CDX-R3000/RW300

SERVICE MANUAL

Ver. 1.1 2005.07

US Model
CDX-R3000/RW300
Canadian Model
E Model
CDX-R3000

• The tuner and CD sections have no adjustments.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-611XA-186//K
Optical Pick-up Name	KSS1000E

AUDIO POWER SPECIFICATIONS (US Model)
POWER OUTPUT AND TOTAL HARMONIC DISTORTION
23.2 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 5% total harmonic distortion.

SPECIFICATIONS

CD player section

Signal-to-noise ratio	120 dB
Frequency response	10 – 20,000 Hz
Wow and flutter	Below measurable limit

Tuner section

FM

Tuning range	US, Canadian Model: 87.5 – 107.9 MHz E model: FM tuning interval: 50 kHz/200 kHz switchable 87.5 – 108 MHz (at 50 kHz step) 87.5 – 107.9 MHz (at 200 kHz step)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM

Tuning range	US, Canadian Model: 530 – 1,710 kHz E Model: AM tuning interval: 9 kHz/10 kHz switchable 531 – 1,602 kHz (at 9 kHz step) 530 – 1,710 kHz (at 10 kHz step)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	52 W × 4 (at 4 ohms)

General

Outputs	Audio outputs terminal (rear/sub switchable) Power antenna relay control terminal Power amplifier control terminal
Inputs	Antenna input terminal Remote controller input terminal (E Model)
Tone controls	Low: ±10 dB at 60 Hz (XPLOD) Mid: ±10 dB at 1 kHz (XPLOD) High: ±10 dB at 10 kHz (XPLOD)

– Continued on next page –

FM/AM COMPACT DISC PLAYER

9-961-386-02 **Sony Corporation**
2005G04-1 **e Vehicle Group**

Published by Sony Engineering Corporation

SONY

Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 179 mm (7 1/8 × 2 × 7 1/8 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 161 mm (7 1/4 × 2 1/8 × 6 3/8 in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb. 10 oz.)
Supplied accessories	Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

SERVICE NOTES

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 Chip Component Replacement

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

TEST DISCS

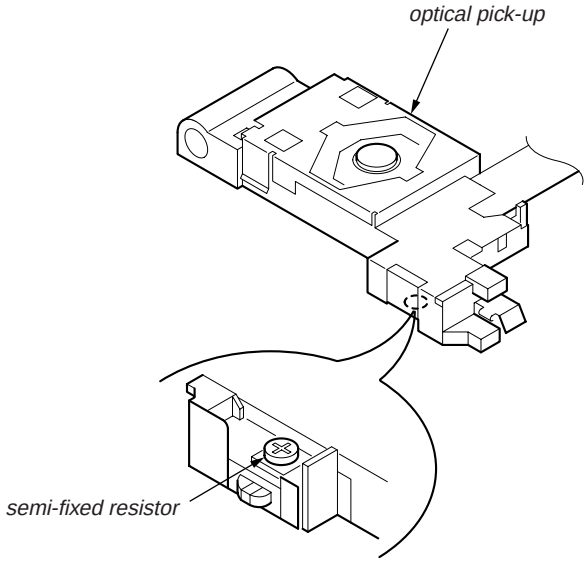
This set can playback CD-R and CD-ROM discs. The following test discs should be used to check the capability:

CD-R test disc TCD-R082LMT (Part No. J-2502-063-1)
CD-RW test disc TCD-W082L (Part No. J-2502-063-2)

CAUTION

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

If the optical pick-up block is defective, please replace the whole optical pick-up block.
Never turn the semi-fixed resistor located at the side of optical pick-up block.



- E model

This label is located on the bottom of the chassis.

SAFETY-RELATED COMPONENT WARNING!!

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

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

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

Notes on CD-Rs (recordable CDs)/CD-RWs (rewritable CDs)

This unit can play the following discs:

Type of discs	Label on the disc
Audio CD	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable
MP3 files	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable COMPACT disc Recordable COMPACT disc ReWritable

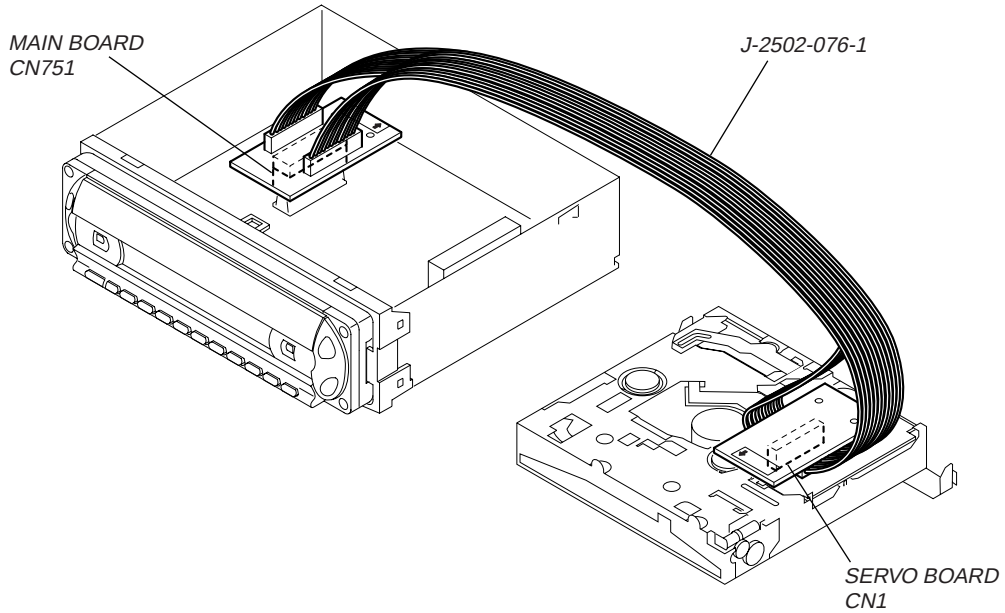
- Some CD-Rs/CD-RWs (depending on the equipment used for its recording or the condition of the disc) may not play on this unit.
- You cannot play a CD-R/CD-RW that is not finalized*.
- You can play MP3 files recorded on CD-ROMs, CD-Rs, and CD-RWs.
- A CD-R/CD-RW to which a session can be added can be played.

* A process necessary for a recorded CD-R/CD-RW disc to be played on the audio CD player.

EXTENSION CABLE AND SERVICE POSITION

When repairing or servicing this set, connect the jig (extension cable) as shown below.

- Connect the MAIN board (CN751) and the SERVO board (CN1) with the extension cable (Part No. J-2502-076-1).



● UNLEADED SOLDER

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

: LEAD FREE MARK

Unleaded solder has the following characteristics.

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

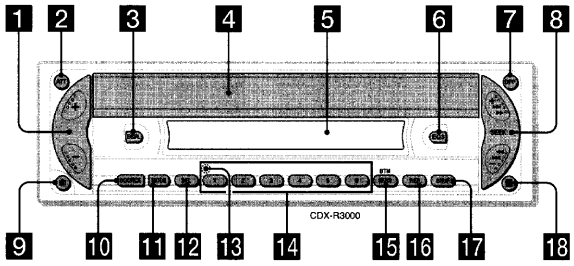
TABLE OF CONTENTS

SECTION 1
GENERAL

This section is extracted from instruction manual.

Location of controls (US, Canadian Model)

Refer to the pages listed for details.

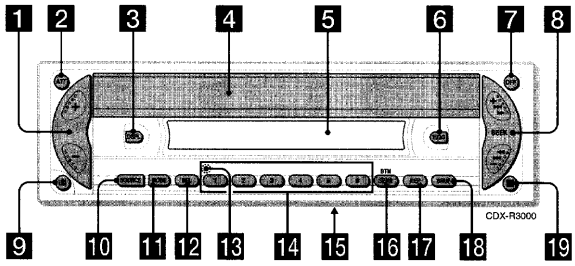


1 **Volume +/– button**
2 **ATT (attenuate) button** 12
3 **DSPL (display mode change) button** 8, 10
4 **OPEN/EJECT shutter** 9
5 **Display window**
6 **EQ3 button** 14
7 **OFF (Stop/Power off) button*** 7, 9
8 **SEEK +/– button**
Radio:
To tune in stations automatically/find a station manually.
CD:
To skip tracks/fast-forward, reverse a track.
9 **⏏ (front panel release) button** 7
10 **SOURCE (Power on/Radio/CD) button**
To select the source.
11 **MODE button**
To change the operation.
12 **SEL (select) button**
To select items.
13 **RESET button** (located on the front side of the unit, behind the front panel) 7
14 **Number buttons** 13
To store the desired station on each number button.
15 **SENS/BTM button** 11, 12
16 **REP button** 10
17 **SHUF button** 10
18 **Receptor for the card remote commander**

*** Warning when installing in a car without an ACC (accessory) position on the ignition switch**
After turning off the ignition, be sure to press and hold (OFF) on the unit until the display disappears.
Otherwise, the display does not turn off and this causes battery drain.

Location of controls (E Model)

Refer to the pages listed for details.

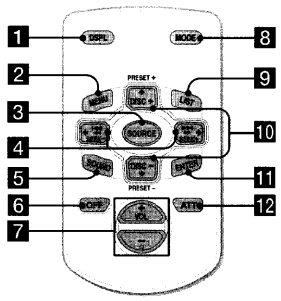


1 **Volume +/– button**
2 **ATT (attenuate) button** 13
3 **DSPL (display mode change) button** 8, 10
4 **OPEN/EJECT shutter** 9
5 **Display window**
6 **EQ3 button** 15
7 **OFF (Stop/Power off) button*** 7, 9
8 **SEEK +/– button**
Radio:
To tune in stations automatically/find a station manually.
CD:
To skip tracks/fast-forward, reverse a track.
9 **⏏ (front panel release) button** 7
10 **SOURCE (Power on/Radio/CD) button**
To select the source.
11 **MODE button**
To change the operation.
12 **SEL (select) button**
To select items.
13 **RESET button** (located on the front side of the unit, behind the front panel) 7
14 **Number buttons** 14
To store the desired station on each number button.
15 **Frequency select switch** (located on the bottom of the unit)
See "Frequency select switch" in the Installation/Connections manual.
16 **SENS/BTM button** 11, 12
17 **REP button** 10
18 **SHUF button** 10
19 **Receptor for the card remote commander**

*** Warning when installing in a car without an ACC (accessory) position on the ignition switch**
After turning off the ignition, be sure to press and hold (OFF) on the unit until the display disappears.
Otherwise, the display does not turn off and this causes battery drain.

4

Card remote commander RM-X114 (optional)



The corresponding buttons of the card remote commander control the same functions as those on this unit.

1 **DSPL button**
2 **MENU button***
3 **SOURCE button**
4 **SEEK (–/+) buttons**
5 **SOUND button**
6 **OFF button**
7 **VOL (+/–) buttons**
8 **MODE button**
9 **LIST button***
10 **DISC*/PRESET (+/–) buttons**
11 **ENTER button***
12 **ATT button**

** Not available for this unit*

Note
If the display disappears by pressing (OFF), it cannot be operated with the card remote commander unless (SOURCE) on the unit is pressed, or a disc is inserted to activate the unit first.

Tip
For details on how to replace the battery, see "Replacing the lithium battery" on page 15.

Precautions

- If your car has been parked in direct sunlight, allow the unit to cool off before operating it.
- Power antenna 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.

Moisture condensation

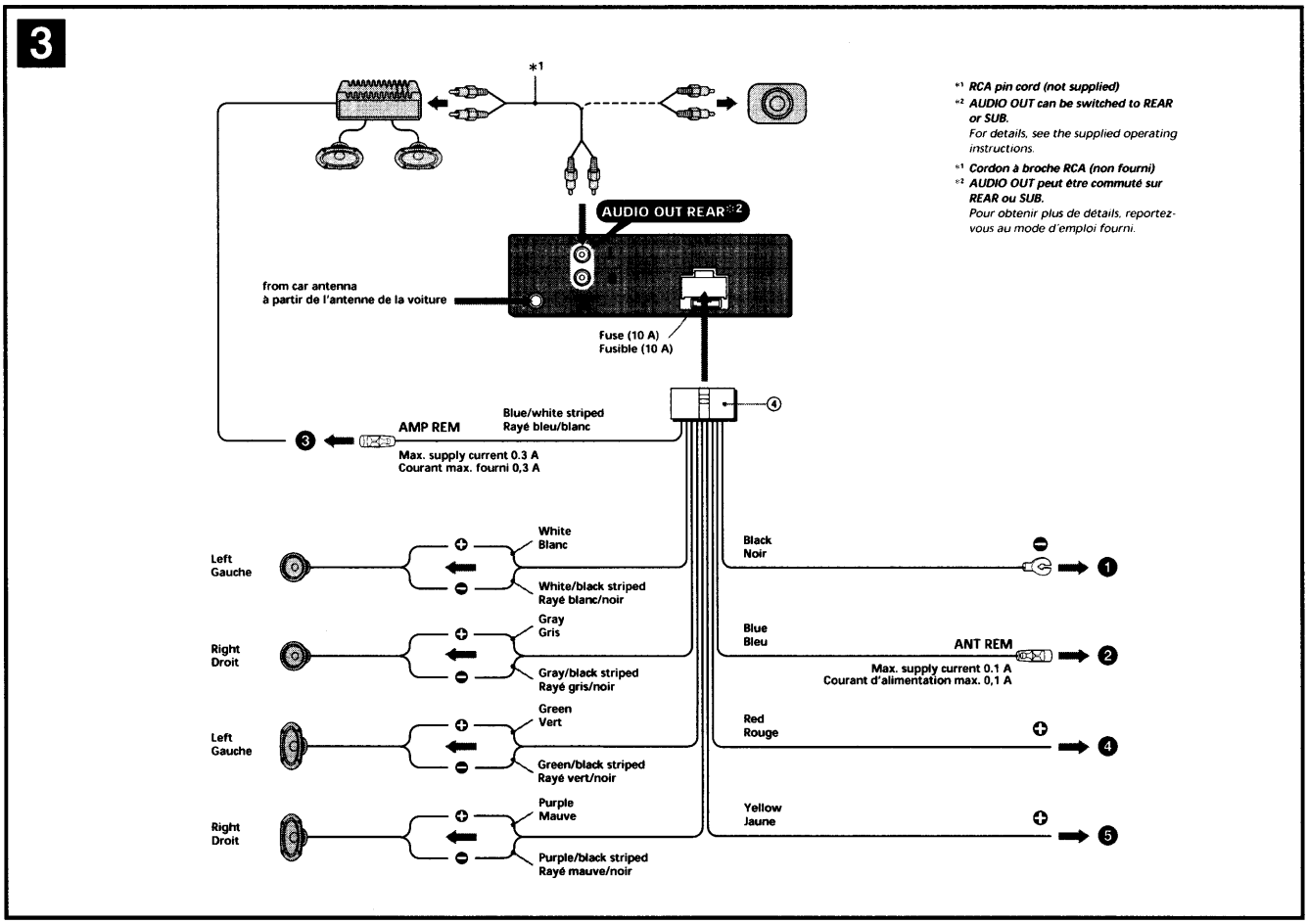
On a rainy day or in a very damp area, moisture condensation may occur inside the lenses and display of the unit. Should this occur, the unit will not operate properly. In such a case, remove the disc and wait for about an hour until the moisture has evaporated.

To maintain high sound quality

Be careful not to splash juice or other soft drinks onto the unit or discs.

5

Connections (US, Canadian Model)



Connection diagram (3)

❶ To a metal surface of the car
First connect the black ground lead, then connect the yellow and red power input leads.

❷ To the power antenna control lead or power supply lead of antenna booster amplifier

Notes
- *It is not necessary to connect this lead if there is no power antenna or antenna booster, or with a manually-operated telescopic antenna.*
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❸ To AMP REMOTE IN of an optional power amplifier
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ To the +12 V power terminal which is energized in the accessory position of the ignition key switch

Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times.*
  Be sure to connect the black ground lead to a metal surface of the car first.
- *When your car has a built-in FM/AM antenna in the rear/side glass, see "Notes on the control and power supply leads."*

❺ To the +12 V power terminal which is energized at all times
Be sure to connect the black ground lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power antenna control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM antenna in the rear/side glass, connect the power antenna control lead (blue) or the accessory power input lead (red) to the power terminal of the existing antenna booster. For details, consult your dealer.*
- *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 to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Schéma de raccordement (3)

❶ À un point métallique de la voiture
Branchez d'abord le fil de masse noir et, ensuite, les fils d'entrée d'alimentation jaune et rouge.

❷ Vers le fil de commande de l'antenne électrique ou le fil d'alimentation de l'amplificateur d'antenne

Remarques
- *Il n'est pas nécessaire de raccorder ce fil s'il n'y a pas d'antenne électrique ni d'amplificateur d'antenne, ou avec une antenne télescopique manuelle.*
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les fils de commande et d'alimentation ».*

❸ Au niveau du AMP REMOTE IN de l'amplificateur de puissance en option
Ce raccordement s'applique uniquement aux amplificateurs. Le branchement de tout autre système risque d'endommager l'appareil.

❹ À la borne +12 V qui est alimentée quand la clé de contact est sur la position accessoires

Remarques
- *S'il n'y a pas de position accessoires, raccordez la borne d'alimentation (batterie) +12 V qui est alimentée en permanence.*
  Raccordez d'abord le fil de masse noir à un point métallique du véhicule.
- *Si votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, voir « Remarques sur les fils de commande et d'alimentation ».*

❺ À la borne +12 V qui est alimentée en permanence
Raccordez d'abord le fil de masse noir à un point métallique du véhicule.

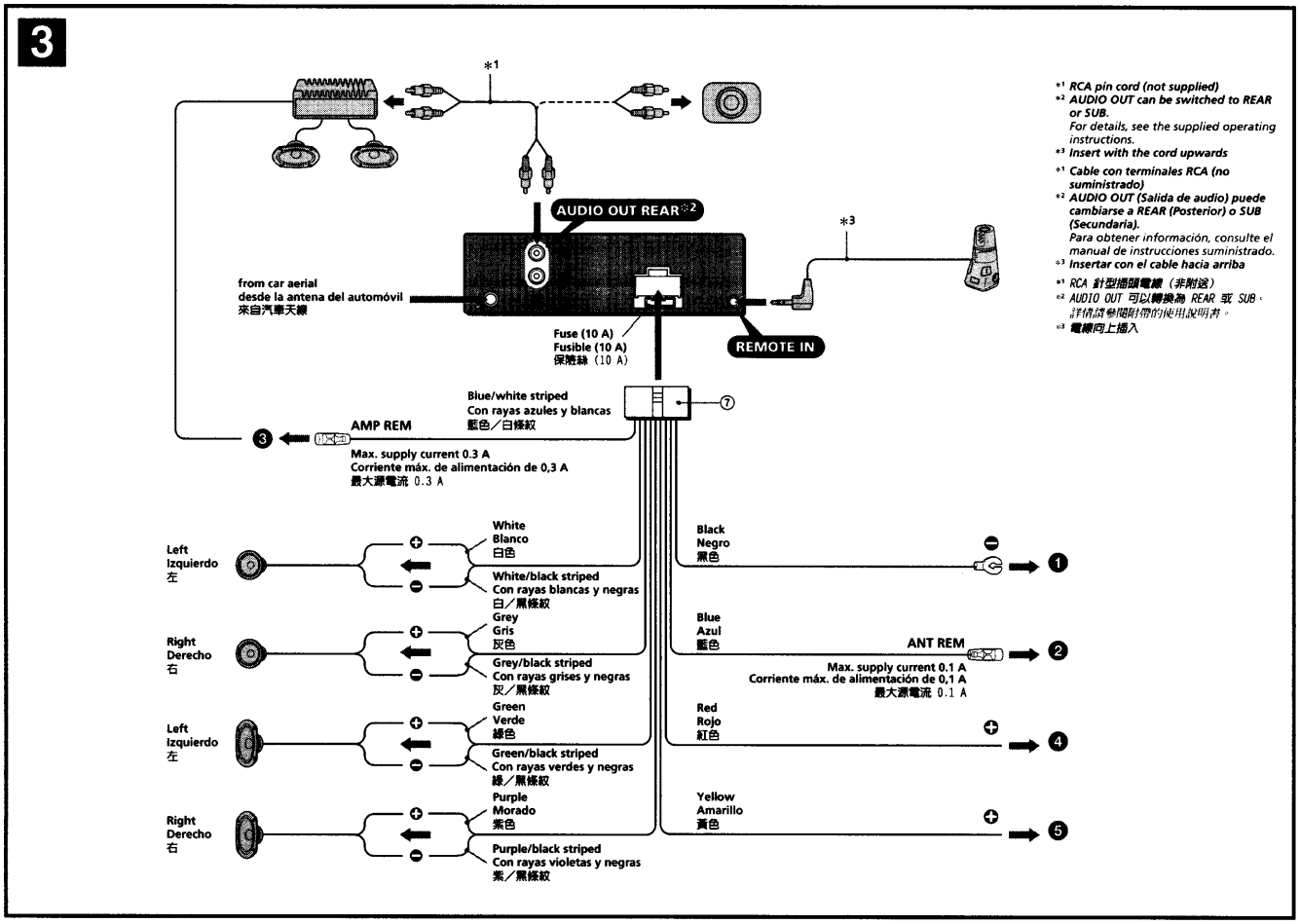
Remarques sur les fils de commande et d'alimentation
- *Le fil de commande de l'antenne électrique (bleu) fournit une alimentation de + 12 V CC lorsque vous mettez la radio sous tension.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le fil de commande de l'antenne (bleu) ou l'entrée d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

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

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adéquate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes des haut-parleurs droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de masse de cet appareil à la borne négative (–) de l'enceinte.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, n'utilisez pas les fils des haut-parleurs intégrés installés dans votre voiture si l'appareil partage un fil négatif commun (–) pour les haut-parleurs droit et gauche.*
- *Ne raccordez pas entre eux les cordons des haut-parleurs de l'appareil.*

Remarque sur le raccordement
Si les haut-parleurs et l'amplificateur ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.

Connections (E Model)



*1 *RCA pin cord (not supplied)*
*2 *AUDIO OUT can be switched to REAR or SUB.*
For details, see the supplied operating instructions.
*3 *Insert with the cord upwards*
*1 *Cable con terminales RCA (no suministrado)*
*2 *AUDIO OUT (Salida de audio) puede cambiarse a REAR (Posterior) o SUB (Secundaria).*
Para obtener información, consulte el manual de instrucciones suministrado.
*3 *Insertar con el cable hacia arriba*
*1 *RCA 針型插頭電線（非附送）*
*2 *AUDIO OUT 可以轉換為 REAR 或 SUB。詳情請參閱附帶的使用說明書。*
*3 *電線向上插入*

Connection diagram (3)

❶ **To a metal surface of the car**
First connect the black earth lead, then connect the yellow and red power input leads.

❷ **To the power aerial control lead or power supply lead of aerial booster amplifier**

Notes
- *It is not necessary to connect this lead if there is no power aerial or aerial booster, or with a manually-operated telescopic aerial.*
- *When your car has a built-in FM/AM aerial in the rearlside glass, see "Notes on the control and power supply leads."*

❸ **To AMP REMOTE IN of an optional power amplifier**
This connection is only for amplifiers. Connecting any other system may damage the unit.

❹ **To the +12 V power terminal which is energized in the accessory position of the ignition key switch**

Notes
- *If there is no accessory position, connect to the +12 V power (battery) terminal which is energized at all times.*
  Be sure to connect the black earth lead to a metal surface of the car first.
- *When your car has a built-in FM/AM aerial in the rearlside glass, see "Notes on the control and power supply leads."*

❺ **To the +12 V power terminal which is energized at all times**
Be sure to connect the black earth lead to a metal surface of the car first.

Notes on the control and power supply leads
- *The power aerial control lead (blue) supplies +12 V DC when you turn on the tuner.*
- *When your car has built-in FM/AM aerial in the rearl side glass, connect the power aerial control lead (blue) or the accessory power input lead (red) to the power terminal of the existing aerial booster. For details, consult your dealer.*
- *A power aerial 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 to avoid its damage.*
- *Do not connect the speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the earth lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

Note on connection
If speaker and amplifier are not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Diagrama de conexión (3)

❶ **A una superficie metálica del automóvil**
Conecte primero el cable de toma a tierra negro, y después los cables amarillo y rojo de entrada de alimentación.

