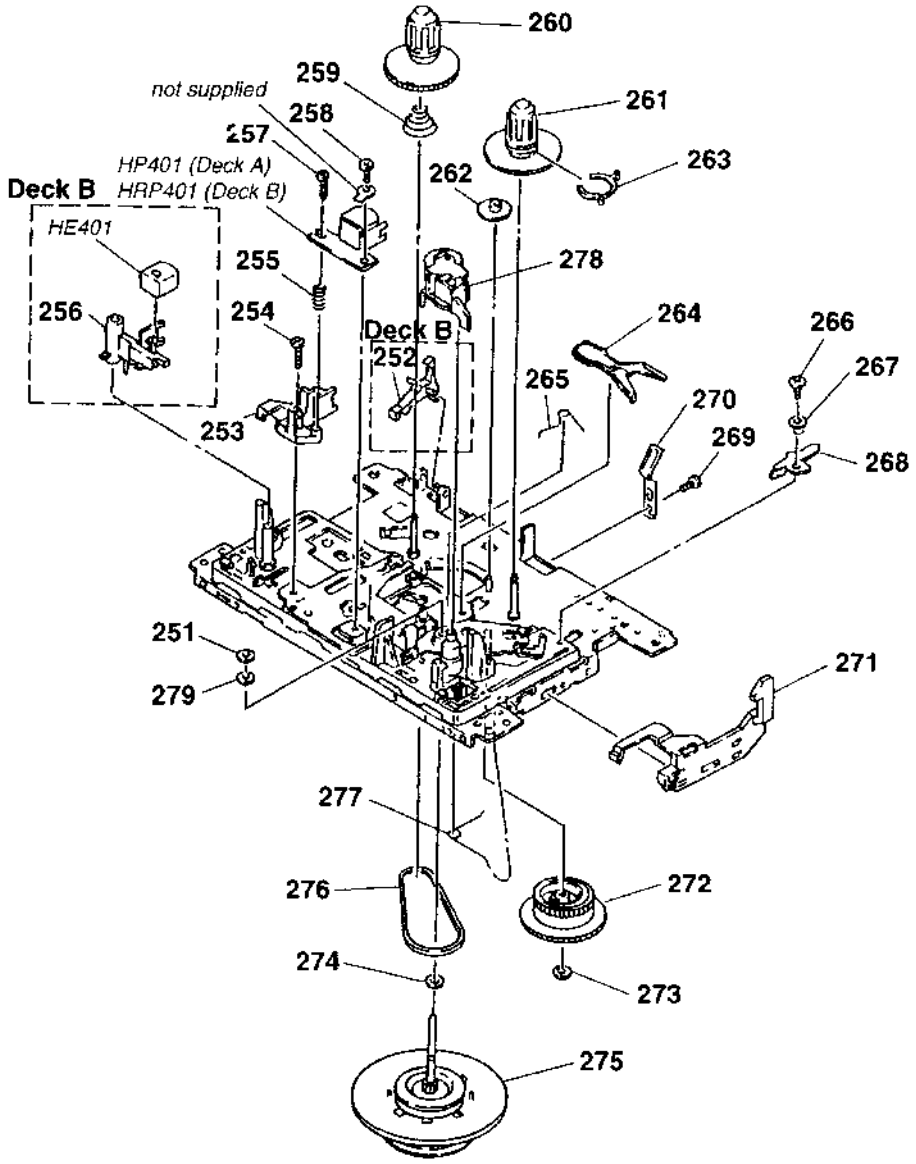
| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| ⚠151 | 8-848-367-11 | PICK-UP, OPTICAL KSS-213B/K-N | |
| 152 | 2-626-907-01 | GEAR (A) (S) | |
| 153 | 2-626-908-01 | SHAFT, SLED | |
| 154 | 2-627-003-01 | GEAR (B) (RP) | |
| M701 | X-2625-769-1 | MOTOR GEAR ASSY (SLED) | |
| M702 | X-2625-770-1 | MOTOR ASSY, SPINDLE | |

## 6-5. MECHANISM DECK SECTION-1
## (MF-W222)




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 201 | 3-915-826-01 | SCREW (A), PK COLLAR | |
| * 202 | 3-915-825-01 | LEVER (A), P KICK | |
| 203 | 3-915-537-01 | SPRING, P KICK LEVER | |
| 204 | 3-915-809-01 | SCREW (M2X4), C TIGHT | |
| 205 | 3-915-824-01 | LEVER (B), P KICK | |
| 206 | 3-915-827-01 | COLLAR (B) | |
| 207 | 3-915-815-01 | SCREW (M2X6), C TIGHT | |
| 208 | 3-915-803-01 | MAT, VIBRATION PROOF | |
| 209 | 3-915-799-01 | RUBBER, MOTOR | |
| 210 | 3-915-800-01 | SCREW, MOTOR COLLAR | |
| 211 | 3-915-802-01 | BELT, MAIN | |
| * 212 | 3-915-798-01 | BRACKET, MOTOR | |
| 213 | 3-915-820-01 | LEVER, CONTROL | |
| 214 | 3-915-822-01 | SHAFT, BUTTON LEVER | |
| 215 | 3-915-823-01 | SCREW (M2X8) (GUIDE) | |
| * 216 | 3-915-821-01 | FRAME (S), B | |
| M401 | X-3369-087-1 | MOTOR ASSY (REEL/CAPSTAN) | |

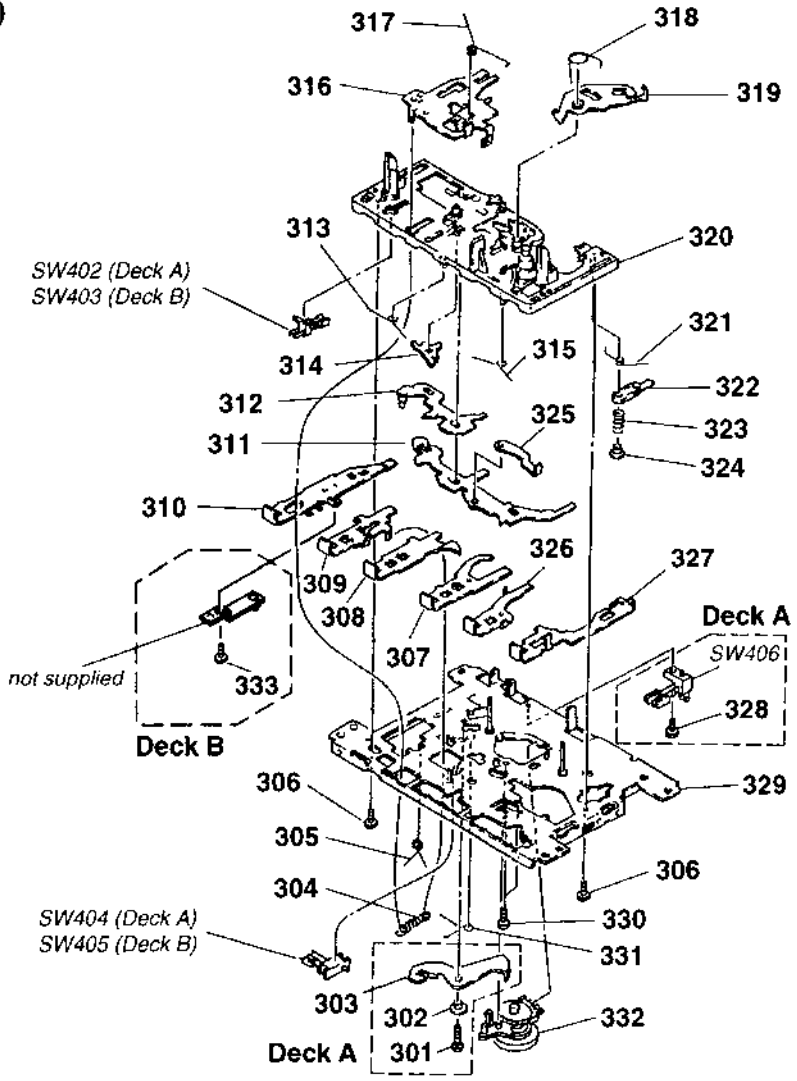
## 6-6. MECHANISM DECK SECTION-2
(MF-W222)




