COMPACT AUDIO SYSTEM

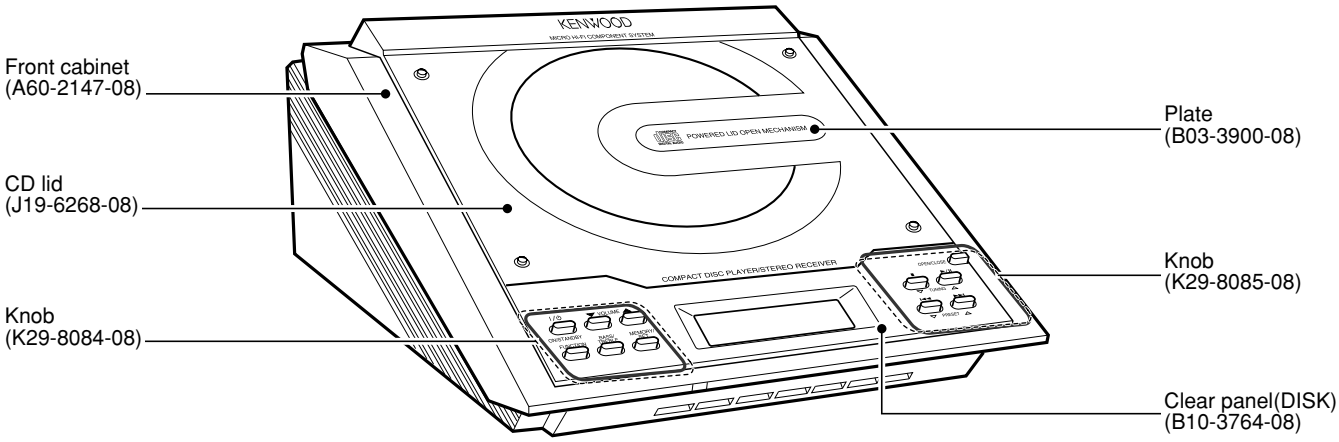
RD-M23

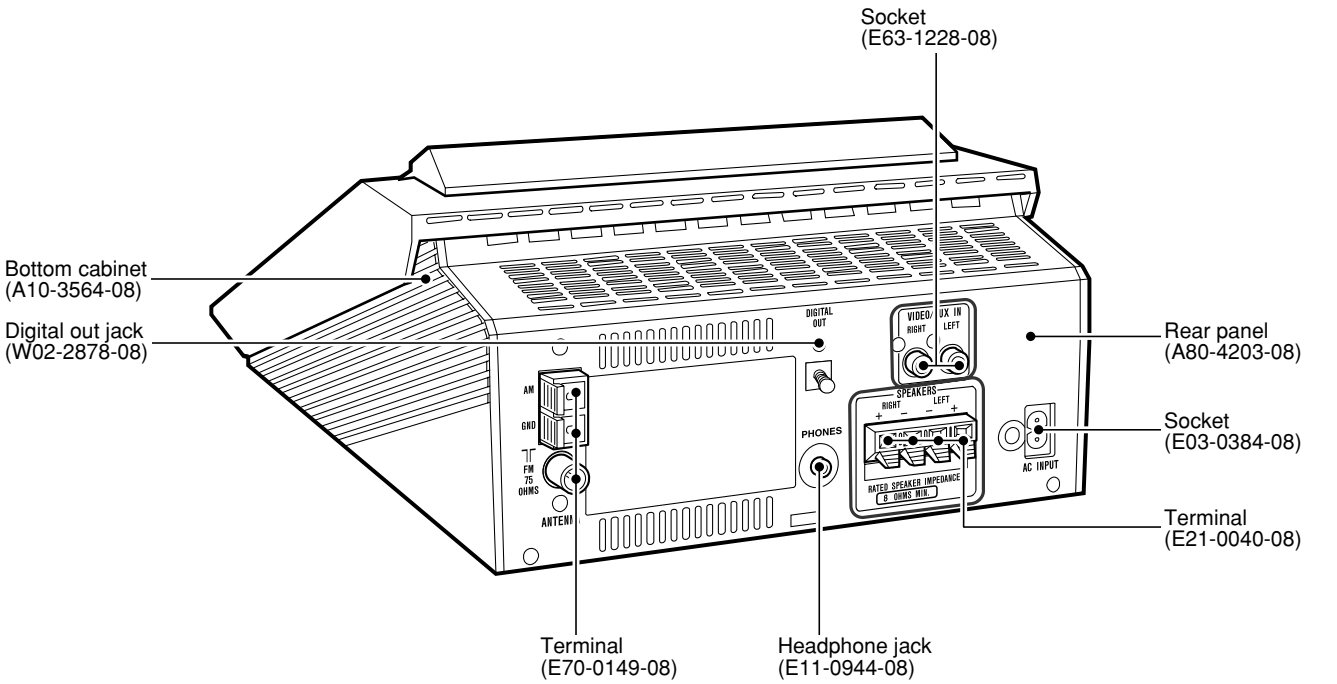
SERVICE MANUAL

(For M,X type)

KENWOOD

B51-5756-00 (K/K) 547





In compliance with Federal Regulations, following are reproduction of labels on, or inside the product relating to laser product safety.

KENWOOD-Corp. certifies this equipment conforms to DHHS Regulations No.21 CFR 1040. 10, Chapter 1, subchapter J.

DANGER : Laser radiation when open and interlock defeated. AVOID DIRECT EXPOSURE TO BEAM.

70%

CONTENTS / ACCESSORIES

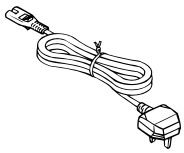
Contents

Attention

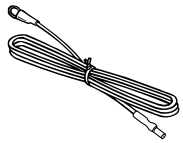
Please contact our KENWOOD Service Department in your side if you want the service information; Circuit Description. Full Described Parts list and so. Information is available to you by internet from us.

Accessories

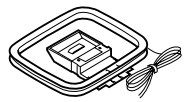
AC power lead x1
(E30-7240-08): X
(E30-7237-08): M



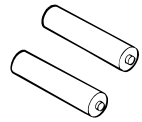
FM antenna x1
(T90-0891-08)



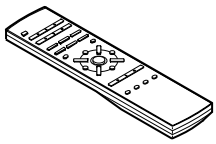
AM loop antenna x1
(T90-0890-08)



"AAA" size battery
(UM-4, R03, HP-16 or similar)x2



Remote control x1
(A70-1547-08)



Battery cover(A09-1243-08)

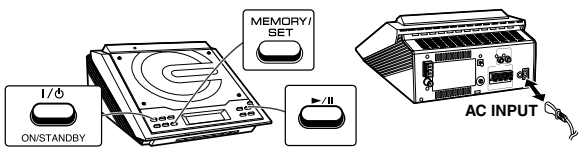
Troubleshooting

■ If trouble occurs

When this product is subjected to strong external interference (mechanical shock, excessive static electricity, abnormal supply voltage due to lightning, etc.) or if it is operated incorrectly, it may malfunction.

If such a problem occurs, do the following:

1. **Set the unit to the stand-by mode and turn the power on again.**
2. **If the unit is not restored in step 1, unplug and plug in the unit, and then turn the power on.**
3. **If neither step 1 nor 2 restores the unit, do the following:**
   - ① Press the ON/STAND-BY button to enter the power stand-by mode.
   - ② Unplug the AC power lead from the AC INPUT socket on the unit.
   - ③ Whilst pressing down the MEMORY/SET button and the ►/II button, plug the AC power lead into the AC INPUT socket on the unit.



Caution:
This operation will erase all data stored in memory including clock, timer settings, tuner preset, and CD programme.

CLASS 1
LASERPRODUCT

The marking this product has been classified Class 1. It means that there is no danger of hazardous radiation outside the product.

DISASSEMBLY FOR REPAIR

Caution on Disassembly
Follow the below-mentioned notes when disassembling the unit and reassembling it, to keep it safe and ensure excellent performance:
1. Take compact disc out of the unit.
2. Be sure to remove the power supply plug from the wall outlet before starting to disassemble the unit.
3. Take off nylon bands or wire holders where they need to be removed when disassembling the unit. After servicing the unit, be sure to rearrange the leads where they were before disassembling.
4. Take sufficient care on static electricity of integrated circuits and other circuits when servicing.

STEP	REMOVAL	PROCEDURE	FIGURE
1	Rear panel/Terminal PWB	1. Screw ..... (A1) x7 2. Socket ..... (A2) x2 3. Screw ..... (A3) x3	8-1 8-1,2
2	Top cabinet	1. Screw ..... (B1) x2 2. Hook ..... (B2) x5 3. Flat Cable ..... (B3) x1 4. Socket ..... (B4) x7	8-2
3	Tuner PWB	1. Screw ..... (C1) x2 2. Socket ..... (C2) x1	9-1
4	Power PWB	1. Socket ..... (D1) x1 2. Hook ..... (D2) x1	9-1
5	Main PWB	1. Socket ..... (E1) x1 2. Screw ..... (E2) x8	9-1
6	Display PWB	1. Screw ..... (F1) x4 2. Hook ..... (F2) x4	9-2
7	CD Mechanism	1. Screw ..... (G1) x4	9-2
8	Gear Box	1. Screw ..... (H1) x1 2. Holder ..... (H2) x1 3. Lever ..... (H3) x1 4. Screw ..... (H4) x2 5. Lever ..... (H5) x1	9-2
9	LED PWB	1. Screw ..... (J1) x1	9-2

Note:
After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of connector remove to protect the optical pickup from electrostatic damage.

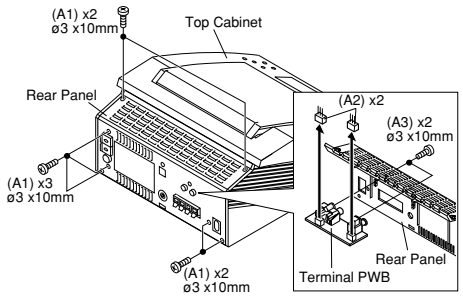


Figure 8-1

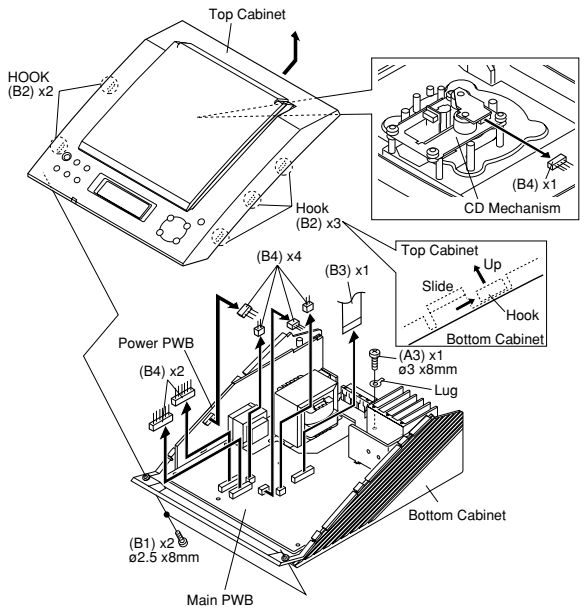


Figure 8-2

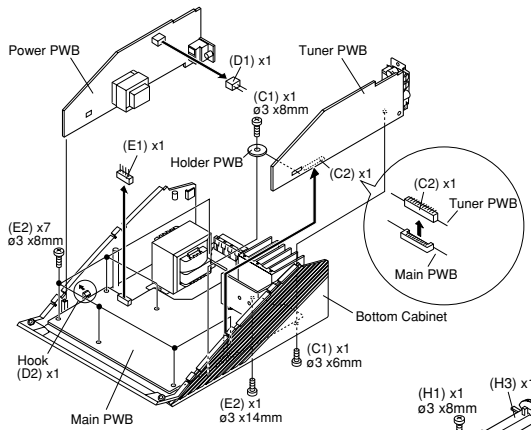


Figure 9-1

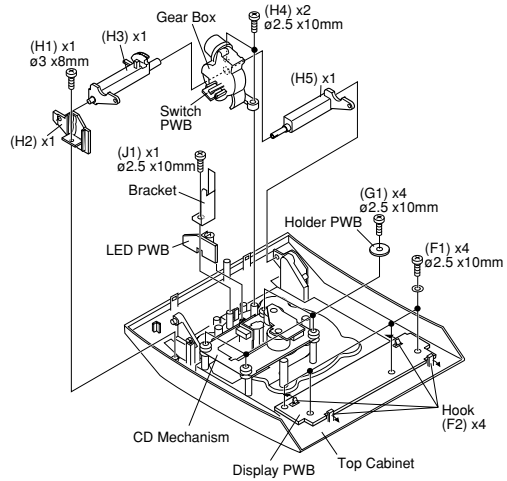


Figure 9-2

REMOVING AND REINSTALLING THE MAIN PARTS

How to remove the CD lid (See Fig. 10-1.)

Perform steps 1,2 and 8 of the disassembly method to remove the gear box.(See page 8,9)

1. Remove the switch PWB.
2. Remove the screws (A1) x 4 pcs., to remove the gear box lid.
3. Remove the gears (A2) x 1 pc. and (A3) x 1 pc.
4. Remove the screws (A4) x 2 pcs., to remove the motor.

Caution:

Be careful so that the gear is not damaged.
(The damage gear emits noise during searching.)

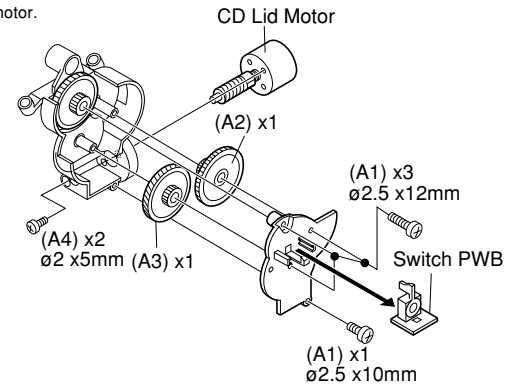


Figure 10-1

CD MECHANISM SECTION (See Fig. 10-2.)

Perform steps 1,2 and 7 of the disassembly method to remove the CD mechanism.(See page 8,9)

1. Remove the mechanism cover, paying attention to the pawls (A1)x 4 pcs.
2. Remove the screws (A2) x 2 pcs., to remove the shaft (A3) x 1 pc.
3. Remove the stop washer (A4) x 1 pc., to remove the gear (A5) x 1 pc.
4. Remove the pickup.

Note:

After removing the connector for the optical pickup from the connector, wrap the conductive aluminium foil around the front end of connector remove to pretect the optical pickup from electrostatic damage.

