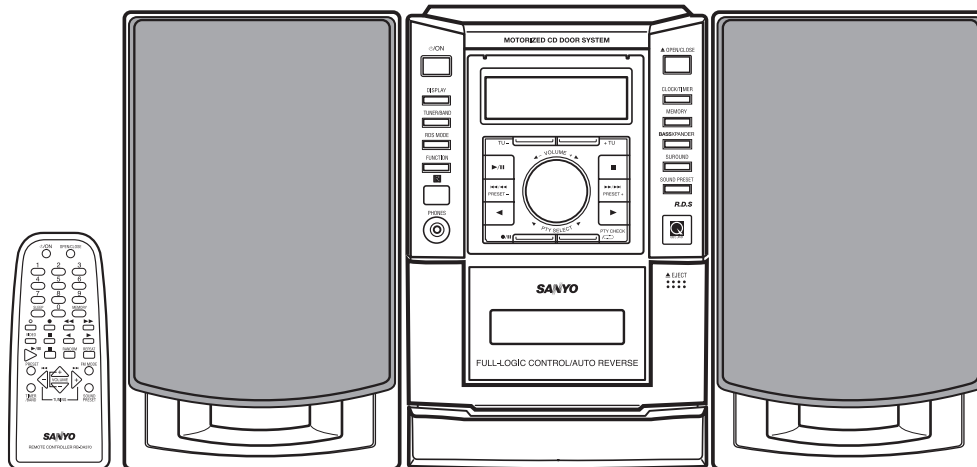


Service Manual

Micro Component System

DC-DA370 (UK)



Contents

PRODUCT CODE No.
129 599 00

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This service manual consists of "DC-DA370U" (Main unit : 129 598 00) and "SX-DA370" (Speaker system : 165 027 00).

REFERENCE No. **SM5810201**

SPECIFICATIONS

Tuner

Reception frequency FM : 87.5 - 108.0 MHz
 MW: 522 - 1611kHz
 LW : 144 - 288kHz

CD player

Channels 2-channel stereo
 Sampling frequency 44.1 kHz
 Pick-up Optical 3-beam semiconductor laser
 Wow and Flutter Below measurable limits
 Wave length 790 nm
 Laser output 0.6mW(Continuous wave max.)

Cassette deck section

Track system 4-track, 2-channel stereo
 Frequency response 60 Hz - 13.5 kHz
 Signal to noise ratio 50 dB
 Wow and Flutter 0.12% (WRMS)
 Fast forward / Rewind time Approx. 110 sec. (C-60)

General

Output power 12.5 W x 2
 (at 4 ohms, 10% distortion)
 Inputs VIDEO IN : 400 mV / 50k ohms
 Outputs SPEAKERS : 4 ohms
 PHONES : 8 - 32 ohms
 OPTICAL OUT:Optical
 Power requirements AC 230V, 50Hz
 Power consumption 40 W
 Dimensions (W x H x D) Approx. 160 x 251 x 207 mm
 Weight Approx. 3.2 kg

Speaker system

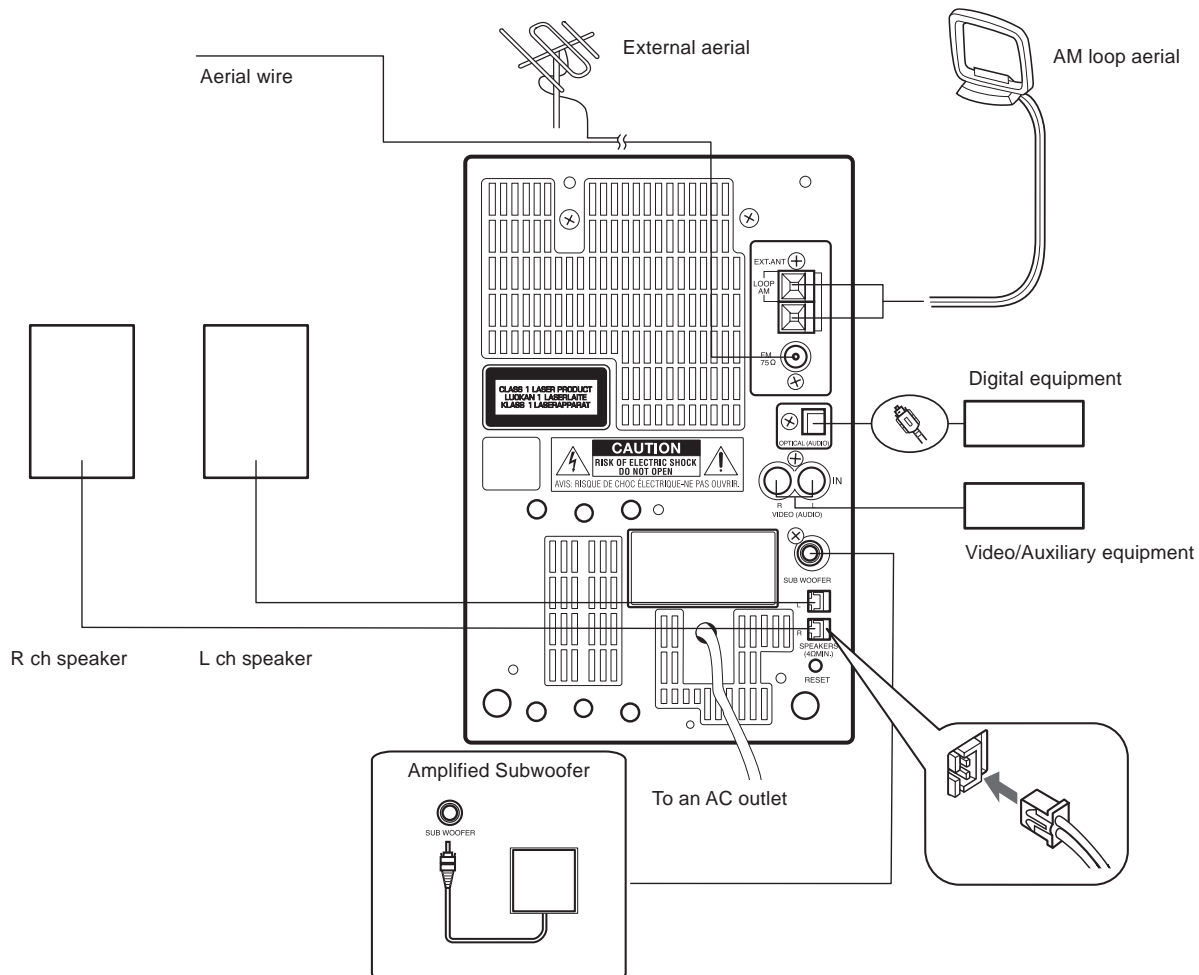
Type 3 way bass reflex
 Unit used : Woofer 10 cm cone type
 : Mid range 5 cm cone type
 : Tweeter 2 cm piezoelectric

Maximum

power-handling capacity 25 Watts (peak)
 Nominal impedance 4 ohms
 Dimensions (W x H x D) Approx. 150 x 245 x 224 mm
 Weight Approx. 1.9 kg (per speaker)

Specifications subject to change without notice.

SYSTEM CONNECTIONS



LASER BEAM SAFETY PRECAUTION

- Pick-up that emits a laser beam is used in this CD player section.

CAUTION :

USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE

LASER OUTPUT..... 0.6 mW Max. (CW)

WAVELENGTH 790 nm

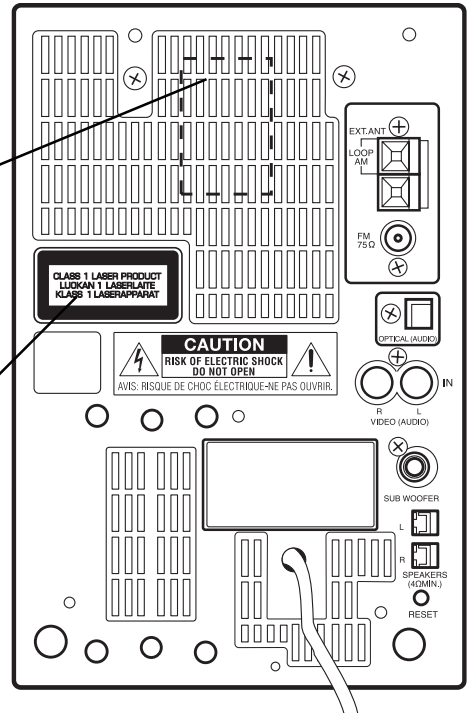
CAUTION – INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.

ADVARSEL – USYNLIG LASER STRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION, UNDGÅ UDSÆTTELSE FOR STRÅLING.

VARNING – OSYNLIG LASER STRÅLNING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.

VORSICHT – UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT, DEM STRAHL AUSSETZEN.

VARO – AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.



CD PICK-UP MAINTENANCE

About pick-up (Optical lens) Cleaning

Clean a lens with swab of the cotton which moistened it with alcohol, cleaning paper or cleaning disc appointed.

Specified cleaning disc : LC-1 (Part code : 645 026 1961 manufactured by SANYO.)

Show a clean procedure in the following in reference by swab of cotton.

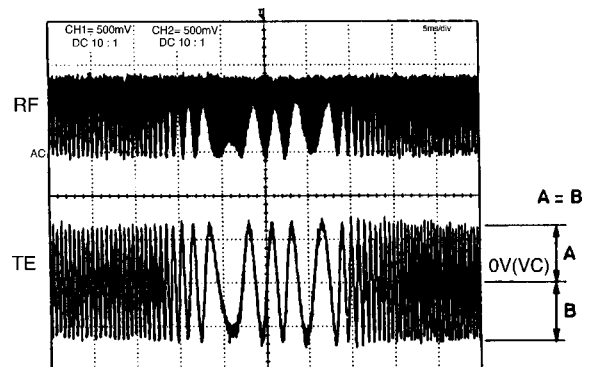
1. Cotton swab is wrapped with Cleaning paper.
2. Add the isopropyl alcohol.
3. Gently move the tip of cotton swab just like a draw a whirlpool from inside to outside on the surface of lens.

CD PLAYER ADJUSTMENTS

1. ADJUSTMENTS

(1) Confirm the tracking balance

1. Turn on the POWER switch.
2. Connect an Oscilloscope to TP2 (TE) and TP4 (VC).
3. Set the test disc.
4. Press "PLAY" button to turn into the "PLAY" mode.
5. Keep holding "SKIP" button down so as to be "SERCH" mode, then confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V (VC).

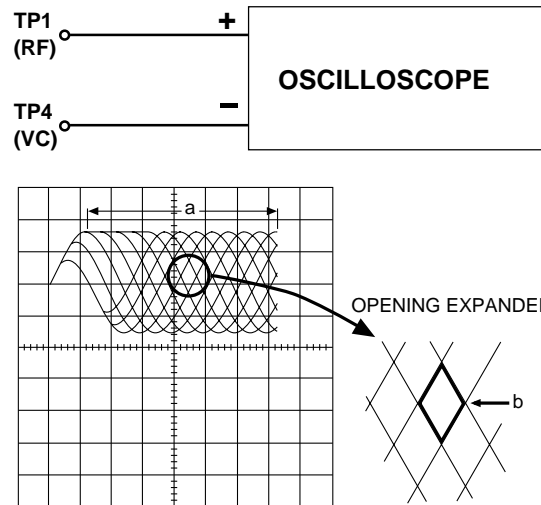


200mV/div.
5ms/div.

CD PLAYER ADJUSTMENTS

(2) Checking the "eye" pattern

1. Switch "ON" the POWER.
2. Connect an oscilloscope to TP1 (RF) and TP4 (VC).
3. Load the test disc.
4. Press the PLAY button.
5. Check to be sure that the "eye" pattern is at the center of waveform and that the diamond shape is clearly defined.
6. Press the STOP button.
7. Turn off the POWER switch.

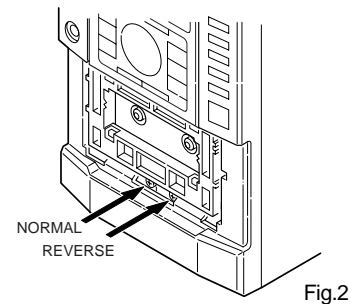
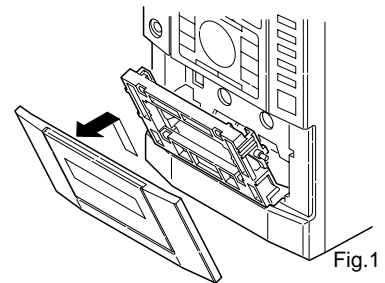


TAPE ADJUSTMENTS

1. Azimuth Adjustment

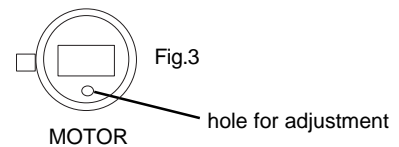
- Be sure to clean the heads before attempting to make any adjustment.
- Be sure both channels (1 and 2) are the same level.
(Using a dual-channel oscilloscope)
- Be sure both channel's waveform are same for the phase matching.
- After completion of the adjustment, use the threadlock (TB-1401B) to secure the azimuth adjustment screws.

1. Remove the cover deck as Fig.1.
2. Load a test tape (VTT-738 etc. : 10kHz) in the Deck.
3. Press the PLAY button. (Normal playback)
4. Use a + tip screwdriver to turn the screw for normal azimuth adjustment so that the left and right outputs are maximized at the same phase during normal playback. See Fig.2.
5. Press the PLAY button. (Reverse playback)
6. Use a + tip screwdriver to turn the screw for reverse azimuth adjustment so that the left and right outputs are maximized at the same phase during reverse playback.
7. Adjust so that the waveforms for the left and right channels are in alignment.



2. Tape Speed Adjustment

- Connect the Frequency Counter to TAPE OUT.
1. Insert the test tape (MTT-111N, etc.; 3,000Hz) into the DECK.
 2. Press the PLAY button. .
 3. Adjust a hole on the motor bottom so that a frequency counter reading of $3,000 \pm 5\text{Hz}$ is obtained. See Fig.3.
 4. Press the STOP button, and eject the test tape.



