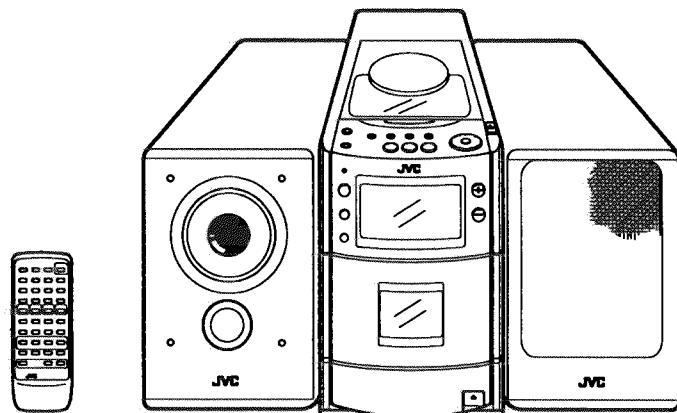


# JVC

## SERVICE MANUAL

### MICRO COMPONENT SYSTEM

### UX-T200R GD B/E/EN/G



<b>Area Suffix</b>	
B .....	U.K.
E .....	Continental Europe
EN .....	North Europe
G .....	Germany

 R·D·S EON

COMPACT  
**disc**  
DIGITAL AUDIO

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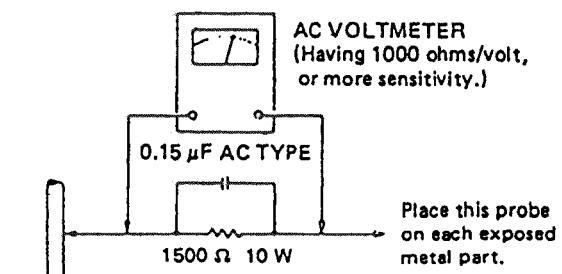
# 1. Safety Precautions

1. The design 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 manufacture's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety – related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of service manual. Electrical components having such features are identified by (  ) on the schematic diagram and parts list in the 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 of 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 reassembling.
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 0.5mA 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 ohms 10W resistor paralleled by a  $0.15 \mu F$  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



## Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.



### CAUTION

Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.

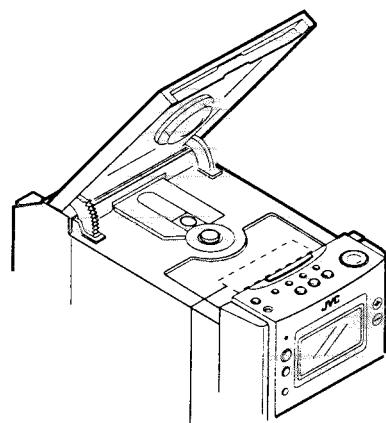
## 2. Safety Precaution about UX - T200R

### IMPORTANT FOR LASER PRODUCTS

#### PRECAUTIONS

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 rear 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 the emission of radiation when the CD holder is open. It is dangerous to defeat the safety switches.
5. **CAUTION:** Use of controls for adjustments and the performance of procedures other than those specified herein may result in exposure to hazardous radiation.
6. **CAUTION:** The laser is able to function, if safety switches out of function. The laser light is invisible, avoid exposure, do not disassemble the laser unit, but replace the complete unit.

#### REPRODUCTION OF LABELS AND THEIR LOCATION



**DANGER:** Invisible laser radiation when open and interlock failed or defeated.  
AVOID DIRECT EXPOSURE TO BEAM. (e)

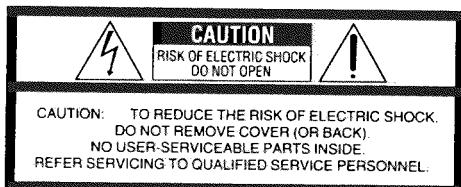
**ADVARSEL:** Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå direkte stråleksponering. (d)

**VARNING:** Osynlig laserstråning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen. (s)

**VARO:** Avattaessa ja suojailevassa olet alttiina näkymättömälle lasersäteilylle. Älä katso sateeseen. (f)

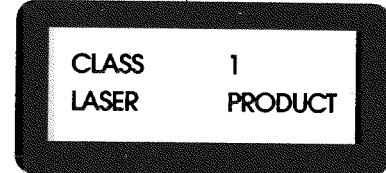
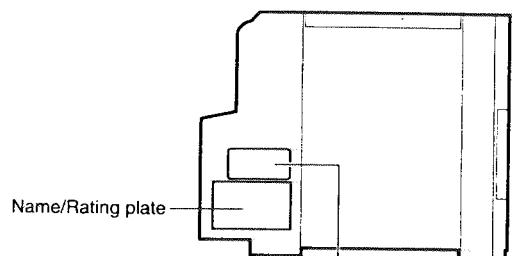
#### WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in



Caution:  
This production contains a laser component of higher laser class than Class 1.

**■ Important management points regarding safety (Item demanding special safety precautions)**

1. Power transformer marking : VTP66J2-12L

The torque of the screw driver for the power transformor must be controlled.

2. Concerning the AC socket, the next marking must be confirmed and to avoid print circuit board pattern damage.

The AC socket must not float from print circuit board.

•Marking ..... HJC – 027

3. Concerning the primary terminal and the adjacent secondary terminal on the print circuit board to provide proper creeping and spatial distance, solder must not protrude from soldering round.

4. Before installation confirm the fuse capacity indication, ( ⊖ ) and ( ⊚ ) marks on the fuse holder.

REF.NO	Capacity and mark	Indication on P.C.board
F901	T400mA	T400mA
F903	T5A	T5A

5. Following parts are controlled as the heated parts. Confirm that the flammable parts are lifted up ,the parts in ( ) must be control.

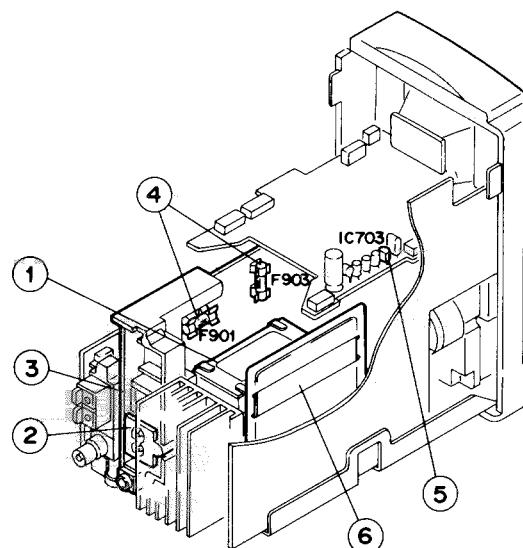
• IC : IC31, (IC703), Transistor : Q9001 , Q9201, Q303, Q304, Q305, Resistor : R9009, R9010, R9011, R9021, R310, R311, R9102, • Diode: D901, D902, D903, D904, D7011 • Radiation

6. The barrier must be attached on the shield of tighten with the transformer.

7. Confirm following EMC (Electromagnetic Compatibility )control matter.

Control parts , and Control work ( Symbol number )

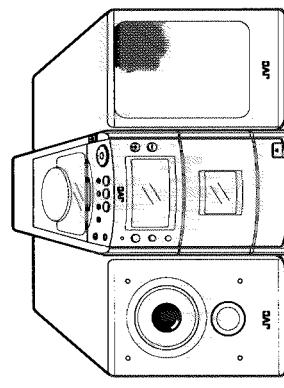
TU1 , CF1, CF2, L1, L11, C8 (Tuner board) , C901, C902, C903, C904, L901(Main board)



**JVC**

# MICRO COMPONENT SYSTEM

# UX-T200R B



**R·D·S EON**  
COMPACT  
**DIGITAL AUDIO**

## INSTRUCTIONS

ENGLISH

Thank you for purchasing this JVC product. Please read these instructions carefully before starting operation to be sure to obtain optimum performance and a longer service life from the unit.



## MICRO COMPONENT SYSTEM

# UX-T200R B

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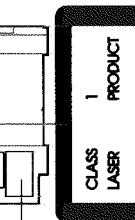
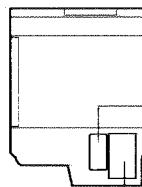
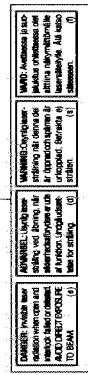
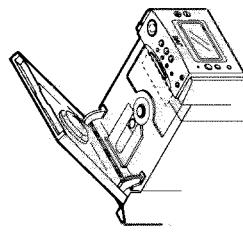
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### IMPORTANT FOR LASER PRODUCTS

#### PRECAUTIONS

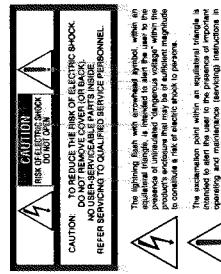
- 1.CLAIS: LASER PRODUCT
- 2.DANGER: Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
- 3.CAUTION: Do not open the rear cover. There are no user serviceable parts inside the unit. Leave all servicing to qualified service personnel.
- 4.CAUTION: This CD player uses invisible laser radiation and is equipped with safety switches which prevent the emission of radiation when the CD holder or CD tray is open. It is dangerous to defeat the safety switches.
- 5.CAUTION: Use of controls or adjustments and the performance of procedures other than those specified herein may result in exposure to hazardous radiation.

### REPRODUCTION OF LABELS AND THEIR LOCATION



This product contains a laser component of higher  
laser class than Class 1.  
Caution:

<b>WARNING:</b> Risk of electric shock	<b>CAUTION:</b> TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
--	---



# 3. Instructions

**IMPORTANT  
Mains Supply (AC 230 V~, 50 Hz only)**

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

**BE SURE** to replace the fuse only with an identical approved type. If nonetheless the mains plug is cut off ensure to remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

**IF IN DOUBT CONSULT A COMPETENT ELECTRICIAN.**

**FEATURES**

- CD-size micro component system consisting of 3 units
- Radio (FM) and CrO<sub>2</sub> (type I) tape can be played back for superior tone quality
- CrO<sub>2</sub> (type II) tape recording capability
- 2-band (HF/BW) synthesizer tuner with 45-station (30 FM and 15 AM (MW/LW)) preset capability
- Seek/manual tuning
- Auto preset tuning
- Timer/Clock function
- Timer on/off with preset volume function
- Sleep timer can be set for up to 120 minutes
- Random Play
- Repeat Play
- U-Turn auto-reverse full-logic mechanism
- Auto tape select mechanism

**SAFETY PRECAUTIONS****Prevention of Electric Shock, Fire Hazards and Damage**

1. Even when the **D/1** button is set to STANDBY, a very small current will flow. To save power and for safety when not using the unit for an extended period of time, disconnect the power cord from the household AC outlet.
2. Do not handle the power cord with wet hands.
3. When unplugging from the wall outlet, always grasp and pull the plug, not the power cord.
4. Consult your nearest dealer when damage disconnection, or contact failure affects the cord.
5. Do not bend the cord severely or pull or twist it.
6. Do not modify the power cord in any manner.
7. To avoid accidents, do not remove screws to disassemble the unit and do not touch anything inside the unit.
8. Do not insert any metallic objects into the unit.
9. Unplug the power cord when there is a possibility of lightning.
10. If water gets inside the unit, unplug the power cord from the outlet and consult your dealer.
11. Do not install the unit in a poorly ventilated place.

**D/1 button**  
When this unit is plugged into an AC outlet, it consumes a small current to operate the remote control and timer, or to back up the memory of the microprocessor, even when the **D/1** button is set to STANDBY.

**When this unit is in direct sunlight where it would be exposed to high temperatures above 40°C (104°F),**

**1. Avoid installing in the following places**

- Where it could be subjected to vibrations.
- Where it is excessively humid, such as in a bathroom.
- Where it could be magnetized by a magnet or speaker.

**2. Pay attention to dust**  
Be sure to close the CD holder or CD tray so that dust does not collect on the lens.

**3. Condensation**  
In the following cases, condensation may occur in the unit, in which case the unit may not operate correctly.
 

- In a room where a heater has just been switched on.
- In a place where there is smoke or high humidity.
- When the unit is moved directly from a cold to a warm room.

 In these cases, set the **C/1** button to STANDBY and wait 1 or 2 hours before use.

**4. Volume setting**  
CDs produce very little noise compared with analog sources. If the volume level is adjusted for these sources, the speakers may be damaged by the sudden increase of output level. Therefore, lower the volume before operation and adjust it as required during play.

**5. Safety mechanism**  
This unit incorporates a safety interlock mechanism which switches the laser beam on and off so that when the CD holder or CD tray is open, the laser beam stops automatically.

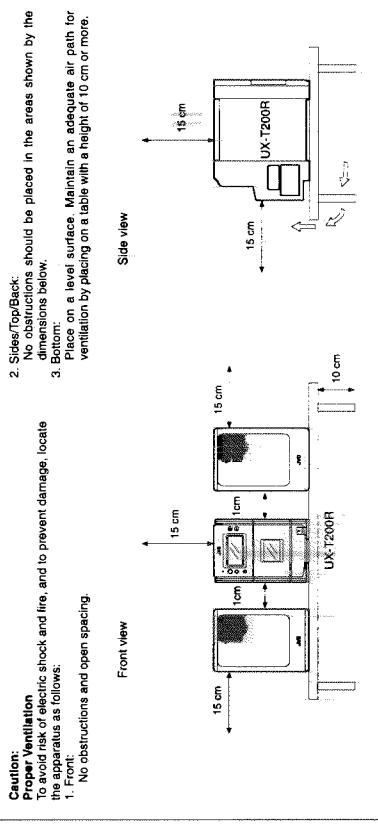
**6. Do not place cassette tapes, etc., near the speakers.**  
Since there are magnets in the speakers, do not place tapes or magnetic cards on them as recorded data could be erased.

**7. Keep this unit away from your TV.**  
When this unit is used near a TV, the TV picture could be distorted. If this happens, move this unit away from the TV. If this does not correct this situation, avoid using this unit when the TV is turned on.

**8. Cleaning the cabinet**  
If the cabinet gets dirty, wipe it with a soft, dry cloth. Never use benzine or thinner as these could damage the surface finish.

**9. When listening with headphones.**

- Do not listen at high volumes as this could damage your hearing.
- For safety, do not drive while listening to this unit.

**HANDLING PRECAUTIONS**

**Caution:  
Proper Ventilation**  
To avoid risk of electric shock and fire, and to prevent damage, locate the apparatus as follows:  
1. Front: No obstructions and open spacing.  
2. Side/Top/Back: No obstructions should be placed in the areas shown by the dimensions below.  
3. Bottom: Place on a level surface. Maintain an adequate air path for ventilation by placing on a table with a height of 10 cm or more.



**Do not use this unit in direct sunlight where it would be exposed to high temperatures above 40°C (104°F).**

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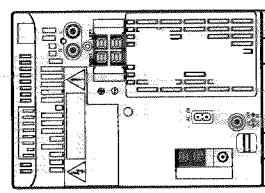
**9. When listening with headphones.**

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- For safety, do not drive while listening to this unit.



**CONNECTIONS**

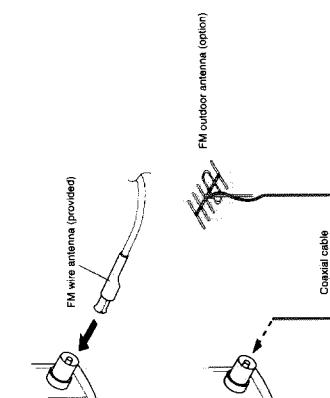
- Do not switch the power on until all connections are completed.

**Antenna connection and adjustment****• AM (MW/LW) loop antenna adjustment**

AM (MW/LW) loop antenna (provided)

Insert in the direction of the arrow

- Keep the loop antenna away from the unit and install it so that the best reception is obtained. (Do not leave the antenna wire in a bundle.)

**FM antenna connections and adjustments**

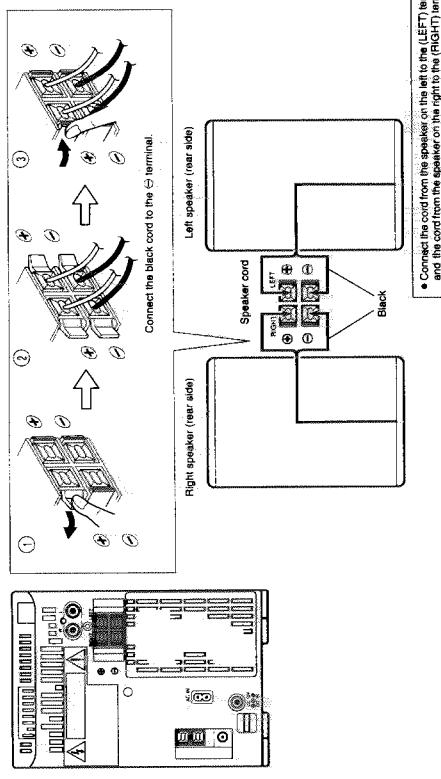
FM wire antenna (provided)

Coaxial cable

- Use an outdoor antenna when stable reception cannot be obtained with the provided antenna.

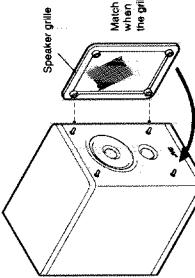
**Note:**

- Do not place the loop antenna on a metal desk or near a TV or personal computer.
- Installing an outdoor antenna requires expertise; we recommend that you consult an audio dealer.
- Install the antenna cord away from the power and speaker cords as these could generate noise. Do not install the loop antenna so that it touches the rear of the unit.

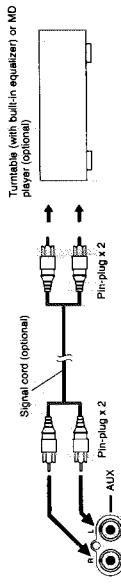
**Speaker cord connection**

- Connect the cord from the speaker on the left to the (LEFT) terminals and the cord from the speaker on the right to the (RIGHT) terminals.

- Note:**
- The polarity of the two connected speakers will be the same if the black speaker cords are connected to the (-) terminals. If the speakers are connected with polarities reversed, stereo effect and tone will be degraded.
  - The speakers of this unit are not magnetically shielded. When they are placed directly on or adjacent to a TV, the TV's picture could be distorted. Install the speakers more than 20 cm away from your TV.
  - When connecting the speaker cord make sure that the wire core, not the insulating cover, is connected to the speaker terminal. Otherwise, sound cannot be heard.



- The speaker grilles can be removed.
- When removing
  1. Insert your fingers at the top and pull towards you.
  2. Also pull the bottom towards you.
- Attaching the speaker grille

**Connection of external audio units****• Connection with a turntable (or MD player)**

Turntable (with built-in equalizer) or MD player (optional)

Signal cord (optional)

Pin plug x 2

Pin plug x 2

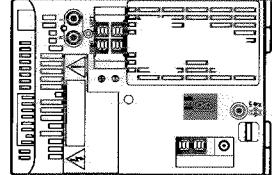
AUX

- Note:**
- Regarding the connection with external units and their operations, refer to the instructions provided with those units.

## POWER SUPPLY

## A. Connection of AC power cord

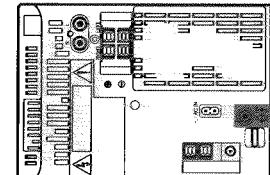
- Connect the AC power cord after all other connections have been made.



**CAUTIONS:**

1. ONLY USE THE JVC POWER CORD PROVIDED WITH THIS UNIT TO AVOID MALFUNCTION OR DAMAGE TO THE UNIT.
2. BE SURE TO UNPLUG THE POWER CORD FROM THE OUTLET WHEN GOING OUT OR WHEN THE UNIT IS NOT IN USE FOR AN EXTENDED PERIOD OF TIME.

## B. Operation on car battery (DC 12 V)



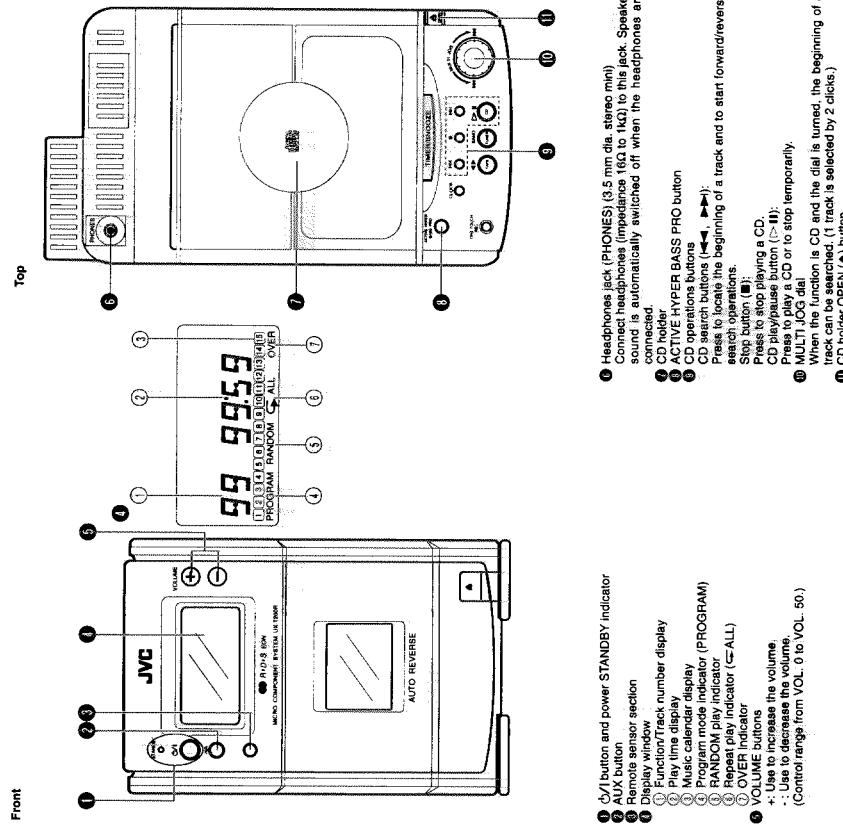
- First connect the car adapter to the DC IN 12 V jack, not the cigarette lighter socket, because shorting of a plug on the car may cause the fuse to blow out. In addition, be careful not to make a short-circuit between the plugs.
- When using a car battery, be sure to use the specified car adapter (JVC model CA-R120E) to prevent malfunctions or damage resulting from different polarity design.

**Note:**

- When there is a power failure or the AC power cord is disconnected, the timer/clock setting is erased from memory. Reset the clock when the power supply is restored.

## NAMES OF PARTS AND THEIR FUNCTIONS

## CD player/general section



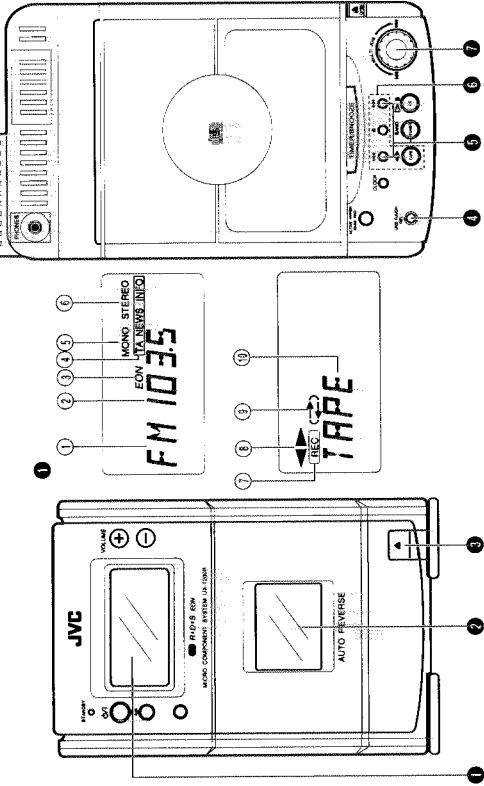
## REMOTE CONTROL UNIT

## Tuner/Deck section

## Preparation before use

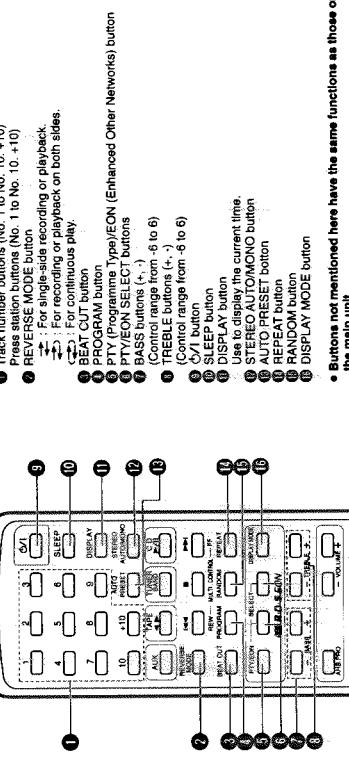
## • Installing batteries in the remote control unit

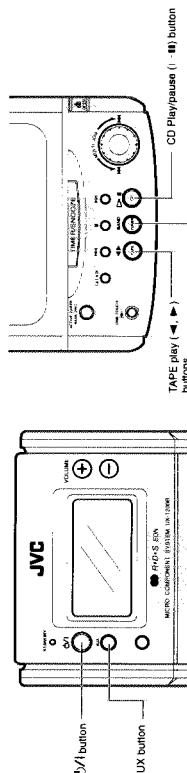
1. Remove the battery cover from the back of the remote control unit.
2. Insert two "PR6/AA (15F)" size batteries.
3. Insert the batteries with the  $\oplus$  end  $\ominus$  terminals matching the indication inside the battery compartment.
4. Replace the cover.



- ① Display window
- ② Band indicator
- ③ Radio frequency/display
- ④ EON indicator
- ⑤ Program mode type (T/NEWS/INFO) indicators
- ⑥ MONO indicator
- ⑦ STEREO indicator
- ⑧ Recording indicator (REC)
- ⑨ Tape direction indicator (→/←/↔)
- ⑩ News mode indicator (NEWS)
- ⑪ Tape (TAPE) mode display
- ⑫ Cassette holder
- ⑬ Cassette holder eject (●) button

- ⑭ ONE TOUCH REC button
- ⑮ TUNER/BLND button  
Press to select tuner mode.  
Press to select the band.
- ⑯ Tuning buttons (↑/↓)
- ⑰ Cassette operation buttons  
① Press to rewind the tape.  
② Press to stop the tape.  
③ Press to fast wind the tape.
- ⑱ TAPE  
① Press to select the TAPE mode.  
② Press to play back the tape in the forward direction.  
The  $\blacktriangleleft$  indicator lights in the display window.  
③ Press to play back the tape in the reverse direction.  
The  $\triangleright$  indicator lights in the display window.
- ⑲ MULTI JOG dial  
The preset station can be selected. (1 station is selected by 2 clicks.)



**SWITCHING THE POWER ON/OFF****Switching the power on/off**

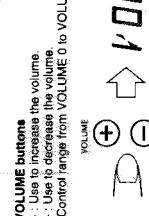
The STANDBY indicator goes out. • The indicator in the display window lights.

