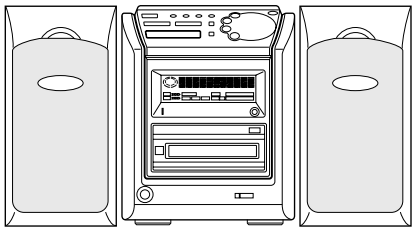
aiwa SERVICE

# XR-M300
# XR-M301

K

EZ



# SERVICE MANUAL

COMPACT DISC
STEREO SYSTEM

BASIC CD MECHANISM : DA11T3C

| SYSTEM | SPEAKER | REMOTE CONTROL |
|---|---|---|
| XR-M300 | SX-M310 | RC-AAT15 |
| XR-M301 | | |

This Service Manual is the "Revision Publishing" and replaces "Simple Manual" (S/M Code No. 09-008-349-3T1).

aiwa

S/M Code No. 09-008-349-3R1

REVISION DATA

# SPECIFICATIONS

**Main unit**

**FM tuner section**

| | |
|---|---|
| **Tuning range** | 87.5 MHz to 108 MHz |
| **Usable sensitivity (IHF)** | 16.8 dBf |
| **Antenna terminals** | 75 ohms (unbalanced) |

**MW tuner section**

| | |
|---|---|
| **Tuning range** | 531 kHz to 1602 kHz (9 kHz step)<br>530 kHz to 1710 kHz (10 kHz step) |
| **Usable sensitivity** | 350 µV/m |
| **Antenna** | Loop antenna |

**LW tuner section**

| | |
|---|---|
| **Tuning range** | 144 kHz to 290 kHz |
| **Usable sensitivity** | 1400 µV/m |
| **Antenna** | Loop antenna |

**Amplifier section**

| | |
|---|---|
| **Power output** | Rated: 12 W + 12 W (6 ohms, T.H.D.1%, 1 kHz/DIN 45500)<br>Reference: 15 W + 15 W (6 ohms, T.H.D. 10%, 1 kHz/DIN 45324)<br>DIN MUSIC POWER<br>32 W + 32 W |
| **Inputs** | AUX IN: 500 mV<br>MD IN: 310 mV |
| **Outputs** | SUPER WOOFER: 1.2 V<br>SPEAKERS: accept speakers of 6 ohms or more<br>PHONES (stereo mini jack): accepts headphones of 32 ohms or more<br>LINE OUT: 2V<br>DIGITAL OUT (OPTICAL): |

**Compact disc player section**

| | |
|---|---|
| **Laser** | Semiconductor laser (λ = 780 nm) |
| **D-A converter** | 1 bit dual |
| **Signal-to-noise ratio** | 85 dB (1 kHz, 0 dB) |
| **Harmonic distortion** | 0.05 % (1 kHz, 0 dB) |
| **Wow and flutter** | Unmeasurable |

**General**

| | |
|---|---|
| **Power requirements** | 230 V AC, 50 Hz |
| **Power consumption** | 80 W |
| **Standby power consumption** | 1.8 W (power-economizing mode set to ON) |
| **Dimensions of main unit (W × H × D)** | 144 × 175 × 284 mm |
| **Weight of main unit** | 3.6 kg |

**Speaker system**

| | |
|---|---|
| **Cabinet type** | 2 way, bass reflex (magnetic shielded type) |
| **Speakers** | Woofer:<br>100 mm<br>Tweeter:<br>22 mm dome type |
| **Impedance** | 6 ohms |
| **Output sound pressure level** | 86 dB/W/m |
| **Dimensions (W × H × D)** | 116 × 169 × 200 mm |
| **Weight** | 1.4 kg |

- Design and specifications are subject to change without notice.
- The word “BBE” and the “BBE symbol” are trademarks of BBE Sound, Inc.
- Under license from BBE Sound, Inc.

# ACCESSORIES LIST

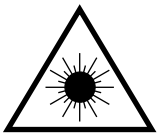
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---|---|---|---|
| 1 | 8A-CL6-915-010 | | IB,K(E)M<K> |
| 1 | 8A-CL6-916-010 | | IB,EZ(9L)M<EZ> |
| 2 | 8A-CL6-951-010 | | RC UNIT,RC-AAT15 EX |
| 3 | 87-006-225-010 | | ANT,LOOP ANT NC2 |
| 4 | 87-A90-118-010 | | ANT,WIRE FM(Z) |
| ⚠ 5 | 87-099-811-010 | | PLUG,ADPTR CONV(K)<K> |

## PROTECTION OF EYES FROM BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

**WARNING!!**
WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserståling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

**VAROITUS!**
Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saataa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

**VARNING!**
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

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

**ATTENTION**
L'utillisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

**ADVARSEL**
Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

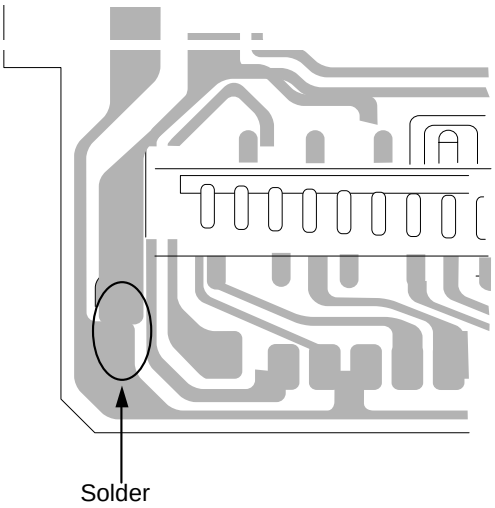
| | |
|---|---|
| CLASS 1 | LASER PRODUCT |
| KLASSE 1 | LASER PRODUKT |
| LUOKAN 1 | LASER LAITE |
| KLASS 1 | LASER APPARAT |

## Precaution to replace Optical block

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in the figures below.

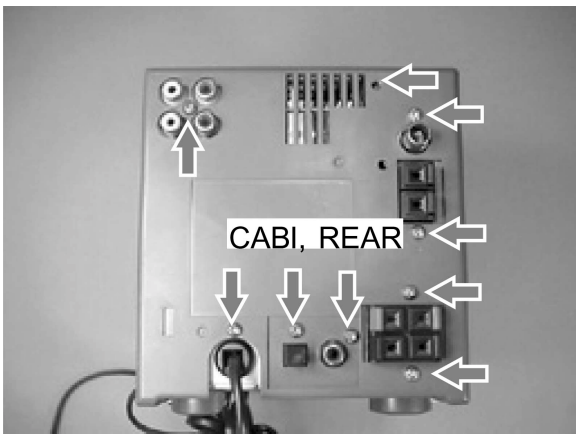
**(SF–P101NR)**
CD PICK-UP ASSY. P.C.B



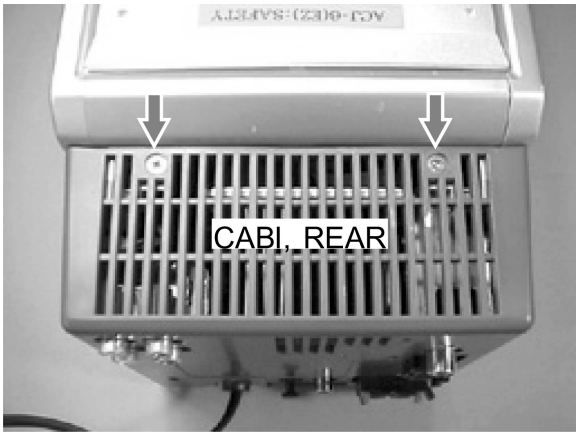
# DISASSEMBLY INSTRUCTIONS

## 1. Removing the Ornament Parts

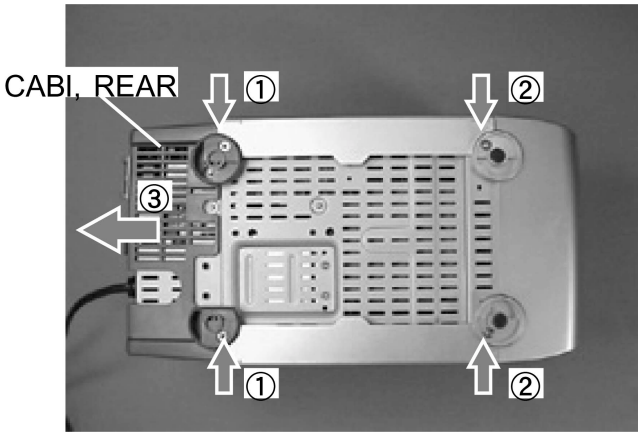
1) Remove the nine screws.



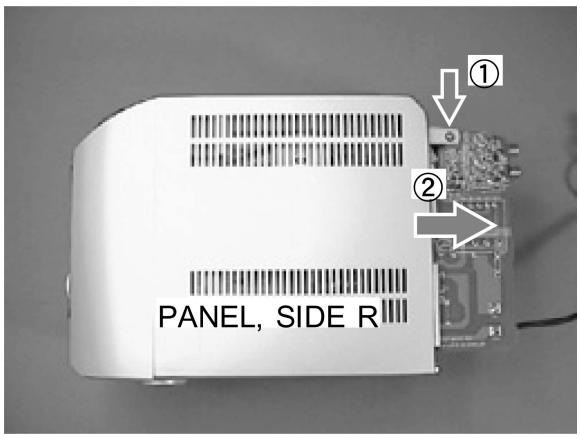

2) Remove the two screws.



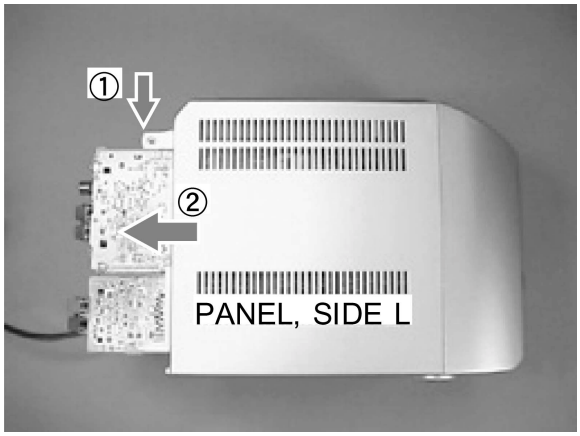

3) Remove the four screws (two screws ①, two screws ②) and remove the CABI, REAR ③.



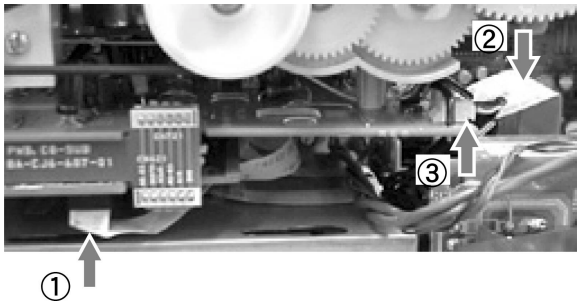

4) Remove the screw ① and remove the PANEL, SIDE R ②.



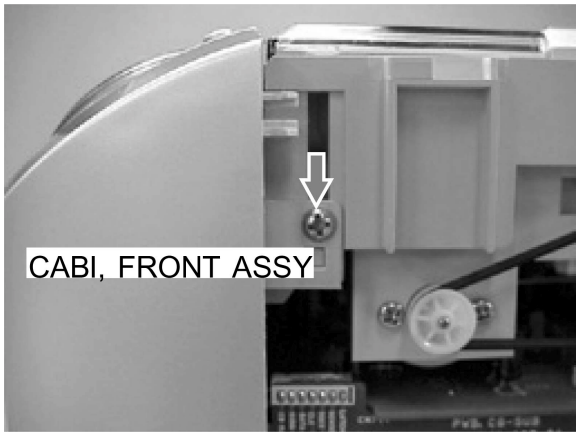

5) Remove the screw ① and remove the PANEL, SIDE L ②.



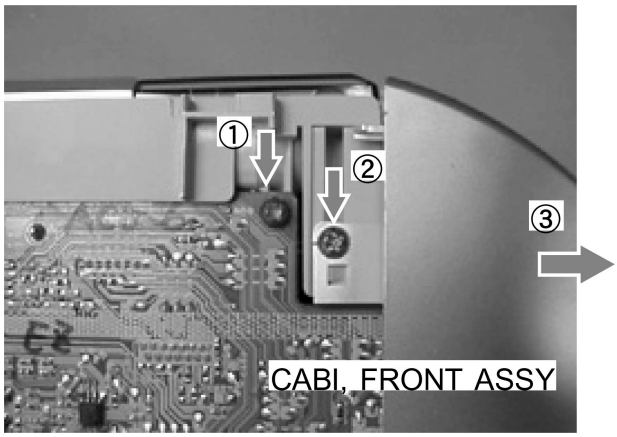

6) Remove the two FFCs ① and ②, and remove the connector ③.



7) Remove the screw.

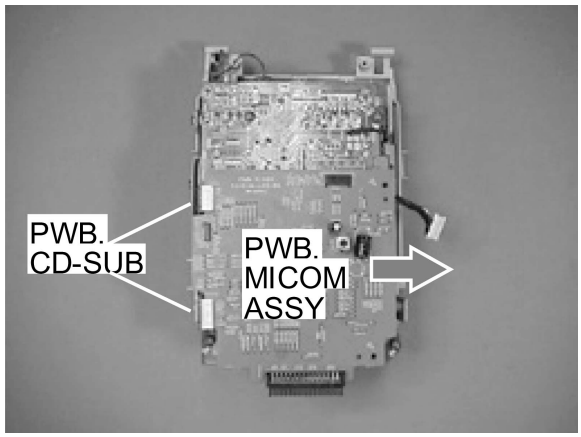



8) Remove the two screws ① and ②, and remove the CABI, FRONT ASSY ③.

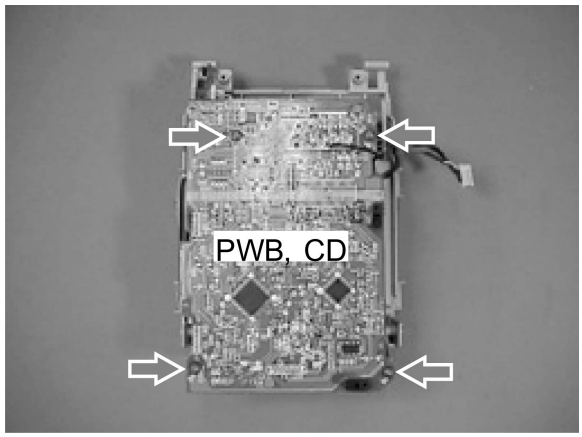



## 2. Removing the CD ASSY

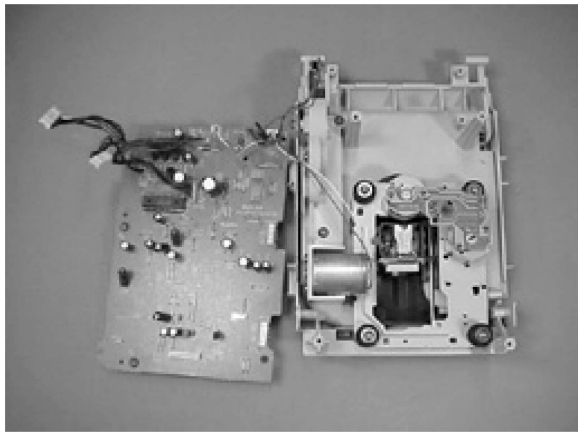
1) Remove the PWB, MICOM ASSY from the PWB, CD-SUB connector.




2) Remove the four screws and remove the PWB, CD.




3) This figure shows the state of the board removed.



# TEST MODE <CD>

## 1. How to Activate CD Test Mode

While pressing the CD function button, insert the AC plug to the outlet. The message "CD TEST" appears on the display.

## 2. How to Cancel CD Test Mode

Exit the CD test mode by any of the following procedures.

- Press the function button (except the CD function button.)
- Press the power button.
- Disconnect the AC plug.

## 3. CD Test Mode functions

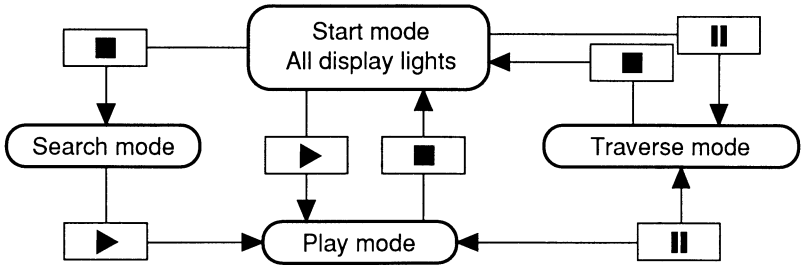
| No | Mode | Operation | FL display | Operation | Checking item |
|---|---|---|---|---|---|
| 1 | Start mode | | All lit | | • FL item<br>• Microprocessor |
| 2 | Search mode | ■ | TOC READING | • LD lights<br>• Continuous focus search*1 | • APC circuit<br>• Laser current<br>• Focus search waveform<br>• Focus error waveform (FOK and FZC are not monitored in the search mode) |
| 3 | Play mode | ◄ ► | Normal time display (spectrum analyzer) | • Normal playback<br>• If TOC cannot be read, focus search of "2" is continued | • Focus servo<br>• Tracking servo<br>• Sled servo<br>• Spindle servo<br>• FOK<br>• RF waveform |
| 4 | Traverse mode | II | Normal time display | • Turning off/on repeats each time tracking servo OFF/ON II is pressed | • Tracking servo<br>• Traverse waveform |
| 5 | Sled mode | ◄◄<br>►► | CD TEST | • Pickup moves to the outermost track *2<br>• Pickup moves to the innermost track (normal operation during playback | • Sled circuit<br>• Mechanism |

* Note 1: The driver IC (IC501) heats up and the protection circuit starts working when the focus search is continued for 10 minutes or longer. There can be a case that operations cannot be performed correctly. In such a case, turn off the main power. After cooling down, restart the unit.

* Note 2: Be careful not to damage the gear because the sled motor rotates while the FF or RWD button is being pressed even if the pick-up is located in the innermost track or the outermost track.

## 4. Overview of Operation

The each mode can be operated one after another using each button in the order that is shown by the arrow mark in the illustration from the "Start" mode.



# ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---|---|---|---|
| IC | | | |
| | 87-A21-552-010 | | IC,LA4663A |
| | 8A-CJ6-681-030 | | C-IC,LC87F65C8A-R07 |
| | 87-A20-914-010 | | IC,SPS-442-1-F |
| | 87-A21-111-040 | | C-IC,M62495FP |
| | 87-A21-022-040 | | C-IC,BA3880FS |
| | 87-001-607-080 | | C-IC,NJM4558M |
| | 87-A21-103-040 | | C-IC,MM1454XFBE |
| | 87-A20-547-010 | | C-IC,CXA1992AR |
| | 87-A20-546-010 | | C-IC,CXD2589Q |
| | 87-A20-445-010 | | IC,BA5936S |
| | 87-017-917-080 | | C-IC,BU4066BCF |
| | 87-001-792-080 | | C-IC,NJM2100M |
| | 87-A20-611-080 | | IC,M51943BSL-700A |
| | 87-017-825-010 | | IC,GP1F32T |
| | 87-070-127-110 | | IC,LC72131D |
| | 87-A20-913-010 | | IC,LA1837NL |
| | 87-A20-440-040 | | C-IC,BU1920FS<EZ> |
| TRANSISTOR | | | |
| | 87-026-610-080 | | TR,KTC3198GR |
| | 87-A30-234-080 | | TR,CSC4115BC |
| | 87-A30-075-080 | | C-TR,2SA1235F |
| | 87-A30-076-080 | | C-TR,2SC3052F |
| | 89-213-702-010 | | TR,2SB1370E |
| | 87-A30-105-080 | | C-TR,RT1P 441C |
| | 87-026-228-080 | | C-TR,DTA124EK |
| | 87-A30-257-080 | | C-TR,2SD1306E |
| | 87-A30-073-080 | | C-TR,RT1N 141C |
| | 87-A30-087-080 | | C-FET,2SK2158 |
| | 87-026-580-080 | | C-TR,DTA123JK |
| | 87-026-236-080 | | C-TR,DTC124EK |
| | 87-026-297-080 | | C-TR,DTA144TK |
| | 89-110-155-080 | | TR,2SA1015GR |
| | 89-113-184-080 | | TR,2SA1318T |
| | 87-A30-047-080 | | TR,CSD655E |
| | 87-A30-072-080 | | C-TR,RT1P 144C |
| | 89-327-143-080 | | C-TR,2SC2714O |
| | 89-505-434-540 | | C-FET,2SK543(4/5) |
| | 87-A30-086-070 | | C-TR,CSD1306E |
| | 87-A30-074-080 | | C-TR,RT1P 141C |
| DIODE | | | |
| | 87-A40-509-080 | | ZENER,MTZJ6.8C |
| | 87-070-274-080 | | DIODE,1N4003 SEM |
| | 87-A40-345-080 | | ZENER,MTZJ10C |
| | 87-020-465-080 | | DIODE,1SS133 |
| | 87-A40-270-080 | | C-DIODE,MC2838 |
| | 87-A40-269-080 | | C-DIODE,MC2836 |
| | 87-070-178-090 | | DIODE,1N5402-BD54 |
| | 87-A40-313-080 | | C-DIODE,MC2840 |
| | 87-A40-466-080 | | ZENER,MTZJ2.7A |
| | 87-070-136-080 | | ZENER,MTZJ5.1B |
| | 87-017-149-080 | | ZENER,HZS6A2L |
| MAIN C.B | | | |
| C1 | 87-010-264-040 | | CAP,E 100-10 M 5L SRE |
| C2 | 87-010-194-080 | | C-CAP,S 0.047-25 Z F |
| C3 | 87-010-075-040 | | CAP,E 10-16 M 5L SRE |
| C4 | 87-010-194-080 | | C-CAP,S 0.047-25 Z F |
| C6 | 87-010-235-080 | | CAP,E 470-16 M SME |
| C7 | 87-010-112-080 | | CAP,E 100-16 M 11L SME |
| C8 | 87-010-408-080 | | CAP,E 47-50 M 11L SME |
| C11 | 87-010-403-080 | | CAP,E 3.3-50 M 11L SME |
| C100 | 87-010-068-080 | | CAP,E 0.22-50 M 5L SRE |
| C101 | 87-010-068-080 | | CAP,E 0.22-50 M 5L SRE |
| C102 | 87-010-178-080 | | C-CAP,S 1000P-50 K B C2012 |
| C103 | 87-010-178-080 | | C-CAP,S 1000P-50 K B C2012 |
| C104 | 87-010-234-040 | | CAP,E 47-16 M 5L SRE |
| C106 | 87-010-405-080 | | CAP,E 10-50 M 11L SME |
| C108 | 87-010-069-080 | | CAP,E 0.33-50 M 5L SRE |
| C109 | 87-010-069-080 | | CAP,E 0.33-50 M 5L SRE |
| C110 | 87-010-260-080 | | CAP,E 47-25 M 11L SME |
| C111 | 87-010-385-080 | | CAP,E 220-25 M SME |
| C112 | 87-010-195-080 | | C-CAP,S 0.068-25 Z F C2012 |
| C113 | 87-010-195-080 | | C-CAP,S 0.068-25 Z F C2012 |
| C114 | 87-010-544-080 | | CAP,E 0.1-50 M 11L SME |
| C115 | 87-010-544-080 | | CAP,E 0.1-50 M 11L SME |
| C116 | 87-010-182-080 | | C-CAP,S 2200P-50 K B C2012 |
| C117 | 87-010-182-080 | | C-CAP,S 2200P-50 K B C2012 |
| C124 | 87-010-112-080 | | CAP,E 100-16 M 11L SME |
| C125 | 87-010-112-080 | | CAP,E 100-16 M 11L SME |
| C126 | 87-010-112-080 | | CAP,E 100-16 M 11L SME |
| C127 | 87-012-156-080 | | C-CAP,S 220P-50 J CH GRM |
| C128 | 87-012-156-080 | | C-CAP,S 220P-50 J CH GRM |
| C129 | 87-010-112-080 | | CAP,E 100-16 M 11L SME |
| C131 | 87-010-405-080 | | CAP,E 10-50 M 11L SME |
| C132 | 87-010-405-080 | | CAP,E 10-50 M 11L SME |
| C134 | 87-010-322-080 | | C-CAP,S 100P-50 J CH GRM |
| C135 | 87-010-297-080 | | C-CAP,100P-50 J CH |
| C136 | 87-010-075-080 | | CAP,E 10-16 M 5L SRE |
| C138 | 87-015-819-080 | | C-CAP, 0.01-50 K B C3216 |
| C139 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C140 | 87-018-134-080 | | CAP,TC U 0.01-16 N Y UP050 |
| C143 | 87-015-819-080 | | C-CAP, 0.01-50 K B C3216 |
| C144 | 87-015-819-080 | | C-CAP, 0.01-50 K B C3216 |
| C145 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C146 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C305 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C600 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C603 | 87-010-805-080 | | C-CAP,S 1-16 Z F |
| C606 | 87-010-071-040 | | CAP,E 1-50 M 5L SRE |
| C607 | 87-010-805-080 | | C-CAP,S 1-16 Z F |
| C608 | 87-010-381-080 | | CAP,E 330-16 M SME |
| C609 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C610 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C611 | 87-010-402-080 | | CAP,E 2.2-50 M 11L SME |
| C612 | 87-010-402-080 | | CAP,E 2.2-50 M 11L SME |
| C613 | 87-010-195-080 | | C-CAP,S 0.068-25 Z F C2012 |
| C614 | 87-010-318-080 | | C-CAP,S 47P-50 J CH GRM |
| C615 | 87-010-318-080 | | C-CAP,S 47P-50 J CH GRM |
| C616 | 87-010-421-080 | | CAP,E 4.7-50 M 5L SRE |
| C617 | 87-010-195-080 | | C-CAP,S 0.068-25 Z F C2012 |
| C618 | 87-012-140-080 | | C-CAP,S 470P-50 J CH |
| C619 | 87-012-140-080 | | C-CAP,S 470P-50 J CH |
| C620 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C621 | 87-010-234-080 | | CAP,E 47-16 M 5L SRE |
| C622 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C625 | 87-010-071-040 | | CAP,E 1-50 M 5L SRE |
| C631 | 87-012-154-080 | | C-CAP,S 150P-50 J CH GRM |
| C632 | 87-012-154-080 | | C-CAP,S 150P-50 J CH GRM |
| C633 | 87-010-421-040 | | CAP,E 4.7-50 M 5L SRE |
| C634 | 87-010-421-040 | | CAP,E 4.7-50 M 5L SRE |
| C635 | 87-010-421-080 | | CAP,E 4.7-50 M 5L SRE |
| C636 | 87-010-421-080 | | CAP,E 4.7-50 M 5L SRE |
| C637 | 87-010-421-040 | | CAP,E 4.7-50 M 5L SRE |
| C638 | 87-012-140-080 | | C-CAP,S 470P-50 J CH |
| C639 | 87-012-140-080 | | C-CAP,S 470P-50 J CH |
| C640 | 87-010-188-080 | | C-CAP,S 6800P-50 K B C2012 |
| C641 | 87-010-188-080 | | C-CAP,S 6800P-50 K B C2012 |
| C642 | 87-010-213-080 | | C-CAP,S 0.015-25 K B GRM |
| C643 | 87-010-213-080 | | C-CAP,S 0.015-25 K B GRM |
| C644 | 87-010-404-080 | | CAP,E 4.7-50 M 11L SME |
| C645 | 87-010-404-080 | | CAP,E 4.7-50 M 11L SME |
| C646 | 87-010-404-080 | | CAP,E 4.7-50 M 11L SME |
| C647 | 87-010-404-080 | | CAP,E 4.7-50 M 11L SME |

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---|---|---|---|
| C650 | 87-010-213-080 | | C-CAP,S 0.015-25 K B GRM |
| C651 | 87-010-182-080 | | C-CAP,S 2200P-50 K B C2012 |
| C652 | 87-010-182-080 | | C-CAP,S 2200P-50 K B C2012 |
| C653 | 87-010-234-080 | | CAP,E 47-16 M 5L SRE |
| C654 | 87-010-213-080 | | C-CAP,S 0.015-25 K B GRM |
| C655 | 87-010-491-040 | | CAP,E 0.22-50 M 5L SRE |
| C656 | 87-010-491-040 | | CAP,E 0.22-50 M 5L SRE |
| C657 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C662 | 87-010-491-040 | | CAP,E 0.22-50 M 5L SRE |
| C663 | 87-010-491-040 | | CAP,E 0.22-50 M 5L SRE |
| C666 | 87-015-680-080 | | CAP,E 47-10 M 7L SRA |
| C667 | 87-015-680-080 | | CAP,E 47-10 M 7L SRA |
| C674 | 87-010-154-080 | | C-CAP,S 10P-50 D CH GRM |
| C675 | 87-010-112-080 | | CAP,E 100-16 M 11L SME |
| C676 | 87-010-405-080 | | CAP,E 10-50 M 11L SME |
| C677 | 87-010-234-080 | | CAP,E 47-16 M 5L SRE |
| C678 | 87-010-322-080 | | C-CAP,S 100P-50 J CH GRM |
| C679 | 87-010-415-080 | | CAP,E 10-50 M 5L SRE |
| C680 | 87-010-405-080 | | CAP,E 10-50 M 11L SME |
| C681 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C682 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| CN5 | 87-099-567-010 | | CONN,10P V TUC-P10P-B1 |
| CN600 | 87-A60-770-010 | | CONN,18P B TMC-D(X) |
| CN604 | 87-A60-624-010 | | CONN,7P V 2MM JMT |
| CN606 | 87-A60-668-010 | | CONN,4P H 2MM JMT |
| CNA1 | 88-805-033-030 | | CONN ASSY,3P 300 |
| CNA101 | 88-805-020-890 | | CONN ASSY,2P 80 |
| CNA604 | 8A-CL6-641-010 | | CONN ASSY,8P V LINE-OUT |
| J100 | 87-A60-238-010 | | TERMINAL,SP 4P (MSC) |
| J102 | 87-009-216-010 | | JACK,3.5 BLK ST W/SW |
| JR623 | 87-A50-190-080 | | C-COIL,S BLM21A102S |
| JW102 | 87-008-372-080 | | FLTR,EMI BL01 RN1 |
| JW121 | 87-008-372-080 | | FLTR,EMI BL01 RN1 |
| JW122 | 87-008-372-080 | | FLTR,EMI BL01 RN1 |
| L100 | 87-003-383-010 | | COIL,1UH K |
| L101 | 87-003-383-010 | | COIL,1UH K |
| L103 | 87-008-372-080 | | FLTR,EMI BL01 RN1 |

TUNER C.B

| | | | |
|---|---|---|---|
| C701 | 87-010-381-080 | | CAP,E 330-16 M SME |
| C702 | 87-010-404-080 | | CAP,E 4.7-50 M 11L SME |
| C703 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C704 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C709 | 87-012-195-080 | | C-CAP,U 100P-50 J CH |
| C711 | 87-010-260-080 | | CAP,E 47-25 M 11L SME |
| C712 | 87-010-831-080 | | C-CAP,U 0.1-16 Z F |
| C713 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C714 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C715 | 87-012-195-080 | | C-CAP,U 100P-50 J CH |
| C717 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C719 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C720 | 87-012-195-080 | | C-CAP,U 100P-50 J CH |
| C721 | 87-012-176-080 | | C-CAP,U 15P-50 J CH |
| C722 | 87-012-176-080 | | C-CAP,U 15P-50 J CH |
| C723 | 87-012-274-080 | | C-CAP,U 1000P-50 K B |
| C725 | 87-018-131-080 | | CAP,TC U 1000P-50 K B UP050 |
| C727 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C728 | 87-010-248-080 | | CAP,E 220-10 M 11L SME |
| C729 | 87-012-274-080 | | C-CAP,U 1000P-50 K B |
| C731 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C733 | 87-012-280-080 | | C-CAP,U 3300P-50 K B |
| C734 | 87-012-280-080 | | C-CAP,U 3300P-50 K B |
| C752 | 87-012-282-080 | | C-CAP,U 4700P-50 K B |
| C753 | 87-012-195-080 | | C-CAP,U 100P-50 J CH |
| C755 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C756 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C757 | 87-012-188-080 | | C-CAP,U 47P-50 J CH |
| C758 | 87-012-167-080 | | C-CAP,U 5P-50 C CH |
| C761 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C762 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C763 | 87-010-829-080 | | C-CAP,U 0.047-16 Z F |
| C765 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C766 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C768 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C769 | 87-010-260-080 | | CAP,E 47-25 M 11L SME |
| C770 | 87-010-829-080 | | C-CAP,U 0.047-16 Z F |
| C771 | 87-010-383-080 | | CAP,E 33-25 M 11L SME |
| C772 | 87-010-829-080 | | C-CAP,U 0.047-16 Z F |
| C773 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C774 | 87-010-263-080 | | CAP,E 100-10 M 11L SME |
| C775 | 87-010-404-080 | | CAP,E 4.7-50 M 11L SME |
| C776 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C777 | 87-010-493-080 | | CAP,E 0.47-50 M 5L SRE |
| C778 | 87-010-401-080 | | CAP,E 1-50 M 11L SME |
| C779 | 87-010-401-080 | | CAP,E 1-50 M 11L SME |
| C780 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C781 | 87-010-405-080 | | CAP,E 10-50 M 11L SME |
| C782 | 87-010-405-080 | | CAP,E 10-50 M 11L SME |
| C783 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C784 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C785 | 87-010-402-080 | | CAP,E 2.2-50 M 11L SME |
| C786 | 87-010-402-080 | | CAP,E 2.2-50 M 11L SME |
| C787 | 87-012-275-080 | | C-CAP,U 1200P-50 K B GRM |
| C788 | 87-012-275-080 | | C-CAP,U 1200P-50 K B GRM |
| C789 | 87-012-275-080 | | C-CAP,U 1200P-50 K B GRM |
| C790 | 87-012-275-080 | | C-CAP,U 1200P-50 K B GRM |
| C791 | 87-010-405-080 | | CAP,E 10-50 M 11L SME |
| C793 | 87-012-273-080 | | C-CAP,U 820P-50 K B |
| C794 | 87-010-406-080 | | CAP,E 22-50 M 11L SME |
| C795 | 87-010-596-080 | | C-CAP,S 0.047-16 K R C2012 |
| C796 | 87-010-403-080 | | CAP,E 3.3-50 M 11L SME |
| C797 | 87-012-276-080 | | C-CAP,U 1500P-50 K B |
| C798 | 87-012-276-080 | | C-CAP,U 1500P-50 K B |
| C799 | 87-010-829-080 | | C-CAP,U 0.047-16 Z F |
| C812 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C814 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C820 | 87-010-260-080 | | CAP,E 47-25 M 11L SME |
| C821 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C822 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C823 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C828 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C829 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C859 | 87-012-286-080 | | C-CAP,U 0.01-25 K B<EZ> |
| C861 | 87-012-199-080 | | C-CAP,U 220P-50 J CH<EZ> |
| C862 | 87-012-199-080 | | C-CAP,U 220P-50 J CH<EZ> |
| C863 | 87-012-270-080 | | C-CAP,U 470P-50 K B<EZ> |
| C864 | 87-010-405-080 | | CAP,E 10-50 M 11L SME<EZ> |
| C865 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012<EZ> |
| C866 | 87-010-405-080 | | CAP,E 10-50 M 11L SME<EZ> |
| C867 | 87-012-286-080 | | C-CAP,U 0.01-25 K B<EZ> |
| C868 | 87-012-184-080 | | C-CAP,U 33P-50 J CH<EZ> |
| C869 | 87-012-180-080 | | C-CAP,U 22P-50 J CH<EZ> |
| C940 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C942 | 87-012-168-080 | | C-CAP,U 6P-50 D CH |
| C947 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C949 | 87-A10-039-080 | | C-CAP,U 470P-50 J CH |
| C952 | 87-012-286-080 | | C-CAP,U 0.01-25 K B |
| C958 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C959 | 87-010-831-080 | | C-CAP,U 0.1-16 Z F |
| C960 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C962 | 87-010-401-080 | | CAP,E 1-50 M 11L SME |
| CF801 | 87-008-423-010 | | FLTR,CF SFE10.7MS3G-A |
| CF802 | 82-785-747-010 | | CF,MS2 GHY,R |
| CN701 | 87-A60-650-010 | | CONN,16P H GRY TUC-P16X-C1<EZ> |
| CN701 | 87-A60-700-010 | | CONN,13P H GRY TUC-P13X-C1<K> |
| FFE801 | A8-6ZA-19H-030 | | 6ZA-1 FEMENM |
| J801 | 87-033-241-010 | | TERMINAL,ANT 2P AJ-2039 |
| L771 | 87-A50-266-010 | | COIL,FM DET-2N(TOK) |
| L772 | 87-A91-110-010 | | FLTR,PCFJZH-450 (TOK) |

