CDX-GT121/GT220/GT222

SERVICE MANUAL

AEP Model
UK Model

Ver. 1.0 2007. 08



(Photo: CDX-GT220)

• The tuner and CD sections have no adjustments.

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

SPECIFICATIONS

CD player section

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

Tuner section

FM

Tuning range	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

MW/LW

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

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 – 8 ohms
Maximum power output	45 W × 4 (at 4 ohms)

General

Output	Audio outputs terminal (sub/rear switchable) Power antenna (aerial) relay control terminal Power amplifier control terminal
Inputs	Telephone ATT control terminal Antenna (aerial) input terminal AUX input jack (stereo mini jack)
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

– Continued on next page –

FM/MW/LW COMPACT DISC PLAYER

9-887-811-01
2007H04-1
© 2007. 08

Sony Corporation
eVehicle Division
Published by Sony Techno Create Corporation

SONY

Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 179 mm (7 1/8 × 2 × 7 1/8 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 162 mm (7 1/4 × 2 1/8 × 6 1/2 in.) (w/h/d)
Mass	Approx. 1.2 kg (2 lb. 11 oz.)
Supplied accessories	Parts for installation and connections (1 set)

Design and specifications are subject to change without notice.

SERVICE NOTES

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

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

NOTES ON LASER DIODE EMISSION CHECK

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

Notes on Chip Component Replacement

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

TEST DISCS

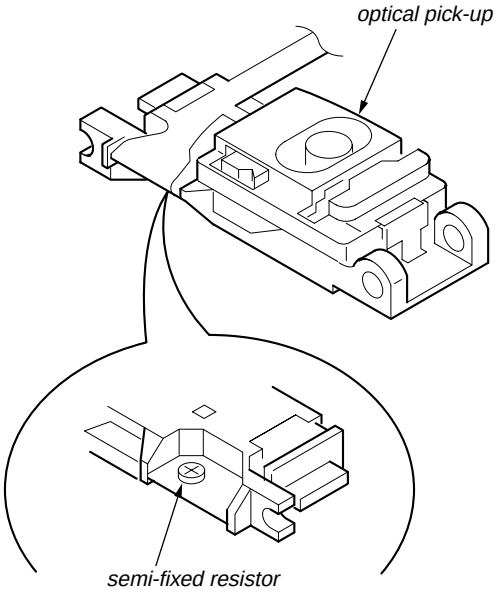
Please use the following test discs for the check on the CD section.

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.



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.

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

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

* CDX-GT220/GT222 only

● 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.

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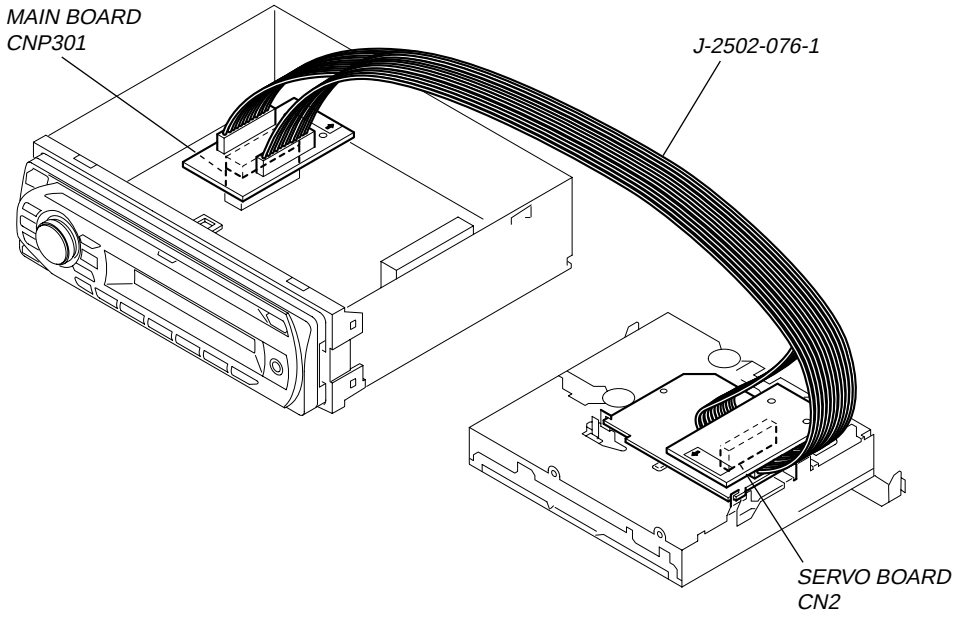
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SECTION 1
SERVICE NOTE

EXTENSION CABLE AND SERVICE POSITION

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

- Connect the MAIN board (CNP301) and the SERVO board (CN2) with the extension cable (Part No. J-2502-076-1).



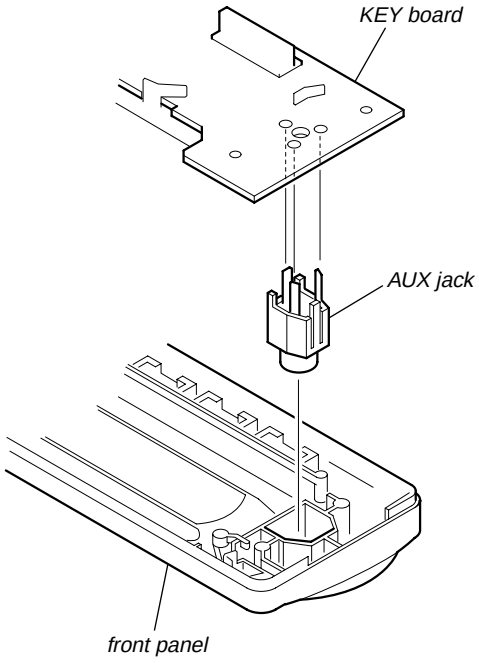
NOTE FOR REPLACEMENT OF THE SERVO BOARD

When repairing, the complete SERVO board (A-1177-201-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.



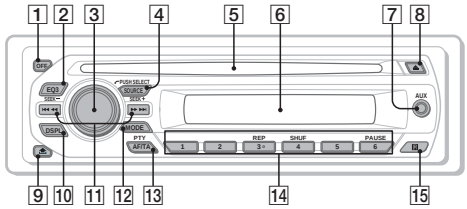
SECTION 2
GENERAL

This section is extracted from instruction manual.

• LOCATION OF CONTROL

Location of controls and basic operations

Main unit



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

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).

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 4

10 **DSPL (display)/SCRL (scroll) button (CDX-GT225C/GT222/GT220)** page 8
To change display items (press); scroll the display item (press and hold).
DSPL (display) button (CDX-GT121) page 8
To change display items.

11 **SEEK –/+ buttons**
CD:
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).

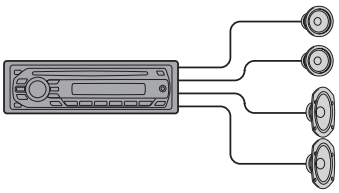
13 **AF (Alternative Frequencies)/ TA (Traffic Announcement)/ PTY (Program Type) button** page 10
To set AF and TA (press); select PTY (press and hold) in RDS.

14 **Number buttons**
CD:
①/②: **ALBM –/+** (during MP3/WMA playback) **(CDX-GT225C/GT222/GT220)**
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).

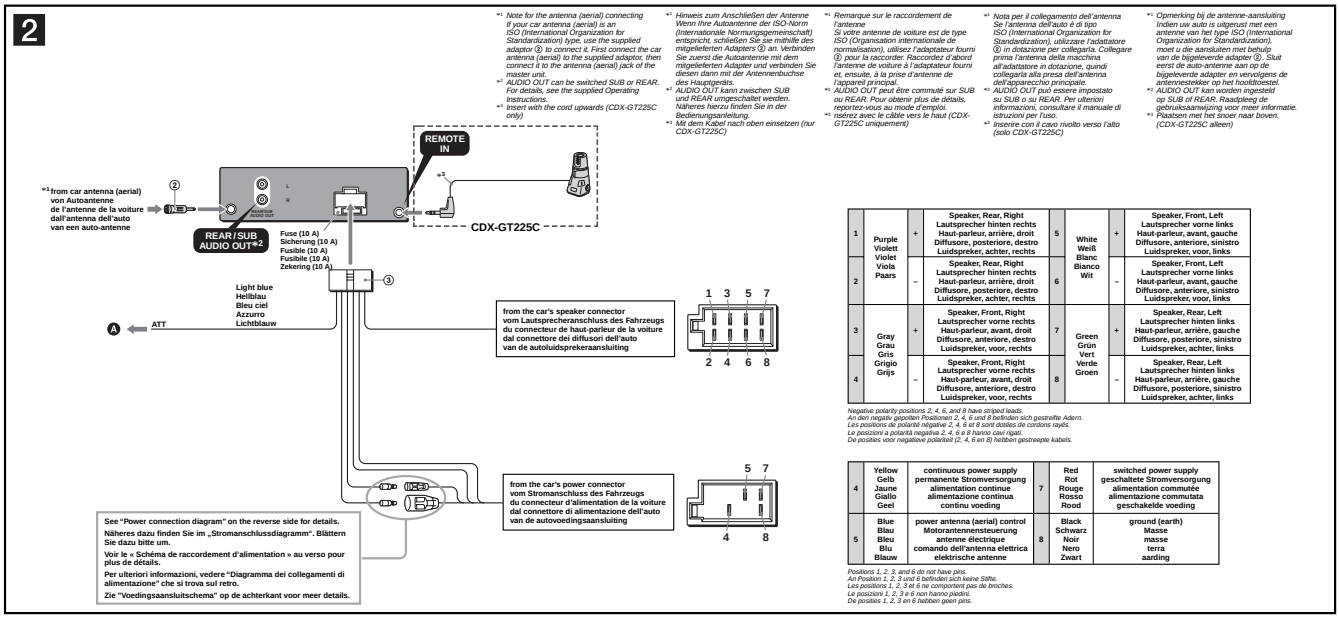
15 **Receptor for the card remote commander (CDX-GT225C/GT222/GT220 only)**

• CONNECTIONS

Connection example
Anschlussbeispiel
Exemple de raccordement
Esempio di collegamento
Voorbeeldaansluitingen



CDX-GT121/GT220/GT222



*1 Note for the antenna (aerial) connecting
If your car antenna (aerial) is an ISO (International Organization for Standardization) type, use the supplied adaptor ② 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 AUDIO OUT can be switched SUB or REAR. For details, see the supplied Operating Instructions.
*3 Insert with the cord upwards (CDX-GT225C only)

*1 Hinweis zum Anschließen der Antenne
Wenn Ihre Autoantenne der ISO-Norm (Internationale Normungsgemeinschaft) entspricht, schließen Sie sie mithilfe des mitgelieferten Adapters ② an. Verbinden Sie zuerst die Autoantenne mit dem mitgelieferten Adapter und verbinden Sie diesen dann mit der Antennenbuchse des Hauptgeräts.
*2 AUDIO OUT kann zwischen SUB und REAR umgeschaltet werden. Näheres hierzu finden Sie in der Bedienungsanleitung.
*3 Mit dem Kabel nach oben einsetzen (nur CDX-GT225C)

*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 ② 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 AUDIO OUT peut être commuté sur SUB ou REAR. Pour obtenir plus de détails, reportez-vous au mode d'emploi.
*3 Insérez avec le câble vers le haut (CDX-GT225C uniquement)

*1 Nota per il collegamento dell'antenna
Se l'antenna dell'auto è di tipo ISO (International Organization for Standardization), utilizzare l'adattatore ② in dotazione per collegarla. Collegare prima l'antenna della macchina all'adattatore in dotazione, quindi collegarla alla presa dell'antenna dell'apparecchio principale.
*2 AUDIO OUT può essere impostato su SUB o su REAR. Per ulteriori informazioni, consultare il manuale di istruzioni per l'uso.
*3 Inserire con il cavo rivolto verso l'alto (solo CDX-GT225C)

*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 ②. Sluit eerst de auto-antenne aan op de bijgeleverde adapter en vervolgens de antennestekker op het hoofdtoestel.
*2 AUDIO OUT kan worden ingesteld op SUB of REAR. Raadpleeg de gebruiksaanwijzing voor meer informatie.
*3 Plaatsen met het snoer naar boven. (CDX-GT225C alleen)

1	Purple Violett Violet 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, arrière, 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 2

A 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 supply 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 is not connected correctly, "FAILURE" appears in the display. In this case, make sure the speaker is connected correctly.

Anschlussdiagramm 2

A 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.

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 die Lautsprecher nicht richtig angeschlossen sind, erscheint „FAILURE" im Display. Vergewissern Sie sich in diesem Fall, dass die Lautsprecher richtig angeschlossen sind.

Schémas de raccordement 2

A 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 câble d'alimentation fourni ③ risque d'endommager l'antenne.

Remarques sur les câbles de commande et d'alimentation
- *Le câble de commande d'antenne (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 radioguidage).*
- *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, mettre l'appareil hors tension.*
- *Utiliser des haut-parleurs ayant une impédance de 4 à 8 ohms et une capacité adéquate sous peine de les endommager.*
- *Ne pas raccorder les bornes du système de haut-parleurs au châssis de la voiture et ne pas connecter les bornes du haut-parleur droit à celles du haut-parleur gauche.*
- *Ne pas raccorder le câble de mise à la masse de cet appareil à la borne négative (–) du haut-parleur.*
- *Ne pas tenter de raccorder les haut-parleurs en parallèle.*
- *Connecter uniquement des haut-parleurs passifs. La connexion de haut-parleurs actifs (avec des amplificateurs intégrés) aux bornes des haut-parleurs pourrait endommager l'appareil.*
- *Pour éviter tout dysfonctionnement, 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 ne sont pas raccordés correctement, le message « FAILURE » s'affiche. Dans ce cas, assurez-vous que les haut-parleurs sont raccordés correctement.

Schema di collegamento 2

A Al cavo 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 (indizIario sul traffico) o AF (frequenza alternativa).*
- *Se l'automobile è dotata di antenna FM/MW/L W incorporata nel vetro posteriore/laterale, collegare il cavo (blu) di controllo dell'antenna elettrica o il cavo (rosso) di ingresso dell'alimentazione accessoria 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 venir 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 paralleIo.*
- *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 collegamenti
Se il diffusore non è collegato correttamente, "FAILURE" viene visualizzato nel display. In tal caso, accertarsi che il diffusore sia collegato correttamente.

Aansluitschema 2

A Naar het interface-snoer van een autotelefoon

Waarschuwing

Indien u een elektrische antenne heeft zonder relaiskast, kan het aansluiten van deze eenheid 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/voorruit, moet u de bedieningskabel van de elektrische antenne (blauw) of de voedingskabel van de accessoires (rood) aansluiten op de voedingsingang van de bestaande antennevesterker. Raadpleeg uw dealer voor meer details.*
- *Met dit apparaat is het niet mogelijk een elektrische antenne zonder relaiskast te gebruiken.*

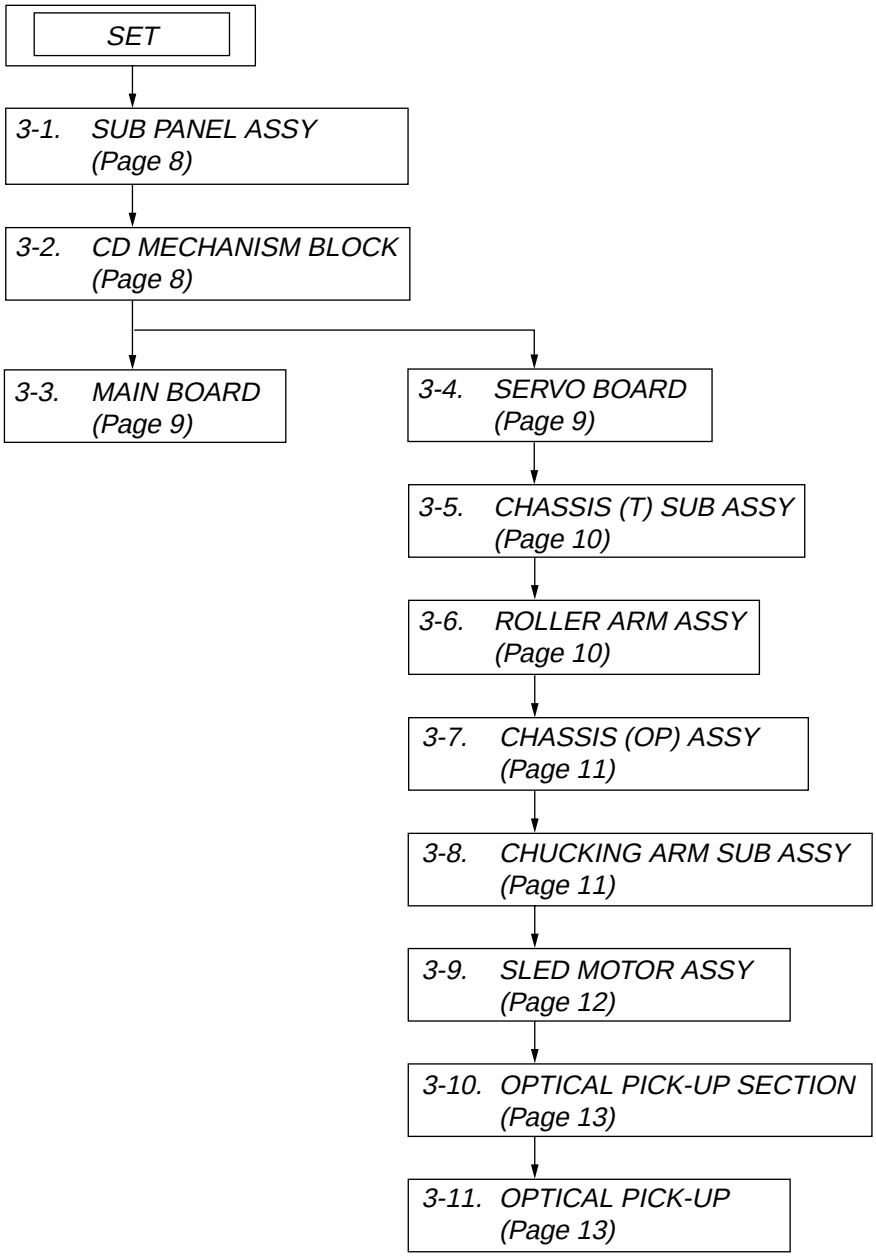
Instandhouden van het geheugen
Zolang de gele voedingskabel is aangesloten, blijft de stroomvoorziening van het geheugen intact, ook wanneer de contactschakelaar van de auto wordt uitgeschakeld.