The STANDBY indicator glows. • The indicator in the display window goes out and only the clock is indicated.

**One touch operation (COMBI PLAY)**

Even when the power is set to STANDBY, pressing the button shown below switches on the power and selects the source.

Function mode	Operations
CD	When this button is pressed with a CD loaded, CD playback begins.
TAPE	When this button is pressed with a tape loaded, Tape playback begins.
TUNER	When this button is pressed, the tuner is engaged.
AUX	A sound source connected to the AUX terminal can be engaged.

**VOLUME, TONE AND OTHER CONTROLS**

**BASS/TREBLE buttons (using the remote control unit)**  
To set the bass or treble level, press the corresponding button. The level setting ranges from -6 to 6.



**ACTIVE HYPER-BASS PRO button**  
ON: The BASS indicator lights up. Set to this position to activate ACTIVE HYPER-BASS PRO sound.  
OFF: The BASS indicator goes out. Set to this position when ACTIVE HYPER-BASS PRO sound is not required.

**HANDLING CDs**

Since dirty, damaged and warped CDs may damage the unit, take care regarding the following.

**1. Usable CDs**

Use CDs with the mark shown.

**2. Notes on handling CDs**

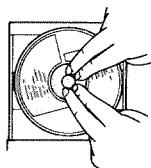
- Do not touch the reflective recorded surface.
- Do not stick or write anything on the label side.
- Do not bend CDs.

**3. Storage**

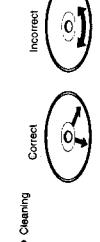
- After removing a CD from the unit, be sure to put it back in its case.
- Do not expose CDs to direct sunlight, high temperatures from a heater, etc., high humidity, or dust.

**4. Cleaning CDs**

- Before handling a CD, wipe off any dust, dirt or fingerprints with a soft cloth. CDs should be cleaned by wiping gradually from the center to the edge.

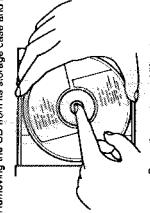
**• Never use thinner, benzine, record cleaner or antistatic spray.**

• Press to secure the CD.

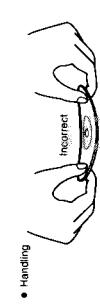


• Cleaning  
Correct  
Incorrect

• Removing the CD from its storage case and loading it.



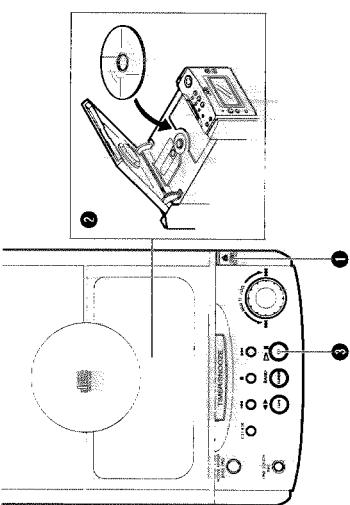
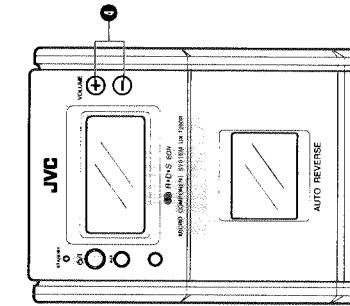
• Press the center and lift out.



• Handling  
Correct  
Incorrect

**PLAYING CDs**

**Playing an entire CD**  
The following example of playing an entire CD assumes a CD with 12 tracks and a total playing time of 48 minutes 57 seconds.

**Operate in the order shown**

- ① Press to open the CD holder.
- ② Load a CD with the label side facing up and close the CD holder.
- ③ Press to start play. (The power is switched on.)
- ④ Adjust.

- As tracks are played, their track numbers go out one by one.
- 8-cm (3") CDs can be used in this unit without an adapter.

**Notes:**

- To stop in the middle of a CD During play, press the stop/clear (■) button to stop play.
- The total number of tracks and total playback time are displayed.
- To stop a CD temporarily Press the ■ button to stop play temporarily. The playing time display blinks. When pressed again, play resumes from the point where it was paused.
- Caution: To change CDs, press the stop/clear (■) button; check that the CD has stopped rotating completely before unloading it.

**Direct access play (using the remote control unit)**

- Pressing any of the track number buttons will start play from the beginning of the designated track. (This function cannot be used during programmed play.)

**Skip play**

- During play, it's possible to skip forward to the beginning of the next track, or back to the beginning of the track being played or the previous track, when the beginning of the required track has been located, play starts automatically.

**To listen to the next track.** Press the ▶ button once to skip to the beginning of the next track.

**To listen to the previous track.** Press the ▶ button to skip to the beginning of the track being played. Press twice to skip to the beginning of the previous track.

**To listen to the next JOG dial.** The beginning of tracks can be searched and played.

Using the MULTI JOG dial, the beginning of tracks can be searched and played.

**Search play (to locate the required position on the CD)**

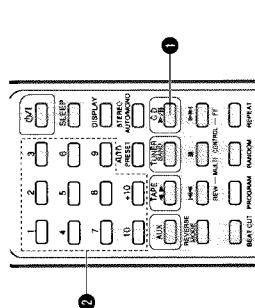
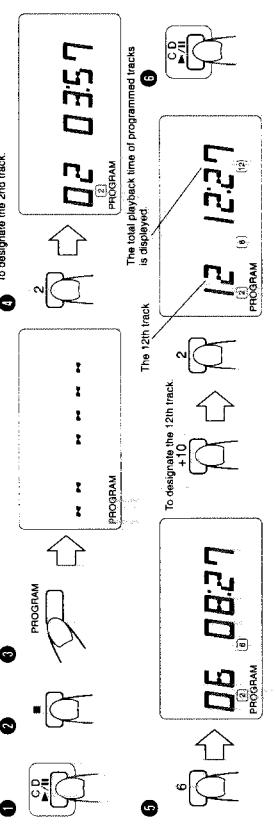
- The required position can be located using fast-forward or reverse search while playing a CD.

**Keep pressing for fast-forward search.**

**Keep pressing for fast-reverse search.**

**Programmed play (using the remote control unit)**

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

**Direct access play (using the remote control unit)**

- Pressing any of the track number buttons will start play from the beginning of the designated track. (This function cannot be used during programmed play.)

**Skip play**

- During play, it's possible to skip forward to the beginning of the next track, or back to the beginning of the track being played or the previous track, when the beginning of the required track has been located, play starts automatically.

**To listen to the next track.**

- Press the ▶ button once to skip to the beginning of the next track.
- To listen to the previous track.** Press the ▶ button to skip to the beginning of the track being played. Press twice to skip to the beginning of the previous track.

**To listen to the next JOG dial.** The beginning of tracks can be searched and played.

- Using the MULTI JOG dial, the beginning of tracks can be searched and played.
- Search play (to locate the required position on the CD)**
- The required position can be located using fast-forward or reverse search while playing a CD.
- Keep pressing for fast-forward search.**
- Keep pressing for fast-reverse search.**

**Repeat play (using the remote control unit)**

- Press the CD ▶ button to set to the CD mode.
- Press the PROGRAM button to set to the programming mode.
- Press the PROGRAM button to set to the playback mode.
- Press the required track number buttons.
- Press the REPEAT button to repeat the track.
- Press the REPEAT button to repeat the remaining tracks by pressing the track number buttons.
- Press the REPEAT button when programming is completed. Programmed play starts.

**Random play (using the remote control unit)**

- Press the RANDOM button, and all tracks on a CD play once in random order.
- If the total playing time of the programmed tracks exceeds 99 minutes 59 seconds, the total playing time indicator will go out.
- When programming a track, higher than 21 on a disc containing more than 21 tracks, the total playback time of all the programmed tracks will not be displayed.
- When a disc with 16 or more tracks is loaded, the "OVER" indicator will appear.

**Repeat play (using the remote control unit)**

- Press the REPEAT button before or during play. A single track or all the tracks can be repeated.
- Whether a single track or all tracks are to be repeated can be specified.

Each time the REPEAT button is pressed, the mode will change from a single track (◀), to all the tracks (◀ ALL), to the clear mode, in this order.

- When the REPEAT button is pressed, the mode will change from a single track (◀), to all the tracks (◀ ALL), to the clear mode, in this order.



- Single track repeat (◀) The current or specified track will be played repeatedly.
- All tracks repeat (◀ ALL) All tracks or programmed tracks of a CD will be played repeatedly.

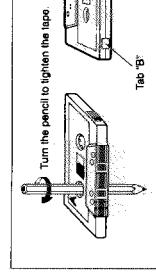
**Search play**

- Increase the 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.

**HANDLING CASSETTE TAPES****Cassette tape**

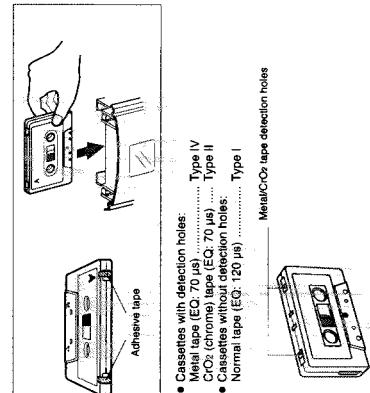
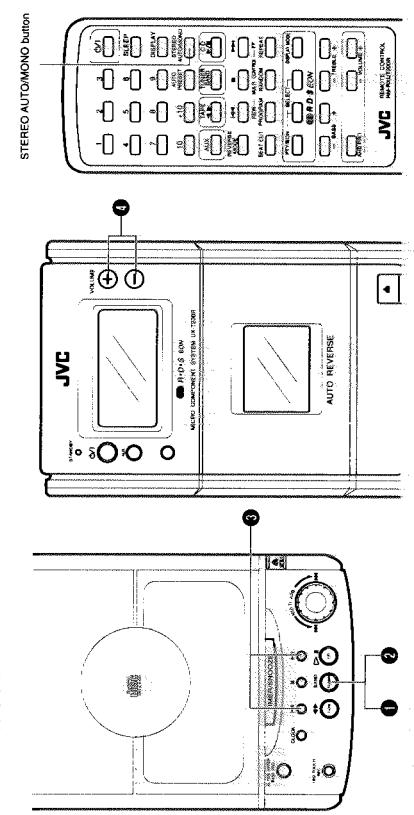
1. Loose tape may cause trouble. Using a pencil or like object, gently tighten the tape as shown.
2. To prevent recordings from being erased accidentally, remove the tabs (with a screwdriver, etc.). Reset the slots with adhesive tabs to erase and re-record after the tabs have been removed.
3. C-120 cassettes are not recommended because they are prone to malfunction.



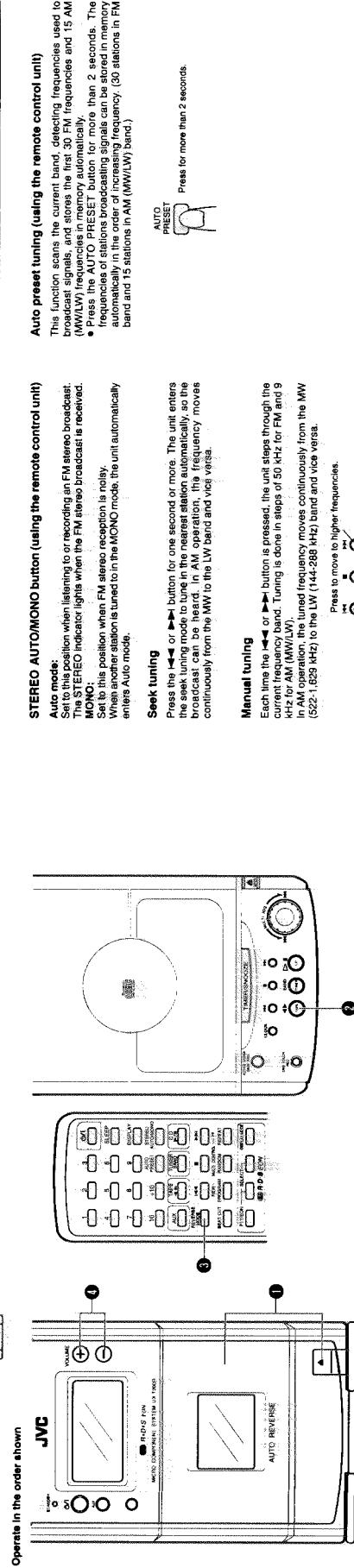
**Note:**  
If the power is switched off while a tape is running, it may be impossible to remove the cassette. If this happens, switch the power on again before attempting to remove the cassette.

**Auto tape select mechanism**

This unit has an Auto Tape Select mechanism which distinguishes between type of tape using detection holes in the cassette. After the type of tape has been detected, bias and equalization suitable for the tape are set.

**RADIO RECEPTION****Cassette tape**

- ① Operate in the order shown
  - ② Press the STEREO/AUTO/MONO button
  - ③ Load a cassette as shown.
  - ④ Close the cassette holder by pressing it gently. Listen for the click indicating that the holder is securely shut.
  - ⑤ Turn the volume control to the left.
  - ⑥ Turn the tuner dial to the right.
  - ⑦ Press the TUNER/BAND button.
- The cover is switched on and the band and radio frequency will be shown in the display.
  - ⑧ Select the band.
  - ⑨ Tune to the required station.
  - ⑩ Adjust.

**CASSETTE PLAYBACK****Cassette playback**

- ① Load a cassette tape.
- ② Press to start cassette playback. (The power is switched on and the TAPE mode is engaged to start tape playback.)
- ③ Select the reverse mode (↔/↔).
- ④ Adjust.
- ⑤ When the TAPE (↔) button is pressed, the TAPE (↔) button is switched on and the tape starts playback. (To select the playback direction, press the TAPE (↔) button. The change in direction can be checked in the tape direction indicator (↔ or ↔).)

- When seek tuning to the required station is not possible because the broadcast signal is too weak, press the ← or → button momentarily to perform manual tuning.
- When the power is set to STANDBY, or another mode (TAPE, CD or AUX) is selected, the last tuned frequency is stored in memory. When the power is switched on again and TUNER/BAND button is pressed, the same station will be tuned to.

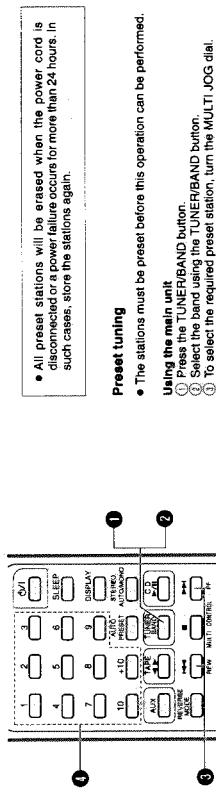
**How to fastwind tapes**

1. Press the TAPE (↔) button to set TAPE mode.
2. Press the ← or → button.
- A tape can be fast-wound in either tape playback direction, and when it reaches the end of a side, it stops automatically.

**Presetting stations (using the remote control unit)**

30 stations in the FM band and 15 stations in the AM (MW/LW) band can be preset as follows.

- Example: Presetting an FM station broadcasting at 103.5 MHz to preset button "15".



P - 15 - FM 103.5

- ① Press the TUNER/BAND button.
- ② Select the FM band using the TUNER/BAND button.
- ③ Tune to the required station.
- ④ Press preset button "+10" then "5" for more than 2 sec. (When "15" blinks in the preset station display, the station has been stored.)

- Repeat the above procedure for each of the other stations, using a different preset button each time.
- Repeat the above procedure for the other band.

#### To change preset stations

Perform step ① above after tuning to the required station.

#### RDS (Radio Data System)

(Using the remote control unit)

**Using the RDS (Radio Data System) to Receive FM Stations**

RDS allows FM stations to send additional signals with their regular programme signals. For example, the stations send their station names, and information about what type of programmes they broadcast, such as sports or music, etc.

This unit can receive the following types of RDS signals:

PS (Programme Service):

shows commonly known station names.

PTY (Programme Type):

shows types of broadcast programmes.

RT (Radio Text):

shows text messages the station sends.

TA (Traffic Announcement):

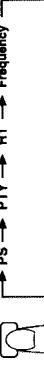
shows traffic announcements being broadcast.

What information can RDS signals provide?

The display shows RDS signal information that the station sends.

To show the RDS signals on the display:

Press the DISPLAY MODE button while listening to an FM station. Each time you press the button, the display changes to show information in the following order:



**On characters displayed**

When the display shows PS, PTY or RT signals:

- The display shows upper case letters only.
- The display cannot show accented letters. For example, "A" may represent accented "A's like "À, Á, Â, Ã and Â".

A	À, Á, Â, Ã, Ä, Å	H	K	U	U, Ü	O	Ö	Ñ	Ñ	À	À
B	À, Á, Â, Ã, Ä, Å	L	V	À	À, Ü	À	À, Ö	À	À	À	À
C	À, Á, Â, Ã, Ä, Å	M	W	À	À, Ü	À	À, Ö	À	À	À	À
D	À, Á, Â, Ã, Ä, Å	N	Ñ	À	À, Ü	À	À, Ö	À	À	À	À
E	È, È,	Ò, Ò	Ó, Ó	À	À, Ü	À	À, Ö	À	À	À	À
F	À, Á, Â, Ã, Ä, Å	P	Z, Z, Z	À	À, Ü	À	À, Ö	À	À	À	À
G	À, Á, Â, Ã, Ä, Å	Q	À	À	À, Ü	À	À, Ö	À	À	À	À
H	À, Á, Â, Ã, Ä, Å	R	À, À, À	À	À, Ü	À	À, Ö	À	À	À	À
I	Ì, Ì, Ì	S	À, À, À	À	À, Ü	À	À, Ö	À	À	À	À
J	Ì, Ì, Ì	T	À, À, À	À	À, Ü	À	À, Ö	À	À	À	À

To continue searching after the first stop, press the PTY button again while the display indicates blank.

If no programme is found, "NOT FOUND" appears on the display.

To stop searching at any time during the process:

Using any tuner operating buttons and controls stops search operation.

#### To search for a programme by PTY code

One of the advantages of the RDS service is that you can locate a particular kind of programme by specifying the PTY codes.

#### To search for a programme using PTY or TA codes:



#### Descriptions of the PTY Codes

NEWS:	Newspapers
AFFAIRS:	Topical programme expanding on the current news or affairs
INFO:	Programmes on medical service, weather forecasts, etc.
SPORT:	Sports events
EDUCATE:	Educational programmes
CULTURE:	Programmes on national or regional culture
DRAMA:	Radio plays
SCIENCE:	Programmes on natural sciences and technology
VARIETY:	Other programmes like comedies or ceremonies
POP M:	Pop music
ROCK M:	Rock music
MORN:	Middle-of-the-road music (usually called "easy listening")
LIGHT M:	Light music
CLASSICS:	Classical music
OTHER M:	Other music
ALARM:	Emergency broadcasts
TRAFFIC:	Broadcasts which carry traffic announcements
NONE:	None
UNDL:	Undefined (this cannot be searched.)

#### ① Press the PTY button once while listening to an FM station.

The display alternates between "PTY" and "SELECT".

#### ② Select the PTY code using the SELECT button within 10 seconds.

Each time you press the button, the display shows a category in the following order:

NEWS + AFFAIRS → INFO → SPORT → EDUCATE → DRAMA → CULTURE → SCIENCE → MORN → LIGHT M → CLASSICS → OTHER M → TRAFFIC → NEWS
③ Press the PTY button within 10 seconds again.

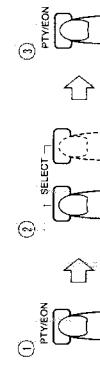
While searching, the display alternates between "SEARCH" and the selected PTY code.

The unit searches 30 preset stations and stops when it finds a station of the category you have selected, then turns into that station.

**RECORDING**

To temporarily switch to a broadcast programme of your choice  
EON (Enhanced Other Networks) is another convenient RDS service that allows this unit to switch temporarily to a broadcast programme of your choice (NEWS, TA or INFO) from the currently selected station, except if you are listening to a non-RDS station (all AM (MW/LW) stations or some FM stations).

- If an FM station does not broadcast EON information, EON cannot be activated.

**To select a programme type**

- Press the EON button twice while listening to an FM station.
- Select the programme type with the SELECT button within 10 seconds. The display shows a programme type in the following order:



- The display alternates between "EON" and "SELECT".
- Programmes on medical service, weather forecast, etc.
- OFF: Press the EON button within 10 seconds again to set the selected programme type. The selected programme type indicator lights up on the display, and the unit enters EON standby mode.

- The EON indicator lights up when turned to a station which provides EON information.

**Case 1: If there is no station broadcasting the type of programme you have selected**

The broadcast station being currently heard will continue to be heard.

- When a station starts broadcasting the programme you have selected, this unit automatically switches to the station. The programme type (TA, NEWS or INFO) indicator starts blinking.

- When the programme is over, this unit goes back to the currently selected station, but still remains in EON standby mode.

**Case 2: If there is a station broadcasting the type of programme you have selected**

- This unit turns to the station broadcasting the programme. The programme type (TA, NEWS or INFO) indicator starts blinking.

- When the programme is over, this unit goes back to the currently selected station, but remains in EON standby mode.

**Note:**

- If the EON is in standby mode and the function (CD, TAPE, AUX) switch is changed or the power is switched off, then the EON mode will be activated. When the band is set to AM (MW/LW), the EON is not activated.
- When the EON is being operated, i.e. the selected programme type is being received (from the broadcast station) and the DISPLAY MODE button or MULTI LOGIC dial is operated, the station will not switch back to the current selected station even after the programme ends. The programme type indicator remains in the display, indicating that the EON is in standby mode.
- When the EON is in standby mode and a radio broadcast is being recorded, be careful because the EON may be activated and a different programme than the intended one may be recorded. When the EON mode is not required, release the EON mode.
- When the alarm signal is detected by EON, the station broadcasting the alarm is received with priority. "ALARM" is not displayed.

**Caution:**  
When the sound alternates intermittently between the station tuned in by the EON function and the current selected station, cancel the EON mode. This does not constitute malfunction of the unit.

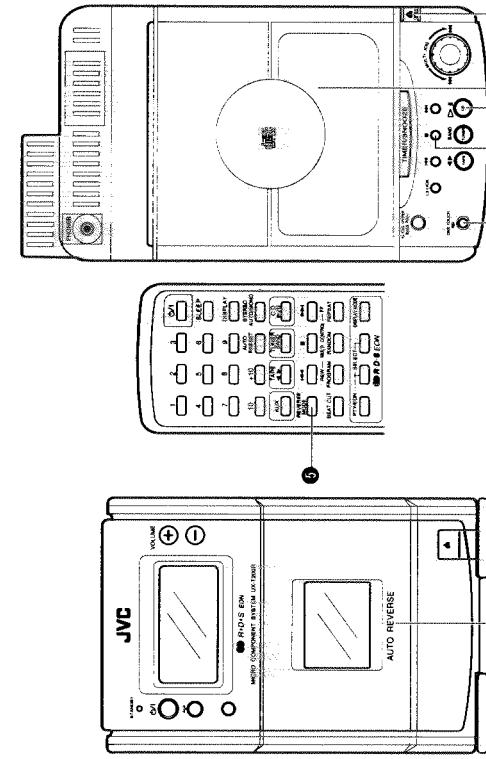


**Note:**  
This unit has recording characteristics suitable for normal and CrO<sub>2</sub> tapes. Normal and CrO<sub>2</sub> tapes have different characteristics from metal tapes.

- During recording, the ALC (Automatic Level Control) circuit automatically optimizes the recording level, so minimal recording level adjustment is unnecessary.
- Check that the safety tab on the cassette tape is not broken off.

**Synchronized recording with the CD player**

- In this system, the CD player stands play when the cassette deck enters the recording mode.

**Operate in the order shown**

**Note:**  
When non-recorded section between tunes is not required ...

- ① Press the TA button twice.
- ② Press the ONE TOUCH REC button to start recording.

**Note:**

- Depending on the CD used, non-recorded sections of different lengths may be left between tunes.
- CD complete recording function (Syncro recording mode only)

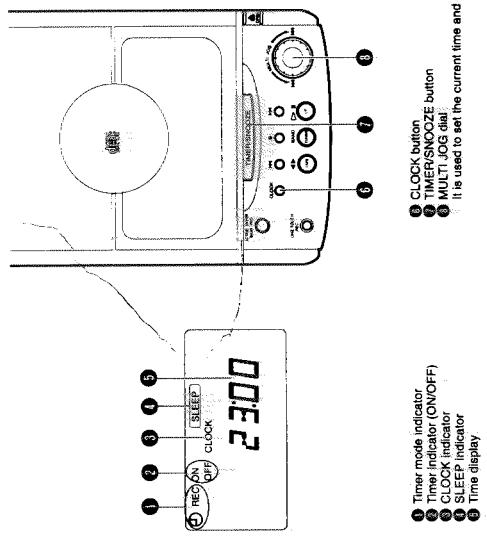
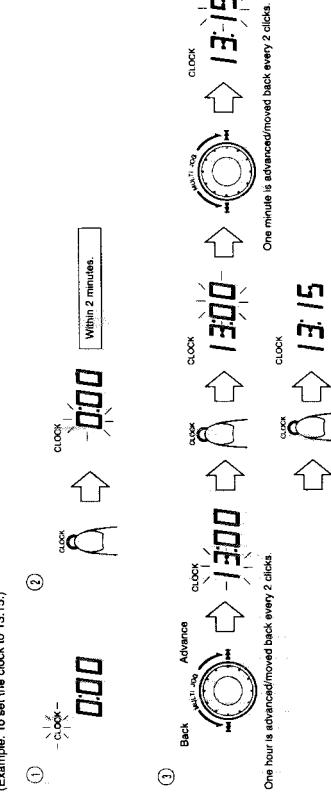
- If the tape is reversed while a CD is being played, recording will be done on the reverse side of the tape as follows.  
• When less than 12 seconds of the last tune on the forward side of the tape have been recorded, recording on the other side of the tape will start from the beginning of the previous track.  
• When more than 12 seconds of the last tune on the forward side of the tape have been recorded, recording on the other side of the tape will start from the beginning of the current track.

- To record one track**  
Play the track to be recorded. Then pressing the ONE TOUCH REC button locates the beginning of the track and enters the one track recording mode. After the recording is finished, the CD player and cassette deck both stop.

**Note:**  
During CD syncro recording, the ▶, ■, SEARCH (◀, ▶, ▷) buttons and MULTI JOG dial do not function.

**CLOCK ADJUSTMENT**

Recording from the radio or an external source connected to the AUX terminals  
Operate in the order shown

**Names of parts in the clock/timer section, and their functions:****Setting the current time (when this unit is used for the first time)**  
(Example: To set the clock to 13:15.)

