CDX-GT42IPW/GT44IP/ GT420IP

SERVICE MANUAL

Ver. 1.0 2007. 08

US Model
CDX-GT42IPW/GT420IP
AEP Model
UK Model
CDX-GT44IP

(Photo: CDX-GT42IPW)

• The tuner and CD sections have no adjustments.

AUDIO POWER SPECIFICATIONS (CDX-GT42IPW/GT420IP)
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	CDX-GT22W/GT120/GT220
CD Drive Mechanism Type	MG-101TC-188//C
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-GT42IPW/GT420IP: 87.5 – 107.9 MHz CDX-GT44IP: 87.5 – 108.0 MHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Usable sensitivity	9 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	67 dB (stereo), 69 dB (mono)
Harmonic distortion at 1 kHz	0.5% (stereo), 0.3% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 – 15,000 Hz

AM (CDX-GT42IPW/GT420IP)

Tuning range	530 – 1,710 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	30 µV

MW/LW (CDX-GT44IP)

Tuning range	MW: 531 – 1,602 kHz LW: 153 – 279 kHz
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz/450 kHz
Sensitivity	MW: 30 µV, LW: 40 µV

– Continued on next page –

FM/AM COMPACT DISC PLAYER
CDX-GT42IPW/GT420IP
FM/MW/LW COMPACT DISC PLAYER
CDX-GT44IP

9-887-813-01
2007H04-1

Sony Corporation
eVehicle Division
Published by Sony Techno Create Corporation

SONY

Power amplifier section

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

General

Output	Audio outputs terminal (CDX-GT42IPW/GT420IP: front, sub/rear switchable) (CDX-GT44IP: sub/rear switchable) Power antenna (aerial) relay control terminal Power amplifier control terminal
Inputs	Telephone ATT control terminal (CDX-GT44IP) 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)
Loudness	+4 dB at 100 Hz +2 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 179 mm (7 1/8 × 2 × 7 1/8 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 162 mm (7 1/4 × 2 1/8 × 6 1/2 in.) (w/h/d)
Mass	Approx. 1.3 kg (2 lb. 14 oz.)
Supplied accessories	Parts for installation and connections (1 set) Card remote commander: RM-X151

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

Design and specifications are subject to change without notice.

SERVICE NOTES

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

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

NOTES ON LASER DIODE EMISSION CHECK

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

SAFETY-RELATED COMPONENT WARNING!!

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

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

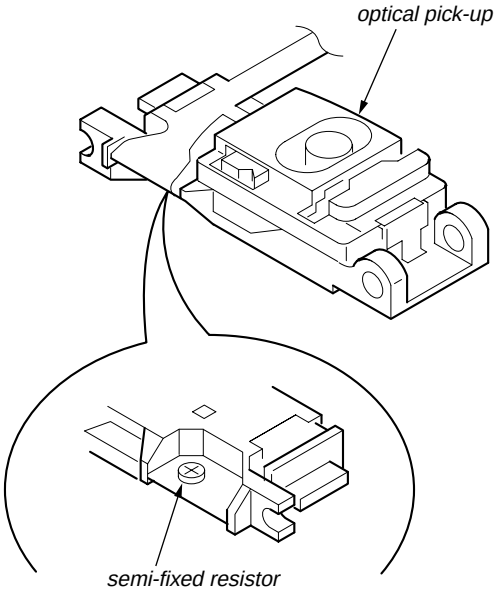
Please use the following test discs for the check on the CD section.

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

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.



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

• CDX-GT44IP

CLASS 1
LASER PRODUCT

This label is located on the bottom of the chassis.

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

Type of discs	Label on the disc
CD-DA	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable
MP3 WMA	COMPACT disc DIGITAL AUDIO Recordable COMPACT disc DIGITAL AUDIO ReWritable COMPACT disc Recordable COMPACT disc ReWritable

● UNLEADED SOLDER

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

: LEAD FREE MARK

Unleaded solder has the following characteristics.

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

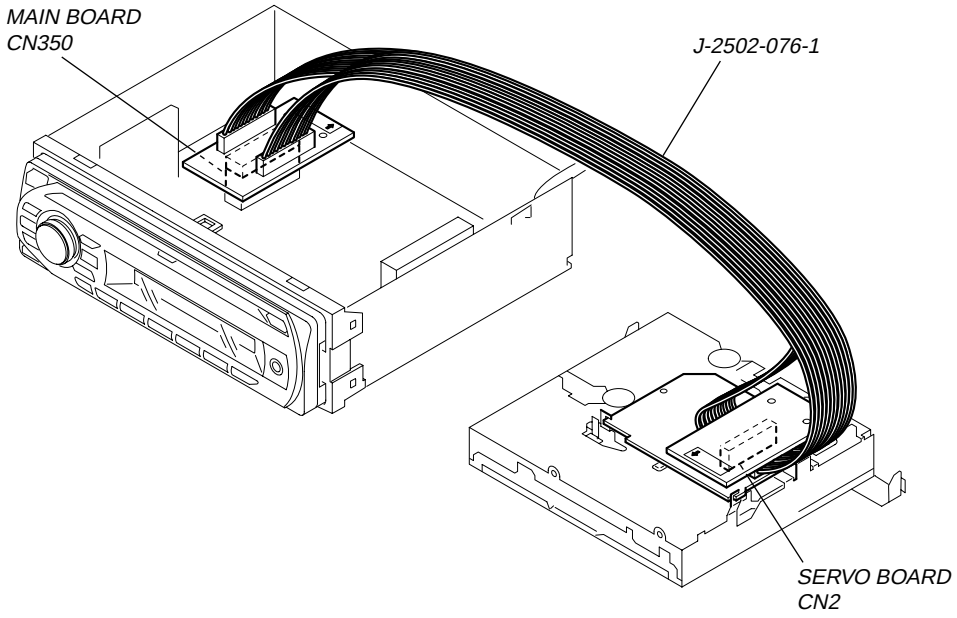
TABLE OF CONTENTS

SECTION 1
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).



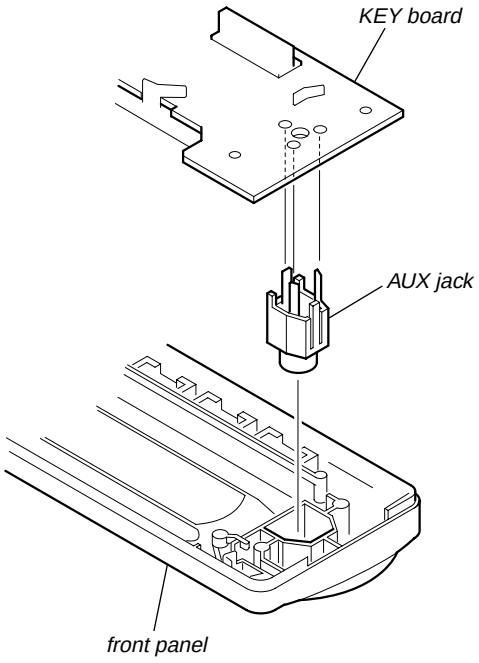
NOTE FOR REPLACEMENT OF THE SERVO BOARD

When repairing, the complete SERVO board (A-1201-631-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.



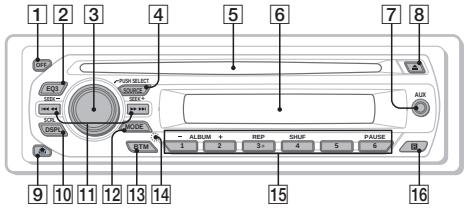
SECTION 2
GENERAL

This section is extracted from instruction manual.

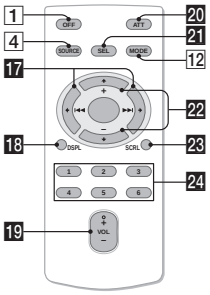
• LOCATION OF CONTROL (CDX-GT42IPW)

Location of controls and basic operations

Main unit



Card remote commander RM-X151



This section contains instructions on the location of controls and basic operations. For details, see the respective pages.
For iPod operation, see "iPod" on page 9. 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 **EQ3 (equalizer) button** page 10
To select an equalizer type (XPLOD, VOCAL, EDGE, CRUISE, SPACE, GRAVITY, CUSTOM or OFF).

3 **Volume control dial/select button** page 10
To adjust volume (rotate); select setup items (press and rotate).

4 **SOURCE button**
To power on; change the source (Radio/CD/AUX/PD).

5 **Disc slot**
Insert the disc (label side up), playback starts.

6 **Display window**

7 **AUX input jack** page 11
To connect a portable audio device.

8 **⏏ (eject) button**
To eject the disc.

9 **(front panel release) button** page 5

10 **DSPL (display)/SCRL (scroll) button** page 8
To change display items (press); scroll the display item (press and hold).

11 **SEEK –/+ buttons**
CD/PD:
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).

12 **MODE button** page 8
To select the radio band (FM/AM); select the play mode of iPod.

13 **BTM button** page 8
To start the BTM function (press and hold).

14 **RESET button** (located behind the front panel) page 4

15 **Number buttons**
CD/PD:
①/②: **ALBUM –/+** (during MP3/WMA playback)
To skip albums (press); skip albums continuously (press and hold).
③: **REP** page 8
④: **SHUF** page 8
⑥: **PAUSE**
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

16 **Receptor for the card remote commander**

The following buttons on the card remote commander have also different buttons/functions from the unit. Remove the insulation film before use (page 4).

17 **⬅ (|◀◀)/➡ (▶▶|) buttons**
To control CD/radio/PD, the same as (SEEK) –/+ on the unit.
Setup, sound setting, etc., can be operated by ⬅➡.

18 **DSPL (display) button**
To change display items.

19 **VOL (volume) +/– button**
To adjust volume.

20 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

21 **SEL (select) button**
The same as the select button on the unit.

22 **⬆ (+)/⬇ (–) buttons**
To control CD/PD, the same as ①/② (ALBUM –/+) on the unit.
Setup, sound setting, etc., can be operated by ⬆⬇.

23 **SCRL (scroll) button**
To scroll the display item.

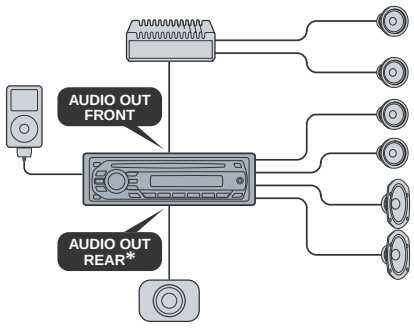
24 **Number buttons**
To receive stored stations (press); store stations (press and hold).

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.

• CONNECTIONS (CDX-GT42IPW)

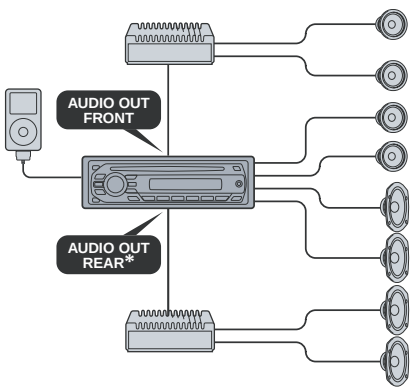
2

A



** AUDIO OUT SUB/REAR*

B



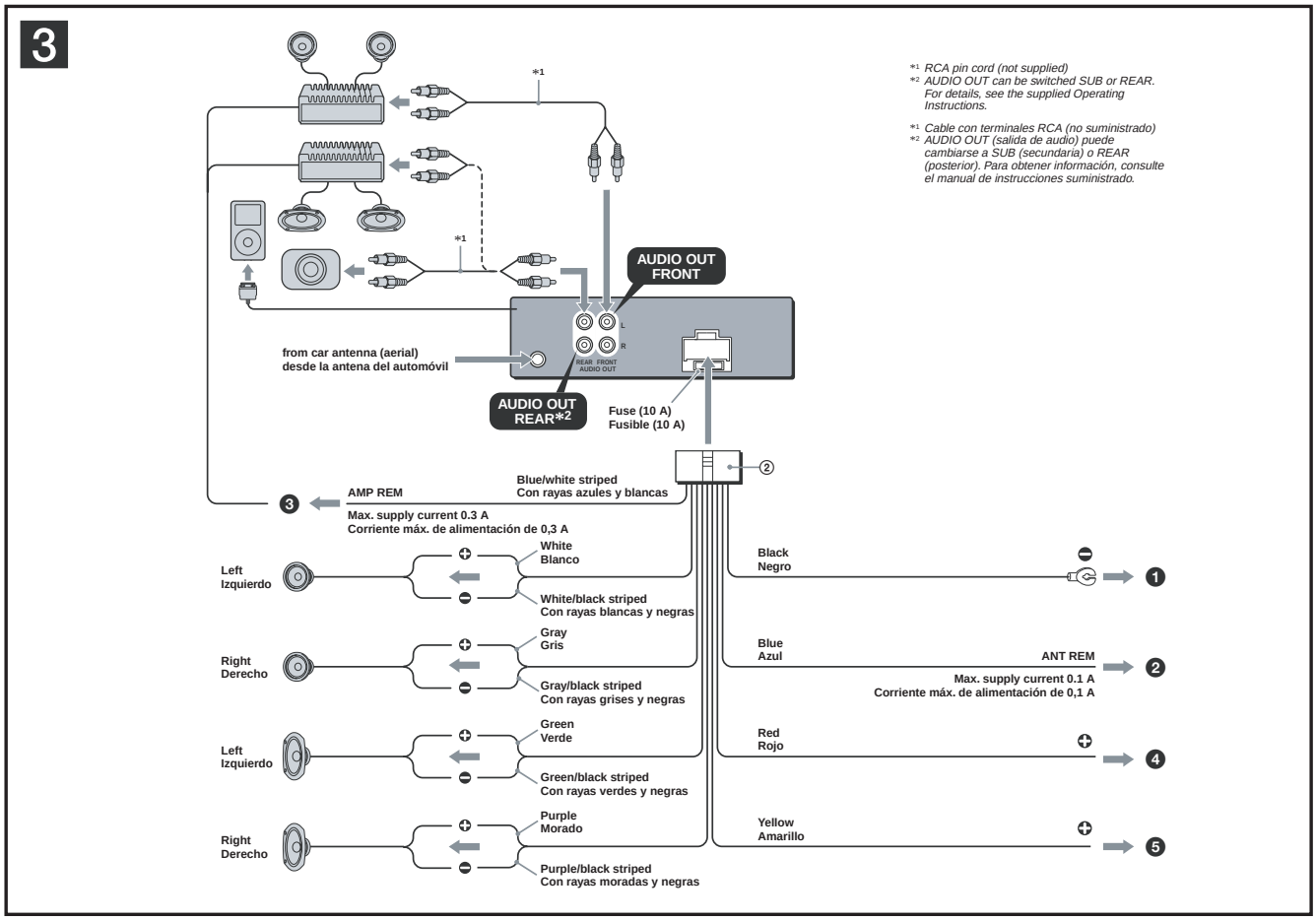
** AUDIO OUT SUB/REAR*

Connection example 2

Notes
- *Be sure to connect the ground (earth) lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

Ejemplo de conexiones 2

Notas
- *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.*



Connection diagram 3

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

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

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

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

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

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

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

Diagrama de conexión 3

❶ A una superficie metálica del automóvil
Conecte primero el cable de conexión a masa negro, y después los cables amarillo y rojo de fuente de alimentación.

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

❸ 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.

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

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

Notas sobre los cables de control y de fuente de alimentación
- *El cable de control de la antena motorizada (azul) suministrará cc de + 12 V cuando conecte la alimentación del sintonizador.*
- *Si el automóvil dispone de una antena de FM/AM incorporada en el cristal trasero o lateral, conecte el cable de control de antena motorizada (azul) o el cable de fuente de alimentación auxiliar (rojo) al terminal de alimentación del amplificador de 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.

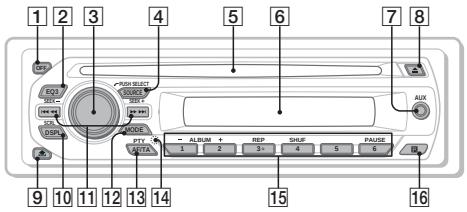
Notas sobre la conexión de los altavoces
- *Antes de conectar los altavoces, desconecte la alimentación de la unidad.*
- *Utilice altavoces con una impedancia de 4 a 8 Ω con la capacidad de potencia adecuada para evitar que se dañen.*
- *No conecte los terminales de altavoz al chasis del automóvil, ni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

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

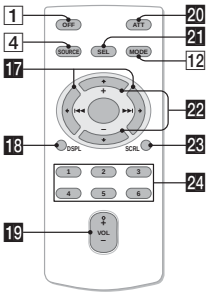
• LOCATION OF CONTROL (CDX-GT44IP)

Location of controls and basic operations

Main unit



Card remote commander RM-X151



This section contains instructions on the location of controls and basic operations. For details, see the respective pages.
For iPod operation, see "iPod" on page 10. 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 **EQ3 (equalizer) button** page 12
To select an equalizer type (XPLOD, VOCAL, EDGE, CRUISE, SPACE, GRAVITY, CUSTOM or OFF).

3 **Volume control dial/select button** page 12
To adjust volume (rotate); select setup items (press and rotate).

4 **SOURCE button**
To power on; change the source (Radio/CD/AUX/PD).

5 **Disc slot**
Insert the disc (label side up), playback starts.

6 **Display window**

7 **AUX input jack** page 13
To connect a portable audio device.

8 ⏏ **(eject) button**
To eject the disc.

9 **(front panel release) button** page 5

10 **DSPL (display)/SCRL (scroll) button** page 8, 9
To change display items (press); scroll the display item (press and hold).

11 **SEEK –/+ buttons**
CD/PD:
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).

12 **MODE button** page 8
To select the radio band (FM/MW/LW); select the play mode of iPod.

13 **AF (Alternative Frequencies)/ TA (Traffic Announcement)/ PTY (Program Type) button** page 9, 10
To set AF and TA (press); select PTY (press and hold) in RDS.

14 **RESET button** (located behind the front panel) page 4

15 **Number buttons**
CD/PD:
①/②: **ALBUM –/+** (during MP3/WMA playback)
To skip albums (press); skip albums continuously (press and hold).
③: **REP** page 8
④: **SHUF** page 8
⑥: **PAUSE**
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

16 **Receptor for the card remote commander**

The following buttons on the card remote commander have also different buttons/functions from the unit. Remove the insulation film before use (page 4).

17 **⬅ (I◀◀)/➡ (▶▶I) buttons**
To control CD/radio/PD, the same as SEEK –/+ on the unit.
Setup, sound setting, etc., can be operated by ⬅ ➡.

18 **DSPL (display) button**
To change display items.

19 **VOL (volume) +/– button**
To adjust volume.

20 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

21 **SEL (select) button**
The same as the select button on the unit.

22 **⬆ (+)/⬇ (–) buttons**
To control CD/PD, the same as ①/② (ALBUM –/+) on the unit.
Setup, sound setting, etc., can be operated by ⬆⬇.

23 **SCRL (scroll) button**
To scroll the display item.

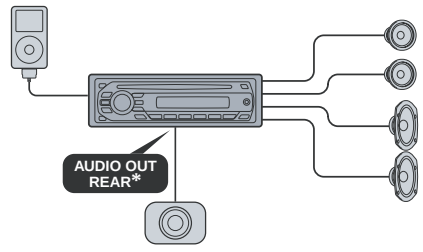
24 **Number buttons**
To receive stored stations (press); store stations (press and hold).

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.

• CONNECTIONS (CDX-GT44IP)

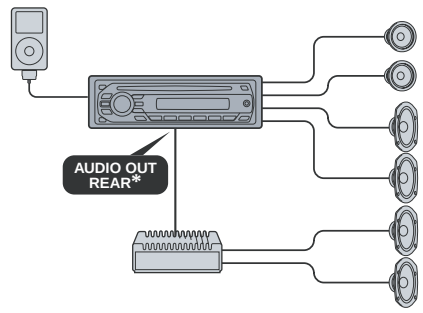
2

A



** AUDIO OUT SUB/REAR*

B



** AUDIO OUT SUB/REAR*

Connection example 2

Notes
- *Be sure to connect the ground (earth) lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

Anschlussbeispiel 2

Hinweise
- *Schließen Sie unbedingt zuerst das Massekabel an, bevor Sie den Verstärker anschließen.*
- *Der Warnton wird nur ausgegeben, wenn der integrierte Verstärker verwendet wird.*

Exemple de raccordement 2

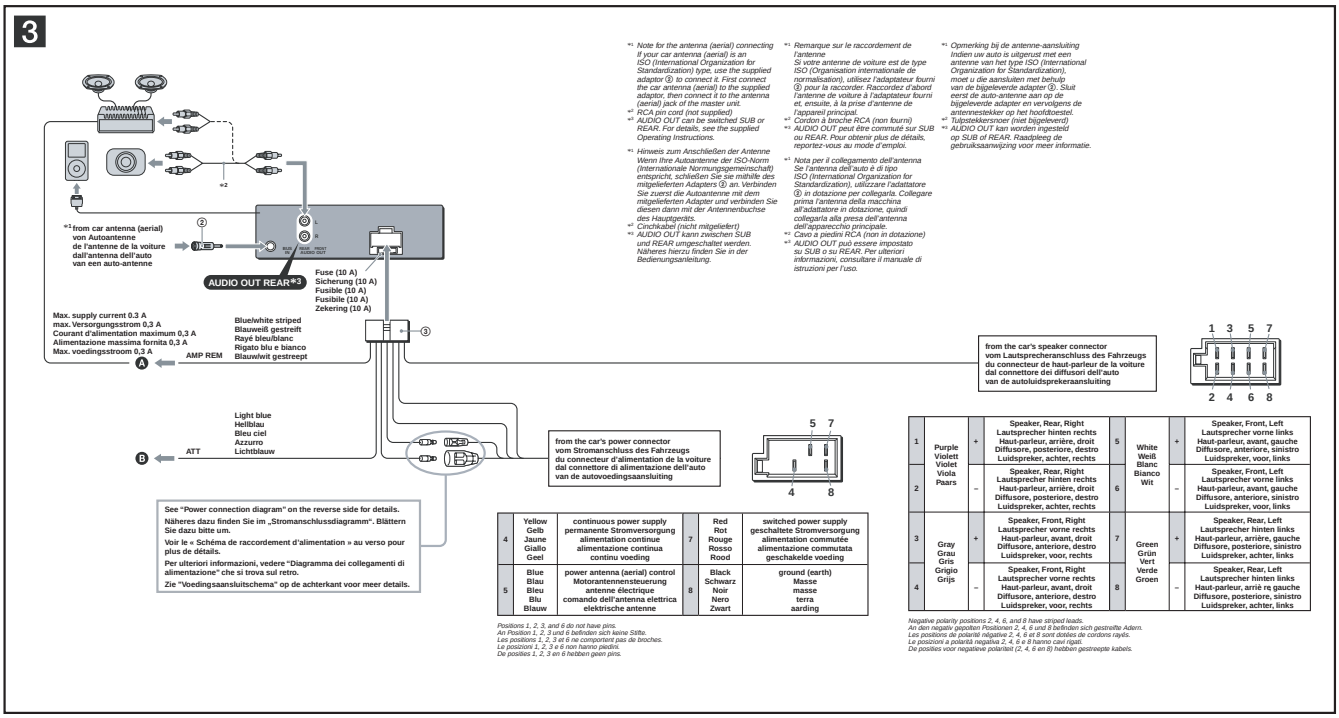
Remarques
- *Raccordez d'abord le câble de mise à la masse avant de raccorder l'amplificateur.*
- *L'alarme est émise uniquement lorsque l'amplificateur intégré est utilisé.*

Esempio di collegamento 2

Note
- *Assicurarsi 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.*

Voorbeeldaansluitingen 2

Opmerkingen
- *Sluit eerst de aardingskabel aan voordat u de versterker aansluit.*
- *U hoort de pieptoon alleen als de ingebouwde versterker wordt gebruikt.*



*1 *Note for the antenna (aerial) connecting*
If your car antenna (aerial) is an ISO (International Organization for Standardization) type, use the supplied adaptor Ⓙ to connect it. First connect the car antenna (aerial) to the supplied adaptor, then connect it to the antenna (aerial) jack of the master unit.
2 RCA pin cord (not supplied)
3 AUDIO OUT can be switched SUB or REAR. For details, see the supplied Operating Instructions.

1 Hinweis zum Anschließen der Antenne
Wenn Ihre Autoantenne der ISO-Norm (Internationale Normungsgemeinschaft) entspricht, schließen Sie sie mithilfe des mitgelieferten Adapters Ⓙ an. Verbinden Sie zuerst die Autoantenne mit dem mitgelieferten Adapter und verbinden Sie diesen dann mit der Antennenbuchse des Hauptgeräts.
2 Cinchkabel (nicht mitgeliefert)
3 AUDIO OUT kann zwischen SUB und REAR umgeschaltet werden. Näheres hierzu finden Sie in der Bedienungsanleitung.

1 Remarque sur le raccordement de l'antenne
Si votre antenne de voiture est de type ISO (Organisation internationale de normalisation), utilisez l'adaptateur fourni Ⓙ pour la raccorder. Raccordez d'abord l'antenne de voiture à l'adaptateur fourni et, ensuite, à la prise d'antenne de l'appareil principal.
2 Cordon à broche RCA (non fourni)
3 AUDIO OUT peut être commuté sur SUB ou REAR. Pour obtenir plus de détails, reportez-vous au mode d'emploi.

1 Nota per il collegamento dell'antenna
Se l'antenna dell'auto è di tipo ISO (International Organization for Standardization), utilizzare l'adattatore Ⓙ in dotazione per collegarla. Collegare prima l'antenna della macchina all'adattatore in dotazione, quindi collegarla alla presa dell'antenna dell'apparecchio principale.
2 Cavo a piedini RCA (non in dotazione)
3 AUDIO OUT può essere impostato su SUB o su REAR. Per ulteriori informazioni, consultare il manuale di istruzioni per l'uso.

1 Opmerking bij de antenne-aansluiting
Indien uw auto is uitgerust met een antenne van het type ISO (International Organization for Standardization), moet u die aansluiten met behulp van de bijgeleverde adapter Ⓙ. Sluit eerst de auto-antenne aan op de bijgeleverde adapter en vervolgens de antennestekker op het hoofdtoestel.
2 Tulpstekersnoer (niet bijgeleverd)
3 AUDIO OUT kan worden ingesteld op SUB of REAR. Raadpleeg de gebruiksaanwijzing voor meer informatie.

