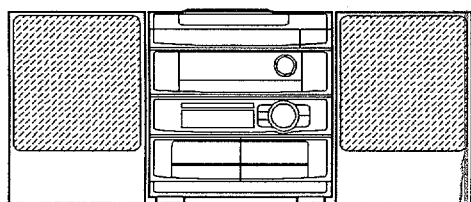


# aiwa



## Z-R900



COMPACT DISC STEREO  
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : 2ZM-3MK2 PR5N
- BASIC CD MECHANISM : 6ZG-1 SDFNM

- TYPE : LH, HE

| SYSTEM | CD - CASSEIVER | SPEAKER  | REMOTE<br>CONTROLLER |
|--------|----------------|----------|----------------------|
| Z-R900 | CX-ZR900       | SX-ZR900 | RC - 7AS01           |

- If requiring information about the CD mechanism, see Service Manual of 6ZG-1, S/M Code No. 09-975-198-00T.

# SPECIFICATIONS

## <FM Tuner section>

**Tuning range**  
**Usable sensitivity (IHF)**  
**Antenna terminals**

87.5 MHz to 108 MHz  
 13.2 dBf  
 75 ohms (unbalanced)

## <AM Tuner section>

**Tuning range**

531 kHz to 1602 kHz (9 kHz step)  
 530 kHz to 1710 kHz (10 kHz step)

**Usable sensitivity**  
**Antenna**

350  $\mu$ V/m  
 Loop antenna

## <Amplifier section>

**Power output\***

HE :  
 Rated 145 W + 145 W  
 (6 ohms, T.H.D. 1 %, 1 kHz)  
 Reference : 200 W + 200W  
 (6 ohms, T.H.D. 10 %, 1 kHz)

\*without connecting the SURROUND SPEAKER

LH :  
 200 W + 200W  
 (6 ohms, T.H.D. 10 %, 1 kHz)

**Total harmonic distortion**

HE :  
 0.1 % (20 W, 1 kHz, 6 ohms, DIN AUDIO)

LH :  
 0.1 % (80 W, 1 kHz, 6 ohms, DIN AUDIO)

**Inputs**

VIDEO/AUX : 210 mV (adjustable)  
 PHONO : 340 mV (47 kohms)  
 MIC 1, MIC 2 : 1.4 mV (20 kohms)

**Outputs**

LINE OUT : 200mV  
 CD DIGITAL OUT (OPTICAL)  
 HE :  
 SUPER WOOFER : 3.5 V  
 LH :  
 SUPER WOOFER : 3.7 V  
 SPEAKERS: accept speakers of 6 ohms or more  
 SURROUND SPEAKERS :  
 accept speakers of 16 ohms or more  
 PHONES (stereo jack) : accepts headphones of 32 ohms or more

## <Cassette deck section>

**Track format**  
**Frequency response**

4 tracks, 2 channels stereo  
 CrO2 tape : 50 Hz ~ 16000 Hz  
 Normal tape : 50 Hz ~15000 Hz  
 60 dB (Dolby B NR ON, CrO2 tape peak level, above 400 Hz)

**Signal-to-noise ratio**

AC bias  
 Deck 1 : Playback head x1  
 Deck 2 : Recording/playback/erase head x 1

**Recording system**  
**Heads**

## <Compact disc player section>

**Laser**

Semiconductor laser ( $\lambda$  =780 nm)

**D-A converter**

1 bit dual

**Signal-to-noise ratio**

85 dB (1 kHz, 0 dB)

**Harmonic distortion**

0.03 % (1 kHz, 0 dB)

**Wow and flutter**

Unmeasurable

## <Speaker system SX-ZR900>

**Cabinet type**

3 way, bass reflex

**Speakers**

Woofer :  
 220 mm cone type  
 Tweeter :  
 80 mm cone type  
 Super tweeter :  
 20 mm ceramic type

**Impedance**

6 ohms

**Output sound pressure level**

89 dB/W/m

**Dimensions (W x H x D)**

260 x 444 x 275 mm

**Weight**

4.8 kg

## <General>

**Power requirements**

120 V/220 ~ 230 V/240 V AC,  
 switchable 50/60 Hz

**Power consumption**

190 W

**Dimensions of main unit (W x H x D)**

360 x 394.5 x 382 mm

**Weight of main unit**

12.5 kg

• 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 käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

## VARNING!

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.

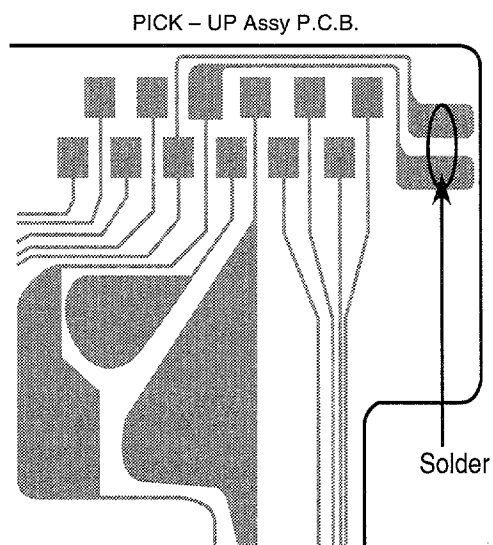
|          |               |
|----------|---------------|
| CLASS 1  | LASER PRODUCT |
| KLASSE 1 | LASER PRODUKT |
| LUOKAN 1 | LASER LAITE   |
| KLASS 1  | LASER APPARAT |

## Precaution to replace Optical block

### (KSS-213B)

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

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



# ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO.   | PART NO.       | KANRI NO.      | DESCRIPTION           | REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION              |
|------------|----------------|----------------|-----------------------|----------|----------------|-----------|--------------------------|
| IC         |                |                |                       | C103     | 87-A10-056-090 |           | CAP,E 4700-35 M          |
|            | 87-MA3-602-010 |                | C-IC,LC866560W-5E53   | C104     | 87-A10-056-090 |           | CAP,E 4700-35 M          |
|            | 87-A20-593-010 |                | IC,SPS-442-1-A        | C105     | 87-012-368-080 |           | C-CAP,S 0.1-50 Z F       |
|            | 87-017-915-080 |                | C-IC,BU4094BCF        | C106     | 87-012-368-080 |           | C-CAP,S 0.1-50 Z F       |
|            | 87-A20-455-010 |                | IC,HA12211            | C107     | 87-012-368-080 |           | C-CAP,S 0.1-50 Z F       |
|            | 87-A20-355-010 |                | IC,CXA1553P           | C108     | 87-012-368-080 |           | C-CAP,S 0.1-50 Z F       |
|            | 87-A20-083-010 |                | IC,BA3835S            | C109     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
|            | 87-A20-450-040 |                | C-IC,BH3864F          | C110     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
|            | 87-A20-056-010 |                | IC,BA3880S            | C111     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
|            | 87-A20-451-040 |                | C-IC,BU9262FS         | C112     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
|            | 87-A20-561-040 |                | C-IC,M65847AFP<HE>    | C113     | 87-010-247-080 |           | CAP,E 100-50 M SME       |
|            | 87-A20-456-040 |                | C-IC,BH3810FS         | C114     | 87-010-247-080 |           | CAP,E 100-50 M SME       |
|            | 87-017-888-080 |                | C-IC,NJM4558MD        | C115     | 87-010-247-080 |           | CAP,E 100-50 M SME       |
|            | 87-A20-437-010 |                | C-IC,M62431FP         | C116     | 87-010-247-080 |           | CAP,E 100-50 M SME       |
|            | 86-NFZ-655-010 |                | IC,LC72131D(Z)        | C117     | 87-010-430-080 |           | CAP,E 100-63             |
|            | 87-A20-438-010 |                | IC,LA1837             | C118     | 87-010-263-080 |           | CAP,E 100-10 SME         |
|            | 87-020-454-010 |                | IC,DN6851             | C119     | 87-010-260-080 |           | CAP,E 47-25 SME          |
| TRANSISTOR |                |                |                       | C120     | 87-010-403-080 |           | CAP,E 3.3-50 M SME       |
|            | 87-026-263-080 |                | C-TR,RN1410           | C121     | 87-012-140-080 |           | C-CAP,S 470P-50 J CH     |
|            | 89-213-702-010 |                | TR,2SB1370E           | C123     | 87-010-247-080 |           | CAP,E 100-50 M SME       |
|            | 87-A30-076-080 |                | C-TR,2SC3052F         | C124     | 87-010-112-080 |           | CAP,E 100-16 M SME       |
|            | 89-112-965-080 |                | TR,2SA1296GR          | C125     | 87-010-235-080 |           | CAP,E 470-16 SME         |
|            | 87-026-610-080 |                | TR,KTC3198GR          | C126     | 87-010-194-080 |           | C-CAP,S 0.047-25 Z F     |
|            | 87-A30-073-080 |                | C-TR,RT1N 141C        | C127     | 87-010-194-080 |           | C-CAP,S 0.047-25 Z F     |
|            | 87-A30-085-070 |                | C-TR,CSA1362GR        | C129     | 87-010-393-080 |           | CAP,E 100-35 M SME       |
|            | 87-A30-083-080 |                | TR,CSD1489B           | C201     | 87-010-400-080 |           | CAP,E 0.47-50 M SME      |
|            | 87-A30-075-080 |                | C-TR,2SA1235F         | C202     | 87-010-400-080 |           | CAP,E 0.47-50 M SME      |
|            | 87-A30-084-080 |                | TR,CSB1058B           | C205     | 87-010-188-080 |           | C-CAP,S 6800P-50 K B     |
|            | 87-A30-071-080 |                | C-TR,RT1N 144C        | C206     | 87-010-188-080 |           | C-CAP,S 6800P-50 K B     |
|            | 87-026-609-080 |                | TR,KTA1266GR          | C207     | 87-010-404-080 |           | CAP,E 4.7-50 M SME       |
|            | 87-A30-086-070 |                | C-TR,CSD1306E         | C208     | 87-010-404-080 |           | CAP,E 4.7-50 M SME       |
|            | 87-A30-106-070 |                | C-TR,CMBT5551         | C209     | 87-010-404-080 |           | CAP,E 4.7-50 M SME       |
|            | 87-A30-111-080 |                | TR,C2N5401            | C210     | 87-010-404-080 |           | CAP,E 4.7-50 M SME       |
|            | 87-A30-097-010 |                | TR,FN1016             | C211     | 87-010-186-080 |           | C-CAP,S 4700P-50 K B     |
|            | 87-A30-098-010 |                | TR,FP1016             | C212     | 87-010-186-080 |           | C-CAP,S 4700P-50 K B     |
|            | 87-A30-089-010 |                | FET,2SK2723           | C213     | 87-010-260-080 |           | CAP,E 47-25 SME          |
|            | 87-A30-072-080 |                | C-TR,RT1P 144C        | C214     | 87-010-260-080 |           | CAP,E 47-25 SME          |
|            | 87-026-266-080 |                | C-TR,RN2404           | C215     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
|            | 87-A30-087-080 |                | C-FET,2SK2158         | C219     | 87-012-368-080 |           | C-CAP,S 0.1-50 Z F       |
|            | 87-A30-074-080 |                | C-TR,RT1P 141C        | C220     | 87-012-368-080 |           | C-CAP,S 0.1-25 Z F       |
|            | 89-327-143-080 |                | C-TR,2SC2714(O)       | C221     | 87-012-368-080 |           | C-CAP,S 0.1-25 Z F       |
|            | 87-026-463-080 |                | TR,2SA933SRS          | C222     | 87-012-368-080 |           | C-CAP,S 0.1-25 Z F       |
|            |                |                |                       | C223     | 87-010-194-080 |           | C-CAP,S 0.047-25 Z F     |
|            |                |                |                       | C225     | 87-A10-516-080 |           | C-CAP,S 100P-200 CH      |
|            |                |                |                       | C226     | 87-A10-516-080 |           | C-CAP,S 100P-200 CH      |
| DIODE      |                |                |                       | C242     | 87-010-406-080 |           | CAP,E 22-50 M SME        |
|            | 87-A40-270-080 |                | C-DIODE,MC2838        | C243     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
|            | 87-A40-224-010 |                | DIODE,GBU8DL          | C244     | 87-010-406-080 |           | CAP,E 22-50 M SME        |
|            | 87-A40-246-080 |                | DIODE,1N4148T-72      | C301     | 87-010-318-080 |           | C-CAP,S 47P-50 J CH      |
|            | 87-017-437-080 |                | DIODE,1N4148M         | C302     | 87-010-318-080 |           | C-CAP,S 47P-50 J CH      |
|            | 87-A40-269-080 |                | C-DIODE,MC2836        | C303     | 87-012-157-080 |           | C-CAP,S 330P-50 J CH GRM |
|            | 87-070-274-080 |                | DIODE,1N4003 SEM      | C304     | 87-012-157-080 |           | C-CAP,S 330P-50 J CH GRM |
|            | 87-A40-205-080 |                | ZENER,UZ6.2BSC        | C305     | 87-012-145-080 |           | C-CAP,S 270P-50 J CH     |
|            | 87-A40-341-080 |                | ZENER,MTZJ36A         | C306     | 87-012-145-080 |           | C-CAP,S 270P-50 J CH     |
|            | 87-017-933-080 |                | ZENER,MTZJ10D         | C307     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
|            | 87-070-178-090 |                | DIODE,1N5402-BD54<HE> | C311     | 87-010-198-080 |           | C-CAP,S 0.022-25 K B     |
|            | 87-A40-370-090 |                | DIODE,RK46-P20<LH>    | C312     | 87-010-198-080 |           | C-CAP,S 0.022-25 K B     |
|            | 87-070-136-080 |                | ZENER,MTZJ5.1B        | C313     | 87-010-180-080 |           | C-CAP,S 1500P-50 K B     |
|            | 87-070-345-080 |                | DIODE,1N4148          | C314     | 87-010-180-080 |           | C-CAP,S 1500P-50 K B     |
|            | 87-017-931-080 |                | ZENER,MTZJ5.6B        | C315     | 87-010-179-080 |           | C-CAP,S 1500P-50 K B     |
|            | 87-A40-003-080 |                | ZENER,MTZJ4.3A        | C316     | 87-010-179-080 |           | C-CAP,S 1500P-50 K B     |
|            | 87-A40-004-080 |                | ZENER,MTZJ16A         | C317     | 87-012-142-080 |           | C-CAP,S 0.33-16 Z F      |
|            | 87-A40-234-080 |                | ZENER,MTZJ5.6A        | C318     | 87-012-142-080 |           | C-CAP,S 0.33-16 Z F      |
|            |                |                |                       | C319     | 87-012-141-080 |           | C-CAP,S 0.22-16 Z F      |
|            |                |                |                       | C320     | 87-012-141-080 |           | C-CAP,S 0.22-16 Z F      |
| MAIN C.B   |                |                |                       | C321     | 87-012-141-080 |           | C-CAP,S 0.22-16 Z F      |
|            | C101           | 87-A10-231-090 | CAP,E 3300-80         | C322     | 87-012-141-080 |           | C-CAP,S 0.22-16 Z F      |
|            | C102           | 87-A10-231-090 | CAP,E 3300-80         | C324     | 87-010-260-080 |           | CAP,E 47-25 SME          |
|            |                |                |                       | C325     | 87-010-370-080 |           | CAP,E 330-6.3 M SME      |
|            |                |                |                       | C327     | 87-010-404-080 |           | CAP,E 4.7-50 M SME       |

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION                  | REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION              |
|----------|----------------|-----------|------------------------------|----------|----------------|-----------|--------------------------|
| C328     | 87-010-404-080 |           | CAP,E 4.7-50 M SME           | C614     | 87-010-404-080 |           | CAP,E 4.7-50 M SME       |
| C332     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012     | C615     | 87-010-183-080 |           | C-CAP,S 2700P-50 K B     |
| C335     | 87-010-401-080 |           | CAP,E 1-50 M SME             | C619     | 87-010-263-080 |           | CAP,E 100-10 SME         |
| C336     | 87-010-401-080 |           | CAP,E 1-50 M SME             | C620     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
| C337     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012     | C621     | 87-010-263-080 |           | CAP,E 100-10 SME         |
| C339     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012     | C622     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
| C340     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012     | C623     | 87-010-194-080 |           | C-CAP,S 0.047-25 Z F     |
| C351     | 87-012-140-080 |           | C-CAP,S 470P-50 J CH         | C646     | 87-010-322-080 |           | C-CAP,S 100P-50 J CH     |
| C352     | 87-012-140-080 |           | C-CAP,S 470P-50 J CH         | C647     | 87-010-322-080 |           | C-CAP,S 100P-50 J CH     |
| C354     | 87-010-175-080 |           | C-CAP,S 560P-50 J SL         | C701     | 87-010-381-080 |           | CAP,E 330-16 SME         |
| C355     | 87-010-178-080 |           | C-CAP,S 1000P-50 K B         | C702     | 87-010-404-080 |           | CAP,E 4.7-50 M SME       |
| C356     | 87-010-260-080 |           | CAP,E 47-25 SME              | C703     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C357     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B          | C704     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C358     | 87-010-183-080 |           | C-CAP,S 2700P-50 K B         | C711     | 87-010-263-080 |           | CAP,E 100-10 SME         |
| C359     | 87-010-183-080 |           | C-CAP,S 2700P-50 K B         | C712     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
| C360     | 87-010-183-080 |           | C-CAP,S 2700P-50 K B         | C713     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C370     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012     | C714     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C371     | 87-010-179-080 |           | C-CAP,S 1200P-50 K B         | C721     | 87-010-312-080 |           | C-CAP,S 15P-50 J CH      |
| C372     | 87-010-179-080 |           | C-CAP,S 1200P-50 K B         | C722     | 87-010-312-080 |           | C-CAP,S 15P-50 J CH      |
| C373     | 87-010-179-080 |           | C-CAP,S 1200P-50 K B         | C723     | 87-010-178-080 |           | C-CAP,S 1000P-50 K B     |
| C374     | 87-010-179-080 |           | C-CAP,S 1200P-50 K B         | C725     | 87-010-178-080 |           | C-CAP,S 1000P-50 K B     |
| C375     | 87-010-545-080 |           | CAP,E 0.22-50 M SME          | C727     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
| C376     | 87-010-545-080 |           | CAP,E 0.22-50 M SME          | C728     | 87-010-248-080 |           | CAP,E 220-10 SME         |
| C378     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012     | C755     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C381     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B          | C756     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C382     | 87-010-318-080 |           | C-CAP,S 47P-50 J CH          | C757     | 87-010-318-080 |           | C-CAP,S 47P-50 J CH      |
| C383     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B          | C758     | 87-010-149-080 |           | C-CAP,S 5P-50 CH         |
| C384     | 87-010-402-080 |           | CAP,E 2.2-50 M SME           | C761     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
| C385     | 87-010-184-080 |           | C-CAP,S 3300P-50 K B         | C762     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C386     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012     | C763     | 87-010-194-080 |           | C-CAP,S 0.047-25 Z F     |
| C388     | 87-010-154-080 |           | C-CAP,S 10P-50 D CH          | C765     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C401     | 87-010-184-080 |           | C-CAP,S 3300P-50 K B         | C766     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C402     | 87-010-184-080 |           | C-CAP,S 3300P-50 K B         | C767     | 87-010-405-080 |           | CAP,E 10-50 M SME        |
| C403     | 87-010-405-080 |           | CAP,E 10-50 M SME            | C768     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C404     | 87-010-405-080 |           | CAP,E 10-50 M SME            | C769     | 87-010-408-080 |           | CAP,E 47-50 SME          |
| C405     | 87-010-260-080 |           | CAP,E 47-25 SME              | C770     | 87-015-821-080 |           | C-CAP, 0.047-50 Z F GR   |
| C406     | 87-010-101-080 |           | CAP,E 220-16 SME             | C771     | 87-010-407-080 |           | CAP,E 33-50 SME          |
| C407     | 87-010-188-080 |           | C-CAP,S 6800P-50 K B         | C772     | 87-010-194-080 |           | C-CAP,S 0.047-25 Z F     |
| C408     | 87-010-188-080 |           | C-CAP,S 6800P-50 K B         | C773     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
| C409     | 87-012-140-080 |           | C-CAP,S 470P-50 J CH         | C774     | 87-010-263-080 |           | CAP,E 100-10 SME         |
| C410     | 87-012-140-080 |           | C-CAP,S 470P-50 J CH         | C775     | 87-010-404-080 |           | CAP,E 4.7-50 M SME       |
| C411     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B          | C776     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C412     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B          | C777     | 87-010-400-080 |           | CAP,E 0.47-50 M SME      |
| C413     | 87-010-195-080 |           | C-CAP,S 0.068-25 Z F C2012   | C778     | 87-010-401-080 |           | CAP,E 1-50 M SME         |
| C414     | 87-010-195-080 |           | C-CAP,S 0.068-25 Z F C2012   | C779     | 87-010-401-080 |           | CAP,E 1-50 M SME         |
| C415     | 87-010-404-080 |           | CAP,E 4.7-50 M SME           | C780     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012 |
| C416     | 87-010-404-080 |           | CAP,E 4.7-50 M SME           | C781     | 87-010-405-080 |           | CAP,E 10-50 M SME        |
| C417     | 87-010-404-080 |           | CAP,E 4.7-50 M SME           | C782     | 87-010-405-080 |           | CAP,E 10-50 M SME        |
| C418     | 87-010-404-080 |           | CAP,E 4.7-50 M SME           | C783     | 87-015-819-080 |           | C-CAP,0.01-50 K B        |
| C421     | 87-010-401-080 |           | CAP,E 1-50 M SME             | C784     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C422     | 87-010-401-080 |           | CAP,E 1-50 M SME             | C785     | 87-010-400-080 |           | CAP,E 0.47-50 M SME      |
| C503     | 87-012-154-080 |           | C-CAP,S 150P-50 J CH GRM<HE> | C786     | 87-010-400-080 |           | CAP,E 0.47-50 M SME      |
| C504     | 87-012-154-080 |           | C-CAP,S 150P-50 J CH GRM<HE> | C787     | 87-010-184-080 |           | C-CAP,S 3300P-50 K B     |
| C505     | 87-012-145-080 |           | C-CAP,S 270P-50 J CH<HE>     | C788     | 87-010-184-080 |           | C-CAP,S 3300P-50 K B     |
| C506     | 87-012-145-080 |           | C-CAP,S 270P-50 J CH<HE>     | C789     | 87-010-179-080 |           | C-CAP,S 1200P-50 K B     |
| C507     | 87-010-183-080 |           | C-CAP,S 2700P-50 K B<HE>     | C790     | 87-010-179-080 |           | C-CAP,S 1200P-50 K B     |
| C509     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012<HE> | C791     | 87-010-405-080 |           | CAP,E 10-50 M SME        |
| C510     | 87-010-177-080 |           | C-CAP,S 820P-50 J SL<HE>     | C793     | 87-010-178-080 |           | C-CAP,S 1000P-50 K B     |
| C511     | 87-010-177-080 |           | C-CAP,S 820P-50 J SL<HE>     | C794     | 87-010-406-080 |           | CAP,E 22-50 M SME        |
| C512     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012<HE> | C795     | 87-010-596-080 |           | C-CAP,S 0.047-16 K R     |
| C513     | 87-010-374-080 |           | CAP,E 47-10 M SME<HE>        | C796     | 87-010-403-080 |           | CAP,E 3.3-50 M SME       |
| C514     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012<HE> | C797     | 87-010-180-080 |           | C-CAP,S 1500P-50 K B<HE> |
| C515     | 87-010-263-080 |           | CAP,E 100-10 SME<HE>         | C797     | 87-010-182-080 |           | C-CAP,S 2200P-50 K B<LH> |
| C516     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012<LH> | C798     | 87-010-180-080 |           | C-CAP,S 1500P-50 K B<HE> |
| C517     | 87-010-183-080 |           | C-CAP,S 2700P-50 K B<HE>     | C798     | 87-010-182-080 |           | C-CAP,S 2200P-50 K B<LH> |
| C527     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012<HE> | C799     | 87-010-194-080 |           | C-CAP,S 0.047-25 Z F     |
| C605     | 87-010-180-080 |           | C-CAP,S 1500P-50 K B         | C812     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C606     | 87-010-180-080 |           | C-CAP,S 1500P-50 K B         | C813     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C611     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012     | C814     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |
| C613     | 87-010-404-080 |           | CAP,E 4.7-50 M SME           | C815     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B      |