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 dit wordt verzuimd, kunnen de luidsprekers ernstig beschadigd raken.*
- *Verbind in geen geval de aansluitingen 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 (–) draad is voor de rechter- en linkerluidsprekers.*
- *Verbind de luidsprekerdraden niet met elkaar.*

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

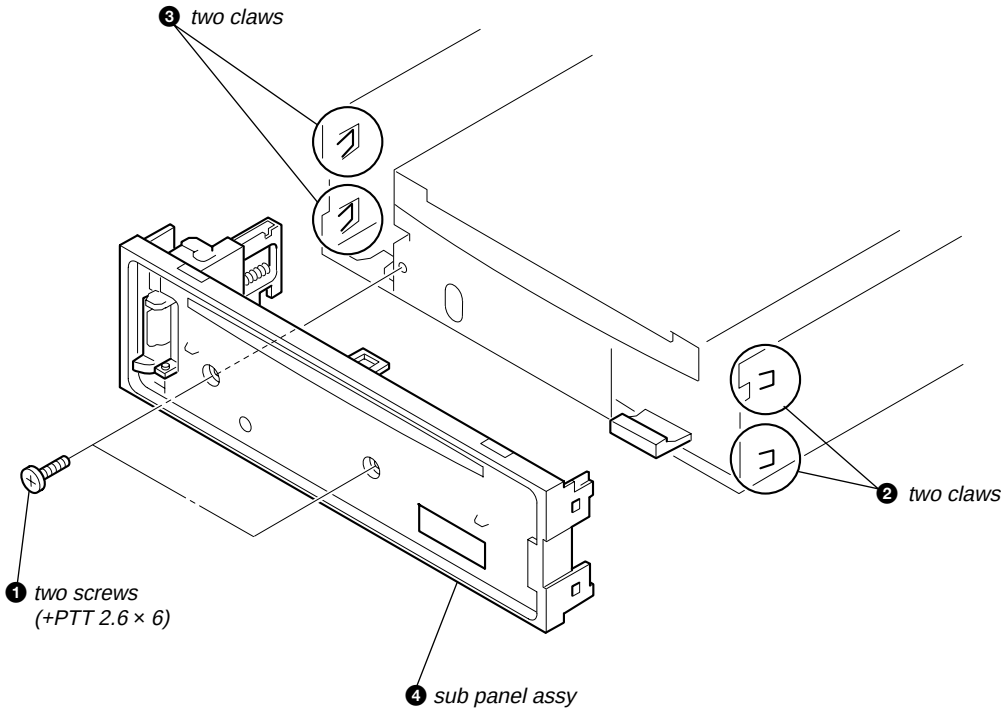
SECTION 3
DISASSEMBLY

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

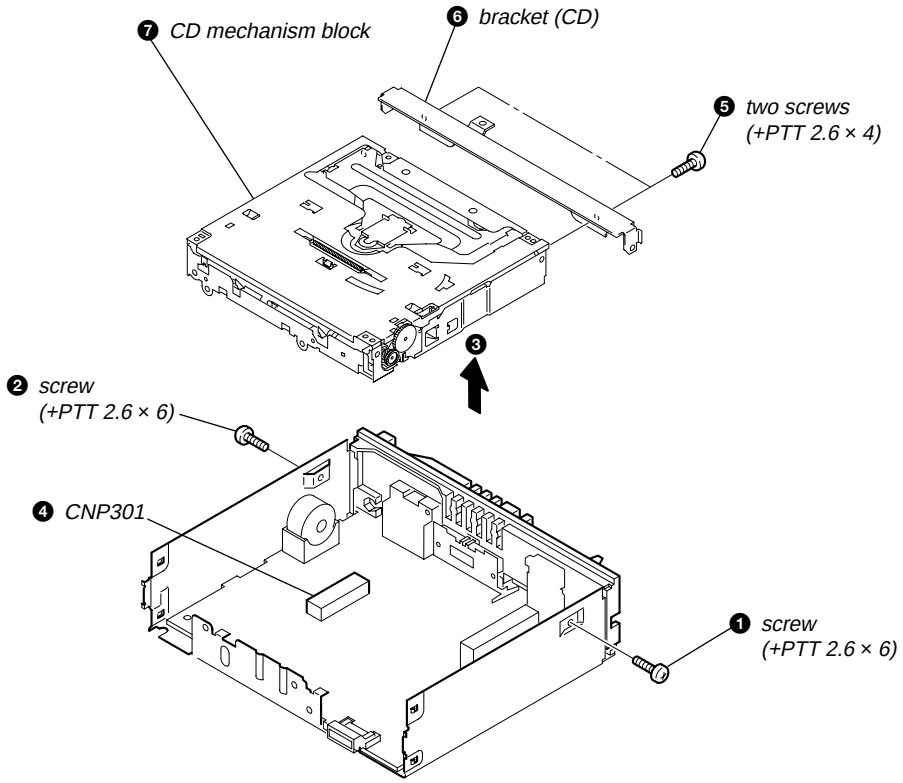


Note: Follow the disassembly procedure in the numerical order given.

