JVC

SERVICE MANUAL

CD PORTABLE SYSTEM

RC-X250 B/C/E/J

COMPACT disc DIGITAL AUDIO

Area suffix

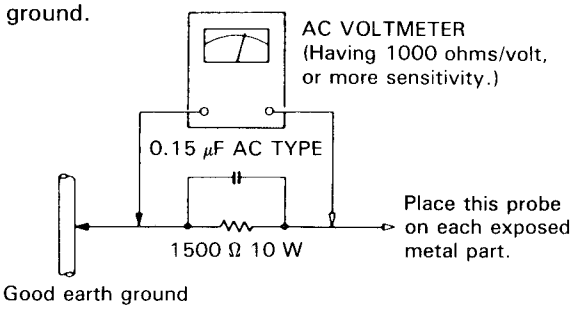
B ..... UK
C ..... Canada
E ..... Continental Europe
J ..... USA

Contents

No. 1847
January 1992

1 Safety Precautions

1. The design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer's warranty and will further relieve the manufacturer or responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the Parts List of Service Manual. Electrical components having such features are identified by (⚠) on the schematic diagram and Parts List in Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the Parts List in Service Manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps, tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard.
   When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.
5. Leakage current check (Electrical shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 mA AC (r.m.s.).
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 Ω 10 W resistor paralleled by a 0.15 μF AC-type capacitor between an exposed metal part and a known good earth ground.
     Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured must not exceed 0.75 V AC (r.m.s.).
     This corresponds to 0.5 mA AC (r.m.s.).

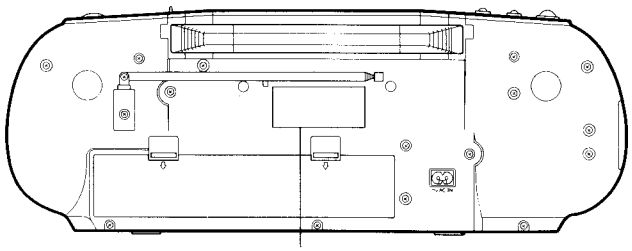


Safety Precautions

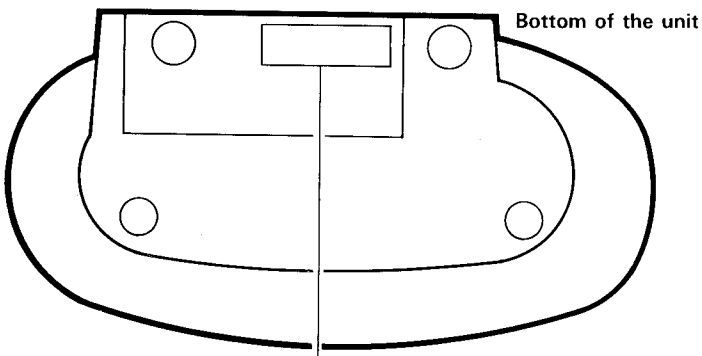
J (USA) Only

Important for Laser Products

1. CLASS 1 LASER PRODUCT
2. DANGER: Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. CAUTION: Do not open the bottom cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
4. CAUTION: The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent emission of radiation when unloading cartridge and the safety interlocks have failed or are defeated. It is dangerous to defeat the safety switches.
5. CAUTION: Use of controls of adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
6. CAUTION: The laser is able to function, if safety switches are out of function. The laser light is invisible, avoid exposure, do not disassemble the laser unit, but replace the complete unit.

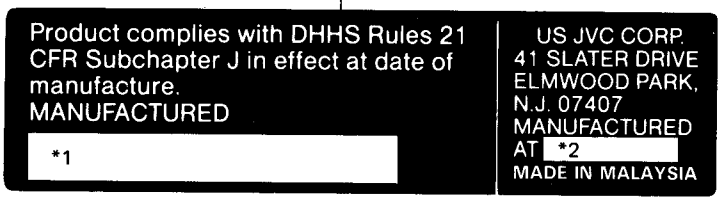


NAME/RATING PLATE



Bottom of the unit

Notes:
*1 The date of manufacture.
*2 The ID code of manufacturing plant.



B/E/G Only

Important for Laser Products

1. CLASS 1 LASER PRODUCT
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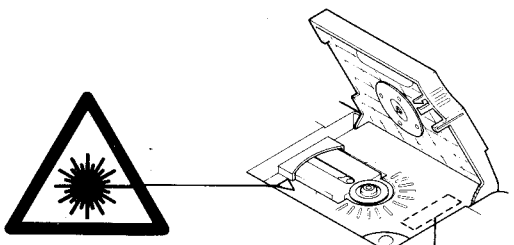
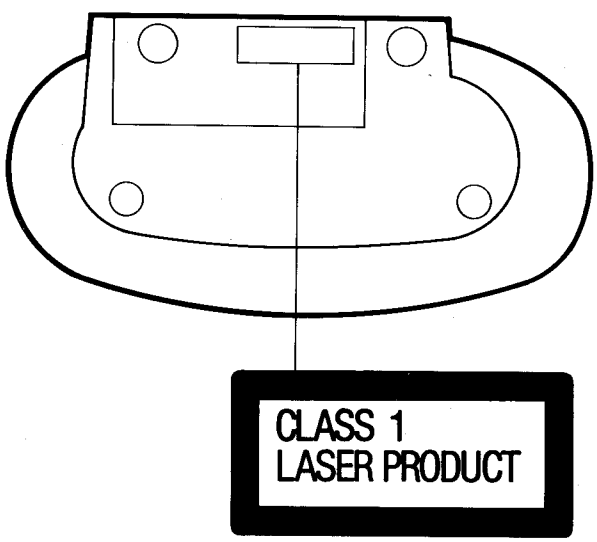
5. CAUTION: Use of controls of adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

REPRODUCTION OF LABELS AND THEIR LOCATION

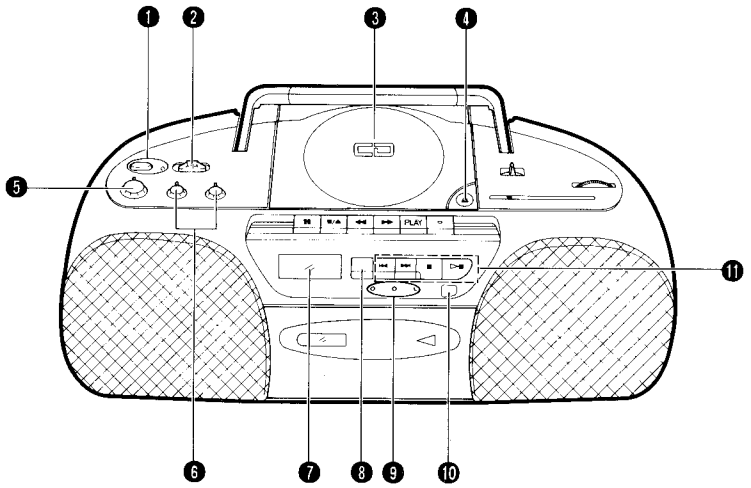


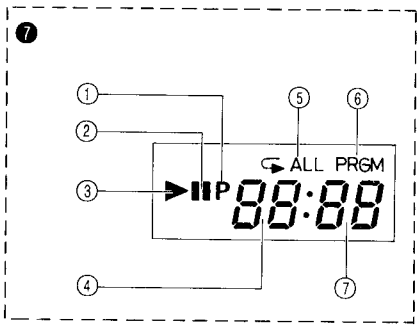
VAROITUS! Laite sisältää laserdiodin, joka lähettää näkymätätöntä silmille vaarallista lasersäteilya.

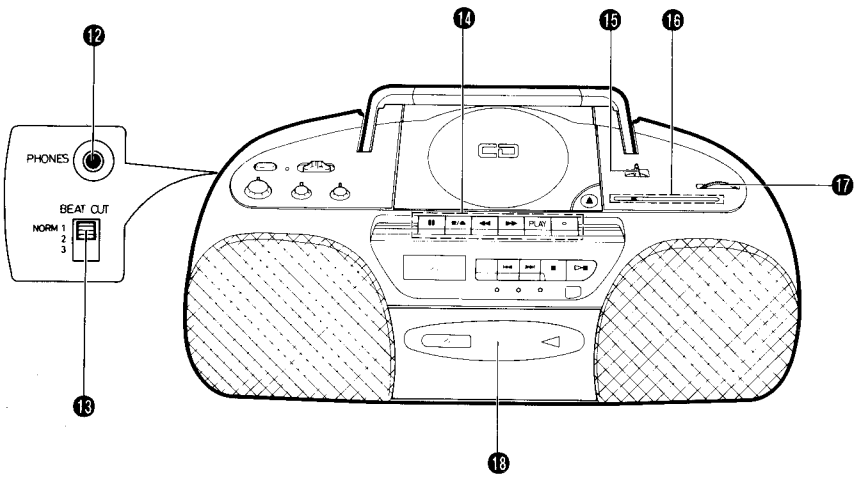


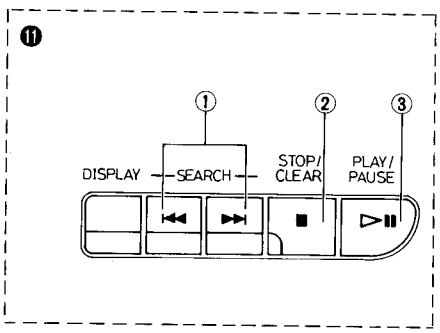
Names of Parts and Their Functions

(Description of J Version)



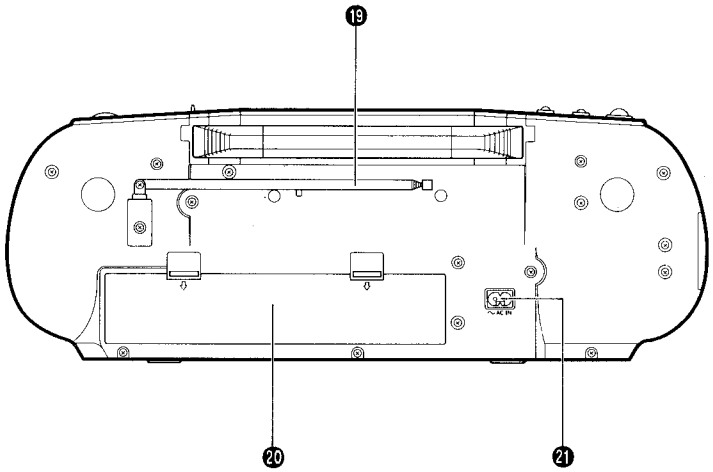






❶ **POWER switch and indicator**
❷ **FUNCTION switch (CD/TAPE/TUNER)**
❸ **Disc holder**
❹ **Disc holder open button (⏏)**
❺ **VOLUME control**
❻ **BASS•TREBLE controls**
❼ **Display window**
(CD player section)
① Program order number display
② Pause indicator(❚❚)
③ Playback indicator (►)
④ CD/time (minute) display
⑤ Repeat playback indicator(⮌ ALL)
⑥ Program mode indicator (PRGM)
⑦ Track number/time (second) display
(Clock/timer section)
❽ **DISPLAY button (track number/time)**
❾ **Clock/timer operation section**
❿ **REMOTE SENSOR section**
⓫ **CD operation buttons**
① SEARCH (⏮, ⏭) buttons
② STOP/CLEAR (■) button
③ PLAY/PAUSE (▷ ❚❚) button

⓬ **PHONES jack (3.5 mm dia. stereo mini)**
Connect headphones (impedance 8 Ω – 16 kΩ) to this jack.
The speakers are automatically switched off with the headphones connected.
⓭ **BEAT CUT switch**
⓮ **Cassette operation buttons**
❚❚ PAUSE:
Press to stop the tape temporarily during playback and recording.
■/⏏ STOP/EJECT:
Press to stop the tape. Pressing this button after the tape stops opens the cassette holder.
◄◄ FF:
Press to wind the tape forward rapidly.
►► REW:
Press to rewind the tape rapidly.
◄ PLAY:
Press to play the tape.
○ REC:
Press this button with ◄ PLAY button to start recording.
⓯ **BAND/FM MODE switch (AM/FM STEREO/FM MONO)**
⓰ **Dial scale**
⓱ **TUNING knob**
⓲ **Cassette holder**

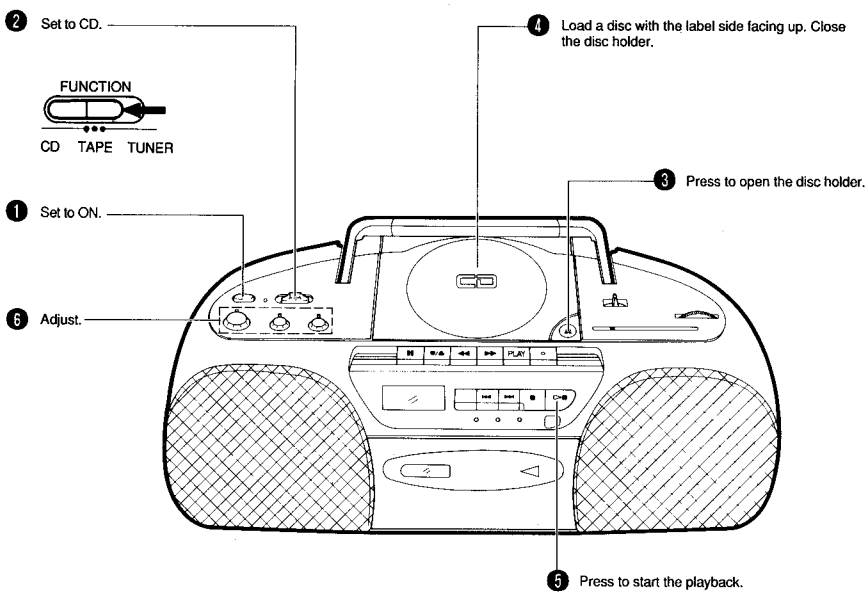


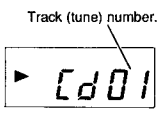
⑲ **Telescopic antenna**
⑳ **Battery compartment cover**
㉑ **AC IN jack**

PLAYING COMPACT DISCS

Playing an entire disc ... The following example assumes a compact disc with 12 tunes and a total playing time of 48 minutes 57 seconds.

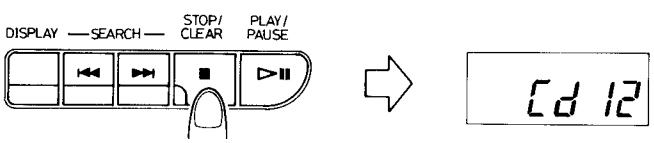
Operate in the order shown



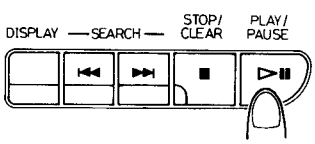


To stop play

- **To stop in the middle of a disc**
  During playback, press the ■ STOP/CLEAR button to stop play.

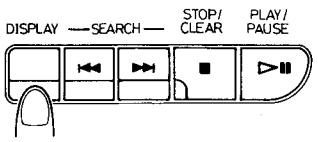


- **To stop a disc temporarily**
  Press the ▷II PLAY/PAUSE button to stop play temporarily. When pressed again, play resumes from the point where it was paused.

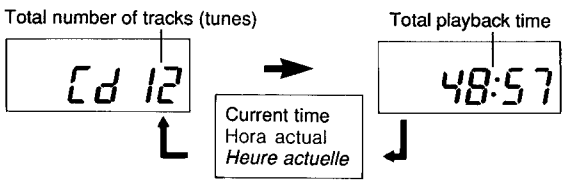


Cautions:
- To change discs, press the ■ STOP/CLEAR button; check that the disc has stopped rotating completely before unloading it.
- When turning off the power during playback, first press the ■ STOP/CLEAR button to stop the CD playback, and then press the power button.

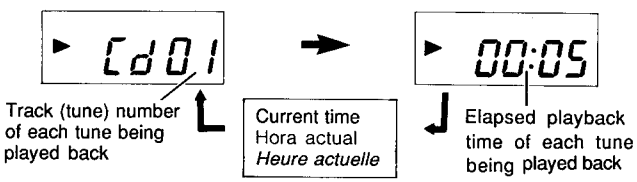
How to use the DISPLAY button
Use this button to change the indication of the display window.



- **In case the button is pressed when the CD does not rotate.**



- **In case the button is pressed during playback.**



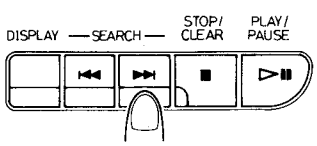
Notes:
- The following indication may be shown when a disc is dirty or scratched, or when the disc is loaded upside down.
  In such a case, check the disc and insert it again after cleaning the disc or turning it over.

- **Do not use the unit at excessive high or cold temperatures. The recommended temperature range is from 5°C (41°F) to 35°C (95°F).**
- After playback, unload the disc and close the disc holder.
- If mistracking occurs during play, lower the volume.
- Mistracking may occur if the unit is given a strong impact or is used in a place which is subject to vibrations (i.e. in a car travelling on a rough road).

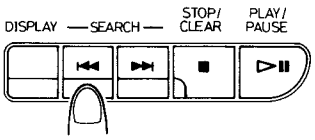
Skip playback

- During playback, it is possible to skip forward to the beginning of the next tune or back to the beginning of the tune being played back or the previous tune; when the beginning of the required tune has been located, play starts automatically.

To listen to the next tune ...
Press the ▶▶| button once to skip to the beginning of the next tune.

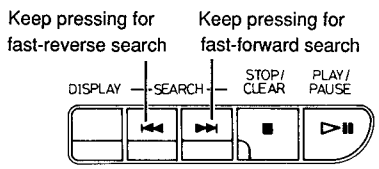


To listen to the previous tune ...
Press the |◀◀ button to skip to the beginning of the tune being played back and press again to skip to the beginning of the previous tune.



Search playback (to locate the required position on the disc)

- The required position can be located using fast-forward or reverse search while playing a disc.

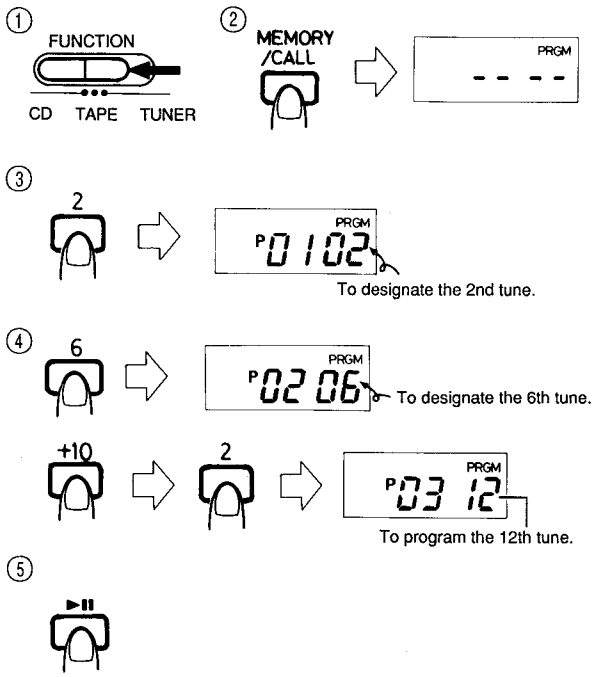


- Hold down the button; search play starts slowly and then gradually increases in speed.
- Since low-volume sound (at about one quarter of the normal level) can be heard in the search mode, monitor the sound and release the button when the required position is located.

To clear the programmed tunes ...
Press the ■/CLEAR button before playing a disc. During programmed playback, press this button twice. When the disc holder is opened, programmed tunes are cleared automatically.

Programmed play (using the remote control)

- Up to 20 tunes can be programmed to be played in any required order.
  The total playing time of programmed tunes is displayed (up to 99 minutes, 59 seconds).
  (Example: When programming the 2nd tune to be played first, and the 6th tune next, then the 12th tune, etc.)

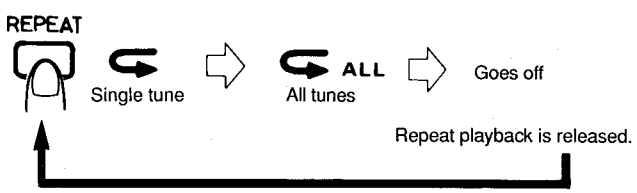


① Set to CD.
② Press the MEMORY/CALL button to set to the programming mode.
③ Press to designate the required track number.
④ Designate the remaining tunes by pressing the track number buttons.
⑤ Press the ►II button when programming is completed. Programmed playback starts.

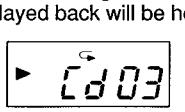
Repeat play (using the remote control)

Press the REPEAT button before or during play. A single tune or all the tunes can be repeated.

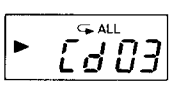
Whether a single tune or all tunes are to be repeated can be specified. Each time the REPEAT button is pressed, the mode will change from a single tune (⟲), to all the tunes (⟲ ALL), to the clear mode, in this order.



- **Repeat playback of a single tune (⟲)**
  The tune being played back will be heard repeatedly.

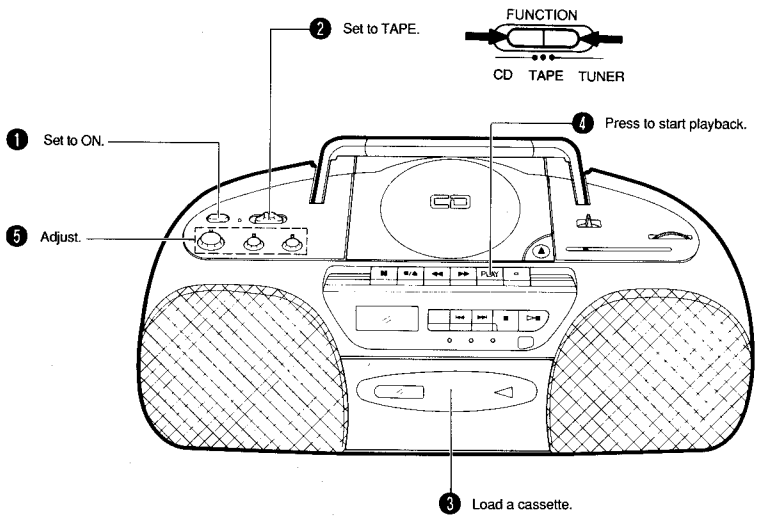


- **Repeat playback of all tunes (⟲ ALL)**
  When playing back an entire disc or programmed tunes, all tunes or the programmed tunes will be heard repeatedly.



CASSETTE PLAYBACK

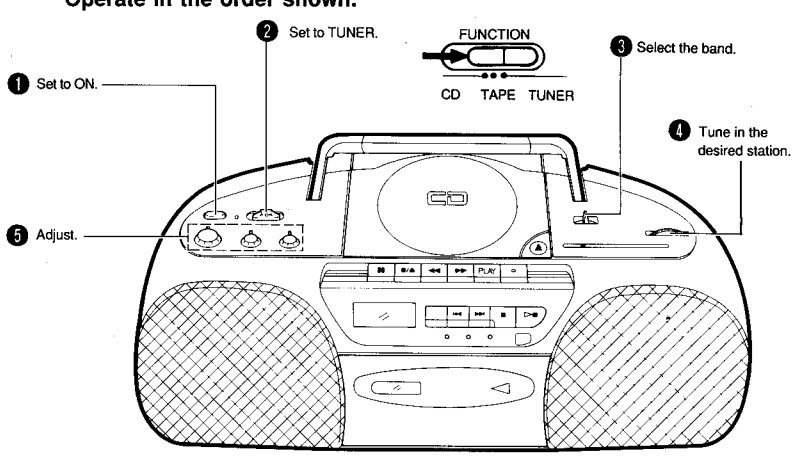
Operate in the order shown



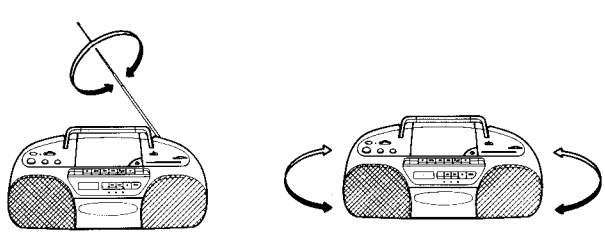
Note:
When the power is turned off while the tape is running, cassette operation buttons which are depressed do not return to the original positions.
Press the ■/⏏ STOP/EJECT button to stop the tape running before turning off the power.

RADIO RECEPTION

Operate in the order shown.



Using the antennas

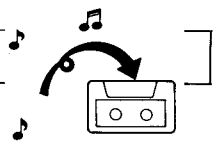


Notes:
The built-in ferrite core antenna can pick up interference tones from television receivers in the neighborhood and thereby disturb AM reception.

FM stereo broadcast and FM MODE switch

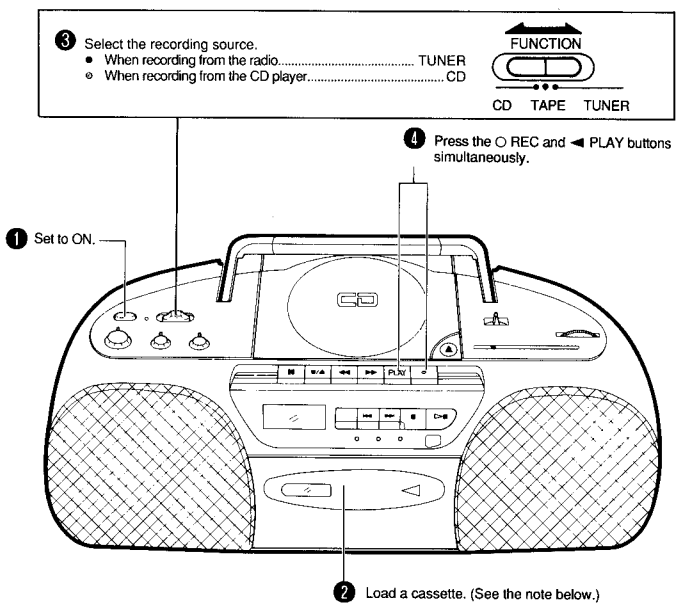
Normally set this switch to the STEREO position. A stereo broadcast can be heard. If you are situated in a weak signal area (a place far away from the broadcast station or in a concrete building), FM stereo broadcast reception may result in an unstable reception with considerable noises. In such a case, set the FM MODE switch to the MONO position to obtain a stable monaural reception.

RECORDING



- In recording, the ALC circuit automatically optimizes the recording level; adjustment of the recording level is unnecessary.

Operate in the order shown

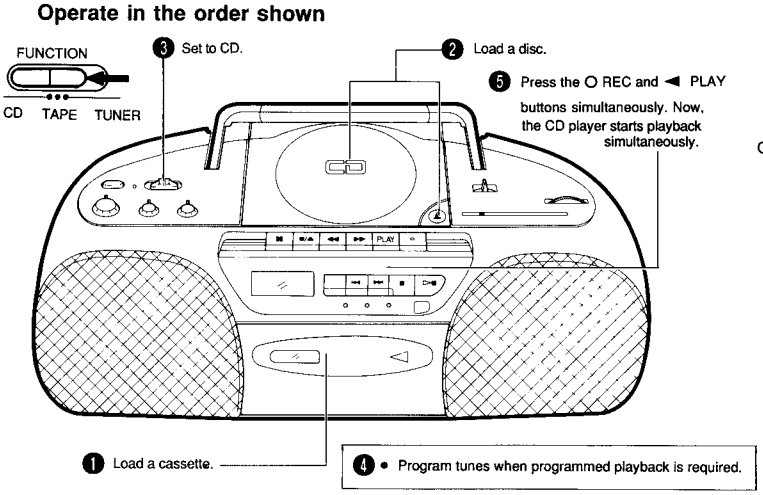


Note:
The recording/playback characteristics of this unit are those of normal tape. Normal tape has different characteristics from CrO_2 and metal tapes.