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 251 | 3-915-818-01 | WASHER, POLY-SLIDER | |
| 252 | 3-915-806-01 | LEVER, REC SAFETY (DECK B) | |
| 253 | 3-915-777-01 | BASE, HEAD | |
| 254 | 3-915-812-01 | SCREW (M2X6), PAN | |
| 255 | 3-915-783-01 | SPRING, AZIMUTH | |
| 256 | 3-915-782-01 | ARM, MG (DECK B) | |
| 257 | 3-915-814-01 | SCREW (M2X7), AZIMUTH | |
| 258 | 3-915-813-01 | SCREW (M2X3), + BIND | |
| 259 | 3-915-794-01 | SPRING, BACK TENSION | |
| 260 | 3-915-795-01 | REEL ASSY, SUPPLY | |
| 261 | 3-915-796-01 | REEL ASSY, TAKE-UP | |
| 262 | 3-915-793-01 | GEAR, FF | |
| 263 | 3-915-797-01 | SENSOR | |
| 264 | 3-915-785-01 | LEVER, SENSING | |
| 265 | 3-915-781-01 | SPRING, M CONTROL | |
| 266 | 3-915-816-01 | SCREW (M2X3), PS TIGHT | |
| 267 | 3-915-874-01 | COLLAR, P ARM | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 268 | 3-915-873-01 | ARM, P | |
| 269 | 3-915-808-01 | SCREW (M2X3), C TIGHT | |
| 270 | 3-915-805-01 | PLATE, SPRING, PACK RETAINER | |
| 271 | 3-915-804-01 | LEVER, EJECT SLIDE | |
| 272 | 3-915-792-01 | GEAR, CAM | |
| 273 | 3-915-817-01 | WASHER, POLY-SLIDER | |
| 274 | 3-915-819-01 | WASHER, POLY-SLIDER | |
| 275 | 3-915-788-01 | FLYWHEEL ASSY (DECK B) | |
| 275 | 3-915-789-01 | FLYWHEEL ASSY (DECK A) | |
| 276 | 3-915-787-01 | BELT, RF | |
| 277 | 3-915-758-01 | SPRING, E ACTUATOR | |
| 278 | 3-915-784-01 | ARM ASSY, PINCH ROLLER | |
| 279 | 3-009-486-01 | WASHER, P | |
| HE401 | 1-500-139-11 | HEAD (ERASE) (DECK B) | |
| HP401 | 1-500-138-11 | HEAD (PLAYBACK) (DECK A) | |
| HRP401 | 1-500-138-11 | HEAD (RECORD/PLAYBACK) (DECK B) | |

## 6-7. MECHANISM DECK SECTION-3
## (MF-W222)




| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 301 | 3-915-809-01 | SCREW (M2X4), C TIGHT (DECK A) | |
| 302 | 3-915-874-01 | COLLAR, P ARM (DECK A) | |
| * 303 | 3-915-453-01 | ARM, REC (DECK A) | |
| 304 | 3-915-775-01 | SPRING (S), PLAY BUTTON LEVER | |
| 305 | 3-915-759-01 | SPRING, PS LEVER | |
| 306 | 3-915-810-01 | SCREW (M2X5), P TIGHT BIND | |
| * 307 | 3-915-749-01 | LEVER, FF BUTTON | |
| * 308 | 3-915-745-01 | LEVER, REW BUTTON | |
| * 309 | 3-915-744-01 | LEVER, PLAY BUTTON | |
| * 310 | 3-915-743-01 | LEVER, REC BUTTON | |
| * 311 | 3-915-742-01 | PLATE, FUNCTION, PUSH BUTTON | |
| * 312 | 3-915-741-01 | PLATE, FUNCTION, SWITCH | |
| 313 | 3-915-756-01 | SPRING (A), BUTTON LEVER | |
| * 314 | 3-915-772-01 | STOPPER, PR | |
| 315 | 3-915-774-01 | SPRING (B), BUTTON LEVER | |
| 316 | 3-915-776-01 | PANEL, HEAD | |
| 317 | 3-915-780-01 | SPRING, PANEL (P) | |
| 318 | 3-915-790-01 | SPRING, GEAR PLATE | |
| * 319 | 3-915-791-01 | PLATE ASSY, GEAR | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| 320 | 3-915-740-01 | BASE ASSY (A) | |
| 321 | 3-915-752-01 | SPRING, P CONTROL | |
| * 322 | 3-915-753-01 | LEVER (E), PAUSE | |
| 323 | 3-915-754-01 | SPRING, PAUSE LEVER | |
| 324 | 3-915-755-01 | STOPPER, PAUSE | |
| * 325 | 3-915-760-01 | LEVER, E KICK | |
| * 326 | 3-915-750-01 | LEVER, STOP BUTTON | |
| * 327 | 3-915-751-01 | LEVER, PAUSE BUTTON | |
| 328 | 3-915-807-01 | SCREW (M2X5), C TIGHT (DECK A) | |
| * 329 | 3-915-757-01 | CHASSIS ASSY | |
| 330 | 3-915-811-01 | SCREW (M2X4 5), CAMERA TAPPING | |
| 331 | 3-915-773-01 | SPRING, REC BUTTON LEVER | |
| 332 | 3-915-786-01 | CLUTCH ASSY, RF | |
| 333 | 3-915-808-01 | SCREW (M2X3), C TIGHT (DECK B) | |
| SW402 | 1-762-022-11 | SWITCH, LEAF (FF/REW) (DECK A) | |
| SW403 | 1-762-022-11 | SWITCH, LEAF (FF/REW) (DECK B) | |
| SW404 | 1-762-023-11 | SWITCH, LEAF (PLAYBACK) (DECK A) | |
| SW405 | 1-762-023-11 | SWITCH, LEAF (REC) (DECK B) | |
| SW406 | 1-762-024-11 | SWITCH, LEAF (DUBBING) (DECK A) | |

# 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 and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example:
  uA.. : μA.. uPA.. : μPA..
  uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..
- CAPACITORS
  uF : μF
- COILS
  uH : μH

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.

