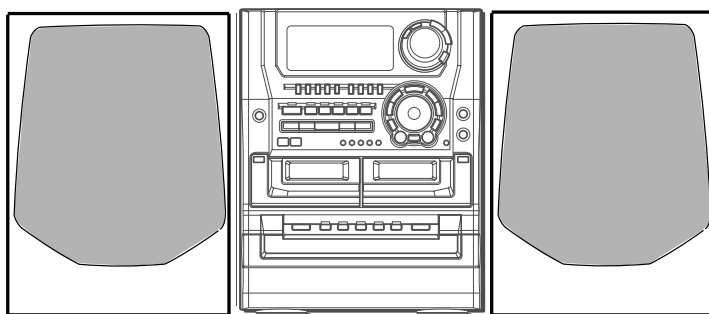


**NSX-D77** U

**NSX-T76** LH

**NSX-T77** HS



# SERVICE MANUAL

COMPACT DISC STEREO  
CASSETTE RECEIVER

BASIC TAPE MECHANISM: 2ZM-3MK2 PR4NM  
BASIC CD MECHANISM: 6ZG-1 ZRNDM

| SYSTEM  | CD-CASSEIVER | SPEAKER  | REMOTE CONTROLLER |
|---------|--------------|----------|-------------------|
| NSX-D77 | CX-ND77      | SX-WND77 | RC-ZAS04          |
| NSX-T76 | CX-NT76      | SX-WNT98 |                   |
| NSX-T77 | CX-NT77      | SX-WNT77 |                   |

- This Service Manual is the "Revision Publishing" and replaces "Simple Manual" NSX-D77<U> (S/M Code No. 09-002-425-2T2) and NSX-T76<LH> (S/M Code No. 09-004-425-2T3) and NSX-T77<HS> (S/M Code No. 09-004-425-2T4).
- If requiring information about the CD mechanism, see Service Manual of 6ZG-1 (S/M Code No. 09-001-338-7N2).

**aiwa**

S/M Code No. 09-005-425-2R2

REVISION

DATA

## SPECIFICATIONS

### <FM Tuner section>

|                                |                      |
|--------------------------------|----------------------|
| <b>Tuning range</b>            | 87.5 MHz to 108 MHz  |
| <b>Usable sensitivity(IHF)</b> | 13.2 dBf             |
| <b>Antenna terminals</b>       | 75 ohms (unbalanced) |

### <AM Tuner section>

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

### <Amplifier section>

#### Mid-high frequency amplifier

|                                  |                                                                                                                                                                                                                                                                                   |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Power output*</b>             | 40 W + 40 W (200 Hz - 20 kHz,<br>THD less than 1%, 8 ohms)<U><br>Rated: 44 W + 44 W (8 ohms,<br>THD 1%, 1 kHz)<br>Reference: 55 W + 55 W (8 ohms,<br>THD 10%, 1 kHz)<HS><br>Rated: 56 W + 56 W (8 ohms,<br>THD 1%,1 kHz)<br>Reference: 70 W + 70 W<br>(8 ohms, THD 10%,1 kHz)<LH> |
| <b>Total harmonic distortion</b> | 0.3% (26 W, 1 kHz, 8 ohms, DIN<br>AUDIO)<U,HS><br>0.3% (28 W, 1 kHz, 8 ohms, DIN<br>AUDIO)<LH>                                                                                                                                                                                    |

#### Low frequency amplifier

|                                  |                                                                                                                                                                                                                                                                                             |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Power output*</b>             | 120 W + 120 W (50 Hz - 200 Hz,<br>THD less than 1%, 6 ohms)<U><br>Rated: 131 W + 131 W (6 ohms,<br>THD 1%, 75 Hz)<br>Reference: 165 W + 165 W<br>(6 ohms, THD 10%,75 Hz)<HS><br>Rated: 167 W + 167 W (6 ohms,<br>THD 1%, 75 Hz)<br>Reference: 210 W + 210 W<br>(6 ohms, THD 10%, 75 Hz)<LH> |
| <b>Total harmonic distortion</b> | 0.3 % (65 W,75 Hz,6 ohms,<br>DIN AUDIO)<U,HS><br>0.3 % (84 W,75 Hz,6 ohms,<br>DIN AUDIO)<LH>                                                                                                                                                                                                |

#### Inputs

\* without connecting to surround speakers  
VIDEO/AUX: 300 mV (adjustable)  
MD: 300 mV (adjustable)

#### Outputs

MIC 1,MIC 2: 1 mV (10 kohms)  
LINE OUT: 150 mV  
SPEAKERS HIGH FREQ:  
accept speakers of 8 ohms or more  
SPEAKERS LOW FREQ:  
accept speakers of 6 ohms or more  
SURROUND SPEAKERS: accept  
speakers of 8 to 16 ohms  
PHONES (stereo jack): accepts  
headphones of 32 ohms or more

### <Cassette deck section>

|                              |                                                                                     |
|------------------------------|-------------------------------------------------------------------------------------|
| <b>Track format</b>          | 4 tracks, 2 channels stereo                                                         |
| <b>Frequency response</b>    | CrO2 tape: 50 Hz – 16000 Hz<br>Normal tape: 50 Hz – 15000 Hz                        |
| <b>Signal-to-noise-ratio</b> | 60dB (Dolby B NR ON, CrO2 tape<br>peak level)                                       |
| <b>Recording system</b>      | AC bias                                                                             |
| <b>Heads</b>                 | Deck 1: Playback head x 1<br>Deck 2: Recording/Playback head<br>x 1, erase head x 1 |

### <Compact disc player section>

|                              |                                          |
|------------------------------|------------------------------------------|
| <b>Laser</b>                 | Semiconductor laser ( $\lambda$ =780 nm) |
| <b>D-A converter</b>         | 1 bit dual                               |
| <b>Signal-to-noise ratio</b> | 83 dB (1 kHz, 0 dB)                      |
| <b>Harmonic distortion</b>   | 0.05 % (1 kHz, 0 dB)                     |
| <b>Wow and flutter</b>       | Unmeasurable                             |

### <Speaker system SX-WND77><U>

|                                    |                                                                                                                                                                                                                                                  |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cabinet type</b>                | 4 way, built-in subwoofer<br>(magnetic shielded type)                                                                                                                                                                                            |
| <b>Speakers</b>                    | Subwoofer:<br>200 mm ( $7\frac{7}{8}$ in.) cone type<br>Woofer:<br>120 mm ( $4\frac{3}{4}$ in.) cone type<br>Tweeter:<br>60 mm ( $2\frac{3}{8}$ in.) cone type<br>Super Tweeter:<br>20 mm ( $1\frac{3}{16}$ in.) ceramic type<br>6 ohms / 8 ohms |
| <b>Impedance</b>                   | 87 dB/W/m                                                                                                                                                                                                                                        |
| <b>Output sound pressure level</b> | 260 x 383 x 326 mm<br>( $9\frac{7}{8}$ x $15\frac{1}{8}$ x $12\frac{1}{4}$ in.)                                                                                                                                                                  |
| <b>Dimensions (W x H x D)</b>      | 7.5 kg (16 lbs 9 oz)                                                                                                                                                                                                                             |
| <b>Weight</b>                      |                                                                                                                                                                                                                                                  |

### <Speaker system SX-WNT98><LH>

|                                    |                                                                                                                                                                                                                                                       |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cabinet type</b>                | 4 way, built-in subwoofer                                                                                                                                                                                                                             |
| <b>Speakers</b>                    | Subwoofer:<br>200 mm ( $7\frac{7}{8}$ in.) cone type<br>Mid range:<br>100 mm ( $3\frac{15}{16}$ in.) cone type<br>Tweeter:<br>60 mm ( $2\frac{3}{8}$ in.) cone type<br>Super Tweeter:<br>20 mm ( $1\frac{3}{16}$ in.) ceramic type<br>6 ohms / 8 ohms |
| <b>Impedance</b>                   | 87 dB/W/m                                                                                                                                                                                                                                             |
| <b>Output sound pressure level</b> | 260 x 463 x 314 mm<br>( $10\frac{1}{4}$ x $18\frac{1}{4}$ x $12\frac{3}{8}$ in.)                                                                                                                                                                      |
| <b>Dimensions (W x H x D)</b>      | 8.0 kg (17 lbs. 10 oz)                                                                                                                                                                                                                                |
| <b>Weight</b>                      |                                                                                                                                                                                                                                                       |

### <Speaker system SX-WNT77><HS>

|                                    |                                                                                                                                                                                                                                        |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Cabinet type</b>                | 4 way, built-in subwoofer<br>(magnetic shielded type)                                                                                                                                                                                  |
| <b>Speakers</b>                    | Subwoofer:<br>200 mm ( $7\frac{7}{8}$ in.) cone type<br>Mid range:<br>100 mm ( 4 in.) cone type<br>Tweeter:<br>60 mm ( $2\frac{3}{8}$ in.) cone type<br>Super Tweeter:<br>20 mm ( $1\frac{3}{16}$ in.) ceramic type<br>6 ohms / 8 ohms |
| <b>Impedance</b>                   | 87 dB/W/m                                                                                                                                                                                                                              |
| <b>Output sound pressure level</b> | 260 x 463 x 314 mm<br>( $10\frac{1}{4}$ x $18$ x $12\frac{3}{8}$ in.)                                                                                                                                                                  |
| <b>Dimensions (W x H x D)</b>      | 7.0 kg (15 lbs 7 oz)                                                                                                                                                                                                                   |
| <b>Weight</b>                      |                                                                                                                                                                                                                                        |

### <General>

|                                |                                                                                                   |
|--------------------------------|---------------------------------------------------------------------------------------------------|
| <b>Power requirements</b>      | 120 V AC, 60 Hz<U>, 220 V AC, 60 Hz<HS><br>AC 120 V/220-230 V/240 V,<br>(switchable ) 50/60Hz<LH> |
| <b>Power consumption</b>       | 170 W<U>, 245 W<HS>, 275 W<LH>                                                                    |
| <b>Dimensions of main unit</b> | 300 x 382.6 x 396.4mm<br>( $11\frac{7}{8}$ x $15\frac{1}{8}$ x $15\frac{5}{8}$ in.)               |
| <b>Weight of main unit</b>     | 13.2 kg (29 lbs 2 oz)<U><br>13.7 kg (30 lbs 3 oz)<HS,LH>                                          |

### Standby power consumption

If the power-economizing mode is OFF: 35 W<U>, 36 W<HS,LH>  
If the power-economizing mode is ON: 0.9 W

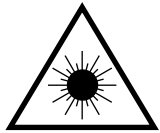
- Design and specifications are subject to change without notice.
- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.  
"DOLBY" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.
- The word "BBE" and the "BBE symbol" are trademarks of BBE Sound, Inc.  
Under license from BBE Sound,Inc.

## PROTECTION OF EYES FROM LASER 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 laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

### VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

### WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

### CAUTION

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

### ATTENTION

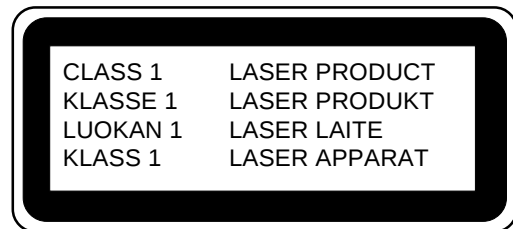
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

### ADVARSEL

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er 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.



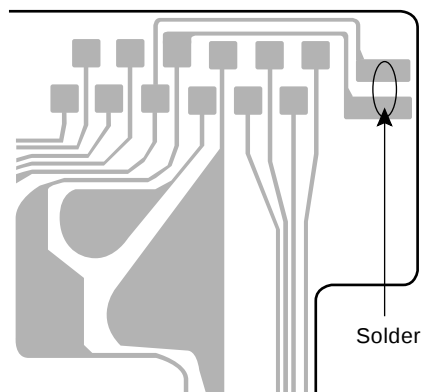
## Precaution to replace Optical block

### (KSS-213F)

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 right figure.

PICK-UP Assy P.C.B



NOTE ON BEFORE STARTING REPAIR

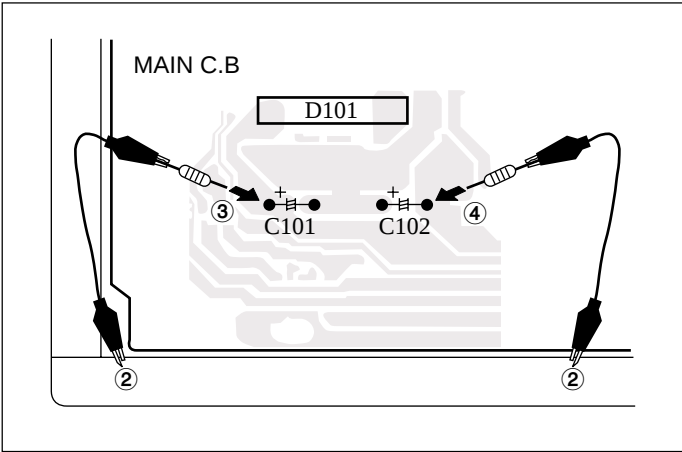
1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, secondary defect can occur.

In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

- ① Remove the AC power cord.
- ② Connect a discharging resistor at an end of lead wire that has clips at both ends. Connect the other end of the lead wire to metal chassis.
- ③ Contact the other end of the discharging resistor to the positive (+) side (+VH) of C101. (For two seconds)
- ④ Contact the same end of the discharging resistor as step ③ to the negative (-) side (-VH) of C102 in the same way. (For two seconds)
- ⑤ Check that voltage across C101 and C102 has decreased to 1 V or less using a multimeter or an oscilloscope.



Select a discharging resistor referring to the following table.

| Charging voltage (V)<br>(C101, 102) | Discharging<br>resistor (Ω) | Rated power (W) | Parts number   |
|-------------------------------------|-----------------------------|-----------------|----------------|
| 25-48                               | 100                         | 3               | 87-A00-247-090 |
| 49-140                              | 220                         | 5               | 87-A00-232-090 |

Fig-1

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitors on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is “H”, the MICROCOMPUTER is judged to be operating correctly. When this terminal is “L”, the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.

When the MICROCOMPUTER is not defective, the HOLD terminal can also go “L” when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to “L”.

- Good or no good judgement of the MICROCOMPUTER
  - ① Turn on the AC main power.
  - ② Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the “H” level or not.
  - ③ When the HOLD terminal is “L” level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.

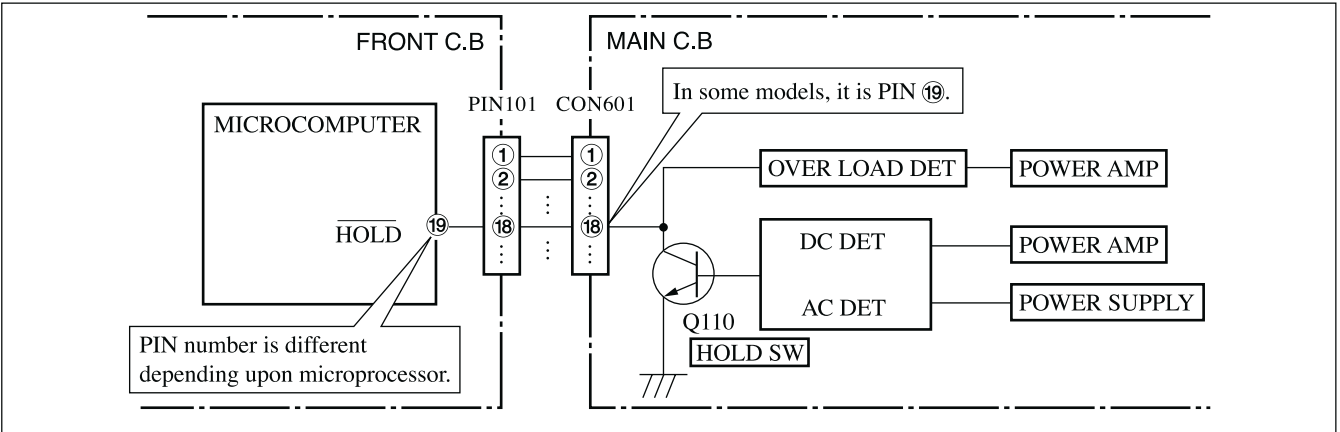


Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

## 2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.

When the above described phenomenon occurs, it can lead to wrong judgement as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

- ① Remove the AC power cord.

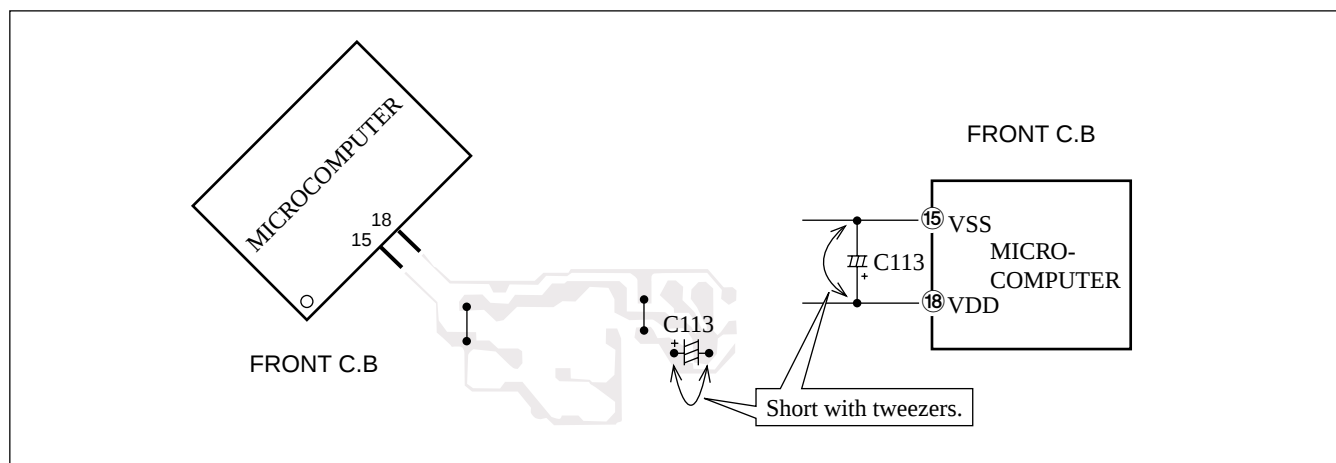


Fig-2-2

- ② Short both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.
- ③ Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

**Note:** The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

## 2-3. Confirmation of soldering state of MICROCOMPUTER

Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

# ELETRICAL MAIN PARTS LIST

| REF. NO.   | PART NO.       | KANRI NO. | DESCRIPTION               | REF. NO. | PART NO.       | KANRI NO.      | DESCRIPTION                  |
|------------|----------------|-----------|---------------------------|----------|----------------|----------------|------------------------------|
| IC         |                |           |                           |          | 87-017-154-080 |                | ZENER, HZS6C3L               |
|            |                |           |                           |          | 87-020-331-080 |                | CHIP-DIODE, DAN202K          |
|            |                |           |                           |          | 87-A40-488-080 |                | DIODE, 1SS244                |
|            |                |           |                           |          | 87-A40-747-080 |                | ZENER, UZ5.1BSB              |
|            |                |           |                           |          | 87-A40-751-080 |                | ZENER, UZ6.2BSB              |
|            |                |           |                           |          |                |                |                              |
|            |                |           |                           |          | 87-A40-646-010 |                | DIODE, FMB-G16L              |
|            |                |           |                           |          | 87-A40-745-080 |                | ZENER, UZ4.7BSA              |
|            |                |           |                           |          | 87-A40-749-080 |                | ZENER, UZ5.6BSB              |
|            |                |           |                           |          | 87-017-149-080 |                | ZENER, HZS6A2L               |
|            | 8A-NF3-635-010 |           | C-IC, LC876596W-5P43      | MAIN C.B |                |                |                              |
|            | 87-A21-482-010 |           | IC, RMP6938-H4            |          |                |                |                              |
|            | 87-A20-869-040 |           | C-IC, M62449FP            |          |                |                |                              |
|            | 87-A21-398-010 |           | IC, STK490-110<HS, LH>    |          |                |                |                              |
|            | 87-A21-397-010 |           | IC, STK490-070<U>         |          |                |                |                              |
|            |                |           |                           |          |                |                |                              |
|            | 87-A20-355-010 |           | IC, CXA1553P              |          |                |                |                              |
|            | 87-A20-783-040 |           | C-IC, BA7762AFS           |          |                |                |                              |
|            | 87-A21-577-040 |           | C-IC, M61506FP            |          |                |                |                              |
|            | 87-070-289-040 |           | IC, BU 2092F              |          |                |                |                              |
|            | 87-A21-021-040 |           | C-IC, BU2099FV            |          |                |                |                              |
|            |                |           |                           |          |                |                |                              |
|            | 87-A21-018-040 |           | C-IC, M65849BFP631D       |          | C3             | 87-012-368-080 | C-CAP, S 0.1-50 F            |
|            | 87-A21-452-030 |           | C-IC, BD3876KS2           |          | C4             | 87-012-368-080 | C-CAP, S 0.1-50 F            |
|            | 87-A21-051-040 |           | C-IC, BU9990-03FS<HS, LH> |          | C21            | 87-016-035-090 | CAP, E 6800-35 VR            |
|            | 87-A21-560-010 |           | IC, LA1844L-A             |          | C22            | 87-016-035-090 | CAP, E 6800-35 VR            |
|            | 87-070-127-110 |           | IC, LC72131D              |          | C25            | 87-010-990-080 | CAP, E 33-100 M SME          |
|            |                |           |                           |          |                |                |                              |
|            | 87-020-454-010 |           | IC, DN6851                |          | C26            | 87-016-300-080 | CAP, E 22-100 M SME          |
| TRANSISTOR |                |           |                           |          | C27            | 87-010-990-080 | CAP, E 33-100 M SME          |
|            |                |           |                           |          | C28            | 87-016-300-080 | CAP, E 22-100 M SME          |
|            |                |           |                           |          | C31            | 87-010-263-080 | CAP, ELECT 100-10V           |
|            |                |           |                           |          | C32            | 87-010-197-080 | CAP, CHIP 0.01 DM            |
|            |                |           |                           |          |                |                |                              |
|            | 87-A30-217-010 |           | TR, 2SB1436(R)            |          |                |                |                              |
|            | 87-026-245-080 |           | TR, DTC114ES              |          | C34            | 87-010-247-080 | CAP, ELECT 100-50V           |
|            | 87-A30-198-080 |           | TR, KTC3199GR             |          | C35            | 87-010-406-080 | CAP, E 22-50 M 11L SME       |
|            | 89-213-702-010 |           | TR, 2SB1370 (1.8W)        |          | C36            | 87-010-381-080 | CAP, ELECT 330-16V           |
|            | 87-026-610-080 |           | TR, KTC3198GR             |          | C38            | 87-010-393-080 | CAP, E 100-35 M SME          |
|            |                |           |                           |          | C39            | 87-010-393-080 | CAP, E 100-35 M SME          |
|            |                |           |                           |          |                |                |                              |
|            | 87-A30-105-080 |           | C-TR, RT1P441C<LH>        |          |                |                |                              |
|            | 87-A30-489-040 |           | C-TR, KRA107S             |          | C40            | 87-010-190-080 | C-CAP, S 0.01-50 Z F C2012   |
|            | 87-A30-468-080 |           | C-TR, KRC102S-RTK<LH>     |          | C60            | 87-010-403-080 | CAP, ELECT 3.3-50V           |
|            | 87-A30-484-080 |           | C-TR, KRA102S<LH>         |          | C80            | 87-010-401-080 | CAP, ELECT 1-50V             |
|            | 87-A30-076-080 |           | C-TR, 2SC3052F            |          | C81            | 87-010-374-080 | CAP, ELECT 47-10V            |
|            |                |           |                           |          | C82            | 87-010-260-080 | CAP, ELECT 47-25V            |
|            |                |           |                           |          |                |                |                              |
|            | 87-A30-075-080 |           | C-TR, 2SA1235F            |          |                |                |                              |
|            | 87-A30-318-080 |           | TR, CSA952K               |          | C104           | 87-010-196-080 | CHIP CAPACITOR, 0.1-25       |
|            | 87-A30-218-080 |           | TR, 2SB1237(Q)            |          | C105           | 87-010-196-080 | CHIP CAPACITOR, 0.1-25       |
|            | 87-A30-087-080 |           | C-FET, 2SK2158            |          | C111           | 87-010-401-080 | CAP, ELECT 1-50V             |
|            | 87-A30-269-040 |           | C-FET, 2SJ461-T1          |          | C112           | 87-010-401-080 | CAP, ELECT 1-50V             |
|            |                |           |                           |          | C115           | 87-010-401-080 | CAP, ELECT 1-50V             |
|            |                |           |                           |          |                |                |                              |
|            | 87-A30-073-080 |           | C-TR, RT1N 141C           |          |                |                |                              |
|            | 87-A30-074-080 |           | C-TR, RT1P 141C           |          | C116           | 87-010-401-080 | CAP, ELECT 1-50V             |
|            | 87-A30-190-080 |           | TR, CC5551                |          | C117           | 87-012-142-080 | C-CAP, S 0.33-16 Z F GRM<HS> |
|            | 87-A30-097-010 |           | TR, FN 1016               |          | C118           | 87-012-142-080 | C-CAP, S 0.33-16 Z F GRM<HS> |
|            | 87-A30-098-010 |           | TR, FP 1016               |          | C121           | 87-010-406-080 | CAP, ELECT 22-50             |
|            |                |           |                           |          | C122           | 87-010-406-080 | CAP, ELECT 22-50             |
|            |                |           |                           |          |                |                |                              |
|            | 87-A30-106-040 |           | C-TR, CMBT5551            |          |                |                |                              |
|            | 87-A30-276-040 |           | C-TR, DTA143EKA           |          | C151           | 87-010-405-080 | CAP, E 10-50 M 11L SME<U>    |
|            | 87-A30-063-080 |           | C-TR, KRA104S             |          | C152           | 87-010-260-080 | CAP, E 47-25 M 11L SME<LH>   |
|            | 87-026-609-080 |           | TR, KTA1266GR             |          | C163           | 87-010-196-080 | CHIP CAPACITOR, 0.1-25       |
|            | 87-A30-107-070 |           | C-TR, CMBT5401            |          | C171           | 87-012-368-080 | C-CAP, S 0.1-50 F            |
|            |                |           |                           |          | C172           | 87-012-368-080 | C-CAP, S 0.1-50 F            |
|            |                |           |                           |          |                |                |                              |
|            | 87-A30-186-010 |           | FET, 2SK3053              |          |                |                |                              |
|            | 87-A30-086-070 |           | C-TR, CSD1306E            |          | C173           | 87-012-368-080 | C-CAP, S 0.1-50 F            |
|            | 87-A30-329-080 |           | TR, CD1585BC              |          | C174           | 87-012-368-080 | C-CAP, S 0.1-50 F            |
|            | 89-327-143-080 |           | TR, 2SC2714 (0.1W)        |          | C175           | 87-A11-572-080 | C-CAP, S 0.015-50 K B        |
|            | 87-A30-072-080 |           | C-TR, RT1P 144C           |          | C176           | 87-A11-572-080 | C-CAP, S 0.015-50 K B        |
|            |                |           |                           |          | C177           | 87-010-197-080 | CAP, CHIP 0.01 DM            |
|            |                |           |                           |          |                |                |                              |
|            | 87-A30-234-080 |           | TR, CSC4115BC             |          |                |                |                              |
|            | 87-026-463-080 |           | TR, 2SA933SRS             |          | C178           | 87-010-197-080 | CAP, CHIP 0.01 DM            |
| DIODE      |                |           |                           |          | C301           | 87-010-318-080 | C-CAP, S 47P-50 CH           |
|            |                |           |                           |          | C302           | 87-010-318-080 | C-CAP, S 47P-50 CH           |
|            |                |           |                           |          | C303           | 87-012-157-080 | C-CAP, S 330P-50 CH          |
|            |                |           |                           |          | C304           | 87-012-157-080 | C-CAP, S 330P-50 CH          |
|            |                |           |                           |          |                |                |                              |
|            | 87-A40-673-090 |           | DIODE, D10XB20            |          |                |                |                              |
|            | 87-A40-553-080 |           | DIODE, 1N4003 LES         |          | C305           | 87-012-157-080 | C-CAP, S 330P-50 CH          |
|            | 87-A40-784-080 |           | ZENER, UZ39BSB            |          | C306           | 87-012-157-080 | C-CAP, S 330P-50 CH          |
|            | 87-020-465-080 |           | DIODE, 1SS133             |          | C307           | 87-010-196-080 | CHIP CAPACITOR, 0.1-25       |
|            | 87-A40-764-080 |           | ZENER, UZ10BSC            |          | C311           | 87-010-198-080 | CAP, CHIP 0.022              |
|            |                |           |                           |          | C312           | 87-010-198-080 | CAP, CHIP 0.022              |
|            |                |           |                           |          |                |                |                              |
|            | 87-A40-781-080 |           | ZENER, UZ36BSA<LH>        |          |                |                |                              |
|            | 87-A40-438-080 |           | ZENER, MTZJ4.7A<LH>       |          | C313           | 87-010-180-080 | C-CER 1500P                  |
|            | 87-017-447-010 |           | DIODE, GBU4DL-6419        |          | C314           | 87-010-180-080 | C-CER 1500P                  |
|            | 87-017-654-060 |           | DIODE, GBU6JL6131         |          | C315           | 87-010-178-080 | CHIP CAP 1000P               |
|            | 87-070-274-080 |           | DIODE, 1N4003 SEM         |          | C316           | 87-010-178-080 | CHIP CAP 1000P               |
|            |                |           |                           |          | C317           | 87-A10-201-080 | C-CAP, S0.33-16 KB           |
|            |                |           |                           |          |                |                |                              |
|            | 87-A40-313-080 |           | C-DIODE, MC 2840          |          |                |                |                              |
|            | 87-A40-270-080 |           | C-DIODE, MC2838           |          | C318           | 87-A10-201-080 | C-CAP, S0.33-16 KB           |
|            | 87-A40-269-080 |           | C-DIODE, MC2836           |          | C319           | 87-012-141-080 | CHIP-CAPACITOR, 0.22-16F     |
|            | 87-A40-768-080 |           | ZENER, UZ16BSA            |          | C320           | 87-012-141-080 | CHIP-CAPACITOR, 0.22-16F     |