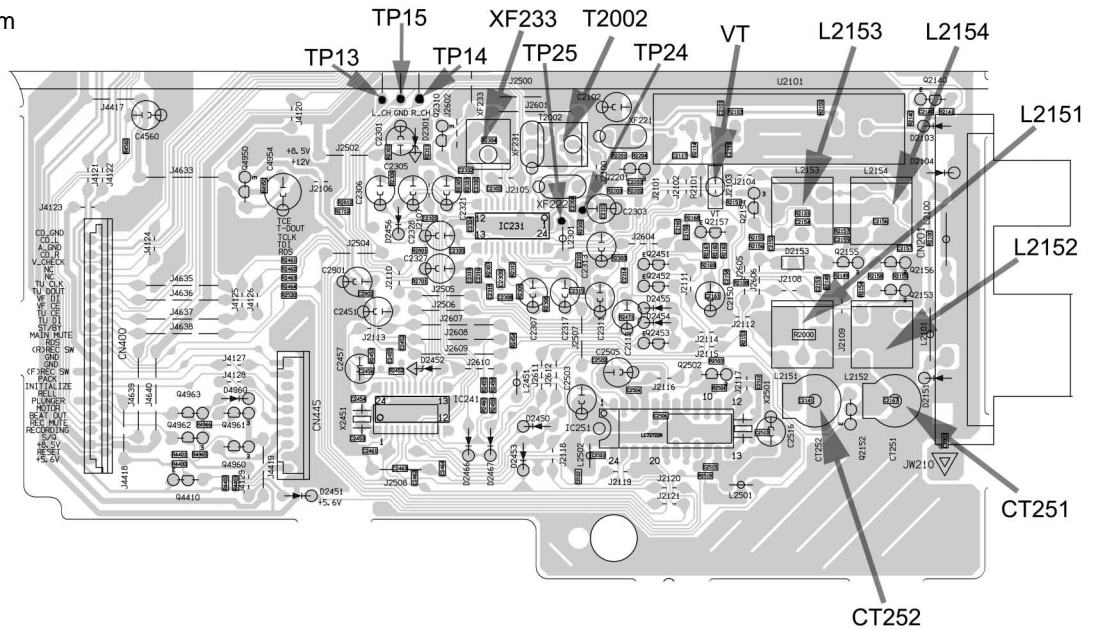
3. Torque Measurement

| Item | Take-up Torque | Back tention | Pulley tention |
|---------------|--|--|--|
| Test Cassette | PLAY : TW2111A (FWD) PLAY : TW2121A (REV) F.FWD / REW : TW2231 | PLAY : TW2111A (FWD) PLAY : TW2121A (REV) | Driving power cassette : TW-2412 (PLAY) TW-2422(REV. PLAY) |
| PLAY/REV. | 30 ~ 65 grcm | 2 ~ 6 grcm | > 50grcm |
| F.FWD | 30 ~ 65 grcm | - | 70 ~140 grcm |
| REW | 70 ~ 140 grcm | - | |

TUNER ADJUSTMENTS

- Use a plastic screw driver for adjustments.
- MODE : ST (Stereo)
- Speaker impedance : 4 ohm
- TUNING

FM : 87.5 - 108MHz
 MW: 522 - 1611kHz
 LW : 144 - 288kHz



Standatd Input: 60dB

Antenna : 75 unbalanced , Modulation : 1 kHz

Dev. : ± 22.5kHz(MONO) 22.5kHz(STEREO) ± 6.75kHz(PILOT)

1. FM

| Step | Adjusting Circuit | Connection | | SG Frequency | Set Position | Adjustment | Remark |
|------|-------------------|---|---|--------------|--------------|------------|---|
| | | Input | Output | | | | |
| 1 | IF(0V) Adjustmen | 98.0MHz.Input Level FM Antenna SG=66dBµV | Alignment voltage IC231 3-22pin(TP24,25) is 0.0± 0.05V | 98MHz | Low | XF233 | Alignment voltage IC231 3-22pin is 0.0± 0.5V |
| 2 | Cover Voltage | --- | Connect Digital DC voltmeter to TP11(H), TP12(E). | 87.5MHZ | Low | --- | 1.4± 0.05V |
| | | --- | | 108.0MHZ | High | --- | 6.8± 0.5V |

SG Modulation : 1kHz, 30%

Antenna, IRE Loop, Distance : 60 cm

2. MW

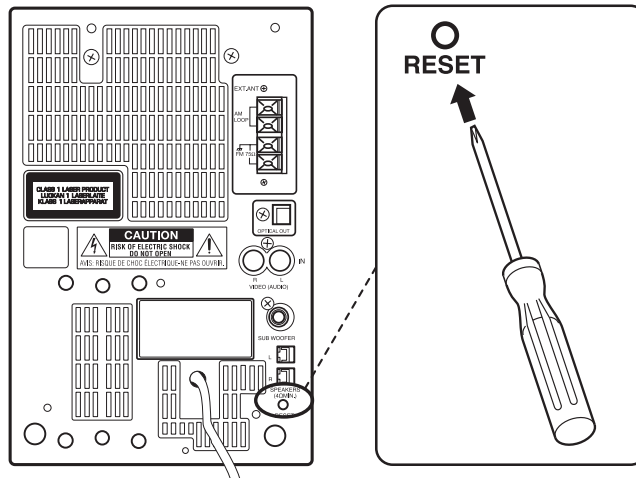
| Step | Adjusting Circuit | Connection | | SG Frequency | Set Position | Adjustment | Remark |
|------|-------------------|---------------------------------|--|-----------------------|--------------|------------|-------------|
| | | Input | Output | | | | |
| 1 | IF | --- | Connect Sweep generator to test point TP13(L)or TP14(R) and TP15(E). | 450kHz (at 999kHz) | Low | T2002 | AF Maximum |
| 2 | Cover Voltage | --- | Connect Digital DC voltmeter to TP11(H) and TP12(E). | 522kHz | Low | L2153 | 1.00± 0.05V |
| | | --- | | 1611kHz | High | | 6.70± 0.10V |
| 3 | Tracking | Connect AM SG to Test loop Ant. | Connect to VTVM point TP13(L)or TP14(R) and TP15(E). | 603KHZ | Low | L2151 | AF Maximum |
| | | | | 1404kHz | High | CT252 | |

3. LW

| Step | Adjusting Circuit | Connection | | SG Frequency | Set Position | Adjustment | Remark |
|------|-------------------|---------------------------------|--|--------------|--------------|------------|-------------|
| | | Input | Output | | | | |
| 1 | Cover Voltage | --- | Connect Digital DC voltmeter to TP11(H) and TP12(E). | 144kHz | Low | L2154 | 1.00± 0.05V |
| | | --- | | 288kHz | High | --- | 5.42± 0.10V |
| 2 | Tracking | Connect AM SG to Test loop Ant. | Connect to VTVM point TP13(L)or TP14(R) and TP15(E). | 162kHz | Low | L2152 | AF Maximum |
| | | | | 279kHz | High | CT251 | |

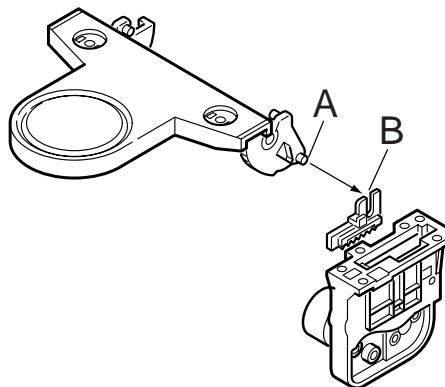
WHAT TO DO IF

If the operation of the unit or display is not normal, even though the appropriate buttons have been pressed. Disconnect the power cord from the AC outlet, then press "RESET" (rear of the unit) for at least 30 seconds.



WHEN ASSEMBLING THE RACK GEAR AND CD LID

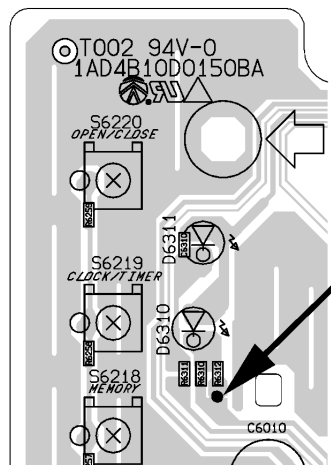
When assembling the rack gear and CD lid, "A" part should be inserted into the "B" part.



WHEN REPLACING LED (D6310)

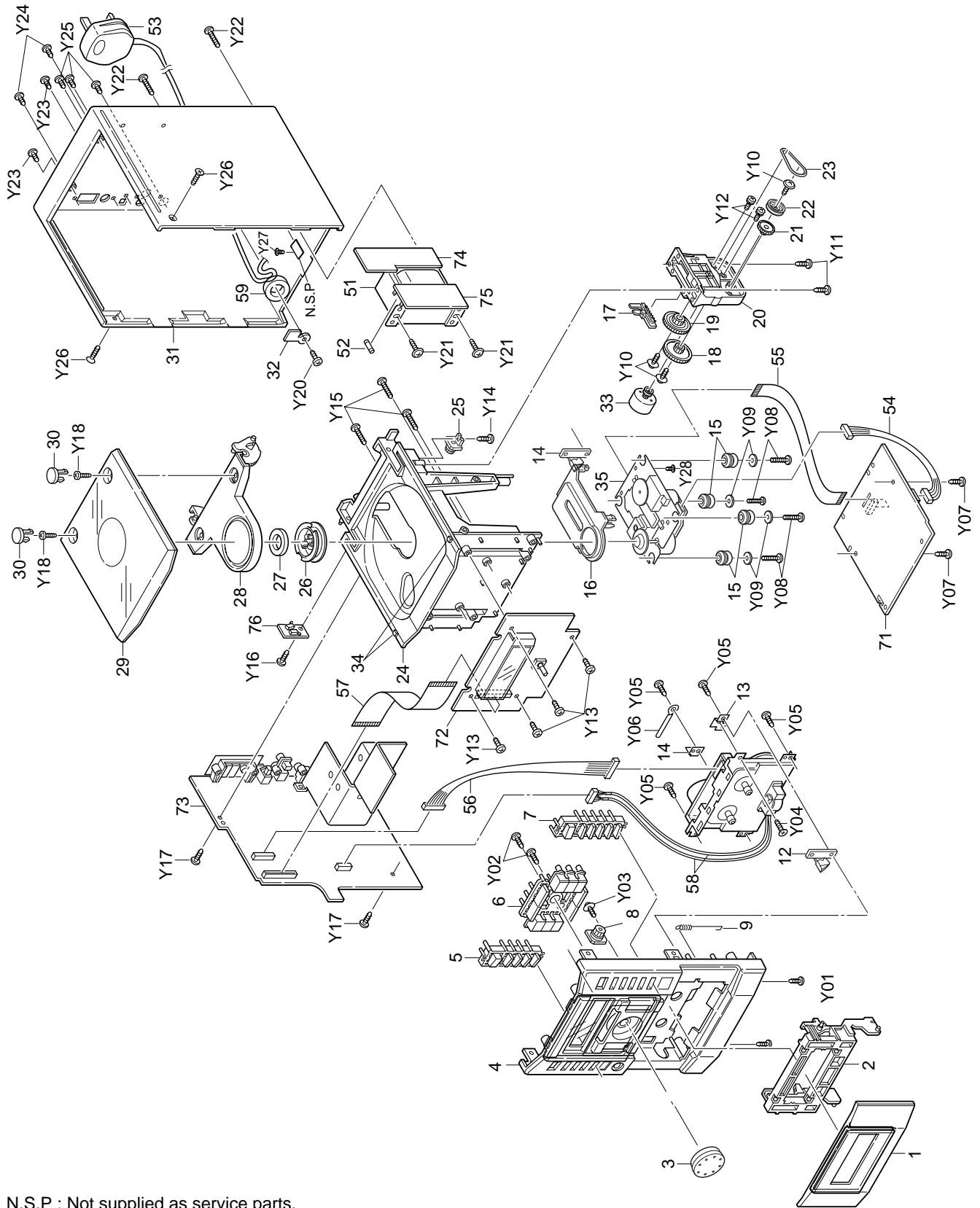
When replacing the LED (D6310);

If the pointed pattern is shorted, remove the soldering first. Then replace LED (D6310) with new LED on the parts list.



FRONT P.W.BOARD

EXPLODED VIEW (CABINET & CHASSIS)



N.S.P : Not supplied as service parts.

PARTS LIST

PRODUCT SAFETY NOTICE

EACH PRECAUTION IN THIS MANUAL SHOULD BE FOLLOWED DURING SERVICING. COMPONENTS IDENTIFIED WITH THE IEC SYMBOL Δ IN THE PARTS LIST AND THE SCHEMATIC DIAGRAM DESIGNATED COMPONENTS IN WHICH SAFETY CAN BE OF SPECIAL SIGNIFICANCE. WHEN REPLACING A COMPONENT IDENTIFIED BY Δ , USE ONLY THE REPLACEMENT PARTS DESIGNATED, OR PARTS WITH THE SAME RATINGS OF RESISTANCE, WATTAGE OR VOLTAGE THAT ARE DESIGNATED IN THE PARTS LIST IN THIS MANUAL. LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS MUST BE MADE TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE PRODUCT TO THE CUSTOMER.

CAUTION : Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.

Regular type resistors are less than 1/4 W Carbon type and Chip type resistors.

Regular type capacitors are less than 50 V and less than 1000 μ F type of Ceramic type, Electrical type and Chip type.

PACKING & ACCESSORIES

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-------------------------------|
| | 614 314 2843 | CARTON CASE |
| | 614 314 2850 | CUSHION,REAR |
| | 614 314 2867 | CUSHION,FRONT |
| | 614 314 2904 | INSTRUCTION MANUAL |
| | 614 245 8587 | NOTICE,AC CODE |
| | 645 037 8102 | POLY BAG-0150X0500*NC,AC CORD |
| | 614 229 4635 | ANT |
| or | 614 308 5515 | ANT |
| | 645 005 1227 | ASSY,ANTENA,LOOP |
| | 645 046 8322 | ASSY,ANTENA,LOOP |
| | 645 044 1110 | REMOCON,*** |
| | 614 318 9404 | LID BATTERY,REMOCON |
| | 614 314 2300 | ASSY,BOX,SPEAKER,SPEAKER(L) |
| | 614 318 3068 | ASSY,BOX,SPEAKER,SPEAKER(R) |
| | 614 314 2317 | ASSY,GRILLE |

CABINET & CHASSIS

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-----------------------------|
| 1 | 614 314 2409 | ASSY,DOOR,DECK |
| 2 | 614 314 2645 | LID,CASSETTE |
| 3 | 614 303 5718 | KNOB,VR |
| 4 | 614 314 2430 | ASSY,PANEL,FRONT |
| 5 | 614 314 2454 | BUTTON,POWER,5KEYS |
| 6 | 614 314 2478 | BUTTON,PLAY,10KEYS |
| 7 | 614 314 2515 | BUTTON,MEMORY,6KEYS |
| 8 | 614 309 7969 | ASSY,GEAR,LID CASSETTE |
| 9 | 614 303 5794 | SPRING,DOOR DECK |
| 12 | 614 303 1277 | LATCH,CAM,DECK,DOOR,LOCKING |
| 13 | 614 316 0359 | MOUNTING,HOOK,ASSY,MECHA |
| 14 | 614 304 5700 | HOLDER,MAIN PCB,MAIN PCB |
| 15 | 614 310 3899 | SPACER,MECHA,MTG CD+DA11 |
| 16 | 614 307 2072 | COVER,PICK-UP |
| 17 | 614 314 8067 | RACK,GEAR-1 |
| 18 | 614 318 5079 | ASSY,CLUTCH |
| 19 | 614 314 8043 | GEAR |
| 20 | 614 314 8050 | MOUNTING,MOTOR |
| 21 | 614 314 8036 | GEAR |
| 22 | 614 237 7161 | PULLEY |
| 23 | 614 300 8293 | BELT,SQUARE |
| 24 | 614 314 2669 | MOUNTING,CD |
| 25 | 614 309 8270 | ASSY,GEAR,LID,CD |
| 26 | 614 307 8821 | PULLEY |
| 27 | 614 303 0256 | LATCH,MAGNET |
| 28 | 614 314 2652 | LID,CD |
| 29 | 614 314 2614 | DEC,WINDOW,CD |
| 30 | 614 315 9254 | DEC,CAP |
| 31 | 614 314 2393 | ASSY,CABINET,REAR |
| 32 | 614 316 1172 | STOPPER |
| 33 | 614 318 8841 | ASSY,MOTOR |
| 34 | 614 269 9621 | SPACER,WINDOW,CD+WINDOW |
| 35 | 614 307 9804 | ASSY,MECHA,CDDA11N-SASH |
| | 614 129 9136 | LUG,LEAD FIX |

FIXING PARTS

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|--|
| Y01 | 411 165 3803 | SCR S-TPG BIN 2.3X10,F-PANEL |
| Y02 | 411 021 3503 | SCR S-TPG BIN 3X10, F-PANEL+BUTTON,PLAY |
| Y03 | 412 003 1708 | SPECIAL SCREW,FRONT+ASSY,GEAR |
| Y04 | 411 022 4608 | SCR S-TPG FLT 3X8, MECHA+MOUNTING,HOOK |
| Y05 | 411 021 3503 | SCR S-TPG BIN 3X10, F-PANEL+LATCH,CAM+MECHA |
| Y07 | 411 021 3503 | SCR S-TPG BIN 3X10, MTG CD+CD PCB |
| Y08 | 411 021 1806 | SCR S-TPG BIN 2.6X10,MTG CD+DA11 |
| Y09 | 411 092 0906 | WASHER Z 2.6X10X0.5,MTG CD+DA11 |
| Y10 | 412 061 7803 | SPECIAL SCREW,GEAR |
| Y11 | 411 021 3503 | SCR S-TPG BIN 3X10,ASSY, MOTOR+MOUNT CD |
| Y12 | 411 044 7502 | SCR PAN+SW 2X5,MOTOR |
| Y13 | 411 021 3503 | SCR S-TPG BIN 3X10,MTG CD+F-PCB |
| Y14 | 411 021 3503 | SCR S-TPG BIN 3X10, MOUNTING,CD+ASSY,GEAR |
| Y15 | 411 021 4906 | SCR S-TPG BIN 3X20, P-PANEL+MTG CD |
| Y16 | 411 021 3503 | SCR S-TPG BIN 3X10,SWITCH, PWB+MOUNTING CD |
| Y17 | 411 021 3503 | SCR S-TPG BIN 3X10,MAIN PCB |
| Y18 | 411 165 3803 | SCR S-TPG BIN 2.3X10,LID CD+DEC WINDOW CD |
| Y20 | 411 021 3503 | SCR S-TPG BIN 3X10,REAR+STOPPER |
| Y21 | 412 032 6408 | SPECIAL SCREW,REAR+P-TRANS |
| Y22 | 411 021 4906 | SCR S-TPG BIN 3X20,C-REAR |
| Y23 | 411 021 3404 | SCR S-TPG BIN 3X10, C-REAR(ANT TERMINAL) |
| Y24 | 411 021 3404 | SCR S-TPG BIN 3X10,MTG CD+REAR |
| Y25 | 411 021 3404 | SCR S-TPG BIN 3X10,C-REAR+OPT |
| Y26 | 411 098 7800 | SCR S-TPG FLT 3X12, C-REAR+MTG(L/R) |
| Y27 | 411 021 3503 | SCR S-TPG BIN 3X10, REAR+AC CORD PCB |
| Y28 | 411 156 2105 | SCR S-TPG BIN 2.3X6,LUG45 |