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

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| * | 1-662-240-11 | AC BRIDGE BOARD | | | |
| | | ********** | | | |
| | 1-533-217-31 | HOLDER, FUSE | | | |
| | | < CAPACITOR > | | | |
| C301 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C302 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C303 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C304 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C305 | 1-124-563-51 | ELECT | 2200uF | 20% | 25V |
| | | < DIODE > | | | |
| D301 | 8-719-200-02 | DIODE 10E2 | | | |
| D302 | 8-719-200-02 | DIODE 10E2 | | | |
| D303 | 8-719-200-02 | DIODE 10E2 | | | |
| D304 | 8-719-200-02 | DIODE 10E2 | | | |
| | | < FUSE > | | | |
| ⚠F301 | 1-576-107-11 | FUSE (2A) | | | |
| ********** | | | | | |
| * | 1-662-237-11 | BATTERY BOARD | | | |
| | | ********** | | | |
| | 3-007-993-01 | TERMINAL (–), BATTERY | | | |
| | | < CONNECTOR > | | | |
| * CN1 | 1-778-849-11 | PIN, CONNECTOR 2P | | | |
| ********** | | | | | |
| * | 1-662-241-11 | BEAT CUT BOARD | | | |
| | | ********** | | | |
| | | < CONNECTOR > | | | |
| CN400 | 1-778-839-11 | PIN, CONNECTOR 6P | | | |
| | | < SWITCH > | | | |
| SW400 | 1-762-863-11 | SWITCH, SLIDE (FM MODE/ISS) | | | |
| ********** | | | | | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| * | A-3306-201-A | CD MAIN BOARD, COMPLETE | | | |
| | | ********** | | | |
| | | < CAPACITOR > | | | |
| C700 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| C701 | 1-162-302-11 | CERAMIC | 0.0022uF | 30% | 16V |
| C702 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C703 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C704 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C705 | 1-131-375-00 | TANTALUM | 4.7uF | 10% | 10V |
| C706 | 1-130-489-00 | MYLAR | 0.033uF | 5% | 50V |
| C707 | 1-130-486-00 | MYLAR | 0.018uF | 10% | 50V |
| C708 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V |
| C709 | 1-126-962-11 | ELECT | 3.3uF | 20% | 50V |
| C710 | 1-130-493-00 | MYLAR | 0.068uF | 5% | 50V |
| C711 | 1-162-215-31 | CERAMIC | 47PF | 5% | 50V |
| C712 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| C713 | 1-130-489-00 | MYLAR | 0.033uF | 5% | 50V |
| C714 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| C715 | 1-130-489-00 | MYLAR | 0.033uF | 5% | 50V |
| C716 | 1-136-169-00 | FILM | 0.22uF | 5% | 50V |
| C717 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C718 | 1-124-907-11 | ELECT | 10uF | 20% | 50V |
| C721 | 1-130-491-00 | MYLAR | 0.047uF | 5% | 50V |
| C722 | 1-161-494-00 | CERAMIC | 0.022uF | | 25V |
| C723 | 1-136-165-00 | FILM | 0.1uF | 5% | 50V |
| C725 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V |
| C726 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C727 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| C728 | 1-164-159-21 | CERAMIC | 0.1uF | | 50V |
| C729 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C730 | 1-124-473-11 | ELECT | 1000uF | 20% | 10V |
| C731 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C732 | 1-130-484-00 | MYLAR | 0.012uF | 5% | 50V |
| C734 | 1-162-305-11 | CERAMIC | 0.0068uF | 30% | 16V |
| C737 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C738 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C740 | 1-164-159-21 | CERAMIC | 0.1uF | | 50V |
| C741 | 1-124-589-11 | ELECT | 47uF | 20% | 16V |

## CD MAIN

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C742 | 1-136-173-00 | FILM | 0.47uF | 5% | 50V |
| C743 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V |
| C744 | 1-162-286-21 | CERAMIC | 220PF | 10% | 50V |
| C745 | 1-136-169-00 | FILM | 0.22uF | 5% | 50V |
| C746 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| C747 | 1-130-483-00 | MYLAR | 0.01uF | 5% | 50V |
| C750 | 1-164-159-21 | CERAMIC | 0.1uF | | 50V |
| C752 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V |
| C753 | 1-162-199-31 | CERAMIC | 10PF | 5% | 50V |
| C754 | 1-104-666-11 | ELECT | 220uF | 20% | 10V |
| C755 | 1-164-159-21 | CERAMIC | 0.1uF | | 50V |
| C756 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| C758 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C759 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| C760 | 1-104-666-11 | ELECT | 220uF | 20% | 10V |
| C763 | 1-162-600-11 | CERAMIC | 0.0047uF | 30% | 16V |
| C764 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C773 | 1-162-600-11 | CERAMIC | 0.0047uF | 30% | 16V |
| C774 | 1-126-163-11 | ELECT | 4.7uF | 20% | 50V |
| C781 | 1-104-666-11 | ELECT | 220uF | 20% | 10V |
| C782 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C784 | 1-130-491-00 | MYLAR | 0.047uF | 5% | 50V |
| C787 | 1-104-666-11 | ELECT | 220uF | 20% | 10V |
| C788 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| C792 | 1-162-291-31 | CERAMIC | 560PF | 10% | 50V |
| C793 | 1-162-301-11 | CERAMIC | 0.0015uF | 30% | 16V |
| C794 | 1-162-292-31 | CERAMIC | 680PF | 10% | 50V |
| C796 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| C797 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| | | < CONNECTOR > | | | |
| CN701 | 1-770-168-11 | CONNECTOR, FFC/FPC 16P | | | |
| CN703 | 1-778-839-11 | PIN, CONNECTOR 6P | | | |
| CN704 | 1-778-840-11 | PIN, CONNECTOR 8P | | | |
| CN706 | 1-778-841-11 | PIN, CONNECTOR 10P | | | |
| | | < DIODE > | | | |
| D702 | 8-719-991-33 | DIODE 1SS133T-77 | | | |
| D703 | 8-719-991-33 | DIODE 1SS133T-77 | | | |
| | | < COIL > | | | |
| FB701 | 1-412-911-11 | INDUCTOR | | | |
| | | < IC > | | | |
| IC701 | 8-752-069-56 | IC CXA1782BQ | | | |
| IC702 | 8-752-372-94 | IC CXD2507AQ | | | |
| IC703 | 8-759-336-75 | IC BA5930FP | | | |
| IC704 | 8-759-364-34 | IC SM5877AM | | | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | | < COIL > | | | |
| L702 | 1-408-607-31 | INDUCTOR 22uH | | | |
| | | < TRANSISTOR > | | | |
| Q701 | 8-729-801-84 | TRANSISTOR 2SB1013-4 | | | |
| Q703 | 8-729-900-74 | TRANSISTOR DTC143TS | | | |
| | | < RESISTOR > | | | |
| R700 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |
| R701 | 1-249-441-11 | CARBON | 100K | 5% 1/4W | |
| R702 | 1-247-896-11 | CARBON | 510K | 5% 1/4W | |
| R703 | 1-249-441-11 | CARBON | 100K | 5% 1/4W | |
| R704 | 1-247-883-00 | CARBON | 150K | 5% 1/4W | |
| R705 | 1-249-437-11 | CARBON | 47K | 5% 1/4W | |
| R706 | 1-247-876-11 | CARBON | 75K | 5% 1/4W | |
| R707 | 1-249-432-11 | CARBON | 18K | 5% 1/4W | |
| R708 | 1-247-883-00 | CARBON | 150K | 5% 1/4W | |
| R709 | 1-247-862-11 | CARBON | 20K | 5% 1/4W | |
| R710 | 1-249-393-11 | CARBON | 10 | 5% 1/4W | |
| R714 | 1-247-883-00 | CARBON | 150K | 5% 1/4W | |
| R716 | 1-249-430-11 | CARBON | 12K | 5% 1/4W | |
| R717 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |
| R718 | 1-247-899-11 | CARBON | 680K | 5% 1/4W | |
| R720 | 1-247-891-00 | CARBON | 330K | 5% 1/4W | |
| R722 | 1-249-439-11 | CARBON | 68K | 5% 1/4W | |
| R723 | 1-249-440-11 | CARBON | 82K | 5% 1/4W | |
| R725 | 1-249-437-11 | CARBON | 47K | 5% 1/4W | |
| R726 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |
| R727 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |
| R730 | 1-249-435-11 | CARBON | 33K | 5% 1/4W | |
| R731 | 1-247-863-11 | CARBON | 22K | 5% 1/4W | |
| R732 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |
| R733 | 1-249-435-11 | CARBON | 33K | 5% 1/4W | |
| R734 | 1-249-437-11 | CARBON | 47K | 5% 1/4W | |
| R735 | 1-249-425-11 | CARBON | 4.7K | 5% 1/4W | |
| R736 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |
| R740 | 1-247-843-11 | CARBON | 3.3K | 5% 1/4W | |
| R741 | 1-249-417-11 | CARBON | 1K | 5% 1/4W | |
| R742 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |
| R743 | 1-247-903-00 | CARBON | 1M | 5% 1/4W | |
| R744 | 1-247-887-00 | CARBON | 220K | 5% 1/4W | |
| R745 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |
| R746 | 1-249-437-11 | CARBON | 47K | 5% 1/4W | |
| R748 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |
| R749 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |
| R751 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |
| R753 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |
| R755 | 1-249-429-11 | CARBON | 10K | 5% 1/4W | |

