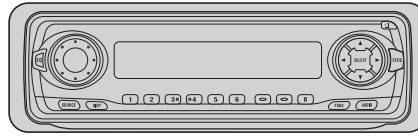


Service Manual

Pioneer

KEH-P6010R/X1M/EW



ORDER NO.
CRT2599

MULTI-CD CONTROL HIGH POWER CASSETTE PLAYER WITH RDS TUNER

KEH-P6010R X1M/EW

KEH-P6010RB X1M/EW

KEH-P6011R X1M/EE

● This service manual should be used together with the following manual(s):

| Model No. | Order No. | Mech. Module | Remarks |
|-----------|-----------|--------------|---|
| CX-1011 | CRT2406 | 3L | Cassette Mech. Module:Mech.Description, Disassembly, Adjustment |

NOTE:

- This service manual does not describe the CD test mode.
For the operations in the CD test mode, refer to the CD player's Service manual.
- Extension cable of cassette mechanism : Jig No. GGD1121

CONTENTS

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PIONEER CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER EUROPE NV Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 253 Alexandra Road, #04-01, Singapore 159936

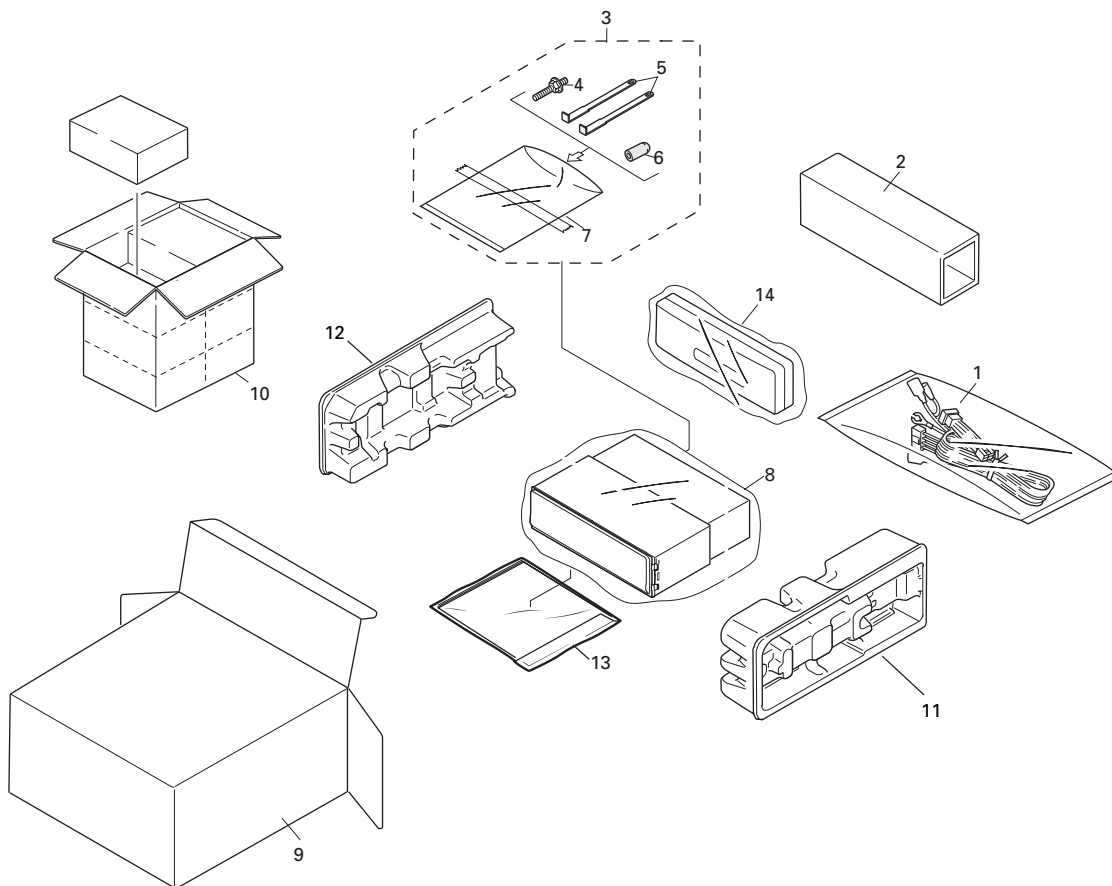
1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely; you should not risk trying to do so and refer the repair to a qualified service technician.

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING



NOTE:

- Parts marked by “*” are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ∇ mark on the product are used for disassembly.

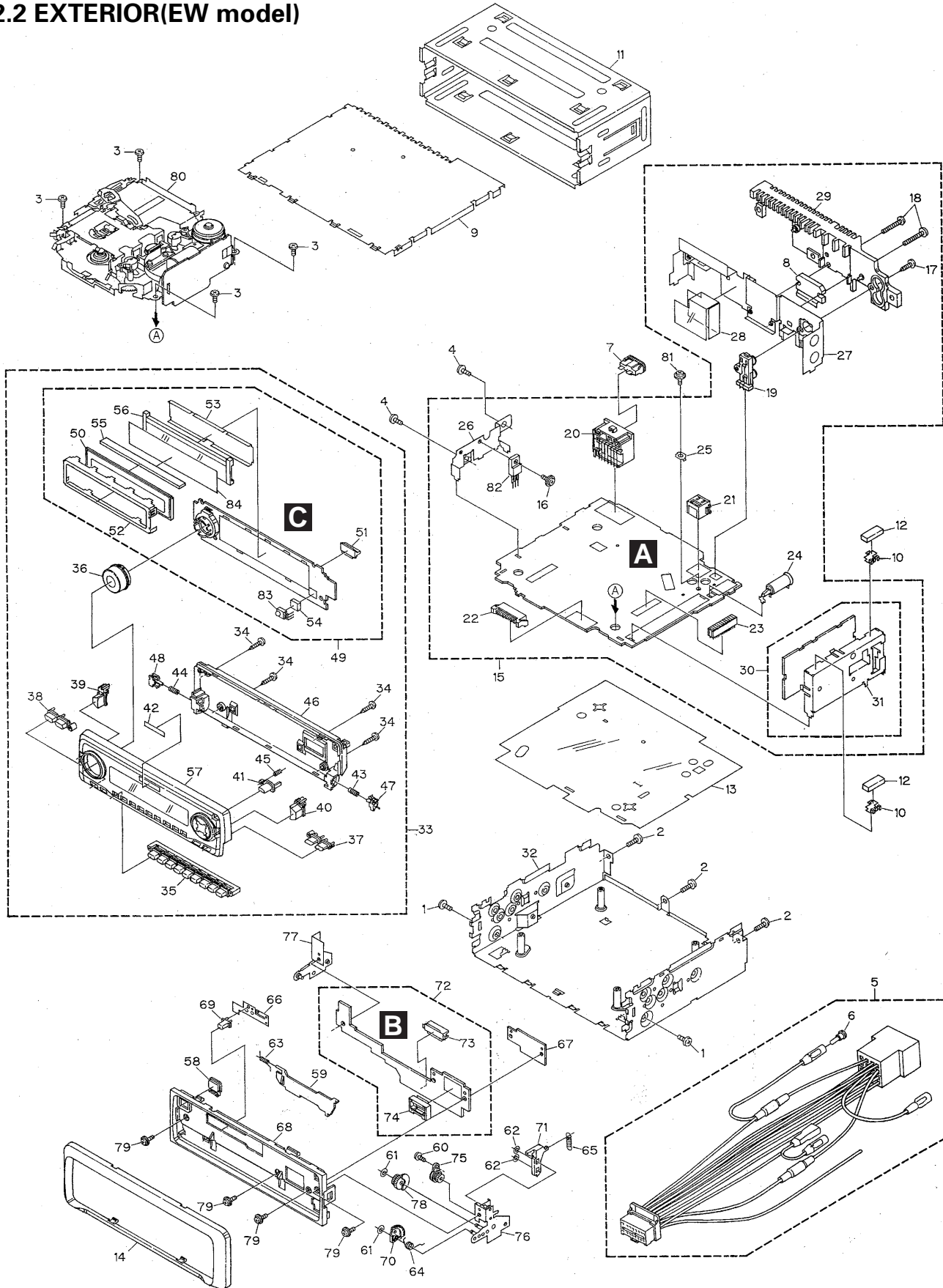
● PACKING SECTION PARTS LIST

| Mark No. | Symbol and Description | Part No. | | |
|----------|------------------------|-------------------|--------------------|-------------------|
| | | KEH-P6010R/X1M/EW | KEH-P6010RB/X1M/EW | KEH-P6011R/X1M/EE |
| 1 | Cord Assy | CDE6435 | CDE6435 | CDE6438 |
| 2 | Inner Box | CHW1754 | CHW1754 | CHW1754 |
| * | 3 Accessory Assy | CEA2397 | CEA2397 | CEA2397 |
| 4 | Screw | CBA1002 | CBA1002 | CBA1002 |
| 5 | Handle | CNC5395 | CNC5395 | CNC5395 |
| 6 | Bush | CNV3930 | CNV3930 | CNV3930 |
| * | 7 Polyethylene Bag | E36-615 | E36-615 | E36-615 |
| 8 | Polyethylene Bag | CEG-162 | CEG-162 | CEG-162 |
| 9 | Carton | CHG4203 | CHG4204 | CHG4207 |
| 10 | Contain Box | CHL4203 | CHL4204 | CHL4207 |
| 11 | Protector | CHP2243 | CHP2243 | CHP2243 |
| 12 | Protector | CHP2244 | CHP2244 | CHP2244 |
| 13-1 | Polyethylene Bag | CEG1116 | CEG1116 | CEG1116 |
| 13-2 | Owner's Manual | CRD3338 | CRD3338 | CRD3335 |
| 13-3 | Owner's Manual | CRD3339 | CRD3339 | Not used |
| 13-4 | Owner's Manual | CRD3340 | CRD3340 | Not used |
| 13-5 | Installation Manual | CRD3345 | CRD3345 | CRD3343 |
| * | 13-6 Passport | CRY1013 | CRY1013 | Not used |
| * | 13-7 Warranty Card | CRY1157 | CRY1157 | CRY1157 |
| * | 13-8 Caution Card | CRP1241 | CRP1241 | CRP1241 |
| 14 | Case Assy | CXB3520 | CXB3520 | CXB3520 |

● Owner's Manual, Installation Manual

| Model | Part No. | Language |
|--------------------|----------|--|
| KEH-P6010R/X1M/EW | CRD3338 | English, Spanish |
| KEH-P6010RB/X1M/EW | CRD3339 | German, French |
| | CRD3340 | Italian, Dutch |
| | CRD3345 | English, Spanish, German, French, Italian, Dutch |
| KEH-P6011R/X1M/EE | CRD3335 | English, Russian |
| | CRD3343 | English, Russian |

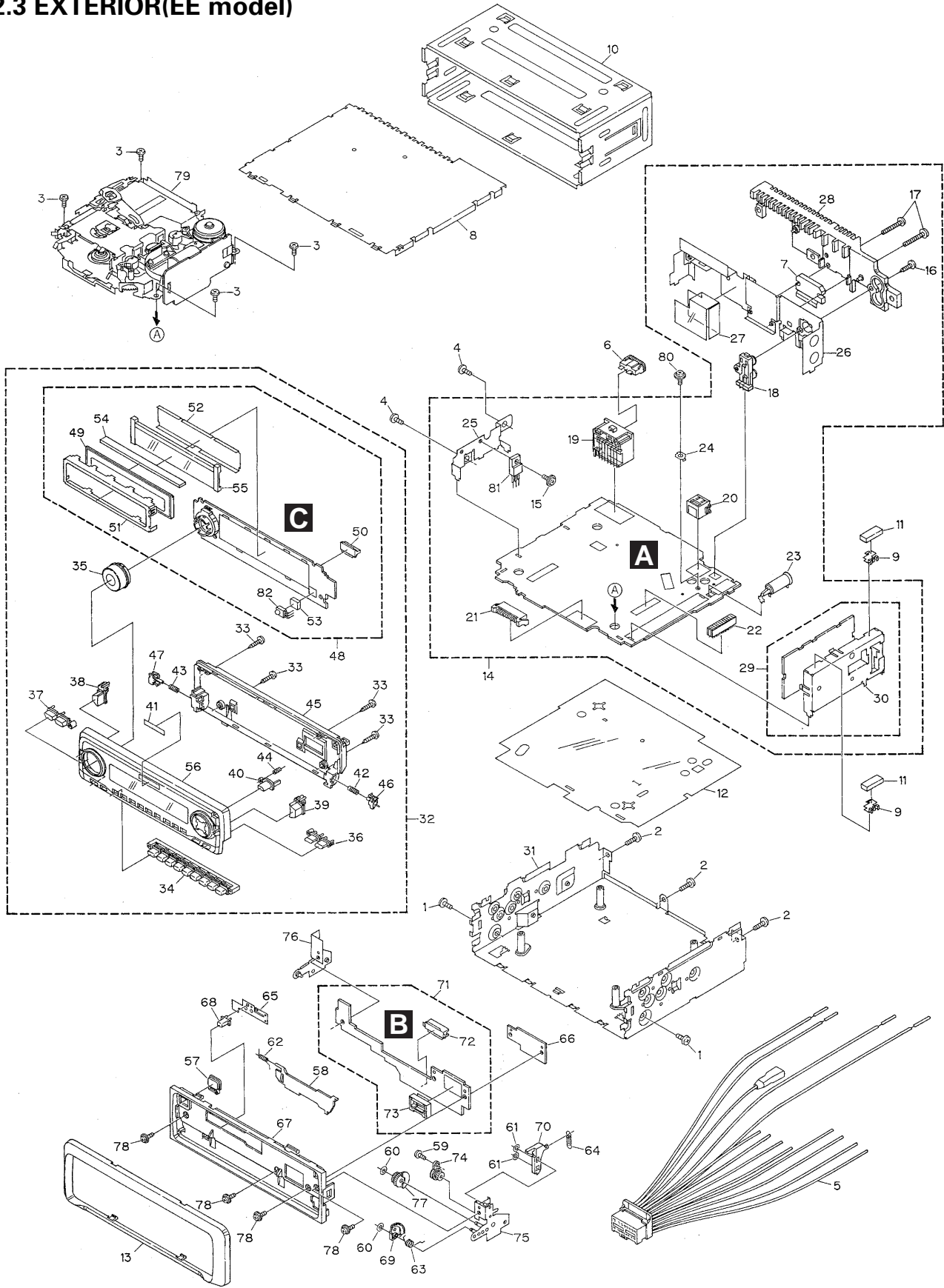
2.2 EXTERIOR(EW model)



● EXTERIOR SECTION PARTS LIST(EW model)

| Mark No. | Description | Part No. | Mark No. | Description | Part No. |
|----------|-----------------------------|--------------|----------|---------------------------|--------------|
| 1 | Screw | BMZ30P040FZK | 44 | Spring | CBH2431 |
| 2 | Screw | BMZ30P100FMC | 45 | Spring | CBH2491 |
| 3 | Screw | BSZ26P050FMC | 46 | Cover | CNS6282 |
| 4 | Screw | BSZ30P060FMC | 47 | Holder | CNV6505 |
| 5 | Cord Assy | CDE6435 | 48 | Holder | CNV6506 |
| 6 | Cap | CKX-003 | 49 | Keyboard Unit(P6010R) | CWM7413 |
| 7 | Fuse(10A) | CEK1136 | | Keyboard Unit(P6010RB) | CWM7415 |
| 8 | IC(IC361) | PAL006A | 50 | LCD(P6010R) | CAW1627 |
| 9 | Case | CNB2686 | | LCD(P6010RB) | CAW1625 |
| 10 | Holder | CNC5704 | 51 | Connector(CN1901) | CKS4205 |
| 11 | Holder Unit | CXB6681 | 52 | Holder | CNC9053 |
| 12 | Cushion | CNM4870 | 53 | Sheet | CNM6969 |
| 13 | Insulator | CNM6948 | 54 | Cushion | CNM6984 |
| 14 | Panel | CNS6332 | 55 | Connector | CNV6440 |
| 15 | Tuner Amp Unit(P6010R) | CWM7391 | 56 | Lighting Conductor | CNV6441 |
| | Tuner Amp Unit(P6010RB) | CWM7393 | 57 | Sub Grille Assy(P6010R) | CXB7165 |
| 16 | Screw | ASZ26P060FMC | | Sub Grille Assy(P6010RB) | CXB7166 |
| 17 | Screw | BPZ26P100FMC | 58 | Button(EJECT) | CAC6839 |
| 18 | Screw | BSZ26P160FMC | 59 | Door | CAT2109 |
| 19 | Pin Jack(CN351) | CKB1035 | 60 | Screw(M2x2) | CBA1176 |
| 20 | Plug(CN901) | CKM1330 | 61 | Washer | CBF1038 |
| 21 | Connector(CN701) | CKS3408 | 62 | Washer | CBF1039 |
| 22 | Plug(CN750) | CKS3537 | 63 | Spring | CBH1838 |
| 23 | Connector(CN551) | CKS3568 | 64 | Spring | CBH2428 |
| 24 | Antenna Jack(CN402) | CKX1056 | 65 | Spring | CBH2429 |
| 25 | Holder(CN403) | CNC5399 | 66 | Spring | CBL1512 |
| 26 | Holder | CNC8615 | 67 | Holder | CNC9096 |
| 27 | Holder | CNC9472 | 68 | Panel | CNS6280 |
| 28 | Insulator | CNM6949 | 69 | Pin | CNV6486 |
| 29 | Heat Sink | CNR1583 | 70 | Gear | CNV6507 |
| 30 | FM/AM Tuner Unit | CWE1562 | 71 | Arm | CNV6508 |
| 31 | Holder | CNC8815 | 72 | Panel Unit | CWM7627 |
| 32 | Chassis Unit(P6010R) | CXB6104 | 73 | Socket(CN1950) | CKS3550 |
| | Chassis Unit(P6010RB) | CXB6105 | 74 | Connector(CN1951) | CKS4206 |
| 33 | Detach Grille Assy(P6010R) | CXB6303 | 75 | Damper Unit | CXB5070 |
| | Detach Grille Assy(P6010RB) | CXB6305 | 76 | Holder Unit | CXB6356 |
| 34 | Screw | BPZ20P100FZK | 77 | Holder Unit | CXB6357 |
| 35 | Button(1-6) | CAC6773 | 78 | Clutch Unit | CXB6358 |
| 36 | Knob(Volume) | CAC6775 | 79 | Screw | IMS20P045FZK |
| 37 | Button(FUNC/AUDIO) | CAC6776 | 80 | Cassette Mechanism Module | EKK4070 |
| 38 | Button(SOURCE/DISP) | CAC6777 | 81 | Screw | ISS26P055FUC |
| 39 | Button(EQ) | CAC6778 | 82 | Transistor(Q910) | 2SD2396 |
| 40 | Button(SEEQ) | CAC6779 | 83 | IC(IC1902) | SBX8035-H |
| 41 | Button(OPEN) | CAC6780 | 84 | Film(P6010RB) | CNM6983 |
| * | 42 Badge | CAH1754 | | | |
| | 43 Spring | CBH2430 | | | |

2.3 EXTERIOR(EE model)



● EXTERIOR SECTION PARTS LIST(EE model)

| Mark No. | Description | Part No. | Mark No. | Description | Part No. |
|----------|---------------------|--------------|----------|---------------------------|--------------|
| 1 | Screw | BMZ30P040FZK | 46 | Holder | CNV6505 |
| 2 | Screw | BMZ30P100FMC | 47 | Holder | CNV6506 |
| 3 | Screw | BSZ26P050FMC | 48 | Keyboard Unit | CWM7411 |
| 4 | Screw | BSZ30P060FMC | 49 | LCD | CAW1627 |
| 5 | Cord Assy | CDE6438 | 50 | Connector(CN1901) | CKS4205 |
| 6 | Fuse(10A) | CEK1136 | 51 | Holder | CNC9053 |
| 7 | IC(IC361) | PAL006A | 52 | Sheet | CNM6969 |
| 8 | Case | CNB2609 | 53 | Cushion | CNM6984 |
| 9 | Holder | CNC5704 | 54 | Connector | CNV6440 |
| 10 | Holder Unit | CXB6681 | 55 | Lighting Conductor | CNV6441 |
| 11 | Cushion | CNM4870 | 56 | Sub Grille Assy | CXB7167 |
| 12 | Insulator | CNM6948 | 57 | Button(EJECT) | CAC6839 |
| 13 | Panel | CNS6332 | 58 | Door | CAT2109 |
| 14 | Tuner Amp Unit | CWM7389 | 59 | Screw(M2x2) | CBA1176 |
| 15 | Screw | ASZ26P060FMC | 60 | Washer | CBF1038 |
| 16 | Screw | BPZ26P120FMC | 61 | Washer | CBF1039 |
| 17 | Screw | BSZ26P160FMC | 62 | Spring | CBH1838 |
| 18 | Pin Jack(CN351) | CKB1035 | 63 | Spring | CBH2428 |
| 19 | Plug(CN901) | CKM1330 | 64 | Spring | CBH2429 |
| 20 | Connector(CN701) | CKS3408 | 65 | Spring | CBL1512 |
| 21 | Plug(CN750) | CKS3537 | 66 | Holder | CNC9096 |
| 22 | Connector(CN551) | CKS3568 | 67 | Panel | CNS6280 |
| 23 | Antenna Jack(CN402) | CKX1056 | 68 | Pin | CNV6486 |
| 24 | Holder(CN403) | CNC5399 | 69 | Gear | CNV6507 |
| 25 | Holder | CNC8615 | 70 | Arm | CNV6508 |
| 26 | Holder | CNC9472 | 71 | Panel Unit | CWM7627 |
| 27 | Insulator | CNM6949 | 72 | Socket(CN1950) | CKS3550 |
| 28 | Heat Sink | CNR1583 | 73 | Connector(CN1951) | CKS4206 |
| 29 | FM/AM Tuner Unit | CWE1566 | 74 | Damper Unit | CXB5070 |
| 30 | Holder | CNC8815 | 75 | Holder Unit | CXB6356 |
| 31 | Chassis Unit | CXB6106 | 76 | Holder Unit | CXB6357 |
| 32 | Detach Grille Assy | CXB6301 | 77 | Clutch Unit | CXB6358 |
| 33 | Screw | BPZ20P100FZK | 78 | Screw | IMS20P045FZK |
| 34 | Button(1-6) | CAC6773 | 79 | Cassette Mechanism Module | EXK4050 |
| 35 | Knob | CAC6775 | 80 | Screw | ISS26P055FUC |
| 36 | Button(FUNC/AUDIO) | CAC6776 | 81 | Transistor(Q910) | 2SD2396 |
| 37 | Button(SOURCE/DISP) | CAC6777 | 82 | IC(IC1902) | SBX8035-H |
| 38 | Button(EQ) | CAC6778 | | | |
| 39 | Button(SEEQ) | CAC6779 | | | |
| 40 | Button(OPEN) | CAC6780 | | | |
| * 41 | Badge | CAH1754 | | | |
| 42 | Spring | CBH2430 | | | |
| 43 | Spring | CBH2431 | | | |
| 44 | Spring | CBH2491 | | | |
| 45 | Cover | CNS6282 | | | |

