CD-JX20X

SHARP SERVICE MANUAL

SY0C2CDJX20XY

CD-JX20X(GY)

- In the interests of user-safety the set should be restored to its original condition and only parts identical to those specified be used.

COMPACT disc DIGITAL AUDIO

Active Servo Technology

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SHARP CORPORATION

FOR A COMPLETE DESCRIPTION OF THE OPERATION OF THIS UNIT, PLEASE REFER TO THE OPERATION MANUAL.

SPECIFICATIONS

● General

Power source:	AC 240 V, 50 Hz (For Australia) AC 110 V, 60 Hz (For Taiwan) AC 220 V, 50/60 Hz (For other areas) DC 15 V ["D" size (UM/SUM-1, R20 or HP-2) battery x 10] DC 3 V ["AA" size (UM/SUM-3, R6 or HP-7) battery x 2 for clock/memory battery]
Output power:	PMPO; 40 W (20 W + 20 W) (AC operation) MPO; 28 W (14 W + 14 W) (AC operation) RMS; 15 W (7.5 W + 7.5 W) (DC operation, 10% distortion)
Speakers:	10 cm (4") full range speaker x 2
Input impedance:	Mixing mic; 600 ohms Auxiliary in; 50 k ohms
Load impedance:	Headphones; 16-50 ohms (recommended 32 ohms)
Dimensions:	Width; 580 mm (22-13/16") Height; 195 mm (7-11/16") Depth; 238 mm (9-3/8")
Weight:	6.5 kg (14.3 lbs.) without batteries

● Radio section

Frequency range:	FM; 88-108 MHz (100 kHz span) AM; 531-1,602 kHz (9 kHz span)

● Tape deck section

Tape:	Compact cassette tape
Motor:	DC motor x 1
Head:	TAPE-1: Playback x 1 TAPE-2: Record/playback x 1 Erase x 1
Tape speed:	4.76 cm/sec (1-7/8 ips.)
Bias and erasure system:	AC

● Compact disc player section

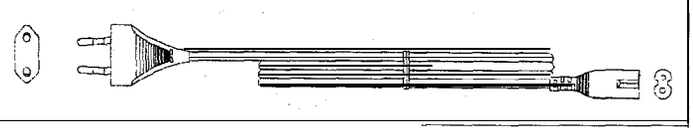
Type:	Compact disc player
Signal readout:	Non-contact, 3-beam semi-conductor laser pickup
Rotational speed:	200 - 500 rpm CLV, Approx.
Error correction:	CIRC (Cross Interleave Reed-Solomon Code)
Audio channels:	2
Decoder:	16-bit linear quantization
Filter:	4 times oversampling 16 bit digital filter
Frequency response:	20 - 20,000 Hz(+1/-3 dB)
Wow and flutter:	Unmeasurable (less than 0.001% W. peak)

Specifications for this model are subject to change without prior notice.

AC POWER SUPPLY CORD AND PLUG

QACCL0059AF00 (For Australia)

QACCK0053AFZZ (For other Areas)

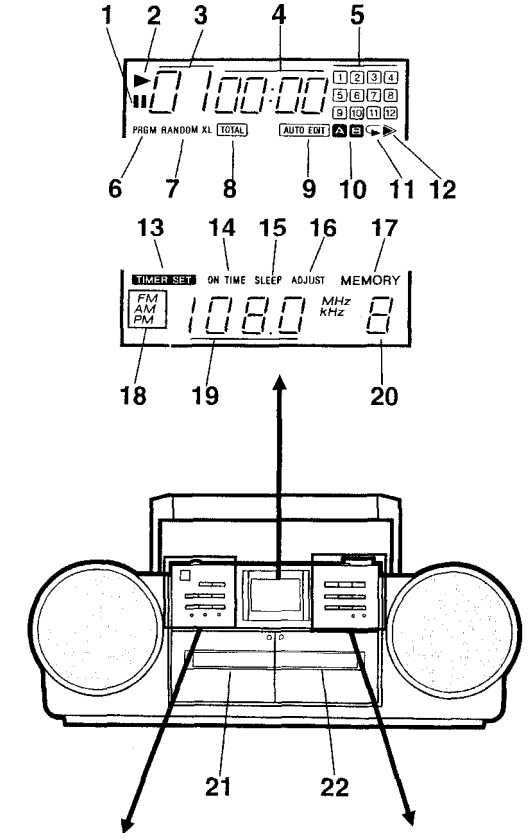


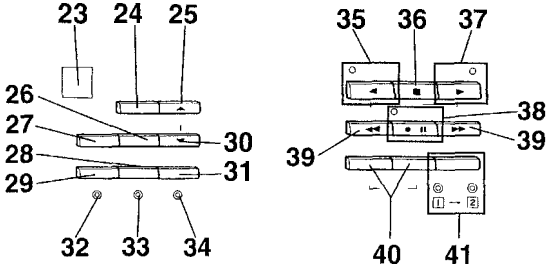
QACCZ0062AF00 (For Taiwan)

CAUTIONS ON HANDLING THE UNIT

- Dew condensation
  You know such phenomenon that, in winter, a windowpane of the heated room develops some amount of dews on its surface. This phenomenon of dew condensation may also occur at the object lens in the pickup unit in the following instances.
- When the compact disc player is operated immediately after you have turned on a heating device in your room.
- When it is operated in a room full of wet air (with steam or moisture).
- When it is operated in a warm place to which it has been moved from a rather cold place.
  If the object lens has some amount of dew condensed on it, the compact disc player may fail to operate correctly as it can't read out the information data recorded on the disc surface. If such occurs, remove the compact disc from the disc table, turn on the power switch and leave the unit for some time (about 1 hour at the longest); then it will resume its normal operation.

NAMES OF PARTS





■ CD display section

1. Pause indicator: II
2. Play indicator: ▶
3. Track Number Indicator
4. Minutes and Seconds Indicator
5. Music Schedule Indicators
6. Programme Indicator
7. Random Play Indicator
8. Total Time Indicator
9. Auto Editing Indicator
10. Tape Side indicators
11. Repeat Indicator: ⊂
12. Music Schedule Over Indicator: ▶

■ Clock/Timer/Tuner display section

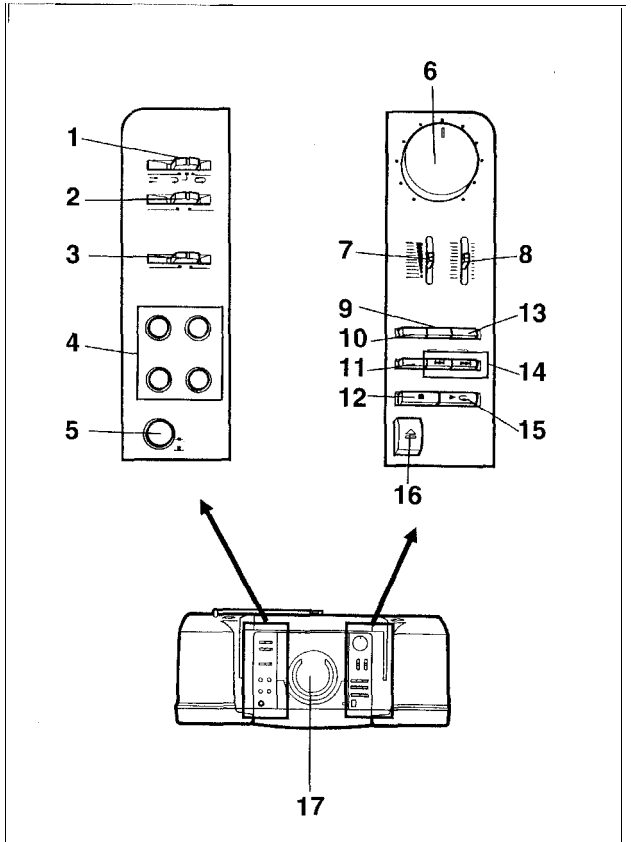
13. Timer Set Indicator
14. On Time Indicator
15. Sleep Indicator
16. Time Adjust Indicator
17. Memory Indicator
18. Band/AM/PM Indicator
19. Radio and Clock Indicator
20. Preset Channel Indicator
21. (TAPE1) Cassette Compartment
22. (TAPE2) Cassette Compartment

■ Timer/Tuner control section

23. Remote Control Sensor
24. Band Selector Button
25. Tuning Up/Hour Button
26. Auto Memory Button
27. Display Button
28. Timer Set/Reset Button
29. Memory/Time Adjust Button
30. Tuning Down/Minute Button
31. Sleep On/Off Button
32. Main Power Indicator
33. Timer/Sleep Indicator
34. FM Stereo Indicator

■ Tape control section

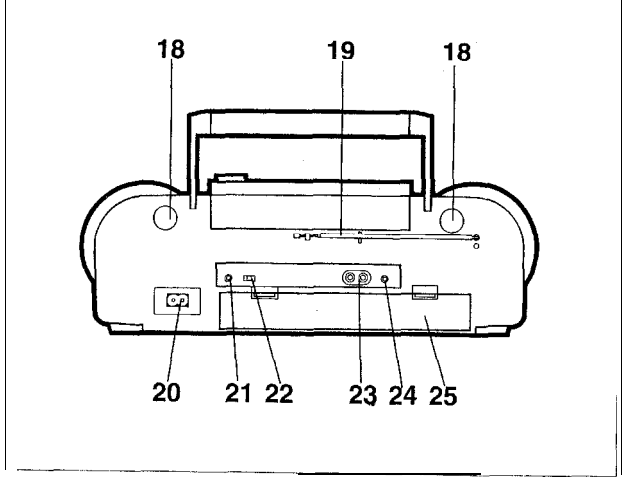
35. Reverse Play Button and Indicator: ◀
36. Stop Button: ■
37. Forward Play Button and Indicator: ▶
38. Record Pause Button and Indicator: ● II
39. Fast Wind/APSS Buttons: ◀◀/▶▶
40. One Touch Editing Buttons
41. Tape Mode Button and Indicators



1. Reverse Mode Switch
2. Timer Record Switch
3. FM Mode Switch
4. Function Selector Buttons
5. Main Power Switch
6. Volume Control
7. Bass Control
8. Tone Control

■ CD control section

9. Auto Editing Button
10. Tape Length Selector Button
11. Pause Button
12. Stop Button: ■
13. Random Play Button: RANDOM XL
14. Track Up/Down Buttons: ⏮/⏭
15. Play/Repeat Button: ▶ ⊂
16. CD Eject Button: ⏏
17. CD Compartment



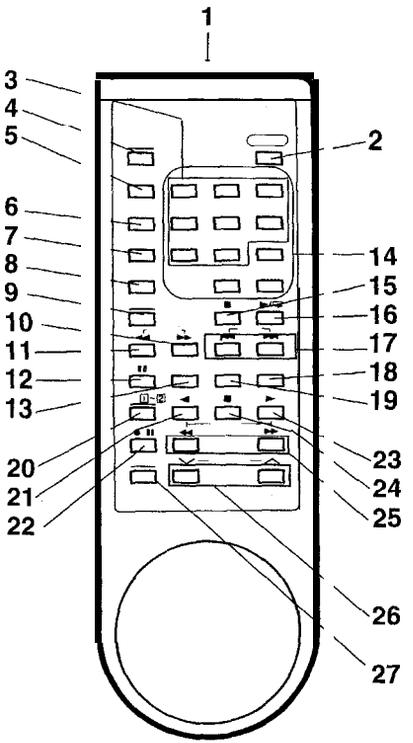
❑ Rear panel

18. Woofer duct
19. FM Telescopic Rod Aerial
20. AC Power Input Socket
21. Headphones Socket
22. Beat 'Cancel Switch
23. Auxiliary Input Sockets
24. Mixing Microphone Socket
25. Battery Compartment

Notes:

- Do not allow any objects to fall into or to be placed in the woofer duct
- When setting up this product, leave some distance between the wall and the speaker so that you don't muffle the woofer.

■ REMOTE CONTROL



■ Names of controls

1. Remote Control Transmitter Window
2. operate Button

● Tuner control buttons

3. Preset Buttons
4. Tuner Call Button
5. Band Selector Button

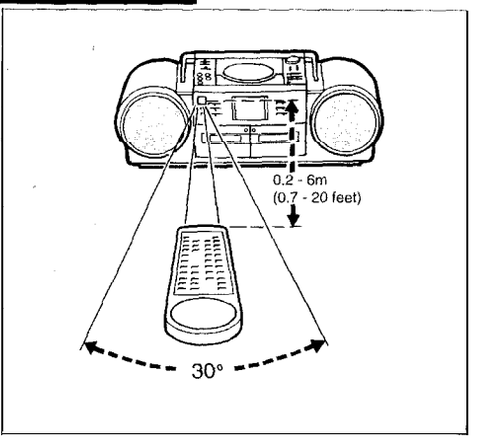
● CD control buttons

6. Programme Button
7. Call Button
8. Clear Button
9. CD Call Button
10. Cue Button: ▶▶
11. Review Button: ◀◀
12. Pause Button: II
13. Tape Length Selector Button
14. Track Number Input Buttons
15. Stop Button: ■
16. Play/Repeat Button: ▶⊂
17. Track Up/Down Buttons: |◀◀ | ▶▶|
18. Random Play Button: RANDOM XL
19. Auto Editing Button

● Tape control buttons

20. Tape Call and Tape 1/2 Select Button
- This function will change to TAPE when this button is pressed once. After the function has changed to TAPE. TAPE 1 or 2 can then be selected by pressing the-button again.

21. Reverse Play Button: ◀
22. Record Pause Button: ● II
23. Forward Play Button: ▶
24. Stop Button: ■
25. Fast Wind/APSS Buttons: ◀◀ / ▶▶
26. Volume Up/Down Buttons: ∨ / ∧
27. Auxiliary Call Button

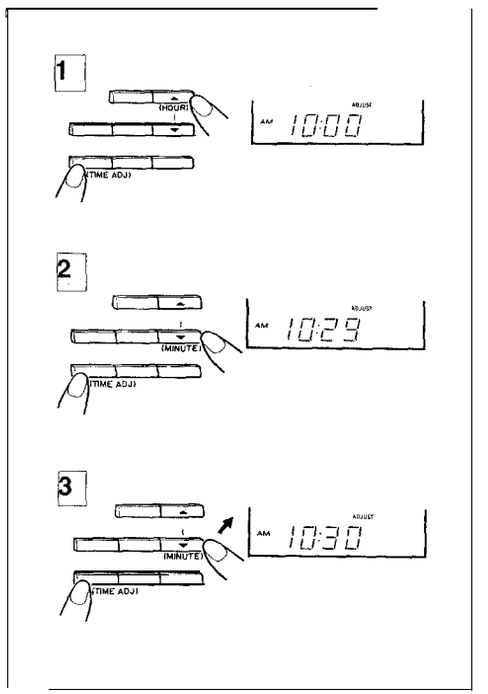


■ Proper use of the remote control

Aim (within the range of 30" with no obstacles1, the remote control at the remote control sensor and operate as shown

Notes concerning use:
- Replace the batteries if control distance decreases or operation becomes erratic.
- Periodically clean the transmitter window on the remote control and the sensor on the ma," unit with a soft cloth
- Exposing the sensor on the main unit to strong light can interfere with operation. Change lighting or the direction of the unit
- Keep the remote control away from moisture, excessive heat, shock, and vibrations.
- The remote control's usable range is between 0 2 m (0.7 feet) and 6 m (20 feet) away from the sensor

SETTING THE CLOCK



- Whilst the frequency Indicator on the tuner or the "ON TIME" indicator is lit, press the DISPLAY button to display the time

1 Whilst pressing the TIME ADJ button, press the HOUR button and set the hour.
- Press the HOUR button once lo advance the time by 1 hour Press for more than 2 seconds to advance continuously. "AM" changes automatically to "PM".
- On the display, midnight i?. "AM 12:00" and noon is "PM 12.00~. When setting the time, be careful not to confuse AM and PM.

2 Whilst pressing the TIME ADJ button, press the MINUTE button and set the time to 1 minute before the desired time.

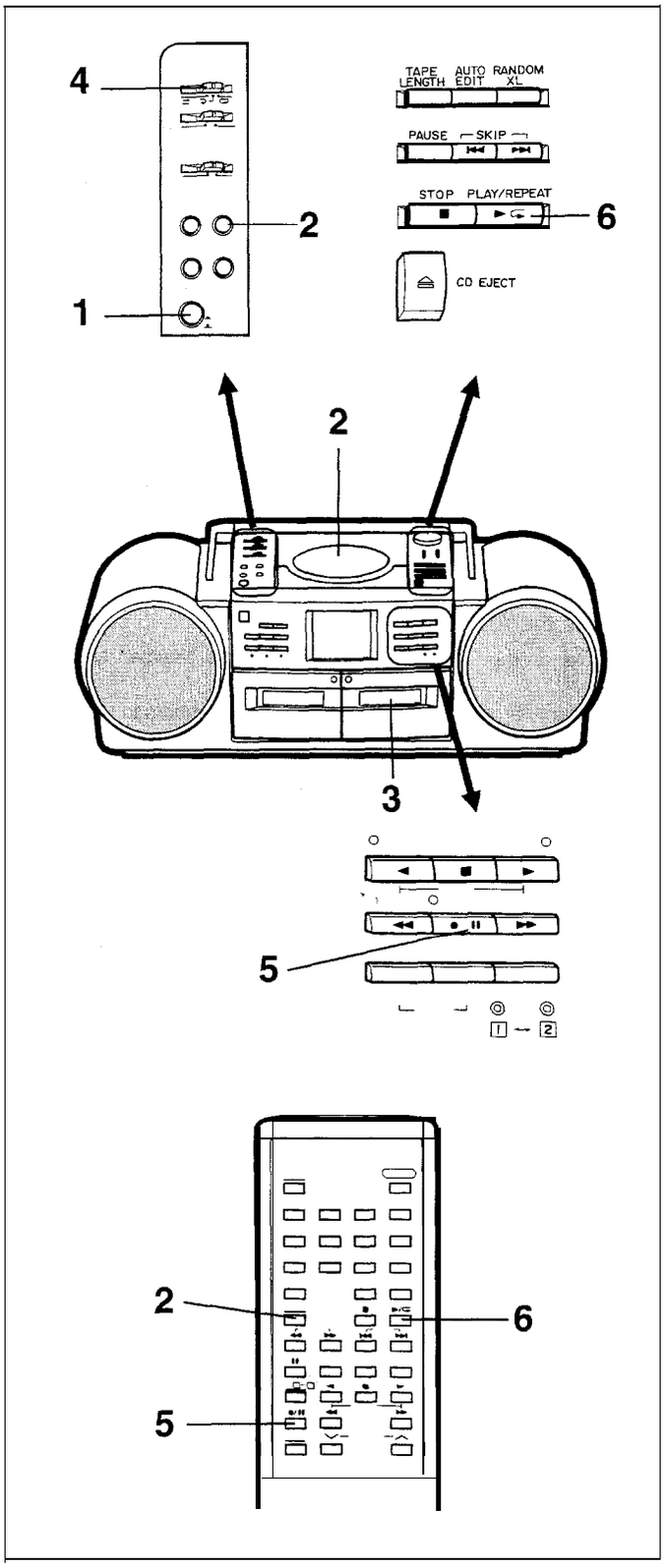
. Press the MINUTE button once to advance the time by 1 minute. Press for more than 2 seconds to advance continuously.
- The hour setting will not advance even if minutes advance from "59" to "00".

3 Whilst pressing the TIME ADJ button, press the MINUTE button once to start the clock at the correct time.
- The minute display will advance by one, and the clock starts operating from "0" seconds. (Seconds are not displayed.)

Note:
- When setting the time, complete the procedure within 1 minute; if more than 1 minute elapses, the "minute" indication will advance.
- When the current time and timer clock are not displayed, remove the AC power lead, remove the clock/memory batteries, then re-insert them. Then, re-connect the AC power lead

RECORDING

- When recording important selections, be sure to make a preliminary test to ensure that the desired material is being properly recorded.
- The ALC (Automatic Record Level Control) circuit automatically controls the level of the input signal used for recording.
- The VOLUME, TONE and BASS controls may be adjusted with no effect on the recorded level. (Variable Sound Monitor)



■ Recording from the built-in CD player (CD Synchronised Recording System)

1 Set the MAIN POWER switch to ON.

2 Press the CD button and load the CD to be recorded.

3 Load a cassette into the TAPE 2 cassette compartment.

- Wind the beginning part of the tape on which recording can not be performed.

4 Set the REVERSE MODE switch to ⇄ to record on only one side, or to ⇉ for continuous recording on both sides.

5 Press the REC PAUSE (●❚❚) button.

- The REC PAUSE indicator lights up and the PLAY indicators flash.

6 Press the PLAY/REPEAT (▶ ⊂) button.

- Before CD playback begins, recording automatically begins from side A of the tape.

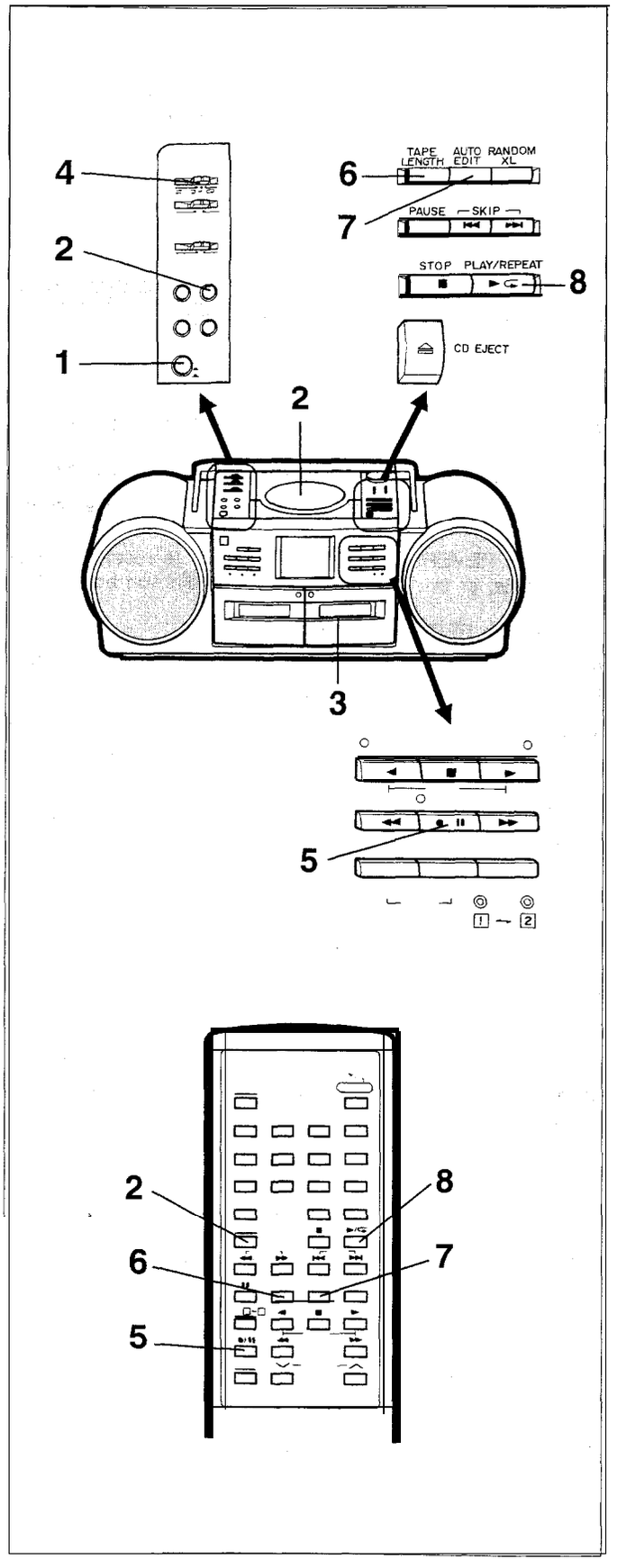
To interrupt recording:

1 Press the PAUSE (❚❚) button on the CD.

2 Press the PLAY/REPEAT (▶ ⊂) button to resume recording.

To stop recording:

Press the STOP (■) button on the tape.
(At this time, CD playback does not stop.)



■ To edit tracks dividing them to side A and side B automatically (Auto editing function)

To use tapes effectively, tracks on a CD are automatically divided between side A and side B and edited.
When the desired tracks are selected in programme selection, the tracks stored in memory are automatically divided between side A and side B.

1 Set the MAIN POWER switch to ON.

2 Press the CD button and load the CD to be recorded.

3 Load a cassette into the TAPE 2 cassette compartment.

- Rewind the tape onto the left-side reel.

4 Set the REVERSE MODE switch to ⇄.

5 Press the REC PAUSE (●II) button.

- The REC PAUSE indicator lights up and the PLAY indicators flash.

6 Press the TAPE LENGTH button.

When using tapes other than C-46

Press the SKIP (▶▶I) or SKIP (I◀◀) button to adjust the time (minute by minute).
- "C10" to "C99" can be set.

7 Press the AUTO EDIT button.

- Tracks on the CD are automatically divided between side A and side B.
- The number of tracks, total time and track numbers to be recorded on side A and side B are displayed for approximately 4 seconds. (When there are tracks which can not be recorded, the TIME OVER indicator will light up.)

8 Press the PLAY/REPEAT (▶ ⇄) button.

- CD playback and recording start approximately 9 seconds after the tape starts (after the part which can not be recorded is wound).

To cancel auto editing function:

Before recording, press the STOP (■) button on the CD.

To stop recording:

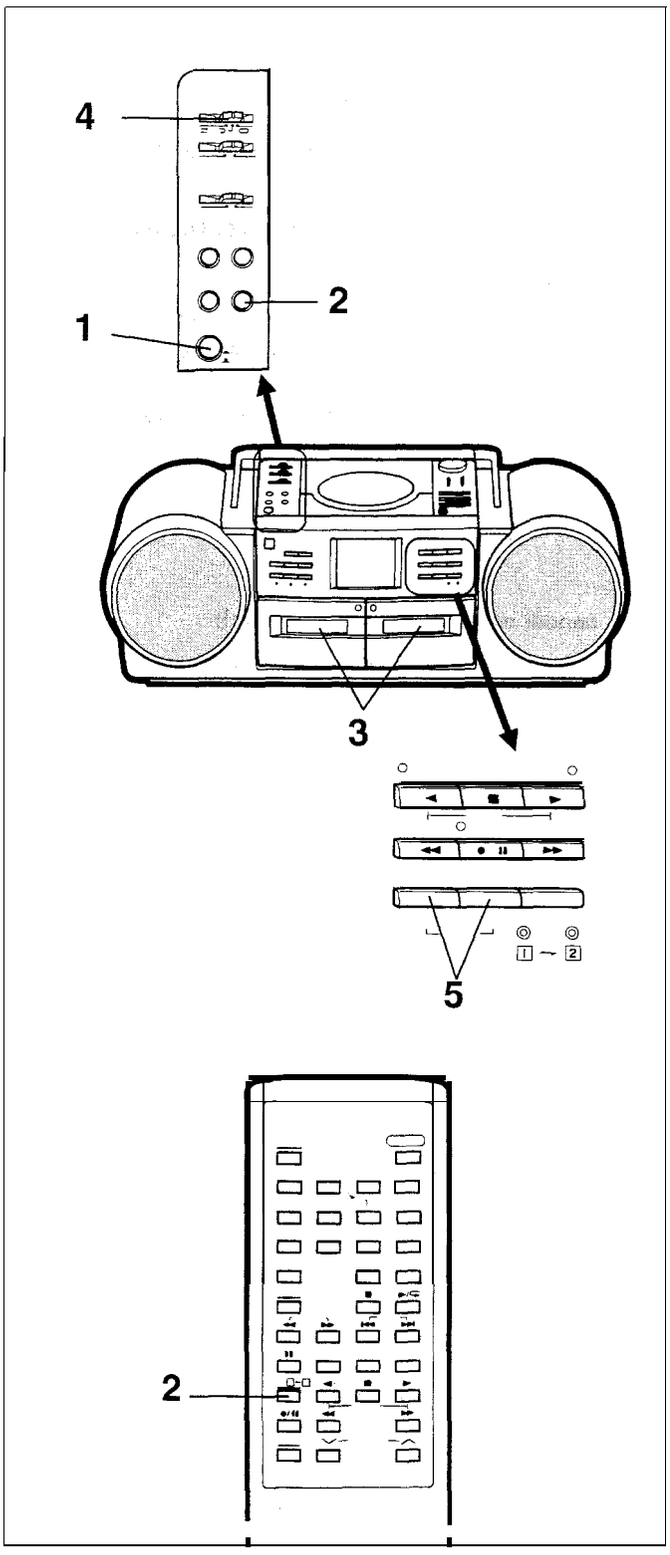
Press the STOP (■) button on the tape.
(At this time, CD playback automatically stops.)

To confirm tracks to be recorded and tracks which can not be recorded:

Before recording, press the AUTO EDIT button.

Tracks to be recorded on side A
↓
Tracks to be recorded on side B

Note:
- Once CD playback starts, the display does not change.



■ Dubbing

- Try to use the same tape formula and length for the recording tape as for the master tape.

1 Set the MAIN POWER switch to ON.

2 Press the TAPE button.

3 Load a prerecorded cassette into the TAPE 1 cassette compartment. Insert a blank tape into the TAPE 2 cassette compartment.

4 Set the REVERSE MODE switch to ⇄ to record on only one side, or to ⊃ for continuous recording on both sides.

5 Press the ONE TOUCH EDIT button.

- Press "NORMAL" to edit at normal speed, and "HIGH" to edit at twice the normal speed.
- Editing will begin with side A.

To stop dubbing:

Press the STOP (■) button.

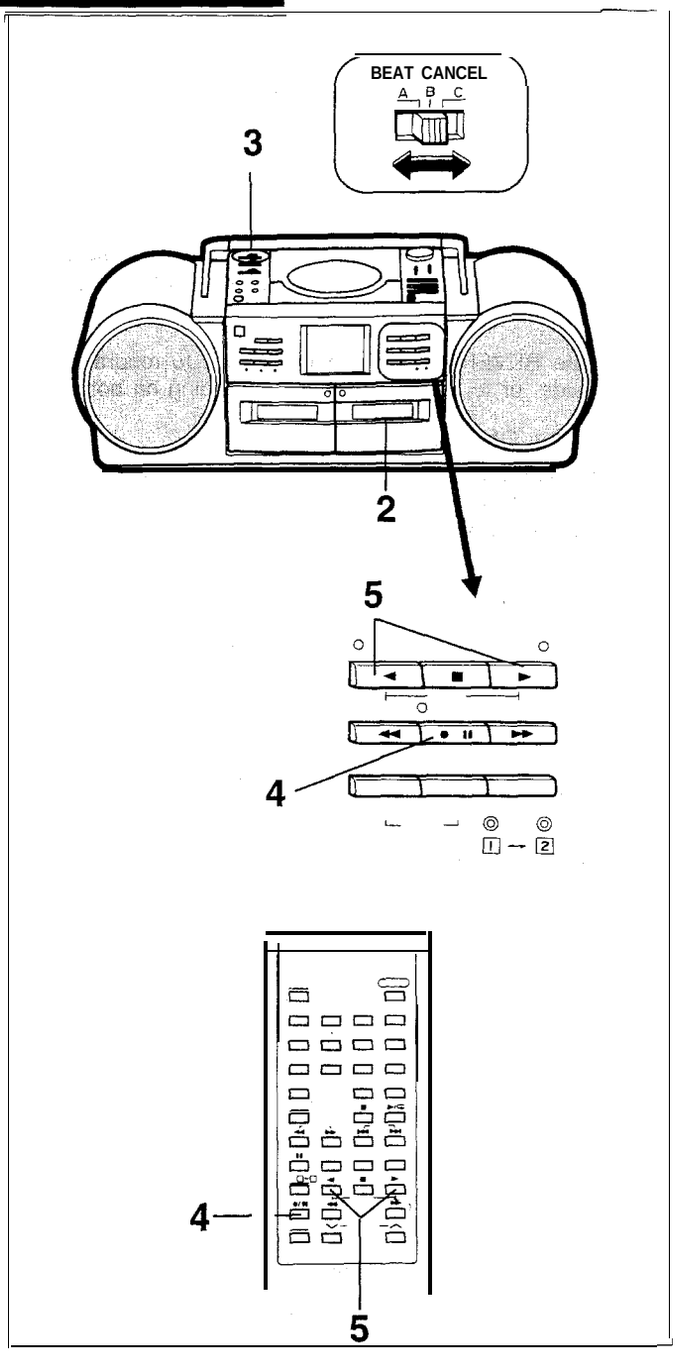
- TAPE 1 and TAPE 2 simultaneously stop.

After dubbing

The indicator of the TAPE 1 2 button is automatically switched to "2". Only when the tape is rewound and played back, the contents currently dubbed can be confirmed.