Synchronized recording with the CD player

- In this system, the CD player starts playback when the cassette deck enters the recording mode.

Operate in the order shown



- Non-recorded sections of approx. 4 seconds are left automatically between tunes.
- When the tape reaches the end first, the CD player stops automatically; when the CD player stops first, the tape continues running. In this case, press the ■/⏏ STOP/EJECT button to stop the tape.

- **When automatic spacing between tunes is not required ...**
  Perform the following after finishing the previous operation (❶ – ❹).
  ① Press the ▷II PLAY/PAUSE button of the CD player twice. The CD player enters the pause mode.
  ② Press the O REC and ◄ PLAY buttons simultaneously.
  Now, the CD player starts playback simultaneously.

II PAUSE button

First of all, press the II PAUSE button. Then, press the O REC and ◄ PLAY buttons, thus entering the record-pause (standby) mode. After that re-press the II PAUSE button at the exact moment you want to start recording. This releases the tape to begin recording at a precise moment.

- Do not leave the unit in pause mode for more than a few minutes. Instead, push the ■/⏏ STOP/EJECT button and turn the power off.

Full auto-stop mechanism

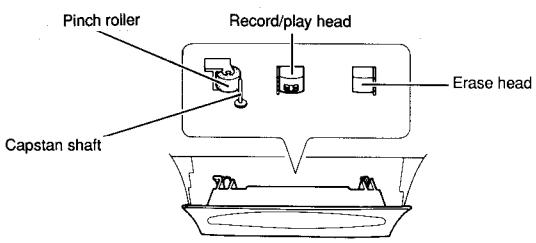
When the tape reaches either end during the recording/playback and fast forward or rewinding mode, the tape stops automatically.

BEAT CUT switch

When recording an AM broadcast, beats may be produced which are not heard when listening to the broadcast. In such a case, set this switch so that the beats are eliminated. Normally set this switch to "NORM 1".

Erasing

When recording on a prerecorded tape, the previous recording is automatically erased and only the new program is recorded on the tape.
To erase a tape without making a new recording...
Follow the section "RECORDING" but in step ❸, set the FUNCTION switch to TAPE then perform recording to erase the tape.



2 Location of Main Parts

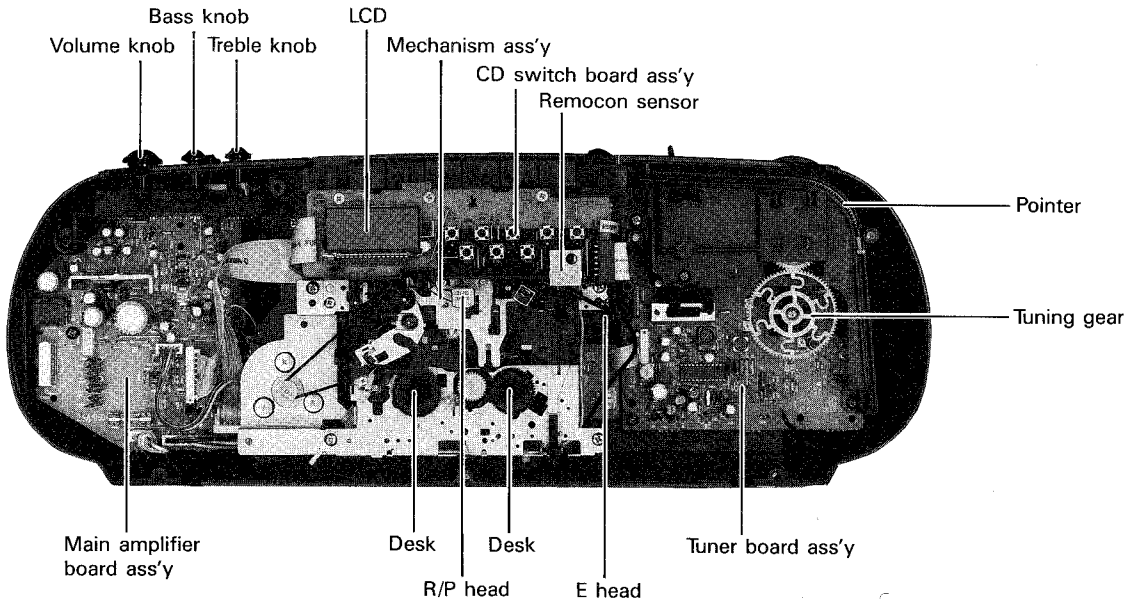


Fig. 2-1

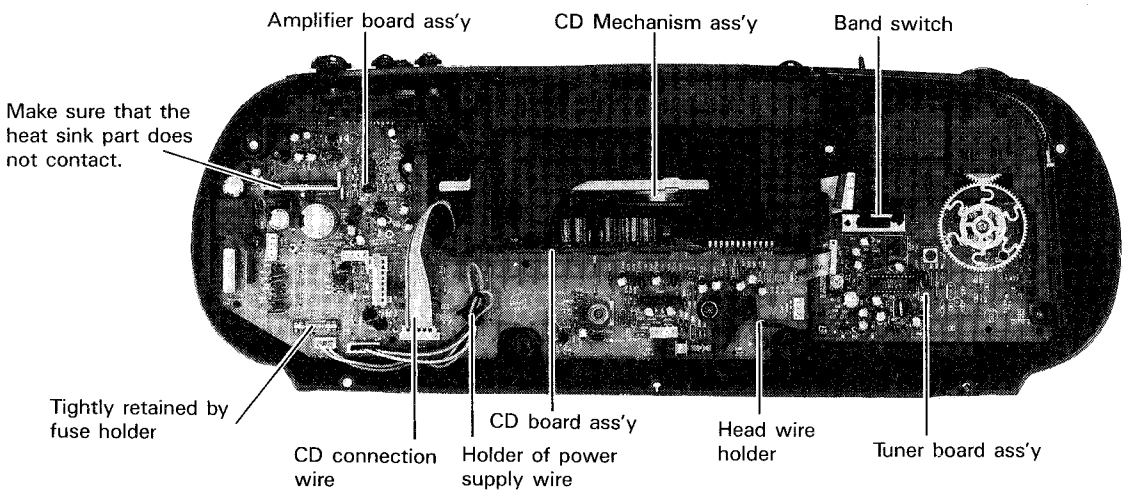


Fig. 2-2

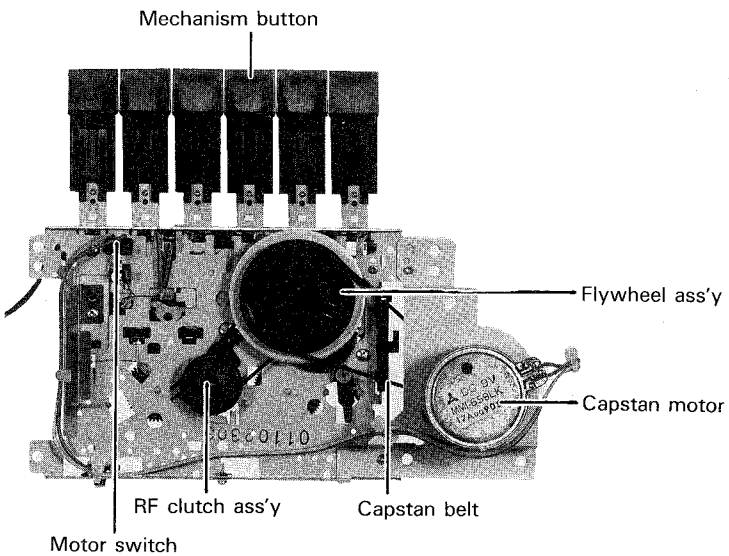


Fig. 2-3

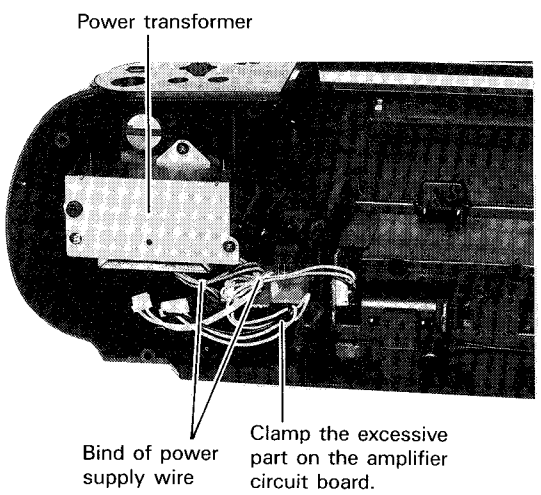


Fig. 2-4

3 Removal of Main Parts

■ Cabinet Assembly Section

This set is inserted in the back cover.

Please remove in the order of 1,2 and 3.

Items to be removed \ Items to be removed in order	Cassette door assembly	Front cover assembly	LCD/CD switch circuit board assembly	Mechanism assembly	CD unit	Tuner circuit board assembly	Amplifier circuit board assembly	Power supply transformer	AC jack assembly	Speaker	Fuse				
Cassette door assembly	1														
Front cover assembly		1													
LCD/CD switch circuit board assembly		1	2												
Mechanism assembly		1	2	3											
CD unit		1	2	3	4										
Tuner circuit board assembly		1				2									
Amplifier circuit board assembly		1	2	3	4		5								
Power supply transformer		1	2	3	4		5	6							
AC jack assembly		1	2	3	4		5		6						
Speaker		1								2					
Fuse		1									2				

■ Cover Assembly

1. Remove the 7 screws (1) and (1') from the rear panel. (Remove the at the tip of the ▲ mark.)
2. Open the cassette door, remove it from the bottom of the front cover, and slide the front cover upwards in order ot remove the button section of the mechanism.
3. Remove the speaker wire (CN361) that leads to the amplifier circuit board.
   Then remove the earth wire (TO SP (TP5) that leads to the tuner circuit board.

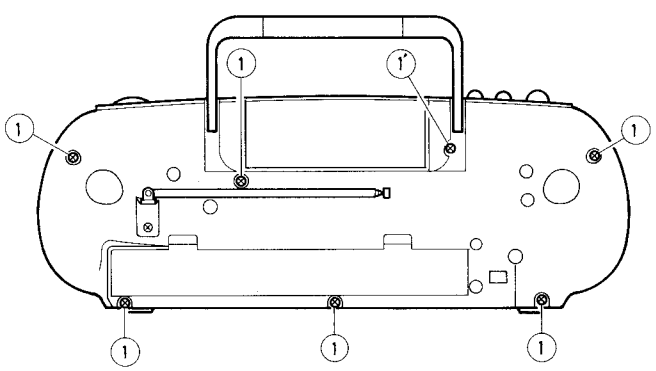


Fig. 3-1

■ LCD/CD Switch Circuit Board Assembly

1. Remove CN331 from the amplifier circuit board. See Fig. 3-3.)
2. Remove CN701 to the right of the switch. (See Fig. 3-2.) Pull the wire straight forward.
3. Remove the 2 screws (2) fastening the LCD/switch circuit board holder.

■ Cassette Mechanism Assembly

1. Remove motor/leaf switch wire CN302 that leads to the amplifier circuit board. (See Fig. 3-3.)
2. Remove the 4 screws (3) of the mechanism assembly. The remove the head wire from CN301 of the amplifier circuit board. (See Fig. 3-3.)

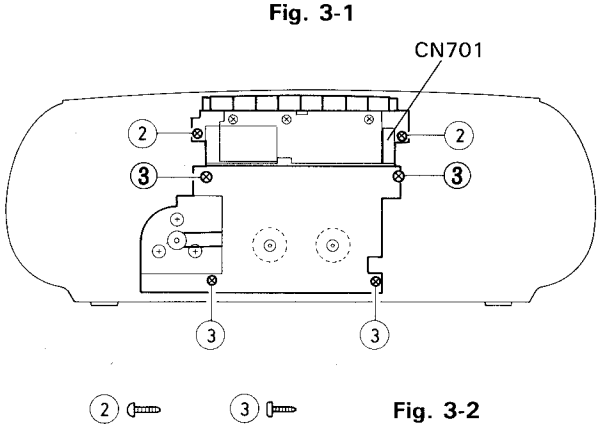


Fig. 3-2

■ CD Unit Assembly

(Cannot be removed without removing the cassette mechanism assembly.)

1. Remove CN312 from the amplifier circuit board, and pull out the CD unit to the front panel.

■ CD Section (Refer to the CD Mechanism Disassembly Chart)

1. Remove the 2 screws that fastening the CD circuit board.
2. Remove CN602 of the CD door switch wire, and raise the circuit board from the door switch side.
3. Remove the 4 square screws of the CD mechanism. (A black coil is inserted on the turntable side of the spring between the bracket and the CD mechanism.)

• Refer to page 13 in regard to pickup replacement.

■ Amplifier Circuit Board Assembly

1. Remove the volume, bass and treble control knobs.
2. Remove the 4 screws (5) that fastening the circuit board. (See Fig. 3-3.)
3. Remove the screw (6) fastening the recording arm.
4. Remove CN341, CN342 and CN9 of the power supply connector.
5. Remove the circuit board from the right side of the tuner. (When assembling, make sure to properly align the mode switch knob and the switch assembly.)
   Refer to page 12 in regard to the volume circuit board.

■ Power Supply Transformer and AC Jack Assembly

Remove the screw fastening the power supply transformer/AC jack after removing the amplifier circuit board.

■ Tuner Assembly

1. Remove the screw (7) that fastening the dial gear to the vriable capacitor.
2. Remove the 2 screws (8) fastening the holder.
3. Remove the 2 screws (9) fastening the circuit board. Remove antenna wire TP1 (TO ROD ANT).

• Tuner Position Alignment (When assembling)

1. Set the dial pointer to position of the lowest frequency.
2. Turn the variable capacitor fully counterclockwise.
3. Attach by aligning the grooves of the dial gear and the variable capacitor. (Fig. 3-5)

• Replacement of the CD Door

a) Remove the CD door from the shaft on the right of the door. (Use a flat-tipped screwdriver, etc., to remove the door arm from the shaft.) (Fig. 3-6)

b) When assembling, make sure that the door spring enters the rib groove inside the door, and align the door with the shaft. (Fig. 3-7)

• Replacement of the CD Clamper

a) Remove the CD door.

b) Widen the tab holding the clamper at the back of the door outwards, and remove the clamper in a diagonal direction from the back of the door.

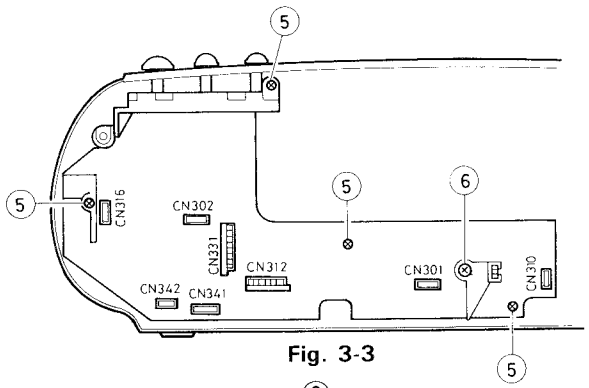


Fig. 3-3

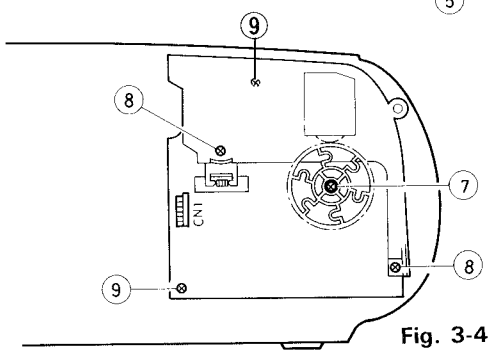


Fig. 3-4

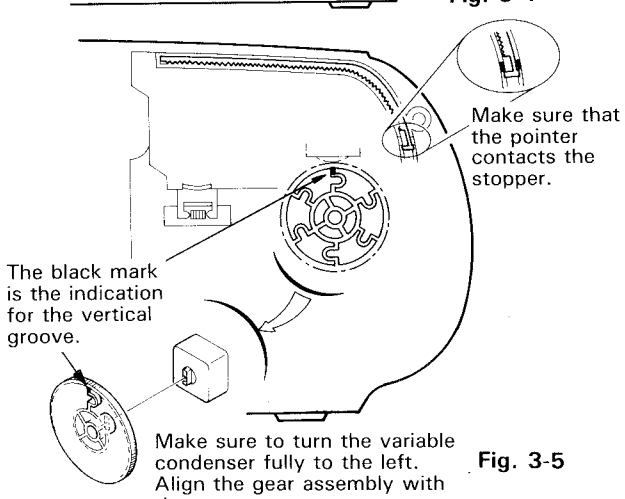


Fig. 3-5

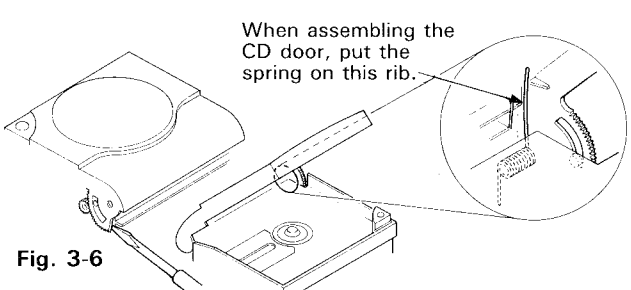


Fig. 3-6

Fig. 3-7

Use a screwdriver, etc., to remove the shaft.

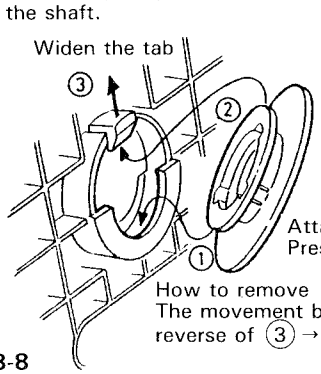


Fig. 3-8

■ Cassette Door

1. Remove the door arm on the oil damper side from the shaft, lean the door somewhat and then remove it from the spring side for easy removal.

■ Speakers

1. Remove the 4 screws (for each speaker) fastening the speakers.

■ CD Operation Buttons

1. Remove the 2 screws of the CD operation buttons.

• When Removing the Cassette Door from the Complete Set

1. Open the cassette door.
2. Insert a medium-size (approx. 4 mm) screwdriver to the left of the cassette door, and push inward so that the door arm comes off the shaft.

• How to Attach

1. Attach the door spring and gear to the door.
2. Insert the spring in parallel so that it will not come off, and align the shaft after the tip of the door spring has contacted the fixed position of the cabinet. The shaft and door arm are tapered, so please decide position and push in.
   Then push the gear damper side and align with the shaft. (Both ends of the door and shaft are tapered.)

■ Volume Circuit Board Assembly

1 Remove the screw (5) fastening the volume knob holder.
2. Remove the white wire leading to the amplifier circuit board.
3. Pull at the circuit board assembly connected to the connector to remove it.

• Caution Regarding the Front Cover Assembly

Make sure to switch the tape transport mechanism of the cassette mechanism to FWD before assembling. (Assembly is not possible if it catches onto the cover.)

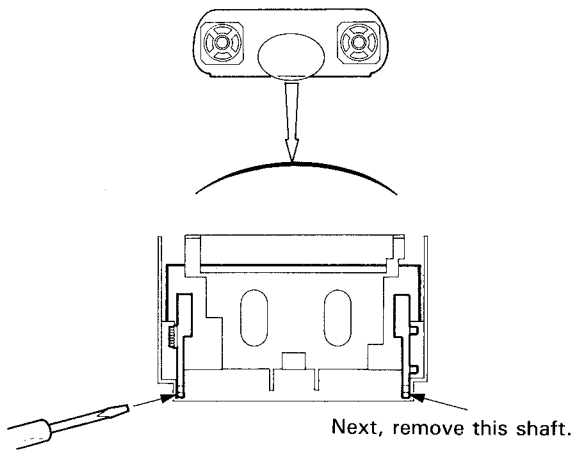


Fig. 3-9

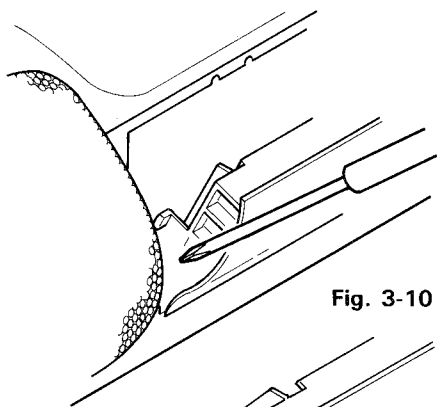


Fig. 3-10

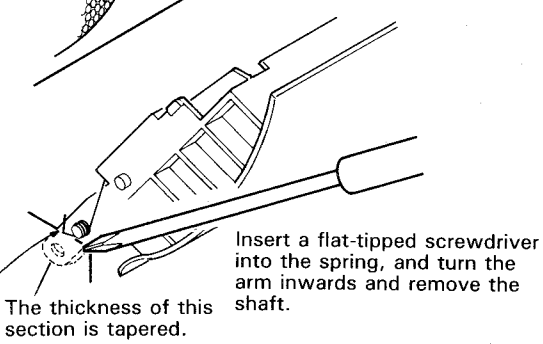


Fig. 3-11

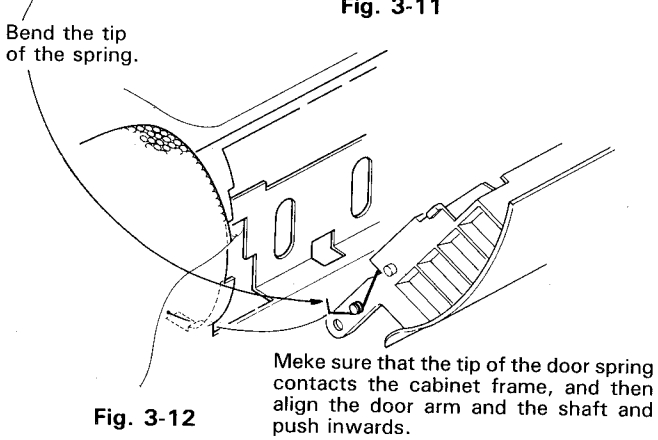


Fig. 3-12

<CD Player Mechanism Section>

Insertion

■ CD Mechanism Section

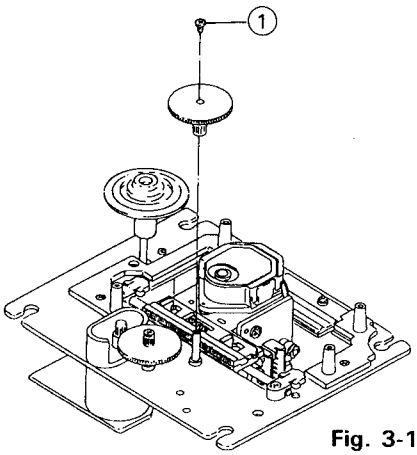


Fig. 3-13

1. Remove one screw ① retaining Gear.
2. Remove the Gear.
3. Remove the shaft stopper.
4. Pull up the pick up Ass'y and remove the Connector.

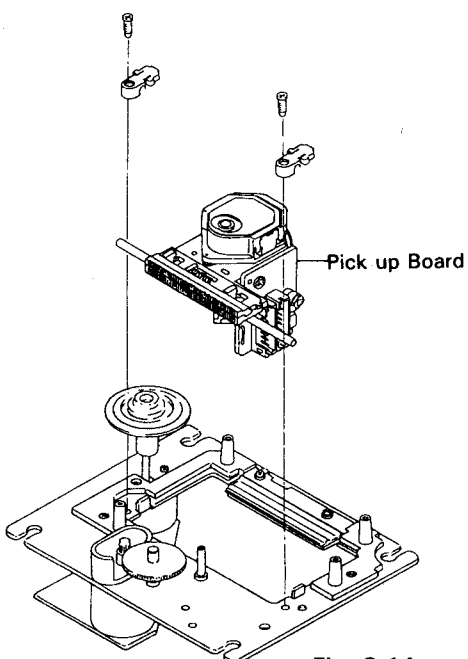


Fig. 3-14

Pick up replacement can be done without any adjustments.
Parts No. KSS-210B(H)-RS

* To lessen the effects of static electricity, the above part has a soldered bridge. Remove this soldered bridge before using the part.

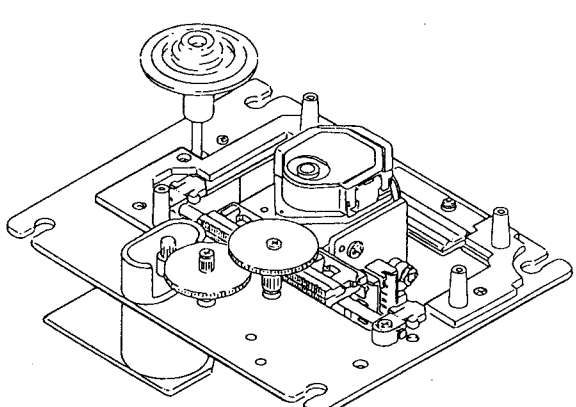


Fig. 3-15

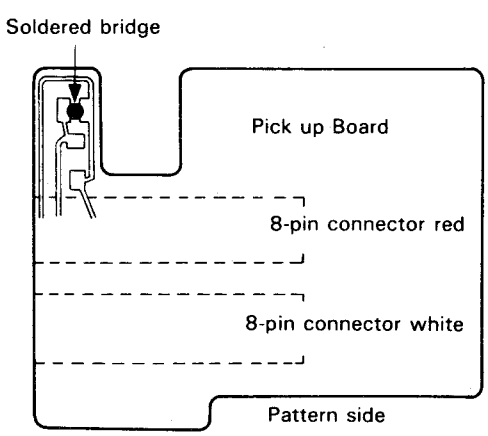


Fig. 3-16

<Cassette Mechanism Section>

■ Capstan motor ass'y

1) Disengage the capstan belt.
2) Remove the three screws ① retaining the capstan motor ass'y.

■ R/P head section

1) Remove the record/playback head's mounting screw ② and loosen screw ③.

■ E head section

1) Remove the E Head arm stopper ⑥.

■ Pinch roller

1) Remove the pinch roller arm stopper ④.

■ Flywheel ass'y

1) Remove the poly washer ⑤ securing the capstan shaft.
2) Pull out the flywheel ass'y.

