

# CDX-4250/4500

## SERVICE MANUAL

US Model  
Canadian Model

CDX-4250

E Model

CDX-4500



Photo: CDX-4250

### SPECIFICATIONS

#### AUDIO POWER SPECIFICATIONS

##### POWER OUTPUT AND TOTAL HARMONIC DISTORTION

17 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 1 % total harmonic distortion.

#### Other specifications

##### CD player section

|                        |                                   |
|------------------------|-----------------------------------|
| System                 | Compact disc digital audio system |
| Signal-to-noise ratio  | 90 dB                             |
| Frequency response     | 10 - 20,000 Hz                    |
| Wow and flutter        | Below measurable limit            |
| Laser Diode Properties |                                   |
| Material               | GaAlAs                            |
| Wavelength             | 780 nm                            |
| Emission Duration      | Continuous                        |
| Laser output power     | Less than 44.6 $\mu$ W*           |

\* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block.

##### Tuner section

|                              |                                 |
|------------------------------|---------------------------------|
| FM                           |                                 |
| Tuning range                 | 87.5 - 107.9 MHz                |
| Antenna terminal             | External antenna connector      |
| Intermediate frequency       | 10.7 MHz                        |
| Usable sensitivity           | 9 dBf                           |
| Selectivity                  | 75 dB at 400 kHz                |
| Signal-to-noise ratio        | 65 dB (stereo),<br>68 dB (mono) |
| Harmonic distortion at 1 kHz | 0.7 % (stereo),<br>0.4 % (mono) |
| Separation                   | 35 dB at 1 kHz                  |
| Frequency response           | 30 - 15,000 Hz                  |

#### AM

|                        |                            |
|------------------------|----------------------------|
| Tuning range           | 530 - 1,710 kHz            |
| Antenna terminal       | External antenna connector |
| Intermediate frequency | 10.71 MHz/450 kHz          |
| Sensitivity            | 30 $\mu$ V                 |

##### Power amplifier section

|                      |                                           |
|----------------------|-------------------------------------------|
| Outputs              | Speaker outputs<br>(sure seal connectors) |
| Speaker impedance    | 4 - 8 ohms                                |
| Maximum power output | 40 W $\times$ 4 (at 4 ohms)               |

|                                    |             |
|------------------------------------|-------------|
| Model Name Using Similar Mechanism | CDX-4180    |
| CD Drive Mechanism Type            | MG-363X-121 |
| Optical Pick-up Name               | KSS-521A    |

#### General

|                      |                                                                                                                               |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Outputs              | Power antenna relay control<br>Telephone ATT control lead                                                                     |
| Tone controls        | Bass $\pm$ 8 dB at 100 Hz<br>Treble $\pm$ 8 dB at 10 kHz                                                                      |
| Power requirements   | 12 V DC car battery (negative ground)                                                                                         |
| Dimensions           | Approx. 178 $\times$ 50 $\times$ 185 mm<br>(7 $\frac{1}{8}$ $\times$ 2 $\times$ 7 $\frac{3}{8}$ in.)<br>(w/h/d)               |
| Mounting dimensions  | Approx. 182 $\times$ 53 $\times$ 162 mm<br>(7 $\frac{1}{4}$ $\times$ 2 $\frac{1}{8}$ $\times$ 6 $\frac{1}{2}$ in.)<br>(w/h/d) |
| Mass                 | Approx. 1.2 kg (2 lb. 10 oz.)                                                                                                 |
| Supplied accessories | Parts for installation and connections (1 set)<br>Front panel case (1)                                                        |
| Optional accessories | Cleaning cloth XP-CD1<br>Compact disc single adapter CSA-8                                                                    |

Design and specifications are subject to change without notice.

## FM/AM COMPACT DISC PLAYER



# SONY®

## SERVICE NOTE

### CAUTION

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

### 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.

### NOTES ON PICK-UP FLEXIBLE BOARD

The pick-up flexible board in this set is secured to the optical pick-up with an adhesive tape. Once the tape is removed, an adhering force becomes weak, and it cannot be reused.

Therefore, if the optical pick-up is replaced, replace also the pick-up flexible board with a new one.

### SAFETY-RELATED COMPONENT WARNING!!

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

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

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

## TABLE OF CONTENTS

### 1. GENERAL

|                              |   |
|------------------------------|---|
| Location of Controls .....   | 4 |
| Getting Started .....        | 4 |
| CD Player .....              | 5 |
| Radio .....                  | 5 |
| Other Functions .....        | 6 |
| Additional Information ..... | 7 |
| Connections .....            | 8 |

### 2. DISASSEMBLY

|                                     |    |
|-------------------------------------|----|
| 2-1. Cover ASSY .....               | 10 |
| 2-2. Front Panel ASSY .....         | 10 |
| 2-3. Display Board .....            | 11 |
| 2-4. CD Mechanism Block .....       | 11 |
| 2-5. Main Board .....               | 12 |
| 2-6. Heat Sink .....                | 12 |
| 2-7. Chassis (T) Sub ASSY .....     | 13 |
| 2-8. Lever ASSY .....               | 13 |
| 2-9. Servo Board .....              | 14 |
| 2-10. Roller ASSY .....             | 14 |
| 2-11. Chassis (OP) (O/S) ASSY ..... | 15 |
| 2-12. Optical Pick-up Block .....   | 15 |

### 3. ELECTRICAL ADJUSTMENTS

|                     |    |
|---------------------|----|
| Tuner Section ..... | 16 |
| CD Section .....    | 18 |

### 4. DIAGRAMS

|                                                         |    |
|---------------------------------------------------------|----|
| 4-1. IC Pin Description .....                           | 19 |
| 4-2. Circuit Boards Location .....                      | 21 |
| 4-3. Printed Wiring Boards –CD Mechanism Section– ..... | 23 |
| 4-4. Schematic Diagram –CD Mechanism Section– .....     | 25 |
| 4-5. Printed Wiring Board –Display Section– .....       | 27 |
| 4-6. Schematic Diagram –Display Section– .....          | 29 |
| 4-7. Printed Wiring Board –Main Section– .....          | 31 |
| 4-8. Schematic Diagram –Main Section (1/2)– .....       | 33 |
| 4-9. Schematic Diagram –Main Section (2/2)– .....       | 35 |

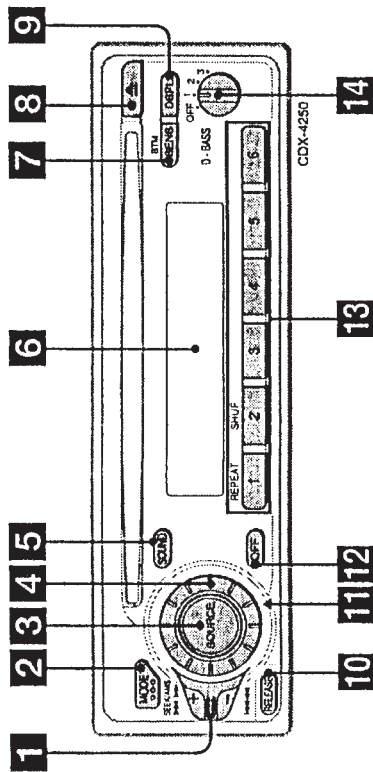
### 5. EXPLODED VIEWS

|                                     |    |
|-------------------------------------|----|
| 5-1. Chassis Section .....          | 40 |
| 5-2. Front Panel Section .....      | 41 |
| 5-3. CD Mechanism Section (1) ..... | 42 |
| 5-4. CD Mechanism Section (2) ..... | 43 |
| 5-5. CD Mechanism Section (3) ..... | 44 |

### 6. ELECTRICAL PARTS LIST .....

|    |
|----|
| 45 |
|----|

## Location of controls



Refer to the pages for details.

- 1 SEEK/AMS (seek/Automatic Music Sensor/manual search) control 7, 8
- 2 MODE (band select) button 7, 8
- 3 SOURCE (source select) button 6, 7, 8
- 4 Dial (volume/bass/treble/left-right/front-rear control) 6, 9
- 5 SOUND button 6, 9
- 6 Display window
- 7 SENS/BTM (sensitivity adjust/Best Tuning Memory) button 7, 8
- 8  $\triangle$  (eject) button 6
- 9 DSPL (display mode change/time set) button 6, 8
- 10 RELEASE (front panel release) button 5, 11
- 11 Reset button (located on the front side of the unit behind the front panel) 5
- 12 OFF button 5, 6, 9
- 13 During radio reception:  
Number buttons 8  
During CD playback:  
① REPEAT button 7  
② SHUF button 7
- 14 D-BASS control 9

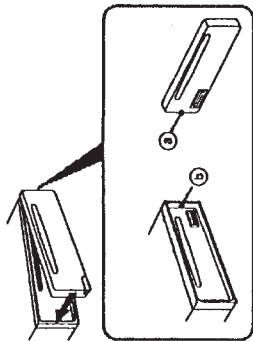
## SECTION 1 GENERAL

This section extracted from US,  
Canadian model's instruction manual.

- Notes**
- Be sure not to drop the panel when detaching it from the unit.
  - If you detach the panel while the unit is still turned on, the power will turn off automatically to prevent the speakers from being damaged.
  - When carrying the front panel with you, use the supplied front panel case.

### Attaching the front panel

Attach part ③ of the front panel to part ⑤ of the unit as illustrated, and push the left side into position until it clicks into position.



- Notes**
- Be sure not to attach the front panel upside down.
  - Do not press the front panel too hard against the unit when attaching it.
  - Do not press too hard or put excessive pressure on the display window of the front panel.
  - Do not expose the front panel to direct sunlight or heat sources such as hot air ducts, and do not leave it in a humid place. Never leave it on the dashboard of a car parked in direct sunlight or where there may be a considerable rise in temperature.

### Caution alarm

If you turn the ignition key switch to the OFF position without removing the front panel, the caution alarm will beep for a few seconds. If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.

## Getting Started

### Resetting the unit

Before operating the unit for the first time or after replacing the car battery, you must reset the unit.

Remove the front panel and press the reset button with a pointed object, such as a ball-point pen.



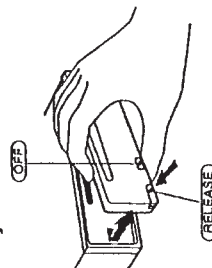
Reset button

- Notes**
- Pressing the reset button will erase the clock setting and some memorized program and memory functions.
  - When you connect the power supply cord to the unit or reset the unit, wait for about 10 seconds before you insert a disc. If you insert a disc within these 10 seconds, the unit will not be reset, and you will have to press the reset button again.

### Detaching the front panel

You can detach the front panel of this unit to protect the unit from being stolen.

- 1 Press **OFF**.
- 2 Press **(RELEASE)**, then slide the front panel a little to the left, and pull it off towards you.



## Setting the clock

The clock has a 12-hour digital indication.

Example: To set the clock to 10:08

- 1 Press **(DSP/L)** during operation.  
If the **POWER SELECT** function is set to "ON," go to step 2. If it is set to "OFF," set to "ON" (page 9).

- 2 Press **(DSP/L)** for two seconds.



The hour indication flashes.

- 1 Set the hour.

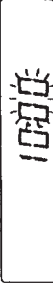


To go backward

To go forward



- 2 Press **(SOUND)**.



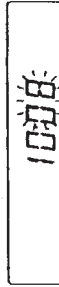
The minute indication flashes.

- 3 Set the minute.



To go backward

To go forward



- 3 Press **(DSP/L)**.



The clock starts.

**Note**

If the car has no accessory position on the ignition key switch, the clock cannot be set unless the power is turned on. Set the clock after you have turned on the radio, or started CD playback.

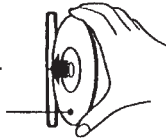


## Listening to a CD

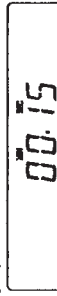
Insert a CD.

Playback starts automatically.

Label side up



If a CD is already inserted, press **(SOURCE)** repeatedly until "CD" appears to start playback.



Elapsed playing time

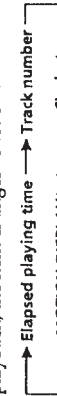
**Note**

To play back an 8 cm (3 in.) CD, use the optional Sony compact disc single adapter (CSA-8).

|               |                            |
|---------------|----------------------------|
| To            | Press                      |
| Stop playback | <b>(P)</b> or <b>(OFF)</b> |
| Eject the CD  | <b>(E)</b>                 |

### Changing the display item

Each time you press **(DSP/L)** during CD playback, the item changes as follows:



\* All the above items are scrolled in the display one by one in order.

### Locating a specific track

- Automatic Music Sensor (AMS)

During playback, push the SEEK/AMS control up or down and release for each track you want to skip.



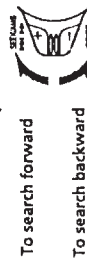
To locate succeeding tracks

To locate preceding tracks

### Locating a specific point in a track

- Manual Search

During playback, push the SEEK/AMS control up or down and hold for about two seconds. Release when you have found the desired point.



To search forward

To search backward

**Note**

If "L L L L" or "R R R R" appears in the display, you have reached the beginning or the end of the disc and you cannot go any further.

## Playing a CD in various modes

### Playing tracks repeatedly

- Repeat Play

Press **(R)** during playback.

"REP" appears in the display.

When the current track is over, it will play again from the beginning.

To return to normal playback mode, press again.

### Playing tracks in random order

- Shuffle Play

Press **(S)** during playback.

"SHUF" appears in the display.

To return to normal playback mode, press again.

## Radio

## Memorizing stations automatically

- Best Tuning Memory (BTM)

This unit selects the stations with the strongest signals and memorizes them in the order of their frequencies. You can store up to 6 stations on each band (FM I, FM II, FM III, and AM).

### Caution

When tuning in stations while driving, use Best Tuning Memory to prevent accidents.

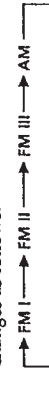
- 1 Press **(SOURCE)** repeatedly to select the tuner.

Each time you press **(SOURCE)**, the mode changes as follows:

CD → TUNER

- 2 Press **(MODE)** repeatedly to select the band.

Each time you press **(MODE)**, the band changes as follows:



- 3 Press **(SENS/BTM)** for two seconds.

The unit stores stations in the order of their frequencies on the number buttons.

A beep sounds when the setting is stored.

**Notes**

- The unit does not store stations with weak signals. If only a few stations can be received, some number buttons will retain their former setting.
- When a number is indicated in the display, the unit starts storing stations from the one currently displayed.
- If a CD is not in the unit, only the tuner band appears even if you press **(SOURCE)**.

## Memorizing only the desired stations

You can store up to 6 stations on each band (a total of 18 for FM I, FM II, and FM III, and 6 for AM) in the order of your choice.

- 1 Press **(SOURCE)** repeatedly to select the tuner.
- 2 Press **(MODE)** repeatedly to select the band.
- 3 Push the SEEK/AMS control up or down to tune in the station that you want to store on the number button.
- 4 Press and hold the desired number button (1 to 6) until "MEM" appears. The number button indication appears in the display.

### Note

If you try to store another station on the same number button, the previously stored station will be erased.

## Receiving the memorized stations

- 1 Press **(SOURCE)** repeatedly to select the tuner.
- 2 Press **(MODE)** repeatedly to select the band.
- 3 Press the number button (1 to 6) on which the desired station is stored.

## If you cannot tune in a preset station

Push and release the SEEK/AMS control up or down to search for the station (automatic tuning).

Scanning stops when the unit receives a station. Push the SEEK/AMS control up or down repeatedly until the desired station is received.

### Note

If the automatic tuning stops too frequently, press **(SENS/ATM)** repeatedly until "LCI" (local seek mode) is displayed. Only the stations with relatively strong signals will be tuned in.

### Tip

If you know the frequency of the station you want to listen to push the SEEK/AMS control up or down and hold until the desired frequency appears (manual tuning).

## If FM stereo reception is poor — Monaural Mode

Press **(SENS/ATM)** repeatedly until "MONO" appears. The sound improves, but becomes monaural ("ST" disappears).

To return to normal mode, press again until "MONO" disappears.

## Changing the display item

Each time you press **(DISP)**, the item changes as follows:



\* All the above items are scrolled in the display one by one in order.

## Other Functions

## Adjusting the sound characteristics

You can adjust the bass, treble, balance, and fader. You can store the bass and treble levels.

- 1 Select the item you want to adjust by pressing **(SOUND)** repeatedly.  
 BAS (bass) → TRE (treble) →  
 BAL (left-right) → FAD (front-rear) →  
 VOL (volume)

- 2 Adjust the selected item by rotating the dial.

Adjust within three seconds after selecting the item. (After three seconds, the dial function reverts to volume control.)

## Turning on the clock display — Power Select Function

Only for cars with an accessory position on the ignition key switch

To turn the Power Select Function ON

Press **(OFF)** while pressing **(SOUND)**. The Power Select Function ties the clock display power to the accessory position on the ignition key switch.

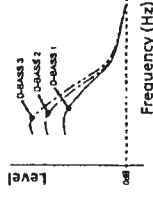
To avoid battery wear, the clock is not displayed while the unit is initializing.

## Changing the sound and beep sound

**Boosting the bass sound** — D-bass  
 You can enjoy a clear and powerful bass sound.

The D-bass function boosts the low frequency signal with a sharper curve than conventional bass boost.

You can hear the bass line more clearly even while the vocal remains at the same volume. You can emphasize and adjust the bass sound easily with the D-BASS control. This is similar in effect to an optional subwoofer system.



## Adjusting the bass curve

Turn the D-BASS control to adjust the bass level (1, 2, or 3).  
 "D-BASS" appears in the display.

To cancel, turn the control to OFF.

### Note

If the bass sound becomes distorted, adjust the D-BASS control or volume.

## Cancel the beep sound

Press **(B)** while pressing **(SOUND)**.

To obtain the beep sound again, press these buttons again.

### Note

If you connect an optional power amplifier and do not use the built-in amplifier, the beep sound will be deactivated.



## Additional Information

### Precautions

- If your car was parked in direct sunlight resulting in a considerable rise in temperature inside the car, allow the unit to cool off before operating it.
- If no power is being supplied to the unit, check the connections first. If everything is in order, check the fuse.
- If no sound comes from the speakers of a two-speaker system, set the fader control to the center position.
- If your car is equipped with a power antenna, it will extend automatically while the unit is operating.

If you have any questions or problems concerning your unit that are not covered in this manual, please consult your nearest Sony dealer.

### Notes on handling CDs

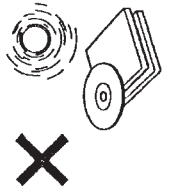
A dirty or defective disc may cause sound dropouts while playing. To enjoy optimum sound, handle the disc by its edge. To keep the disc clean, do not touch the surface.



Do not stick paper or tape on the labeled surface.



Do not expose the discs to direct sunlight or heat sources such as hot air-ducts, or leave them in a car parked in direct sunlight where there can be a considerable rise in temperature inside the car.



Before playing, clean the discs with an optional cleaning cloth. Wipe each disc from the center out.

Do not use solvents such as benzine, thinner, commercially available cleaners, or antistatic spray intended for analog discs.



### Notes on moisture condensation

On a rainy day or in a very damp area, moisture may condense on the lenses inside the CD player. Should this occur, the unit will not operate properly. In this case, remove the disc and wait for about an hour until the moisture evaporates.

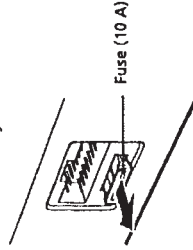
### When you play 8 cm (3 in.) CDs

Use the optional Sony compact disc single adapter (CSA-8) to protect the CD player from damage.

## Maintenance

### Fuse replacement

When replacing the fuse, be sure to use one matching the amperage rating stated on the original fuse. If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after replacement, there may be an internal malfunction. In such a case, consult your nearest Sony dealer.



### Warning

Never use a fuse with an amperage rating exceeding the one supplied with the unit as this could damage the unit.

### Cleaning the connectors

The unit may not function properly if the connectors between the unit and the front panel are not clean. In order to prevent this, open the front panel by pressing **(RELEASE)**, then detach it and clean the connectors with a cotton swab dipped in alcohol. Do not apply too much force. Otherwise, the connectors may be damaged.



Main unit

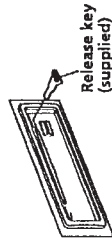


Back of the front panel

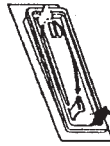
### Notes

- For safety, turn off the engine before cleaning the connectors and remove the key from the ignition key switch.
- Never touch the connectors directly with your fingers or any metal device.

## Dismounting the unit



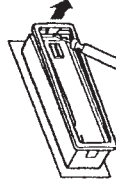
Release key (supplied)



Pull the unit out while the release key is inserted.



Press the clip inside the front cover with a thin screwdriver, and gently pry the front cover free.



# Connections

## Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the yellow and red power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- Run all ground wires to a common ground point.
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating. If you connect this unit in series with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual component's fuse rating. If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery. If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.
- The use of optical instruments with this product will increase eye hazard.

## If your car has an accessory position on the ignition key switch

### — Power Select Function

To turn the Power Select function on

Press **(OFF)** while pressing **(SOUND)**.

To turn the accessory position ON or OFF, the clock will be displayed or not.

To avoid battery wear, the clock is not displayed when the unit is initialization.

## Reset button

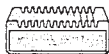
When the installation and connections are complete, be sure to press the reset button with a ball-point pen etc.



## Connection diagram

Equipment used in illustrations (not supplied)

Appareils utilisés dans les illustrations (non fournis)



Power amplifier  
Amplificateur de puissance

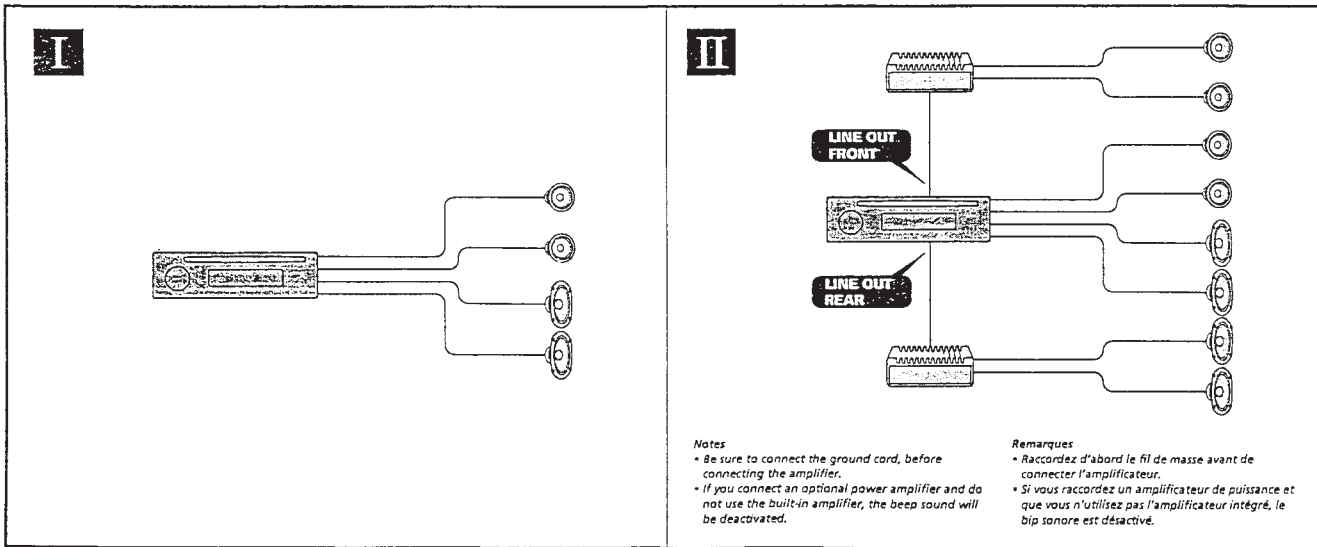


Front speakers  
Haut-parleurs avant



Rear speakers  
Haut-parleurs arrière

## Schémas de connexion



# Connexions

## Précautions

- Cet appareil est conçu pour fonctionner sur tension continue de 12 V avec masse négative.
- Avant d'effectuer les connexions, débrancher la borne de terre de la batterie du véhicule pour éviter tout court-circuit.
- Brancher les fils d'entrée d'alimentation jaune et rouge seulement après avoir terminé tous les autres branchements.
- Veiller à ne pas raccorder le fil rouge d'entrée d'alimentation à la borne positive de 12 V qui est alimentée quand la clé de contact est sur la position accessoires.
- Rassembler tous les fils de terre en un point de masse commun.
- Brancher le câble jaune à un circuit libre de la voiture dont la capacité nominale est supérieure à la capacité du fusible de l'appareil. Si vous branchez cet appareil en série avec d'autres composants stéréo, le circuit de la voiture auxquels ils sont raccordés doit afficher une capacité nominale supérieure à la somme des capacités individuelles de chaque composant. S'il n'y a pas de circuits de voiture affichant une capacité égale à la capacité du fusible de l'appareil, brancher l'appareil directement à la batterie. Si aucun circuit de voiture n'est disponible pour connecter cet appareil, brancher l'appareil à un circuit de voiture supérieur à la capacité du fusible de l'appareil de telle sorte que si l'appareil grille son fusible, aucun autre circuit ne soit coupé.