**CD MAIN** | **CD MOTOR** | **DISPLAY** | **MAIN**

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R756 | 1-249-440-11 | CARBON | 82K | 5% | 1/4W | |
| R757 | 1-249-439-11 | CARBON | 68K | 5% | 1/4W | |
| R758 | 1-249-439-11 | CARBON | 68K | 5% | 1/4W | |
| R759 | 1-249-439-11 | CARBON | 68K | 5% | 1/4W | |
| R766 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R776 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R790 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R791 | 1-249-431-11 | CARBON | 15K | 5% | 1/4W | |
| R792 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| | | < VARIABLE RESISTOR > | | | | |
| RV701 | 1-230-497-11 | RES, ADJ, CARBON 22K | | | | |
| RV702 | 1-230-497-11 | RES, ADJ, CARBON 22K | | | | |
| RV703 | 1-223-459-21 | RES, ADJ, CERMET 2.2K | | | | |
| RV704 | 1-230-497-11 | RES, ADJ, CARBON 22K | | | | |
| | | < VIBRATOR > | | | | |
| X701 | 1-579-345-11 | VIBRATOR, CERAMIC (16.9344MHz) | | | | |

**********

| | | | | | | |
|---|---|---|---|---|---|---|
| * | 1-662-233-11 | CD MOTOR BOARD | | | | |
| | | ********** | | | | |
| | | < CONNECTOR > | | | | |
| * CNP706 | 1-778-839-11 | PIN, CONNECTOR 6P | | | | |
| | | < SWITCH > | | | | |
| S701 | 1-571-936-11 | SWITCH, LEAF (LIMIT) | | | | |

**********

| | | | | | | |
|---|---|---|---|---|---|---|
| * | 1-662-234-11 | DISPLAY BOARD | | | | |
| | | ********** | | | | |
| | 3-008-004-01 | BRACKET, LCD | | | | |
| | | < CAPACITOR > | | | | |
| C801 | 1-124-904-11 | ELECT | 2.2uF | 20% | 50V | |
| C802 | 1-102-129-21 | CERAMIC | 0.01uF | 5% | 50V | |
| C803 | 1-124-907-11 | ELECT | 10uF | 20% | 50V | |
| C804 | 1-102-129-21 | CERAMIC | 0.01uF | 5% | 50V | |
| C805 | 1-102-129-21 | CERAMIC | 0.01uF | 5% | 50V | |
| C806 | 1-102-129-21 | CERAMIC | 0.01uF | 5% | 50V | |
| C807 | 1-102-129-21 | CERAMIC | 0.01uF | 5% | 50V | |
| C808 | 1-102-129-21 | CERAMIC | 0.01uF | 5% | 50V | |
| | | < IC > | | | | |
| IC801 | 8-752-872-47 | IC CXP5084H-680Q | | | | |
| IC802 | 8-759-256-72 | IC PST994D | | | | |
| | | < RESISTOR > | | | | |
| J802 | 1-247-807-11 | CARBON | 100 | 5% | 1/4W | |
| J804 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| | | < LIQUID CRYSTAL DISPLAY > | | | | |
| LCD801 | 1-801-118-51 | DISPLAY PANEL, LIQUID CRYSTAL | | | | |
| | | < RESISTOR > | | | | |
| R801 | 1-247-867-11 | CARBON | 33K | 5% | 1/4W | |
| R802 | 1-247-867-11 | CARBON | 33K | 5% | 1/4W | |
| R803 | 1-247-867-11 | CARBON | 33K | 5% | 1/4W | |
| R804 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R805 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R807 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| | | < SWITCH > | | | | |
| S801 | 1-762-869-11 | SWITCH, TACTILE (DISPLAY/ENT) | | | | |
| S802 | 1-762-869-11 | SWITCH, TACTILE (PLAY MODE) | | | | |
| S803 | 1-762-869-11 | SWITCH, TACTILE (■) | | | | |
| S804 | 1-762-869-11 | SWITCH, TACTILE (▶▶I) | | | | |
| S805 | 1-762-869-11 | SWITCH, TACTILE (▶II) | | | | |
| S806 | 1-762-869-11 | SWITCH, TACTILE (I◀◀) | | | | |