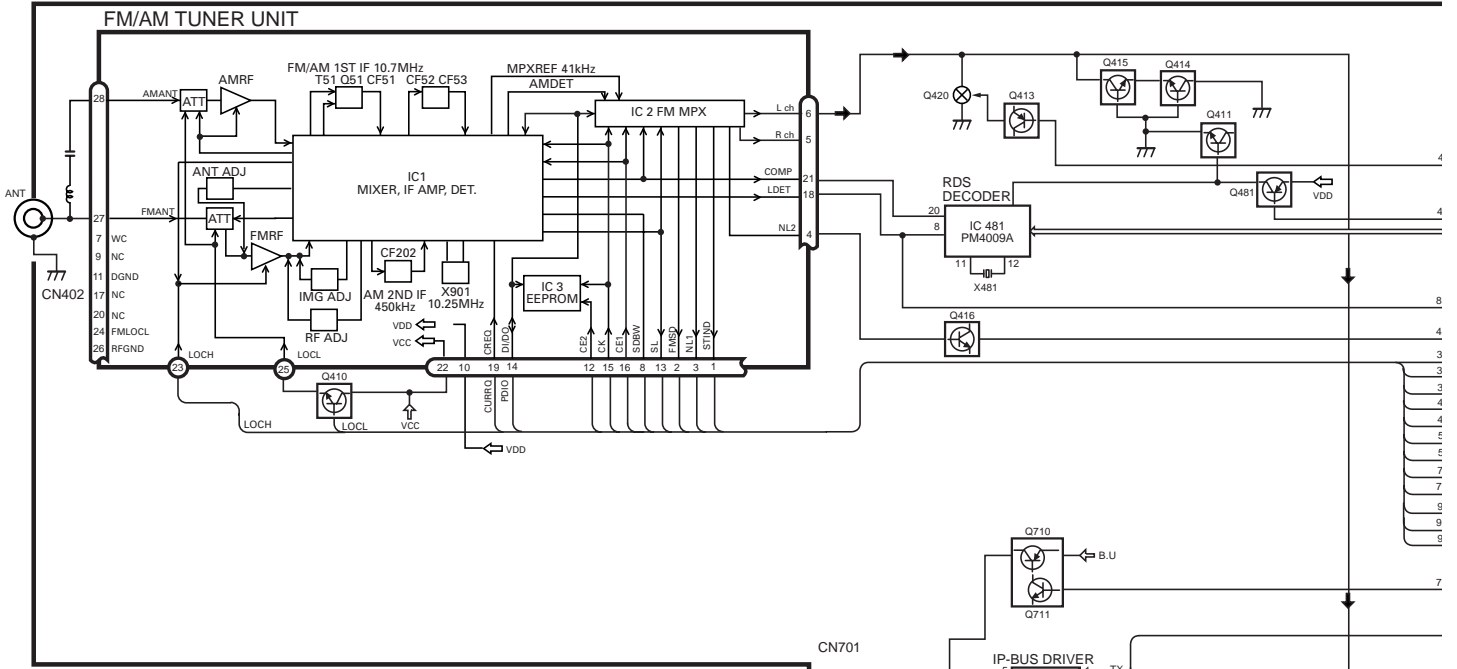
● CASSETTE MECHANISM MODULE SECTION PARTS LIST

| Mark No. | Description | Part No. | Mark No. | Description | Part No. |
|----------|-----------------------|--------------|----------|---------------------|----------|
| 1 | Screw | BSZ20P040FMC | 46 | Pinch Roller | ENV1518 |
| 2 | Washer | CBF1037 | 47 | Pinch Holder Unit | EXA1607 |
| 3 | Washer | CBG1003 | 48 | Pinch Roller | ENV1518 |
| 4 | Screw | EBA1028 | 49 | Reel Unit | EXA1585 |
| 5 | Screw | CBA1037 | 50 | Head Base Unit | EXA1611 |
| 6 | Spring | EBH1531 | 51 | Lever Unit | EXA1587 |
| 7 | Spring | EBH1642 | 52 | Gear Unit | EXA1596 |
| 8 | Spring | EBH1641 | 53 | Motor Unit(Service) | EXX1055 |
| 9 | Spring | EBH1626 | 54 | Washer | HBF-179 |
| 10 | Spring | EBH1627 | 55 | Spring | EBH1537 |
| 11 | Spring | EBH1649 | | | |
| 12 | Cord | EDD1024 | | | |
| 13 | Photo-reflector(EGN1) | EGN1004 | | | |
| 14 | Arm | ENC1526 | | | |
| 15 | Lever | ENC1544 | | | |
| 16 | Lever | ENC1543 | | | |
| 17 | Arm | ENC1532 | | | |
| 18 | Frame | ENC1533 | | | |
| 19 | Holder | ENC1534 | | | |
| 20 | Gear | ENC1535 | | | |
| 21 | Arm | ENC1550 | | | |
| 22 | Roller | ENR1040 | | | |
| 23 | Belt | ENT1027 | | | |
| 24 | Collar | ENV1508 | | | |
| 25 | Arm | ENV1539 | | | |
| 26 | Arm | ENV1540 | | | |
| 27 | Gear | ENV1544 | | | |
| 28 | Gear | ENV1547 | | | |
| 29 | Gear | ENV1560 | | | |
| 30 | Worm Wheel | ENV1566 | | | |
| 31 | Lever | ENV1551 | | | |
| 32 | Flywheel | ENV1554 | | | |
| 33 | Gathering PCB | ENX1068 | | | |
| 34 | Switch(S1,S2) | ESG1007 | | | |
| * 35 | Deck Unit | EWM1032 | | | |
| 36 | Plug(CN251) | CKS3540 | | | |
| 37 | Gathering PCB | ENX1067 | | | |
| 38 | Motor Unit(M1) | EXA1491 | | | |
| 39 | Motor | EXM1028 | | | |
| 40 | Head Assy(HD1) | EXA1592 | | | |
| 41 | Motor Unit(M2) | EXA1580 | | | |
| 42 | Screw | BMZ20P022FMC | | | |
| 43 | Bracket | ENC1528 | | | |
| 44 | Chassis Unit | EXA1615 | | | |
| 45 | Pinch Holder Unit | EXA1608 | | | |

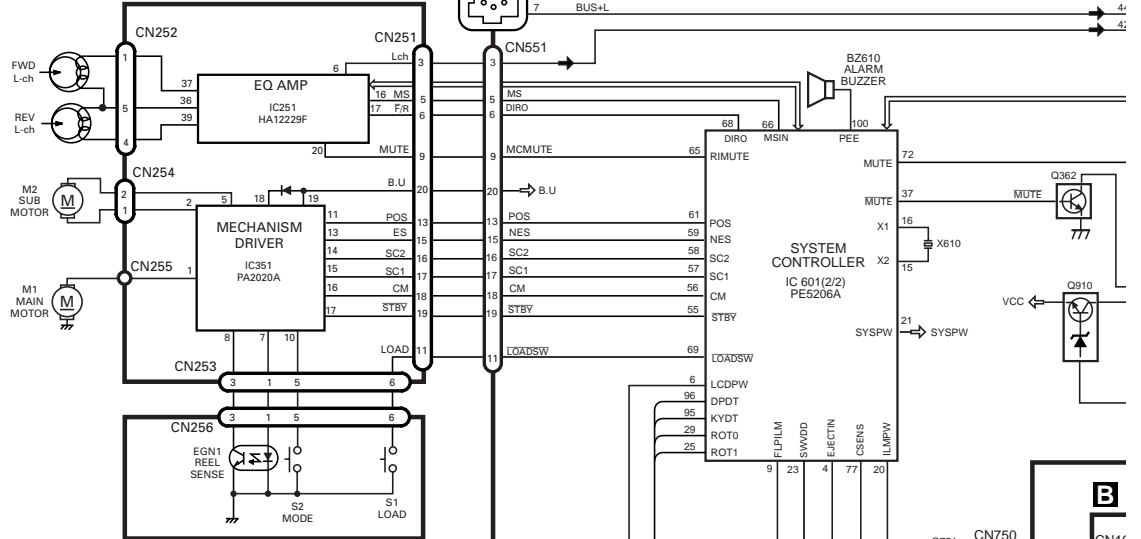
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

A TUNER AMP UNIT

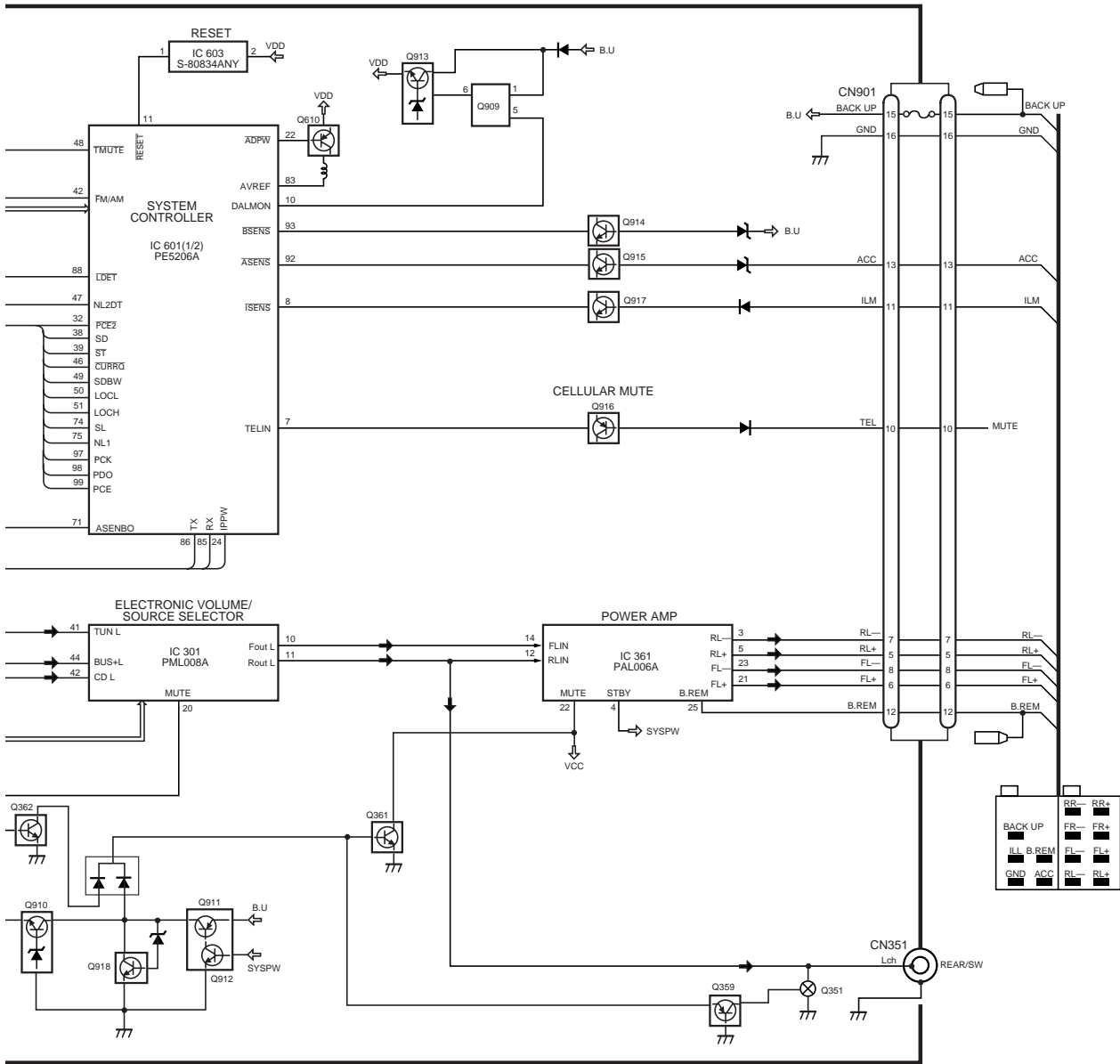


D DECK UNIT



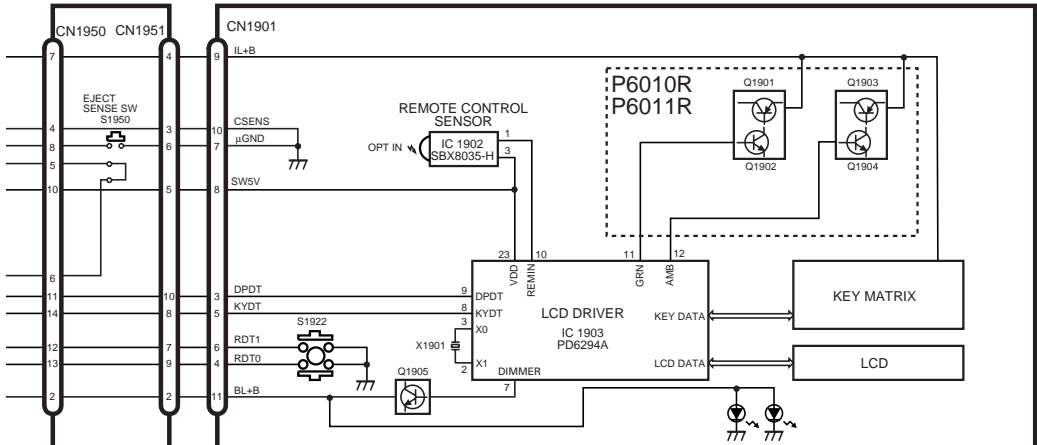
E REEL SENSE PCB

B



B PANEL UNIT

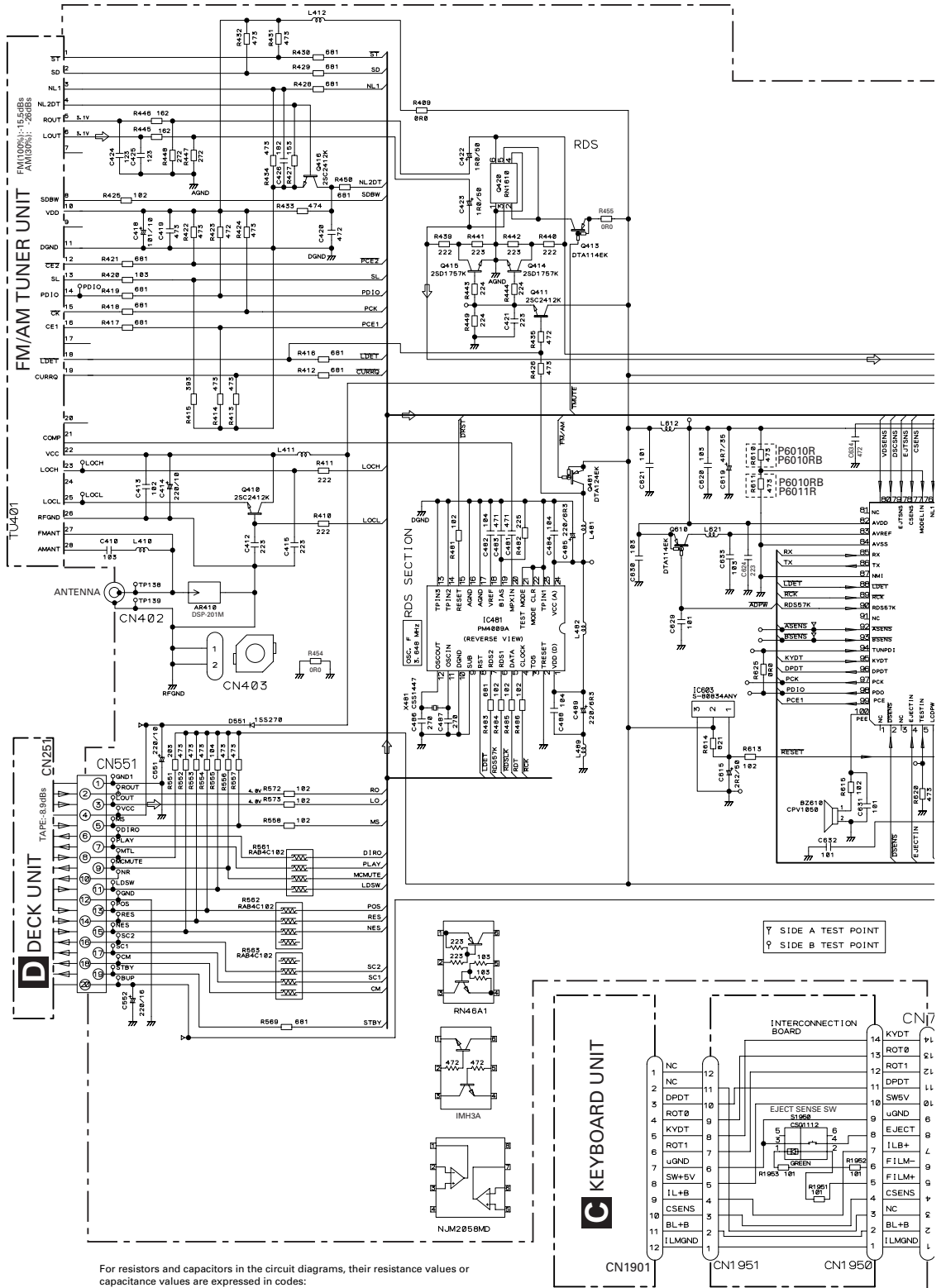
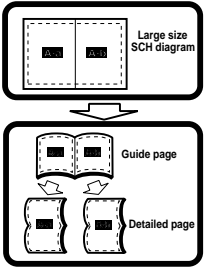
C KEYBOARD UNIT



3.2 OVERALL CONNECTION DIAGRAM(GUIDE PAGE)

Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

A-a



For resistors and capacitors in the circuit diagrams, their resistance values or capacitance values are expressed in codes:

Ex. *Resistors
Code Practical value
123 12k ohms
103 10k ohms

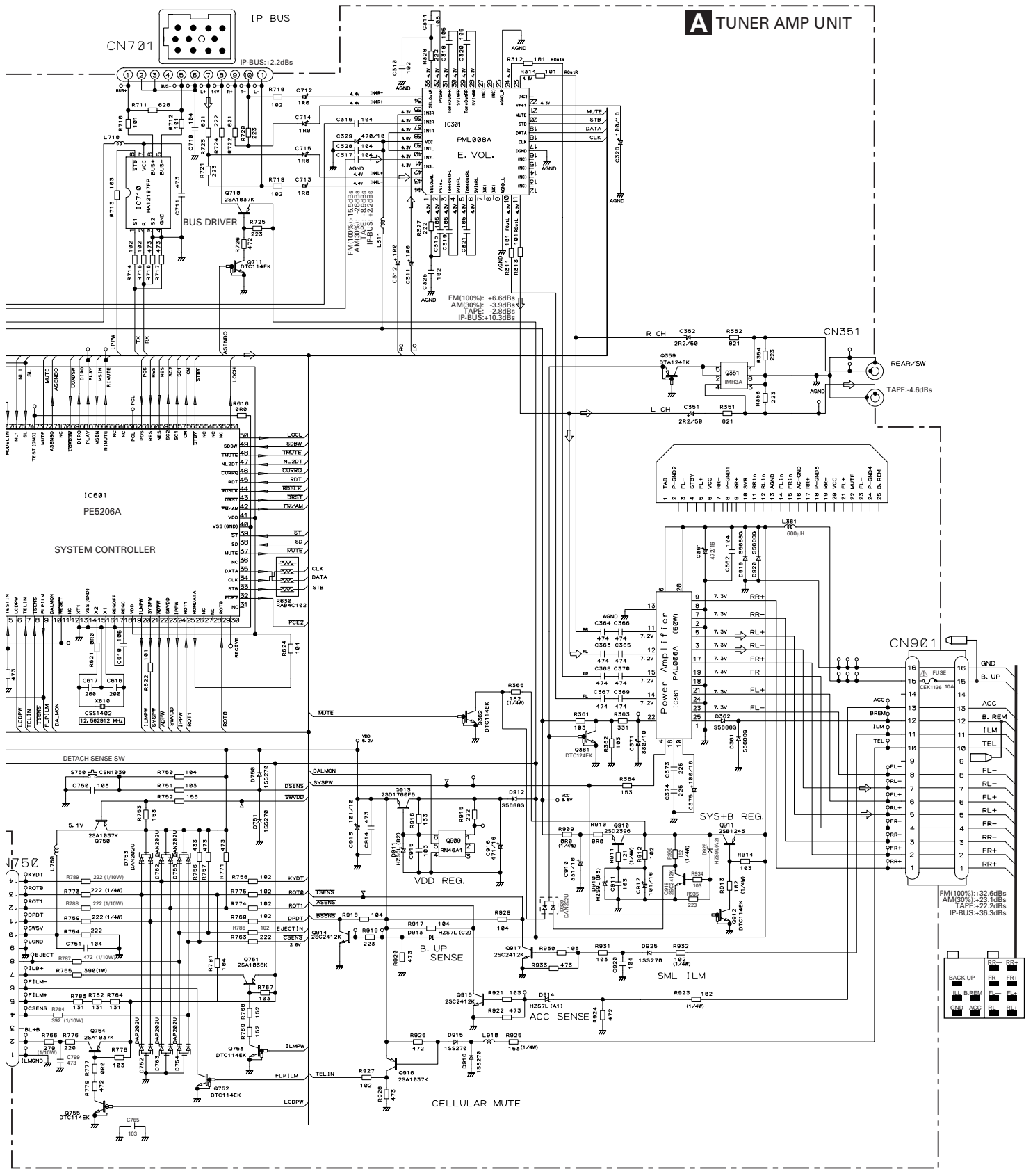
*Capacitors
Code Practical value
103 0.01uF
101/10 100uF/10V