ELECTRICAL PARTS

| REF.NO. | PART NO. | DESCRIPTION |
|---------|-----------------------|---------------------------------|
| 51 | Δ 645 044 6078 | TRANS,POWER |
| 52 | Δ 423 016 8103 | FUSE 250V 4A |
| 53 | Δ 645 033 7543 | CORD,POWER-1.6MK |
| or | Δ 645 036 9797 | CORD,POWER-1.6MK |
| or | Δ 645 036 9803 | CORD,POWER-1.6MK |
| 54 | 614 316 8041 | ASSY,WIRE,CD-CD MECHA |
| 55 | 614 316 8072 | FLEXIBLE FLAT CABLE,CD-CD MECHA |
| 56 | 614 316 8027 | ASSY,WIRE,AMP-TAPE MECHA |
| 57 | 614 316 8065 | FLEXIBLE FLAT CABLE,AMP-FR |
| 58 | 614 316 8010 | ASSY,WIRE,R/P HEAD-AMP |
| 59 | 645 031 7637 | CORE,FERRITE |
| | 614 316 8034 | ASSY,WIRE,CD-LID |

PARTS LIST

CD P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|----------------------------|
| 71 | 614 314 9606 | ASSY,PWB CD (Only Initial) |
| CN111 | 645 040 0513 | SOCKET,FPC 15P |
| or | 645 026 2463 | SOCKET,FPC 15P |
| CN113 | 645 005 8127 | PLUG,6P,BASEMECHA |
| or | 614 310 2472 | PLUG,6P,BASEMECHA |
| CN114 | 645 005 9292 | PLUG,5P |
| or | 614 310 2465 | PLUG,5P |
| CN115 | 614 316 7990 | ASSY,WIRE,WIRE |
| D1211 | 407 099 4603 | ZENER DIODE MTZJ3.9B |
| D1402 | 407 099 5204 | ZENER DIODE MTZJ5.1B |
| D1404 | 407 012 4406 | DIODE 1SS133 |
| IC101 | 409 396 8100 | IC LA9241ML |
| IC102 | 409 435 2106 | IC LC78622NE |
| IC103 | △ 409 372 9602 | IC LA6541 |
| IC104 | △ 409 441 4507 | IC TA7291S(M) |
| L1451 | 645 031 7835 | INDUCTOR,10U K |
| or | 645 001 4550 | INDUCTOR,10U K |
| PR140 | △ 645 014 2499 | PROTECTOR,0.4A 125V |
| Q1301 | 405 151 4608 | TR KTA1270-O |
| or | 405 151 4509 | TR KTA1270-Y |
| or | 405 008 6809 | TR 2SB808-F-SPA |
| or | 405 008 7103 | TR 2SB808-G-SPA |
| Q1401 | △ 405 009 5306 | TR 2SB927-T |
| or | △ 405 009 5207 | TR 2SB927-S |
| or | △ 405 141 3604 | TR KTA1273-Y |
| R1211 | △ 402 082 0709 | RESISTOR 5.6 J- 2W |
| X1451 | 645 020 9024 | OSC,CRYSTAL 16.9344MHZ |

FRONT P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-------------------------------|
| 72 | 614 314 9590 | ASSY,PWB FRONT (Only Initial) |
| AH601 | 614 314 2621 | HOLDER,LCD,HOLDER_LCD |
| AR601 | 614 315 6505 | REFLECTOR,REFLECTOR_LCD |
| AS601 | 614 314 3000 | DEC,SHEET,LCD,DEC_SHEET_LCD |
| C6011 | 403 262 8607 | DL-ELECT 0.047F Z 5.5V |
| or | 403 304 4802 | DL-ELECT 0.047F Z 5.5V |
| CN601 | 645 012 5362 | SOCKET,FPC 32P |
| D6010 | 407 012 4406 | DIODE 1SS133 |
| D6110 | 407 012 4406 | DIODE 1SS133 |
| D6111 | 407 012 4406 | DIODE 1SS133 |
| D6112 | 407 012 4406 | DIODE 1SS133 |
| D6113 | 407 012 4406 | DIODE 1SS133 |
| D6114 | 407 099 5303 | ZENER DIODE MTZJ5.6B |
| D6115 | 407 099 4603 | ZENER DIODE MTZJ3.9B |
| D6310 | 407 221 6109 | LED FA5366X * See page 5. |
| D6311 | 407 222 3800 | LED E1L55-7B0A |
| IC601 | 410 405 4204 | IC LC867240A-5V46 |
| L6010 | 645 001 5441 | INDUCTOR,2.2U K |
| LCD60 | 645 043 6239 | LCD |
| Q6101 | 405 141 3307 | TR KTC3198-GR |
| or | 405 141 3208 | TR KTC3198-Y |
| or | 405 019 3804 | TR 2SC536-G-NP |
| or | 405 019 2708 | TR 2SC536-F-NP |
| Q6102 | 405 004 5004 | TR 2SA608-G-NP |
| or | 405 004 4502 | TR 2SA608-F-NP |
| or | 405 141 3505 | TR KTA1266-Y |
| or | 405 141 3406 | TR KTA1266-GR |
| Q6103 | 405 004 4502 | TR 2SA608-F-NP |
| or | 405 004 5004 | TR 2SA608-G-NP |
| or | 405 141 3505 | TR KTA1266-Y |
| or | 405 141 3406 | TR KTA1266-GR |
| Q6105 | 405 000 3806 | TR DTC114YS |
| or | 405 143 0007 | TR KRC107M |

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|------------------------|
| Q6106 | 405 000 3806 | TR DTC114YS |
| or | 405 143 0007 | TR KRC107M |
| Q6107 | 405 004 5004 | TR 2SA608-G-NP |
| or | 405 004 4502 | TR 2SA608-F-NP |
| or | 405 141 3505 | TR KTA1266-Y |
| or | 405 141 3406 | TR KTA1266-GR |
| Q6108 | 405 017 9709 | TR 2SC3330-U |
| or | 405 017 9600 | TR 2SC3330-T |
| or | 405 011 8609 | TR 2SC1740S-S |
| or | 405 011 8500 | TR 2SC1740S-R |
| or | 405 143 8706 | TR KTC3199-GR |
| S6001 | 645 044 6535 | SWITCH,ROTARY(ENCODER) |
| S6110 | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| S6111 | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| S6112 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6113 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6114 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6115 | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |
| S6116 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6117 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6118 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6119 | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| S6210 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6211 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6212 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6213 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6214 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6215 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6216 | 645 006 5958 | SWITCH,PUSH 1P-1T |
| or | 614 240 1002 | SWITCH,TACT |
| or | 614 220 5471 | SWITCH,TACT |
| S6217 | 614 220 5471 | SWITCH,TACT |
| or | 614 240 1002 | SWITCH,TACT |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T |

PARTS LIST

| REF.NO. | PART NO. | DESCRIPTION | REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|------------------------|---------|----------------|--------------------|
| S6218 | 614 240 1002 | SWITCH,TACT | D4994 | 407 098 3300 | DIODE RL153-BF-S2 |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T | D4998 | 407 012 4406 | DIODE 1SS133 |
| S6219 | 614 220 5471 | SWITCH,TACT | HS401 | 614 314 3017 | HEAT SINK,HEATSINK |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T | IC231 | 409 474 3201 | IC LA1844ML |
| or | 614 240 1002 | SWITCH,TACT | IC241 | 409 439 4502 | IC LC72121M-D |
| S6220 | 614 220 5471 | SWITCH,TACT | IC440 | 409 451 7406 | IC AN7348K |
| or | 645 006 5958 | SWITCH,PUSH 1P-1T | IC441 | 409 500 2208 | IC LC75343-MPB |
| or | 614 240 1002 | SWITCH,TACT | IC442 | △ 409 451 2104 | IC TDA7269 |
| SE601 | 407 217 1101 | PHOTO DIODE SPS-442-1G | IC443 | 409 189 3404 | IC BA7755A |
| X6101 | 645 032 1627 | OSC,CRYSTAL 32.768KHZ | IC445 | 409 469 6200 | IC MM1453XF |
| X6102 | 645 018 6103 | OSC,CERAMIC 6.000MHZ | IC446 | △ 409 039 9204 | IC NJM78L05A |
| | 614 317 3397 | CUSHION | L2100 | △ 645 037 2858 | CORE,PIPE |
| | | | L2101 | △ 645 037 2858 | CORE,PIPE |

TUNER & AMPLIFIER P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION | REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|--------------------------------|---------|----------------|---------------------|
| 73 | 614 314 5028 | ASSY,PWB AMP-TU (Only Initial) | L2151 | 645 040 2685 | TRANS,ANT,796KHZ |
| C2457 | 403 259 0508 | NP-ELECT 1U M 50V | L2152 | 645 046 7998 | TRANS,ANT,796KHZ |
| C4601 | 403 057 3503 | POLYESTER 0.1U K 50V | L2153 | 645 040 2708 | TRANS,OSC,796KHZ |
| C4605 | 403 061 3605 | POLYESTER 0.039U J 50V | L2154 | 645 040 2722 | TRANS,OSC,796KHZ |
| C4606 | 403 061 7702 | POLYESTER 4700P J 50V | L2301 | 645 004 0580 | INDUCTOR,1M J |
| C4607 | 403 059 3204 | POLYESTER 2200P J 50V | L2451 | 645 001 4581 | INDUCTOR,100U K |
| C4608 | 403 060 2807 | POLYESTER 0.027U K 50V | or | 645 031 7842 | INDUCTOR,100U K |
| C4743 | 403 057 3503 | POLYESTER 0.1U K 50V | L4600 | 645 006 1523 | INDUCTOR,470U J |
| C4843 | 403 057 3503 | POLYESTER 0.1U K 50V | L4601 | 645 006 1523 | INDUCTOR,470U J |
| C4950 | 403 332 7400 | ELECT 2200U M 50V | L4602 | 645 037 2858 | CORE,PIPE |
| C4984 | 403 194 3800 | ELECT 2200U M 25V | L4603 | 645 006 1523 | INDUCTOR,470U J |
| or | 403 329 3309 | ELECT 2200U M 25V | L4604 | 645 037 2858 | CORE,PIPE |
| CN201 | 614 255 5750 | TERMINAL | LUG45 | 614 129 9068 | LUG |
| or | 645 032 6394 | TERMINAL | LUG46 | 614 129 9082 | LUG |
| CN400 | 645 012 5362 | SOCKET,FPC 32P | PR495 | △ 645 014 2505 | PROTECTOR,0.8A 125V |
| CN430 | 645 005 7373 | PLUG,3P | PR496 | △ 645 014 2512 | PROTECTOR,1A 125V |
| or | 614 310 2441 | PLUG,3P | Q2140 | 405 020 7402 | TR 2SC945A-P |
| CN431 | 407 218 1100 | PHOTO COUPLE GP1FA550TZ | or | 405 020 7204 | TR 2SC945A-K |
| or | 407 215 1608 | PHOTO COUPLE TOTX178A | or | 405 019 3705 | TR 2SC536-G-AUD-SPA |
| CN440 | 614 310 2472 | PLUG,6P | or | 405 017 9709 | TR 2SC3330-U |
| or | 645 005 8127 | PLUG,6P | or | 405 017 9600 | TR 2SC3330-T |
| CN441 | 614 310 2748 | PLUG,3P,POWER | or | 405 011 8609 | TR 2SC1740S-S |
| or | 645 004 2898 | PLUG,3P,POWER | or | 405 011 8500 | TR 2SC1740S-R |
| CN445 | 614 310 2519 | PLUG,10P | or | 405 143 8706 | TR KTC3199-GR |
| or | 645 005 8158 | PLUG,10P | Q2152 | 405 016 0806 | TR 2SC2839-E |
| CN450 | 614 276 6835 | SOCKET,JACK | or | 405 151 4103 | TR KTC3193-Y |
| CN455 | 645 011 6384 | JACK,PHONE D3.6,HEADPHONE | or | 405 151 4202 | TR KTC3193-O |
| CN456 | 645 006 1875 | PLUG,2P,SPEAKER | Q2153 | 405 151 4202 | TR KTC3193-O |
| CN457 | 645 006 1875 | PLUG,2P,SPEAKER | or | 405 151 4103 | TR KTC3193-Y |
| CN458 | 645 043 8905 | JACK,RCA | or | 405 016 0806 | TR 2SC2839-E |
| CT251 | 645 032 5236 | TRIMMER,18PF | Q2154 | 405 016 0806 | TR 2SC2839-E |
| CT252 | 645 032 5663 | TRIMMER,7PF | or | 405 151 4202 | TR KTC3193-O |
| D2103 | 407 012 4406 | DIODE 1SS133 | or | 405 151 4202 | TR KTC3193-O |
| D2104 | 407 012 4406 | DIODE 1SS133 | Q2155 | 405 016 0806 | TR 2SC2839-E |
| D2151 | 407 012 4406 | DIODE 1SS133 | or | 405 151 4103 | TR KTC3193-Y |
| D2153 | 407 105 1602 | VARACTOR DI SVC342M-V | or | 405 151 4202 | TR KTC3193-O |
| or | 407 105 1305 | VARACTOR DI SVC342L-V | Q2157 | 405 035 8609 | TR 2SK544-F |
| D2301 | 407 063 9108 | ZENER DIODE MTZJ6.8B | or | 405 035 8708 | TR 2SK544-E |
| D2450 | 407 012 4406 | DIODE 1SS133 | Q2201 | 405 016 0806 | TR 2SC2839-E |
| D2451 | 407 012 4406 | DIODE 1SS133 | or | 405 151 4103 | TR KTC3193-Y |
| D2452 | 407 153 7502 | ZENER DIODE GZS3.0B | or | 405 151 4202 | TR KTC3193-O |
| D2453 | 407 012 4406 | DIODE 1SS133 | Q2310 | 405 020 7402 | TR 2SC945A-P |
| D2454 | 407 012 4406 | DIODE 1SS133 | or | 405 020 7204 | TR 2SC945A-K |
| D2455 | 407 012 4406 | DIODE 1SS133 | or | 405 019 3705 | TR 2SC536-G-AUD-SPA |
| D2456 | 407 012 4406 | DIODE 1SS133 | or | 405 017 9709 | TR 2SC3330-U |
| D2466 | 407 012 4406 | DIODE 1SS133 | or | 405 017 9600 | TR 2SC3330-T |
| D4500 | 407 012 4406 | DIODE 1SS133 | or | 405 011 8609 | TR 2SC1740S-S |
| D4960 | 407 012 4406 | DIODE 1SS133 | or | 405 011 8500 | TR 2SC1740S-R |
| D4991 | 407 099 6805 | ZENER DIODE MTZJ13B | or | 405 143 8706 | TR KTC3199-GR |
| D4992 | △ 407 099 6003 | ZENER DIODE MTZJ9.1B | Q2451 | 405 036 3702 | TR 2SA1564 |
| D4993 | 407 012 4406 | DIODE 1SS133 | or | 405 151 5209 | TR KRA107M |

