

JVC

SERVICE MANUAL

CD PORTABLE SYSTEM

RC-X250 B/C/E/J



〒103東京都中央区日本橋本町4-8-14
日本ビクター株式会社
サービス部 部品管理課

COMPACT
disc
DIGITAL AUDIO

Area suffix

B UK
C Canada
E Continental Europe
J USA

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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 (Δ) 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.

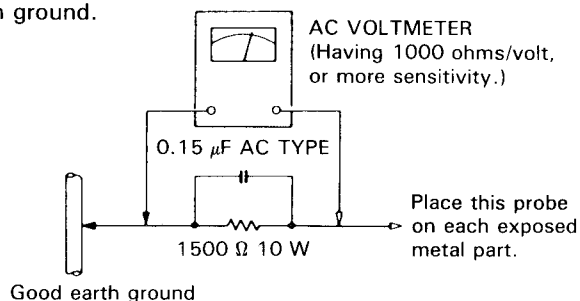
- Plug the AC line cord directly into the AC outlet. Using a "Leakage Current Tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5 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 μ F 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.).

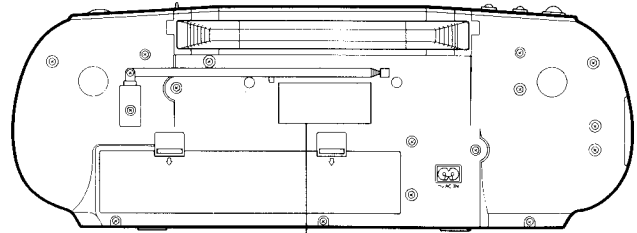


Safety Precautions

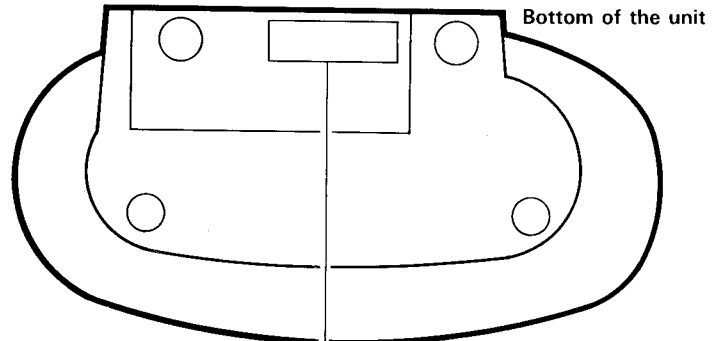
J (USA) Only

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
2. DANGER: Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
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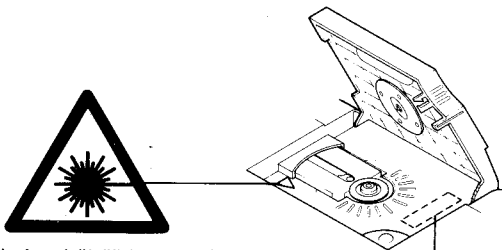
Product complies with DHHS Rules 21
CFR Subchapter J in effect at date of
manufacture.

MANUFACTURED

*1

US JVC CORP.
41 SLATER DRIVE
ELMWOOD PARK,
N.J. 07407
MANUFACTURED
AT *2
MADE IN MALAYSIA

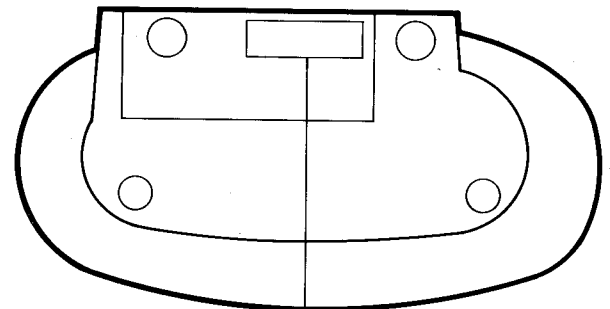
REPRODUCTION OF LABELS AND THEIR LOCATION



VAROITUS! Laite sisältää laserdiodin,
joka lähettää näkymätöntä silmille
vaarallista lasersäteilyä.

ADVARSEL-Der vil udstråles
osynlig laserbestråling når
apparatet åbnes og aflæs-
ningsmekanismen frigøres.
UNDGÅ AT BLIVE UDSET
FOR LASERBESTRÅLING

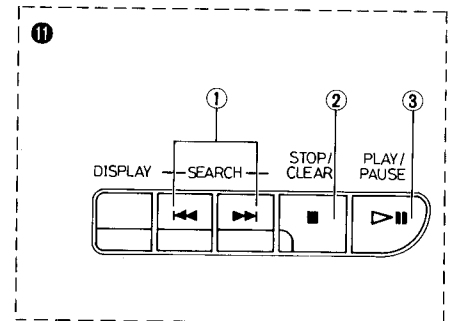
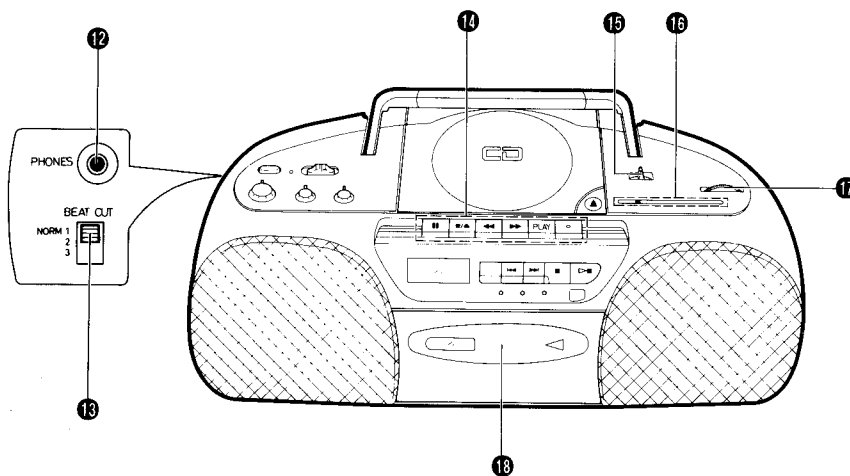
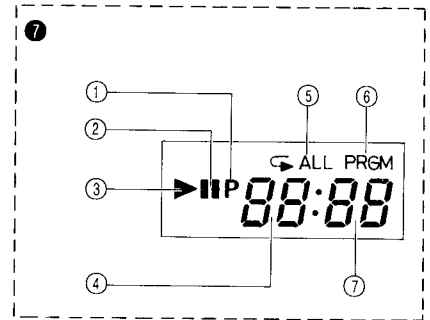
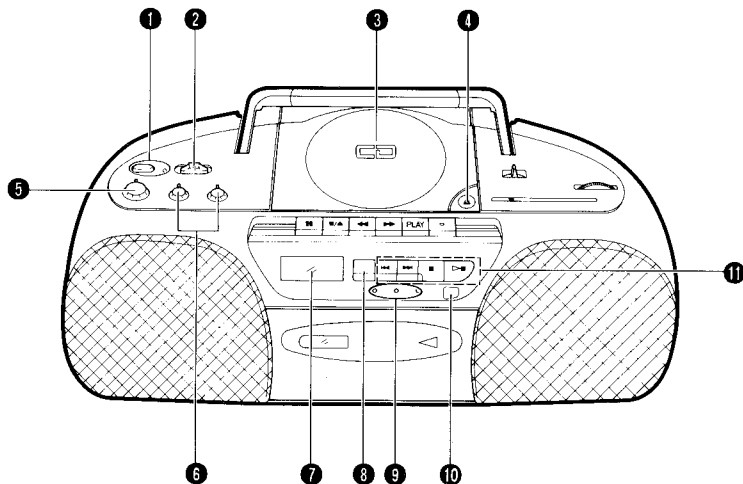
DANGER-Invisible laser
radiation when open and
interlock defeated.
AVOID DIRECT EX-
POSURE TO BEAM.



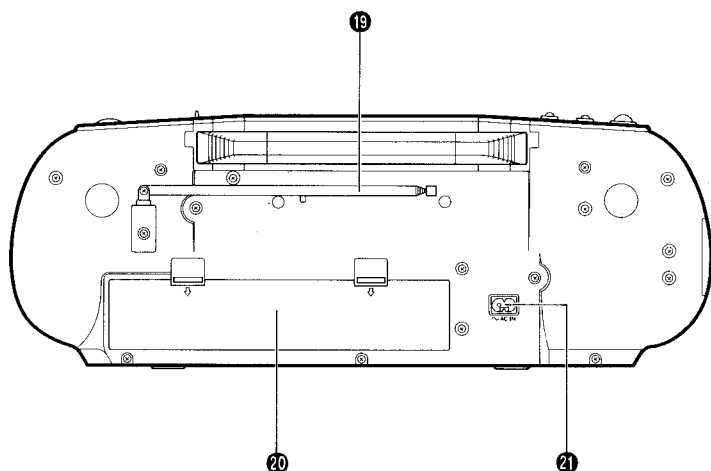
CLASS 1
LASER PRODUCT

Names of Parts and Their Functions

(Description of J Version)



- ① POWER switch and indicator
- ② FUNCTION switch (CD/TAPE/TUNER)
- ③ Disc holder
- ④ Disc holder open button (▲)
- ⑤ VOLUME control
- ⑥ BASS-TREBLE controls
- ⑦ 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
- ⑧ DISPLAY button (track number/time)
- ⑨ Clock/timer operation section
- ⑩ REMOTE SENSOR section
- ⑪ CD operation buttons
 - ① SEARCH (◀▶) buttons
 - ② STOP/CLEAR (■) button
 - ③ PLAY/PAUSE (▶■) button
- ⑫ 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.
- ⑬ BEAT CUT switch
- ⑭ 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.
- ⑮ BAND/FM MODE switch (AM/FM STEREO/FM MONO)
- ⑯ Dial scale
- ⑰ TUNING knob
- ⑱ 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

FUNCTION
CD TAPE TUNER

1 Set to ON.

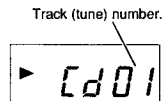
2 Set to CD.

3 Press to open the disc holder.

4 Load a disc with the label side facing up. Close the disc holder.

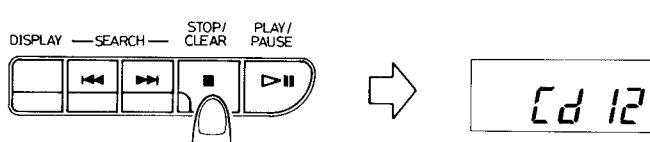
5 Press to start the playback.

6 Adjust.

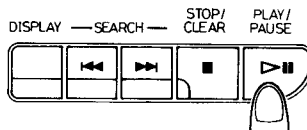


To stop play

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

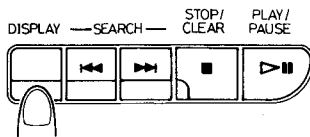


Cautions:

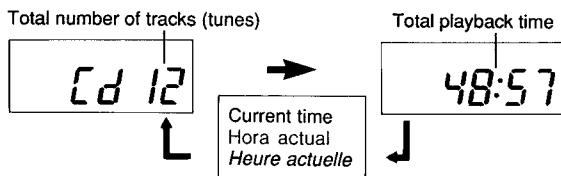
- To change discs, press the ■ STOP/CLEAR button; check that the disc has stopped rotating completely before unloading it.
- When turning off the power during playback, first press the ■ STOP/CLEAR button to stop the CD playback, and then press the power button.

How to use the DISPLAY button

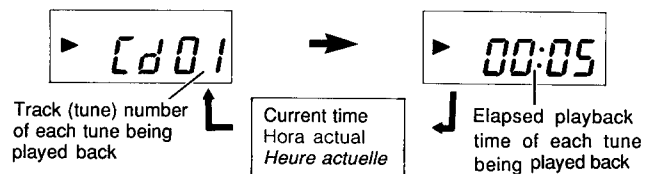
Use this button to change the indication of the display window.



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

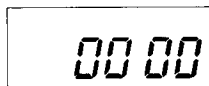


- In case the button is pressed during playback.



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.



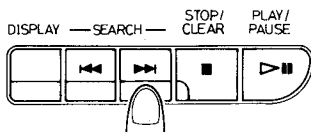
- Do not use the unit at excessive high or cold temperatures. The recommended temperature range is from 5°C (41°F) to 35°C (95°F).
- After playback, unload the disc and close the disc holder.
- If mistracking occurs during play, lower the volume.
- Mistracking may occur if the unit is given a strong 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.

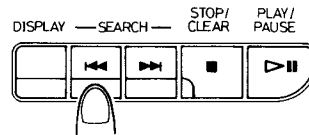
To listen to the next tune ...

Press the ►► button once to skip to the beginning of the next tune.



To listen to the previous tune ...

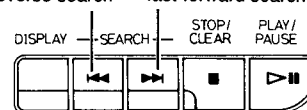
Press the ◀◀ button to skip to the beginning of the tune being played back and press again to skip to the beginning of the previous tune.



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.

Keep pressing for fast-reverse search Keep pressing for fast-forward search



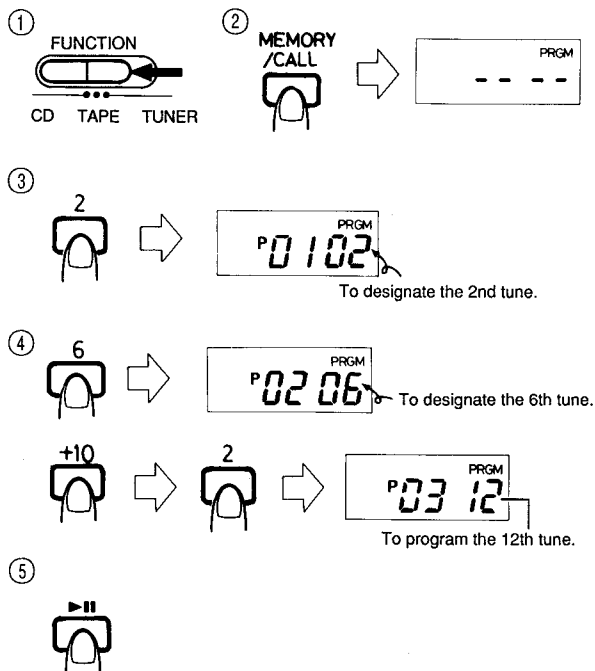
- Hold down the button; search play starts slowly and then gradually increases in speed.
- Since low-volume sound (at about one quarter of the normal level) can be heard in the search mode, monitor the sound and release the button when the required position is located.

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.)

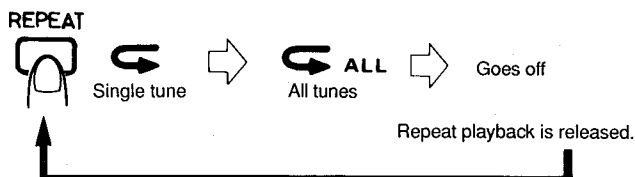


- Set to CD.
- Press the MEMORY/CALL button to set to the programming mode.
- Press to designate the required track number.
- Designate the remaining tunes by pressing the track number buttons.
- Press the ►|| button when programming is completed. Programmed playback starts.

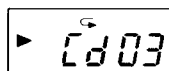
Repeat play (using the remote control)

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

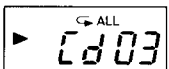
Whether a single tune or all tunes are to be repeated can be specified. Each time the REPEAT button is pressed, the mode will change from a single tune (↺), to all the tunes (↺ ALL), to the clear mode, in this order.



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



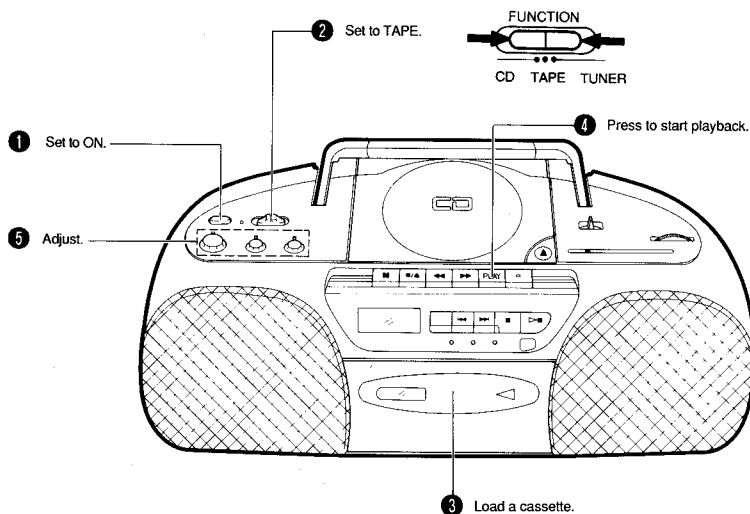
- Repeat playback of all tunes (↺ ALL)**
When playing back an entire disc or programmed tunes, all tunes or the programmed tunes will be heard repeatedly.



CASSETTE PLAYBACK



Operate in the order shown



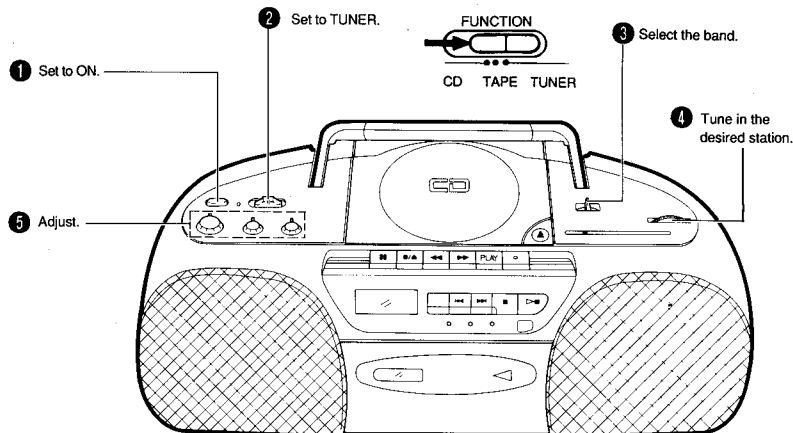
Note:

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.

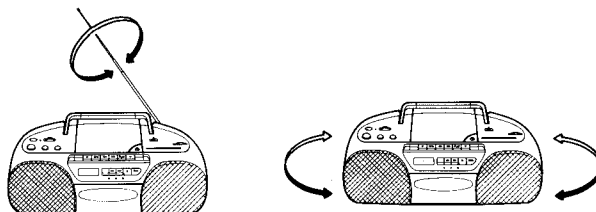
RADIO RECEPTION



Operate in the order shown.