The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

A B

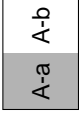
A-b

A TUNER AMP UNIT



A

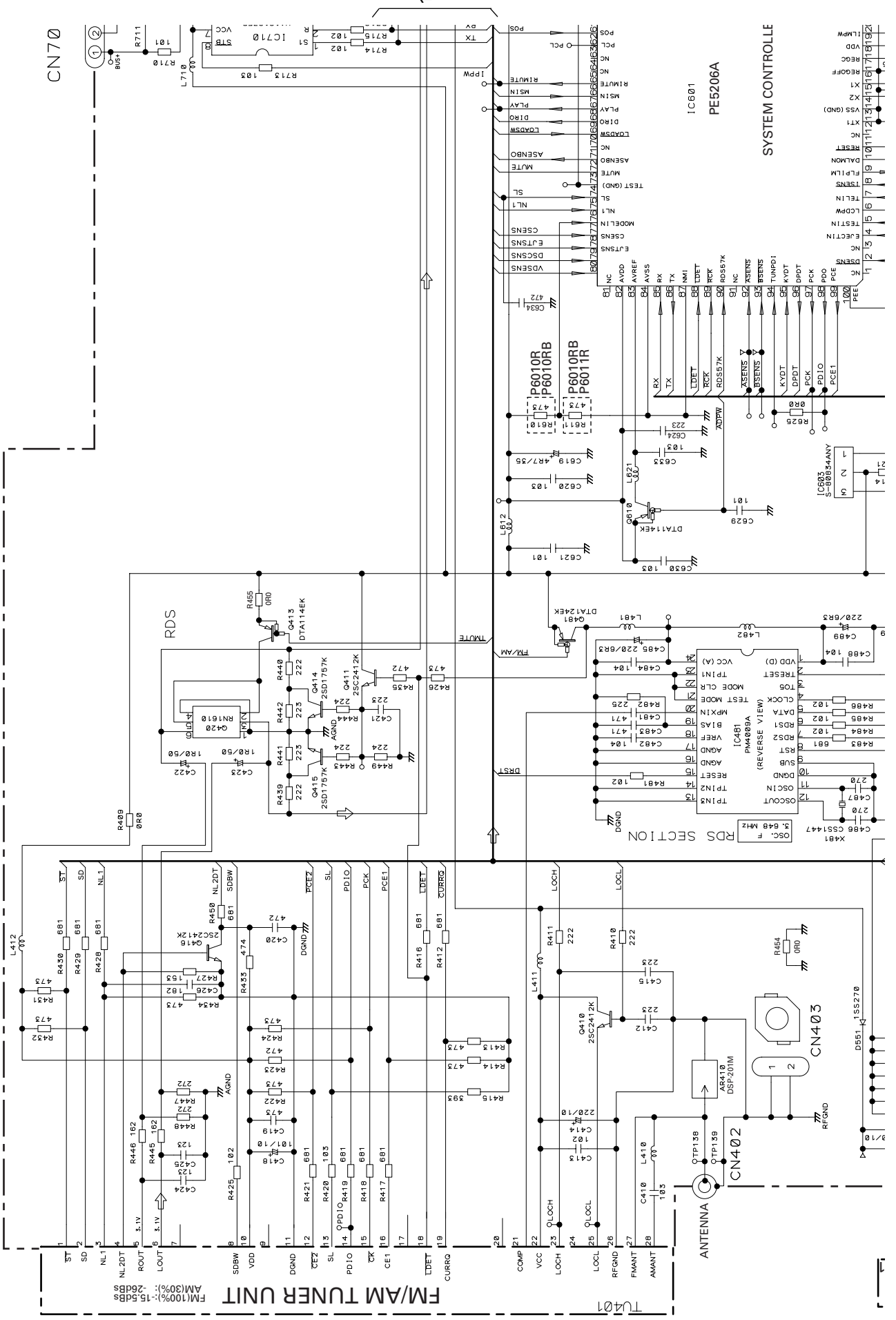
A



B

C

D



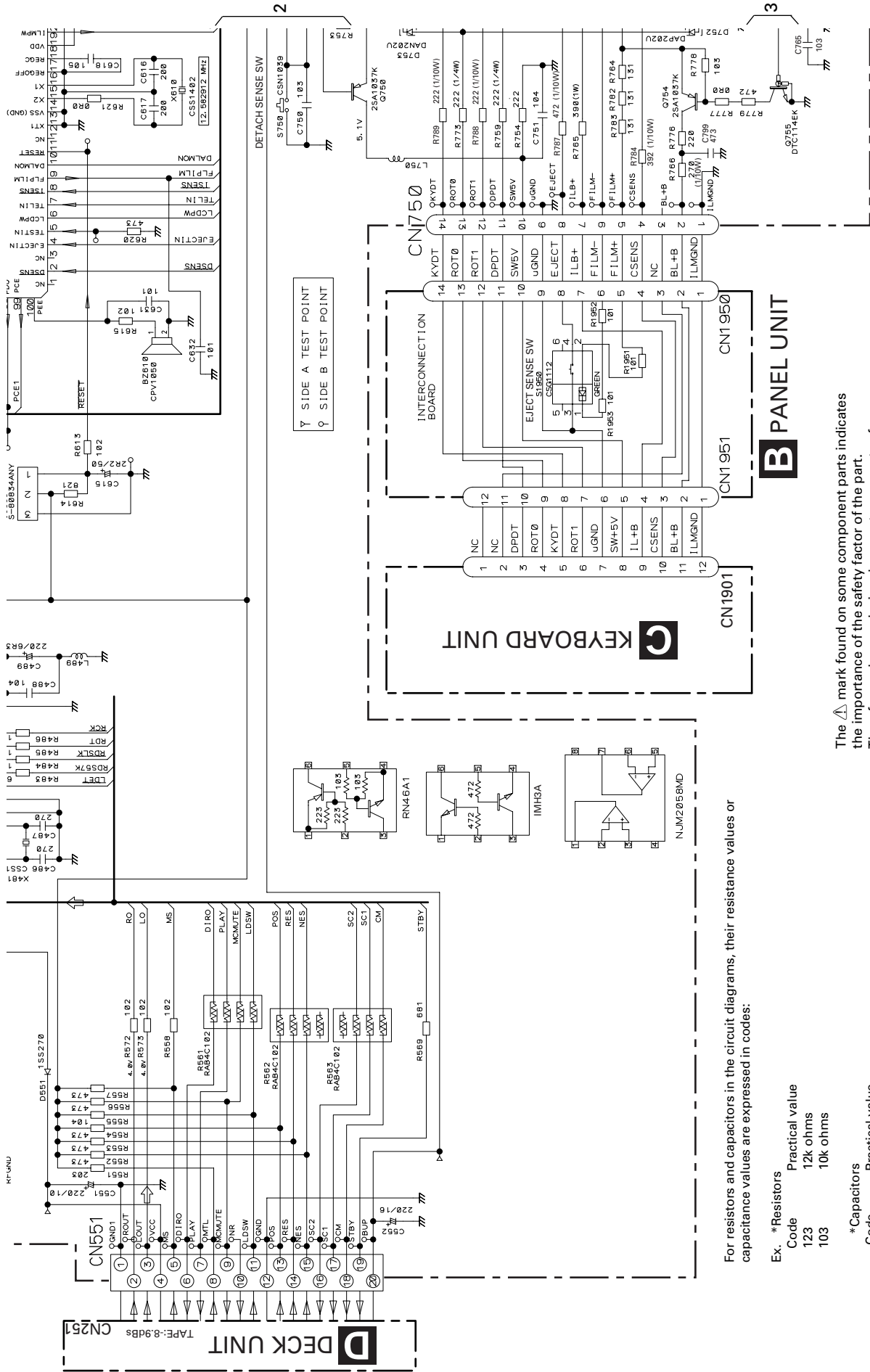
A



B

C

D



For resistors and capacitors in the circuit diagrams, their resistance values or capacitance values are expressed in codes:

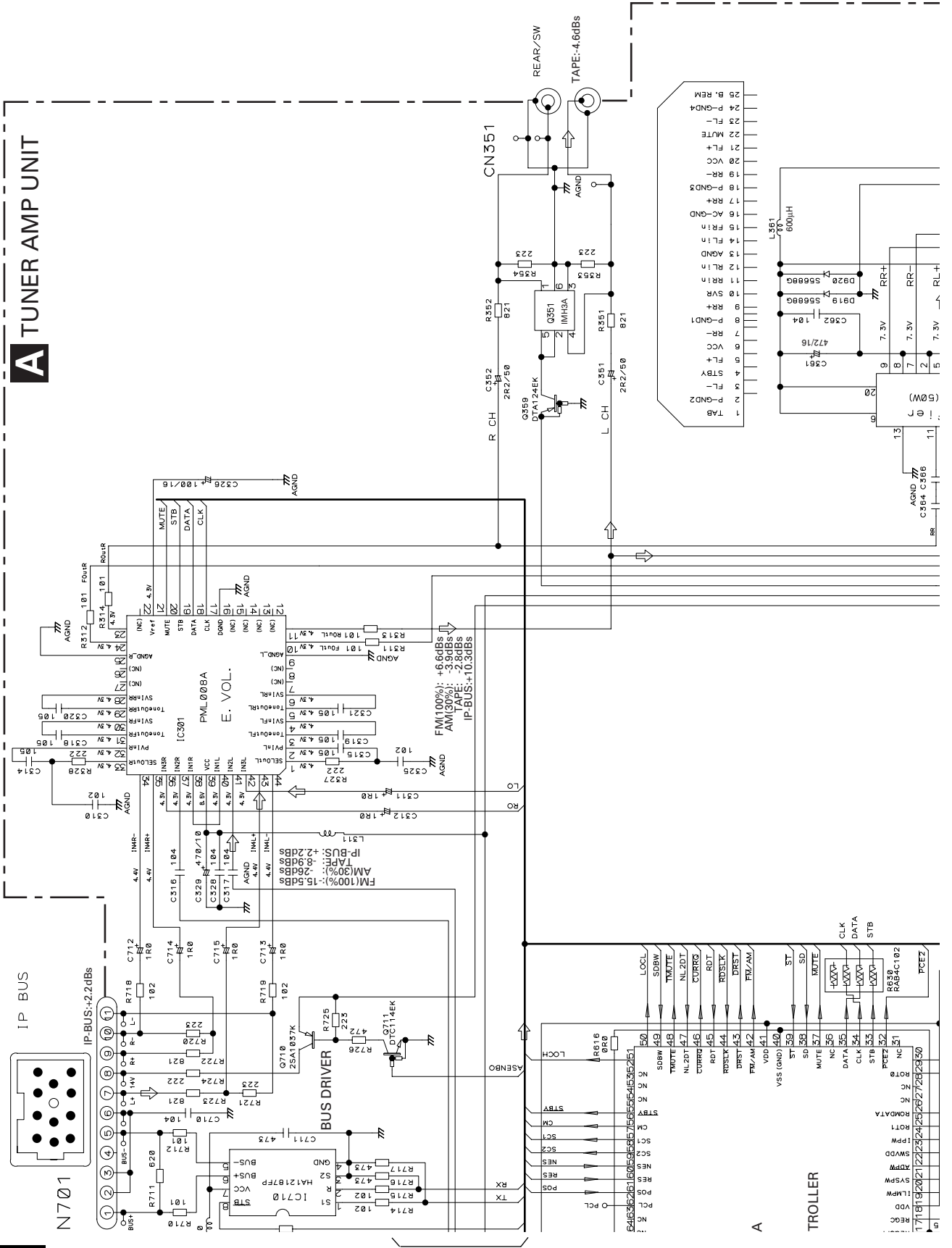
- Ex. *Resistors
 Code Practical value
 123 12k ohms
 103 10k ohms
- *Capacitors
 Code Practical value
 103 0.01uF
 101/10 100uF/10V

The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

A-a A-b

A-a B

A TUNER AMP UNIT



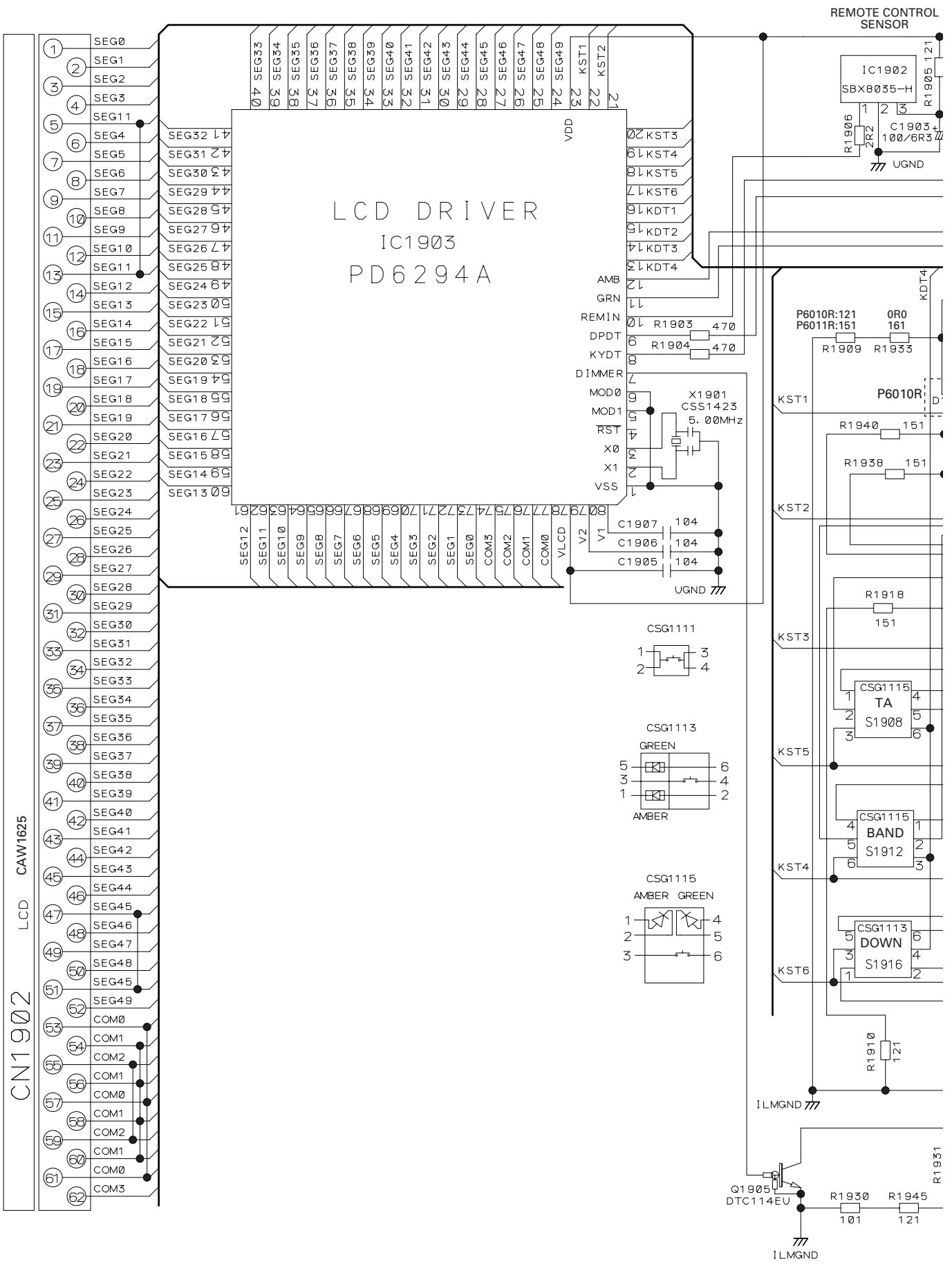
3.3 KEYBOARD UNIT(KEH-P6010R/X1M/EW,P6011R/X1M/EE)

A

B

C

D



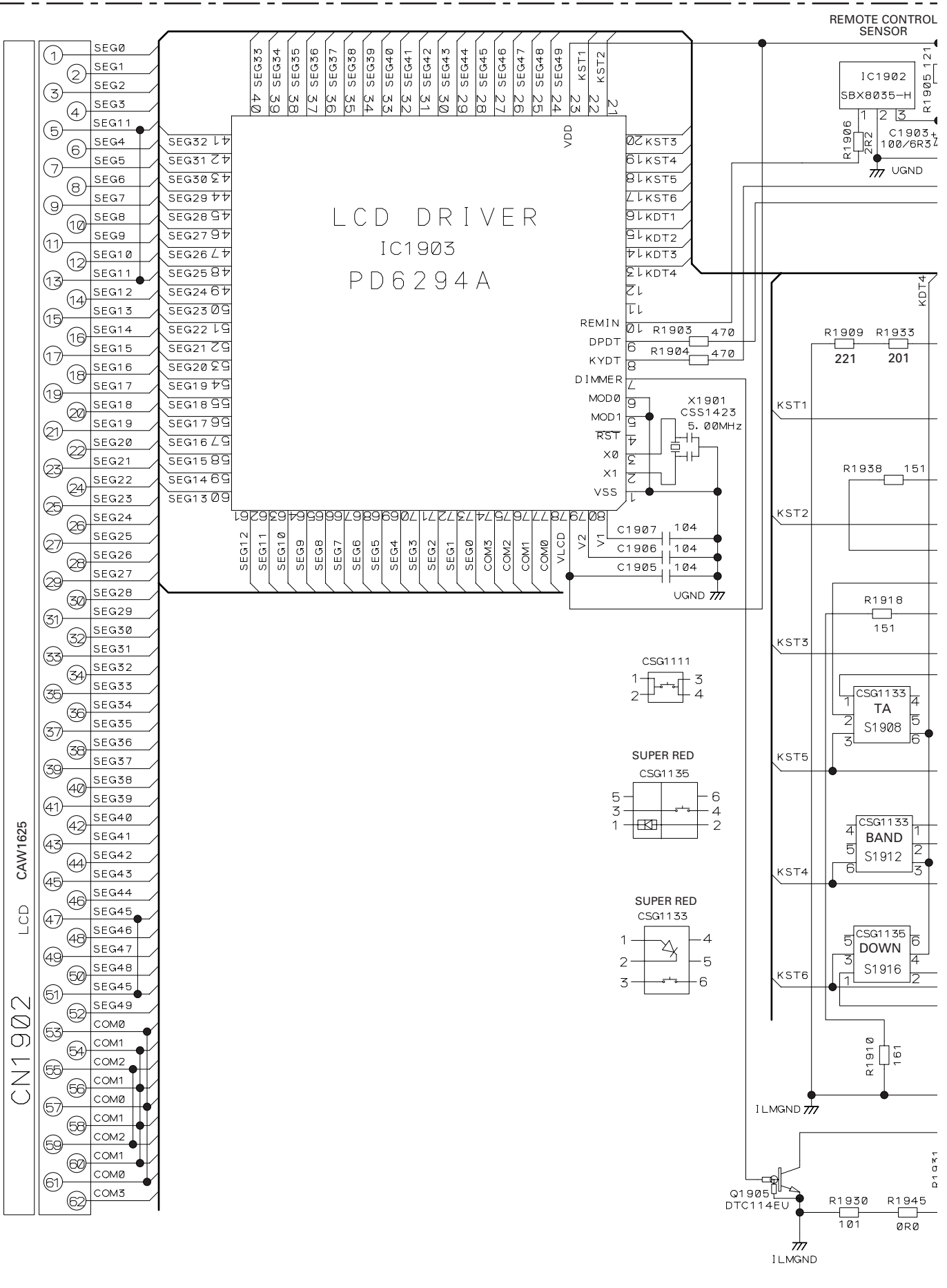
3.4 KEYBOARD UNIT(KEH-P6010RB/X1M/EW)

