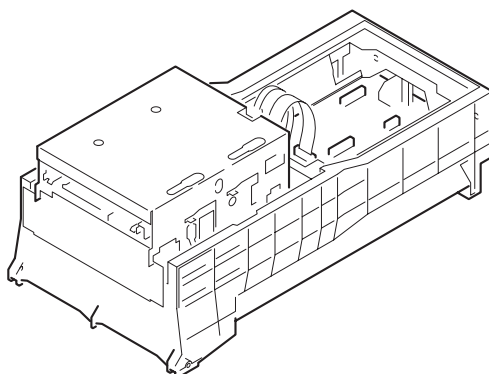




# SERVICE MANUAL

MD MECHANISM

BASIC MD MECHANISM : AZG-4YA  
KMS-260B

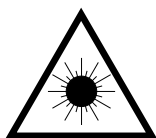
|      |
|------|
| TYPE |
| DM   |

## PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

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

### WARNING!

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



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

### VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylitävälle 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

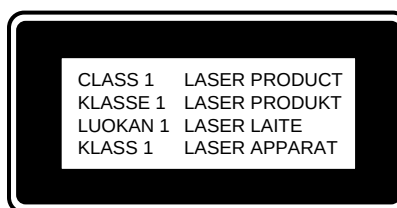
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

### 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.

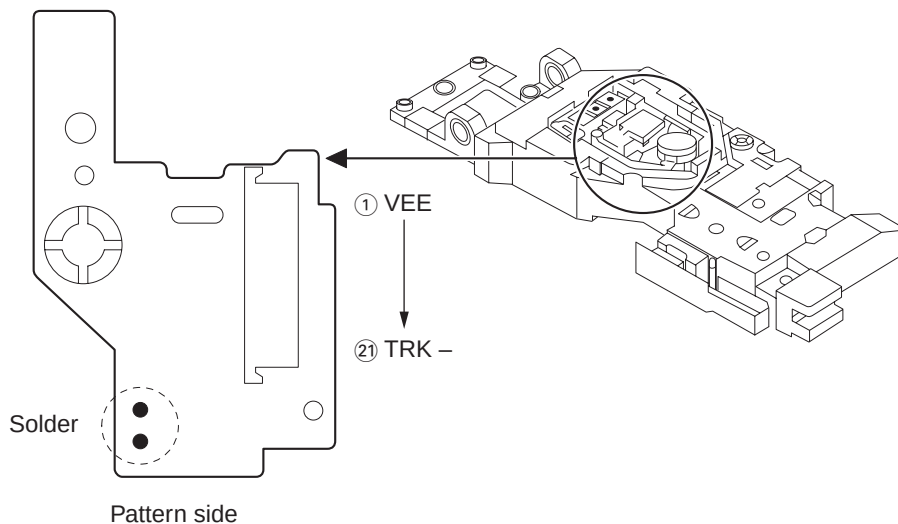


## Precaution to replace Optical block (KMS-260B)

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.

MD PICKUP Assy P.C.B.



# ELECTRICAL MAIN PARTS LIST

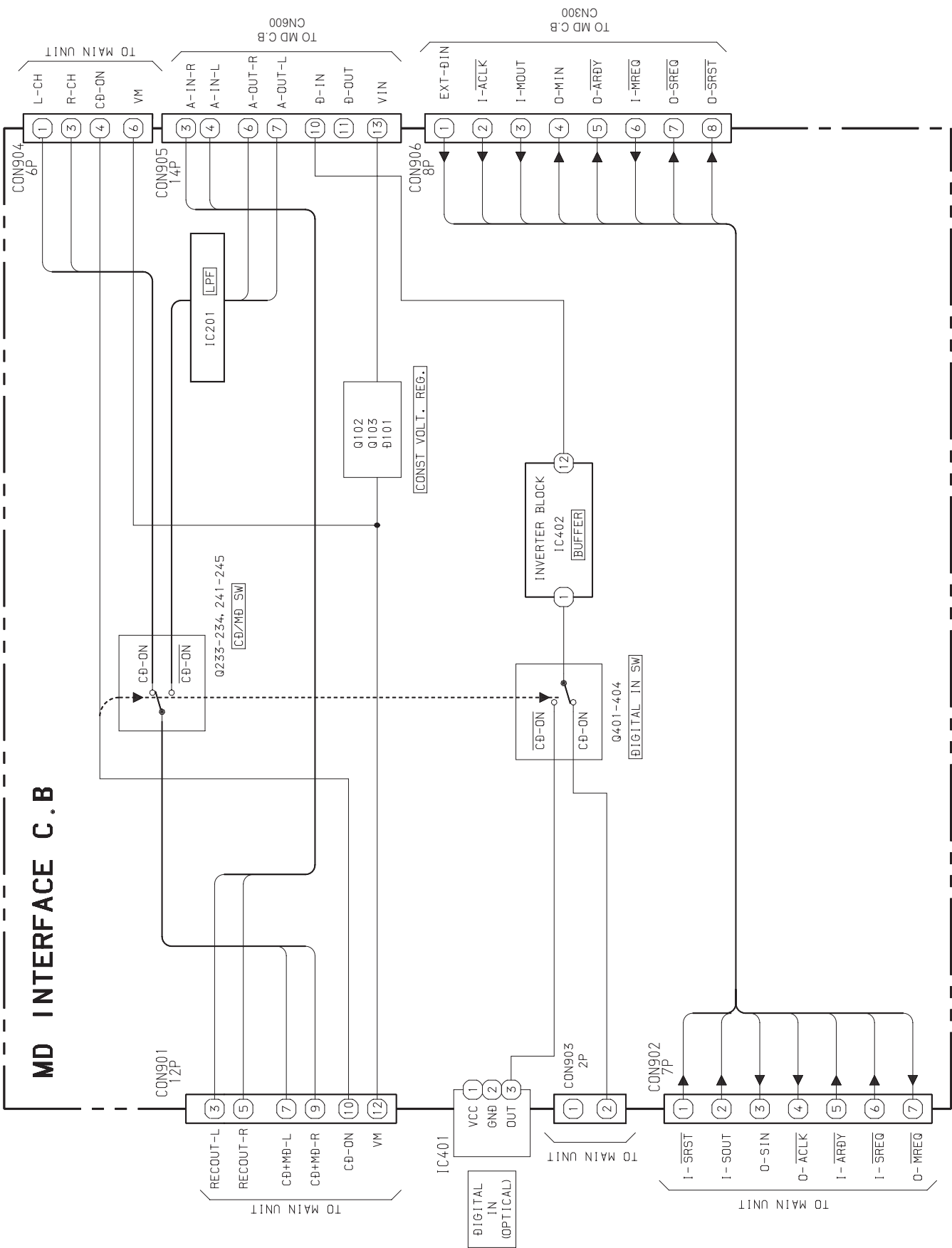
DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。  
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

| REF. NO          | PART NO.       | KANRI NO.      | DESCRIPTION               | REF. NO | PART NO.       | KANRI NO. | DESCRIPTION                |
|------------------|----------------|----------------|---------------------------|---------|----------------|-----------|----------------------------|
| IC               |                |                |                           | CON905  | 87-A60-423-010 |           | CONN,14P V TOC-B           |
|                  |                |                |                           | CON906  | 87-A60-422-010 |           | CONN,8P V TOC-B            |
|                  |                |                |                           | R405    | 87-A50-189-080 |           | C-COIL,S BLM21B272S        |
|                  |                |                |                           | MD C.B  |                |           |                            |
|                  | 87-A20-707-010 |                | C-IC, CXA2523AR           |         |                |           |                            |
|                  | 87-A20-708-010 |                | C-IC, CXD2652AR           |         |                |           |                            |
|                  | 87-A21-419-040 |                | C-IC, NJM14558MD-TE2      |         |                |           |                            |
|                  | 87-A20-709-040 |                | C-IC, BD7910FV            |         |                |           |                            |
|                  | 8A-ZG4-601-010 |                | C-IC, CXP81952M-552R      |         |                |           |                            |
|                  |                |                |                           | C100    | 87-016-296-080 |           | C-CAP,TN 22-4SV(A)         |
|                  | 87-A21-395-040 |                | C-IC, HM51W4400BS-7       | C101    | 87-016-296-080 |           | C-CAP,TN 22-4SV(A)         |
|                  | 87-A20-755-080 |                | C-IC, AK93C45AF           | C102    | 87-012-286-080 |           | CAP, U 0.01-25             |
|                  | 87-A20-710-040 |                | C-IC, S-8110AMP           | C103    | 87-010-787-080 |           | CAP, U 0.022-25            |
|                  | 87-A20-711-040 |                | C-IC, BA5970FP            | C104    | 87-010-662-080 |           | C-CAP,E 22-6.3             |
|                  | 87-A20-870-010 |                | IC, GP1F37R               |         |                |           |                            |
|                  |                |                |                           | C105    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  | 87-A20-971-040 |                | C-IC, SN74LV14APW         | C106    | 87-016-462-080 |           | C-CAP,S 1-16 F             |
|                  | 87-A21-110-040 |                | C-IC, AK4519VF            | C107    | 87-012-195-080 |           | C-CAP,U 100P-50CH          |
|                  | 87-017-853-040 |                | IC, NJM2100V              | C108    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B       |
|                  | 87-A21-340-040 |                | C-IC, LA5638H             | C109    | 87-A11-033-080 |           | C-CAP,TN 47U-4             |
| TRANSISTOR       |                |                |                           | C111    | 87-016-296-080 |           | C-CAP,TN 22-4SV(A)         |
|                  |                |                |                           | C112    | 87-012-286-080 |           | CAP, U 0.01-25             |
|                  |                |                |                           | C113    | 87-012-284-080 |           | CAP, U 6800P-50            |
|                  | 87-026-423-080 |                | C-TR RN2305               | C114    | 87-010-828-080 |           | CHIP CAPACITOR,U 0.033-25F |
|                  | 89-115-884-080 |                | CHIP -TRANSISTER 2SA1588Y | C115    | 87-A10-369-080 |           | C-CAP,S 0.47-16 K B        |
|                  | 89-213-702-010 |                | TR,2SB1370 (1.8W)         |         |                |           |                            |
|                  | 87-A30-076-080 |                | C-TR,2SC3052F             | C116    | 87-012-282-080 |           | CAP, U 4700P-50            |
|                  | 89-341-164-080 |                | CHIP-TRANSISTOR,2SC4116 Y | C117    | 87-016-462-080 |           | C-CAP,S 1-16 F             |
|                  |                |                |                           | C118    | 87-012-282-080 |           | CAP, U 4700P-50            |
|                  | 87-A30-071-080 |                | C-TR,RT1N 144C            | C119    | 87-016-491-080 |           | C-CAP,S 0.22-16 FZ         |
|                  | 87-A30-075-080 |                | C-TR,2SA1235F             | C120    | 87-010-787-080 |           | CAP, U 0.022-25            |
|                  | 87-026-225-080 |                | FET,2SJ106GR              |         |                |           |                            |
|                  | 87-A30-072-080 |                | C-TR,RT1P 144C            | C121    | 87-012-286-080 |           | CAP, U 0.01-25             |
|                  | 87-A30-074-080 |                | C-TR,RT1P 141C            | C122    | 87-010-829-080 |           | CAP, U 0.047-16            |
|                  |                |                |                           | C123    | 87-012-286-080 |           | CAP, U 0.01-25             |
|                  | 87-026-412-080 |                | C-TR RN1305               | C124    | 87-010-662-080 |           | C-CAP,E 22-6.3             |
|                  | 87-A30-087-080 |                | C-FET,2SK2158             | C125    | 87-010-662-080 |           | C-CAP,E 22-6.3             |
| DIODE            |                |                |                           | C126    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  |                |                |                           | C201    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  |                |                |                           | C202    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  | 87-001-166-080 |                | DIODE,1SS301              | C203    | 87-010-785-080 |           | C-CAP,U0.015-25BK          |
|                  | 87-A40-751-080 |                | ZENER,UZ6.2BSB            | C204    | 87-016-461-080 |           | C-CAP,S 0.47-16F           |
|                  | 87-A40-313-080 |                | C-DIODE,MC 2840           |         |                |           |                            |
|                  | 87-A40-412-040 |                | C-DIODE,SB05-05CP         | C205    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  | 87-A40-469-080 |                | C-DIODE,HSM2838CTR        | C206    | 87-012-270-080 |           | CAP, U 470P-50             |
|                  |                |                |                           | C207    | 87-016-461-080 |           | C-CAP,S 0.47-16F           |
|                  | 87-A40-468-080 |                | C-DIODE,HSM2836CTR        | C208    | 87-012-286-080 |           | CAP, U 0.01-25             |
|                  | 87-A40-747-080 |                | ZENER,UZ5.1BSB            | C209    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
| MD INTERFACE C.B |                |                |                           | C210    | 87-012-172-080 |           | CAPACITOR CHIP U 10P CH    |
|                  |                |                |                           | C211    | 87-012-172-080 |           | CAPACITOR CHIP U 10P CH    |
|                  |                |                |                           | C212    | 87-012-195-080 |           | C-CAP,U 100P-50CH          |
|                  | C101           | 87-010-196-080 | CHIP CAPACITOR,0.1-25     | C213    | 87-010-662-080 |           | C-CAP,E 22-6.3             |
|                  | C102           | 87-010-101-080 | CAP, ELECT 220-16         | C214    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B       |
|                  | C104           | 87-010-370-040 | CAP,E 330-6.3 SME         |         |                |           |                            |
|                  | C105           | 87-010-380-080 | CAP, ELECT 47-16V         | C217    | 87-012-188-080 |           | C-CAP,U 47P-50 CH          |
|                  | C106           | 87-010-101-080 | CAP, ELECT 220-16         | C218    | 87-012-172-080 |           | CAPACITOR CHIP U 10P CH    |
|                  |                |                |                           | C219    | 87-016-296-080 |           | C-CAP,TN 22-4SV(A)         |
|                  | C122           | 87-010-805-080 | CAP, S 1-16               | C220    | 87-010-662-080 |           | C-CAP,E 22-6.3             |
|                  | C201           | 87-010-402-080 | CAP, ELECT 2.2-50V        | C221    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  | C202           | 87-010-402-080 | CAP, ELECT 2.2-50V        |         |                |           |                            |
|                  | C203           | 87-012-156-080 | C-CAP,S 220P-50 CH        | C222    | 87-016-444-080 |           | C-CAP,TN 47-10 F95E        |
|                  | C204           | 87-012-156-080 | C-CAP,S 220P-50 CH        | C223    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  |                |                |                           | C224    | 87-A10-685-080 |           | C-CAP,S 470P-100 J CH      |
|                  | C205           | 87-010-180-080 | C-CER 1500P               | C225    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  | C206           | 87-010-180-080 | C-CER 1500P               | C226    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  | C207           | 87-010-404-080 | CAP, ELECT 4.7-50V        |         |                |           |                            |
|                  | C208           | 87-010-404-080 | CAP, ELECT 4.7-50V        | C227    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B       |
|                  | C251           | 87-010-408-080 | CAP, ELECT 47-50V         | C228    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B       |
|                  |                |                |                           | C229    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B       |
|                  | C252           | 87-010-196-080 | CHIP CAPACITOR,0.1-25     | C232    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B       |
|                  | C401           | 87-010-178-080 | CHIP CAP 1000P            | C233    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B       |
|                  | C402           | 87-010-178-080 | CHIP CAP 1000P            |         |                |           |                            |
|                  | C403           | 87-010-196-080 | CHIP CAPACITOR,0.1-25     | C236    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  | C404           | 87-010-196-080 | CHIP CAPACITOR,0.1-25     | C300    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  |                |                |                           | C301    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  | C411           | 87-012-140-080 | CAP 470P                  | C302    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  | C421           | 87-010-196-080 | CHIP CAPACITOR,0.1-25     | C305    | 87-016-462-080 |           | C-CAP,S 1-16 F             |
|                  | CON901         | 87-099-014-010 | CONN,12P 6216 V           |         |                |           |                            |
|                  | CON902         | 87-A60-060-010 | CONN,07P V 9604S-07C      | C307    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  | CON903         | 87-A60-619-010 | CONN,2P V 2MM JMT         | C308    | 87-010-831-080 |           | C-CAP,U,0.1-16F            |
|                  |                |                |                           | C311    | 87-010-662-080 |           | C-CAP,E 22-6.3             |
|                  | CON904         | 87-099-194-010 | CONN,6P 6216V             | C312    | 87-012-195-080 |           | C-CAP,U 100P-50CH          |