PARTS LIST

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|-------------------------|
| or | 405 000 0904 | TR DTA114YS |
| or | 405 078 2404 | TR BN1A4P |
| Q2452 | 405 078 2404 | TR BN1A4P |
| or | 405 000 0904 | TR DTA114YS |
| or | 405 151 5209 | TR KRA107M |
| or | 405 036 3702 | TR 2SA1564 |
| Q2453 | 405 036 3702 | TR 2SA1564 |
| or | 405 151 5209 | TR KRA107M |
| or | 405 000 0904 | TR DTA114YS |
| or | 405 078 2404 | TR BN1A4P |
| Q4410 | 405 141 3406 | TR KTA1266-GR |
| or | 405 141 3505 | TR KTA1266-Y |
| or | 405 004 4502 | TR 2SA608-F-NP |
| or | 405 004 5004 | TR 2SA608-G-NP |
| Q4501 | 405 000 3806 | TR DTC114YS |
| or | 405 143 0007 | TR KRC107M |
| Q4502 | 405 143 0007 | TR KRC107M |
| or | 405 000 3806 | TR DTC114YS |
| Q4600 | 405 155 0002 | TR MPSA56 |
| Q4601 | 405 000 3806 | TR DTC114YS |
| or | 405 143 0007 | TR KRC107M |
| Q4602 | 405 019 3804 | TR 2SC536-G-NP |
| or | 405 019 2708 | TR 2SC536-F-NP |
| or | 405 141 3307 | TR KTC3198-GR |
| or | 405 141 3208 | TR KTC3198-Y |
| Q4603 | 405 141 3208 | TR KTC3198-Y |
| or | 405 019 2708 | TR 2SC536-F-NP |
| or | 405 141 3307 | TR KTC3198-GR |
| or | 405 019 3804 | TR 2SC536-G-NP |
| Q4700 | 405 000 3806 | TR DTC114YS |
| or | 405 143 0007 | TR KRC107M |
| Q4800 | 405 000 3806 | TR DTC114YS |
| or | 405 143 0007 | TR KRC107M |
| Q4950 | 405 141 3307 | TR KTC3198-GR |
| or | 405 019 2708 | TR 2SC536-F-NP |
| or | 405 019 3804 | TR 2SC536-G-NP |
| or | 405 141 3208 | TR KTC3198-Y |
| Q4960 | 405 155 0002 | TR MPSA56 |
| Q4961 | 405 155 0002 | TR MPSA56 |
| Q4962 | 405 000 3806 | TR DTC114YS |
| or | 405 143 0007 | TR KRC107M |
| Q4963 | 405 000 3806 | TR DTC114YS |
| or | 405 143 0007 | TR KRC107M |
| Q4990 | △ 405 138 6403 | TR KTD2058Y |
| or | △ 405 095 1602 | TR 2SD2061-E |
| or | △ 405 095 1701 | TR 2SD2061-F |
| Q4991 | △ 405 095 1602 | TR 2SD2061-E |
| or | △ 405 095 1701 | TR 2SD2061-F |
| or | △ 405 138 6403 | TR KTD2058Y |
| Q4992 | 405 141 3703 | TR KTA1271-Y |
| or | 405 008 2405 | TR 2SB698-F |
| or | 405 008 2504 | TR 2SB698-G |
| Q4993 | 405 141 3703 | TR KTA1271-Y |
| or | 405 008 2405 | TR 2SB698-F |
| or | 405 008 2504 | TR 2SB698-G |
| Q4994 | 405 000 3806 | TR DTC114YS |
| or | 405 143 0007 | TR KRC107M |
| R4742 | △ 402 071 1304 | FUSIBLE RES 2.2 JA 1/4W |
| R4842 | △ 402 071 1304 | FUSIBLE RES 2.2 JA 1/4W |
| S0001 | 614 317 3007 | SHIELD,PLATE |
| S4901 | 614 215 9828 | SWITCH,TACT |
| SA401 | 411 021 6405 | SCR S-TPG BIN 3X8 |
| SA402 | 411 021 6405 | SCR S-TPG BIN 3X8 |
| SA403 | 411 021 6405 | SCR S-TPG BIN 3X8 |
| SA404 | 411 021 6405 | SCR S-TPG BIN 3X8 |
| SA405 | 411 021 6405 | SCR S-TPG BIN 3X8 |
| SH201 | 614 310 5404 | SHIELD,ANTENA |

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-------------------------|
| T2002 | 645 046 2023 | FILTER,450KHZ |
| U2101 | 645 043 6697 | TUNER,FM |
| X2451 | 645 023 4965 | OSC,CRYSTAL 7.2MHZ |
| XF221 | 645 010 7665 | CERAMIC FILTER 10.70MHZ |
| or | 645 010 0079 | CERAMIC FILTER 10.70MHZ |
| or | 614 240 2917 | FILTER,CERAM |
| XF222 | 645 010 7665 | CERAMIC FILTER 10.70MHZ |
| or | 645 010 0079 | CERAMIC FILTER 10.70MHZ |
| or | 614 240 2917 | FILTER,CERAM |
| XF231 | 645 041 9324 | CERAMIC FILTER 450KHZ |
| XF233 | 645 039 9923 | TRANS,IF 10.7MHZ |
| or | 645 040 9981 | TRANS,IF 10.7MHZ |

POWER TRANSFORMER, PRIMARY P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|-----------------------------|
| 74 | 614 314 9613 | ASSY,PWB PT1 (Only Initial) |
| CN411 | 614 017 8203 | TERMINAL BOARD |
| CN412 | 614 017 8203 | TERMINAL BOARD |
| L4191 | △ 645 041 3087 | INDUCTOR,180U |
| or | △ 645 038 6053 | INDUCTOR,181U |
| or | △ 645 017 8061 | INDUCTOR,181M |

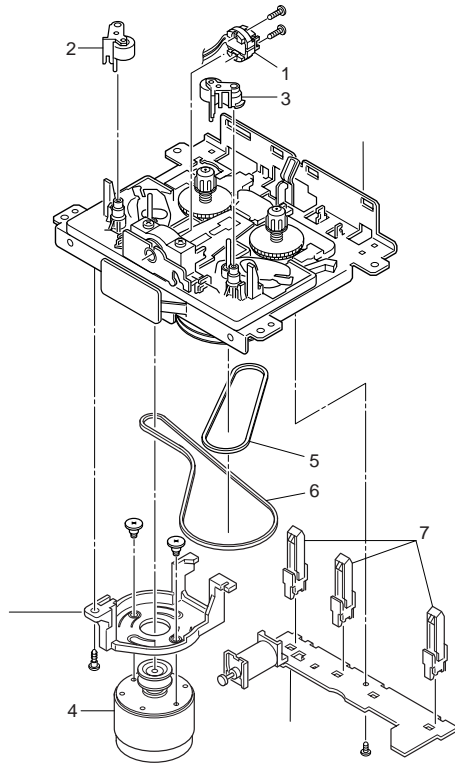
POWER TRANSFORMER, SECONDARY P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|----------------|-----------------------------|
| 75 | 614 314 9620 | ASSY,PWB PT2 (Only Initial) |
| CN420 | 614 020 1222 | SOCKET,3P |
| CN421 | 614 316 8003 | ASSY,WIRE,PT-AMPWIRE |
| D4280 | △ 407 196 5800 | DIODE 1N5402BD82 |
| D4281 | △ 407 196 5800 | DIODE 1N5402BD82 |
| D4282 | △ 407 196 5800 | DIODE 1N5402BD82 |
| D4283 | △ 407 196 5800 | DIODE 1N5402BD82 |
| D4284 | △ 407 098 3300 | DIODE RL153-BF-S2 |
| FCL41 | △ 645 006 4760 | HOLDER,FUSE |
| or | △ 645 031 7903 | HOLDER,FUSE |
| FCL42 | △ 645 006 4760 | HOLDER,FUSE |
| or | △ 645 031 7903 | HOLDER,FUSE |
| PR420 | △ 645 014 2567 | PROTECTOR,2.5A 125V |

CD LID SWITCH P.W.BOARD ASSY

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|-----------------------------------|
| 76 | 614 316 5170 | ASSY,PWB CD LID SW (Only Initial) |
| S1900 | 645 044 8782 | SWITCH,LEVER |
| S1901 | 645 044 8799 | SWITCH,LEVER |

PARTS LIST(TAPE MECHANISM)



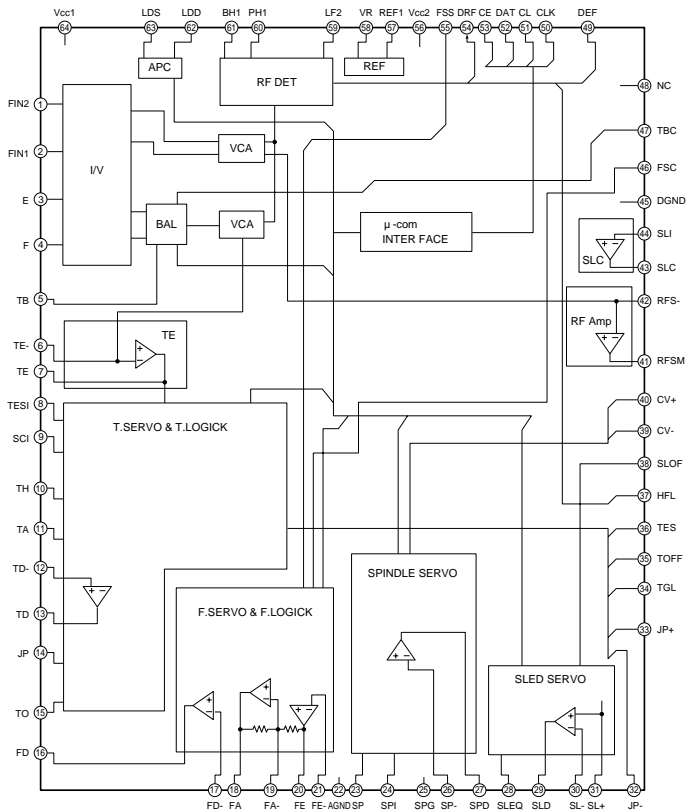
TAPE MECHANISM

| REF.NO. | PART NO. | DESCRIPTION |
|---------|--------------|---------------------------|
| | 614 315 4839 | ASSY,MECHA,TM-DA370TN-SH |
| 1 | 645 045 1799 | R/P,E HEAD KC-9142EA-0321 |
| 2 | 645 010 9454 | PINCH ROLLER(R) ASSY |
| 3 | 645 010 9447 | PINCH ROLLER(F) ASSY |
| 4 | 645 045 1751 | ASSY,MOTOR |
| 5 | 645 045 1959 | RF BELT |
| 6 | 645 045 1997 | MAIN BELT |
| 7 | 645 045 2048 | DETECT SWITCH MXS01190 |

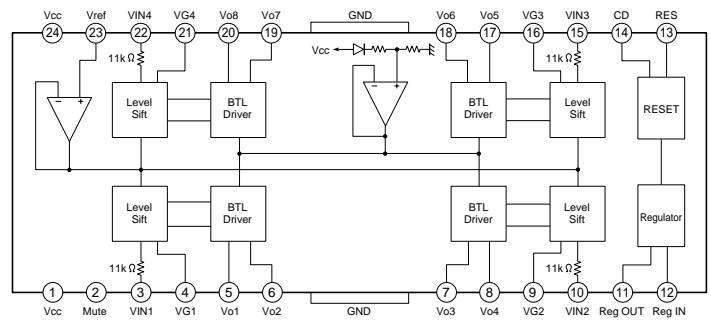
N.S.P : Not supplied as service parts.

IC BLOCK DIAGRAM & DESCRIPTION

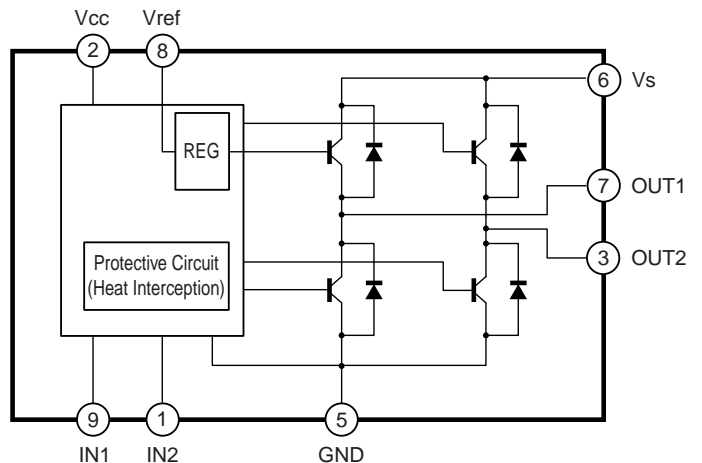
IC101 LA9241M (Servo Signal Processor)



IC103 LA6541 (Pick-up Actuator & Motor Driver)

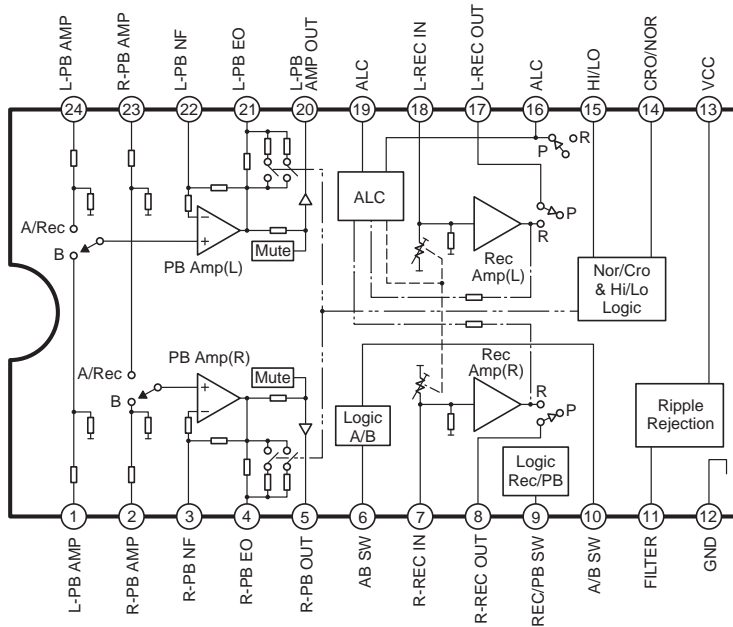


IC104 TA7291S(Bridge Driver)

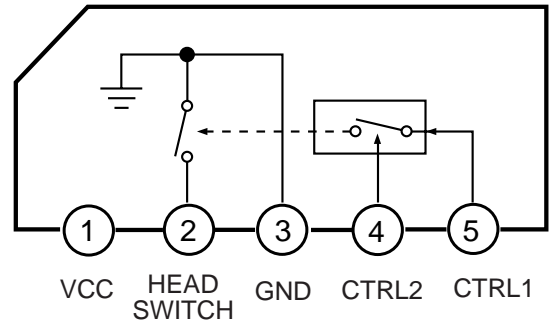


IC BLOCK DIAGRAM & DESCRIPTION

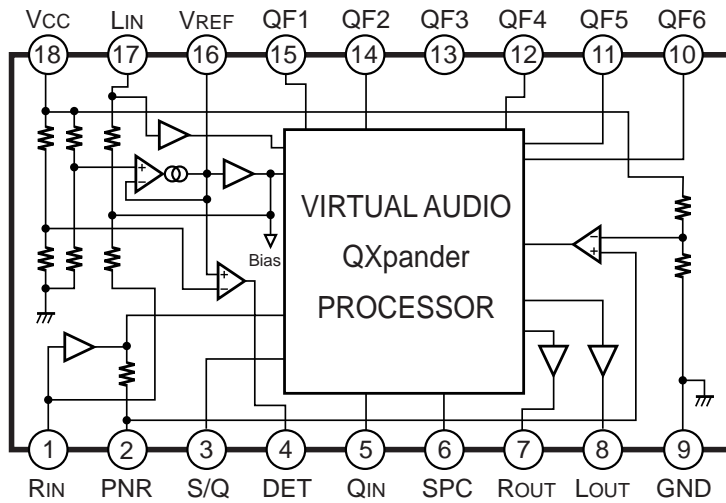
IC440 AN7348K (Play/Rec Pre Amp)



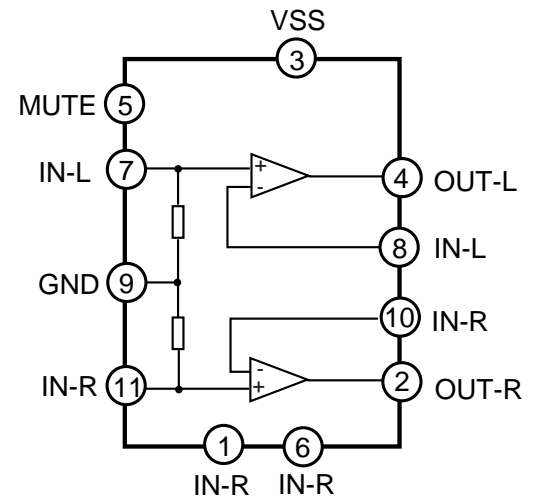
IC443 BA7755A (Head Switch)