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---|---|---|---|
| L781 | 87-005-847-080 | | COIL,2.2UH K CECS |
| L791 | 87-A50-027-010 | | COIL,1 POLE MPX(TOK) |
| L792 | 87-A50-027-010 | | COIL,1 POLE MPX(TOK) |
| L832 | 87-005-847-080 | | COIL,2.2UH K CECS |
| L851 | 87-005-847-080 | | COIL,2.2UH K CECS<EZ> |
| L941 | 87-A50-020-010 | | COIL,ANT LW (COI) 252KHZ |
| L942 | 87-A50-019-010 | | COIL,OSC LW (COI) 856KHZ |
| L981 | 8Z-ZA1-665-010 | | COIL,AM PACK 2(TOK) |
| TC942 | 87-A91-658-010 | | TRIMMER,30P 4.0X4.5 ECRL |
| X721 | 87-A70-061-010 | | VIB,XTAL 4.500MHZ CSA-309 |
| X851 | 87-A70-091-010 | | VIB,XTAL 4.332MHZ CSA-309<EZ> |
| TUNER-SUB C.B | | | |
| C302 | 87-A11-132-080 | | CAP,TC U 0.01-50 K B |
| CN300 | 87-099-570-010 | | CONN,13P V TUC-P13P-B1<K> |
| CN301 | 87-A60-189-010 | | CONN,16P V TUC-P16P-B1<EZ> |
| CN605 | 87-A60-901-010 | | CONN,12P V BLK FMN-BTRK |
| CNA603 | 88-805-041-230 | | CONN ASSY,4P 120 |
| FFC305 | 8A-CJ6-640-010 | | FF-CABLE,12P 140MM TU-SIG |
| S-OUT/D-OUT C.B | | | |
| C150 | 87-010-178-080 | | C-CAP,S 1000P-50 K B C2012 |
| CN100 | 87-A60-619-010 | | CONN,2P V 2MM JMT |
| CN703 | 87-A60-667-010 | | CONN,3P H 2MM JMT |
| CNA703 | 8A-CJ6-644-010 | | CONN ASSY,3P D-I/O |
| J101 | 87-099-801-010 | | JACK,PIN 1P BLK W/O SW |
| FRONT C.B | | | |
| C500 | 87-010-405-040 | | CAP,E 10-50 M 11L SME |
| C501 | 87-010-178-080 | | C-CAP,S 1000P-50 K B C2012 |
| CN410 | 87-099-564-010 | | CONN,4P V TUC-P4P-B1 |
| CN500 | 87-A60-778-010 | | CONN,18P B TMC-D(P) |
| CN501 | 87-A60-899-010 | | CONN,6P V BLK FMN-BTRK |
| CN503 | 87-099-720-010 | | CONN,30P BLK TYK-B(P) |
| CNA501 | 88-805-061-230 | | CONN ASSY,6P 120 |
| D500 | 87-A40-317-080 | | LED,SLR-342VCT31 RED |
| KEY C.B | | | |
| C502 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C503 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| CN502 | 87-A60-670-010 | | CONN,6P H 2MM JMT |
| S500 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S501 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S502 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S507 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S509 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S510 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S511 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S512 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S513 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S514 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S515 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S516 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S517 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S518 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S519 | 87-A90-095-080 | | SW,TACT EVQ11G04M |
| S520 | 87-A91-698-010 | | SW,RTRY EC12E12403 |
| LED-SUB C.B | | | |
| CN411 | 87-099-553-010 | | CONN,4P H TUC-P |
| D502 | 87-A40-821-080 | | LED,SMLS1BE16C BLU/UMB |
| D503 | 87-A40-821-080 | | LED,SMLS1BE16C BLU/UMB |
| U-COM C.B | | | |
| C400 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C401 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C402 | 87-010-493-040 | | CAP,E 0.47-50 M 5L SRE |
| C403 | 87-A11-146-080 | | CAP,TC U 0.022-50 Z F |
| C404 | 87-010-313-080 | | C-CAP,S 18P-50 J CH GRM |
| C405 | 87-010-316-080 | | C-CAP,S 33P-50 J CH GRM |
| C406 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C407 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C408 | 87-010-221-040 | | CAP,E 470-10 M SME |
| C409 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C410 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C491 | 87-010-178-080 | | C-CAP,S 1000P-50 K B C2012 |
| CN305 | 87-A61-404-010 | | CONN,12P H BLK FMN-SSTRK |
| CN400 | 87-099-719-010 | | CONN,30P H BLK TYK-B(X) |
| CN420 | 87-099-554-010 | | CONN,6P H TUC-P6X-B1 |
| CN430 | 87-099-555-010 | | CONN,7P TUC-P7X-B1 |
| L400 | 87-A50-333-010 | | COIL,OSC 9.43MHZ |
| CD C.B | | | |
| C701 | 87-010-401-080 | | CAP,E 1-50 M 11L SME |
| C702 | 87-010-314-080 | | C-CAP,S 22P-50 J CH GRM |
| C704 | 87-016-369-080 | | C-CAP,S 0.033-25 K B GRM |
| C705 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C706 | 87-016-369-080 | | C-CAP,S 0.033-25 K B GRM |
| C707 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C710 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C711 | 87-010-596-080 | | C-CAP,S 0.047-16 K R C2012 |
| C712 | 87-010-596-080 | | C-CAP,S 0.047-16 K R C2012 |
| C713 | 87-012-140-080 | | C-CAP,S 470P-50 J CH |
| C714 | 87-010-213-080 | | C-CAP,S 0.015-25 K B GRM |
| C715 | 87-010-596-080 | | C-CAP,S 0.047-16 K R C2012 |
| C716 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C717 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C718 | 87-010-198-080 | | C-CAP,S 0.022-25 K B C2012 |
| C719 | 87-010-263-080 | | CAP,E 100-10 M 11L SME |
| C720 | 87-010-382-080 | | CAP,E 22-25 M 11L SME |
| C721 | 87-010-263-080 | | CAP,E 100-10 M 11L SME |
| C722 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C723 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C724 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C725 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C726 | 87-010-182-080 | | C-CAP,S 2200P-50 K B C2012 |
| C727 | 87-010-546-080 | | CAP,E 0.33-50 M 11L SME |
| C728 | 87-012-158-080 | | C-CAP,S 390P-50 J CH GRM |
| C729 | 87-010-263-080 | | CAP,E 100-10 M 11L SME |
| C730 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C731 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C732 | 87-010-178-080 | | C-CAP,S 1000P-50 K B C2012 |
| C733 | 87-010-263-080 | | CAP,E 100-10 M 11L SME |
| C734 | 87-010-263-080 | | CAP,E 100-10 M 11L SME |
| C735 | 87-010-403-040 | | CAP,E 3.3-50 M 11L SME |
| C736 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C737 | 87-010-263-040 | | CAP,E 100-10 M 11L SME |
| C739 | 87-010-186-080 | | C-CAP,S 4700P-50 K B C2012 |
| C741 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C742 | 87-010-186-080 | | C-CAP,S 4700P-50 K B C2012 |
| C743 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C744 | 87-010-236-080 | | CAP,E 1000-10 M SME |
| C745 | 87-010-596-080 | | C-CAP,S 0.047-16 K R C2012 |
| C747 | 87-016-526-080 | | C-CAP,S 0.47-16 BK |
| C748 | 87-012-156-080 | | C-CAP,S 220P-50 J CH GRM |
| C749 | 87-010-188-080 | | C-CAP,S 6800P-50 K B C2012 |
| C750 | 87-A10-484-080 | | C-CAP,S 1-10 K B |
| C754 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C755 | 87-010-221-080 | | CAP,E 470-10 M SME |
| C759 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C760 | 87-016-088-080 | | CAP,E 220-6.3 M SR |
| C762 | 87-010-260-080 | | CAP,E 47-25 M 11L SME |
| C763 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---|---|---|---|
| C764 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C765 | 87-010-382-080 | | CAP,E 22-25 M 11L SME |
| C766 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C767 | 87-012-154-080 | | C-CAP,S 150P-50 J CH GRM |
| C768 | 87-012-154-080 | | C-CAP,S 150P-50 J CH GRM |
| C769 | 87-010-371-080 | | CAP,E 470-6.3 M SME |
| C770 | 87-010-197-080 | | C-CAP,S 0.01-25 K B C2012 |
| C771 | 87-010-176-080 | | C-CAP,S 680P-50 J SL |
| C772 | 87-010-176-080 | | C-CAP,S 680P-50 J SL |
| C773 | 87-010-318-080 | | C-CAP,S 47P-50 J CH GRM |
| C774 | 87-010-318-080 | | C-CAP,S 47P-50 J CH GRM |
| C776 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C777 | 87-010-405-080 | | CAP,E 10-50 M 11L SME |
| C778 | 87-010-405-080 | | CAP,E 10-50 M 11L SME |
| C781 | 87-010-181-080 | | C-CAP,S 1800P-50 K B GRM |
| C782 | 87-010-181-080 | | C-CAP,S 1800P-50 K B GRM |
| C785 | 87-010-322-080 | | C-CAP,S 100P-50 J CH GRM |
| C786 | 87-010-154-080 | | C-CAP,S 10P-50 D CH GRM |
| C787 | 87-010-322-080 | | C-CAP,S 100P-50 J CH GRM |
| C788 | 87-010-154-080 | | C-CAP,S 10P-50 D CH GRM |
| C789 | 87-010-154-080 | | C-CAP,S 10P-50 D CH GRM |
| C790 | 87-010-322-080 | | C-CAP,S 100P-50 J CH GRM |
| C791 | 87-010-318-080 | | C-CAP,S 47P-50 J CH GRM |
| C800 | 87-A11-112-080 | | CAP,TC U 1000P-50 J CH |
| C801 | 87-010-186-080 | | C-CAP,S 4700P-50 K B C2012 |
| C802 | 87-018-209-080 | | CAP,TC U 0.1-50 Z F UP050 |
| C803 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C804 | 87-016-081-080 | | C-CAP,S 0.1-16 K R GRM |
| C805 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C806 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C810 | 87-010-596-080 | | C-CAP,S 0.047-16 K R C2012 |
| C815 | 87-010-260-080 | | CAP,E 47-25 M 11L SME |
| C816 | 87-010-178-080 | | C-CAP,S 1000P-50 K B C2012 |
| CN702 | 87-A60-667-010 | | CONN,3P H 2MM JMT |
| CN704 | 87-A60-619-010 | | CONN,2P V 2MM JMT |
| CN705 | 87-A60-620-010 | | CONN,3P V 2MM JMT |
| CN707 | 87-A60-424-010 | | CONN,16P V TOC-B |
| CN710 | 87-099-555-010 | | CONN,7P TUC-P7X-B1 |
| CN720 | 87-099-554-010 | | CONN,6P H TUC-P6X-B1 |
| CNA700 | 8A-CJ6-633-010 | | CONN ASSY,7P H CD-SIG |
| CNA706 | 88-805-061-220 | | CONN ASSY,6P 120 |
| FFC707 | 8A-CJ6-643-010 | | FF-CABLE,16P 70MM CD-CTRL |
| JW734 | 87-008-372-080 | | FLTR,EMI BL01 RN1 |
| L701 | 87-003-102-080 | | COIL,10UH J LAL02 |
| L710 | 87-003-102-080 | | COIL,10UH J LAL02 |
| L801 | 87-008-372-080 | | FLTR,EMI BL01 RN1 |
| R700 | 87-022-214-080 | | C-RES,S 100K-1/10W F |
| R701 | 87-022-214-080 | | C-RES,S 100K-1/10W F |
| R702 | 83-212-863-080 | | C-RES,S 27K-1/10W F |
| R703 | 83-212-863-080 | | C-RES,S 27K-1/10W F |
| R705 | 87-022-350-080 | | C-RES,S 3.3K-1/10W F |
| R706 | 87-022-350-080 | | C-RES,S 3.3K-1/10W F |
| R707 | 87-022-350-080 | | C-RES,S 3.3K-1/10W F |
| R708 | 87-022-350-080 | | C-RES,S 3.3K-1/10W F |
| R714 | 87-022-367-080 | | C-RES,S 150K-1/10W F |
| R715 | 87-022-367-080 | | C-RES,S 150K-1/10W F |
| R773 | 87-A50-190-080 | | C-COIL,S BLM21A102S |
| R789 | 87-008-372-080 | | FLTR,EMI BL01 RN1 |
| R804 | 87-A50-190-080 | | C-COIL,S BLM21A102S |
| X701 | 87-A70-046-010 | | VIB,XTAL 16.934MHZ |

CD-SUB C.B

| | | | |
|---|---|---|---|
| CN421 | 87-099-565-010 | | CONN,6P TUC-P6P-B1 |
| CN431 | 87-099-566-010 | | CONN,7P TUC-P7P-B1 |
| CN711 | 87-099-566-010 | | CONN,7P TUC-P7P-B1 |
| CN721 | 87-099-565-010 | | CONN,6P TUC-P6P-B1 |

CD MOTOR C.B

| | | | |
|---|---|---|---|
| PIN3 | S2-369-750-000 | | PLUG,6P |
| SW1 | S4-S13-A01-600 | | SW,LEAF |
| M1 | S0-M10-A09-700 | | MOTOR SLED ASSY |

CD-SW C.B

| | | | |
|---|---|---|---|
| CNA705 | 8A-CJ6-639-010 | | CONN ASSY,3P V CD-SW |
| S701 | 87-A90-117-010 | | SW,PUSH 1-1-1 MPU10371MLB0 MIC |
| S702 | 87-A90-117-010 | | SW,PUSH 1-1-1 MPU10371MLB0 MIC |

LINE-OUT/PT C.B

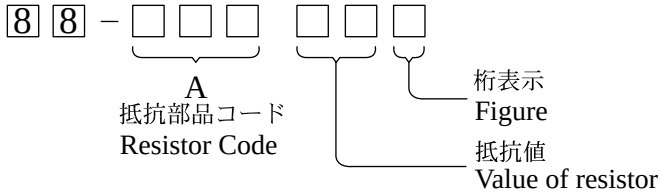
| | | | |
|---|---|---|---|
| C200 | 87-010-388-080 | | CAP,E 1000-25 M SME |
| C201 | 87-010-073-080 | | CAP,E 3.3-50 M 5L SRE |
| ⚠C202 | 87-A10-479-080 | | CAP,CER 2200P-250 M E KH |
| C668 | 87-010-182-080 | | C-CAP,S 2200P-50 K B C2012 |
| C669 | 87-010-182-080 | | C-CAP,S 2200P-50 K B C2012 |
| C670 | 87-010-182-080 | | C-CAP,S 2200P-50 K B C2012 |
| C671 | 87-010-182-080 | | C-CAP,S 2200P-50 K B C2012 |
| C672 | 87-010-182-080 | | C-CAP,S 2200P-50 K B C2012 |
| C673 | 87-010-182-080 | | C-CAP,S 2200P-50 K B C2012 |
| C690 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C691 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| CN201 | 87-A60-620-010 | | CONN,3P V 2MM JMT |
| CN603 | 87-A60-625-010 | | CONN,8P V 2MM JMT |
| CNA200 | 8A-CJ6-635-010 | | CONN ASSY,8P H POWER |
| J600 | 87-099-813-010 | | JACK,PIN 3P RRR W/O SW |
| J601 | 87-099-814-010 | | JACK,PIN 3P WWW W/O SW |
| JR606 | 87-A50-190-080 | | C-COIL,S BLM21A102S |
| ⚠PR202 | 87-A90-091-080 | | PROTECTOR,2A 491SERIES 60V |
| ⚠PR203 | 87-A90-091-080 | | PROTECTOR,2A 491SERIES 60V |
| ⚠PT200 | 8A-CJ6-671-010 | | PT,EZ ACJ-6 |
| ⚠PT201 | 8Z-NF8-659-010 | | PT,SUB ZNF-8(E)TAM |
| ⚠RY200 | 87-A90-977-010 | | RELAY,AC12V DG12D1-O(M) |
| ⚠T201 | 87-A60-317-010 | | TERMINAL, 1P MSC |
| ⚠T202 | 87-A60-317-010 | | TERMINAL, 1P MSC |

PT-SUB C.B

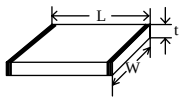
| | | | |
|---|---|---|---|
| C13 | 87-010-928-000 | | CAP,E 4700-25 M SMG |
| C14 | 87-010-780-090 | | CAP,E 6800-25 M SMG |
| C15 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C16 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C17 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C18 | 87-010-196-080 | | C-CAP,S 0.1-25 Z F C2012 |
| C20 | 87-010-387-080 | | CAP,E 470-25 M SME |
| C22 | 87-012-368-080 | | C-CAP,S 0.1-50 Z F |
| C23 | 87-012-368-080 | | C-CAP,S 0.1-50 Z F |
| CN3 | 87-099-556-010 | | CONN,10P H TUC-P10X-B1 |
| CN6 | 84-722-634-010 | | CONN,8P EH-H<K> |
| CN6 | 87-A61-460-010 | | CONN,8P EH-H<EZ> |

Oチップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



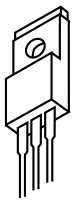

チップ抵抗
Chip resistor

| 容量 Wattage | 種類 Type | 許容誤差 Tolerance | 記号 Symbol | 寸法／Dimensions (mm) 外形／Form | L | W | t | 抵抗コード ：A Resistor Code：A |
|---|---|---|---|---|---|---|---|---|
| 1/16W | 1005 | ±5% | CJ |  | 1.0 | 0.5 | 0.35 | 104 |
| 1/16W | 1608 | ±5% | CJ | | 1.6 | 0.8 | 0.45 | 108 |
| 1/10W | 2125 | ±5% | CJ | | 2 | 1.25 | 0.45 | 118 |
| 1/8W | 3216 | ±5% | CJ | | 3.2 | 1.6 | 0.55 | 128 |