1	Purple Violett Viola Paars	+	Speaker, Rear, Right Lautsprecher hinten rechts Haut-parleur, arrière, droit Diffusore, posteriore, destro Luidspreker, achter, rechts	5	White Weiß Blanc Bianco Wit	+	Speaker, Front, Left Lautsprecher vorne links Haut-parleur, avant, gauche Diffusore, anteriore, sinistro Luidspreker, voor, links
2		–	Speaker, Rear, Right Lautsprecher hinten rechts Haut-parleur, arrière, droit Diffusore, posteriore, destro Luidspreker, achter, rechts	6		–	Speaker, Front, Left Lautsprecher vorne links Haut-parleur, avant, gauche Diffusore, anteriore, sinistro Luidspreker, voor, links
3	Gray Grau Gris Grigio Grijs	+	Speaker, Front, Right Lautsprecher vorne rechts Haut-parleur, avant, droit Diffusore, anteriore, destro Luidspreker, voor, rechts	7	Green Grün Vert Verde Groen	+	Speaker, Rear, Left Lautsprecher hinten links Haut-parleur, arrière, gauche Diffusore, posteriore, sinistro Luidspreker, achter, links
4		–	Speaker, Front, Right Lautsprecher vorne rechts Haut-parleur, avant, droit Diffusore, anteriore, destro Luidspreker, voor, rechts	8		–	Speaker, Rear, Left Lautsprecher hinten links Haut-parleur, arrie re gauche Diffusore, posteriore, sinistro Luidspreker, achter, links

Negative polarity positions 2, 4, 6, and 8 have striped leads.
An den negativ gepolten Positionen 2, 4, 6 und 8 befinden sich gestreifte Adern.
Les positions de polarité négative 2, 4, 6 et 8 sont dotées de cordons rayés.
Le posizioni a polarità negativa 2, 4, 6 e 8 hanno cavi rigati.
De posities voor negatieve polariteit (2, 4, 6 en 8) hebben gestreepte kabels.

4	Yellow Gelb Jaune Giallo Geel	continuous power supply permanente Stromversorgung alimentation continue alimentazione continua continu voeding	7	Red Rot Rouge Rosso Rood	switched power supply geschaltete Stromversorgung alimentation commutée alimentazione commutata geschakelde voeding
5	Blue Blau Bleu Blu Blauw	power antenna (aerial) control Motorantennensteuerung antenne électrique comando dell'antenna elettrica elektrische antenne	8	Black Schwarz Noir Nero Zwart	ground (earth) Masse masse terra aarding

Positions 1, 2, 3, and 6 do not have pins.
An Position 1, 2, 3 und 6 befinden sich keine Stifte.
Les positions 1, 2, 3 et 6 ne comportent pas de broches.
Le posizioni 1, 2, 3 e 6 non hanno piedini.
De posities 1, 2, 3 en 6 hebben geen pins.

Connection diagram 3

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

Warning

If you have a power antenna (aerial) without a relay box, connecting this unit with the supplied power connecting lead ③ may damage the antenna (aerial).

Notes on the control and power supply leads
- *The power antenna (aerial) control lead (blue) supplies +12 V DC when you turn on the tuner, or when you activate the AF (Alternative Frequency) or TA (Traffic Announcement) function.*
- *When your car has built-in FM/MW/LW antenna (aerial) in the rear/side 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 speaker terminals to the car chassis, or connect the terminals of the right speakers with those of the left speaker.*
- *Do not connect the ground (earth) lead of this unit to the negative (–) terminal of the speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Connect only passive speakers. Connecting active speakers (with built-in amplifiers) to the speaker terminals may damage the unit.*
- *To avoid a malfunction, do not use the built-in speaker leads installed in your car if the unit shares a common negative (–) lead for the right and left speakers.*
- *Do not connect the unit's speaker leads to each other.*

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

Anschlussdiagramm 3

Ⓐ **An AMP REMOTE IN des gesondert erhältlichen Endverstärkers**
Dieser Anschluss ist ausschließlich für Verstärker gedacht. Schließen Sie nichts anderes daran an. Andernfalls kann das Gerät beschädigt werden.
Ⓑ **An Schnittstellenkabel eines Autotelefons**

Warnung

Wenn Sie eine Motorantenne ohne Relaiskästchen verwenden, kann durch Anschließen dieses Geräts mit dem mitgelieferten Stromversorgungskabel ③ die Antenne beschädigt werden.

Hinweise zu den Steuer- und Stromversorgungsleitungen
- *Die Motorantennen-Steuerleitung (blau) liefert +12 V Gleichstrom, wenn Sie den Tuner einschalten oder die AF- (Alternativfrequenzsuche) oder die TA-Funktion (Verkehrsdurchsagen) aktivieren.*
- *Wenn das Fahrzeug mit einer in der Heck-/Seitenfensterscheibe integrierten FM (UKW)/MW/LW-Antenne ausgestattet ist, schließen Sie die Motorantennen-Steuerleitung (blau) oder die Zubehörstromversorgungsleitung (rot) an den Stromversorgungsanschluss des vorhandenen Antennenverstärkers an. Näheres dazu erfahren Sie bei Ihrem Händler.*
- *Es kann nur eine Motorantenne mit Relaiskästchen 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 und ausreichender Belastbarkeit. Ansonsten können die Lautsprecher beschädigt werden.*
- *Verbinden Sie die Lautsprecheranschlüsse nicht mit dem Wagenchassis und verbinden Sie auch nicht die Anschlüsse des rechten mit denen des linken Lautsprechers.*
- *Verbinden Sie die Masseleitung dieses Geräts nicht mit dem negativen (–) Lautsprecheranschluss.*
- *Versuchen Sie nicht, Lautsprecher parallel anzuschließen.*
- *An die Lautsprecheranschlüsse dieses Geräts dürfen nur Passivlautsprecher angeschlossen werden. Schließen Sie keine Aktivlautsprecher (Lautsprecher mit eingebauten Verstärkern) an, da das Gerät sonst beschädigt werden könnte.*
- *Um Fehlfunktionen zu vermeiden, verwenden Sie nicht die im Fahrzeug installierten, integrierten Lautsprecherleitungen, wenn am Ende eine gemeinsame negative (–) Leitung für den rechten und den linken Lautsprecher verwendet wird.*
- *Verbinden Sie nicht die Lautsprecherkabel des Geräts miteinander.*

Hinweis zum Anschließen
Wenn Lautsprecher und Verstärker nicht richtig angeschlossen sind, erscheint „FAILURE" im Display. Vergewissern Sie sich in diesem Fall, dass Lautsprecher und Verstärker richtig angeschlossen sind.

Schémas de raccordement 3

Ⓐ **Au niveau du AMP REMOTE IN d'un amplificateur de puissance facultatif**
Ce raccordement existe seulement pour les amplificateurs. Le raccordement à tout autre système peut endommager l'appareil.
Ⓑ **Vers le cordon de liaison d'un téléphone de voiture**

Avertissement

Si vous disposez d'une antenne électrique sans boîtier de relais, le branchement de cet appareil au moyen du cordon d'alimentation fourni ③ risque d'endommager l'antenne.

Remarques sur les câbles de commande et d'alimentation
- *Le câble de commande (bleu) fournit du courant continu de +12 V lorsque vous mettez le tuner sous tension ou lorsque vous activez la fonction AF (fréquence alternative) ou TA (messages de radiodiffusion).*
- *Lorsque votre voiture est équipée d'une antenne FM/MW (GO)/LW (PO) intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne (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 conservation de la mémoire
Lorsque le câble d'alimentation jaune est connecté, le circuit de la mémoire est alimenté en permanence même si la 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 sous peine de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *Ne tentez pas de raccorder les haut-parleurs en parallèle.*
- *Connectez uniquement des haut-parleurs passifs. Le raccordement 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 voiture 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 « FAILURE » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont raccordés correctement.

Schema di collegamento 3

Ⓐ **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.
Ⓑ **Al cavo di interfaccia di un telefono per auto**

Avvertenza

Quando si collega l'apparecchio con il cavo di alimentazione in dotazione ③, si potrebbe danneggiare l'antenna elettrica se questa non dispone di scatola a relè.

Note sui cavi di controllo e di alimentazione
- *Il cavo (blu) di controllo dell'antenna elettrica fornisce alimentazione pari a +12 V CC quando si attiva il sintonizzatore oppure la funzione TA (notiziario sul traffico) o AF (frequenza alternativa).*
- *Se l'automobile è dotata di antenna FM/MW/LW incorporata nel vetro posteriore/laterale, collegare il cavo (blu) di controllo dell'antenna elettrica o il cavo (rosso) di ingresso dell'alimentazione ausiliaria al terminale di alimentazione dell'amplificatore di potenza dell'antenna esistente. Per ulteriori informazioni, consultare il proprio fornitore.*
- *Non è possibile usare un'antenna elettrica senza scatola a relè con questo apparecchio.*

Collegamento per la conservazione della memoria
Quando il cavo di 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 impedenza compresa tra 4 e 8 ohm e con capacità di potenza adeguata, altrimenti i diffusori potrebbero venire danneggiati.*
- *Non collegare i terminali del sistema diffusori al telaio dell'auto e non collegare i terminali del diffusore destro a quelli del diffusore sinistro.*
- *Non collegare il cavo di terra di questo apparecchio al terminale negativo (–) del diffusore.*
- *Non collegare i diffusori in parallelo.*
- *Assicurarsi di collegare soltanto diffusori passivi, poiché il collegamento di diffusori attivi, dotati di amplificatori incorporati, ai terminali dei diffusori potrebbe danneggiare l'apparecchio.*
- *Per evitare problemi di funzionamento, non utilizzare i cavi dei diffusori incorporati installati nell'automobile se l'apparecchio condivide un cavo comune negativo (–) per i diffusori destro e sinistro.*
- *Non collegare fra loro i cavi dei diffusori dell'apparecchio.*

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

Aansluitschema 3

Ⓐ **Naar AMP REMOTE IN van een optionele versterker**
Deze aansluiting is alleen bedoeld voor versterkers. Door een ander systeem aan te sluiten kan het apparaat worden beschadigd.
Ⓑ **Naar het interface-snoer van een autotelefoon**

Waarschuwing

Indien u een elektrische antenne hebt zonder relaiskast, kan het aansluiten van dit apparaat met de bijgeleverde voedingskabel ③ de antenne beschadigen.

Opmerkingen over de bedienings- en voedingskabels
- *De bedieningskabel van de elektrische antenne (blauw) levert +12 V gelijkstroom wanneer u de tuner inschakelt of de AF (alternatieve frequenties) of TA (verkeersinformatie) functie activeert.*
- *Wanneer uw auto is uitgerust met een FM/MW/LW-antenne in de achterruit/zijruit, moet u de bedieningskabel van de elektrische antenne (blauw) of de voedingskabel van de accessoires (rood) aansluiten op de voedingsingang van de bestaande antenneversterker. Raadpleeg uw dealer voor meer details.*
- *Met dit apparaat is het niet mogelijk een elektrische antenne zonder relaiskast te gebruiken.*

Instandhouden van het geheugen
Zolang de gele voedingskabel is aangesloten, blijft de stroomvoorziening van het geheugen intact, ook wanneer de contactschakelaar van de auto wordt uitgeschakeld.

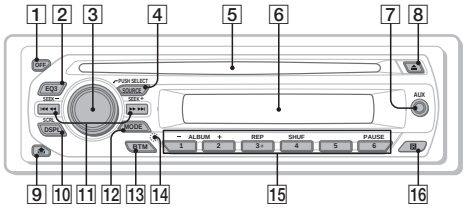
Opmerkingen betreffende het aansluiten van de luidsprekers
- *Zorg dat het apparaat is uitgeschakeld, alvorens de luidsprekers aan te sluiten.*
- *Gebruik luidsprekers met een impedantie van 4 tot 8 Ohm en let op dat die het vermogen van de versterker kunnen verwerken. Als u dit niet doet, kunnen de luidsprekers ernstig beschadigd raken.*
- *Verbind in geen geval de aardingskabel van de luidsprekers met het chassis van de auto en sluit de aansluitingen van de rechter- en linkerluidspreker niet op elkaar aan.*
- *Verbind de aarddraad van dit apparaat niet met de negatieve (–) aansluiting van de luidspreker.*
- *Probeer nooit de luidsprekers parallel aan te sluiten.*
- *Sluit geen actieve luidsprekers (met ingebouwde versterkers) aan op de luidsprekeraansluiting van dit apparaat. Dit zal leiden tot beschadiging van de actieve luidsprekers. Sluit dus altijd uitsluitend luidsprekers zonder ingebouwde versterker aan.*
- *Om defecten te vermijden mag u de bestaande luidsprekerbedrading in uw auto niet gebruiken wanneer er een gemeenschappelijke negatieve (–) kabel is voor de rechter- en linkerluidsprekers.*
- *Verbind de luidsprekerkabels niet met elkaar.*

Opmerking over aansluiten
Als de luidsprekers en versterker niet goed zijn aangesloten, wordt "FAILURE" in het display weergegeven. In dit geval moet u zorgen dat de luidspreker en versterker correct zijn aangesloten.

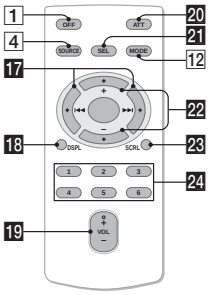
• LOCATION OF CONTROL (CDX-GT420IP)

Location of controls and basic operations

Main unit



Card remote commander RM-X151



This section contains instructions on the location of controls and basic operations. For details, see the respective pages.
For iPod operation, see "iPod" on page 9. 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 **EQ3 (equalizer) button** page 10
To select an equalizer type (XPLOD, VOCAL, EDGE, CRUISE, SPACE, GRAVITY, CUSTOM or OFF).

3 **Volume control dial/select button** page 10
To adjust volume (rotate); select setup items (press and rotate).

4 **SOURCE button**
To power on; change the source (Radio/CD/AUX/PD).

5 **Disc slot**
Insert the disc (label side up), playback starts.

6 **Display window**

7 **AUX input jack** page 11
To connect a portable audio device.

8 **⏏ (eject) button**
To eject the disc.

9 **(front panel release) button** page 5

10 **DSPL (display)/SCRL (scroll) button** page 8
To change display items (press); scroll the display item (press and hold).

11 **SEEK –/+ buttons**
CD/PD:
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).

12 **MODE button** page 8
To select the radio band (FM/AM); select the play mode of iPod.

13 **BTM button** page 8
To start the BTM function (press and hold).

14 **RESET button** (located behind the front panel) page 4

15 **Number buttons**
CD/PD:
①/②: **ALBUM –/+** (during MP3/WMA playback)
To skip albums (press); skip albums continuously (press and hold).
③: **REP** page 8
④: **SHUF** page 8
⑥: **PAUSE**
To pause playback. To cancel, press again.
Radio:
To receive stored stations (press); store stations (press and hold).

16 **Receptor for the card remote commander**

The following buttons on the card remote commander have also different buttons/functions from the unit. Remove the insulation film before use (page 4).

17 **⬅ (|◀◀)/➡ (▶▶|) buttons**
To control CD/radio/PD, the same as (SEEK) –/+ on the unit.
Setup, sound setting, etc., can be operated by ⬅➡.

18 **DSPL (display) button**
To change display items.

19 **VOL (volume) +/– button**
To adjust volume.

20 **ATT (attenuate) button**
To attenuate the sound. To cancel, press again.

21 **SEL (select) button**
The same as the select button on the unit.

22 **⬆ (+)/⬇ (–) buttons**
To control CD/PD, the same as ①/② (ALBUM –/+) on the unit.
Setup, sound setting, etc., can be operated by ⬆⬇.

23 **SCRL (scroll) button**
To scroll the display item.

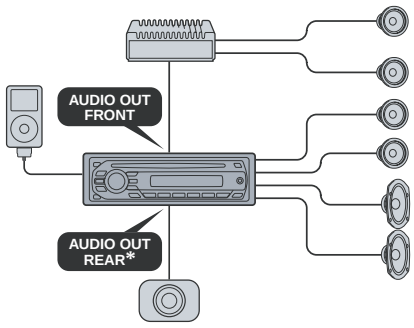
24 **Number buttons**
To receive stored stations (press); store stations (press and hold).

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.

• CONNECTIONS (CDX-GT420IP)

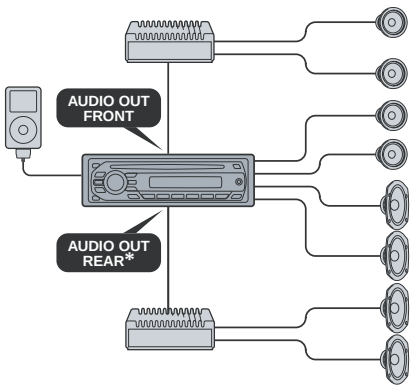
2

A



** AUDIO OUT SUB/REAR*

B



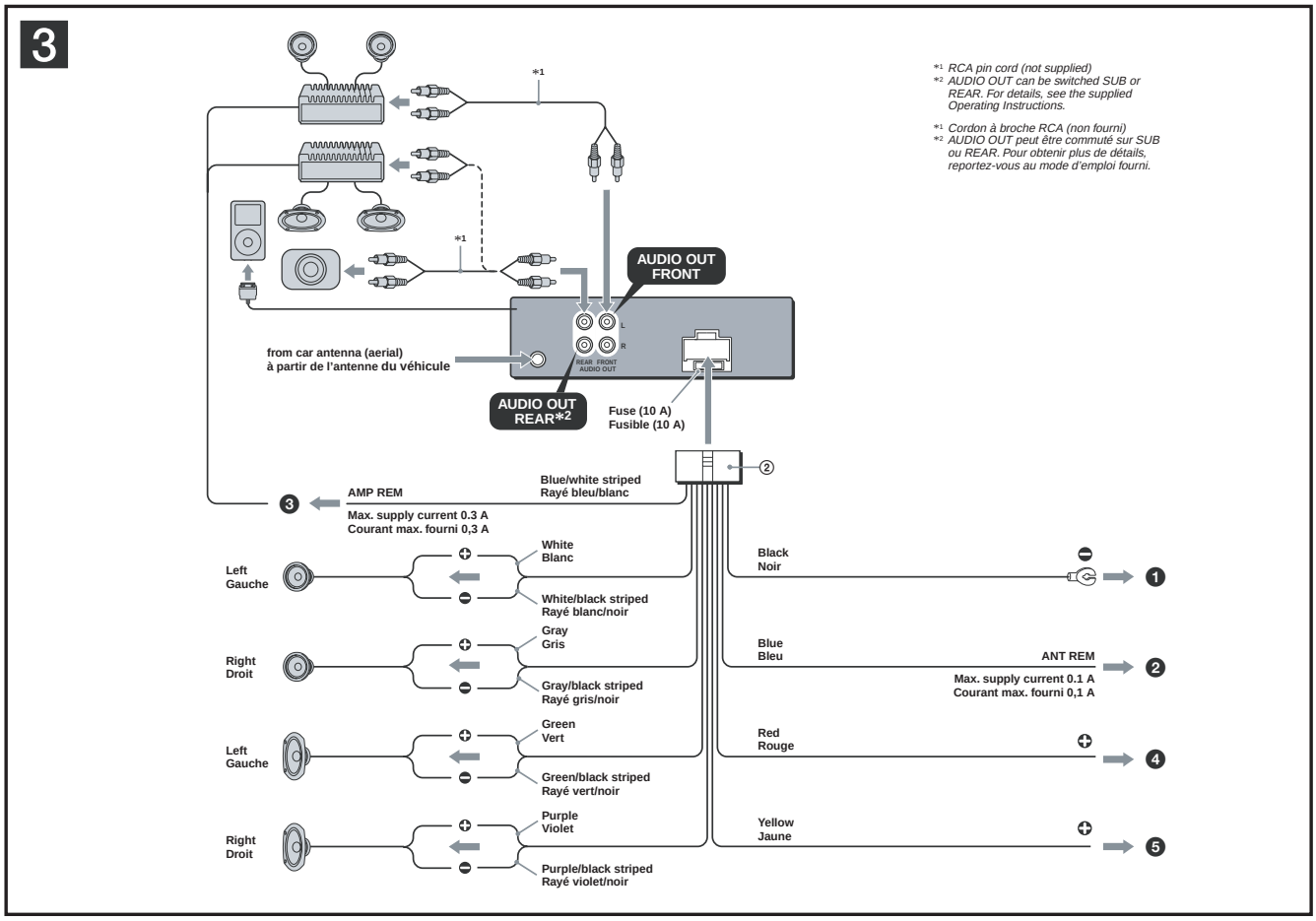
** AUDIO OUT SUB/REAR*

Connection example 2

Notes
- *Be sure to connect the ground (earth) lead before connecting the amplifier.*
- *The alarm will only sound if the built-in amplifier is used.*

Exemple de raccordement 2

Remarques
- *Raccordez d'abord le câble de mise à la masse avant de raccorder l'amplificateur.*
- *L'alarme est émise uniquement lorsque l'amplificateur intégré est utilisé.*



*1 RCA pin cord (not supplied)
*2 AUDIO OUT can be switched SUB or REAR. For details, see the supplied Operating Instructions.

*1 Cordon à broche RCA (non fourni)
*2 AUDIO OUT peut être commuté sur SUB ou REAR. Pour obtenir plus de détails, reportez-vous au mode d'emploi fourni.

Connection diagram 3

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

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

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

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

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

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

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

Schéma de raccordement 3

❶ **À un point métallique de la voiture**
Branchez d'abord le câble de mise à la masse noir et, ensuite, les câbles d'alimentation jaune et rouge.

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

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

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

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

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.*
- *Lorsque votre voiture est équipée d'une antenne FM/AM intégrée dans la vitre arrière/latérale, raccordez le câble de commande d'antenne (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 détaillant.*
- *Une antenne électrique sans boîtier de relais ne peut pas être utilisée avec cet appareil.*

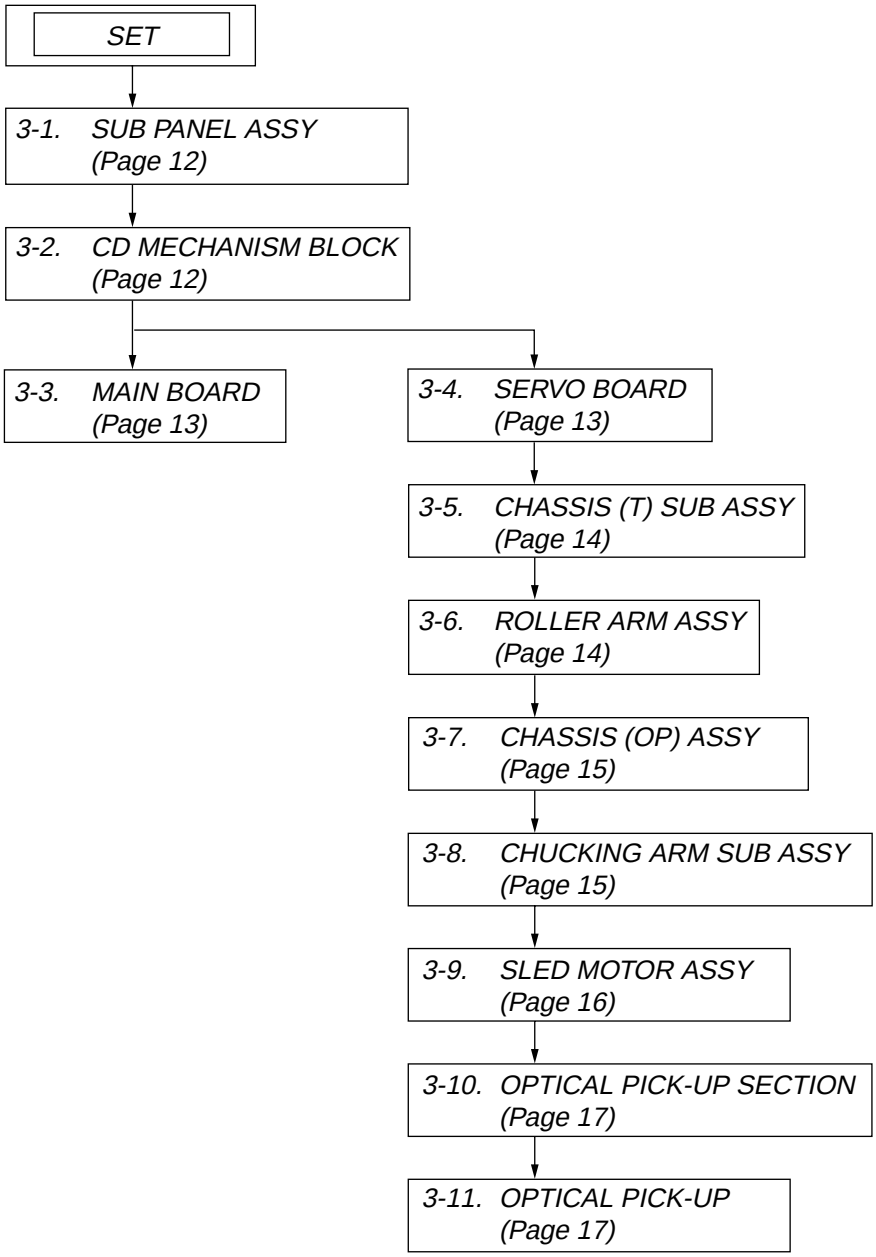
Raccordement pour la conservation de la mémoire
Lorsque le câble d'alimentation jaune est raccordé, le circuit de la mémoire est alimenté en permanence même si la clé de contact est sur la position d'arrêt.

Remarques sur le raccordement des haut-parleurs
- *Avant de raccorder les haut-parleurs, mettez l'appareil hors tension.*
- *Utilisez des haut-parleurs ayant une impédance de 4 à 8 ohms avec une capacité électrique adeequate pour éviter de les endommager.*
- *Ne raccordez pas les bornes du système de haut-parleurs au châssis de la voiture et ne raccordez pas les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne raccordez pas le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *N'essayez pas de raccorder les haut-parleurs en parallèle.*
- *Raccordez uniquement des haut-parleurs passifs. Le raccordement de haut-parleurs actifs (avec amplificateurs intégrés) aux bornes des haut-parleurs peut endommager l'appareil.*
- *Pour éviter tout problème de fonctionnement, n'utilisez pas les câbles des haut-parleurs intégrés installés dans votre voiture si l'appareil partage 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 « FAILURE » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs et l'amplificateur sont bien raccordés.