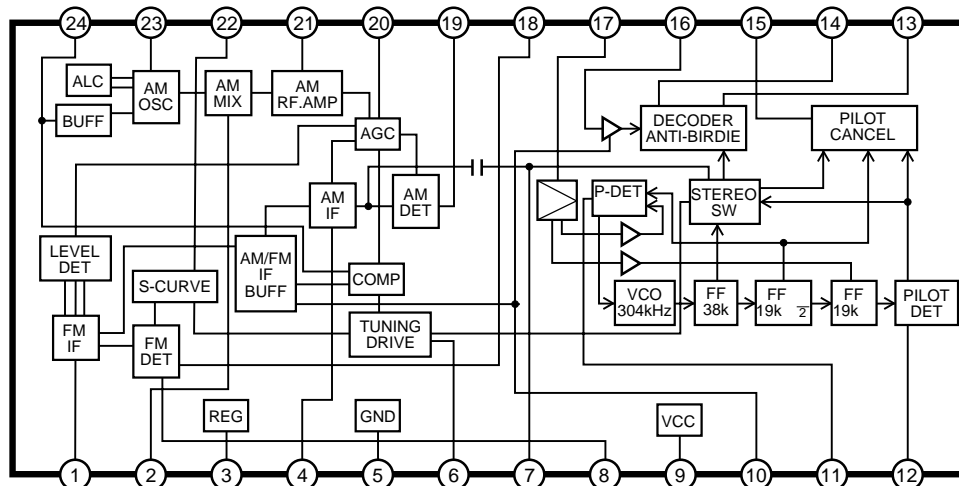
IC445 MM1453XF (Q Xpander with Spread Control)



IC442 TDA7269 (Stereo Amplifier)



IC231 LA1844ML (Tuner System)

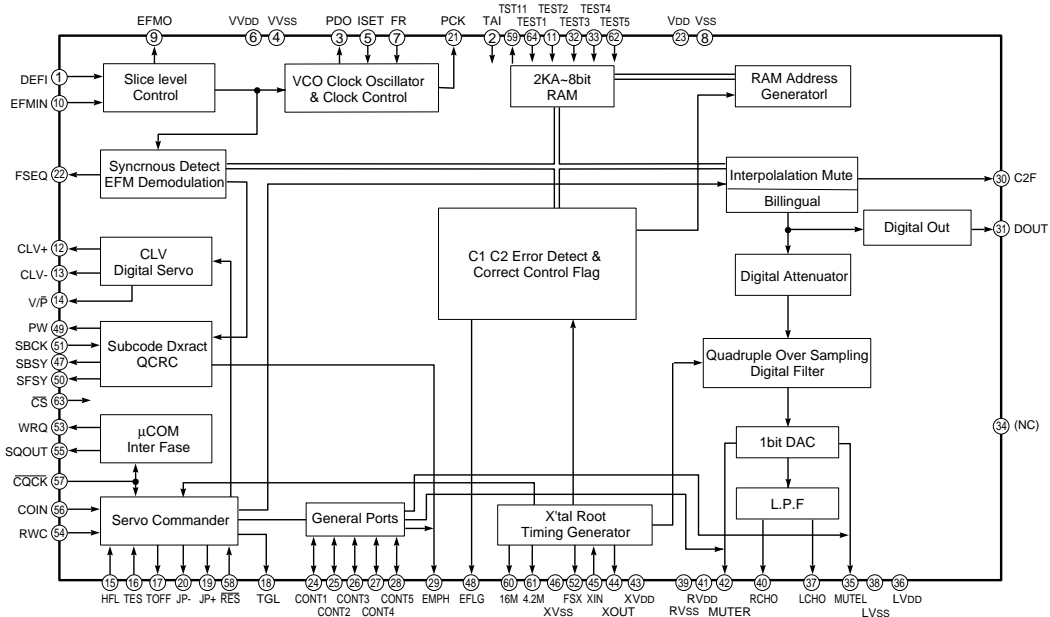


IC BLOCK DIAGRAM & DESCRIPTION

IC102 LC78622NE (Digital Signal Processor)

| No. | Pin Name | I/O | Function |
|-----|----------|-----|---|
| 1 | DEFI | I | Input terminal for detect signal of defect |
| 2 | TAI | I | Input terminal for test. |
| 3 | PDO | O | The phase comparison output terminal for external VCO control. |
| 4 | VVSS | - | Ground terminal for built-in VCO |
| 5 | ISET | I | Resistance connection terminal for electric current adjustment of PDO output. |
| 6 | VVDD | - | Built-in VCO power supply terminal. |
| 7 | FR | I | VCO frequency range adjustment. |
| 8 | VSS | - | Ground for Digital |
| 9 | EFMO | O | EFM signal output terminal for slice level control. |
| 10 | EFMIN | I | EFM signal input terminal for slice level control. |
| 11 | TEST2 | I | TEST pin. Normal time is non connection. |
| 12 | CLV+ | O | Output terminal for Disc motor control. |
| 13 | CLV- | O | Output terminal for Disc motor control. |
| 14 | V/P | O | Change of rough servo / phase control Rough servo : "H", Phase control : "L" |
| 15 | HFL | I | Input terminal of track search signal. |
| 16 | TES | I | Input terminal of tracking error signal. |
| 17 | TOFF | O | Output terminal of tracking off. |
| 18 | TGL | O | Output terminal for change of tracking gain. |
| 19 | JP+ | O | Output terminal for tracking jump control. |
| 20 | JP- | O | Output terminal for tracking jump control. |
| 21 | PCK | O | Clock monitor output terminal for EFM data playback. (4.3218 MHz) |
| 22 | FSEQ | O | Output terminal for detect of SYNC signal. |
| 23 | DVDD | - | +5V |
| 24 | CONT1 | I/O | This output can control at serial control from micro processor. |
| 25 | CONT2 | I/O | |
| 26 | CONT3 | I/O | |
| 27 | CONT4 | I/O | |
| 28 | CONT5 | I/O | |
| 29 | EMPH | O | Output terminal of de-emphasis monitor . "H" : de-emphasis |
| 30 | C2F | O | Output terminal of C2 flag |
| 31 | DOUT | O | Output terminal of digital out |

| No. | Pin Name | I/O | Function |
|-----|----------|-----|--|
| 32 | TEST3 | I | Test pin. |
| 33 | TEST4 | I | Test pin. |
| 34 | NC | - | Non connection. |
| 35 | MUTEL | O | Mute output terminal for L-ch |
| 36 | LVDD | - | Power supply for L-ch |
| 37 | LCHO | O | Output terminal for L-ch |
| 38 | LVSS | - | GND for L-ch |
| 39 | RVSS | - | GND for R-ch |
| 40 | RCHO | O | Output terminal for R-ch |
| 41 | RVDD | - | Power supply for R-ch |
| 42 | MUTER | O | Mute output terminal for R-ch |
| 43 | XVDD | - | Power supply of crystal oscillation |
| 44 | XOUT | O | Connection terminal of crystal oscillation (16.9344MHz) |
| 45 | XIN | I | Connection terminal of crystal oscillation (16.9344MHz) |
| 46 | XVSS | - | GND of crystal oscillation |
| 47 | SBSY | O | Output terminal for synchronizing signal of sub-cord block |
| 48 | EFLG | O | Output terminal for correction monitor of C1, C2, Single and Double |
| 49 | PW | O | Output terminal for sub-cord of P, Q, R, S, T, U and W |
| 50 | SFSY | O | Output terminal for synchronizing signal of sub-cord frame |
| 51 | SBCK | I | Input terminal for readout clock of sub-cord |
| 52 | FSX | O | Output terminal of Synchronizing signal (7.35kHz) |
| 53 | WRQ | O | Output terminal for standby of sub-cord Q output |
| 54 | RWC | I | Input terminal of read / write control |
| 55 | SQOUT | O | Output terminal of sub-cord Q |
| 56 | COIN | I | Input terminal of command from micro processor |
| 57 | CQCK | I | Clock input for reading sub-cord from SQOUT |
| 58 | RES | I | Reset (turn on : L) |
| 59 | TST11 | O | Test pin |
| 60 | 16M | O | 16.9344MHz |
| 61 | 4.2M | O | 4.2336MHz |
| 62 | TEST5 | I | Test pin |
| 63 | CS | I | Chip select terminal |
| 64 | TEST1 | I | Test pin |



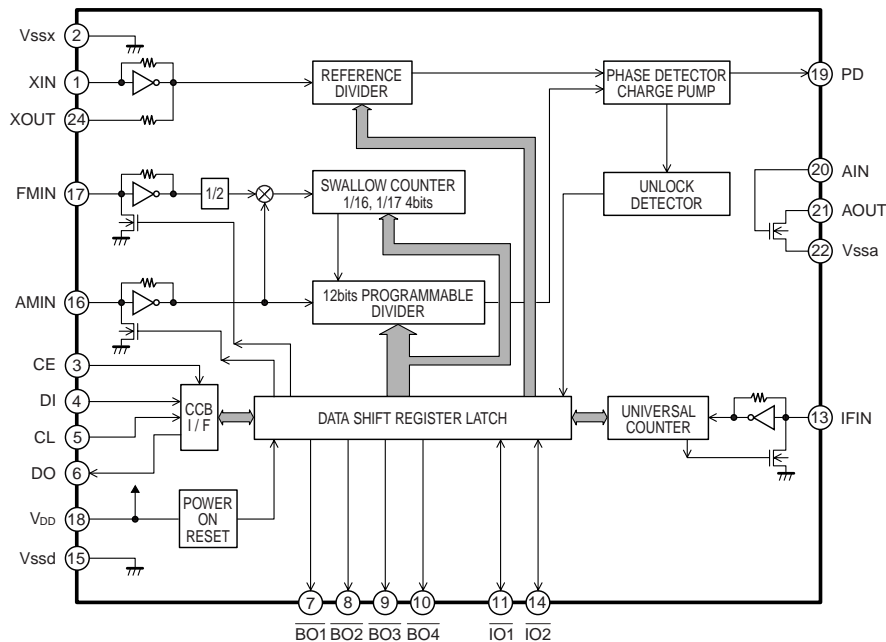
IC BLOCK DIAGRAM & DESCRIPTION

IC601 LC867240A-5V46 (Micro Processor)

| Pin No | Pin Name | Symbol | I/O | Function |
|--------|---------------|--------------|-----|--|
| 1 | P06 | AMBER_LED | O | AMBER_LED Output |
| 2 | P07 | DSP_RESET | O | DSP Reset Signal |
| 3 | P10/S00 | COIN | O | CD_DSPInterface(command+data Output) |
| 4 | P11/SIO/SB0 | SQOUT | I | CD_DSPInterface(SubQ dataInput) |
| 5 | P12/SCK0 | CQCK | O | CD_DSPInterface(Clock) |
| 6 | P13/S01 | VD_GND | O | Processor Power Check (GND) Control Output |
| 7 | P14/SII/SB1 | Sift | O | Shift Control for Micon Oscillation Frequency |
| 8 | P15/SCK1 | RWC | O | CD_DSP Interface(Command latch Output) |
| 9 | P16/BUZ | JOG+ | I | Jog Dial + |
| 10 | P17/PWM0 | JOG- | I | Jog Dial - |
| 11 | P70/INT0 | DRF | I | DRF Signal Input |
| 12 | RES/ | Reset | | Reset Switch |
| 13 | XT1/P74 | | | Sub Clock OSC |
| 14 | XT2/P75 | | | Sub Clock OSC |
| 15 | VSS1 | | | Gnd |
| 16 | CF1 | | | Main Clock OSC |
| 17 | CF2 | | | Main Clock OSC |
| 18 | VDD1 | | | Power Supply Terminal |
| 19 | P80/AN0 | | | |
| 20 | P81/AN1 | Key1 | A/D | Key In |
| 21 | P82/AN2 | Key2 | A/D | Key In |
| 22 | P83/AN3 | Open SW | I | Top Lid Open Sens. Switch |
| 23 | P84/AN4 | Close SW | I | Top Lid Close Sens. Switch |
| 24 | P85/AN5 | LIMIT_SW | I | Limit Switch |
| 25 | P86/AN6 | C2F | I | DSP C2F Input |
| 26 | P87/AN7 | M-Media | I | Multi Media Input |
| 27 | P71/INT1 | WRQ | I | CD DSP Interface (SubQ Request) |
| 28 | P72/INT2/TOIN | RDS_IN | I | Serial Data for RDS IC Input |
| 29 | P73/INT2/TOIN | IR | I | Remotecontrol Input |
| 30 | S0/PA0 | V_CHK | I | Power failure Detect/Processor Power Check Input |
| 31 | S1/PA1 | G_REVS | I | Miss Recording SW(tapeAB side)Input |
| 32 | S2/PA2 | G_FWD | I | Miss Recording SW(tapeB side)Input |
| 33 | S3/PA3 | PACK | I | Tape Park Check Input |
| 34 | S4/PA4 | TAPE_INI | I | Tape Deck Initialize |
| 35 | S5/PA5 | REEL | I | Real Rotating signal Input |
| 36 | S6/PA6 | Tape Play PL | O | Tape Play Plunger Output |
| 37 | S7/PA7 | Motor | O | Tape Motor Output |
| 38 | S8/PA8 | B E A T | O | Beat Cancel Control |
| 39 | S9/PB1 | R Mute | O | Tape Recording Mute |
| 40 | S10/PB2 | OSC | O | Tape Oscillation ON/OFF Control |
| 41 | S11/PB3 | SURROUND | O | Surround Output |
| 42 | S12/PB4 | | O | LCD Pin No5 |
| 43 | S13/PB5 | | O | LCD Pin No6 |
| 44 | S14/PB6 | | O | LCD Pin No7 |
| 45 | S15/PB7 | | O | LCD Pin No8 |
| 46 | S16/PC0 | | O | LCD Pin No9 |
| 47 | S17/PC1 | | O | LCD Pin No10 |
| 48 | S18/PC2 | | O | LCD Pin No11 |
| 49 | S19/PC3 | | O | LCD Pin No12 |
| 50 | S19/PC4 | | O | LCD Pin No13 |

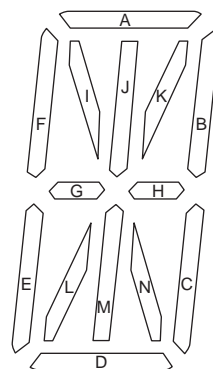
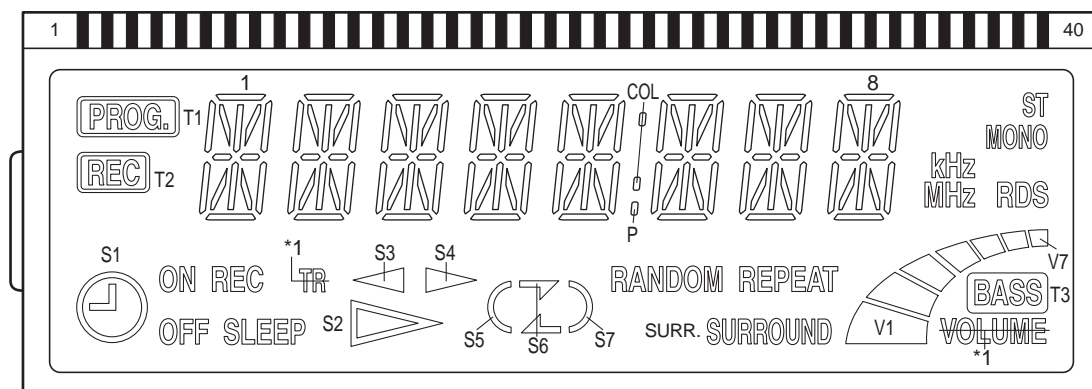
| Pin No | Pin Name | Symbol | I/O | Function |
|--------|----------|-----------|-----|--|
| 51 | S21/PC5 | | O | LCD Pin No14 |
| 52 | S22/PC6 | | O | LCD Pin No15 |
| 53 | S23/PC7 | | O | LCD Pin No16 |
| 54 | S24/PD0 | | O | LCD Pin No17 |
| 55 | S25/PD1 | | O | LCD Pin No18 |
| 56 | VDD2 | Vdd | O | Vdd |
| 57 | VSS2 | Vss | O | Gnd |
| 58 | S26/PD2 | | O | LCD Pin No19 |
| 59 | S27/PD3 | | O | LCD Pin No20 |
| 60 | S28/PD4 | | O | LCD Pin No21 |
| 61 | S29/PD5 | | O | LCD Pin No22 |
| 62 | S30/PD6 | | O | LCD Pin No23 |
| 63 | S31/PD7 | | O | LCD Pin No24 |
| 64 | S32/PE0 | | O | LCD Pin No25 |
| 65 | S33/PE1 | | O | LCD Pin No26 |
| 66 | S34/PE2 | | O | LCD Pin No27 |
| 67 | S35/PE3 | | O | LCD Pin No28 |
| 68 | S36/PE4 | | O | LCD Pin No29 |
| 69 | S37/PE5 | | O | LCD Pin No30 |
| 70 | S38/PE6 | | O | LCD Pin No31 |
| 71 | S39/PE7 | | O | LCD Pin No32 |
| 72 | S40/PF0 | | O | LCD Pin No33 |
| 73 | S41/PF1 | | O | LCD Pin No34 |
| 74 | S42/PF2 | | O | LCD Pin No35 |
| 75 | S43/PF3 | | O | LCD Pin No36 |
| 76 | S44/PF4 | | O | LCD Pin No37 |
| 77 | S45/PF5 | | O | LCD Pin No38 |
| 78 | S46/PF6 | | O | LCD Pin No39 |
| 79 | S47/PF7 | | O | LCD Pin No40 |
| 80 | V3/PL6 | | | |
| 81 | V2/PL5 | | | |
| 82 | V1/PL4 | | | |
| 83 | COM0/PL0 | LCD COM1 | O | LCD COM 1 (LCD Panel Pin1) |
| 84 | COM1/PL1 | LCD COM2 | O | LCD COM 2 (LCD Panel Pin2) |
| 85 | COM2/PL2 | LCD COM3 | O | LCD COM 3 (LCD Panel Pin3) |
| 86 | COM4/PL3 | LCD COM4 | O | LCD COM 4 (LCD Panel Pin4) |
| 87 | P30 | D_CHK | O | Serial Clock Output for Tuner/Volume FUNC IC |
| 88 | P31 | TU_DUT | O | Serial Data Output for Tuner IC |
| 89 | VSS3 | Vss | O | Gnd |
| 90 | VDD3 | Vdd | O | Power Supply Terminal |
| 91 | P32 | VF_DO | O | Serial Data Output for VOL_FUNC IC |
| 92 | P33 | VF_CE | O | Serial Data Output for VOL_FUNC IC |
| 93 | P34 | TU_CE | O | Serial Latch Output for TU IC |
| 94 | P35 | TU_DI | I | Serial Data Input for TU IC |
| 95 | P00 | LID_M+ | O | Top Lid Motor Control Output + |
| 96 | P01 | LID_M- | O | Top Lid Motor Control Output - |
| 97 | P02 | P_CON | O | Power Control |
| 98 | P03 | PRE_MUTE | O | Pre Amp Mute Output |
| 99 | P04 | MAIN_MUTE | O | Power Amp Mute |
| 100 | P05 | BLUE_LED | O | Blue LED Output |