## Si la serrure de contact de votre voiture comporte une position accessoires

### — Fonction de sélection d'alimentation

Pour activer la fonction de sélection d'alimentation

Appuyez sur **(OFF)** tout en maintenant **(SOUND)** enfoncée.

Si vous mettez la clé en position accessoires, l'horloge s'affichera et vice versa.

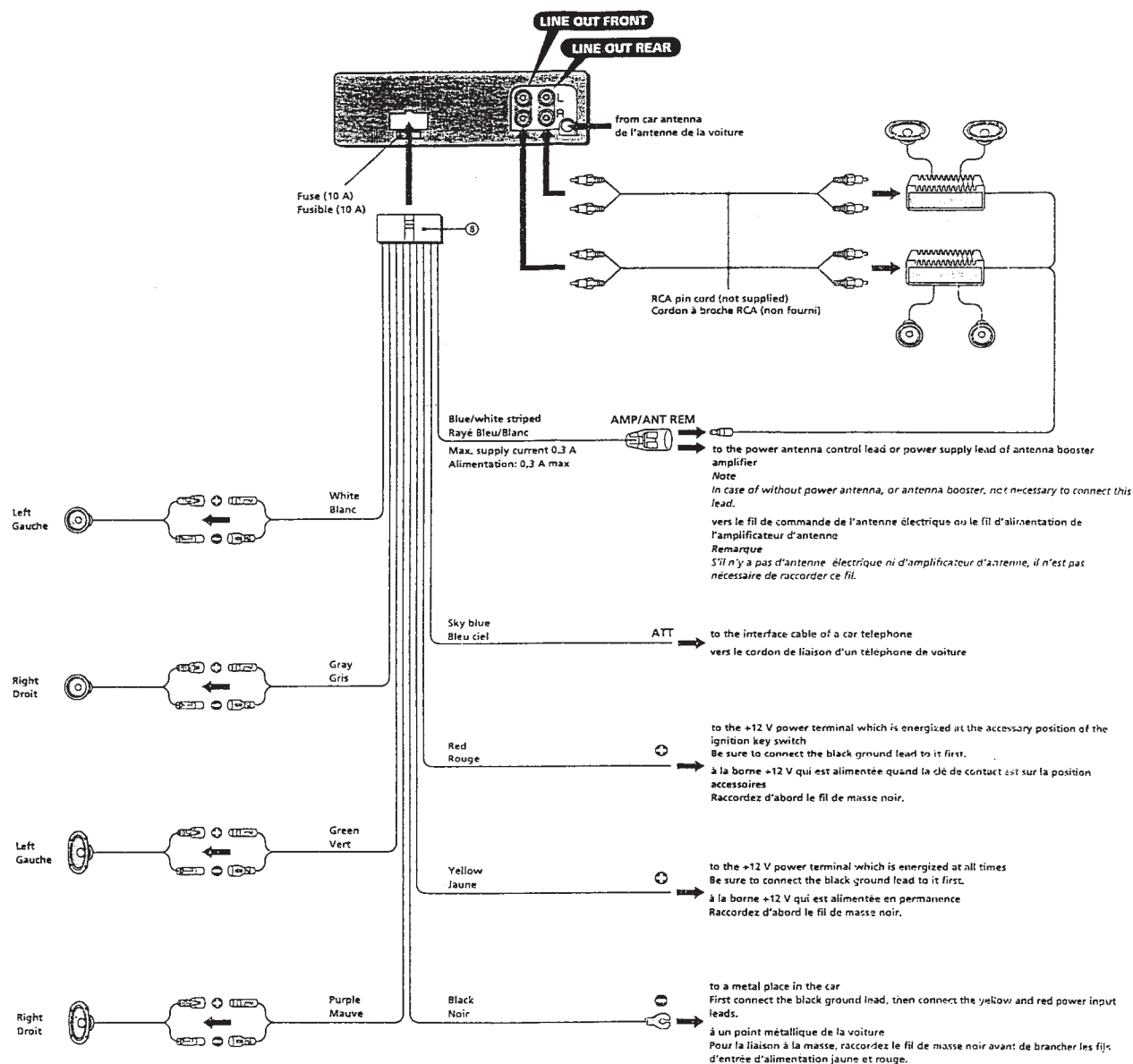
Pour éviter la décharge de la batterie, l'horloge ne s'affiche pas lorsque l'appareil est initialisé.

## Touche de réinitialisation

Quand l'installation et les connexions sont terminées, appuyer sur la touche de réinitialisation avec un stylo à bille, etc.



## Connection example Exemple de connexions



### Notes on the control leads

- The AMP/ANT REM lead (blue/white) supplies +12 V DC when you turn on the unit. When the AMP/ANT REM lead is connected to the power antenna, the antenna will be extended as long as the unit is turned on.
- A power antenna without relay box cannot be used with this unit.

### Memory hold connection

When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

### Notes on speaker connection

- Before connecting the speakers, turn the unit off.
- Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.
- Do not connect the terminals of the speaker system to the car chassis, and do not connect the terminals of the right speaker with those of the left speaker.
- Do not attempt to connect the speakers in parallel.
- Do not connect any active speakers (with built-in amplifiers) to the speaker terminals of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these terminals.

### Remarques sur les fils de contrôle

- Le fil d'AMP/ANT REM (bleu/blanc) fournit du courant continu de +12 V lorsque vous mettez l'appareil sous tension. Si le fil d'AMP/ANT REM est raccorder à l'antenne électrique, l'antenne sera déployée aussi longtemps que l'appareil sera sous tension.
- Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.

### Connexion pour la conservation de la mémoire

Lorsque le fil d'entrée d'alimentation jaune est connecté, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

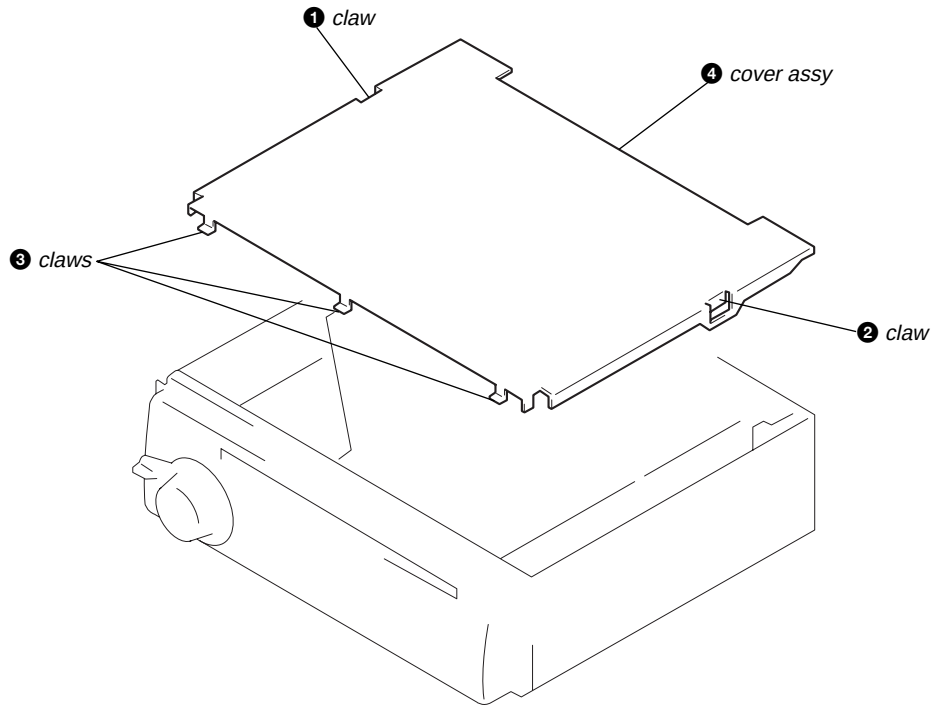
### Remarques sur la connexion des haut-parleurs

- Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.
- Utiliser des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.
- Ne pas raccorder les bornes du système de haut-parleurs au châssis de la voiture et ne pas connecter les bornes d haut-parleur droit à celles du haut-parleur gauche.
- Ne pas tenter de raccorder les haut-parleurs en parallèle.
- Ne pas raccorder des haut-parleurs actifs (avec amplificateurs intégrés) aux bornes de haut-parleur de l'appareil sous peine de les endommager. Veillez à raccorder des haut-parleurs passifs à ces bornes.