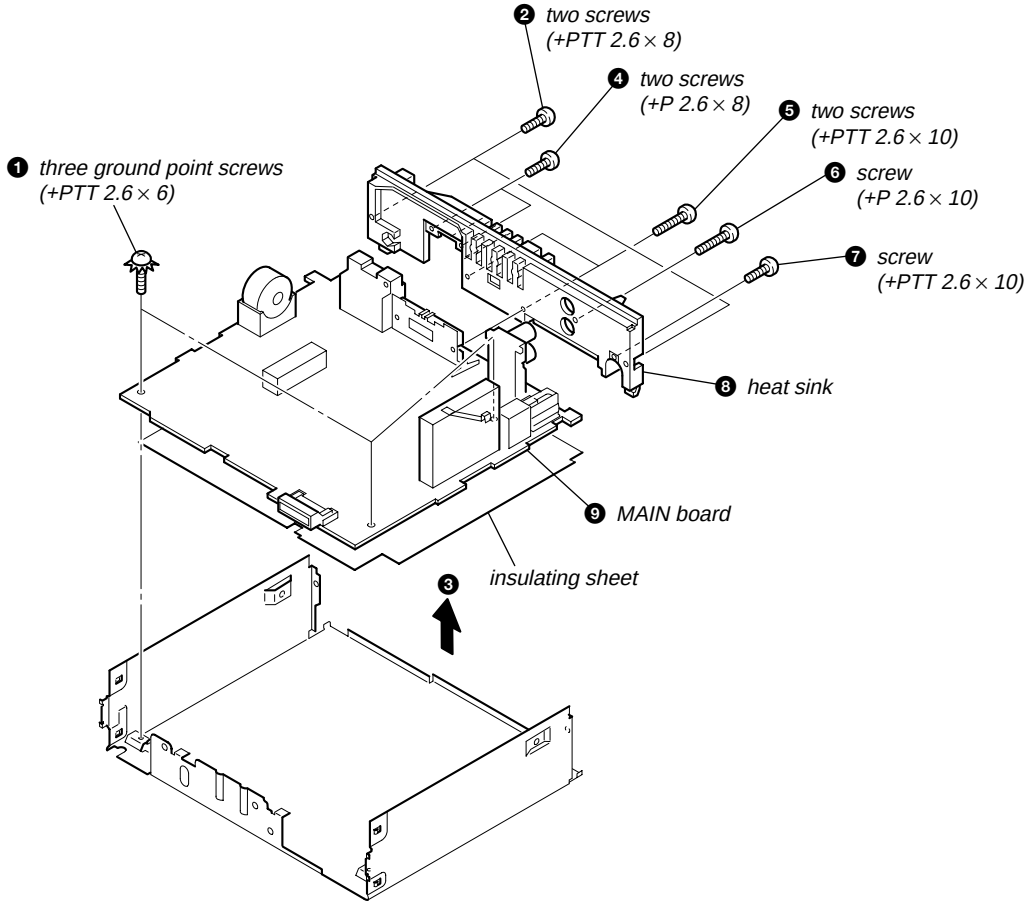
3-1. SUB PANEL ASSY



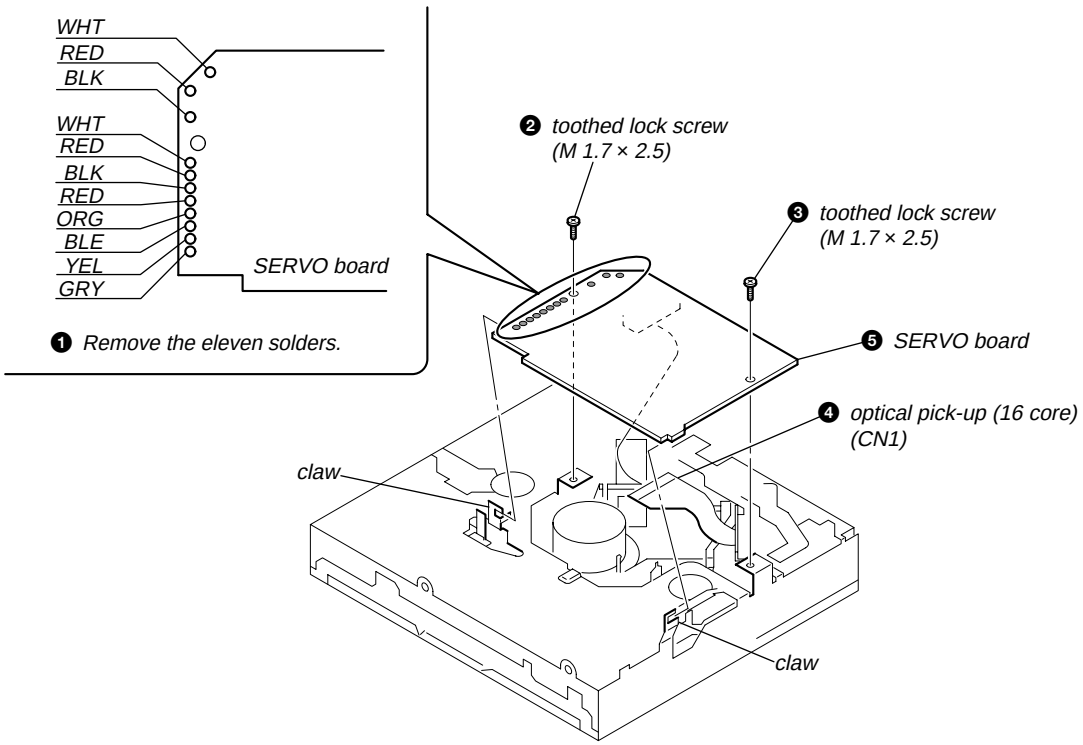
3-2. CD MECHANISM BLOCK



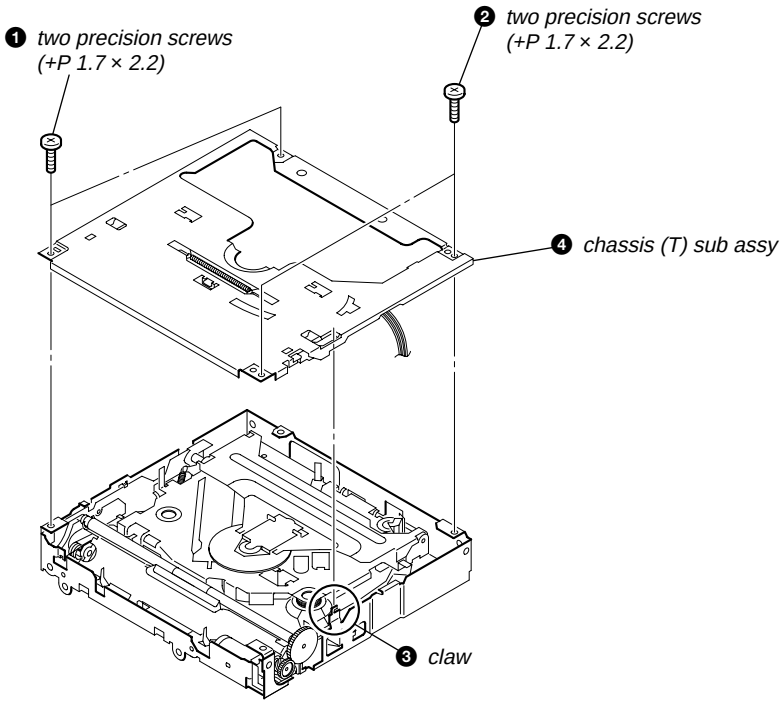
3-3. MAIN BOARD



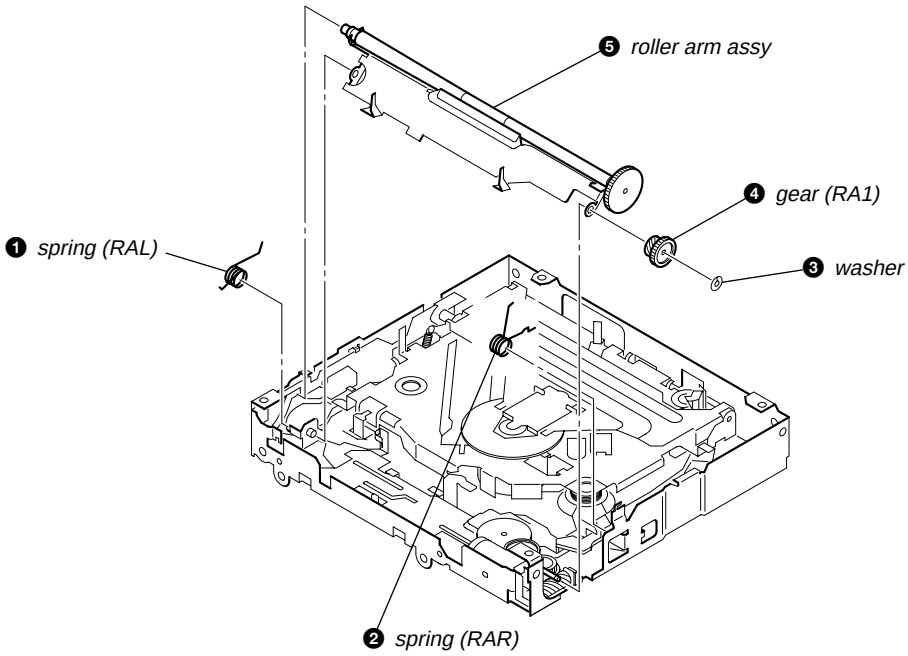
3-4. SERVO BOARD



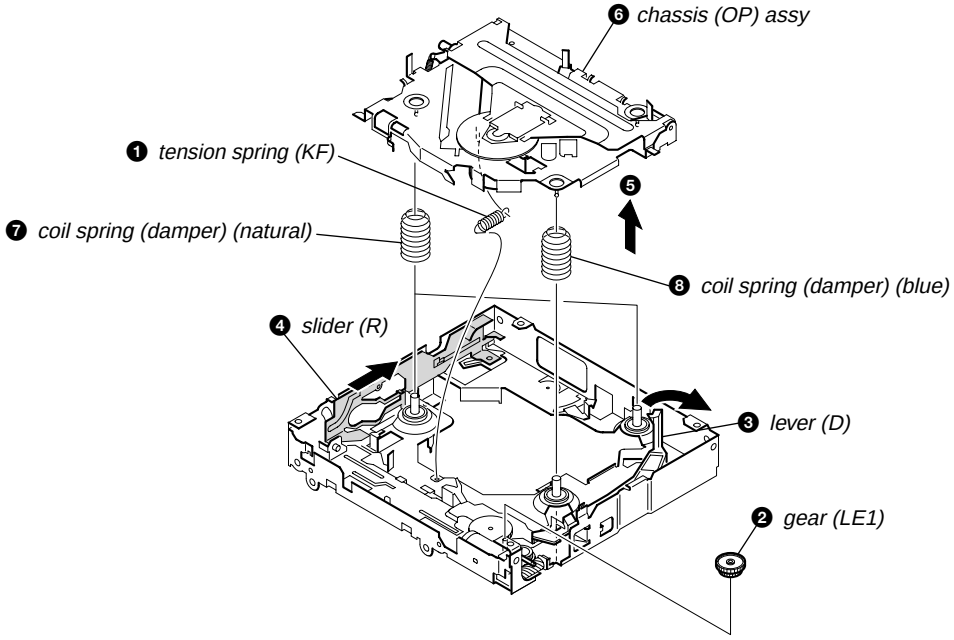
3-5. CHASSIS (T) SUB ASSY



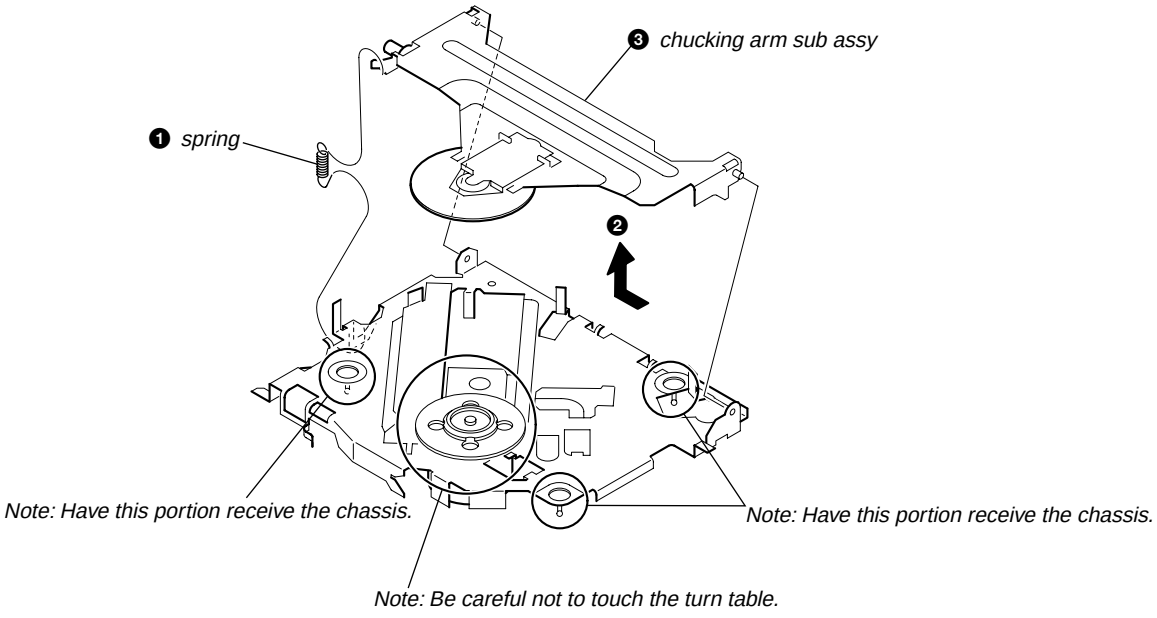
3-6. ROLLER ARM ASSY



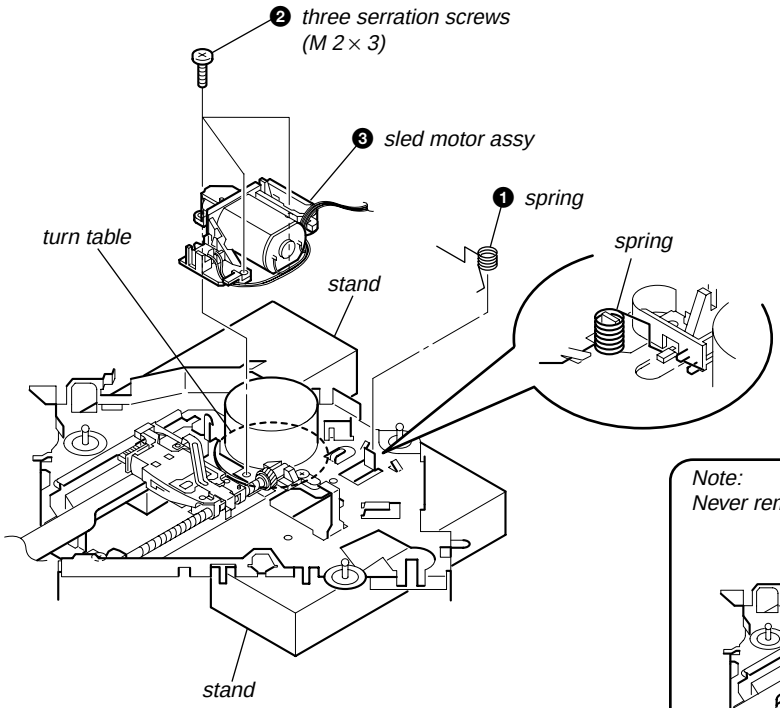
3-7. CHASSIS (OP) ASSY



3-8. CHUCKING ARM SUB ASSY

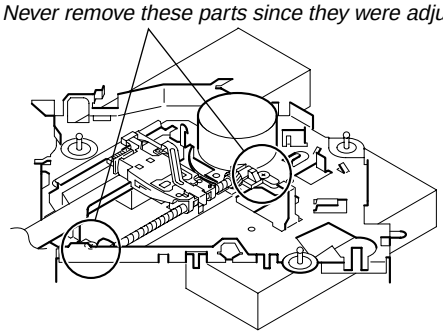


3-9. SLED MOTOR ASSY

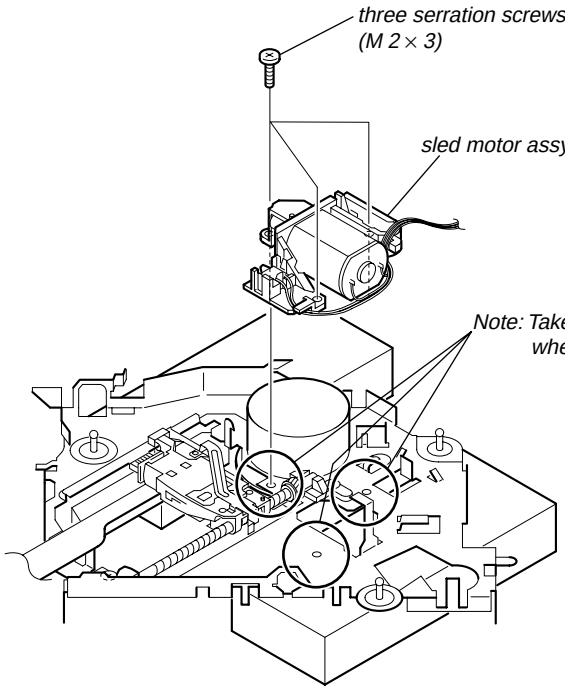


Note: Place the stand with care not to touch the turn table.

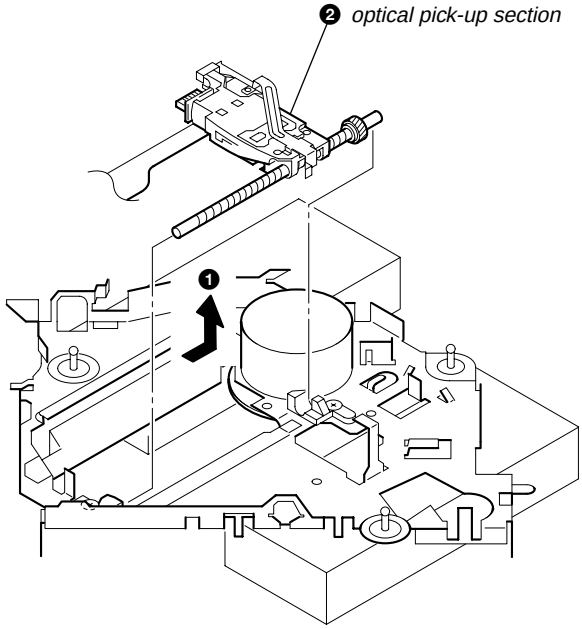
Note:
Never remove these parts since they were adjusted.

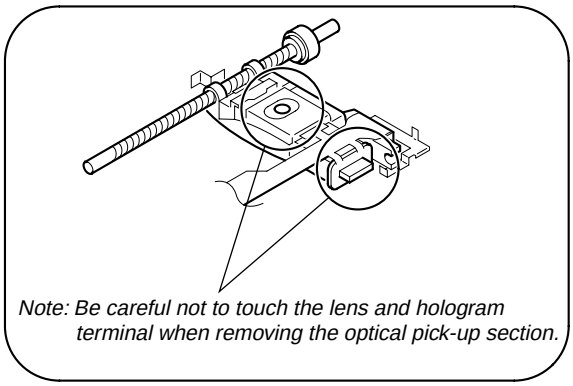


Note for Assembly



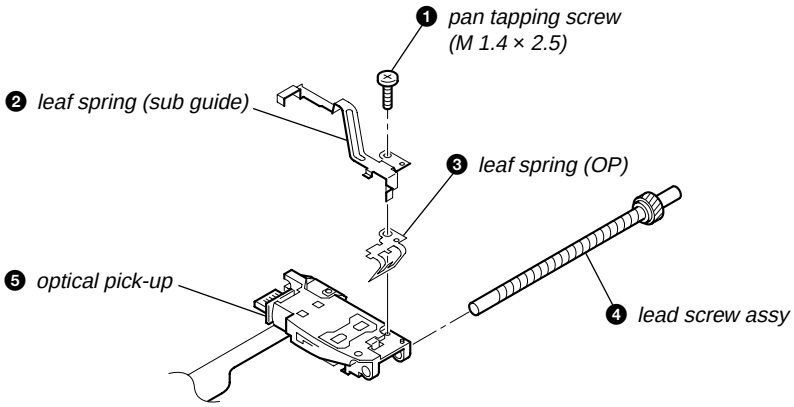
3-10. OPTICAL PICK-UP SECTION



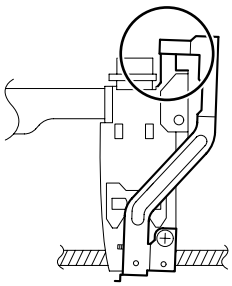


Note: Be careful not to touch the lens and hologram terminal when removing the optical pick-up section.

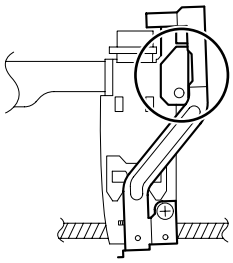
3-11. OPTICAL PICK-UP



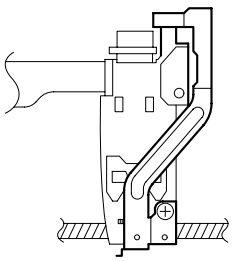
Notes for Assembly



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

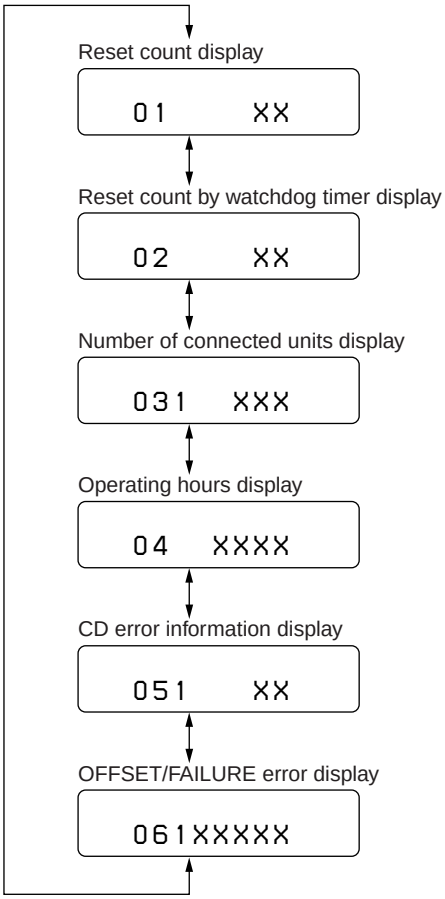
With the power off, press the [4] button, [5] button, and [4] button on the set body or the remote control (for more than 2 seconds) in turn.

2. Canceling the Diag display mode

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

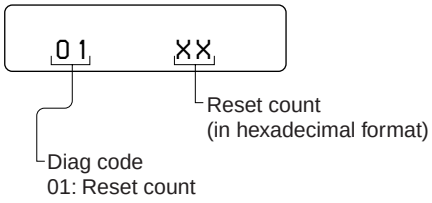
3. Initial display in the Diag display mode.

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.

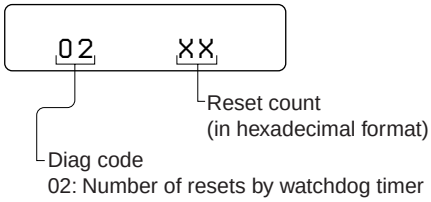


4. Contents of each display mode

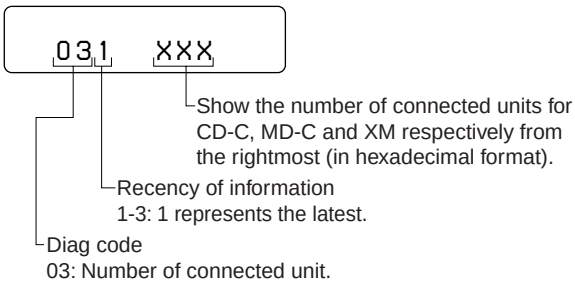
4-1. Reset count display mode



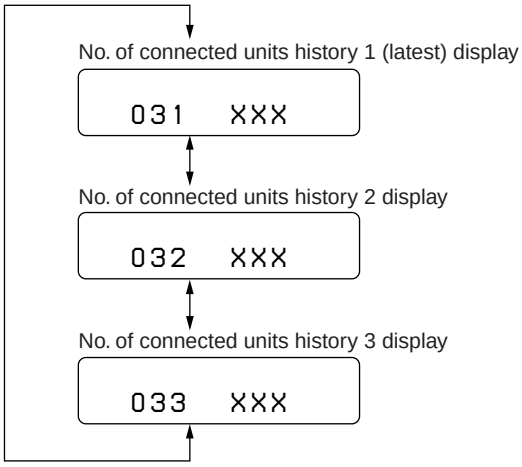
4-2. Reset count by watchdog timer display mode



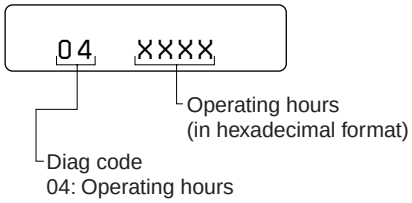
4-3. Number of connected units display mode



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

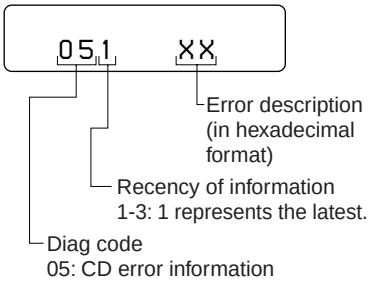


4-4. Operating hours display mode



4-5. CD error information display mode

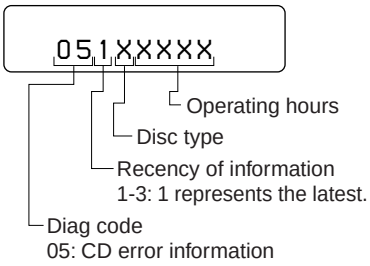
4-5-1. Error description



Error information

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

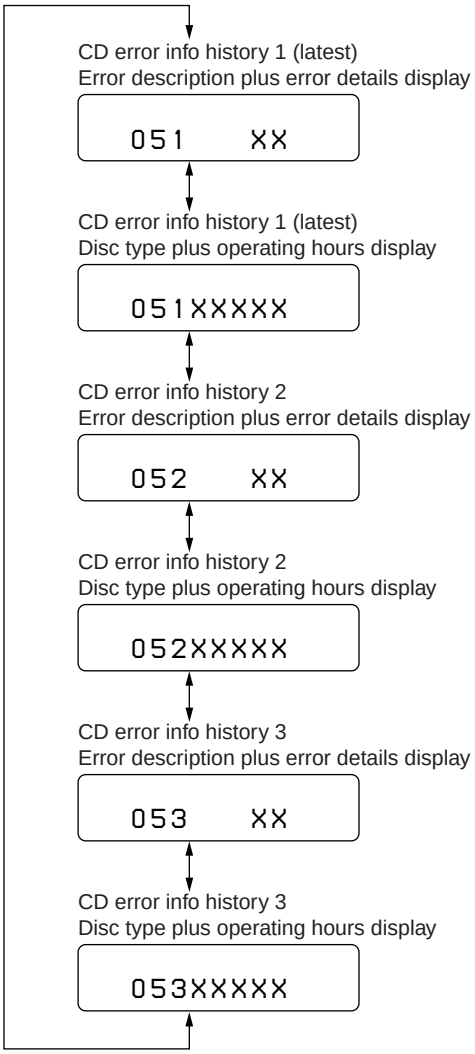
4-5-2. Disc type and operating hours



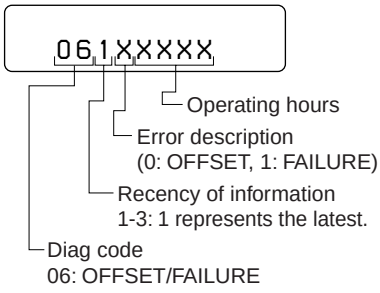
Disc type

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

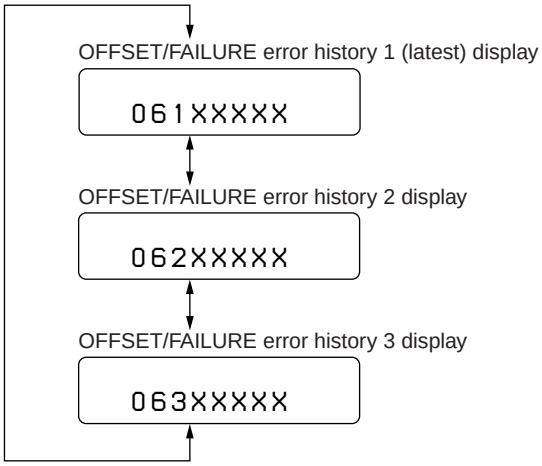
The display mode is switched by each rotation of [2] or [1] keys during the CD error information display mode.