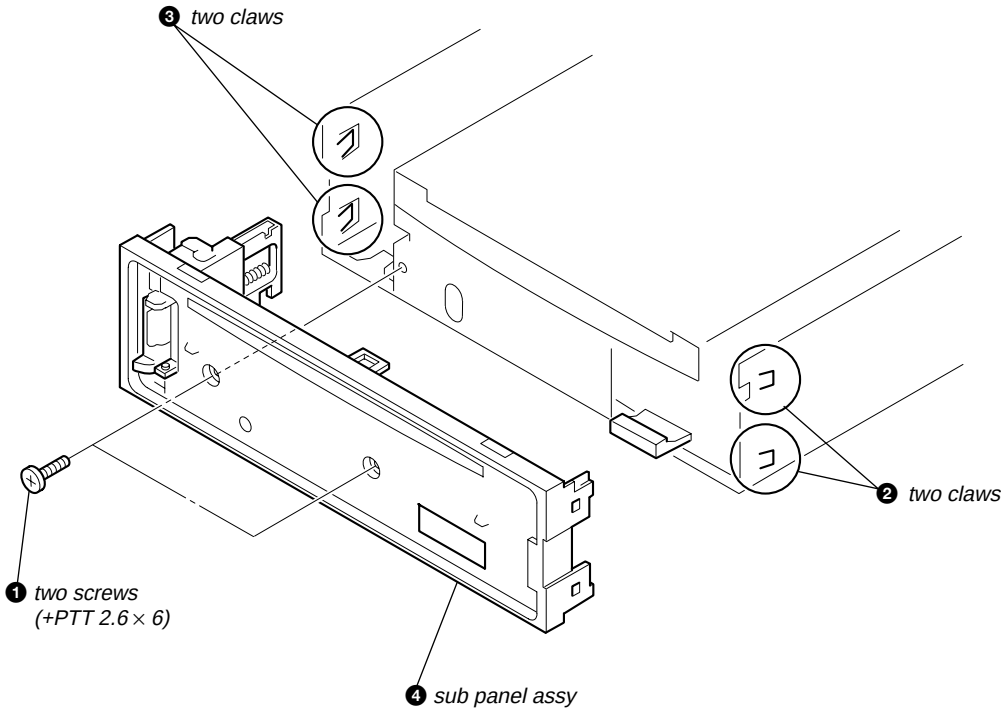
SECTION 3
DISASSEMBLY

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

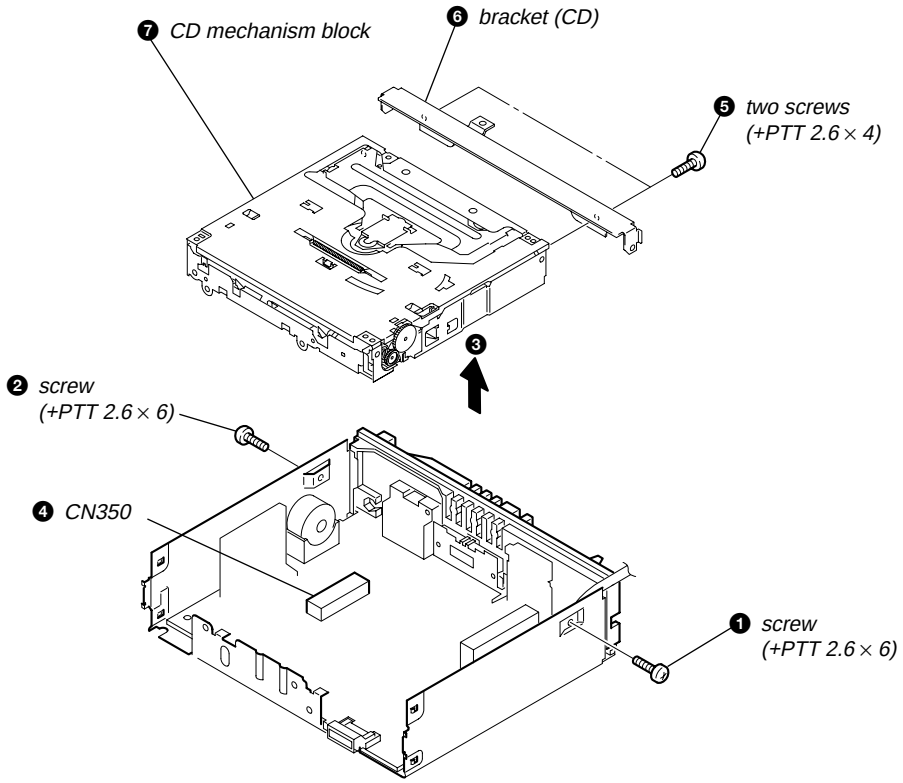


Note: Follow the disassembly procedure in the numerical order given.

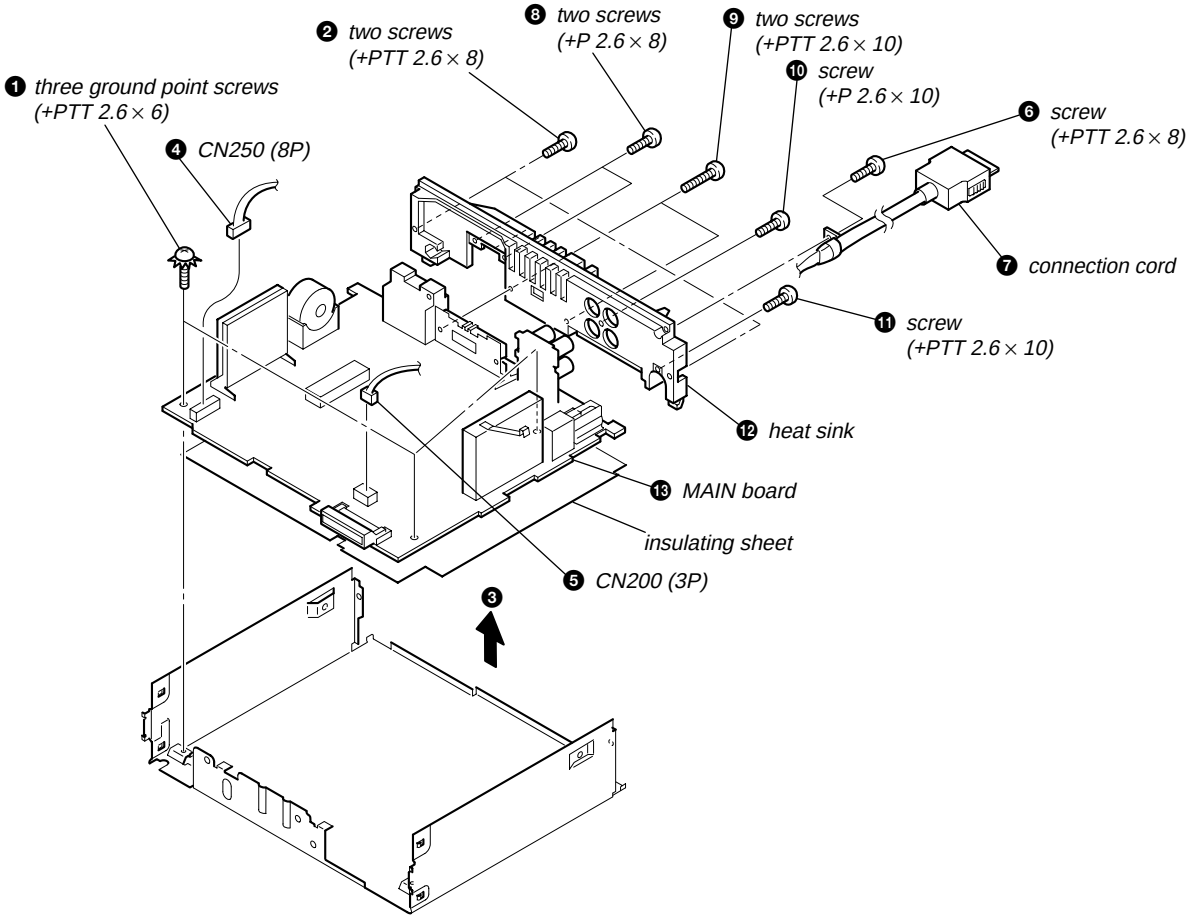
3-1. SUB PANEL ASSY



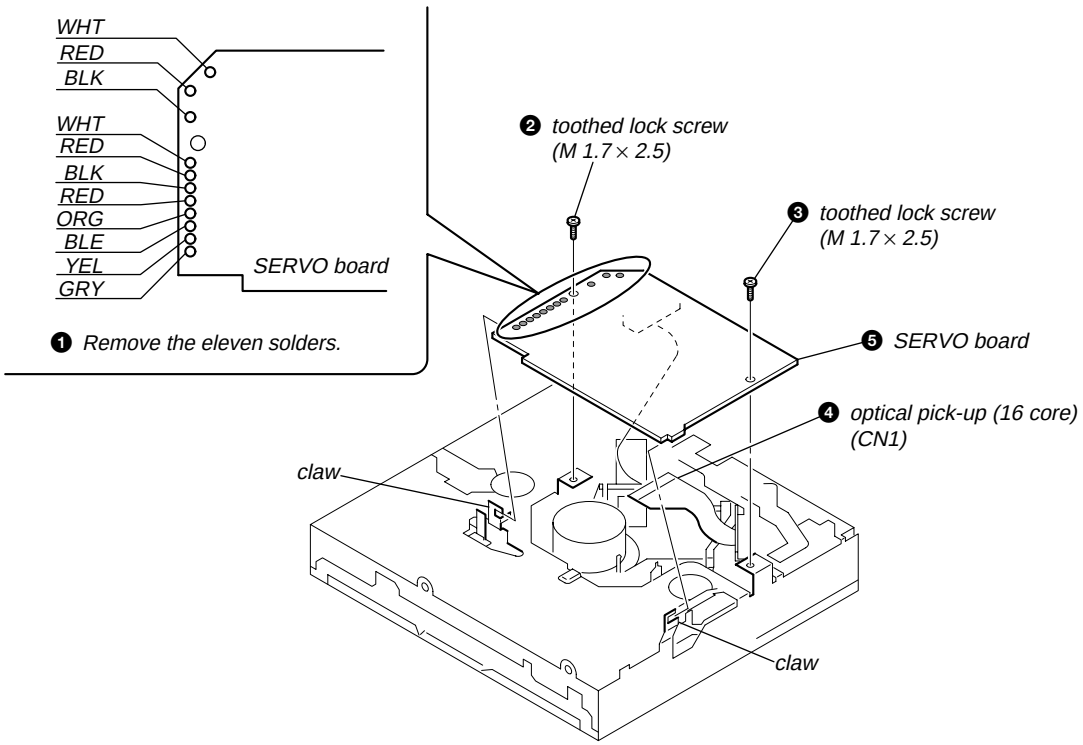
3-2. CD MECHANISM BLOCK



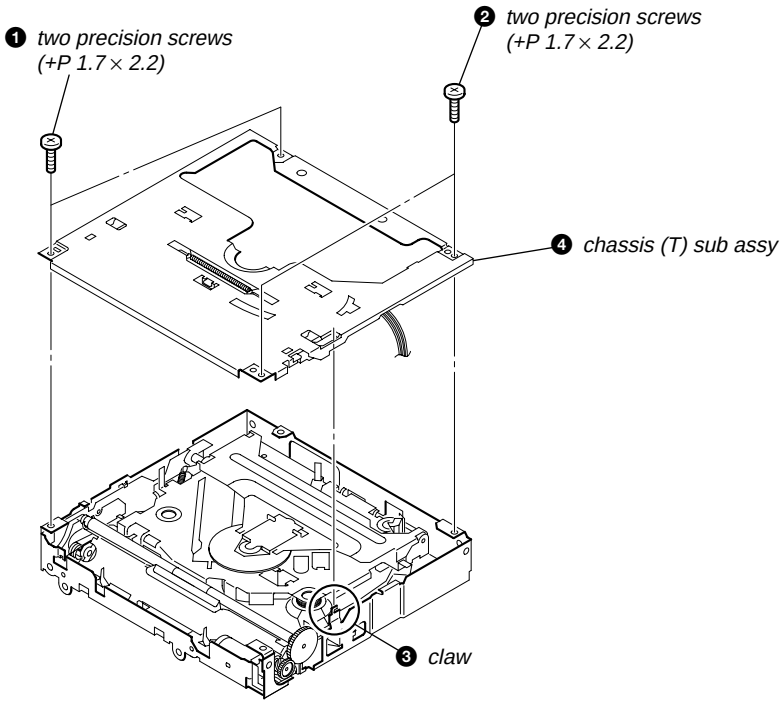
3-3. MAIN BOARD



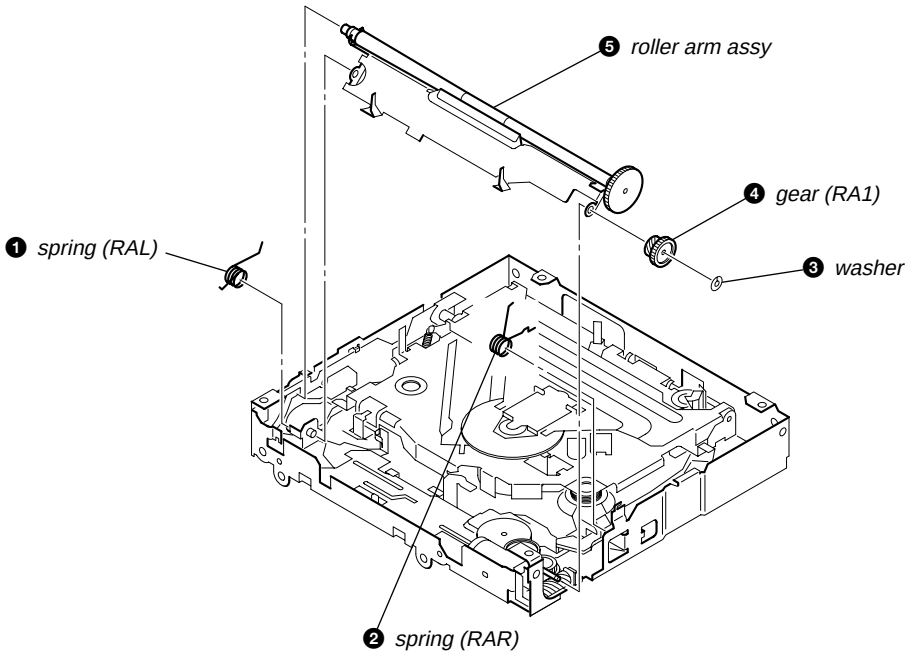
3-4. SERVO BOARD



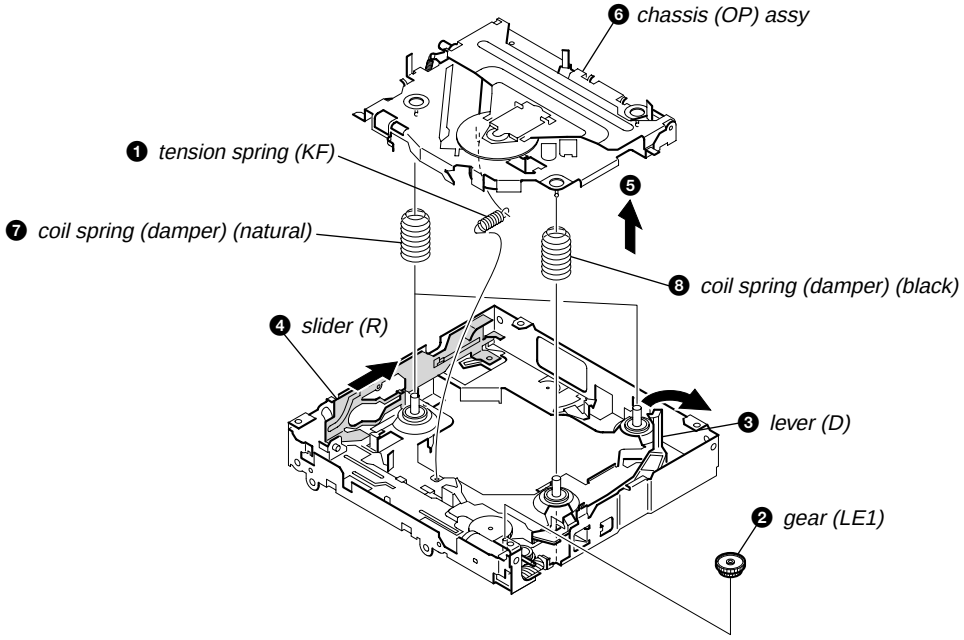
3-5. CHASSIS (T) SUB ASSY



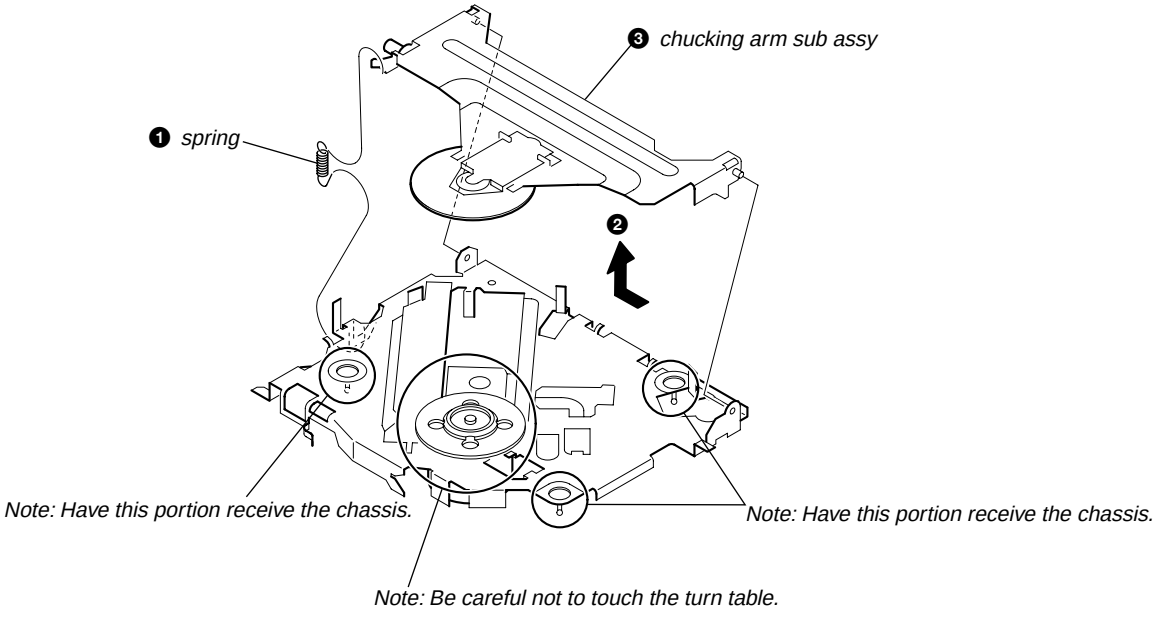
3-6. ROLLER ARM ASSY



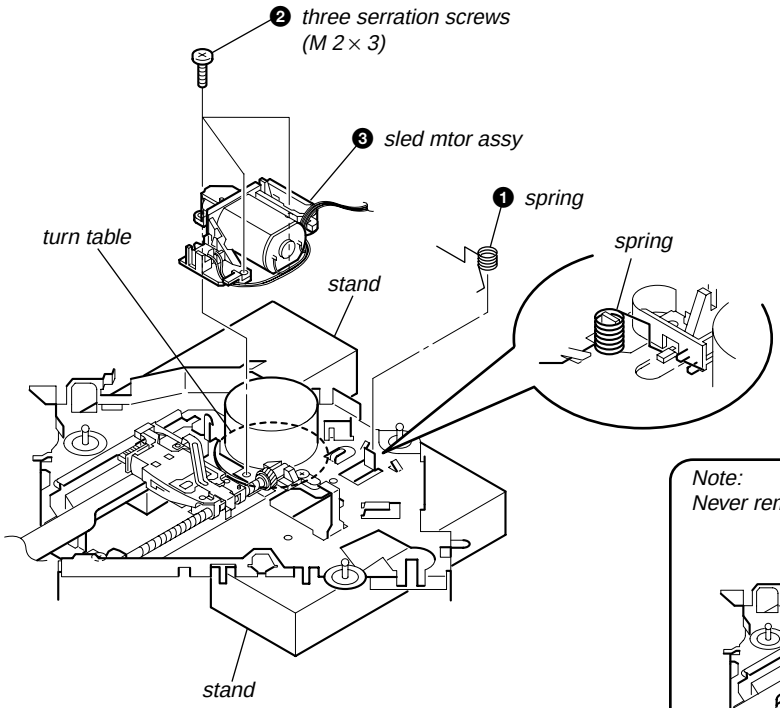
3-7. CHASSIS (OP) ASSY



3-8. CHUCKING ARM SUB ASSY

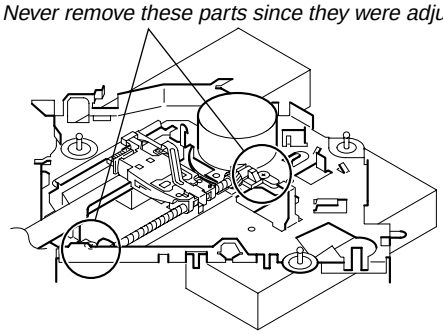


3-9. SLED MOTOR ASSY

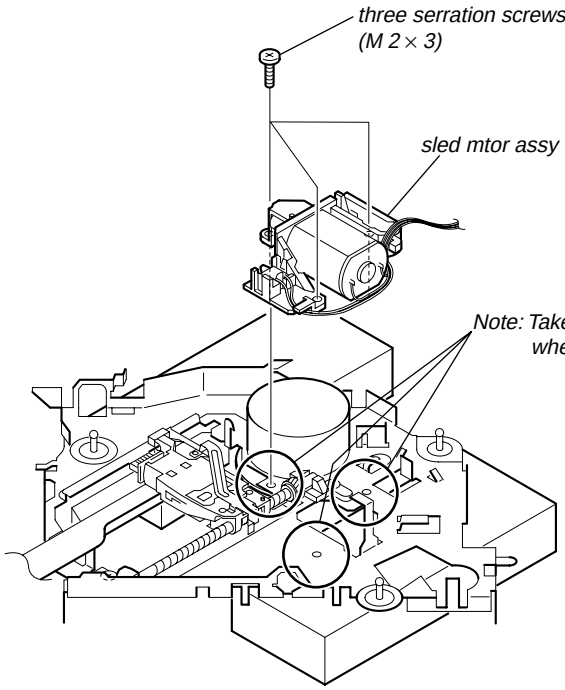


Note: Place the stand with care not to touch the turn table.

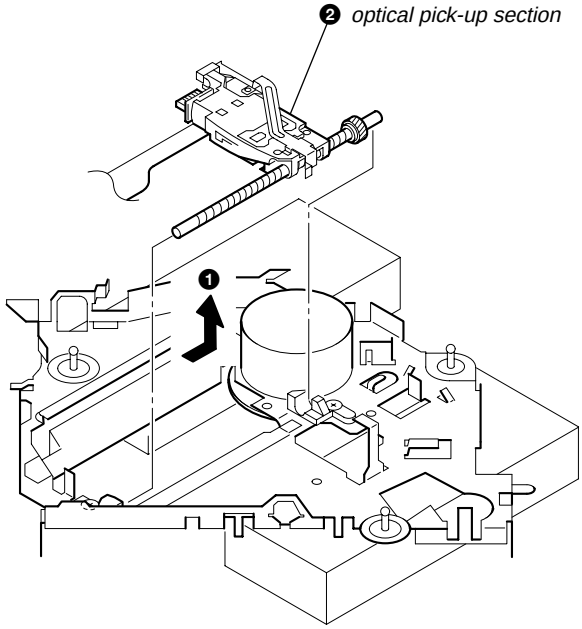
Note:
Never remove these parts since they were adjusted.

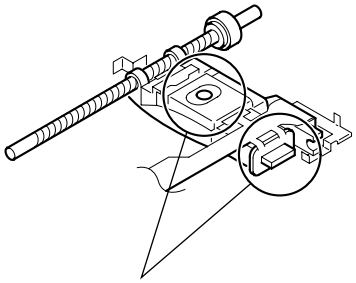


Note for Assembly



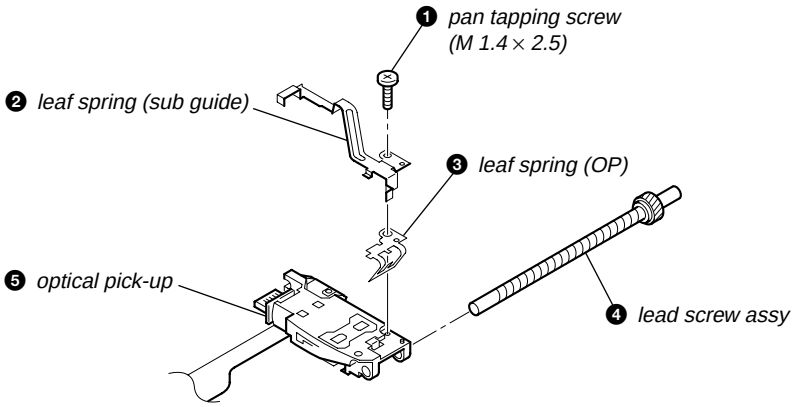
3-10. OPTICAL PICK-UP SECTION



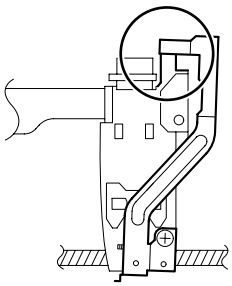


Note: Be careful not to touch the lens and hologram terminal when removing the optical pick-up section.