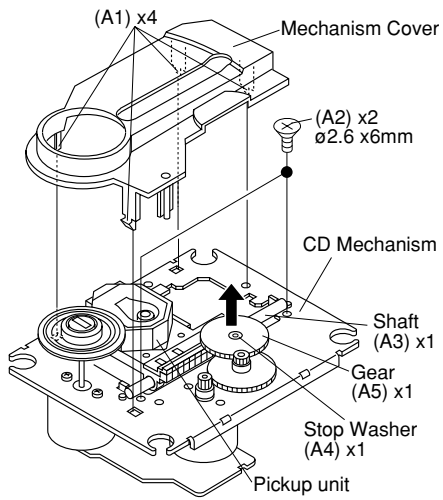
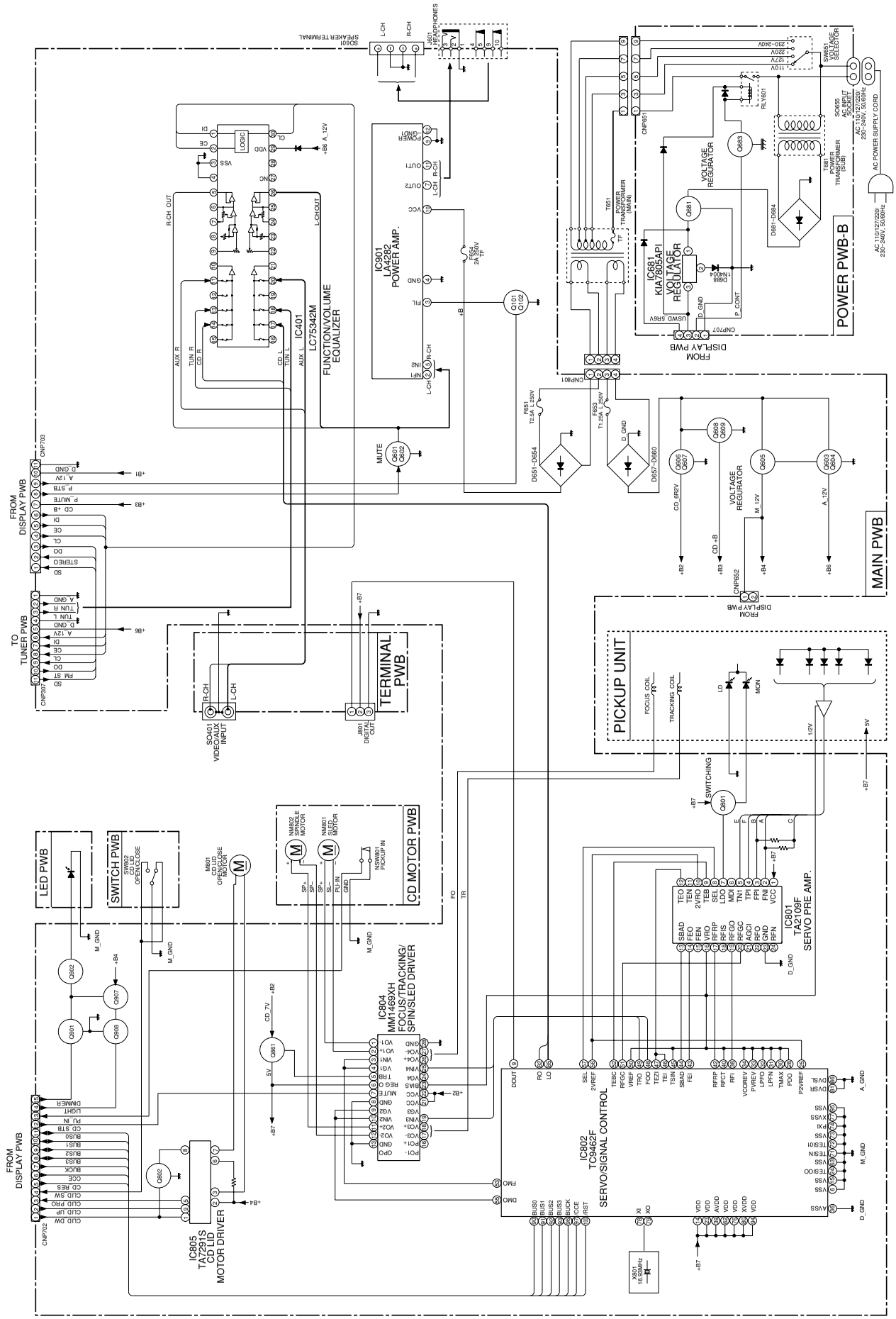
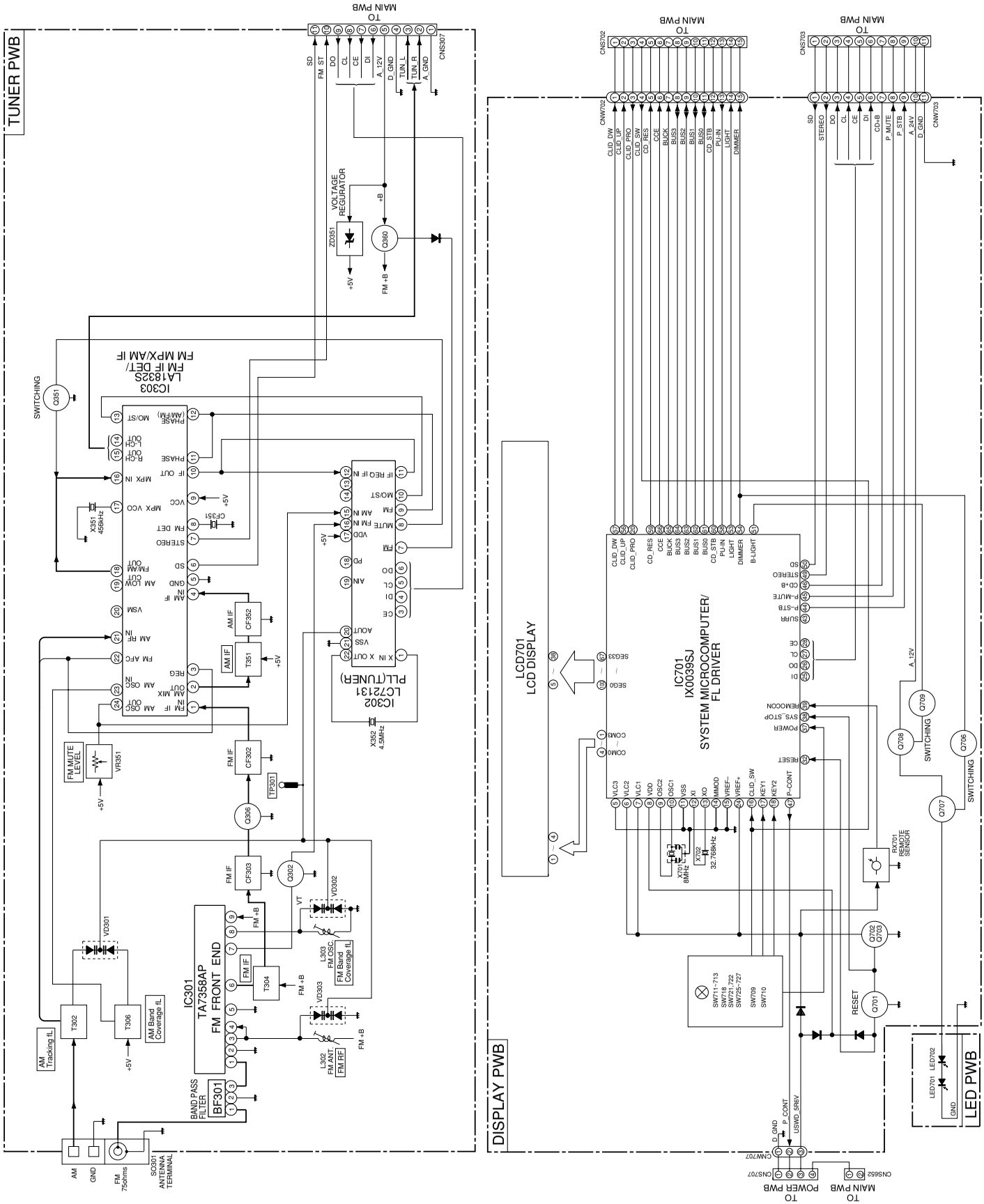


Figure 10-2

BLOCK DIAGRAM



BLOCK DIAGRAM



When the CD does not function

When the CD section does not operate when the objective lens of the optical pickup is dirty, this section may not operate. Clean the objective lens, and check the playback operation. When this section does not operate even after the above step is taken,check the following items.
Remove the cabinet and follow the troubleshooting instructions.
"Track skipping and/or no TOC (Table Of Contents) may be caused by build up of dust other foreign matter on the laser pickup lens. Before attempting any adjustment make certain that the lens is clean. If not, clean it as mentioned below."

Turn off the power, and wipe the lens softly using a cleaning paper moistened with commercially available cleaning solution so as not to damage it.
Be careful not to touch the lens with bare hands.

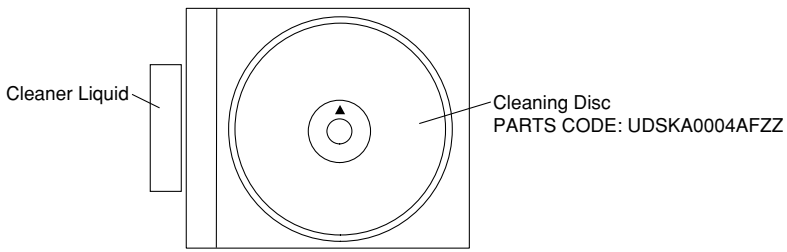
Dust gradually accumulates on the objective lens during use, and it may degrade performance.
To avoid this problem, use a cleaning disc designed for CD optical pickup lenses.

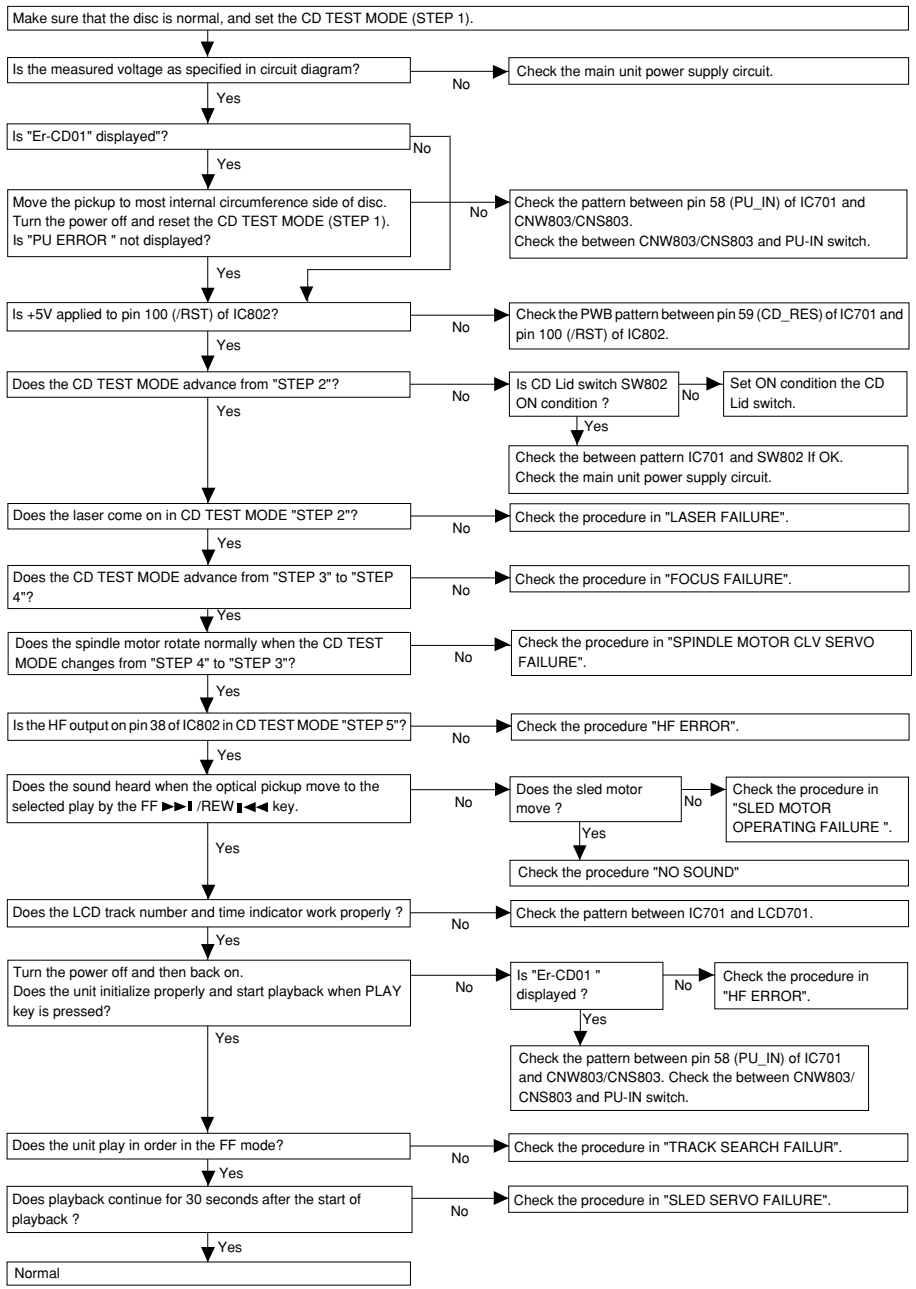
HOW TO USE

1. Using the brush in the cleaner cap, apply 1 or 2 drops of the cleaning fluid to the brush on the CD cleaner disc which has ▲ the mark next to it.
2. Place the CD cleaner disc onto the CD disc tray with the brush side down, then press the play button.
3. You will hear music for about 20 seconds and the CD player will automatically stop. If it continues to turn, press the stop button.

CAUTION

- The CD lens cleaner should be effective for 30 - 50 operations, however if the brushes become worn out earlier then please replace the cleaner disc.
- If the CD cleaner brushes become very wet then wipe off any excess fluid with a soft cloth.
- Do not drink the cleaner fluid or allow it to come in contact with the eyes. In the event of this happening then drink and / or rinse with clean water and seek medical advice.
- The CD cleaner disc must not be used on car CD player or on computer CD ROM drives.





• Laser failure.

Is +6.2V applied to the emiter of Q861 ?
- No → Check the PWB pattern between emiter of Q607 and emiter of Q861.
- Yes ↓

Is +5V applied to the collector of Q861 ?
- No → Check the peripheral parts of IC804 and Q861.
- Yes ↓

Is +5V applied to the pin 62 (VDD) of IC802 ?
- No → Check the PWB pattern between collector of Q861 and pin 62 of IC802.
- Yes ↓

Is +5V applied to the pin 1 (VCC) of IC801 ?
- No → Check the PWB pattern between collector of Q861 and pin 1 of IC801.
- Yes ↓

Is 0V applied to the pin 57 (SEL) of IC802 ?
- No → Does the laser come on when pattern cut between pin 8 (SEL) of IC801 and pin 57 (SEL) of IC802 ?
  - Yes → Check the PWB pattern between IC701 and IC802 (BUCK/CCE/BUS0~3)
  - No ↓
- Yes ↓

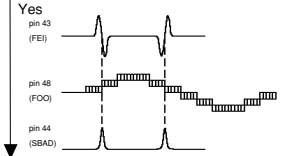
Is approx. 2V applied to the collector of Q801.
- No → Check the peripheral parts of IC801 and Q801. If it is normal, the optical pickup is faulty.
- Yes ↓

Check CNP802/CNW3. If it is normal, the optical pickup is faulty.

• Focus failure.

Does the optical pickup move up and down when the disc is removed?
- No → Check as stated in item "FOCUS SERVO SAWTOOTH WAVE FAILURE".
- Yes ↓

Is the following waveform ouput at the pin 43 (FEI) of IC802 when the disc is set?
- No → Check the periphery of IC801 and CNP802/CNW3. Is it normal?
  - Yes → The optical pickup is faulty.
- Yes ↓

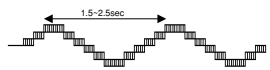


Is the waveform shown above input at the pin 44 (SBAD) of IC802?
- No → Check the pattern between pin 13 of IC801 and pin 44 of IC802. Check the periphery of IC801 and CNP802/CNW3.
- Yes ↓

IC801 is faulty.

• Focus servo sawtooth wave failure.

Is sawtooh wave output to the pin 48 (FOO) of IC802 ?
- No → IC802 is faulty.
- Yes ↓



Is +6.2V applied to the pins 21 and 22 (VCC) of IC804 ?
- No → Check the PWB pattern between pin emiter of Q607 and IC804.
- Yes ↓

Is sawtooth wave obtained between pins 26 and 27 of IC804 ?
- No → Is +5V applied to the pin 7 (MUTE) of IC804 ?
  - No → Check the PWB pattern between pin 7 of IC804 and pin 60 (CD STB) of IC701.
  - Yes → Check the PWB pattern between pin 48 (FOO) of IC802 and pins 24 and 25 of IC804. If OK. IC804 is faulty.
- Yes ↓

Is sawtooth wave obtained between pins 13 and 16 of CNP802/CNW3 ? (as shown above)
- No → Check the PWB pattern between CNP802/CNW3 and IC804.
- Yes ↓

CNP802/CNW3 connection failure or optical pickup failure.

• Spindle motor clv servo failure.

Is following wave output to the pin 55 (DMO) of IC802 when the CD TEST MODE "STEP 3" is changed to " STEP 4" ?
- No → Check the procedure in "HF ERROR". If OK. IC802 is faulty.
- Yes ↓

Is above wave obtained between pins 11 and 12 of IC804 ?
- No → Check the PWB pattern between pin 55 (DMO) of IC802 and pins 9 and 10 of IC804. If OK. IC804 is faulty.
- Yes ↓

Is above wave obtained between pins 9 and 12 of CNP802/CNW3 ?
- No → Check the PWB pattern between CNP802/CNW3 and IC804.
- Yes ↓

CNP802/CNW3 connection failure or optical pickup failure.

• HF error.

Is output (tracking error signal) obtained at the pins 46 (TEI) and 47 (TEZI) of IC802 the CD TEST MODE "STEP 4" is changed to "STEP 5"?

No → Is output obtained at the pins 3 and 8 of CNP802/CNW3.

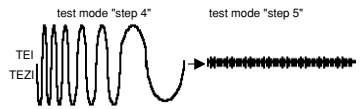
No → Optical pickup failure.

Yes → Check the periphery of IC801. Check the PWB pattern between pin 12 (TEO) of IC801 and pins 46 and 47 of IC802. Is it normal ?

No → IC801 is faulty.

Yes → Check the PWB pattern between pin 49 (TRO) of IC802 and pin 19 of IC804. Check the periphery of IC804 and CNP802/CNW3. If OK. Optical pickup failure.

Yes



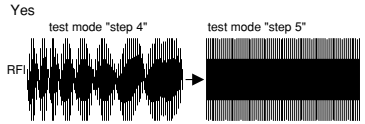
Is output (HF signal) obtained at the pin 38 (RFI) of IC802 when the CD TEST MODE "STEP 4" is changed to "STEP 5"?

No → Is output obtained at the pins 4 and 5,6 of CNP802/CNW3.

No → Optical pickup failure.

Yes → Check the periphery of IC801. Check the PWB pattern between pin 19 (RFGO) of IC801 and pins 38 (RFI) of IC802. If OK. IC801 is faulty

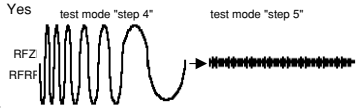
Yes



Is output (HF signal) obtained at the pins 41 (RFZI) and 42 (RFRP) of IC802 when the CD TEST MODE "STEP 4" is changed to "STEP 5"?

No → Check the periphery of IC801. Check the PWB pattern between pin17 (RFRP) of IC801 and pins 41 (RFZI) and 42 (RFRP) of IC802. If OK. IC801 is faulty.

Yes



Is the following wave output to the pin 55 (DMO) of IC802 when the CD TEST MODE "STEP 4" or "STEP 5"?

No → Check the periphery pins 28~32 of IC802. If OK. IC802 failure.

Yes

Normal.

• No sound.

No sound from both L and R-ch?

No → Check the interval between the pins 82 or 85 of IC802 and the pins 2 or 5 of IC901.

Yes

Is +4.5V applied to pin 83 (DVDD) of IC802?

No → Check the PWB pattern between R819 and Q861.

Yes

Is signal of pins 82 and 85 of IC802 output?

No → Check the peripheral parts of IC802. If OK, IC802 is faulty.

Yes

The main PWB is faulty.

• Track search failure

Does the sled motor run in FF/REW state when the SERVO TEST MODE "STEP1" is set?

No → Check as stated in item "SLED MOTOR OPERATION FAILURE".

Yes

Is the following wave output to the pin 49 (TRO) of IC802 during track search in normal playback?

No → IC802 failure.

Yes

Is the following wave output to the pins 12 (TEO) of IC801 during track search in normal playback?