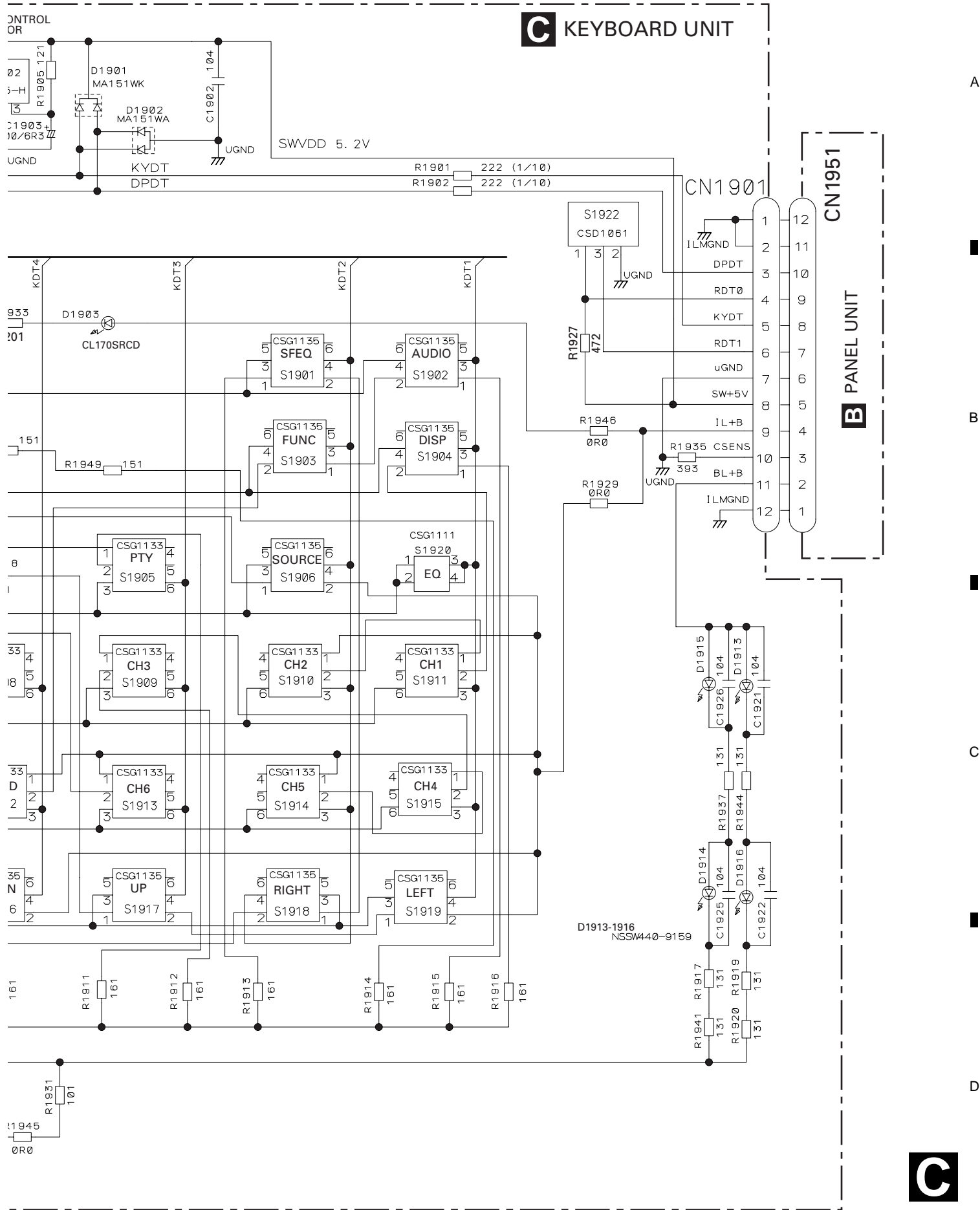
A

B

C

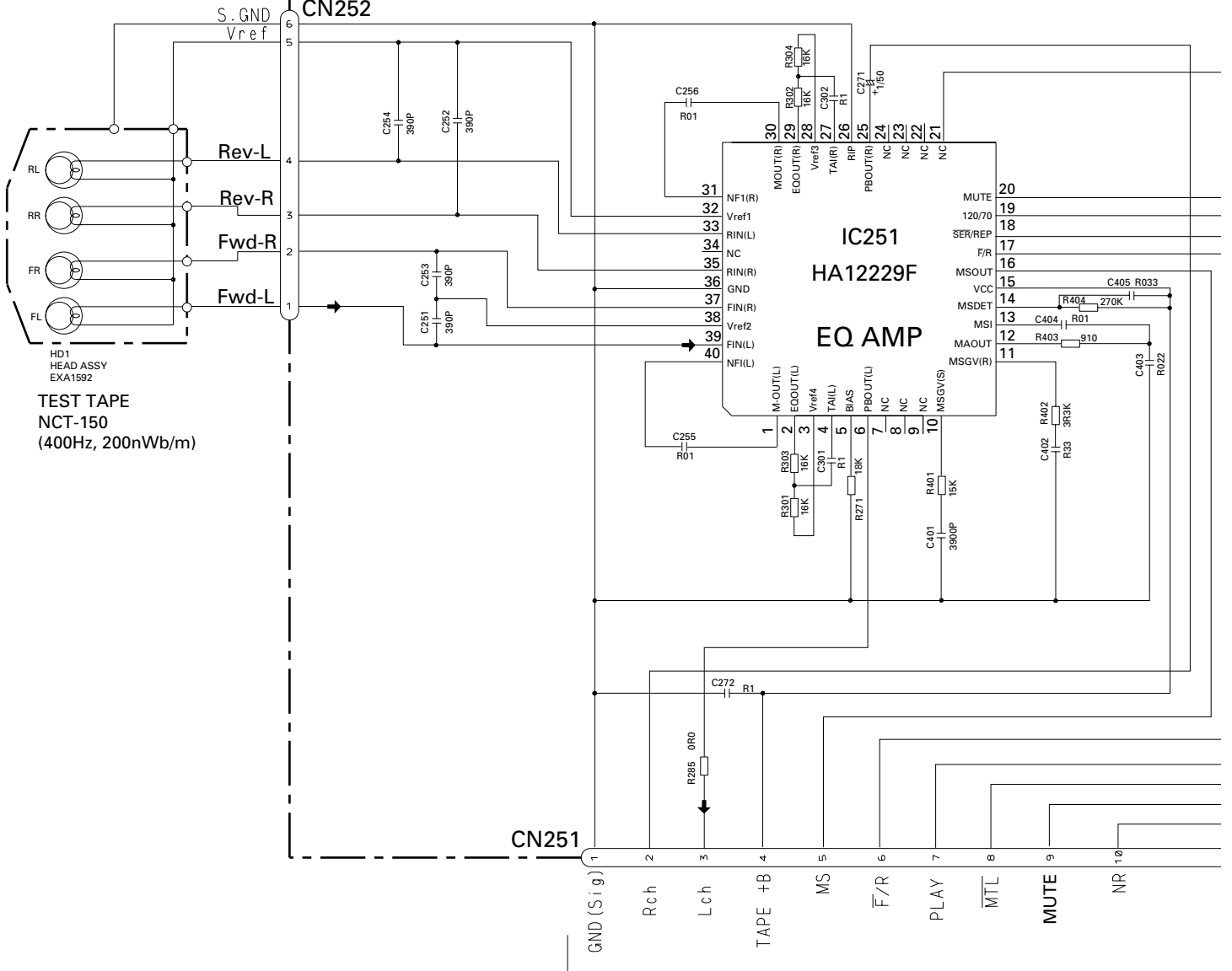
D





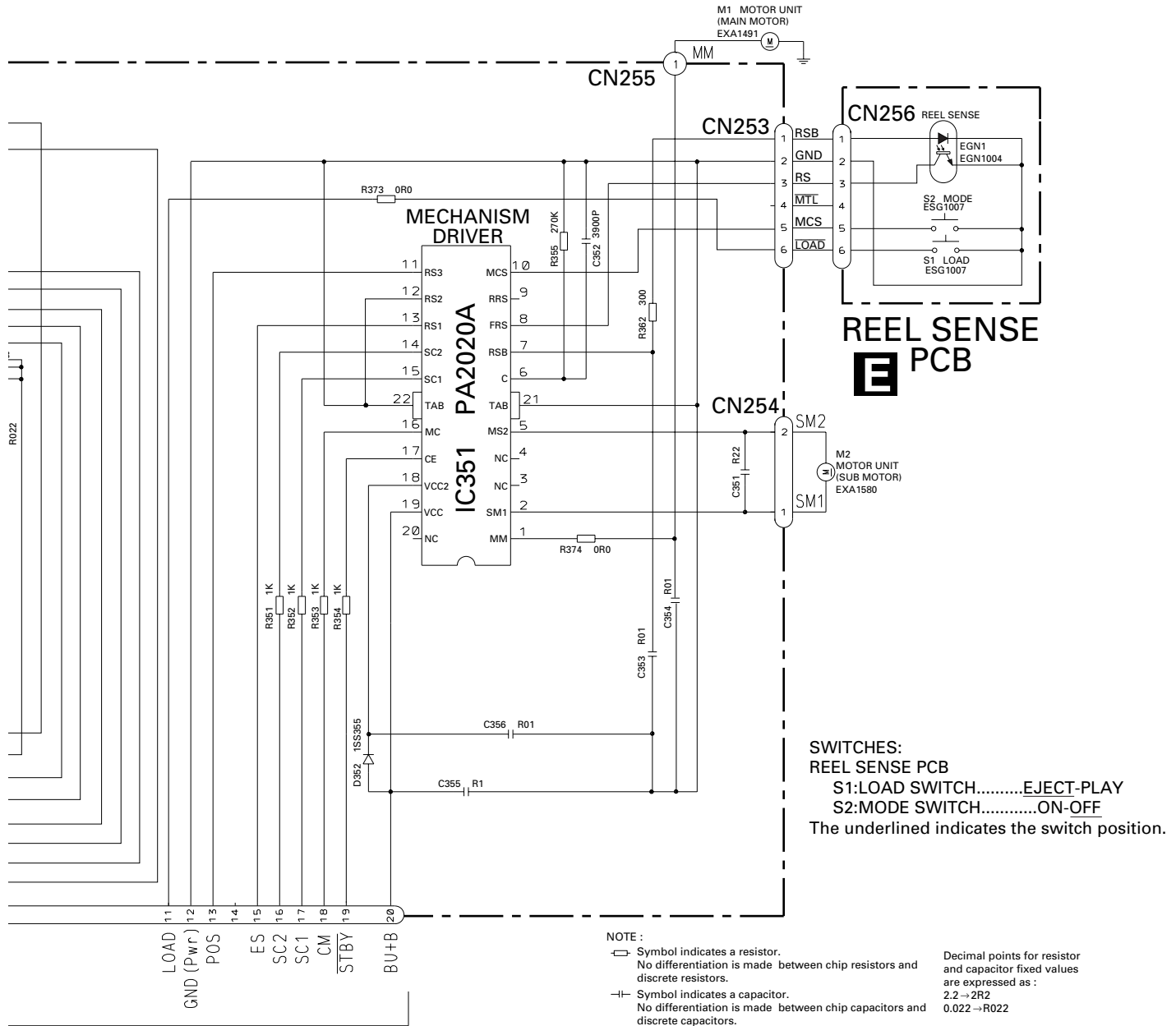
3.5 CASSETTE MECHANISM MODULE

D DECK UNIT



-8.24dB±4dB

A CN551



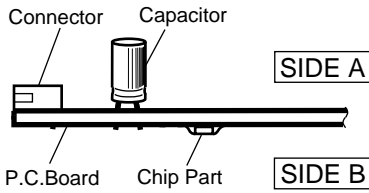
A
B
C
D

4. PCB CONNECTION DIAGRAM

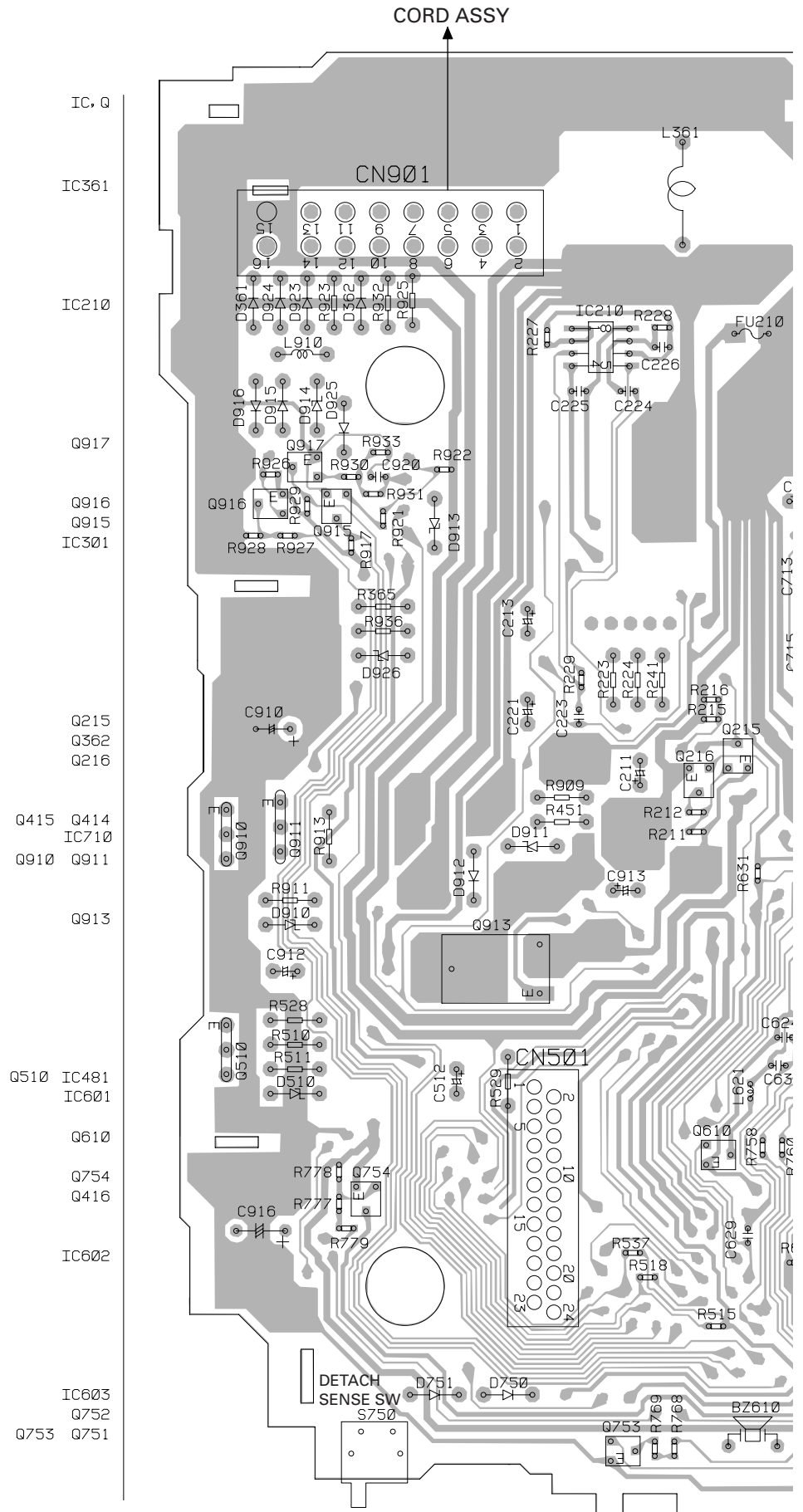
4.1 TUNER AMP UNIT

NOTE FOR PCB DIAGRAMS

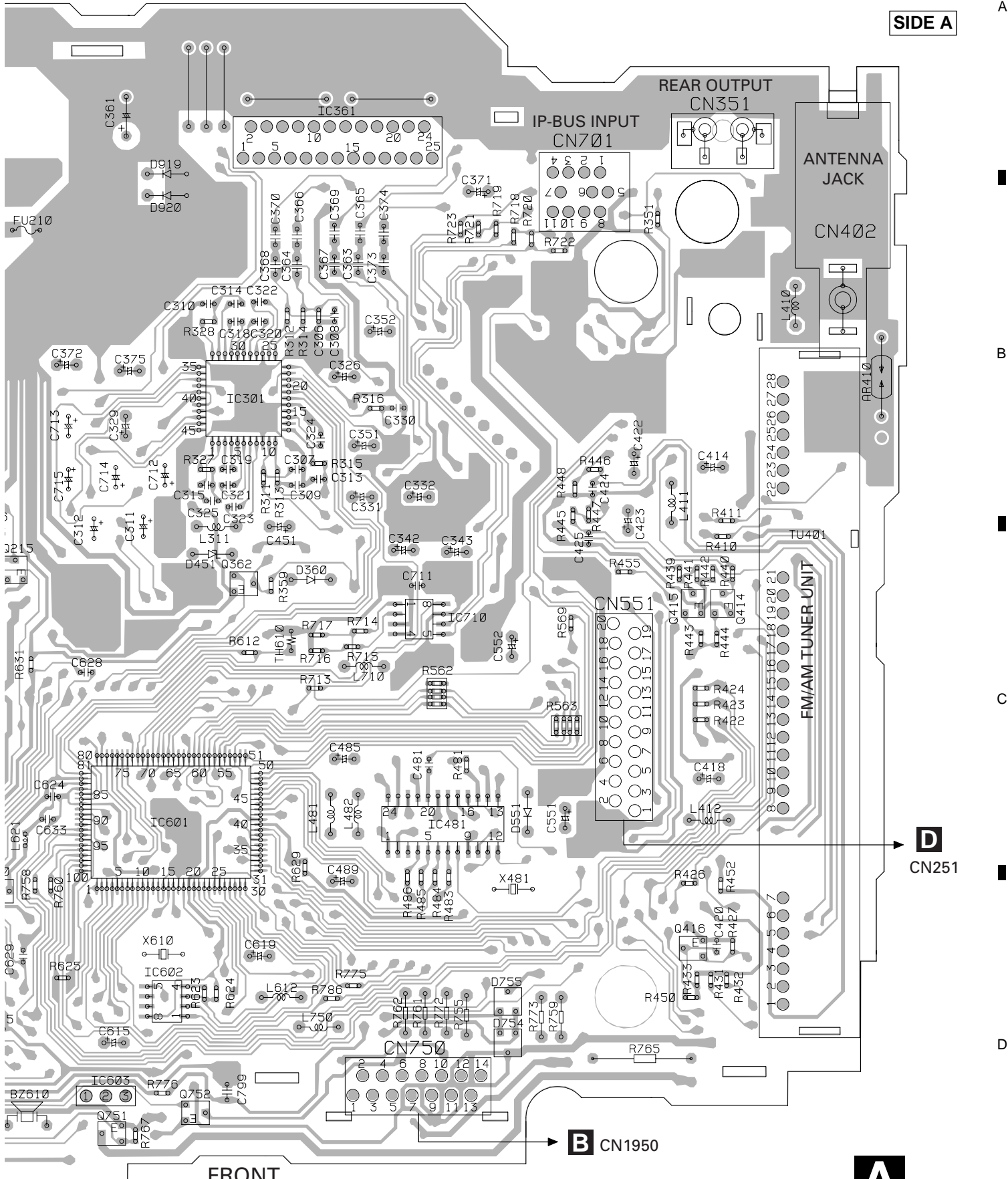
- The parts mounted on this PCB include all necessary parts for several destination. For further information for respective destinations, be sure to check with the schematic diagram.
- Viewpoint of PCB diagrams



A TUNER AMP UNIT



SIDE A



A

B

C

D

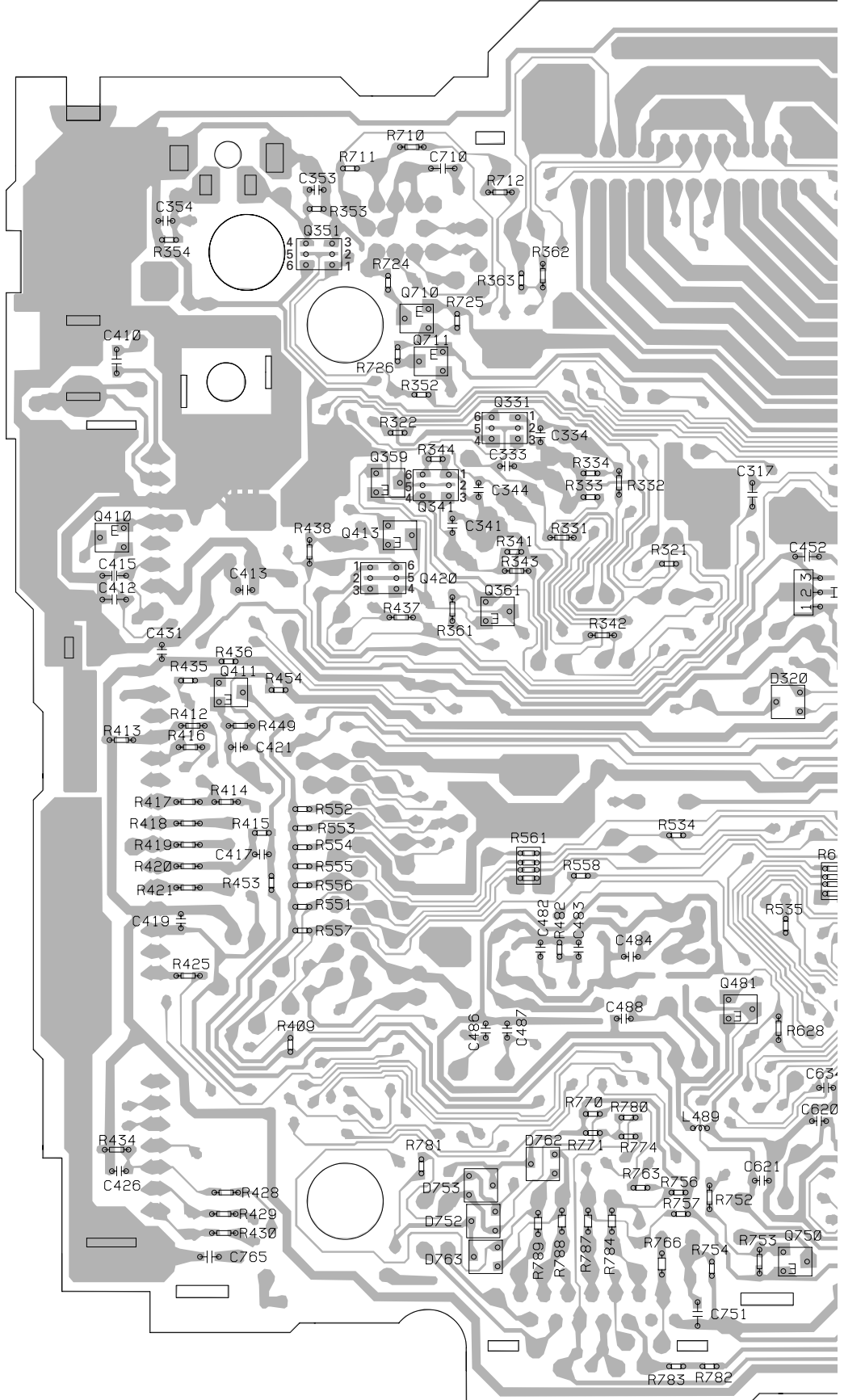
B CN1950

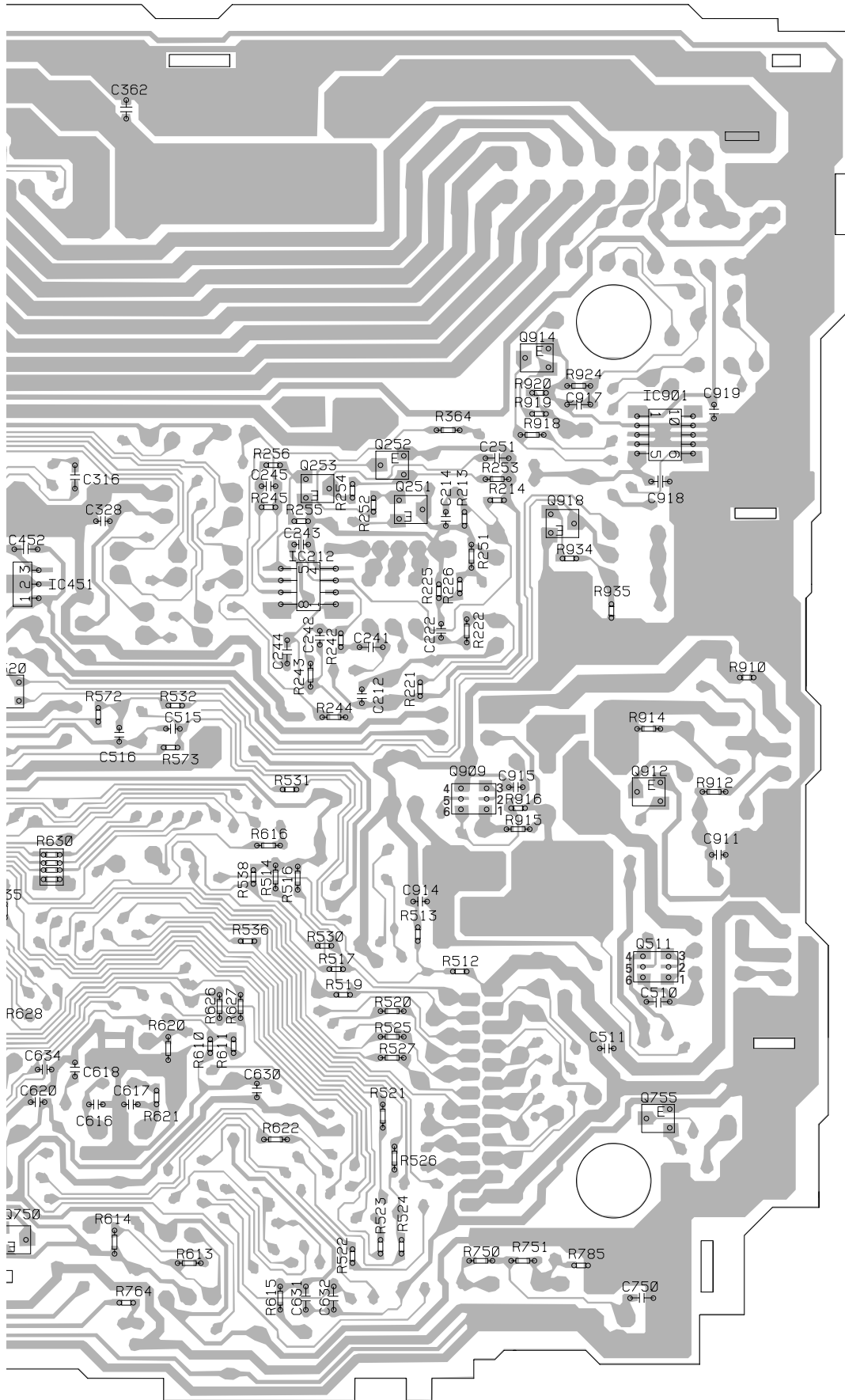
D CN251

FRONT

A

A TUNER AMP UNIT





SIDE B

IC, Q

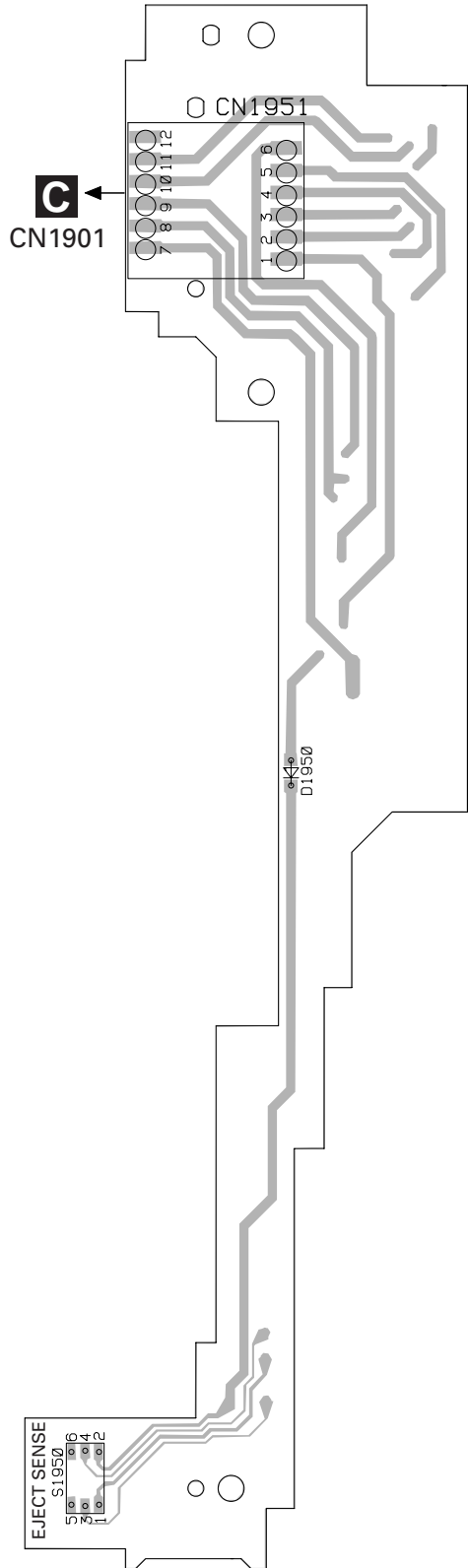
- Q351
- Q710
- Q711 Q914
- Q331 IC901
- Q252
- Q359 Q253
- Q341 Q251
- Q410 Q918
- Q413
- IC212
- Q420
- Q361 IC451
- Q411
- Q909 Q912
- Q511
- Q481
- Q755
- Q750