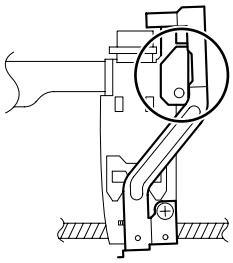
3-11. OPTICAL PICK-UP



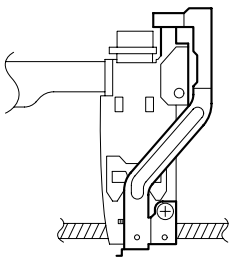
Notes for Assembly



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

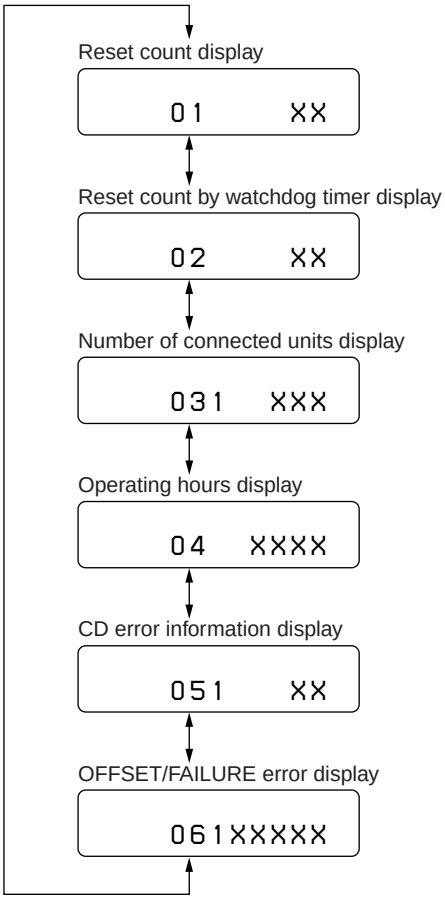
With the power off, press the [4] button, [5] button, and [4] button on the set body or the remote control (for more than 2 seconds) in turn.

2. Canceling the Diag display mode

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

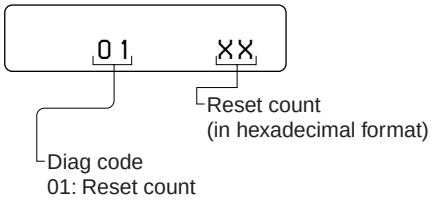
3. Initial display in the Diag display mode.

Just when the Diag mode is entered, "reset count" is displayed. The display mode is switched by each rotation of [▶▶ ▶▶I/SEEK +] or [I◀◀ ◀◀/SEEK –] keys.

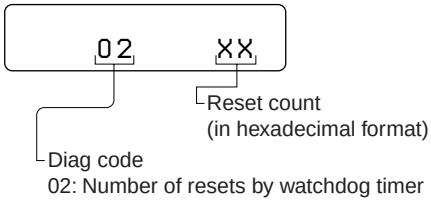


4. Contents of each display mode

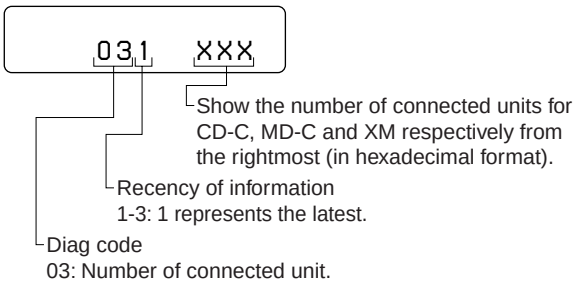
4-1. Reset count display mode



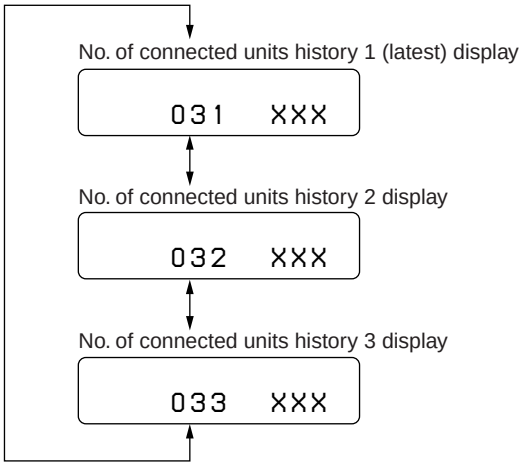
4-2. Reset count by watchdog timer display mode



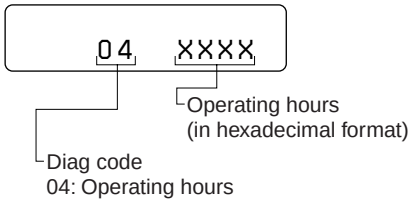
4-3. Number of connected units display mode



The display mode is switched by each rotation of [2] or [1] keys during the number of connected units display mode.

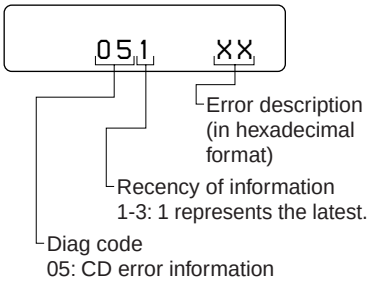


4-4. Operating hours display mode



4-5. CD error information display mode

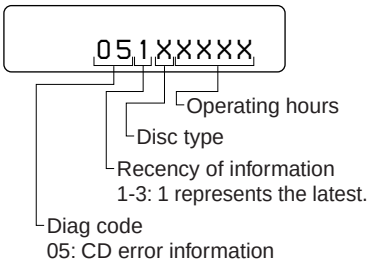
4-5-1. Error description



Error information

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

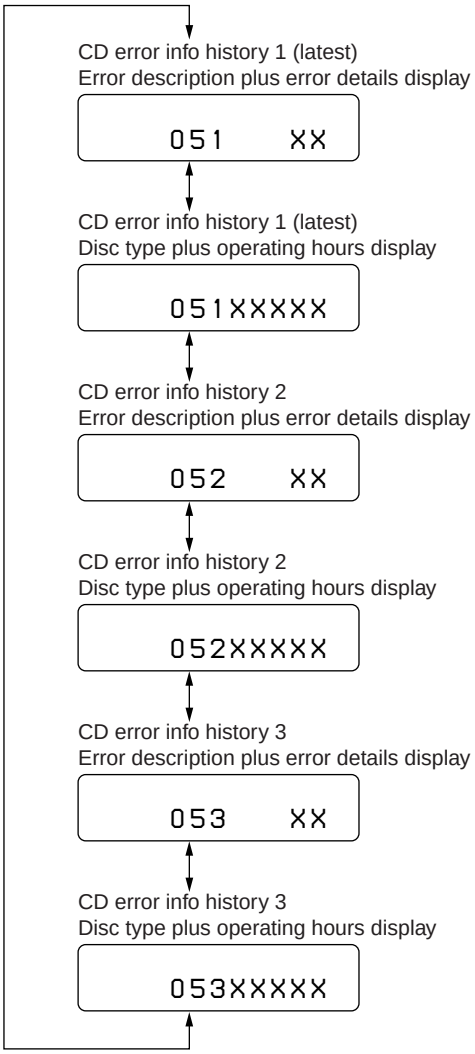
4-5-2. Disc type and operating hours



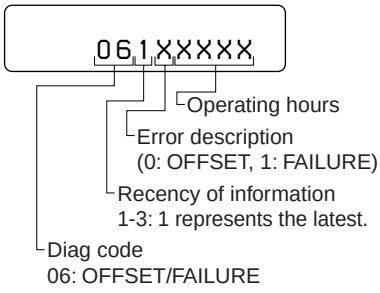
Disc type

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

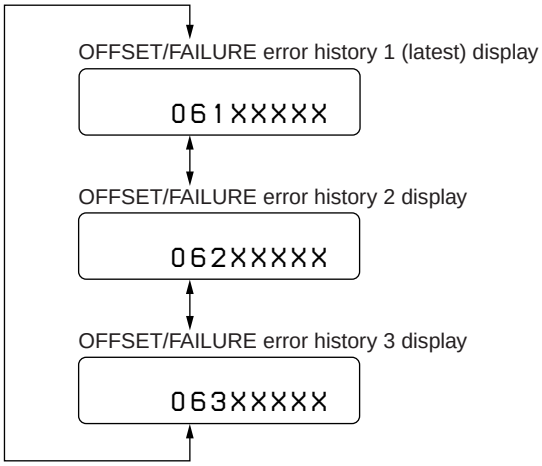
The display mode is switched by each rotation of [2] or [1] keys during the CD error information display mode.



4-6. OFFSET/FAILURE error display mode



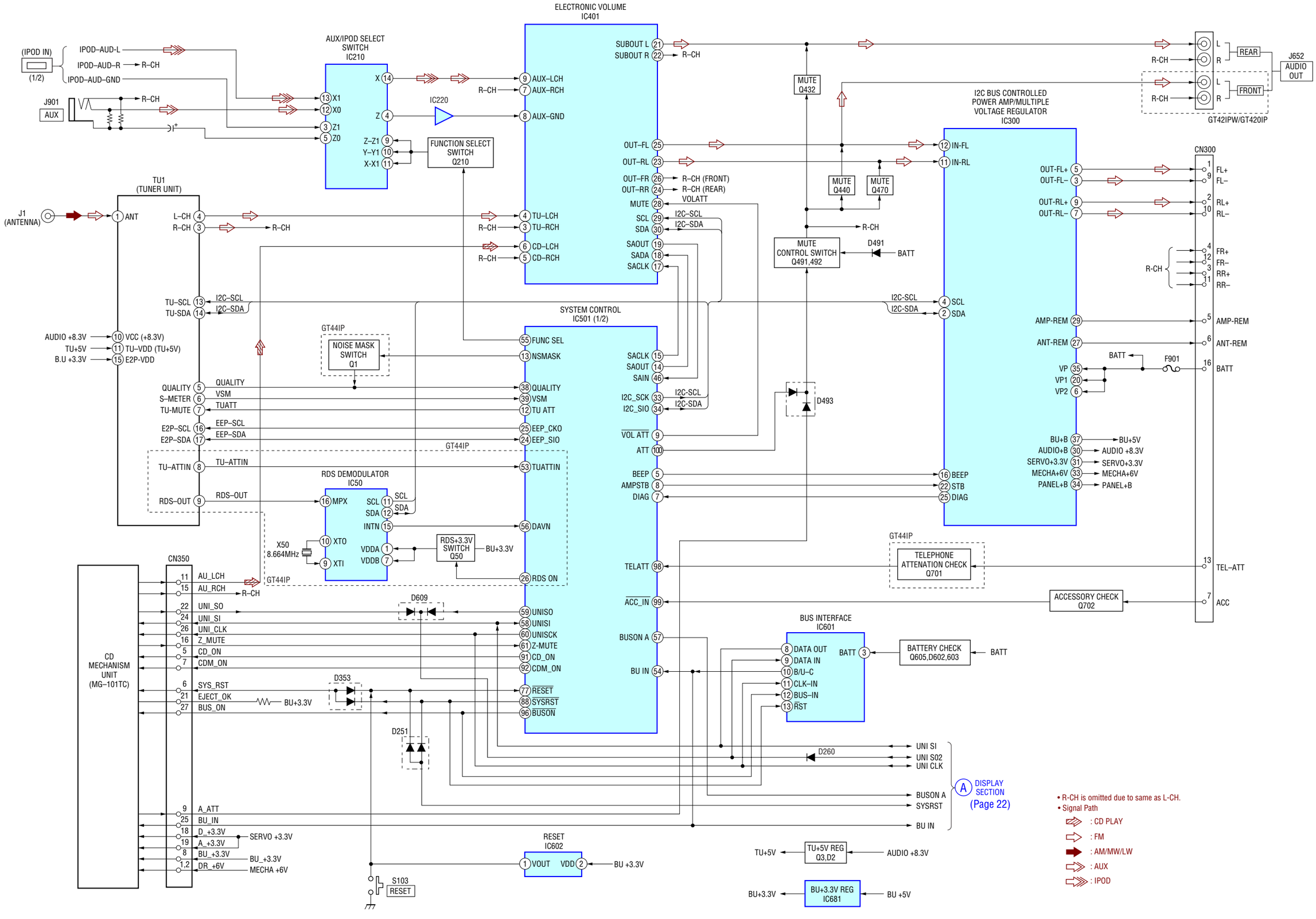
The display mode is switched by each rotation of [2] or [1] keys during the OFFSET/FAILURE error display mode.



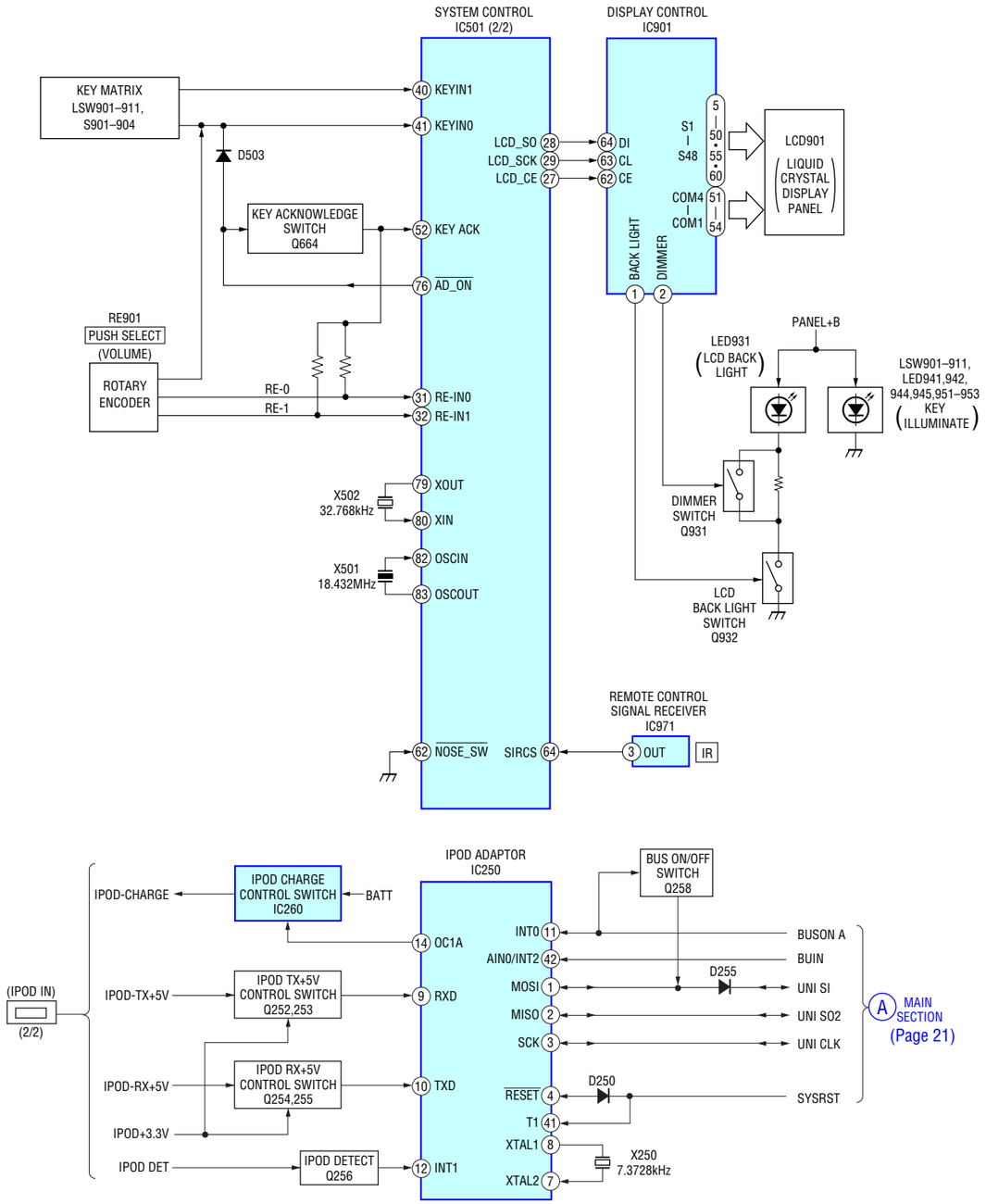
MEMO

SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM — MAIN SECTION —



5-2. BLOCK DIAGRAM — DISPLAY SECTION —



• NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

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

For schematic diagrams.

Note:

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

Note: The components identified by mark ⚠ or dotted line with mark ⚠ 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/MW/LW
  < > : CD PLAY
  ✻ : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : CD PLAY
  ⇨ : FM
  ➡ : AM/MW/LW
  ⇨ : AUX
  ⇨ : IPOD

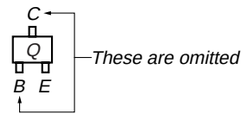
For printed wiring boards.

Note:

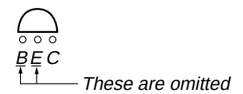
- o—— : parts extracted from the component side.
- —— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

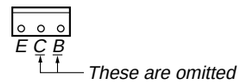
Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.



These are omitted



These are omitted

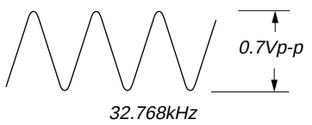


These are omitted

• Waveforms

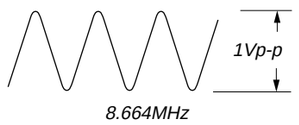
— MAIN Board —

① IC501 ⑧⓪ (XOUT)



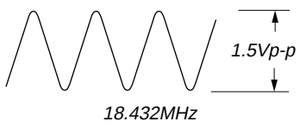
0.2 V/DIV, 20 µsec/DIV

③ IC50 ⑨ (XTI)



0.5 V/DIV, 0.1 µsec/DIV

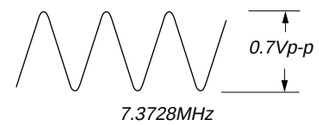
② IC501 ⑧③ (OSCOUT)



0.5 V/DIV, 0.1 µsec/DIV

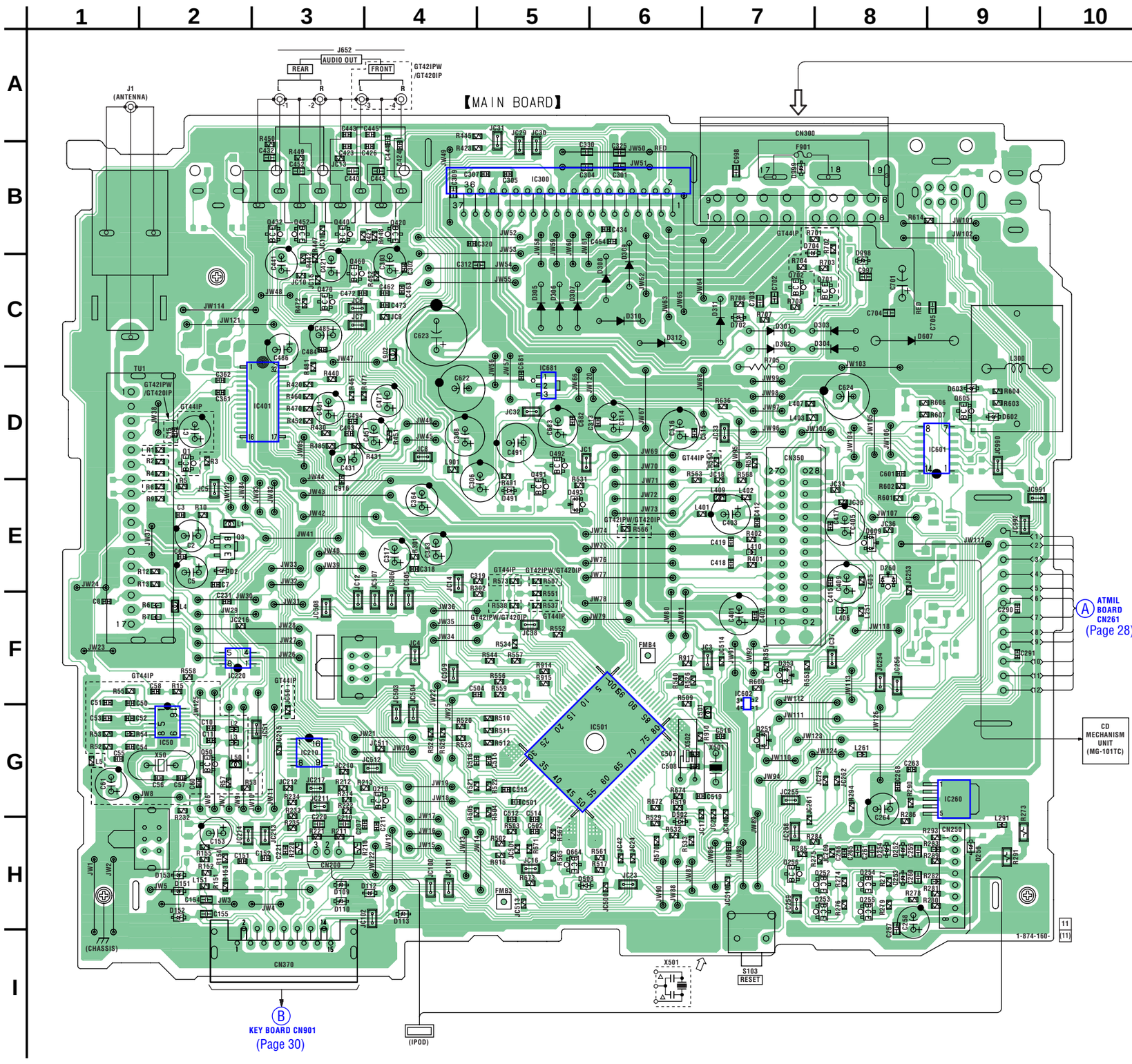
— ATMEL Board —

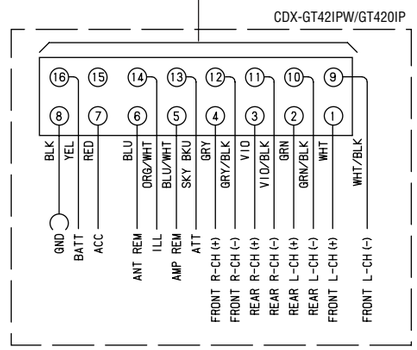
① IC250 ⑧ (XTAL1)