❷ **Al cable de control de la antena motorizada o al cable de fuente de alimentación del amplificador de antena**
Notas
- *Si no se dispone de antena motorizada ni de amplificador de antena, o se utiliza una antena telescópica accionada manualmente, no será necesario conectar este cable.*
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❸ **Para conectar a AMP REMOTE IN del amplificador de potencia opcional**
Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.

❹ **Al terminal de alimentación de +12 V que recibe energía en la posición de accesorio del interruptor de la llave de encendido**
Notas
- *Si no hay posición de accesorio, conéctelo al terminal de alimentación (batería) de +12 V que recibe energía sin interrupción.*
  Asegúrese de conectar primero el cable de toma a tierra negro a una superficie metálica del automóvil.
- *Si el automóvil incorpora una antena de FM/AM en el cristal trasero o lateral, consulte "Notas sobre los cables de control y de fuente de alimentación".*

❺ **Al terminal de alimentación de +12 V que recibe energía sin interrupción**
Asegúrese de conectar primero el cable de toma a tierra negro a una superficie metálica del automóvil.

Notas sobre los cables de control y de fuente de alimentación
- *El cable de control de la antena motorizada (azul) suministrará cc de + 12 V cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal trasero o lateral, conecte el cable de control de antena motorizada (azul) o el cable de entrada de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de antena existente. Para obtener más información, consulte a su proveedor.*
- *Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.*

Conexión para protección de la memoria
Si conecta el conductor de entrada amarillo, el circuito de la memoria recibirá siempre alimentación, aunque ponga la llave de encendido en la posición OFF.

Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 Ω con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni conecte los terminales del altavoz derecho con los del izquierdo.*
- *No conecte el cable de toma a tierra de esta unidad al terminal negativo (–) del altavoz.*
- *No intente conectar los altavoces en paralelo.*
- *Conecte solamente altavoces pasivos. Si conecta altavoces activos (con amplificadores incorporados) a los terminales de altavoz, puede dañar la unidad.*
- *Para evitar fallos de funcionamiento, no utilice los cables de altavoz incorporados instalados en el automóvil si su unidad comparte un cable negativo común (–) para los altavoces derecho e izquierdo.*
- *No conecte los cables de altavoz de la unidad entre sí.*

Nota sobre la conexión
Si el altavoz y el amplificador no están conectados correctamente, aparecerá "FAILURE" en la pantalla. Si es así, compruebe la conexión de ambos dispositivos.

線路連接圖（3）

❶ **連接至汽車的金屬表面**
首先連接黑色接地導線，然後再連接黃色和紅色電源輸入導線。

❷ **連接至電動天線控制導線或天線升壓放大器的電源導線**

註
- *如無電動天線或天線升壓器，或有手動套管式天線，便不須連接此導線。*
- *您汽車的後／側玻璃窗中如果有內置 FM/AM 天線，即請參看 "控制線和電源線須知"。*

❸ **連接至選購的功率放大器的 AMP REMOTE IN（放大器遙控輸入）**
本連接僅用於放大器。連接任何其它系統可能會損壞本機。

❹ **連接至在點火鑰匙開關的附件位置上通電的 +12 V 電源端子**

註
- *若沒有附件位置，則請連接至始終通電的 +12 V 電源（電池）端子。*
  必須首先將黑色接地導線連接至汽車的金屬表面。
- *您汽車的後／側玻璃窗中如果有內置 FM/AM 天線，即請參看 "控制線和電源線須知"。*

❺ **連接至始終通電的 +12 V 電源端子**
必須首先將黑色接地導線連接至汽車的金屬表面。

控制線和電源線須知
- *接通調諧器電源時，電動天線的控制導線（藍色）便能提供 +12 V 直流電。*
- *若您的汽車後／側玻璃窗上有內置 FM/AM 天線，須將電動天線控制導線（藍色）或輔助電源輸入導線（紅色）連接到現有天線升壓器的電源端子上。詳細內容請向銷售商諮詢。*
- *本機不能使用不具備繼電器盒的電動天線。*

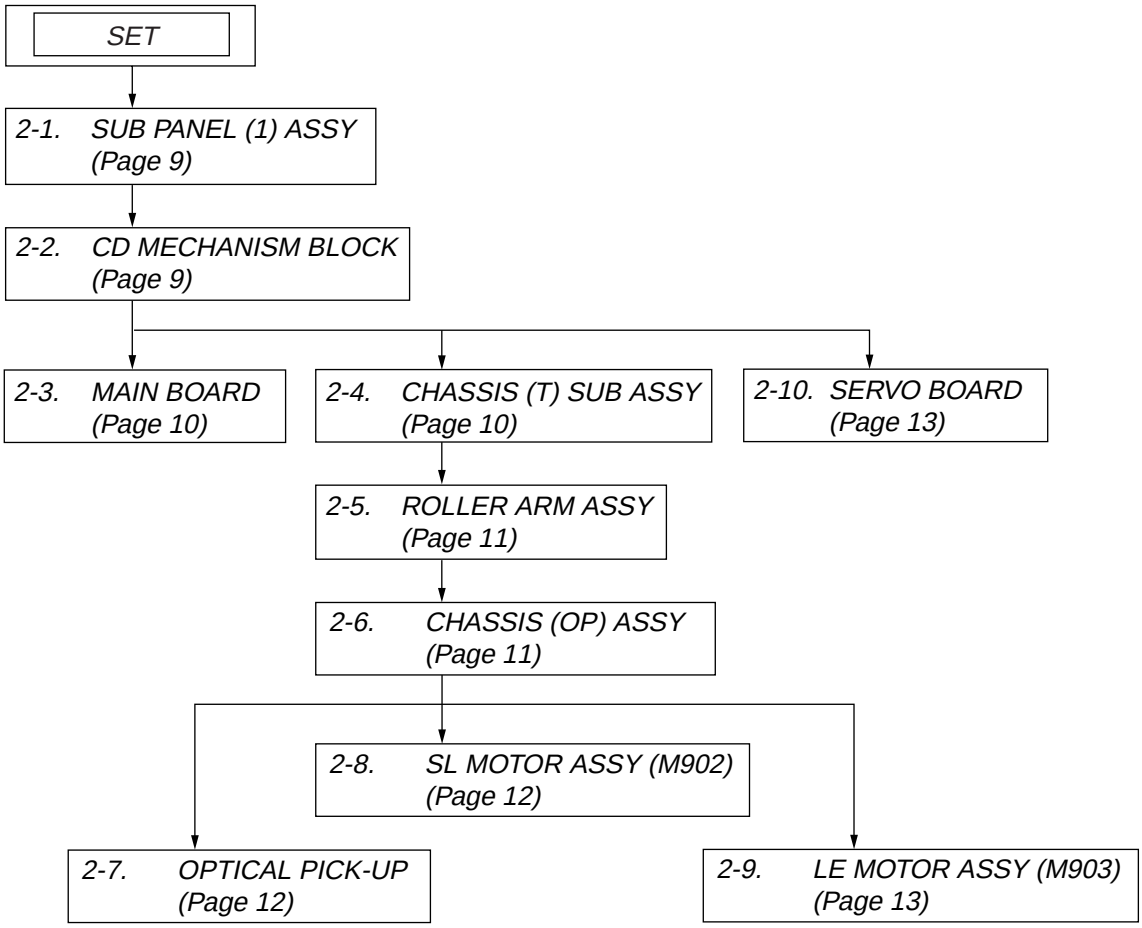
保持記憶的線路連接法
當連接好黃色電源輸入導線時，即使汽車發動機點火鑰匙關閉，電源仍將對記憶電路供電。

連接揚聲器時的注意事項
- *連接揚聲器電線以前，請先關閉本機電源。*
- *使用阻抗爲 4–8Ω 且具有足夠功率處理容量的揚聲器，以免損壞揚聲器。*
- *不要將揚聲器端子連接到車身上，或將右揚聲器端子與左揚聲器端子相連接。*
- *切勿將本機的接地導線連接至揚聲器的負（–）接線端。*
- *揚聲器不可並聯連接。*
- *請僅連接無源揚聲器。若將有源揚聲器（帶內置放大器）連接到揚聲器端子上會損壞本機。*
- *若本裝置使用左、右揚聲器的共用負極（–）導線，爲了避免故障，切勿使用已安裝在汽車內的內置揚聲器導線。*
- *請勿將本裝置揚聲器導線相互連接。*

有關連接注意事項
如果未正確連接揚聲器和放大器，則顯示幕上會出現 "FAILURE"。此時，請正確連接揚聲器和放大器。

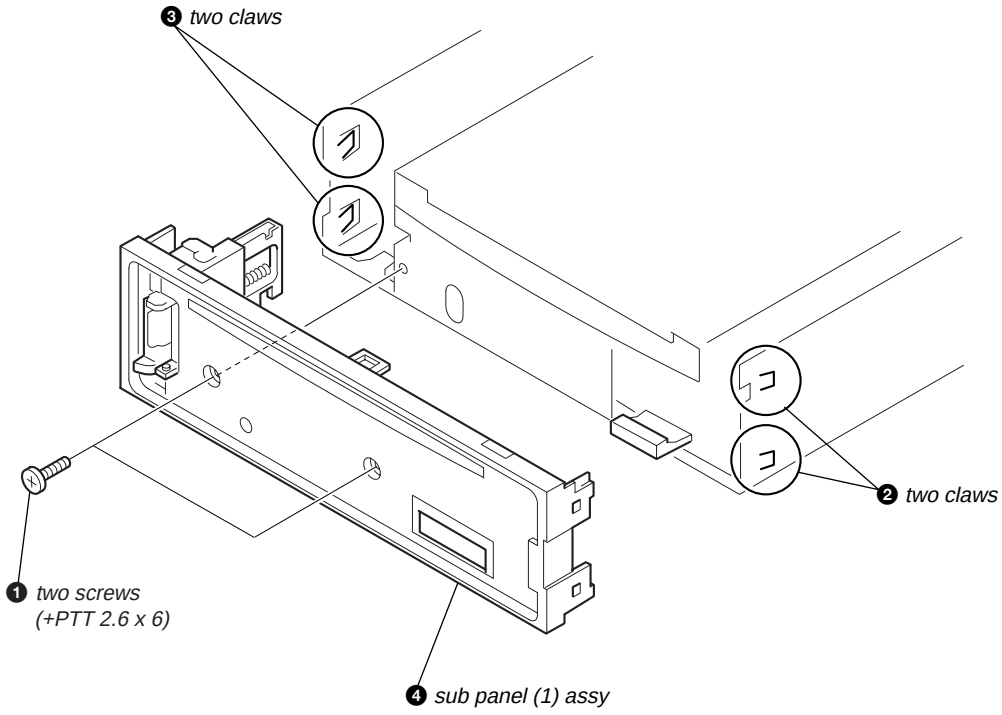
SECTION 2
DISASSEMBLY

Note : This set can be disassemble according to the following sequence.

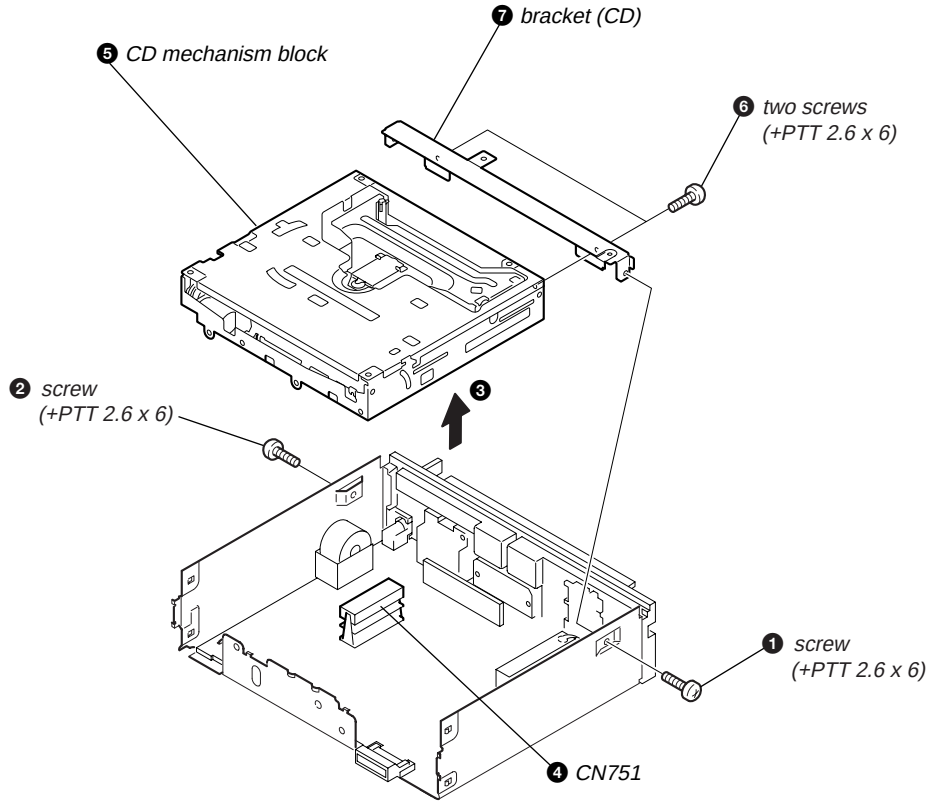


Note : Follow the disassembly procedure in the numerical order given.