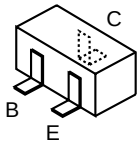


## TRANSISTOR ILLUSTRATION

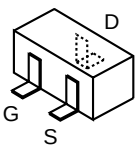

2SA1015
2SA1318
CSC4115
CSD655
KTC3198



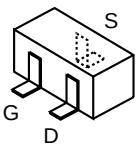

2SB1370




2SA1235
2SC2714
2SC3052
2SD1306
CSD1306
DTA123JK
DTA124EK
DTA144TK
DTC124EK
RT1N141C
RT1P141C
RT1P144C
RT1P441C

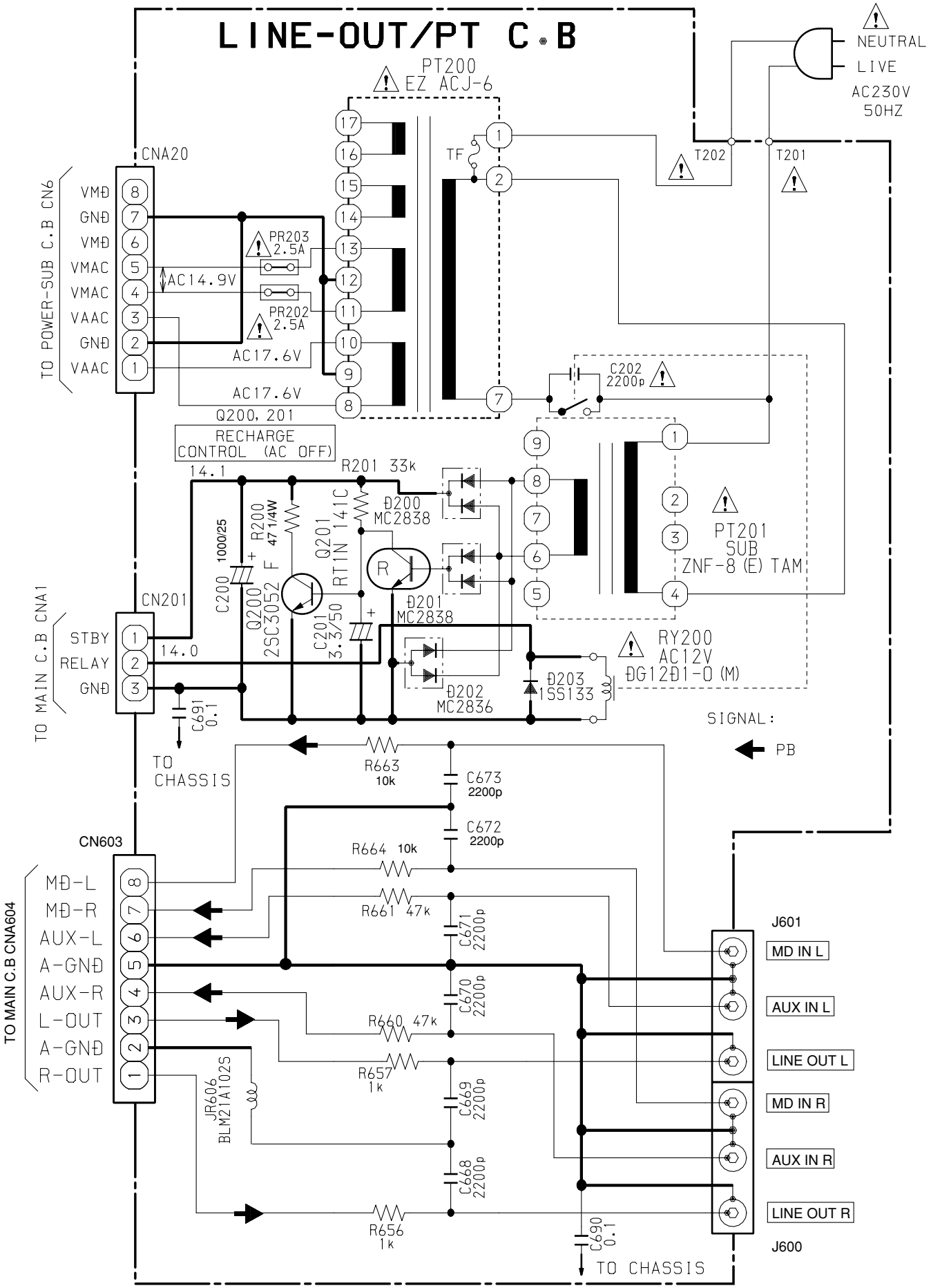



2SK2158

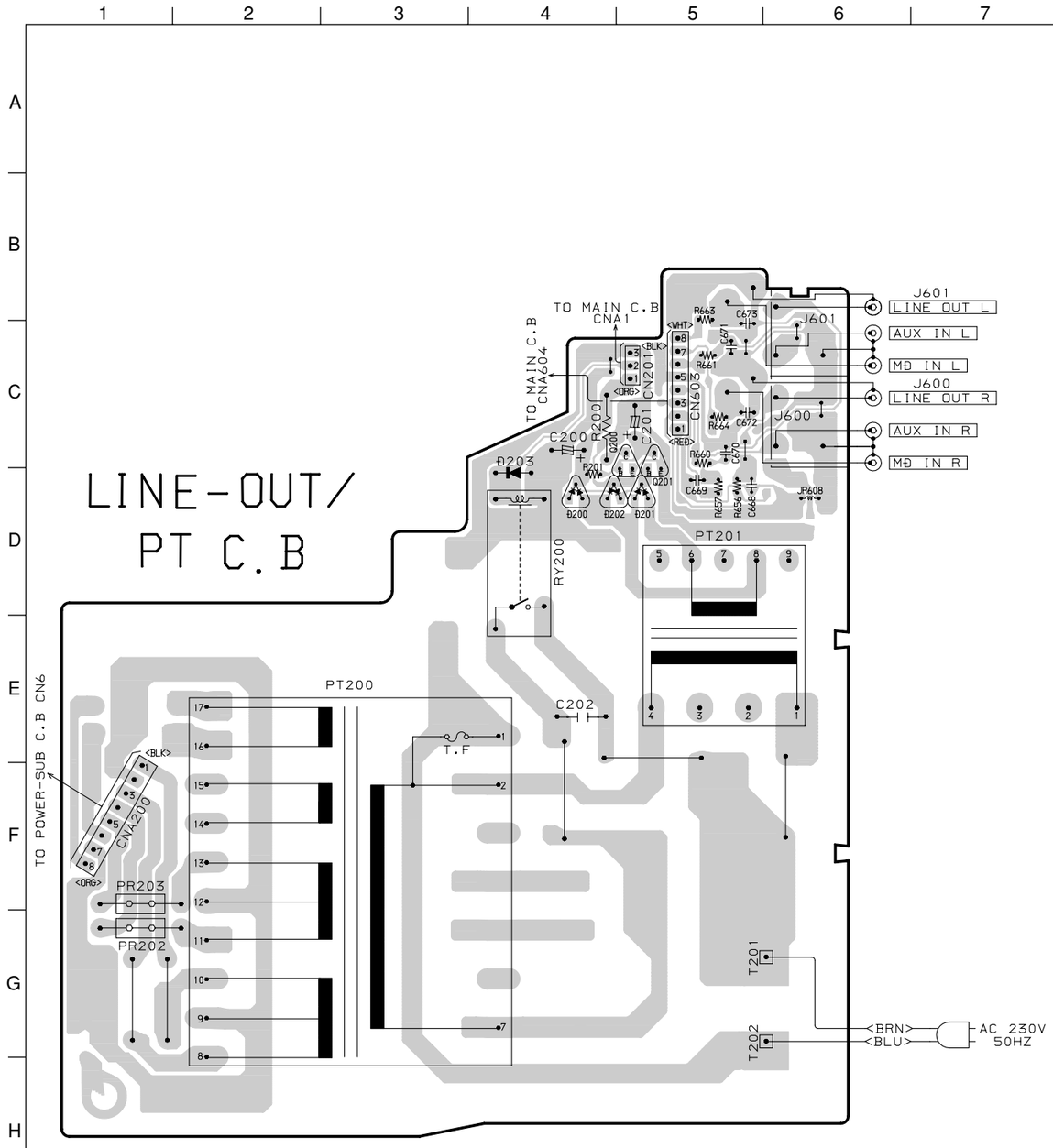



2SK543

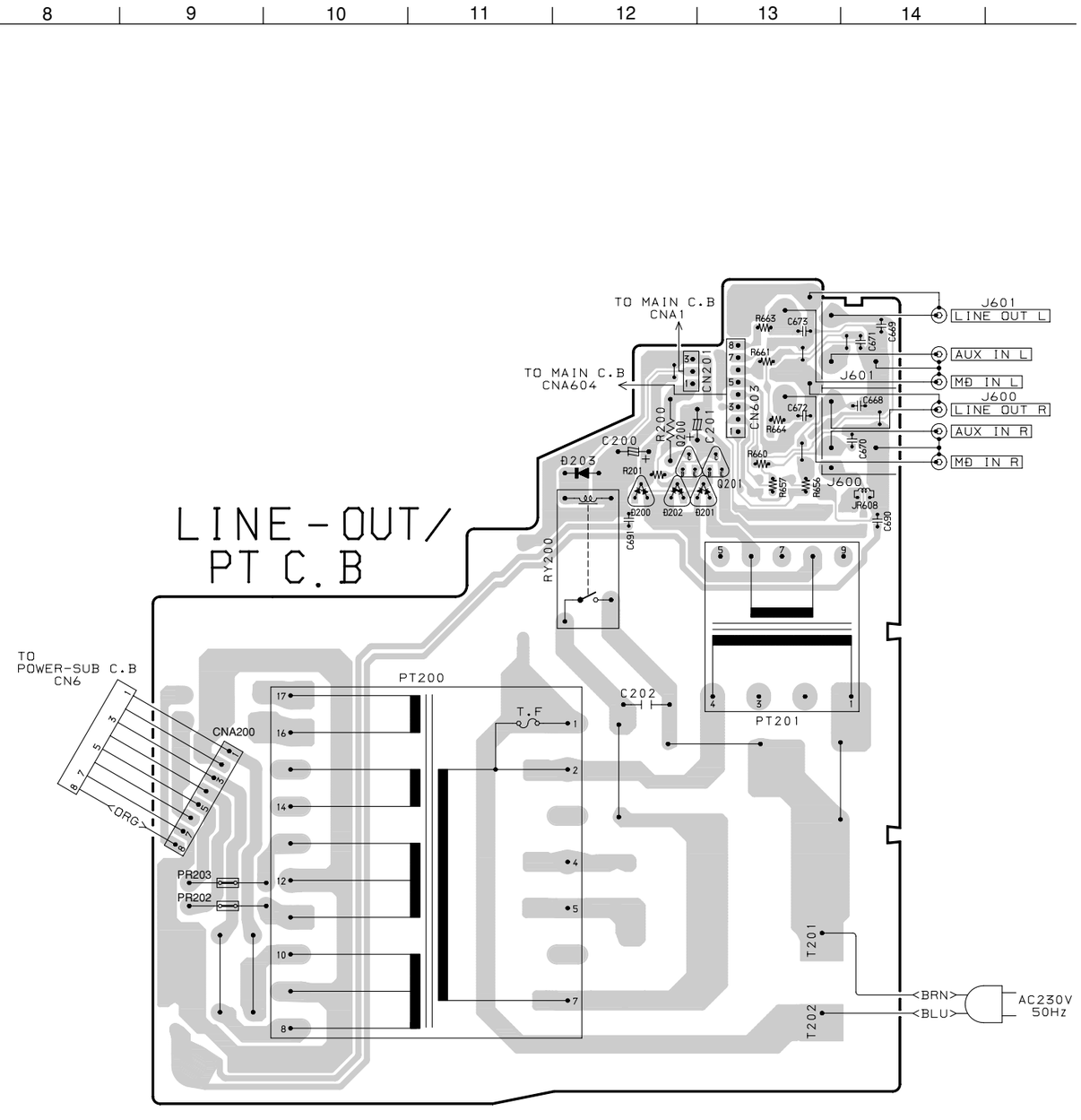
SCHEMATIC DIAGRAM-1 (LINE OUT/PT SECTION)



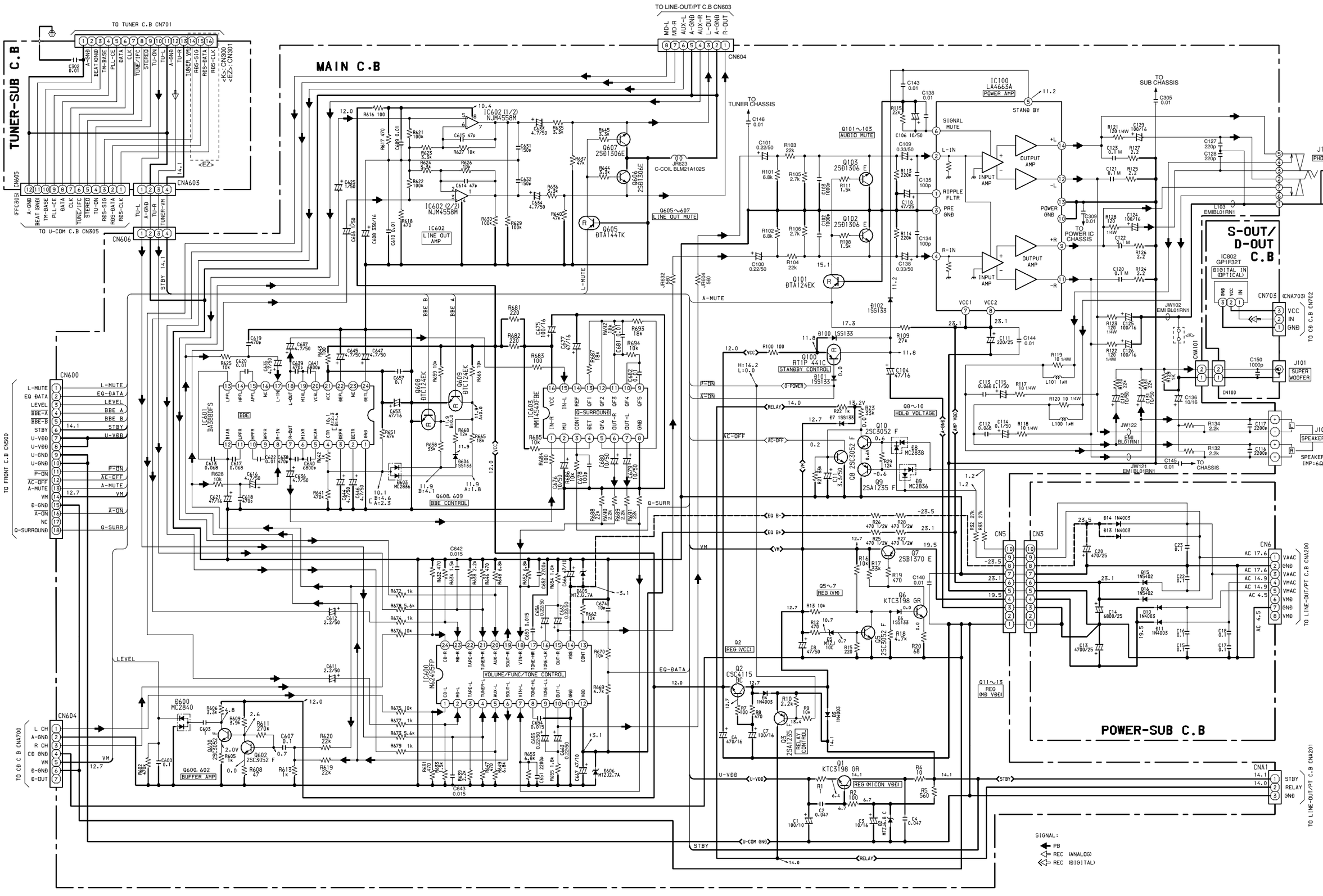
WIRING-1 (LINE OUT/PT C.B) <K>




WIRING-2 (LINE OUT/PT C.B) <EZ>



# SCHEMATIC DIAGRAM-2 (MAIN SECTION)



# POWER-SUB C.B

TO LINE-OUT/PT C.B CNA200

# TUNER-SUB C.B

TO U-COM C.B CN305 (FFC305)

TO LINE-OUT/PT C.B CN603

TO CD C.B CNA700

TO TUNER C.B CN701

TO FRONT C.B CN500

# MAIN C.B

TO LINE-OUT/PT C.B CN201

# S-OUT/D-OUT C.B

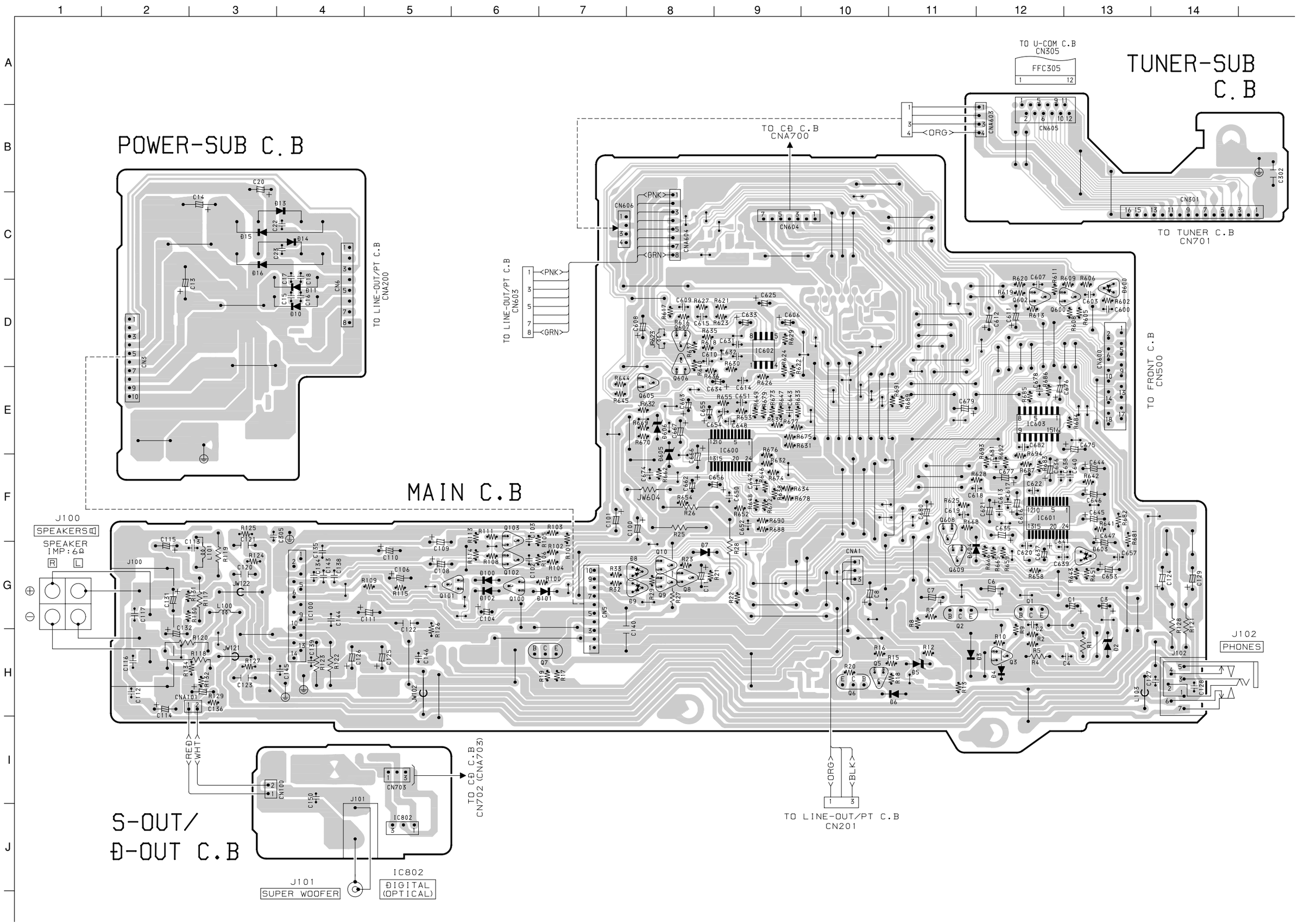
TO CD C.B CN702 (CNA703)

J100 SPEAKERS
SPEAKER IMP:6Ω

J101 SUPER WOOFER

IC802 DIGITAL OUT (OPTICAL)

J102 PHONES


POWER-SUB C.B
TO LINE-OUT/PT C.B
CNA200
MAIN C.B
TO U-COM C.B
CN305
FFC305
TUNER-SUB
C.B
TO TUNER C.B
CN701
TO CD C.B
CNA700
TO LINE-OUT/PT C.B
CN603
TO FRONT C.B
CN500
J100
SPEAKERS
SPEAKER
IMP:6Ω
R L
J102
PHONES
S-OUT/
D-OUT C.B
J101
SUPER WOOFER
IC802
DIGITAL
(OPTICAL)
TO CD C.B
CN702 (CNA703)
TO LINE-OUT/PT C.B
CN201

# LED-SUB C.B

CN411

Đ503 Đ502

Đ502, 503
(BACK LIGHT
(LED FOR LCD)

# U-COM C.B

CN400

TO CD-SUB C.B
CN431

TO CD-SUB C.B
CN421

TO TUNER-SUB C.B
CN605
(FFC305)

IC400

L400

Q400 Q401

# FRONT C.B

TO DISPLAY (LCDŠ00)