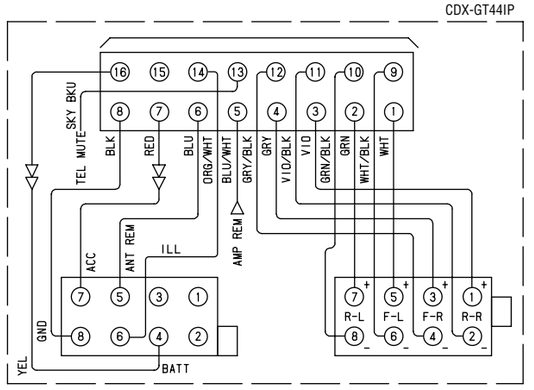


0.2 V/DIV, 0.1 µsec/DIV

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



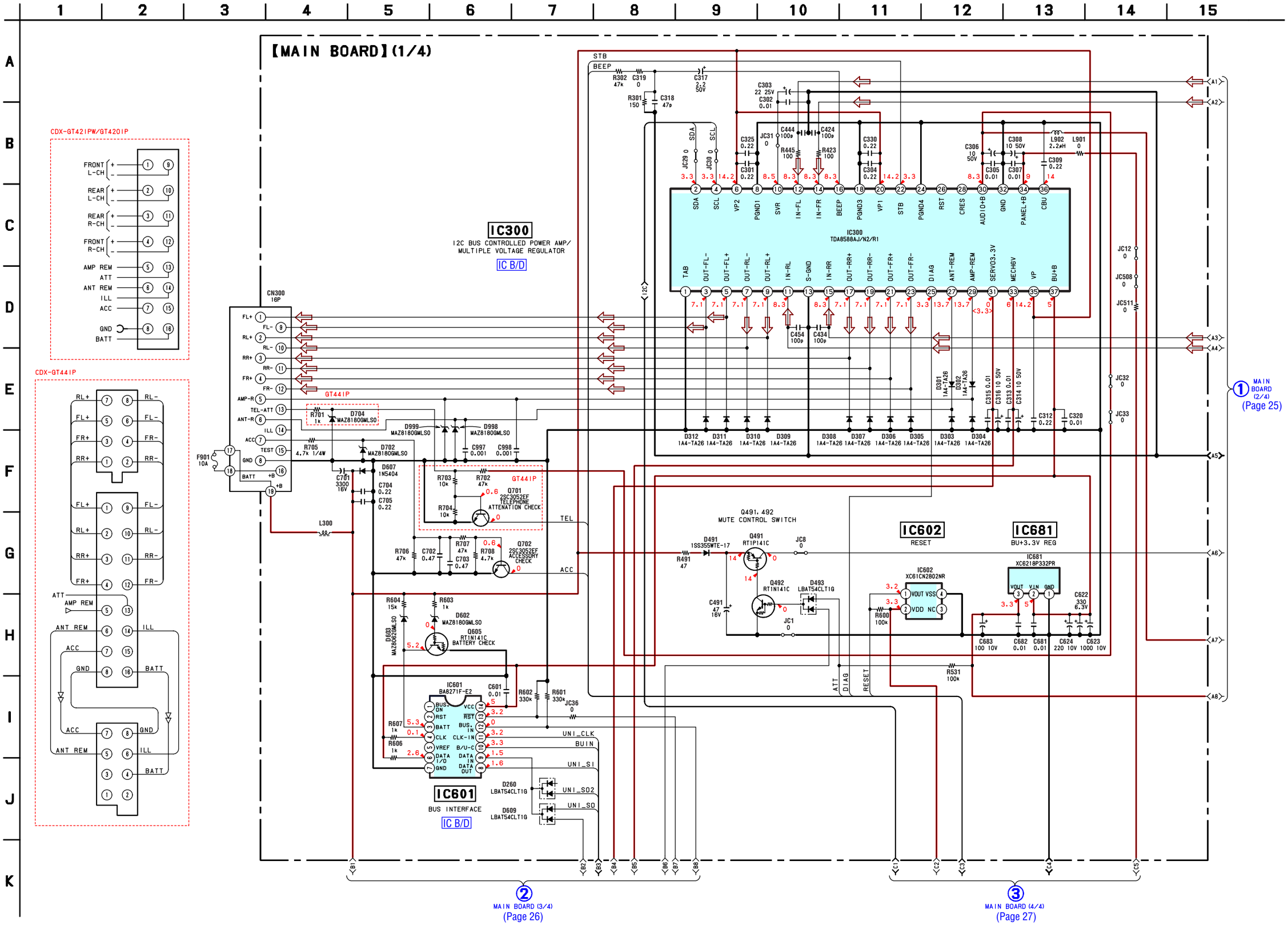




- **Semiconductor Location**

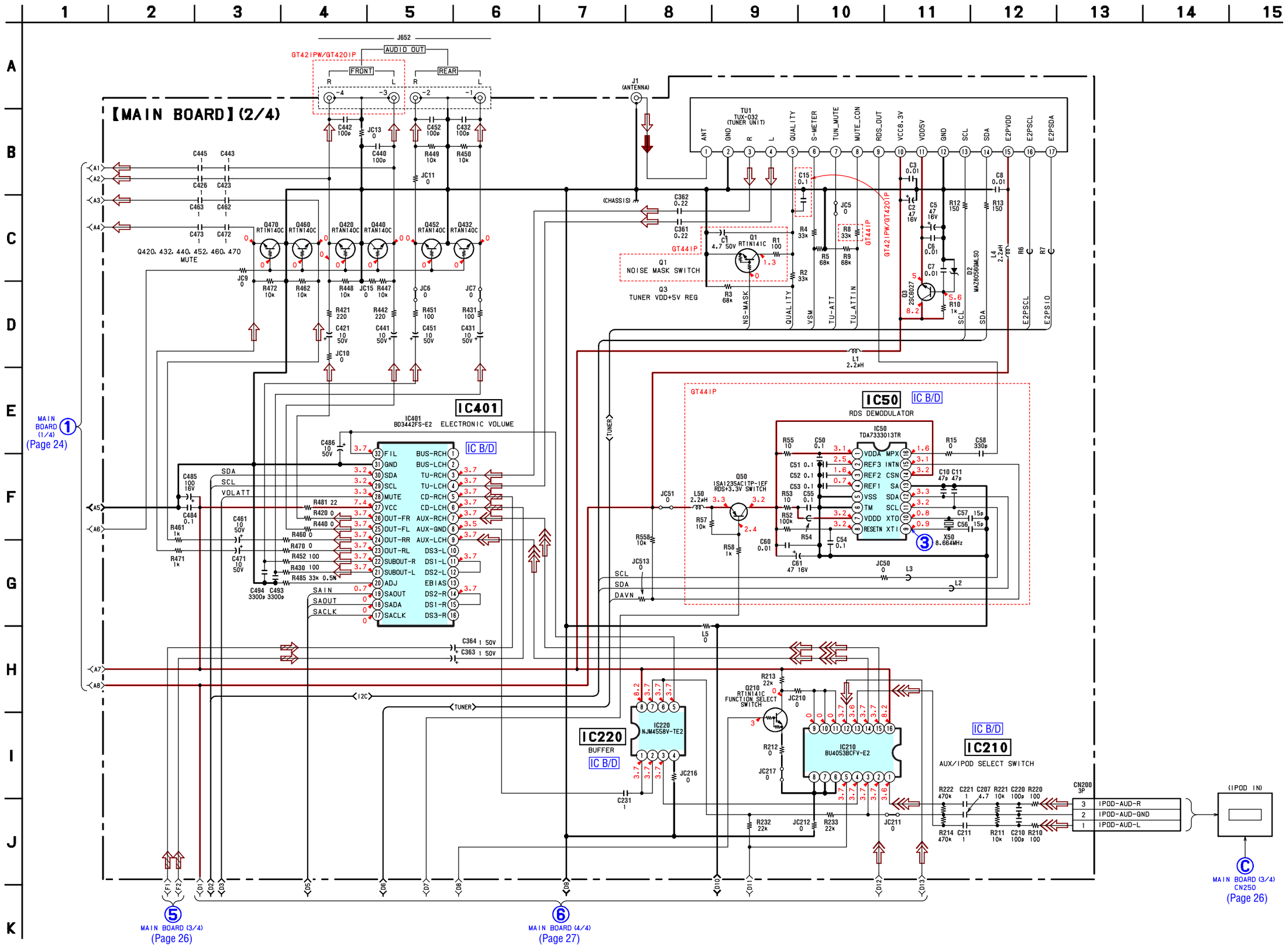
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D2	E-2	D311	C-7	IC602	F-7
D109	H-3	D312	C-6	IC681	D-5
D110	H-3	D353	F-7		
D112	H-3	D491	E-5	Q1	D-2
D113	H-4	D493	E-5	Q3	E-2
D151	H-2	D502	H-6	Q50	G-2
D152	H-2	D503	H-5	Q210	G-4
D153	H-2	D602	D-9	Q252	H-8
D251	G-7	D603	D-9	Q253	H-8
D252	H-8	D607	C-8	Q254	H-8
D253	H-8	D609	E-8	Q255	H-8
D254	H-8	D702	C-7	Q256	H-7
D256	H-9	D704	B-7	Q420	B-4
D260	E-8	D998	C-8	Q432	B-3
D301	C-7	D999	B-7	Q440	B-3
D302	C-7			Q452	B-3
D303	C-8	IC50	G-2	Q460	C-3
D304	C-8	IC210	G-3	Q470	C-3
D305	C-5	IC220	F-2	Q491	E-5
D306	C-5	IC260	G-9	Q492	D-5
D307	C-5	IC300	B-5	Q605	D-9
D308	C-6	IC401	D-3	Q664	H-5
D309	C-6	IC501	G-6	Q701	C-8
D310	C-6	IC601	D-9	Q702	C-7

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

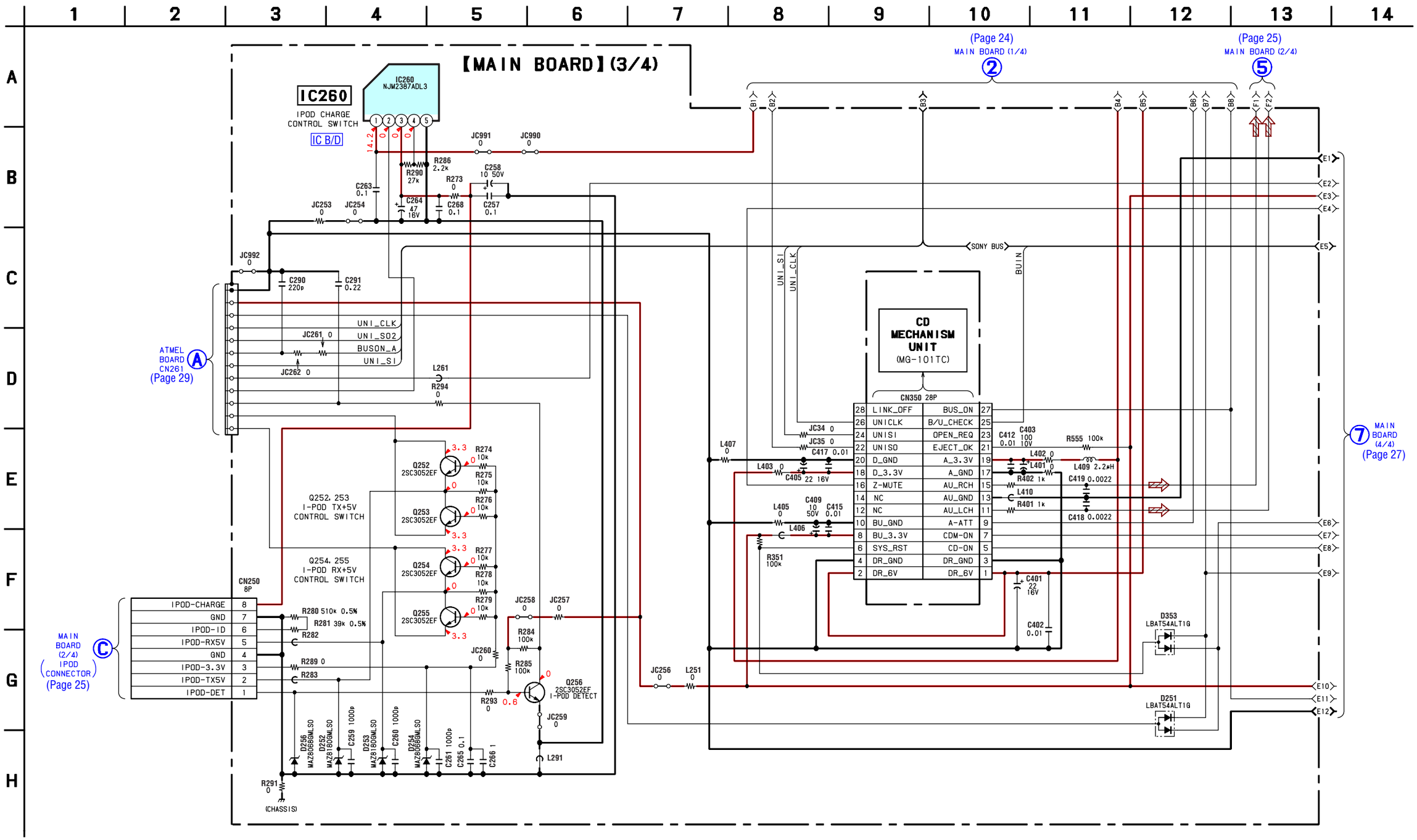


5-5. SCHEMATIC DIAGRAM — MAIN SECTION (2/4) —

- Refer to page 22 for Waveforms.
- Refer to page 32 for IC Block Diagrams.

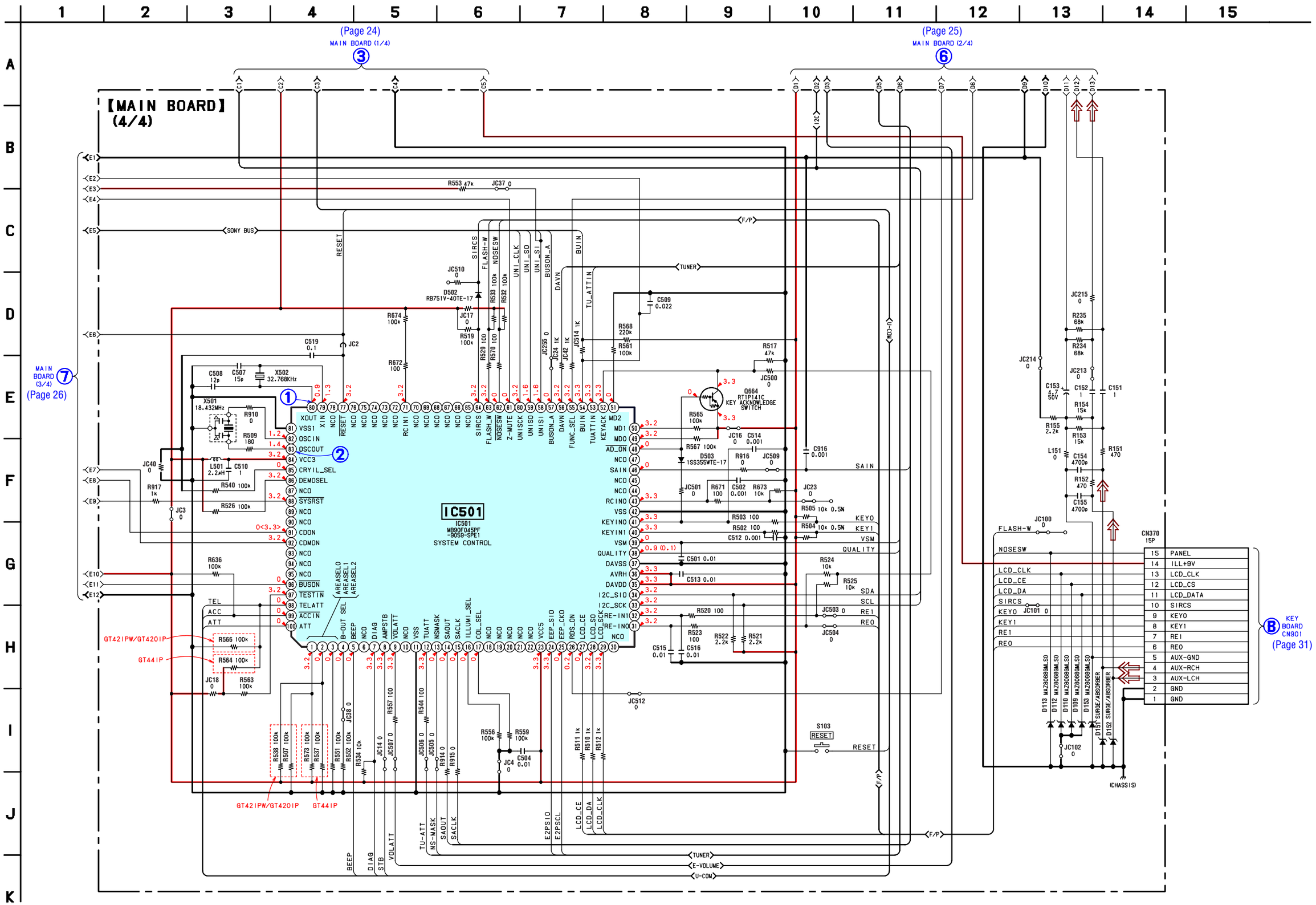


5-6. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) — • Refer to page 34 for IC Block Diagrams.



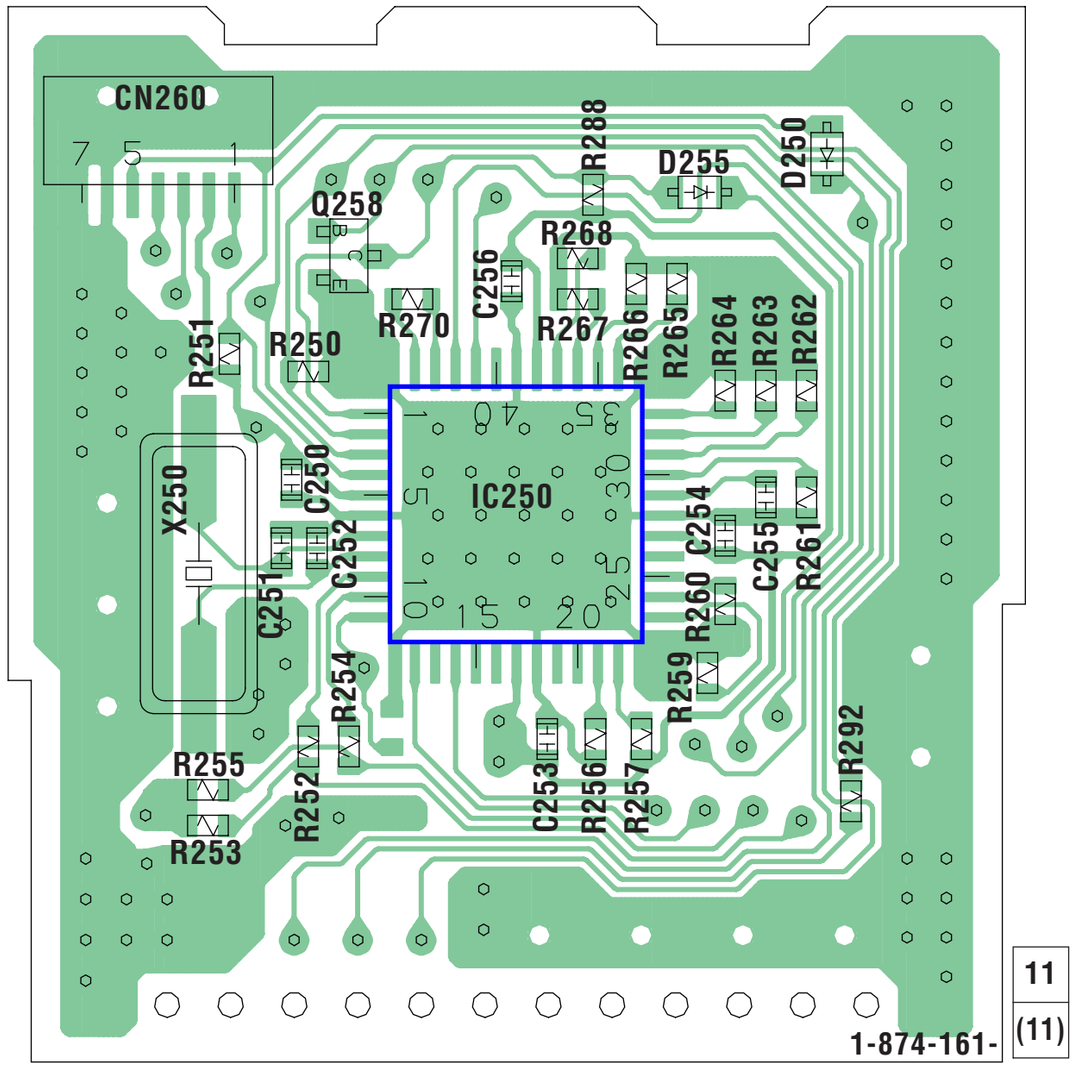
5-7. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) —

- Refer to page 22 for Waveforms.
- Refer to page 36 for IC Pin Description of IC501.

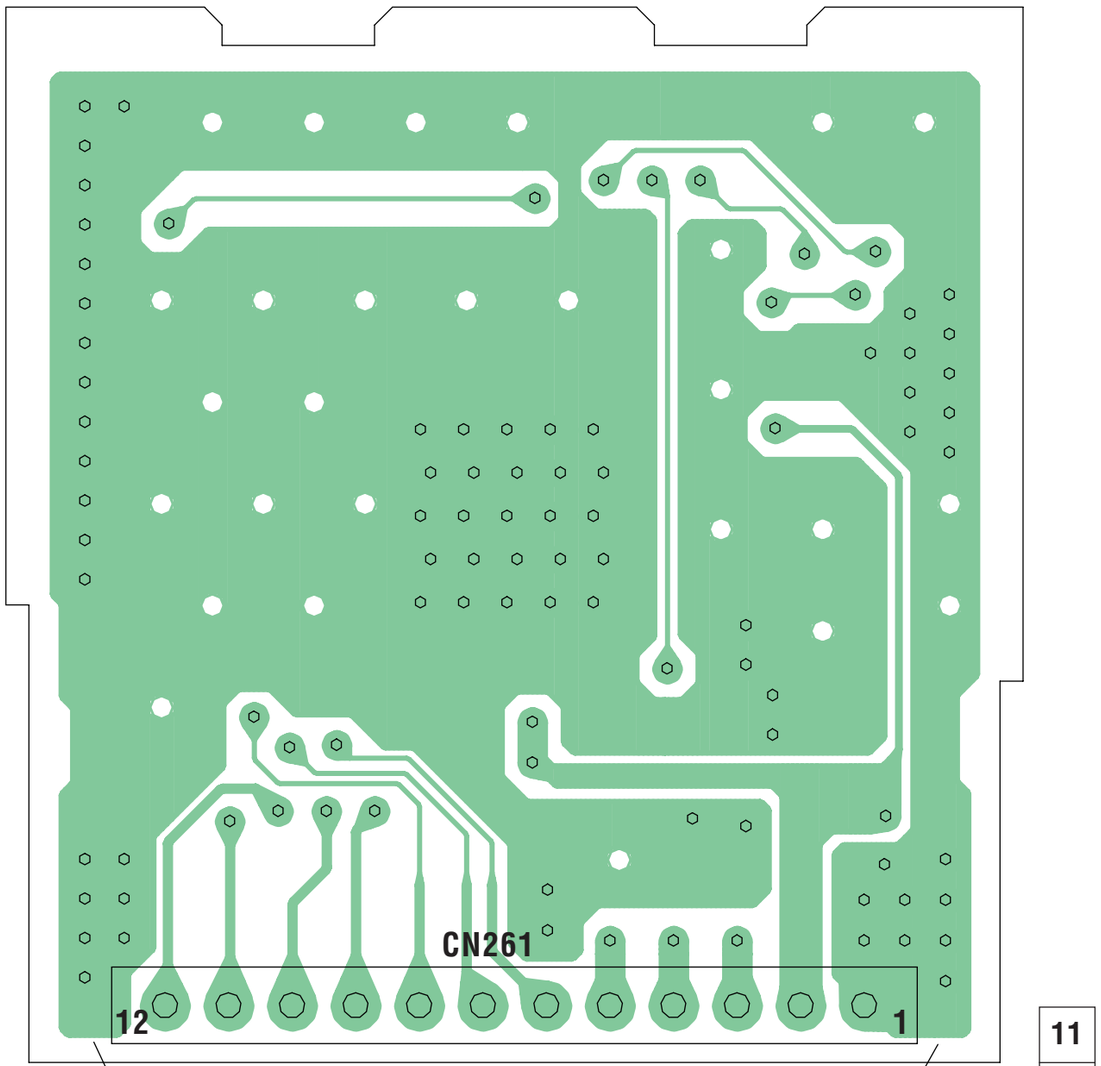


5-8. PRINTED WIRING BOARD — ATMEL SECTION — : Uses unleaded solder.

【ATMEL BOARD】(SIDE A)



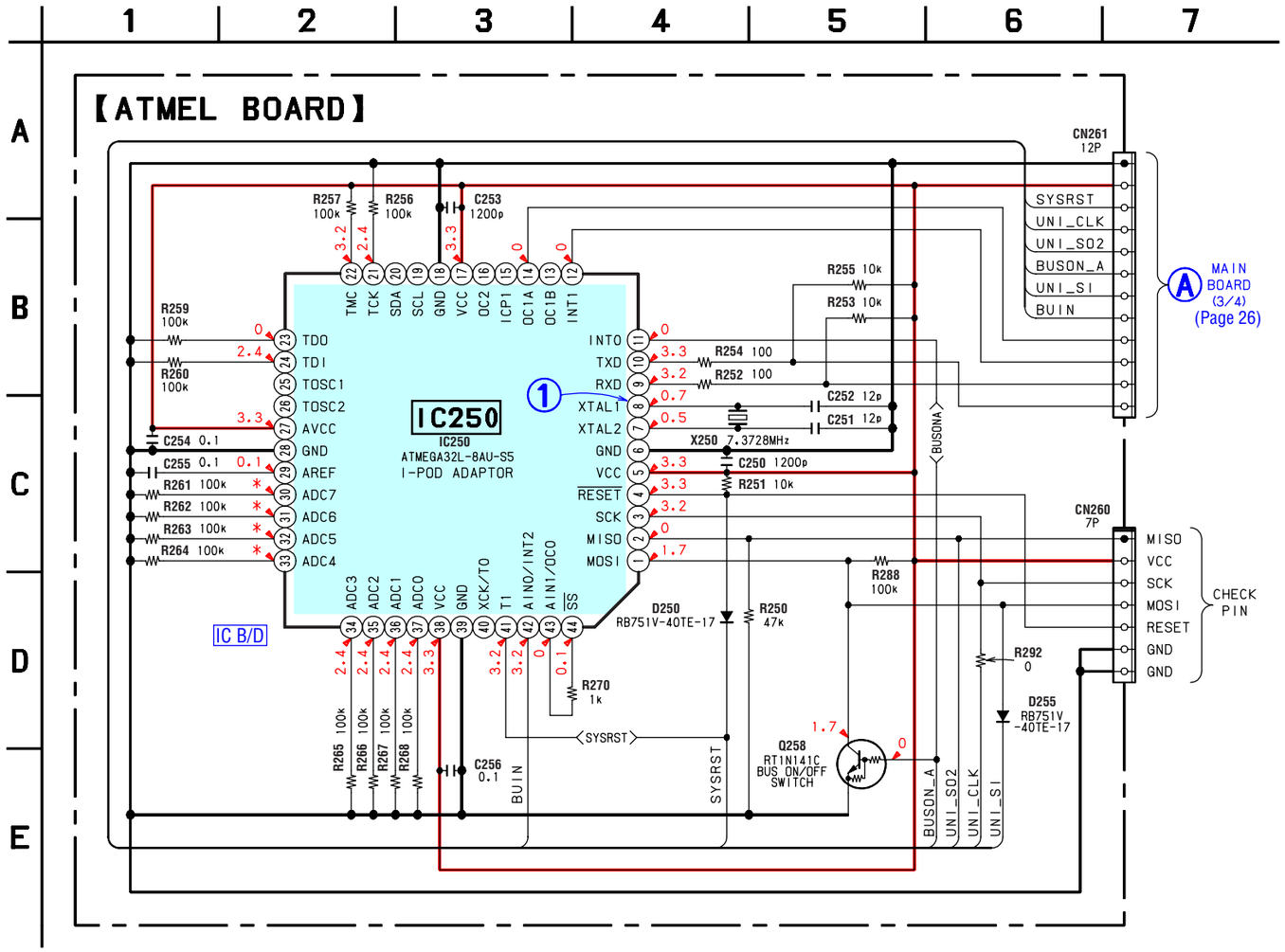
【ATMEL BOARD】(SIDE B)



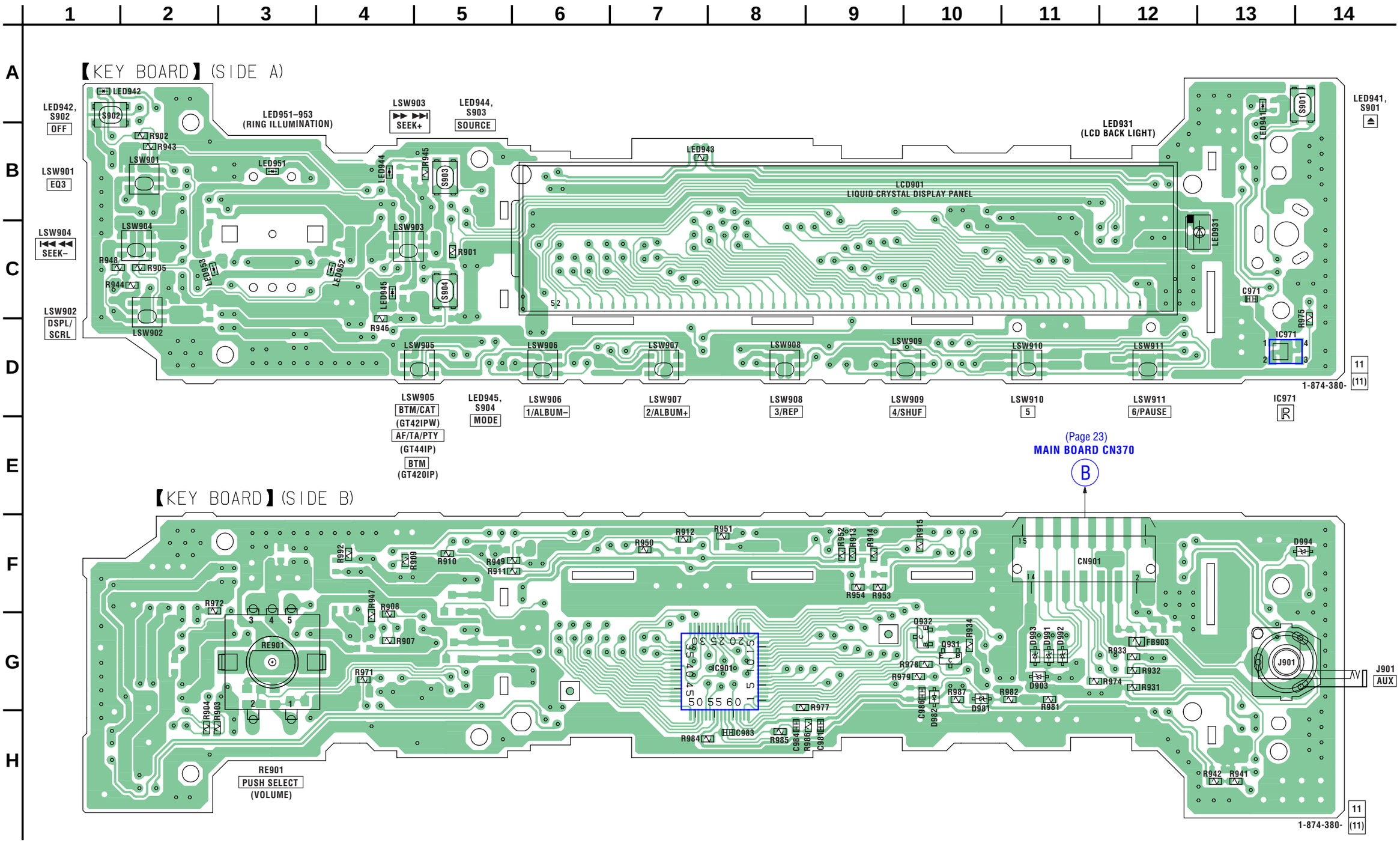
A
MAIN BOARD
(Page 23)

5-9. SCHEMATIC DIAGRAM — ATMEL SECTION —

• Refer to page 22 for Waveforms.
• Refer to page 35 for IC Block Diagrams.