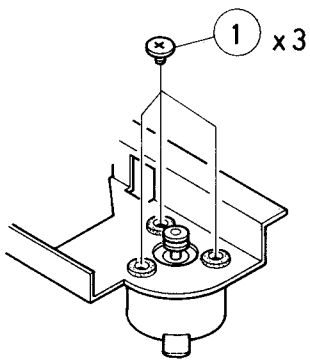


Fig. 3-17

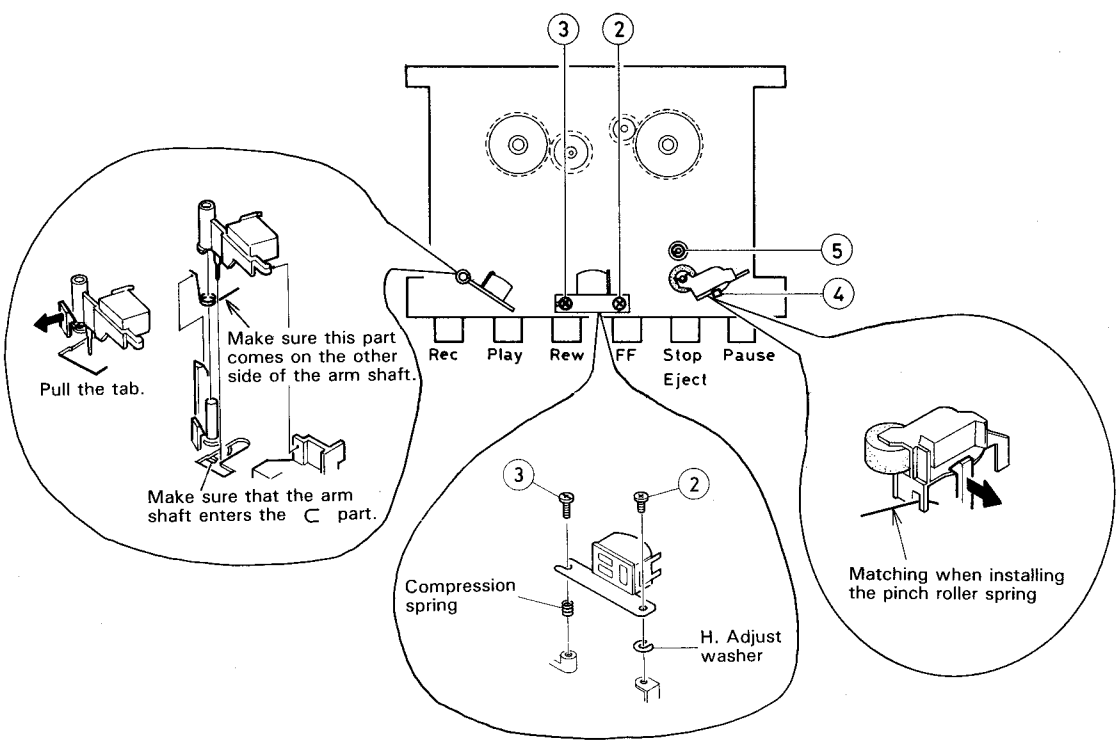


Fig. 3-18

■ Removal of the button ass'y from the mechanism chassis

- Leaf switch
  Press the switch's lock panel and raise from the left to remove.

- Gear (below the flywheel)
  Remove the poly washer (7) securing the gear.
  For reassembly, insert the Sensing Lever arm stand into the (A) section.

- Lock arm
  Press the arm stopper from the window (8), and pull to remove.

- Chassis removal
  1) Remove the one screw (9) retaining the rec. plate spring.
  2) Disengage the button springs (E).
  3) Remove the three springs (B), (C) and (D).
  4) Remove the two screws (10).
  5) Remove the two screws (11) securing the capstan metal.
  6) Gently remove the button ass'y from the chassis.

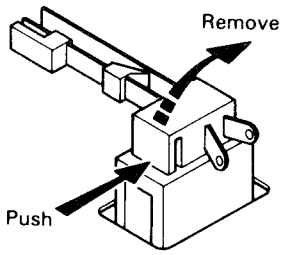


Fig. 3-19

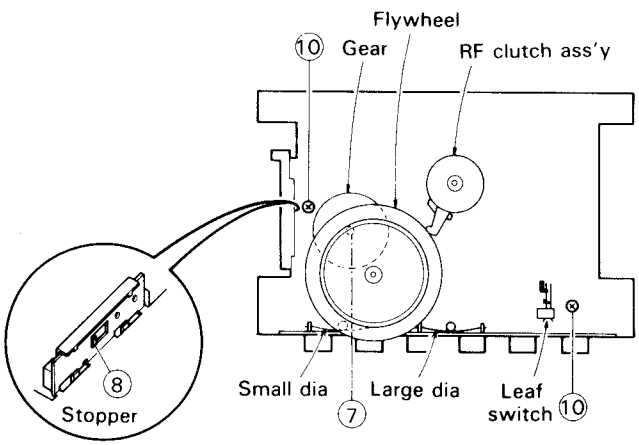


Fig. 3-20

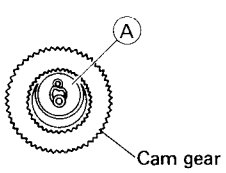


Fig. 3-21

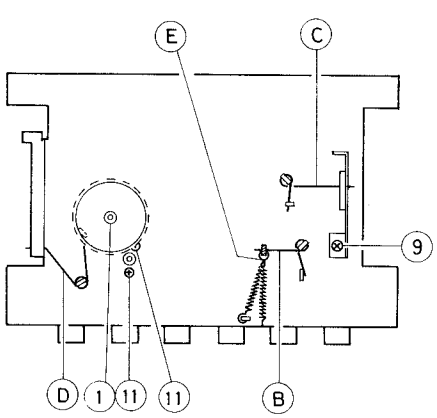


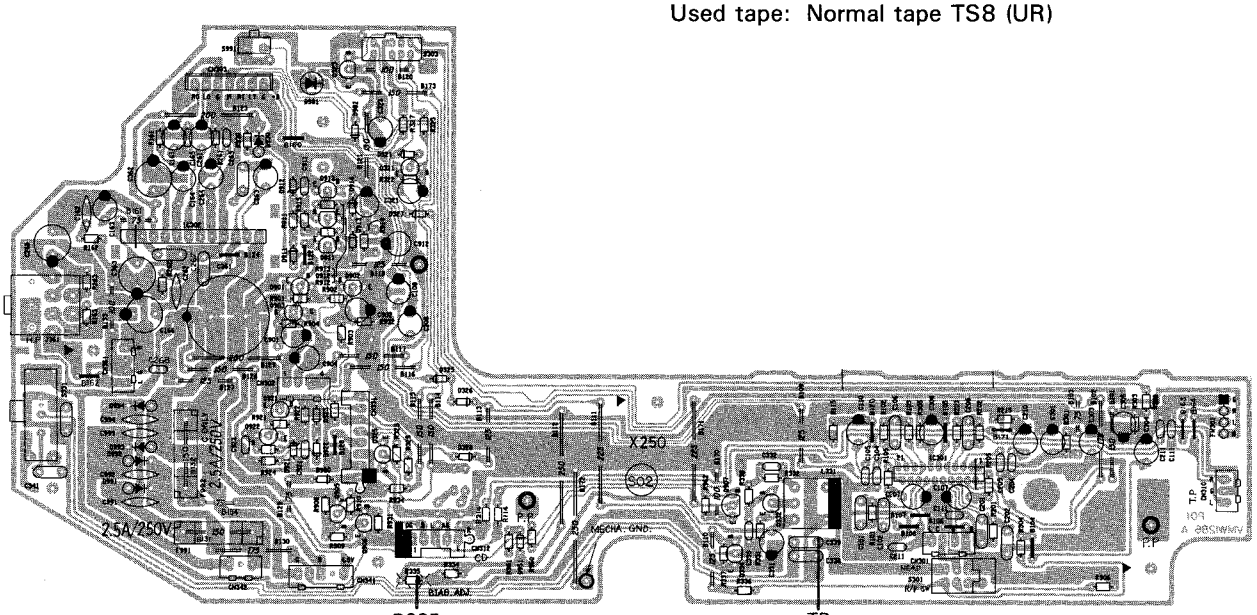
Fig. 3-22

4 Adjustments

■ Amplifier/Cassette Mechanism Section

After completion, remove the cassette door and adjust the angle of the head. Refer to Page 12 in regard to removal of the door.
Power supply voltage: 9 V DC.

Input : TP (CN310) −20 dBs
Output : Speaker 0 dBs/3 Ω Headphones
Treble, bass volume: Center
Function switching: Tape
Used tape: Normal tape TS8 (UR)



R335
Bias oscillation adjustment (When cut, the oscillation power supply is increased.)

TP
Bias oscillation output (Make a serial connection of a 100 Ω resistor to the measuring instrument.)

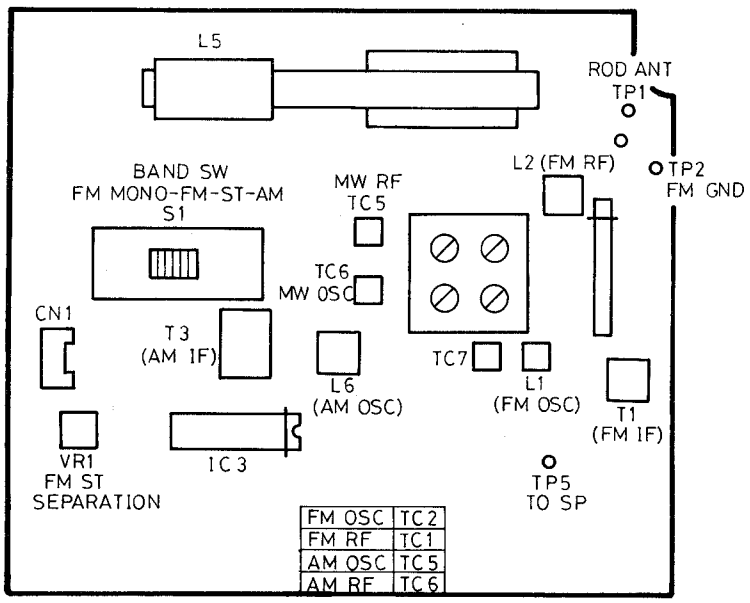
Fig. 4-1

Item	Standard	Adjustment and confirmation methods	Location to be adjusted
Head angle adjustment	Maximum output Difference between L and R channels minimum	Play back test tape VTT702 (8 kHz) and adjust the maximum output point with the adjustment screw. At this time, make sure that the phase difference of the left and right channels is minimum. Perform this adjustment both in forward and reverse directions.	———
Confirmation of tape speed and wow and flutter	Speed 3000^{+90}_{-60} Hz Wow and flutter Max. 0.38% (RMS)	Play back the end of test tape VTT712 (3 kHz) and confirm that the reading of the counter is within the standard value. Then, play back VTT712 (without specified position) and confirm that the reading of the counter is within the standard value.	———
Measurement of the playback output	Maximum output (per channel) 0.75 W/3 Ω	Play back VTT722 (1 kHz) with the AC power supply and confirm that the maximum speaker output is min. 0.75 W (1.5 V)/3 Ω.	———
Confirmation of the playback frequency characteristics	8 kHz: −1±4 dB 125 Hz: 7±4 dB	Play back test tape VTT736 (125 Hz, 1 kHz, 8 kHz) and confirm that the playback, level of 8 kHz is within the standard value against 1 kHz (speaker output terminal).	———
Confirmation of the bias frequency	Beat cut switch 1: 64 kHz±6 kHz 2: 67 KHz±6 kHz 3: 67 kHz±6 kHz	Confirm that the TP value is within the standard value when switching the beat cut switch from "1 ~ 3".	———
Confirm the recording/ playback frequency	8 kHz: 0 ±4 dB 125 kHz: +5 ±4 dB	Beat cut switch: 1, When the input level is 20 dB from the reference level and recording playing back 1 kHz, 8 kHz, confirm that 8 kHz is within 0 ±4 dB of 1 kHz. If it is not lower than this standard, cut R335 to make it come within the standard.	R335
Recording/playing back sensitivity	+2 ±3 dBs (at the monitor level)	Confirm that the recording/playback reference level is within +2 ±3 dBs with reference to the −30 dBs monitor level when −30 dBs/1 kHz has been applied to the TP CN310 input.	———
Recording/playback distortion ratio	Max. 8% (distortion) and max. −33 dBs (S/N ratio)	Confirm that the value becomes 8% in maximum when the recording/playback reference level is 1 kHz. Next, confirm that the playback reference level of the non-signal recording section is within −33 dBs (Best cut switch: 1).	———

■ Tuner Section

• Locations to be adjusted on the tuner circuit board

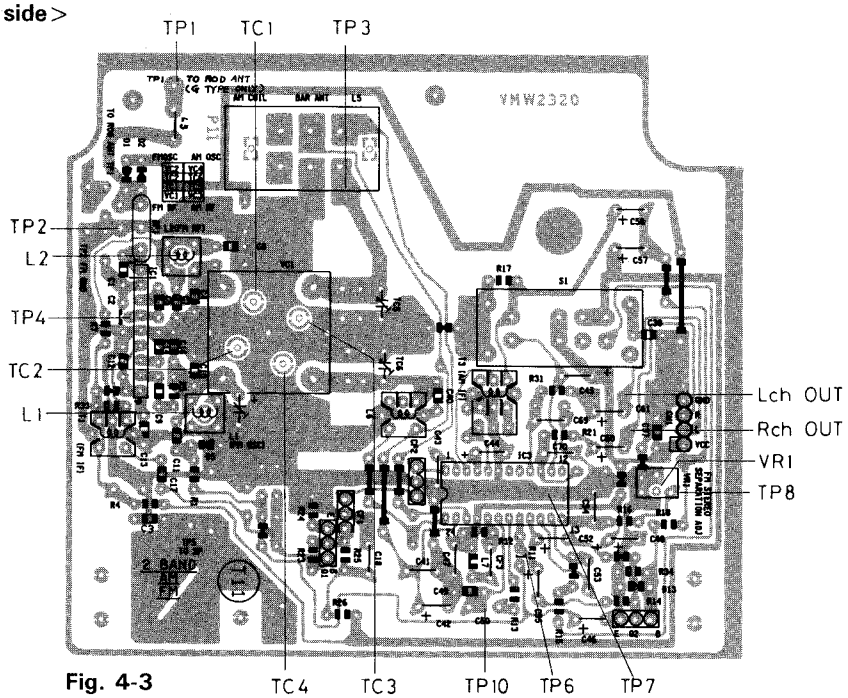
<Parts side>



Notes:
Perform the AM adjustment from the top side.
Perform the FM adjustment from the bottom side.

Fig. 4-2

<Pattern side>



Trimmer center position
TC5, TC6, TC7

Fig. 4-3

• Measurement conditions

1) Applied voltage:
9 V DC (Applied 6 V DC voltage of the tuner: After 7 V, add 15 Ω in series and apply voltage.)

2) Standard output:
Speaker 10 mW (0.172 V, 3 Ω)

3) Input signal:
AM modulation frequency 400 Hz, modulation degree 30%
FM/TV modulation frequency 400 Hz, frequency variation 22.5 kHz.

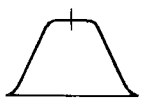
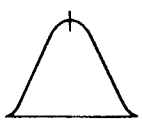
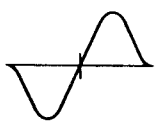
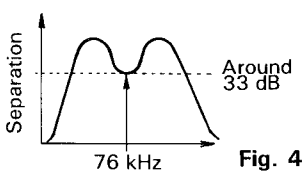
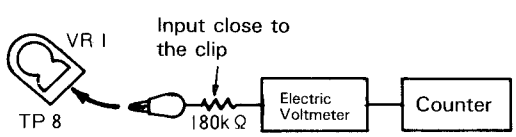
4) Knob positions:
Bass/treble volume: Center
Function switch: Radio

Notes on adjustments

1) IF sweeper and connection:
Serially add 30pF and 33 kΩ to the sweeper output side, and 0.082 μF and 100 kΩ to the input side.

2) IF sweeper output level:
Adjust to the smallest range possible.

3) Besides when repairing, IF does not need to be adjusted. Therefore, do not touch the adjustment locations. (Especially, do not touch T3.)

Item to be adjusted	Conditions	Adjustment methods	Location to be adjusted
AM IF confirmation	1) Variable condenser position The position where the signal is not received near maximum and minimum capacity. 2) Volume adjustment (minimum) 3) Input position Hot side TP4 4) Output position Hot side TP10 Earth side TP7	As shown in Fig. 1, adjust the waveform so that the left and right tops are highest around 450 kHz (or 450 kHz) (or lowest).  **Fig. 1**	T3
FM IF confirmation	1) Band switching "FM" 2) Variable condenser position The position where the signal is not received near maximum and minimum capacity. 3) Volume adjustment (minimum) 4) Input position Hot side TP4 5) Output position Hot side TP6 Earth side TP7	1) Remove one side of L7, move the S curve and make a waveform with one top as shown in Fig. 2. 2) Turn T1 and adjust the waveform so that the left and right tops are highest around 10.7 MHz. 3) Return the disc limiter waveform L7 to its original position and confirm that the S curve becomes as in Fig. 3.  **Fig. 2**  **Fig. 3**	T1
AM tracking adjustment	1) Band switching "AM" 2) Input position Standard loop antenna	1) Input 520 KHz so that the output becomes maximum at maximum variable condenser position capacity. 2) Input 1650 kHz (1750 kHz) so that the output becomes maximum at minimum variable condenser position capacity. 3) Repeat 1) and 2). 4) Receive 600 kHz and make the output maximum. 5) Receive 1400 kHz (1500 kHz) and make the output maximum. 6) Repeat 4) and 5) so that the output becomes maximum.	L6 TC6 L5 TC5
FM tracking adjustment	1) Band switching "FM" 2) Input position 75 Ω non-parallel Hot side TP4 Earth side TP2	1) Input 87.5 kHz (87.5±0.1 MHz) so that the output becomes maximum at maximum variable condenser position capacity. 2) Input 109 MHz (108.3 ±0.05 MHz) so that the output becomes maximum at minimum variable condenser position capacity. 3) Repat 1) and 2). 4) Receive 92 MHz and make the output maximum. 5) Receive 106 MHz and make the output maximum. 6) Repeat 4) and 5) so that the output becomes maximum.	L1 TC2 L2 TC1
FM MPX adjustment	**Note:** When adjusting the separation at the time of mounting, etc., the separation changes as shown in Fig. 3 adainst the rotation of VR1. Therefore, if adjustment is performed correctly so that the maximum separation point comes in the center (indicated by the arrow in Fig. 4), an alternative adjustment as shown to the right is possible.  **Fig. 4**	1) Input 92 MHz, 60 dB without adjustment. 2) Connect the hot side of the counter to TP8 and the earth side to TP7. 3) Adjust to 75.75 kHz ±100 Hz by using VR1.  **Fig. 5**	VR1

Note: The ( ) of the AM section concerns the J/C version. The ( ) of the FM section converns the G version.

■ CD Player Adjustment

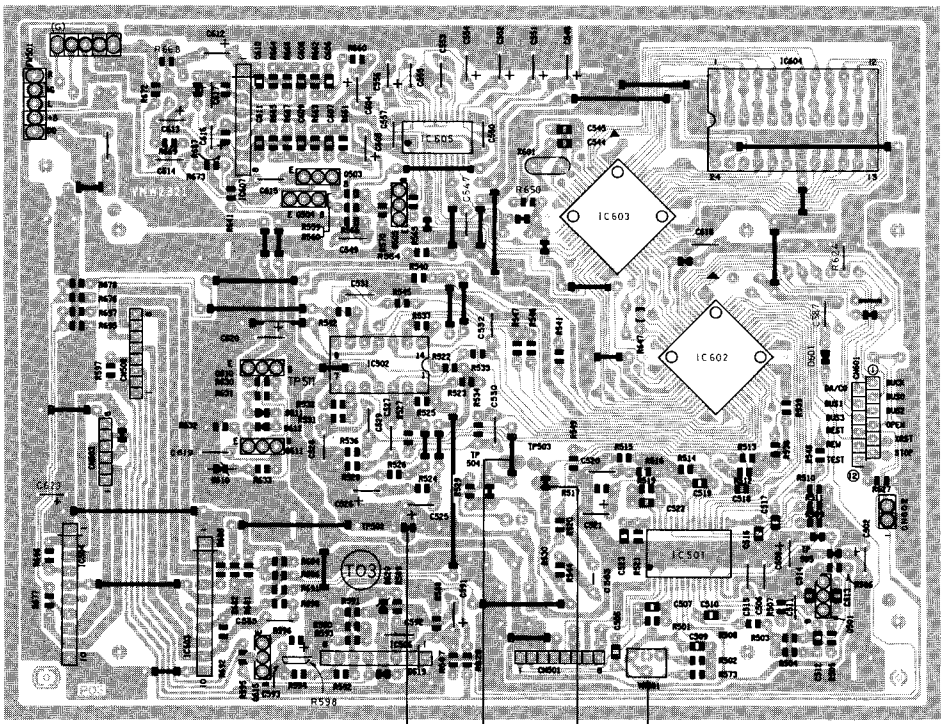


Fig. 4-4

• How to operate with the CD unit conditions

(1) The CD cannot be adjusted with a DC stabilizer power supply. For electrical supply, connect the supplied extension cord to FW501 (5-pin) and FW701 (8-pin) of the CD circuit board (VMW2321), and perform adjustment after connecting to the amplifier circuit board (VMW2321) and supplying electric power to the set. (This is because if connection is not made to the power supply circuit board of the amplifier, the operation of the LSI will be erroneous due to activation time differences in the power supply.)

(2) The load resistance of the audio output is 28 kΩ.

(3) When inserting a disc, please use the magnet clamper used for the set or a similar object.

(4) The table of contents can be entered by short-circuiting the wire that connects switch S710 of the open/close switch circuit board (VMW2321).

• Tracking offset adjustment

Adjustment tool:

Oscilloscope, normal disc (CRG1242)

Adjustment sequence

(1) Connect the hot side TP503 to the oscilloscope and the earth side TP502 to the earth.
(2) Play back the normal disc and confirm if a tracking error signal is output.
(3) Short-circuit between TP504 and TP502.
(4) Adjust with VR501 so that the CD level of the oscilloscope waveform (tracking error signal) becomes "0".

Note: Adjust VR501 so that the upper and lower symmetry is obtained against the "0" level of the waveform.
The oscilloscope input is DC power supply.

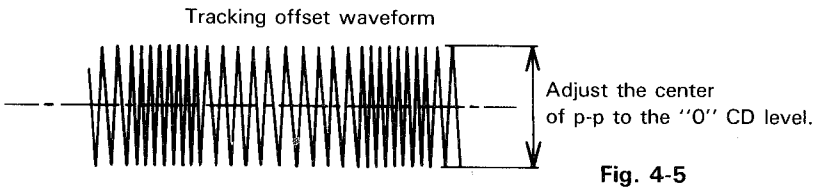


Fig. 4-5

• Preservation of the CD Pickup

Confirmation of the laser diode life

(1) Insert a disc and switch the power ON.
(2) Press the PLAY button (S701) and play back the tune.
(3) Measure the RF output with the oscilloscope, and if the level is lower than 0.6 Vp-p, wipe the lens with a soft cloth.
Measure again. If the RF output is still below 0.6 Vp-p, the cause can be considered to be the end of life of the laser diode, and the pickup should be replaced according to the specified method.
(4) When the RF output is higher than that above, measure the voltage of both terminals of R596 (10 Ω) of the circuit board. When the level is highedr than 1.2 V too, the cause can be considered to be the end of life of the laser diode, and the pickup should be replaced.
• Judgement should be made according to "c, d".

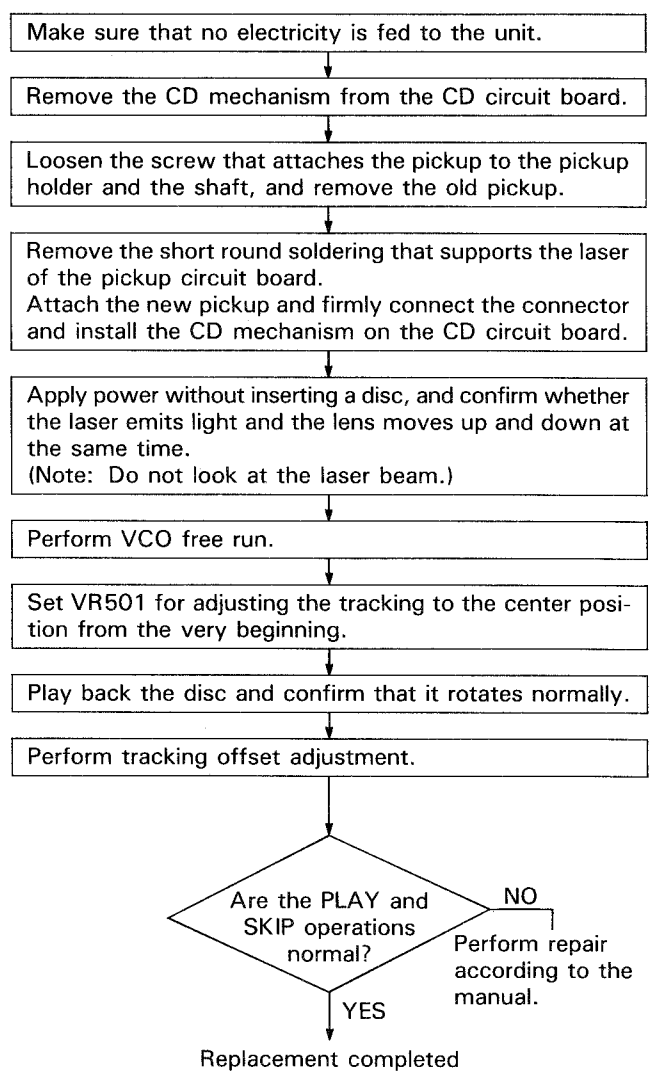
Semi-fixed resistor of the APC circuit board

The semi-fixed resistor of the APC circuit board that is attached to the pickup is used for adjustment of the laser power.
As this adjustment is done in pairs according to the characteristics of the optical block, make sure not to touch the semi-fixed resistor.
If the laser power is low, the life of the laser diode has reached its end, and it is necessary to replace the pickup. When rotating the semi-fixed resistor of a normal pickup, there is a risk that the pickup will be destroyed due to too much electric current.

Grating adjustment

The grating adjustment can best be done separately on the individual parts.
If the adjustment is not right, the laser beam will go to another track, which may make playback impossible.

Replacement of the pickup



APC is an abbreviation of "Auto Power Control".