4-6. OFFSET/FAILURE error display mode



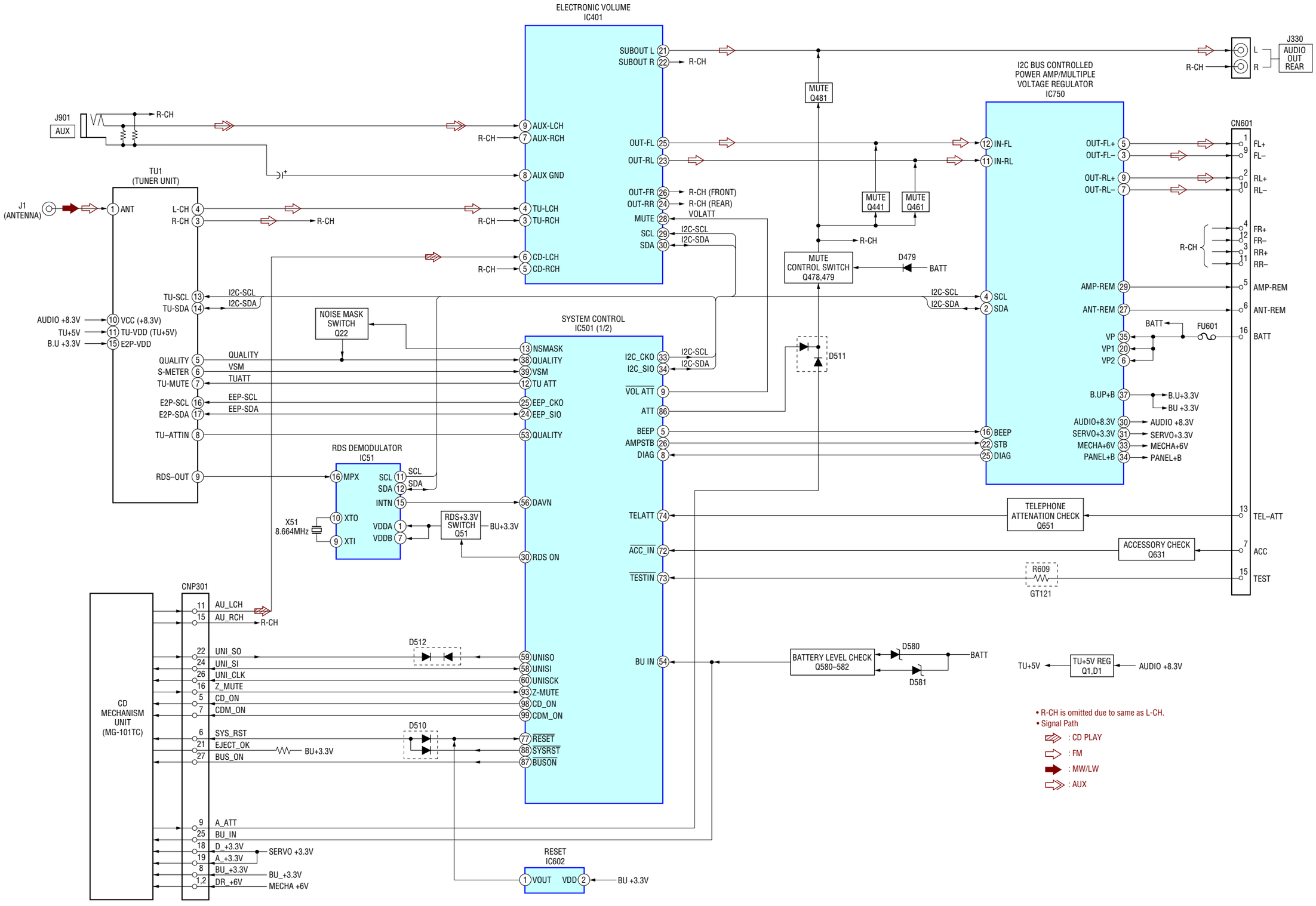
The display mode is switched by each rotation of [2] or [1] keys during the OFFSET/FAILURE error display mode.



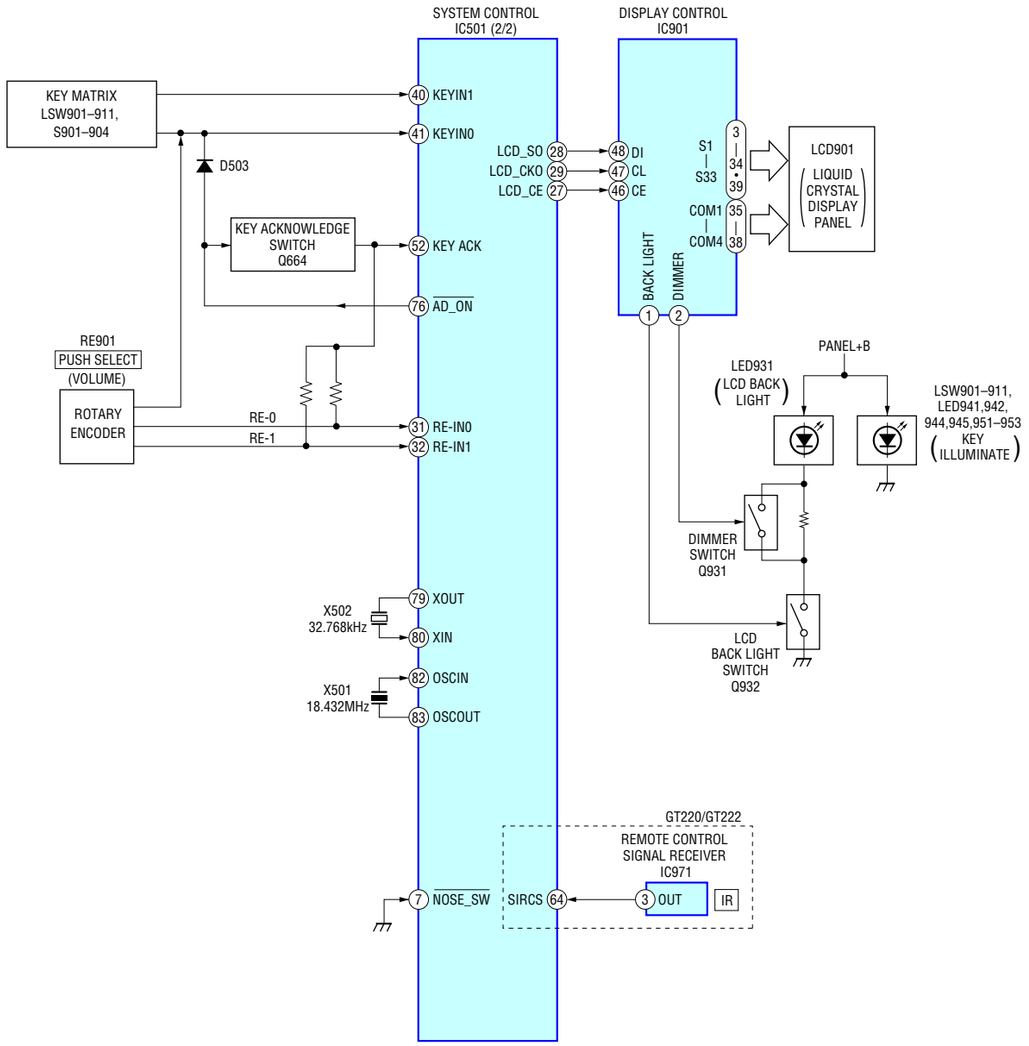
MEMO

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
  ( ) : 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
  ➡ : MW/LW
  ⇨ : AUX

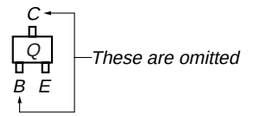
For printed wiring boards.

Note:

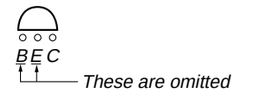
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ○ : Through hole.
- ▬ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

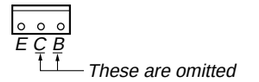
Caution:
Pattern face side: (Side B) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Side A) Parts on the parts face side seen from the parts face are indicated.



These are omitted



These are omitted



These are omitted

• Waveforms

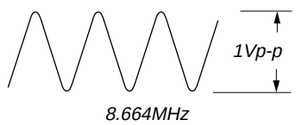
— MAIN Board —

① IC501 ⑲ (XOUT)



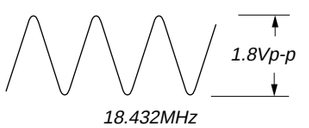
0.5 V/DIV, 20 µsec/DIV

③ IC51 ⑨ (XTI)



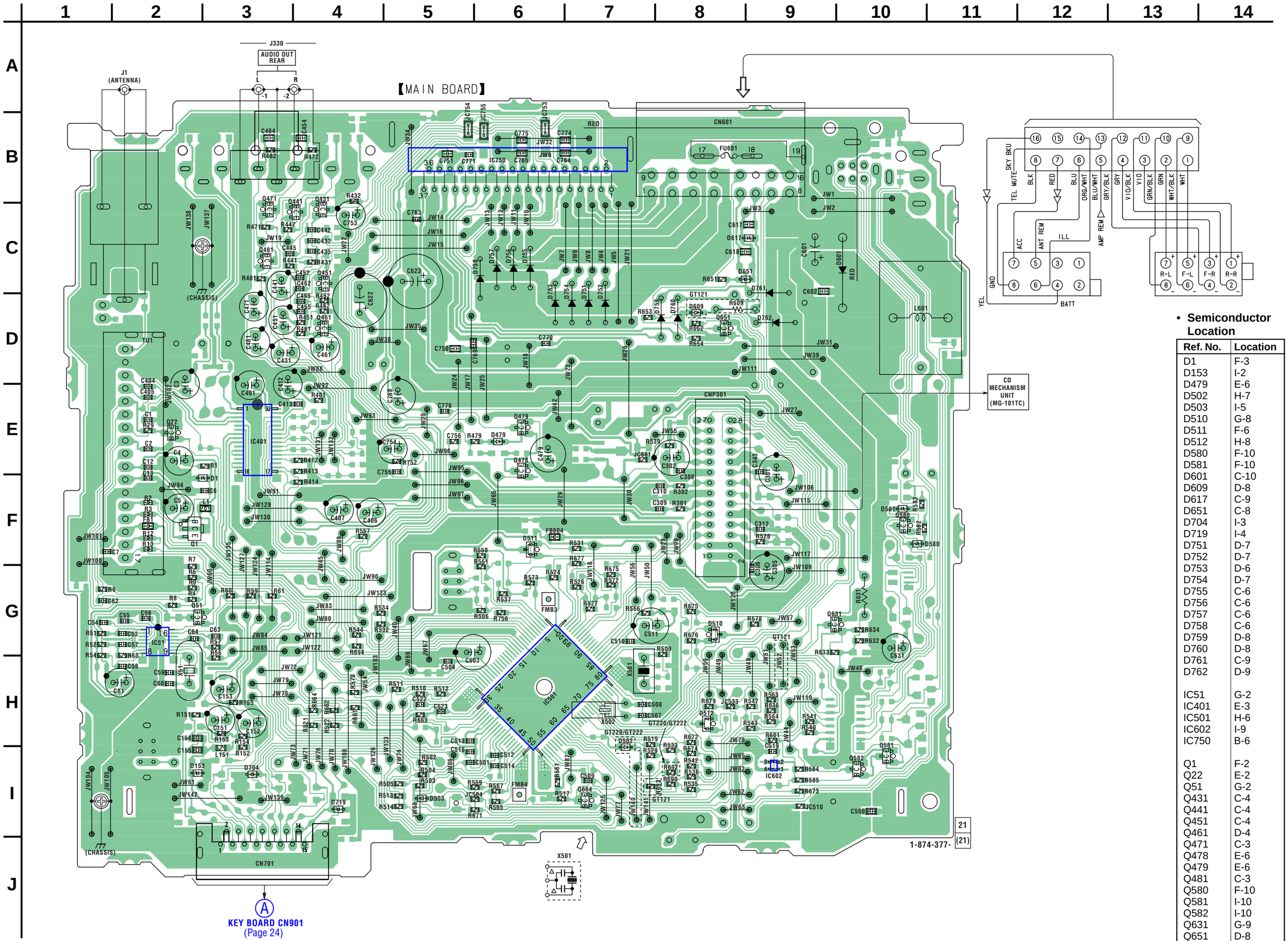
0.5 V/DIV, 0.1 µsec/DIV

② IC501 ㉓ (OSCOUT)