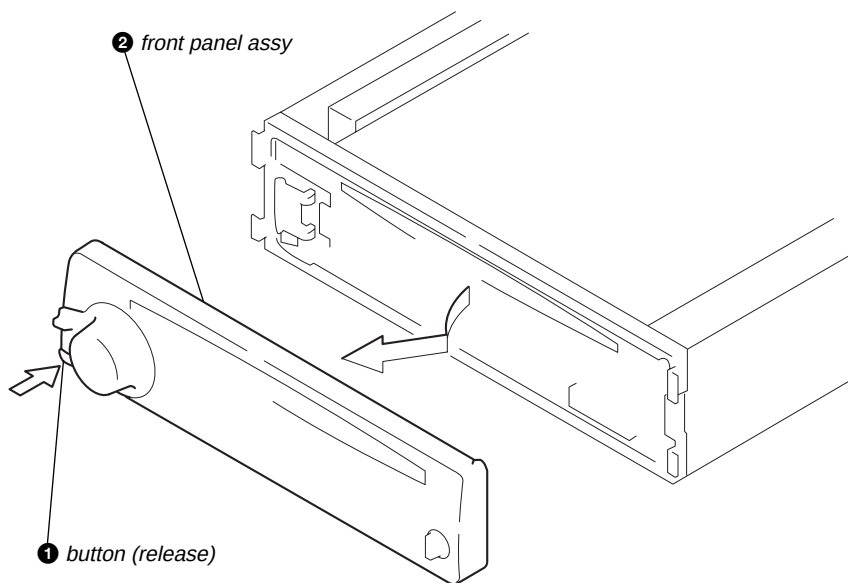
## SECTION 2 DISASSEMBLY

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

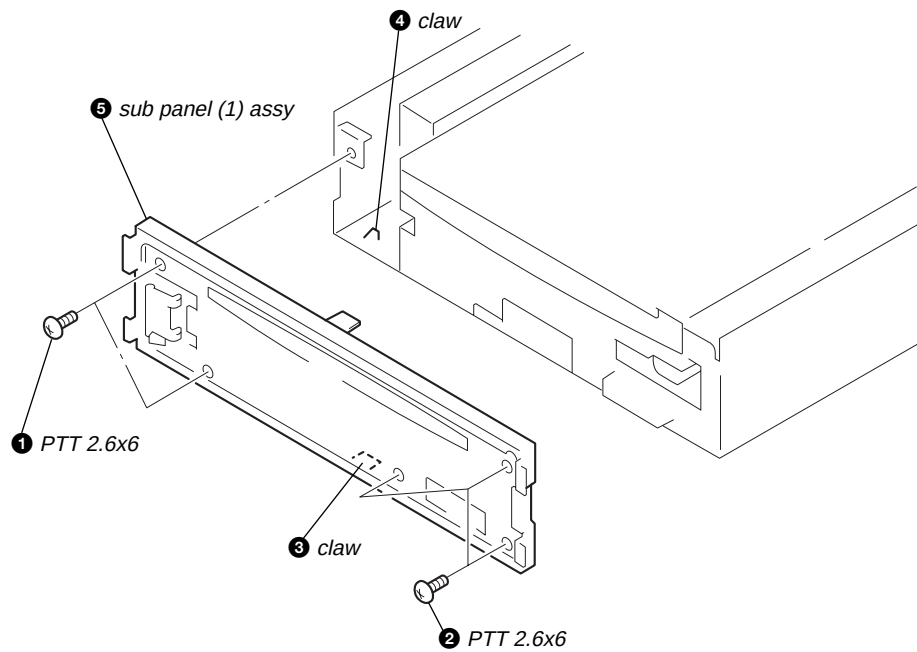
### 2-1. COVER ASSY



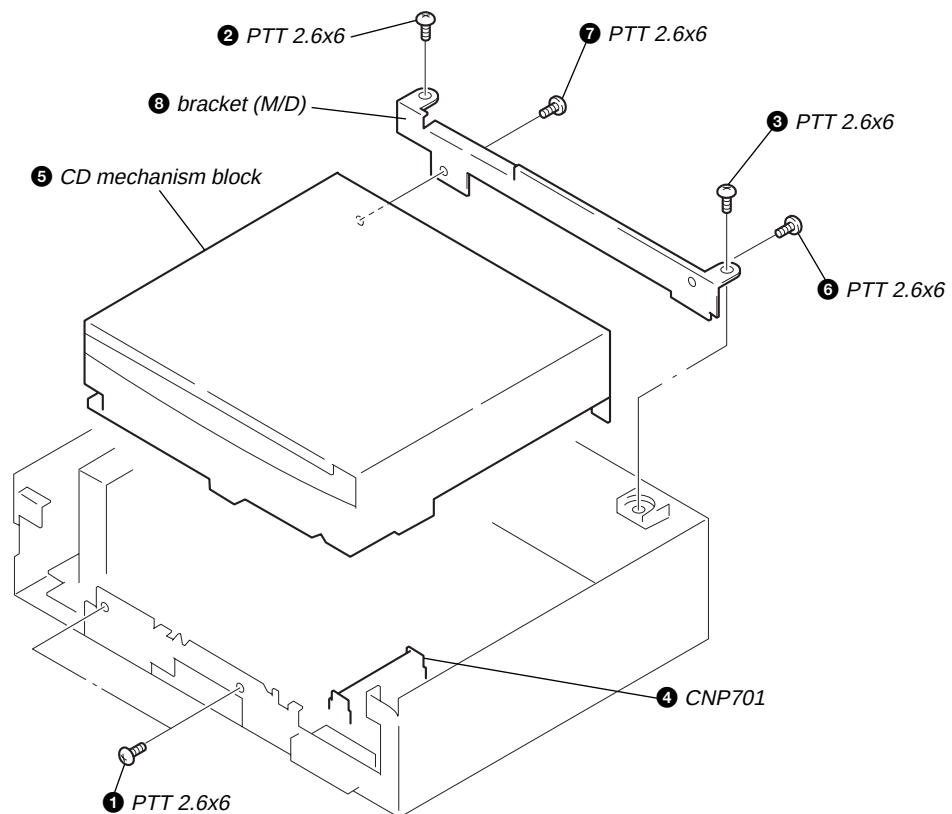
### 2-2. FRONT PANEL ASSY



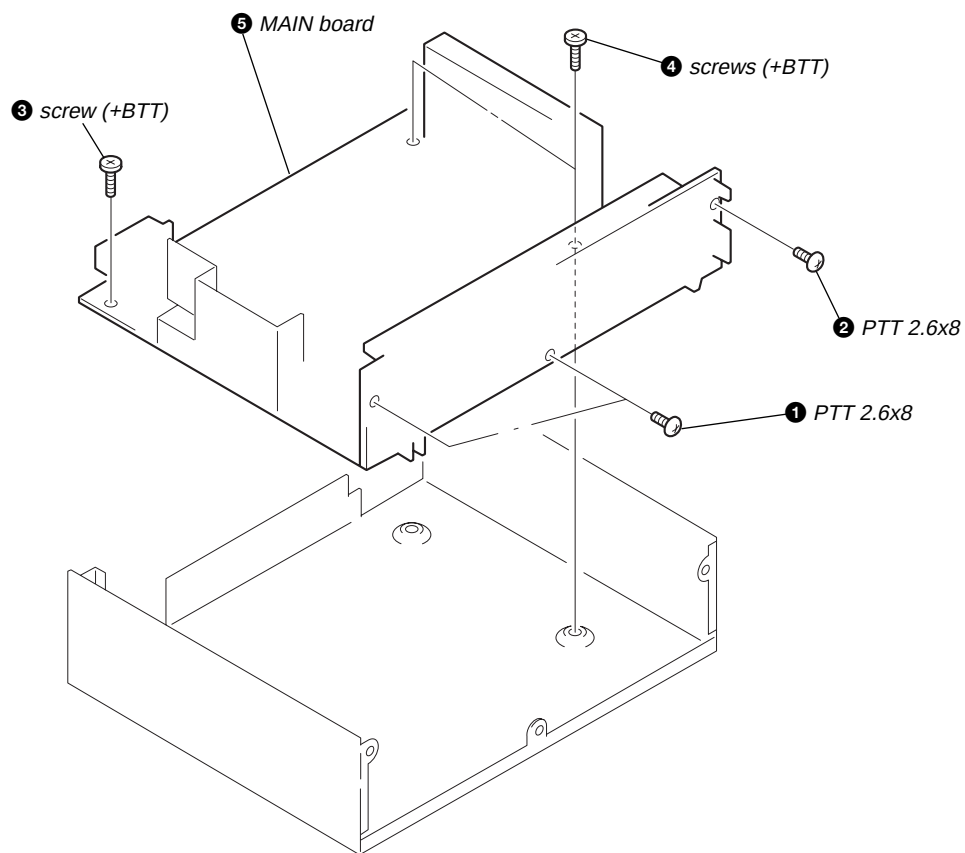
### 2-3. DISPLAY BOARD



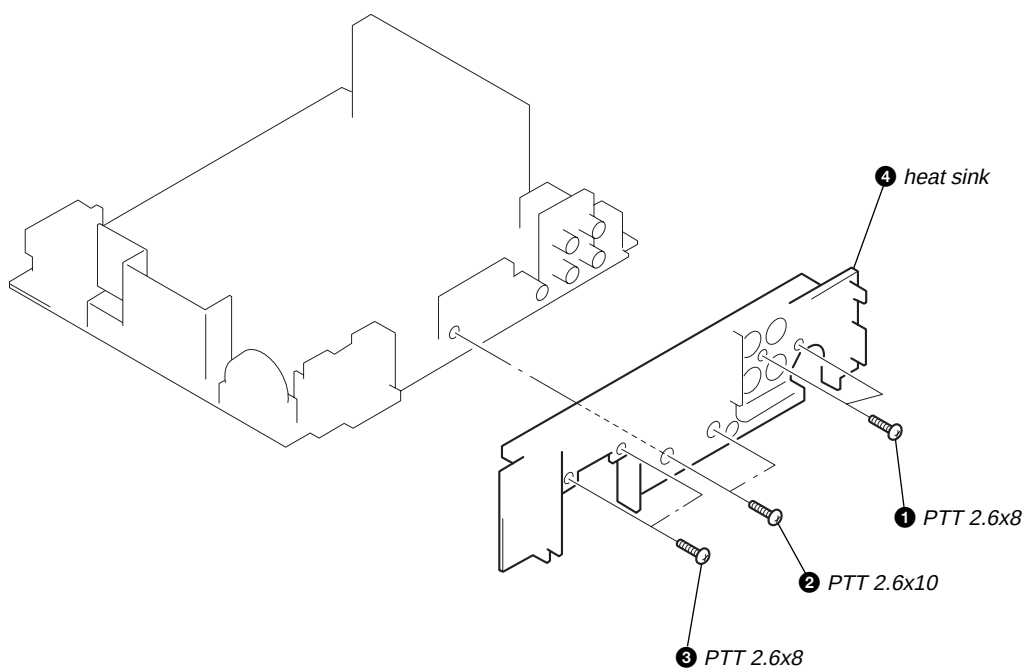
### 2-4. CD MECHANISM BLOCK



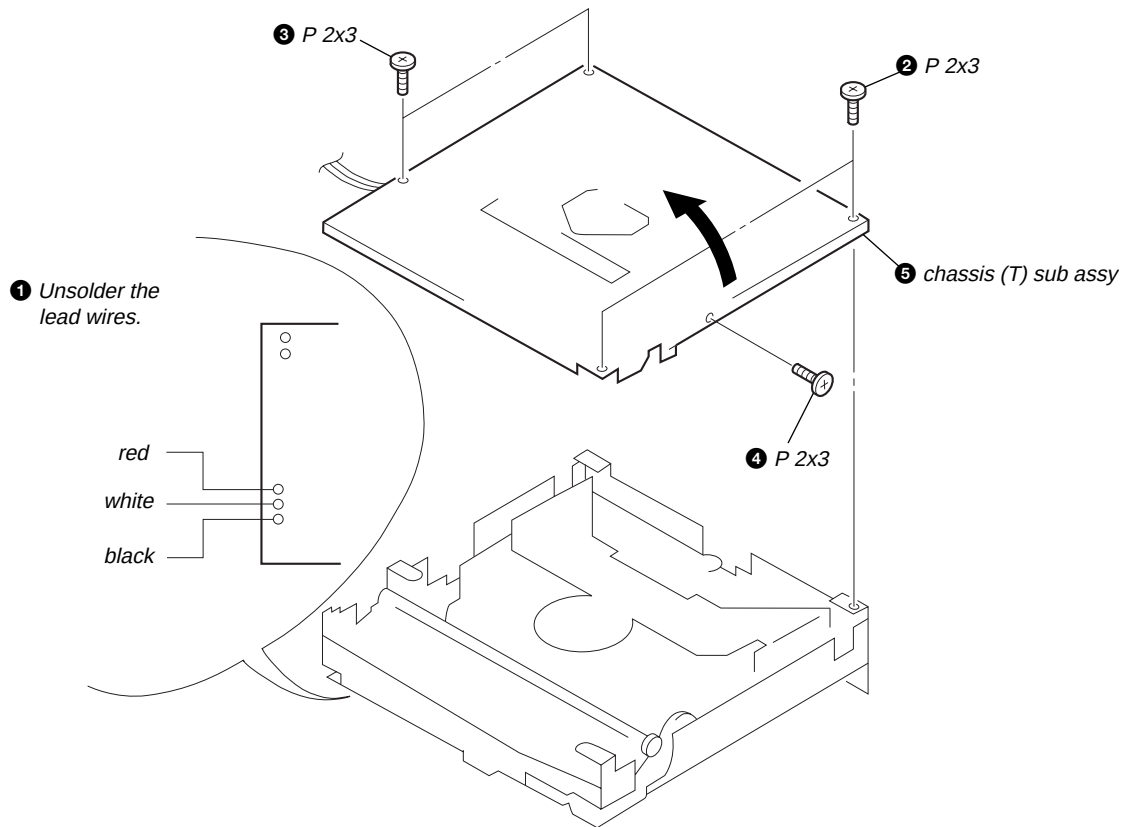
## 2-5. MAIN BOARD



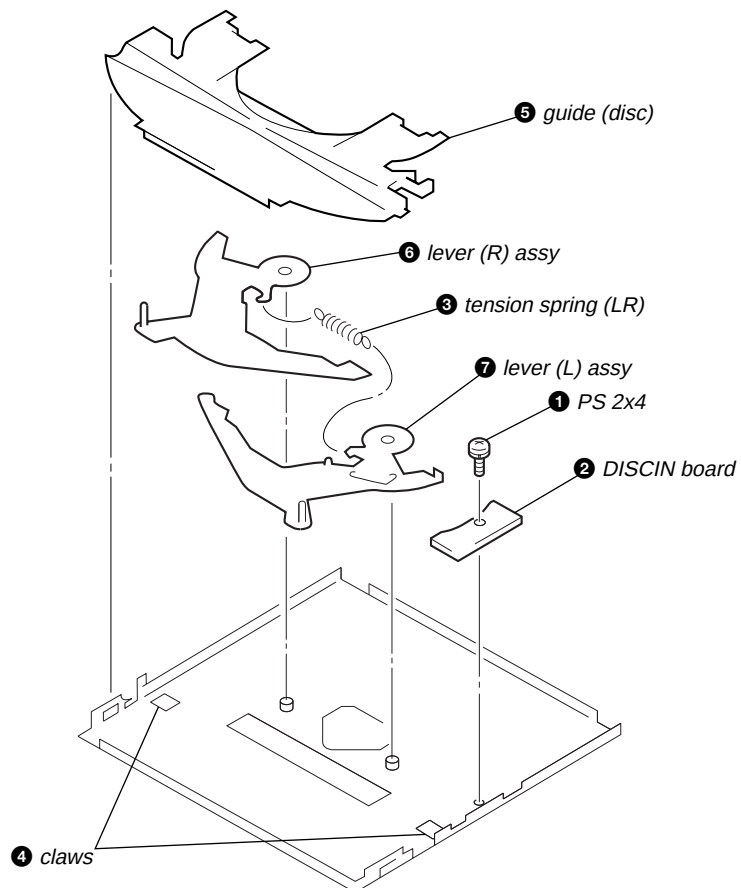
## 2-6. HEAT SINK



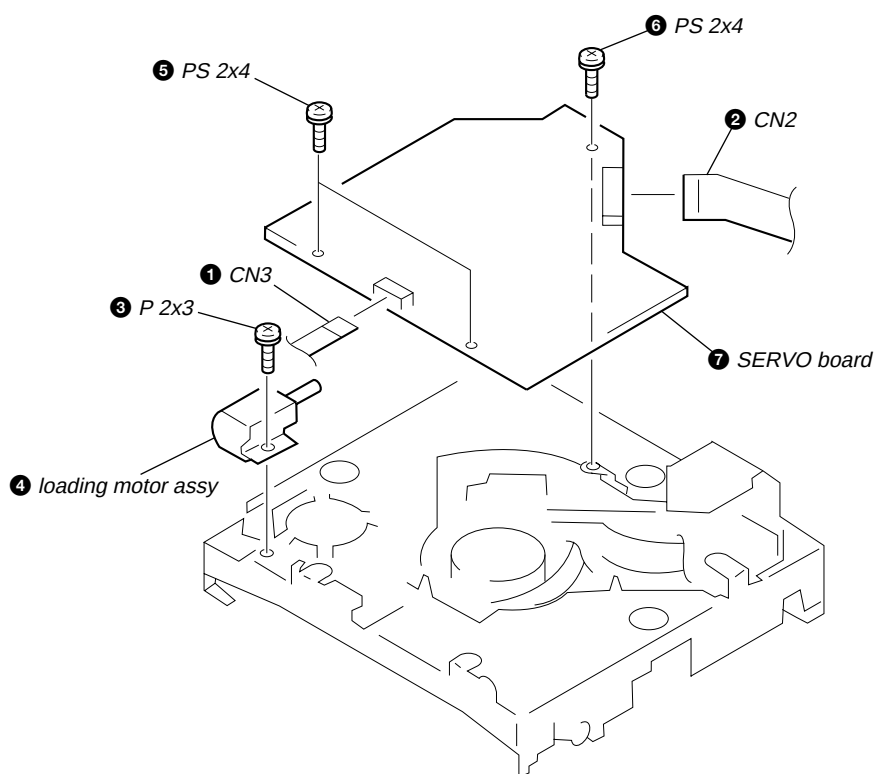
## 2-7. CHASSIS (T) SUB ASSY



## 2-8. LEVER ASSY

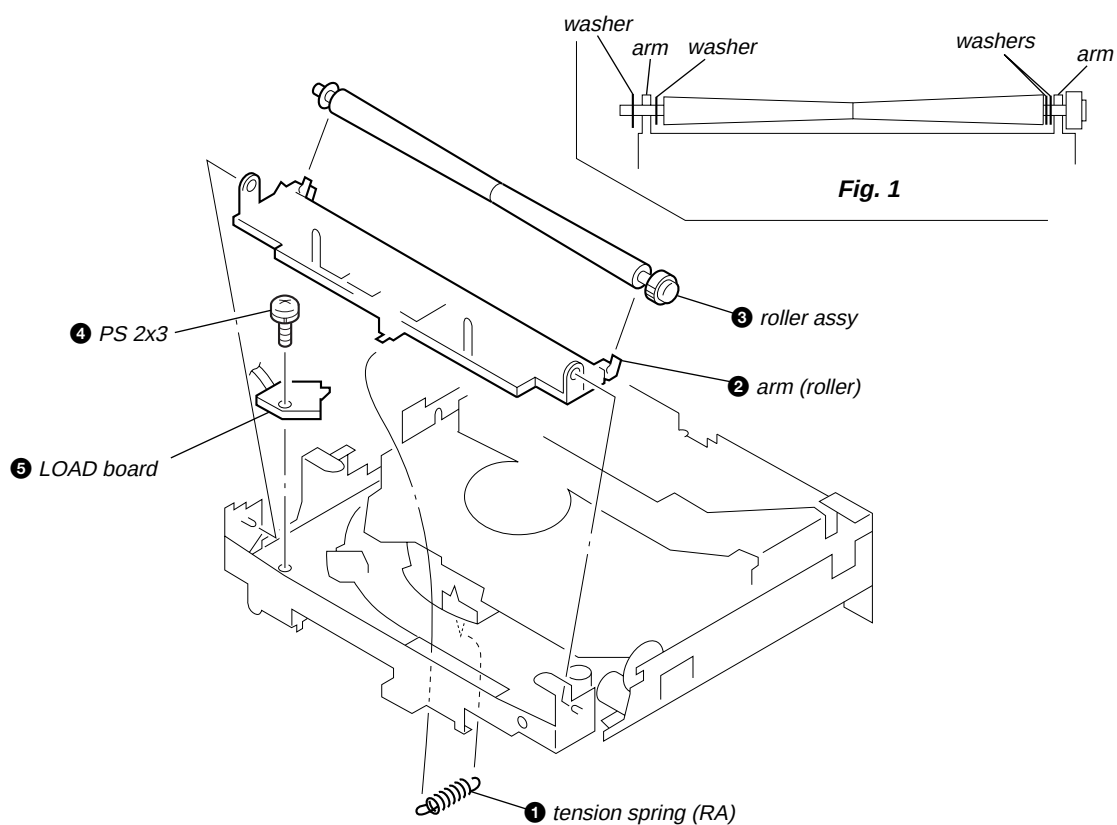


## 2-9. SERVO BOARD



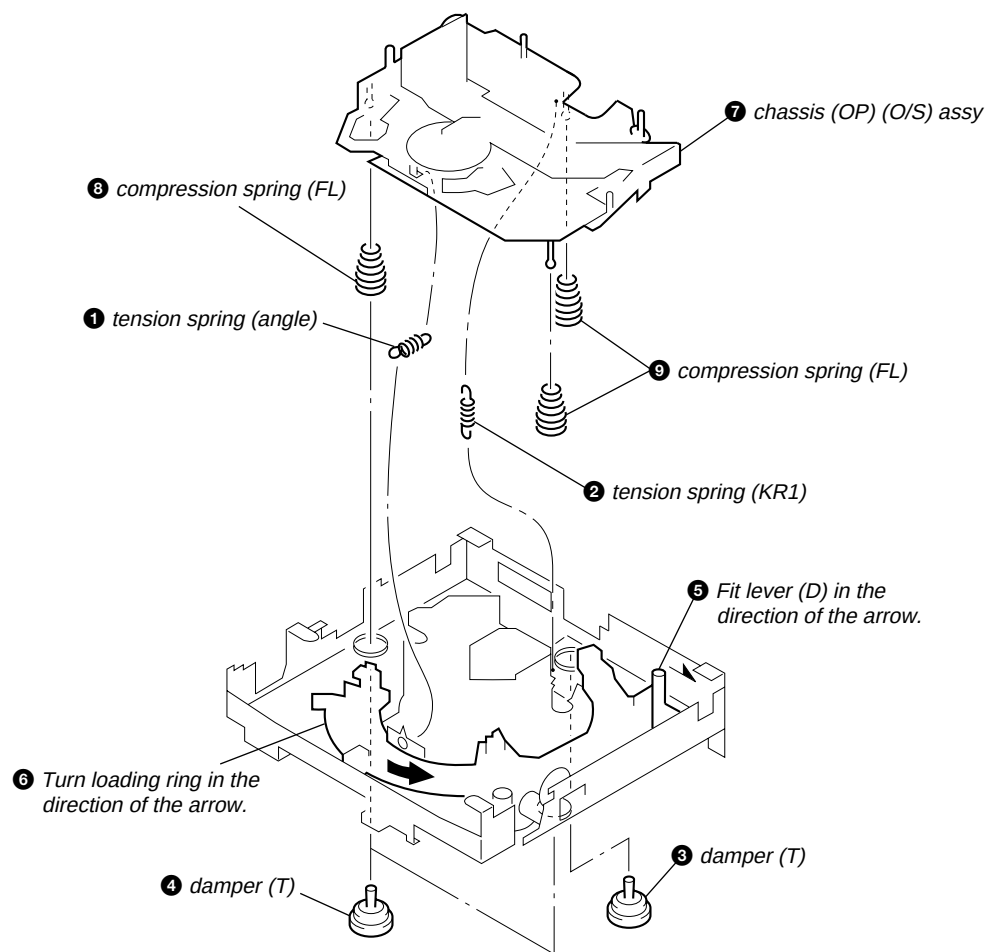
## 2-10. ROLLER ASSY

- When installing, take note of the positions arm (roller) and washers. (Fig. 1)

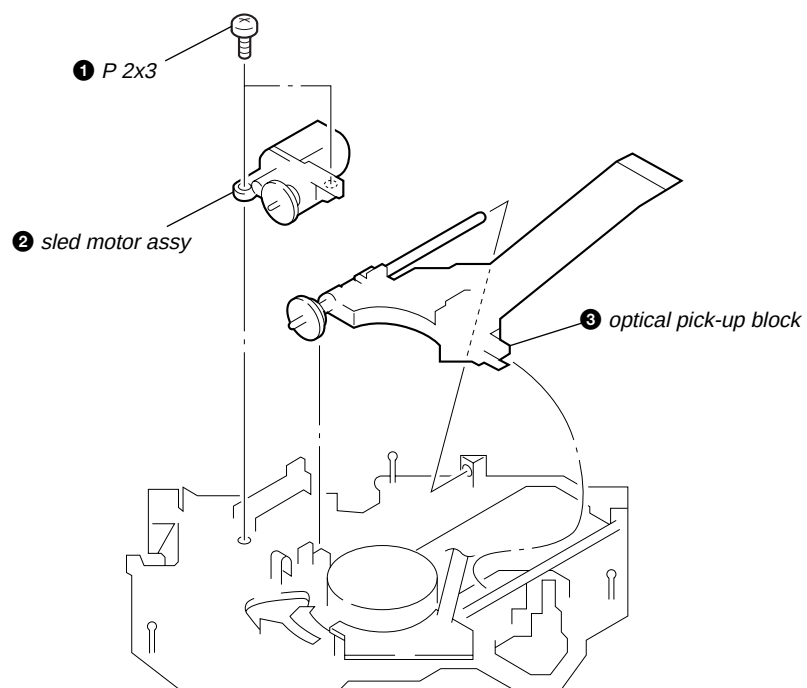




## 2-11. CHASSIS (OP) (O/S) ASSY



## 2-12. OPTICAL PICK-UP BLOCK



## SECTION 3 ELECTRICAL ADJUSTMENTS

### TUNER SECTION

0 dB = 1  $\mu$ V

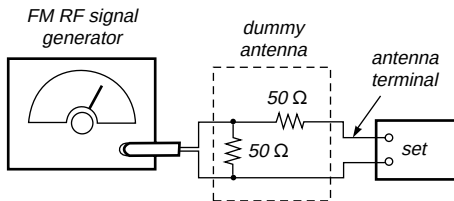
#### Cautions during repair

When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

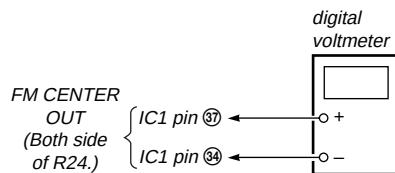
#### FM Center Adjustment

##### Setting:

SOURCE button : FMI  
D-BASS switch : OFF  
Frequency Select switch (E model): FM 200K

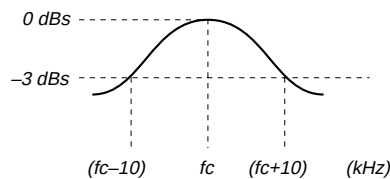


Carrier frequency : 97.9 MHz  
Output lever : 60 dB (1 mV)  
Mode : mono  
Modulation : 1 kHz, 75 kHz deviation (100%)



##### Procedure:

1. Adjust IFT4 on TU01 so that the reading on the digital voltmeter becomes in  $0 \pm 30$  mV.
2. Output an Fcenter 10 dB signal output from FM RF signal generator so that the LINE OUT REAR jack is -20 dBs.
3. Change the FM RF signal generator frequency and check the deviation of the frequency on + side and - side when the LINE OUT REAR jack drops 3 dB. (Both + side and - side is approx. 50 kHz.)
4. Re-adjust IFT4 on TU01 when the difference deviation of the frequency does more than 10 kHz.

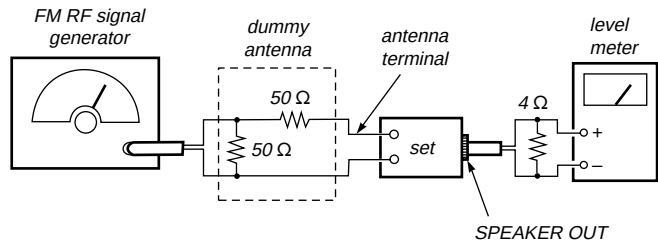


Adjustment Location: See page 17.

#### FM SENS/IF Adjustment

##### Setting:

SOURCE button : FMI  
D-BASS switch : OFF  
Frequency Select switch (E model): FM 200K



##### Procedure:

Adjust for a maximum reading on level meter.

FEB1

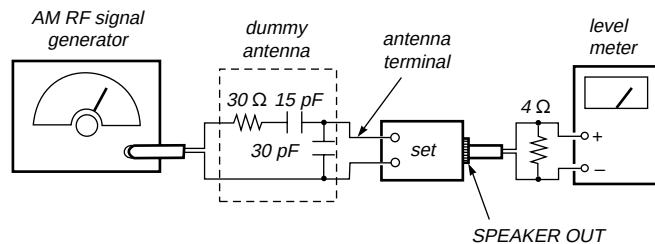
87.5 MHz

Adjustment Location: See page 17.

#### AM SENS Adjustment

##### Setting:

SOURCE → MODE button : AM  
D-BASS switch : OFF  
Frequency Select switch (E model): AM 10K



##### Procedure:

Adjust for a maximum reading on level meter.

IFT1, 3

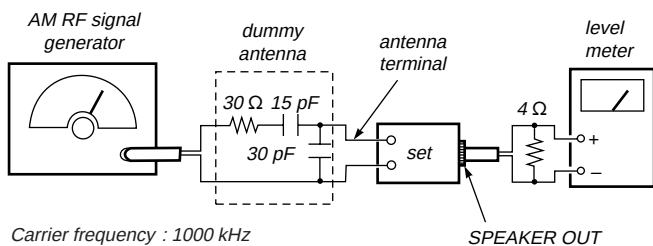
1,400 kHz

Adjustment Location: See page 17.

## AM Auto Scan/Stop Level Adjustment

### Setting:

SOURCE → MODE button : AM  
D-BASS switch : OFF  
Frequency Select switch (E model): AM 10K



Carrier frequency : 1000 kHz  
30% amplitude  
modulation by  
1 kHz signal  
output level : 33 dB (44.7 μV)

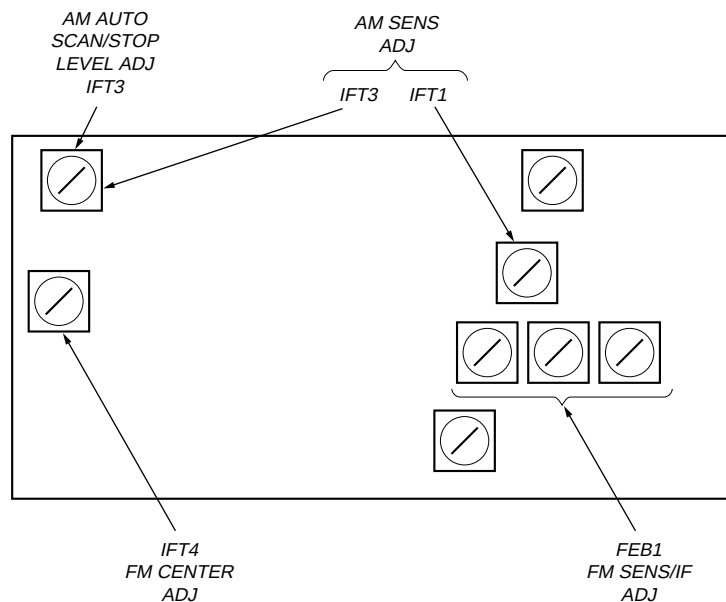
### Procedure:

1. Adjust IFT3 on TU01 so that the reading on the digital voltmeter is  $1.5 \pm 0.2$  V.

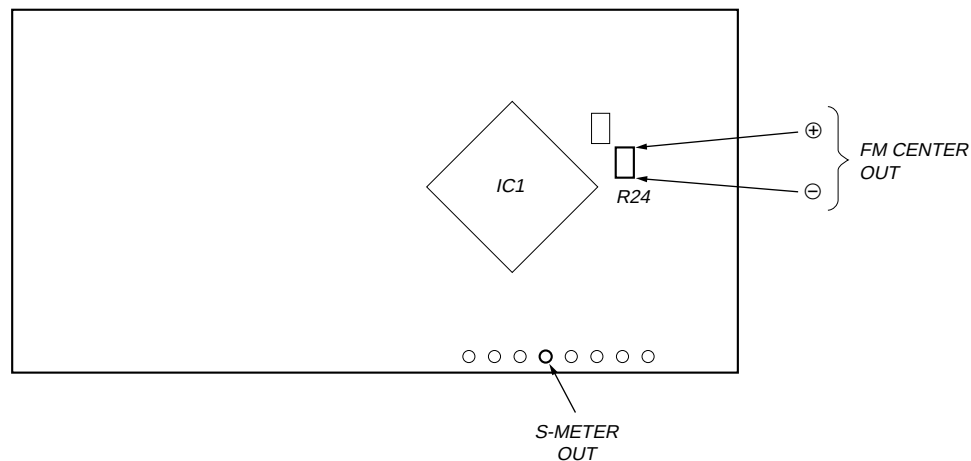
**Adjustment Location:** tuner unit (TU01)

**Adjustment Location:** tuner unit (TU01)

### – tuner unit (TU01) (component side) –



### – tuner unit (TU01) (conductor side) –



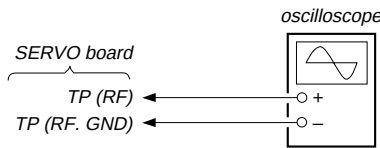
## CD SECTION

### Note:

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

### Focus Bias Adjustment

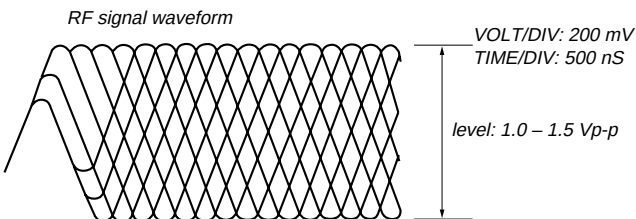
**Setting:** This adjustment is performed with the set placed horizontally.



### Procedure:

1. Connect an oscilloscope between TP (RF) and TP (RF. GND) on the SERVO board.
2. Connect the power supply.
3. Push the **[RESET]** button (S881) on the DISPLAY board.
4. Insert the disc (YEDS-18) and playback.
5. Adjust RV1 so that the oscilloscope waveform is clear and check RF signal level is correct or not.

**Note:** Clear RF signal waveform means that the sharp “◇” can be clearly distinguished at the center of the waveform.



- When observing the eye pattern, set the oscilloscope to AC range and raise the vertical sensitivity so that it may be easily seen.

**Adjustment Location:** servo board

### Focus Gain Adjustment (Coarse adjustment)

This adjustment is not required unless the following parts are replaced:

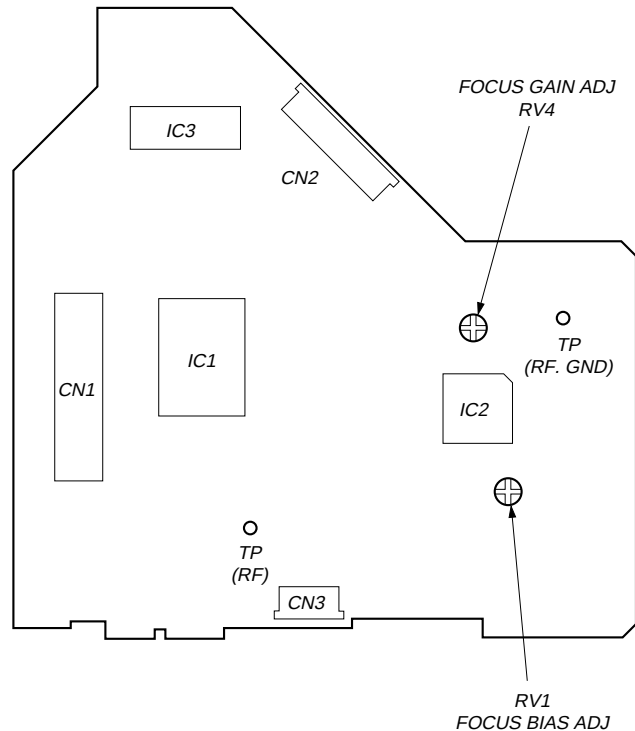
- Optical pick-up
- RV4

### Procedure:

1. Set RV4 to the standard position. (mechanical center)
2. Check whether operation noise (while noise type) caused by the 2-axis device (lens section of the optical pick-up) is abnormally loud.  
 If the operation noise is too loud, turn RV4 slightly counter-clockwise.
- If the gain is too low:  
 Focus does not function and no music is selected.
- If the gain is too high:  
 Noise caused by scratches and dust is heard and the operation becomes unstable.

**Adjustment Location:** servo board

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



## SECTION 4 DIAGRAMS

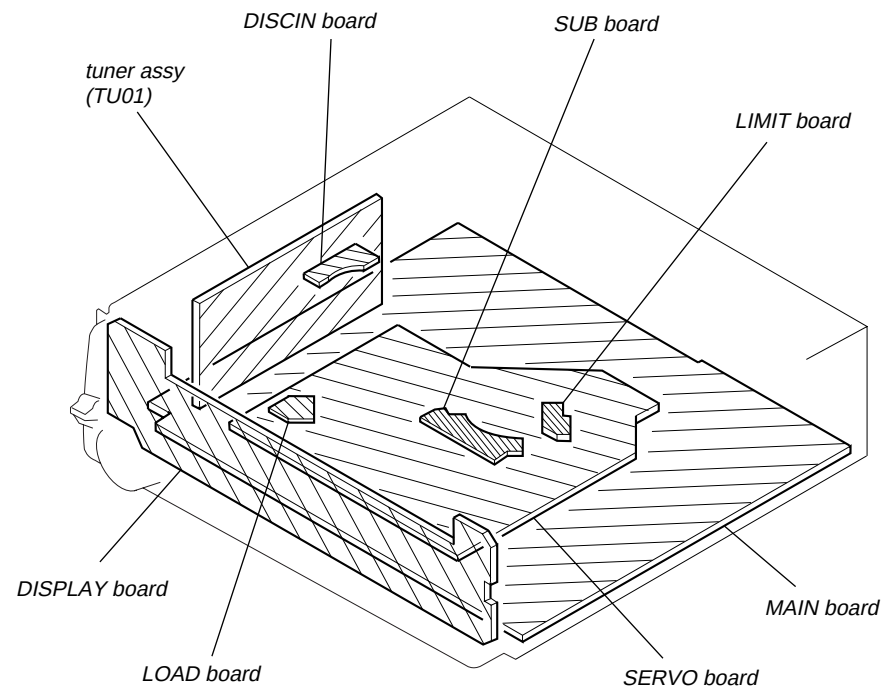
### 4-1. IC PIN DESCRIPTION

#### • IC801 $\mu$ PD17705GC-534-3B9 (SYSTEM CONTROL)

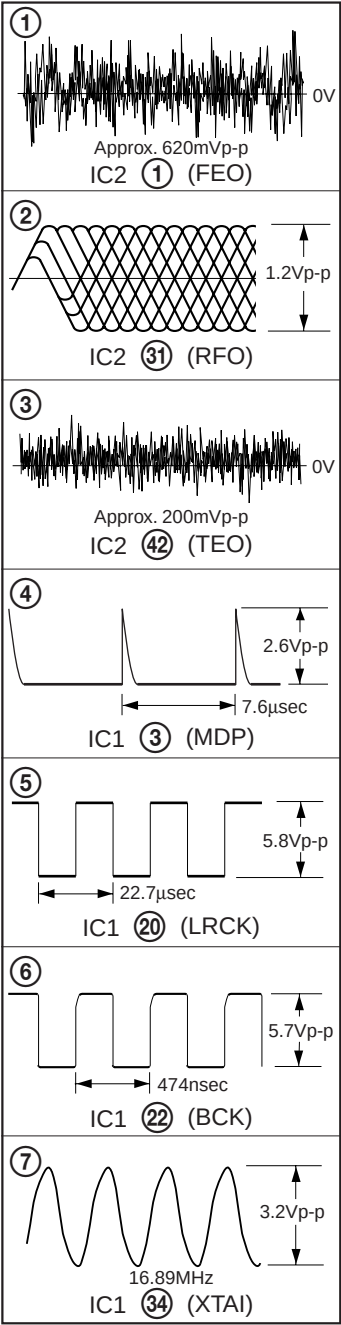
| Pin No. | Pin Name                     | I/O | Pin Description                                              |
|---------|------------------------------|-----|--------------------------------------------------------------|
| 1       | SIRCS                        | I   | SIRCS input (A/D)                                            |
| 2       | $\overline{\text{IN-SW}}$    | I   | CD mechanism position detection                              |
| 3       | $\overline{\text{D-SW}}$     | I   | CD mechanism position detection                              |
| 4       | $\overline{\text{SELF-SW}}$  | I   | CD mechanism position detection                              |
| 5       | $\overline{\text{L-SW}}$     | I   | LIMIT switch                                                 |
| 6       | LM-EJ                        | O   | Loading motor control (Eject direction)                      |
| 7       | LM-LOD                       | O   | Loading motor control (Loading direction)                    |
| 8       | AMP/ANT-ON                   | O   | Power control for amplifier.                                 |
| 9       | MONO                         | O   | Force MONO output                                            |
| 10      | SD                           | I   | SD signal input                                              |
| 11      | BAND-SW                      | I   | Initialize switch input terminal                             |
| 12      | AREA1-SW                     | I   | Initialize switch input terminal                             |
| 13      | AREA2-SW                     | I   | Initialize switch input terminal                             |
| 14, 15  | RE1, 2                       | I   | Rotary encoder input 1, 2                                    |
| 16      | $\overline{\text{SEEK}}$     | O   | SEEK output                                                  |
| 17      | $\overline{\text{CD-ON}}$    | I/O | Servo drive power                                            |
| 18      | $\overline{\text{FM-ON}}$    | I/O | FM select output                                             |
| 19      | $\overline{\text{TU-ON}}$    | I/O | AM select output                                             |
| 20      | NC                           | —   | Not used.                                                    |
| 21      | GND3                         | —   | Ground                                                       |
| 22      | KEYIN3                       | I   | Not used (Connect to ground)                                 |
| 23, 24  | KEYIN2, 1                    | I   | A/D key input 2, 1                                           |
| 25      | ROT-IN                       | I   | Rotary commander input                                       |
| 26      | S-METER                      | I   | FM and AM common signal meter A/D conversion input           |
| 27      | $\overline{\text{TEST-SW}}$  | I   | TEST mode select input                                       |
| 28      | AM-IFC                       | I   | AM center frequency input                                    |
| 29      | FM-IFC                       | I   | FM center frequency input                                    |
| 30      | VDD2                         | —   | Power supply (+5 V)                                          |
| 31      | VCOH-FM                      | I   | Local oscillation frequency input (FM)                       |
| 32      | VCOL-AM                      | I   | Local oscillation frequency input (AM)                       |
| 33      | GND2                         | —   | Ground                                                       |
| 34      | NC                           | —   | Not used.                                                    |
| 35      | EO1-PDOUT                    | O   | Error out output                                             |
| 36      | TESTO                        | —   | Connect to ground                                            |
| 37      | AM-ON(TU-ON)                 | O   | AM power output (AM select)                                  |
| 38      | FM-ON(FM/AM)                 | O   | FM power output (FM select)                                  |
| 39      | LCL/ $\overline{\text{DX}}$  | O   | LOCAL/ $\overline{\text{DX}}$ select (“H” : LOCAL, “L” : DX) |
| 40      | BEEP                         | O   | BEEP output                                                  |
| 41      | $\overline{\text{ACC-IN}}$   | I   | Accessory input                                              |
| 42      | SCOR                         | I   | SUBQ data read request                                       |
| 43      | MUTE                         | O   | System mute output                                           |
| 44      | $\overline{\text{AMP-MUTE}}$ | O   | Power amplifier mute output                                  |
| 45      | TEL-MUTE                     | O   | Telephone mute output                                        |
| 46      | NC                           | —   | Fixed at “H” in this set.                                    |
| 47      | VOL-CE                       | O   | Electric volume chip select                                  |
| 48      | VOL-CLK                      | O   | Electric volume serial clock                                 |
| 49      | VOL-DATA                     | O   | Electric volume serial data                                  |
| 50      | EMPHO                        | O   | De-emphasis control output                                   |
| 51      | PW-ON                        | O   | System power control                                         |
| 52      | MD-ON                        | O   | Loading motor power                                          |
| 53      | CD-ON                        | O   | Servo drive power                                            |