5 Block Diagram

<CD Section>

■ Basic Diagram

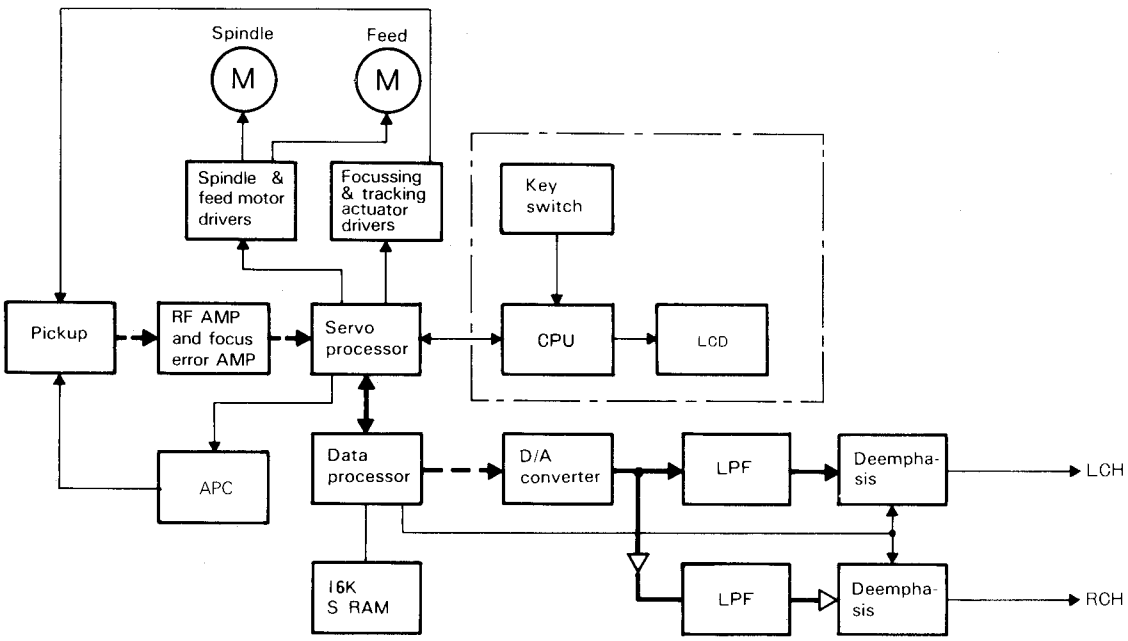


Fig. 5-1

■ Signal Diagram

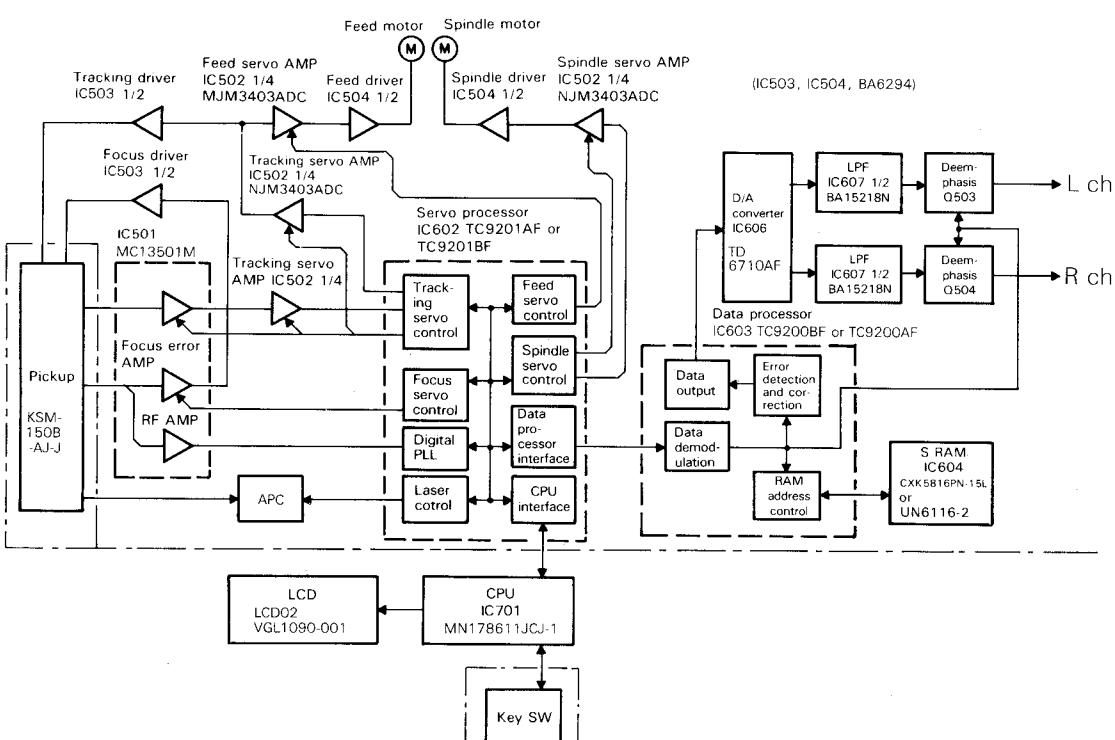


Fig. 5-2

<Amplifier/Tuner Section>

■ Signal Diagram

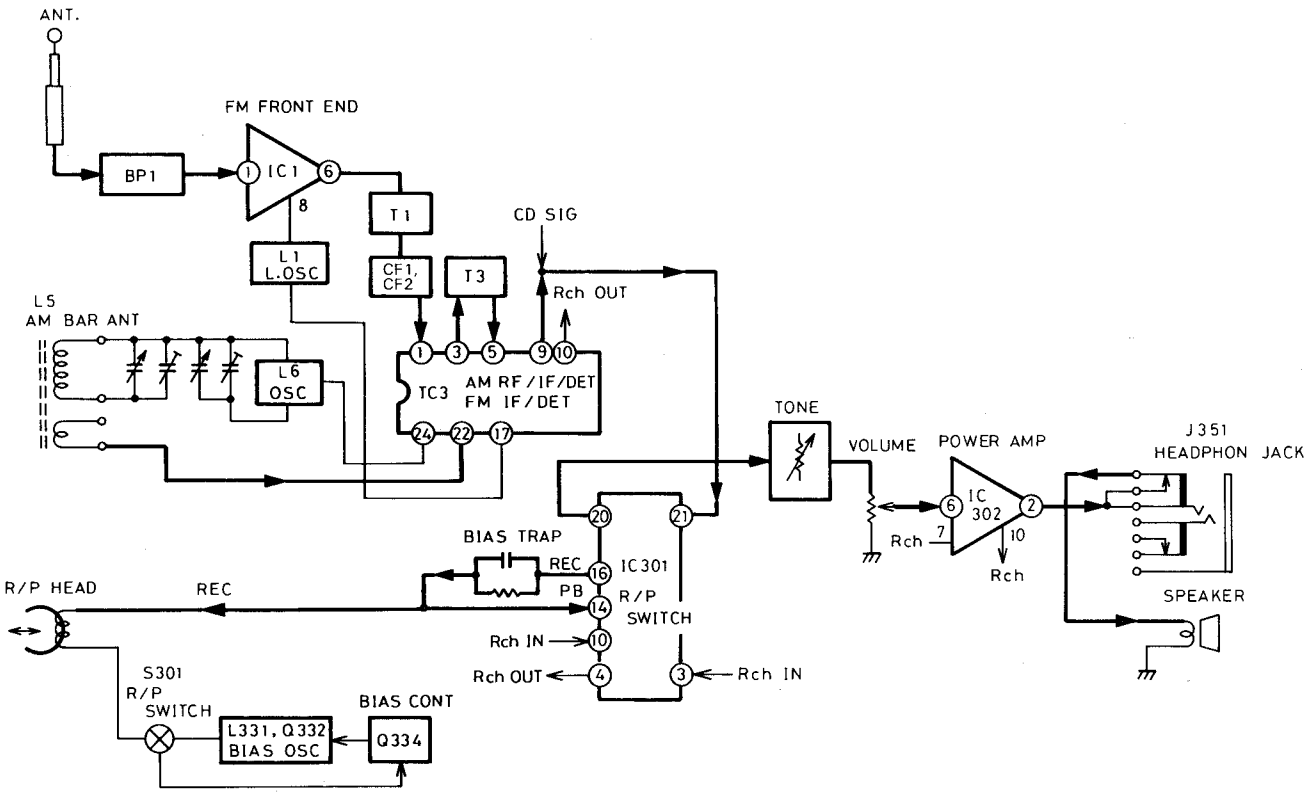


Fig. 5-3

6 Standard Schematic Diagram ■ Tuner Circuit

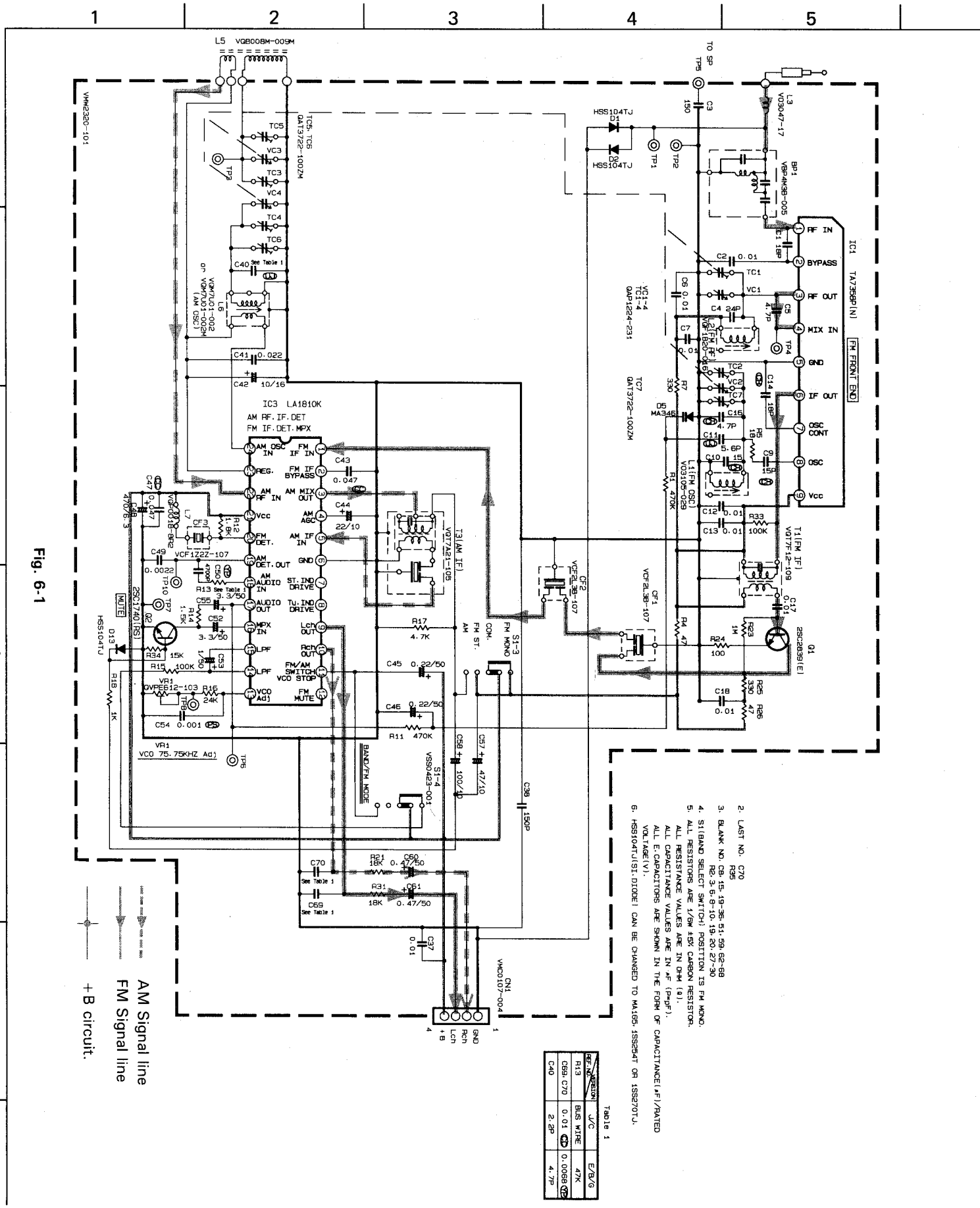


Fig. 6-1

AM Signal line
FM Signal line
+B circuit.

2. LAST NO. C70
R35
3. BLANK NO. CB. 15. 19-36. 51. 59. 62-68
R2. 3. 5. 8-10. 19. 20. 27-30
4. S1 (BAND SELECT SWITCH) POSITION IS FM MONO.
5. ALL RESISTORS ARE 1/6W ±5% CARBON RESISTOR.
ALL RESISTANCE VALUES ARE IN OHM (Ω).
ALL CAPACITANCE VALUES ARE IN μF (P=pF).
ALL E.CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF)/RATED VOLTAGE(V).
6. HSS104TJ(S1-DIODE) CAN BE CHANGED TO MA165. 1SS254T OR 1SS270TJ.

Table 1

REF. NO.	VERSION	J/C	E/B/G
R13		BUS WIRE	47K
C69-C70		0.01	0.0068
C40		2.2P	4.7P

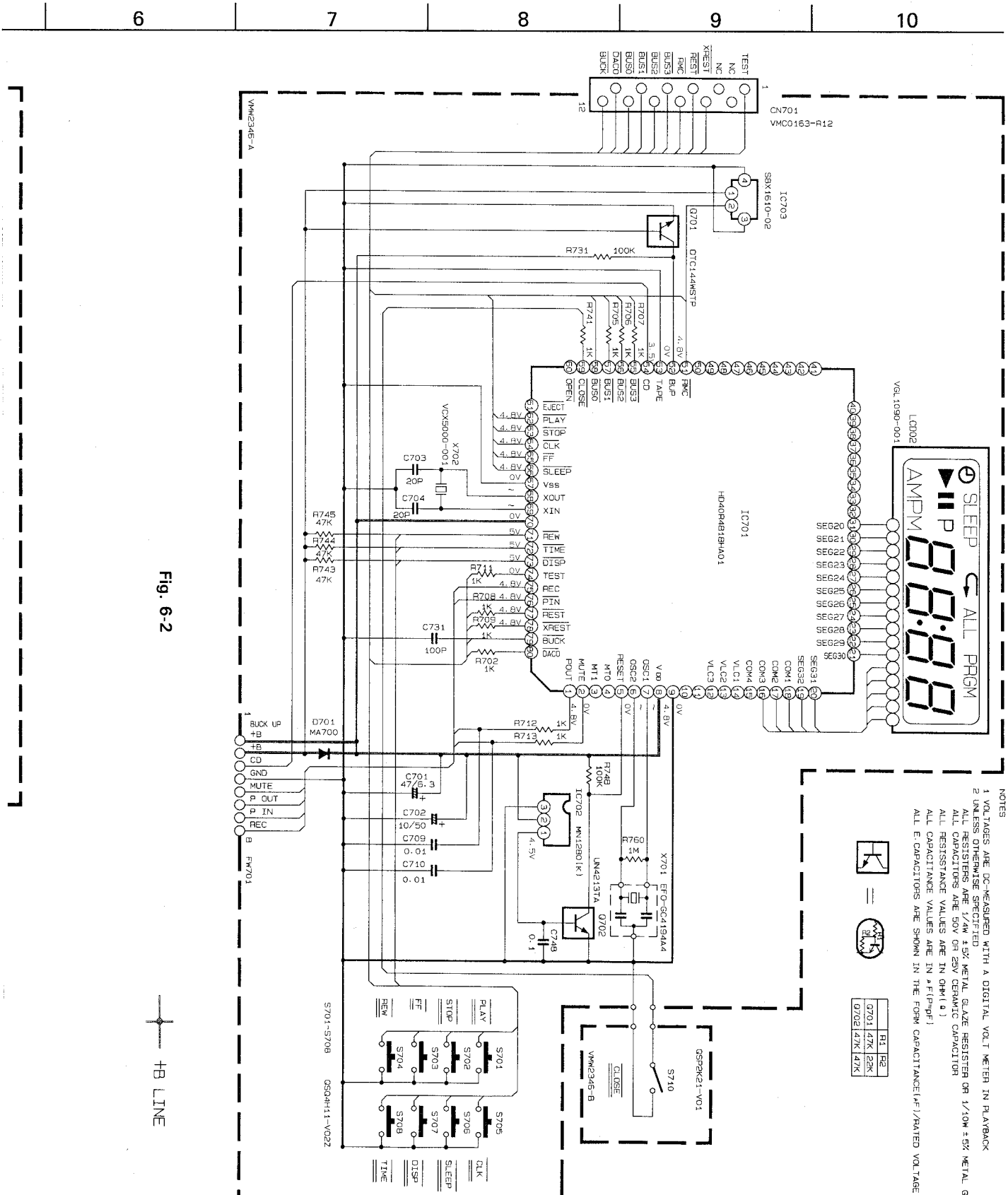

6
7
8
9
10
CN701
VMC0163-R12
IC703
S8X1610-02
Q701
DTC144WSTP
R731 100K
IC701
HD404818HA01
LC002
VGL1090-001
SLEEP
ALL PRGM
AMPM
X702
VCX5000-001
C703 20P
C704 20P
R745 47K
R744 47K
R743 47K
C731 100P
R702 1K
R712 1K
R713 1K
C701 476.3
C702 10/50
C709 0.01
C710 0.01
R748 100K
IC702
MN1280(K)
R760 1M
X701 EFO-GC4194A4
Q702
UN4213TA
C749 0.1
D701
MA700
BUCK UP
+B
CD
GND
MUTE
P. OUT
P. IN
REC
FW701
S701-S708
QSQ4H11-V02Z
S701
S702
S703
S704
S705
S706
S707
S708
PLAY
STOP
FF
REW
CLK
SLEEP
DISP
TIME
S710
QSP2K21-V01
VMW2345-B
VMW2345-A
+B LINE
NOTES
1 VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER IN PLAYBACK
2 UNLESS OTHERWISE SPECIFIED
ALL RESISTERS ARE 1/4W ±5% METAL GLAZE RESISTER OR 1/10W ±5% METAL GLAZE RESISTER
ALL CAPACITORS ARE 50V OR 25V CERAMIC CAPACITOR
ALL RESISTANCE VALUES ARE IN OHM(Ω)
ALL CAPACITANCE VALUES ARE IN μF(P=pF)
ALL E CAPACITORS ARE SHOWN IN THE FORM CAPACITANCE(μF)/RATED VOLTAGE(V)
Q701 47K 22K
Q702 47K 47K

Fig. 6-2

■ Amplifier Circuit

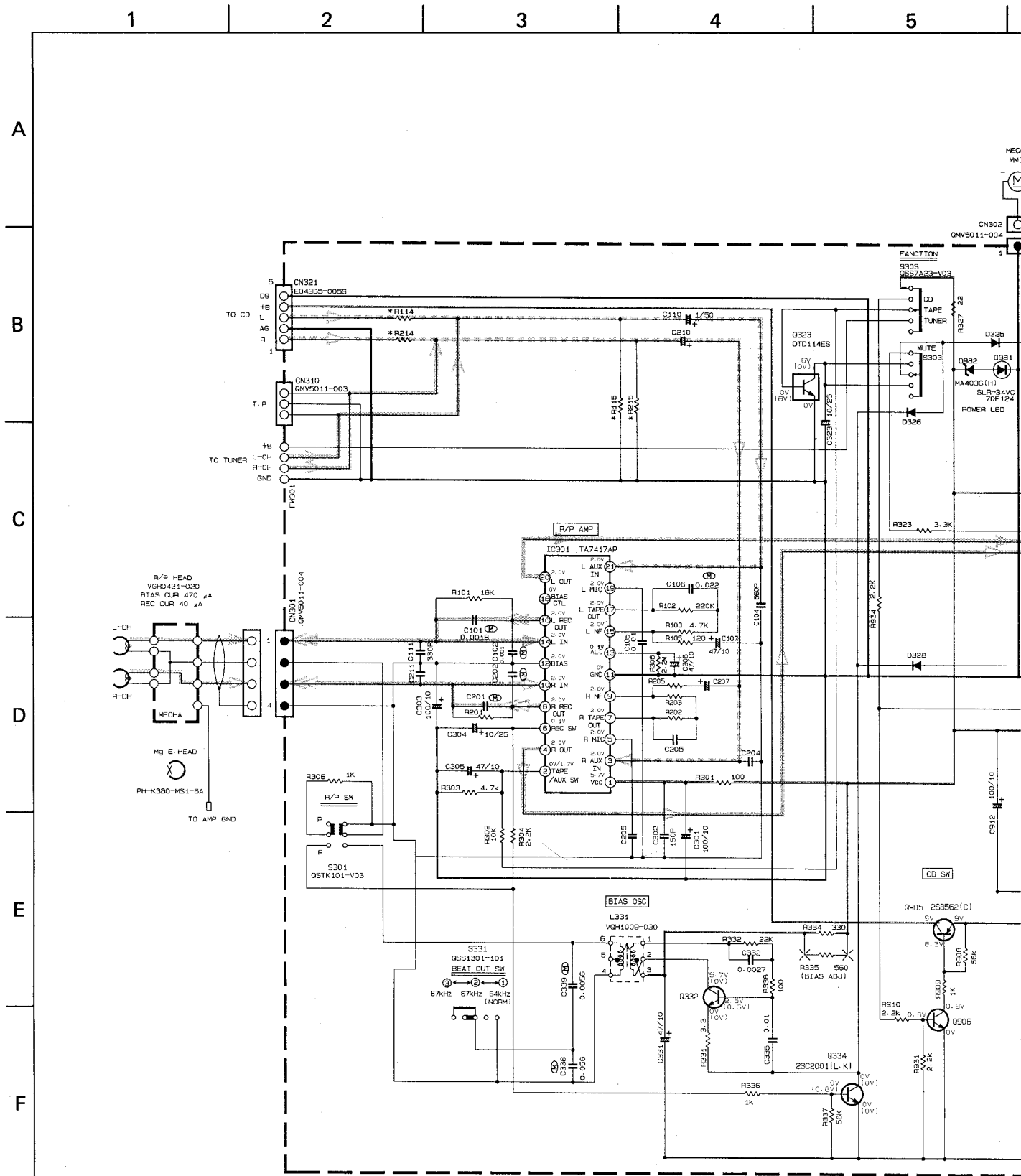


Fig. 6-

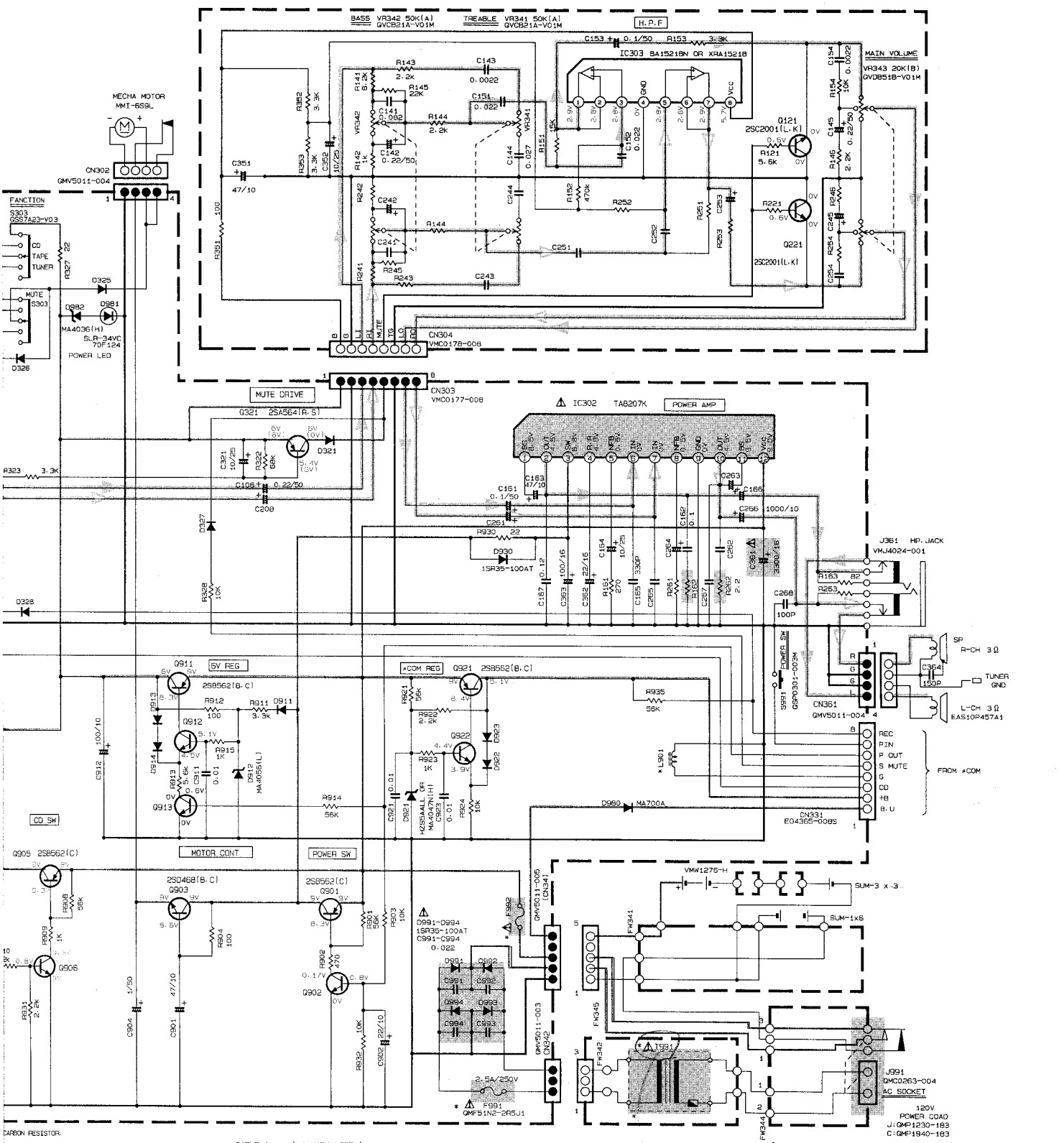


TABLE 1 [* MARK LIST]

PARTS \ VERSION	J	C
T991	VTP57A2-90A	VTP57A2-90A
F991	QMF51N2-2R5J1	QMF51N2-2R5J1
R114	18K	18K
R115	18K	18K
V	120V	120V
L901	BUS WIRE	BUS WIRE
F992	BUS WIRE	QMF51N2-2R5J1

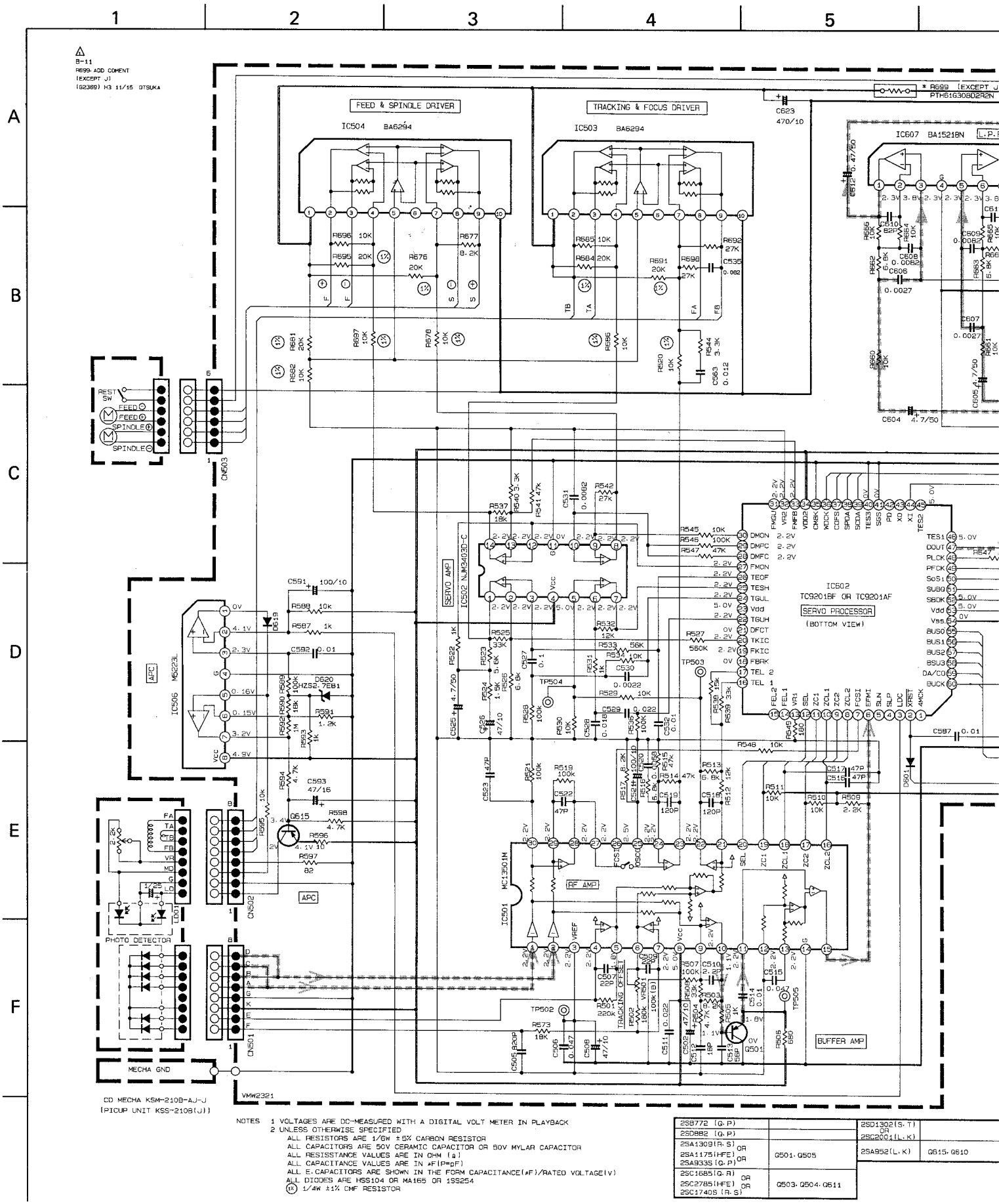
VTP57T2-90A 220V

CD Signal Line
Radio Signal Line
Lch Tape Signal Line
Rch Tape Signal Line
Lch Recording Signal Line
Rch Recording Signal Line
+B LINE
⚠, ▨ Safety assurance parts.
When replacing those parts, make sure to use the specified one.