| REF. NO.  | PART NO.       | KANRI NO. | DESCRIPTION                 | REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION               |
|-----------|----------------|-----------|-----------------------------|----------|----------------|-----------|---------------------------|
| C816      | 87-010-197-080 |           | C-CAP,S 0.01-25 K B         | C114     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| C819      | 87-010-197-080 |           | C-CAP,S 0.01-25 K B         | C115     | 87-010-178-080 |           | C-CAP,S 1000P-50 K B      |
| C820      | 87-010-408-080 |           | CAP,E 47-50 SME             | C116     | 87-010-494-040 |           | CAP,E 1-50 5L SRE         |
| C821      | 87-010-197-080 |           | C-CAP,S 0.01-25 K B         | C117     | 87-010-263-040 |           | CAP,E 100-10 M SME        |
| C822      | 87-010-197-080 |           | C-CAP,S 0.01-25 K B         | C118     | 87-010-194-080 |           | C-CAP,S 0.047-25 Z F      |
| C823      | 87-010-197-080 |           | C-CAP,S 0.01-25 K B         | C119     | 87-010-408-040 |           | CAP,E 47-50 M SME         |
| C828      | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012    | C120     | 87-010-404-040 |           | CAP,E 4.7-50 SME          |
| C829      | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012    | C121     | 87-010-404-040 |           | CAP,E 4.7-50 SME          |
| C959      | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012    | C122     | 87-010-194-080 |           | C-CAP,S 0.047-25 Z F      |
| C960      | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012    | C123     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| C961      | 87-010-152-080 |           | C-CAP,S 8P-50 D CH          | C124     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| CF801     | 87-008-261-010 |           | FLTR,CFSFE10.7MA5           | C125     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| CF802     | 87-008-261-010 |           | FLTR,CFSFE10.7MA5           | C126     | 87-010-312-080 |           | C-CAP,S 15P-50 J CH       |
| CON351    | 83-NEG-608-010 |           | CONN ASSY,8P-RPB            | C127     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| FFE801    | A8-7ZA-290-030 |           | 7ZA-2 FEUNM                 | C201     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| J252      | 87-A60-024-010 |           | JACK,DIA6.3 BLK ST W/SW KM  | C281     | 87-010-198-080 |           | C-CAP,S 0.022-25 K B      |
| J253      | 87-099-474-010 |           | JACK,PIN 3P BLK W/SW        | C282     | 87-010-198-080 |           | C-CAP,S 0.022-25 K B      |
| J254      | 87-A60-238-010 |           | TERMINAL,SP 4P (MSC)        | C381     | 87-012-158-080 |           | C-CAP,S 390P-50 J CH GRM  |
| J601      | 87-A60-330-010 |           | JACK,PIN 6P YKC21-3174      | C382     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| J801      | 87-A60-202-010 |           | TERMINAL,ANT 4P MSP-154V-02 | C383     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| L201      | 87-003-383-010 |           | COIL,1UH K                  | C384     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| L202      | 87-003-383-010 |           | COIL,1UH K                  | C385     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| L301      | 87-A50-049-010 |           | COIL,TRAP 85K(COI)          | C386     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| L302      | 87-A50-049-010 |           | COIL,TRAP 85K(COI)          | C387     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| L351      | 87-007-342-010 |           | COIL,OSC 85KHZ BIAS         | C403     | 87-010-956-080 |           | C-CAP,S 0.068-25 K B      |
| L644      | 83-XM1-617-080 |           | C-COIL,BK 2125 HM601        | C404     | 87-010-956-080 |           | C-CAP,S 0.068-25 K B      |
| L770      | 87-005-847-080 |           | COIL,2.2UH K CECS           | C405     | 87-010-400-040 |           | CAP,E 0.47-50 SME         |
| L771      | 87-A50-165-010 |           | COIL,FM DET-N(TOK)          | C406     | 87-010-400-040 |           | CAP,E 0.47-50 SME         |
| L772      | 87-A90-245-010 |           | FLTR,CFZH-450 (TOK)         | C407     | 87-010-183-080 |           | C-CAP,S 2700P-50 K B      |
| L791      | 87-003-293-010 |           | COIL, TRAP MPX<LH>          | C408     | 87-010-183-080 |           | C-CAP,S 2700P-50 K B      |
| L791      | 87-A50-027-010 |           | COIL,1 POLE MPX(TOK)<HE>    | C409     | 87-A10-201-080 |           | C-CAP,S 0.33-16 K B       |
| L792      | 87-003-293-010 |           | COIL, TRAP MPX<LH>          | C410     | 87-A10-201-080 |           | C-CAP,S 0.33-16 K B       |
| L792      | 87-A50-027-010 |           | COIL,1 POLE MPX(TOK)<HE>    | C411     | 87-010-198-080 |           | C-CAP,S 0.022-25 K B      |
| L832      | 87-005-847-080 |           | COIL,2.2UH K CECS           | C412     | 87-010-198-080 |           | C-CAP,S 0.022-25 K B      |
| L981      | 87-NF4-650-010 |           | COIL,AM PACK4N(TOK)         | C413     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| PR201     | 87-026-682-080 |           | PROTECTOR,10A 491SERIES 60V | C414     | 87-010-374-040 |           | CAP,E 47-10 SME           |
| PR202     | 87-026-682-080 |           | PROTECTOR,10A 491SERIES 60V | C415     | 87-010-374-040 |           | CAP,E 47-10 SME           |
| R229      | 87-022-184-080 |           | RES,M/F 0.33-1W J           | C416     | 87-016-081-080 |           | C-CAP,S 0.1-16 K R        |
| R230      | 87-022-184-080 |           | RES,M/F 0.33-1W J           | C417     | 87-016-081-080 |           | C-CAP,S 0.1-16 K R        |
| R231      | 87-022-184-080 |           | RES,M/F 0.33-1W J           | C418     | 87-010-405-040 |           | CAP,E 10-50 M SME         |
| R232      | 87-022-184-080 |           | RES,M/F 0.33-1W J           | C501     | 87-010-319-080 |           | C-CAP,S 56P-50 J CH       |
| RY101     | 87-045-389-010 |           | RELAY,12V OSA-SS-212DM5     | C502     | 87-010-319-080 |           | C-CAP,S 56P-50 J CH       |
| RY201     | 87-045-382-010 |           | RELAY,12V OUAZ-SH-112L      | C503     | 87-016-460-080 |           | C-CAP,S 0.22-16 K B       |
| SFR301    | 87-024-435-080 |           | SFR,33K H RH063MC           | C504     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B       |
| SFR302    | 87-024-435-080 |           | SFR,33K H RH063MC           | C505     | 87-010-180-080 |           | C-CAP,S 1500P-50 K B      |
| SFR303    | 87-024-435-080 |           | SFR,33K H RH063MC           | C506     | 87-010-590-080 |           | C-CAP,S 0.015-16 K R      |
| SFR304    | 87-024-435-080 |           | SFR,33K H RH063MC           | C507     | 87-010-590-080 |           | C-CAP,S 0.015-16 K R      |
| SFR305    | 87-024-436-080 |           | SFR,47K H RH063MC           | C508     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B       |
| SFR306    | 87-024-436-080 |           | SFR,47K H RH063MC           | C509     | 87-010-181-080 |           | C-CAP,S 1800P-50 K B      |
| SFR351    | 87-024-436-080 |           | SFR,47K H RH063MC           | C510     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| SFR352    | 87-024-436-080 |           | SFR,47K H RH063MC           | C512     | 87-010-408-040 |           | CAP,E 47-50 M SME         |
| TH201     | 87-A90-221-080 |           | C-THMS,100K                 | C513     | 87-010-401-040 |           | CAP,E 1-50 M SME          |
| TH202     | 87-A90-221-080 |           | C-THMS,100K                 | C514     | 87-010-401-040 |           | CAP,E 1-50 M SME          |
| W5        | 85-NF5-617-010 |           | CABLE,PFC 6P-1.25           | C515     | 87-010-184-080 |           | C-CAP,S 3300P-50 K B      |
| X721      | 87-A70-061-010 |           | VIB,XTAL 4.500MHZ CSA-309   | C516     | 87-010-184-080 |           | C-CAP,S 3300P-50 K B      |
| FRONT C.B |                |           |                             | C518     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| C101      | 87-010-198-080 |           | C-CAP,S 0.022-25 K B        | C519     | 87-010-263-040 |           | CAP,E 100-10 M SME        |
| C102      | 87-010-198-080 |           | C-CAP,S 0.022-25 K B        | C525     | 87-012-141-080 |           | C-CAP,S 0.22-16 Z F       |
| C103      | 87-010-197-080 |           | C-CAP,S 0.01-25 K B         | C601     | 87-010-405-040 |           | CAP,E 10-50 M SME         |
| C104      | 87-010-320-080 |           | C-CAP,S 68P-50 J CH         | C602     | 87-010-186-080 |           | C-CAP,S 4700P-50 K B      |
| C105      | 87-010-316-080 |           | C-CAP,S 33P-50 J CH         | C603     | 87-010-405-040 |           | CAP,E 10-50 M SME         |
| C107      | 87-012-157-080 |           | C-CAP,S 330P-50 J CH GRM    | C604     | 87-010-406-040 |           | CAP,E 22-50 M SME         |
| C108      | 87-010-405-040 |           | CAP,E 10-50 M SME           | C605     | 87-018-209-080 |           | CAP,TC U 0.1-50 Z F UP050 |
| C109      | 87-010-401-040 |           | CAP,E 1-50 M SME            | C607     | 87-010-321-080 |           | C-CAP,S 82P-50 J CH       |
| C110      | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012    | C608     | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012  |
| C111      | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012    | C609     | 87-010-491-040 |           | CAP,E 0.22-50 5L SRE      |
| C112      | 87-010-196-080 |           | C-CAP,S 0.1-25 Z F C2012    | C611     | 87-010-177-080 |           | C-CAP,S 820P-50 J SL      |
| C113      | 87-A10-189-040 |           | CAP,E 220-10 M              | C612     | 87-010-176-080 |           | C-CAP,S 680P-50 J SL      |
|           |                |           |                             | C614     | 87-010-248-040 |           | CAP,E 220-10 M SME        |
|           |                |           |                             | C701     | 87-010-555-040 |           | CAP,E 100-10 5L SRE       |

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION                    | REF. NO.   | PART NO.       | KANRI NO. | DESCRIPTION                 |
|----------|----------------|-----------|--------------------------------|------------|----------------|-----------|-----------------------------|
| C702     | 87-010-112-040 |           | CAP,E 100-16 SME               | LED241     | 87-002-787-080 |           | LED,SEL6215S RED            |
| C705     | 87-016-081-080 |           | C-CAP,S 0.1-16 K R             | LED242     | 87-002-787-080 |           | LED,SEL6215S RED            |
| C706     | 87-010-956-080 |           | C-CAP,S 0.068-25 K B           | LED243     | 87-002-787-080 |           | LED,SEL6215S RED            |
| C707     | 87-016-081-080 |           | C-CAP,S 0.1-16 K R             | LED244     | 87-002-787-080 |           | LED,SEL6215S RED            |
| C708     | 87-010-956-080 |           | C-CAP,S 0.068-25 K B           | R301       | 87-022-355-080 |           | C-RES,S 10K-1/10W F         |
| C709     | 87-016-369-080 |           | C-CAP,S 0.033-25 K B           | R321       | 87-022-355-080 |           | C-RES,S 10K-1/10W F         |
| C710     | 87-016-081-080 |           | C-CAP,S 0.1-16 K R             | R341       | 87-022-355-080 |           | C-RES,S 10K-1/10W F         |
| C711     | 87-010-220-080 |           | C-CAP,S 0.018-25 K B           | S301       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C712     | 87-010-992-080 |           | C-CAP,S 0.047-25 K B MK212     | S302       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C713     | 87-010-189-080 |           | C-CAP,S 8200P-50 K B           | S303       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C714     | 87-010-198-080 |           | C-CAP,S 0.022-25 K B           | S304       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C715     | 87-010-185-080 |           | C-CAP,S 3900P-50 K B           | S305       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C716     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B            | S306       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C717     | 87-010-182-080 |           | C-CAP,S 2200P-50 K B           | S307       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C718     | 87-010-186-080 |           | C-CAP,S 4700P-50 K B           | S308       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C719     | 87-010-178-080 |           | C-CAP,S 1000P-50 K B           | S309       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C720     | 87-010-183-080 |           | C-CAP,S 2700P-50 K B           | S321       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C721     | 87-010-405-040 |           | CAP,E 10-50 M SME              | S322       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C722     | 87-010-405-040 |           | CAP,E 10-50 M SME              | S323       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C723     | 87-010-378-040 |           | CAP,E 10-16 M SME              | S324       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C724     | 87-016-369-080 |           | C-CAP,S 0.033-25 K B           | S325       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C725     | 87-016-081-080 |           | C-CAP,S 0.1-16 K R             | S326       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C726     | 87-010-220-080 |           | C-CAP,S 0.018-25 K B<HE>       | S327       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C726     | 87-010-220-080 |           | C-CAP,S 0.018-25 K B           | S328       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C727     | 87-010-992-080 |           | C-CAP,S 0.047-25 K B MK212     | S329       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C728     | 87-010-189-080 |           | C-CAP,S 8200P-50 K B           | S330       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C729     | 87-010-198-080 |           | C-CAP,S 0.022-25 K B           | S331       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C730     | 87-010-185-080 |           | C-CAP,S 3900P-50 K B           | S332       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C731     | 87-010-197-080 |           | C-CAP,S 0.01-25 K B            | S333       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C732     | 87-010-182-080 |           | C-CAP,S 2200P-50 K B           | S334       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C733     | 87-010-186-080 |           | C-CAP,S 4700P-50 K B           | S335       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C734     | 87-010-178-080 |           | C-CAP,S 1000P-50 K B           | S336       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C735     | 87-010-183-080 |           | C-CAP,S 2700P-50 K B           | S341       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C736     | 87-010-992-080 |           | C-CAP,S 0.047-25 K B MK212     | S342       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| C736     | 87-010-992-080 |           | C-CAP,S 0.047-25 K B MK212<HE> | S344       | 87-A90-095-080 |           | SW,TACT EVQ11G04M<HE>       |
| C737     | 87-010-992-080 |           | C-CAP,S 0.047-25 K B MK212     | S346       | 87-A90-095-080 |           | SW,TACT EVQ11G04M<HE>       |
| C737     | 87-010-992-080 |           | C-CAP,S 0.047-25 K B MK212<HE> | S349       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| FB601    | 87-008-372-080 |           | FLTR,EMIBL01 RN1               | S350       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| FL102    | 87-MA3-604-010 |           | FL,BJ540GK 7MA-3               | S351       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| FR146    | 87-029-082-090 |           | RES,FUSE 100-1/4W J            | S352       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| L501     | 87-005-448-080 |           | COIL,220UH K FLR50             | S353       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| LED201   | 87-017-785-080 |           | LED,SEL4214S RED               | S354       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| LED202   | 87-017-785-080 |           | LED,SEL4214S RED               | S355       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| LED203   | 87-017-785-080 |           | LED,SEL4214S RED               | S356       | 87-A90-095-080 |           | SW,TACT EVQ11G04M           |
| LED204   | 87-017-785-080 |           | LED,SEL4214S RED               | SW101      | 87-A90-535-010 |           | SW,RTRY EC16B24304W0-20 NON |
| LED205   | 87-017-785-080 |           | LED,SEL4214S RED               | W104       | 88-914-251-110 |           | FF-CABLE, 14P 1.25 250MM    |
| LED206   | 87-017-368-080 |           | LED,SEL4514C TP5 PGRN          | W105       | 88-908-231-110 |           | FF-CABLE, 8P 1.25           |
| LED207   | 87-017-368-080 |           | LED,SEL4514C TP5 PGRN          | W501       | 85-MA2-602-010 |           | CABLE FFC,15P-1.25          |
| LED208   | 87-017-368-080 |           | LED,SEL4514C TP5 PGRN          | X201       | 87-A70-070-080 |           | VIB,CER 5.76MHZ CRHF        |
| LED209   | 87-017-368-080 |           | LED,SEL4514C TP5 PGRN          |            |                |           |                             |
| LED210   | 87-017-368-080 |           | LED,SEL4514C TP5 PGRN          | MIC 1 C.B  |                |           |                             |
| LED211   | 87-017-368-080 |           | LED,SEL4514C TP5 PGRN          | J601       | 87-099-659-010 |           | JACK,6.3 0                  |
| LED212   | 87-017-368-080 |           | LED,SEL4514C TP5 PGRN          |            |                |           |                             |
| LED213   | 87-017-368-080 |           | LED,SEL4514C TP5 PGRN          | MIC 2 C.B  |                |           |                             |
| LED214   | 87-017-368-080 |           | LED,SEL4514C TP5 PGRN          | J602       | 87-099-659-010 |           | JACK,6.3 0                  |
| LED215   | 87-017-368-080 |           | LED,SEL4514C TP5 PGRN          |            |                |           |                             |
| LED216   | 87-017-731-080 |           | LED,SEL1510CM2 PGRN            | RT C.B     |                |           |                             |
| LED217   | 87-017-731-080 |           | LED,SEL1510CM2 PGRN            |            |                |           |                             |
| LED218   | 87-017-731-080 |           | LED,SEL1510CM2 PGRN            |            |                |           |                             |
| LED219   | 87-017-731-080 |           | LED,SEL1510CM2 PGRN            |            |                |           |                             |
| LED220   | 87-017-731-080 |           | LED,SEL1510CM2 PGRN            | SW281      | 87-A90-469-010 |           | SW,RTRY EVQVB0F0324B        |
| LED221   | 87-017-731-080 |           | LED,SEL1510CM2 PGRN            |            |                |           |                             |
| LED233   | 87-070-270-010 |           | LED,SEL1510CM2-LF34 P-GRN      | CD KEY C.B |                |           |                             |
| LED234   | 87-070-270-010 |           | LED,SEL1510CM2-LF34 P-GRN      |            |                |           |                             |
| LED235   | 87-070-270-010 |           | LED,SEL1510CM2-LF34 P-GRN      |            |                |           |                             |
| LED236   | 87-070-270-010 |           | LED,SEL1510CM2-LF34 P-GRN      | C371       | 87-018-209-080 |           | CAP,TC U 0.1-50 Z F UP050   |
| LED237   | 87-070-300-010 |           | LED,SEL1250SMLF34 RED          | LED371     | 87-017-785-080 |           | LED,SEL4214S RED            |
| LED238   | 87-070-300-010 |           | LED,SEL1250SMLF34 RED          | LED372     | 87-017-785-080 |           | LED,SEL4214S RED            |
| LED239   | 87-017-785-080 |           | LED,SEL4214S RED               | LED373     | 87-017-785-080 |           | LED,SEL4214S RED            |
| LED240   | 87-017-785-080 |           | LED,SEL4214S RED               | LED374     | 87-017-785-080 |           | LED,SEL4214S RED            |