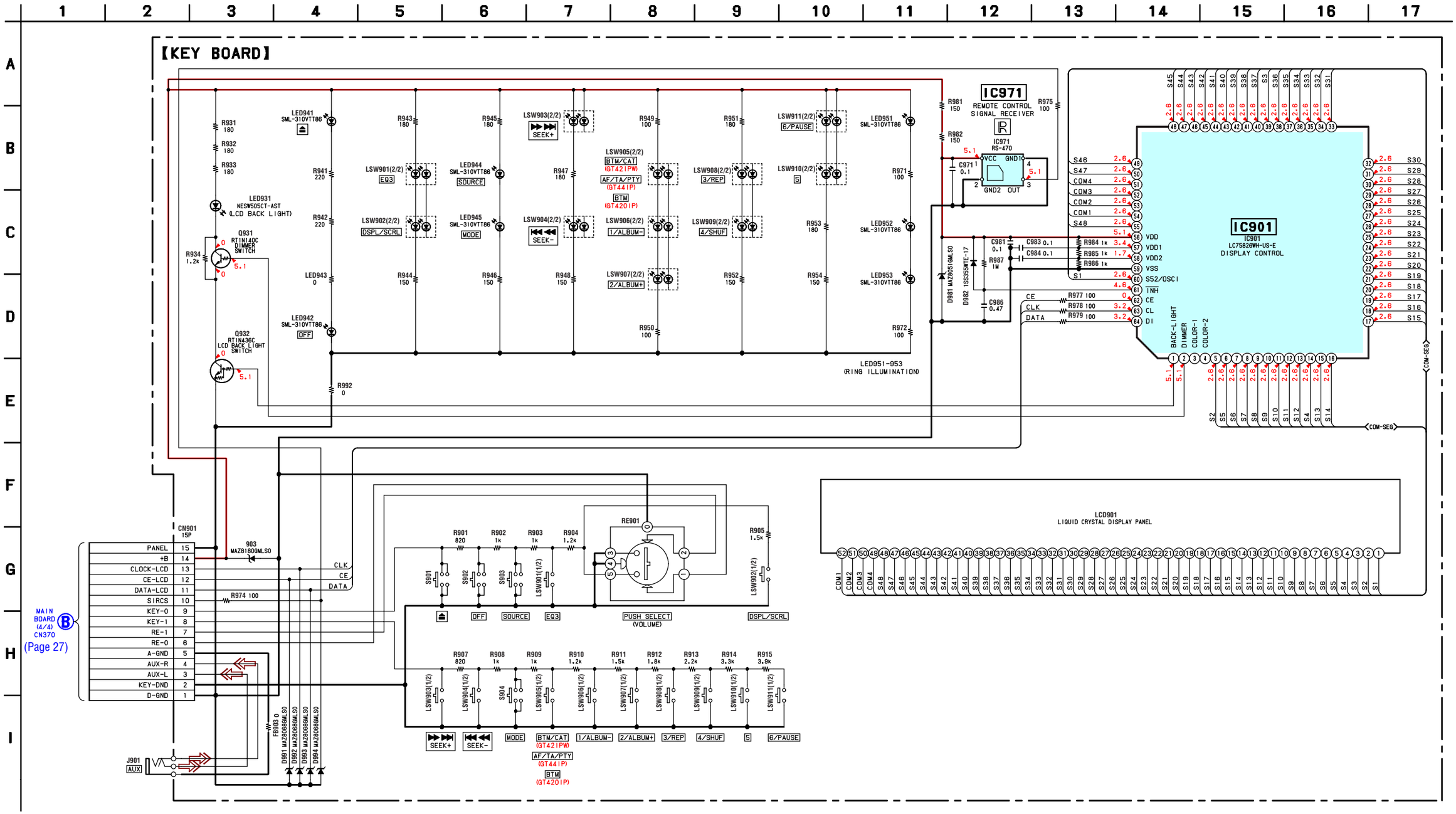
5-10. PRINTED WIRING BOARD — KEY SECTION — : Uses unleaded solder.



- **Semiconductor Location**

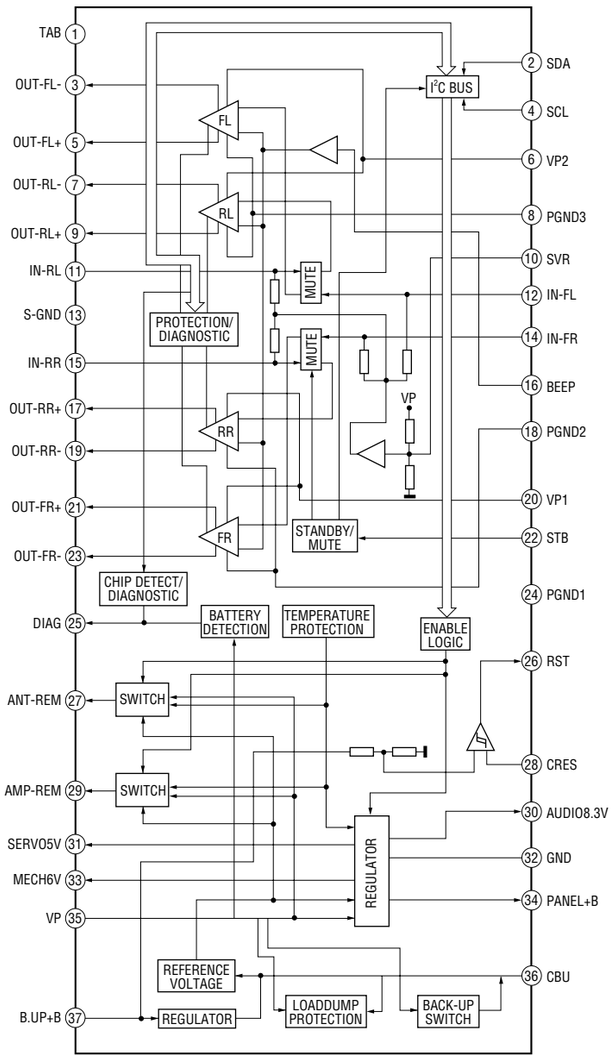
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D903	G-11	IC901	G-8	LED945	C-4
D981	G-10	IC971	D-13	LED951	B-3
D982	G-10			LED952	C-4
D991	G-11	LED931	C-13	LED953	C-2
D992	G-11	LED941	A-13		
D993	G-11	LED942	A-1	Q931	G-10
D994	F-14	LED944	B-4	Q932	G-10

5-11. SCHEMATIC DIAGRAM — KEY SECTION —

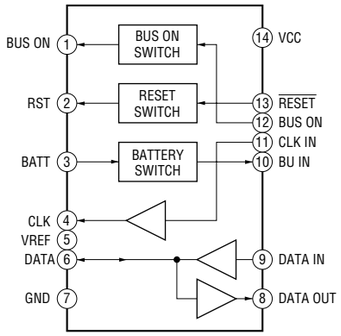


• **IC Block Diagrams**

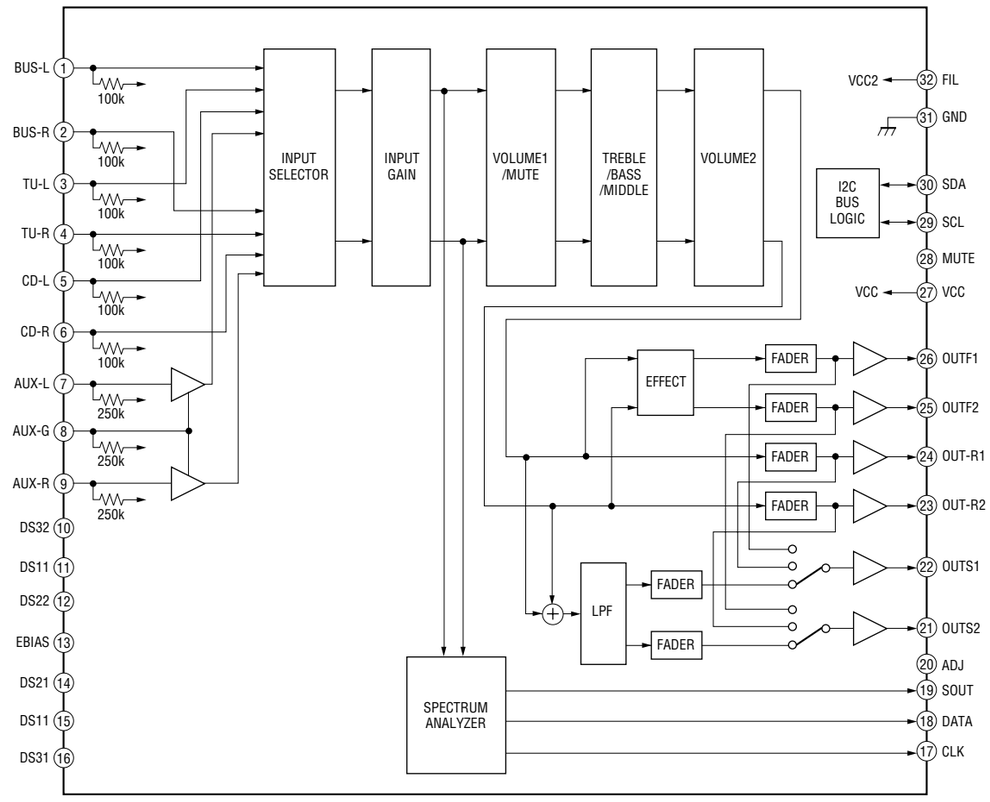
IC300 TDA8588AJ/N2/R1 (MAIN Board (1/4))



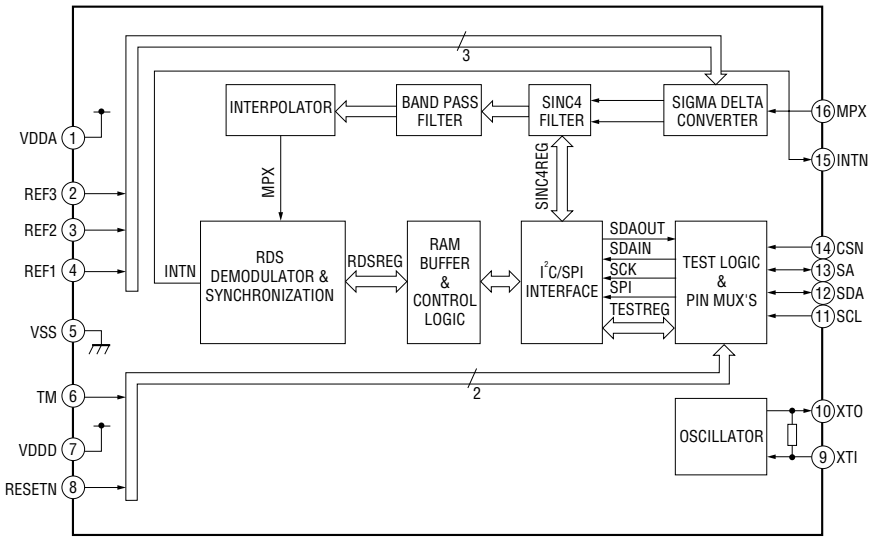
IC601 BA8271F-E2 (MAIN Board (1/4))



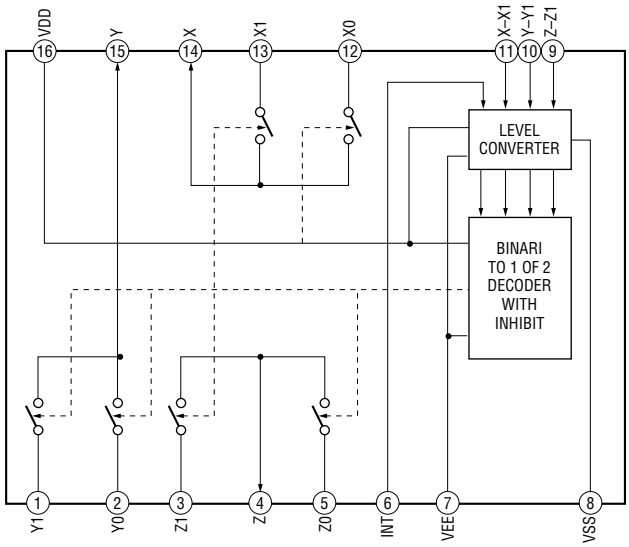
IC401 BD3442FS-E2 (MAIN Board (2/4))



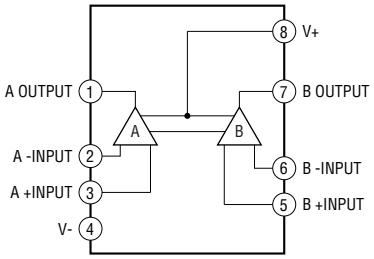
IC50 TDA7333013TR (MAIN Board (2/4))



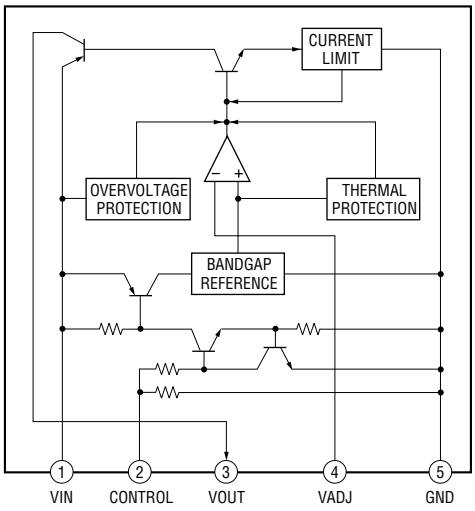
IC210 BU4053BCFV-E2 (MAIN Board (2/4))



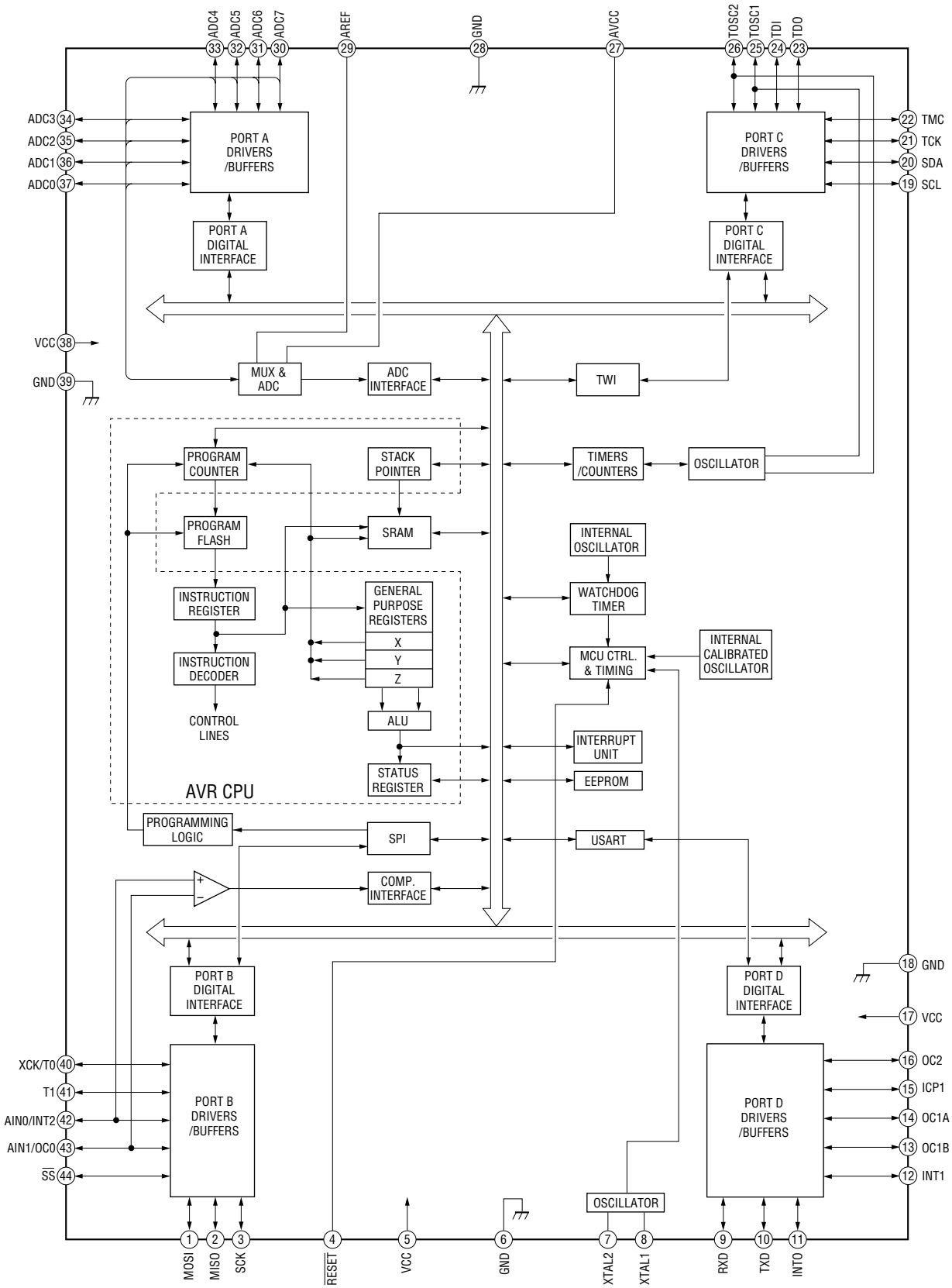
IC220 NJM4558V-TE2 (MAIN Board (2/4))



IC260 NJM2387ADL3 (MAIN Board (3/4))



IC250 ATMEGA32L-8AU-S5 (ATMEL Board)



• IC PIN DESCRIPTIONS

• IC501 MB90F045PF-G-9059-SPE1 (SYSTEM CONTROL) (MAIN BOARD (4/4))

Pin No.	Pin Name	I/O	Pin Description
1	AREASEL0	I	Destination function setting pin 0
2	AREASEL1	I	Destination function setting pin 1
3	AREASEL2	I	Destination function setting pin 2
4	B OUT SEL	I	Black out with/without discrimination select signal input “H”: Black out
5	BEEP	O	BEEP signal output to power amplifier
6	NCO	O	Not used. (Open)
7	DIAG	I	Status signal input from power amplifier
8	AMPSTB	O	Stand-by signal output to power requlation
9	$\overline{\text{VOLATT}}$	O	Electronic volume attenuate control signal output
10	NCO	O	Not used. (Open)
11	VSS	—	Ground pin
12	TUATT	O	Tuner mute control signal output
13	NSMASK	O	Noise mask signal output
14	SA OUT	O	Serial data signal output for electronic volume spectrum analyzer
15	SA CLK	O	Serial clock signal output for electronic volume spectrum analyzer
16	ILLUMI SEL	I	Illumination voltage setting signal input “H”: 10.4 V, “L”: 9.0 V
17	COL SEL	I	Two colors select signal input “H”: Two colors, “L”: color
18 to 22	NCO	O	Not used. (Open)
23	VCC5	—	Power supply pin (+3.3V)
24	EEP_SIO	I/O	EEPROM bus serial data signal input/output
25	EEP_CKO	O	EEPROM bus serial clock signal output
26	RDS ON	O	RDS (radio data system) ON signal output
27	LCD_CE	O	Chip enable signal output to LCD driver
28	LCD_SO	O	Serial data signal output to LCD driver
29	LCD_SCK	O	Serial clock signal output to LCD driver
30	NCO	O	Not used. (Open)
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	—	A/D converter power supply pin (+3.3V)
36	AVRH	—	A/D converter external reference power supply pin (+3.3V)
37	DAVSS	—	A/D converter Ground pin
38	QUALITY	I	Noise detect signal input
39	VSM	I	S-meter voltage detect signal input
40	KEYIN1	I	Key signal input 1
41	KEYIN0	I	Key signal input 0
42	VSS	—	Ground pin
43	RC_IN0	I	Rotary commander key signal input Not used in this set. (Pull up)
44, 45	NCO	O	Not used. (Open)
46	SA IN	I	Serial data signal input for electronic volume spectrum analyzer
47	NCO	O	Not used. (Open)
48	$\overline{\text{AD\_ON}}$	O	A/D converter power supply control signal output
49	MD0	I	Operation mode setting pin 0 (Pull up)
50	MD1	I	Operation mode setting pin 1 (Pull up)
51	MD2	I	Operation mode setting pin 2 (Pull down)
52	KEYACK	I	Key acknowledgment detect signal input
53	TU_ATTIN	I	Tuner mute zero cross detect signal input

Pin No.	Pin Name	I/O	Pin Description
54	BUIN	I	Back-up power supply detect signal input
55	FUNC SEL	O	AUX/i-Pod audio select control signal output “H”: AUX audio, “L”: i-Pod audio
56	DAVN	I	RDS data block synchronized detect signal input
57	BUSON_A	O	BUS on signal output for i-Pod
58	UNISI	I	S-BUS data signal input
59	UNISO	O	S-BUS data signal output
60	UNISCK	O	S-BUS clock signal output
61	Z-MUTE	I	CD zero cross mute detect signal input
62	$\overline{\text{NOSE\_SW}}$	I	Front panel attachment detect signal input “L”: Panel on, “H”: Panel off
63	FLASH_W	I	Memory mode select signal input Not used in this set. (Pull up) Normally “H” input: Single chip mode, after reset “L”: Flash write mode
64	SIRCS	I	Remote control signal input
65 to 70	NCO	O	Not used. (Open)
71	RC_IN1	I	Rotary commander shift key signal input Not used in this set. (Pull up)
72 to 76	NCO	O	Not used. (Open)
77	$\overline{\text{RESET}}$	I	System reset signal input
78	NCO	O	Not used. (Open)
79	XIN	I	Low speed operation clock signal input (32.768 kHz)
80	XOUT	O	Low speed operation clock signal output (32.768 kHz)
81	VSS1	—	Ground pin
82	OSCIN	I	High speed operation clock signal input (18.432 MHz)
83	OSCOUT	O	High speed operation clock signal output (18.432 MHz)
84	VCC3	—	Power supply pin (+3.3 V)
85	CYRIL_SEL	I	Cyril correspondence discrimination signal input “L”: No correspondence
86	DEMOSEL	I	DEMO select signal input “H”: DEMO on, “L”: DEMO off
87	NCO	O	Not used. (Open)
88	$\overline{\text{SYSRST}}$	O	System reset signal output
89, 90	NCO	O	Not used. (Open)
91	CD_ON	I	CD mechanism servo power supply control request signal input
92	CDM_ON	I	CD mechanism deck power supply control request signal input
93 to 95	NCO	O	Not used. (Open)
96	$\overline{\text{BUSON}}$	O	BUS ON signal output
97	$\overline{\text{TESTIN}}$	I	Test mode detect signal input Not used in this set. (Pull up)
98	TELATT	I	Telephone attenuate detect signal input
99	$\overline{\text{ACC\_IN}}$	I	Accessory power supply detect signal input
100	ATT	O	Audio mute control signal output