96.5.-7

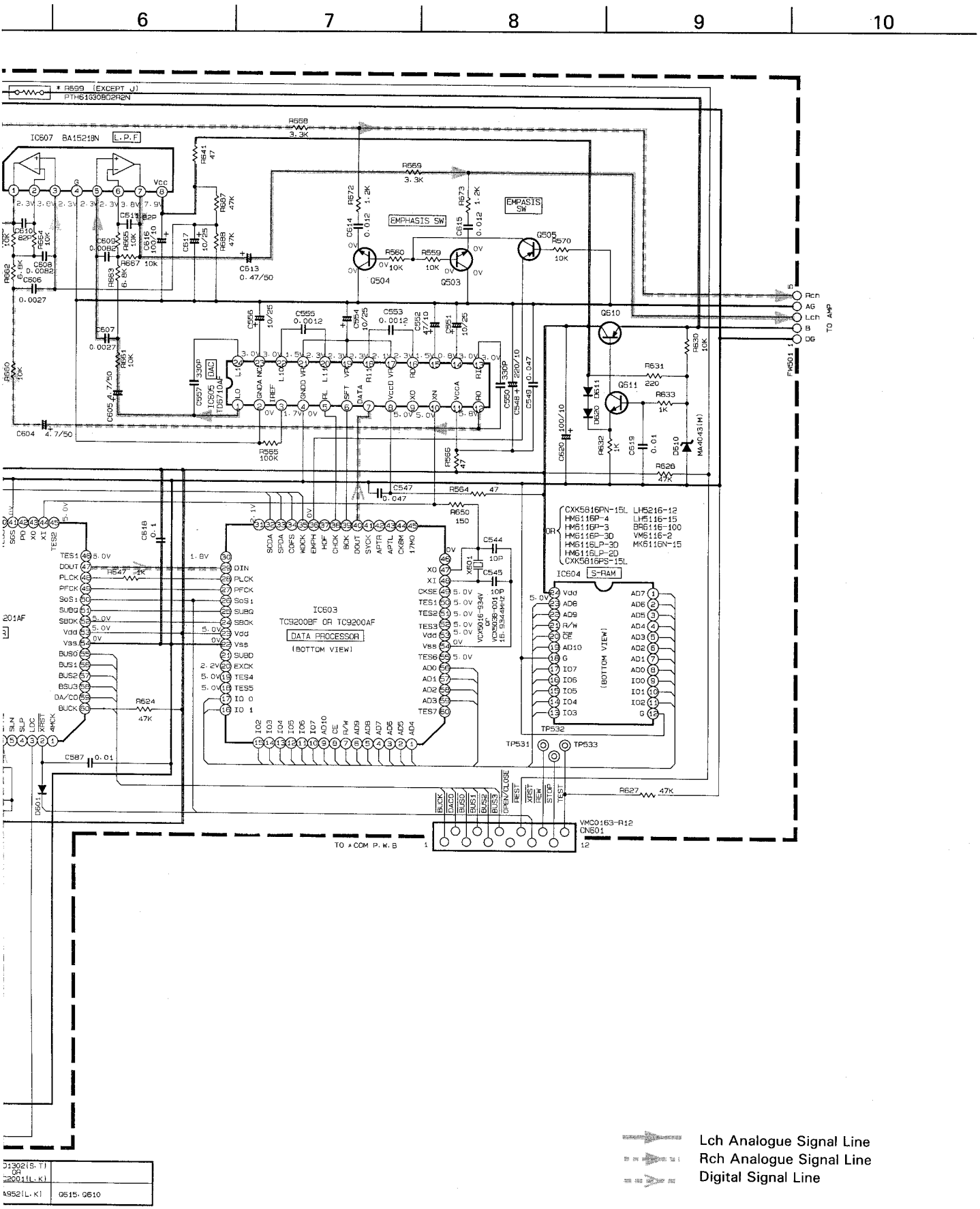
Fig. 6-3

■ CD Circuit



NOTES
1 VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER IN PLAYBACK
2 UNLESS OTHERWISE SPECIFIED
ALL RESISTORS ARE 1/6W ±5% CARBON RESISTOR
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR
ALL RESISSTANCE VALUES ARE IN OHM (Ω)
ALL CAPACITANCE VALUES ARE IN μF(P=pF)
ALL E.CAPACITORS ARE SHOWN IN THE FORM CAPACITANCE(μF)/RATED VOLTAGE(V)
ALL DIODES ARE HSS104 OR MA165 OR 1SS254
(K) 1/4W ±1% CMF RESISTOR

2SB772 (Q.P)		2SD1302(S.T) OR 2SC2001(L.K)	
2SD882 (Q.P)			
2SA1309(R.S) OR 2SA1175(HFE) OR 2SA933S(Q.P)	Q501.Q505	2SA952(L.K)	Q615.Q610
2SC1685(Q.A) OR 2SC2785(HFE) OR 2SC1740S (R.S)	Q503.Q504.Q611		



Lch Analogue Signal Line
Rch Analogue Signal Line
Digital Signal Line

Fig. 6-4

7 Wiring Connections

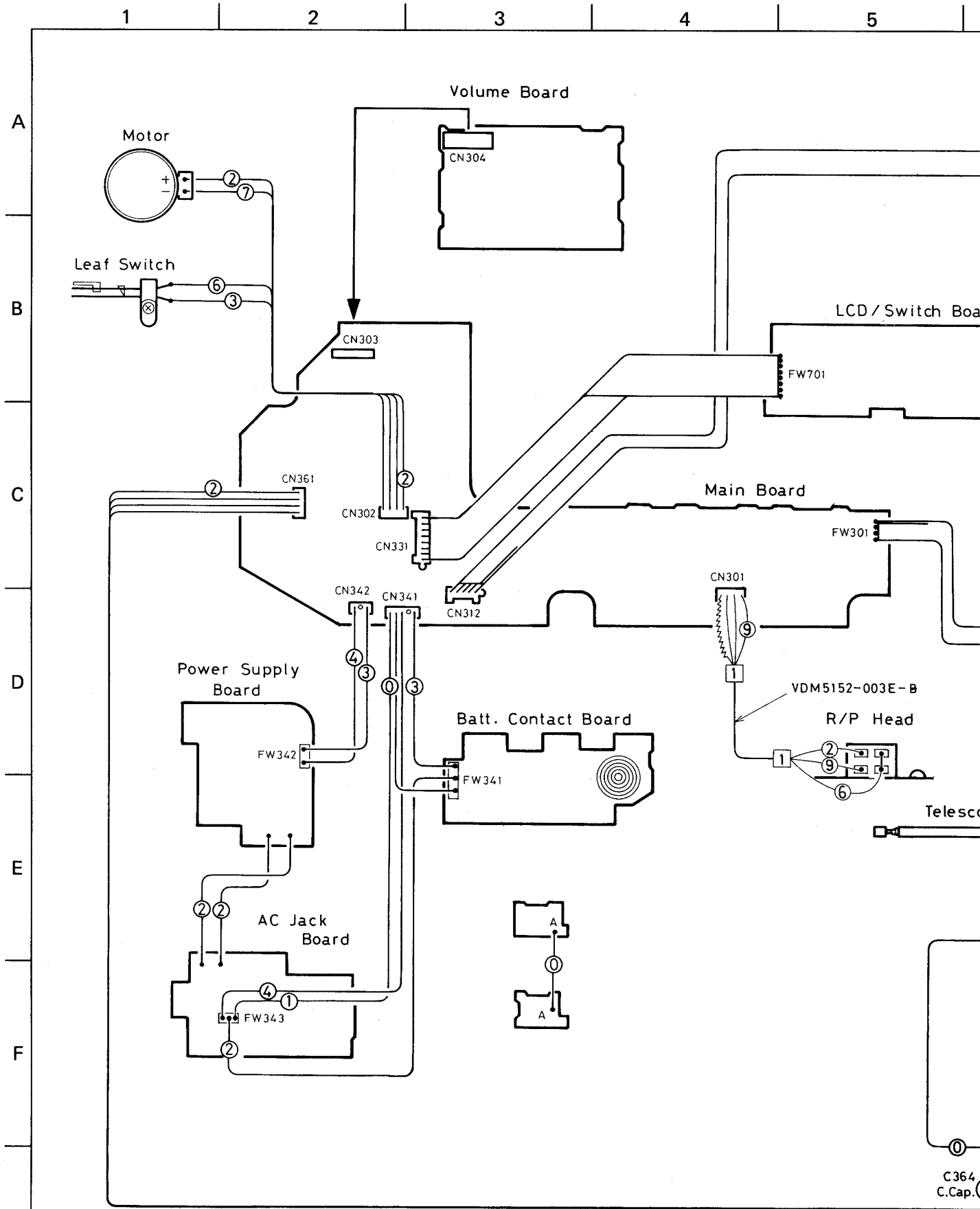
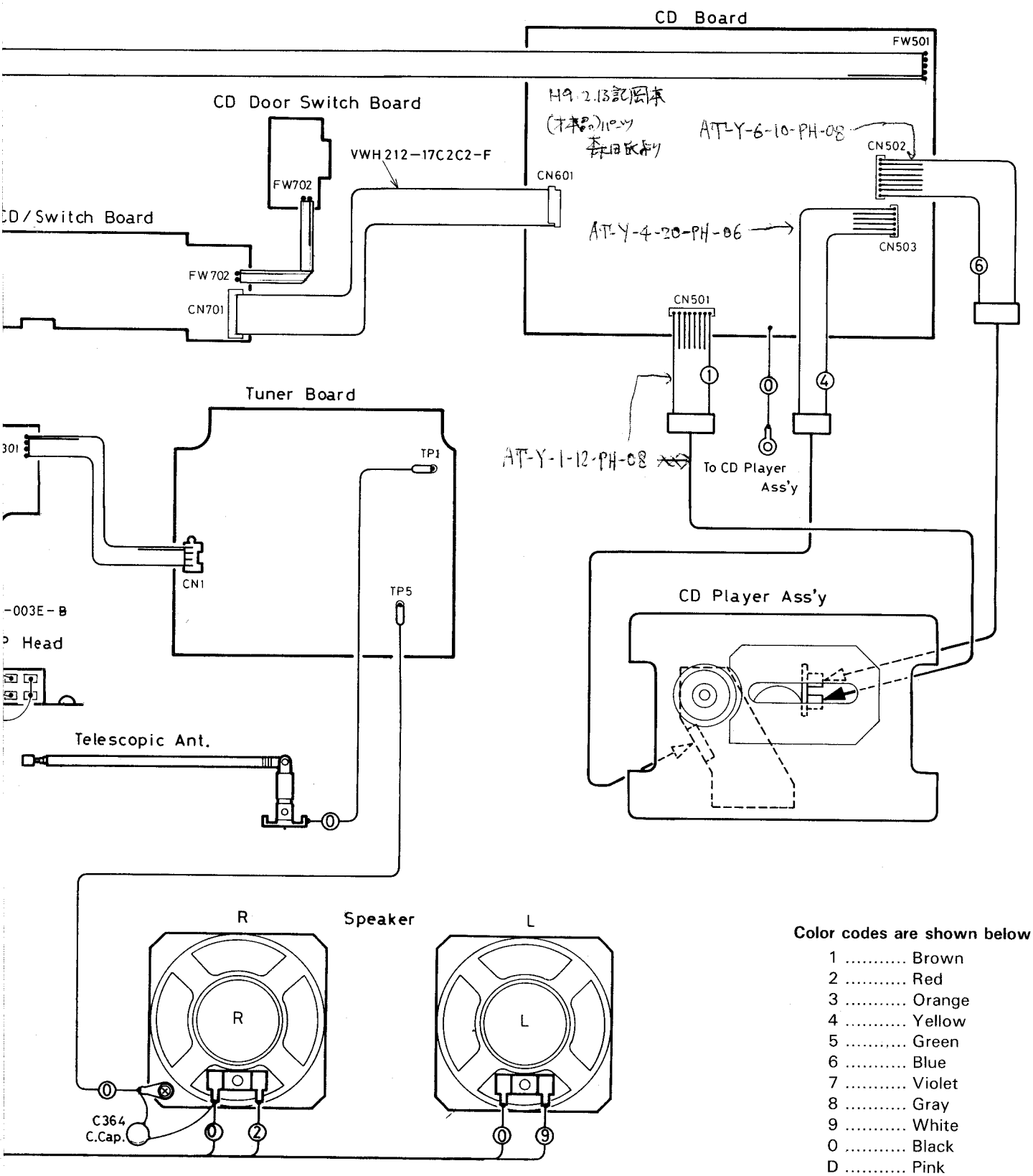


Fig. 7-1



Color codes are shown below.

1 ..... Brown
2 ..... Red
3 ..... Orange
4 ..... Yellow
5 ..... Green
6 ..... Blue
7 ..... Violet
8 ..... Gray
9 ..... White
0 ..... Black
D ..... Pink
C ..... Light Blue

8 Location of P.C. Board Parts and Parts List

■ Tuner Board

1 2 3 4 5

A B C D E F

Top Side

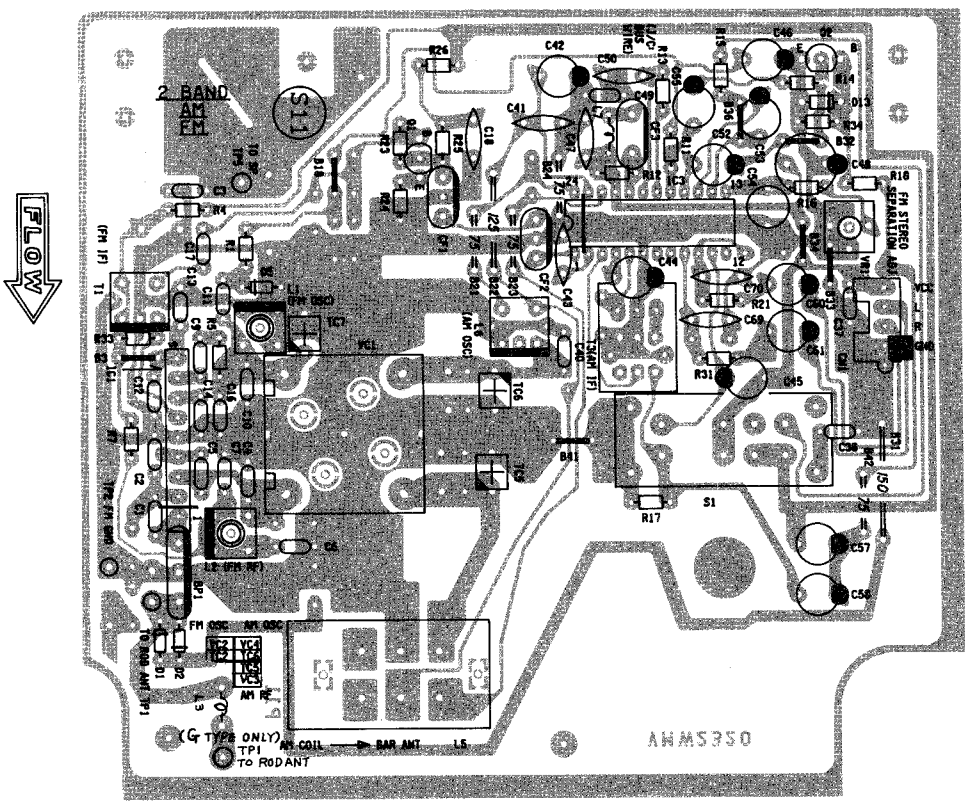


Fig. 8-1

Bottom Side

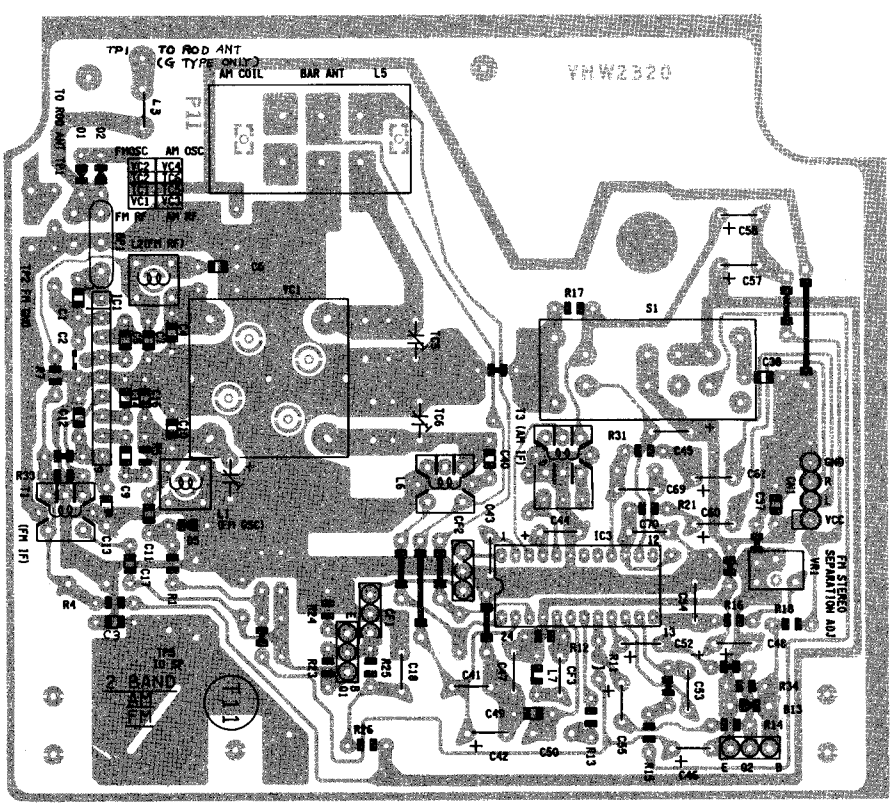


Fig. 8-2

• Tuner Board Parts List

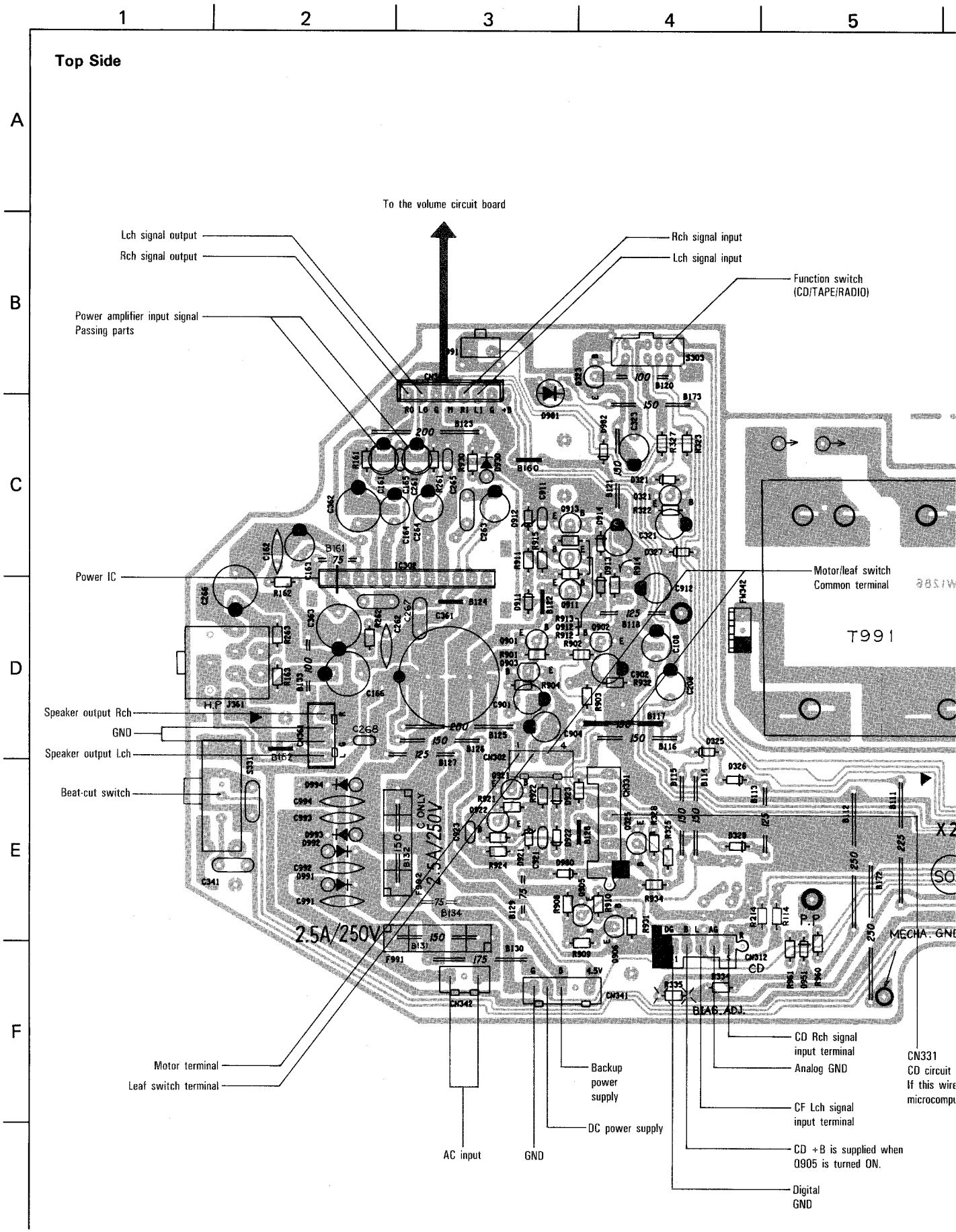
BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	BP 01	VBP4M3B-005	BP FILTER	FM	
	C 001	QCS11HJ-180	C CAPACITOR	18PF 5% 50V	
	C 002	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 003	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C 004	QCS11HJ-240	C CAPACITOR	24PF 5% 50V	
	C 005	QCSB1HK-4R7Y	C CAPACITOR	4.7PF 10% 50V	
	C 006	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 007	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 009	QCT30CH-150Y	C CAPACITOR	15PF 5% 50V	
	C 010	QCT30CH-150Y	C CAPACITOR	15PF 5% 50V	
	C 011	QCT30UJ-5R6Y	C CAPACITOR	5.6PF 5% 50V	
	C 012	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 013	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 014	QCT30CH-180Y	C.CAPACITOR	18PF 5% 50V	
	C 016	QCT30CH-4R7Y	C CAPACITOR	4.7PF 5% 50V	
	C 017	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 018	QCF11HP-103	C CAPACITOR	.010MF +100:-0%	
	C 037	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 038	QCBB1HK-151Y	C CAPACITOR	150PF 10% 50V	
	C 040	QCT30UJ-2R2Y	C CAPACITOR	2.2PF 5% 50V	
	C 041	QCF11HP-223	C CAPACITOR	.022MF +100:-0%	
	C 042	QETC1CM-106ZN	E CAPACITOR	10MF 20% 16V	
	C 043	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 044	QETC1AM-226ZN	E CAPACITOR	22MF 20% 10V	
	C 045	QETC1HM-224ZN	E CAPACITOR	.22MF 20% 50V	
	C 046	QETC1HM-224ZN	E CAPACITOR	.22MF 20% 50V	
	C 047	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 048	QETC0JM-477ZN	E CAPACITOR	470MF 20% 6.3V	
	C 049	QCXB1CM-222Y	C CAPACITOR	2200PF 20% 16V	
	C 050	QCY41HK-472	C CAPACITOR	4700PF 10% 50V	
	C 052	QETC1HM-335ZN	E CAPACITOR	3.3MF 20% 50V	
	C 053	QETC1HM-105ZN	E CAPACITOR	1.0MF 20% 50V	
	C 054	QFS31HJ-102ZS	PS CAPACITOR	1000PF 5% 50V	
	C 055	QETC1HM-335ZN	E CAPACITOR	3.3MF 20% 50V	
	C 057	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 058	QEK61AM-107ZM	E CAPACITOR	100MF 20% 10V	
	C 060	QETC1HM-474ZN	E CAPACITOR	.47MF 20% 50V	
	C 061	QETC1HM-474ZN	E CAPACITOR	.47MF 20% 50V	
	C 069	QCC11EM-103V	C CAPACITOR	.010MF 20% 25V	
	C 070	QCC11EM-103V	C CAPACITOR	.010MF 20% 25V	
	CF 01	VCF2L3B-107Z	C FILTER		
	CF 02	VCF2L3B-107Z	C FILTER		
	CF 03	VCF1Z2Z-107Z	C FILTER		
	CN 01	E04365-004S	CONNECTOR		
	D 005	MA346	VC DIODE	FM AFC	
	IC 01	TA7358P(N)	IC	FM	
	IC 03	LA1810-K	IC	FM/AM IF,FM MPX	
	L 001	V03105-029	OSC COIL	FM OSC	
	L 002	VQF1B20-016	RF COIL	FM RF	
	L 003	V03047-17	COIL		
	L 005	VQB008M-009M	BAR ANTENA	AM RF	
	L 007	VQP025J-8R2Y	INDUCTOR	FM DET	
	Q 01	2SC2839(E)	TRANSISTER		
	Q 02	2SC1740S(R,S)	TRANSISTOR		
	R 001	QRD161J-474	CARBON RESISTOR	470K 5% 1/6W	

BLOCK NO. 02

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 004	QRD161J-470	CARBON RESISTOR	47 5% 1/6W	
	R 005	QRD161J-180	CARBON RESISTOR	18 5% 1/6W	
	R 007	QRD161J-331	CARBON RESISTOR	330 5% 1/6W	
	R 011	QRD161J-474	CARBON RESISTOR	470K 5% 1/6W	
	R 012	QRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
	R 014	QRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W	
	R 015	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 016	QRD161J-243	CARBON RESISTOR	24K 5% 1/6W	
	R 017	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 018	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 021	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	R 023	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
	R 024	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 025	QRD161J-331	CARBON RESISTOR	330 5% 1/6W	
	R 026	QRD161J-470	CARBON RESISTOR	47 5% 1/6W	
	R 031	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	R 033	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 034	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	S 001	VSS0423-001	SLIDE SWITCH	BAND S001-1--3	
	T 001	VQT7F12-111	IFT	FM IF	
	T 003	VQT7A21-105	IFT	AM IF	
	TC 05	QAT3722-100M	T CAPACITOR		
	TC 06	QAT3722-100M	T CAPACITOR		
	TC 07	QAT3722-100M	T CAPACITOR		
	VC 01	QAP1224-231	V CAPACITOR	VC01-04,TC01-04	
	VR 01	QVPE612-103ZM	V RESISTOR	FM SEPARATION	

■ Main Board


1
2
3
4
5
A
B
C
D
E
F
Top Side
To the volume circuit board
Lch signal output
Rch signal output
Power amplifier input signal
Passing parts
Rch signal input
Lch signal input
Function switch
(CD/TAPE/RADIO)
Power IC
Motor/leaf switch
Common terminal
T991
Speaker output Rch
GND
Speaker output Lch
Beat-cut switch
2.5A/250V
C ONLY
2.5A/125V
Motor terminal
Leaf switch terminal
AC input
GND
Backup
power
supply
DC power supply
CD Rch signal
input terminal
Analog GND
CF Lch signal
input terminal
CD +B is supplied when
Q905 is turned ON.
Digital
GND
CN331
CD circuit
If this wire
microcompu
MECHA. GND
BIAS ADJ.
CD