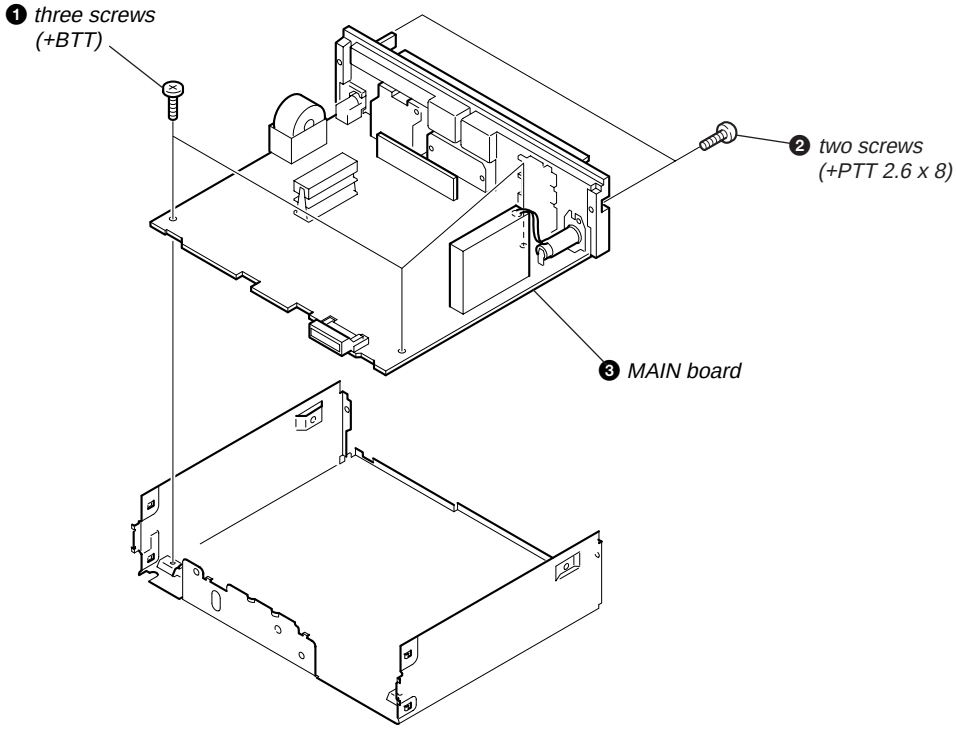
2-1. SUB PANEL (1) ASSY



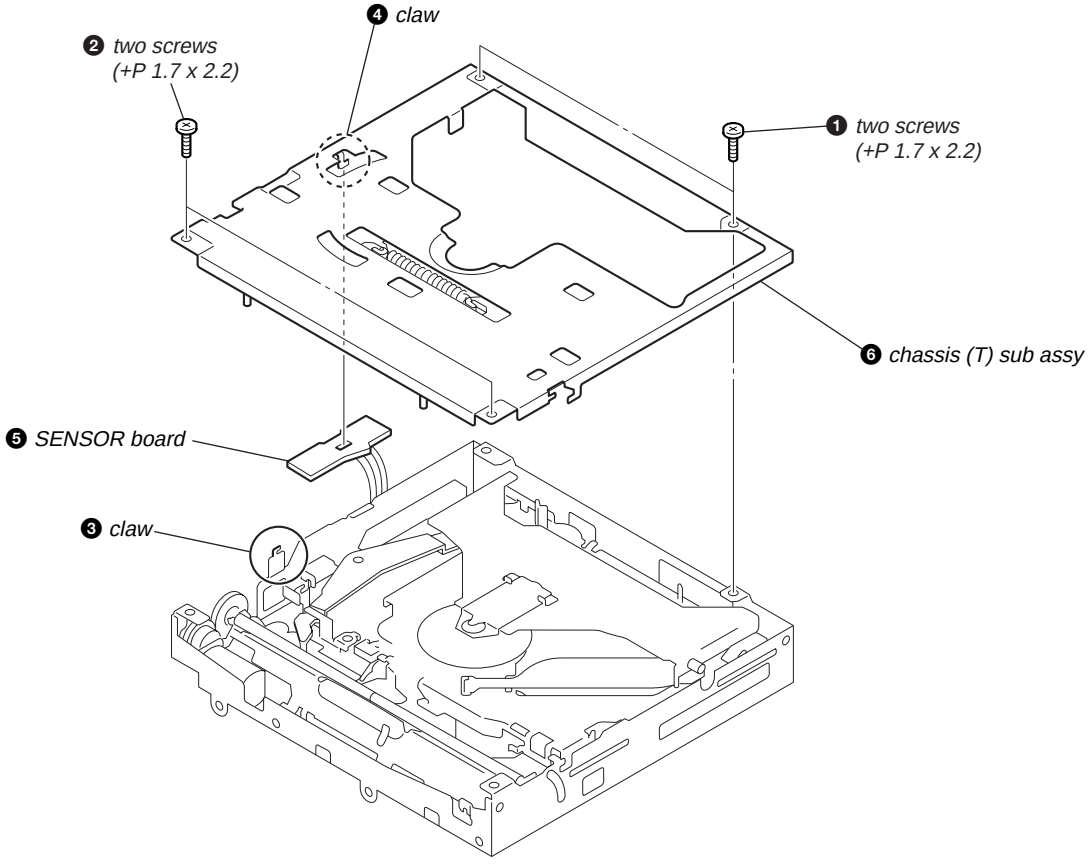
2-2. CD MECHANISM BLOCK



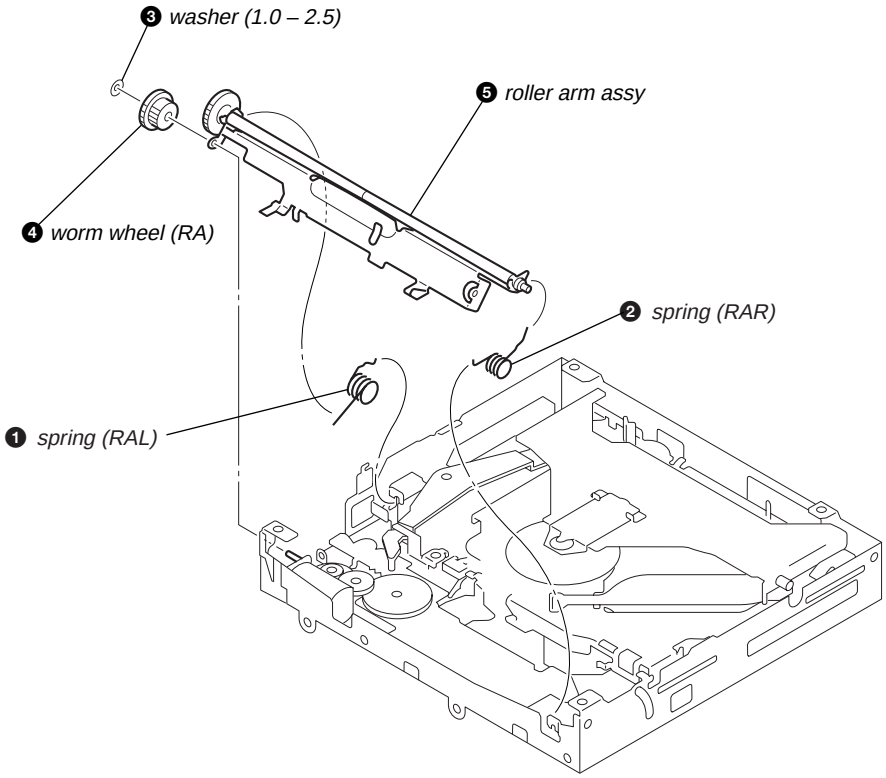
2-3. MAIN BOARD



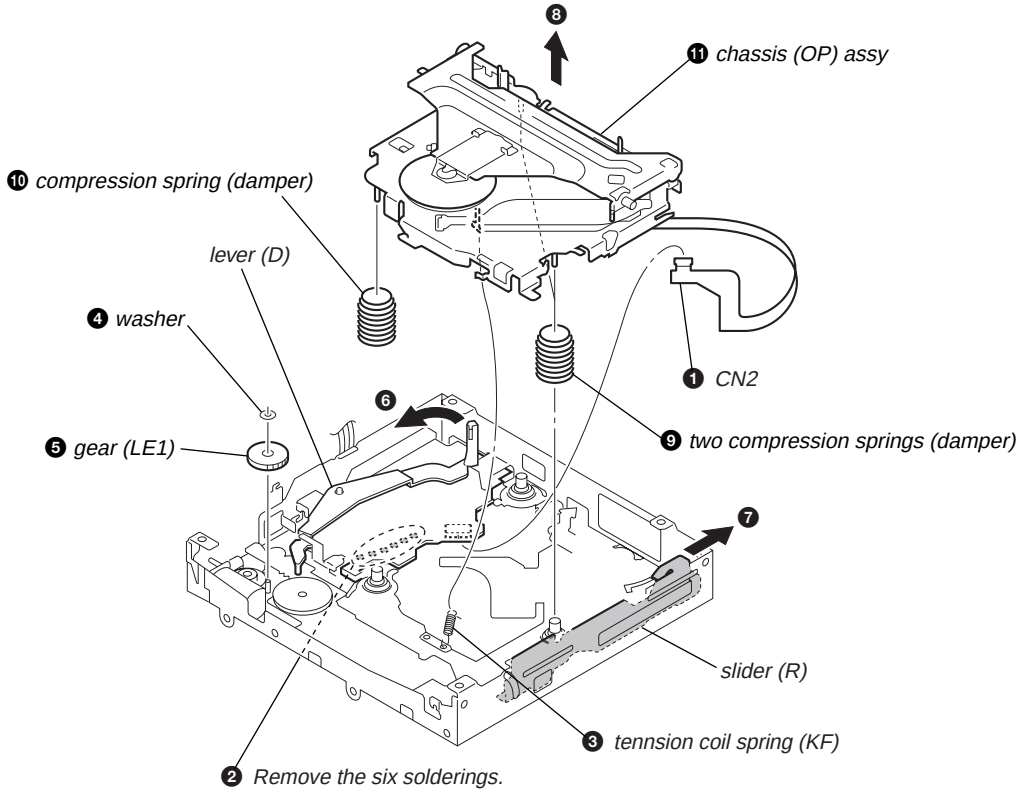
2-4. CHASSIS (T) SUB ASSY



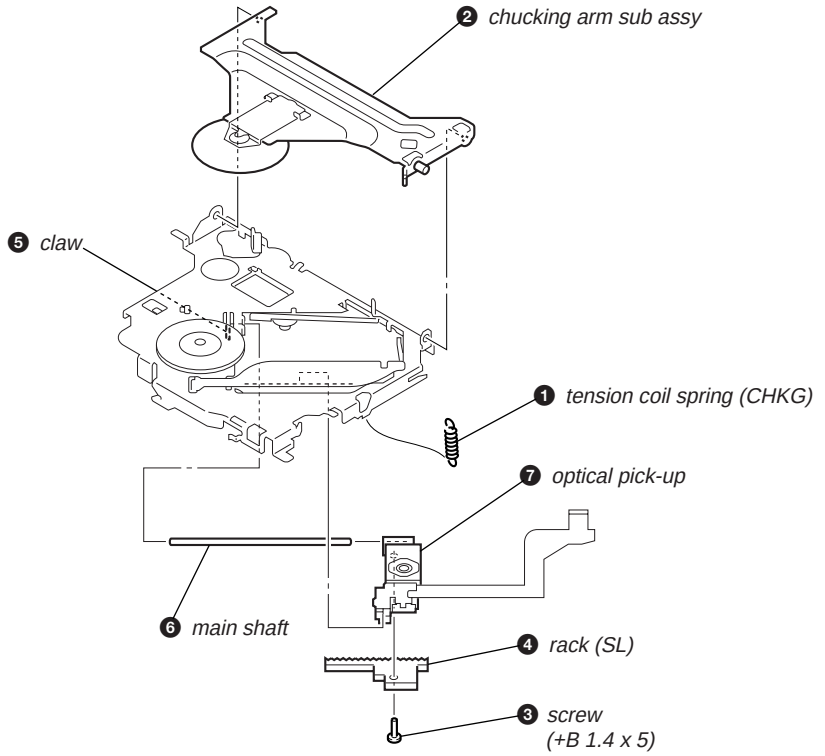
2-5. ROLLER ARM ASSY



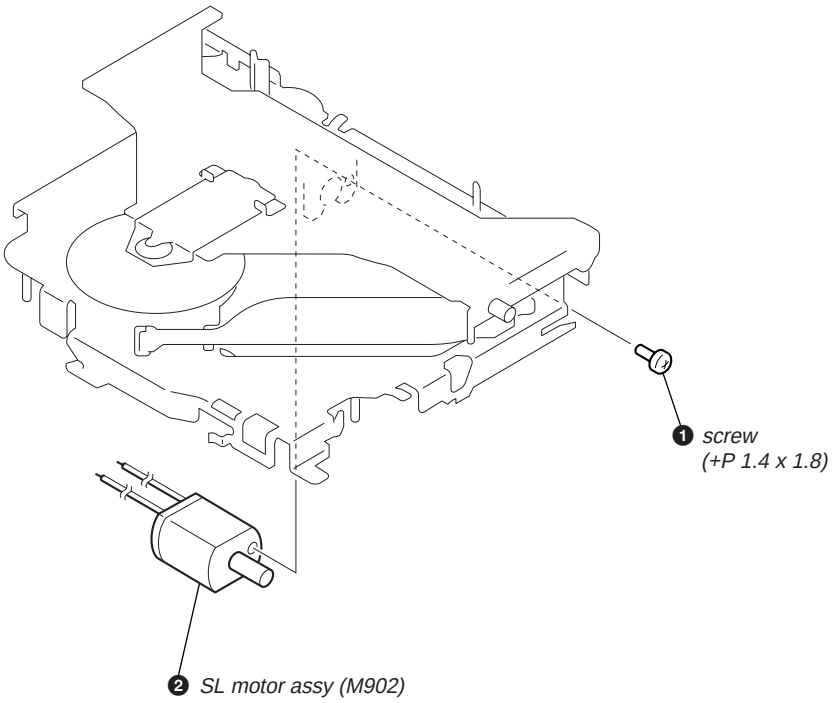
2-6. CHASSIS (OP) ASSY



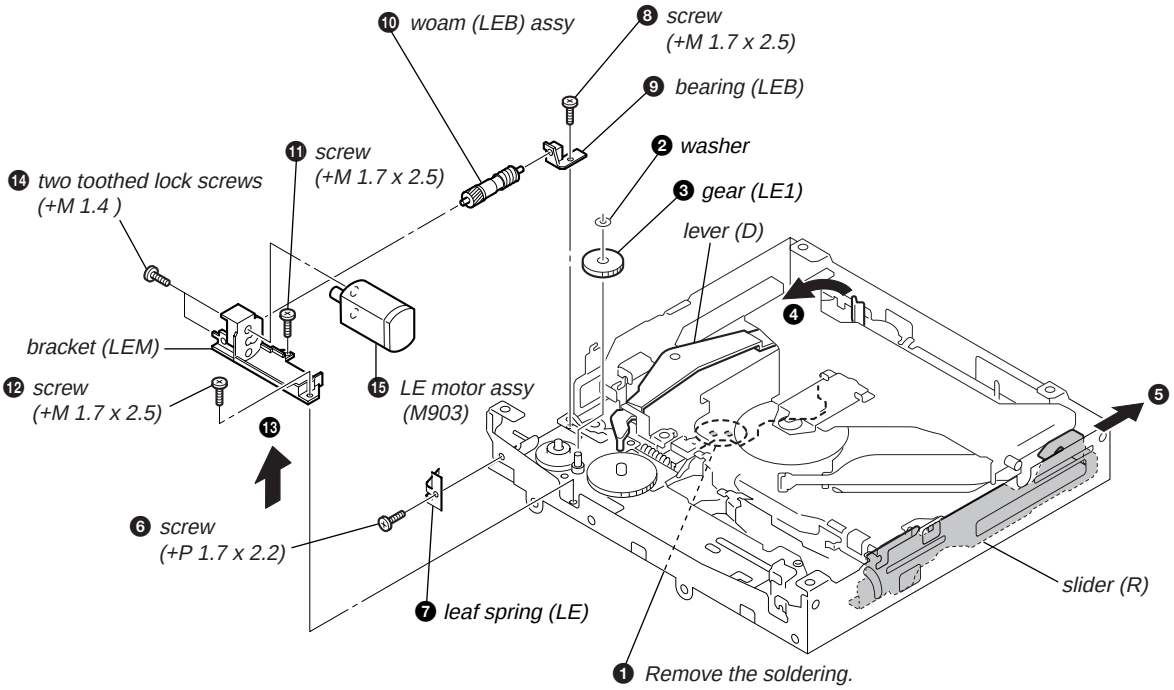
2-7. OPTICAL PICK-UP



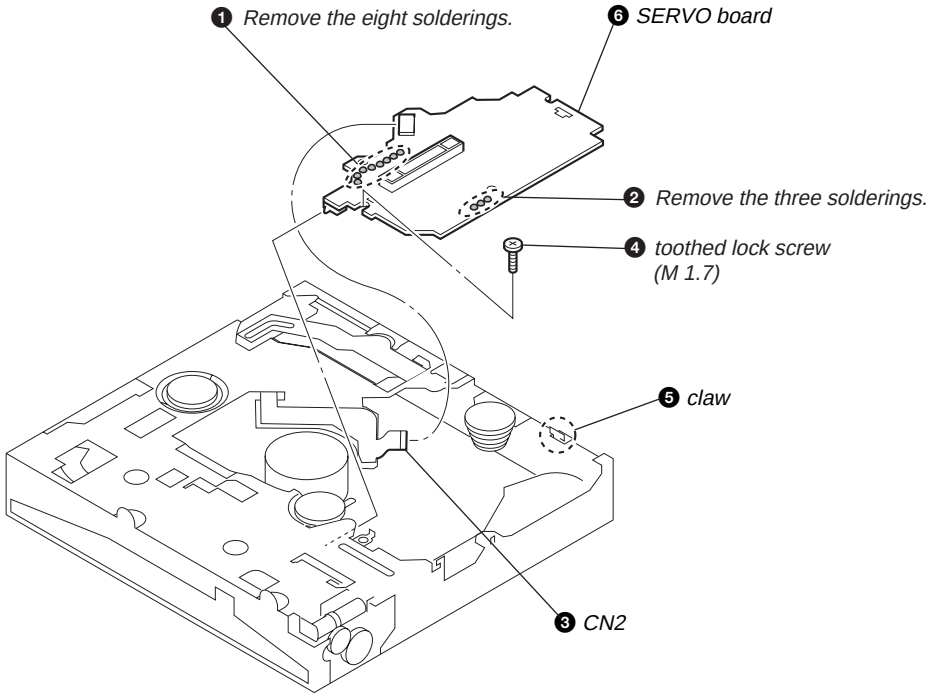
2-8. SL MOTOR ASSY (M902)



2-9. LE MOTOR ASSY (M903)



2-10. SERVO BOARD



SECTION 3
DIAGRAMS

3-1. IC PIN DESCRIPTIONS

• IC1 µPD63712GC-8EU-A (RF AMP, DIGITAL SERVO, DIGITAL SIGNAL PROCESSOR) (SERVO BOARD)

Pin No.	Pin Name	I/O	Pin Description
1	LD	O	Laser diode ON/OFF control signal output (L: laser OFF, H: laser ON)
2	PD	I	Dimmer monitor input from optical pick-up laser diode.
3	PN	I	Not used. (Fixed at L in this set)
4	AVDD	—	Analog power supply pin (+3.3 V)
5	DGND	—	Ground
6	RFOK	O	RFOK signal output to system control IC.
7	INTQ	O	CD text pack synchronization signal output to system control IC.
8	RST	I	CD reset signal input from system control IC.
9	A0	I	Command/parameter discrimination signal input from system control IC. (L: command transmission, H: parameter transmission)
10	STB	I	Data strobe signal input from system control IC.
11	SCK	I	Serial clock input from system control IC.
12	SO	O	Serial data output to system control IC.
13	SI	I	Serial data input from system control IC.
14	DVDD	—	Power supply pin (+3.3 V)
15	DAVDD	—	D/A converter power supply (+) pin (+3.3 V)
16	ROUT	O	Analog audio signal output (R-ch)
17	DAGND	—	Ground
18	REGC	—	Capacitor connection pin for SCF regulator.
19	DAGND	—	Ground
20	LOUT	O	Analog audio signal output (L-ch)
21	DAVDD	—	D/A converter power supply (+) pin (+3.3 V)
22	XVDD	—	Power supply pin (+3.3 V)
23	XTAL	O	Main system clock output (16.9344 MHz)
24	XTAL	I	Main system clock input (16.9344 MHz)
25	XGND	—	Ground
26	DVDD	—	Power supply pin (+3.3 V)
27	C1D1/FZD	O	Not used. (Open)
28	C1D2/TZD	O	Not used. (Open)
29	C2D1/RMUTE	O	CD R-ch data zero detection signal output
30	C2D2/LMUTE	O	CD L-ch data zero detection signal output
31	C2D3/SHOCK/SBSY	O	Not used. (Open)
32	LOCK/FR	O	Not used. (Open)
33	WFCK/MIRR	O	Not used. (Open)
34	RFCK/HOLD	O	Not used. (Open)
35	PLCK	O	Not used. (Open)
36	C16M	O	Not used. (Open)
37	DGND	—	Ground
38	TX	O	Not used. (Open)
39	EMPH/RAMOVER	O	Not used. (Open)
40	FLAG	O	Not used. (Open)
41	DVDD	—	Power supply pin (+3.3 V)
42	LIMIT	I	Not used. (Fixed at L in this set)
43	XTALEN	I	Oscillation circuit ON/OFF control signal input (L: ON, H: OFF) (Fixed at L in this set)
44	DGND	—	Ground
45	DIN	I	Not used. (Connect to DOUT in this set)
46	DOUT	O	Not used. (Connect to DIN in this set)
47	SCKIN	I	Not used. (Connect to SCKO in this set)
48	SCKO	O	Not used. (Connect to SCKIN in this set)
49	LRCKIN	I	Not used. (Connect to LRCK in this set)

Pin No.	Pin Name	I/O	Pin Description
50	LRCK	O	Not used. (Connect to LRCKIN in this set)
51	DVDD	—	Power supply pin (+3.3 V)
52	FD+	O	Focus servo drive PWM signal output (+)
53	FD–	O	Focus servo drive PWM signal output (–)
54	TD+	O	Tracking servo drive PWM signal output (+)
55	TD–	O	Tracking servo drive PWM signal output (–)
56	SD+	O	Sled servo drive PWM signal output (+)
57	SD–	O	Sled servo drive PWM signal output (–)
58	MD+	O	Spindle servo drive PWM signal output (+)
59	MD–	O	Spindle servo drive PWM signal output (–)
60	DGND	—	Ground
61	TESTEN	I	Test setting input (Fixed at L in this set)
62 to 66	TEST4 to TEST0	I	Test setting input (Fixed at L in this set)
67	ADGND	—	A/D converter power supply (–) pin
68	EFM	O	EFM signal output
69	ASY	I	EFM comparator reference voltage input
70	ADVDD	—	A/D converter power supply pin (+3.3 V)
71	RFI	I	RF signal input for EFM data growing.
72	EQ2	—	Not used. (Open)
73	EQ1	—	RF amplifier equalizer parts connection pin
74	RF–	I	Not used. (Open)
75	RF2–	I	RF amplifier inversion input
76	AGCO	O	RF signal output after on AGC.
77	AGCI	I	RF AGC signal amplifier input
78	RFO	O	RF signal output before on AGC.
79	ATEST	I	Not used. (Open)
80	C3T	—	Capacitor connection pin for 3T detection.
81	AGND	—	Ground
82	A	I	Signal input (A) from optical pick-up detector.
83	C	I	Signal input (C) from optical pick-up detector.
84	B	I	Signal input (B) from optical pick-up detector.
85	D	I	Signal input (D) from optical pick-up detector.
86	F	I	Signal input (F) from optical pick-up detector.
87	E	I	Signal input (E) from optical pick-up detector.
88	VREFIN	I	Reference voltage (+1.65 V) input
89	AVDD	—	Analog power supply pin (+3.3 V)
90	REFOUT	O	Reference voltage (+1.65 V) output
91	REFC	—	Capacitor connection pin for reference voltage output.
92	FE–	I	Focus error signal amplifier inversion input
93	FEO	O	Focus error signal amplifier output
94	ADCIN	I	Not used. (Open)
95	TE-	I	Tracking error signal amplifier inversion input
96	TEO	O	Tracking error signal amplifier before output
97	TE2	O	Tracking error signal amplifier after output
98	TEC	I	Tracking error signal comparator input
99	AGND	—	Ground
100	PWMSW	I	Not used. (Fixed at L in this set)

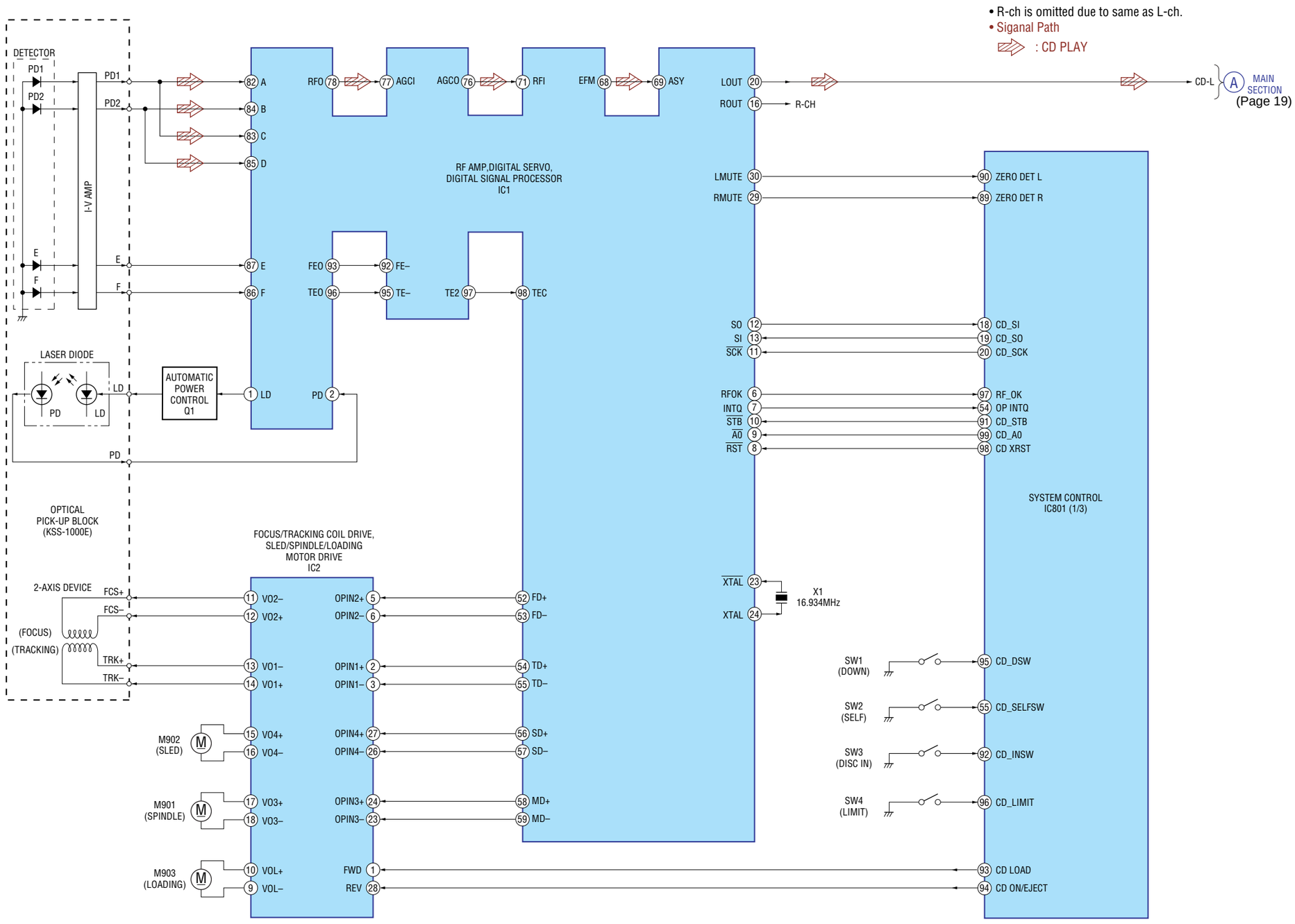
• IC801 MB90473PF-G166-BNDE1 (SYSTEM CONTROL) (MAIN BOARD (2/2))

Pin No.	Pin Name	I/O	Pin Description
1	ATT	O	Audio mute control signal output
2 to 4	NC	—	Not used in this set. (Open)
5	BEEP	O	Beep signal output to power amp IC
6	VOL ATT	O	Electrical volume ATT control output
7 to 10	NC	—	Not used in this set. (Open)
11	VSS	—	Ground pin
12 to 14	NC	—	Not used in this set. (Open)
15	TU ATT	O	Tuner mute control output
16, 17	NC	—	Not used in this set. (Open)
18	CD SI	I	CD servo serial data signal input
19	CD SO	O	CD servo serial data signal output
20	CD SCK	O	CD servo serial clock signal output
21	RE 0	O	Not used in this set. (Open)
22	RE 1	O	Not used in this set. (Open)
23	VCC+3.3	—	Power supply pin (+3.3 V)
24	EEP SIO	I/O	Serial data signal input/output for EEPROM comunication
25	EEP SCK	O	Serial clock signal output for EEPROM comunication
26	SHUT SW	I	Shutter switch open/close detect signal input “L”: Panel open, “H”: Panel close
27	LCD CE	O	Chip enable signal output to LCD driver IC
28	LCD SO	O	Serial data signal output to LCD driver IC Flash: UART serial out
29	LCD SCK	O	Serial clock signal output to LCD driver IC
30	NC	—	Not used in this set. (Open)
31	STB	O	Standby signal output to power amp IC
32	AUX	—	Not used in this set. (Open)
33	IIC SCK	O	IIC bus serial clock signal output
34	IIC SIO	I/O	IIC bus serial data signal input/output
35	VCC+3.3	—	Power supply pin (+3.3 V) (for A/D converter)
36	AVRH+3.3	—	External reference power supply (+3.3 V) (for A/D converter)
37	AVSS	—	Ground pin (for A/D converter)
38, 39	KEY IN0, 1	I	Key signal input
40	NC	—	Not used in this set. (Open)
41	RC IN0	I	Rotary commander key signal input
42	VSS	—	Ground pin
43, 44	NC	—	Not used in this set. (Fixed at “L”.)
45	VSM	I	S meter voltage detect signal input
46	DST SEL	I	Destination select pin
47	KEY ACK	I	Key acknowledge detect signal input
48	NC	—	Not used in this set. (Open)
49, 50	MD0, 1	I	Input for operation mode designation (Fixed at “H”.)
51	MD2	I	Input for operation mode designation (Fixed at “L”.)
52	NC	—	Not used in this set. (Open)
53	BU IN	I	Back up power supply detect signal input
54	OP REQ/INTQ	O	OP REQ/INTQ select signal output
55	CD SELFSW	I	CD mechanism self load position detect switch signal input
56	DIAG	I	Condition input from power amp IC
57	TU ATT IN	I	Tuner ATT signal input Not used in this set. (Open)
58	UNI SI	I	Serial data signal input Not used in this set. (Open)
59	UNI SO	O	Serial data signal output Not used in this set. (Open)
60	UNI SCK	O	Serial clock signal output Not used in this set. (Open)
61	BUS ON	O	Bus on signal output
62	SYS RST	O	System reset signal output

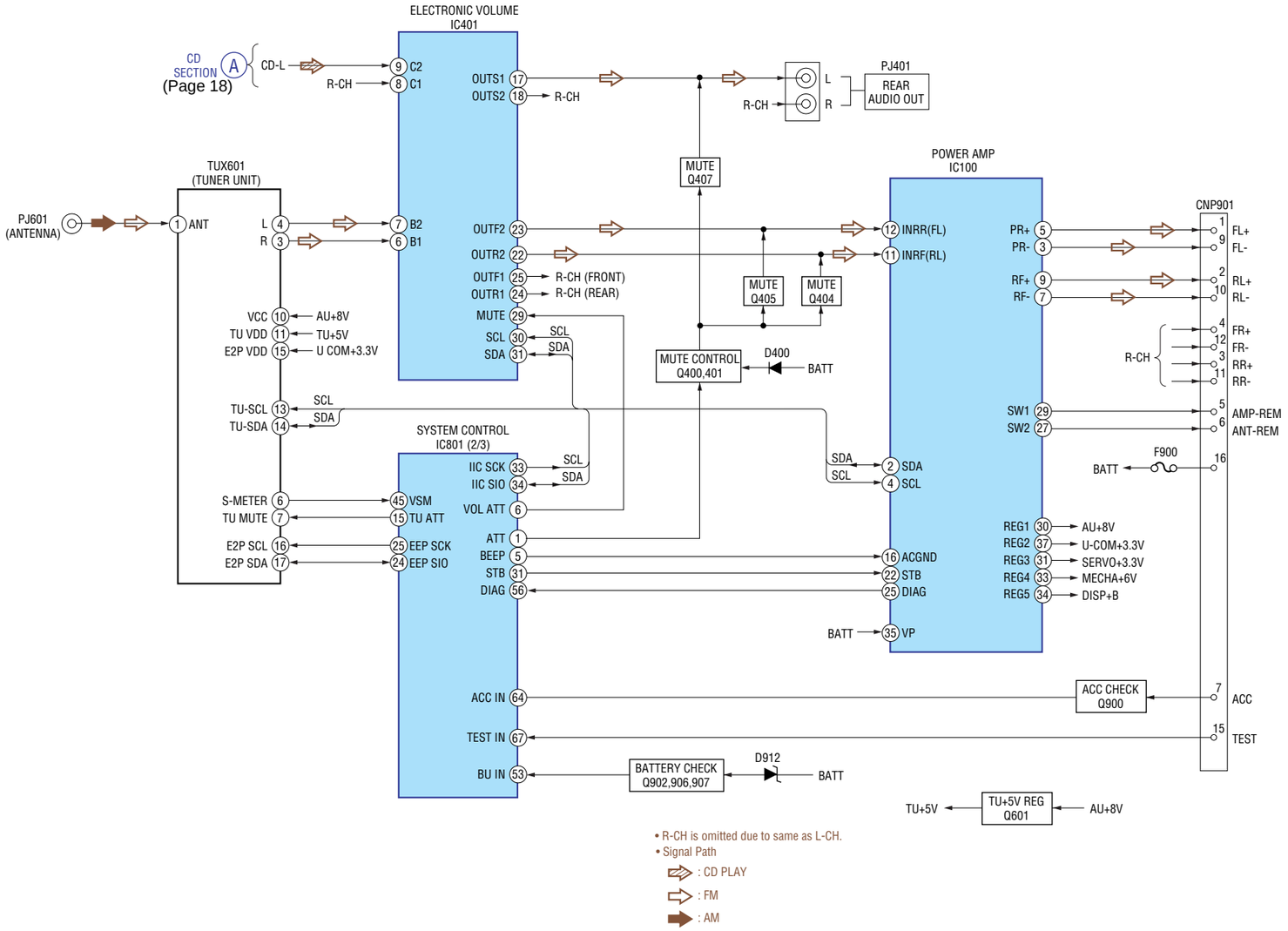
Pin No.	Pin Name	I/O	Pin Description
63	TEL ATT	O	TEL ATT signal output Not used in this set. (Open)
64	ACC IN	I	Accessory power supply detect signal input
65	SIRCS	I	Remote control signal (infrared rays) input
66	RAM BU	O	Not used in this set. (Fixed at “L”.)
67	TEST IN	I	Test mode detect signal input
68	FLASH W	I	Memory mode changeover signal input Normally “H” input (single chip mode) “L” after reset: Flash write mode
69	NOSE SW	O	Not used in this set. (Fixed at “H”.)
70, 71	NC	—	Not used in this set. (Open)
72	DOOR SW	I	Front panel open/close detect signal input “L” input: Panel close, “H” input: Panel open
73	DOOR IND	O	Not used in this set. (Open)
74	RC IN1	I	Rotary commander shift key signal input
75	XKEY ON	O	Key power supply control signal output Pin ㊼ (KEY ACK) active: “L” output
76	NC	—	Not used in this set. (Open)
77	RESET	I	Reset signal input
78	NC	—	Not used in this set. (Open)
79	X1A	—	Oscillator connect pin (32 kHz)
80	X0A	—	Oscillator connect pin (32 kHz)
81	VSS	—	Ground pin
82	X0	—	Oscillator connect pin (3.68 MHz)
83	X1	—	Oscillator connect pin (3.68 MHz)
84	VCC+3.3	—	Power supply pin (+3.3 V)
85 to 88	NC	—	Not used in this set. (Open)
89	ZERO DET R	I	Mechanism deck mute zero closs detect signal input R
90	ZERO DET L	I	Mechanism deck mute zero closs detect signal input L
91	CD STB	O	CD servo data strob signal output Timing of data latch: “L” output
92	CD IN SW	I	CD mechanism IN-SW detect signal input
93	CD LOAD	O	CD mechanism loading motor control signal output
94	CD ON/EJECT	O	CD mechanism eject motor control signal output
95	CDM ON/D SW	I	CD mechanism DSW detect signal input
96	CD LIMIT	I	CD mechanism IN-LIMIT SW signal input
97	RFOK	I	CD servo RFOK signal input
98	CD XRST	O	CD servo reset signal output
99	CD A0	O	CD servo command/parameter identification signal output Command transmission: “L” output, parameter transmission: “H” output
100	NC	—	Not used in this set. (Open)