**********

| | | | | | | |
|---|---|---|---|---|---|---|
| * | A-3306-205-A | MAIN BOARD, COMPLETE | | | | |
| | | ********** | | | | |
| | 3-937-625-01 | KNOB, VOL | | | | |
| | 3-937-626-01 | KNOB, FUNCTION | | | | |
| | 7-682-547-04 | SCREW +P 3X6 | | | | |
| | | < CAPACITOR > | | | | |
| C203 | 1-124-443-00 | ELECT | 100uF | 20% | 10V | |
| C204 | 1-104-664-11 | ELECT | 47uF | 20% | 10V | |
| C205 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V | |
| C206 | 1-124-443-00 | ELECT | 100uF | 20% | 10V | |
| C207 | 1-104-664-11 | ELECT | 47uF | 20% | 10V | |
| C208 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V | |
| C209 | 1-124-443-00 | ELECT | 100uF | 20% | 10V | |
| C210 | 1-104-664-11 | ELECT | 47uF | 20% | 10V | |
| C211 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V | |
| C215 | 1-124-907-11 | ELECT | 10uF | 20% | 50V | |
| C224 | 1-124-443-00 | ELECT | 100uF | 20% | 10V | |
| C225 | 1-104-664-11 | ELECT | 47uF | 20% | 10V | |
| C226 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | |
| C228 | 1-130-493-00 | MYLAR | 0.068uF | 5% | 50V | |
| C230 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | |
| C231 | 1-130-493-00 | MYLAR | 0.068uF | 5% | 50V | |
| C232 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | |
| C233 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | |
| C234 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | |
| C235 | 1-124-903-11 | ELECT | 1uF | 20% | 50V | |
| C236 | 1-124-906-11 | ELECT | 4.7uF | 20% | 50V | |
| C237 | 1-104-664-11 | ELECT | 47uF | 20% | 10V | |
| C239 | 1-130-489-00 | MYLAR | 0.033uF | 5% | 50V | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C240 | 1-124-906-11 | ELECT | 4.7uF | 20% | 50V |
| C242 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C243 | 1-124-906-11 | ELECT | 4.7uF | 20% | 50V |
| C244 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C245 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C246 | 1-130-489-00 | MYLAR | 0.033uF | 5% | 50V |
| C247 | 1-124-906-11 | ELECT | 4.7uF | 20% | 50V |
| C248 | 1-102-106-21 | CERAMIC | 100PF | 5% | 50V |
| C249 | 1-102-106-21 | CERAMIC | 100PF | 5% | 50V |
| C250 | 1-124-118-11 | ELECT | 220uF | 20% | 16V |
| C252 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C253 | 1-124-443-00 | ELECT | 100uF | 20% | 10V |
| C254 | 1-130-495-00 | MYLAR | 0.1uF | 5% | 50V |
| C255 | 1-124-555-11 | ELECT | 1000uF | 20% | 16V |
| C256 | 1-124-563-11 | ELECT | 2200uF | 20% | 25V |
| C257 | 1-124-443-00 | ELECT | 100uF | 20% | 10V |
| C258 | 1-130-495-00 | MYLAR | 0.1uF | 5% | 50V |
| C259 | 1-124-555-11 | ELECT | 1000uF | 20% | 16V |
| C262 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C263 | 1-102-106-21 | CERAMIC | 100PF | 5% | 50V |
| C264 | 1-102-106-21 | CERAMIC | 100PF | 5% | 50V |
| C265 | 1-124-906-11 | ELECT | 4.7uF | 20% | 50V |
| C266 | 1-124-472-11 | ELECT | 470uF | 20% | 10V |
| C267 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C268 | 1-124-444-11 | ELECT | 220uF | 20% | 16V |
| C269 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C270 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C271 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C272 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C275 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C276 | 1-102-108-21 | CERAMIC | 150PF | 5% | 50V |
| C277 | 1-102-108-21 | CERAMIC | 150PF | 5% | 50V |
| C278 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C279 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C280 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C281 | 1-124-472-11 | ELECT | 470uF | 20% | 10V |
| C283 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C284 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C285 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| | | < CONNECTOR > | | | |
| * CN202 | 1-778-881-11 | PIN, CONNECTOR 5P | | | |
| * CN203 | 1-778-842-11 | PIN, CONNECTOR 2P | | | |
| * CN206 | 1-778-849-11 | PIN, CONNECTOR 2P | | | |
| | | < DIODE > | | | |
| D201 | 8-719-055-76 | DIODE 1N4148 | | | |
| D203 | 8-719-055-76 | DIODE 1N4148 | | | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| D204 | 8-719-055-76 | DIODE 1N4148 | |
| D205 | 8-719-110-09 | DIODE RD8.2ES-B3 | |
| D206 | 8-719-055-76 | DIODE 1N4148 | |
| D207 | 8-719-055-76 | DIODE 1N4148 | |
| D208 | 8-719-109-90 | DIODE RD5.6ESB3 | |
| D209 | 8-719-109-90 | DIODE RD5.6ESB3 | |
| D210 | 8-719-109-90 | DIODE RD5.6ESB3 | |
| D212 | 8-719-055-76 | DIODE 1N4148 | |
| D213 | 8-719-110-09 | DIODE RD8.2ES-B3 | |
| | | < FERRITE BEAD > | |
| FB201 | 1-412-911-11 | INDUCTOR | |
| FB202 | 1-412-911-11 | INDUCTOR | |
| | | < IC > | |
| IC201 | 8-759-145-58 | IC uPC4558C | |
| IC202 | 8-759-820-22 | IC LA4597 | |
| | | < COIL > | |
| L204 | 1-412-911-11 | INDUCTOR | |
| L205 | 1-412-911-11 | INDUCTOR | |
| | | < LED > | |
| LED1 | 8-719-812-31 | LED TLR123 (OPR/BATT) | |
| | | < TRANSISTOR > | |
| Q201 | 8-729-142-46 | TRANSISTOR 2SC2001-LK | |
| Q202 | 8-729-142-46 | TRANSISTOR 2SC2001-LK | |
| Q203 | 8-729-142-46 | TRANSISTOR 2SC2001-LK | |
| Q208 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| Q209 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| Q210 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| Q211 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| Q212 | 8-729-142-46 | TRANSISTOR 2SC2001-LK | |
| Q213 | 8-729-142-46 | TRANSISTOR 2SC2001-LK | |
| Q215 | 8-729-142-46 | TRANSISTOR 2SC2001-LK | |
| Q216 | 8-729-313-82 | TRANSISTOR 2SD1138-C | |
| Q217 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| | | < RESISTOR > | |
| R201 | 1-249-427-11 | CARBON 6.8K 5% | 1/4W |
| R202 | 1-247-827-11 | CARBON 680 5% | 1/4W |
| R203 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| R204 | 1-249-427-11 | CARBON 6.8K 5% | 1/4W |
| R205 | 1-247-827-11 | CARBON 680 5% | 1/4W |
| R206 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| R207 | 1-249-393-11 | CARBON 10 5% | 1/4W |

**MAIN** **MD**

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R208 | 1-247-815-00 | CARBON | 220 | 5% | 1/4W | |
| R209 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W | |
| R210 | 1-247-815-00 | CARBON | 220 | 5% | 1/4W | |
| R211 | 1-249-393-11 | CARBON | 10 | 5% | 1/4W | |
| R212 | 1-247-815-00 | CARBON | 220 | 5% | 1/4W | |
| R213 | 1-247-871-11 | CARBON | 47K | 5% | 1/4W | |
| R219 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R220 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W | |
| R227 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R232 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W | |
| R233 | 1-247-871-11 | CARBON | 47K | 5% | 1/4W | |
| R234 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W | |
| R235 | 1-247-863-11 | CARBON | 22K | 5% | 1/4W | |
| R236 | 1-247-871-11 | CARBON | 47K | 5% | 1/4W | |
| R237 | 1-247-839-11 | CARBON | 2.2K | 5% | 1/4W | |
| R238 | 1-247-807-11 | CARBON | 100 | 5% | 1/4W | |
| R239 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R240 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R241 | 1-247-871-11 | CARBON | 47K | 5% | 1/4W | |
| R242 | 1-247-871-11 | CARBON | 47K | 5% | 1/4W | |
| R243 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R244 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R245 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R246 | 1-247-833-11 | CARBON | 1.2K | 5% | 1/4W | |
| R247 | 1-247-879-11 | CARBON | 100K | 5% | 1/4W | |
| R248 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R249 | 1-247-833-11 | CARBON | 1.2K | 5% | 1/4W | |
| R250 | 1-247-879-11 | CARBON | 100K | 5% | 1/4W | |
| R251 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R252 | 1-247-897-11 | CARBON | 560K | 5% | 1/4W | |
| R253 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W | |
| R254 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R255 | 1-247-839-11 | CARBON | 2.2K | 5% | 1/4W | |
| R256 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R257 | 1-247-897-11 | CARBON | 560K | 5% | 1/4W | |
| R258 | 1-247-843-11 | CARBON | 3.3K | 5% | 1/4W | |
| R259 | 1-247-839-11 | CARBON | 2.2K | 5% | 1/4W | |
| R260 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R261 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R262 | 1-247-827-11 | CARBON | 680 | 5% | 1/4W | |
| R263 | 1-247-839-11 | CARBON | 2.2K | 5% | 1/4W | |
| R265 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W | |
| R267 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R268 | 1-247-839-11 | CARBON | 2.2K | 5% | 1/4W | |
| R269 | 1-247-827-11 | CARBON | 680 | 5% | 1/4W | |
| R270 | 1-247-837-11 | CARBON | 1.8K | 5% | 1/4W | |
| R271 | 1-249-426-11 | CARBON | 5.6K | 5% | 1/4W | |
| R274 | 1-247-871-11 | CARBON | 47K | 5% | 1/4W | |
| R275 | 1-247-863-11 | CARBON | 22K | 5% | 1/4W | |