| REF. NO | PART NO.       | KANRI NO. | DESCRIPTION          | REF. NO   | PART NO.       | KANRI NO. | DESCRIPTION                  |
|---------|----------------|-----------|----------------------|-----------|----------------|-----------|------------------------------|
| C321    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B | C603      | 87-010-662-080 |           | C-CAP,E 22-6.3               |
| C322    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B | C604      | 87-010-779-080 |           | C-CAP,E 100-6.3              |
| C323    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B | C607      | 87-010-831-080 |           | C-CAP,U,0.1-16F              |
| C324    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B | C608      | 87-010-831-080 |           | C-CAP,U,0.1-16F              |
| C325    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B | CN100     | 87-A60-537-080 |           | C-CONN,21P H CFP55           |
| C400    | 87-010-831-080 |           | C-CAP,U,0.1-16F      | CN201     | 87-A60-467-080 |           | C-CONN,4P V FMN-BMTR         |
| C401    | 87-010-831-080 |           | C-CAP,U,0.1-16F      | CN300     | 87-A60-518-080 |           | C-CONN,8P H 6232             |
| C402    | 87-010-831-080 |           | C-CAP,U,0.1-16F      | CN400     | 87-A60-027-080 |           | C-CONN,8P H WHT              |
| C403    | 87-010-831-080 |           | C-CAP,U,0.1-16F      | CN401     | 87-A60-062-010 |           | CONN,05P V 9604S-05C         |
| C404    | 87-010-831-080 |           | C-CAP,U,0.1-16F      | CN600     | 87-A60-519-080 |           | C-CONN,14P H 6232            |
| C405    | 87-010-661-080 |           | C-CAP,E 10-16        | FB501     | 87-A90-828-080 |           | C-F-BEAD, BK1608LM182        |
| C406    | 87-010-779-080 |           | C-CAP,E 100-6.3      | L100      | 87-A50-117-080 |           | C-COIL,10UHLQH3C             |
| C407    | 87-012-197-080 |           | C-CAP,U 150P-50 CH   | L101      | 87-A50-012-080 |           | C-COIL,100UH LQH3C           |
| C408    | 87-012-197-080 |           | C-CAP,U 150P-50 CH   | L102      | 87-A50-117-080 |           | C-COIL,10UHLQH3C             |
| C411    | 87-012-271-080 |           | CAP, U 560P-50       | L103      | 87-A50-117-080 |           | C-COIL,10UHLQH3C             |
| C412    | 87-012-271-080 |           | CAP, U 560P-50       | L201      | 87-A50-117-080 |           | C-COIL,10UHLQH3C             |
| C413    | 87-012-197-080 |           | C-CAP,U 150P-50 CH   | L202      | 87-A50-117-080 |           | C-COIL,10UHLQH3C             |
| C414    | 87-012-197-080 |           | C-CAP,U 150P-50 CH   | L203      | 87-A50-116-080 |           | C-COIL,4.7UHLQH3C            |
| C415    | 87-012-286-080 |           | CAP, U 0.01-25       | L301      | 87-A50-117-080 |           | C-COIL,10UHLQH3C             |
| C416    | 87-012-286-080 |           | CAP, U 0.01-25       | L501      | 87-A50-116-080 |           | C-COIL,4.7UHLQH3C            |
| C417    | 87-012-268-080 |           | C-CAP,U 330P-50 B    | L502      | 87-A50-116-080 |           | C-COIL,4.7UHLQH3C            |
| C418    | 87-012-268-080 |           | C-CAP,U 330P-50 B    | L503      | 87-A50-116-080 |           | C-COIL,4.7UHLQH3C            |
| C423    | 87-012-286-080 |           | CAP, U 0.01-25       | L504      | 87-005-774-080 |           | C-COIL,4BLH                  |
| C424    | 87-012-286-080 |           | CAP, U 0.01-25       | L505      | 87-005-774-080 |           | C-COIL,4BLH                  |
| C429    | 87-012-286-080 |           | CAP, U 0.01-25       | L611      | 87-A50-163-080 |           | C-COIL,ZBFS5101-PT           |
| C430    | 87-012-286-080 |           | CAP, U 0.01-25       | L612      | 87-005-512-080 |           | C-COIL,BLM21A05              |
| C431    | 87-010-779-080 |           | C-CAP,E 100-6.3      | L613      | 87-005-512-080 |           | C-COIL,BLM21A05              |
| C434    | 87-010-831-080 |           | C-CAP,U,0.1-16F      | L614      | 87-A50-163-080 |           | C-COIL,ZBFS5101-PT           |
| C501    | 87-010-831-080 |           | C-CAP,U,0.1-16F      | L615      | 87-A90-034-080 |           | C-FLTR,EMI BLM41P750         |
| C502    | 87-010-831-080 |           | C-CAP,U,0.1-16F      | L616      | 87-A50-163-080 |           | C-COIL,ZBFS5101-PT           |
| C503    | 87-010-662-080 |           | C-CAP,E 22-6.3       | R423      | 87-025-564-080 |           | C-RES,U M/F 47K D            |
| C504    | 87-010-831-080 |           | C-CAP,U,0.1-16F      | R424      | 87-025-564-080 |           | C-RES,U M/F 47K D            |
| C505    | 87-010-662-080 |           | C-CAP,E 22-6.3       | R425      | 87-022-583-080 |           | C-RES,U M/F 12K D            |
| C506    | 87-010-831-080 |           | C-CAP,U,0.1-16F      | R426      | 87-022-583-080 |           | C-RES,U M/F 12K D            |
| C507    | 87-010-661-080 |           | C-CAP,E 10-16        | X200      | 87-A70-105-080 |           | C-VIB,XTAL 22.5792MHZ SMD-49 |
| C508    | 87-010-831-080 |           | C-CAP,U,0.1-16F      | X301      | 87-A70-100-080 |           | C-VIB,CER 12.0MHZ PBRC-BR-A  |
| C509    | 87-010-662-080 |           | C-CAP,E 22-6.3       |           |                |           |                              |
| C510    | 87-010-831-080 |           | C-CAP,U,0.1-16F      |           |                |           |                              |
| C511    | 87-010-661-080 |           | C-CAP,E 10-16        | MECHA C.B |                |           |                              |
| C513    | 87-010-661-080 |           | C-CAP,E 10-16        |           |                |           |                              |
| C514    | 87-010-661-080 |           | C-CAP,E 10-16        | CON1      | 87-A61-058-080 |           | C-CONN,8P H 6232BOT          |
| C515    | 87-012-337-080 |           | C-CAP,U 56P-50 CH    | M400      | 87-A91-490-010 |           | MOT,BCD3B04                  |
| C516    | 87-012-337-080 |           | C-CAP,U 56P-50 CH    | M401      | 87-A91-489-010 |           | MOT,BCD3B93                  |
| C517    | 87-012-278-080 |           | C-CAP,U 2200P-50 B   | SW1       | 87-A91-419-080 |           | C-SW,PUSH MPU11121MLB1       |
| C518    | 87-012-278-080 |           | C-CAP,U 2200P-50 B   | SW2       | 87-A91-445-080 |           | C-SW,PUSH MPU20420MLB1       |
| C519    | 87-010-831-080 |           | C-CAP,U,0.1-16F      |           |                |           |                              |
| C520    | 87-010-661-080 |           | C-CAP,E 10-16        | LOAD C.B  |                |           |                              |
| C521    | 87-010-831-080 |           | C-CAP,U,0.1-16F      |           |                |           |                              |
| C522    | 87-010-661-080 |           | C-CAP,E 10-16        | CON451    | 86-NFZ-675-010 |           | CONN,5P H 6216-11H           |
| C523    | 87-010-662-080 |           | C-CAP,E 22-6.3       | M450      | 87-A90-672-010 |           | MOT,M25E-4                   |
| C524    | 87-010-662-080 |           | C-CAP,E 22-6.3       | SW451     | 87-A90-673-010 |           | SW,MICRO ESE11SH1C           |
| C525    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B | SW452     | 87-A90-117-010 |           | SW,PUSH 1-1-1 MPU103         |
| C526    | 87-012-274-080 |           | CHIP CAP,U 1000P-50B |           |                |           |                              |
| C527    | 87-010-661-080 |           | C-CAP,E 10-16        |           |                |           |                              |
| C528    | 87-010-661-080 |           | C-CAP,E 10-16        |           |                |           |                              |
| C530    | 87-010-831-080 |           | C-CAP,U,0.1-16F      |           |                |           |                              |
| C531    | 87-010-831-080 |           | C-CAP,U,0.1-16F      |           |                |           |                              |
| C600    | 87-010-662-080 |           | C-CAP,E 22-6.3       |           |                |           |                              |
| C601    | 87-010-779-080 |           | C-CAP,E 100-6.3      |           |                |           |                              |
| C602    | 87-010-779-080 |           | C-CAP,E 100-6.3      |           |                |           |                              |

- 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.

BLOCK DIAGRAM-1 (MD INTERFACE)



MD INTERFACE C.B.