17

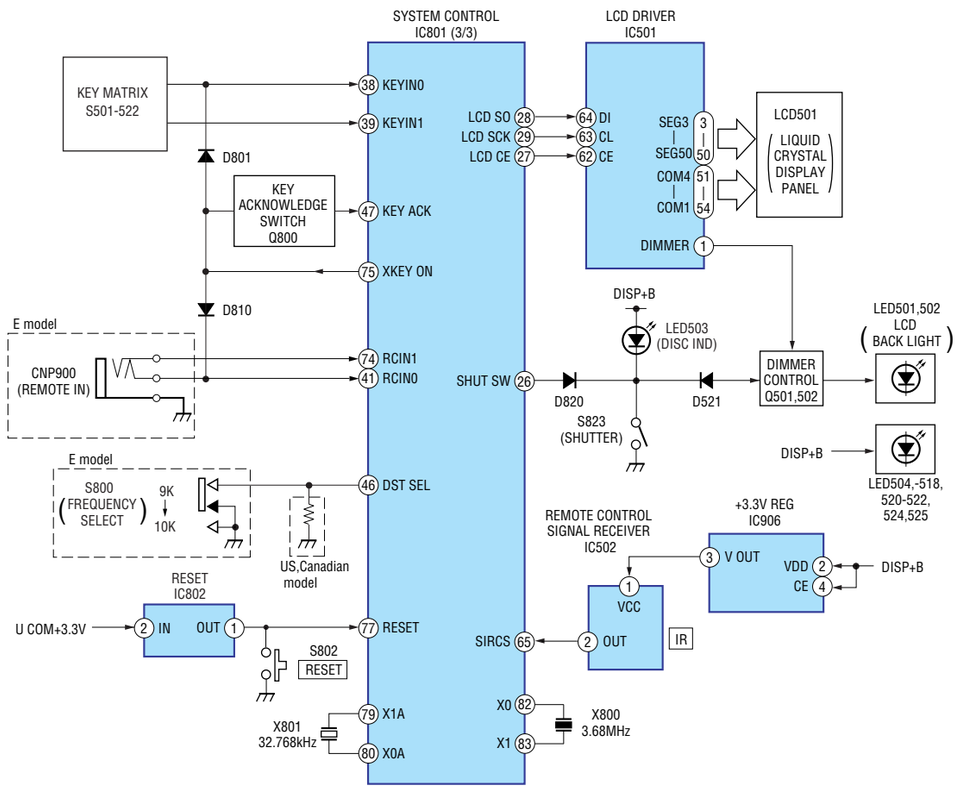
3-2. BLOCK DIAGRAM — CD SECTION —



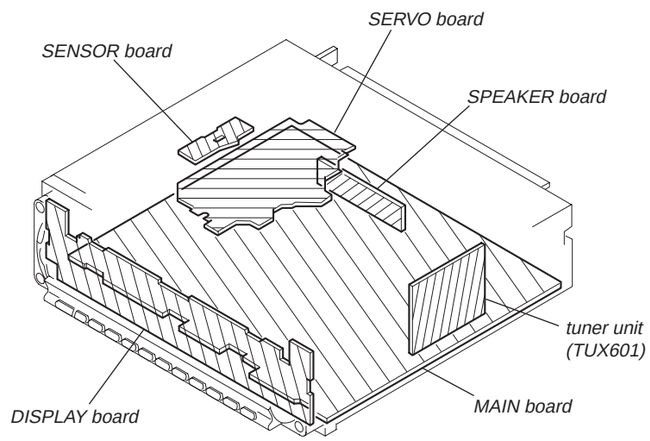
3-3. BLOCK DIAGRAM — MAIN SECTION —



3-4. BLOCK DIAGRAM — DISPLAY SECTION —



3-5. CIRCUIT BOARDS LOCATION



3-6. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

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

For schematic diagrams.

Note:

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

Note:	**Note:**
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 piéce portant le numéro spécifié.

- ▬ : B+ Line.
- ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- CD mechanism section
  no mark : CD PLAY
- Main (1/2), (2/2) and Display sections
  no mark : FM
  ( ) : AM
  < > : CD PLAY
  ✻ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY
  ⇨ : FM
  ➡ : AM
- Abbreviation
  CND : Canadian model.

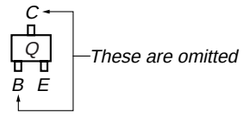
For printed wiring boards.

Note:

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

(The other layers' patterns are not indicated.)

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



These are omitted

These are omitted

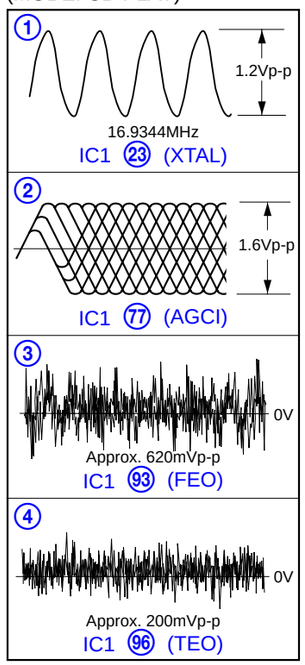
These are omitted

- Abbreviation
  CND : Canadian model.

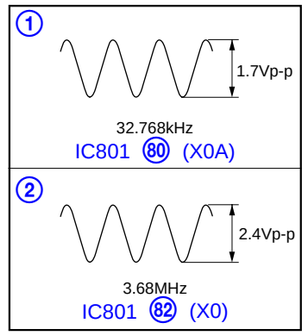
3-7. WAVEFORMS

— Servo Board —

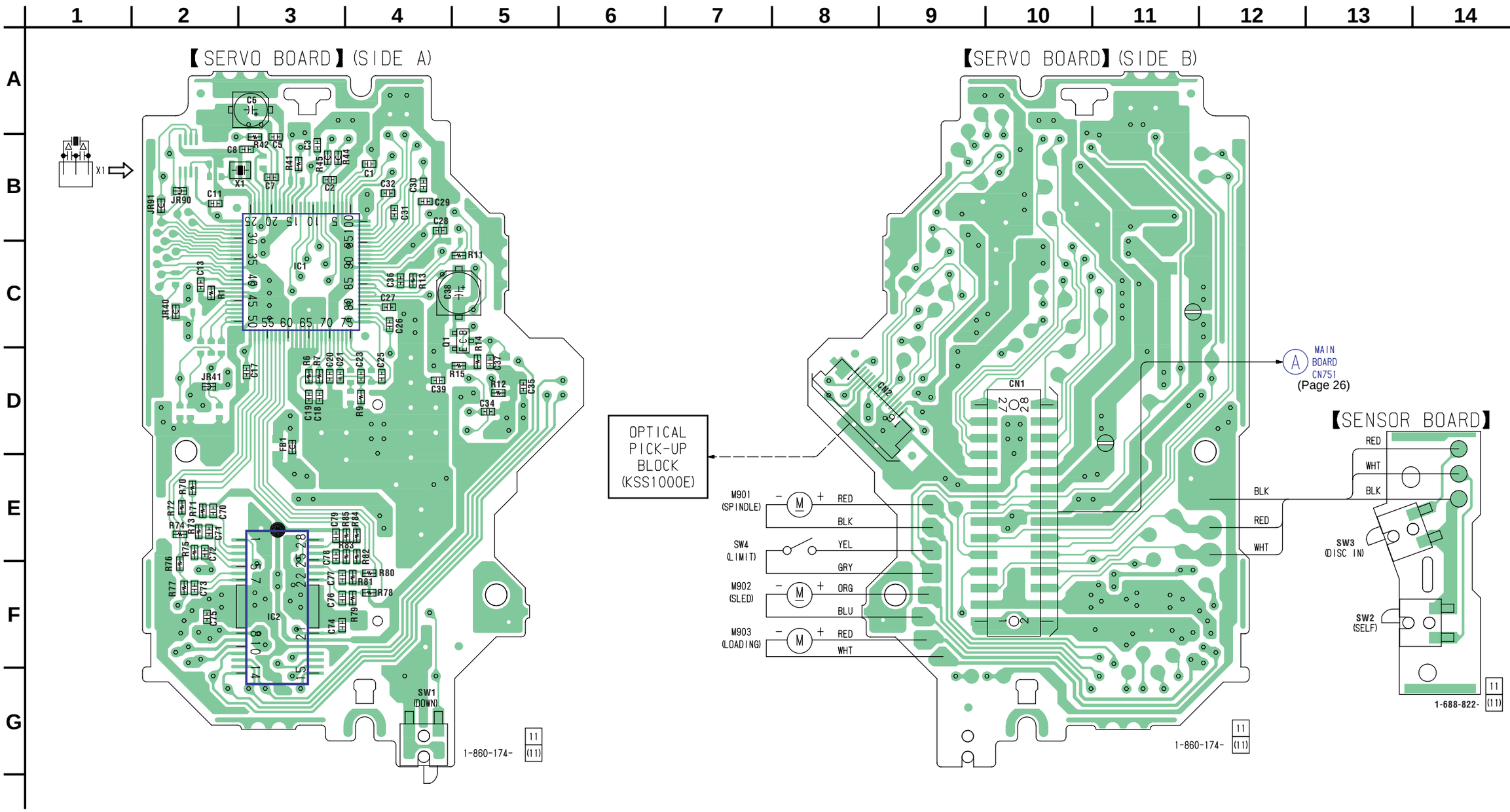
(MODE: CD PLAY)



— Main Board —



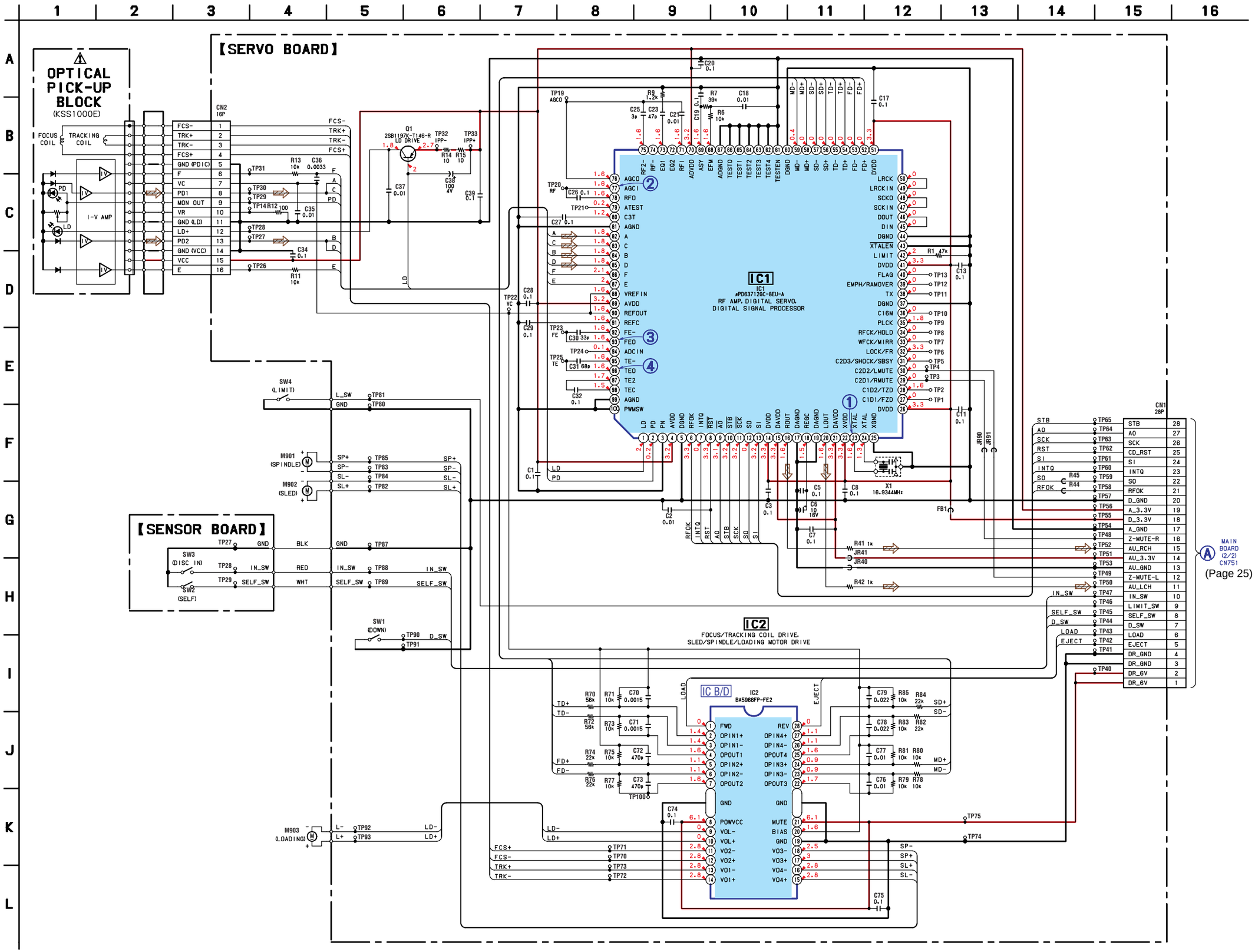
3-8. PRINTED WIRING BOARDS — CD MECHANISM SECTION — • Refer to page 20 for Circuit Boards Location. : Uses unleaded solder.



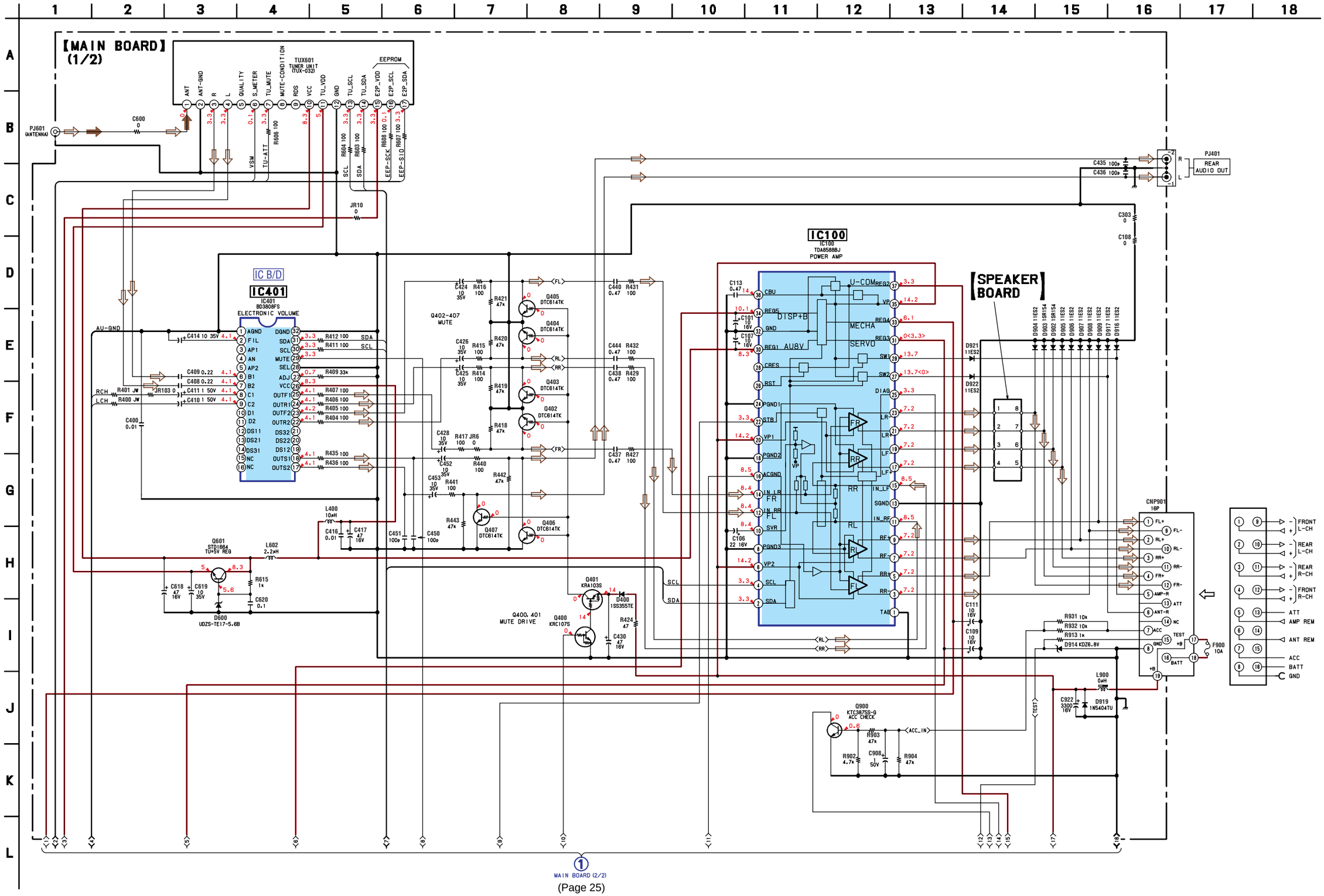
• Refer to page 21 for Waveforms.

3-9. SCHEMATIC DIAGRAM — CD MECHANISM SECTION —

• Refer to page 29 for IC Block Diagram.

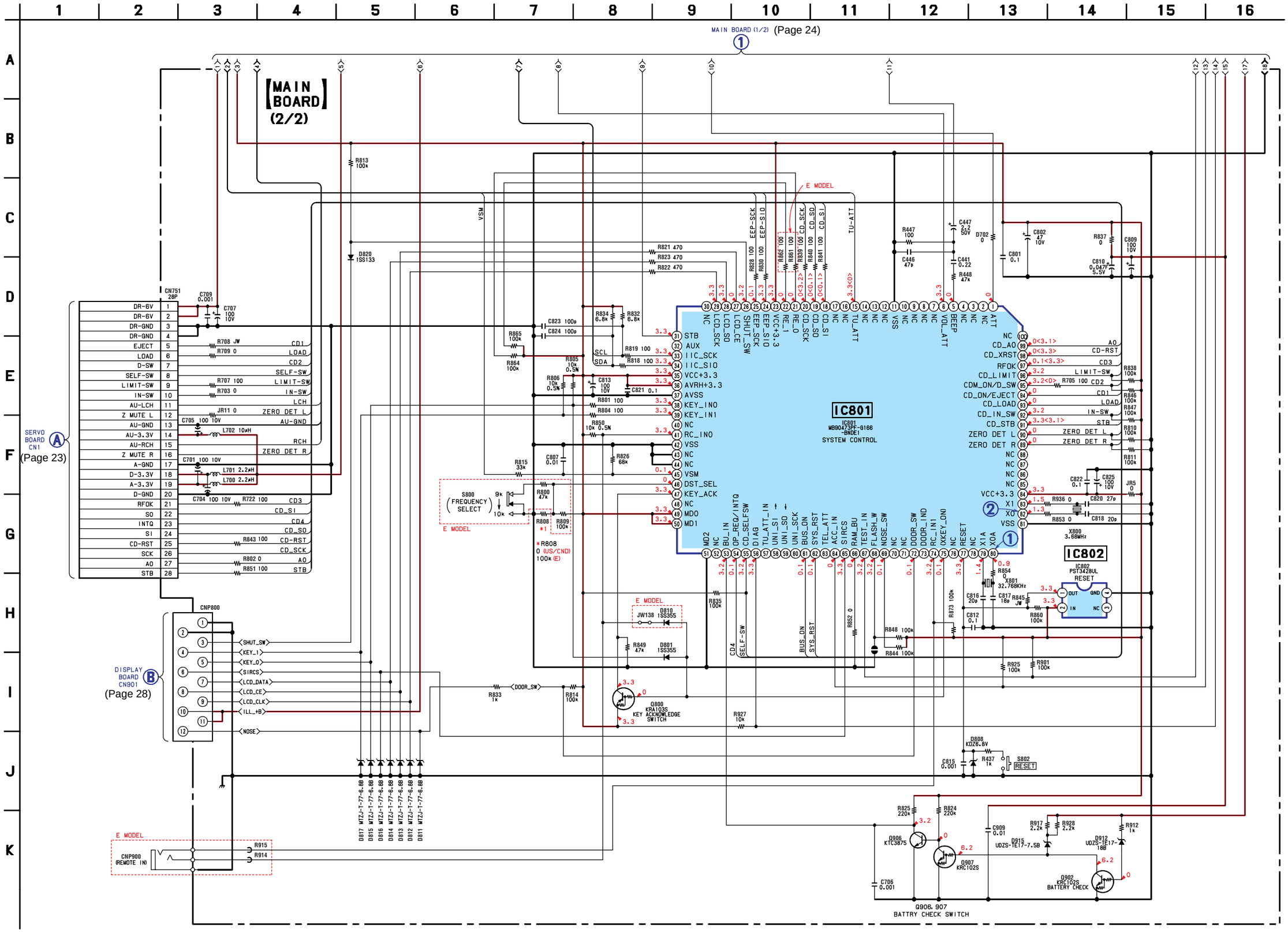


3-10. SCHEMATIC DIAGRAM — MAIN SECTION (1/2) — • Refer to page 30 for IC Block Diagram.