| Ref. No. | Part No. | Description | | | | Remark |
|---|---|---|---|---|---|---|
| R276 | 1-247-847-11 | CARBON | 4.7K | 5% | 1/4W | |
| R277 | 1-247-847-11 | CARBON | 4.7K | 5% | 1/4W | |
| R278 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R279 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W | |
| R280 | 1-247-871-11 | CARBON | 47K | 5% | 1/4W | |
| R281 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R285 | 1-247-847-11 | CARBON | 4.7K | 5% | 1/4W | |
| R286 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| ⚠R287 | 1-212-934-00 | FUSIBLE | 1 | 5% | 1/2W | F |
| R288 | 1-247-815-00 | CARBON | 220 | 5% | 1/4W | |
| R289 | 1-247-823-11 | CARBON | 470 | 5% | 1/4W | |
| ⚠R290 | 1-212-942-11 | FUSIBLE | 2.2 | 5% | 1/2W | F |
| R291 | 1-247-815-00 | CARBON | 220 | 5% | 1/4W | |
| R292 | 1-249-453-11 | CARBON | 3.3 | 5% | 1/4W | |
| R293 | 1-249-453-11 | CARBON | 3.3 | 5% | 1/4W | |
| R294 | 1-247-807-11 | CARBON | 100 | 5% | 1/4W | |
| R295 | 1-247-807-11 | CARBON | 100 | 5% | 1/4W | |
| R296 | 1-247-863-11 | CARBON | 22K | 5% | 1/4W | |
| R297 | 1-247-863-11 | CARBON | 22K | 5% | 1/4W | |
| R298 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R299 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R300 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R301 | 1-249-403-11 | CARBON | 68 | 5% | 1/4W | |
| R302 | 1-249-403-11 | CARBON | 68 | 5% | 1/4W | |
| R305 | 1-249-404-11 | CARBON | 82 | 5% | 1/4W | |
| R307 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R308 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |
| R317 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W | |

< SWITCH >

| | | |
|---|---|---|
| SW201 | 1-762-865-11 | SWITCH, LEVER (FUNCTION) |
| SW202 | 1-762-862-11 | SWITCH, PUSH (MEGA BASS) |

< JACK >

| | | |
|---|---|---|
| SW203 | 1-568-593-61 | JACK 1P (🎧) |

< VARIABLE RESISTOR >

| | | |
|---|---|---|
| VR201 | 1-225-364-11 | RES, VAR, CARBON 20K/20K (VOLUME) |
| VR202 | 1-225-364-11 | RES, VAR, CARBON 20K/20K (TONE) |

**********

| | | |
|---|---|---|
| * | A-3306-210-A | MD BOARD, COMPLETE |

**********

< CAPACITOR >

| | | | | | |
|---|---|---|---|---|---|
| C401 | 1-162-293-31 | CERAMIC | 820PF | 10% | 50V |
| C402 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V |
| C403 | 1-162-293-31 | CERAMIC | 820PF | 10% | 50V |
| C404 | 1-162-288-31 | CERAMIC | 330PF | 10% | 50V |

| | |
|---|---|
| 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. |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| C406 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C407 | 1-130-482-11 | FILM | 0.018uF | 5% | 50V |
| C408 | 1-124-464-11 | ELECT | 0.22uF | 20% | 50V |
| C409 | 1-124-905-11 | ELECT | 3.3uF | 20% | 50V |
| C410 | 1-124-472-11 | ELECT | 470uF | 20% | 10V |
| C411 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C412 | 1-124-443-00 | ELECT | 100uF | 20% | 10V |
| C413 | 1-162-293-31 | CERAMIC | 820PF | 10% | 50V |
| C414 | 1-162-293-31 | CERAMIC | 820PF | 10% | 50V |
| C415 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C416 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C418 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C419 | 1-126-961-11 | ELECT | 2.2uF | 20% | 50V |
| C420 | 1-162-302-11 | CERAMIC | 0.0022uF | 30% | 16V |
| C421 | 1-124-905-11 | ELECT | 3.3uF | 20% | 50V |
| C422 | 1-162-293-31 | CERAMIC | 820PF | 10% | 50V |
| C423 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C424 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C425 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C427 | 1-130-482-11 | FILM | 0.018uF | 5% | 50V |
| C428 | 1-124-464-11 | ELECT | 0.22uF | 20% | 50V |
| C429 | 1-124-903-11 | ELECT | 1uF | 20% | 50V |
| C430 | 1-124-905-11 | ELECT | 3.3uF | 20% | 50V |
| C431 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C432 | 1-162-302-11 | CERAMIC | 0.0022uF | 30% | 16V |
| C433 | 1-124-905-11 | ELECT | 3.3uF | 20% | 50V |
| C434 | 1-126-233-11 | ELECT | 22uF | 20% | 50V |
| C435 | 1-162-294-31 | CERAMIC | 0.001uF | 10% | 50V |
| C436 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C437 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V |
| C438 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C439 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| C440 | 1-130-509-11 | FILM | 0.0027uF | 10% | 50V |
| C441 | 1-130-522-11 | FILM | 0.033uF | 10% | 50V |
| C442 | 1-102-212-11 | CERAMIC | 820PF | 10% | 50V |
| C443 | 1-124-443-00 | ELECT | 100uF | 20% | 10V |
| C444 | 1-162-288-31 | CERAMIC | 330PF | 10% | 50V |
| C445 | 1-162-293-31 | CERAMIC | 820PF | 10% | 50V |
| C446 | 1-162-290-31 | CERAMIC | 470PF | 10% | 50V |
| C447 | 1-102-212-11 | CERAMIC | 820PF | 10% | 50V |
| C448 | 1-124-472-11 | ELECT | 470uF | 20% | 10V |
| C449 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C450 | 1-124-443-00 | ELECT | 100uF | 20% | 10V |
| C451 | 1-101-005-21 | CERAMIC | 0.02uF | 5% | 50V |
| C452 | 1-101-006-21 | CERAMIC | 0.04uF | 5% | 50V |
| C453 | 1-124-475-11 | ELECT | 470uF | 20% | 16V |
| C454 | 1-162-306-11 | CERAMIC | 0.01uF | 30% | 16V |
| C455 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |
| C456 | 1-162-282-31 | CERAMIC | 100PF | 10% | 50V |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | < CONNECTOR > | |
| * CN401 | 1-778-848-11 | PIN, CONNECTOR 15P | |
| * CN402 | 1-778-847-11 | PIN, CONNECTOR 10P | |
| * CN403 | 1-778-844-11 | PIN, CONNECTOR 4P | |
| * CN404 | 1-778-844-11 | PIN, CONNECTOR 4P | |
| * CN405 | 1-778-844-11 | PIN, CONNECTOR 4P | |
| | | < DIODE > | |
| D401 | 8-719-055-76 | DIODE 1N4148 | |
| D402 | 8-719-055-76 | DIODE 1N4148 | |
| D403 | 8-719-110-13 | DIODE RD9.1ESB2 | |
| | | < IC > | |
| IC401 | 8-759-242-58 | IC TA8189N | |
| | | < COIL > | |
| L401 | 1-410-775-11 | COIL, CHOKE 10mH | |
| L402 | 1-410-775-11 | COIL, CHOKE 10mH | |
| L403 | 1-415-976-11 | COIL, CHOKE 1.5mH | |
| L404 | 1-415-975-11 | COIL, CHOKE 560uH | |
| | | < TRANSISTOR > | |
| Q401 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| Q402 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| Q403 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| Q404 | 8-729-142-46 | TRANSISTOR 2SC2001-LK | |
| Q405 | 8-729-142-46 | TRANSISTOR 2SC2001-LK | |
| Q406 | 8-729-142-46 | TRANSISTOR 2SC2001-LK | |
| Q407 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| Q408 | 8-729-142-46 | TRANSISTOR 2SC2001-LK | |
| Q409 | 8-729-201-53 | TRANSISTOR 2SA1015-GR | |
| Q410 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| Q411 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| Q412 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| Q413 | 8-729-178-59 | TRANSISTOR 2SC2785 | |
| | | < RESISTOR > | |
| R401 | 1-247-887-00 | CARBON 220K 5% | 1/4W |
| R402 | 1-249-432-11 | CARBON 18K 5% | 1/4W |
| R403 | 1-247-887-00 | CARBON 220K 5% | 1/4W |
| R404 | 1-247-807-11 | CARBON 100 5% | 1/4W |
| R405 | 1-249-427-11 | CARBON 6.8K 5% | 1/4W |
| R406 | 1-249-427-11 | CARBON 6.8K 5% | 1/4W |
| R407 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| R408 | 1-249-429-11 | CARBON 10K 5% | 1/4W |
| R409 | 1-247-807-11 | CARBON 100 5% | 1/4W |
| R410 | 1-247-885-11 | CARBON 180K 5% | 1/4W |
| R411 | 1-249-429-11 | CARBON 10K 5% | 1/4W |