Synchro-reverse editing function

When tapes which are different in length are used for recording and editing continuously on both sides, as soon as one tape finishes, the other is automatically fast forwarded, and edition begins from the beginning of the other side.



■ Recording from the built-in radio

1 Tune into the desired station.

2 Load a cassette into the TAPE 2 cassette compartment.

3 Set the REVERSE MODE switch to ⇄ to record on only one side, or to ⊃ for continuous recording on both sides.

4 Press the REC PAUSE (●II) button.

- The REC PAUSE indicator lights up and the PLAY indicators flash.

5 Press the PLAY (►) button to record side A, or the PLAY (◄) button to record side B.

- For continuous recording of both sides, begin on side A. Recording stops automatically at the end of side B.

Beat cancel switch (on the rear panel)

If beating noise occurs with AM, set the BEAT CANCEL switch to A, B or C, whichever gives the best reception.

■ APSS spacing

APSS requires blanks of 4-5 seconds between selections to function properly. Make the blanks as follows.

1 Press the REC PAUSE (●II) button when the selection being recorded ends.

2 Press the AUX button.

Note:
Du not connect anything to the AUX sockets.

3 Press the PLAY (►) or PLAY (◄) button of which its indicator is lit, let the tape run for 4 - 5 seconds, then press the REC PAUSE (●II) button again.

4 Press the TUNER button.

5 Start the next recording.

■ Erasing recorded tapes

1 Load the tape to be erased into the TAPE 2 cassette compartment.

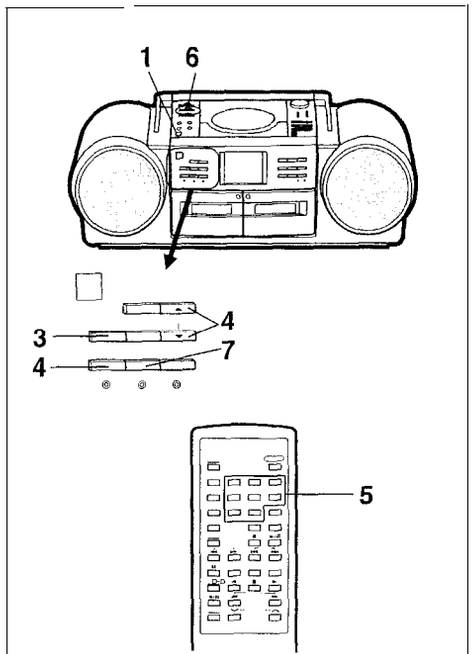
2 Press the AUX button.

Note:
D u not connect anything to the AUX sockets.

3 Set the REVERSE MODE switch to ⇄ to erase only one side and to ⊃ to erase both sides.

4 Press the REC PAUSE (●II) button, then press the PLAY (►) button to erase side A of tape, or the PLAY (◄) button to erase side B.

HOW TO USE



● Before setting the timer clock, make sure that the current time is correct.

■ Timer operation

To listen to the radio

You can listen to a broadcasting station with the timer-on function different from that to which you are listening with timer-off function. However, the band should be the same

1 Set the MAIN POWER switch to ON

2 Tune into the desired station.

3 Press the DISPLAY button.

. The "ON TIME" Indicator goes on for 5 seconds.

4 Whilst the "ON TIME" indicator is lit, and whilst pressing the TIME ADJ button, press the HOUR and MINUTE buttons to set the desired time.

5 Whilst the "ON TIME" indicator is lit, select the desired preset station on the remote control.

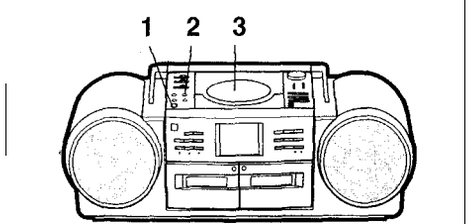
6 Set the TIMER REC switch to OFF.

7 Press the TIMER button.

. The "TIMER SET" appears on the display.
This sets the timer to the stand-by condition

● The radio turns on automatically at the preset time.

. When you listen to the same broadcasting station with the timer-on and timer-off functions to which you are listening, step 5 is unnecessary.



To listen to the compact disc

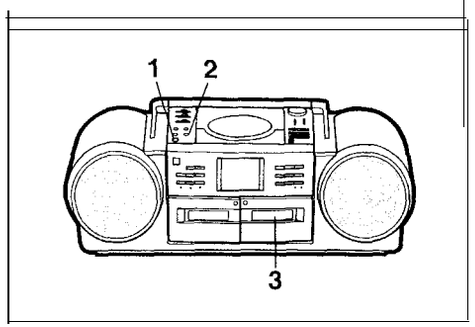
1 Set the MAIN POWER switch to ON

2 Press the CD button

3 Load the disc.

4 Perform steps 3,4 and 6,7 of the "To listen to the radio" section.

. The CD playback starts automatically at the preset time.



To playback a cassette

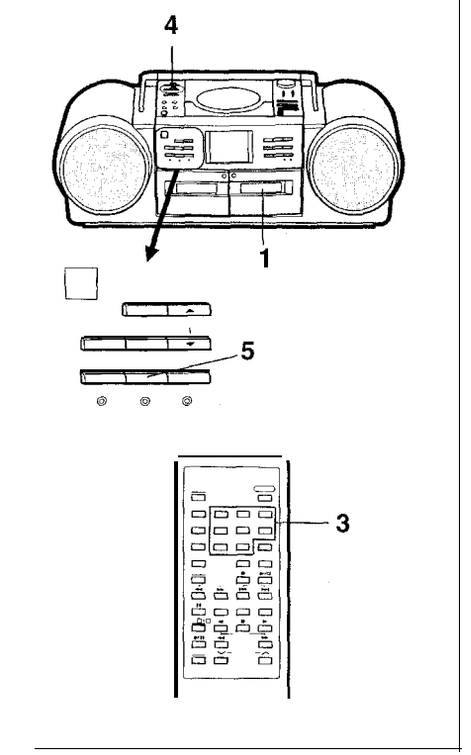
1 Set the MAIN POWER switch to ON.

2 Press the TAPE button.

3 Load the recorded cassette tape into the TAPE 2 cassette compartment,

4 Perform steps 3,4 and 6,7 of the "To listen to the radio" section.

. Cassette playback starts automatically at the preset time.



To record radio programmes

You can record a broadcasting station different from that to which you are listening. However, the band should be the same.

1 Load a blank cassette tape into the TAPE 2 cassette compartment.

2 Perform steps 1-4 of the "To listen to the radio" section.

3 Whilst the "ON TIME" Indicator is lit, select the desired preset station on the remote control.

4 Set the TIMER REC switch to ON.

5 Press the TIMER button.

● The "TIMER SET" appears on the display.
This sets the timer to the stand-by condition.

● Recording starts automatically at the preset time.

● When you record to the same broadcasting station with the timer-on and timer-off functions to which you are listening, step 3 is unnecessary.

Notes:

● The power will be automatically turned off 2 hours after the timer starts.

● To set the dewed volume level, use the VOLUME control before setting the timer.

To confirm the timer time setting:

Press the DISPLAY button

● The tuner will keep accurate time until the clock/memory batteries run out

To cancel timer operation:

Press the TIMER button so that the "TIMER SET" in the display goes out, or set the MAIN POWER switch to ⏻ STAND-BY.

■ Sleep operation

The radio, compact disc and cassette deck can all be automatically turned off after 60 minutes.

Press the SLEEP button.

To stop the sleep operation:

Press the SLEEP button.
(The SLEEP indicator will go out.)

■ Timer and sleep operation

1 Use the left procedure to confirm the sleep time

2 Set the timer time.

3 Press the TIMER button. The "TIMER SET" appears on the display.

● The function will not change, so the function which you were listening to in the sleep operation will begin the timer operation.

DISASSEMBLY

Caution on Disassembly

Follow the below-mentioned notes when disassembling ths unit and reassembling it, to keep its safety and excellent performance:

1. Take cassette tape and 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 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	Front panel *1	1. Open the battery lid. (A1)x1 2. Screw (A2)x9 3. Open the cassette lid. (A3)x2 4. Socket (A4)x1	13-1 15-I
2	CD block	1. screw (B1)x5 2. Socket (B2)x2	13-2,14-1 14-2
	I. CD servo PWB 1. Screw (C1)x4 2. Socket (C2)x1 3. Flexible PWB (C3)x1		14-2
	2. CD mechanism 1. Screw.. (D1)x3		14.2
3	Frame (with PWB) 1. Screw (E1)x3 2. Socket (E2)x5		13-2,14-1 14-3,5
4	Tape mechanism	1. Screw (F1)x3 2. Socket (F2)x4	14-5 14-4
5	LCD PWB	1. Screw (G1)x6 2. Socket (G2)x2 3 Connector (G3)x1	14-1
6	CD switch PWB	1. Knob.. (H1)x1 2. Screw ..... (H2)x4 3. Connector ..... (H3)x1	14-5
7	Main PWB	1. Screw ..... (J1)x6 2. Connector ..... (J2)x1	14-5
8	Volume PWB	1. Nut ..... (K1)x1 2. Washer ..... (K2)x1	14-5
9	Tuner PWB	1. Screw ..... (L1)x4 2. Chip ..... (L2)x1 3. Socket ..... (L3)x2	15-1
10	Power PWB	1. Screw ..... (M1)x4	15-1

Removing the CD mechanism

Following the disassembling procedure, steps 1 and 2, remove the CD mechanism.

Removing the frame (with main/CD switch/function selection/volume/relay PWB)

Following the disassembling procedure, steps 1, 2, 3, remove the frame.

Removing the tape mechanism

Following the disassembling procedure, steps 1 and 4, remove the tape mechanism. However this procedure makes it difficult wire treatment when assembling. Therefore disassemble, following the steps 1, 2, 3, 4, (As for removal of main parts refer to p.16 – 17)

■ Cares When Assembling

*1 When assembling the front panel, carefully treat the wires of speaker box part (at the place where the front panel is engaged with the rear cabinet) so that wire is not broken. (See Fig. 15-2.)

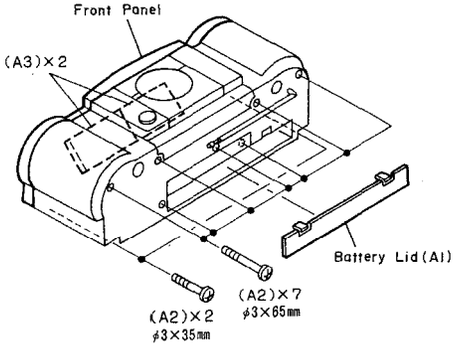


Figure 13-1

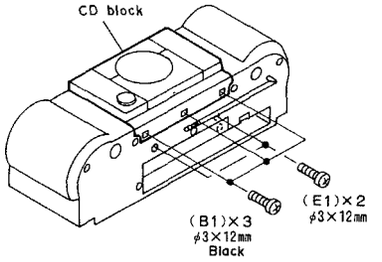


Figure 13-2

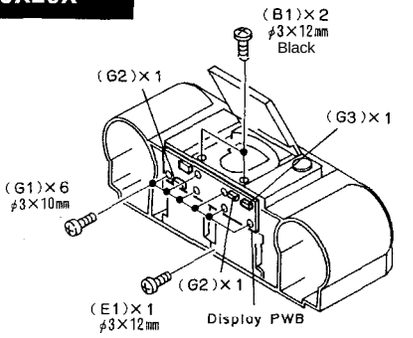


Figure 14-1

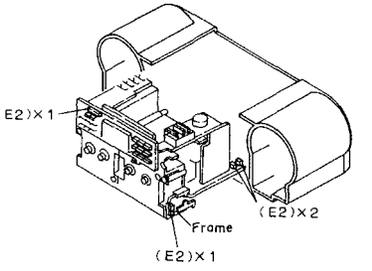


Figure 14-3

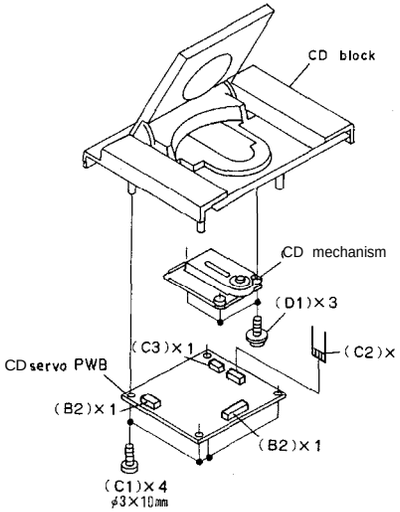


Figure 14-2

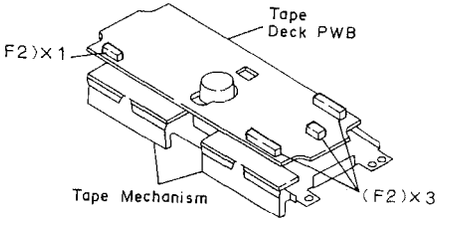


Figure 14-4

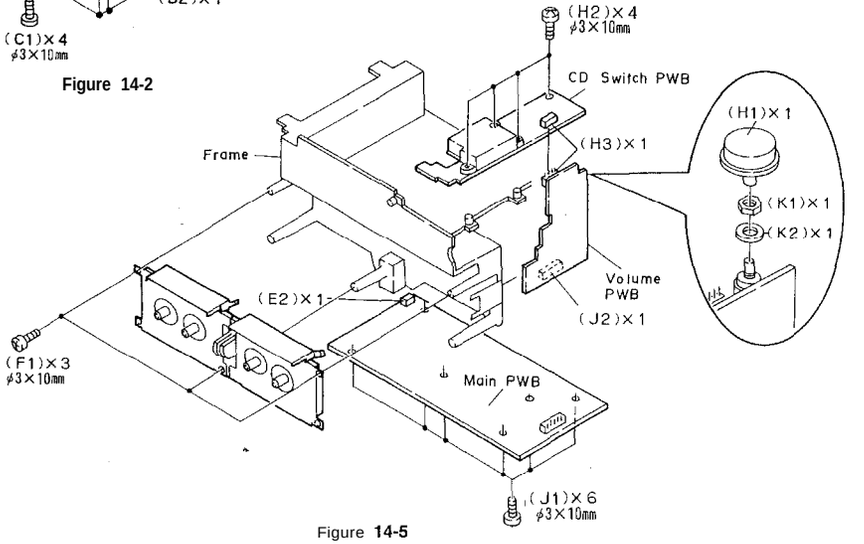


Figure **14-5**

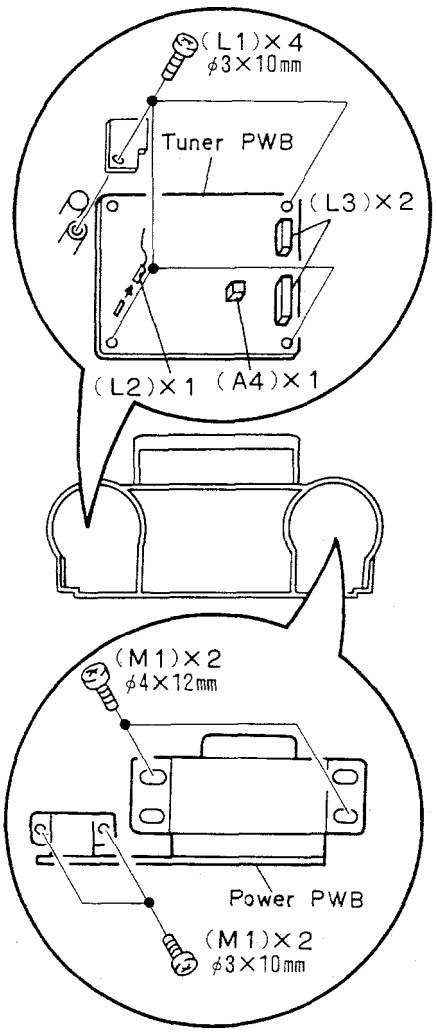


Figure 15-1

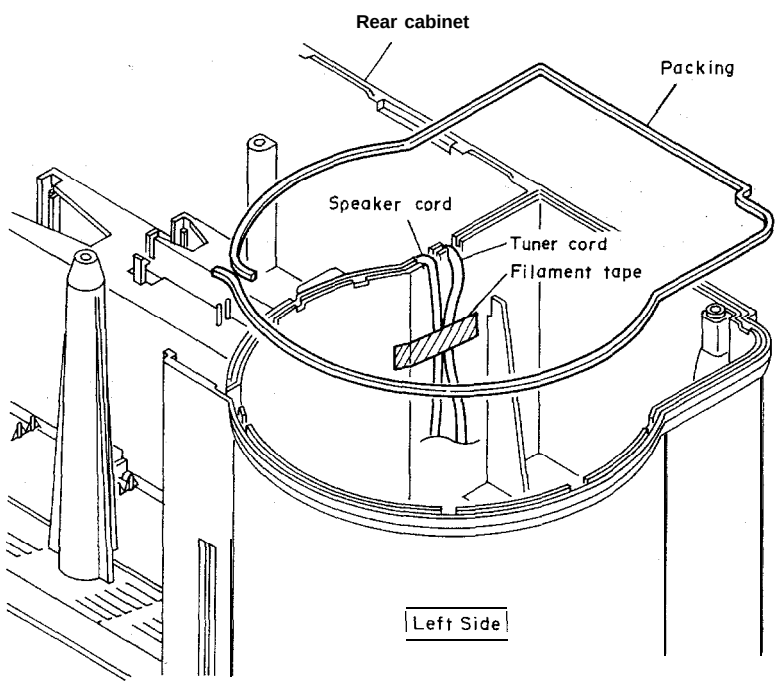


Figure 15-2

REMOVING AND REINSTALLING THE MAIN PARTS

TAPE MECHANISM SECTION

Perform steps 1, 2, 3, 4, 5, 6, and 7 of the disassembly method to remove the tape mechanism.

Main/FF, Rewind Belt (See Fig. 16-1.)

1. Remove the main belt, (A1) x 1 pc., at the tape 2 side from the motor pulley.
2. Remove the main belt, (A2) x 1 pc., at the tape 1 side from the motor pulley.
3. Remove the FF/Rewind belt, (A3) x 2 pcs., from the FF/Rewind roller.
4. Put on the belts in the reverse order of removal.

Note:

1. When putting on the belt, ascertain that the belt is not twisted, and clean it.

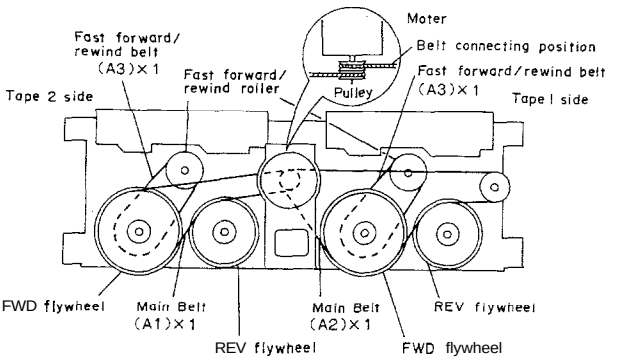


Figure 16-1

Motor (See Fig. 16-2, 3)

1. Remove the screw, (B1) x 4 pcs., and remove the motor fixture.
2. Remove the screw, (B2) x 3 pcs., and remove the motor.

Note:

1. When mounting the motor, pay attention to the motor mounting angle.
2. When the motor is removed, the belt comes off. Put it on, referring to the description of belt putting-on.

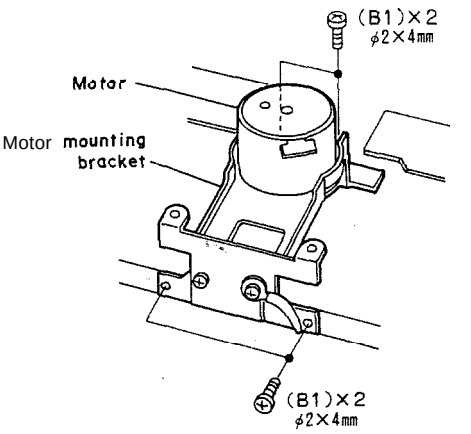


Figure 16-2

Switch PWB (See Fig. 16-4.)

1. Remove the screw, (C1) x 2 pcs., and remove the switch protecting plate.
2. Remove the screw, (C2) x 1 pc., remove solder joint of solenoid, (C3) x 4 pcs., and remove the switch PWB.

Note:

1. When mounting the PWB, ascertain that the photocoupler transistor does not contact the magnet on the reel stand and keep in mind that the switch exists between it and FF/Rewind lever.

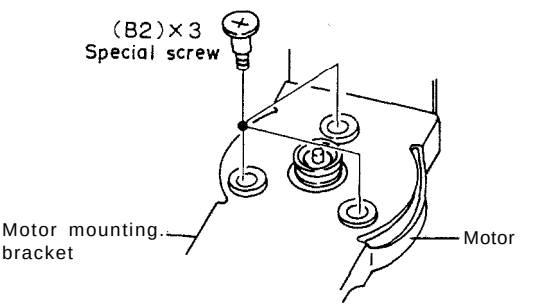


Figure 16-3

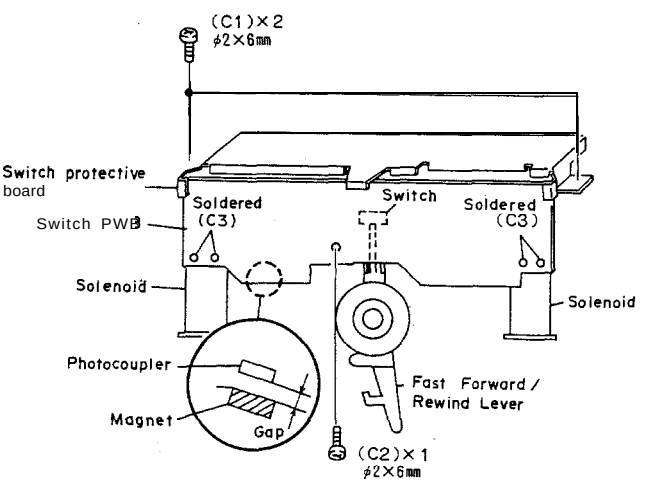


Figure 16-4

How to remove the flywheel (See Fig. 17–1.)

1. Remove the drive belt.
2. Remove the stop washer (D1) with a small precision screwdriver to extract the flywheel from the capstan metal.

Note:

1. When the stop washer is deformed or damaged, replace it with a new one.

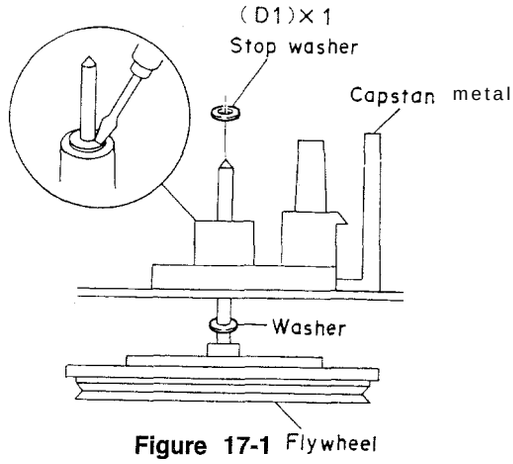


Figure 17-1

Pinch Roller (See Fig. 17-2.)

1. Carefully release the pinch roller dog in the direction indicated by the arrow mark Ⓐ , and remove the pinch roller, (E1) x 1 pc., upward.

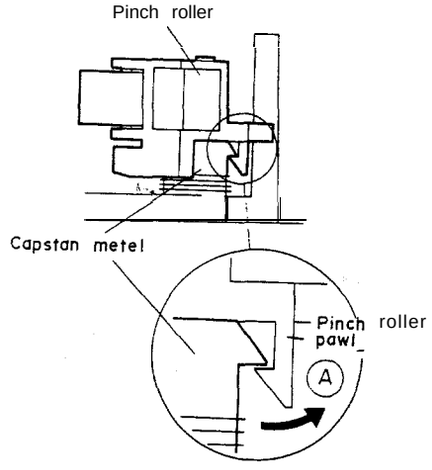


Figure 17-2

Removing the Record/Playback/Erase Head (See Fig. 17-2, 4.)

1. Remove the screw, (F1) x 2 pcs., and remove the head base.
2. Remove the screw, (F2) x 2 pcs., and remove the head.
   Cares When Mounting the Head
   Mount the head in the position shown in Fig. 17-4.
   Be sure to apply screw lock after replacement of head and azimuth adjustment.

CD MECHANISM SECTION

Removing the optical pickup(See Fig. 17-5.)

1. Remove 4 pawls (G1) and remove cover (G2).
2. Remove 4 screws (G3) and remove 2 shafts (G4).

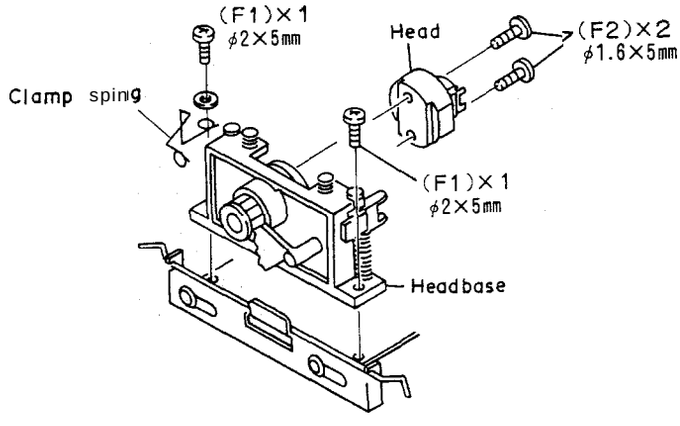


Figure 17-3

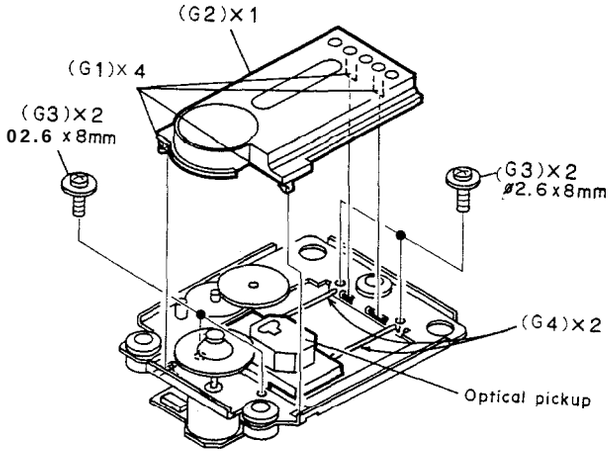


Figure 17-5

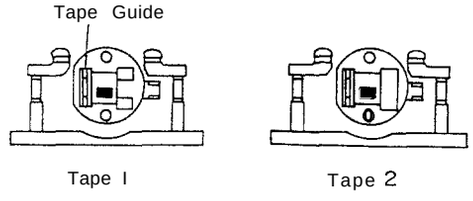


Figure 17-4

ADJUSTMENT

As for adjusting method refer to the relevant explanation in Service Manual "ADJUSTMENT PROCEDURES OF AUDIO PRODUCTS".

MECHANISM SECTION

- **Driving Force Check**

Torque Meter	Specified Value	
	Tape 1	Tape 2
Play: TW-2412	Over 80 g	Over 80 g
Reverse Play: TW-2422	Over 80 g	Over 80 g

- **Torque Check**

Torque Meter	Specified Value	
	Tape 1	Tape 2
Play: TW-2111	30 to 60 g.cm	30 to 60 g.cm
Reverse Play: TW-21	30 to 60 g.cm	30 to 60 g.cm
Fast Forward: TW-21231	70 to 140 g.cm	70 to 140 g.cm
Rewind: TW-2231	70 to 140 g.cm	70 to 140 g.cm

- **Head Azimuth**

Test Tape	Instrument Connection
MTT-114	Headphones Socket (Load resistance: 32 ohms)

- **Tape Speed**

Test Tape	Adjusting Point	Specified value	Instrument Connection
MTT-111	VR251	3,000 ± 10 Hz	Headphones socket (Load resistance: 32 ohms)

* Make adjustments to TAPE 2 (FWD side), and only check the settings of TAPE 1.

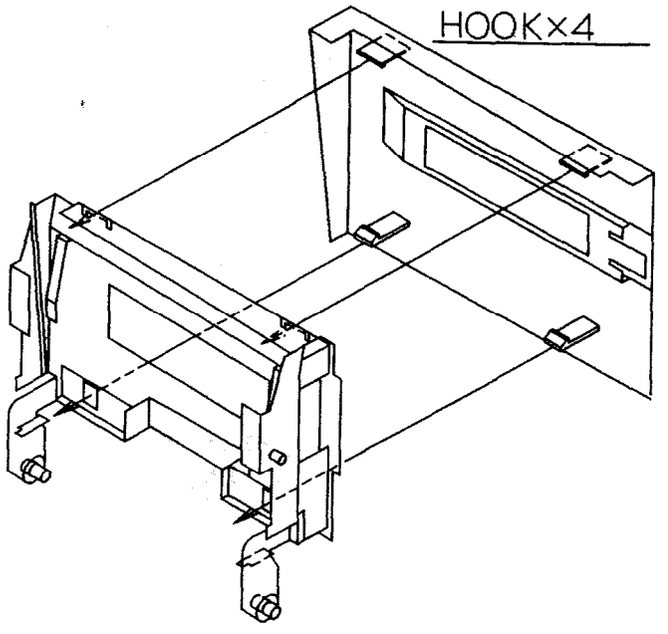


Figure 18-1 REMOVAL OF CASSETTE HOLDER

TAPE SECTION

Position of each switch or control	
Volume	Max
Beat cancel	A
Bass	Center
Tone	Center
Function	Tape/Stand-by
FM mode/Tape selector	Stereo/Normal

- **Bias Oscillation Check**

	Specified value
Beat cancel	A: 104 ± 7 kHz B: −4 ± 2 kHz for A C: Same as A

- **Erase Current Check**

	Specified value
Resistor for measurement: 1 ohm	Normal: 75 ± 30 mV CrO2: 100 ± 30 mV Metal: 175 ± 35 mV

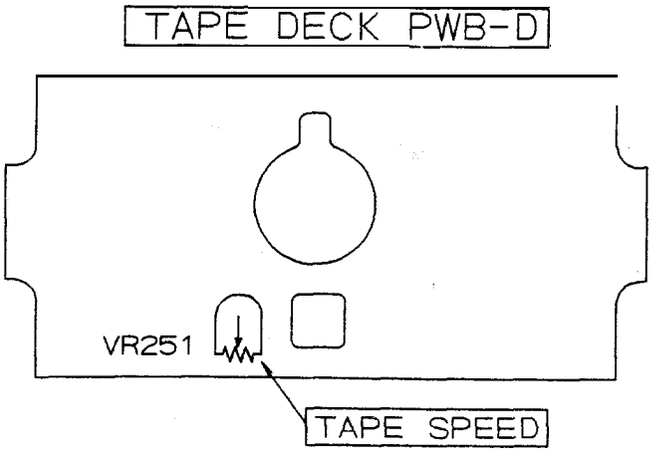


Figure 18-2 ADJUSTMENT POINTS

TUNER SECTION

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

- **AM IF/RF**

Adjustment	Adjusting part	Setting
IF	CF3	Optimize IF waveform.
Frequency cover (Pin 6 of TUN1 Vt line voltage)	fL:L2 (531 kHz)	fL: 1.1 ± 0.1 V fH: 7.2 + 1.0 V - 0.5 V (fH needs only check.)
Tracking	fL: L3 (603 kHz) fH: TC1 (1,404 kHz)	Raise speaker terminal output up to maximum.

- **FM IF/RF**

Test Stage	Adjusting point	Specified Value/adjusting method
Detection	T1 (98 MHz, 60 dB)	0 ± 30 m V(DC)

- **FM Autostop Sensitivity**

Signal oscillator	Adjusting part	Adjusting method
Mono 30 dB	VR1 (98 MHz)	Adjust to the place where change from 3 V to 0 V occurred.

- **VCO Frequency**

Signal oscillator	Setting	Adjusting part
No modulation	VR2	19 kHz ± 100 Hz

- **Adjusting signals**

Frequency	Modulation frequency	Modulation factor	Antenna input level
FM monaural			
98MHz	400Hz	22.5kHzdev	60dB
FM stereo			
98MHz	1,000Hz	*1	60dB
*1Max. frequency deviation is 67.5 kHzdev in case of SSG output mode MAIN. Frequency deviation caused only by SSG pilot signal is 7.5 kHzdev.			