| Pin No. | Pin Name                                       | I/O | Pin Description                                                          |
|---------|------------------------------------------------|-----|--------------------------------------------------------------------------|
| 54      | ILL-ON                                         | O   | Illumination output                                                      |
| 55      | C.ALARM                                        | I   | Caution alarm select input (Used/Not used)                               |
| 56      | NC                                             | I   | Not used (Connect to ground)                                             |
| 57      | NC                                             | —   | Fixed at “H” in this set.                                                |
| 58      | LCD-CE                                         | O   | LCD drive chip select output                                             |
| 59      | EZ-SEL                                         | I   | SHIFT + input                                                            |
| 60      | SENS                                           | I   | Information input from servo IC.                                         |
| 61      | FOK                                            | I   | Focus OK input                                                           |
| 62      | $\overline{\text{LD-ON}}$                      | O   | Laser diode control                                                      |
| 63      | NC                                             | —   | Not used. (Connect to ground)                                            |
| 64      | [IN] ST/MONO<br>[OUT] $\overline{\text{MONO}}$ | I/O | Used for both STEREO indicator display input and force MONO output. (FM) |
| 65      | LCD-CKO                                        | O   | LCD driver serial clock output                                           |
| 66      | LCD-So                                         | O   | LCD driver serial data output                                            |
| 67      | $\overline{\text{INH}}$                        | O   | INHbit output                                                            |
| 68      | SQ-CKo                                         | O   | Q data read serial clock output                                          |
| 69      | CD-RST                                         | O   | Servo IC/DAC reset output                                                |
| 70      | SQ-SI                                          | I   | Q data input                                                             |
| 71      | CD-SO                                          | O   | Serial data output to servo IC.                                          |
| 72      | CD-LAT                                         | O   | Data latch output to servo IC.                                           |
| 73      | CD-CKO                                         | O   | Serial clock output to servo IC.                                         |
| 74      | VREF                                           | —   | Not used.                                                                |
| 75      | GND1                                           | —   | Ground                                                                   |
| 76      | X-OUT                                          | —   | Crystal oscillator connection (4.5 MHz)                                  |
| 77      | X-IN                                           | I   | Crystal oscillator connection (4.5 MHz)                                  |
| 78      | BU-IN                                          | I   | Back-up detection                                                        |
| 79      | VDD1                                           | —   | Power supply (+5 V)                                                      |
| 80      | $\overline{\text{RESET}}$                      | I   | RESET input                                                              |

4-2. CIRCUIT BOARDS LOCATION



• Waveforms (MODE:PLAY)



**Note on Schematic Diagram:**

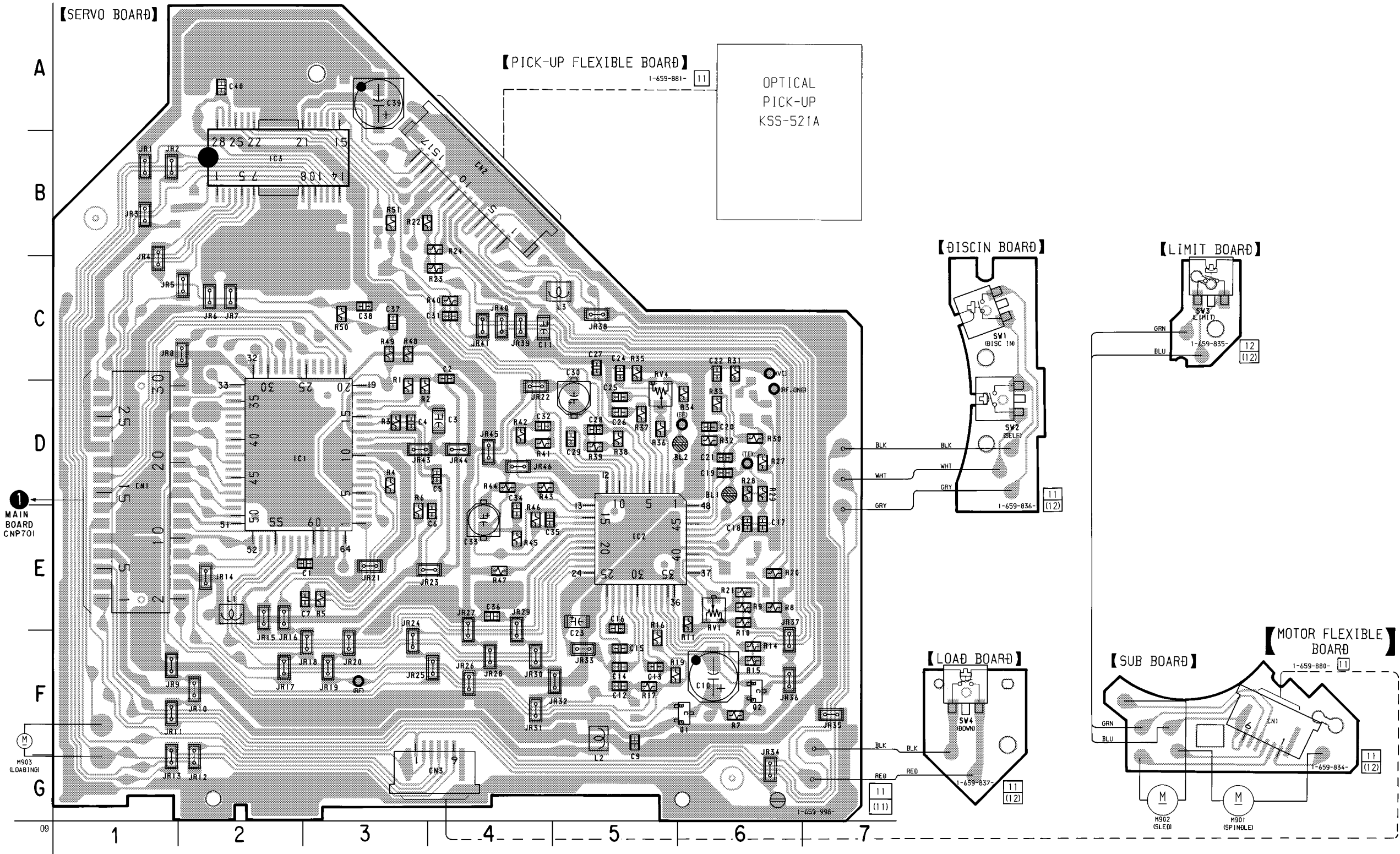
- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.

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

- **B +** : B+ Line.
- **adjustment** : adjustment for repair.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- no mark : CD PLAY
- \* : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
- **CD** : CD



4-3. PRINTED WIRING BOARDS — CD MECHANISM SECTION —

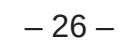


• Semiconductor Location

| Ref. No. | Location |
|----------|----------|
| IC1      | D-2      |
| IC2      | E-5      |
| IC3      | B-2      |
| Q1       | F-6      |
| Q2       | F-6      |

**Note:**

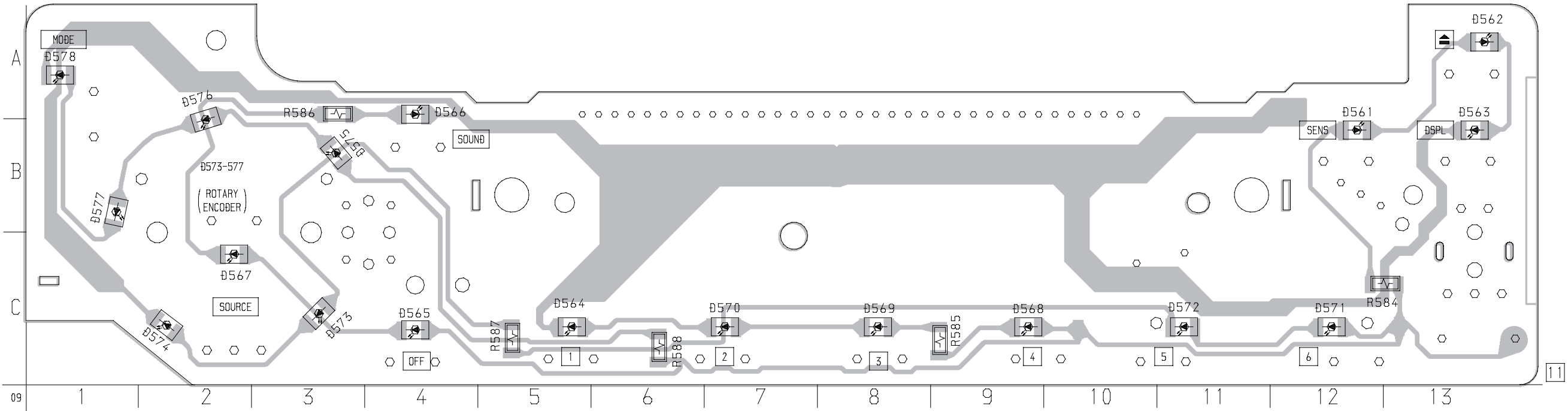
- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : Pattern from the side which enables seeing.





4-5. PRINTED WIRING BOARD — DISPLAY SECTION —

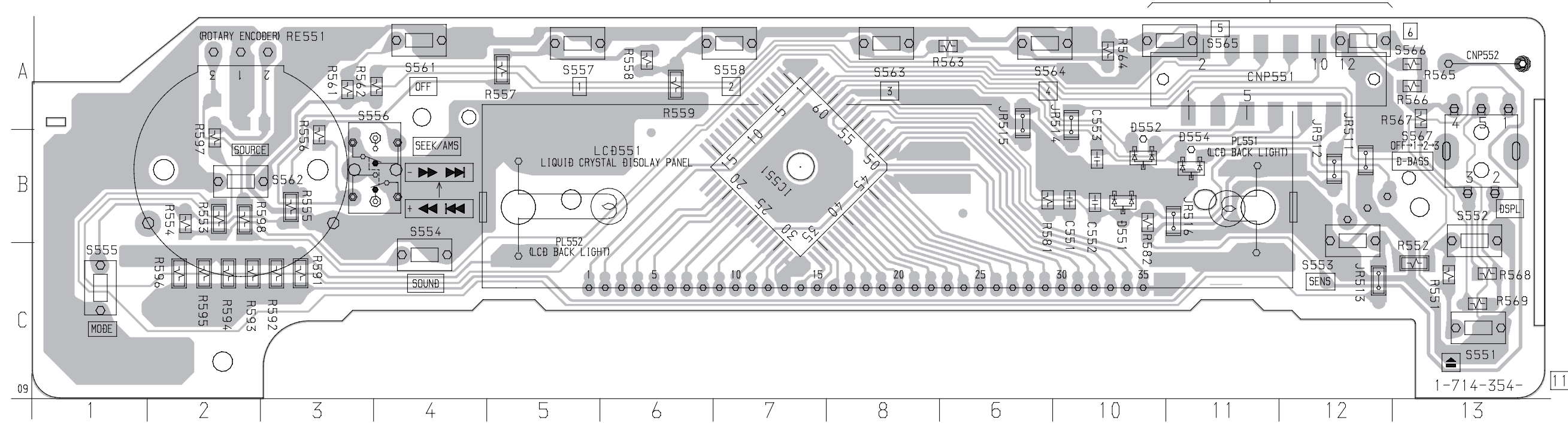
【DISPLAY BOARD】(SIDE A)



MAIN BOARD  
CNP801

2

【DISPLAY BOARD】(SIDE B)



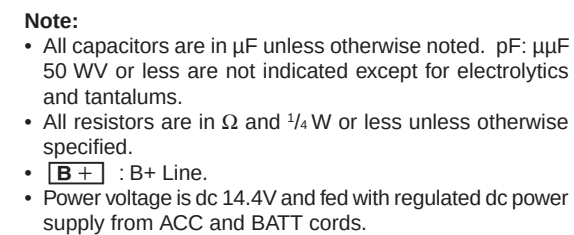
• Semiconductor Location

| Ref. No. | Location | Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|----------|----------|
| (D551)   | B-10     | D566     | A-4      | D574     | C-2      |
| (D552)   | B-10     | D567     | C-2      | D575     | B-3      |
| (D554)   | B-11     | D568     | C-9      | D576     | A-2      |
| D561     | B-11     | D569     | C-8      | D577     | B-1      |
| D562     | A-13     | D570     | C-7      | D578     | A-1      |
| D563     | B-13     | D571     | C-12     | (IC551)  | B-7      |
| D564     | C-5      | D572     | C-11     |          |          |
| D565     | C-4      | D573     | C-3      |          |          |

Note:

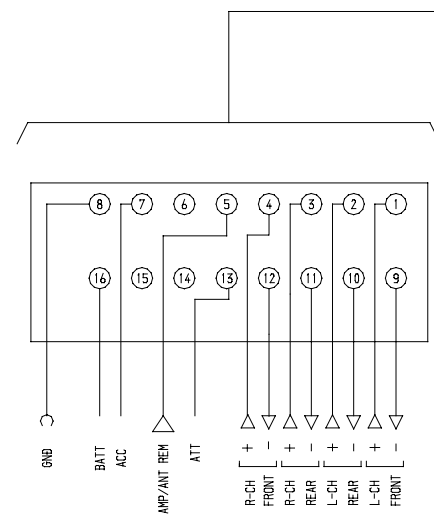
- : Through hole.
- Pattern from the side which enables seeing.  
(The other layer's patterns are not indicated.)

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



-  : panel designation.
- Voltage is dc with respect to ground under no-signal (detuned) condition.  
no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ).  
Voltage variations may be noted due to normal production tolerances.

#### 4-7. PRINTED WIRING BOARD — MAIN SECTION —

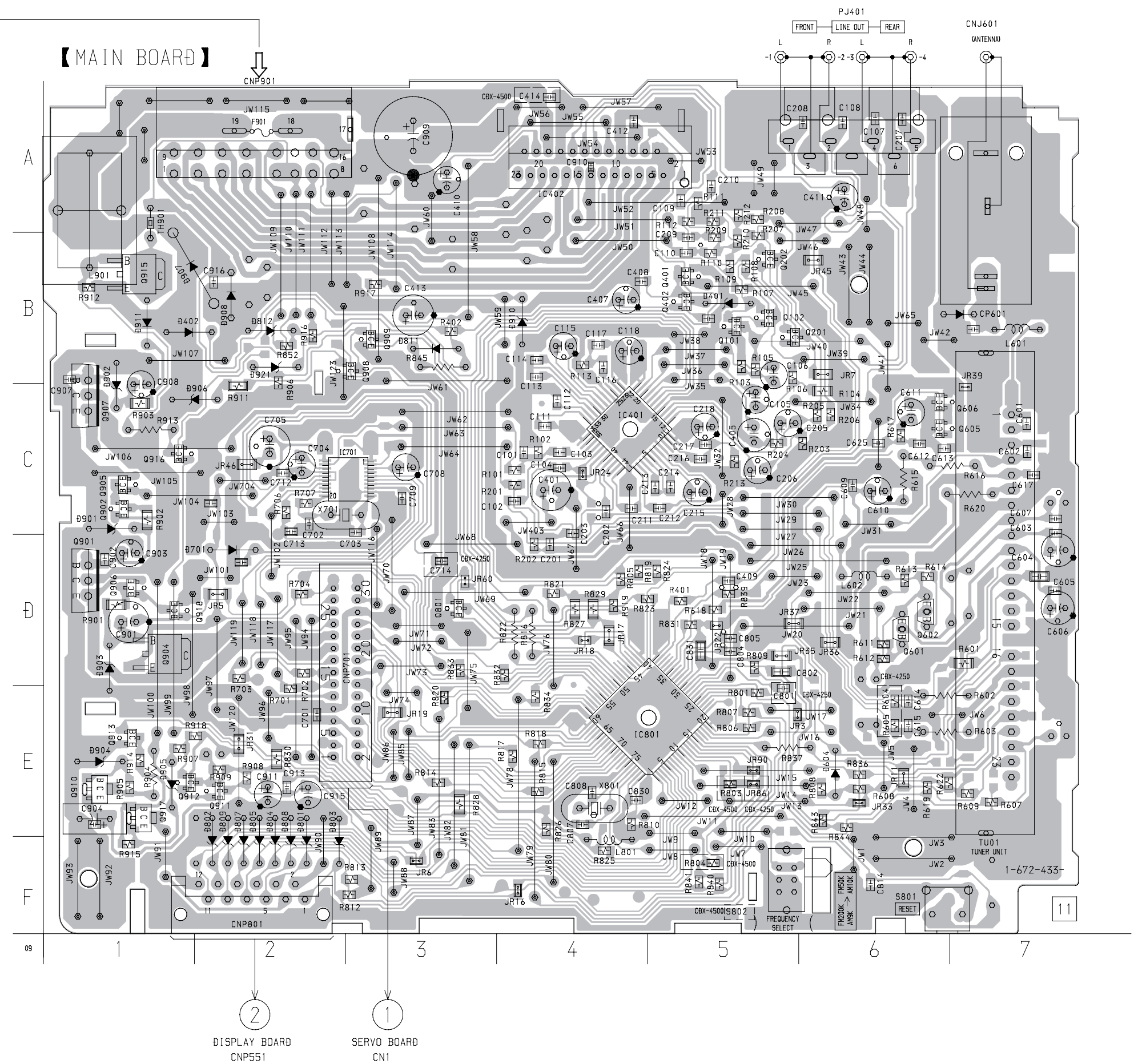


### • Semiconductor Location

| Ref. No. | Location | Ref. No. | Location |
|----------|----------|----------|----------|
| D401     | B-5      | IC801    | E-4      |
| D402     | B-1      |          |          |
| D604     | E-6      | Q101     | B-5      |
| D701     | D-2      | Q102     | B-5      |
| D801     | F-1      | Q201     | B-5      |
| D802     | F-1      | Q202     | B-5      |
| D803     | F-1      | Q401     | B-5      |
| D804     | F-1      | Q402     | B-5      |
| D805     | F-1      | Q601     | D-6      |
| D807     | F-1      | Q605     | C-6      |
| D808     | F-1      | Q606     | C-6      |
| D809     | F-1      | Q801     | D-3      |
| D811     | B-3      | Q901     | D-1      |
| D812     | B-2      | Q902     | C-1      |
| D901     | C-1      | Q904     | D-1      |
| D902     | B-1      | Q905     | C-1      |
| D903     | D-1      | Q906     | D-1      |
| D904     | E-1      | Q907     | C-1      |
| D905     | E-1      | Q908     | B-3      |
| D906     | C-1      | Q909     | B-3      |
| D907     | B-1      | Q910     | E-1      |
| D908     | B-2      | Q911     | E-2      |
| D910     | B-4      | Q912     | E-1      |
| D911     | B-1      | Q913     | E-1      |
|          |          | Q915     | B-1      |
| IC401    | C-4      | Q916     | C-1      |
| IC402    | A-4      | Q917     | E-1      |
| IC701    | C-2      | Q918     | D-1      |

**Note:**

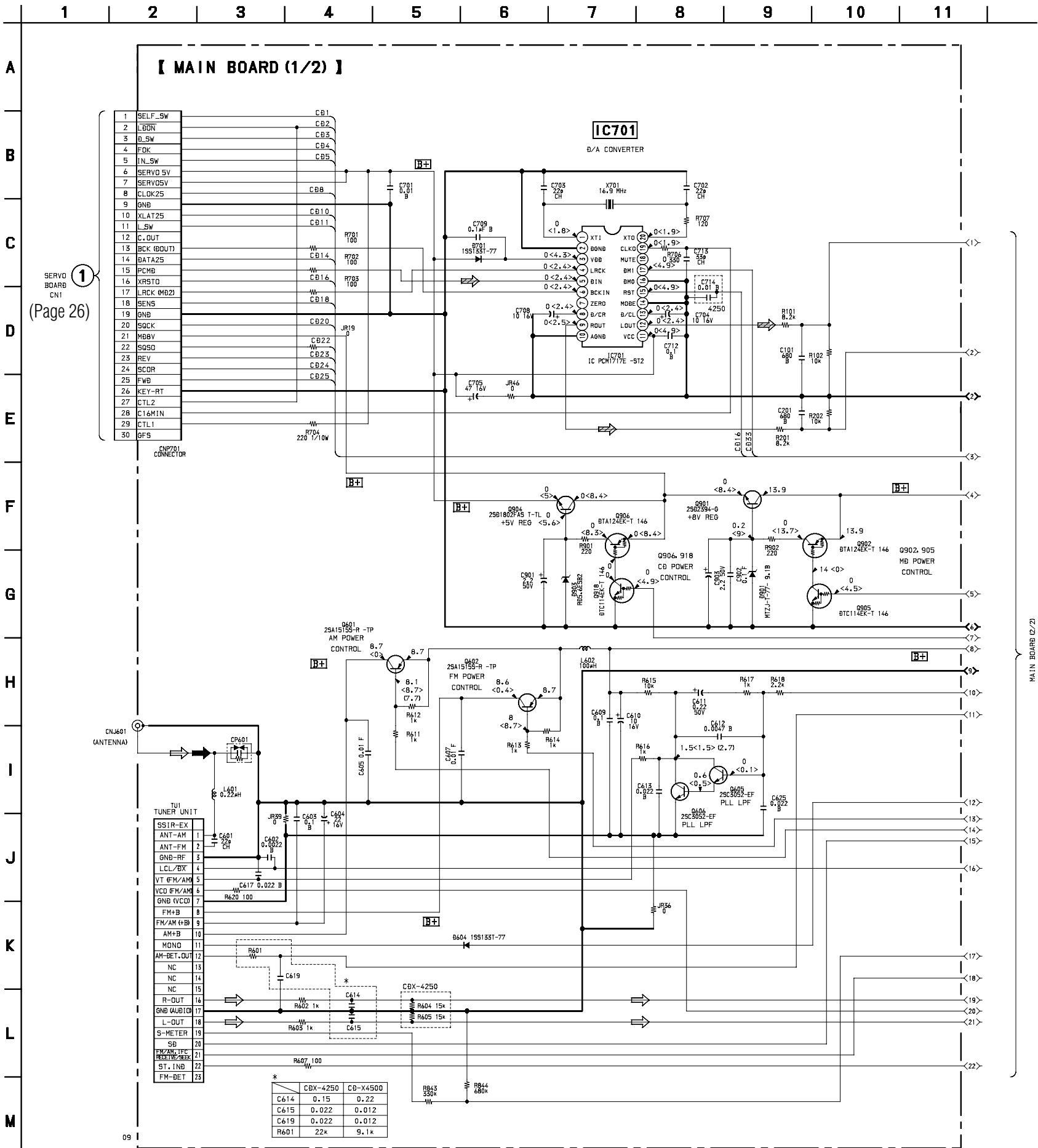
-  : parts extracted from the component side.
-  : internal component.
-  : Pattern from the side which enables seeing.
- Abbreviation  
CND : Canadian model.