IC241 LC72121M-D (PLL Synthesizer)

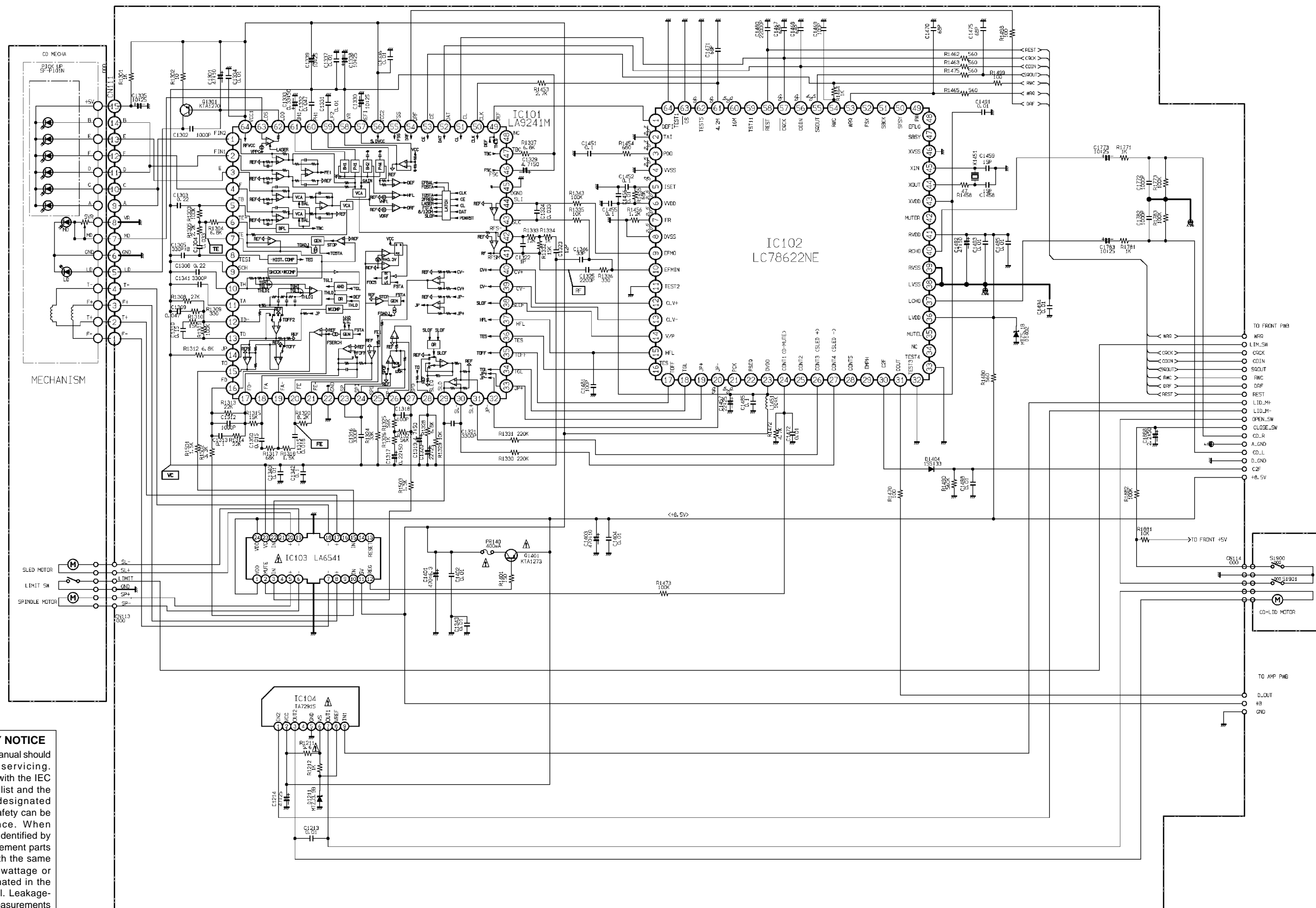


LCD DISPLAY DESCRIPTION

LCD60



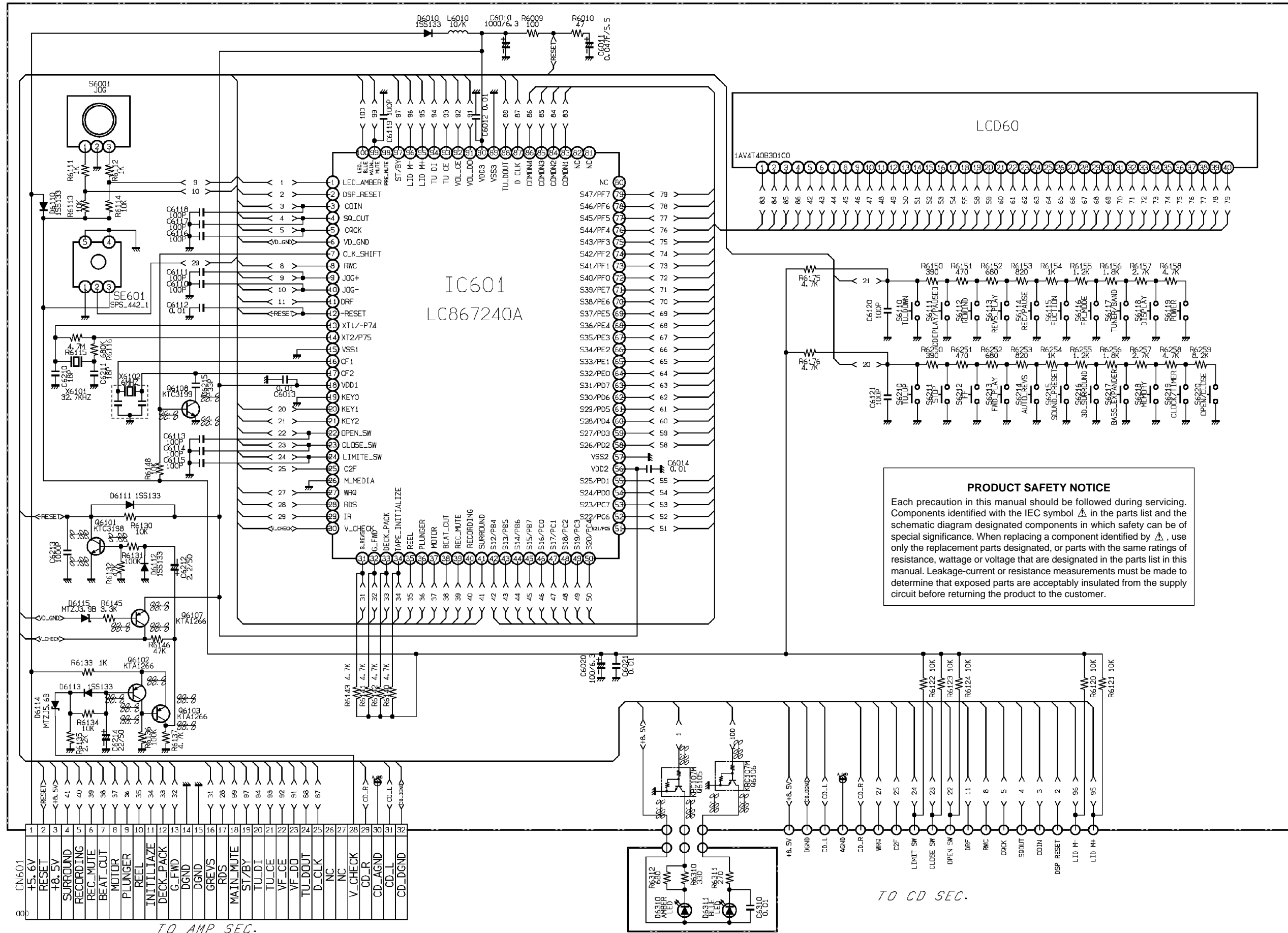
| PAD NO. | COM1 | COM2 | COM3 | COM4 | PAD NO. | COM1 | COM2 | COM3 | COM4 |
|---------|------|------|------|-------|---------|------|------|------|--------|
| 1 | COM1 | -- | -- | -- | 21 | 5F | 5G | 5E | S7 |
| 2 | -- | COM2 | -- | -- | 22 | 5A | 5I | 5M | 5L |
| 3 | -- | -- | COM3 | -- | 23 | 5K | 5J | 5N | 5D |
| 4 | -- | -- | -- | COM4 | 24 | 5B | 5H | 5C | COL |
| 5 | 1F | 1G | 1E | OFF | 25 | 6F | 6G | 6E | P |
| 6 | 1A | 1I | 1M | 1L | 26 | 6A | 6I | 6M | 6L |
| 7 | 1K | 1J | 1N | 1D | 27 | 6K | 6J | 6N | 6D |
| 8 | 1B | 1H | 1C | REC | 28 | 6B | 6H | 6C | RANDOM |
| 9 | 2F | 2G | 2E | SLEEP | 29 | 7F | 7G | 7E | SURR. |
| 10 | 2A | 2I | 2M | 2L | 30 | 7A | 7I | 7M | 7L |
| 11 | 2K | 2J | 2N | 2D | 31 | 7K | 7J | 7N | 7D |
| 12 | 2B | 2H | 2C | S2 | 32 | 7B | 7H | 7C | REPEAT |
| 13 | 3F | 3G | 3E | S3 | 33 | 8F | 8G | 8E | MHz |
| 14 | 3A | 3I | 3M | 3L | 34 | 8A | 8I | 8M | 8L |
| 15 | 3K | 3J | 3N | 3D | 35 | 8K | 8J | 8N | 8D |
| 16 | 3B | 3H | 3C | S4 | 36 | 8B | 8H | 8C | KHz |
| 17 | 4F | 4G | 4E | S5 | 37 | T1 | T2 | ON | S1 |
| 18 | 4A | 4I | 4M | 4L | 38 | ST | MONO | RDS | T3 |
| 19 | 4K | 4J | 4N | 4D | 39 | *1 | V1 | V2 | V3 |
| 20 | 4B | 4H | 4C | S6 | 40 | V4 | V5 | V6 | V7 |



PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list and the schematic diagram designated components in which safety can be of special significance. When replacing a component identified by Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

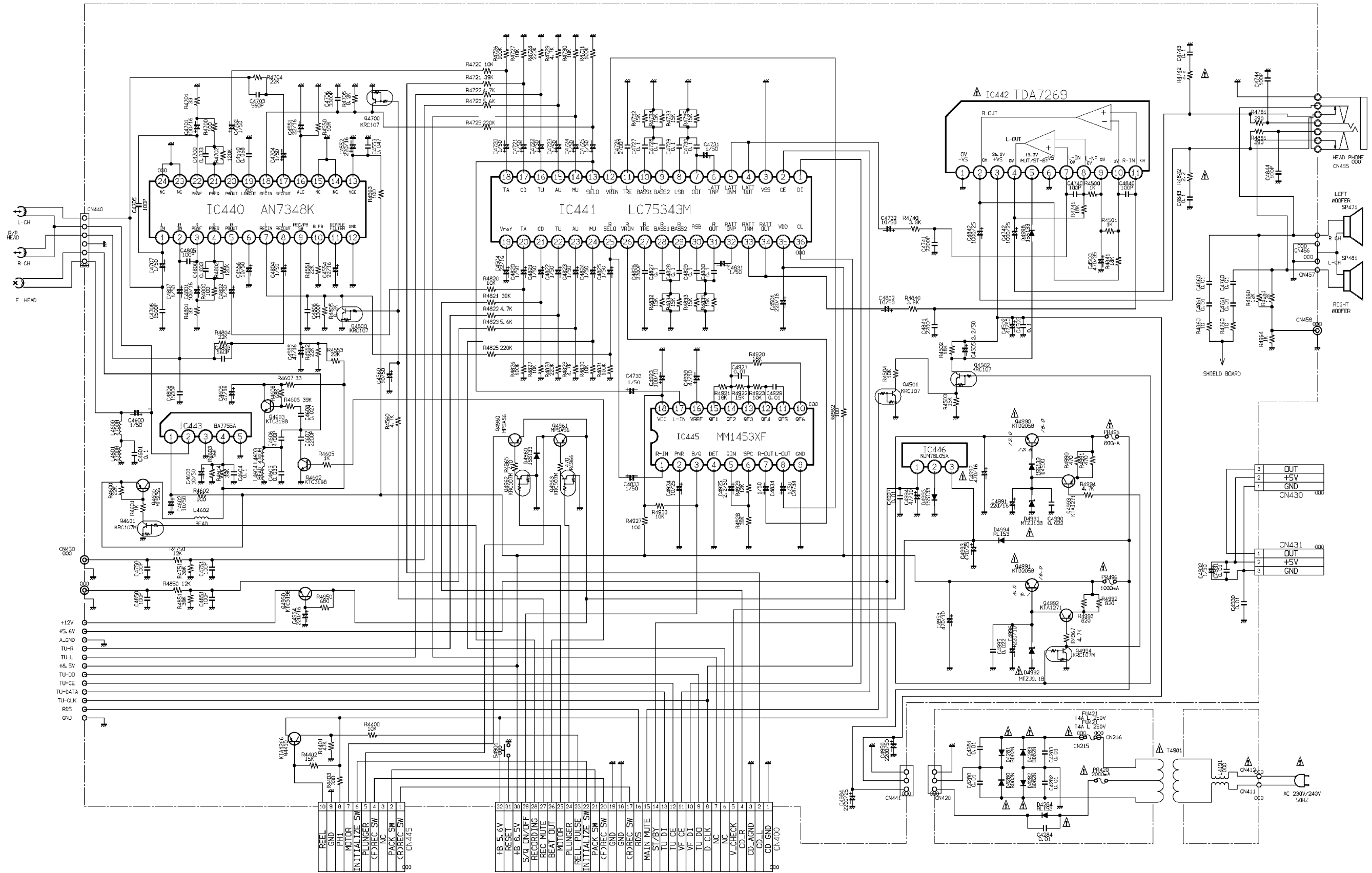
SCHEMATIC DIAGRAM (FRONT)



PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list and the schematic diagram designated components in which safety can be of special significance. When replacing a component identified by Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