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION             | REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION                |
|----------|----------------|-----------|-------------------------|----------|----------------|-----------|----------------------------|
| C321     | 87-012-141-080 |           | CHIP-CAPACITOR,0.22-16F | C616     | 87-010-180-080 |           | C-CER 1500P                |
| C322     | 87-012-141-080 |           | CHIP-CAPACITOR,0.22-16F | C617     | 87-010-198-080 |           | CAP, CHIP 0.022            |
| C324     | 87-010-260-080 |           | CAP, ELECT 47-25V       | C618     | 87-010-401-080 |           | CAP, ELECT 1-50V           |
| C325     | 87-010-370-080 |           | CAP,E 330-6.3 SME       | C619     | 87-010-263-080 |           | CAP, ELECT 100-10V         |
| C327     | 87-010-404-080 |           | CAP, ELECT 4.7-50V      | C620     | 87-016-669-080 |           | C-CAP,S 0.1-25 K B         |
| C328     | 87-010-404-080 |           | CAP, ELECT 4.7-50V      | C621     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C332     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   | C623     | 87-010-401-080 |           | CAP, ELECT 1-50V           |
| C335     | 87-010-401-080 |           | CAP, ELECT 1-50V        | C624     | 87-010-401-080 |           | CAP, ELECT 1-50V           |
| C336     | 87-010-401-080 |           | CAP, ELECT 1-50V        | C626     | 87-010-992-080 |           | C-CAP,S 0.047-16 K B       |
| C337     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   | C627     | 87-010-400-080 |           | CAP, ELECT 0.47-50V        |
| C339     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   | C628     | 87-010-400-080 |           | CAP, ELECT 0.47-50V        |
| C340     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   | C629     | 87-010-992-080 |           | C-CAP,S 0.047-16 K B       |
| C351     | 87-012-140-080 |           | CAP 470P                | C630     | 87-010-383-080 |           | CAP, ELECT 100-10V         |
| C352     | 87-012-140-080 |           | CAP 470P                | C631     | 87-010-185-080 |           | C-CAP,S 3900P-50 B         |
| C354     | 87-010-175-080 |           | CAP 560P                | C632     | 87-010-185-080 |           | C-CAP,S 3900P-50 B         |
| C355     | 87-012-349-080 |           | C-CAP,S 1000P-50 CH     | C634     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C356     | 87-010-260-080 |           | CAP, ELECT 47-25V       | C635     | 87-A10-307-080 |           | C-CAP,S 0.1-25 K B         |
| C357     | 87-010-197-080 |           | CAP, CHIP 0.01 DM       | C636     | 87-A10-307-080 |           | C-CAP,S 0.1-25 K B         |
| C358     | 87-010-183-080 |           | C-CAP,S 2700P-50 B      | C637     | 87-A10-307-080 |           | C-CAP,S 0.1-25 K B         |
| C359     | 87-010-183-080 |           | C-CAP,S 2700P-50 B      | C638     | 87-A10-307-080 |           | C-CAP,S 0.1-25 K B         |
| C360     | 87-010-183-080 |           | C-CAP,S 2700P-50 B      | C639     | 87-010-405-080 |           | CAP, ELECT 10-50V          |
| C370     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   | C641     | 87-010-401-080 |           | CAP, ELECT 1-50V           |
| C371     | 87-010-175-080 |           | C-CAP,S 560P-50 SL      | C642     | 87-010-401-080 |           | CAP, ELECT 1-50V           |
| C372     | 87-010-175-080 |           | C-CAP,S 560P-50 SL      | C643     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C373     | 87-010-179-080 |           | CAP,CHIP S B1200P       | C644     | 87-010-401-080 |           | CAP, ELECT 1-50V           |
| C374     | 87-010-179-080 |           | CAP,CHIP S B1200P       | C671     | 87-010-322-080 |           | C-CAP,S 100P-50 CH         |
| C375     | 87-010-545-080 |           | CAP, ELECT 0.22-50V     | C672     | 87-010-322-080 |           | C-CAP,S 100P-50 CH         |
| C376     | 87-010-545-080 |           | CAP, ELECT 0.22-50V     | C673     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C378     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   | C675     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C381     | 87-010-197-080 |           | CAP, CHIP 0.01 DM       | C679     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C382     | 87-010-318-080 |           | C-CAP,S 47P-50 CH       | C680     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C383     | 87-010-197-080 |           | CAP, CHIP 0.01 DM       | C682     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C384     | 87-010-402-080 |           | CAP, ELECT 2.2-50V      | C771     | 87-010-263-080 |           | CAP, ELECT 100-10V         |
| C385     | 87-010-184-080 |           | CHIP CAPACITOR 3300P(K) | C772     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C386     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   | C773     | 87-010-184-080 |           | CHIP CAPACITOR 3300P(K)    |
| C388     | 87-012-156-080 |           | C-CAP,S 220P-50 CH      | C774     | 87-010-184-080 |           | CHIP CAPACITOR 3300P(K)    |
| C501     | 87-010-263-080 |           | CAP, ELECT 100-10V      | C779     | 87-A10-679-080 |           | C-CAP,S 3300P-50 TR<LH>    |
| C502     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   | C780     | 87-A10-679-080 |           | C-CAP,S 3300P-50 TR<LH>    |
| C503     | 87-016-460-080 |           | C-CAP,S 0.22-16 K B     | C782     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C504     | 87-016-460-080 |           | C-CAP,S 0.22-16 K B     | C783     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C505     | 87-012-141-080 |           | CHIP-CAPACITOR,0.22-16F | C784     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C506     | 87-010-184-080 |           | CHIP CAPACITOR 3300P(K) | C785     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C507     | 87-A11-550-080 |           | C-CAP,S 820P-50 K B     | C786     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C508     | 87-016-669-080 |           | C-CAP,S 0.1-25 K B      | C788     | 87-010-149-080 |           | C-CAP,S 5P-50 CH           |
| C509     | 87-016-669-080 |           | C-CAP,S 0.1-25 K B      | C789     | 87-A10-592-080 |           | C-CAP,S 0.015-50 J<HS>     |
| C510     | 87-010-184-080 |           | CHIP CAPACITOR 3300P(K) | C789     | 87-012-365-080 |           | C-CAP,S 0.027-25 K B<U,LH> |
| C511     | 87-A11-550-080 |           | C-CAP,S 820P-50 K B     | C790     | 87-A10-592-080 |           | C-CAP,S 0.015-50 J<HS>     |
| C512     | 87-016-460-080 |           | C-CAP,S 0.22-16 K B     | C790     | 87-012-365-080 |           | C-CAP,S 0.027-25 K B<U,LH> |
| C513     | 87-010-544-080 |           | CAP, ELECT 0.1-50V      | C791     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C514     | 87-010-374-080 |           | CAP, ELECT 47-10V       | C792     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C515     | 87-010-401-080 |           | CAP, ELECT 1-50V        | C793     | 87-010-404-080 |           | CAP, ELECT 4.7-50V         |
| C516     | 87-010-401-080 |           | CAP, ELECT 1-50V        | C795     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C517     | 87-010-183-080 |           | C-CAP,S 2700P-50 B      | C796     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C518     | 87-010-183-080 |           | C-CAP,S 2700P-50 B      | C797     | 87-010-405-080 |           | CAP, ELECT 10-50V          |
| C531     | 87-010-560-080 |           | CAP,E 10-50 GAS         | C798     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C532     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   | C799     | 87-010-407-080 |           | CAP, ELECT 33-50V          |
| C533     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   | C800     | 87-012-369-080 |           | C-CAP,S 0.047-50F          |
| C534     | 87-012-156-080 |           | C-CAP,S 220P-50 CH      | C801     | 87-010-403-080 |           | CAP, ELECT 3.3-50V         |
| C535     | 87-010-178-080 |           | CHIP CAP 1000P          | C802     | 87-012-369-080 |           | C-CAP,S 0.047-50F          |
| C536     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   | C803     | 87-010-198-080 |           | CAP, CHIP 0.022            |
| C538     | 87-010-318-080 |           | C-CAP,S 47P-50 CH       | C804     | 87-010-263-080 |           | CAP, ELECT 100-10V         |
| C541     | 87-010-178-080 |           | CHIP CAP 1000P          | C807     | 87-010-400-080 |           | CAP, ELECT 0.47-50V        |
| C603     | 87-010-318-080 |           | C-CAP,S 47P-50 CH       | C808     | 87-010-401-080 |           | CAP, ELECT 1-50V           |
| C604     | 87-010-318-080 |           | C-CAP,S 47P-50 CH       | C809     | 87-010-401-080 |           | CAP, ELECT 1-50V           |
| C605     | 87-010-318-080 |           | C-CAP,S 47P-50 CH       | C810     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C606     | 87-010-318-080 |           | C-CAP,S 47P-50 CH       | C811     | 87-010-403-080 |           | CAP, ELECT 3.3-50V         |
| C611     | 87-010-956-080 |           | CHIP-CAP,S 0.068-25B    | C812     | 87-010-403-080 |           | CAP, ELECT 3.3-50V         |
| C612     | 87-010-369-080 |           | C-CAP,S 0.033-25 K B    | C814     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C613     | 87-010-197-080 |           | CAP, CHIP 0.01 DM       | C815     | 87-010-400-080 |           | CAP, ELECT 0.47-50V        |
| C614     | 87-016-669-080 |           | C-CAP,S 0.1-25 K B      | C816     | 87-010-403-080 |           | CAP, ELECT 3.3-50V         |

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION                    |
|----------|----------------|-----------|--------------------------------|
| C819     | 87-010-179-080 |           | CAP,CHIP S B1200P              |
| C820     | 87-010-179-080 |           | CAP,CHIP S B1200P              |
| C821     | 87-010-405-080 |           | CAP, ELECT 10-50V              |
| C823     | 87-010-177-080 |           | C-CAP,S 820P-50 SL             |
| C824     | 87-010-404-080 |           | CAP,E 4.7-50 M 11L SME<HS>     |
| C824     | 87-010-405-080 |           | CAP, ELECT 10-50V<U,LH>        |
| C825     | 87-010-596-080 |           | CAP, S 0.047-16                |
| C842     | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |
| C844     | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |
| C850     | 87-010-260-080 |           | CAP, ELECT 47-25V              |
| C851     | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |
| C852     | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |
| C853     | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |
| C858     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25          |
| C859     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25          |
| C860     | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |
| C959     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25          |
| C960     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25          |
| C961     | 87-010-152-080 |           | C-CAP,S 8P-50 CH               |
| C963     | 87-015-785-080 |           | CHIP CAPACITOR, 0.1FZ-25Z      |
| C971     | 87-010-381-080 |           | CAP, ELECT 330-16V             |
| C972     | 87-010-404-080 |           | CAP, ELECT 4.7-50V             |
| C973     | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |
| C974     | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |
| C979     | 87-010-322-080 |           | C-CAP,S 100P-50 CH             |
| C981     | 87-010-260-080 |           | CAP, ELECT 47-25V              |
| C982     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25          |
| C983     | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |
| C984     | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |
| C987     | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |
| C991     | 87-010-312-080 |           | C-CAP,S 15P-50 CH              |
| C992     | 87-010-312-080 |           | C-CAP,S 15P-50 CH              |
| C993     | 87-010-178-080 |           | CHIP CAP 1000P                 |
| C995     | 87-010-178-080 |           | CHIP CAP 1000P                 |
| C997     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25          |
| C998     | 87-010-260-080 |           | CAP, ELECT 47-25V              |
| C999     | 87-A11-155-080 |           | CAP,TC U 0.01-16 Z F           |
| CF831    | 87-008-261-010 |           | FILTER, SFE10.7MA5-A           |
| CF832    | 87-008-261-010 |           | FILTER, SFE10.7MA5-A           |
| CN1      | 87-A60-996-010 |           | CONN,13P V BLK TAC-L13X-A3     |
| CN91     | 87-A60-619-010 |           | CONN,2P V 2MM JMT              |
| CN92     | 87-A60-619-010 |           | CONN,2P V 2MM JMT              |
| CN101    | 87-A60-996-010 |           | CONN,13P V BLK TAC-L13X-A3     |
| CN301    | 87-A60-620-010 |           | CONN,3P V 2MM JMT              |
| CN351    | 87-A60-625-010 |           | CONN,8P V 2MM JMT              |
| CN601    | 87-099-719-010 |           | CONN,30P TYK-B(X)              |
| CN602    | 87-A60-131-010 |           | CONN,6P V FE                   |
| CN605    | 87-099-568-010 |           | CONN,11P TUC-P11P-B1           |
| CNA1     | 8A-NF8-653-010 |           | CONN ASSY,9P TID-A(480)        |
| CNA2     | 8A-NF3-640-110 |           | CONN ASSY,3P (VM) ANF-3<HS,LH> |
| CNA3     | 87-049-919-010 |           | CONN,3P V WHT EH               |
| FB501    | 87-008-372-080 |           | FILTER, EMI BL OIRNI           |
| FC602    | 88-906-481-110 |           | FF-CABLE,6P 1.25 480MM         |
| FFE831   | A8-8ZA-190-030 |           | 8ZA-1 FEUNM                    |
| J102     | 87-A60-238-010 |           | TERMINAL,SP 4P (MSC)           |
| J103     | 87-A60-483-010 |           | JACK,DIA6.3 BLK ST W/S KM      |
| J601     | 87-A60-885-010 |           | JACK,PIN 6P R/W MSC            |
| J831     | 87-A60-202-010 |           | TERMINAL,ANT 4P MSP-154V-02    |
| L101     | 87-A50-610-010 |           | COIL,1UHK                      |
| L102     | 87-A50-610-010 |           | COIL,1UHK                      |
| L301     | 87-A50-049-010 |           | COIL,TRAP 85K(COI)             |
| L302     | 87-A50-049-010 |           | COIL,TRAP 85K(COI)             |
| L351     | 87-007-342-010 |           | COIL,OSC 85K BIAS              |
| L801     | 87-A50-608-010 |           | COIL,FM DET-N(TOK)             |
| L802     | 87-A91-551-010 |           | FLTR,PCFJZH-450L (TOK)         |
| L811     | 87-005-847-080 |           | COIL,2.2UH(CECS)               |
| L821     | 87-A50-209-010 |           | COIL,1POLE MPX(MIT)            |
| L822     | 87-A50-209-010 |           | COIL,1POLE MPX(MIT)            |
| L832     | 87-005-847-080 |           | COIL,2.2UH(CECS)               |
| L951     | 8A-NF8-667-010 |           | COIL,AM PACK 4(TOK)            |

| REF. NO.    | PART NO.       | KANRI NO. | DESCRIPTION                |
|-------------|----------------|-----------|----------------------------|
| R25         | 87-A00-261-080 |           | RES,M/F 0.56-1W J          |
| R117        | 87-012-368-080 |           | C-CAP,S 0.1-50 Z F<LH>     |
| R118        | 87-012-368-080 |           | C-CAP,S 0.1-50 Z F<LH>     |
| R161        | 87-A00-441-050 |           | RES,270-1/2W J RP          |
| R162        | 87-A00-441-050 |           | RES,270-1/2W J RP          |
| R163        | 87-A00-441-050 |           | RES,270-1/2W J RP          |
| R164        | 87-A00-441-050 |           | RES,270-1/2W J RP          |
| R790        | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| R991        | 87-010-322-080 |           | C-CAP,S 100P-50 CH         |
| R993        | 87-010-322-080 |           | C-CAP,S 100P-50 CH         |
| R995        | 87-010-322-080 |           | C-CAP,S 100P-50 CH         |
| SFR301      | 87-024-355-080 |           | SFR,33K DIA6 H             |
| SFR302      | 87-024-355-080 |           | SFR,33K DIA6 H             |
| SFR303      | 87-024-355-080 |           | SFR,33K DIA6 H             |
| SFR304      | 87-024-355-080 |           | SFR,33K DIA6 H             |
| SFR305      | 87-024-356-080 |           | SFR,47K DIA6 H             |
| SFR306      | 87-024-356-080 |           | SFR,47K DIA6 H             |
| SFR351      | 87-024-356-080 |           | SFR,47K DIA6 H             |
| SFR352      | 87-024-356-080 |           | SFR,47K DIA6 H             |
| X991        | 87-A70-061-010 |           | VIB,XTAL 4.500MHZ CSA-309  |
| DISPLAY C.B |                |           |                            |
| C103        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C104        | 87-010-313-080 |           | CAP, CHIP 18P              |
| C105        | 87-010-322-080 |           | C-CAP,S 100P-50 CH         |
| C106        | 87-012-145-080 |           | CAP, CHIP S 270P CH        |
| C107        | 87-012-157-080 |           | C-CAP,S 330P-50 CH         |
| C108        | 87-015-681-040 |           | E/CAP 10-16                |
| C109        | 87-010-401-040 |           | CAP,E 1-50 SME             |
| C110        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C112        | 87-016-460-080 |           | C-CAP,S 0.22-16 K B        |
| C113        | 87-A10-189-040 |           | CAP,E 220-10               |
| C114        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C115        | 87-010-198-080 |           | CAP, CHIP 0.022            |
| C116        | 87-010-493-040 |           | CAP,E 0.47-50 GAS          |
| C117        | 87-010-498-040 |           | CAP,E 10-16 GAS            |
| C118        | 87-010-194-080 |           | CAP, CHIP 0.047            |
| C119        | 87-A10-797-040 |           | CAP,E 47-35 M 5L SRM       |
| C120        | 87-015-699-040 |           | CAP,E 10-50 7L             |
| C121        | 87-015-699-040 |           | CAP,E 10-50 7L             |
| C122        | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| C123        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C125        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C128        | 87-010-178-080 |           | CHIP CAP 1000P             |
| C129        | 87-010-194-080 |           | CAP, CHIP 0.047            |
| C131        | 87-A10-189-040 |           | CAP,E 220-10               |
| C132        | 87-A10-189-040 |           | CAP,E 220-10               |
| C151        | 87-010-194-080 |           | CAP, CHIP 0.047            |
| C192        | 87-015-785-080 |           | C-CAP, 0.1-25 Z F C3216    |
| C196        | 87-010-194-080 |           | CAP, CHIP 0.047            |
| C197        | 87-010-194-080 |           | CAP, CHIP 0.047            |
| C213        | 87-A10-189-040 |           | CAP,E 220-10               |
| C301        | 87-010-318-080 |           | C-CAP,S 47P-50 CH          |
| C303        | 87-016-460-080 |           | C-CAP,S 0.22-16 K B        |
| C304        | 87-016-460-080 |           | C-CAP,S 0.22-16 K B        |
| C305        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C306        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C310        | 87-010-067-040 |           | CAP,E 0.1-50 5L            |
| C701        | 87-010-981-040 |           | CAP,E 22-35 5L SRE         |
| C801        | 87-012-156-080 |           | C-CAP,S 220P-50 CH<HS,LH>  |
| C802        | 87-010-176-080 |           | C-CAP,S 680P-50 SL<HS,LH>  |
| C803        | 87-010-187-080 |           | CAP CHIP S5600P<HS,LH>     |
| C804        | 87-010-213-080 |           | C-CAP,S 0.015-50 B<HS,LH>  |
| C805        | 87-010-197-080 |           | CAP, CHIP 0.01 DM<HS,LH>   |
| C806        | 87-010-071-040 |           | CAP,E 1-50 M 5L SRE<HS,LH> |
| C807        | 87-010-197-080 |           | CAP, CHIP 0.01 DM<HS,LH>   |
| C809        | 87-012-155-080 |           | C-CAP 180P-50CH<HS,LH>     |
| C810        | 87-010-264-040 |           | CAP,E 100-10 5L<HS,LH>     |
| C811        | 87-010-244-040 |           | CAP,E 22-16 5L<HS,LH>      |

| REF. NO.    | PART NO.       | KANRI NO. | DESCRIPTION                   | REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION                |
|-------------|----------------|-----------|-------------------------------|----------|----------------|-----------|----------------------------|
| C812        | 87-016-044-040 |           | CAP,E 100-16 GAS<HS, LH>      | LED456   | 87-A40-537-040 |           | LED,SLR-56PT-T31-W<U>      |
| C821        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25<HS, LH> | LED456   | 87-A40-809-040 |           | LED,LTL-307KK PGRN<HS, LH> |
| C833        | 87-010-322-080 |           | C-CAP,S 100P-50 CH<HS, LH>    | LED461   | 87-A40-317-080 |           | LED,SLR-342VCT31 RED       |
| C901        | 87-012-157-080 |           | C-CAP,S 330P-50 CH            | LED462   | 87-A40-317-080 |           | LED,SLR-342VCT31 RED       |
| C902        | 87-010-176-080 |           | C-CAP,S 680P-50 SL            | LED463   | 87-A40-317-080 |           | LED,SLR-342VCT31 RED       |
| C903        | 87-010-176-080 |           | C-CAP,S 680P-50 SL            | LED464   | 87-A40-317-080 |           | LED,SLR-342VCT31 RED       |
| C904        | 87-010-176-080 |           | C-CAP,S 680P-50 SL            | LED465   | 87-A40-317-080 |           | LED,SLR-342VCT31 RED       |
| C905        | 87-010-176-080 |           | C-CAP,S 680P-50 SL            | LED521   | 87-A40-678-010 |           | LED,SELU1E10CXM BLUE-DEF   |
| C906        | 87-010-176-080 |           | C-CAP,S 680P-50 SL            | LED522   | 87-A40-678-010 |           | LED,SELU1E10CXM BLUE-DEF   |
| C907        | 87-010-176-080 |           | C-CAP,S 680P-50 SL            | S201     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C908        | 87-010-176-080 |           | C-CAP,S 680P-50 SL            | S202     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C909        | 87-010-176-080 |           | C-CAP,S 680P-50 SL            | S203     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C910        | 87-010-176-080 |           | C-CAP,S 680P-50 SL            | S204     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C911        | 87-010-176-080 |           | C-CAP,S 680P-50 SL            | S205     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C912        | 87-010-176-080 |           | C-CAP,S 680P-50 SL            | S206     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C913        | 87-010-176-080 |           | C-CAP,S 680P-50 SL            | S207     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C914        | 87-012-145-080 |           | CAP, CHIP S 270P CH           | S208     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| CN101       | 87-099-720-010 |           | CONN,30P TYK-B(P)             | S211     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| CN102       | 87-A60-054-010 |           | CONN,14P V 9604S-14C          | S212     | 87-A90-095-080 |           | SW,TACT EVQ11G04M<HS, LH>  |
| CN103       | 87-099-750-010 |           | CONN,15P V 9604SC             | S213     | 87-A90-095-080 |           | SW,TACT EVQ11G04M<HS, LH>  |
| CN601       | 87-A60-062-010 |           | CONN,05P V 9604S-05C          | S214     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| CN701       | 87-099-750-010 |           | CONN,15P V 9604SC             | S215     | 87-A90-095-080 |           | SW,TACT EVQ11G04M<HS, LH>  |
| FC102       | 88-914-481-110 |           | FF-CABLE,14P 1.25 480MM       | S216     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| FC601       | 88-905-081-110 |           | FF-CABLE,5P 1.25              | S217     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| FC701       | 88-915-161-110 |           | FF-CABLE,15P 1.25             | S221     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| FL101       | 8A-NF3-613-010 |           | FL,BJ752GK-ANF3               | S222     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| JR102       | 83-XM1-617-080 |           | C-COIL,BK2125HM601<HS>        | S223     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| L101        | 87-A50-333-010 |           | COIL,OSC 9.43MHZ              | S224     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| L801        | 87-A50-093-010 |           | COIL,CLOCK 5.76MHZ<HS, LH>    | S225     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| L802        | 87-003-098-080 |           | COIL,2.2UH<HS, LH>            | S226     | 87-A90-095-080 |           | SW,TACT EVQ11G04M<HS, LH>  |
| CONTROL C.B |                |           |                               | S227     | 87-A90-095-080 |           | SW,TACT EVQ11G04M<HS, LH>  |
| C401        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25         | S228     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C407        | 87-010-322-080 |           | C-CAP,S 100P-50 CH            | S229     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C410        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25         | S230     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C417        | 87-010-322-080 |           | C-CAP,S 100P-50 CH            | S231     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C423        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25         | S232     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C424        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25         | S241     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C501        | 87-010-178-080 |           | CHIP CAP 1000P                | S242     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C502        | 87-012-156-080 |           | C-CAP,S 220P-50 CH            | S243     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C531        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25         | S244     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| C532        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25         | S245     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| CN104       | 87-099-750-010 |           | CONN,15P V 9604SC             | S246     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| CN302       | 87-A60-059-010 |           | CONN,08P V 9604S-08C          | S247     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| FC104       | 88-915-161-110 |           | FF-CABLE,15P 1.25             | S248     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| FC302       | 88-908-381-110 |           | FF-CABLE,8P 1.25              | S249     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| LED101      | 87-A40-317-080 |           | LED,SLR-342VCT31 RED          | S250     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| LED421      | 87-A40-831-010 |           | LED,SELU1E10CXM-LF70 BLUE-DEF | S251     | 87-A90-095-080 |           | SW,TACT EVQ11G04M          |
| LED422      | 87-A40-831-010 |           | LED,SELU1E10CXM-LF70 BLUE-DEF | SW501    | 87-A91-739-010 |           | SW,RTRY EC12E12404-25MM RT |
| LED440      | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN          | AMP C.B  |                |           |                            |
| LED441      | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN          | C101     | 87-010-188-080 |           | CHIP CAP 6800P             |
| LED442      | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN          | C102     | 87-010-188-080 |           | CHIP CAP 6800P             |
| LED443      | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN          | C103     | 87-010-405-080 |           | CAP, ELECT 10-50V          |
| LED444      | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN          | C104     | 87-010-405-080 |           | CAP, ELECT 10-50V          |
| LED445      | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN          | C107     | 87-010-404-080 |           | CAP, ELECT 4.7-50V         |
| LED446      | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN          | C108     | 87-010-404-080 |           | CAP, ELECT 4.7-50V         |
| LED447      | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN          | C111     | 87-010-322-080 |           | C-CAP,S 100P-50 CH         |
| LED448      | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN          | C112     | 87-010-322-080 |           | C-CAP,S 100P-50 CH         |
| LED449      | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN          | C113     | 87-A10-812-080 |           | C-CAP,S 220P-200 J CH      |
| LED451      | 87-A40-537-040 |           | LED,SLR-56PT-T31-W<U>         | C114     | 87-A10-812-080 |           | C-CAP,S 220P-200 J CH      |
| LED451      | 87-A40-809-040 |           | LED,LTL-307KK PGRN<HS, LH>    | C119     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| LED452      | 87-A40-537-040 |           | LED,SLR-56PT-T31-W<U>         | C120     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          |
| LED452      | 87-A40-809-040 |           | LED,LTL-307KK PGRN<HS, LH>    | C121     | 87-010-260-080 |           | CAP, ELECT 47-25V          |
| LED453      | 87-A40-537-040 |           | LED,SLR-56PT-T31-W<U>         | C122     | 87-010-260-080 |           | CAP, ELECT 47-25V          |
| LED453      | 87-A40-809-040 |           | LED,LTL-307KK PGRN<HS, LH>    | C173     | 87-010-186-080 |           | CAP,CHIP 4700P             |
| LED454      | 87-A40-537-040 |           | LED,SLR-56PT-T31-W<U>         | C174     | 87-010-186-080 |           | CAP,CHIP 4700P             |
| LED454      | 87-A40-809-040 |           | LED,LTL-307KK PGRN<HS, LH>    | C205     | 87-010-187-080 |           | C-CAP,S 5600P-50 K B       |
| LED455      | 87-A40-537-040 |           | LED,SLR-56PT-T31-W<U>         | C206     | 87-010-187-080 |           | C-CAP,S 5600P-50 K B       |
| LED455      | 87-A40-809-040 |           | LED,LTL-307KK PGRN<HS, LH>    | C207     | 87-010-403-080 |           | CAP, ELECT 3.3-50V         |