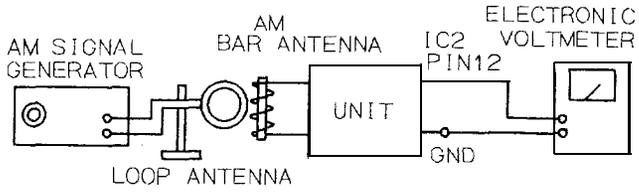


Figure 19–1 AM IF

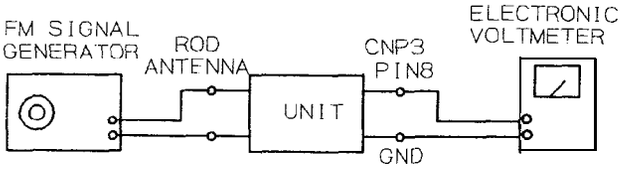


Figure 19–2 FM IF

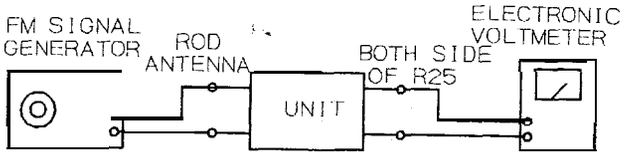


Figure 19–3 FM AUTO STOP SENS.

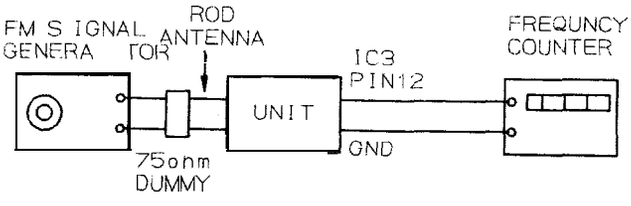


Figure 19–4 VCO FREQUENCY

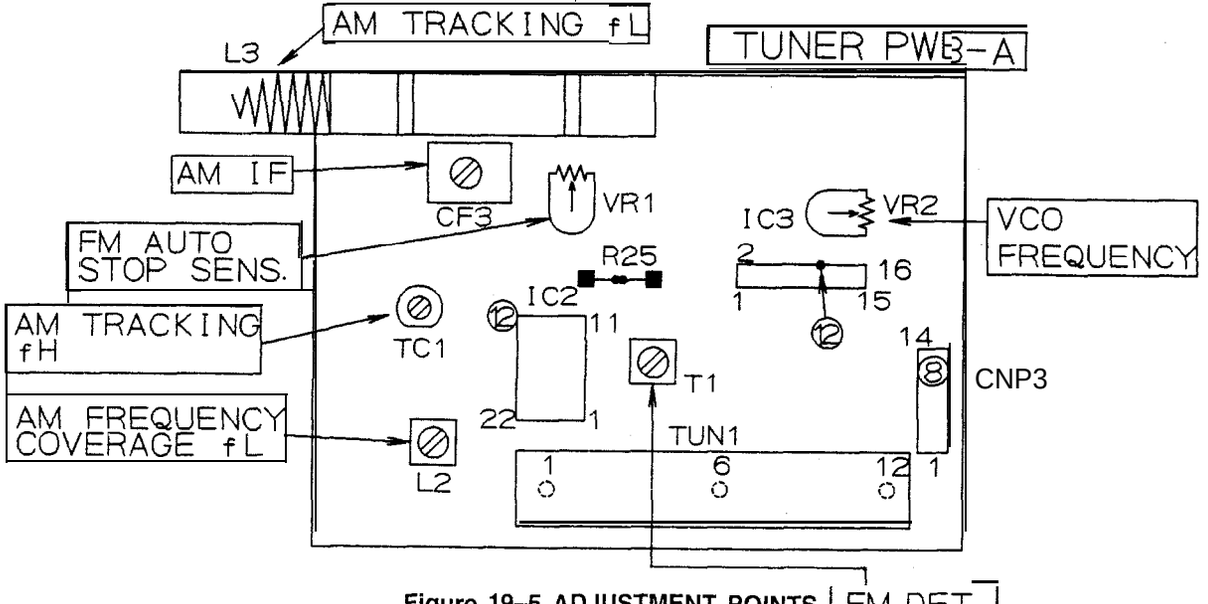


Figure 19–5 ADJUSTMENT POINTS

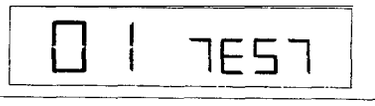
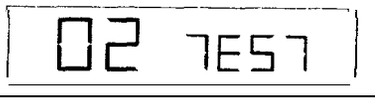
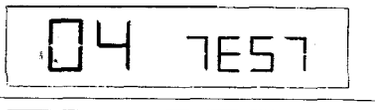
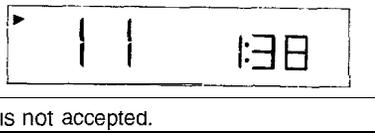
CD SECTION

As for preparation for adjustment, adjustment method and optical pickup replacement method refer to the Service Manual (Audio Equipment Adjustment).

1.Preparation for Adjustment

Be sure to refer to the Service Manual "Audio Equipment Adjustment".

Setting the Test Mode

Test Mode	Setting Method	Remarks	Display
TEST MODE 0	Pressing simultaneously the "RAMDOM" and "SKIP" buttons, set the input selection switch to "CD".	All the segments light for 2.0 seconds and then the Test Mode 0 indication appears.	
TEST MODE 1	In TEST MODE 0 press once the PLAY button. (1st)	Laser lights.	
TEST MODE 2	In TEST MODE 1 press once the PLAY button. (2nd)	Focus start (Servo ON)	
TEST MODE 3	In TEST MODE 2 press once the PLAY button. (3rd)	Disc rotates. (Spin servo ON) (Use the disc.)	
TEST MODE 4	In TEST MODE 3 press once the PLAY button. (4th)	Tracking servo ON (Use the disc.)	
TEST MODE 5	In TEST MODE 4 press once the PLAY button. (5th)	Track No. and time are indicated. (Use the disc.)	
After TEST MODE 5 the PLAY button is inoperative. Even when it is pressed (6th time), key entry is not accepted.			

Unless the CD lid switch SW303 is turned on, the test mode is not set.

Button Operation in Test Mode

1. When the STOP button is pressed, all operations stop. At this time the optical pickup does not slide, and TEST MODE 0 is displayed.
2. While the SKIP button is pressed, the optical head moves from inside to outside or from the outside to the inside.
- Operation is possible both during playing and stopping.
- While this operation is executed, the TEST MODE indication does not change.

After the optical pickup is slided from the outside to the inside and the optical pickup switch is turned on, the slide stops. (At the same time TEST MODE 0 is set.)

3. IF the SKIP button is pressed in TEST MODE 4 or 5, TEST MODE 3 is set.
4. If the PAUSE button is pressed in TEST MODE 0, the direct play is set. Namely, TEST MODE 5 is set.

Notes

1.Any buttons other than those specified above are invalid.
2.Before operation be sure to connect all the connectors.

Servo Unit

Since the adjusting procedure differs from that described in "ADJUSTMENT PROCEDURES OF AUDIO PRODUCTS", refer to the Service Manual.

All the semivariable resistors must be set in the mechanical center position

Test Stage	Adjusting Parts	Value/Adjusting Method	Instrument Connection
Set TEST MODE 0, and move the pickup to the center			
Set Test MODE 1 (make sure that the laser lamp lights)			
After loading a disc, set to TEST MODE 2. (Check to see that focus servo is ON.: The disc does not rotate, and a whining sound is heard.)			
Set TEST MODE 3 (Spin servo is turned on. and the disc rotates)			
Tracking error balance adj	NVR1	'1 (See Fig. 21-I)	Pin 6 (1/2Vcc) and pin 4 (TG1) of TP751
Set TEST MODE 4 (Tracking servo is turned on.)			
Check the HF signal waveform	–	Amplitude of 1.5–2.0 Vp-p (See Fig. 21–2.)	Pin 3 (HF) and pin 7 (GND) of TP751
Focus gain adj.	VR751	Adjust to obtain the same waveform on CH1 and CH2. *2	Pin 1 (CH1) and pin 5 (CH2) of TP751 and ground (The relay circuit is used.)
Tracking gain adj.	VR750	Adjust to obtain the same waveform on CH1 and CH2. *3	Pin 4 (CH1) and pin 2 (CH2) of TP751 and ground (The relay circuit is used.)
Check again the HF signal waveform.			
Set TEST MODE 5, and make sure that track No. and time are displayed.			
Stick black tape on the disc, and play that section (Fig. 22-I). (Any mode other than the test mode is acceptable.)			
Focus offset adj.	VR700	'4 (Fig. 22-Z)	Pin 6 (1/2Vcc) and pin 1 (FG1) of TP751
Tracking offset adj.	VR710	'6	Pin 6 (1/2Vcc) and pin 4 (TG1) of TP751

* 1 Adjust to obtain vertically symmetrical waveform (Fig. 21-I) with respect to reference DC level. The reference level is 1/2Vcc [Amplitude of 0.5 to 1.5 Vpp)
* 2 Input oscillation frequency: 1.3 kHz, 100 mV rms
* 3 Input oscillation frequency: 1.5 kHz, 300 mV rms
* 4 Watch the monitor. Adjust so that the error waveform is uniform and minimum (Fig. 22-2) and the audio output is played properly without noise (track jump noise) and free from skips and pauses.
* 5 The appropriate measuring range of the oscilloscope is 50mV and 0.5mS.
  Connect the trigger to pin 14 (HFOK) of CNP700.
  Trigger the coupling at DC and (-) slope. Observe the waveform in the normal trigger mode.
* 6 Watch the monitor. Adjust so that the error waveform is uniform and minimum (Fig. 22-2) and the audio output is played properly without noise (track jump noise).
* 7 The appropriate measuring range of the oscilloscope is 0.1V and 0.5mS. The trigger is the same as *5.
  (Reference) When the noise element of the error waveform is large and unclear, observe the waveform through the low-pass filter (Fig. 22-3).

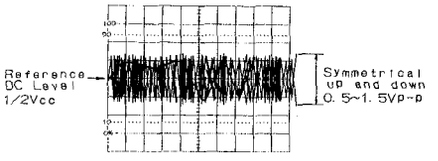


Figure 21-I

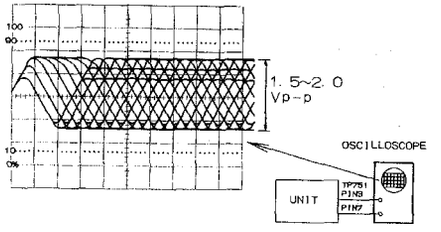


Figure 21-2

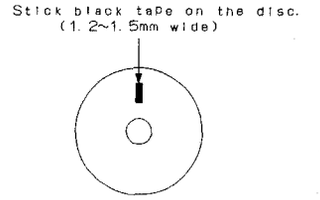


Figure 22-1

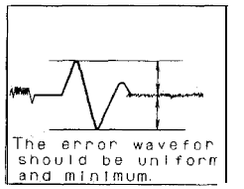


Figure 22-2

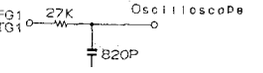
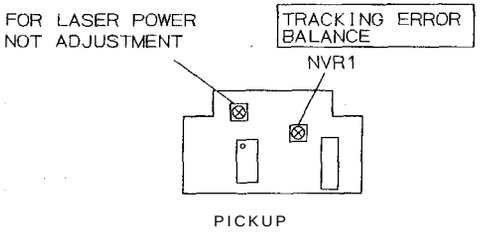


Figure 22-3



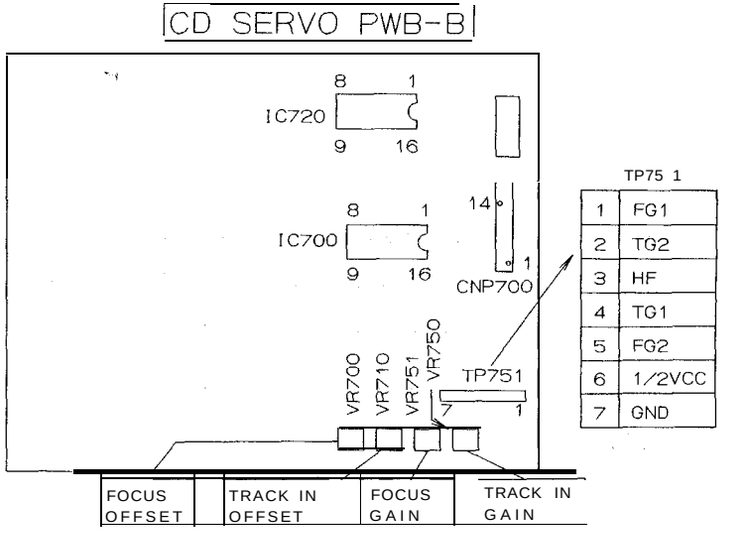


Figure 22-4 ADJUSTMENT POINTS

TROUBLESHOOTING (CD SECTION)

When the CD does not function

Set a disc, turn on the power, set the FUNCTION switch to CD, and check the voltage of CNP881.

- Is the voltage as shown in the schematic diagram being output? — No → Check the power circuit of the main unit.
- Yes
- Does the LCD function? — No → Check the item of "The LCD does not function".
- Yes
- Does the laser go on in test mode 1? — No → Check the item of "The laser does not go on".
- Yes
- Is test mode 1 switched to test mode 2? — No → Check the item of "Does not focus".
- Yes
- Test mode 2 switched to mode 3 does the spin motor run normally? — No → Check the item of "The spin motor's CLV servo is defective".
- Yes
- Is the output of pin 3 (HF) of TP751 flat in test mode 4? — No → Check the item of "HF error".
- Yes
- When the pickup moves to a track using the UP/DOWN button in test mode 5, is there audio output? — No → Does the slide motor run? — No → Check the item of "The slide motor does not run".
  - Yes → Check the item of "There is no audio output".
  - Yes
- When the power is turned off and then on, is the unit initialized? — No → Is the pickup returned to the inner position? — No → Is the pickup in switch set to OFF?
  - Yes → The pickup in switch is defective (ON).
  - Yes

OFF	ON
Check the peripheral circuits of the control microcomputer.	The pickup in switch is defective.

- Does the disc track up in order (1st track, 2nd track,...)? — No → Check the item of "Track searching is impossible".
- Yes
- Does the disc play back several ten seconds even after starling playback? — No → Check the item of "The slide servo does not function".
- Yes
- Normal

The LCD does not function.

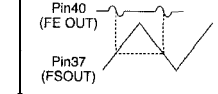
- Is there +5 V at pin 6 of CNP851B? — No → Check the PWB patterns from pin 1 of CNP881 to CNP852.
- Yes
- Is there +5 V at pin 24(Vcc) of IC750? — No → PWB patterns from pin 1 of CNP8.31 to pin 24(Vcc) of IC750.
- Yes
- Is there +5 V at pins 15(ACLR) and 16(RESET) of IC750? — No → If C840 is not short-circuited, IC750 is defective.
- Yes
- Is there +5 V at pin the of CNP851B? pattern from IC750. — No
- Yes
- When shorting the both ends of C840, do the pins 15(ACLR) and 16(RESET) of IC750 read 0 V? — No → IC750 is defective.
- Yes
- When shorting C840 for a moment, does the LCD function? — No → Check the LCD PWB of CD.
- Yes
- C840 is defective.

The laser does not go on.

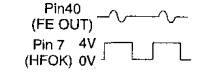
- Is pin 17 of CNP851B at a high level? — No → Check the LCD PWB of CD. (Check the LD ON terminal of pin 9 of IC971.)
- Yes
- Is there +5 V at the Q890 emitter? — No → Check the +5 V line of pin 1 of CNP881.
- Yes
- Is there +5 V at the Q890 collector? — NO → Check between pin 17 of CNP851B and Q890 base. If OK, 0890 is defective.
- Yes
- Is there +5 V at pin 5 of CNP700? — No → The PWB pattern between 0890 and pin 5 of CNP700 is damaged.
- Yes
- Check the CNP700 and Flexible PWB. If they are normal. the pickup is defective.

Does not focus.

- When the disc is removed, is the pickup moving up and down? — No → Check the item of "The saw-tooth wave for focus servo does not output".
- Yes
- Is the focus gain adjusting VR751 set to the minimum position? — Yes → Readjust the focus gain.
- No
- When the disc is set, is the following waveform input to pin 40(FE OUT) of IC750? — No → Is a waveform output at pin 42(FE(+)) of IC750? — No → Is a waveform output at pin 13(MLA) of IC750?
  - Yes → IC750 is defective.
  - Yes
  - No → Check the flexible PWB. If OK, the pickup is defective.
  - Yes → Disconnection of the signal line. Check the PWB pattern and parts.
- Yes

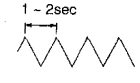


- Is the waveform shown at right input at pin 7(HFOK) of IC750? — No → defective.up is
- Yes
- IC750 is defective.



The saw-tooth wave for focus servo does not output.

- Is there +5 V at pin 24(Vcc) of IC750? — No → The +5 V line of IC750 is defective.
- Yes
- ook like the — No → Check th at pin and 22 o defective. — No → Does the saw-tooth wave look like the following waveform?
  - Yes → Check the R779 and C767 (pins 23 and 22 of IC750). If OK, IC750 is
  - Yes. (The saw-tooth wave oscillates to the positive side once.)
- Yes

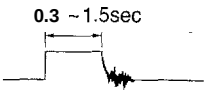


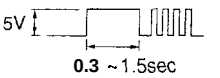
- Check the peripheral circuits of pin 35(FSR [illegible]) of IC750. If OK, IC750 is defective.
- Is the saw-tooth wave being input to pin 8 of IC700 (same waveform as shown above)? — No → The signal line between pin 37(FSOUT) of IC750 and pin 8 of IC700 is connected improperly.
- Yes
- Is the saw-tooth wave generating between pins 3 and 6 of IC700 (same waveform as shown above)? — No → Check the peripheral parts of IC700 and the power line. If OK, IC700 is defective.
- Yes
- Is the saw-tooth wave generating between pins 2 and 3 of CNP700 (same waveform as shown above)? — Yes → The CNP700 and flexible PWB are connected improperly or the pickup is defective.
- No
- The PWB pattern is damaged

The spin motor's CLV servo is defective.

Is the spin motor running?

- No → When test mode 2 is switched to test mode 3, does voltage generate between pins 11 and 14 of IC720 for approximately 0.3 - 1.5 seconds?
  - Yes → Faulty spin motor or disconnection
  - No → When test mode 2 is switched to test mode 3, is pin 5(PWM2) of IC780 at a high level for 0.3 - 1.5 seconds and then does a pulse generate?
    - No → The IC780 or microcomputer section is defective.
    - Yes → Faulty IC720 or disconnection





Yes. (Runs at extremely high speed)

Is an eye pattern being output to pin 3(HF) of test point TP751? (Even an unclear waveform is allowable.)

- No → Check if the objective lens of the pickup is dirty. If so, clean it. Check the connection between pin 11 of CNP700 and pin 15(HF) of IC780. If OK, the NIC1 or pickup is defective.

Yes. (Waveform of approximately Vp-p 1.5 V)

Is the eye pattern of Vp-p 1.5 V being output to pin 15(HF) of IC780?

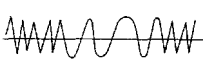
- No → Check the PWB pattern and C780.
- Yes → IC780 is defective.

HF error

Is the output of pin 4(TG1) of TP751 (tracking error signal) normal in test mode 3?

- Error → Is there any output to pin 9 of CNP700?
  - No → Check the CNP700, flexible PWB and NIC1. If OK, the pickup is defective.
  - Yes → Check the connection between pin 9 of CNP700 and pin 3(TEIN) of IC750 (or pin 4(TG1) of TP751) and the PWB pattern.

Normal



Is the tracking gain adjusting VR750 set to the minimum position?

- Yes → Readjust the tracking gain.
- No

Is there any tracking output to pin 28(TSOUT) of IC750 in test mode 4?

- No → Check the peripheral parts of IC750. If OK, IC750 is defective.
- Yes

Is there any output between pins 11 and 14 of IC700?

- No → Check the peripheral parts of IC700. If OK, IC700 is defective.
- Yes → Check the connection between the IC700 and flexible PWB. If OK, the pickup is defective.

There is no audio output.

There is no audio output from both L and R channels.

- No → Check the Q813 and Q814 (for muting). Check the connection between the pins 1 and 20 of IC810 and the CNP881.
- Yes

Is the supply voltage of IC810 normal?

- No → Check the power line and IC814.
- Yes

Are the supply voltages of IC811 and IC813 normal?

- No → Check the power line and the power circuit of the main unit.
- Yes

Is the signal of pins 1 and 20 of IC810 being output?

- No → Is the digital signal being input to pins 6, 7, 8 and 9 of IC810?
  - No → Check the connection between the IC780 and IC781. If OK, IC780 or IC781 is defective.
  - Yes → IC810 is defective.
- Yes → Check the IC811,Q811 and Q812 along the signal flow and then the connection between them.

Track searching is impossible.

Does the slide motor run in the test mode using the UP/DOWN button?
- No → Check the item of "The slide motor does not run".
- Yes ↓

During normal playback track searching, is the following waveform being input to pin 4(TCIN) of IC750?
- No → Check the connection of C750, etc.
- Yes ↓

TE

Is the following waveform being output to pin 10(DATA OUT) of IC750 during track jump?
- No → IC750 is defective.

* Track jump: When the following waveform is being output to pin 22 of IC750 during track searching.

Kick Pulse

- Yes ↓

Pin 10 H L

Pin 4 (TCIN)

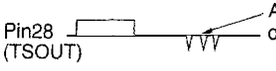
Is the following waveform being output to pin 16 of CNP700 during track jump?
- No → Check the flexible PWB, NIC1 and pickup.
- Yes ↓

H L

Is the following waveform being output to pin 28(TSOUT) of IC750 during track searching?
- No → IC750 is defective.
- Yes ↓

TE

Pin28 (TSOUT)



After generating a kick pulse, does a waveform appear like this?

Check the IC851 and the LCD PWB of CD.

The slide motor does not run.

When the UP/DOWN button is pressed in the test mode, is the slide feed signal being output between pin 25(SS OUT) of IC750 and pin 15 of IC720 (1/2 Vcc)?
- No → Check the peripheral parts of IC750. If OK, IC750 is defective.
- Yes ↓

Is the slide feed signal being output between pins 3 and 6 of IC720?
- No → Check the connection between pin 8 of IC720 and pin 25(SS OUT) of IC750. If OK, IC720 is defective.
- Yes ↓

Is the slide feed voltage being supplied to the both ends of the slide motor?
- No → Check the CNP720 and flexible PWB, and then connection of PWB pattern.
- Yes ↓

Check the slide motor. Supply 2.0 VDC to the slide motor terminal, and if the slide motor does not function, it is defective.

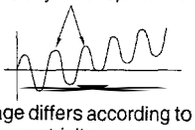
The slide servo does not function.

Is the slide control voltage waveform shown at **right** being input to pin 27(SS(+)) of IC750 during playback?
- No → Check the parts between pins 27(SS(+)) and 28(TSOUT) of IC750 and then the connection of PWB pattern.
- Yes ↓

Is the waveform shown at right being output to pin 25(SS OUT) of IC750?
- No → IC750 is defective.
- Yes ↓

The slide servo system is not defective. Check again from the beginning.

Rotation cycle of spin motor



Voltage differs according to disc eccentricity

FUNCTION TABLE OF IC

IC810 VHiLC9600AM-1 (LC9600AM)

Pin No.	Terminal Name	Input/Output	Function
1	CH1OUT	Output	CH1 output terminal
2	VrefH1	Input	Reference voltage "H" input terminal 1
3	VrefH2	Input	Reference voltage "H" input terminal 2
4	VDD	Input	Power voltage terminal +5 V
5*	WCLK2	Input	Word clock 2 input terminal When IF = "H" level is set
6	LRCK	Input	LR clock input terminal
7	WCLK1	Input	Word clock input terminal When IF = "H" level is set
8	DATA	Input	Digital audio data input terminal When IF = "H" level is set
9	BCLK	Input	Bit clock terminal PWMDAC clock and clock to read the digital audio data into LSI as bit serial data
10	VDD	Input	Power voltage terminal +5 V
11*	TSTOUT	Output	Test output terminal Ordinarily it is open.
12	TST1	Input	Test output terminal Ordinarily it is connected to GND.
13	TST2	Input	Test output terminal Ordinarily it is connected to GND.
14	IF	Input	Interface switching terminal MSB first: When digital audio data input format is at IF = "H" level LSB first: When digital audio data input format is at IF = "L" level
15	GND		GND terminal
16	VrefL1	Input	Reference voltage "L" input terminal 1
17	GND		GND terminal
18	VrefL2	Input	Reference voltage "L" input terminal 2
19	NC		
20	CH2OUT	Output	CH2 output terminal

- The terminal marked with * is open terminal not connected externally.

IC251 RH-iX1851AFZZ (IX1851AF)

Pin No.	Terminal Name	Input/Output	Signal	Function	Active H/L
1*	R50	Output	COUNT2	T2 counter UP/DOWN (H: UP, L: DOWN)	
2	R51	Input	APSS	APSS signal detection (APSS release signal)	-
3	R52	Input	RUN1	T1 rotation pulse detection	L
4	R53	Output	SOLA1	Solevoid A1 drive (H: ON, L: OFF)	H
5	R60	Output	SOLA2	Solenoid A2 drive (H: ON, L: OFF)	H
6	R61	Input	PLY1	T1 PLAY state detection (H: OFF, L: ON)	L
7	R62	Input	FR1	T1 FF/REW state detection (H: OFF, L: ON)	L
8	R63	Input	CST1	T1 cassette detection (H: Not found, L: Found)	L
9	R70	Input	RUN2	T2 rotation pulse detection	L
10	R71	Output	SOLB1	Solenoid B1 drive (H: ON, L: OFF)	H
11	R72	Output	SOLB2	Solenoid B2 drive (H: ON, L: OFF)	H
12	R73	Input	PLY2	T2 PLAY state detection (H: OFF, L: ON)	L
13	RA0	Input	FR2	T2 FF/REW state detection (H: OFF, L:ON)	L
14	RA1	Input	CST2	T2 cassette detection (H: Not found, L: Found)	L
15	RA2	Input	AFP	T2 A side foolproof detection (H: Not found, L: Found)	L
16	RA3	Input	BFP	T2 B side foolproof detection (H: Not found, L: Found)	L
17	P00	Output	MOT	Mechanism motor control (H: ON, L: OFF)	H
18	P01	Output	HSPD	Output in high-speed REC mode (H: High speed, L: Control speed)	H
19	P02	Output	T1/T2	Play back QT1/T2 switching (H: T1, L: T2)	-
20	P03	Output	PB MT	PLAY mode terminal (H: Mute ON, L: Mute OFF)	H
21*	P10	Output	H DUB IND	High-speed dubbing indicator (H: OFF (goes out), L: ON (lights)	L
22*	P11	Output	N DUB IND	Constant speed dubbing indicator (H: OFF (goes out), L: ON (lights)	L
23	P12	Output	T1 IND	T1 indicator (H: OFF (goes out), L: ON (lights)	L
24	P13	Output	T2 IND	T2 indicator (H: OFF (goes out), L: ON (lights)	L
25	TEST	Input	---	Test terminal, Open or GND	
26	VSS	-	GND	Earth	L
27*	VDD	Input	VDD	Power supply	
28*	P20	Output	PAUSE IND	PAUSE indicator (H: OFF (goes out), ON (lights))	L
29	P21	Output	REC IND	REC indicator (H: OFF (goes out), ON (lights))	L
30	P22	Output	FW IND	FWD indicator (H: OFF (goes out), ON (lights))	L
31	P23	Output	RV IND	REV indicator (H: OFF (goes out), ON (lights))	L
32*	P30	Output	PW MT	Power mute terminal (H: Mute ON, L: Mute OFF)	H
33	P31	Output	REV SIG	"H" is outputted when the mechanism is in Reverse state (incl. Reverse Pause).	H
34*	P32	Output	REC MT	REC mute terminal (H: Mute ON, L: Mute OFF)	H
35	P33	Output	PLY SW	PLAY switch state output ("H" is outputted if T1 PLAY or T2 PLAY switch is ON.)	H
36*	RB0	Output		Key matrix output	
37	RB1	Output		Key matrix output	
38	RB2	Output		Key matrix output	
39	RB3	Output		Key matrix output	
40	K00	Input		Key matrix input	

* Terminal marked with * is terminal not connected externally (open).

Pin No.	Terminal Name	Input/Output	Signal	Function	Active
41	K01	Input		Key matrix input	
42	K02	Input		Key matrix input	
43	K03	Input		Key matrix input	
44	$\overline{\text{RESET}}$	Input	$\overline{\text{RESET}}$	Reset signal input	
45	NC	-			
46	XIN	Input	-	Oscillator connection terminal	-
47	XOUT	Output	-	Oscillator connection terminal	-
48	NC	-	-	-	-
49	$\overline{\text{HOLD}}$	Input	$\overline{\text{HOLD}}$	Hold operation request/cancel signal	-
50	R80	Input	PW IN	"L": when power supply is ON "H": when power supply is OFF	L
51	R81	Input	TM IN	"L": when timer is ON (When power is ON: H - Ordinary, L - Timer operation)	L
52	R82	Input	CD HSP	CD high-speed detection (H: High speed, L: Constant speed)	H
53	R83	Output	EX PLY	External PLAY output (H: Ordinary, L: External PLAY)	L
54	R90	Output	SY RDY	For synchronization "L" is outputted in REC (standby) mode.	L
55	R91	Input	SY ON	Synchronizing signal detection (H: REC run, L: REC standby)	H
56	R92	Input/Output	CK	Remote control request signal	
57	RC0	Input	RDY	READY signal from remote control decoder	L
58	RC1	Input	DATA	Remote control serial data	
59*	RC2	-		Not used	
60	RC3	Input	TM REC	Timer REC switch detection (H: OFF, L: ON)	L
61	VDD	Input	VDD	Power	
62 *1	RD0	Input	RV MOD2	Reverse switch input	L
63 *1	RD1	Input	RV MOD1	Reverse switch input	L
64	R40	Input	TAPE FN	TAPE position detection (H: Tape, L: Radio/Line/CD)	H
65	R41	Input	CD FN	CD state detection ("H": When CD position is set and switch is ON)	H
66	R42	Input	SY INH	Sync. prohibition signal detection (H: Ordinary, L: prohibition)	H
67*	R43	Output	COUNT1	T1 counter UP/DOWN (H: UP, L: DOWN)	

* Terminal marked with * is terminal not connected externally (open).

*1.

Input / Mode	RV MOD 2	RV MOD1
⇄	1	0
⇉	0	1
⇆	1	1

IC851 RH-iX1809AFZZ (M50932)

Pin No.	Terminal Name	Input/ Output	Signal Name	Function
1 to 9	SEG8 to SEG0	Output	SEG8to SGE0	LCD segment signal output
10 to 13	COM0to COM3	Output	COM0to COM3	LCD back plate signal output
14 to16	VL1to VL3	Input	VL1to VL3	LCD power supply
17	VCC	-	VCC	Power supply
18	CNTR	Input	DATA OUT	Focus OK or TC (track count) signal input A. Focus check Focus OK: "H" Focus NG: "L" B. TC count pulse
19	P37	Output	MUTE	Control of audio signal mute Mute OFF (PLAY or Manual Search mode): "H" Mute ON (not in PLAY or Manual Search mode): "L"
20	P36	Input	EFFK	Synchronizing clock (7.35 kHz) for sub-code Q data
21*	P35	Output	SOUT	Servo control
22	P34	Input	SBCQ	Sub-code Q data input
23	P33	Input	DRD	Disc rotation linear speed reduction signal (brake control) "L": Ordinary "H": When speed reduces from specific linear speed by 35.3%
24	P32	Input	SCOR	Frame sync. of sub-code Q data (75 Hz)
25	P31	Input	Xcin	Clock signal input (32 kHz)
26	P30	Output	Xcout	Clock signal output (32 kHz)
27	INT1	Input	PU-IN	Switch input to detect position of optical pickup "L": When the pickup exists on the innermost periphery of disc. "H": When the pickup does not exist on the innermost periphery of disc
28	CNVSS	-	CNVSS	Connected to earth
29	RESET	Input	RESET	Reset input
30	Xin	Input	Xin	Clock signal input (4 MHz)
31*	Xout	Output	Xout	Clock signal output (3 MHz)
32	VSS	-	VSS	Earth
33	P27	Output	$\overline{MLA}$	Serial data latch signal (fall)
34	P26	Output	MCK	Serial data period clock (rise)
35	P25	Output	MSD	Serial data First
36	P24	Output	JP1	Jump pulse direct control "H": Ordinary "L": Jump pulse direct inversion
37*	P23	Output	KSO3	Key scan output (scan board "L")
38*	P22	Output	KSO2	Key scan output (scan board "L")
39	P21	Output	KSO1	Key scan output (scan board "L")
40	P20	Output	KSO0	Key scan output (scan board "L")
41*	P17	Input	KSi0	Key scan input ("L": Key input)
42*	P16	Input	KSi1	Key scan input ("L": Key input)
43	P15	Input	KSi2	Key scan input ("L": Key input)
44	P14	Input	KSi3	Key scan input ("L": Key input)
45	P13	Input	KSi4	Key scan input ("L": Key input)
46	P12	Input	KSi5	Key scan input ("L": Key input)
47	P11	Output	LD-ON	Optical pickup laser diode control "H": LD ON "L": LD OFF
48*	P10	Output	ON OUT	Power control "H": POWER ON, TIMER ON, SLEEP ON
49*	P07	Output	TIMER OUT	Power control "H": TIMER ON

* Terminal marked with * is terminal not connected externally (open).