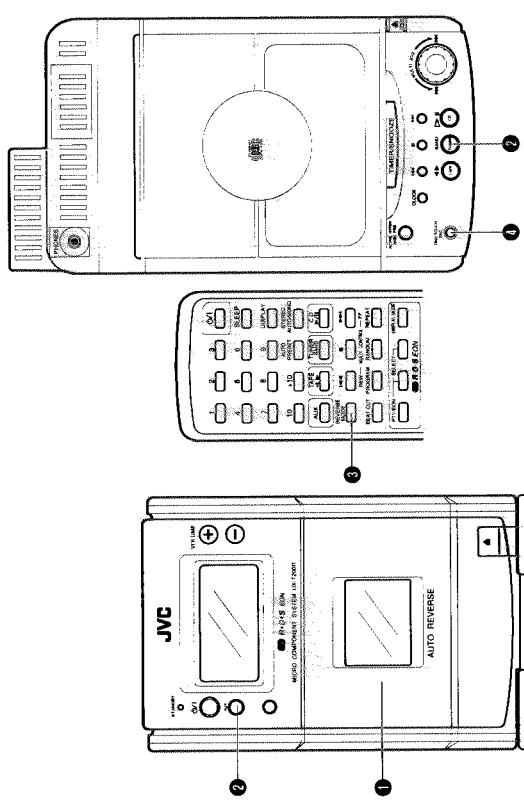
- Notes:**
- Before performing timer recording or playback, it is necessary to set the current time.
  - Press the CLOCK button for 2 seconds or more.
  - Set to 13:15 using the MULTI JOG dial and CLOCK button.
  - It is recommended to set the current time with the **CLOCK** button set to STANDBY so that the current display mode is maintained.
  - When the power cord is plugged in again after being disconnected or power is restored after a power failure, "CLOCK" will blink in the display. Set the current time again.

A recorded tape can be erased by recording new material over the previous material.  
To **erase a tape without making a new recording...**  
1. Press the TAPE (◀▶) button to set to the TAPE mode.  
2. Press the ■ button.  
3. Insert the cassette with this side facing out.  
4. Press the ONE TOUCH REC button.

**BEAT CUT button (using the remote control unit)**  
When recording an AM broadcast, beats may be produced which are not heard when listening to the broadcast. In such case, set this button after setting the deck to the record mode so that the beats are eliminated. Normally set this button to "CUT-".



**CUT - 1 → CUT - 2 → CUT - 3 → CUT - 4**



- BEAT CUT**  
When recording an AM broadcast, beats may be produced which are not heard when listening to the broadcast. In such case, set this button after setting the deck to the record mode so that the beats are eliminated. Normally set this button to "CUT-".

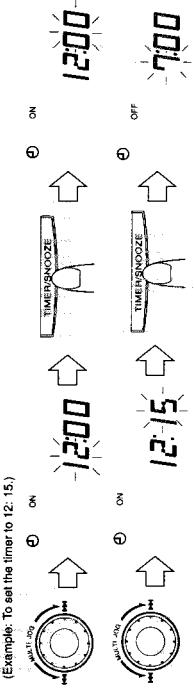
It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable programme and in any literary, dramatic, musical, or artistic work embodied therein.

**TIMER OPERATIONS****Setting the timer**

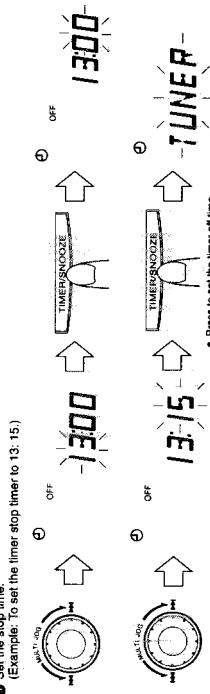
- The current time must be set before the timer can be used.
- Press the TIMER/SNOOZE button for 2 seconds or more.



② Set the start time  
(Example: To set the timer to 12:15.)



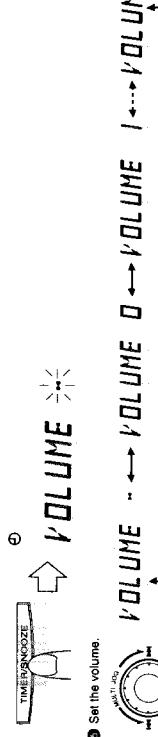
③ Set the stop time.  
(Example: To set the timer stop timer to 13:15.)



④ Select the TIMER mode.  
The selected TIMER mode is shown in the display.



When the MULTI JOG dial is turned to select the timer mode, the mode changes from TUNER play (or a CD) to TAPE (timer playback of a tape), in forward or reverse direction.



• The unit enters the previously engaged mode and timer setting has been completed.

• The selected volume is set.

- When the volume setting is set to 'VOLUME -' (volume level is not specified), the timer playback volume is at the level used before setting the timer.

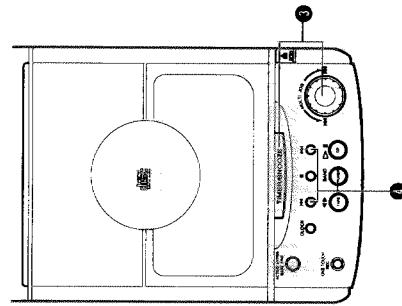
**To confirm the timer setting**

- When (2) is displayed...  
Press the TIMER/SNOOZE button for more than 2 seconds. (2) disappears.
- Press the TIMER/SNOOZE button for more than 2 seconds once again.  
Then each time the TIMER/SNOOZE button is pressed, the timer setting can be confirmed. When the previous function mode is restored, showing that the timer setting has been completed.

- Note:**
- When the timer is set incorrectly or the correct mode is not selected, perform "Setting the timer" from the beginning.

**Timer recording of broadcast**

- The current time must be set before the timer can be used.
- Make sure that the safety tabs of the cassette have not been broken off.

**Operations**

- Notes:**
- Once the time has been set, the start and stop times, etc., are stored in memory. When timer recording or playback is required at different times, the timer must be set again.
  - After setting the timer start and stop times, check that the tuner is tuned to the required frequency.
  - When the power cord is disconnected or there is a power failure, timer settings will be erased from memory. If this happens, set the current time and perform the timer setting again.

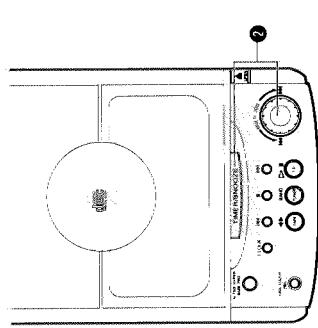
- Set the (2) button to ON.
- Insert the cassette with the side to be recorded facing out.
- Select the required reverse mode (↔ or ↔).
- Select the timer (Refer to "Starting the timer" on page 23.)
- Set the timer about a minute before the broadcast is to be recorded.
- Turn the station to be recorded.
- Press the (2) button to START/STOP.

- Timer recording will start at timer start time and the power will be switched off at timer stop time. (The timer mode is then released.)
- To cancel timer operation  
Press the TIMER/SNOOZE button for more than 2 seconds so that the timer mode indicator (2) goes out.

If you do this, timer recording will not start at the timer start time.

**MAINTENANCE****Timer playback**

- Timer playback of tapes, broadcasts and CDs is possible.

**Operations**

- ① Set the  $\Delta$ /button to ON.
- ② Set the timer. (Refer to "Setting the timer" on page 23.)

		Operations
		CD
CD play	CD	Load a disc.
Tape playback	TAPE	Cassette tape
Broadcast	BROADCAST	Turn to the required station.
TUNER	TUNER	Turn to the required station.

- ③ Set the  $\Delta$ /button to STANDBY.

- Timer playback will start at the timer start time and the power will be switched on at the timer stop time. The unit remains in the same timer mode even after the power is switched off. The same timer function will repeat at the same time on the following day.
- When the power is switched on, it is possible to fade in the sound from volume level 0 (zero) to the preset volume.

**Sleep timer operations (using the remote control unit)**

- A. Use this when you want to fall asleep while listening to a tape, broadcast or CD**

**B. To fall asleep while listening to a tape, broadcast or CD****and to perform timer playback the following morning**

- ① Set the timer. (Refer to "Setting the timer" on page 23.)
- ② Set to the required source (broadcast, tape or CD).
- ③ Press the SLEEP button to set the sleep time.

SLEEP

Source mode display (Releasing the sleep mode)

- Sleep time settings of 30, 60, 90 or 120 minutes can be set. When you release the SLEEP button, the source is displayed after 5 sec.

- The sleep timer operation will start and the power will be switched off after the specified time.
- Checking the sleep time: When the SLEEP button is pressed again, the remaining sleep time is displayed.

Source mode display (Releasing the sleep mode)

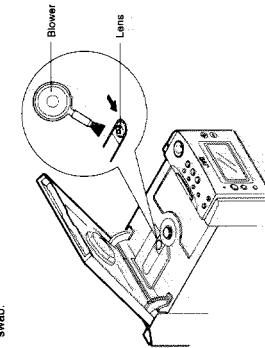
- Sleep time settings of 30, 60, 90 or 120 minutes can be set. When you release the SLEEP button, the source is displayed after 5 sec.

- The sleep timer operation will start and the power will be switched off after the specified time.
- Checking the sleep time: When the SLEEP button is pressed again, a new sleep time can be set.

Source mode display (Releasing the sleep mode)

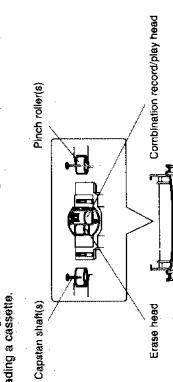
- Press the SLEEP button to switch the power off or press the SLEEP button until the sleep time indicator disappears.

- Cleaning is important!**  
When the tapes run, magnetic powder and dust naturally accumulate on the heads, capstan and pinch roller. When they become too dirty...  
• Sound quality deteriorates.  
• The output sound level drops.  
• Previously recorded tape is not completely erased.  
Therefore, you should clean the heads, etc. after every 10 hours of use for optimal recording conditions.



- Cleaning the lens**  
If the lens in the CD pickup is dirty, dropout, etc. could degrade sound. Open the CD holder and clean the lens as shown.  
• Use a blower available from a camera store to blow dust off the lens.  
• If there are fingerprints, etc. on the lens, gently wipe clean with a cotton swab.

- Cleaning the heads, capstan and pinch roller**  
Open the cassette holder. Clean the heads, pinch roller and capstan with a cleaning kit available from an audio store. For effective cleaning, use a cleaning kit available from an audio store. After cleaning, be sure that the cleaning fluid has dried completely before loading a cassette.



- Cautions:**
1. Keep magnets and metallic objects away from the head. When the head becomes magnetized, noise will increase and the sound will deteriorate. Demagnetize the head every 20-30 hours of use with a head eraser (available from an audio store). (When demagnetizing the head, the  $\Delta$ /button should be set to STANDBY.)
  2. Do not use anything other than alcohol to clean the heads. Thinner and benzine will damage the huber pinch roller.

**TROUBLESHOOTING****What appears to be trouble is not always serious. First make sure...**

- Power cannot be turned on.
  - Is the power cord unplugged?
  - No sound from the speakers.
  - Are headphones connected?
- Remote Control
  - The remote control is impossible.
  - Are the batteries in the remote control exhausted?
  - Is the current time set correctly?
  - Is the timer mode (C) displayed?
- Tuner Section
  - Reception is noisy.
  - Try adjusting the antenna.
- Timer Section
  - Timer operation does not start.
  - Is the current time set correctly?
  - Is the timer mode (C) displayed?
- Cassette Deck Section
  - The CD player does not play.
  - Is the CD upside down?
  - Is the CD dirty?
  - A certain portion of the CD does not play correctly.
  - Is the CD scratched?
- CD Player Section
  - Playback sound is at a very low level.
  - Is the head dirty?
  - The ONE TOUCH REC button does not function.
  - Have the safety tabs of the cassette been broken off?

- Note:**  
Before making an important recording, be sure to make a test recording first to check that the deck, etc. is working correctly.

- When the above remedies do not help**  
Many operations of this unit are performed by the control of a microprocessor. If none of the buttons function, unplug the power cord, wait for a while, then plug it back in. Reset the correct values for the clock and timer.

## UX-T200R B | MICRO COMPONENT SYSTEM


  
Printed in China  
VN9317-67/C


## SPECIFICATIONS

CD player section	
Type	Compact disc player
Signal detection	Non-contact optical pickup
Number of channels	2 channels
Frequency response	20 Hz - 20,000 Hz
Signal-to-noise ratio	90 dB
Wow & flutter	Less than measurable limit
Radio section	
Frequency range	FM 87.5-108 MHz AM (MW) 522-1629 kHz
Antennas	AM: 44 cm FM: 60 cm Loop antenna: 60 cm External antenna terminal for FM (75 Ω)
Tape deck section	
Track system	4-track 2-channel stereo
Motor	Electronic governor DC motor for capstan
Heads	Hard permalloy head for recording/playback, 2 gap ferrite
Frequency response	0.15% (WORMS) 0.15% (W/RMS)
Wind & start	Fast wind time Approx. 130 sec. (C-60 cassette)
Speakers	
(Impedance)	8 ohm (4 Ω)
Dimensions	131 (W) x 205 (H) x 194 (D) mm
Weight	Approx. 1.6 kg

Design and specifications are subject to change without notice.

## 4. Location of Main Parts

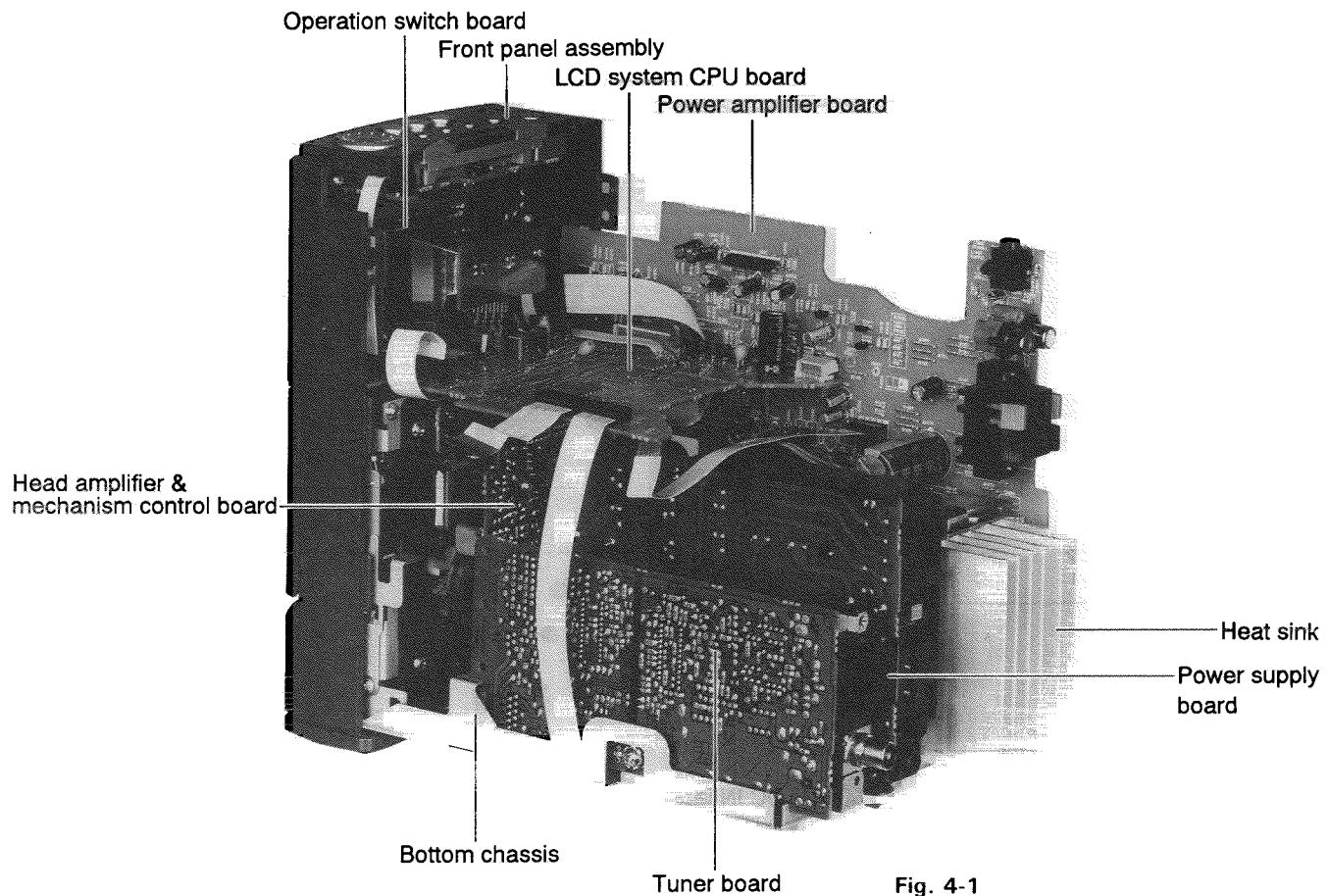


Fig. 4-1

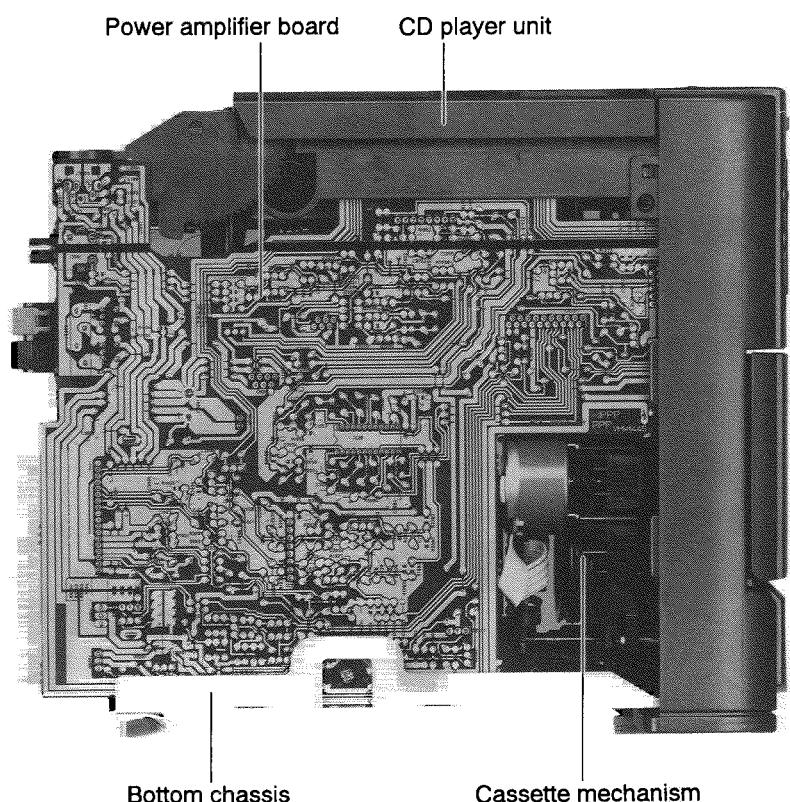


Fig. 4-2

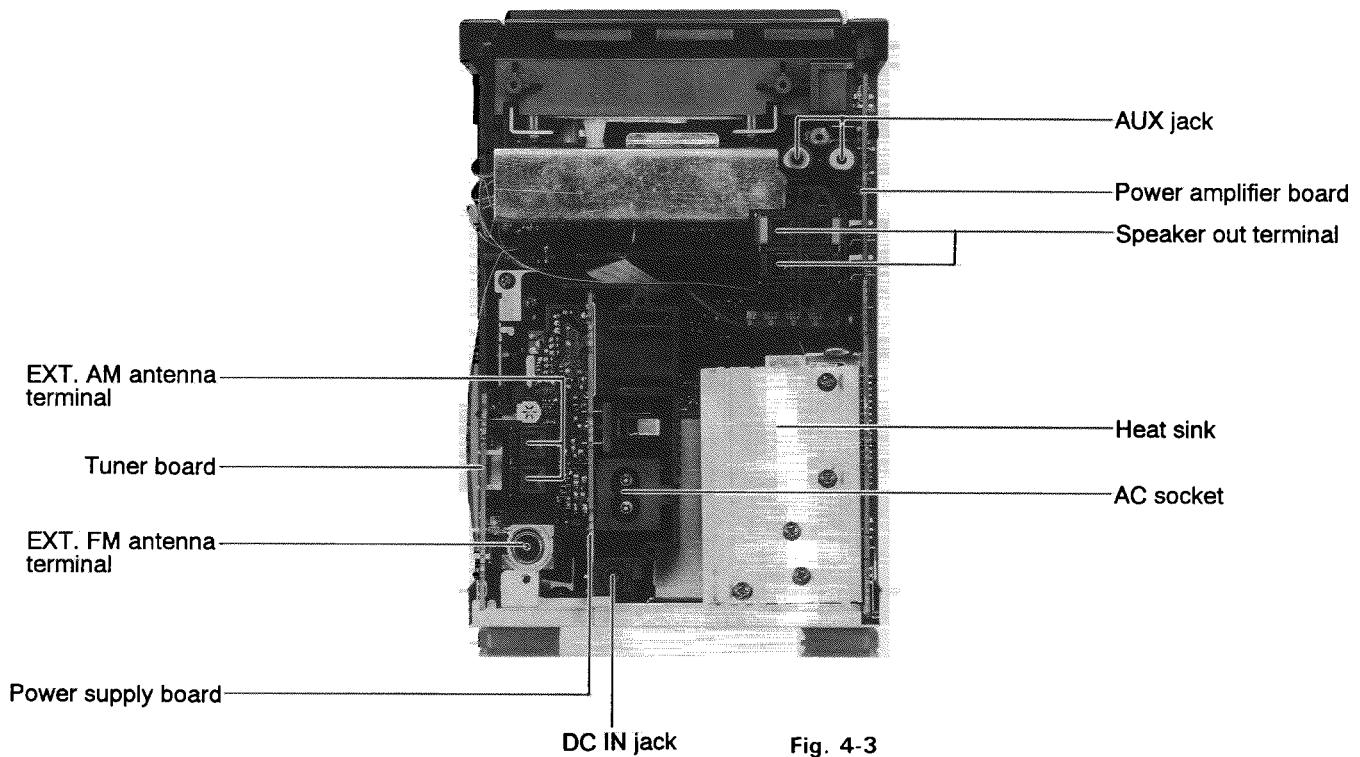


Fig. 4-3

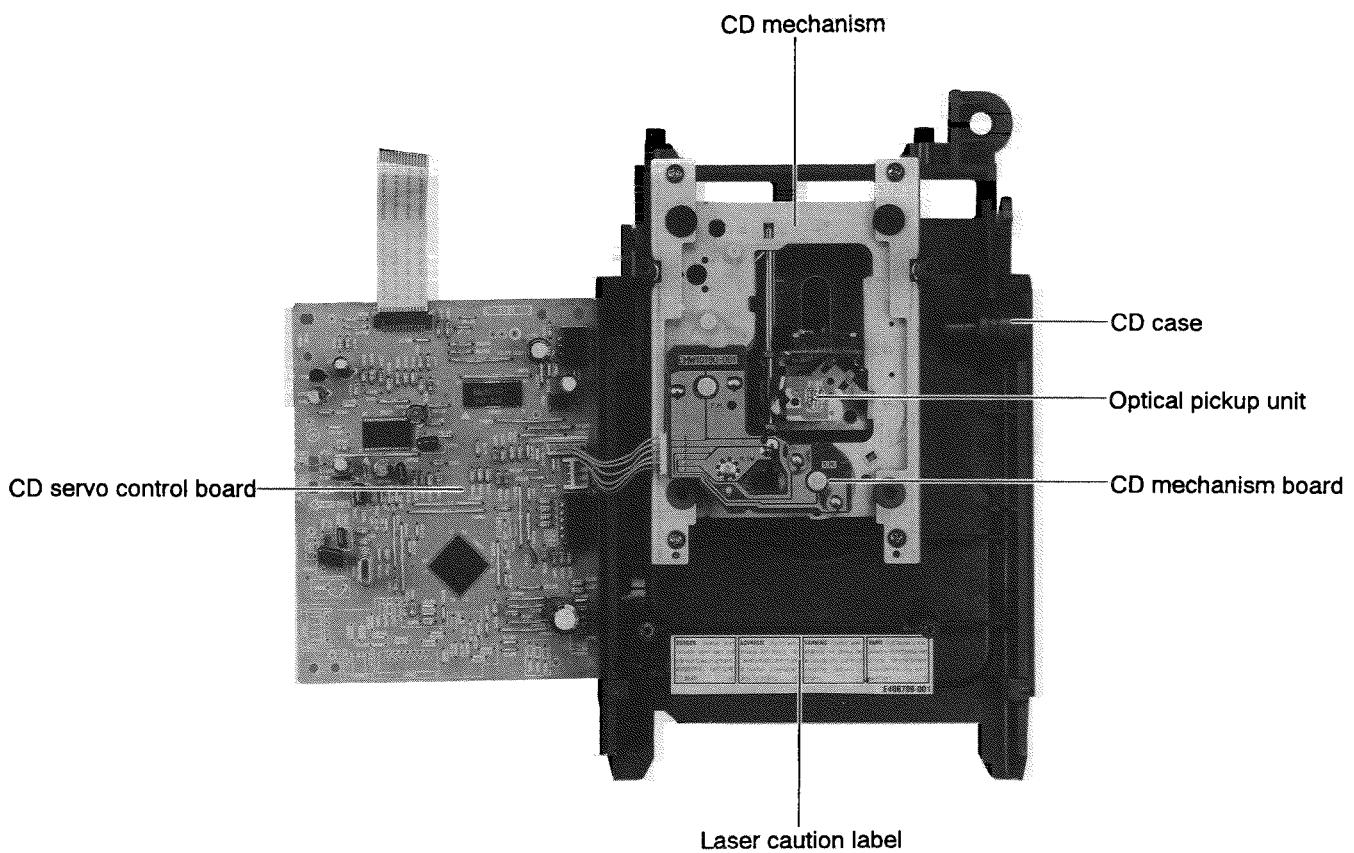


Fig. 4-4

## 5. Removal of Main Parts

### ■ Removing the rear panel

(See Figs. 5-1 and 5-2)

1. From behind the body, remove the seven screws ① retaining the rear panel (See Fig. 5-1).
2. After turning the body upside down, remove the two screws ② retaining the rear panel (See Fig. 5-2).
3. Take out the rear panel from behind the body.