Using the antennas



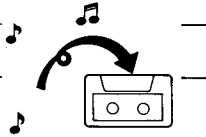
Notes:

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

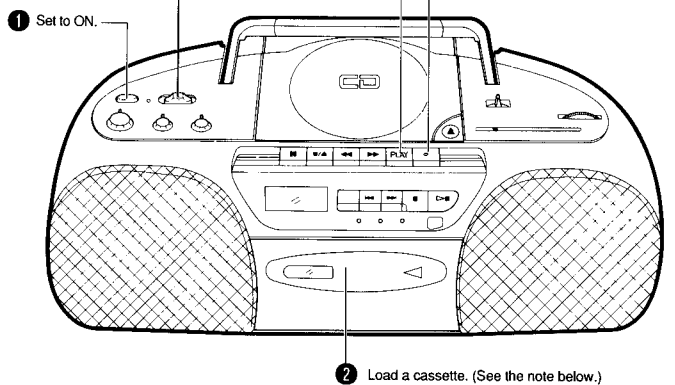
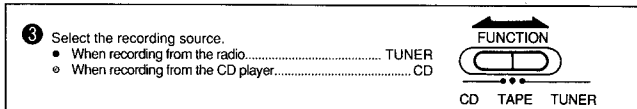
Normally set this switch to the STEREO position. A stereo broadcast can be heard. If you are situated in a weak signal area (a place far away from the broadcast station or in a concrete building), FM stereo broadcast reception may result in an unstable reception with considerable noises. In such a case,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



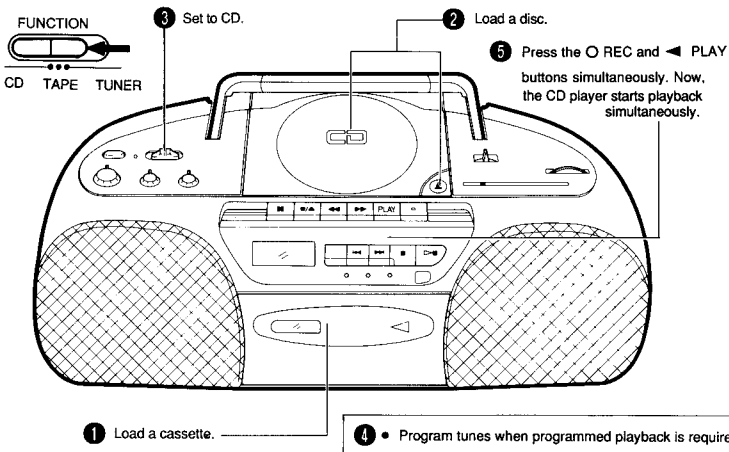
Note:

The recording/playback characteristics of this unit are those of normal tape. Normal tape has different characteristics from CrO₂ 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 (1 - 4).

- 1 Press the **PLAY/PAUSE** button of the CD player twice. The CD player enters the pause mode.
- 2 Press the **REC** and **PLAY** buttons simultaneously. Now, the CD player starts playback simultaneously.

PAUSE button

First of all, press the **PAUSE** button. Then, press the **REC** and **PLAY** buttons, thus entering the record-pause (standby) mode. After that re-press the **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

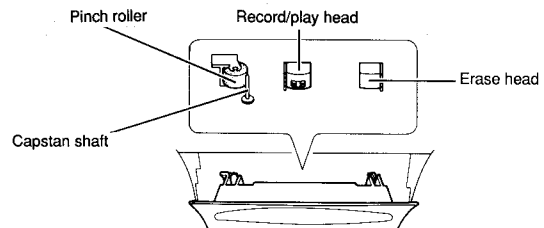
When recording an AM broadcast, beats may be produced which are not heard when listening to the broadcast. In such a case, set this switch so that the beats are eliminated. Normally set this switch to "NORM 1".

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 3, set the FUNCTION switch to TAPE then perform recording to erase the tape.



2 Location of Main Parts

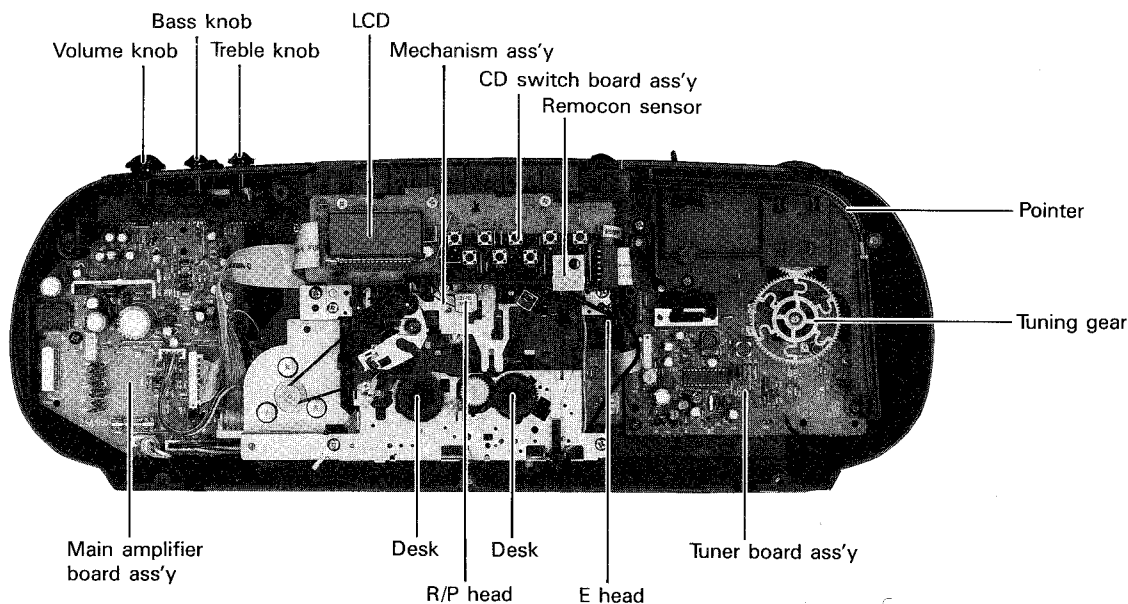


Fig. 2-1

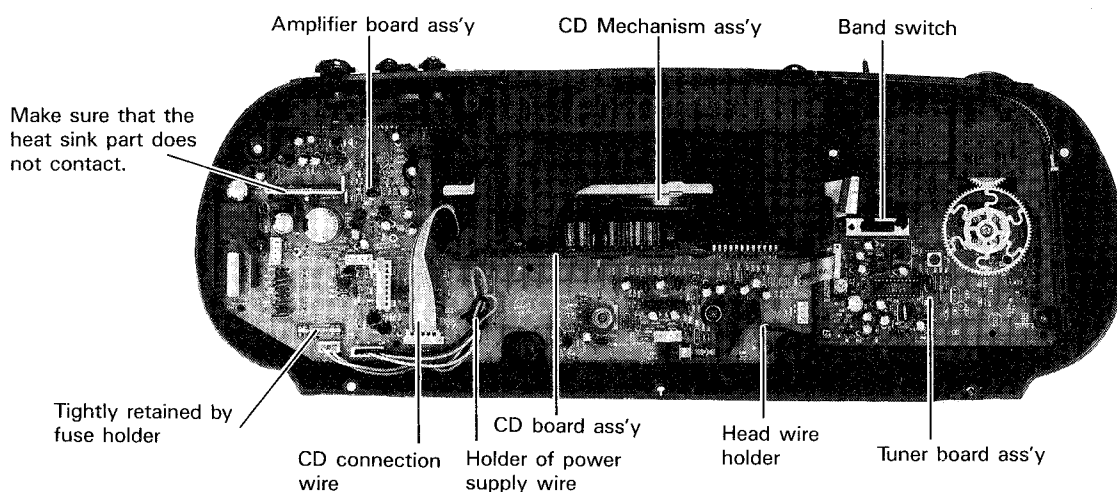


Fig. 2-2

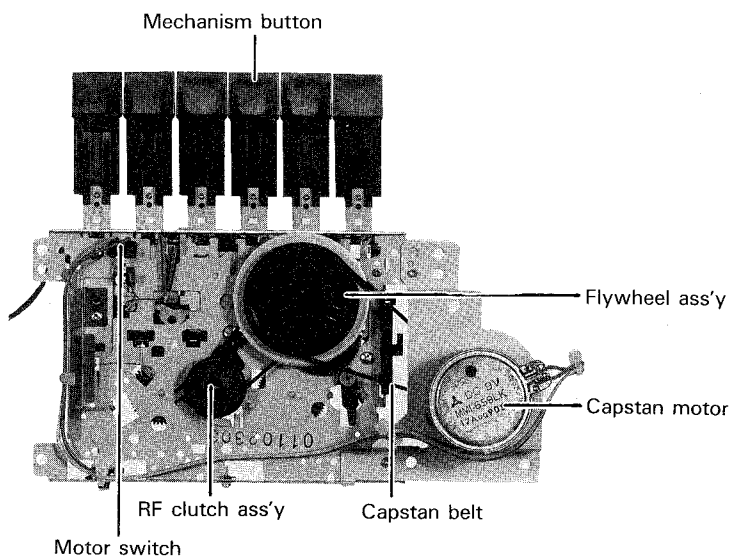


Fig. 2-3

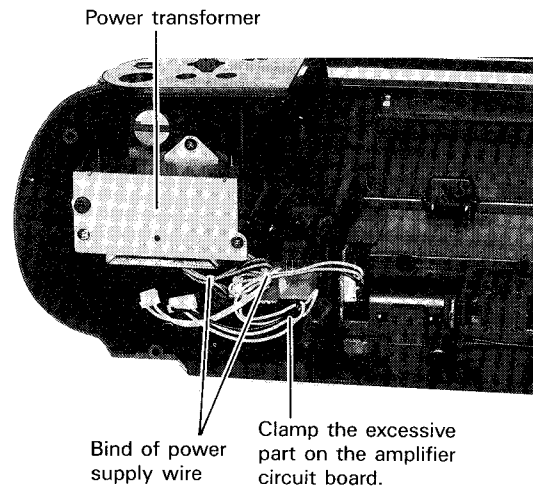


Fig. 2-4

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

- Remove the 7 screws ① and ①' from the rear panel. (Remove the at the tip of the ▲ mark.)
- Open the cassette door, remove it from the bottom of the front cover, and slide the front cover upwards in order to remove the button section of the mechanism.
- 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.

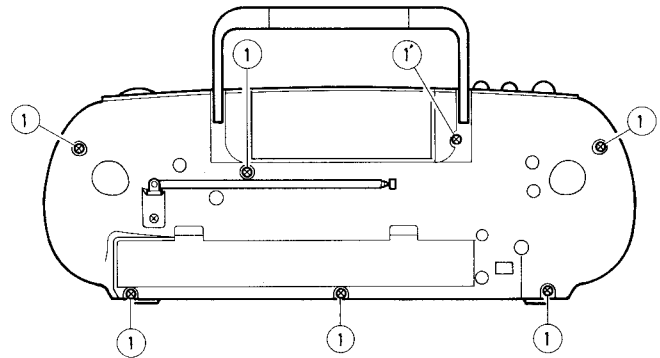


Fig. 3-1

■ LCD/CD Switch Circuit Board Assembly

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

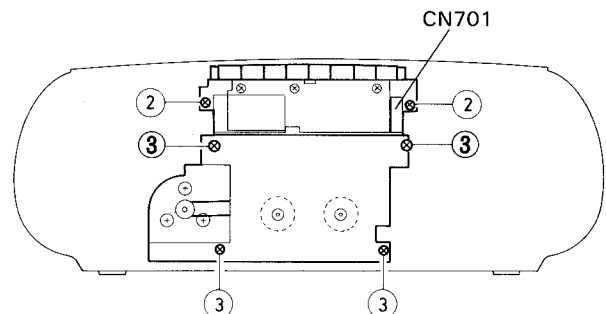


Fig. 3-2

■ Cassette Mechanism Assembly

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

■ 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 variable 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.

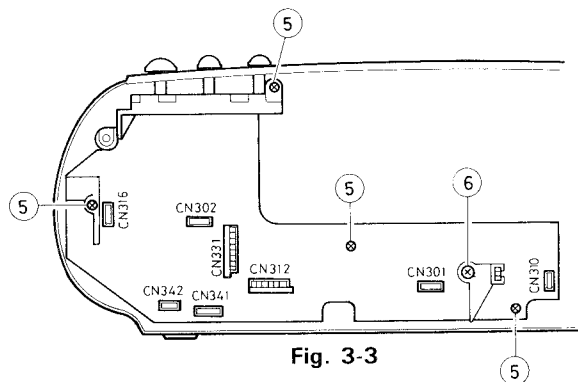


Fig. 3-3

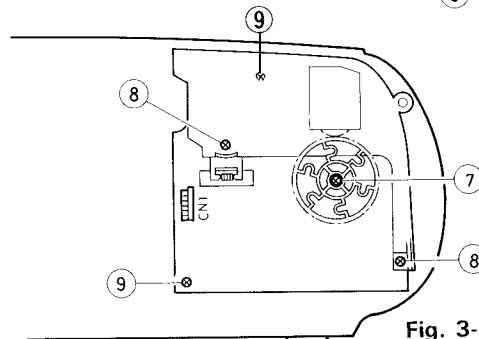


Fig. 3-4

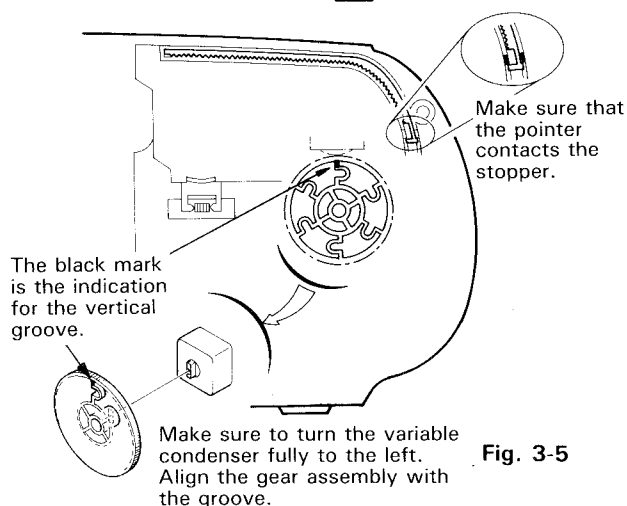


Fig. 3-5

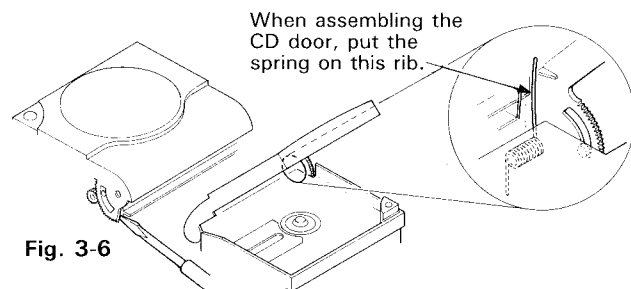


Fig. 3-6

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

Fig. 3-7

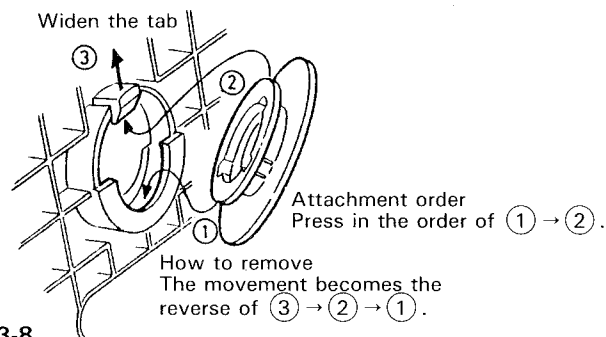


Fig. 3-8

■ 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.

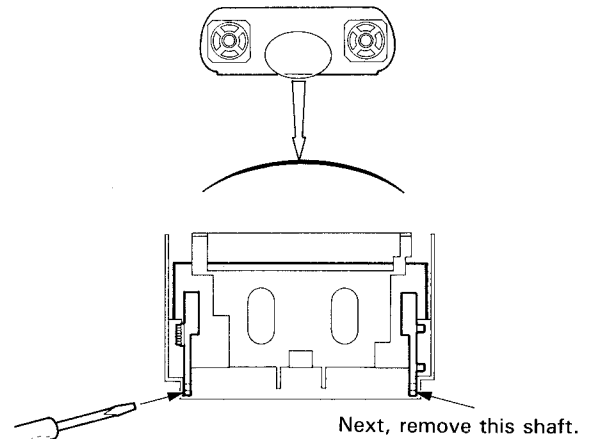
Then push the gear damper side and align with the shaft. (Both ends of the door and shaft are tapered.)

■ 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.)



Insert a screwdriver, etc., and remove the shaft.

Fig. 3-9

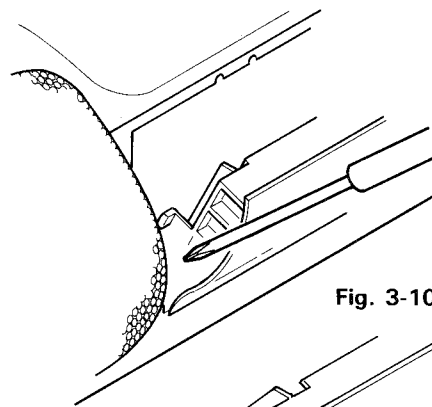


Fig. 3-10

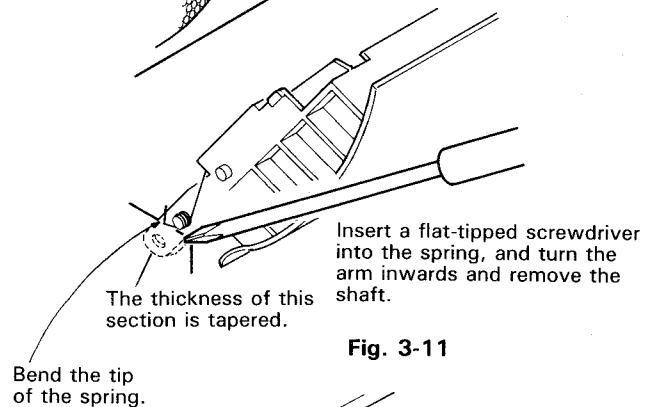


Fig. 3-11

Bend the tip of the spring.