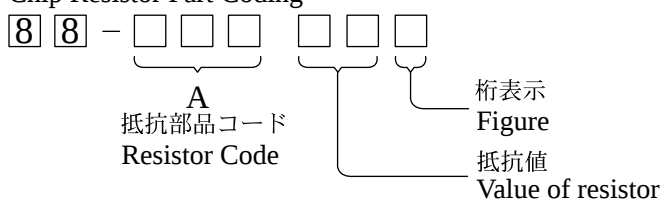
| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION                | REF. NO.   | PART NO.       | KANRI NO. | DESCRIPTION                       |
|----------|----------------|-----------|----------------------------|------------|----------------|-----------|-----------------------------------|
| C208     | 87-010-403-080 |           | CAP, ELECT 3.3-50V         | C37        | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F               |
| C209     | 87-010-184-080 |           | CHIP CAPACITOR 3300P(K)    | C38        | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F               |
| C210     | 87-010-184-080 |           | CHIP CAPACITOR 3300P(K)    | △ CN1      | 87-A61-110-010 |           | CONN,9P V TID-A                   |
| C211     | 87-010-401-080 |           | CAP, ELECT 1-50 M 11L SME  | △ CN2      | 87-A61-108-010 |           | CONN,5P V TID-A                   |
| C212     | 87-010-401-080 |           | CAP, ELECT 1-50 M 11L SME  | △ FC1      | 87-033-213-080 |           | FUSE, CLAMP PFC5000               |
| C215     | 87-012-156-080 |           | C-CAP,S 220P-50 CH         | △ FC2      | 87-033-213-080 |           | FUSE, CLAMP PFC5000               |
| C216     | 87-012-156-080 |           | C-CAP,S 220P-50 CH         | △ FC3      | 87-033-213-080 |           | FUSE, CLAMP PFC5000<LH>           |
| C217     | 87-010-260-080 |           | CAP, ELECT 47-25V          | △ PR3      | 87-A90-195-080 |           | PROTECTOR,7A 491SERIE 60V<HS, LH> |
| C218     | 87-010-260-080 |           | CAP, ELECT 47-25V          | △ PT1      | 8A-NF4-601-010 |           | PT,U EI96-60 ANF-4<U>             |
| C221     | 87-016-100-080 |           | CAP,E 10-50 M BP SME       | △ PT1      | 8A-NF4-602-010 |           | PT,LH EI96-60 ANF-4<LH>           |
| C222     | 87-016-100-080 |           | CAP,E 10-50 M BP SME       | △ PT1      | 8A-NF4-605-010 |           | PT,HS EI96-60 ANF-4<HS>           |
| C223     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          | △ PT2      | 8A-NF8-673-010 |           | PT,SUB ANF-8 (H)KAMI<LH>          |
| C224     | 87-010-197-080 |           | CAP, CHIP 0.01 DM          | △ PT2      | 8A-NF8-661-010 |           | PT,SUB ANF-8 (U)KAMI<U>           |
| C249     | 87-012-368-080 |           | C-CAP,S 0.1-50 F           | △ PT2      | 8A-NF8-662-010 |           | PT,SUB ANF-8 (EKZ)KAMI<HS>        |
| C251     | 87-010-993-080 |           | C-CAP,S 0.056-25 B         | △ RY1      | 87-A90-976-010 |           | RELAY,AC12V SDT-S-112LMR<U,HS>    |
| C252     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      | △ RY2      | 87-A91-300-010 |           | RELAY,AC 12V-ALA2PF12<LH>         |
| C253     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      | △ S1       | 87-A90-165-010 |           | SW,SL 1-2-3 SWS2301<LH>           |
| C254     | 87-010-993-080 |           | C-CAP,S 0.056-25 B         | T1         | 87-A60-317-010 |           | TERMINAL, 1P MSC                  |
| C255     | 87-010-190-080 |           | S CHIP F 0.01              | T2         | 87-A60-317-010 |           | TERMINAL, 1P MSC                  |
| C256     | 87-010-190-080 |           | S CHIP F 0.01              |            |                |           |                                   |
| C402     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      | GEQ C.B    |                |           |                                   |
| C413     | 87-A10-119-080 |           | CAP,E 10-100 REA           |            |                |           |                                   |
| C414     | 87-A10-119-080 |           | CAP,E 10-100 REA           | C201       | 87-010-402-080 |           | CAP, ELECT 2.2-50V                |
| CNA103   | 8A-NF8-656-010 |           | CONN ASSY,5P TID-A(400)    | C202       | 87-010-402-080 |           | CAP, ELECT 2.2-50V                |
| CON101   | 87-A61-011-010 |           | CONN,13P H BLK TAC-L13P-A3 | C205       | 87-010-404-080 |           | CAP, ELECT 4.7-50V                |
| CON102   | 87-A61-011-010 |           | CONN,13P H BLK TAC-L13P-A3 | C207       | 87-016-669-080 |           | C-CAP,S 0.1-25 K B                |
| J201     | 87-A61-148-010 |           | JACK,PIN 4P R/W BLUE       | C208       | 87-016-669-080 |           | C-CAP,S 0.1-25 K B                |
| L251     | 87-A50-610-010 |           | COIL,1UH K(MDEC)           | C209       | 87-016-460-080 |           | C-CAP,S 0.22-16 B                 |
| L252     | 87-A50-610-010 |           | COIL,1UH K(MDEC)           | C210       | 87-016-460-080 |           | C-CAP,S 0.22-16 B                 |
| R161     | 87-A00-418-010 |           | RES,M/F 0.15-3W J          | C211       | 87-012-365-080 |           | C-CAP,S 0.027-25VBK               |
| R162     | 87-A00-418-010 |           | RES,M/F 0.15-3W J          | C212       | 87-012-365-080 |           | C-CAP,S 0.027-25VBK               |
| R165     | 87-A00-418-010 |           | RES,M/F 0.15-3W J          | C213       | 87-010-956-080 |           | CHIP-CAP,S 0.068-25B              |
| R166     | 87-A00-418-010 |           | RES,M/F 0.15-3W J          | C214       | 87-010-956-080 |           | CHIP-CAP,S 0.068-25B              |
| R231     | 87-A00-258-080 |           | RES,M/F 0.22-1W J          | C215       | 87-010-197-080 |           | CAP, CHIP 0.01 DM                 |
| R232     | 87-A00-258-080 |           | RES,M/F 0.22-1W J          | C216       | 87-010-197-080 |           | CAP, CHIP 0.01 DM                 |
| R243     | 87-A00-258-080 |           | RES,M/F 0.22-1W J          | C217       | 87-010-198-080 |           | CAP, CHIP 0.022                   |
| R244     | 87-A00-258-080 |           | RES,M/F 0.22-1W J          | C218       | 87-010-198-080 |           | CAP, CHIP 0.022                   |
| RY201    | 87-A91-686-010 |           | RELAY,G5PA-28(OMROM)       | C219       | 87-010-183-080 |           | C-CAP,S 2700P-50 B                |
| TH101    | 87-A91-042-080 |           | C-THMS,100K 55001          | C220       | 87-010-183-080 |           | C-CAP,S 2700P-50 B                |
| TH102    | 87-A91-042-080 |           | C-THMS,100K 55001          | C221       | 87-010-188-080 |           | CAP,CHIP 6800P                    |
| WH103    | 87-A90-459-010 |           | HLDR,WIRE 2.5-5P           | C222       | 87-010-188-080 |           | CAP,CHIP 6800P                    |
| PT C.B   |                |           |                            | C223       | 87-010-178-080 |           | CHIP CAP 1000P                    |
| C1       | 87-010-387-080 |           | CAP,E 470-25 SME           | C224       | 87-010-178-080 |           | CHIP CAP 1000P                    |
| C2       | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | C225       | 87-010-182-080 |           | C-CAP,S 2200P-50 B                |
| C8       | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | C226       | 87-010-182-080 |           | C-CAP,S 2200P-50 B                |
| C9       | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | C227       | 87-010-112-080 |           | CAP, ELECT 100-16V                |
| C10      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | C228       | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25             |
| C11      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | C229       | 87-010-322-080 |           | C-CAP,S 100P-50 CH                |
| C12      | 87-010-917-000 |           | CAP,E 3300-50 M SMG        | C230       | 87-010-322-080 |           | C-CAP,S 100P-50 CH                |
| C13      | 87-010-917-000 |           | CAP,E 3300-50 M SMG        | C231       | 87-010-322-080 |           | C-CAP,S 100P-50 CH                |
| C16      | 87-010-403-040 |           | CAP,E 3.3-50 SME           | CN201      | 87-A60-546-010 |           | CONN,11P H GRY TUC-P11X-C1        |
| C18      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | VM C.B     |                |           |                                   |
| C19      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | CN301      | 87-A60-079-010 |           | CONN,08P H 9604S-08F              |
| C20      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | VOLUME C.B |                |           |                                   |
| C21      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | S511       | 87-A90-095-080 |           | SW,TACT EVQ11G04M                 |
| C22      | 87-A10-231-090 |           | CAP,E 3300-80              | S512       | 87-A90-095-080 |           | SW,TACT EVQ11G04M                 |
| C23      | 87-A10-231-090 |           | CAP,E 3300-80              | S513       | 87-A90-095-080 |           | SW,TACT EVQ11G04M                 |
| C27      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | S514       | 87-A90-095-080 |           | SW,TACT EVQ11G04M                 |
| C28      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | S515       | 87-A90-095-080 |           | SW,TACT EVQ11G04M                 |
| C29      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | SW101      | 87-A91-740-010 |           | SW,RTRY EC12E24308-30MM           |
| C30      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | MIC C.B    |                |           |                                   |
| C31      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | C161       | 87-010-178-080 |           | CHIP CAP 1000P                    |
| C32      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | C162       | 87-012-156-080 |           | C-CAP,S 220P-50 CH                |
| C33      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        | C601       | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25             |
| C34      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        |            |                |           |                                   |
| C35      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        |            |                |           |                                   |
| C36      | 87-A11-148-080 |           | CAP,TC U 0.1-50 Z F        |            |                |           |                                   |

| REF. NO.   | PART NO.       | KANRI NO. | DESCRIPTION                 | REF. NO.   | PART NO.       | KANRI NO. | DESCRIPTION          |
|------------|----------------|-----------|-----------------------------|------------|----------------|-----------|----------------------|
| C602       | 87-010-186-080 |           | CAP,CHIP 4700P              | DECK C.B   |                |           |                      |
| C603       | 87-010-112-040 |           | CAP,E 100-16                | W1         | 82-ZM3-601-010 |           | RBN,CORD,4P-75       |
| C604       | 87-010-405-040 |           | CAP,E 10-50                 | CON105     | 87-099-756-010 |           | CONN,15P 9604 S F    |
| C605       | 87-010-546-040 |           | CAP,E 0.33-50               | SFR1       | 87-024-581-010 |           | SFR,3.3K DIA 6H      |
| C606       | 87-010-320-080 |           | CHIP CAP 68P                | SOL1       | 82-ZM1-618-410 |           | SOL ASSY,27          |
|            |                |           |                             | SOL2       | 82-ZM1-618-410 |           | SOL ASSY,27          |
| C608       | 87-012-157-080 |           | C-CAP,S 330P-50 CH          | SW1        | 87-A90-248-010 |           | SW,MICRO ESE11SH2CXQ |
| C621       | 87-010-178-080 |           | CHIP CAP 1000P              | SW2        | 87-A90-248-010 |           | SW,MICRO ESE11SH2CXQ |
| CN602      | 87-A60-082-010 |           | CONN,05P H 9604S-05F        | SW3        | 87-A90-248-010 |           | SW,MICRO ESE11SH2CXQ |
| J601       | 87-A61-242-010 |           | JACK,6.3 BLK MONO W/SW V KM | SW4        | 87-036-110-010 |           | SW,MICRO SPPB62      |
| J602       | 87-A61-242-010 |           | JACK,6.3 BLK MONO W/SW V KM | SW5        | 87-036-110-010 |           | SW,MICRO SPPB62      |
| L601       | 87-003-098-080 |           | COIL,2.2UH K LAL02          | SW6        | 87-036-110-010 |           | SW,MICRO SPPB62      |
| CD KEY C.B |                |           |                             | SW8        | 87-A90-248-010 |           | SW,MICRO ESE11SH2CXQ |
| LED311     | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN        | SW9        | 87-A90-248-010 |           | SW,MICRO ESE11SH2CXQ |
| LED312     | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN        | HEAD-1 C.B |                |           |                      |
| LED313     | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN        |            | 85-ZM3-602-010 |           | PWB,FLEX A           |
| LED314     | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN        | HEAD-2 C.B |                |           |                      |
| LED315     | 87-A40-380-180 |           | LED,SEL6510C-TP5 GRN        |            | 85-ZM3-602-010 |           | PWB,FLEX A           |
| S311       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           | CON351     | 87-NF6-616-010 |           | CONN ASSY,8P-RPB     |
| S312       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |            |                |           |                      |
| S313       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |            |                |           |                      |
| S314       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |            |                |           |                      |
| S315       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |            |                |           |                      |
| S316       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |            |                |           |                      |
| S317       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |            |                |           |                      |

# 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<br>Wattage | 種類<br>Type | 許容誤差<br>Tolerance | 記号<br>Symbol | 寸法／Dimensions (mm)                                                                  |     |      |      | 抵抗コード : A<br>Resistor Code : A |
|---------------|------------|-------------------|--------------|-------------------------------------------------------------------------------------|-----|------|------|--------------------------------|
|               |            |                   |              | 外形／Form                                                                             | L   | W    | t    |                                |
| 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



E C B

KTA1266GR  
KTC3198GR  
KTC3199GR  
CSA952K



E C B

CC5551



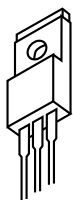
E C B

DTC114ES



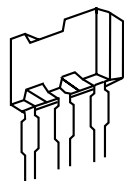
E C B

2SB1436



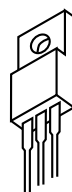
B C E

2SB1370  
FP1016  
FN1016



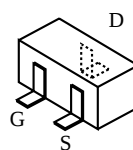
E C B

2SB1237Q

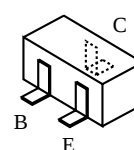


G D S

2SK3053

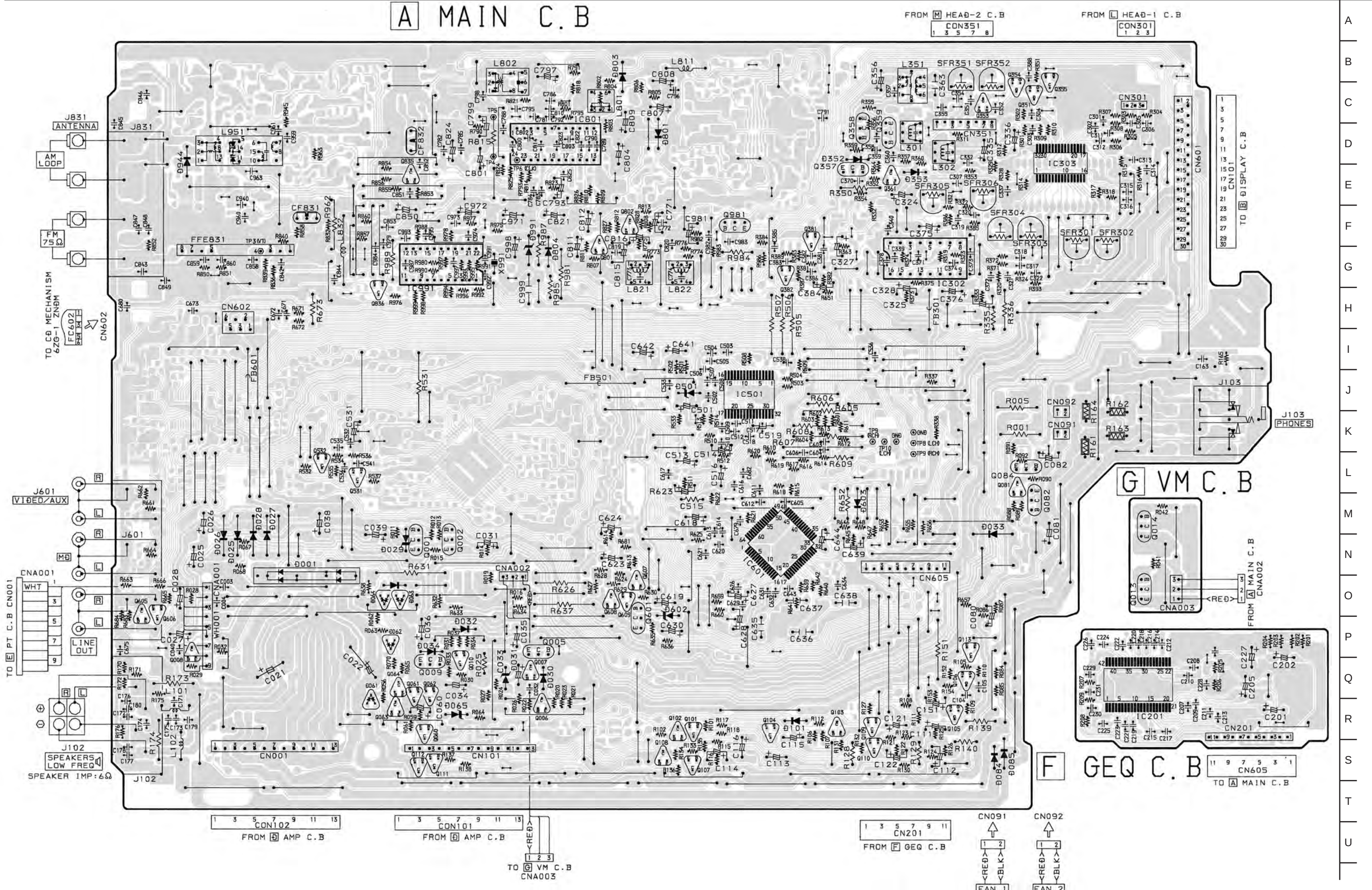


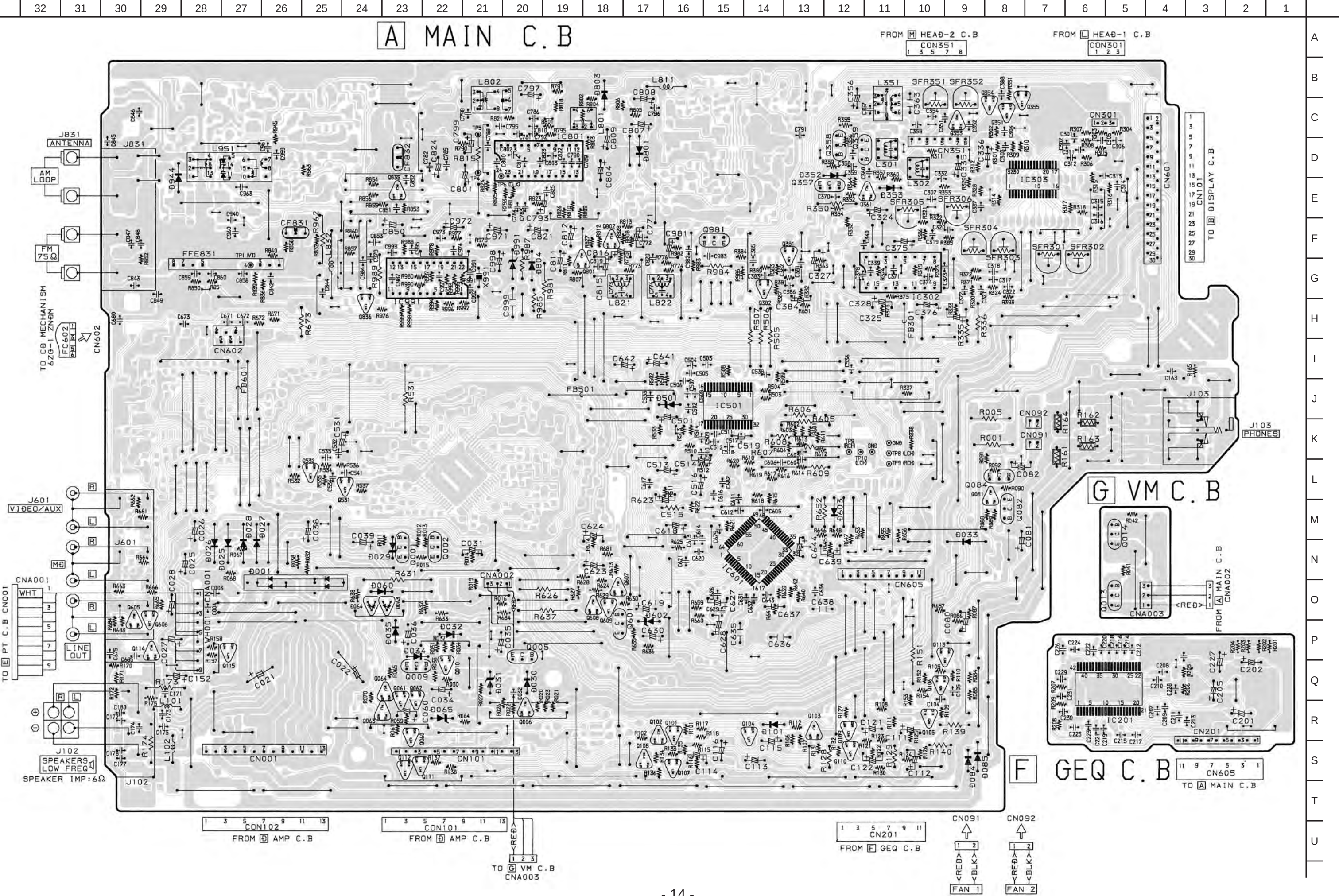
2SK2158  
2SJ461-T1



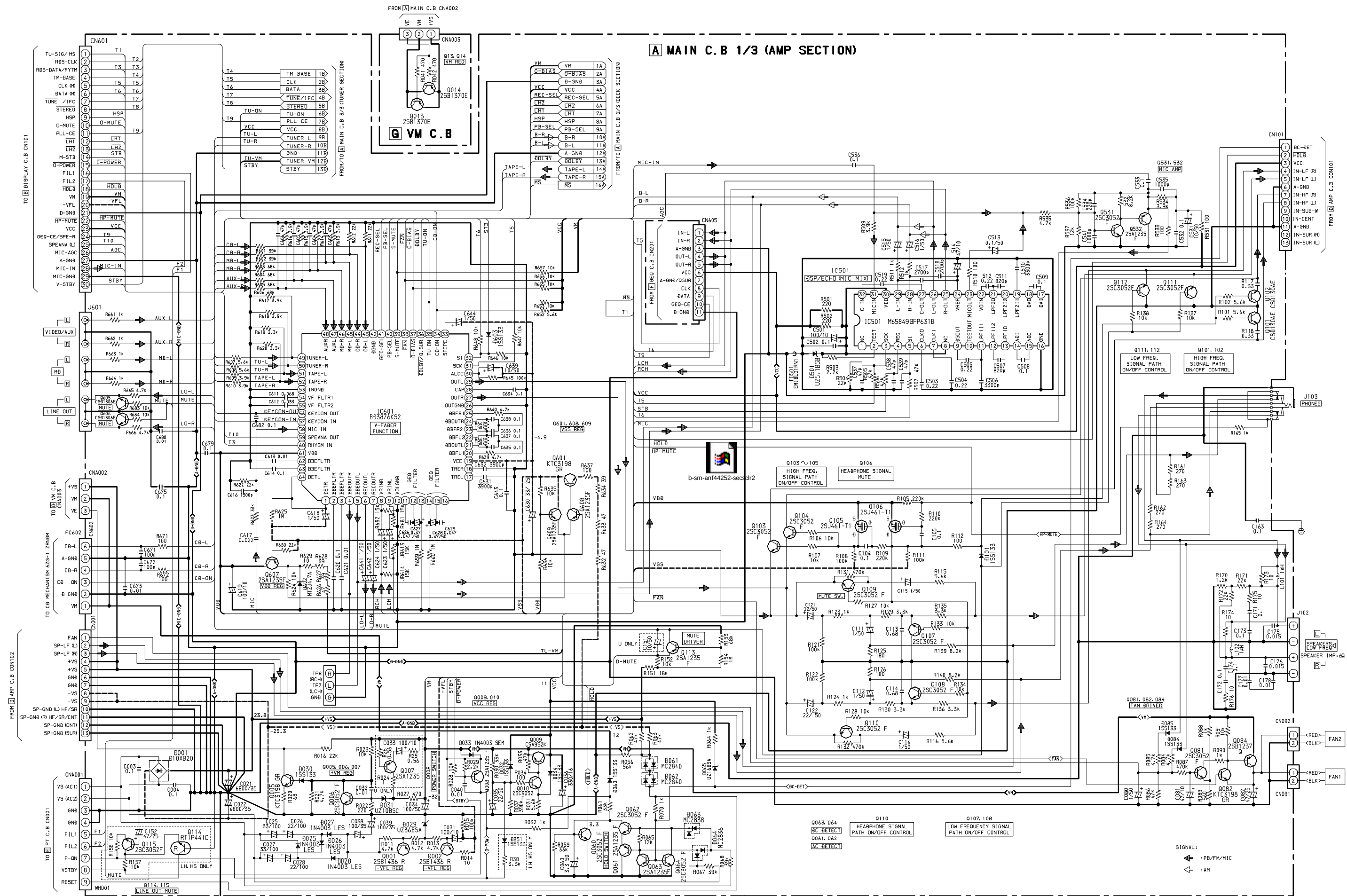
B E

2SA1235F  
2SC2714O  
2SC3052F  
CMBT5551  
CMBT5401  
CSD1306E  
DTA143EKA  
KRA104S  
KRA107S  
KRC102S-RTK  
RT1N141C  
RT1P141C  
RT1P144C  
RT1P441C  
KRA102S