A B C D

4.2 PANEL UNIT

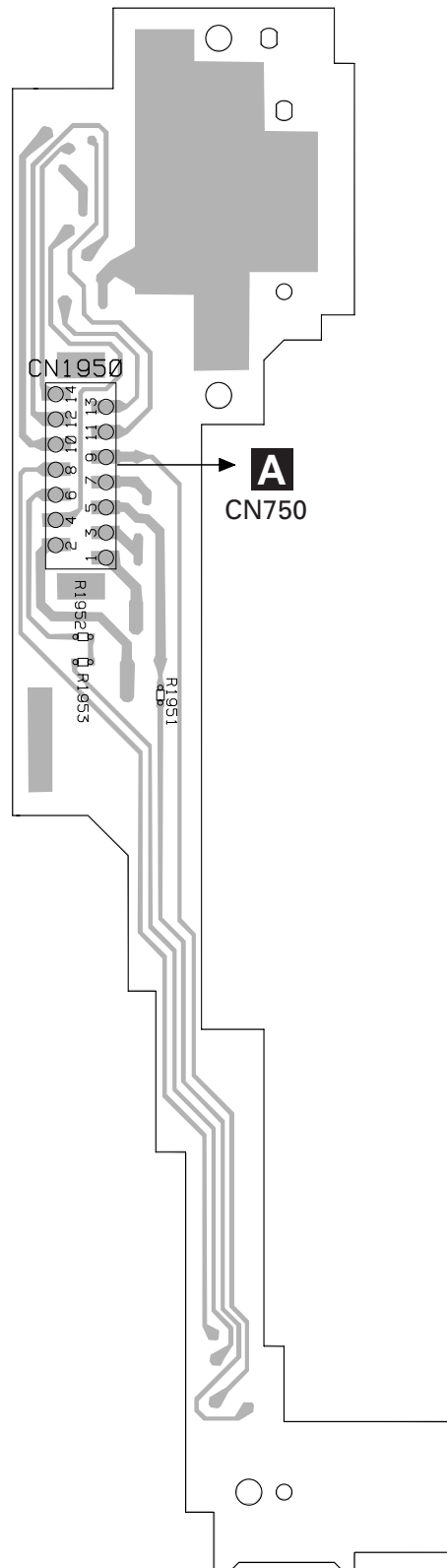
B PANEL UNIT

SIDE A



B PANEL UNIT

SIDE B



B

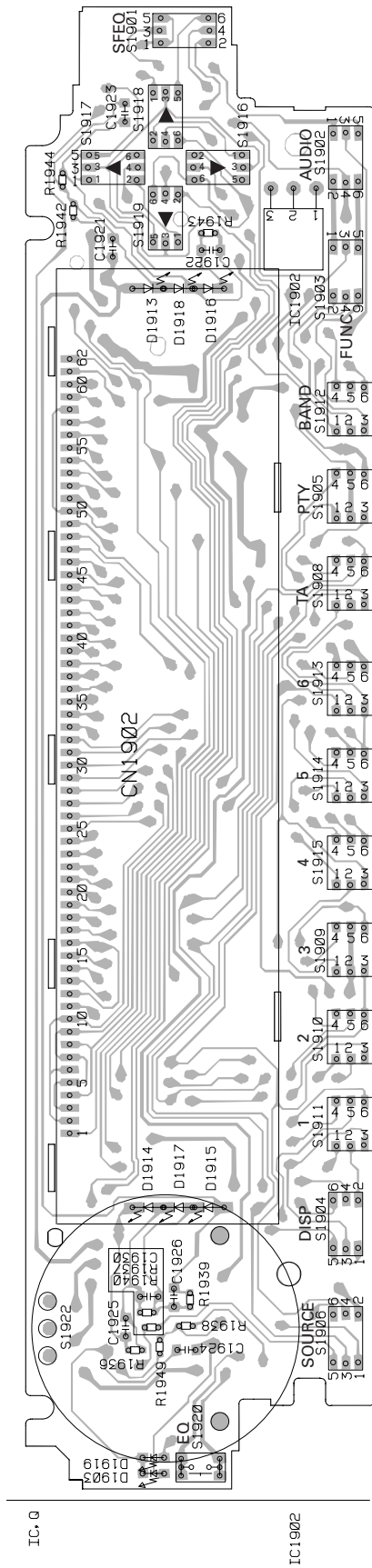
4.3 KEYBOARD UNIT

C KEYBOARD UNIT

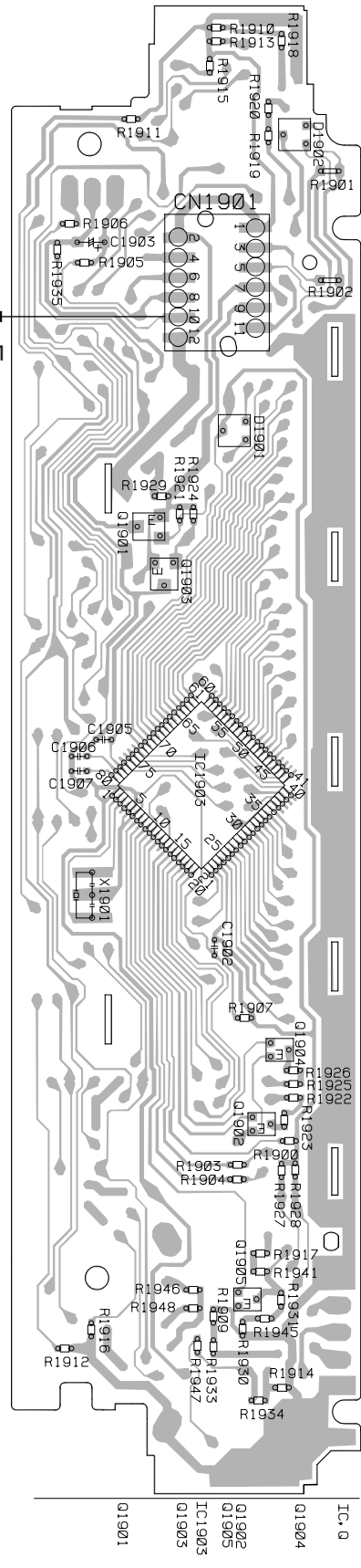
SIDE A

C KEYBOARD UNIT

SIDE B

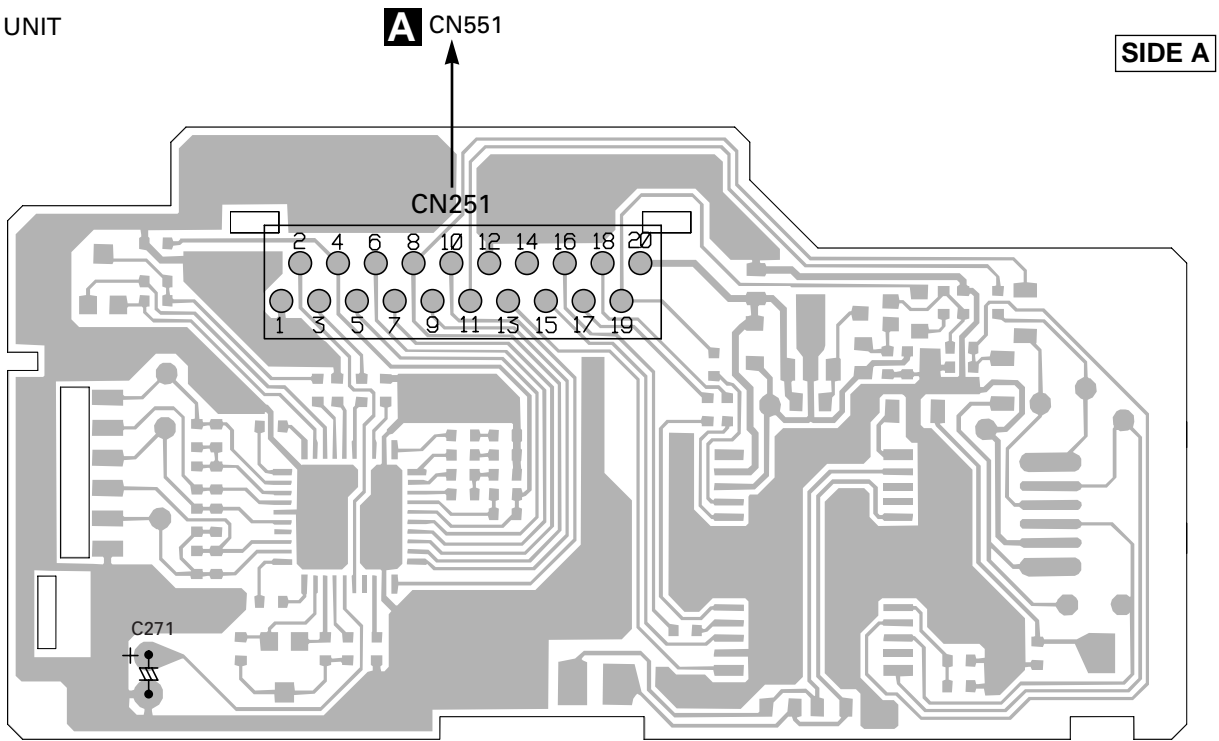


B CN1951

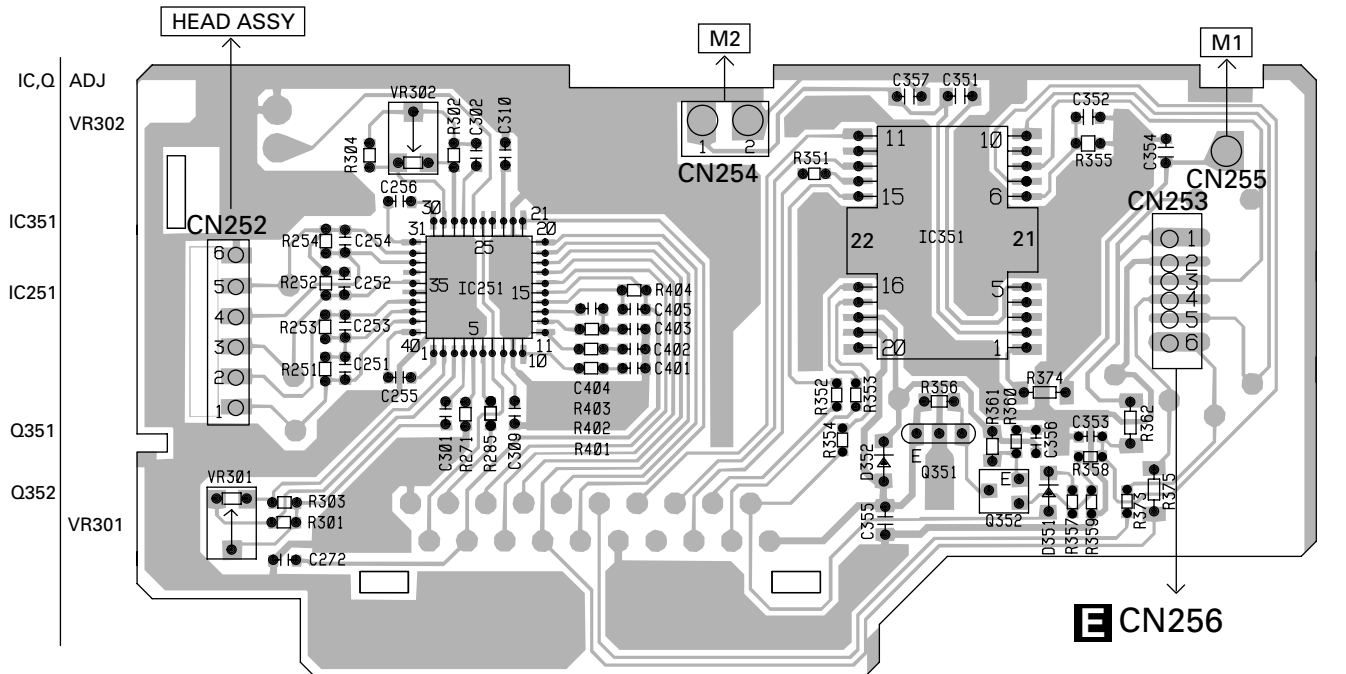


4.4 CASSETTE MECHANISM MODULE

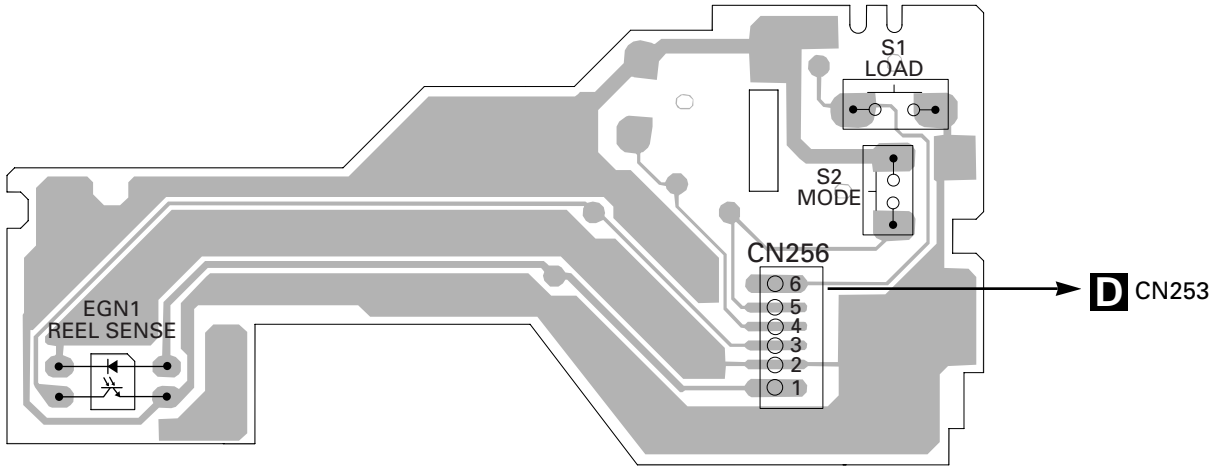
D DECK UNIT



D DECK UNIT



E REEL SENSE PCB



5. ELECTRICAL PARTS LIST

NOTES:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/OSOOOJ,RS1/OOSOOOJ

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

| ====Circuit Symbol and No.====Part Name | Part No. | ====Circuit Symbol and No.====Part Name | Part No. |
|---|------------|---|-------------|
| A Unit Number : CWM7391(KEH-P6010R/X1M/EW) | | D 911 Diode | HZS6L(B2) |
| Unit Number : CWM7393(KEH-P6010RB/X1M/EW) | | D 912 Diode | S5688G |
| Unit Number : CWM7389(KEH-P6011R/X1M/EE) | | D 913 Diode | HZS7L(C2) |
| Unit Name : Tuner Amp Unit | | D 914 Diode | HZS7L(A1) |
| | | D 915 Diode | 1SS270 |
| MISCELLANEOUS | | D 916 Diode | 1SS270 |
| IC 301 IC | PML008A | D 919 Diode | S5688G |
| IC 361 IC | PAL006A | D 920 Diode | S5688G |
| IC 481 IC | PM4009A | D 925 Diode | 1SS270 |
| IC 601 IC | PE5206A | D 926 Diode | HZS9L(A2) |
| IC 603 IC | S-80834ANY | L 311 Ferri-Inductor | LAU4R7K |
| IC 710 IC | HA12187FP | L 361 Choke Coil 600μH | CTH1221 |
| Q 351 Transistor | IMH3A | L 410 Ferri-Inductor | LAU4R7K |
| Q 359 Transistor | DTA124EK | L 411 Ferri-Inductor | LAU2R2K |
| Q 361 Transistor | DTC124EK | L 412 Ferri-Inductor | LAU2R2K |
| Q 362 Transistor | DTC114EK | L 481 Inductor | LAU100K |
| Q 410 Transistor | 2SC2412K | L 482 Ferri-Inductor | LAU101K |
| Q 411 Transistor | 2SC2412K | L 489 Inductor | CTF1346 |
| Q 413 Transistor | DTA114EK | L 612 Inductor | LAU100K |
| Q 414 Transistor | 2SD1757K | L 621 Inductor | CTF1346 |
| Q 415 Transistor | 2SD1757K | L 710 Ferri-Inductor | LAU2R2K |
| Q 416 Transistor | 2SC2412K | L 750 Ferri-Inductor | LAU2R2K |
| Q 420 Transistor | RN1610 | L 910 Ferri-Inductor | LAU2R2K |
| Q 481 Transistor | DTA124EK | X 481 Crystal Resonator 3.648MHz | CSS1447 |
| Q 610 Transistor | DTA114EK | X 610 Radiator 12.58291MHz | CSS1402 |
| Q 710 Transistor | 2SA1037K | S 750 Switch(Detach Sense SW) | CSN1039 |
| Q 711 Transistor | DTC114EK | BZ 610 Buzzer | CPV1050 |
| Q 750 Transistor | 2SA1037K | AR 410 Arrester | DSP-2011M |
| Q 751 Transistor | 2SA1036K | | CWE1562 |
| Q 752 Transistor | DTC114EK | | CWE1566 |
| Q 753 Transistor | DTC114EK | RESISTORS | |
| Q 754 Transistor | 2SA1037K | R 311 | RS1/16S101J |
| Q 755 Transistor | DTC114EK | R 312 | RS1/16S101J |
| Q 909 Transistor | RN46A1 | R 313 | RS1/16S101J |
| Q 910 Transistor | 2SD2396 | R 314 | RS1/16S101J |
| Q 911 Transistor | 2SB1243 | R 327 | RS1/16S222J |
| Q 912 Transistor | DTC114EK | R 328 | RS1/16S222J |
| Q 913 Transistor | 2SD1760F5 | R 351 | RS1/16S821J |
| Q 914 Transistor | 2SC2412K | R 352 | RS1/16S821J |
| Q 915 Transistor | 2SC2412K | R 353 | RS1/16S223J |
| Q 916 Transistor | 2SA1037K | R 354 | RS1/16S223J |
| Q 917 Transistor | 2SC2412K | R 361 | RS1/16S103J |
| Q 918 Transistor | 2SC2412K | R 362 | RS1/16S103J |
| D 320 Diode | DAN202U | R 363 | RS1/16S331J |
| D 361 Diode | S5688G | R 364 | RS1/16S153J |
| D 362 Diode | S5688G | R 365 | RD1/4PU182J |
| D 551 Diode | 1SS270 | R 409 | RS1/16S0R0J |
| D 750 Diode | 1SS270 | R 410 | RS1/16S222J |
| D 751 Diode | 1SS270 | R 411 | RS1/16S222J |
| D 752 Diode | DAP202U | R 412 | RS1/16S681J |
| D 753 Diode | DAN202U | R 413 | RS1/16S473J |
| D 754 Diode | DAP202U | R 414 | RS1/16S473J |
| D 755 Diode | DAN202U | R 415 | RS1/16S393J |
| D 762 Diode | DAN202U | R 416 | RS1/16S681J |
| D 763 Diode | DAP202U | R 417 | RS1/16S681J |
| D 910 Diode | HZS9L(B3) | R 418 | RS1/16S681J |

| ====Circuit Symbol and No.====Part Name | Part No. | ====Circuit Symbol and No.====Part Name | Part No. |
|--|-------------|---|-------------|
| R 419 | RS1/16S681J | R 712 | RS1/16S101J |
| R 420 | RS1/16S103J | R 713 | RS1/16S103J |
| R 421 | RS1/16S681J | R 714 | RS1/16S102J |
| R 422 | RS1/16S473J | R 715 | RS1/16S102J |
| R 423 | RS1/16S472J | R 716 | RS1/16S473J |
| R 424 | RS1/16S473J | R 717 | RS1/16S473J |
| R 425 | RS1/16S102J | R 718 | RS1/16S102J |
| R 426 | RS1/16S473J | R 719 | RS1/16S102J |
| R 427 | RS1/16S153J | R 720 | RS1/16S223J |
| R 428 | RS1/16S681J | R 721 | RS1/16S223J |
| R 429 | RS1/16S681J | R 722 | RS1/16S821J |
| R 430 | RS1/16S681J | R 723 | RS1/16S821J |
| R 431 | RS1/16S473J | R 724 | RS1/16S222J |
| R 432 | RS1/16S473J | R 725 | RS1/16S223J |
| R 433 | RS1/16S474J | R 726 | RS1/16S472J |
| R 434 | RS1/16S473J | R 750 | RS1/16S104J |
| R 435 | RS1/16S472J | R 751 | RS1/16S103J |
| R 439 | RS1/16S222J | R 752 | RS1/16S153J |
| R 440 | RS1/16S222J | R 753 | RS1/16S153J |
| R 441 | RS1/16S223J | R 754 | RS1/16S222J |
| R 442 | RS1/16S223J | R 756 | RS1/16S433J |
| R 443 | RS1/16S224J | R 757 | RS1/16S473J |
| R 444 | RS1/16S224J | R 758 | RS1/16S102J |
| R 445 | RS1/16S162J | R 759 | RD1/4PU222J |
| R 446 | RS1/16S162J | R 760 | RS1/16S102J |
| R 447 | RS1/16S272J | R 763 | RS1/16S222J |
| R 448 | RS1/16S272J | R 764 | RS1/16S131J |
| R 449 | RS1/16S224J | R 765 | RS1PMF390J |
| R 450 | RS1/16S681J | R 766 | RS1/10S270J |
| R 454 | RS1/16S0R0J | R 767 | RS1/16S103J |
| R 455 | RS1/16S0R0J | R 768 | RS1/16S152J |
| R 481 | RS1/16S102J | R 769 | RS1/16S152J |
| R 482 | RS1/16S225J | R 771 | RS1/16S473J |
| R 483 | RS1/16S681J | R 773 | RD1/4PU222J |
| R 484 | RS1/16S102J | R 774 | RS1/16S102J |
| R 485 | RS1/16S102J | R 775 | RS1/16S102J |
| R 486 | RS1/16S102J | R 776 | RS1/16S220J |
| R 551 | RS1/16S203J | R 777 | RS1/16S0R0J |
| R 552 | RS1/16S473J | R 778 | RS1/16S103J |
| R 553 | RS1/16S473J | R 779 | RS1/16S472J |
| R 554 | RS1/16S473J | R 781 | RS1/16S104J |
| R 555 | RS1/16S104J | R 782 | RS1/16S131J |
| R 556 | RS1/16S473J | R 783 | RS1/16S131J |
| R 557 | RS1/16S473J | R 784 | RS1/10S392J |
| R 558 | RS1/16S102J | R 786 | RS1/16S102J |
| R 561 | RAB4C102J | R 787 | RS1/10S472J |
| R 562 | RAB4C102J | R 788 | RS1/10S222J |
| R 563 | RAB4C102J | R 789 | RS1/10S222J |
| R 569 | RS1/16S681J | R 909 | RD1/4PU0R0J |
| R 572 | RS1/16S102J | R 910 | RS1/16S0R0J |
| R 573 | RS1/16S102J | R 911 | RD1/4PU121J |
| R 610 (KEH-P6010R/X1M/EW,P6010RB/X1M/EW) | RS1/16S473J | R 912 | RS1/16S102J |
| R 611 (KEH-P6010RB/X1M/EW,P6011R/X1M/EE) | RS1/16S473J | R 913 | RD1/4PU102J |
| R 613 | RS1/16S102J | R 914 | RS1/16S103J |
| R 614 | RS1/16S821J | R 915 | RS1/16S222J |
| R 615 | RS1/16S102J | R 916 | RS1/16S133J |
| R 616 | RS1/16S0R0J | R 917 | RS1/16S104J |
| R 620 | RS1/16S473J | R 918 | RS1/16S104J |
| R 621 | RS1/16S0R0J | R 919 | RS1/16S223J |
| R 622 | RS1/16S101J | R 920 | RS1/16S473J |
| R 624 | RS1/16S104J | R 921 | RS1/16S103J |
| R 625 | RS1/16S0R0J | R 922 | RS1/16S473J |
| R 630 | RAB4C102J | R 923 | RD1/4PU102J |
| R 710 | RS1/16S101J | R 924 | RS1/16S472J |
| R 711 | RS1/16S620J | R 925 | RD1/4PU153J |