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION                 | REF. NO.   | PART NO.       | KANRI NO. | DESCRIPTION          |
|----------|----------------|-----------|-----------------------------|------------|----------------|-----------|----------------------|
| LED375   | 87-017-785-080 |           | LED,SEL4214S RED            | DECK C.B   |                |           |                      |
| S370     | 87-A90-095-080 |           | SW,TACT EVQ11G04M           | W001       | 82-ZM3-601-019 |           | RBN,CORD,4P-75       |
| S371     | 87-A90-095-080 |           | SW,TACT EVQ11G04M           | SFR1       | 87-024-581-019 |           | SFR,3.3K DIA 6H      |
| S372     | 87-A90-095-080 |           | SW,TACT EVQ11G04M           | SOL1       | 82-ZM1-626-310 |           | SOL ASSY, 27K        |
| S373     | 87-A90-095-080 |           | SW,TACT EVQ11G04M           | SOL2       | 82-ZM1-626-310 |           | SOL ASSY, 27K        |
|          |                |           |                             | SW1        | 87-A90-248-019 |           | SW,MICRO ESE11SH2CXQ |
| S374     | 87-A90-095-080 |           | SW,TACT EVQ11G04M           | SW2        | 87-A90-248-019 |           | SW,MICRO ESE11SH2CXQ |
| S375     | 87-A90-095-080 |           | SW,TACT EVQ11G04M           | SW3        | 87-A90-248-019 |           | SW,MICRO ESE11SH2CXQ |
| S376     | 87-A90-095-080 |           | SW,TACT EVQ11G04M           | SW4        | 87-036-110-010 |           | SW,MICRO SPPB62      |
|          |                |           |                             | SW5        | 87-036-110-010 |           | SW,MICRO SPPB62      |
|          |                |           |                             | SW6        | 87-036-110-010 |           | SW,MICRO SPPB62      |
| AC2 C.B  |                |           |                             | SW8        | 87-A90-248-019 |           | SW,MICRO ESE11SH2CXQ |
| △ PR1    | 87-026-682-080 |           | PROTECTOR,10A 491SERIES 60V | SW9        | 87-036-110-010 |           | SW,MICRO SPPB62      |
| △ PR2    | 87-026-682-080 |           | PROTECTOR,10A 491SERIES 60V | CON502     | 87-099-756-019 |           | CONN, 15P 9604 S F   |
| △ PR5    | 87-026-682-080 |           | PROTECTOR,10A 491SERIES 60V |            |                |           |                      |
| △ PR6    | 87-026-682-080 |           | PROTECTOR,10A 491SERIES 60V |            |                |           |                      |
| W1       | 85-NP5-628-010 |           | F-CABLE,7P-2.5              |            |                |           |                      |
| PT C.B   |                |           |                             | HEAD-1 C.B |                |           |                      |
| △ F101   | 87-035-458-010 |           | FUSE,4A 250V T 218          |            | 85-ZM3-601-010 |           | PWB,FLEX I           |
| △ F102   | 87-035-458-010 |           | FUSE,4A 250V T 218          |            |                |           |                      |
| △ FC1    | 87-033-147-010 |           | FUSE CLAMP,MT-20            | HEAD-2 C.B |                |           |                      |
| △ FC2    | 87-033-147-010 |           | FUSE CLAMP,MT-20            |            | 85-ZM3-601-010 |           | PWB,FLEX I           |
| △ FC3    | 87-033-147-010 |           | FUSE CLAMP,MT-20            |            |                |           |                      |
| △ FC4    | 87-033-147-010 |           | FUSE CLAMP,MT-20            |            |                |           |                      |
| △ PT101  | 87-MA3-606-010 |           | PT,7MA-3 HE                 |            |                |           |                      |
| △ SW1    | 87-A90-165-010 |           | SW,SL 1-2-3 SWS2301         |            |                |           |                      |
| △ T1     | 87-A60-317-010 |           | TERMINAL, 1P MSC            |            |                |           |                      |
| △ T2     | 87-A60-317-010 |           | TERMINAL, 1P MSC            |            |                |           |                      |

# 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

8 8 - □ □ □ □ □ □

A  
抵抗部品コード  
Resistor Code

桁表示  
Figure  
抵抗値  
Value of resistor

## 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         | 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

2SA1296GR  
KTA1266GR  
KTC3198GR



E C B

CSD1489B  
CSB1058B



E B C

C2N5401



E C B

2SA933S



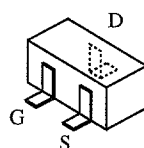
B C E

2SB1370  
FN1016  
FP1016

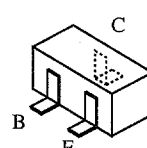


G D G

2SK2723



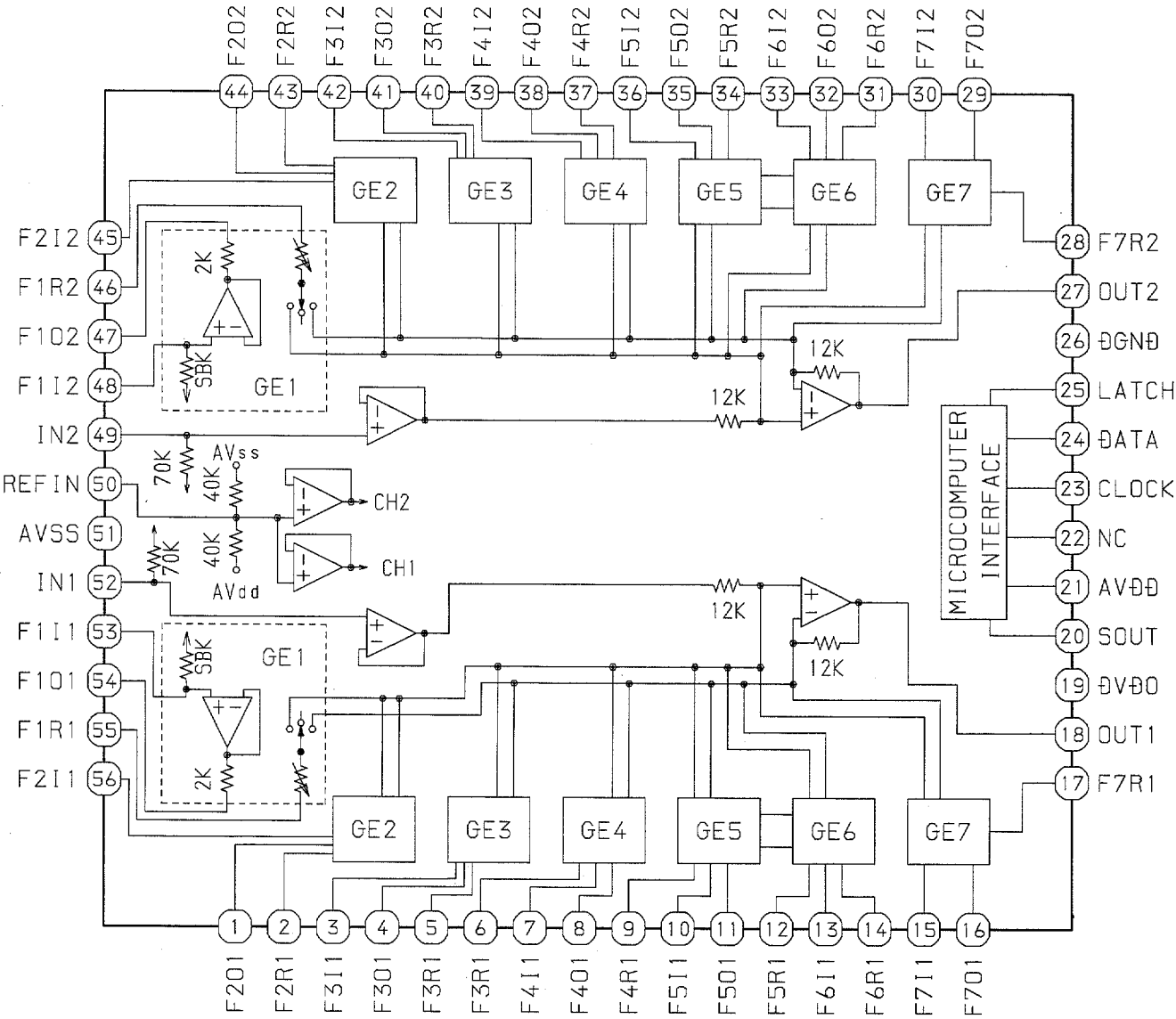
2SK2158



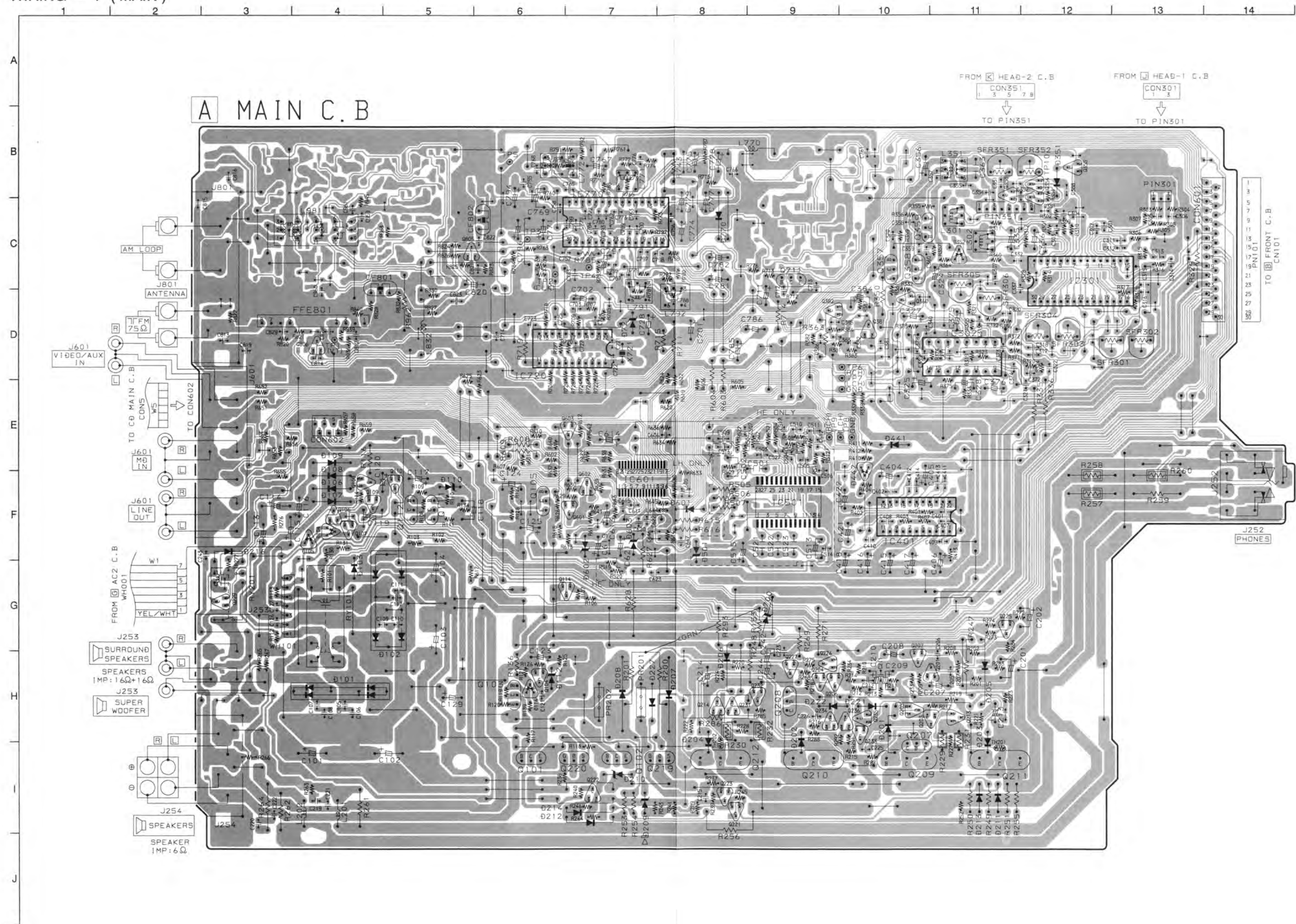
2SA1235F RN1410  
2SC2714 RN2404  
2SC3052F RT1P144C  
CMBT5551 RT1N141C  
CSA1362GR RT1N144C  
CSD1306E RT1P141C