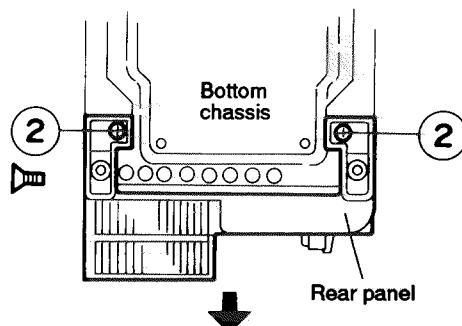


Fig. 5-2

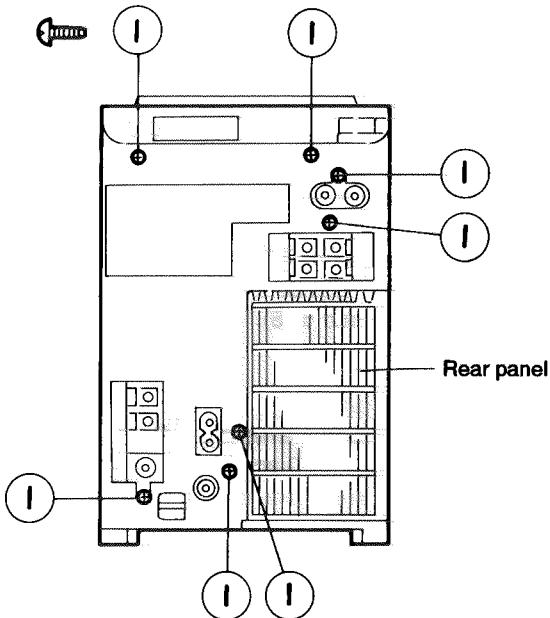


Fig. 5-1

### ■ Removing the side panels (L and R)

(See Figs. 5-3~5-6)

1. After turning the body upside down, remove the two screws ③ retaining the front cabinet assembly (See Fig. 5-3)
2. After turning the body back to its initial position, open the CD door while pressing the upper [OPEN/CLOSE] button (See Fig. 5-4).
3. While moving the side panel (L) in the arrow direction, remove the panel from the left side of the body (See Fig. 5-5).
4. While moving the side panel (R) in the arrow direction, remove this panel from the right side of the body (See Fig. 5-6).

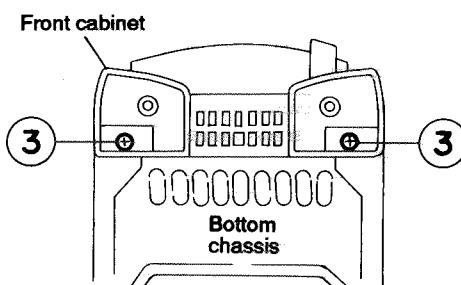


Fig. 5-3

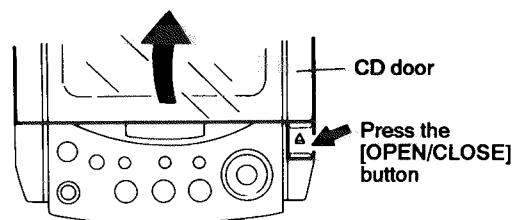


Fig. 5-4

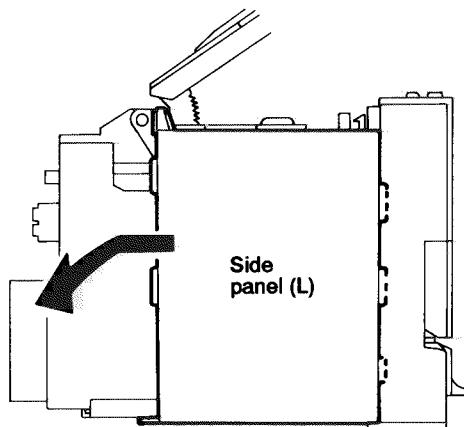


Fig. 5-5

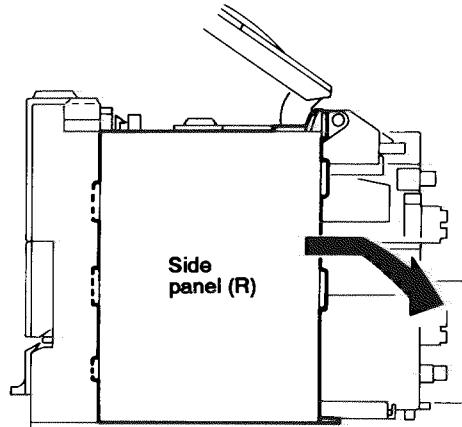


Fig. 5-6

### ■ Removing the CD player unit

(See Figs. 5–7 and 5–8)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. From the connector CN603 on the CD servo control P. C. board, disconnect the card wire outgoing from the connector CN304 on the power amplifier P. C. board (See Fig. 5–7).
4. Disengage the left and right engagements ④ and ⑤ fixing the CD player unit by using a minus screw driver, etc. (See Figs. 5–7 and 5–8).

### ■ Removing the power amplifier P. C. board and heat sink

(See Figs. 5–9 and 5–10)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. Remove the five screws ④ and ⑤ retaining the heat sink (See Fig. 5–9).
5. From the connector CN303 on the power amplifier P. C. board, disconnect the card wire outgoing from the connector CN34 on the head amplifier & mechanism control P. C. board (See Fig. 5–9).
6. From the connector CN901 on the power supply board, disconnect the connector wire outgoing from the connector W306 on the power amplifier P. C. board (See Fig. 5–9).
7. Remove the one screw ⑥ retaining the power amplifier P. C. board (See Fig. 5–10).
8. Remove the power amplifier P. C. board from the two connectors CN711 and CN712 on the LCD system CPU P. C. board (See Fig. 5–9).
9. After removing the power amplifier P. C. board from the key way ⑦ on the bottom chassis, take this P. C. board out while raising it in the arrow direction (See Fig. 5–10).

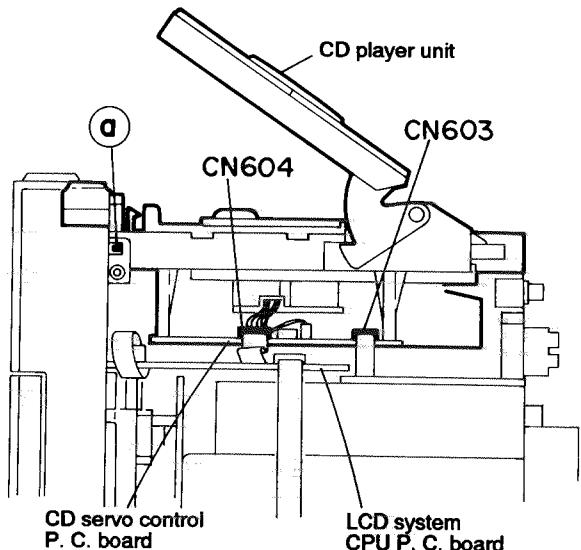


Fig. 5-7

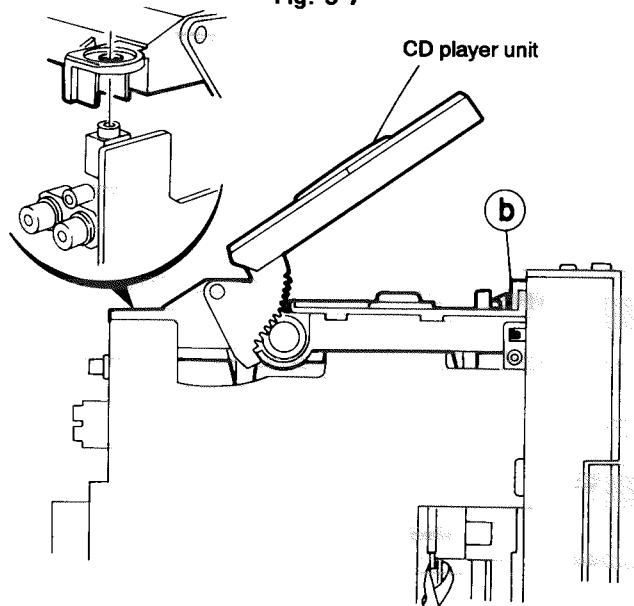


Fig. 5-8

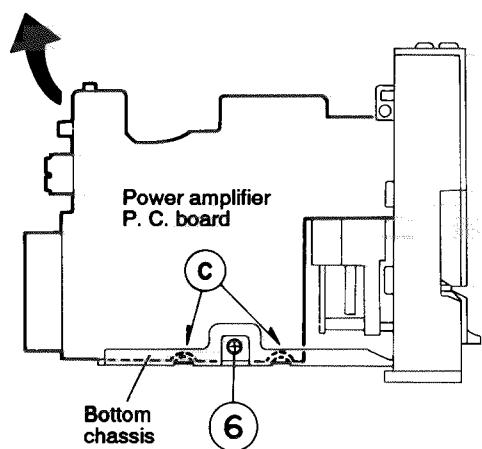


Fig. 5-10

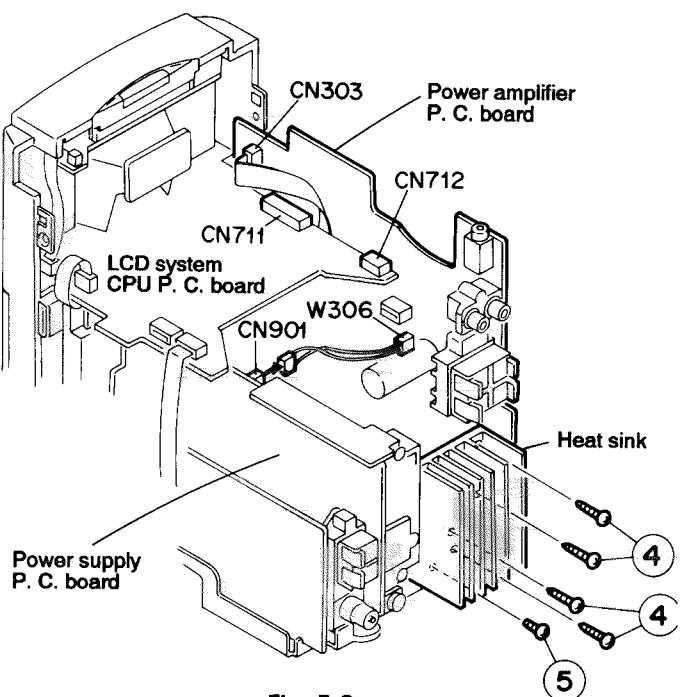


Fig. 5-9

### ■ Removing the tuner P. C. board (See Fig. 5-11)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. From the right side of the body, remove the one screw ⑦ retaining the tuner P. C. board.
5. From the connector CN1 on the tuner P. C. board, disconnect the card wire outgoing from the connector CN701 on the LCD system CPU P. C. board.

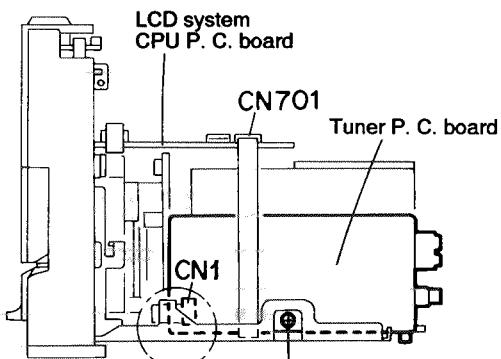


Fig. 5-11

### ■ Removing the front panel assembly (See Fig. 5-12)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. Remove the power amplifier assembly.
5. From the bottom of the body, disengage the engagement ④ fixing the front panel assembly in Fig. 5-12 while pressing it with a minus screw driver, etc.

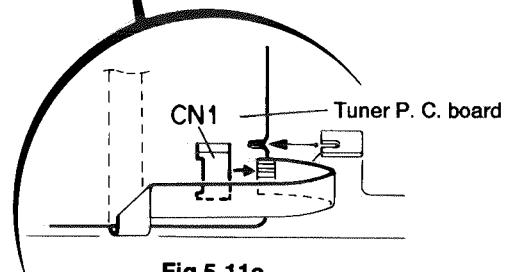


Fig. 5-11a

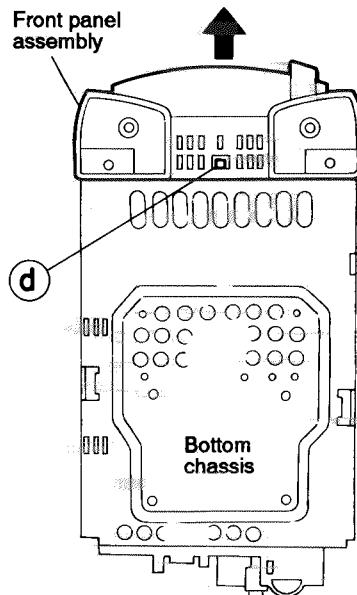


Fig. 5-12

### ■ Removing the power transformer and power supply P. C. board (See Fig. 5-13)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. Remove the power amplifier P. C. board and heat sink.
5. Remove the tuner P. C. board.
6. Remove the four screws ⑧ retaining the power transformer and power supply P. C. board and the one screw ⑨ retaining the jack holder.

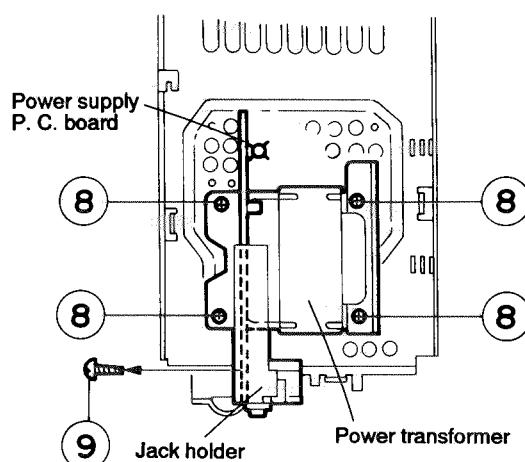


Fig. 5-13

### ■ Removing the cassette mechanism unit

(See Fig. 5-14)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. Remove the power amplifier P. C. board.
5. Remove the front panel assembly.
6. From inside the front panel assembly, remove the four screws ⑨ and ⑩ retaining the cassette mechanism unit.
7. From the connector CN33 on the head amplifier & mechanism control P. C. board, disconnect the card wire outgoing from the connector CN 731 on the LCD system CPU P. C. board.

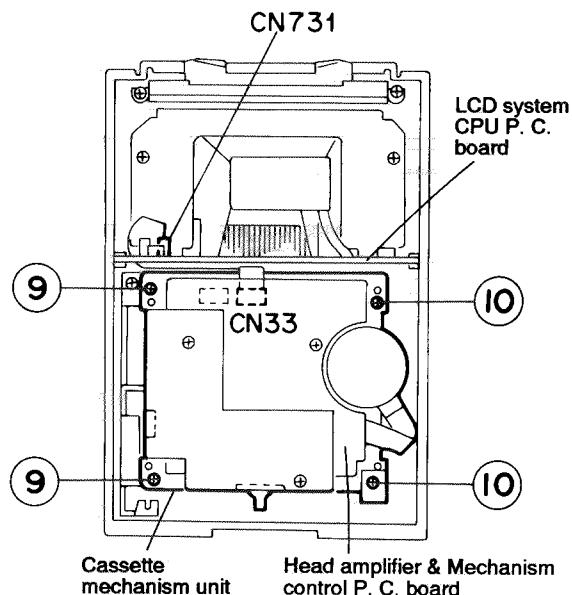


Fig. 5-14

### ■ Removing the function switch P. C. board and LCD system CPU P. C. board

(See Figs. 5-15 and 5-16)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. Remove the front panel assembly.
5. Remove the cassette mechanism unit.
6. From inside the front panel assembly, remove the two screws ⑪ retaining the operating switch P. C. board.
7. From the connector CN782 on the LCD system CPU P. C. board, disconnect the connector wire outgoing from the connector CN802 on the operating switch P. C. board.
8. While sliding the two engagements ⑬ fixing the LCD system CPU P. C. board, pull out this P. C. board.
9. After disconnecting the connector CN801 on the function switch P. C. board from the connector CN781 on the LCD system CPU P. C. board, remove the respective P. C. boards while pulling them upward.

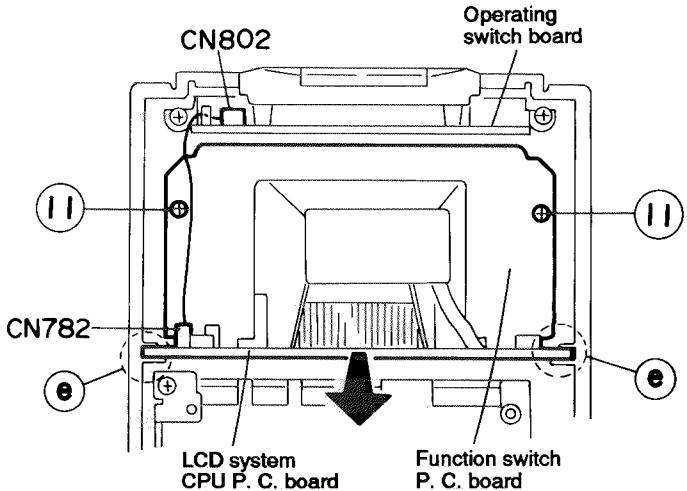


Fig. 5-15

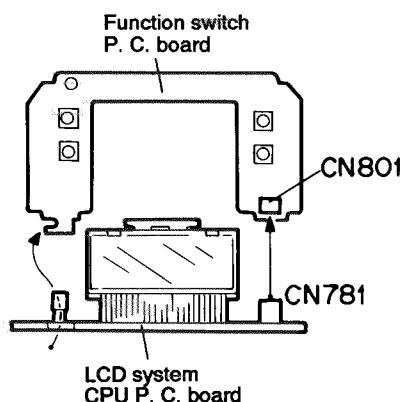


Fig. 5-16

### ■ Removing the operating switch P. C. board

(See Figs. 5-17 and 5-18)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. Remove the front panel assembly.
5. Remove the cassette mechanism unit.
6. Remove the front panel assembly.
7. Remove the LCD system CPU P. C. board.
8. Remove the two screws ⑫ retaining the operating switch P. C. board.
9. Remove the [MULTI-JOG] button.
10. Remove the [VOLUME] and [POWER/AUX] buttons.
11. Take out the standby LED lens.
12. After removing the four pawls ⑬ fixing the operating switch P. C. board, remove the switch while pulling it in the arrow direction.
13. Remove the two screws ⑭ retaining the operating switch P. C. board.
14. Remove the six pawls ⑮ fixing the operating switch P. C. board.

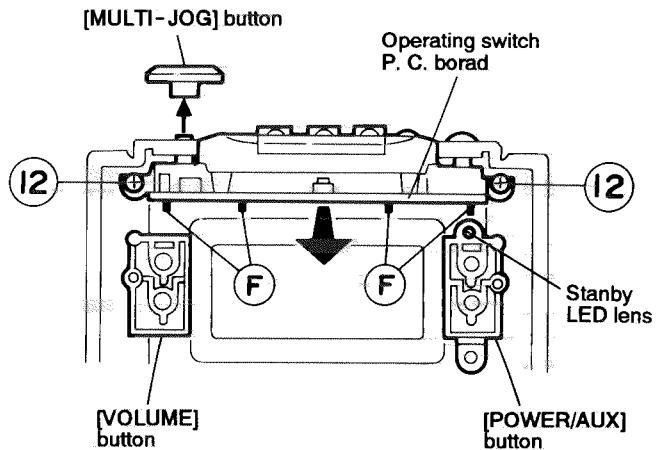


Fig. 5-17

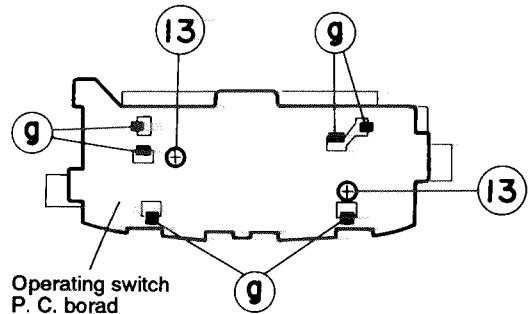


Fig. 5-18

## 《Cassette Mechanism Section》

### ■ Removing the Playback/Recording & Eraser Head

1. While shifting the trigger arms seen on the right side of the head mount in the arrow direction, turn the flywheel R in counterclockwise direction until the head mount has gone out with a click (See Fig. 5-19).
2. When the flywheel R is rotated in counterclockwise direction, the playback/Recording & eraser head will be turned in counterclockwise direction from the position in Fig. 5-20 to that in Fig. 5-21.
3. At this position, disconnect the flexible P.C. board (outgoing from the playback/Recording & eraser head) from the connector CN31 on the head amplifier & mechanism control P.C. board.
4. After dismounting the FPC holder, remove the flexible P.C. board.
5. Remove the flexible P.C. board from the chassis base.
6. Remove the spring ① from behind the playback/Recording & eraser head.
7. Loosen the reversing azimuth screw retaining the playback/Recording & eraser head.
8. Take out the playback/Recording & eraser head from the front of the head mount.
9. The Playback/Recording & eraser head should also be removed similarly according to Steps 1~8 above.

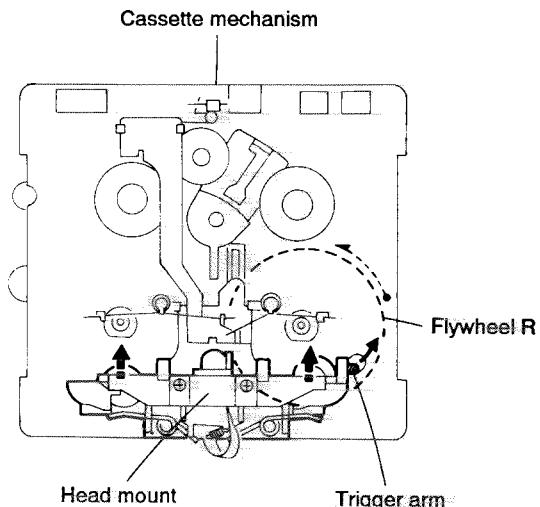


Fig. 5-19

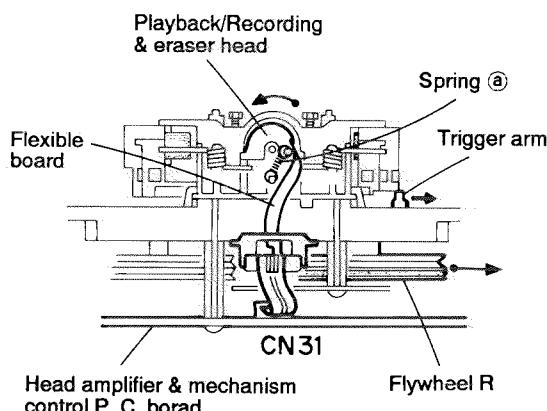


Fig. 5-20

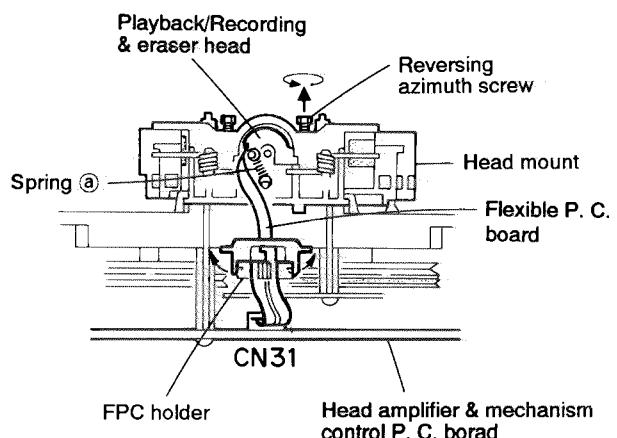


Fig. 5-21

### ■ Removing the Head Amplifier & Mechanism Control P.C. Board (See Fig. 5-22)

1. Remove the cassette mechanism assembly.
2. After turning over the cassette mechanism assembly, remove the three screws ① retaining the head amplifier & mechanism control P.C. board.
3. Disconnect the connector CN32 on the P.C. board including the connector CN1 on the reel pulse P.C. board.
4. When necessary, remove the 4pin parallel wire soldered to the main motor.

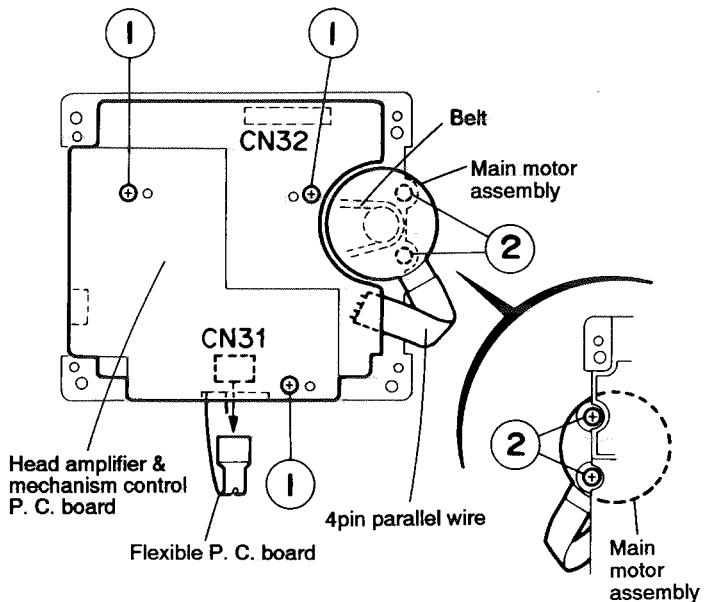


Fig. 5-22

### ■ Removing the Main Motor Assembly

1. Remove the two screws ② retaining the main motor assembly (See Fig. 5-22, 22a).
2. While raising the main motor, remove the capstan belt from the motor pulley (See Fig. 5-22a).

**Caution 1:** Be sure to handle the capstan belt so carefully that this belt will not be stained by grease and other foreign matter. Moreover, this belt should be hanged while referring to the capstan belt hanging method in Fig. 5-23, 24.

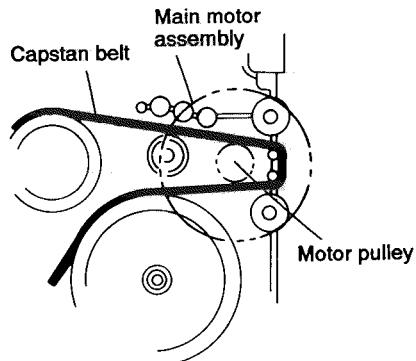


Fig.5-22a

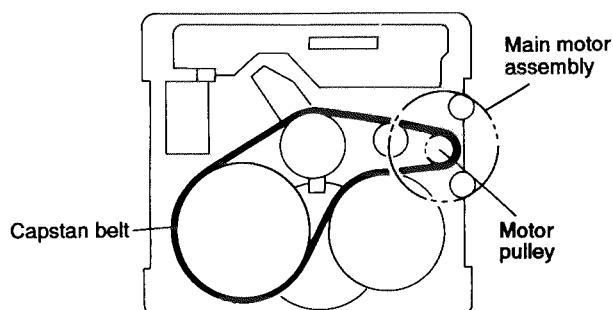


Fig. 5-23

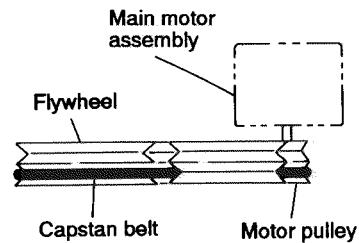


Fig. 5-24

### ■ Removing the Flywheel (See Figs. 5–25 and 5–26)

1. Remove the head amplifier & mechanism control P.C. board.
2. Remove the main motor assembly.
3. After turning over the cassette mechanism, remove the slit washers ⑤ and ⑥ fixing the capstan shafts R and L, and pull out the flywheels R and L respectively from behind the cassette mechanism.