4-8. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) —

Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{F}$  50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- $\Delta$  : internal component.
- $\square$  : panel designation.
- **B+** : B+ Line.
- Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
- Voltage is dc with respect to ground under no-signal (detuned) condition.
- no mark : FM
- ( ) : AM
- < > : CD PLAY
- \* : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10  $\text{M}\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\Rightarrow$  : FM
- $\Rightarrow$  : AM
- $\Rightarrow$  : CD
- Abbreviation
- CND : Canadian model.

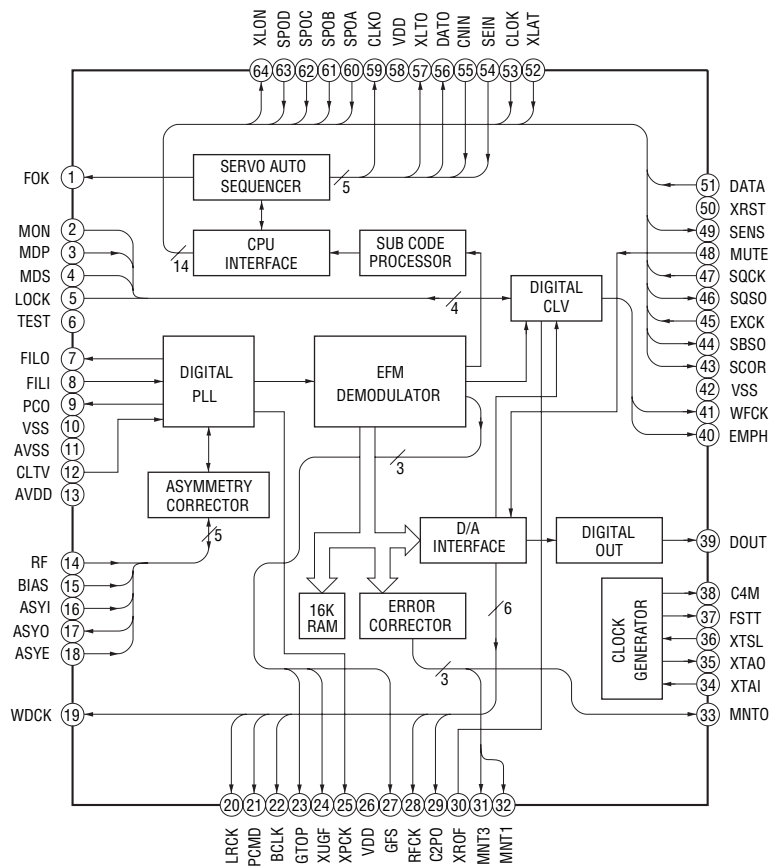




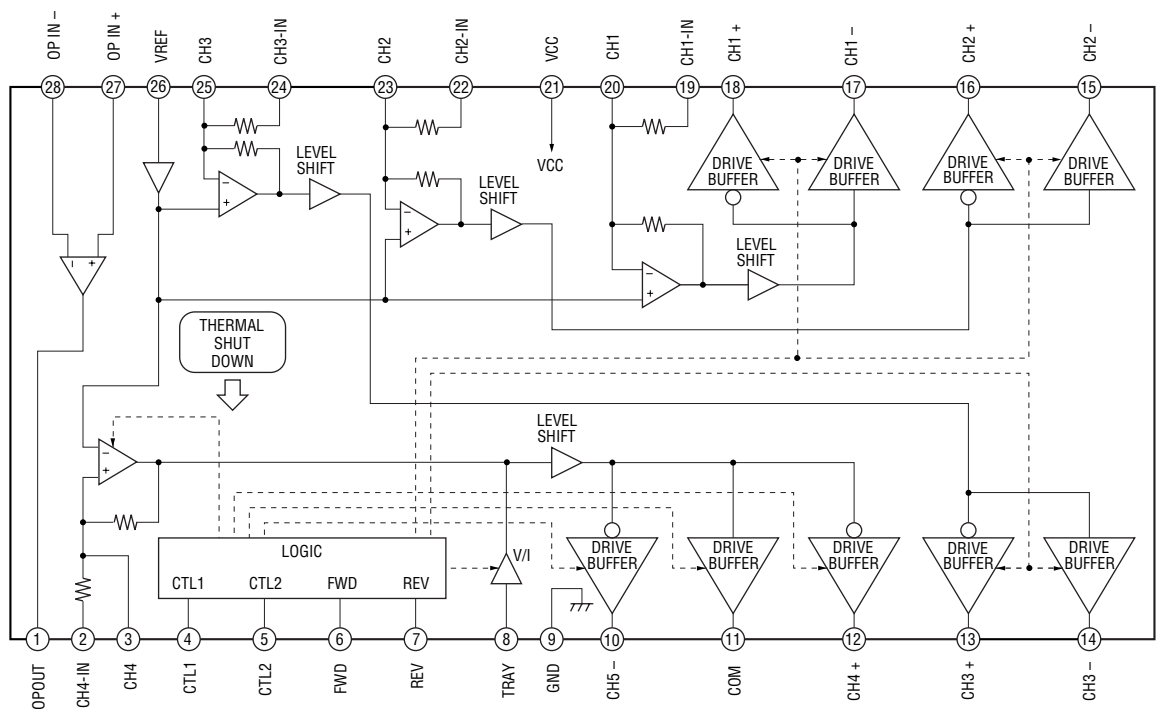


## • IC Block Diagrams

### IC1 CXD2507AQ

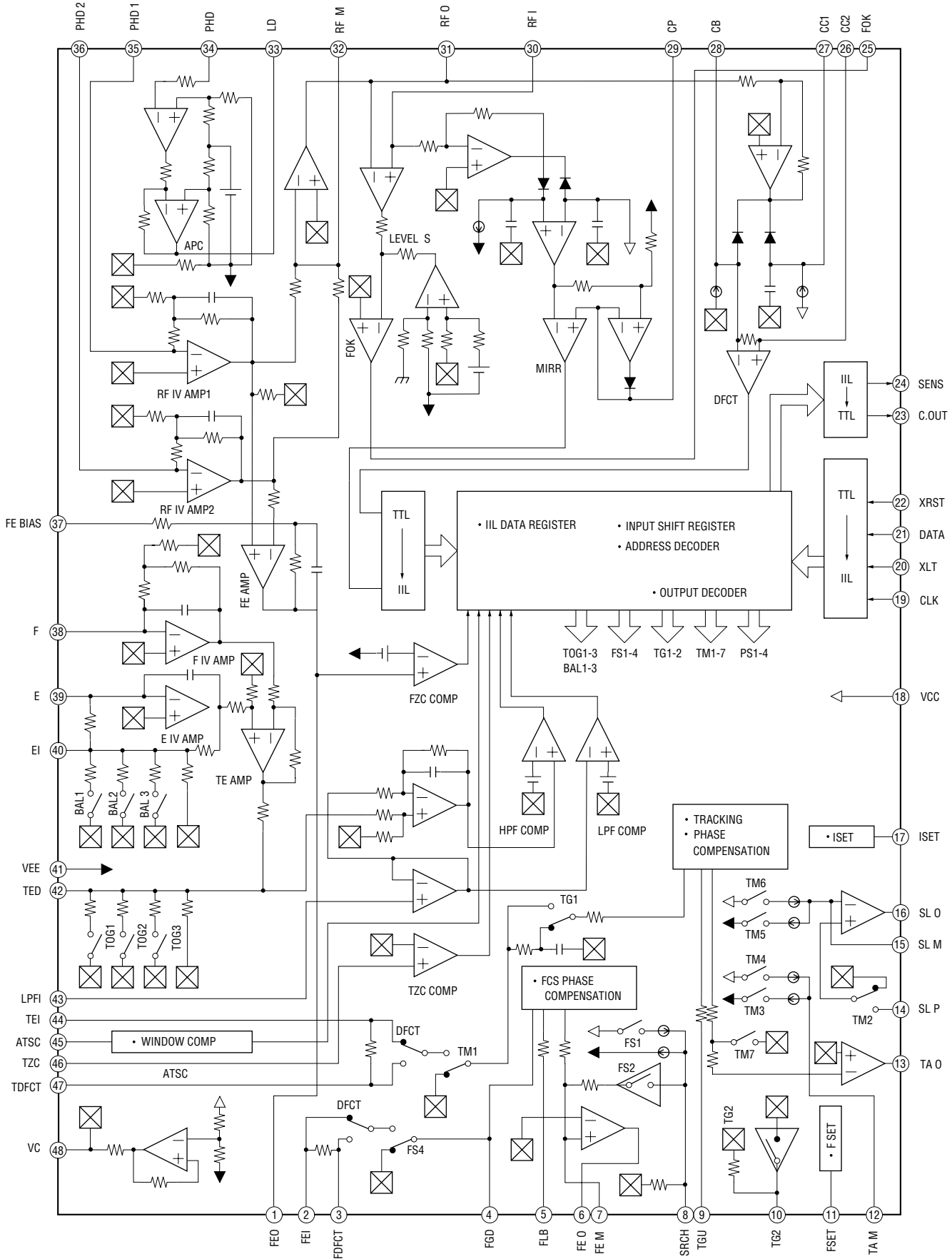


### IC3 BA6796FP-T1

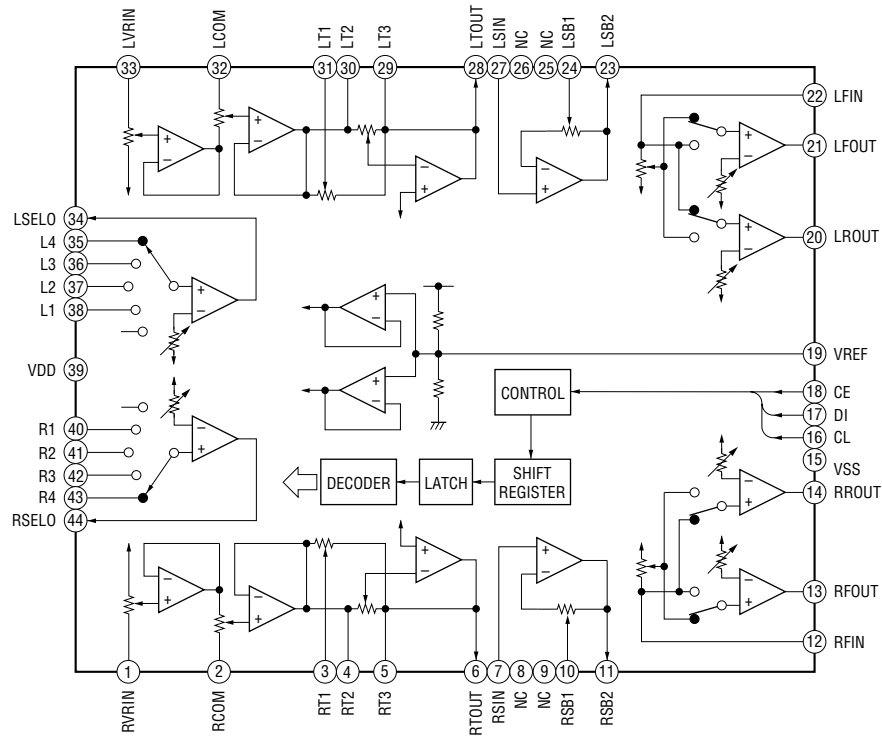




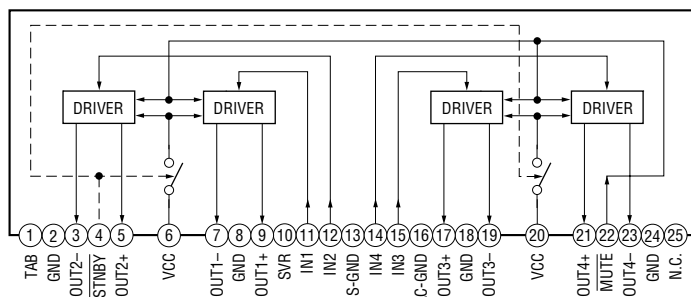
# IC2 CXA1782BQ



## IC401 LC75374E



## IC402 TDA7384



## SECTION 5 EXPLODED VIEWS

### NOTE:

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:  
KNOB, BALANCE (WHITE) . . . (RED)

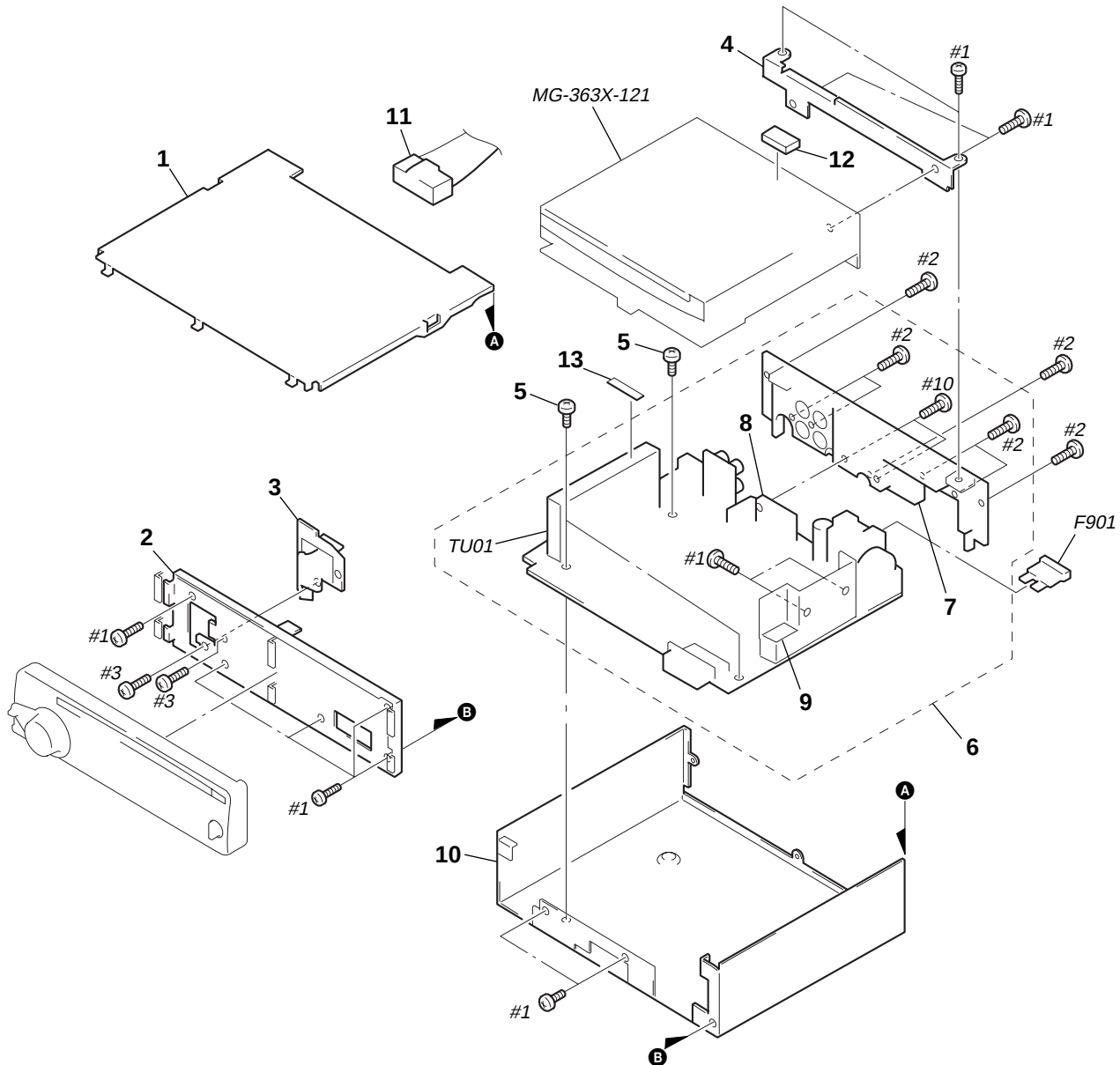
↑                      ↑  
Parts color    Cabinets color

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

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

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

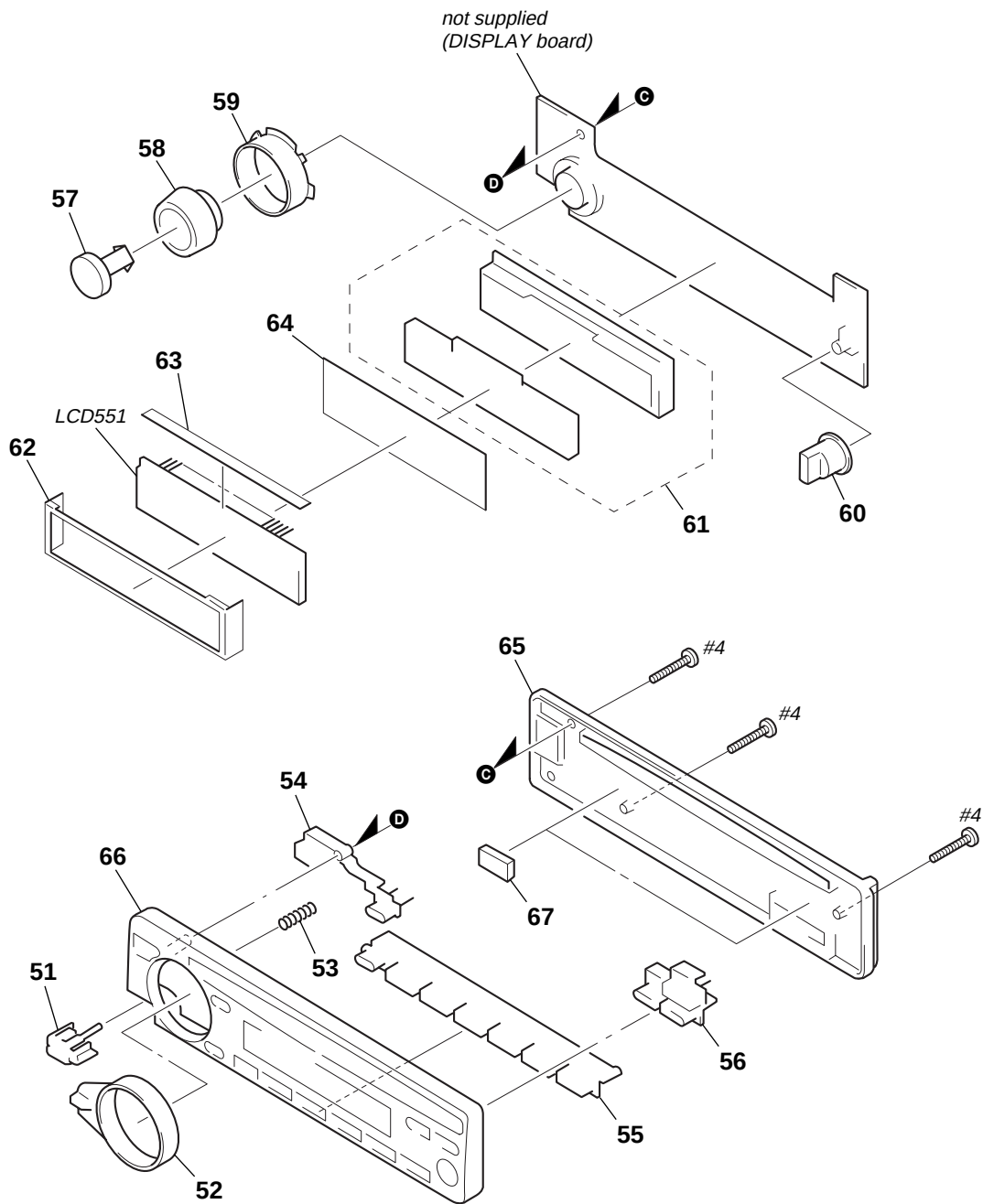
### 5-1. CHASSIS SECTION



| Ref. No. | Part No.     | Description                     | Remark |
|----------|--------------|---------------------------------|--------|
| * 1      | X-3376-729-1 | COVER ASSY                      |        |
| 2        | X-3376-728-1 | PANEL (1) ASSY, SUB             |        |
| 3        | X-3368-104-2 | LOCK ASSY                       |        |
| * 4      | 3-030-927-01 | BRACKET (MD)                    |        |
| 5        | 3-922-535-11 | SCREW (+BTT)                    |        |
| * 6      | A-3294-551-A | MAIN BOARD, COMPLETE (CDX-4250) |        |
| * 6      | A-3294-631-A | MAIN BOARD, COMPLETE (CDX-4500) |        |
| * 7      | 3-030-849-01 | HEAT SINK (T)                   |        |
| * 8      | 3-019-565-01 | BRACKET (IC)                    |        |

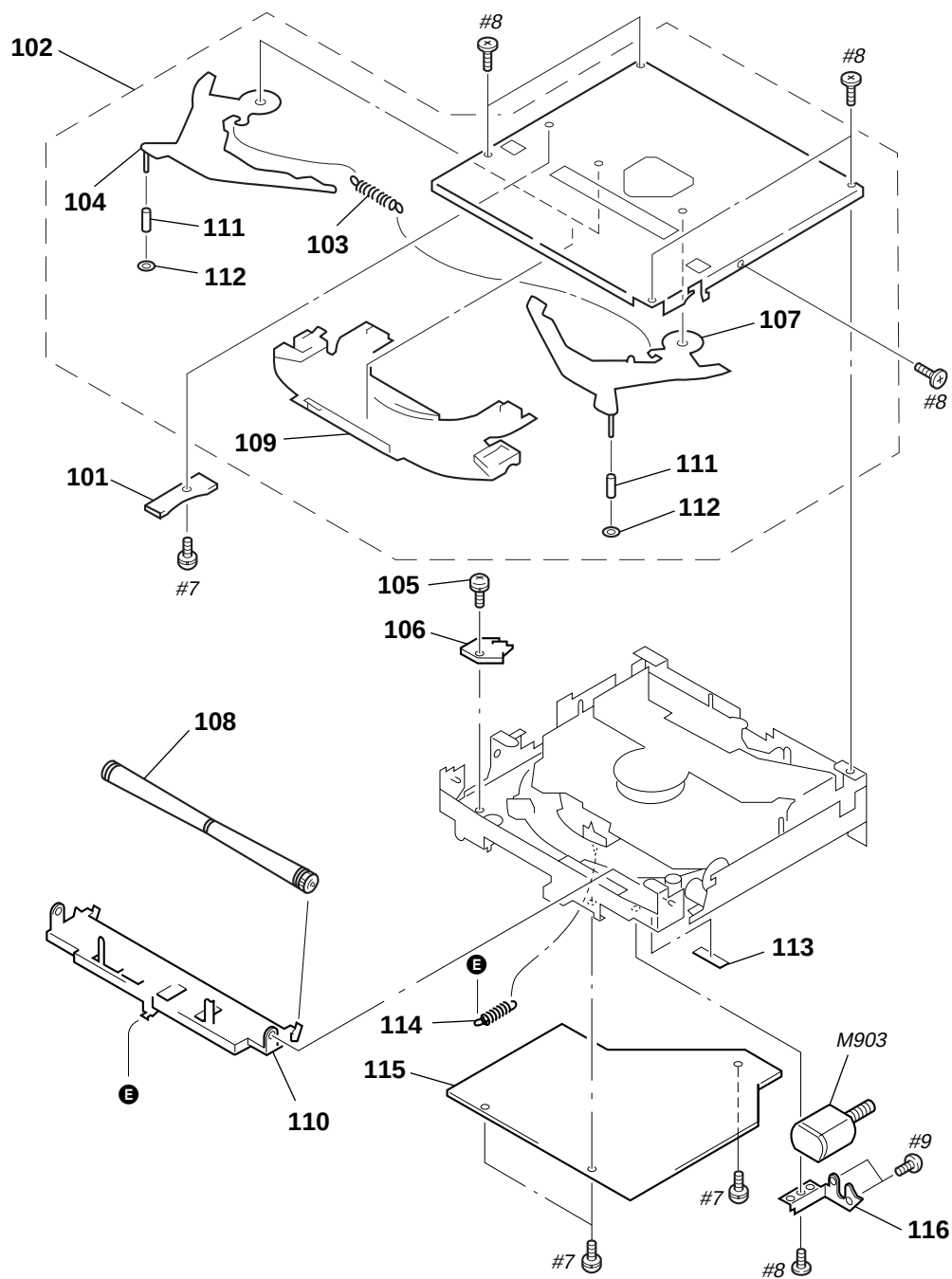
| Ref. No. | Part No.     | Description                       | Remark |
|----------|--------------|-----------------------------------|--------|
| * 9      | 3-030-850-01 | HEAT SINK (REG)                   |        |
| * 10     | 3-030-876-01 | CHASSIS                           |        |
| 11       | 1-769-786-81 | CORD (WITH CONNECTOR) (POWER)     |        |
| * 12     | 3-024-285-01 | CUSHION (RUBBER)                  |        |
| * 13     | 3-024-016-11 | PAPER (N), SHIELD                 |        |
| F901     | 1-532-877-11 | FUSE (BLADE TYPE) (AUTO FUSE) 10A |        |
| TU01     | A-3301-697-A | TUNER ASSY                        |        |