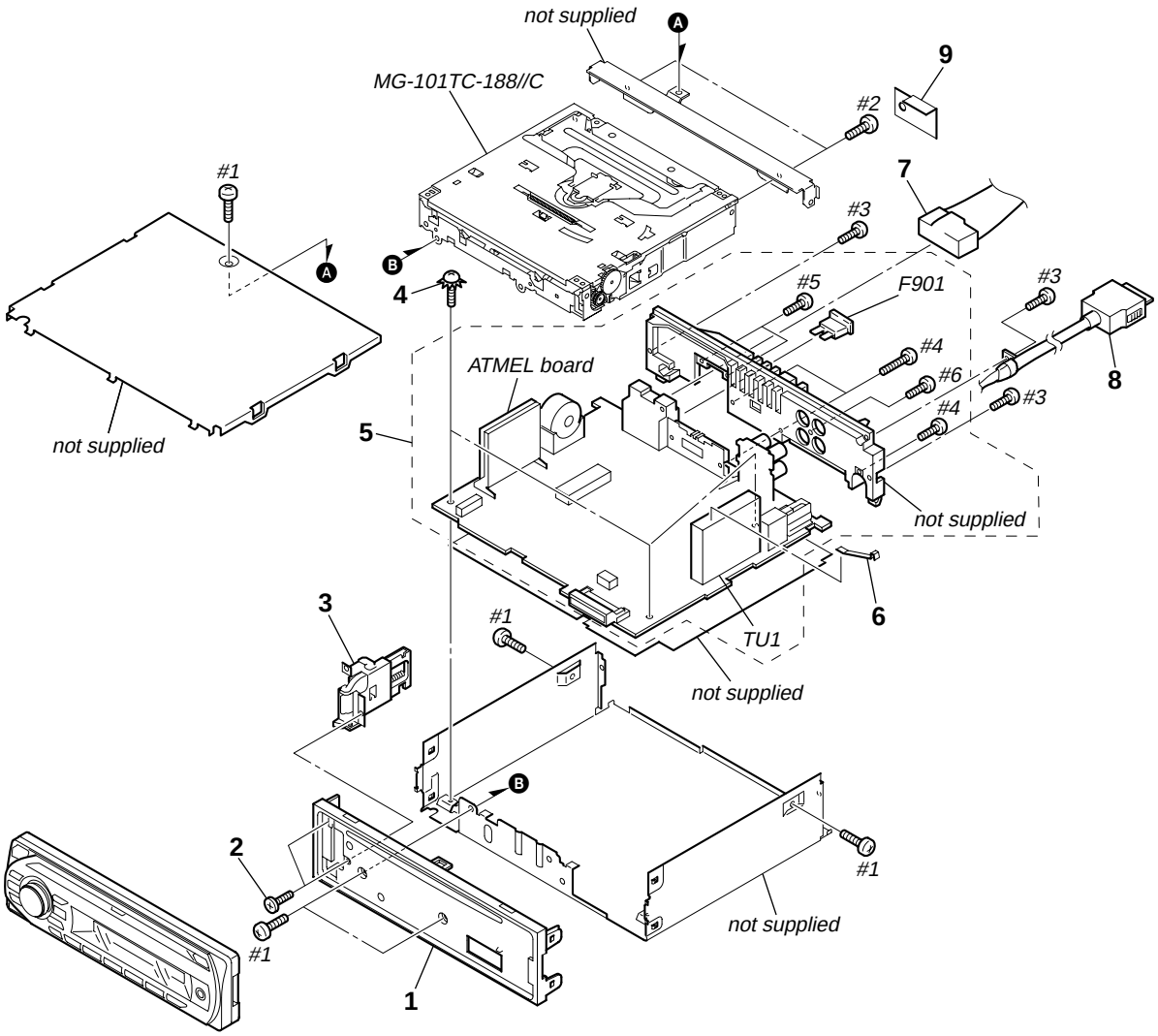
SECTION 6
EXPLODED VIEWS

NOTE:

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

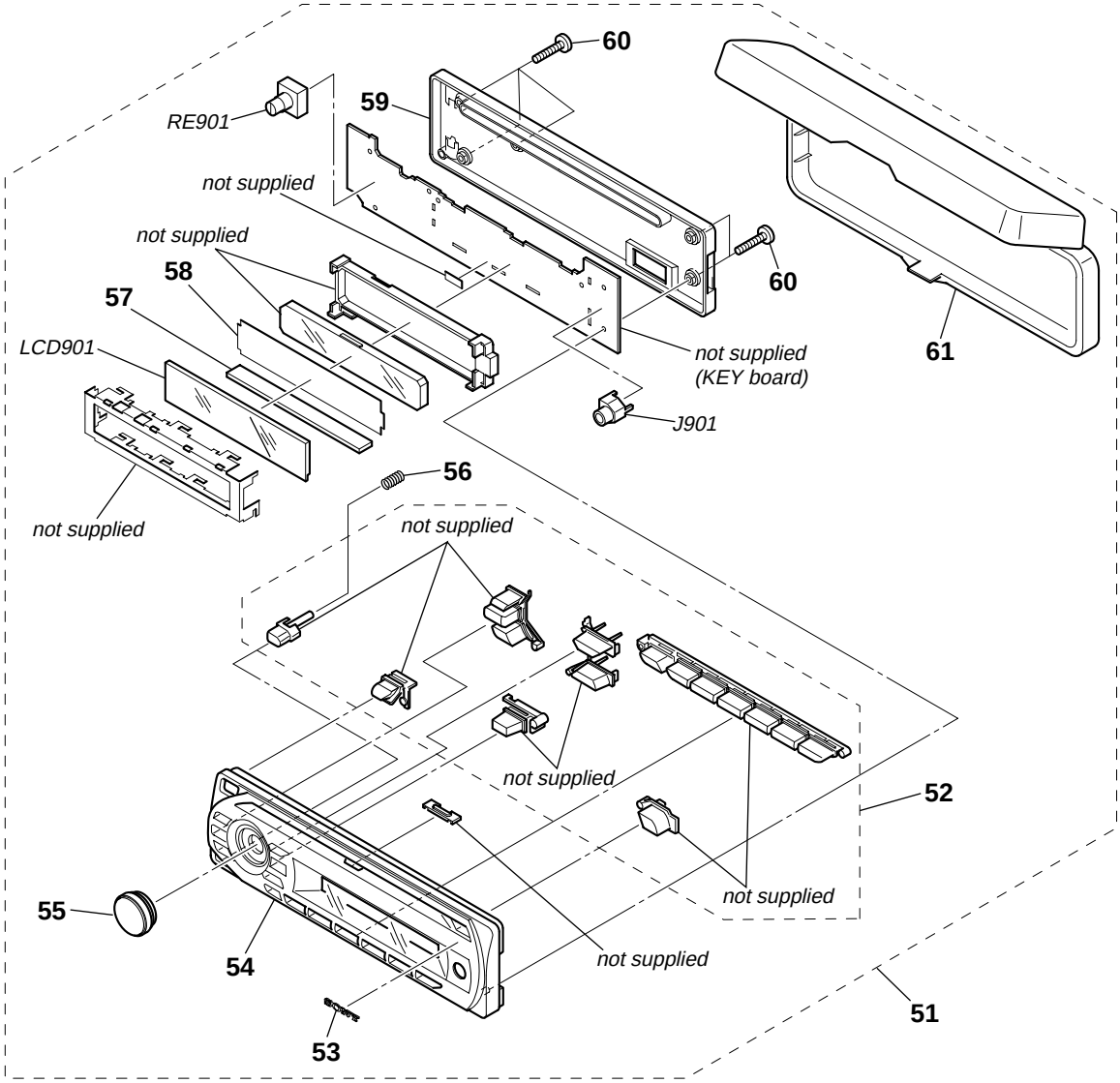
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

6-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-2179-121-1	PANEL ASSY, SUB	
2	2-583-939-01	SCREW (+B 2X4)	
3	X-2179-691-1	LOCK ASSY	
4	2-348-996-01	SCREW (+PTT 2.6X6), GROUND POINT	
5	A-1310-322-A	MAIN BOARD, COMPLETE (GT42IPW/GT420IP)	
5	A-1310-342-A	MAIN BOARD, COMPLETE (GT44IP)	
6	2-345-298-01	PLATE (TU), GROUND	
7	1-831-838-11	CORD (WITH CONNECTOR) (ISO) (POWER) (GT44IP)	
7	1-833-974-31	CONNECTION CORD FOR AUTOMOBILE (POWER) (GT42IPW/GT420IP)	
8	1-834-339-11	CORD, CONNECTION (for iPod)	
9	3-274-210-01	SHEET (IPOD)	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
TU1	A-3220-961-B	TUNER UNIT (TUX-032)	
#1	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#2	7-685-790-01	SCREW +PTT 2.6X4 (S)	
#3	7-685-793-09	SCREW +PTT 2.6X8 (S)	
#4	7-685-794-09	SCREW +PTT 2.6X10 (S)	
#5	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	
#6	7-621-284-40	SCREW +P 2.6X10	

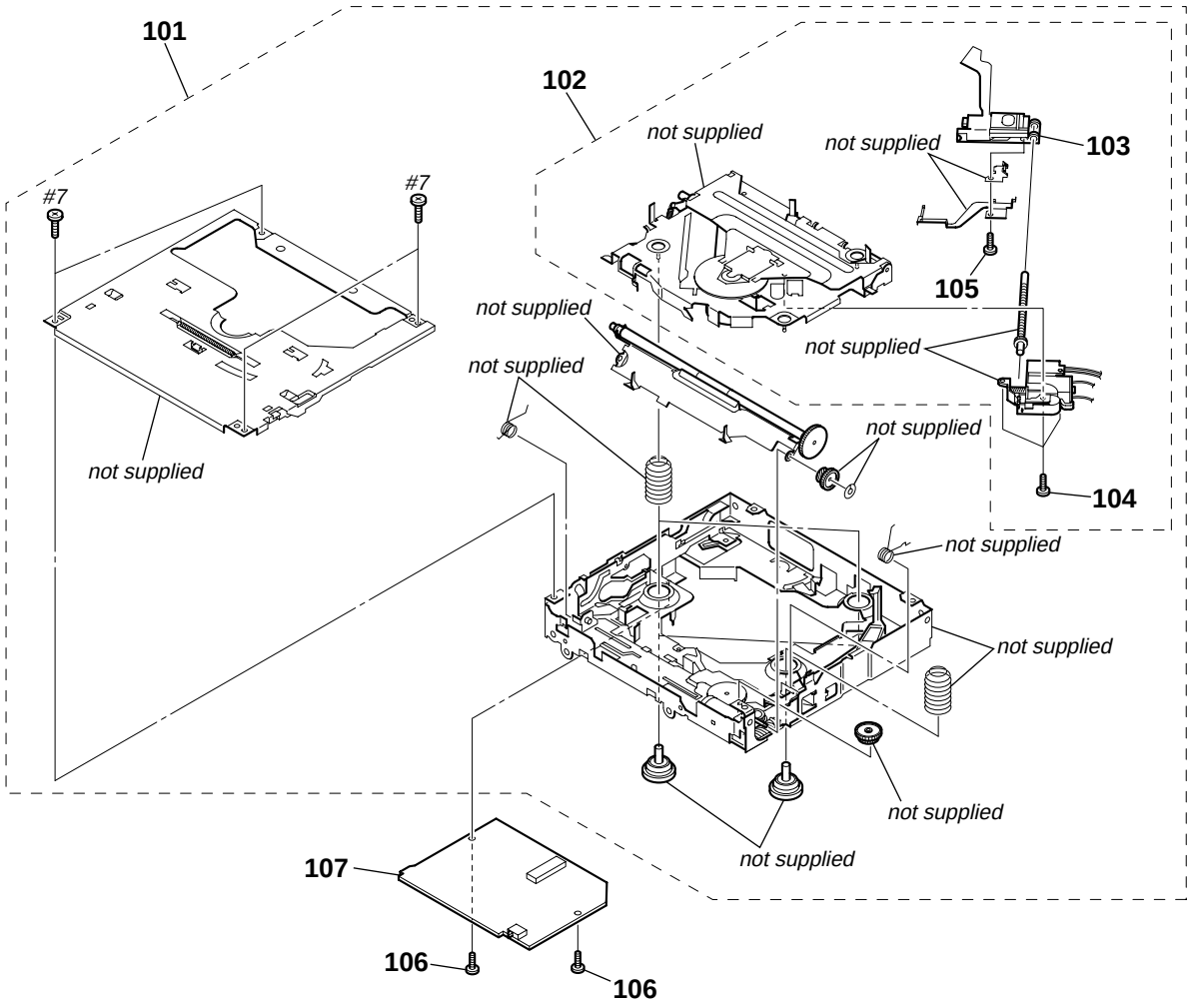
6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	A-1310-324-A	PANEL COMPLETE ASSY, FRONT (GT42IPW)	
51	A-1310-332-A	PANEL COMPLETE ASSY, FRONT (GT420IP)	
51	A-1310-344-A	PANEL COMPLETE ASSY, FRONT (GT44IP)	
52	X-2178-983-1	BUTTON ASSY (S) (GT42IPW/GT420IP)	
52	X-2178-987-1	BUTTON ASSY (S) (GT44IP)	
53	3-251-320-01	EMBLEM (NO. 2.5), SONY	
54	X-2179-126-1	PANEL (SV) ASSY, FRONT (GT42IPW)	
54	X-2179-127-1	PANEL (SV) ASSY, FRONT (GT420IP)	
54	X-2179-128-1	PANEL (SV) ASSY, FRONT (GT44IP)	
55	X-2186-575-1	KNOB (VOL) (SV) ASSY	
56	2-349-626-01	SPRING (RELEASE)	

Ref. No.	Part No.	Description	Remark
57	1-780-533-11	CONDUCTIVE BOARD, CONNECTION	
58	3-214-226-11	ILLUMINATOR (LCD)	
59	3-214-215-01	PANEL, BACK	
60	3-250-543-91	SCREW (+B P-TITE M2)	
61	X-2186-697-1	CASE ASSY (for FRONT PANEL) (GT44IP)	
J901	1-820-624-11	SMALL TYPE JACK (VERTICAL) (AUX)	
LCD901	1-802-508-11	DISPLAY PANEL, LIQUID CRYSTAL	(GT42IPW/GT420IP)
LCD901	1-802-509-11	DISPLAY PANEL, LIQUID CRYSTAL (GT44IP)	
RE901	1-479-902-21	ENCODER, ROTARY (PUSH SELECT/VOLUME)	

6-3. CD MECHANISM SECTION (MG-101TC-188//C)



Ref. No.	Part No.	Description	Remark
101	A-1283-704-A	MECHANICAL BLOCK ASSY (08)	
102	A-1283-705-A	DAXEV08//C	
⚠103	X-2149-672-1	SERVICE ASSY, OP (DAX-25A)	
104	2-626-869-21	SCREW (M2X3), SERRATION	
105	3-348-998-31	SCREW (M1.4X2.5), TAPPING, PAN	
106	3-352-758-31	SCREW (M1.7X2.5), TOOTHED LOCK	
107	A-1201-631-A	SERVO BOARD, COMPLETE	
#7	7-627-000-00	SCREW, PRECISION +P 1.7X2.2 TYPE 3	

SECTION 7
ELECTRICAL PARTS LIST

ATMEL KEY

NOTE:

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

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

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

Ref. No.	Part No.	Description			Remark
		ATMEL BOARD (SUPPLIED WITH MAIN BOARD, COMPLETE)			
		**********			
		< CAPACITOR >			
C250	1-164-730-11	CERAMIC CHIP	0.0012uF	10%	50V
C251	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C252	1-162-916-11	CERAMIC CHIP	12PF	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
		< CONNECTOR >			
CN260	1-770-624-21	PIN, CONNECTOR 7P			
CN261	1-821-549-11	PIN, CONNECTOR 12P			
		< DIODE >			
D250	8-719-060-48	DIODE RB751V-40TE-17			
D255	8-719-060-48	DIODE RB751V-40TE-17			
		< IC >			
IC250	6-807-809-01	IC ATMEGA32L-8AU-S5			
		< TRANSISTOR >			
Q258	8-729-027-43	TRANSISTOR DTC114EKA-T146			
		< RESISTOR >			
R250	1-216-841-11	METAL CHIP	47K	5%	1/10W
R251	1-216-833-11	METAL CHIP	10K	5%	1/10W
R252	1-216-809-11	METAL CHIP	100	5%	1/10W
R253	1-216-833-11	METAL CHIP	10K	5%	1/10W
R254	1-216-809-11	METAL CHIP	100	5%	1/10W
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
R270	1-216-821-11	METAL CHIP	1K	5%	1/10W
R288	1-216-845-11	METAL CHIP	100K	5%	1/10W
R292	1-216-864-11	SHORT CHIP	0		
		< VIBRATOR >			
X250	1-814-039-11	VIBRATOR, CRYSTAL (7.3728MHz)			
**********					
		KEY BOARD			
		**********			
	1-780-533-11	CONDUCTIVE BOARD, CONNECTION			
	3-214-226-11	ILLUMINATOR (LCD)			
		< CAPACITOR >			
C971	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C981	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C983	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C984	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C986	1-125-891-11	CERAMIC CHIP	0.47uF	10%	10V
		< CONNECTOR >			
CN901	1-819-758-12	PLUG, CONNECTOR 15P			
		< DIODE >			
D903	6-501-782-01	DIODE MAZ8180GMLS0			
D981	6-501-730-01	DIODE MAZ8051GMLS0			
D982	6-501-193-01	DIODE 1SS355WTE-17			
D991	6-501-743-01	DIODE MAZ8068GMLS0			
D992	6-501-743-01	DIODE MAZ8068GMLS0			
D993	6-501-743-01	DIODE MAZ8068GMLS0			
D994	6-501-743-01	DIODE MAZ8068GMLS0			
		< JUMPER RESISTOR >			
FB903	1-216-295-11	SHORT CHIP	0		
		< IC >			
IC901	6-707-063-01	IC LC75826WH-US-E			
IC971	6-600-629-01	IC RS-470 (IR)			
		< JACK >			
J901	1-820-624-11	SMALL TYPE JACK (VERTICAL) (AUX)			

KEY **MAIN**

Ref. No.	Part No.	Description	Remark
		< LIQUID CRYSTAL DISPLAY >	
LCD901	1-802-508-11	DISPLAY PANEL, LIQUID CRYSTAL	(GT42IPW/GT420IP)
LCD901	1-802-509-11	DISPLAY PANEL, LIQUID CRYSTAL (GT44IP)	
		< DIODE >	
LED931	6-501-339-01	LED NESW505CT-AST (LCD BACK LIGHT)	
LED941	8-719-053-09	LED SML-310VTT86 (⏏)	
LED942	8-719-053-09	LED SML-310VTT86 (OFF)	
LED943	1-216-864-11	SHORT CHIP 0	
LED944	8-719-053-09	LED SML-310VTT86 (SOURCE)	
LED945	8-719-053-09	LED SML-310VTT86 (MODE)	
LED951	8-719-053-09	LED SML-310VTT86 (RING ILLUMINATION)	
LED952	8-719-053-09	LED SML-310VTT86 (RING ILLUMINATION)	
LED953	8-719-053-09	LED SML-310VTT86 (RING ILLUMINATION)	
		< SWITCH >	
LSW901	1-786-805-12	SWITCH, TACTILE (WITH LED) (EQ3)	
LSW902	1-786-805-12	SWITCH, TACTILE (WITH LED) (DSPL/SCRL)	
LSW903	1-786-805-12	SWITCH, TACTILE (WITH LED)	(▶▶ ▶▶I SEEK+)
LSW904	1-786-805-12	SWITCH, TACTILE (WITH LED)	(I◀◀ ◀◀ SEEK–)
LSW905	1-786-805-12	SWITCH, TACTILE (WITH LED) (BTM/CAT)	(GT42IPW)
LSW905	1-786-805-12	SWITCH, TACTILE (WITH LED) (AF/TA/PTY)	(GT44IP)
LSW905	1-786-805-12	SWITCH, TACTILE (WITH LED) (BTM)	(GT420IP)
LSW906	1-786-805-12	SWITCH, TACTILE (WITH LED) (1/ALBUM –)	
LSW907	1-786-805-12	SWITCH, TACTILE (WITH LED) (2/ALBUM +)	
LSW908	1-786-805-12	SWITCH, TACTILE (WITH LED) (3/REP)	
LSW909	1-786-805-12	SWITCH, TACTILE (WITH LED) (4/SHUF)	
LSW910	1-786-805-12	SWITCH, TACTILE (WITH LED) (5)	
LSW911	1-786-805-12	SWITCH, TACTILE (WITH LED) (6/PAUSE)	
		< TRANSISTOR >	
Q931	8-729-027-44	TRANSISTOR DTC114TKA-T146	
Q932	6-551-444-01	TRANSISTOR RT1N436C-TP-1	
		< RESISTOR >	
R901	1-216-820-11	METAL CHIP 820 5% 1/10W	
R902	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R903	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R904	1-216-822-11	METAL CHIP 1.2K 5% 1/10W	
R905	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R907	1-216-820-11	METAL CHIP 820 5% 1/10W	
R908	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R909	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R910	1-216-822-11	METAL CHIP 1.2K 5% 1/10W	
R911	1-216-823-11	METAL CHIP 1.5K 5% 1/10W	
R912	1-216-824-11	METAL CHIP 1.8K 5% 1/10W	
R913	1-216-825-11	METAL CHIP 2.2K 5% 1/10W	
R914	1-216-827-11	METAL CHIP 3.3K 5% 1/10W	
R915	1-216-828-11	METAL CHIP 3.9K 5% 1/10W	
R931	1-216-812-11	METAL CHIP 180 5% 1/10W	
R932	1-216-812-11	METAL CHIP 180 5% 1/10W	
R933	1-216-812-11	METAL CHIP 180 5% 1/10W	
R934	1-216-822-11	METAL CHIP 1.2K 5% 1/10W	
R941	1-216-813-11	METAL CHIP 220 5% 1/10W	
R942	1-216-813-11	METAL CHIP 220 5% 1/10W	
R943	1-216-812-11	METAL CHIP 180 5% 1/10W	
R944	1-216-811-11	METAL CHIP 150 5% 1/10W	
R945	1-216-812-11	METAL CHIP 180 5% 1/10W	
R946	1-216-811-11	METAL CHIP 150 5% 1/10W	
R947	1-216-812-11	METAL CHIP 180 5% 1/10W	
R948	1-216-811-11	METAL CHIP 150 5% 1/10W	
R949	1-216-809-11	METAL CHIP 100 5% 1/10W	
R950	1-216-809-11	METAL CHIP 100 5% 1/10W	
R951	1-216-812-11	METAL CHIP 180 5% 1/10W	
R952	1-216-811-11	METAL CHIP 150 5% 1/10W	
R953	1-216-812-11	METAL CHIP 180 5% 1/10W	
R954	1-216-811-11	METAL CHIP 150 5% 1/10W	
R971	1-216-809-11	METAL CHIP 100 5% 1/10W	
R972	1-216-809-11	METAL CHIP 100 5% 1/10W	
R974	1-216-809-11	METAL CHIP 100 5% 1/10W	
R975	1-216-809-11	METAL CHIP 100 5% 1/10W	
R977	1-216-809-11	METAL CHIP 100 5% 1/10W	
R978	1-216-809-11	METAL CHIP 100 5% 1/10W	
R979	1-216-809-11	METAL CHIP 100 5% 1/10W	
R981	1-216-811-11	METAL CHIP 150 5% 1/10W	
R982	1-216-811-11	METAL CHIP 150 5% 1/10W	
R984	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R985	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R986	1-216-821-11	METAL CHIP 1K 5% 1/10W	
R987	1-216-857-11	METAL CHIP 1M 5% 1/10W	
R992	1-216-864-11	SHORT CHIP 0	
		< ROTARY ENCODER >	
RE901	1-479-902-21	ENCODER, ROTARY (PUSH SELECT/VOLUME)	
		< SWITCH >	
S901	1-786-653-11	SWITCH, TACTILE (⏏)	
S902	1-786-653-11	SWITCH, TACTILE (OFF)	
S903	1-786-653-11	SWITCH, TACTILE (SOURCE)	
S904	1-786-653-11	SWITCH, TACTILE (MODE)	
**********			
	A-1310-322-A	MAIN BOARD, COMPLETE (IN CLUDING ATMEL BOARD) (GT42IPW/GT420IP)	
	A-1310-342-A	MAIN BOARD, COMPLETE (IN CLUDING ATMEL BOARD) (GT44IP)	
		**********	
	7-621-284-40	SCREW +P 2.6X10	
	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	
	7-685-794-09	SCREW +PTT 2.6X10 (S)	
		< CAPACITOR >	
C1	1-126-963-11	ELECT 4.7uF 20% 50V	(GT44IP)
C2	1-126-947-11	ELECT 47uF 20% 35V	
C3	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C5	1-126-947-11	ELECT 47uF 20% 35V	
C6	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C7	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C8	1-162-970-11	CERAMIC CHIP 0.01uF 10% 25V	
C10	1-162-923-11	CERAMIC CHIP 47PF 5% 50V	(GT44IP)

Ref. No.	Part No.	Description			Remark
C11	1-162-923-11	CERAMIC CHIP	47PF	5%	50V (GT44IP)
C15	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (GT42IPW/GT420IP)
C50	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (GT44IP)
C51	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (GT44IP)
C52	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (GT44IP)
C53	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (GT44IP)
C54	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (GT44IP)
C55	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V (GT44IP)
C56	1-162-917-11	CERAMIC CHIP	15PF	5%	50V (GT44IP)
C57	1-162-917-11	CERAMIC CHIP	15PF	5%	50V (GT44IP)
C58	1-162-959-11	CERAMIC CHIP	330PF	5%	50V (GT44IP)
C60	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V (GT44IP)
C61	1-126-947-11	ELECT	47uF	20%	35V (GT44IP)
C151	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C152	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C153	1-126-963-11	ELECT	4.7uF	20%	50V
C154	1-163-017-00	CERAMIC CHIP	0.0047uF	10%	50V
C155	1-163-017-00	CERAMIC CHIP	0.0047uF	10%	50V
C207	1-100-507-11	CERAMIC CHIP	4.7uF	20%	6.3V
C210	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C211	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C220	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C221	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C231	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C257	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C258	1-126-964-11	ELECT	10uF	20%	50V
C259	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C260	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C261	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C263	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C264	1-126-947-11	ELECT	47uF	20%	35V
C265	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C266	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C268	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C290	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C291	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C301	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C302	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C303	1-128-551-11	ELECT	22uF	20%	63V
C304	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C305	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C306	1-124-261-00	ELECT	10uF	20%	50V
C307	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-124-261-00	ELECT	10uF	20%	50V
C309	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C312	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C313	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C314	1-124-261-00	ELECT	10uF	20%	50V
C315	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C316	1-124-261-00	ELECT	10uF	20%	50V
C317	1-124-257-00	ELECT	2.2uF	20%	50V
C318	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C319	1-216-864-11	SHORT CHIP	0		
C320	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C325	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C330	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C361	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C362	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C363	1-126-160-11	ELECT	1uF	20%	50V
C364	1-126-160-11	ELECT	1uF	20%	50V
C401	1-124-234-00	ELECT	22uF	20%	16V
C402	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C403	1-124-584-00	ELECT	100uF	20%	10V
C405	1-124-234-00	ELECT	22uF	20%	16V
C409	1-124-261-00	ELECT	10uF	20%	50V
C412	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C415	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C417	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C418	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C419	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C421	1-126-964-11	ELECT	10uF	20%	50V
C423	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C424	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C426	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C431	1-124-261-00	ELECT	10uF	20%	50V
C432	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C434	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C440	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C441	1-126-964-11	ELECT	10uF	20%	50V
C442	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C443	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C444	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C445	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C451	1-126-964-11	ELECT	10uF	20%	50V
C452	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C454	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C461	1-126-964-11	ELECT	10uF	20%	50V
C462	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C463	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C471	1-126-964-11	ELECT	10uF	20%	50V
C472	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C473	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C484	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C485	1-126-933-11	ELECT	100uF	20%	16V
C486	1-126-964-11	ELECT	10uF	20%	50V
C491	1-124-589-11	ELECT	47uF	20%	16V
C493	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C494	1-162-967-11	CERAMIC CHIP	0.0033uF	10%	50V
C501	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C502	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C504	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C507	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C508	1-162-916-11	CERAMIC CHIP	12PF	5%	50V
C509	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C510	1-165-908-11	CERAMIC CHIP	1uF	10%	10V