CN501

CNA501
<ORG>
<BLK>

CN410

CN503

CN500

TO MAIN C.B CN600

IC500

R501 R500 R503 R502

R563 R562 R564 R565

Đ510 Đ511

Q501 Q502 Q503 Q505 Q513 Q515

R539 Q504

R512 R513 Đ500 Q500

R511 Đ501

R517

C500 C501

IC500
REMOTE
SENSOR

Đ500
STANĐBY

# KEY C.B

S502
▲CĐ
OPEN/CLOSE

S513
TUN/BANĐ

S518
POWER
⏻STANĐBY/ON

S509
CĐ

S511
AUX

S517
ENTER/
COLOR

S510
ĐEMO/ECO

S512
ĐISPLAY

S501
▶▶|/▶▶
TUNING UP

S500
|◀◀/◀◀
TUNING ĐOWN

S520
VOLUME/MULTI JOG

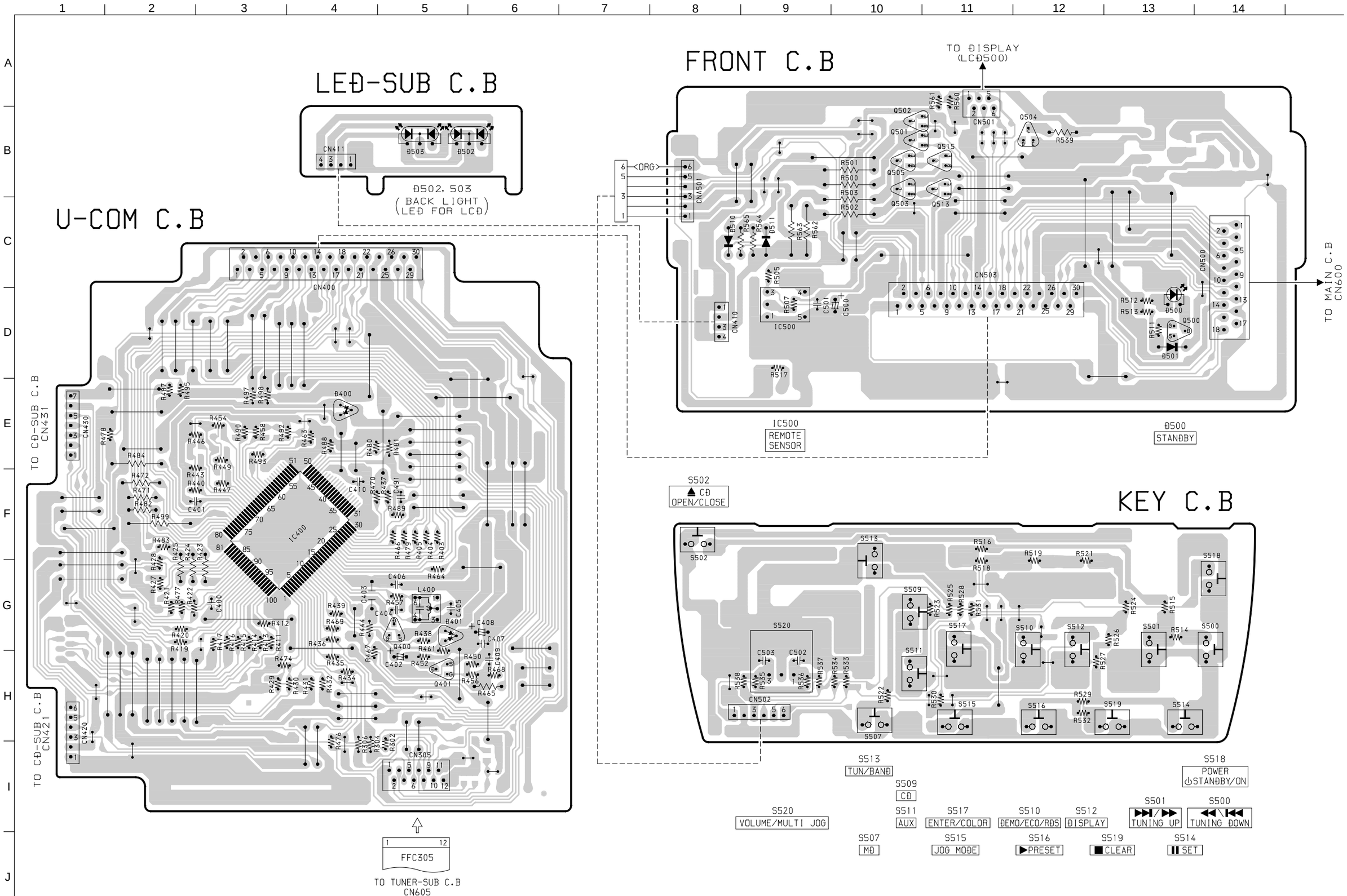
S507
MĐ

S515
JOG MOĐE

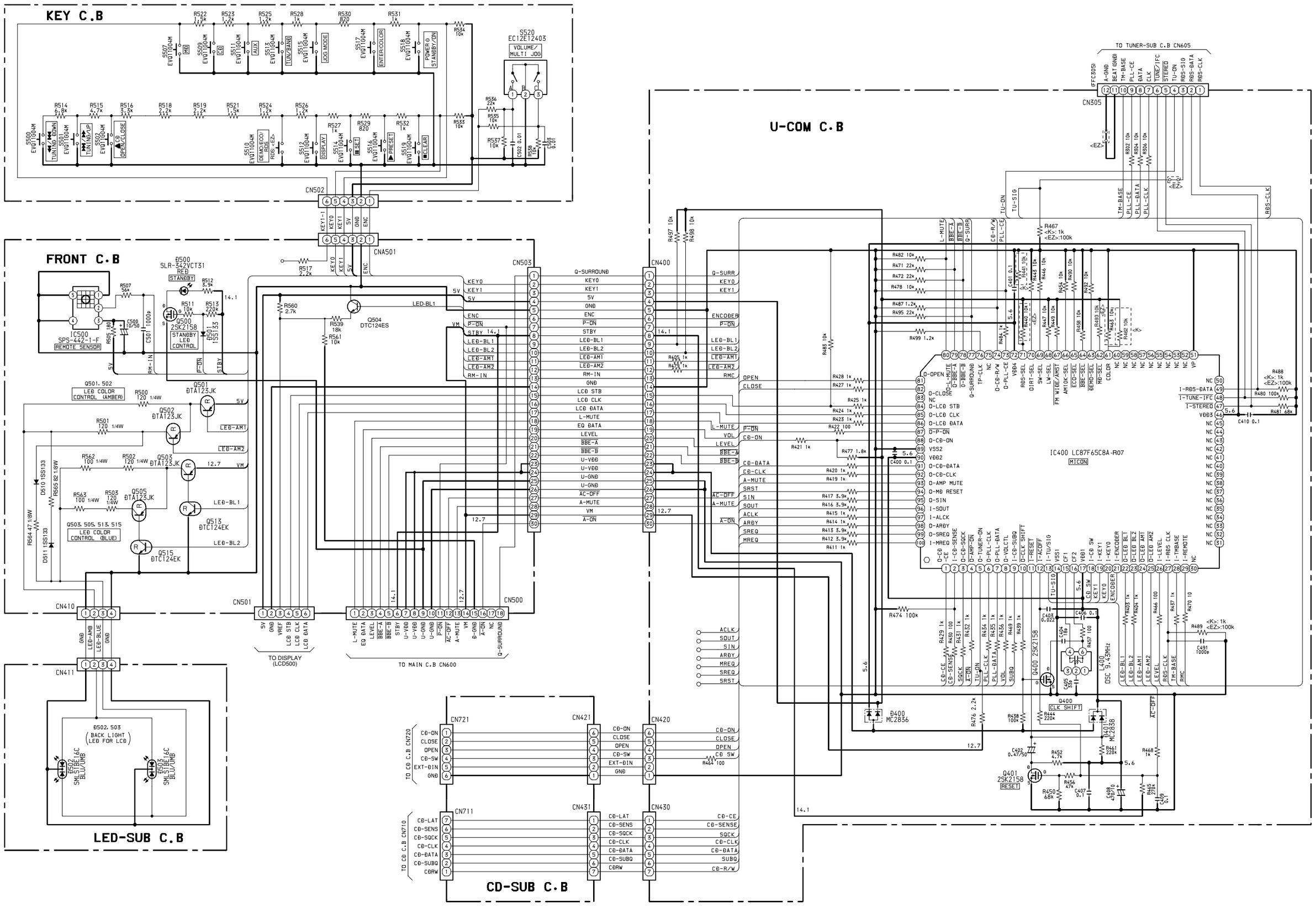
S516
▶PRESET

S519
■CLEAR

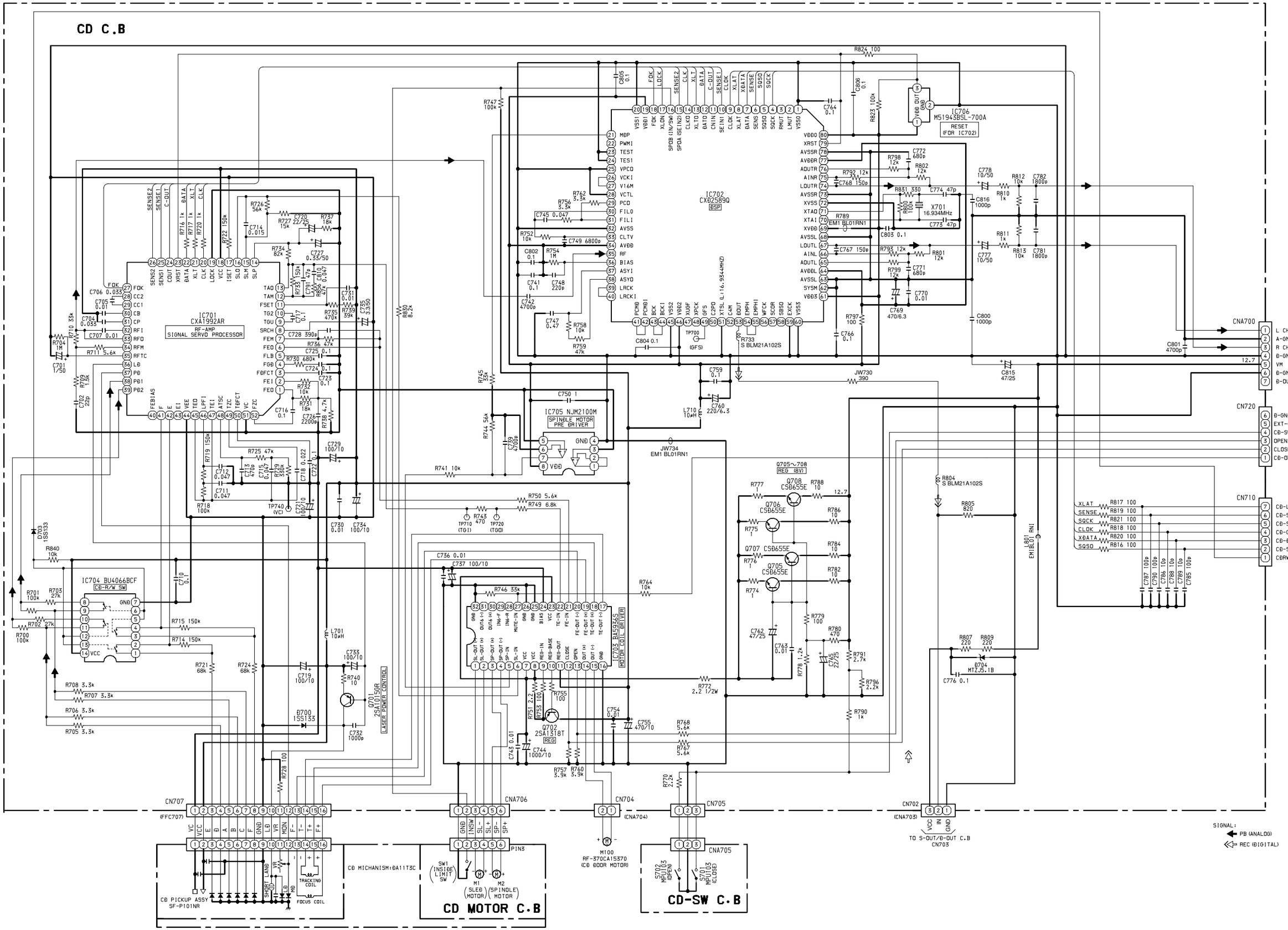
S514
❚❚SET


LED-SUB C.B
CN411
D503
D502
D502, 503
(BACK LIGHT)
(LED FOR LCD)
FRONT C.B
TO DISPLAY
(LCD500)
CN501
<ORG>
CN4501
R561
R560
Q502
Q501
Q504
R539
Q515
Q505
Q503
Q513
R501
R500
R503
R502
D510
R565
R564
D511
R563
R562
R505
CN503
CN500
TO MAIN C.B
CN600
R512
R513
D500
Q500
R511
D501
CN410
IC500
R507
C501
C500
R517
IC500
REMOTE
SENSOR
D500
STANDBY
U-COM C.B
CN400
TO CD-SUB C.B
CN431
CN430
D400
IC400
C410
C401
C406
L400
C405
C403
C404
D401
C408
C407
C409
Q400
Q401
C402
R468
R465
CN305
CN420
TO CD-SUB C.B
CN421
FFC305
TO TUNER-SUB C.B
CN605
S502
CD
OPEN/CLOSE
KEY C.B
S513
TUN/BAND
S509
CD
S511
AUX
S517
ENTER/COLOR
S510
DEMO/ECO/RDS
S512
DISPLAY
S501
TUNING UP
S500
TUNING DOWN
S518
POWER
STANDBY/ON
S520
VOLUME/MULTI JOG
S507
MD
S515
JOG MODE
S516
PRESET
S519
CLEAR
S514
SET
CN502

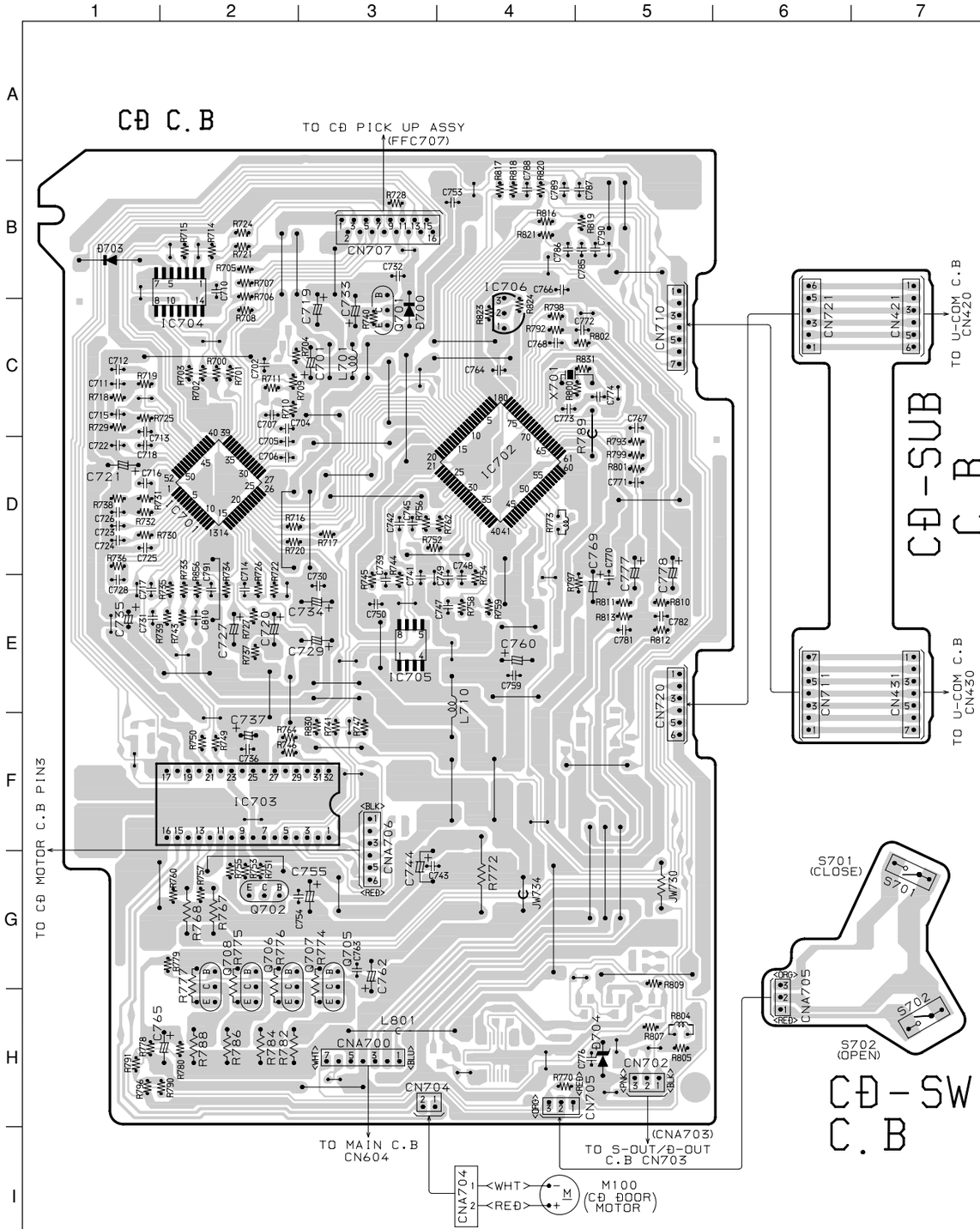
# SCHEMATIC DIAGRAM-3 (KEY, FRONT, U-CON SECTION)