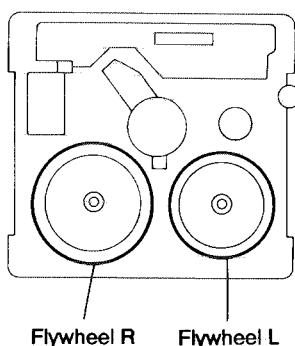


Fig. 5-26

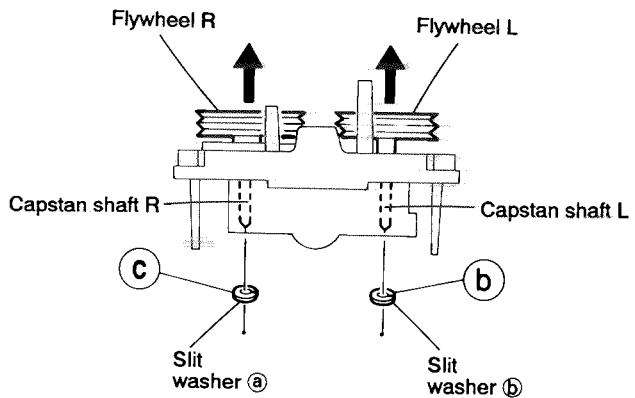


Fig. 5-25

### ■ Removing the Reel Pulse P.C. Board and Solenoid (See Fig. 5–27)

1. Remove the five pawls (④, ⑧, ⑫ and ⑨, ⑪) retaining the reel pulse P.C. board.
2. From the surface of the reel-pulse P.C. board parts, remove the two pawls ⑩ and ⑪ retaining the solenoid.

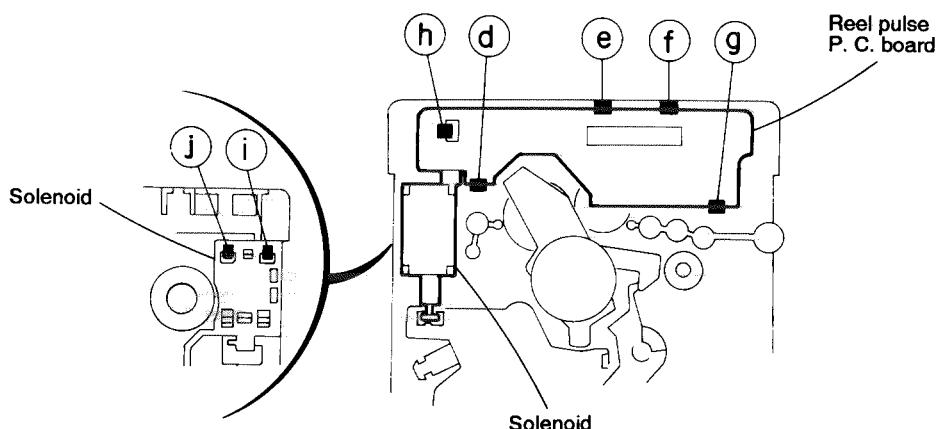


Fig. 5-27

## 《CD Player Unit Section》

### ■ Removing the CD mechanism and CD servo control P.C. board (See Figs. 5-28 and 5-29)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. After turning back the CD player unit, remove the four screws ① retaining the CD servo control P. C. board and shield.
5. From the connector CN601 on the CD servo control P. C. board, disconnect the card wire outgoing from the CD mechanism.
6. From the connector P011 on the CD mechanism P. C. board, disconnect the connector wire outgoing from the connector CN602 on the CD servo control P. C. board.
7. Remove the four screws ② retaining the CD mechanism.
8. While sliding the CD mechanism in the arrow direction, take turn table out so carefully that it does not come into contact with the chassis.

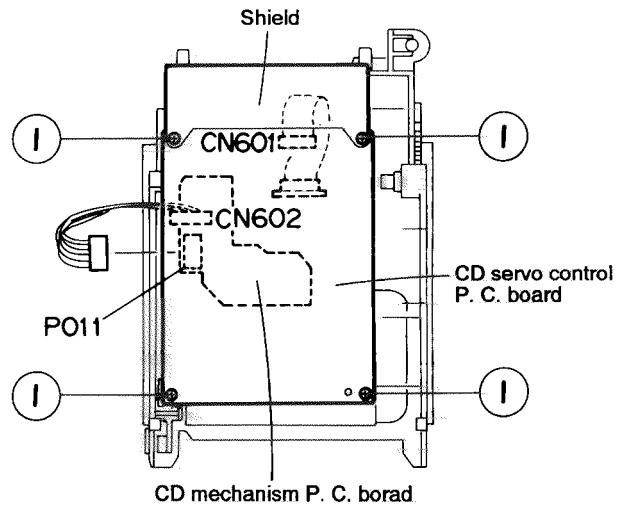


Fig. 5-28

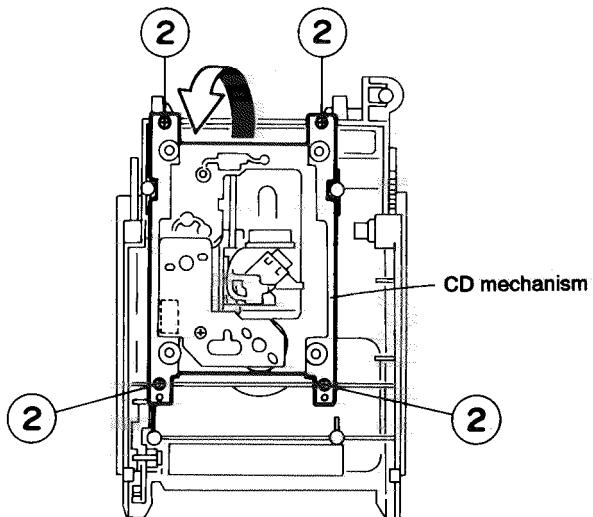


Fig. 5-29

# 6. Main Adjustment

## ■ Measurement Instruments Required for Adjustment

1. Low frequency oscillator  
This oscillator should have a capacity to output 0dBs to 600 Ω at an oscillation frequency of 50Hz~20kHz.
2. Attenuator impedance: 600 Ω
3. Electronic voltmeter
4. Distortion meter
5. Frequency counter
6. Wow & flutter meter
7. Test tape  
VTT 712: Tape speed and running unevenness (3kHz)  
VTT 724: Reference level (1kHz)  
TMT 7036: Head angle (10kHz), playback frequency characteristics (1kHz) and dubbing frequency characteristics (63, 1 and 10kHz)  
Because of frequency - mixed tape with 63, 1, 10 and 14kHz (250nWb/m - 24dB), use this tape together with a filter.
8. Blank tape  
TYPE I : AC-225  
TYPE II : AC-514
9. Torque gauge: For play and back tension  
FWD (TW2111A), REV (TW2121A) and FF/REW (TW2231A)

## ■ Measurement Conditions

- Power supply voltage ..... AC230V (50Hz)  
 Reference output ..... Speaker: 0.775V/3 Ω  
                             Headphone: 0.245V/32 Ω  
 Reference frequency and input level · 1kHz, AUX: -8dBs  
 Input for confirming recording and playback  
     characteristics ..... AUX:- 28dBs  
 Measurement output terminal ..... Speaker J3002  
 ※ Load resistance ..... 3 Ω

## ● Radio Input signal

- AM frequency ..... 400Hz  
 AM modulation factor ..... 30%  
 FM frequency ..... 400Hz  
 FM frequency deviation ..... 22.5kHz

## ● Tuner section

- Voltage applied to tuner ..... +B: DC 5.7V  
   VT: DC 12V  
 Reference measurement output ..... 26.1mV (0.28V)/3 Ω  
 Input positions ..... AM: Standard loop antenna  
   FM: TP1 (hot) and TP2 (GND)

## ● Standard measurement positions of volume

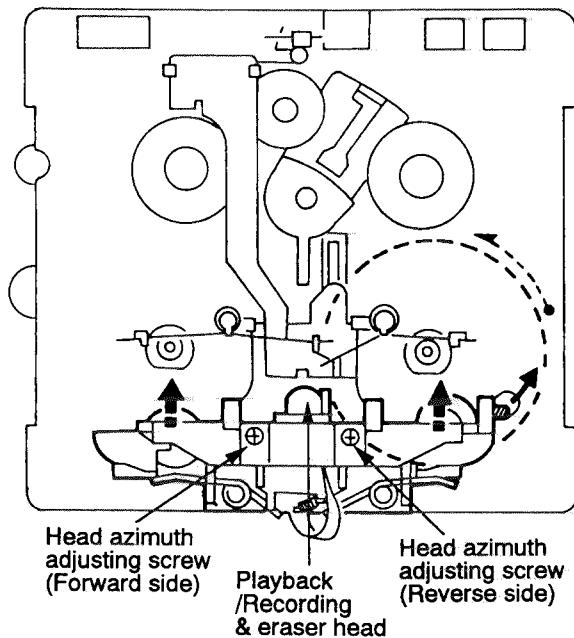
- Bass ..... Off  
 Active hyper bass pro ..... Off  
 Up and down adjustment of volume ..... VOL. 23

## Precautions for Measurement

1. Apply 30pF and 33kΩ to the IF sweeper output side and 0.082μF and 100kΩ in series to the sweeper input side.
2. The IF sweeper output level should be made as low as possible within the adjustable range.
3. Since the IF sweeper is a fixed device, there is no need to adjust this sweeper.
4. Since a ceramic oscillator is used, there is no need to perform any MPX adjustment.
5. Since a fixed coil is used, there is no need to adjust the FM tracking.
6. The input and output earth systems are separated. In case of simultaneously measuring the voltage in both of the input and output systems with an electronic voltmeter for two channels, therefore, the earth should be connected particularly carefully.
7. In the case of BTL connection amp., the minus terminal of speaker is not for earthing. Therefore, be sure not to connect any other earth terminal to this terminal. This system is of an OTL system.
8. For connecting a dummy resistor when measuring the output, use the wire with a greater core size.
9. Whenever any mixed tape is used, use the band pass filter (DV-12).

## 《Arrangement of Adjusting Positions》

### ● Cassette mechanism section



### ● Cassette mechanism section (Back side)

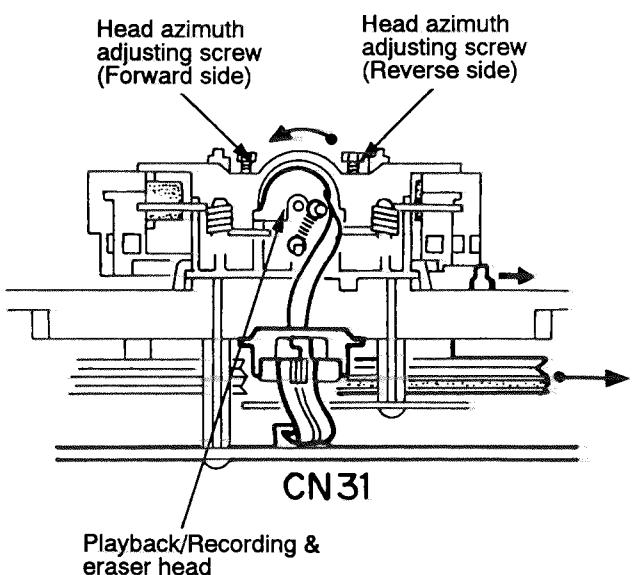


Fig. 6-1

### ● Front panel assembly Section

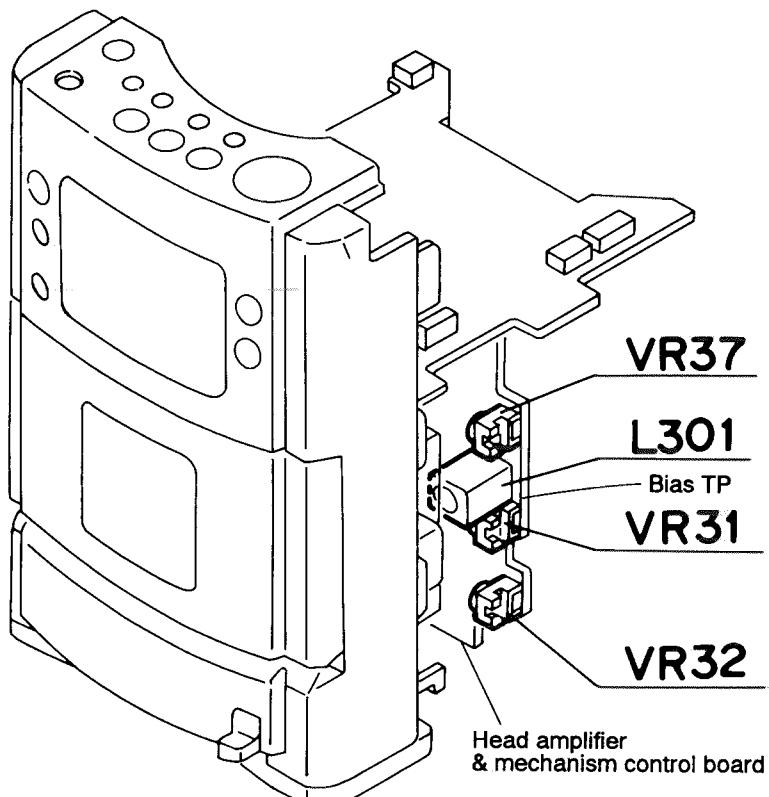


Fig. 6-2

### ■ Tape Recorder Section

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Confirmation of head angle	Test tape : TMT7036 (10kHz) Measurement output terminal : Speaker terminal Speaker R (Load resistance: 3 Ω ) : Headphone terminal	① Play back the test tape TMT7036 (10kHz). ② With the recording & playback mechanism, adjust the head azimuth screw so that the forward and reverse output levels become maximum. After adjustment, lock the head azimuth at least by half a turn. ③ In either case, this adjustment should be performed in both the forward and reverse directions with the head azimuth screw.	Maximum output	Adjust the head azimuth screw only when the head has been changed.
Confirmation of tape speed	Test tape : VTT712 (3kHz) or TMT7036 (3kHz) Measurement output terminal : Headphone terminal	Adjust VR37 so that the frequency counter reading becomes $3,010\text{Hz} \pm 15\text{Hz}$ when playing back the test tape VTT712 (3kHz) with playback and recording mechanism after ending forward winding of the tape.	Tape speed of deck : $3,010\text{Hz} \pm 15\text{Hz}$	VR37

### ■ Reference Values for Confirmation Items

Items	Measurement conditions	Measurement method	Standard values	Remarks
Difference between the forward and reverse speed	Test tape : TMT7036 (10kHz) Measurement output terminal : Speaker terminal Speaker R (Load resistance: 3 Ω ) measurement output terminal : Headphone terminal	When the test tape VTT712 (3kHz) has been played back with the recording and playback mechanism at the beginning of forward winding, the frequency counter reading of the difference between both of the mechanisms should be 6.0Hz or less.	6.0Hz or less	
Wow & flutter	Test tape : TMT7036 (10kHz) Measurement output terminal : Headphone terminal	When the test tape VTT712 (3kHz) has been played back with the recording and playback mechanism at the beginning of forward winding, the frequency counter reading of wow & flutter should be 0.25% or less (WRMS).	0.25% or less (WRMS)	

## ■ Electrical Performance

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Adjustment of recording bias current (Reference value)	<ul style="list-style-type: none"> <li>Mode: Forward or reverse mode</li> <li>Recording mode</li> <li>Test tape : AC-514 to TYPE II and AC-225 to TYPE I</li> <li>Measurement output terminal : Both recording and headphone terminals</li> </ul>	<p>① With the recording and playback mechanism, load the test tapes (AC-514 to TYPE II and AC-225 to TYPE I), and set the mechanism to the recording and pausing conditions in advance.</p> <p>② After connecting 100 Ω in series to the recorder head, measure the bias current with a valve voltmeter at both of the terminals.</p> <p>③ After resetting the [PAUSE] mode, start recording. At this time, adjust VR31 for LcH and VR32 for RcH so that the recording bias current values become 4.0 μ A (TYPE I) and 4.20 μ A (TYPE II).</p>	AC-225 : 4.20 μ A AC-514 : 4.0 μ A	LcH :VR31 RcH :VR32
Adjustment of recording and playback frequency characteristics	<p>Reference frequency : 1kHz and 10kHz (REF.: -20dB)</p> <p>Test tape : TYPE II : AC-514</p> <p>Measurement input terminal : OSC IN</p>	<p>① With the recording and playback mechanism, load the test tape (AC-514 to TYPE II), and set the mechanism to the recording and pausing conditions in advance.</p> <p>② While repetitively inputting the reference frequency signal of 1kHz and 10kHz from OSC IN, record and play back the test tape.</p> <p>③ While recording and playing back the test tape in TYPE II, adjust VR31 for LcH and VR32 for RcH so that the output deviation between 1kHz and 10kHz becomes -1dB ± 2dB.</p>	Output deviation between 1kHz and 10kHz : -1dB ± 2dB	LcH :VR31 RcH :VR32

## ■ Reference Values for Electrical Function Confirmation Items

Items	Measurement conditions	Measurement method	Standard values	Remarks
Recording bias frequency	<p>Forward or reverse</p> <ul style="list-style-type: none"> <li>Test tape : TYPE II (AC-514)</li> <li>Measurement terminal: BIAS TP on P.C. board</li> </ul>	<p>① While changing over to and from BIAS 1 and 2, confirm that the frequency is changed.</p> <p>② With the recording and playback mechanism, load the test tape (AC-514 to TYPE II), and set the mechanism to the recording and pausing conditions in advance.</p> <p>③ Confirm that the BIAS TP frequency on the P.C. board is 100kHz ± 6kHz.</p>	100kHz ± 6kHz	
Eraser current (Reference value)	<p>Forward or reverse</p> <ul style="list-style-type: none"> <li>Recording mode</li> <li>Test tape : AC-514 to TYPE II and AC-225 to TYPE I</li> <li>Measurement terminal: Both of the eraser head terminals</li> </ul>	<p>① With the recording and playback mechanism, load the test tapes (AC-514 to TYPE II and AC-225 to TYPE I), and set the mechanism to the recording and pausing conditions in advance.</p> <p>② After setting to the recording conditions, connect 1W in series to the eraser head on the recording and playback mechanism side, and measure the eraser current from both of the eraser terminals.</p>	TYPE II : 120mA TYPE I : 75mA	



# 7. Out Line of Main IC

## ■ IC701: μPD78064GF-091 (System CPU)

Pin No.	Symbol	BUP	I/O	Function
1	SDATA	H	I/O	Serial data (TUNER PLL / TAPE IC)
2	SCK	H	O	Serial clock (TUNER PLL / TAPE IC)
3	QRIN		I	CD Q code data
4	–		–	– (Not used)
5	SQCK	L	O	CD Q code date synchronizing clock
6	IC		–	Connected to Vss
7	X2		–	Main system clock: 4.19MHz
8	X1		I	Main system clock: 4.19MHz
9	Vdd		–	Power supply
10	XT1		I	Sub system clock: 32.768kHz
11	XT2		–	Sub system clock: 32.768kHz
12	RESET		I	Reset
13	REM		I	Remote control
14	RDSCK		–	Not used
15	JOG1		I	JOG encoder 1
16	BEAT2	L	O	Main clock selection 2
17	BEAT1	L	O	Main clock selection 1
18	+BCTL	H	O	Switched 5V control ("H" = off at 5V)
19	XRST	H	O	CD LSI reset
20	MCLK	L	O	CD LSI command clock
21	MDATA	L	O	CD LSI command data
22	MLD	L	O	CD LSI command load
23	PBMUTE	L	O	Tape playback muting (Mute = "L")
24	STTA	L	O	Tape IC strobe
25	REEL		I	Tape end detection
26	F.AUX	L	O	Function AUX (AUX = "L")
27	AVss		–	AD converter GND
28	CDSAFETY		I	CD abnormal voltage detection
29	DOOR/RST		I	[REST/CLOSE] switch
30	SAFETY1		I	Abnormal voltage detection 1
31	SAFETY0		I	Abnormal voltage detection 2
32	KEY1		I	Body key input 1
33	KEY0		I	Body key input 0 (including version selection)
34	TAPE0		I	TAPE SWITCH 0
35	TAPE1		I	TAPE SWITCH 1
36	AVdd		–	AD converter power supply with a same potential as that of Vdd
37	AVref		–	AD converter reference voltage: off at [SLOW] mode
38	BUP	H	I	Backup power supply decision ("H" = Backup)

Pin No.	Symbol	BUP	I/O	Function
39	F. TU	H	O	Function tuner (Tuner = "H")
40	Vss		–	GND
41	MPX		I	FM stereo detection ("L" = Stereo)
42	PERIOD	L	O	Tuner PLL strobe
43	JOG2		I	JOG encoder 2
44	BASS	H	O	Bass control (PWM)
45	TRE	H	O	TRE control (PWM)
46	VOL	H	O	VOL. control (PWM)
47	AHB	H	O	Active hyper bass ON/OFF (ON= "L"; OFF= "H")
48	SMUTE	H	O	System muting (Muting = "L")
49	P. OUT	L	O	Power ON/OFF (Power ON = "H")
50	F. CD	H	O	Function CD (CD = "H")
51	COM0	L	O	LCD common 0
52	COM1	L	O	LCD common 1
53	COM2	L	O	LCD common 2
54	COM3	L	O	LCD common 3
55	BIAS	L	–	LCD bias voltage
56	VLC0		–	LCD bias voltage BIAS>VLC0>VLC1>VLC2
57	VLC1		–	LCD bias voltage
58	VLC2		–	LCD bias voltage
59	Vss		–	GND
60	S0	L	O	LCD segment 0
61	S1	L	O	LCD segment 1
62	S2	L	O	LCD segment 2
63	S3	L	O	LCD segment 3
64	S4	L	O	LCD segment 4
65	S5	L	O	LCD segment 5
66	S6	L	O	LCD segment 6
67	S7	L	O	LCD segment 7
68	S8	L	O	LCD segment 8
69	S9	L	O	LCD segment 9
70	S10	L	O	LCD segment 10
71	S11	L	O	LCD segment 11
72	S12	L	O	LCD segment 12
73	S13	L	O	LCD segment 13
74	S14	L	O	LCD segment 14
75	S15	L	O	LCD segment 15
76	S16	L	O	LCD segment 16

Pin No.	Symbol	BUP	I/O	Function
77	S17	L	O	LCD segment 17
78	S18	L	O	LCD segment 18
79	S19	L	O	LCD segment 19
80	S20	L	O	LCD segment 20
81	S21	L	O	LCD segment 21
82	S22	L	O	LCD segment 22
83	S23	L	O	LCD segment 23
84	S24	L	O	LCD segment 24
85	S25	L	O	LCD segment 25
86	S26	L	O	LCD segment 26
87	S27	L	O	LCD segment 27
88	S28	L	O	LCD segment 28

Pin No.	Symbol	BUP	I/O	Function
89	S29	L	O	LCD segment 29
90	S30	L	O	LCD segment 30
91	S31	L	O	LCD segment 31
92	S32	L	O	LCD segment 32
93	S33	L	O	LCD segment 33
94	S34	L	O	LCD segment 34
95	S35	L	O	LCD segment 35
96	S36	L	O	LCD segment 36
97	S37	L	O	LCD segment 37
98	S38	L	O	LCD segment 38
99	S39	L	O	LCD segment 39
100	STAT	L	I	CD LSI status