KEH-P6010R,P6010RB,P6011R

| ====Circuit Symbol and No.====Part Name | Part No. | ====Circuit Symbol and No.====Part Name | Part No. |
|---|---------------|---|------------------------|
| R 926 | RS1/16S472J | C 552 | CEJA220M16 |
| R 927 | RS1/16S102J | C 615 | CEAL2R2M50 |
| R 928 | RS1/16S473J | C 616 | CCSRCH200J50 |
| R 929 | RS1/16S104J | C 617 | CCSRCH200J50 |
| R 930 | RS1/16S103J | C 618 | CKSRYB105K6R3 |
| R 931 | RS1/16S103J | C 619 | CEAL4R7M35 |
| R 932 | RD1/4PU102J | C 620 | CKSRYB103K50 |
| R 933 | RS1/16S473J | C 621 | CCSRCH101J50 |
| R 934 | RS1/16S103J | C 624 | CKSRYB223K25 |
| R 935 | RS1/16S223J | C 629 | CCSRCH101J50 |
| R 936 | RD1/4PU152J | C 630 | CKSRYB103K50 |
| CAPACITORS | | C 631 | CCSRCH101J50 |
| C 310 | CKSRYB102K50 | C 632 | CCSRCH101J50 |
| C 311 | CEJA1R0M50 | C 633 | CKSRYB103K50 |
| C 312 | CEJA1R0M50 | C 634 | CKSRYB472K50 |
| C 314 | CKSRYB105K6R3 | C 710 | CKSRYB104K16 |
| C 315 | CKSRYB105K6R3 | C 711 | CKSRYB473K16 |
| C 316 | CKSRYB104K16 | C 712 | CEJA1R0M50 |
| C 317 | CKSRYB104K16 | C 713 | CEJA1R0M50 |
| C 318 | CKSRYB105K6R3 | C 714 | CEJA1R0M50 |
| C 319 | CKSRYB105K6R3 | C 715 | CEJA1R0M50 |
| C 320 | CKSRYB105K6R3 | C 750 | CKSRYB103K25 |
| C 321 | CKSRYB105K6R3 | C 751 | CKSQYB104K16 |
| C 325 | CKSRYB102K50 | C 765 | CKSQYB103K50 |
| C 326 | CEJA100M16 | C 799 | CKSQYB473K16 |
| C 328 | CKSRYB104K16 | C 910 | 330µF/16V |
| C 329 | CEJA470M10 | C 911 | CCH1326 |
| C 351 | CEJA2R2M50 | C 912 | CKSRYB103K25 |
| C 352 | CEJA2R2M50 | C 913 | CEJA101M16 |
| C 361 | 4700µF/16V | C 914 | CEJA101M10 |
| C 362 | CCH1367 | C 915 | CKSRYB473K16 |
| C 363 | CKSQYB104K16 | C 916 | CKSRYB103K25 |
| C 363 | CKSQYB474K16 | C 920 | CCH1331 |
| C 364 | CKSQYB474K16 | | CKSRYB104K16 |
| C 365 | CKSQYB474K16 | Unit Number : CWM7413(KEH-P6010R/X1M/EW) | |
| C 366 | CKSQYB474K16 | Unit Number : CWM7411(KEH-P6011R/X1M/EE) | |
| C 367 | CKSQYB474K16 | Unit Name : Keyboard Unit | |
| C 368 | CKSQYB474K16 | MISCELLANEOUS | |
| C 369 | CKSQYB474K16 | IC 1902 | IC |
| C 370 | CKSQYB474K16 | IC 1903 | IC |
| C 371 | CEJA330M10 | Q 1901 | Transistor |
| C 373 | CKSQYB225K10 | Q 1902 | Transistor |
| C 374 | CKSQYB225K10 | Q 1903 | Transistor |
| C 375 | CEJA100M16 | Q 1904 | Transistor |
| C 410 | CKSQYB103K50 | Q 1905 | Transistor |
| C 412 | CKSRYB223K25 | D 1901 | Chip Diode |
| C 413 | CKSRYB102K50 | D 1902 | Chip Diode |
| C 414 | CEJA220M10 | D 1903 | LED(KEH-P6010R/X1M/EW) |
| C 415 | CKSRYB223K25 | | LED(KEH-P6011R/X1M/EE) |
| C 418 | CEAL101M10 | D 1917 | LED |
| C 419 | CKSRYB473K16 | D 1918 | LED |
| C 420 | CKSRYB472K50 | D 1919 | LED(KEH-P6010R/X1M/EW) |
| C 421 | CKSRYB223K25 | X 1901 | Radiator 5.00MHz |
| C 422 | CEJA1R0M50 | S 1901 | Push Switch |
| C 423 | CEJA1R0M50 | S 1902 | Push Switch |
| C 424 | CKSRYB123K25 | S 1903 | Push Switch |
| C 425 | CKSRYB123K25 | S 1904 | Push Switch |
| C 426 | CKSRYB182K50 | S 1905 | Push Switch |
| C 481 | CCSRCH471J50 | S 1906 | Push Switch |
| C 482 | CKSRYB104K16 | S 1908 | Push Switch |
| C 483 | CKSRYB471K50 | S 1909 | Push Switch |
| C 484 | CKSRYB104K16 | S 1910 | Push Switch |
| C 485 | CEAL220M6R3 | S 1911 | Push Switch |
| C 486 | CCSRCH270J50 | S 1912 | Push Switch |
| C 487 | CCSRCH270J50 | S 1913 | Push Switch |
| C 488 | CKSRYB104K16 | S 1914 | Push Switch |
| C 489 | CEAL220M6R3 | S 1915 | Push Switch |
| C 551 | CEJA220M10 | S 1916 | Push Switch |

| ====Circuit Symbol and No.====Part Name | Part No. | ====Circuit Symbol and No.====Part Name | Part No. |
|---|--------------|---|--------------|
| S 1917 Push Switch | CSG1113 | D 1903 LED | CL170SRC |
| S 1918 Push Switch | CSG1113 | D 1913 LED | NSSW440-9159 |
| S 1919 Push Switch | CSG1113 | D 1914 LED | NSSW440-9159 |
| S 1920 Push Switch | CSG1111 | D 1915 LED | NSSW440-9159 |
| S 1922 Switch | CSD1061 | D 1916 LED | NSSW440-9159 |
| LCD | CAW1627 | X 1901 Radiator 5.00MHz | CSS1423 |
| RESISTORS | | S 1901 Push Switch | CSG1135 |
| R 1901 | RS1/10S222J | S 1902 Push Switch | CSG1135 |
| R 1902 | RS1/10S222J | S 1903 Push Switch | CSG1135 |
| R 1903 | RS1/16S470J | S 1904 Push Switch | CSG1135 |
| R 1904 | RS1/16S470J | S 1905 Push Switch | CSG1133 |
| R 1905 | RS1/16S121J | S 1906 Push Switch | CSG1135 |
| R 1906 | RS1/16S2R2J | S 1908 Push Switch | CSG1133 |
| R 1909 | RS1/16S121J | S 1909 Push Switch | CSG1133 |
| R 1910 | RS1/16S121J | S 1910 Push Switch | CSG1133 |
| R 1911 | RS1/16S121J | S 1911 Push Switch | CSG1133 |
| R 1912 | RS1/16S121J | S 1912 Push Switch | CSG1133 |
| R 1913 | RS1/16S121J | S 1913 Push Switch | CSG1133 |
| R 1914 (KEH-P6011R/X1M/EE) | RS1/16S121J | S 1914 Push Switch | CSG1133 |
| R 1915 | RS1/16S121J | S 1915 Push Switch | CSG1133 |
| R 1916 | RS1/16S121J | S 1916 Push Switch | CSG1135 |
| R 1917 | RS1/16S131J | S 1917 Push Switch | CSG1135 |
| R 1918 | RS1/16S151J | S 1918 Push Switch | CSG1135 |
| R 1919 | RS1/16S131J | S 1919 Push Switch | CSG1135 |
| R 1920 | RS1/16S131J | S 1920 Push Switch | CSG1111 |
| R 1921 | RS1/16S103J | S 1922 Switch | CSD1061 |
| R 1922 | RS1/16S331J | LCD | CAW1625 |
| R 1923 | RS1/16S331J | RESISTORS | |
| R 1924 | RS1/16S103J | R 1901 | RS1/10S222J |
| R 1925 | RS1/16S331J | R 1902 | RS1/10S222J |
| R 1926 | RS1/16S331J | R 1903 | RS1/16S470J |
| R 1927 | RS1/16S472J | R 1904 | RS1/16S470J |
| R 1930 | RS1/16S101J | R 1905 | RS1/16S121J |
| R 1931 | RS1/16S101J | R 1906 | RS1/16S2R2J |
| R 1933 | RS1/16S0R0J | R 1909 | RS1/16S221J |
| R 1934 (KEH-P6011R/X1M/EE) | RS1/16S151J | R 1910 | RS1/16S161J |
| R 1935 | RS1/16S393J | R 1911 | RS1/16S161J |
| R 1936 | RS1/16S131J | R 1912 | RS1/16S161J |
| R 1938 | RS1/16S151J | R 1913 | RS1/16S161J |
| R 1939 | RS1/16S131J | R 1914 | RS1/16S161J |
| R 1940 | RS1/16S151J | R 1915 | RS1/16S161J |
| R 1941 | RS1/16S131J | R 1916 | RS1/16S161J |
| R 1942 | RS1/16S131J | R 1917 | RS1/16S131J |
| R 1943 | RS1/16S131J | R 1918 | RS1/16S151J |
| R 1945 | RS1/16S121J | R 1919 | RS1/16S131J |
| R 1946 (KEH-P6011R/X1M/EE) | RS1/16S0R0J | R 1920 | RS1/16S131J |
| R 1947 (KEH-P6010R/X1M/EW) | RS1/16S0R0J | R 1927 | RS1/16S472J |
| R 1948 (KEH-P6010R/X1M/EW) | RS1/16S0R0J | R 1929 | RS1/16S0R0J |
| R 1949 (KEH-P6011R/X1M/EE) | RS1/16S151J | R 1930 | RS1/16S101J |
| CAPACITORS | | R 1931 | RS1/16S101J |
| C 1902 | CKSRYB104K16 | R 1933 | RS1/16S201J |
| C 1903 | CSZS100M6R3 | R 1935 | RS1/16S393J |
| C 1905 | CKSRYB104K16 | R 1937 | RS1/16S151J |
| C 1906 | CKSRYB104K16 | R 1938 | RS1/16S151J |
| C 1907 | CKSRYB104K16 | R 1941 | RS1/16S131J |
| C 1923 | CKSQYB104K16 | R 1944 | RS1/16S151J |
| C 1924 (KEH-P6011R/X1M/EE) | CKSRYB104K16 | R 1945 | RS1/16S0R0J |
| C 1930 | CKSQYB104K16 | R 1946 | RS1/16S0R0J |
| MISCELLANEOUS | | R 1949 | RS1/16S151J |
| IC 1902 IC | SBX8035-H | CAPACITORS | |
| IC 1903 IC | PD6294A | C 1902 | CKSRYB104K16 |
| Q 1905 Transistor | DTC114EU | C 1903 | CSZS100M6R3 |
| D 1901 Chip Diode | MA151WK | C 1905 | CKSRYB104K16 |
| D 1902 Chip Diode | MA151WA | C 1906 | CKSRYB104K16 |
| | | C 1907 | CKSRYB104K16 |
| | | C 1921 | CKSQYB104K16 |
| | | C 1922 | CKSQYB104K16 |
| | | C 1925 | CKSQYB104K16 |
| | | C 1926 | CKSQYB104K16 |

C Unit Number : CWM7415(KEH-P6010RB/X1M/EW)
 Unit Name : Keyboard Unit

====Circuit Symbol and No.====Part Name Part No.

B Unit Number : CWM7627
Unit Name : Panel Unit

MISCELLANEOUS

S 1950 Push Switch(EJECT SENSE) CSG1112

RESISTORS

R 1951 RS1/16S101J
R 1952 RS1/16S101J
R 1953 RS1/16S101J

D Unit Number :
Unit Name : Deck Unit

MISCELLANEOUS

IC 251 IC HA12229F
IC 351 IC PA2020A
D 352 Diode 1SS355

RESISTORS

R 271 RS1/16S183J
R 285 RS1/16S0R0J
R 301 RS1/16S163J
R 302 RS1/16S163J
R 303 RS1/16S163J

R 304 RS1/16S163J
R 351 RS1/16S102J
R 352 RS1/16S102J
R 353 RS1/16S102J
R 354 RS1/16S102J

R 355 RS1/16S274J
R 362 RS1/8S301J
R 373 RS1/16S0R0J
R 374 RS1/8S0R0J
R 401 RS1/16S153J

R 402 RS1/16S332J
R 403 RS1/16S911J
R 404 RS1/16S274J

====Circuit Symbol and No.====Part Name Part No.

CAPACITORS

C 251 CKSRYB391K50
C 252 CKSRYB391K50
C 253 CKSRYB391K50
C 254 CKSRYB391K50
C 255 CKSRYB103K50

C 256 CKSRYB103K50
C 271 ECH0002
C 272 CKSRYB104K16
C 301 CKSRYB104K16
C 302 CKSRYB104K16

C 351 CKSQYB224K25
C 352 CKSRYB392K50
C 353 CKSRYB103K50
C 354 CKSRYB103K50
C 355 CKSQYB104K50

C 356 CKSRYB103K50
C 401 CKSRYB392K50
C 402 CKSRYB334K10
C 403 CKSRYB223K25
C 404 CKSRYB103K50

C 405 CKSRYB333K16

E Unit Number :
Unit Name : Reel Sense PCB

S 1 Switch(LOAD) ESG1007
S 2 Switch(MODE) ESG1007
EGN 1 Photo-reflector EGN1004

Miscellaneous Parts List

M 1 Motor Unit(MAIN) EXA1491
M 2 Motor Unit(SUB) EXA1580
HD 1 Head Assy EXA1592

6. ADJUSTMENT

There is no information to be shown in this chapter.

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 DISASSEMBLY

● Removing the Case (not shown)

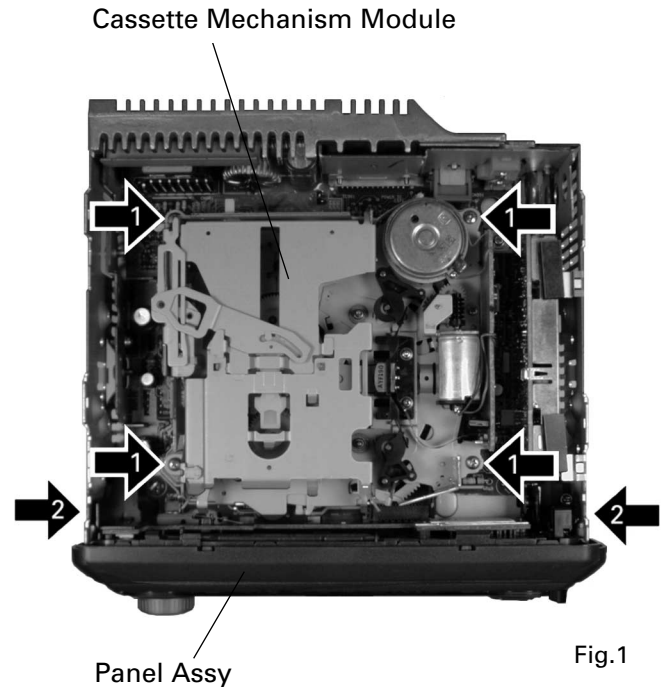
1. Remove the Case.

● Removing the Cassette Mechanism Module (Fig.1)

1 Remove the four screws and then remove the Cassette Mechanism Module.

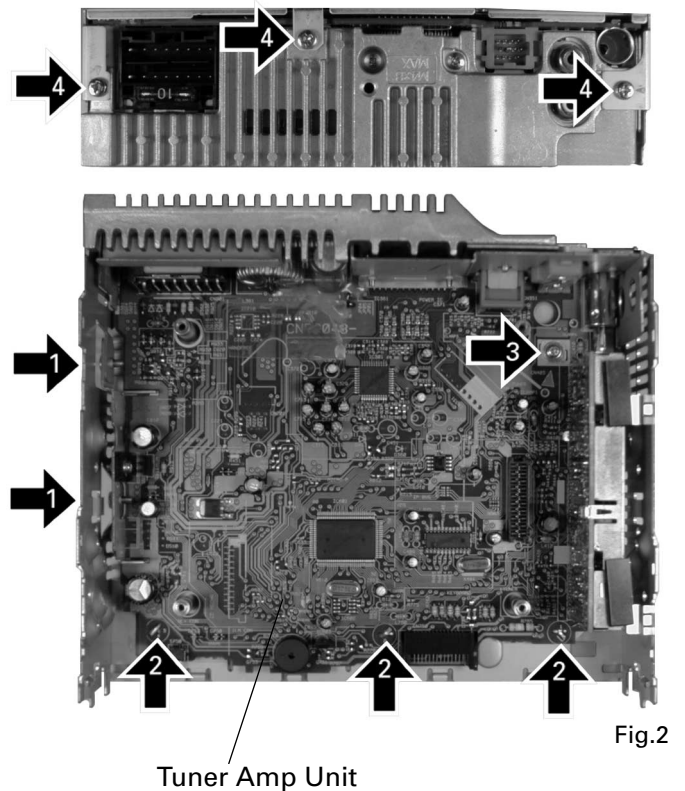
● Removing the Panel Assy (Fig.1)

2 Remove the two screws and then remove the Panel Assy.



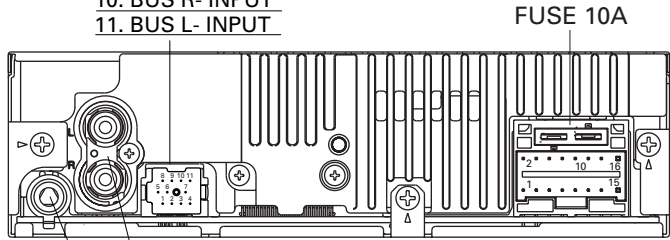
● Removing the Tuner Amp Unit (Fig.2)

- 1** Remove the two screws.
- 2** Straight the tabs at three locations indicated.
- 3** Remove the screw.
- 4** Remove the three screws and then remove the Tuner Amp Unit.



7.1.2 CONNECTOR FUNCTION DESCRIPTION

- 1. BUS+
- 2. GND
- 3. GND
- 4. NC
- 5. BUS-
- 6. GND
- 7. BUS L+ INPUT
- 8. ASEN B
- 9. BUS R+ INPUT
- 10. BUS R- INPUT
- 11. BUS L- INPUT



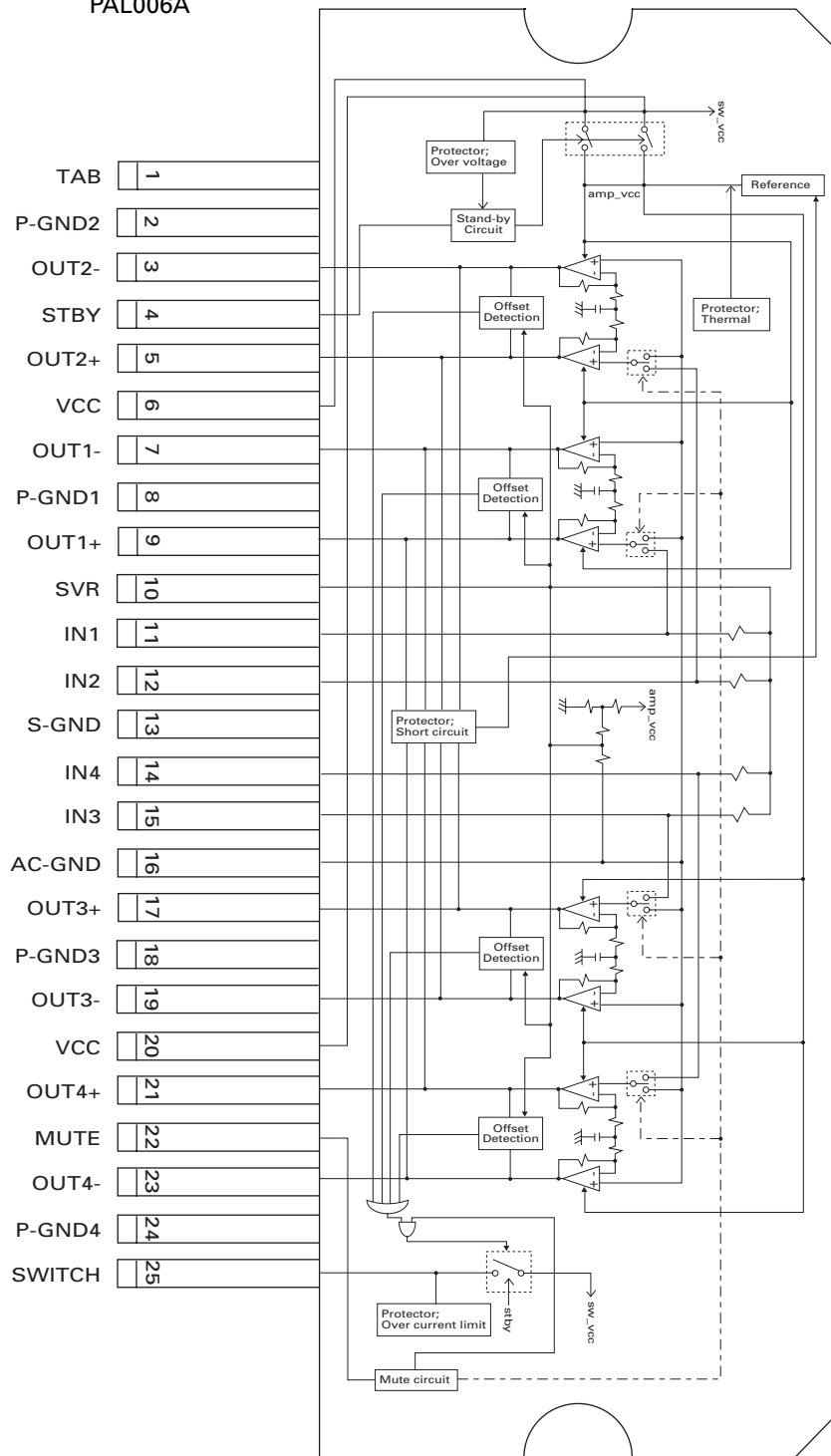
REAR OUTPUT
ANTENNA JACK

- 1. RR+
- 2. FR+
- 3. RR-
- 4. FR-
- 5. RL+
- 6. FL+
- 7. RL-
- 8. FL-
- 9. NC
- 10. TEL
- 11. ILM
- 12. B.REM
- 13. ACC
- 14. NC
- 15. B.UP
- 16. GND

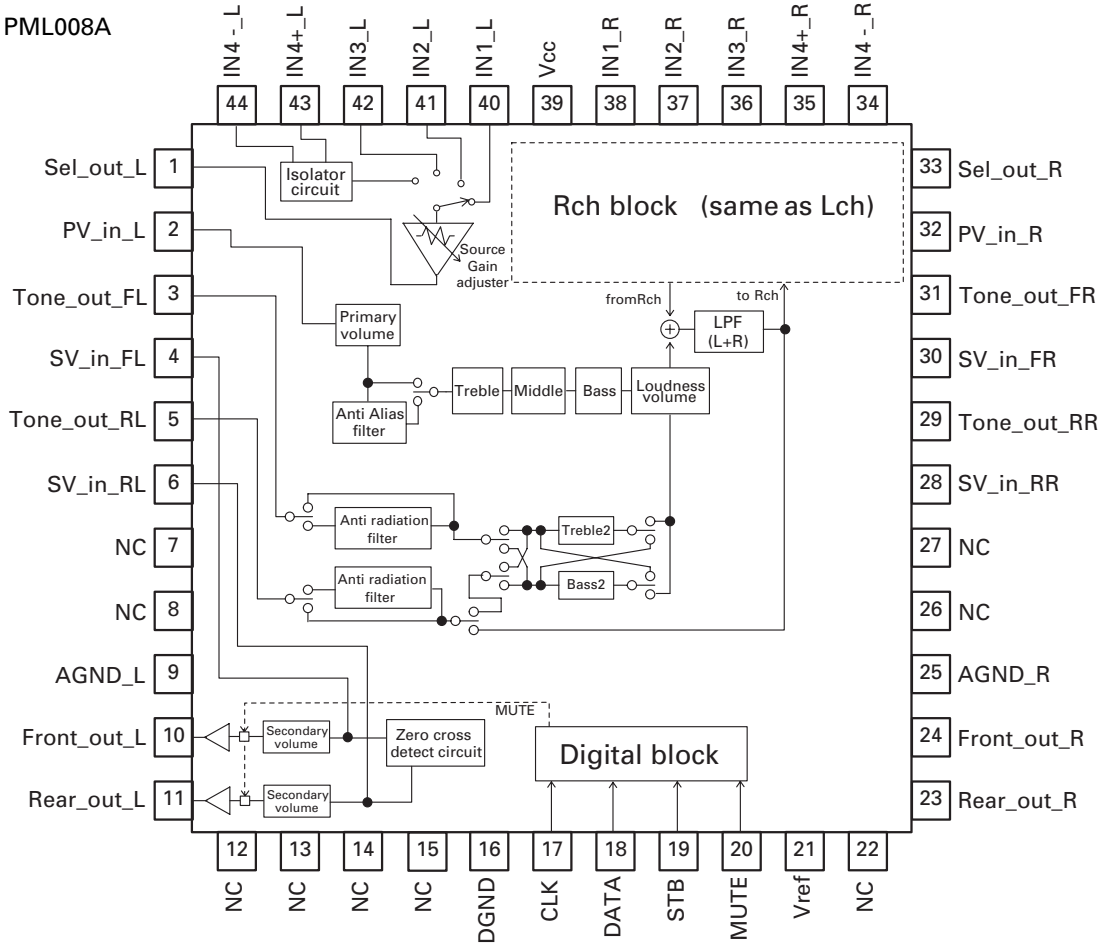
7.2 PARTS

7.2.1 IC

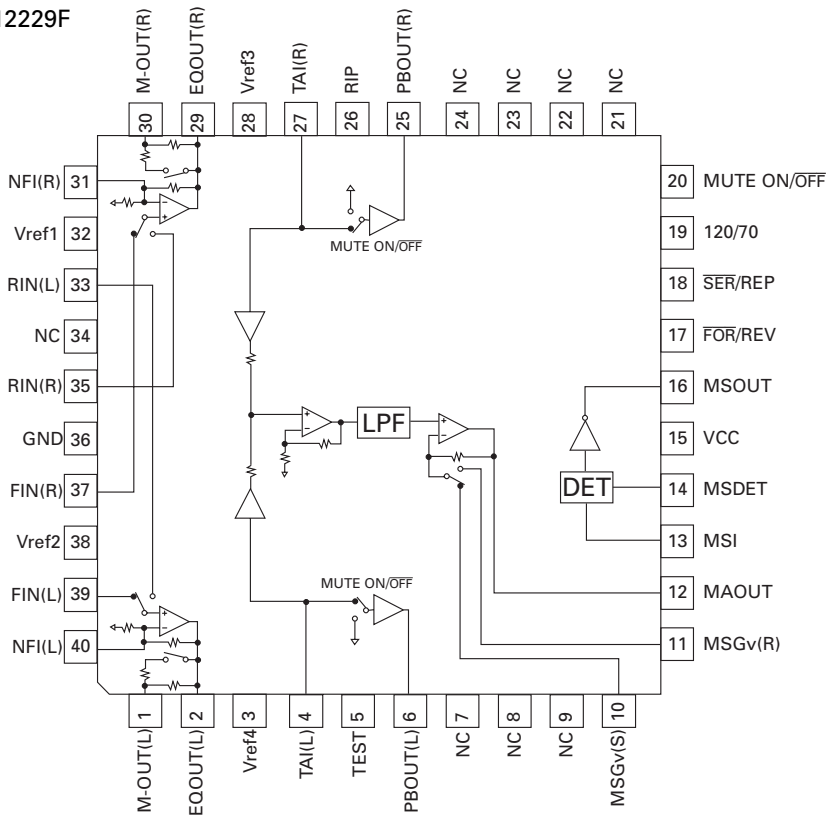
PAL006A



PML008A



HA12229F

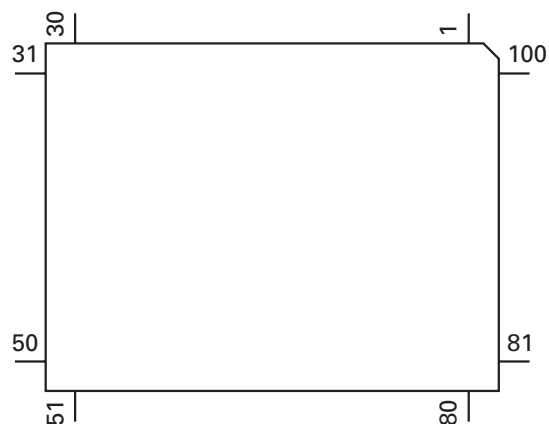


● Pin Functions (PE5206A)

