

CDX-M50IP/MR50IP

SERVICE MANUAL

Ver. 1.0 2007. 08

US Model
CDX-M50IP
AEP Model
UK Model
CDX-MR50IP



Photo: CDX-M50IP

- The tuner and CD sections have no adjustments.

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.

Model Name Using Similar Mechanism	NEW
CD Drive Mechanism Type	MG-101FC-188/Q
Optical Pick-up Name	DAX-25A

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 CDX-M50IP:
87.5 – 108.0 MHz (at 50 kHz step)
87.5 – 107.9 MHz (at 200 kHz step)
CDX-MR50IP:
87.5 – 108.0 MHz
FM tuning interval CDX-M50IP:
50 kHz/200 kHz switchable
Antenna (aerial) terminal External antenna (aerial) 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 (CDX-M50IP)

Tuning range 531 – 1,602 kHz (at 9 kHz step)
530 – 1,710 kHz (at 10 kHz step)
AM tuning interval 9 kHz/10 kHz switchable
Antenna (aerial) terminal External antenna (aerial) connector
Intermediate frequency 10.7 MHz/450 kHz
Sensitivity 30 μ V

– Continued on next page –

FM/AM COMPACT DISC PLAYER
CDX-M50IP

FM/MW/LW COMPACT DISC PLAYER
CDX-MR50IP

CDX-M50IP/MR50IP

MW/LW (CDX-MR50IP)

Tuning range MW: 531 – 1,602 kHz
LW: 153 – 279 kHz

Antenna (aerial) terminal External antenna (aerial) connector

Intermediate frequency 10.7 MHz/450 kHz

Sensitivity MW: 30 μ V, LW: 40 μ V

Power amplifier section

Outputs Speaker outputs (sure seal connectors)

Speaker impedance 4 – 8 ohms

Maximum power output 52 W \times 4 (at 4 ohms)

General

Outputs Audio outputs terminal (front, rear/sub switchable)
Power antenna (aerial) relay control terminal

Power amplifier control terminal
Inputs Telephone ATT control terminal

Illumination control terminal

BUS control input terminal

BUS audio input terminal

Remote controller input terminal

Antenna (aerial) input terminal

AUX input jack (stereo mini jack)

iPod signal input terminal (dock connector)

Tone controls Low: ± 10 dB at 60 Hz (XPLOD)

Mid: ± 10 dB at 1 kHz (XPLOD)

High: ± 10 dB at 10 kHz (XPLOD)

Power requirements 12 V DC boat battery (negative ground (earth))

Dimensions Approx. 178 \times 50 \times 180 mm

(7 1/8 \times 2 \times 7 1/8 in.) (w/h/d)

Mounting dimensions Approx. 182 \times 53 \times 162 mm

(7 1/4 \times 2 1/8 \times 6 1/2 in.) (w/h/d)

Mass Approx. 1.4 kg (3 lb. 2 oz.)

Supplied accessories Card remote commander: RM-X151

AUX cap

Parts for installation and connections (1 set)

MPEG Layer-3 audio coding technology and patents licensed from Fraunhofer IIS and Thomson.

Design and specifications are subject to change without notice.

iPod is a trademark of Apple Inc., registered in the U.S. and other countries.

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

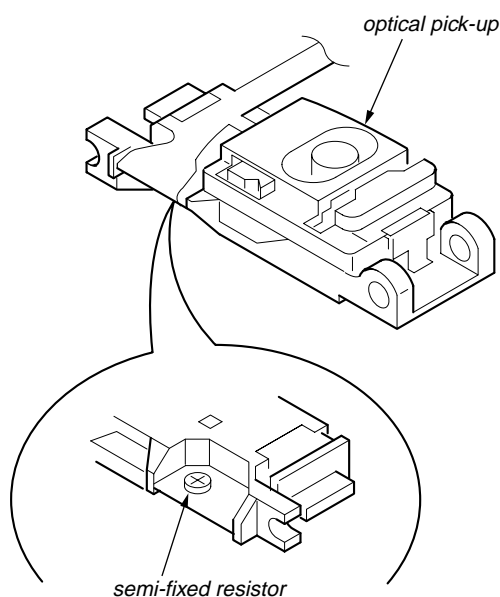
The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

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.



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.

This compact disc player is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT label is located on the exterior.

- CDX-MR50IP



This label is located on the bottom of the chassis.

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

Please use the following test discs for the check on the CD section.

- YDES-18 (Part No. 3-702-101-01)
- PATD-012 (Part No. 4-225-203-01)

• **CD playback**

You can play CD-DA (also containing CD TEXT) and CD-R/CD-RW (MP3/WMA/AAC files).

Type of discs	Label on the disc
CD-DA	<p>Two logos for Compact Disc Digital Audio. The left one is labeled "Recordable" and the right one is labeled "ReWritable".</p>
MP3 WMA AAC	<p>Two logos for Compact Disc Digital Audio. The left one is labeled "Recordable" and the right one is labeled "ReWritable".</p>

● **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.)

LF : 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.

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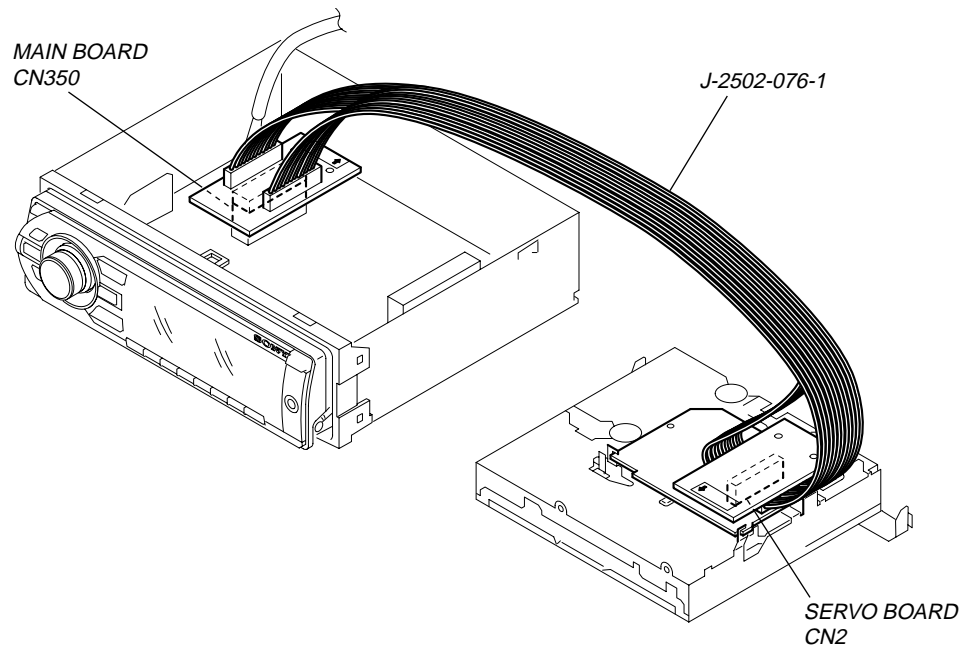
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SECTION 1 SERVICE NOTE

EXTENSION CABLE AND SERVICE POSITION

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

- Connect the MAIN board (CN350) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).



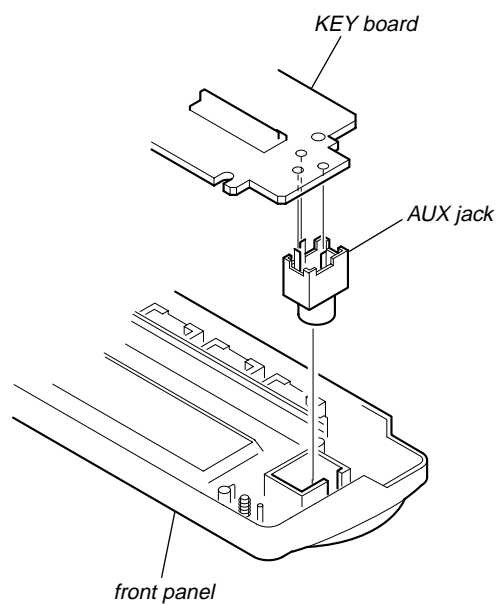
NOTE FOR REPLACEMENT OF THE SERVO BOARD

When repairing, the complete SERVO board (A-1177-362-A) should be replaced since any parts in the SERVO board cannot be repaired.

NOTE FOR REPLACEMENT OF THE AUX JACK (J901)

To replace the AUX jack requires alignment.

1. Insert the AUX jack into the KEY board.
2. Place the KEY board on the front panel.
3. Solder the three terminals of the jack.

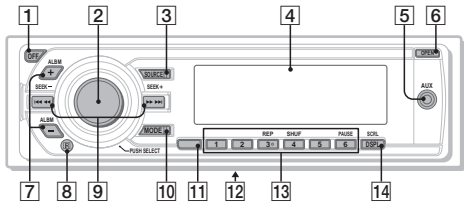


This section is extracted from instruction manual.

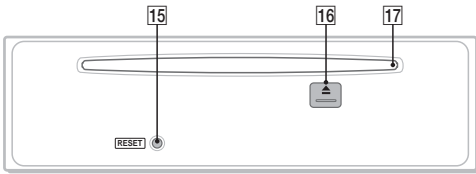
• Location of controls and basic operations

Location of controls and basic operations

Main unit



Front panel removed



This section contains instructions on the location of controls and basic operations. For details, see the respective pages.

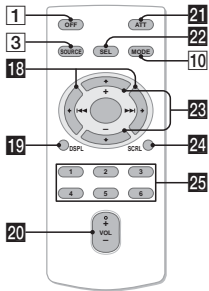
For iPod operation, see "iPod (CDX-M50IP/MR50IP)" on page 14, or for optional device (CD/MD changer, etc.) operation, see "Using optional equipment" on page 17.

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

- 1 OFF button**
To power off; stop the source.
- 2 Volume control dial/select button**
page 15
To adjust volume (rotate); select setup items (press and rotate).
- 3 SOURCE button**
To power on; change the source (Radio/CD/AUX/PD*)^{1,2}.
- 4 Display window**
- 5 AUX input jack** page 17
To connect a portable audio device.
- 6 OPEN button** page 7
- 7 ALBM +/- buttons** (during MP3/WMA/AAC playback)
To skip albums (press); skip albums continuously (press and hold).
- 8 Receptor for the card remote commander**
- 9 SEEK +/- buttons**
CD/PD*¹:
To skip tracks (press); skip tracks continuously (press, then press again within about 1 second and hold); reverse/fast-forward a track (press and hold).
Radio:
To tune in stations automatically (press); find a station manually (press and hold).
- 10 MODE button** page 11
To select the radio band²; select the play mode of iPod*¹.
- 11 BTM/CAT button (CDX-M50IP/M30)** page 11
To start the BTM function (press and hold).
AF (Alternative Frequencies)/TA (Traffic Announcement)/PTY (Program Type) button (CDX-MR50IP) page 12
To set AF and TA (press); select PTY (press and hold) in RDS.
- 12 Frequency select switch (CDX-M50IP/M30 only)**
(located on the bottom of the unit)
See "Frequency select switch" in the supplied installation/connections manual.
- 13 Number buttons**
CD/PD*¹:
③: REP page 11
④: SHUF page 11
⑥: PAUSE
To pause playback of a CD on this unit.
To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).
- 14 DSPL (display)/SCRL (scroll) button** page 11
To change display items (press); scroll the display item (press and hold).
- 15 RESET button** page 6
- 16 (eject) button** page 7
To eject the disc.
- 17 Disc slot** page 7
To insert the disc.

continue to next page →

Card remote commander
RM-X151

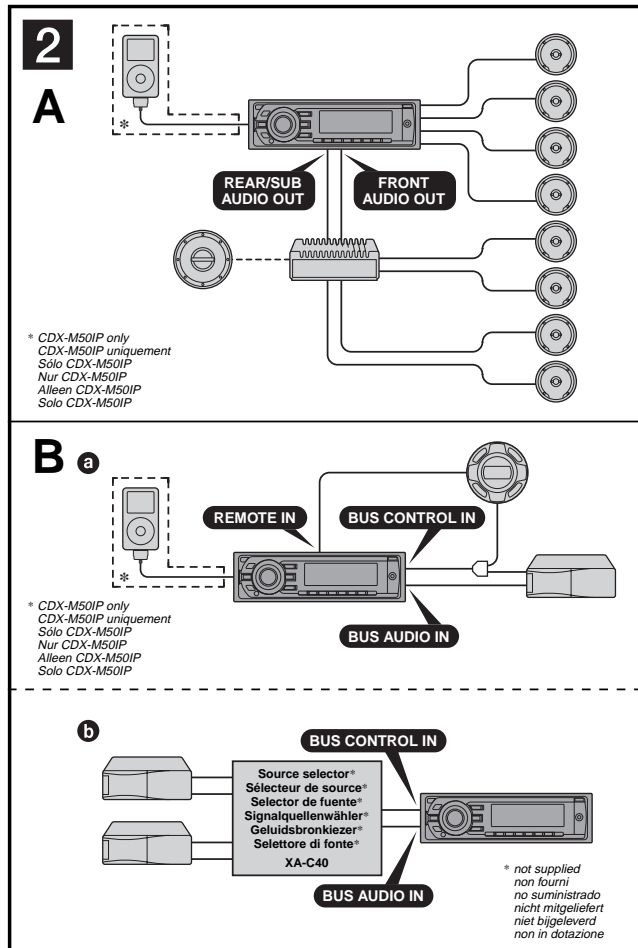


- 25 ↑ (+)/↓ (-) buttons**
To control CD/PD*¹, the same as (ALBM) +/- on the unit.
Setup, sound setting, etc., can be operated by ↑ ↓.
 - 24 SCRL (scroll) button**
To scroll the display item.
 - 23 Number buttons**
To receive stored stations (press); store stations (press and hold).
- ¹ CDX-M50IP/MR50IP only
² In the case of a CD/MD changer or SAT tuner being connected; when (SOURCE) is pressed, the connected device ("MD" "XM" or "SAT") will appear in the display, depending on which device is connected. Furthermore, if (MODE) is pressed, you can switch the changer, or SAT tuner band. (A SAT tuner can only be connected to the CDX-M50IP/M30.)
- Note**
If the unit is turned off and the display disappears, 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.
- About AUX cap**
When not using the AUX input jack (5), use the supplied AUX cap to prevent water entering. Keep the AUX cap out of the reach of children to prevent accidental swallowing.

The following buttons on the card remote commander have also different buttons/functions from the unit. Remove the insulation film before use (page 6).

- 18 (←/→) buttons**
To control CD/radio/PD*¹, the same as (SEEK) +/- on the unit.
Setup, sound setting, etc., can be operated by ← →.
- 19 DSPL (display) button**
To change display items.
- 20 VOL (volume) +/- button**
To adjust volume.
- 21 ATT (attenuate) button**
To attenuate the sound. To cancel, press again.
- 22 SEL (select) button**
The same as the select button on the unit.

• Connections (CDX-M50IP)



Connection example 2

- Notes (E) (A)
• Be sure to connect the ground (earth) lead before connecting the amplifier.
• The amplifier will sound if the built-in amplifier is used.
• If you are connecting only a single CDMD changer or other optional apparatus, connect directly to the bus.
• For connecting two or more CDMD changers or other optional devices, the source selector XA-C40 (not supplied) is necessary.
• Connect the source selector CDMD or plus or minus apparatus on the selector.

Exemple de raccordement 2

- Remarques (E) (A)
• Avant de raccorder le câble de mise à la masse assurez-vous de connecter l'amplificateur.
• L'écouteur fonctionnera lorsque l'amplificateur intégré est utilisé.
• Si vous raccordez uniquement un seul changeur CDMD ou un autre appareil optionnel, connectez-vous directement au bus.
• Pour raccorder deux ou plusieurs changeurs CDMD ou autres appareils optionnels, le sélecteur de source XA-C40 (non fourni) est nécessaire pour raccorder les appareils CDMD ou plus ou moins sur le sélecteur.

Ejemplo de conexiones 2

- Notas (E) (A)
• Antes de conectar primero el cable de conexión a masa antes de realizar la conexión del amplificador.
• La escucha sonora funcionará si se utiliza el amplificador integrado.
• Si se conecta únicamente un solo cambiador de CDMD u otros dispositivos opcionales, conectados directamente a masa antes de conectar los cables de conexión.
• Para conectar dos o más dispositivos opcionales, se precisa el selector de fuente XA-C40 (no suministrado).

Anschlussbeispiel 2

- Hinweise (E) (A)
• Schließen Sie zuerst die Schutzmasseleitung an, bevor Sie den Verstärker anschließen.
• Die Hörfunktion wird ausgegeben, wenn der integrierte Verstärker verwendet wird.
• Wenn Sie nur einen einzigen CDMD-Wechsler oder ein anderes optionales Zubehör anschließen wollen, schließen Sie sie direkt an den Bus an.
• Wenn Sie mindestens zwei CDMD-Wechsler oder andere optionale analoga Geräte anschließen wollen, ist der Signalquellenwähler XA-C40 (nicht mitgeliefert) erforderlich.

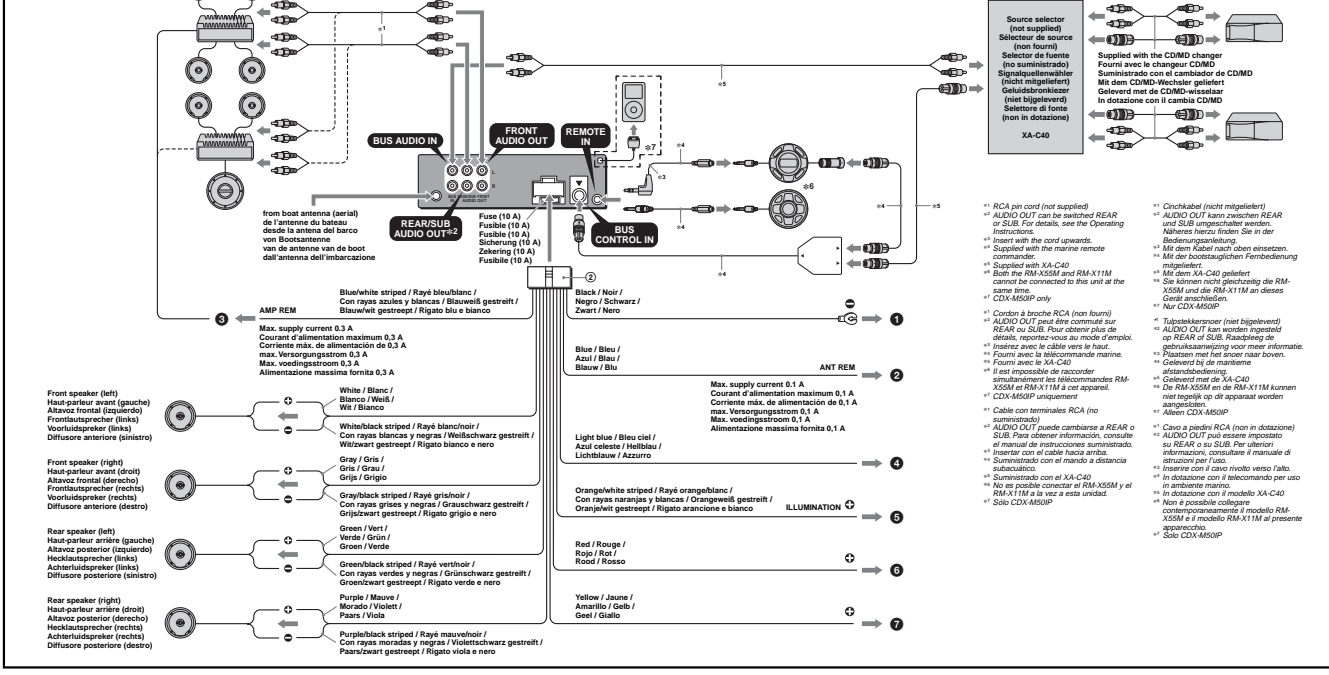
Voorbeeldaansluitingen 2

- Opmerkingen (E) (A)
• Sluit de beschermingsaard draad voor de versterker aansluit.
• U hoort de program aan als u de ingebouwde versterker wordt gebruikt.
• Indien u slechts één CDMD-wisselaar of een ander optioneel apparaat wilt aansluiten, moet u deze rechtstreeks op het aansluitbusje.
• Indien u meer dan één CDMD-wisselaar of andere optionele analoog apparaten wilt aansluiten, moet u de signaalbronwähler XA-C40 (niet geleverd) gebruiken.

Esempio di collegamento 2

- Note (E) (A)
• Assicurarsi di collegare il cavo di terra prima di collegare l'amplificatore.
• L'ascolto funzionerà se si usa l'amplificatore incorporato.
• Se si collega un solo cambio CDMD o un altro dispositivo opzionale, effettuare il collegamento direttamente alla bussina.
• Se si collegano due o più cambi CDMD o altri dispositivi opzionali, è necessario utilizzare il selettore di sorgente XA-C40 (non in dotazione).

3



Connection diagram 3

- 1 To a metal surface of the boat
First connect the back ground (earth) lead, then connect the other and receiver supply leads.
2 To the power antenna (aerial) control lead or power supply lead of antenna (aerial) booster
• It is not necessary to connect the lead if there is no power antenna (aerial) or antenna (aerial) booster, or with a manually-operated telescopic antenna (aerial).
• When your boat has a built-in FM/AM antenna (aerial) in the main cabin, see "Notes on the control and power supply leads".
3 To AMP REMOTE in of an optional power amplifier
This connection is for any amplifiers. Connecting any other system may damage the unit.
4 To the illumination signal
Be sure to connect the back ground (earth) lead to a metal surface of the boat first.
5 To the +12V power terminal which is energized in the accessory position of the ignition switch
Note:
• If there is no accessory position, connect to the +12V power (battery) terminal which is energized at all times.
• Be sure to connect the back ground (earth) lead to a metal surface of the boat first.
6 To the +12V power terminal which is energized at all times
Be sure to connect the back ground (earth) lead to a metal surface of the boat first.
Notes on the control and power supply leads
• The power antenna (aerial) control lead (blue) supplies a 12 V DC signal from the boat.
• A power antenna (aerial) without a relay box cannot be used with this unit.
Memory lock connection
When the yellow power supply lead is connected, power will always be supplied to the memory circuit even when the ignition switch 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 heat-handling capability for the power to be used.
• Do not connect the speaker terminals to the boat chassis, or connect the terminals of the right speakers with those of the left speaker.
• Do not connect the ground (earth) lead of the unit to the negative (-) terminal of the speaker.
• Do not attempt to connect the speakers in parallel.
• Connect the terminals to the speaker terminals they denote the unit.
• Do not connect the unit to the boat's main power leads installed in the main cabin.
• If you are using a common ground (-) lead for the right and left speakers, connect the right and left speakers to each other.
Note on connection
If an antenna amplifier is not connected, "FALLER" appears in the display. In this case, make sure the speaker and amplifier are properly connected.

Schémas de raccordement 3

- 1 Vers un point métallique du bateau
Branchez d'abord le câble de mise à la masse et ensuite, les autres alimentations de puissance et les câbles de commande d'antenne.
Remarques
• Si vous n'avez pas de position accessoire, raccordez la borne d'alimentation (batterie) +12V qui est alimentée en permanence. Commencez par raccorder le câble de mise à la masse sur un point métallique du bateau.
2 Vers l'AMP REMOTE in de l'amplificateur de puissance en option
Cet raccordement est pour tous les amplificateurs. Le raccordement de tout autre système risque d'endommager l'appareil.
3 Vers le signal d'éclairage
Assurez-vous de raccorder le câble de mise à la masse sur un point métallique du bateau.
4 Vers la borne +12V qui est alimentée quand la clé de contact est sur la position accessoire
Remarque
Si l'unité n'a pas de position accessoire, raccordez la borne d'alimentation (batterie) +12V qui est alimentée en permanence. Commencez par raccorder le câble de mise à la masse sur un point métallique du bateau.
5 Vers la borne +12V qui est alimentée en permanence
Assurez-vous de raccorder le câble de mise à la masse sur un point métallique du bateau.
Remarques sur les câbles de commande et d'alimentation
• Le câble de commande d'antenne électrique (bleu) fournit une alimentation de 12 V CC lorsque vous mettez la radio sous tension.
• Une antenne électrique sans boîte à relais ne peut pas être utilisée avec cet appareil.
Raccordement pour la conservation de la mémoire
Lorsque le câble de commande d'antenne jaune est connecté, le circuit de la mémoire est toujours alimenté même si la clé de contact est en position arrêt.
Notes sur la connexion 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 et une capacité adéquate sous peine de les endommager.
• Ne connectez pas les bornes des haut-parleurs au châssis du véhicule.
• Ne connectez pas les bornes du haut-parleur droit à celles du haut-parleur gauche.
• Ne tentez pas de raccorder les haut-parleurs en parallèle.
• Connectez les bornes à la borne qu'elles désignent sur l'appareil.
• Ne connectez pas l'unité aux câbles de puissance installés dans le compartiment à moteur principal.
• Si vous utilisez un câble de terre commun (-) pour les haut-parleurs, connectez le haut-parleur droit et le haut-parleur gauche l'un à l'autre.
Note sur la connexion
Si un amplificateur d'antenne n'est pas connecté, "FALLER" apparaît à l'écran. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont correctement connectés.

Diagrama de conexión 3

- 1 A una superficie metálica del barco
Conecte primero el cable de conexión a masa negro, y después los cables de control de la antena y los cables de alimentación de potencia de la antena.
Notas
• Si no dispone de un interruptor de posición accesorio, conecte al terminal de alimentación (batería) +12 V que recibe energía en permanente. Comience por conectar primero el cable de conexión a masa negro a una superficie metálica del barco.
2 Al AMP REMOTE in de un amplificador de potencia opcional
Esta conexión es para todos los amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.
3 Al cable de interfaz de un teléfono
Este cable es de señal de iluminación. Asegúrese de conectar primero el cable de conexión a masa negro a una superficie metálica del barco.
4 Al terminal de alimentación de +12V que recibe energía en la posición de accesorio del interruptor de encendido
Nota:
Si no hay posición de accesorio, conecte al terminal de alimentación (batería) +12 V que recibe energía en permanente. Comience por conectar primero el cable de conexión a masa negro a una superficie metálica del barco.
5 Al terminal de alimentación de +12V que recibe energía en la posición de accesorio del interruptor de encendido
Nota:
Si no hay posición de accesorio, conecte al terminal de alimentación (batería) +12 V que recibe energía en permanente. Comience por conectar primero el cable de conexión a masa negro a una superficie metálica del barco.
Consejos para la protección de la memoria
Cuando el cable de control de antena amarillo está conectado, el circuito de la memoria recibirá siempre alimentación, aunque apague el interruptor de encendido.
Notas sobre los cables de control y de fuente de alimentación
• El cable de control de la antena metálica (azul) suministra un 12 V CC cuando se activa la alimentación de la radio.
• Una antena metálica sin caja de relé no puede utilizarse con esta unidad.
Consejos para la protección de la memoria
Cuando el cable de control de antena amarillo está conectado, el circuito de la memoria recibirá siempre alimentación, aunque apague el interruptor de encendido.
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 oh y con la capacidad de potencia adecuada para evitar que se dañen.
• No conecte los terminales de altavoz derecho al chasis del vehículo, ni conecte los terminales de altavoz izquierdo con los del altavoz derecho.
• No intente conectar los altavoces en paralelo.
• Conecte los terminales a la borne que indican en el aparato.
• No conecte la unidad a los cables de potencia instalados en el compartimento de motor principal.
• Si utiliza un cable de tierra común (-) para los altavoces, conecte el altavoz derecho y el altavoz izquierdo uno al otro.
Nota sobre la conexión
Si el altavoz no está conectado correctamente, aparecerá "FALLER" en la pantalla. Si es así, compruebe la conexión del altavoz.