# SCHEMATIC DIAGRAM-4 (CD SECTION)

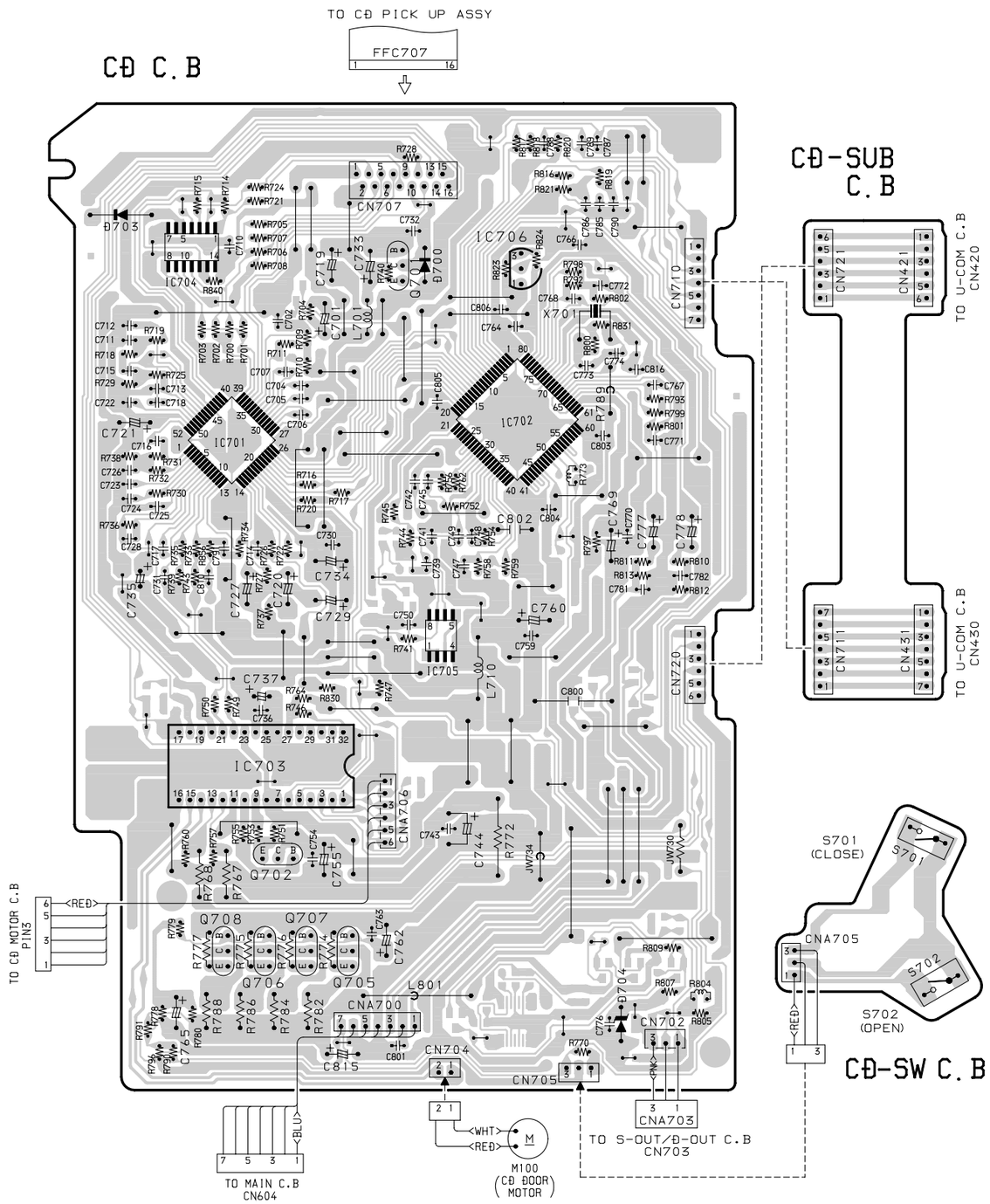


WIRING-7 (CD, CD-SUB, CD-SW C.B) <K>

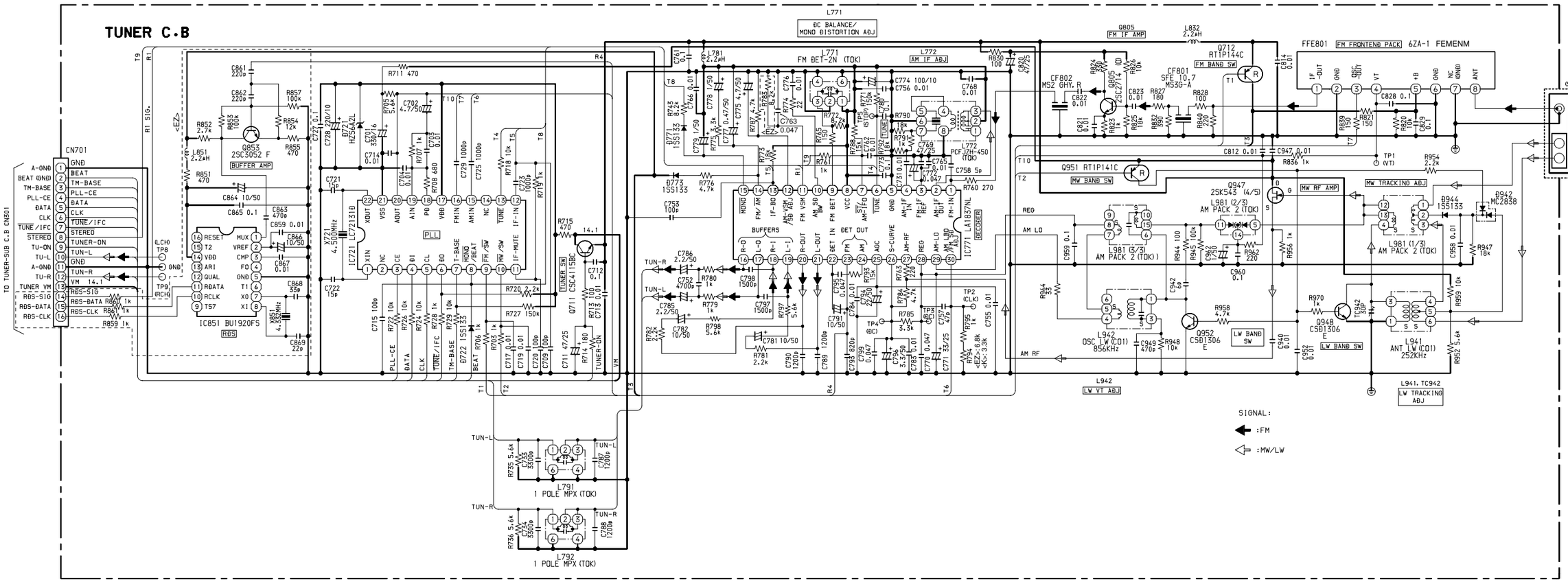





WIRING-8 (CD, CD-SUB, CD-SW C.B) <EZ>

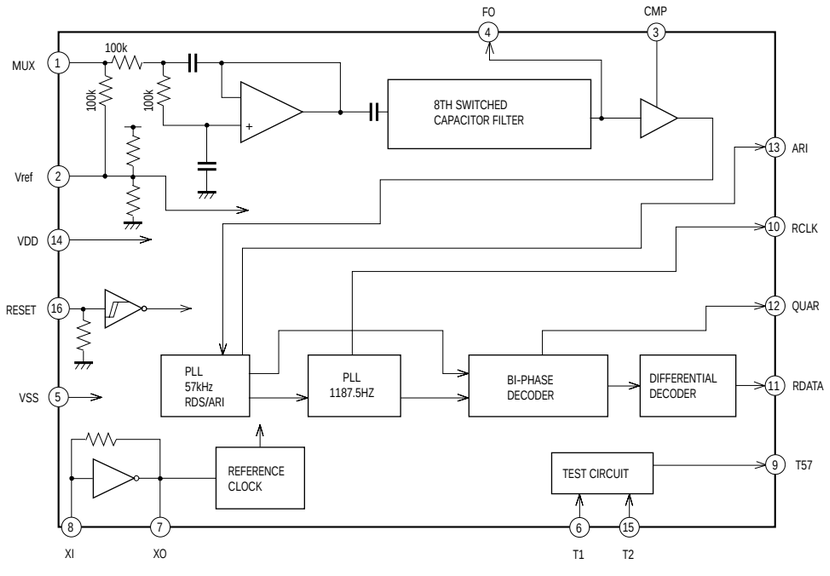


# SCHEMATIC DIAGRAM-5 (TUNER SECTION)

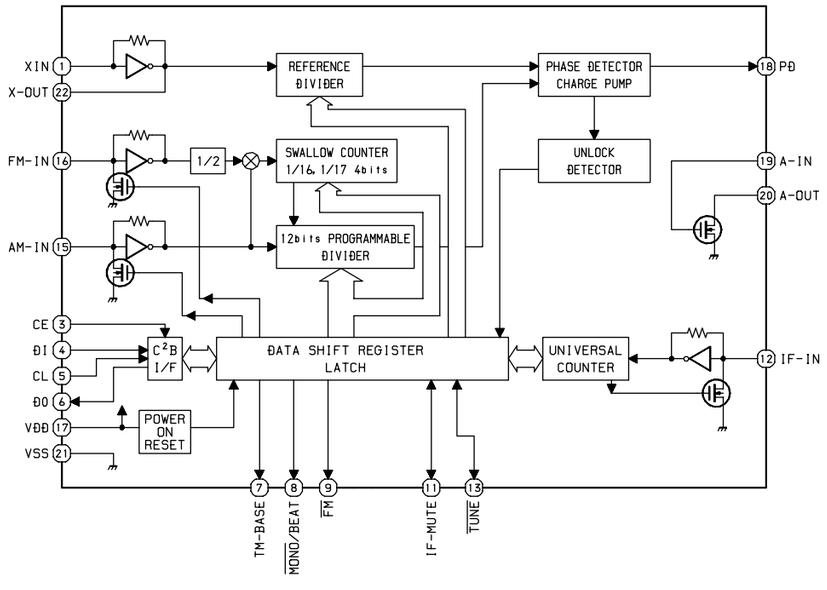



## IC BLOCK DIAGRAM

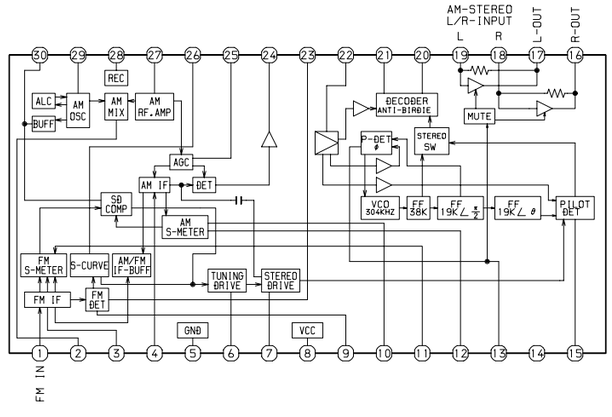
### IC, BU1920FS



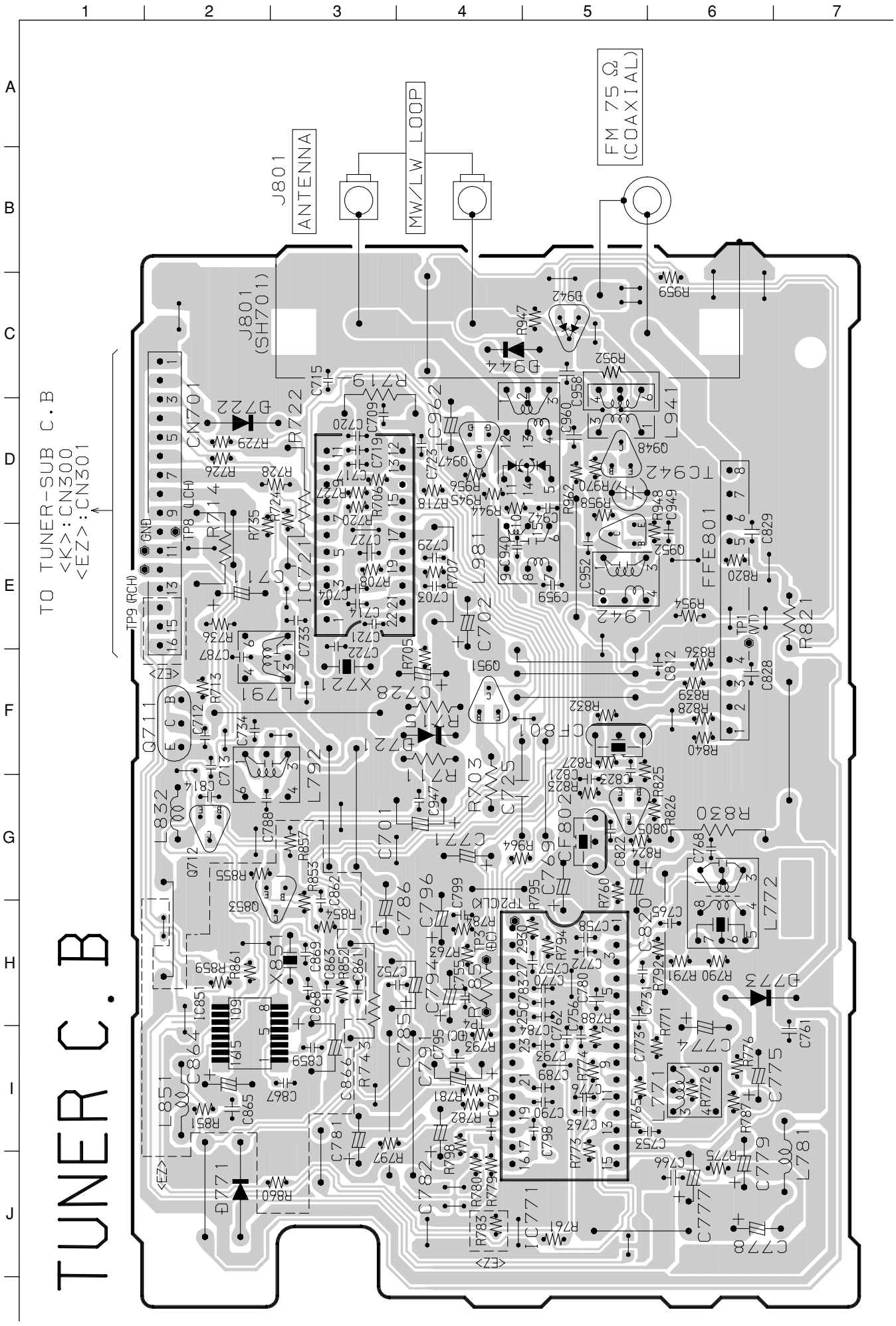

### IC, LC72131D



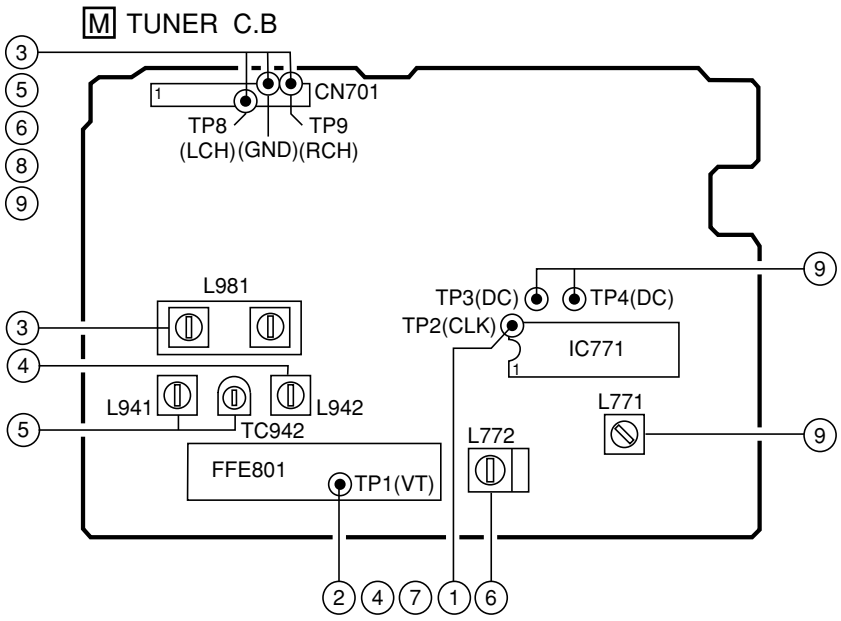

### IC, LA1837NL



WIRING-9 (TUNER C.B)



# ADJUSTMENT <TUNER>




1. Clock Frequency Check
   Settings : • Test point : TP2 (CLK)
   Method : Set to MW 1602kHz and check that the test point is 2052kHz ± 45Hz.

2. MW VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to MW 1602kHz and check that the test point is less than 8.0V. Then set to MW 531kHz and check that the test point is more than 0.6V.

3. MW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location : L981 (1/3)
   Method : Set to MW 999kHz and adjust L981 (1/3) so that the test point becomes maximum.

4. LW VT Adjustment
   Settings : • Test point : TP1 (VT)
   • Adjustment location : L942
   Method : Set to LW 144kHz and adjust L942 so that the test point becomes 1.3V ± 0.05V.
   Then set to LW 290kHz and check that the test point is less than 8.0V.

5. LW Tracking Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L941 ..... 144kHz
   TC942 ..... 290kHz
   Method : Set up TC942 to center before adjustment.
   The level at 144kHz is adjusted to maximum by L941. Then the level at 290kHz is adjusted to maximum by TC942.

6. AM IF Adjustment
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   • Adjustment location :
   L772 ..... 450kHz

7. FM VT Check
   Settings : • Test point : TP1 (VT)
   Method : Set to FM 108.0MHz and check that the test point is less than 8.0V. Then set to FM 87.5 MHz and check that the test point is more than 0.5V.

8. FM Tracking Check
   Settings : • Test point : TP8 (Lch), TP9 (Rch)
   Method : Set to FM 98.0MHz and check that the test point is less than 13dBμV.

9. DC Balance / Mono Distortion Adjustment
   Settings : • Test point : TP3,TP4 (DC balance)
   TP8 (Lch), TP9 (Rch) (Distortion)
   • Adjustment location : L771
   • Input level : 60dBμV
   Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V.
   Next, check that the distortion is less than 1.3%.

# IC DESCRIPTION

IC, CXA1992AR

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1 | FEO | O | Output terminal for focus error amplifier. Internally connected to window comparator input for bias condition. |
| 2 | FEI | I | Input terminal for focus error. |
| 3 | FDFCT | I | Capacitor connection terminal for time constant used when there is defect. |
| 4 | FGD | I | This pin is connected to GND via capacitor when high frequency gain of the focus servo is attenuated. |
| 5 | FLB | I | This is a pin where the time constant is externally connected to raise the low frequency gain of the focus servo. |
| 6 | FEO | O | Focus drive output. |
| 7 | FEM | I | Focus amplifier inverted input. |
| 8 | SRCH | I | This is a pin where the time constant is externally connected to generate the focus search waveform. |
| 9 | TGU | I | This is a pin where the selection time constant is externally connected to set the tracking servo the high frequency gain. |
| 10 | TG2 | I | This is a pin where the selection time constant is externally connected to set the tracking high frequency gain. |
| 11 | FSET | I | Pin for setting peak of the phase compensator of the focus tracking. |
| 12 | TAM | I | Tracking amplifier inverted input. |
| 13 | TAO | O | Tracking drive output. |
| 14 | SLP | I | Sled amplifier non-inverted input. |
| 15 | SLM | I | Sled amplifier inverted input. |
| 16 | SLO | O | Sled drive output. |
| 17 | ISET | I | The current which determines height of the focus search, track jump and sled kick is input with external resistance connected. |
| 18 | VCC | I | Power supply. |
| 19 | LOCK | I | “L” setting starts sled disorder-prevention circuit. (No pull-up resistance) (Connected to VC) |
| 20 | CLK | I | Clock input for serial data transfer from CPU. (No pull-up resistance) |
| 21 | XLT | I | Latch input from CPU. (No pull-up resistance) |
| 22 | DATA | I | Serial data input from CPU. (No pull-up resistance) |
| 23 | XRST | I | Reset system at “L” setting. (No pull-up resistance) |
| 24 | COUT | O | Signal output for track number counting. |
| 25 | SENS1 | O | FZC, DFCT1, TZC, BALH, TGH, FOH, or ATSC is output depending on the command from CPU. |
| 26 | SENS2 | O | DFCT2, MIRR, BALL, TGL or FOL is output depending on the command from CPU. |
| 27 | FOK | O | Output terminal for focus OK comparator. |
| 28 | CC2 | I | Input pin where the DEFECT bottom hold output is capacitance coupled. |
| 29 | CC1 | O | DEFECT bottom-hold output terminal. Internally connected to interruption comparator input. |
| 30 | CB | I | Connection terminal for DEFECT bottom-hold capacitor. |
| 31 | CP | I | Connection terminal for MIRR hold-capacitor. Anti-reverse input terminal for MIRR comparator. |
| 32 | RFI | I | Input terminal by capacity combination of RF summing amplifier. |
| 33 | RFO | O | Output terminal of RF summing amplifier. Checkpoint of Eye pattern. |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 34 | RFM | I | Anti-reverse input terminal for RF summing amplifier. The gain of RF amplifier is decided by the connection resistance between RF-M and RF-O terminals. |
| 35 | RFTC | I | This is a pin where the selection time constant is externally connected to control the RF level. |
| 36 | LD | O | APC amplifier output terminal. |
| 37 | PD | I | APC amplifier input terminal. |
| 38 ~ 39 | PD1 ~ PD2 | I | RFI-V amplifier inverted input pin. These pins are connected to the A+C and B+C pins of the optical pickup, receiving by currents input. |
| 40 | FEBIAS | I/O | Bias adjustment pin of the focus error amplifier. (Not used) |
| 41 ~ 42 | F ~ E | I | F and EIV amplifier inverted input pins. These pins are connected to the F and E of the optical pickup, receiving by current input. |
| 43 | EI | – | Gain adjustment pin of the I-V amplifier E. (When not in use of BAL automatic adjustment) (Not used) |
| 44 | VEE | – | GND connection pin. |
| 45 | TEO | O | Output terminal for tacking-error amplifier. Output E-F signal. |
| 46 | LPFI | I | BAL adjustment comparator input pin. (Input through LPF from TEO) |
| 47 | TEI | I | Input terminal for tracking error. |
| 48 | ATSC | I | Window-comparator input terminal for detecting ATSC. |
| 49 | TZC | I | Input terminal for tracking-zero cross comparator. |
| 50 | TDFCT | I | Capacitor connection pin for the time constant used when there is defect. |
| 51 | VC | O | Output terminal for DC voltage reduced to half of VCC+VEE. |
| 52 | FZC | I | Input terminal for focus-zero cross comparator. |

IC, CXD2589Q

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1 | VSS | – | GND. |
| 2 | LMUT | O | Left channel zero detection flag. (Not used) |
| 3 | RMUT | O | Right channel zero detection flag. (Not used) |
| 4 | SQCK | I | SQSO readout clock input. |
| 5 | SQSO | O | Sub Q 80-bit serial output. |
| 6 | SENS | O | SENS output to CPU. |
| 7 | DATA | I | Serial data input from CPU. |
| 8 | XLAT | I | Latch input from CPU. Serial data is latched at the falling edge. |
| 9 | CLOK | I | Serial data transfer clock input from CPU. |
| 10 | SEIN1 | I | SENS input from SSP. |
| 11 | CNIN | I | Track jump count signal input. |
| 12 | DATO | I | Serial data output to SSP. |
| 13 | XLTO | O | Serial data latch output to SSP. Latched at the falling edge. |
| 14 | CLKO | O | Serial data transfer clock output to SSP. |
| 15 | SEIN2 | I | Microcomputer extended interface (input A). (SENS input from SSP.) |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 16 | IN/SW | I | Microcomputer extended interface (input B). (CD pickup inside limit switch.) |
| 17 | XLON | O | Microcomputer extended interface (output). |
| 18 | FOK | I | Focus OK input. Used for SENS output and the servo auto sequencer. |
| 19 | VDD1 | – | Power supply (+5V). |
| 20 | VSS1 | – | GND. |
| 21 | MDP | O | Spindle motor servo control. |
| 22 | PWMI | I | Spindle motor external control input. (Not used) |
| 23 | TEST | I | TEST pin. (Connected to GND) |
| 24 | TES1 | I | TEST pin. (Connected to GND) |
| 25 | VPCO | O | Charge pump output for the wide-band EFM PLL. (Connected to GND) |
| 26 | VCKI | I | VCO2 oscillation input for the wide-band EFM PLL. |
| 27 | V16M | O | VCO2 oscillation output for the wide-band EFM PLL. |
| 28 | VCTL | I | VCO2 control voltage input for the wide-band EFM PLL. (Connected to GND) |
| 29 | PCO | O | Master PLL charge pump output. |
| 30 | FILO | O | Master PLL (slave = digital PLL) filter output. |
| 31 | FILI | I | Master PLL filter input. |
| 32 | AVSS | – | Analog GND. |
| 33 | CLTV | I | Master VCO control voltage input. |
| 34 | AVDD | – | Analog power supply (+5V). |
| 35 | RF | I | EFM signal input. |
| 36 | BIAS | I | Constant current input of the asymmetry circuit. |
| 37 | ASYI | I | Asymmetry comparator voltage input. |
| 38 | ASYO | O | EFM full swing output. "L" = VSS, "H" = VDD. |
| 39 | LRCK | O | D/A interface. LR clock output f = Fs. |
| 40 | LRCKI | I | LR clock input. |
| 41 | PCMD | O | D/A interface. Serial data output (two's complement, MSB first). |
| 42 | PCMDI | I | D/A interface. Serial data input (two's complement, MSB first). |
| 43 | BCK | O | D/A interface. Bit clock output. |
| 44 | BCKI | I | D/A interface. Bit clock input. |
| 45 | VSS2 | – | GND. |
| 46 | VDD2 | – | Power supply (+5V). |
| 47 | XUGF | O | XUGF output. Switched to MNT1 or RFCK output by a command. (Not used) |
| 48 | XPCK | O | XPCLK output. Switched to MNT0 output by a command. (Not used) |
| 49 | GFS | O | GFS output. Switched to MNT3 or XRAOF output by a command. (Not used) |
| 50 | C2PO | O | C2PO output. Switched to GTOP output by a command. (Not used) |
| 51 | XTSL | I | Crystal selector input. "L" = 16.9344MHz, "H" = 33.8688MHz. (Connected to VDD) |
| 52 | C4M | O | 4.2336MHz output. 1/4 frequency divided VCKI output in CAV-W mode. (Not used) |
| 53 | DOUT | O | Digital out output. |
| 54 | EMPH | O | Outputs a high signal when the playback disc has emphasis, and a low signal when there is no emphasis. |
| 55 | EMPHI | I | Inputs a high signal when de-emphasis is on, and a low signal when de-emphasis is off. |

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 56 | WFCK | O | WFCK output. (Not used) |
| 57 | SCOR | O | Outputs a high signal when either subcode sync S0 or S1 is deteected. (Not used) |
| 58 | SBSO | O | Sub P to W serial output. (Not used) |
| 59 | EXCK | I | SBSO readout clock input. (Connected to GND) |
| 60 | VSS3 | – | GND. |
| 61 | VDD3 | – | Power supply (+5V). |
| 62 | SYSM | I | Mute input. Active when high. (Connected to Analog GND) |
| 63 | AVSSL | – | Analog GND. |
| 64 | AVDDL | – | Analog power supply (+5V). |
| 65 | AOUTL | O | Left channel analog output. |
| 66 | AINL | I | Left channel operational amplifier input. |
| 67 | LOUTL | O | Left channel LINE output. |
| 68 | AVSSL | – | Analog GND. |
| 69 | XVDD | – | Power supply for master clock. |
| 70 | XTAI | I | Crystal oscillation circuit input. Input the external master clock via this pin. |
| 71 | XTAO | O | Crystal oscillation circuit output. |
| 72 | XVSS | – | GND for master clock. |
| 73 | AVSSR | – | Analog GND. |
| 74 | LOUTR | O | Right channel LINE output. |
| 75 | AINR | I | Right channel operational amplifier input. |
| 76 | AOUTR | O | Right channel analog output. |
| 77 | AVDDR | – | Analog power supply (+5V). |
| 78 | AVSSR | – | Analog GND. |
| 79 | XRST | I | System reset. Reset when low. |
| 80 | VDD0 | – | Power supply (+5V). |

Notes:
- PCMD is an MSB first, two's complement output.
- GTOP is used to monitor the frame sync protection status. (High: sync protection window open.)
- XUGF is the negative pulse for the frame sync obtained from the EFM signal. It is the signal before sync protection.
- XPLCK is the inverse of the EFM PLL clock. The PLL is designed so that the falling edge of XPCLK and the EFM signal transition point coincide.
- GFS goes high when the frame sync and the insertion protection timing match.
- RFCK is derived from the crystal accuracy, and has a cycle of 136μ (during normal speed).
- C2PO represents the data error status.
- XRAOF is generated when the 16K RAM exceeds the ±48F jitter margin.