Pin No	Terminal Name	Input/ Output	Signal Name	Function
50	P06	Input	TIMER SET	Timer set/reset Input to judge POWER-ON by timer "H": Ordinary operation "L": Timer operation
51	P05	Output	SYC OUT	The cassette mechanism is controlled by CD operation "H" output: When [SYCIN] is "H" When [SYCIN]: "L": "H" output: During play "L" output: Excepting during play
52	P04	Input	SYN IN	The cassette mechanism is controlled by CD operation. "L": When cassette mechanism is in REC mode "H": When cassette mechanism is not in REC mode
53	P03	Input	REVERSE	Detection of reversing of cassette mechanism in dubbing mode "L": Ordinary (A side) "H": Reverse (B side)
54*	P02	Output	ARLS SET	APLC control signal "H": APLC key ON
55*	P01	Output	ARLS OUT	Signal to control the main body in APLC mode
56	P00	Output	CKI	Receiving sync. clock (data request)
57	P47	Input	RDY	Remote control READY signal
58	P46	Input	SDO	Remote control receiving data input
59	P45	Input	SYCLK	Frame sync. signal error check "H": When sync. signal is inputted correctly "L": When sync. signal is not inputted correctly.
60	P44	Input	SRCF	Q data CRC check flag "H": When data is correct "L": When data is not correct
61	P43	Input	ARLS RDY	Fixed to "L"
62*	P42	Input	CD	Fixed to "H"
63	P41	Input	POWER IN	Fixed to "L"
64	P40	Input	SEL	Fixed to "H"
65*	SEG23	Output	SEG23nt	signal output
66*	SEG22	Output	SEG22	Segment signal output
67 to 70	SEG21 to SEG18	Output	SEG21 to SEG18	Segment signal output
71*	SEG17	Output	SEG17	Segment signal output
72	SEG16	Output	SEG16	Segment signal output
73	VSS	-	VSS	Earth
74, 75	SEG15, 14	Output	SEG15, 14	Segment signal output
76*	SEG13	Output	SEG13	Segment signal output
77*	SEG12	Output	SEG12	Segment signal output
78, 79	SEG11, 10	Output	SEG11, 10	Segment signal output
80*	SEG9	Output	SEG9	Segment signal output

*The terminal marked with * is open terminal not connected externally.

IC780 VHiM50423P/-1 (M50423P)

Pin No.	Terminal Name	Input/Output	Function
1	EMP	Output	Emphasis code output Emphasis provided = "1"
2	PWM1	Output	Disc motor drive PWM output 1: "-"
3	PWM2	Output	Disc motor drive PWM output 2: "+"
4*	DOTX	Output	Digital OUT
5	ACRCY	Input	Digital OUT channel status clock accuracy input
6	TEST1	Input	Test mode selection input Ordinary playback = "0"
7	DOBSEL	Input	Selection of number of output data bits 18 bits = "1"
8	DASEL1	Input	DAC interface selection input 1
9	DASEL2	Input	DAC interface selection input 2
10	DASEL3	Input	DAC interface selection input 3
11	DASEL4	Input	DAC interface selection input 4
12	MSD	Input	Microcomputer interface serial data input
13	MCK	Input	Microcomputer interface clock input
14	MLA	Input	Microcomputer interface data latch clock input
15	ACLR	Input	Microcomputer interface register clear input
16	HFD	Input	Playback signal lack signal input
17	HF	Input	Playback signal input
18	IREF	Input	Detection/PLL circuit reference current input
19	TLC	Output	Slice level control output
20	LPF	Input/Output	PLL loop filter connection terminal
21	LOCK/DRD	Output	Sync. state/Low disc rotation state output
22	SYCLK	Output	Frame sync. state output Sync. = "1"
23	VDD2	Input	Detection/PLL circuit Analog section exclusive-use power supply 5 V
24*	DRD	Output	Low disc rotation state output
25	EFFK	Output	EFM frame clock output Duty 50%
26*	CINT	Output	Subcode Q output interruption signal output
27*	SQRO	Output	Subcode Q register output
28*	SQRCK	Input	Subcode Q register data shift clock input
29	SCOR	Output	Subcode sync. signal output S0 + S1
30	CRCF	Output	Subcode Q Output of CRC check result output CRCOK = "1"
31	SCCK	Input	Shift clock input for subcode serial output
32	VSS2		GND 0 V
33	COE2	Input	SBCP to SBCS output enable input
34	SCOE1	Input	SBCT to SBCW output enable input
35*	SBCW	Output	Subcode Wch output
36*	SBCV	Output	Subcode Vch output
37*	SBCU	Output	Subcode Uch output
38*	SBCT	Output	Subcode Tch output
39*	SBCS	Output	Subcode Sch output
40*	SBCR	Output	Subcode Rch output
41	SBCQ	Output	Subcode Qch output
42*	SBCP	Output	Subcode Pch output

* The terminal marked with * is open terminal not connected externally.

Pin No.	Terminal Name	Input/Output	Function
43	RAS	Output	Row address strobe signal output
44	NC	-	-
45	RDB2	Input/Output	External memory data input/output 2
46	NC	-	-
47	RDB1	Input/Output	External memory data input/output 1
48	RDB4	Input/Output	External memory data input/output 4
49	CAS	Output	Column address strobe signal output
50	RDB3	Input/Output	External memory data input/output 3
51	WE	Output	Write enable signal output
52	NC	-	-
53	RAD1	Output	External memory address output 1
54	RAD2	Output	External memory address output 2
55	RED3	Output	External memory address output 3
56	RED7	Output	External memory address output 7
57	RED4	Output	External memory address output 4
58	RAD5	Output	External memory address output 5
59	RAD6	Output	External memory address output 6
60	RAD0	output	External memory address output 0
61	EST2	Output	Error state output 2 C2 decoder correction disabled = "1"
62*	EST1	output	Error state output 1 CI decoder error detection = "1"
63	VDD1	Input	Power supply +5 v
64'	DOFK	output	OSC frame clock output 7.35 kHz Duty = 50 %
65'	FSCK	Output	Clock output 44.1 kHz
66*	C846	Output	Clock output 8.4672 MHz
67	C423	Output	Clock output 4 2336 MHz
68'	C16MI	Input	i/Z-frequency-divider input Feedback resistor provided
6 9	C8MO	output	1/2-frequency-divider output
70	XI	Input	Crystal oscillator input Feedback resistor provided
71	XO	output	Crystal oscillator output
72	DO1	Output	DAC. Serial data output
73	VSS1		DAC. 0 V
74	DSCK	Output	DAC. Data shift clock output
75	LACK	output	DAC. Left/right clock output
76"	DO2	Output	DUAL DAC. Serial data output Rch
77	WDCK	output	DAC. Word clock
76'	DLRCK	output	DAC. Left/right clock output 2
79'	APTL	Output	Deglitch clock L
80*	APTR	output	Deglitch clock R

*The terminal marked with * is open terminal not connected externally.

IC301 VHiBA3928//-1 (BA3928)

Table of +B Switching Operations

	State of pin 8 of IC301		
	HIGH (CD)	MIDDLE (TUN)	LOW (TAPE/AUX)
Pin 7: CD output power	8.5 V	0 V	0 V
Pin 6: CD output power	5 V	0 V	0 V
Pin 4: TUN output power	6.5 V	6.5 V	0 V
Pin 5: Microcomputer output power	5 V	5 V	5 V

IC636 RH-iX1836AFZZ (PD1715G-635-22)

Pin No.	Terminal Name	Input/ Output	Function
1	LCD10	Output	LCD segment signal output
2	LCD9	Output	LCD segment signal output
3	LCD8	Output	LCD segment signal output
4*	LCD7	Output	LCD segment signal output
5	LCD6	Output	LCD segment signal output
6	LCD5	Output	LCD segment signal output
7	LCD4	Output	LCD segment signal output
8	LCD3	Output	LCD segment signal output
9	LCD3	Output	LCD segment signal output
10	LCD1	Output	LCD segment signal output
11	COM1	Output	LCD common signal output
12	COM2	Output	LCD common signal output
13	COM3	Output	LCD common signal output
14	VSS3	-	Coupler capacitor connection terminal
15	CAP2	-	Coupler capacitor connection terminal
16	CAP1	-	Coupler capacitor connection terminal
17	VSS2	-	Coupler capacitor connection terminal
18	TRMOUT	Output	Timer control output. After timer is turned on
19	PWRCNT	Output	Power control output. H/L change occurs when the POWER key is pressed while PWRIN (pin 31) is "H". When PWRIN is switched from L to H
20	VDD	-	Power terminal
21	M	Input	Setting of frequency division ratio H: 1/4 frequency division L: 1/2 frequency division
22	FM	Input	FM VCO input. Local oscillation output of FM (TV) band is inputted.
23	AM	Input	AM VCO input. Local oscillation output of AM band is inputted.
24	VSS1	Earth	
25, 2 6	EO1, EO3	Output	Error output H: When divided local oscillation frequency (VCO output) is higher than the reference frequency L: When divided local oscillation frequency is lower than the reference frequency
27	CE	Input	Chip enable (selection signal input terminal) Radio ON: When H is inputted L or H less than 140 s is not accepted.
28, 29	XO, XI	Input	Crystal oscillator connection terminal
30	SD	Input	Local detection signal input. When L is input during auto-tuning
31	PWRIN	Input	Timer/Sleep control input. When L is Switched to H, H is outputted from PWRCNT (pi" 19). While this terminal is H

Pin No.	Terminal Name	Input/ Output	Function
32*(*1)	B1	Output	Band selection signal
33(*1)	B2	Output	Band selection signal
34*(*1)	TVPWR	Output	Band selection signal
35*	TMRST	Output	Timer control output. L: When VDD is turned on. H is outputted while PWRIN (pin 31) is H and the timer is in stand-by state. When PWRIN is switched from H to L
36	TMRSLP	Output	Timer/Sleep control output. L: When VDD is turned on. H is outputted while PWRIN (pin 31) is H and the timer or Sleep is set to ON. When the timer is turned on
37	MUTE	Output	Mute signal output. Clears PLL unlocking shock noise and shock noise caused by change of control terminal state. (Active H)
38	KS3	Output	Key source signal output
39	KS2	Output	Key source signal output
40	KS1	Output	Key source signal output
41	NC	-	-
42	KS0	Output	Key source signal output
43	K3	Input	Key return signal input
44	K2	Input	Key return signal input
45	K1	Input	Key return signal input
46*	VDD	-	Power terminal
47	K0	Input	Key return signal input
48	LCD16	Output	LCD segment signal output
49	LCD15/KS5	Output	LCD segment/key source signal output
50	LCD14/KS6	Output	LCD segment/key source signal output
51	LCD13/KS7	Output	LCD segment/key source signal output
52, 53	LCD12, 11	Output	LCD segment signal output
54	NC	-	-

(*1)

Band	B2	B1	TVPWR
AM	0	0	0
FM	1	0	0
VHFL	1	0	1
VHFH	0	1	1
UHF	1	1	1

* The terminal marked with * is open terminal not connected externally.

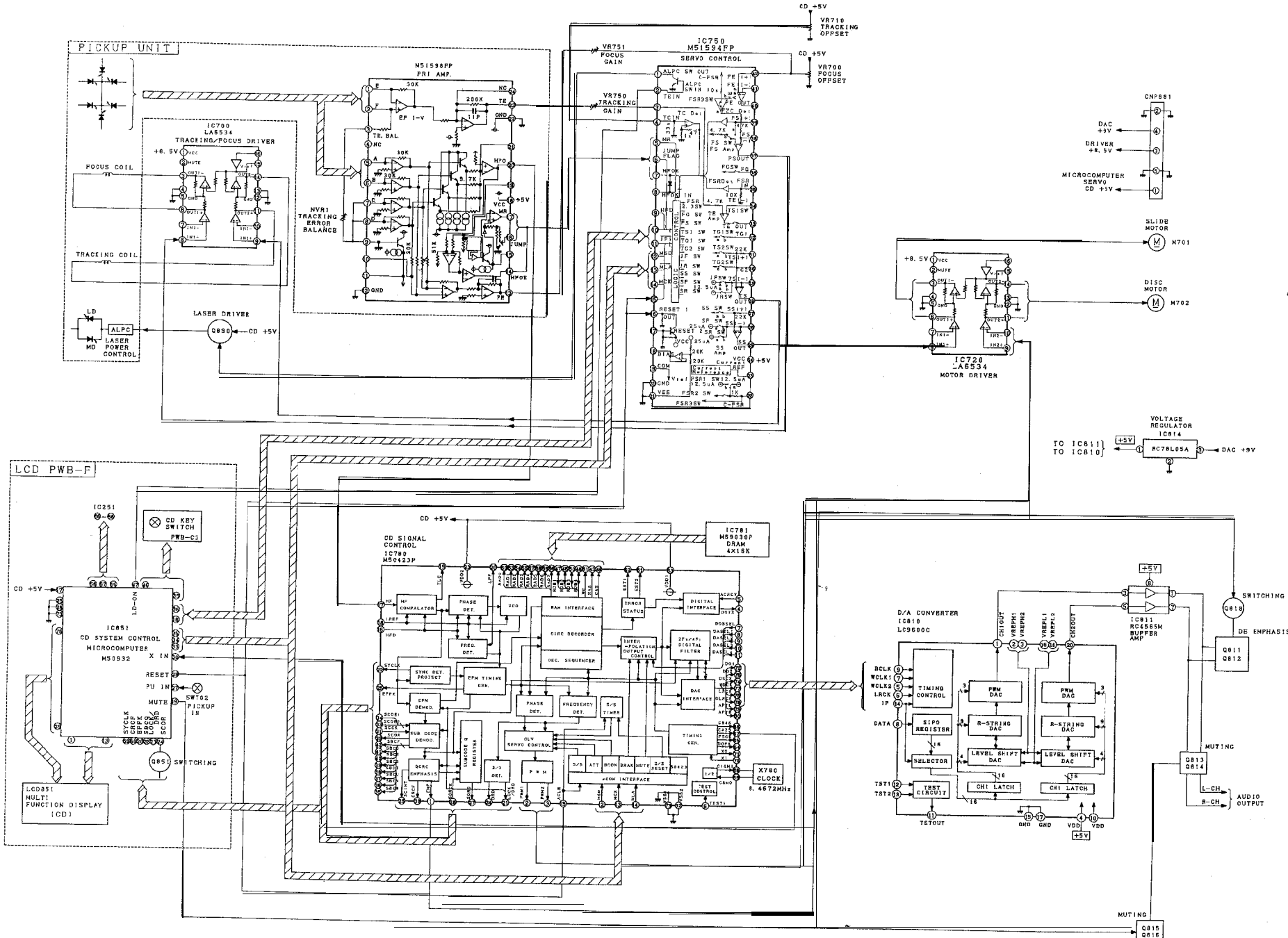


Figure 35 BLOCK DIAGRAM (1/2)

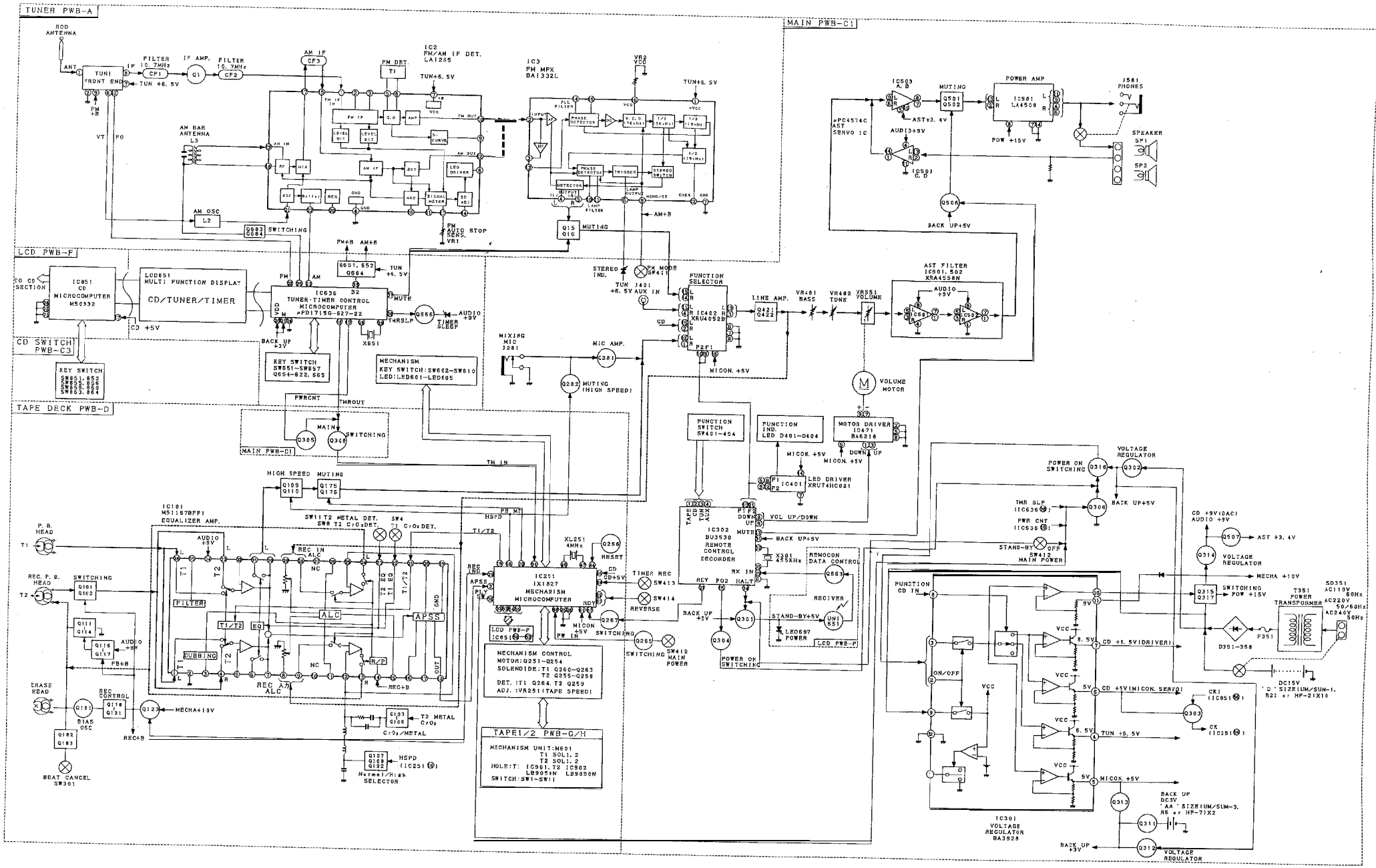
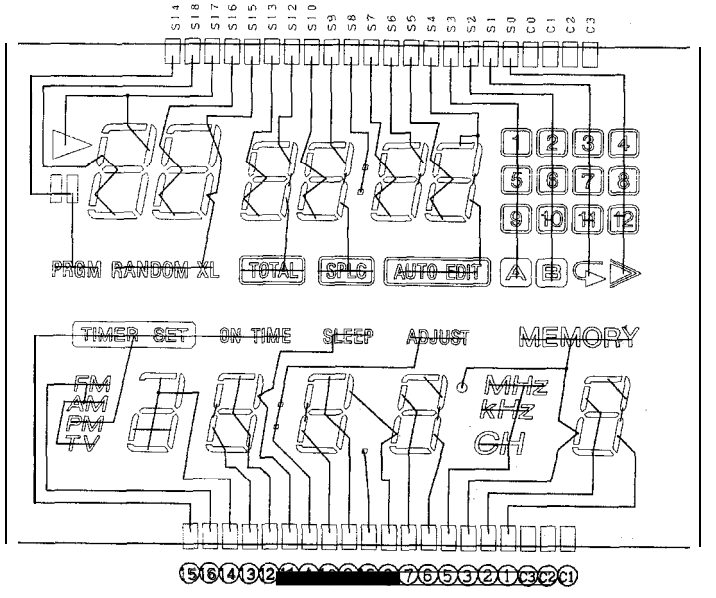
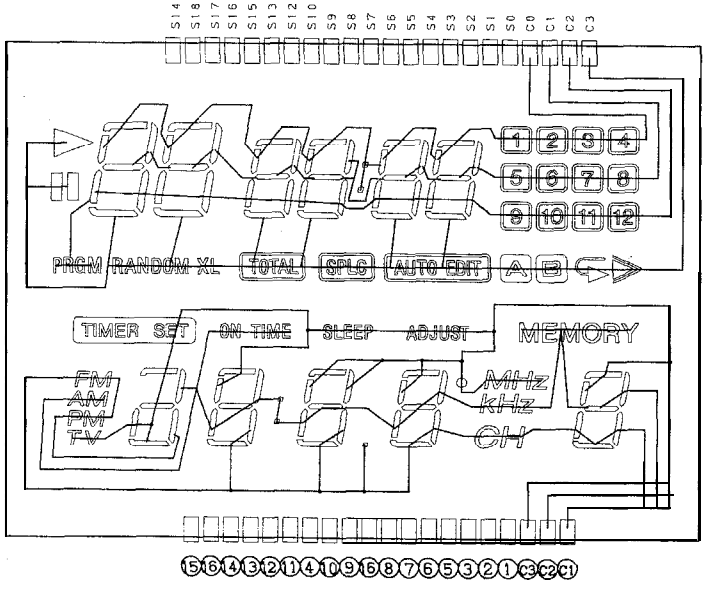


Figure 37 BLOCK DIAGRAM (2/2)

LCD SEGMENT





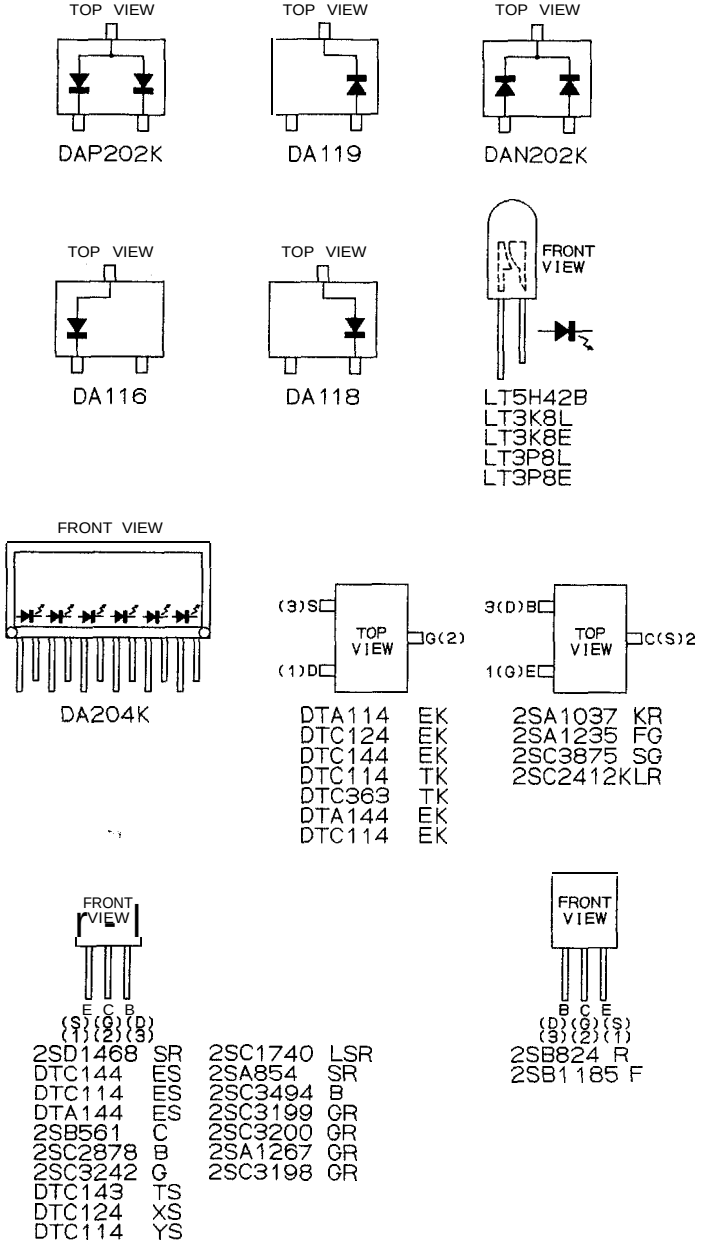


Figure 40 TYPES OF TRANSISTOR AND LED

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
- 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. Tuner
   ( ): AM mode
   Marking except for ( ): FM mode
2. CD
   ( ): Play mode
   Marking except for ( ): Stop state
3. Audio
   ( ): Record mode
   Marking except far ( ): play mode

- chematic diagram and Wiring Side of P.W.Board for this model are subject to change for improvement without prior notice.
- Parts marked with "⚠"(※) 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
SW1	TAPE 1 PLAY	OFF
SW2	TAPE 1 FR	OFF
SW3	TAPE 1 CASSETTE DETECTION	OFF
SW4	TAPE 1 CrO2 DETECTION	OFF
SW5	TAPE 2 PLAY	OFF
SW6	TAPE 2 FR	OFF
SW7	TAPE 2 CASSETTE DETECTION	OFF
SW8	TAPE 2 CrO2 DETECTION	OFF
SW9	SIDE A F.P.	OFF
SW10	SIDE B F.P.	OFF
SW11	METAL DETECTION	OFF
SW301	SEAT CANCEL	A
SW401	AUX	OFF
SW402	TUNER	OFF
SW403	CD	OFF
SW404	TAPE	OFF
SW411	FM MODE	MONO
SW412	MAIN POWER	ON/TIMER SLEEP
SW413	TIMER REC	OFF
SW414	REVERSE MODE	⇄
SW481	CD LID	OFF
SW602	◀ PLAY	OFF
SW603	STOP	OFF
SW604	▶ PLAY	OFF

REF. NO	DESCRIPTION	POSITION
SW605	FAST ▶▶	OFF
SW606	FAST ◀◀	OFF
SW607	NORMAL SPEED	OFF
SW608	TAPE 1.2	OFF
SW609	REC PAUSE	OFF
SW610	HIGH SPEED	OFF
SW651	MEMORY	OFF
SW652	DISPLAY	OFF
SW653	TUNING . MINUTE	OFF
SW654	TUNING A, HOUR	OFF
SW655	FM STEREO	OFF
SW656	TIMER SLEEP	O F F
SW657	BAND	OFF
SW656	AUTO MEMORY	OFF
SW702	PICKUP IN	OFF
SW651	PAUSE	OFF
SW652	PLAY/REPEAT	OFF
SW855	AUTO EDIT	OFF
SW856	STOP	OFF
SW859	TAPE LENGTH	OFF
SW860	SKIP ▶▶I	OFF
SW863	RANDOM XL	OFF
SW864	SKIP I◀◀	OFF

Waveforms of CD circuit

❶ 2V/1mS(DC)
*No defect
Potential difference 0V
(When playing back the disc)

*Defect to disc (ditto)
Potential difference 0V
(When playing back the disc)

If defect exists, pulse-like noise as shown above appears.
(Similar noise is found also in ❷ output and TE, FE signals.)

❷ 0.2mV/0.2mS(DC)
Center 0Vcc
(When playing back the disc)

❸ 20mV/2mS(DC)
Center 1/2Vcc
(When playing back the disc)

❹ 0.5V/0.5μS(AC)
(When playing back the disc)

❺ In TEST MODE 3
0.5V/1mS(DC)
Center 1/2Vcc

In playback mode
0.5V/1mS(DC)
Center 1/2Vcc

❻ In TEST MODE 2
(The lens is moved up and down.)
200mV/0.5S(DC)
Center 1/2Vcc

*The storage oscilloscope was used for measurement. (On the ordinary oscilloscope the bright point appears as triangular wave as shown above.)

❼ Spin motor PWM output
(When playing back the disc)
0.2V/10μS(DC)
Use10:1 probe to connect
PWM1
GND
PWM2
GND

❽ 50mV/0.5μS(AC)
Use10:1 probe to connect

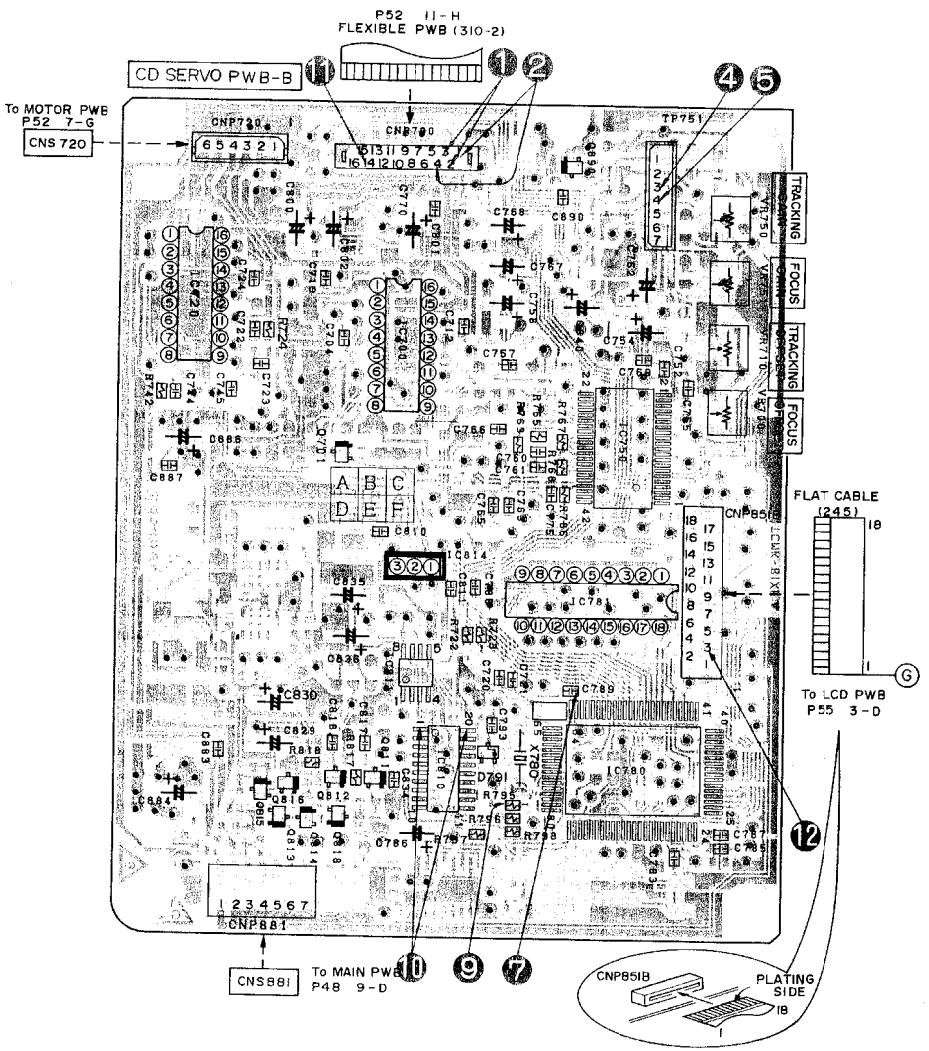
❾ 2V/0.1μS(DC)
(When playing back the disc)
GND

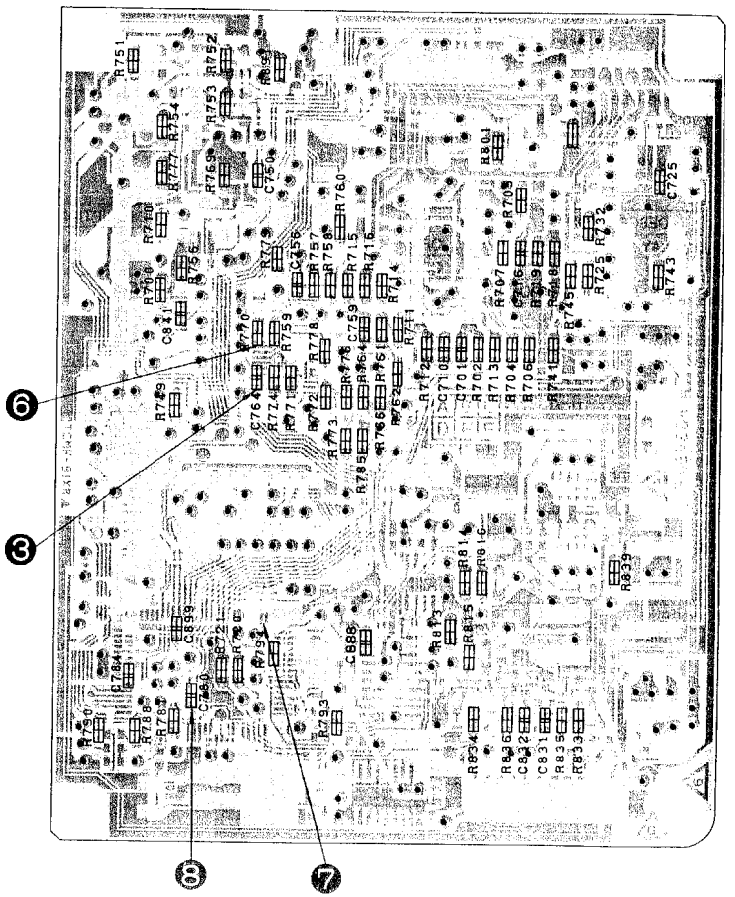
❿ 1kHz 0dB
(When playing back the test disc)
1V/0.5mS(AC)

IQC. SM. MAKE:)CD_DC_8_M1

⓫ 2Vdiv(DC)
FOCUS ON in playback mode and test mode:3.6V
In stop mode:0V

⓬ 2Vdiv(DC)
If defect exists on the disc and in track search mode the pulse-like "L" level appears as shown below.
In playback mode:4.8V
In stop mode:0V
If the disc rotates and the HF signal is tuned with the internal signal of IC, "H" level appears.