IC BLOCK DIAGRAM – 1

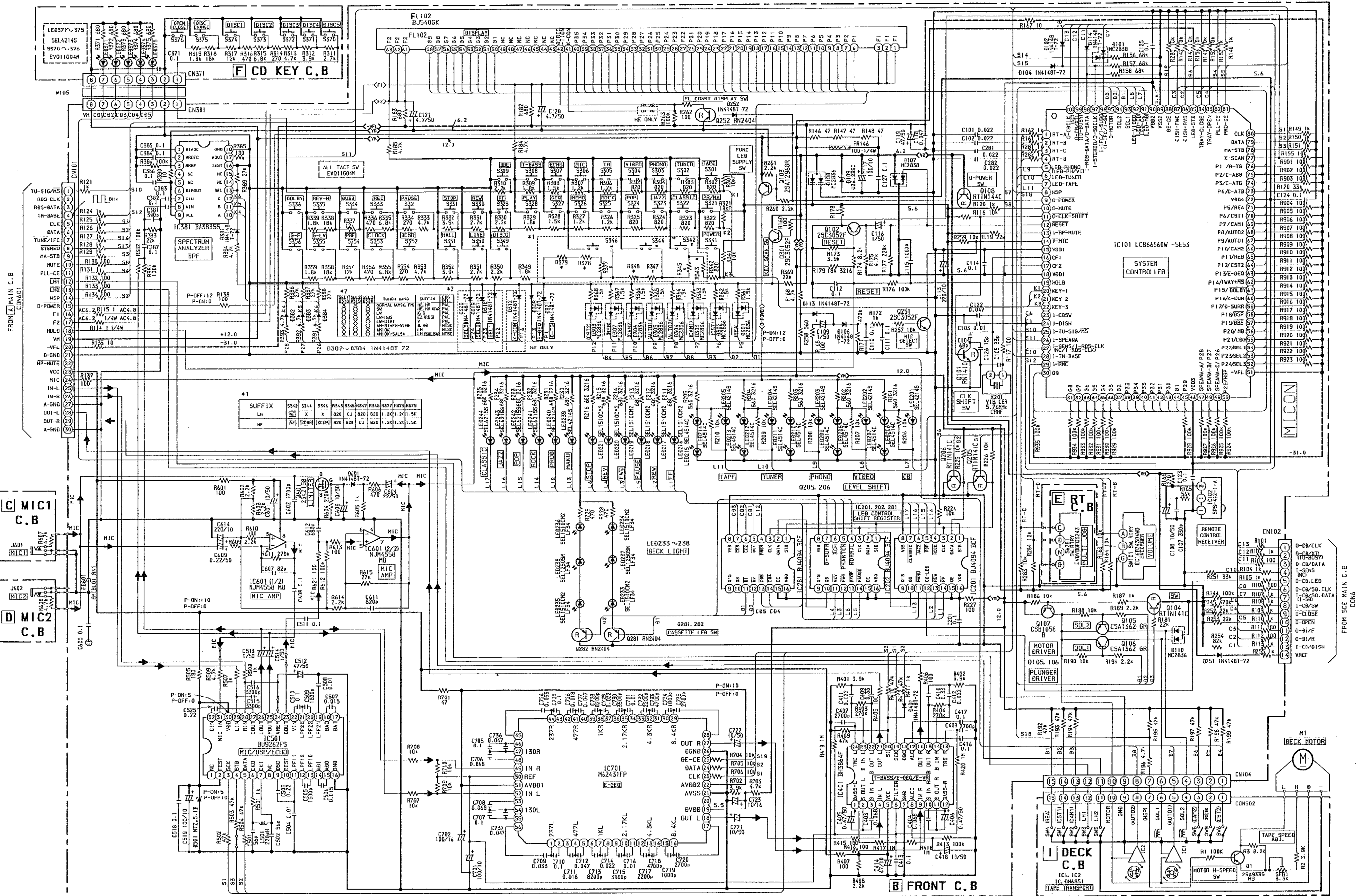
M62431FP

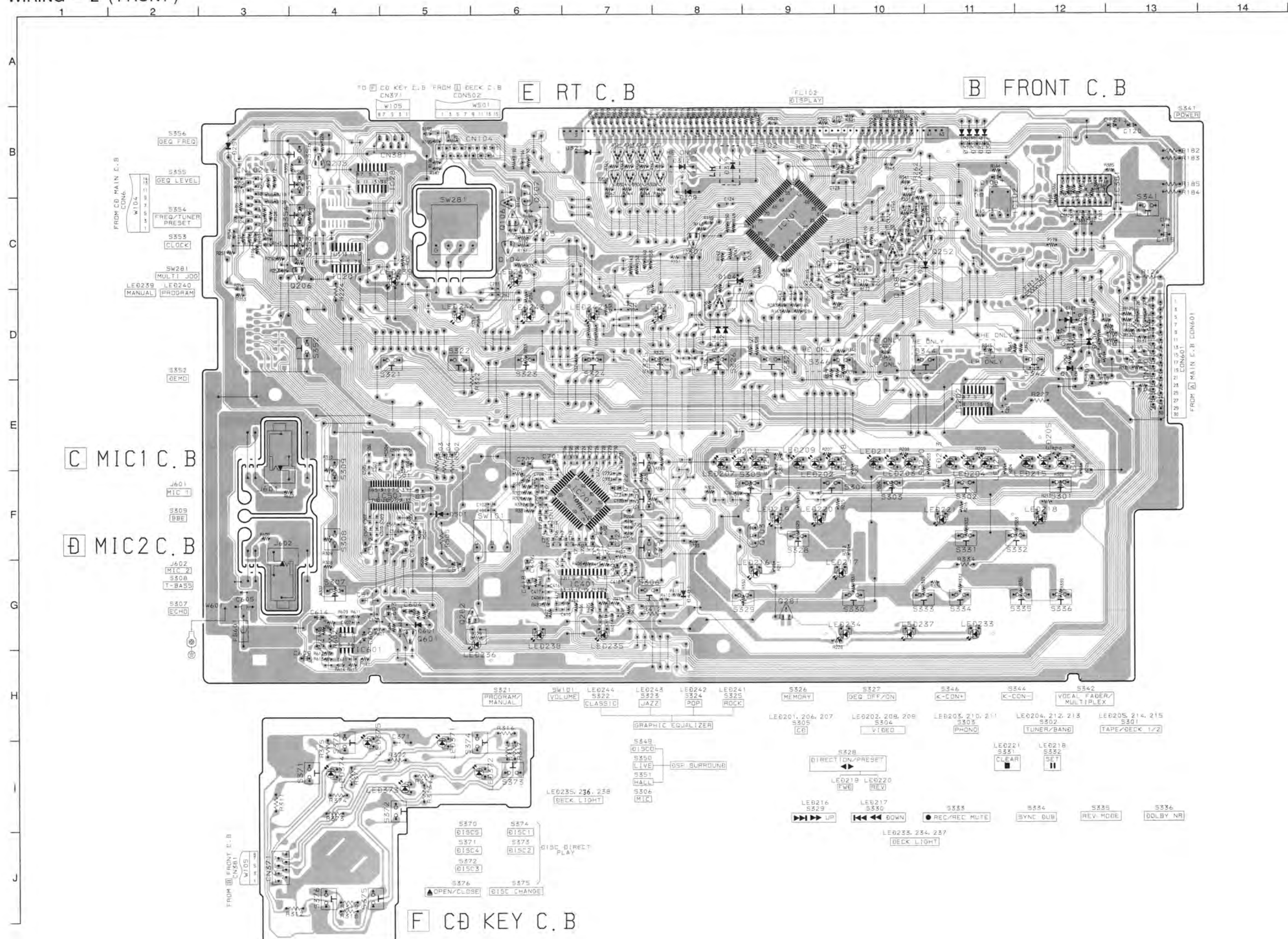




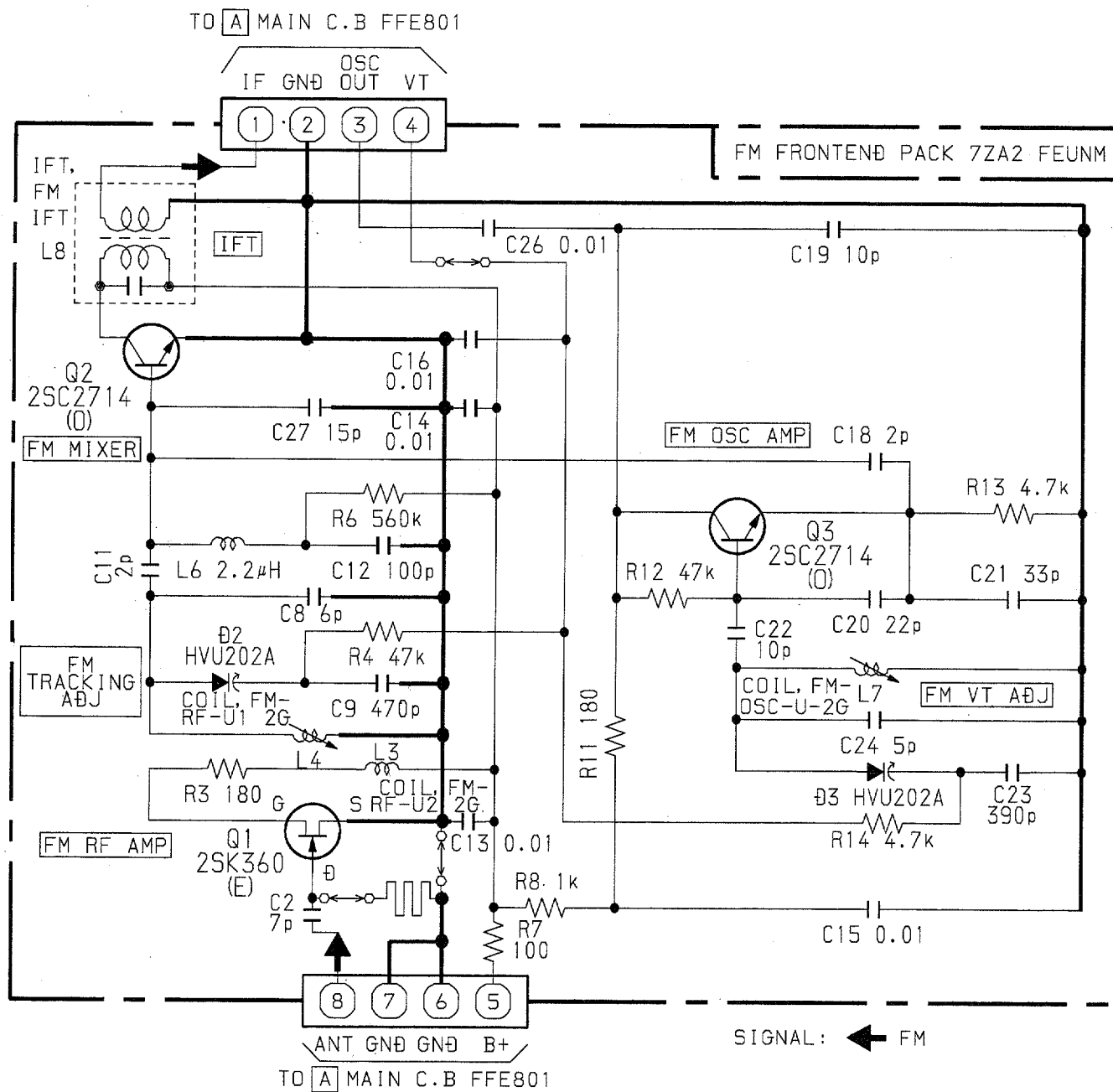


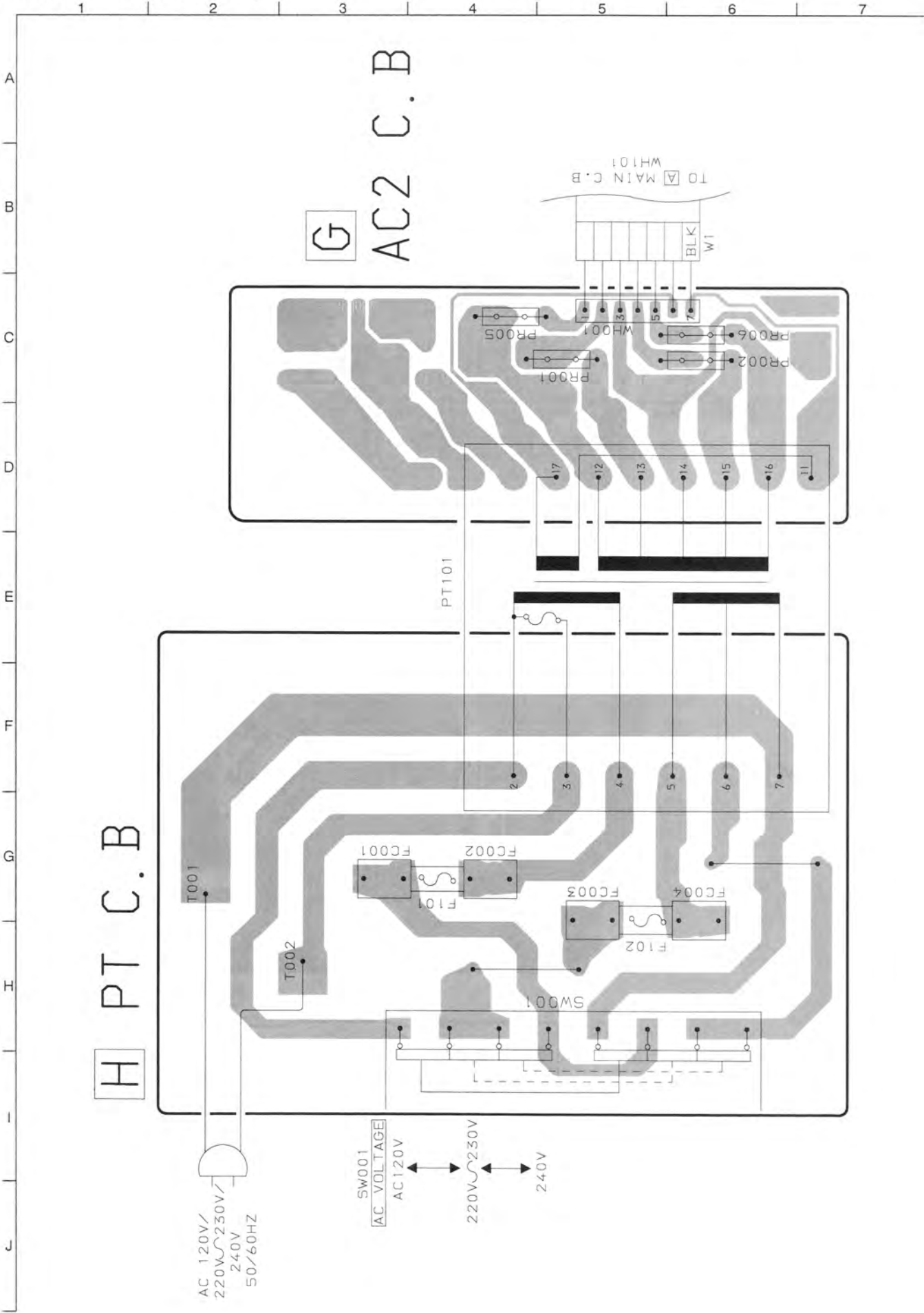




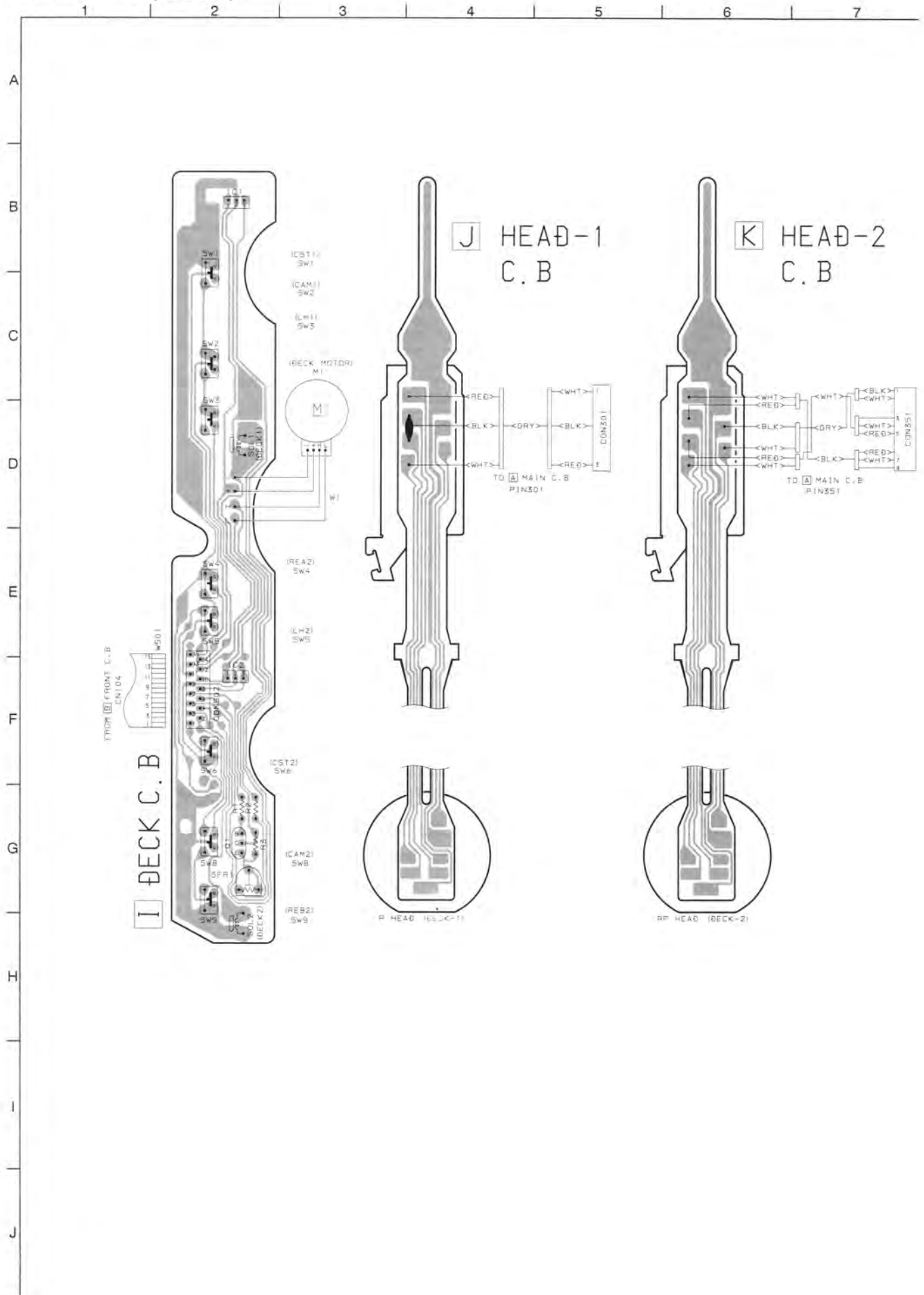


# SCHEMATIC DIAGRAM – 3 (TUNER FRONT END)





# WIRING - 4 (DECK)



# IC DESCRIPTION

IC, LC866560W-5E53

| Pin No.     | Pin Name         | I/O    | Description                                                                                                                                                                        |       |            |                  |                  |             |       |        |           |
|-------------|------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|------------|------------------|------------------|-------------|-------|--------|-----------|
| 1           | RT-A             | I      | ROTARY-ENCORDER vol. in.                                                                                                                                                           |       |            |                  |                  |             |       |        |           |
| 2           | RT-B             | I      | ROTARY-ENCORDER vol. in.                                                                                                                                                           |       |            |                  |                  |             |       |        |           |
| 3           | RT-C             | I      | ROTARY-ENCORDER multi jog in.                                                                                                                                                      |       |            |                  |                  |             |       |        |           |
| 4           | RT-D             | I      | ROTARY-ENCORDER multi jog in.                                                                                                                                                      |       |            |                  |                  |             |       |        |           |
| 5           | LED-PHONO        | O      | Function LED PHONO control.                                                                                                                                                        |       |            |                  |                  |             |       |        |           |
| 6           | LED-TUNER        | O      | Function LED TUNER control.                                                                                                                                                        |       |            |                  |                  |             |       |        |           |
| 7           | LED-TAPE         | O      | Function LED TAPE control.                                                                                                                                                         |       |            |                  |                  |             |       |        |           |
| 8           | HSP              | O      | DECK high-speed dubbing control.                                                                                                                                                   |       |            |                  |                  |             |       |        |           |
| 9           | O-POWER          | O      | System power supply ON/OFF output.                                                                                                                                                 |       |            |                  |                  |             |       |        |           |
| 10          | O-MUTE           | O      | System mute output.                                                                                                                                                                |       |            |                  |                  |             |       |        |           |
| 11          | O-CLK-SHIFT      | O      | Micon clock shift output (active low).                                                                                                                                             |       |            |                  |                  |             |       |        |           |
| 12          | RESET            | I      | Reset input.                                                                                                                                                                       |       |            |                  |                  |             |       |        |           |
| 13          | I-HP-MUTE        | I      | "L" input PROLOGIC, DSP off. (Not used).                                                                                                                                           |       |            |                  |                  |             |       |        |           |
| 14          | I-MIC            | I      | Microphone input for auto vocal fader ON/OFF .                                                                                                                                     |       |            |                  |                  |             |       |        |           |
| 15          | VSS1             | -      | GND terminal.                                                                                                                                                                      |       |            |                  |                  |             |       |        |           |
| 16,17       | CF1, 2           | -      | 5.76 MHz oscillator circuit.                                                                                                                                                       |       |            |                  |                  |             |       |        |           |
| 18          | VDD1             | -      | Power supply input. Connect VDD2.                                                                                                                                                  |       |            |                  |                  |             |       |        |           |
| 19          | HOLD             | I      | Power failure detected.                                                                                                                                                            |       |            |                  |                  |             |       |        |           |
|             |                  |        | <table><tr><td>&gt;6.9V</td><td>P-OFF</td><td>4.9V~3.49V</td><td>Normal condition</td></tr><tr><td>3.49V~1.41V</td><td>P-OFF</td><td>&lt;1.41V</td><td>HOLD mode</td></tr></table> | >6.9V | P-OFF      | 4.9V~3.49V       | Normal condition | 3.49V~1.41V | P-OFF | <1.41V | HOLD mode |
|             |                  |        | >6.9V                                                                                                                                                                              | P-OFF | 4.9V~3.49V | Normal condition |                  |             |       |        |           |
| 3.49V~1.41V | P-OFF            | <1.41V | HOLD mode                                                                                                                                                                          |       |            |                  |                  |             |       |        |           |
|             |                  |        |                                                                                                                                                                                    |       |            |                  |                  |             |       |        |           |
| 20~22       | KEY1 - 3         | I      | Key input.                                                                                                                                                                         |       |            |                  |                  |             |       |        |           |
| 23          | I-CD/SW          | I      | CD mechanical switch A/D converter input.                                                                                                                                          |       |            |                  |                  |             |       |        |           |
| 24          | I-DISH           | I      | CD turntable photo sensor A/D converter input.                                                                                                                                     |       |            |                  |                  |             |       |        |           |
| 25          | I-TU-SIG/MS      | I      | Tuner function: Tuner SD detected input/Tape function: Deck music sensor signal input.                                                                                             |       |            |                  |                  |             |       |        |           |
| 26          | I-SPEANA         | I      | A/D input for spectrum analyzer display.                                                                                                                                           |       |            |                  |                  |             |       |        |           |
| 27          | I-SENS/I-RDS-CLK | I      | CD IC control data bus data input/RDS clock input (Not used).                                                                                                                      |       |            |                  |                  |             |       |        |           |
| 28          | I-TM BASE        | I      | Reference clock input for timer watch.                                                                                                                                             |       |            |                  |                  |             |       |        |           |
| 29          | I-RMC            | I      | System remote control signal input (active low).                                                                                                                                   |       |            |                  |                  |             |       |        |           |
| 30~37,44    | G9~G1            | O      | FL grid output G9~G1.                                                                                                                                                              |       |            |                  |                  |             |       |        |           |
| 38~43,45    | P35~P29          | O      | FL segment output P35~P29.                                                                                                                                                         |       |            |                  |                  |             |       |        |           |
| 46          | VDD3             | -      | Power supply input. Connect VDD4.                                                                                                                                                  |       |            |                  |                  |             |       |        |           |
| 47          | P28/SPEANA-A     | O      | FL segment output P28/spectrum analyzer band pass filter control A.                                                                                                                |       |            |                  |                  |             |       |        |           |
| 48          | P27/SPEANA-B     | O      | FL segment output P27/spectrum analyzer hand pass filter control B.                                                                                                                |       |            |                  |                  |             |       |        |           |
| 49          | P26/SPEANA-C     | O      | FL segment output P26/spectrum analyzer band pass filter control C.                                                                                                                |       |            |                  |                  |             |       |        |           |
| 50          | P25/HSP          | O/I    | FL segment output P25/HSP diode detect.                                                                                                                                            |       |            |                  |                  |             |       |        |           |
| 51          | -VFL             | -      | Power supply input for FL display.                                                                                                                                                 |       |            |                  |                  |             |       |        |           |
| 52          | P24/SEL3         | O/I    | FL segment output P24 / tuner band select 3.                                                                                                                                       |       |            |                  |                  |             |       |        |           |
| 53          | P23/SEL2         | O/I    | FL segment output P23 / tuner band select 2.                                                                                                                                       |       |            |                  |                  |             |       |        |           |
| 54          | P22/SEL1         | O/I    | FL segment output P22 / tuner band select 1.                                                                                                                                       |       |            |                  |                  |             |       |        |           |
| 55          | P21/CDG          | O/I    | FL segment output P21/CDG diode detect.                                                                                                                                            |       |            |                  |                  |             |       |        |           |
| 56          | P20/MD           | O/I    | FL segment output P20/MD diode detect.                                                                                                                                             |       |            |                  |                  |             |       |        |           |

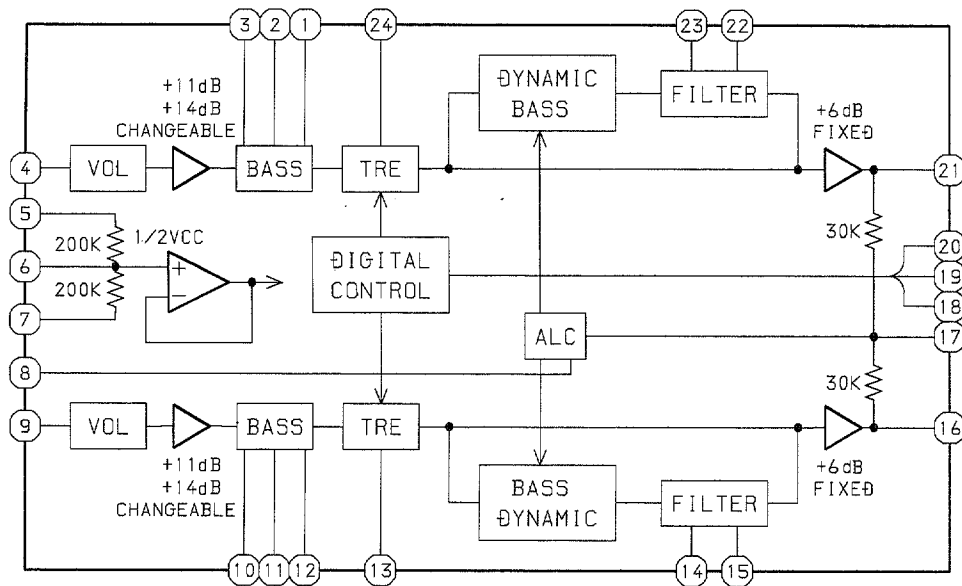
| Pin No. | Pin Name                         | I/O | Description                                                                   |
|---------|----------------------------------|-----|-------------------------------------------------------------------------------|
| 57      | P19/ $\overline{\text{BBE}}$     | O/I | FL segment output P19/ $\overline{\text{BBE}}$ diode detect.                  |
| 58      | P18/ $\overline{\text{DSP}}$     | O/I | FL segment output P18/ $\overline{\text{DSP}}$ diode detect.                  |
| 59      | P17/D-SURR                       | O/I | FL segment output P17/D-SURR diode detect (Not used).                         |
| 60      | P16/K-CON                        | O/I | FL segment output P16/K-CON diode detect.                                     |
| 61      | P15/ $\overline{\text{DOLBY}}$   | O/I | FL segment output P15/ $\overline{\text{DOLBY}}$ -NR diode detect.            |
| 62      | P14/1WAY+ $\overline{\text{MS}}$ | O/I | FL segment output P14/1WAY+ $\overline{\text{MS}}$ diode detect.              |
| 63      | P13/E-GEQ                        | O/I | FL segment output P13/E-GEQ diode detect.                                     |
| 64      | P12/CST2                         | O/I | FL segment output P12/DECK2 cassette detect switch data input.                |
| 65      | P11/REB                          | O/I | FL segment output P11/DECK2 side-B record OK switch data input.               |
| 66      | P10/CAM2                         | O/I | FL segment output P10/DECK2 cam switch input.                                 |
| 67      | P9/AUTO1                         | O/I | FL segment output P9/DECK1 auto stop signal input.                            |
| 68      | P8/AUTO2                         | O/I | FL segment output P8/DECK2 auto stop signal input.                            |
| 69      | P7/CAM1                          | O/I | FL segment output P7/DECK1 cam switch data input.                             |
| 70      | P6/CST1                          | O/I | FL segment output P6/DECK1 cassette detect switch data input.                 |
| 71      | P5/REA                           | O/I | FL segment output P5/DECK2 side-A record OK switch data input.                |
| 72      | VDD4                             | -   | Power supply input. Connect VDD3.                                             |
| 73      | P4/C-ATB                         | O/I | FL segment output P4/CD auto adjust SW input.                                 |
| 74      | P3/C-ATG                         | O/I | FL segment output P3/CD auto adjust SW input.                                 |
| 75      | P2/C-ABG                         | O/I | FL segment output P2/CD auto adjust SW input.                                 |
| 76      | P1/D-TG                          | O/I | FL segment output P1/CD auto adjust SW input.                                 |
| 77      | KEY-SCAN                         | O   | Switch scan timing output.                                                    |
| 78      | MA-STB                           | O   | Main shift register data latch strobe output.                                 |
| 79      | DATA                             | O   | All serial IC data output.                                                    |
| 80      | CLK                              | O   | All serial IC clock output.                                                   |
| 81      | PRO-CE                           | O   | PRO-LOGIC data latch strobe output. (Not used).                               |
| 82      | PLLCE                            | O   | PLL IC (LC72131D) chip enable output.                                         |
| 83      | TRAY-OPEN                        | O   | CD tray open data output.                                                     |
| 84      | TRAY-CLOSE                       | O   | CD tray close data output.                                                    |
| 85      | LED-STB                          | O   | Front shift register data latch strobe output.                                |
| 86      | DISH-RVS                         | O   | CD turntable reverse rotation output.                                         |
| 87      | DISH-FWD                         | O   | CD turntable forward rotation output.                                         |
| 88      | GE-CE                            | O   | E-GEQ IC (M62431FP) chip enable.                                              |
| 89      | VSS2                             | -   | GND terminal.                                                                 |
| 90      | VDD2                             | -   | Power supply input. Connect VDD1.                                             |
| 91      | LED-CD                           | O   | Function LED CD control.                                                      |
| 92      | LED-VIDEO                        | O   | Function LED video control.                                                   |
| 93      | SOL1                             | O   | DECK1 solenoid output.                                                        |
| 94      | SOL2                             | O   | DECK2 solenoid output.                                                        |
| 95      | O-MOTOR                          | O   | DECK motor output.                                                            |
| 96      | IFC/<br>I-SUBQ                   | I   | Tuner function: IF count serial data input.<br>CD function: CD IC data input. |

| Pin No. | Pin Name   | I/O | Description                                       |
|---------|------------|-----|---------------------------------------------------|
| 97      | O-SQ CLK/  | O   | CD function: CD IC control data bus clock output. |
|         | I-STEREO   | I   | Tuner function: Tuner stereo detect input.        |
| 98      | O-DATA/    | O   | CD function: CD IC control data bus data output.  |
|         | I-RDS-DATA | I   | Tuner function: RDS data input.(Not used).        |
| 99      | O-CD/XTL   | O   | CD IC control data latch output.                  |
| 100     | O-CD/CLK   | O   | CD IC control data transfer clock output.         |

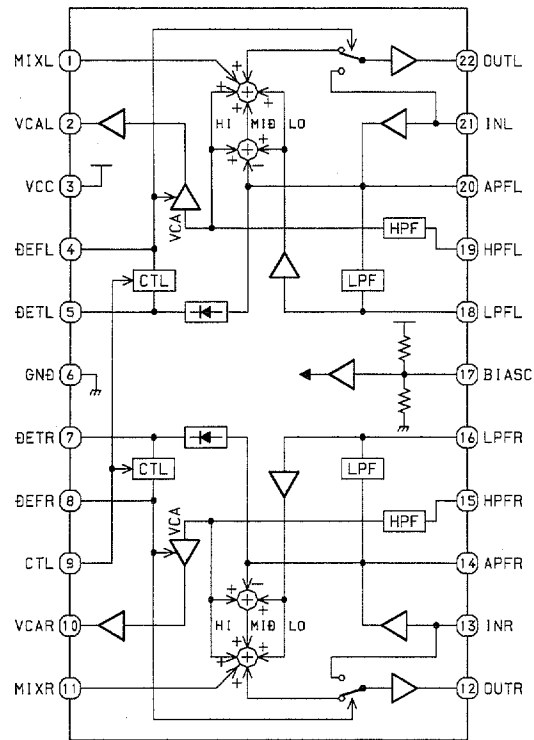
# IC, LC72131

| Pin No. | Pin Name    | I/O    | Description                                                                                                                                                                                                                                                                                                                        |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
|---------|-------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|--------|----|--|--------|--|--|----|----|----|----|----|----|----|----|---|---|---|---|---|---|---|---|
| 1       | XIN         | I/O    | A crystal oscillator (7.2MHz) is connected between these pins.                                                                                                                                                                                                                                                                     |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 22      | XOUT        |        |                                                                                                                                                                                                                                                                                                                                    |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 2       | NC          | –      | Not used.                                                                                                                                                                                                                                                                                                                          |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 3       | CE          | I      | To enable the IC. Active "H".                                                                                                                                                                                                                                                                                                      |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 4       | DI          | I      | Digital data input from CPU (LC866560W-5E53) when relevant key is operated. Active "H".                                                                                                                                                                                                                                            |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 5       | CLK         | I      | To clock in the data DI.                                                                                                                                                                                                                                                                                                           |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 6       | DO          | O      | Digital data output to CPU (LC866560W-5E53).                                                                                                                                                                                                                                                                                       |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 7       | TM-BASE     | O      | Outputs a reference clock signal (8Hz) for the clock.                                                                                                                                                                                                                                                                              |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 8       | MONO / BEAT | O      | Outputs "H" when MONO / BEAT is switched.                                                                                                                                                                                                                                                                                          |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 9       | FM / AM     | O      | Output "L" or "H" as follows: <table><tr><td colspan="2">2 BAND</td><td colspan="3">3 BAND</td><td colspan="3">3 BAND</td></tr><tr><td>AM</td><td>FM</td><td>LW</td><td>MW</td><td>FM</td><td>MW</td><td>SW</td><td>FM</td></tr><tr><td>H</td><td>L</td><td>H</td><td>H</td><td>L</td><td>H</td><td>L</td><td>L</td></tr></table>  | 2 BAND |        | 3 BAND |    |  | 3 BAND |  |  | AM | FM | LW | MW | FM | MW | SW | FM | H | L | H | H | L | H | L | L |
| 2 BAND  |             | 3 BAND |                                                                                                                                                                                                                                                                                                                                    |        | 3 BAND |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| AM      | FM          | LW     | MW                                                                                                                                                                                                                                                                                                                                 | FM     | MW     | SW     | FM |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| H       | L           | H      | H                                                                                                                                                                                                                                                                                                                                  | L      | H      | L      | L  |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 10      | MW          | O      | Outputs "L" or "H" as follows: <table><tr><td colspan="2">2 BAND</td><td colspan="3">3 BAND</td><td colspan="3">3 BAND</td></tr><tr><td>AM</td><td>FM</td><td>LW</td><td>MW</td><td>FM</td><td>MW</td><td>SW</td><td>FM</td></tr><tr><td>L</td><td>L</td><td>H</td><td>L</td><td>L</td><td>L</td><td>H</td><td>L</td></tr></table> | 2 BAND |        | 3 BAND |    |  | 3 BAND |  |  | AM | FM | LW | MW | FM | MW | SW | FM | L | L | H | L | L | L | H | L |
| 2 BAND  |             | 3 BAND |                                                                                                                                                                                                                                                                                                                                    |        | 3 BAND |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| AM      | FM          | LW     | MW                                                                                                                                                                                                                                                                                                                                 | FM     | MW     | SW     | FM |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| L       | L           | H      | L                                                                                                                                                                                                                                                                                                                                  | L      | L      | H      | L  |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 11      | IF-MUTE     | O      | To control internal counter.                                                                                                                                                                                                                                                                                                       |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 12      | IFIN        | I      | General purpose counter input.                                                                                                                                                                                                                                                                                                     |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 13      | TUNE        | I      | Receives "L" when station is tuned.                                                                                                                                                                                                                                                                                                |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 14      | NC          | –      | Not used.                                                                                                                                                                                                                                                                                                                          |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 15      | A MIN       | I      | Receives the AM local oscillator frequency signal.                                                                                                                                                                                                                                                                                 |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 16      | F MIN       | I      | Receives the FM local oscillator frequency signal.                                                                                                                                                                                                                                                                                 |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 17      | VDD         | –      | Supply power to IC (+5V).                                                                                                                                                                                                                                                                                                          |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 18      | PD          | O      | PLL charge pump output.                                                                                                                                                                                                                                                                                                            |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 19      | AIN         | I      | The MOS transistor for PLL active low pass filter.                                                                                                                                                                                                                                                                                 |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 20      | AOUT        | O      |                                                                                                                                                                                                                                                                                                                                    |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |
| 21      | VSS         | –      | Ground.                                                                                                                                                                                                                                                                                                                            |        |        |        |    |  |        |  |  |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |

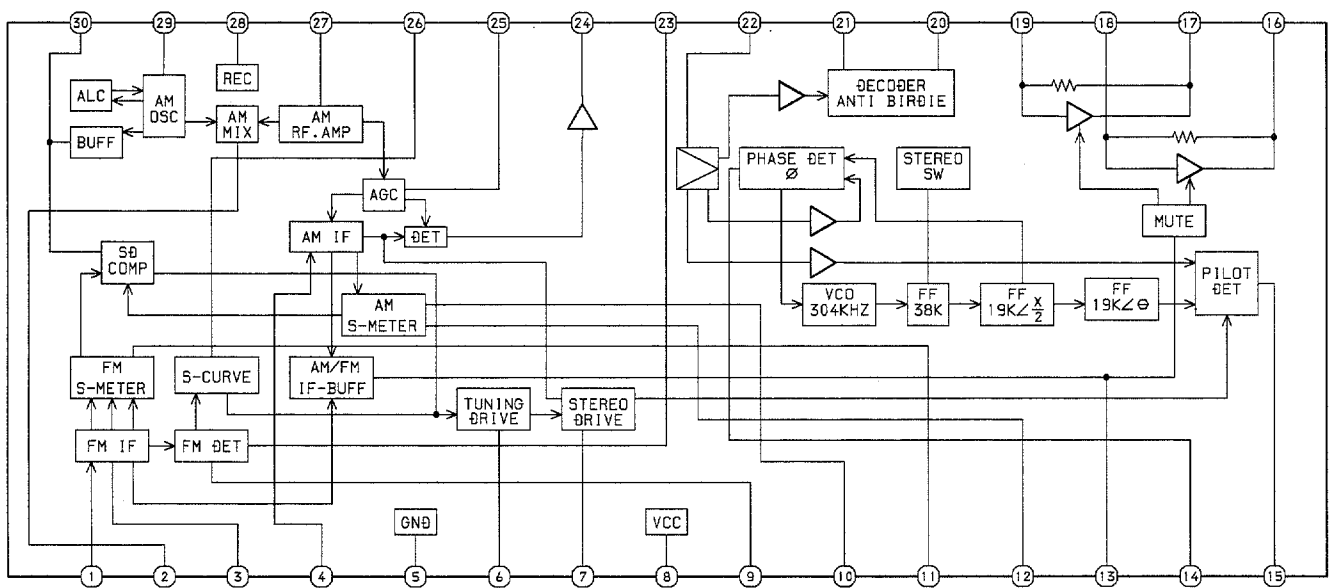
## IC BH3864F



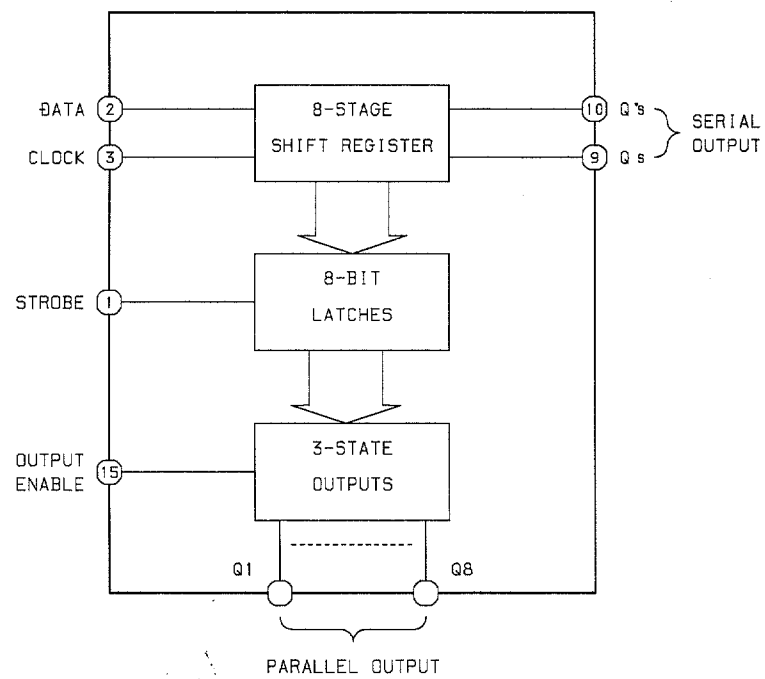
IC, BA3880S



IC, LA1837



IC, BU4094BCF



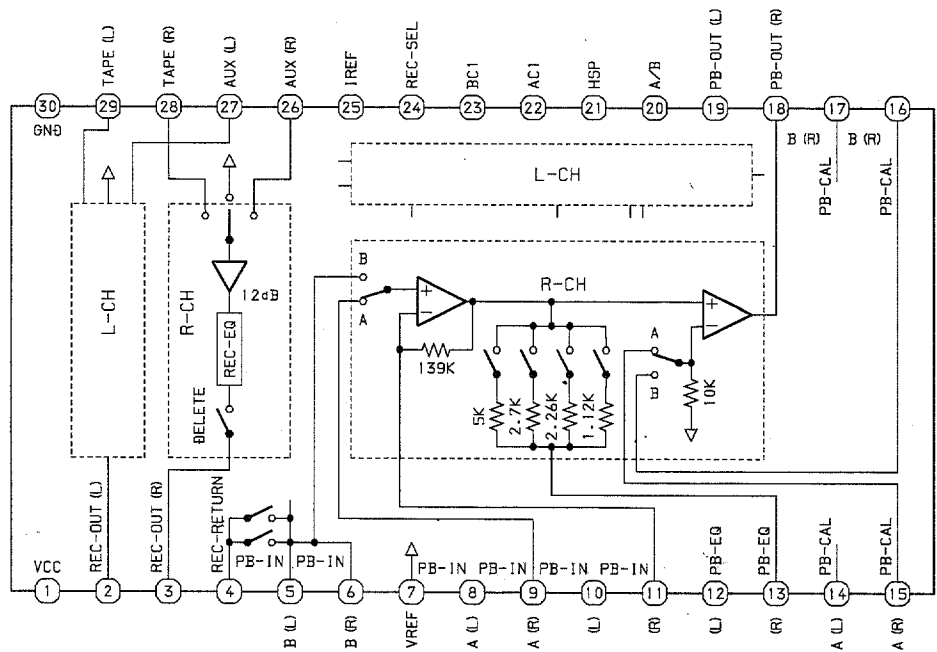
TRUTH TABLE

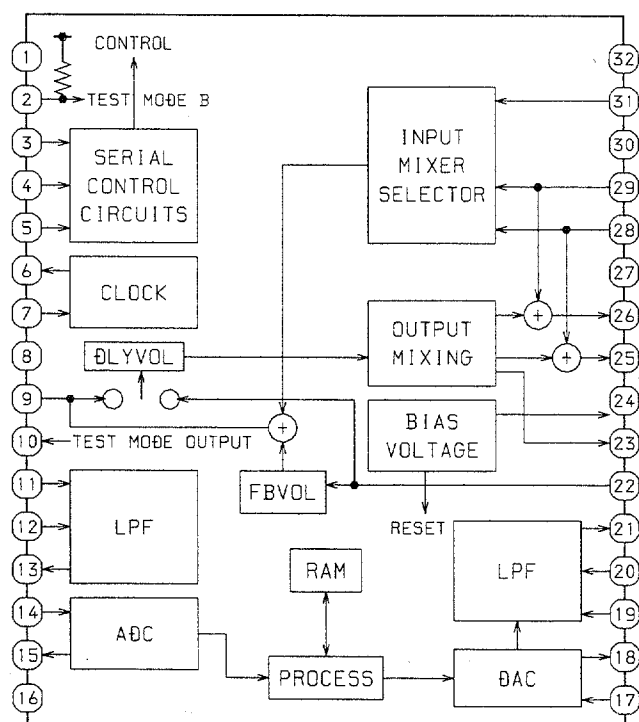
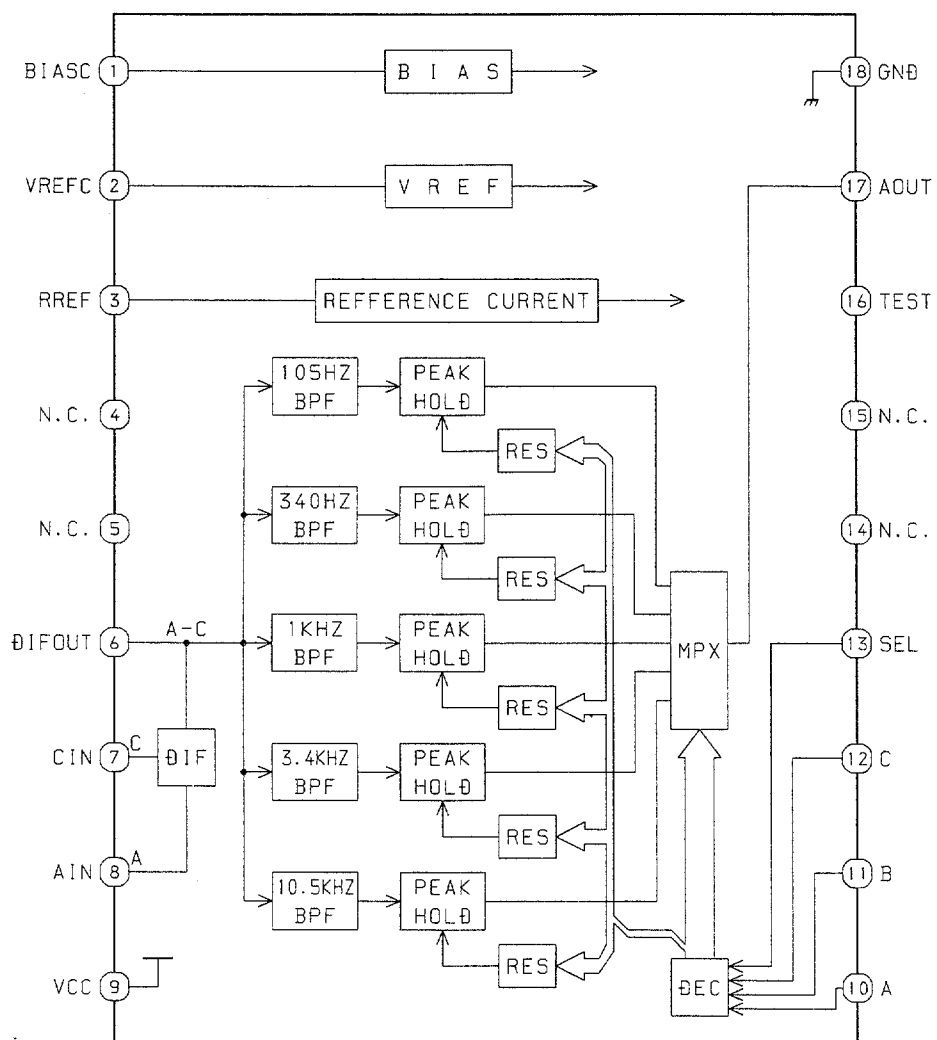
| CLOCK | OUTPUT ENABLE | STROBE | DATA | PARALLEL OUTPUTS |         | SERIAL OUTPUTS |         |
|-------|---------------|--------|------|------------------|---------|----------------|---------|
|       |               |        |      | Q1               | Qn      | Qs             | Q's     |
|       | L             | X      | X    | Z                | Z       | Q7             | No Chg. |
|       | L             | X      | X    | Z                | Z       | No Chg.        | Qs      |
|       | H             | L      | X    | No Chg.          | No Chg. | Q7             | No Chg. |
|       | H             | H      | L    | L                | Qn-1    | Q7             | No Chg. |
|       | H             | H      | H    | H                | Qn-1    | Q7             | No Chg. |
|       | H             | X      | X    | No Chg.          | No Chg. | No Chg.        | Qs      |

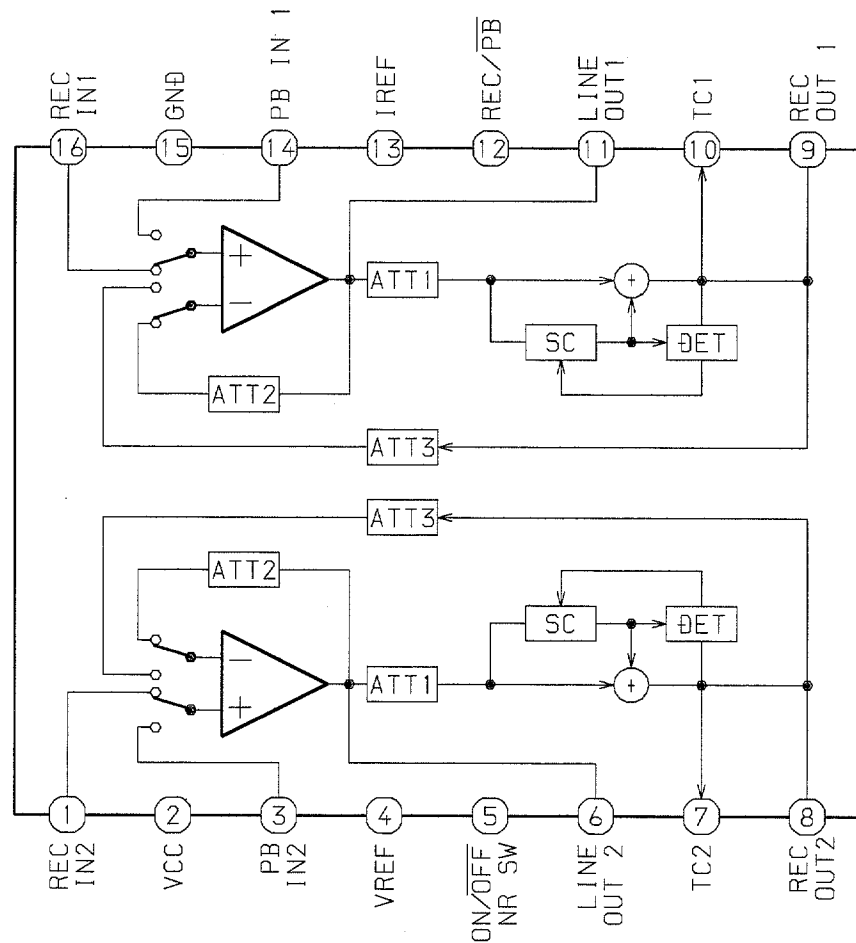
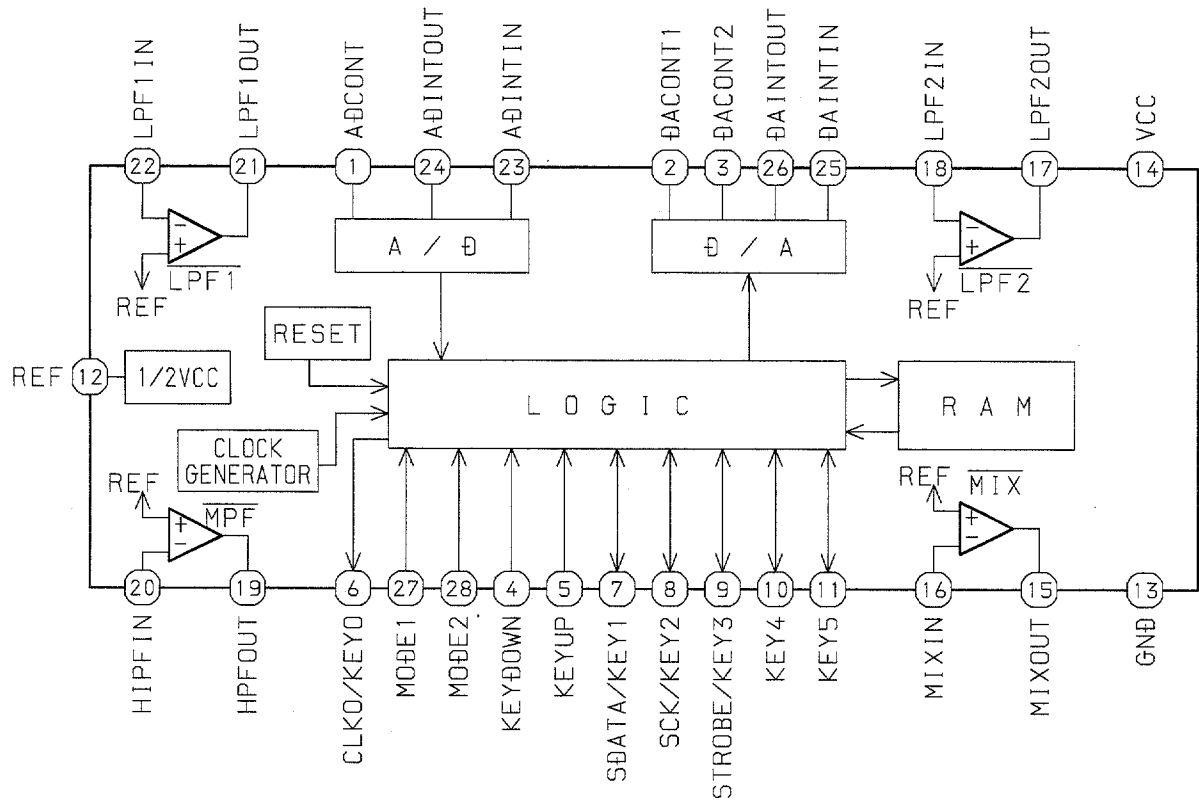
Z=High Impedance

X=Don't Care

IC, HA1221NT



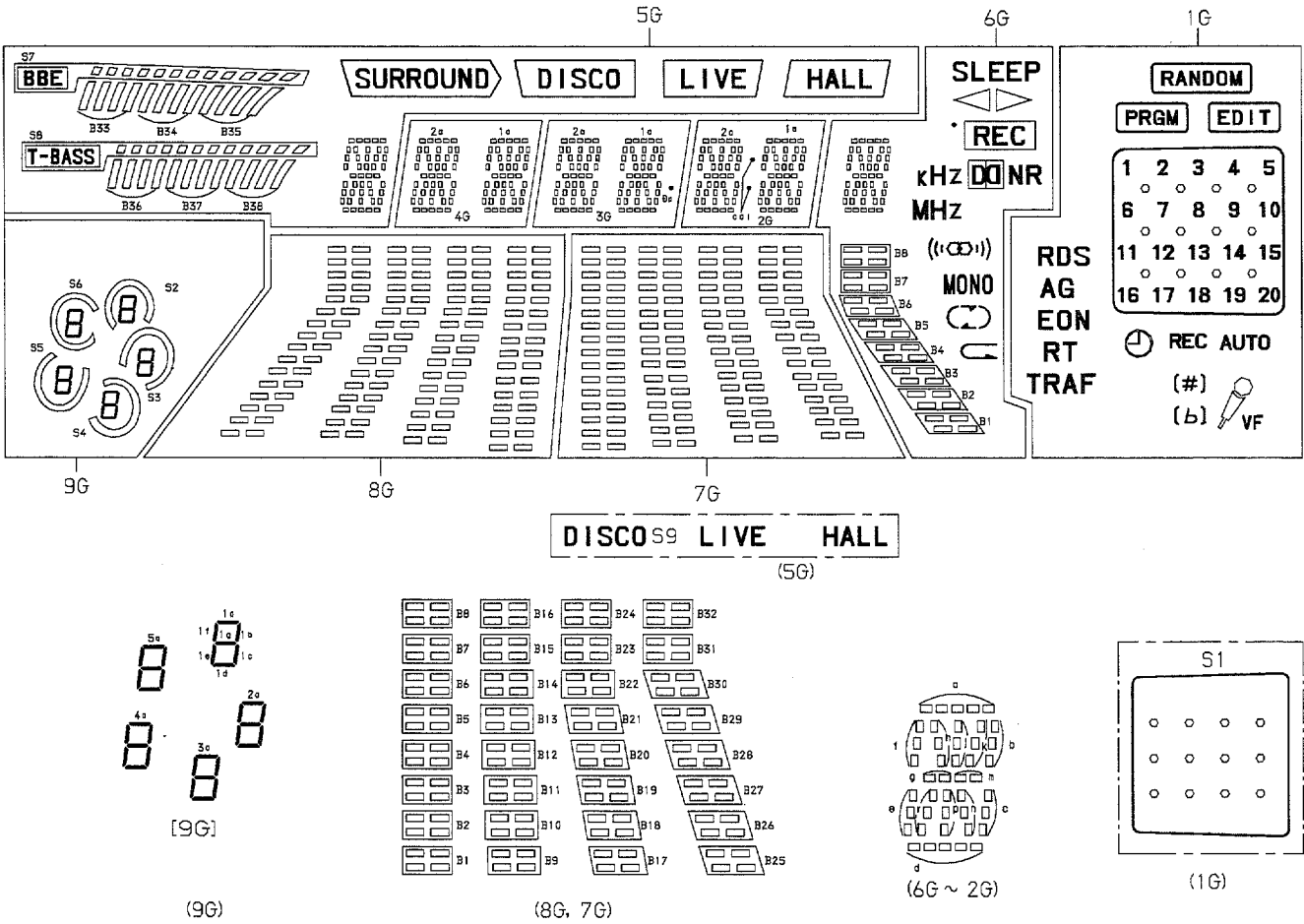




ATT:Attenuator  
SC:Side Chain  
DET:Detector

FL GRID ASSIGNMENT & ANODE CONNECTION  
FL, BJ540GK

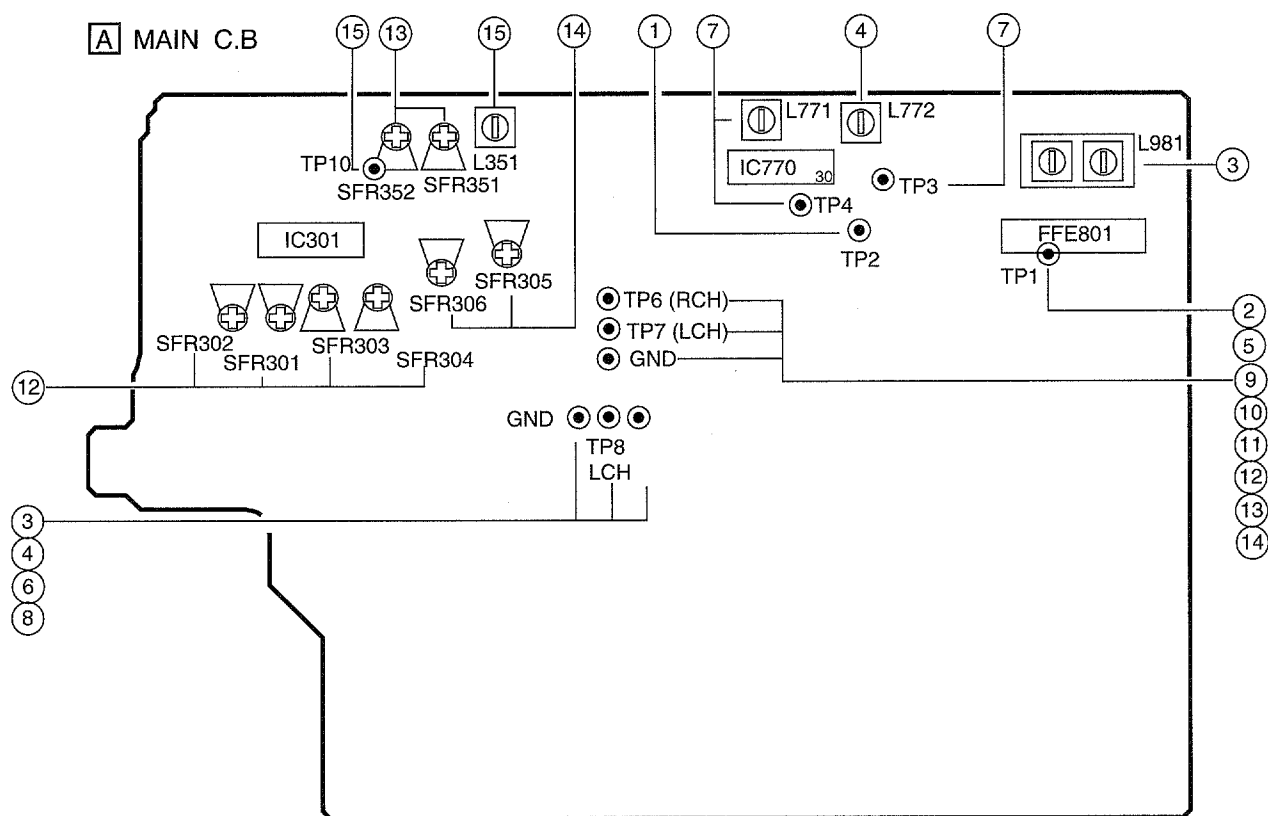
GRID ASSIGNMENT



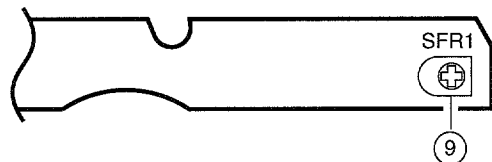
# ANODE CONNECTION

|     | 9G     | 8G, 7G | 6G                                                                                  | 5G              | 4G | 3G | 2G        | 1G                                                                                              |
|-----|--------|--------|-------------------------------------------------------------------------------------|-----------------|----|----|-----------|-------------------------------------------------------------------------------------------------|
| P1  | S4     | B8     | d                                                                                   | d               | 1d | 1d | 1d        | <b>RANDOM</b>                                                                                   |
| P2  | 3e     | B16    | n                                                                                   | n               | 1n | 1n | 1n        | <b>PRGM</b>                                                                                     |
| P3  | 3c     | B24    | p                                                                                   | p               | 1p | 1p | 1p        | <b>EDIT</b>                                                                                     |
| P4  | 3g     | B32    | r                                                                                   | r               | 1r | 1r | 1r        | S1                                                                                              |
| P5  | 3f     | B7     | e                                                                                   | e               | 1e | 1e | 1e        | <b>1</b>                                                                                        |
| P6  | 3b     | B15    | c                                                                                   | c               | 1c | 1c | 1c        | <b>2</b>                                                                                        |
| P7  | 3a, 3d | B23    | g                                                                                   | g               | 1g | 1g | 1g        | <b>3</b>                                                                                        |
| P8  | S5     | B31    | m                                                                                   | m               | 1m | 1m | 1m        | <b>4</b>                                                                                        |
| P9  | 4e     | B6     | f                                                                                   | f               | 1f | 1f | 1f        | <b>5</b>                                                                                        |
| P10 | 4c     | B14    | b                                                                                   | b               | 1b | 1b | 1b        | <b>6</b>                                                                                        |
| P11 | 4g     | B22    | k                                                                                   | k               | 1k | 1k | 1k        | <b>7</b>                                                                                        |
| P12 | 4f     | B30    | j                                                                                   | j               | 1j | 1j | 1j        | <b>8</b>                                                                                        |
| P13 | 4b     | B5     | h                                                                                   | h               | 1h | 1h | 1h        | <b>9</b>                                                                                        |
| P14 | 4a, 4d | B13    | a                                                                                   | a               | 1a | 1a | 1a        | <b>10</b>                                                                                       |
| P15 | S2     | B21    | <b>DO NR</b>                                                                        | B35             | -  | 0p | col Below | <b>11</b>                                                                                       |
| P16 | 1a, 1d | B29    |    | B34             | -  | -  | col Upper | <b>12</b>                                                                                       |
| P17 | 1b     | B4     |    | B33             | 2d | 2d | 2d        | <b>13</b>                                                                                       |
| P18 | 1f     | B12    |   | S7              | 2n | 2n | 2n        | <b>14</b>                                                                                       |
| P19 | 1g     | B20    | <b>REC</b>                                                                          | B38             | 2p | 2p | 2p        | <b>15</b>                                                                                       |
| P20 | 1c     | B28    | B8                                                                                  | B37             | 2r | 2r | 2r        | <b>16</b>                                                                                       |
| P21 | 1e     | B3     | B7                                                                                  | B36             | 2e | 2e | 2e        | <b>17</b>                                                                                       |
| P22 | S6     | B11    | B6                                                                                  | S8              | 2c | 2c | 2c        | <b>18</b>                                                                                       |
| P23 | 5a, 5d | B19    | B5                                                                                  | <b>(HALL)</b>   | 2g | 2g | 2g        | <b>19</b>                                                                                       |
| P24 | 5b     | B27    | B4                                                                                  | <b>(LIVE)</b>   | 2m | 2m | 2m        | <b>20</b>                                                                                       |
| P25 | 5f     | B2     | B3                                                                                  | <b>(DISCO)</b>  | 2f | 2f | 2f        | <b>RDS</b>                                                                                      |
| P26 | 5g     | B10    | B2                                                                                  | S9              | 2b | 2b | 2b        | <b>AG</b>                                                                                       |
| P27 | 5c     | B18    | B1                                                                                  | <b>SURROUND</b> | 2k | 2k | 2k        | <b>EON</b>                                                                                      |
| P28 | 5e     | B26    | <b>((OO))</b>                                                                       | -               | 2j | 2j | 2j        | <b>RT</b>                                                                                       |
| P29 | S3     | B1     | <b>MONO</b>                                                                         | -               | 2h | 2h | 2h        | <b>TRAF</b>                                                                                     |
| P30 | 2a, 2d | B9     | )                                                                                   | -               | 2a | 2a | 2a        | <b>REC</b>                                                                                      |
| P31 | 2b     | B17    | (                                                                                   | -               | -  | -  | -         |            |
| P32 | 2f     | B25    | <b>MHz</b>                                                                          | -               | -  | -  | -         |  <b>VF</b> |
| P33 | 2g     | -      | <b>KHz</b>                                                                          | -               | -  | -  | -         | <b>AUTO</b>                                                                                     |
| P34 | 2c     | -      |  | -               | -  | -  | -         | <b>( ) (b)</b>                                                                                  |
| P35 | 2e     | -      | <b>SLEEP</b>                                                                        | -               | -  | -  | -         | <b>( ) (#)</b>                                                                                  |
| P36 | -      | -      | -                                                                                   | -               | -  | -  | -         | <b>b #</b>                                                                                      |
| P37 | -      | -      | <b>Z</b>                                                                            | -               | -  | -  | -         | -                                                                                               |

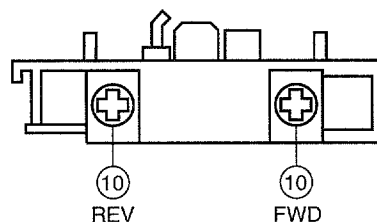
## ADJUSTMENT - 1 <TUNER / DECK>



**H DECK C.B**



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



### < TUNER SECTION >

- Clock Frequency Check**  
 Settings : • Test point : TP2 (CLK IC770 pin30)  
 Method : Set to MW 1710kHz<LH>, 1602kHz<HE>, and check that the test point is 2160kHz  $\pm$  45Hz<LH>, 2052kHz  $\pm$  45kHz<HE>.
- MW VT Check**  
 Settings : • Test point : TP1 (VT)  
 Method : Set to MW 1710kHz<LH>, 1602kHz<HE> and check that the test point is less than 7.0V<LH>, less than 6.8V<HE>. Then Set to MW 530kHz<LH>, 531kHz<HE> and check that the test point is more than 0.6V.
- MW Tracking Adjustment**  
 Settings : • Test point : TP8(Lch), TP9(Rch)  
 • Adjustment location : L981(1/3)  
 Method : Set to MW 1000kHz and adjust L981 so that the test point becomes maximum.
- AM IF Adjustment**  
 Settings : • Test point : TP8(Lch), TP9(Rch)  
 • Adjustment location :  
 L772.....450kHz
- FM VT Check**  
 Settings : • Test point : TP1 (VT)  
 Method : Set to FM 87.5MHz, 108.0MHz and check that the test point is more than 1.0V (87.5MHz) and less than 8.0V (108.0MHz).
- FM Tracking Check**  
 Settings : • Test point : TP8(Lch), TP9(Rch)  
 Method : • Set to FM 98.0MHz and check that the test point is 0dB  $\pm$  6dB<LH>, 3dB  $\pm$  6dB<HE>.

7. DC Balance / Mono Distortion Adjustment

Settings : • Test point : TP3, TP4 (DC balance)  
: TP8, TP9 (Distortion)

- Adjustment location : L771
- Input level : 54dB

Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 becomes  $0V \pm 0.04V$ .

Next, check that the distortion is less than 1.3%.

8. Auto Stop Level Check

MW

Settings : • Input level : Valaible

Method : Check the auto stop at MW 1000kHz and the input level is 40 ~ 60 dB.

FM

Settings : • Input level : Valaible

Method : Check the auto stop at FM 98.0MHz and the input level is 18 dB +10/-5 dB.

< DECK SECTION >

9. Tape Speed Adjustment

Settings : • Test tape : TTA-100

- Test point : TP6, TP7
- Adjustment location : SFR1

Method : Play back the test tape and adjust SFR1 so that the frequency counter reads 3000Hz  $\pm 5Hz$ .

10. Head Azimuth Adjustment

Settings : • Test tape : TTA-300

- Test point : TP6, TP7
- 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.

11. PB Frequency Response Check (DECK 1, DECK 2)

Settings : • Test tape : TTA-300

- Test point : TP6, TP7

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  $\pm 2dB$ . Lch and Rch difference level of 10kHz is less than 2.0dB.

12. PB Sensitivity Adjustment (DECK 1, DECK 2)

Settings : • Test tape : TTA-200

- Test point : TP6, TP7
- 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 point becomes 245mV.

13. REC/PB Frequency Response Adjustment

Settings : • Test tape : TTA-602

- Test point : TP6, TP7
- 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 TP6, TP7 becomes 12mV. Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output of the 10kHz signals becomes  $0dB \pm 0.5dB$  with respect to that of the 1kHz signal.

14. REC/PB Sensitivity Adjustment

Settings : • Test tape : TTA-602

- Test point : TP6, TP7
- 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 TP6, TP7 becomes 12mV. Record and play back the 1kHz signals and check that the output is  $0dB \pm 0.5dB$ .

15. Bias OSC Frequency Adjustment

Settings : • Test tape : TTA-615

- Test point : TP10
- Adjustment location : L351

Method : Set to the REC mode. Adjust L351 so that the frequency at the test point is  $85kHz \pm 1kHz$ .

# PRACTICAL SERVICE FIGURE

## <TUNER SECTION>

### <FM SECTION>

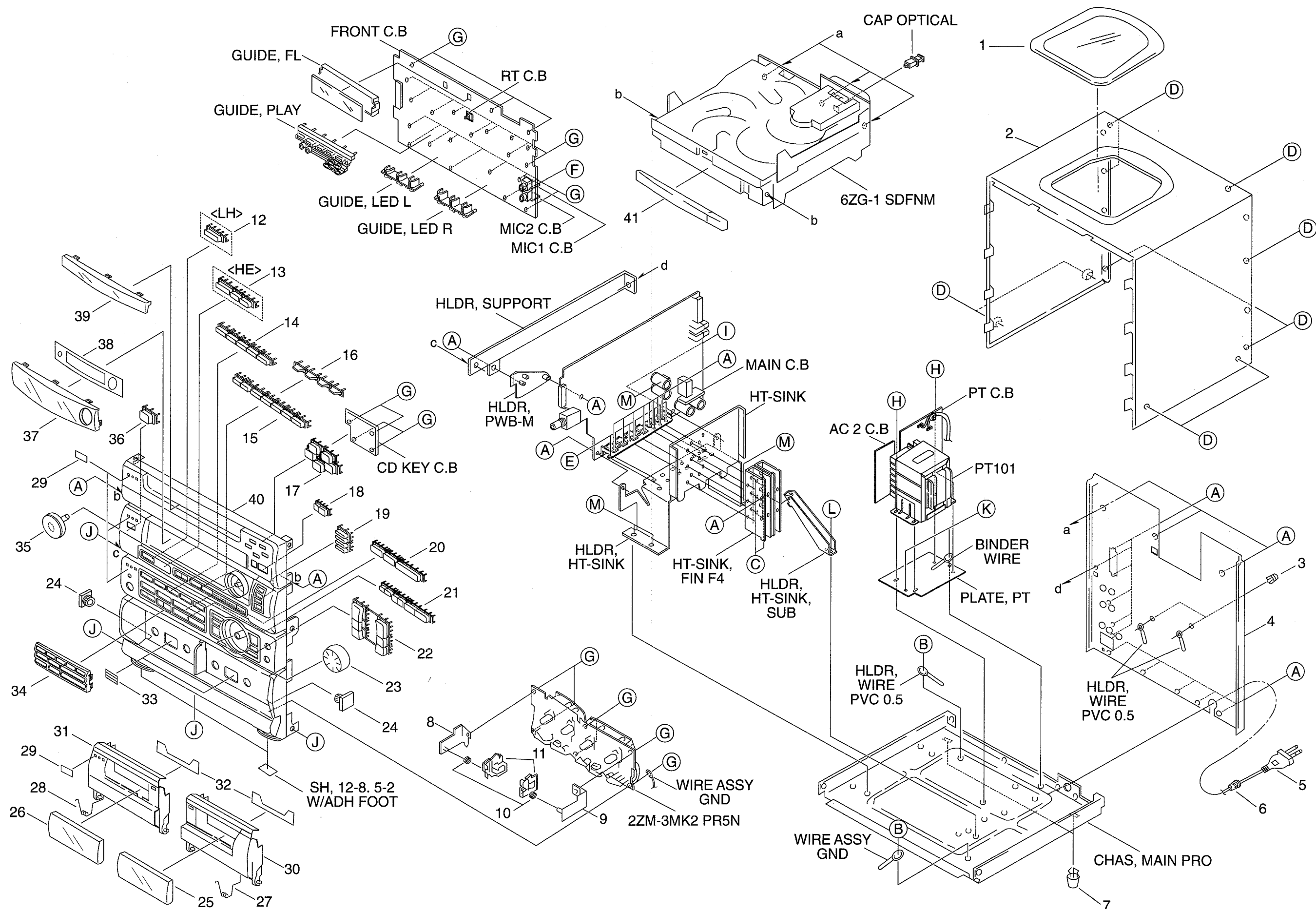
|                                 |                                                                         |
|---------------------------------|-------------------------------------------------------------------------|
| IHF Sensitivity :<br>(THD 3%)   | Less than 10dB<br>[at 87.5MHz]<br>Less than 9dB<br>[at 98.0 / 108.0MHz] |
| S/N 50dB Quieting sensitivity : | Less than 36dB<br>[at 87.5 / 98.0 / 108.0MHz]                           |
| Signal to noise ratio :         | More than 66dB (STEREO)<br>More than 72dB (MONO)<br>[at 98.0MHz]        |
| Distortion :                    | Less than 1.2%<br>[at 98.0MHz]                                          |
| Auto stop level :               | 25dB $\pm$ 10dB [at 98.0MHz]                                            |
| Stereo separation :             | More than 25dB [at 98.0MHz]                                             |
| Intermediate frequency :        | 10.7MHz                                                                 |

### <AM(MW) SECTION>

|                              |                                                                                                                                                                         |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sensitivity :<br>(S/N 20 dB) | 54dB +6/-7dB<br>[at 603kHz (HE)]<br>[at 600kHz (LH)]<br>52dB +6/-7dB<br>[at 999kHz (HE)]<br>[at 1000kHz (LH)]<br>52dB +6/-7dB<br>[at 1404kHz (HE)]<br>[at 1400kHz (LH)] |
| Signal to noise ratio :      | More than 36dB<br>[at 999kHz (HE)]<br>[at 1000kHz (LH)]                                                                                                                 |
| Distortion :                 | Less than 1.5%<br>[at 999kHz (HE)]<br>[at 1000kHz (LH)]                                                                                                                 |
| Auto stop level :            | Less than 60dB<br>[at 999kHz (HE)]<br>[at 1000kHz (LH)]                                                                                                                 |
| Intermediate frequency :     | 450kHz                                                                                                                                                                  |

## <DECK SECTION>

|                        |                                                                                                  |
|------------------------|--------------------------------------------------------------------------------------------------|
| Tape speed :           | 3000Hz $\pm$ 45Hz                                                                                |
| Wow & flutter :        | Less than 0.15%<br>(W.R.M.S)                                                                     |
| Take-up torque :       | 45g-cm +10/-15g-cm<br>(FWD, REV)                                                                 |
| F.F torque :           | 100g-cm +80/-25g-cm                                                                              |
| REW torque :           | 100g-cm +30/-25g-cm                                                                              |
| Back tension :         | 3g-cm +4/-1g-cm<br>(FWD, REV)                                                                    |
| PB output level :      | 2.8V $\pm$ 2dB<br>(SP OUT 2V)                                                                    |
| REC/PB output level :  | -3.0V $\pm$ 2dB<br>(SP OUT 2V)                                                                   |
| Distortion (REC/PB) :  | Less than 2.0%<br>(NORM, CrO2)                                                                   |
| Noise level (PB) :     | Less than 18mV<br>(NORM, SP OUT 2V)<br>Less than 15mV<br>(CrO2, SP OUT 2V)                       |
| Noise level (REC/PB) : | Less than 20mV<br>(DOLBY OFF, NORM, SP OUT 2V)<br>Less than 18mV<br>(DOLBY OFF, CrO2, SP OUT 2V) |
| Crosstalk :            | More than 50dB<br>(1kHz)                                                                         |
| Channel separation :   | More than 35dB<br>(1kHz)                                                                         |
| Erasing ratio :        | More than 60dB<br>(at 125Hz, +10VU)                                                              |
| Test tape :            | TTA-602 (NORMAL)<br>TTA-615 (CrO2)                                                               |

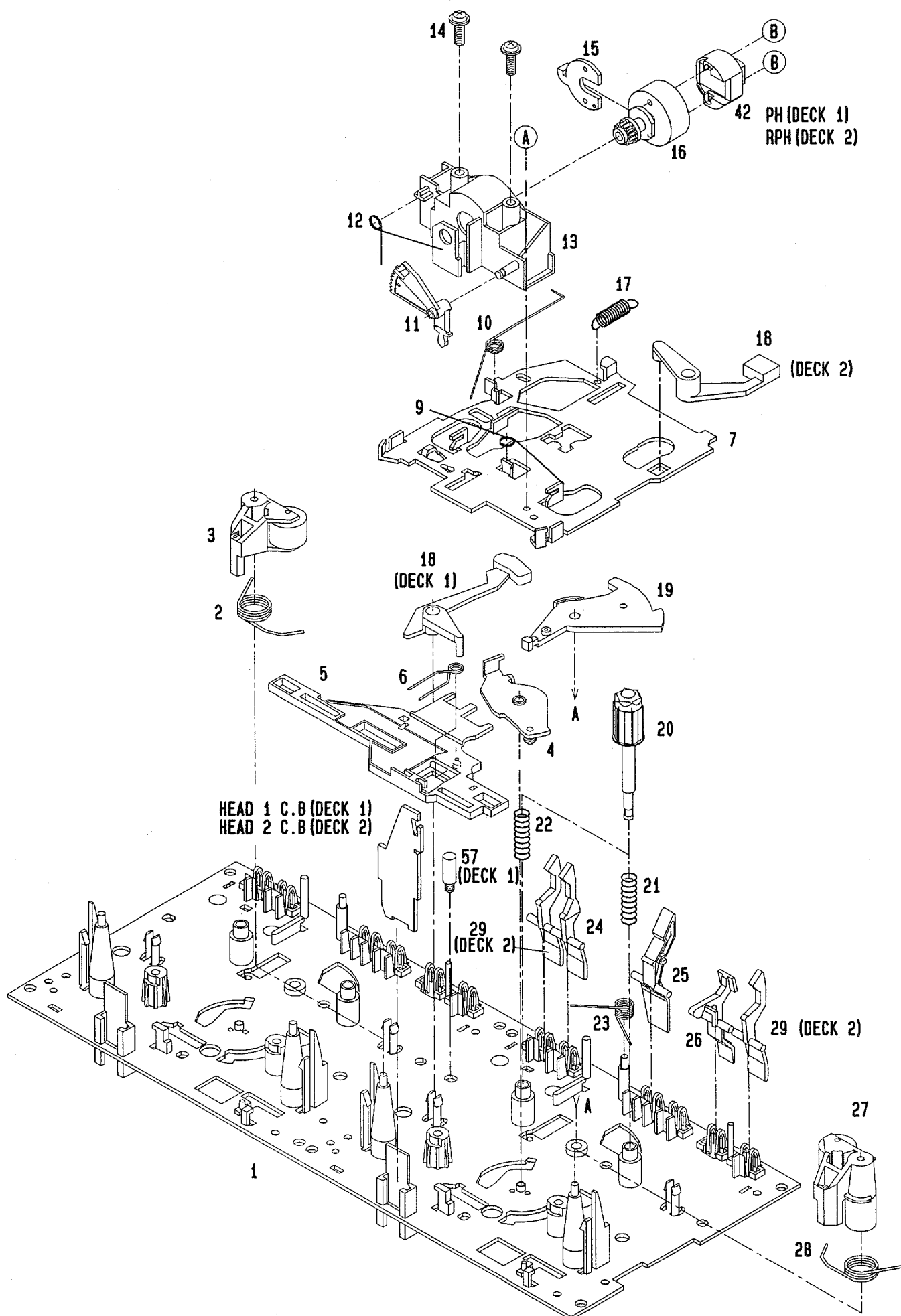


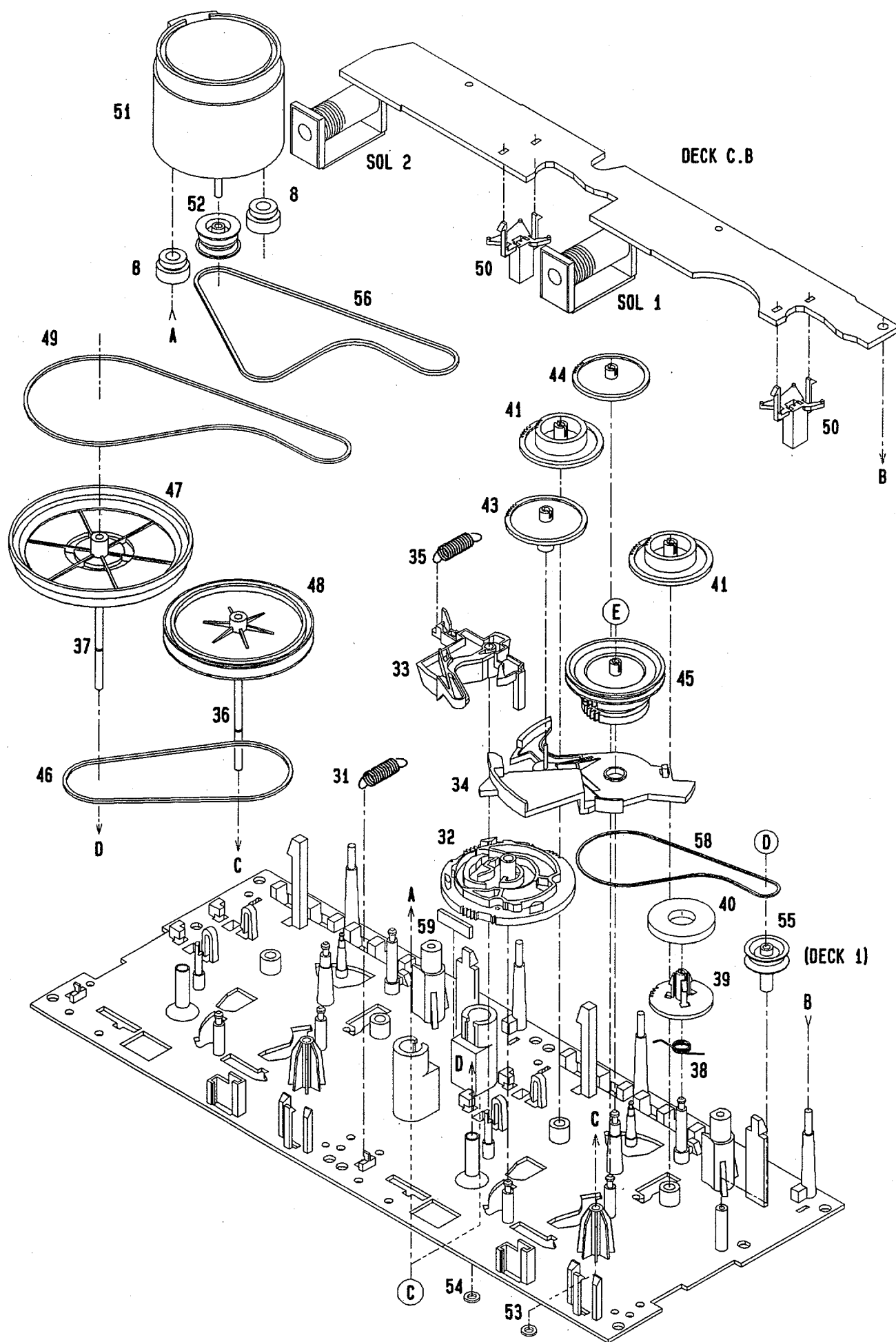
# MECHANICAL PARTS LIST 1 / 1

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION                | REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION              |
|----------|----------------|-----------|----------------------------|----------|----------------|-----------|--------------------------|
| 1        | 86-MA3-042-010 |           | WINDOW, TOP                | 29       | 82-NE8-032-010 |           | BADGE, AIWA 27.5 ABS GLD |
| 2        | 87-MA3-011-010 |           | CABI, STEEL                | 30       | 87-MA3-006-010 |           | BOX, CASS R H            |
| 3        | 87-084-077-010 |           | RIVET, NYL3.5-4.5          | 31       | 87-MA3-005-010 |           | BOX, CASS L H            |
| 4        | 87-MA3-041-010 |           | PANEL, REAR HEJSTNM<HE>    | 32       | 86-NF6-061-010 |           | REFLECTOR, CASS          |
| 4        | 87-MA3-047-010 |           | PANEL, REAR LHSTN<LH>      | 33       | 81-532-080-010 |           | LBL, CASS-COMPT          |
| 4        | 87-MA3-043-010 |           | PANEL, REAR LHSTNM<LH>     | 34       | 87-MA3-032-010 |           | PANEL, FUN               |
| △ 5      | 87-050-079-010 |           | AC CORD ASSY, E BLK        | 35       | 87-MA3-026-010 |           | KNOB, RTRY GEQ           |
| 6        | 87-085-185-010 |           | BUSHING, AC CORD(E) CM-22B | 36       | 87-MA3-014-010 |           | KEY, POWER               |
| 7        | 87-MA3-062-010 |           | FOOT, H17                  | 37       | 87-MA3-029-010 |           | WINDOW, DISPLAY          |
| 8        | 87-NF4-216-010 |           | HLDR, LOCK 1               | 38       | 87-MA3-033-010 |           | PLATE, DISPLAY           |
| 9        | 87-NF4-217-010 |           | HLDR, LOCK 2               | 39       | 87-MA3-028-010 |           | WINDOW, CD               |
| 10       | 82-NF5-228-010 |           | SPR-C, LOCK                | 40       | 87-MA3-001-010 |           | CABI, FR HE<HE>          |
| 11       | 82-NF5-229-010 |           | PLATE, LOCK(*)             | 40       | 87-MA3-002-010 |           | CABI, FR LH<LH>          |
| 12       | 87-MA3-017-010 |           | KEY, VF<LH>                | 41       | 87-MA3-009-010 |           | PANEL, TRAY              |
| 13       | 87-MA3-016-010 |           | KEY, VF KEYCON<HE>         | A        | 87-067-703-010 |           | BVT2+3-10 W/O SLOT       |
| 14       | 87-MA3-019-010 |           | KEY, FUN                   | B        | 87-067-688-010 |           | BVTT+3-6                 |
| 15       | 87-MA3-018-010 |           | KEY, GEQ                   | C        | 87-067-690-010 |           | BVIT3B+3-12 BLK          |
| 16       | 87-MA3-020-010 |           | REFLECTOR, GEQ             | D        | 87-067-641-010 |           | UTT2+3-8 W/O SLOT BLK    |
| 17       | 87-MA3-012-010 |           | KEY, DIRECT                | E        | 87-067-581-010 |           | BVT2+3-15 W/O SLOT       |
| 18       | 87-MA3-013-010 |           | KEY, OPEN                  | F        | 81-MK1-210-010 |           | S-SCREW, BFT2+3-16       |
| 19       | 87-MA3-025-010 |           | KEY, MODE                  | G        | 87-078-060-010 |           | BVIT3B+3-10              |
| 20       | 87-MA3-039-010 |           | KEY, ASSY PLAY             | H        | 87-067-975-010 |           | S-SCREW, IT+4-8 SWCH12A  |
| 21       | 87-MA3-040-010 |           | KEY, ASSY FF               | I        | 87-NF4-224-010 |           | S-SCREW, IT3B+3-8 CU     |
| 22       | 87-MA3-024-010 |           | KEY, DSP                   | J        | 87-591-095-410 |           | QIT+3-8                  |
| 23       | 87-MA3-027-010 |           | KNOB, RTRY MAIN            | K        | 87-067-585-010 |           | BVTT+4-6                 |
| 24       | 87-063-165-010 |           | OIL-DMPR, 150              | L        | 87-067-584-010 |           | BVT2+3-6 W/O SLOT        |
| 25       | 87-MA3-031-010 |           | WINDOW, CASS R             | M        | 87-067-579-010 |           | BVT2+3-8 W/O SLOT        |
| 26       | 87-MA3-030-010 |           | WINDOW, CASS L             |          |                |           |                          |
| 27       | 82-NF5-219-010 |           | SPR-T, EJECT 2(SIN)        |          |                |           |                          |
| 28       | 82-NF5-218-010 |           | SPR-T, EJECT 1(SIN)        |          |                |           |                          |

# TAPE MECHANISM EXPLODED VIEW 1 / 1



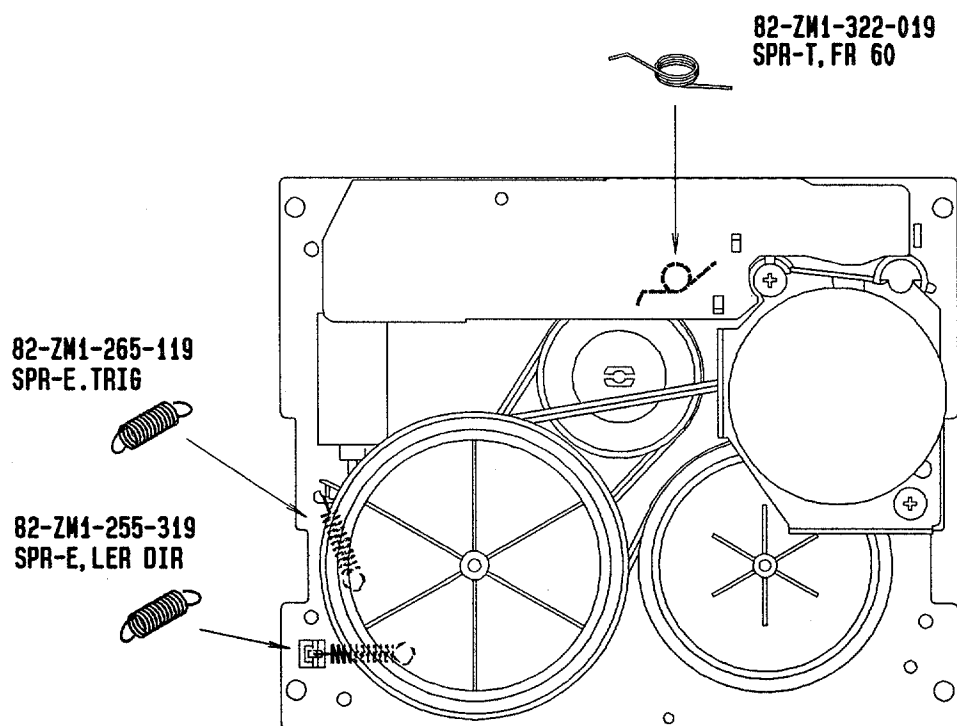
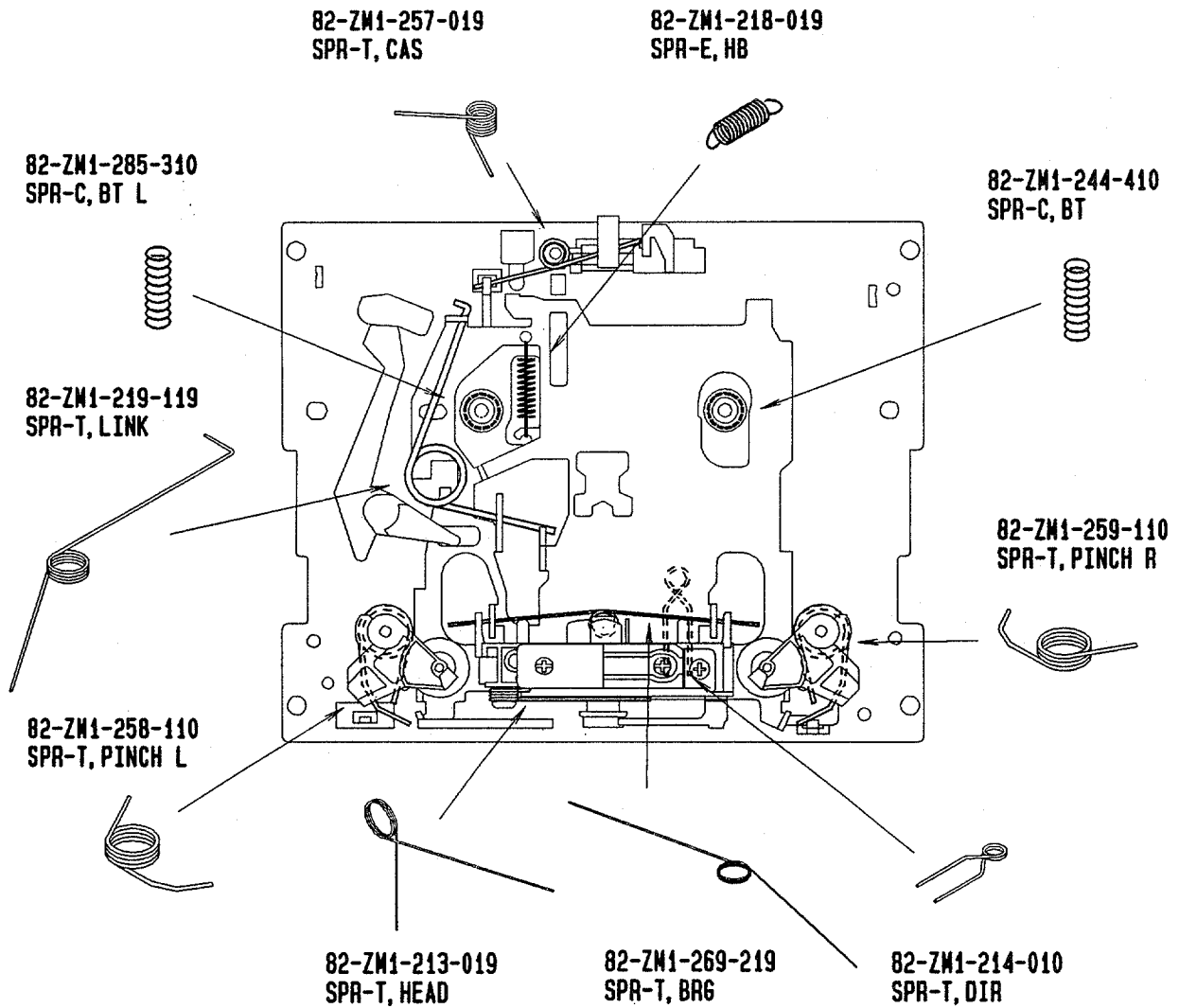


# TAPE MECHANISM PARTS LIST 1 / 1

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION          | REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION               |
|----------|----------------|-----------|----------------------|----------|----------------|-----------|---------------------------|
| 1        | 82-ZM3-301-519 |           | CHAS ASSY,M2         | 36       | 82-ZM1-236-019 |           | CAPSTAN N 2-41.5          |
| 2        | 82-ZM1-258-110 |           | SPR-T,PINCH L        | 37       | 82-ZM1-239-019 |           | CAPSTAN N 2.2-41.7        |
| 3        | 82-ZM1-341-110 |           | LVR ASSY,PINCH L2    | 38       | 82-ZM1-322-019 |           | SPR-T,FR60                |
| 4        | 82-ZM1-333-010 |           | PLATE,LINK 2         | 39       | 82-ZM1-220-219 |           | GEAR,IDLER                |
| 5        | 82-ZM1-266-11K |           | LVR,DIR              | 40       | 82-ZM3-616-019 |           | RING MAGNET 4             |
| 6        | 82-ZM1-214-010 |           | SPR-T,DIR            | 41       | 82-ZM1-216-31K |           | GEAR,REEL                 |
| 7        | 82-ZM1-206-81K |           | CHAS,HEAD            | 42       | 87-A90-366-010 |           | HEAD,PH YK50P-BF414 FPC   |
| 8        | 82-ZM3-307-019 |           | CUSH-G,DIA3.7-8-3.2  | 42       | 87-A90-367-010 |           | HEAD,RPH YK56R-BF414 FPC  |
| 9        | 82-ZM1-269-219 |           | SPR-T,BRG            | 43       | 82-ZM1-225-21K |           | GEAR,FR                   |
| 10       | 82-ZM1-219-119 |           | SPR-T,LINK           | 44       | 82-ZM1-226-019 |           | GEAR,REW                  |
| 11       | 82-ZM1-210-119 |           | GEAR,H T             | 45       | 82-ZM3-333-310 |           | SLIP DISK ASSY 2          |
| 12       | 82-ZM1-213-019 |           | SPR-T,HEAD           | 46       | 82-ZM1-338-010 |           | BELT FR4                  |
| 13       | 82-ZM1-207-619 |           | GUIDE,TAPE           | 47       | 82-ZM1-349-110 |           | FLY-WHL,R W(DECK 2)       |
| 14       | 86-ZM4-206-010 |           | S-SCREW,AZIMUTH      | 47       | 82-ZM3-338-110 |           | FLY-WHL,R3 W(DECK 1)      |
| 15       | 82-ZM1-314-119 |           | PLATE,HEAD           | 48       | 82-ZM1-348-010 |           | FLY-WHL,L W(DECK 2)       |
| 16       | 82-ZM1-208-119 |           | HLDR,HEAD            | 48       | 82-ZM1-348-010 |           | FLY-WHL,L W(DECK 1)       |
| 17       | 82-ZM1-218-019 |           | SPR-E,HB             | 49       | 82-ZM3-329-210 |           | BELT,SBU R2               |
| 18       | 82-ZM1-263-110 |           | LVR,EJECT L (DECK 1) | 50       | 82-ZM1-245-210 |           | HLDR,IC                   |
| 18       | 82-ZM1-264-010 |           | LVR,EJECT R (DECK 2) | 51       | 87-045-347-019 |           | MOT,SHU2L 70(M1)          |
| 19       | 82-ZM1-222-21K |           | LVR,PLAY             | 52       | 82-ZM3-221-010 |           | PULLEY,MOT 2M             |
| 20       | 82-ZM1-217-319 |           | REEL TABLE           | 53       | 82-ZM1-288-019 |           | SH,1.63-3.2-0.5 SLT       |
| 21       | 82-ZM1-244-510 |           | SPR-C,BT             | 54       | 80-ZM6-243-019 |           | SH,1.75-3.6-0.5 SLT       |
| 22       | 82-ZM1-285-310 |           | SPR-C,BT L           | 55       | 82-ZM3-335-210 |           | PULLEY,COUPLER M3(DECK 1) |
| 23       | 82-ZM1-257-019 |           | SPR-T,CAS            | 56       | 82-ZM3-337-010 |           | BELT,SBU MOT 2            |
| 24       | 82-ZM1-241-319 |           | LVR,MC               | 57       | 82-ZM3-339-010 |           | SHAFT,COUPLER N3(DECK 1)  |
| 25       | 82-ZM1-242-019 |           | LVR,CAS              | 58       | 86-ZM1-206-010 |           | BELT,MAIN L               |
| 26       | 82-ZM1-243-019 |           | LVR,STOP             | 59       | 82-ZM3-340-010 |           | SH,BELT D2                |
| 27       | 82-ZM1-344-110 |           | LVR ASSY,PINCH R2    | A        | 85-ZM3-202-010 |           | S-SCREW,TG                |
| 28       | 82-ZM1-259-110 |           | SPR-T,PINCH R        | B        | 80-ZM6-207-019 |           | V+1.6-7                   |
| 29       | 82-ZM1-240-11K |           | LVR,REC (DECK 2)     | C        | 82-ZM3-318-019 |           | S-SCRW MOTOR M2           |
| 31       | 82-ZM1-255-319 |           | SPR-E,LVR DIR        | D        | 87-B10-043-010 |           | W-P,0.99-4-0.25 SLT       |
| 32       | 82-ZM3-305-01K |           | GEAR,CAM M2          | E        | 82-ZM3-334-010 |           | PW,2.16-6-0.4             |
| 33       | 82-ZM1-227-21K |           | LVR,TRIG             |          |                |           |                           |
| 34       | 82-ZM3-306-11K |           | LVR,FR M2            |          |                |           |                           |
| 35       | 82-ZM1-265-119 |           | SPR-E,TRIG           |          |                |           |                           |

# SPRING APPLICATION POSITION

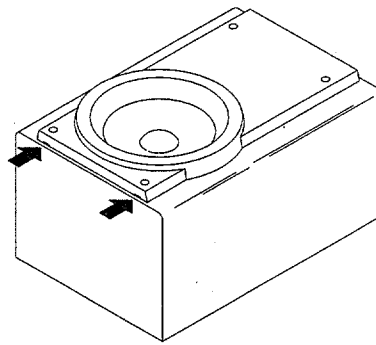


## SPEAKER DISASSEMBLY INSTRUCTIONS

### Type.1

矢印の位置にマイナスドライバーを差し込んで、パネルを外します。各々のスピーカーユニットのビスを取り、スピーカーユニットを外してください。

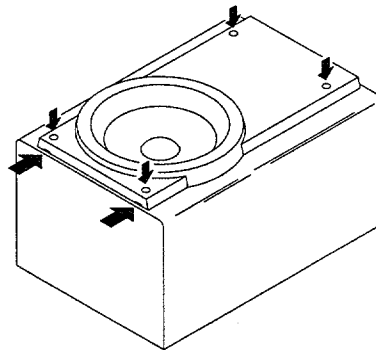
Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



### Type.2

グリルフレームを外し、4個のゴムキャップをマイナスドライバーで端の方から持ち上げて外すと中にビスがありますので、ビスを取り外します。矢印の位置にマイナスドライバーを差し込んで、パネルを外します。各々のスピーカーユニットのビスを取り、スピーカーユニットを外してください。

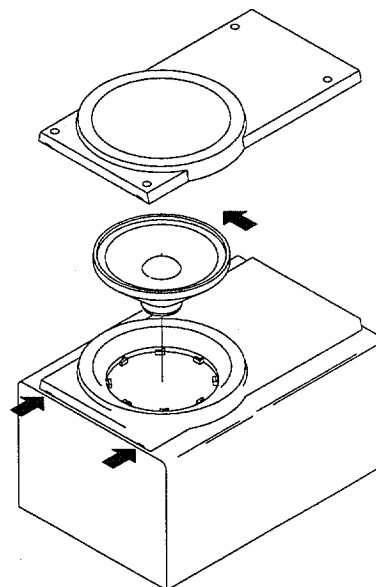
Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then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



### Type.3

矢印の位置にマイナスドライバーを差し込んで、パネルを外します。各々のスピーカーユニットの凹にマイナスドライバーを差し込んで、反時計方向に回転させスピーカーユニットを外してください。スピーカーユニット交換後は時計方向にクリック音がするまで、回転させて取り付けます。

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.



## SPEAKER PARTS LIST 1 / 1 (SX-ZR900)

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION | REF. NO. | PART NO.       | KANRI NO. | DESCRIPTION       |
|----------|----------------|-----------|-------------|----------|----------------|-----------|-------------------|
| 1        | 87-MSP-001-019 |           | PANEL,FR R  | 6        | 87-MSP-601-019 |           | SPKR,W 200        |
| 2        | 87-MSP-002-019 |           | PANEL,FR L  | 7        | 84-NS6-604-019 |           | SPKR,T 80         |
| 3        | 87-MSP-005-019 |           | PANEL,TW R  | 8        | 87-MSP-011-019 |           | GRILLE,FRAME ASSY |
| 4        | 87-MSP-006-019 |           | PANEL,TW L  | 9        | 87-MSP-606-019 |           | SPKR,CORD         |
| 5        | 87-MSP-008-019 |           | HLDL,TW     |          |                |           |                   |

## ACCESSORIES / PACKAGE LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO. | PART NO.       | KANRI NO.      | DESCRIPTION                |
|----------|----------------|----------------|----------------------------|
| 1        | 87-MA3-901-010 |                | IB,H(ECA)M<HE>             |
| 1        | 87-MA3-902-010 |                | IB,LH(ES)M<LH>             |
| 2        | 87-006-225-010 |                | ANT,LOOP ANT NC2           |
| 3        | 87-043-115-010 |                | FEEDER-ANT,FM              |
| 4        | 87-MA6-702-010 |                | RC UNIT,7AS01              |
| △        | 5              | 87-A90-312-010 | PLUG,CONVERSION WTN-1157R1 |

# REFERENCE NAME LIST

## ELECTRICAL SECTION

| DESCRIPTION | REFERENCE NAME     |
|-------------|--------------------|
| ANT         | ANTENNAS           |
| C-          | CHIP               |
| C-CAP       | CAP, CHIP          |
| C-CAP TN    | CAP, CHIP TANTALUM |
| C-COIL      | COIL, CHIP         |
| C-DI        | DIODE, CHIP        |
| C-DIODE     | DIODE, CHIP        |
| C-FET       | FET, CHIP          |
| C-FOTR      | FILTER, CHIP       |
| C-JACK      | JACK, CHIP         |
| C-LED       | LED, CHIP          |
| C-RES       | RES, CHIP          |
| C-SFR       | SFR, CHIP          |
| C-SLIDE SW  | SLIDE SWITCH, CHIP |
| C-SW        | SWITCH, CHIP       |
| C-TR        | TRANSISTOR, CHIP   |
| C-VR        | VOLUME, CHIP       |
| C-ZENER     | ZENER, CHIP        |
| CAP, CER    | CAP, CERA-SOL      |
| CAP, E      | CAP, ELECT         |
| CAP, M/F    | CAP, FILM          |
| CAP, TC     | CAP, CERA-SOL      |
| CAP, TC-U   | CAP, CERA-SOL SS   |
| CAP, TN     | CAP, TANTALUM      |
| CERA FIL    | FILTER, CERAMIC    |
| CF          | FILTER, CERAMIC    |
| DL          | DELAY LINE         |
| E/CAP       | CAP, ELECT         |
| FILT        | FILTER             |
| FLTR        | FILTER             |
| FUSE RES    | RES, FUSE          |
| MOT         | MOTOR              |
| P-DIODE     | PHOTO DIODE        |
| P-SNSR      | PHOTO SENSER       |
| P-TR        | PHOTO TRANSISTOR   |
| POLY VARI   | VARIABLE CAPACITOR |
| PPCAP       | CAP, PP            |
| PT          | POWER TRANSFORMER  |
| PTR, RES    | PTR, MELF          |
| RC          | REMOTE CONTROLLER  |
| RES NF      | RES, NON-FLAMMABLE |
| RESO        | RESONATOR          |
| SHLD        | SHIELD             |
| SOL         | SOLENOID           |
| SPKR        | SPEAKER            |
| SW, LVR     | SWITCH, LEVER      |
| SW, RTRY    | SWITCH, ROTARY     |
| SW, SL      | SWITCH, SLIDE      |
| TC CAP      | CAP, CERA-SOL      |
| THMS        | THERMISTOR         |
| TR          | TRANSISTOR         |
| TRIMER      | CAP, TRIMMER       |
| TUN-CAP     | VARIABLE CAPACITOR |
| VIB, CER    | RESONATOR, CERAMIC |
| VIB, XTAL   | RESONATOR, CRYSTAL |
| VR          | VOLUME             |
| ZENER       | DIODE, ZENER       |

## MECHANICAL SECTION

| DESCRIPTION    | REFERENCE NAME      |
|----------------|---------------------|
| ADHESHIVE      | SHEET ADHESHIVE     |
| AZ             | AZIMUTH             |
| BAR-ANT        | BAR-ANTENNA         |
| BAT            | BATTERY             |
| BATT           | BATTERY             |
| BRG            | BEARING             |
| BTN            | BUTTON              |
| CAB            | CABINET             |
| CASS           | CASSETTE            |
| CHAS           | CHASSIS             |
| CLR            | COLLAR              |
| CONT           | CONTROL             |
| CRSR           | CURSOR              |
| CU             | CUSHION             |
| CUSH           | CUSHION             |
| DIR            | DIRECTION           |
| DUBB           | DUBBING             |
| FL             | FRONT LOADING       |
| FLY-WHL        | FLYWHEEL            |
| FR             | FRONT               |
| FUN            | FUNCTION            |
| G-CU           | G-CUSHION           |
| HDL            | HANDOL              |
| HIMERON        | CLOTH               |
| HINGE, BAT     | HINGE, BATTERY      |
| HLDR           | HOLDER              |
| HT-SINK        | HEAT SINK           |
| IB             | INSTRUCTION BOOKLET |
| IDLE           | IDLER               |
| IND, L-R       | INDICATOR, L-R      |
| KEY, CONT      | KEY, CONTROL        |
| KEY, PRGM      | KEY, PROGRAM        |
| KNOB, SL       | KNOB, SLIDE         |
| LBL            | LABEL               |
| LID, BATT      | LID, BATTERY        |
| LID, CASS      | LID, CASSETTE       |
| LVR            | LEVER               |
| P-SP           | P-SPRING            |
| PANEL, CONT    | PANEL, CONTROL      |
| PANEL, FR      | PANEL, FRONT        |
| PRGM           | PROGRAM             |
| PULLY, LOAD MO | PULLY, LOAD MOTOR   |
| RBN            | RIBBON              |
| S-             | SPECIAL             |
| SEG            | SEGMENT             |
| SH             | SHEET               |
| SHLD-SH        | SHIELD-SHEET        |
| SL             | SLIDE               |
| SP             | SPRING              |
| SP-SCREW       | SPECIAL-SCREW       |
| SPACER, BAT    | SPACER, BATTERY     |
| SPR            | SPRING              |
| SPR-P          | P-SPRING            |
| SPR-PC-PUSH    | P-SPRING, C-PUSH    |
| T-SP           | T-SPRING            |
| TERM           | TERMINAL            |
| TRIG           | TRIGGER             |
| TUN            | TUNING              |
| VOL            | VOLUME              |
| W              | WASHER              |
| WHL            | WHEEL               |
| WORM-WHL       | WORM-WHEEL          |

| サービス技術ニュース |      |
|------------|------|
| 番号         | 連絡内容 |
| G- -       |      |
| G- -       |      |
| G- -       |      |

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