| Pin No. | Pin Name | I/O | Function and Operation |
|---------|---------------------------|-----|---|
| 1 | HFPW | O | Hand free circuit ON |
| 2 | $\overline{\text{DSENS}}$ | I | Grille detach sense input |
| 3 | NC | | Not used |
| 4 | EJECTIN | I | Eject sense input |
| 5 | TESTIN | I | Test program mode input |
| 6 | LCDPW | O | LCD back light power supply control output |
| 7 | TELIN | I | Telephone mute input |
| 8 | $\overline{\text{ISENS}}$ | I | Illumination sense input |
| 9 | FLPILM | O | Flap illumination input |
| 10 | DALMON | | For consumption current decrease |
| 11 | $\overline{\text{RESET}}$ | I | Reset input |
| 12 | XT2 | | Not used (open) |
| 13 | XT1 | | Clock connection pin |
| 14 | VSS(GND) | | GND |
| 15 | X2 | | Crystal oscillator connection pin |
| 16 | X1 | | Crystal oscillator connection pin |
| 17 | REGOFF | | Regulator operation specification signal |
| 18 | REGC | | Capacitor for regulator connect pin |
| 19 | VDD | | Power supply |
| 20 | ILMPW | O | Illumination power supply control output |
| 21 | SYSPW | O | System power control output |
| 22 | ADPW | O | A/D converter power supply control output |
| 23 | SWVDD | O | Grille:Chip enable output |
| 24 | IPPW | O | Power supply control output for IP BUS interface IC |
| 25 | ROT1 | I | Rotary input 1 |
| 26 | ROMDATA | O | ROM collection data output |
| 27,28 | NC | | Not used |
| 29 | ROT0 | I | Rotary input 0 |
| 30 | RECIVE | O | During RDS data reception output |
| 31 | NC | | Not used |
| 32 | $\overline{\text{PCE2}}$ | O | EEPROM chip enable output |
| 33 | STB | O | Strobe pulse output for electronic volume |
| 34 | CLK | O | Clock output for electronic volume |
| 35 | DATA | O | Data output for electronic volume |
| 36 | NC | | Not used |
| 37 | MUTE | O | System mute output |
| 38 | SD | I | Station detector input |
| 39 | ST | I | FM stereo input |
| 40 | VSS(GND) | | GND |
| 41 | VDD | | Power supply |
| 42 | $\overline{\text{FM/AM}}$ | O | TUNER:Decoder power supply control output |
| 43 | $\overline{\text{DRST}}$ | O | RDS:Decoder reset output |
| 44 | $\overline{\text{RDSLK}}$ | I | RDS:Decoder clock input |
| 45 | RDT | I | RDS:Decoder data input |
| 46 | $\overline{\text{CURRO}}$ | O | RDS:Tuner voltage FIX output |
| 47 | NL2DT | I | RDS:Noise level input 2 |
| 48 | $\overline{\text{TMUTE}}$ | O | RDS:Tuner mute output |
| 49 | SDBW | I | RDS:SD input |
| 50 | LOCL | O | Local L output |
| 51 | LOCH | O | Local H output |
| 52-54 | NC | | Not used |
| 55 | STBY | O | CASSETTE:Drive IC control output |
| 56 | CM | O | CASSETTE:Capstan control output |
| 57 | SC1 | O | CASSETTE:Sub motor control output |
| 58 | SC2 | O | CASSETTE:Sub motor control output |
| 59 | NES | I | CASSETTE:Normal reel sense input |
| 60 | RES | I | CASSETTE:Reverse reel sense input |
| 61 | POS | I | CASSETTE:Position sense input |

| Pin No. | Pin Name | I/O | Function and Operation |
|---------|-----------|-----|--|
| 62 | PCL | | Clock adjustment |
| 63,64 | NC | | Not used |
| 65 | RIMUTE | O | CASSETTE:RI mute output |
| 66 | MSIN | I | CASSETTE:MS sense input |
| 67 | PLAY | O | CASSETTE:Gain select output |
| 68 | DIRO | O | CASSETTE:Dolby N/R select output |
| 69 | LOADSW | I | CASSETTE>Loading switch sense input |
| 70 | NC | | Not used |
| 71 | ASENBO | O | IP-BUS:Slave power supply control output |
| 72 | MUTE | O | E.VOL:Mute control output |
| 73 | TEST(GND) | I | GND |
| 74 | SL | I | TUNER:Signal level input |
| 75 | NL1 | I | RDS:Noise level input 1 |
| 76 | MODELIN | I | Model select input |
| 77 | CESENS | I | Flap close sense input |
| 78-81 | NC | | Not used |
| 82 | AVDD | | A/D converter power supply terminal |
| 83 | AVREF | | A/D converter reference voltage terminal |
| 84 | AVSS | | GND |
| 85 | RX | I | IP-BUS:data input |
| 86 | TX | O | IP-BUS:data output |
| 87 | NMI | | GND |
| 88 | LDET | I | PLL lock sense input |
| 89 | RCK | I | RDS:clock input |
| 90 | RDS57K | I | RDS:57kHz count pulse input |
| 91 | NC | | Not used |
| 92 | ASENS | I | ACC power sense input |
| 93 | BSSENS | I | Back up power sense input |
| 94 | TUNPDI | I | PLL IC data input |
| 95 | KYDT | I | Grille data input |
| 96 | DPDT | O | Grille data output |
| 97 | PCK | O | PLL IC clock output |
| 98 | PDO | O | PLL IC data output |
| 99 | PCE | O | PLL IC chip enable output |
| 100 | PEE | O | Beep tone output |

*PE5206A



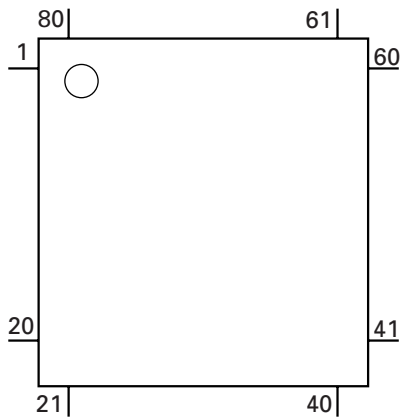
IC's marked by* are MOS type.

Be careful in handling them because they are very liable to be damaged by electrostatic induction.

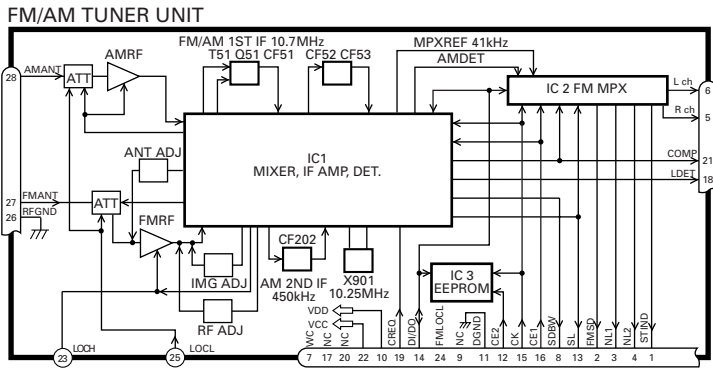
● Pin Functions (PD6294A)

| Pin No. | Pin Name | I/O | Function and Operation |
|---------|-----------|-----|-----------------------------------|
| 1 | VSS | | GND |
| 2 | X1 | | Crystal oscillator connection pin |
| 3 | X0 | | Crystal oscillator connection pin |
| 4 | NC | | Not used |
| 5,6 | MOD1,0 | I | Connect to GND |
| 7 | DIMMER | O | Dimmer select output |
| 8 | KYDT | O | Key data output |
| 9 | DPDT | I | Display data input |
| 10 | REMIN | I | Remote control pulse input |
| 11 | GRN | | Dual Illumination (Green) |
| 12 | AMB | | Dual Illumination (Amber) |
| 13-16 | KD4-KD1 | I | Key data input |
| 17-22 | KST6-KST1 | O | Key strobe output |
| 23 | VDD | | VDD |
| 24-73 | SEG49-0 | O | LCD segment output |
| 74-77 | COM3-0 | O | LCD common output |
| 78 | VLCD | I | LCD voltage input |
| 79,80 | V2,V1 | | Power supply terminal |

*PD6294A



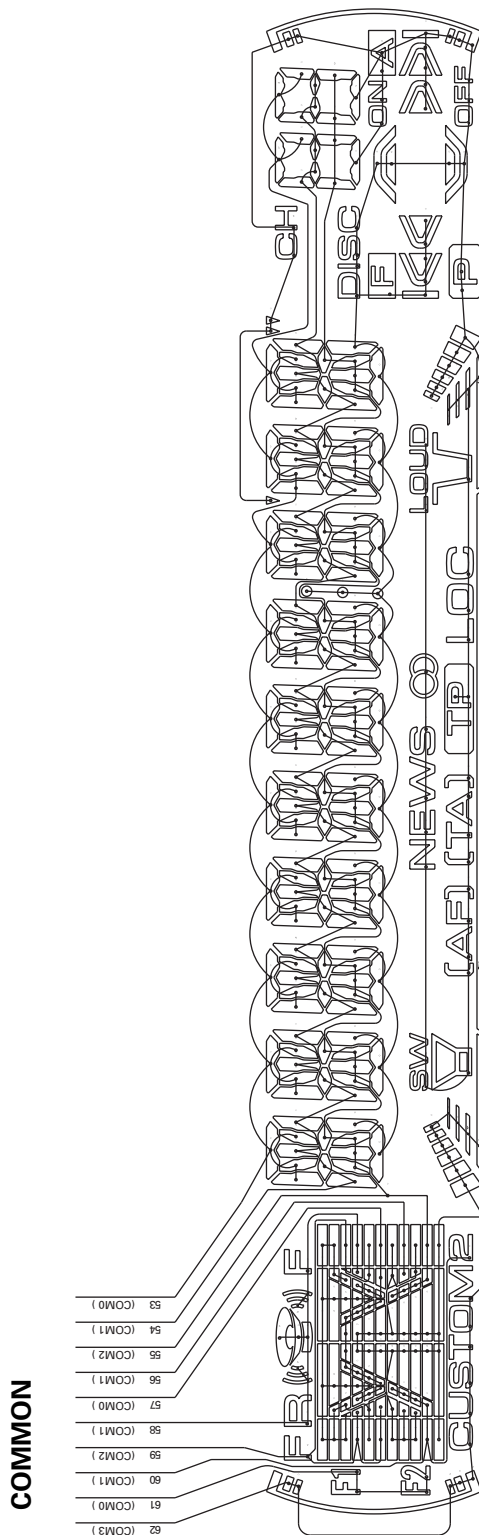
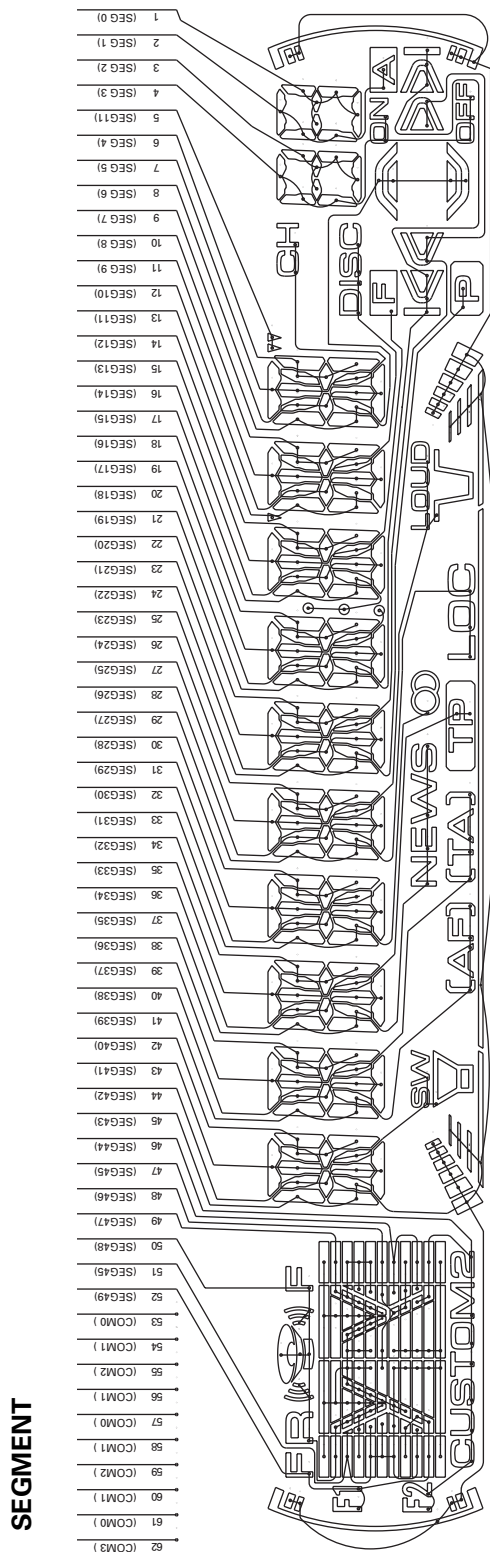
● FM/AM Tuner Unit



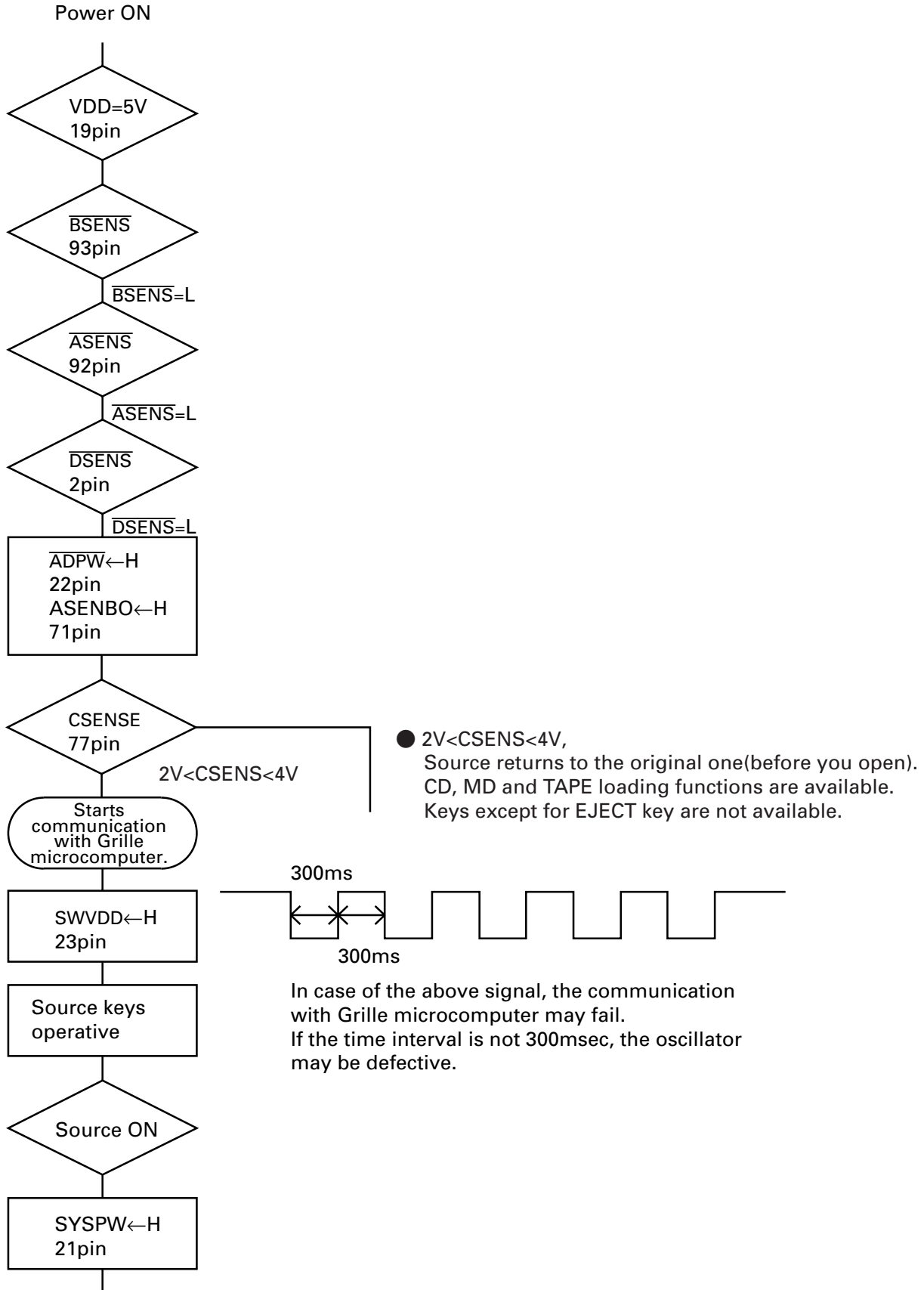
| No. | Symbol | I/O | Explain |
|-----|--------|-----|--|
| 1 | STIND | O | stereo indicator "Low" when the FM stereo signals are received. To be pulled up to the "VDD" at 47kΩ. |
| 2 | FMSD | O | FM station detector "High" when signals are received. To be pulled up to the "VDD" at 47kΩ Meanwhile, 10kΩ should be used when taking diver FIX trigger from here and "High: 0.9VDD or more" and "Low: 250mV or less". (Should satisfy the diver IC specifications) |
| 3 | NL1 | O | noise level-1 "High" when noise is received. Output for the RDS. GND at 47kΩ //1,800pF. |
| 4 | NL2 | O | noise level-2 "High" when noise is received. Output for the RDS. GND at 36kΩ //330pF. |
| 5 | Rch | O | R channel output FM stereo "R-ch" signal output or AM audio output. Add the specified di-emphasis constant. |
| 6 | Lch | O | L channel output FM stereo "L-ch" signal output or AM audio output. Add the specified di-emphasis constant. |
| 7 | WC | | write control EEPROM write control. Writing permissible at "Low". Normally open. |
| 8 | SDBW | O | SD bandwidth SD bandwidth signal output. For detection of detuning data for the RDS. |
| 9 | NC | | Not used |
| 10 | VDD | | power supply Power supply pin for the digital section. D.C. 5V +/- 0.25V. Be careful about overlapping noise in the logic section. |
| 11 | DGND | | digital ground Grounding for the digital section. |
| 12 | CE2 | I | chip enable-2 EEPROM chip enable. Active a "Low" To be pulled up to the "VDD" at 47kΩ |
| 13 | SL | I/O | signal level Received FM/AM signal level (strength) output. Connect the specified load resistor and capacitor (10k Ω + 39k Ω //4,700pF) |
| 14 | DI/DO | I/O | data input/ data output Data input/Data output To be pulled up to the "VDD" at 47kΩ |
| 15 | CK | I | clock Clock input To be pulled up to the "VDD" at 47kΩ |
| 16 | CE1 | I | chip enable-1 AF·RF chip enable. Active at "High" To be grounded at 47kΩ |
| 17 | NC | | Not used |
| 18 | LDET | O | lock detector Active at "Low". To be pulled up to the "VDD" at 47kΩ |
| 19 | CREQ | I | current request Active at "Low". To be grounded at 47kΩ |
| 20 | NC | | Not used |
| 21 | COMP | O | composite signal FM composite signal output. r out < 100Ω |
| 22 | VCC | | power supply Analog section power supply pin.D.C.8.4V +/- 0.3V |
| 23 | LOCH | I | local high FM local high pin. When seeking local high, apply 5V together with "LOCL". |
| 24 | FMLOCL | I | FM local low FM local low pin. When seeking local low, apply 5V to the base of the NPN transistor with which the specified resistor is being connected to the emitter. Keep it open in case of ordinary marketed models. |
| 25 | LOCL | I | local low FM/AM local low pin. When seeking local low, apply 5V to the base of the NPN transistor. Since this pin is exclusive for AM when the FMLOCL is in use, do not drive it under FM. |
| 26 | RFGND | | RF ground Grounding for the antenna section. |
| 27 | FMANT | I | FM antenna input FM antenna input. 75Ω. Serge absorber (DSP-201M-S00B) is necessary. |
| 28 | AMANT | I | AM antenna input AM antenna input. High impedance. Connect to the antenna through an L (LAU type) of 4.7μH.To cope with the power transmission line hums, insert a series circuit consisting of an L (a coil of about 100mH) + R (a resistor of 470 Ω to 2.2kΩ) between the GND. |

7.2.2 DISPLAY

- CAW1627(KEH-P6010R/X1M/EW,P6011R/X1M/EE)
CAW1625(KEH-P6010RB/X1M/EW)



7.3 OPERATIONAL FLOW CHART



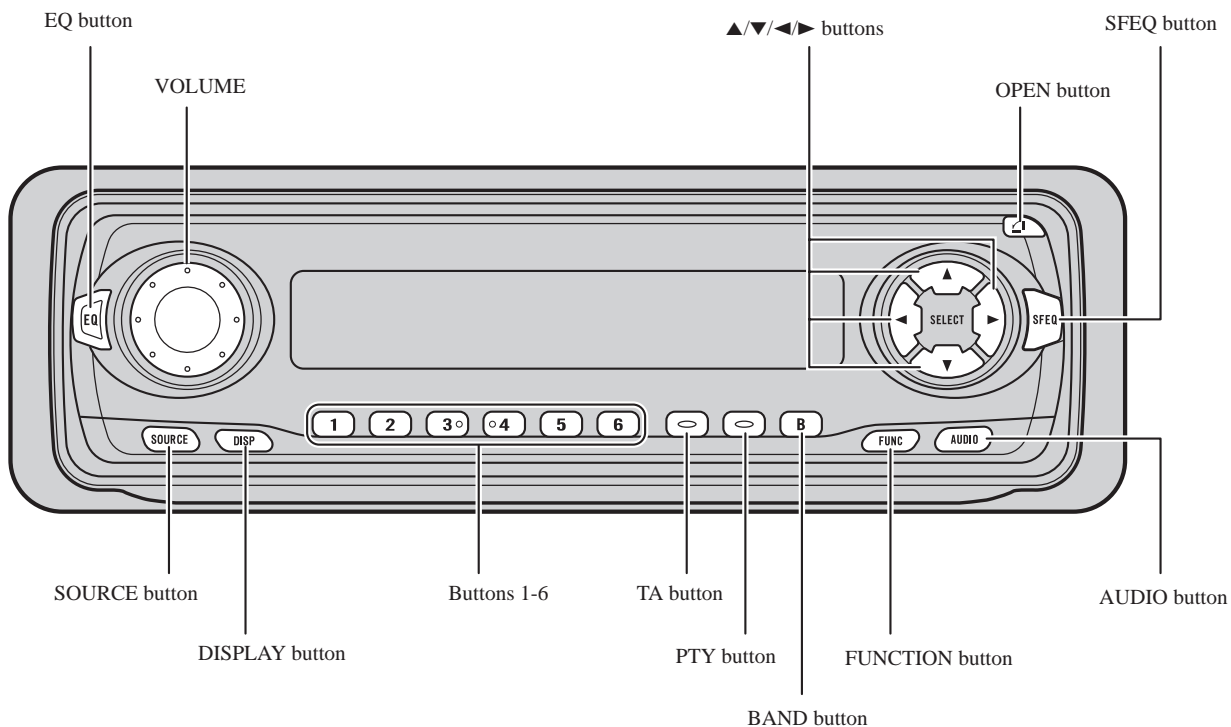
Completes power-on operation.
(After that, proceed to each source operation)

8. OPERATIONS AND SPECIFICATIONS

8.1 OPERATIONS

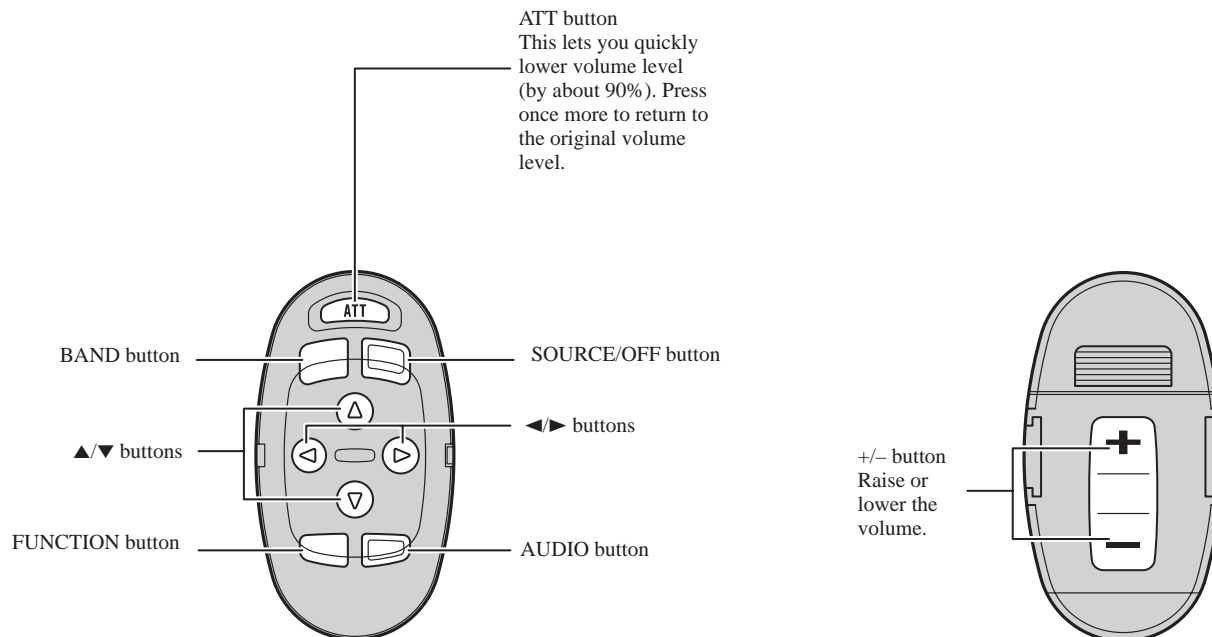
Key Finder

Head Unit



Steering Remote Controller (CD-SR80)

The steering remote controller (CD-SR80) enabling remote control of the head unit is sold separately. Operation is the same as when using buttons on the head unit.