### ■ IC38: BH3852S (Electrical Volume)

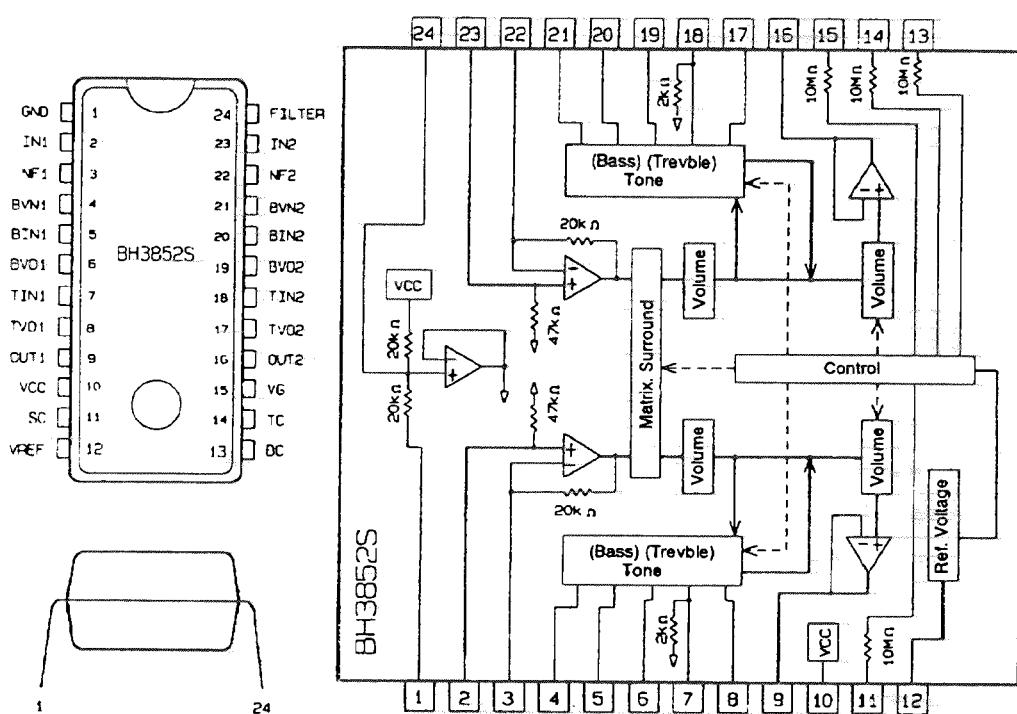
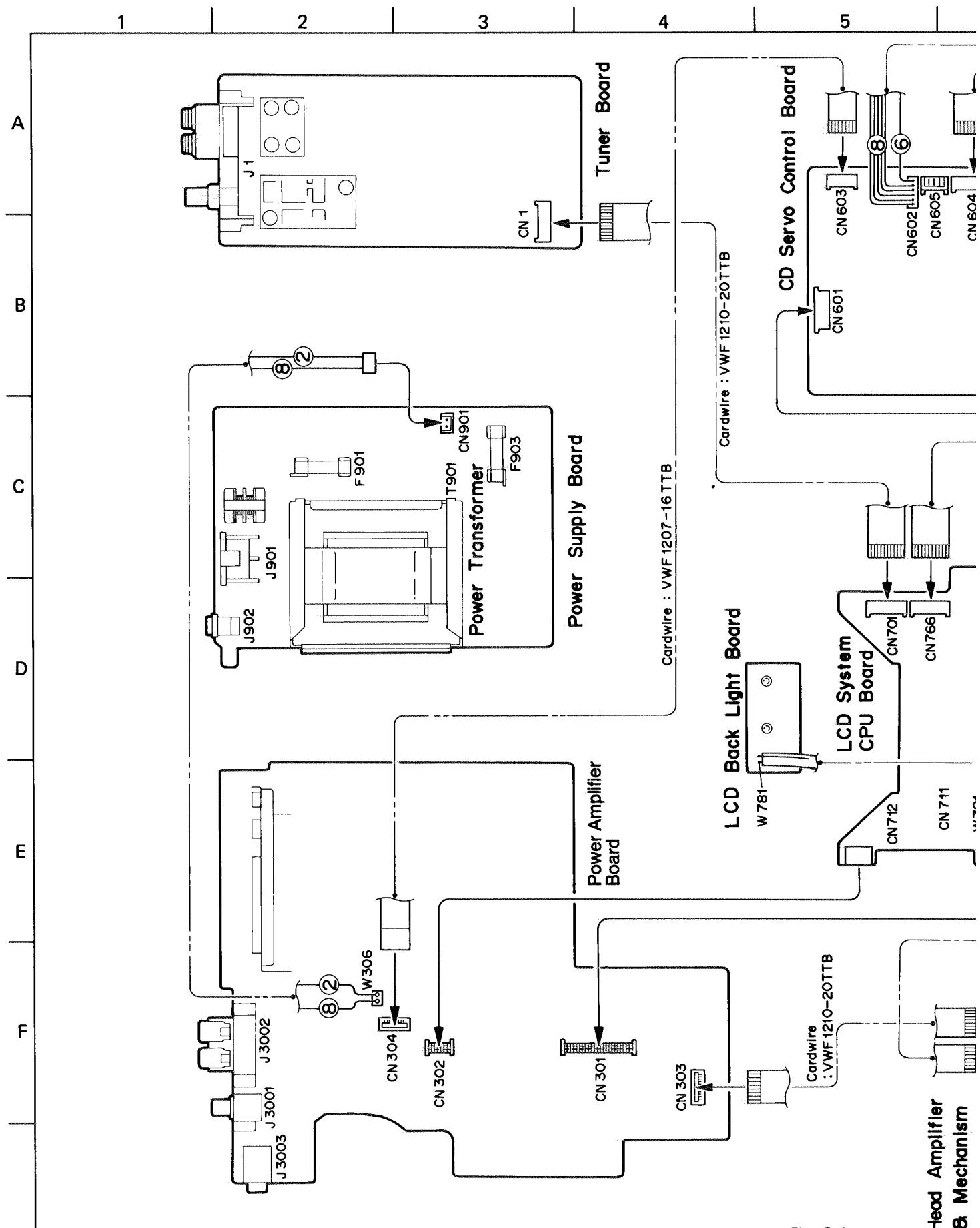
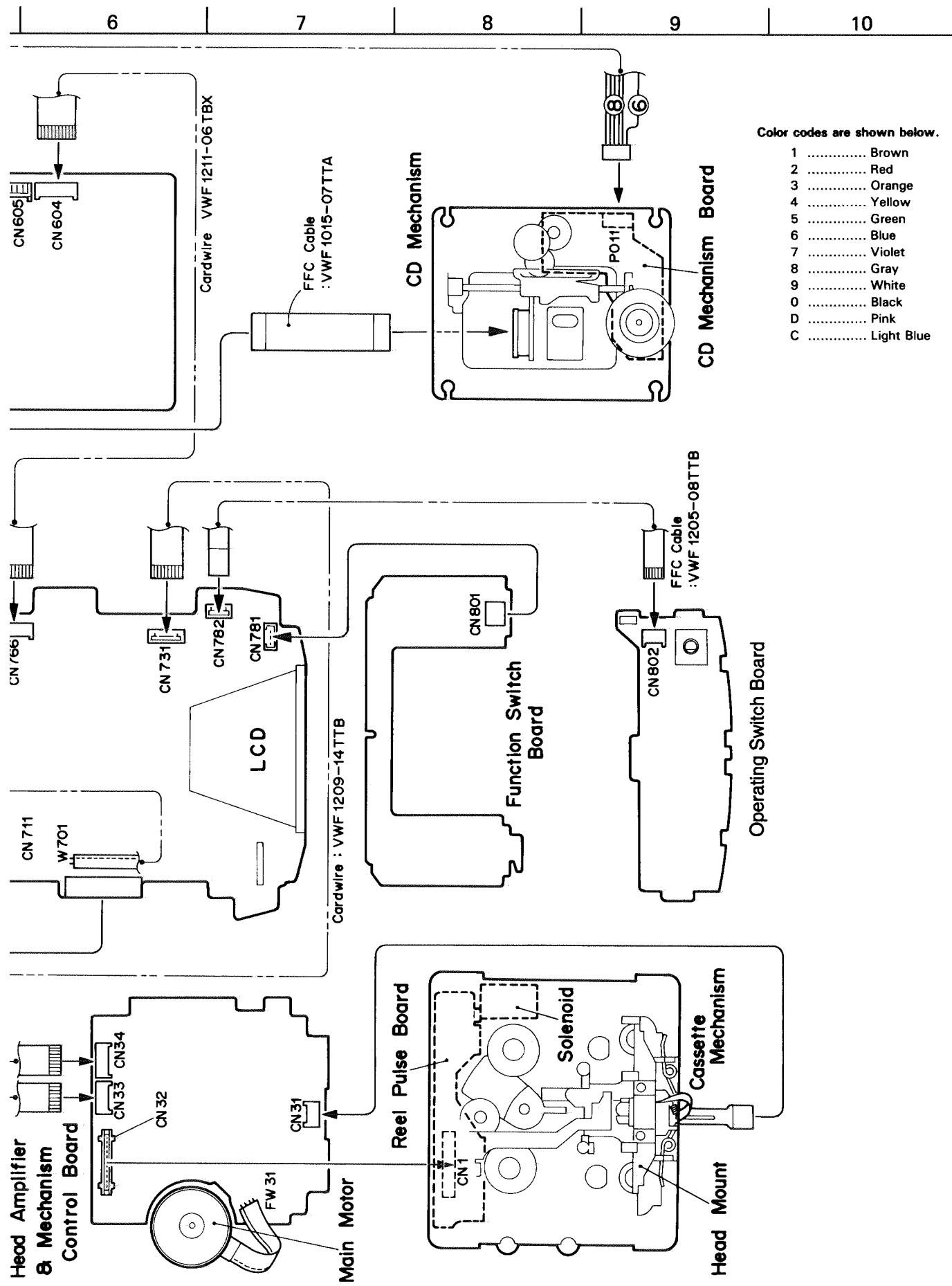


Fig. 7-1

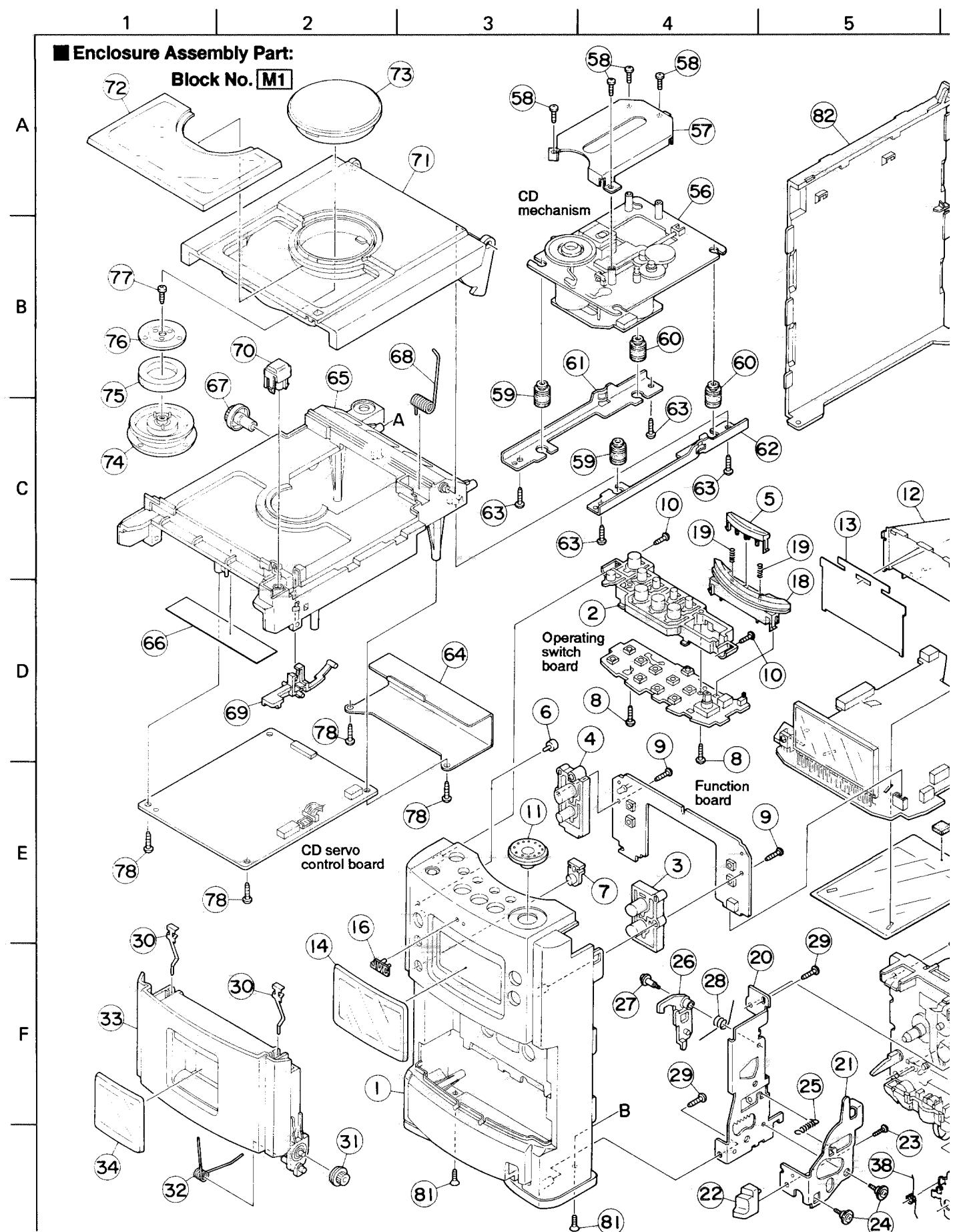


## 8. Wiring Connections





## 9. Analytic Drawing and Parts List



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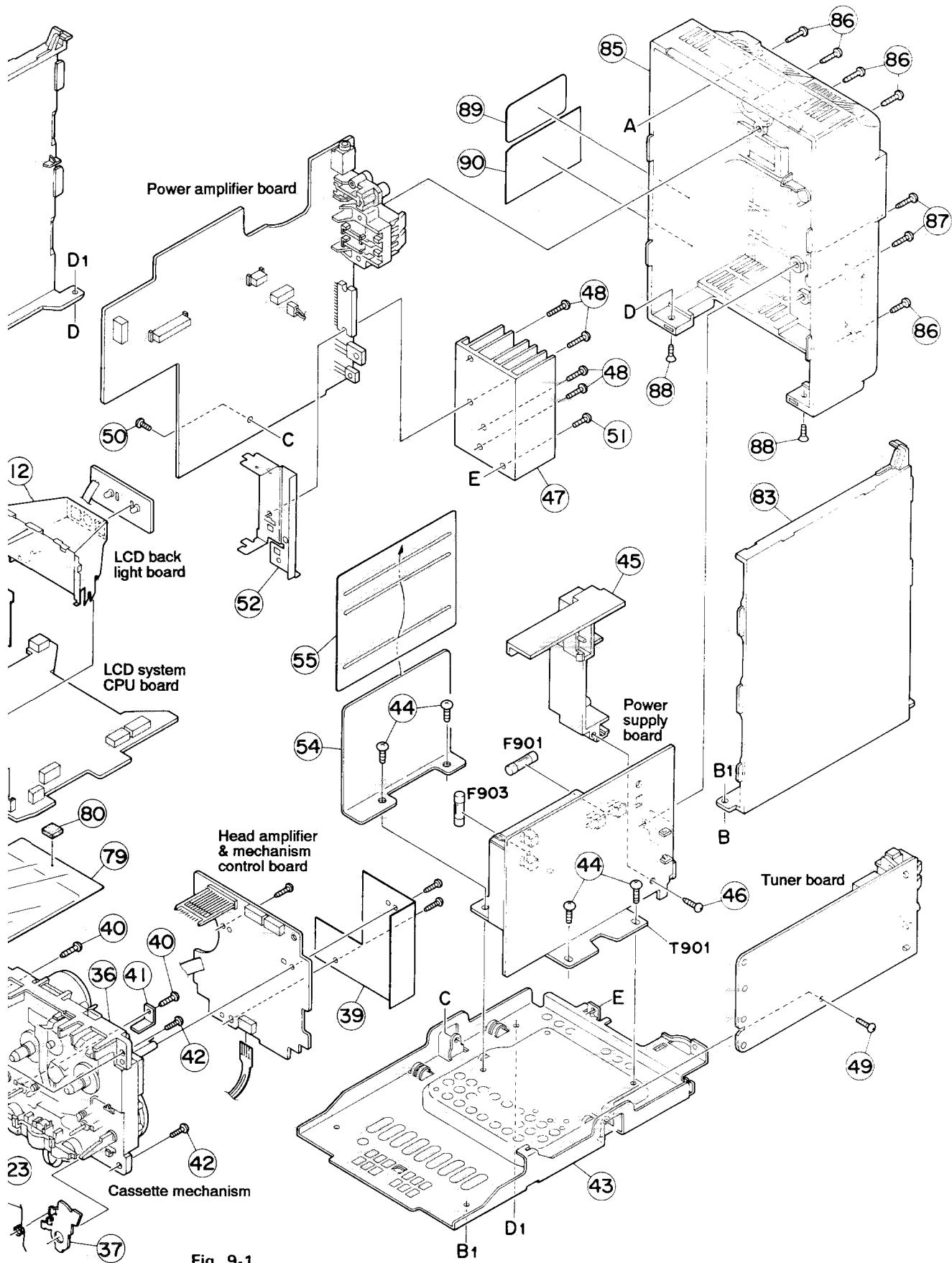


Fig. 9-1



## ■ Enclosure Assembly Parts List

BLOCK NO. M1MM

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
1	VJG1473-003	FRONT PANEL		1		
2	VXP3867-002	PUSH BUTTON(A)		1		
3	VXP5352-002	PUSH BUTTON(B)		1		
4	VXP5353-002	PUSH BUTTON(C)		1		
5	VXP5358-002	SNOOZE BUTTON		1		
6	VJK4493-001SC	LENS(STANDBY)		1		
7	VJK4504-001	REMOCN LENS		1		
8	SBSF2608Z	SCREW	FOR F.P+PWB	2		
9	SBSF3008Z	SCREW	BUTTON+PWB	2		
10	SBSF2608Z	SCREW	FOR F.P+BUTTON	2		
11	VXL4453-002	MULTI JOG DIAL		1		
12	VYH3982-001	LAMP CASE		1		
13	VYTT704-001	LCD FILTER	FOR LCD	1		
14	VJT4241-002	LCD LENS		1		
16	E406971-221	JVC MARK		1		
18	VYH8160-002	BUTTON COVER		1		
19	VKW5306-001	COMP.SPRING		2		
20	VYH3983-001	DOOR HOLDER		1		
21	VYH8149-001	EJECT LEVER		1		
22	VXQ4125-002	EJECT KNOB		1		
23	SBSF2608Z	SCREW	FOR E.LVR+E.KNO	1		
24	VKZ4323-002	SCREW	D.HOLDER+E.LEVE	2		
25	VKW3002-274	TENSION SPRING	FOR E.LEVER	1		
26	VYH7347-001	EJECT ARM		1		
27	VKZ4341-001	SPECIAL SCREW	FOR EJECT ARM	1		
28	VKW4938-001	TORTION SPRING	FOR EJECT ARM	1		
29	SBSF3008Z	SCREW	F.P+D.HOLDER	2		
30	VKY4180-001	CASSETTE SPRING		2		
31	VYH5601-001	GEAR		1		
32	VKW5295-001	DOOR SPRING		1		
33	VJT2384-002	CASSETTE DOOR		1		
34	VJT4242-002	DOOR LENS		1		
36	-----	CASSETTE MECHA		1		
37	VKL7850-202	EJECT SAFTY(R)		1		
38	VKW5258-002	TORSION SPRING		1		
39	VMA4723-001	SHIELD		1		
40	SBSF3010Z	SCREW	F.PANEL+MECHA	2		
41	VYH8183-001	BRACKET	FOR CASSETTE DO	1		
42	SBST3008Z	SCREW	DOOR HOL+MECHA	2		
43	VYH1263-001	BOTTOM CHASSIS		1		
44	SBST4006Z	SCREW	CHASSIS+TRANS	4		
45	VYH3984-001	JACK HOLDER		1		
46	SBSF3010Z	SCREW	PWB+JACK HOL	1		
47	VYH8153-001	RADIATION		1		
48	SBST3012Z	SCREW	RADI+IC	4		
49	SBST3006Z	SCREW	RADI+CHASSIS	1		
50	SBST3006Z	SCREW	MAIN PWB+CHASSI	1		
51	SBST3006Z	SCREW	TUNER PWB+CHASS	1		
52	VYH3987-001	IC HOLDER		1		
54	VMA3239-001	SHIELD		1		
55	VMA4720-001	AARRIER		1		
56	-----	CD MECHA ASSY		1		
57	VJD5410-005	PICK COVER		1		
58	SDSF2006M	SCREW	CD MECHA+P.COVE	4		
59	E75609-001	INSULATOR		2		

BLOCK NO. M1MM

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
60	E75609-002	INSULATOR		2		
61	VYH8089-001SC	CD MECHA HOLDER		1		
62	VYH8089-002SC	CD MECHA HOLDER		1		
63	SBSF3010Z	SCREW		4		
64	VMA4692-002SC	SHIELD	CD CASE+M.HOLDE FOR CD MECHA WI	1		
65	VJD1216-003	CD CASE		1		
66	E406709-001	LASER CAUTION		1		
67	VYH4769-002	GEAR		1		
68	VKW5276-001	CD DOOR SPRING		1		
69	VYH8152-001	LOCK LEVER		1		
70	VXP5354-002	CD AJECT KNOB		1		
71	VJT2385-002	CD DOOR		1		
72	VJT3392-002	CD LENS		1		
73	VJT4245-002	CD ORNAMENT		1		
74	VYH3726-002SS	CLAMPER		1		
75	VYH7313-003	MAGNET		1		
76	VYH7677-201	YOKE		1		
77	SDSF2606Z	SCREW		1		
78	SBSF3010Z	SCREW	FOR CLAMPER	4		
79	VMA4721-002	SHIELD	CD PWB+CD CASE	1		
80	PU59915-105	SPACER	FOR SHIELD	1		
81	SSST3008Z	SCREW	CHASSIS+F.PANEL	2		
82	VJD2488-003	SIDE PANEL(L)		1		
83	VJD2489-003	SIDE PANEL(R)		1		
85	VJG1477-014	REAR PANEL		1		
86	SBSF3010Z	SCREW	JACK+R.P	5		
87	SBSF3010Z	SCREW	R.P+CD CASE	2		
88	SSST3008Z	SCREW	FOR R.P+CHASSIS	2		
89	E70891-001	CLASS 1 LABEL		1		
90	VYN9317-C005T	NAME PLATE		1	E	
F 901	VYN9317-C002T	NAME PLATE		1	B	
F 903	VYN9317-C008T	NAME PLATE		1	G	
F 903	VYN9317-C009T	NAME PLATE		1	EN	
F 903	QMF51E2-R40SBS	FUSE		1		
F 903	QMF51E2-5R0	FUSE		1		
T 901	VTP66J2-12L	POWER TRANS		1		



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■ Cassette Mechanism Part: Block No. M2

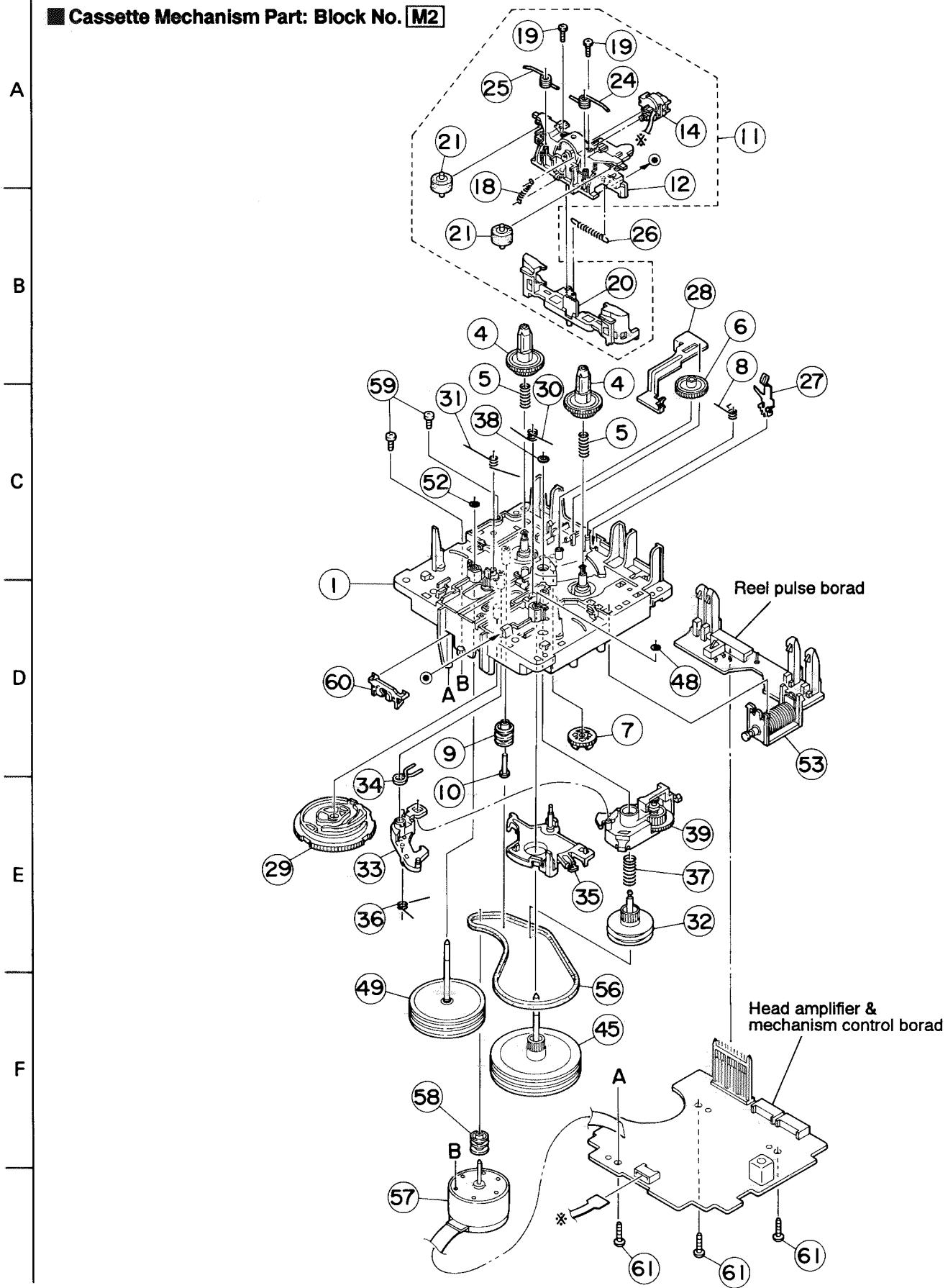


Fig. 9-2

## ■ Cassette Mechanism Parts List

BLOCK NO. M2MM □ □ □

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
1	VKS1165-00C	CHASSIS B. ASSY		1		
4	VKS2274-002	REEL GEAR		2		
5	VKW5286-002	B.T. SPRING		2		
6	VKS5559-001	PLAY IDLE GEAR		1		
7	VKS5560-001	FR IDLE GEAR		1		
8	VKW5296-001	EARTH SPRING		1		
9	VKR4749-002	IDLE PULLEY		1		
10	VKH5786-002	SHAFT		1		
11	VKS2275-00C	HEAD MOUNT ASSY		1		
12	VKS1167-001	HEAD MOUNT BASE		1		
14	VGH0425-544	HEAD HOLDER ASY	VKS2275-00B	1		
18	VKW5302-001	HEAD SPRING		1		
19	VKZ4730-001	SPECIAL SCREW		2		
20	VKS2277-005	DIRECTION LEVER		1		
21	VKP4233-00A	PINCH ROL. ASSY		2		
24	VKW5299-001	PIN.ROL.SP.(R)		1		
25	VKW5300-001	PIN.ROL.SP.(L)		1		
26	VKW5285-001	RETURN SPRING		1		
27	VKY3149-001	CASSETTE SP.		1		
28	VKM3906-002	PLAY SW.LEVER		1		
29	VKS1166-001	CONTROL CAM		1		
30	VKW5279-001	HEAD BASE SP(R)		1		
31	VKW5280-001	HEAD BASE SP(L)		1		
32	VKR3199-001	MAIN PULLEY		1		
33	VKS3785-001	FR ARM		1		
34	VKW5284-002	SWING SPRING		1		
35	VKS2278-001	TRIGGER ARM		1		
36	VKW5301-001	FR SPRING		1		
37	VKW5266-001	ELEVATOR SPRING		1		
38	WDL214025	WASHER		1		
39	VKS3786-00D	CLUTCH ASSY		1		
45	VKF3205-00B	F.WHEEL ASSY(R)		1		
48	WDL183525-6	SLIT WASHER		1		
49	VKF3207-00B	F.WHEEL ASSY(L)		1		
52	WDL173525-2	SLIT WASHER		1		
53	VGP2401-00A	DC SOLENOID		1		
56	VKB3000-178	CAPSTAN BELT		1		
57	MSI-5U2LWA	D.C.MOTOR ASS'Y		1		
58	VKR4761-001	MOTOR PULLEY		1		
59	SPSP2604Z	SCREW		2		
60	VKS5577-001	FPC HOLDER		1		
61	SBSF2608Z	SCREW		3		