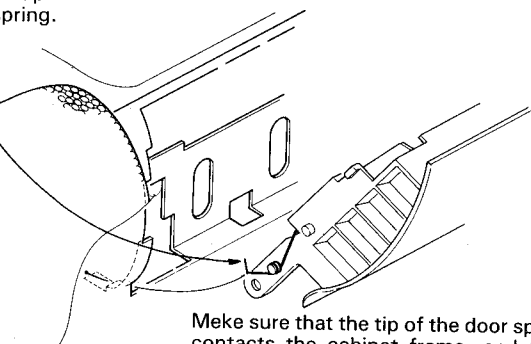


Fig. 3-12

Make sure that the tip of the door spring contacts the cabinet frame, and then align the door arm and the shaft and push inwards.

< CD Player Mechanism Section >

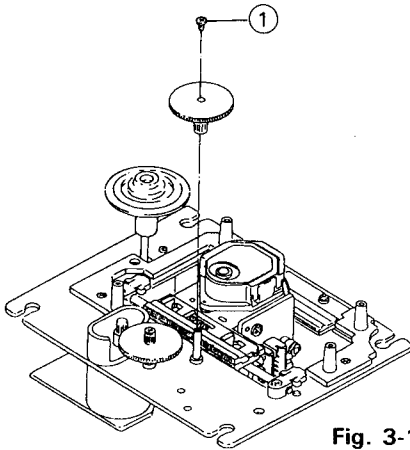
Insertion**■ CD Mechanism Section**

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.

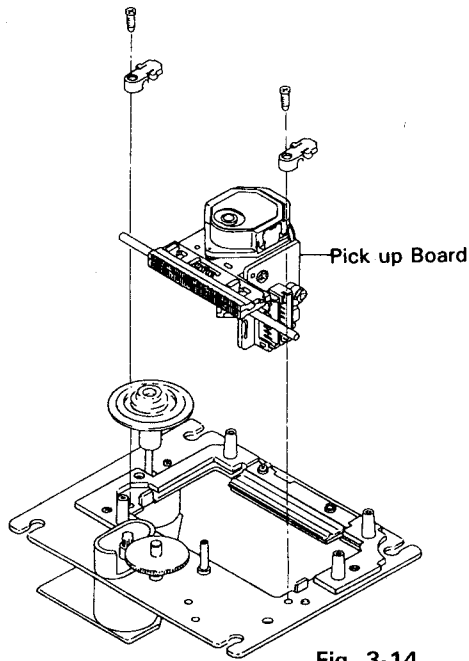


Fig. 3-14

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.

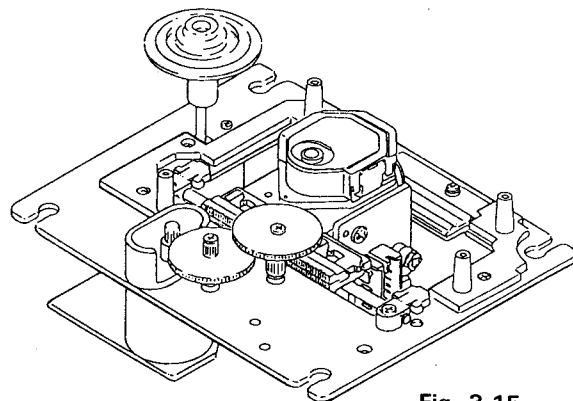


Fig. 3-15

Soldered bridge

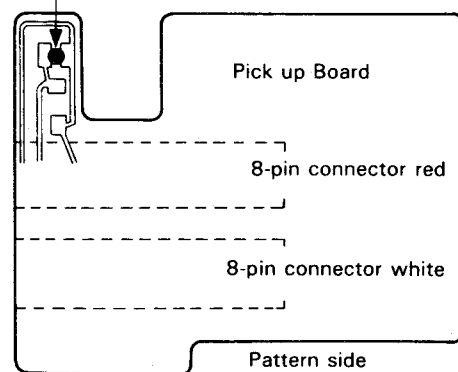


Fig. 3-16

< **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.

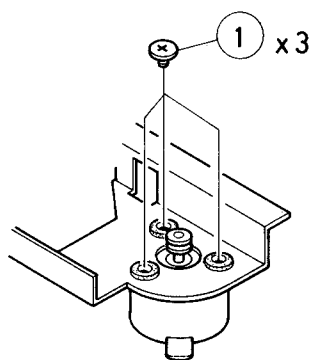


Fig. 3-17

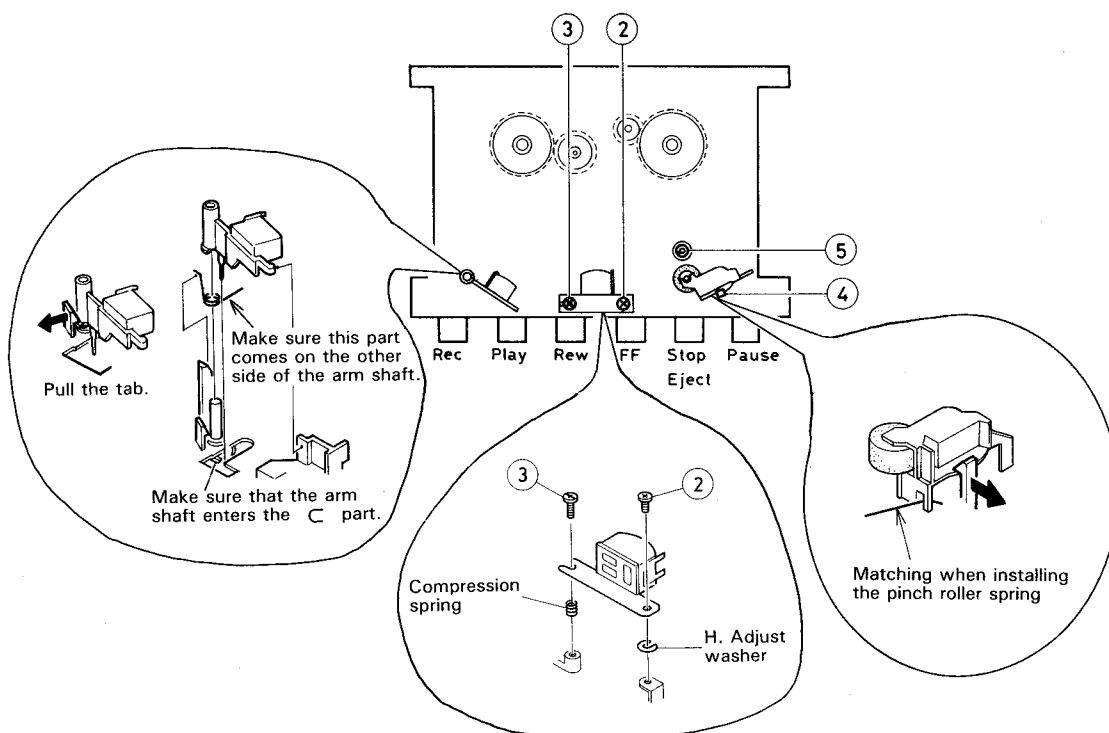


Fig. 3-18

■ 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.

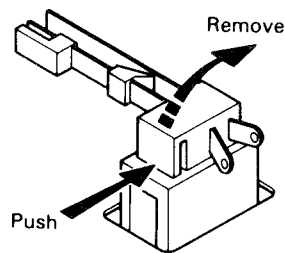


Fig. 3-19

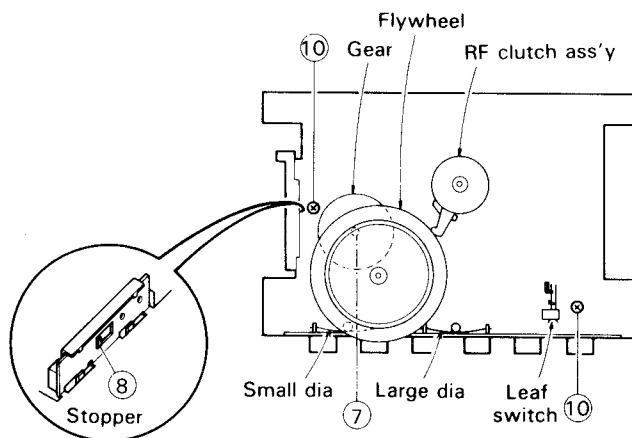


Fig. 3-20

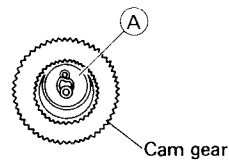


Fig. 3-21

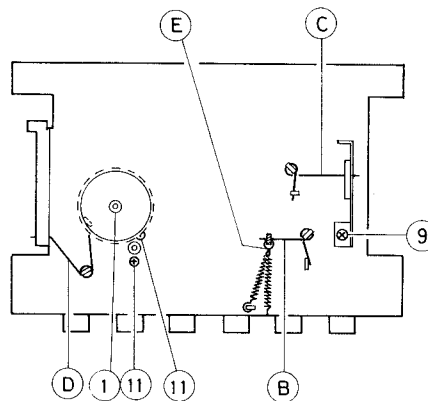


Fig. 3-22

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)

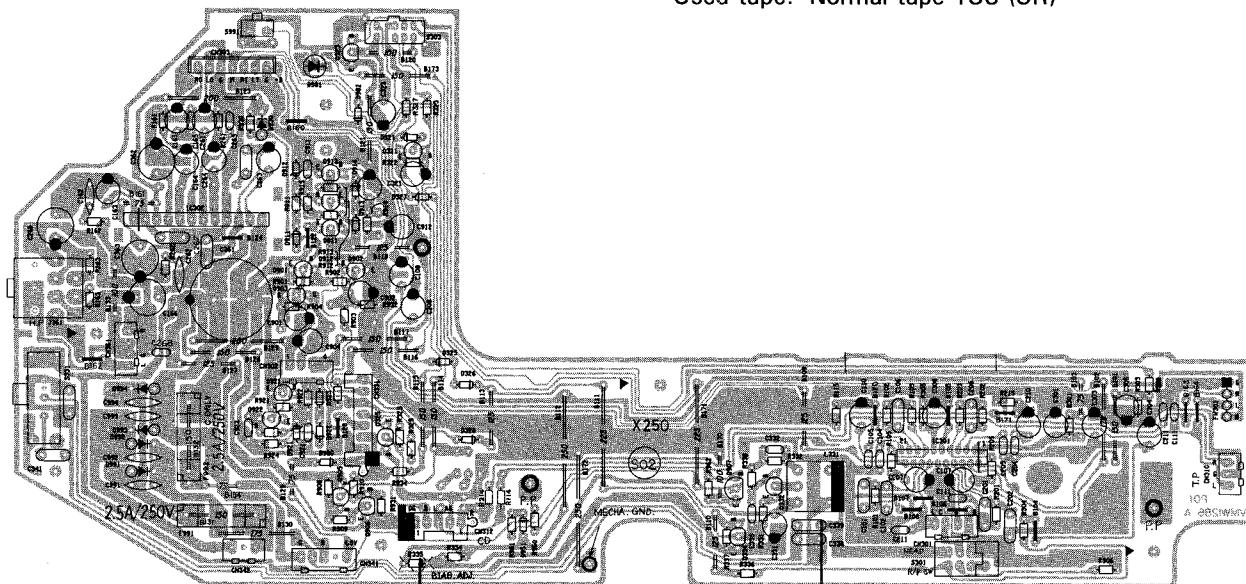

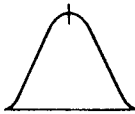
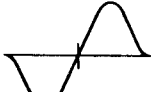
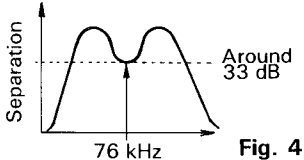
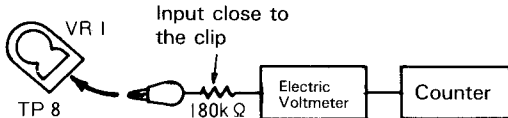


Fig. 4-1

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.)

| 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). | _____ |

| 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) Repeat 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 | <p>Note: When adjusting the separation at the time of mounting, etc., the separation changes as shown in Fig. 3 against 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.</p>  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 concerns the G version.

■ CD Player Adjustment

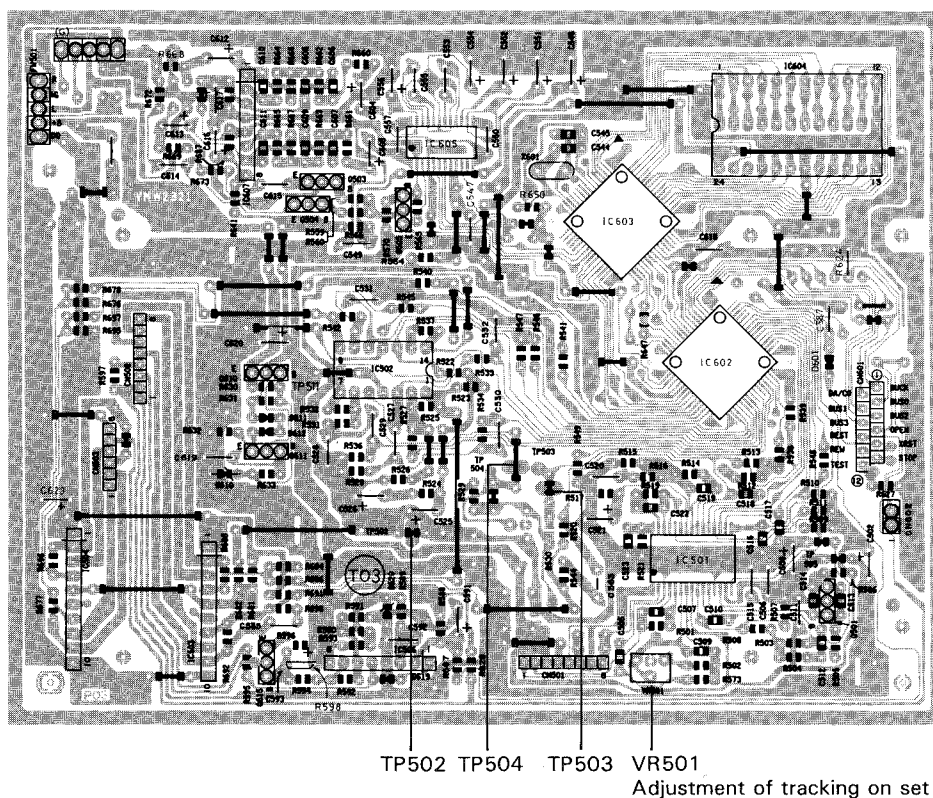


Fig. 4-4

• 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 k Ω .
- (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.

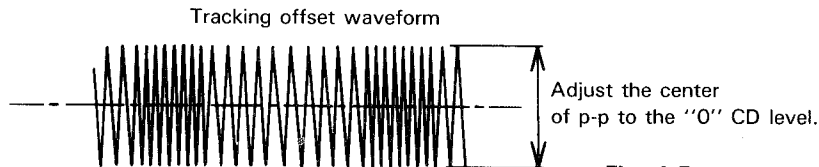


Fig. 4-5

• 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 higher 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.

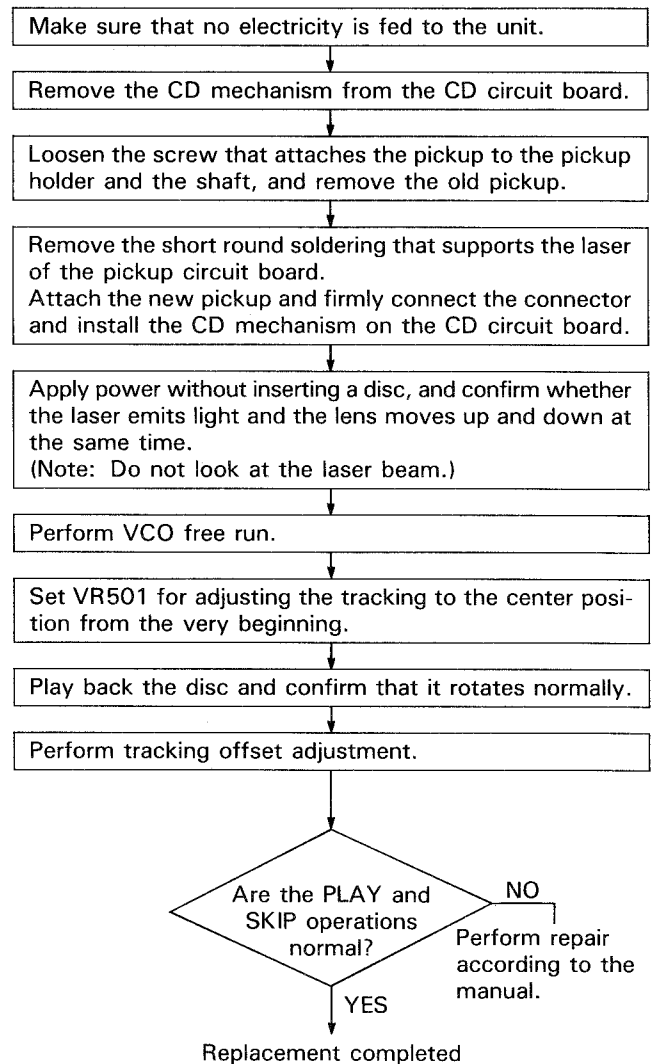
- (3) Short-circuit between TP504 and TP502.

- (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.

Replacement of the pickup



APC is an abbreviation of "Auto Power Control".