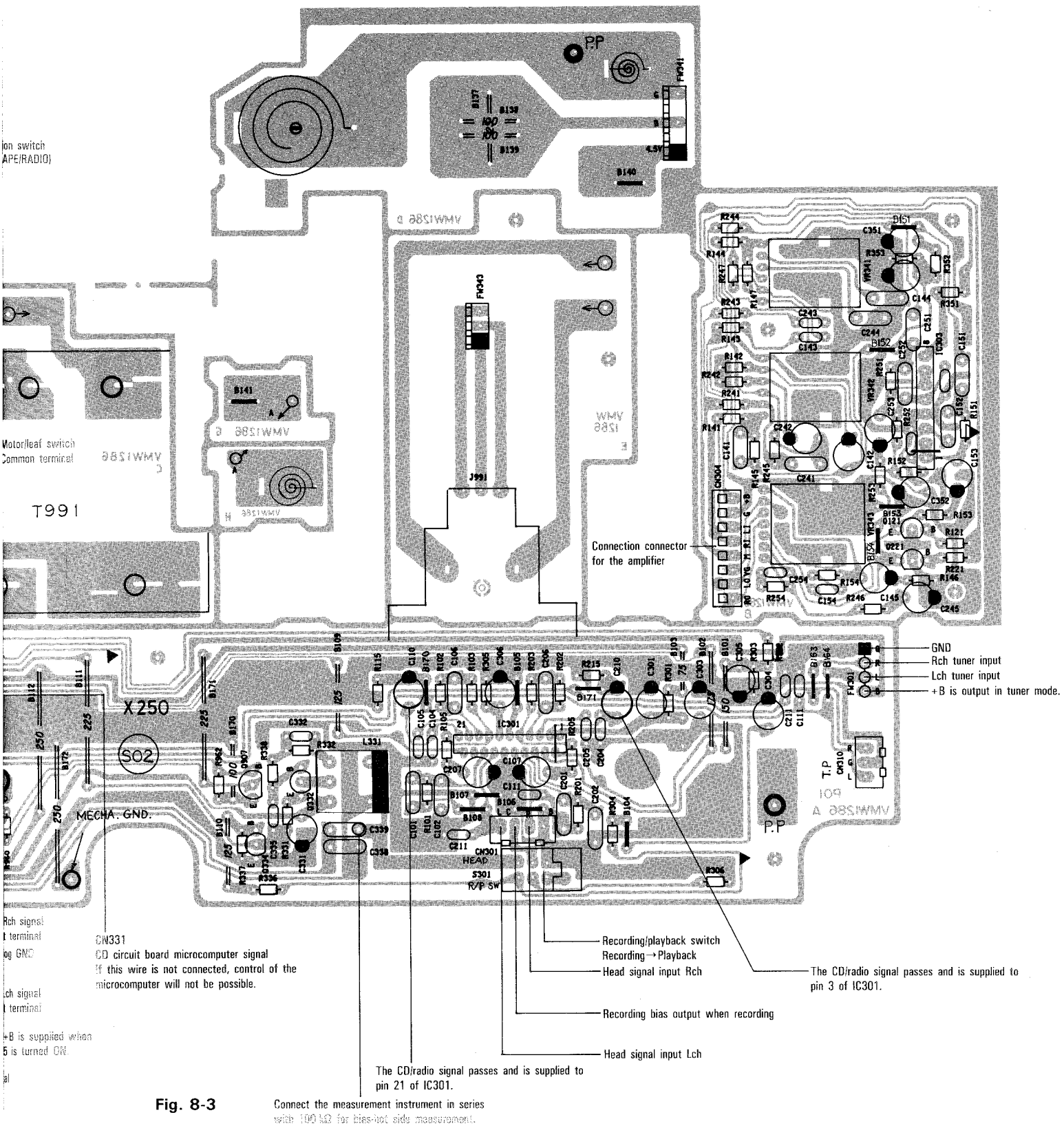
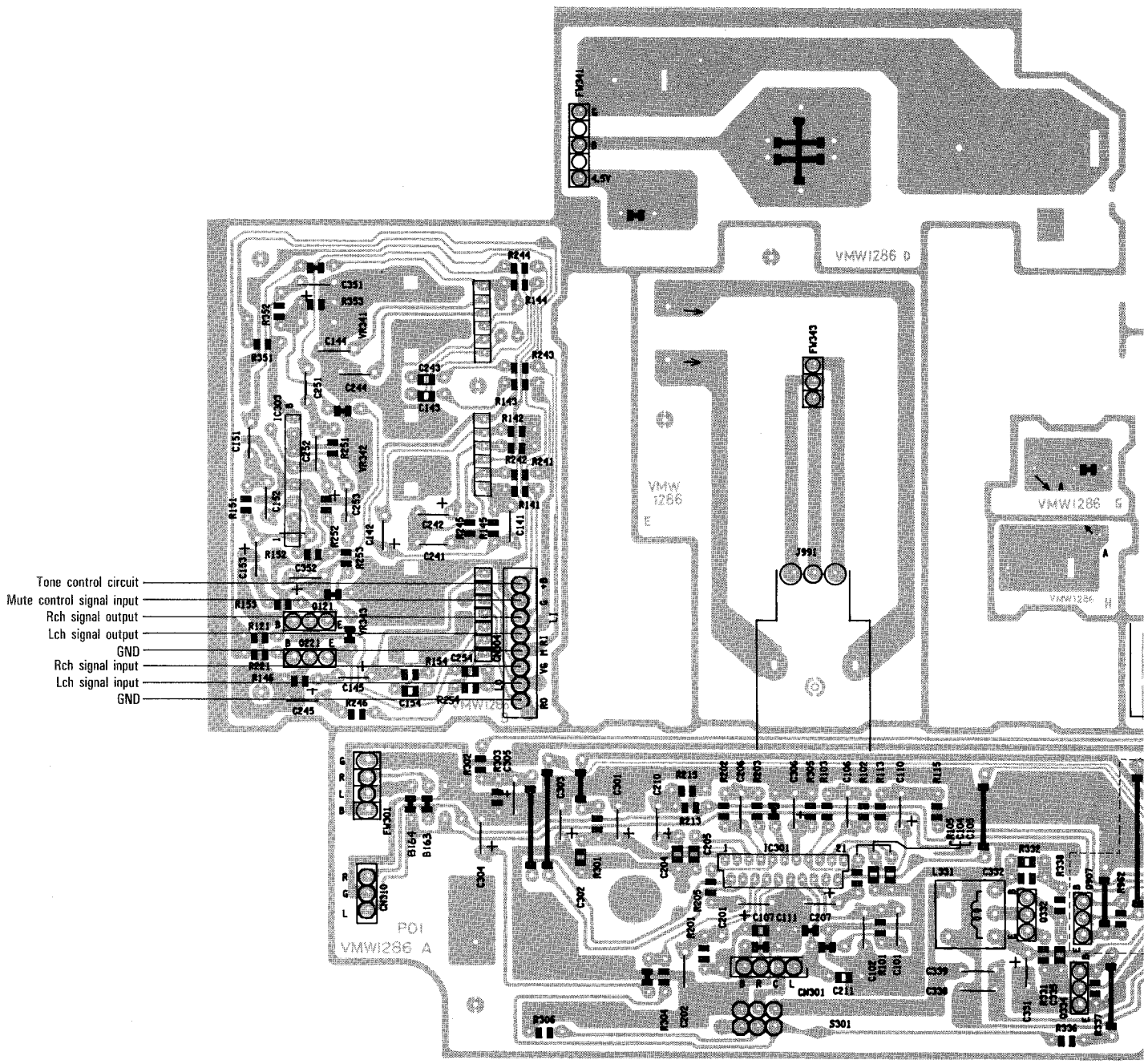

Motor/leaf switch
Common terminal
T991
Connection connector
for the amplifier
GND
Rch tuner input
Lch tuner input
+B is output in tuner mode.
X250
SO2
MECHA. GND.
CN331
CD circuit board microcomputer signal
If this wire is not connected, control of the
microcomputer will not be possible.
Recording/playback switch
Recording→Playback
Head signal input Rch
The CD/radio signal passes and is supplied to
pin 3 of IC301.
Recording bias output when recording
Head signal input Lch
The CD/radio signal passes and is supplied to
pin 21 of IC301.
Connect the measurement instrument in series
with 100 kΩ for bias-out side measurement.

Fig. 8-3

Bottom Side



Fig

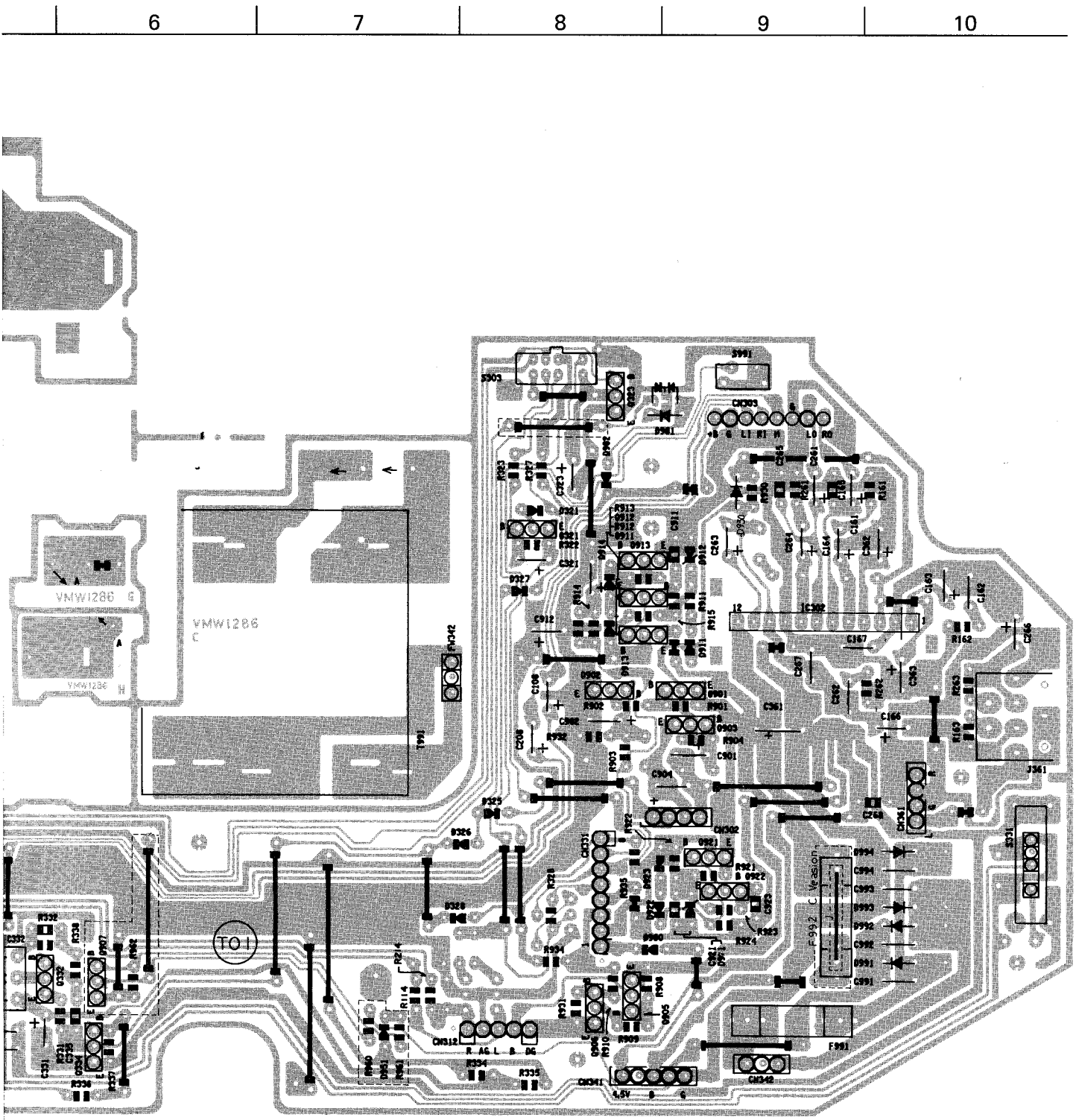


Fig. 8-4

• Main Board Parts List

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 101	QFN41HJ-182	M CAPACITOR	1800PF 5% 50V	
	C 102	QFN41HJ-102	M CAPACITOR	1000PF 5% 50V	
	C 104	QCBB1HK-561Y	C CAPACITOR	560PF 10% 50V	
	C 105	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 106	QFV41HJ-223	FILM CAPACITOR	.022MF 5% 50V	
	C 107	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 108	QETC1HM-224ZN	E CAPACITOR	.22MF 20% 50V	
	C 110	QETC1HM-105ZN	E CAPACITOR	1.0MF 20% 50V	
	C 111	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 141	QFV41HJ-823	TF.CAPACITOR	.082MF 5% 50V	
	C 142	QEK41HM-224	E CAPACITOR	.22MF 20% 50V	
	C 143	QCXB1CM-222Y	C CAPACITOR	2200PF 20% 16V	
	C 144	QFV11HJ-273ZN	TF CAPACITOR	.027MF 5% 50V	
	C 145	QEK41HM-224	E CAPACITOR	.22MF 20% 50V	
	C 151	QFV41HJ-223	TF CAPACITOR	.022MF 5% 50V	
	C 152	QFV41HJ-223	TF CAPACITOR	.022MF 5% 50V	
	C 153	QEK41HM-104	E CAPACITOR	.10MF 20% 50V	
	C 154	QCXB1CM-222Y	C CAPACITOR	2200PF 20% 16V	
	C 161	QETC1HM-104ZN	E CAPACITOR	.10MF 20% 50V	
	C 162	QCC11EM-104V	C CAPACITOR	.10MF 20% 25V	
	C 163	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 164	QETC1EM-106ZN	E CAPACITOR	10MF 20% 25V	
	C 165	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 166	QETC1AM-108ZN	E CAPACITOR	1000MF 20% 10V	
	C 167	QFV11HJ-124ZN	FILM CAPACITOR	.12MF 5% 50V	
	C 201	QFN41HJ-182	M CAPACITOR	1800PF 5% 50V	
	C 202	QFN41HJ-102	M CAPACITOR	1000PF 5% 50V	
	C 204	QCBB1HK-561Y	C CAPACITOR	560PF 10% 50V	
	C 205	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 206	QFV41HJ-223	FILM CAPACITOR	.022MF 5% 50V	
	C 207	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 208	QETC1HM-224ZN	E CAPACITOR	.22MF 20% 50V	
	C 210	QETC1HM-105ZN	E CAPACITOR	1.0MF 20% 50V	
	C 211	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 241	QFV41HJ-823	TF.CAPACITOR	.082MF 5% 50V	
	C 242	QEK41HM-224	E CAPACITOR	.22MF 20% 50V	
	C 243	QCXB1CM-222Y	C CAPACITOR	2200PF 20% 16V	
	C 244	QFV11HJ-273ZN	TF CAPACITOR	.027MF 5% 50V	
	C 245	QEK41HM-224	E CAPACITOR	.22MF 20% 50V	
	C 251	QFV41HJ-223	TF CAPACITOR	.022MF 5% 50V	
	C 252	QFV41HJ-223	TF CAPACITOR	.022MF 5% 50V	
	C 253	QEK41HM-104	E CAPACITOR	.10MF 20% 50V	
	C 254	QCXB1CM-222Y	C CAPACITOR	2200PF 20% 16V	
	C 261	QETC1HM-104ZN	E CAPACITOR	.10MF 20% 50V	
	C 262	QCC11EM-104V	C CAPACITOR	.10MF 20% 25V	
	C 263	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 264	QETC1EM-106ZN	E CAPACITOR	10MF 20% 25V	
	C 265	QCBB1HK-331Y	C CAPACITOR	330PF 10% 50V	
	C 266	QETC1AM-108ZN	E CAPACITOR	1000MF 20% 10V	
	C 267	QFV11HJ-124ZN	FILM CAPACITOR	.12MF 5% 50V	
	C 268	QCBB1HK-101Y	C CAPACITOR	100PF 10% 50V	
	C 301	QETC1AM-107ZN	E CAPACITOR	100MF 20% 10V	
	C 303	QETC1AM-107ZN	E CAPACITOR	100MF 20% 10V	
	C 304	QETC1EM-106ZN	E CAPACITOR	10MF 20% 25V	
	C 305	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 306	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 321	QETC1EM-106ZN	E CAPACITOR	10MF 20% 25V	
	C 323	QETC1EM-106ZN	E CAPACITOR	10MF 20% 25V	
	C 331	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 332	QCXB1CM-272Y	C.CAPACITOR	2700PF 20% 16V	
	C 335	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 338	QFV71HJ-563ZM	TF.CAPACITOR	.056MF 5% 50V	
	C 339	QFN41HJ-562	M CAPACITOR	5600PF 5% 50V	
	C 351	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 352	QEK41EM-106	E.CAPACITOR	10MF 20% 25V	
	C 361	QETB1CM-338N	E.CAPACITOR	3300MF 20% 16V	
	C 362	QETC1CM-226ZN	E CAPACITOR	22MF 20% 16V	
	C 363	QETC1CM-107ZN	E CAPACITOR	100MF 20% 16V	
	C 901	QETC1CM-476Z	E CAPACITOR	47MF 20% 16V	
	C 902	QETC1EM-226ZN	E CAPACITOR	22MF 20% 25V	
	C 904	QETC1HM-105ZN	E CAPACITOR	1.0MF 20% 50V	
	C 911	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 912	QETC1AM-107ZN	E CAPACITOR	100MF 20% 10V	
	C 921	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 923	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 991	QCF11HP-223	C CAPACITOR	.022MF +100:-0%	
	C 992	QCF11HP-223	C CAPACITOR	.022MF +100:-0%	
	C 993	QCF11HP-223	C CAPACITOR	.022MF +100:-0%	
	C 994	QCF11HP-223	C CAPACITOR	.022MF +100:-0%	
	CN301	QMV5011-004	CONNECTOR	HEAD WIRE	
	CN302	QMV5011-004	CONNECTOR	MOTOR	
	CN303	VMC0177-008	CONNECTOR	TONE VOL&B.BOOS	
	CN304	VMC0178-008	CONNECTOR	TONE VOL&B.BOOS	
	CN310	QMV5011-003	CONNECTOR	ADJUST	
	CN312	E04365-005S	CONNECTOR	CD	
	CN331	E04365-008	CONNECTOR	CD-CTL	
	CN341	QMV5011-005	CONNECTOR	BATT	
	CN342	QMV5011-003	CONNECTOR	TRANS	
	CN361	QMV5011-004	CONNECTOR	SPEAKER	
	D 321	MA165	SI DIODE		
	D 325	MA165	SI DIODE		
	D 326	MA165	SI DIODE		
	D 327	MA165	SI DIODE		
	D 328	MA165	SI DIODE		
	D 911	MA165	SI DIODE		
	D 912	MA4056(L)	SI DIODE		
	D 913	MA165	SI DIODE		
	D 914	MA165	SI DIODE		
	D 921	MA4047N(H)	ZENER DIODE		
	D 922	MA165	SI DIODE		
	D 923	MA165	SI DIODE		
	D 930	1SR35-100	SI DIODE		
	D 980	MA700A	S.B.DIODE		
	D 981	SLR-34VC5OF124	LED		
	D 982	MA4036(H)	ZENER DIODE		
	D 991	1SR35-100	SI DIODE		
	D 992	1SR35-100	SI DIODE		
	D 993	1SR35-100	SI DIODE		
	D 994	1SR35-100	SI DIODE		
	F 991	VMZ0087-001Z	FUSE CLIP		

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	IC301	TA7417AP	IC	R/P AMP	
	IC302	TA8207K	IC	POWER AMP	
	IC303	XRA15218N	IC		
	J 361	VMJ4024-001	JACK	HP JACK	
	J 991	QMC0263-004	AC SOCKET		
	L 331	VQH1009-030	OSC COIL(BIAS)		
	Q 121	2SC2001(L,K)	TRANSISTOR		
	Q 221	2SC2001(L,K)	TRANSISTOR		
	Q 321	2SA564(R,S)	TRANSISTOR		
	Q 323	DTD114ESTP	TRANSISTOR		
	Q 332	2SC3311A(RS)	TRANSISTOR		
	Q 334	2SC2001(L,K)	TRANSISTOR		
	Q 901	2SB562(C)	TRANSISTOR	POWER SW	
	Q 902	2SC3311A(RS)	TRANSISTOR		
	Q 903	2SD468(B,C)	TRANSISTOR	RIPPLE F	
	Q 905	2SB562(C)	TRANSISTOR	CD SW	
	Q 906	2SC3311A(RS)	TRANSISTOR		
	Q 911	2SB562(B,C)	TRANSISTOR	6V REG	
	Q 912	2SC3311A(RS)	TRANSISTOR		
	Q 913	2SC3311A(RS)	TRANSISTOR		
	Q 921	2SB562(B,C)	TRANSISTOR	U COM REG	
	Q 922	2SC3311A(RS)	TRANSISTOR		
	R 101	QRD161J-163	CARBON RESISTOR	16K 5% 1/6W	
	R 102	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
	R 103	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 105	QRD167J-121	CARBON RESISTOR	120 5% 1/6W	
	R 114	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	R 115	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	R 121	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 141	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
	R 142	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 143	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 144	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 145	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 146	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 151	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	R 152	QRD161J-474	CARBON RESISTOR	470K 5% 1/6W	
	R 153	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 154	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 161	QRD161J-271	CARBON RESISTOR	270 5% 1/6W	
	R 162	QRD161J-2R2	CARBON RESISTOR	2.2 5% 1/6W	
	R 163	QRD161J-820	CARBON RESISTOR	82 5% 1/6W	
	R 201	QRD161J-163	CARBON RESISTOR	16K 5% 1/6W	
	R 202	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
	R 203	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 205	QRD167J-121	CARBON RESISTOR	120 5% 1/6W	
	R 214	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	R 215	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	R 221	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 241	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
	R 242	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 243	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 244	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 245	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 246	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	

BLOCK NO. 01

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 251	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	R 252	QRD161J-474	CARBON RESISTOR	470K 5% 1/6W	
	R 253	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 254	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 261	QRD161J-271	CARBON RESISTOR	270 5% 1/6W	
	R 262	QRD161J-2R2	CARBON RESISTOR	2.2 5% 1/6W	
	R 263	QRD161J-820	CARBON RESISTOR	82 5% 1/6W	
	R 301	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 302	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 303	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 304	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 305	QRD161J-225	CARBON RESISTOR	2.2M 5% 1/6W	
	R 306	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 322	QRD161J-683	CARBON RESISTOR	68K 5% 1/6W	
	R 323	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 327	QRD161J-220	CARBON RESISTOR	22 5% 1/6W	
	R 328	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 331	QRD161J-3R3	CARBON RESISTOR	3.3 5% 1/6W	
	R 332	QRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
	R 334	QRD161J-331	CARBON RESISTOE	330 5% 1/6W	
	R 335	QRD161J-561	CARBON RESISTOR	560 5% 1/6W	
	R 336	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 337	QRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
	R 338	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 351	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 352	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 353	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 901	QRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
	R 902	QRD161J-471	CARBON RESISTOR	470 5% 1/6W	
	R 903	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 904	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 908	QRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
	R 909	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 910	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 911	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 912	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
	R 913	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 914	QRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
	R 915	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 921	QRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
	R 922	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 923	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 924	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 930	QRD161J-220	CARBON RESISTOR	22 5% 1/6W	
	R 931	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 932	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 934	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 935	QRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
	S 301	QSTK101-V03	PUSH SWITCH	R/P SW	
	S 303	QSS7A23-V03	SLIDE SWITCH	FUNCTION SW	
	S 331	QSS1301-101	SLIDE SWITCH	BEAT CUT SW	
	S 991	QSP0301-003M	TACT SWITCH	POWER SW	
	VR341	QVCB21A-V01M	V RESISTER	TREBLE	
	VR342	QVCB21A-V01M	V RESISTER	BASS	
	VR343	QVDB51B-V01M	V RESISTOR	MAIN	

■ LCD/Key Switch Board

Top Side

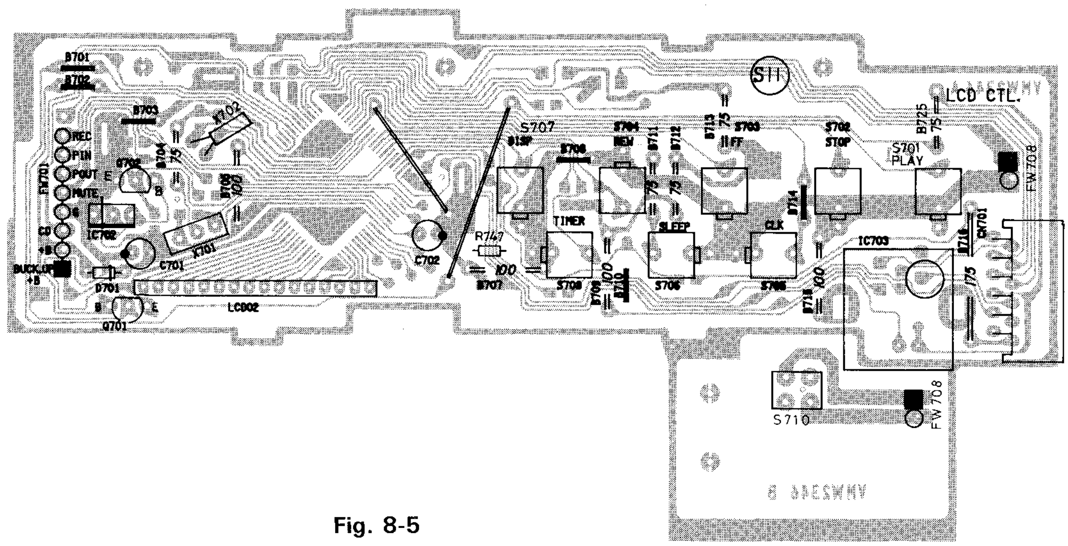


Fig. 8-5

Bottom Side

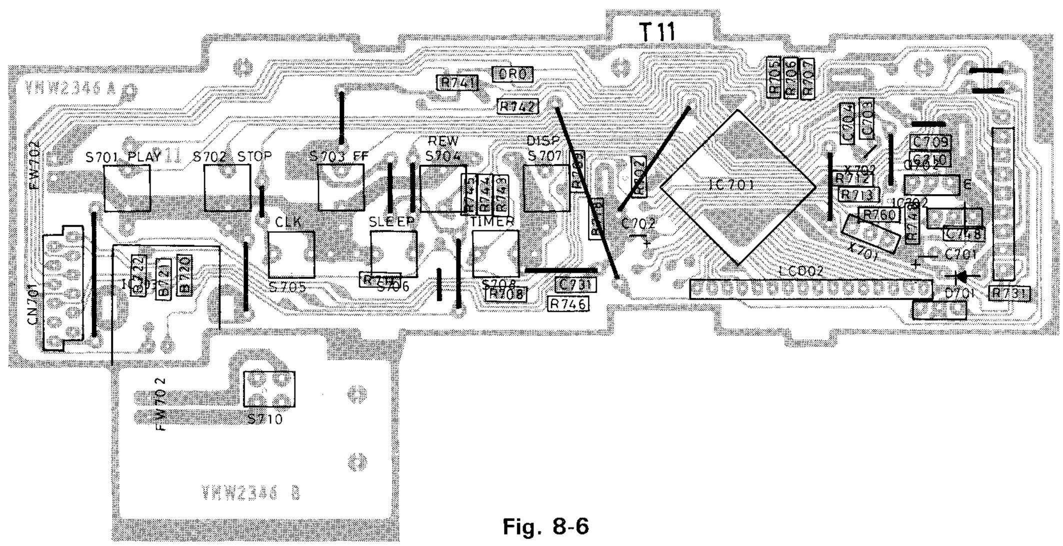


Fig. 8-6

• LCD/Key Switch Board Parts List

BLOCK NO. 04

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 701	QER40JM-476VM	C.CAPACITOR	47MF 20% 6.3V	
	C 702	QERF1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 703	NCT21CH-180AY	C.CAPACITOR	18PF +50:-10% 1	
	C 704	NCT21CH-180AY	C.CAPACITOR	18PF +50:-10% 1	
	C 709	NCF21HZ-103AY	C CAPACITOR	.010MF +80:-20%	
	C 710	NCF21HZ-103AY	C CAPACITOR	.010MF +80:-20%	
	C 731	NCT21CH-101AY	C CAPACITOR	100PF +50:-10%	
	C 748	NCF21EZ-104AY	C CAPACITOR	.10MF +80:-20%	
	CN701	VMC0163-R12	CONNECTOR	TO CD AMP P.W.B	
	D 701	MA700A	S.B.DIODE		
	IC701	HD40R4818A01H	IC	CD&TIMER U COM	
	IC702	MN1280(K)	IC	RESET IC	
	IC703	SBX1610-02	RM RECIVER		
	LCD02	VGL1090-001	LCD	CD&TIMER	
	Q 701	DTC144WSTP	TRANSISTOR		
	Q 702	UN4213	TRANSISTOR		
	R 702	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 705	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 706	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 707	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 708	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 709	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 711	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 712	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 713	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
	R 731	NRS181J-104NY	MG RESISTOR	100K 5% 1/8W	
	R 741	NRS181J-102NY	MG RESISTOR	1.0K 5% 1/8W	
	R 743	NRSA02J-473NY	MG REGISTOR	47K 5% 1/10W	
	R 744	NRSA02J-473NY	MG REGISTOR	47K 5% 1/10W	
	R 745	NRSA02J-473NY	MG REGISTOR	47K 5% 1/10W	
	R 748	NRSA02J-104NY	MG RESISTOR	100K 5% 1/10W	
	R 760	NRSA02J-105NY	MG RESISTOR	1.0M 5% 1/10W	
	S 701	QSQ4H11-V02Z	TACT SWITCH	PLAY/ PAUSE	
	S 702	QSQ4H11-V02Z	TACT SWITCH	STOP/ CLEAR	
	S 703	QSQ4H11-V02Z	TACT SWITCH	F.SKIP/ F.SERCH	
	S 704	QSQ4H11-V02Z	TACT SWITCH	B.SKIP/ B.SERCH	
	S 705	QSQ4H11-V02Z	TACT SWITCH	CLOCK	
	S 706	QSQ4H11-V02Z	TACT SWITCH	SLEEP	
	S 707	QSQ4H11-V02Z	TACT SWITCH	TIMER	
	S 708	QSQ4H11-V02Z	TACT SWITCH	DISPLAY	
	S 710	QSP2K21-V01	PUSH SWITCH	OPEN/CLOSE	
	X 701	EFO-GC4194A4	CERAMIC RESONAT	FOR CD	
	X 702	VCX5000-001	CRYSTAL	FOR BUCK UP MOD	