0.5 V/DIV, 20 nsec/DIV

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

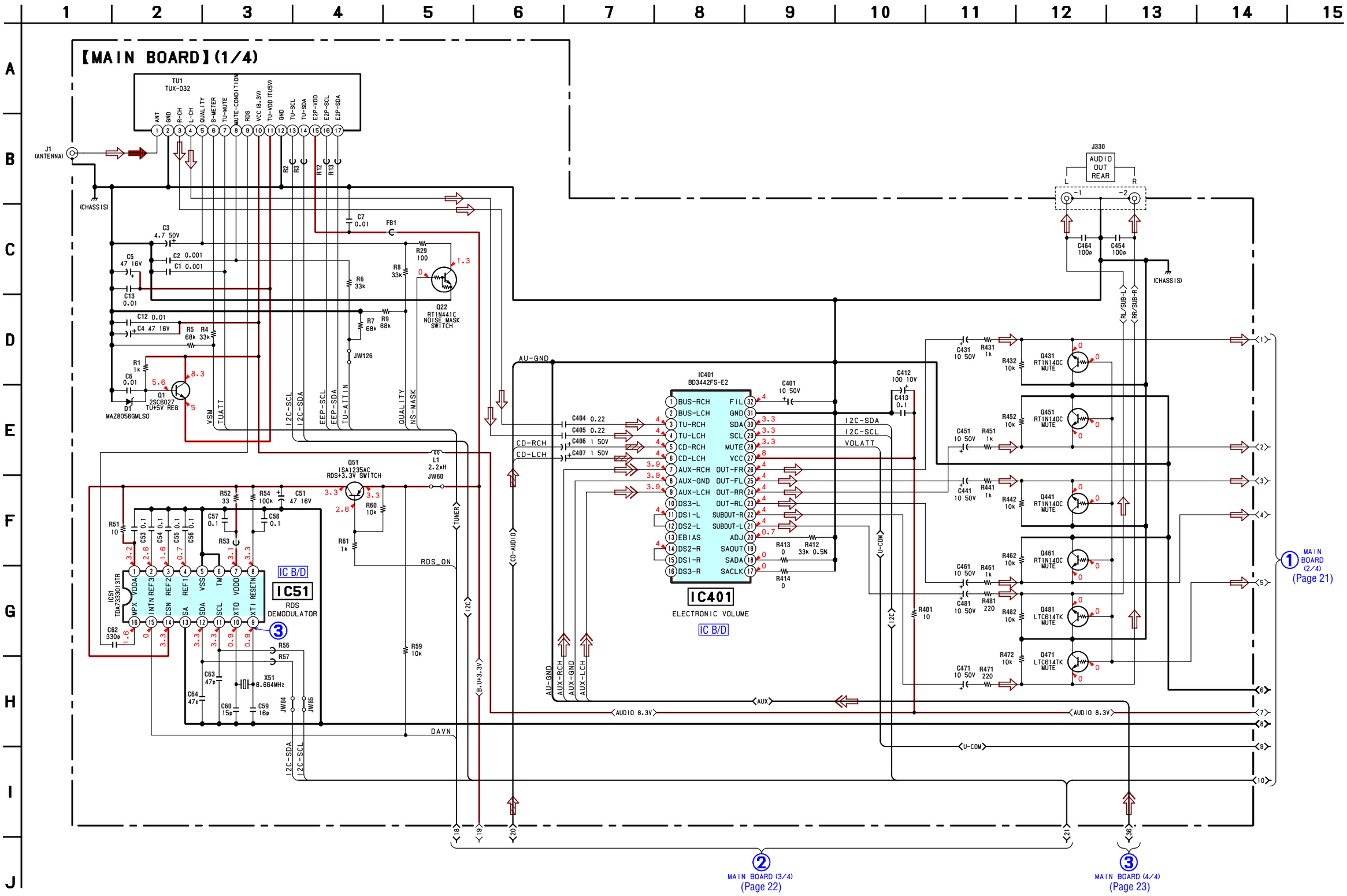


- **Semiconductor Location**

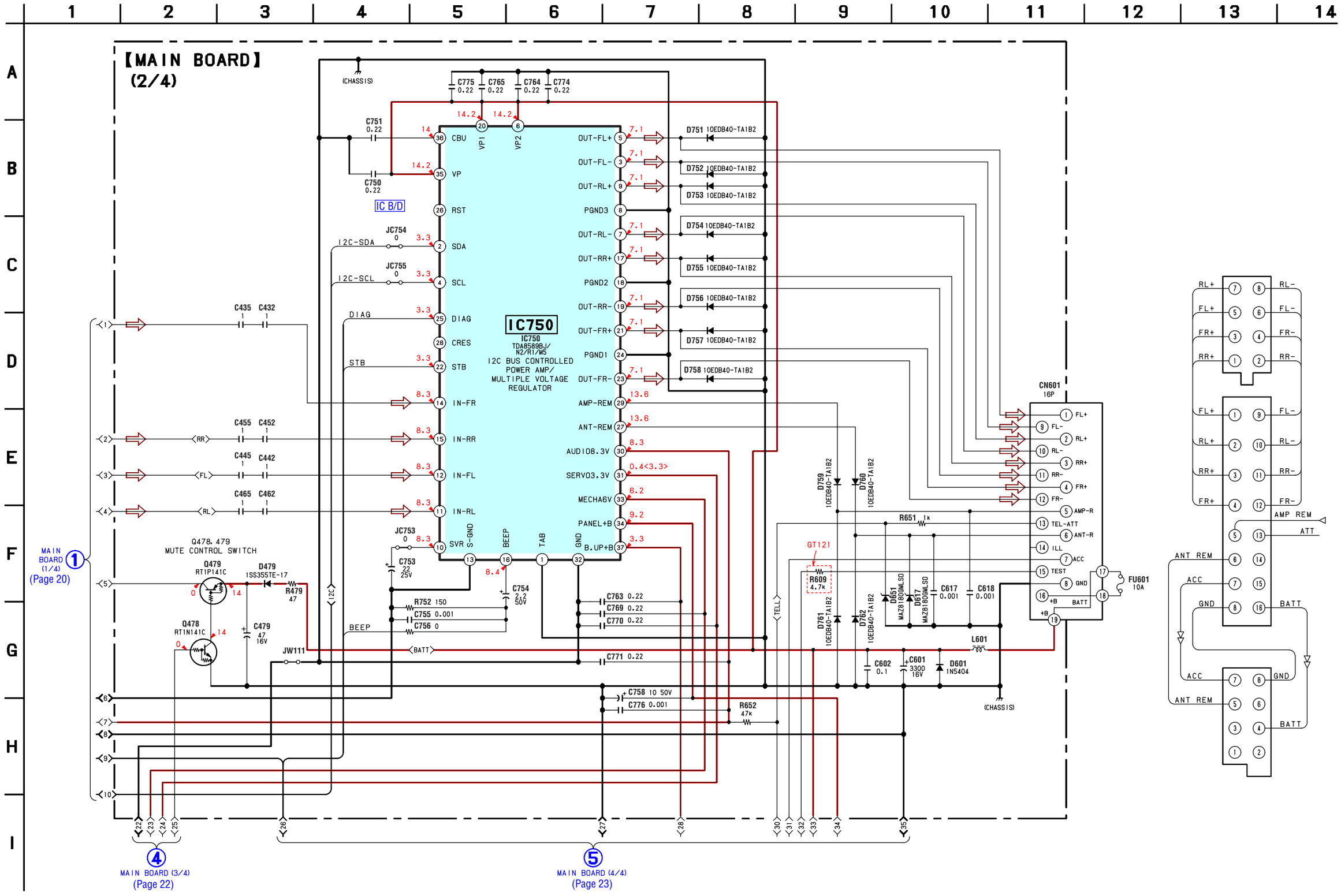
Ref. No.	Location
D1	F-3
D153	I-2
D479	E-6
D502	H-7
D503	I-5
D510	G-8
D511	F-6
D512	H-8
D580	F-10
D581	F-10
D601	C-10
D609	D-8
D617	C-9
D651	C-8
D704	I-3
D719	I-4
D751	D-7
D752	D-7
D753	D-6
D754	D-7
D755	C-6
D756	C-6
D757	C-6
D758	C-6
D759	D-8
D760	D-8
D761	C-9
D762	D-9
IC51	G-2
IC401	E-3
IC501	H-6
IC602	I-9
IC750	B-6
Q1	F-2
Q22	E-2
Q51	G-2
Q431	C-4
Q441	C-4
Q451	C-4
Q461	D-4
Q471	C-3
Q478	E-6
Q479	E-6
Q481	C-3
Q580	F-10
Q581	I-10
Q582	I-10
Q631	G-9
Q651	D-8
Q664	I-7

5-4. SCHEMATIC DIAGRAM — MAIN SECTION (1/4) —

- Refer to page 18 for Waveforms.
- Refer to page 26 for IC Block Diagrams.

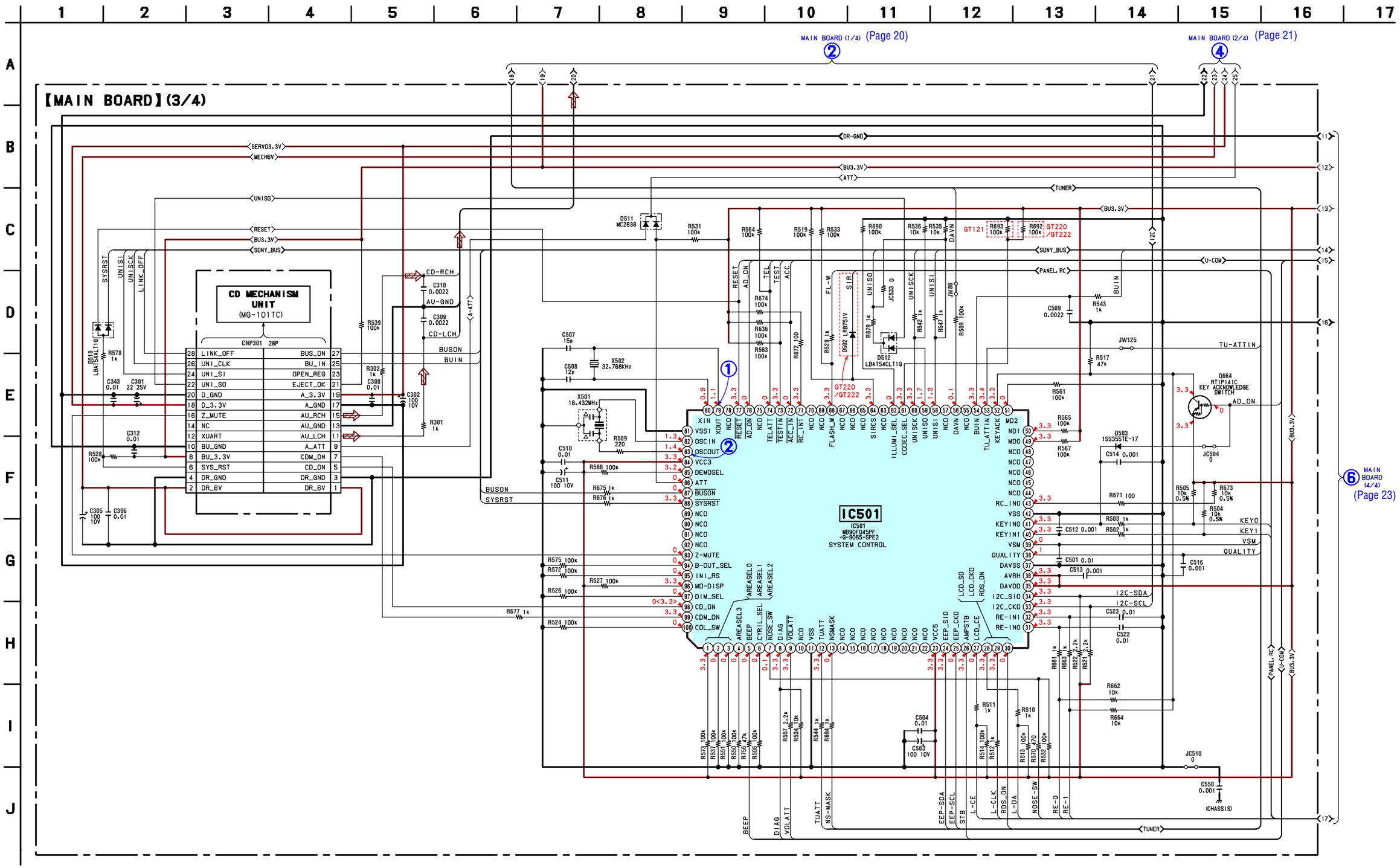


5-5. SCHEMATIC DIAGRAM — MAIN SECTION (2/4) — • Refer to page 26 for IC Block Diagrams.

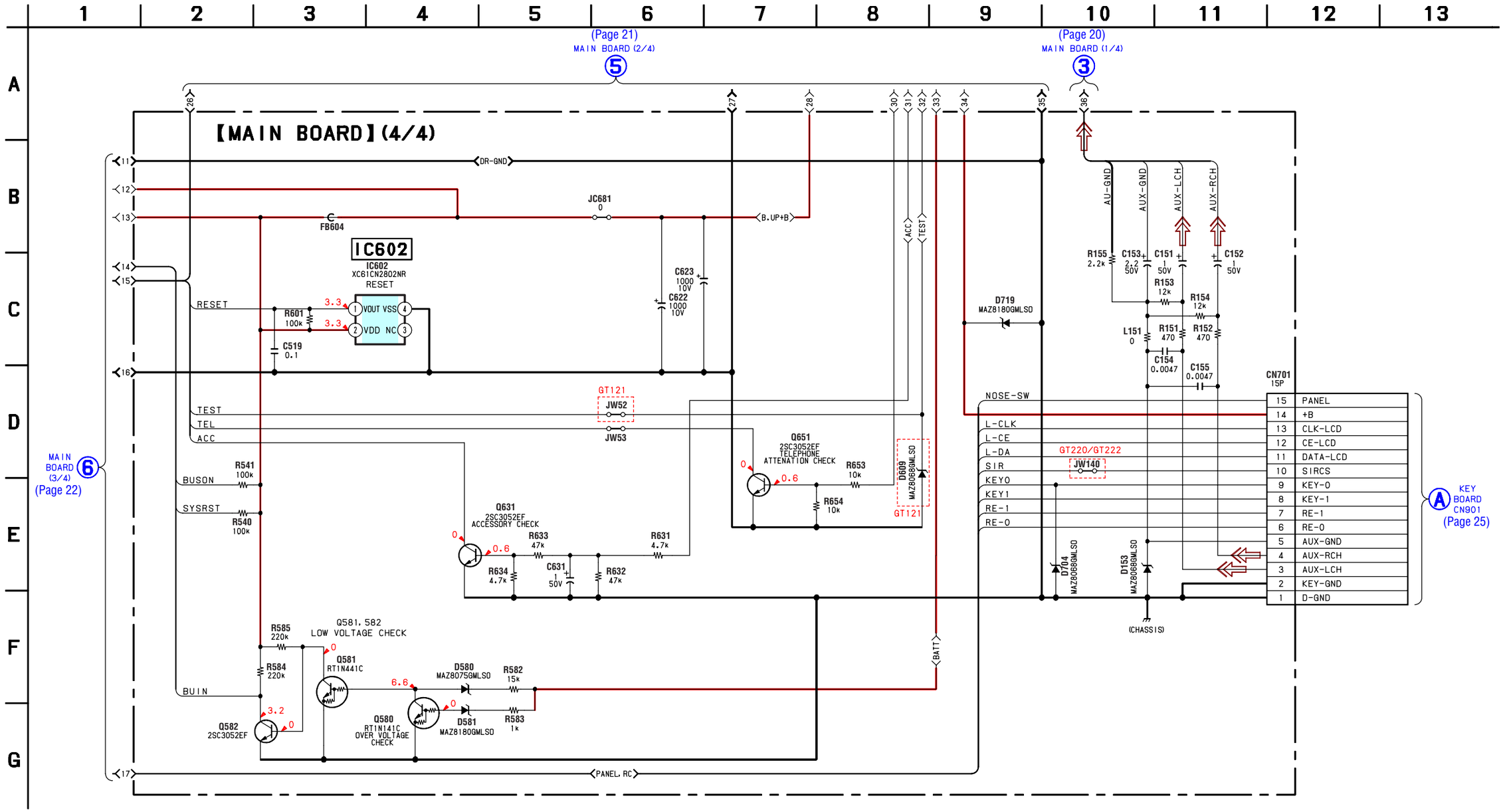


5-6. SCHEMATIC DIAGRAM — MAIN SECTION (3/4) —

- Refer to page 18 for Waveforms.
- Refer to page 27 for IC Pin Description of IC501.

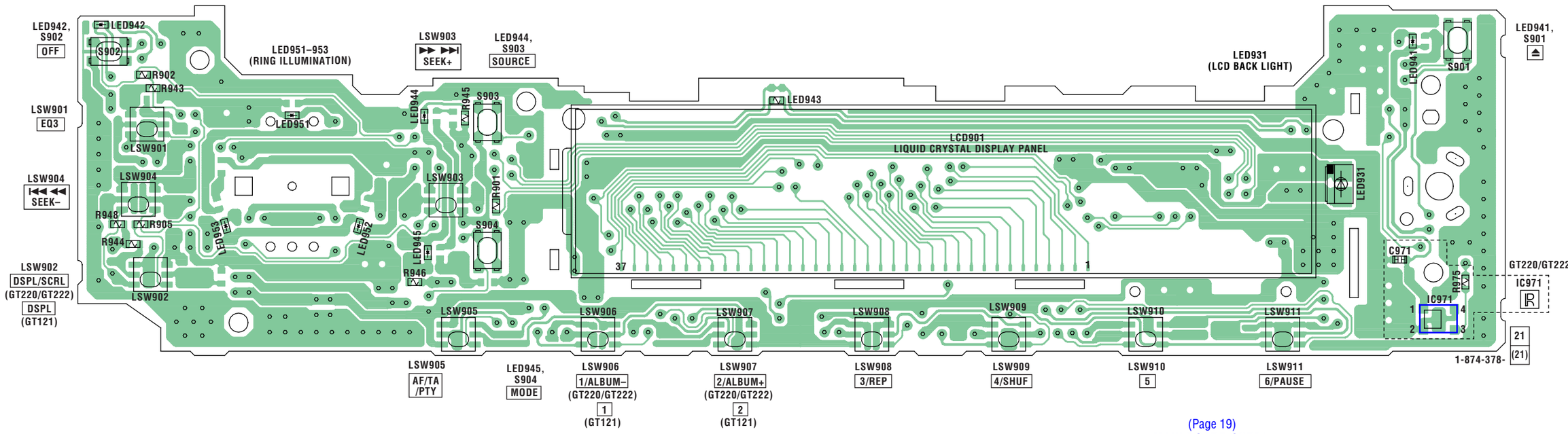


5-7. SCHEMATIC DIAGRAM — MAIN SECTION (4/4) —

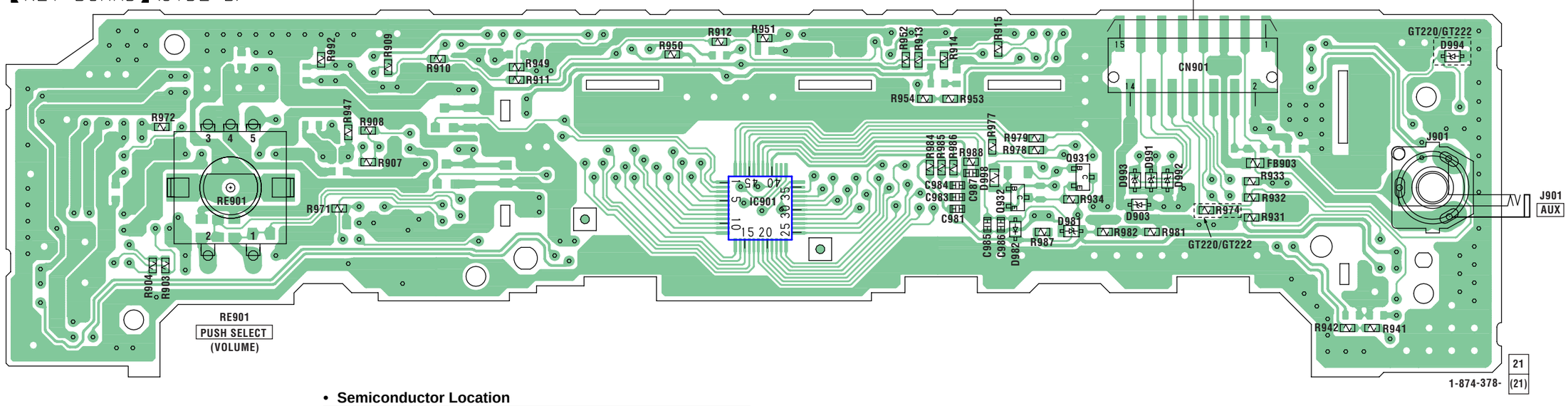


5-8. PRINTED WIRING BOARD — KEY SECTION — : Uses unleaded solder.