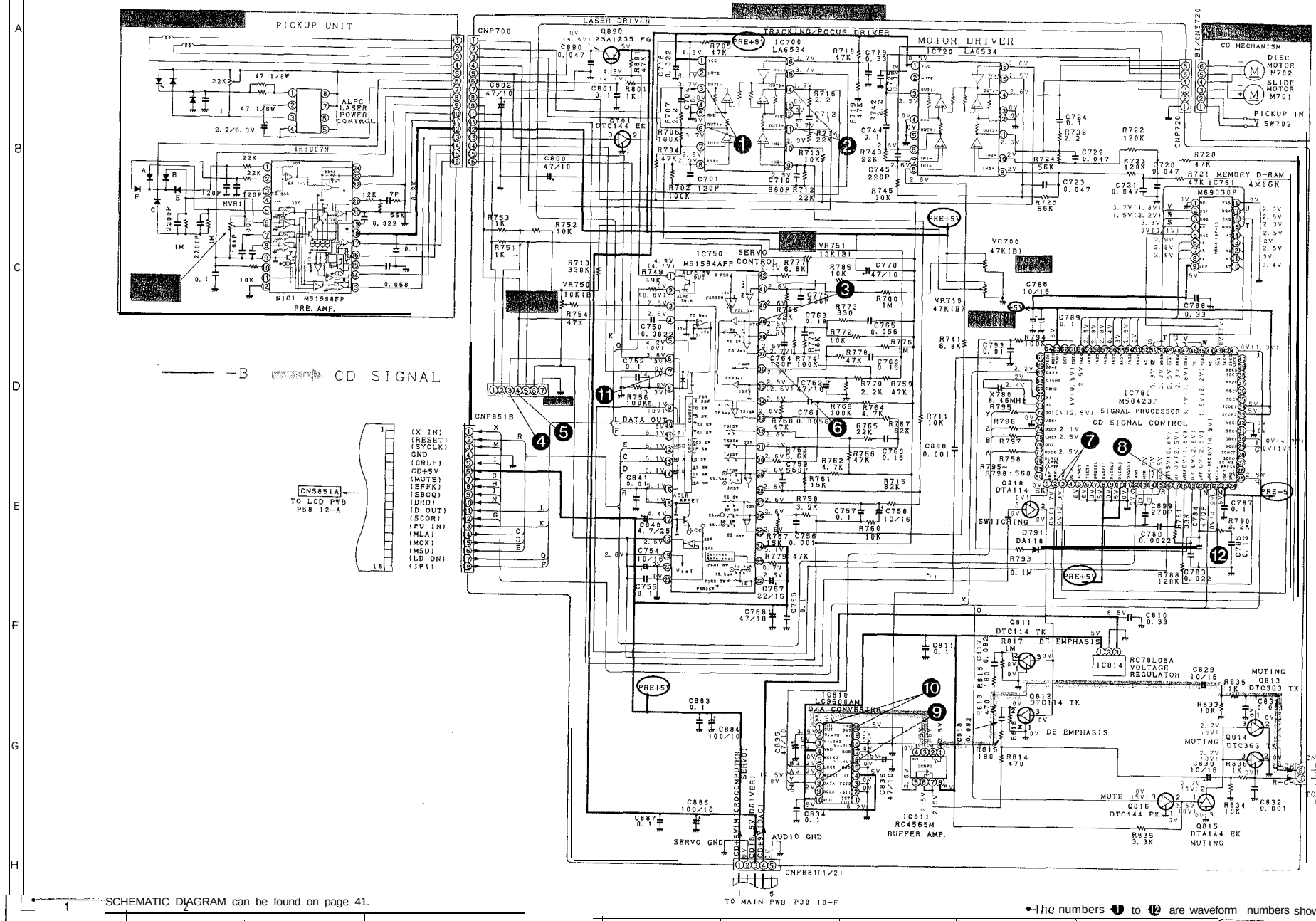




: Top side of PWB.
: Bottom side of PWB.
● : Through-hole (where front and back patterns are connected)

* The numbers ❶ to ⓬ are waveform numbers shown in page 42.

Figure 43 WIRING SIDE OF P.W.BOARD (1/4)



SCHEMATIC DIAGRAM can be found on page 41.

The numbers ❶ to ⓬ are waveform numbers shown in page 42.

Figure 45 SCHEMATIC DIAGRAM **(1/5)**

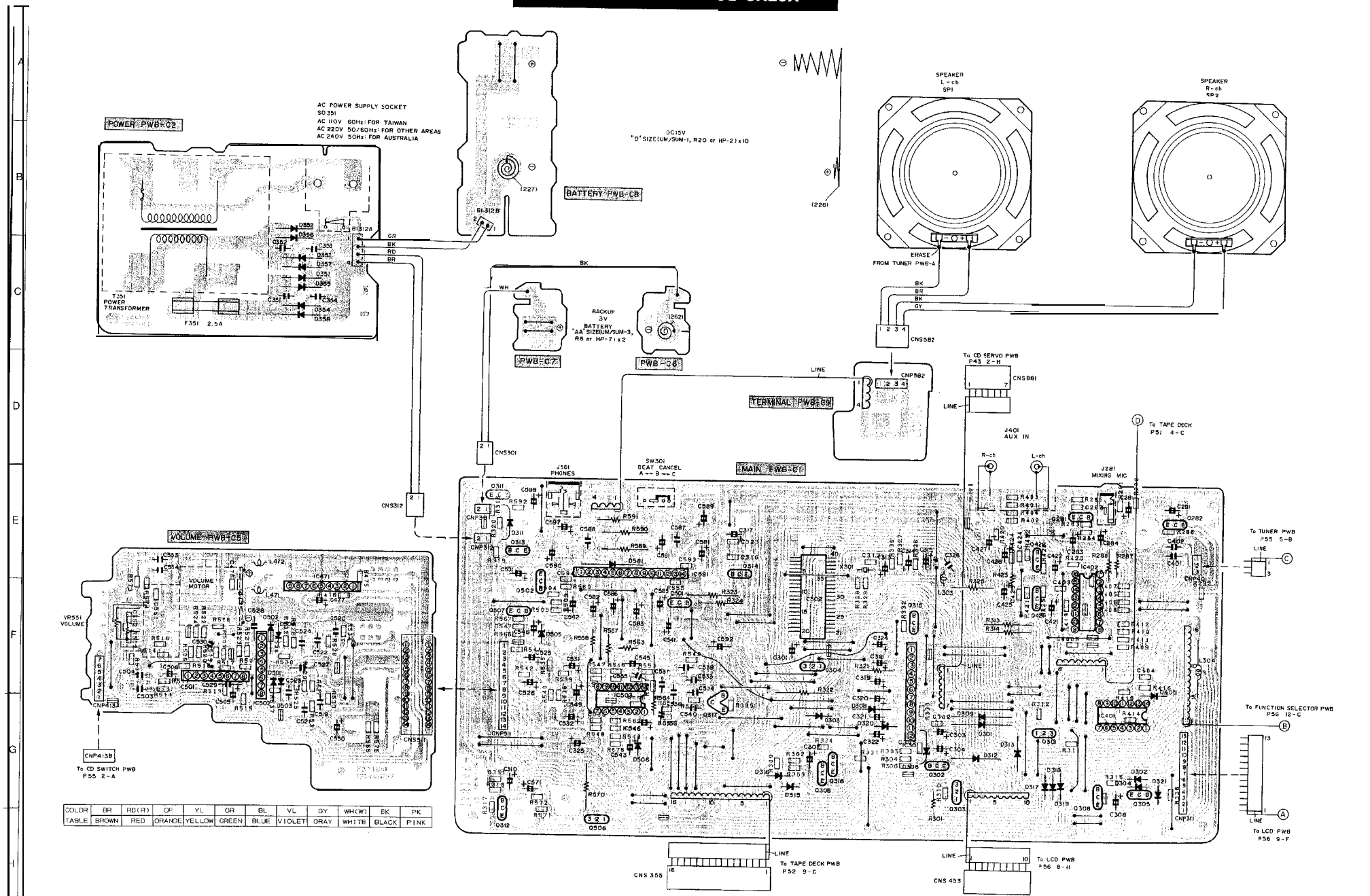
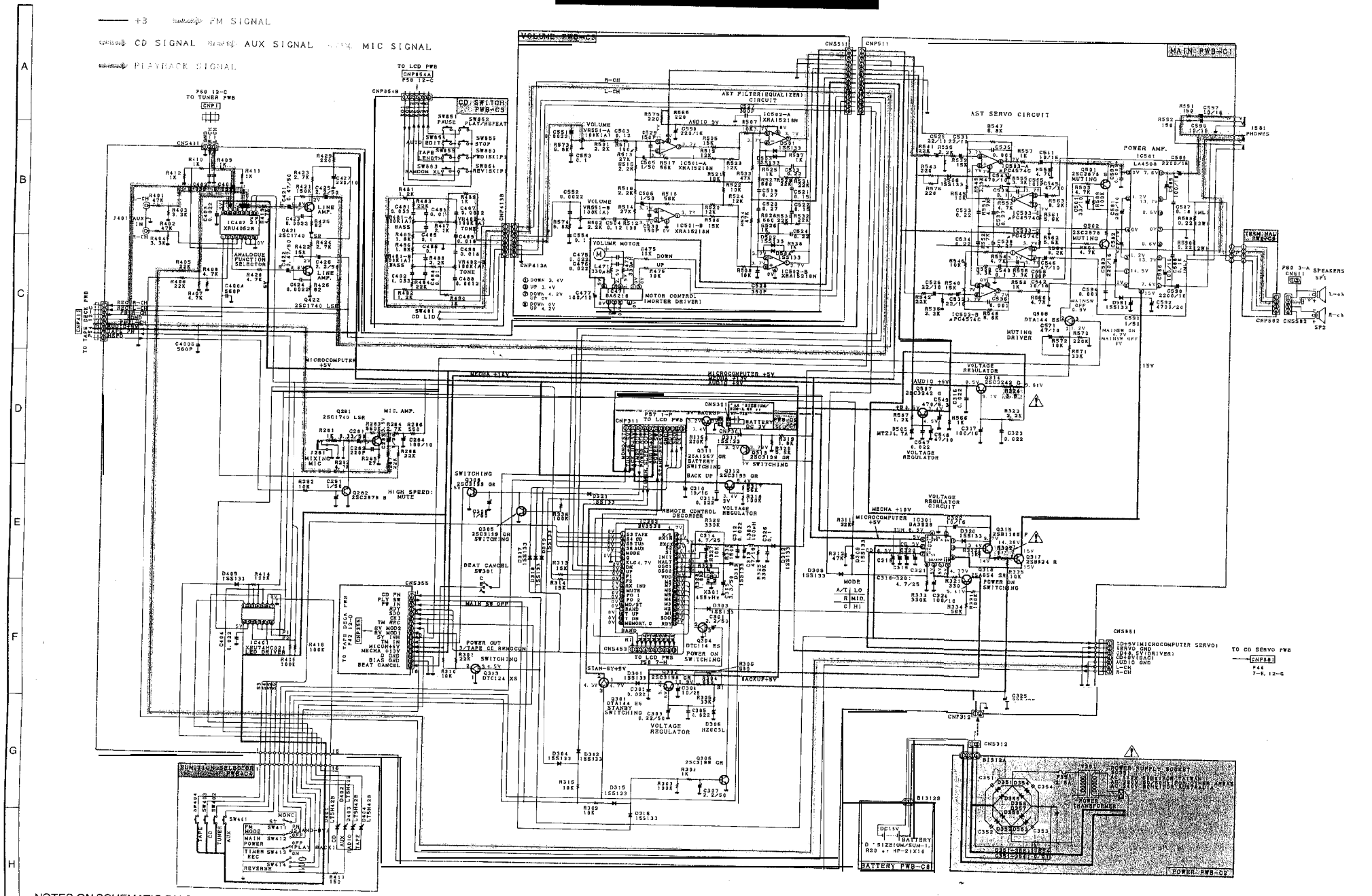
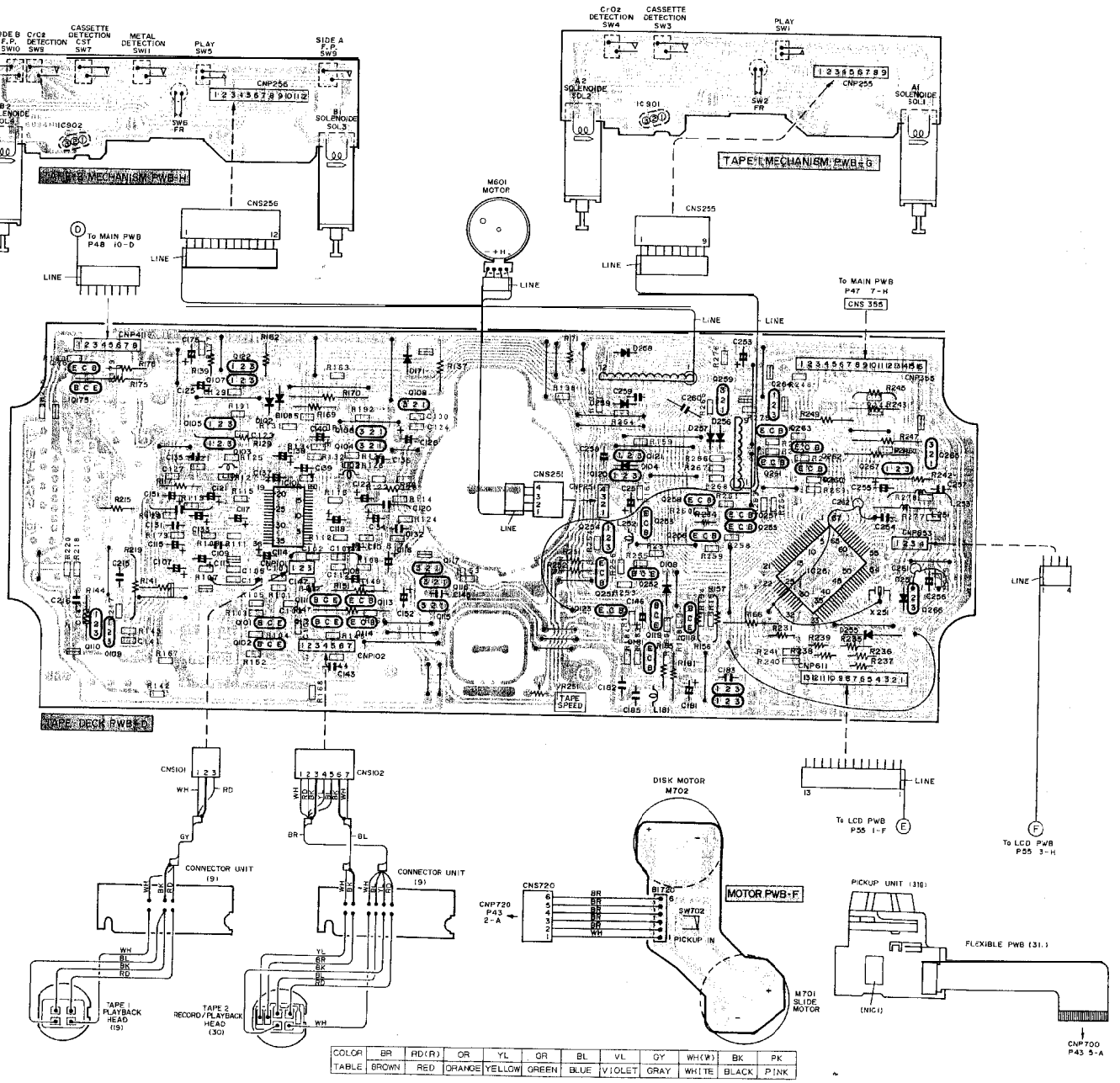


Figure 47 WIRING SIDE OF P.W.BOARD (2/4)



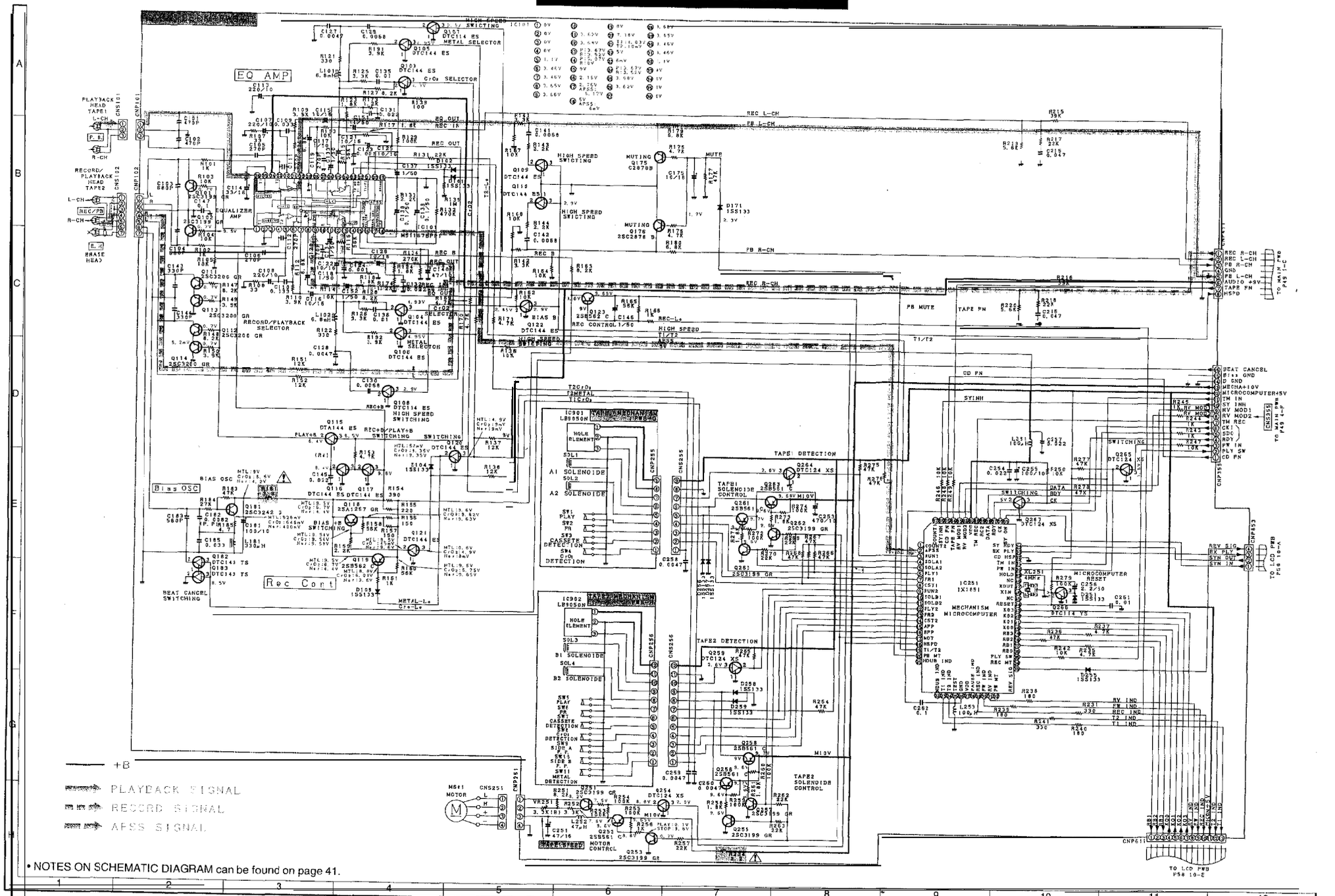
• NOTES ON SCHEMATIC DIAGRAM can be found on page 41.

Figure 49 SCHEMATIC DIAGRAM (2/5)



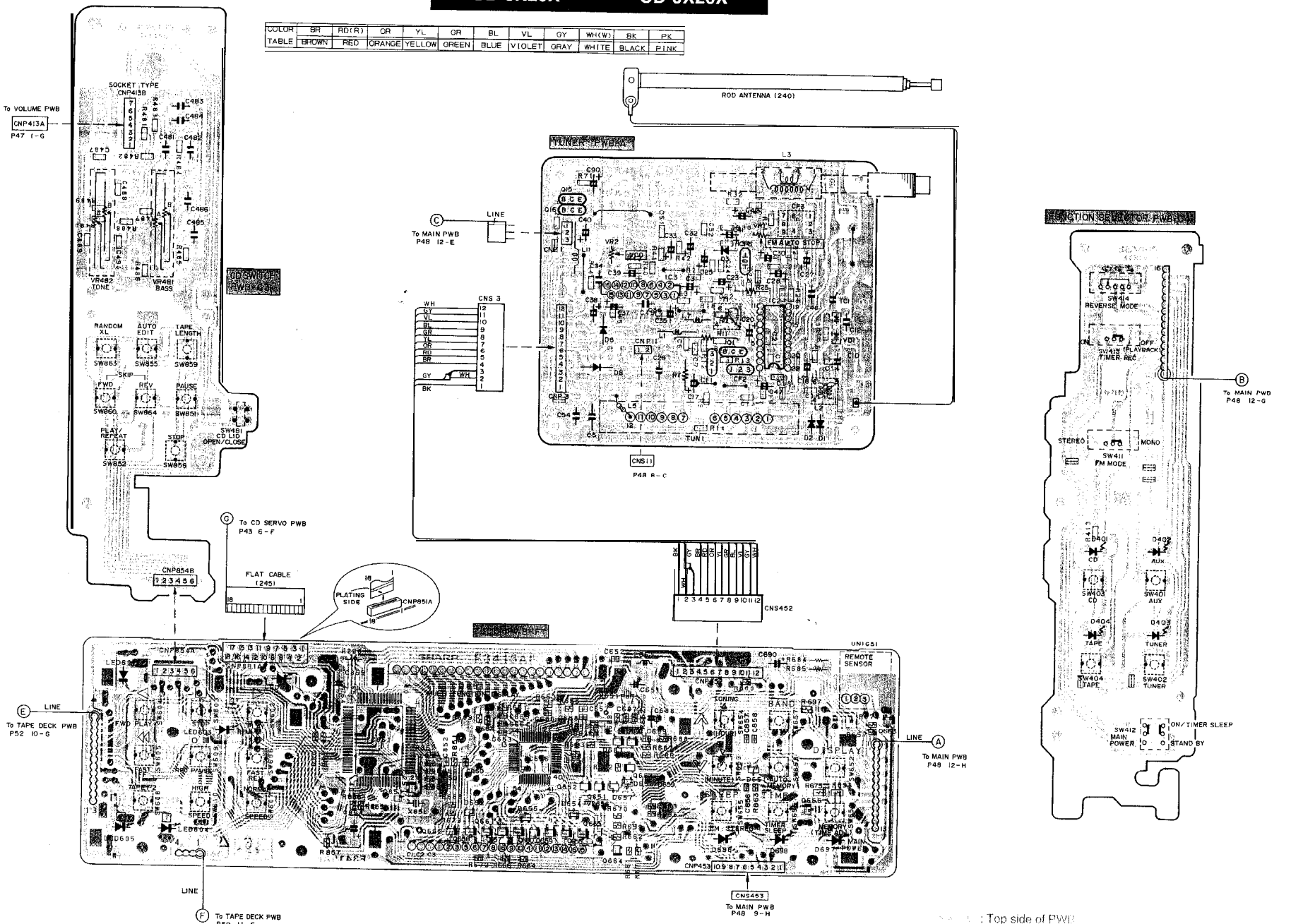
COLOR	BR	RD(R)	OR	YL	GR	BL	VL	GY	WH(W)	BK	PK
TABLE	BROWN	RED	ORANGE	YELLOW	GREEN	BLUE	VIOLET	GRAY	WHITE	BLACK	PINK

Figure 51 WIRING SIDE OF P.W.BOARD (3/4)



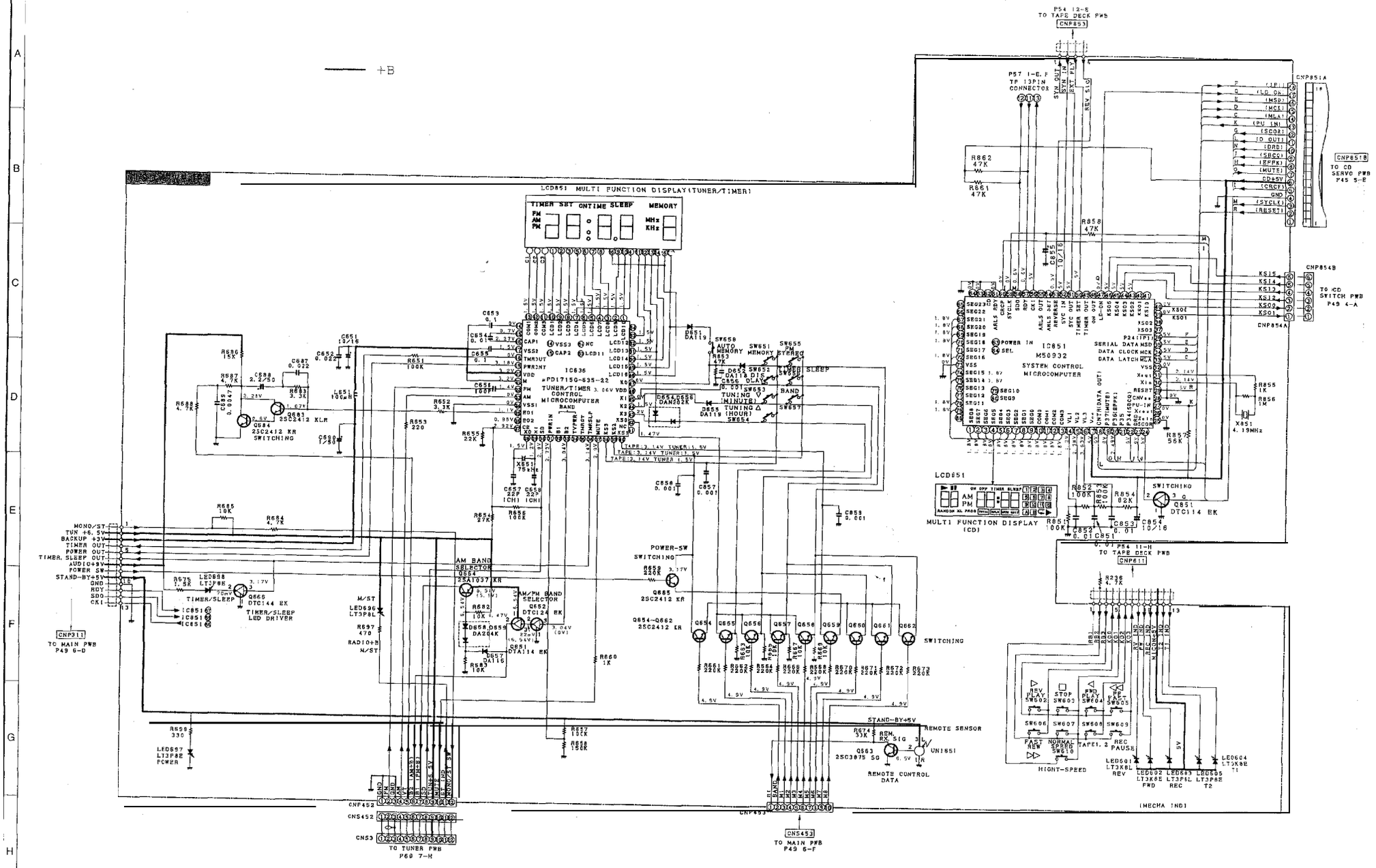
• NOTES ON SCHEMATIC DIAGRAM can be found on page 41.

Figure 53 SCHEMATIC DIAGRAM (3/5)



: Top side of PWB.
: Bottom side of PWB.
● : Through-hole (where front and back patterns are connected)

Figure 55 WIRING SIDE OF P.W.EJOARD **(4/4)**



• NOTES ON SCHEMATIC DIAGRAM can be found on page 41.