Anschlussdiagramm 3

- 1 An eine Metalloberfläche des Bootes
Schließen Sie zuerst die Schutzmasseleitung an, dann die anderen Steuer- und Leistungsleitungen der Antenne.
Hinweise
• Wenn Sie keine Zündschlüsselposition für den optionalen Verstärker haben, schließen Sie die Leitung an den +12-V-Stromversorgungsanschluss an, der in der Zündschlüsselposition "Zündschlüssel" aktiviert wird.
2 An den AMP REMOTE in des optionalen elektronischen Endverstärkers
Diese Anschlüsse sind ausschließlich für Verstärker gedacht. Die Verbindung mit anderen Systemen könnte die Einheit beschädigen.
3 An das Schichtstellenkabel eines Telefons
Dieses Kabel ist ein Lichtsignal. Achten Sie auf die richtige Reihenfolge der Anschlüsse.
4 An den +12-V-Stromversorgungsanschluss, an dem Spannung anliegt, wenn sich die Zündschlüssel in der Zündschlüsselposition befindet
Hinweis:
Wenn der Zündschlüssel keine Zündschlüsselposition (ACC oder I) aufweist, schließen Sie die Leitung an den +12-V-Stromversorgungsanschluss an, der in der Zündschlüsselposition "Zündschlüssel" aktiviert wird.
5 An den +12-V-Stromversorgungsanschluss, an dem immer Spannung anliegt
Hinweis:
Wenn der Zündschlüssel keine Zündschlüsselposition (ACC oder I) aufweist, schließen Sie die Leitung an den +12-V-Stromversorgungsanschluss an, der in der Zündschlüsselposition "Zündschlüssel" aktiviert wird.
Hinweise zum Schutz der Speicher
Wenn der gelbe Antennensteuerschaltungsanschluss angeschlossen ist, wird der Speicher stets auch bei ausgeschalteter Zündung mit Strom versorgt.
Hinweise zum Lautsprecheranschluss
• Vor dem Anschließen der Lautsprecher sollte die Stromversorgung der Einheit abgeschaltet werden.
• Verwenden Sie Lautsprecher mit einer Impedanz von 4 bis 8 Ohm und einer ausreichenden Leistungsfähigkeit, um Schäden an den Lautsprechern zu vermeiden.
• Verbinden Sie die Lautsprecheranschlüsse nicht mit dem Fahrzeugchassis.
• Verbinden Sie die Lautsprecheranschlüsse nicht mit dem negativen (-) Lautsprecherterminal.
• Verbinden Sie die Lautsprecheranschlüsse nicht mit dem negativen (-) Lautsprecherterminal.
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• Verbinden Sie die Lautsprecheranschlüsse nicht mit dem negativen (-) Lautsprecherterminal.
Hinweise zum Anschluss
• Wenn ein Antennenverstärker nicht richtig angeschlossen und verschaltet, "FALLER" im Display angezeigt. In diesem Fall, stellen Sie sicher, dass die Lautsprecher und Verstärker richtig angeschlossen sind.

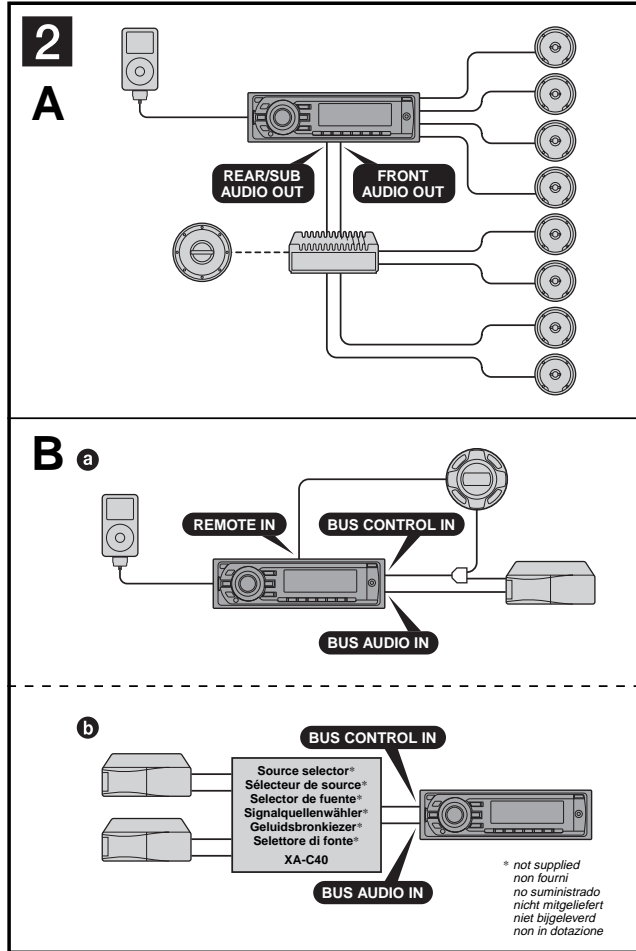
Aansluitingschema 3

- 1 Naar een metaal oppervlak van de boot
Sluit eerst de gele aardschakel aan, en vervolgens de gele en andere antennebestuurings- en voedingslijnen.
2 Naar de bedieningskabel van de elektrische antenne of voedingskabel van de antenneversterker
Hinweise
• Wenn Sie keine Zündschlüsselposition für den optionalen Verstärker haben, schließen Sie die Leitung an den +12-V-Stromversorgungsanschluss an, der in der Zündschlüsselposition "Zündschlüssel" aktiviert wird.
3 An den +12-V-Stromversorgungsanschluss, an dem Spannung anliegt, wenn sich die Zündschlüssel in der Zündschlüsselposition befindet
Hinweis:
Wenn der Zündschlüssel keine Zündschlüsselposition (ACC oder I) aufweist, schließen Sie die Leitung an den +12-V-Stromversorgungsanschluss an, der in der Zündschlüsselposition "Zündschlüssel" aktiviert wird.
4 An den +12-V-Stromversorgungsanschluss, an dem immer Spannung anliegt
Hinweis:
Wenn der Zündschlüssel keine Zündschlüsselposition (ACC oder I) aufweist, schließen Sie die Leitung an den +12-V-Stromversorgungsanschluss an, der in der Zündschlüsselposition "Zündschlüssel" aktiviert wird.
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Wenn der gelbe Antennensteuerschaltungsanschluss angeschlossen ist, wird der Speicher stets auch bei ausgeschalteter Zündung mit Strom versorgt.
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• Vor dem Anschließen der Lautsprecher sollte die Stromversorgung der Einheit abgeschaltet werden.
• Verwenden Sie Lautsprecher mit einer Impedanz von 4 bis 8 Ohm und einer ausreichenden Leistungsfähigkeit, um Schäden an den Lautsprechern zu vermeiden.
• Verbinden Sie die Lautsprecheranschlüsse nicht mit dem Fahrzeugchassis.
• Verbinden Sie die Lautsprecheranschlüsse nicht mit dem negativen (-) Lautsprecherterminal.
• Verbinden Sie die Lautsprecheranschlüsse nicht mit dem negativen (-) Lautsprecherterminal.
• Verbinden Sie die Lautsprecheranschlüsse nicht mit dem negativen (-) Lautsprecherterminal.
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Hinweise zum Anschluss
• Wenn ein Antennenverstärker nicht richtig angeschlossen und verschaltet, "FALLER" im Display angezeigt. In diesem Fall, stellen Sie sicher, dass die Lautsprecher und Verstärker richtig angeschlossen sind.

Schema di collegamento 3

- 1 Ad una superficie metallica dell'imbarcazione
Collegare innanzitutto il cavo di massa nero, e quindi i cavi di controllo e di alimentazione dell'antenna.
Note
• Se non è presente la posizione di accesorio, collegare il terminale di alimentazione +12V che viene costantemente alimentato.
2 Al cavo di controllo dell'antenna elettrica o al cavo di alimentazione dell'amplificatore di potenza dell'antenna
Hinweise
• Wenn Sie keine Zündschlüsselposition für den optionalen Verstärker haben, schließen Sie die Leitung an den +12-V-Stromversorgungsanschluss an, der in der Zündschlüsselposition "Zündschlüssel" aktiviert wird.
3 Al cavo di interfaccia di un telefono
Questo cavo è un segnale di illuminazione. Assicurarsi di collegare prima il cavo di connessione a massa nero a una superficie metallica dell'imbarcazione.
4 Al terminale di alimentazione di +12V che riceve energia nella posizione accessoria dell'interruttore di accensione dell'imbarcazione
Nota:
Se non è presente la posizione di accesorio, collegare il terminale di alimentazione +12V (batteria) che viene costantemente alimentato.
5 Al terminale di alimentazione di +12V che viene costantemente alimentato
Nota:
Se non è presente la posizione di accesorio, collegare il terminale di alimentazione +12V (batteria) che viene costantemente alimentato.
Note sulla protezione della memoria
Quando il cavo di comando dell'antenna giallo è collegato, il circuito di memoria è sempre alimentato anche quando l'antenna è spenta.
Note sul collegamento degli altoparlanti
• Prima di collegare gli altoparlanti, spegnere l'apparecchio.
• Usare altoparlanti con un'impedenza di 4 a 8 ohm e con una capacità di potenza adeguata per evitare danni.
• Non collegare i terminali degli altoparlanti al telaio dell'imbarcazione o collegare i terminali degli altoparlanti destro con quelli dell'altavoz sinistro.
• Non tentare di collegare gli altoparlanti in parallelo.
• Collegare i terminali a quella che indicano sull'apparecchio.
• Non collegare l'unità ai cavi di potenza installati nel vano motore principale.
• Se si utilizza un cavo di terra comune (-) per gli altoparlanti, collegare l'altavoz destro e l'altavoz sinistro l'uno all'altro.
Note sul collegamento
• Se un amplificatore di antenna non è collegato correttamente, "FALLER" viene visualizzato nel display. In tal caso, accertarsi che l'antenna e il diffusore siano collegati correttamente.

• Connections (CDX-MR50IP)



Connection example 2

- Notes (2-A)**
- Be sure to connect the ground (earth) lead before connecting the amplifier.
 - The alarm will only sound if the built-in amplifier is used.
- Tips (2-B)**
- When connecting only a single CD/MD changer or other optional device, connect directly to this unit.
 - For connecting two or more CD/MD changers or other optional devices, the source selector XA-C40 (not supplied) is necessary.

Exemple de raccordement 2

- Remarques (2-A)**
- Raccordez d'abord le câble de mise à la masse avant de connecter l'amplificateur.
 - L'alarme est émise uniquement lorsque l'amplificateur intégré est utilisé.
- Conseils (2-B)**
- En cas de raccordement d'un seul changeur CD/MD uniquement ou d'autres appareils en option, raccordez-les/les directement à cet appareil.
 - Le sélecteur de source XA-C40 (non fourni) est nécessaire pour raccorder deux changeurs CD/MD ou plus ou d'autres appareils en option.

Ejemplo de conexiones 2

- Notas (2-A)**
- Asegúrese de conectar primero el cable de conexión a masa antes de realizar la conexión del amplificador.
 - La alarma sonará únicamente si se utiliza el amplificador incorporado.
- Sugerencias (2-B)**
- Al conectar únicamente un solo cambiador de CD/MD u otros dispositivos opcionales, conéctelos directamente a esta unidad.
 - Para conectar dos o más cambiadores de CD/MD u otros dispositivos opcionales, se precisa el selector de fuente XA-C40 (no suministrado).

Anschlussbeispiel 2

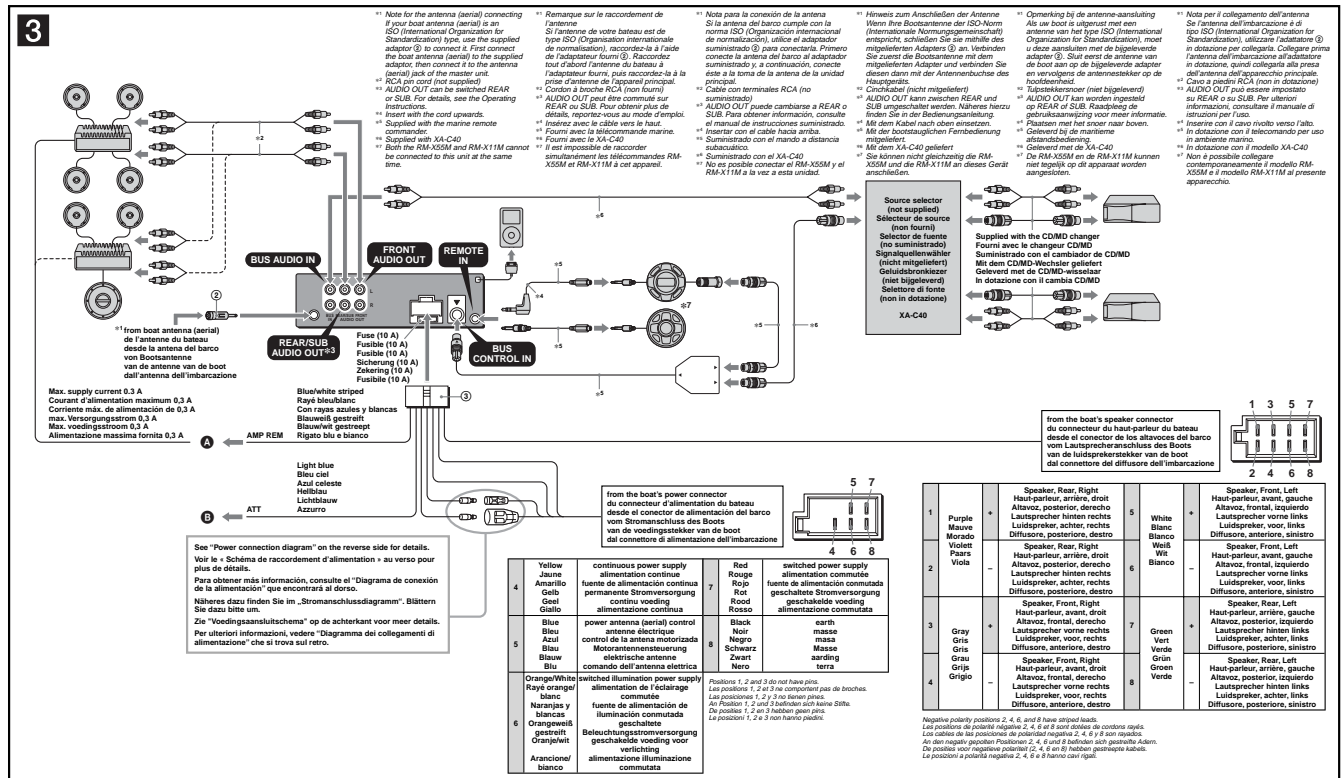
- Hinweise (2-A)**
- Schließen Sie unbedingt zuerst das Massekabel an, bevor Sie den Verstärker anschließen.
 - Der Warnton wird nur ausgegeben, wenn der integrierte Verstärker verwendet wird.
- Tips (2-B)**
- Wenn Sie nicht mehr als einen CD/MD-Wechsler oder ein anderes optionales Gerät anschließen wollen, schließen Sie es direkt an dieses Gerät an.
 - Wenn Sie mindestens zwei CD/MD-Wechsler oder andere optionale Geräte anschließen wollen, ist der Signalquellenwähler XA-C40 (nicht mitgeliefert) erforderlich.

Voorbeeldaansluitingen 2

- Opmerkingen (2-A)**
- Sluit eerst de aarddraad aan voordat u de versterker aansluit.
 - U hoort de pieptoon alleen als de ingebouwde versterker wordt gebruikt.
- Tips (2-B)**
- Wanneer u slechts één CD/MD-wisselaar of een ander optioneel apparaat wilt aansluiten, moet u deze rechtstreeks op dit apparaat aansluiten.
 - Als u twee of meer CD/MD-wisselaars of andere optionele apparaten wilt aansluiten, moet u de geluidsbronkiezer XA-C40 (niet beigeleverd) gebruiken.

Esempio di collegamento 2

- Note (2-A)**
- Assicurarvi di collegare il cavo di terra prima di collegare l'apparecchio all'amplificatore.
 - L'allarme viene emesso solo se è in uso l'amplificatore incorporato.
- Suggerimenti (2-B)**
- Se si collega unicamente un singolo cambio CD/MD o un altro dispositivo opzionale, effettuare il collegamento direttamente alla presente unità.
 - Per effettuare il collegamento di due o più cambio CD/MD o altri dispositivi opzionali, è necessario utilizzare il selettore di sorgente XA-C40 (non in dotazione).



Connection diagram 3

- ➊ To AMP REMOTE IN of an optional power amplifier. This connection is only for amplifiers. Connecting any other system may damage the unit.
- ➋ To the interface cable of a telephone

Warning

If you have a power antenna (aerial) without a relay box, connecting this unit with the supplied power connecting lead ➀ may damage the antenna (aerial).

Notes on the control power and supply leads

- The power antenna (aerial) control lead (blue) approx. 1.5 V DC when you turn on the laser or when you activate the AF (Automatic Frequency) or TA (Traffic Announcement) function.
- When your boat has built-in FM/AM/AV antenna (aerial) in the masthead glass, connect the power antenna (aerial) control lead (blue) or the accessory power supply lead (red) to the power terminal of the existing antenna (aerial) booster. For details, consult your dealer.
- A power antenna (aerial) without a relay box cannot be used with this unit.

Memory hold connection

When the yellow power supply lead is connected, power will always be supplied to the memory circuit even when the ignition switch 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 ground (earth) leads 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 boat 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, "FALLURE" appears in the display. In this case, make sure the speaker and amplifier are connected correctly.

Schémas de raccordement 3

- ➊ Au niveau du AMP REMOTE IN d'un amplificateur de puissance facultatif. Ce raccordement est uniquement pour les amplificateurs. Le raccordement à tout autre système peut endommager l'appareil.
- ➋ Vers le cordon d'interface d'un téléphone

Avertissement

Si vous disposez d'une antenne électrique sans boîtier de relais, le branchement de cet appareil au moyen du cordon d'alimentation fourni ➀ risque d'endommager l'antenne.

Remarques sur les câbles de commande et d'alimentation

- Le câble de commande (bleu) fournit du courant continu de 1,5 V lorsque vous mettez le laser sous tension ou lorsque vous activez la fonction AF (Préannonce de fréquence) ou TA (Message de trafic).
- Si votre bateau est équipé d'une antenne FM/AM/AV (PCH/UV) intégrée dans le verre avant-traverse, raccordez le câble de commande d'antenne électrique (bleu) ou le câble d'alimentation des accessoires (rouge) à la borne d'alimentation de l'amplificateur d'antenne existant. Pour plus de détails, consultez votre revendeur.
- Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.

Raccordement pour la préservation de la mémoire

Lorsque le câble de commande d'antenne jaune est connecté, le circuit de la mémoire reçoit toujours l'alimentation même si le clé de contact est en 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 et une capacité adéquate pour éviter de les endommager.
- Ne raccordez pas les bornes des haut-parleurs au châssis du bateau, et ne raccordez pas les bornes de haut-parleur (dont le câble de haut-parleur positif).
- Ne raccordez pas le câble de mise à la masse de cet appareil à la borne négative (-) de haut-parleur.
- Ne tentez pas de raccorder les haut-parleurs en parallèle.
- Connectez uniquement des haut-parleurs passifs. La connexion de haut-parleurs actifs (avec des amplificateurs intégrés) aux bornes des haut-parleurs pourrait endommager l'appareil.
- Pour éviter tout problème de fonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre bateau si l'appareil dispose d'un câble 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 "FALLURE" apparaît. Dans ce cas, vérifiez soigneusement le message "FALLURE" et assurez-vous que les haut-parleurs et l'amplificateur sont raccordés correctement.

Diagrama de conexión 3

- ➊ A AMP REMOTE IN de un amplificador de potencia opcional. Esta conexión es sólo para amplificadores. La conexión de cualquier otro sistema puede dañar la unidad.
- ➋ Al cable de interfaz de un teléfono

Advertencia

Si la antena motorizada no dispone de caja de relé, es posible que la conexión de este unidad mediante el cable de alimentación suministrado ➀ provoque daños en la antena.

Notas sobre los cables de control y de fuente de alimentación

- El cable de control de la antena motorizada (bleu) suministrado es de 1,5 V cuando enciende el antirrobador o activa la función AF (Preaviso de frecuencia) o TA (Mensaje de tráfico).
- Si el barco tiene una antena de FM/AM/AV incorporada en el cristal delantero, conecte el cable de control de la antena motorizada (bleu) o el cable de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de señal de la antena existente. Para obtener más información, consulte a su distribuidor.
- Con esta unidad no es posible utilizar una antena motorizada sin caja de relé.

Conexión para protección de la memoria

Si conecta el cable de fuente de alimentación amarillo, el circuito de la memoria recibirá siempre alimentación, aunque apague el interruptor de encendido.

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 barco ni tampoco los terminales de altavoz derecho con los del izquierdo.
- No conecte el cable de conexión a masa de esta unidad al terminal negativo (-) de los 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 barco 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 no está conectado correctamente, aparecerá "FALLURE" en la pantalla. Si es así, compruebe la conexión del altavoz.

Anschlussdiagramm 3

- ➊ An AMP REMOTE IN des gesondert erhältlichen Endverstärkers. Dieser Anschluss ist ausschließlich für Verstärker gedachte Schaltungen. Sie nichter andere System an. Andernfalls kann das Gerät beschädigt werden.
- ➋ An des Schnittstellenkabel eines Telefons

Warnung

Wenn Sie eine Motorantenne ohne Relaiskasten verwenden, kann durch Anschließen dieses Geräts mit dem mitgelieferten Stromversorgungs-kabel ➀ die Antenne beschädigt werden.

Hinweise zu den Steuer- und Stromversorgungsleitungen

- Die Motorantenne-Steuerleitung (blau) liefert 1,2 V Gleichstrom, wenn Sie den Laser einschaltet oder die AF (Automatischer Frequenzsuch) oder die TA-Funktion (Verkehrsdurchsagen) aktiviert.
- Wenn das Boot mit einer in der Heck-Schubkasten-schraube integrierten FM/AM/AV-Antenne ausgestattet ist, schließen Sie die Motorantenne-Steuerleitung (Blau) oder die Zuleitungsverdrahtung (Rot) an den Stromversorgungsanschluss des vorhandenen Antennenverstärkers an. Näheres dazu erfahren Sie bei Ihrem Händler.
- Es kann nur eine Motorantenne mit Relaiskasten angeschlossen werden.

Stromversorgung des Speichers

Wenn die gelbe Stromversorgungsleitung angeschlossen ist, wird der Speicher stets (auch bei ausgeschalteter Zündung) mit Strom versorgt.

Hinweise zum Lautsprecheranschluss

- Schalten Sie das Gerät aus, bevor Sie die Lautsprecher anschließen.
- Verwenden Sie Lautsprecher mit einer Impedanz zwischen 4 und 8 Ohm mit ausreichender Belastbarkeit. Ansonsten können die Lautsprecher beschädigt werden.
- Verbinden Sie die Lautsprecheranschlüsse nicht mit dem Bootschluss und verbinden Sie auch nicht die Anschlüsse des rechten mit denen des linken Lautspecher.
- Verbinden Sie die Massierung dieses Geräts nicht mit dem negativen (-) Lautsprecheranschluss.
- Verbinden Sie nicht die Lautsprecher parallel angeschlossen.
- An die Lautsprecheranschlüsse dieses Geräts dürfen nur Passivlautsprecher angeschlossen werden. Schließen Sie keine Aktivlautsprecher (Lautsprecher mit eingebauten Verstärkern) an.
- Um das Gerät vor Beschädigung zu schützen, verwenden Sie nicht die im Boot installierten, integrierten Lautsprecheranschlüsse, wenn am Ende eines gemeinsamen negativen (-) Leitung für den rechten und den linken Lautsprecher verwendet.
- Verbinden Sie nicht die Lautsprecherkabel des Geräts miteinander.

Hinweis zum Anschluss

Wenn Lautsprecher und Verstärker nicht richtig angeschlossen sind, erscheint "FALLURE" im Display. In diesem Fall, überprüfen Sie, dass Lautsprecher und Verstärker richtig angeschlossen sind.

Aansluitschema 3

- ➊ Naar AMP REMOTE IN van een optionele eindversterker. Deze aansluiting is alleen bedoeld voor versterkers. Door een ander systeem aan te sluiten kan het apparaat worden beschadigd.
- ➋ Naar het interface-snoer van een telefoon

Waarschuwing

Indien u een elektrische antenne hebt zonder relaiskast, kan het aansluiten van dit apparaat met het bijgeleverde snoer ➀ de antenne beschadigen.

Opmertkingen over de bedrading en voedingskabel

- De antennevoedingskabel (blauw) levert 1,2 V gelijkstroom wanneer u de laser inschakelt of de AF (Automatisch Frequentie) of TA (Traffic-Annoucering) functie activeert.
- Wanneer uw boot is uitgerust met een FM/AM/AV-antenne in de achterruit, moet u de antennevoedingskabel (blauw) of de hulpvoedingskabel (rood) aansluiten op de voedingsgang van de bestaande antenneversterker. Raadpleeg de handleiding voor meer informatie.
- Met dit apparaat is het niet mogelijk een automatische antenne zonder relaiskast te gebruiken.

Inhoudnoten van het geheugen

Zolang de gele voedingskabel is aangesloten, blijft de stroomvoorziening van het geheugen intact, ook wanneer het contact wordt afgebroken.

Opmertkingen betreffende het aansluiten van de luidsprekers

- Deel de luidsprekers met een impedantie van 4 tot 8 Ohm en let op dat de het vermogen van de versterker kunnen weerstaan. Als u dit doet, kunnen de luidsprekers ernstig beschadigd raken.
- Verbind de luidsprekers niet met de aansluitingen van de rechter en linker luidspreker met de elkaar aan.
- Verbind de aardsdraad van dit apparaat niet met de negatieve (-) aansluiting van de luidspreker.
- Probeer nooit de luidspreker parallel aan te sluiten.
- Sluit geen actieve luidsprekers (niet ingebouwde versterkers) aan op de luidsprekeransluiting van dit apparaat. Dit zal leiden tot beschadiging van de actieve luidsprekers. Sluit dus altijd uitsluitend luidsprekers zonder ingebouwde versterker aan.
- Om de luidspreker te beschermen tegen schade, gebruiken uitsluitend luidsprekers die in de boot niet geïnstalleerd wanneer er een gemeenschappelijke negatieve (-) draad is voor de rechter en linker luidspreker.
- Verbind de luidsprekerdraden niet met elkaar.