No → Check the PWB pattern between pin 49 (TRO) of IC802 and pin 19 of IC804. Check the PWB pattern between pins 17 and 18 of IC804 and Optical pickup. If OK. Optical pickup failure.

Yes

Is the above wave output to the pins 46 (TEI) and 47 (TEZI) of IC802 during track serch in normal playback?

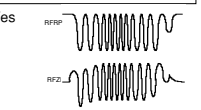
No → Check the PWB pattern between pin 12 (TEO) of IC801 and pins 46 and 47 of IC802. If OK. IC801 failure.

Yes

Is the following wave output to the pin 41 (RFZI) and 42 (RFRP) of IC802 during track search in normal playback?

No → Check the PWB pattern between pin 17 (RFO) and 18 (RFIS), 19 (RFRP) of IC801 and pins 41 and 42 of IC802. If OK. IC801 failure.

Yes



Normal.

• Sled motor operation failure.

Is following sled feed signal output the pin 53 (FMO) of IC802 when FF ▶▶▌ /REW ▌◀◀ key is pressed after the CD TEST MODE "STEP 1" is seted?

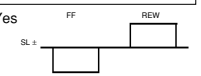
No → C801 is faulty.

Yes

Is following sled feed signal output the pins 3 and 4 of IC804 when FF ▶▶▌ /REW ▌◀◀ key is pressed after the CD TEST MODE "STEP 1" is seted?

No → Check the PWB pattern between pin 53 of IC802 and pins 3 and 4 of IC804.

Yes



Is sled feed signal output the pins 1 and 2 of IC804?

No → Check the peripheral parts of IC804. If OK, IC804 is faulty.

Yes

Is sled feed voltage applied between both terminals of sled motor?

No → Check the CNW803/CNS803.

Yes

Check the CD mechanism (periphery of sled motor). If the sled motor does not run when DC2.0V is applied to both terminals of sled motor, the sled motor is faulty.

• Sled servo failure.

Is following sled signal output the pin 53 (FMO) of IC802 during playback?

No → IC802 is faulty.

Yes

Normal.

The test mode applied to this microcomputer has three modes, namely the ordinary test mode for adjustment or measurement, the aging test mode, and the self-diagnosis test mode for self-judgment in case of final product inspection.

1. Turning on the test mode

For obtaining each test mode, press the ON/STAND-BY button, while keeping pressing the following two buttons in the ordinary stand-by mode (power off). In this case, the main unit buttons are valid. When turning the ON/STAND-BY on with remote control buttons, test modes are not obtained.

[Ordinary test mode]

1. CD Test Mode (TEST 1).....REW/PRESET DOWN + VOLUME UP
2. Tuner Test Mode (TEST 2).....REW/PRESET DOWN + CD PLAY
3. Electronic Volume Test Mode (TEST 3)..... REW/PRESET DOWN + FF/PRESET UP
4. Timer Test Mode (TEST 4).....FUNCTION + VOLUME UP
5. LCD Test Mode (TEST 5).....FUNCTION + FF/PRESET UP
6. Electric CD Lid Aging Test Mode (TEST 8)..... FUNCTION + CD PLAY

[Self-diagnosis Test Mode]

1. Button input diagnosis test mode (TEST6).....FUNCTION + VOLUME DOWN

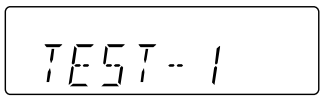
Processes are different depending on destinations at initial settings.

2. CD Test Mode (TEST 1)

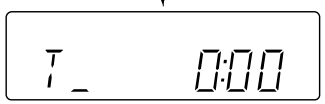
In the CD test mode the operation of each step is possible even if the LID-SW is off. If focus cannot be taken in step 3 or any error is processed, it is impossible to proceed to the next step. During error processing, end the test mode by pressing the ON/STAND-BY button or return to the step 1 by pressing the CD STOP button. Any other operations are inhibited.

1. Step 1 Mode

When the CD test mode is obtained, the following display lights up. Then CD initialization operation flow proceeds up to CD STB off to wait for the following buttons to be pressed.



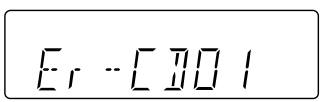
One second after display lights up



Press the following buttons in this state to obtain the operations specified below.

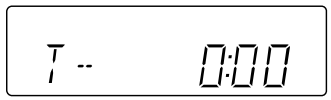
"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... After the pickup returns to the innermost periphery, it slides toward the outer periphery while this button is pressed.
"REW/REV" ..... After the pickup returns to the innermost periphery, it slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Shift to step 2
"STOP" ..... Invalid
"FUNCTION" ..... Shift to step 5

* In case of initialization, the pickup is moved toward the inner periphery. Any buttons other than "ON/STAND-BY" button are not accepted until the shift of pickup to the inner periphery is completed at this time. If PICKUP IN SW ON cannot be detected within 10 seconds, the slide motor stops, and the following error display appears. Press the ON/STAND-BY button to end the test mode, or press the CD STOP button to return to step 1. Any other operations are inhibited.



2. Step 2 Mode

Press the "CD PLAY" button in this mode to transmit the laser lighting command LDON (8400) and turn on the laser. Any other operations are not performed in this case.

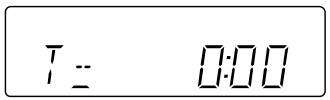


Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Shift to step 3
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 5

3. Step 3 Mode

While the laser keeps lighting, CD initialization operation flow proceeds up to 'CLV servo ON' to wait for the following buttons to be pressed.(Focus servo turned on for focus search)
The focus search is repeated to take focus.



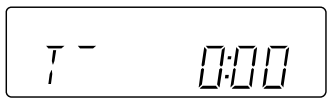
Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... If focus has been taken, shift to step 4 is executed. If not, acceptance is inhibited.
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 5

*If the focus is not received after it has been taken, the process returns to step 1.

4. Step 4 Mode

The CLV servo ON command (8600) is transmitted to wait for the following buttons to be pressed. (The disc is rotated for CLV lock.)



The time display always indicates "0:00".

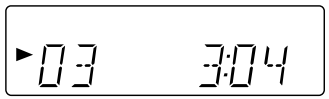
Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Shift to step 5
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 5

*If the focus is not received, the process returns to step 1.

5. Step 5 Mode

When the CD initialization operation flow is completed, the mute is turned off, and playback is started. Even if playback reaches the outermost periphery of disc, the operation does not stop. The LCD display indicates the playback passage time as in case of ordinary CD playback.



Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Invalid
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 6
"MEMORY" ..... Shift to step 7
*If the is not received, the process returns to step 1.

Other cautions
• TOC IL is not available for this test mode.

6. Step 6 Mode

Press the FUNCTION button during step 5 operation to set EC/FC bit to "H" by PROSET command (9188 transmission) and to monitor BUS2 (QDRE) during idle mode. The number of errors for 1 frame (1 sub-code block in IC data) is read by read command SRC6 during "H". The number of errors accumulated in 750 frames for 10 seconds is displayed on LCD. During the display, music signal is played back.

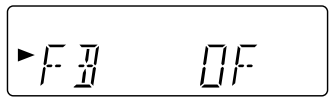
Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Invalid
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 5
"MEMORY" ..... Shift to step 7

Press FF/PRESET UP or REW/PRESET DOWN button to slide the pickup. The number of errors accumulated up to that time is cleared and addition is restarted after shift.
*If the focus is not received, the process returns to step 1.

7. Step 7 Mode

Press "MEMORY" key during step 6 operation to display automatically adjusted values on LCD in the order as below. Item names are displayed by left alignment, and adjusted values by right alignment in hexadecimal numbers. Operations other than display are as same as those for step 5.



a) "Fb" is displayed on the left of LCD. FTBAST command (D480) is transmitted to designate focus balance adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (b).
b) "FG" is displayed on the left of LCD. FTBAST command (D481) is transmitted to designate focus gain adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. The upper two bits, which are invalid, are displayed as "00". After waiting two seconds, operation is shifted to (c).
c) "Tb" is displayed on the left of LCD. FTBAST command (D482) is transmitted to designate tracking balance adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (d).
d) "TG" is displayed on the left of LCD. FTBAST command (D483) is transmitted to designate tracking gain adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. The upper two bits, which are invalid, are displayed as "00". After waiting 2 seconds, operation is shifted to (e).
e) "FO" is displayed on the left of LCD. FTBAST command (D484) is transmitted to designate focus offset adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (f).
f) "TO" is displayed on the left of LCD. FTBAST command (D485) is transmitted to designate tracking offset adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (g).
g) "FF" is displayed on the left of LCD. FTBAST command (D486) is transmitted to designate RF amplitude adjusting register. Then data read by read command SRC2 (2) are displayed in hexadecimal numbers. After waiting 2 seconds, operation is shifted to (a).

Press the following buttons in this state to obtain the operations specified below.

"POWER" ..... Test mode and power turned off to shift to the ordinary standby mode.
"FF/FWD" ..... The pickup slides toward the outer periphery while this button is pressed.
"REW/REV" ..... The pickup slides toward the inner periphery while this button is pressed. If PICKUP IN is on, input is invalid.
"PLAY" ..... Invalid
"STOP" ..... Return to step 1
"FUNCTION" ..... Shift to step 6
"MEMORY" ..... Shift to step 5
*If the focus is not received, the process returns to step 1.

3. Tuner Test Mode (TEST 2)

1. Outline of tuner (radio) test mode

The tuner test mode is intended to store the adjustment and measurement frequencies in the preset memory CH. When adjusting the tuner section in the production line, adjusting personnel are not required to set frequency.

2. Details of tuner test mode

Press the "REW/PRESET DOWN" and "CD PLAY" buttons in POWER OFF state and turn on the power by the use of "ON/STAND-BY" button to preset and store frequency for adjustment and measurement of destination specified by the AREA terminal in the preset memory CH. However, Ordinary 1 and Ordinary 2 are stored in the destinations (selected by SPAN switching operation) when the test mode is obtained.

("FF⏭" + "MEMORY/SET" KEY SPAN CHANGE)

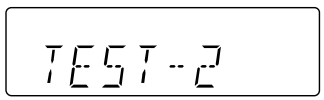
(As for frequencies to be preset and stored for each destination, refer to item 3.)

The tuner test mode is started from preset No.1.

The operations of test mode are identical with the ordinary operations of TUNER function. FUNCTION switching is invalid.

It is necessary to discard the content of preset memory when the tuner test mode is ended; be sure to write "0000" or "1111" bits in the memory to be checked for judging memory error at initial setting and to initialize memory.

When the tuner test mode is obtained, the following display lights for one second.



• The TUNER TEST2 mode is obtained with >> + MEMORY + ON/STAND-BY. ->Turn off AC in the TEST2 mode to restore the initial state.

↓

Turn off POWER to protect the memory of TEST2 mode.
Turn off POWER again to obtain the ordinary operation while the data is stored in the memory (besides TUNER).

↓

If AC OFF state is maintained in this state for about 1/2 day, start is executed in the initial state.

• To clear the whole memory, insert the AC cord, pressing MEMORY + CD PLAY.

3. Preset frequencies for various destinations (random preset memory)

CH	BAND	FM
1		FM 87.50 MHz
2		FM108.00 MHz
3	FM	FM 98.00 MHz
4	STEREO	FM 90.00 MHz
5		FM106.00 MHz

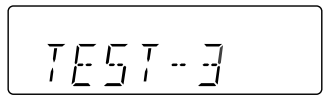
CH	BAND	AM
6		AM 522 kHz
7		AM1620 kHz
8	AM	AM 990 kHz
9		AM 603 kHz
10		AM1404 kHz

CH	BAND	FM
16-25		
26		FM106.00 MHz
27		FM 90.00 MHz
28	FM	FM 98.00 MHz
29	MONO	FM108.00 MHz
30		FM 87.50 MHz

• The slant line sections of the table store no memory.

4. Electronic volume Test Mode (TEST 3)

When this test mode is obtained, the following display lights for one second.



In this mode, volume is -14 dB (STEP28), BASS/TREBLE is set to 0 (0 dB) and SURROUND mode to OFF, and start-up function to CD, respectively. The button operations in the test mode are the same as those of ordinary operation except volume UP/DOWN.

(1) The display is the same as that of ordinary operation except test mode setting.

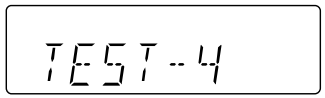
(2) Unlike the ordinary state, the volume is controlled with the volume UP/DOWN button in accordance with the following three steps.

Volume- ∞ (STEP 0) <-> Volume-14 dB (STEP 23) <-> Volume-0 (STEP 30)

(3) BASS/TREBLE and SURROUND are switched when button is pressed..

5. Timer test Mode (TEST 4)

When this test mode is obtained, the following display lights for one second.

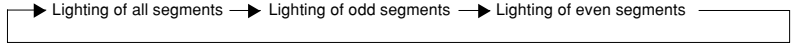


Set the current time and timer time according to the following procedure to reproduce the timer.

1.Set the current time to 1:00, the timer to ON time 1:05, the function to CD, and volume to STEP 12, respectively. One minute is counted as one second, and the timer is reproduced. The fade-in (when playback is started) is executed at a rate of one step for 1 sec. After completion of fade-in, the fade-out is executed at a rate of one step for 1 sec (WAIT 1 sec inserted). After completion of fade-out, the power is turned off (after WAIT 1 sec), and the mode is shifted to the standby. The display during operation is the same as that of ordinary timer operation.

6. LCD Test Mode (TEST 5)

When the LCD test mode is obtained, all the LCD segments are lighted. Then pressing the "PLAY" button switches display as below.



ADJUSTMENT

TUNER SECTION

fL: Low-range frequency
fH: High-range frequency

• AM IF/RF

Signal generator: 400 Hz, 30%, AM modulated

Frequency	Frequency	Display	Setting/ Adjusting Parts	Instrument Connection
AM IF	450 kHz	1,620 kHz	T351	*1
AM Band Coverage	—	522 kHz	(fL): T306 1.1 ± 0.1 V	*2
AM Tracking	990 kHz	990 kHz	(fL): T302	*1

*1. Input: Antenna, Output: Speaker Terminal
*2. Input: Input is not connected, Output: TP301

• Setting the Test Mode

Keeping the REW/PRESET DOWN button and CD PLAY button pressed, turn on ON/STAND-BY. Then, the frequency is initially set in the memory as shown in Table. Call it with the REW or FF button to use it for adjustment and check of tuner circuit.

Preset No.	FM	Preset No.	AM
1	87.50 MHz	6	522 kHz
2	108.00 MHz	7	1,620 kHz
3	98.00 MHz	8	990 kHz
4	90.00 MHz	9	603 kHz
5	106.00 MHz	10	1,404 kHz

• FM Mute Level

Signal generator: 1 kHz, 40 kHz dev., FM modulated

Frequency	Display	Adjusting Parts	Instrument Connection
98.00 MHz (30 dBμV)	98.00 MHz	VR351*1	Input: SO301 Output: Speaker Terminal

*1. Adjust so that an output signal appears.

• Check FM VT

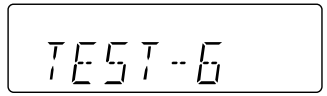
Signal generator: 1 kHz, 40 kHz dev., FM modulated

Frequency	Display	Check Point	Instrument Connection
87.5 MHz	87.5 MHz	2.2 V ± 0.7 V	TP301
108 MHz	108 MHz	7.3 V ± 1.0 V	TP301

TEST MODE

7. Button input diagnosis Test Mode (TEST 6)

When the test mode is obtained, the following is displayed.



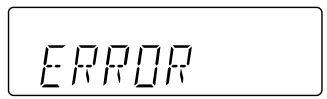
This test mode is intended to check whether all the main unit buttons can be detected. Accordingly, in this test mode, it is checked whether the "ON/STAND-BY" button was pressed after all the buttons shown below were pressed. If the result is OK, OK is displayed. If any one of keys was not pressed, an error is displayed. In both cases of OK termination or error termination, the mode is shifted to the standby mode if the "ON/STAND-BY" button is pressed subsequently.

All models using this type of microcomputer are not always provided with the same buttons. Since the buttons used are different depending on models, types of buttons to be used are determined by whether RDS, SURROUND, and an electric lid are available at the initial setting by MODEL port.

The order of buttons to be pressed is not determined. Accordingly, it is checked whether all buttons have been pressed.

1. PU-IN buttons: REW/PRESET DOWN + CD STOP
   Since this model is provided with SURROUND (HAVE OR NOT), RDS (HAVE OR NOT), and electric CD lid, the following 10 buttons are detected as all buttons.
   PLAY, BASS/TREBLE, FUNCTION, VOLUME UP/DOWN, MEMORY/SET, REW, FF, STOP, CD-OPEN/CLOSE

The OK/NG display of test result is as follows.

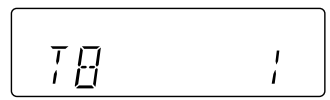


8. Electric CD lid Aging Test Mode (TEST 8) (Only for model with electric CD lid)

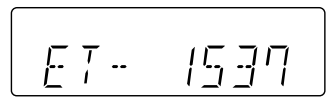
Outline

OPEN/CLOSE operations of electric CD lid are repeated. The number of repeated times and time period are monitored. If the lid does not move to the regular position after the specified time, operation is stopped. When an error is detected by [CLID_PRO] during CLOSE, operation is also stopped.

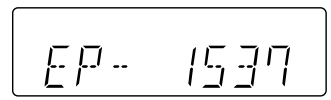
a. POWER ON for function AUX
   CD lid position is checked.
   CLOSE position: Operation proceeds to the next process.
   Position other than CLOSE: After the lid moves to CLOSE, operation proceeds to the next process.
b. CD lid operation started
   OPEN operation
   WAIT 1 second
   CLOSE operation
   WAIT 1 second
c. Operations above are repeated.
   Specified monitoring time
   OPEN operation: 5 seconds
   CLOSE operation: 5 seconds
d. Display
   OPEN>CLOSE is counted as 1. I to 59999 are counted; if the count is over 59999, display is returned to 0 to repeat counting.