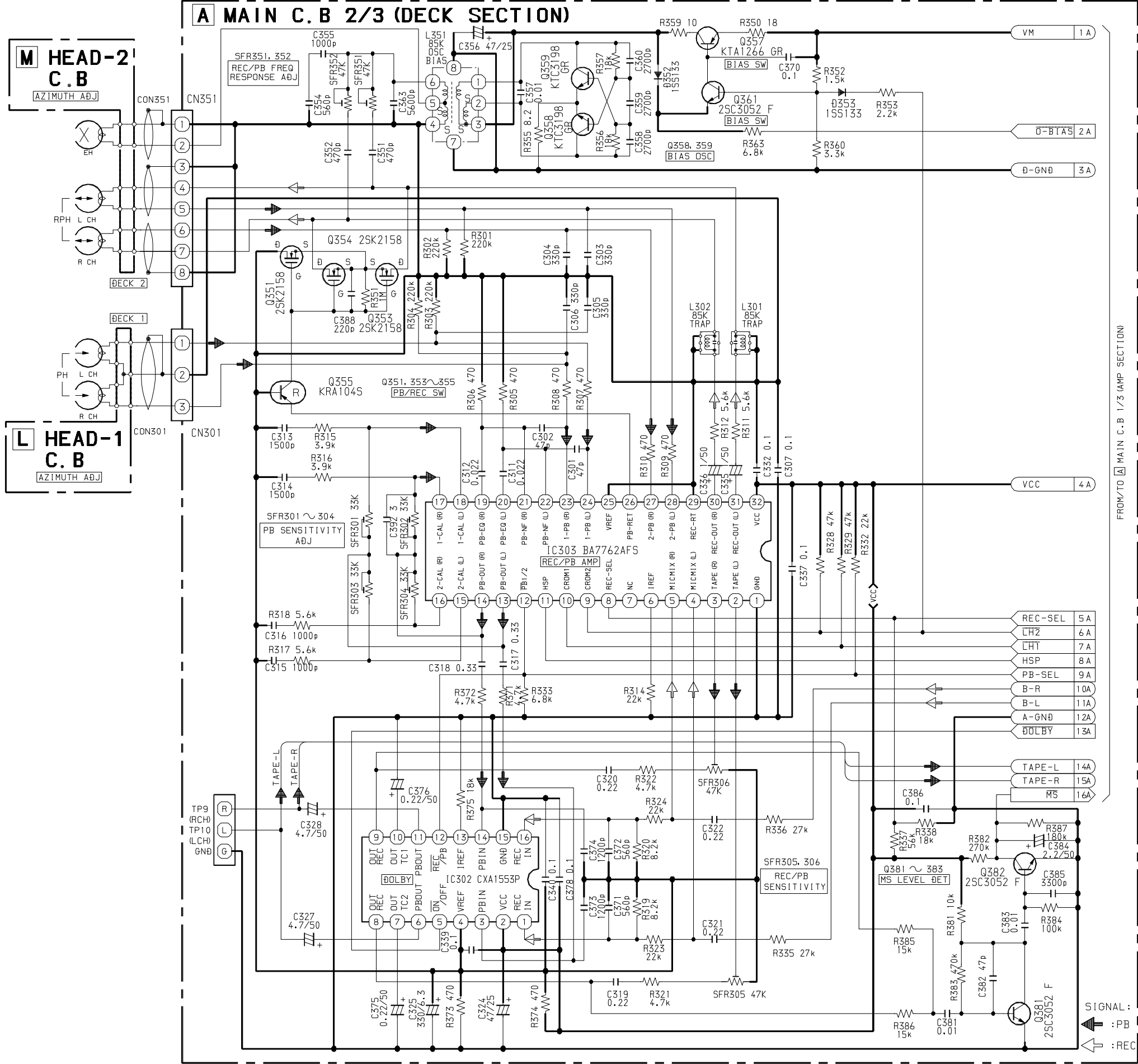




### SCHEMATIC DIAGRAM - 1 (MAIN 1 / 3: AMP/VM)



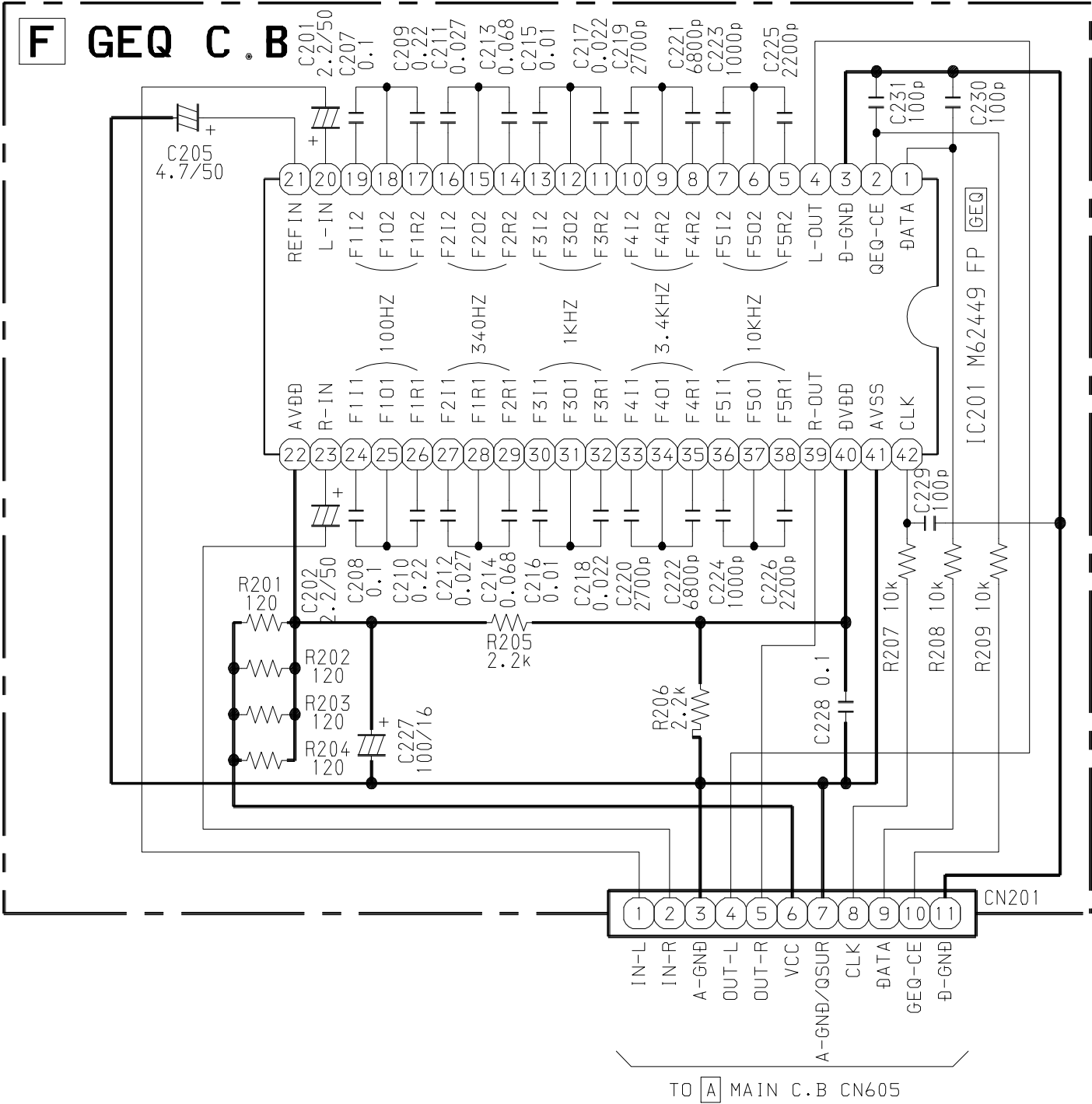
SCHEMATIC DIAGRAM - 2 (MAIN 2 / 3: DECK/ HEAD-1/ HEAD-2)

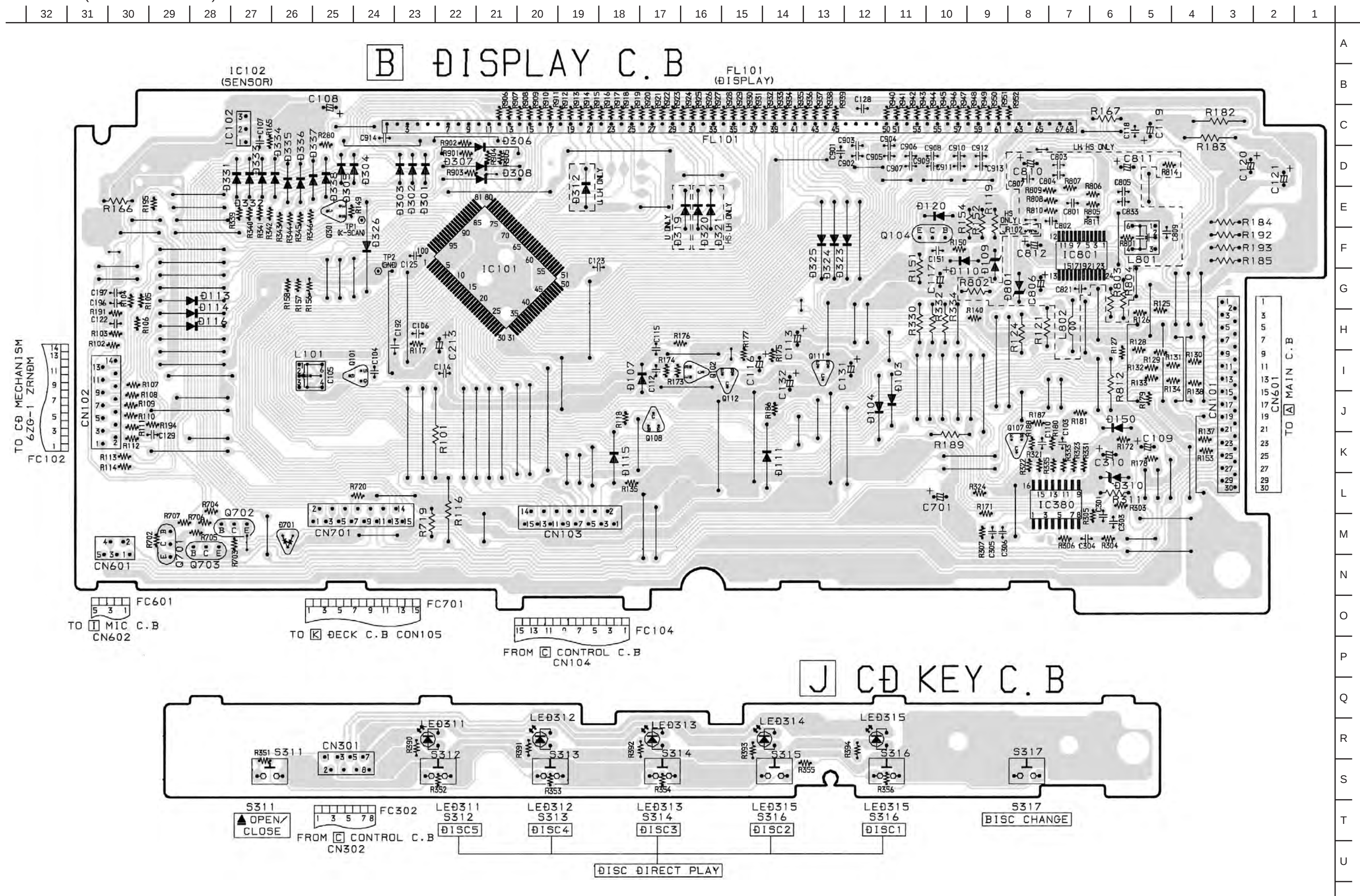


FROM/TO: A MAIN C.B. (1/3) (AMP SECTION)

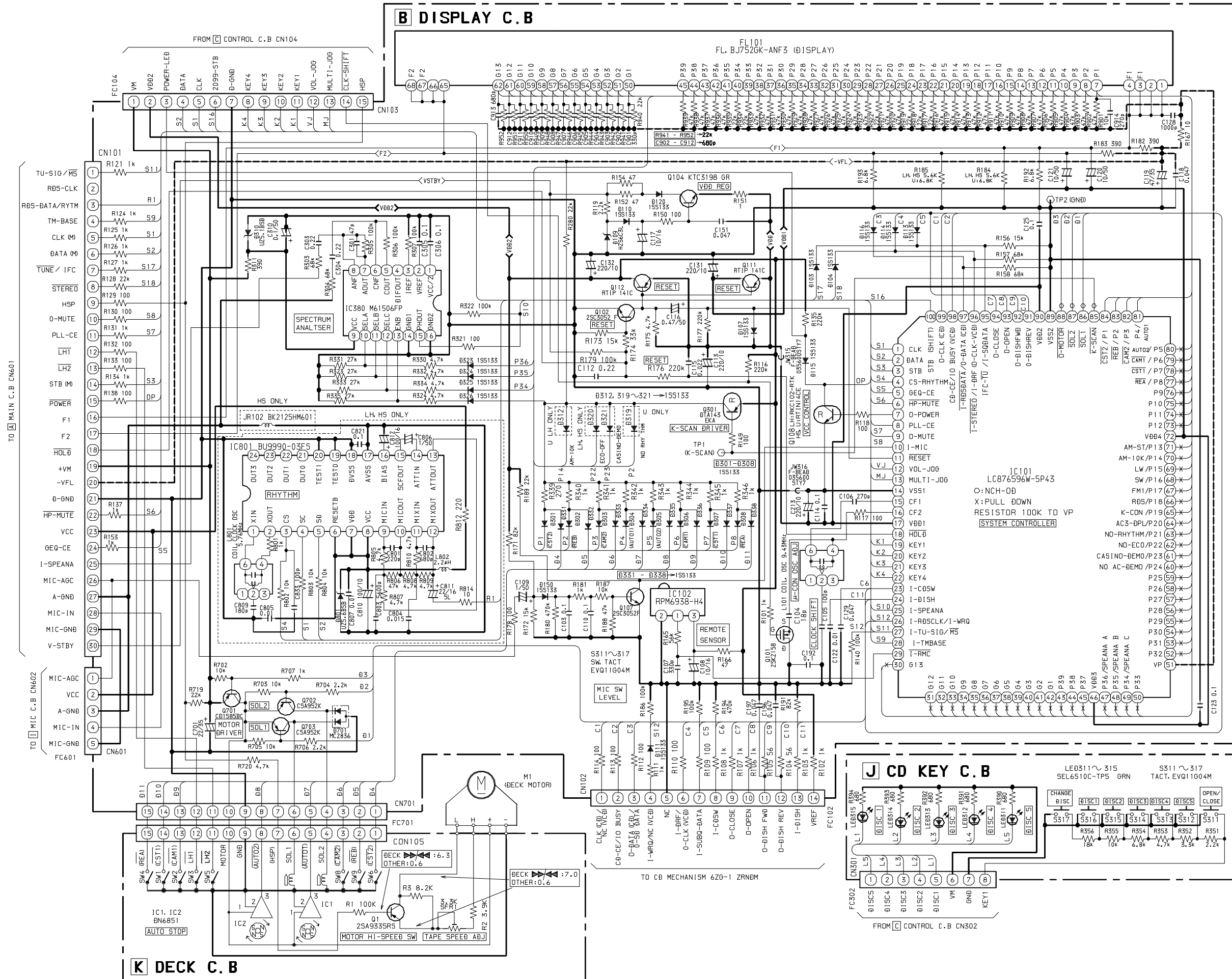


SCHEMATIC DIAGRAM-4 (GEQ)



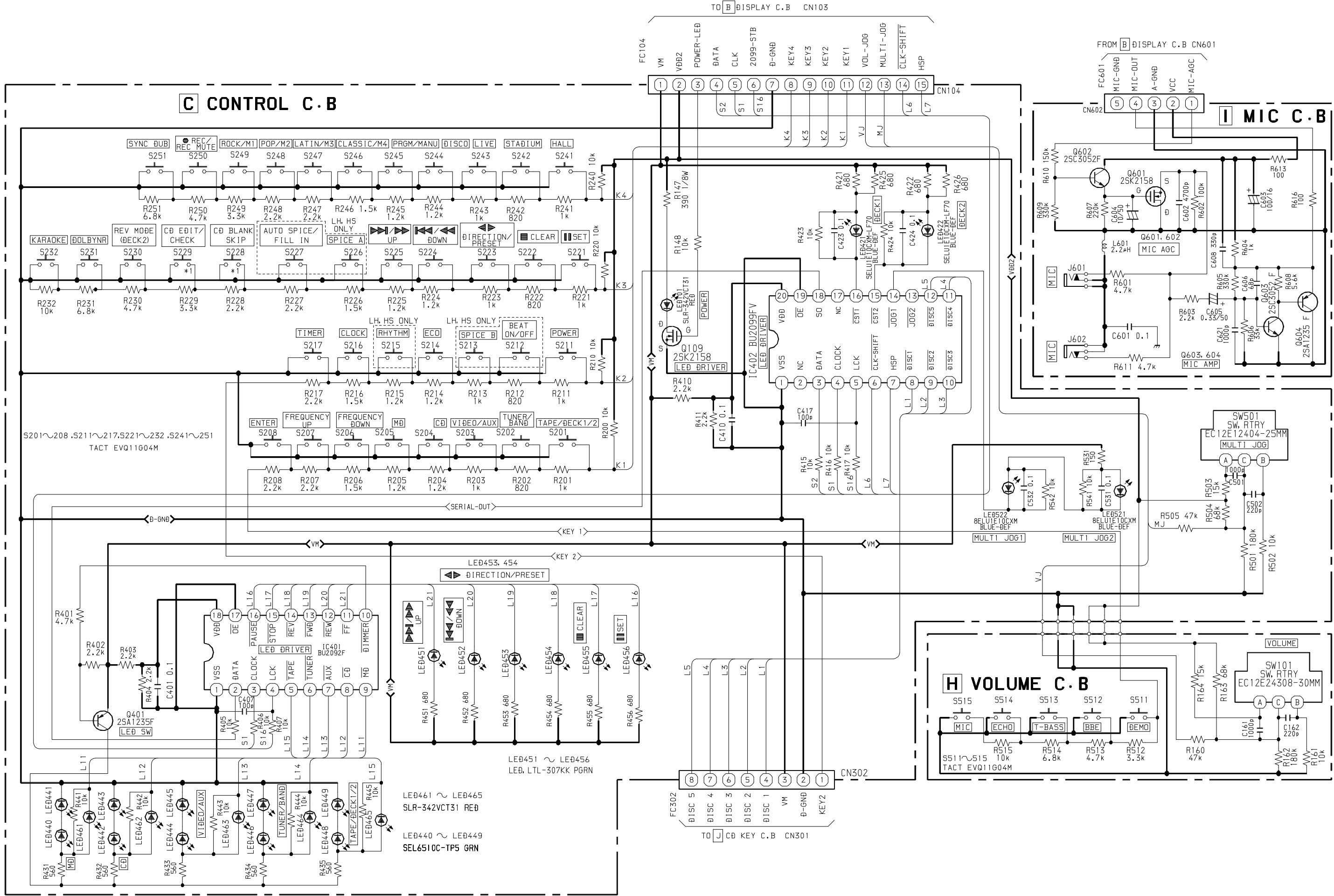


### SCHEMATIC DIAGRAM - 5 (DISPLAY/ CD KEY/ DECK)

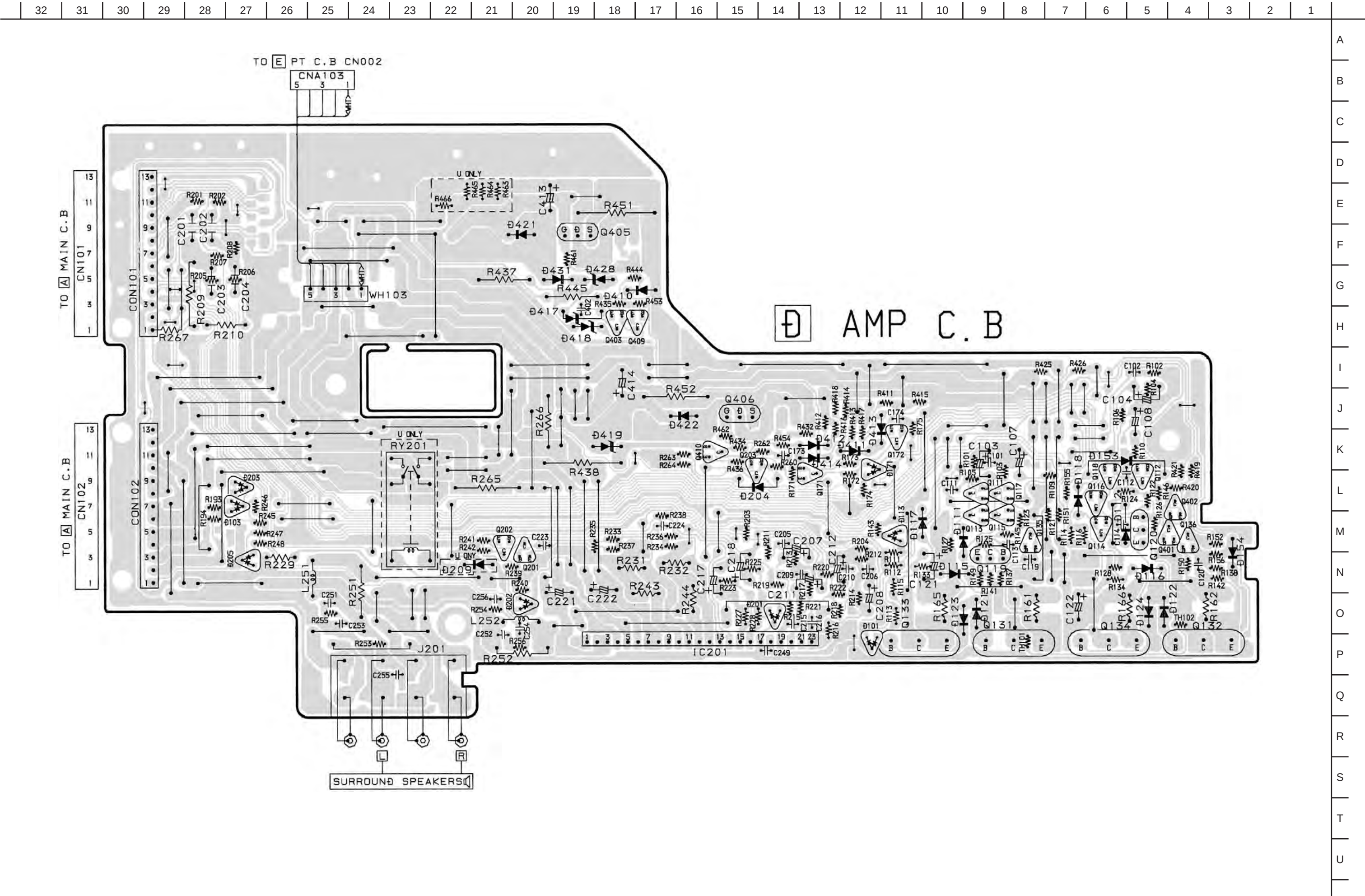




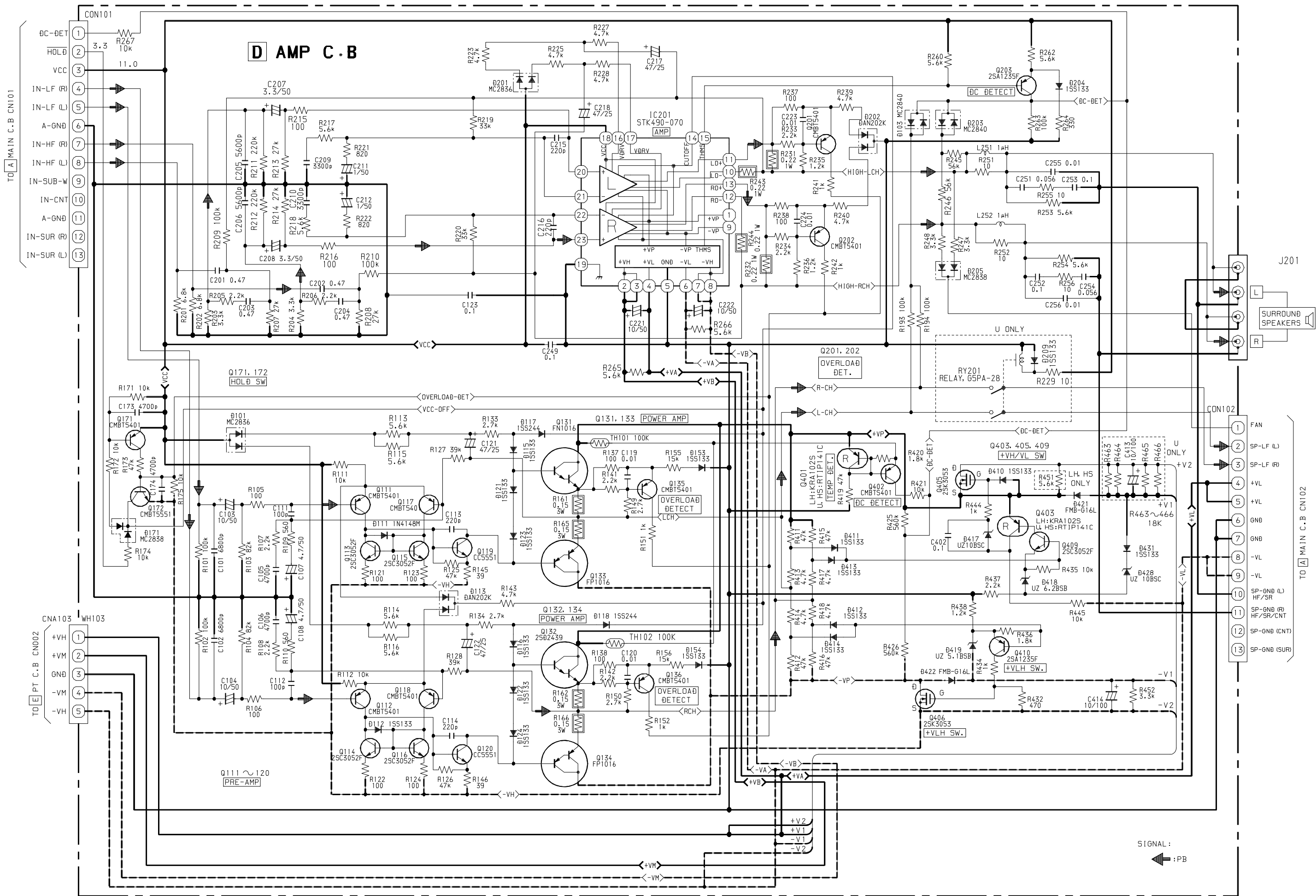
SCHEMATIC DIAGRAM - 6 (CONTROL/VOLUME/ MIC)