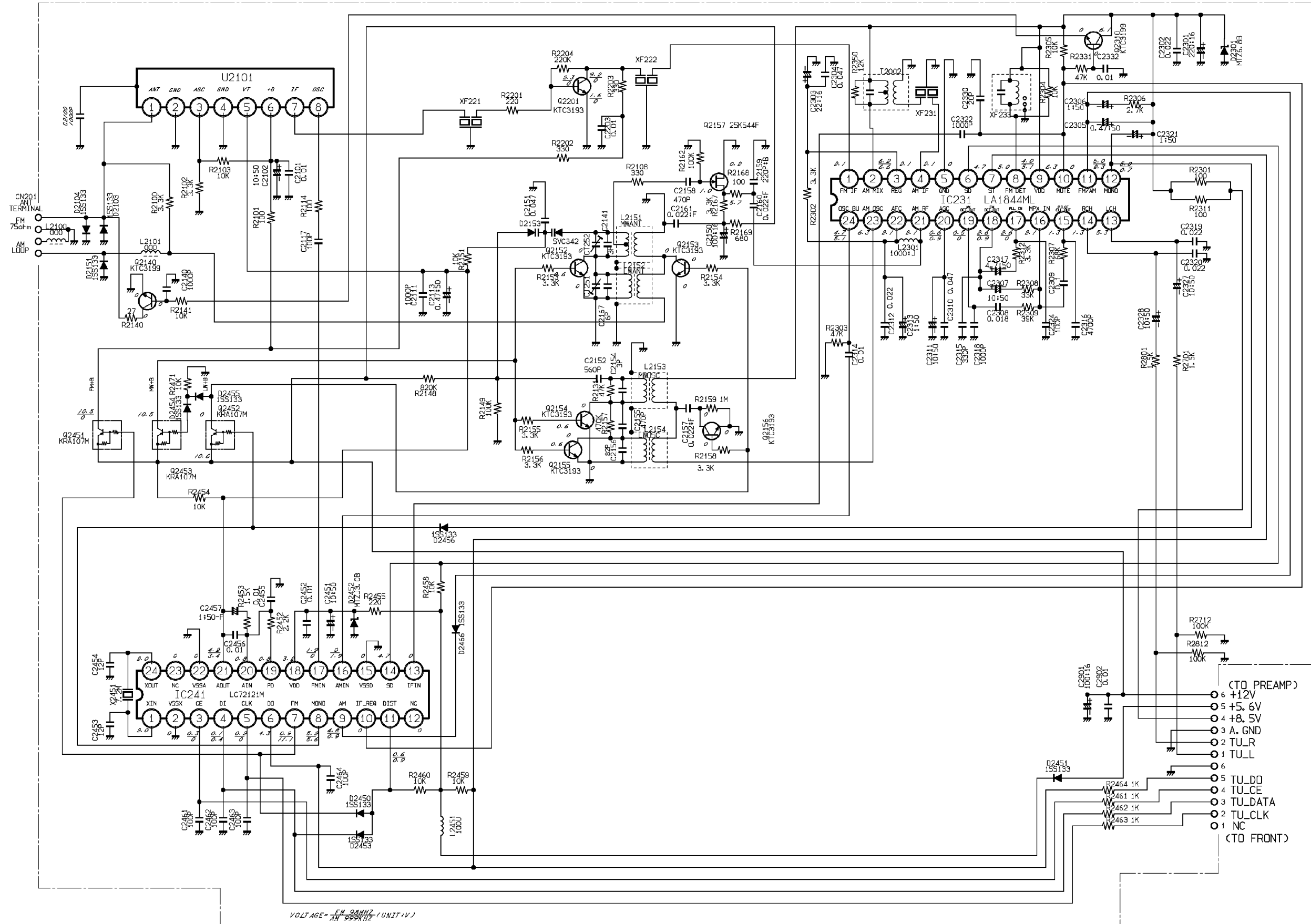
SCHEMATIC DIAGRAM (AMPLIFIER)



PRODUCT SAFETY NOTICE

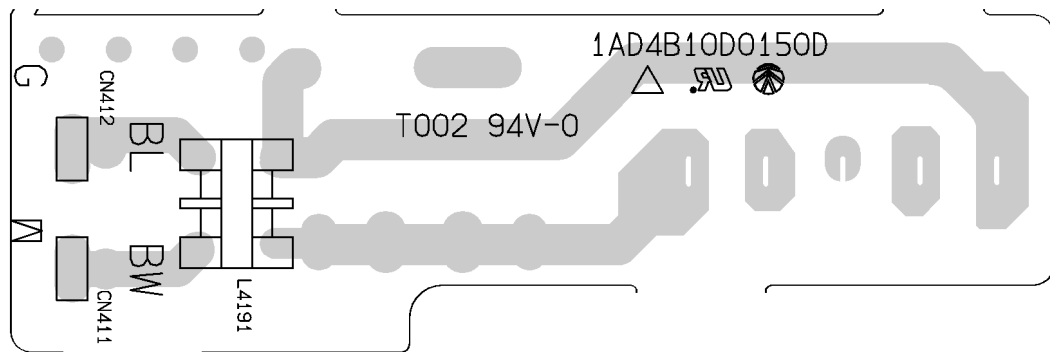
Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list and the schematic diagram designated components in which safety can be of special significance. When replacing a component identified by Δ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

SCHEMATIC DIAGRAM (TUNER)

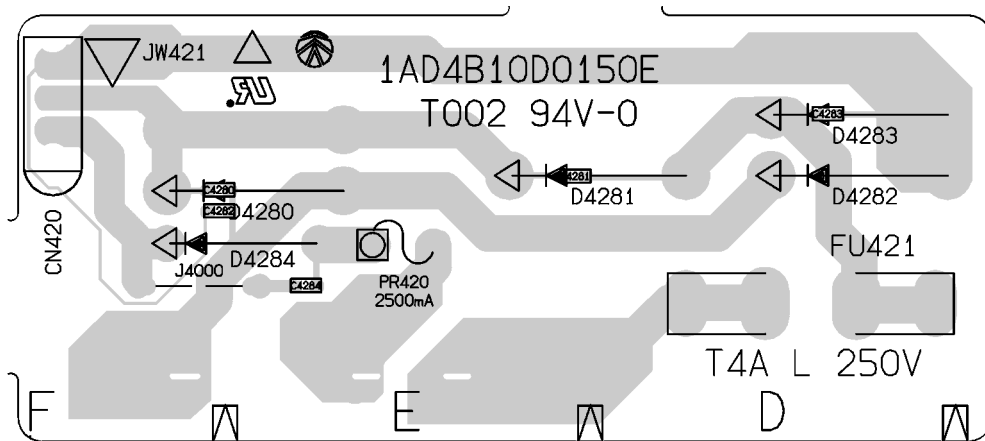


WIRING DIAGRAM(PRIMARY+ SECONDARY POWER TRANSFORMER AND CD LID SWITCH)

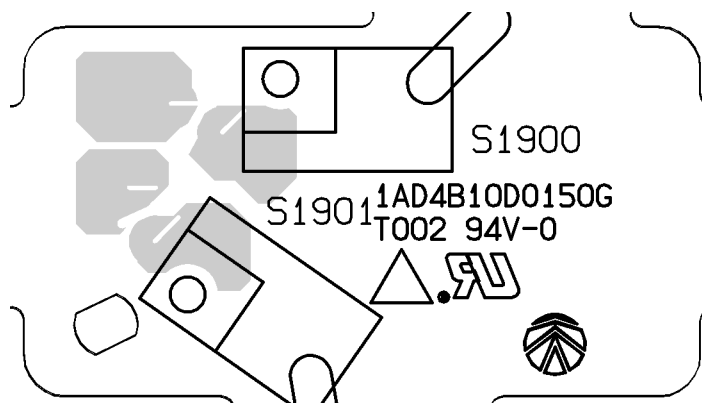
POWER TRANSFORMER, PRIMARY P.W.BOARD



POWER TRANSFORMER, SECONDARY P.W.BOARD



CD LID SWITCH P.W.BOARD



VOLTAGE TABLE

IC101 LA9241M

UNIT:V

| PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| VOL(V) | 2.51 | 2.51 | 2.54 | 2.54 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 |
| PIN | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| VOL(V) | 2.52 | 2.52 | 2.52 | 0 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 | 2.52 | 2.02 | 2.28 | 2.28 | 0 | 0 | 4.98 | 4.98 | 0 |
| PIN | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| VOL(V) | 0 | 4.98 | 0 | 0 | 1.62 | 2.44 | 2.46 | 2.55 | 0 | 2.54 | 2.52 | 0 | 0 | 2.32 | 4.71 | 4.71 | 0 | 0 |
| PIN | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | | | | | | | | |
| VOL(V) | 0 | 4.99 | 2.53 | 2.53 | 0.97 | 0.98 | 2.23 | 4.35 | 0 | 5.01 | | | | | | | | |

IC102 LC78622NE

UNIT:V

| PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|------|------|------|
| VOL(V) | 0 | 0 | 0 | 0 | 1.53 | 4.97 | 0.1 | 0 | 2.54 | 2.44 | 0 | 0 | 0 | 4.95 | 0 | 0.06 | 4.96 | 4.96 |
| PIN | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| VOL(V) | 0 | 0 | 2.46 | 0 | 4.97 | 4.86 | 0 | 0 | 0 | 0 | 0 | 4.89 | 2.49 | 0 | 0 | 0 | 4.96 | 4.98 |
| PIN | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| VOL(V) | 2.03 | 0 | 0 | 2.04 | 4.98 | 4.94 | 4.96 | 2.15 | 2.11 | 0 | 0.12 | 2.27 | 0 | 2.48 | 0.1 | 2.48 | 0 | 0 |
| PIN | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | | | | | | | | |
| VOL(V) | 0 | 4.71 | 4.63 | 4.75 | 0 | 2.01 | 2.22 | 0 | 0 | 0 | | | | | | | | |

IC103 LA6541

UNIT:V

| PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| VOL(V) | 8.63 | 4.81 | 2.51 | 2.52 | 3.88 | 3.9 | 3.91 | 3.91 | 2.53 | 2.53 | 5.02 | 8.02 | 4.99 | 4.83 | 2.52 | 2.53 | 3.89 | 3.93 |
| PIN | 19 | 20 | 21 | 22 | 23 | 24 | | | | | | | | | | | | |
| VOL(V) | 3.93 | 3.93 | 2.53 | 2.53 | 2.53 | 8.63 | | | | | | | | | | | | |

IC104 TA7291

UNIT:V

| PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | | | | | | | | |
|--------|------|------|------|---|---|------|------|------|------|--|--|--|--|--|--|--|--|--|
| VOL(V) | 4.76 | 8.64 | 0.56 | 0 | 0 | 8.61 | 0.56 | 4.03 | 4.76 | | | | | | | | | |

IC231 LA1844ML

UNIT:V

| PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|--------|------|------|------|------|------|------|------|-----|-----|----|------|------|------|------|------|------|------|------|
| VOL(V) | 2.31 | 6.7 | 2.31 | 2.31 | 0 | 4.65 | 4.65 | 6.7 | 6.7 | 0 | 5.61 | 5.69 | 3.21 | 3.21 | 2.25 | 2.31 | 2.05 | 2.53 |
| PIN | 19 | 20 | 21 | 22 | 23 | 24 | | | | | | | | | | | | |
| VOL(V) | 0 | 0.27 | 2.58 | 2.58 | 6.69 | 6.69 | | | | | | | | | | | | |

IC241 LC72121M

UNIT:V

| PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|--------|------|-----|------|------|------|------|---|------|------|----|------|----|----|------|----|------|------|-----|
| VOL(V) | 1.52 | 0 | 0.22 | 0.14 | 0.17 | 4.65 | 0 | 11.6 | 5.38 | 0 | 0.61 | 0 | 0 | 4.65 | 0 | 0.07 | 1.49 | 3.1 |
| PIN | 19 | 20 | 21 | 22 | 23 | 24 | | | | | | | | | | | | |
| VOL(V) | 0.9 | 0.9 | 1.43 | 0 | 0 | 1.52 | | | | | | | | | | | | |

IC440 AN7348K

UNIT:V

| PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|--------|------|-----|------|------|------|------|---|---|---|----|------|----|------|----|----|----|----|----|
| VOL(V) | 0 | 0 | 0.66 | 3.23 | 3.23 | 0.07 | 0 | 0 | 0 | 0 | 4.99 | 0 | 6.99 | 0 | 0 | 0 | 0 | 0 |
| PIN | 19 | 20 | 21 | 22 | 23 | 24 | | | | | | | | | | | | |
| VOL(V) | 0.16 | 3.2 | 3.91 | 0.67 | 0 | 0 | | | | | | | | | | | | |

IC441 LC75343M

UNIT:V

| PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| VOL(V) | 0 | 0 | 0 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 |
| PIN | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| VOL(V) | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 3.41 | 6.83 | 0 |

IC442 TDA7269

UNIT:V

| PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | | | | | | | |
|--------|---|------|------|------|------|---|------|------|------|------|------|--|--|--|--|--|--|--|
| VOL(V) | 0 | 17.3 | 35.1 | 17.3 | 30.7 | 0 | 17.3 | 17.3 | 17.3 | 17.3 | 17.3 | | | | | | | |

IC443 BA7755A

UNIT:V

| PIN | 1 | 2 | 3 | 4 | 5 |
|--------|------|---|---|---|---|
| VOL(V) | 8.22 | 0 | 0 | 0 | 0 |

VOLTAGE TABLE

IC445 MM1453XF

UNIT:V

| PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|--------|------|------|---|---|------|------|------|------|---|------|------|----|------|------|------|------|------|------|
| VOL(V) | 3.42 | 3.42 | 0 | 0 | 3.42 | 3.42 | 3.42 | 3.42 | 0 | 3.42 | 3.42 | | 3.42 | 3.42 | 3.42 | 4.09 | 3.42 | 7.38 |

IC446 NJM78L05

UNIT:V

| PIN | 1 | 2 | 3 |
|--------|------|------|------|
| VOL(V) | 17.3 | 0.58 | 5.48 |

IC601 LC867240A

UNIT:V

| PIN | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |
|--------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| VOL(V) | 0 | 4.75 | 4.75 | 0 | 4.75 | 4.75 | 0 | 0 | 4.83 | 4.83 | 0 | 4.75 | 2.55 | 2.66 | 0 | 2.1 | 2.4 | 0 |
| PIN | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |
| VOL(V) | 0 | 4.85 | 4.85 | 0 | 0 | 4.75 | 0 | 0 | 4.66 | 4.83 | 4.6 | 4.83 | 4.83 | 4.83 | 4.83 | 4.83 | 2.01 | 0 |
| PIN | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 |
| VOL(V) | 0 | 0 | 4.67 | 0 | 0 | 2.41 | 2.41 | 2.39 | 2.38 | 2.39 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 |
| PIN | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 | 70 | 71 | 72 |
| VOL(V) | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 |
| PIN | 73 | 74 | 75 | 76 | 77 | 78 | 79 | 80 | 81 | 82 | 83 | 84 | 85 | 86 | 87 | 88 | 89 | 90 |
| VOL(V) | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 2.41 | 0 | 0 | 0.1 | 2.44 | 2.44 | 2.44 | 2.44 | 0 | 0 | 0 | 4.75 |
| PIN | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 99 | 100 | | | | | | | | |
| VOL(V) | 0 | 0 | 0 | 4.73 | 4.76 | 4.76 | 4.71 | 4.75 | 0 | 4.71 | | | | | | | | |