## MD | SP CONNECTOR | TUNER

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R412 | 1-247-891-11 | CARBON | 330K | 5% | 1/4W |
| R413 | 1-249-407-11 | CARBON | 150 | 5% | 1/4W |
| R414 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R415 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R416 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R417 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R418 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R419 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R420 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R421 | 1-247-885-11 | CARBON | 180K | 5% | 1/4W |
| R422 | 1-247-863-11 | CARBON | 22K | 5% | 1/4W |
| R423 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W |
| R425 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R426 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R427 | 1-247-807-11 | CARBON | 100 | 5% | 1/4W |
| R428 | 1-247-885-11 | CARBON | 180K | 5% | 1/4W |
| R429 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W |
| R430 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W |
| R431 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R432 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R433 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R434 | 1-247-885-11 | CARBON | 180K | 5% | 1/4W |
| R435 | 1-249-407-11 | CARBON | 150 | 5% | 1/4W |
| R436 | 1-247-891-11 | CARBON | 330K | 5% | 1/4W |
| R437 | 1-247-903-00 | CARBON | 1M | 5% | 1/4W |
| R438 | 1-247-827-11 | CARBON | 680 | 5% | 1/4W |
| R439 | 1-247-827-11 | CARBON | 680 | 5% | 1/4W |
| R440 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W |
| R441 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R442 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R443 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R444 | 1-249-417-11 | CARBON | 1K | 5% | 1/4W |
| R446 | 1-247-865-11 | CARBON | 27K | 5% | 1/4W |
| R448 | 1-247-865-11 | CARBON | 27K | 5% | 1/4W |
| R449 | 1-247-865-11 | CARBON | 27K | 5% | 1/4W |
| R450 | 1-249-439-11 | CARBON | 68K | 5% | 1/4W |
| R451 | 1-247-799-11 | CARBON | 47 | 5% | 1/4W |
| R452 | 1-249-403-11 | CARBON | 68 | 5% | 1/4W |
| R453 | 1-249-432-11 | CARBON | 18K | 5% | 1/4W |
| R454 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W |
| R455 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W |
| ⚠R456 | 1-212-950-11 | FUSIBLE | 4.7 | 5% | 1/2W F |
| R457 | 1-247-815-11 | CARBON | 220 | 5% | 1/4W |
| R458 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R459 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R460 | 1-249-424-11 | CARBON | 3.9K | 5% | 1/4W |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| R461 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R462 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R464 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R465 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R466 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R467 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R468 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R469 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R470 | 1-249-429-11 | CARBON | 10K | 5% | 1/4W |
| R471 | 1-249-437-11 | CARBON | 47K | 5% | 1/4W |
| R472 | 1-247-807-11 | CARBON | 100 | 5% | 1/4W |

< SWITCH >

| | | | |
|---|---|---|---|
| SW401 | 1-762-940-11 | SWITCH, PUSH (REC/PB) | |

< VARIABLE RESISTOR >

| | | | |
|---|---|---|---|
| VR401 | 1-225-376-11 | RES, ADJ, CARBON 1K | |

**********

| | | | |
|---|---|---|---|
| * | 1-662-242-11 | SP CONNECTOR BOARD | |
| | | ********** | |

< CONNECTOR >

| | | | |
|---|---|---|---|
| CN2 | 1-778-879-11 | PIN, CONNECTOR 3P | |

**********

| | | | | | |
|---|---|---|---|---|---|
| * | A-3306-207-A | TUNER BOARD, COMPLETE | | | |
| | | ********** | | | |
| | 3-007-680-01 | GEAR, TUNING CAPACITOR | | | |
| | 7-621-770-87 | SCREW +P 2.6X5 | | | |

< BPF >

| | | | | | |
|---|---|---|---|---|---|
| BPF101 | 1-233-815-11 | FILTER, BAND PASS | | | |

< CAPACITOR >

| | | | | | |
|---|---|---|---|---|---|
| C101 | 1-164-038-11 | CERAMIC | 2PF | 0.25PF | 50V |
| C102 | 1-130-471-11 | MYLAR | 0.01uF | 5% | 50V |
| C103 | 1-164-054-11 | CERAMIC | 22PF | 5% | 50V |
| C104 | 1-124-443-00 | ELECT | 100uF | 20% | 10V |
| C105 | 1-102-074-11 | CERAMIC | 0.001uF | 10% | 50V |
| C106 | 1-102-074-11 | CERAMIC | 0.001uF | 10% | 50V |
| C107 | 1-164-054-11 | CERAMIC | 22PF | 5% | 50V |
| C108 | 1-164-040-11 | CERAMIC | 4PF | 0.25PF | 50V |
| C110 | 1-126-961-11 | ELECT | 2.2uF | 20% | 50V |
| C111 | 1-124-443-00 | ELECT | 100uF | 20% | 10V |