Opmertking over aansluiten

Als de luidspreker en versterker niet correct zijn aangesloten, wordt "FALLURE" in het display weergegeven. In dit geval moet u zorgen dat de luidspreker en versterker correct zijn aangesloten.

Schema di collegamento 3

- ➊ A AMP REMOTE IN di un amplificatore di potenza opzionale. Questo collegamento è riservato esclusivamente agli amplificatori. Non collegare un tipo di sistema diverso onde evitare di causare danni all'apparecchio.
- ➋ Al cavo di interfaccia di un telefono

Avvertenza

Indien u collega l'apparecchio con il cavo di alimentazione in dotazione ➀, si potrebbe danneggiare l'antenna elettrica se questa non dispone di scatola a relé.

Note sul cavo di controllo e di alimentazione

- Il cavo (bleu) di controllo dell'antenna elettrica fornisce alimentazione pari a 1,2 V CC quando si attiva la funzionalità oppure la funzione TA (Indicazioni sul traffico) / AF (frequenza automatica).
- Se l'imbarcazione dispone di un'antenna FM/AM/AV incorporata sul vetro laterale, collegare il cavo (bleu) di controllo dell'antenna elettrica o il cavo (rosso) di ingresso dell'alimentazione accessibile al terminale di alimentazione del power-amplificatore dell'antenna esistente. Per ulteriori informazioni, consultare il proprio rivenditore.
- Non è possibile usare un'antenna elettrica senza scatola a relé con questo apparecchio.

Collegamento per la conservazione della memoria

Quando il cavo di ingresso alimentazione giallo è collegato, viene sempre fornita alimentazione al circuito di memoria anche quando l'interruttore di accensione è spento.

Note sul collegamento dei diffusori

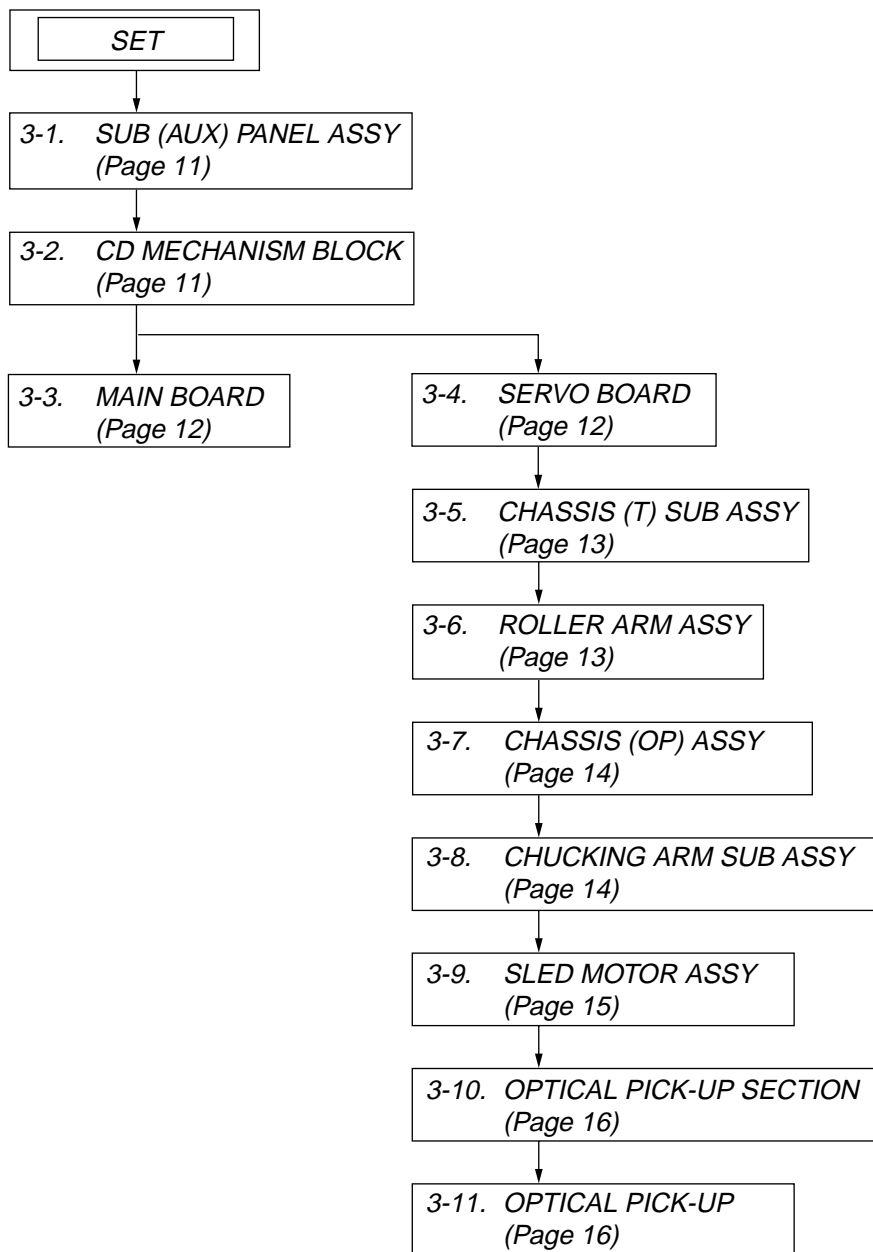
- Prima di collegare i diffusori spegnere l'apparecchio.
- Usare diffusori di impedanza compresa fra 4 e 8 Ohm e con capacità di potenza adeguata, altrimenti i diffusori potrebbero venire danneggiati.
- Non collegare i terminali dei diffusori al telaio dell'imbarcazione e non collegare i terminali dei diffusori destro con quelli del diffusore sinistro.
- Non collegare il cavo di terra di questo apparecchio al terminale negativo (-) dei diffusori.
- Non collegare i diffusori in parallelo.
- Assicuratevi di collegare soltanto diffusori passivi, poiché il collegamento di diffusori attivi, ossia di amplificatori incorporati, ai terminali dei diffusori potrebbe danneggiare l'apparecchio.
- Evitare sempre problemi di funzionamento, non utilizzare i cavi dei diffusori incorporati installati nell'imbarcazione se l'apparecchio condivide un cavo comune negativo (-) per i diffusori destro e sinistro.
- Non collegare fra loro i cavi dei diffusori dell'apparecchio.

Note sul collegamento

Se l'amplificatore e il diffusore non sono collegati correttamente, "FALLURE" viene visualizzato nel display. In tal caso, accertarsi che l'imbarcazione e il diffusore siano collegati correttamente.

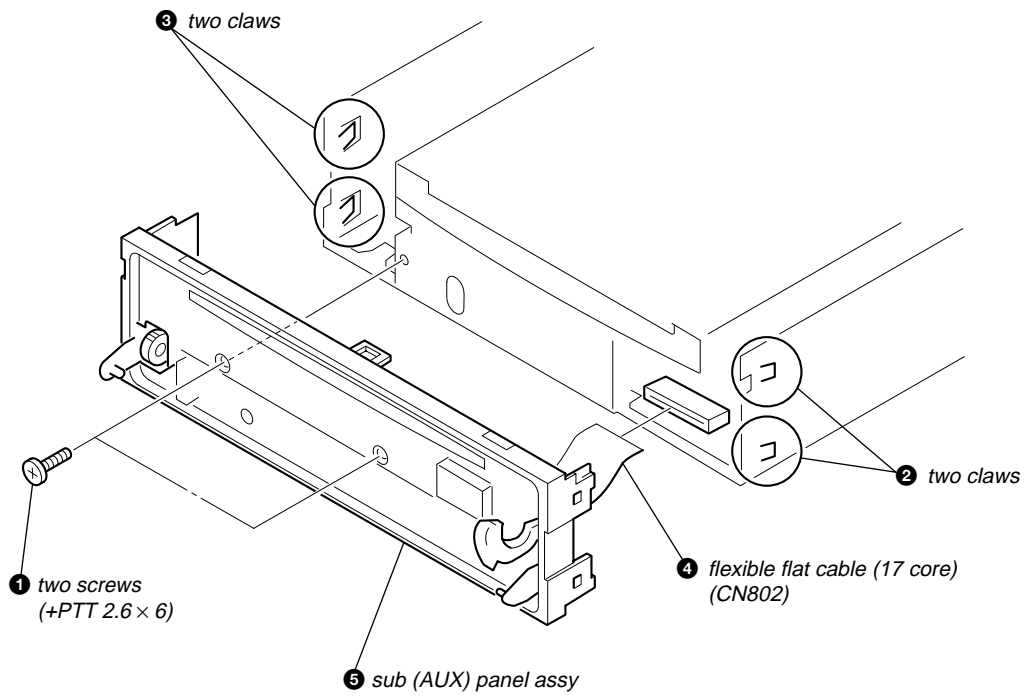
**SECTION 3
DISASSEMBLY**

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

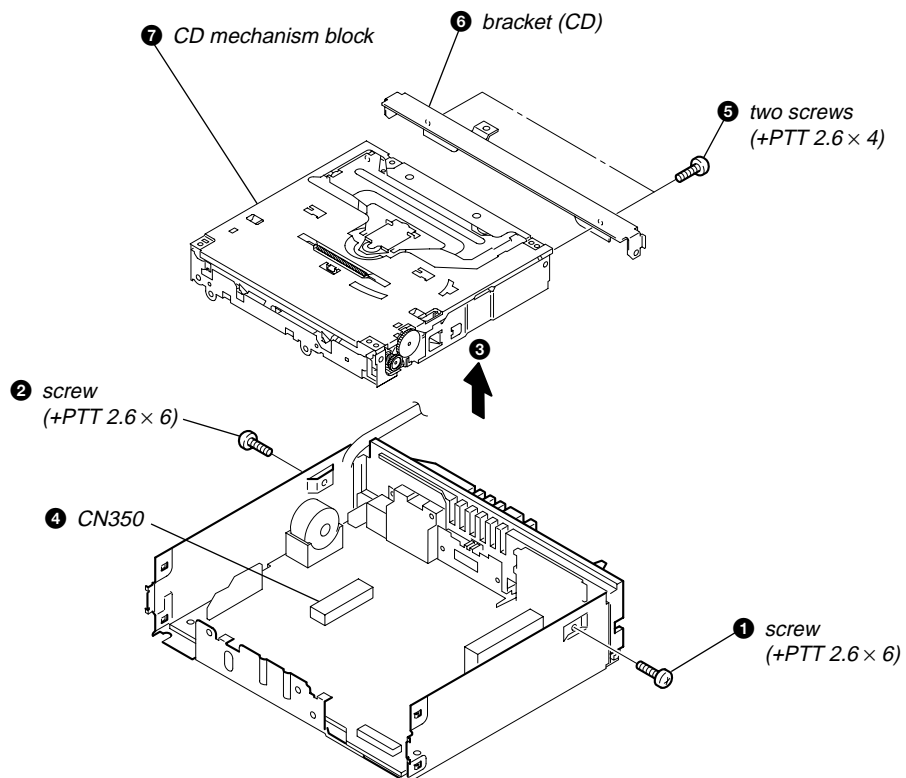


Note: Follow the disassembly procedure in the numerical order given.

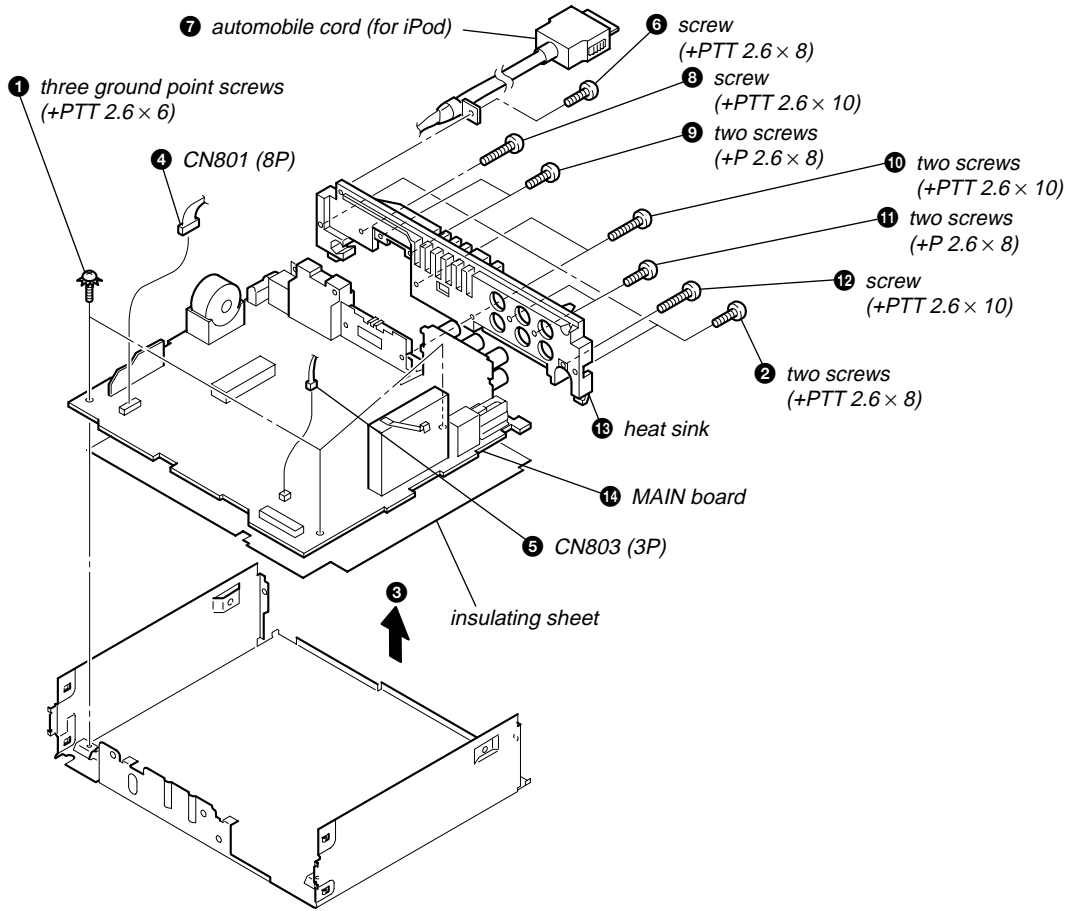
3-1. SUB (AUX) PANEL ASSY



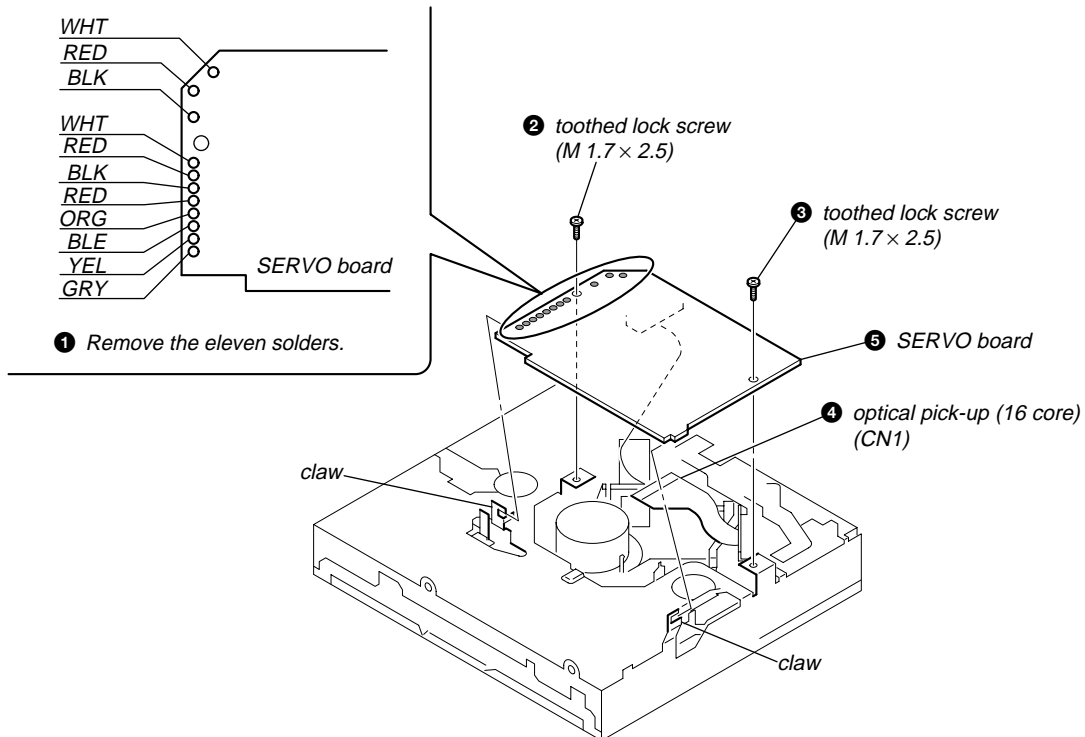
3-2. CD MECHANISM BLOCK



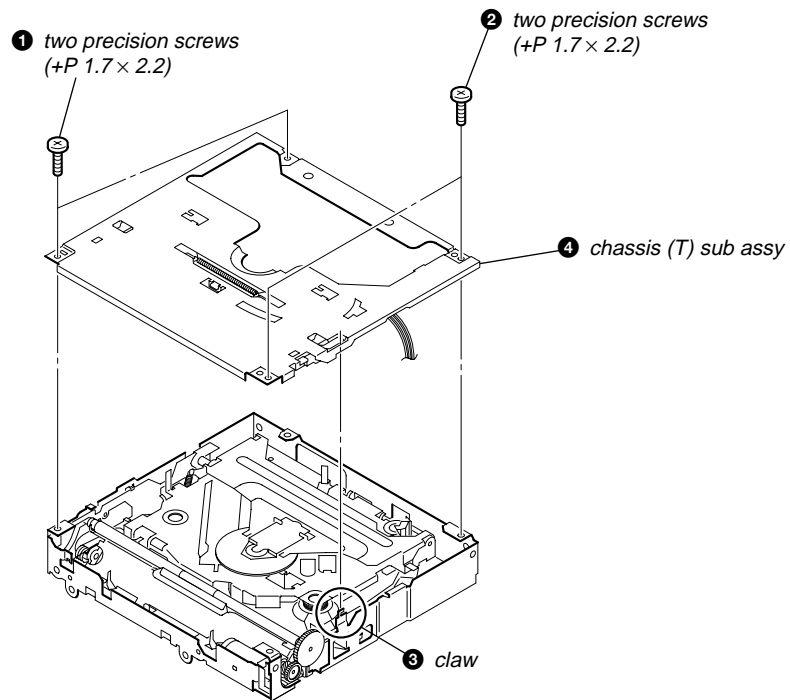
3-3. MAIN BOARD



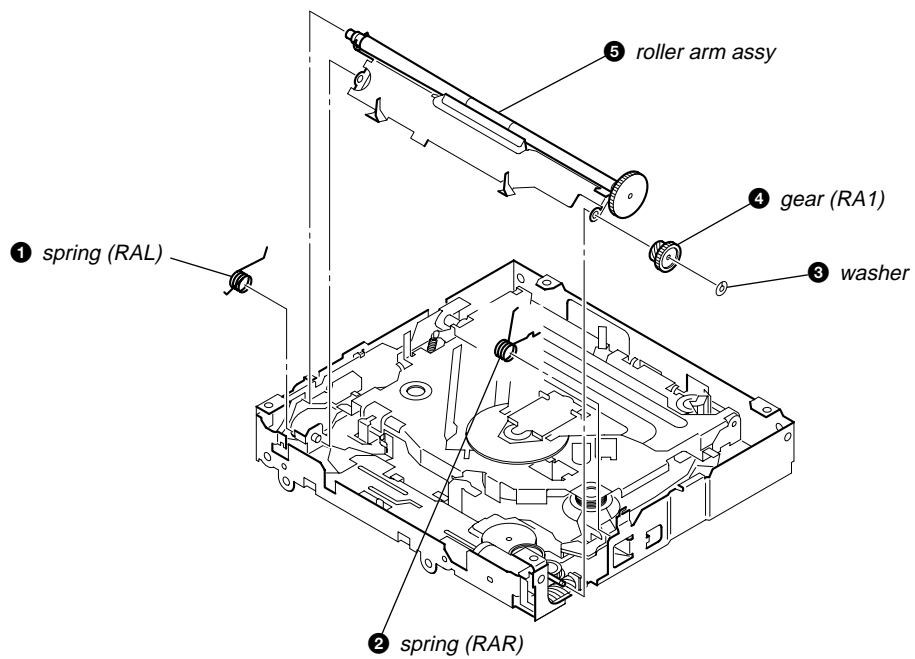
3-4. SERVO BOARD



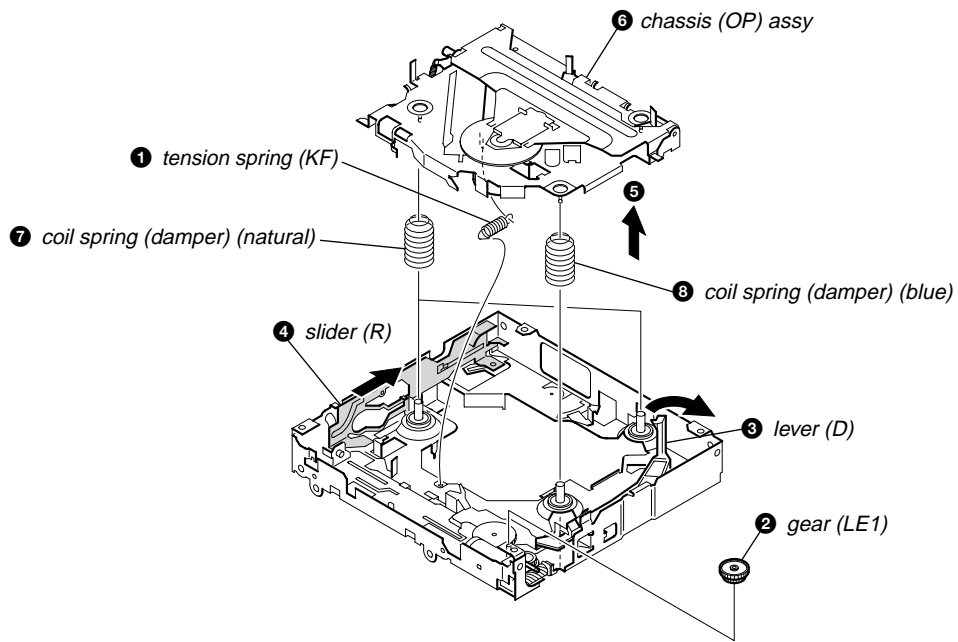
3-5. CHASSIS (T) SUB ASSY



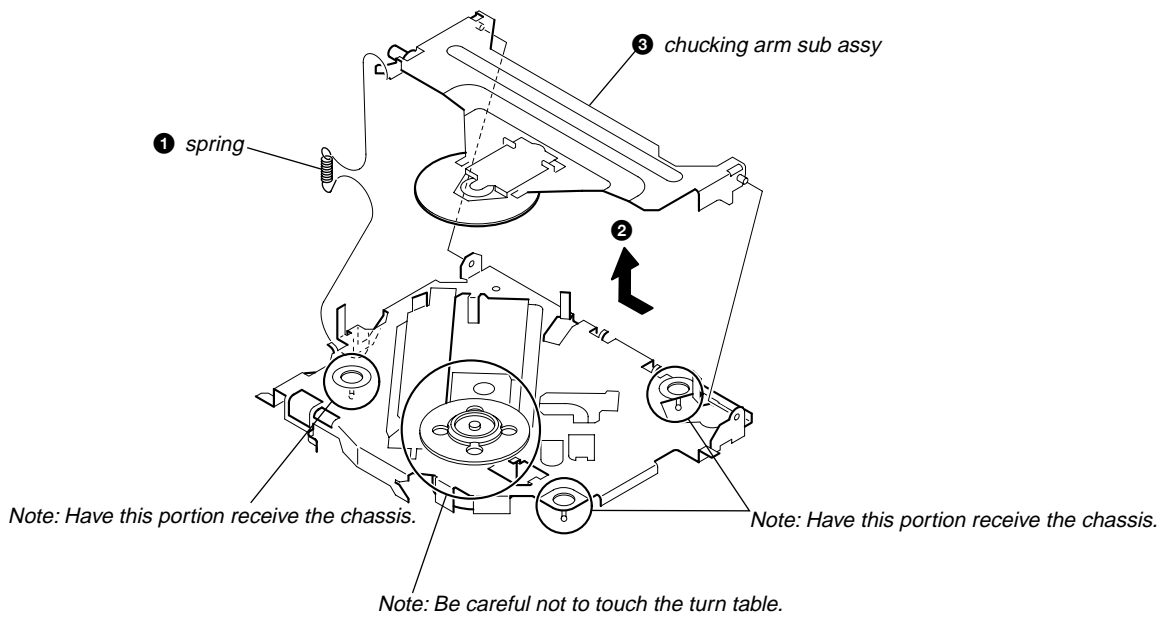
3-6. ROLLER ARM ASSY



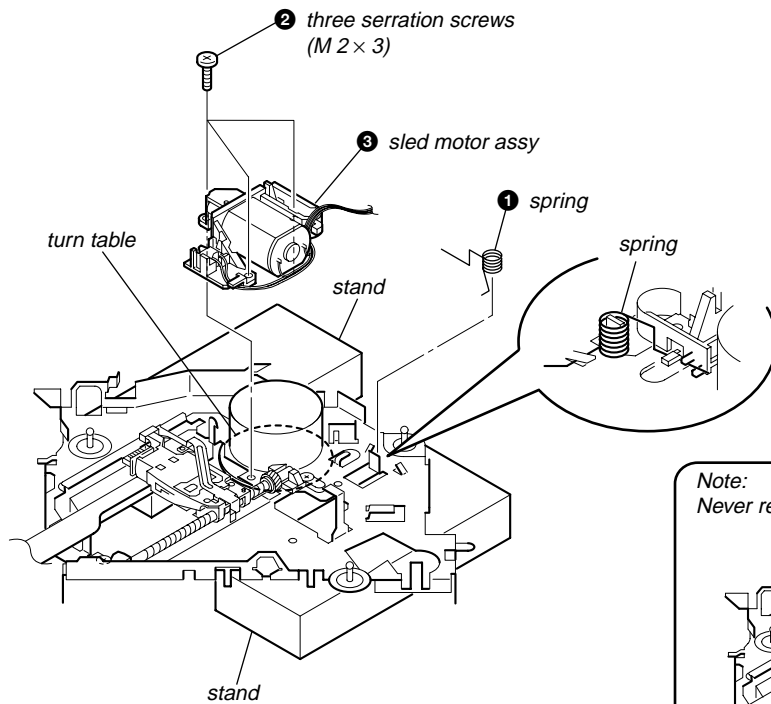
3-7. CHASSIS (OP) ASSY



3-8. CHUCKING ARM SUB ASSY

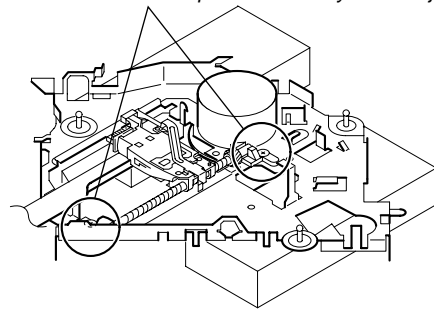


3-9. SLED MOTOR ASSY

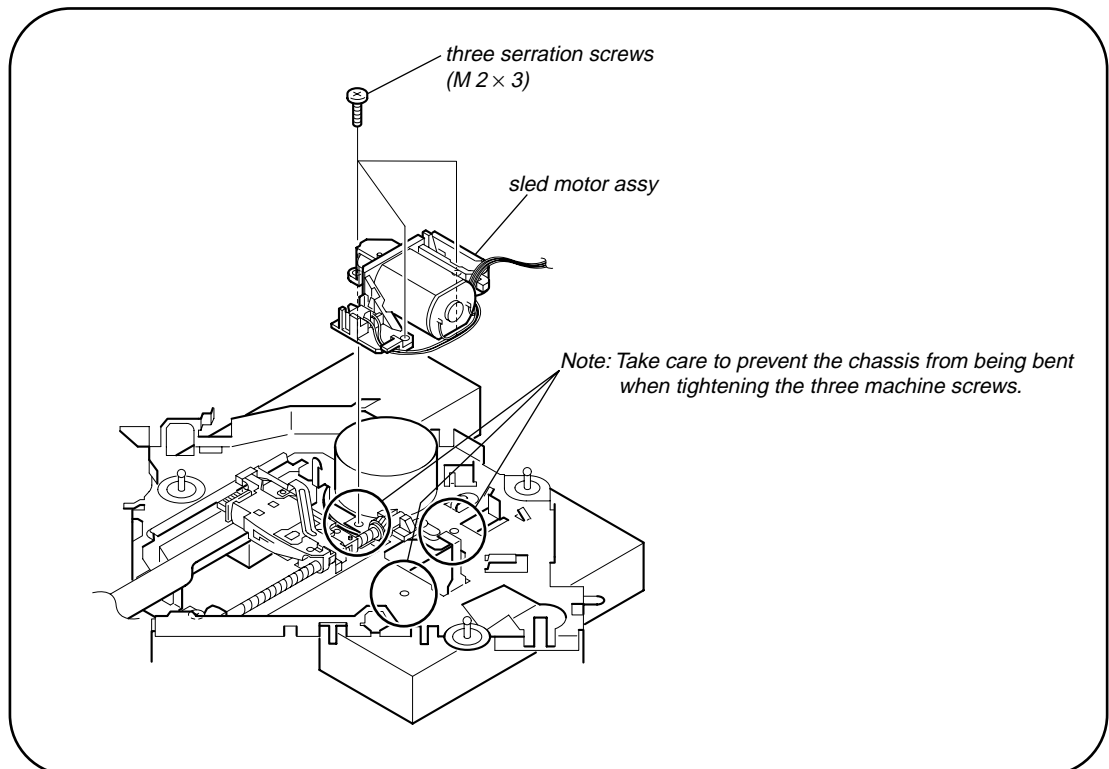


Note: Place the stand with care not to touch the turn table.

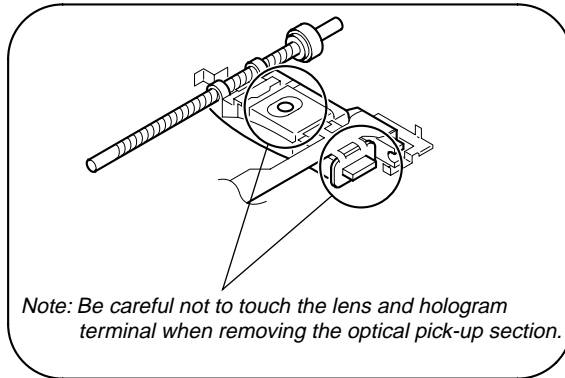
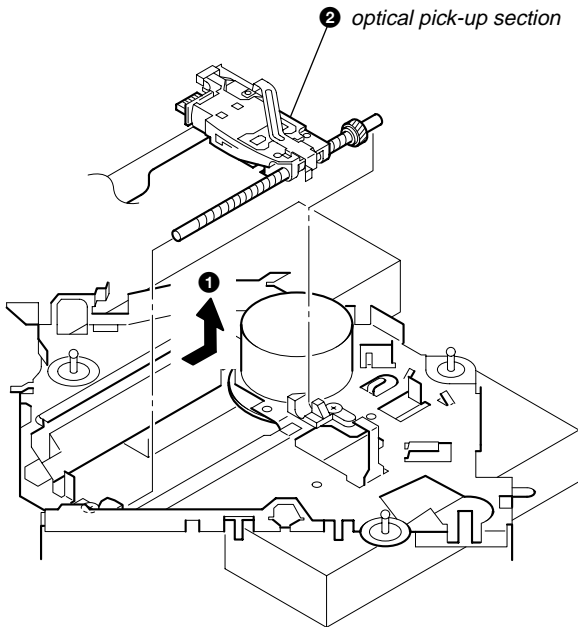
Note:
Never remove these parts since they were adjusted.



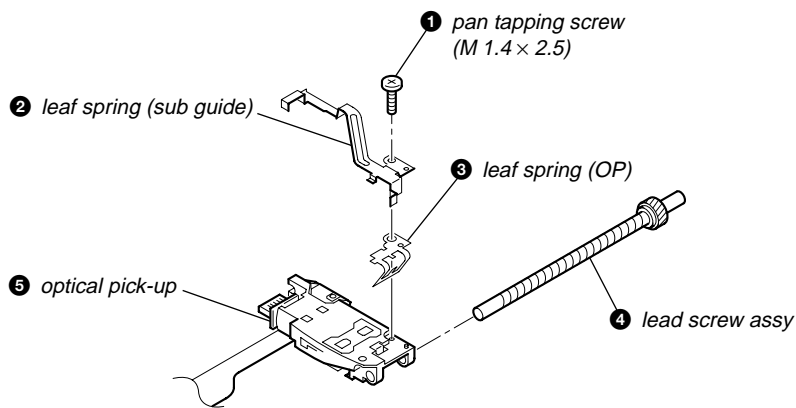
Note for Assembly



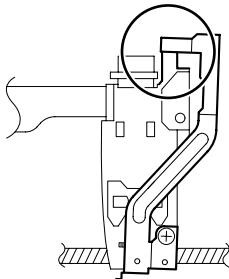
3-10. OPTICAL PICK-UP SECTION



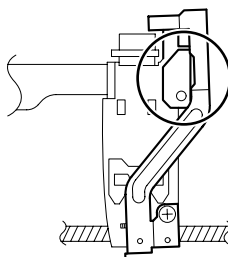
3-11. OPTICAL PICK-UP



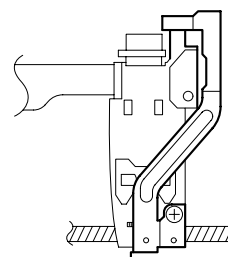
Notes for Assembly



Prevent the end of the leaf spring (sub guide) from being in contact with the OP slide base.



Prevent the end of the leaf spring (sub guide) from being in contact with the OP slide base.



There is space at the end of the leaf spring (sub guide) to avoid contact with the slide.

SECTION 4 DIAGNOSIS FUNCTION

Description of the Diagnostics function:

1. Setting the Diag display mode

With the power off, press the [4/SHUF] button, [5] button, and [4/SHUF] button on the set body or the remote control (for more than 2 seconds) in turn.

2. Canceling the Diag display mode

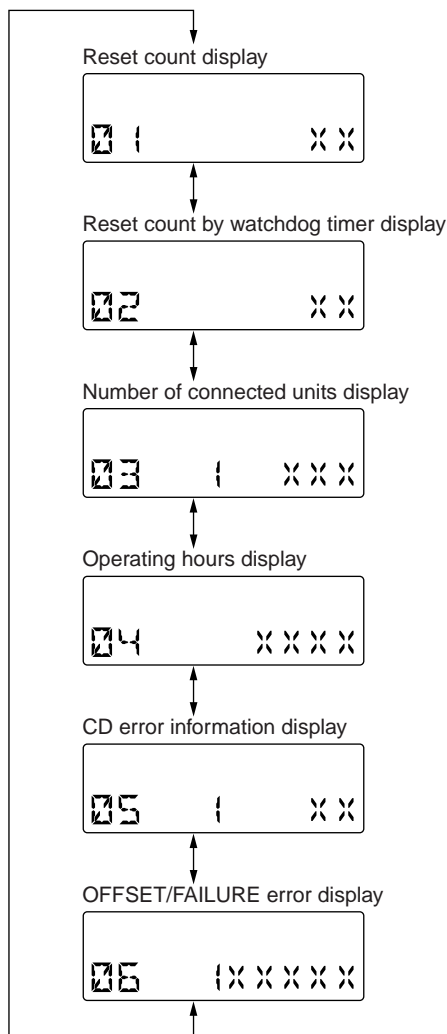
During the Diag function mode, press the [OFF] button.

3. Initial display in the Diag display mode

Just when the Diag mode is entered, "reset count" is displayed.

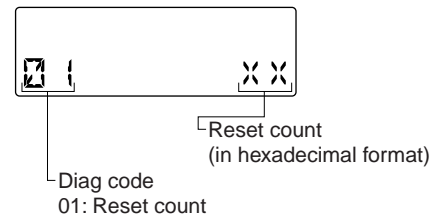
The display mode is switched by each rotation of

[SEEK +/▶▶▶▶▶] or [SEEK -/◀◀◀◀◀] buttons.

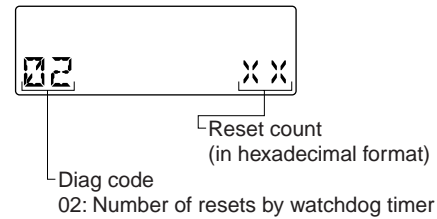


4. Contents of each display mode

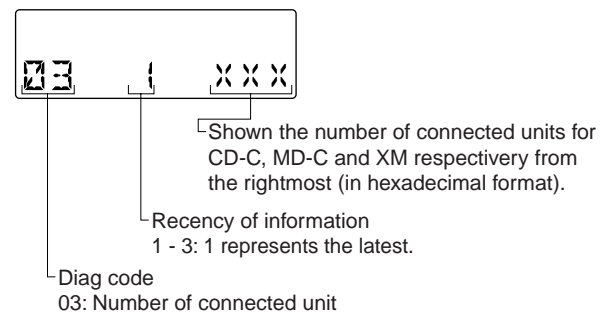
4-1. Reset count display mode



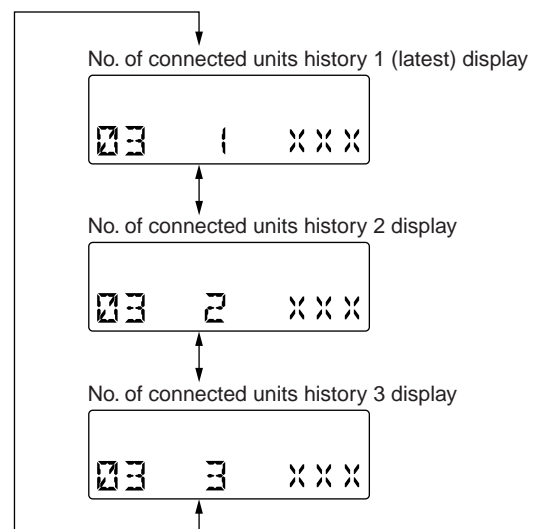
4-2. Reset count by watchdog timer display mode



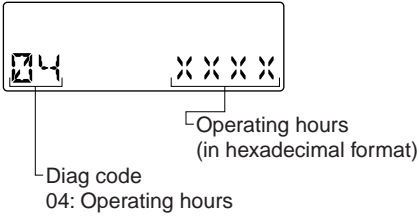
4-3. Number of connected units display mode



The display mode is switched by each rotation of [ALBM+] or [ALBM-] buttons during the number of connected units display mode.

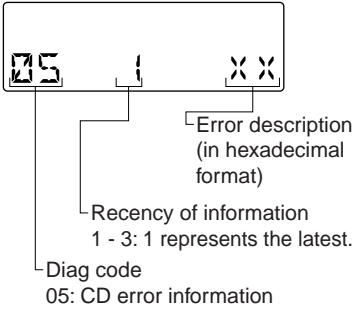


4-4. Operating hours display mode



4-5. CD error information display mode

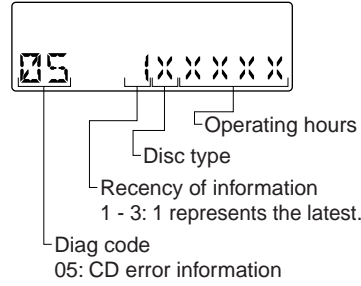
4-5-1. Error description



Error information

Indication	Description
1X	SERVO ERROR
3X	LOADING ERROR
4X	TRACK JUMP
5X	TEXT ERROR
FX	MECHA ERROR

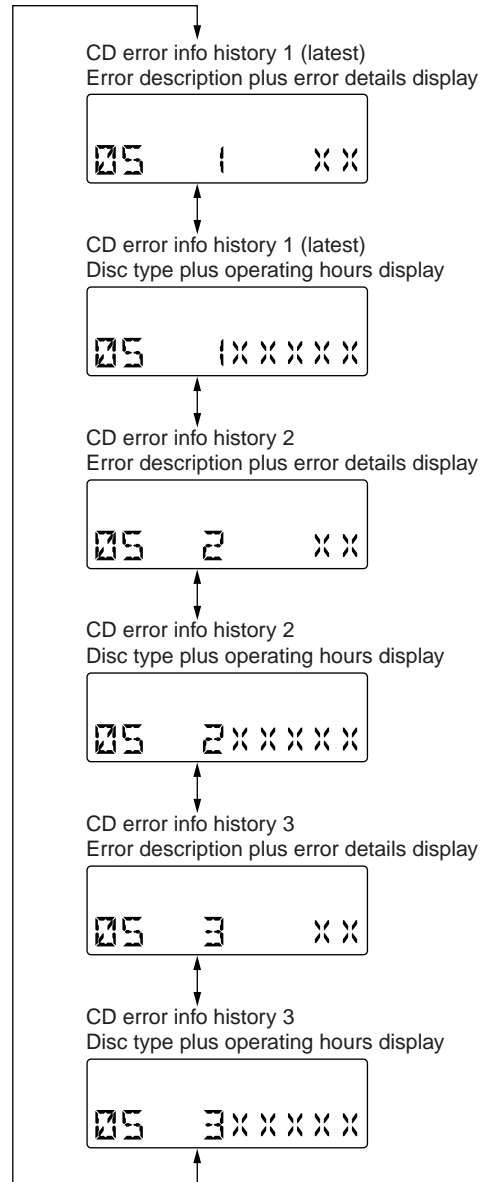
4-5-2. Disc type and operating hours



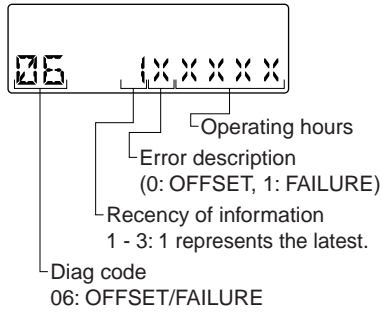
Disc type

Indication	Disc type
0	MP3
1	WMA
2	AAC
3	ATRAC
8	CD-DA
F	UNKNOWN

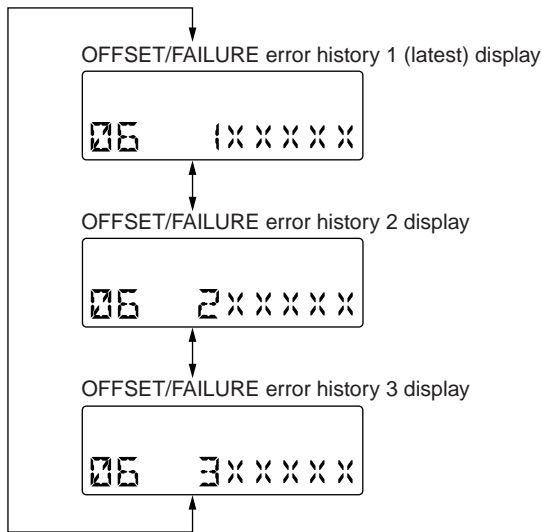
The display mode is switched by each rotation of [ALBM+] or [ALBM] buttons during the CD error information display mode.



4-6. OFFSET/FAILURE error display mode



The display mode is switched by each rotation of **[ALBM+]** or **[ALBM-]** buttons during the OFFSET/FAILURE error display mode.



SECTION 5 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 diagram:

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 $\frac{1}{4}\text{W}$ or less unless otherwise specified.
- Δ : internal component.
- : panel designation.

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

- — : B+ Line.
- - - - : B- Line.
- : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
- () : AM or MW
- < > : CD
- * : Impossible measurement point
- Voltages are taken with a VOM (Input impedance 10 M Ω). 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
- : FM
- : AM or MW
- : AUDIO
- : AUX
- : iPod

for printed wiring boards:

Note:

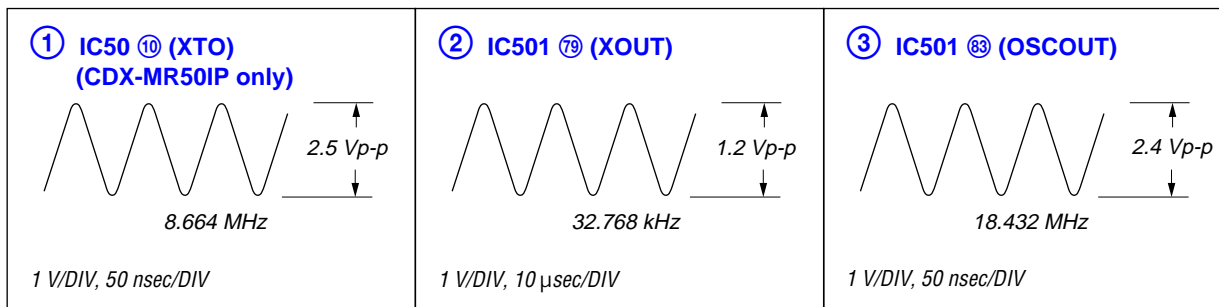
- : parts extracted from the component side.
- : parts extracted from the conductor side.
- : Through hole.
- : Pattern from the side which enables seeing.
(The other layers' patterns are not indicated.)

Caution:

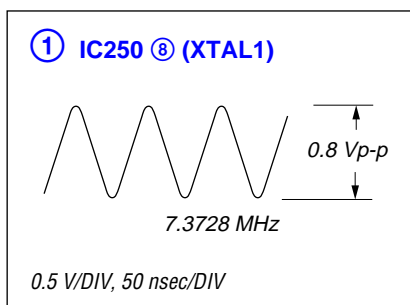
Pattern face side: Parts on the pattern face side seen from the (Side B) pattern face are indicated.
Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.

• Waveforms

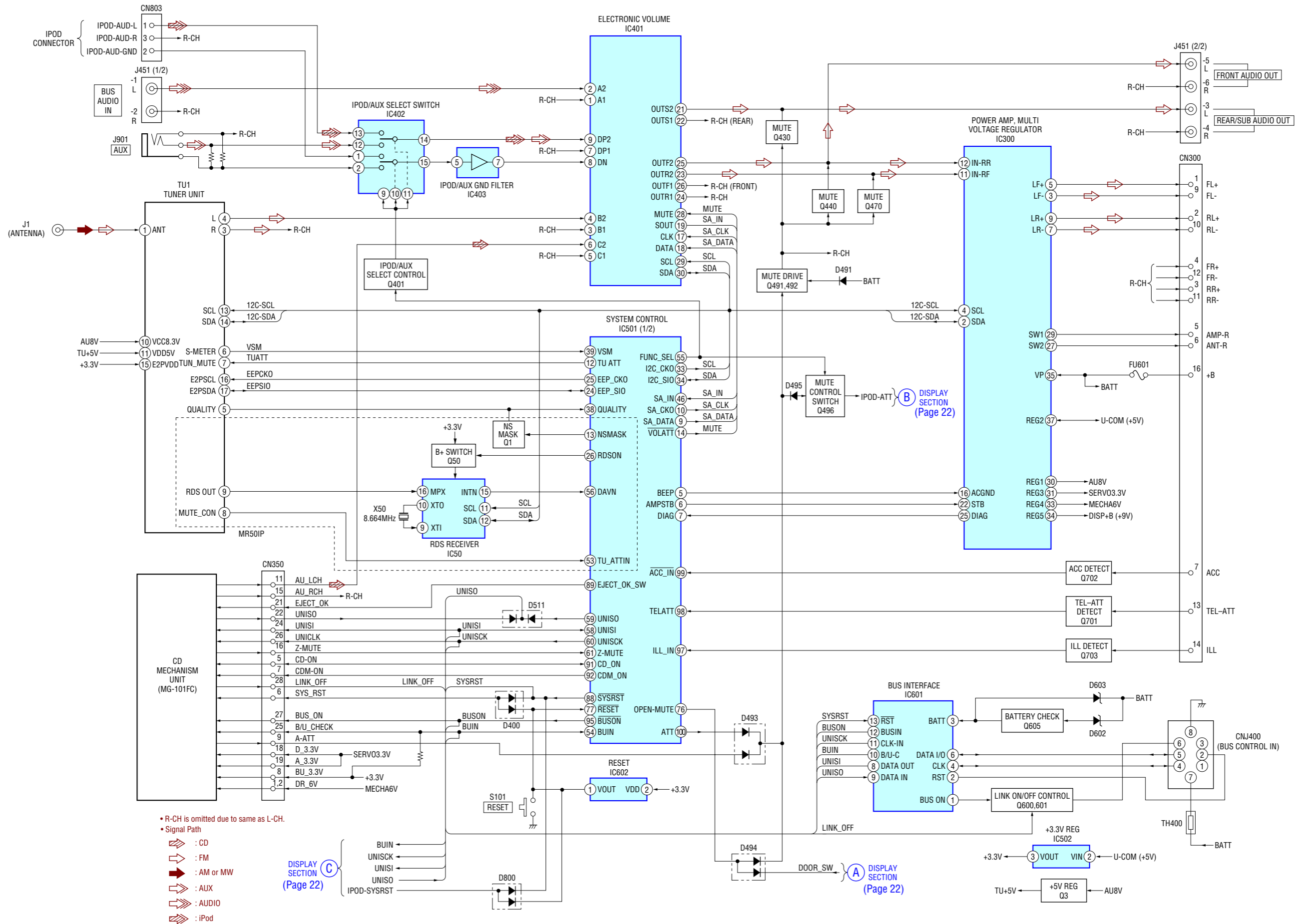
— MAIN Board —



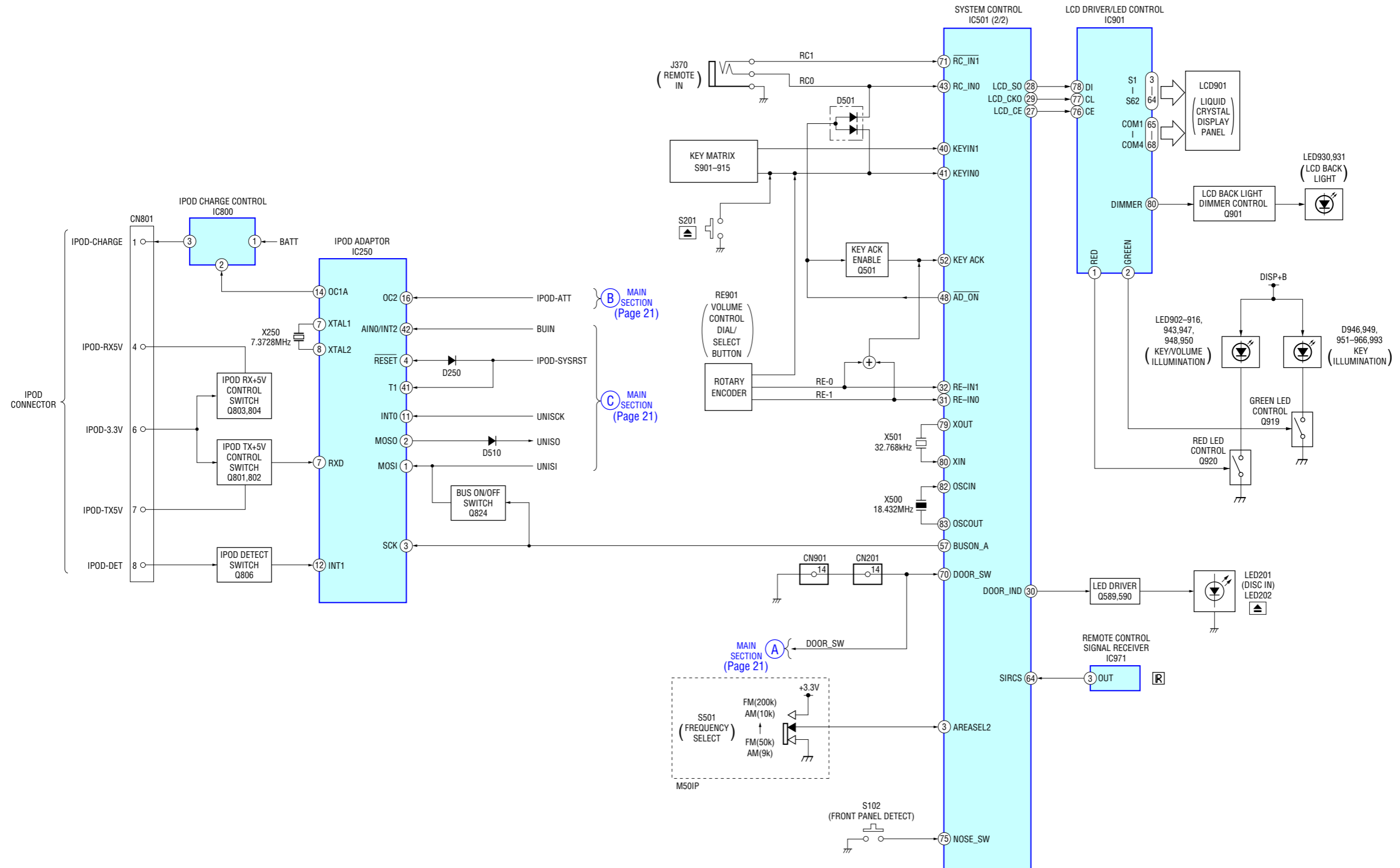
— IPOD Board —



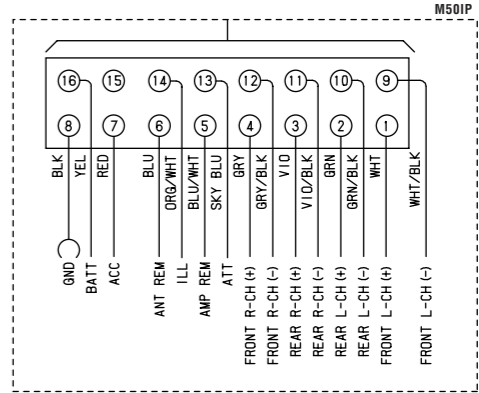
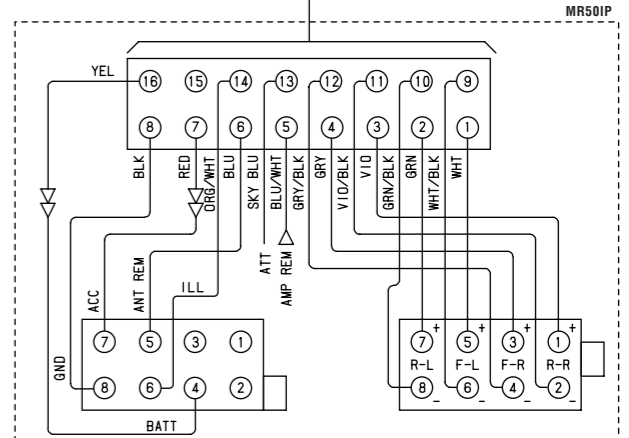
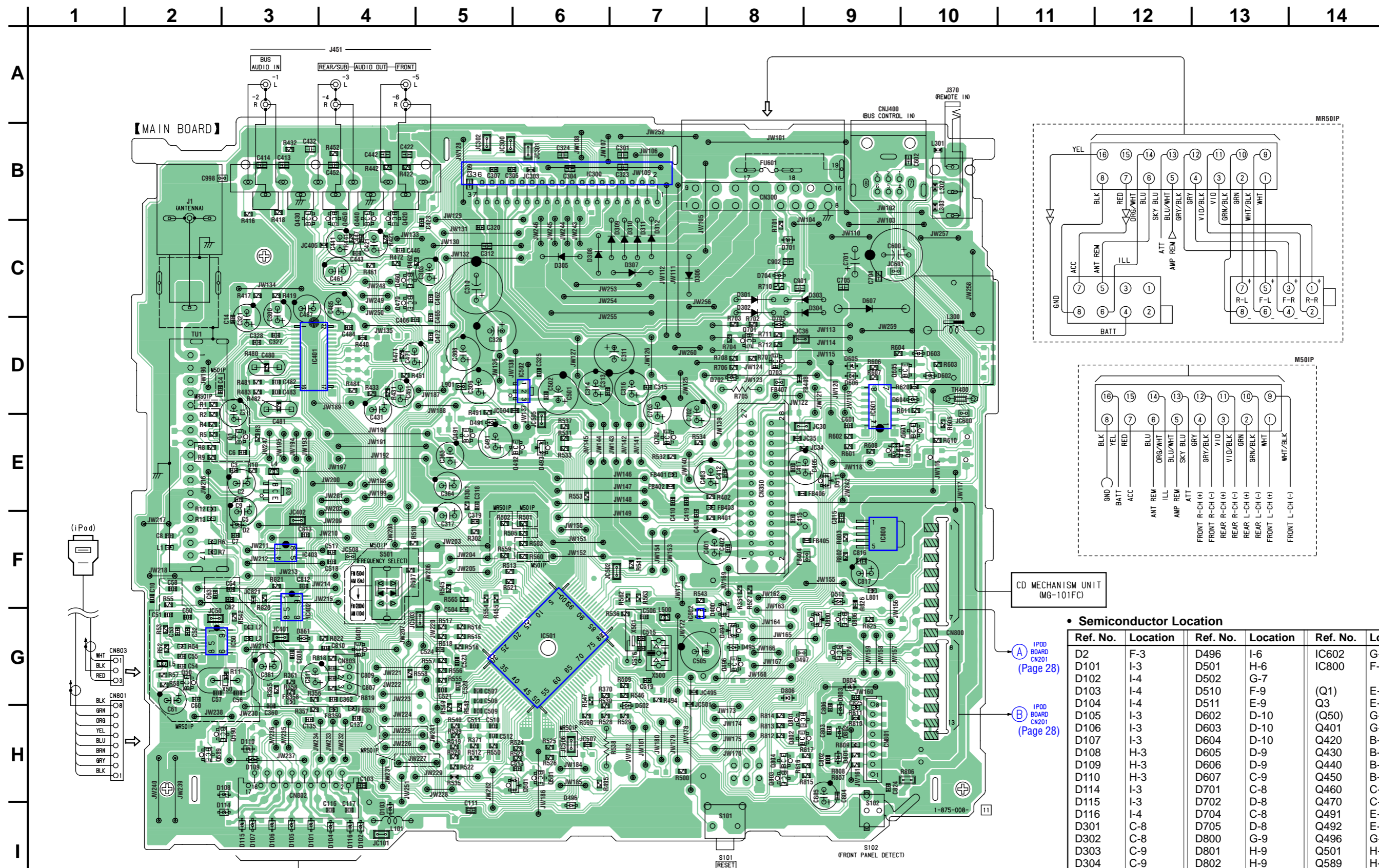
5-1. BLOCK DIAGRAM — MAIN SECTION —



5-2. BLOCK DIAGRAM — DISPLAY SECTION —



5-3. PRINTED WIRING BOARD — MAIN SECTION —  : Uses unleaded solder.



CD MECHANISM UNIT (MG-101FC)

(A) IPOD BOARD CN201 (Page 28)

(B) IPOD BOARD CN201 (Page 28)

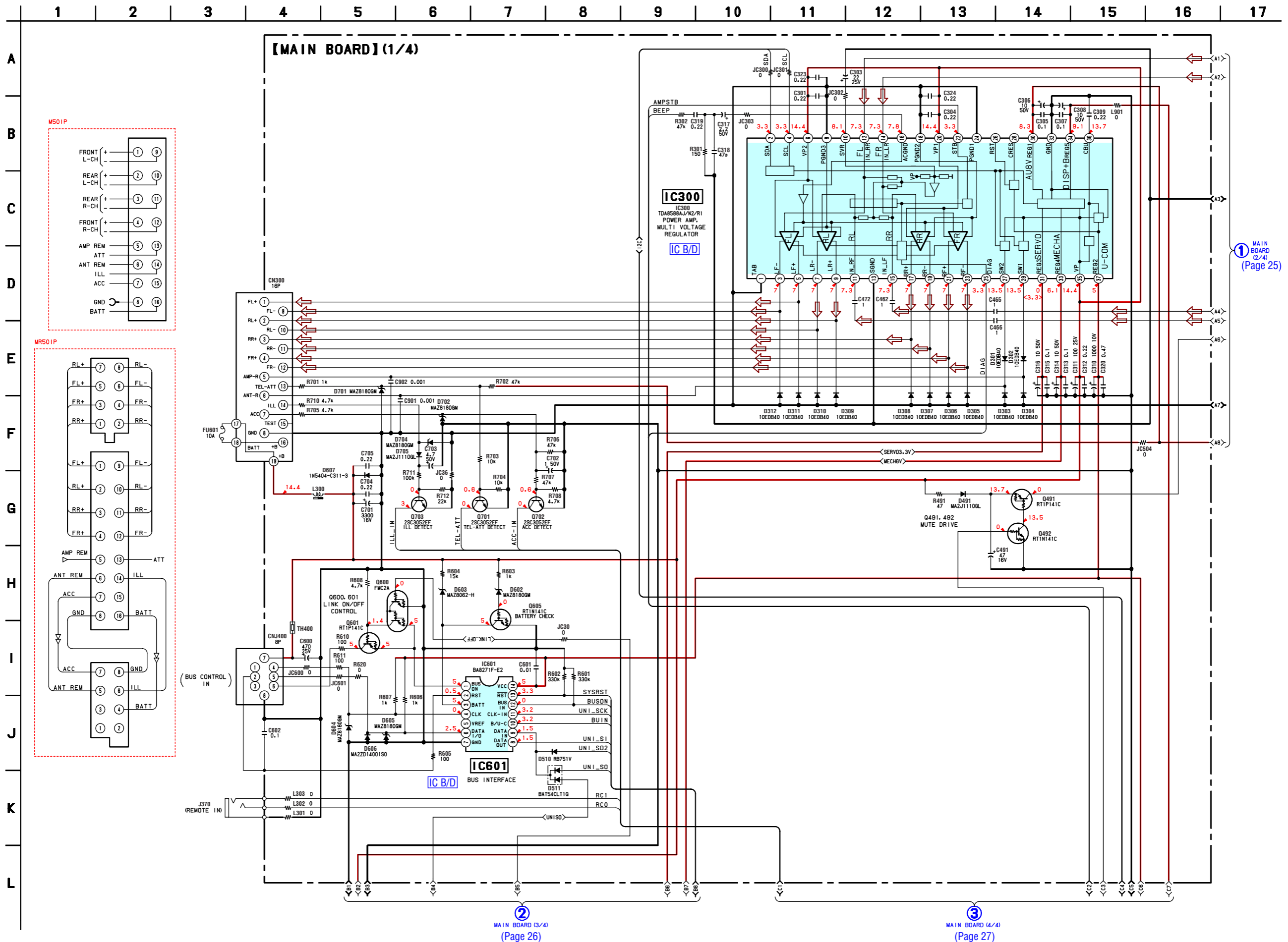
(C) SUB BOARD CN202 (Page 29)

• Semiconductor Location

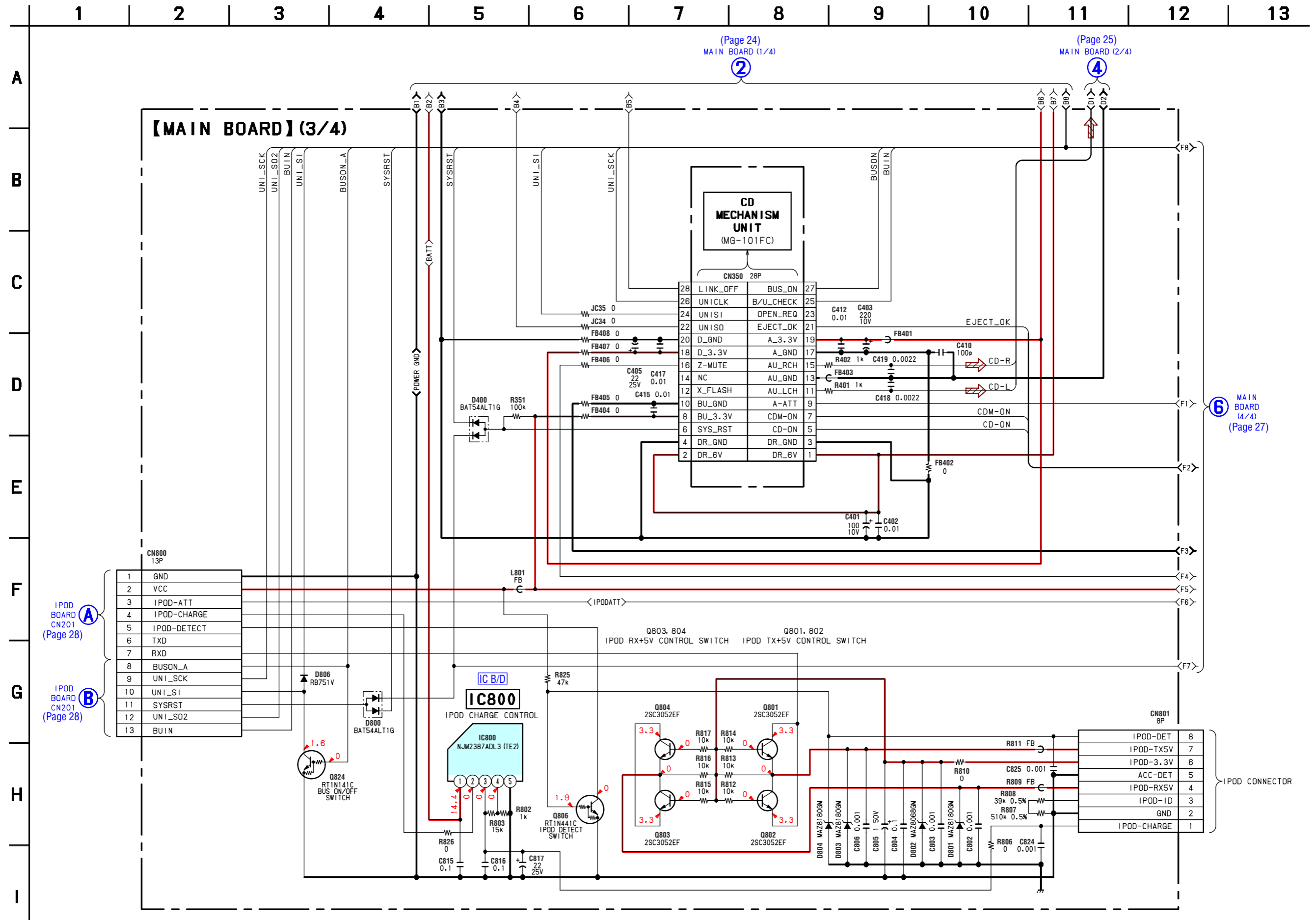
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D2	F-3	D496	I-6	IC602	G-7
D101	I-3	D501	H-6	IC800	F-9
D102	I-4	D502	G-7		
D103	I-4	D510	F-9	(Q1)	E-3
D104	I-4	D511	E-9	Q3	E-3
D105	I-3	D602	D-10	(Q50)	G-2
D106	I-3	D603	D-10	Q401	G-4
D107	I-3	D604	D-10	Q420	B-4
D108	H-3	D605	D-9	Q430	B-3
D109	H-3	D606	D-9	Q440	B-4
D110	H-3	D607	C-9	Q450	B-4
D114	I-3	D701	C-8	Q460	C-4
D115	I-3	D702	D-8	Q470	C-4
D116	I-4	D704	C-8	Q491	E-5
D301	C-8	D705	D-8	Q492	E-6
D302	C-8	D800	G-9	Q496	G-8
D304	C-9	D801	H-9	Q501	H-6
D305	C-6	D802	H-9	Q589	H-2
D306	C-7	D803	G-9	Q590	H-3
D307	C-7	D804	G-9	Q600	E-10
D308	C-6	D806	G-8	Q601	E-10
D309	C-7	D861	G-3	Q605	D-10
D310	C-7			Q701	D-8
D311	C-7	(IC50)	G-2	Q702	E-7
D312	C-7	IC300	B-6	Q703	D-8
D400	G-8	IC401	D-3	Q801	H-8
D491	E-5	IC402	G-3	Q802	H-8
D493	E-6	IC403	F-3	Q803	H-8
D494	G-8	IC501	G-6	Q804	H-8
D495	G-8	IC502	D-6	Q806	G-9
		IC601	D-9	Q824	G-9

(): CDX-MR50IP only

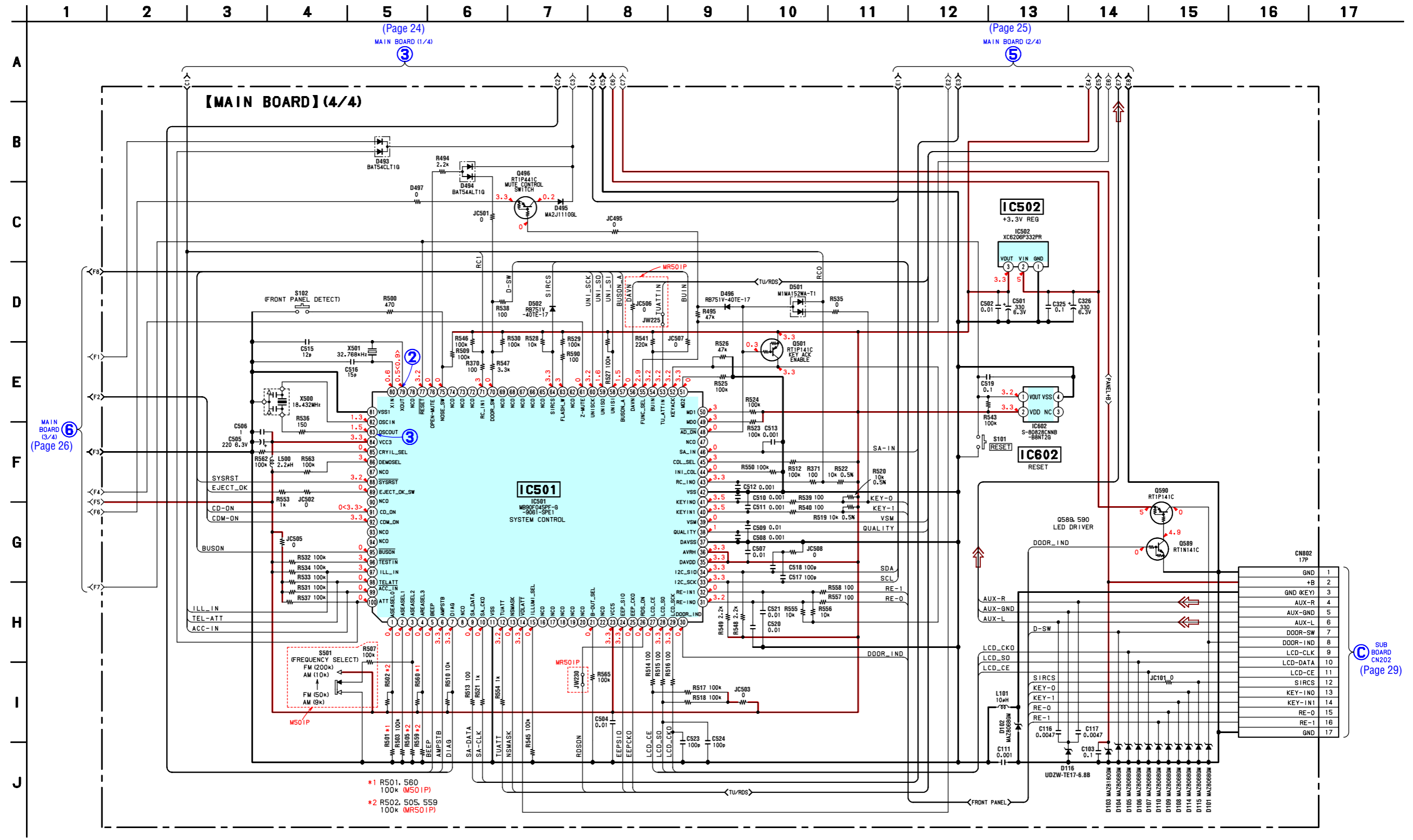
5-4. SCHEMATIC DIAGRAM — MAIN SECTION (1/4) — • Refer to page 32 for IC Block Diagrams.




5-6. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) — • Refer to page 33 for IC Block Diagrams.

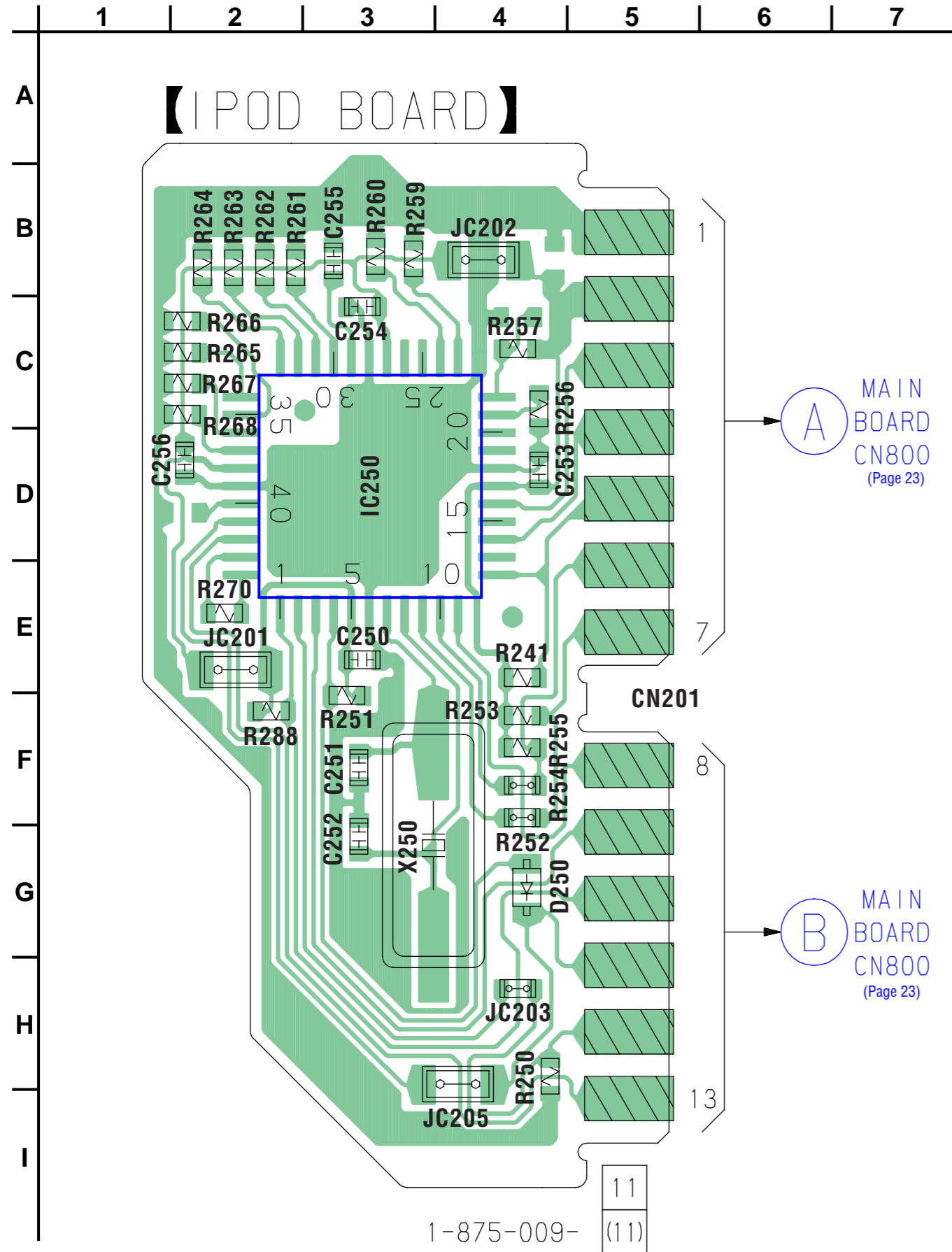


5-7. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) — • Refer to page 20 for Waveforms and page 35 for IC Pin Description.



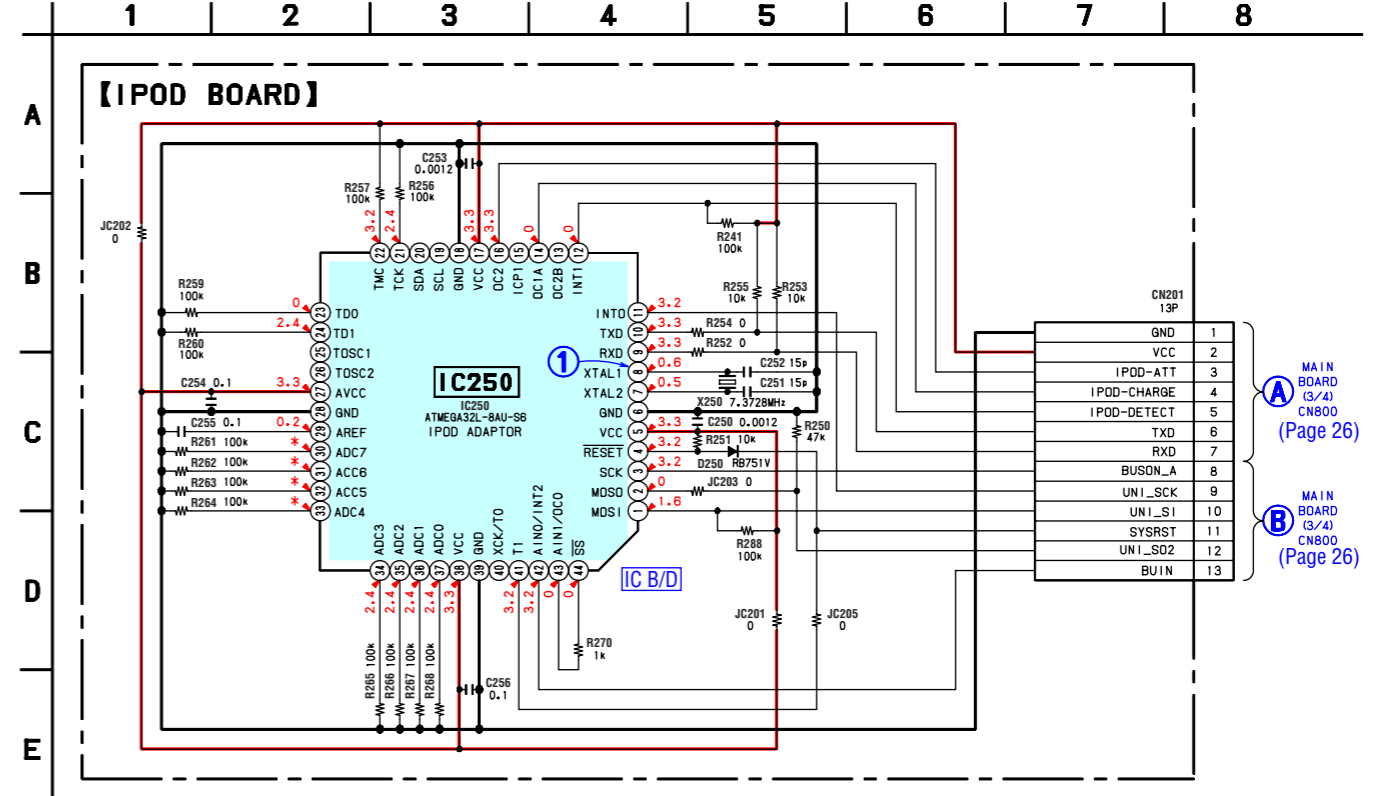
5-8. PRINTED WIRING BOARD — IPOD SECTION —

 : Uses unleaded solder.



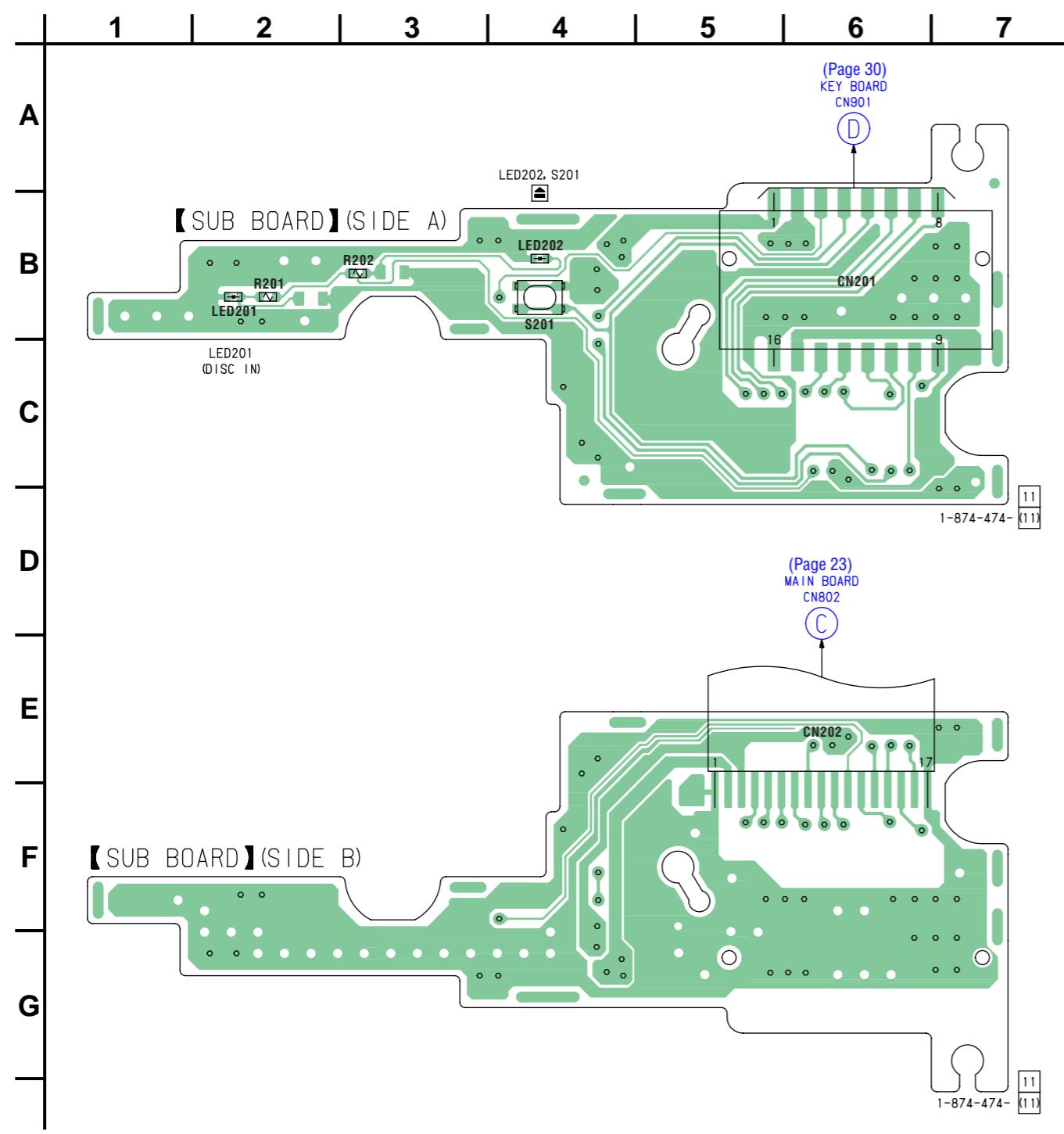
5-9. SCHEMATIC DIAGRAM — IPOD SECTION —

• Refer to page 20 for Waveforms and page 34 for IC Block Diagrams.

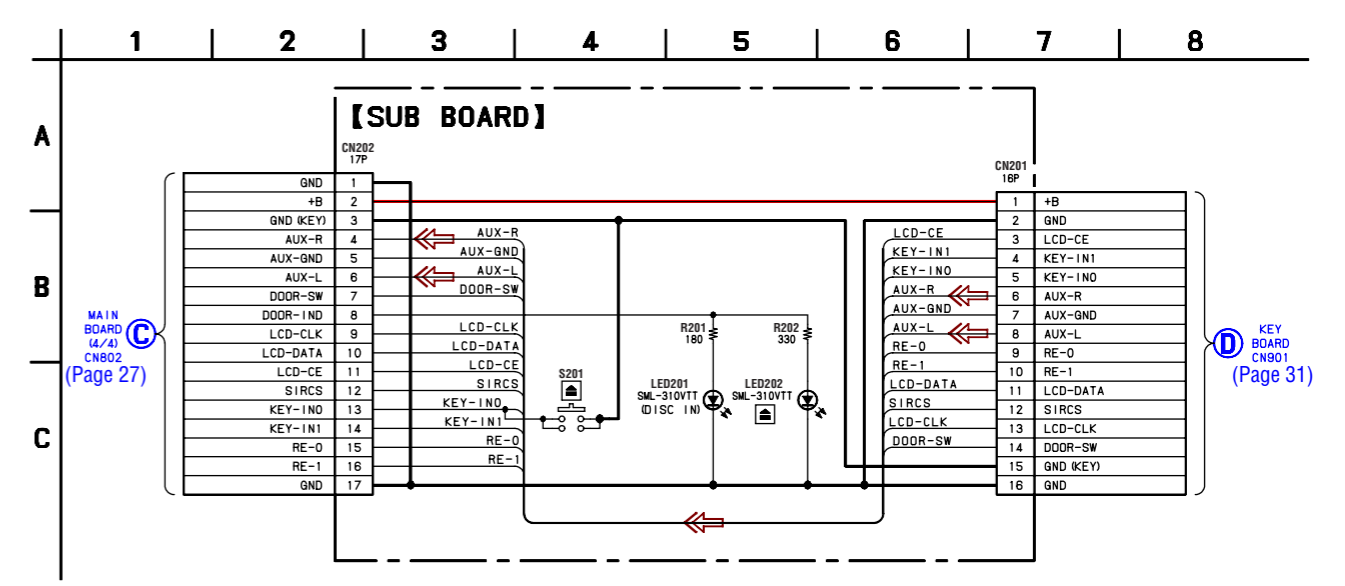


5-10. PRINTED WIRING BOARD — SUB SECTION —

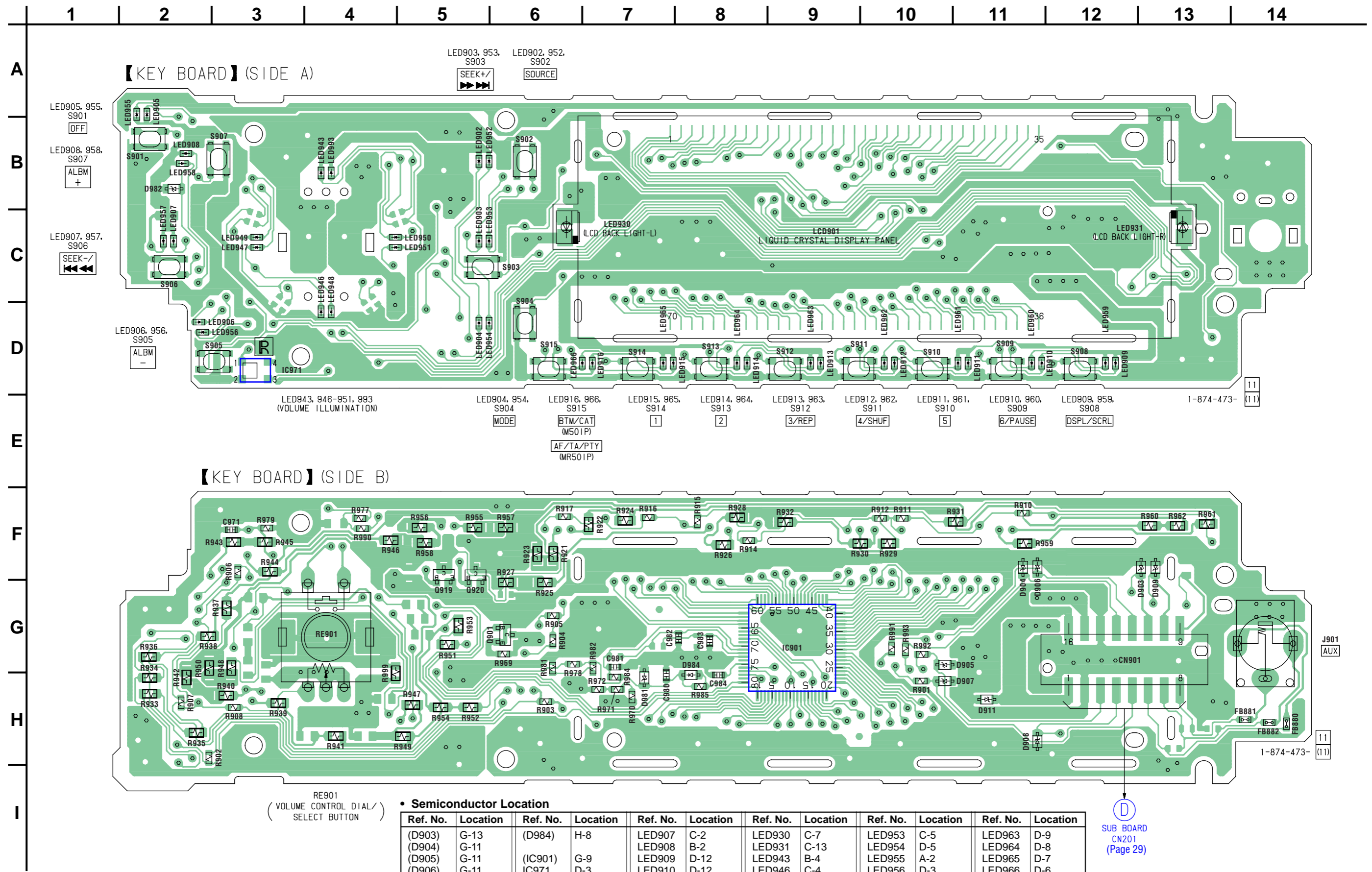
 : Uses unleaded solder.



5-11. SCHEMATIC DIAGRAM — SUB SECTION —




5-12. PRINTED WIRING BOARD — DISPLAY SECTION —  : Uses unleaded solder.



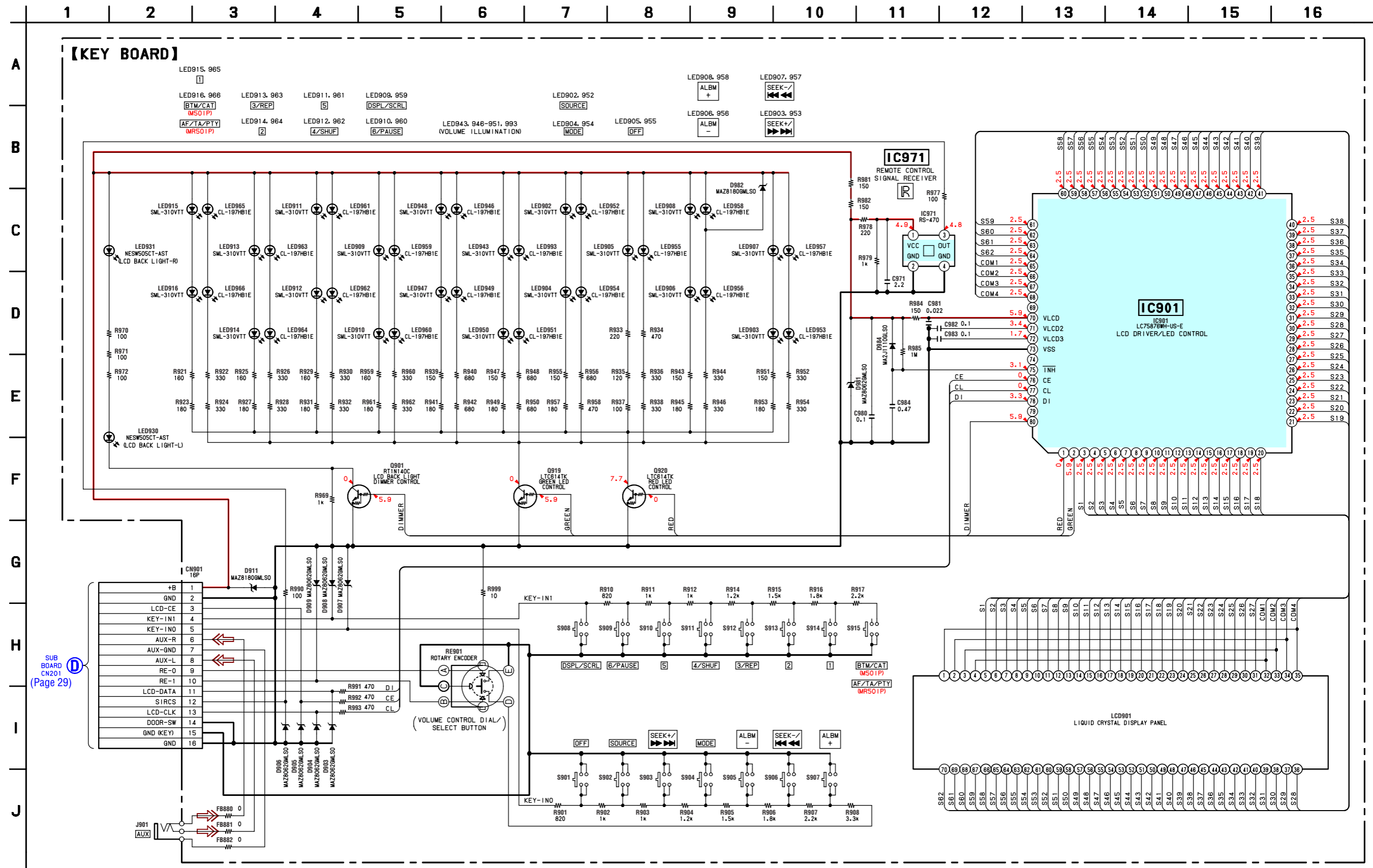
RE901
(VOLUME CONTROL DIAL/
SELECT BUTTON)

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
(D903)	G-13	(D984)	H-8	LED907	C-2	LED930	C-7	LED953	C-5	LED963	D-9
(D904)	G-11			LED908	B-2	LED931	C-13	LED954	D-5	LED964	D-8
(D905)	G-11	(IC901)	G-9	LED909	D-12	LED943	B-4	LED955	A-2	LED965	D-7
(D906)	G-11	IC971	D-3	LED910	D-12	LED946	C-4	LED956	D-3	LED966	D-6
(D907)	H-11			LED911	D-11	LED947	C-3	LED957	C-2	LED993	B-4
(D908)	H-11	LED902	B-5	LED912	D-10	LED948	C-4	LED958	B-2		
(D909)	G-13	LED903	C-5	LED913	D-9	LED949	C-3	LED959	D-12	(Q901)	G-6
(D911)	H-11	LED904	D-5	LED914	D-8	LED950	C-5	LED960	D-11	(Q919)	G-5
(D981)	H-7	LED905	A-2	LED915	D-8	LED951	C-5	LED961	D-11	(Q920)	G-5
D982	B-2	LED906	D-3	LED916	D-7	LED952	B-5	LED962	D-10		

 SUB BOARD
CN201
(Page 29)

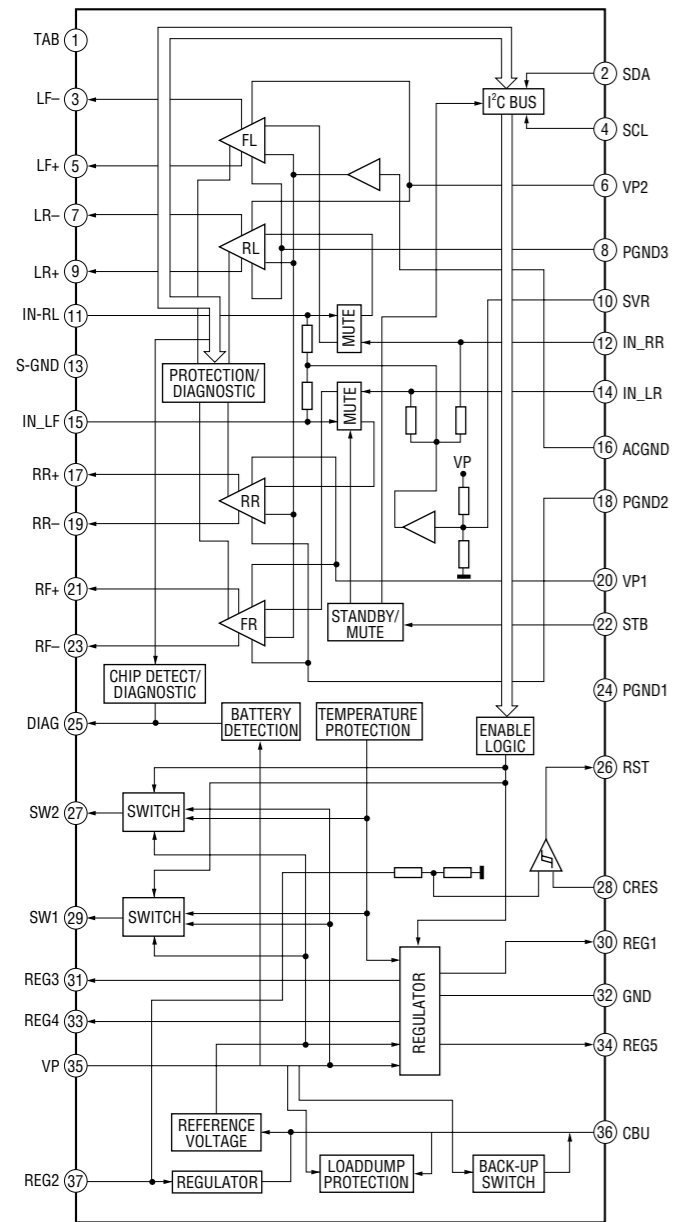
5-13. SCHEMATIC DIAGRAM — DISPLAY SECTION —



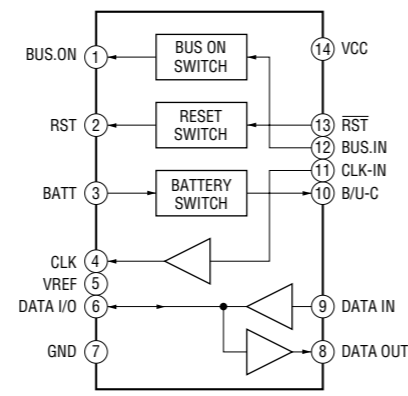
Sub BOARD CN201 (Page 29)

• IC Block Diagrams

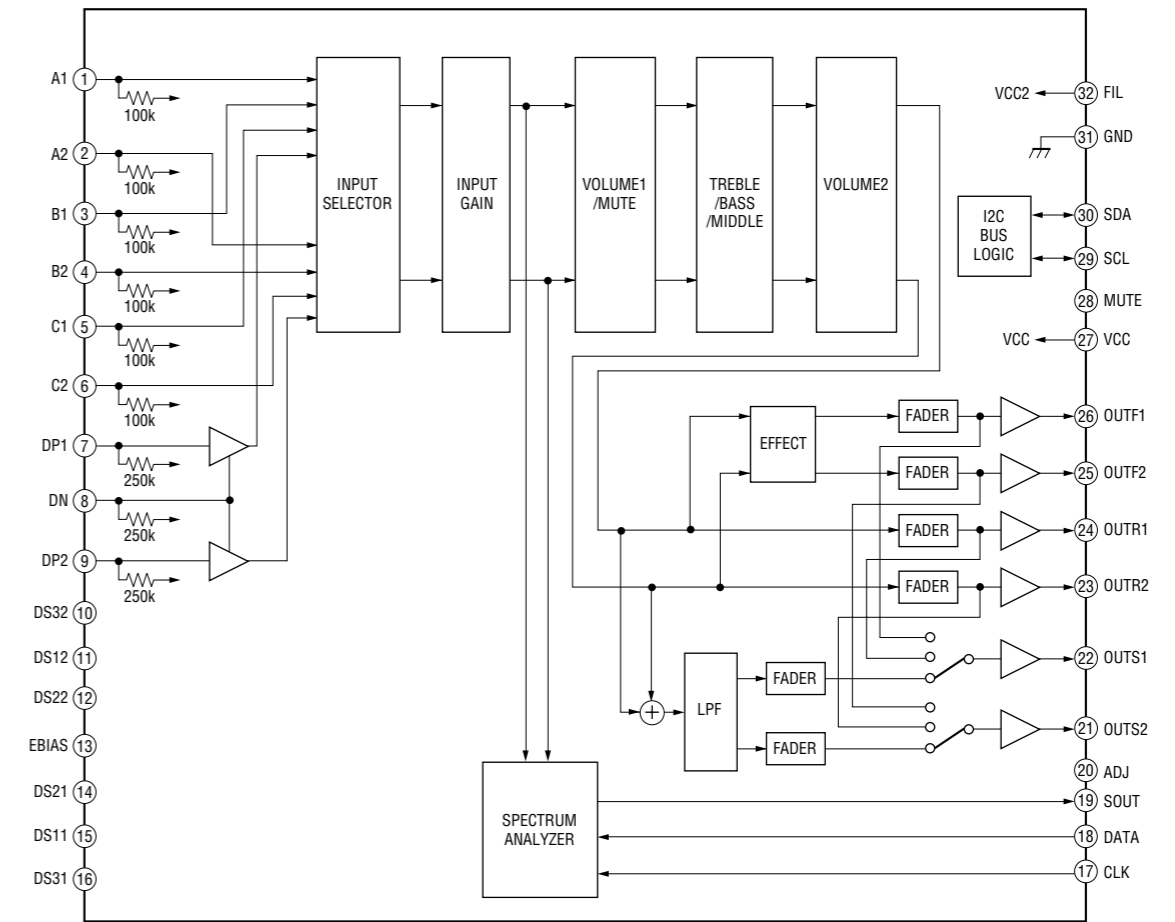
IC300 TDA8588AJ/N2/R1 (MAIN BOARD (1/4))



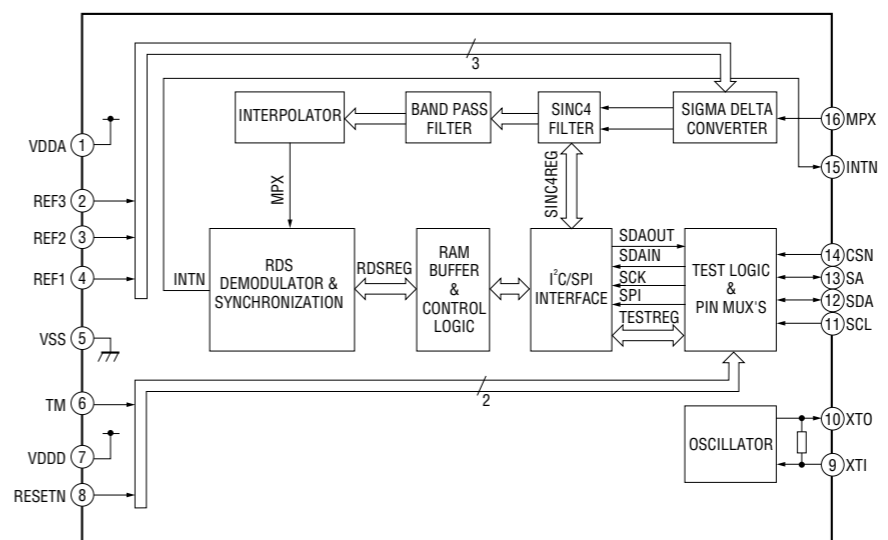
IC601 BA8271F-E2 (MAIN BOARD (1/4))



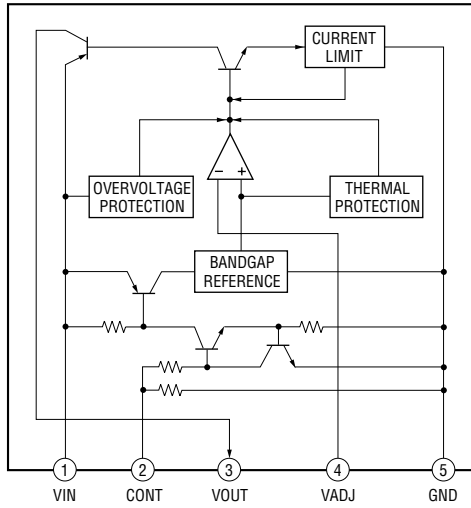
IC401 BD3442FS-E2 (MAIN BOARD (2/4))



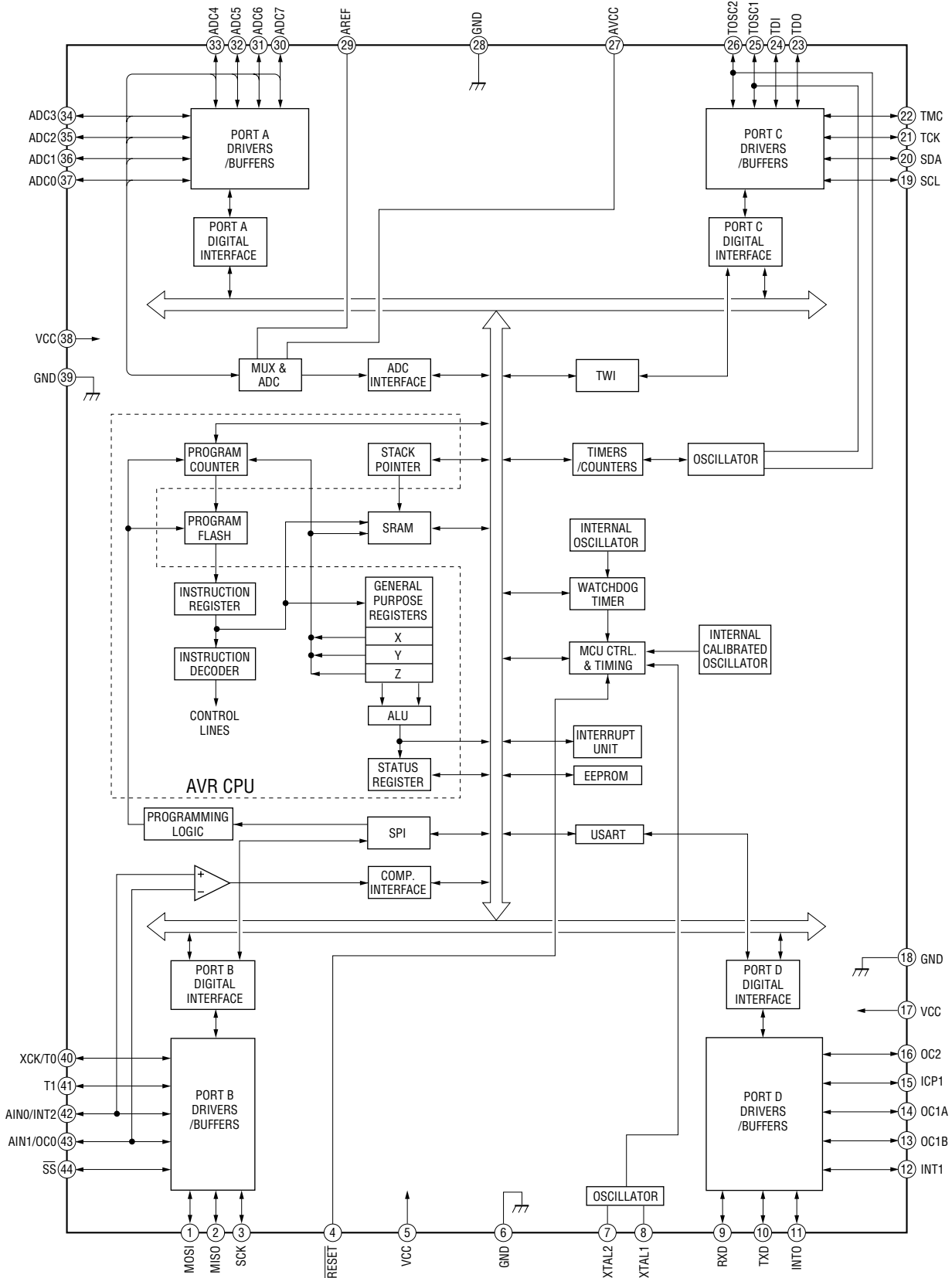
IC50 TDA733013TR (MAIN BOARD (2/4)) (CDX-MR50IP only)



IC800 NJM2387ADL3(TE2) (MAIN BOARD (3/4))



IC250 ATMEGA32L-8AU-S6 (IPOD BOARD)