チップ抵抗部品コード／CHIP RESISTOR PART CODE

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



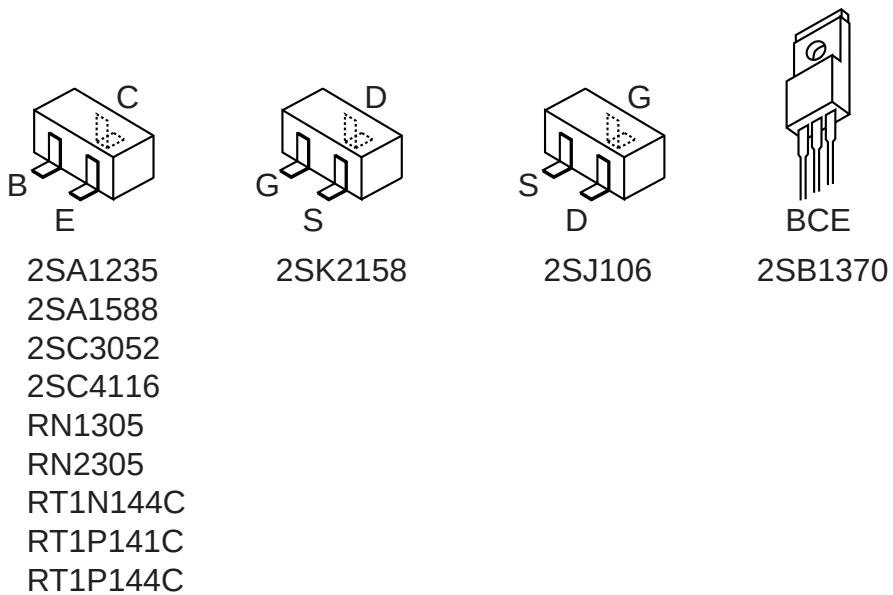
A  
抵抗部品コード  
Resistor Code

桁表示  
Figure  
抵抗値  
Value of resistor

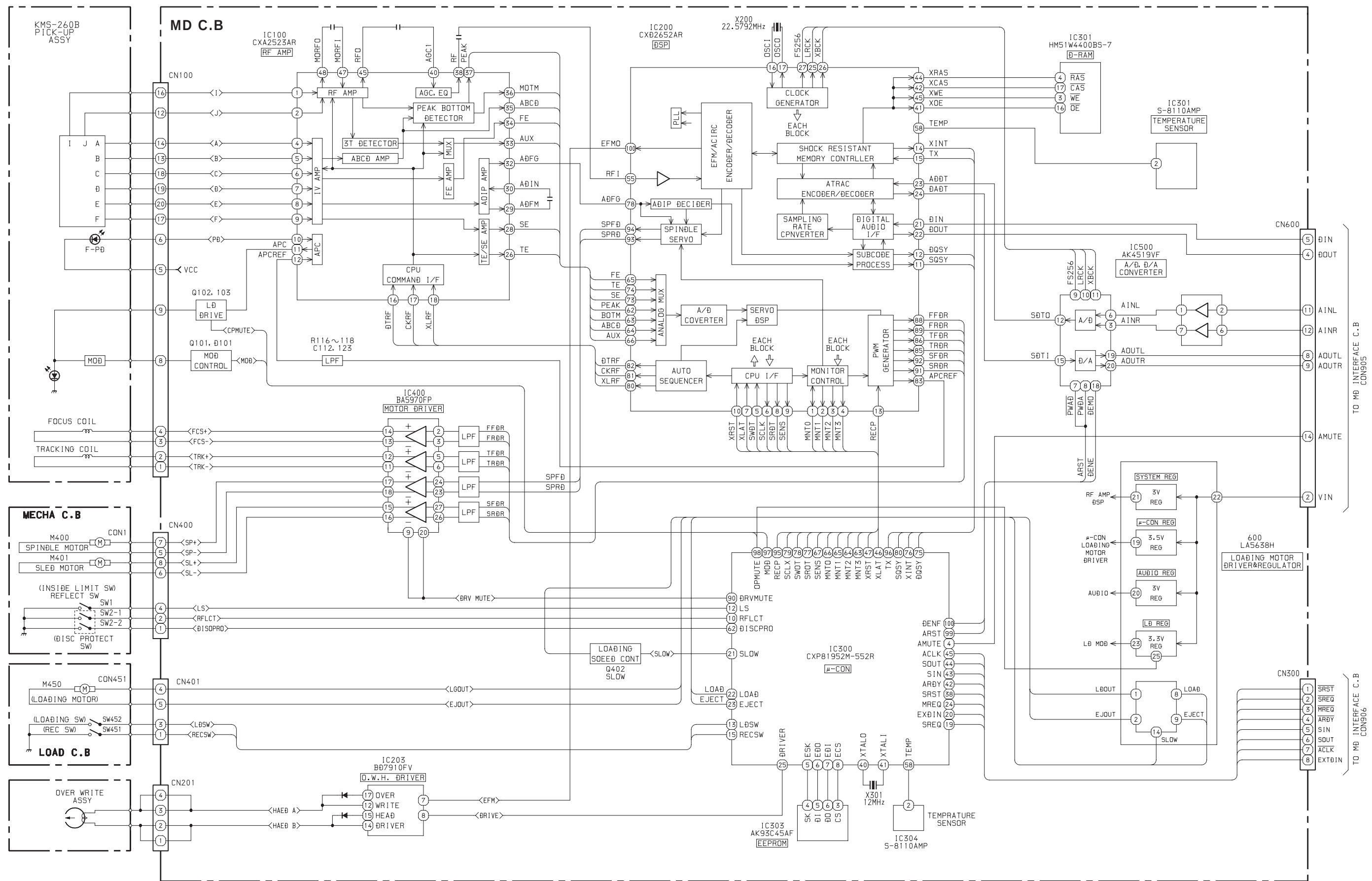
チップ抵抗  
Chip resistor

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

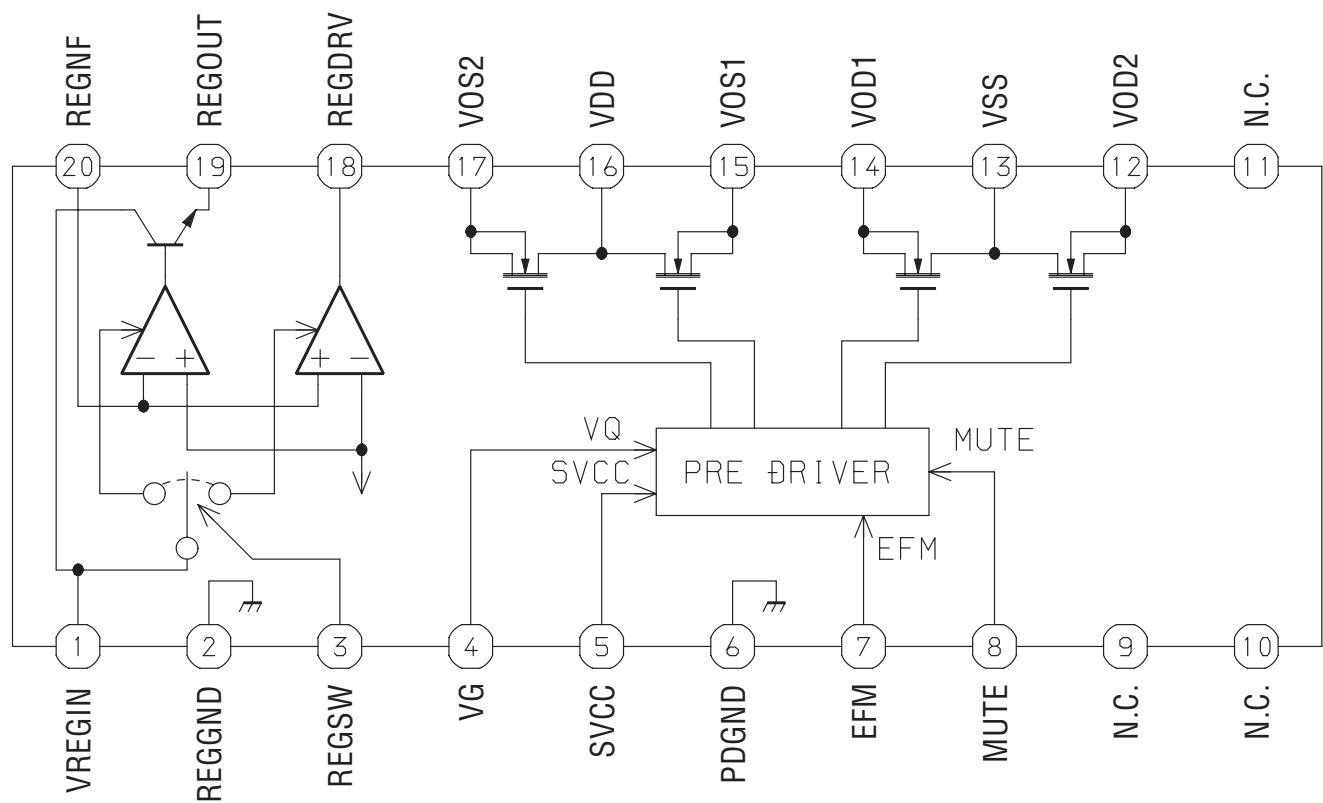
TRANSISTOR ILLUSTRATION



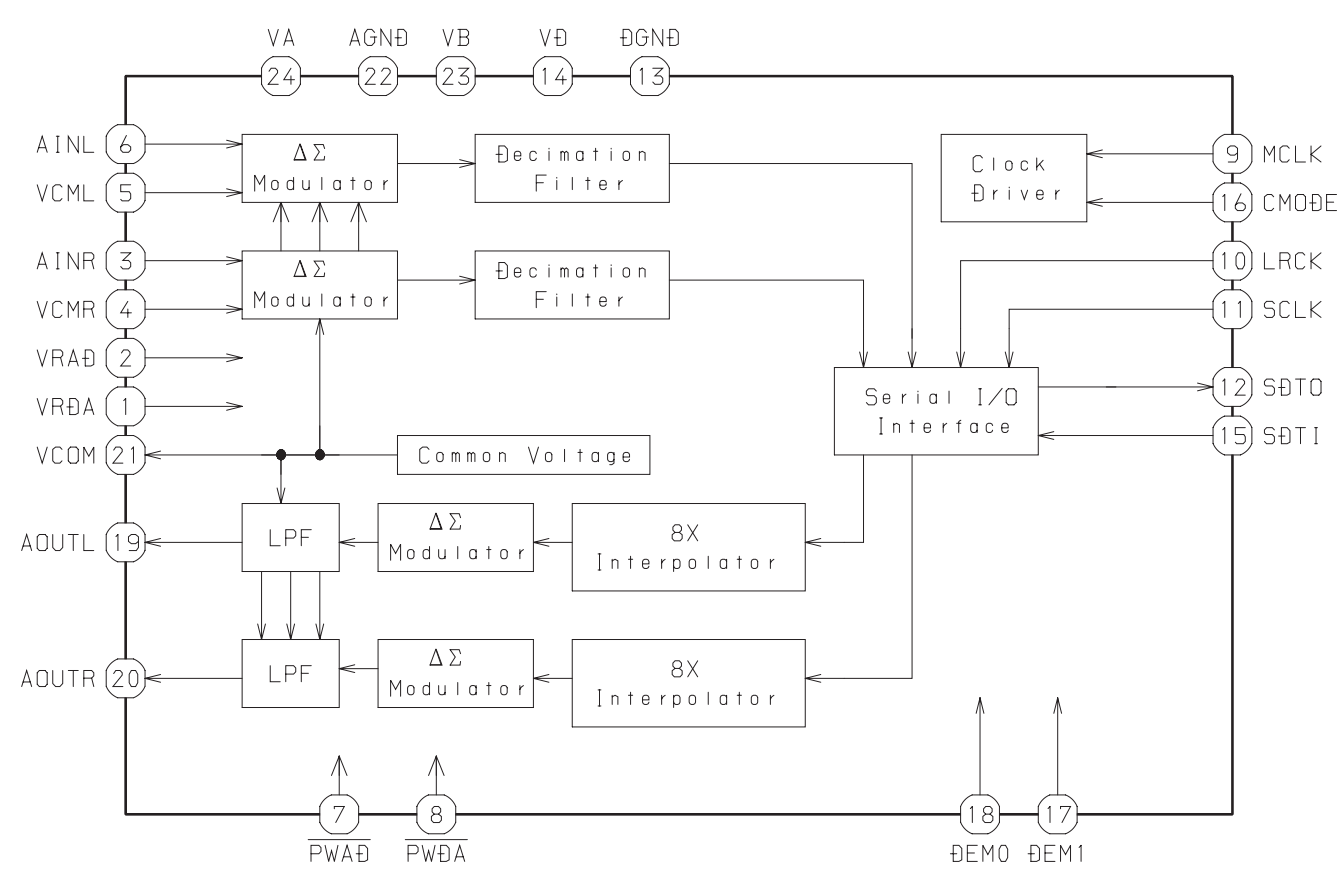
### BLOCK DIAGRAM-2 (MD/MECHA/LOAD)