Display when the lid does not move to the regular position after the specified time
(Ex: Defective operation occurring in the middle of 1538.)



Highlight display of stop when an error is detected by [CLID-PRO]
(Ex: Defective operation occurring in the middle of 1538.)



NOTES ON SCHEMATIC DIAGRAM

- Resistor:
  To differentiate the units of resistors, such symbol as K and M are used: the symbol K means 1000 ohm and the symbol M means 1000 kohm and the resistor without any symbol is ohm-type resistor. Besides, the one with “Fusible” is a fuse type.
- Capacitor:
  To indicate the unit of capacitor, a symbol P is used: this symbol P means micro-micro-farad and the unit of the capacitor without such a symbol is microfarad. As to electrolytic capacitor, the expression “capacitance/withstand voltage” is used.
  (CH), (TH), (RH), (UJ): Temperature compensation
  (ML): Mylar type
  (P.P.): Polypropylene type
- Schematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- The indicated voltage in each section is the one measured by Digital Multimeter between such a section and the chassis with no signal given.
  1. In the tuner section,
     ( ) : AM mode
     : FM stereo mode
  2. In the CD section, the CD is stopped.
- Parts marked with “⚠” (⊏ 二 二 二 ⊐) are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.

REF. NO	DESCRIPTION	POSITION
NSW801	PICKUP IN	ON—OFF
SW709	ON/STAND-BY	ON—OFF
SW710	CD LID OPEN/CLOSE	ON—OFF
SW711	FF/PRESET UP	ON—OFF
SW712	CD PLAY/PAUSE/TUNING UP	ON—OFF
SW713	VOLUME UP	ON—OFF
SW718	VOLUME DOWN	ON—OFF

REF. NO	DESCRIPTION	POSITION
SW721	BASS/TREBLE	ON—OFF
SW722	MEMORY SET	ON—OFF
SW725	CD STOP/TUNING DOWN	ON—OFF
SW726	REW/PRESET DOWN	ON—OFF
SW727	FUNCTION	ON—OFF
SW802	CD LID	ON—OFF

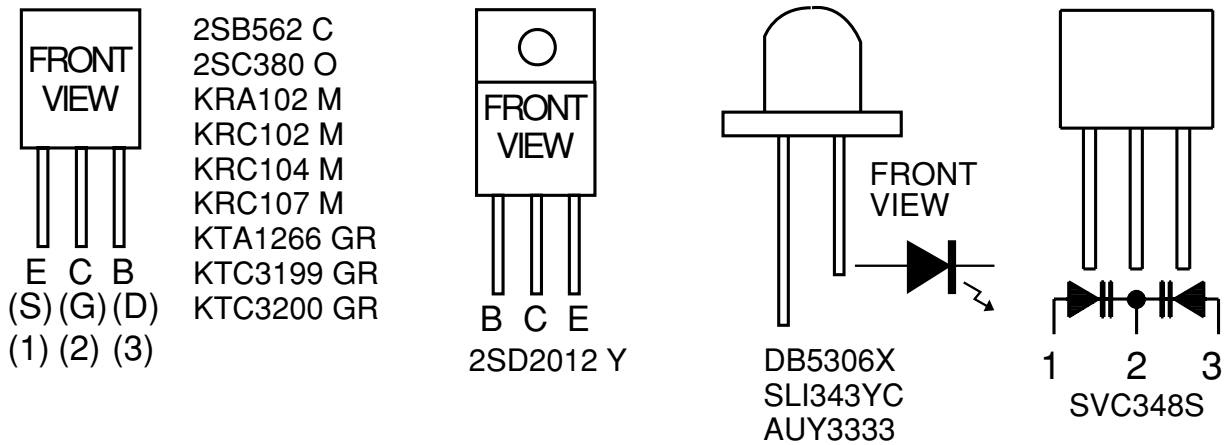
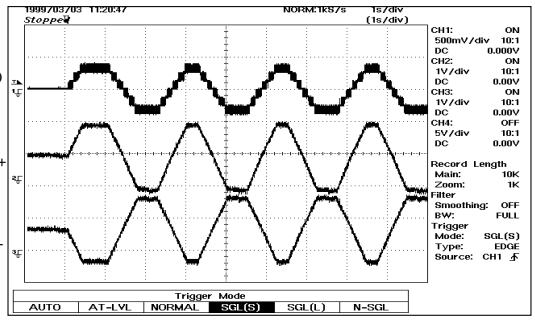


Figure 19 TYPES OF TRANSISTOR AND LED

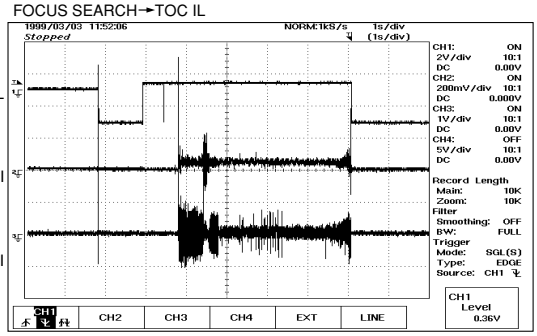
WAVE FORM

NO DISC FOCUS SEARCH



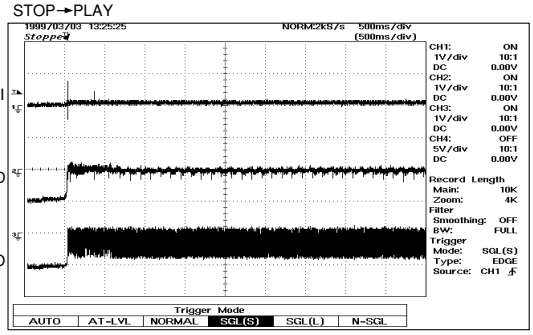
1 FOO — IC802 48pin
2 FO+ — IC804 26pin
3 FO- — IC804 25pin

FOCUS SEARCH→TOC IL



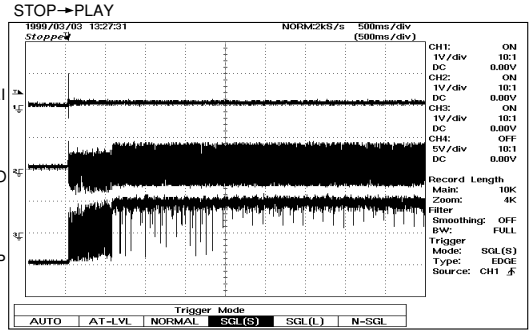
4 SEL — IC802 57pin
5 FEI — IC802 43pin
6 TEI — IC802 46pin

STOP→PLAY



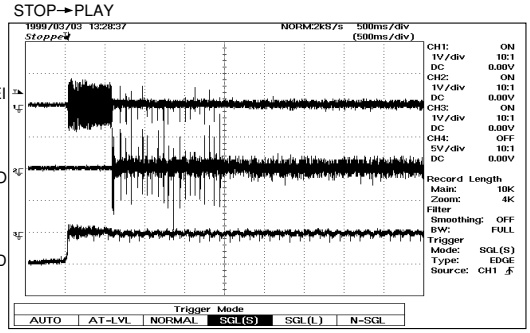
5 FEI — IC802 43pin
7 SBAD — IC802 44pin
8 RFO — IC801 22pin

STOP→PLAY



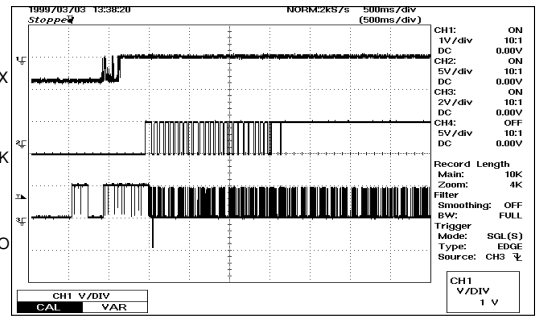
5 FEI — IC802 43pin
9 RFGO — IC801 19pin
10 RFRP — IC801 17pin

STOP→PLAY



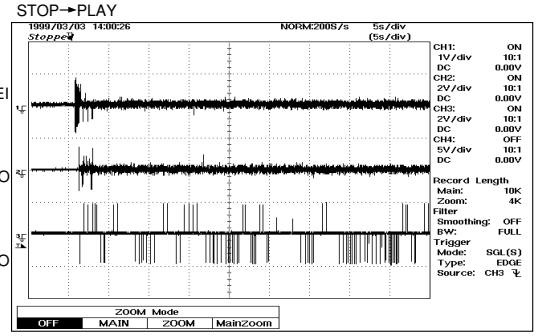
6 TEI — IC802 46pin
11 TRO — IC802 49pin
7 SBAD — IC802 44pin

STOP→PLAY



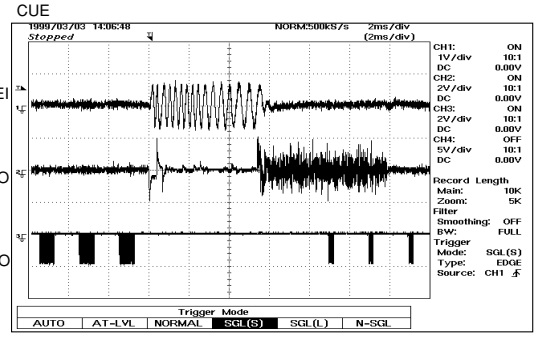
12 TMAX — IC802 30pin
13 SBOK — IC802 12pin
14 DMO — IC802 55pin

STOP→PLAY



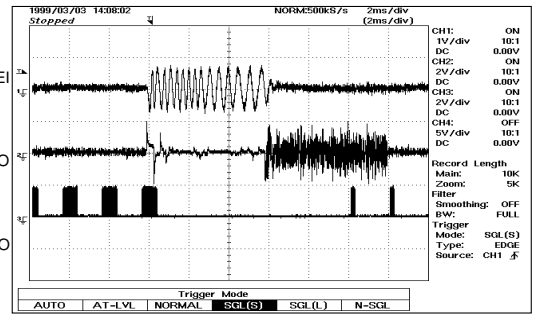
6 TEI — IC802 46pin
11 TRO — IC802 49pin
15 FMO — IC802 53pin

CUE



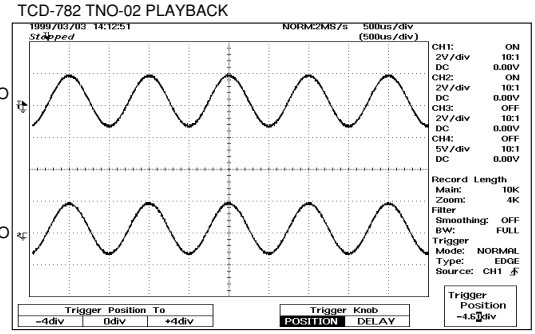
6 TEI — IC802 46pin
11 TRO — IC802 49pin
15 FMO — IC802 53pin

REVIEW



6 TEI — IC802 46pin
11 TRO — IC802 49pin
15 FMO — IC802 53pin

TCD-782 TNO-02 PLAYBACK



16 L O — IC802 85pin
17 RO — IC802 82pin

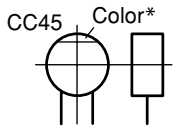
See schematic diagram on address W to X.

PARTS DESCRIPTIONS

CAPACITORS

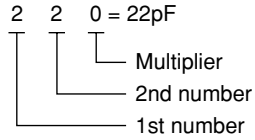
CC 45 TH 1H 220 J
1 2 3 4 5 6

1 = Type ... ceramic, electrolytic, etc.
2 = Shape ... round, square, ect.
3 = Temp. coefficient
4 = Voltage rating
5 = Value
6 = Tolerance



• Capacitor value

010 = 1pF
100 = 10pF
101 = 100pF
102 = 1000pF = 0.001μF
103 = 0.01μF



• Temperature coefficient

1st Word	C	L	P	R	S	T	U
Color*	Black	Red	Orange	Yellow	Green	Blue	Violet
ppm/°C	0	-80	-150	-220	-330	-470	-750

2nd Word	G	H	J	K	L
ppm/°C	±30	±60	±120	±250	±500

Example : CC45TH = -470 ± 60ppm/°C

• Tolerance (More than 10pF)

Code	C	D	G	J	K	M	X	Z	P	No code
(%)	±0.25	±0.5	±2	±5	±10	±20	+40	+80	+100	More than 10μF - 10 ~ +50
							-20	-20	-0	Less than 4.7μF -10 ~ +75

(Less than 10pF)

Code	B	C	D	F	G
(pF)	±0.1	±0.25	±0.5	±1	±2

• Voltage rating

1st word \ 2nd word	A	B	C	D	E	F	G	H	J	K	V
0	1.0	1.25	1.6	2.0	2.5	3.15	4.0	5.0	6.3	8.0	-
1	10	12.5	16	20	25	31.5	40	50	63	80	35
2	100	125	160	200	250	315	400	500	630	800	-
3	1000	1250	1600	2000	2500	3150	4000	5000	6300	8000	-

• Chip capacitors

(EX) C C 7 3 F S L 1 H 0 0 0 J
1 2 3 4 5 6 7
(Chip)(CH, RH, UJ, SL)

(EX) C K 7 3 F F 1 H 0 0 0 Z
1 2 3 4 5 6 7
(Chip)(B, F)

Refer to the table above.
1 = Type
2 = Shape
3 = Dimension
4 = Temp. coefficient
5 = Voltage rating
6 = Value
7 = Tolerance

Dimension (Chip capacitors)

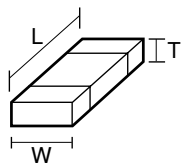
Dimension code	L	W	T
Empty	5.6 ± 0.5	5.0 ± 0.5	Less than 2.0
A	4.5 ± 0.5	3.2 ± 0.4	Less than 2.0
B	4.5 ± 0.5	2.0 ± 0.3	Less than 2.0
C	4.5 ± 0.5	1.25 ± 0.2	Less than 1.25
D	3.2 ± 0.4	2.5 ± 0.3	Less than 1.5
E	3.2 ± 0.2	1.6 ± 0.2	Less than 1.25
F	2.0 ± 0.3	1.25 ± 0.2	Less than 1.25
G	1.6 ± 0.2	0.8 ± 0.2	Less than 1.0

RESISTORS

• Chip resistor (Carbon)

(EX) R K 7 3 E B 2 B 0 0 0 J
1 2 3 4 5 6 7
(Chip)(B,F)

Dimension



• Carbon resistor (Normal type)

(EX) R D 1 4 B B 2 C 0 0 0 J
1 2 3 4 5 6 7

1 = Type
2 = Shape
3 = Dimension
4 = Temp. coefficient
5 = Rating wattage
6 = Value
7 = Tolerance

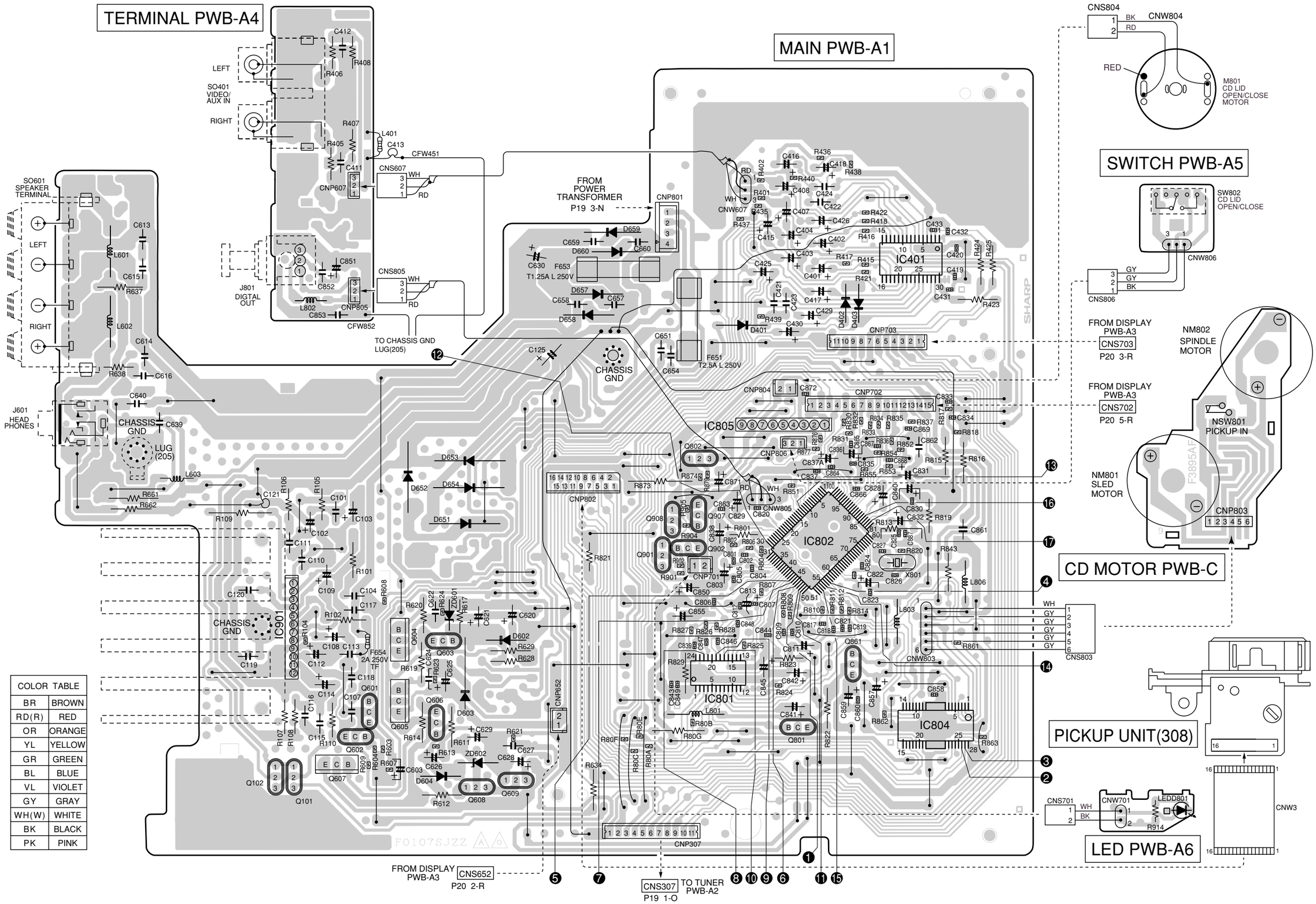
Dimension (Chip resistor)