• IC Pin Description

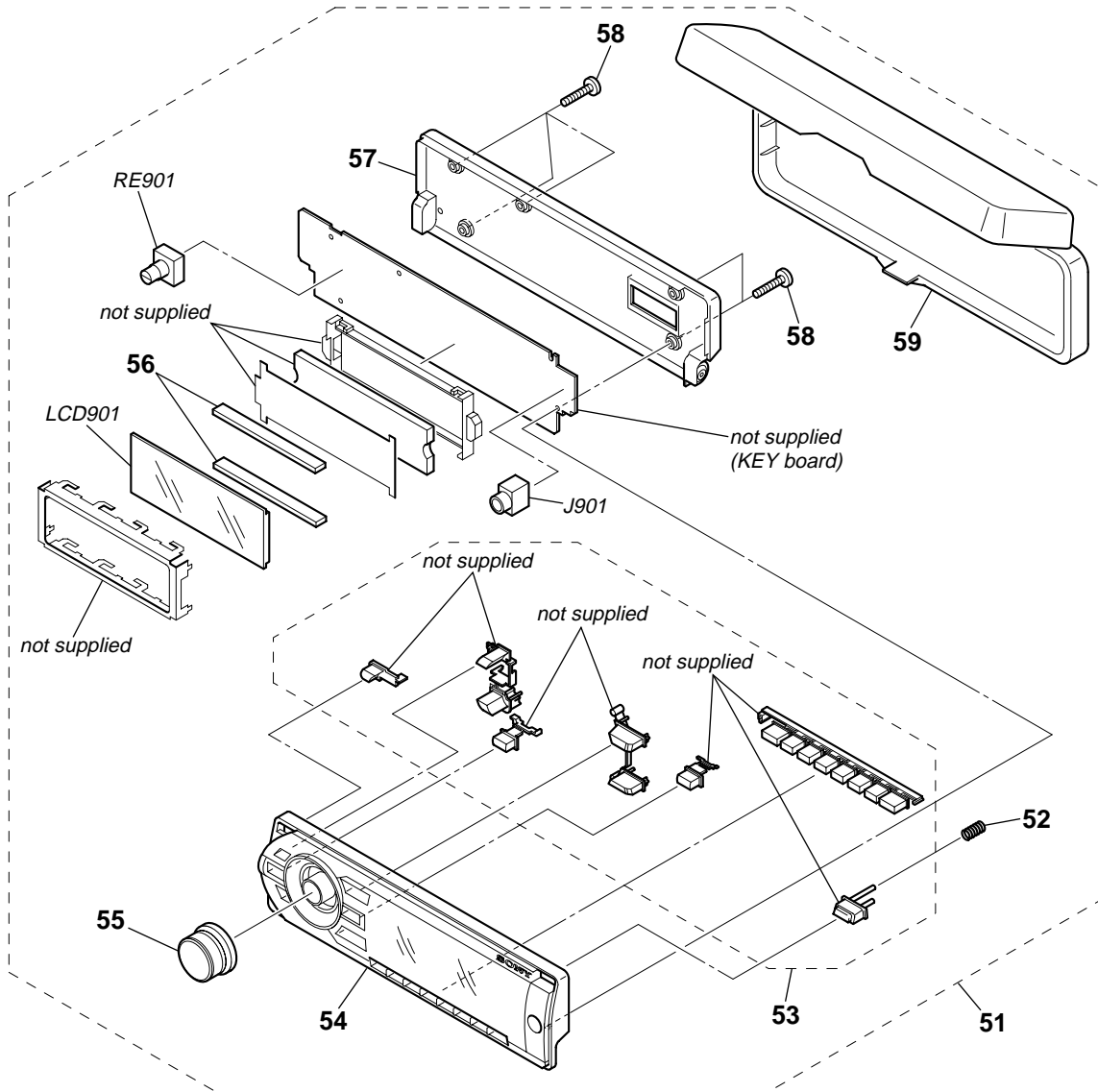
IC501 MB90F045PF-G-9061-SPE1 (SYSTEM CONTROL) (MAIN BOARD (4/4))

Pin No.	Pin Name	I/O	Pin Description
1	AREASEL0	I	Destination setting pin (L: CDX-M50IP, H: CDX-MR50IP)
2	AREASEL1	I	Destination setting pin (Fixed at L in this set)
3	AREASEL2	I	Destination setting pin (L: FM (200k)/AM (10k), H: FM (50k)/AM (9k) (CDX-M50IP only))
4	AREASEL3	I	Destination setting pin (L: CDX-MR50IP, H: CDX-M50IP)
5	BEEP	O	Beep signal output to power amp IC.
6	AMPSTB	O	Standby signal output to power amp IC.
7	DIAG	I	Status signal input from power amp IC.
8	NCO	O	Not used. (Open)
9	SA_DATA	O	Data output for electronic volume IC spectrum analyzer.
10	SA_CKO	O	Spectrum analyzer clock signal output
11	VSS	—	Ground
12	TUATT	O	Tuner mute control signal output
13	NSMASK	O	Noise mask signal output (CDX-MR50IP only)
14	VOLATT	O	Attenuator control signal output to electronic volume IC.
15	ILLUMI_SEL	I	Illumination voltage setting pin (L: illumination power supply 9 V)
16 to 20	NCO	O	Not used. (Open)
21	B-OUT_SEL	I	Black out select signal input (L: non black out)
22	NCO	O	Not used. (Open)
23	VCC5	—	Power supply pin (+3.3 V)
24	EEP_SIO	I/O	Serial data signal input/output for EEPROM communication.
25	EEP_CKO	O	Serial clock signal output for EEPROM communication.
26	RDS_ON	O	RDS ON signal output (CDX-MR50IP only)
27	LCD_CE	O	Chip enable signal output to LCD drive IC.
28	LCD_SO	O	Serial data signal output to LCD drive IC.
29	LCD_SCK	O	Serial clock signal output to LCD drive IC.
30	DOOR_IND	O	DISC IN indicator LED control signal output
31	RE_IN0	I	Rotary encoder signal input 0
32	RE_IN1	I	Rotary encoder signal input 1
33	I2C_SCK	O	I2C bus serial clock signal output
34	I2C_SIO	I/O	I2C bus serial data signal input/output
35	DAVDD	—	Power supply pin for A/D converter. (+3.3 V)
36	AVRH	—	External reference power supply pin for A/D converter. (+3.3 V)
37	DAVSS	—	Ground for A/D converter.
38	QUALITY	I	Noise detection signal input (CDX-MR50IP only)
39	VSM	I	S meter voltage detection signal input
40	KEYIN1	I	Key signal input 1
41	KEYIN0	I	Key signal input 0
42	VSS	—	Ground
43	RC_IN0	I	Rotary commander key signal input
44	INI_COL	I	Initial color setting signal input (L: red)
45	COL_SEL	I	Key illumination 2 colors select signal input (H: 2 color)
46	SA_IN	I	Spectrum analyzer signal input
47	NCO	O	Not used. (Open)
48	AD_ON	O	A/D converter power supply control signal output
49, 50	MD0, MD1	I	Signal input for operation mode designation. (Fixed at H in this set)
51	MD2	I	Signal input for operation mode designation. (Fixed at L in this set)
52	KEYACK	I	Key acknowledge detection signal input

CDX-M50IP/MR50IP

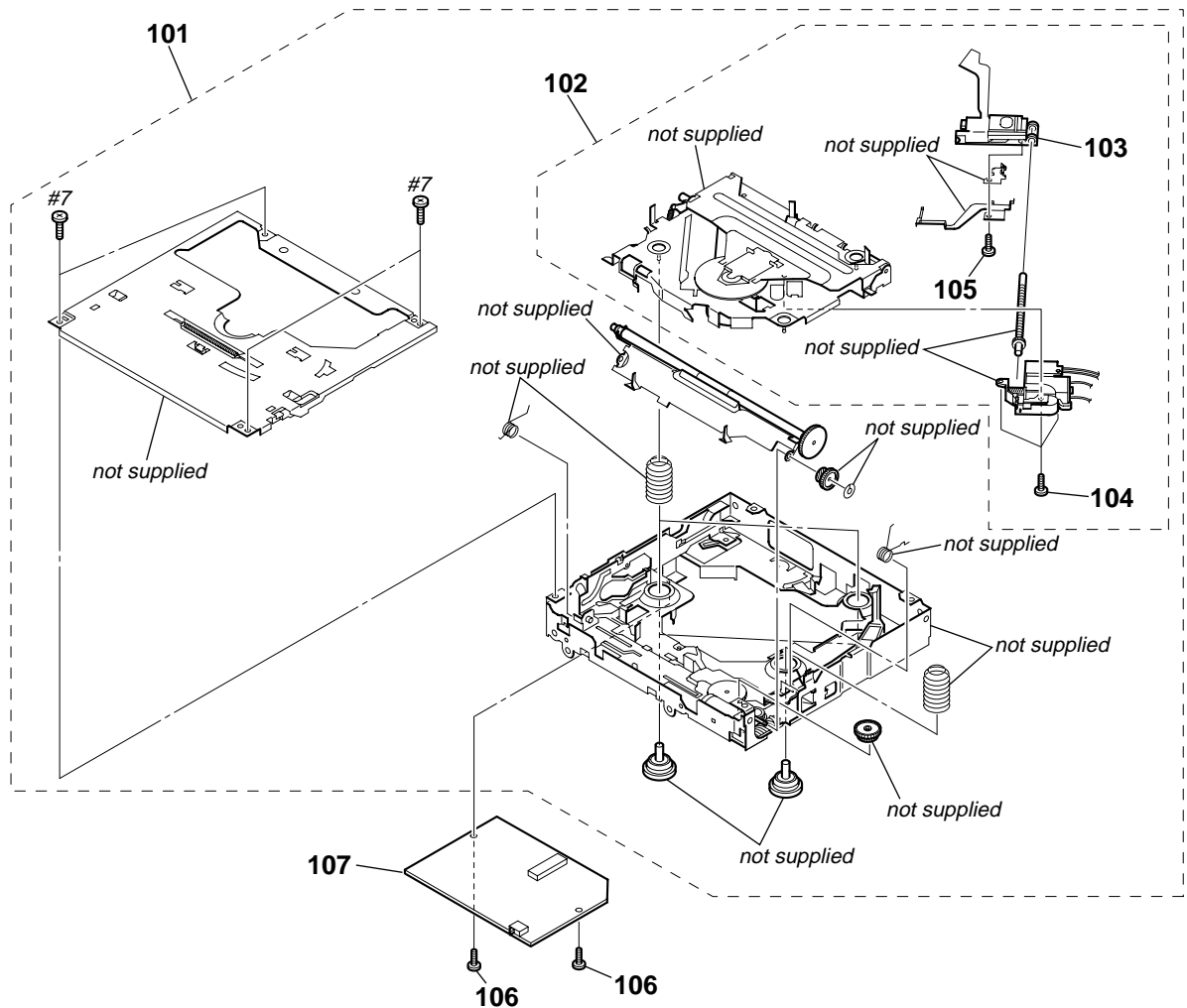
Pin No.	Pin Name	I/O	Pin Description
53	TU_ATTIN	I	Tuner mute zero cross detection signal input (CDX-MR50IP only)
54	BUIN	I	Backup power supply detection signal input
55	FUNC_SEL	O	AUX audio input/iPod audio input select control signal output (L: iPod audio input, H: AUX audio input)
56	DAVN	I	RDS data block synchronized detection signal input from RDS receiver IC. (CDX-MR50IP only)
57	BUSON_A	O	Bus ON signal output (for iPod)
58	UNISI	I	SONY-BUS data signal input
59	UNISO	O	SONY-BUS data signal output
60	UNISCK	O	SONY-BUS clock signal output
61	Z-MUTE	I	CD zero cross mute detection signal input
62	NCO	O	Not used. (Open)
63	FLASH_W	I	Memory mode select signal input (Fixed at H in this set)
64	SIRCS	I	Remote control signal input
65 to 69	NCO	O	Not used. (Open)
70	DOOR_SW	I	Front panel open/close detection signal input
71	RC_IN1	I	Rotary commander shift key signal input
72 to 74	NCO	O	Not used. (Open)
75	NOSE_SW	I	Front panel detach detection signal input (L: with panel, H: without panel)
76	OPEN-MUTE	O	Mute signal output at during the AUX source mode. (L: other, H: keep)
77	RESET	I	Reset signal input
78	NCO	O	Not used. (Open)
79	XOUT	O	Sub-clock signal output (32.768 kHz)
80	XIN	I	Sub-clock signal input (32.768 kHz)
81	VSS1	—	Ground
82	OSCIN	I	Main-clock signal input (18.432 MHz)
83	OSCOU	O	Main-clock signal output (18.432 MHz)
84	VCC3	—	Power supply pin (+3.3 V)
85	CYRIL_SEL	I	CYRIL select signal input (L: non CYRIL)
86	DEMOSEL	I	Demo select signal input (H: Demo ON)
87	NCO	O	Not used. (Open)
88	SYSRST	O	System reset signal output
89	EJECT_OK_SW	O	Eject OK signal output
90	NCO	O	Not used. (Open)
91	CD_ON	I	CD mechanism servo power control request signal input
92	CDM_ON	I	CD mechanism deck power control request signal input
93, 94	NCO	O	Not used. (Open)
95	BUSON	O	Bus ON signal output
96	TESTIN	I	Test mode detection signal input (Fixed at H in this set)
97	ILL_IN	I	Illumination detection signal input (H: illumination OFF)
98	TELATT	I	Telephone attenuator detection signal input
99	ACC_IN	I	Accessory power supply detection signal input
100	ATT	O	Audio mute control signal output

6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	A-1334-733-A	PANEL OVERALL ASSY, FRONT (M50IP)		56	1-780-563-11	CONDUCTIVE BOARD, CONNECTION	
51	A-1334-910-A	PANEL OVERALL ASSY, FRONT (MR50IP)		57	X-2186-413-1	PANEL ASSY, FRONT BACK	
52	3-264-712-01	SPRING (OPEN)		58	3-250-543-71	SCREW (+B P-TITE M2)	
53	X-2179-995-1	BUTTON ASSY (S) (M50IP)		59	X-2149-228-2	CASE ASSY (for FRONT PANEL)	
53	X-2186-766-1	BUTTON ASSY (S) (MR50IP)		J901	1-820-833-11	JACK, SMALL TYPE (VERTICAL) (AUX)	
54	X-2179-994-1	PANEL (SV) ASSY, FRONT (M50IP)		LCD901	1-802-536-11	DISPLAY PANEL, LIQUID CRYSTAL	
54	X-2186-416-1	PANEL (SV) ASSY, FRONT (MR50IP)		RE901	1-479-902-21	ENCODER, ROTARY (VOLUME CONTROL DIAL/SELECT BUTTON)	
55	X-2179-191-1	KNOB ASSY (S)					

6-3. CD MECHANISM SECTION
(MG-101FC-188//Q)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	A-1289-450-A	MECHANICAL BLOCK ASSY (08)		105	3-348-998-31	SCREW (M1.4X2.5), TAPPING, PAN	
102	A-1284-705-A	DAXEV08//Q		106	3-352-758-31	SCREW (M1.7X2.5), TOOTHED LOCK	
△ 103	X-2149-672-1	SERVICE ASSY, OP (DAX-25A)		107	A-1177-362-A	SERVO BOARD, COMPLETE	
104	2-626-869-01	SCREW (M2X3), SERRATION		#7	7-627-000-08	SCREW, PRECISION +P 1.7X2.2 TYPE 3	

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

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

- Items marked “**” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example:
uA.. : μ A.. uPA.. : μ PA..
uPB.. : μ PB.. uPC.. : μ PC.. uPD.. : μ PD..
- CAPACITORS
uF : μ F
- COILS
uH : μ H

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

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

Ref. No.	Part No.	Description	Remark
		IPOD BOARD *****	
		< CAPACITOR >	
C250	1-164-730-11	CERAMIC CHIP 0.0012uF 10%	50V
C251	1-162-917-11	CERAMIC CHIP 15PF 5%	50V
C252	1-162-917-11	CERAMIC CHIP 15PF 5%	50V
C253	1-164-730-11	CERAMIC CHIP 0.0012uF 10%	50V
C254	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C255	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C256	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
		< DIODE >	
D250	8-719-060-48	DIODE RB751V-40TE-17	
		< IC >	
IC250	6-807-885-01	IC ATMEGA32L-8AU-S6	
		< JUMPER RESISTOR >	
JC201	1-216-296-11	SHORT CHIP 0	
JC202	1-216-296-11	SHORT CHIP 0	
JC203	1-216-864-11	SHORT CHIP 0	
JC205	1-216-296-11	SHORT CHIP 0	
		< RESISTOR >	
R241	1-216-845-11	METAL CHIP 100K 5%	1/10W
R250	1-216-841-11	METAL CHIP 47K 5%	1/10W
R251	1-216-833-11	METAL CHIP 10K 5%	1/10W
R252	1-216-864-11	SHORT CHIP 0	
R253	1-216-833-11	METAL CHIP 10K 5%	1/10W
R254	1-216-864-11	SHORT CHIP 0	
R255	1-216-833-11	METAL CHIP 10K 5%	1/10W
R256	1-216-845-11	METAL CHIP 100K 5%	1/10W
R257	1-216-845-11	METAL CHIP 100K 5%	1/10W
R259	1-216-845-11	METAL CHIP 100K 5%	1/10W
R260	1-216-845-11	METAL CHIP 100K 5%	1/10W
R261	1-216-845-11	METAL CHIP 100K 5%	1/10W
R262	1-216-845-11	METAL CHIP 100K 5%	1/10W
R263	1-216-845-11	METAL CHIP 100K 5%	1/10W
R264	1-216-845-11	METAL CHIP 100K 5%	1/10W
R265	1-216-845-11	METAL CHIP 100K 5%	1/10W
R266	1-216-845-11	METAL CHIP 100K 5%	1/10W
R267	1-216-845-11	METAL CHIP 100K 5%	1/10W
R268	1-216-845-11	METAL CHIP 100K 5%	1/10W

Ref. No.	Part No.	Description	Remark
R270	1-216-821-11	METAL CHIP 1K 5%	1/10W
R288	1-216-845-11	METAL CHIP 100K 5%	1/10W
		< VIBRATOR >	
X250	1-795-825-21	VIBRATOR, CRYSTAL (7.3728MHz)	

		KEY BOARD *****	
	1-780-563-11	CONDUCTIVE BOARD, CONNECTION	
		< CAPACITOR >	
C971	1-135-834-11	CERAMIC CHIP 2.2uF	6.3V
C980	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C981	1-164-227-11	CERAMIC CHIP 0.022uF 10%	25V
C982	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C983	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V
C984	1-125-891-11	CERAMIC CHIP 0.47uF 10%	10V
		< CONNECTOR >	
CN901	1-819-783-11	PLUG, CONNECTOR 16P	
		< DIODE >	
D903	6-501-738-01	DIODE MAZ8062GMLS0	
D904	6-501-738-01	DIODE MAZ8062GMLS0	
D905	6-501-738-01	DIODE MAZ8062GMLS0	
D906	6-501-738-01	DIODE MAZ8062GMLS0	
D907	6-501-738-01	DIODE MAZ8062GMLS0	
D908	6-501-738-01	DIODE MAZ8062GMLS0	
D909	6-501-738-01	DIODE MAZ8062GMLS0	
D911	6-501-782-01	DIODE MAZ8180GMLS0	
D981	6-501-738-01	DIODE MAZ8062GMLS0	
D982	6-501-782-01	DIODE MAZ8180GMLS0	
D984	6-501-817-01	DIODE MA2J1110GLS0	
		< JUMPER RESISTOR >	
FB880	1-216-864-11	SHORT CHIP 0	
FB881	1-216-864-11	SHORT CHIP 0	
FB882	1-216-864-11	SHORT CHIP 0	
		< IC >	
IC901	6-707-064-01	IC LC75876WH-US-E	
IC971	6-600-629-01	IC RS-470 (IR)	

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
		< JACK >				< TRANSISTOR >	
J901	1-820-833-11	JACK, SMALL TYPE (VERTICAL) (AUX)		Q901	8-729-027-44	TRANSISTOR DTC114TKA-T146	
		< LIQUID CRYSTAL DISPLAY >		Q919	6-551-856-01	TRANSISTOR LTC614TKFP8T146	
LCD901	1-802-536-11	DISPLAY PANEL, LIQUID CRYSTAL		Q920	6-551-856-01	TRANSISTOR LTC614TKFP8T146	
		< DIODE >				< RESISTOR >	
LED902	8-719-053-09	LED SML-310VTT86 (SOURCE)		R901	1-216-820-11	METAL CHIP 820 5% 1/10W	
LED903	8-719-053-09	LED SML-310VTT86 (SEEK+/▶▶▶▶▶)		R902	1-216-821-11	METAL CHIP 1K 5% 1/10W	
LED904	8-719-053-09	LED SML-310VTT86 (MODE)		R903	1-216-821-11	METAL CHIP 1K 5% 1/10W	
LED905	8-719-053-09	LED SML-310VTT86 (OFF)		R904	1-216-822-11	METAL CHIP 1.2K 5% 1/10W	
LED906	8-719-053-09	LED SML-310VTT86 (ALBM -)		R905	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
LED907	8-719-053-09	LED SML-310VTT86 (SEEK-/◀◀◀◀◀)		R906	1-216-824-11	METAL CHIP 1.8K 5% 1/10W	
LED908	8-719-053-09	LED SML-310VTT86 (ALBM +)		R907	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
LED909	8-719-053-09	LED SML-310VTT86 (DSPL/SCRL)		R908	1-216-827-11	METAL CHIP 3.3K 5% 1/10W	
LED910	8-719-053-09	LED SML-310VTT86 (6/PAUSE)		R910	1-216-820-11	METAL CHIP 820 5% 1/10W	
LED911	8-719-053-09	LED SML-310VTT86 (5)		R911	1-216-821-11	METAL CHIP 1K 5% 1/10W	
LED912	8-719-053-09	LED SML-310VTT86 (4/SHUF)		R912	1-216-821-11	METAL CHIP 1K 5% 1/10W	
LED913	8-719-053-09	LED SML-310VTT86 (3/REP)		R914	1-216-822-11	METAL CHIP 1.2K 5% 1/10W	
LED914	8-719-053-09	LED SML-310VTT86 (2)		R915	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
LED915	8-719-053-09	LED SML-310VTT86 (1)		R916	1-216-824-11	METAL CHIP 1.8K 5% 1/10W	
LED916	8-719-053-09	LED SML-310VTT86 (BTM/CAT) (M50IP)		R917	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
LED916	8-719-053-09	LED SML-310VTT86 (AF/TA/PTY) (MR50IP)		R921	1-216-030-00	RES-CHIP 160 5% 1/10W	
LED930	6-501-339-01	LED NESW505CT-AST (LCD BACK LIGHT-L)		R922	1-216-037-00	RES-CHIP 330 5% 1/10W	
LED931	6-501-339-01	LED NESW505CT-AST (LCD BACK LIGHT-R)		R923	1-216-031-00	RES-CHIP 180 5% 1/10W	
LED943	8-719-053-09	LED SML-310VTT86 (VOLUME ILLUMINATION)		R924	1-216-037-00	RES-CHIP 330 5% 1/10W	
LED946	6-501-547-01	LED CL-197HB1E-D-T (VOLUME ILLUMINATION)		R925	1-216-030-00	RES-CHIP 160 5% 1/10W	
LED947	8-719-053-09	LED SML-310VTT86 (VOLUME ILLUMINATION)		R926	1-216-037-00	RES-CHIP 330 5% 1/10W	
LED948	8-719-053-09	LED SML-310VTT86 (VOLUME ILLUMINATION)		R927	1-216-031-00	RES-CHIP 180 5% 1/10W	
LED949	6-501-547-01	LED CL-197HB1E-D-T (VOLUME ILLUMINATION)		R928	1-216-037-00	RES-CHIP 330 5% 1/10W	
LED950	8-719-053-09	LED SML-310VTT86 (VOLUME ILLUMINATION)		R929	1-216-030-00	RES-CHIP 160 5% 1/10W	
LED951	6-501-547-01	LED CL-197HB1E-D-T (VOLUME ILLUMINATION)		R930	1-216-037-00	RES-CHIP 330 5% 1/10W	
LED952	6-501-547-01	LED CL-197HB1E-D-T (SOURCE)		R931	1-216-031-00	RES-CHIP 180 5% 1/10W	
LED953	6-501-547-01	LED CL-197HB1E-D-T (SEEK+/▶▶▶▶▶)		R932	1-216-037-00	RES-CHIP 330 5% 1/10W	
LED954	6-501-547-01	LED CL-197HB1E-D-T (MODE)		R933	1-216-033-00	RES-CHIP 220 5% 1/10W	
LED955	6-501-547-01	LED CL-197HB1E-D-T (OFF)		R934	1-216-041-00	RES-CHIP 470 5% 1/10W	
LED956	6-501-547-01	LED CL-197HB1E-D-T (ALBM -)		R935	1-216-027-00	RES-CHIP 120 5% 1/10W	
LED957	6-501-547-01	LED CL-197HB1E-D-T (SEEK-/◀◀◀◀◀)		R936	1-216-037-00	RES-CHIP 330 5% 1/10W	
LED958	6-501-547-01	LED CL-197HB1E-D-T (ALBM +)		R937	1-216-025-11	RES-CHIP 100 5% 1/10W	
LED959	6-501-547-01	LED CL-197HB1E-D-T (DSPL/SCRL)		R938	1-216-037-00	RES-CHIP 330 5% 1/10W	
LED960	6-501-547-01	LED CL-197HB1E-D-T (6/PAUSE)		R939	1-216-029-00	RES-CHIP 150 5% 1/10W	
LED961	6-501-547-01	LED CL-197HB1E-D-T (5)		R940	1-216-045-00	RES-CHIP 680 5% 1/10W	
LED962	6-501-547-01	LED CL-197HB1E-D-T (4/SHUF)		R941	1-216-031-00	RES-CHIP 180 5% 1/10W	
LED963	6-501-547-01	LED CL-197HB1E-D-T (3/REP)		R942	1-216-045-00	RES-CHIP 680 5% 1/10W	
LED964	6-501-547-01	LED CL-197HB1E-D-T (2)		R943	1-216-029-00	RES-CHIP 150 5% 1/10W	
LED965	6-501-547-01	LED CL-197HB1E-D-T (1)		R944	1-216-037-00	RES-CHIP 330 5% 1/10W	
LED966	6-501-547-01	LED CL-197HB1E-D-T (BTM/CAT) (M50IP)		R945	1-216-031-00	RES-CHIP 180 5% 1/10W	
LED966	6-501-547-01	LED CL-197HB1E-D-T (AF/TA/PTY) (MR50IP)		R946	1-216-037-00	RES-CHIP 330 5% 1/10W	
LED993	6-501-547-01	LED CL-197HB1E-D-T (VOLUME ILLUMINATION)		R947	1-216-029-00	RES-CHIP 150 5% 1/10W	
				R948	1-216-045-00	RES-CHIP 680 5% 1/10W	
				R949	1-216-031-00	RES-CHIP 180 5% 1/10W	
				R950	1-216-045-00	RES-CHIP 680 5% 1/10W	
				R951	1-216-029-00	RES-CHIP 150 5% 1/10W	
				R952	1-216-037-00	RES-CHIP 330 5% 1/10W	
				R953	1-216-031-00	RES-CHIP 180 5% 1/10W	
				R954	1-216-037-00	RES-CHIP 330 5% 1/10W	
				R955	1-216-029-00	RES-CHIP 150 5% 1/10W	
				R956	1-216-045-00	RES-CHIP 680 5% 1/10W	