Figure 57 SCHEMATIC DIAGRAM (4/5)

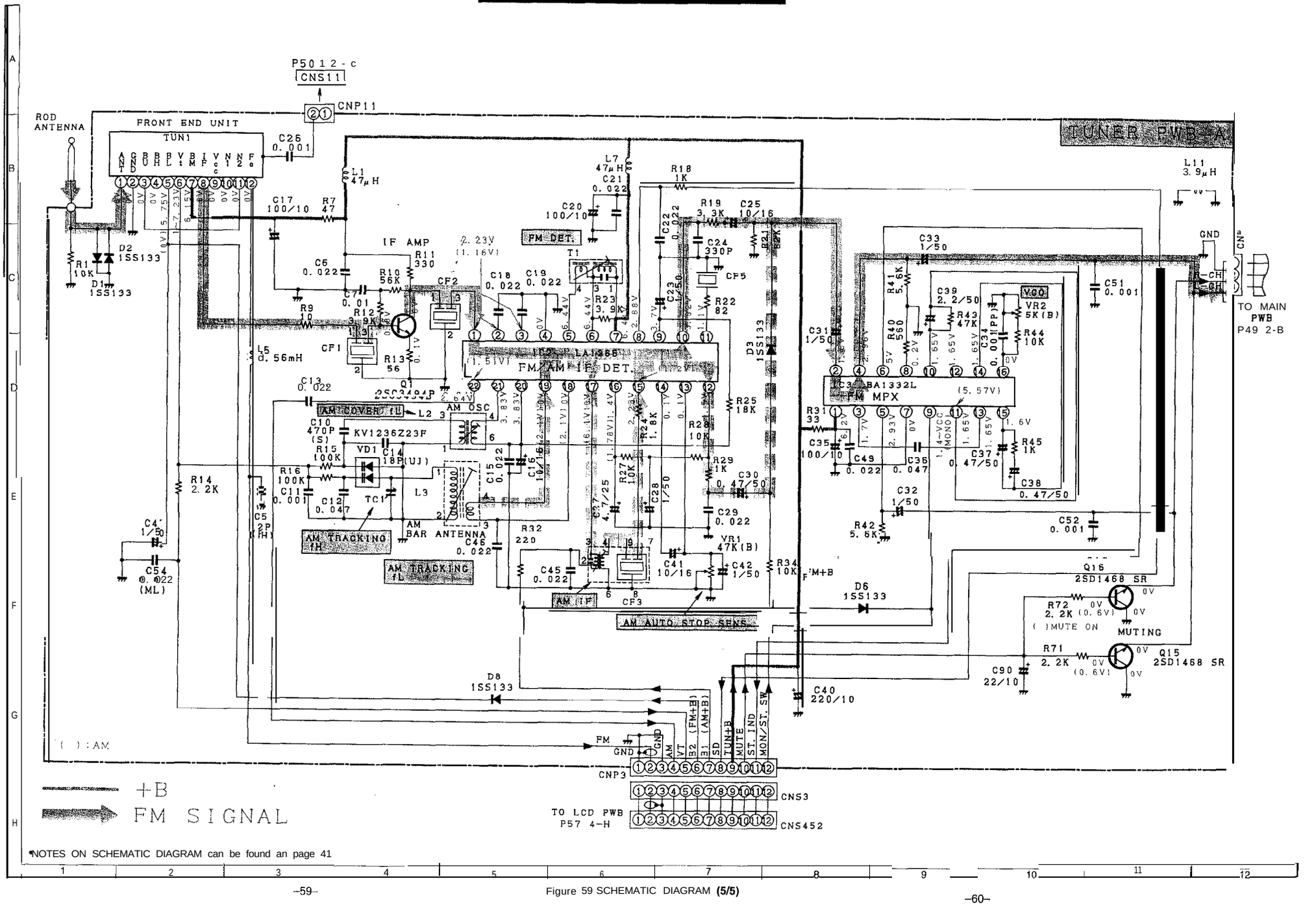


Figure 59 SCHEMATIC DIAGRAM **(5/5)**

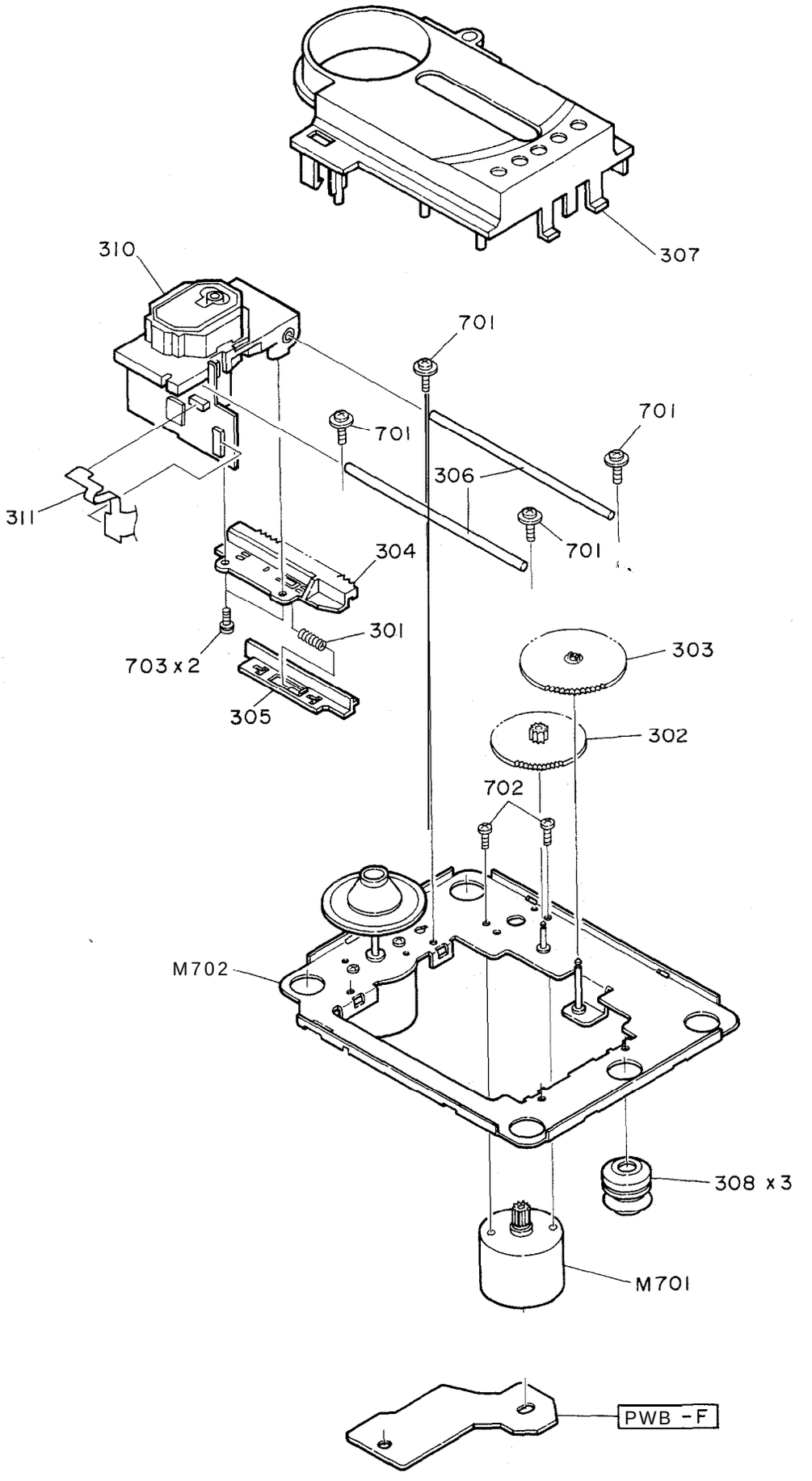


Figure 61 CD MECHANISM EXPLODED VIEW

DECK 1

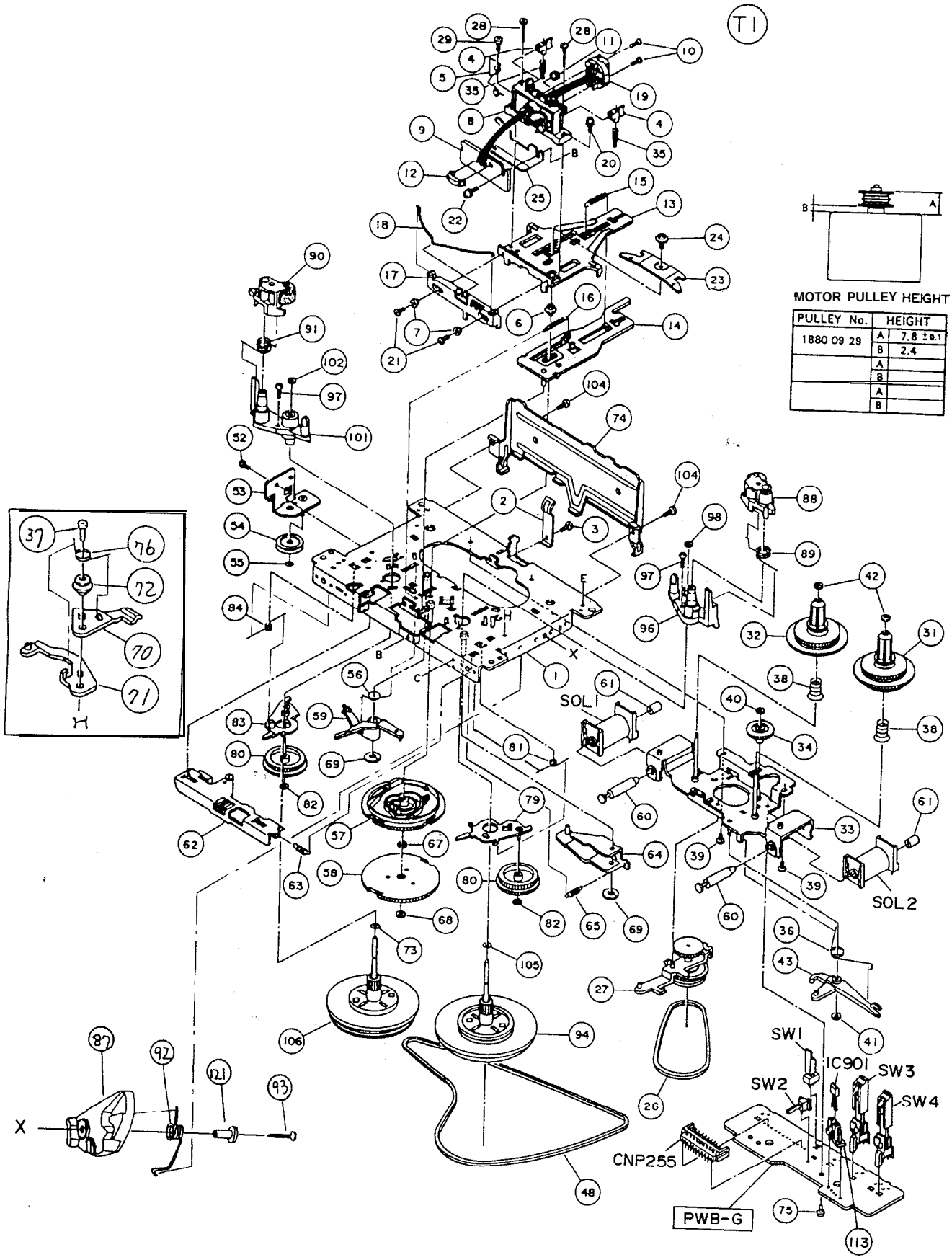


Figure 62 DECK MECHANISM EXPLODED VIEW (1/2)

DECK 2

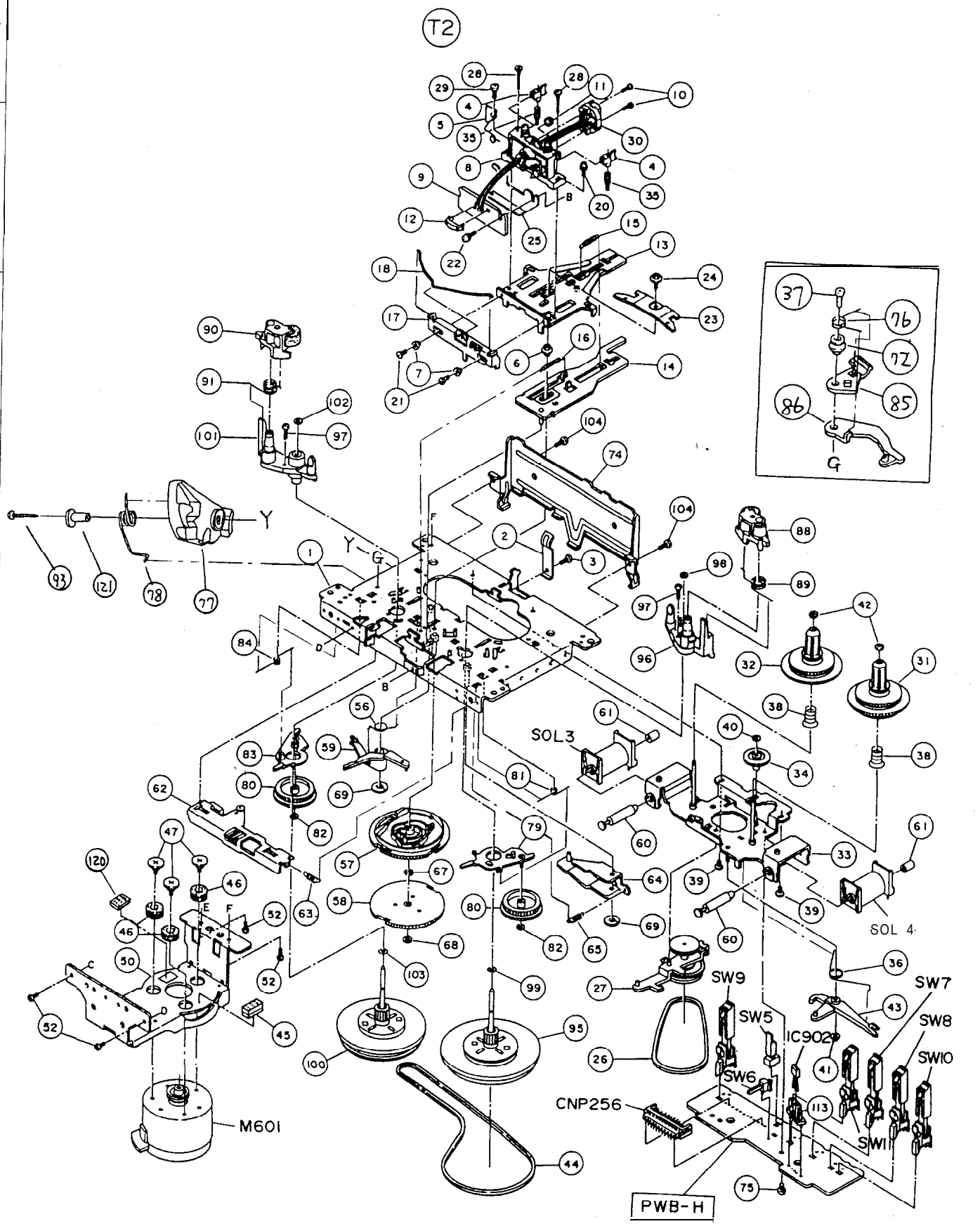


Figure 63 DECK MECHANISM EXPLODED VIEW (2/2)

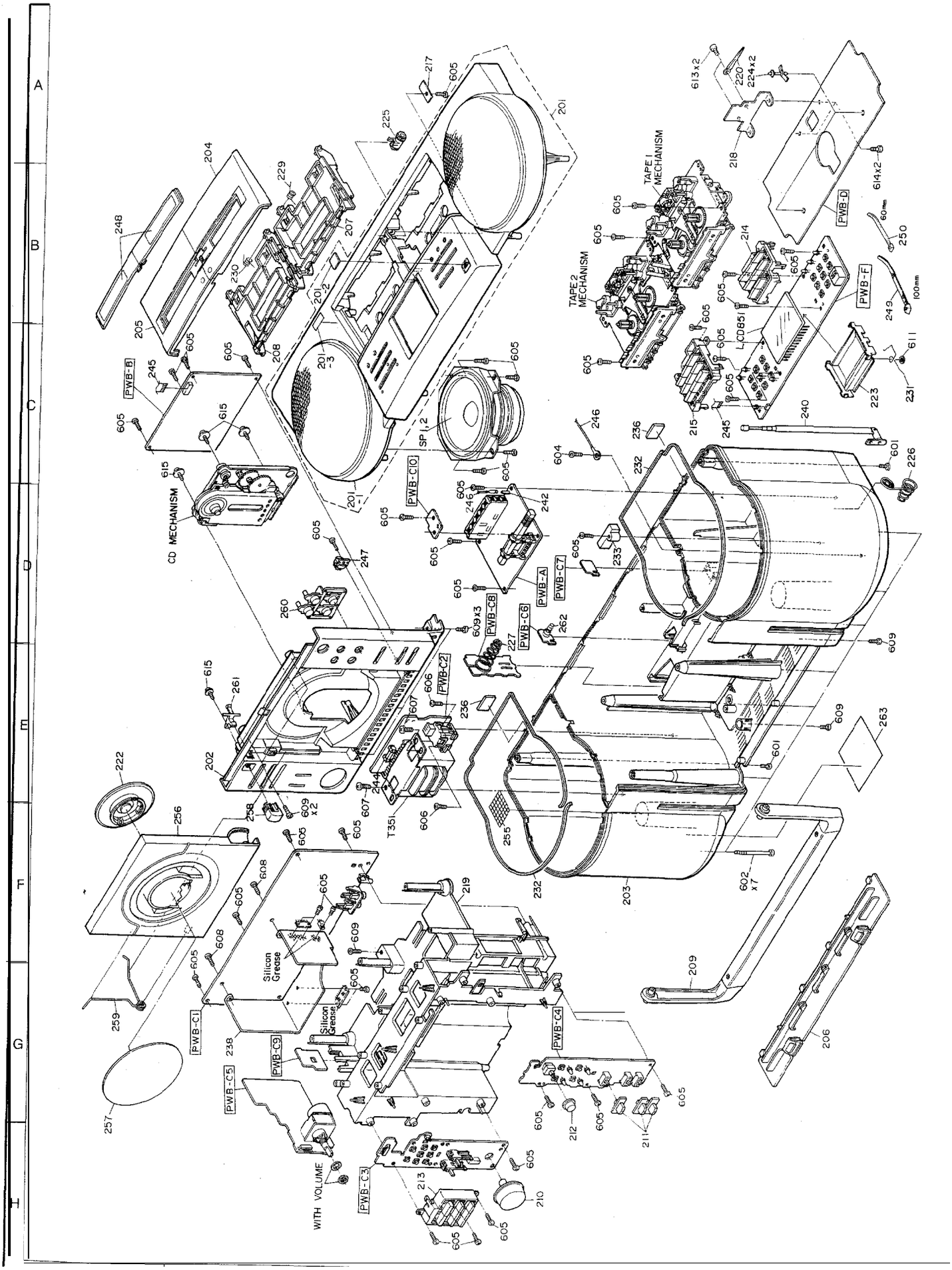


Figure 64 CABINET EXPLODED VIEW

REPLACEMENT PARTS LIST

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following information.

1. MODEL NUMBER
2. REF. NO.
3. PART NO.
4. DESCRIPTION

★MARK: SPARE PARTS-DELIVERY SECTION

NOTE:
Parts marked with "⚠" 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.	PART NO.	★	DESCRIPTION	CODE
	INTEGRATED CIRCUITS			
IC2	VHiLA1265//-1	J	AM IF/FM IF DET,LA1265	AK
IC3	VHiBA1332L/-1	J	PLL FM MPX.,BA1332L	AG
IC101	VHiM51167BFP1	J	Equalizer AMP M51167 BFP1	AL
IC251	RH-iX1851AFZZ	J	Mechanism Microcomputer,IX1851	AT
IC301	VHiBA3928//-1	J	Voltage Regulator,BA3928	AL
IC302	VHiBU3530//-1	J	Remote Control Decorder, BU3530	AN
IC401	VHiXRU74HC021	J	LED Driver,XRU74HC021	AC
IC402	VHiXRU4052B-1	J	Analogue Switch,XRU4052B	AE
IC471	VHiBA6218//-1	J	Motor Control,BA6218	AH
IC501,502	VHiXRA15218N1	J	AST Filter,XRA15218N	AC
IC503	VHiUPC4574C-1	J	AST Servo,μPC4574C	AE
IC581	VHiLA4508//-1	J	Power Amp.,LA4508	AM
IC636	RH-iX1836AFZZ	J	Tuner/Timer Control Microcomputer,μPD1715G-635-22	AT
IC700	VHiLA6534//-1	J	Tracking/Focus Driver, LA6534	AL
IC720	VHiLA6534//-1	J	Tracking/Focus Driver, LA6534	AL
IC750	VHiM51594AFP1	J	Servo Control,M51594AFP	AP
IC780	VHiM50423P/-1	J	CD Signal Control,M50423P	AW
IC781	RH-iX182 8AFZZ	J	Memory D-RAM,M69030P	AQ
IC810	VHiLC9600AM-1	J	D/A Converter,LC9600AM	AK
IC811	VHiRC4565M/-1	J	Buffer AMP,RC4565M	AC
IC814	VHiRC78L05A-1	J	Voltage Regulator,RC78L05A	AD
IC851	RH-iX180 9AFZZ	J	CD Microcomputer,M50932	AW
IC901,902	94R68040603	J	Hole,LB9050TN	AH
	TRANSISTORS			
Q1	VS2SC3494B/-1	J	Silicon,NPN,2SC3494B	AB
Q15,16	VS2SD1468SR-1	J	Silicon,NPN,2SD1468 SR	AB
Q101,102	VS2SC3199GR-1	J	Silicon,NPN,2SC3199 GR	AA
4103,104	VSDTC144ES/-1	J	Digital,NPN,DTC144 ES	AB
Q105,106	VSDTC144ES/-1	J	Digital,NPN,DTC144 ES	AB
Q107,108	VSDTC114ES/-1	J	Digital,NPN,DTC114 ES	AB
Q109,110	VSDTC144ES/-1	J	Digital,NPN,DTC144 ES	AB
Q111~114	VS2SC3200GR-1	J	Silicon,NPN,2SC3200 GR	AB
4115	VSDTA144ES/-1	J	Digital,PNP,DTA144 ES	AB
Q116,117	VSDTC144ES/-1	J	Digital,NPN,DTC144 ES	AB
4118	VS2SA1267GR-1	J	Silicon,PNP,2SA1267 GR	AA
Q119	VS2SB562-C/-1	J	Silicon,PNP,2SB562 C	AD
Q120~122	VSDTC144ES/-1	J	Digital,NPN,DTC144 ES	AB
Q123	VS2SB562-C/-1	J	Silicon,PNP,2SB562 C	AD
4175,176	VS2SC2878B/-1	J	Silicon,NPN,2SC2878 B	AC
4181	VS2SC3242-G-1	J	Silicon,NPN,2SC3242 G	AC
Q182,183	VSDTC143TS/-1	J	Digital,NPN,DTC143 TS	AB
Q251	VS2SC3199GR-1	J	Silicon,NPN,2SC3199 GR	AA
Q252	VS2SB561-C/-1	J	Silicon,PNP,2SB561 C	AC
Q253	VS2SC3199GR-1	J	Silicon,NPN,2SC3199 GR	AA
Q254	VSDTC124XS/-1	J	Digital,NPN,DTC124 XS	AB
Q255	VS2SC3199GR-1	J	Silicon,NPN,2SC3199 GR	AA
Q256	VS2SB561-C/-1	J	Silicon,PNP,2SB561 C	AC
Q257	VS2SC3199GR-1	J	Silicon,NPN,2SC3199 GR	AA
Q258	VS2SB561-C/-1	J	Silicon,PNP,2SB561 C	AC
Q259	VSDTC124XS/-1	J	Digital,NPN,DTC124 XS	AB
Q260	VS2SC3199GR-1	J	Silicon,NPN,2SC3199 GR	AA
Q261	VS2SB561-C/-1	J	Silicon,PNP,2SB561 C	AC
Q262	VS2SC3199GR-1	J	Silicon,NPN,2SC3199 GR	AA
Q263	VS2SB561-C/-1	J	Silicon,PNP,2SB561 C	AC
4264,265	VSDTC124XS/-1	J	Digital,NPN,DTC124 XS	AB
Q266	VSDTC114YS/-1	J	Digital,NPN,DTC114 YS	AB
Q267	VSDTC124XS/-1	J	Digital,NPN,DTC124 XS	AB
Q281	VS2SC1740LSR1	J	Silicon,NPN,2SC1740 LSR	AB
Q282	VS2SC2878B/-1	J	Silicon,NPN,2SC2878 B	AC
Q301	VSDTA144ES/-1	J	Digital,PNP,DTA144 ES	AB
Q302	VS2SC3198GR-1	J	Silicon,NPN,2SC3198 GR	AA
Q303	VSDTC124XS/-1	J	Digital,NPN,DTC124 XS	AB
Q304	VSDTC114ES/-1	J	Digital,NPN,DTC114 ES	AB
Q305,306	VS2SC3199GR-1	J	Silicon,NPN,2SC3199 GR	AA
Q308	VS2SC3199GR-1	J	Silicon,NPN,2SC3199 GR	AA
Q311	VS2SA1267GR-1	J	Silicon,PNP,2SA1267 GR	AA
Q312,313	VS2SC3199GR-1	J	Silicon,NPN,2SC3199 GR	AA
Q314	VS2SC3242-G-1	J	Silicon,NPN,2SC3242 G	AC
4315	VS2SB1185F/-1	J	Silicon,PNP,2SB1185 F	AK
Q316	VS2SA854SR/-1	J	Silicon,PNP,2SA854 SR	AB
Q317	VS2SB824R//-1	J	Silicon,PNP,2SB824 R	AA
Q421,422	VS2SC1740LSR1	J	Silicon,NPN,2SC1740 LSR	AB
Q501,502	VS2SC2878B/-1	J	Silicon,NPN,2SC2878 B	AC
Q506	VSDTA144ES/-1	J	Digital,PNP,DTA144 ES	AB
Q507	VS2SC3242-G-1	J	Silicon,NPN,2SC3242 G	AC
Q651	VSDTA114EK/-1	J	Digital,PNP,DTA114 EK	AB
Q652	VSDTC124EK/-1	J	Digital,NPN,DTC124 EK	AB
Q654~663	VS2SC2412KR-1	J	Silicon,NPN,2SC2412 KR	AB
Q664	VS2SA1037KR-1	J	Silicon,PNP,2SA1037 KR	AB
Q665	VS2SC2412KR-1	J	Silicon,NPN,2SC2412 KR	AB
4666	VSDTC144EK/-1	J	Digital,NPN,DTC144 EK	AB
Q683	VS2SC2412KLR1	J	Silicon,NPN,2SC2412 KLR	AB
Q684	VS2SC2412KR-1	J	Silicon,NPN,2SC2412 KR	AB
Q701	VSDTC144EK/-1	J	Digital,NPN,DTC144 EK	AB
4811,812	VSDTC114TK/-1	J	Digital,NPN,DTC114 TK	AB
Q813,814	VSDTC363TK/-1	J	Digital,NPN,DTC363 TK	AC
Q815	VSDTA144EK/-1	J	Digital,PNP,DTA144 EK	AB
4816	VSDTC144EK/-1	J	Digital,NPN,DTC144 EK	AB
Q818	VSDTA114EK/-1	J	Digital,PNP,DTA114 EK	AB
Q851	VSDTC114EK/-1	J	Digital,NPN,DTC114 EK	AB
Q890	VS2SA1235FG-1	J	Silicon,PNP,2SA1235 FG	AB
	DIODES			
DI-3	VHD1SS133//-1	J	Silicon,1SS133	AA

REF.NO.	PART NO.	*	DESCRIPTION	CODE
D6	VHD1SS133//-1	J	Silicon,1SS133	AA
D8	VHD1SS133//-1	J	Silicon,1SS133	AA
D101,102	VHD1SS133//-1	J	Silicon,1SS133	AA
D104	VHD1SS133//-1	J	Silicon,1SS133	AA
D108	VHD1SS133//-1	J	Silicon,1SS133	AA
D171	VHD1SS133//-1	J	Silicon,1SS133	AA
D251	VHD1SS133//-1	J	Silicon,1SS133	AA
D255~259	VHD1SS133//-1	J	Silicon,1SS133	AA
D301~304	VHD1SS133//-1	J	Silicon,1SS133	AA
D306	VHEHZ6C3L//-1	J	Zener,6V,HZ6C3L	AA
D308,309	VHD1SS133//-1	J	Silicon,1SS133	AA
D311~313	VHD1SS133//-1	J	Silicon,1SS133	AA
D315~321	VHD1SS133//-1	J	Silicon,1SS133	AA
⚠D351~358	VHD11ES4///-1	J	Silicon,11ES4	AB
D401~404	VHPLT5H42B/-1	J	LED,Yellow,LT5H42B	AB
D405	VHD1SS133//-1	J	Silicon,1SS133	AA
D501~504	VHD1SS133//-1	J	Silicon,1SS133	AA
D505	VHEMTZJ4R7A-1	J	Zener,4.7V,MTZJ4.7A	AA
D506	VHD1SS133//-1	J	Silicon,1SS133	AA
D581	VHD1SS133//-1	J	Silicon,1SS133	AA
D651	VHDDA119///-1	J	Silicon,DA119	AA
D652	VHDDA118///-1	J	Silicon,DA118	AB
D654/656	VHDDAN202K/-1	J	Silicon,DAN202K	AB
D655	VHDDA119///-1	J	Silicon,DA119	AA
D657	VHDDA116///-1	J	Silicon,DA116	AB
D658/659	VHDDA204K//-1	J	Silicon,DA204K	AB
D791	VHDDA118///-1	J	Silicon,DA118	AB
LED601	VHPLT3K8L//-1	J	LED,Green LT3K8L	AB
LED602	VHPLT3K8E//-1	J	LED,Green LT3K8E	AB
LED603	VHPLT3P8L//-1	J	LED,Red LT3P8L	AB
LED604	VHPLT3K8E//-1	J	LED,Green LT3K8E	AB
LED605	VHPLT3P8E//-1	J	LED,Red LT3P8E	AB
LED696	VHPLT3P8L//-1	J	LED,Red LT3P8L	AB
LED697698	VHPLT3P8E//-1	J	LED,Red LT3P8E	AB

FILTERS

CF1,2	RFiLF0166AFZZ	J	FM IF	AC
CF3	RFiLA0176AFZZ	J	AM IF,450kHz	AF
CF5	RFiLA0094AFZZ	J	AM,Auto Stop Oscillation	AE

TRANSFORMERS

T1	RCiLD0115AFZZ	J	FM Detector	AE
⚠T351	RTRNP173 5AFZZ	J	Power,(FOR TAIWAN)	AW
AT351	RTRNP1736AFZZ	J	Power,(FOR OTHER AREAS)	AW
⚠T351	RTRNP173 8AFZZ	J	Power,(FOR AUSTRALIA)	AW

COILS

LI	VP-DH470K0000	J	47 μH,Choke	AB
L2	RCiLB1086AFZZ	J	AM OSC	AC
L3	RCiLA1090AFZZ	J	AM Bar Antenna	AG
L5	VP-XHR56M0000	J	0.56 μH,Choke	AB
L7	VP-XH470K0000	J	47 μH,Choke	AB
L11	VP-DH3R9K0000	J	3.9 μH,AM Choke	AB
L101,102	RCiLC0094AFZZ	J	6.8 mH	AD
L181	VP-MK331K0000	J	330 μH,Choke	AB
L251	VP-DH101K0000	J	100 μH,Choke	AB
L252	VP-MK470K0000	J	47 μH,Choke	AB
L253	VP-CH101K0000	J	100 μH,Choke	AB
L303	VP-MK101K0000	J	100 μH,Choke	AB
L304	VP-DH101K0000	J	100 μH,Choke	AB
L471,472	VP-MK331K0000	J	330 μH,Choke	AB
L651	VP-MK101K0000	J	100 μH,Choke	AB

REF.NO.	PART NO.	★	DESCRIPTION	CODE

VARIABLE RESISTORS

VR1	RVR-MI002AFZZ	J	47 kohms (B),Semi-VR [FM Autostop Sens.]	AB
VR2	RVR-M0997AFZZ	J	5 kohms (B),Semi-VR [VCO]	AB
VR251	RVR-M0583AFZZ	J	3.3 kohms (B),Semi-VR [Tape Speed]	AB
VR481A,B	RVR-P0167AFZZ	J	100 kohm (A), [BASS]	AD
VR482A,B	RVR-P0167AFZZ	J	100 kohm (A), [TONE]	AD
VR551A,B	RVR-Z0328AFZZ	J	100 kohm (A), [VOLUME]	AT
VR700	RVR-M0590AFZZ	J	47 kohms (B),Semi-VR [Focus Offset]	AB
VR710	RVR-M0590AFZZ	J	47 kohms (B),Semi-VR [Tracking Offset]	AB
VR750	RVR-M0586AFZZ	J	10 kohm (B),Semi-VR [Tracking Gain]	AB
VR751	RVR-M0586AFZZ	J	10 kohm (B),Semi-VR [Focus Gain]	AB

VARIABLE CAPACITORS

TC1	RTō-H1165AFZZ	J	Trimmer,20 pF [AM Traching fH]	AC
VD1	VHCKV1236Z23F	J	Variable Capacitance, KV1236Z23F	AS

VIBRATORS

x301	RCRM-0042AFZZ	J	Ceramic,455 kHz	AE
X651	RCRSBO 163AFZZ	J	Crystal,75 kHz	AH
X780	RCRM-0109AFZZ	J	Ceramic,8.46 MHz	AD
X851	RCRM-0094AFZZ	J	Ceramic,4.19 MHz	AD
XL251	RCRM-0106AFZZ	J	Ceramic,4MHz	AC

CAPACITORS

There are two types of capacitors available and they can be identified from each other by reading their Part Numbers.

- Ceramic type capacitor;

A symbol "C" or "K" is given at the 3rd digit of its Part Number like "VCC (or K)·····J."

- Semiconductor type capacitor:

A symbol "T" is given at the 3rd digit of its Part Number like "VCT·····J."

The capacitance error of each capacitor is indicated by the symbol given at the 13th digit of the Part Number as follows:"J"(±5%),"K"(±10%),"M"(±20%), "N"(±30%), "C" (k0.25 pF),"D"(±0.5pF),"Z"(+80−20%).

(Tubular type ceramic capacitor is identified by the symbol TV(TQ/CY) of the part NO. VC00TV(TQ/CY)0000000; this TV(TQ/CY) does not mean the lead wire.)

(Tubular type ceramic capacitor is identified by the symbolMF(MN) of the part NO. VC00MF(MN)0000000; this MF(MN) does not mean the lead wire.)