Dimension code	L	W	T
E	3.2 ± 0.2	1.6 ± 0.2	1.0
F	2.0 ± 0.3	1.25 ± 0.2	1.0
G	1.6±0.2	0.8±0.2	0.5±0.1

Rating wattage

Code	Wattage	Code	Wattage	Code	Wattage
1J	1/16W	2C	1/6W	3A	1W
2A	1/10W	2E	1/4W	3D	2W
2B	1/8W	2H	1/2W		

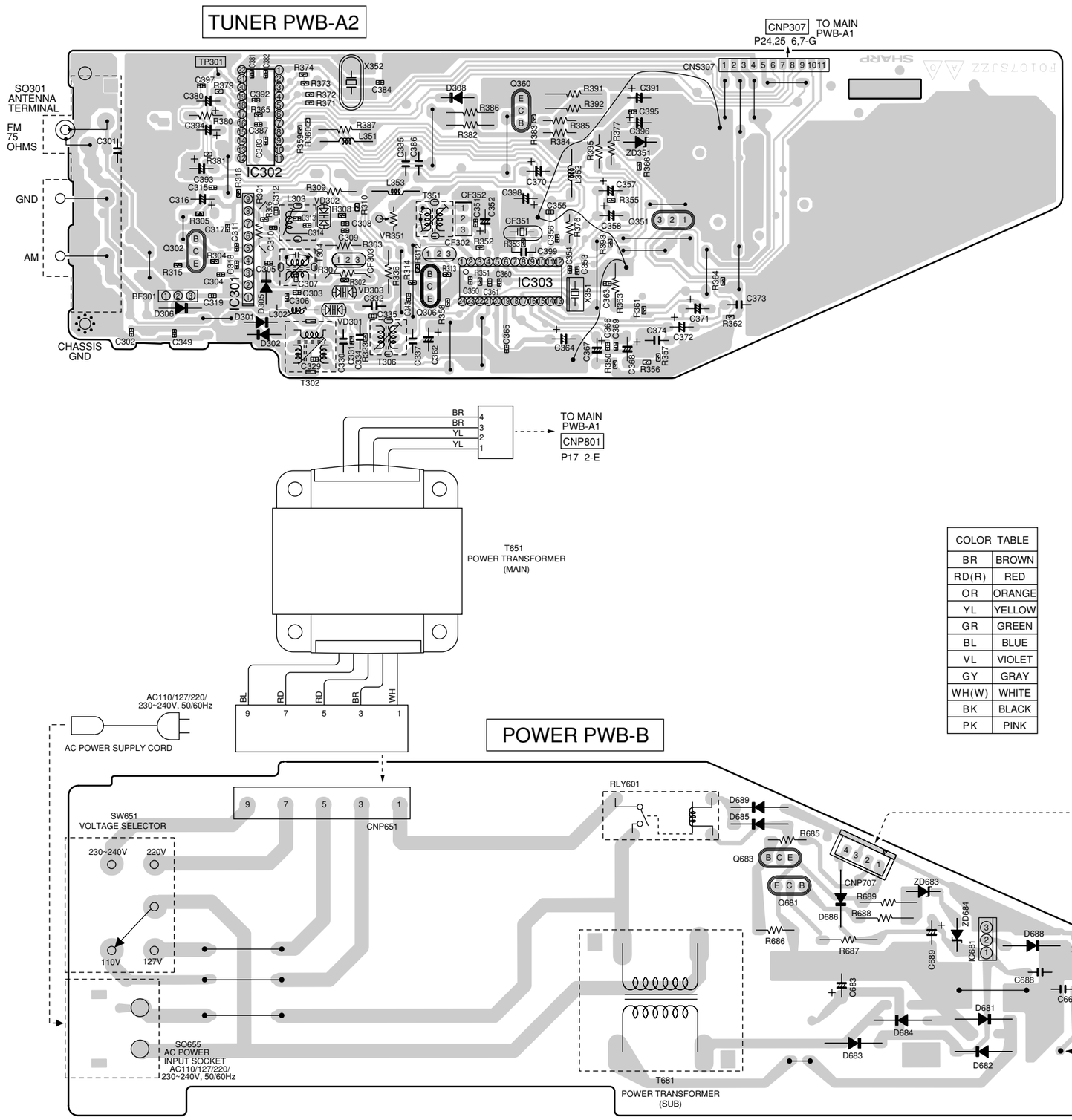
PC BOARD (Component side view)



COLOR TABLE	
BR	BROWN
RD(R)	RED
OR	ORANGE
YL	YELLOW
GR	GREEN
BL	BLUE
VL	VIOLET
GY	GRAY
WH(W)	WHITE
BK	BLACK
PK	PINK

Refer to the schematic diagram for the value of resistors and capacitors.

PC BOARD (Component side view)



COLOR TABLE	
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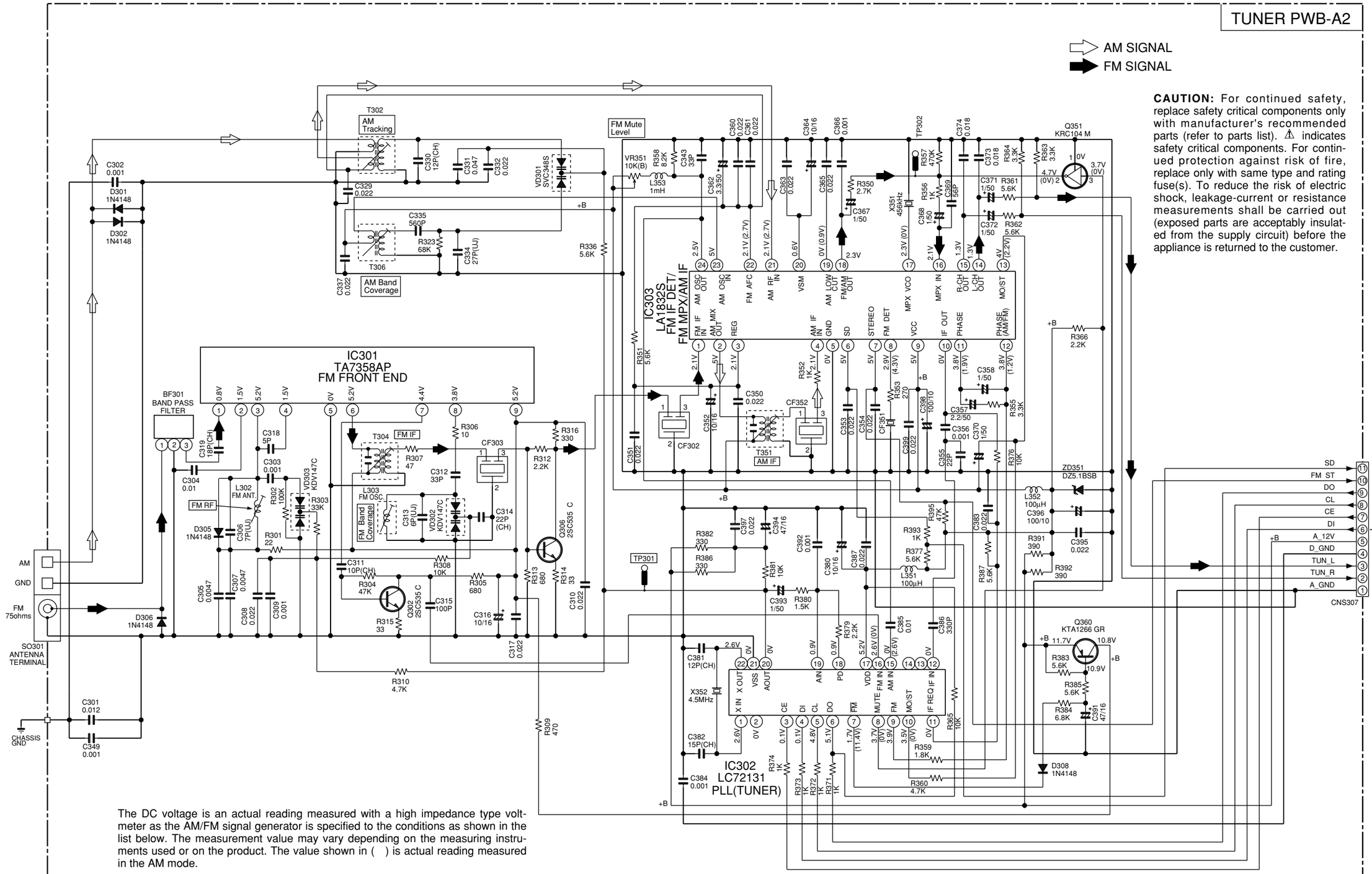
BL	BLUE
VL	VIOLET
GY	GRAY
WH(W)	WHITE
BK	BLACK
PK	PINK

Refer to the schematic diagram for the value of resistors and capacitors.

TUNER PWB-A2

AM SIGNAL
FM SIGNAL

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.



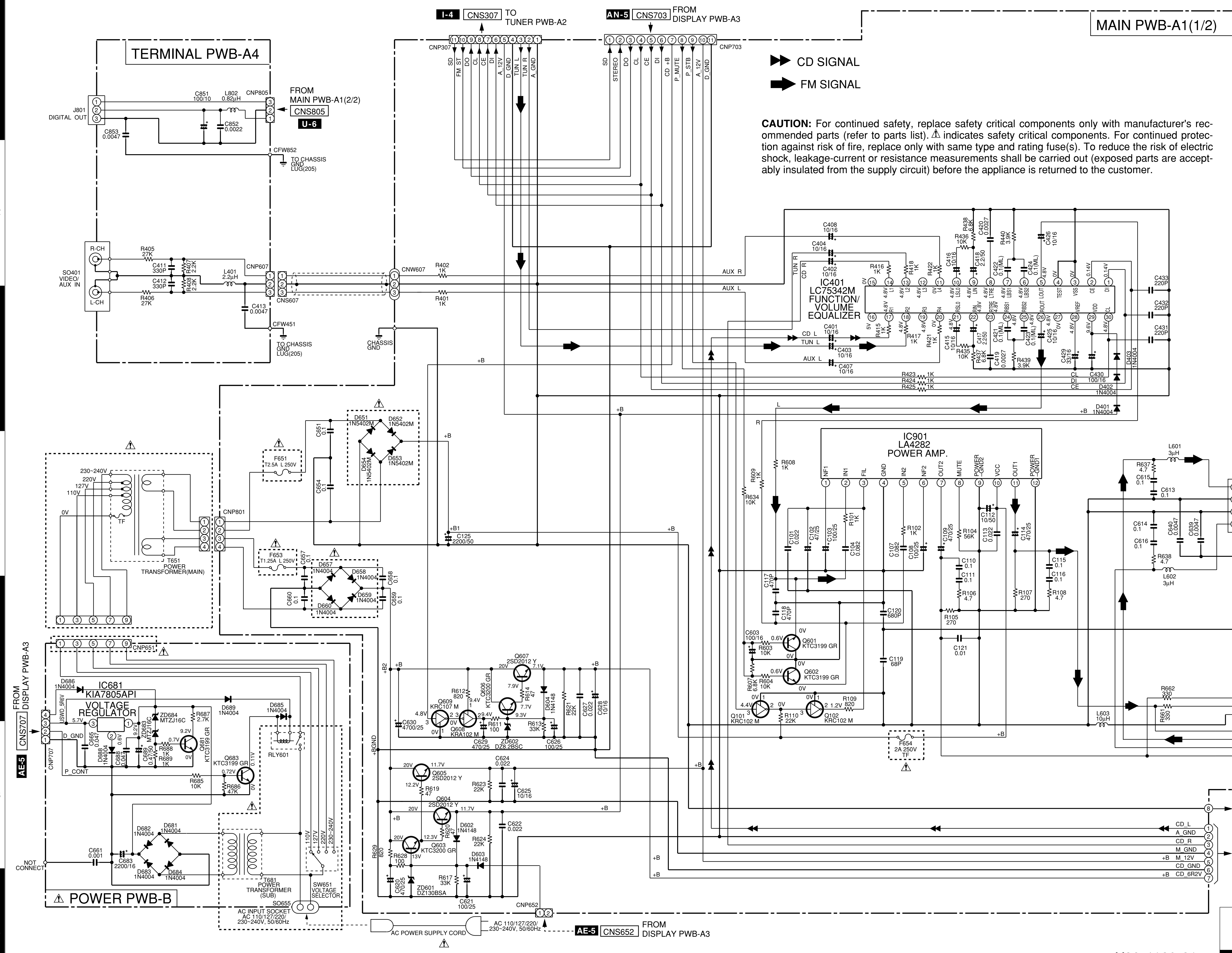
The DC voltage is an actual reading measured with a high impedance type voltmeter as the AM/FM signal generator is specified to the conditions as shown in the list below. The measurement value may vary depending on the measuring instruments used or on the product. The value shown in ( ) is actual reading measured in the AM mode.

MODE	CARRIER	MODULATION		ANT INPUT
		FREQUENCY	DEVIATION	
FM	98MHz	1kHz	STEREO 67.5kHz 7.5kHz(Pilot)	60dB
AM	1000(999)kHz	400Hz	MONO 30% MOD	60dB

Y39-4120-21

RD-M23

KENWOOD



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

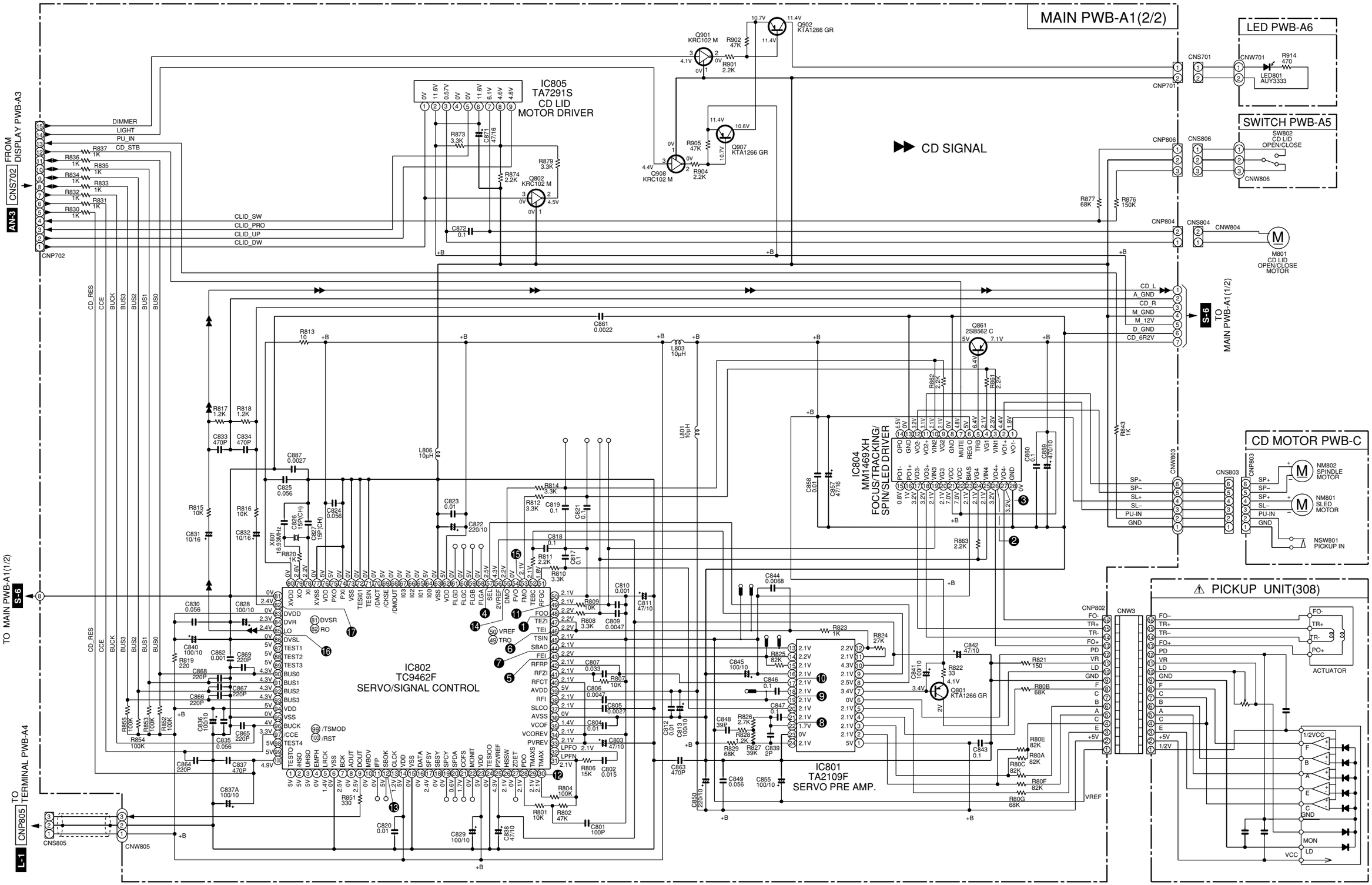
The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

RD-M23

Y39-4120-21

KENWOOD

MAIN PWB-A1(2/2)



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. For continued protection against risk of fire, replace only with same type and rating fuse(s). To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

The DC voltage is an actual reading measured with a high impedance type voltmeter with no signal input. The measurement value may vary depending on the measuring instruments used or on the product.