【KEY BOARD】(SIDE A)



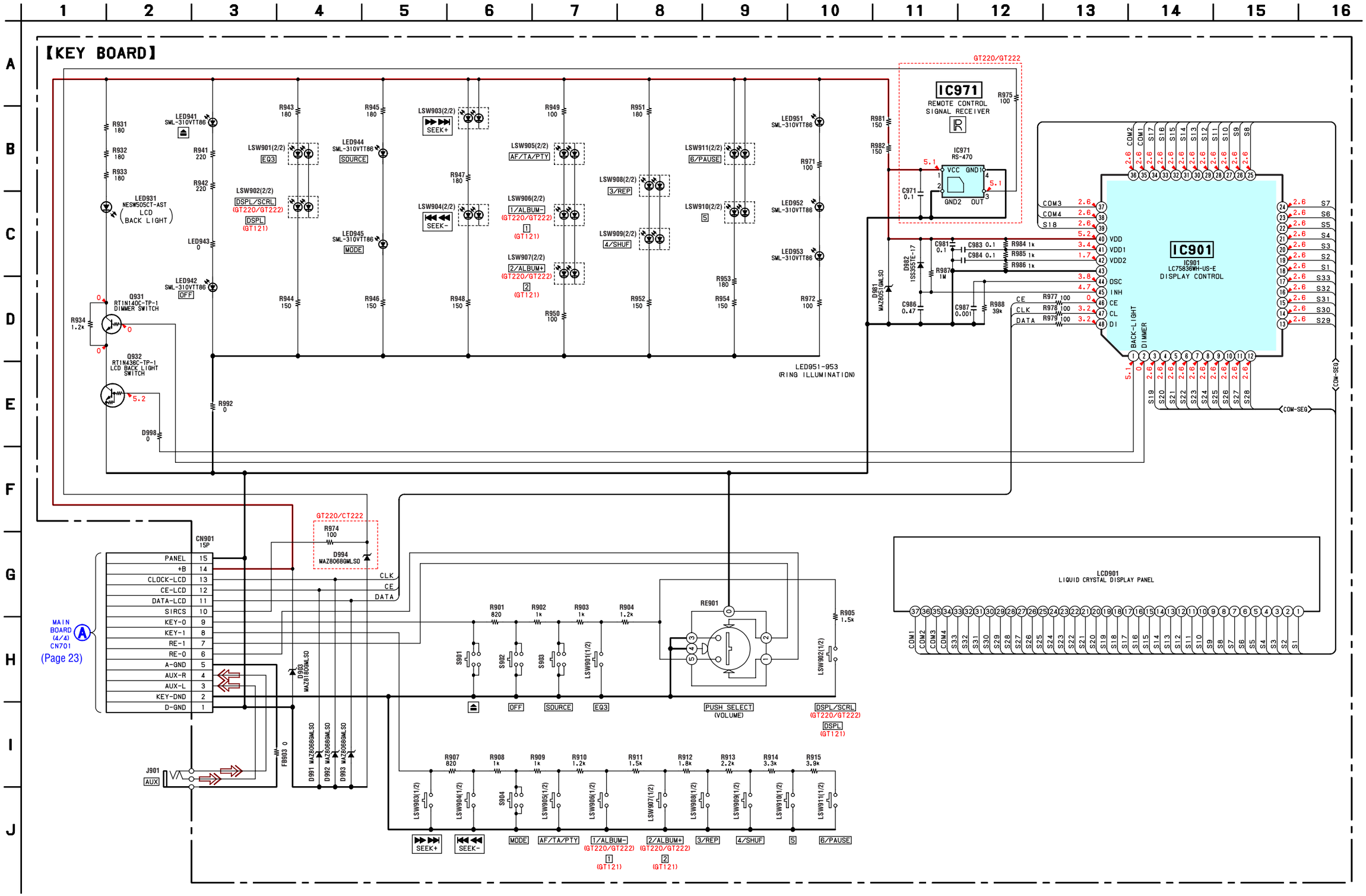
【KEY BOARD】(SIDE B)



- **Semiconductor Location**

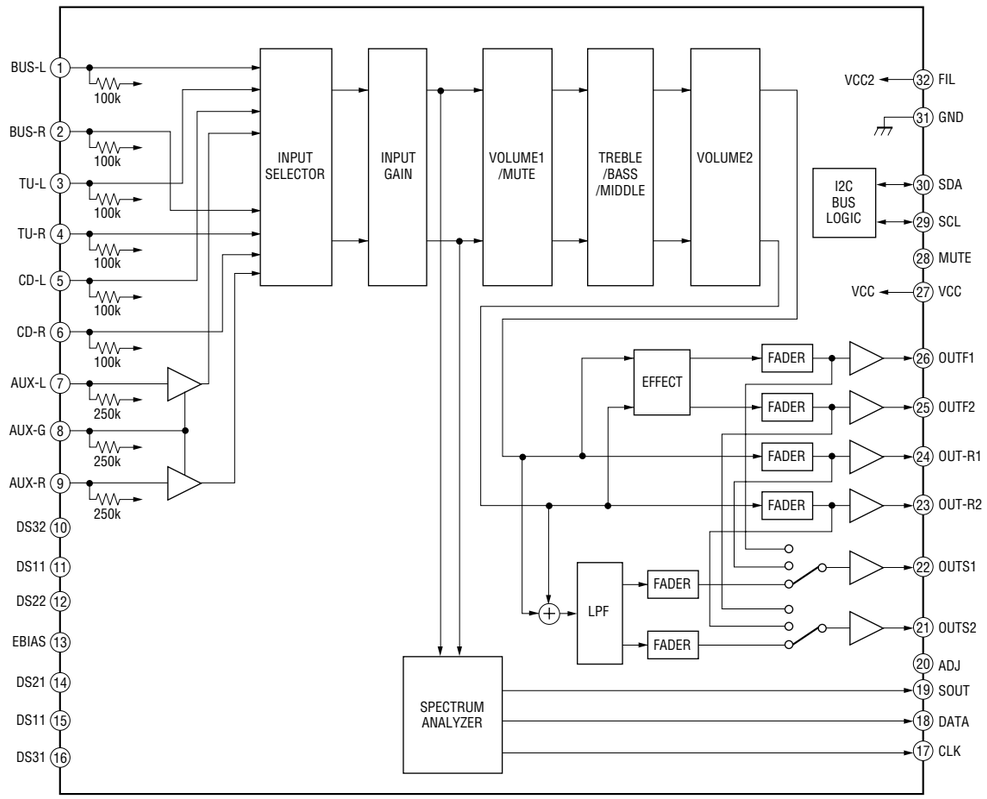
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D903	G-11	IC901	G-8	LED945	C-4
D981	H-10	IC971	D-14	LED951	B-3
D982	H-10			LED952	C-4
D991	G-11	LED931	C-13	LED953	C-3
D992	G-11	LED941	B-13		
D993	G-11	LED942	A-1	Q931	G-10
D994	F-14	LED944	B-4	Q932	G-10

5-9. SCHEMATIC DIAGRAM — KEY SECTION —

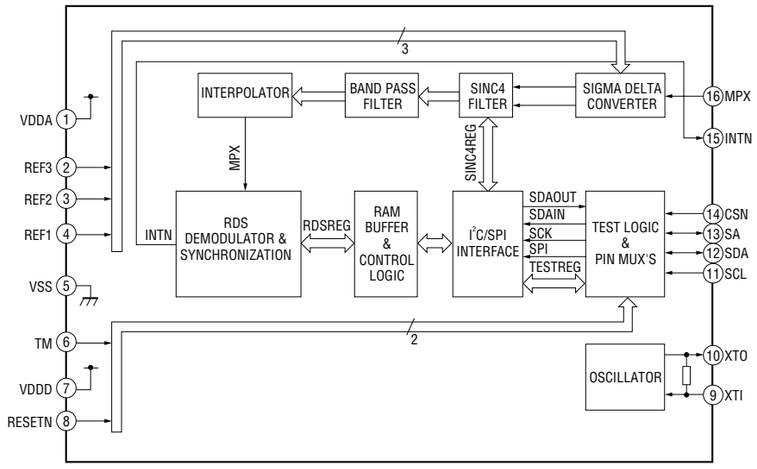


• **IC Block Diagrams**

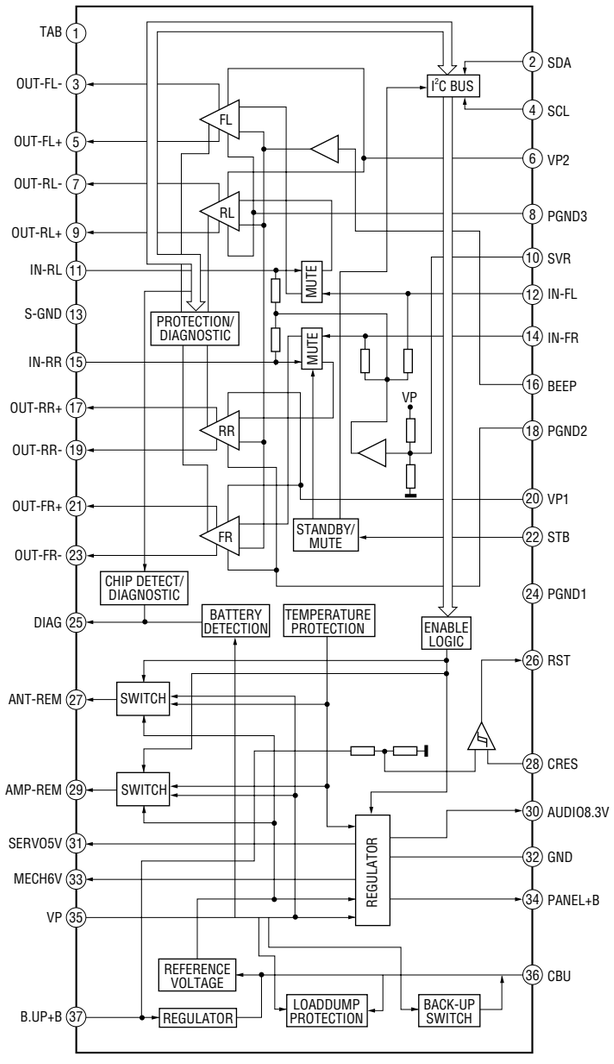
IC401 BD3442FS-E2 (MAIN Board (1/4))



IC51 TDA7333013TR (MAIN Board (1/4))



IC750 TDA8589BJ/N2/R1/M5 (MAIN Board (2/4))



• IC PIN DESCRIPTIONS

• IC501 MB90F045PF-G-9065-SPE2 (SYSTEM CONTROL) (MAIN BOARD (3/4))

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	AREASEL3	I	Destination function setting pin 3
5	BEEP	O	BEEP signal output to power amplifier
6	CYRIL_SEL	I	Cyril correspondence discrimination signal input "L": No correspondence
7	$\overline{\text{NOSE_SW}}$	I	Front panel attachment detect signal input "L": Panel on, "H": Panel off
8	DIAG	I	Status signal input from power amplifier
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 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	AMPSTB	O	Stand-by signal output to power requlation
27	LCD_CE	O	Chip enable signal output to LCD driver
28	LCD_SO	O	Serial data signal output to LCD driver
29	LCD_CKO	O	Serial clock signal output to LCD driver
30	RDS ON	O	RDS (radio data system) ON signal output
31	RE-IN0	I	Rotary encoder signal input 0
32	RE-IN1	I	Rotary encoder signal input 1
33	I2C_CKO	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 to 48	NCO	O	Not used. (Open)
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
54	BUIN	I	Back-up power supply detect signal input
55	NCO	O	Not used. (Open)
56	DAVN	I	RDS data block synchronized detect signal input
57	NCO	O	Not used. (Open)
58	UNISI	I	S-BUS data signal input
59	UNISO	O	S-BUS data signal output
60	UNISCK	O	S-BUS clock signal output

Pin No.	Pin Name	I/O	Pin Description
61	CODEC_SEL	I	MP3 select signal input "H": MP3, "L": Non-MP3
62	ILLUMI SEL	I	Illumination voltage setting signal input "H": 10.4 V, "L": 9.0 V
63	NCO	O	Not used. (Open)
64	SIRCS	I	Remote control signal input
65 to 67	NCO	O	Not used. (Open)
68	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
69, 70	NCO	O	Not used. (Open)
71	$\overline{\text{RC_IN1}}$	I	Rotary commander shift key signal input Not used in this set. (Pull up)
72	$\overline{\text{ACC_IN}}$	I	Accessory power supply detect signal input
73	$\overline{\text{TESTIN}}$	I	Test mode detect signal input
74	TELATT	I	Telephone attenuate detect signal input
75	NCO	O	Not used. (Open)
76	$\overline{\text{AD_ON}}$	O	A/D converter power supply control signal output
77	$\overline{\text{RESET}}$	I	System reset signal input
78	NCO	O	Not used. (Open)
79	XOUT	O	Low speed operation clock signal output (32.768 kHz)
80	XIN	I	Low speed operation clock signal input (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	DEMOSEL	I	DEMO select signal input "H": DEMO on, "L": DEMO off
86	ATT	O	Audio mute control signal output
87	$\overline{\text{BUSON}}$	O	BUS ON signal output
88	$\overline{\text{SYSRST}}$	O	System reset signal output
89 to 92	NCO	O	Not used. (Open)
93	Z-MUTE	I	CD zero cross mute detect signal input
94	B OUT SEL	I	Black out with/without discrimination select signal input "H": Black out
95	INI RS	I	REAR/SUB INITIAL setting signal input "H": REAR INITIAL, "L": SUB INITIAL
96	MO-DISP	I	Motion display signal input "H": Motion display on, "L": Motion display off
97	DIM_SEL	I	Dimmer select signal input "H": Dimmer, "L": No dimmer Not used in this set. (Pull down)
98	CD_ON	I	CD mechanism servo power supply control request signal input
99	CDM_ON	I	CD mechanism deck power supply control request signal input
100	COL_SW	I	Illumination color select signal input Not used in this set. (Pull down) "H": Two colors selection/initial slave, amber, "L": Color/slave, amber