IC, LC87F65C8A

| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 1 | O-CD-CE | O | Chip enable output to CD DSP IC (CXD2589Q). |
| 2 | I-CD-SENSE | I | SENS input from CD DSP IC (CXD2589Q). |
| 3 | O-CD-SQCLK | O | SUBQ data readout clock output to CD DSP IC (CXD2589Q). |
| 4 | $\overline{\text{O-AMP-ON}}$ | O | Power on control output to POWER AMP IC (LA4663A). "L" = POWER ON. |
| 5 | O-TUNER-ON | O | TUNER power supply control output. "H" = POWER ON. |
| 6 | O-PLL-CLK | O | Clock output to TUNER PLL IC (LC72131D). |
| 7 | O-PLL-DATA | O | Data output to TUNER PLL IC (LC72131D). |
| 8 | O-VOLCTL | O | Connect to VOLUME/FUNCTION/TONE CONTROL IC (M62495FP) pin 13 (CONT). |
| 9 | I-CD-SUBQ | I | SUBQ input from CD DSP IC (CXD2589Q). |
| 10 | $\overline{\text{O-CLK SHIFT}}$ | O | Clock shift output for FM-BEAT. |
| 11 | $\overline{\text{I-RESET}}$ | I | Reset input. |
| 12 | $\overline{\text{I-ACOFF}}$ | I | Power failure detection/HOLD input. |
| 13 | I-TU-SIG | I | RDS signal input. |
| 14 | VSS1 | – | GND. |
| 15 | CF1 | I | Crystal oscillator input for system clock (9.43MHz). |
| 16 | CF2 | O | Crystal oscillator output for system clock (9.43MHz). |
| 17 | VDD1 | – | Power supply (+5.6V). |
| 18 | I-CD SW | I | CD tray (open/close) position detection input. |
| 19 | I-KEY1 | I | Tact key A/D level input 1. |
| 20 | I-KEY0 | I | Tact key A/D level input 0. |
| 21 | I-ENCODER | I | A/D input from rotary encoder. |
| 22 | $\overline{\text{O-LED BL1}}$ | O | LED control output for LCD back light. |
| 23 | $\overline{\text{O-LED BL2}}$ | O | LED control output for LCD back light. |
| 24 | $\overline{\text{O-LED AM1}}$ | O | LED control output for LCD back light. |
| 25 | $\overline{\text{O-LED AM2}}$ | O | LED control output for LCD back light. |
| 26 | I-LEVEL | I | A/D input from AMP for level meter display. |
| 27 | I-RDS-CLK | I | RDS clock input. |
| 28 | I-TMBASE | I | Time base input from TUNER PLL IC (LC72131D). |
| 29 | I-REMOTE | I | Remote control signal input. |
| 30 ~ 45 | NC | – | Not connected. |
| 46 | VDD3 | – | Power supply (+5.6V). |
| 47 | $\overline{\text{I-STEREO}}$ | I | TUNER stereo-mode input. "L" = STEREO. |
| 48 | $\overline{\text{I-TUNE-IFC}}$ | I | TUNER TUNE-IF count input. "L" = TUNE. |
| 49 | I-RDS-DATA | I | RDS data input. |
| 50 | NC | – | Not connected. |
| 51 | VP | – | Connected to GND. |
| 52 ~ 60 | NC | – | Not connected. |
| 61 | COLOR | O | Not used. |
| 62 | $\overline{\text{MD-SEL}}$ | I | Initial setting selector. "L" = MD. |
| 63 | $\overline{\text{DEMO-SEL}}$ | I | Initial setting selector. "L" = DEMO. |
| 64 | $\overline{\text{BBE-SEL}}$ | I | Initial setting selector. "L" = BBE. |

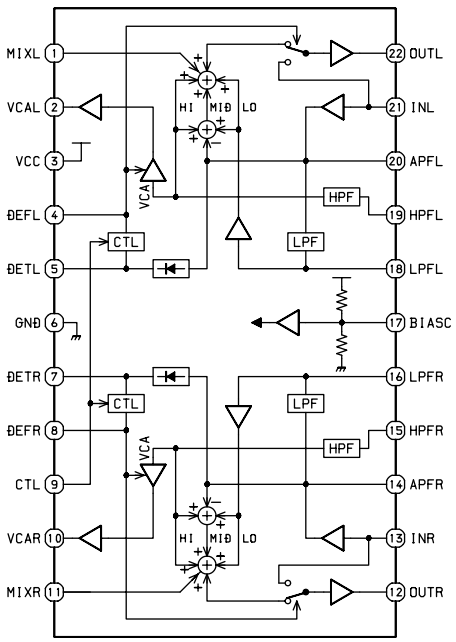
| Pin No. | Pin Name | I/O | Description |
|---|---|---|---|
| 65 | $\overline{\text{ECO-SEL}}$ | I | Initial setting selector. "L" = ECO mode setting. |
| 66 | AM10K-SEL | I | Initial setting selector. "H" = AM10kHz step. (Not used) |
| 67 | $\overline{\text{FM WIDE/AMST-SEL}}$ | I | Initial setting selector. "L" = FM WIDE BAND & AM-STEREO. (Not used) |
| 68 | LW-SEL | I | Initial setting selector. "H" = TUNER-LW. |
| 69 | SW-SEL | I | Initial setting selector. "H" = TUNER-SW. (Not used) |
| 70 | OIRT-SEL | I | Initial setting selector. "H" = TUNER-FM OIRT. (Not used) |
| 71 | RDS-SEL | I | Initial setting selector. "H" = TUNER-FM RDS. |
| 72 | VDD4 | – | Power supply (+5.6V). |
| 73 | O-PLL-CE | O | Chip enable output to TUNER PLL IC (LC72131D). |
| 74 | O-CD-R/W | O | CD servo system switching output. "H" = CDRW mode. |
| 75 | NC | – | Not connected. |
| 76 | TP-CLK | O | Test point for micon clock adjust. (Frequency division of micon clock: Approx. 1kHz.) |
| 77 | Q-SURROUND | O | Q-SURROUND output. |
| 78 | $\overline{\text{O-BBE-B}}$ | O | BBE IC (BA3880FS) control output-B |
| 79 | $\overline{\text{O-BBE-A}}$ | O | BBE IC (BA3880FS) control output-A. |
| 80 | L-MUTE | O | Line out mute output. |
| 81 | O-OPEN | O | CD tray (open) control output. "H" = OPEN. |
| 82 | O-CLOSE | O | CD tray (close) control output. "H" = CLOSE. |
| 83 | NC | – | Not connected. |
| 84 | O-LCD STB | O | Strobe output control for LCD driver. |
| 85 | O-LCD CLK | O | Clock output control for LCD driver. |
| 86 | O-LCD DATA | O | Data output control for LCD driver. |
| 87 | $\overline{\text{O-P-ON}}$ | O | Main AC ON/OFF control output. "L" = POWER ON. |
| 88 | O-CD-ON | O | CD power supply ON/OFF control output. "H" = POWER ON. |
| 89 | VSS2 | – | GND. |
| 90 | VDD2 | – | Power supply (+5.6V). |
| 91 | O-CD-DATA | O | Data command output to CD DSP IC (CXD2589Q). |
| 92 | O-CD-CLK | O | Clock command output to CD DSP IC (CXD2589Q). |
| 93 | O-AMP MUTE | O | Audio mute control output for POWER AMP input signal. "H" = MUTE ON. |
| 94 | O-MD RESET | O | Reset output to MD unit. |
| 95 | O-SIN | O | Serial data control output to MD unit. |
| 96 | I-SOUT | I | Serial data control input from MD unit. |
| 97 | I-ACLK | I | Latch clock input from MD unit. |
| 98 | O-ARDY | O | Serial data ready port control output to MD unit. |
| 99 | O-SREQ | O | Serial data transfer request control output to MD unit. |
| 100 | I-MREQ | I | Serial data transfer request control input from MD unit. |

IC, LC72131D

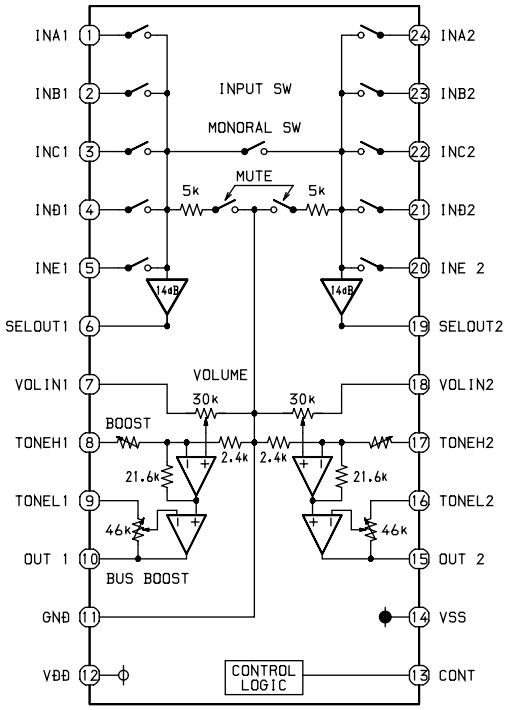
<table>
<tr><th>Pin No.</th><th>Pin Name</th><th>I/O</th><th>Description</th></tr>
<tr><td>1</td><td>X-IN</td><td>I</td><td rowspan="2">A crystal oscillator (4.5MHz) is connected between these pins.</td></tr>
<tr><td>22</td><td>X-OUT</td><td>O</td></tr>
<tr><td>2</td><td>NC</td><td>–</td><td>Not connected.</td></tr>
<tr><td>3</td><td>CE</td><td>I</td><td>To enable the IC. Active "H".</td></tr>
<tr><td>4</td><td>DI</td><td>I</td><td>Digital data input from CPU (LC87F65C8A) when relevant key is operated. Active "H".</td></tr>
<tr><td>5</td><td>CL</td><td>I</td><td>To clock in the data DI.</td></tr>
<tr><td>6</td><td>DO</td><td>O</td><td>Digital data output to CPU (LC87F65C8A).</td></tr>
<tr><td>7</td><td>TM-BASE</td><td>O</td><td>Outputs a reference clock signal (8Hz) for the clock.</td></tr>
<tr><td>8</td><td>$\overline{\text{MONO}}$ / BEAT</td><td>O</td><td>Outputs "H" when MONO / BEAT is switched.</td></tr>
<tr><td>9</td><td>$\overline{\text{FM}}$ / $\overline{\text{SW}}$</td><td>O</td><td>Output "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="3">3 BAND</th></tr>
<tr><th>AM</th><th>FM</th><th>LW</th><th>MW</th><th>FM</th><th>MW</th><th>SW</th><th>FM</th></tr>
<tr><td>H</td><td>L</td><td>H</td><td>H</td><td>L</td><td>H</td><td>L</td><td>L</td></tr>
</table></td></tr>
<tr><td>10</td><td>$\overline{\text{MW}}$ / SW</td><td>O</td><td>Outputs "L" or "H" as follows:
<table>
<tr><th colspan="2">2 BAND</th><th colspan="3">3 BAND</th><th colspan="3">3 BAND</th></tr>
<tr><th>AM</th><th>FM</th><th>LW</th><th>MW</th><th>FM</th><th>MW</th><th>SW</th><th>FM</th></tr>
<tr><td>L</td><td>L</td><td>H</td><td>L</td><td>L</td><td>L</td><td>H</td><td>L</td></tr>
</table></td></tr>
<tr><td>11</td><td>IF-MUTE</td><td>O</td><td>To control internal counter.</td></tr>
<tr><td>12</td><td>IF-IN</td><td>I</td><td>General purpose counter input.</td></tr>
<tr><td>13</td><td>$\overline{\text{TUNE}}$</td><td>I</td><td>Receives "L" when station is tuned.</td></tr>
<tr><td>14</td><td>NC</td><td>–</td><td>Not connected.</td></tr>
<tr><td>15</td><td>AM-IN</td><td>I</td><td>Receives the AM local oscillator frequency signal.</td></tr>
<tr><td>16</td><td>FM-IN</td><td>I</td><td>Receives the FM local oscillator frequency signal.</td></tr>
<tr><td>17</td><td>VDD</td><td>–</td><td>Supply power to IC (+5V).</td></tr>
<tr><td>18</td><td>PD</td><td>O</td><td>PLL charge pump output.</td></tr>
<tr><td>19</td><td>A-IN</td><td>I</td><td rowspan="2">The MOS transistor used for PLL active low pass filter.</td></tr>
<tr><td>20</td><td>A-OUT</td><td>O</td></tr>
<tr><td>21</td><td>VSS</td><td>–</td><td>Ground.</td></tr>
</table>

# IC BLOCK DIAGRAM-2

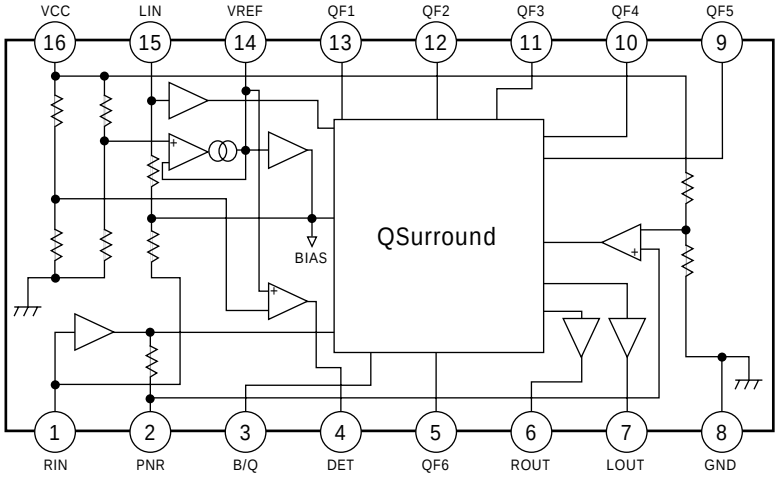
## IC, BA3880FS



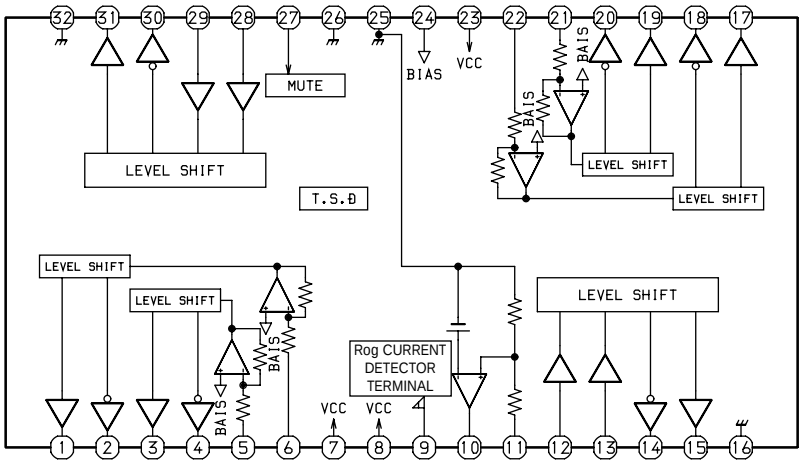

## IC, M62495FP




## IC, MM1454XFBE

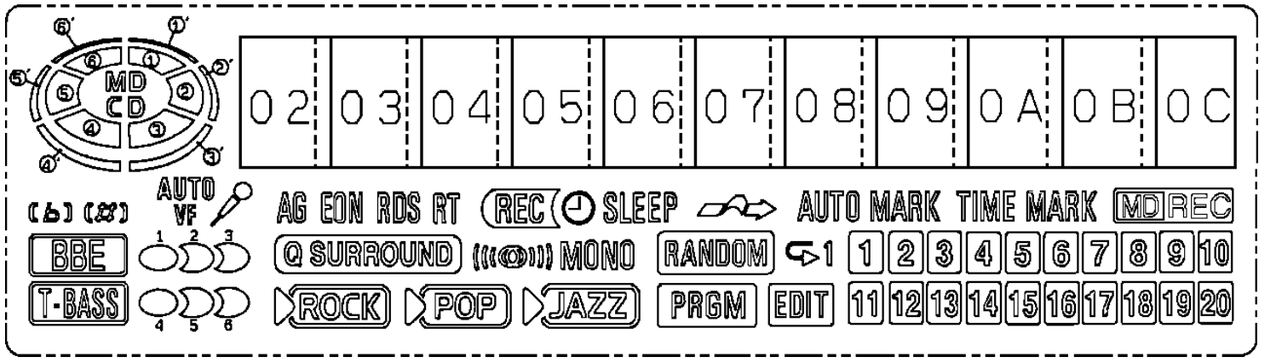



## IC, BA5936S



## LCD DISPLAY

DDRAM ADDRESS (11 DIGIT X 1 ROW)