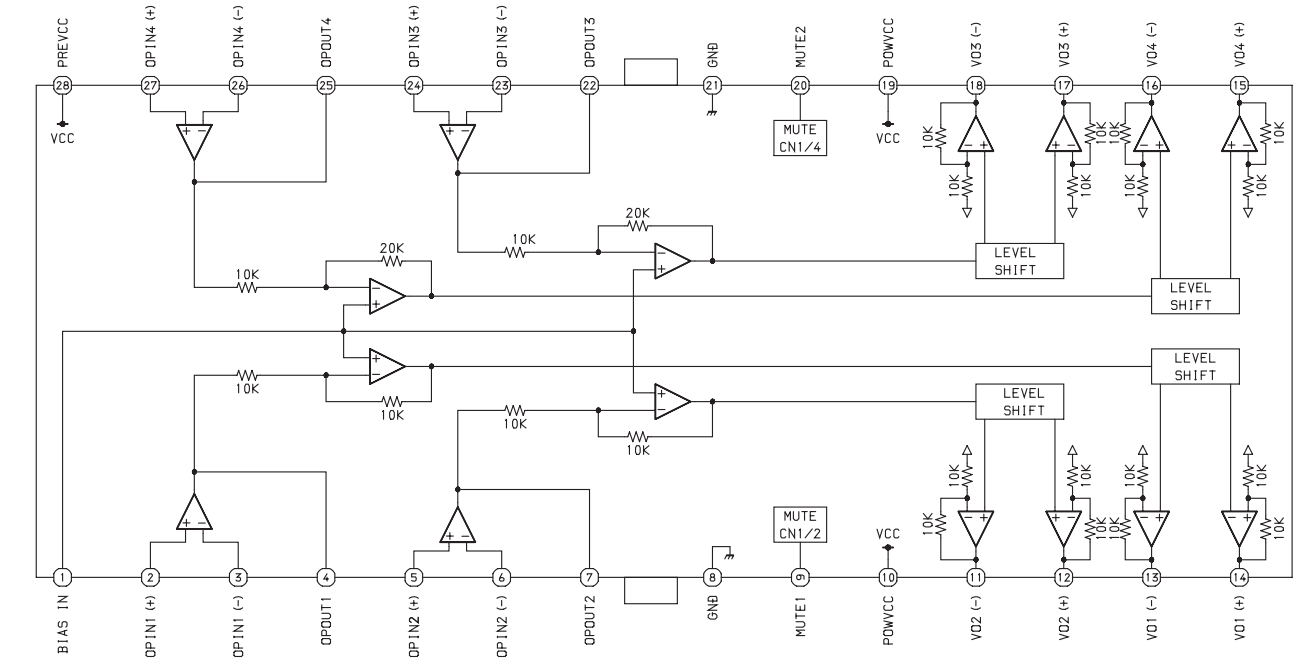
IC BLOCK DIAGRAM  
IC, BD7910FV



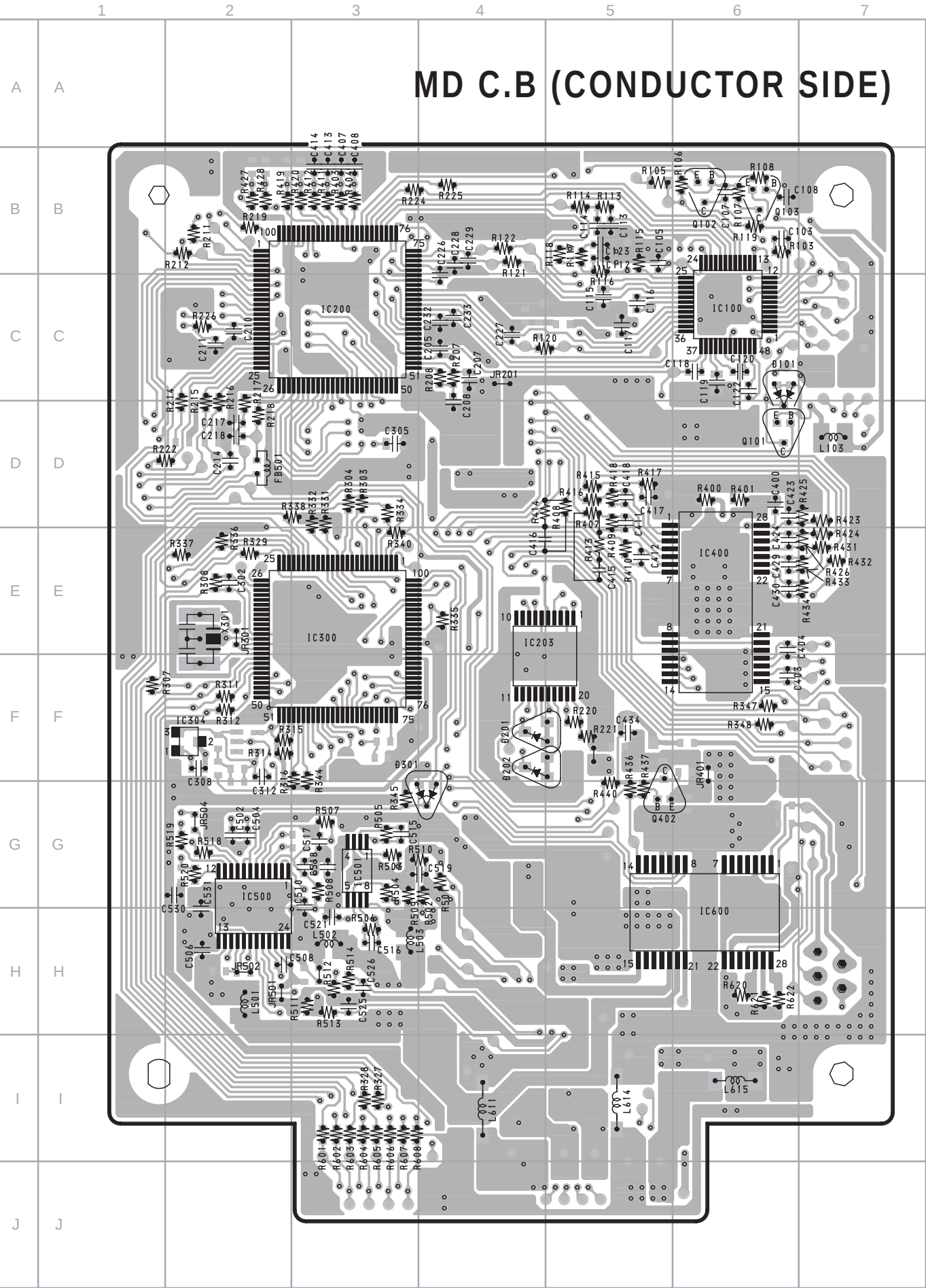
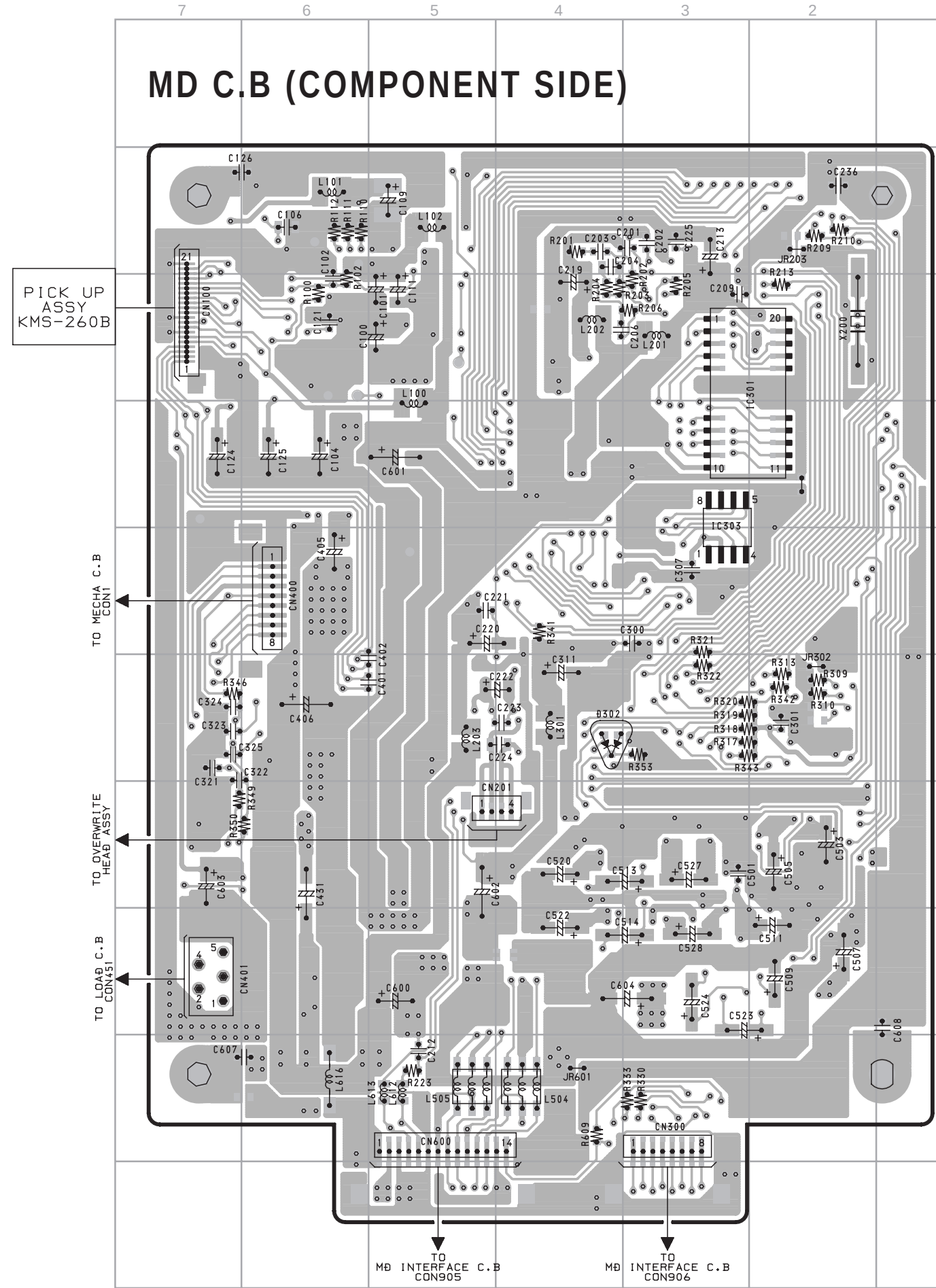
IC, AK4519VF