5 Block Diagram

< CD Section >

Basic Diagram

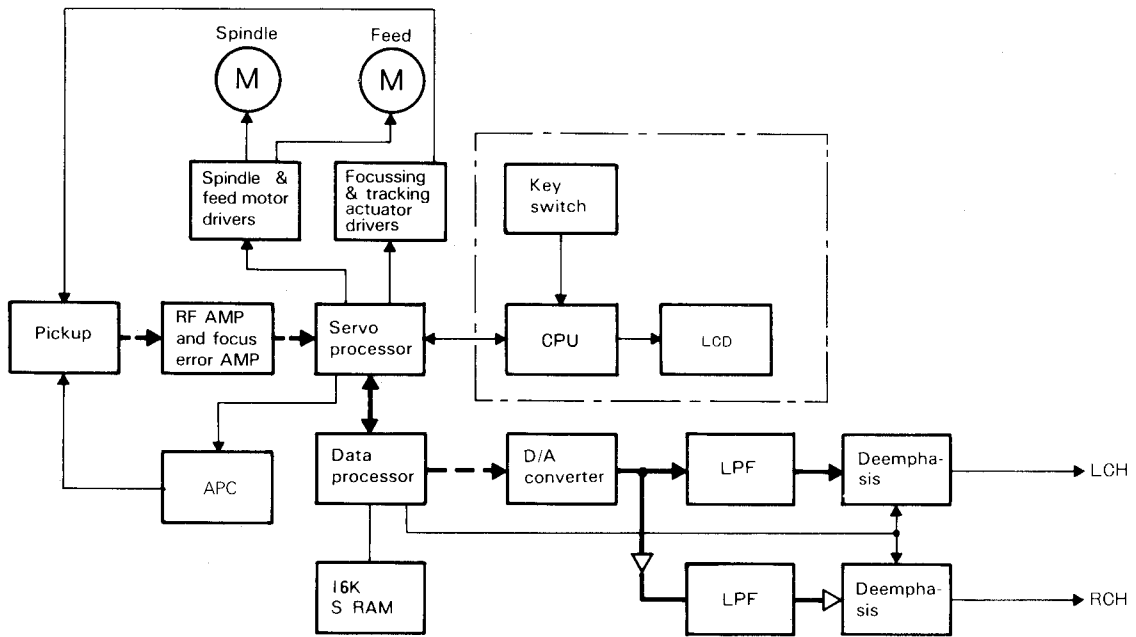


Fig. 5-1

Signal Diagram

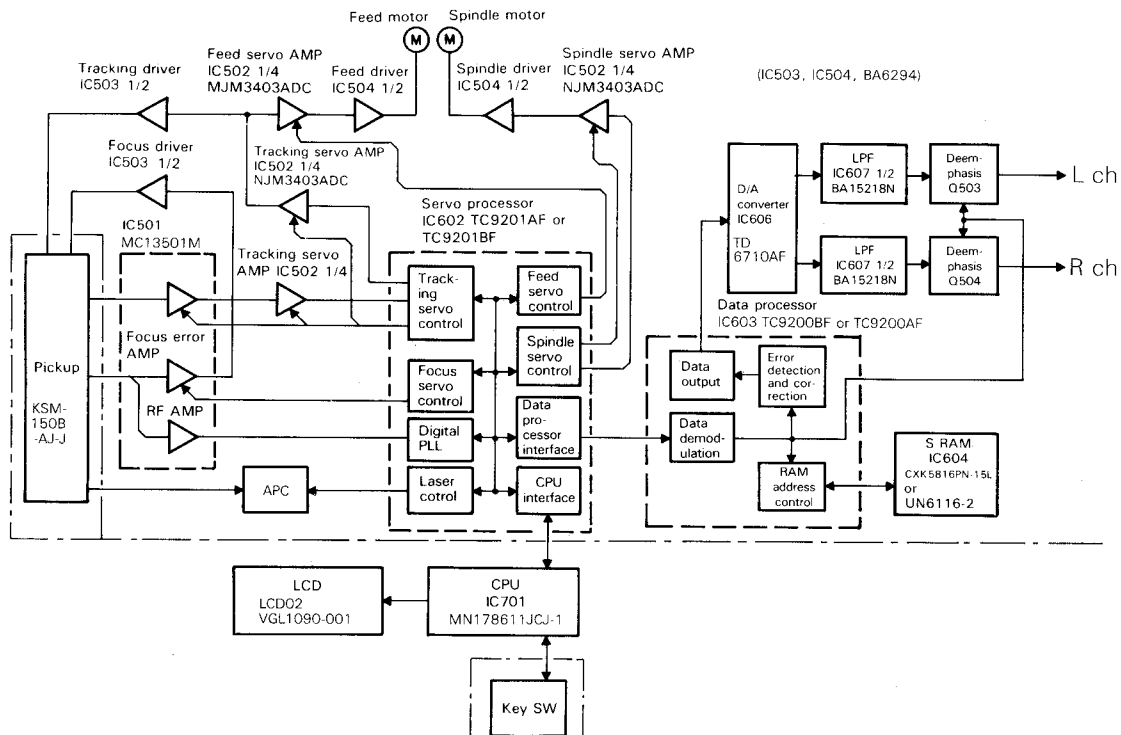


Fig. 5-2

< Amplifier/Tuner Section >

■ Signal Diagram

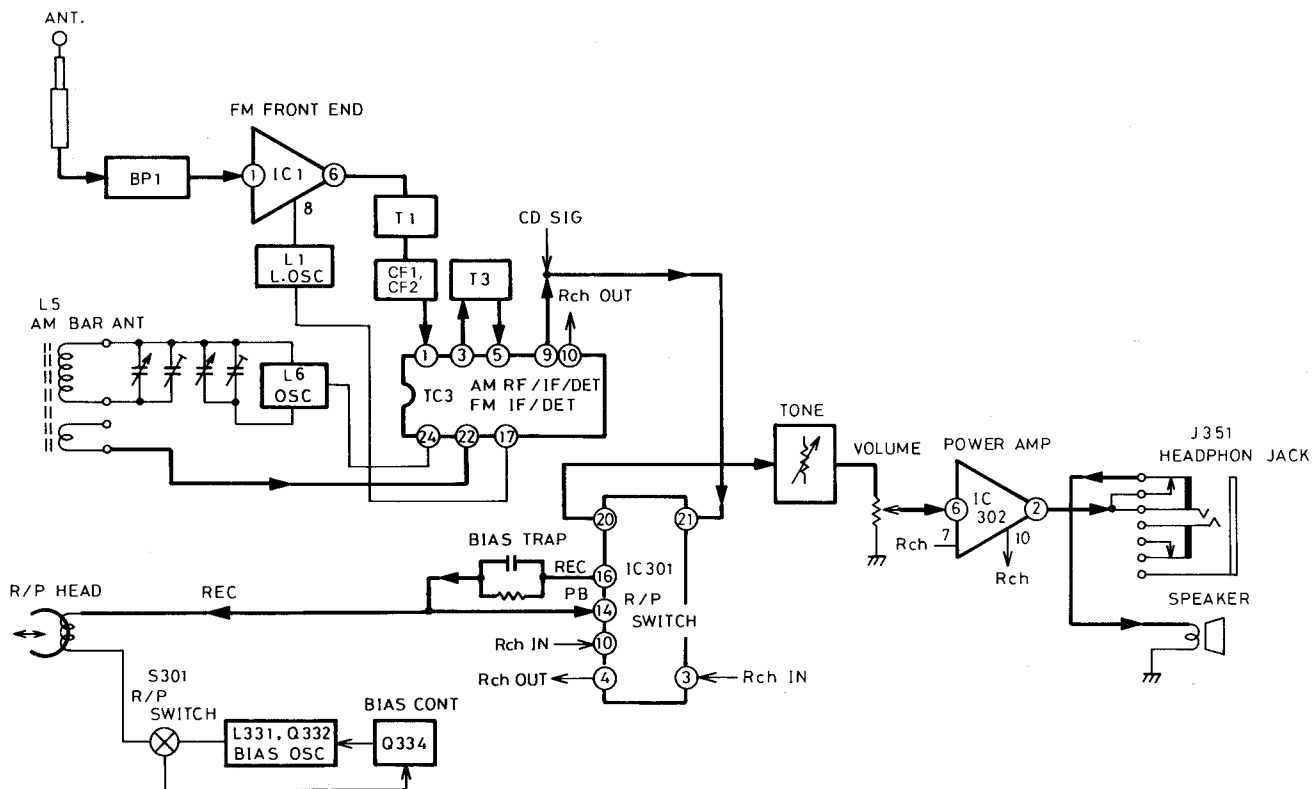


Fig. 5-3

6 Standard Schematic Diagram ■ Tuner Circuit

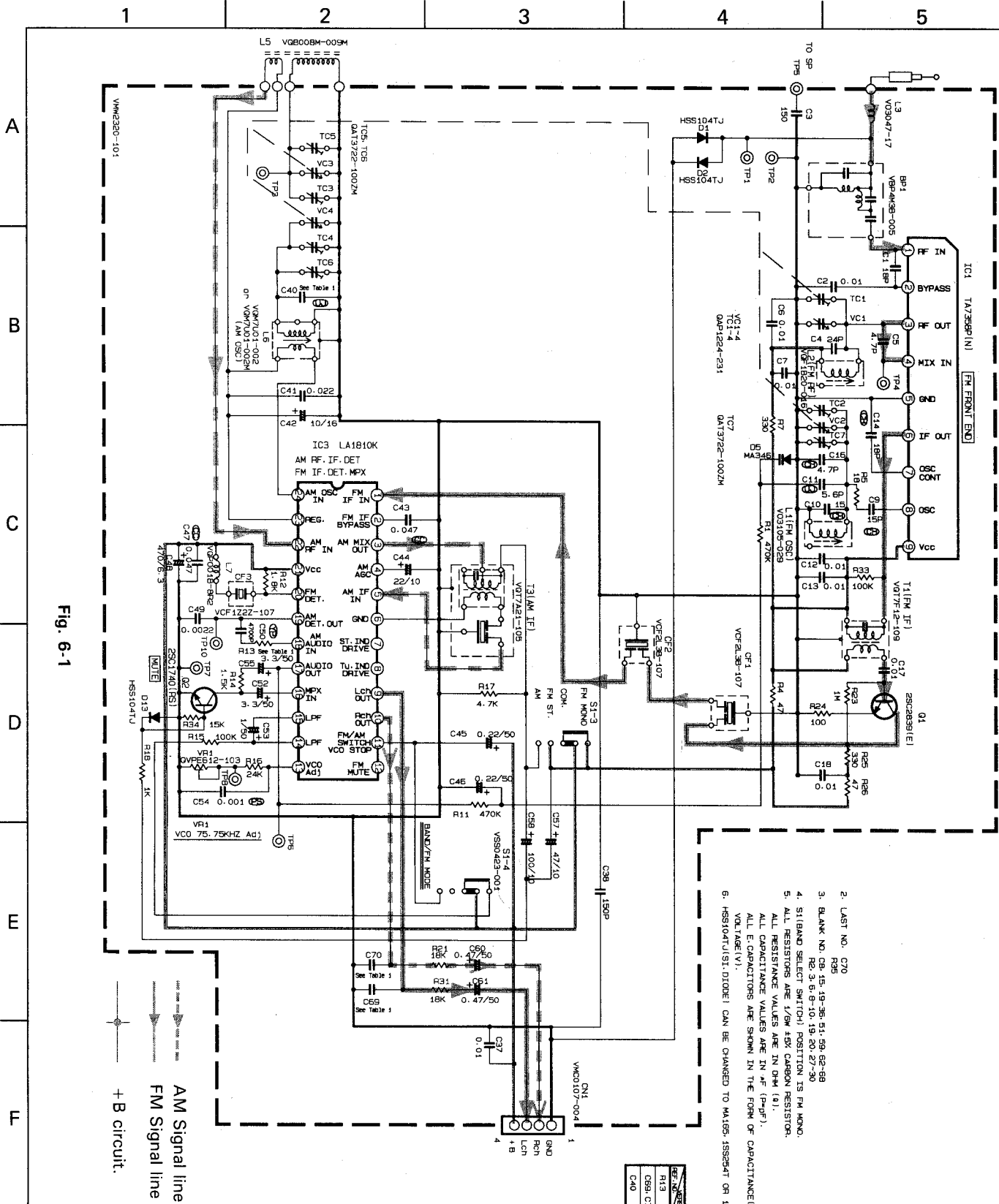


Fig. 6-1

2. LAST NO. C70
3. BLANK NO. C9, 15, 19, 36, 51, 59, 62, 69
4. S1 (BAND SELECT SWITCH) POSITION IS FM MNO.
5. ALL RESISTORS ARE 1/8W 4% CARBON RESISTOR.
6. ALL CAPACITORS ARE IN -PF (P-PF).
- ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(V)/RATED VOLTAGE(V).
7. HSS104T (S1-DIODE) CAN BE CHANGED TO MAJ55, 1SS284T OR 1SS270T.

TABLE 1

| REF. DESIGNATION | V/C | E/B/V/G |
|------------------|----------|---------|
| R13 | BUS WIRE | 47K |
| C59, C70 | 0.01 | 0.0098 |
| C40 | 2-2P | 4.7P |

AM Signal line
FM Signal line
+ B circuit.

6

7

8

9

10

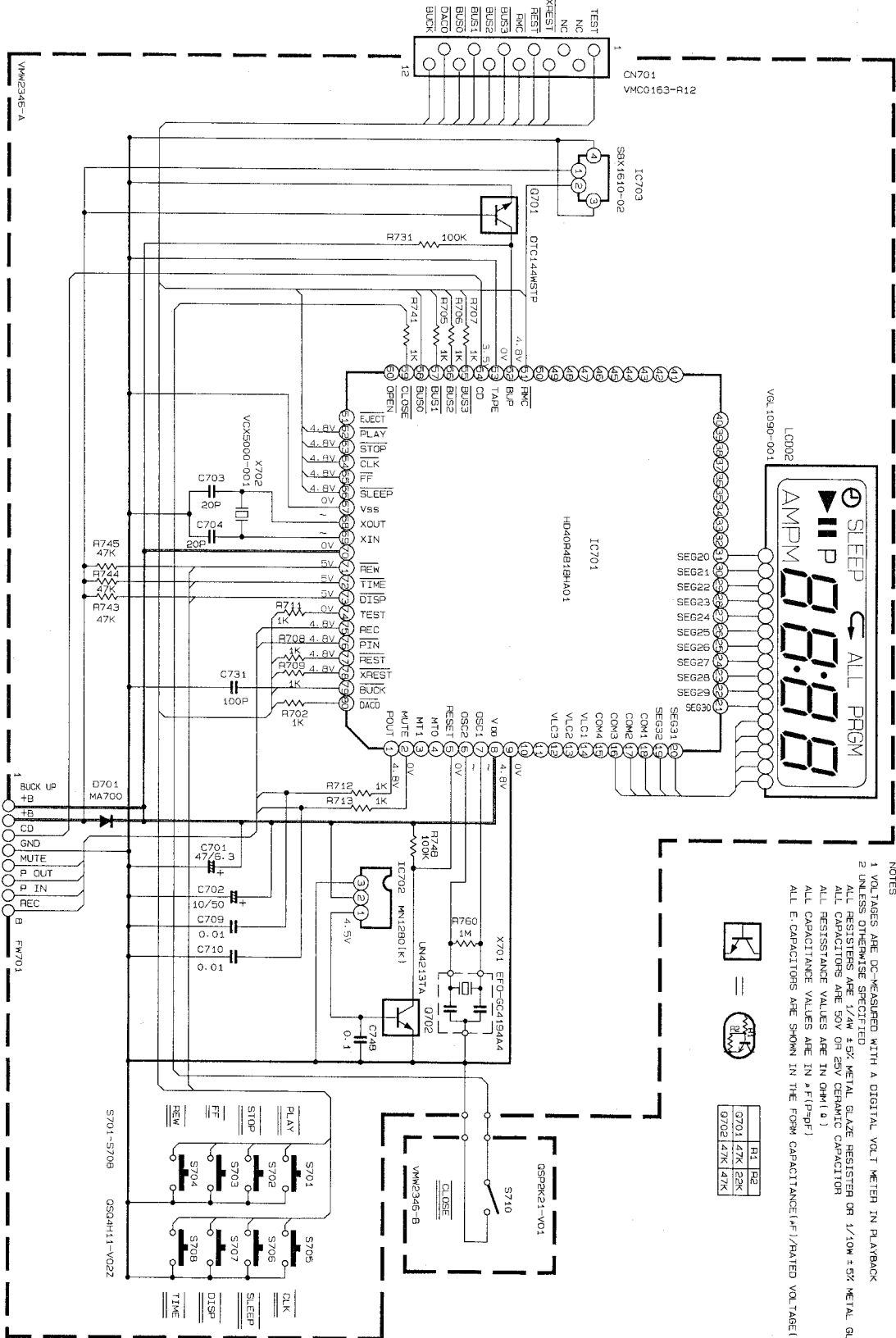
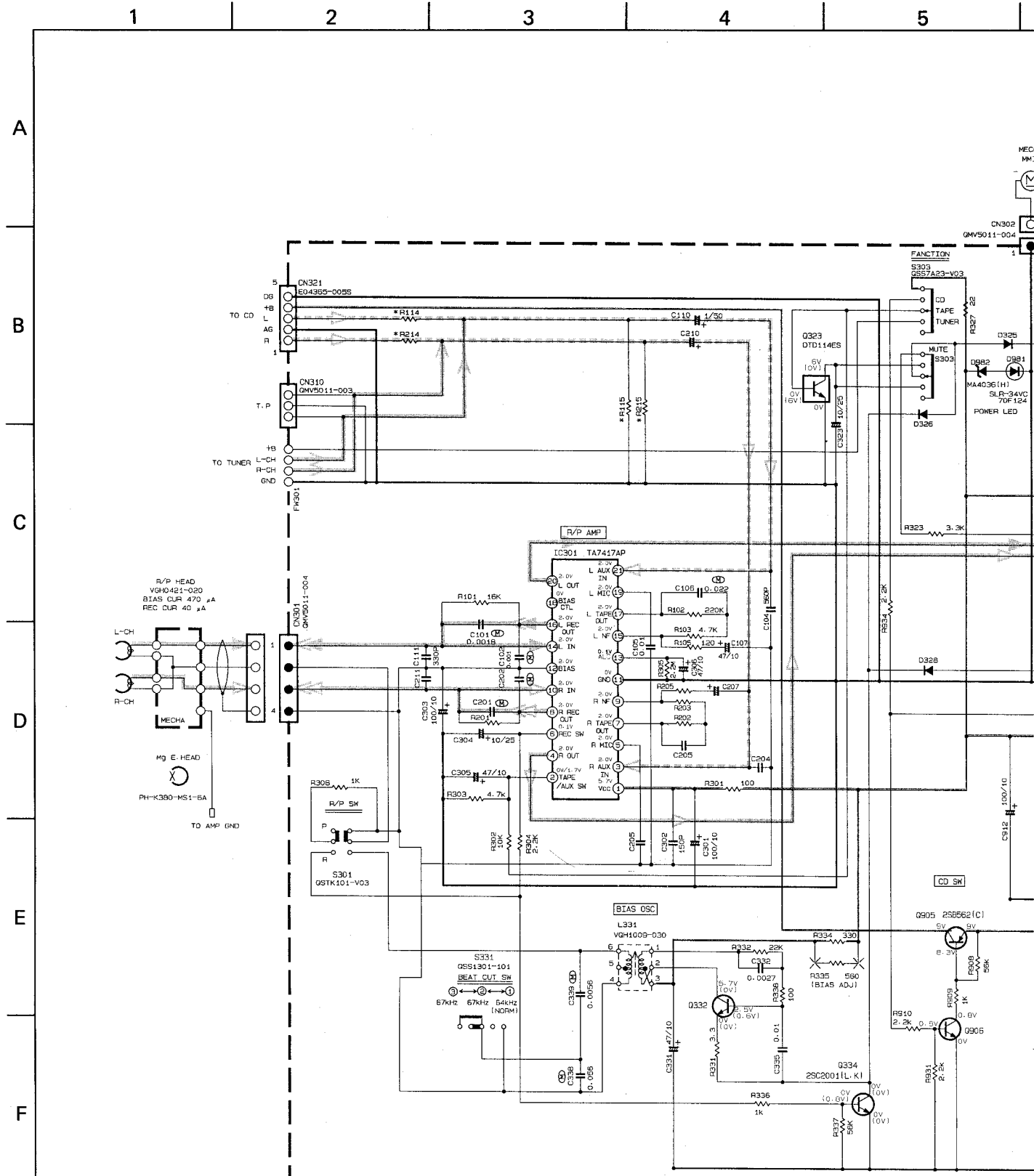