Y39-4120-21

RD-M23

KENWOOD

DISPLAY PWB-A3

LED PWB-A7

R701 390
LED702 SLI343YC
LED701 SLI343YC
GND
CFW701B
CFW701A

IC701
IX0039SJ
SYSTEM MICROCOMPUTER/ FL DRIVER

LCD701
FL DISPLAY

SW727 FUNCTION
SW726 REW PRESET DOWN
SW725 CD STOP TUNING DOWN
SW722 MEMORY/SET
SW721 BASS/TREBLE
SW718 VOLUME DOWN
SW713 VOLUME UP
SW712 CD PLAY/ PAUSE TUNING UP
SW711 FF PRESET UP
SW709 ON/ STAND-BY
SW710 CD LID OPEN/CLOSE

R706 3.9K
R707 2.7K
R708 2.2K
R710 2.7K
R711 1.2K
R718 1.5K
R719 1.2K
R720A 1.2K
R720B 1.2K
R702 10K
R795 47K
R721 10K
R722 10K
R725 10K
L702 2.2µH

X701 8MHz
X702 32.768kHz
C701 22P(CH)
C702 22P(CH)
C703 0.1
R723 47K
R727 47K
R728 1K
R729 47K
R724 5.6K
R731 1K
R732 1K
R733 1K
R734 1K
R735 1K

COM3 COM2 COM1 COM0 VLC3 VLC2 VLC1 VDD OSC2 OSC1 VSS XI XO MMOD VREF– CLID_SW KEY1 KEY2 MODEL CLID_PRO VSM VREF+ DI DO CL CE RESET POWER SYS_STOP REMOCON CLE SURR P-STB P-MUTE CD+B P-CONT DATA STEREO SD B-LIGHT
SEG0 SEG1 SEG2 SEG3 SEG4 SEG5 SEG6 SEG7 SEG8 SEG9 SEG10 SEG11 SEG12 SEG13 SEG14 SEG15 SEG16 SEG17 SEG18 SEG19 SEG20 SEG21 SEG22 SEG23 SEG24 SEG25 SEG26 SEG27 SEG28 SEG29 SEG30 SEG31 SEG32 SEG33 CCE BUCK BUS3 BUS2 BUS1 BUS0 CD_STB CD_RES PU–IN CLID_DW CLID_UP DIMMER LIGHT

R738 1K
R739 1K
R740 10K
R741 1K
R744 1K
C705 0.01
R749 1K
R750 1K
R751 1K
R752 1K
R742 1K
R757 1K
R758 1K
R759 1K
R760 1K
R777 1K
R776 1K
R761 1K
R774 1K
R762 1K
R763 1K
R764 1K
R765 1K
R766 1K
R767 1K
R768 1K
R769 1K
R770 1K
R772 1K
R773 1K
R785 1K
R784 47K
R789 47K
R786 47K

CNW702
CLID_DW
CLID_UP
CLID_PRO
CLID_SW
CD_RES
CCE
BUCK
BUS3
BUS2
BUS1
BUS0
CD_STB
PU-IN
LIGHT
DIMMER
CNS702
TO MAIN PWB-A1(2/2)
U-2
CNP702

CNS707
CNW707
TO POWER PWB-B
K-5
CNP707
D_GND
P_CONT
USWD_5R6V
CNS652
N-7
CNP652
TO MAIN PWB-A1(1/2)

D720 1N4148
D721 1N4148
D722 1N4148
D723 1N4148
R7A9 3.3K
R7A6 1K
R7A7 1K
Q701 KRC102 M
C711 3.3/50
C712 0.01
C710 0.01
R7A0 1K
R7A5 10K
R7B0 10K
Q702 KTC3199 GR
R7A4 120
Q703 KTC3199 GR
R7A8 82
R7A1 1K
ZD701 DZ3.3BSB
RX701 REMOTE SENSOR
R7A3 100
C715 100/10
C714 560P
C713 10/16

Q707 KTA1266 GR
R796 1K
R792 47K
R793 10K
Q706 KRC102 M
Q708 KTA1266 GR
R798 4.7K
R797 2.2K
Q709 KRC102 M
C704 0.022
R778 47K
R779 47K
R780 47K
R781 47K
R783 33K

CLE
DATA
SD
STEREO
CE
CL
DO
DI
CD+B
CLID_PRO
P_STB
P_MUTE
CLID_SW
B-LIGHT
A_12V
D_GND

CNS703
CNW703
TO MAIN PWB-A1(1/2)
O-1
CNP703

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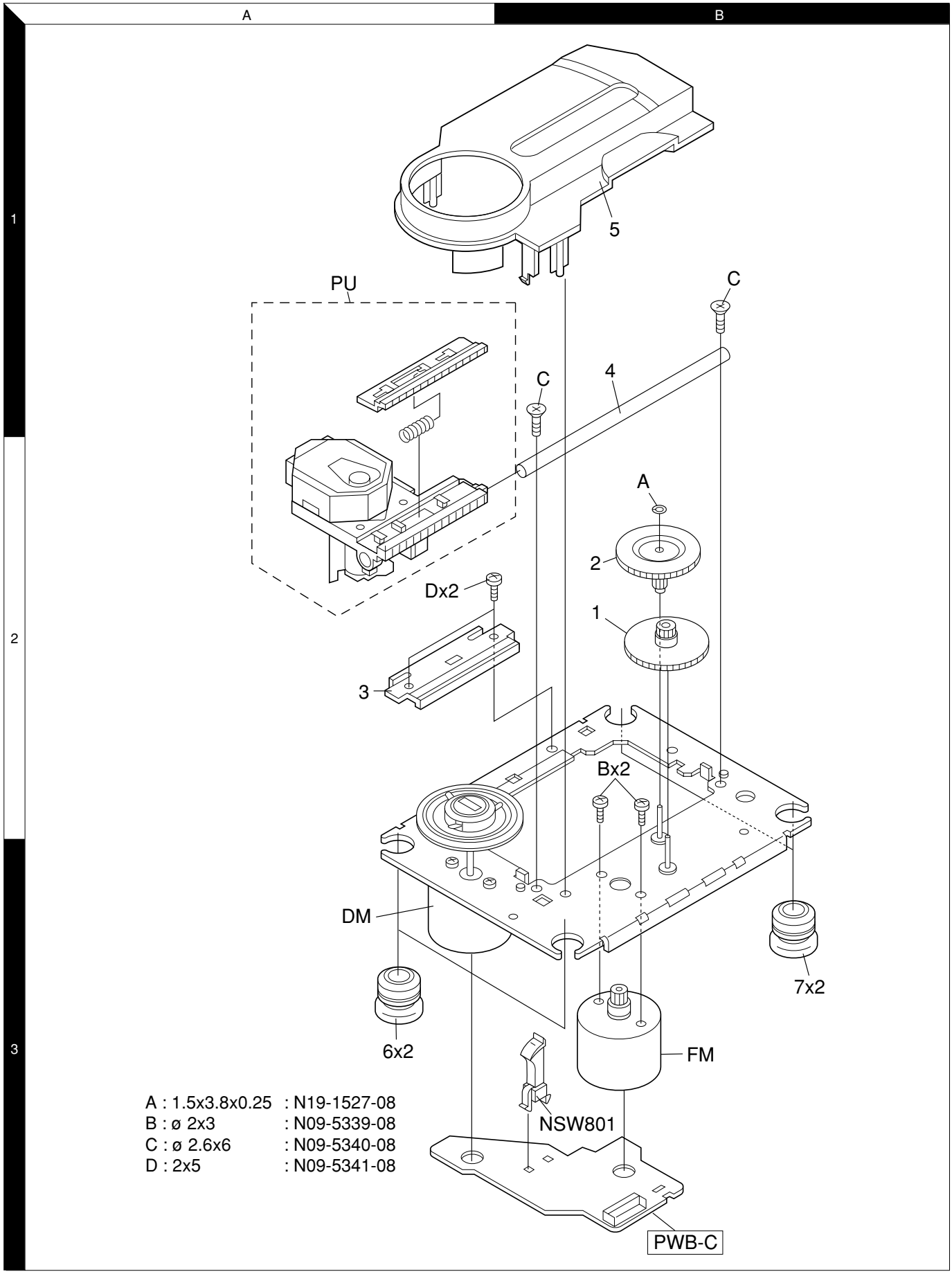
Y39-4120-21

RD-M23

KENWOOD

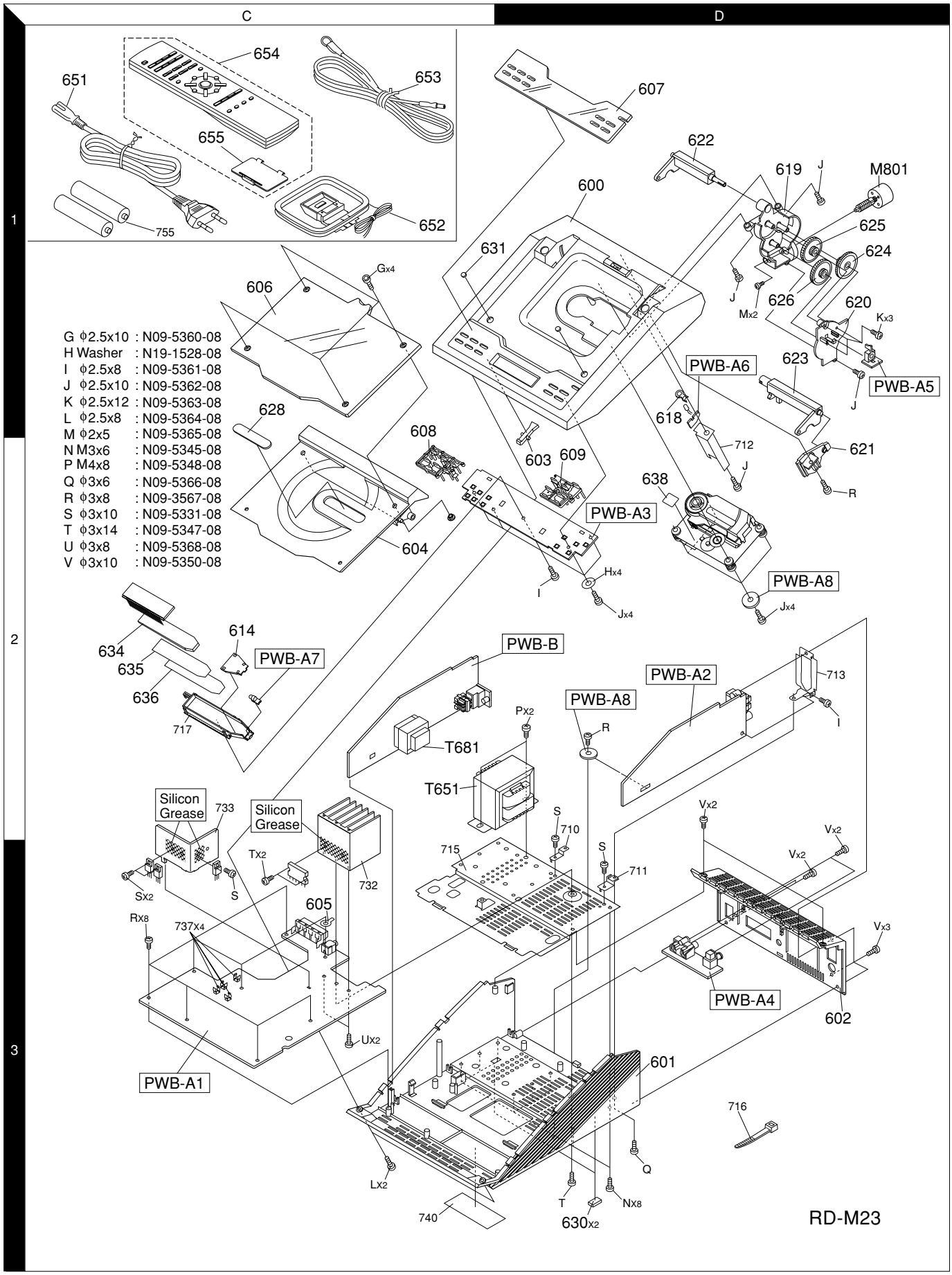
EXPLODED VIEW (MECHANISM)



A : 1.5x3.8x0.25 : N19-1527-08
B : ø 2x3 : N09-5339-08
C : ø 2.6x6 : N09-5340-08
D : 2x5 : N09-5341-08

Parts with exploded numbers larger than 700 are not supplied.

EXPLODED VIEW (UNIT)



Parts with exploded numbers larger than 700 are not supplied.

✻ New Parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnes dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

❶

Ref. No	Address	New Parts	Parts No.	Description	Destination	Remarks
RD-M23						
600	1D	✻	A60-2147-08	FRONT CABINET GCABA1071SJSA		
601	3D	✻	A10-3564-08	BOTTOM CABINET GCABB1066SJSA		
602	3D	✻	A80-4145-08	REAR PANEL GCOVA1007SJSA	ET	
602	3D	✻	A80-4203-08	REAR PANEL GCOVA1008SJSA	MX	
603	2D	✻	B12-0439-08	COVER,REMOTE GCOVA1005SJSA		
604	2C	✻	J19-6268-08	CD LID GFTAT1011SJSA		
606	1C	✻	F07-1764-08	CLEAR PANEL,CD HDECQ0057SJSA		
607	1D	✻	B10-3764-08	CLEAR PANEL,DI HDECQ0058SJSA		
608	1C	✻	K29-8084-08	KNOB,OPERATION JKNBZ0057SJSA		
609	2D	✻	K29-8085-08	KNOB,OPERATION JKNBZ0058SJSA		
614	2C	✻	J19-6269-08	COVER,LAMP LANGK0026SJFW		
618	1D	✻	J19-6270-08	LED HOLDER,218 LHLDZ1034SJSA	ET	
619	1D	✻	J19-6271-08	GEAR BOX,219 LHLDZ1035SJSA		
620	1D	✻	J19-6272-08	LID,GEAR BOX,22LHLDZ1036SJSA		
621	2D	✻	J19-6273-08	CAM PLATE LPLTP0002SJSA		
622	1D	✻	D10-5017-08	ROTATE LEVER,CDMLEVP0006SJSA		
623	1D	✻	D10-5018-08	ROTATE LEVER,CDMLEVP0008SJSA		
624	1D	✻	D13-2572-08	DRIVE GEAR,A,22NGERW0004SJSA		
625	1D	✻	D13-2573-08	DRIVE GEAR,B,22NGERW0005SJSA		
626	1D	✻	D13-2574-08	DRIVE GEAR,C,22NGERW0006SJSA		
628	1C	✻	B03-3900-08	PLATE,228 HDECQ0059SJSA		
630	3D	✻	G11-2850-08	CUSHION,LEG,230PCUSG0003SJZZ		
631	1D	✻	G11-2851-08	CUSHION,CD LID,PGUMS0003SJZZ		
631	1D	✻	G11-2863-08	CUSHION,CD LID,PGUMS0004SJZZ		
634	2C	✻	B19-1634-08	LCD DIFFUSION PPREFL0001SJSA		
635	2C	✻	B11-1537-08	SHEET,LCD,235 PSHEP0003SJZZ		
636	2C	✻	B11-1538-08	LCD REFLECT PA PSHEP0004SJZZ		
638	2D	✻	B42-7534-08	LABEL,CLASS 3A,TLABS0036SJZZ		
⚠ 651	1C	✻	E30-7236-08	AC POWER SUPPLYQACCB0001SJ00	T	
⚠ 651	1C	✻	E30-7237-08	AC POWER SUPPLYQACCE0001SJZZ	EM	
⚠ 651	1C	✻	E30-7240-08	AC POWER SUPPLYQACCZ0008AW00	X	
652	1C	✻	T90-0890-08	AM LOOP ANTENNAQANTL0001SJZZ		
653	1C	✻	T90-0891-08	FM ANTENNA QANTW0002SJZZ		
654	1C	✻	A70-1547-08	REMOTE CONTROLRRMCG0035SJSA		
655	1C	✻	A09-1243-08	BATTERY LID,RE GCABB1064SJSA		
-			B46-0310-03	WARRANTY CARD TGANZ0009SJ01	E	
-		✻	B60-5124-08	INST MANUAL TINSZ0108SJZZ	E	
-		✻	B60-5125-08	INST MANUAL TINSZ0073SJZZ	T	
-		✻	B60-5126-08	INST MANUAL TINSZ0111SJZZ	M	
-		✻	B60-5127-08	INST MANUAL TINSE0077SJZZ	X	
-			E03-0115-05	AC ADAPTER QPLGA0250AFZZ	M	
-		✻	H12-3574-08	PACKING ADD.L SPAKA0071SJZZ		
-		✻	H12-3575-08	PACKING ADD.R SPAKA0072SJZZ		
-		✻	H13-0345-08	PAD,ACCESSORY SPAKZ0031SJZZ		
-		✻	H25-1716-08	POLYETHYLENE BASPAKZ0064SJZZ		
-		✻	H25-1717-08	POLYETHYLENE BASSAKA0002SJZZ		
-		✻	H50-4247-08	PACKING CASE SPAKC0184SJZZ	E	
-		✻	H50-4248-08	PACKING CASE SPAKC0192SJZZ	T	
-		✻	H50-4249-08	PACKING CASE SPAKC0188SJZZ	MX	
G		✻	N09-5360-08	SCREW,2.5X10m LX-EZ0001SJFN		
H		✻	N19-1528-08	WASHER,SPECIAL LX-WZ7094AFZZ	ET	
I		✻	N09-5361-08	SCREW,2.5X8mm,6XEBSD25P08000		
J		✻	N09-5362-08	SCREW,2.5X10mm,XEBSD25P10000		

L : Scandinavia **K :** USA **P :** Canada **R :** Mexico **C :** China **I :** Malaysia
Y : PX(Far East,Hawaii) **T :** England **E :** Europe **G :** Germany **V :** China(Shanghai)
Y : AAFES(Europe) **X :** Australia **Q :** Russia **H :** Korea **M :** Other Areas ⚠ indicates safety critical components .