Ref. No.	Part No.	Description			Remark	Ref. No.	Part No.	Description			Remark
C318	1-162-923-11	CERAMIC CHIP	47PF	5%	50V	C507	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C319	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V	C508	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C320	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V	C509	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C321	1-126-960-11	ELECT	1uF	20%	50V	C510	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C323	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V	C511	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C324	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V	C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C325	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C326	1-128-057-11	ELECT	330uF	20%	6.3V	C515	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C327	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V	C516	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C328	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V	C517	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C360	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C518	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C361	1-126-964-11	ELECT	10uF	20%	50V	C519	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C362	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C520	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C363	1-115-871-11	ELECT	1uF	20%	50V	C521	1-162-970-11	CERAMIC CHIP	0.1uF	10%	25V
C364	1-115-871-11	ELECT	1uF	20%	50V	C523	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C401	1-124-584-00	ELECT	100uF	20%	10V	C524	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C402	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C600	1-126-941-11	ELECT	470uF	20%	25V
C403	1-126-176-11	ELECT	220uF	20%	10V	C601	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C405	1-124-248-00	ELECT	22uF	20%	25V	C602	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C410	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C701	1-112-302-11	ELECT	3300uF	20%	16V
C412	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C702	1-126-160-11	ELECT	1uF	20%	50V
C413	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	C703	1-126-163-11	ELECT	4.7uF	20%	50V
C414	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	C704	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C415	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C705	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C417	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	C802	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C418	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C803	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C419	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	C804	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C421	1-126-964-11	ELECT	10uF	20%	50V	C805	1-126-960-11	ELECT	1uF	20%	50V
C422	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	C806	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C423	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C807	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C431	1-126-964-11	ELECT	10uF	20%	50V	C808	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C432	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	C809	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C441	1-126-964-11	ELECT	10uF	20%	50V	C810	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C442	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	C811	1-126-964-11	ELECT	10uF	20%	50V
C443	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C812	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C446	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C813	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C447	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C815	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C451	1-126-964-11	ELECT	10uF	20%	50V	C816	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C452	1-163-251-11	CERAMIC CHIP	100PF	5%	50V	C817	1-124-248-00	ELECT	22uF	20%	25V
C461	1-126-964-11	ELECT	10uF	20%	50V	C824	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C462	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C825	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C465	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C901	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C466	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	C902	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C471	1-126-964-11	ELECT	10uF	20%	50V	C998	1-216-864-11	SHORT CHIP	0		
C472	1-165-908-11	CERAMIC CHIP	1uF	10%	10V			< CONNECTOR >			
C480	1-136-159-00	FILM	0.033uF	5%	50V	CN300	1-774-701-21	PIN, CONNECTOR 16P			
C481	1-136-159-00	FILM	0.033uF	5%	50V	CN350	1-820-611-11	CONNECTOR, BOARD TO BOARD 28P			
C482	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	* CN801	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
C483	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	* CN802	1-770-524-31	CONNECTOR, FFC/FPC 17P			
C484	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	CN803	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
C485	1-104-665-11	ELECT	100uF	20%	25V	CNJ400	1-580-907-41	PLUG, CONNECTOR 8P (BUS CONTROL IN)			
C487	1-126-964-11	ELECT	10uF	20%	50V			< DIODE >			
C491	1-124-589-11	ELECT	47uF	20%	16V	D2	6-501-734-01	DIODE MAZ8056GMLS0			
C501	1-128-057-11	ELECT	330uF	20%	6.3V	D101	6-501-743-01	DIODE MAZ8068GMLS0			
C502	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	D102	6-501-743-01	DIODE MAZ8068GMLS0			
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	D103	6-501-782-01	DIODE MAZ8180GMLS0			
C505	1-126-369-11	ELECT	220uF	20%	6.3V						
C506	1-165-908-11	CERAMIC CHIP	1uF	10%	10V						

CDX-M50IP/MR50IP

MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D104	6-501-743-01	DIODE MAZ8068GMLS0		FB404	1-216-295-11	SHORT CHIP 0	
D105	6-501-743-01	DIODE MAZ8068GMLS0		FB405	1-216-864-11	SHORT CHIP 0	
D106	6-501-743-01	DIODE MAZ8068GMLS0		FB406	1-216-864-11	SHORT CHIP 0	
D107	6-501-743-01	DIODE MAZ8068GMLS0		FB407	1-216-295-11	SHORT CHIP 0	
D108	6-501-743-01	DIODE MAZ8068GMLS0		FB408	1-216-864-11	SHORT CHIP 0	
D109	6-501-743-01	DIODE MAZ8068GMLS0				< IC >	
D110	6-501-743-01	DIODE MAZ8068GMLS0		IC50	6-803-747-01	IC TDA7333013TR (MR50IP)	
D114	6-501-743-01	DIODE MAZ8068GMLS0		IC300	6-705-359-02	IC TDA8588AJ/N2/R1	
D115	6-501-743-01	DIODE MAZ8068GMLS0		IC401	6-710-065-01	IC BD3442FS-E2	
D116	6-501-170-01	DIODE UDWZ-TE17-6.8B		IC402	8-759-448-71	IC BU4053BCFV-E2	
D301	6-500-522-01	DIODE 10EDB40-TA1B2		IC403	8-759-278-58	IC NJM4558V-TE2	
D302	6-500-522-01	DIODE 10EDB40-TA1B2					
D303	6-500-522-01	DIODE 10EDB40-TA1B2		IC501	6-807-656-01	IC MB90F045PF-G-9061-SPE1	
D304	6-500-522-01	DIODE 10EDB40-TA1B2		IC502	6-704-529-01	IC XC6206P332PR	
D305	6-500-522-01	DIODE 10EDB40-TA1B2		IC601	6-703-884-01	IC BA8271F-E2	
D306	6-500-522-01	DIODE 10EDB40-TA1B2		IC602	6-703-224-01	IC S-80828CNNB-B8NT2G	
D307	6-500-522-01	DIODE 10EDB40-TA1B2		IC800	6-709-213-01	IC NJM2387ADL3(TE2)	
D308	6-500-522-01	DIODE 10EDB40-TA1B2				< JACK >	
D309	6-500-522-01	DIODE 10EDB40-TA1B2		J1	1-815-185-13	JACK (ANTENNA)	
D310	6-500-522-01	DIODE 10EDB40-TA1B2		J370	1-566-822-41	JACK (REMOTE IN)	
D311	6-500-522-01	DIODE 10EDB40-TA1B2		J451	1-774-700-11	JACK, PIN 6P (BUS AUDIO IN, REAR/SUB AUDIO OUT,FRONT AUDIO OUT)	
D312	6-500-522-01	DIODE 10EDB40-TA1B2				< JUMPER RESISTOR >	
D400	6-501-013-01	DIODE BAT54ALT1G		JC30	1-216-296-11	SHORT CHIP 0	
D491	6-501-817-01	DIODE MA2J1110GLS0		JC34	1-216-864-11	SHORT CHIP 0	
D493	6-501-051-01	DIODE BAT54CLT1G		JC35	1-216-864-11	SHORT CHIP 0	
D494	6-501-013-01	DIODE BAT54ALT1G		JC36	1-216-296-11	SHORT CHIP 0	
D495	6-501-817-01	DIODE MA2J1110GLS0		JC50	1-216-296-11	SHORT CHIP 0 (MR50IP)	
D496	8-719-060-48	DIODE RB751V-40TE-17		JC101	1-216-296-11	SHORT CHIP 0	
D497	1-216-295-11	SHORT CHIP 0		JC300	1-216-296-11	SHORT CHIP 0	
D501	8-719-050-37	DIODE M1MA152WA-T1		JC301	1-216-296-11	SHORT CHIP 0	
D502	8-719-060-48	DIODE RB751V-40TE-17		JC302	1-216-296-11	SHORT CHIP 0	
D510	8-719-060-48	DIODE RB751V-40TE-17		JC303	1-216-864-11	SHORT CHIP 0	
D511	6-501-051-01	DIODE BAT54CLT1G		JC401	1-216-296-11	SHORT CHIP 0	
D602	6-501-782-01	DIODE MAZ8180GMLS0		JC402	1-216-296-11	SHORT CHIP 0	
D603	8-719-422-67	DIODE MA8062-H		JC406	1-216-864-11	SHORT CHIP 0	
D604	6-501-782-01	DIODE MAZ8180GMLS0		JC495	1-216-864-11	SHORT CHIP 0	
D605	6-501-782-01	DIODE MAZ8180GMLS0		JC501	1-216-864-11	SHORT CHIP 0	
D606	8-719-072-70	DIODE MA2ZD14001S0		JC502	1-216-296-11	SHORT CHIP 0	
D607	6-501-571-01	DIODE 1N5404-C311-3		JC503	1-216-296-11	SHORT CHIP 0	
D701	6-501-782-01	DIODE MAZ8180GMLS0		JC504	1-216-864-11	SHORT CHIP 0	
D702	6-501-782-01	DIODE MAZ8180GMLS0		JC505	1-216-296-11	SHORT CHIP 0	
D704	6-501-782-01	DIODE MAZ8180GMLS0		JC506	1-216-296-11	SHORT CHIP 0 (MR50IP)	
D705	6-501-817-01	DIODE MA2J1110GLS0		JC507	1-216-864-11	SHORT CHIP 0	
D800	6-501-013-01	DIODE BAT54ALT1G		JC508	1-216-295-11	SHORT CHIP 0	
D801	6-501-782-01	DIODE MAZ8180GMLS0		JC600	1-216-295-11	SHORT CHIP 0	
D802	6-501-743-01	DIODE MAZ8068GMLS0		JC601	1-216-295-11	SHORT CHIP 0	
D803	6-501-782-01	DIODE MAZ8180GMLS0		JC821	1-216-864-11	SHORT CHIP 0	
D804	6-501-782-01	DIODE MAZ8180GMLS0				< COIL >	
D806	8-719-060-48	DIODE RB751V-40TE-17		L1	1-414-595-11	INDUCTOR, FERRITE BEAD	
D861	6-501-817-01	DIODE MA2J1110GLS0		L2	1-414-595-11	INDUCTOR, FERRITE BEAD (MR50IP)	
		< FERRITE BEAD >		L3	1-414-595-11	INDUCTOR, FERRITE BEAD (MR50IP)	
FB357	1-414-595-11	INDUCTOR, FERRITE BEAD		L4	1-469-844-11	INDUCTOR 2.2uH	
FB358	1-414-595-11	INDUCTOR, FERRITE BEAD		L5	1-469-844-11	INDUCTOR 2.2uH (MR50IP)	
FB359	1-414-595-11	INDUCTOR, FERRITE BEAD					
FB401	1-414-595-11	INDUCTOR, FERRITE BEAD		L101	1-410-509-11	INDUCTOR 10uH	
FB402	1-216-864-11	SHORT CHIP 0		L300	1-456-617-11	COIL, CHOKE	
FB403	1-414-595-11	INDUCTOR, FERRITE BEAD					

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
L301	1-216-864-11	SHORT CHIP	0	R54	1-414-595-11	INDUCTOR, FERRITE BEAD (MR50IP)	
L302	1-216-864-11	SHORT CHIP	0	R55	1-216-797-11	METAL CHIP	10 5% 1/10W (MR50IP)
L303	1-216-864-11	SHORT CHIP	0	R57	1-216-833-11	METAL CHIP	10K 5% 1/10W (MR50IP)
L500	1-469-844-11	INDUCTOR	2.2uH	R58	1-216-821-11	METAL CHIP	1K 5% 1/10W (MR50IP)
L801	1-414-595-11	INDUCTOR, FERRITE BEAD		R301	1-216-811-11	METAL CHIP	150 5% 1/10W
L901	1-216-295-11	SHORT CHIP	0	R302	1-216-841-11	METAL CHIP	47K 5% 1/10W
		< TRANSISTOR >		R351	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q1	8-729-038-28	TRANSISTOR	RT1N441C-TP-1 (MR50IP)	R355	1-216-834-11	METAL CHIP	12K 5% 1/10W
Q3	8-729-106-68	TRANSISTOR	2SD1615A-GP	R356	1-216-834-11	METAL CHIP	12K 5% 1/10W
Q50	8-729-026-49	TRANSISTOR	2SA1037AK-T146-R (MR50IP)	R357	1-216-817-11	METAL CHIP	470 5% 1/10W
Q401	8-729-027-43	TRANSISTOR	DTC114EKA-T146	R358	1-216-817-11	METAL CHIP	470 5% 1/10W
Q420	6-551-856-01	TRANSISTOR	LTC614TKFP8T146	R361	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q430	6-551-856-01	TRANSISTOR	LTC614TKFP8T146	R370	1-216-809-11	METAL CHIP	100 5% 1/10W
Q440	6-551-856-01	TRANSISTOR	LTC614TKFP8T146	R371	1-216-809-11	METAL CHIP	100 5% 1/10W
Q450	6-551-856-01	TRANSISTOR	LTC614TKFP8T146	R401	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q460	6-551-856-01	TRANSISTOR	LTC614TKFP8T146	R402	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q470	6-551-856-01	TRANSISTOR	LTC614TKFP8T146	R416	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q491	8-729-027-23	TRANSISTOR	DTA114EKA-T146	R417	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q492	8-729-027-43	TRANSISTOR	DTC114EKA-T146	R418	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q496	8-729-027-38	TRANSISTOR	DTA144EKA-T146	R419	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q501	8-729-027-23	TRANSISTOR	DTA114EKA-T146	R421	1-216-813-11	METAL CHIP	220 5% 1/10W
Q589	8-729-027-43	TRANSISTOR	DTC114EKA-T146	R422	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q590	8-729-027-23	TRANSISTOR	DTA114EKA-T146	R431	1-216-813-11	METAL CHIP	220 5% 1/10W
Q600	8-729-047-76	TRANSISTOR	FMC2A-T148	R432	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q601	8-729-027-23	TRANSISTOR	DTA114EKA-T146	R433	1-218-883-11	METAL CHIP	33K 0.5% 1/10W
Q605	8-729-027-43	TRANSISTOR	DTC114EKA-T146	R440	1-216-864-11	SHORT CHIP	0
Q701	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R441	1-216-813-11	METAL CHIP	220 5% 1/10W
Q702	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R442	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q703	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R451	1-216-813-11	METAL CHIP	220 5% 1/10W
Q801	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R452	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q802	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R455	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q803	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R461	1-216-813-11	METAL CHIP	220 5% 1/10W
Q804	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF	R462	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q806	8-729-038-28	TRANSISTOR	RT1N441C-TP-1	R471	1-216-813-11	METAL CHIP	220 5% 1/10W
Q824	8-729-027-43	TRANSISTOR	DTC114EKA-T146	R472	1-216-833-11	METAL CHIP	10K 5% 1/10W
		< RESISTOR >		R480	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
R1	1-216-809-11	METAL CHIP	100 5% 1/10W (MR50IP)	R481	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
R2	1-216-839-11	METAL CHIP	33K 5% 1/10W	R482	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
R3	1-216-843-11	METAL CHIP	68K 5% 1/10W	R483	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
R4	1-216-839-11	METAL CHIP	33K 5% 1/10W	R484	1-216-821-11	METAL CHIP	1K 5% 1/10W
R5	1-216-843-11	METAL CHIP	68K 5% 1/10W	R491	1-216-805-11	METAL CHIP	47 5% 1/10W
R6	1-414-595-11	INDUCTOR, FERRITE BEAD		R494	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R7	1-414-595-11	INDUCTOR, FERRITE BEAD		R495	1-216-841-11	METAL CHIP	47K 5% 1/10W
R8	1-216-839-11	METAL CHIP	33K 5% 1/10W (MR50IP)	R500	1-216-817-11	METAL CHIP	470 5% 1/10W
R9	1-216-843-11	METAL CHIP	68K 5% 1/10W (MR50IP)	R501	1-216-845-11	METAL CHIP	100K 5% 1/10W (M50IP)
R10	1-216-821-11	METAL CHIP	1K 5% 1/10W	R502	1-216-845-11	METAL CHIP	100K 5% 1/10W (MR50IP)
R11	1-216-864-11	SHORT CHIP	0 (MR50IP)	R503	1-216-845-11	METAL CHIP	100K 5% 1/10W
R12	1-414-595-11	INDUCTOR, FERRITE BEAD		R505	1-216-845-11	METAL CHIP	100K 5% 1/10W (MR50IP)
R13	1-414-595-11	INDUCTOR, FERRITE BEAD		R507	1-216-845-11	METAL CHIP	100K 5% 1/10W (M50IP)
R52	1-216-845-11	METAL CHIP	100K 5% 1/10W (MR50IP)	R509	1-216-845-11	METAL CHIP	100K 5% 1/10W
R53	1-216-797-11	METAL CHIP	10 5% 1/10W (MR50IP)	R510	1-216-833-11	METAL CHIP	10K 5% 1/10W
				R512	1-216-845-11	METAL CHIP	100K 5% 1/10W

CDX-M50IP/MR50IP

MAIN

Ref. No.	Part No.	Description	Quantity	Unit	Power	Remark
R513	1-216-809-11	METAL CHIP	100		5%	1/10W
R514	1-216-809-11	METAL CHIP	100		5%	1/10W
R515	1-216-809-11	METAL CHIP	100		5%	1/10W
R516	1-216-809-11	METAL CHIP	100		5%	1/10W
R517	1-216-845-11	METAL CHIP	100K		5%	1/10W
R518	1-216-845-11	METAL CHIP	100K		5%	1/10W
R519	1-218-871-11	METAL CHIP	10K		0.5%	1/10W
R520	1-218-871-11	METAL CHIP	10K		0.5%	1/10W
R521	1-216-821-11	METAL CHIP	1K		5%	1/10W
R522	1-218-871-11	METAL CHIP	10K		0.5%	1/10W
R523	1-216-845-11	METAL CHIP	100K		5%	1/10W
R524	1-216-845-11	METAL CHIP	100K		5%	1/10W
R525	1-216-845-11	METAL CHIP	100K		5%	1/10W
R526	1-216-841-11	METAL CHIP	47K		5%	1/10W
R527	1-216-845-11	METAL CHIP	100K		5%	1/10W
R528	1-216-833-11	METAL CHIP	10K		5%	1/10W
R529	1-216-845-11	METAL CHIP	100K		5%	1/10W
R530	1-216-845-11	METAL CHIP	100K		5%	1/10W
R531	1-216-845-11	METAL CHIP	100K		5%	1/10W
R532	1-216-845-11	METAL CHIP	100K		5%	1/10W
R533	1-216-845-11	METAL CHIP	100K		5%	1/10W
R534	1-216-845-11	METAL CHIP	100K		5%	1/10W
R535	1-216-864-11	SHORT CHIP	0			
R536	1-216-811-11	METAL CHIP	150		5%	1/10W
R537	1-216-845-11	METAL CHIP	100K		5%	1/10W
R538	1-247-807-31	CARBON	100		5%	1/4W
R539	1-216-809-11	METAL CHIP	100		5%	1/10W
R540	1-216-809-11	METAL CHIP	100		5%	1/10W
R541	1-216-849-11	METAL CHIP	220K		5%	1/10W
R542	1-216-845-11	METAL CHIP	100K		5%	1/10W
						(MR50IP)
R543	1-216-845-11	METAL CHIP	100K		5%	1/10W
R545	1-216-845-11	METAL CHIP	100K		5%	1/10W
R546	1-216-845-11	METAL CHIP	100K		5%	1/10W
R547	1-216-827-11	METAL CHIP	3.3K		5%	1/10W
R548	1-216-825-11	METAL CHIP	2.2K		5%	1/10W
R549	1-216-825-11	METAL CHIP	2.2K		5%	1/10W
R550	1-216-845-11	METAL CHIP	100K		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	1-216-833-11	METAL CHIP	10K		5%	1/10W
R556	1-216-833-11	METAL CHIP	10K		5%	1/10W
R557	1-216-809-11	METAL CHIP	100		5%	1/10W
R558	1-216-809-11	METAL CHIP	100		5%	1/10W
R559	1-216-845-11	METAL CHIP	100K		5%	1/10W
						(MR50IP)
R560	1-216-845-11	METAL CHIP	100K		5%	1/10W
						(M50IP)
R562	1-216-845-11	METAL CHIP	100K		5%	1/10W
R563	1-216-845-11	METAL CHIP	100K		5%	1/10W
R565	1-216-845-11	METAL CHIP	100K		5%	1/10W
R590	1-216-809-11	METAL CHIP	100		5%	1/10W
R601	1-216-851-11	METAL CHIP	330K		5%	1/10W
R602	1-216-851-11	METAL CHIP	330K		5%	1/10W
R603	1-216-821-11	METAL CHIP	1K		5%	1/10W
R604	1-216-835-11	METAL CHIP	15K		5%	1/10W
R605	1-216-809-11	METAL CHIP	100		5%	1/10W
R606	1-216-821-11	METAL CHIP	1K		5%	1/10W

Ref. No.	Part No.	Description	Quantity	Unit	Power	Remark
R607	1-216-821-11	METAL CHIP	1K		5%	1/10W
R608	1-216-829-11	METAL CHIP	4.7K		5%	1/10W
R610	1-216-809-11	METAL CHIP	100		5%	1/10W
R611	1-216-809-11	METAL CHIP	100		5%	1/10W
R620	1-216-864-11	SHORT CHIP	0			
R701	1-216-821-11	METAL CHIP	1K		5%	1/10W
R702	1-216-841-11	METAL CHIP	47K		5%	1/10W
R703	1-216-833-11	METAL CHIP	10K		5%	1/10W
R704	1-216-833-11	METAL CHIP	10K		5%	1/10W
R705	1-249-425-11	CARBON	4.7K		5%	1/4W
R706	1-216-841-11	METAL CHIP	47K		5%	1/10W
R707	1-216-841-11	METAL CHIP	47K		5%	1/10W
R708	1-216-829-11	METAL CHIP	4.7K		5%	1/10W
R710	1-216-065-11	RES-CHIP	4.7K		5%	1/10W
R711	1-216-845-11	METAL CHIP	100K		5%	1/10W
R712	1-216-837-11	METAL CHIP	22K		5%	1/10W
R802	1-216-821-11	METAL CHIP	1K		5%	1/10W
R803	1-216-835-11	METAL CHIP	15K		5%	1/10W
R806	1-216-296-11	SHORT CHIP	0			
R807	1-218-912-11	METAL CHIP	510K		0.5%	1/10W
R808	1-218-885-11	METAL CHIP	39K		0.5%	1/10W
R809	1-414-595-11	INDUCTOR, FERRITE BEAD				
R810	1-216-864-11	SHORT CHIP	0			
R811	1-414-595-11	INDUCTOR, FERRITE BEAD				
R812	1-216-833-11	METAL CHIP	10K		5%	1/10W
R813	1-216-833-11	METAL CHIP	10K		5%	1/10W
R814	1-216-833-11	METAL CHIP	10K		5%	1/10W
R815	1-216-833-11	METAL CHIP	10K		5%	1/10W
R816	1-216-833-11	METAL CHIP	10K		5%	1/10W
R817	1-216-833-11	METAL CHIP	10K		5%	1/10W
R818	1-216-817-11	METAL CHIP	470		5%	1/10W
R819	1-216-817-11	METAL CHIP	470		5%	1/10W
R820	1-216-837-11	METAL CHIP	22K		5%	1/10W
R821	1-216-837-11	METAL CHIP	22K		5%	1/10W
R822	1-216-833-11	METAL CHIP	10K		5%	1/10W
R825	1-216-841-11	METAL CHIP	47K		5%	1/10W
R826	1-216-864-11	SHORT CHIP	0			
		< SWITCH >				
S101	1-786-826-11	SWITCH, TACTILE (RESET)				
S102	1-786-458-11	SWITCH, PUSH (1 KEY)				(FRONT PANEL DETECT)
S501	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT) (M50IP)				
		< THERMISTOR (POSITIVE) >				
TH400	1-803-350-21	THERMISTOR, POSITIVE				
		< TUNER UNIT >				
TU1	A-3220-961-B	TUNER UNIT (TUX-032)				
		< VIBRATOR >				
X50	1-813-532-11	VIBRATOR, CRYSTAL (8.664MHz) (MR50IP)				
X500	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)				
X501	1-767-317-11	VIBRATOR, CRYSTAL (32.768kHz)				

Ref. No.	Part No.	Description	Remark
	A-1177-362-A	SERVO BOARD, COMPLETE *****	

		SUB BOARD *****	
		< CONNECTOR >	
CN201	1-819-782-11	SOCKET, CONNECTOR 16P < DIODE >	
LED201	8-719-053-09	LED SML-310VTT86 (DISC IN)	
LED202	8-719-053-09	LED SML-310VTT86 (▲)	
		< RESISTOR >	
R201	1-216-812-11	METAL CHIP 180 5% 1/10W	
R202	1-216-815-11	METAL CHIP 330 5% 1/10W	
		< SWITCH >	
S201	1-786-653-21	SWITCH, TACTILE (▲)	

		MISCELLANEOUS *****	
3	1-834-507-11	CABLE, FLEXIBLE FLAT (17 CORE) (CN202)	
12	1-831-837-11	CORD (WITH CONNECTOR) (ISO) (POWER) (MR50IP)	
12	1-833-972-11	CONNECTION CORD FOR AUTOMOBILE (POWER) (M50IP)	
13	1-834-515-11	CORD, AUTOMOBILE (for iPod)	
△ 103	X-2149-672-1	SERVICE ASSY, OP (DAX-25A)	
FU601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	

		ACCESSORIES *****	
	1-479-077-13	REMOTE COMMANDER (RM-X151)	
	2-548-729-01	LID, BATTERY CASE (for RM-X151)	
	2-683-516-01	CAP (AUX)	
	3-274-100-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH, SPANISH,GERMAN,DUTCH,ITALIAN)	
	3-274-101-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH,SPANISH,GERMAN,DUTCH,ITALIAN) (M50IP)	
	3-274-101-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH,SPANISH,GERMAN,DUTCH,ITALIAN) (MR50IP)	
	X-2149-228-2	CASE ASSY (for FRONT PANEL)	

Ref. No.	Part No.	Description	Remark
PARTS FOR INSTALLATION AND CONNECTIONS *****			
151	X-2179-431-1	FRAME ASSY, FITTING	
152	1-465-459-31	ADAPTOR, ANTENNA (MR50IP)	
153	1-831-837-11	CORD (WITH CONNECTOR) (ISO) (POWER) (MR50IP)	
154	1-833-972-11	CONNECTION CORD FOR AUTOMOBILE (POWER) (M50IP)	
155	3-246-471-01	KEY (FRAME)	
156	3-209-713-11	COLLAR	
157	X-3382-926-1	SCREW ASSY (BS), FITTING (MR50IP)	
158	3-349-410-11	BUSHING (MR50IP)	
159	3-934-325-01	SCREW, +K (5X8) TAPPING	