WIRING - 5 (AMP)

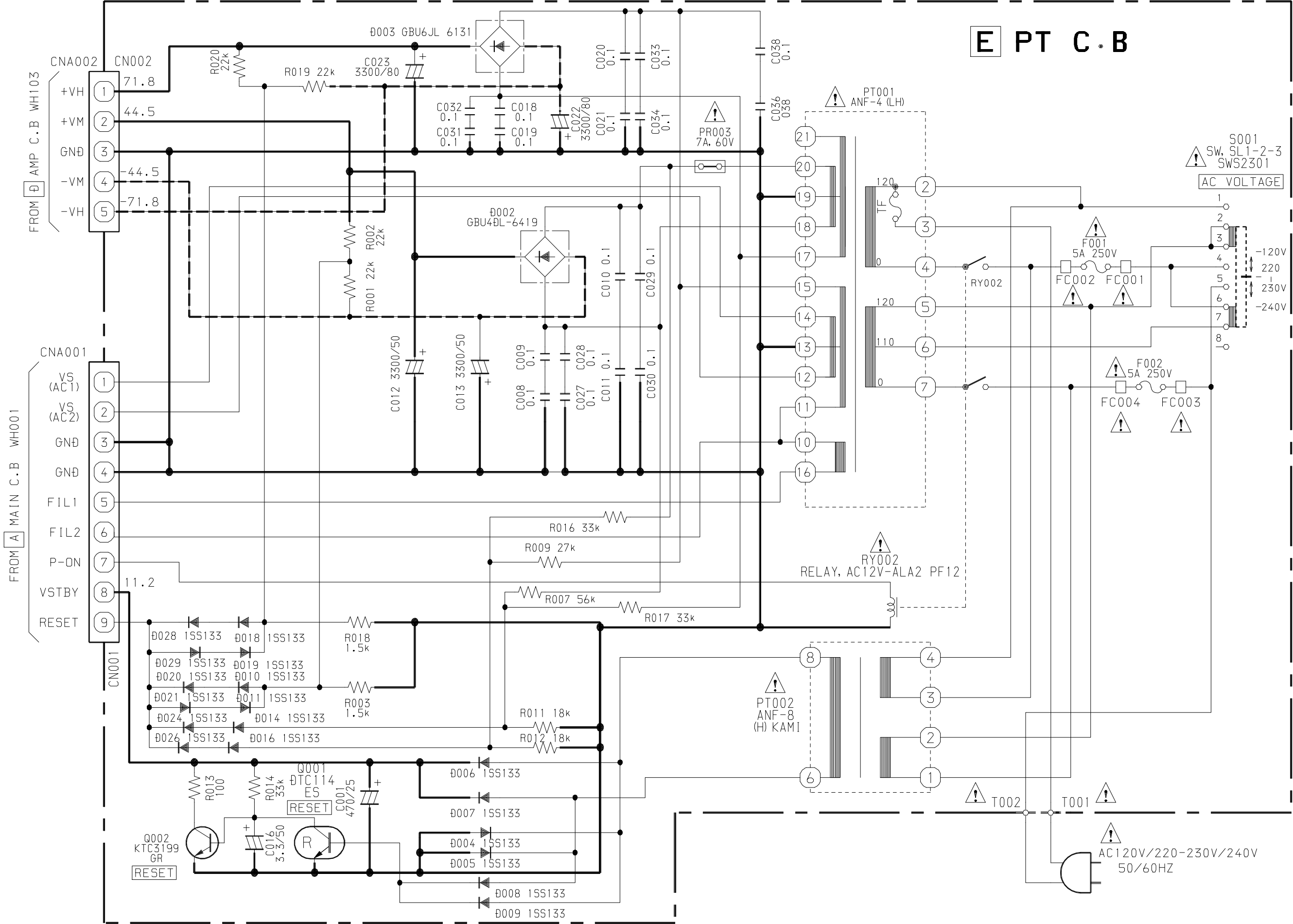


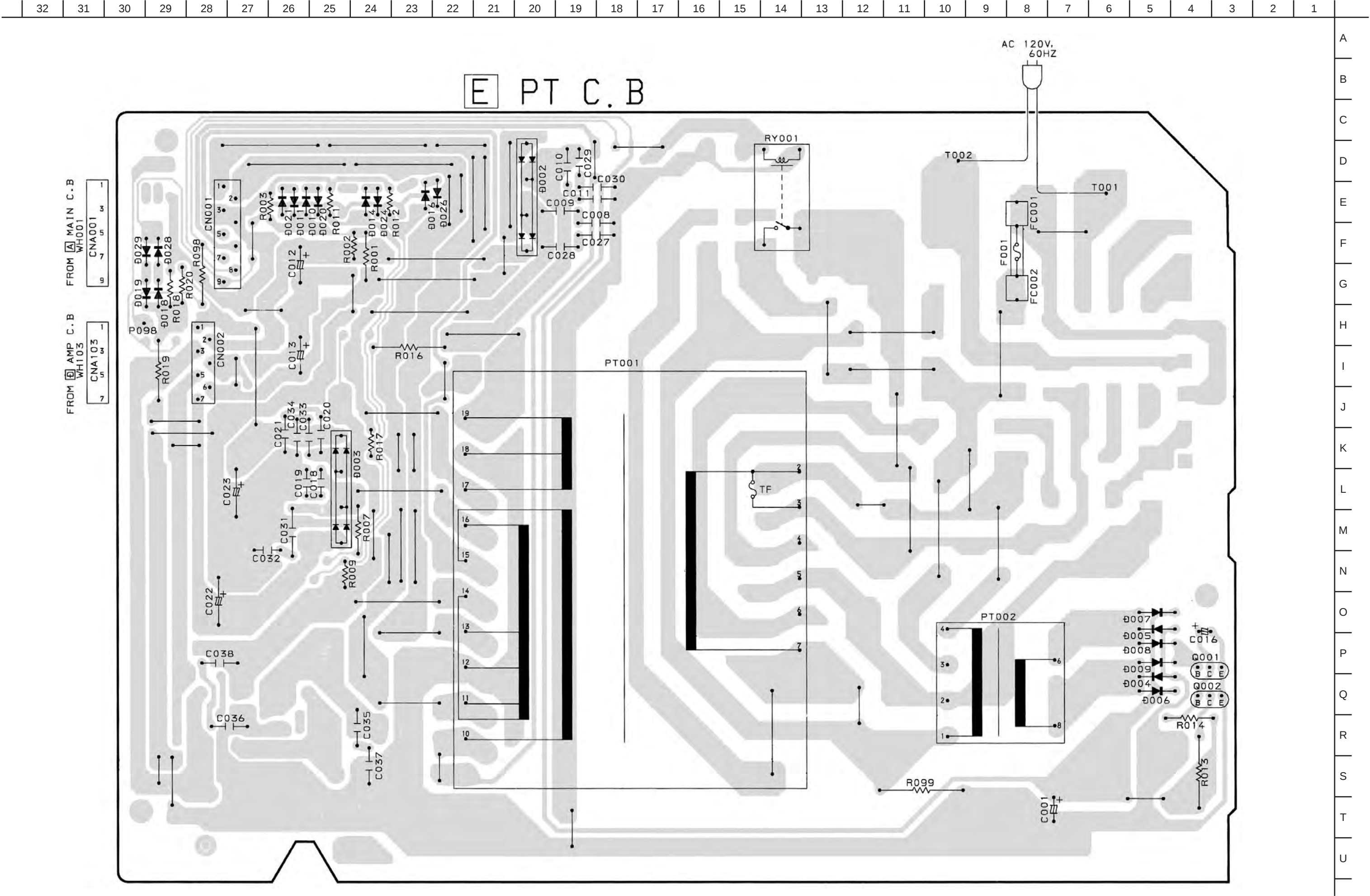
SCHEMATIC DIAGRAM - 7 (AMP)



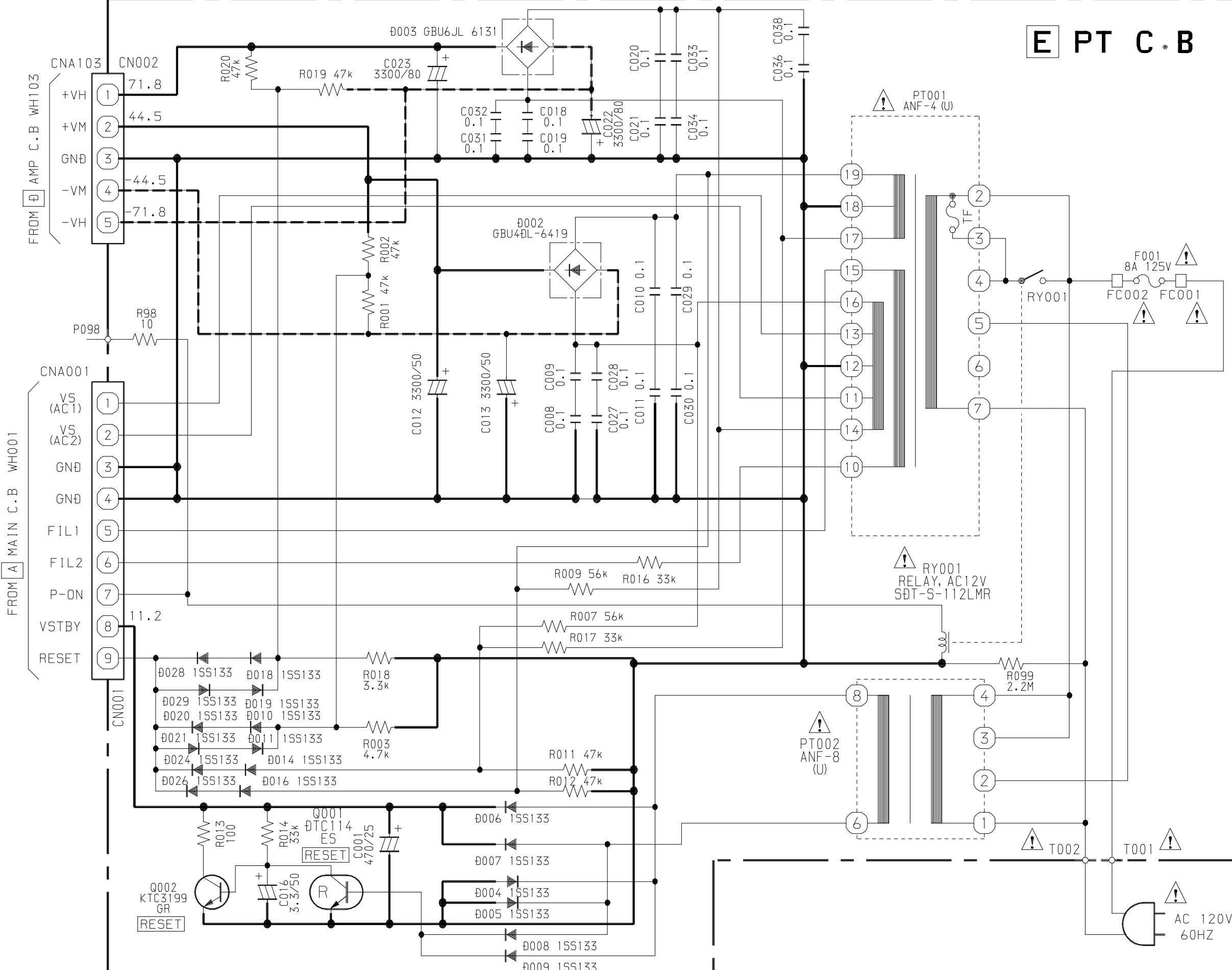


SCHEMATIC DIAGRAM - 8 (PT)<LH>



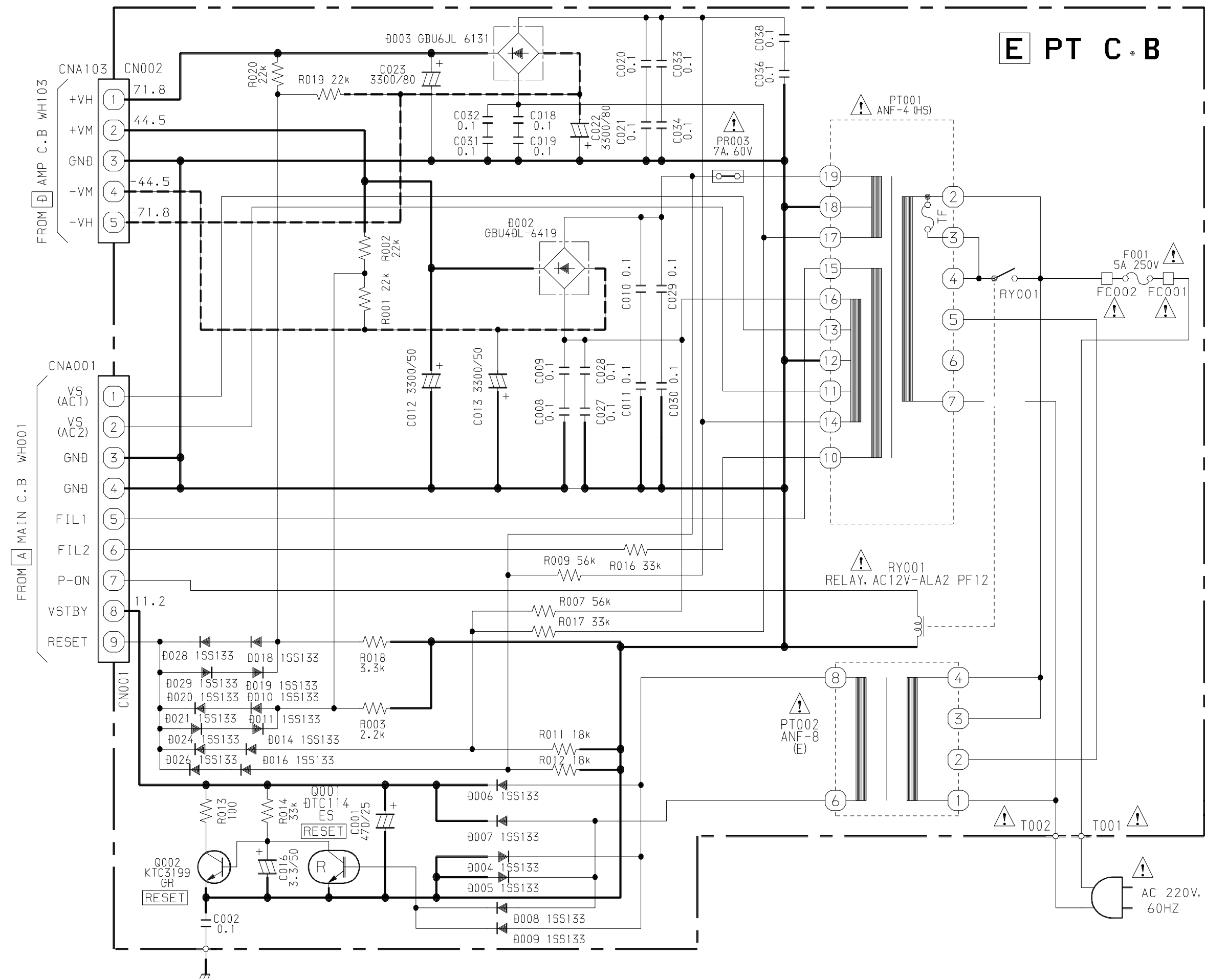


SCHEMATIC DIAGRAM - 9 (PT)<U>

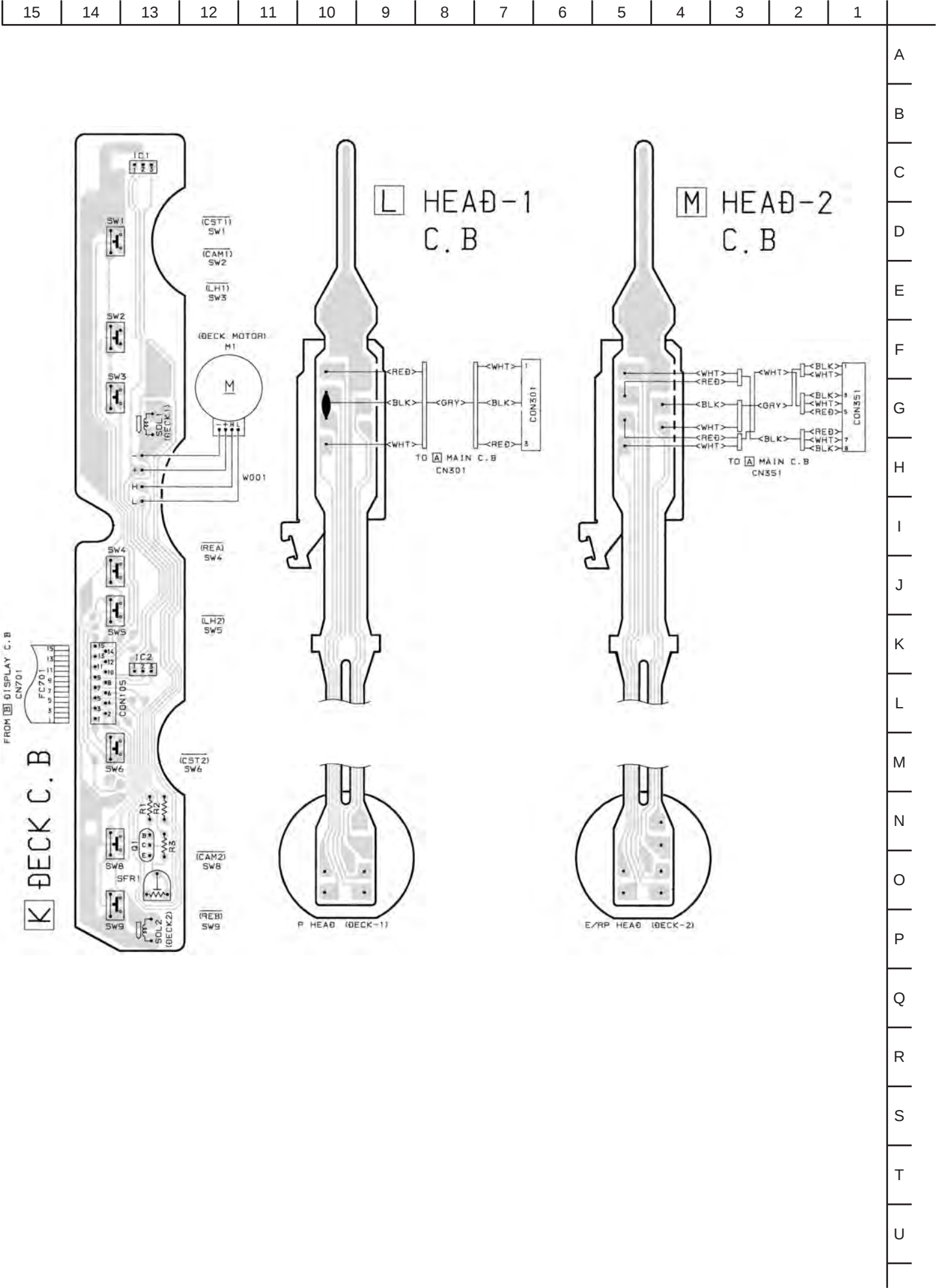




SCHEMATIC DIAGRAM - 10 (PT)<HS>

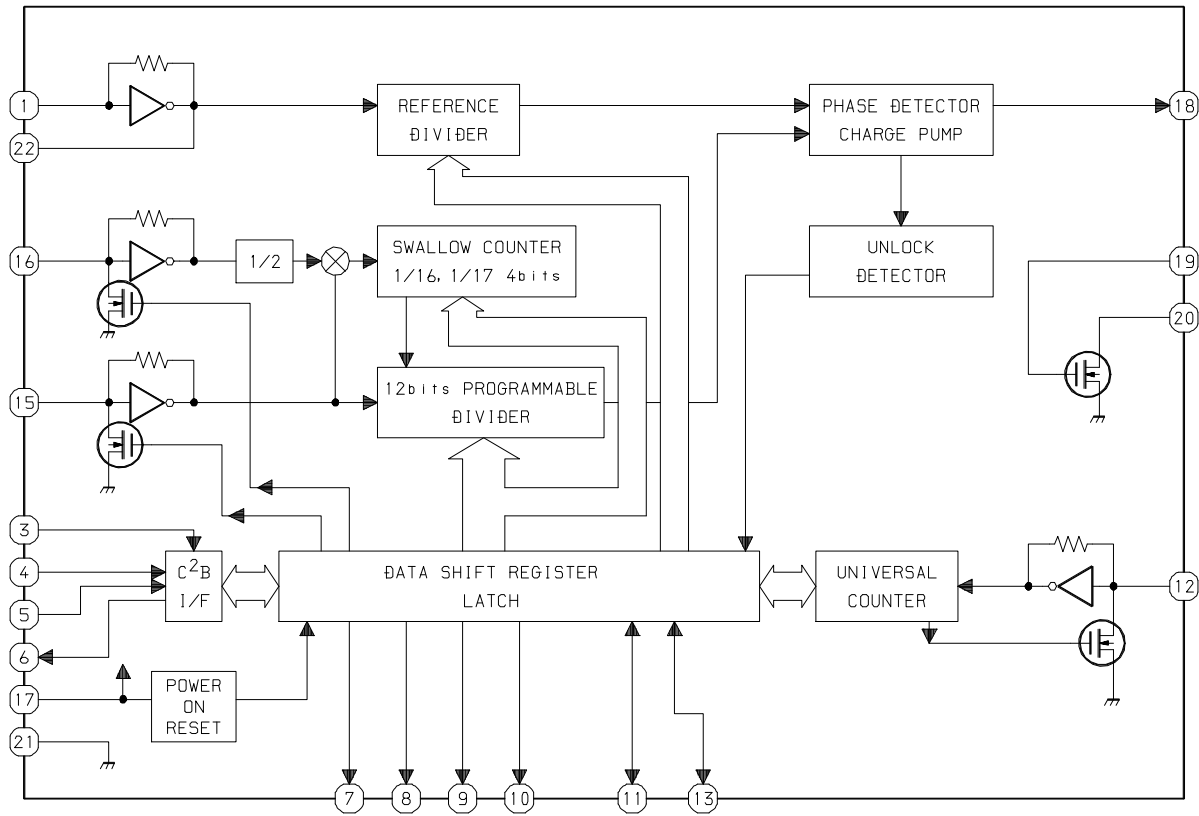


WIRING - 9 (DECK/ HEAD-1/ HEAD-2)