■ CD Board

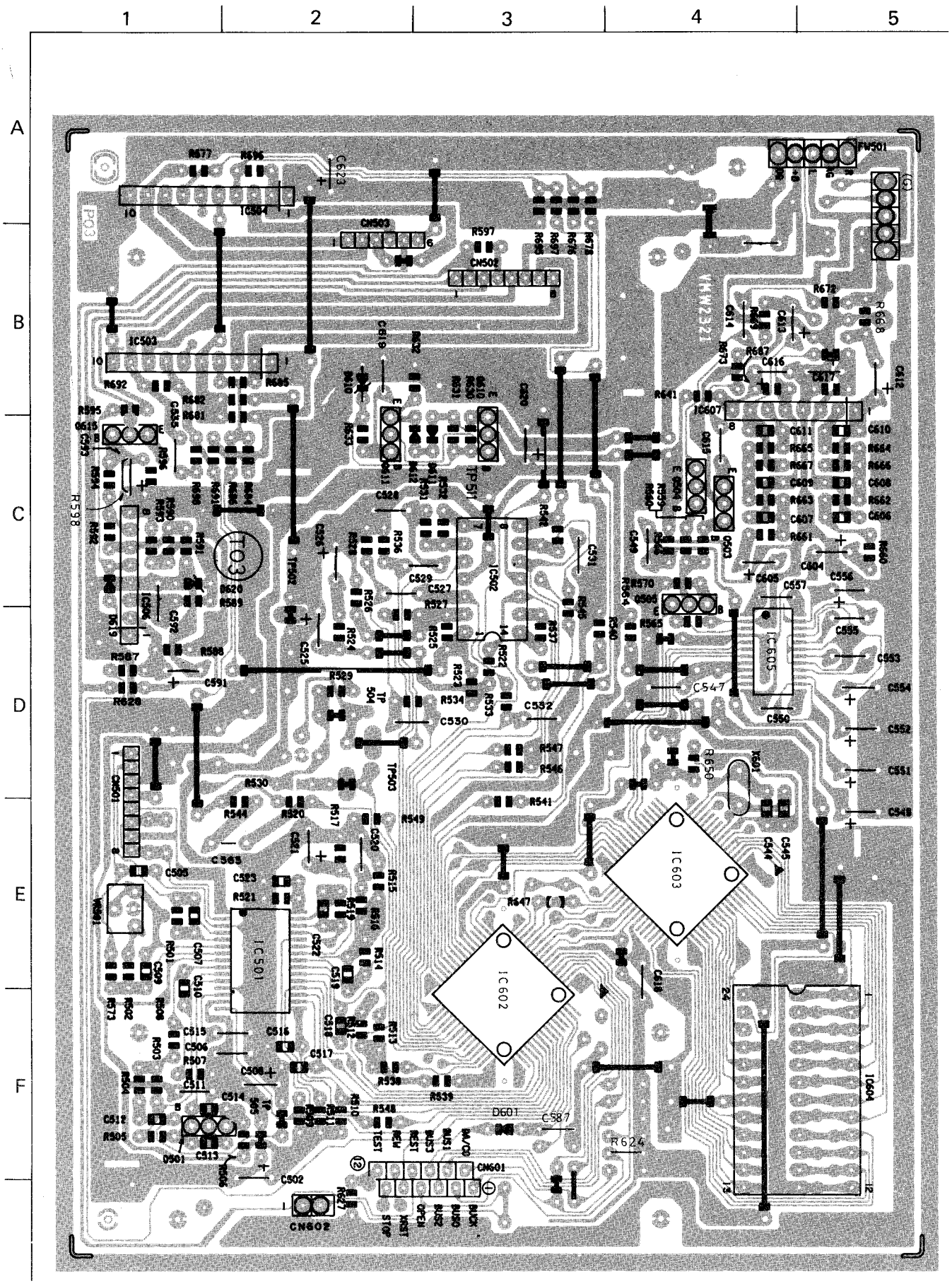


Fig. 8-7

• CD Board Parts List

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 502	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 505	QCBB1HK-821Y	C.CAPACITOR	820PF 10% 50V	
	C 506	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 507	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
	C 508	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 509	QCS11HJ-220	C CAPACITOR	22PF 5% 50V	
	C 510	QCSB1HK-2R2Y	C CAPACITOR	2.2PF 10% 50V	
	C 511	QCC11EM-223V	C CAPACITOR	.022MF 20% 25V	
	C 512	QCS11HJ-180	C CAPACITOR	18PF 5% 50V	
	C 513	QCS11HJ-560	C.CAPACITOR	56PF 5% 50V	
	C 514	QCVB1CM-103Y	C CAPACITOR	.010MF 20% 16V	
	C 515	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 516	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C 517	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C 518	QCBB1HK-121Y	C CAPACITOR	120PF 10% 50V	
	C 519	QCBB1HK-121Y	C CAPACITOR	120PF 10% 50V	
	C 520	QFN41HJ-682	M CAPACITOR	6800PF 5% 50V	
	C 521	QETC1AM-107ZN	E CAPACITOR	100MF 20% 10V	
	C 522	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C 523	QCS11HJ-470	C CAPACITOR	47PF 5% 50V	
	C 525	QETC1HM-475ZN	E CAPACITOR	4.7MF 20% 50V	
	C 526	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 527	QFV41HJ-104	TF CAPACITOR	.10MF 5% 50V	
	C 528	QFV41HJ-183	TF CAPACITOR	.018MF 5% 50V	
	C 529	QFV41HJ-223	FILM CAPACITOR	.022MF 5% 50V	
	C 530	QFN41HJ-222	M CAPACITOR	2200PF 5% 50V	
	C 531	QFN81HJ-822	M CAPACITOR	8200PF 5% 50V	
	C 532	QFV81HJ-103	FILM CAPACITOR	.010MF 5% 50V	
	C 535	QFV41HJ-823	TF.CAPACITOR	.082MF 5% 50V	
	C 544	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C 545	QCS11HJ-100	C CAPACITOR	10PF 5% 50V	
	C 547	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 548	QETC1AM-227ZN	E CAPACITOR	220MF 20% 10V	
	C 549	QCC11EM-473V	C CAPACITOR	.047MF 20% 25V	
	C 550	QCS11HJ-331	C CAPACITOR	330PF 5% 50V	
	C 551	QETC1EM-106ZN	E CAPACITOR	10MF 20% 25V	
	C 552	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 553	QCY41HK-122	C CAPACITOR	1200PF 10% 50V	
	C 554	QETC1EM-106ZN	E CAPACITOR	10MF 20% 25V	
	C 555	QCY41HK-122	C CAPACITOR	1200PF 10% 50V	
	C 556	QETC1EM-106ZN	E CAPACITOR	10MF 20% 25V	
	C 557	QCS11HJ-331	C CAPACITOR	330PF 5% 50V	
	C 563	QFV41HJ-123	FILM CAPACITOR	.012MF 5% 50V	
	C 587	QCVB1CN-103Y	C CAPACITOR	.010MF 30% 16V	
	C 591	QETC1AM-107ZN	E CAPACITOR	100MF 20% 10V	
	C 592	QCC11EM-103V	C CAPACITOR	.010MF 20% 25V	
	C 593	QETC1AM-476ZN	E CAPACITOR	47MF 20% 10V	
	C 604	QETC1HM-475ZN	E CAPACITOR	4.7MF 20% 50V	
	C 605	QETC1HM-475ZN	E CAPACITOR	4.7MF 20% 50V	
	C 606	QCXB1CM-272Y	C.CAPACITOR	2700PF 20% 16V	
	C 607	QCXB1CM-272Y	C.CAPACITOR	2700PF 20% 16V	
	C 608	QCVB1CM-822Y	C.CAPACITOR	8200PF 20% 16V	
	C 609	QCVB1CM-822Y	C.CAPACITOR	8200PF 20% 16V	
	C 610	QCBB1HK-820Y	C CAPACITOR	82PF 10% 50V	
	C 611	QCBB1HK-820Y	C CAPACITOR	82PF 10% 50V	

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	C 612	QETC1HM-474ZN	E CAPACITOR	.47MF 20% 50V	
	C 613	QETC1HM-474ZN	E CAPACITOR	.47MF 20% 50V	
	C 614	QCC11EM-123V	C CAPACITOR	.012MF 20% 25V	
	C 615	QCC11EM-123V	C CAPACITOR	.012MF 20% 25V	
	C 616	QETC1AM-107ZN	E CAPACITOR	100MF 20% 10V	
	C 617	QETC1EM-106ZN	E CAPACITOR	10MF 20% 25V	
	C 618	QCC11EM-104V	C CAPACITOR	.10MF 20% 25V	
	C 619	QCC11EM-103V	C CAPACITOR	.010MF 20% 25V	
	C 620	QETC1AM-107ZN	E CAPACITOR	100MF 20% 10V	
	C 623	QETC1AM-477ZN	E CAPACITOR	470MF 20% 10V	
	CN601	VMC0163-R12	CONNECTOR		
	D 610	MA4043(M)	ZENER DIODE		
	D 620	HZS2.7EB1	ZENER DIODE		
	IC501	MC13501M	IC	RF	
	IC502	NJM3403D-C	IC	SERVO PRE	
	IC503	BA6294	IC	TR&FOCAS DRIVER	
	IC504	BA6294	IC	FEED&SPN DRIVER	
	IC506	M5223L	IC	APC	
	IC605	TD6710AF	IC	DAC	
	IC607	XRA15218N	IC	LPF	
	Q 610	2SA952(L,K)	TRANSISTOR	REGULATER	
	Q 615	2SA952(L,K)	TRANSISTOR		
	R 501	QRD161J-224	CARBON RESISTOR	220K 5% 1/6W	
	R 502	QRD161J-184	CARBON RESISTOR	180K 5% 1/6W	
	R 503	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
	R 504	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 505	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 506	QRD161J-681	CARBON RESISTOR	680 5% 1/6W	
	R 507	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 508	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
	R 509	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
	R 510	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 511	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 512	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
	R 513	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
	R 514	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 515	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 516	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
	R 517	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
	R 519	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 520	QRV141F-1002AY	CMF RESISTOR	10 1% 1/4W	
	R 521	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 522	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 523	QRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
	R 524	QRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W	
	R 525	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
	R 526	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
	R 527	QRD161J-564	CARBON RESISTOR	560K 5% 1/6W	
	R 528	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 529	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 530	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 531	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 532	QRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
	R 533	QRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
	R 534	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	

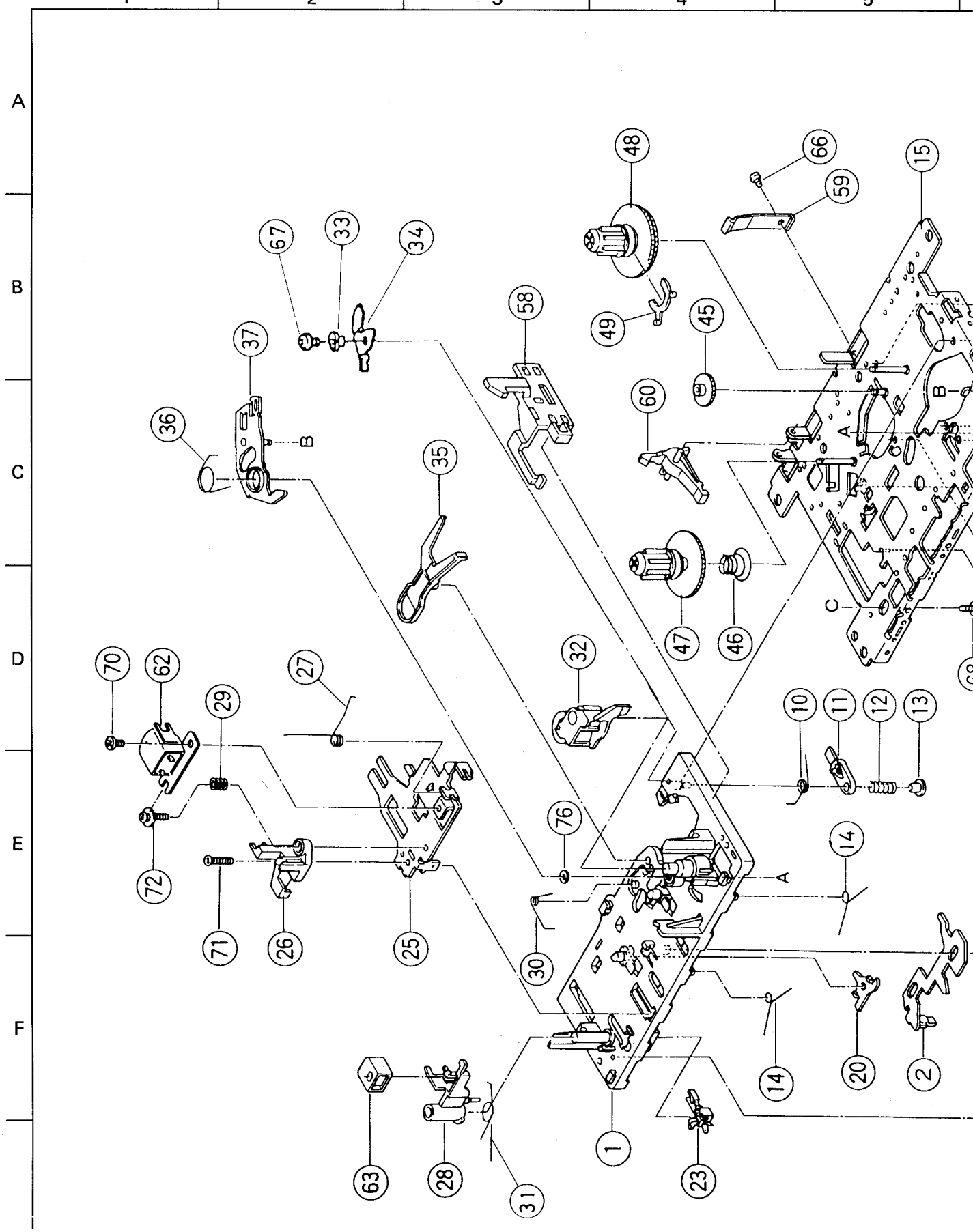
BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 536	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 537	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	R 538	QRD161J-153	CARBON RESISTOR	15K 5% 1/6W	
	R 539	QRD161J-333	CARBON RESISTOR	33K 5% 1/6W	
	R 540	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 541	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 542	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
	R 544	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 545	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 546	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 547	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 548	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 549	QRD161J-181	CARBON RESISTOR	180 5% 1/6W	
	R 559	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 560	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 564	QRD161J-470	CARBON RESISTOR	47 5% 1/6W	
	R 565	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 566	QRD161J-470	CARBON RESISTOR	47 5% 1/6W	
	R 570	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 573	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	R 587	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 588	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 589	QRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
	R 590	QRD161J-183	CARBON RESISTOR	18K 5% 1/6W	
	R 591	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
	R 592	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W	
	R 593	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 594	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 595	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 596	QRD161J-100	CARBON RESISTOR	10 5% 1/6W	
	R 597	QRD161J-820	CARBON RESISTOR	82 5% 1/6W	
	R 598	QRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
	R 624	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 627	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 628	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 630	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 631	QRD161J-221	CARBON RESISTOR	220 5% 1/6W	
	R 632	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 633	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 641	QRD161J-470	CARBON RESISTOR	47 5% 1/6W	
	R 647	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
	R 650	QRD161J-151	CARBON RESISTOR	150 5% 1/6W	
	R 660	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 661	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 662	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
	R 663	QRD167J-682	CARBON RESISTOR	6.8K 5% 1/6W	
	R 664	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 665	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 666	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 667	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 668	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 669	QRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W	
	R 672	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
	R 673	QRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W	
	R 676	QRV141F-2002AY	CMF RESISTOR	20 1% 1/4W	

BLOCK NO. 03

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
	R 677	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
	R 678	QRV141F-1002AY	CMF RESISTOR	10 1% 1/4W	
	R 681	QRV141F-2002AY	CMF RESISTOR	20 1% 1/4W	
	R 682	QRV141F-1002AY	CMF RESISTOR	10 1% 1/4W	
	R 684	QRV141F-2002AY	CMF RESISTOR	20 1% 1/4W	
	R 685	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 686	QRV141F-1002AY	CMF RESISTOR	10 1% 1/4W	
	R 687	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 688	QRD161J-473	CARBON RESISTOR	47K 5% 1/6W	
	R 691	QRV141F-2002AY	CMF RESISTOR	20 1% 1/4W	
	R 692	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
	R 695	QRV141F-2002AY	CMF RESISTOR	20 1% 1/4W	
	R 696	QRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
	R 697	QRV141F-1002AY	CMF RESISTOR	10 1% 1/4W	
	R 698	QRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
	VR501	QVZ3523-104	V.RESISTOR	E-F BALANCE	
	X 601	VCX5016-934V	CRYSTAL		

9 Exploded View of Cassette Mechanism Comp



Component Parts M 1

5 | 6 | 7 | 8 | 9 | 10

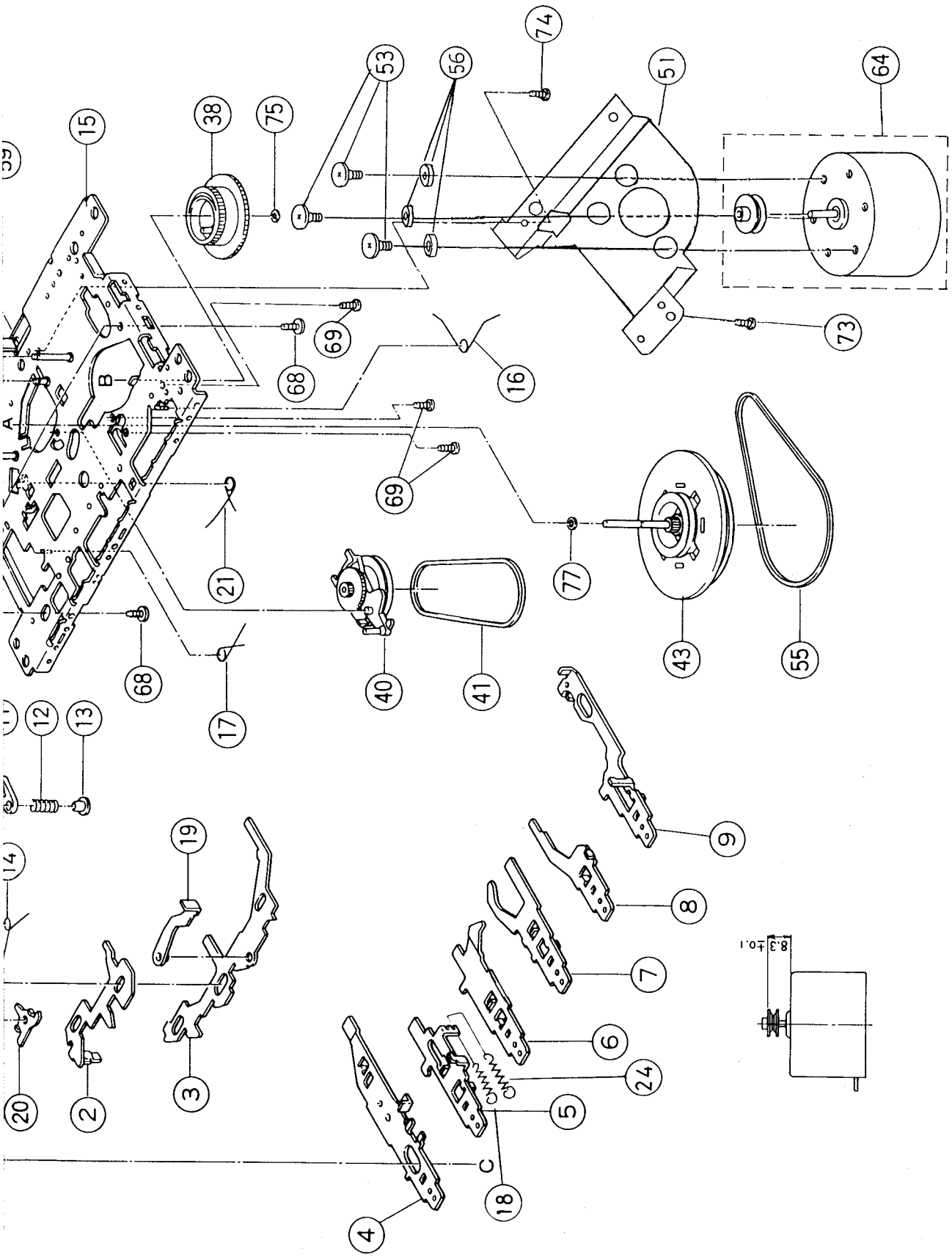


Fig. 9-1

• Cassette Mechanism Component Part List

BLOCK NO. M1MM[ ][ ][ ]

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	192114301ZT	S.BASE ASS'Y		1		
	2	19211409T	SWITCH PLATE		1		
	3	19211438T	LOCK CAM		1		
	4	19211403T	REC BUTT.LEVER		1		
	5	19211483T	REW BUT.LEVER		1		
	6	19211404T	REW BUTT. LEVER		1		
	7	19211405T	FF BUTTON LEVER		1		
	8	19211406T	STOP BUTT.LEVER		1		
	9	19211460T	PAUSE BUT.LEVER		1		
	10	19211413T	P CONT. SPRING		1		
	11	19211455T	PAUSE LEVER (E)		1		
	12	19211412T	SPRING		1		
	13	19211411T	PAUSE STOPPER		1		
	14	19211414T	TORSION SPRING		2		
	15	192101501ZT	CHASSIS ASS'Y		1		
	16	19211416T	TORSION SPRING		1		
	17	19211417T	TORSION SPRING		1		
	18	18210150T	SPRING		1		
	19	182101159T	E.KICK LEVER		1		
	20	19211420T	STTOPPER		1		
	21	19211421T	TORSION SPRING		1		
	23	MSW-1541T	LEAF SWITCH	MSW-1541T	1		
	24	18211311T	TENSION SPRING		1		
	25	19210311T	HEAD PANEL		1		
	26	19210304AT	HEAD BASE		1		
	27	19210309T	PANEL P SPRING		1		
	28	19210305T	MAGNET HEAD ARM		1		
	29	18210307T	AZIMUTH SPRING		1		
	30	19211418AT	M CONTROL SP.		1		
	31	19210310T	MG ARM SPRING		1		
	32	192104309T	P.ROLL. ARM ASY		1		
	33	19211434T	P.ROLLER ARM		1		
	34	19211437T	P ARM COLLAR		1		
	35	19212604TT	SENSING LEVER		1		
	36	19212605T	TORSION SPRING		1		
	37	192126502ZT	GEAR PLATE ASY.		1		
	38	19212602T	CAM GEAR		1		
	40	192107302ZT	RF CLUTCH ASS'Y		1		
	41	18210711T	RF.BELT		1		
	43	192109304ZT	FLYWHEEL ASS'Y		1		
	45	18211070T	F.FORWARD GEAR		1		
	46	18291010T	BACK T. SPRING		1		
	47	192105304T	SUPPLY REEL ASY		1		
	48	192105303T	TAKEUP REEL ASY		1		
	49	19210506T	SENSOR		1		
	51	18511452T	MOTOR BRACKET		1		
	53	18211202T	COLLAR SCREW		3		
	55	182112135T	MAIN BELT		1		
	56	18201306T	RUBBER CUSHION		3		
	58	19211301T	EJ. SLIDE LEVER		1		
	59	18211028T	PACK SP.PLATE		1		
	60	18211069T	REC.SAF.LEVER		1		
	62	VGH0421-021	R/P HEAD	VGH0421-020	1		
	63	PHK-MS1-6A	E HEAD	PH-K380-MS1-6A	1		

BLOCK NO. M1MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	64	MMI-6S9L	MOTOR	MMI-6S9LK	1		
	66	91790000T	TAPPING SCREW	M2 X 3	1		
	67	99992041T	SPECIAL SCREW	M2 X 3	1		
	68	96790000T	TAPPING SCREW	M2 X 5	2		
	69	99991809T	SPECIAL SCREW	CAMERA M2X4.5	3		
	70	91150000T	SCREW(M2 X 3)	M2 X 3	1		
	71	90040000T	SCREW(M2 X 6)	M2 X 6	1		
	72	99220000T	SCREW(M2 X 7)	M2 X 7	1		
	73	91360000T	BIND SCREW	M2.6 X 4	1		
	74	91800000T	SCREW	M2 X 4	1		
	75	94220000T	POLY.CUT WASHER	1.2X3.8X0.3	1		
	76	99990313T	POLY.CUT WASHER	1.45X3.8X0.5	1		
	77	97860000T	POLY WASHER	2X3.5X0.3	1		