## 5-2. FRONT PANEL SECTION



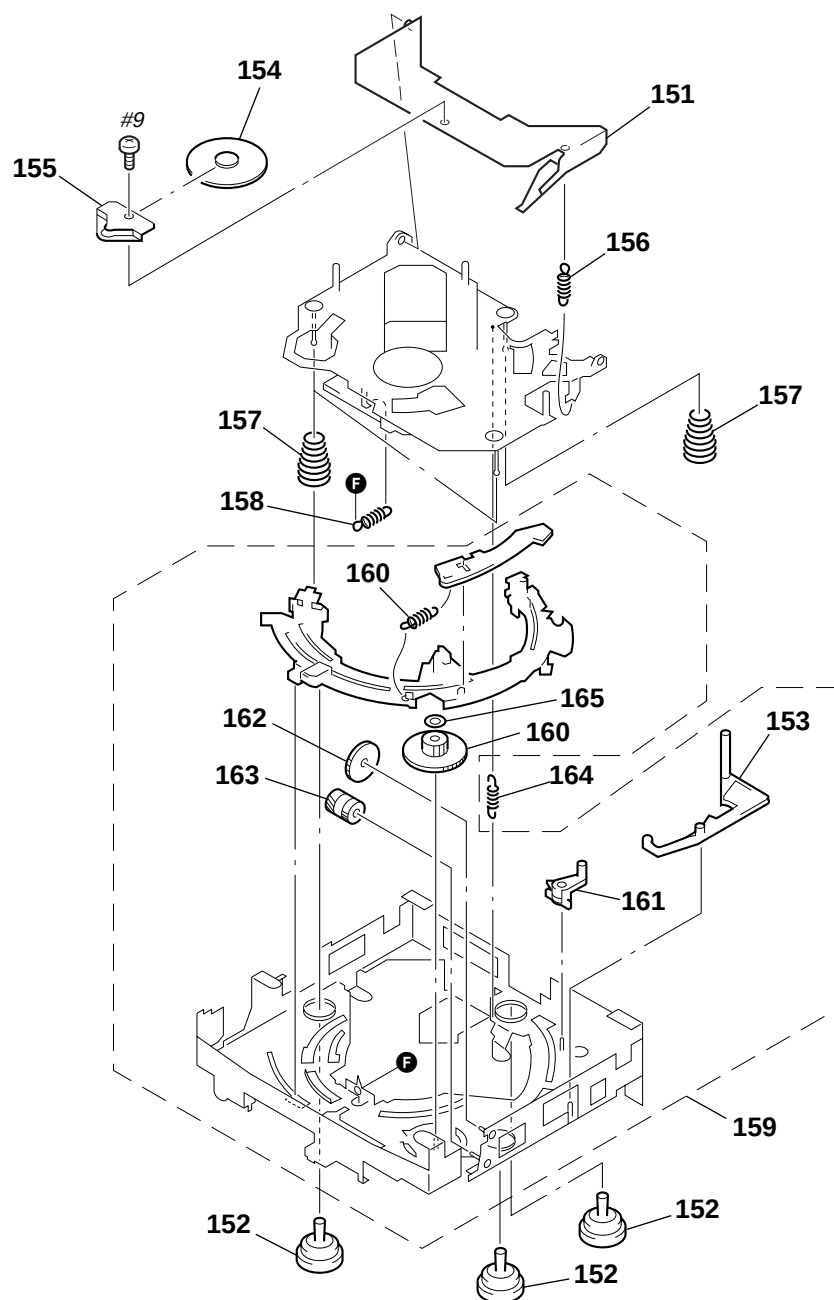
| Ref. No. | Part No.     | Description                | Remark | Ref. No. | Part No.     | Description                      | Remark |
|----------|--------------|----------------------------|--------|----------|--------------|----------------------------------|--------|
| 51       | 3-019-549-02 | BUTTON (RELEASE)(CDX-4250) |        | 60       | 3-019-543-01 | KNOB (D-BASS)                    |        |
| 51       | 3-019-549-22 | BUTTON (RELEASE)(CDX-4500) |        | * 61     | X-3376-745-1 | HOLDER ASSY, LCD                 |        |
| 52       | 3-019-544-03 | KNOB (SEEK/AMS)(CDX-4250)  |        | * 62     | 3-019-557-01 | PLATE (LCD), GROUND              |        |
| 52       | 3-019-544-23 | KNOB (SEEK/AMS)(CDX-4500)  |        | 63       | 3-019-558-01 | SHEET (D) (LCD)                  |        |
| 53       | 3-375-373-01 | SPRING (RELEASE)           |        |          |              |                                  |        |
| 54       | 3-019-550-01 | BUTTON (MODE/SOUND)        |        | * 64     | 3-019-561-01 | SHEET, LCD COLOR                 |        |
| 55       | 3-019-552-01 | BUTTON (1-6)               |        | 65       | 3-030-847-01 | PANEL, FRONT BACK                |        |
| 56       | 3-030-873-11 | BUTTON (CD EJECT)          |        | 66       | X-3376-778-1 | PANEL (S) ASSY, FRONT (CDX-4250) |        |
| 57       | 3-025-315-02 | BUTTON (SOURCE)            |        | 66       | X-3377-100-1 | PANEL (S) ASSY, FRONT (CDX-4500) |        |
| 58       | 3-019-547-01 | KNOB (VOL)                 |        | * 67     | 3-023-946-01 | SHEET (H), BACK                  |        |
| 59       | 3-019-548-01 | RING                       |        |          |              |                                  |        |
|          |              |                            |        | LCD551   | 1-803-439-21 | DISPLAY PANEL, LIQUID CRYSTAL    |        |

### 5-3. CD MECHANISM SECTION (1) (MG-363X-121)



| Ref. No. | Part No.     | Description          | Remark | Ref. No. | Part No.     | Description             | Remark |
|----------|--------------|----------------------|--------|----------|--------------|-------------------------|--------|
| * 101    | 1-659-836-11 | DISCIN BOARD         |        | 110      | 3-931-902-04 | ARM (ROLLER)            |        |
| * 102    | A-3291-816-B | CHASSIS (T) SUB ASSY |        | 111      | 3-936-756-01 | ROLLER (D)              |        |
| 103      | 3-931-909-01 | SPRING (LR), TENSION |        | 112      | 3-321-393-01 | WASHER, STOPPER         |        |
| 104      | X-3371-501-1 | LEVER (L) ASSY       |        | * 113    | 3-939-139-01 | SPACER                  |        |
| 105      | 3-338-737-01 | SCREW (2X3), + PS    |        | 114      | 3-931-916-01 | SPRING (RA), TENSION    |        |
| * 106    | 1-659-837-11 | LOAD BOARD           |        | * 115    | A-3309-227-A | SERVO BOARD, COMPLETE   |        |
| 107      | X-3371-502-1 | LEVER (R) ASSY       |        | * 116    | 3-007-530-01 | BRACKET (MOTOR)         |        |
| 108      | A-3301-203-A | ROLLER ASSY          |        | M903     | A-3291-676-A | MOTOR SUB ASSY, LOADING |        |
| 109      | 3-931-908-01 | GUIDE (DISC)         |        |          |              |                         |        |

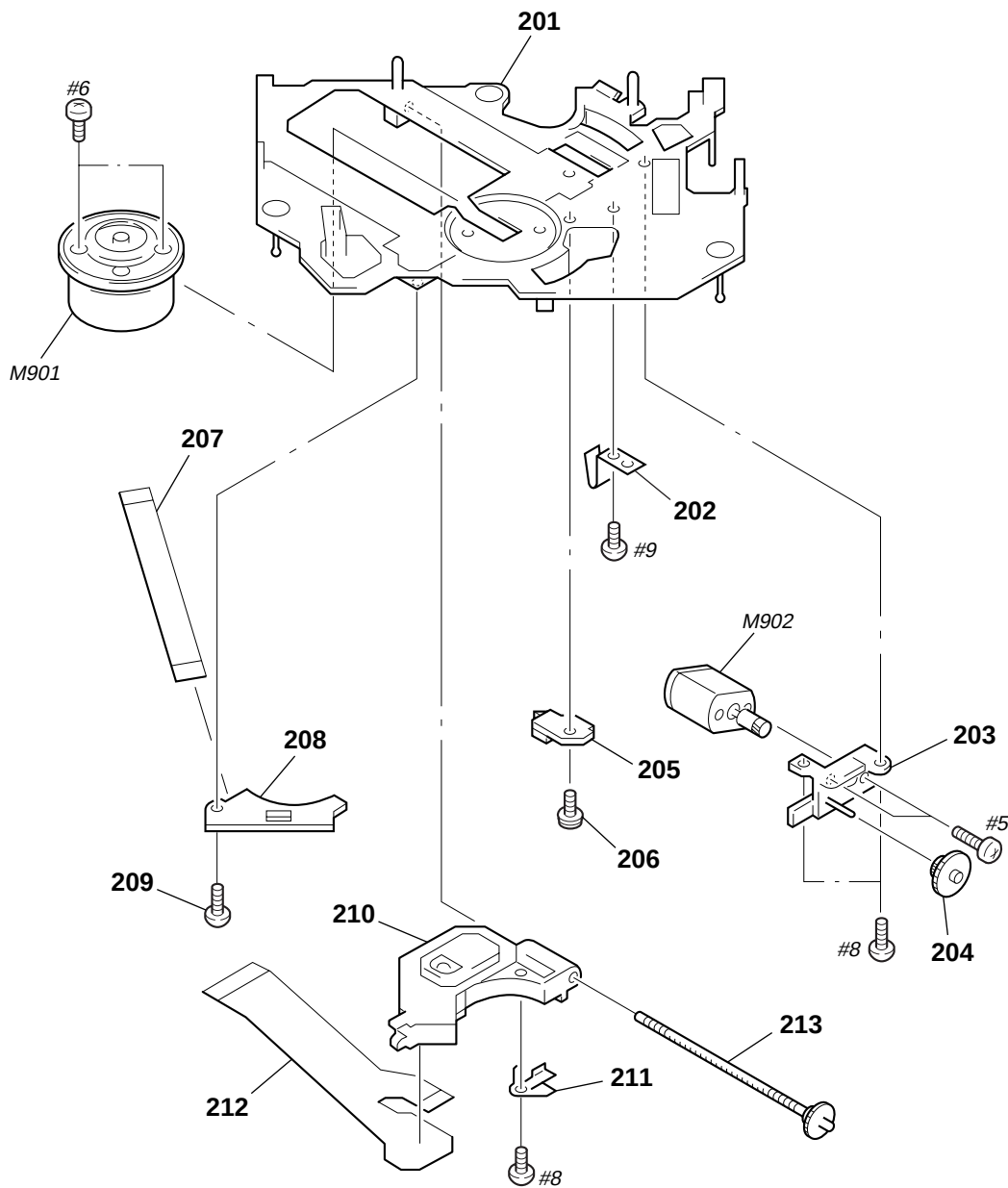
#### 5-4. CD MECHANISM SECTION (2) (MG-363X-121)



| Ref. No. | Part No.     | Description              | Remark | Ref. No. | Part No.     | Description               | Remark |
|----------|--------------|--------------------------|--------|----------|--------------|---------------------------|--------|
| 151      | 3-931-893-01 | ARM, CHUCKING            |        | * 159    | A-3277-802-C | CHASSIS (M) COMPLETE ASSY |        |
| 152      | 3-931-897-01 | DAMPER (T)               |        | 160      | 3-014-727-01 | WHEEL (LW), WORM          |        |
| 153      | 3-931-879-02 | LEVER (D)                |        |          |              |                           |        |
| * 154    | 3-913-404-11 | RETAINER (DISC)          |        | 161      | 3-931-881-01 | LEVER (LOCK)              |        |
| 155      | 3-931-894-01 | BRACKET (CP)             |        | 162      | 3-931-882-02 | GEAR (MDL)                |        |
|          |              |                          |        | 163      | 3-007-537-11 | WHEEL (U), WORM           |        |
| 156      | 3-931-895-01 | SPRING (CH), TENSION     |        | 164      | 3-032-484-01 | SPRING (KR1), TENSION     |        |
| 157      | 3-931-898-01 | SPRING (FL), COMPRESSION |        | 165      | 3-018-272-01 | WASHER                    |        |
| 158      | 3-032-483-02 | SPRING (KF1), TENSION    |        |          |              |                           |        |



5-5. CD MECHANISM SECTION (3) (MG-363X-121)



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

| Ref. No. | Part No.     | Description             | Remark | Ref. No.     | Part No.     | Description                    | Remark |
|----------|--------------|-------------------------|--------|--------------|--------------|--------------------------------|--------|
| * 201    | X-3374-022-1 | CHASSIS (OP) (O/S) ASSY |        | 209          | 3-909-607-01 | SCREW                          |        |
| 202      | 3-931-829-01 | SPRING (SL), PLATE      |        | $\Delta$ 210 | 8-820-010-06 | PICK-UP, OPTICAL KSS-521A/Q-NP |        |
| 203      | X-3371-504-1 | BASE (DRIVING) ASSY     |        | 211          | 3-931-834-01 | SPRING (FEED), PLATE           |        |
| 204      | 3-931-832-01 | GEAR (SL MIDWAY)        |        | 212          | 1-659-881-11 | PICK-UP FLEXIBLE BOARD         |        |
| * 205    | 1-659-835-12 | LIMIT BOARD             |        | 213          | A-3291-669-A | SHAFT (FEED) ASSY              |        |
| 206      | 3-338-737-01 | SCREW (2X3), + PS       |        | M901         | X-3371-664-2 | MOTOR ASSY (SPINDLE)           |        |
| 207      | 1-659-880-11 | MOTOR FLEXIBLE BOARD    |        | M902         | A-3291-674-A | MOTOR ASSY, SLED               |        |
| * 208    | 1-659-834-11 | SUB BOARD               |        |              |              |                                |        |

## SECTION 6 ELECTRICAL PARTS LIST

**DISCIN**

**DISPLAY**

Note:

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

Les composants identifiés par une marque  $\Delta$  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 name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS  
All resistors are in ohms  
METAL: Metal-film resistor  
METAL OXIDE: Metal Oxide-film resistor  
F : nonflammable

- SEMICONDUCTORS  
In each case, u:  $\mu$ , for example:  
uA...:  $\mu$  A..., uPA...:  $\mu$  PA..., uPB...:  $\mu$  PB...,  
uPC...:  $\mu$  PC..., uPD...:  $\mu$  PD...
- CAPACITORS  
uF :  $\mu$  F
- COILS  
uH :  $\mu$  H
- Abbreviation  
CND : Canadian model

| Ref. No. | Part No.     | Description                      | Remark | Ref. No. | Part No.     | Description                   | Remark |
|----------|--------------|----------------------------------|--------|----------|--------------|-------------------------------|--------|
| *        | 1-659-836-11 | DISCIN BOARD<br>*****            |        | D578     | 8-719-067-77 | DIODE SML-010PT-T86 (MODE)    |        |
|          |              | < SWITCH >                       |        |          |              | < IC >                        |        |
| SW1      | 1-572-288-21 | SWITCH, PUSH                     |        | IC551    | 8-759-369-90 | IC LC75822ED                  |        |
| SW2      | 1-572-288-21 | SWITCH, PUSH                     |        |          |              | < JUMPER RESISTOR >           |        |
| *****    |              |                                  |        | JR511    | 1-216-296-00 | SHORT 0                       |        |
|          |              | DISPLAY BOARD, COMPLETE          |        | JR512    | 1-216-296-00 | SHORT 0                       |        |
|          |              | *****                            |        | JR513    | 1-216-296-00 | SHORT 0                       |        |
| *        | X-3376-745-1 | HOLDER ASSY, LCD                 |        | JR514    | 1-216-296-00 | SHORT 0                       |        |
| *        | 3-019-557-01 | PLATE (LCD), GROUND              |        | JR515    | 1-216-296-00 | SHORT 0                       |        |
|          | 3-019-558-01 | SHEET (D) (LCD)                  |        |          |              |                               |        |
| *        | 3-019-561-01 | SHEET, LCD COLOR                 |        | JR516    | 1-216-296-00 | SHORT 0                       |        |
|          |              | < CAPACITOR >                    |        |          |              | < LIQUID CRYSTAL DISPLAY >    |        |
| C551     | 1-163-137-00 | CERAMIC CHIP 680PF 5% 50V        |        | LCD551   | 1-803-439-21 | DISPLAY PANEL, LIQUID CRYSTAL |        |
| C552     | 1-163-038-00 | CERAMIC CHIP 0.1uF 25V           |        |          |              | < LAMP PILOT >                |        |
| C553     | 1-163-117-00 | CERAMIC CHIP 100PF 5% 50V        |        | PL551    | 1-517-665-21 | LAMP PILOT                    |        |
|          |              | < CONNECTOR >                    |        | PL552    | 1-517-665-21 | LAMP PILOT                    |        |
| * CNP551 | 1-764-423-11 | PIN, CONNECTOR 12P               |        |          |              | < RESISTOR >                  |        |
| * CNP552 | 1-779-130-11 | PIN, CONNECTOR 1P                |        | R551     | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W      |        |
|          |              | < DIODE >                        |        | R552     | 1-216-206-00 | RES,CHIP 2.2K 5% 1/8W         |        |
| D551     | 8-719-073-15 | DIODE SDZ5V1                     |        | R553     | 1-216-206-00 | RES,CHIP 2.2K 5% 1/8W         |        |
| D552     | 8-719-068-68 | DIODE SDZ6V2WA                   |        | R554     | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W      |        |
| D554     | 8-719-068-68 | DIODE SDZ6V2WA                   |        | R555     | 1-216-210-00 | RES,CHIP 3.3K 5% 1/8W         |        |
| D561     | 8-719-067-77 | DIODE SML-010PT-T86 (SENS)       |        | R556     | 1-216-065-00 | RES,CHIP 4.7K 5% 1/10W        |        |
| D562     | 8-719-067-77 | DIODE SML-010PT-T86 (DSPL)       |        | R557     | 1-216-218-00 | RES,CHIP 6.8K 5% 1/8W         |        |
| D563     | 8-719-067-77 | DIODE SML-010PT-T86 ( $\Delta$ ) |        | R558     | 1-216-073-00 | METAL CHIP 10K 5% 1/10W       |        |
| D564     | 8-719-067-77 | DIODE SML-010PT-T86 (1)          |        | R559     | 1-216-226-00 | RES,CHIP 15K 5% 1/8W          |        |
| D565     | 8-719-067-77 | DIODE SML-010PT-T86 (OFF)        |        | R561     | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W      |        |
| D566     | 8-719-067-77 | DIODE SML-010PT-T86 (SOUND)      |        | R562     | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W      |        |
| D567     | 8-719-067-77 | DIODE SML-010PT-T86 (SOURCE)     |        | R563     | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W      |        |
| D568     | 8-719-067-77 | DIODE SML-010PT-T86 (4)          |        | R564     | 1-216-057-00 | METAL CHIP 2.2K 5% 1/10W      |        |
| D569     | 8-719-067-77 | DIODE SML-010PT-T86 (3)          |        | R565     | 1-216-061-00 | METAL CHIP 3.3K 5% 1/10W      |        |
| D570     | 8-719-067-77 | DIODE SML-010PT-T86 (2)          |        | R566     | 1-216-065-00 | RES,CHIP 4.7K 5% 1/10W        |        |
| D571     | 8-719-067-77 | DIODE SML-010PT-T86 (6)          |        | R567     | 1-216-069-00 | METAL CHIP 6.8K 5% 1/10W      |        |
| D572     | 8-719-067-77 | DIODE SML-010PT-T86 (5)          |        | R568     | 1-216-073-00 | METAL CHIP 10K 5% 1/10W       |        |
| D573     | 8-719-067-77 | DIODE SML-010PT-T86              |        | R569     | 1-216-077-00 | METAL CHIP 15K 5% 1/10W       |        |
| D574     | 8-719-067-77 | DIODE SML-010PT-T86              |        | R581     | 1-216-090-00 | METAL CHIP 51K 5% 1/10W       |        |
| D575     | 8-719-067-77 | DIODE SML-010PT-T86              |        | R582     | 1-216-045-00 | METAL CHIP 680 5% 1/10W       |        |
| D576     | 8-719-067-77 | DIODE SML-010PT-T86              |        | R584     | 1-216-189-00 | RES,CHIP 430 5% 1/8W          |        |
| D577     | 8-719-067-77 | DIODE SML-010PT-T86              |        | R585     | 1-216-186-00 | RES,CHIP 330 5% 1/8W          |        |
|          |              |                                  |        | R586     | 1-216-189-00 | RES,CHIP 430 5% 1/8W          |        |

|         |       |      |      |
|---------|-------|------|------|
| DISPLAY | LIMIT | LOAD | MAIN |
|---------|-------|------|------|

| Ref. No.           | Part No.     | Description                                      | Remark |    |       |
|--------------------|--------------|--------------------------------------------------|--------|----|-------|
| R587               | 1-216-186-00 | RES,CHIP                                         | 330    | 5% | 1/8W  |
| R588               | 1-216-186-00 | RES,CHIP                                         | 330    | 5% | 1/8W  |
| R591               | 1-216-183-00 | RES,CHIP                                         | 240    | 5% | 1/8W  |
| R592               | 1-216-183-00 | RES,CHIP                                         | 240    | 5% | 1/8W  |
| R593               | 1-216-183-00 | RES,CHIP                                         | 240    | 5% | 1/8W  |
| R594               | 1-216-183-00 | RES,CHIP                                         | 240    | 5% | 1/8W  |
| R595               | 1-216-183-00 | RES,CHIP                                         | 240    | 5% | 1/8W  |
| R596               | 1-216-183-00 | RES,CHIP                                         | 240    | 5% | 1/8W  |
| R597               | 1-216-057-00 | METAL CHIP                                       | 2.2K   | 5% | 1/10W |
| R598               | 1-216-206-00 | RES,CHIP                                         | 2.2K   | 5% | 1/8W  |
| < ROTARY ENCODER > |              |                                                  |        |    |       |
| RE551              | 1-475-014-11 | ENCODER, ROTARY                                  |        |    |       |
| < SWITCH >         |              |                                                  |        |    |       |
| S551               | 1-572-704-31 | SWITCH, KEY BOARD (▲)                            |        |    |       |
| S552               | 1-572-704-31 | SWITCH, KEY BOARD (DSPL)                         |        |    |       |
| S553               | 1-572-704-31 | SWITCH, KEY BOARD (SENS)                         |        |    |       |
| S554               | 1-572-704-31 | SWITCH, KEY BOARD (SOUND)                        |        |    |       |
| S555               | 1-762-719-21 | SWITCH, TACT (MODE)                              |        |    |       |
| S556               | 1-771-290-11 | SWITCH, SLIDE<br>(SEEK/AMS I◀◀ ◀◀ -/▶▶▶▶ ▶▶▶▶ +) |        |    |       |
| S557               | 1-572-704-31 | SWITCH, KEY BOARD (1)                            |        |    |       |
| S558               | 1-572-704-31 | SWITCH, KEY BOARD (2)                            |        |    |       |
| S561               | 1-572-704-31 | SWITCH, KEY BOARD (OFF)                          |        |    |       |
| S562               | 1-572-704-31 | SWITCH, KEY BOARD (SOURCE)                       |        |    |       |
| S563               | 1-572-704-31 | SWITCH, KEY BOARD (3)                            |        |    |       |
| S564               | 1-572-704-31 | SWITCH, KEY BOARD (4)                            |        |    |       |
| S565               | 1-572-704-31 | SWITCH, KEY BOARD (5)                            |        |    |       |
| S566               | 1-572-704-31 | SWITCH, KEY BOARD (6)                            |        |    |       |
| S567               | 1-762-937-11 | SWITCH, ROTARY (D-BASS)                          |        |    |       |
| *****              |              |                                                  |        |    |       |
| *                  | 1-659-835-12 | LIMIT BOARD<br>*****                             |        |    |       |
| < SWITCH >         |              |                                                  |        |    |       |
| SW3                | 1-572-688-11 | SWITCH, PUSH (1 KEY)                             |        |    |       |
| *****              |              |                                                  |        |    |       |
| *                  | 1-659-837-11 | LOAD BOARD<br>*****                              |        |    |       |
| < SWITCH >         |              |                                                  |        |    |       |
| SW4                | 1-572-288-21 | SWITCH, PUSH                                     |        |    |       |
| *****              |              |                                                  |        |    |       |
| *                  | A-3294-551-A | MAIN BOARD, COMPLETE (CDX-4250)<br>*****         |        |    |       |
| *                  | A-3294-631-A | MAIN BOARD, COMPLETE (CDX-4500)<br>*****         |        |    |       |
| *                  | 3-019-565-01 | BRACKET (IC)                                     |        |    |       |
| *                  | 3-030-849-01 | HEAT SINK (T)                                    |        |    |       |
| *                  | 3-030-850-01 | HEAT SINK (REG)                                  |        |    |       |
|                    | 7-685-792-09 | SCREW +PTT 2.6X6 (S)                             |        |    |       |
|                    | 7-685-793-09 | SCREW +PTT 2.6X8 (S)                             |        |    |       |