Unless otherwise specified, electrolytic capacitors are±20%type.

c5	VCCRBT1HH120J	J	12 pF (RH),50V	AA
C6	VCTYMN1EF223Z	J	0.022 μF,25V	AA
c7	VCTYMN1CY103N	J	0.01 μF,16V	AA
C10	VCQSMAIHL471J	J	470 pF,50V,Styrol	AB
C11	VCKYMN1HB102K	J	0.001 μF,50V	AA
C12	VCKZPA1HF473Z	J	0.047 μF,50V	AA
C13	VCTYMN0JY223N	J	0.022 μF,6.3V	AA
C14	VCCUMN1HJ180J	J	18 pF (UJ),50V	AA
C15	VCTYMN0JY223N	J	0.022 μF,6.3V	AA
CI6	RC-GZA10 6AF 1C	J	10 μF,16V,Electrolytic	AB
C17	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	AB
C18,19	VCTYMN0JY223N	J	0.022 μF,6.3V	AA
C20	RC-GZA107AF 1A	J	100 μF,10V,Electrolytic	AB
C21,22	VCTYMN1EF223Z	J	0.022 μF,25V	AA
C23	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	AB
C24	VCKYMNIHB33 1K	J	330 pF,50V	AA

REF.NO.	PART NO.	*	DESCRIPTION	CODE
c25	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	AB
C26	VCTYPA1EX102K	J	0.001 μF,25V	AA
C27	RC-GZA475AF1E	J	4.7 μF,25V,Electrolytic	AB
C28	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	AB
c29	VCTYMN0JY223N	J	0.022 μF,6.3V	AA
C30	RC-GZA474AF1H	J	0.47 μF,50V,Electrolytic	AA
C31~33	RC-GZA10 5AF 1H	J	1 μF,50V,Electrolytic	AB
c34	VCQPKA2AA102J	J	0.001 μF,100V, Polypropylene	AB
c35	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	AB
C36	VCTYPA1CX473K	J	0.047 μF,16V	AA
C37,38	RC-GZA474AF1H	J	0.47 μF,50V,Electrolytic	AA
c39	RC-GZA225AF 1H	J	2.2 μF,50V,Electrolytic	AB
C40	RC-GZAP 2 7AF1A	J	220 μF,10V,Electrolytic	AB
c41	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	AB
C42	RC-GZA10 5AF 1H	J	1 μF,50V,Electrolytic	AB
c45	VCTYMN1EF223Z	J	0.022 μF,25V	AA
C46	VCTYPA1EX223K	J	0.022 μF,25V	AA
c47	RC-GZA105AF 1H	J	1 μF,50V,Electrolytic	AB
c49	VCTYMN1EF223Z	J	0.022 μF,25V	AA
C51,52	VCKYMN1HB102K	J	0.001 μF,50V	AA
c54	VCQYVA1HA223K	J	0.022 μF,50V,Mylar	AA
C90	RC-GZA226AF1A	J	22 μF,10V,Electrolytic	AB
C101,102	VCKYMN1HB471K	J	470 pF,50V	AA
C103,104	VCKYMN1HB681K	J	680 pF,50V	AA
C105,106	VCKYMN1HB271K	J	270 pF,50V	AA
C107,108	RC-GZA227AF IA	J	220 μF,10V,Electrolytic	AB
C109,110	VCTYPA1CX333K	J	0.033 μF,16V	AA
C111,112	VCKYMN1HB271K	J	270 pF,50V	AA
C113	RC-GZA227AF1A	J	220 μF,10V,Electrolytic	AB
C114	RC-GZA33 6AF1C	J	33 μF,16V,Electrolytic	AB
C115	RC-EZY 10 6AF1C	J	10 μF,16V,Electrolytic	AB
C116	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	AB
C117,118	RC-GZA105AF 1H	J	1 μF,50V,Electrolytic	AB
C119,120	VCKYBT1HB271K	J	270 pF,50V	AA
C121,122	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	AB
C123,124	VCKYMN1HB102K	J	0.001 μF,50V	AA
C125,126	RC-GZA106AF 1C	J	10 μF,16V,Electrolytic	AB
C127,128	VCTYMN1CX472K	J	0.0047 μF,16V	AA
C129,130	VCTYMN1CX682K	J	0.0068 μF,16V	AA
C131,132	VCTYPA1CX223K	J	0.022 μF,16V	AA
C133,134	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	AB
C135,136	VCTYPA1EX103K	J	0.01 μF,25V	AA
C137	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	AB
C138,139	RC-GZAI 04AF 1H	J	0.1 μF,50V,Electrolytic	AB
C140	RC-GZA476AF1A	J	47 μF,10V,Electrolytic	AB
C141,142	VCTYMN1CX682K	J	0.0068 μF,16V	AA
C143	VCKYPA1HB331K	J	330 pF,50V	AA
C144	VCKYMN1HB331K	J	330 pF,50V	AA
C145	VCKZPA1HF223Z	J	0.022 μF,50V	AA
Cl46	RC-GZA 10 5AF1H	J	1 μF,50V,Electrolytic	AB
C147	VCTYPV1EX104K	J	0.1 μF,25V	AB
C151,152	RC-GZA105AF1H	J	1 μF,50V,Electrolytic	AB
C175	RC-GZA106AF1C	J	10 μF,16V,Electrolytic	AB
Cl81	RC-GZA107AF1A	J	100 μF,10V,Electrolytic	AB
Cl82	VCQPKA2AA822J	J	0.0082 μF,100V, Polypropylene	AA
Cl83	VCCSPA1HL561J	J	560 pF,50V	AA
Cl85	VCTYPA1EX333K	J	0.033 μF,25V	AA
C215,216	VCTYPA1EX473K	J	0.047 μF,25V	AA
C251	RC-GZA476AF1C	J	47 μF,16V,Electrolytic	AB
C253	RC-GZA477AF1A	J	470 μF,10V,Electrolytic	AC
C254	VCKZPA1HF223Z	J	0.022 μF,50V	AA
C255	RC-GZA10 7AF1A	J	100 μF,10V,Electrolytic	AB
C256	RC-GZA225AF1H	J	2.2 μF,50V,Electrolytic	AB
C257	VCKZPA1HF223Z	J	0.022 μF,50V	AA
C258	VCTYPA1EX472K	J	0.0047 μF,25V	AA
c259	VCTYPV1EX472K	J	0.0047 μF,25V	AA
C260	VCTYBT1CX472K	J	0.0047 μF,25V	AA
C261	VCTYPU1EX104K	J	0.1 μF,25V	AB

REF.NO.	PART NO.	★	DESCRIPTION	CODE
C262	VCTYPU1EX104J	J	0.1 μF,25V	AB
C281	RC-GZA334AF1H	J	0.33 μF,50V,Electrolytic	AA
C282	VCKYMN1HB221K	J	220 pF,50V	AA
C283	RC-GZA105AF 1H	J	1 μF,50V,Electrolytic	AB
C284	RC-GZA107AF 1A	J	100 μF,10V,Electrolytic	AB
c291	RC-GZA105AF 1H	J	1 μF,50V,Electrolytic	AB
C301	RC-GZA225AF1H	J	2.2 μF,50V,Electrolytic	AB
C302	VCTYMN1EF223Z	J	0.022 μF,25V	AA
C303	RC-GZA224AF 1H	J	0.22 μF,50V,Electrolytic	AA
C304	RC-GZA106AF1E	J	10 μF,25V,Electrolytic	AA
C305	VCTYMN1EF223Z	J	0.022 μF,25V	AA
C307	RC-GZA225AF1H	J	2.2 μF,50V,Electrolytic	AB
C308	RC-GZAI 05AF1H	J	1 μF,50V,Electrolytic	AB
C310	RC-GZA10 6AF 1C	J	10 μF,16V,Electrolytic	AB
C311,312	VCTYMN1EF223Z	J	0.022 μF,25V	AA
c313	RC-GZA476AF1A	J	47 μF,10V,Electrolytic	AB
c314	RC-GZA475AF 1E	J	4.7 μF,25V,Electrolytic	AB
c315	RC-GZA335AF 1H	J	3.3 μF,50V,Electrolytic	AB
C316	VCTYMN1EF223Z	J	0.022 μF,25V	AA
C317	RC-GZA107AF1C	J	100 μF,16V,Electrolytic	AB
C318~321	RC-GZA475AF 1E	J	4.7 μF,25V,Electrolytic	AB
C322	RC-GZA106AF 1C	J	10 μF,16V,Electrolytic	AB
C323	VCTYMN1EF223Z	J	0.022 μF,25V	AA
C324	RC-GZA10 7AF 1A	J	100 μF,10V,Electrolytic	AB
C325	RC-GZA3 3 7AF1E	J	330 μF,25V,Electrolytic	AC
C326	VCTYPV1CX104K	J	0.1 μF,16V	AB
C351~354	VCKZPA1HF103Z	J	0.01 μF,50V	AA
C400A,B	VCKYMN1HB561K	J	560 pF,50V	AA
C401,402	VCTYPA1CX393K	J	0.039 μF,16V	AB
C403,404	VCTYMN1EF223Z	J	0.022 μF,25V	AA
C42 1,422	RC-GZA474AF1H	J	0.47 μF,50V,Electrolytic	AA
C423,424	VCTYMN1CX222K	J	0.0022 μF,16V	AA
C425,426	RC-GZA225AF 1H	J	2.2 μF,50V,Electrolytic	AB
C427	RC-GZA227AF 1A	J	220 μF,10V,Electrolytic	AB
C475,476	VCTYMN1EF223Z	J	0.022 μF,25V	AA
c477	RC-GZAI 07AFIA	J	100 μF,10V,Electrolytic	AB
C481,482	VCTYPA1CX333K	J	0.033 μF,16V	AA
C483,484	VCTYPA1CX103K	J	0.01 μF,16V	AA
C485,486	VCTYPA1CX104K	J	0.1 μF,16V	AB
C487,488	VCTYMN1CX122K	J	0.0012 μF,16V	AA
C489,490	VCTYMNO JY 183M	J	0.018 μF,6.3V	AA
C501	RC-GZA336AF1A	J	33 μF,10V,Electrolytic	AB
C503,504	VCFYHA1HA124J	J	0.12 μF,50V,Thin Film	AB
C505,506	RC-GZA105AF 1H	J	1 μF,50V,Electrolytic	AB
C519,520	VCFYHA1HA274J	J	0.27 μF,50V,Thin Film	AC
C521,522	VCFYHA1HA154J	J	0.15 μF,50V,Thin Film	AC
C523,524	VCFYHA1HA224J	J	0.22 μF,50V,Thin Film	AC
C525,526	RC-GZA226AF1A	J	22 μF,10V,Electrolytic	AB
C527,528	VCKYBT1HB391K	J	390 pF,50V	AA
C529,530	VCCSPU1HL151J	J	150pF,50V	AA
C531,532	RC-GZAP 2 6AF1A	J	22 μF,10V,Electrolytic	AB
C533,534	VCFYHA1HA224J	J	0.22 μF,50V,Thin Film	AC
C535,536	VCKYMN1HB102K	J	0.001 μF,50V	AA
C537,538	VCFYHA1HA274J	J	0.27 μF,50V,Thin Film	AC
C539,540	VCTYPA1CX104J	J	0.1 μF,16V	AB
C541,542	RC-GZA10 6AF 1C	J	10 μF,16V,Electrolytic	AB
c543	RC-GZA477AF1A	J	470 μF,10V,Electrolytic	AC
C545,546	RC-GZA476AF 1A	J	47 μF,10V,Electrolytic	AB
c547	VCTYMN1EF223Z	J	0.022 μF,25V	AA
C548	RC-GZA476AF1A	J	47 μF,10V,Electrolytic	AB
c549	RC-GZA477AFOJ	J	470 μF,6.3V,Electrolytic	AB
C550	RC-GZA227AF 1C	J	220 μF,16V,Electrolytic	AB
C551,552	VCTYMN1CX222K	J	0.0022 μF,16V	AA
C553,554	VCTYPA1CX104K	J	0.1 μF,16V	AB
C555,556	VCCSPV1HL101J	J	100 pF,50V	AA
C571	RC-GZA476AF1A	J	47 μF,10V,Electrolytic	AB
C581,582	RC-GZA227AF 1A	J	220 μF,10V,Electrolytic	AB
C583	RC-GZA227AF1C	J	220 μF,16V,Electrolytic	AB
C585,586	RC-GZA107AF IA	J	100 μF,10V,Electrolytic	AB
C587,588	RC-QZA184AFYJ	J	0.18 μF,50V,Mylar	AC

REF.NO.	PART NO.	★	DESCRIPTION	CODE
C589,590	RC-GZV2 28AF 1C J		2200 μF,16V,Electrolytic	AG
C591	RC-GZA105AF1H J		1 μF,50V,Electrolytic	AB
c592	RC-GZ005 1AFZZ J		4700 μF,20V,Electrolytic	AH
C593,594	VCKYMN1HB102K J		0.001 μF,50V	AA
C597,598	RC-GZAI 0 6AF 1C J		10 μF,16V,Electrolytic	AB
C651	RC-GZA10 6AF 1C J		10 μF,16V,Electrolytic	AB
C652	VCKYTV1EF223Z J		0.022 μF,25V	AA
C653	VCKYTV1EF104Z J		0.1 μF,25V	AA
C654	VCKYTV1EB103K J		0.01 μF,25V	AA
C655	VCKYTV1EF104Z J		0.1 μF,25V	AA
C656	VCCSTV1HL101J J		100 pF,50V	AA
C657,658	VCCCTV1HH220J J		2.2 pF (CH),50V	AA
C687	VCKYTV1EF223Z J		0.022 μF,25V	AA
C688	VCEALA1HW225M J		2.2 μF,50V,Electrolytic	AB
C689	VCKYTV1HB472K J		0.0047 μF,50V	AA
C690	RC-EZY 10 5AF 1H J		1 μF,50V,Electrolytic	AB
C701	VCKYMN1HB121K J		120 pF,50V	AA
C704	VCKYTV1EF104Z J		0.1 μF,25V	AA
C710	VCKYMN1HB681K J		680 pF,50V	AA
C712	VCKYTV1EF104Z J		0.1 μF,25V	AA
C716	VCTYMN1EF223Z J		0.022 μF,25V	AA
C719	VCKYTV1CF334Z J		0.33 μF,16V	AB
C720~723	VCKYTV1EF473Z J		0.047 μF,25V	AB
C724	VCKYTV1EF104Z J		0.1 μF,25V	AA
C725	VCTYMN1EF223Z J		0.022 μF,25V	AA
c744	VCKYTV1EF104Z J		0.1 μF,25V	AA
c745	VCCSTV1HL221J J		220 pF,50V	AA
C750	VCTYMN1CX222K J		0.0022 μF,16V	AA
C752	VCKRTV1CR104K J		0.1 μF,16V	AA
c754	RC-GZA106AF1C J		10 μF,16V,Electrolytic	AB
c755	VCKYTV1EF104Z J		0.1 μF,25V	AA
C756	VCKYMN1HB102K J		0.001 μF,50V	AA
c757	VCKYTV1EF104Z J		0.1 μF,25V	AA
C758	RC-GZA106AF 1C J		10 μF,16V,Electrolytic	AB
c759	VCKYMN1HB561K J		560 pF,50V	AA
C760	VCKRTV1CR154K J		0.15 μF,16V	AB
C761	VCKYTV1HB562K J		0.0056 μF,50V	AA
C762	RC-GZA476AF1A J		47 μF,10V,Electrolytic	AB
C763	VCKRTV1CR184K J		0.18 μF,16V	AC
C764	VCKYMN1HB121K J		120 pF,50V	AA
C765	VCKRTV1CX563K J		0.056 μF,16V	AB
C766	VCKRTV 1CR154K J		0.15 μF,16V	AB
C767	RC-GZA226AF1C J		22 μF,16V,Electrolytic	AB
C768	RC-GZA476AF1A J		47 μF,10V,Electrolytic	AB
C769	VCKYTV1EF104Z J		0.1 μF,25V	AA
C770	RC-GZA476AF IA J		47 μF,10V,Electrolytic	AB
c775	VCCSTV1HL221J J		220 pF,50V	AA
C780	VCTYMN1CX222K J		0.0022 μF,16V	AA
C783	VCKYTV1EB223K J		0.022 μF,25V	AB
C784	VCKYMN1HB471K J		470 pF,50V	AA
C785	VCKRTV1CR124K J		0.12 μF,16V	AB
C786	RC-GZA106AF1C J		10 μF,16V,Electrolytic	AB
C787	VCKYTV1EF104Z J		0.1 μF,25V	AA
C788	VCKYTV1CF334Z J		0.33 μF,16V	AB
C789	VCKYTV1EF104Z J		0.1 μF,25V	AA
c793	VCKYTV1HB103K J		0.01 μF,50V	AB
C800	RC-GZA476AF1A J		47 μF,10V,Electrolytic	AB
C801	VCKYTV1EF104Z J		0.1 μF,25V	AA
C802	RC-GZA476AF1A J		47 μF,10V,Electrolytic	AB
C810	VCKYTV1CF334Z J		0.33 μF,16V	AB
C811	VCKYTV1EF104Z J		0.1 μF,25V	AA
C817,818	VCKYTV1CB823K J		0.082 μF,16V	AB
C829,830	RC-GZA106AF1C J		10 μF,16V,Electrolytic	AB
C831	VCKYMN1HB102K J		0.001 μF,50V	AA
C832	VCKYMN1HB102K J		0.001 μF,50V	AA
ca34	VCKYTV1EF104Z J		0.1 μF,25V	AA
C835,836	RC-GZA4 76AF 1A J		47 μF,10V,Electrolytic	AB
C840	RC-GZA475AF 1 E J		4.7 μF,25V,Electrolytic	AB
C841	VCTYMN1CY 103N J		0.01 μF,16V	AA
C851~853	VCKYTV1HB103K J		0.01 μF,50V	AB
C854,855	RC-GZAI 06AF1C J		10 μF,16V,Electrolytic	AB
C856~859	VCKYTV1HB102K J		0.001 μF,50V	AA
caa3	VCKYTV1EF104Z J		0.1 μF,25V	AA
C884	RC-GZA107AF1A J		100 μF,10V,Electrolytic	AB
C886	RC-GZA107AF 1A J		100 μF,10V,Electrolytic	AB
C887	VCKYTV1EF104Z J		0.1 μF,25V	AA
C888	VCKYMN1HB102K J		0.001 μF,50V	AA
C890	VCKYTV1EF473Z J		0.047 μF,25V	AB
C899	VCKYMN1HB271K J		270 pF,50V	AA

RESISTORS

(Unless otherwise specified, resistors are ±5%,carbon type.) (Tubular type carbon film resistor ±5% is identified the symbol TV(TQ/CY) of the part NO. VRS-TV(TQ/CY)OOOOOOO; this TV(TQ/CY) does not mean lead wire.)
(Tubular type carbon film resistor ±5% is identified the symbol MF(MN) of the part NO. VRD-MF(MN)0000000; this MF(MN) does not mean lead wire.)

	VRD-MN2BDOOOC J		0 ohm,Jumper,φ1.4×3.5mm, Ivory	A A
	VRS-TQ2BB000J J		0 ohm,Jumper,1.55×3.1mm, Green	A A
R1	VRD-MN2BD103J J		10 kohm,1/8W	AA
R7	VRD-ST2CD470J J		47 ohms,1/6W	AA
R9	VRD-MN2BD100 J J		10 ohm,1/8W	AA
R10	VRD-MN2BD563J J		56 kohms,1/8W	AA
R11	VRD-ST2CD331J J		330 ohms,1/6W	AA
R12	VRD-MN2BD392 J J		3.9 kohms,1/8W	AA
R13	VRD-MN2BD560 J J		56 ohms,1/8W	AA
R14	VRD-MN2BD222 J J		2.2 kohms,1/8W	AA
R15,16	VRD-MN2BD104J J		100 kohm,1/8W	AA
R18	VRD-MN2BD102J J		1 kohm,1/8W	AA
R19	VRD-MN2BD332J J		3.3 kohms,1/8W	AA
R21	VRD-MN2BD823 J J		82 kohms,1/8W	AA
R22	VRD-MN2BD820 J J		82 ohms,1/8W	AA
R23	VRD-MN2BD392 J J		3.9 kohms,1/8W	AA
R24	VRD-MN2BD182J J		1.8 kohms,1/8W	AA
R25	VRD-ST2CD183J J		18 kohms,1/6W	AA
R27,28	VRD-MN2BD103J J		10 kohm,1/8W	AA
R29	VRD-MN2BD102J J		1 kohm,1/8W	AA
R31	VRD-MN2BD330J J		33 ohms,1/8W	AA
R32	VRD-MN2BD221 J J		220 ohms,1/8W	AA
R34	VRD-MN2BD103J J		10 kohm,1/8W	AA
R40	VRD-MN2BD561 J J		560 ohms,1/8W	AA
R41,42	VRD-MN2BD562 J J		5.6 kohms,1/8W	AA
R43	VRD-MN2BD473 J J		47 kohms,1/8W	AA
R44	VRD-MN2BD103J J		10 kohm,1/8W	AA
R45	VRD-MN2BD102J J		1 kohm,1/8W	AA
R71,72	VRD-MN2BD222J J		2.2 kohms,1/8W	AA
R101,102	VRD-MN2BD102J J		1 kohm,1/8W	AA
R103~105	VRD-MN2BD103J J		10 kohm,1/8W	AA
R107,108	VRD-MN2BD330 J J		33 ohms,1/8W	AA
R109,110	VRD-MN2BD392 J J		3.9 kohms,1/8W	AA
R111,112	VRD-MN2BD682J J		6.8 kohms,1/8W	AA
R113,114	VRD-MN2BD103J J		10 kohm,1/8W	AA
R115,116	VRD-MN2BD563J J		56 kohms,1/8W	AA
R117,118	VRD-ST2CD182J J		1.8 kohms,1/6W	AA
R121,122	VRD-MN2BD331J J		330 ohms,1/8W	AA
R123,124	VRD-MN2BD182 J J		1.8 kohms,1/8W	AA
R125,126	VRD-MN2BD332J J		3.3 kohms,1/8W	AA
R127,128	VRD-MN2BD822J J		8.2 kohms,1/8W	AA
R129	VRD-ST2CD104J J		100 kohm,1/6W	AA
R130	VRD-MN2BD222J J		2.2 kohms,1/8W	AA
R131	VRD-MN2BD223 J J		22 kohms,1/8W	AA
R132	VRD-MN2BD474J J		470 kohms,1/8W	AA
R134	VRD-MN2BD274J J		270 kohms,1/8W	AA
R135	VRD-MN2BD105J J		1 Mohm,1/8W	AA
R136	VRD-MN2BD103J J		10 kohm,1/8W	AA
R137	VRD-STPCD 12 3J J		12 kohms,1/6W	AA
R138	VRD-MN2BD123J J		12 kohms,1/8W	AA

REF.NO.	PART NO.	★	DESCRIPTION	CODE
R139	VRD-ST2CD101J	J	100 ohm,1/6W	AA
R141	VRD-ST2CD332J	J	3.3 kohms,1/6W	AA
R142	VRD-MN2BD332J	J	3.3 kohms,1/8W	AA
R143	VRD-MN2BD222J	J	2.2 kohms,1/8W	AA
R144	VRD-ST2CD222J	J	2.2 kohms,1/6W	AA
R147	VRD-ST2CD822J	J	8.2 kohms,1/6W	AA
R148	VRD-MN2BD822J	J	8.2 kohms,1/8W	AA
R149,150	VRD-MN2BD392J	J	3.9 kohms,1/8W	AA
R151	VRD-ST2CD123J	J	12 kohms,1/6W	AA
R152	VRD-MN2BD123J	J	12 kohms,1/8W	AA
R153	VRD-MN2BD472J	J	4.7 kohms,1/8W	AA
R154	VRD-MN2BD391J	J	390 ohms,1/8W	AA
R155	VRD-MN2BD221J	J	220 ohms,1/8W	AA
R156	VRD-ST2CD151J	J	150 ohms,1/6W	AA
R157	VRD-ST2CD151J	J	150 ohms,1/6W	AA
R158	VRD-MN2BD563J	J	56 kohms,1/8W	AA
R159	VRD-MN2BD222J	J	2.2 kohms,1/8W	AA
R160	VRD-MN2BD563J	J	56 kohms,1/8W	AA
R161	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R162	VRD-ST2CD103J	J	10 kohm,1/6W	AA
R163	VRD-MN2BD822J	J	8.2 kohms,1/8W	AA
R164	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R165	VRD-MN2BD563J	J	56 kohms,1/8W	AA
R166	VRD-ST2CD102J	J	1 kohm,1/6W	AA
R167,168	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R169~171	VRD-ST2CD472J	J	4.7 kohms,1/6W	AA
R173,174	VRD-MN2BD122J	J	1.2 kohms,1/8W	AA
R175,176	VRD-ST2CD472J	J	4.7 kohms,1/6W	AA
R177	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R179	VRD-MN2BD682J	J	6.8 kohms,1/8W	AA
R180	VRD-MN2BD682J	J	6.8 kohms,1/8W	AA
AR181	RH-QX1053AFZZ	J	3.9 ohms,Posistor	AE
R183	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R184	VRD-MN2BD273J	J	27 kohms,1/8W	AA
R185	VRD-ST2CD4R7J	J	4.7 ohms,1/6W	AA
R191	VRD-MN2BD392J	J	3.9 kohms,1/8W	AA
R192	VRD-MN2BD392J	J	3.9 kohms,1/8W	AA
R215	VRD-ST2CD393J	J	39 kohms,1/6W	AA
R216	VRD-MN2BD393J	J	39 kohms,1/8W	AA
R217	VRD-MN2BD223J	J	22 kohm,1/8W	AA
R218	VRD-MN2BD223J	J	22 kohm,1/8W	AA
R219	VRD-ST2CD562J	J	5.6 kohms,1/6W	AA
R220	VRD-MN2BD562J	J	5.6 kohms,1/8W	AA
R231	VRD-ST2CD331J	J	330 kohms,1/6W	AA
⚠R234	RH-QX1052AFZZ	J	2.2 ohms,Posistor	AE
R235,237	VRD-ST2CD472J	J	47 kohms,1/6W	AA
R236	VRD-ST2CD472J	J	47 kohms,1/6W	AA
R238	VRD-ST2CD181J	J	180 ohms,1/6W	AA
R239	VRD-SA2CD181J	J	180 kohms,1/6W	AA
R240	VRD-MN2BD181J	J	180 ohms,1/8W	AA
R241	VRD-MN2BD331J	J	330 ohms,1/8W	AA
R242	VRD-ST2CD103J	J	10 kohm,1/6W	AA
R243	VRD-ST2CD102J	J	1 kohm,1/6W	AA
R244	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R245	VRD-ST2CD102J	J	1 kohm,1/6W	AA
R246,247	VRD-ST2CD103J	J	10 kohm,1/6W	AA
R248	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R249	VRD-ST2CD103J	J	10 kohm,1/6W	AA
R250	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R251	VRD-ST2CD822J	J	8.2 kohms,1/6W	AA
R252	VRD-ST2CD332J	J	3.3 kohms,1/6W	AA
R253~255	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R256	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R257	VRD-MN2BD223J	J	22 kohms,1/8W	AA
R258	VRD-MN2BD182J	J	1.8 kohms,1/8W	AA
R259,260	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R261	VRD-MN2BD182J	J	1.8 kohms,1/8W	AA
R262,263	VRD-MN2BD223J	J	22 kohms,1/8W	AA
R264~268	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R269,270	VRD-MN2BD223J	J	22 kohms,1/8W	AA

REF.NO.	PART NO.	★	DESCRIPTION	CODE
R271	VRD-MN2BD182J	J	1.8 kohms,1/8W	AA
R272	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R273	VRD-MN2BD182J	J	1.8 kohms,1/8W	AA
R274	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R275~278	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R279	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R281	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R282	VRD-MN2BD472J	J	4.7 kohms,1/8W	AA
R283	VRD-MN2BD564J	J	560 kohms,1/8W	AA
R284	VRD-MN2BD272J	J	2.7 kohms,1/8W	AA
R285	VRD-MN2BD270J	J	27 ohms,1/8W	AA
R286	VRD-MN2BD561J	J	560 ohms,1/8W	AA
R287,288	VRD-ST2CD223J	J	22 kohms,1/6W	AA
R292	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R301	VRD-ST2CD223J	J	22 kohms,1/6W	AA
R302	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R303	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R304	VRD-MN2BD681J	J	680 ohms,1/8W	AA
R305	VRD-MN2BD333J	J	33 kohms,1/8W	AA
R306	VRD-MN2BD681J	J	680 ohms,1/8W	AA
R309,310	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R311	VRD-MN2BD223J	J	22 kohms,1/8W	AA
R312	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R313,314	VRD-ST2CD153J	J	15 kohms,1/6W	AA
R315	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R316	VRD-MN2BD224J	J	220 kohms,1/8W	AA
R317	VRD-MN2BD563J	J	56 kohms,1/8W	AA
R318	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R319	VRD-MN2BD182J	J	1.8 kohms,1/8W	AA
R320	VRD-MN2BD562J	J	5.6 kohms,1/8W	AA
R321	VRD-ST2CD331J	J	330 ohms,1/6W	AA
⚠R322	VRG-ST2EG1R0J	J	1 ohm,1/4W,Fusible	A0
R323	VRD-ST2CD222J	J	2.2 kohms,1/6W	AA
⚠R324	VRG-ST2EG3R9J	J	3.9 ohms,1/4W,Fusible	AB
R325	VRD-ST2CD334J	J	330 kohms,1/6W	AA
R326	VRD-MN2BD334J	J	330 kohms,1/8W	AA
R327	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R328	VRD-MN2BD182J	J	1.8 kohms,1/8W	AA
R329	VRD-MN2BD105J	J	1 Mohm,1/8W	AA
R330	VRD-MN2BD154J	J	150 kohms,1/8W	AA
R331	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R332	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R333	VRD-MN2BD334J	J	330 kohms,1/8W	AA
R334	VRD-MN2BD563J	J	56 kohms,1/8W	AA
R335	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R336	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R401	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R402	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R403,404	VRD-MN2BD332J	J	3.3 kohms,1/8W	AA
R405,406	VRD-MN2BD223J	J	22 kohms,1/8W	AA
R407,408	VRD-MN2BD472J	J	4.7 kohms,1/8W	AA
R409,410	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R411,412	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R413	VRD-MN2BD151J	J	150 ohms,1/8W	AA
R414~416	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R419,420	VRD-MN2BD472J	J	4.7 kohms,1/8W	AA
R421	VRD-MN2BD154J	J	150 kohms,1/8W	AA
R422	VRD-MN2BD154J	J	150 kohms,1/8W	AA
R423	VRD-ST2CD272J	J	2.7 kohms,1/6W	AA
R424	VRD-MN2BD272J	J	2.7 kohms,1/8W	AA
R425,426	VRD-MN2BD820J	J	82 ohms,1/8W	AA
R429	VRD-MN2BD221J	J	220 ohms,1/8W	AA
R475,476	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R481,482	VRD-MN2BD122J	J	1.2 kohms,1/8W	AA
R483,484	VRD-MN2BD223J	J	22 kohms,1/8W	AA
R485,486	VRD-MN2BD182J	J	1.8 kohms,1/8W	AA
R487,488	VRD-MN2BD222J	J	2.2 kohms,1/8W	AA
R489,490	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R501,502	VRD-MN2BD222J	J	2.2 kohms,1/8W	AA
R503,504	VRD-MN2BD472J	J	4.7 kohms,1/8W	AA