IC, BA5970FP

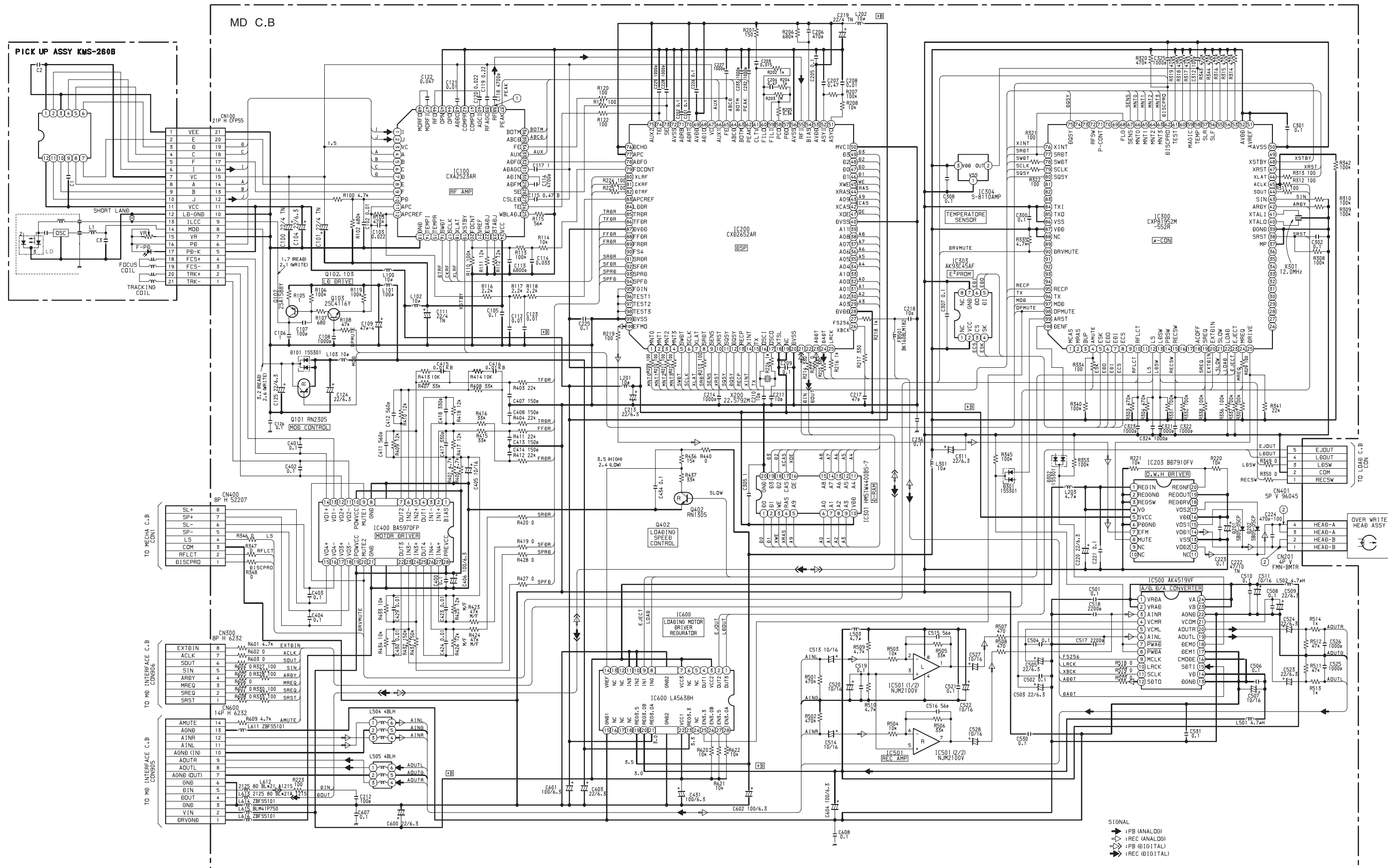


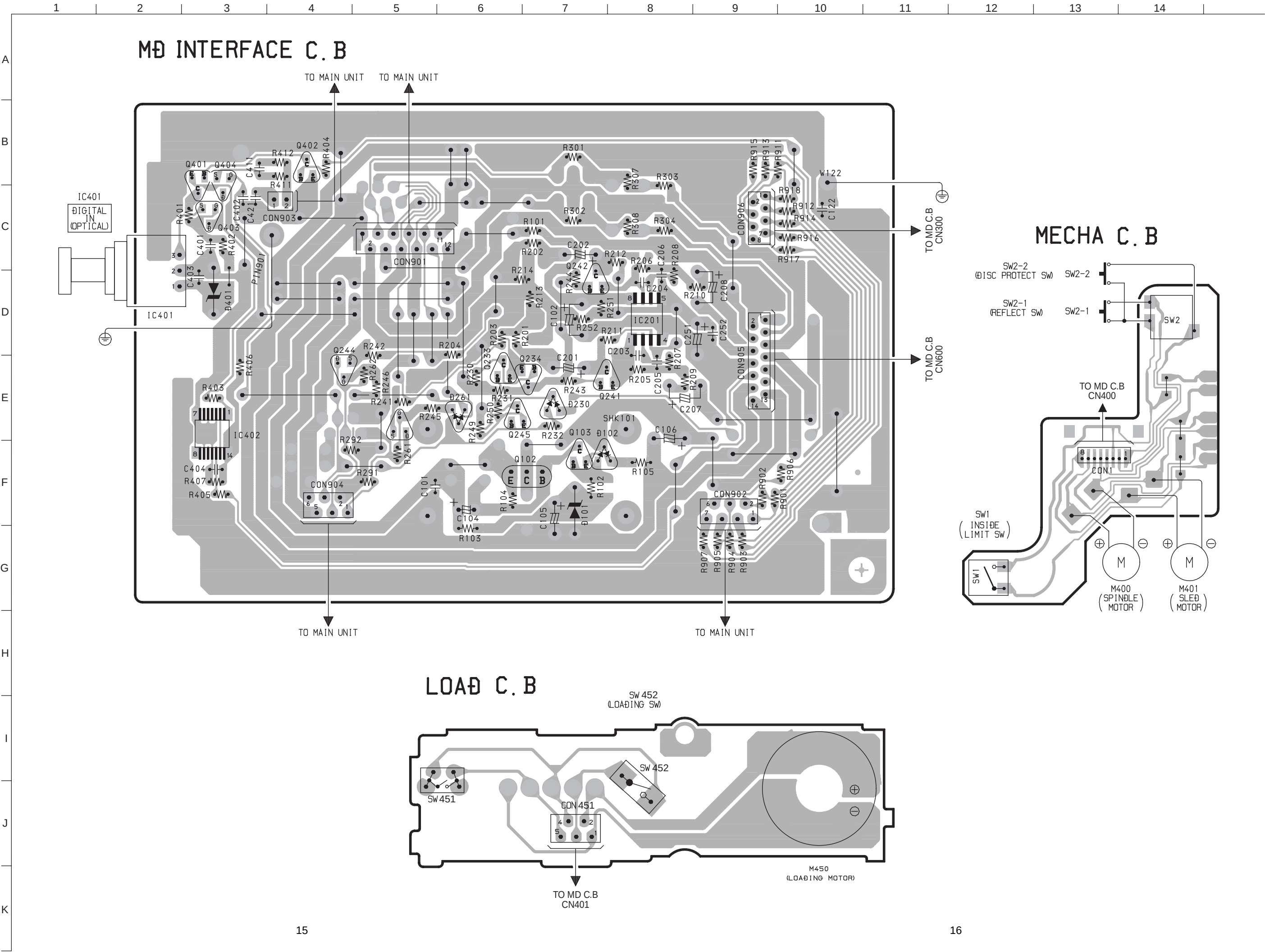




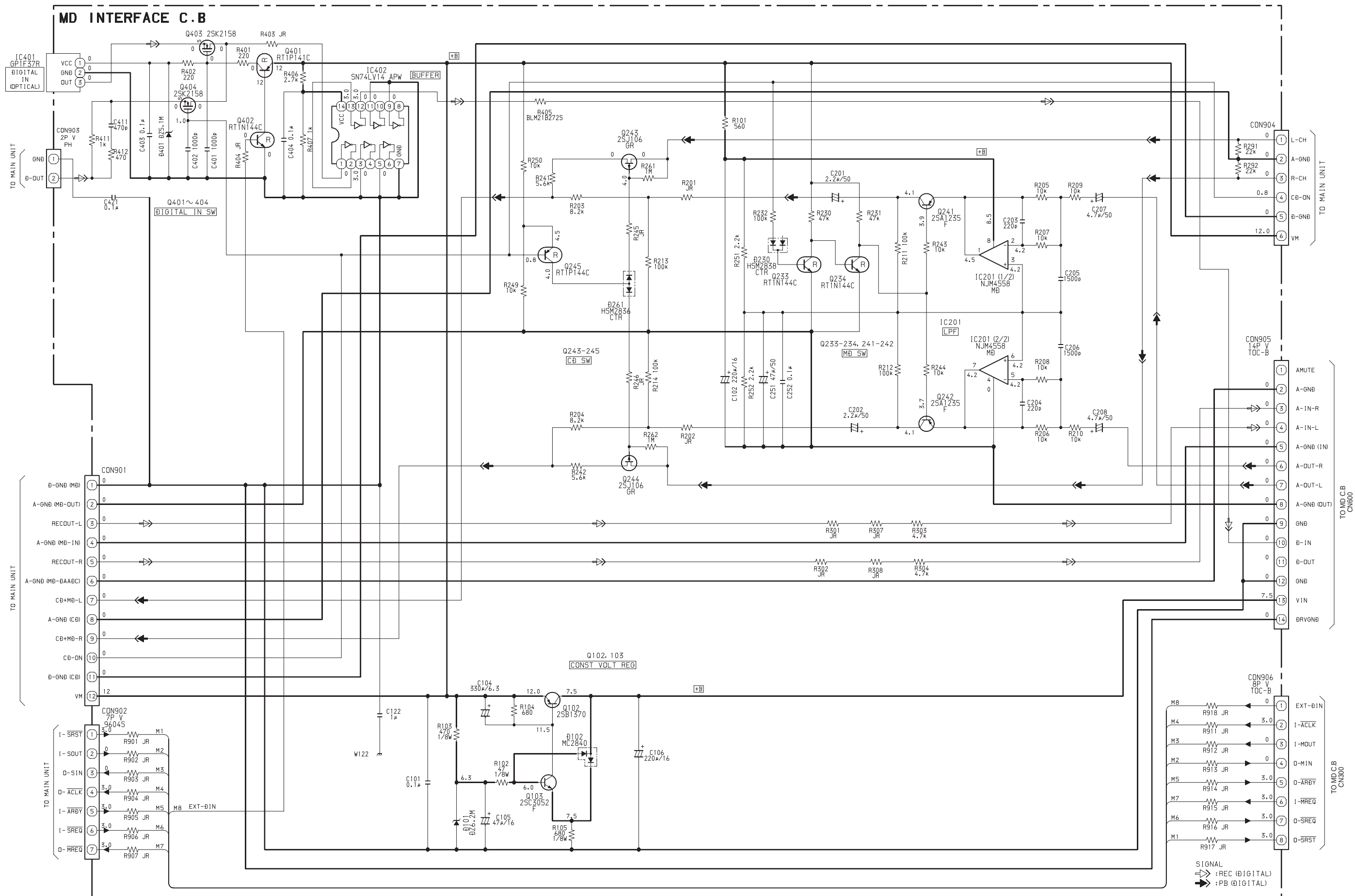


SCHEMATIC DIAGRAM-1 (MD)

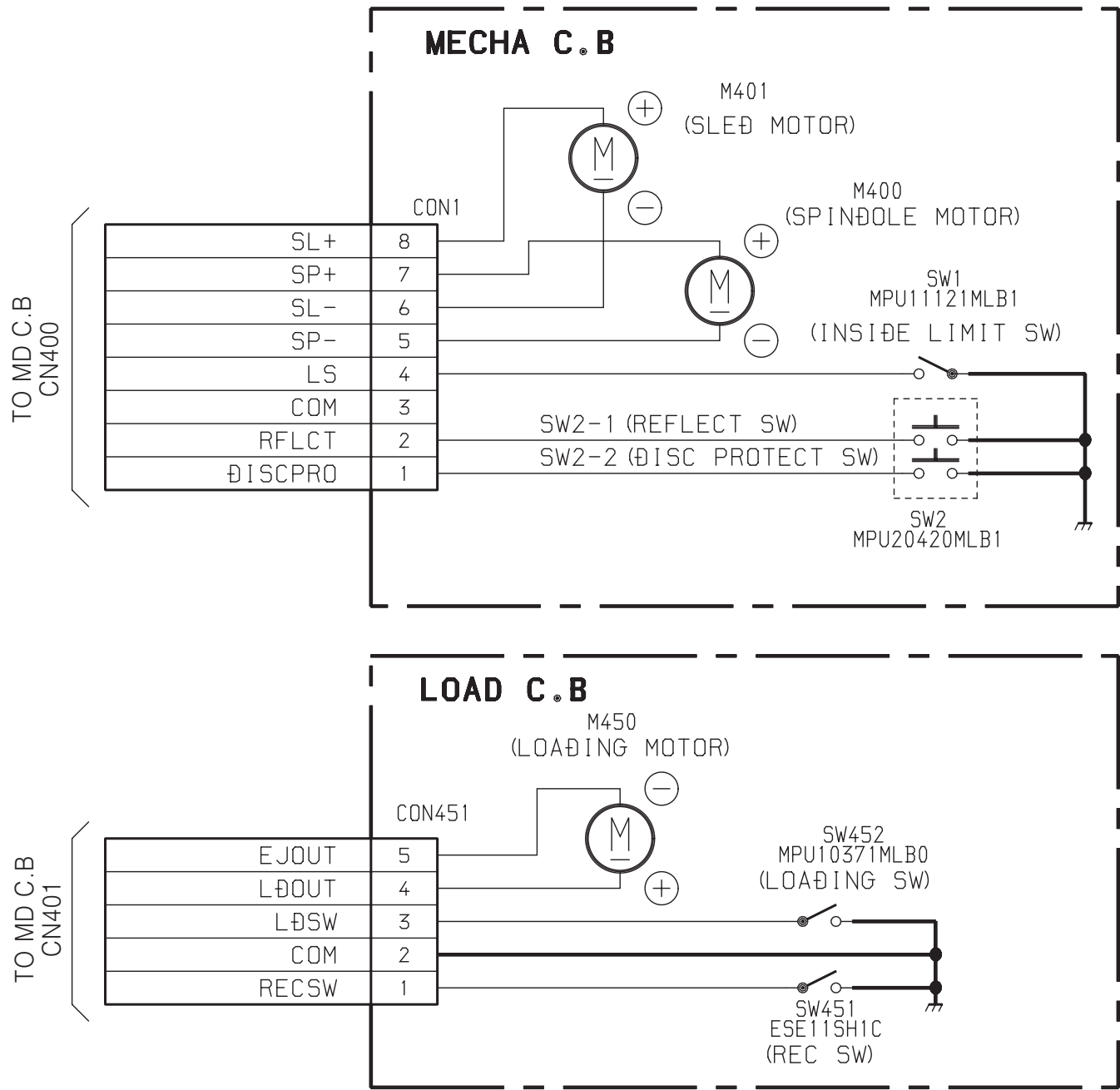




### SCHEMATIC DIAGRAM-2 (MD INTERFACE)

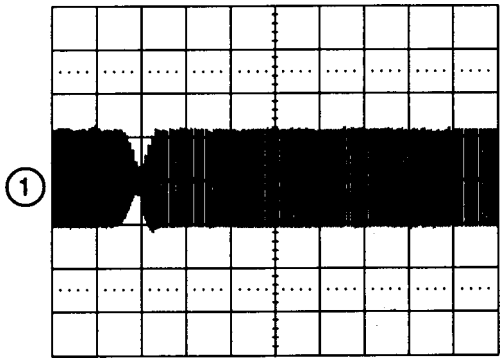


SCHEMATIC DIAGRAM-3 (MECHA/LOAD)