| Ref. No. | Part No.     | Description           | Remark   |     |            |
|----------|--------------|-----------------------|----------|-----|------------|
|          | 7-685-794-09 | SCREW +PTT 2.6X10 (S) |          |     |            |
|          |              | < CAPACITOR >         |          |     |            |
| C101     | 1-163-007-11 | CERAMIC CHIP          | 680PF    | 10% | 50V        |
| C102     | 1-162-587-11 | CERAMIC CHIP          | 0.039uF  | 10% | 25V        |
| C103     | 1-164-346-11 | CERAMIC CHIP          | 1uF      |     | 16V        |
| C104     | 1-164-492-11 | CERAMIC CHIP          | 0.15uF   | 10% | 16V        |
| C104     | 1-164-489-11 | CERAMIC CHIP          | 0.22uF   | 10% | 16V        |
|          |              |                       |          |     | (CDX-4250) |
|          |              |                       |          |     | (CDX-4500) |
| C105     | 1-124-233-11 | ELECT                 | 10uF     | 20% | 16V        |
| C106     | 1-124-233-11 | ELECT                 | 10uF     | 20% | 16V        |
| C107     | 1-163-009-11 | CERAMIC CHIP          | 0.001uF  | 10% | 50V        |
| C108     | 1-163-009-11 | CERAMIC CHIP          | 0.001uF  | 10% | 50V        |
| C109     | 1-163-038-00 | CERAMIC CHIP          | 0.1uF    |     | 25V        |
| C110     | 1-163-038-00 | CERAMIC CHIP          | 0.1uF    |     | 25V        |
| C111     | 1-164-346-11 | CERAMIC CHIP          | 1uF      |     | 16V        |
| C112     | 1-164-346-11 | CERAMIC CHIP          | 1uF      |     | 16V        |
| C113     | 1-164-182-11 | CERAMIC CHIP          | 0.0033uF | 10% | 50V        |
| C114     | 1-163-037-11 | CERAMIC CHIP          | 0.022uF  | 10% | 25V        |
| C115     | 1-124-233-11 | ELECT                 | 10uF     | 20% | 16V        |
| C116     | 1-164-492-11 | CERAMIC CHIP          | 0.15uF   | 10% | 16V        |
| C117     | 1-164-492-11 | CERAMIC CHIP          | 0.15uF   | 10% | 16V        |
| C118     | 1-124-233-11 | ELECT                 | 10uF     | 20% | 16V        |
| C201     | 1-163-007-11 | CERAMIC CHIP          | 680PF    | 10% | 50V        |
| C202     | 1-162-587-11 | CERAMIC CHIP          | 0.039uF  | 10% | 25V        |
| C203     | 1-164-346-11 | CERAMIC CHIP          | 1uF      |     | 16V        |
| C205     | 1-124-233-11 | ELECT                 | 10uF     | 20% | 16V        |
| C206     | 1-124-233-11 | ELECT                 | 10uF     | 20% | 16V        |
| C207     | 1-163-009-11 | CERAMIC CHIP          | 0.001uF  | 10% | 50V        |
| C208     | 1-163-009-11 | CERAMIC CHIP          | 0.001uF  | 10% | 50V        |
| C209     | 1-163-038-00 | CERAMIC CHIP          | 0.1uF    |     | 25V        |
| C210     | 1-163-038-00 | CERAMIC CHIP          | 0.1uF    |     | 25V        |
| C211     | 1-164-346-11 | CERAMIC CHIP          | 1uF      |     | 16V        |
| C212     | 1-164-346-11 | CERAMIC CHIP          | 1uF      |     | 16V        |
| C213     | 1-164-182-11 | CERAMIC CHIP          | 0.0033uF | 10% | 50V        |
| C214     | 1-163-037-11 | CERAMIC CHIP          | 0.022uF  | 10% | 25V        |
| C215     | 1-124-233-11 | ELECT                 | 10uF     | 20% | 16V        |
| C216     | 1-164-492-11 | CERAMIC CHIP          | 0.15uF   | 10% | 16V        |
| C217     | 1-164-492-11 | CERAMIC CHIP          | 0.15uF   | 10% | 16V        |
| C218     | 1-124-233-11 | ELECT                 | 10uF     | 20% | 16V        |
| C401     | 1-124-233-11 | ELECT                 | 10uF     | 20% | 16V        |
| C405     | 1-126-514-11 | ELECT                 | 22uF     | 20% | 16V        |
| C407     | 1-124-259-11 | ELECT                 | 4.7uF    | 20% | 16V        |
| C408     | 1-164-346-11 | CERAMIC CHIP          | 1uF      |     | 16V        |
| C409     | 1-163-109-00 | CERAMIC CHIP          | 47PF     | 5%  | 50V        |
| C410     | 1-126-786-11 | ELECT                 | 47uF     | 20% | 16V        |
|          |              |                       |          |     | (CDX-4500) |
| C411     | 1-124-465-00 | ELECT                 | 0.47uF   | 20% | 50V        |
| C412     | 1-164-346-11 | CERAMIC CHIP          | 1uF      |     | 16V        |
| C413     | 1-124-589-11 | ELECT                 | 47uF     | 20% | 16V        |
| C414     | 1-164-346-11 | CERAMIC CHIP          | 1uF      |     | 16V        |
|          |              |                       |          |     | (CDX-4500) |
| C601     | 1-163-235-11 | CERAMIC CHIP          | 22PF     | 5%  | 50V        |
| C602     | 1-164-161-11 | CERAMIC CHIP          | 0.0022uF | 10% | 100V       |
| C603     | 1-164-004-11 | CERAMIC CHIP          | 0.1uF    | 10% | 25V        |
| C604     | 1-126-514-11 | ELECT                 | 22uF     | 20% | 16V        |
| C605     | 1-163-031-11 | CERAMIC CHIP          | 0.01uF   |     | 50V        |

| Ref. No.            | Part No.     | Description                   | Remark   |     |            | Ref. No. | Part No.     | Description                   | Remark              |  |
|---------------------|--------------|-------------------------------|----------|-----|------------|----------|--------------|-------------------------------|---------------------|--|
| C609                | 1-164-004-11 | CERAMIC CHIP                  | 0.1uF    | 10% | 25V        | CP601    | 1-519-504-11 | < COMPOSITION CIRCUIT BLOCK > |                     |  |
| C610                | 1-124-233-11 | ELECT                         | 10uF     | 20% | 16V        |          |              |                               |                     |  |
| C611                | 1-124-464-11 | ELECT                         | 0.22uF   | 20% | 50V        |          |              |                               |                     |  |
| C612                | 1-163-017-00 | CERAMIC CHIP                  | 0.0047uF | 5%  | 50V        |          |              |                               |                     |  |
| < DIODE >           |              |                               |          |     |            |          |              |                               |                     |  |
| C613                | 1-163-037-11 | CERAMIC CHIP                  | 0.022uF  | 10% | 25V        | D401     | 8-719-109-71 | DIODE                         | RD3.9ES-B1          |  |
| C614                | 1-163-022-00 | CERAMIC CHIP                  | 0.012uF  | 10% | 50V        |          |              |                               |                     |  |
|                     |              |                               |          |     | (CDX-4500) |          |              |                               |                     |  |
| C614                | 1-163-037-11 | CERAMIC CHIP                  | 0.022uF  | 10% | 25V        |          |              |                               |                     |  |
|                     |              |                               |          |     | (CDX-4250) | D604     | 8-719-991-33 | DIODE                         | 1SS133T-77          |  |
|                     |              |                               |          |     |            | D701     | 8-719-991-33 | DIODE                         | 1SS133T-77          |  |
| C615                | 1-163-022-00 | CERAMIC CHIP                  | 0.012uF  | 10% | 50V        | D801     | 8-719-109-93 | DIODE                         | RD6.2ESB2           |  |
|                     |              |                               |          |     | (CDX-4500) |          |              |                               |                     |  |
| C615                | 1-163-037-11 | CERAMIC CHIP                  | 0.022uF  | 10% | 25V        | D802     | 8-719-109-93 | DIODE                         | RD6.2ESB2           |  |
|                     |              |                               |          |     | (CDX-4250) | D803     | 8-719-109-93 | DIODE                         | RD6.2ESB2           |  |
|                     |              |                               |          |     |            | D804     | 8-719-109-93 | DIODE                         | RD6.2ESB2           |  |
| C617                | 1-163-037-11 | CERAMIC CHIP                  | 0.022uF  | 10% | 25V        | D805     | 8-719-109-93 | DIODE                         | RD6.2ESB2           |  |
| C619                | 1-163-018-00 | CERAMIC CHIP                  | 5600PF   | 10% | 50V        | D807     | 8-719-109-93 | DIODE                         | RD6.2ESB2           |  |
|                     |              |                               |          |     | (CDX-4250) |          |              |                               |                     |  |
| C619                | 1-163-020-00 | CERAMIC CHIP                  | 0.0082uF | 10% | 50V        | D808     | 8-719-109-93 | DIODE                         | RD6.2ESB2           |  |
|                     |              |                               |          |     | (CDX-4500) | D809     | 8-719-109-93 | DIODE                         | RD6.2ESB2           |  |
| C625                | 1-163-037-11 | CERAMIC CHIP                  | 0.022uF  | 10% | 25V        | D811     | 8-719-991-33 | DIODE                         | 1SS133T-77          |  |
| C701                | 1-163-021-11 | CERAMIC CHIP                  | 0.01uF   | 10% | 50V        | D812     | 8-719-109-93 | DIODE                         | RD6.2ESB2           |  |
|                     |              |                               |          |     |            | D901     | 8-719-929-15 | DIODE                         | MTZJ-T-77-9.1B      |  |
| C702                | 1-163-235-11 | CERAMIC CHIP                  | 22PF     | 5%  | 50V        |          |              |                               |                     |  |
| C703                | 1-163-235-11 | CERAMIC CHIP                  | 22PF     | 5%  | 50V        | D902     | 8-719-929-15 | DIODE                         | MTZJ-T-77-9.1B      |  |
| C704                | 1-124-233-11 | ELECT                         | 10uF     | 20% | 16V        | D903     | 8-719-109-89 | DIODE                         | RD5.6ESB2           |  |
| C705                | 1-124-589-11 | ELECT                         | 47uF     | 20% | 16V        | D904     | 8-719-109-89 | DIODE                         | RD5.6ESB2           |  |
| C708                | 1-124-233-11 | ELECT                         | 10uF     | 20% | 16V        | D905     | 8-719-109-93 | DIODE                         | RD6.2ESB2           |  |
|                     |              |                               |          |     |            | D906     | 8-719-923-91 | DIODE                         | MTZJ-T-77-16A       |  |
| C709                | 1-164-004-11 | CERAMIC CHIP                  | 0.1uF    | 10% | 25V        |          |              |                               |                     |  |
| C712                | 1-164-004-11 | CERAMIC CHIP                  | 0.1uF    | 10% | 25V        | D907     | 8-719-049-38 | DIODE                         | 1N5404TU            |  |
| C713                | 1-163-239-11 | CERAMIC CHIP                  | 33PF     | 5%  | 50V        | D908     | 8-719-200-82 | DIODE                         | 11ES2               |  |
| C714                | 1-163-021-11 | CERAMIC CHIP                  | 0.01uF   | 10% | 50V        | D910     | 8-719-109-93 | DIODE                         | RD6.2ESB2           |  |
|                     |              |                               |          |     | (CDX-4250) | D911     | 8-719-991-33 | DIODE                         | 1SS133T-77          |  |
| C801                | 1-163-021-11 | CERAMIC CHIP                  | 0.01uF   | 10% | 50V        | D921     | 8-719-109-97 | DIODE                         | RD6.8ES-B2          |  |
|                     |              |                               |          |     | (CDX-4250) |          |              |                               |                     |  |
| < IC >              |              |                               |          |     |            |          |              |                               |                     |  |
| C802                | 1-163-205-00 | CERAMIC CHIP                  | 0.001uF  | 5%  | 50V        | IC401    | 8-759-487-82 | IC                            | LC75374E            |  |
| C804                | 1-163-009-11 | CERAMIC CHIP                  | 0.001uF  | 10% | 50V        | IC402    | 8-759-490-74 | IC                            | TDA7384             |  |
| C805                | 1-163-009-11 | CERAMIC CHIP                  | 0.001uF  | 10% | 50V        | IC701    | 8-759-464-81 | IC                            | PCM1717E-ST2        |  |
| C807                | 1-163-233-11 | CERAMIC CHIP                  | 18PF     | 5%  | 50V        | IC801    | 8-759-585-18 | IC                            | uPD17P709GC-537-3B9 |  |
| C808                | 1-163-234-11 | CERAMIC CHIP                  | 20PF     | 5%  | 50V        |          |              |                               |                     |  |
| < JUMPER RESISTOR > |              |                               |          |     |            |          |              |                               |                     |  |
| C814                | 1-163-038-00 | CERAMIC CHIP                  | 0.1uF    |     | 25V        | JR3      | 1-216-295-00 | SHORT                         | 0                   |  |
| C830                | 1-164-222-11 | CERAMIC CHIP                  | 0.22uF   |     | 25V        | JR4      | 1-216-296-00 | SHORT                         | 0                   |  |
| C831                | 1-163-077-00 | CERAMIC CHIP                  | 0.1uF    | 10% | 25V        | JR5      | 1-216-296-00 | SHORT                         | 0                   |  |
| C901                | 1-124-257-00 | ELECT                         | 2.2uF    | 20% | 50V        | JR7      | 1-216-296-00 | SHORT                         | 0                   |  |
| C902                | 1-163-038-00 | CERAMIC CHIP                  | 0.1uF    |     | 25V        | JR11     | 1-216-296-00 | SHORT                         | 0                   |  |
| C903                | 1-124-257-00 | ELECT                         | 2.2uF    | 20% | 50V        |          |              |                               |                     |  |
| C904                | 1-110-654-11 | ELECT(BLOCK)                  | 0.047F   | 0%  | 0          | JR16     | 1-216-295-00 | SHORT                         | 0                   |  |
| C907                | 1-164-004-11 | CERAMIC CHIP                  | 0.1uF    | 10% | 25V        | JR17     | 1-216-296-00 | SHORT                         | 0                   |  |
| C908                | 1-124-465-00 | ELECT                         | 0.47uF   | 20% | 50V        | JR18     | 1-216-295-00 | SHORT                         | 0                   |  |
| C909                | 1-126-768-11 | ELECT                         | 2200uF   | 20% | 16V        | JR19     | 1-216-296-00 | SHORT                         | 0                   |  |
|                     |              |                               |          |     |            | JR22     | 1-216-295-00 | SHORT                         | 0                   |  |
| C910                | 1-164-156-11 | CERAMIC CHIP                  | 0.1uF    |     | 25V        |          |              |                               |                     |  |
| C911                | 1-124-259-11 | ELECT                         | 4.7uF    | 20% | 16V        |          |              |                               |                     |  |
| C913                | 1-163-021-11 | CERAMIC CHIP                  | 0.01uF   | 10% | 50V        | JR24     | 1-216-295-00 | SHORT                         | 0                   |  |
| C915                | 1-126-162-11 | ELECT                         | 3.3uF    | 20% | 50V        | JR31     | 1-216-296-00 | SHORT                         | 0                   |  |
| C916                | 1-163-021-11 | CERAMIC CHIP                  | 0.01uF   | 10% | 50V        | JR33     | 1-216-295-00 | SHORT                         | 0                   |  |
|                     |              |                               |          |     |            | JR35     | 1-216-296-00 | SHORT                         | 0                   |  |
| < CONNECTOR >       |              |                               |          |     |            | JR36     | 1-216-296-00 | SHORT                         | 0                   |  |
| CNJ601              | 1-785-006-11 | JACK (ANT)                    |          |     |            | JR37     | 1-216-296-00 | SHORT                         | 0                   |  |
| CNP701              | 1-764-617-12 | PIN, CONNECTOR (PC BOARD) 30P |          |     |            | JR39     | 1-216-295-00 | SHORT                         | 0                   |  |
| CNP801              | 1-764-422-11 | PLUG, CONNECTOR 12P           |          |     |            | JR45     | 1-216-296-00 | SHORT                         | 0                   |  |
| CNP901              | 1-774-701-11 | PIN, CONNECTOR 16P            |          |     |            | JR46     | 1-216-296-00 | SHORT                         | 0                   |  |
|                     |              |                               |          |     |            | JR48     | 1-216-295-00 | SHORT                         | 0                   |  |

# MAIN

| Ref. No.       | Part No.     | Description               | Remark |
|----------------|--------------|---------------------------|--------|
| JR60           | 1-216-295-00 | SHORT 0                   |        |
| JR86           | 1-216-295-00 | SHORT 0 (CDX-4250)        |        |
| JR90           | 1-216-295-00 | SHORT 0                   |        |
| < COIL >       |              |                           |        |
| L601           | 1-414-137-31 | INDUCTOR 0.22uH           |        |
| L602           | 1-410-521-11 | INDUCTOR 100uH            |        |
| L801           | 1-410-513-11 | INDUCTOR 22uH             |        |
| L901           | 1-416-539-11 | INDUCTOR 370uH            |        |
| < JACK >       |              |                           |        |
| PJ401          | 1-785-628-11 | JACK, PIN 4P LINE OUT     |        |
| < TRANSISTOR > |              |                           |        |
| Q101           | 8-729-920-21 | TRANSISTOR DTC314TKH04    |        |
| Q102           | 8-729-920-21 | TRANSISTOR DTC314TKH04    |        |
| Q201           | 8-729-920-21 | TRANSISTOR DTC314TKH04    |        |
| Q202           | 8-729-920-21 | TRANSISTOR DTC314TKH04    |        |
| Q401           | 8-729-027-52 | TRANSISTOR DTC124EKA-T146 |        |
| Q402           | 8-729-901-05 | TRANSISTOR DTA124EK       |        |
| Q601           | 8-729-030-51 | TRANSISTOR 2SA1515S-R-TP  |        |
| Q602           | 8-729-030-51 | TRANSISTOR 2SA1515S-R-TP  |        |
| Q605           | 8-729-620-06 | TRANSISTOR 2SC3052-EF     |        |
| Q606           | 8-729-620-06 | TRANSISTOR 2SC3052-EF     |        |
| Q801           | 8-729-027-43 | TRANSISTOR DTC114EKA-T146 |        |
| Q901           | 8-729-019-00 | TRANSISTOR 2SD2394-G      |        |
| Q902           | 8-729-901-05 | TRANSISTOR DTA124EK       |        |
| Q904           | 8-729-015-11 | TRANSISTOR 2SD1802FAST-TL |        |
| Q905           | 8-729-027-43 | TRANSISTOR DTC114EKA-T146 |        |
| Q906           | 8-729-901-05 | TRANSISTOR DTA124EK       |        |
| Q907           | 8-729-019-00 | TRANSISTOR 2SD2394-G      |        |
| Q908           | 8-729-027-43 | TRANSISTOR DTC114EKA-T146 |        |
| Q909           | 8-729-027-43 | TRANSISTOR DTC114EKA-T146 |        |
| Q910           | 8-729-920-85 | TRANSISTOR 2SD1664-QR     |        |
| Q911           | 8-729-620-06 | TRANSISTOR 2SC3052-EF     |        |
| Q912           | 8-729-620-06 | TRANSISTOR 2SC3052-EF     |        |
| Q913           | 8-729-027-43 | TRANSISTOR DTC114EKA-T146 |        |
| Q915           | 8-729-822-84 | TRANSISTOR 2SB1202FAST    |        |
| Q916           | 8-729-027-43 | TRANSISTOR DTC114EKA-T146 |        |
| Q917           | 8-729-101-07 | TRANSISTOR 2SB798-DL      |        |
| Q918           | 8-729-027-43 | TRANSISTOR DTC114EKA-T146 |        |
| < RESISTOR >   |              |                           |        |
| R101           | 1-216-071-00 | METAL CHIP 8.2K 5%        | 1/10W  |
| R102           | 1-216-073-00 | METAL CHIP 10K 5%         | 1/10W  |
| R103           | 1-216-065-00 | RES,CHIP 4.7K 5%          | 1/10W  |
| R104           | 1-216-214-00 | RES,CHIP 4.7K 5%          | 1/8W   |
| R105           | 1-216-049-11 | RES,CHIP 1K 5%            | 1/10W  |
| R106           | 1-216-049-11 | RES,CHIP 1K 5%            | 1/10W  |
| R107           | 1-216-077-00 | METAL CHIP 15K 5%         | 1/10W  |
| R108           | 1-216-077-00 | METAL CHIP 15K 5%         | 1/10W  |
| R109           | 1-216-129-00 | METAL CHIP 2.2M 5%        | 1/10W  |
| R110           | 1-216-129-00 | METAL CHIP 2.2M 5%        | 1/10W  |
| R111           | 1-216-079-00 | METAL CHIP 18K 5%         | 1/10W  |
| R112           | 1-216-079-00 | METAL CHIP 18K 5%         | 1/10W  |
| R113           | 1-216-059-00 | METAL CHIP 2.7K 5%        | 1/10W  |
| R201           | 1-216-071-00 | METAL CHIP 8.2K 5%        | 1/10W  |
| R202           | 1-216-073-00 | METAL CHIP 10K 5%         | 1/10W  |

| Ref. No. | Part No.     | Description        | Remark              |
|----------|--------------|--------------------|---------------------|
| R203     | 1-216-065-00 | RES,CHIP 4.7K 5%   | 1/10W               |
| R204     | 1-216-065-00 | RES,CHIP 4.7K 5%   | 1/10W               |
| R205     | 1-216-049-11 | RES,CHIP 1K 5%     | 1/10W               |
| R206     | 1-216-049-11 | RES,CHIP 1K 5%     | 1/10W               |
| R207     | 1-216-077-00 | METAL CHIP 15K 5%  | 1/10W               |
| R208     | 1-216-077-00 | METAL CHIP 15K 5%  | 1/10W               |
| R209     | 1-216-129-00 | METAL CHIP 2.2M 5% | 1/10W               |
| R210     | 1-216-129-00 | METAL CHIP 2.2M 5% | 1/10W               |
| R211     | 1-216-079-00 | METAL CHIP 18K 5%  | 1/10W               |
| R212     | 1-216-079-00 | METAL CHIP 18K 5%  | 1/10W               |
| R213     | 1-216-059-00 | METAL CHIP 2.7K 5% | 1/10W               |
| R401     | 1-216-113-00 | METAL CHIP 470K 5% | 1/10W               |
| R402     | 1-216-049-11 | RES,CHIP 1K 5%     | 1/10W               |
| R601     | 1-216-221-00 | RES,CHIP 9.1K 5%   | 1/8W<br>(CDX-4500)  |
| R601     | 1-216-230-00 | RES,CHIP 22K 5%    | 1/8W<br>(CDX-4250)  |
| R602     | 1-249-417-11 | CARBON 1K 5%       | 1/4W F              |
| R603     | 1-249-417-11 | CARBON 1K 5%       | 1/4W F              |
| R604     | 1-216-077-00 | METAL CHIP 15K 5%  | 1/10W<br>(CDX-4250) |
| R605     | 1-216-077-00 | METAL CHIP 15K 5%  | 1/10W<br>(CDX-4250) |
| R607     | 1-216-025-00 | RES,CHIP 100 5%    | 1/10W               |
| R608     | 1-216-081-00 | METAL CHIP 22K 5%  | 1/10W               |
| R611     | 1-216-049-11 | RES,CHIP 1K 5%     | 1/10W               |
| R612     | 1-216-049-11 | RES,CHIP 1K 5%     | 1/10W               |
| R613     | 1-216-049-11 | RES,CHIP 1K 5%     | 1/10W               |
| R614     | 1-216-049-11 | RES,CHIP 1K 5%     | 1/10W               |
| R615     | 1-249-429-11 | CARBON 10K 5%      | 1/4W                |
| R616     | 1-249-417-11 | CARBON 1K 5%       | 1/4W F              |
| R617     | 1-216-049-11 | RES,CHIP 1K 5%     | 1/10W               |
| R618     | 1-216-057-00 | METAL CHIP 2.2K 5% | 1/10W               |
| R620     | 1-249-807-21 | CARBON 100 5%      | 1/4W F              |
| R622     | 1-216-081-00 | METAL CHIP 22K 5%  | 1/10W               |
| R701     | 1-216-025-00 | RES,CHIP 100 5%    | 1/10W               |
| R702     | 1-216-025-00 | RES,CHIP 100 5%    | 1/10W               |
| R703     | 1-216-025-00 | RES,CHIP 100 5%    | 1/10W               |
| R704     | 1-216-033-00 | METAL CHIP 220 5%  | 1/10W               |
| R706     | 1-216-037-00 | METAL CHIP 330 5%  | 1/10W               |
| R707     | 1-216-027-00 | METAL CHIP 120 5%  | 1/10W               |
| R801     | 1-216-053-00 | METAL CHIP 1.5K 5% | 1/10W               |
| R803     | 1-216-105-00 | RES,CHIP 220K 5%   | 1/10W<br>(CDX-4500) |
| R804     | 1-216-105-00 | RES,CHIP 220K 5%   | 1/10W<br>(CDX-4500) |
| R805     | 1-216-105-00 | RES,CHIP 220K 5%   | 1/10W               |
| R806     | 1-216-053-00 | METAL CHIP 1.5K 5% | 1/10W               |
| R807     | 1-216-053-00 | METAL CHIP 1.5K 5% | 1/10W               |
| R808     | 1-216-057-00 | METAL CHIP 2.2K 5% | 1/10W               |
| R809     | 1-216-073-00 | METAL CHIP 10K 5%  | 1/10W               |
| R810     | 1-216-105-00 | RES,CHIP 220K 5%   | 1/10W               |
| R812     | 1-216-073-00 | METAL CHIP 10K 5%  | 1/10W               |
| R813     | 1-216-073-00 | METAL CHIP 10K 5%  | 1/10W               |
| R814     | 1-216-049-11 | RES,CHIP 1K 5%     | 1/10W               |
| R815     | 1-216-049-11 | RES,CHIP 1K 5%     | 1/10W               |
| R816     | 1-216-105-00 | RES,CHIP 220K 5%   | 1/10W               |
| R817     | 1-216-057-00 | METAL CHIP 2.2K 5% | 1/10W               |
| R818     | 1-216-057-00 | METAL CHIP 2.2K 5% | 1/10W               |