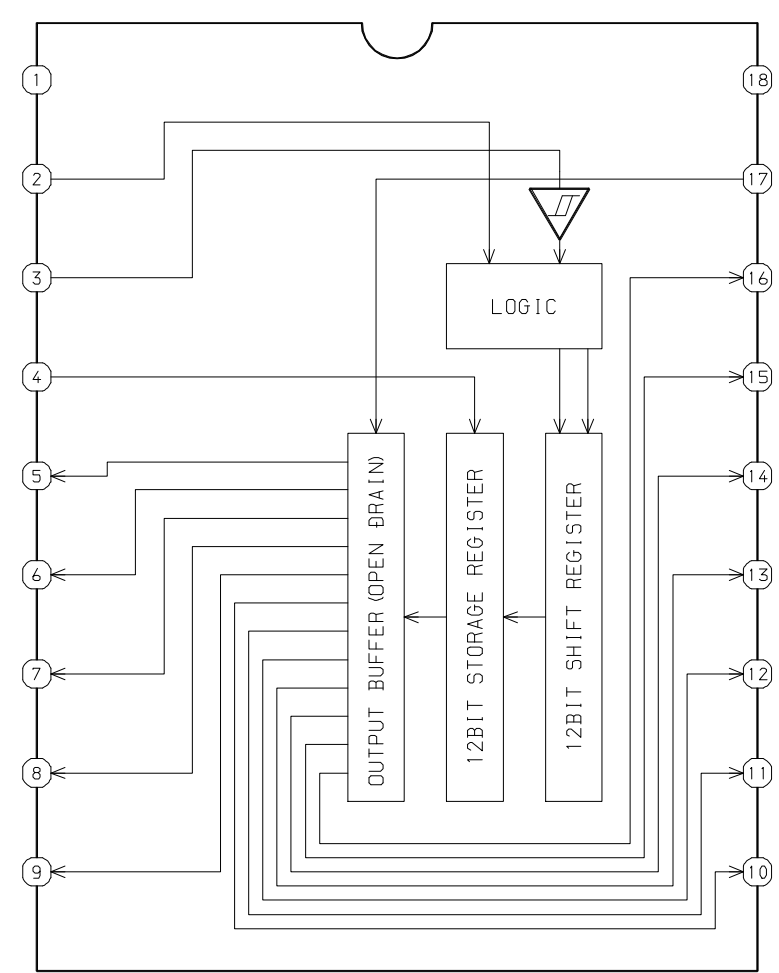


IC BLOCK DIAGRAM

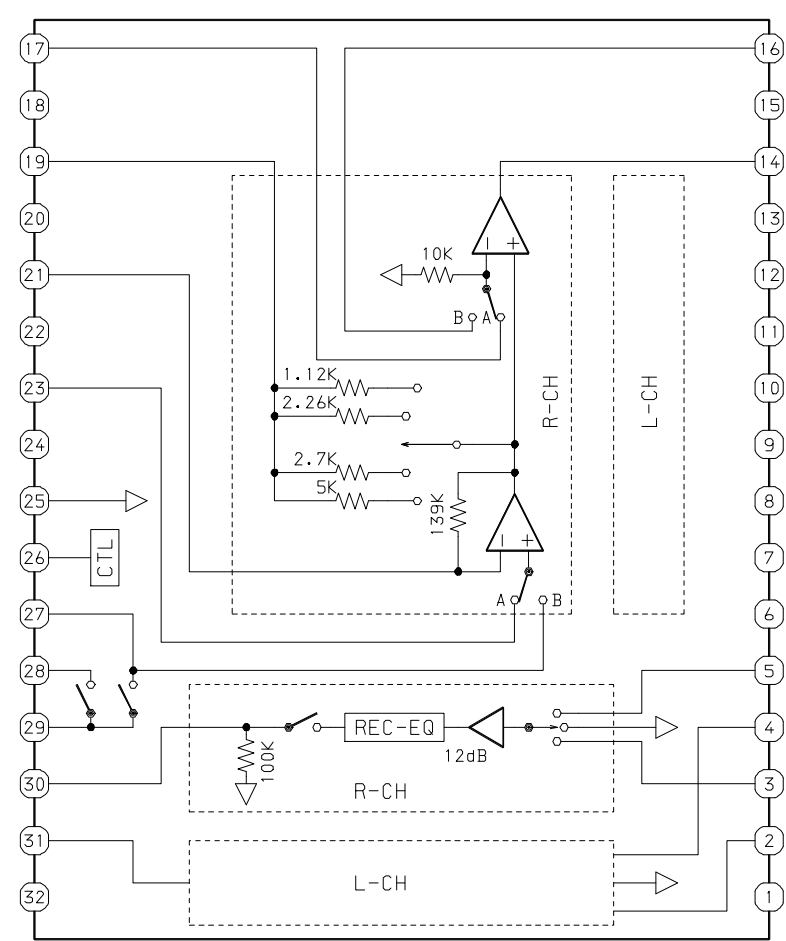
IC, LC72131D



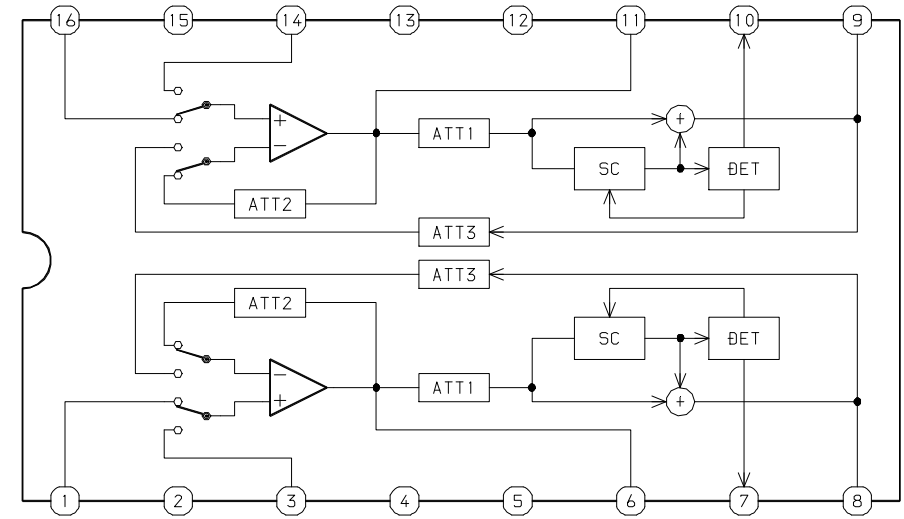
IC, BU2092F



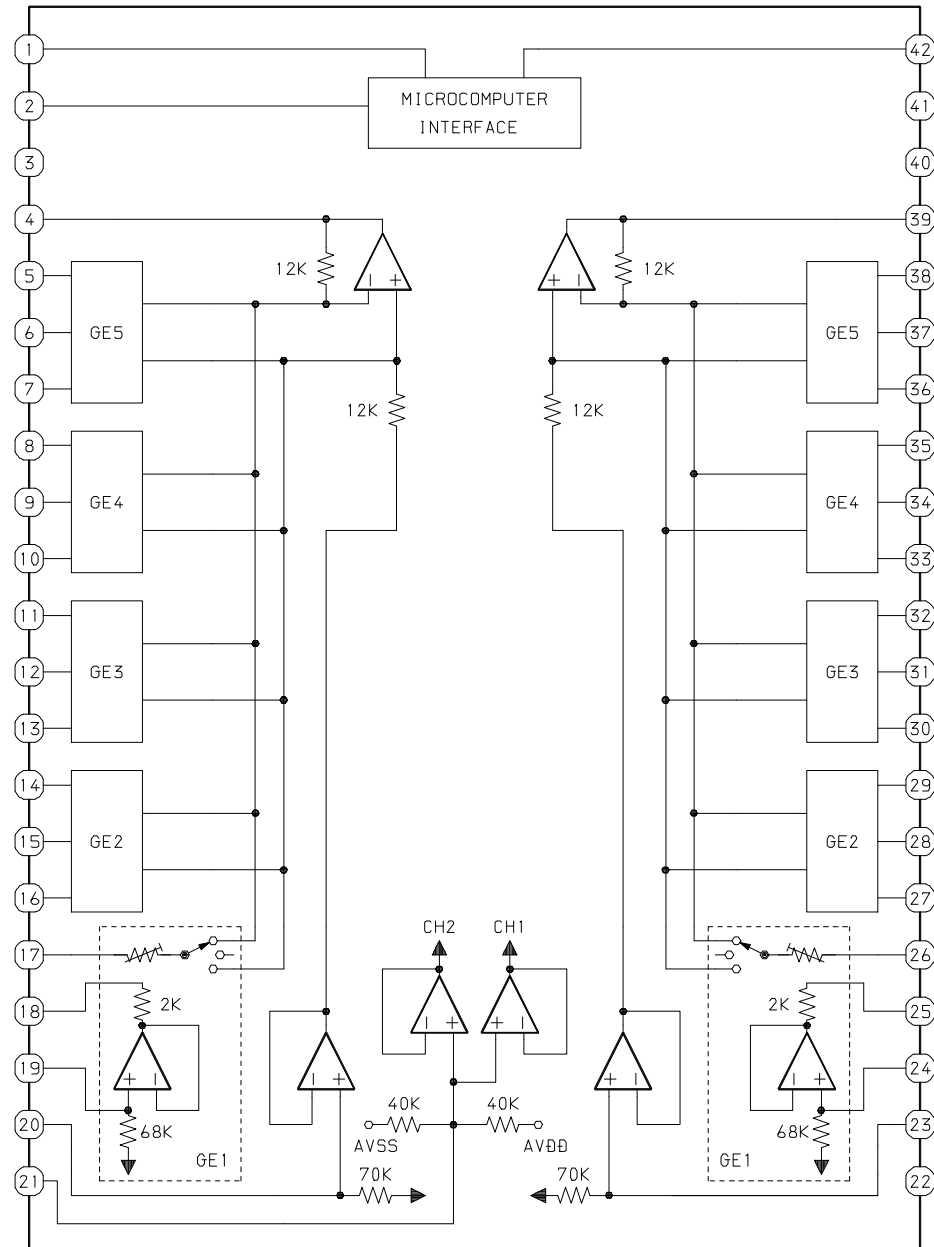
IC, BA7762AFS



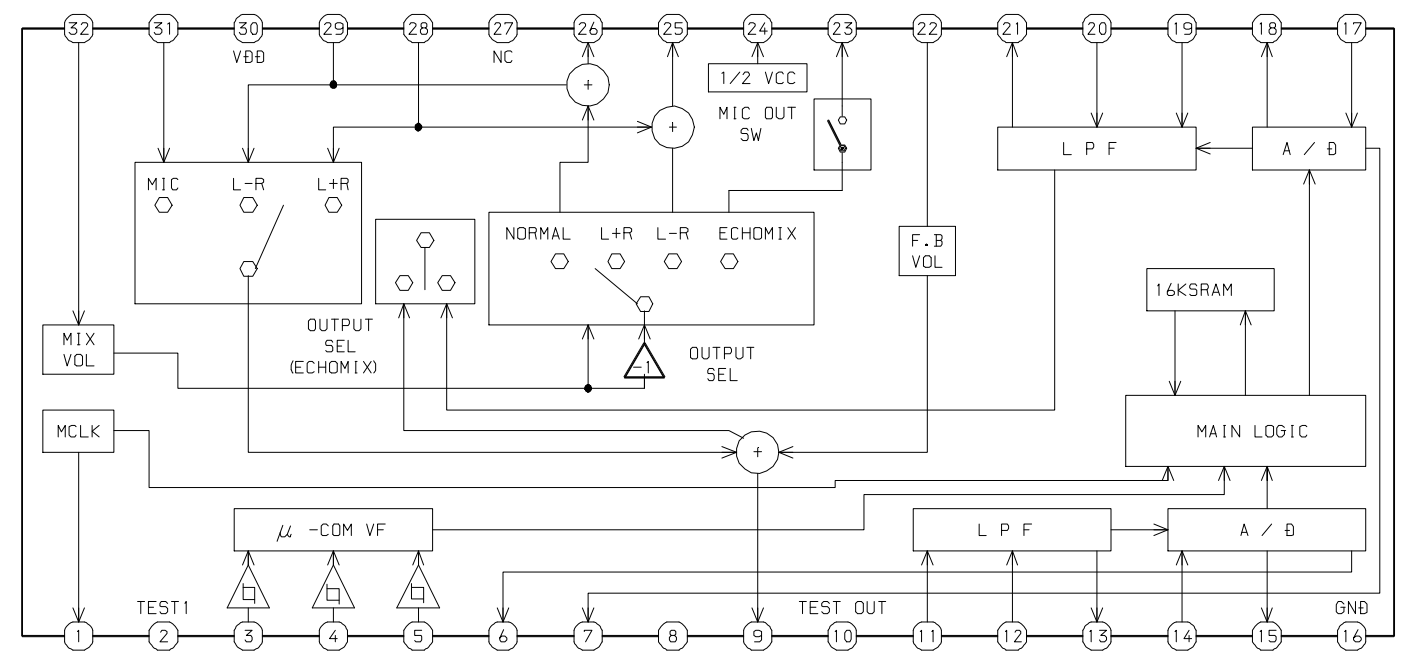
IC, CXA1553P



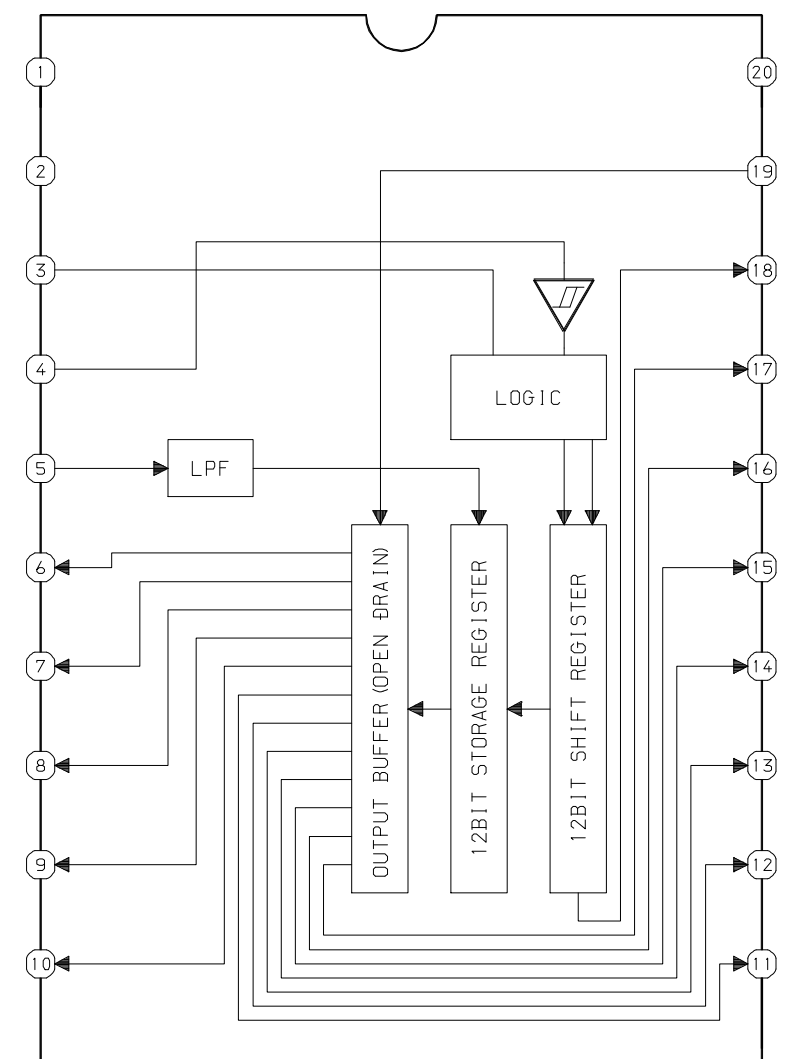
IC, M62449FP



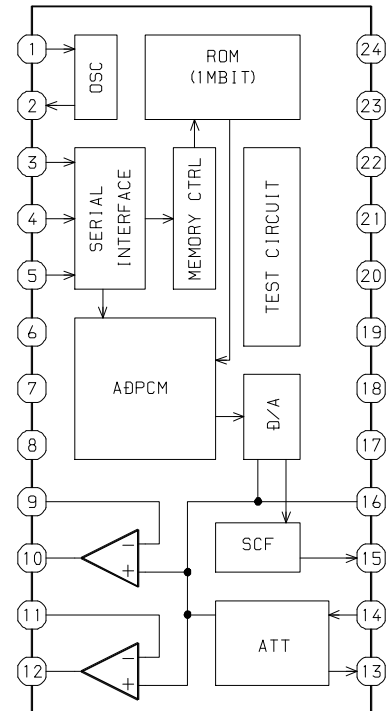
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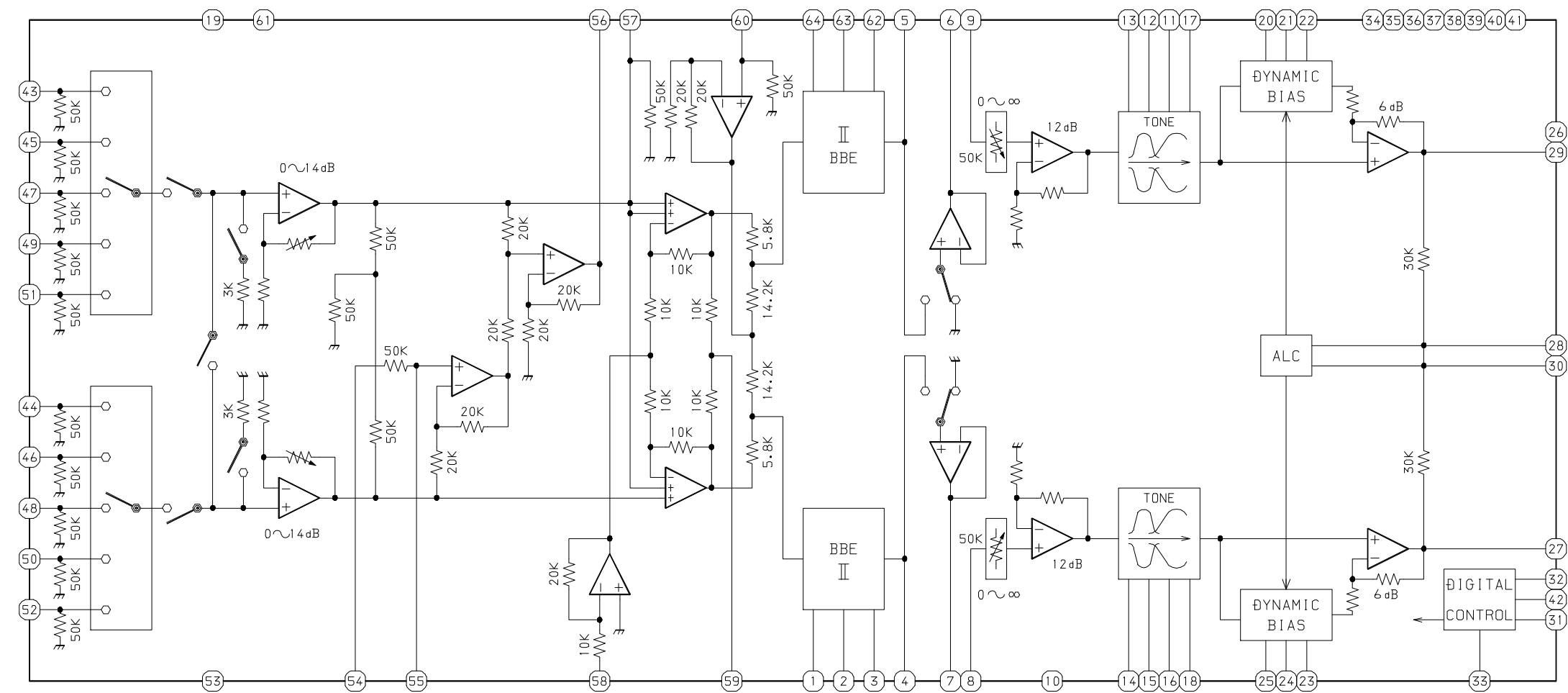
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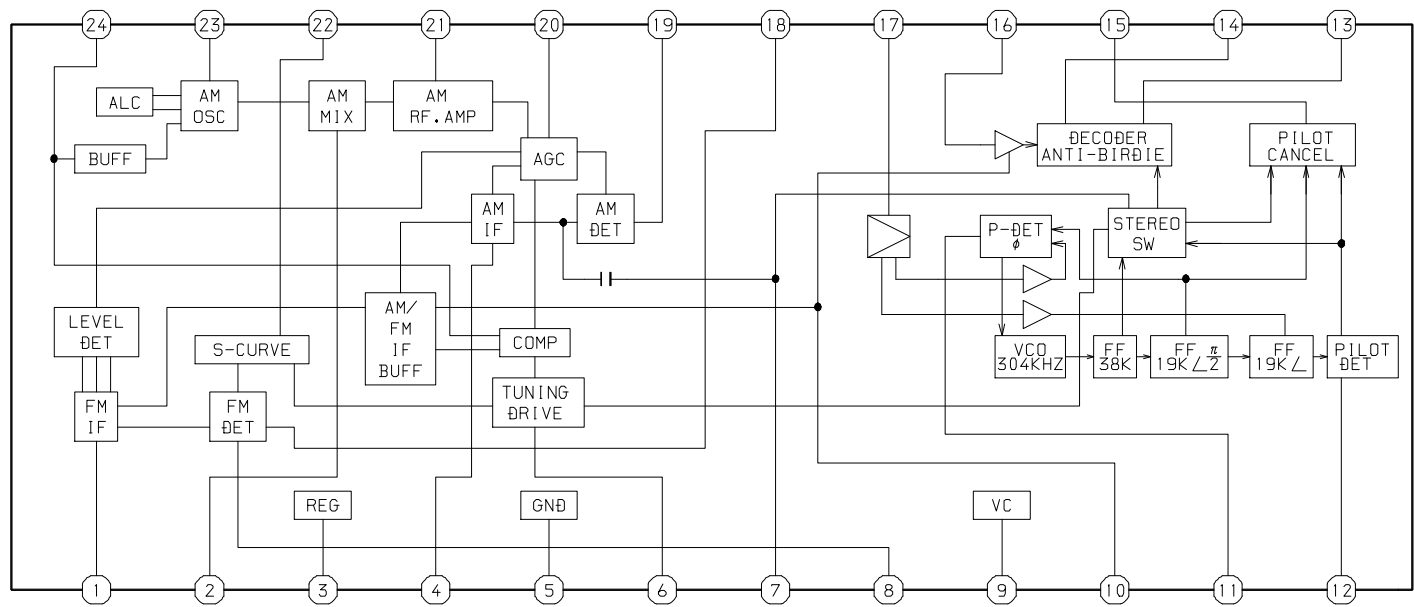
IC, BU9990-03FS



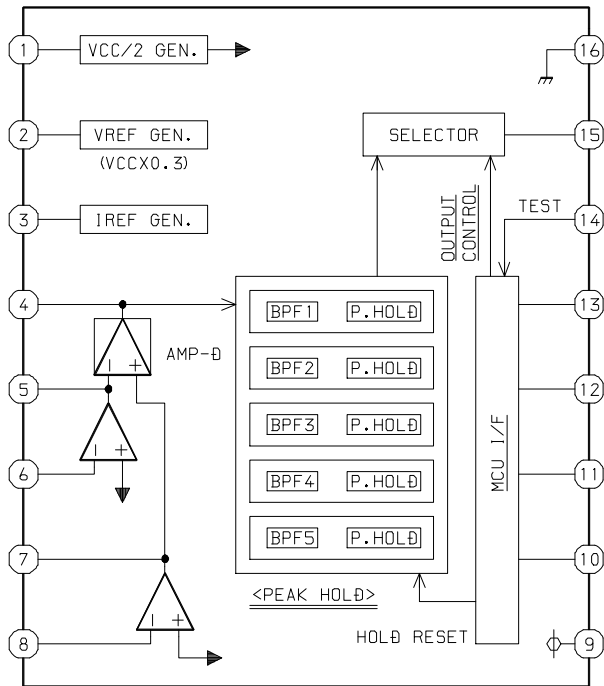
IC, BD3876KS2



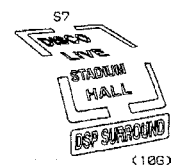
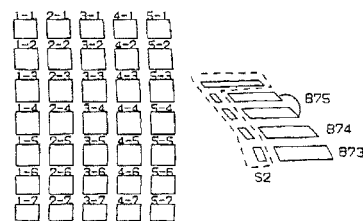
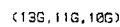
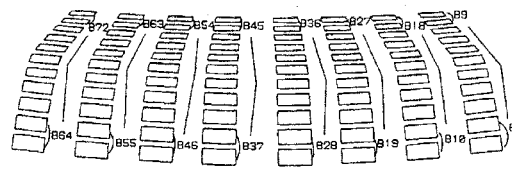
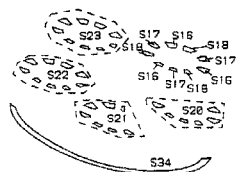
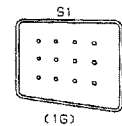
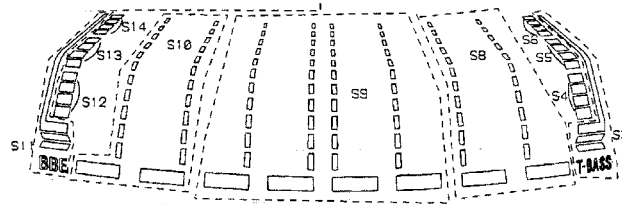
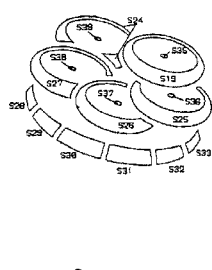
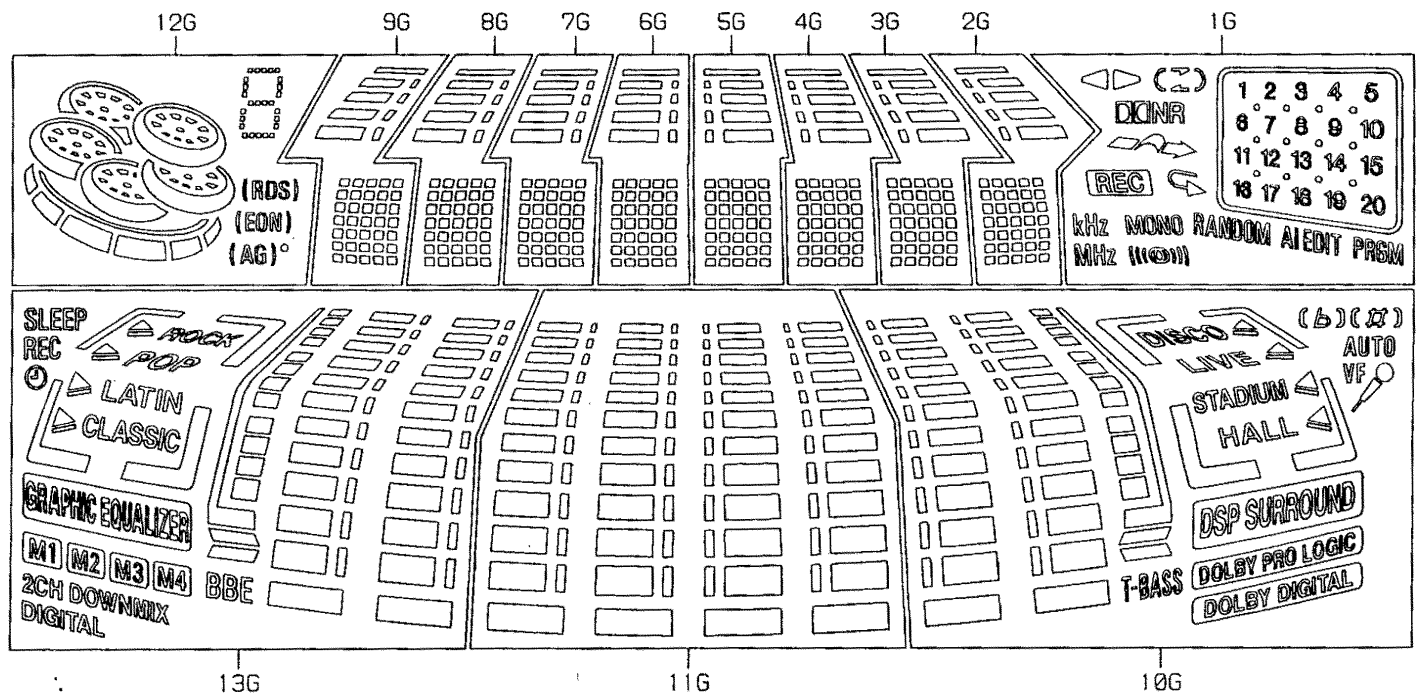
IC, LA1844L-A