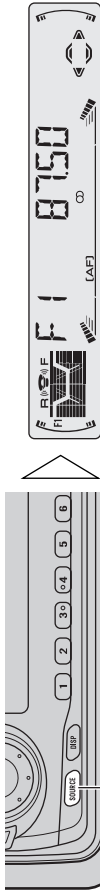
To Listen to Music

The following explains the initial operations required before you can listen to music.

Note:

- Loading a cassette in this product.

1. Select the desired source. (e.g. Tuner)



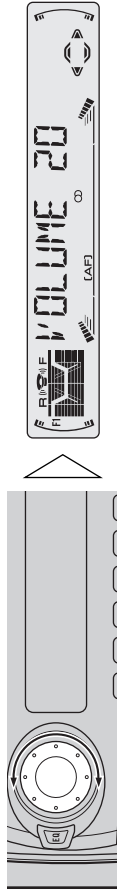
Each press changes the Source ...

Each press of the SOURCE button selects the desired source in the following order:
Tuner → Cassette Player → Multi-CD player → External Unit → AUX

Note:

- External Unit refers to a Pioneer product (such as one available in the future) that, although incompatible as a source, enables control of basic functions by this product. Only one External Unit can be controlled by this product.
- In the following cases, the sound source will not change:
 - * When no tape is set in this product.
 - * When a product corresponding to each source is not connected to this product.
 - * When no magazine is set in the Multi-CD player.
 - * When the AUX (external input) is set to OFF.
- When this product's blue/white lead is connected to the car's Auto-antenna relay control terminal, the car's Auto-antenna extends when this product's source is switched ON. To retract the antenna, switch the source OFF.

2. Raise or lower the volume.

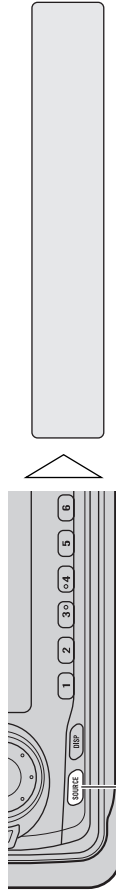


Rolling the VOLUME changes the volume level.

Note:

- Roll clockwise to raise the volume level.
- Roll counterclockwise to lower the volume level.

3. Turn the source OFF.



Hold for 1 second

Basic Operation of Tuner

This product's AF function can be switched ON and OFF. AF should be switched OFF for normal tuning operations.

Manual and Seek Tuning

- You can select the tuning method by changing the length of time you press the button.

| | |
|------------------------------|---------------------|
| Manual Tuning (step by step) | 0.5 seconds or less |
| Seek Tuning | 0.5 seconds or more |

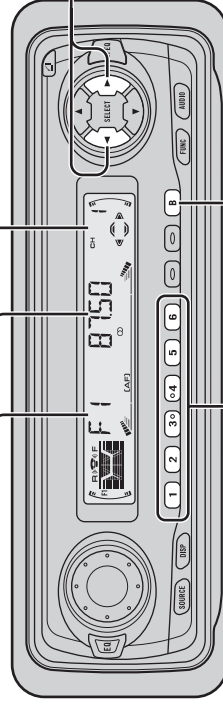
Note:

- If you continue pressing the button for longer than 0.5 seconds, you can skip broadcasting stations. Seek Tuning starts as soon as you release the button.
- Stereo indicator "STEREO" lights when a stereo station is selected.

Frequency Indicator

Band Indicator

Preset Number Indicator



Preset Tuning

- You can memorize broadcast stations in buttons 1 through 6 for easy, one-touch station recall.

| | |
|---------------------------------|-------------------|
| Preset station recall | 2 seconds or less |
| Broadcast station preset memory | 2 seconds or more |

Note:

- Up to 18 FM stations (6 in F1 (FM1), F2 (FM2) and F3 (FM3)) and 6 MW/LW stations can be stored in memory.
- You can also use the or buttons to recall broadcast stations memorized in buttons 1 through 6.

Basic Operation

Basic Operation of Cassette Player

Note:

- Be sure to close the front panel after loading or ejecting a cassette.

Open

Note:

- Use to open the front panel when loading or ejecting a cassette. (The illustration on the right shows the front panel open.)

Fast Forward/Rewind and Music Search

- Each press of the **▶** button selects **Fast Forward or Forward-Music Search**.

FF (Fast Forward) → F-MS (Forward-Music Search) → Normal Playback

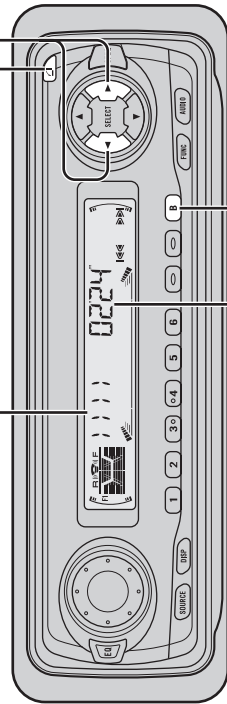
- Each press of the **◀** button selects **Rewind or Rewind-Music Search**.

REW (Rewind) → R-MS (Rewind-Music Search) → Normal Playback

Note:

- Fast Forward/Rewind and Music Search can be canceled by pressing the BAND button.

Direction Indicator



Play Time Indicator

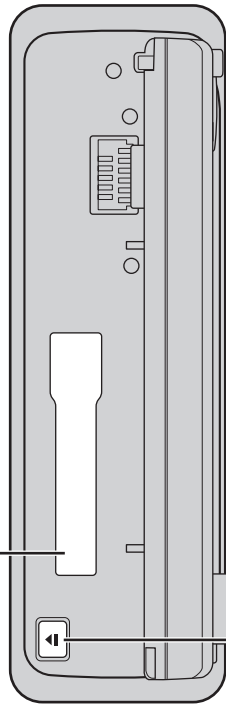
Note:

- The continuous playback time count starts at 00'00" at the following times.
 - * When a tape is inserted.
 - * When the tape direction is changed.
- The continuous playback time count is halted when fast-forwarding/rewinding and while the Music Search function is operating.

Cassette Loading Slot

Note:

- Do not insert anything other than a cassette into the Cassette Loading Slot.



Eject

Note:

- The Tape function can be turned ON/OFF with the cassette tape remaining in this product.

Basic Operation

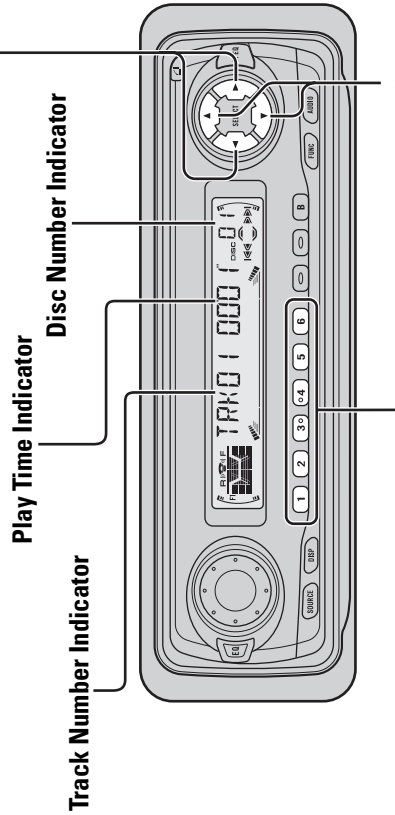
Basic Operation of Multi-CD Player

This product can control a Multi-CD player (sold separately).

Track Search and Fast Forward/Reverse

- You can select between Track Search or Fast Forward/Reverse by pressing the ◀/▶ button for a different length of time.

| | |
|----------------------|---------------------|
| Track Search | 0.5 seconds or less |
| Fast Forward/Reverse | Continue pressing |



Disc Number Search (for 6-Disc, 12-Disc types)

- You can select discs directly with the 1 to 6 buttons. Just press the number corresponding to the disc you want to listen to.

Note:

- When a 12-Disc Multi-CD Player is connected and you want to select disc 7 to 12, press the 1 to 6 buttons for 2 seconds.

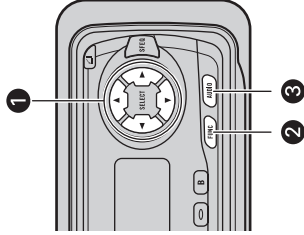
Note:

- The Multi-CD player may perform a preparatory operation, such as verifying the presence of a disc or reading disc information, when the power is turned ON or a new disc is selected for playback. "READY" is displayed.
- If the Multi-CD player cannot operate properly, an error message such as "ERROR-14" is displayed. Refer to the Multi-CD player owner's manual.
- If there are no discs in the Multi-CD player magazine, "NO DISC" is displayed.

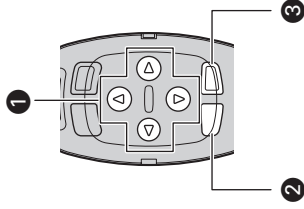
Corresponding Display Indications and Buttons

This product's display features Key Guidance Indicators. These light to indicate which of the ▲/▼/◀/▶, FUNCTION and AUDIO buttons you can use. When you're in the Function Menu, Detailed Setting Menu, Initial Setting Menu or Audio Menu, they also make it easy to see which ▲/▼/◀/▶ buttons you can use to switch functions ON/OFF, switch repeat selections and perform other operations. Indicator and corresponding buttons are shown below.

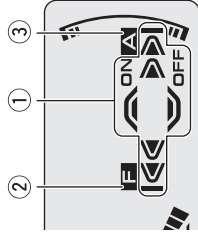
■ Head Unit



■ Steering Remote



■ Display Controller



When ① is lit in the display, perform appropriate operations with the ① buttons.

When ② is lit in the display, it indicates that you are in the Function Menu, Detailed Setting Menu or Initial Setting Menu. You can switch between each of these menus and between different modes in the menu using button ② on the head unit or steering remote controller.

When ③ is lit in the display, it indicates you are in the Audio Menu. You can switch between modes in the Audio Menu using button ③ on the head unit or steering remote controller.

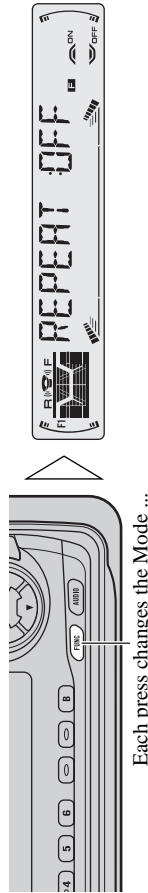
Entering the Function Menu

The Function Menu lets you operate simple functions for each source.

Note:

- After entering the Function Menu, if you do not perform an operation within about 30 seconds, the Function Menu is automatically canceled.

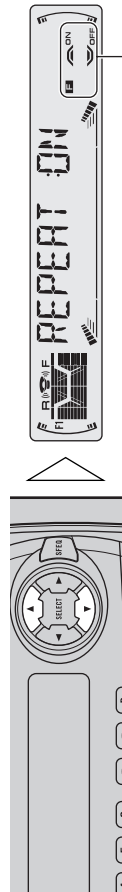
1. Select the desired mode in the Function Menu.



Continued overleaf.

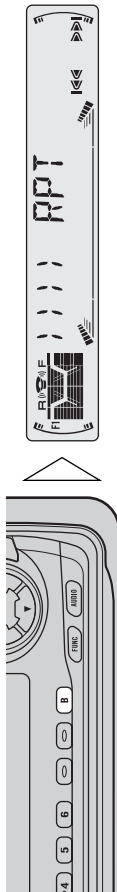
Basic Operation

2. Operate a mode. (e.g. Repeat Play)

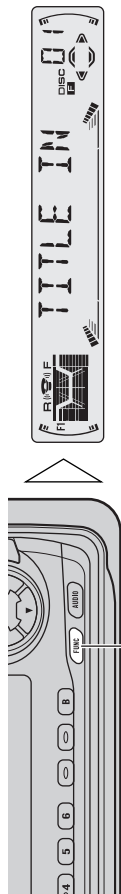


The button used and the operation it performs are indicated by the key guidance indicator. Press the button to switch the key guidance indicator ON, and the ▼ button to switch it OFF.

3. Cancel the Function Menu.



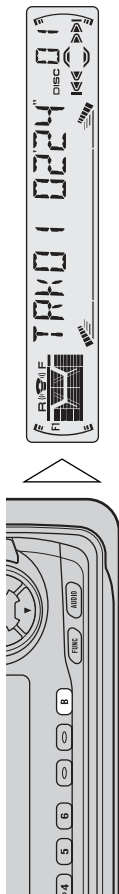
2. Select the desired mode.



Each press changes the Mode ...

3. Operate a mode.

4. Cancel the Detailed Setting Menu.



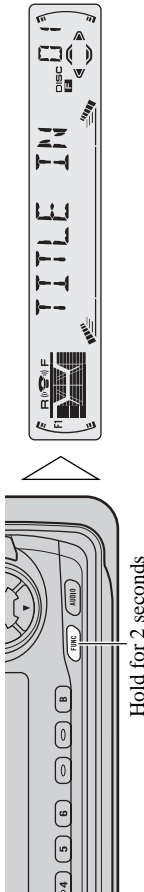
Note:

- You can cancel the Detailed Setting Menu by pressing the FUNCTION button again for 2 seconds.

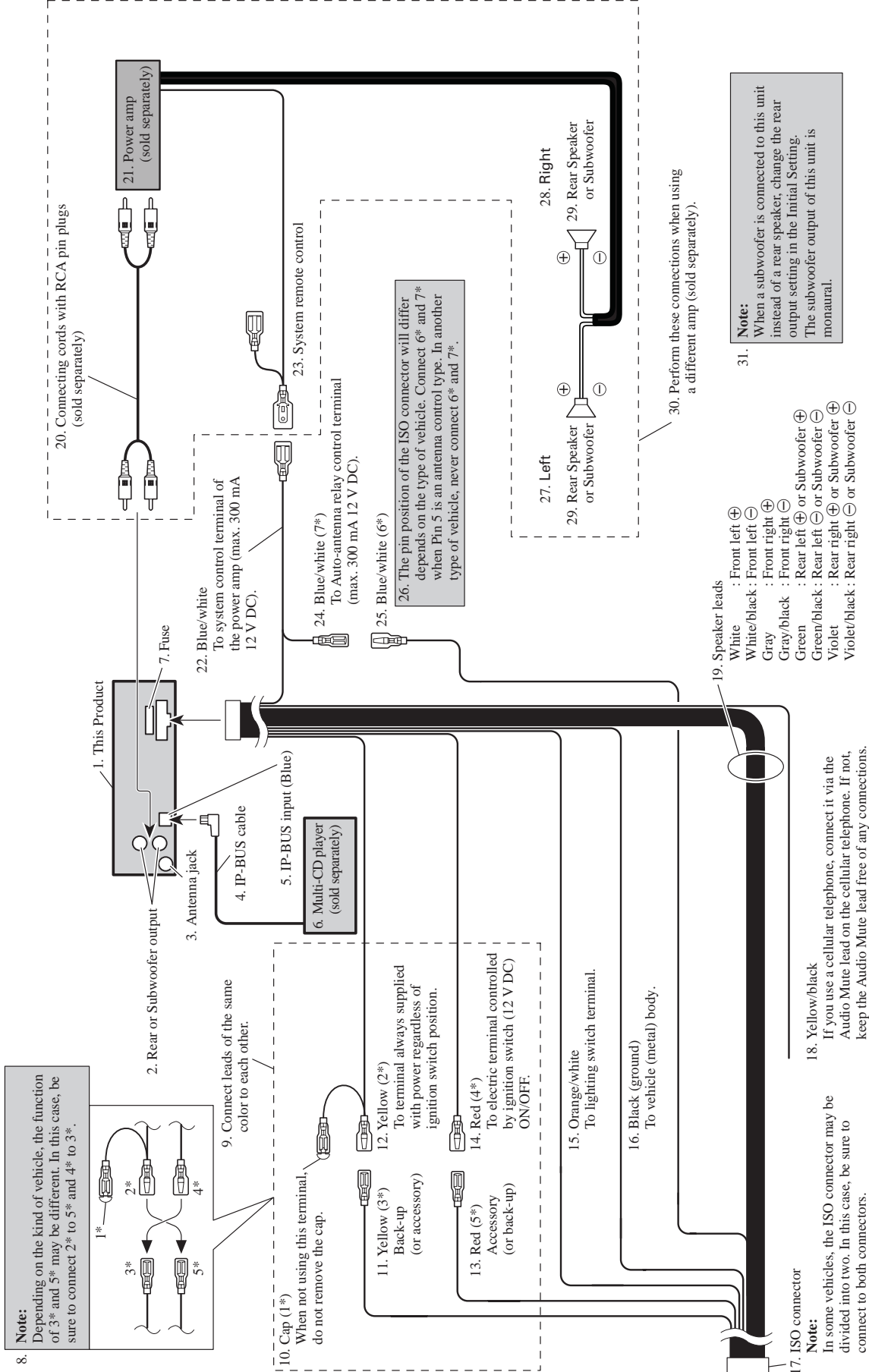
Entering the Detailed Setting Menu

In the Detailed Setting Menu, you can operate convenient, complex functions for each source.

1. Enter the Detailed Setting Menu.



● CONNECTION DIAGRAM



8.2 SPECIFICATIONS

General

| | |
|--------------------------|-------------------------------------|
| Power source | 14.4 V DC (10.8 – 15.1 V allowable) |
| Grounding system | Negative type |
| Max. current consumption | 10.0 A |
| Dimensions | |
| (mounting size) | 178 (W) × 50 (H) × 157 (D) mm |
| (front face) | 188 (W) × 58 (H) × 19 (D) mm |
| Weight | 1.4 kg |
| Backup current | 5mA |

Amplifier

| | |
|--|--|
| Maximum power output | 50 W × 4 50 W × 2 ch/4 Ω + 70 W × 1 ch/2 Ω (for Subwoofer) |
| Continuous power output | 27 W × 4 (DIN45324, +B = 14.4 V) |
| Load impedance | 4 Ω (4 – 8 Ω [2 Ω for 1 ch] allowable) |
| Preout maximum output level/output impedance | 2.2 V/1 kΩ |
| Equalizer (3-Band Parametric Equalizer) | |
| (Low) | Frequency: 40/80/100/160 Hz Q Factor: 0.35/0.59/0.95/1.15 (+6 dB when boosted) Level: ±12 dB |
| (Mid) | Frequency: 200/500/1k/2k Hz Q Factor: 0.35/0.59/0.95/1.15 (+6 dB when boosted) Level: ±12 dB |
| (High) | Frequency: 3.15k/8k/10k/12.5k Hz Q Factor: 0.35/0.59/0.95/1.15 (+6 dB when boosted) Level: ±12 dB |
| Loudness contour | |
| (Low) | +3.5 dB (100 Hz), +3 dB (10 kHz) |
| (Mid) | +10 dB (100 Hz), +6.5 dB (10 kHz) |
| (High) | +11 dB (100 Hz), +11 dB (10 kHz) (volume: –30 dB) |
| Tone controls | |
| (Bass) | Frequency: 40/63/100/160 Hz Level: ±12 dB |
| (Treble) | Frequency: 2.5k/4k/6.3k/10k Hz Level: ±12 dB |
| Subwoofer output | |
| Frequency | 50/80/125 Hz |
| Slope | –12 dB/oct. |
| Level | ±12 dB |

Cassette player

| | |
|-----------------------------|---|
| Tape | Compact cassette tape (C-30 – C-90) |
| Tape speed | 4.76 cm/sec.(+0.14cm/sec.,-0.05cm/sec.) |
| Fast forward/rewinding time | Approx. 100 sec. for C-60 |
| Wow & flutter | 0.09% (WRMS) |
| Frequency response | 30 – 16,000 Hz (±3 dB) |
| Stereo separation | 45 dB |
| Signal-to-noise ratio | 61 dB (IEC-A network) |

FM tuner

| | |
|-------------------------------|---|
| Frequency range (EW model) | 87.5 – 108 MHz |
| Frequency range (EE model) | 65 – 74 MHz 87.5 – 108 MHz |
| Usable sensitivity (EW model) | 9 dBf (0.8 μV/75 Ω, mono, S/N: 30 dB) |
| Usable sensitivity (EE model) | 10 dBf (0.9 μV/75 Ω, mono, S/N: 30 dB) |
| 50 dB quieting sensitivity | 15 dBf (1.5 μV/75 Ω, mono) |
| Signal-to-noise ratio | 70 dB (IEC-A network) |
| Distortion | 0.3% (at 65 dBf, 1 kHz, stereo) |
| Frequency response | 30 – 15,000 Hz (±3 dB) |
| Stereo separation | 40 dB (at 65 dBf, 1 kHz) |

MW tuner

| | |
|--------------------|-------------------------|
| Frequency range | 531 – 1,602 kHz (9 kHz) |
| Usable sensitivity | 18 μV (S/N: 20 dB) |
| Selectivity | 50 dB (±9 kHz) |

LW tuner

| | |
|--------------------|--------------------|
| Frequency range | 153 – 281 kHz |
| Usable sensitivity | 30 μV (S/N: 20 dB) |
| Selectivity | 50 dB (±9 kHz) |

Note:

- Specifications and the design are subject to possible modification without notice due to improvements.