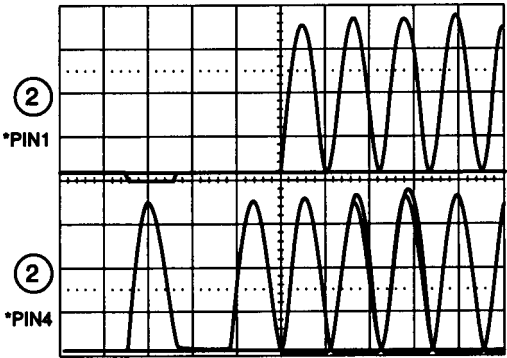


WAVE FORM

① IC100 Pin ③⑧ (RF) VOLT/DIV: 0.5V  
TIME/DIV: 1mS



② CN201 Pin ① (HEAD-B)  
CN201 Pin ④ (HEAD-A) VOLT/DIV: 10V  
TIME/DIV: 0.2μS



# IC DESCRIPTION

## IC, CXA2523AR

| Pin No. | Pin Name | I/O | Description                                               |
|---------|----------|-----|-----------------------------------------------------------|
| 1       | I        | I   | Input “I” RF signal converted to I-V.                     |
| 2       | J        | I   | Input “J” RF signal converted to I-V.                     |
| 3       | VC       | O   | Output voltage for VCC/2.                                 |
| 4       | A        | I   | Input current for main beam servo signal A.               |
| 5       | B        | I   | Input current for main beam servo signal B.               |
| 6       | C        | I   | Input current for main beam servo signal C.               |
| 7       | D        | I   | Input current for main beam servo signal D.               |
| 8       | E        | I   | Input current for side beam servo signal E.               |
| 9       | F        | I   | Input current for side beam servo signal F.               |
| 10      | PD       | I   | Input beam spectrum monitor signal.                       |
| 11      | APC      | O   | Output laser APC.                                         |
| 12      | APCREF   | I   | Input reference voltage for laser power setting.          |
| 13      | GND      | —   | GND.                                                      |
| 14      | TEMPI    | I   | Not used.                                                 |
| 15      | TEMPR    | I   |                                                           |
| 16      | SWDT     | I   | Input micro-processor serial interface data.              |
| 17      | SCLK     | I   | Input micro-processor serial interface shift clock.       |
| 18      | XLAT     | I   | Input micro-processor serial interface latch. “L”: Latch. |
| 19      | XSTBY    | I   | Standby setting pin. “H”: Normal mode, “L”: Standby.      |
| 20      | FOCNT    | I   | Internal current setting pin.                             |
| 21      | VREF     | O   | Not used.                                                 |
| 22      | EQADJ    | I/O | EQ central frequency setting pin.                         |
| 23      | 3TADJ    | I/O | BPF3T central frequency setting pin.                      |
| 24      | VCC      | —   | Power supply pin.                                         |
| 25      | WBLADJ   | I/O | BPF22 central frequency setting pin.                      |
| 26      | TE       | O   | Output tracking error signal.                             |
| 27      | CSLED    | —   | LPF capacitor connection pin for SLED error signal.       |
| 28      | SE       | O   | Output SLED error signal.                                 |
| 29      | ADFM     | O   | Output ADIP FM signal.                                    |
| 30      | ADIN     | I   | Input ADIP signal comparator.                             |
| 31      | ADAGC    | —   | ADIPAGC capacitor connection pin.                         |
| 32      | ADFG     | O   | Output ADIP2 binary data signal.                          |
| 33      | AUX      | O   | I3 output temperature signal. Switched by serial command. |
| 34      | FE       | O   | Output focus error signal.                                |
| 35      | ABCD     | O   | Output beam spectrum signal for main beam servo detector. |
| 36      | BOTM     | O   | Output bottom hold signal for RF/ABCD.                    |
| 37      | PEAK     | O   | Output peak hold signal for RF/ABCD.                      |
| 38      | RF       | O   | RF equalizer output pin.                                  |
| 39      | RFAGC    | —   | RFAGC capacitor connection pin.                           |
| 40      | AGCI     | I   | RFAGC input pin.                                          |
| 41      | COMPO    | O   | Not used.                                                 |

| Pin No. | Pin Name | I/O | Description                                                    |
|---------|----------|-----|----------------------------------------------------------------|
| 42      | COMPP    | I   | User comparator non-inverted input pin.                        |
| 43      | ADDC     | I/O | Capacitor connection pin for ADIP amplifier on return circuit. |
| 44      | OPO      | O   | Not used.                                                      |
| 45      | OPN      | I   | Non-inverted input pin for user operational amplifier.         |
| 46      | RFO      | O   | RF amplifier output pin. Check point for eye pattern.          |
| 47      | MORFI    | I   | Input pin where Groove RF signal is AC coupled.                |
| 48      | MORFO    | O   | Output pin for Groove RF signal.                               |

## IC, CXD2652AR

| Pin No. | Pin Name | I/O | Description                                                                                                       |
|---------|----------|-----|-------------------------------------------------------------------------------------------------------------------|
| 1       | MNT0     | O   | Monitor output terminal.                                                                                          |
| 2       | MNT1     | O   |                                                                                                                   |
| 3       | MNT2     | O   |                                                                                                                   |
| 4       | MNT3     | O   |                                                                                                                   |
| 5       | SWDT     | I   | Microprocessor serial interface data input.                                                                       |
| 6       | SCLK     | I   | Microprocessor serial interface shift clock input.                                                                |
| 7       | XLAT     | I   | Microprocessor serial interface latch input. Latched at falling down edge.                                        |
| 8       | SRDT     | O   | Microprocessor serial interface data output.                                                                      |
| 9       | SENS     | O   | The terminal which outputs internal status in accordance with the address of the microprocessor serial interface. |
| 10      | XRST     | I   | Reset input. L: reset.                                                                                            |
| 11      | SQSY     | O   | Disc sub code Q sync/ADIP sync output.                                                                            |
| 12      | DQSY     | O   | Subcode Q sync output of U-bit CD or MD format when the DIGITAL IN source is CD or MD.                            |
| 13      | RECP     | I   | Laser power selection input. H: Recording power, L: Playback power.                                               |
| 14      | XINT     | O   | Interrupt request output terminal. L is output when interrupt status is generated.                                |
| 15      | TX       | I   | Record data output enable signal input terminal. H: enable.                                                       |
| 16      | OSCI     | I   | Crystal oscillator circuit input terminal.                                                                        |
| 17      | OSCO     | O   | Crystal oscillator circuit output terminal. (Inverted output of OSCI).                                            |
| 18      | XTSL     | I   | OSCI terminal input frequency selection. H: 512 Fs (22.5792 MHz), L: 1024 Fs (45.1584 MHz).                       |
| 19      | NC       | —   | Not connected.                                                                                                    |
| 20      | DVSS     | —   | Digital GND.                                                                                                      |
| 21      | DIN      | I   | Digital audio interface signal input.                                                                             |
| 22      | DOUT     | O   | Digital audio interface signal output.                                                                            |
| 23      | ADDT     | I   | Analog recording signal input terminal. (External A/D converter output is connected to this terminal).            |
| 24      | DADT     | O   | RECORD monitor output/decode audio data output.                                                                   |
| 25      | LRCK     | O   | LRCK (44.1 kHz) output terminal to external audio block.                                                          |
| 26      | XBCK     | O   | Bit clock output (2.8224 kHz) output terminal to external audio block.                                            |
| 27      | FS256    | O   | 256 Fs output. (11.2896 MHz).                                                                                     |
| 28      | DVDD     | —   | Digital power supply.                                                                                             |
| 29      | A03      | O   | Address output to external DRAM.                                                                                  |
| 30      | A02      | O   |                                                                                                                   |
| 31      | A01      | O   |                                                                                                                   |
| 32      | A00      | O   |                                                                                                                   |
| 33      | A10      | O   | Not used.                                                                                                         |
| 34      | A04      | O   | Address output to external DRAM.                                                                                  |
| 35      | A05      | O   |                                                                                                                   |
| 36      | A06      | O   |                                                                                                                   |
| 37      | A07      | O   |                                                                                                                   |



| Pin No. | Pin Name | I/O | Description                                                                                          |
|---------|----------|-----|------------------------------------------------------------------------------------------------------|
| 38      | A08      | O   | Address output to external DRAM.                                                                     |
| 39      | A11      | O   | Not used.                                                                                            |
| 40      | DVSS     | —   | Digital GND.                                                                                         |
| 41      | XOE      | O   | External DRAM output enable.                                                                         |
| 42      | XCAS     | O   | $\overline{\text{CAS}}$ output to external DRAM.                                                     |
| 43      | A09      | O   | Address output to external DRAM.                                                                     |
| 44      | XRAS     | O   | $\overline{\text{RAS}}$ output to external DRAM.                                                     |
| 45      | XWE      | O   | Write enable for external DRAM.                                                                      |
| 46      | D1       | I/O | Data bus for external DRAM.                                                                          |
| 47      | D0       | I/O |                                                                                                      |
| 48      | D2       | I/O |                                                                                                      |
| 49      | D3       | I/O |                                                                                                      |
| 50      | MVCI     | I   | External VCO (784 fs) clock input.                                                                   |
| 51      | ASYO     | O   | Playback EFM full swing output. (L: VSS, H: VDD).                                                    |
| 52      | ASYI     | I   | Playback EFM comparator slice voltage input.                                                         |
| 53      | AVDD     | —   | Analog GND.                                                                                          |
| 54      | BIAS     | I   | Playback EFM comparator bias current input.                                                          |
| 55      | RFI      | I   | Playback EFM RF signal input.                                                                        |
| 56      | AVSS     | —   | Analog power supply.                                                                                 |
| 57      | PDO      | O   | Not used.                                                                                            |
| 58      | PCO      | O   | Phase comparison output to the master PLL of playback digital PLL and to the recording EFM PLL.      |
| 59      | FILI     | I   | Filter input to the master PLL of playback digital PLL and to the recording EFM PLL.                 |
| 60      | FILO     | O   | Filter output to the master PLL of playback digital PLL and to the recording EFM PLL.                |
| 61      | CLTV     | I   | Internal VCO control voltage of the master PLL of playback digital PLL and of the recording EFM PLL. |
| 62      | PEAK     | I   | Optical light volume's peak hold signal input.                                                       |
| 63      | BOTM     | I   | Optical light volume's bottom hold signal input.                                                     |
| 64      | ABCD     | I   | Optical light volume signal input.                                                                   |
| 65      | FE       | I   | Focus error signal input.                                                                            |
| 66      | AUX1     | I   | Auxiliary input 1.                                                                                   |
| 67      | VC       | I   | Center terminal voltage input.                                                                       |
| 68      | ADIO     | O   | Not used.                                                                                            |
| 69      | AVDD     | —   | Analog power supply.                                                                                 |
| 70      | ADRT     | I   | Voltage input of the upper limit of the A/D converter operation range.                               |
| 71      | ADRB     | I   | Voltage input of the lower limit of the A/D converter operation range.                               |
| 72      | AVSS     | —   | Analog GND.                                                                                          |
| 73      | SE       | I   | Sled error signal input.                                                                             |
| 74      | TE       | I   | Tracking error signal input.                                                                         |
| 75      | AUX2     | I   | Auxiliary input 2.                                                                                   |

| Pin No. | Pin Name | I/O | Description                                                             |
|---------|----------|-----|-------------------------------------------------------------------------|
| 76      | DCHG     | I   | Connected to the low impedance power supply.                            |
| 77      | APC      | I   | Error signal input to the laser digital APC.                            |
| 78      | ADFG     | I   | ADIP2 binary-converted FM signal (22.05±1 kHz) input.                   |
| 79      | F0CNT    | O   | Current source setting output terminal to CXA2523.                      |
| 80      | XLRF     | O   | Latch output for CXA2523 control. Latched at rise-up.                   |
| 81      | CKRF     | O   | Shift clock output for CXA2523 control.                                 |
| 82      | DTRF     | O   | Data output for CXA2523 control.                                        |
| 83      | APCREF   | O   | Reference PWM output to laser APC.                                      |
| 84      | LDDR     | O   | Not used.                                                               |
| 85      | TRDR     | O   | Tracking servo drive PWM output. (-).                                   |
| 86      | TFDR     | O   | Tracking servo drive PWM output. (+).                                   |
| 87      | DVDD     | —   | Digital power supply.                                                   |
| 88      | FFDR     | O   | Focus servo drive PWM output. (+).                                      |
| 89      | FRDR     | O   | Focus servo drive PWM output. (-).                                      |
| 90      | FS4      | O   | Not used.                                                               |
| 91      | SRDR     | O   | Sled servo drive PWM output. (-).                                       |
| 92      | SFDR     | O   | Sled servo drive PWM output. (+).                                       |
| 93      | SPRD     | O   | Spindle servo drive PWM output. (PWM (-) or negative polarity).         |
| 94      | SPFD     | O   | Spindle servo drive PWM output. (PWM (+) or PWM absolute value).        |
| 95      | FGIN     | I   | FG input to spindle CAV servo.                                          |
| 96      | TEST1    | I   | Test pin. Connected to GND.                                             |
| 97      | TEST2    | I   |                                                                         |
| 98      | TEST3    | I   |                                                                         |
| 99      | DVSS     | —   | Digital GND.                                                            |
| 100     | EFMO     | O   | Low signal during playback. EFM (encode data) output: during recording. |