1 2 3 4 5

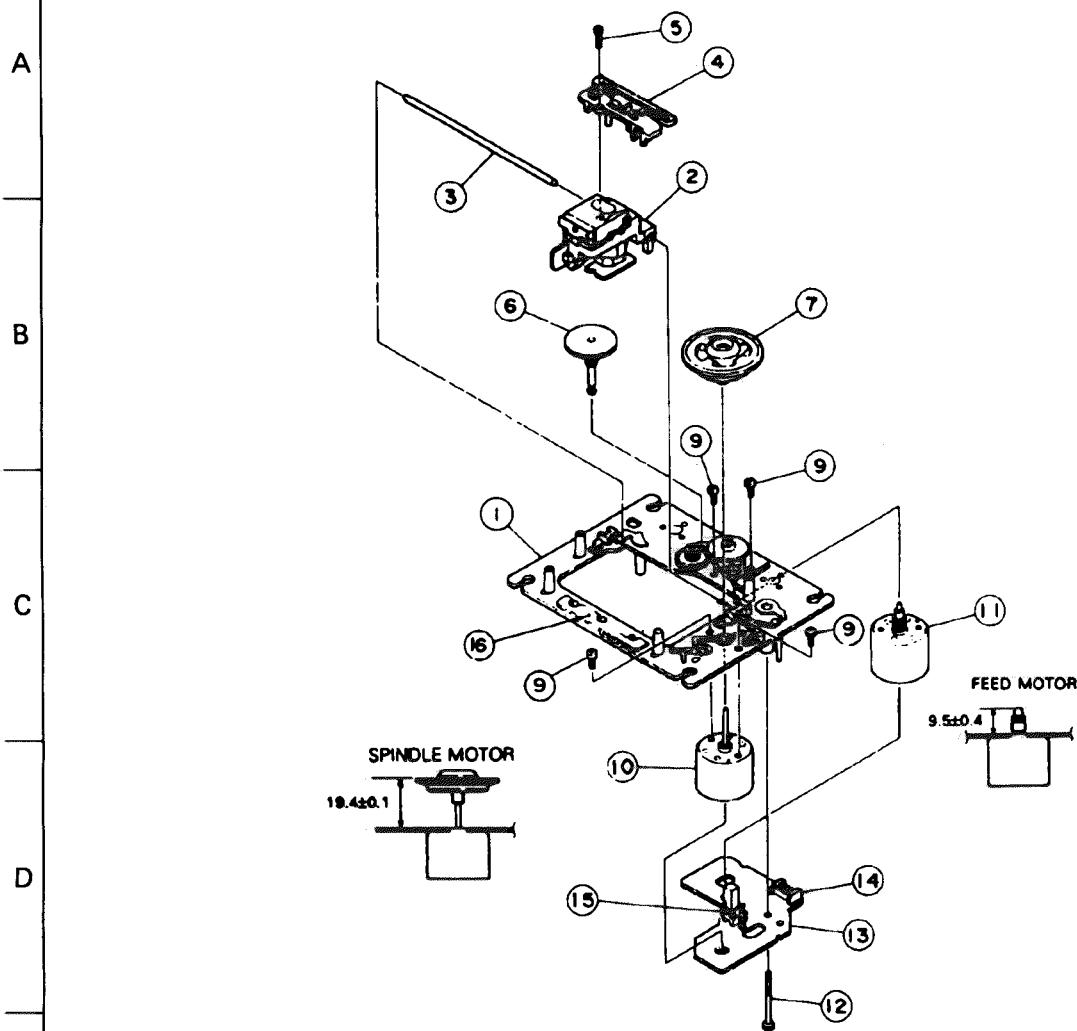
**■ CD Mechanism Part: Block No. M3**

Fig. 8-4

**■ CD Mechanism Parts List**

BLOCK NO. M4MM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	EPB-002A	BASE ASS'Y		1		
	2	OPTIMA-6S	PIC-UP		1		
	3	E406777-001	GUIDE SHAFT		1		
	4	E307746-001	CD RACK		1		
	5	SDSF2006Z	SCREW	CD LACK ASS'Y	1		
	6	EPB-003A	MECHA GIAR		1		
	7	E75807-301	CD T.TABLE ASSY		1		
	9	SDSP2003N	SCREW	FOR MOTOR	4		
	10	E406783-001	SP MOTOR	SPINDL MOTOR	1		
	11	E406784-001SA	DC MOTOR ASS'Y	FEED MOTOR	1		
	12	E75832-001	S.SCREW	M.REAF SWITCH	1		
	13	EMW10190-001	BOARD	LEAF SWITCH	1		
	14	EMV5109-006B	6P PLUG ASSY		1		
	15	ESB1100-005	LEAF SWITCH		1		
	16	E407212-001	DAMPER		1		

# 10. Block Diagram

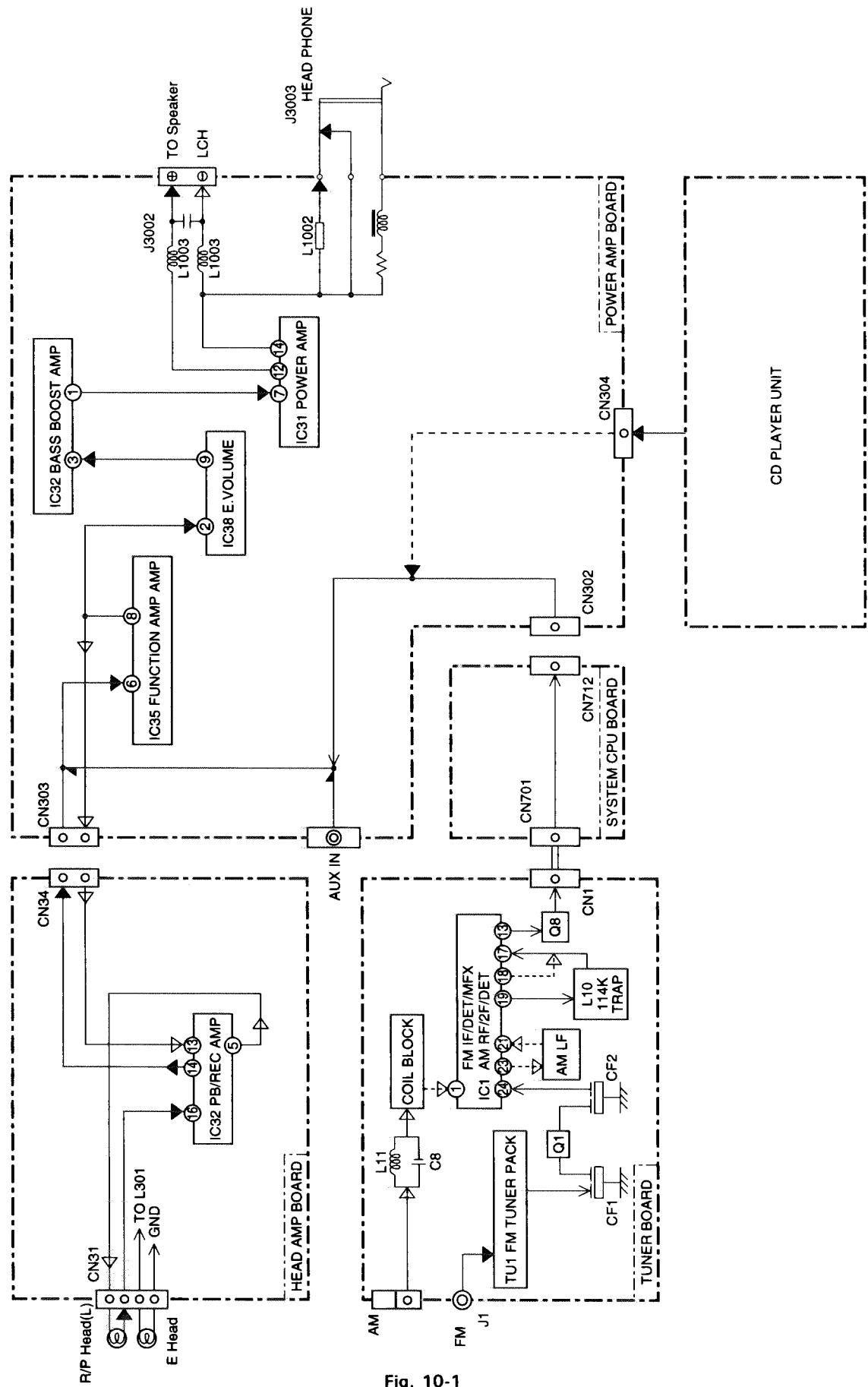


Fig. 10-1

# 11. Standard Schematic Diagrams

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■ Head Amplifier & Mechanism Control Circuit: Drawing No. VDH1032-001PV

A

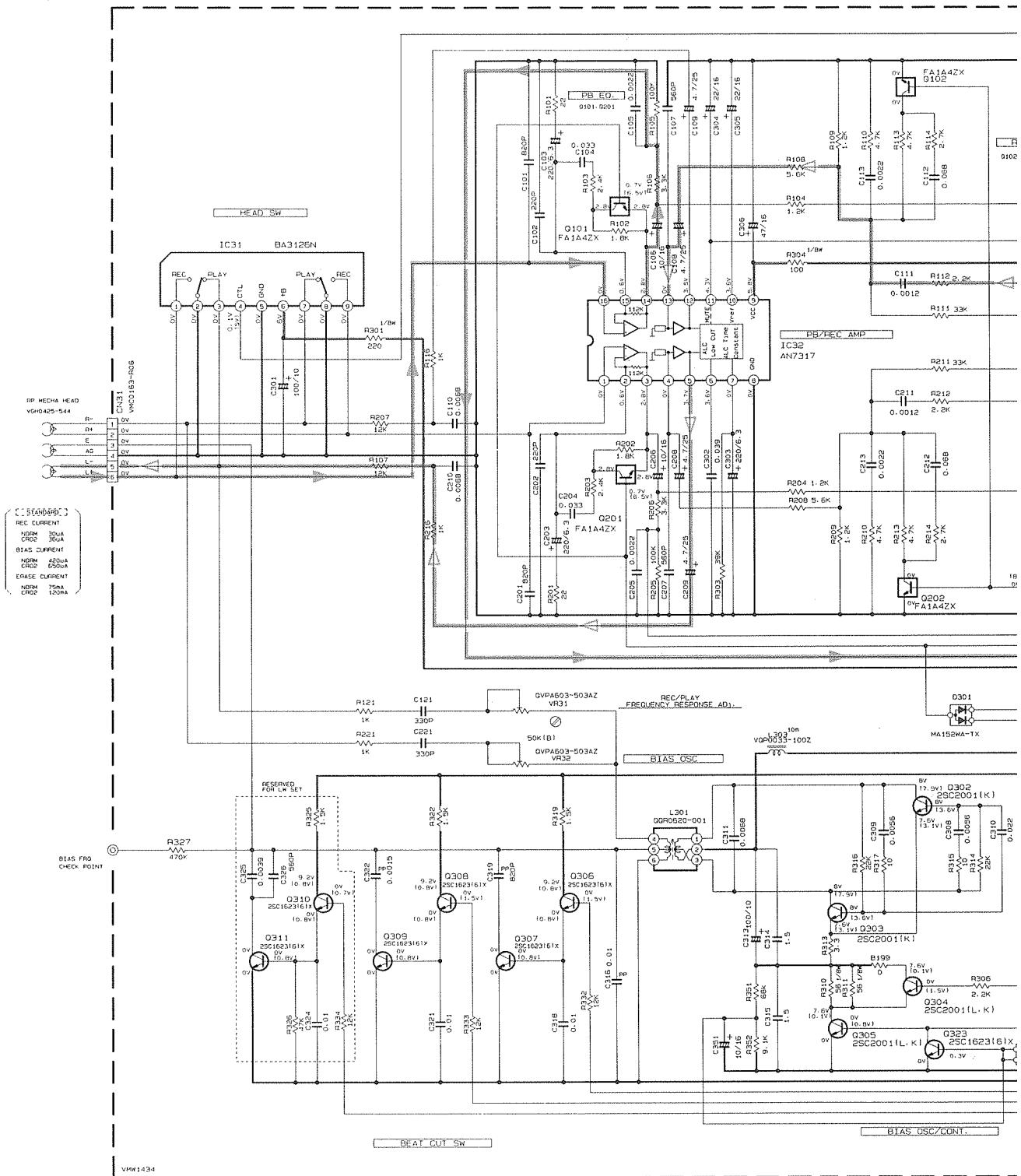
B

C

D

E

F



NOTES

- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL.
- CONDITION MECHA STOP MODE

- UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/10W 1% METAL GLAZE RESISTOR.  
ALL RESISTANCE VALUES ARE IN OHMΩ.
- ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.  
ALL CAPACITANCE VALUES ARE IN MF(μF).
- ALL INDUCTANCE VALUES ARE IN H(μH).
- E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (MF)/RATED VOLTAGE (VI).
- POLYPROPYLENE CAPACITOR

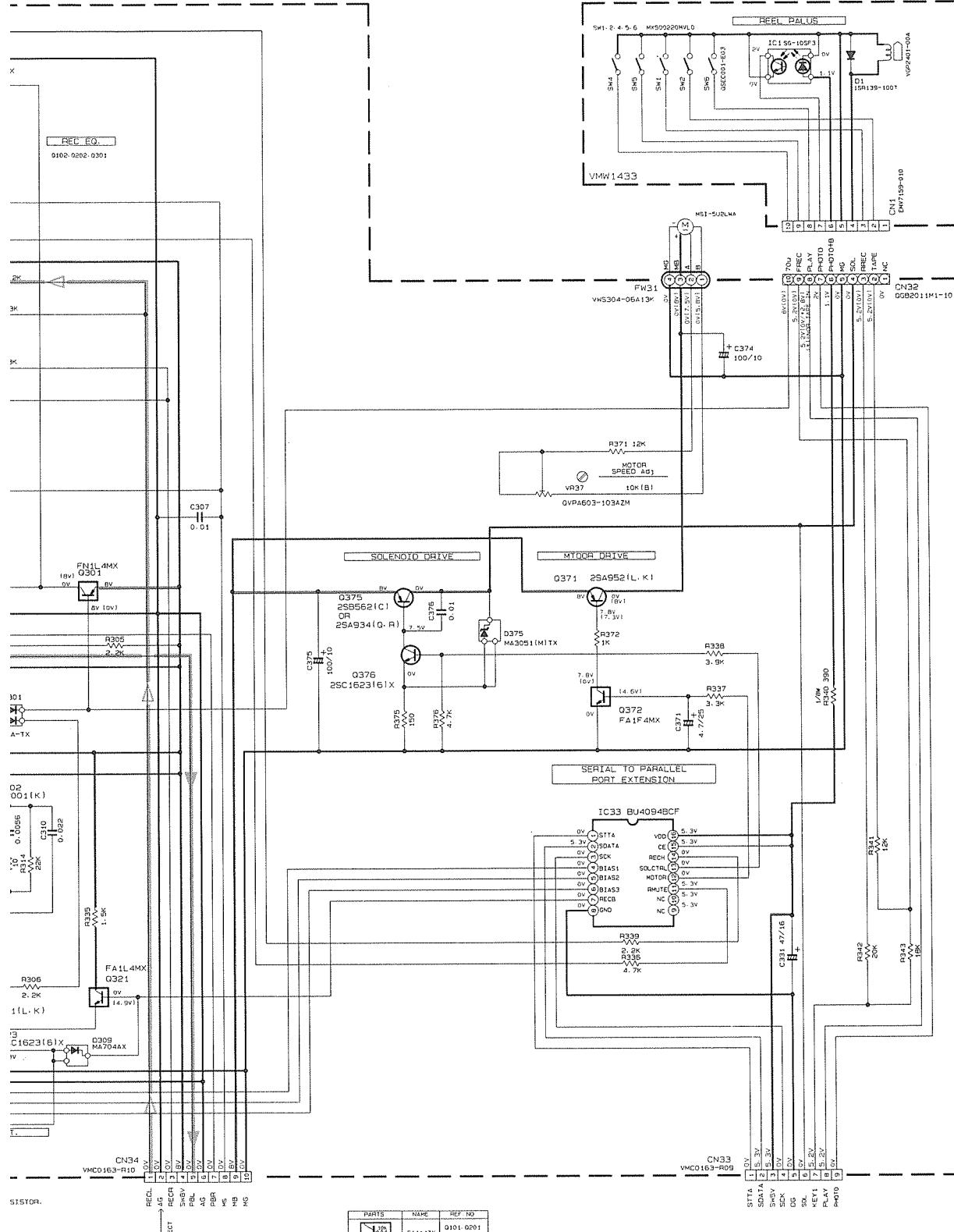
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PARTS	NAME	REF. NO
	FA1A42X	Q101-0201 Q102-0202
	FN1L4MX	Q301
	FAIL4MX	Q321
	FA1F4MX	Q371

Tape P. B/Main signal  
 REC/Main signal

+B Line

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## LCD &amp; System CPU Circuit: Drawing No. VDH9316-001SV

A

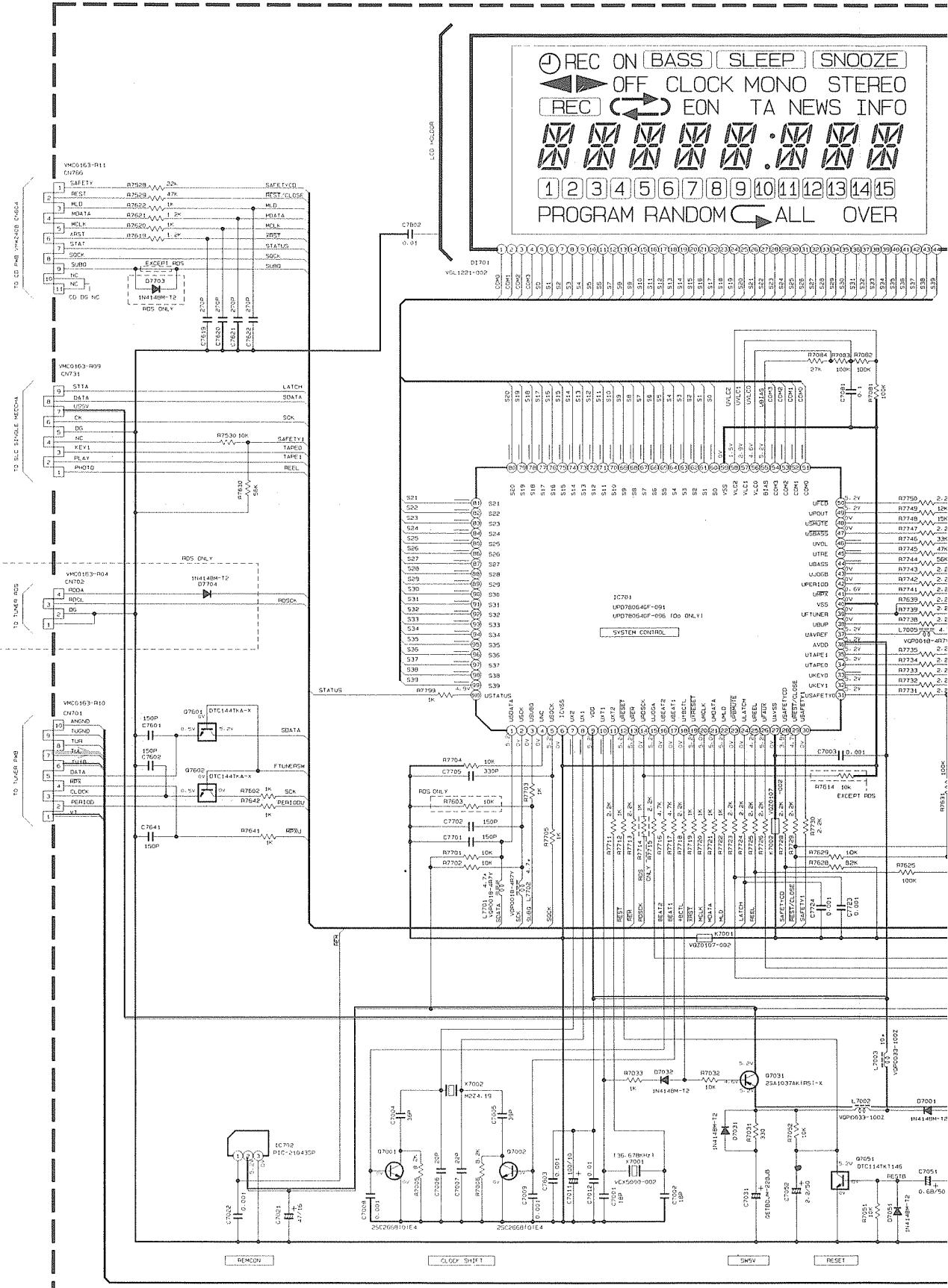
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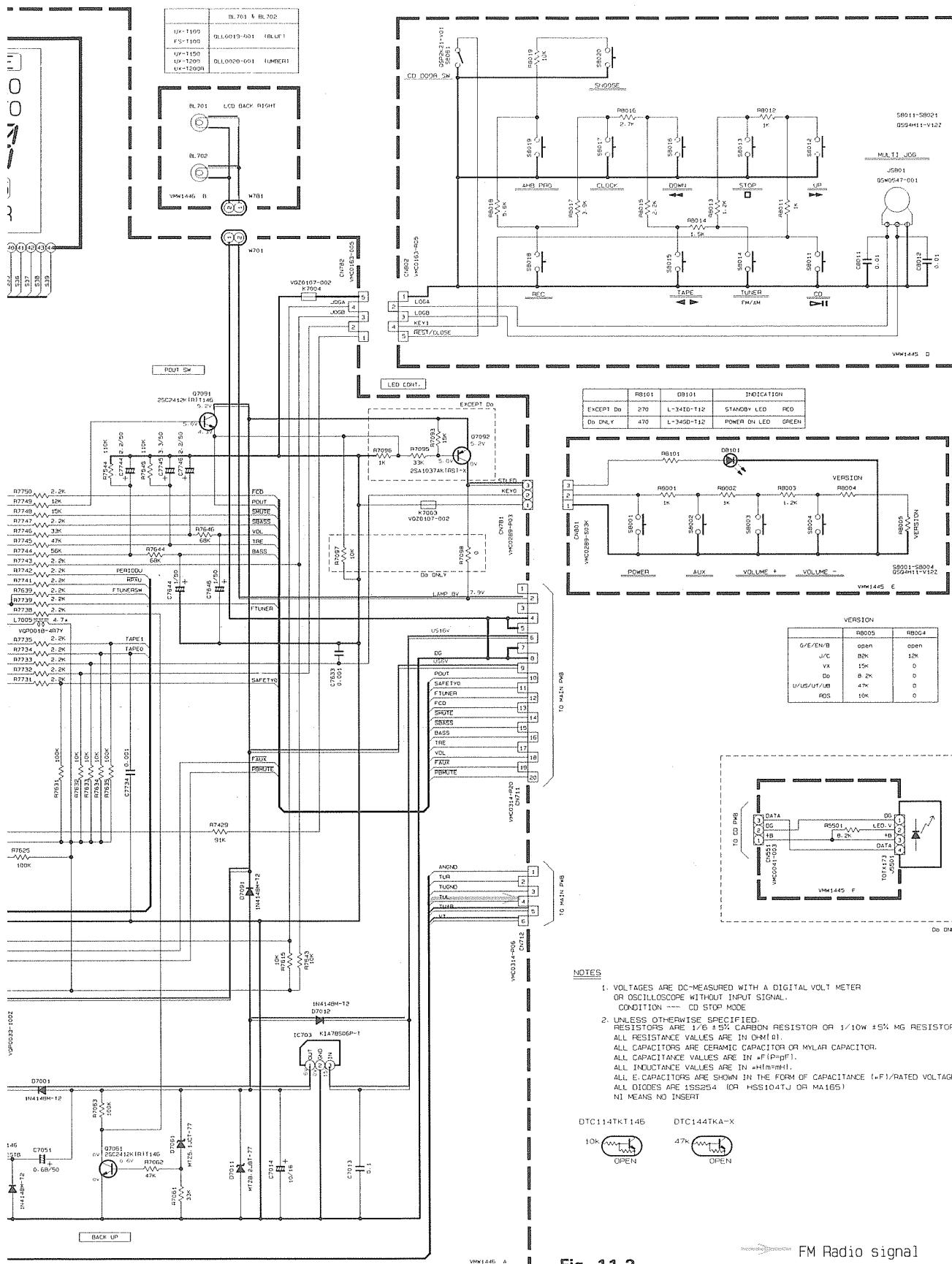


Fig. 11-2

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## Function Amplifier & Power Amplifier Circuit: Drawing No. VDH9316-005AW

A

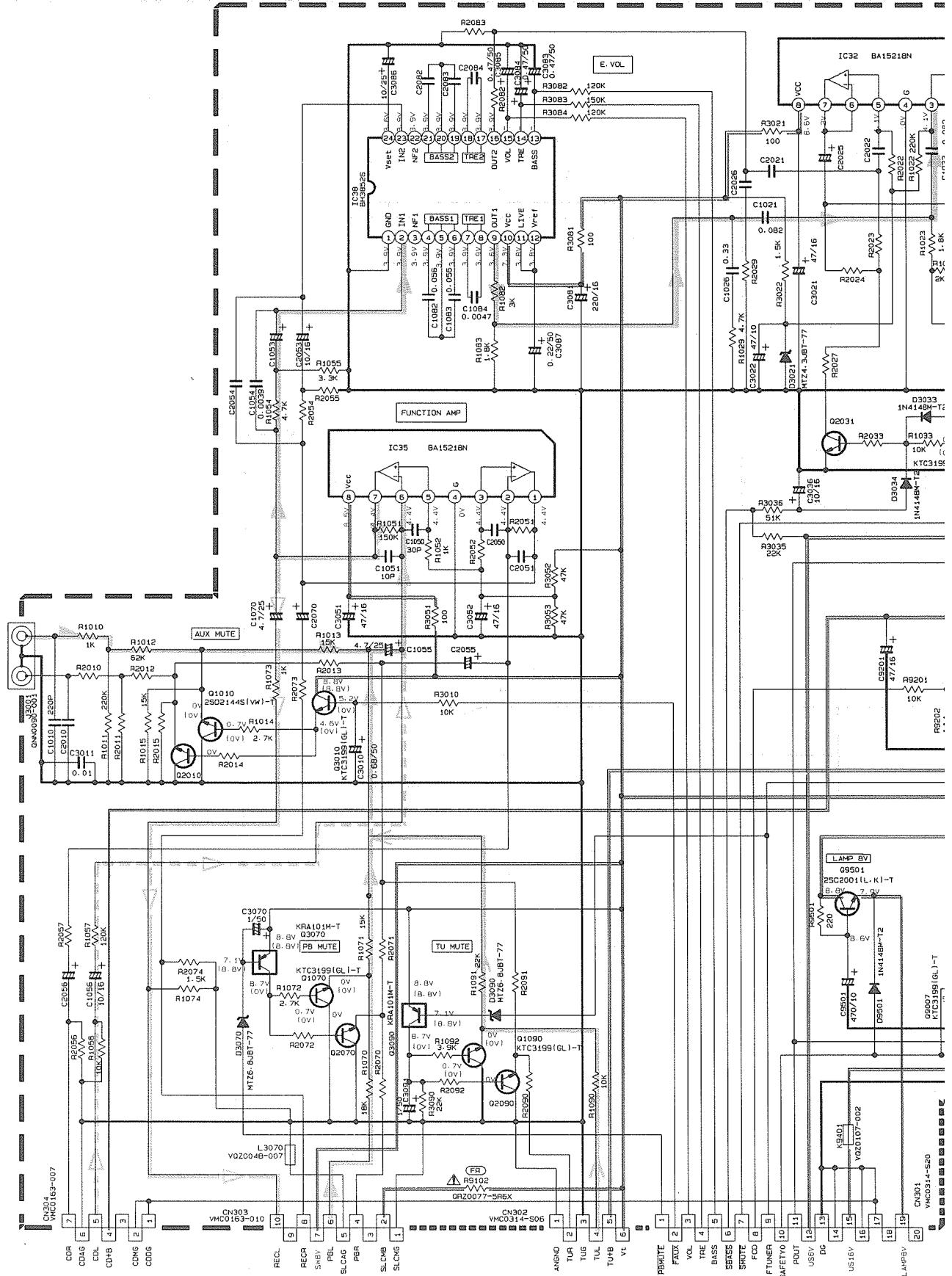
B

C

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Note : VDH9316005AW(s/G)