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❷

Ref. No	Address	New Parts	Parts No.	Description	Destination	Remarks
K		✻	N09-5363-08	SCREW,2.5X12mm,XEBSD25P12000		
L		✻	N09-5364-08	SCREW,2.5X8mm,6XEBSF25P08000		
M		✻	N09-5365-08	SCREW,2X5mm,607XHBSD20P05000		
N		✻	N09-5345-08	SCREW,3X6mm,608XHBSD30P06000		
P			N09-5348-08	SCREW,4X8mm,609XHBSD40P08000		
Q		✻	N09-5366-08	SCREW,3X6mm,610XJBSD30P06000		
R			N09-3567-08	SCREW,3X8mm,611XJBSD30P08000		
S			N09-5331-08	SCREW,3X10mm,61XJBSD30P10000		
T			N09-5347-08	SCREW,3X14mm,61XJBSD30P14000		
U		✻	N09-5368-08	SCREW,3X8mm,614XJBSF30P08000		
V		✻	N09-5350-08	SCREW,3X10mm,61XJBSF30P10000		
ELECTRICAL PARTS						
D801		✻	B30-2618-08	LED,DB5306X [XLVHPDB5306X+-1		
LCD701		✻	B38-0253-08	LCD DISPLAY RV-LX0012SJZZ		
LMP701		✻	B30-2617-08	LAMP RLMPP0001SJZZ	ET	
C101			CK45FB1H223Z	CERAMIC 0.022UF Z		
C102			CE04LW1E470M	ELECTRO 47UF 25WV		
C103			CE04LW1E101M	ELECTRO 100UF 25WV		
C104			CQ93FMG1H474J	MYLAR 0.47UF J		
C107			CQ93FMG1H474J	MYLAR 0.47UF J		
C108			CE04LW1E101M	ELECTRO 100UF 25WV		
C109			CE04LW1E471M	ELECTRO 470UF 25WV		
C110,111			CF93AN1H104J	MF-C 0.10UF J		
C112			CE04LW1H100M	ELECTRO 10UF 50WV		
C113			CK45FB1H223Z	CERAMIC 0.022UF Z		
C114			CE04LW1E471M	ELECTRO 470UF 25WV		
C115,116			CF93AN1H104J	MF-C 0.10UF J		
C117,118			CK45FB1H471K	CERAMIC 470PF K		
C119			CC45FCH1H680J	CERAMIC 68PF J		
C120			CK45FB1H681K	CERAMIC 680PF K		
C121			CK45FB1H103Z	CERAMIC 0.010UF Z	MX	
C125			CE04KW1H222M	ELECTRO 2200UF 50WV		
C301			CK45FB1H123K	CERAMIC 0.012UF K		
C302			CK73GB1H102K	CHIP C 1000PF K		
C303			CK73GB1H102K	CHIP C 1000PF K	MX	
C304			CK73GB1E103Z	CHIP C 0.010UF Z	MX	
C305			CK73GB1H472K	CHIP C 4700PF K	MX	
C306			CC73GCH1H070D	CHIP C 7.0PF D	MX	
C307			CK73GB1H472K	CHIP C 4700PF K	MX	
C308			CK73GB1E223K	CHIP C 0.022UF K	MX	
C309			CK73GB1H102K	CHIP C 1000PF K	MX	
C310			CK73GB1E223K	CHIP C 0.022UF K	MX	
C311			CC73GCH1H100J	CHIP C 10PF J	MX	
C312			CC73GCH1H330J	CHIP C 33PF J	MX	
C313			CC73GUJ1H060D	CHIP C 6.0PF D	MX	
C314			CC73GCH1H220J	CHIP C 22PF J	MX	
C315			CK73GB1H101J	CHIP C 100PF J	MX	
C316			CE04LW1C100M	ELECTRO 10UF 16WV	MX	
C317			CK73GB1H223K	CHIP C 0.022UF K	MX	
C318			CC73GCH1H050C	CHIP C 5.0PF C	MX	
C319			CC73GCH1H180J	CHIP C 18PF J	MX	
C329			CK73GB1H223K	CHIP C 0.022UF K		
C330			CC45FCH1H120J	CERAMIC 12PF J		
C331			CK73GB1H473K	CHIP C 0.047UF K		

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C332			CK45FB1H223Z	CERAMIC	0.022UF	Z		
C334			CC45FCH1H270J	CERAMIC	27PF	J		
C335			CK73GB1H561K	CHIP C	560PF	K		
C337			CK45FB1H223K	CERAMIC	0.022UF	K		
C341			CK73GB1H223K	CHIP C	0.022UF	K	ET	
C343			CC73GCH1H330J	CHIP C	33PF	J		
C345-347			CK73GB1H223K	CHIP C	0.022UF	K	ET	
C348			CE04LW1C101M	ELECTRO	100UF	16WV	ET	
C349			CK73GB1H102K	CHIP C	1000PF	K		
C350,351			CK73GB1H223K	CHIP C	0.022UF	K		
C352			CE04LW1C100M	ELECTRO	10UF	16WV		
C353,354			CK73GB1H223K	CHIP C	0.022UF	K		
C355			CC73GCH1H220J	CHIP C	22PF	J		
C356			CK73GB1H102K	CHIP C	1000PF	K		
C357			CE04LW1H2R2M	ELECTRO	2.2UF	50WV		
C358			CE04LW1H010M	ELECTRO	1.0UF	50WV		
C360,361			CK73GB1H223K	CHIP C	0.022UF	K		
C362			CE04LW1H3R3M	ELECTRO	3.3UF	50WV		
C363			CK73GB1H223K	CHIP C	0.022UF	K		
C364			CE04LW1C100M	ELECTRO	10UF	16WV		
C365			CK73GB1H223K	CHIP C	0.022UF	K		
C366			CK73GB1H102K	CHIP C	1000PF	K		
C367,368			CE04LW1H010M	ELECTRO	1.0UF	50WV		
C369			CC45FCH1H560J	CERAMIC	56PF	J		
C370-372			CE04LW1H010M	ELECTRO	1.0UF	50WV		
C373,374			CK45FB1H183K	CERAMIC	0.018UF	K		
C380			CE04LW1C100M	ELECTRO	10UF	16WV		
C381			CC73GCH1H120J	CHIP C	12PF	J		
C382			CC73GCH1H150J	CHIP C	15PF	J		
C383			CK73GB1H223K	CHIP C	0.022UF	K		
C384			CK73GB1H102K	CHIP C	1000PF	K		
C385			CK45FB1H103Z	CERAMIC	0.010UF	Z		
C386			CK45FB1H331K	CERAMIC	330PF	K		
C387			CK73GB1H223K	CHIP C	0.022UF	K		
C391			CE04LW1C470M	ELECTRO	47UF	16WV		
C392			CK73GB1H102K	CHIP C	1000PF	K		
C393			CE04LW1H010M	ELECTRO	1.0UF	50WV		
C394			CE04LW1C470M	ELECTRO	47UF	16WV		
C395			CK73GB1H223K	CHIP C	0.022UF	K		
C396			CE04LW1A101M	ELECTRO	100UF	10WV		
C397			CK73GB1H223K	CHIP C	0.022UF	K		
C398			CE04LW1A101M	ELECTRO	100UF	10WV		
C399			CK45FB1H223Z	CERAMIC	0.022UF	Z		
C401-404			CE04LW1C100M	ELECTRO	10UF	16WV		
C407,408			CE04LW1C100M	ELECTRO	10UF	16WV		
C411,412			CK45FB1H331K	CERAMIC	330PF	K		
C413			CK45FB1H472K	CERAMIC	4700PF	K		
C415,416			CE04LW1C100M	ELECTRO	10UF	16WV		
C417,418			CE04LW1H2R2M	ELECTRO	2.2UF	50WV		
C419,420			CK73GB1H272K	CHIP C	2700PF	K		
C421-424			CQ93M1H104K	MYLAR	0.10UF	K		
C425,426			CE04LW1C100M	ELECTRO	10UF	16WV		
C429			CE04LW1C330M	ELECTRO	33UF	16WV		
C430			CE04LW1C101M	ELECTRO	100UF	16WV		
C431-433			CK73GB1H221K	CHIP C	220PF	K		

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C603			CE04LW1C101M	ELECTRO	100UF	16WV		
C604,605			CC45FCH1H470J	CERAMIC	47PF	J		
C617,618			CK45FB1H472K	CERAMIC	4700PF	K		
C620			CE04LW1E471M	ELECTRO	470UF	25WV		
C621			CE04LW1E101M	ELECTRO	100UF	25WV		
C622			CK45FB1H223Z	CERAMIC	0.022UF	Z		
C624			CK45FB1H223Z	CERAMIC	0.022UF	Z		
C625			CE04LW1C100M	ELECTRO	10UF	16WV		
C626			CE04LW1E101M	ELECTRO	100UF	25WV		
C627			CK45FB1H223Z	CERAMIC	0.022UF	Z		
C628			CE04LW1C100M	ELECTRO	10UF	16WV		
C629			CE04LW1E471M	ELECTRO	470UF	25WV		
C630			CE04KW1E472M	ELECTRO	4700UF	25WV		
C632,633			CK45FB1H223Z	CERAMIC	0.022UF	Z		
C636,637			CK45FB1H223Z	CERAMIC	0.022UF	Z		
C639,640			CK45FB1H472K	CERAMIC	4700PF	K		
C651			CF93AN1H104J	MF-C	0.10UF	J		
C654			CF93AN1H104J	MF-C	0.10UF	J		
⚠ C657-660			CF93AN1H104J	MF-C	0.10UF	J		
C661			CK45FB1H102K	CERAMIC	1000PF	K		
C665			CF93AN1H473K	MF-C	0.047UF	K		
C666,667			CK45FB1H821K	CERAMIC	820PF	K	ET	
C668			CK45FB1H391K	CERAMIC	390PF	K	ET	
C683			CE04LW1C222M	ELECTRO	2200UF	16WV		
C688			CF93AN1H473K	MF-C	0.047UF	K		
C689			CE04LW1HR47M	ELECTRO	0.47UF	50WV		
C701,702			CC45FCH1H220J	CERAMIC	22PF	J		
C703			CK73GB1E104Z	CHIP C	0.10UF	Z		
C704			CK73GB1H223K	CHIP C	0.022UF	K		
C705			CK45FB1H103Z	CERAMIC	0.010UF	Z		
C710			CK73GB1E103K	CHIP C	0.010UF	K		
C711			CE04LW1H3R3M	ELECTRO	3.3UF	50WV		
C712			CK73GB1E103K	CHIP C	0.010UF	K		
C713			CE04LW1C100M	ELECTRO	10UF	16WV		
C714			CK73GB1H561K	CHIP C	560PF	K		
C715			CE04LW1A101M	ELECTRO	100UF	10WV		
C801			CC73GCH1H101J	CHIP C	100PF	J		
C802			CK73GB1E153K	CHIP C	0.015UF	K		
C803			CE04LW1A470M	ELECTRO	47UF	10WV		
C804			CK73GB1E103K	CHIP C	0.010UF	K		
C805			CK73GB1H272K	CHIP C	2700PF	K		
C806			CK73GB1H472K	CHIP C	4700PF	K		
C807			CK73GB1E333K	CHIP C	0.033UF	K		
C809			CK73GB1H472K	CHIP C	4700PF	K		
C810			CK73GB1H102K	CHIP C	1000PF	K		
C811			CE04LW1A470M	ELECTRO	47UF	10WV		
C812			CK73GB1E103Z	CHIP C	0.010UF	Z		
C813			CE04LW1A101M	ELECTRO	100UF	10WV		
C817-819			CK73GB1H104K	CHIP C	0.10UF	K		
C820			CK73GB1E103Z	CHIP C	0.010UF	Z		
C821			CK73GB1H104K	CHIP C	0.10UF	K		
C822			CE04LW1A221M	ELECTRO	220UF	10WV		
C823			CK73GB1E103Z	CHIP C	0.010UF	Z		
C824,825			CK73GB1E563K	CHIP C	0.056UF	K		
C826,827			CC73GCH1H150J	CHIP C	15PF	J		

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C828,829			CE04LW1A101M	ELECTRO	100UF	10WV		
C830			CK73GB1E563K	CHIP C	0.056UF	K		
C831,832			CE04LW1C100M	ELECTRO	10UF	16WV		
C833,834			CK73GB1H471K	CHIP C	470PF	K		
C835			CK73GB1E563K	CHIP C	0.056UF	K		
C836			CE04LW1A101M	ELECTRO	100UF	10WV		
C837			CK73GB1H471K	CHIP C	470PF	K		
C837A			CE04LW1A101M	ELECTRO	100UF	10WV		
C838			CE04LW1A470M	ELECTRO	47UF	10WV		
C839			CC73GCH1H020C	CHIP C	2.0PF	C		
C840,841			CE04LW1A101M	ELECTRO	100UF	10WV		
C842			CE04LW1A470M	ELECTRO	47UF	10WV		
C843			CK73GB1E104Z	CHIP C	0.10UF	Z		
C844			CK73GB1H682K	CHIP C	6800PF	K		
C845			CE04LW1A101M	ELECTRO	100UF	10WV		
C846,847			CK73GB1E104Z	CHIP C	0.10UF	Z		
C848			CC73GCH1H390J	CHIP C	39PF	J		
C849			CK73GB1E563K	CHIP C	0.056UF	K		
C850			CE04LW1A221M	ELECTRO	220UF	10WV		
C851			CE04LW1A101M	ELECTRO	100UF	10WV		
C852			CQ92FM1H222J	MYLAR	2200PF	J		
C853			CK45FB1H472K	CERAMIC	4700PF	K		
C855			CE04LW1A101M	ELECTRO	100UF	10WV		
C857			CE04LW1C470M	ELECTRO	47UF	16WV		
C858			CK73GB1E103Z	CHIP C	0.010UF	Z		
C859			CE04LW1A471M	ELECTRO	470UF	10WV		
C860			CK73GB1E104Z	CHIP C	0.10UF	Z		
C861			CK45FB1H222K	CERAMIC	2200PF	K		
C862			CK45FB1H102K	CERAMIC	1000PF	K		
C863			CK73GB1H471K	CHIP C	470PF	K		
C864-869			CK73GB1H221K	CHIP C	220PF	K		
C871			CE04LW1C470M	ELECTRO	47UF	16WV		
C872			CK73GB1H104K	CHIP C	0.10UF	K		
C887			CK73GB1H272K	CHIP C	2700PF	K		
C901,902			CE04LW1H221M	ELECTRO	220UF	50WV		
C903,904			CE04LW1H100M	ELECTRO	10UF	50WV		
C905,905			CE04LW1A101M	ELECTRO	100UF	10WV		
VD301		✻	SVC348S	VARIABLE CAPAC	VHCSVC348S/-1			
VD302,303		✻	KDV147C	VARIABLE CAPAC	VHCKDV147C/-1		MX	
CFW701A,B			E35-3119-08	FLAT WIRE,3P	QCNWN0292SJZZ			
CNW3		✻	E35-3118-08	FLAT CABLE,16P	QCNWN0288SJZZ			
CNW707/CNS707		✻	E35-3179-08	CONNECTOR ASSY	QCNWN0301SJZZ		MX	
CNW707/CNS707		✻	E35-3180-08	CONNECTOR ASSY	QCNWN0322SJZZ		ET	
CNP802		✻	E40-8989-08	SOCKET,16P	QCNCW007RSJZZ			
CNW805/CNS805		✻	E35-3120-08	CONNECTOR ASSY	QCNWN0296SJZZ			
CNW806/CNS806		✻	E35-3117-08	CONNECTOR ASSY	QCNWN0270SJZZ			
J601		✻	E11-0944-08	JACK,PHONES	QJAKM0001SJZZ			
SO301		✻	E70-0149-08	TERMINAL,ANT	QTANC9003SJZZ			
SO401		✻	E63-1228-08	SOCKET,VIDEO/AU	QSOCJ0003SJZZ			
SO601		✻	E21-0040-08	TERMINAL,SP	QTANA0007SJZZ			
⚠ SO655		✻	E03-0384-08	SOCKET AC-IN	QSOCA0212AWZZ			
⚠ F651		✻	F50-0198-08	FUSE,T2.5A L 25	QFS-D252ABGNI			
⚠ F653		✻	F50-0196-08	FUSE,T1.25A L 2	QFS-D132ABGNI			