Fig. 6-2

HB LINE

- NOTES
- 1 VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLTMETER IN PLAYBACK
 - 2 UNLESS OTHERWISE SPECIFIED BY METAL GLAZE RESISTOR OR 1/10W ±5% METAL GLAZE RESISTOR
 - ALL RESISTORS ARE 50V OR 25V CERAMIC CAPACITOR
 - ALL CAPACITANCE VALUES ARE IN μF (P/PF)
 - ALL E-CAPACITORS ARE SHOWN IN THE FORM CAPACITANCE(μF)/RATED VOLTAGE (V)

Amplifier Circuit



NOTES
 1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
 CONDITION — ... FM MODE. AM MODE. TAPE MODE. CD MODE

2. UNLESS OTHERWISE SPECIFIED - RESISTORS ARE 1/6W ± 5% CARBON RESISTOR.
 ALL RESISTANCE VALUES ARE IN OHMS (Ω).
 ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
 ALL CAPACITANCE VALUES ARE IN nF (pF).
 ALL INDUCTANCE VALUES ARE IN mH (mH).
 ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/RATED VOLTAGE (V).
 ALL DIODES ARE MA165-TASV WITHOUT D325, D912, D921, D930, D960, D982, D981, D991, D992.
 ALL NPN TRANSISTOR IS 2SC3311 (R, S1)

- ⊞ UNFLAMMABLE CARBON RESISTOR
- ⊞ METAL FILM RESISTOR
- ⊞ OXIDE METAL FILM RESISTOR
- ⊞ ±20% LOW LEAK CURRENT ELECTROLYTIC CAPACITOR
- ⊞ NON-POLARISED ELECTROLYTIC CAPACITOR
- ⊞ POLYPROPYLENE CAPACITOR
- ⊞ POLYSTYROL CAPACITOR

Fig. 6-

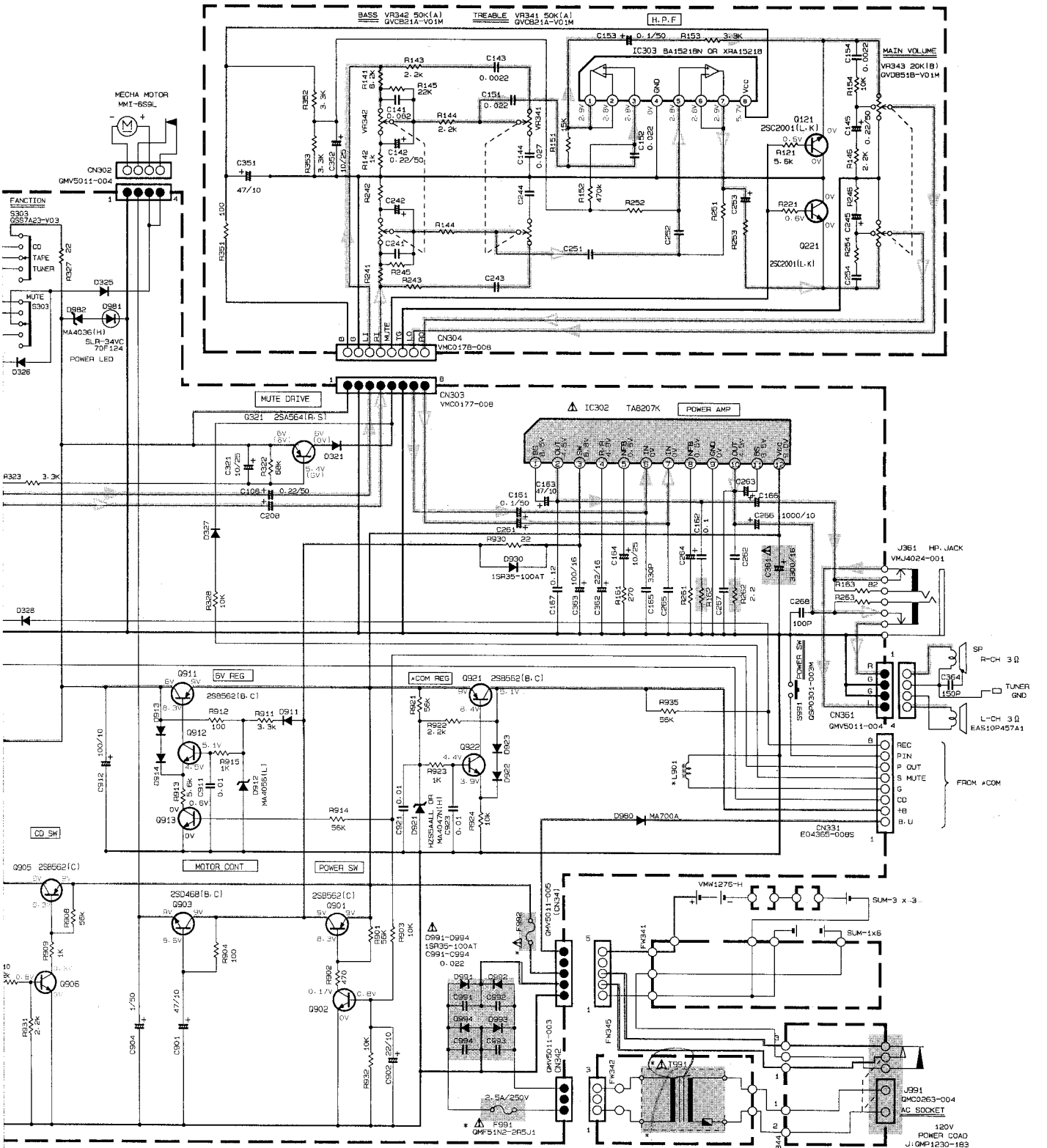


TABLE 1 (* MARK LIST)

| VERSION | A | C |
|---------|---------------|---------------|
| T991 | VTP57A2-90A | VTP57A2-90A |
| F991 | GMF51N2-2R5J1 | GMF51N2-2R5J1 |
| R114 | 18K | 18K |
| R115 | 18K | 18K |
| V | 120V | 120V |
| L901 | BUS WIRE | BUS WIRE |
| F992 | BUS WIRE | GMF51N2-2R5J1 |

Fig. 6-3

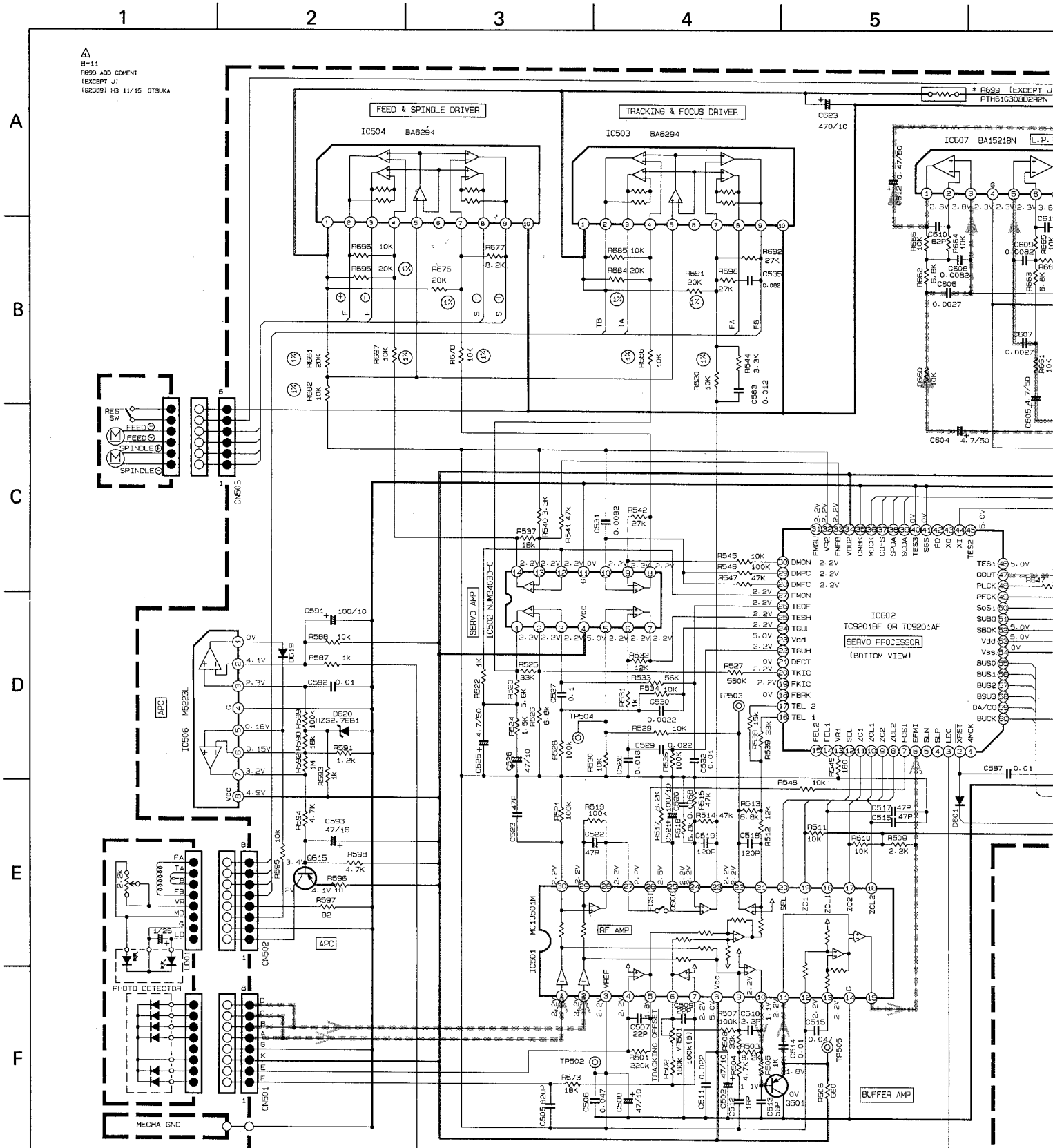
CD Signal Line
 Radio Signal Line
 Lch Tape Signal Line
 Rch Tape Signal Line
 Lch Recording Signal Line
 Rch Recording Signal Line
 Safety assurance parts.
 When replacing those parts, make sure to use the specified one.

+ B LINE



CARBON RESISTOR
 Ω FOR
 VALUE (4F)/RATED VOLTAGE (V).
 021: 0930, 0980, 0982, 0991-0994

■ CD Circuit



CD MECHA KSM-210B-AJ-J
(PICUP UNIT KSS-210B1J)

- 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 RESISTANCE VALUES ARE IN OHM (Ω)
ALL CAPACITANCE VALUES ARE IN μF (μF)
ALL E-CAPACITORS ARE SHOWN IN THE FORM CAPACITANCE(μF)/RATED VOLTAGE(V)
ALL DIODES ARE H5S104 OR MA165 OR 1SS254
① 1/4W ±1% CNF RESISTOR

| | | |
|-----------------|------------------|--------------|
| 25B772 (G.P) | | 2SD1302(S.T) |
| 25D882 (O.P) | | OR |
| 25A1309(R.S) | | 25C200(L.K) |
| 25A1475(HFE) OR | G501, G505 | 25A952(L.K.) |
| 25A8335 (O.P) | | G615, G610 |
| 25C1685(G.R) | | |
| 25C2785(HFE) OR | G503, G504, G611 | |
| 25C1740S (R.S) | | |

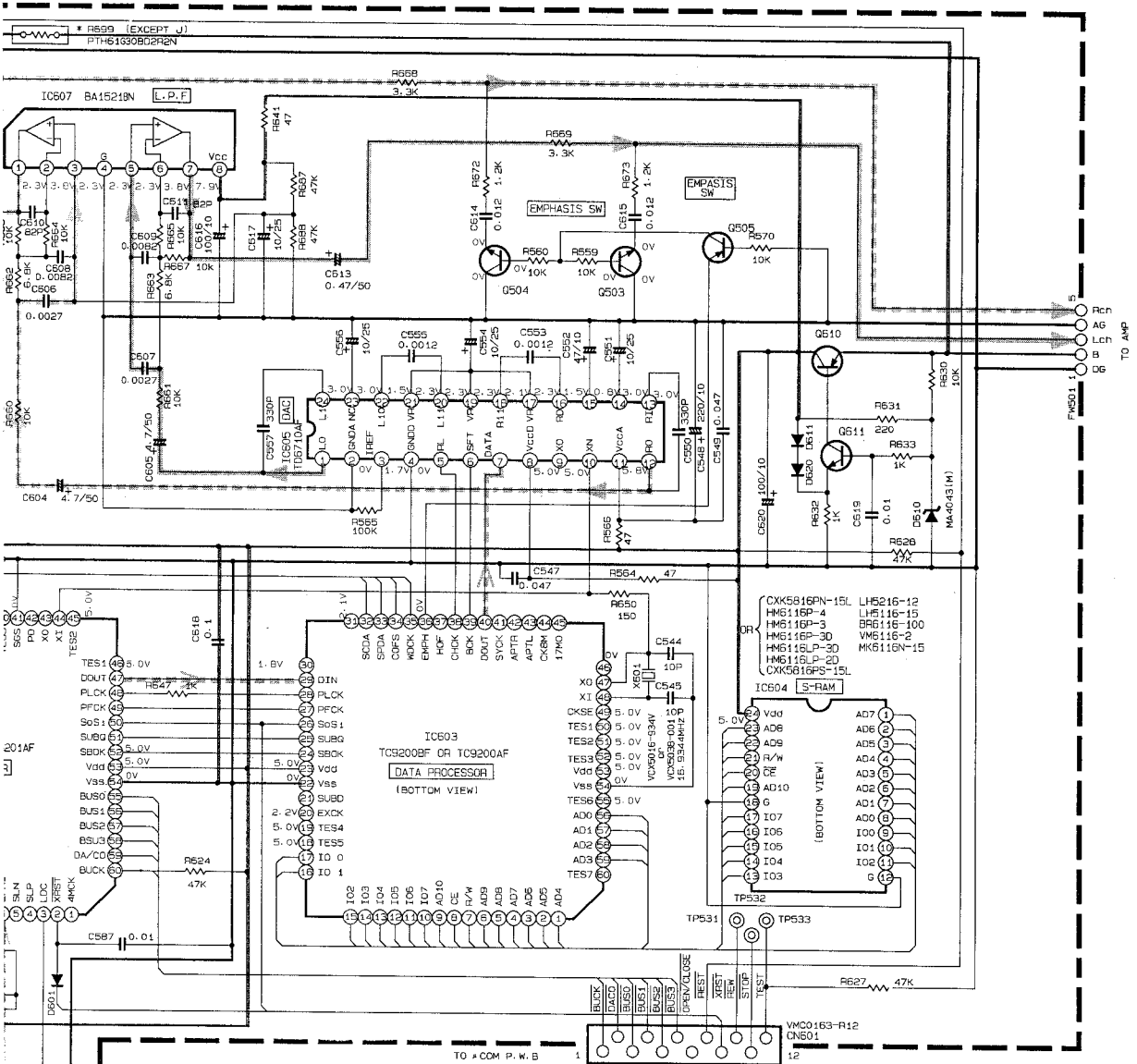
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7

8




9

10



| | |
|------------|-----------|
| 31302(S-T) | |
| OR | |
| 2001(L-K) | |
| 4952(L-K) | 0615-0610 |

Fig. 6-4

 Lch Analogue Signal Line
 Rch Analogue Signal Line
 Digital Signal Line

7 Wiring Connections

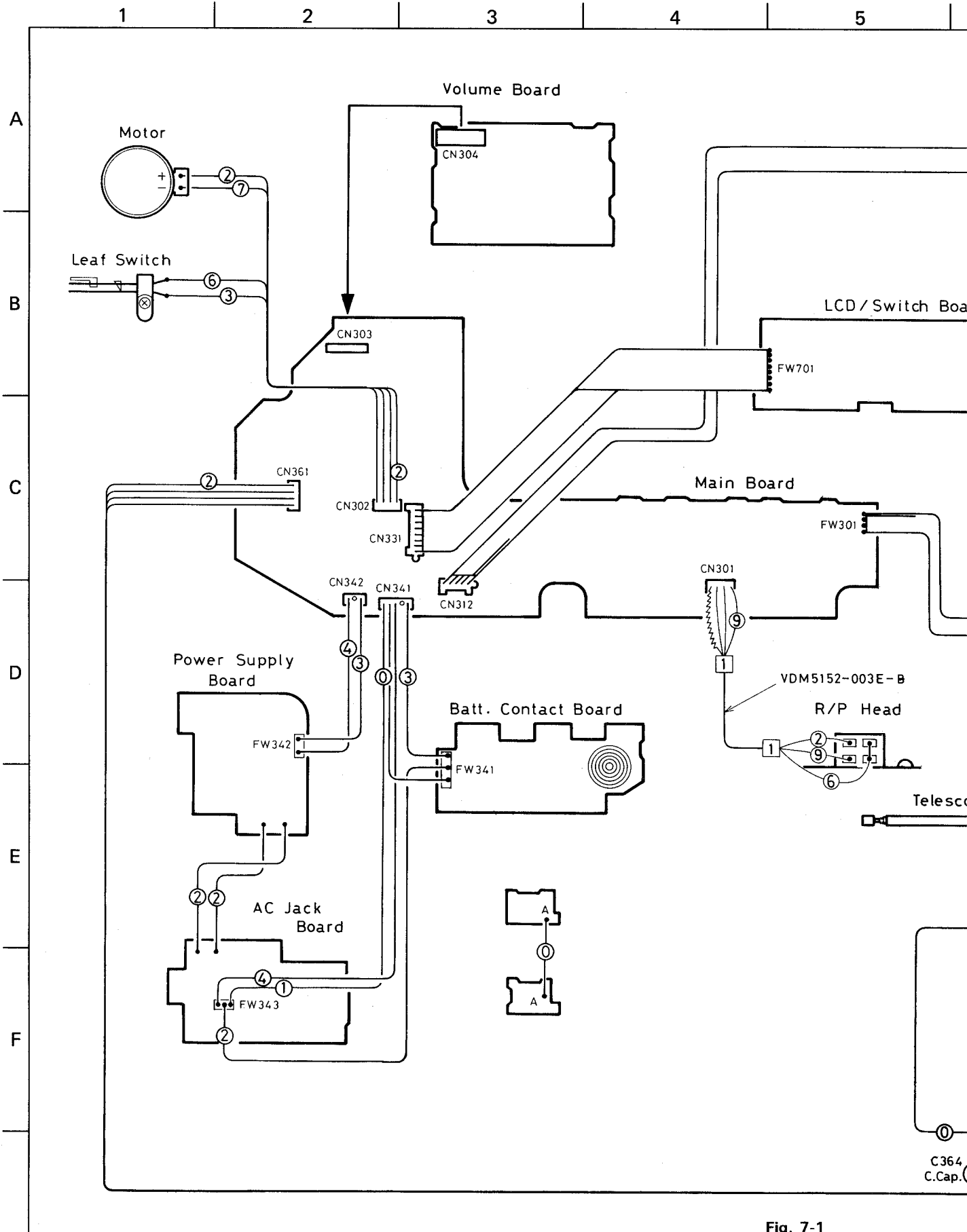
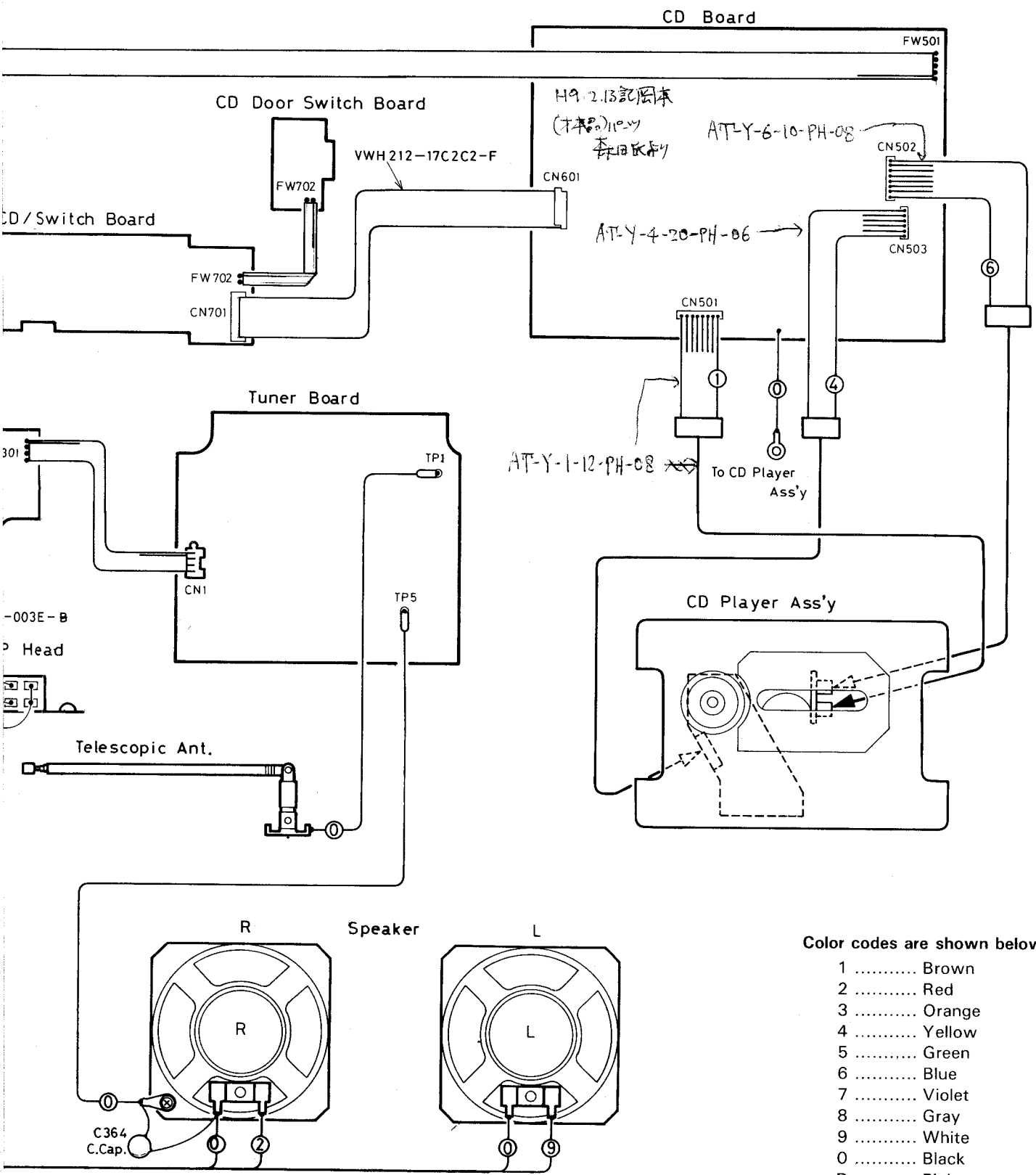


Fig. 7-1



- 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

Top Side

A

B

C

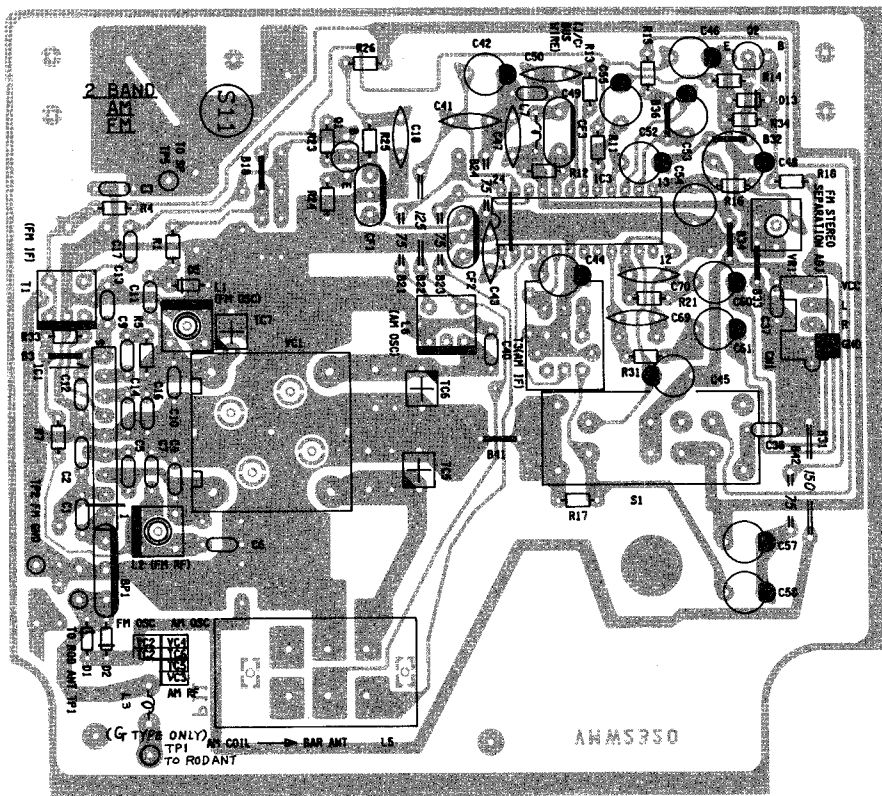


Fig. 8-1

Bottom Side

D

E

F

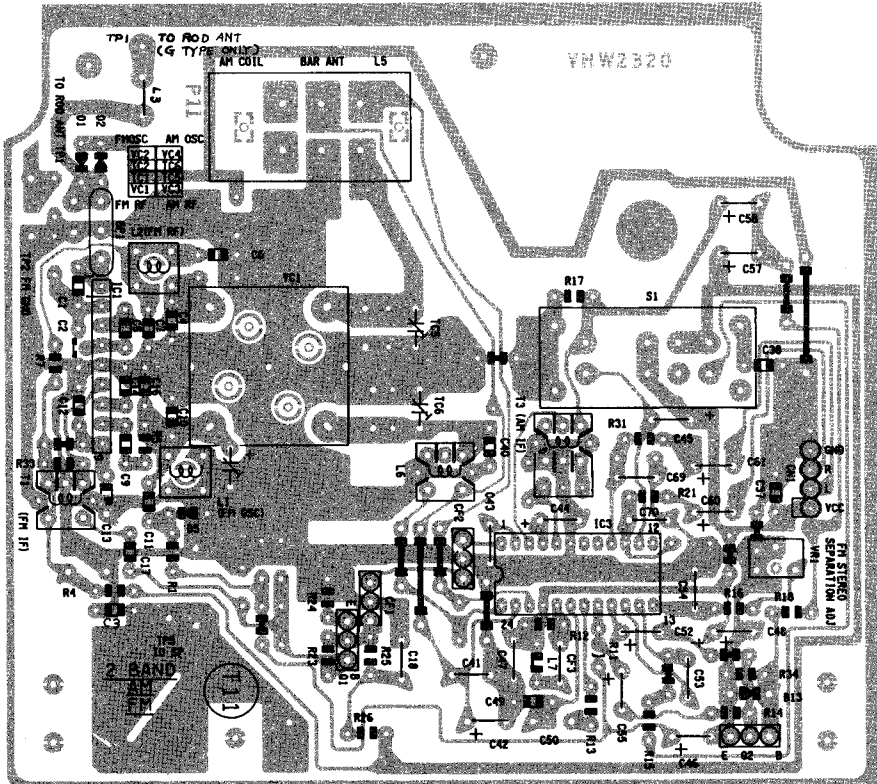


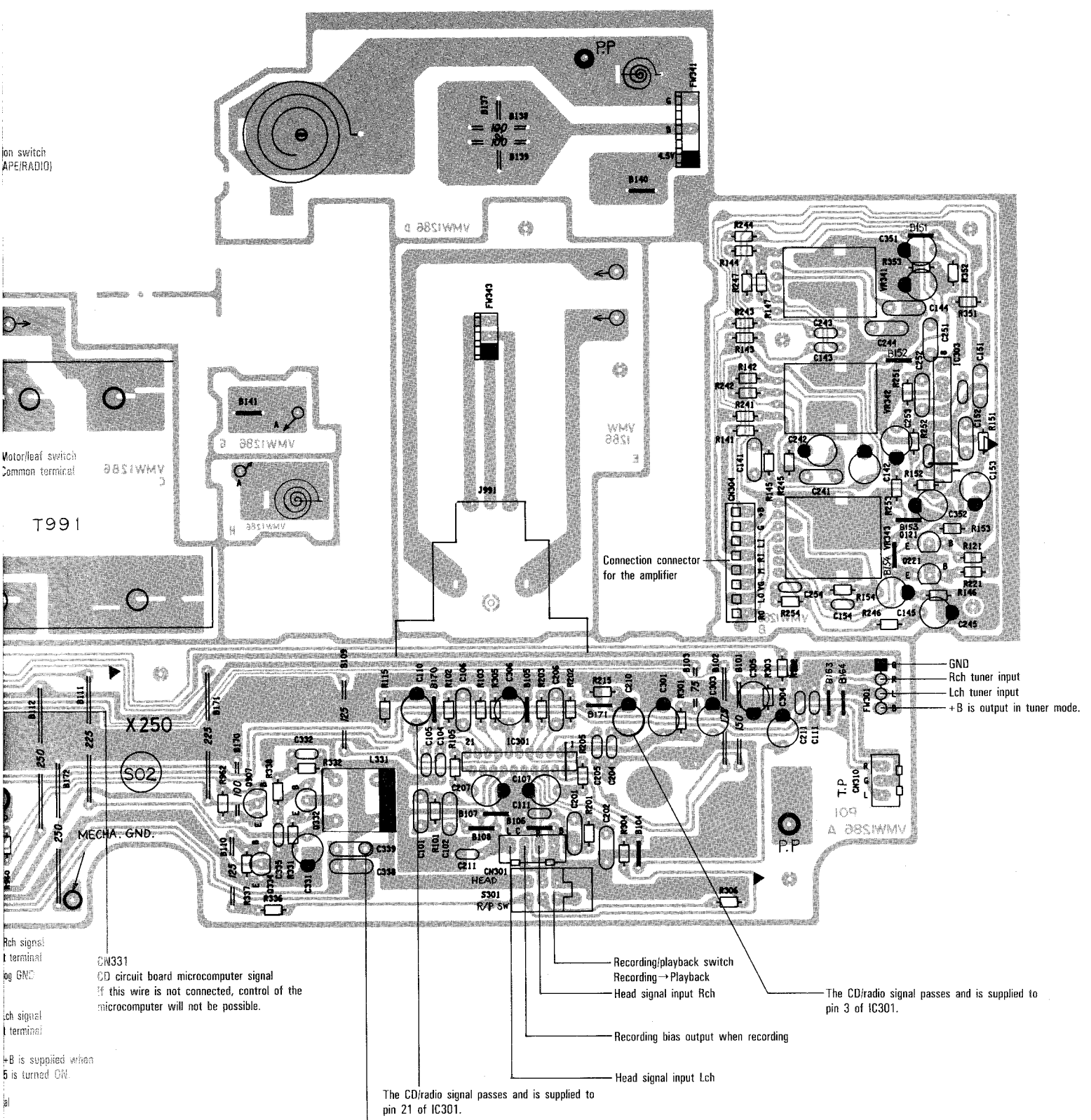
Fig. 8-2

• Tuner Board Parts List

| BLOCK NO. 02 | | BLOCK NO. 02 | | |
|--------------|----------------|-----------------|------------------|--------|
| REF. | PARTS NO. | PARTS NAME | REMARKS | SUFFIX |
| BP 01 | VBP473B-005 | BP FILTER | FM | |
| C 001 | CCS11HJ-180 | C CAPACITOR | 18PF 5% 50V | |
| C 002 | CCVB1CN-103Y | C CAPACITOR | .010MF 30% 16V | |
| C 003 | CCBB1HK-151Y | C CAPACITOR | 150PF 10% 50V | |
| C 004 | CCS11HJ-240 | C CAPACITOR | 24PF 5% 50V | |
| C 005 | CCBB1HK-4R7Y | C CAPACITOR | 4.7PF 10% 50V | |
| C 006 | CCVB1CN-103Y | C CAPACITOR | .010MF 30% 16V | |
| C 007 | CCVB1CN-103Y | C CAPACITOR | .010MF 30% 16V | |
| C 009 | ACT30CH-150Y | C CAPACITOR | 15PF 5% 50V | |
| C 010 | ACT30CH-150Y | C CAPACITOR | 15PF 5% 50V | |
| C 011 | ACT30UJ-5R6Y | C CAPACITOR | 5.6PF 5% 50V | |
| C 012 | CCVB1CN-103Y | C CAPACITOR | .010MF 30% 16V | |
| C 013 | CCVB1CN-103Y | C CAPACITOR | .010MF 30% 16V | |
| C 014 | ACT30CH-180Y | C CAPACITOR | 18PF 5% 50V | |
| C 016 | ACT30CH-4R7Y | C CAPACITOR | 4.7PF 5% 50V | |
| C 017 | CCVB1CN-103Y | C CAPACITOR | .010MF 30% 16V | |
| C 018 | CCF11HP-103 | C CAPACITOR | .010MF +100% -0% | |
| C 037 | CCVB1CN-103Y | C CAPACITOR | .010MF 30% 16V | |
| C 038 | CCBB1HK-151Y | C CAPACITOR | 150PF 10% 50V | |
| C 040 | ACT30UJ-2R2Y | C CAPACITOR | 2.2PF 5% 50V | |
| C 041 | CCF11HP-223 | C CAPACITOR | .022MF +100% -0% | |
| C 042 | GETC1CM-106ZN | E CAPACITOR | 10MF 20% 16V | |
| C 043 | CC11EM-473V | C CAPACITOR | .047MF 20% 25V | |
| C 044 | GETC1AM-226ZN | E CAPACITOR | 22MF 20% 10V | |
| C 045 | GETC1HM-224ZN | E CAPACITOR | .22MF 20% 50V | |
| C 046 | GETC1HM-224ZN | E CAPACITOR | .22MF 20% 50V | |
| C 047 | CC11EM-473V | C CAPACITOR | .047MF 20% 25V | |
| C 048 | GETC0JM-477ZN | E CAPACITOR | 470MF 20% 6.3V | |
| C 049 | CCXB1CM-222Y | C CAPACITOR | 2200PF 20% 16V | |
| C 050 | CCY41HK-472 | C CAPACITOR | 4700PF 10% 50V | |
| C 052 | GETC1HM-335ZN | E CAPACITOR | 3.3MF 20% 50V | |
| C 053 | GETC1HM-105ZN | E CAPACITOR | 1.0MF 20% 50V | |
| C 054 | GPS31HJ-102ZS | PS CAPACITOR | 1000PF 5% 50V | |
| C 055 | GETC1HM-335ZN | E CAPACITOR | 3.3MF 20% 50V | |
| C 057 | GETC1AM-476ZN | E CAPACITOR | 47MF 20% 10V | |
| C 058 | GEK61AM-107ZM | E CAPACITOR | 100MF 20% 10V | |
| C 060 | GETC1HM-474ZN | E CAPACITOR | .47MF 20% 50V | |
| C 061 | GETC1HM-474ZN | E CAPACITOR | .47MF 20% 50V | |
| C 069 | CC11EM-103V | C CAPACITOR | .010MF 20% 25V | |
| C 070 | CC11EM-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 | V0F1B20-016 | RF COIL | FM RF | |
| L 003 | V03047-17 | COIL | | |
| L 005 | V0B008M-009M | BAR ANTENA | AM RF | |
| L 007 | V0P025J-8R2Y | INDUCTOR | FM DET | |
| Q 01 | 2SC2839(E) | TRANSISTOR | | |
| Q 02 | 2SC1740S(K, S) | TRANSISTOR | | |
| R 001 | GRD161J-474 | CARBON RESISTOR | 470K 5% 1/6W | |

BLOCK NO. 02

| BLOCK NO. 02 | | BLOCK NO. 02 | | |
|--------------|---------------|-----------------|-----------------|--------|
| REF. | PARTS NO. | PARTS NAME | REMARKS | SUFFIX |
| R 004 | GRD161J-470 | CARBON RESISTOR | 47 5% 1/6W | |
| R 005 | GRD161J-180 | CARBON RESISTOR | 18 5% 1/6W | |
| R 007 | GRD161J-331 | CARBON RESISTOR | 330 5% 1/6W | |
| R 011 | GRD161J-474 | CARBON RESISTOR | 470K 5% 1/6W | |
| R 012 | GRD161J-182 | CARBON RESISTOR | 1.8K 5% 1/6W | |
| R 014 | GRD161J-152 | CARBON RESISTOR | 1.5K 5% 1/6W | |
| R 015 | GRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W | |
| R 016 | GRD161J-243 | CARBON RESISTOR | 24K 5% 1/6W | |
| R 017 | GRD161J-472 | CARBON RESISTOR | 4.7K 5% 1/6W | |
| R 018 | GRD161J-102 | CARBON RESISTOR | 1.0K 5% 1/6W | |
| R 021 | GRD161J-183 | CARBON RESISTOR | 18K 5% 1/6W | |
| R 023 | GRD161J-105 | CARBON RESISTOR | 1.0M 5% 1/6W | |
| R 024 | GRD161J-101 | CARBON RESISTOR | 100 5% 1/6W | |
| R 025 | GRD161J-331 | CARBON RESISTOR | 330 5% 1/6W | |
| R 026 | GRD161J-470 | CARBON RESISTOR | 47 5% 1/6W | |
| R 031 | GRD161J-183 | CARBON RESISTOR | 18K 5% 1/6W | |
| R 033 | GRD161J-104 | CARBON RESISTOR | 100K 5% 1/6W | |
| R 034 | GRD161J-153 | CARBON RESISTOR | 15K 5% 1/6W | |
| S 001 | VSS0423-001 | SLIDE SWITCH | BAND 5001-1--3 | |
| T 001 | V0T7F12-111 | IFT | FM IF | |
| T 003 | V0T7A21-105 | 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 | VCO1-04,TC01-04 | |
| VR 01 | QVPE612-103ZM | V RESISTOR | FM SEPARATION | |



on switch
APE/RADIO)

Motor/leaf switch
Common terminal

T991

Connection connector
for the amplifier

- GND
- Rch tuner input
- Lch tuner input
- +B is output in tuner mode.

Rch signal
t terminal
g GND

Lch signal
t terminal

+B is supplied when
5 is turned ON.

GN331
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
- Recording bias output when recording
- Head signal input Lch

The CD/radio signal passes and is supplied to
pin 3 of IC301.

The CD/radio signal passes and is supplied to
pin 21 of IC301.

Fig. 8-3

Connect the measurement instrument in series
with 100kΩ for bias-hot side measurement.

1

2

3

4

5

6

Bottom Side

A

B

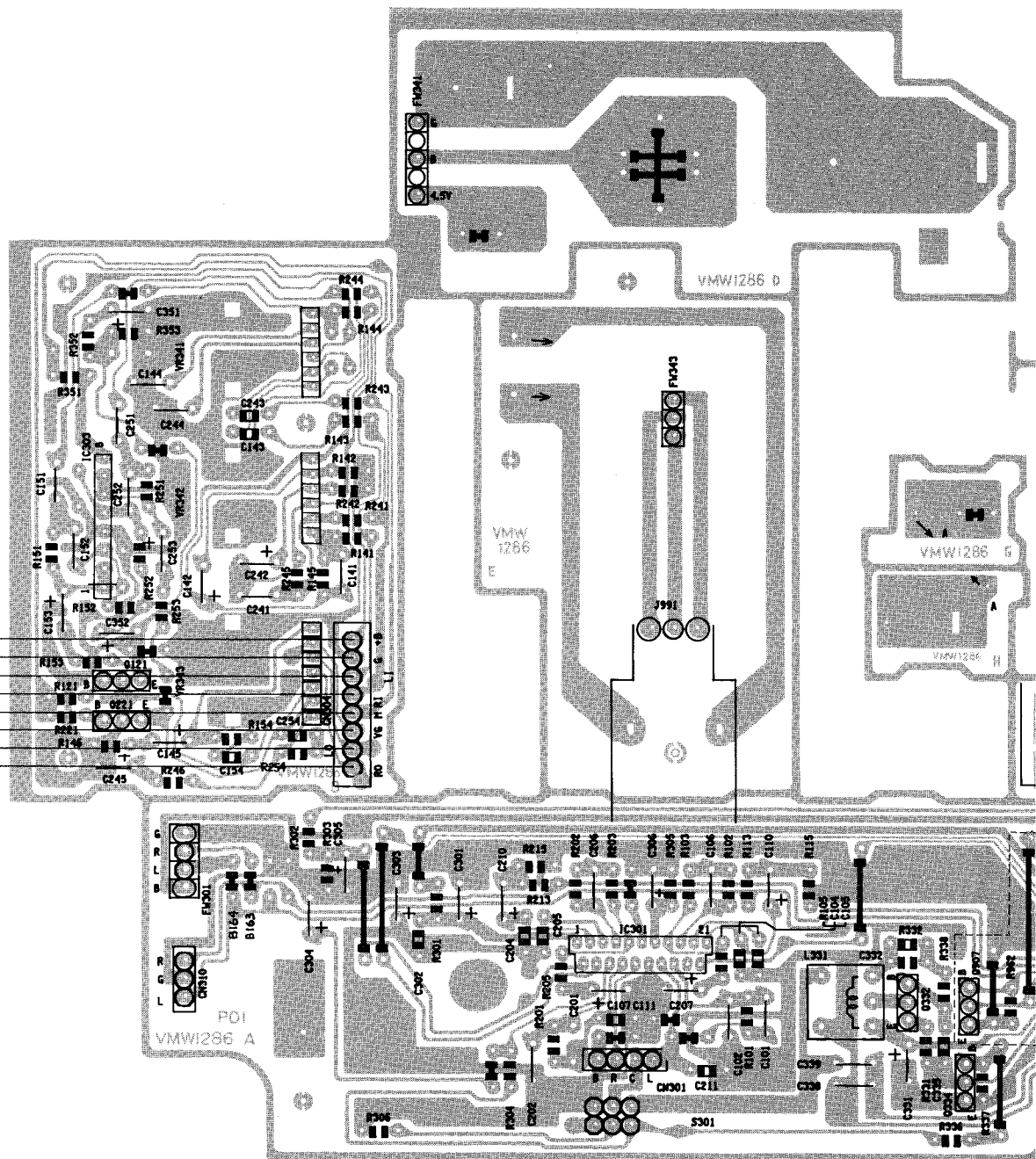
C

D

E

F

- Tone control circuit
- Mute control signal input
- Rch signal output
- Lch signal output
- GND
- Rch signal input
- Lch signal input
- GND



Fig

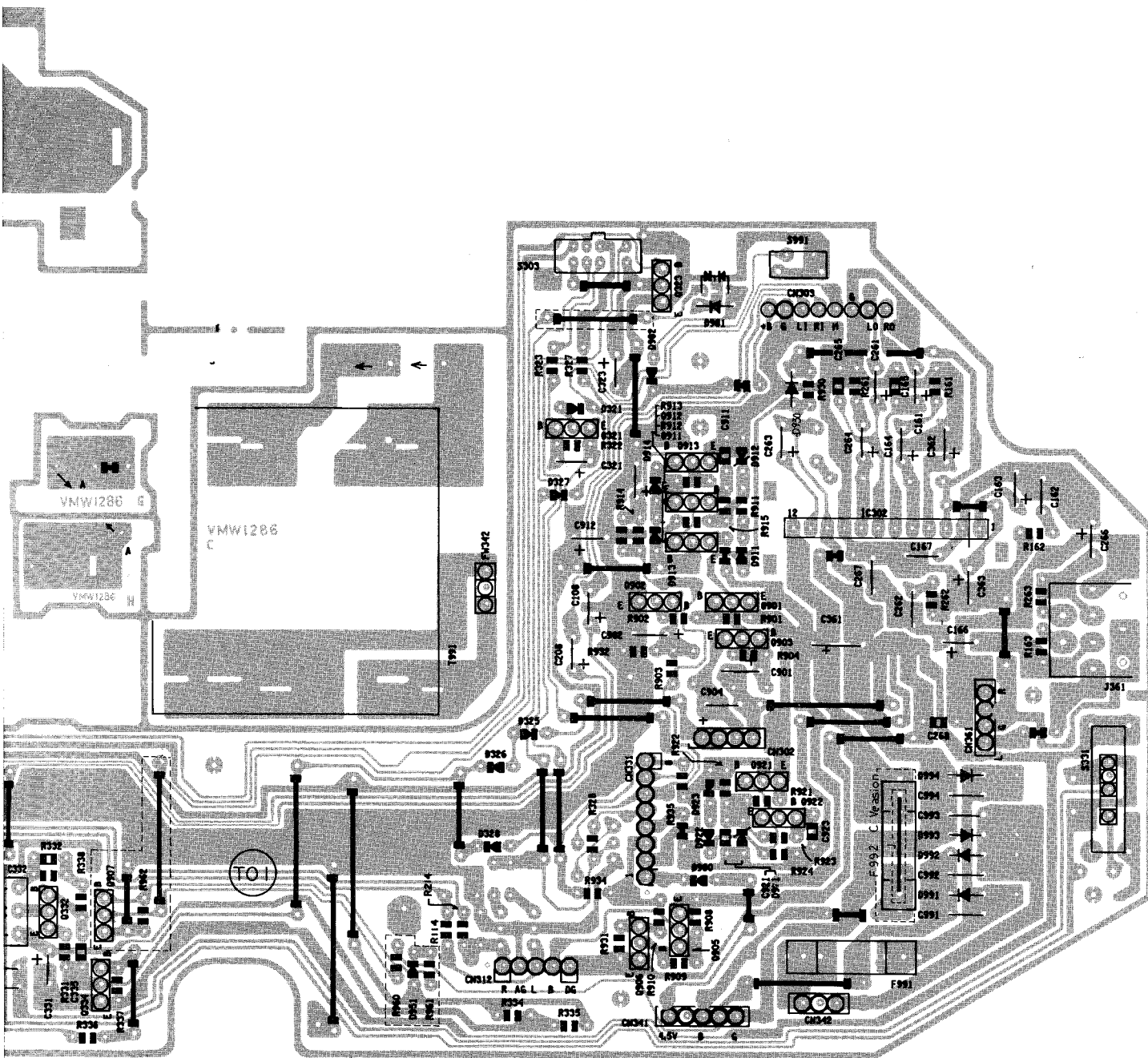
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
 No use

Fig. 8-4

• Main Board Parts List

BLOCK NO. 01111111

BLOCK NO. 01111111

| A 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 | QCB11HK-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 | QETC1AM-224ZN | E CAPACITOR | .22MF 20% 50V | |
| C 110 | QETC1HM-105ZN | E CAPACITOR | 1.0MF 20% 50V | |
| C 111 | QCB11HK-331Y | C CAPACITOR | 330PF 10% 50V | |
| C 141 | QFV41HJ-223 | TF .CAPACITOR | .082MF 5% 50V | |
| C 142 | QEK41HM-824 | E CAPACITOR | .22MF 20% 50V | |
| C 143 | QCVB1CN-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 | QCVB1CN-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 | QCB11HK-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 | QCB11HK-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 | QCB11HK-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 | QCVB1CN-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 | QCVB1CN-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 | QCB11HK-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 | QCB11HK-103Y | C CAPACITOR | 100PF 10% 10V | |
| 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 | |

| A 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 | QCVB1CN-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 | GMV5011-004 | CONNECTOR | HEAD WIRE | |
| CN302 | GMV5011-004 | CONNECTOR | MOTOR | |
| CN303 | VMO0477-008 | CONNECTOR | CD-CTL | |
| CN304 | VMO0478-008 | CONNECTOR | TONE VOL&B.800S | |
| CN310 | GMV5011-003 | CONNECTOR | TONE VOL&B.800S | |
| CN312 | E04365-005S | CONNECTOR | ADJUST | |
| CN331 | E04365-008 | CONNECTOR | CD | |
| CN341 | GMV5011-005 | CONNECTOR | BATT | |
| CN342 | GMV5011-003 | CONNECTOR | TRANS | |
| CN361 | GMV5011-004 | 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-34VC50F124 | 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. 01111111

| REF. | PARTS NO. | PARTS NAME | REMARKS | SUFFIX |
|---------|--------------|-----------------|--------------|--------|
| A 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 | VH1009-030 | OSC COIL(BIAS) | | |
| Q 121 | 2SC2001(L,K) | TRANSISTOR | | |
| Q 221 | 2SC2001(L,K) | TRANSISTOR | | |
| Q 321 | 2SA564(R,S) | TRANSISTOR | | |
| Q 323 | DT0114ESTP | 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 215 | QRD161J-183 | CARBON RESISTOR | 18K 5% 1/6W | |
| R 216 | 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. 01111111

| 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-223 | CARBON RESISTOR | 2.2K 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 RESISTOR | 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 RESISTOR | TREBLE | |
| VR342 | QVCB21A-V01M | V RESISTOR | BASS | |
| VR343 | QVDB51B-V01M | V RESISTOR | MAIN | |

• CD Board Parts List

BLOCK NO. 03

| REF. | PARTS NO. | PARTS NAME | REMARKS | SUFFIX |
|-------|---------------|----------------|----------------|--------|
| C 502 | QETC1AM-4762N | E CAPACITOR | 47MF 20% 10V | |
| C 503 | QCB81HK-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-4762N | 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 | QCVB1CN-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 | QCB81HK-121Y | C CAPACITOR | 120PF 10% 50V | |
| C 519 | QCB81HK-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 | QETC1AM-475ZN | E CAPACITOR | 4.7MF 20% 50V | |
| C 526 | QETC1AM-4762N | 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-4762N | 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-4762N | E CAPACITOR | 47MF 20% 10V | |
| C 604 | QETC1EM-475ZN | E CAPACITOR | 4.7MF 20% 50V | |
| C 605 | QETC1EM-475ZN | E CAPACITOR | 4.7MF 20% 50V | |
| C 606 | QCVB1CN-272Y | C CAPACITOR | 2700PF 20% 16V | |
| C 607 | QCVB1CN-272Y | C CAPACITOR | 2700PF 20% 16V | |
| C 608 | QCVB1CN-822Y | C CAPACITOR | 8200PF 20% 16V | |
| C 610 | QCB81HK-820Y | C CAPACITOR | 82PF 10% 50V | |
| C 611 | QCB81HK-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 | VMCO163-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 | REGULATOR | |
| 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 | QRD161J-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 | QRD161J-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 | QRD161J-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 | QRD161J-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 | |

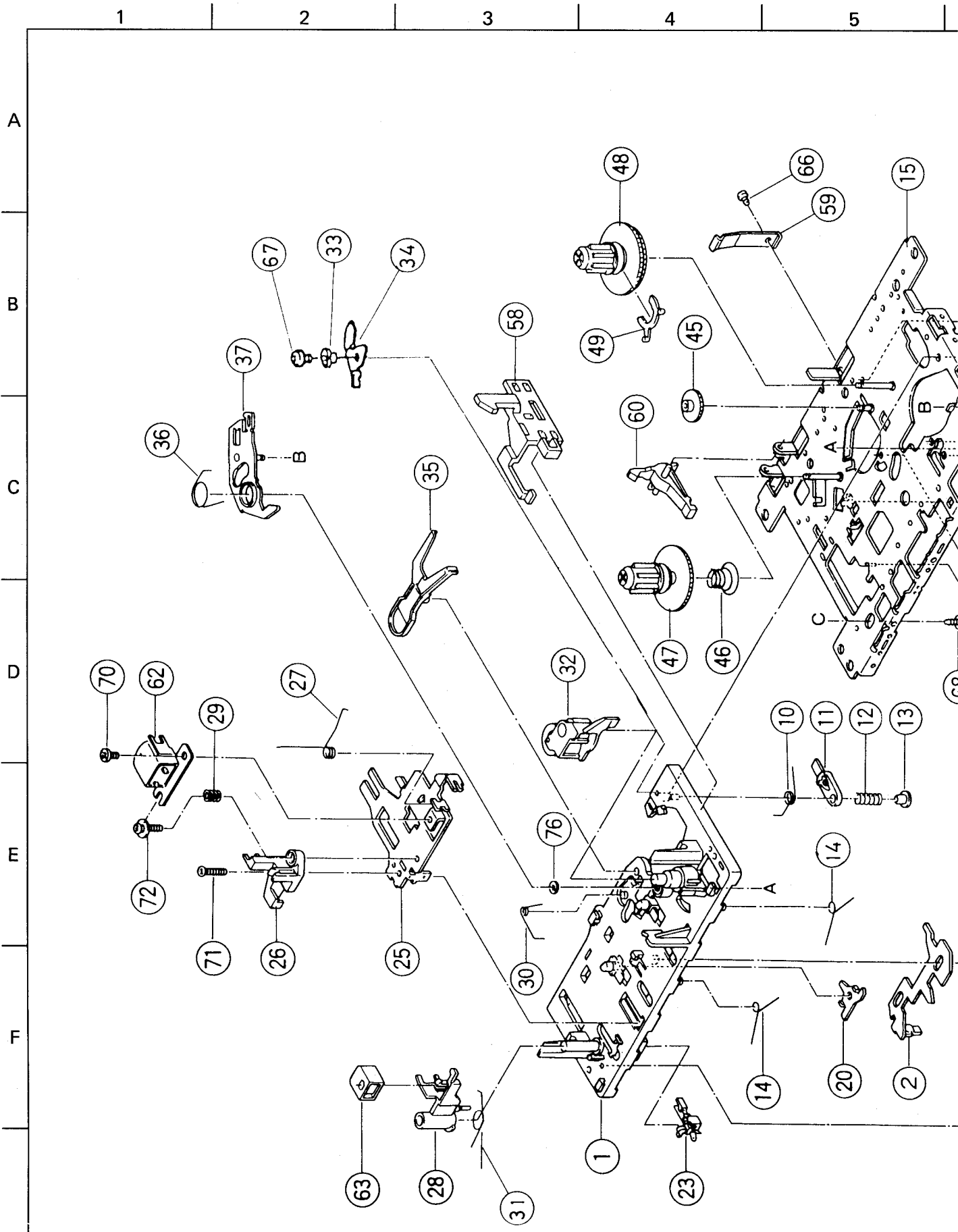
BLOCK NO. 03

| REF. | PARTS NO. | PARTS NAME | REMARKS | SUFFIX |
|-------|----------------|-----------------|--------------|--------|
| R 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 | QV3523-104 | V. RESISTOR | E-F BALANCE | |
| X 601 | VCX5016-934V | CRYSTAL | | |