IC, M61506FP



## FL (BJ752GK-ANF3) GRID ASSIGNMENT AND ANODE CONNECTION



ANODE CONNECTION

|     | 13G         | 12G       | 11G | 10G             | 9G~2G | 1G     |
|-----|-------------|-----------|-----|-----------------|-------|--------|
| P1  | S10         | ○         | S9  | S8              | 5-7   | S1     |
| P2  | B72         | ( ) (AG)  | B54 | B18             | 4-7   | PRGM   |
| P3  | B63         | AG        | B45 | B9              | 3-7   | AI     |
| P4  | B71         | ( ) (EON) | B36 | B17             | 2-7   | EDIT   |
| P5  | B62         | EON       | B27 | B8              | 1-7   | RANDOM |
| P6  | B70         | ( ) (RDS) | B53 | B16             | 5-6   | MONO   |
| P7  | B61         | RDS       | B44 | B7              | 4-6   | MONO   |
| P8  | B69         | S33       | B35 | B15             | 3-6   | MHz    |
| P9  | B60         | S32       | B26 | B6              | 2-6   | kHz    |
| P10 | B68         | S31       | B52 | B14             | 1-6   | )      |
| P11 | B59         | S30       | B43 | B5              | 5-5   | 1      |
| P12 | B67         | S29       | B34 | B13             | 4-5   | C      |
| P13 | B58         | S28       | B25 | B4              | 3-5   | ↩      |
| P14 | B66         | S34       | B51 | B12             | 2-5   | ⚡      |
| P15 | B57         | S26       | B42 | B3              | 1-5   | REC    |
| P16 | B65         | S25       | B33 | B11             | 5-4   | DCNR   |
| P17 | B56         | S20       | B24 | B2              | 4-4   | ▶      |
| P18 | B64         | S36       | B50 | B10             | 3-4   | ◀      |
| P19 | B55         | S21       | B41 | B1              | 2-4   | 1      |
| P20 | S14         | S37       | B32 | S6              | 1-4   | 2      |
| P21 | S13         | S27       | B23 | S5              | 5-3   | 3      |
| P22 | S12         | S22       | B49 | S4              | 4-3   | 4      |
| P23 | S11         | S38       | B40 | S3              | 3-3   | 5      |
| P24 | S15         | S24       | B31 | S7              | 2-3   | 6      |
| P25 | ⏏ (ROCK)    | S23       | B22 | ⏏ (DISCO)       | 1-3   | 7      |
| P26 | ⏏ (POP)     | S39       | B48 | ⏏ (LIVE)        | 5-2   | 8      |
| P27 | ⏏ (LATIN)   | S19       | B39 | ⏏ (STADIUM)     | 4-2   | 9      |
| P28 | ⏏ (CLASSIC) | S35       | B30 | ⏏ (HALL)        | 3-2   | 10     |
| P29 | SLEEP       | S16       | B21 | ( ) (b)         | 2-2   | 11     |
| P30 | REC         | S17       | B47 | ( ) (#)         | 1-2   | 12     |
| P31 | Ⓢ           | S18       | B38 | b &             | 5-1   | 13     |
| P32 | M1          | d         | B29 | AUTO            | 4-1   | 14     |
| P33 | M2          | e         | B20 | VF              | 3-1   | 15     |
| P34 | M3          | c         | B46 | DOLBY PRO LOGIC | 2-1   | 16     |
| P35 | M4          | g         | B37 | DOLBY DIGITAL   | 1-1   | 17     |
| P36 | 2CH DOWNMIX | f         | B28 | -               | B73   | 18     |
| P37 | DIGITAL     | b         | B19 | -               | B74   | 19     |
| P38 | -           | a         | -   | -               | B75   | 20     |
| P39 | -           | -         | -   | -               | S2    | -      |

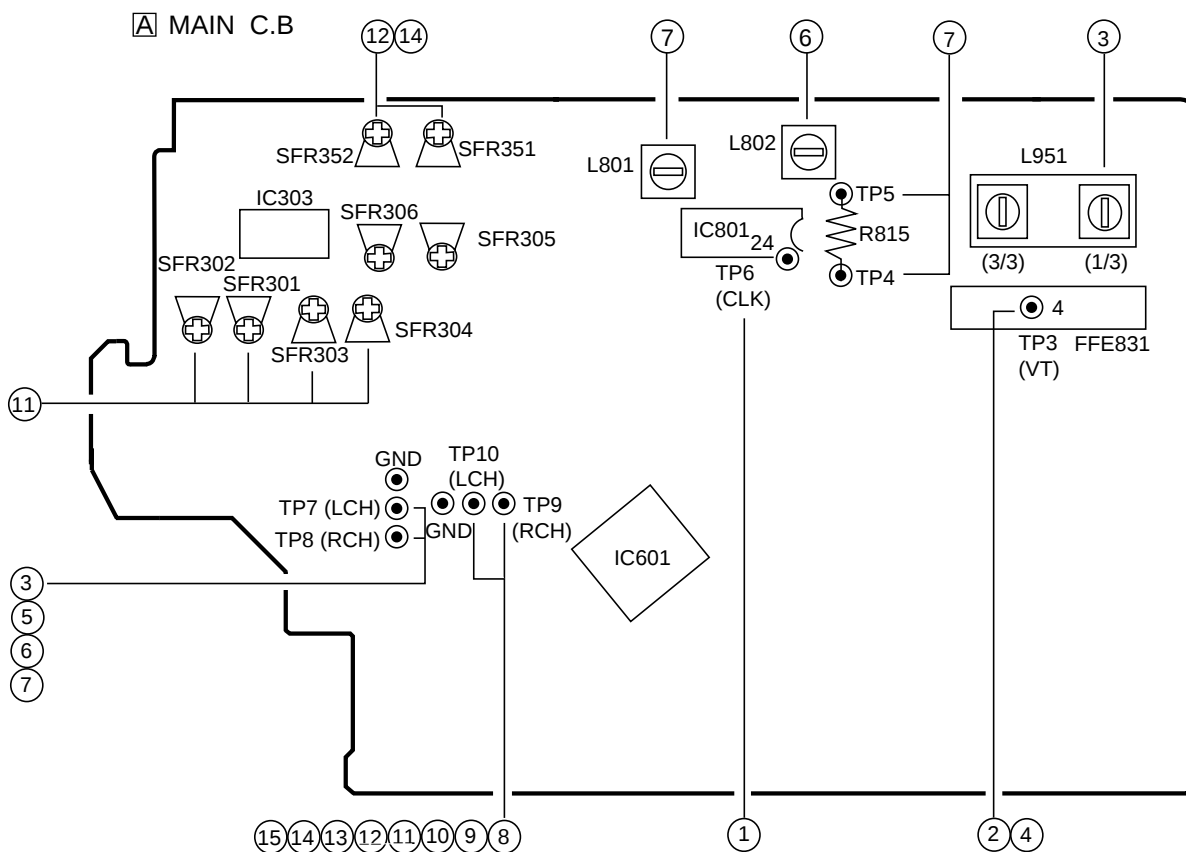
## IC DESCRIPTION

IC, LC876596W-5P43

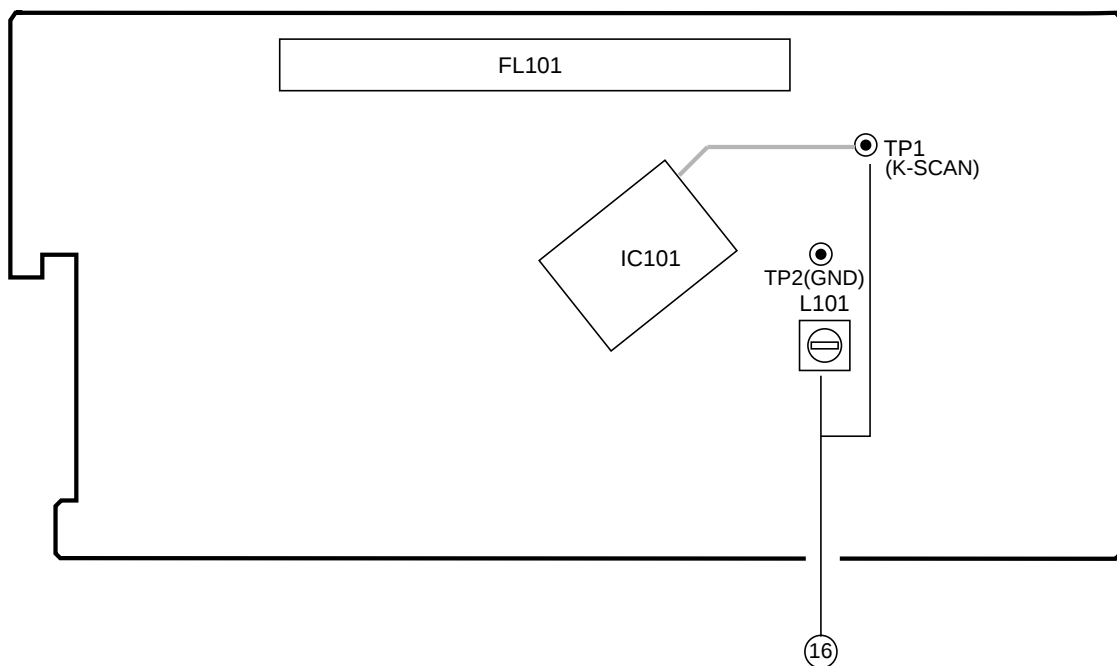
| Pin No. | Pin Name                         | I/O | Description                                                                    |
|---------|----------------------------------|-----|--------------------------------------------------------------------------------|
| 1       | CLK                              | O   | Common serial CLOCK output.                                                    |
| 2       | DATA                             | O   | Common Serial DATA output.                                                     |
| 3       | STB                              | O   | Common serial STROBE output.                                                   |
| 4       | CS-RHYTHM                        | O   | Rhythm IC chip select output.                                                  |
| 5       | GEQ-CE                           | O   | GEQ IC chip enable output.                                                     |
| 6       | $\overline{\text{HP-MUTE}}$      | I   | Headphone plug-in detect input. (Output "L" at HOLD)                           |
| 7       | O-POWER                          | O   | System power ON/ $\overline{\text{OFF}}$ output. (Active "H")                  |
| 8       | PLL-CE                           | O   | Tuner PLL IC chip enable output.                                               |
| 9       | O-MUTE                           | O   | System mute ON/ $\overline{\text{OFF}}$ output.                                |
| 10      | I-MIC                            | I   | Auto-VF MIC level special A/D input. (Output "L" at HOLD)                      |
| 11      | $\overline{\text{RESET}}$        | I   | Reset input.                                                                   |
| 12      | VOL-JOG                          | I   | Main volume JOG rotary encoder A/D input.                                      |
| 13      | MULTI-JOG                        | I   | MULTI JOG rotary encoder A/D input.                                            |
| 14      | VSS1                             | –   | Connected to GND.                                                              |
| 15      | CF 1                             | –   | 9.43MHz oscillator circuit.                                                    |
| 16      | CF2                              |     |                                                                                |
| 17      | VDD1                             | –   | Power supply.                                                                  |
| 18      | $\overline{\text{HOLD}}$         | I   | Power supply voltage detect A/D input.                                         |
| 19 ~ 22 | KEY 1 ~ 4                        | I   | KEY 1 ~ 4 A/D input. (Output "L" at HOLD)                                      |
| 23      | I-CDSW                           | I   | CD mechanism SW A/D input. (Output "L" at HOLD)                                |
| 24      | I-DISH                           | I   | CD turntable photo sensor A/D input. (Output "L" at HOLD)                      |
| 25      | I-SPEANA                         | I   | SPEANA level A/D input. (Output "L" at HOLD)                                   |
| 26      | I-RDCLK/I-WRQ                    | I   | TUNER RDS IC CLK input(not used) / CD WRQ input. (Output "L" at HOLD&INI)      |
| 27      | I-TU-SIG/ $\overline{\text{MS}}$ | I   | Tuner tuning signal level A/D input / Deck MS SENS. (Output "L" at HOLD)       |
| 28      | I-TMBASE                         | I   | Timebase clock (8Hz) input. (Output "L" at HOLD)                               |
| 29      | $\overline{\text{I-RMC}}$        | I   | Remote control signal input. Active: "L". (Output "L" at HOLD)                 |
| 30 ~ 42 | G13 ~ G1                         | O   | FL grid G13 ~ G1 output.                                                       |
| 43 ~ 45 | P39 ~ P37                        | O   | FL segment P39 ~ P37 output.                                                   |
| 46      | VDD3                             | –   | Power supply.                                                                  |
| 47      | P36/SPEANA A                     | O   | FL segment P36 output / SPEANA band select output (A) .                        |
| 48      | P35/SPEANA B                     | O   | FL segment P35 output / SPEANA band select output (B) .                        |
| 49      | P34/SPEANA C                     | O   | FL segment P34 output / SPEANA band select output (C).                         |
| 50      | P33                              | O   | FL segment P33 output.                                                         |
| 51      | VP                               | –   | Power supply for FL.                                                           |
| 52 ~ 59 | P32 ~ P25                        | O   | FL segment P32~ P25 output.                                                    |
| 60      | P24/NO AC-DEMO                   | I/O | FL segment P24 output / NO AC-DEMO at AC-IN diode input. (No store DEMO mode.) |
| 61      | P23/CASINO-DEMO                  | I/O | FL segment P23 output / CASINO-DEMO select diode input.                        |
| 62      | P22/NO-ECO                       | I/O | FL segment P22 output / NO-ECO select input.                                   |
| 63      | P21/NO-RHYTHM                    | I/O | FL segment P21 output / NO-RHYTHM select diode input(not used).                |
| 64      | P20/AC3-DPL                      | I/O | FL segment P20 output / AC3-DPL select diode input(not used).                  |

| Pin No. | Pin Name                                           | I/O | Description                                                       |
|---------|----------------------------------------------------|-----|-------------------------------------------------------------------|
| 65      | P19/K-CON                                          | I/O | FL segment P19 output / K-CON select diode input(not used).       |
| 66      | P18/RDS                                            | I/O | FL segment P18 output / RDS select diode input(not used).         |
| 67      | P17/FM1                                            | I/O | FL segment P17 output / FM1 select diode input(not used).         |
| 68      | P16/SW                                             | I/O | FL segment P16 output / SW step initial diode input(not used).    |
| 69      | P15/LW                                             | I/O | FL segment P15output / LW stereo select diode input(not used).    |
| 70      | P14/AM-10K                                         | I/O | FL segment P14 output /AM-10K select diode input(U,LH).           |
| 71      | P13/AM-ST                                          | I/O | FL segment P13 output / AM-ST select diode input(not used).       |
| 72      | VDD4                                               | –   | Power supply.                                                     |
| 73~76   | P12~P9                                             | O   | FL segment P12~P9 output.                                         |
| 77      | P8/ $\overline{\text{RE}}\text{A}$                 | I/O | FL segment P8 ouput / REC enable (A) switch input (active: "L").  |
| 78      | P7/ $\overline{\text{CST}}1$                       | I/O | FL segment P7 output / Cassette (1) switch.                       |
| 79      | P6/ $\overline{\text{CAM}}1$                       | I/O | FL segment P6 output / CAM (1) switch input (active: "L").        |
| 80      | P5/AUTO2                                           | I/O | FL segment P5 output / Auto stop reel (2) pulse input.            |
| 81      | P4/AUTO1                                           | I/O | FL segment P4 output / Auto stop reel (1) pulse input.            |
| 82      | P3/ $\overline{\text{CAM}}2$                       | I/O | FL segment P3 output / CAM (2) switch input. (active:"L").        |
| 83      | P2/ $\overline{\text{RE}}\text{B}$                 | I/O | FL segment P2 output / REC enable (B) switch input. (active:"L"). |
| 84      | P1/ $\overline{\text{CST}}2$                       | I/O | FL segment P1 output / Cassette (2) switch input. (active:"L").   |
| 85      | $\overline{\text{K-SCAN}}$                         | O   | Key scan output. (active:"L").                                    |
| 86      | $\overline{\text{SOL}}1$                           | O   | DECK (1) solenoid $\overline{\text{ON}}$ /OFF output.             |
| 87      | $\overline{\text{SOL}}2$                           | O   | DECK (2) solenoid $\overline{\text{ON}}$ /OFF output.             |
| 88      | $\overline{\text{O-MOTOR}}$                        | O   | Deck motor $\overline{\text{ON}}$ /OFF output .                   |
| 89      | VSS2                                               | –   | Connected to GND.                                                 |
| 90      | VDD2                                               | –   | Power supply.                                                     |
| 91      | O-DISHREV                                          | O   | CD turn table dish reverse output.                                |
| 92      | O-DISHFWD                                          | O   | CD turn table dish forward output.                                |
| 93      | O-OPEN                                             | O   | CD tray open output.                                              |
| 94      | O-CLOSE                                            | O   | CD tray close output.                                             |
| 95      | IFC- $\overline{\text{TU}}$ /I-SQDATA              | I   | Tuner tune/IF count input (active: "L") / CD SUB-Q data input.    |
| 96      | $\overline{\text{I-STEREO}}$ /I-DRF<br>(O-CLK-VCD) | I/O | Tuner stereo detect input (active "L") / DRF input.               |
| 97      | O-DATA(CD)/<br>I-RDS DATA                          | I/O | CD IC control data output / Tuner RDS data input(not used).       |
| 98      | CD-CE/<br>IO BUSY (VCD)                            | I/O | CD chip enable output.                                            |
| 99      | CLK (CD)                                           | O   | CD IC control clock output.                                       |
| 100     | STB(SHIFT)                                         | O   | Shift register strobe output.                                     |

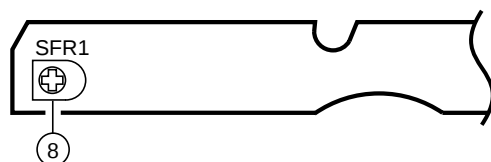
# ADJUSTMENT <TUNER/DECK>



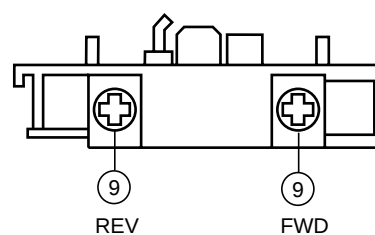
## B DISPLAY C.B



## K DECK C.B



## DECK-1 P, DECK-2 R/P/E HEAD



## < TUNER SECTION >

1. Clock Frequency Check  
Settings : • Test point : TP6 (CLK)  
Method : Set to AM 1710kHz<U,LH>, 1602kHz<HS> and check that the test point is 2160kHz  $\pm$  45Hz <U,LH>, 2052kHz  $\pm$  45Hz<HS> .
2. AM VT Check  
Settings : • Test point : TP3 (VT)  
Method : Set to AM 1710kHz<U,LH>, 1602kHz<HS> and AM 530kHz<U,LH>, 531kHz<HS> and check that the test point is less than 8.5V (1710kHz)<U,LH>, 8.0V(1692kHz)<HS> and more than 0.6V(530kHz,531kHz)
3. AM Tracking Adjustment  
Settings : • Test point : TP7(Lch), TP8(Rch)  
• Adjustment location : L951(1/3)..... 999kHz  
Method : Set to AM 999kHz and adjust L951(1/3) so that the test point is max.
4. FM VT Check  
Settings : • Test point : TP3 (VT)  
Method : Set to FM 108.0MHz and check that the test point is less than 8.0V.  
Set to FM 87.5MHz and check that the test point is more than 0.5V.
5. FM Tracking Check  
Settings : • Test point : TP7(Lch), TP8(Rch)  
Method : Set to FM 98.0MHz and check that the test point is less than 9.0dB $\mu$ V<U,LH>, 13dB $\mu$ V<HS>.
6. AM IF Adjustment  
Settings : • Test point : TP7(Lch), TP8(Rch)  
• Adjustment location : L802  
• Input level : Variable  
Method : Adjust L802 so that the output becomes max.
7. DC Balance / Mono Distortion Adjustment  
Settings : • Test point : TP4, TP5 (DC Balance)  
TP7(Lch), TP8(Rch) (Distortion)  
• Adjustment location : L801  
• Input level : 60dB $\mu$ V  
Method : Set to FM 98.0MHz and adjust L801 so that the voltage between TP4 and TP5 becomes 0V  $\pm$  0.04V.  
Next, check that the distortion is less than 1.3%
9. Head Azimuth Adjustment (DECK 1, DECK 2)  
Settings : • Test tape : TTA-300 (315/10kHz)  
• Test point : TP9(Rch), TP10(Lch)  
• Adjustment location : Head azimuth adjustment screw  
Method : Play back the 10kHz signal of the test tape and adjust screw so that the output becomes maximum. Next, perform on each FWD PLAY and REV PLAY mode.
10. PB Frequency Response Check (DECK 1, DECK 2)  
Settings : • Test tape : TTA-300 (315/10kHz)  
• Test point : TP9(Rch), TP10(Lch)  
Method : Play back the 315Hz and 10kHz signals of the test tape and check that the output ratio of the 10kHz signal with respect to that of the 315Hz signal is within 0  $\pm$  2dB.
11. PB Sensitivity Adjustment (DECK 1, DECK 2)  
Settings : • Test tape : TTA-200 (400Hz)  
• Test point : TP9(Rch), TP10(Lch)  
• Adjustment location : SFR301 (DECK 1, Lch)  
SFR302 (DECK 1, Rch)  
SFR303 (DECK 2, Lch)  
SFR304 (DECK 2, Rch)  
Method : Play back the test tape and adjust SFRs so that the output level of the test points become 245mV $\pm$ 10mV.
12. REC/PB Frequency Response Adjustment (DECK 2)  
Settings : • Test tape : TTA-602 (Normal)  
• Test point : TP9(Rch), TP10(Lch)  
• Input signal : 1kHz / 10kHz (LINE IN)  
• Adjustment location : SFR351 (Lch)  
SFR352 (Rch)  
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the test points becomes 12.5mV. Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output level of the 10kHz signals becomes 0dB  $\pm$  0.5dB with respect to that of the 1kHz signal.
13. REC/PB Frequency response Check (DECK 2)  
Settings : • Test tape : TTA-615 (CrO<sub>2</sub>)  
• Test point : TP9(Rch), TP10(Lch)  
• Input signal : 1kHz/10kHz (LINE IN)  
Method : Apply a 1kHz signal and REC mode. Then Adjust OSC attenuator so that the output level at the test points becomes 12.5mV. Record and play back the 1kHz and 10kHz signals and check that the output is 0dB  $\pm$  2dB.

## < DECK SECTION >

8. Tape Speed Adjustment (DECK 1, DECK 2)  
Settings : • Test tape : TTA-100(3kHz)  
• Test point : TP9(Rch), TP10(Lch)  
• Adjustment location : SFR1  
Method : Play back the test tape and adjust SFR1 so that the frequency counter reads 3000Hz  $\pm$  5Hz(FWD) and  $\pm$  45Hz(REV) with respect to forward speed.
14. REC/PB Sensitivity Adjustment (DECK 2)  
Settings : • Test tape : TTA-602 (Normal)  
• Test point : TP9(Rch), TP10(Lch)  
• Input signal : 1kHz (LINE IN)  
• Adjustment location : SFR305 (Lch)  
SFR306 (Rch)  
Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the test points becomes 125mV. Record the play back the 1kHz signal and adjust SFRs so that the output level becomes 0dB  $\pm$  0.5dB.

15. REC/PB Sensitivity Check (DECK 2)

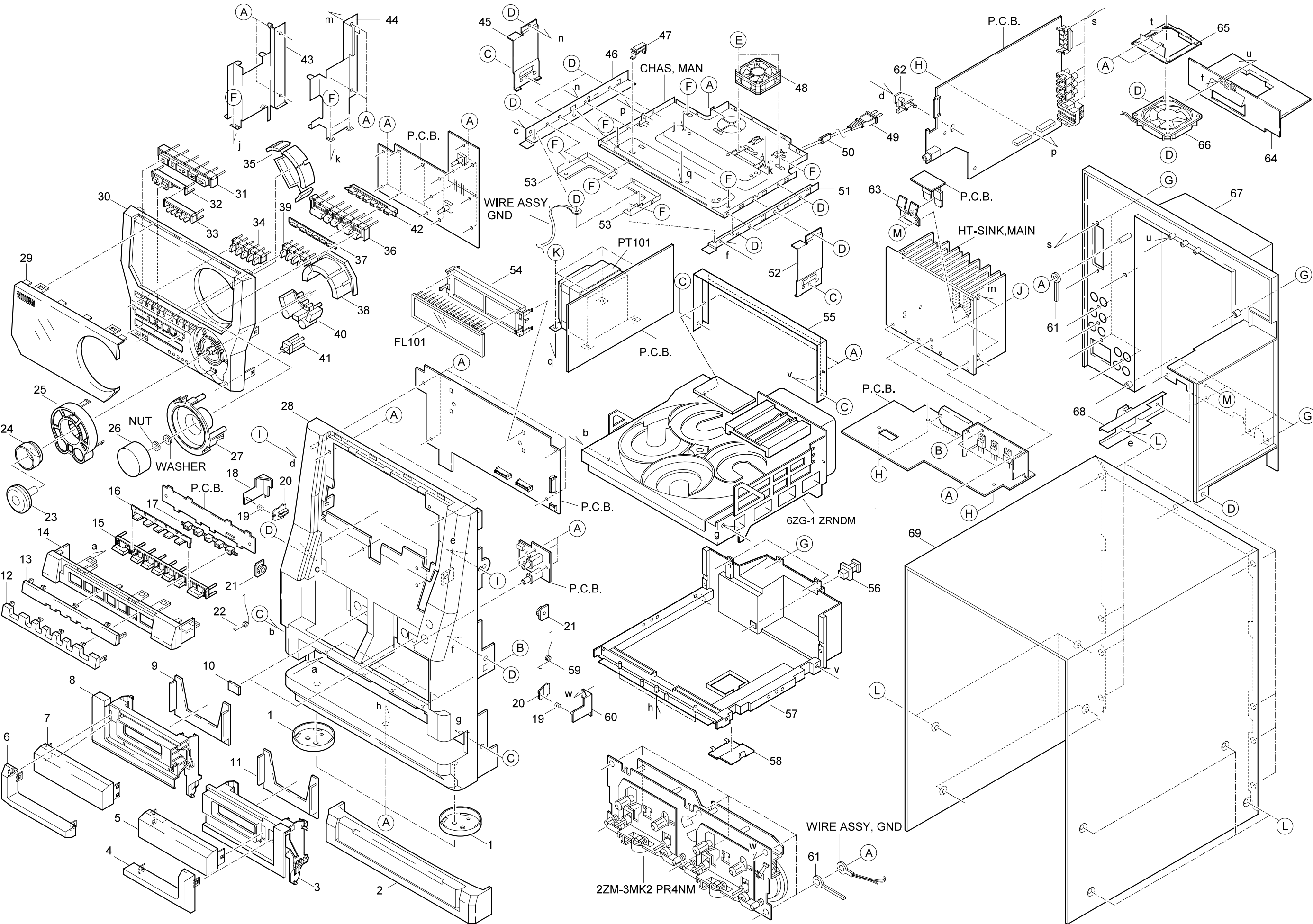
Settings : • Test tape : TTA-615 (CrO<sub>2</sub>)  
• Test point : TP9(Rch), TP10(Lch)  
• Input signal : 1kHz (LINE IN)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the test points becomes 125mV. Record and play back the 1kHz signal and check that the output is 0dB  $\pm$  1.5dB.

16.  $\mu$ -CON OSC Adjustment

Settings : • Test point : TP1(K-SCAN)  
• Adjustment location : L101

Method : Insert AC plug with pressing TUNER function key. Adjust L101 so that the frequency across the test point is 208.8Hz  $\pm$  0.2Hz.