TRANSOSTOR

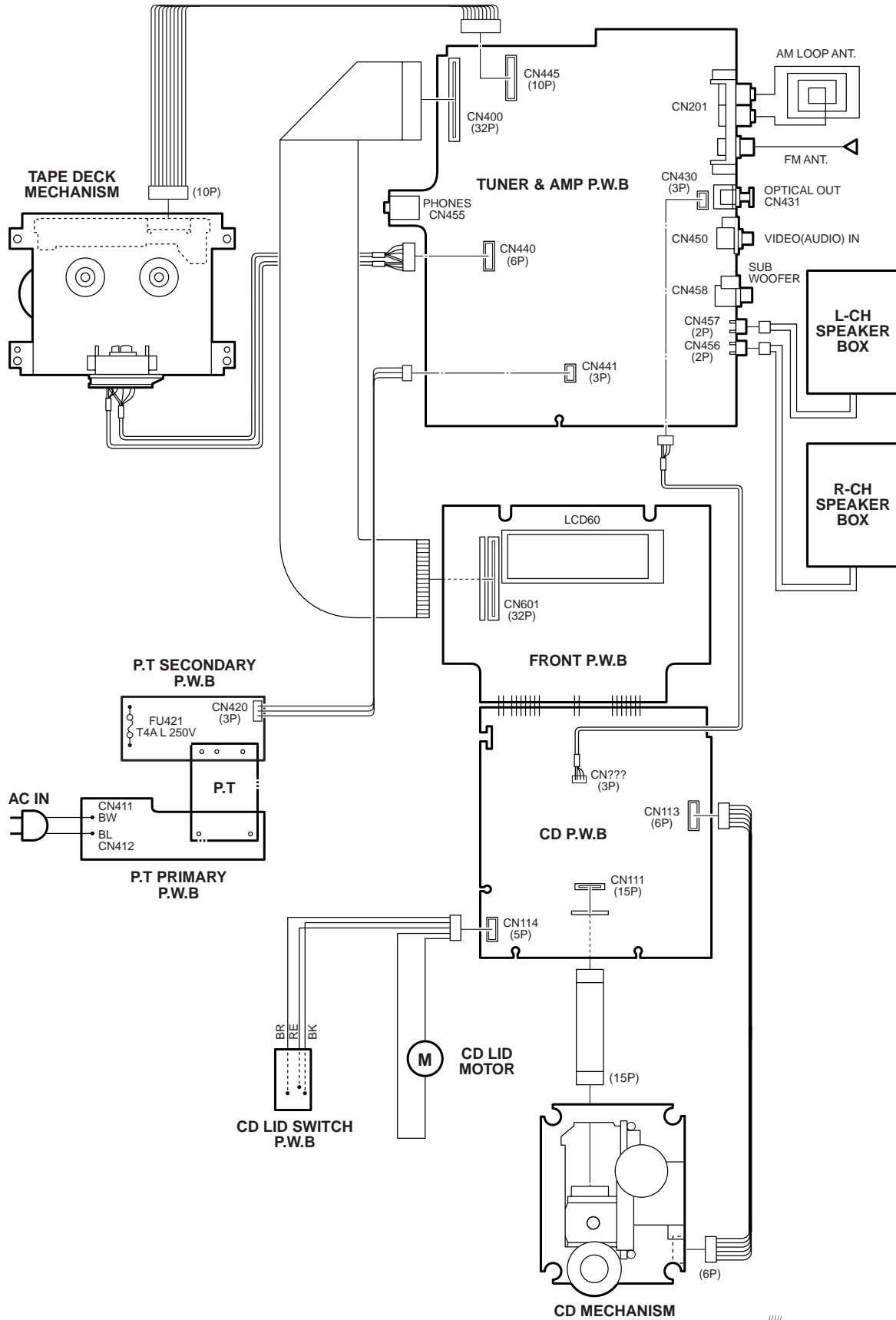
UNIT:V

| | Q4410 | Q4501 | Q4502 | Q4600 | Q4601 | Q4602 | Q4603 | Q4700 | Q4800 | Q4950 | Q4960 | Q4961 | Q4962 | Q4963 | Q4990 | Q4991 | Q4992 | Q4993 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| E | 5.46 | 0 | 4.02 | 8.7 | 0 | 0 | 0 | 0 | 0 | 11.9 | 12.6 | 12.6 | 0 | 0 | 12.5 | 8.69 | 9.35 | 13.6 |
| C | 5.45 | 0 | 3.08 | 0 | 0.68 | 0 | 0 | 0 | 0 | 11.3 | 0 | 0 | 12.3 | 12.1 | 17.6 | 17.6 | 9.33 | 13.6 |
| B | 4.81 | 4.67 | 4.68 | 8.67 | 0 | 0 | 0 | 2.23 | 4.73 | 11.6 | 12 | 12.1 | 0 | 0 | 13.1 | 9.33 | 8.67 | 12.9 |

| | Q4994 | Q1301 | Q1401 | Q6101 | Q6102 | Q6103 | Q6105 | Q6106 | Q6107 | Q6108 | Q2140 | Q2152 | Q2153 | Q2154 | Q2155 | Q2156 | Q2158 | Q2201 |
|---|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| E | 0 | 4.97 | 8.64 | 0 | 4.52 | 4.52 | 0 | 0 | 4.76 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10.3 | 0 |
| C | 0 | 1.53 | 5.04 | 4.76 | 3.88 | 4.46 | 7.18 | 0.12 | 4.6 | 0.66 | 0 | 0 | 0 | 0 | 0 | 0 | 0.16 | 8.44 |
| B | 4.67 | 4.33 | 8.04 | 0 | 11.8 | 3.88 | 0 | 4.71 | 4.74 | 0 | 0 | 0.79 | 0 | 0.78 | 0.78 | 0 | 0 | 0.67 |

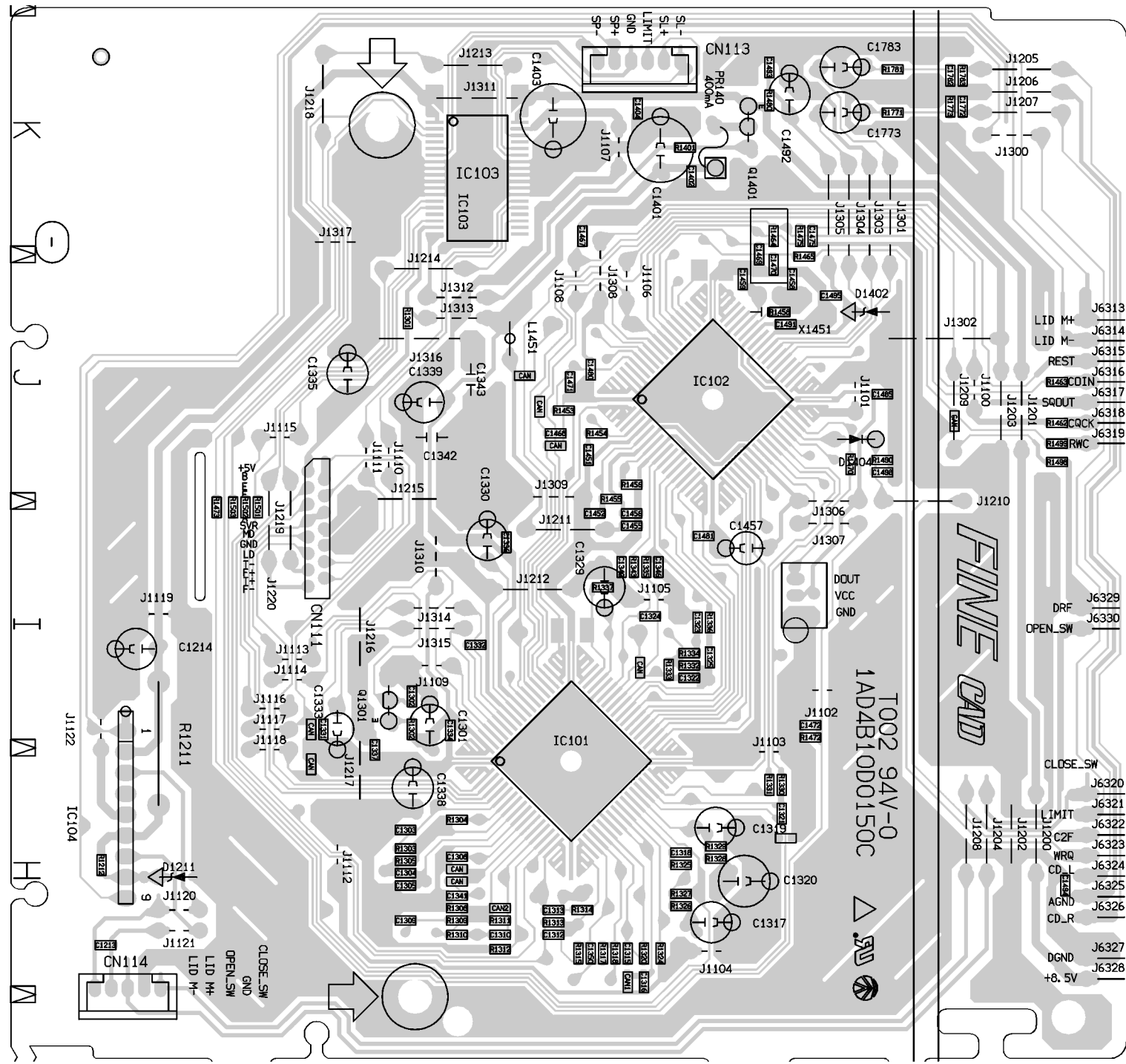
| | Q2310 | Q2451 | Q2452 | Q2453 | | | | | | | | | | | | | | |
|---|-------|-------|-------|-------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| E | 0 | 10.7 | 10.7 | 10.7 | | | | | | | | | | | | | | |
| C | 6.69 | 10.6 | 0 | 11.6 | | | | | | | | | | | | | | |
| B | 0 | 0 | 10.6 | 5.96 | | | | | | | | | | | | | | |

WIRING CONNECTION

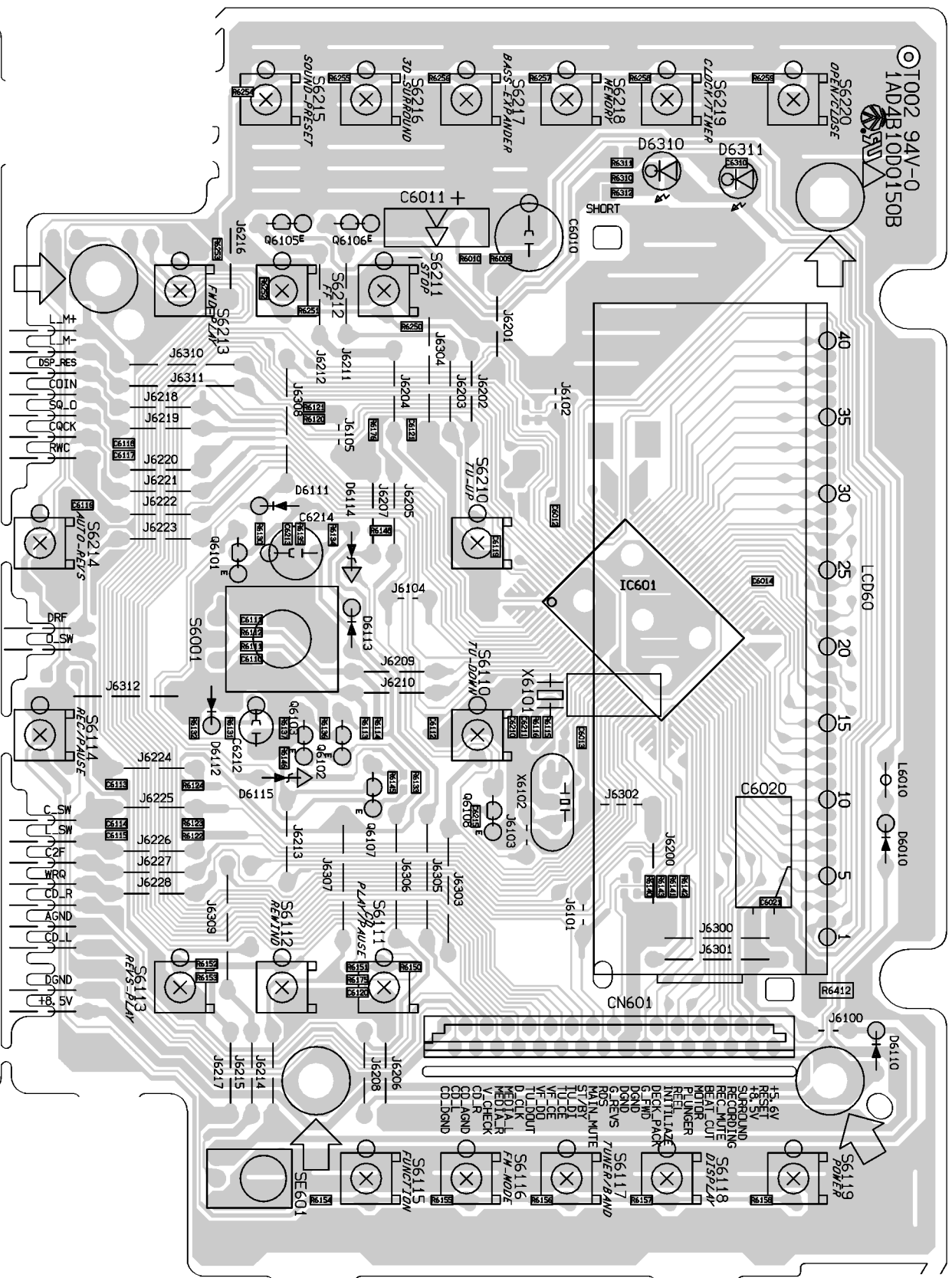


SANYO

CD P.W.BOARD

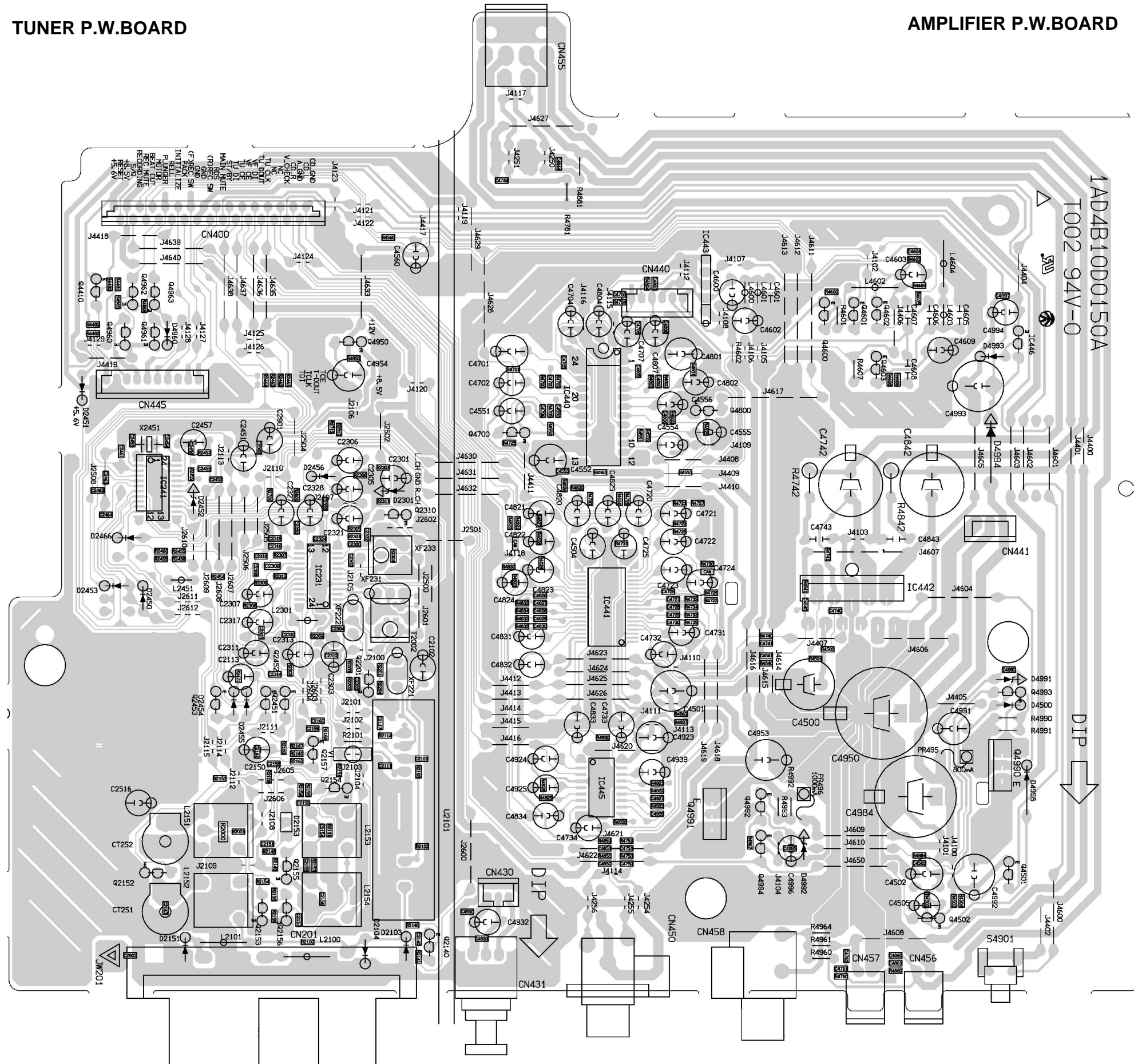


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