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 | QRD161J-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 | QRD161J-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 | QRD161J-682 | CARBON RESISTOR | 6.8K 5% 1/6W | |
| R 663 | QRD161J-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 | QRD161J-332 | CARBON RESISTOR | 3.3K 5% 1/6W | |
| R 669 | QRD161J-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 | |

9 Exploded View of Cassette Mechanism Comp



Component Parts M 1

5 | 6 | 7 | 8 | 9 | 10

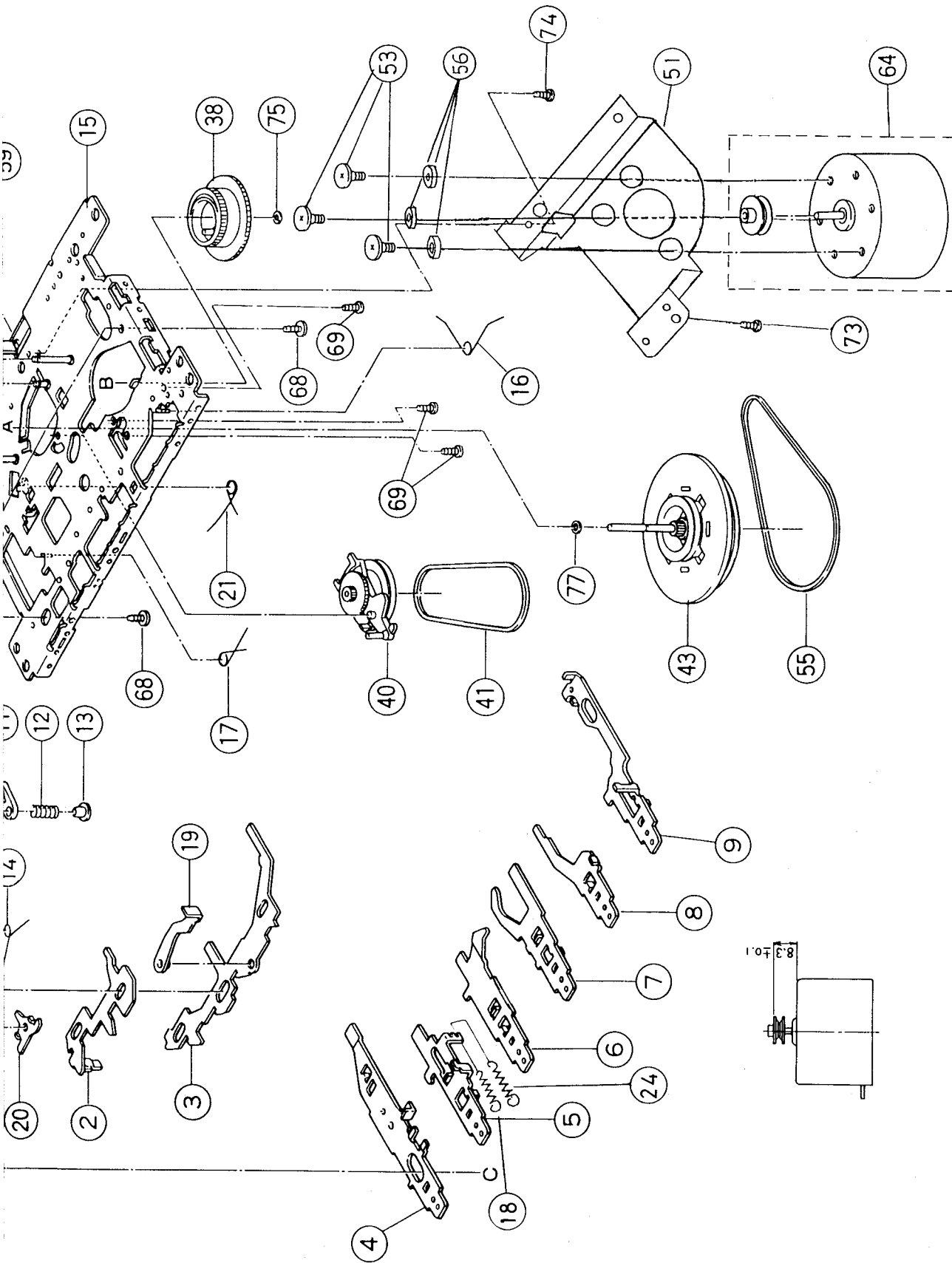


Fig. 9-1

• Cassette Mechanism Component Part List

BLOCK NO. M1MM1111

| 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 | VGHO421-021 | R/P HEAD | VGHO421-020 | 1 | | |
| 63 | PHK-MSI-6A | E HEAD | PH-K380-MS1-6A | 1 | | |

BLOCK NO.

| △ | 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 | | |
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Part Parts M 2

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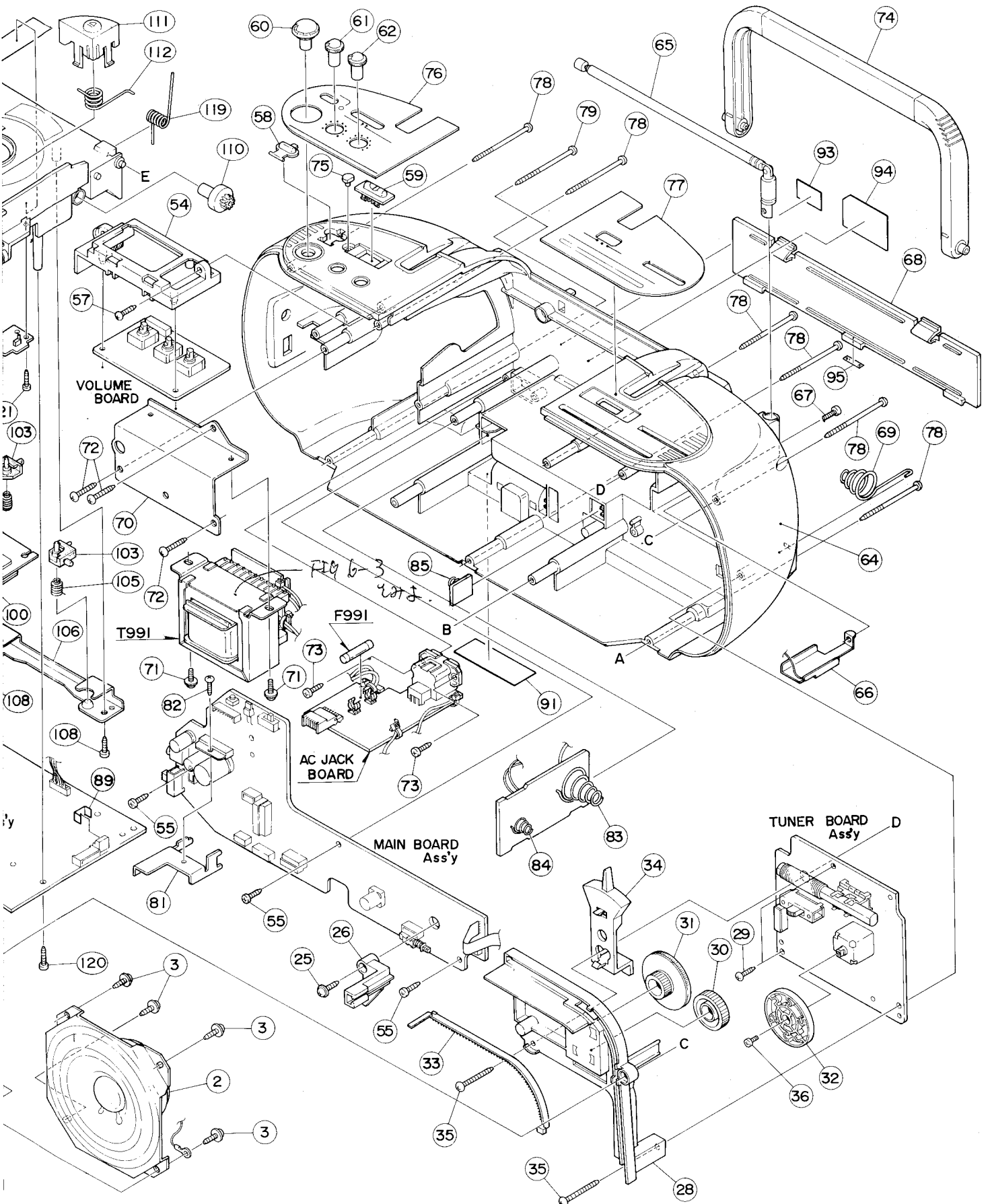
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• Enclosure Component Parts List

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 TRANSFORMER | 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 | FOR 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 | |
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11 Exploded View of CD Mechanism M 3

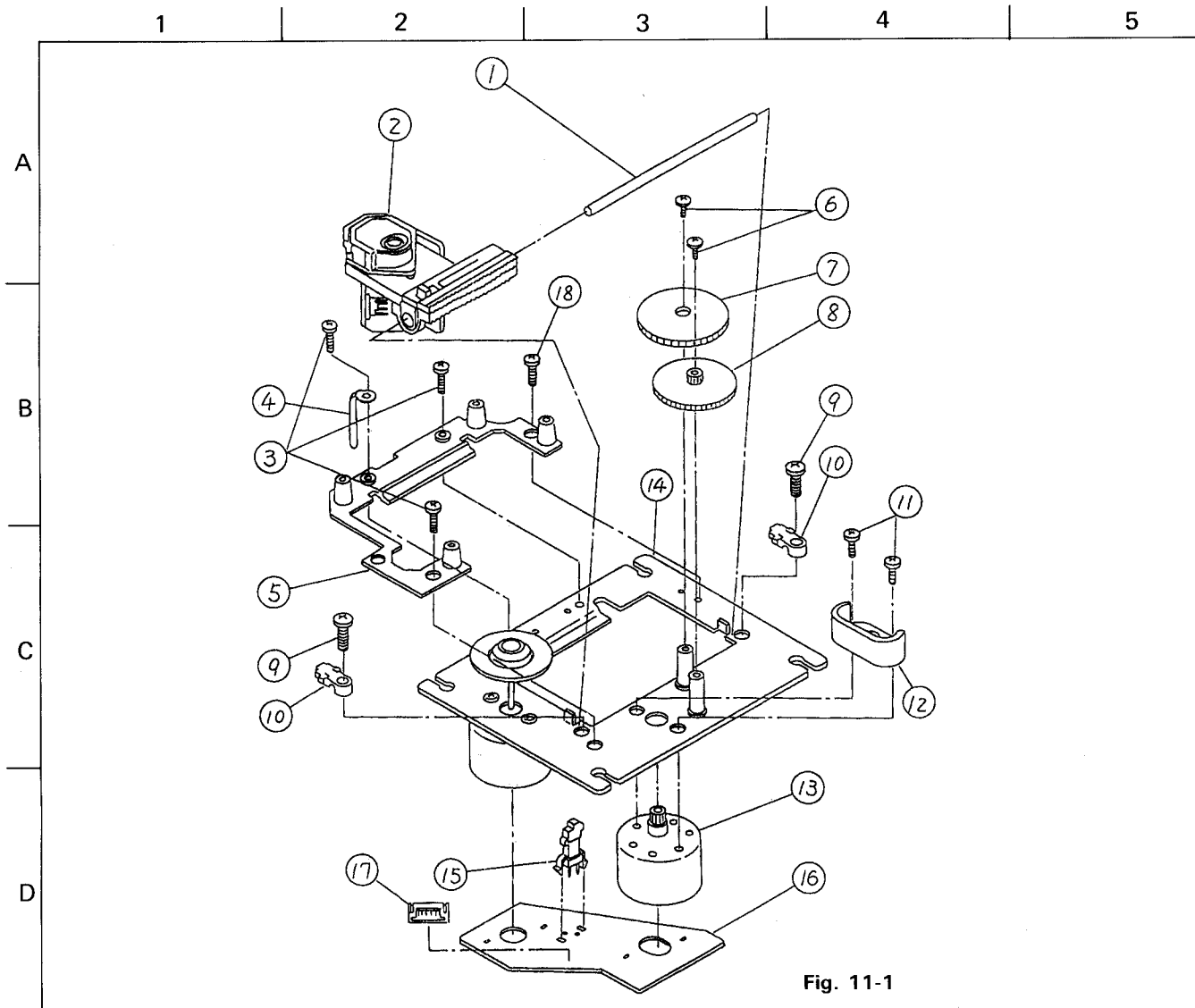


Fig. 11-1

• 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

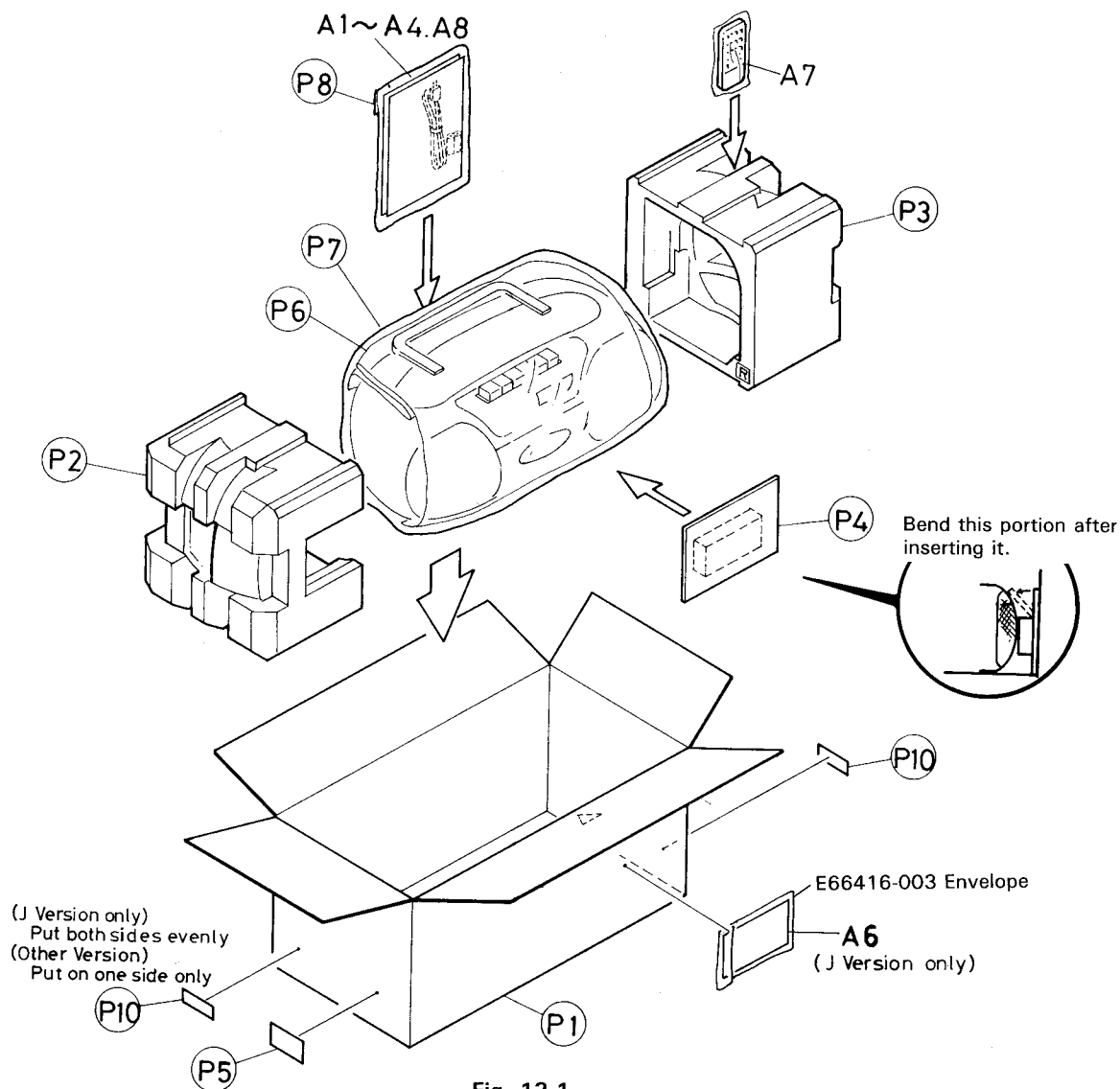


Fig. 12-1

• 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 NETWORK | | 1 | | |
| A | 6 | BT-20047F | WARRANTY CARD | | 1 | | |
| A | 7 | VGR0011-001 | REMO-CON UNIT | | 1 | | |
| A | 8 | RO3BPA-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 LABEL | | 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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