REF.NO.	PART NO.	★	DESCRIPTION	CODE
R505,506	VRD-MN2BD153J	J	15 kohms,1/8W	AA
R507,508	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R509	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R511,512	VRD-MN2BD101J	J	100 ohm,1/8W	AA
R513,514	VRD-MN2BD273J	J	27 kohms,1/8W	AA
R515,516	VRD-MN2BD222J	J	2.2 kohms,1/8W	AA
R517,518	VRD-MN2BD563J	J	56 kohms,1/8W	AA
R519,520	VRD-MN2BD123J	J	12 kohms,1/8W	AA
R521,522	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R523,524	VRD-MN2BD123J	J	-12 kohms,1/8W	AA
R525,526	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R527,528	VRD-MN2BD681J	J	680 ohms,1/8W	AA
R529~532	VRD-MN2BD223J	J	22 kohms,1/8W	AA
R533,534	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R535,536	VRD-MN2BD222J	J	2.2 kohms,1/8W	AA
R537,538	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R539,540	VRD-MN2BD153J	J	15 kohms,1/8W	AA
R541,542	VRD-MN2BD223J	J	22 kohms,1/8W	AA
R543	VRD-MN2BD221J	J	220 ohms,1/8W	AA
R545,546	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R547,548	VRD-MN2BD682J	J	6.8 kohms,1/8W	AA
R549,550	VRD-MN2BD332J	J	3.3 kohms,1/8W	AA
R551~554	VRD-MN2BD472J	J	4.7 kohms,1/8W	AA
R555,556	VRD-MN2BD332J	J	3.3 kohms,1/8W	AA
R557,558	VRD-ST2CD102J	J	1 kohm,1/6W	AA
R559,560	VRD-MN2BD472J	J	4.7 kohms,1/8W	AA
R561,562	VRD-MN2BD562J	J	5.6 kohms,1/8W	AA
R563,564	VRD-ST2CD822J	J	8.2 kohms,1/6W	AA
R565	VRD-MN2BD221J	J	220 ohms,1/8W	AA
R566	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R567	VRD-MN2BD122J	J	1.2 kohms,1/8W	AA
R570	VRD-ST2CD224J	J	220 kohms,1/6W	AA
R571	VRD-MN2BD333J	J	33 kohms,1/8W	AA
R572	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R573,574	VRD-MN2BD682J	J	6.8 kohms,1/8W	AA
R575,576	VRD-MN2BD221J	J	220 ohms,1/8W	AA
R589,590	VRS-FC3DAR22J	J	0.22 ohms,2W	AA
R591	VRD-ST2CD151J	J	150 ohms,1/6W	AA
R592	VRD-MN2BD151J	J	150 ohms,1/8W	AA
R651	VRS-TV2AB104J	J	100 kohm,1/10W	AA
R652	VRS-TV2AB332J	J	3.3 kohms,1/10W	AA
R653	VRS-TV2AB221J	J	220 ohms,1/10W	AA
R654	VRS-TV2AB273J	J	27 kohms,1/10W	AA
R655	VRS-TV2AB223J	J	22 kohms,1/10W	AA
R656,657	VRS-TV2AB104J	J	100 kohm,1/10W	AA
R658	VRS-TV2AB154J	J	150 kohms,1/10W	AA
R659	VRS-TV2AB224J	J	220 kohms,1/10W	AA
R660	VRS-TV2AB102J	J	1 kohm,1/10W	AA
R661,662	VRS-TV2AB224J	J	220 kohms,1/10W	AA
R663	VRS-TV2AB103J	J	10 kohm,1/10W	AA
R664	VRS-TV2AB224J	J	220 kohms,1/10W	AA
R665	VRS-TV2AB103J	J	10 kohm,1/10W	AA
R666	VRS-TV2AB224J	J	220 kohms,1/10W	AA
R667	VRS-TV2AB103J	J	10 kohm,1/10W	AA
R668	VRS-TV2AB224J	J	220 kohms,1/10W	AA
R669	VRS-TV2AB103J	J	10 kohm,1/10W	AA
R670~673	VRS-TV2AB224J	J	220 kohms,1/10W	AA
R674	VRS-TV2AB333J	J	33 kohms,1/10W	AA
R675	VRS-TQ2BB152J	J	1.5 kohms,1/8W	AA
R682,683	VRS-TV2AB103J	J	10 kohm,1/10W	AA
R684	VRD-SA2CD472J	J	4.7 kohms,1/6W	AA
R685	VRD-SA2CD103J	J	10 kohm,1/6W	AA
R686	VRS-TV2AB153J	J	15 kohms,1/10W	AA
R687,688	VRS-TV2AB472J	J	4.7 kohms,1/10W	AA
R689	VRS-TV2AB332J	J	3.3 kohms,1/10W	AA
R697	VRS-TQ2BB471J	J	470 ohms,1/8W	AA
R698	VRS-TQ2BB331J	J	330 ohms,1/8W	AA
R700	VRD-MN2BD105J	J	1 Mohm,1/8W	AA
R702	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R704,705	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R706	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R707	VRD-MN2BD2R2J	J	2.2 ohms,1/8W	AA
R710	VRD-MN2BD334J	J	330 kohms,1/8W	AA
R711	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R712	VRD-MN2BD223J	J	22 kohms,1/8W	AA
R713	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R714	VRD-MN2BD223J	J	22 kohms,1/8W	AA
R715	VRD-MN2BD823J	J	82 kohms,1/8W	AA
R716	VRD-MN2BD2R2J	J	2.2 ohms,1/8W	AA
R718,719	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R720,721	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R722,723	VRS-TV2AB124J	J	120 kohms,1/10W	AA
R724	VRS-TV2AB563J	J	56 kohms,1/10W	AA
R725	VRD-MN2BD563J	J	56 kohms,1/8W	AA
R732	VRD-MN2BD2R2J	J	2.2 ohms,1/8W	AA
R741	VRD-MN2BD682J	J	6.8 kohms,1/8W	AA
R742	VRS-TV2AB2R2K	J	2.2 ohms,1/10W,±10%	AA
R743	VRD-MN2BD223J	J	22 kohms,1/8W	AA
R745	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R749	VRD-MN2BD393J	J	39 kohms,1/8W	AA
R751	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R752	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R753	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R754	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R756	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R757	VRD-MN2BD153J	J	15 kohms,1/8W	AA
R758	VRD-MN2BD392J	J	3.9 kohms,1/8W	AA
R759	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R760	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R761	VRD-MN2BD153J	J	15 kohms,1/8W	AA
R762	VRD-MN2BD472J	J	4.7 kohms,1/8W	AA
R763	VRS-TV2AB562J	J	5.6 kohms,1/10W	AA
R764	VRD-MN2BD472J	J	4.7 kohms,1/8W	AA
R765	VRS-TV2AB223J	J	22 kohms,1/10W	AA
R766	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R767	VRS-TV2AB823J	J	82 kohms,1/10W	AA
R768	VRS-TV2AB473J	J	47 kohms,1/10W	AA
R769	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R770	VRD-MN2BD222J	J	2.2 kohms,1/8W	AA
R771	VRD-MN2BD183J	J	18 kohms,1/8W	AA
R772	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R773	VRD-MN2BD331J	J	330 ohms,1/8W	AA
R774	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R776	VRD-MN2BD105J	J	1 Mohm,1/8W	AA
R777	VRD-MN2BD682J	J	6.8 kohms,1/8W	AA
R778,779	VRD-MN2BD473J	J	47 kohms,1/8W	AA
R781	VRD-MN2BD333J	J	33 kohms,1/8W	AA
R785	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R786	VRS-TV2AB223J	J	22 kohms,1/10W	AA
R788	VRD-MN2BD124J	J	120 kohms,1/8W	AA
R790	VRD-MN2BD222J	J	2.2 kohms,1/8W	AA
R793	VRD-MN2BD155J	J	1.5 Mohms,1/8W	AA
R794	VRD-MN2BD104J	J	100 kohm,1/8W	AA
R795~798	VRS-TV2AB561J	J	560 ohms,1/10W	AA
R801	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R813,814	VRD-MN2BD471J	J	470 ohms,1/8W	AA
R815,816	VRD-MN2BD181J	J	180 ohms,1/8W	AA
R817,818	VRS-TV2AB105J	J	1 Mohm,1/10W	AA
R833	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R834	VRD-MN2BD103J	J	10 kohm,1/8W	AA
R835,836	VRD-MN2BD102J	J	1 kohm,1/8W	AA
R839	VRD-MN2BD332J	J	3.3 kohms,1/8W	AA
R851~853	VRS-TV2AB104J	J	100 kohm,1/10W	AA
R854	VRS-TV2AB823J	J	82 kohms,1/10W	AA
R855	VRS-TV2AB102J	J	1 kohm,1/10W	AA
R856	VRS-TV2AB105J	J	1 Mohm,1/10W	AA
R857	VRS-TV2AB563J	J	56 kohms,1/10W	AA
R858	VRD-SA2CD473J	J	47 kohms,1/6W	AA
R861,862	VRS-TV2AB473J	J	47 kohms,1/10W	AA
R863	VRS-TV2AB473J	J	47 kohms,1/10W	AA

REF.NO.	PART NO.	*	DESCRIPTION	CODE
R891	VRD-MN2BD473JJ4 7 kohms,1/8W			A A
	OTHER CIRCUITRY PARTS			
BI312A/B/CNS312	QCNWN5108AFZZ		**J Connector** Ass'y,2-2-4Pin	A F
BI720	QCNWN4427AFZZ		**J Connector** Ass'y,6-6Pin	A F
CNP1	QCNCW623CAFZZ		**J** Socket,3Pin **[Wire** Trap]	A B
CNP3	QCNCM705MAFZZ		**J** Plug,12Pin	A C
CNP11	QCNCM839BAFZZ		**J** Plug,2Pin	A A
CNP101	QCNCM687CAFZZ		**J** Plug,3Pin	A A
CNP102	QCNCM687GAFZZ		**J** Plug,7Pin	A B
CNP251	QCNCM705DAFZZ		**J** Plug,4Pin	A B
CNP255	QCNCM704JAFZZ		**J** Plug,9Pin	A C
CNP256	QCNCM704MAFZZ		**J** Plug,12Pin	A C
CNP301	QCNCM705BAFZZ		**J** Plug,2Pin	A A
CNP311	QCNCW623NAFZZ		**J** Socket,13Pin[Wire **Trap]**	A D
CNP312	QCNCM742BAFZZ		**J** Plug,2Pin	A A
CNP355	QCNCM705RAFZZ		**J** Plug,16Pin	A D
CNP401	QCNCW623CAFZZ		**J** Socket,3Pin[Wire **Trap]**	A B
CNP411	QCNCW623HAFZZ		**J** Socket,8Pin **[Wire Trap]**	A C
CNP413A	QCNCM856GAFZZ		**J** Plug,7Pin	A C
CNP413B	QCNCW856GAFZZ		**J** Socket,7Pin	A C
CNP452	QCNCM704MAFZZ		**J** Plug,12Pin	A C
CNP453	QCNCM705KAFZZ		**J** Plug,10Pin	A C
CNP511	QCNCM846PAFZZ		**J** Plug,14Pin	A C
CNP582	QCNCM863DAFZZ		**J** Plug,4Pin	A B
CNP611	QCNCW623NAFZZ		**J** Socket,13Pin **[Wire** Trap]	A D
CNP700	QCNCW620RAFZZ		**J** Socket,16Pin	A E
CNP720	QCNCM687FAFZZ		**J** Plug,6Pin	A B
CNP851A	QCNCW653TAFZZ		**J** Socket,18Pin	A C
CNP851B	QCNCW652TAFZZ		**J** Socket.18Pin	A C
CNP853	QCNCW623DAFZZ		**J** Socket,4Pin **[Wire Trap]**	A B
CNP854A	QCNCW856FAFZZ		**J** Socket,6Pin	A C
CNP854B	QCNCM856FAFZZ		**J** Plug,6Pin	A C
CNP881	**QCNCM7 04GAFZz**		**J** Plug,7Pin	A C
CNS3/452	**QCNWNS** 102AFZZ		**J Connector** Ass'y,12-12Pin	A K
CNS11	QCNWN5239AFZZ		**J Connector** Ass'y.2Pin	A C
CNS101	QCNWN5090AFZZ		**J Connector** Ass'y,3Pin	A E
CNS102	QCNWN5091AFZZ		**J Connector** Ass'y,7Pin	A H
CNS251	QCNWN5100AFZZ		**J Connector** Ass'y,4Pin	A C
CNS255	QCNWN5095AFZZ		**J Connector** Ass'y,9Pin	A E
CNS256	QCNWN5096AFZZ		**J Connector** Ass'y,12Pin	A F
CNS301	QCNWN5114AFZZ		**J Connector** Ass'y,2Pin	A C
CNS355	QCNWN5093AFZZ		**J Connector** Ass'y,16Pin	A H
CNS453	**QCNWNS** 103AFZZ		**J Connector** Ass'y,10Pin	A F
CNS511	QCNCW644PAFZZ		J Socket,14Pin	A D
CNS582	QCNWN5109AFZZ		**J Connector** Ass'y,4Pin	A F
CNS881	**QCNWNS** 106AFZZ		**J Connector** Ass'y,7Pin	A E
⚠F351	QFS-C252GAFNi		**J** Fuse,T2.5A.250V	A C
J281	QJAKE0 124AFZZ		J Jack,Microphone	A C
J401	QJAKZ0197AFZZ		**J** Jack,AUX	A C
J581	QJAKJ0167AFZZ		**J** Jack,Headphones	A E
LCD851	**RV-LX0** 134AFZZJ		LCD,Multi **Function** Display	A T
M601	94R188009333		**J Motor with Pulley** [Tape]	A Q
M701	RMGTV0384AF00		**J Motor with Gear** [Slide]	A P
M702	RMGTV0383AF02		**J Motor with Gear** [Disc]	A R
AS0351	QSGCA2201AFZZ		J Socket,AC **Power Supply**	A F
SOL1~4	94R18802121		**J** Solenoide	A H
SP1,2	VSP0010PBM84A		**J** Speaker,Woofer	A S
SW1	94R640101190		J Switch,Leaf Type [TAPE 1 Play]	A E
SW2	94R640101191		JSwitch,Leaf **Type [TAPE** 1 FF/REW]	A E
	94R640101173		JSwitch,Leaf Type **[TAPE 1** Cassette1	A E
	94R640101173		J Switch,Leaf Type [TAPE1 CrO_2]	A E
SW5	94R640101190		**J** Switch,Leaf **Type** [TAPE2 Play]	A E

REF.NO.	PART NO.	*	DESCRIPTION	CODE
SW6	94R640101191		J Switch,Leaf **Type** [TAPE 2 FF/REW]	A E
SW7	94R640101173		Switch,Leaf **Type** [TAPE 2 **Cassette1**	A E
SW8	94R640101173		Switch,Leaf **Type** [TAPE 2 CrO_2]	A E
SW9	94R640101173		Switch,Leaf Type [TAPE 2 B-FP]	A E
SW10	94R640101173		J Switch,Leaf **Type** [TAPE 2 **A-FPI**	A E
SW11	94R640101173		Switch,Leaf **Type** [TAPE 2 Metal]	A E
SW301	QSW-S0267AFZZ		J Swith,Slide **Type** [BEAT **CANCEL]**	A D
SW401	QSW-K0172AFZZ		J Switch,Key **Type** [AUX]	A B
SW402	QSW-K0172AFZZ		J Switch,Key **Type** [TUNER]	A B
SW403	QSW-K0172AFZZ		J Switch,Key **Type** [CD]	A B
SW404	QSW-K0172AFZZ		J Switch,Key **Type** [TAPE]	A B
SW411	QSW-S0881AFZZ		J Switch,Slide Type **[FM** MODE1	A D
SW412	**QSW-P0949AFZZ**		Switch,Push **Type** [MAIN **POWER1**	A E
SW413	QSW-S0881AFZZ		Switch,Slide **Type** [TIMER REC]	A D
SW414	QSW-S0880AFZZ		Switch,Slide **Type** [REVERSE]	A D
SW481	QSW-F0317AFZZ		Switch,Leaf **Type** [CD LID]	A C
SW602	QSW-K0172AFZZ		Switch,Key **Type [REV** PLAY]	A B
SW603	QSW-K0172AFZZ		J Switch,Key **Type** [STOP]	A B
SW604	QSW-K0172AFZZ		J Switch,Key Type [FWD **PLAY]**	A B
SW605	QSW-K0172AFZZ		J Switch,Key Type [FAST FF]	A B
SW606	QSW-K0172AFZZ		J Switch,Key Type [FAST REW]	A B
SW607	QSW-K0172AFZZ		J Switch,Key Type [NORMAL SPEED]	A B
SW608	QSW-K0172AFZZ		J Switch,Key **Type** [TAPE1· 21	A B
SW609	QSW-K0172AFZZ		J Switch,Key **Type** [REC **PAUSE1**	A B
SW610	QSW-K0172AFZZ		J Switch,Key Type [HIGH SPEED]	A B
SW651	QSW-K0172AFZZ		J Switch,Key **Type** [MEMORY]	A B
SW652	QSW-K0172AFZZ		J Switch,Key **Type** **[DISPLAY]**	A B
SW653	QSW-K0172AFZZ		J Switch,Key **Type [TUNING DOWN/MINUTE]**	A B
SW654	QSW-K0172AFZZ		J Switch,Key **Type [TUNING** UP/HOUR]	A B
SW655	QSW-K0172AFZZ		J Switch,Key **Type [FM STEREO]**	A B
SW656	QSW-K0172AFZZ		J Switch,Key Type [TIMER **SLEEP1**	A B
SW657	QSW-K0172AFZZ		J Switch,Key Type [RAND]	A B
SW658	**QSW-KO172AFZZ**		J Switch,Key **Type [AUTO-MEMORY1**	A B
SW702	QSW-P0920AFZZ		J Switch,Push Type **[PICKUP** IN]	A C
SW851	**QSW-KO172AFZZ**		J Switch,Key Type [PAUSE]	A B
SW852	QSW-K0172AFZZ		J Switch,Key **Type [PLAY/ REPEAT]**	A B
SW855	QSW-K0172AFZZ		J Switch,Key Type[AUTO EDIT]	A B
SW856	QSW-K0172AFZZ		J Switch,Key **Type** [STOP]	A B

REF.NO	PART NO.	*	DESCRIPTION	CODE
SW859	QSW-K0172AFZZ		J Switch,Key Type [TAPE **LENGTH1**	A B
SW860	**QSW-KO 172AFZZ**		J Switch,Key **Type** [FWD(SKIP)]	A B
SW863	QSW-K0172AFZZ		J Switch,Key Type [RANDOM/XL]	A B
SW864	QSW-K0172AFZZ		J Switch,Key Type [REV(SKIP)]	A B
TP751	QCNCM687GAFZZ		**J** Plug,7Pin	A B
TUN1	**RTUNVO** 120AFZZ		**J Front End Unit**	A U
UNI651	RRMCU0067AFZZ		**J Remote Sensor**	A L
	DECK MECHANISM PARTS			
1	94R188001501		J Main **Chassis** Ass'y	AQ
2	94R18800108		J Spring,Cassette **Press**	A B
3	94R91780000		J Screw,ϕ2×3mm	A A
4	94R18650250A		**J Tape Guide**	A B
5	94R18650260		J Spring,Clamp	A A
6	94R18800219		J Spacer,Head **Panel**	A B
7	94R18650228		J Spacer,Head **Panel Lever**	A B
8	94R186502306		**J Head Base Ass'y**	A N
9	94R18805332		**J Relay Board**	A E
10	94R99991817		J Screw,Head	A A
11	94R18650961		J Spacer.Head	A A
12	94R18650249		J Wire **Holder**	A C
13	94R18800201		**J Head Panel**	A G
14	94R188002501		J **Head Panel Ass'y**	A G
15	94R18800204		J Spring,Head Panel	A B
16	94R18800205		JSpring,Head **Panel Ass'y**	A B
17	94R18800206		J Lever,Head Panel	A D
18	94R18800405		J Spring,Pinch **Roller**	A B
19	RHEDF0144AFZZ		J Head,Playback/Record	A N
20	94R90780000		J Screw,ϕ2×5mm	A A
21	94R95470000		J Screw,ϕ1.7×3mm	A A
22	94R99992020		J Screw.ϕ2×5mm	A A
23	94R18800216		J Spring Plate,Head **Panel**	A A
24	94R99991816		J Screw,ϕ2×5mm	A A
25	94R18650257		**J Shield Plate**	A C
26	94R18800708		J Belt,FF/REW	A H
27	94R188007302		J Roller.FF/REW Ass'y	A Q
28	94R18650252		J Screw,Guide	A A
29	94R91170000		J Screw.ϕ2×5mm	A A
30	RHEDK0081AFZZ		J Head,Record/Playback/ Erase	A V
31	94R188005322		**J Reel** Ass'y,Forward	A M
32	94R188005323		**J Reel** Ass'y,Rewind	A L
33	94R188005501		**J Reel** Base **Ass'y**	A M
34	94R18800508		J Gear,FF	A E
35	94R18650254		J Spring,Tape Guide	A B
36	94R18800517		J Spring,FF/REW **Trigger Arm**	A B
37	94R99991404		J Screw,ϕ2×6mm	A A
38	94R18800522		J Spring,Reel **Back** tention	A B
39	94R91800000		J Screw,ϕ2×4mm	A A
40	94R94210000		J Washer,ϕ1.2×ϕ3×0.25mm	A A
41	94R98760000		J Washer,ϕ2.1×ϕ5×0.5mm	A A
42	94R99997003		J Washer,ϕ1.4×ϕ3.2×0.4mm	A A
43	94R18800515		J Arm.FF/REW Trigger	A A
44	94R18800942		J Belt,Main	A H
45	94R18800920		**J Mat**	A B
46	94R18211266		J Cushion,Motor	A A
47	94R18511418		J Screw,Motor	A A
48	94R18800952		J Belt,Flywheel Drive	A H
50	94R18800943		J Bracket,Motor	A E
52	94R91800000		J Screw,ϕ2×4mm	A A
53	94R188009503		J Bracket,Pulley	A H
54	94R18650930		J Center,Pulley	A B
55	94R99270000		J Washer,ϕ0.85×ϕ2.8×0.25mm	A A

REF.NO.	PART NO.	★	DESCRIPTION	C
56	94R18800106		J Spring,Cam **Trigger Arm**	
57	94R18802115		J **Cam Gear**	
58	94R18802116		J **Cam** Gear,FF/REW	
59	94R18802103		J Arm,Trigger	
60	94R18802105		**J Plunger**	
61	94R18802106		J Holder,Plunger	
62	94R188021501		J Slide **Lever Ass'y**	
63	94R18802108		J Spring,Slide **Lever Ass'y**	
64	94R188021503		**J Kick Lever Ass'y**	
65	94R18802111		J Spring,Kick **Lever Ass'y**	
67	94R95020000		J Ring,E-Type,ϕ2×0.4mm	
68	94R99997006		J Washer,ϕ1.55×ϕ3.5×0.5mm	
69	94R99997004		J Washer,ϕ2.1×ϕ5×0.4mm	
70	94R18801301		J Lever,Eject **Stopper(A)**	A
71	94R18801302		J Lever,Eject Stopper(B)	A
72	94R18801305		J Collar.Eject Stopper	A
73	94R99996008		J Washer,ϕ2×ϕ3.5×0.5mm	A
74	94R18805302		J Protector,Switch	A
75	94R91800000		J Screw,ϕ2×4mm	A
76	94R18801309		J Spring,Eject Stopper **Lever**	A
77	94R18801324		J Lever,Right **Side Lock**	A
78	94R18801326		J Spring,Right **Side Lock** Lever	A
79	94R188005502		J Arm,Forward **Gear**	A
80	94R18800536		J Gear,Take-up	A
81	94R18800518		J Spring,Forward **Gear Arm**	A
82	94R94210000		J Washer,ϕ1.2×ϕ3×0.25mm	A
83	94R188005503		J Arm,Rewind **Gear**	A
84	94R18800519		J Spring,Rewind **Gear Arm**	A
85	94R18801306		J Lever,Stop,A	A
86	94R18801307		J Lever,Stop,B	A
87	94R18801323		JLever,Left **Side Lock**	A
88	94R188004307		**J Pinch Roller** Ass'y,Forward	A
89	94R18800403		J Spring,Pinch **Roller. Forward**	A
90	94R188004308		**J Pinch Roller** Ass'y,Rewind	A
91	94R18800404		J Spring.Pinch Roller.Rewind	A
92	94R18801325		J Spring,Left **Side** Lock Lever	A
93	94R91850000		J Screw,ϕ2×10mm	A
94	94R188009313		**J Flywheel** Ass'y,Tape **1**	A
95	94R188009301		J Flywheel Ass'y.Tape **2**	A
96	94R18800908		J Metal Ass'y,Forward	A
97	94R91820000		J Screw,ϕ2×6mm	A
98	94R99997007		J Washer,ϕ1.8×ϕ4×0.5mm	A
99	94R99996003		J Washer,ϕ2.3×ϕ3.8×0.3mm	A
100	94R188009302		**J Flywheel** Ass'y,Rewind. Tape **2**	A
101	94R18800921		**J Metal** Ass'y,Rewind	A
102	94R99997006		J Washer.ϕ1.55×ϕ3.5×0.5mm	A
103	94R99996002		J Washer,ϕ2.1×ϕ3.5×0.3mm	A
104	94R91800000		J Screw,ϕ2×4mm	A
105	94R99996009		J Washer,ϕ2.3×ϕ3.8×0.5mm	A
106	94R188009314		**J Flywheel** Ass'y,Rewind. Tape 1	A
113	94R18805303		**J IC Protector**	A
120	94R182112179		**J Mat**	A
121	94R18801327		J Collar,Lock **Lever**	A
Mb01	94R18809333		**J Motor with Pulley**	A
SOL1~4	94R18802121		**J Solenoid**	A
SW1	94R640101190		J Switch,Leaf **Type [TAPE 1** Play]	A
SW2	94R640101191		J Switch,Leaf Type [TAPE 1 FF/REW]	A
SW3	94R640101173		J Switch,Leaf Type[TAPE 1 Cassette]	A
SW4	94R640101173		J Switch,Leaf Type **[TAPE** 1 CrO_2]	A
SW5	94R640101190		**J** Switch,Leaf **Type [TAPE 2** Play]	A

REF.NO	PART NO.	*	DESCRIPTION	CODE
SW6	94R640101191	J	Switch,Leaf Type [TAPE 2 FF/REW]	A E
SW7	94R640101173	J	Switch,Leaf Type [TAPE 2 Cassette1	A E
SW8	94R640101173	J	Switch,Leaf Type [TAPE 2 CrO_2]	A E
SW9	94R640101173	J	Switch,Leaf Type[TAPE 2 B-FPI	A E
SW10	94R640101173	J	Switch,Leaf Type[TAPE 2 A-FPI	A E
SW11	94R640101173	J	Switch,Leaf Type [TAPE 2 Metal]	A E
	CD MECHANISM PARTS			
301	MSPRC0798AFZZ	J	Spring,Rack	A A
302	NGERH0381AFZZ	J	Gear,Middle	A C
303	NGERH0382AFZZ	J	Gear,Drive	A B
304	NGERR0036AFZZ	J	Gear,Rack,Fix	A B
305	NGERR0037AFZZ	J	Gear,Rack,Move	A B
306	NSFTM0237AFFW	J	Shaft,Guide	A C
307	PCÖVP3207AFSA	J	Cover,Mechanism	A D
308	PCUSG0427AFSC	J	Cushion	A C
310	RCTRH8124AFZZ	J	Pickup Unit	B H
3 1 1	QPWBH0164AFZZ	J	Flexible P W B	A F
701	LX-HZ0217AFFD	J	Screw,ϕ2.6×8mm	A A
702	XBPSD17P03000	J	Screw,ϕ1.7×3mm	A A
703	XBPSD26P06J00	J	Screw,ϕ2.6×6mm	A A
M701	RMÖTV0384AF00	J	Motor with Gear	A P
M702	RMÖTV0383AF02	J	Motor with Gear	A R
	CABINET PARTS			
201	GCAB-174XAFSC	J	Front Cabinet Ass'y	A Y
201-1	————		Front Cabinet [Not Replacement Item1	
201-2	HPNLH1376AFSA	J	Panel,Remote Control Sensor	A D
201-3	Hi NDP2189AFSB	J	Indication Plate,AST	A B
202	GCABC2503AFSA	J	CD Cabinet	A N
203	GCABB2466AFSA	J	Rear Cabinet	AW
204	GCÖVA1977AFSA	J	Cover,Cassette Holder, Tape 1	A H
205	GCÖVA1940AFSC	J	Cover,Cassette Holder, Tape 2	A H
206	GFTAB1161AFSH	J	Lid,Battery Compartment	A F
207	GFTAC1830AFSA	J	Cassette Holder,Tape 1	A D
208	GFTAC183 1AFSA	J	Cassette Holder,Tape 2	A D
209	JHNDP1136AFSA	J	Handle	A K
210	JKNBK0481AFSA	J	Knob,Volume	A C
211	JKNBM1103AFSA	J	Knob,Reverse Mode/Timer Record/FM Mode	A A
212	JKNBM1104AFSA	J	Button,Power	A B
213	JKNBZ1284AFSA	J	Button,CD Operation	A D
214	JKNBZ1285AFSA	J	Button,Timer/Tuner Operation	A E
215	JKNBZ1286AFSA	J	Button. ,Tape Operation	A E
217	LANGK0750AFFW	J	Bracket,Front Cabinet	A B
218	LANGQ1172AFFW	J	Bracket,Tape Deck PWB	A C
219	LHLDF1511AFSA	J	Main Frame	A P
220	LHLDW309 1AFZZ	J	Wire Holder	A B
222	LHLDZ1448AF02	J	Weight	A K
223	LHLDZ1483AFZZ	J	LCD Holder	A C
224	LSTY-0057AFZZ	J	Spacer,PWB	A B
225	ML i FP0030AFZZ	J	Damper,Cassette Holder	A E
226	MSPRC0853AFFJ	J	Spring,Battery,+/-,"D" Size	A C
227	MSPRC0872AFFJ	J	Spring,Battery,-,"D"Size	A B
229	MSPRD1169AFFJ	J	Spring,Cassette Holder, Tape 1	A A
230	MSPRD1 170AFFJ	J	Spring,Cassette Holder, Tape 2	A A
231	MSPRD1179AFFJ	J	Spring,Ground	A D
232	NBLTK0500AF00	J	Packing,Rear Cabinet	A B
233	PCÖVN1001AFSA	J	Cover,Battery Hook	A A
236	PGUMM0222AF00	J	Leg Cushion	A B
238	PRDAR0689AFZZ	J	Heat Sink	A K
240	QANTR0201AFZZ	J	Rod Antenna	A L
242	QLUGP0109CEFW	J	Lug Terminal,Antenna	A A
/4244	QFSHD2104AFZZ	J	Fuse Holder	A A
245	QCNWN5104AFZZ	J	Connector Ass'y,18Pin	A G
246	QCNWN5111AFZZ	J	Antenna Wire	A B
247	M L i FP0082AFZZ	J	Damper.CD	A F
248	HPNLH1377AFSA	J	Panel,Cassette Holder Cover	A E
249	LHLDW1068AFZZ	J	Nylon Band,100mm	A A
250	LHLDW1075AFZZ	J	Nylon Band,60mm	A A
255	PCÖVP9210AFZZ	J	Cover,Port	A A
256	GFTAT1140AFSA	J	Lid,CD	A G
257	HPNLH1379AFSA	J	Panel.CD Lid	A G
258	JKNBZ 1283AFSA	J	Button,CDEject	A B
259	MSPRD1171AFFJ	J	Spring,CD Lid Up	A C
260	JKNBZ1282AFSA	J	Button,Function	A C
261	MLEVP0950AFSA	J	Lever,CD Lid Lock	A B
262	MSPRC0839AFFW	J	Spring,Battery,-,"AA"Size	A B
263	TSPC-2577AFSA	J	Label,Specifications [For OTHER AREAS]	A C
263	TSPC-2587AFSA	J	Label,Specifications [For TAIWAN]	A C
263	TSPC-2588AFSA	J	Lab&Specifications [For Australia]	A C
601	LX-CZ0009AFZZ	J	Screw,ϕ3×35mm	A A
602	LX-CZ0011AFZZ	J	Screw,ϕ3×65mm	A A
604	XEBSD30P10J00	J	Screw,ϕ3×10mm	A A
605	XEBSD30P10000	J	Screw,ϕ3×10mm	A A
606	XEBSD30P12000	J	Screw,ϕ3×12mm	A A
607	XEBSD40P12000	J	Screw,ϕ4×12mm	A A
608	XEBSF30P10000	J	Screw,ϕ3×10mm	A A
609	XEBSF30P12000	J	Screw,ϕ3×12mm	A A
611	XWHSD21-05065	J	Washer,ϕ2.1×ϕ6.5×0.5mm	A A
613	LX-HZ0105AFFF	J	Screw,ϕ3×8mm	A B
614	LX-HZ0087AFFD	J	Screw,ϕ3×8mm	A A
615	LX-CZ0105AFFD	J	Screw,ϕ2.6×10mm	A A
	ACCESSORIES/PACKING PARTS			
	QACCK0053AFZZ	J	AC Power Supply Cord [For OTHER AREAS]	A L
	QACCL0059AF00	J	AC Power Supply Cord [For Australia1	A L
	QACCZ0062AF00	J	AC Power Supply Cord [For TAIWAN]	A K
	SPAKA2231AFZZ	J	Packing Add.	A G
	SPAKA2232AFZZ	J	Packing Add.	A G
	SPAKC5519AFZZ	J	Packing Case	A L
	SPAKP1002AFZZ	J	Polyethylene Bag	A E
	SPAKX2579AFZZ	J	Pad.Protection	A C
	SSAKH0005SEZZ	J	Polyethylene Bag, Accessories	A A
	TCAUA0309AFZZ	J	Caution Label,AC Power [For OTHER AREAS]	A A
	TCAUZ0218AFSA	J	Caution Label.Lens	A C
	TGANE1204AFZZ	J	Warranty Card [For Australia]	A C
	TiNSZ1203AFZZ	J	Operation Manual	A M
	TLABM0454AFSA	J	Label Feature,Tape 1	A B
	TLABM0455AFSA	J	Label Feature,Tape 2	A B
	TLABM0458AFSA	J	Label,Feature,Handle	A D
	TLABM0459AFSA	J	Label,Feature,Speaker	A D
	TLABZ1601AFSA	J	Label,110V [For Australia]	A A
	TLABZ1602AFSA	J	Label,220V [For TAIWAN1	A A
	RRMCG0245AFSA	J	Remote Control	A Y
	95E103RRT15501	J	Battery Lid,Remote Control	A G

P.W.B. ASSEMBLY (Not Replacement Item)

PWB-A	DCEKR0329AF12	J	Tuner	—
PWB-B	DCEKS0068AF09	J	CD Servo	—
PWB-CI-10	DCEKL0749AF03	J	Main/Power/CD Switch/ Function Selector/ Volume/Battery/ Terminal (Combined Ass'y)	—
PWB-D	DCEKU0137AF03	J	Tape Deck	—
PWB-E	————		Motor	—
PWB-F	DCEKN0060AF03	J	LCD	—
PWB-G	94R18805387	J	Tape 1 Mechanism	—
PWB-H	94R18805386	J	Tape 2 Mechanism	—

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