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 | | | Remark |
|---|---|---|---|---|---|
| C112 | 1-124-902-00 | ELECT | 0.47uF | 20% | 50V |
| C113 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C114 | 1-124-903-11 | ELECT | 1uF | 20% | 50V |
| C115 | 1-130-471-11 | MYLAR | 0.01uF | 5% | 50V |
| C116 | 1-130-471-11 | MYLAR | 0.01uF | 5% | 50V |
| C117 | 1-126-963-11 | ELECT | 4.7uF | 20% | 50V |
| C118 | 1-124-903-11 | ELECT | 1uF | 20% | 50V |
| C119 | 1-104-664-11 | ELECT | 47uF | 20% | 10V |
| C120 | 1-124-443-00 | ELECT | 100uF | 20% | 10V |
| C121 | 1-130-471-11 | MYLAR | 0.01uF | 5% | 50V |
| C122 | 1-130-485-11 | MYLAR | 0.015uF | 5% | 50V |
| C123 | 1-130-485-11 | MYLAR | 0.015uF | 5% | 50V |
| C129 | 1-126-956-11 | CERAMIC | 0.1uF | 20% | 50V |
| C133 | 1-124-902-00 | ELECT | 0.47uF | 20% | 50V |
| C134 | 1-124-902-00 | ELECT | 0.47uF | 20% | 50V |
| C135 | 1-162-282-31 | CERAMIC | 100PF | 5% | 50V |
| C137 | 1-164-043-11 | CERAMIC | 7PF | 0.5PF | 50V |
| C140 | 1-126-956-11 | CERAMIC | 0.1uF | 20% | 50V |
| | | < FILTER > | | | |
| CF101 | 1-233-659-12 | FILTER, CERAMIC | | | |
| CF103 | 1-760-238-11 | FILTER, CERAMIC | | | |
| | | < CONNECTOR > | | | |
| * CN101 | 1-778-845-11 | PIN, CONNECTOR 6P | | | |
| | | < VARIABLE CAPACITOR > | | | |
| CT101 | 1-151-696-11 | CAP, VAR | | | |
| CV101 | 1-151-696-11 | CAP, VAR (TUNING) | | | |
| | | < DIODE > | | | |
| D101 | 8-719-055-76 | DIODE 1N4148 | | | |
| D102 | 8-719-055-76 | DIODE 1N4148 | | | |
| | | < IC > | | | |
| IC101 | 8-752-050-20 | IC CXA1238S | | | |
| | | < COIL > | | | |
| L101 | 1-501-875-11 | ANTENNA, FERRITE-ROD (AM) | | | |
| L102 | 1-415-987-11 | COIL (FM RF) | | | |
| L103 | 1-415-988-11 | COIL (FM OSC) | | | |
| L104 | 1-415-928-11 | COIL (AM OSC) | | | |
| | | < TRANSISTOR > | | | |
| Q101 | 8-729-178-59 | TRANSISTOR 2SC2785 | | | |

| Ref. No. | Part No. | Description | | | Remark |
|---|---|---|---|---|---|
| | | < RESISTOR > | | | |
| R101 | 1-247-847-11 | CARBON | 4.7K | 5% | 1/4W |
| R102 | 1-247-807-11 | CARBON | 100 | 5% | 1/4W |
| R103 | 1-247-855-11 | CARBON | 10K | 5% | 1/4W |
| R104 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W |
| R105 | 1-247-839-11 | CARBON | 2.2K | 5% | 1/4W |
| R106 | 1-247-887-00 | CARBON | 220K | 5% | 1/4W |
| R107 | 1-247-879-11 | CARBON | 100K | 5% | 1/4W |
| R108 | 1-247-839-11 | CARBON | 2.2K | 5% | 1/4W |
| R109 | 1-249-411-11 | CARBON | 330 | 5% | 1/4W |
| R110 | 1-247-815-11 | CARBON | 220 | 5% | 1/4W |
| R111 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W |
| R112 | 1-249-427-11 | CARBON | 6.8K | 5% | 1/4W |
| R113 | 1-247-871-11 | CARBON | 47K | 5% | 1/4W |
| R114 | 1-247-855-11 | CARBON | 10K | 5% | 1/4W |
| | | < SWITCH > | | | |
| SW101 | 1-762-864-11 | SWITCH, LEVER (BAND) | | | |
| | | < ENCAPSULATED COMPONENT > | | | |
| T101 | 1-239-724-11 | ENCAPSULATED COMPONENT | | | |
| | | < VARIABLE RESISTOR > | | | |
| VR101 | 1-225-376-11 | RES, ADJ, CARBON 20K | | | |

**********

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | MISCELLANEOUS | |
| | | ********** | |
| 64 | 1-452-531-11 | MAGNET | |
| 67 | 1-776-184-11 | WIRE (FLAT TYPE) (16 CORE) | |
| ⚠151 | 8-848-367-11 | PICK-UP, OPTICAL KSS-213B/K-N | |
| ANT1 | 1-501-874-11 | ANTENNA, TELESCOPIC | |
| ⚠F301 | 1-576-104-11 | FUSE (2A) | |
| HE401 | 1-500-139-11 | HEAD (ERASE) (DECK B) | |
| HP401 | 1-500-138-11 | HEAD (PLAYBACK) (DECK A) | |
| HRP401 | 1-500-138-11 | HEAD (RECORD/PLAYBACK) (DECK B) | |
| ⚠J1 | 1-251-474-11 | INLET, AC (~ AC IN) | |
| M401 | X-3369-087-1 | MOTOR ASSY (REEL/CAPSTAN) | |
| M701 | X-2625-769-1 | MOTOR GEAR ASSY (SLED) | |
| M702 | X-2625-770-1 | MOTOR ASSY, SPINDLE | |
| SP201 | 1-504-736-12 | SPEAKER (10CM) (L-CH) | |
| SP202 | 1-504-736-12 | SPEAKER (10CM) (R-CH) | |
| SW204 | 1-692-960-11 | SWITCH, PUSH (1 KEY) (OPEN/CLOSE) | |
| SW402 | 1-762-022-11 | SWITCH, LEAF (FF/REW) (DECK A) | |
| SW403 | 1-762-022-11 | SWITCH, LEAF (FF/REW) (DECK B) | |
| SW404 | 1-762-023-11 | SWITCH, LEAF (PLAYBACK) (DECK A) | |
| SW405 | 1-762-023-11 | SWITCH, LEAF (REC) (DECK B) | |
| SW406 | 1-762-024-11 | SWITCH, LEAF (DUBBING) (DECK A) | |
| ⚠T301 | 1-429-914-11 | TRANSFORMER, POWER (US) | |
| ⚠T301 | 1-431-133-11 | TRANSFORMER, POWER (Canadian) | |
| ********** | | | |
| | | ACCESSORIES & PACKING MATERIALS | |
| | | ********** | |
| ⚠ | 1-690-952-12 | CORD, POWER (Canadian) | |
| ⚠ | 1-782-126-11 | CORD, POWER (US) | |
| * | 3-007-362-01 | INDIVIDUAL CARTON (US) | |
| * | 3-007-363-01 | INDIVIDUAL CARTON (Canadian) | |
| * | 3-007-955-01 | CUSHION (L) | |
| * | 3-007-956-01 | CUSHION (R) | |
| | 3-858-169-11 | MANUAL, INSTRUCTION (ENGLISH) | |
| | 3-858-169-21 | MANUAL, INSTRUCTION (FRENCH) (Canadian) | |
| ********** | | | |

| Ref. No. | Part No. | Description | Remark |
|---|---|---|---|
| | | ********** | |
| | | HARDWARE LIST | |
| | | ********** | |
| #1 | 7-682-547-04 | SCREW +P 3X6 | |
| #2 | 7-688-003-01 | W3, SMALL | |
| #3 | 7-685-133-19 | SCREW +P 2.6X6 TYPE2 | |
| #4 | 7-685-168-11 | SCREW +PTP 4X40 TYPE2 NON-SLIT | |
| #5 | 7-685-135-19 | SCREW +P 2.6X10 | |
| #6 | 7-621-255-15 | SCREW +P 2X3 | |
| #7 | 7-685-647-79 | SCREW, TAPPING +BV 3X10 | |
| #8 | 7-621-770-67 | SCREW +B 2.6X6 | |
| #9 | 7-623-954-01 | WASHER 3.0, FIBER | |
| #10 | 7-685-148-01 | SCREW +P 3X12 TYPE1 | |

| | |
|---|---|
| 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. |

*MEMO*

# REVISION HISTORY

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

| Ver. | Date | Description of Revision |
|---|---|---|
| 1.0 | 1996.09 | New |
| 1.1 | 2001.12 | Corrected part No. of IC703 (ECN-RC801249) |
| 1.2 | 2005.09 | Change of part No. of Power Cord (SPM-05132) |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |