

# SERVICE MANUAL

COMPACT DISC STEREO  
SYSTEM

BASIC CD MECHANISM : DA11T3C

This Service Manual is the "Revision Publishing" and replaces "Simple Manual" (S/M Code No. 09-99B-337-9T1).

## SPECIFICATIONS

### MAIN UNIT

#### FM tuner section

Tuning range 87.5 MHz to 108 MHz  
Usable sensitivity (IHF) 13.2 dBf  
Antenna terminals 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 350  $\mu$ V/m  
Antenna Loop antenna

#### Amplifier section

Power output Rated 12 W + 12 W (4 ohms, T.H.D. 1%, 1kHz)  
Reference 15 W + 15 W (4 ohms, T.H.D. 10%, 1kHz)  
Total harmonic distortion 0.1 % (3 W, 1 kHz, 4 ohms, DIN AUDIO)

Inputs AUX IN: 800 mV  
MD IN: 800 mV

#### Outputs

LINE OUT: 1.7 V  
SPEAKERS: accept speakers of 4 ohms or more  
PHONES (stereo minijack): accepts headphones of 16 ohms or more  
VIDEO OUT: 1 Vp-p (75 ohms)

#### Compact disc player section

Laser Semiconductor laser ( $\lambda = 780$  nm)  
D-A converter 1 bit dual  
Signal-to-noise ratio 90 dB (1 kHz, 0 dB)  
Harmonic distortion 0.05 % (1 kHz, 0 dB)  
Wow and flutter Unmeasurable

• Design and specifications are subject to change without notice.

# aiwa

S/M Code No. 09-001-337-9R1

REVISION

DATA

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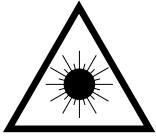
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## PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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 mainituilla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylit-tävälle näkymättömälle lasersäteilylle.

### WARNING!

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

### CAUTION

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

### ATTENTION

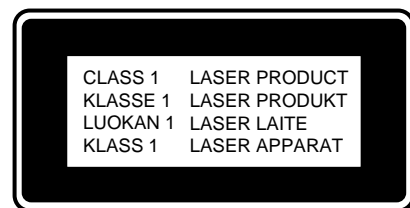
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

### ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.

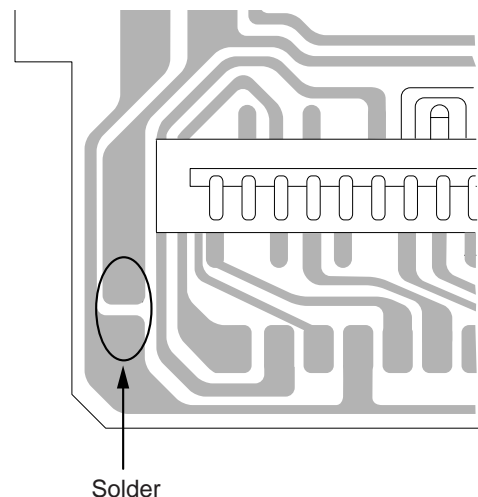


### Precaution to replace Optical block (SF-P101NR)

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

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

PICK-UP Assy P.C.B



# ELECTRICAL MAIN PARTS LIST

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

| REF. NO    | PART NO.       | KANRI NO. | DESCRIPTION              | REF. NO  | PART NO.       | KANRI NO. | DESCRIPTION               |
|------------|----------------|-----------|--------------------------|----------|----------------|-----------|---------------------------|
| IC         |                |           |                          | MAIN C.B |                |           |                           |
|            | 8Z-CL5-641-010 |           | C-IC,LC876572-5N64       | C510     | 87-015-684-080 |           | CAP,E 47-16 7L            |
|            | 87-070-282-010 |           | IC,BU2092                | C511     | 87-015-688-080 |           | CAP,E 4.7-35 7L           |
|            | 8Z-CL5-616-010 |           | IC,RPM638CBRL676/6938-V4 | C512     | 87-015-688-080 |           | CAP,E 4.7-35 7L           |
|            | 87-A20-920-010 |           | C-IC,CL680-D1            | C513     | 87-015-688-080 |           | CAP,E 4.7-35 7L           |
|            | 87-A20-962-040 |           | C-IC,MSM54V16258B/BSL    | C514     | 87-015-688-080 |           | CAP,E 4.7-35 7L           |
|            | 84-ZG1-695-040 |           | C-IC,LH5V2RN1            | C515     | 87-010-188-080 |           | CAP,CHIP 6800P            |
|            | 87-A20-975-040 |           | C-IC,SN74LV74APW         | C516     | 87-010-188-080 |           | CAP,CHIP 6800P            |
|            | 87-A20-921-040 |           | C-IC,SN74LVU04APW        | C517     | 87-012-140-080 |           | CAP 470P                  |
|            | 87-A20-974-040 |           | C-IC,LC74781M-9017       | C518     | 87-012-140-080 |           | CAP 470P                  |
|            | 8Z-CDW-615-010 |           | C-IC,UPD78016FGC-570-AB8 | C519     | 87-010-178-080 |           | CHIP CAP 1000P            |
|            | 87-A20-917-010 |           | C-IC,CXD2540Q-1/2        | C520     | 87-010-178-080 |           | CHIP CAP 1000P            |
|            | 87-A20-547-010 |           | C-IC,CXA1992AR           | C521     | 87-015-695-080 |           | CAP,E 1-50 7L             |
|            | 87-A20-918-040 |           | C-IC,SM5878AM            | C522     | 87-015-695-080 |           | CAP,E 1-50 7L             |
|            | 87-A20-592-040 |           | C-IC,M51943 AML          | C523     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25     |
|            | 87-A20-919-040 |           | C-IC,BA5915FP            | C524     | 87-015-684-080 |           | CAP,E 47-16 7L            |
|            | 87-A20-602-040 |           | C-IC,M5291FP             | C525     | 87-010-197-080 |           | CAP, CHIP 0.01 DM         |
|            | 87-A20-925-040 |           | C-IC,BA05FP              | C526     | 87-010-197-080 |           | CAP, CHIP 0.01 DM         |
|            | 87-A20-905-040 |           | C-IC,BA033FP             | C528     | 87-010-195-080 |           | C-CAP,S 0.068-25 F        |
|            | 87-A21-111-040 |           | C-IC,M62495FP            | C530     | 87-015-684-080 |           | CAP,E 47-16 7L            |
|            | 87-A21-022-040 |           | C-IC,BA3880FS            | C531     | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25     |
|            | 87-017-915-080 |           | IC,BU4094BCF             | C532     | 87-A11-088-080 |           | CAP,TC U 100P-50 J CH     |
|            | 87-070-391-040 |           | IC,BA4558F               | C534     | 87-012-358-080 |           | C-CAP,S 0.47-10 F Z       |
|            | 87-017-698-080 |           | IC,M65843FP              | C545     | 87-015-696-080 |           | CAP,E 2.2-50 7L           |
|            | 87-070-127-110 |           | IC,LC72131 D             | C546     | 87-015-696-080 |           | CAP,E 2.2-50 7L           |
|            | 87-A20-913-010 |           | IC,LA1837ML              | C551     | 87-010-213-080 |           | C-CAP,S 0.015-50 B        |
|            | 87-A21-347-010 |           | IC,LA4625                | C552     | 87-010-213-080 |           | C-CAP,S 0.015-50 B        |
|            | 87-001-982-010 |           | IC,TA7291S               | C553     | 87-015-688-080 |           | CAP,E 4.7-35 7L           |
|            |                |           |                          | C554     | 87-015-688-080 |           | CAP,E 4.7-35 7L           |
|            |                |           |                          | C555     | 87-015-692-080 |           | CAP,E 0.22-50 7L          |
|            |                |           |                          | C556     | 87-015-692-080 |           | CAP,E 0.22-50 7L          |
| TRANSISTOR |                |           |                          |          |                |           |                           |
|            | 89-327-125-080 |           | CHIP TR,2SC2712GR        | C557     | 87-015-692-080 |           | CAP,E 0.22-50 7L          |
|            | 87-A30-087-080 |           | C-FET,2SK2158            | C558     | 87-015-692-080 |           | CAP,E 0.22-50 7L          |
|            | 87-026-230-080 |           | CHIP-TR,DTA114YK         | C559     | 87-015-691-080 |           | CAP,E 0.1-50 7L           |
|            | 89-111-625-080 |           | TR,2SA1162 (0.15W)       | C560     | 87-015-691-080 |           | CAP,E 0.1-50 7L           |
|            | 87-026-235-080 |           | CHIP-TR,DTCL14EK         | C561     | 87-015-680-080 |           | CAP,E 47-10 7L            |
|            | 89-406-556-080 |           | TR,2SD65F                | C562     | 87-015-680-080 |           | CAP,E 47-10 7L            |
|            | 87-026-580-080 |           | C-TR,DTA123JK            | C563     | 87-018-147-080 |           | CAP,TC-U 10P-50 CH        |
|            | 87-026-231-080 |           | CHIP-TRANSISTER,DTA124XK | C586     | 87-015-695-080 |           | CAP,E 1-50 7L             |
|            | 87-026-237-080 |           | CHIP-TR,DTCL24XK         | C591     | 87-010-322-080 |           | C-CAP,S 100P-50 CH        |
|            | 87-A30-117-010 |           | TR,2SA1357               | C592     | 87-010-322-080 |           | C-CAP,S 100P-50 CH        |
|            | 87-CD7-604-080 |           | TR,8550C                 | C593     | 87-010-322-080 |           | C-CAP,S 100P-50 CH        |
|            | 87-026-213-080 |           | CHIP-TR,DTCL14YK         | C594     | 87-010-322-080 |           | C-CAP,S 100P-50 CH        |
|            | 87-026-239-080 |           | TR,DTCL14TK (0.2W)       | C804     | 87-A11-144-080 |           | CAP,TC U 0.1-50 K B       |
|            | 87-A30-234-080 |           | TR,CSC4115BC             | C805     | 87-A11-144-080 |           | CAP,TC U 0.1-50 K B       |
|            | 87-A30-071-080 |           | C-TR,RT1N 144C           | C806     | 87-A11-144-080 |           | CAP,TC U 0.1-50 K B       |
|            | 89-213-702-010 |           | TR,2SB1370 (1.8W)        | C807     | 87-A11-144-080 |           | CAP,TC U 0.1-50 K B       |
|            | 89-327-143-080 |           | TR,2SC2714 (0.1W)        | C808     | 87-010-389-090 |           | CAP, E 2200-25 SME        |
|            | 87-026-463-080 |           | TR,2SA933S (0.3W)        | C809     | 87-012-140-080 |           | CAP 470P                  |
|            | 87-026-211-080 |           | TR,DTA144EK              | C811     | 87-010-060-080 |           | ELECTROLYTIC 100-16V      |
|            | 89-318-155-080 |           | TR,2SC1815 (0.4W)        | C812     | 87-010-060-080 |           | ELECTROLYTIC 100-16V      |
|            |                |           |                          | C813     | 87-010-235-080 |           | CAP,E 470-16 SME          |
|            |                |           |                          | C819     | 87-A11-140-080 |           | CAP,TC U 0.047-50 K B     |
|            |                |           |                          | C820     | 87-A11-140-080 |           | CAP,TC U 0.047-50 K B     |
|            |                |           |                          | C821     | 87-A11-754-010 |           | CAP,E 6800-25 M 105 KMEVB |
|            |                |           |                          | C822     | 87-010-387-080 |           | CAP,E 470-25 SME          |
|            | 87-070-345-080 |           | DIODE,IN4148             | C829     | 87-015-681-080 |           | CAP,E 10-16 7L            |
|            | 87-A40-337-080 |           | ZENER,MTZJ 6.8B          | C830     | 87-010-197-080 |           | CAP, CHIP 0.01 DM         |
|            | 87-020-331-080 |           | CHIP-DIODE,DAN202K       | C833     | 87-010-180-080 |           | C-CER 1500P               |
|            | 87-020-330-080 |           | DIODE,DAP202K            | C834     | 87-010-180-080 |           | C-CER 1500P               |
|            | 87-017-024-080 |           | C-DIODE,DA204K           | C835     | 87-015-691-080 |           | CAP,E 0.1-50 7L           |
|            | 87-A40-409-080 |           | DIODE,AK04               | C836     | 87-015-691-080 |           | CAP,E 0.1-50 7L           |
|            | 87-A40-466-080 |           | ZENER,MTZJ2.7A           | C838     | 87-010-265-080 |           | CAP, ELECT 33-16V         |
|            | 87-070-136-080 |           | ZENER,MTZJ5.1B           | C849     | 87-010-182-080 |           | C-CAP,S 2200P-50 B        |
|            | 87-017-149-080 |           | ZENER,HZS6A2L            | C850     | 87-010-182-080 |           | C-CAP,S 2200P-50 B        |
|            | 87-020-465-080 |           | DIODE,ISS133 (110MA)     | C851     | 87-015-697-080 |           | CAP,E 3.3-50 7L           |
|            | 88-CD9-651-090 |           | DIODE,J05                | C852     | 87-010-385-080 |           | CAP, ELECT 220-25V        |
|            | 87-A40-345-080 |           | ZENER,MTZJ10C            | C853     | 87-010-060-080 |           | ELECTROLYTIC 100-16V      |
|            | 87-002-743-080 |           | ZENER,MTZJ 33B           | C854     | 87-010-060-080 |           | ELECTROLYTIC 100-16V      |
|            | 8Z-CL5-626-010 |           | DIODE,6A1                |          |                |           |                           |



| REF. NO       | PART NO.       | KANRI NO. | DESCRIPTION                    | REF. NO     | PART NO.       | KANRI NO. | DESCRIPTION             |
|---------------|----------------|-----------|--------------------------------|-------------|----------------|-----------|-------------------------|
| C855          | 87-010-060-080 |           | ELECTROLYTIC 100-16V           | C585        | 87-015-695-080 |           | CAP,E 1-50 7L           |
| C856          | 87-010-060-080 |           | ELECTROLYTIC 100-16V           | △F881       | 87-A91-276-080 |           | FUSE,125MA 125V F 251   |
| C857          | 87-A11-755-010 |           | CAP,E 1000-25 M 105 BP KMEVB   | J501        | 8Z-CL5-608-010 |           | JACK,PIN 6P VERTICAL    |
| C858          | 87-A11-755-010 |           | CAP,E 1000-25 M 105 BP KMEVB   | △RY881      | 87-045-389-010 |           | RELAY,OSA-SS-212DM5     |
| C859          | 87-015-694-080 |           | CAP,E 0.47-50 7L               | WH803       | 87-009-031-010 |           | CONNECTOR, 3P           |
| C881          | 87-A10-479-080 |           | CAP,CER 2200P-250 M E KH       |             |                |           |                         |
| C882          | 87-A10-479-080 |           | CAP,CER 2200P-250 M E KH       | DISPLAY C.B |                |           |                         |
| C883          | 87-015-697-080 |           | CAP,E 3.3-50 7L                | C201        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C884          | 87-010-387-080 |           | CAP,E 470-25 SME               | C202        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C5503         | 87-015-696-080 |           | CAP,E 2.2-50 7L                | C203        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C5504         | 87-015-696-080 |           | CAP,E 2.2-50 7L                | C204        | 87-010-497-080 |           | CAP,E 4.7-35 5L         |
| C5505         | 87-015-695-080 |           | CAP,E 1-50 7L                  | C205        | 87-010-497-080 |           | CAP,E 4.7-35 5L         |
| C5506         | 87-015-695-080 |           | CAP,E 1-50 7L                  |             |                |           |                         |
| C5507         | 87-015-680-080 |           | CAP,E 47-10 7L                 | C206        | 87-015-684-080 |           | CAP,E 47-16 7L          |
| CN101         | 8Z-CL5-621-010 |           | FF-CABLE, 16P 1.0 220MM        | C207        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| CN201         | 87-A60-770-010 |           | CONN,18P B TMC-D(X)            | C208        | 87-010-322-080 |           | C-CAP,S 100P-50 CH      |
| CON801        | 8Z-CL5-622-010 |           | F-CABLE,9P 2.5 250MM UL2468 AW | C209        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| △F801         | 87-A91-266-010 |           | FUSE,2.5A 125V F 51MM          | C210        | 87-010-312-080 |           | C-CAP,S 15P-50 CH       |
| △F802         | 87-A91-266-010 |           | FUSE,2.5A 125V F 51MM          | C211        | 87-010-198-080 |           | CAP, CHIP 0.022         |
| △F803         | 87-A91-266-010 |           | FUSE,2.5A 125V F 51MM          | C212        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| △F804         | 87-A91-270-010 |           | FUSE,5A 125V F 51MM            | C213        | 87-012-145-080 |           | CAP, CHIP S 270P CH     |
| △F805         | 87-A91-270-010 |           | FUSE,5A 125V F 51MM            | C214        | 87-010-178-080 |           | CHIP CAP 1000P          |
| J801          | 87-009-216-010 |           | JACK, DIA 3.5                  | C215        | 87-015-681-080 |           | CAP,E 10-16 7L          |
| J802          | 87-A60-238-010 |           | TERMINAL,SP 4P (MSC)           | C216        | 87-015-694-080 |           | CAP,E 0.47-50 7L        |
| P1            | 87-A60-317-010 |           | TERMINAL, 1P MSC               | C217        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| P2            | 87-A60-317-010 |           | TERMINAL, 1P MSC               | C218        | 87-010-370-080 |           | CAP,E 330-6.3 SME       |
| S801          | 87-036-235-010 |           | SW SLIDE ESD269                | C221        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| W804          | 8Z-CL5-627-010 |           | F-CABLE,5P 2.5 250MM UL2468 AW | C222        | 87-015-694-080 |           | CAP,E 0.47-50 7L        |
| WH405         | 87-009-036-010 |           | CONNECTOR, 8P PH V WHT         | C223        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| WH804         | 87-009-034-010 |           | CONN,6P PH V                   | C224        | 87-015-681-080 |           | CAP,E 10-16 7L          |
| WH1101        | 8Z-CL5-624-010 |           | CONN,13P H WHT 528071310       | C225        | 87-010-194-080 |           | CAP, CHIP 0.047         |
|               |                |           |                                | C227        | 87-010-754-080 |           | CAP,E220-10 SRA 7L      |
|               |                |           |                                | C229        | 87-015-696-080 |           | CAP,E 2.2-50 7L         |
| CONTROL C.B   |                |           |                                | C238        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C219          | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C601        | 87-010-182-080 |           | C-CAP,S 2200P-50 B      |
| C220          | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C603        | 87-010-174-080 |           | CAP CHIP SL470P (K)     |
| LED206        | 8Z-CL5-614-010 |           | LED,W03304GSC-SC GR            | C604        | 87-010-421-040 |           | CAP,E 4.7-50 5L         |
| LED207        | 8Z-CL5-614-010 |           | LED,W03304GSC-SC GR            | C605        | 87-015-692-080 |           | CAP,E 0.22-50 7L        |
| LED208        | 8Z-CL5-614-010 |           | LED,W03304GSC-SC GR            | C606        | 87-010-178-080 |           | CHIP CAP 1000P          |
| SW210         | 87-036-073-010 |           | TACT SWITCH                    | C607        | 87-015-692-080 |           | CAP,E 0.22-50 7L        |
| SW211         | 87-036-073-010 |           | TACT SWITCH                    | C608        | 87-010-421-040 |           | CAP,E 4.7-50 5L         |
| SW212         | 87-036-073-010 |           | TACT SWITCH                    | C609        | 87-015-692-080 |           | CAP,E 0.22-50 7L        |
| SW217         | 87-036-073-010 |           | TACT SWITCH                    | C610        | 87-012-358-080 |           | C-CAP,S 0.47-10 F Z     |
| SW218         | 87-036-073-010 |           | TACT SWITCH                    | C611        | 87-010-754-080 |           | CAP,E220-10 SRA 7L      |
| SW219         | 87-036-073-010 |           | TACT SWITCH                    | C612        | 87-010-754-080 |           | CAP,E220-10 SRA 7L      |
| SW220         | 87-036-073-010 |           | TACT SWITCH                    | C613        | 87-010-060-080 |           | ELECTROLYTIC 100-16V    |
| SW221         | 87-036-073-010 |           | TACT SWITCH                    | C614        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| W203          | 8Z-CL5-603-010 |           | FF-CABLE, 7P 1.0 150MM UL2896  | C633        | 87-010-177-080 |           | C-CAP,S 820P-50 SL      |
| WH203         | 8Z-CL5-618-010 |           | CONN,7P H WHT 528070710        | C634        | 87-010-177-080 |           | C-CAP,S 820P-50 SL      |
|               |                |           |                                | C636        | 87-015-692-080 |           | CAP,E 0.22-50 7L        |
|               |                |           |                                | C637        | 87-010-178-080 |           | CHIP CAP 1000P          |
| VIDEO OUT C.B |                |           |                                | C638        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| J301          | 87-009-502-010 |           | JACK,PIN 1P Y EARTH            | C639        | 87-010-197-080 |           | CAP, CHIP 0.01 DM       |
|               |                |           |                                | C640        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
|               |                |           |                                | C641        | 87-012-142-080 |           | CAP, S 0.33-16          |
|               |                |           |                                | C642        | 87-012-142-080 |           | CAP, S 0.33-16          |
|               |                |           |                                | C643        | 87-015-680-080 |           | CAP,E 47-10 7L          |
|               |                |           |                                | C644        | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
|               |                |           |                                | C645        | 87-010-178-080 |           | CHIP CAP 1000P          |
| C571          | 87-010-060-080 |           | ELECTROLYTIC 100-16V           | C646        | 87-010-197-080 |           | CAP, CHIP 0.01 DM       |
| C572          | 87-010-060-080 |           | ELECTROLYTIC 100-16V           | C647        | 87-015-681-080 |           | CAP,E 10-16 7L          |
| C573          | 87-015-688-080 |           | CAP,E 4.7-35 7L                | C648        | 87-015-680-080 |           | CAP,E 47-10 7L          |
| C574          | 87-015-688-080 |           | CAP,E 4.7-35 7L                | CN205       | 8Z-CL5-617-010 |           | CONN,7P V WHT 528060710 |
| C575          | 87-015-688-080 |           | CAP,E 4.7-35 7L                | D202        | 87-002-352-010 |           | LED,SPR-39MVWF          |
| C576          | 87-015-688-080 |           | CAP,E 4.7-35 7L                | D203        | 87-002-352-010 |           | LED,SPR-39MVWF          |
| C577          | 87-010-176-080 |           | C-CAP,S 680P-50 SL             | D204        | 87-002-352-010 |           | LED,SPR-39MVWF          |
| C578          | 87-010-176-080 |           | C-CAP,S 680P-50 SL             | D205        | 87-002-352-010 |           | LED,SPR-39MVWF          |
| C579          | 87-010-318-080 |           | C-CAP,S 47P-50 CH              | DP201       | 8Z-CL1-630-010 |           | FL,13-ST-36GNAK         |
| C580          | 87-010-318-080 |           | C-CAP,S 47P-50 CH              | J601        | 8Z-CL5-645-010 |           | JACK,3.5 BLK ST W/O SW  |
| C581          | 87-012-154-080 |           | C-CAP,S 150P-50 CH             | L201        | 87-A50-052-010 |           | COIL,CLOCK 5.76MHZ T1   |
| C582          | 87-012-154-080 |           | C-CAP,S 150P-50 CH             |             |                |           |                         |
| C583          | 87-015-695-080 |           | CAP,E 1-50 7L                  |             |                |           |                         |
| C584          | 87-015-695-080 |           | CAP,E 1-50 7L                  |             |                |           |                         |

| REF. NO | PART NO.       | KANRI NO. | DESCRIPTION                    | REF. NO | PART NO.       | KANRI NO. | DESCRIPTION             |
|---------|----------------|-----------|--------------------------------|---------|----------------|-----------|-------------------------|
| L601    | 87-005-370-080 |           | COIL,680UH                     | C366    | 87-010-197-080 |           | CAP, CHIP 0.01 DM       |
| LED201  | 8Z-CL5-613-010 |           | LED,SE6201AT RED W/REFCT       | C367    | 87-010-313-080 |           | CAP, CHIP 18P           |
| S201    | 87-A90-646-010 |           | SW,RTRY 3-2-1 RE0131           | C368    | 87-010-313-080 |           | CAP, CHIP 18P           |
| SW201   | 87-036-073-010 |           | TACT SWITCH                    | C369    | 87-010-178-080 |           | CHIP CAP 1000P          |
| SW202   | 87-036-073-010 |           | TACT SWITCH                    | C370    | 87-010-178-080 |           | CHIP CAP 1000P          |
| SW203   | 87-036-073-010 |           | TACT SWITCH                    | C371    | 87-010-178-080 |           | CHIP CAP 1000P          |
| SW204   | 87-036-073-010 |           | TACT SWITCH                    | C372    | 87-010-178-080 |           | CHIP CAP 1000P          |
| SW205   | 87-036-073-010 |           | TACT SWITCH                    | C373    | 87-015-681-080 |           | CAP,E 10-16 7L          |
| SW206   | 87-036-073-010 |           | TACT SWITCH                    | C374    | 87-015-681-080 |           | CAP,E 10-16 7L          |
| SW207   | 87-036-073-010 |           | TACT SWITCH                    | C375    | 87-A11-080-080 |           | CAP,TC U 47P-50 J CH    |
| SW301   | 8Z-CL5-642-010 |           | SW,SL 2-2-3 SS23D05            | C376    | 87-A11-080-080 |           | CAP,TC U 47P-50 J CH    |
| VR601   | 8Z-CL5-644-010 |           | VR,RTRY 10KAX1 1 V             | C379    | 87-010-197-080 |           | CAP, CHIP 0.01 DM       |
| VR602   | 8Z-CL5-643-010 |           | VR,RTRY 10KBX1 V               | C386    | 87-010-315-080 |           | C-CAP,S 27P-50 CH       |
| WH201   | 87-A60-778-010 |           | CONN,18P B TMC-D(P)            | C401    | 87-010-322-080 |           | C-CAP,S 100P-50 CH      |
| WH4401  | 87-A60-778-010 |           | CONN,18P B TMC-D(P)            | C402    | 87-010-322-080 |           | C-CAP,S 100P-50 CH      |
| VCD C.B |                |           |                                | C403    | 87-010-322-080 |           | C-CAP,S 100P-50 CH      |
|         |                |           |                                | C404    | 87-010-322-080 |           | C-CAP,S 100P-50 CH      |
|         |                |           |                                | C406    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C301    | 87-015-680-080 |           | CAP,E 47-10 7L                 | C407    | 87-015-677-080 |           | CAP,E 100-6.3 7L        |
| C302    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C408    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C303    | 87-015-677-080 |           | CAP,E 100-6.3 7L               |         |                |           |                         |
| C304    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C409    | 87-010-197-080 |           | CAP, CHIP 0.01 DM       |
| C305    | 87-015-676-080 |           | ELECTROLYTIC CAPACITOR, 47U-6. | C410    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
|         |                |           |                                | C411    | 87-010-178-080 |           | CHIP CAP 1000P          |
| C306    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C412    | 87-A11-073-080 |           | CAP,TC U 22P-50 J CH    |
| C308    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C413    | 87-012-358-080 |           | C-CAP,S 0.47-10 F Z     |
| C309    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |         |                |           |                         |
| C311    | 87-010-154-080 |           | CAP CHIP 10P                   | C414    | 87-012-156-080 |           | C-CAP,S 220P-50 CH      |
| C313    | 87-010-154-080 |           | CAP CHIP 10P                   | C415    | 87-010-197-080 |           | CAP, CHIP 0.01 DM       |
|         |                |           |                                | C416    | 87-010-754-080 |           | CAP,E220-10 SRA 7L      |
| C314    | 87-A11-080-080 |           | CAP,TC U 47P-50 J CH           | C417    | 87-010-184-080 |           | CHIP CAPACITOR 3300P(K) |
| C315    | 87-015-677-080 |           | CAP,E 100-6.3 7L               | C418    | 87-010-194-080 |           | CAP, CHIP 0.047         |
| C316    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25          |         |                |           |                         |
| C317    | 87-015-677-080 |           | CAP,E 100-6.3 7L               | C419    | 87-010-194-080 |           | CAP, CHIP 0.047         |
| C318    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25          | C420    | 87-010-182-080 |           | C-CAP,S 2200P-50 B      |
|         |                |           |                                | C421    | 87-010-197-080 |           | CAP, CHIP 0.01 DM       |
| C321    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C422    | 87-015-677-080 |           | CAP,E 100-6.3 7L        |
| C322    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C423    | 87-010-213-080 |           | C-CAP,S 0.015-50 B      |
| C323    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |         |                |           |                         |
| C324    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C424    | 87-012-154-080 |           | C-CAP,S 150P-50 CH      |
| C325    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C425    | 87-010-213-080 |           | C-CAP,S 0.015-50 B      |
|         |                |           |                                | C426    | 87-010-244-080 |           | CAP ELECT 16-22         |
| C326    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C427    | 87-015-695-080 |           | CAP,E 1-50 7L           |
| C327    | 87-012-145-080 |           | CAP, CHIP S 270P CH            | C428    | 87-010-197-080 |           | CAP, CHIP 0.01 DM       |
| C328    | 87-010-322-080 |           | C-CAP,S 100P-50 CH             |         |                |           |                         |
| C329    | 87-012-157-080 |           | C-CAP,S 330P-50 CH             | C429    | 87-010-193-080 |           | CHIP CAPACITOR,0.033    |
| C330    | 87-012-154-080 |           | C-CAP,S 150P-50 CH             | C430    | 87-010-421-040 |           | CAP,E 4.7-50 5L         |
|         |                |           |                                | C431    | 87-012-158-080 |           | C-CAP,S 390P-50 CH      |
| C331    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C432    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C332    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C433    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C333    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |         |                |           |                         |
| C334    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C434    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C335    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C435    | 87-010-182-080 |           | C-CAP,S 2200P-50 B      |
|         |                |           |                                | C436    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C336    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C437    | 87-015-677-080 |           | CAP,E 100-6.3 7L        |
| C337    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C438    | 87-015-677-080 |           | CAP,E 100-6.3 7L        |
| C338    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |         |                |           |                         |
| C339    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C439    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C340    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25          | C440    | 87-010-198-080 |           | CAP, CHIP 0.022         |
|         |                |           |                                | C442    | 87-010-194-080 |           | CAP, CHIP 0.047         |
| C341    | 87-015-676-080 |           | ELECTROLYTIC CAPACITOR, 47U-6. | C443    | 87-010-194-080 |           | CAP, CHIP 0.047         |
| C342    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25          | C446    | 87-010-313-080 |           | CAP, CHIP 18P           |
| C343    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              |         |                |           |                         |
| C344    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C447    | 87-015-695-080 |           | CAP,E 1-50 7L           |
| C345    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C448    | 87-010-193-080 |           | CHIP CAPACITOR,0.033    |
|         |                |           |                                | C449    | 87-010-193-080 |           | CHIP CAPACITOR,0.033    |
| C346    | 87-012-358-080 |           | C-CAP,S 0.47-10 F Z            | C450    | 87-010-193-080 |           | CHIP CAPACITOR,0.033    |
| C347    | 87-012-153-080 |           | C-CAP,S 120P-50 CH             | C451    | 87-010-197-080 |           | CAP, CHIP 0.01 DM       |
| C348    | 87-015-695-080 |           | CAP,E 1-50 7L                  |         |                |           |                         |
| C349    | 87-010-371-080 |           | CAP, ELECT 470-6.3V            | C452    | 87-010-178-080 |           | CHIP CAP 1000P          |
| C350    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C453    | 87-015-677-080 |           | CAP,E 100-6.3 7L        |
|         |                |           |                                | C454    | 87-015-677-080 |           | CAP,E 100-6.3 7L        |
| C354    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C455    | 87-015-677-080 |           | CAP,E 100-6.3 7L        |
| C355    | 87-010-315-080 |           | C-CAP,S 27P-50 CH              | C456    | 87-010-197-080 |           | CAP, CHIP 0.01 DM       |
| C356    | 87-010-316-080 |           | C-CAP,S 33P-50 CH              |         |                |           |                         |
| C360    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C457    | 87-010-184-080 |           | CHIP CAPACITOR 3300P(K) |
| C361    | 87-010-060-080 |           | ELECTROLYTIC 100-16V           | C458    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
|         |                |           |                                | C459    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C362    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25          | C460    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |
| C363    | 87-010-197-080 |           | CAP, CHIP 0.01 DM              | C461    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25   |

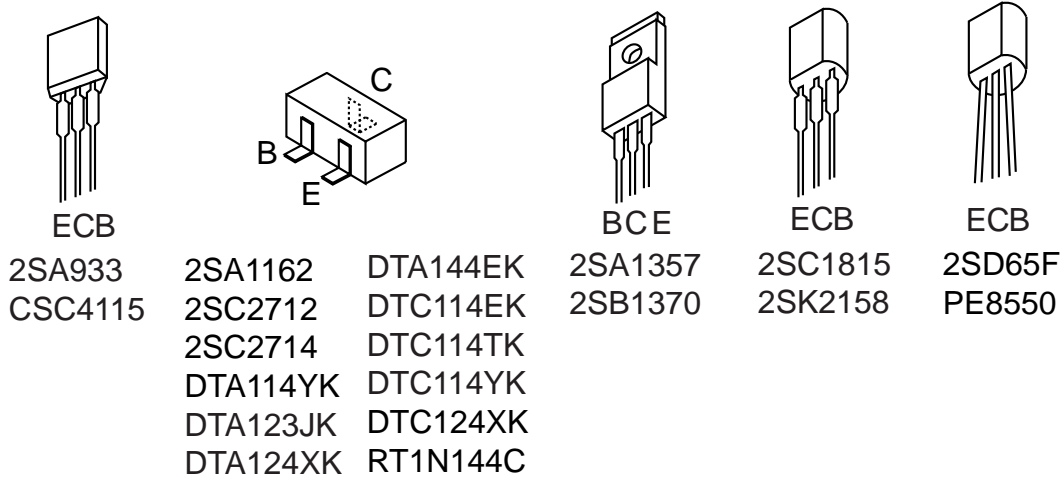
| REF. NO   | PART NO.       | KANRI NO. | DESCRIPTION              | REF. NO | PART NO.       | KANRI NO. | DESCRIPTION                |
|-----------|----------------|-----------|--------------------------|---------|----------------|-----------|----------------------------|
| C462      | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25    | C720    | 87-012-195-080 |           | C-CAP,U 100P-50CH          |
| C463      | 87-010-060-080 |           | ELECTROLYTIC 100-16V     | C721    | 87-012-176-080 |           | CAP 15P                    |
| C480      | 87-010-383-080 |           | CAP, ELECT 33-25V        | C722    | 87-012-176-080 |           | CAP 15P                    |
| C481      | 87-010-060-080 |           | ELECTROLYTIC 100-16V     | C723    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B       |
| C482      | 87-012-140-080 |           | CAP 470P                 | C725    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B       |
| C483      | 87-010-178-080 |           | CHIP CAP 1000P           | C727    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C484      | 87-010-178-080 |           | CHIP CAP 1000P           | C728    | 87-010-248-080 |           | CAP, ELECT 220-10V         |
| C485      | 87-010-101-080 |           | CAP, ELECT 220-16        | C729    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B       |
| C486      | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25    | C731    | 87-012-286-080 |           | CAP, U 0.01-25             |
| C488      | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25    | C733    | 87-010-987-080 |           | C-CAP,S 1500P-50 CH        |
| C489      | 87-015-677-080 |           | CAP,E 100-6.3 7L         | C734    | 87-010-987-080 |           | C-CAP,S 1500P-50 CH        |
| C490      | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25    | C735    | 87-010-987-080 |           | C-CAP,S 1500P-50 CH        |
| C491      | 87-015-677-080 |           | CAP,E 100-6.3 7L         | C736    | 87-010-987-080 |           | C-CAP,S 1500P-50 CH        |
| C492      | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25    | C737    | 87-A10-592-080 |           | C-CAP,S 0.015-50 J B       |
| C493      | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25    | C738    | 87-A10-592-080 |           | C-CAP,S 0.015-50 J B       |
| C494      | 87-010-060-080 |           | ELECTROLYTIC 100-16V     | C751    | 87-010-220-080 |           | C-CAP,S 0.018-25 B         |
| C823      | 87-016-513-080 |           | CAP,E 47-35 7L           | C752    | 87-010-220-080 |           | C-CAP,S 0.018-25 B         |
| C824      | 87-016-513-080 |           | CAP,E 47-35 7L           | C756    | 87-012-286-080 |           | CAP, U 0.01-25             |
| C825      | 87-016-513-080 |           | CAP,E 47-35 7L           | C757    | 87-012-188-080 |           | C-CAP,U 47P-50 CH          |
| C826      | 87-016-513-080 |           | CAP,E 47-35 7L           | C758    | 87-012-167-080 |           | C-CAP,U 5P-50 CH           |
| C827      | 87-010-247-080 |           | CAP, ELECT 100-50V       | C763    | 87-010-829-080 |           | CAP, U 0.047-16            |
| C828      | 87-010-247-080 |           | CAP, ELECT 100-50V       | C764    | 87-012-337-080 |           | C-CAP,U 56P-50 CH          |
| C4401     | 87-016-513-080 |           | CAP,E 47-35 7L           | C765    | 87-012-286-080 |           | CAP, U 0.01-25             |
| C4417     | 87-015-695-080 |           | CAP,E 1-50 7L            | C768    | 87-012-286-080 |           | CAP, U 0.01-25             |
| CN301     | 87-009-030-010 |           | CONNECTOR 2P PH M        | C769    | 87-010-260-080 |           | CAP, ELECT 47-25V          |
| CN401     | 87-A60-778-010 |           | CONN,18P B TMC-D(P)      | C770    | 87-010-829-080 |           | CAP, U 0.047-16            |
| CN402     | 8Z-CL5-610-010 |           | CONN,16P H WHT 528071610 | C771    | 87-010-383-080 |           | CAP, ELECT 33-25V          |
| CN406     | 87-009-030-010 |           | CONNECTOR 2P PH M        | C772    | 87-010-829-080 |           | CAP, U 0.047-16            |
| CN407     | 87-009-865-010 |           | CONN,2P ZH BLU           | C773    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| CN408     | 87-009-863-010 |           | CONN,2P ZH WHT           | C774    | 87-010-263-080 |           | CAP, ELECT 100-10V         |
| CN3301    | 87-009-030-010 |           | CONNECTOR 2P PH M        | C775    | 87-010-404-080 |           | CAP, ELECT 4.7-50V         |
| L301      | 87-005-204-080 |           | COIL,47UH                | C776    | 87-012-286-080 |           | CAP, U 0.01-25             |
| L302      | 87-005-204-080 |           | COIL,47UH                | C777    | 87-010-400-080 |           | CAP, ELECT 0.47-50V        |
| L303      | 87-005-204-080 |           | COIL,47UH                | C778    | 87-010-401-080 |           | CAP, ELECT 1-50V           |
| L305      | 87-005-204-080 |           | COIL,47UH                | C779    | 87-010-401-080 |           | CAP, ELECT 1-50V           |
| L306      | 87-005-189-080 |           | COIL 2.7UH               | C780    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| L307      | 87-005-187-080 |           | COIL,1.8UH               | C781    | 87-010-405-080 |           | CAP, ELECT 10-50V          |
| L308      | 87-003-148-080 |           | COIL BIAS 33UH           | C782    | 87-010-405-080 |           | CAP, ELECT 10-50V          |
| L403      | 87-005-196-080 |           | COIL,10UH                | C783    | 87-012-286-080 |           | CAP, U 0.01-25             |
| L480      | 87-005-426-080 |           | COIL,3.3UH K FLR50       | C784    | 87-012-286-080 |           | CAP, U 0.01-25             |
| L481      | 87-A50-095-010 |           | COIL,68UH RCR875D        | C785    | 87-010-401-080 |           | CAP, ELECT 1-50V           |
| M401      | 87-A91-069-010 |           | MOT,RF-370CA15370        | C789    | 87-012-275-080 |           | C-CAP,U 1200P-50 B         |
| R335      | 87-A00-408-080 |           | C-RES,S 2K-1/10W D       | C790    | 87-012-275-080 |           | C-CAP,U 1200P-50 B         |
| S401      | 8Z-CL5-609-010 |           | SW,PUSH 1-1-1 MQS2       | C791    | 87-010-405-080 |           | CAP, ELECT 10-50V          |
| S402      | 8Z-CL5-609-010 |           | SW,PUSH 1-1-1 MQS2       | C793    | 87-012-273-080 |           | C-CAP,U 820P-50 B          |
| W402      | 8Z-CL5-604-010 |           | CONN,18P(BOARD TO BOARD) | C794    | 87-010-406-080 |           | CAP, ELECT 22-50           |
| X301      | 87-A70-125-080 |           | VIB,XTAL 27MHZ 50PPM     | C795    | 87-010-596-080 |           | CAP, S 0.047-16            |
| X302      | 87-A70-046-010 |           | VIB,XTAL 16.934MHZ       | C796    | 87-010-403-080 |           | CAP, ELECT 3.3-50V         |
| X401      | 87-A70-124-080 |           | VIB,CER 8.0MHZ           | C799    | 87-010-829-080 |           | CAP, U 0.047-16            |
|           |                |           |                          | C812    | 87-012-286-080 |           | CAP, U 0.01-25             |
| MOTOR C.B |                |           |                          | C820    | 87-010-260-080 |           | CAP, ELECT 47-25V          |
| M2        | 9X-262-576-910 |           | MOTOR GEAR ASSY          | C821    | 87-012-286-080 |           | CAP, U 0.01-25             |
| PIN3      | 91-564-722-110 |           | CONNECTOR 6P             | C822    | 87-012-286-080 |           | CAP, U 0.01-25             |
| SW1       | 91-572-085-120 |           | LEAF SW                  | C823    | 87-012-286-080 |           | CAP, U 0.01-25             |
|           |                |           |                          | C828    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| TUNER C.B |                |           |                          | C829    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
|           |                |           |                          | C959    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
|           |                |           |                          | C960    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C701      | 87-010-381-080 |           | CAP, ELECT 330-16V       | C961    | 87-012-174-080 |           | CAP CHIP CERA SS 12P CHJ   |
| C702      | 87-010-404-080 |           | CAP, ELECT 4.7-50V       | C963    | 87-010-196-080 |           | CHIP CAPACITOR,0.1-25      |
| C703      | 87-012-286-080 |           | CAP, U 0.01-25           |         |                |           |                            |
| C704      | 87-012-286-080 |           | CAP, U 0.01-25           | CF801   | 87-008-261-010 |           | FILTER, SFE10.7MA5-A       |
| C705      | 87-A10-592-080 |           | C-CAP,S 0.015-50 J B     | CF802   | 87-008-261-010 |           | FILTER, SFE10.7MA5-A       |
| C706      | 87-A10-592-080 |           | C-CAP,S 0.015-50 J B     | CN701   | 87-A60-700-010 |           | CONN,13P H GRY TUC-P13X-C1 |
| C709      | 87-012-195-080 |           | C-CAP,U 100P-50CH        | FFE801  | A8-8ZA-190-030 |           | 8ZA-1 FEUNM                |
| C711      | 87-010-260-080 |           | CAP, ELECT 47-25V        | L771    | 87-A50-266-010 |           | COIL,FM DET-2N(TOK)        |
| C712      | 87-010-831-080 |           | C-CAP,U,0.1-16F          |         |                |           |                            |
| C714      | 87-012-286-080 |           | CAP, U 0.01-25           | L772    | 87-A91-110-010 |           | FLTR,PCFJZH-450 (TOK)      |
| C717      | 87-012-286-080 |           | CAP, U 0.01-25           | L981    | 8Z-ZA1-664-010 |           | COIL,AM PACK 4(TOK)        |
| C719      | 87-012-286-080 |           | CAP, U 0.01-25           | X721    | 87-A70-061-010 |           | VIB,XTAL 4.500MHZ CSA-309  |

TUNER ADAPTOR C.B

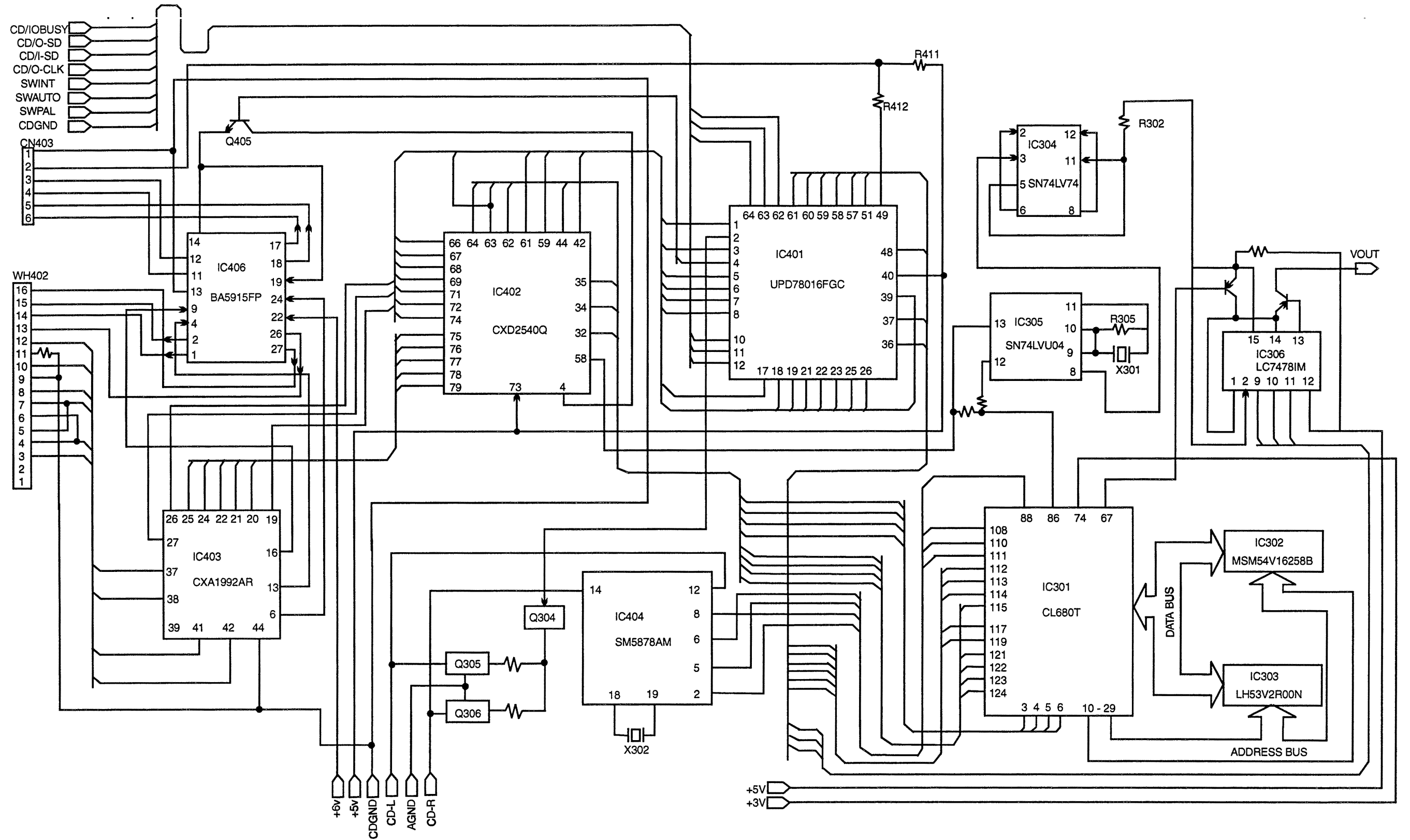
WH101 8Z-CL5-624-010 CONN,13P H WHT 528071310  
 WH102 87-099-570-010 CONN,13P TUC-P13P-B1

- Regarding connectors, they are not stocked as they are not the initial order items.  
 The connectors are available after they are supplied from connector manufacturers upon the order is received.

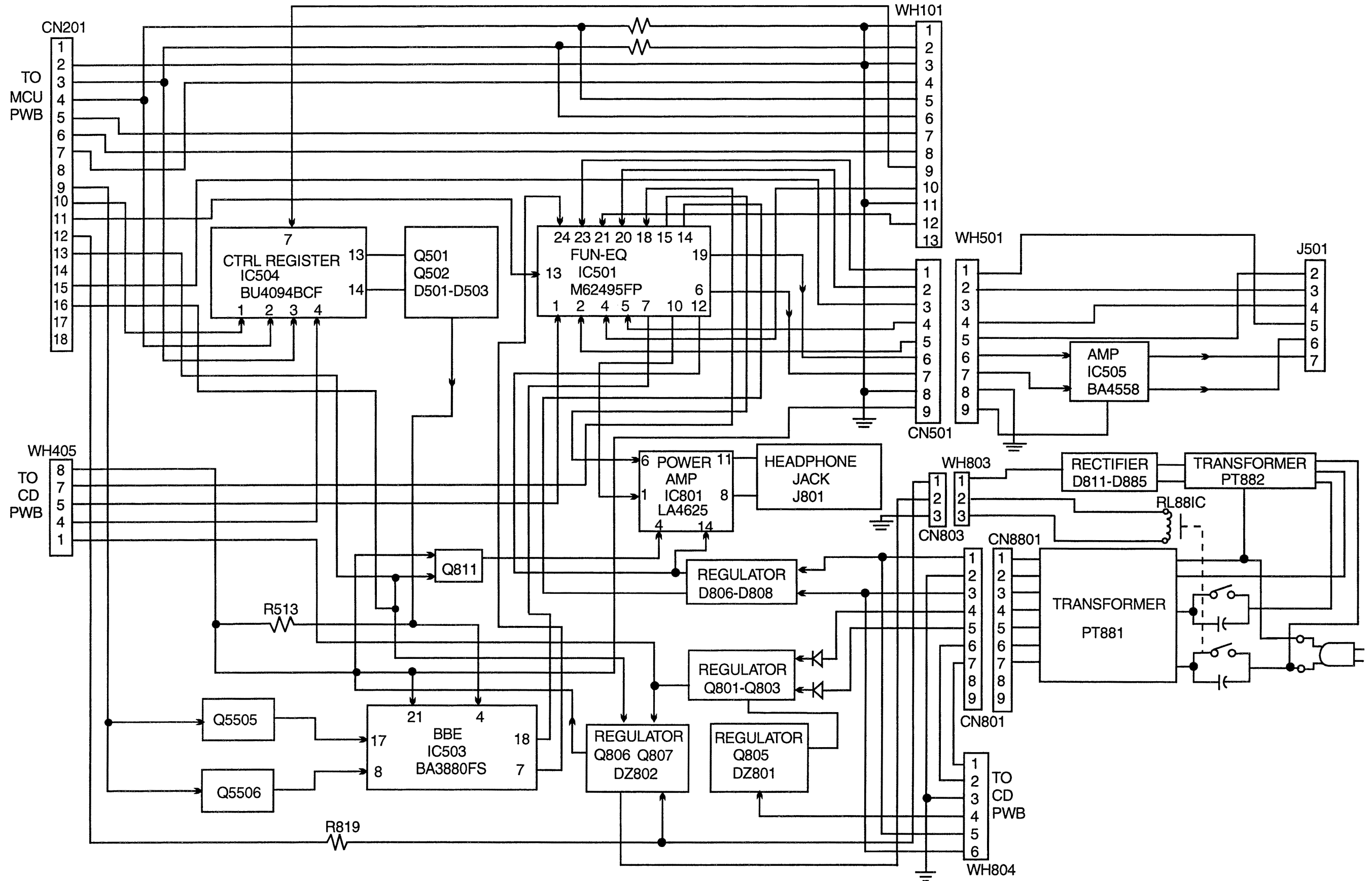
TRANSISTOR ILLUSTRATION

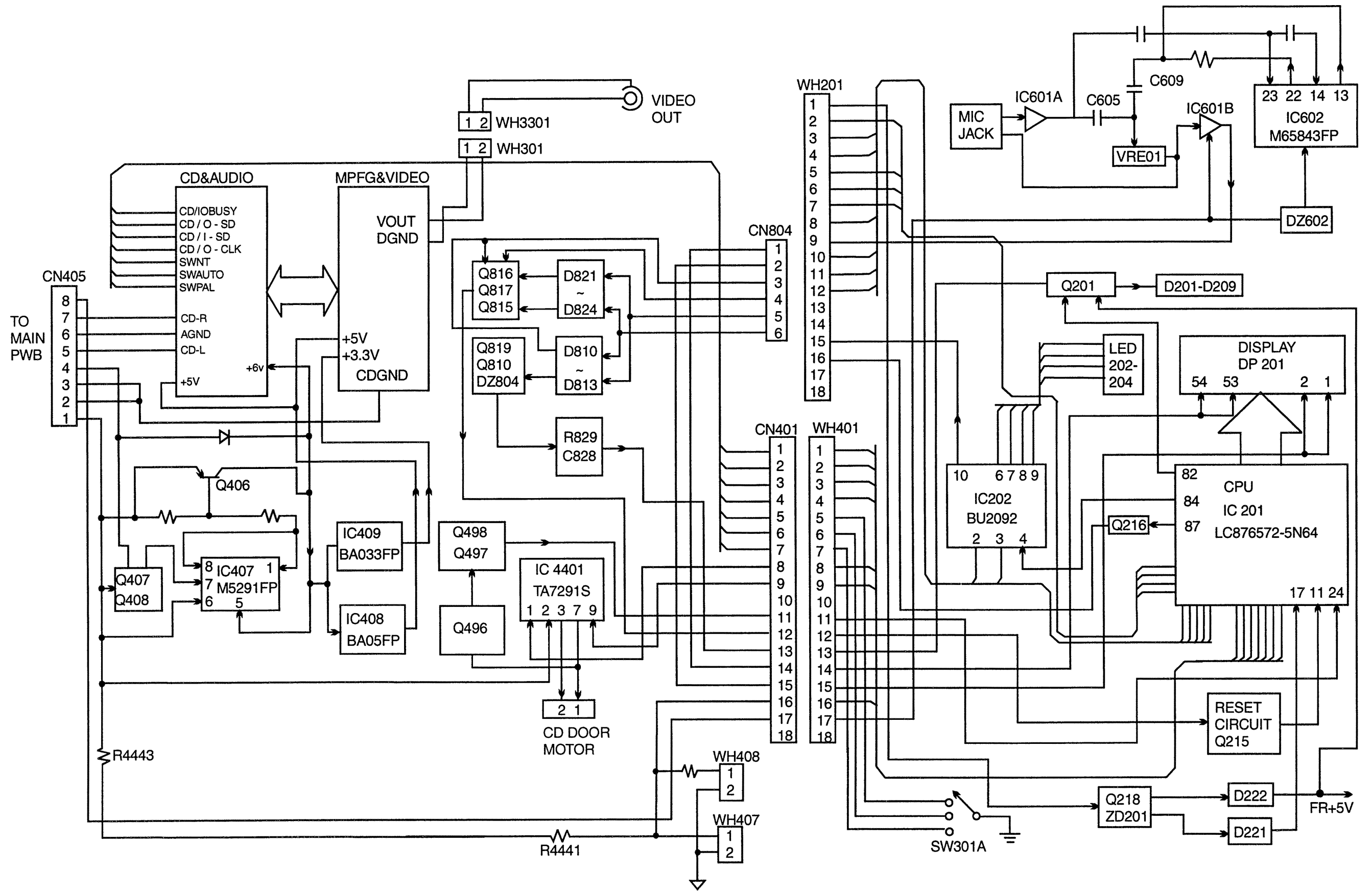


BLOCK DIAGRAM-1 (CD/CONTROL)



BLOCK DIAGRAM-2 (POWER/AMP)





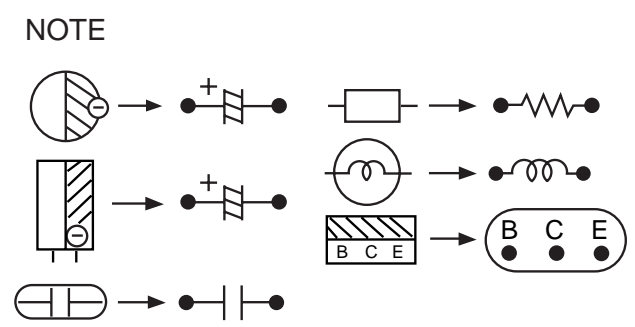
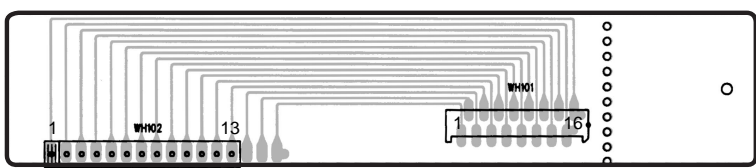
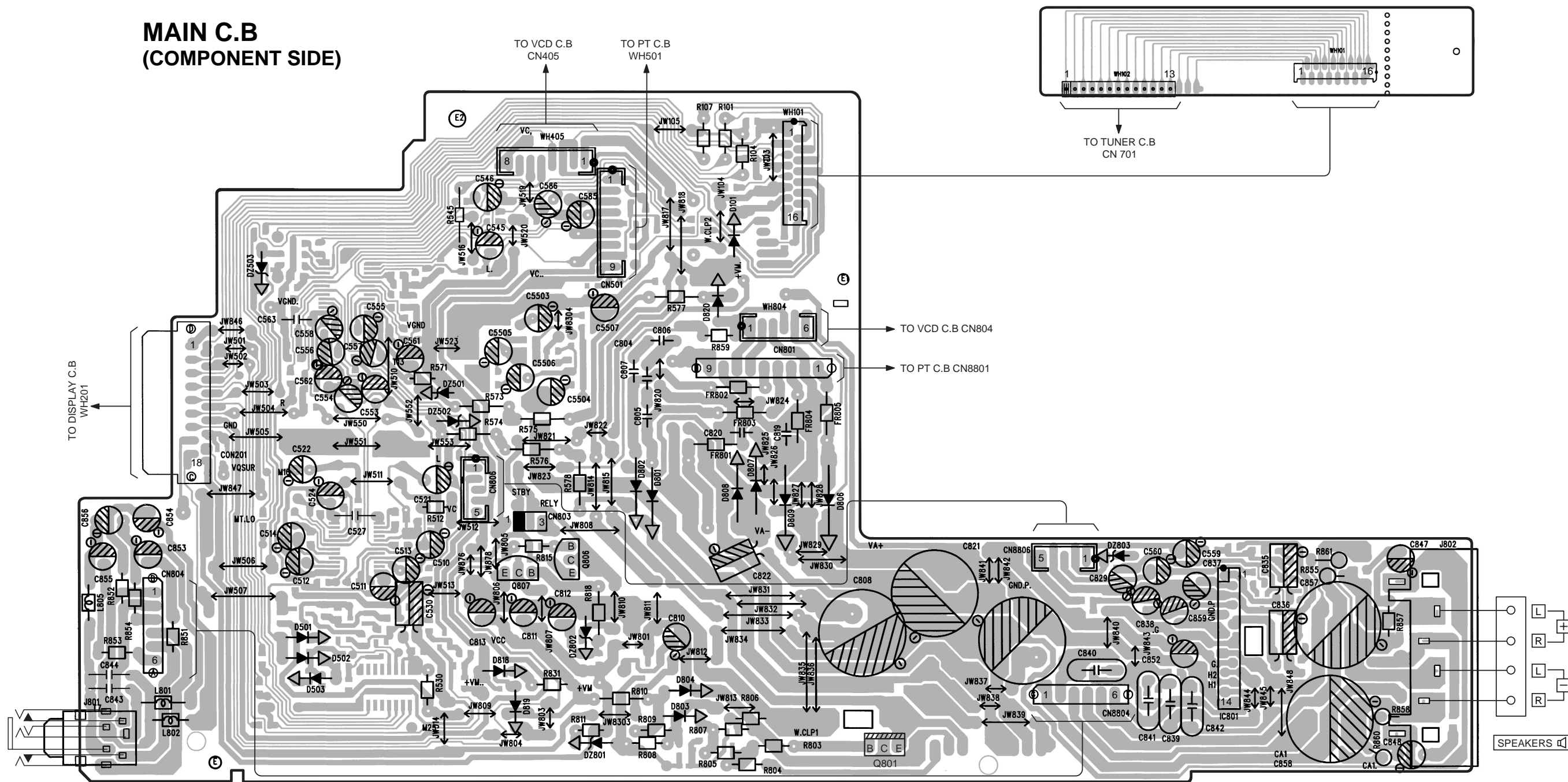


1 2 3 4 5 6 7 8 9 10 11 12 13 14

A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K

**MAIN C.B  
(COMPONENT SIDE)**

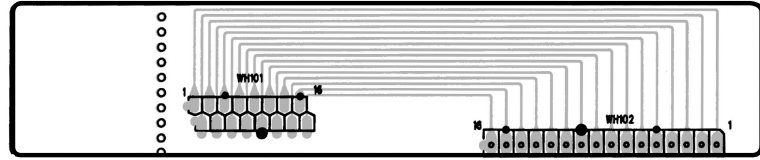
**TUNER ADAPTOR C.B  
(COMPONENT SIDE)**



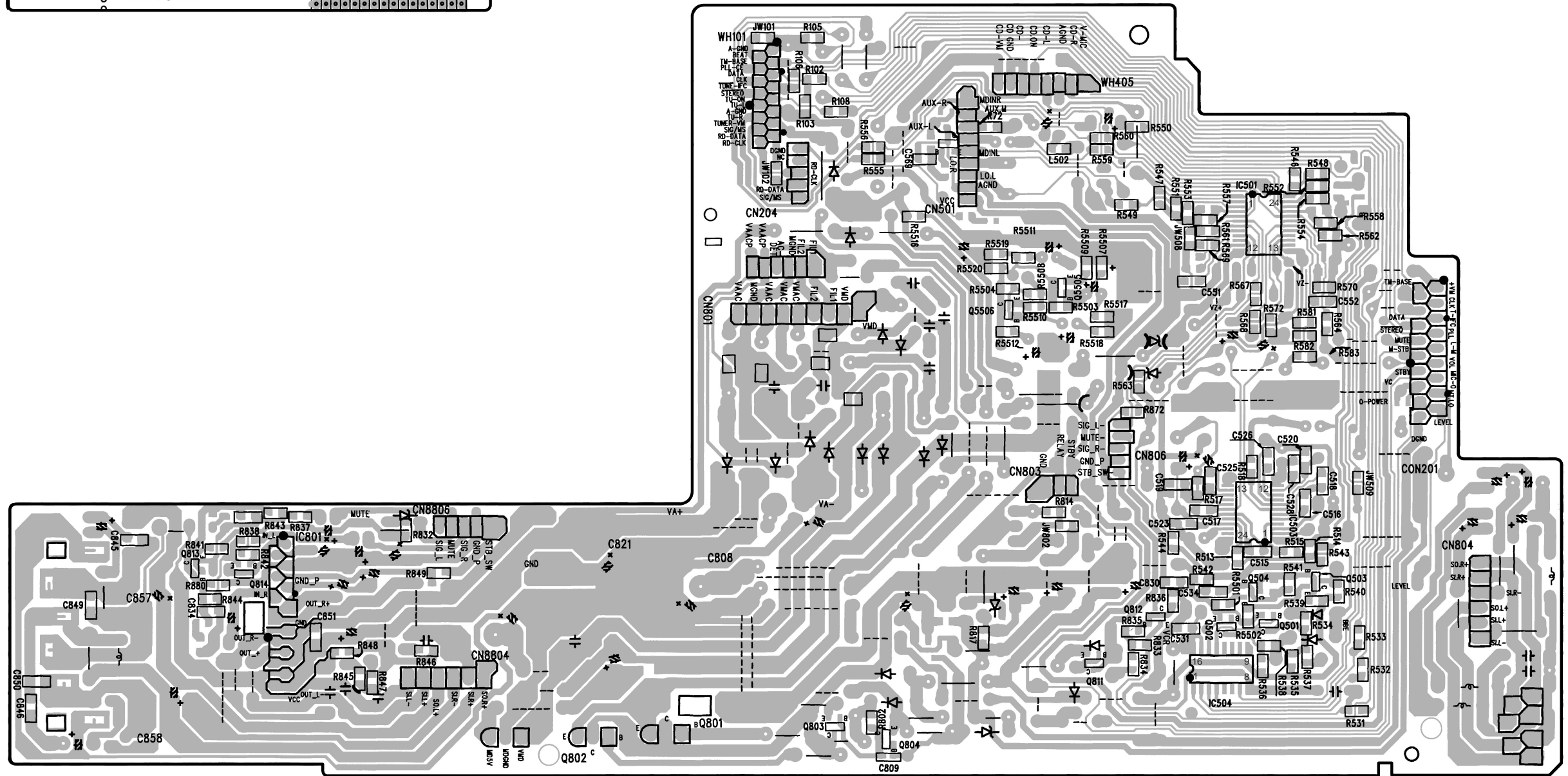


A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K

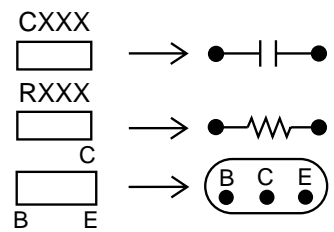
**TUNER ADAPTOR C.B  
(CONDUCTOR SIDE)**



**MAIN C.B  
(CONDUCTOR SIDE)**

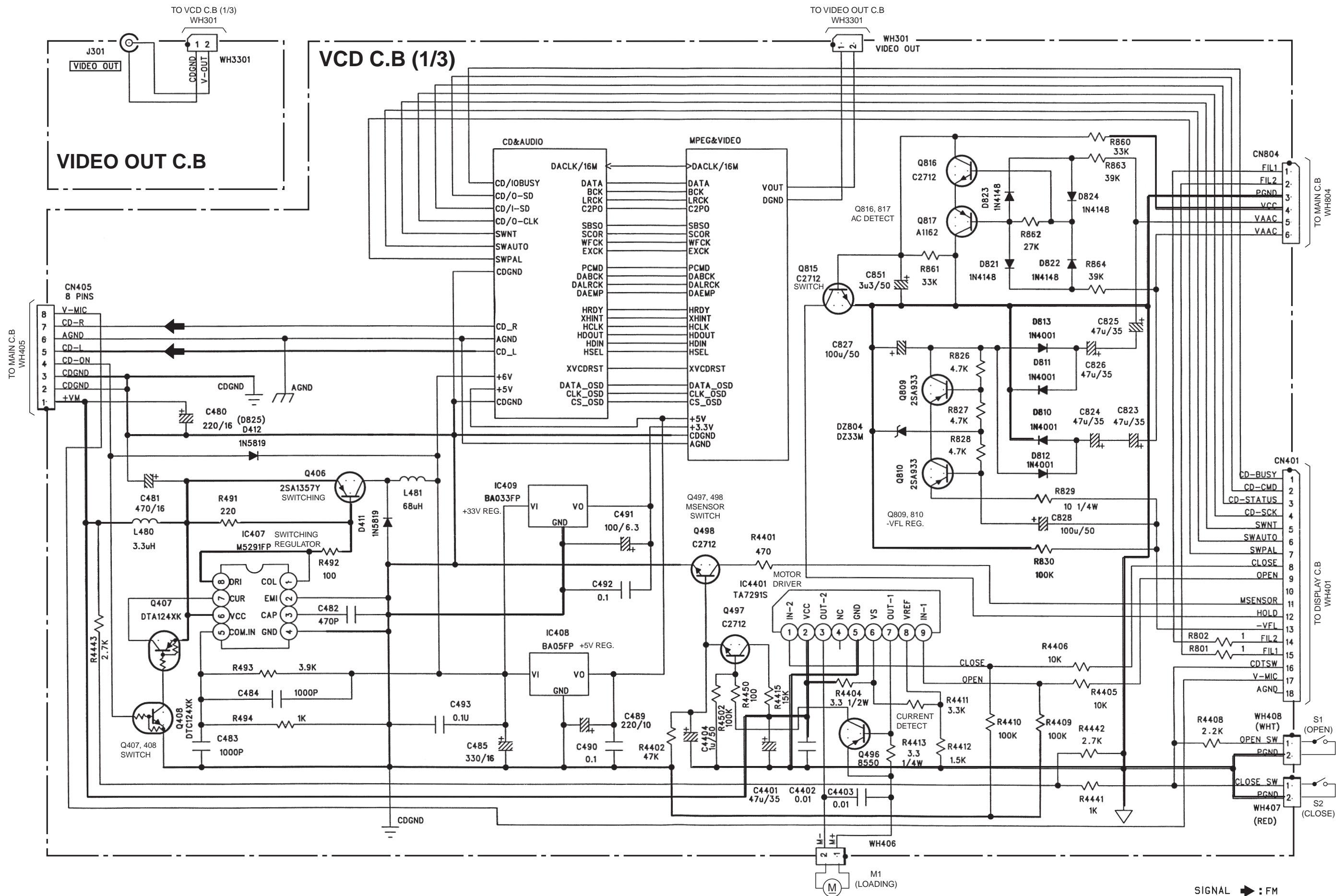


**NOTE**



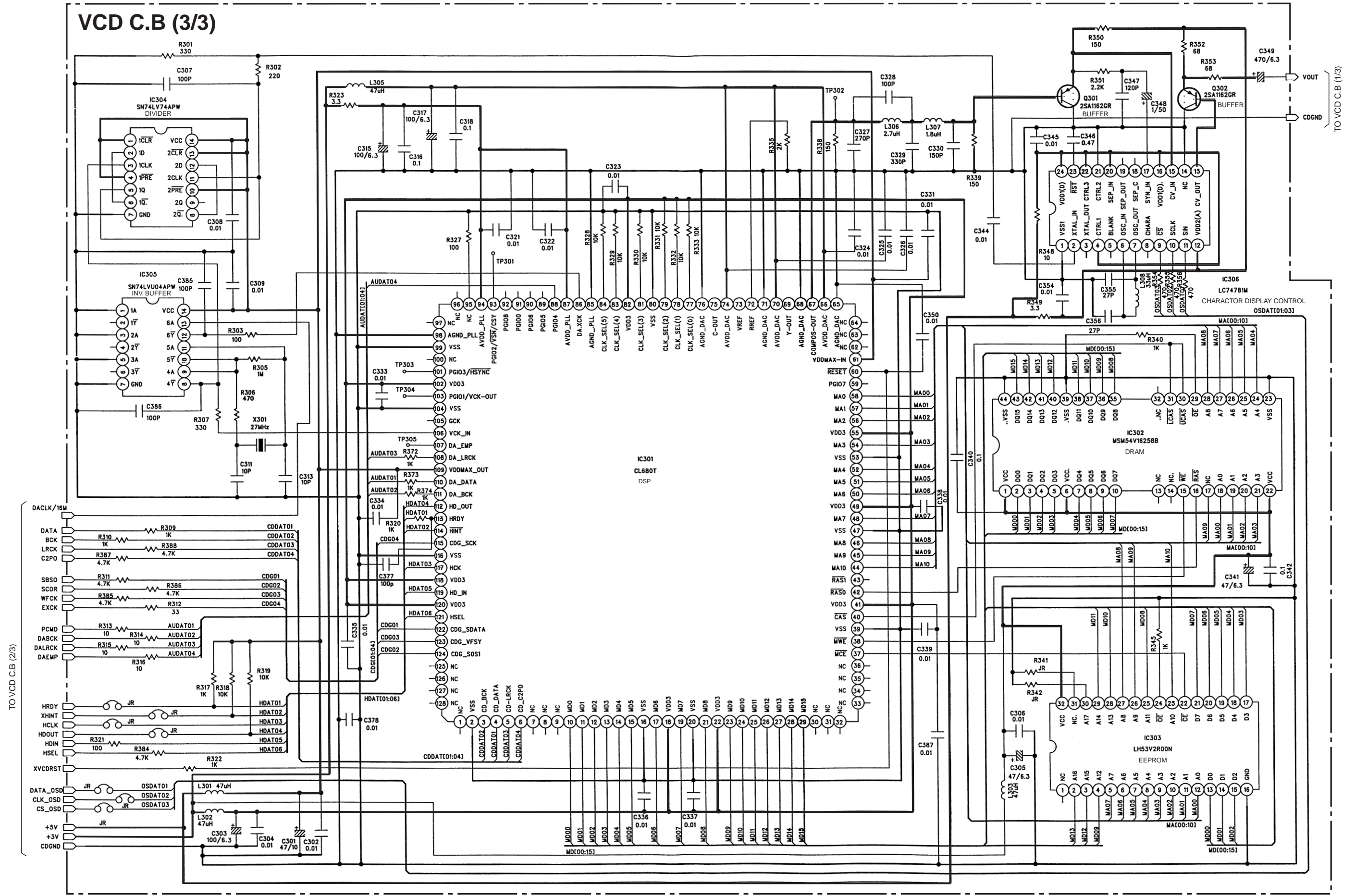


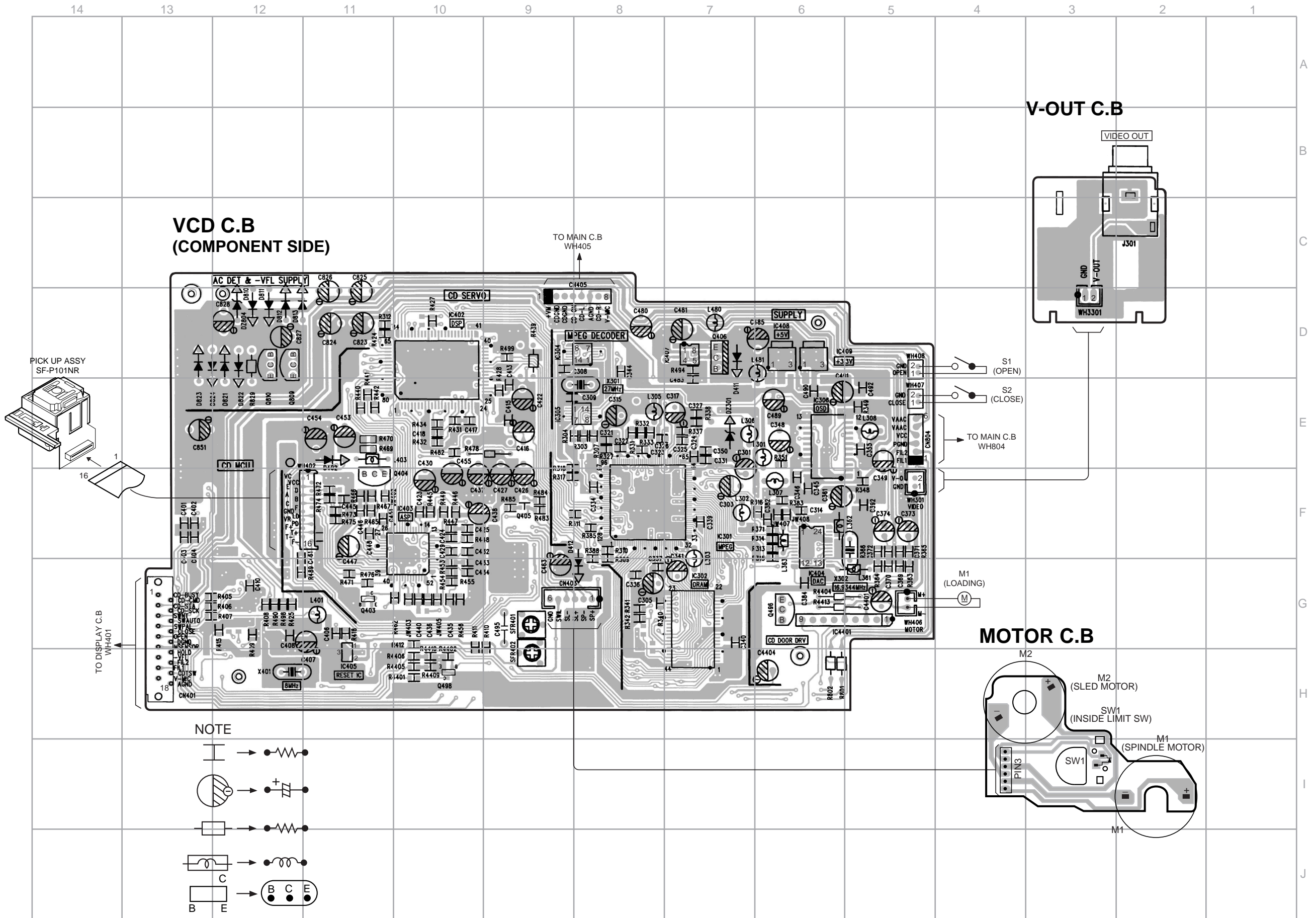










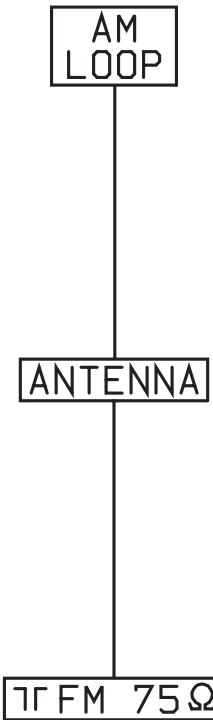
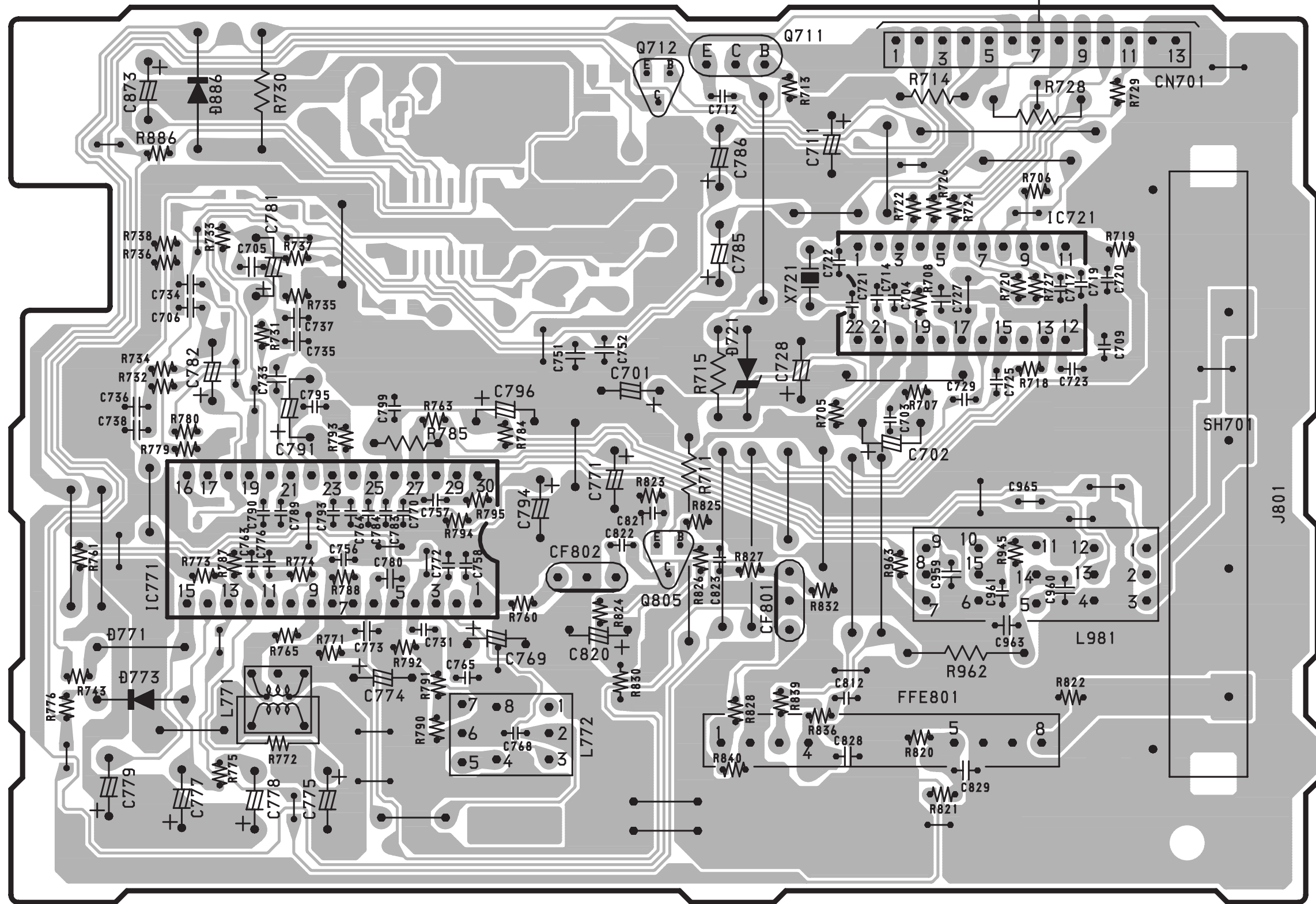






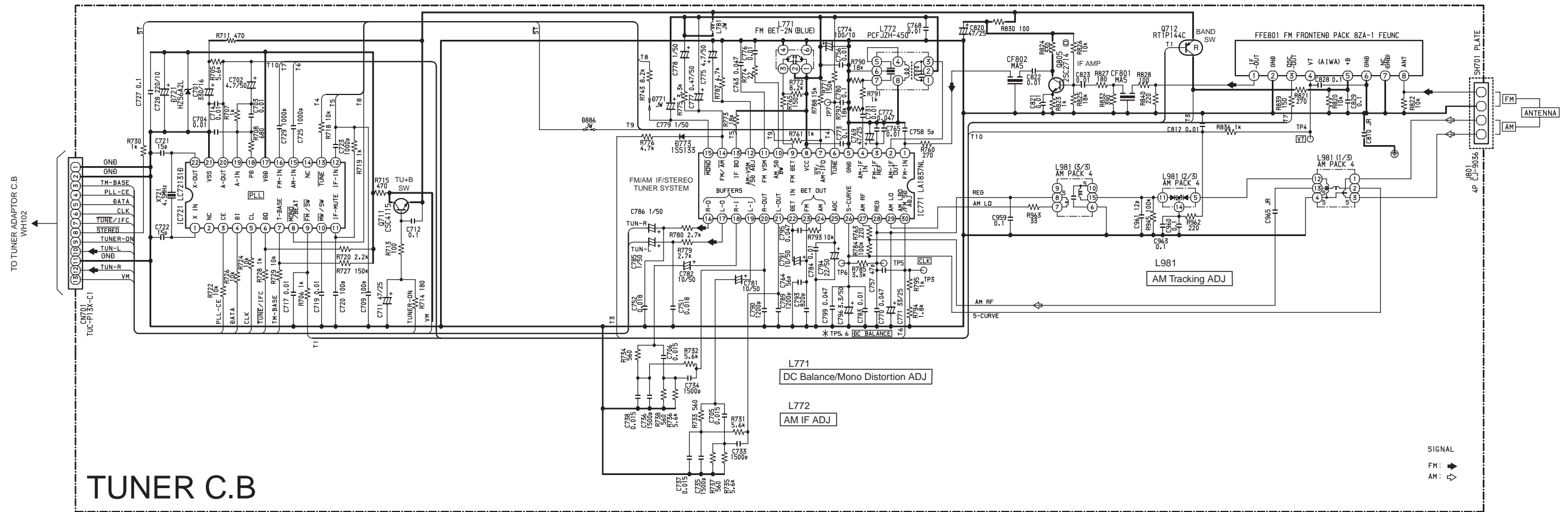
# TUNER C.B

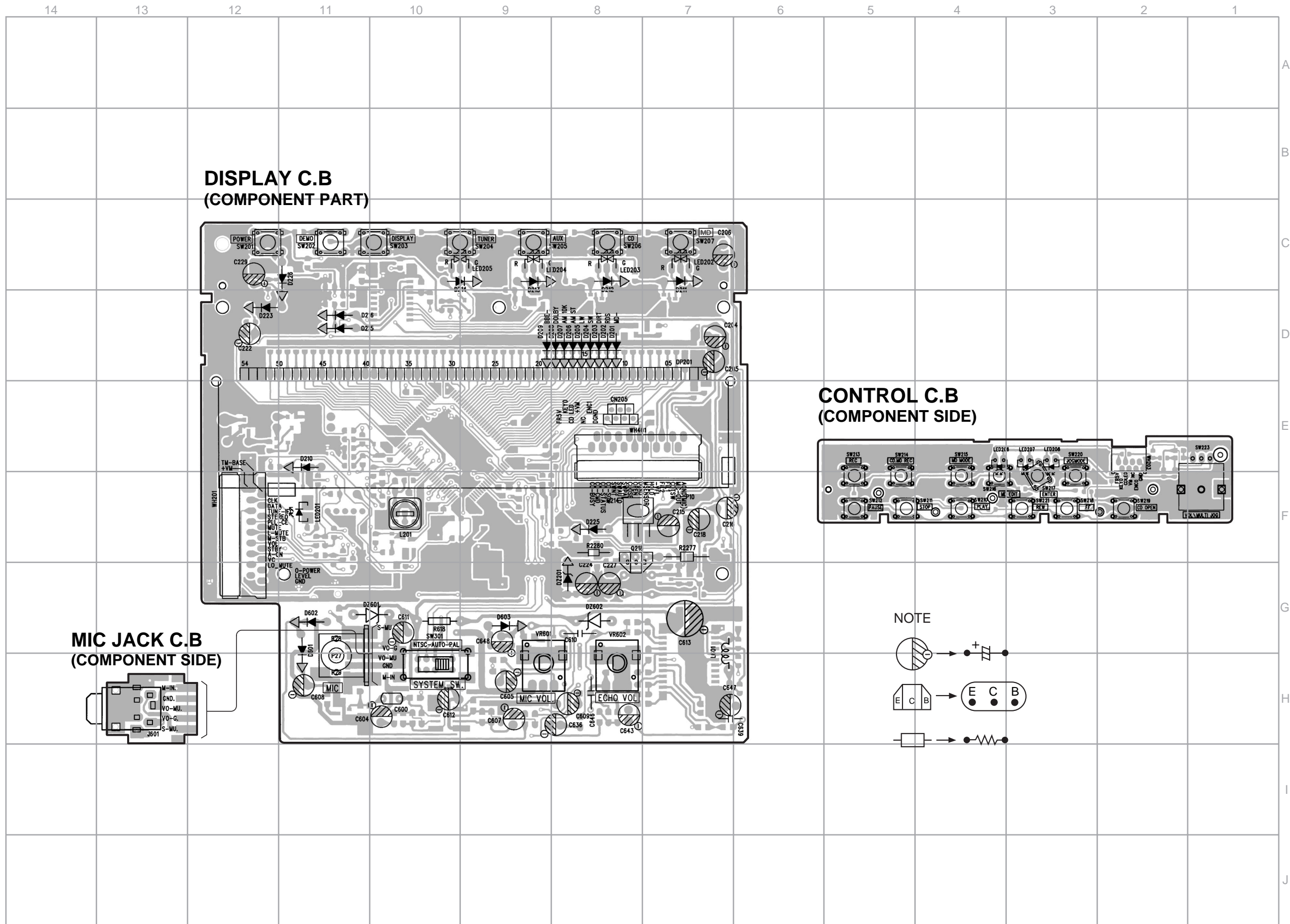
TO TUNER ADAPTOR C.B  
WH102





SCHEMATIC DIAGRAM-5 (TUNER)

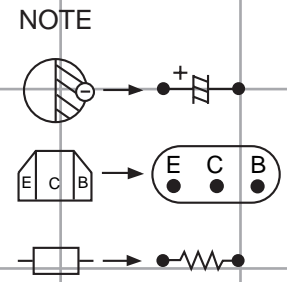


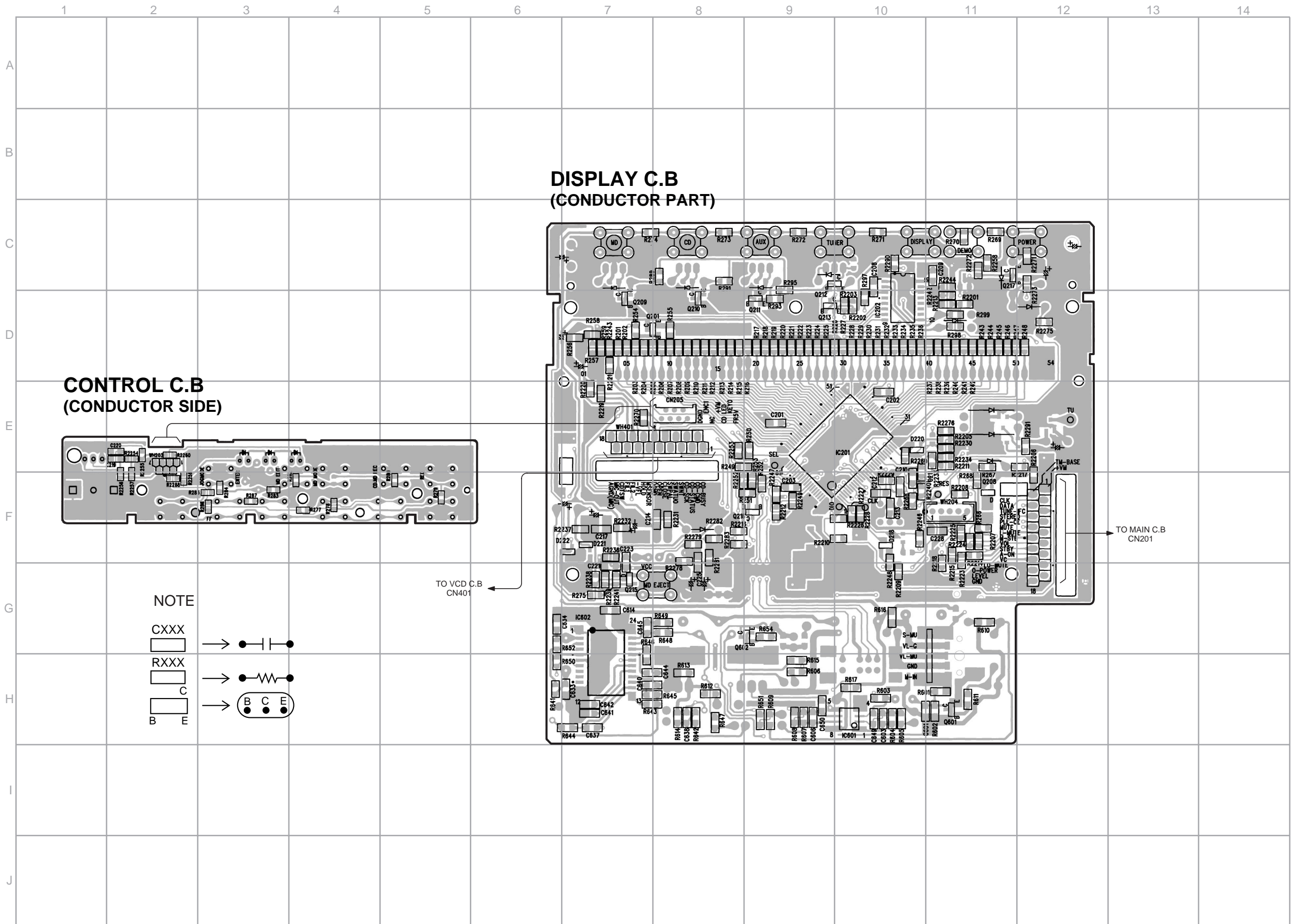


**DISPLAY C.B  
(COMPONENT PART)**

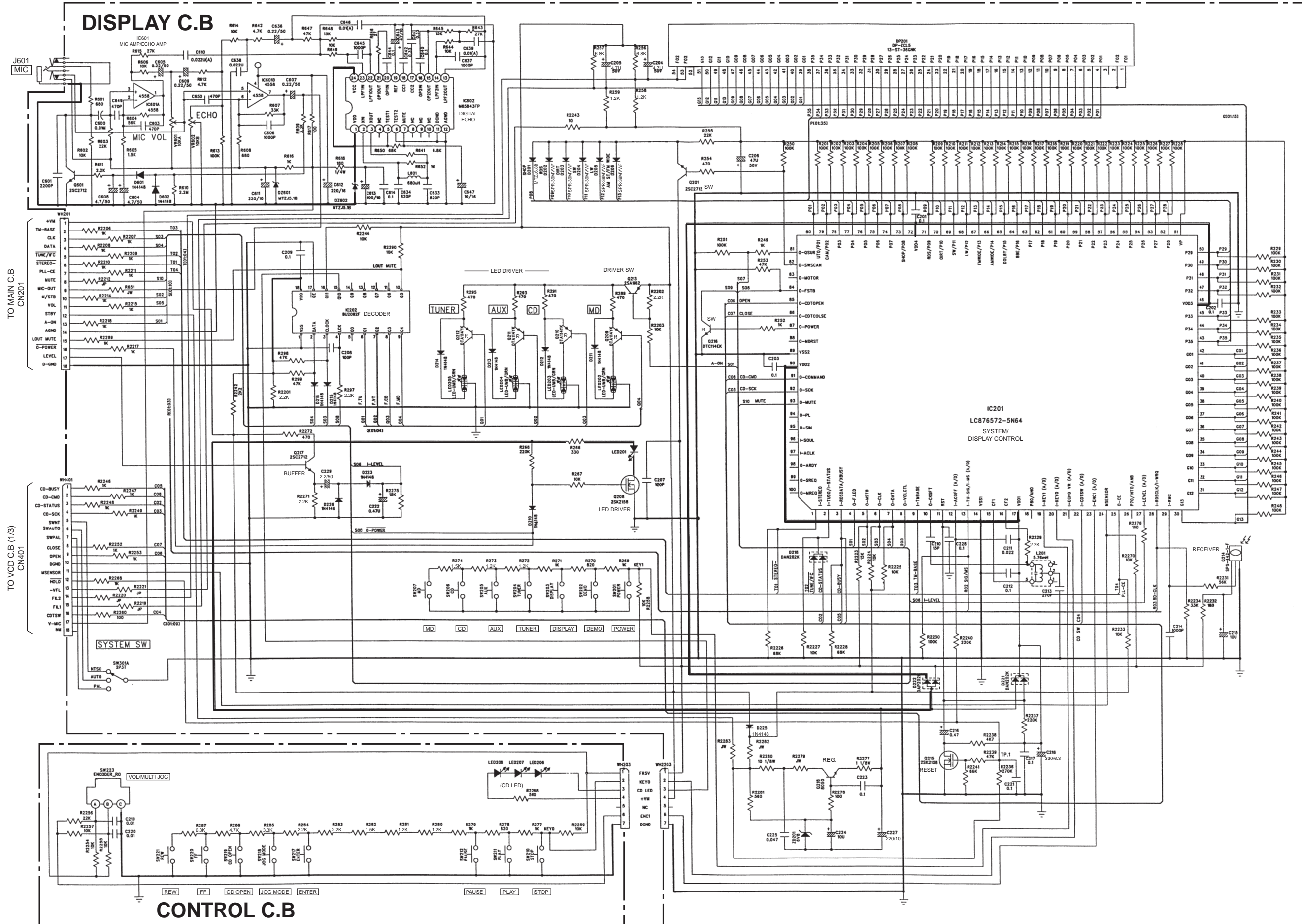
**CONTROL C.B  
(COMPONENT SIDE)**

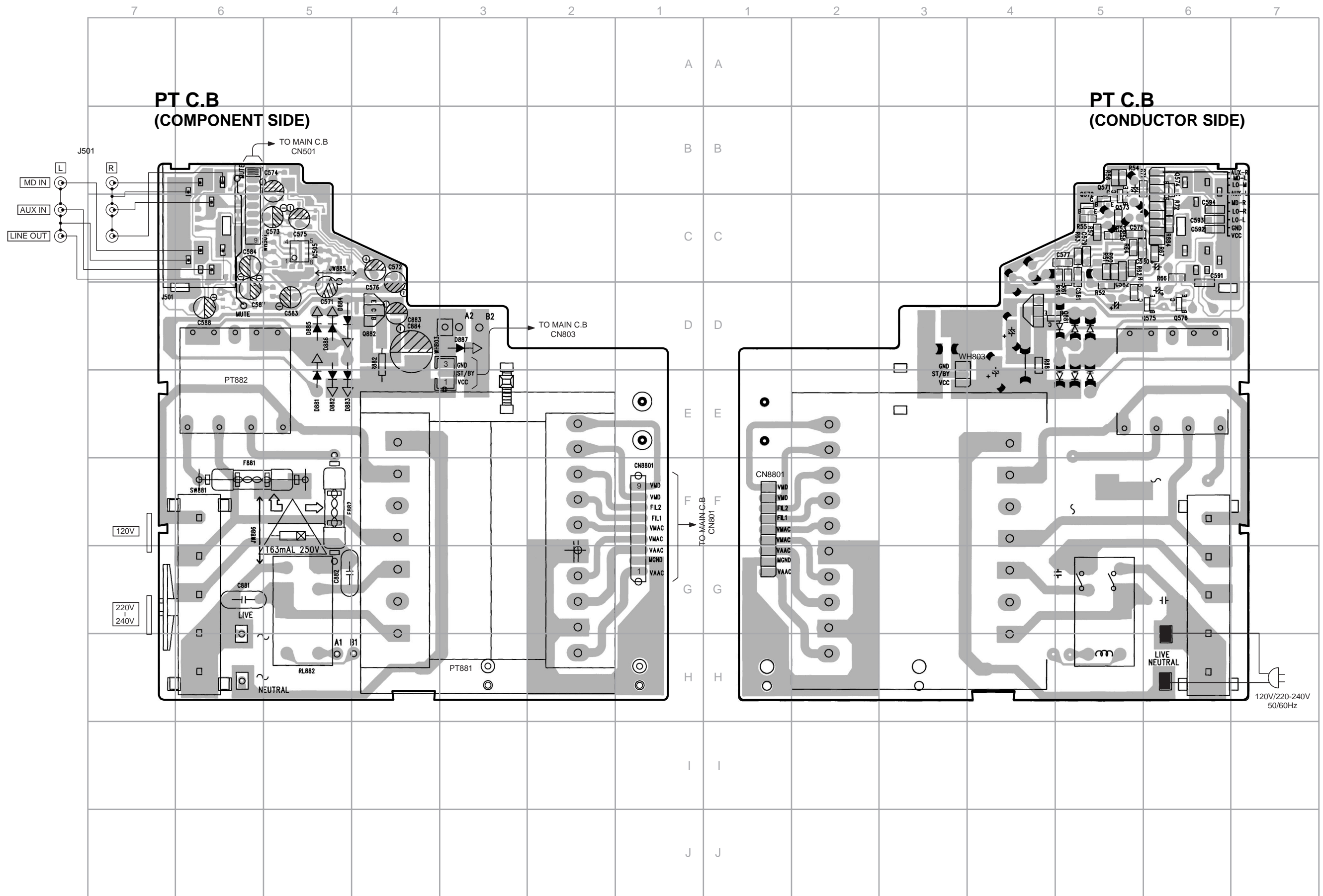
**MIC JACK C.B  
(COMPONENT SIDE)**

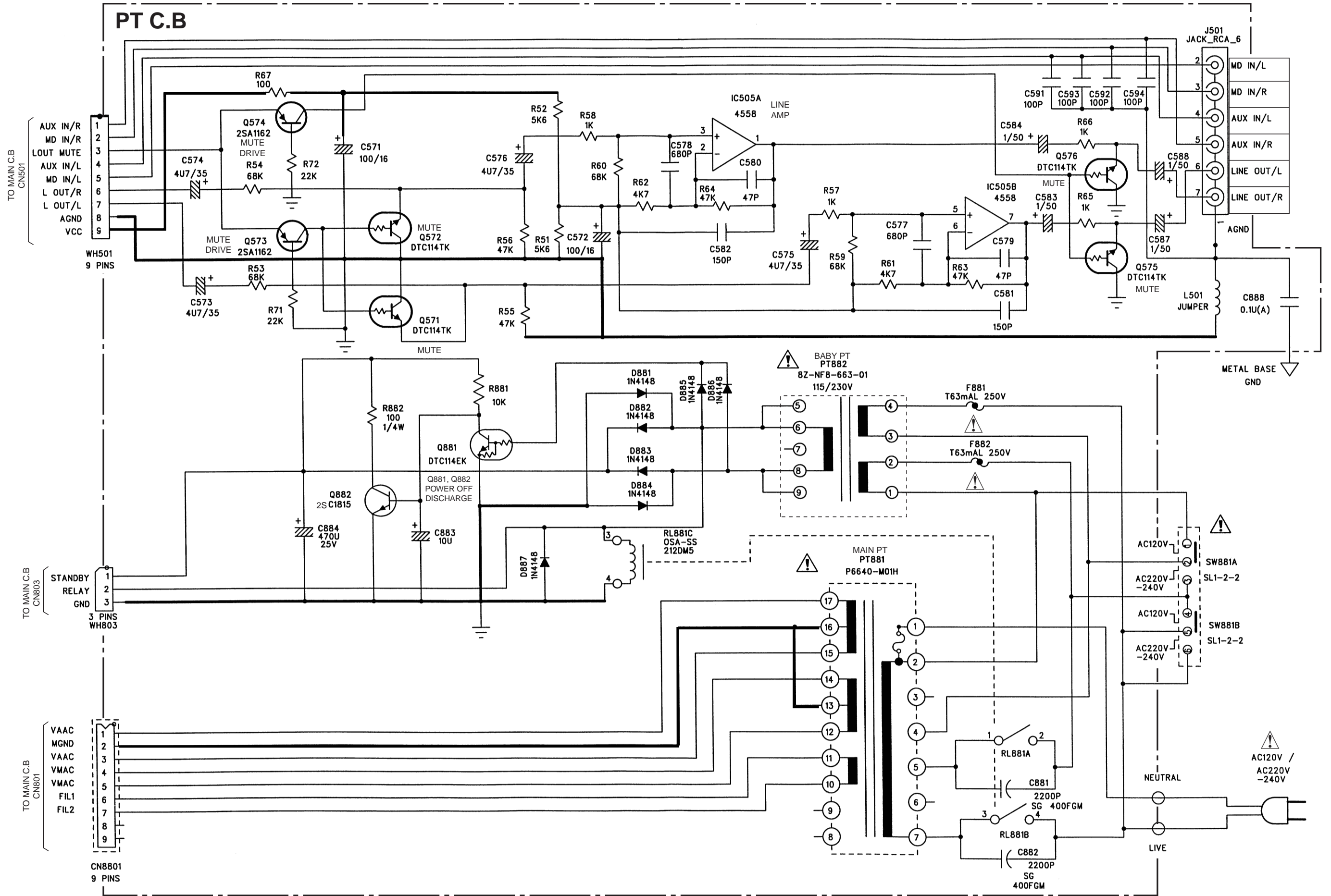














VOLTAGE CHART

**THE MEASURED VALUE IS DC VOLTAGE**

**UNIT: V**

**MPEG & VIDEO SECTION :**

**TEST CONDETION: VCD PLAY**

**IC304 (SN74LV74APW)**

|                     |          |          |           |           |           |           |           |
|---------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b> | <b>2</b> | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  |
|                     | 4.85     | 2.36     | 2.35      | 4.85      | 2.25      | 2.36      | 0         |
| <b>PIN'S NUMBER</b> | <b>8</b> | <b>9</b> | <b>10</b> | <b>11</b> | <b>12</b> | <b>13</b> | <b>14</b> |
|                     | 2.41     | 2.43     | 4.58      | 2.25      | 2.41      | 4.85      | 4.85      |

**IC305 (SN74LVU04APW)**

|                     |          |          |           |           |           |           |           |
|---------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b> | <b>2</b> | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  |
|                     | 0        | \        | 0         | \         | 0         | \         | 0         |
| <b>PIN'S NUMBER</b> | <b>8</b> | <b>9</b> | <b>10</b> | <b>11</b> | <b>12</b> | <b>13</b> | <b>14</b> |
|                     | 2.35     | 2.37     | 2.37      | 2.25      | 2.65      | 2.20      | 4.58      |

**IC302 (MSM54V16258B)**

|                     |           |           |           |           |           |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  | <b>10</b> | <b>11</b> | <b>12</b> |
|                     | 3.29      | 1.51      | 1.30      | 1.39      | 1.25      | 3.29      | 1.32      | 1.41      | 1.15      | 1.02      | 0         | 0         |
| <b>PIN'S NUMBER</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>24</b> |
|                     | 0         | 0         | 2.31      | 1.37      | 1.78      | 1.05      | 1.59      | 1.60      | 0.11      | 3.29      | 0         | 1.59      |
| <b>PIN'S NUMBER</b> | <b>25</b> | <b>26</b> | <b>27</b> | <b>28</b> | <b>29</b> | <b>30</b> | <b>31</b> | <b>32</b> | <b>33</b> | <b>34</b> | <b>35</b> | <b>36</b> |
|                     | 1.57      | 1.57      | 1.63      | 2.9       | 0         | 3.01      | 3.01      | 0         | \         | \         | 1.08      | 1.39      |
| <b>PIN'S NUMBER</b> | <b>37</b> | <b>38</b> | <b>39</b> | <b>40</b> | <b>41</b> | <b>42</b> | <b>43</b> | <b>44</b> |           |           |           |           |
|                     | 1.41      | 0.89      | 0         | 1.95      | 1.13      | 0         | 0         | 0         |           |           |           |           |

**IC301 (CL680)**

|                     |            |            |            |            |            |            |            |            |            |            |            |            |
|---------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>PIN'S NUMBER</b> | <b>1</b>   | <b>2</b>   | <b>3</b>   | <b>4</b>   | <b>5</b>   | <b>6</b>   | <b>7</b>   | <b>8</b>   | <b>9</b>   | <b>10</b>  | <b>11</b>  | <b>12</b>  |
|                     | \          | 0          | 0          | 2.48       | 2.40       | 0          | \          | \          | \          | 1.51       | 1.30       | 1.39       |
| <b>PIN'S NUMBER</b> | <b>13</b>  | <b>14</b>  | <b>15</b>  | <b>16</b>  | <b>17</b>  | <b>18</b>  | <b>19</b>  | <b>20</b>  | <b>21</b>  | <b>22</b>  | <b>23</b>  | <b>24</b>  |
|                     | 1.25       | 1.32       | 1.41       | 0          | 1.15       | 2.31       | 1.02       | 0          | 2.11       | 2.99       | 1.34       | 1.25       |
| <b>PIN'S NUMBER</b> | <b>25</b>  | <b>26</b>  | <b>27</b>  | <b>28</b>  | <b>29</b>  | <b>30</b>  | <b>31</b>  | <b>32</b>  | <b>33</b>  | <b>34</b>  | <b>35</b>  | <b>36</b>  |
|                     | 1.00       | 1.96       | 0          | 2.49       | 0.99       | \          | \          | \          | \          | \          | \          | \          |
| <b>PIN'S NUMBER</b> | <b>37</b>  | <b>38</b>  | <b>39</b>  | <b>40</b>  | <b>41</b>  | <b>42</b>  | <b>43</b>  | <b>44</b>  | <b>45</b>  | <b>46</b>  | <b>47</b>  | <b>48</b>  |
|                     | 2.32       | 0          | 1.72       | 3.00       | 1.57       | 1.37       | \          | 1.78       | 1.77       | 1.56       | 0          | 1.62       |
| <b>PIN'S NUMBER</b> | <b>49</b>  | <b>50</b>  | <b>51</b>  | <b>52</b>  | <b>53</b>  | <b>54</b>  | <b>55</b>  | <b>56</b>  | <b>57</b>  | <b>58</b>  | <b>59</b>  | <b>60</b>  |
|                     | 1.57       | 1.57       | 1.6        | 1.63       | 0          | 1.53       | 3.00       | 1.61       | 0          | 0          | \          | 2.34       |
| <b>PIN'S NUMBER</b> | <b>61</b>  | <b>62</b>  | <b>63</b>  | <b>64</b>  | <b>65</b>  | <b>66</b>  | <b>67</b>  | <b>68</b>  | <b>69</b>  | <b>70</b>  | <b>71</b>  | <b>72</b>  |
|                     | 4.58       | \          | \          | \          | 0          | 3.23       | 0.74       | 0          | 2.07       | 3.23       | 0.81       | 0          |
| <b>PIN'S NUMBER</b> | <b>73</b>  | <b>74</b>  | <b>75</b>  | <b>76</b>  | <b>77</b>  | <b>78</b>  | <b>79</b>  | <b>80</b>  | <b>81</b>  | <b>82</b>  | <b>83</b>  | <b>84</b>  |
|                     | 1.17       | 3.23       | 0.74       | 0.75       | 0          | 2.99       | 2.99       | 0          | 2.98       | 2.99       | 0          | 0          |
| <b>PIN'S NUMBER</b> | <b>85</b>  | <b>86</b>  | <b>87</b>  | <b>88</b>  | <b>89</b>  | <b>90</b>  | <b>91</b>  | <b>92</b>  | <b>93</b>  | <b>94</b>  | <b>95</b>  | <b>96</b>  |
|                     | 0          | 2.55       | 3.27       | 0          | \          | \          | \          | \          | 3.23       | 3.28       | 0          | \          |
| <b>PIN'S NUMBER</b> | <b>97</b>  | <b>98</b>  | <b>99</b>  | <b>100</b> | <b>101</b> | <b>102</b> | <b>103</b> | <b>104</b> | <b>105</b> | <b>106</b> | <b>107</b> | <b>108</b> |
|                     | 3.14       | 0          | 0          | \          | 0          | 0          | 3.00       | 3.25       | 0          | 2.97       | 2.35       | 2.99       |
| <b>PIN'S NUMBER</b> | <b>109</b> | <b>110</b> | <b>111</b> | <b>112</b> | <b>113</b> | <b>114</b> | <b>115</b> | <b>116</b> | <b>117</b> | <b>118</b> | <b>119</b> | <b>120</b> |
|                     | 0          | 0          | 2.35       | 4.64       | 4.84       | 4.72       | 0.11       | 0          | 4.89       | 3.00       | 0          | 3.00       |
| <b>PIN'S NUMBER</b> | <b>121</b> | <b>122</b> | <b>123</b> | <b>124</b> | <b>125</b> | <b>126</b> | <b>127</b> | <b>128</b> |            |            |            |            |
|                     | 3.94       | 0.14       | 2.47       | 0          | \          | \          | \          | \          |            |            |            |            |

|                   |                        |          |          |                        |          |          |
|-------------------|------------------------|----------|----------|------------------------|----------|----------|
| <b>TRANSISTOR</b> | <b>Q301(2SA1162GR)</b> |          |          | <b>Q302(2SA1162GR)</b> |          |          |
|                   | <b>E</b>               | <b>C</b> | <b>B</b> | <b>E</b>               | <b>C</b> | <b>B</b> |
|                   | 1.84                   | 0        | 1.04     | 2.10                   | 0        | 1.48     |

**IC303 (LH53V2R00N)**

|                     |           |           |           |           |           |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  | <b>10</b> | <b>11</b> | <b>12</b> |
|                     | \         | 0         | 1.96      | 1.34      | 1.62      | 1.56      | 1.56      | 1.61      | 1.53      | 1.6       | 1.55      | 1.06      |
| <b>PIN'S NUMBER</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>24</b> |
|                     | 1.34      | 0.96      | 1.29      | 0         | 0.96      | 1.45      | 1.15      | 1.09      | 1.03      | 2.74      | 0.51      | 0         |
| <b>PIN'S NUMBER</b> | <b>25</b> | <b>26</b> | <b>27</b> | <b>28</b> | <b>29</b> | <b>30</b> | <b>31</b> | <b>32</b> |           |           |           |           |
|                     | 1.20      | 1.76      | 0         | 0         | 0.96      | 0         | 0         | 3.29      |           |           |           |           |

**IC306 (LC74781M)**

|                     |           |           |           |           |           |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  | <b>10</b> | <b>11</b> | <b>12</b> |
|                     | 0         | 2.44      | \         | 4.97      | \         | 2.35      | 2.35      | 0         | 4.84      | 4.85      | 0.18      | 4.8       |
| <b>PIN'S NUMBER</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>24</b> |
|                     | 1.48      | 0         | 1.84      | 4.97      | 2.87      | \         | \         | 4.97      | 0         | 4.97      | 4.96      | 4.97      |

**CD & AUDIO SECTION  
TEST CONDITION:VCD PLAY****IC406 (BA5915)**

|                     |           |           |           |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  | <b>10</b> |
|                     | 2.58      | 2.62      | 2.38      | 2.38      | 2.38      | 0         | 0         | 0         | 2.38      | 2.38      |
| <b>PIN'S NUMBER</b> | <b>11</b> | <b>12</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> |
|                     | 2.38      | 2.60      | 0         | 2.06      | 2.38      | 2.38      | 3.02      | 2.16      | 2.06      | 2.38      |
| <b>PIN'S NUMBER</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>24</b> | <b>25</b> | <b>26</b> | <b>27</b> | <b>28</b> |           |           |
|                     | 5.68      | 5.68      | 2.38      | 2.38      | 2.38      | 2.47      | 2.71      | 0         |           |           |

**IC403 (CXA1992AR)**

|                     |           |           |           |           |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  | <b>10</b> | <b>11</b> |
|                     | 2.39      | 0         | 2.39      | 2.39      | 2.35      | 2.39      | 2.37      | 2.57      | 2.42      | 2.39      | 0.8       |
| <b>PIN'S NUMBER</b> | <b>12</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> |
|                     | 2.27      | 2.57      | 2.40      | 2.39      | 2.44      | 4.75      | 4.89      | 4.89      | 4.89      | 4.89      | 4.90      |
| <b>PIN'S NUMBER</b> | <b>23</b> | <b>24</b> | <b>25</b> | <b>26</b> | <b>27</b> | <b>28</b> | <b>29</b> | <b>30</b> | <b>31</b> | <b>32</b> | <b>33</b> |
|                     | 4.96      | 0.31      | 4.62      | 4.45      | 4.57      | 1.26      | 2.39      | 2.07      | 2.25      | 2.38      | 3.04      |
| <b>PIN'S NUMBER</b> | <b>34</b> | <b>35</b> | <b>36</b> | <b>37</b> | <b>38</b> | <b>39</b> | <b>40</b> | <b>41</b> | <b>42</b> | <b>43</b> | <b>44</b> |
|                     | 2.34      | 0         | 3.38      | 0.19      | 2.40      | 2.40      | 2.38      | 0         | 2.27      | 1.92      | 0         |
| <b>PIN'S NUMBER</b> | <b>45</b> | <b>46</b> | <b>47</b> | <b>48</b> | <b>49</b> | <b>50</b> | <b>51</b> | <b>52</b> |           |           |           |
|                     | 2.38      | 2.33      | 2.38      | 2.38      | 2.37      | 2.36      | 2.38      | 2.38      |           |           |           |

**IC402 (CX2540Q-1/2)**

|                     |           |           |           |           |           |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  | <b>10</b> | <b>11</b> | <b>12</b> |
|                     | 4.71      | 2.37      | 4.89      | 2.46      | 2.48      | \         | 4.89      | 0         | 0         | 0.35      | 0         | 0         |
| <b>PIN'S NUMBER</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>24</b> |
|                     | 0         | 1.54      | 0         | 0         | 1.53      | 2.96      | 2.46      | 2.47      | 0         | 2.97      | 4.89      | 2.46      |
| <b>PIN'S NUMBER</b> | <b>25</b> | <b>26</b> | <b>27</b> | <b>28</b> | <b>29</b> | <b>30</b> | <b>31</b> | <b>32</b> | <b>33</b> | <b>34</b> | <b>35</b> | <b>36</b> |
|                     | 0.64      | 2.46      | 2.46      | 4.89      | \         | 0         | 2.46      | 2.47      | 0         | 2.97      | 4.89      | 2.46      |
| <b>PIN'S NUMBER</b> | <b>37</b> | <b>38</b> | <b>39</b> | <b>40</b> | <b>41</b> | <b>42</b> | <b>43</b> | <b>44</b> | <b>45</b> | <b>46</b> | <b>47</b> | <b>48</b> |
|                     | 2.38      | 0         | 2.49      | 4.89      | 2.33      | 4.90      | 2.47      | 1.57      | 4.90      | 4.36      | 0         | 0         |
| <b>PIN'S NUMBER</b> | <b>49</b> | <b>50</b> | <b>51</b> | <b>52</b> | <b>53</b> | <b>54</b> | <b>55</b> | <b>56</b> | <b>57</b> | <b>58</b> | <b>59</b> | <b>60</b> |
|                     | 0         | 1.25      | 1.25      | 0         | 2.20      | 0.27      | 1.25      | 2.7       | 2.31      | 0.90      | 0         | 0         |
| <b>PIN'S NUMBER</b> | <b>61</b> | <b>62</b> | <b>63</b> | <b>64</b> | <b>65</b> | <b>66</b> | <b>67</b> | <b>68</b> | <b>69</b> | <b>70</b> | <b>71</b> | <b>72</b> |
|                     | 0         | 0         | 0         | 4.89      | 0         | 4.20      | 4.92      | 0         | 0         | 4.96      | 0         | 4.93      |
| <b>PIN'S NUMBER</b> | <b>73</b> | <b>74</b> | <b>75</b> | <b>76</b> | <b>77</b> | <b>78</b> | <b>79</b> | <b>80</b> |           |           |           |           |
|                     | 4.90      | 4.96      | 4.72      | 0         | 4.90      | 4.89      | 4.89      | 0         |           |           |           |           |



**IC404 (SM5878AM)**

|                     |           |           |           |           |           |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  | <b>10</b> | <b>11</b> | <b>12</b> |
|                     | 0         | 0         | 2.00      | 0         | 2.48      | 2.35      | 4.64      | 2.45      | 3.89      | 0         | 4.65      | 2.90      |
| <b>PIN'S NUMBER</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>24</b> |
|                     | 0         | 2.30      | 4.65      | 4.22      | 4.44      | 2.23      | 2.21      | 0         | 0         | 4.96      | 3.71      | 3.61      |

**IC401 (UPD78016FGC)**

|                     |           |           |           |           |           |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  | <b>10</b> | <b>11</b> | <b>12</b> |
|                     | 4.94      | 0         | 4.88      | 0         | 0         | 0         | 4.21      | 4.91      | 0         | 0         | 0         | 4.52      |
| <b>PIN'S NUMBER</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>24</b> |
|                     | 4.71      | 4.94      | 4.49      | 4.95      | 4.56      | 0         | 0         | 4.95      | 4.95      | 4.95      | 4.95      | 0         |
| <b>PIN'S NUMBER</b> | <b>25</b> | <b>26</b> | <b>27</b> | <b>28</b> | <b>29</b> | <b>30</b> | <b>31</b> | <b>32</b> | <b>33</b> | <b>34</b> | <b>35</b> | <b>36</b> |
|                     | 4.51      | 4.57      | 3.19      | \         | 4.95      | 0         | 0         | 0         | 0         | 0         | 4.91      | 4.83      |
| <b>PIN'S NUMBER</b> | <b>37</b> | <b>38</b> | <b>39</b> | <b>40</b> | <b>41</b> | <b>42</b> | <b>43</b> | <b>44</b> | <b>45</b> | <b>46</b> | <b>47</b> | <b>48</b> |
|                     | 4.74      | \         | 2.21      | 4.96      | 2.66      | 2.43      | 0         | 0.57      | 4.94      | 0         | 4.95      | 0         |
| <b>PIN'S NUMBER</b> | <b>49</b> | <b>50</b> | <b>51</b> | <b>52</b> | <b>53</b> | <b>54</b> | <b>55</b> | <b>56</b> | <b>57</b> | <b>58</b> | <b>59</b> | <b>60</b> |
|                     | 4.83      | 4.61      | 4.82      | 0         | 0         | 4.90      | 4.92      | 4.96      | 4.58      | 4.71      | 4.88      | 0         |
| <b>PIN'S NUMBER</b> | <b>61</b> | <b>62</b> | <b>63</b> | <b>64</b> |           |           |           |           |           |           |           |           |
|                     | 4.93      | 5.21      | 2.74      | 5.74      |           |           |           |           |           |           |           |           |

**IC405 (M51943BML)**

|                     |          |          |          |
|---------------------|----------|----------|----------|
| <b>PIN'S NUMBER</b> | <b>1</b> | <b>2</b> | <b>3</b> |
|                     | 0        | 4.95     | 4.91     |

|                   |                        |          |          |                        |          |          |                        |          |          |                        |          |          |
|-------------------|------------------------|----------|----------|------------------------|----------|----------|------------------------|----------|----------|------------------------|----------|----------|
| <b>TRANSISTOR</b> | <b>Q304(DTA123JK)</b>  |          |          | <b>Q305(2SC2712GR)</b> |          |          | <b>Q306(2SC2712GR)</b> |          |          | <b>Q303(2SC2712GR)</b> |          |          |
|                   | <b>E</b>               | <b>C</b> | <b>B</b> | <b>E</b>               | <b>C</b> | <b>B</b> | <b>E</b>               | <b>C</b> | <b>B</b> | <b>E</b>               | <b>C</b> | <b>B</b> |
|                   | 0.1                    | -2.78    | 0.03     | 0                      | 0        | -3.08    | 0                      | 0        | -3.13    | 4.68                   | 5.49     | 5.40     |
| <b>TRANSISTOR</b> | <b>Q405(2SC2712GR)</b> |          |          | <b>Q403(DTC124XK)</b>  |          |          | <b>Q404(8550)</b>      |          |          |                        |          |          |
|                   | <b>E</b>               | <b>C</b> | <b>B</b> | <b>E</b>               | <b>C</b> | <b>B</b> | <b>E</b>               | <b>C</b> | <b>B</b> |                        |          |          |
|                   | 2.18                   | 2.39     | 0        | 2.38                   | 3.46     | 0.03     | 4.06                   | 1.88     | 3.38     |                        |          |          |

**AV & CD SECTION**

**TEST CONDITION:VCD PLAY**

**IC408 (BA05FP)**

|                     |          |          |          |
|---------------------|----------|----------|----------|
| <b>PIN'S NUMBER</b> | <b>1</b> | <b>2</b> | <b>3</b> |
|                     | 5.69     | 0        | 5.00     |

|                   |                       |          |          |                       |          |          |                       |          |          |                   |          |          |
|-------------------|-----------------------|----------|----------|-----------------------|----------|----------|-----------------------|----------|----------|-------------------|----------|----------|
| <b>TRANSISTOR</b> | <b>Q406(2SA1357Y)</b> |          |          | <b>Q407(DTA124XK)</b> |          |          | <b>Q408(DTC124XK)</b> |          |          | <b>Q496(8550)</b> |          |          |
|                   | <b>E</b>              | <b>C</b> | <b>B</b> | <b>E</b>              | <b>C</b> | <b>B</b> | <b>E</b>              | <b>C</b> | <b>B</b> | <b>E</b>          | <b>C</b> | <b>B</b> |
|                   | 10.54                 | 5.78     | 10.09    | 10.54                 | 10.53    | 0.03     | 0                     | 0.03     | 5.94     | 3.45              | -0.50    | 3.35     |
| <b>TRANSISTOR</b> | <b>Q816(C2712)</b>    |          |          | <b>Q817(A1162)</b>    |          |          | <b>Q815(C2712)</b>    |          |          |                   |          |          |
|                   | <b>E</b>              | <b>C</b> | <b>B</b> | <b>E</b>              | <b>C</b> | <b>B</b> | <b>E</b>              | <b>C</b> | <b>B</b> |                   |          |          |
|                   | 0                     | 0        | 0.61     | 0                     | 0        | -0.62    | 0                     | 3.01     | 0        |                   |          |          |
| <b>TRANSISTOR</b> | <b>Q809(25A933)</b>   |          |          | <b>Q810(25A933)</b>   |          |          |                       |          |          |                   |          |          |
|                   | <b>E</b>              | <b>C</b> | <b>B</b> | <b>E</b>              | <b>C</b> | <b>B</b> |                       |          |          |                   |          |          |
|                   | -29.39                | -31.60   | -29.75   | -28.26                | -29.39   | -29.21   |                       |          |          |                   |          |          |

**IC407 (M5291FP)**

|                     |          |          |          |          |          |          |          |          |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>PIN'S NUMBER</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> |
|                     | 6.20     | 0        | 0.62     | 0        | 1.22     | 10.54    | 10.53    | 6.20     |

**IC4401 (TA7291S)**

| PIN'S NUMBER | 1 | 2     | 3    | 4 | 5 | 6     | 7    | 8    | 9 |
|--------------|---|-------|------|---|---|-------|------|------|---|
|              | 0 | 10.63 | 0.30 | \ | 0 | 10.62 | 3.33 | 3.33 | 0 |

**IC409 (BA033FP)**

| PIN'S NUMBER | 1    | 2 | 3    |
|--------------|------|---|------|
|              | 5.69 | 0 | 3.34 |









**DISPLAY & MIC SECTION**

**TEST CONDITION: VCD PLAY**

**IC201 (LC876572-5N64)**

|              |        |        |        |        |        |        |        |        |        |        |        |        |
|--------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| PIN'S NUMBER | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     | 11     | 12     |
|              | 0.05   | 1.87   | 3.07   | 0      | 0      | 0.04   | 2.36   | 0.02   | 2.27   | 3.26   | 5.06   | 2.91   |
| PIN'S NUMBER | 13     | 14     | 15     | 16     | 17     | 18     | 19     | 20     | 21     | 22     | 23     | 24     |
|              | 0.79   | 0      | -4.56  | -4.57  | -2.83  | -3.62  | 5.28   | 5.28   | -2.82  | -2.54  | 3      | -1.85  |
| PIN'S NUMBER | 25     | 26     | 27     | 28     | 29     | 30     | 31     | 32     | 33     | 34     | 35     | 36     |
|              | -1.71  | -1.23  | 1.17   | 0      | 5.01   | -25.6  | -27.41 | -27.41 | -27.45 | -27.37 | -27.4  | -27.4  |
| PIN'S NUMBER | 37     | 38     | 39     | 40     | 41     | 42     | 43     | 44     | 45     | 46     | 47     | 48     |
|              | 27.56  | -27.63 | -27.63 | -27.6  | -27.62 | -27.68 | -14.01 | -8.67  | -8.67  | 5.28   | -6.00  | -8.65  |
| PIN'S NUMBER | 49     | 50     | 51     | 52     | 53     | 54     | 55     | 56     | 57     | 58     | 59     | 60     |
|              | -19.27 | -24.66 | -30.10 | -30.00 | 16     | -13.94 | -21.70 | -21.20 | -25.00 | -25.72 | -18.91 | -30.00 |
| PIN'S NUMBER | 61     | 62     | 63     | 64     | 65     | 66     | 67     | 68     | 69     | 70     | 71     | 72     |
|              | -24.66 | -24.67 | -24.67 | -19.09 | -24.49 | -29.95 | -29.93 | -27.04 | -19.17 | -19.21 | -27.04 | 5.27   |
| PIN'S NUMBER | 73     | 74     | 75     | 76     | 77     | 78     | 79     | 80     | 81     | 82     | 83     | 84     |
|              | -29.33 | -29.98 | -21.84 | -21.94 | -21.83 | -21.81 | -21.84 | -24.44 | -0.06  | 0      | -8.03  | 0      |
| PIN'S NUMBER | 85     | 86     | 87     | 88     | 89     | 90     | 91     | 92     | 93     | 94     | 95     | 96     |
|              | 0      | 0      | 5.11   | 2.14   | 0      | 5.16   | 5.15   | 5.14   | 0      | 0.21   | 0      | 0.56   |
| PIN'S NUMBER | 97     | 98     | 99     | 100    |        |        |        |        |        |        |        |        |
|              | 1.11   | 5.14   | 5.14   | 2.57   |        |        |        |        |        |        |        |        |

**IC503 (BA3880FS)**

|              |      |   |      |      |      |      |      |      |      |      |      |   |
|--------------|------|---|------|------|------|------|------|------|------|------|------|---|
| PIN'S NUMBER | 1    | 2   | 3    | 4    | 5    | 6    | 7    | 8    | 9    | 10   | 11   | 12  |
| BBE OFF      | 0    |  | 6.59 | 8.24 | 4.69 | 4.69 | 4.69 | 4.68 | 4.70 | 4.69 | 4.69 | 4.69  |
| BBE 1        | 0    |  | 4.08 | 3.68 | 4.69 | 4.69 | 4.67 | 4.69 | 4.69 | 4.68 | 4.68 | 4.68  |
| BBE 2        | 0    |  | 3.70 | 2.74 | 4.69 | 4.69 | 4.67 | 4.69 | 4.69 | 4.68 | 4.68 | 4.68  |
| BBE 3        | 0    |  | 3.30 | 1.58 | 4.69 | 4.69 | 4.67 | 4.69 | 4.69 | 4.68 | 4.68 | 4.68  |
| PIN'S NUMBER | 13   | 14  | 15   | 16   | 17   | 18   | 19   | 20   | 21   | 22   | 23   | 24  |
| BBE OFF      | 4.66 | 4.69  | 4.69 | \    | 4.69 | 4.70 | 4.70 | 4.70 | 9.13 | 6.60 | \    |  |
| BBE 1        | 4.68 | 4.69  | 4.69 | \    | 4.68 | 4.69 | 4.69 | 4.69 | 9.11 | 4.12 | \    |  |
| BBE 2        | 4.68 | 4.69  | 4.69 | \    | 4.68 | 4.69 | 4.69 | 4.69 | 9.11 | 3.73 | \    |  |
| BBE 3        | 4.68 | 4.69  | 4.69 | \    | 4.68 | 4.69 | 4.69 | 4.69 | 9.11 | 3.17 | \    |  |

| TRANSISTOR | Q218(8050) |      |      |
|------------|------------|------|------|
|            | E          | C    | B    |
|            | 5.99       | 9.82 | 6.66 |

| TRANSISTOR | Q501(DTC114YK) |      |      | Q502(DTC114YK) |      |      |
|------------|----------------|------|------|----------------|------|------|
|            | E              | C    | B    | E              | C    | B    |
| BBE OFF    | 0              | 9.80 | 0    | 9.78           | 0    | 0    |
| BBE 1      | 0              | 9.78 | 0    | 0              | 0    | 8.57 |
| BBE 2      | 0              | 0    | 8.57 | 0              | 7.93 | 0    |
| BBE 3      | 0              | 0    | 8.50 | 0              | 0    | 8.50 |

**C602 (N65843AP)**

|                     |           |           |           |           |           |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  | <b>10</b> | <b>11</b> | <b>12</b> |
| <b>MIC</b>          | 4.99      | 2.27      | 2.27      | \         | 4.99      | 0         | 4.96      | \         | \         | \         | 0         | 0         |
| <b>PIN'S NUMBER</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>24</b> |
| <b>MIC</b>          | 2.53      | 0         | 0         | 0         | 0.66      | 0.71      | 2.53      | 0         | 2.53      | 2.53      | 2.52      | 4.99      |

**IC202 (BU2092F)**

|                     |           |           |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  |
| <b>VCD</b>          | 0         | 0.56      | 0.56      | 0.18      | 5.18      | 2.91      | 3.10      | 0         | 3.17      |
| <b>PIN'S NUMBER</b> | <b>10</b> | <b>11</b> | <b>12</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> |
| <b>VCD</b>          | 0         | 0         | 6.35      | 1.42      | 0         | 0         | 0         | 0         | 5.11      |








**IC601 (4558)**

|                     |          |          |          |          |          |          |          |          |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>PIN'S NUMBER</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> |
| <b>MIC</b>          | 0        | 4.95     | 4.95     | 0        | 4.95     | 4.15     | 4.98     | 9.55     |

**POWER & CD SECTION**

**TEST CONDITION: VCD PLAY**

**IC504 (BU4094BCF)**

|                     |   |   |           |           |           |           |           |           |
|---------------------|---|---|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  |
| <b>BBE OFF</b>      | 0   | 0   | 0.10      | 5.19      | 0         | 0         | 0         | 0         |
| <b>BBE 1</b>        | 0.11  | 0.32  | 0.14      | 5.19      | 0         | 0         | 0         | 0         |
| <b>BBE 2</b>        | 0   | 0.23  | 0.25      | 5.91      | 0         | 0         | 0         | 0         |
| <b>BBE 3</b>        | 0   | 0.32  | 0.30      | 5.91      | 0         | 0         | 0         | 0         |
| <b>FM</b>           | 0   | 0.10  | 0.10      | 0         | 0         | 0         | 9.79      | 0         |
| <b>PIN'S NUMBER</b> | <b>9</b>  | <b>10</b>   | <b>11</b> | <b>12</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> |
| <b>BBE OFF</b>      |  | 0   | 0         | 0         | 0         | 0         | 8.87      | 8.87      |
| <b>BBE 1</b>        |  |  | 0         | 0         | 0         | 8.57      | 8.80      | 8.80      |
| <b>BBE 2</b>        |  |  | 0         | 0         | 8.57      | 0         | 8.80      | 8.80      |
| <b>BBE 3</b>        |  |  | 0         | 0         | 8.50      | 8.50      | 8.73      | 8.73      |
| <b>FM</b>           | 0   | 0   | 0         | 0         | 0         | 0         | 9.83      | 9.83      |

**IC505 (4558)**

|                     |          |          |          |          |          |          |          |          |
|---------------------|----------|----------|----------|----------|----------|----------|----------|----------|
| <b>PIN'S NUMBER</b> | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> | <b>6</b> | <b>7</b> | <b>8</b> |
| <b>CD</b>           | 4.78     | 4.73     | 4.70     | 0        | 4.70     | 4.73     | 4.78     | 9.43     |

|                   |                       |          |          |                      |          |          |                      |          |          |
|-------------------|-----------------------|----------|----------|----------------------|----------|----------|----------------------|----------|----------|
| <b>TRANSISTOR</b> | <b>Q881(DTC114EK)</b> |          |          | <b>Q882(C1815)</b>   |          |          |                      |          |          |
|                   | <b>E</b>              | <b>C</b> | <b>B</b> | <b>E</b>             | <b>C</b> | <b>B</b> |                      |          |          |
|                   | 0                     | 0        | 7.76     | 0                    | 10.04    | 0        |                      |          |          |
| <b>TRANSISTOR</b> | <b>Q801(2SB1370E)</b> |          |          | <b>Q803(2SC2712)</b> |          |          | <b>Q804(2SC2712)</b> |          |          |
|                   | <b>E</b>              | <b>C</b> | <b>B</b> | <b>E</b>             | <b>C</b> | <b>B</b> | <b>E</b>             | <b>C</b> | <b>B</b> |
|                   | 14.67                 | 10.64    | 13.91    | 0.26                 | 12.20    | 0.91     | 0                    | 0.91     | 0.59     |

|                   |                   |          |          |                     |          |          |
|-------------------|-------------------|----------|----------|---------------------|----------|----------|
| <b>TRANSISTOR</b> | <b>Q807(8050)</b> |          |          | <b>Q811(1N4148)</b> |          |          |
|                   | <b>E</b>          | <b>C</b> | <b>B</b> | <b>E</b>            | <b>C</b> | <b>B</b> |
| <b>STAND BY</b>   | 9.85              | 10.69    | 10.55    | 9.79                | 0        | 9.70     |
| <b>POWER ON</b>   | 9.85              | 10.67    | 10.49    | 9.70                | 9.68     | 0.74     |

**IC501 (M62495FP)**

|                     |           |           |           |           |           |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  | <b>10</b> | <b>11</b> | <b>12</b> |
| <b>CD</b>           | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 2.35      |
| <b>PIN'S NUMBER</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>24</b> |
| <b>CD</b>           | 0.22      | -2.55     | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         | 0         |



**IC801 (LA4625)**

|                     |          |          |           |           |           |           |           |
|---------------------|----------|----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b> | <b>2</b> | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  |
|                     | 1.58     | 8.21     | 0         | 4.52      | 2.46      | 1.58      | 2.03      |
| <b>PIN'S NUMBER</b> | <b>8</b> | <b>9</b> | <b>10</b> | <b>11</b> | <b>12</b> | <b>13</b> | <b>14</b> |
|                     | 8.29     | 8.20     | 0         | 8.31      | 0         | 8.11      | 19.23     |

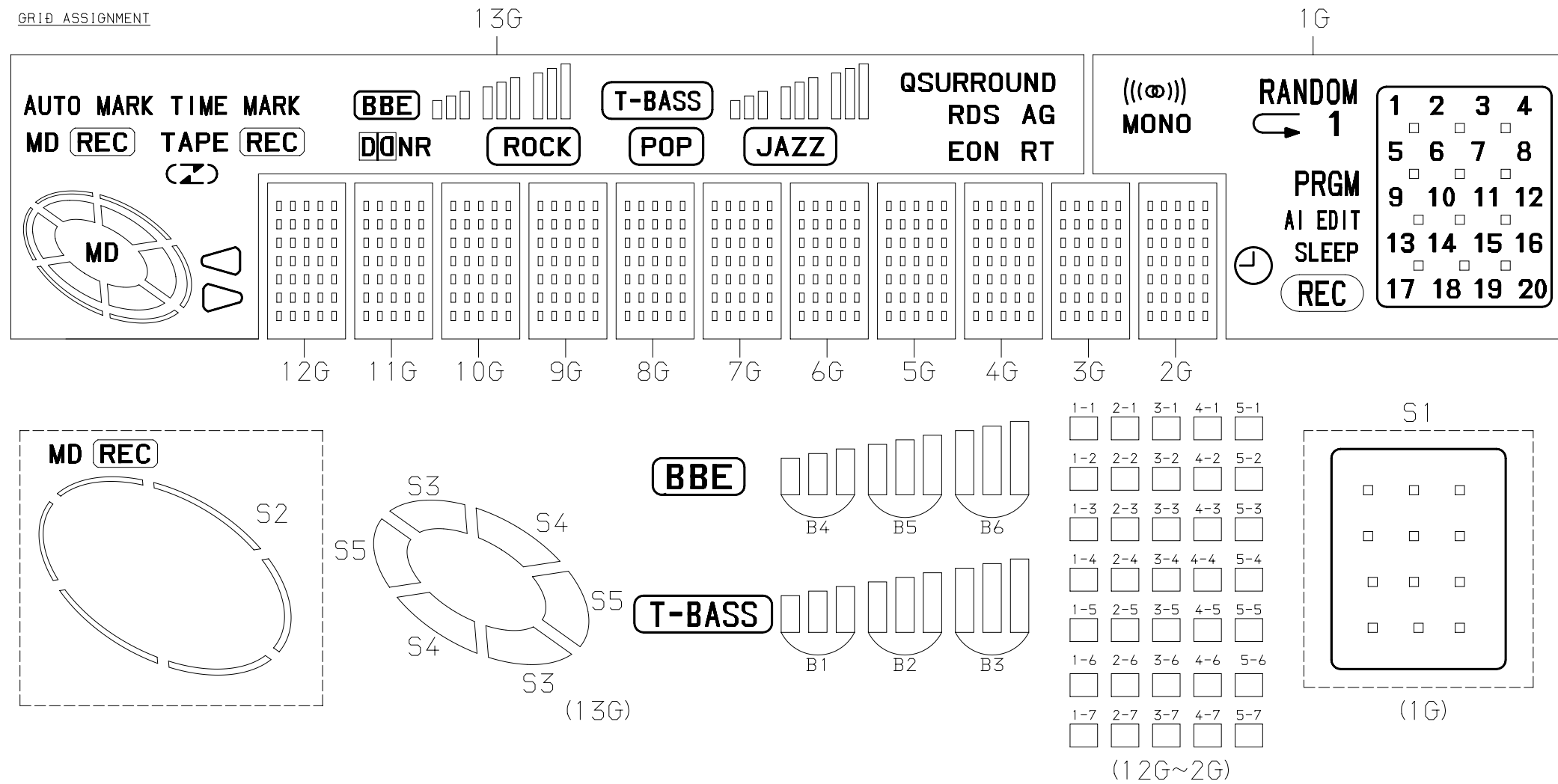
**TUNER SECTION****TEST CONDETION: SET AM/FM TUNER ON ONE FREQUENCY****IC771 (LA1837N)**

|                     |           |           |           |           |           |           |           |           |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  | <b>10</b> | <b>11</b> | <b>12</b> |
| <b>AM</b>           | 3.56      | 9.01      | 3.56      | 3.55      | 0         | 8.88      | 6.50      | 9.01      | 9.01      | 1.31      | 0         | 0         |
| <b>FM</b>           | 3.58      | 8.94      | 3.58      | 3.58      | 0         | 8.80      | 6.47      | 8.94      | 8.94      | 1.31      | 1.30      | 0         |
| <b>PIN'S NUMBER</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b> | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> | <b>23</b> | <b>24</b> |
| <b>AM</b>           | 0.51      | 4.74      | 5.14      | 4.29      | 4.29      | 4.29      | 4.29      | 3.31      | 3.31      | 2.83      | 3.01      | 0.64      |
| <b>FM</b>           | 0.49      | 7.84      | 7.86      | 4.31      | 4.32      | 4.31      | 4.31      | 3.34      | 3.34      | 2.58      | 3.03      | 0.08      |
| <b>PIN'S NUMBER</b> | <b>25</b> | <b>26</b> | <b>27</b> | <b>28</b> | <b>29</b> | <b>30</b> |           |           |           |           |           |           |
| <b>AM</b>           | 0.61      | 3.58      | 3.58      | 3.60      | 3.60      | 1.18      |           |           |           |           |           |           |
| <b>FM</b>           | 0         | 3.89      | 3.89      | 3.63      | 3.63      | 1.92      |           |           |           |           |           |           |

**IC721 (LC72131)**

|                     |           |           |           |           |           |           |   |           |           |           |           |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|---|-----------|-----------|-----------|-----------|
| <b>PIN'S NUMBER</b> | <b>1</b>  | <b>2</b>  | <b>3</b>  | <b>4</b>  | <b>5</b>  | <b>6</b>  | <b>7</b>  | <b>8</b>  | <b>9</b>  | <b>10</b> | <b>11</b> |
| <b>FM</b>           | 2.69      | 0         | 0.07      | 0         | 0         | 4.26      |  | 7.87      | 0         | 0         | 0         |
| <b>AM</b>           | 2.70      | 0         | 0.07      | 0         | 0         | 4.76      |  | 0         | 8.98      | 0         | 0         |
| <b>PIN'S NUMBER</b> | <b>12</b> | <b>13</b> | <b>14</b> | <b>15</b> | <b>16</b> | <b>17</b> | <b>18</b>   | <b>19</b> | <b>20</b> | <b>21</b> | <b>22</b> |
| <b>FM</b>           | 0         | 8.80      | 0         | 0         | 2.72      | 5.48      | 0.83  | 0.83      | 4.96      | 0         | 2.66      |
| <b>AM</b>           | 0         | 8.87      | 0         | 2.66      | 0         | 5.49      | 0.88  | 0.88      | 3.61      | 0         | 2.67      |

GRID ASSIGNMENT

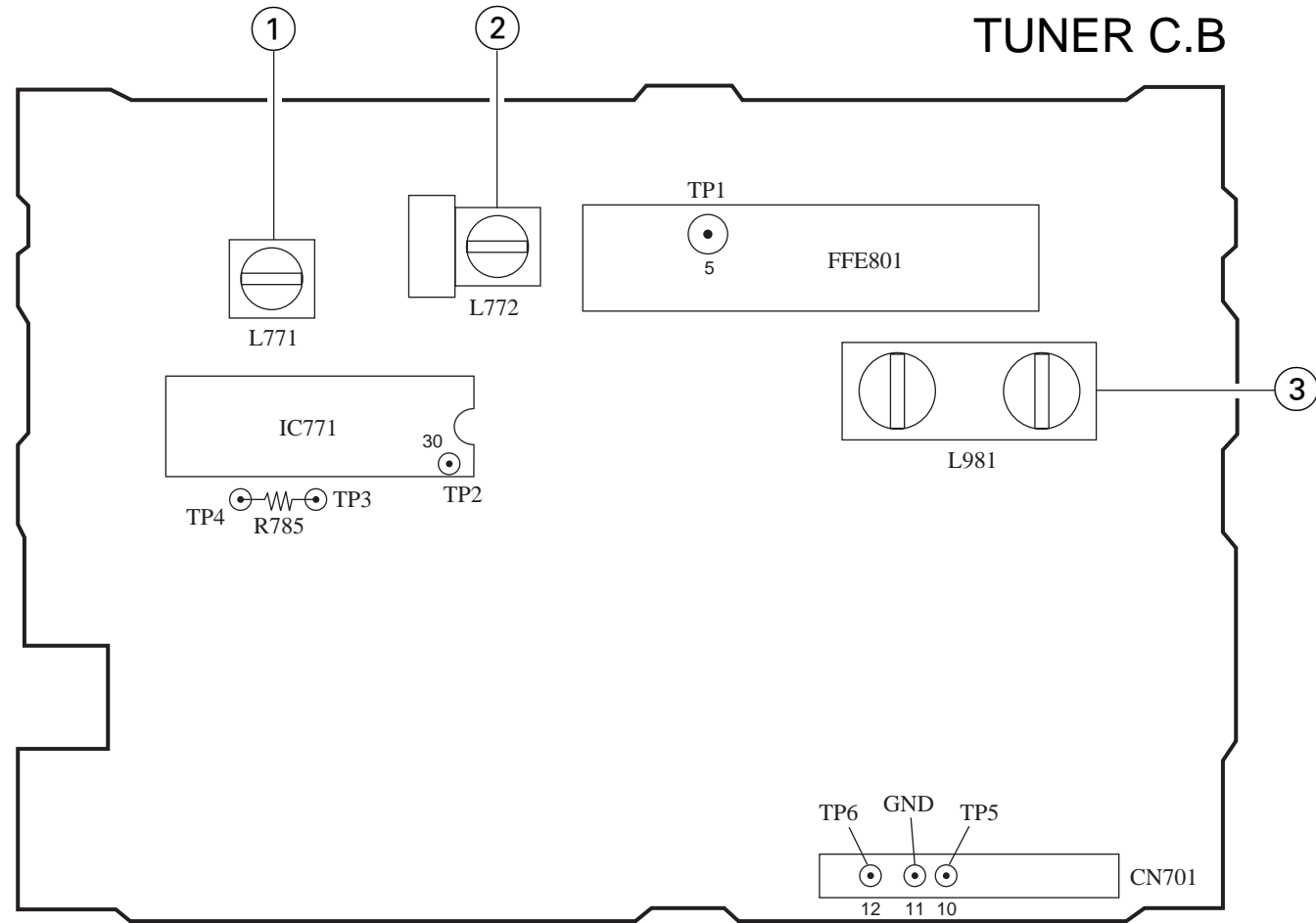


ANODE CONNECTION

|     | 13G    | 12G~2G | 1G           |     | 13G       | 12G~2G | 1G |
|-----|--------|--------|--------------|-----|-----------|--------|----|
| P1  | JAZZ   | 1-1    | 1            | P19 | )         | 4-4    | 8  |
| P2  | POP    | 2-1    | ↶            | P20 | ⚡         | 5-4    | 9  |
| P3  | ROCK   | 3-1    | MONO         | P21 | (         | 1-5    | 10 |
| P4  | DO NR  | 4-1    | RANDOM       | P22 | TAPE REC  | 2-5    | 11 |
| P5  | RT     | 5-1    | ((∞))        | P23 | S2        | 3-5    | 12 |
| P6  | EON    | 1-2    | PRGM         | P24 | S3        | 4-5    | 13 |
| P7  | AG     | 2-2    | AI           | P25 | S4        | 5-5    | 14 |
| P8  | RDS    | 3-2    | EDIT         | P26 | S5        | 1-6    | 15 |
| P9  | B1     | 4-2    | SLEEP        | P27 | MD        | 2-6    | 16 |
| P10 | B2     | 5-2    | ⌚            | P28 | TIME MARK | 3-6    | 17 |
| P11 | B3     | 1-3    | REC          | P29 | AUTO MARK | 4-6    | 18 |
| P12 | T-BASS | 2-3    | (CALENDAR) 1 | P30 | QSURROUND | 5-6    | 19 |
| P13 | B4     | 3-3    | 2            | P31 | -         | 1-7    | 20 |
| P14 | B5     | 4-3    | 3            | P32 | -         | 2-7    | S1 |
| P15 | B6     | 5-3    | 4            | P33 | -         | 3-7    | -  |
| P16 | BBE    | 1-4    | 5            | P34 | -         | 4-7    | -  |
| P17 | ▷      | 2-4    | 6            | P35 | -         | 5-7    | -  |
| P18 | ▽      | 3-4    | 7            |     |           |        |    |

# ELECTRICAL ADJUSTMENT

## < TUNER SECTION >



# PRACTICAL SERVICE FIGURE

## < TUNER SECTION >

### <FM SECTION>

|                         |                                |
|-------------------------|--------------------------------|
| IHF Sensitivity:        | 4dB±6dB<br>(at 88.0/98.0MHz)   |
| (THD 3%)                | 5dB±6dB (at 108MHz)            |
| Signal to noise ratio:  | More than 65dB<br>(at 98.0MHz) |
| Distortion:             | Less than 1.5%<br>(at 98.0MHz) |
| Stereo separation:      | More than 25dB<br>(at 98.0MHz) |
| Intermediate frequency: | 10.7MHz                        |

### <AM SECTION>

|                         |                                    |
|-------------------------|------------------------------------|
| Sensitivity:            | Less than 60dB (at 603kHz)         |
| (S/N 20dB)              | Less than 58dB<br>(at 999/1404kHz) |
| Signal to noise ratio:  | More than 36dB<br>(at 999kHz)      |
| Distortion:             | Less than 2.0%<br>(at 999kHz)      |
| Intermediate frequency: | 450±5kHz                           |

### 1. DC Balance/Mono Distortion Adjustment

- Settings:
- Test point: TP3, TP4
  - 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%.

### 2. AM IF Adjustment

- Settings:
- Test point: TP5, TP6
  - L772 ..... 450kHz

### 3. AM Tracking Adjustment

- Settings:
- Test point: TP5, TP6
  - Adjustment location: L981

Method: Set to AM 999kHz and adjust L981 so that the test point becomes maximum.

### 4. AM VT Check

- Settings:
- Test point: TP1 (VT)

Method: Set to AM 1710kHz and check that the test point is less than 7.0V.  
Then set to AM 530kHz and check that the test point is more than 0.5V.

### 5. Clock Frequency Check

- Settings:
- Test point: TP2 (CLK IC771 pin30)

Method: Set to AM 1710kHz and check that the test point becomes  $2160kHz \pm 45Hz$ .

### 6. FM VT Check

- Settings:
- Test point: TP1 (VT)

Method: Set to FM 88MHz, 108.0MHz and check that the test point is more than 0.5V (88MHz) and less than 8.0V (108.0MHz).

# IC DESCRIPTION

## IC, LC876572V-5N64

| Pin No. | Pin Name            | I/O | Description  |
|---------|---------------------|-----|--|
| 1       | I-STEREO            | I   | Connected to stereo detection and tuner.   |
| 2       | I-TUDO/<br>I-STATUS | I   | Connected to tuner PLL IC LC72131 pin-⑥ DO and connected to VCD $\mu$ PD78016 pin-⑥⑨.  |
| 3       | I/O-BUSY            | I/O | Connected to VCD microprocessor $\mu$ PD78016 pin-⑳.   |
| 4       | O-F.LED             | O   | Function LED control output.   |
| 5       | O-M.STB             | O   | Connected to main shift resistor 4094 pin-① STB.   |
| 6       | O-CLK               | O   | Connected to front shift resistor BU2092 pin-③ CLK, main shift resistor 4094 pin-③ CLK, and tuner PLL IC LC72131 pin-⑤ CL.   |
| 7       | O-DATA              | O   | Connected to front shift resistor BU2092 pin-② DATA, main shift resistor 4094 pin-② DATA, and tuner PLL IC LC72131 pin-④ DI. |
| 8       | O-VOLCTL            | O   | Connected to VOL/P.EQ IC M62439SP pin-⑪ CONT.  |
| 9       | I-TMBASE            | I   | Reference clock input for clock PLL IC LC72131 pin-⑦.  |
| 10      | O-CKSFT             | O   | Clock shift output is shifted: "L"   |
| 11      | RESET               | I/O | Microprocessor reset.  |
| 12      | I-ACOFF             | I   | Hold status detection.   |
| 13      | N.C                 | —   | Not connected.   |
| 14      | VSS                 | —   | GND.   |
| 15      | CF1                 | —   | Connected to 5.76 MHz oscillator   |
| 16      | CF2                 | —   | Connected to 5.76 MHz oscillator.  |
| 17      | VDD1                | —   | Microprocessor power supply. ( $\mu$ -com 5 V)   |
| 18      | N.C                 | —   | Not connected.   |
| 19      | I-KEY1              | I   | Key AD value input.  |
| 20      | I-KEY0              | I   | Key AD value input.  |
| 21      | I-DSW               | I   | Deck MECA status detection input. (AD)   |
| 22      | I-CDTSW             | I   | CD tray OPEN/CLOSE status detection input. (AD)  |
| 23      | I-ENC1              | I   | AD value input from multiple jog rotary encoder outputs A and B.   |
| 24      | M SENSOR            | I   | Electronic VOL's AD value input from rotary encoder outputs A and B.   |
| 25      | O-CE                | O   | Connected to tuner PLL IC LC72131 pin-③ CE.  |
| 26      | N.C                 | —   | Not connected.   |
| 27      | I-LEVEL             | I   | Level meter input.   |
| 28      | O-CLK               | O   | Connected to VCD microprocessor $\mu$ PD78016 pin-⑥④.  |
| 29      | I-RMT               | I   | Remote control input.  |
| 30-42   | G1-G13              | O   | FL tube grid output.   |
| 43-45   | P33-P35             | O   | FL tube anode output.  |
| 46      | VDD3                | —   | Microprocessor power supply. ( $\mu$ -com 5 V)   |
| 47-50   | P29-P32             | O   | FL tube anode output.  |
| 51      | VP                  | —   | Connected to minus power supply for FL, -VFL.  |
| 52-63   | P17-P28             | O   | FL tube anode output.  |
| 64      | P16/BBE             | O   | FL tube anode output, and INT.DIODE MATRIX input.  |
| 65      | P15/DOLBY           | O   | FL tube anode output, and INT.DIODE MATRIX input.  |
| 66      | P14/AM10k           | O   | FL tube anode output, and INT.DIODE MATRIX input.  |

| Pin No. | Pin Name                  | I/O | Description  |
|---------|---------------------------|-----|--|
| 67      | P13/FMWIDE&AMST           | O   | FL tube anode output, and INT.DIODE MATRIX input.    |
| 68      | P12/LW                    | O   | FL tube anode output, and INT.DIODE MATRIX input.    |
| 69      | P11/SW                    | O   | FL tube anode output, and INT.DIODE MATRIX input.    |
| 70      | P10/OIRT                  | O   | FL tube anode output, and INT.DIODE MATRIX input.    |
| 71      | P9/RDS                    | O   | FL tube anode output, and INT.DIODE MATRIX input.    |
| 72      | VDD4                      | —   | Microprocessor power supply. ( $\mu$ -com 5 V)       |
| 73-78   | P3-P8                     | O   | FL tube anode output. (SHOP)                         |
| 79      | P2/CAM                    | O   | Deck mechanism status detection input. (CAM)         |
| 80      | P1/AUTO                   | O   | Deck mechanism status detection input. (AUTO)        |
| 81      | O-QSURR                   | O   | Q-Surround IC control output.                        |
| 82      | O-SWSCAN                  | O   | Key scan detection timing switch.                    |
| 83      | O-MOTOR                   | O   | Deck mechanism motor control output.                 |
| 84      | O-FSTB                    | O   | Connected to front shift resistor IC BU2092 pin-⑤.   |
| 85      | O-CDOPEN                  | O   | CD tray open control output.                         |
| 86      | O-CDCLOSE                 | O   | CD tray close control output.                        |
| 87      | O-POWER                   | O   | Power supply ON/OFF control.                         |
| 88      | O-MDRST                   | O   | MD unit 7ZG-9A reset signal output.                  |
| 89      | VSS2                      | —   | GND.   |
| 90      | VDD2                      | —   | Microprocessor power supply. ( $\mu$ -com 5 V)       |
| 91      | O-SD                      | O   | Connected to VCD microprocessor $\mu$ PD78016 pin-②. |
| 92      | O-CLK                     | O   | Connected to VCD microprocessor $\mu$ PD78016 pin-④. |
| 93      | O-MUTE                    | O   | Main mute output.                                    |
| 94      | O- $\overline{\text{PL}}$ | O   | Deck mechanism plunger solenoid control output.      |
| 95-100  | N.C                       | —   | Not connected.                                       |



## IC, CL680

| Pin No. | Pin Name                  | I/O | Description                       |
|---------|---------------------------|-----|-----------------------------------|
| 1       | NC                        | —   | No connection.                    |
| 2       | VSS                       | —   | GND.                              |
| 3       | CD BCK                    | I   | Bit clock input from CD DSP.      |
| 4       | CD DATA                   | I   | Data input from CD DSP.           |
| 5       | CD LRCK                   | I   | LRCK input from CD DSP.           |
| 6       | CD C2PO                   | I   | C2 pointer input from CD DSP.     |
| 7-9     | NC                        | —   | No connection.                    |
| 10-15   | MD0-MD5                   | I/O | DRAM/ROM interface. (DATA)        |
| 16      | VSS                       | —   | Ground.                           |
| 17      | MD6                       | I/O | DRAM/ROM interface. (DATA)        |
| 18      | VDD3                      | —   | Power supply 3.3V.                |
| 19      | MD7                       | I/O | DRAM/ROM interface. (DATA)        |
| 20      | VSS                       | —   | Ground.                           |
| 21      | MD8                       | I/O | DRAM/ROM interface. (DATA)        |
| 22      | VDD3                      | —   | Power supply 3.3V.                |
| 23-29   | MD9-MD15                  | I/O | DRAM/ROM interface. (DATA)        |
| 30-36   | NC                        | —   | No connection.                    |
| 37      | $\overline{\text{MCE}}$   | —   | ROM chip enable.                  |
| 38      | $\overline{\text{MWE}}$   | O   | DRAM write enable.                |
| 39      | VSS                       | —   | Ground.                           |
| 40      | $\overline{\text{CAS}}$   | O   | DRAM/ROM interface.               |
| 41      | VDD3                      | —   | Power supply 3.3V.                |
| 42      | $\overline{\text{RASO}}$  | O   | DRAM/ROM interface.               |
| 43      | $\overline{\text{RASI}}$  | O   |                                   |
| 44-46   | MA10-MA8                  | O   | DRAM/ROM interface. (Address)     |
| 47      | VSS                       | —   | Ground.                           |
| 48      | MA7                       | O   | DRAM/ROM interface. (Address)     |
| 49      | VDD3                      | —   | Power supply 3.3V.                |
| 50-52   | MA6-MA4                   | O   | DRAM/ROM interface. (Address)     |
| 53      | VSS                       | —   | Ground.                           |
| 54      | MA3                       | O   | DRAM/ROM interface. (Address)     |
| 55      | VDD3                      | —   | Power supply 3.3V.                |
| 56-58   | MA2-MA0                   | O   | DRAM/ROM interface. (Address)     |
| 59      | PGIO7                     | I/O | Programmable I/O.                 |
| 60      | $\overline{\text{RESET}}$ | I   | Reset input.                      |
| 61      | VDD MAX IN                | —   | Power supply - VDDMAX. (5.0V)     |
| 62-64   | NC                        | —   | No connection.                    |
| 65      | AGND DAC                  | —   | Analog ground.                    |
| 66      | A DAC                     | —   | Analog power supply (DAC) : 3.3V. |
| 67      | COMP OUT                  | O   | Composite out.                    |
| 68      | AGND DAC                  | —   | Analog ground.                    |

| Pin No. | Pin Name                        | I/O | Description                             |
|---------|---------------------------------|-----|---|
| 69      | Y OUT                           | O   | Video signal “Y” OUT.                   |
| 70      | AVDD DAC                        | —   | Analog power supply (DAC) 3.3V.         |
| 71      | AGND DAC                        | —   | Analog ground.                          |
| 72      | R REF                           | I   | Reference resistor input.               |
| 73      | V REF                           | I   | Voltage reference input.                |
| 74      | AVDD DAC                        | —   | Analog power supply (DAC) : 3.3V.       |
| 75      | C OUT                           | O   | Video signal “C” out.                   |
| 76      | AGND DAC                        | —   | Analog ground.                          |
| 77-79   | CLK SEL0-2                      | I   | Clock selection input.                  |
| 80      | VSS                             | —   | Ground.                                 |
| 81      | CLK SEL3                        | I   | Clock selection input.                  |
| 82      | VDD3                            | —   | Power supply 3.3V.                      |
| 83, 84  | CLK SEL4, 5                     | I   | Clock selection input.                  |
| 85      | AGND PLL                        | —   | Analog ground.                          |
| 86      | DA XCK                          | I   | DA XCK (16.933MHz) input.               |
| 87      | AVDD PLL                        | —   | Analog power supply 3.3V.               |
| 88      | DA EMP                          | O   | DAC-emphasis output.                    |
| 89, 90  | PGIO5, O6                       | I/O | Programmable I/O.                       |
| 91      | PGIO0                           | I/O |   |
| 92      | PGIO8                           | I/O |   |
| 93      | $\overline{\text{VSYNC/CSYNC}}$ | O   | $\overline{\text{VSYNC/CSYNC}}$ output. |
| 94      | AVDD PLL                        | —   | Analog power supply (PLL) 3.3V.         |
| 95      | VID_DAC_CK                      | O   | Video DAC clock.                        |
| 96      | PROC_CK                         | O   | Processor clock.                        |
| 97      | AUD_XCK                         | O   | Audio XCK.                              |
| 98      | AGND PLL                        | —   | Analog ground.                          |
| 99      | VSS                             | —   | Ground.                                 |
| 100     | NC                              | —   | No connection.                          |
| 101     | $\overline{\text{HSYNC}}$       | O   | $\overline{\text{HSYNC}}$ output.       |
| 102     | VDD3                            | —   | Power supply 3.3V.                      |
| 103     | VCK OUT                         | O   | VCK out.                                |
| 104     | VSS                             | —   | Ground.                                 |
| 105     | GCK                             | I   | Global clock signal input. (42.3MHz)    |
| 106     | VCK                             | I   | Video clock signal input. (27.0MHz)     |
| 107     | GCK OUT                         | O   | Global clock signal output. (27.0MHz)   |
| 108     | DA LRCK                         | O   | DAC-LRCK output.                        |
| 109     | VDD MAX OUT                     | —   | Power supply (VDD MAX) : 5.0V.          |
| 110     | DA DATA                         | O   | DAC-PCM data output.                    |
| 111     | DA BCK                          | O   | DAC-BIT clock output.                   |
| 112     | HD OUT                          | O   | Micon interface. (Data out)             |
| 113     | HRDY                            | O   | Micon interface. (Host ready)           |

| Pin No. | Pin Name                 | I/O | Description                       |
|---------|--------------------------|-----|-----------------------------------|
| 114     | $\overline{\text{HINT}}$ | O   | Micon interface. (Host interrupt) |
| 115     | CDG SCK                  | I   | CD-G serial clock input.          |
| 116     | VSS                      | —   | Ground.                           |
| 117     | HCK                      | I   | Micon interface. (Host clock)     |
| 118     | VDD3                     | —   | Power supply 3.3V.                |
| 119     | HD IN                    | I   | Micon interface. (Host data in)   |
| 120     | VDD3                     | —   | Power supply 3.3V.                |
| 121     | HSEL                     | I   | Micon interface. (Host select in) |
| 122     | CDG DATA                 | I   | CD-G data input.                  |
| 123     | CDG VFSY                 | I   | CD-G VFSY input.                  |
| 124     | CDG SOSI                 | I   | CD-G SOSI input.                  |
| 125     | DSP-XCK                  | O   | DSP-XCK output.                   |
| 126-128 | NC                       | —   | No connection.                    |

IC,  $\mu$ PD78016FGC-570-AB8

| Pin No. | Pin Name | I/O | Description                                  |
|---------|----------|-----|--|
| 1       | RBPLS    | O   | RADIAL BALANCE PLUS.                         |
| 2       | AMUTE    | O   | AUDIO ANALOG MUTE (H=MUTE ON).               |
| 3       | GFS      | I   | GFS.   |
| 4       | XVCDMD   | I   | AUDIO/VIDEO CD MODE (L=VCD=SPINDLE GAIN UP). |
| 5       | MD2      | O   | DOUT MUTE CONT.                              |
| 6       | EMPH     | I   | EMPHASIS.                                    |
| 7       | SQSO     | I   | SQDATA FROM CD.                              |
| 8       | SQCK     | O   | SQCLK TO CD.                                 |
| 9       | VSS      | —   | GND.   |
| 10      | SWNT     | I   | SW TV OUT MODE (L=NTSC).                     |
| 11      | SWAUTO   | I   | SW TV OUT MODE (L=NTSC/PAL AUTO).            |
| 12      | SWPAL    | I   | SW TV OUT MODE (L=PAL).                      |
| 13      | EMERG    | I   | POWER EMERGENCY STOP (L*3sec=STOP).          |
| 14      | NC       | —   | Not used.                                    |
| 15      | LPCSEL   | I   | “LPC ON/OFF (H=ON, NORMAL)”.                 |
| 16      | NC       | —   | Not used.                                    |
| 17      | LOCK     | O   | GFS (FRAME SYNC) LOCK (NO USE=H).            |
| 18      | DMUTE    | O   | DIGITAL DATA OUT MUTE.                       |
| 19      | SENS     | I   | DSP SENS1 FROM CD.                           |
| 20      | XCDRST   | O   | CD RESET.                                    |
| 21      | DATA     | O   | DATA TO CD.                                  |
| 22      | XLAT     | O   | XLT TO CD.                                   |
| 23      | CLOK     | O   | CLK TO CD.                                   |
| 24      | VSS      | —   | GND.   |
| 25      | FOK      | I   | FOCUS OK.                                    |
| 26      | SENS2    | I   | SSP SENS2 FROM CD.                           |
| 27      | XBUSY    | I/O | READY/BUSY I/O TO HOST OD.                   |
| 28      | NC       | —   | Not used.                                    |
| 29      | NC       | —   |  |
| 30      | NC       | —   |  |
| 31      | TST0     | I/O | CHECK LAND.                                  |
| 32      | TST1     | I/O |  |
| 33      | TST2     | I/O |  |
| 34      | TST3     | I/O |  |
| 35      | RESET    | I   | RESET.                                       |
| 36      | HRDY     | I   | HRDY FROM CL680.                             |
| 37      | XHINT    | I   | HINT FROM CL680.                             |
| 38      | NC       | —   | Not used.                                    |
| 39      | SCOR     | I   | SCOR FROM CD.                                |
| 40      | VDD      | —   | 5.0VDD.                                      |
| 41      | XO       | O   | 8.0MHz CERALOCK.                             |

| Pin No. | Pin Name | I/O | Description                     |
|---------|----------|-----|---------------------------------|
| 42      | XI       | I   | 8.0MHz CERALOCK.                |
| 43      | VSS      | —   | GND.                            |
| 44      | XT2      | —   | Not used.                       |
| 45      | XT1      | I   | 5.0VDD.                         |
| 46      | AVSS     | —   | GND.                            |
| 47      | XMPGRST  | O   | MPEG BLOCK IC RESET.            |
| 48      | HSEL     | O   | ADDRESS/DATA SEL TO CL680.      |
| 49      | INLSW    | I   | INSIDE LIMIT SW .               |
| 50      | NC       | —   | Not used.                       |
| 51      | OSDXCS   | O   | OSD CHIP SELECT.                |
| 52      | ABSEL    | I   | CXA1992A/B SELECT (L=CXA1992A). |
| 53      | CLVSEL   | I   | CLV MODE SELECT (H=CLV-N).      |
| 54      | AADSEL   | I   | AUTO ADJUST SELECT (H=AUTO ON). |
| 55      | AVDD     | —   | 5.0VDD.                         |
| 56      | AVREF    | —   |                                 |
| 57      | HDOUT    | I   | HD-OUT FROM CL680.              |
| 58      | HDIN     | O   | HD-IN TO CL680.                 |
| 59      | HCK      | O   | HCK TO CL680.                   |
| 60      | OSDDATA  | O   | OSD DATA.                       |
| 61      | OSDCLK   | O   | OSD CLOCK.                      |
| 62      | COMMAND  | I   | COMMAND FROM HOST .             |
| 63      | STATUS   | O   | STATUS TO HOST.                 |
| 64      | SCK      | I   | SCK FROM HOST.                  |

## IC, CXD2540Q

| Pin No. | Pin Name | I/O | Description  |
|---------|----------|-----|--|
| 1       | FOK      | I   | Focus OK input. Used for SENS output and the servo auto sequencer.   |
| 2       | FSW      | O   | Spindle motor output filter switching output.  |
| 3       | MON      | O   | Spindle motor on/off control output.   |
| 4       | MDP      | O   | Spindle motor servo control.   |
| 5       | MDS      | O   |  |
| 6       | LOCK     | O   | High, when sampled value of GFS at 460Hz is high.<br>Low, when sampled value of GFS at 460Hz is low by 8 times successively. |
| 7       | NC       | —   |  |
| 8       | VCOO     | O   | Analog EFM PLL oscillation circuit output.   |
| 9       | VCOI     | I   | Analog EFM PLL oscillation circuit input. $f_{LOCK}=8.6436\text{MHz}$ .  |
| 10      | TEST     | I   | TEST pin.  |
| 11      | PDO      | O   | Analog EFM PLL charge pump output.   |
| 12      | VSS      | —   | GND.   |
| 13      | PWMI     | I   | Spindle motor external control input.  |
| 14      | V16M     | O   | VCO2 oscillation output for the wide-band EFM PLL.   |
| 15      | VCTL     | I   | VCO2 control voltage input for the wide-band EFM PLL.  |
| 16      | VPCO     | O   | Wide-band EFM PLL charge pump output.  |
| 17      | VCKI     | I   | VCO2 oscillation input for the wide-band EFM PLL.  |
| 18      | FILO     | O   | Multiplier PLL (slave=digital PLL) filter output.  |
| 19      | FILI     | I   | Multiplier PLL filter input.   |
| 20      | PCO      | O   | Multiplier PLL charge pump output.   |
| 21      | AVSS     | —   | Analog GND.  |
| 22      | CLTV     | I   | Multiplier VCO1 control voltage input.   |
| 23      | AVDD     | —   | Analog power supply (5V).  |
| 24      | RF       | I   | EFM signal input.  |
| 25      | BIAS     | I   | Constant current input of the asymmetry circuit.   |
| 26      | ASYI     | I   | Asymmetry comparator voltage input.  |
| 27      | ASYO     | O   | EFM full-swing output.   |
| 28      | ASYE     | I   | Low: asymmetry circuit off; high: asymmetry circuit on.  |
| 29      | NC       | —   |  |
| 30      | PSSL     | I   | Audio data output mode switching input. Low: serial output; high: parallel output.   |
| 31      | WDCK     | O   | D/A interface for 48-bit slot. Word clock $f=2F_s$ .   |
| 32      | LRCK     | O   | D/A interface for 48-bit slot. LR clock $f=F_s$ .  |
| 33      | VDD      | —   | Power supply (5V).   |
| 34      | DA16     | O   | DA16 (MSB) output when PSSL=1.<br>48-bit slot serial data (two's complement, MSB first) when PSSL=0.                         |
| 35      | DA15     | O   | DA15 output when PSSL=1. 48-bit slot bit clock when PSSL=0.  |
| 36      | DA14     | O   | DA14 output when PSSL=1.<br>64-bit slot serial data (two's complement, LSB first) when PSSL=0.                               |
| 37      | DA13     | O   | DA13 output when PSSL=1. 64-bit slot bit clock when PSSL=0.  |
| 38      | DA12     | O   | DA12 output when PSSL=1. 64-bit slot LR clock when PSSL=0.   |

| Pin No. | Pin Name | I/O | Description   |
|---------|----------|-----|---|
| 39      | DA11     | O   | DA11 output when PSSL=1. GTOP output when PSSL=0.   |
| 40      | DA10     | O   | DA10 output when PSSL=1. XUGF output when PSSL=0.   |
| 41      | DA09     | O   | DA09 output when PSSL=1. XPLCK output when PSSL=0.  |
| 42      | DA08     | O   | DA08 output when PSSL=1. GFS output when PSSL=0.  |
| 43      | DA07     | O   | DA07 output when PSSL=1. RFCK output when PSSL=0.   |
| 44      | DA06     | O   | DA06 output when PSSL=1. C2PO output when PSSL=0.   |
| 45      | DA05     | O   | DA05 output when PSSL=1. XRAOF output when PSSL=0.  |
| 46      | DA04     | O   | DA04 output when PSSL=1. MNT3 output when PSSL=0.   |
| 47      | DA03     | O   | DA03 output when PSSL=1. MNT2 output when PSSL=0.   |
| 48      | DA02     | O   | DA02 output when PSSL=1. MNT1 output when PSSL=0.   |
| 49      | DA01     | O   | DA01 output when PSSL=1. MNT0 output when PSSL=0.   |
| 50      | APTR     | O   | Aperture compensation control output.<br>This pin outputs a high signal when the right channel is used. |
| 51      | APTL     | O   | Aperture compensation control output.<br>This pin outputs a high signal when the left channel is used.  |
| 52      | VSS      | —   | GND.  |
| 53      | XTAI     | I   | Crystal oscillation circuit input.  |
| 54      | XTAO     | O   | Crystal oscillation circuit output.   |
| 55      | XTSL     | I   | Crystal selector input.   |
| 56      | FSTT     | O   | 2/3 frequency divider output for Pins 53 and 54.  |
| 57      | FSOF     | O   | 1/4 frequency divider output for Pins 53 and 54.  |
| 58      | C16M     | O   | 16.9344MHz output. (V16M output in CLV-W and CAV-W modes)   |
| 59      | MD2      | I   | Digital-out on/off control. High: on; low: off  |
| 60      | DOUT     | O   | Digital-out output.   |
| 61      | EMPH     | O   | Outputs a high signal when the playback disc has emphasis, and a low signal when there is no emphasis.  |
| 62      | WFCK     | I   | WFCK (write frame clock) output.  |
| 63      | SCOR     | O   | Outputs a high signal when either subcode sync S0 or S1 is detected.                                    |
| 64      | SBSO     | O   | Sub P to W serial output.   |
| 65      | EXCK     | I   | SBSO readout clock input.   |
| 66      | SQSO     | O   | Sub Q 80-bit and PCM peak, level meter and internal status outputs.                                     |
| 67      | SQCK     | I   | SQSO readout clock input.   |
| 68      | MUTE     | I   | High: mute; low: release  |
| 69      | SENS     | —   | SENS output to CPU.   |
| 70      | XRST     | I   | System reset. Reset when low.   |
| 71      | DATA     | O   | Serial data input from CPU.   |
| 72      | XLAT     | O   | Latch input from CPU. Serial data is latched at the falling edge.                                       |
| 73      | VDD      | —   | Power supply (5V).  |
| 74      | CLOK     | O   | Serial data transfer clock input from CPU.  |
| 75      | SEIN     | I   | SENS input from SSP.  |
| 76      | CNIN     | I   | Track jump count signal input.  |

| Pin No. | Pin Name | I/O | Description  |
|---------|----------|-----|--|
| 77      | DATO     | O   | Serial data output to SSP.   |
| 78      | XLTO     | O   | Serial data latch output to SSP. Latched at the falling edge.  |
| 79      | CLKO     | O   | Serial data transfer clock output to SSP.  |
| 80      | MIRR     | I   | Mirror signal input. Used when the number of tracks is 128 or more for the 2N-track jump and M track move of the auto sequencer. |

Notes)

- The 64-bit slot is an LSB first, two's complement output, and the 48-bit slot is an MSB first, two's complement output.
- GTOP is used to monitor the frame sync protection status. (High: sync protection window open.)
- XUGF is the negative pulse for the frame sync obtained from the EFM signal. It is the signal before sync protection.
- XPLCK is the inverse of the EFM PLL clock. The PLL is designed so that the falling edge and the EFM signal transition point coincide.
- GFS goes high when the frame sync and the insertion protection timing match.
- RFCK is derived from the crystal accuracy, and has a cycle of 136 $\mu$ .
- C2PO represents the data error status.
- XRAOF is generated when the 32K RAM exceeds the  $\pm 28F$  jitter margin.



## IC, CXA1992AR

| Pin No. | Pin Name | I/O | Description  |
|---------|----------|-----|--|
| 1       | FEO      | O   | Output terminal for focus error amplifier. Internally connected to window comparator input for bias condition.                 |
| 2       | FEI      | I   | Input terminal for focus error.  |
| 3       | DFDCT    | I   | Capacitor connection terminal for time constant used when there is defect.   |
| 4       | FGD      | I   | This pin is connected to GND via capacitor when high frequency gain of the focus servo is attenuated.                          |
| 5       | FLB      | I   | This is a pin where the time constant is externally connected to raise the low frequency gain of the focus servo.              |
| 6       | FE_O     | O   | Focus drive output.  |
| 7       | FEM      | I   | Focus amplifier inverted input pin.  |
| 8       | SRCH     | I   | This is a pin where the time constant is externally connected to generate the focus search waveform.                           |
| 9       | TGU      | I   | This is a pin where the selection time constant is externally connected to set the tracking servo the high frequency gain.     |
| 10      | TG2      | I   | This is a pin where the selection time constant is externally connected to set the tracking high frequency gain.               |
| 11      | FSET     | I   | Pin for setting peak of the phase compensator of the focus tracking.   |
| 12      | TA_M     | I   | Tracking amplifier inverted input pin.   |
| 13      | TA_O     | O   | Tracking drive output.   |
| 14      | SL_P     | I   | Sled amplifier non-inverted input pin.   |
| 15      | SL_M     | I   | Sled amplifier inverted input pin.   |
| 16      | SL_O     | O   | Sled drive output.   |
| 17      | ISET     | I   | The current which determines height of the focus search, track jump and sled kick is input with external resistance connected. |
| 18      | Vcc      | I   | Power supply.  |
| 19      | LOCK     | I   | “L” setting starts sled disorder-prevention circuit. (Not pull-up resistance)  |
| 20      | CLK      | I   | Clock input for serial data transfer from CPU. (No pull-up resistance)   |
| 21      | XLT      | I   | Latch input from CPU. (No pull-up resistance)  |
| 22      | DATA     | I   | Serial data input from CPU. (No pull-up resistance)  |
| 23      | XRST     | I   | Reset system at “L” setting. (No pull-up resistance)   |
| 24      | C_OUT    | O   | Signal output for track number counting.   |
| 25      | SENS1    | O   | FZC, DFCT1, TZC, BALH, TGH, FOH, or ATSC is output depending on the command from CPU.  |
| 26      | SENS2    | O   | DFCT2, MIRR, BALL, TGL or FOL is output depending on the command from CPU.   |
| 27      | FOK      | O   | Output terminal for focus OK comparator.   |
| 28      | CC2      | I   | Input pin where the DEFECT bottom hold output is capacitance coupled.  |
| 29      | CC1      | O   | DEFECT bottom-hold output terminal. Internally connected to interruption comparator input.                                     |
| 30      | CB       | I   | Connection terminal for DEFECT bottom-hold capacitor.  |
| 31      | CP       | I   | Connection terminal for MIRR hold-capacitor.<br>Anti-reverse input terminal for MIRR comparator.                               |

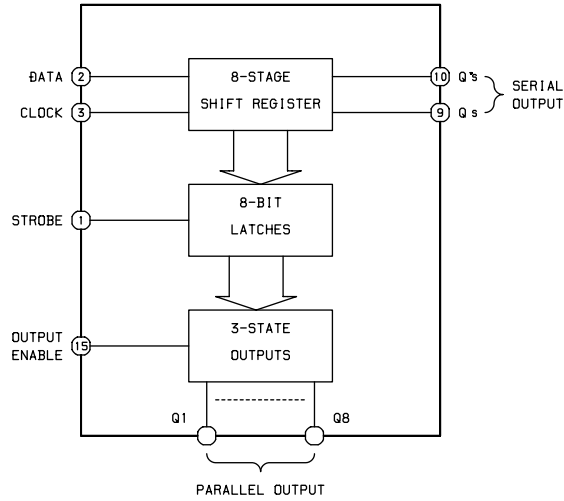
| Pin No. | Pin Name | I/O | Description   |
|---------|----------|-----|---|
| 32      | RF_I     | I   | Input terminal by capacity combination of RF summing amplifier.   |
| 33      | RF_O     | O   | Output terminal of RF summing amplifier. Checkpoint of Eye pattern.   |
| 34      | RF_M     | I   | Anti-reverse input terminal for RF summing amplifier.<br>The gain of RF amplifier is decided by the connection resistance between RF_M and RFO terminals. |
| 35      | RFTC     | I   | This is a pin where the selection time constant is externally connected to control the RF level.  |
| 36      | LD       | O   | APC amplifier output terminal.  |
| 37      | PD       | I   | APC amplifier input terminal.   |
| 38, 39  | PD1, PD2 | I   | RFI-V amplifier inverted input pin.<br>These pins are connected to the A+C and B+C pins of the optical pickup, receiving by currents input.               |
| 40      | FEBIAS   | I/O | Bias adjustment pin of the focus error amplifier.   |
| 41, 42  | F, E     | I   | F and EIV amplifier inverted input pins.<br>These pins are connected to the F and E of the optical pickup, receiving by current input.                    |
| 43      | EI       | —   | Gain adjustment pin of the I-V amplifier E. (When not in use of BAL automatic adjustment)   |
| 44      | VEE      | —   | GND connection pin.   |
| 45      | TEO      | O   | Output terminal for tacking-error amplifier. Output E-F signal.   |
| 46      | LPFI     | I   | BAL adjustment comparator input pin. (Input through LPF from TEO)   |
| 47      | TEI      | I   | Input terminal for tracking error.  |
| 48      | ATSC     | I   | Window-comparator input terminal for detecting ATSC.  |
| 49      | TZC      | I   | Input terminal for tracking-zero cross comparator.  |
| 50      | TDFCT    | I   | Capacitor connection pin for the time constant used when there is defect.   |
| 51      | VC       | O   | Output terminal for DC voltage reduced to half of VCC+VEE.  |
| 52      | FZC      | I   | Input terminal for focus-zero cross comparator.   |

## IC, LC74781M

| Pin No. | Pin Name               | I/O | Description  |
|---------|------------------------|-----|--|
| 1       | VSS1                   | —   | GND connection terminal. (Digital ground terminal).  |
| 2       | Xtal IN                | I   | External X'tal and capacitor for internal sync generator, or the external clock are connected to this terminal. (2fsc or 4fsc).  |
| 3       | Xtal OUT               | O   |  |
| 4       | CTRL1                  | I   | Either the external clock input mode or the X'tal generator mode is selected by this selector terminal. L: X'tal generator mode, H: External clock input.  |
| 5       | BLANK                  | O   | Blank signal (character and the green ORed signal) is output from this terminal. (MODE 0: composite sync signal is output at H.) When reset ( $\overline{\text{RST}}$ terminal = L), the X'tal clock signal is output. (It is not output when reset by the reset command).   |
| 6       | OSC IN                 | I   | External coil and capacitor for the character output dot clock generator are connected to this terminal.   |
| 7       | OSC OUT                | O   |  |
| 8       | CHARA                  | O   | The character signal is output from this terminal. (MOD 0: when H, the external sync signal identification signal is output from this terminal. This output signal tells whether the external sync signal is present or not. When external sync signal is present, H is output.) When reset ( $\overline{\text{RST}}$ terminal = L), the dot clock signal (LC oscillator) is output. (It is not output when reset by the reset command). |
| 9       | $\overline{\text{CS}}$ | I   | Enable signal for the serial data input is input to this terminal. The serial data input is enabled at L. Pull-up resistor is built-in. (Hysteresis input).  |
| 10      | SCLK                   | I   | Clock of the serial data input is input to this terminal. Pull-up resistor is built-in. (Hysteresis input).  |
| 11      | SIN                    | I   | Serial data input terminal. Pull-up resistor is built-in. (Hysteresis input).  |
| 12      | VDD2                   | —   | Power supply for the composite video signal level adjustment. (Analog power supply).   |
| 13      | CV OUT                 | O   | Composite video signal output terminal.  |
| 14      | NC                     | —   | Connected to GND or not connected.   |
| 15      | CV IN                  | I   | Composite video signal input terminal.   |
| 16      | VDD1                   | —   | Power supply (+5V digital power supply).   |
| 17      | SYN IN                 | I   | Video signal for the internal sync separator circuit is input to this terminal. (When the internal sync separator circuit is not used, the horizontal sync signal or composite sync signal is input to this terminal).   |
| 18      | SEP C                  | —   | Internal sync separator circuit bias voltage monitoring terminal.  |
| 19      | SEP OUT                | O   | The composite sync output signal of the internal sync separator circuit is output from this terminal. (H: MOD 1. H: during internal sync mode. L: during external sync mode.) (When internal sync separator circuit is not used, the SYN IN input signal is output from this terminal).  |
| 20      | SEP IN                 | I   | The output signal of the SEP OUT terminal is integrated so that the vertical sync signal is input to this terminal. An integrator circuit must be connected between the SEP OUT terminal and this terminal. When this terminal is not used, it must be connected to VDD1.  |
| 21      | CTRL2                  | I   | When selecting any of the NTSC or PAL or PAL-M or PAL-N system, the pin setting has priority. When L, the NTSC system is selected after resetting. Selection of either NTSC or PAL or PAL-M or PAL-N system by the command becomes effective. H: PAL-M system.   |

| Pin No. | Pin Name                | I/O | Description   |
|---------|-------------------------|-----|---|
| 22      | CTRL3                   | I   | Controls whether or not to input the $\overline{\text{VSYNC}}$ signal to the SEPIN input. L: to input the $\overline{\text{VSYNC}}$ signal. H: not to input the $\overline{\text{VSYNC}}$ signal. |
| 23      | $\overline{\text{RST}}$ | I   | System reset input terminal. Pull-up resistor is built-in. (Hysteresis input).  |
| 24      | VDD1                    | —   | Power supply. (+5V digital power supply).   |

IC BLOCK DIAGRAM  
IC, BU4094BCF

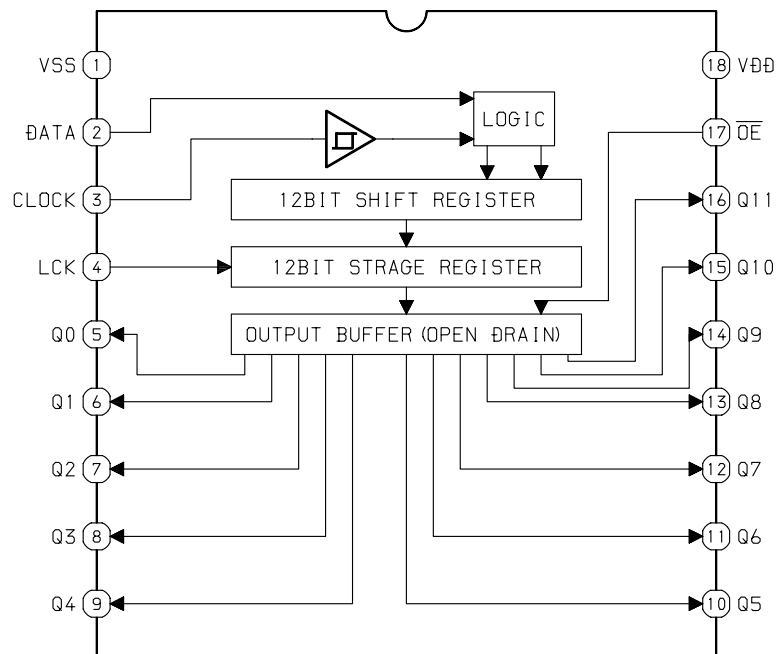


TRUTH TABLE

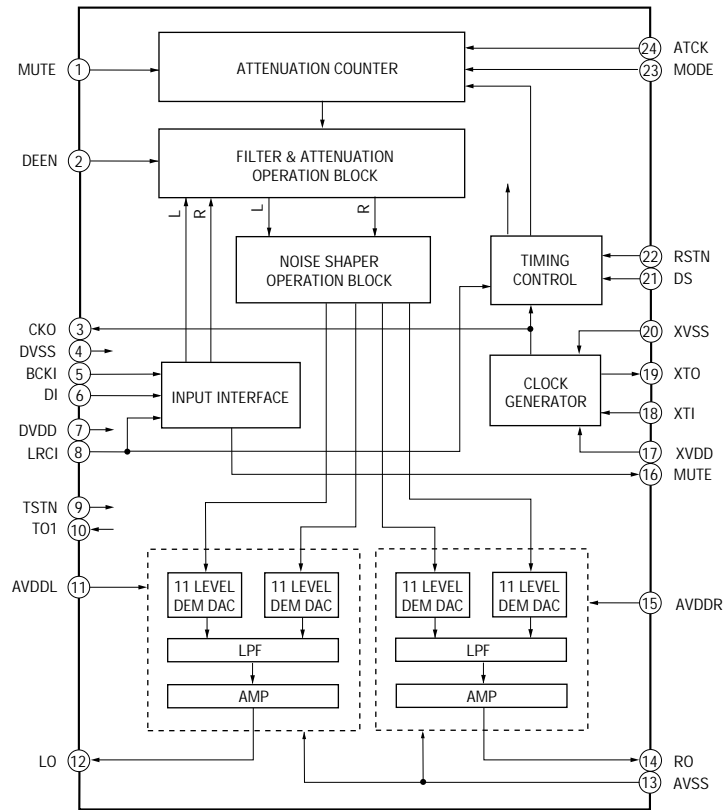
| CLOCK | OUTPUT ENABLE | STROBE | DATA | PARALLEL OUTPUTS |         | SERIAL OUTPUTS |         |
|-------|---------------|--------|------|------------------|---------|----------------|---------|
|       |               |        |      | Q1               | Qn      | Qs             | Q's     |
|       | 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

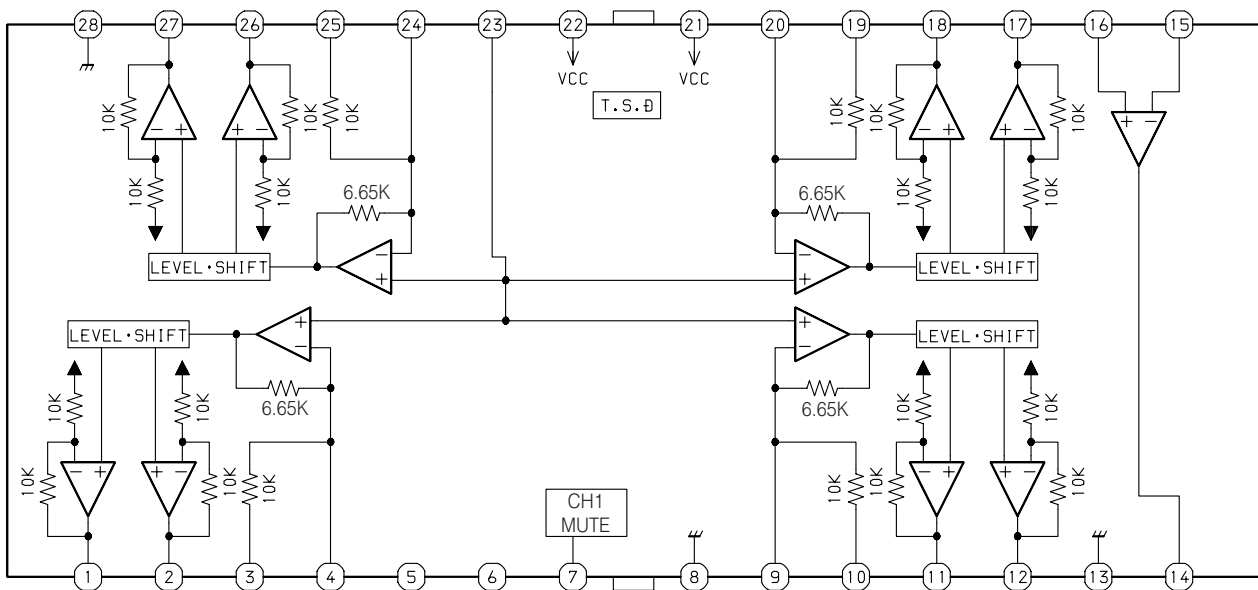
IC, BU2092



# IC, SM5878AM

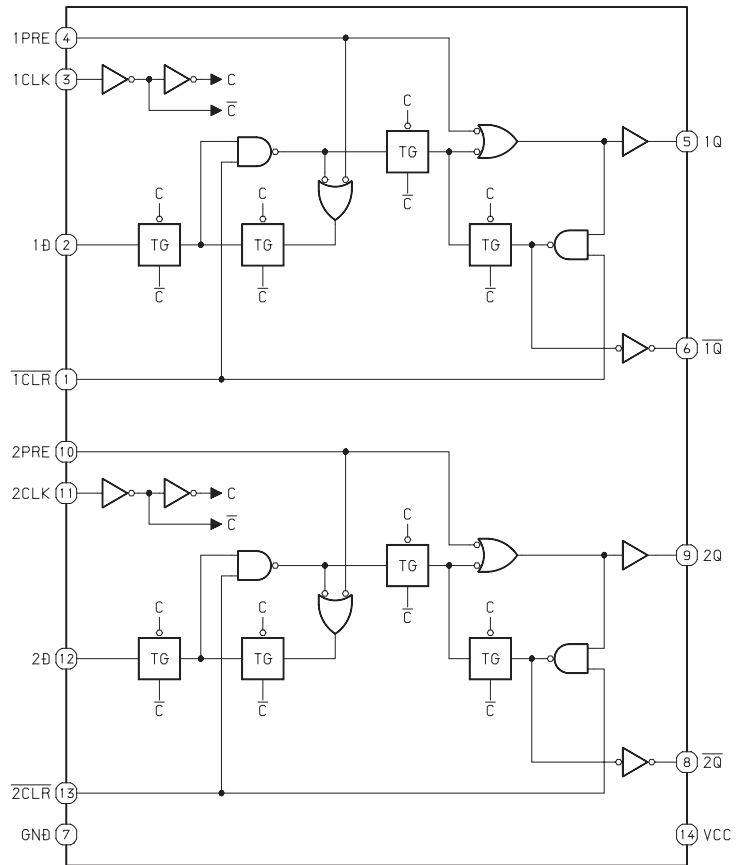


# IC, BA5915FP

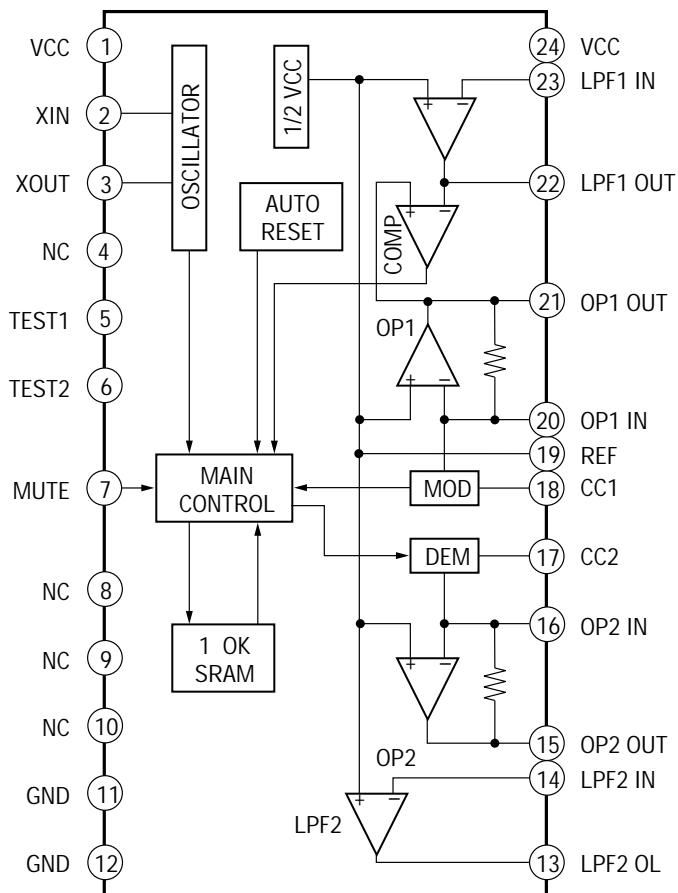


T.S.D: Thermal shut-down  
Resistors are in units of  $\Omega$ .

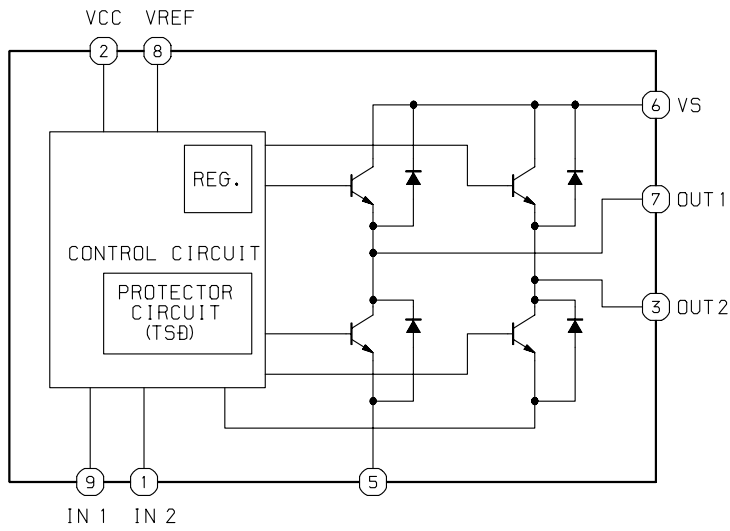
IC, SN74LV74APW



IC, M65843FP



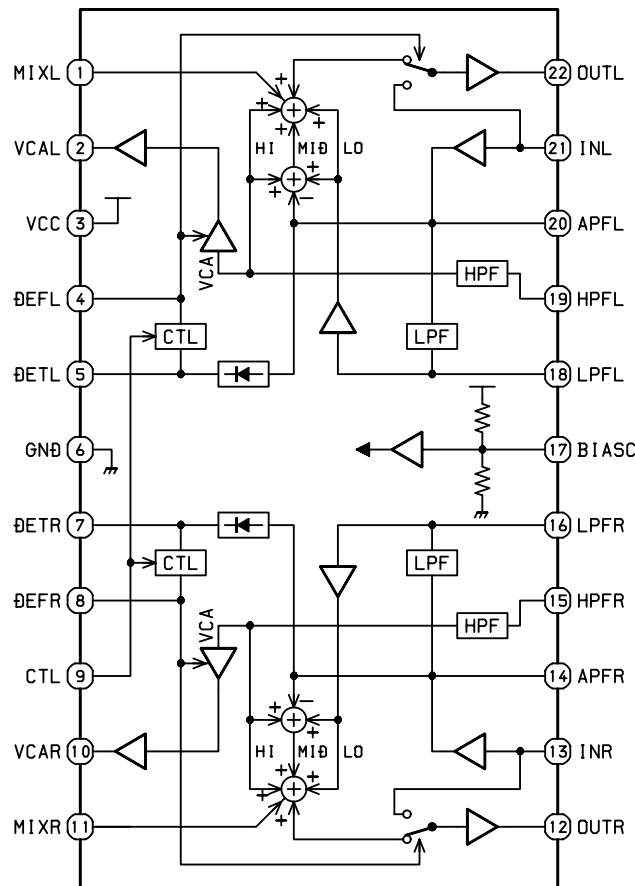
# IC, TA7291S



| INPUT |     | OUTPUT   |          | MODE  |
|-------|-----|----------|----------|-------|
| IN1   | IN2 | OUT1     | OUT2     |       |
| 0     | 0   | $\infty$ | $\infty$ | STOP  |
| 1     | 0   | H        | L        | CW    |
| 0     | 1   | L        | H        | CCW   |
| 1     | 1   | L        | L        | BRAKE |

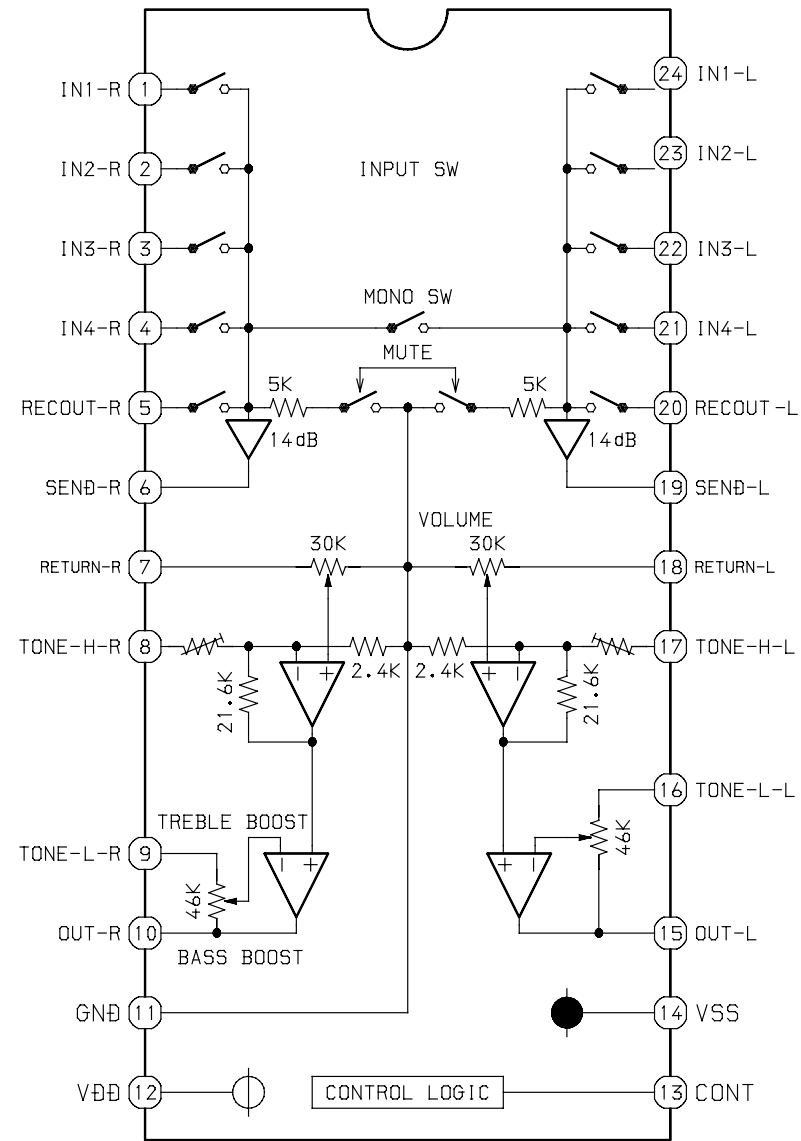
$\infty$  : HI IMPEDANCE  
NOTE : INPUT "H" ACTIVE

# IC, BA3880FS

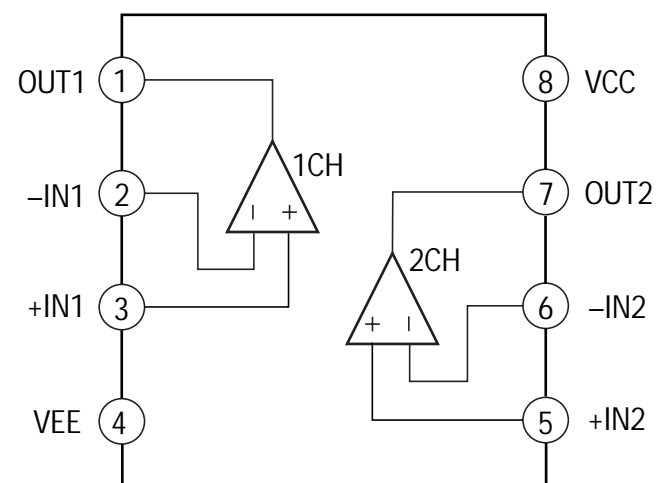




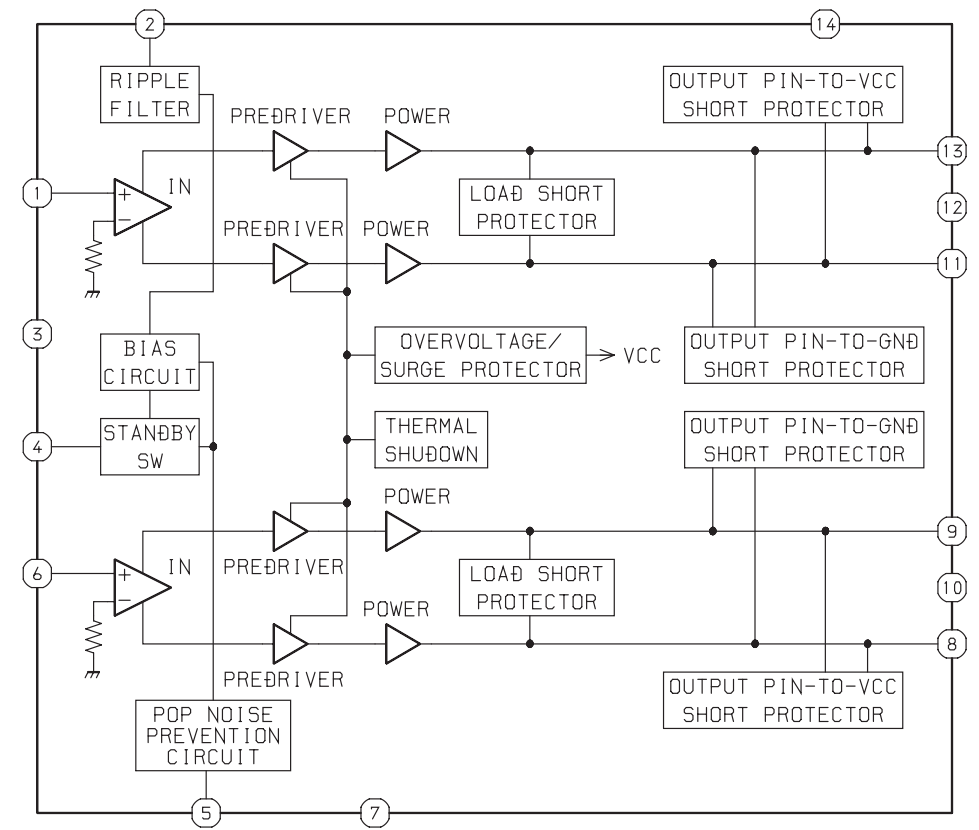
IC, M62495FP



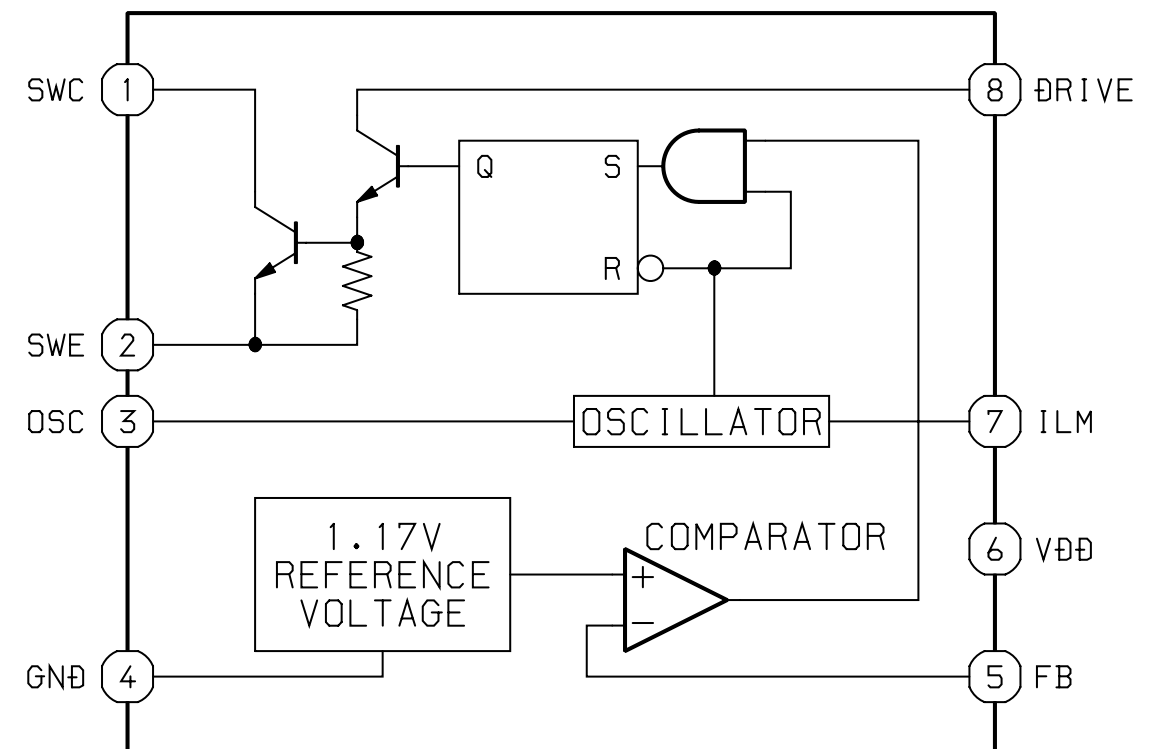
IC, BA4558F

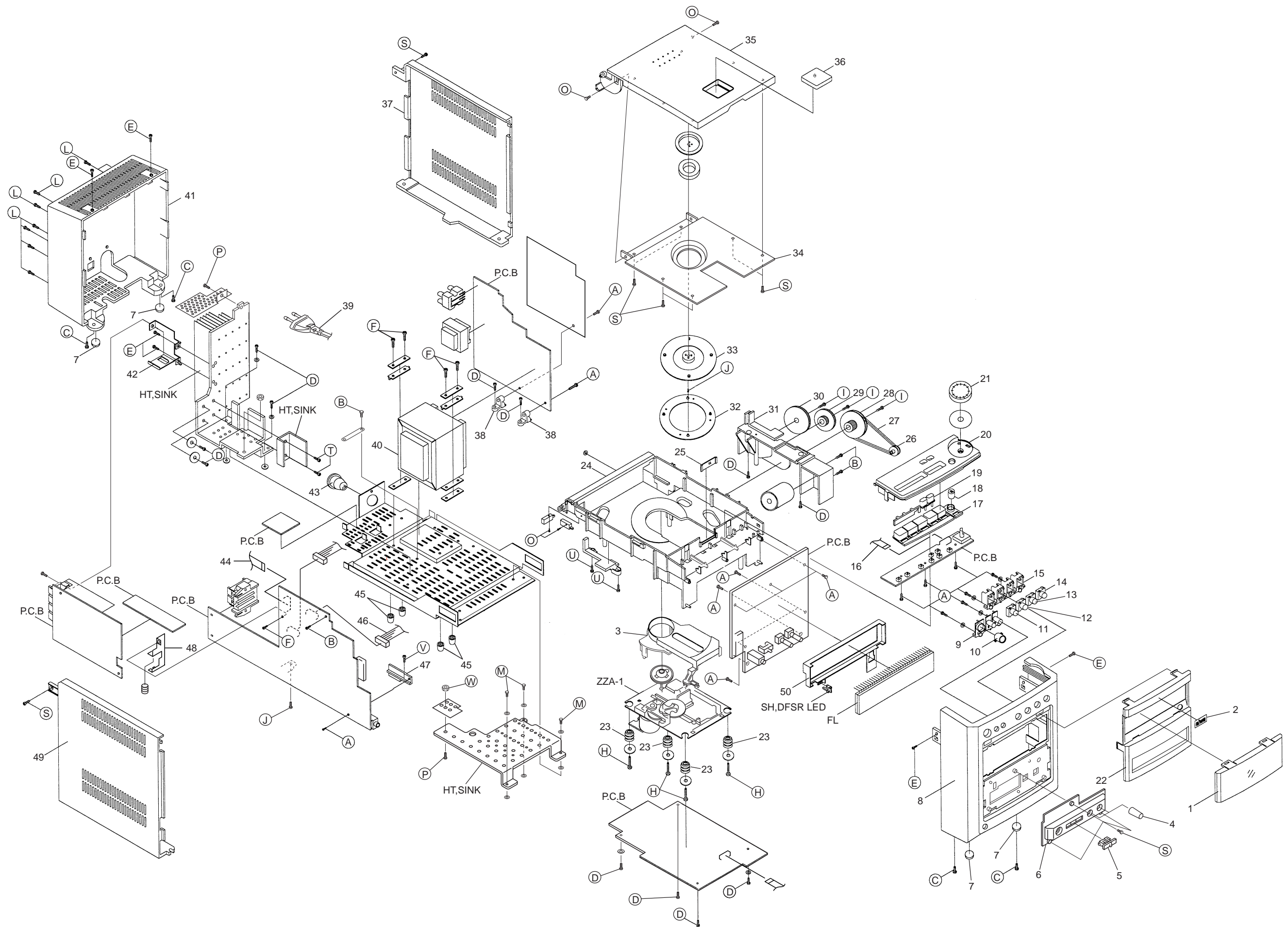


IC, LA4625



IC, M5291FP





# MECHANICAL PARTS LIST 1/1

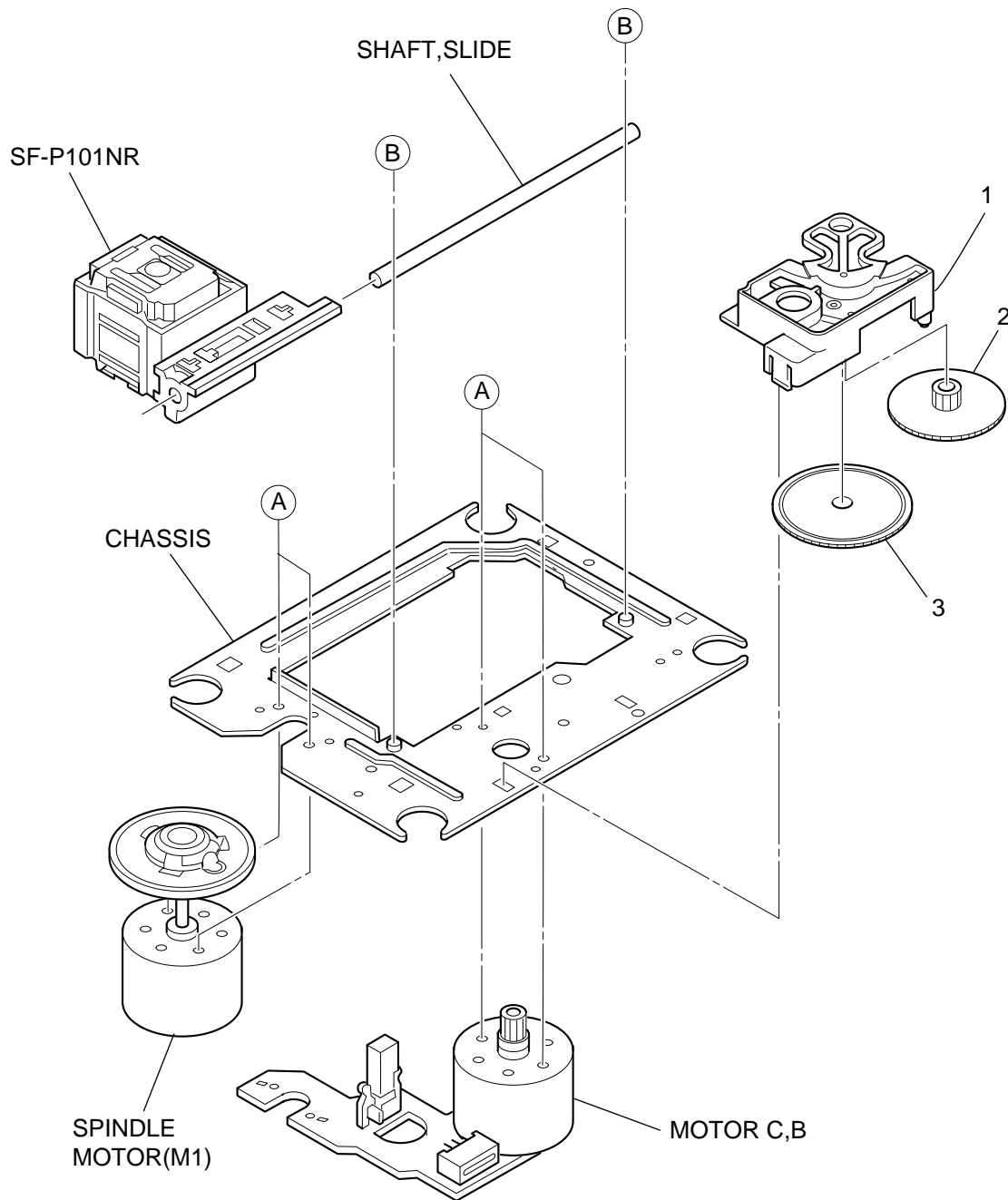
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。  
 If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO.       | KANRI NO. | DESCRIPTION                   | REF. NO | PART NO.       | KANRI NO. | DESCRIPTION                    |
|---------|----------------|-----------|-------------------------------|---------|----------------|-----------|--------------------------------|
| 1       | 8Z-CL5-009-010 |           | WINDOW,FL SUH                 | 36      | 8Z-CL5-008-010 |           | WINDOW,CD                      |
| 2       | 8Z-CL5-037-010 |           | BADGE,AIWA                    | 37      | 8Z-CL5-003-010 |           | CABI,SIDE R                    |
| 3       | 8Z-CDB-169-010 |           | PANEL,CD SANYO                | 38      | 8Z-CL5-625-010 |           | HLDR,51052-0910V0              |
| 4       | 8Z-CLF-025-010 |           | KNOB,RTRY MIC/ECHO            | 39      | 87-A80-092-010 |           | AC CORD ASSY,E BLK SUN FAI     |
| 5       | 8Z-CLF-024-010 |           | KNOB,SL SYSTEM SW             | 40      | 8Z-NF8-663-010 |           | PT,SUB ZNF-8(H)                |
| 6       | 8Z-CLF-022-010 |           | PANEL,KARAOKE<HRJC>           | 41      | 8Z-CLF-020-010 |           | CABI,REAR VCD                  |
| 7       | 8Z-CL5-216-010 |           | FOOT,CABI                     | 42      | 8Z-CL5-213-010 |           | HLDR,(A) PWB TU                |
| 8       | 8Z-CLF-019-010 |           | CABI,FRONT VCD                | 43      | 87-085-185-010 |           | BUSHING, AC CORD (E)           |
| 9       | 8Z-CL5-014-010 |           | BTN,SET POWER                 | 44      | 8Z-CL5-604-010 |           | CONN,18P(BOARD TO BOARD)       |
| 10      | 8Z-CL5-016-010 |           | BTN,POWER                     | 45      | 8Z-NB8-240-010 |           | COVER, PL                      |
| 11      | 8Z-CL5-020-010 |           | BTN,CRYSTAL TU                | 46      | 8Z-CL5-627-010 |           | F-CABLE,5P 2.5 250MM UL2468 AW |
| 12      | 8Z-CL5-021-010 |           | BTN,CRYSTAL AX                | 47      | 8Z-CL5-221-010 |           | HLDR,BKT MOUNT                 |
| 13      | 8Z-CL5-022-010 |           | BTN,CRYSTAL CD                | 48      | 8Z-CL5-214-010 |           | HLDR,(B) PWB TU                |
| 14      | 8Z-CL5-023-010 |           | BTN,CRYSTAL MD                | 49      | 8Z-CL5-004-010 |           | CABI,SIDE L                    |
| 15      | 8Z-CL5-015-010 |           | BTN,SET FUNC                  | 50      | 8Z-CL5-209-010 |           | HLDR,FL                        |
| 16      | 8Z-CL5-603-010 |           | FF-CABLE, 7P 1.0 150MM UL2896 | A       | 87-651-074-410 |           | VT1+2.6-8                      |
| 17      | 8Z-CL5-013-010 |           | BTN,SET CD                    | B       | 87-261-092-410 |           | V+3-4 GLD                      |
| 18      | 8Z-CL5-018-010 |           | BTN,CD OPEN                   | C       | 87-251-096-410 |           | U+3-10                         |
| 19      | 8Z-CLF-018-010 |           | BTN,SET ENTER                 | D       | 87-741-095-410 |           | UT2+3-8 GLD                    |
| 20      | 8Z-CLF-027-010 |           | PANEL,CONT. VCD               | E       | 87-721-097-410 |           | QT2+3-12 GLD                   |
| 21      | 8Z-CL5-019-010 |           | BTN,JOE                       | F       | 8Z-CL5-238-010 |           | VIT+4-12 W/O<HRJC>             |
| 22      | 8Z-CLF-021-010 |           | PANEL,FRONT VCD               | G       | 87-261-095-410 |           | V+3-8                          |
| 23      | 88-CH6-220-010 |           | CUSHION,CD A                  | H       | 8Z-CL5-237-010 |           | UT2+2.6-17 W/O                 |
| 24      | 8Z-CL5-210-010 |           | CHAS,CD                       | I       | 87-761-074-410 |           | VFT2+2.6-8                     |
| 25      | 8Z-CL5-201-010 |           | GUIDE,LED                     | J       | 87-581-033-410 |           | UIT+2-4                        |
| 26      | 8Z-CL5-208-010 |           | PULLEY,MOTOR                  | K       | 87-261-073-410 |           | V+2.6-6                        |
| 27      | 8Z-CL5-217-010 |           | BELT,PULLEY                   | L       | 87-741-096-410 |           | UT2+3-10                       |
| 28      | 8Z-CL5-205-010 |           | PULLEY,GEAR CD                | M       | 87-251-095-410 |           | U+3-8 GLD                      |
| 29      | 8Z-CL5-206-010 |           | GEAR,MID CD                   | N       | 87-571-094-410 |           | TAPPING SCREW, VIT+3-6 (GLD)   |
| 30      | 8Z-CL5-207-010 |           | GEAR,CD                       | O       | 87-353-535-310 |           | VT2+1.7-8 CR                   |
| 31      | 8Z-CL5-203-010 |           | HLDR,GEAR CD                  | P       | 87-231-096-410 |           | Q+3-10                         |
| 32      | 8Z-CL5-234-010 |           | BASE,CHUCK ALCO-SANYO         | Q       | 87-751-035-410 |           | VT2+2-6W/0 SLOT                |
| 33      | 8Z-CL5-235-010 |           | RING,CHUCK ALCO               | R       | 87-741-097-410 |           | UT2+3-12                       |
| 34      | 8Z-CL5-040-010 |           | PLATE,CD LID                  |         | 87-A90-140-010 |           | HLDR,51052-0510 V0             |
| 35      | 8Z-CLF-023-010 |           | LID,VCD                       |         | 8Z-CL5-239-010 |           | HLDR,MIC JACK<HC1C>            |

## COLOR NAME TABLE

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

# CD MECHANISM EXPLODED VIEW 1/1



## CD MECHANISM PARTS LIST 1/1

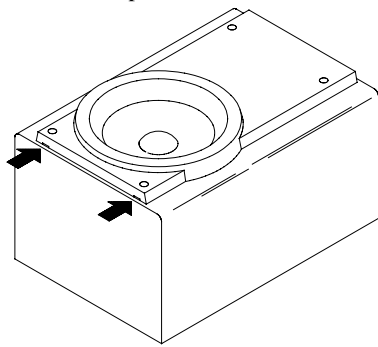
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。  
 If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO | PART NO.       | KANRI NO. | DESCRIPTION         |
|---------|----------------|-----------|---------------------|
| 1       | S2-121-A28-400 |           | COVER GEAR          |
| 2       | S2-511-A21-000 |           | GEAR MIDDLE         |
| 3       | S2-511-A21-100 |           | GEAR, DRIVE         |
| A       | S1-PN2-03R-05E |           | SCR PAN PCS 2-3     |
| B       | 87-261-073-410 |           | SCR S-TPG FLT 2.6-6 |
| ALL     | M8-ZZK-E90-070 |           | DA11T3C             |

# SPEAKER DISASSEMBLY INSTRUCTIONS

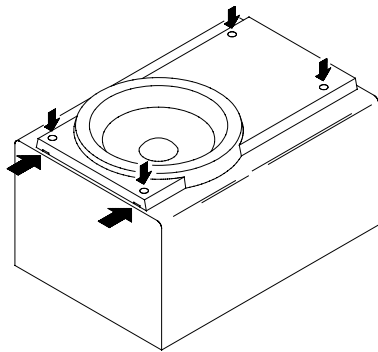
## Type.1

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



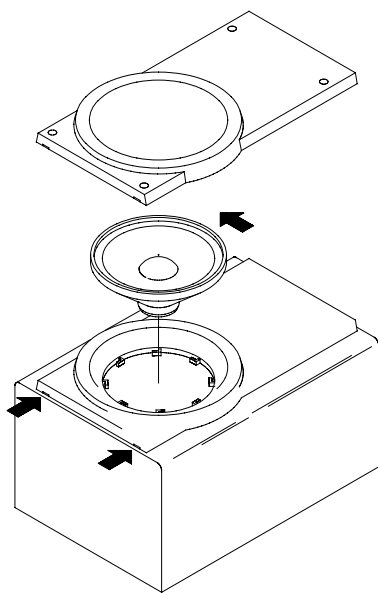
## Type.2

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

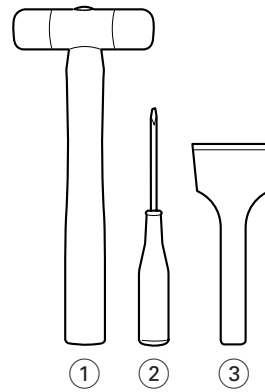


## Type.3

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



## Type.4



## TOOLS

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

## How to Remove the PANEL, FR

1. Insert the (⊖) flat head screwdriver tip into the gap between the PANEL, FR and the PANEL, SPKR. Tap the head of the (⊖) flat head screwdriver with the plastic hammer head, and create the clearance as shown in Fig-1.
2. Insert the cut chisel in the clearance, and tap the head of the cut chisel with plastic hammer as shown in Fig-2, to remove the PANEL, FR.
3. Place the speaker horizontally. Tap head of the cut chisel with plastic hammer as shown in Fig-3, and remove the PANEL, FR completely.

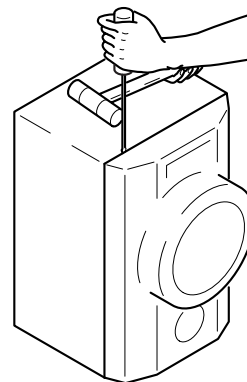


Fig-1

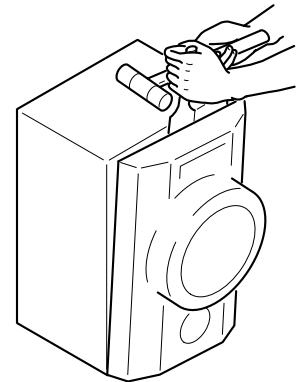


Fig-2

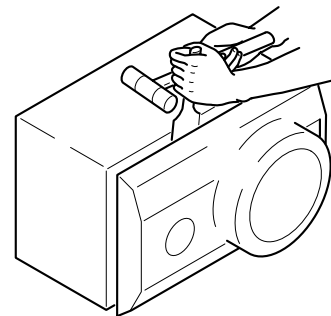


Fig-3

## How to Attach the PANEL, FR

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

## SPEAKER PARTS LIST 1/1

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

| REF. NO | PART NO.       | KANRI NO. | DESCRIPTION       |
|---------|----------------|-----------|-------------------|
| 1       | 8Z-CL5-543-010 |           | CORD,SP           |
| 2       | 8Z-CL5-506-010 |           | GRILLE,FRAME ASSY |
| 3       | 8Z-CL5-503-010 |           | PANEL,FR          |
| 4       | 8Z-CL5-505-010 |           | PANEL,TW          |
| 5       | 8Z-CL5-542-010 |           | SPKR,TW25         |
| 6       | 8Z-CL5-541-010 |           | SPKR,W100         |

## ACCESSORIES/PACKAGE LIST

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

| REF. NO | PART NO.       | KANRI<br>NO. | DESCRIPTION      |
|---------|----------------|--------------|------------------|
| 1       | 8Z-CGF-901-010 |              | IB,H(EC-H)A      |
| 1       | 8Z-CGF-911-010 |              | IB,H(EC-K)A      |
| 2       | 87-043-115-010 |              | ANT,FEEDER FM    |
| 3       | 87-A90-030-010 |              | ANT,LOOP AM-NC C |
| 4       | 8Z-CDW-951-010 |              | RC UNIT,RC-ZAT06 |

アイワ株式会社 〒110-8710 東京都台東区池之端1-2-11 ☎03(3827)3111 (代表)  
**AIWA CO.,LTD.** 2-11, IKENOHATA 1-CHOME, TAITO-KU, TOKYO 110, JAPAN TEL:03 (3827) 3111