(Page 25)

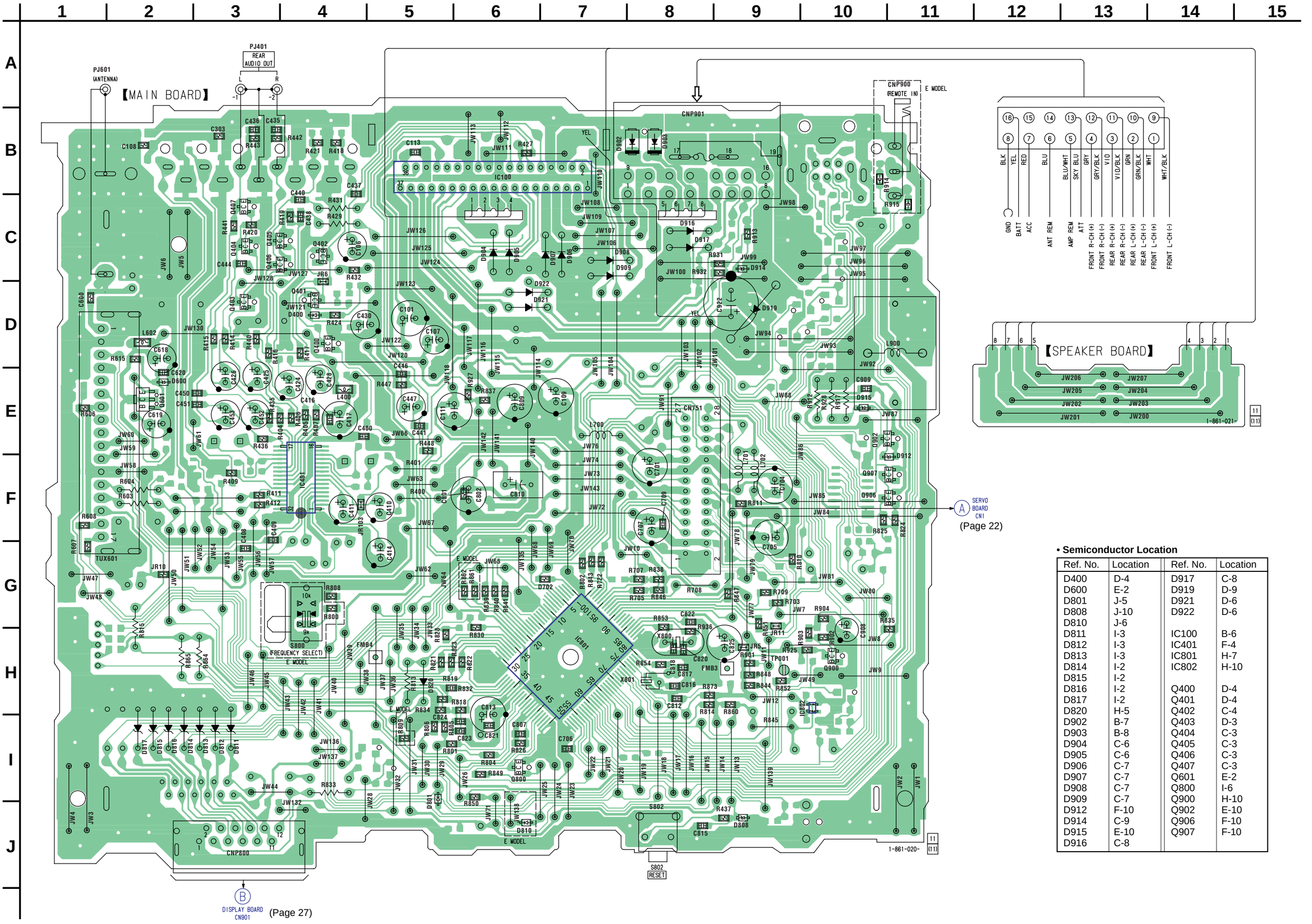
3-11. SCHEMATIC DIAGRAM — MAIN SECTION (2/2) — • Refer to page 21 for Waveforms.



3-12. PRINTED WIRING BOARDS — MAIN SECTION —

• Refer to page 20 for Circuit Boards Location.

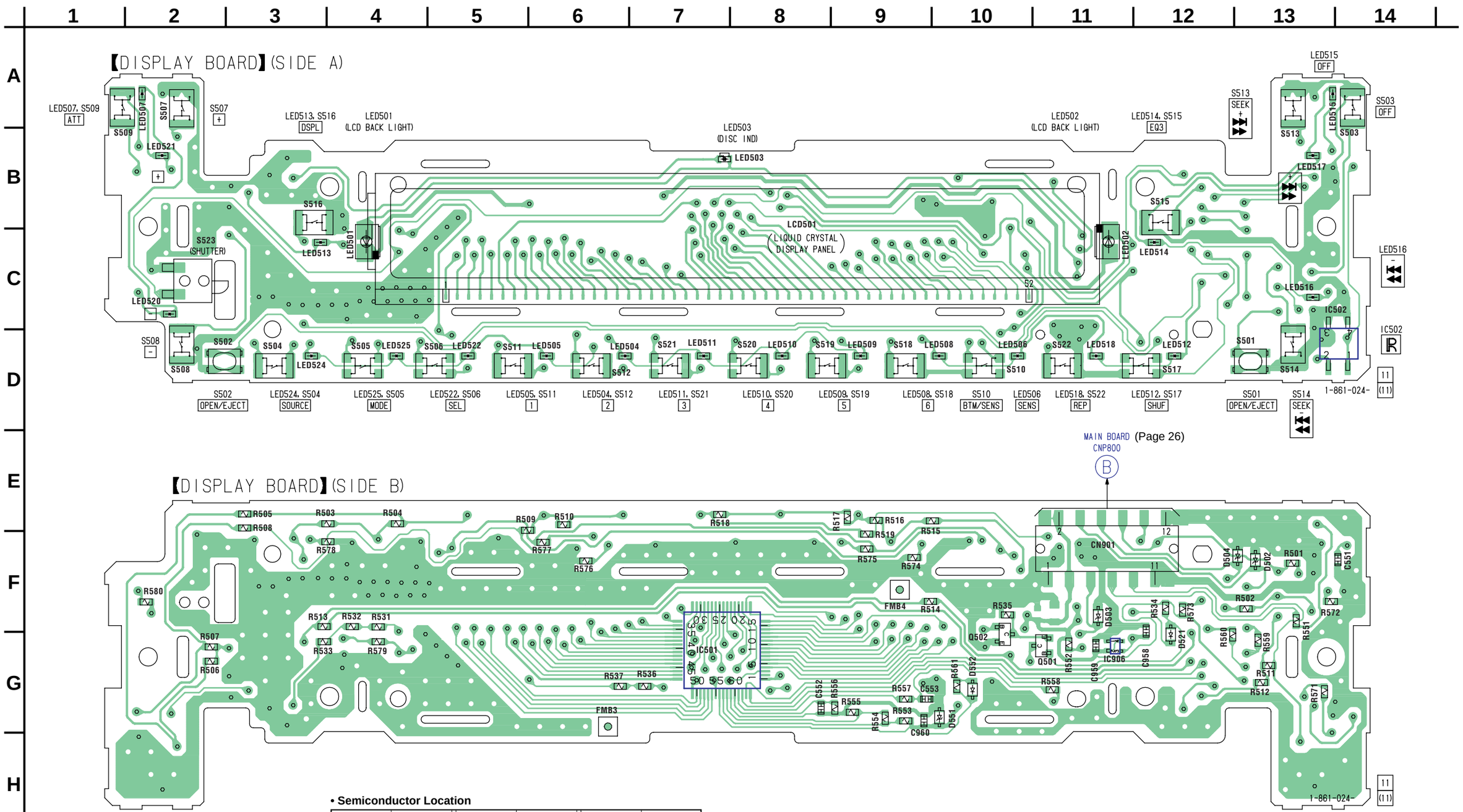
: Uses unleaded solder.



• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D400	D-4	D917	C-8
D600	E-2	D919	D-9
D801	J-5	D921	D-6
D808	J-10	D922	D-6
D810	J-6		
D811	I-3	IC100	B-6
D812	I-3	IC401	F-4
D813	I-3	IC801	H-7
D814	I-2	IC802	H-10
D815	I-2		
D816	I-2	Q400	D-4
D817	I-2	Q401	D-4
D820	H-5	Q402	C-4
D902	B-7	Q403	D-3
D903	B-8	Q404	C-3
D904	C-6	Q405	C-3
D905	C-6	Q406	C-3
D906	C-7	Q407	C-3
D907	C-7	Q601	E-2
D908	C-7	Q800	I-6
D909	C-7	Q900	H-10
D912	F-10	Q902	E-10
D914	C-9	Q906	F-10
D915	E-10	Q907	F-10
D916	C-8		

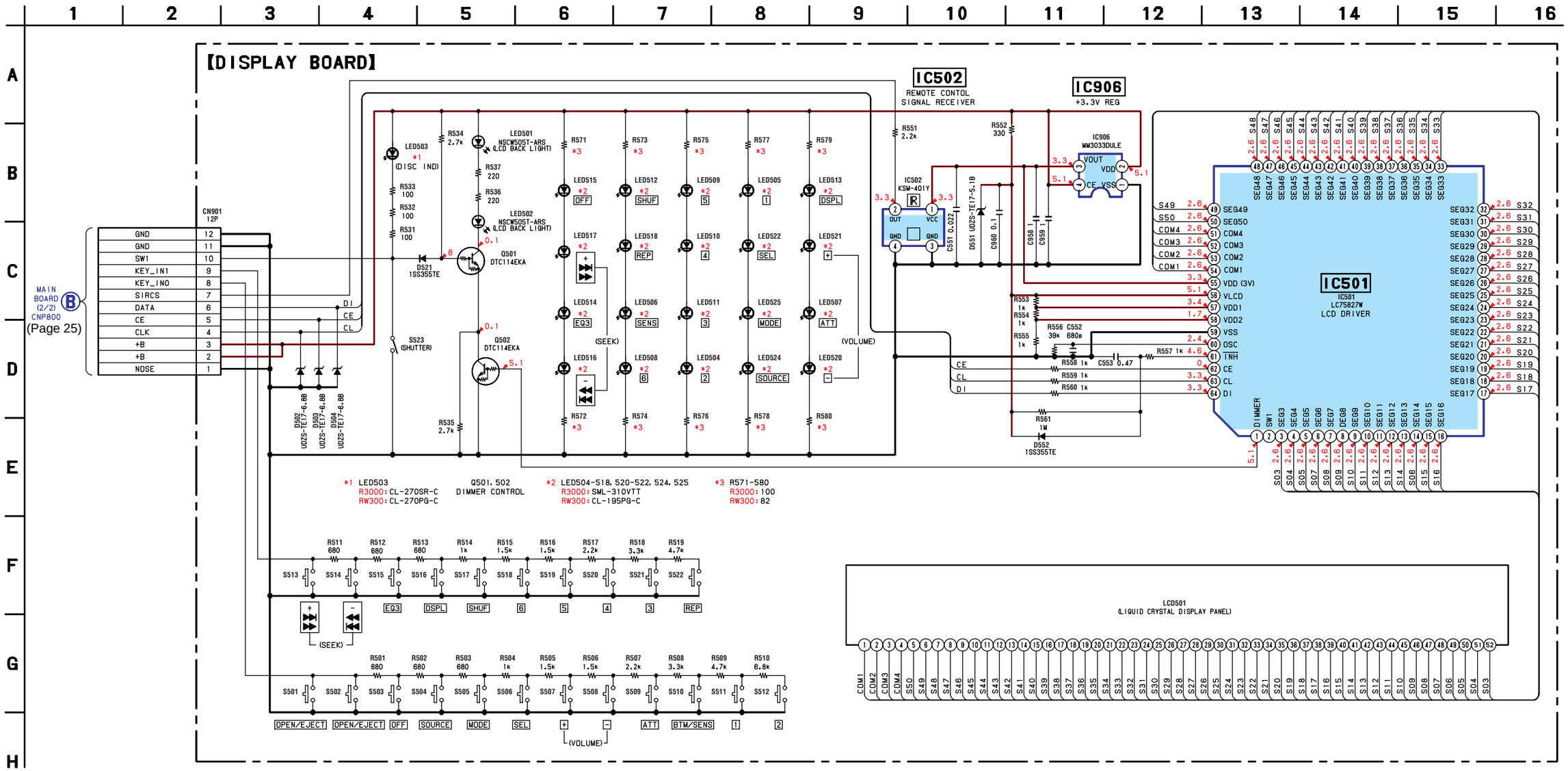
3-13. PRINTED WIRING BOARD — DISPLAY SECTION — • Refer to page 20 for Circuit Boards Location. : Uses unleaded solder.



• **Semiconductor Location**

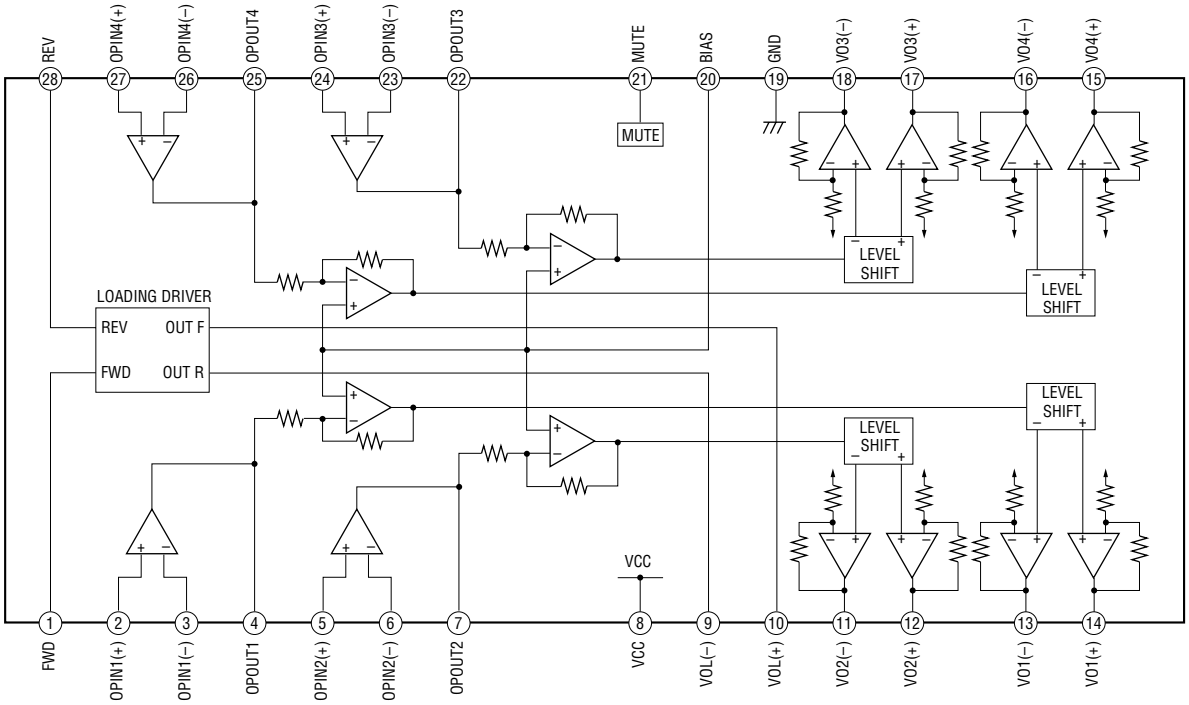
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D502	F-13	LED503	B-8	LED516	C-13
D503	F-11	LED504	D-6	LED517	B-13
D504	F-13	LED505	D-6	LED518	D-11
D521	G-12	LED506	D-10	LED520	C-2
D551	G-10	LED507	A-2	LED521	B-2
D552	G-10	LED508	D-10	LED522	D-5
		LED509	D-9	LED524	D-3
IC501	G-7	LED510	D-8	LED525	D-4
IC502	C-14	LED511	D-7		
IC906	G-11	LED512	D-12	Q501	G-11
		LED513	C-3	Q502	G-10
LED501	C-4	LED514	C-12		
LED502	C-11	LED515	A-13		

3-14. SCHEMATIC DIAGRAM — DISPLAY SECTION —

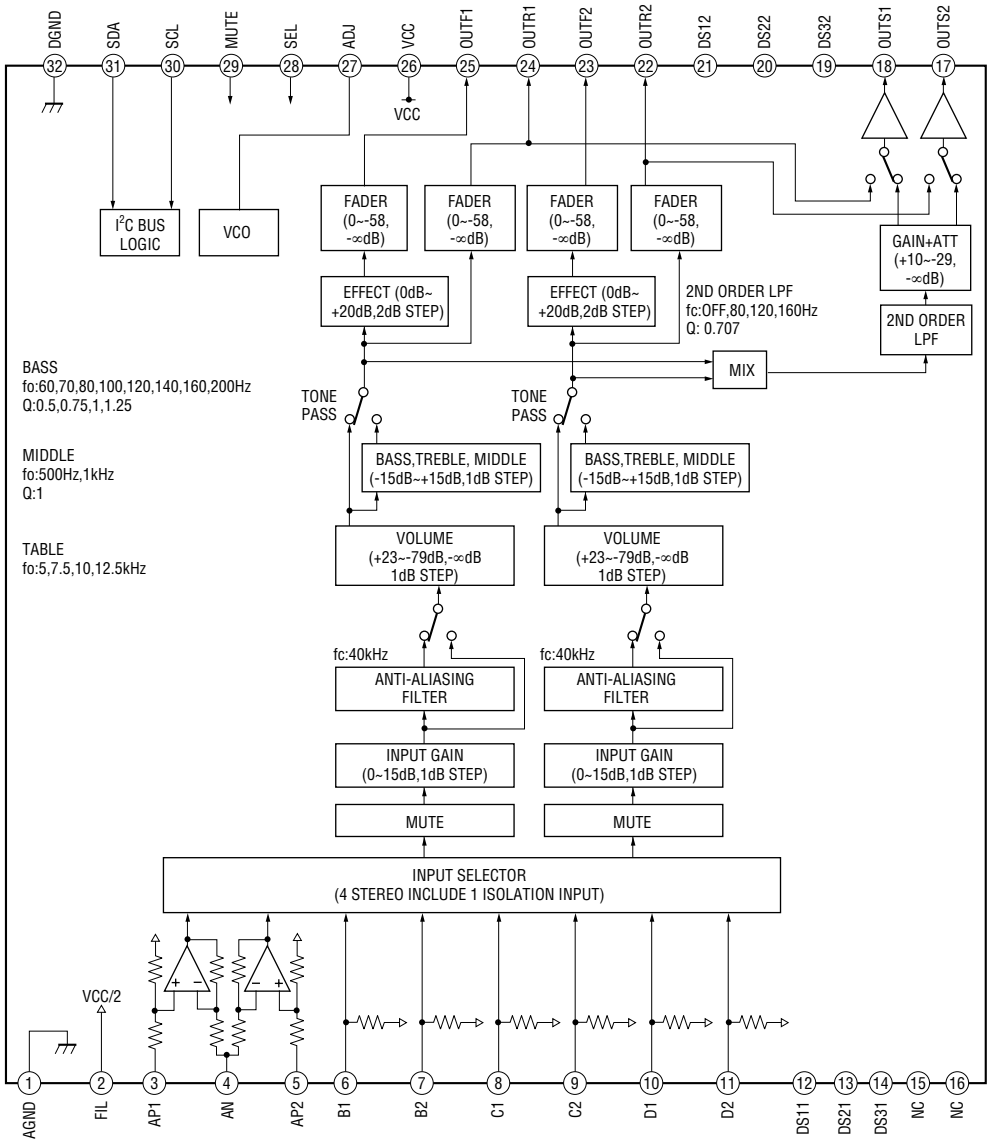


3-15. IC BLOCK DIAGRAMS

IC2 BA5966FP-FE2 (SERVO Board)



IC401 BD3808FS (MAIN Board)



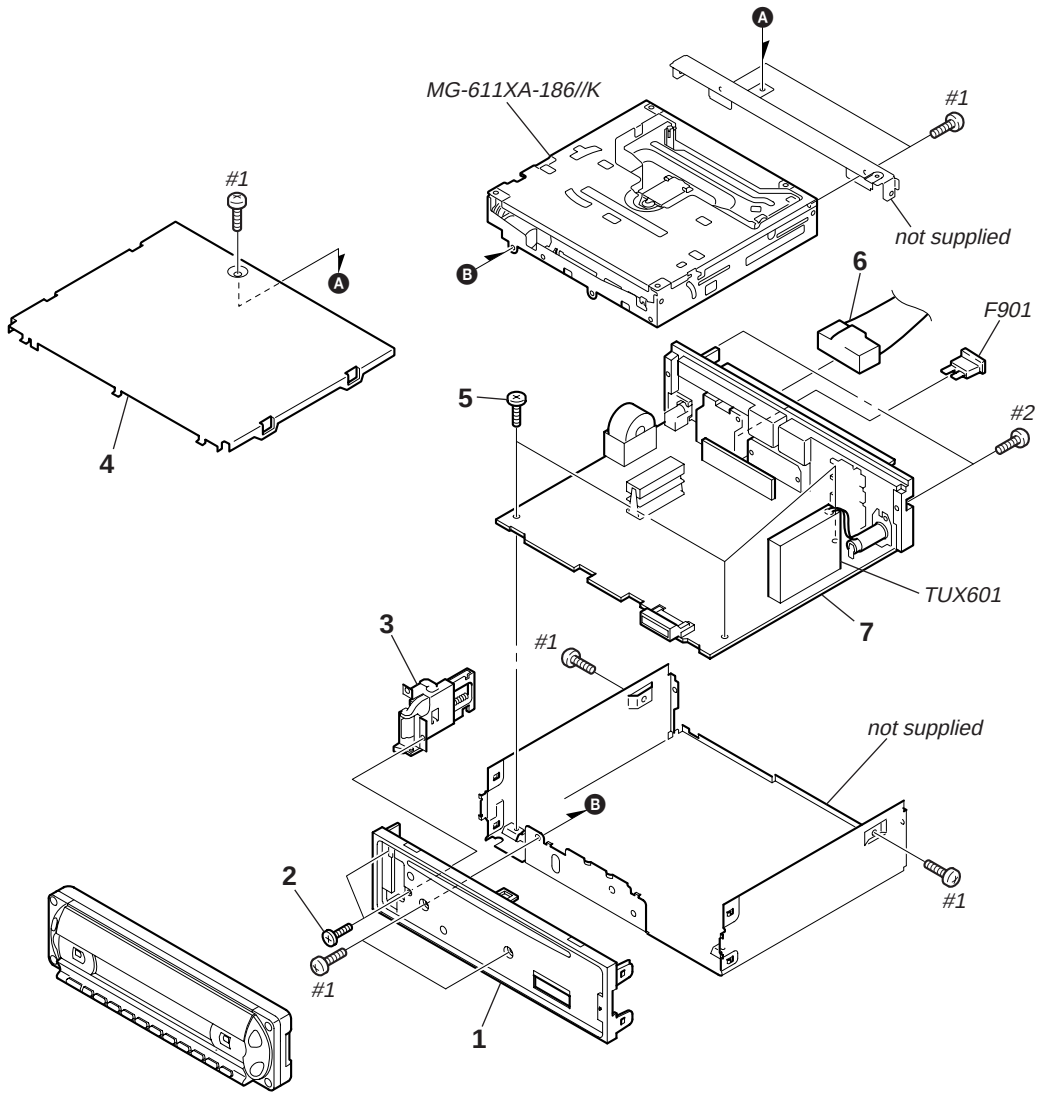
SECTION 4
EXPLODED VIEWS

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

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

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

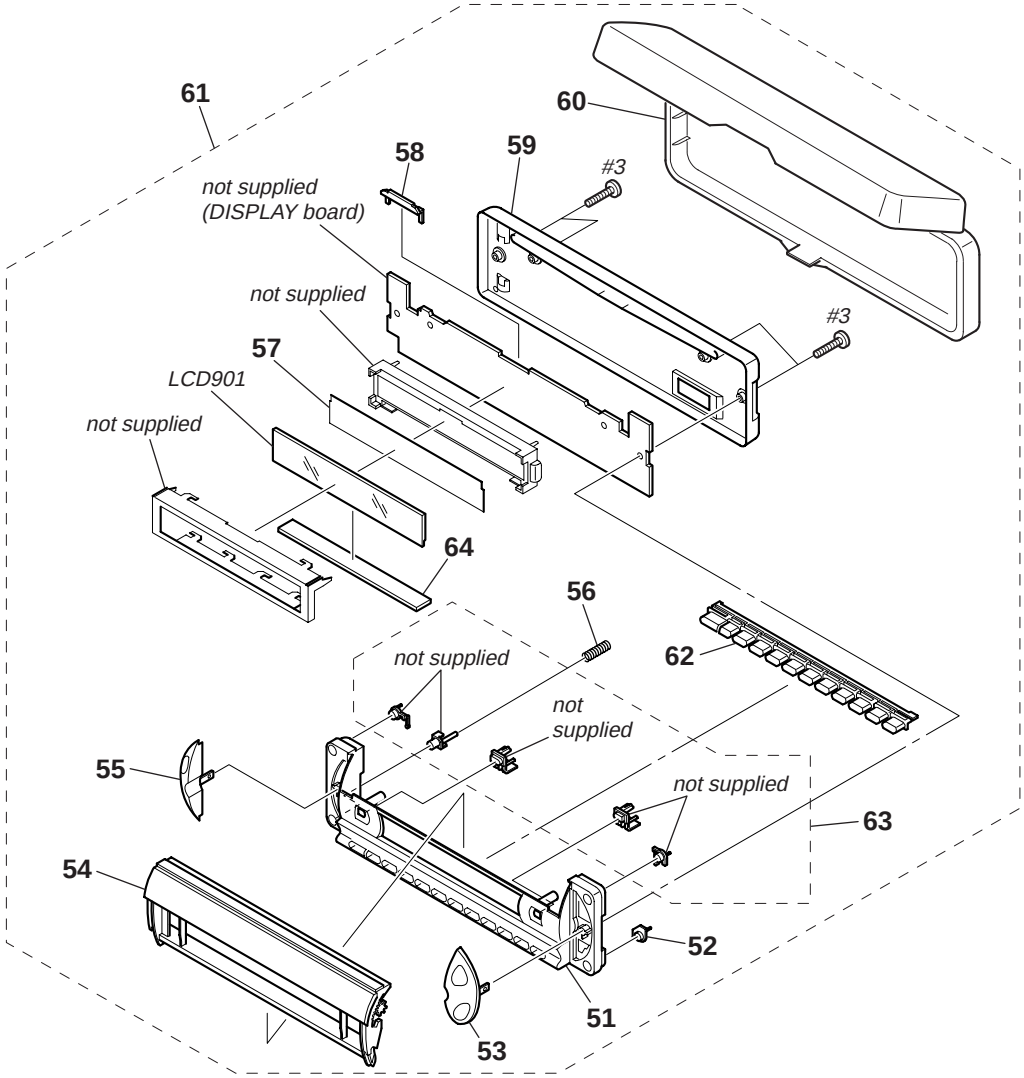
4-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-3384-407-1	PANEL (1) ASSY, SUB	
2	3-231-472-01	SCREW (+B 2X4)	
3	X-3382-588-1	LOCK ASSY (S)	
* 4	3-246-006-31	COVER	
5	3-922-535-11	SCREW (+BTT)	
6	1-776-206-21	CORD (WITH CONNECTOR) (POWER)	

Ref. No.	Part No.	Description	Remark
7	A-3283-418-A	MAIN BOARD, COMPLETE (US,CND)	
7	A-3283-489-A	MAIN BOARD, COMPLETE (E)	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TUX601	A-3220-959-A	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-793-09	SCREW +PTT 2.6X8 (S)	

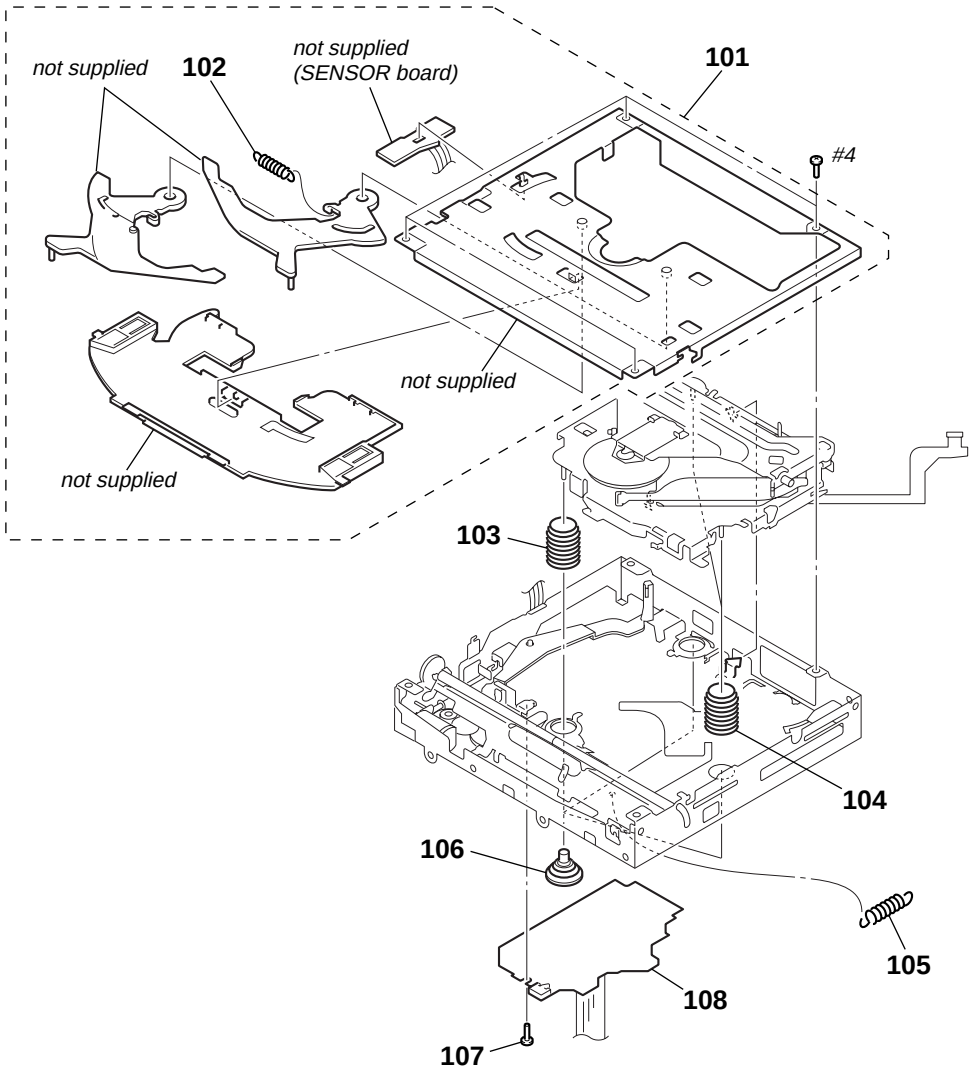
4-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	X-3384-410-1	PANEL (BASE) ASSY, FRONT (R3000:US,CND)	
51	X-3384-617-1	PANEL (BASE) ASSY, FRONT (RW300)	
51	X-3384-687-1	PANEL (BASE) ASSY, FRONT (R3000:E)	
52	3-258-879-01	FILTER (IR)	
53	3-258-874-01	BUTTON (SEEK)	
54	X-3384-070-1	RETRACTABLE ASSY	
55	3-258-873-01	BUTTON (+,–)	
56	3-246-211-01	SPRING (RELEASE)	
57	3-258-884-01	SHEET (ILLUMINATOR)	
58	3-258-880-01	PLATE (CD), LIGHT GUIDE	

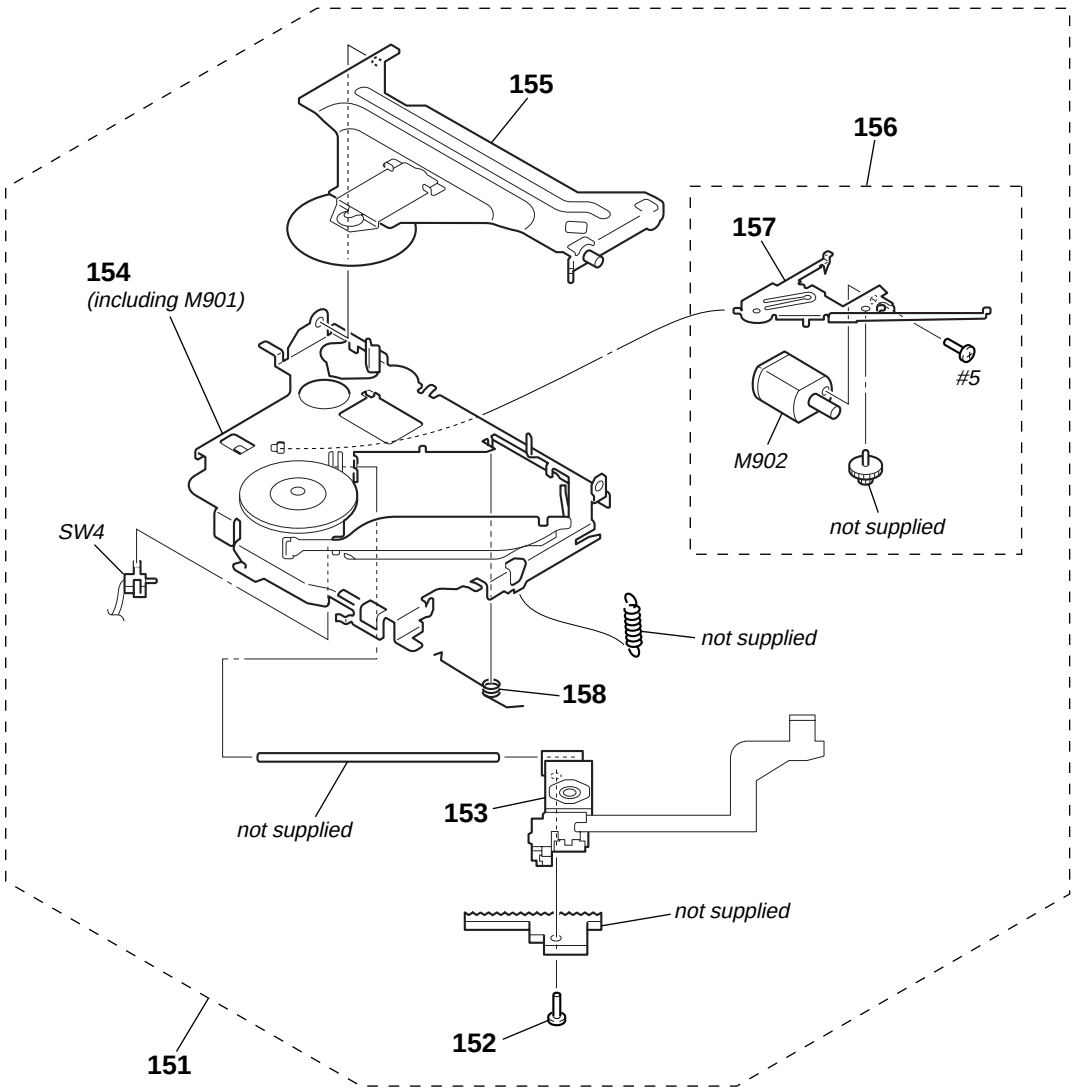
Ref. No.	Part No.	Description	Remark
59	3-258-869-01	PANEL, FRONT BACK	
60	X-3378-390-3	CASE ASSY (for FRONT PANEL)	
61	A-3372-585-A	PANEL OVERALL ASSY, FRONT (R3000:US,CND)	
61	A-3372-726-A	PANEL OVERALL ASSY, FRONT (RW300)	
61	A-3372-777-A	PANEL OVERALL ASSY, FRONT (R3000:E)	
62	3-258-875-01	BUTTON (PRESET)	
63	X-3384-457-1	BUTTON ASSY (S)	
64	1-780-120-11	CONDUCTIVE BOARD, CONNECTION	
LCD901	1-805-450-11	DISPLAY PANEL, LIQUID CRYSTAL	
#3	7-685-105-19	SCREW +P 2X8 TYPE2 NON-SLIT	

4-3. CD MECHANISM SECTION (1)
(MG-611XA-186//K)



Ref. No.	Part No.	Description	Remark
101	A-3372-455-A	CHASSIS (T) SUB ASSY	
102	3-253-729-01	SPRING (LTR), TENSION COIL	
103	3-253-746-01	SPRING (DAMPER), COMPRESSION	
104	3-253-746-11	SPRING (DAMPER), COMPRESSION	
105	3-253-695-01	SPRING (KF), TENSION COIL	
106	3-253-748-01	DAMPER(S)	
107	3-352-758-31	SCREW (M1.7), TOOTHED LOCK	
108	A-3283-350-A	SERVO BOARD, COMPLETE	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-4. CD MECHANISM SECTION (2)
(MG-611XA-186//K)

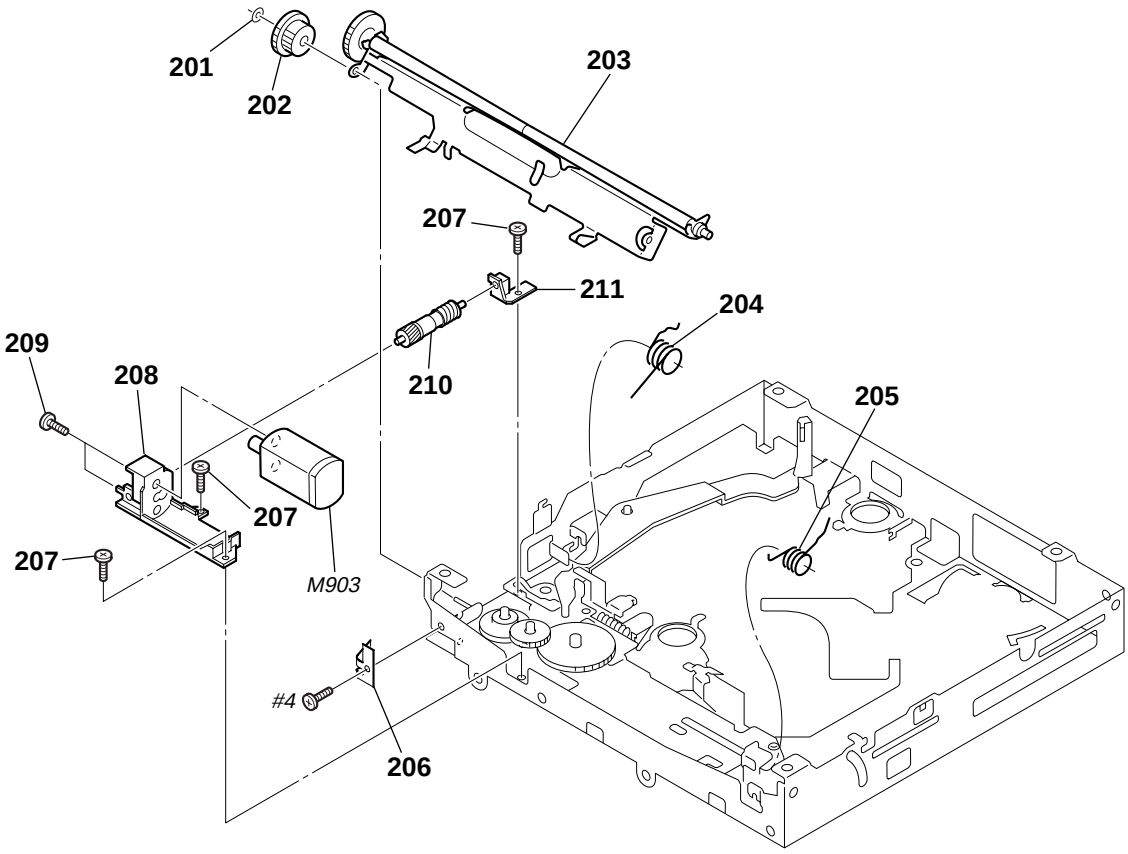


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
151	A-3337-637-A	CHASSIS (OP) COMPLETE ASSY	
152	4-912-432-01	SCREW (B1.4X5), TAPPING	
⚠153	8-820-207-02	OPTICAL PICK-UP KSS1000E/K1RP	
154	A-3337-640-A	CHASSIS (OP) SUB ASSY (including M901)	
155	A-3337-641-A	ARM SUB ASSY, CHUCKING	
156	A-3337-639-A	LEVER (SL) SUB ASSY	

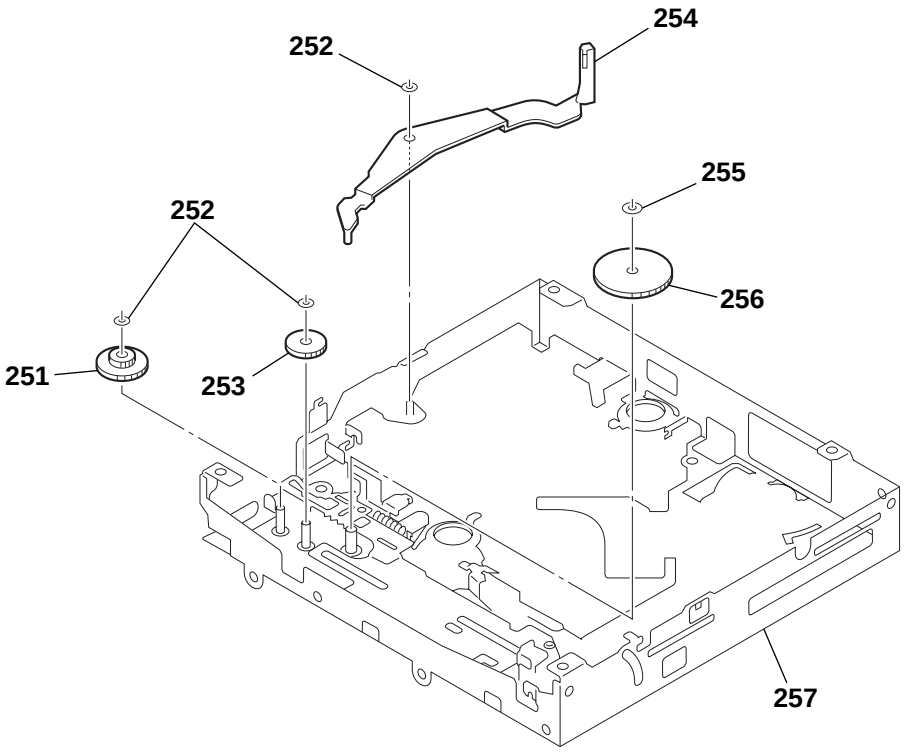
Ref. No.	Part No.	Description	Remark
157	X-3383-454-2	LEVER (SL) ASSY	
158	3-261-959-01	SPRING (SL), TORSION	
M902	A-3337-638-A	MOTOR ASSY, SL (SLED)	
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)	
#5	7-627-850-77	SCREW, PRECISION +P 1.4X1.8	

4-5. CD MECHANISM SECTION (3)
(MG-611XA-186//K)



Ref. No.	Part No.	Description	Remark
201	3-338-647-31	WASHER (1.0-2.5)	
202	3-259-024-01	WHEEL (RA), WORM	
203	A-3337-633-A	ARM ASSY, ROLLER	
204	3-259-455-01	SPRING (RAL)	
205	3-253-713-01	SPRING (RAR)	
206	3-259-469-01	SPRING (LE), LEAF	
207	2-134-636-31	SCREW (M1.7X2.5)	
208	3-259-467-01	BRACKET (LEM)	
209	3-345-648-91	SCREW (M1.4), TOOTHED LOCK	
210	A-3372-456-A	WORM (LEB) ASSY	
211	3-259-468-01	BEARING (LEB)	
M903	A-3372-454-A	MOTOR ASSY, LE (LOADING)	
#4	7-627-552-87	SCREW, PRECISION +P 1.7X2.2	

4-6. CD MECHANISM SECTION (4)
(MG-611XA-186//K)



Ref. No.	Part No.	Description	Remark
251	3-259-429-01	WHEEL (LE), WORM	
252	3-344-223-01	WASHER	
253	3-259-470-01	GEAR (LE1)	
254	3-253-755-01	LEVER (D)	
255	3-899-829-01	WASHER (SLIT)	
256	3-259-032-01	GEAR (LE2)	
257	A-3372-453-A	CHASSIS (M) BLOCK ASSY	

SECTION 5
ELECTRICAL PARTS LIST

DISPLAY

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable

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

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : µ, for example:
  uA.. : µA.. uPA.. : µPA..
  uPB.. : µPB.. uPC.. : µPC.. uPD.. : µPD..
- CAPACITORS
  uF : µF
- COILS
  uH : µH
- Abbreviation
  CND : Canadian model

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

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

Ref. No.	Part No.	Description	Remark
		DISPLAY BOARD	
		**********	
	1-780-120-11	CONDUCTIVE BOARD, CONNECTION	
	3-258-884-01	SHEET (ILLUMINATOR)	
		< CAPACITOR >	
C551	1-164-227-11	CERAMIC CHIP 0.022uF 10%	25V
C552	1-162-963-11	CERAMIC CHIP 680PF 10%	50V
C553	1-125-891-11	CERAMIC CHIP 0.47uF 10%	10V
C958	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V
C959	1-125-837-11	CERAMIC CHIP 1uF 10%	6.3V
C960	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		< CONNECTOR >	
CN901	1-794-312-21	PIN, CONNECTOR 12P	
		< DIODE >	
D502	8-719-978-33	DIODE DTZ-TT11-6.8B	
D503	8-719-978-33	DIODE DTZ-TT11-6.8B	
D504	8-719-978-33	DIODE DTZ-TT11-6.8B	
D521	8-719-988-61	DIODE 1SS355TE-17	
D551	8-719-069-54	DIODE UDZS-TE17-5.1B	
D552	8-719-988-61	DIODE 1SS355TE-17	
		< IC >	
IC501	6-705-180-01	IC LC75827W	
IC502	6-600-321-01	IC KSM-401Y (IR)	
IC906	6-705-374-01	IC MM3033DULE	
		< LIQUID CRYSTAL DISPLAY >	
LCD901	1-805-450-11	DISPLAY PANEL, LIQUID CRYSTAL	
		< DIODE >	
LED501	6-500-459-01	LED NSCW505T-ARS (LCD BACK LIGHT)	
LED502	6-500-459-01	LED NSCW505T-ARS (LCD BACK LIGHT)	
LED503	6-500-511-01	LED CL-270PG-C-TS (DISC IND) (RW300)	
LED503	8-719-082-38	LED CL-270SR-C-TS (DISC IND) (R3000)	
LED504	6-500-510-01	LED CL-195PG-CD-T (2) (RW300)	
LED504	8-719-053-09	LED SML-310VT-T86 (2) (R3000)	
LED505	6-500-510-01	LED CL-195PG-CD-T (1) (RW300)	
LED505	8-719-053-09	LED SML-310VT-T86 (1) (R3000)	
LED506	6-500-510-01	LED CL-195PG-CD-T (SENS) (RW300)	
LED506	8-719-053-09	LED SML-310VT-T86 (SENS) (R3000)	
LED507	6-500-510-01	LED CL-195PG-CD-T (ATT) (RW300)	
LED507	8-719-053-09	LED SML-310VT-T86 (ATT) (R3000)	
LED508	6-500-510-01	LED CL-195PG-CD-T (6) (RW300)	
LED508	8-719-053-09	LED SML-310VT-T86 (6) (R3000)	
LED509	6-500-510-01	LED CL-195PG-CD-T (5) (RW300)	
LED509	8-719-053-09	LED SML-310VT-T86 (5) (R3000)	
LED510	6-500-510-01	LED CL-195PG-CD-T (4) (RW300)	
LED510	8-719-053-09	LED SML-310VT-T86 (4) (R3000)	
LED511	6-500-510-01	LED CL-195PG-CD-T (3) (RW300)	
LED511	8-719-053-09	LED SML-310VT-T86 (3) (R3000)	
LED512	6-500-510-01	LED CL-195PG-CD-T (SHUF) (RW300)	
LED512	8-719-053-09	LED SML-310VT-T86 (SHUF) (R3000)	
LED513	6-500-510-01	LED CL-195PG-CD-T (DSPL) (RW300)	
LED513	8-719-053-09	LED SML-310VT-T86 (DSPL) (R3000)	
LED514	6-500-510-01	LED CL-195PG-CD-T (EQ3) (RW300)	
LED514	8-719-053-09	LED SML-310VT-T86 (EQ3) (R3000)	
LED515	6-500-510-01	LED CL-195PG-CD-T (OFF) (RW300)	
LED515	8-719-053-09	LED SML-310VT-T86 (OFF) (R3000)	
LED516	6-500-510-01	LED CL-195PG-CD-T (SEEK – ◀◀ I◀◀)	(RW300)
LED516	8-719-053-09	LED SML-310VT-T86 (SEEK – ◀◀ I◀◀)	(R3000)
LED517	6-500-510-01	LED CL-195PG-CD-T (SEEK + ▶▶I ▶▶)	(RW300)
LED517	8-719-053-09	LED SML-310VT-T86 (SEEK + ▶▶I ▶▶)	(R3000)
LED518	6-500-510-01	LED CL-195PG-CD-T (REP) (RW300)	
LED518	8-719-053-09	LED SML-310VT-T86 (REP) (R3000)	
LED520	6-500-510-01	LED CL-195PG-CD-T (VOLUME –) (RW300)	
LED520	8-719-053-09	LED SML-310VT-T86 (VOLUME –) (R3000)	
LED521	6-500-510-01	LED CL-195PG-CD-T (VOLUME +) (RW300)	
LED521	8-719-053-09	LED SML-310VT-T86 (VOLUME +) (R3000)	
LED522	6-500-510-01	LED CL-195PG-CD-T (SEL) (RW300)	
LED522	8-719-053-09	LED SML-310VT-T86 (SEL) (R3000)	
LED524	6-500-510-01	LED CL-195PG-CD-T (SOURCE) (RW300)	
LED524	8-719-053-09	LED SML-310VT-T86 (SOURCE) (R3000)	
LED525	6-500-510-01	LED CL-195PG-CD-T (MODE) (RW300)	
LED525	8-719-053-09	LED SML-310VT-T86 (MODE) (R3000)	
		< TRANSISTOR >	
Q501	8-729-900-53	TRANSISTOR DTC114EK	
Q502	8-729-900-53	TRANSISTOR DTC114EK	
		< RESISTOR >	
R501	1-216-819-11	METAL CHIP 680 5%	1/10W

DISPLAY | MAIN

Ref. No.	Part No.	Description			Remark
R502	1-216-819-11	METAL CHIP	680	5%	1/10W
R503	1-216-819-11	METAL CHIP	680	5%	1/10W
R504	1-216-821-11	METAL CHIP	1K	5%	1/10W
R505	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R506	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R507	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R508	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R509	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R510	1-218-867-11	METAL CHIP	6.8K	5%	1/10W
R511	1-216-819-11	METAL CHIP	680	5%	1/10W
R512	1-216-819-11	METAL CHIP	680	5%	1/10W
R513	1-216-819-11	METAL CHIP	680	5%	1/10W
R514	1-216-821-11	METAL CHIP	1K	5%	1/10W
R515	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R516	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R517	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R518	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R519	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R531	1-216-809-11	METAL CHIP	100	5%	1/10W
R532	1-216-809-11	METAL CHIP	100	5%	1/10W
R533	1-216-809-11	METAL CHIP	100	5%	1/10W
R534	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R535	1-216-826-11	METAL CHIP	2.7K	5%	1/10W
R536	1-216-813-11	METAL CHIP	220	5%	1/10W
R537	1-216-813-11	METAL CHIP	220	5%	1/10W
R551	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R552	1-216-815-11	METAL CHIP	330	5%	1/10W
R553	1-216-821-11	METAL CHIP	1K	5%	1/10W
R554	1-216-821-11	METAL CHIP	1K	5%	1/10W
R555	1-216-821-11	METAL CHIP	1K	5%	1/10W
R556	1-216-840-11	METAL CHIP	39K	5%	1/10W
R557	1-216-821-11	METAL CHIP	1K	5%	1/10W
R558	1-216-821-11	METAL CHIP	1K	5%	1/10W
R559	1-216-821-11	METAL CHIP	1K	5%	1/10W
R560	1-216-821-11	METAL CHIP	1K	5%	1/10W
R561	1-216-857-11	METAL CHIP	1M	5%	1/10W
R571	1-216-808-11	METAL CHIP	82	5%	1/10W (RW300)
R571	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R572	1-216-808-11	METAL CHIP	82	5%	1/10W (RW300)
R572	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R573	1-216-808-11	METAL CHIP	82	5%	1/10W (RW300)
R573	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R574	1-216-808-11	METAL CHIP	82	5%	1/10W (RW300)
R574	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R575	1-216-808-11	METAL CHIP	82	5%	1/10W (RW300)
R575	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R576	1-216-808-11	METAL CHIP	82	5%	1/10W (RW300)
R576	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R577	1-216-808-11	METAL CHIP	82	5%	1/10W (RW300)
R577	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R578	1-216-808-11	METAL CHIP	82	5%	1/10W (RW300)
R578	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R579	1-216-808-11	METAL CHIP	82	5%	1/10W (RW300)
R579	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R580	1-216-808-11	METAL CHIP	82	5%	1/10W (RW300)
R580	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
		< SWITCH >			
S501	1-786-653-11	SWITCH, TACTILE (OPEN/EJECT)			
S502	1-786-653-11	SWITCH, TACTILE (OPEN/EJECT)			
S503	1-771-884-31	SWITCH, TACTILE (OFF)			
S504	1-771-884-31	SWITCH, TACTILE (SOURCE)			
S505	1-771-884-31	SWITCH, TACTILE (MODE)			
S506	1-771-884-31	SWITCH, TACTILE (SEL)			
S507	1-771-884-31	SWITCH, TACTILE (VOLUME +)			
S508	1-771-884-31	SWITCH, TACTILE (VOLUME –)			
S509	1-771-884-31	SWITCH, TACTILE (ATT)			
S510	1-771-884-31	SWITCH, TACTILE (BTM/SENS)			
S511	1-771-884-31	SWITCH, TACTILE (1)			
S512	1-771-884-31	SWITCH, TACTILE (2)			
S513	1-771-884-31	SWITCH, TACTILE (SEEK + ▶▶I ▶▶)			
S514	1-771-884-31	SWITCH, TACTILE (SEEK – ◀◀ I◀◀)			
S515	1-771-884-31	SWITCH, TACTILE (EQ3)			
S516	1-771-884-31	SWITCH, TACTILE (DSPL)			
S517	1-771-884-31	SWITCH, TACTILE (SHUF)			
S518	1-771-884-31	SWITCH, TACTILE (6)			
S519	1-771-884-31	SWITCH, TACTILE (5)			
S520	1-771-884-31	SWITCH, TACTILE (4)			
S521	1-771-884-31	SWITCH, TACTILE (3)			
S522	1-771-884-31	SWITCH, TACTILE (REP)			
S523	1-529-566-61	SWITCH, PUSH (1 KEY) (OPEN/EJECT)			
**********					
	A-3283-418-A	MAIN BOARD, COMPLETE (including SPEAKER BOARD) (US,CND)			
	A-3283-489-A	MAIN BOARD, COMPLETE (including SPEAKER BOARD) (E)			
		**********			
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT			
	7-685-793-09	SCREW +PTT 2.6X8 (S)			
	7-685-795-09	SCREW +PTT 2.6X12 (S)			
		< CAPACITOR >			
C101	1-124-233-11	ELECT	10uF	20%	16V
C106	1-124-234-00	ELECT	22uF	20%	16V
C107	1-124-233-11	ELECT	10uF	20%	16V
C108	1-216-864-11	METAL CHIP	0	5%	1/10W
C109	1-124-233-11	ELECT	10uF	20%	16V
C111	1-124-233-11	ELECT	10uF	20%	16V
C113	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V

Ref. No.	Part No.	Description			Remark
C303	1-216-864-11	METAL CHIP	0	5%	1/10W
C400	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C406	1-136-154-00	FILM	0.012uF	5%	50V
C407	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C408	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C409	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C410	1-104-942-11	ELECT	1uF	20%	50V
C411	1-104-942-11	ELECT	1uF	20%	50V
C414	1-128-428-11	ELECT	10uF	20%	35V
C416	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C417	1-124-589-11	ELECT	47uF	20%	16V
C424	1-128-428-11	ELECT	10uF	20%	35V
C425	1-128-428-11	ELECT	10uF	20%	35V
C426	1-128-428-11	ELECT	10uF	20%	35V
C428	1-128-428-11	ELECT	10uF	20%	35V
C430	1-126-947-11	ELECT	47uF	20%	16V
C435	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C436	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C437	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C438	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C440	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C441	1-115-467-11	CERAMIC CHIP	0.22uF	10%	10V
C444	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C446	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C447	1-124-257-00	ELECT	2.2uF	20%	50V
C450	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C451	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C452	1-128-428-11	ELECT	10uF	20%	35V
C453	1-128-428-11	ELECT	10uF	20%	35V
C600	1-216-864-11	METAL CHIP	0	5%	1/10W
C618	1-126-786-11	ELECT	47uF	20%	16V
C619	1-124-247-61	ELECT	10uF	20%	35V
C620	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C701	1-124-584-00	ELECT	100uF	20%	10V
C704	1-124-584-00	ELECT	100uF	20%	10V
C705	1-124-584-00	ELECT	100uF	20%	10V
C706	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C707	1-124-584-00	ELECT	100uF	20%	10V
C709	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C801	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C802	1-124-589-11	ELECT	47uF	20%	16V
C807	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C809	1-124-584-00	ELECT	100uF	20%	10V
C810	1-125-701-11	DOUBLE LAYERS	0.047F		5.5V
C812	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C813	1-124-584-00	ELECT	100uF	20%	10V
C815	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C816	1-164-160-11	CERAMIC CHIP	20PF	5%	50V
C817	1-162-918-11	CERAMIC CHIP	18PF	5%	50V
C818	1-164-160-11	CERAMIC CHIP	20PF	5%	50V
C820	1-162-920-11	CERAMIC CHIP	27PF	5%	50V
C821	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C822	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C823	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C824	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C825	1-124-584-00	ELECT	100uF	20%	10V
C908	1-126-160-11	ELECT	1uF	20%	50V (US,CND)
C908	1-126-960-11	ELECT	1uF	20%	50V (E)
C909	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C922	1-131-868-81	ELECT	3300uF	20%	16V
		< CONNECTOR >			
CN751	1-817-536-11	CONNECTOR, BOARD TO BOARD 28P			
CNP800	1-794-311-21	PLUG, CONNECTOR 12P			
CNP900	1-764-270-21	JACK (REMOTE IN) (E)			
CNP901	1-774-701-21	PIN, CONNECTOR 16P			
		< DIODE >			
D400	8-719-988-61	DIODE 1SS355TE-17			
D600	8-719-069-55	DIODE UDZS-TE17-5.6B			
D702	1-216-864-11	METAL CHIP	0	5%	1/10W
D801	8-719-988-61	DIODE 1SS355TE-17			
D808	8-719-977-12	DIODE DTZ6.8B			
D810	8-719-988-61	DIODE 1SS355TE-17 (E)			
D811	8-719-109-97	DIODE RD6.8ES-B2			
D812	8-719-109-97	DIODE RD6.8ES-B2			
D813	8-719-109-97	DIODE RD6.8ES-B2			
D814	8-719-109-97	DIODE RD6.8ES-B2			
D815	8-719-109-97	DIODE RD6.8ES-B2			
D816	8-719-109-97	DIODE RD6.8ES-B2			
D817	8-719-109-97	DIODE RD6.8ES-B2			
D820	8-719-991-33	DIODE 1SS133T-77			
D902	8-719-053-18	DIODE 1SR154-400TE-25			
D903	8-719-053-18	DIODE 1SR154-400TE-25			
D904	8-719-200-82	DIODE 11ES2			
D905	8-719-200-82	DIODE 11ES2			
D906	8-719-200-82	DIODE 11ES2			
D907	8-719-200-82	DIODE 11ES2			
D908	8-719-200-82	DIODE 11ES2			
D909	8-719-200-82	DIODE 11ES2			
D912	8-719-083-66	DIODE UDZSTE-1718B			
D914	8-719-977-12	DIODE DTZ6.8B			
D915	8-719-056-84	DIODE UDZSTE-177.5B			
D916	8-719-200-82	DIODE 11ES2			
D917	8-719-200-82	DIODE 11ES2			
D919	8-719-049-38	DIODE 1N5404TU			
D921	8-719-200-82	DIODE 11ES2			
D922	8-719-200-82	DIODE 11ES2			
		< IC >			
IC100	6-705-360-01	IC TDA8588BJ/N2			
IC401	6-705-372-01	IC BD3808FS-FE2			
IC801	6-803-820-01	IC MB90473PF-G166-BNDE1			
IC802	8-759-659-13	IC PST3428UL			
		< JUMPER RESISTOR >			
JR5	1-216-864-11	METAL CHIP	0	5%	1/10W
JR6	1-216-864-11	METAL CHIP	0	5%	1/10W
JR10	1-216-864-11	METAL CHIP	0	5%	1/10W
JR11	1-216-864-11	METAL CHIP	0	5%	1/10W
JR103	1-216-864-11	METAL CHIP	0	5%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
		< COIL >			
L400	1-414-398-11	INDUCTOR	10uH		
L602	1-414-394-41	INDUCTOR	2.2uH		
L700	1-410-501-11	INDUCTOR	2.2uH		
L701	1-410-501-11	INDUCTOR	2.2uH		
L702	1-410-509-11	INDUCTOR	10uH		
L900	1-456-617-11	COIL, CHOKE	250uH		
		< JACK >			
PJ401	1-774-698-11	JACK, PIN 2P (AUDIO OUT REAR)			
PJ601	1-793-598-11	JACK (ANTENNA)			
		< TRANSISTOR >			
Q400	8-729-038-71	TRANSISTOR	KRC107S		
Q401	8-729-038-55	TRANSISTOR	KRA103S		
Q402	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q403	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q404	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q405	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q406	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q407	6-550-752-01	TRANSISTOR	DTC614TKT146		
Q601	8-729-920-85	TRANSISTOR	2SD1664-QR		
Q800	8-729-038-55	TRANSISTOR	KRA103S		
Q900	8-729-034-51	TRANSISTOR	KTC3875		
Q902	8-729-038-67	TRANSISTOR	KRC102S		
Q906	8-729-034-51	TRANSISTOR	KTC3875		
Q907	8-729-038-67	TRANSISTOR	KRC102S		
		< RESISTOR >			
R404	1-216-809-11	METAL CHIP	100	5%	1/10W
R405	1-216-809-11	METAL CHIP	100	5%	1/10W
R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R409	1-216-839-11	METAL CHIP	33K	5%	1/10W
R411	1-216-809-11	METAL CHIP	100	5%	1/10W
R412	1-216-809-11	METAL CHIP	100	5%	1/10W
R414	1-216-809-11	METAL CHIP	100	5%	1/10W
R415	1-216-809-11	METAL CHIP	100	5%	1/10W
R416	1-216-809-11	METAL CHIP	100	5%	1/10W
R417	1-216-809-11	METAL CHIP	100	5%	1/10W
R418	1-216-841-11	METAL CHIP	47K	5%	1/10W
R419	1-216-841-11	METAL CHIP	47K	5%	1/10W
R420	1-216-841-11	METAL CHIP	47K	5%	1/10W
R421	1-216-841-11	METAL CHIP	47K	5%	1/10W
R424	1-216-805-11	METAL CHIP	47	5%	1/10W
R427	1-216-809-11	METAL CHIP	100	5%	1/10W
R429	1-247-807-31	CARBON	100	5%	1/4W
R431	1-247-807-31	CARBON	100	5%	1/4W
R432	1-216-809-11	METAL CHIP	100	5%	1/10W
R435	1-216-809-11	METAL CHIP	100	5%	1/10W
R436	1-216-809-11	METAL CHIP	100	5%	1/10W
R437	1-216-821-11	METAL CHIP	1K	5%	1/10W
R440	1-216-809-11	METAL CHIP	100	5%	1/10W
R441	1-216-809-11	METAL CHIP	100	5%	1/10W
R442	1-216-841-11	METAL CHIP	47K	5%	1/10W
R443	1-216-841-11	METAL CHIP	47K	5%	1/10W
R447	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description			Remark
R448	1-216-841-11	METAL CHIP	47K	5%	1/10W
R603	1-247-807-31	CARBON	100	5%	1/4W
R604	1-247-807-31	CARBON	100	5%	1/4W
R606	1-216-809-11	METAL CHIP	100	5%	1/10W
R607	1-216-809-11	METAL CHIP	100	5%	1/10W
R608	1-216-809-11	METAL CHIP	100	5%	1/10W
R615	1-216-821-11	METAL CHIP	1K	5%	1/10W
R703	1-216-864-11	METAL CHIP	0	5%	1/10W
R705	1-216-809-11	METAL CHIP	100	5%	1/10W
R707	1-216-809-11	METAL CHIP	100	5%	1/10W
R709	1-216-864-11	METAL CHIP	0	5%	1/10W
R722	1-216-809-11	METAL CHIP	100	5%	1/10W
R800	1-216-841-11	METAL CHIP	47K	5%	1/10W (E)
R801	1-216-809-11	METAL CHIP	100	5%	1/10W
R802	1-216-864-11	METAL CHIP	0	5%	1/10W
R804	1-216-809-11	METAL CHIP	100	5%	1/10W
R805	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R806	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R808	1-216-845-11	METAL CHIP	100K	5%	1/10W (E)
R808	1-216-864-11	METAL CHIP	0	5%	1/10W (US,CND)
R809	1-216-845-11	METAL CHIP	100K	5%	1/10W (E)
R810	1-216-845-11	METAL CHIP	100K	5%	1/10W
R811	1-216-845-11	METAL CHIP	100K	5%	1/10W
R813	1-249-441-11	CARBON	100K	5%	1/4W
R814	1-216-845-11	METAL CHIP	100K	5%	1/10W
R815	1-249-435-11	CARBON	33K	5%	1/4W
R818	1-216-809-11	METAL CHIP	100	5%	1/10W
R819	1-216-809-11	METAL CHIP	100	5%	1/10W
R821	1-216-817-11	METAL CHIP	470	5%	1/10W
R822	1-216-817-11	METAL CHIP	470	5%	1/10W
R823	1-216-817-11	METAL CHIP	470	5%	1/10W
R824	1-216-849-11	METAL CHIP	220K	5%	1/10W
R825	1-216-849-11	METAL CHIP	220K	5%	1/10W
R826	1-216-843-11	METAL CHIP	68K	5%	1/10W
R828	1-216-809-11	METAL CHIP	100	5%	1/10W
R830	1-216-809-11	METAL CHIP	100	5%	1/10W
R832	1-216-867-11	METAL CHIP	6.8K	5%	1/10W
R833	1-249-417-11	CARBON	1K	5%	1/4W
R834	1-216-867-11	METAL CHIP	6.8K	5%	1/10W
R835	1-216-845-11	METAL CHIP	100K	5%	1/10W
R837	1-216-864-11	METAL CHIP	0	5%	1/10W
R838	1-216-845-11	METAL CHIP	100K	5%	1/10W
R839	1-216-809-11	METAL CHIP	100	5%	1/10W
R840	1-216-809-11	METAL CHIP	100	5%	1/10W
R841	1-216-809-11	METAL CHIP	100	5%	1/10W
R843	1-216-809-11	METAL CHIP	100	5%	1/10W
R844	1-216-845-11	METAL CHIP	100K	5%	1/10W
R846	1-216-845-11	METAL CHIP	100K	5%	1/10W
R847	1-216-845-11	METAL CHIP	100K	5%	1/10W
R848	1-216-845-11	METAL CHIP	100K	5%	1/10W
R849	1-216-841-11	METAL CHIP	47K	5%	1/10W
R850	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R851	1-216-809-11	METAL CHIP	100	5%	1/10W
R852	1-216-864-11	METAL CHIP	0	5%	1/10W
R853	1-216-864-11	METAL CHIP	0	5%	1/10W

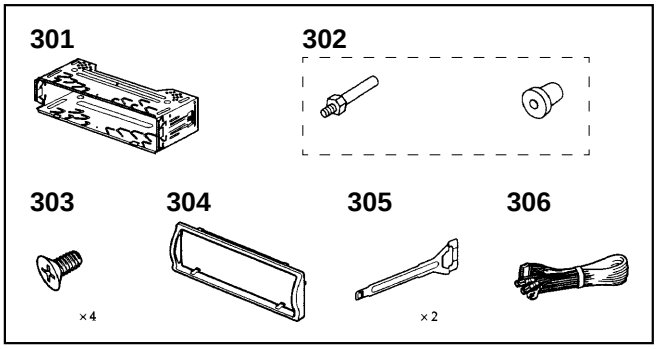
Ref. No.	Part No.	Description			Remark
R854	1-216-864-11	METAL CHIP	0	5%	1/10W
R860	1-216-845-11	METAL CHIP	100K	5%	1/10W
R861	1-216-809-11	METAL CHIP	100	5%	1/10W (E)
R862	1-216-809-11	METAL CHIP	100	5%	1/10W (E)
R864	1-249-441-11	CARBON	100K	5%	1/4W
R865	1-249-441-11	CARBON	100K	5%	1/4W
R873	1-216-845-11	METAL CHIP	100K	5%	1/10W
R901	1-216-845-11	METAL CHIP	100K	5%	1/10W
R902	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R903	1-216-841-11	METAL CHIP	47K	5%	1/10W
R904	1-216-841-11	METAL CHIP	47K	5%	1/10W
R912	1-249-417-11	CARBON	1K	5%	1/4W
R913	1-216-821-11	METAL CHIP	1K	5%	1/10W
R914	1-469-144-21	FERRITE, EMI (SMD) (E)			
R915	1-469-144-21	FERRITE, EMI (SMD) (E)			
R917	1-249-421-11	CARBON	2.2K	5%	1/4W
R925	1-216-845-11	METAL CHIP	100K	5%	1/10W
R927	1-216-833-11	METAL CHIP	10K	5%	1/10W
R928	1-249-421-11	CARBON	2.2K	5%	1/4W
R931	1-216-073-00	RES-CHIP	10K	5%	1/10W
R932	1-216-073-00	RES-CHIP	10K	5%	1/10W
R936	1-216-864-11	METAL CHIP	0	5%	1/10W
		< SWITCH >			
S800	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT) (E)			
S802	1-762-638-21	SWITCH, TACTILE (RESET)			
		< TUNER >			
TUX601	A-3220-959-A	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X800	1-767-993-21	VIBRATOR, CRYSTAL (3.68MHz)			
X801	1-813-202-11	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
		SENSOR BOARD			
		**********			
		< SWITCH >			
SW2	1-529-566-61	SWITCH, PUSH (1 KEY) (SELF)			
SW3	1-529-566-61	SWITCH, PUSH (1 KEY) (DISC IN)			
**********					
	A-3283-350-A	SERVO BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C1	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C2	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C3	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C5	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C6	1-100-381-11	ELECT CHIP	10uF	20%	16V
C7	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C8	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C11	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C13	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C17	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V

Ref. No.	Part No.	Description			Remark
C18	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C19	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C20	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C21	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C23	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C25	1-162-908-11	CERAMIC CHIP	3PF	0.25PF	50V
C26	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C27	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C28	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C29	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C30	1-162-921-11	CERAMIC CHIP	33PF	5%	50V
C31	1-162-925-11	CERAMIC CHIP	68PF	5%	50V
C32	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C34	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C35	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C36	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C37	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C38	1-104-609-11	ELECT CHIP	100uF	20%	4V
C39	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C70	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C71	1-162-965-11	CERAMIC CHIP	0.0015uF	10%	50V
C72	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C73	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C74	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C75	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C76	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C77	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C78	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C79	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
		< CONNECTOR >			
CN1	1-817-275-21	CONNECTOR, BOARD TO BOARD 28P			
CN2	1-794-153-21	CONNECTOR, FPC (ZIF) 16P			
		< FERRITE BEAD >			
FB1	1-414-760-21	FERRITE, EMI (SMD)			
		< IC >			
IC1	6-703-699-01	IC uPD63712GC-8EU-A			
IC2	6-705-002-01	IC BA5966FP-FE2			
		< FERRITE BEAD >			
JR40	1-414-760-21	FERRITE, EMI (SMD)			
JR41	1-414-760-21	FERRITE, EMI (SMD)			
JR90	1-414-760-21	FERRITE, EMI (SMD)			
JR91	1-414-760-21	FERRITE, EMI (SMD)			
		< TRANSISTOR >			
Q1	8-729-904-87	TRANSISTOR 2SB1197K-R			
		< RESISTOR >			
R1	1-216-841-11	METAL CHIP	47K	5%	1/10W
R6	1-216-833-11	METAL CHIP	10K	5%	1/10W
R7	1-216-840-11	METAL CHIP	39K	5%	1/10W
R9	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R11	1-216-833-11	METAL CHIP	10K	5%	1/10W
R12	1-216-809-11	METAL CHIP	100	5%	1/10W

SERVO

Ref. No.	Part No.	Description			Remark
R13	1-216-833-11	METAL CHIP	10K	5%	1/10W
R14	1-216-797-11	METAL CHIP	10	5%	1/10W
R15	1-216-797-11	METAL CHIP	10	5%	1/10W
R41	1-216-821-11	METAL CHIP	1K	5%	1/10W
R42	1-216-821-11	METAL CHIP	1K	5%	1/10W
R44	1-414-760-21	FERRITE, EMI (SMD)			
R45	1-414-760-21	FERRITE, EMI (SMD)			
R70	1-216-842-11	METAL CHIP	56K	5%	1/10W
R71	1-216-833-11	METAL CHIP	10K	5%	1/10W
R72	1-216-842-11	METAL CHIP	56K	5%	1/10W
R73	1-216-833-11	METAL CHIP	10K	5%	1/10W
R74	1-216-837-11	METAL CHIP	22K	5%	1/10W
R75	1-216-833-11	METAL CHIP	10K	5%	1/10W
R76	1-216-837-11	METAL CHIP	22K	5%	1/10W
R77	1-216-833-11	METAL CHIP	10K	5%	1/10W
R78	1-216-833-11	METAL CHIP	10K	5%	1/10W
R79	1-216-833-11	METAL CHIP	10K	5%	1/10W
R80	1-216-833-11	METAL CHIP	10K	5%	1/10W
R81	1-216-833-11	METAL CHIP	10K	5%	1/10W
R82	1-216-837-11	METAL CHIP	22K	5%	1/10W
R83	1-216-833-11	METAL CHIP	10K	5%	1/10W
R84	1-216-837-11	METAL CHIP	22K	5%	1/10W
R85	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< SWITCH >			
SW1	1-529-565-61	SWITCH, PUSH (1 KEY) (DOWN)			
		< VIBRATOR >			
X1	1-795-562-21	VIBRATOR, CERAMIC (16.9344MHz)			
**********					
		MISCELLANEOUS			
		**********			
6	1-776-206-21	CORD (WITH CONNECTOR) (POWER)			
⚠153	8-820-207-02	OPTICAL PICK-UP KSS1000E/K1RP			
154	A-3337-640-A	CHASSIS (OP) SUB ASSY (including M901)			
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A			
M902	A-3337-638-A	MOTOR ASSY, SL (SLED)			
M903	A-3372-454-A	MOTOR ASSY, LE (LOADING)			
SW4	1-571-099-11	SWITCH (1 KEY) (LIMIT)			
**********					

Ref. No.	Part No.	Description	Remark
		ACCESSORIES	
		**********	
	3-261-844-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH) (R3000:US,CND)	
	3-261-844-21	MANUAL, INSTRUCTION (ENGLISH,SPANISH, TRADITIONAL CHINESE) (R3000:E)	
	3-261-844-31	MANUAL, INSTRUCTION (ENGLISH,SPANISH) (RW300)	
	3-261-846-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH) (R3000:US,CND)	
	3-261-846-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH,TRADITIONAL CHINESE) (R3000:E)	
	3-261-846-31	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH) (RW300)	
	X-3378-390-3	CASE ASSY (for FRONT PANEL)	
**********			
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
301	X-3382-647-1	FRAME ASSY, FITTING	
302	X-3366-405-1	SCREW ASSY (EXP), FITTING (E)	
303	3-934-325-01	SCREW (+K 5X8 TP)	
304	3-260-282-01	COLLAR	
305	3-246-471-01	KEY (FRAME)	
306	1-776-206-21	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 piéce portant le numéro spécifié.