10 Exploded View of Enclosure Component Parts

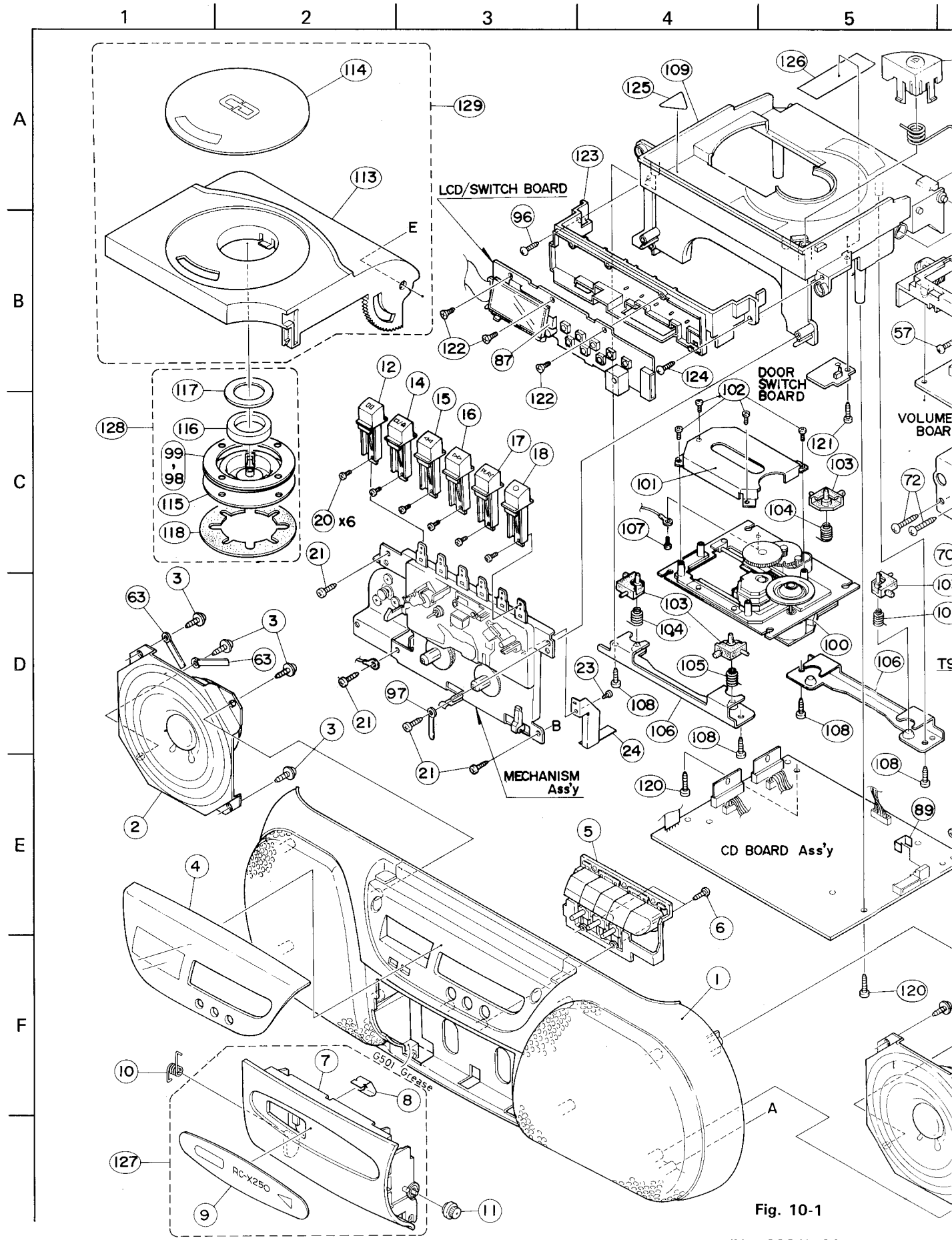
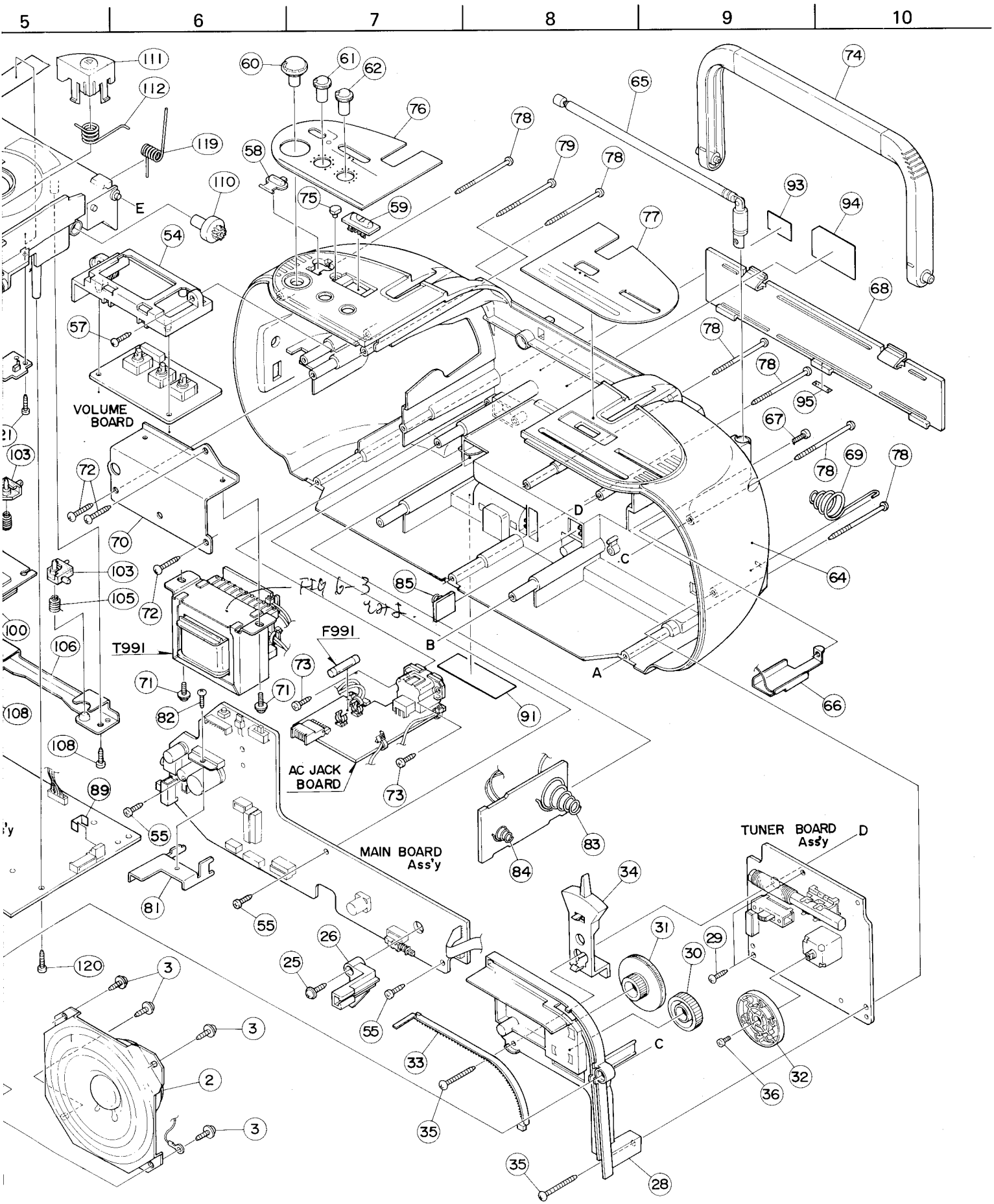


Fig. 10-1

nt Parts M 2


5
6
7
8
9
10
VOLUME BOARD
AC JACK BOARD
MAIN BOARD Ass'y
TUNER BOARD Ass'y
T991
F991
A
B
C
D
E

• Enclosure Component Parts List

BLOCK NO. M2MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	VJG1126-00A	FRONT CABINET		1	E,B	BK
		VJG1126-00BUL	FRONT CABINET		1	J,C	BK
		VJG1126-00C	FRONT CABINET		1	E,B	WT
	2	EAS10P457A1	CONE SPEAKER		2		
	3	GBSF3008Z	TAPPING SCREW	FOR SPEAKER	8		
	4	VJK3529-102	LCD LENS		1		
	5	VXP3439-003	CD BUTTON		1		
	6	SBSF2610Z	SCREW	FOR CD BUTTON	2		
	7	VJT2259-051MM	CASSETTE DOOR		1		WT
		VJT2259-001	CASSETTE DOOR		1		BK
	8	VYH5538-001	CASSETTE SPRING		1		
	9	VJT4178-102	CASSETTE LENS		1		
	10	VKW4931-001	DOOR SPRING		1		
	11	VYH7366-001	GEAR	FOR CASSETTE	1		
	12	VXP3413-139	MECHA BUTTON	FOR PAUSE	1		WT
		VXP3413-009	MECHA BUTTON	FOR PAUSE	1		BK
	14	VXP3413-133	MECHA BUTTON	FOR STOP/EJECT	1		WT
		VXP3413-003	MECHA BUTTON	FOR STOP/EJECT	1		BK
	15	VXP3413-134	MECHA BUTTON	FOR FF	1		WT
		VXP3413-004	MECHA BUTTON	FOR FF	1		BK
	16	VXP3413-135	MECHA BUTTON	FOR REW	1		WT
		VXP3413-005	MECHA BUTTON	FOR REW	1		BK
	17	VXP3413-136	MECHA BUTTON	FOR PLAY	1		WT
		VXP3413-006	MECHA BUTTON	FOR PLAY	1		BK
	18	VXP3413-137	MECHA BUTTON	FOR REC	1		WT
		VXP3413-007	MECHA BUTTON	FOR REC	1		BK
	20	SDST2004Z	SCREW	FOR MECHA BUTTO	6		
	21	SDSF3010Z	SCREW	FOR MECHA.	4		
	23	SDST2003Z	SCREW	FOR REC SPRING	1		
	24	VKY4639-001	REC SPRING		1		
	25	GBSF3010Z	TAPPING SCREW	FOR REC ARM	1		
	26	VYH7340-002	REC ARM	FOR REC SWITCH	1		
	28	VYH2254-002	TUNER CHASSIS		1		
	29	SBSF3008Z	SCREW	FOR TUNER BOARD	2		
	30	VYH7341-002MM	GEAR	FOR TUNING	1		
	31	VYH7342-001	TUNING KNOB		1		
	32	VYH7339-001	TUNING GEAR		1		
	33	VJN4140-001	POINTER		1		
	34	VXQ4108-001	BAND KNOB		1		
	35	SBSF3025Z	SCREW	FOR TUNER CHASS	2		
	36	SDSP2606Z	SCREW	FOR TUNING GEAR	1		
	54	VYH3664-002MM	VOLUME HOLDER		1		
	55	SBSF3012Z	SCREW	FOR AMP. BOARD	3		
	57	SBSF3010Z	SCREW	FOR BOLUME HOLD	1		
	58	VXP5020-002	PUSH KNOB	FOR POWER	1		
	59	VXS4371-001	SLIDE KNOB	FOR FUNCTION	1		
	60	VXL4373-001	KNOB	FOR BOLUME	1		
	61	VXL4373-002	KNOB	FOR BASS	1		
	62	VXL4373-003	KNOB	FOR TREBLE	1		
	63	VKZ4001-110	WIRE CLAMP		2		
	64	VJG1128-001	REAR CABINET		1	B,E	BK
		VJG1128-006	REAR CABINET		1	B,E	WT
		VJG1128-002UL	REAR CABINET		1	C,J	BK
	65	VJA3006-00E	T. ANTENNA ASSY		1		
	66	VYH7432-001	TERMINAL LUG	FOR ANTENNA	1		

BLOCK NO. M2MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	67	SDSP3010N	SCREW	FOR T.ANTENNA	1		
	68	VJC2003-011MM	BATTERY COVER		1		WT
		VJC2003-006	BATTERY COVER		1		BK
	69	VYH5657-001	BATTERY SPRING		1		
	70	VYH7652-002	TRANS.BRACKET		1		
	71	VKZ3001-004	SPECIAL SCREW	FOR TRANSFOMER	2		
	72	GBSF3016Z	SCREW	FOR TRANS. BRAC	3		
	73	SBSF3010Z	SCREW	FOR AC JACK	2		
	74	RCX220-HANDL(W)	HANDLE ASS'Y		1		WT
		RCX250-HANDL-B	HANDLE ASS'Y		2		BK
	75	VJK4296-001	LED LENS		1		
	76	VJD3866-103	CONTROL PLATE		1	C,J	BK
		VJD3866-104	CONTROL PLATE		1	B,E	BK
		VJD3866-105	CONTROL PLATE		1	B,E	WT
	77	VJK3530-103	DIAL LENS		1	C,J	BK
		VJK3530-104	DIAL LENS		1	B,E	BK
		VJK3530-105	DIAL LENS		1	E,B	WT
	78	SBSF3050Z	SCREW	FOR FRONT TO RE	6		
	79	SDSF3065Z	SCREW	FOR FRONT TO RE	1		
	81	VYH7476-001	HEAT SINK	GOR IC302	1		
	82	SBSB3006Z	SCREW	FOR IC302	1		
	83	VYH5483-001	BATTERY SPRING	D/R20 SISE	1		
	84	VYH6289-001	BATTERY SPRING	AA/R6 SISE	1		
	85	VYH6889-001	BATTERY SPRING	AA/R6 SISE	1		
	87	VYH7344-001	LCD HOLDER		1		
	89	VYSA1R4-056	SPACER		1		
	91	VND4221-001	CLASS 1 LABEL		1	B,E	
	92	VND4285-007	HHS LABEL		1	J	
	93	VND4887-001	CAUTION LABEL		1	J	
	94	VYN5162-M005T	NAME PLATE		1	E	
		VYN5162-M006T	NAME PLATE		1	J	
	96	SDSF3010Z	SCREW	FOR BOARD HOLDE	1		
	97	VKZ4001-110	WIRE CLAMP		1		
	98	VYTS495-001	SHEET	FOR CD CLAMPER	1		
	99	VJD5354-004	PLATE	FOR CD CLAMPER	1		
	100	----------	CD MECHA	KSM-210B-AJ-J	1		
	101	VJD5091-003	PICK COVER		1		
	102	SDSF2006M	SCREW	FOR PICK COVER	4		
	103	VYH6596-001	CD CUSHION		4		
	104	VKW4693-101	CONICAL SPRING		2		
	105	VKW4693-102	CONICAL SPRING		2		
	106	VYH7367-001	CD MECHA HOLDER		2		WT
		VYH7367-001	CD MECHA HOLDER		2		BK
	107	SDST2606Z	SCREW	FOR EARTH	1		
	108	SBSF3010Z	SCREW	FOR CD ASS'Y	4		
	109	VJD1148-005	CD CASE		1		
	110	VYH4769-002	GEAR	FOR CD DOOR	1		
	111	VXP5135-002	CD EJECT KNOB		1		WT
		VXP5135-001	CD EJECT KNOB		1		BK
	112	VKW4945-002	SPRING	FOR EJECT	1		
	113	VJT2301-002	CD DOOR		1		WT
		VJT2301-001	CD DOOR		1		BK
	114	VJT3322-003	CD LENS		1		
	115	VYH3655-001	CLAMPER		1		

BLOCK NO. M2MM

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	116	VYH7313-001R	MAGNET	FOR CD CLAMPER	1		
	117	VYH7314-001	YOKE	FOR CD CLAMPER	1		
	118	VYH7452-002	PAD	FOR CD CLAMPER	1		
	119	VKW4946-001	CD DOOR SPRING		1		
	120	SBSF3010Z	SCREW	FOR CD BOAERD	2		
	121	SBSF3010Z	SCREW	FOR CD SWITCH B	1		
	122	SSSF2606Z	SCREW	FOR LCD BOARD	3		
	123	VYH3728-001	PCB HOLDER		1		
	124	SDSF3010Z	SCREW	FOR BOARD HOLDE	1		
	125	E71541-001	E.I LASER MARK		1	B,E	
	126	VND4220-001	CAUTION LABEL		1	B,E	
	127	ZCRCX250-CBK	CASSETTE DOOR		1		BK
		ZCRCX250-CWT	CASSETTE DOOR		1		WT
	128	ZCRCX250-CLAMP	CLAMP ASS'Y		1		
	129	ZCRCX250-DCABK	CD DOOR ASS'Y		1		BK
		ZCRCX250-DCAWT	CD DOOR ASS'Y		1		WT
⚠	F 991	QMF51E2-2R5J1	FUSE		1	E	
⚠		QMF51N2-2R5J1	FUSE		1	J	

11 Exploded View of CD Mechanism M 3

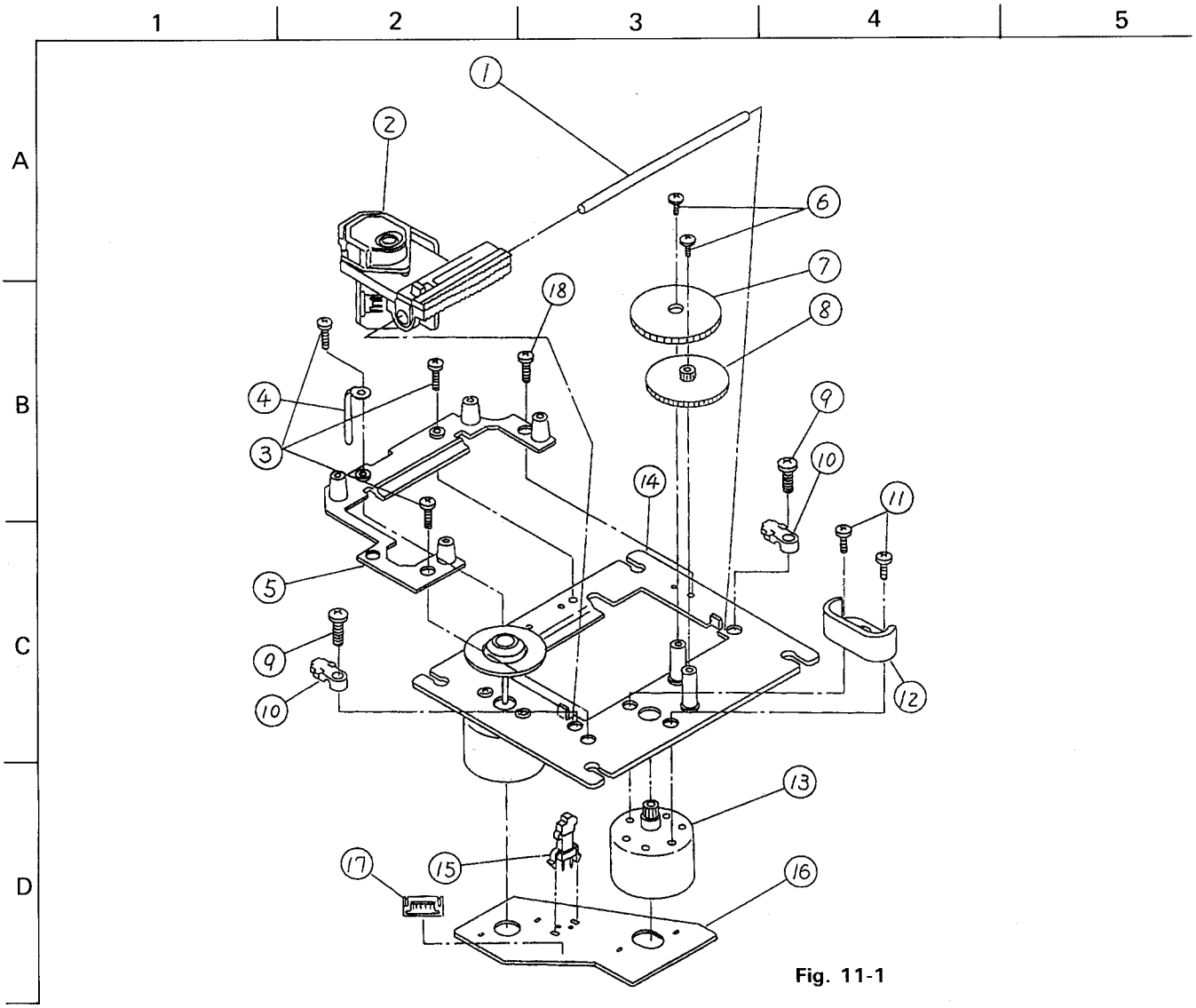


Fig. 11-1

• **CD Mechanism Parts List** BLOCK NO. M3MM

Ref.No	Parts No.	Parts Name	Description	Q'TY
1	4-910-431-01	SLIDE SHAFT		1
2	KSS-210B(H)-RS	PIK-UP UNIT		1
3	7-621-255-45	SCREW		3
4	2-277-426-01	WIRE HOLDER		1
5	2-641-444-01	CHASSIS HOLDER(J)		1
6	3-303-809-31	SCREW		2
7	2-641-404-02	GEAR(A)		1
8	2-641-403-05	GEAR(B)		1
9	2-641-447-01	SCREW		2
10	2-641-448-02	SHAFT CLAMP		2
11	7-621-255-25	SCREW		2
12	2-641-434-01	GEAR COVER		1
13	X-2641-358-1	MOTOR ASS'Y		1
14	X-2641-348-1	CHASSIS ASS'Y		1
15	1-570-822-21	LEAF SWITCH		1
16	1-628-264-11	MOTOR BOARD		1
17	1-564-722-11	CONNECTOR		1
18	7-621-255-25	SCREW		1

12 Packing M 4

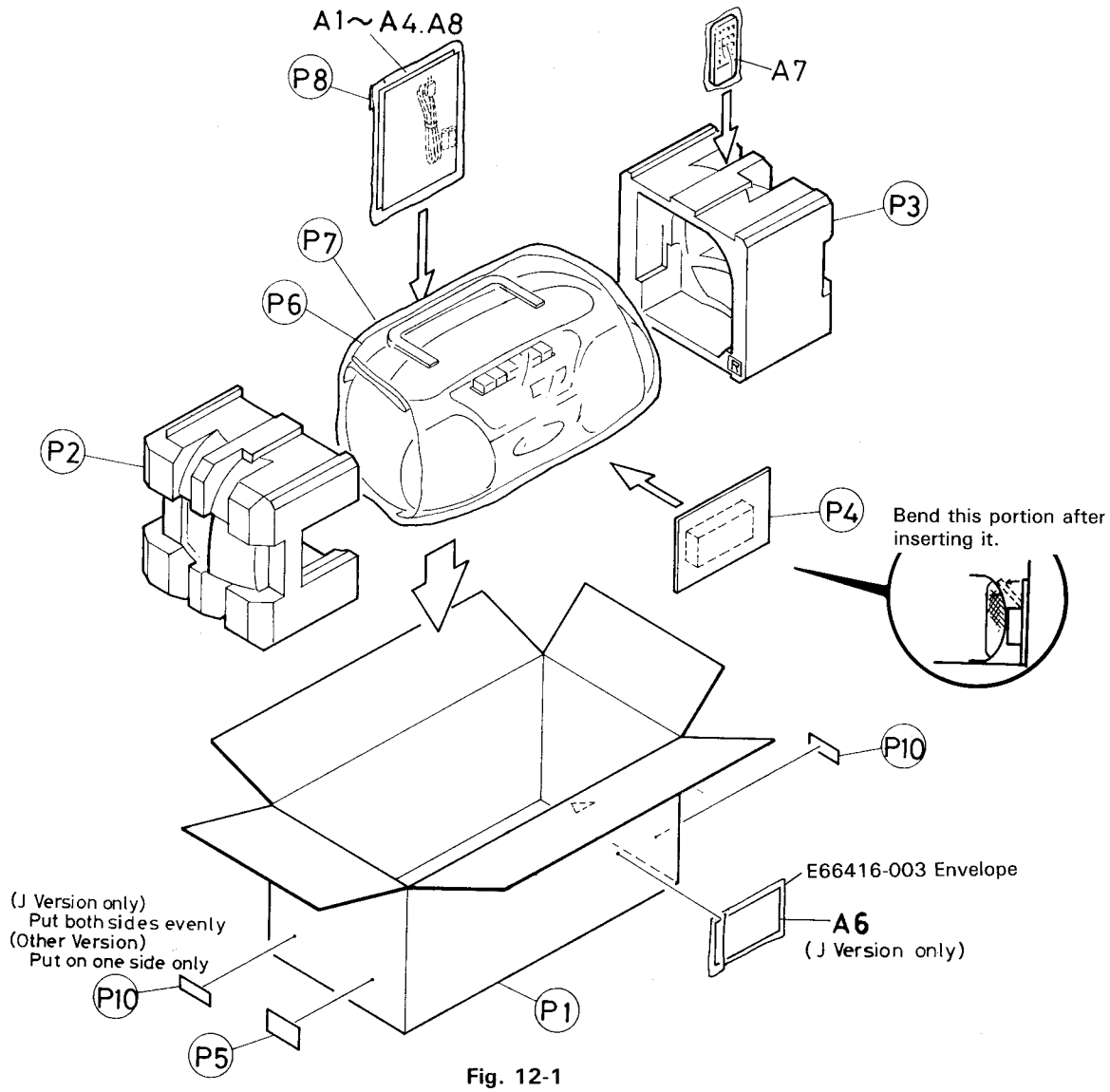


Fig. 12-1

• Packing Parts List

BLOCK NO. M4MM□□□

⚠	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A 1	QMP1230-183	POWER CORD		1		
	A 2	VNN5162-611M	INST BOOK		1		
	A 3	BT-20044G	SAFETY GUIDE		1		
	A 4	BT-20108A	SERVICE NETWERK		1		
	A 6	BT-20047F	WARRANTY CARD		1		
	A 7	VGR0011-001	REMO-CON UNIT		1		
	A 8	R03BPA-2ST	BATTERY		2		
	P 1	VPC5162-M002	CARTON		1		
	P 2	VPH2404-001	CUSHION (L)		1		
	P 3	VPH2404-002	CUSHION (R)		1		
	P 4	VPK4258-001	PAD		1		
	P 5	VND3025-154	EAN CODE LAVEL		1	B,E	
		VND3070-042	UPC CODE LABEL		1	C,J	
	P 6	VPK4002-011	SHEET	FOR BODY	1		
	P 7	VPE3004-025	POLY BAG	FOR SET	1		
	P 8	VPE3005-005	POLY BAG	FOR INSTRUCTION	1		
	P 9	E66416-003	ENVELOPE	FOR WARRANTY	1	J	
	P 10	VND3044-003	NUMBER LABEL		1	E	
		VND3044-002	SERIAL TICKET		2	J	

13 Specifications

Compact disc player section

Type	:	Compact disc player
Signal detection system	:	Non-contact optical pickup (semiconductor laser)
Number of channels	:	2 channels (stereo)
Frequency response	:	30 Hz – 20,000 Hz
Signal-to-noise ratio	:	76 dB
Wow & flutter	:	Less than measurable limit

Radio section

Frequency ranges	:	FM 88 – 108 MHz AM 540 – 1,700 kHz
Antennas	:	Telescopic antenna for FM Ferrite core antenna for AM

Tape deck section

Track system	:	4-track 2-channel stereo
Motor	:	Electronic governor DC motor for capstan
Heads	:	Hard permalloy head (for recording/ playback), Magnetic head for erasure
Frequency response	:	70 –14,000 Hz
Wow & flutter	:	0.15 % (WRMS)
Fast wind time	:	Approx. 120 sec. (C-60 cassette)

General

Speaker	:	10 cm (3-15/16") x 2
Power output	:	2.3 watts per channel min. RMS, at 3 ohms from 150 Hz to 15 kHz with no more than 10% total harmonic distortion (RC-X250J) Max. 9.2 W (4.6 W + 4.6 W) at 3 ohms (RC-X250C)
Output terminals	:	PHONES x 1 (Output level: 0-40 mW/32 Ω Matching impedance: 16 Ω-1 kΩ)
Power supply	:	AC 120 V, 60 Hz DC 9 V (6 "D" batteries)
Power consumption	:	19 W (with POWER SW ON) 2 W (with POWER SW STANDBY)
Dimensions	:	420(W) x 157(H) x 227(D) mm (16-9/16" x 6-3/16" x 8-15/16") including knobs
Weight	:	Approx. 3.6 kg (8.0 lbs) (without batteries) Approx. 4.2 kg (9.3 lbs) (with batteries)
Accessories provided	:	AC power cord Remote control unit (RM-RX250) Battery "AAA" x 2 (for the remote control)

Design and specifications are subject to change without notice.

JVC

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