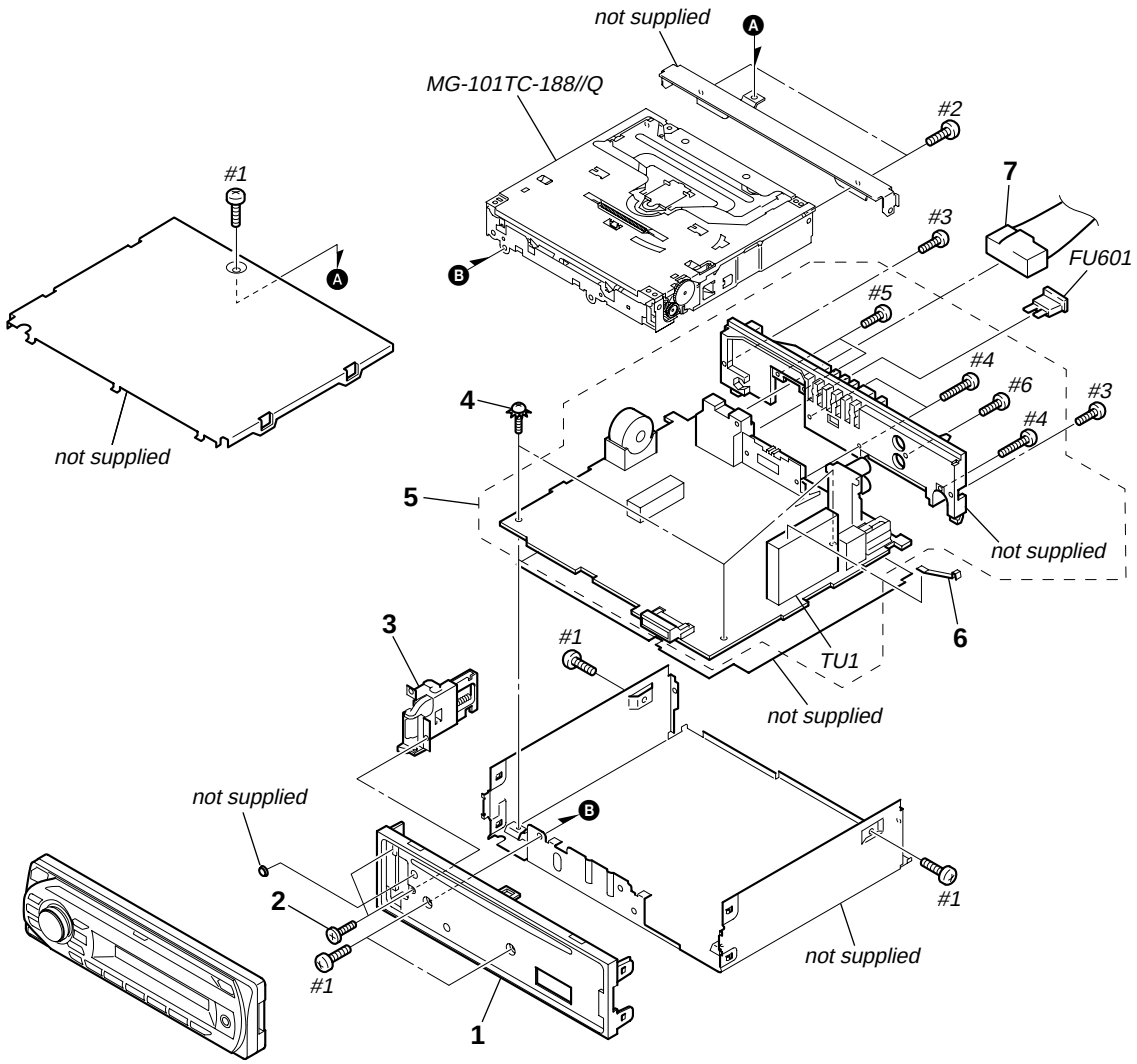
SECTION 6
EXPLODED VIEWS

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.

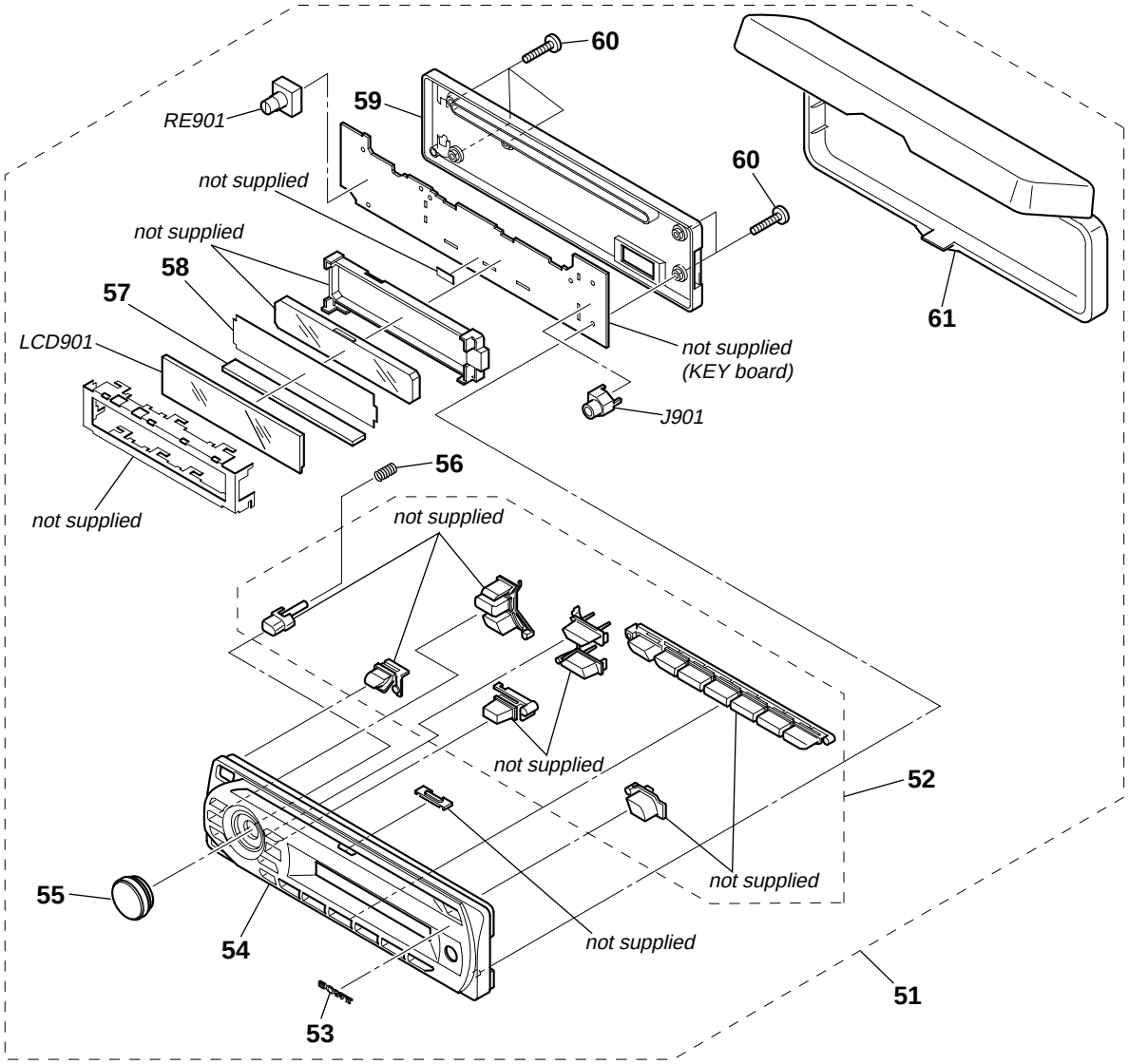
6-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
1	X-2186-975-1	PANEL ASSY, SUB	
2	3-042-244-11	SCREW (T)	
3	X-2108-670-1	LOCK ASSY (S)	
4	3-376-464-11	SCREW (+PTT 2.6X6), GROUND POINT	
5	A-1313-874-A	MAIN BOARD, COMPLETE (GT220/GT222)	
5	A-1313-999-A	MAIN BOARD, COMPLETE (GT121)	
6	2-021-848-01	SHEET (TU), GROUND	
7	1-831-838-11	CORD (WITH CONNECTOR) (ISO) (POWER)	

Ref. No.	Part No.	Description	Remark
FU601	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	

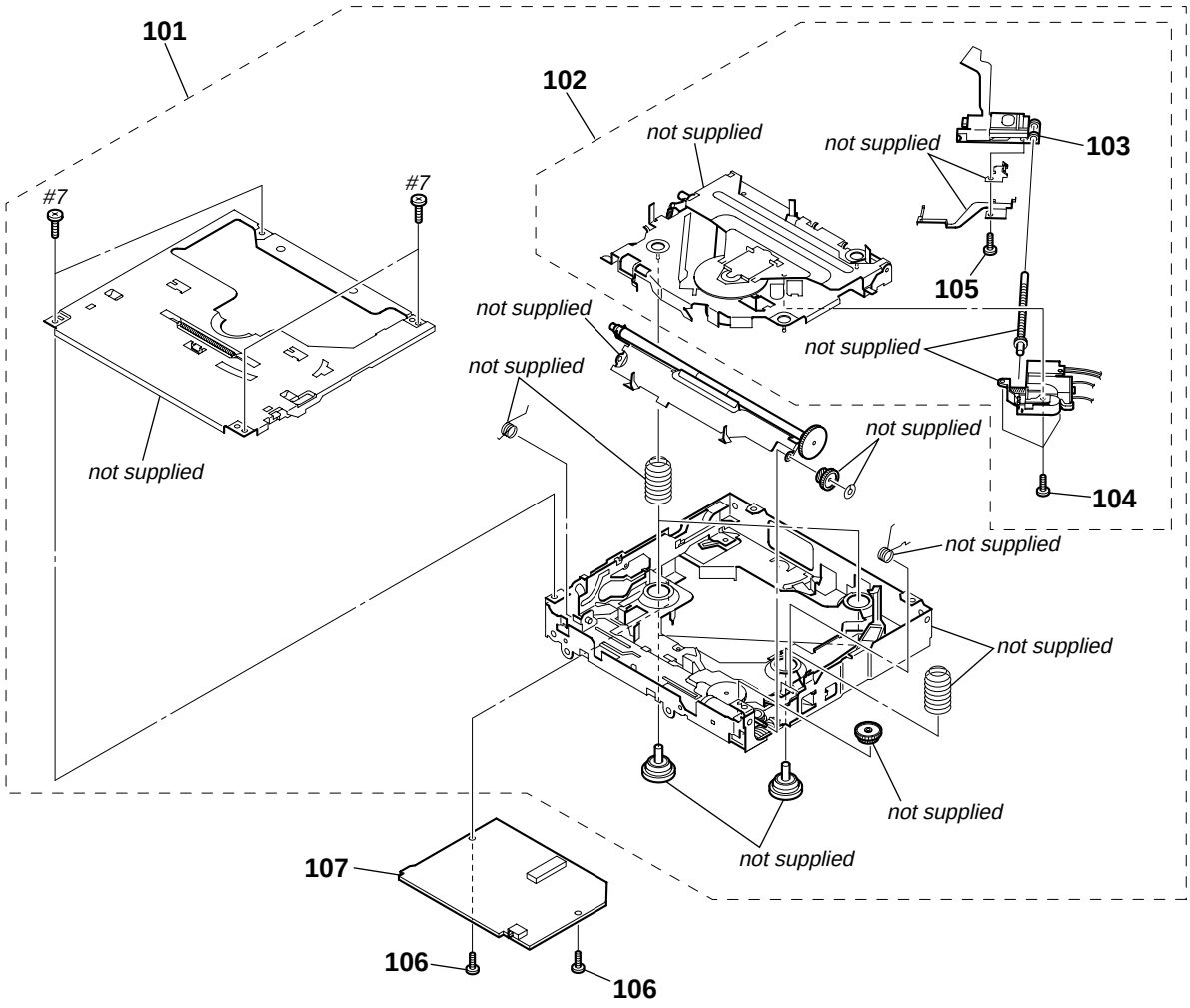
6-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	A-1313-876-A	PANEL COMPLETE ASSY, FRONT (GT220)	
51	A-1313-970-A	PANEL COMPLETE ASSY, FRONT (GT222)	
51	A-1314-001-A	PANEL COMPLETE ASSY, FRONT (GT121)	
52	X-2179-451-1	BUTTON ASSY (S)	
53	3-251-320-01	EMBLEM (NO. 2.5), SONY	
54	X-2179-388-1	PANEL SUB ASSY, FRONT (GT121)	
54	X-2179-389-1	PANEL SUB ASSY, FRONT (GT220)	
54	X-2179-465-1	PANEL SUB ASSY, FRONT (GT222)	
55	X-2179-452-1	KNOB (VOL) (SV) ASSY (GT220/GT222)	
55	X-2186-464-1	KNOB (VOL) (SV) ASSY (GT121)	

Ref. No.	Part No.	Description	Remark
56	2-639-881-01	SPRING (RELEASE)	
57	1-780-533-21	CONDUCTIVE BOARD, CONNECTION	
58	3-214-259-11	ILLUMINATOR (LCD)	
59	3-214-246-01	PANEL, BACK	
60	3-250-543-21	SCREW (+B P-TITE M2)	
61	X-2149-228-2	CASE ASSY (for FRONT PANEL)	(GT220/GT222)
J901	1-820-624-11	SMALL TYPE JACK (VERTICAL) (AUX)	
LCD901	1-802-511-11	DISPLAY PANEL, LIQUID CRYSTAL	
RE901	1-479-902-21	ENCODER, ROTARY (PUSH SELECT/VOLUME)	

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



Ref. No.	Part No.	Description	Remark
101	A-1289-450-A	MECHANICAL BLOCK ASSY (08)	
102	A-1284-705-A	DAXEV08//Q	
⚠103	X-2149-672-1	SERVICE ASSY, OP (DAX-25A)	
104	2-626-869-01	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-1177-201-A	SERVO BOARD, COMPLETE	
#7	7-627-000-08	SCREW, PRECISION +P 1.7X2.2 TYPE 3	

KEY

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

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

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

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

Ref. No.	Part No.	Description			Remark
		KEY BOARD			
		**********			
	1-780-533-21	CONDUCTIVE BOARD, CONNECTION			
	3-214-259-11	ILLUMINATOR (LCD)			
		< CAPACITOR >			
C971	1-107-826-11	CERAMIC CHIP	0.1uF	10% 16V	(GT220/GT222)
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	
C987	1-162-964-11	CERAMIC CHIP	0.001uF	10% 50V	
		< 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	8-719-988-61	DIODE 1SS355TE-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			(GT220/GT222)
D998	1-216-295-11	SHORT CHIP	0		
		< JUMPER RESISTOR >			
FB903	1-216-295-11	SHORT CHIP	0		
		< IC >			
IC901	6-710-047-01	IC LC75836WH-US-E			
IC971	6-600-629-01	IC RS-470 (IR) (GT220/GT222)			
		< JACK >			
J901	1-820-624-11	SMALL TYPE JACK (VERTICAL) (AUX)			
		< LIQUID CRYSTAL DISPLAY >			
LCD901	1-802-511-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< 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)			(GT121)
LSW902	1-786-805-12	SWITCH, TACTILE (WITH LED) (DSPL/SCRL)			(GT220/GT222)
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) (AF/TA/PTY)			
LSW906	1-786-805-12	SWITCH, TACTILE (WITH LED) (1) (GT121)			
LSW906	1-786-805-12	SWITCH, TACTILE (WITH LED) (1/ALBUM–)			(GT220/GT222)
LSW907	1-786-805-12	SWITCH, TACTILE (WITH LED) (2) (GT121)			
LSW907	1-786-805-12	SWITCH, TACTILE (WITH LED) (2/ALBUM+)			(GT220/GT222)
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	

Ref. No.	Part No.	Description			Remark
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 (GT220/GT222)
R975	1-216-809-11	METAL CHIP	100	5%	1/10W (GT220/GT222)
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
R988	1-216-840-11	METAL CHIP	39K	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)			

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Ref. No.	Part No.	Description			Remark
	A-1313-874-A	MAIN BOARD, COMPLETE (GT220/GT222)			
	A-1313-999-A	MAIN BOARD, COMPLETE (GT121)			
		**********			
	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	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C2	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C3	1-126-963-11	ELECT	4.7uF	20%	50V
C4	1-126-947-11	ELECT	47uF	20%	35V
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
C12	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C13	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C51	1-126-947-11	ELECT	47uF	20%	35V
C53	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C54	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C55	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C56	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C57	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C58	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C59	1-164-237-11	CERAMIC CHIP	16PF	5%	50V
C60	1-162-917-11	CERAMIC CHIP	15PF	5%	50V
C62	1-162-959-11	CERAMIC CHIP	330PF	5%	50V
C63	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C64	1-162-923-11	CERAMIC CHIP	47PF	5%	50V
C151	1-126-960-11	ELECT	1uF	20%	50V
C152	1-126-960-11	ELECT	1uF	20%	50V
C153	1-126-961-11	ELECT	2.2uF	20%	50V
C154	1-163-017-00	CERAMIC CHIP	0.0047uF	10%	50V
C155	1-163-017-00	CERAMIC CHIP	0.0047uF	10%	50V
C301	1-124-248-00	ELECT	22uF	20%	25V
C302	1-124-584-00	ELECT	100uF	20%	10V
C305	1-124-584-00	ELECT	100uF	20%	10V
C306	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C308	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C309	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C310	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C312	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C343	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C401	1-126-964-11	ELECT	10uF	20%	50V
C404	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C405	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C406	1-126-160-11	ELECT	1uF	20%	50V
C407	1-126-160-11	ELECT	1uF	20%	50V
C412	1-104-665-11	ELECT	100uF	20%	25V
C413	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C431	1-126-964-11	ELECT	10uF	20%	50V
C432	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C435	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C441	1-126-964-11	ELECT	10uF	20%	50V
C442	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C445	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C451	1-126-964-11	ELECT	10uF	20%	50V
C452	1-165-908-11	CERAMIC CHIP	1uF	10%	10V