MAIN

Ref. No.	Part No.	Description			Remark
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C513	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C514	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C515	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C516	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C519	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C601	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C622	1-128-057-11	ELECT	330uF	20%	6.3V
C623	1-126-926-11	ELECT	1000uF	20%	10V
C624	1-126-176-11	ELECT	220uF	20%	10V
C681	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C682	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C683	1-124-584-00	ELECT	100uF	20%	10V
C701	1-112-302-11	ELECT	3300uF	20%	16V
C702	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C703	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C704	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C705	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C916	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C997	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C998	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CN200	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P			
* CN250	1-564-710-11	PIN, CONNECTOR (SMALL TYPE) 8P			
CN300	1-774-701-21	PIN, CONNECTOR 16P			
CN350	1-820-611-11	CONNECTOR, BOARD TO BOARD 28P			
CN370	1-819-773-13	SOCKET, CONNECTOR 15P			
		< DIODE >			
D2	6-501-734-01	DIODE MAZ8056GMLS0			
D109	6-501-743-01	DIODE MAZ8068GMLS0			
D110	6-501-743-01	DIODE MAZ8068GMLS0			
D112	6-501-743-01	DIODE MAZ8068GMLS0			
D113	6-501-743-01	DIODE MAZ8068GMLS0			
D151	1-805-043-11	ABSORBER, CHIP SURGE			
D152	1-805-043-11	ABSORBER, CHIP SURGE			
D153	6-501-743-01	DIODE MAZ8068GMLS0			
D251	6-501-656-01	DIODE LBAT54ALT1G			
D252	6-501-782-01	DIODE MAZ8180GMLS0			
D253	6-501-782-01	DIODE MAZ8180GMLS0			
D254	6-501-743-01	DIODE MAZ8068GMLS0			
D256	6-501-743-01	DIODE MAZ8068GMLS0			
D260	6-501-654-01	DIODE LBAT54CLT1G			
D301	6-501-362-01	DIODE 1A4-TA26			
D302	6-501-362-01	DIODE 1A4-TA26			
D303	6-501-362-01	DIODE 1A4-TA26			
D304	6-501-362-01	DIODE 1A4-TA26			
D305	6-501-362-01	DIODE 1A4-TA26			
D306	6-501-362-01	DIODE 1A4-TA26			
D307	6-501-362-01	DIODE 1A4-TA26			
D308	6-501-362-01	DIODE 1A4-TA26			
D309	6-501-362-01	DIODE 1A4-TA26			
D310	6-501-362-01	DIODE 1A4-TA26			
D311	6-501-362-01	DIODE 1A4-TA26			
D312	6-501-362-01	DIODE 1A4-TA26			
D353	6-501-656-01	DIODE LBAT54ALT1G			
D491	6-501-193-01	DIODE 1SS355WTE-17			

Ref. No.	Part No.	Description	Remark
D493	6-501-654-01	DIODE LBAT54CLT1G	
D502	8-719-060-48	DIODE RB751V-40TE-17	
D503	6-501-193-01	DIODE 1SS355WTE-17	
D602	6-501-782-01	DIODE MAZ8180GMLS0	
D603	6-501-738-01	DIODE MAZ8062GMLS0	
D607	6-501-571-01	DIODE 1N5404-C311-3	
D609	6-501-654-01	DIODE LBAT54CLT1G	
D702	6-501-782-01	DIODE MAZ8180GMLS0	
D704	6-501-782-01	DIODE MAZ8180GMLS0 (GT44IP)	
D998	6-501-782-01	DIODE MAZ8180GMLS0	
D999	6-501-782-01	DIODE MAZ8180GMLS0	
		< FUSE >	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
		< IC >	
IC50	6-803-747-01	IC TDA7333013TR (GT44IP)	
IC210	8-759-448-71	IC BU4053BCFV-E2	
IC220	8-759-278-58	IC NJM4558V-TE2	
IC260	6-709-213-01	IC NJM2387ADL3(TE2)	
IC300	6-705-359-02	IC TDA8588AJ/N2/R1	
IC401	6-710-065-01	IC BD3442FS-E2	
IC501	6-807-652-01	IC MB90F045PF-G-9059-SPE1	
IC601	6-703-884-01	IC BA8271F-E2	
IC602	6-709-458-01	IC XC61CN2802NR	
IC681	6-711-670-01	IC XC6218P332PR	
		< JACK >	
J1	1-815-185-13	JACK (ANTENNA)	
J652	1-774-698-11	JACK, PIN 2P (AUDIO OUT REAR) (GT44IP)	
J652	1-774-699-12	JACK, PIN 4P (AUDIO OUT REAR/FRONT) (GT42IPW/GT420IP)	
		< JUMPER RESISTOR >	
JC1	1-216-296-11	SHORT CHIP 0	
JC2	1-414-595-11	INDUCTOR, FERRITE BEAD	
JC3	1-216-296-11	SHORT CHIP 0	
JC4	1-216-296-11	SHORT CHIP 0	
JC5	1-216-296-11	SHORT CHIP 0	
JC6	1-216-296-11	SHORT CHIP 0	
JC7	1-216-296-11	SHORT CHIP 0	
JC8	1-216-296-11	SHORT CHIP 0	
JC9	1-216-864-11	SHORT CHIP 0	
JC10	1-216-864-11	SHORT CHIP 0	
JC11	1-216-864-11	SHORT CHIP 0	
JC12	1-216-296-11	SHORT CHIP 0	
JC13	1-216-864-11	SHORT CHIP 0	
JC14	1-216-296-11	SHORT CHIP 0	
JC15	1-216-864-11	SHORT CHIP 0	
JC16	1-216-296-11	SHORT CHIP 0	
JC17	1-216-864-11	SHORT CHIP 0	
JC18	1-216-864-11	SHORT CHIP 0	
JC23	1-216-296-11	SHORT CHIP 0	
JC24	1-216-821-11	METAL CHIP 1K 5% 1/10W	
JC29	1-216-296-11	SHORT CHIP 0	
JC30	1-216-296-11	SHORT CHIP 0	
JC31	1-216-296-11	SHORT CHIP 0	
JC32	1-216-296-11	SHORT CHIP 0	

Ref. No.	Part No.	Description			Remark
JC33	1-216-296-11	SHORT CHIP	0		
JC34	1-216-864-11	SHORT CHIP	0		
JC35	1-216-864-11	SHORT CHIP	0		
JC36	1-216-864-11	SHORT CHIP	0		
JC37	1-216-296-11	SHORT CHIP	0		
JC38	1-216-296-11	SHORT CHIP	0		
JC40	1-216-864-11	SHORT CHIP	0		
JC42	1-216-821-11	METAL CHIP	1K	5%	1/10W
JC50	1-216-864-11	SHORT CHIP	0 (GT44IP)		
JC51	1-216-296-11	SHORT CHIP	0		
JC100	1-216-296-11	SHORT CHIP	0		
JC101	1-216-296-11	SHORT CHIP	0		
JC102	1-216-296-11	SHORT CHIP	0		
JC210	1-216-864-11	SHORT CHIP	0		
JC211	1-216-296-11	SHORT CHIP	0		
JC212	1-216-864-11	SHORT CHIP	0		
JC213	1-216-296-11	SHORT CHIP	0		
JC214	1-216-296-11	SHORT CHIP	0		
JC215	1-216-864-11	SHORT CHIP	0		
JC216	1-216-864-11	SHORT CHIP	0		
JC217	1-216-296-11	SHORT CHIP	0		
JC253	1-216-864-11	SHORT CHIP	0		
JC254	1-216-296-11	SHORT CHIP	0		
JC255	1-216-296-11	SHORT CHIP	0		
JC256	1-216-296-11	SHORT CHIP	0		
JC257	1-216-864-11	SHORT CHIP	0		
JC258	1-216-296-11	SHORT CHIP	0		
JC259	1-216-296-11	SHORT CHIP	0		
JC260	1-216-864-11	SHORT CHIP	0		
JC261	1-216-864-11	SHORT CHIP	0		
JC262	1-216-864-11	SHORT CHIP	0		
JC500	1-216-864-11	SHORT CHIP	0		
JC501	1-216-864-11	SHORT CHIP	0		
JC503	1-216-296-11	SHORT CHIP	0		
JC504	1-216-296-11	SHORT CHIP	0		
JC505	1-216-296-11	SHORT CHIP	0		
JC506	1-216-296-11	SHORT CHIP	0		
JC507	1-216-296-11	SHORT CHIP	0		
JC508	1-216-296-11	SHORT CHIP	0		
JC509	1-216-296-11	SHORT CHIP	0		
JC510	1-216-864-11	SHORT CHIP	0		
JC511	1-216-864-11	SHORT CHIP	0		
JC512	1-216-296-11	SHORT CHIP	0		
JC513	1-216-864-11	SHORT CHIP	0		
JC514	1-216-821-11	METAL CHIP	1K	5%	1/10W
JC990	1-216-296-11	SHORT CHIP	0		
JC991	1-216-296-11	SHORT CHIP	0		
JC992	1-216-296-11	SHORT CHIP	0		
		< COIL >			
L1	1-469-844-11	INDUCTOR	2.2uH		
L2	1-414-595-11	INDUCTOR, FERRITE BEAD (GT44IP)			
L3	1-414-595-11	INDUCTOR, FERRITE BEAD (GT44IP)			
L4	1-469-844-11	INDUCTOR	2.2uH		
L5	1-216-864-11	SHORT CHIP	0		
L50	1-469-844-11	INDUCTOR	2.2uH (GT44IP)		
L151	1-216-295-11	SHORT CHIP	0		
L251	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description			Remark
L261	1-414-595-11	INDUCTOR, FERRITE BEAD			
L291	1-400-382-11	FERRITE, EMI (SMD) (1608)			
L300	1-456-617-11	COIL, CHOKE			
L401	1-216-864-11	SHORT CHIP	0		
L402	1-216-295-11	SHORT CHIP	0		
L403	1-216-295-11	SHORT CHIP	0		
L405	1-216-864-11	SHORT CHIP	0		
L406	1-500-245-11	INDUCTOR, FERRITE BEAD			
L407	1-216-864-11	SHORT CHIP	0		
L409	1-469-844-11	INDUCTOR	2.2uH		
L410	1-469-876-11	INDUCTOR, FERRITE BEAD			
L501	1-469-844-11	INDUCTOR	2.2uH		
L901	1-216-295-11	SHORT CHIP	0		
L902	1-469-844-11	INDUCTOR	2.2uH		
		< TRANSISTOR >			
Q1	8-729-027-43	TRANSISTOR	DTC114EKA-T146 (GT44IP)		
Q3	6-551-431-01	TRANSISTOR	2SC6027T100-QR		
Q50	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF (GT44IP)		
Q210	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q252	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q253	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q254	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q255	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q256	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q420	6-551-863-01	TRANSISTOR	RTAN140C-T112A-1		
Q432	6-551-863-01	TRANSISTOR	RTAN140C-T112A-1		
Q440	6-551-863-01	TRANSISTOR	RTAN140C-T112A-1		
Q452	6-551-863-01	TRANSISTOR	RTAN140C-T112A-1		
Q460	8-729-027-44	TRANSISTOR	DTC114TKA-T146		
Q470	8-729-027-44	TRANSISTOR	DTC114TKA-T146		
Q491	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q492	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q605	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q664	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q701	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF (GT44IP)		
Q702	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
		< RESISTOR >			
R1	1-216-809-11	METAL CHIP	100	5%	1/10W (GT44IP)
R2	1-216-839-11	METAL CHIP	33K	5%	1/10W
R3	1-216-843-11	METAL CHIP	68K	5%	1/10W
R4	1-216-839-11	METAL CHIP	33K	5%	1/10W
R5	1-216-843-11	METAL CHIP	68K	5%	1/10W
R6	1-414-595-11	INDUCTOR, FERRITE BEAD			
R7	1-414-595-11	INDUCTOR, FERRITE BEAD			
R8	1-216-839-11	METAL CHIP	33K	5%	1/10W (GT44IP)
R9	1-216-843-11	METAL CHIP	68K	5%	1/10W
R10	1-216-821-11	METAL CHIP	1K	5%	1/10W
R12	1-216-811-11	METAL CHIP	150	5%	1/10W
R13	1-216-811-11	METAL CHIP	150	5%	1/10W
R15	1-216-864-11	SHORT CHIP	0 (GT44IP)		
R52	1-216-845-11	METAL CHIP	100K	5%	1/10W (GT44IP)
R53	1-216-797-11	METAL CHIP	10	5%	1/10W (GT44IP)

MAIN

Ref. No.	Part No.	Description			Remark
R54	1-414-595-11	INDUCTOR, FERRITE BEAD (GT44IP)			
R55	1-216-797-11	METAL CHIP	10	5%	1/10W (GT44IP)
R57	1-216-833-11	METAL CHIP	10K	5%	1/10W (GT44IP)
R58	1-216-821-11	METAL CHIP	1K	5%	1/10W (GT44IP)
R151	1-216-817-11	METAL CHIP	470	5%	1/10W
R152	1-216-817-11	METAL CHIP	470	5%	1/10W
R153	1-216-835-11	METAL CHIP	15K	5%	1/10W
R154	1-216-835-11	METAL CHIP	15K	5%	1/10W
R155	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R210	1-216-025-11	RES-CHIP	100	5%	1/10W
R211	1-216-833-11	METAL CHIP	10K	5%	1/10W
R212	1-216-864-11	SHORT CHIP	0		
R213	1-216-837-11	METAL CHIP	22K	5%	1/10W
R214	1-216-853-11	METAL CHIP	470K	5%	1/10W
R220	1-216-025-11	RES-CHIP	100	5%	1/10W
R221	1-216-833-11	METAL CHIP	10K	5%	1/10W
R222	1-216-853-11	METAL CHIP	470K	5%	1/10W
R232	1-216-837-11	METAL CHIP	22K	5%	1/10W
R233	1-216-837-11	METAL CHIP	22K	5%	1/10W
R234	1-216-843-11	METAL CHIP	68K	5%	1/10W
R235	1-216-843-11	METAL CHIP	68K	5%	1/10W
R273	1-216-296-11	SHORT CHIP	0		
R274	1-216-833-11	METAL CHIP	10K	5%	1/10W
R275	1-216-833-11	METAL CHIP	10K	5%	1/10W
R276	1-216-833-11	METAL CHIP	10K	5%	1/10W
R277	1-216-833-11	METAL CHIP	10K	5%	1/10W
R278	1-216-833-11	METAL CHIP	10K	5%	1/10W
R279	1-216-833-11	METAL CHIP	10K	5%	1/10W
R280	1-218-912-11	METAL CHIP	510K	0.5%	1/10W
R281	1-218-885-11	METAL CHIP	39K	0.5%	1/10W
R282	1-414-595-11	INDUCTOR, FERRITE BEAD			
R283	1-414-595-11	INDUCTOR, FERRITE BEAD			
R284	1-216-845-11	METAL CHIP	100K	5%	1/10W
R285	1-216-845-11	METAL CHIP	100K	5%	1/10W
R286	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R289	1-216-864-11	SHORT CHIP	0		
R290	1-216-838-11	METAL CHIP	27K	5%	1/10W
R291	1-216-296-11	SHORT CHIP	0		
R293	1-216-864-11	SHORT CHIP	0		
R294	1-216-864-11	SHORT CHIP	0		
R301	1-216-811-11	METAL CHIP	150	5%	1/10W
R302	1-216-841-11	METAL CHIP	47K	5%	1/10W
R351	1-216-845-11	METAL CHIP	100K	5%	1/10W
R401	1-216-821-11	METAL CHIP	1K	5%	1/10W
R402	1-216-821-11	METAL CHIP	1K	5%	1/10W
R420	1-216-864-11	SHORT CHIP	0		
R421	1-216-813-11	METAL CHIP	220	5%	1/10W
R423	1-216-809-11	METAL CHIP	100	5%	1/10W
R430	1-216-809-11	METAL CHIP	100	5%	1/10W
R431	1-216-809-11	METAL CHIP	100	5%	1/10W
R440	1-216-864-11	SHORT CHIP	0		
R442	1-216-813-11	METAL CHIP	220	5%	1/10W
R445	1-216-809-11	METAL CHIP	100	5%	1/10W
R447	1-216-833-11	METAL CHIP	10K	5%	1/10W
R448	1-216-833-11	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R449	1-216-833-11	METAL CHIP	10K	5%	1/10W
R450	1-216-833-11	METAL CHIP	10K	5%	1/10W
R451	1-216-809-11	METAL CHIP	100	5%	1/10W
R452	1-216-809-11	METAL CHIP	100	5%	1/10W
R460	1-216-864-11	SHORT CHIP	0		
R461	1-216-821-11	METAL CHIP	1K	5%	1/10W
R462	1-216-833-11	METAL CHIP	10K	5%	1/10W
R470	1-216-864-11	SHORT CHIP	0		
R471	1-216-821-11	METAL CHIP	1K	5%	1/10W
R472	1-216-833-11	METAL CHIP	10K	5%	1/10W
R481	1-216-801-11	METAL CHIP	22	5%	1/10W
R485	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R491	1-216-805-11	METAL CHIP	47	5%	1/10W
R502	1-216-809-11	METAL CHIP	100	5%	1/10W
R503	1-216-809-11	METAL CHIP	100	5%	1/10W
R504	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R505	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R507	1-216-845-11	METAL CHIP	100K	5%	1/10W (GT42IPW/GT420IP)
R509	1-216-812-11	METAL CHIP	180	5%	1/10W
R510	1-216-821-11	METAL CHIP	1K	5%	1/10W
R511	1-216-821-11	METAL CHIP	1K	5%	1/10W
R512	1-216-821-11	METAL CHIP	1K	5%	1/10W
R517	1-216-841-11	METAL CHIP	47K	5%	1/10W
R519	1-216-845-11	METAL CHIP	100K	5%	1/10W
R520	1-216-809-11	METAL CHIP	100	5%	1/10W
R521	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R522	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R523	1-216-809-11	METAL CHIP	100	5%	1/10W
R524	1-216-833-11	METAL CHIP	10K	5%	1/10W
R525	1-216-833-11	METAL CHIP	10K	5%	1/10W
R526	1-216-845-11	METAL CHIP	100K	5%	1/10W
R529	1-216-809-11	METAL CHIP	100	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	1-216-833-11	METAL CHIP	10K	5%	1/10W
R537	1-216-845-11	METAL CHIP	100K	5%	1/10W (GT44IP)
R538	1-216-845-11	METAL CHIP	100K	5%	1/10W (GT42IPW/GT420IP)
R540	1-216-845-11	METAL CHIP	100K	5%	1/10W
R544	1-216-809-11	METAL CHIP	100	5%	1/10W
R551	1-216-845-11	METAL CHIP	100K	5%	1/10W
R552	1-216-845-11	METAL CHIP	100K	5%	1/10W
R553	1-216-841-11	METAL CHIP	47K	5%	1/10W
R555	1-216-845-11	METAL CHIP	100K	5%	1/10W
R556	1-216-845-11	METAL CHIP	100K	5%	1/10W
R557	1-216-809-11	METAL CHIP	100	5%	1/10W
R558	1-216-833-11	METAL CHIP	10K	5%	1/10W
R559	1-216-845-11	METAL CHIP	100K	5%	1/10W
R561	1-216-845-11	METAL CHIP	100K	5%	1/10W
R563	1-216-845-11	METAL CHIP	100K	5%	1/10W
R564	1-216-845-11	METAL CHIP	100K	5%	1/10W (GT44IP)
R565	1-216-845-11	METAL CHIP	100K	5%	1/10W
R566	1-216-845-11	METAL CHIP	100K	5%	1/10W (GT42IPW/GT420IP)
R567	1-216-845-11	METAL CHIP	100K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R568	1-216-849-11	METAL CHIP	220K	5%	1/10W
R570	1-216-809-11	METAL CHIP	100	5%	1/10W
R573	1-216-845-11	METAL CHIP	100K	5%	1/10W (GT44IP)
R600	1-216-845-11	METAL CHIP	100K	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
R606	1-216-821-11	METAL CHIP	1K	5%	1/10W
R607	1-216-821-11	METAL CHIP	1K	5%	1/10W
R636	1-216-845-11	METAL CHIP	100K	5%	1/10W
R671	1-216-809-11	METAL CHIP	100	5%	1/10W
R672	1-216-809-11	METAL CHIP	100	5%	1/10W
R673	1-216-833-11	METAL CHIP	10K	5%	1/10W
R674	1-216-845-11	METAL CHIP	100K	5%	1/10W
R701	1-216-821-11	METAL CHIP	1K	5%	1/10W (GT44IP)
R702	1-216-841-11	METAL CHIP	47K	5%	1/10W (GT44IP)
R703	1-216-833-11	METAL CHIP	10K	5%	1/10W (GT44IP)
R704	1-216-833-11	METAL CHIP	10K	5%	1/10W (GT44IP)
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
R910	1-216-864-11	SHORT CHIP	0		
R914	1-216-864-11	SHORT CHIP	0		
R915	1-216-864-11	SHORT CHIP	0		
R916	1-216-864-11	SHORT CHIP	0		
R917	1-216-821-11	METAL CHIP	1K	5%	1/10W
		< SWITCH >			
S103	1-786-826-11	SWITCH, TACTILE (RESET)			
		< TUNER UNIT >			
TU1	A-3220-961-B	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X50	1-813-532-11	VIBRATOR, CRYSTAL (8.664MHz) (GT44IP)			
X501	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X502	1-767-317-11	VIBRATOR, CRYSTAL (32.768kHz)			
**********					
	A-1201-631-A	SERVO BOARD, COMPLETE **********			
**********					
		MISCELLANEOUS **********			
7	1-831-838-11	CORD (WITH CONNECTOR) (ISO) (POWER) (GT44IP)			
7	1-833-974-31	CONNECTION CORD FOR AUTOMOBILE (POWER) (GT42IPW/GT420IP)			
8	1-834-339-11	CORD, CONNECTION (for iPod)			
⚠103	X-2149-672-1	SERVICE ASSY, OP (DAX-25A)			
**********					

Ref. No.	Part No.	Description	Remark
		ACCESSORIES **********	
	1-479-077-13	REMOTE COMMANDER (RM-X151)	
	2-548-729-01	LID, BATTERY CASE (for RM-X151)	
	3-217-561-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)	(GT420IP)
	3-217-561-21	MANUAL, INSTRUCTION (ENGLISH,GERMAN, FRENCH,ITALIAN,DUTCH)	(GT44IP)
	3-217-561-31	MANUAL, INSTRUCTION (ENGLISH,SPANISH)	(GT42IPW)
	3-217-562-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, FRENCH)	(GT420IP)
	3-217-562-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, GERMAN,FRENCH,ITALIAN,DUTCH)	(GT44IP)
	3-217-562-31	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH)	(GT42IPW)
	X-2186-697-1	CASE ASSY (for FRONT PANEL)	(GT44IP)
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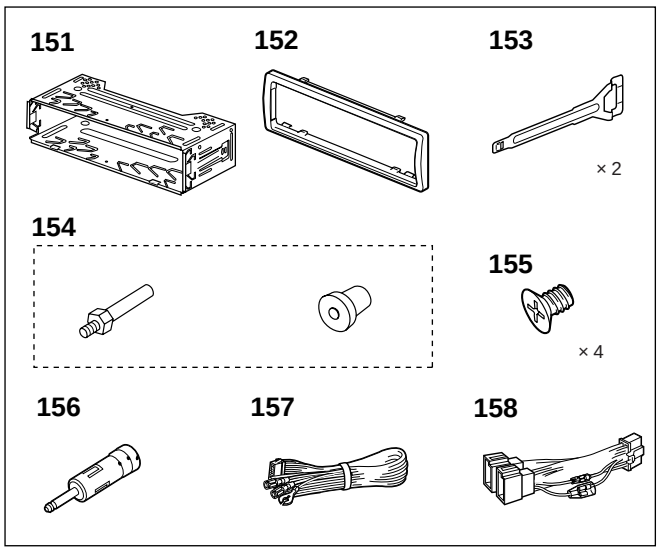
		PARTS FOR INSTALLATION AND CONNECTIONS **********	
151	X-2179-430-1	FRAME ASSY, FITTING	
152	2-686-802-01	COLLAR	
153	3-246-011-01	KEY (FRAME)	
154	X-3366-972-2	SCREW ASSY (EXP), FITTING	(GT44IP)
155	3-259-776-01	SCREW (+K 5X8 TP)	(GT42IPW/GT420IP)
156	1-465-459-41	ADAPTOR, ANTENNA	(GT44IP)
157	1-833-974-31	CONNECTION CORD FOR AUTOMOBILE (POWER)	(GT42IPW/GT420IP)
158	1-831-838-11	CORD (WITH CONNECTOR) (ISO) (POWER)	(GT44IP)



REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the top of the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.0	2007. 08	New