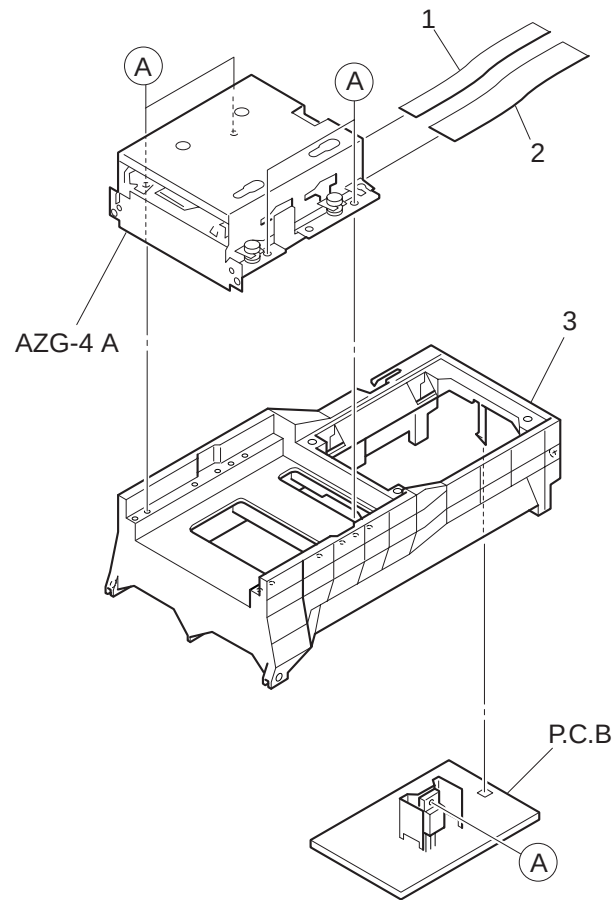
## IC, CXP81952M-552R

| Pin No. | Pin Name | I/O | Description                                                            |
|---------|----------|-----|------------------------------------------------------------------------|
| 1       | MCAS     | —   | Not used.                                                              |
| 2       | MRAS     | —   |                                                                        |
| 3       | BUP      | —   |                                                                        |
| 4       | AMUTE    | O   | Audio mute signal output.                                              |
| 5       | ESK      | O   | Serial clock output for EEPROM interface.                              |
| 6       | EDO      | O   | Serial data output for EEPROM interface.                               |
| 7       | EDI      | I   | Serial data input for EEPROM interface.                                |
| 8       | ECS      | O   | EEPROM chip select signal output.                                      |
| 9       | NC       | —   | Not used.                                                              |
| 10      | RFLCT    | I   | Input from disc reflectance detection switch.                          |
| 11      | NC       | —   | Not used.                                                              |
| 12      | LS       | I   | Input signal from pickup inner circumference detect switch.            |
| 13      | LDSW     | I   | Input signal from loading mechanism EJECT position detect switch.      |
| 14      | PBSW     | —   | Not used.                                                              |
| 15      | RECSW    | I   | Input signal from loading mechanism REC position detect switch.        |
| 16      | NC       | —   | Not used.                                                              |
| 17      | NC       | —   |                                                                        |
| 18      | ACOFF    | —   |                                                                        |
| 19      | SREQ     | I   | System control send request input signal for system control interface. |
| 20      | EXTDIN   | O   | External DIGITAL-IN permission output signal.                          |
| 21      | SLOW     | O   | Speed control signal output to loading mechanism.                      |
| 22      | LOAD     | O   | Movement direction control signal output-1 to loading mechanism.       |
| 23      | EJECT    | O   | Movement direction control signal output-2 to loading mechanism.       |
| 24      | MREQ     | O   | MD controller send request output signal for system control interface. |
| 25      | DRIVE    | O   | EFM driver ON/OFF output signal.                                       |
| 26      | NC       | —   | Not used.                                                              |
| 27      | NC       | —   |                                                                        |
| 28      | NC       | —   |                                                                        |
| 29      | NC       | —   |                                                                        |
| 30      | NC       | —   |                                                                        |
| 31      | NC       | —   |                                                                        |
| 32      | NC       | —   |                                                                        |
| 33      | NC       | —   |                                                                        |
| 34      | NC       | —   |                                                                        |
| 35      | NC       | —   |                                                                        |
| 36      | NC       | —   |                                                                        |
| 37      | MP       | —   | Connected to VSS.                                                      |
| 38      | SRST     | I   | MD controller reset signal input.                                      |
| 39      | DGND     | —   | Connected to VSS.                                                      |
| 40      | XTALO    | O   | External crystal connection terminal-1 for system clock oscillation.   |
| 41      | XTALI    | I   | External crystal connection terminal-2 for system clock oscillation.   |

| Pin No. | Pin Name | I/O | Description                                                       |
|---------|----------|-----|-------------------------------------------------------------------|
| 42      | ARDY     | I   | READY input signal for system control interface.                  |
| 43      | SIN      | I   | Serial data input for system control interface.                   |
| 44      | SOUT     | O   | Serial data output for system control interface.                  |
| 45      | ACLK     | O   | Serial clock output for system control interface.                 |
| 46      | XLAT     | O   | Latch signal output for CXD2652 interface.                        |
| 47      | XRST     | O   | CXD2652 reset signal output.                                      |
| 48      | XSTBY    | O   | CXA2523 standby signal output.                                    |
| 49      | NC       | O   | Not used.                                                         |
| 50      | AVSS     | —   | Connected to VSS.                                                 |
| 51      | AVREF    | —   | Connected to VDD.                                                 |
| 52      | AVDD     | —   |                                                                   |
| 53      | NC       | I   |                                                                   |
| 54      | NC       | I   |                                                                   |
| 55      | NC       | I   |                                                                   |
| 56      | SLF      | I   |                                                                   |
| 57      | SLR      | I   |                                                                   |
| 58      | TEMP     | I   | Connected to VSS.                                                 |
| 59      | MAGIC    | I   | Connected to VDD.                                                 |
| 60      | NC       | I   |                                                                   |
| 61      | TEST     | I   |                                                                   |
| 62      | DISCPRO  | I   | Disc write protection switch input.                               |
| 63      | MNT3     | I   | CXD2652 monitor signal input-1.                                   |
| 64      | MNT2     | I   | CXD2652 monitor signal input-2.                                   |
| 65      | MNT1     | I   | CXD2652 monitor signal input-3.                                   |
| 66      | MNT0     | I   | CXD2652 monitor signal input-4.                                   |
| 67      | SENS     | I   | CXD2652 SENS signal input.                                        |
| 68      | FLG      | O   | Monitoring signal of flag contained in SRDT of CXD2652 interface. |
| 69      | NC       | O   | Not used.                                                         |
| 70      | NC       | O   |                                                                   |
| 71      | P-CONT   | O   |                                                                   |
| 72      | RFSW     | O   |                                                                   |
| 73      | NC       | O   |                                                                   |
| 74      | NC       | O   |                                                                   |
| 75      | DQSY     | I   | DIGITAL-IN SUB-Q sync input.                                      |
| 76      | XINT     | I   | CXD2652 status sync input.                                        |
| 77      | SRDT     | I   | Serial data input for CXD2652 interface.                          |
| 78      | SWDT     | O   | Serial data output for CXD2652 interface.                         |
| 79      | SCLK     | O   | Serial clock output for CXD2652 interface.                        |
| 80      | SQSY     | I   | SUB-Q, ADIP sync input.                                           |
| 81      | NC       | —   | Not used.                                                         |
| 82      | NC       | —   |                                                                   |

| Pin No. | Pin Name | I/O | Description                                              |
|---------|----------|-----|----------------------------------------------------------|
| 83      | NC       | —   | Not used.                                                |
| 84      | TXI      | I   | Connected to VSS.                                        |
| 85      | TXO      | O   | Open.                                                    |
| 86      | VSS      | —   | Connected to VSS.                                        |
| 87      | VDD      | —   | Connected to VDD.                                        |
| 88      | NC       | —   |                                                          |
| 89      | NC       | —   | Not used.                                                |
| 90      | DRVMUTE  | O   | BA5970FP mute signal output.                             |
| 91      | NC       | —   | Not used.                                                |
| 92      | NC       | —   |                                                          |
| 93      | NC       | —   |                                                          |
| 94      | NC       | —   |                                                          |
| 95      | RECP     | O   | Laser power select signal output.                        |
| 96      | TX       | O   | Record data output enable signal output.                 |
| 97      | MOD      | O   | High frequency superimpose circuit ON/OFF signal output. |
| 98      | OPMUTE   | O   | Laser mute signal output.                                |
| 99      | ARST     | O   | AK4512 reset signal output.                              |
| 100     | DENF     | O   | De-emphasis ON/OFF signal output.                        |