| Ref. No. | Part No.     | Description                   |      |    | Remark | Ref. No.      | Part No.     | Description                    |             |       | Remark |
|----------|--------------|-------------------------------|------|----|--------|---------------|--------------|--------------------------------|-------------|-------|--------|
| R819     | 1-216-061-00 | METAL CHIP                    | 3.3K | 5% | 1/10W  | X801          | 1-760-223-11 | VIBRATOR, CRYSTAL (4.5MHz)     |             |       |        |
| R820     | 1-216-057-00 | METAL CHIP                    | 2.2K | 5% | 1/10W  | *****         |              |                                |             |       |        |
| R821     | 1-249-417-11 | CARBON                        | 1K   | 5% | 1/4W F | *             | A-3309-227-A | SERVO BOARD, COMPLETE          |             |       |        |
| R822     | 1-249-417-11 | CARBON                        | 1K   | 5% | 1/4W F |               |              | *****                          |             |       |        |
| R823     | 1-216-049-11 | RES,CHIP                      | 1K   | 5% | 1/10W  |               |              | < CAPACITOR >                  |             |       |        |
| R824     | 1-216-105-00 | RES,CHIP                      | 220K | 5% | 1/10W  |               |              |                                |             |       |        |
| R825     | 1-216-105-00 | RES,CHIP                      | 220K | 5% | 1/10W  |               |              |                                |             |       |        |
| R826     | 1-216-105-00 | RES,CHIP                      | 220K | 5% | 1/10W  | C1            | 1-107-823-11 | CERAMIC CHIP                   | 0.47uF      | 10%   | 16V    |
| R827     | 1-216-234-00 | RES,CHIP                      | 33K  | 5% | 1/8W   | C2            | 1-163-021-11 | CERAMIC CHIP                   | 0.01uF      | 10%   | 50V    |
| R828     | 1-216-254-00 | RES,CHIP                      | 220K | 5% | 1/8W   | C3            | 1-135-145-11 | TANTALUM CHIP                  | 0.47uF      | 10%   | 35V    |
| R829     | 1-216-254-00 | RES,CHIP                      | 220K | 5% | 1/8W   | C4            | 1-163-251-11 | CERAMIC CHIP                   | 100PF       | 5%    | 50V    |
| R830     | 1-216-254-00 | RES,CHIP                      | 220K | 5% | 1/8W   | C5            | 1-164-182-11 | CERAMIC CHIP                   | 0.0033uF    | 10%   | 50V    |
| R831     | 1-216-089-00 | RES,CHIP                      | 47K  | 5% | 1/10W  | C6            | 1-163-011-11 | CERAMIC CHIP                   | 0.0015uF    | 10%   | 50V    |
| R832     | 1-216-073-00 | METAL CHIP                    | 10K  | 5% | 1/10W  | C7            | 1-163-809-11 | CERAMIC CHIP                   | 0.047uF     | 10%   | 25V    |
| R833     | 1-216-049-11 | RES,CHIP                      | 1K   | 5% | 1/10W  | C9            | 1-164-004-11 | CERAMIC CHIP                   | 0.1uF       | 10%   | 25V    |
| R834     | 1-216-049-11 | RES,CHIP                      | 1K   | 5% | 1/10W  | C10           | 1-126-206-11 | ELECT CHIP                     | 100uF       | 20%   | 6.3V   |
| R836     | 1-216-049-11 | RES,CHIP                      | 1K   | 5% | 1/10W  | C11           | 1-135-259-11 | TANTAL. CHIP                   | 10uF        | 20%   | 6.3V   |
| R837     | 1-249-441-11 | CARBON                        | 100K | 5% | 1/4W   | C12           | 1-163-227-11 | CERAMIC CHIP                   | 10PF        | 0.5PF | 50V    |
| R839     | 1-216-049-11 | RES,CHIP                      | 1K   | 5% | 1/10W  | C13           | 1-163-021-11 | CERAMIC CHIP                   | 0.01uF      | 10%   | 50V    |
| R840     | 1-216-105-00 | RES,CHIP                      | 220K | 5% | 1/10W  | C14           | 1-163-989-11 | CERAMIC CHIP                   | 0.033uF     | 10%   | 25V    |
| R841     | 1-216-105-00 | RES,CHIP                      | 220K | 5% | 1/10W  | C15           | 1-163-021-11 | CERAMIC CHIP                   | 0.01uF      | 10%   | 50V    |
| R843     | 1-216-109-00 | METAL CHIP                    | 330K | 5% | 1/10W  | C16           | 1-163-989-11 | CERAMIC CHIP                   | 0.033uF     | 10%   | 25V    |
| R844     | 1-216-117-00 | METAL CHIP                    | 680K | 5% | 1/10W  | C17           | 1-164-004-11 | CERAMIC CHIP                   | 0.1uF       | 10%   | 25V    |
| R845     | 1-249-429-11 | CARBON                        | 10K  | 5% | 1/4W   | C18           | 1-164-004-11 | CERAMIC CHIP                   | 0.1uF       | 10%   | 25V    |
| R852     | 1-216-049-11 | RES,CHIP                      | 1K   | 5% | 1/10W  | C19           | 1-163-037-11 | CERAMIC CHIP                   | 0.022uF     | 10%   | 25V    |
| R901     | 1-216-182-00 | RES,CHIP                      | 220  | 5% | 1/8W   | C20           | 1-107-823-11 | CERAMIC CHIP                   | 0.47uF      | 10%   | 16V    |
| R902     | 1-216-182-00 | RES,CHIP                      | 220  | 5% | 1/8W   | C21           | 1-163-809-11 | CERAMIC CHIP                   | 0.047uF     | 10%   | 25V    |
| R903     | 1-216-182-00 | RES,CHIP                      | 220  | 5% | 1/8W   | C22           | 1-163-251-11 | CERAMIC CHIP                   | 100PF       | 5%    | 50V    |
| R904     | 1-249-395-11 | CARBON                        | 15   | 5% | 1/4W F | C23           | 1-135-259-11 | TANTAL. CHIP                   | 10uF        | 20%   | 6.3V   |
| R905     | 1-216-077-00 | METAL CHIP                    | 15K  | 5% | 1/10W  | C24           | 1-163-125-00 | CERAMIC CHIP                   | 220PF       | 5%    | 50V    |
| R906     | 1-216-079-00 | METAL CHIP                    | 18K  | 5% | 1/10W  | C25           | 1-107-823-11 | CERAMIC CHIP                   | 0.47uF      | 10%   | 16V    |
| R907     | 1-216-079-00 | METAL CHIP                    | 18K  | 5% | 1/10W  | C26           | 1-164-004-11 | CERAMIC CHIP                   | 0.1uF       | 10%   | 25V    |
| R908     | 1-216-089-00 | RES,CHIP                      | 47K  | 5% | 1/10W  | C27           | 1-164-004-11 | CERAMIC CHIP                   | 0.1uF       | 10%   | 25V    |
| R909     | 1-216-105-00 | RES,CHIP                      | 220K | 5% | 1/10W  | C28           | 1-163-023-00 | CERAMIC CHIP                   | 0.015uF     | 5%    | 50V    |
| R911     | 1-216-296-00 | SHORT                         | 0    |    |        | C29           | 1-164-004-11 | CERAMIC CHIP                   | 0.1uF       | 10%   | 25V    |
| R912     | 1-216-049-11 | RES,CHIP                      | 1K   | 5% | 1/10W  | C30           | 1-126-603-11 | ELECT CHIP                     | 4.7uF       | 20%   | 35V    |
| R913     | 1-249-421-11 | CARBON                        | 2.2K | 5% | 1/4W F | C31           | 1-163-021-11 | CERAMIC CHIP                   | 0.01uF      | 10%   | 50V    |
| R914     | 1-216-057-00 | METAL CHIP                    | 2.2K | 5% | 1/10W  | C32           | 1-163-023-00 | CERAMIC CHIP                   | 0.015uF     | 5%    | 50V    |
| R915     | 1-216-057-00 | METAL CHIP                    | 2.2K | 5% | 1/10W  | C33           | 1-124-779-00 | ELECT CHIP                     | 10uF        | 20%   | 16V    |
| R916     | 1-216-077-00 | METAL CHIP                    | 15K  | 5% | 1/10W  | C34           | 1-109-982-11 | CERAMIC CHIP                   | 1uF         | 10%   | 10V    |
| R917     | 1-216-049-11 | RES,CHIP                      | 1K   | 5% | 1/10W  | C35           | 1-163-021-11 | CERAMIC CHIP                   | 0.01uF      | 10%   | 50V    |
| R918     | 1-216-065-00 | RES,CHIP                      | 4.7K | 5% | 1/10W  | C36           | 1-164-004-11 | CERAMIC CHIP                   | 0.1uF       | 10%   | 25V    |
| R919     | 1-216-105-00 | RES,CHIP                      | 220K | 5% | 1/10W  | C37           | 1-164-004-11 | CERAMIC CHIP                   | 0.1uF       | 10%   | 25V    |
|          |              | < SWITCH >                    |      |    |        | C38           | 1-164-004-11 | CERAMIC CHIP                   | 0.1uF       | 10%   | 25V    |
| S801     | 1-762-638-11 | SWITCH, TACTILE (RESET)       |      |    |        | C39           | 1-126-204-11 | ELECT CHIP                     | 47uF        | 20%   | 16V    |
| S802     | 1-571-478-11 | SWITCH, SLIDE (CDX-4500)      |      |    |        | C40           | 1-164-004-11 | CERAMIC CHIP                   | 0.1uF       | 10%   | 25V    |
|          |              | < THERMISTOR >                |      |    |        | < CONNECTOR > |              |                                |             |       |        |
| TH901    | 1-809-148-11 | THERMISTOR PTH8L07AR2R0M1B510 |      |    |        | CN1           | 1-764-616-12 | HOUSING,CONNECTOR(PC BOARD)30P |             |       |        |
|          |              | < TUNER >                     |      |    |        | CN2           | 1-565-728-51 | CONNECTOR, FPC 17P             |             |       |        |
|          |              |                               |      |    |        | CN3           | 1-770-347-21 | CONNECTOR, FPC 6P              |             |       |        |
|          |              |                               |      |    |        | < IC >        |              |                                |             |       |        |
| TU01     | A-3301-697-A | TUNER UNIT                    |      |    |        | IC1           | 8-752-372-94 | IC                             | CXD2507AQ   |       |        |
|          |              | < VIBRATOR >                  |      |    |        | IC2           | 8-752-074-34 | IC                             | CXA1782BQ   |       |        |
|          |              |                               |      |    |        | IC3           | 8-759-354-16 | IC                             | BA6796FP-T1 |       |        |
| X701     | 1-579-345-11 | VIBRATOR, CERAMIC (16.9MHz)   |      |    |        |               |              |                                |             |       |        |

# SERVO

| Ref. No.            | Part No.     | Description           | Remark | Ref. No.              | Part No.     | Description          | Remark |
|---------------------|--------------|-----------------------|--------|-----------------------|--------------|----------------------|--------|
| < JUMPER RESISTOR > |              |                       |        | < RESISTOR >          |              |                      |        |
| JR1                 | 1-216-296-00 | SHORT                 | 0      | R1                    | 1-216-073-00 | METAL CHIP 10K 5%    | 1/10W  |
| JR2                 | 1-216-296-00 | SHORT                 | 0      | R2                    | 1-216-097-00 | RES,CHIP 100K 5%     | 1/10W  |
| JR3                 | 1-216-296-00 | SHORT                 | 0      | R3                    | 1-216-121-00 | RES,CHIP 1M 5%       | 1/10W  |
| JR4                 | 1-216-296-00 | SHORT                 | 0      | R4                    | 1-216-061-00 | METAL CHIP 3.3K 5%   | 1/10W  |
| JR5                 | 1-216-296-00 | SHORT                 | 0      | R5                    | 1-216-061-00 | METAL CHIP 3.3K 5%   | 1/10W  |
| JR6                 | 1-216-296-00 | SHORT                 | 0      | R6                    | 1-216-073-00 | METAL CHIP 10K 5%    | 1/10W  |
| JR7                 | 1-216-296-00 | SHORT                 | 0      | R7                    | 1-216-009-00 | RES,CHIP 22 5%       | 1/10W  |
| JR8                 | 1-216-296-00 | SHORT                 | 0      | R8                    | 1-216-119-00 | METAL CHIP 820K 5%   | 1/10W  |
| JR9                 | 1-216-296-00 | SHORT                 | 0      | R9                    | 1-216-119-00 | METAL CHIP 820K 5%   | 1/10W  |
| JR10                | 1-216-296-00 | SHORT                 | 0      | R10                   | 1-216-073-00 | METAL CHIP 10K 5%    | 1/10W  |
| JR11                | 1-216-296-00 | SHORT                 | 0      | R11                   | 1-216-073-00 | METAL CHIP 10K 5%    | 1/10W  |
| JR12                | 1-216-296-00 | SHORT                 | 0      | R14                   | 1-216-085-00 | METAL CHIP 33K 5%    | 1/10W  |
| JR13                | 1-216-296-00 | SHORT                 | 0      | R15                   | 1-216-085-00 | METAL CHIP 33K 5%    | 1/10W  |
| JR14                | 1-216-296-00 | SHORT                 | 0      | R16                   | 1-216-077-00 | METAL CHIP 15K 5%    | 1/10W  |
| JR15                | 1-216-296-00 | SHORT                 | 0      | R17                   | 1-216-081-00 | METAL CHIP 22K 5%    | 1/10W  |
| JR16                | 1-216-296-00 | SHORT                 | 0      | R19                   | 1-216-079-00 | METAL CHIP 18K 5%    | 1/10W  |
| JR17                | 1-216-296-00 | SHORT                 | 0      | R20                   | 1-216-105-00 | RES,CHIP 220K 5%     | 1/10W  |
| JR18                | 1-216-296-00 | SHORT                 | 0      | R21                   | 1-216-105-00 | RES,CHIP 220K 5%     | 1/10W  |
| JR19                | 1-216-296-00 | SHORT                 | 0      | R22                   | 1-216-085-00 | METAL CHIP 33K 5%    | 1/10W  |
| JR20                | 1-216-296-00 | SHORT                 | 0      | R23                   | 1-216-121-00 | RES,CHIP 1M 5%       | 1/10W  |
| JR21                | 1-216-296-00 | SHORT                 | 0      | R24                   | 1-216-073-00 | METAL CHIP 10K 5%    | 1/10W  |
| JR22                | 1-216-296-00 | SHORT                 | 0      | R27                   | 1-216-295-00 | SHORT 0              |        |
| JR23                | 1-216-296-00 | SHORT                 | 0      | R28                   | 1-216-101-00 | METAL CHIP 150K 5%   | 1/10W  |
| JR24                | 1-216-296-00 | SHORT                 | 0      | R29                   | 1-216-097-00 | RES,CHIP 100K 5%     | 1/10W  |
| JR25                | 1-216-296-00 | SHORT                 | 0      | R30                   | 1-216-097-00 | RES,CHIP 100K 5%     | 1/10W  |
| JR26                | 1-216-296-00 | SHORT                 | 0      | R31                   | 1-216-081-00 | METAL CHIP 22K 5%    | 1/10W  |
| JR27                | 1-216-296-00 | SHORT                 | 0      | R32                   | 1-216-109-00 | METAL CHIP 330K 5%   | 1/10W  |
| JR28                | 1-216-296-00 | SHORT                 | 0      | R33                   | 1-216-105-00 | RES,CHIP 220K 5%     | 1/10W  |
| JR29                | 1-216-296-00 | SHORT                 | 0      | R34                   | 1-216-009-00 | RES,CHIP 22 5%       | 1/10W  |
| JR30                | 1-216-296-00 | SHORT                 | 0      | R35                   | 1-216-065-00 | RES,CHIP 4.7K 5%     | 1/10W  |
| JR31                | 1-216-296-00 | SHORT                 | 0      | R36                   | 1-216-097-00 | RES,CHIP 100K 5%     | 1/10W  |
| JR32                | 1-216-296-00 | SHORT                 | 0      | R37                   | 1-216-117-00 | METAL CHIP 680K 5%   | 1/10W  |
| JR33                | 1-216-296-00 | SHORT                 | 0      | R38                   | 1-216-109-00 | METAL CHIP 330K 5%   | 1/10W  |
| JR34                | 1-216-296-00 | SHORT                 | 0      | R39                   | 1-216-101-00 | METAL CHIP 150K 5%   | 1/10W  |
| JR35                | 1-216-296-00 | SHORT                 | 0      | R40                   | 1-216-114-00 | RES,CHIP 510K 5%     | 1/10W  |
| JR36                | 1-216-296-00 | SHORT                 | 0      | R41                   | 1-216-093-00 | RES,CHIP 68K 5%      | 1/10W  |
| JR37                | 1-216-296-00 | SHORT                 | 0      | R42                   | 1-216-103-00 | METAL CHIP 180K 5%   | 1/10W  |
| JR38                | 1-216-296-00 | SHORT                 | 0      | R43                   | 1-216-097-00 | RES,CHIP 100K 5%     | 1/10W  |
| JR39                | 1-216-296-00 | SHORT                 | 0      | R44                   | 1-216-085-00 | METAL CHIP 33K 5%    | 1/10W  |
| JR40                | 1-216-296-00 | SHORT                 | 0      | R45                   | 1-216-081-00 | METAL CHIP 22K 5%    | 1/10W  |
| JR41                | 1-216-296-00 | SHORT                 | 0      | R45                   | 1-216-089-00 | RES,CHIP 47K 5%      | 1/10W  |
| JR43                | 1-216-296-00 | SHORT                 | 0      | R46                   | 1-216-097-00 | RES,CHIP 100K 5%     | 1/10W  |
| JR44                | 1-216-296-00 | SHORT                 | 0      | R47                   | 1-216-105-00 | RES,CHIP 220K 5%     | 1/10W  |
| JR45                | 1-216-296-00 | SHORT                 | 0      | R48                   | 1-216-073-00 | METAL CHIP 10K 5%    | 1/10W  |
| JR46                | 1-216-296-00 | SHORT                 | 0      | R49                   | 1-216-065-00 | RES,CHIP 4.7K 5%     | 1/10W  |
| < COIL >            |              |                       |        | R50                   | 1-216-065-00 | RES,CHIP 4.7K 5%     | 1/10W  |
| L1                  | 1-412-058-11 | INDUCTOR CHIP 10uH    |        | R51                   | 1-216-295-00 | SHORT 0              |        |
| L2                  | 1-412-058-11 | INDUCTOR CHIP 10uH    |        | < VARIABLE RESISTOR > |              |                      |        |
| L3                  | 1-412-058-11 | INDUCTOR CHIP 10uH    |        | RV1                   | 1-238-091-11 | RES, ADJ, CERMET 22K |        |
| < TRANSISTOR >      |              |                       |        | RV4                   | 1-238-091-11 | RES, ADJ, CERMET 22K |        |
| Q1                  | 8-729-904-60 | TRANSISTOR DTB113ZK   |        | *****                 |              |                      |        |
| Q2                  | 8-729-904-86 | TRANSISTOR 2SB1197K-Q |        |                       |              |                      |        |



| Ref. No. | Part No.     | Description        | Remark |
|----------|--------------|--------------------|--------|
| *        | 1-659-834-11 | SUB BOARD<br>***** |        |

&lt; CONNECTOR &gt;

|     |              |                   |  |
|-----|--------------|-------------------|--|
| CN1 | 1-770-347-21 | CONNECTOR, FPC 6P |  |
|-----|--------------|-------------------|--|

\*\*\*\*\*

MISCELLANEOUS  
\*\*\*\*\*

|        |              |                                   |  |
|--------|--------------|-----------------------------------|--|
| 11     | 1-769-786-81 | CORD (WITH CONNECTOR)             |  |
| △ 210  | 8-820-010-06 | PICK-UP, OPTICAL KSS-521A/Q-NP    |  |
| 258    | 1-769-786-81 | CORD (WITH CONNECTOR)             |  |
| F901   | 1-532-877-11 | FUSE (BLADE TYPE) (AUTO FUSE) 10A |  |
| LCD551 | 1-803-439-21 | DISPLAY PANEL, LIQUID CRYSTAL     |  |
| M901   | X-3371-664-2 | MOTOR ASSY (SPINDLE)              |  |
| M902   | A-3291-674-A | MOTOR ASSY, SLED                  |  |
| M903   | A-3291-676-A | MOTOR SUB ASSY, LOADING           |  |
| TU01   | A-3301-697-A | TUNER ASSY                        |  |

\*\*\*\*\*

ACCESSORIES & PACKING MATERIALS  
\*\*\*\*\*

|              |                                                                     |  |
|--------------|---------------------------------------------------------------------|--|
| 3-865-649-11 | MANUAL, INSTRUCTION (ENGLISH)(CDX-4250)                             |  |
| 3-865-649-21 | MANUAL, INSTRUCTION<br>(FRENCH)(CDX-4250:CND)                       |  |
| 3-865-649-31 | MANUAL, INSTRUCTION<br>(ENGLISH,SPANISH,CHINESE)(CDX-4500)          |  |
| 3-865-651-11 | MANUAL, INSTRUCTION, INSTALL<br>(ENGLISH,FRENCH)(CDX-4250)          |  |
| 3-865-651-21 | MANUAL, INSTRUCTION, INSTALL<br>(ENGLISH,SPANISH,CHINESE)(CDX-4500) |  |
| X-3374-810-1 | CASE ASSY                                                           |  |

\*\*\*\*\*

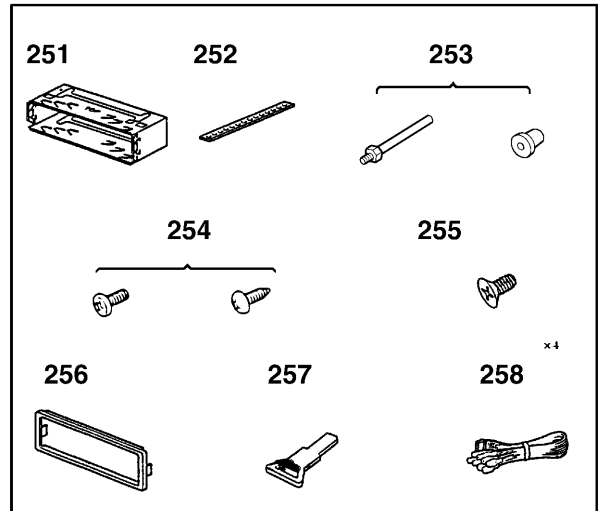
\*\*\*\*\*  
HARDWARE LIST  
\*\*\*\*\*

|     |              |                                |  |
|-----|--------------|--------------------------------|--|
| #1  | 7-685-792-09 | SCREW +PTT 2.6X6 (S)           |  |
| #2  | 7-685-793-09 | SCREW +PTT 2.6X8 (S)           |  |
| #3  | 7-621-772-10 | SCREW +B 2X4                   |  |
| #4  | 7-685-106-19 | SCREW +P 2X10 TYPE2 NON-SLIT   |  |
| #5  | 7-627-850-28 | SCREW,PRECISION +P 1.4X3       |  |
| #6  | 7-627-000-00 | SCREW,PRECISION +P1.7X2.2TYPE3 |  |
| #7  | 7-628-253-00 | SCREW +PS 2X4                  |  |
| #8  | 7-627-553-37 | PRECISION SCREW +P 2X3 TYPE 3  |  |
| #9  | 7-627-553-17 | PRECISION SCREW +P 2X2 TYPE 3  |  |
| #10 | 7-685-794-09 | SCREW +PTT 2.6X10 (S)          |  |

\*\*\*\*\*

| Ref. No. | Part No. | Description                                     | Remark |
|----------|----------|-------------------------------------------------|--------|
|          |          | PARTS FOR INSTALLATION AND CONNECTIONS<br>***** |        |

|     |              |                                         |  |
|-----|--------------|-----------------------------------------|--|
| 251 | 3-014-370-31 | FRAME, FITTING                          |  |
| 252 | 3-916-012-01 | BRACKET (ND), FITTING ASSIST (CDX-4250) |  |
| 253 | X-3366-405-1 | SCREW ASSY (EXP), FITTING (CDX-4500)    |  |
| 254 | X-3368-725-1 | SCREW ASSY, FITTING (CDX-4250)          |  |
| 255 | 3-934-325-01 | SCREW (+K 5X8 TP)                       |  |
| 256 | X-3374-806-1 | COLLAR ASSY                             |  |
| 257 | 3-388-078-01 | KEY                                     |  |
| 258 | 1-769-786-81 | CORD (WITH CONNECTOR) (POWER)           |  |



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.