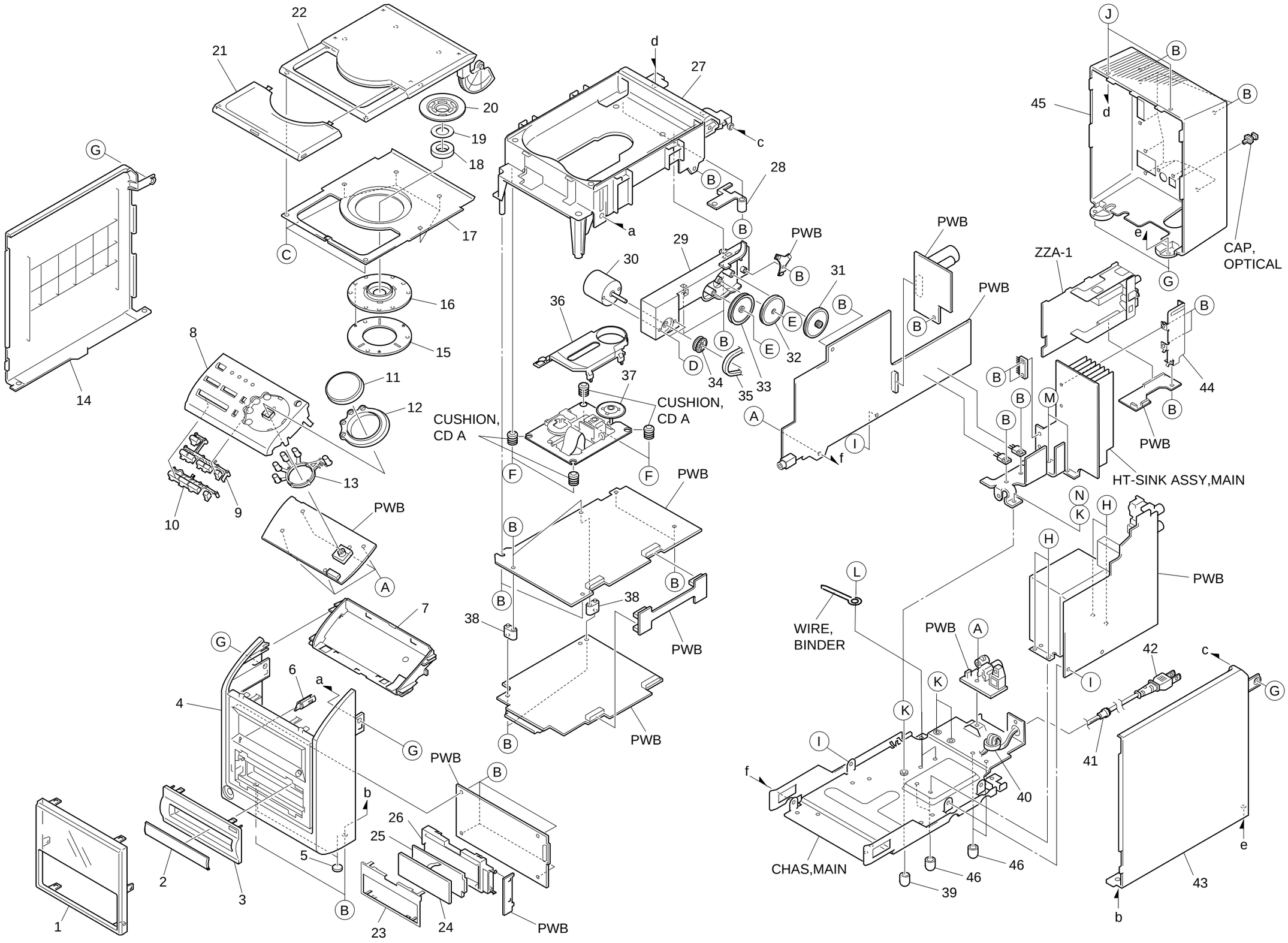



| PGRAM ADDRESS | | | | | PGRAM DATA | | | | |
|---|---|---|---|---|---|---|---|---|---|
| H1 | L4 | L3 | L2 | L1 | b4 | b3 | b2 | b1 | b0 |
| 0 | 0 | 0 | 0 | 0 | ③ | # | b | BBE | T-BASS |
| 0 | 0 | 0 | 0 | 1 | ① | MD | ⑥ | ⑤ | ④ |
| 0 | 0 | 0 | 1 | 0 | 5 | 4 | AUTO | | ② |
| 0 | 0 | 0 | 1 | 1 | | | | ROCK | 6 |
| 0 | 0 | 1 | 0 | 0 | | | | | |
| 0 | 0 | 1 | 0 | 1 | | | | | POP |
| 0 | 0 | 1 | 1 | 0 | MONO | | | | ((( ))) |
| 0 | 0 | 1 | 1 | 1 | | JAZZ | | | |
| 0 | 1 | 0 | 0 | 0 | | | | | |
| 0 | 1 | 0 | 0 | 1 | | | | | |
| 0 | 1 | 0 | 1 | 0 | 12 | 11 | | | 1 |
| 0 | 1 | 0 | 1 | 1 | | 14 | 13 | | |
| 0 | 1 | 1 | 0 | 0 | | 15 | | | |
| 0 | 1 | 1 | 0 | 1 | 17 | 16 | | | |
| 0 | 1 | 1 | 1 | 0 | 20 | | | | |
| 0 | 1 | 1 | 1 | 1 | | | | 18 | 19 |



| PGRAM ADDRESS | | | | | PGRAM DATA | | | | |
|---|---|---|---|---|---|---|---|---|---|
| H1 | L4 | L3 | L2 | L1 | b4 | b3 | b2 | b1 | b0 |
| 1 | 0 | 0 | 0 | 0 | ③' | 【 】(#) | 【 】(b) | | |
| 1 | 0 | 0 | 0 | 1 | ①' | CD | ⑥' | ⑤' | ④' |
| 1 | 0 | 0 | 1 | 0 | 2 | 1 | VF | | ②' |
| 1 | 0 | 0 | 1 | 1 | | EON | | AG | 3 |
| 1 | 0 | 1 | 0 | 0 | | | RDS | | Q SURROUND |
| 1 | 0 | 1 | 0 | 1 | | | | | RT |
| 1 | 0 | 1 | 1 | 0 | | | | | REC |
| 1 | 0 | 1 | 1 | 1 | | SLEEP | | | |
| 1 | 1 | 0 | 0 | 0 | | | | RANDOM | |
| 1 | 1 | 0 | 0 | 1 | | | EDIT | PRGM | |
| 1 | 1 | 0 | 1 | 0 | 2 | 1 | | | AUTO |
| 1 | 1 | 0 | 1 | 1 | | 4 | 3 | | MARK (AUTO MARK) |
| 1 | 1 | 1 | 0 | 0 | | 5 | | | TIME |
| 1 | 1 | 1 | 0 | 1 | 7 | 6 | | | MARK (TIME MARK) |
| 1 | 1 | 1 | 1 | 0 | 10 | | MD REC | | |
| 1 | 1 | 1 | 1 | 1 | | | | 8 | 9 |

MECHANIACAL EXPLODED VIEW 1/1



# MECHANICAL MAIN PARTS LIST 1/1

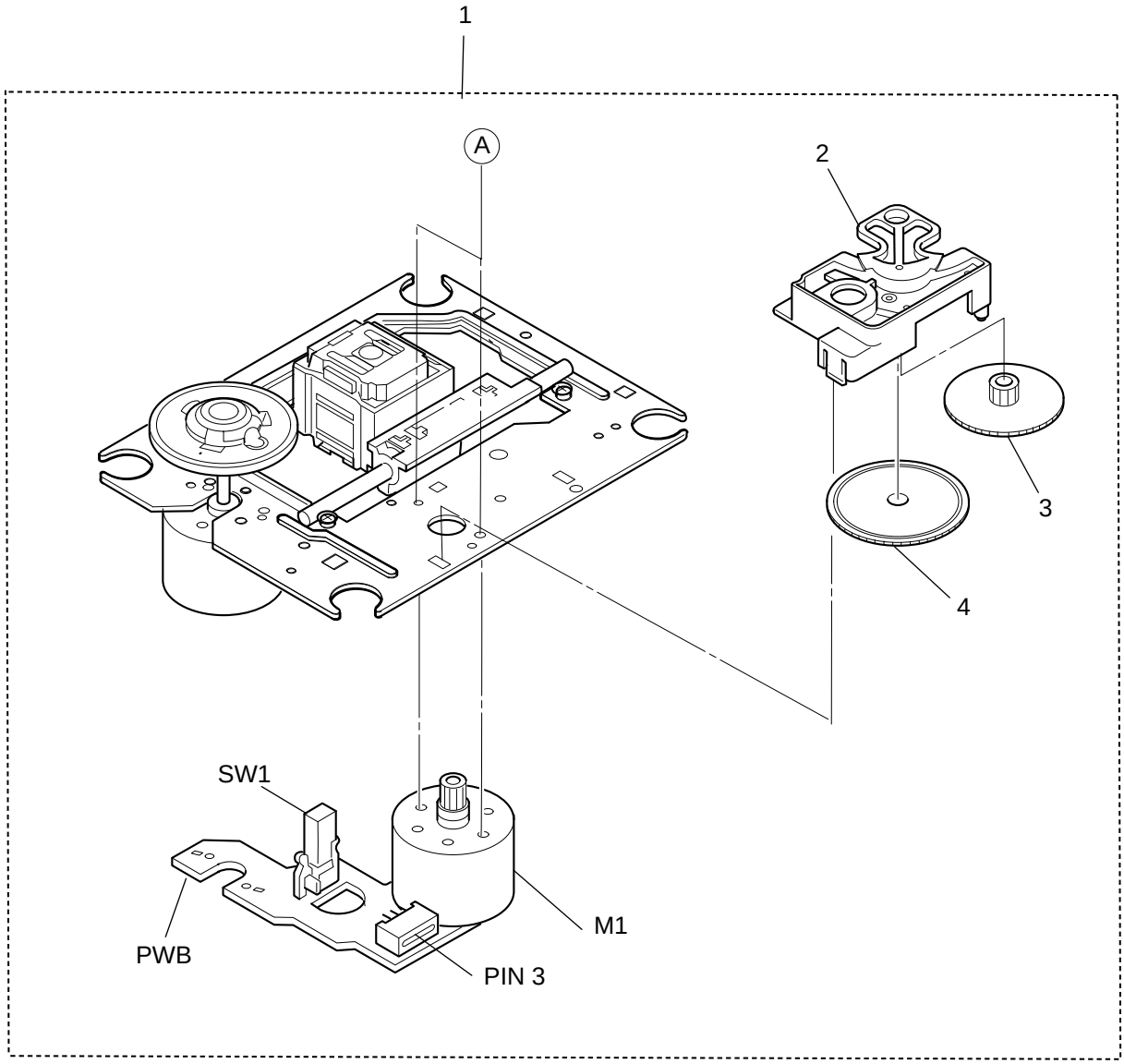
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---|---|---|---|
| 1 | 8A-CJ6-009-010 | | WINDOW,FR<EZ> |
| 1 | 8A-CL6-033-010 | | WINDOW,FR K<K> |
| 2 | 8A-CL6-025-010 | | PANEL,FR2 EZ<EZ> |
| 2 | 8A-CL6-035-010 | | PANEL,FR2 L6 K<K> |
| 3 | 8A-CL6-006-010 | | PANEL,FR |
| 4 | 8A-CJ6-023-010 | | CABI,FR J6-EX<EZ> |
| 4 | 8A-CL6-028-010 | | CABI,FR L6 K<K> |
| 5 | 8A-CJ6-219-010 | | CUSH,FOOT DIA 8-3 |
| 6 | 8A-CJ6-019-010 | | REFLECTOR,STAND BY |
| 7 | 8A-CJ6-211-010 | | HLDR,FUN<EZ> |
| 7 | 8A-CJ6-220-010 | | HLDR,FUN (V)<K> |
| 8 | 8A-CL6-020-010 | | PANEL,FUN L6 EZ<EZ> |
| 8 | 8A-CL6-031-010 | | PANEL,FUN L6 K<K> |
| 9 | 8A-CJ6-015-010 | | KEY,POWER |
| 10 | 8A-CJ6-025-010 | | KEY,PLAY |
| 11 | 8A-CJ6-017-010 | | KNOB,RTRY VOL |
| 12 | 8A-CJ6-008-010 | | PANEL,VOL<EZ> |
| 12 | 8A-CL6-032-010 | | PANEL,VOL K<K> |
| 13 | 8A-CL6-026-010 | | KEY,OPEN CD L6<EZ> |
| 13 | 8A-CL6-037-010 | | KEY,OPEN CD L6(V)<K> |
| 14 | 8A-CJ6-005-010 | | PANEL,SIDE L |
| 15 | 8Z-CH4-212-010 | | RING,CHUCK |
| 16 | 8Z-CH4-211-010 | | BASE,CHUCK |
| 17 | 8A-CJ6-011-010 | | HLDR,CHUCK B |
| 18 | 83-ZG3-604-010 | | RING,MAG 2 |
| 19 | 84-CD5-217-010 | | PLATE,MAGNET |
| 20 | 8Z-CH4-225-110 | | HLDR,CHUCK A(S) |
| 21 | 8A-CJ6-010-010 | | WINDOW,CD<EZ> |
| 21 | 8A-CL6-034-010 | | WINDOW,CD K<K> |
| 22 | 8A-CJ6-004-010 | | LID,CD<EZ> |
| 22 | 8A-CL6-030-010 | | LID,CD K<K> |
| 23 | 8A-CJ6-202-010 | | GUIDE,LCD |
| 24 | 8A-CJ6-620-010 | | LCD ASSY,ACJ-6 |
| 25 | 8A-CJ6-021-010 | | REFLECTOR,LCD |
| 26 | 8A-CJ6-212-010 | | HLDR,LCD |
| 27 | 8A-CJ6-003-010 | | CABI,CD<EZ> |
| 27 | 8A-CL6-029-010 | | CABI,CD K<K> |
| 28 | 8A-CJ6-020-010 | | COVER, CD L<EZ> |
| 28 | 8A-CJ6-035-010 | | COVER, CD L (V)<K> |
| 29 | 8A-CJ6-022-010 | | HLDR,GEAR<EZ> |
| 29 | 8A-CJ6-036-010 | | HLDR,GEAR (V)<K> |
| 30 | 87-A91-069-010 | | MOT,RF-370CA15370 |
| 31 | 8Z-CL5-207-010 | | GEAR,CD |
| 32 | 8Z-CL5-206-010 | | GEAR,MID CD |
| 33 | 8Z-CL5-205-010 | | PULLEY,GEAR CD |
| 34 | 8Z-CL5-208-010 | | PULLEY,MOTOR |
| 35 | 8Z-CL5-217-010 | | BELT,PULLEY |
| 36 | 8Z-CDB-169-010 | | PANEL,CD SANYO |
| 37 | M8-ZZK-E90-070 | | DA11T3C |
| 38 | 8A-CJ6-213-010 | | HLDR,PWB |
| 39 | 8Z-NB8-254-010 | | COVER, PL M3 |
| 40 | 87-003-317-010 | | F-BEAD,15-25-15 E2515MRT |
| 41 | 87-085-185-010 | | BUSHING,AC CORD(E) CM-22B |
| ⚠ 42 | 87-A80-143-010 | | AC CORD ASSY,E BLK<K> |
| ⚠ 42 | 87-A80-092-010 | | AC CORD ASSY,E BLK SUN FAI<EZ> |
| 43 | 8A-CJ6-006-010 | | PANEL,SIDE R |
| 44 | 8A-CJ6-206-010 | | HLDR,TUNER |
| 45 | 8A-CL6-004-010 | | CABI,REAR L6-EZ |
| 46 | 8Z-NB8-240-010 | | COVER, PL |
| A | 87-067-579-010 | | BVT2+3-8 W/0 SL0T |
| B | 87-067-703-010 | | BVT2+3-10 W/0 SL0T |
| C | 87-264-529-310 | | V+1.7-4 |
| D | 87-261-092-410 | | V+3-4 |
| E | 87-761-096-410 | | VFT2+3-10 W/O SLOT |
| F | 8Z-CK5-222-010 | | S-SCREW,CD+2.6-6 F9 |
| G | 87-721-096-410 | | QT2+3-10 W/O SLOT |
| H | 87-067-752-010 | | BVTT+4-10 SWCH/ZN |
| I | 87-NF4-224-010 | | S-SCREW,IT3B+3-8 CU |
| J | 87-723-096-410 | | QT2+3-10 W/O SLOT BLK |
| K | 87-067-130-010 | | W-F,3.2-8-1 W/ADH |
| L | 87-067-584-010 | | BVT2+3-6 W/0 SL0T |
| M | 87-067-633-010 | | BVT2+3-8 W/O SLOT W/CONVEX |
| N | 87-067-758-010 | | BVT2+3-12 W/0 SL0T |

## COLOR NAME TABLE

| Basic color symbol | Color | Basic color symbol | Color | Basic color symbol | Color |
|---|---|---|---|---|---|
| B | Black | C | Cream | D | Orange |
| G | Green | H | Gray | L | Blue |
| LT | Transparent Blue | N | Gold | P | Pink |
| R | Red | S | Silver | ST | Titan Silver |
| T | Brown | V | Violet | W | White |
| WT | Transparent White | Y | Yellow | YT | Transparent Yellow |
| LM | Metallic Blue | LL | Light Blue | GT | Transparent Green |
| LD | Dark Blue | DT | Transparent Orange | GM | Metallic Green |
| YM | Metallic Yellow | DM | Metallic Orange | PT | Transparent Pink |
| LA | Aqua Blue | | | | |

## CD MECHANISM EXPLODED VIEW 1/1 <DA11T3C>




## CD MECHANISM MAIN PARTS LIST 1/1 <DA11T3C>

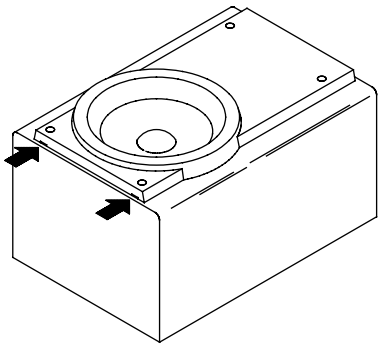
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---|---|---|---|
| 1 | M8-ZZK-E90-070 | 2B | DA11T3C |
| 2 | S2-121-A28-400 | 1A | COVER GEAR |
| 3 | S2-511-A21-000 | 0E | GEAR MIDDLE |
| 4 | S2-511-A21-100 | 1A | GEAR,DRIVE |
| M1 | S0-M10-A09-700 | 1H | MOTOR SLED ASSY |
| PIN3 | S2-369-750-000 | 0E | PLUG,6P |
| SW1 | S4-S13-A01-600 | 0E | SW,LEAF |
| A | S1-PN2-03R-OSE | 0E | SCR PAN PCS 2-3 |

# SPEAKER DISASSEMBLY INSTRUCTIONS

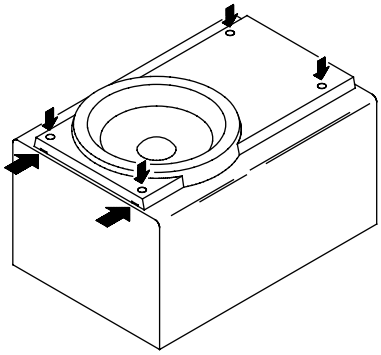
Type.1

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



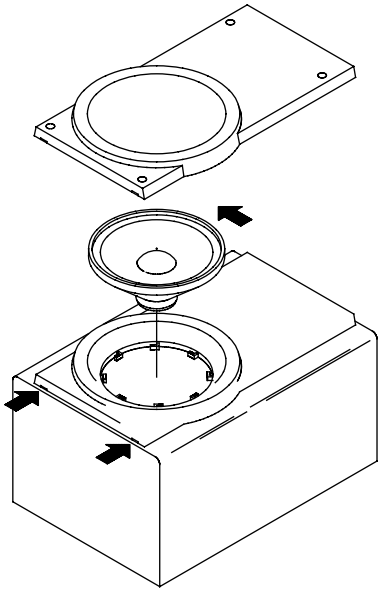
Type.2

Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.

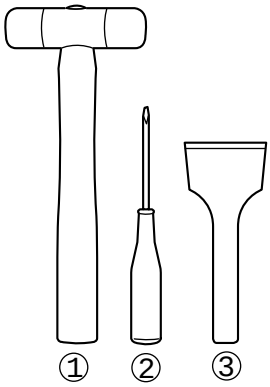


Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwisedirection while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



Type.4




TOOLS

① Plastic head hammer
② (⊖) flat head screwdriver
③ Cut chisel

## How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.

2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.

3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

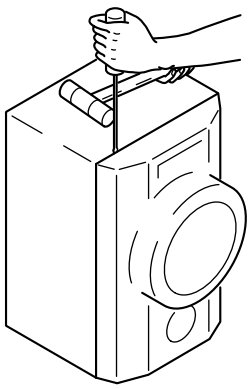


Fig-1

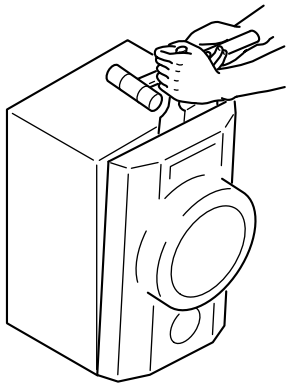


Fig-2

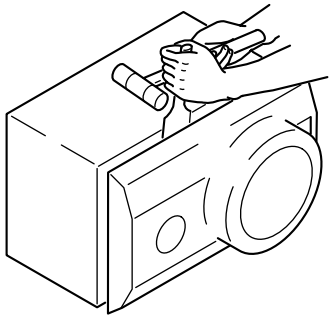


Fig-3

## How to Attach the PANEL, FR

Attach the PANEL, FR to the PANEL, SPKR. Tap the four corners of the PANEL, FR with the plastic hammer to fit the PANEL, FR into the PANEL, SPKR completely.

# SPEAKER MAIN PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO. | KANRI NO. | DESCRIPTION |
|---|---|---|---|
| 1 | 8A-CJ6-402-010 | | PANEL,FR |
| 2 | 8A-CJ6-406-010 | | GRILLE,FRAME ASSY<EZ> |
| 2 | 8A-CJ6-420-010 | | GRILLE,FRAME ASSYV<K> |
| 3 | 8A-CJ6-403-010 | | PANEL,SP<EZ> |
| 3 | 8A-CJ6-419-010 | | PANEL,SP V<K> |
| 4 | 8A-CJ6-404-010 | | PANEL,TW |
| 5 | 8A-CJ6-415-010 | | SPKR, W 100<K> |
| 5 | 8A-CJ6-417-010 | | SPKR, W 100 L<EZ> |
| 6 | 8A-CJ6-416-010 | | SPKR, TW 20 |
| 7 | 8A-CJ5-415-010 | | TERMINAL, |

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