## MECHANISM EXPLODED VIEW 1/1 (AZG-7)

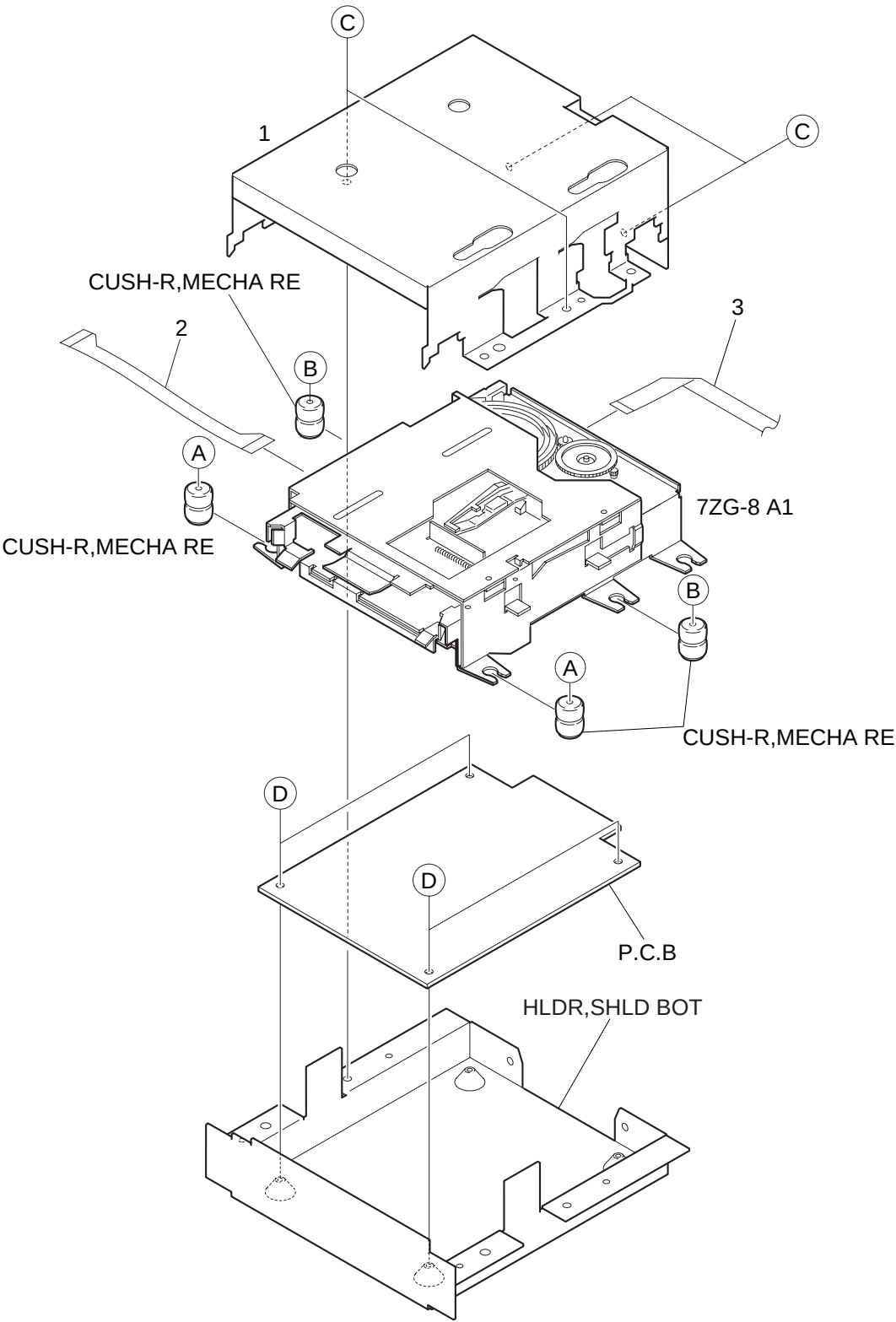


## MECHANISM PARTS LIST 1/1 (AZG-7)

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       | 87-ZGA-611-010 |           | FF-CABLE, 8P 1.0 100MM   |
| 2       | 87-ZGA-612-010 |           | FF-CABLE, 14P 1.0 100MM  |
| 3       | 8A-DB8-205-010 |           | HLDR, MD                 |
| A       | 87-067-703-010 |           | TAPPING SCREW, BVT2+3-10 |

MECHANISM EXPLODED VIEW 1/1 (AZG-4)



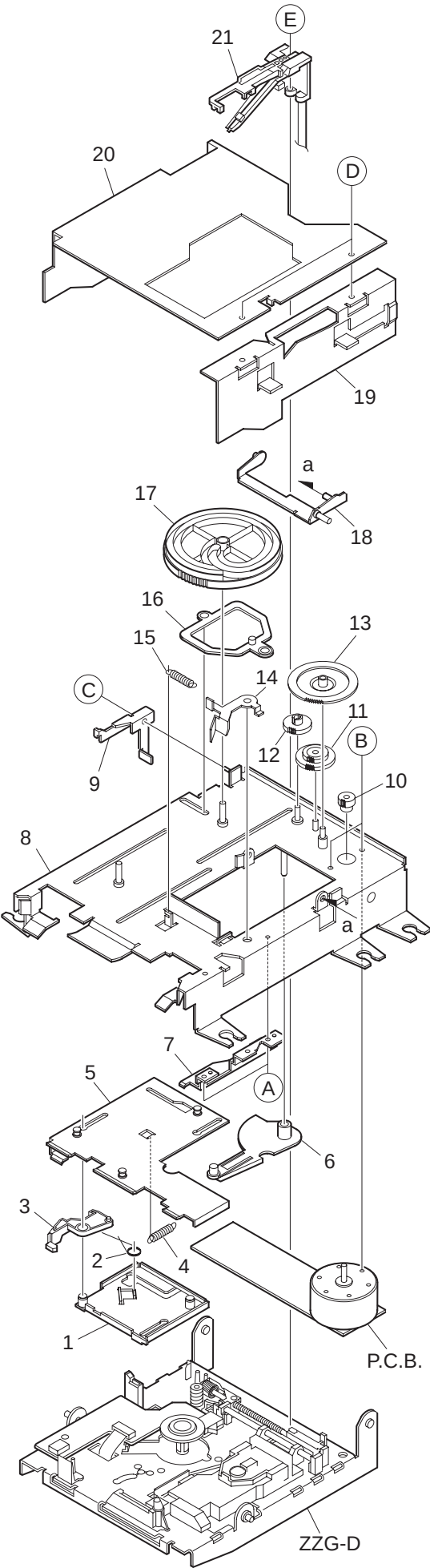
## MECHANISM PARTS LIST 1/1 (AZG-4)

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       | 87-ZG9-202-210 |              | HLDR, SHLD TOP          |
| 2       | 8A-ZG4-611-010 |              | PWB, FLEX 21P AZG-4     |
| 3       | 87-ZG9-604-010 |              | FF-CABLE, 5P 1.25 100MM |
| A       | 87-ZG9-209-010 |              | S-SCREW, MD TF          |
| B       | 87-ZG9-208-010 |              | S-SCREW, MD T           |
| C       | 87-067-020-010 |              | SCREW, VTT+3-4          |
| D       | 87-067-421-010 |              | VTT+2-4                 |



MECHANISM EXPLODED VIEW 1/1 (7ZG-8)

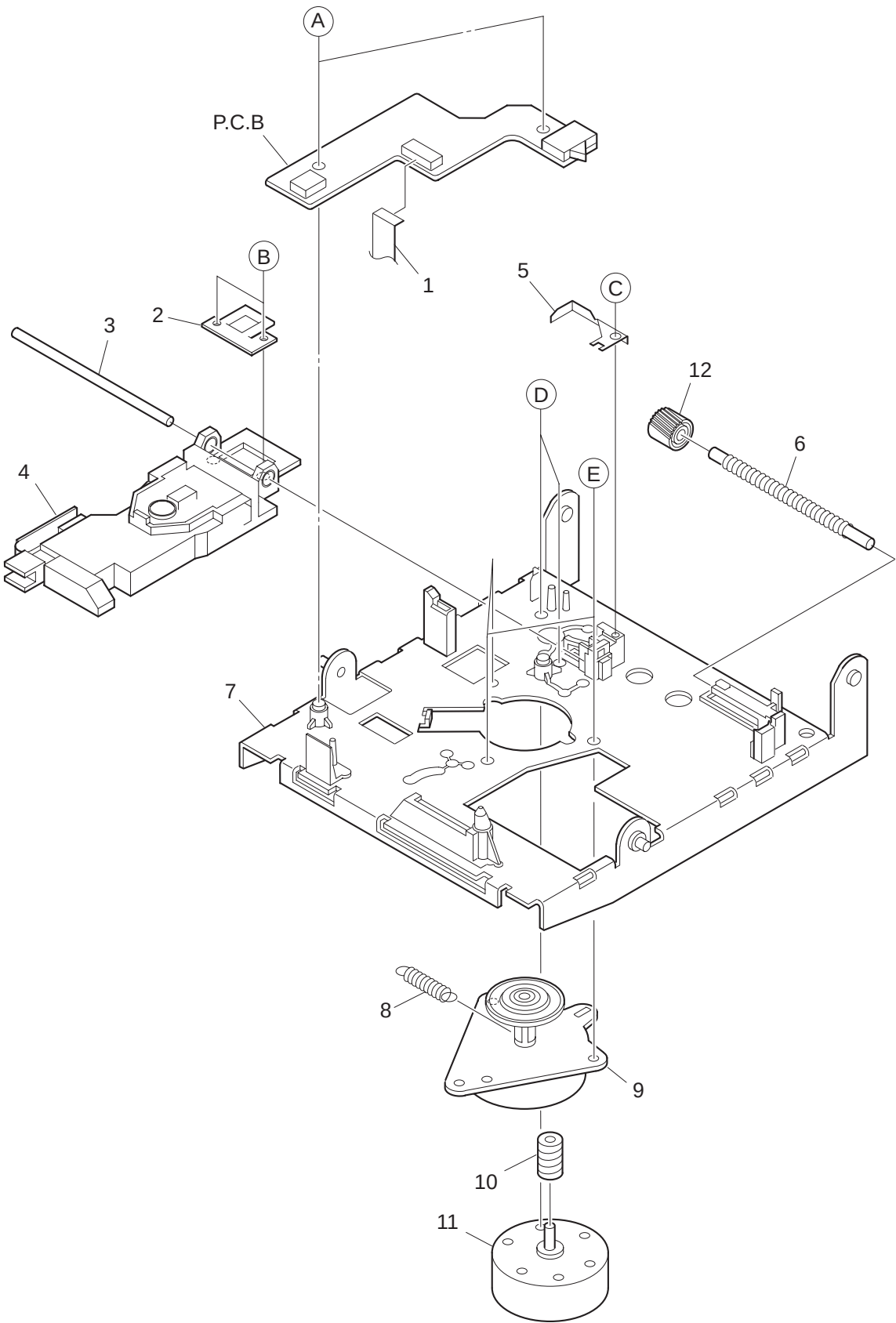


## MECHANISM PARTS LIST 1/1 (7ZG-8)

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       | 87-ZG8-220-210 |           | PLATE ASSY, LATCH   | 16      | 87-ZG8-225-310 |           | LEVER ASSY, CAM         |
| 2       | 87-ZG8-259-110 |           | SPR-T, LATCH        | 17      | 87-ZG8-239-110 |           | CAM, LOAD(*)            |
| 3       | 87-ZG8-230-210 |           | LEVER, LATCH(*)     | 18      | 87-ZG8-272-010 |           | LEVER, ASSY REC2        |
| 4       | 87-ZG8-224-110 |           | SPR-E, LATCH        | 19      | 87-ZG8-213-210 |           | PLATE, SLIDE R          |
| 5       | 87-ZG8-214-210 |           | HLDR ASSY, CARTRIGE | 20      | 87-ZG8-209-210 |           | PLATE ASSY, SLIDE L     |
| 6       | 87-ZG8-233-110 |           | LEVER, SW H(*)      | 21      | 87-A91-539-010 |           | HEAD, OWH RM-21E        |
| 7       | 87-ZG8-255-210 |           | PLATE, CARTRIGE     | A       | 87-B10-129-010 |           | VTT+1.7-3.5 W/O MFZN2-C |
| 8       | 87-ZG8-201-810 |           | CHAS ASSY, MAIN     | B       | 87-B10-128-010 |           | V+1.7-2 W/O MFZN2-C     |
| 9       | 87-ZG8-256-110 |           | LEVER, SW S2        | C       | 87-B10-130-010 |           | W-P, 1.23-3.1-0.25 SLIT |
| 10      | 87-ZG8-242-010 |           | GEAR, MOT           | D       | 87-B10-185-010 |           | VTT+2-3                 |
| 11      | 87-ZG8-253-010 |           | GEAR, REDUCTION S3  | E       | 87-B10-286-010 |           | VW+1.7-5 W/O MFZN2C     |
| 12      | 87-ZG8-246-010 |           | GEAR, IDLER 2       |         |                |           |                         |
| 13      | 87-ZG8-252-010 |           | GEAR, REDUCTION L3  |         |                |           |                         |
| 14      | 87-ZG8-231-010 |           | LEVER, SHUTTER      |         |                |           |                         |
| 15      | 87-ZG8-232-110 |           | SPR-E, SHUTTER      |         |                |           |                         |

MECHANISM EXPLODED VIEW 1/1 (ZZG-D)



## MECHANISM PARTS LIST 1/1 (ZZG-D)

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       | 87-ZG9-603-010 |           | FF-CABLE, 8P 1.0 120MM | 11      | 87-A91-490-010 |           | MOT, BCD3B04       |
| 2       | 87-ZG3-216-010 |           | SPR-P, RACK            | 12      | 8Z-ZGD-206-010 |           | GEAR, LEAD         |
| 3       | 87-ZG3-211-010 |           | SHAFT, GUIDE           | A       | 87-341-035-210 |           | SCREW, UT1+2-6     |
| 4       | 87-A91-444-010 |           | PICKUP, KMS-260B       | B       | 87-067-393-010 |           | SCREW +1.4-1.4     |
| 5       | 8Z-ZGD-207-010 |           | SPR-P, LEAD            | C       | 8Z-ZGD-211-010 |           | S-SCREW, VBT+1.7-5 |
| 6       | 8Z-ZGD-208-010 |           | SHAFT, LEAD            | D       | 87-263-523-310 |           | SCREW, V+1.7-2     |
| 7       | 8Z-ZGD-201-010 |           | CHAS ASSY, MECHA       | E       | 8Z-ZGD-210-010 |           | S-SCREW, +2-2.5    |
| 8       | 8Z-ZGD-209-010 |           | SPR-E, SPINDLE         |         |                |           |                    |
| 9       | 87-A91-489-010 |           | MOT, BCD3B93           |         |                |           |                    |
| 10      | 8Z-ZGD-205-010 |           | GEAR, MOT              |         |                |           |                    |