MAIN

Ref. No.	Part No.	Description			Remark
C454	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C455	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C461	1-126-964-11	ELECT	10uF	20%	50V
C462	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C464	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C465	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
C471	1-126-964-11	ELECT	10uF	20%	50V
C479	1-124-589-11	ELECT	47uF	20%	16V
C481	1-126-964-11	ELECT	10uF	20%	50V
C501	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C503	1-124-584-00	ELECT	100uF	20%	10V
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	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C510	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C511	1-124-584-00	ELECT	100uF	20%	10V
C512	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C513	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C514	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C516	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C519	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C522	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C523	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C550	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C601	1-112-302-11	ELECT	3300uF	20%	16V
C602	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C617	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C618	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C622	1-126-926-11	ELECT	1000uF	20%	10V
C623	1-126-926-11	ELECT	1000uF	20%	10V
C631	1-126-160-11	ELECT	1uF	20%	50V
C750	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C751	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C753	1-128-551-11	ELECT	22uF	20%	63V
C754	1-124-257-00	ELECT	2.2uF	20%	50V
C755	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C756	1-216-864-11	SHORT CHIP	0		
C758	1-124-261-00	ELECT	10uF	20%	50V
C763	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C764	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C765	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C769	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C770	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C771	1-127-715-11	CERAMIC CHIP	0.22uF	10%	16V
C774	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C775	1-115-340-11	CERAMIC CHIP	0.22uF	10%	25V
C776	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		< CONNECTOR >			
CN601	1-774-701-21	PIN, CONNECTOR 16P			
CN701	1-819-773-13	SOCKET, CONNECTOR 15P			
CNP301	1-820-611-11	CONNECTOR, BOARD TO BOARD 28P			
		< DIODE >			
D1	6-501-734-01	DIODE	MAZ8056GMLS0		
D153	6-501-743-01	DIODE	MAZ8068GMLS0		
D479	8-719-988-61	DIODE	1SS355TE-17		

Ref. No.	Part No.	Description	Remark
D502	6-502-131-01	DIODE LRB751V-40T1G (GT220/GT222)	
D503	8-719-988-61	DIODE 1SS355TE-17	
D510	6-501-656-01	DIODE LBAT54ALT1G	
D511	6-500-335-01	DIODE MC2838-T112-1	
D512	6-501-654-01	DIODE LBAT54CLT1G	
D580	6-501-747-01	DIODE MAZ8075GMLS0	
D581	6-501-782-01	DIODE MAZ8180GMLS0	
D601	6-501-571-01	DIODE 1N5404-C311-3	
D609	6-501-743-01	DIODE MAZ8068GMLS0 (GT121)	
D617	6-501-782-01	DIODE MAZ8180GMLS0	
D651	6-501-782-01	DIODE MAZ8180GMLS0	
D704	6-501-743-01	DIODE MAZ8068GMLS0	
D719	6-501-782-01	DIODE MAZ8180GMLS0	
D751	6-500-522-01	DIODE 10EDB40-TA1B2	
D752	6-500-522-01	DIODE 10EDB40-TA1B2	
D753	6-500-522-01	DIODE 10EDB40-TA1B2	
D754	6-500-522-01	DIODE 10EDB40-TA1B2	
D755	6-500-522-01	DIODE 10EDB40-TA1B2	
D756	6-500-522-01	DIODE 10EDB40-TA1B2	
D757	6-500-522-01	DIODE 10EDB40-TA1B2	
D758	6-500-522-01	DIODE 10EDB40-TA1B2	
D759	6-500-522-01	DIODE 10EDB40-TA1B2	
D760	6-500-522-01	DIODE 10EDB40-TA1B2	
D761	6-500-522-01	DIODE 10EDB40-TA1B2	
D762	6-500-522-01	DIODE 10EDB40-TA1B2	
		< FERRITE BEAD >	
FB1	1-500-245-11	INDUCTOR, FERRITE BEAD	
FB604	1-500-245-11	INDUCTOR, FERRITE BEAD	
		< IC >	
IC51	6-803-747-01	IC TDA7333013TR	
IC401	6-710-065-01	IC BD3442FS-E2	
IC501	6-807-750-01	IC MB90F045PF-G-9065-SPE1	
IC602	6-709-458-01	IC XC61CN2802NR	
IC750	6-705-363-11	IC TDA8589BJ/N2/R1/M5	
		< JACK >	
J1	1-815-185-13	JACK (ANTENNA)	
J330	1-774-698-11	JACK, PIN 2P (AUDIO OUT REAR)	
		< JUMPER RESISTOR >	
JC504	1-216-864-11	SHORT CHIP 0	
JC510	1-216-864-11	SHORT CHIP 0	
JC533	1-216-864-11	SHORT CHIP 0	
JC681	1-216-864-11	SHORT CHIP 0	
JC753	1-216-296-11	SHORT CHIP 0	
JC754	1-216-296-11	SHORT CHIP 0	
JC755	1-216-296-11	SHORT CHIP 0	
		< COIL >	
L1	1-469-844-11	INDUCTOR 2.2uH	
L151	1-216-295-11	SHORT CHIP 0	
L601	1-456-617-11	COIL, CHOKE	
		< TRANSISTOR >	
Q1	6-551-431-01	TRANSISTOR 2SC6027T100-QR	
Q22	8-729-038-28	TRANSISTOR RT1N441C-TP-1	

Ref. No.	Part No.	Description			Remark
Q51	6-551-696-01	TRANSISTOR	ISA1235AC1TP-1EF		
Q431	8-729-027-44	TRANSISTOR	DTC114TKA-T146		
Q441	8-729-027-44	TRANSISTOR	DTC114TKA-T146		
Q451	8-729-027-44	TRANSISTOR	DTC114TKA-T146		
Q461	8-729-027-44	TRANSISTOR	DTC114TKA-T146		
Q471	6-551-856-01	TRANSISTOR	LTC614TKFP8T146		
Q478	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q479	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q481	6-551-856-01	TRANSISTOR	LTC614TKFP8T146		
Q580	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q581	8-729-038-28	TRANSISTOR	RT1N441C-TP-1		
Q582	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q631	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q651	8-729-620-07	TRANSISTOR	2SC3052EF-T1-LEF		
Q664	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
		< RESISTOR >			
R1	1-216-821-11	METAL CHIP	1K	5%	1/10W
R2	1-414-595-11	INDUCTOR, FERRITE BEAD			
R3	1-414-595-11	INDUCTOR, FERRITE BEAD			
R4	1-216-839-11	METAL CHIP	33K	5%	1/10W
R5	1-216-843-11	METAL CHIP	68K	5%	1/10W
R6	1-216-839-11	METAL CHIP	33K	5%	1/10W
R7	1-216-843-11	METAL CHIP	68K	5%	1/10W
R8	1-216-839-11	METAL CHIP	33K	5%	1/10W
R9	1-216-843-11	METAL CHIP	68K	5%	1/10W
R12	1-414-595-11	INDUCTOR, FERRITE BEAD			
R13	1-414-595-11	INDUCTOR, FERRITE BEAD			
R29	1-216-809-11	METAL CHIP	100	5%	1/10W
R51	1-216-797-11	METAL CHIP	10	5%	1/10W
R52	1-216-803-11	METAL CHIP	33	5%	1/10W
R53	1-414-595-11	INDUCTOR, FERRITE BEAD			
R54	1-216-845-11	METAL CHIP	100K	5%	1/10W
R56	1-414-595-11	INDUCTOR, FERRITE BEAD			
R57	1-414-595-11	INDUCTOR, FERRITE BEAD			
R59	1-216-833-11	METAL CHIP	10K	5%	1/10W
R60	1-216-833-11	METAL CHIP	10K	5%	1/10W
R61	1-216-821-11	METAL CHIP	1K	5%	1/10W
R151	1-216-817-11	METAL CHIP	470	5%	1/10W
R152	1-216-817-11	METAL CHIP	470	5%	1/10W
R153	1-216-834-11	METAL CHIP	12K	5%	1/10W
R154	1-216-834-11	METAL CHIP	12K	5%	1/10W
R155	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R301	1-216-821-11	METAL CHIP	1K	5%	1/10W
R302	1-216-821-11	METAL CHIP	1K	5%	1/10W
R401	1-216-797-11	METAL CHIP	10	5%	1/10W
R412	1-218-883-11	METAL CHIP	33K	0.5%	1/10W
R413	1-216-864-11	SHORT CHIP	0		
R414	1-216-864-11	SHORT CHIP	0		
R431	1-216-821-11	METAL CHIP	1K	5%	1/10W
R432	1-216-833-11	METAL CHIP	10K	5%	1/10W
R441	1-216-821-11	METAL CHIP	1K	5%	1/10W
R442	1-216-833-11	METAL CHIP	10K	5%	1/10W
R451	1-216-821-11	METAL CHIP	1K	5%	1/10W
R452	1-216-833-11	METAL CHIP	10K	5%	1/10W
R461	1-216-821-11	METAL CHIP	1K	5%	1/10W
R462	1-216-833-11	METAL CHIP	10K	5%	1/10W
R471	1-216-813-11	METAL CHIP	220	5%	1/10W

Ref. No.	Part No.	Description			Remark
R472	1-216-833-11	METAL CHIP	10K	5%	1/10W
R479	1-216-805-11	METAL CHIP	47	5%	1/10W
R481	1-216-813-11	METAL CHIP	220	5%	1/10W
R482	1-216-833-11	METAL CHIP	10K	5%	1/10W
R502	1-216-821-11	METAL CHIP	1K	5%	1/10W
R503	1-216-821-11	METAL CHIP	1K	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
R506	1-216-845-11	METAL CHIP	100K	5%	1/10W
R509	1-216-813-11	METAL CHIP	220	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
R513	1-216-845-11	METAL CHIP	100K	5%	1/10W
R514	1-216-845-11	METAL CHIP	100K	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
R521	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R522	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R524	1-216-845-11	METAL CHIP	100K	5%	1/10W
R526	1-216-845-11	METAL CHIP	100K	5%	1/10W
R527	1-216-845-11	METAL CHIP	100K	5%	1/10W
R528	1-216-845-11	METAL CHIP	100K	5%	1/10W
R529	1-216-821-11	METAL CHIP	1K	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
R535	1-216-833-11	METAL CHIP	10K	5%	1/10W
R536	1-216-833-11	METAL CHIP	10K	5%	1/10W
R537	1-216-845-11	METAL CHIP	100K	5%	1/10W
R539	1-216-845-11	METAL CHIP	100K	5%	1/10W
R540	1-216-845-11	METAL CHIP	100K	5%	1/10W
R541	1-216-845-11	METAL CHIP	100K	5%	1/10W
R542	1-216-821-11	METAL CHIP	1K	5%	1/10W
R543	1-216-821-11	METAL CHIP	1K	5%	1/10W
R544	1-216-821-11	METAL CHIP	1K	5%	1/10W
R547	1-216-821-11	METAL CHIP	1K	5%	1/10W
R550	1-216-845-11	METAL CHIP	100K	5%	1/10W
R551	1-216-845-11	METAL CHIP	100K	5%	1/10W
R557	1-216-825-11	METAL CHIP	2.2K	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
R565	1-216-845-11	METAL CHIP	100K	5%	1/10W
R566	1-216-845-11	METAL CHIP	100K	5%	1/10W
R567	1-216-845-11	METAL CHIP	100K	5%	1/10W
R570	1-216-817-11	METAL CHIP	470	5%	1/10W
R572	1-216-845-11	METAL CHIP	100K	5%	1/10W
R573	1-216-845-11	METAL CHIP	100K	5%	1/10W
R575	1-216-845-11	METAL CHIP	100K	5%	1/10W
R578	1-216-821-11	METAL CHIP	1K	5%	1/10W
R582	1-216-821-11	METAL CHIP	1K	5%	1/10W
R583	1-216-821-11	METAL CHIP	1K	5%	1/10W
R584	1-216-849-11	METAL CHIP	220K	5%	1/10W
R585	1-216-849-11	METAL CHIP	220K	5%	1/10W
R601	1-216-845-11	METAL CHIP	100K	5%	1/10W

MAIN **SERVO**

Ref. No.	Part No.	Description			Remark
R609	1-249-425-11	CARBON	4.7K	5%	1/4W (GT121)
R631	1-249-425-11	CARBON	4.7K	5%	1/4W
R632	1-216-841-11	METAL CHIP	47K	5%	1/10W
R633	1-216-841-11	METAL CHIP	47K	5%	1/10W
R634	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R636	1-216-845-11	METAL CHIP	100K	5%	1/10W
R651	1-216-821-11	METAL CHIP	1K	5%	1/10W
R652	1-216-841-11	METAL CHIP	47K	5%	1/10W
R653	1-216-833-11	METAL CHIP	10K	5%	1/10W
R654	1-216-833-11	METAL CHIP	10K	5%	1/10W
R661	1-216-821-11	METAL CHIP	1K	5%	1/10W
R662	1-216-833-11	METAL CHIP	10K	5%	1/10W
R663	1-216-821-11	METAL CHIP	1K	5%	1/10W
R664	1-216-833-11	METAL CHIP	10K	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	1-218-871-11	METAL CHIP	10K	0.5%	1/10W
R674	1-216-845-11	METAL CHIP	100K	5%	1/10W
R675	1-216-821-11	METAL CHIP	1K	5%	1/10W
R676	1-216-821-11	METAL CHIP	1K	5%	1/10W
R677	1-216-821-11	METAL CHIP	1K	5%	1/10W
R679	1-216-821-11	METAL CHIP	1K	5%	1/10W
R690	1-216-845-11	METAL CHIP	100K	5%	1/10W
R692	1-216-845-11	METAL CHIP	100K	5%	1/10W (GT220/GT222)
R693	1-216-845-11	METAL CHIP	100K	5%	1/10W (GT121)
R694	1-216-821-11	METAL CHIP	1K	5%	1/10W
R752	1-216-811-11	METAL CHIP	150	5%	1/10W
R756	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< TUNER UNIT >			
TU1	A-3220-961-B	TUNER UNIT (TUX-032)			
		< VIBRATOR >			
X51	1-813-532-11	VIBRATOR, CRYSTAL (8.664MHz)			
X501	1-813-524-21	VIBRATOR, CERAMIC (18.432MHz)			
X502	1-767-317-11	VIBRATOR, CRYSTAL (32.768kHz)			

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	A-1177-201-A	SERVO BOARD, COMPLETE
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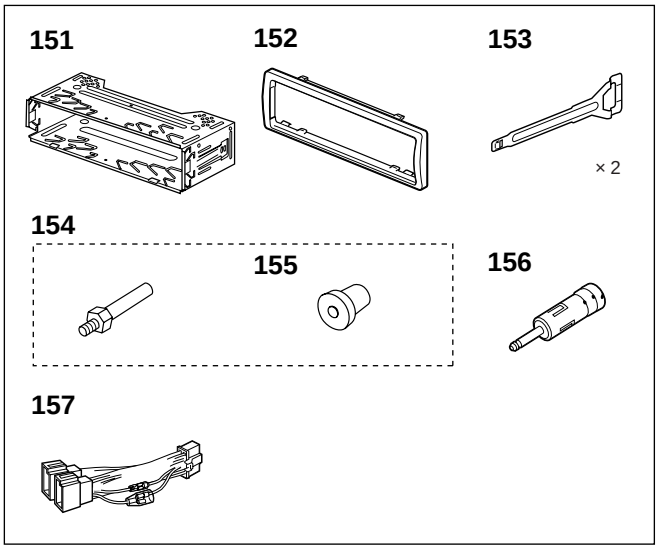
		MISCELLANEOUS
		**********
7	1-831-838-11	CORD (WITH CONNECTOR) (ISO) (POWER)
⚠103	X-2149-672-1	SERVICE ASSY, OP (DAX-25A)
FU601	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A

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Ref. No.	Part No.	Description	Remark
		ACCESSORIES	
		**********	
	3-218-435-11	MANUAL, INSTRUCTION (ENGLISH,GERMAN, FRENCH,ITALIAN,DUTCH)	
	3-218-436-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH, GERMAN,FRENCH,ITALIAN,DUTCH)	
	X-2149-228-2	CASE ASSY (for FRONT PANEL)	(GT220/GT222)

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		PARTS FOR INSTALLATION AND CONNECTIONS
		**********
151	X-2187-305-1	FRAME ASSY, FITTING
152	2-686-803-11	COLLAR
153	3-246-471-01	KEY (FRAME)
154	X-3382-926-1	SCREW ASSY (BS), FITTING
155	3-349-410-11	BUSHING
156	1-465-459-31	ADAPTOR, ANTENNA
157	1-831-838-11	CORD (WITH CONNECTOR) (ISO) (POWER)



MEMO

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