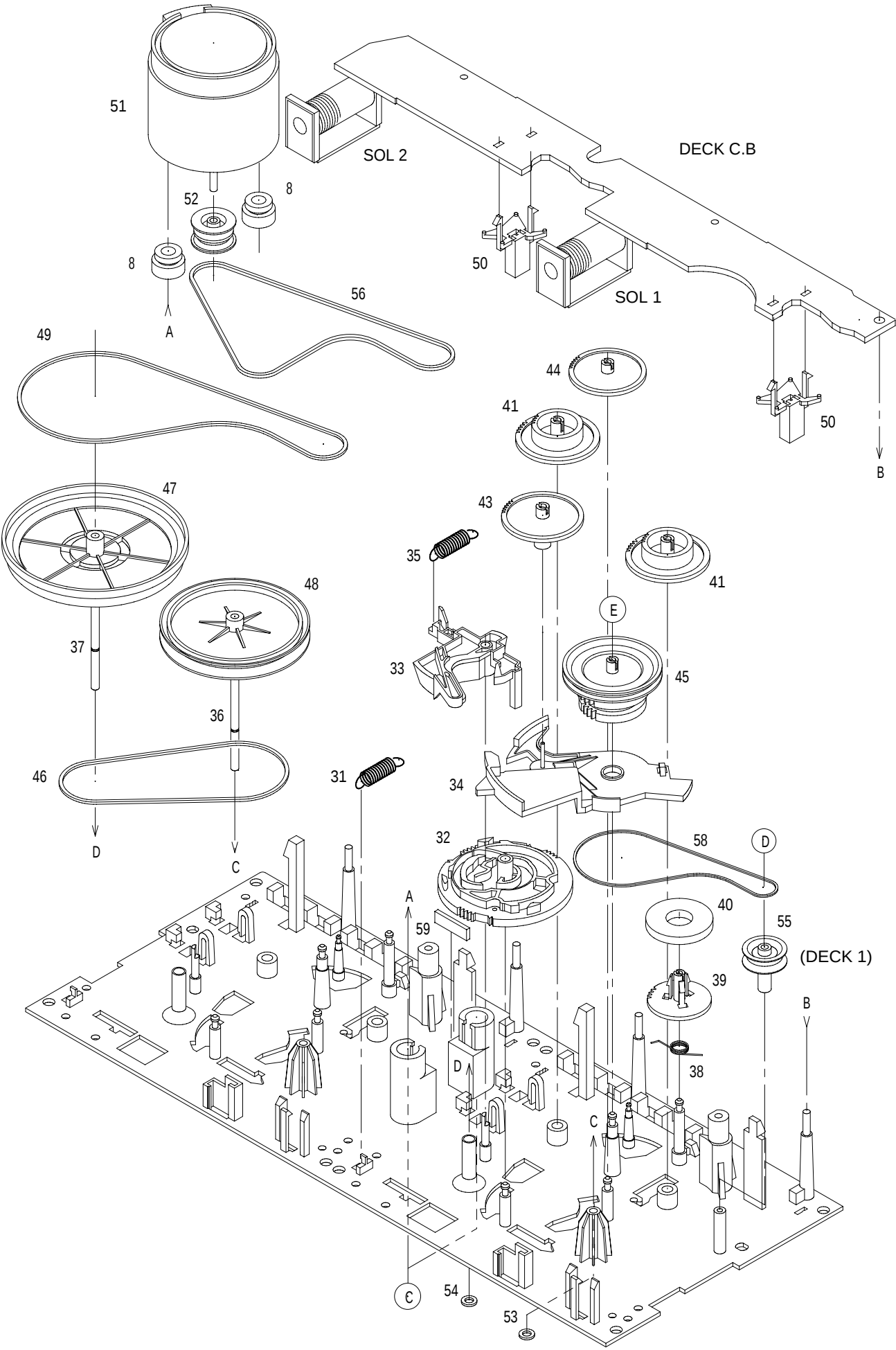
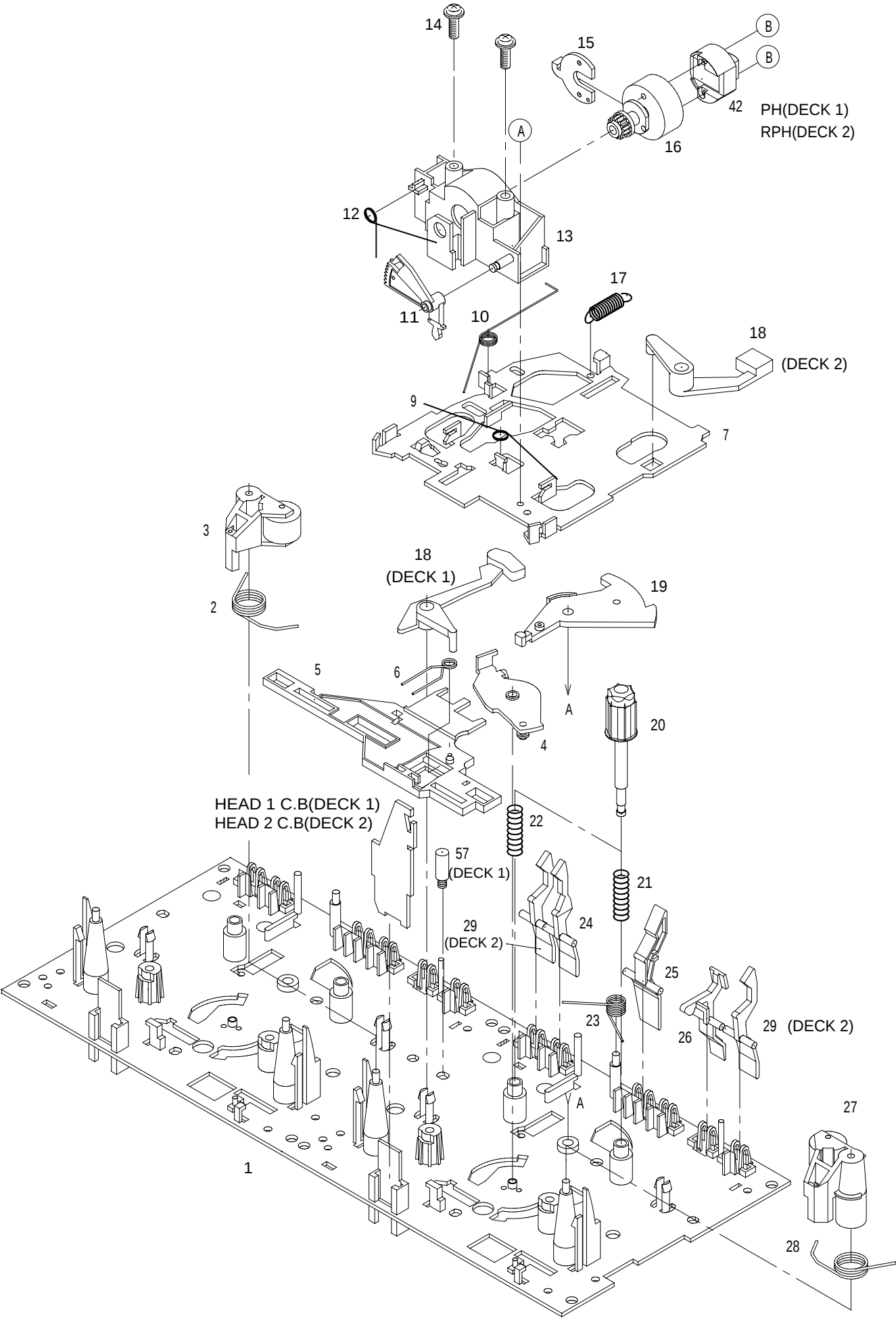
# MECHANICAL PARTS LIST 1 / 1

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION          | REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION                    |
|----------|----------------|-----------|----------------------|----------|----------------|-----------|--------------------------------|
| 1        | 88-NF3-090-010 |           | RING, FOOT           | 43       | 8A-NF3-213-110 |           | HLDR, HT-SINK L                |
| 2        | 8A-NF3-042-010 |           | PANEL ASSY, TRAY     | 44       | 8A-NF3-214-010 |           | HLDR, HT-SINK R                |
| 3        | 8A-NF3-029-010 |           | BOX, CASS R          | 45       | 8A-NF3-210-010 |           | HLDR, SIDE L                   |
| 4        | 8A-NF3-040-010 |           | PANEL, CASS R        | 46       | 8A-NF3-208-010 |           | HLDR, CHAS L                   |
| 5        | 8A-NF3-059-010 |           | WINDOW, CASS R       | 47       | 87-NF4-221-010 |           | HLDR, CABLE                    |
| 6        | 8A-NF3-039-010 |           | PANEL, CASS L        | 48       | 87-A91-423-010 |           | FAN, AD0612DS-D70GL            |
| 7        | 8A-NF3-058-010 |           | WINDOW, CASS L       | 49       | 87-A80-148-010 |           | AC CORD ASSY, E BLK<LH>        |
| 8        | 8A-NF3-028-010 |           | BOX, CASS L          | 49       | 87-A80-149-010 |           | AC CORD ASSY, U BLK<U>         |
| 9        | 8A-NF3-090-010 |           | REFLECTOR, CASS L    | 49       | 87-A80-155-010 |           | AC CORD ASSY, HS TS<HS>        |
| 10       | 81-532-080-010 |           | LABEL, CASS. COMPT   | 50       | 87-085-185-010 |           | BUSHING, AC CORD<LH, HS>       |
| 11       | 8A-NF3-091-010 |           | REFLECTOR, CASS R    | 50       | 87-A91-422-010 |           | BUSHING, AC CORD (U)           |
| 12       | 8A-NF3-048-010 |           | PANEL, REFLECTOR- CD | 51       | 8A-NF3-209-010 |           | HLDR, CHAS R                   |
| 13       | 8A-NF3-049-010 |           | PANEL, KEY-CD        | 52       | 8A-NF3-211-010 |           | HLDR, SIDE R                   |
| 14       | 8A-NF3-047-010 |           | PANEL, CD            | 53       | 8A-NF3-229-010 |           | HLDR, BRACKET                  |
| 15       | 8A-NF3-071-010 |           | KEY, CD              | 54       | 8Z-NF3-210-010 |           | GUIDE, FL                      |
| 16       | 8A-NF3-089-010 |           | REFLECTOR, CD        | 55       | 8A-NF3-212-010 |           | HLDR, REAR                     |
| 17       | 8A-NF3-203-010 |           | GUIDE, LED-CD        | 56       | 84-ZG1-245-210 |           | CAP, OPTICAL                   |
| 18       | 87-NF4-216-010 |           | HLDR, LOCK 1         | 57       | 8A-NF3-026-010 |           | CABI, BOTTOM                   |
| 19       | 86-NF9-224-010 |           | SPR-C, LOCK          | 58       | 8Z-NF3-048-010 |           | COVER, BOTTOM                  |
| 20       | 82-NF5-229-010 |           | PLATE, LOCK          | 59       | 82-NF5-219-010 |           | SPR-T, EJECT 2 (SIN)           |
| 21       | 87-NF8-220-010 |           | DMPR, 150            | 60       | 87-NF4-217-110 |           | HLDR, LOCK 2                   |
| 22       | 82-NF5-218-010 |           | SPR-T, EJECT 1 (SIN) | 61       | 87-064-185-010 |           | HLDR, WIRE                     |
| 23       | 8A-NF3-082-010 |           | KNOB, RTRY JOG       | 62       | 8A-NF8-206-010 |           | HLDR, PWB M                    |
| 24       | 8A-NF3-087-010 |           | REFLECTOR, JOG       | 63       | 8A-NF3-221-010 |           | HLDR, IC-VM                    |
| 25       | 8A-NF3-077-010 |           | RING, JOG H<HS, LH>  | 64       | 8A-NF3-225-010 |           | COVER, HLDR                    |
| 25       | 8A-NF3-078-010 |           | RING, JOG U<U>       | 65       | 8A-NF3-223-010 |           | HLDR, FAN                      |
| 26       | 8A-NF3-081-010 |           | KNOB, RTRY VOL       | 66       | 87-A91-711-010 |           | FAN, 3110GL-B4W-B34-H02 -400MM |
| 27       | 8A-NF3-076-010 |           | RING, VOL            | 67       | 8A-NF4-011-010 |           | CABI, REAR LHSM<LH>            |
| 28       | 8A-NF3-001-010 |           | CABI, FR             | 67       | 8A-NF4-013-010 |           | CABI, REAR USM<U>              |
| 29       | 8A-NF4-051-010 |           | WINDOW, DISP<HS, LH> | 67       | 8A-NF4-016-010 |           | CABI, REAR HSSM<HS>            |
| 29       | 8A-NF4-052-010 |           | WINDOW, DISP U<U>    | 68       | 8A-NF3-228-010 |           | HLDR, PWB-PT                   |
| 30       | 8A-NF3-031-010 |           | PANEL, FR U          | 69       | 8A-NF3-027-010 |           | CABI, STEEL                    |
| 30       | 8A-NF3-034-010 |           | PANEL, FR LH<HS, LH> | A        | 87-067-703-010 |           | TAPPING SCREW, BVT2+3-10       |
| 31       | 8A-NF3-063-010 |           | KEY ASSY, OPE        | B        | 87-067-581-010 |           | S-SCREW, BVT2+3-15 W/O SLOT    |
| 32       | 8A-NF3-073-110 |           | KEY, REC U           | C        | 87-721-097-410 |           | QT2+3-12 GLD                   |
| 33       | 8A-NF3-065-010 |           | KEY, KARAOKE         | D        | 87-591-095-410 |           | TAPPING SCREW, QIT+3-8 (GLD)   |
| 34       | 8A-NF3-061-010 |           | KEY, GEQ             | E        | 87-B10-190-010 |           | BVT2+3-22 W/O SLOT             |
| 35       | 8A-NF3-067-010 |           | KEY, BBE             | F        | 87-067-689-010 |           | TAPPING SCREW, BVT+3-8         |
| 36       | 8A-NF3-072-010 |           | KEY, FUNC            | G        | 87-067-761-010 |           | S-SCREW, BVT2+3-10 BLK         |
| 37       | 8A-NF3-088-010 |           | REFLECTOR, FUNC      | H        | 87-NF4-224-010 |           | S-SCREW, IT3B+3-8 CU           |
| 38       | 8A-NF3-068-010 |           | KEY, JOG             | I        | 87-721-096-410 |           | QT2+3-10 W/O SLOT              |
| 39       | 8A-NF3-062-010 |           | KEY, DSP             | J        | 87-067-758-010 |           | S-SCREW, BVT2+3-12 W/O SLOT    |
| 40       | 8A-NF3-069-010 |           | KEY, SPICE           | K        | 87-067-975-010 |           | S-SCREW, IT+4-8                |
| 41       | 8A-NF3-070-010 |           | KEY, ECO             | L        | 87-067-641-010 |           | UTT2+3-8(W/O SLOT)BL           |
| 42       | 8A-NF3-201-010 |           | GUIDE, LED-FUNC      | M        | 87-067-579-010 |           | BUT2+3-8W/O SLOT               |

## 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 |                    |                    |

TAPE MECHANISM EXPLODED VIEW 1 / 1



# TAPE MECHANISM PARTS LIST 1 / 1

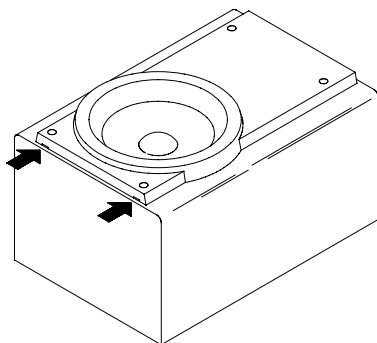
| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION          |
|----------|----------------|-----------|----------------------|
| 1        | 82-ZM3-301-510 |           | CHAS ASSY,M2         |
| 2        | 82-ZM1-258-110 |           | SPR-T,PINCH L        |
| 3        | 82-ZM1-341-110 |           | LVR ASSY,PINCH L2    |
| 4        | 82-ZM1-333-010 |           | PLATE, LINK 2        |
| 5        | 82-ZM1-266-11K |           | LVR,DIR              |
| 6        | 82-ZM1-214-010 |           | SPR-T, DIR           |
| 7        | 82-ZM1-206-81K |           | CHAS, HEAD           |
| 8        | 82-ZM3-340-010 |           | SH, BELT D2          |
| 9        | 82-ZM1-269-210 |           | SPR-T, BRG           |
| 10       | 82-ZM1-219-110 |           | SPR-T, LINK          |
| 11       | 82-ZM1-210-110 |           | GEAR, H T            |
| 12       | 82-ZM1-213-010 |           | SPR-T, HEAD          |
| 13       | 82-ZM1-207-610 |           | GUIDE, TAPE          |
| 14       | 86-ZM4-206-010 |           | S-SCREW, AZIMUTH     |
| 15       | 82-ZM1-314-110 |           | PLATE, HEAD          |
| 16       | 82-ZM1-208-110 |           | HLDR, HEAD           |
| 17       | 82-ZM1-218-010 |           | SPR-E, HB            |
| 18       | 82-ZM1-263-110 |           | LVR,EJECT L (DECK 1) |
| 18       | 82-ZM1-264-010 |           | LVR,EJECT R (DECK 2) |
| 19       | 82-ZM1-222-21K |           | LVR,PLAY             |
| 20       | 82-ZM1-217-310 |           | REEL TABLE           |
| 21       | 82-ZM1-244-510 |           | SPR-C, BT            |
| 22       | 82-ZM1-285-310 |           | SPR-C, BT L          |
| 23       | 82-ZM1-257-010 |           | SPR-T, CAS           |
| 24       | 82-ZM1-241-310 |           | LVR,MC               |
| 25       | 82-ZM1-242-010 |           | LVR,CAS              |
| 26       | 82-ZM1-243-010 |           | LVR,STOP             |
| 27       | 82-ZM1-344-110 |           | LVR ASSY,PINCH R2    |
| 28       | 82-ZM1-259-110 |           | SPR-T,PINCH R        |
| 29       | 82-ZM1-240-11K |           | LVR,REC (DECK 2)     |
| 31       | 82-ZM1-255-310 |           | SPR-E, LVR DIR       |
| 32       | 82-ZM3-305-01K |           | GEAR,CAM M2          |
| 33       | 82-ZM1-227-21K |           | LVR,TRIG             |
| 34       | 82-ZM3-306-11K |           | LVR,FR M2            |
| 35       | 82-ZM1-265-110 |           | SPR-E, TRIG          |

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION               |
|----------|----------------|-----------|---------------------------|
| 36       | 82-ZM3-339-010 |           | SHAFT,COUPLER N3(DECK 1)  |
| 37       | 86-ZM1-206-010 |           | BELT,MAIN L               |
| 38       | 82-ZM1-322-010 |           | SPR-T, FR60               |
| 39       | 82-ZM1-220-210 |           | GEAR, IDLER               |
| 40       | 82-ZM3-616-010 |           | RING MAGNET 4             |
| 41       | 82-ZM1-216-31K |           | GEAR, REEL                |
| 42       | 87-A90-319-010 |           | HEAD,PH HADKH2 FPC        |
| 42       | 87-A90-320-010 |           | HEAD,RPH HADKH5 FPC       |
| 43       | 82-ZM1-225-21K |           | GEAR,FR                   |
| 44       | 82-ZM1-226-010 |           | GEAR,REW                  |
| 45       | 82-ZM3-333-310 |           | SLIP DISK ASSY 2          |
| 46       | 82-ZM1-338-010 |           | BELT FR4                  |
| 47       | 82-ZM1-349-110 |           | FLY-WHL,R W(DECK 2)       |
| 47       | 82-ZM3-338-110 |           | FLY-WHL,R3 W(DECK 1)      |
| 48       | 82-ZM1-348-010 |           | FLY-WHL,L W(DECK 2)       |
| 48       | 82-ZM1-348-010 |           | FLY-WHL,L W(DECK 1)       |
| 49       | 82-ZM3-329-210 |           | BELT, SBU R2              |
| 50       | 82-ZM1-245-210 |           | HLDR,IC                   |
| 51       | 87-045-347-019 |           | MOT,SHU2L 70(M1)          |
| 52       | 82-ZM3-221-010 |           | PULLEY,MOT 2M             |
| 53       | 82-ZM1-288-019 |           | SH,1.63-3.2-0.5 SLT       |
| 54       | 80-ZM6-243-019 |           | SH,1.75-3.6-0.5 SLT       |
| 55       | 82-ZM3-335-210 |           | PULLEY,COUPLER M3(DECK 1) |
| 56       | 82-ZM3-337-010 |           | BELT,SBU MOT 2            |
| 57       | 82-ZM3-339-010 |           | SHAFT,COUPLER N3(DECK 1)  |
| 58       | 86-ZM1-206-010 |           | BELT,MAIN L               |
| 59       | 82-ZM3-340-010 |           | SH,BELT D2                |
| A        | 85-ZM3-202-010 |           | S-SCREW,TG                |
| B        | 80-ZM6-207-019 |           | V+1.6-7                   |
| C        | 82-ZM3-318-019 |           | S-SCRW MOTOR M2           |
| D        | 87-B10-043-010 |           | W-P,0.99-4-0.25 SLT       |
| E        | 82-ZM3-334-010 |           | PW,2.16-6-0.4             |

## SPEAKER DISASSEMBLY INSTRUCTIONS

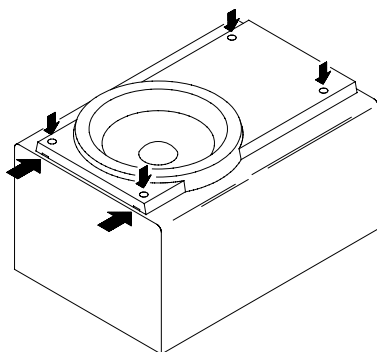
### Type.1

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.



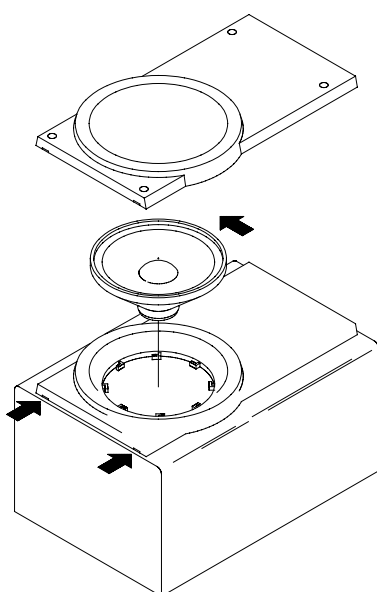
### Type.2

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.

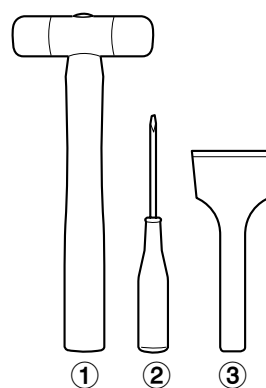


### Type.3

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction 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.

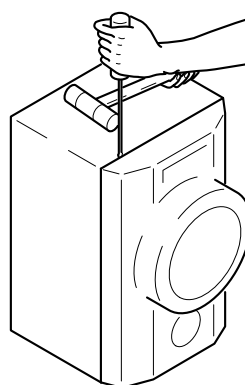


Fig-1

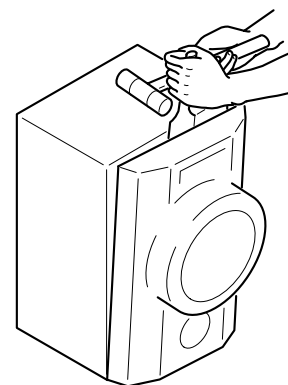


Fig-2

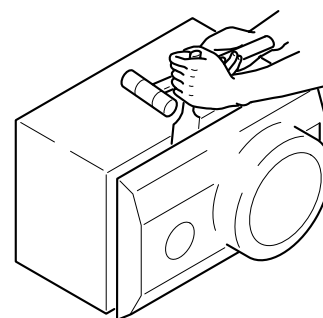


Fig-3

### 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.

## SX-WND77 (YUSL)<U>, SX-WNT77 (YSL)<HS> SPEAKER PARTS LIST

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION        | REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION        |
|----------|----------------|-----------|--------------------|----------|----------------|-----------|--------------------|
| 1        | 8A-NS4-001-010 |           | PANEL, FR          | 11       | 8A-MS2-605-110 |           | SPKR, TW 60        |
| 2        | 8A-NS4-004-010 |           | PANEL, DUCT        | 12       | 88-NSK-610-010 |           | SPKR, CERAMIC ASSY |
| 3        | 8A-NS4-005-010 |           | PANEL, DUCT RIN    | 13       | 88-NS5-610-010 |           | CORD, SPKR         |
| 4        | 8A-NS4-006-010 |           | PANEL, TW R        | 14       | 88-NS5-611-010 |           | CORD, SPKR B/L     |
| 5        | 8A-NS4-007-010 |           | PANEL, TW L        |          |                |           |                    |
| 6        | 8A-NS4-008-010 |           | HLD, PIEZO         |          |                |           |                    |
| 7        | 8A-MS4-009-010 |           | GRILLE, FRAME ASSY |          |                |           |                    |
| 8        | 8A-NS4-013-010 |           | PROTECTOR, TW      |          |                |           |                    |
| 9        | 88-NS3-602-110 |           | SPKR, W 200        |          |                |           |                    |
| 10       | 8A-NS4-602-010 |           | SPKR, M 120        |          |                |           |                    |

## SX-WNT98 (YLSK1M)<LH> SPEAKER PARTS LIST

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION        | REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION     |
|----------|----------------|-----------|--------------------|----------|----------------|-----------|-----------------|
| 1        | 8A-NS3-001-010 |           | PANEL, FR          | 16       | 8A-NS3-019-010 |           | CORD, BUSH      |
| 2        | 8A-NS3-002-010 |           | PANEL, TW L        | 17       | 88-NS3-020-010 |           | CORD, BUSH L    |
| 3        | 8A-NS3-003-010 |           | PANEL, TW R        | 18       | 8A-NS3-023-010 |           | FOOT,           |
| 4        | 8A-NS3-004-010 |           | PANEL, DUCT RING   | 19       | 8A-NSJ-006-010 |           | BADGE, AIWA S35 |
| 5        | 8A-NS3-005-010 |           | PANEL, DUCT        | 20       | 8A-NS3-014-010 |           | CABI, TOP       |
| 6        | 8A-NS3-006-010 |           | PANEL, TOP         | 21       | 8A-NS3-030-010 |           | UT2 4*12 CM     |
| 7        | 8A-NS3-009-010 |           | ADAPTOR,           |          |                |           |                 |
| 8        | 8A-NS3-010-010 |           | PROTECTOR, SQA     |          |                |           |                 |
| 9        | 8A-NS3-011-010 |           | PROTECTOR, TWA     |          |                |           |                 |
| 10       | 88-NS3-602-110 |           | SPKR, W 200        |          |                |           |                 |
| 11       | 8A-NS3-602-010 |           | SPKR, M 100        |          |                |           |                 |
| 12       | 8A-MS2-605-110 |           | SPKR, TW 60        |          |                |           |                 |
| 13       | 88-NSK-610-010 |           | SPKR, CERAMIC ASSY |          |                |           |                 |
| 14       | 88-NS5-610-010 |           | CORD, SPKR         |          |                |           |                 |
| 15       | 88-NS5-611-010 |           | CORD, SPKR B/L     |          |                |           |                 |

## ACCESSORIES / PACKAGE LIST

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION                        |
|----------|----------------|-----------|------------------------------------|
| 1        | 8A-NF4-907-010 |           | IB, LH (P) -KIT<LH>                |
| 1        | 8A-NF4-903-010 |           | IB, U (ESF) M<U>                   |
| 2        | 87-006-225-010 |           | AM LOOP ANT NC2                    |
| 3        | 87-043-115-010 |           | ANT, FEEDER FM                     |
| △ 4      | 87-A91-017-010 |           | PLUG, CONVERSION JT-0476<EXCEPT U> |
| 5        | 8Z-NF5-702-010 |           | RC UNIT, RC-ZAS04                  |

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