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BF301			L32-1040-08	BAND PASS FLTR	RFILR0008AWZZ			MX	
CF301,302		✻	L72-0641-08	FM IF	RFILF0072AFZZ			ET	
CF302,303		✻	L72-0644-08	FM RF	RFILF0004SJZZ			MX	
CF351			L79-1287-08	FM IF	RFILF0003AWZZ				
CF352		✻	L72-0640-08	AM IF	RFILA0003SJZZ				
L302		✻	-	FM RF	RCILR0003SJZZ			MX	
L303		✻	L32-1053-08	FM OSC	RCILB0010SJZZ			MX	
L341		✻	L19-0203-08	BALUN TRANS	RBLN-0001AWZZ			ET	
L342			L90-0312-08	2.2 UH,PEAKING	VP-DH2R2K0000			ET	
L351,352			L90-0388-08	100 UH,CHOKE	VP-DH101K0000				
L353			L40-1021-14	1 MH,CHOKE	VP-DH102K0000				
L354		✻	L79-1289-08	LOW PASS FLTR	RFILL0001AWZZ			ET	
L401			L90-0312-08	2.2 UH,PEAKING	VP-DH2R2K0000				
L601,602		✻	L33-1640-08	3 UH,CHOKE	RCILZ0024AWZZ				
L603-605			L90-0305-08	10 UH,CHOKE	VP-DH100K0000				
L702			L90-0312-08	2.2 UH,PEAKING	VP-DH2R2K0000				
L801			L90-0305-08	10 UH,CHOKE	VP-DH100K0000				
L802			L90-0314-08	0.82 UH	VP-XHR82K0000				
L803			L90-0305-08	10 UH,CHOKE	VP-DH100K0000				
L806			L90-0305-08	10 UH,CHOKE	VP-DH100K0000				
⚠ LF651		✻	L33-1639-08	LINE FILTER	RCILZ0003SJZZ			ET	
T302		✻	L31-0663-08	AM TRACKING	RCILA0007SJZZ				
T304		✻	L30-0987-08	FM IF	RCILI0005SJZZ			MX	
T306		✻	L32-1050-08	AM BAND CVRG	RCILB0009SJZZ				
T351		✻	L30-0986-08	AM IF	RCILI0004SJZZ				
⚠ T651	2C	✻	L07-3136-08	POWER TRANS	RTRNP0058SJZZ			ET	
⚠ T651	2C	✻	L07-3149-08	POWER TRANS	RTRNP0063SJZZ			MX	
⚠ T681	2C	✻	L07-3135-08	POWER TRANS	RTRNP0057SJZZ			ET	
⚠ T681	2C	✻	L07-3148-08	POWER TRANS	RTRNP0061SJZZ			MX	
X351		✻	L78-0744-08	VCO,456 kHz	RCRM-0007SJZZ				
X352		✻	L77-2372-08	CRYSTAL,4.5 MHz	RCRSP0006SJZZ				
X701		✻	L78-0745-08	CERAMIC,8 MHz	RCRM-0008SJZZ				
X702		✻	L77-2373-08	CRYSTAL,32.768	RCRSP0007SJZZ				
X801		✻	L77-2371-08	CRYSTAL,16.93 M	RCRSP0002SJZZ				
R7A0			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R7B0			RK73GB1J103J	CHIP R	10K	J	1/16W		
R7A1			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R7A2			RK73GB1J104J	CHIP R	100K	J	1/16W		
R7A4			RK73GB1J121J	CHIP R	120	J	1/16W		
R7A5			RK73GB1J103J	CHIP R	10K	J	1/16W		
R7A6			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R7A7			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R7A8			RK73GB1J820J	CHIP R	82	J	1/16W		
R80A			RK73GB1J823J	CHIP R	82K	J	1/16W		
R80B			RK73GB1J683J	CHIP R	68K	J	1/16W		
R80C			RK73GB1J823J	CHIP R	82K	J	1/16W		
R80E			RK73GB1J823J	CHIP R	82K	J	1/16W		
R80F			RK73GB1J823J	CHIP R	82K	J	1/16W		
R104			RK73GB1J563J	CHIP R	56K	J	1/16W		
R105			RD14BB2H271J	RD	270	J	1/2W		
R107			RD14BB2H271J	RD	270	J	1/2W		
R302			RK73GB1J104J	CHIP R	100K	J	1/16W	MX	
R304			RK73GB1J473J	CHIP R	47K	J	1/16W	MX	
R305			RK73GB1J681J	CHIP R	680	J	1/16W	MX	

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R306			RK73GB1J100J	CHIP R	10	J	1/16W	MX	
R308			RK73GB1J103J	CHIP R	10K	J	1/16W	MX	
R310			RK73GB1J472J	CHIP R	4.7K	J	1/16W	MX	
R312			RK73GB1J222J	CHIP R	2.2K	J	1/16W	MX	
R313			RK73GB1J681J	CHIP R	680	J	1/16W	MX	
R314,315			RK73GB1J330J	CHIP R	33	J	1/16W	MX	
R316			RK73GB1J331J	CHIP R	330	J	1/16W	MX	
R323			RK73GB1J683J	CHIP R	68K	J	1/16W		
R344			RK73GB1J681J	CHIP R	680	J	1/16W	ET	
R345			RK73GB1J472J	CHIP R	4.7K	J	1/16W	ET	
R346			RK73GB1J331J	CHIP R	330	J	1/16W	ET	
R347			RK73GB1J682J	CHIP R	6.8K	J	1/16W	ET	
R348			RK73GB1J681J	CHIP R	680	J	1/16W	ET	
R349			RK73GB1J330J	CHIP R	33	J	1/16W	ET	
R350			RK73GB1J272J	CHIP R	2.7K	J	1/16W		
R351			RK73GB1J562J	CHIP R	5.6K	J	1/16W		
R352			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R353			RK73GB1J271J	CHIP R	270	J	1/16W		
R355			RK73GB1J332J	CHIP R	3.3K	J	1/16W		
R356			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R357			RK73GB1J474J	CHIP R	470K	J	1/16W		
R358			RK73GB1J822J	CHIP R	8.2K	J	1/16W		
R359			RK73GB1J182J	CHIP R	1.8K	J	1/16W		
R360			RK73GB1J472J	CHIP R	4.7K	J	1/16W		
R361,362			RK73GB1J562J	CHIP R	5.6K	J	1/16W		
R364			RK73GB1J332J	CHIP R	3.3K	J	1/16W	MX	
R364			RK73GB1J682J	CHIP R	6.8K	J	1/16W	ET	
R365			RK73GB1J103J	CHIP R	10K	J	1/16W		
R366			RK73GB1J222J	CHIP R	2.2K	J	1/16W		
R369A			RK73GB1J680J	CHIP R	68	J	1/16W	ET	
R369B			RK73GB1J820J	CHIP R	82	J	1/16W	ET	
R371-374			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R379			RK73GB1J222J	CHIP R	2.2K	J	1/16W		
R381			RK73GB1J103J	CHIP R	10K	J	1/16W		
R383			RK73GB1J562J	CHIP R	5.6K	J	1/16W		
R393			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R401,402			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R415-418			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R421,422			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R435,436			RK73GB1J103J	CHIP R	10K	J	1/16W		
R437,438			RK73GB1J682J	CHIP R	6.8K	J	1/16W		
R439,440			RK73GB1J392J	CHIP R	3.9K	J	1/16W		
R603,604			RK73GB1J103J	CHIP R	10K	J	1/16W		
R607			RK73GB1J682J	CHIP R	6.8K	J	1/16W		
R608,609			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R613			RK73GB1J333J	CHIP R	33K	J	1/16W		
R621			RK73GB1J223J	CHIP R	22K	J	1/16W		
R623,624			RK73GB1J223J	CHIP R	22K	J	1/16W		
R687			RD14BB2H272J	RD	2.7K	J	1/2W		
R702			RK73GB1J103J	CHIP R	10K	J	1/16W		
R706			RK73GB1J392J	CHIP R	3.9K	J	1/16W		
R707			RK73GB1J272J	CHIP R	2.7K	J	1/16W		
R708			RK73GB1J222J	CHIP R	2.2K	J	1/16W		
R710			RK73GB1J272J	CHIP R	2.7K	J	1/16W		
R711			RK73GB1J122J	CHIP R	1.2K	J	1/16W		

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❽

Ref. No	Address	New Parts	Parts No.	Description				Destination	Remarks
R718			RK73GB1J152J	CHIP R	1.5K	J	1/16W		
R719			RK73GB1J122J	CHIP R	1.2K	J	1/16W		
R720A,B			RK73GB1J122J	CHIP R	1.2K	J	1/16W		
R721,722			RK73GB1J103J	CHIP R	10K	J	1/16W		
R723			RK73GB1J473J	CHIP R	47K	J	1/16W		
R724			RK73GB1J122J	CHIP R	1.2K	J	1/16W	ET	
R724			RK73GB1J562J	CHIP R	5.6K	J	1/16W	MX	
R725			RK73GB1J103J	CHIP R	10K	J	1/16W		
R727			RK73GB1J473J	CHIP R	47K	J	1/16W		
R728			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R729			RK73GB1J473J	CHIP R	47K	J	1/16W		
R731-735			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R738-742			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R749,750			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R752			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R757,758			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R760-770			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R772-774			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R776,777			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R778-781			RK73GB1J473J	CHIP R	47K	J	1/16W		
R783			RK73GB1J333J	CHIP R	33K	J	1/16W		
R785			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R789			RK73GB1J473J	CHIP R	47K	J	1/16W		
R792			RK73GB1J473J	CHIP R	47K	J	1/16W		
R793			RK73GB1J103J	CHIP R	10K	J	1/16W		
R795			RK73GB1J473J	CHIP R	47K	J	1/16W		
R797			RK73GB1J222J	CHIP R	2.2K	J	1/16W		
R798			RK73GB1J472J	CHIP R	4.7K	J	1/16W		
R802			RK73GB1J473J	CHIP R	47K	J	1/16W		
R804			RK73GB1J104J	CHIP R	100K	J	1/16W		
R806			RK73GB1J153J	CHIP R	15K	J	1/16W		
R807			RK73GB1J103J	CHIP R	10K	J	1/16W		
R808			RK73GB1J332J	CHIP R	3.3K	J	1/16W		
R809			RK73GB1J103J	CHIP R	10K	J	1/16W		
R810			RK73GB1J332J	CHIP R	3.3K	J	1/16W		
R811			RK73GB1J222J	CHIP R	2.2K	J	1/16W		
R812			RK73GB1J332J	CHIP R	3.3K	J	1/16W		
R814			RK73GB1J332J	CHIP R	3.3K	J	1/16W		
R817,818			RK73GB1J122J	CHIP R	1.2K	J	1/16W		
R820			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R824			RK73GB1J273J	CHIP R	27K	J	1/16W		
R825			RK73GB1J823J	CHIP R	82K	J	1/16W		
R826			RK73GB1J272J	CHIP R	2.7K	J	1/16W		
R827			RK73GB1J393J	CHIP R	39K	J	1/16W		
R828			RK73GB1J122J	CHIP R	1.2K	J	1/16W		
R830-837			RK73GB1J102J	CHIP R	1.0K	J	1/16W		
R851			RK73GB1J331J	CHIP R	330	J	1/16W		
R852-855			RK73GB1J104J	CHIP R	100K	J	1/16W		
R861-863			RK73GB1J222J	CHIP R	2.2K	J	1/16W		
R874			RK73GB1J222J	CHIP R	2.2K	J	1/16W		
R876			RK73GB1J154J	CHIP R	150K	J	1/16W		
R877			RK73GB1J683J	CHIP R	68K	J	1/16W		
R879			RK73GB1J332J	CHIP R	3.3K	J	1/16W		
R901			RK73GB1J222J	CHIP R	2.2K	J	1/16W		
R902			RK73GB1J473J	CHIP R	47K	J	1/16W		

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Ref. No	Address	New Parts	Parts No.	Description	Destination	Remarks
R904			RK73GB1J222J	CHIP R 2.2K J 1/16W		
R905			RK73GB1J473J	CHIP R 47K J 1/16W		
R913			R92-0219-05	FUSE RESIST 10 G 1/4W	MX	
VR351		✻	R12-3685-08	10 KOHM(B)SEMI RVR-M0999AFZZ		
RLY601		✻	S76-0129-08	RELAY RRLYD0004SJZZ		
SW651			S62-0106-08	SWITCH,SLIDE QSOCE0008AWZZ	MX	
SW709-713		✻	S70-0094-08	SWITCH,KEY QSW-K0004SJZZ		
SW718		✻	S70-0094-08	SWITCH,KEY QSW-K0004SJZZ		
SW721,722		✻	S70-0094-08	SWITCH,KEY QSW-K0004SJZZ		
SW725-727		✻	S70-0094-08	SWITCH,KEY QSW-K0004SJZZ		
SW802		✻	S64-0058-08	SWITCH,LEVER QSW-B0001SJZZ		
M801	1D	✻	T49-0028-08	MOTOR WITH GEARRMOTV0004SJM1		
D301,302			1N4148	DIODE		
D303,304			1N4148	DIODE	ET	
D305,306			1N4148	DIODE	MX	
D308			1N4148	DIODE		
D401-403			1N4004	DIODE		
D602			1N4148	DIODE		
D603			1N4148	DIODE	MX	
D604			1N4148	DIODE		
⚠ D651-654		✻	1N5402M	DIODE		
⚠ D657-660			1N4004	DIODE		
D681-685		✻	1N4004	DIODE		
D686			1N4004	DIODE	MX	
D688,689			1N4004	DIODE		
D720-723			1N4148	DIODE		
D901,902			1N4004	DIODE		
IC301			TA7358AP	IC(FM FRONT END)	MX	
IC302			LC72131	IC(PLL FREQUENCY SYNTHESIZER)		
IC303			LA1832S	IC		
IC401			LC75342M	IC		
IC681			AN78L05	IC(VOLTAGE REGULATOR/ +5V)	ET	
IC681			KIA7805API	IC(VOLTAGE REGULATOR)	MX	
IC701		✻	IX0039SJZZ	IC		
IC801		✻	TA2109F	IC		
IC802		✻	TC9462F	IC		
IC804		✻	MM1469XH	IC		
IC805			TA7291S	IC(BRIDGE DRIVER)		
IC901		✻	LA4282	IC		
Q101,102			KRC102M	TRANSISTOR		
Q301			2SC380	TRANSISTOR	ET	
Q302			2SC535C	TRANSISTOR	MX	
Q306			2SC535C	TRANSISTOR	MX	
Q351			KRC104M	TRANSISTOR		
Q360			KTA1266GR	TRANSISTOR		
Q601,602			KTC3199GR	TRANSISTOR		
Q603			KTC3200	TRANSISTOR		
Q604,605			2SD2012	TRANSISTOR		
Q606			KTC3200	TRANSISTOR		
Q607			2SD2012	TRANSISTOR		
Q608			KRA102M	TRANSISTOR		
Q609			KRC107M	TRANSISTOR		
Q681			KTC3199GR	TRANSISTOR		

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Q683			KTC3199GR	TRANSISTOR		
Q701			KRC102M	TRANSISTOR		
Q702,703			KTC3199GR	TRANSISTOR		
Q706			KRC102M	TRANSISTOR		
Q707,708			KTA1266GR	TRANSISTOR		
Q709			KRC102M	TRANSISTOR		
Q801			KTA1266GR	TRANSISTOR		
Q802			KRC102M	TRANSISTOR		
Q861			2SB562	TRANSISTOR		
Q901			KRC102M	TRANSISTOR		
Q902			KTA1266GR	TRANSISTOR		
Q903			KTC3199GR	TRANSISTOR		
Q904			KTC3200	TRANSISTOR		
Q907			KTA1266GR	TRANSISTOR		
Q908			KRC102M	TRANSISTOR		
ZD351		✻	DZ5.1BSB	ZENER DIODE		
ZD601		✻	DZ13BSA	ZENER DIODE		
ZD602		✻	DZ8.2BSC	ZENER DIODE		
ZD683,684			MTZJ16C	ZENER DIODE		
ZD701		✻	DZ3.3BSB	ZENER DIODE		
ZD901		✻	DZ24BSD	ZENER DIODE		
ZD902		✻	DZ5.6BSB	ZENER DIODE		
FE301		✻	W02-2876-08	FM FRONT END RTUNS0012AWZZ	ET	
J801		✻	W02-2878-08	JACK,CD DIGITAL VHPPLT130T2-1		
RX701		✻	W02-2877-08	REMOTE SENSOR VHLN61V380A-1		
MECHANISM						
1	2B	✻	D13-2570-08	GEAR,MIDDLE NGERH0586AFZZ		
2	2B	✻	D13-2571-08	GEAR,DRIVE NGERH0587AFZZ		
3	2A	✻	J19-6274-08	RAIL,GUIDE MLEVP0010AFZZ		
4	1B	✻	D21-2921-08	SHAFT,GUIDE NSFTM0291AFFW		
5	1B	✻	F07-1765-08	COVER,MECHANISM PCOVP1333AFSA		
6	3A	✻	J02-1530-08	CUSHION(GREEN) PCUSG0001AWSA		
7	3B	✻	J02-1531-08	CUSHION(RED) PCUSG0004AWSA		
A		✻	N19-1527-08	WASHER,1.5X LX-WZ1070AFZZ		
B		✻	N09-5339-08	SCREW,2X3mm,702 XBBSD20P03000		
C		✻	N09-5340-08	SCREW,2.6X6mm,7 XBSSD26P06000		
D		✻	N09-5341-08	SCREW,2X5mm,704 XHBSD20P05000		
⚠ PU	1A	✻	T25-0120-05	PICKUP ASSY DCTRH8005SJ01		
NSW801	3B	✻	S86-0063-08	SWITCH,PUSH QSW-F9001AWZZ		
DM	3A	✻	T49-0029-08	MOTOR WITH CHA RMOTV0408SJM1		
FM	3B	✻	T49-0030-08	MOTOR WITH GEARRMOTV0409AFM1		

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RD-M23

SPECIFICATIONS

■ General

Power source	AC 100 V / 127 V / 220 V / 230~240 V
Power consumption	Power on: 30 W Power stand-by: 0.6 W
Dimensions	Width: 230 mm (9-1/16") Height: 128 mm (5-1/16") Depth: 293 mm (11-9/16")
Weight	2.5 kg (5.5 lbs.)

■ Amplifier

Output power	RMS: 20 W (10 W + 10 W) (10 % T.H.D.)
Output terminals	Speakers: 8 ohms Headphones: 16 - 50 ohms (recommended: 32 ohms) CD digital output (optical)
Input terminals	Video/Auxiliary (audio signal): 500 mV/47 kohms

■ CD player

Type	Compact disc player
Signal readout	Non-contact, 3-beam semiconductor laser pickup
D/A converter	1-bit D/A converter
Frequency response	20 - 20,000 Hz
Dynamic range	90 dB (1 kHz)

■ Tuner

Frequency range	FM: 87.5 - 108 MHz AM: 522 - 1,620 kHz

Notes

KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

• Sufficient performance may not be exhibited at extremely cold locations (Where water freezes).

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