CDX-R3000/RW300

SONY

SERVICE MANUAL

Ver. 1.1 2005.07

US Model
CDX-R3000/RW300
Canadian Model
E Model
CDX-R3000

SUPPLEMENT-1

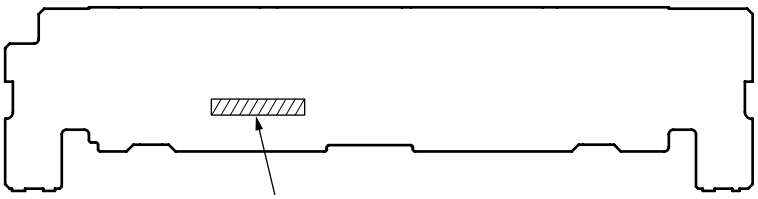
File this supplement with the service manual.

Subject : Change of display board.

When performing service and inspection, check the suffix of the part number of the display board.

DISCRIMINATION

– DISPLAY BOARD (SIDE B) –



DISPLAY BOARD Part No.
Former : 1-861-024-11
New : 1-861-024-13

9-961-386-81

• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

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

For schematic diagrams.

Note:

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

Note:	**Note:**
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 piéce portant le numéro spécifié.

- ▬ : B+ Line.
- ▬ ▬ ▬ : B– Line.
- ▭ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- CD mechanism section
  no mark : CD PLAY
- Main (1/2), (2/2) and Display sections
  no mark : FM
  ( ) : AM
  < > : CD PLAY
  * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY
  ⇨ : FM
  ➡ : AM
- Abbreviation
  CND : Canadian model.

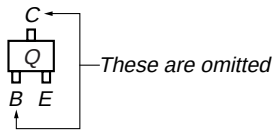
For printed wiring boards.

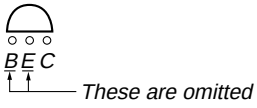
Note:

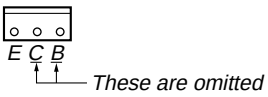
- o——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

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



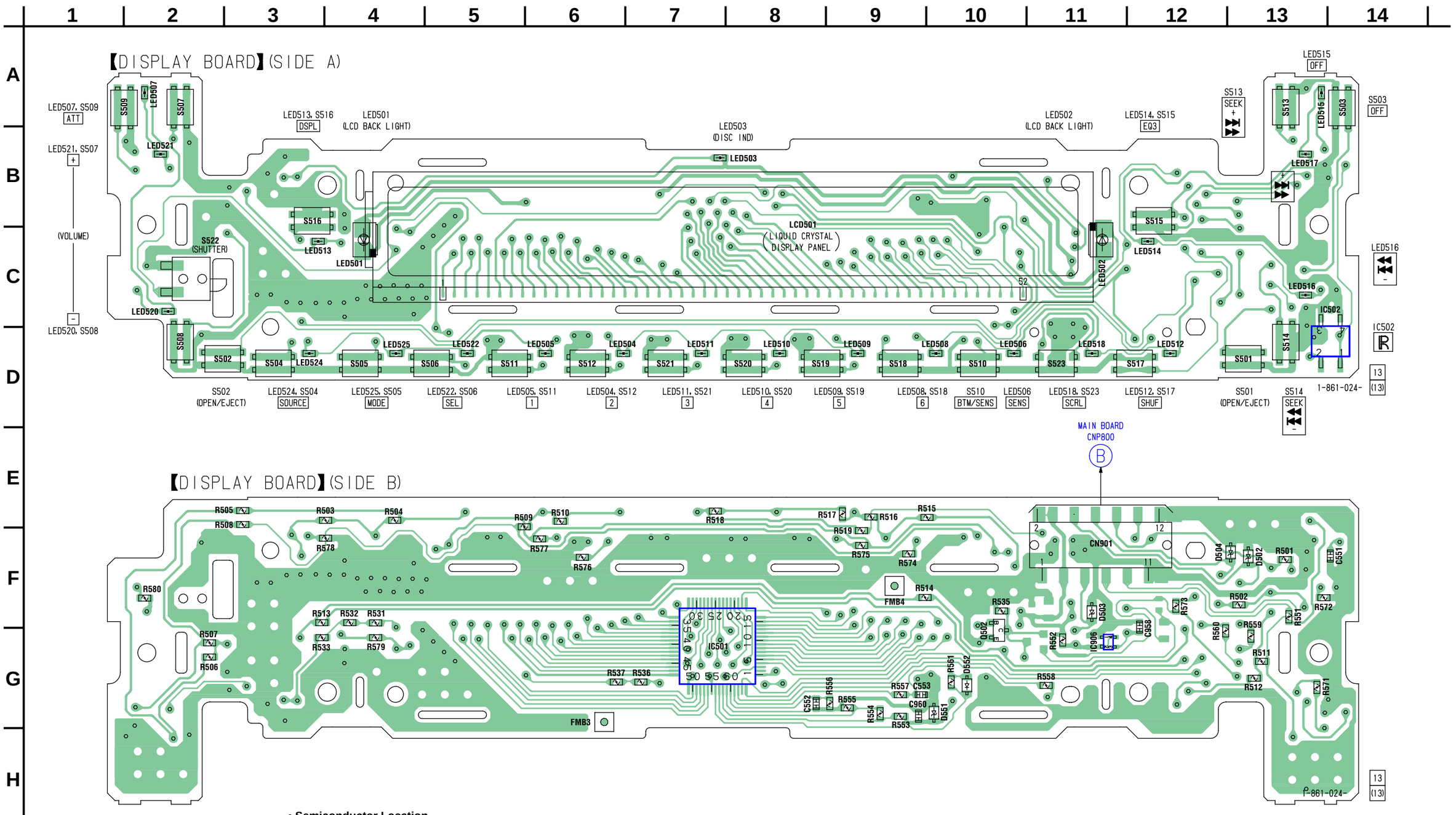




- Abbreviation
  CND : Canadian model.

1. PRINTED WIRING BOARD — DISPLAY SECTION —

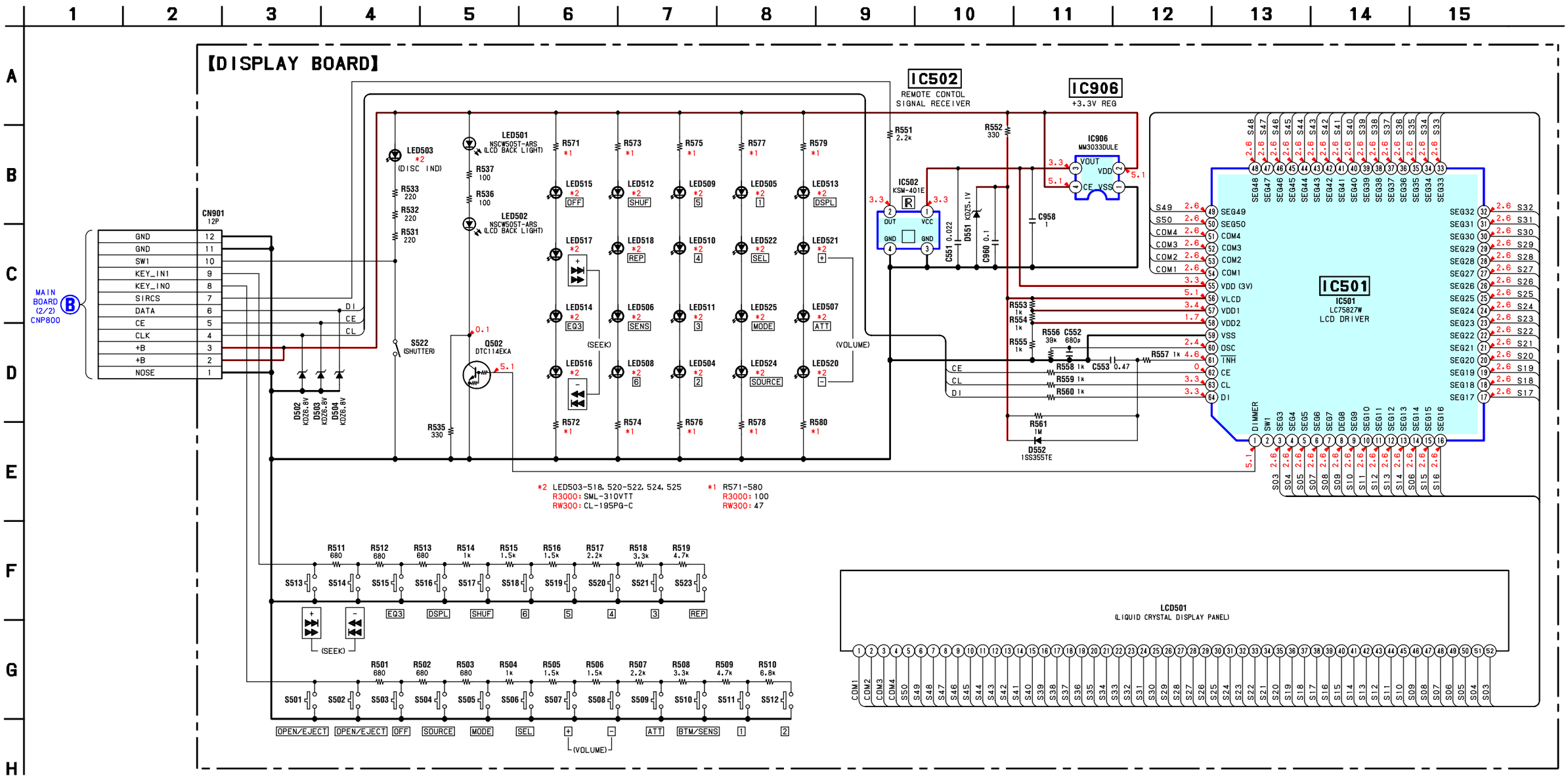
: Uses unleaded solder.



• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D502	F-13	LED503	B-8	LED515	A-13
D503	F-11	LED504	D-6	LED516	C-13
D504	F-13	LED505	D-6	LED517	B-13
D551	G-10	LED506	D-10	LED518	D-11
D552	G-10	LED507	A-2	LED520	C-2
		LED508	D-10	LED521	B-2
IC501	G-7	LED509	D-9	LED522	D-5
IC502	C-14	LED510	D-8	LED524	D-3
IC906	G-11	LED511	D-7	LED525	D-4
		LED512	D-12		
LED501	C-4	LED513	C-3	Q502	G-10
LED502	C-11	LED514	C-12		

2. SCHEMATIC DIAGRAM — DISPLAY SECTION —



3. ELECTRICAL PARTS LIST

NOTE:

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

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

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

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

Ref. No.	Part No.	Description			Remark
		DISPLAY BOARD			
		**********			
	1-780-120-11	CONDUCTIVE BOARD, CONNECTION			
	3-258-884-01	SHEET (ILLUMINATOR)			
		< CAPACITOR >			
C551	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C552	1-162-963-11	CERAMIC CHIP	680PF	10%	50V
C553	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
C958	1-125-837-11	CERAMIC CHIP	1uF	10%	6.3V
C960	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
		< CONNECTOR >			
CN901	1-794-312-21	PIN, CONNECTOR 12P			
		< DIODE >			
D502	8-719-977-12	DIODE DTZ6.8B			
D503	8-719-977-12	DIODE DTZ6.8B			
D504	8-719-977-12	DIODE DTZ6.8B			
D551	8-719-080-28	DIODE KDZ5.1V			
D552	8-719-988-61	DIODE 1SS355TE-17			
		< IC >			
IC501	6-705-180-01	IC LC75827W			
IC502	6-600-384-01	IC KSM-401E (IR)			
IC906	6-705-374-01	IC MM3033DULE			
		< LIQUID CRYSTAL DISPLAY >			
LCD501	1-805-450-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< LED >			
LED501	6-500-459-01	LED NSCW505T-ARS (LCD BACK LIGHT)			
LED502	6-500-459-01	LED NSCW505T-ARS (LCD BACK LIGHT)			
LED503	6-500-510-01	LED CL-195PG-CD-T (DISC IND) (RW300)			
LED503	8-719-053-09	LED SML-310VTT86 (DISC IND) (R3000)			
LED504	6-500-510-01	LED CL-195PG-CD-T (2) (RW300)			
LED504	8-719-053-09	LED SML-310VTT86 (2) (R3000)			
LED505	6-500-510-01	LED CL-195PG-CD-T (1) (RW300)			
LED505	8-719-053-09	LED SML-310VTT86 (1) (R3000)			
LED506	6-500-510-01	LED CL-195PG-CD-T (SENS) (RW300)			
LED506	8-719-053-09	LED SML-310VTT86 (SENS) (R3000)			
LED507	6-500-510-01	LED CL-195PG-CD-T (ATT) (RW300)			
LED507	8-719-053-09	LED SML-310VTT86 (ATT) (R3000)			
LED508	6-500-510-01	LED CL-195PG-CD-T (8) (RW300)			
LED508	8-719-053-09	LED SML-310VTT86 (8) (R3000)			
LED509	6-500-510-01	LED CL-195PG-CD-T (5) (RW300)			
LED509	8-719-053-09	LED SML-310VTT86 (5) (R3000)			
LED510	6-500-510-01	LED CL-195PG-CD-T (4) (RW300)			
LED510	8-719-053-09	LED SML-310VTT86 (4) (R3000)			
LED511	6-500-510-01	LED CL-195PG-CD-T (3) (RW300)			
LED511	8-719-053-09	LED SML-310VTT86 (3) (R3000)			
LED512	6-500-510-01	LED CL-195PG-CD-T (SHUF) (RW300)			
LED512	8-719-053-09	LED SML-310VTT86 (SHUF) (R3000)			
LED513	6-500-510-01	LED CL-195PG-CD-T (DSPL) (RW300)			
LED513	8-719-053-09	LED SML-310VTT86 (DSPL) (R3000)			
LED514	6-500-510-01	LED CL-195PG-CD-T (EQ3) (RW300)			
LED514	8-719-053-09	LED SML-310VTT86 (EQ3) (R3000)			
LED515	6-500-510-01	LED CL-195PG-CD-T (OFF) (RW300)			
LED515	8-719-053-09	LED SML-310VTT86 (OFF) (R3000)			
LED516	6-500-510-01	LED CL-195PG-CD-T (SEEK – ◀◀ I◀◀) (RW300)			
LED516	8-719-053-09	LED SML-310VTT86 (SEEK – ◀◀ I◀◀) (R3000)			
LED517	6-500-510-01	LED CL-195PG-CD-T (SEEK + ▶▶I ▶▶) (RW300)			
LED517	8-719-053-09	LED SML-310VTT86 (SEEK + ▶▶I ▶▶) (R3000)			
LED518	6-500-510-01	LED CL-195PG-CD-T (REP) (RW300)			
LED518	8-719-053-09	LED SML-310VTT86 (REP) (R3000)			
LED520	6-500-510-01	LED CL-195PG-CD-T (VOLUME –) (RW300)			
LED520	8-719-053-09	LED SML-310VTT86 (VOLUME –) (R3000)			
LED521	6-500-510-01	LED CL-195PG-CD-T (VOLUME +) (RW300)			
LED521	8-719-053-09	LED SML-310VTT86 (VOLUME +) (R3000)			
LED522	6-500-510-01	LED CL-195PG-CD-T (SEL) (RW300)			
LED522	8-719-053-09	LED SML-310VTT86 (SEL) (R3000)			
LED524	6-500-510-01	LED CL-195PG-CD-T (SOURCE) (RW300)			
LED524	8-719-053-09	LED SML-310VTT86 (SOURCE) (R3000)			
LED525	6-500-510-01	LED CL-195PG-CD-T (MODE) (RW300)			
LED525	8-719-053-09	LED SML-310VTT86 (MODE) (R3000)			
		< TRANSISTOR >			
Q502	8-729-038-67	TRANSISTOR KRC102S			
		< RESISTOR >			
R501	1-216-819-11	METAL CHIP	680	5%	1/10W
R502	1-216-819-11	METAL CHIP	680	5%	1/10W
R503	1-216-819-11	METAL CHIP	680	5%	1/10W
R504	1-216-821-11	METAL CHIP	1K	5%	1/10W
R505	1-216-823-11	METAL CHIP	1.5K	5%	1/10W

DISPLAY

Ref. No.	Part No.	Description			Remark
R506	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R507	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R508	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R509	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R510	1-218-867-11	METAL CHIP	6.8K	0.5%	1/10W
R511	1-216-819-11	METAL CHIP	680	5%	1/10W
R512	1-216-819-11	METAL CHIP	680	5%	1/10W
R513	1-216-819-11	METAL CHIP	680	5%	1/10W
R514	1-216-821-11	METAL CHIP	1K	5%	1/10W
R515	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R516	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R517	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R518	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R519	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R531	1-216-813-11	METAL CHIP	220	5%	1/10W
R532	1-216-813-11	METAL CHIP	220	5%	1/10W
R533	1-216-813-11	METAL CHIP	220	5%	1/10W
R535	1-216-815-11	METAL CHIP	330	5%	1/10W
R536	1-216-809-11	METAL CHIP	100	5%	1/10W
R537	1-216-809-11	METAL CHIP	100	5%	1/10W
R551	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R552	1-216-815-11	METAL CHIP	330	5%	1/10W
R553	1-216-821-11	METAL CHIP	1K	5%	1/10W
R554	1-216-821-11	METAL CHIP	1K	5%	1/10W
R555	1-216-821-11	METAL CHIP	1K	5%	1/10W
R556	1-216-840-11	METAL CHIP	39K	5%	1/10W
R557	1-216-821-11	METAL CHIP	1K	5%	1/10W
R558	1-216-821-11	METAL CHIP	1K	5%	1/10W
R559	1-216-821-11	METAL CHIP	1K	5%	1/10W
R560	1-216-821-11	METAL CHIP	1K	5%	1/10W
R561	1-216-857-11	METAL CHIP	1M	5%	1/10W
R571	1-216-805-11	METAL CHIP	47	5%	1/10W (RW300)
R571	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R572	1-216-805-11	METAL CHIP	47	5%	1/10W (RW300)
R572	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R573	1-216-805-11	METAL CHIP	47	5%	1/10W (RW300)
R573	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R574	1-216-805-11	METAL CHIP	47	5%	1/10W (RW300)
R574	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R575	1-216-805-11	METAL CHIP	47	5%	1/10W (RW300)
R575	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R576	1-216-805-11	METAL CHIP	47	5%	1/10W (RW300)
R576	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R577	1-216-805-11	METAL CHIP	47	5%	1/10W (RW300)
R577	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R578	1-216-805-11	METAL CHIP	47	5%	1/10W (RW300)
R578	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R579	1-216-805-11	METAL CHIP	47	5%	1/10W (RW300)
R579	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)
R580	1-216-805-11	METAL CHIP	47	5%	1/10W (RW300)
R580	1-216-809-11	METAL CHIP	100	5%	1/10W (R3000)

< SWITCH >

Ref. No.	Part No.	Description
S501	1-786-763-11	SWITCH, TACTILE (OPEN/EJECT)
S502	1-786-763-11	SWITCH, TACTILE (OPEN/EJECT)
S503	1-786-763-11	SWITCH, TACTILE (OFF)
S504	1-786-763-11	SWITCH, TACTILE (SOURCE)
S505	1-786-763-11	SWITCH, TACTILE (MODE)
S506	1-786-763-11	SWITCH, TACTILE (SEL)
S507	1-786-763-11	SWITCH, TACTILE (VOLUME +)
S508	1-786-763-11	SWITCH, TACTILE (VOLUME –)
S509	1-786-763-11	SWITCH, TACTILE (ATT)
S510	1-786-763-11	SWITCH, TACTILE (BTM/SENS)
S511	1-786-763-11	SWITCH, TACTILE (1)
S512	1-786-763-11	SWITCH, TACTILE (2)
S513	1-786-763-11	SWITCH, TACTILE (SEEK + ▶▶I ▶▶)
S514	1-786-763-11	SWITCH, TACTILE (SEEK – ◀◀ I◀◀)
S515	1-786-763-11	SWITCH, TACTILE (EQ3)
S516	1-786-763-11	SWITCH, TACTILE (DSPL)
S517	1-786-763-11	SWITCH, TACTILE (SHUF)
S518	1-786-763-11	SWITCH, TACTILE (6)
S519	1-786-763-11	SWITCH, TACTILE (5)
S520	1-786-763-11	SWITCH, TACTILE (4)
S521	1-786-763-11	SWITCH, TACTILE (3)
S522	1-529-566-61	SWITCH, PUSH (1 KEY) (SHUTTER)
S523	1-786-763-11	SWITCH, TACTILE (REP)

MEMO

REVISION HISTORY

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

Ver.	Date	Description of Revision
1.0	2003.11	New
1.1	2005.07	Change of display board. (Suffix -11 to -13) (SPM-05009)