Fig. 11-3

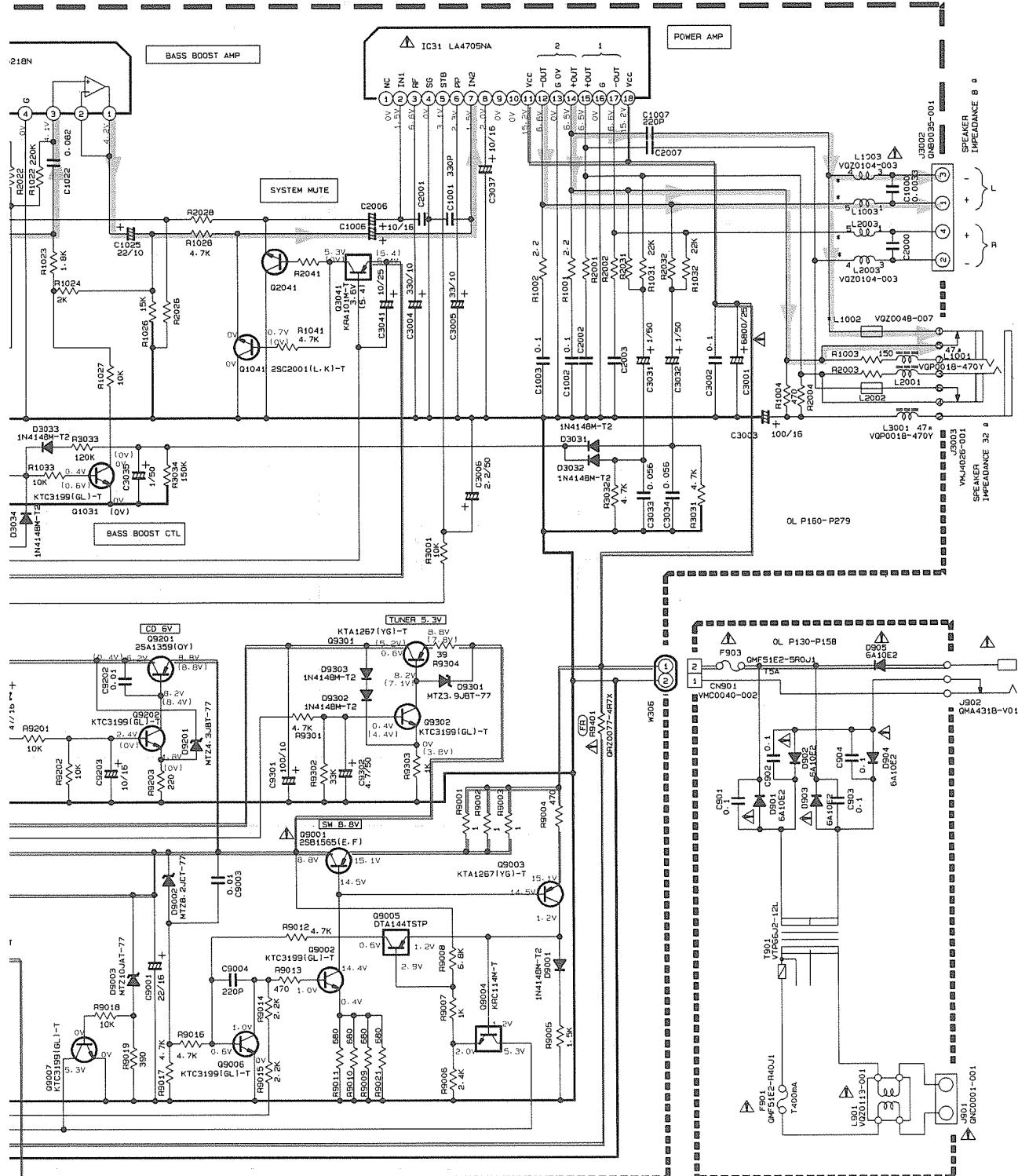
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KRC114M-T

KRA101M-T

DTA144TSTP

Tape P. B/Main signal

REC/Main signal

AUX IN Signal

CD Analogue signal

FM Radio signal

AM Radio signal

1

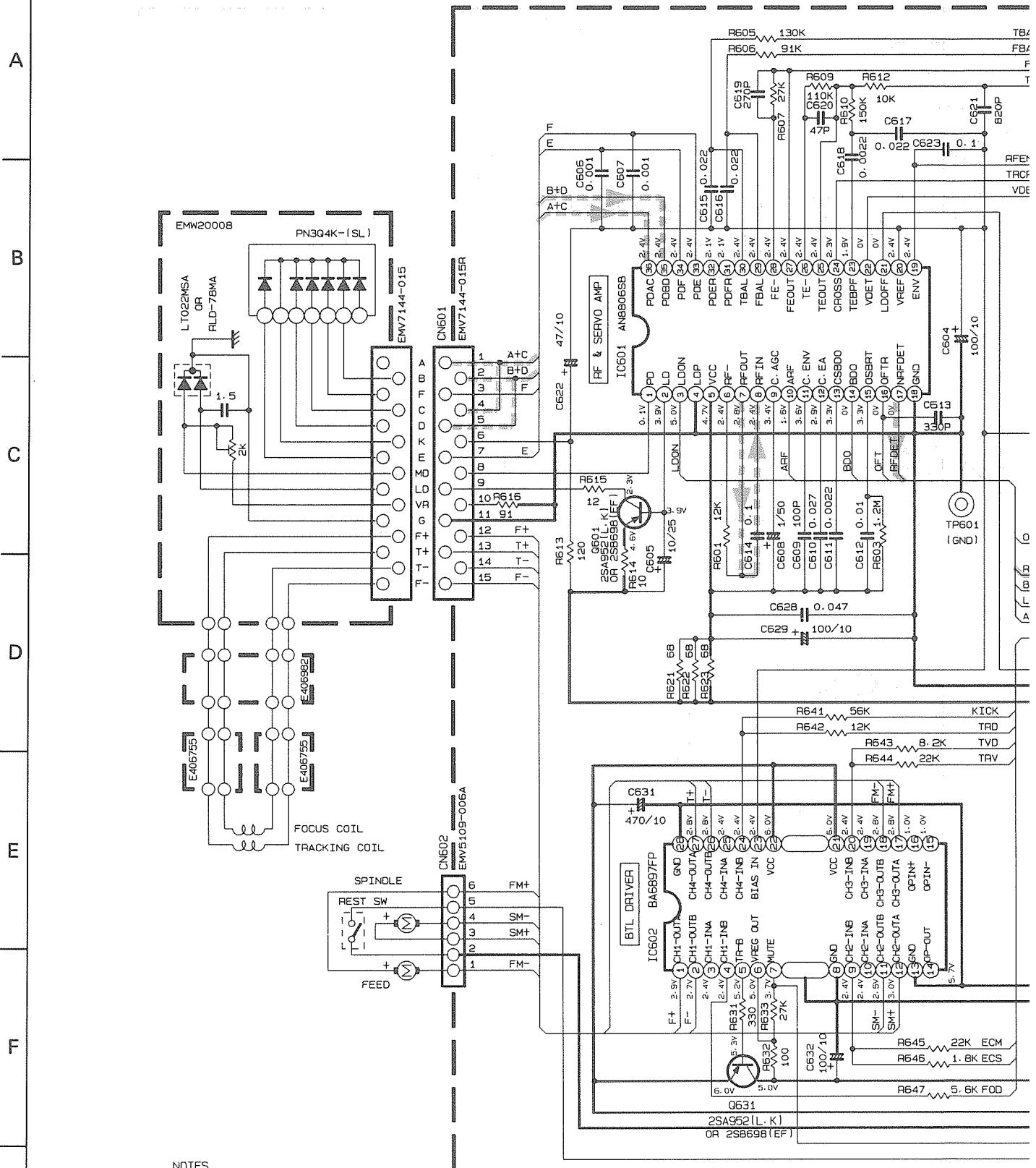
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## CD Servo Control Circuit: Drawing No. VDH1010-001CW



### NOTES

- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER
- UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/6W ±5% CARBON RESISTOR.  
ALL RESISTANCE VALUES ARE IN OHM (Ω).
- ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.  
ALL CAPACITANCE VALUES ARE IN F (PF).
- ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (F) / RATED VOLTAGE (V).

Fig. 11-4

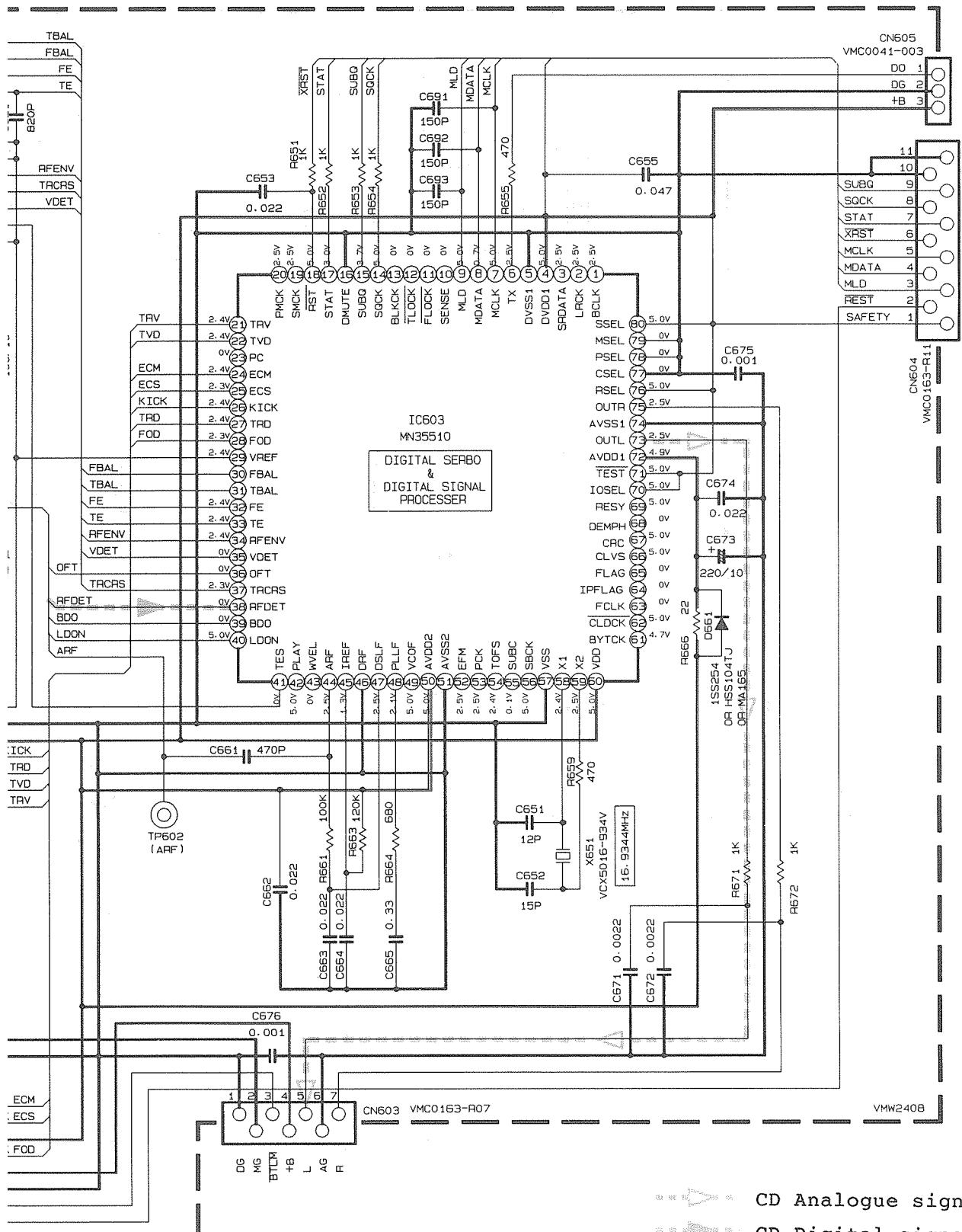
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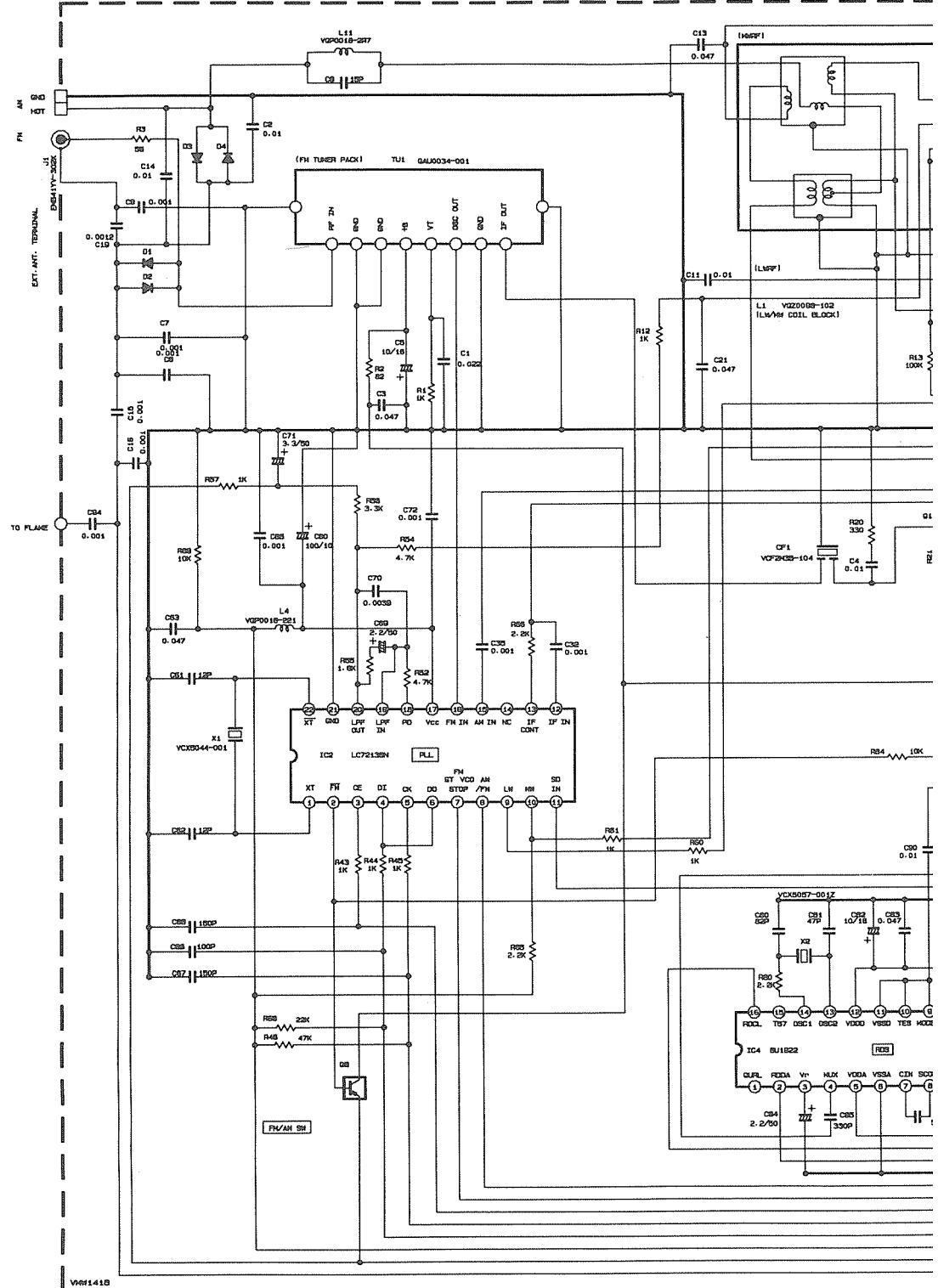
CD Analogue signal  
CD Digital signal

+B Line

1 2 3 4 5

## Tuner Circuit: Drawing No. VDH1038-101TW

A



B

C

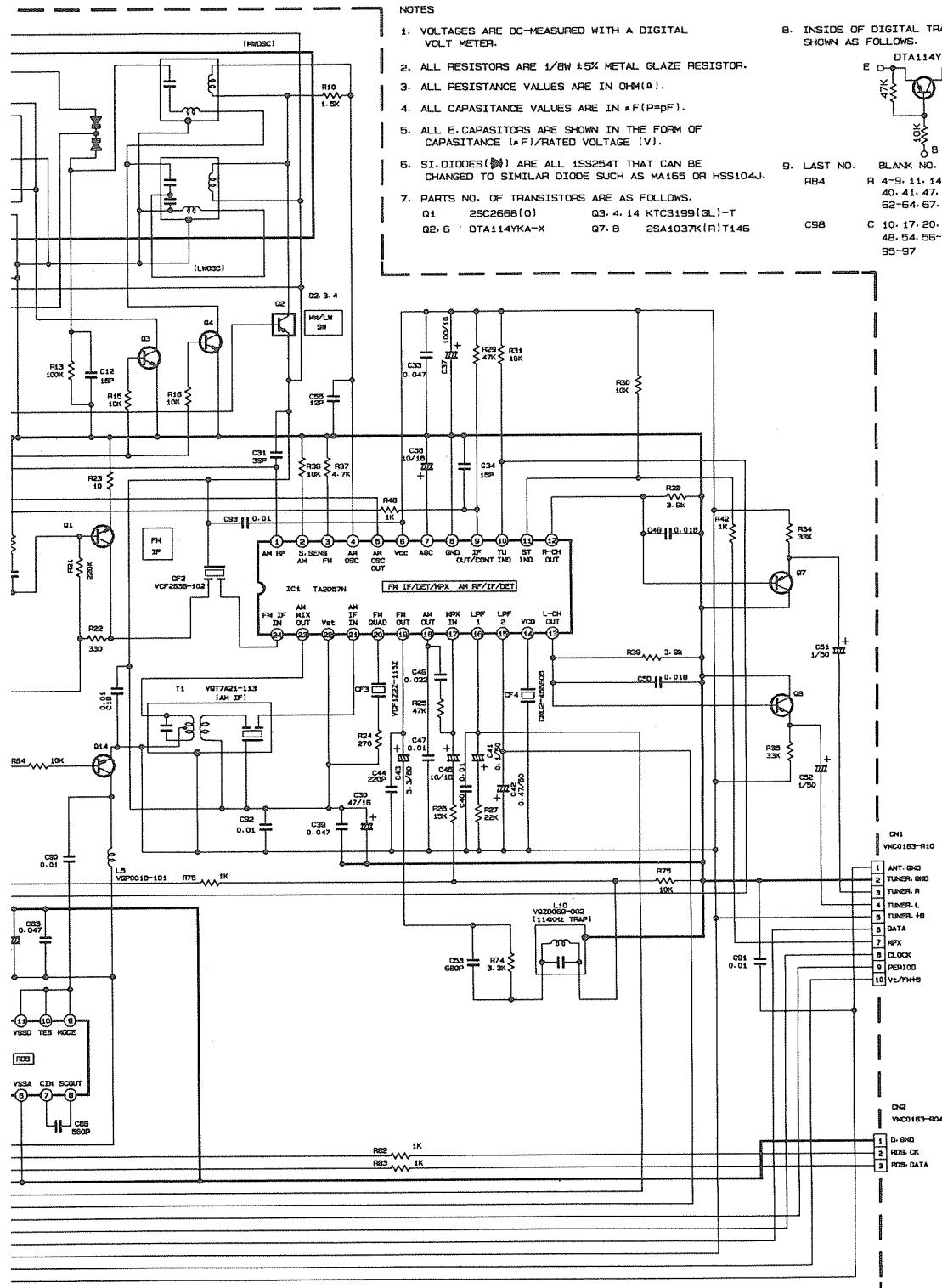
D

E

F

	CONDITION	PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
IC1	FM NO SIGNAL		2.0	0.5	0	2.0	5.1	5.1	0	0	0.3	5.1	5.1	1.1	1.1	4.4	3.7	3.7	1.4	0	1.3	1.1	2.0	2.0	5.1	2.0
	FM 60dB STEREO		2.0	0.5	0	2.0	5.1	5.1	1.1	0	0.3	0	0	1.1	1.1	4.3	4.1	3.7	1.4	0	1.4	1.1	2.0	2.0	5.1	2.0
	AM NO SIGNAL		2.0	0.5	0	2.0	5.0	5.1	0	0	0.3	5.1	5.1	1.1	1.1	4.5	0.1	0	1.4	1.4	1.5	1.6	2.0	2.0	5.1	2.0
IC2	FM NO SIGNAL		2.4	0	0	5.1	5.0	5.1	3.7	3.7	2.0	3.8	5.1	0	0	0	0	2.6	5.1	1.0	1.0	3.7	0	2.7		
IC4	FM NO SIGNAL		2.0	2.5	2.5	2.5	5.0	0	2.5	2.5	0	0	0	5.0	2.4	2.4	2.5	2.5								

Tr. NO.	
PIN NO.	
FM 67.5kHz NO SIGNAL	
AM 522kHz NO SIGNAL	
Tr. NO.	
PIN NO.	
AM 522kHz NO SIGNAL	
AM 144kHz NO SIGNAL	



	Q1			Q6			Q7			Q8			Q14		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
I SIGNAL	0	7.5	0.7	8.8	8.7	0	1.6	0	1.1	1.6	0	1.1	5.1	5.1	4.5
O SIGNAL	0	0	0	8.8	0	8.7	1.6	0	1.1	1.6	0	1.1	5.1	0.1	8.7
	Q2			Q3			Q4			Q5			Q15		
	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B
I SIGNAL	2.0	2.0	0.1	0	0	0.7	0	0	0.7	2.0	2.0	0.1	0	0	0.1
O SIGNAL	2.0	2.0	2.0	0	0	0.1	0	0	0.1	2.0	2.0	0.1	0	0	0.1

Fig. 11-5

## 12. Location of P. C. Board Parts

1

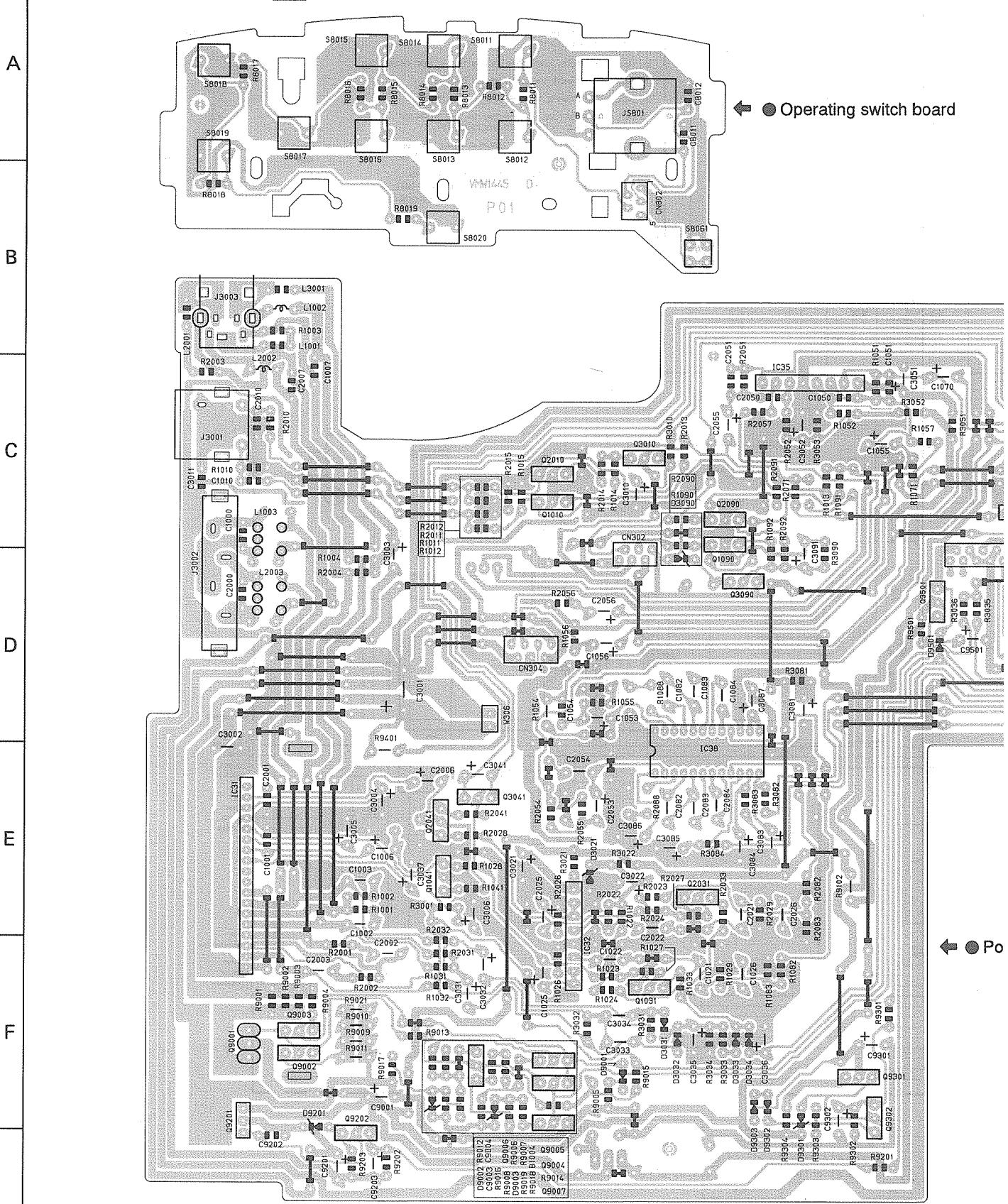
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■ Main Board: Block No. 01



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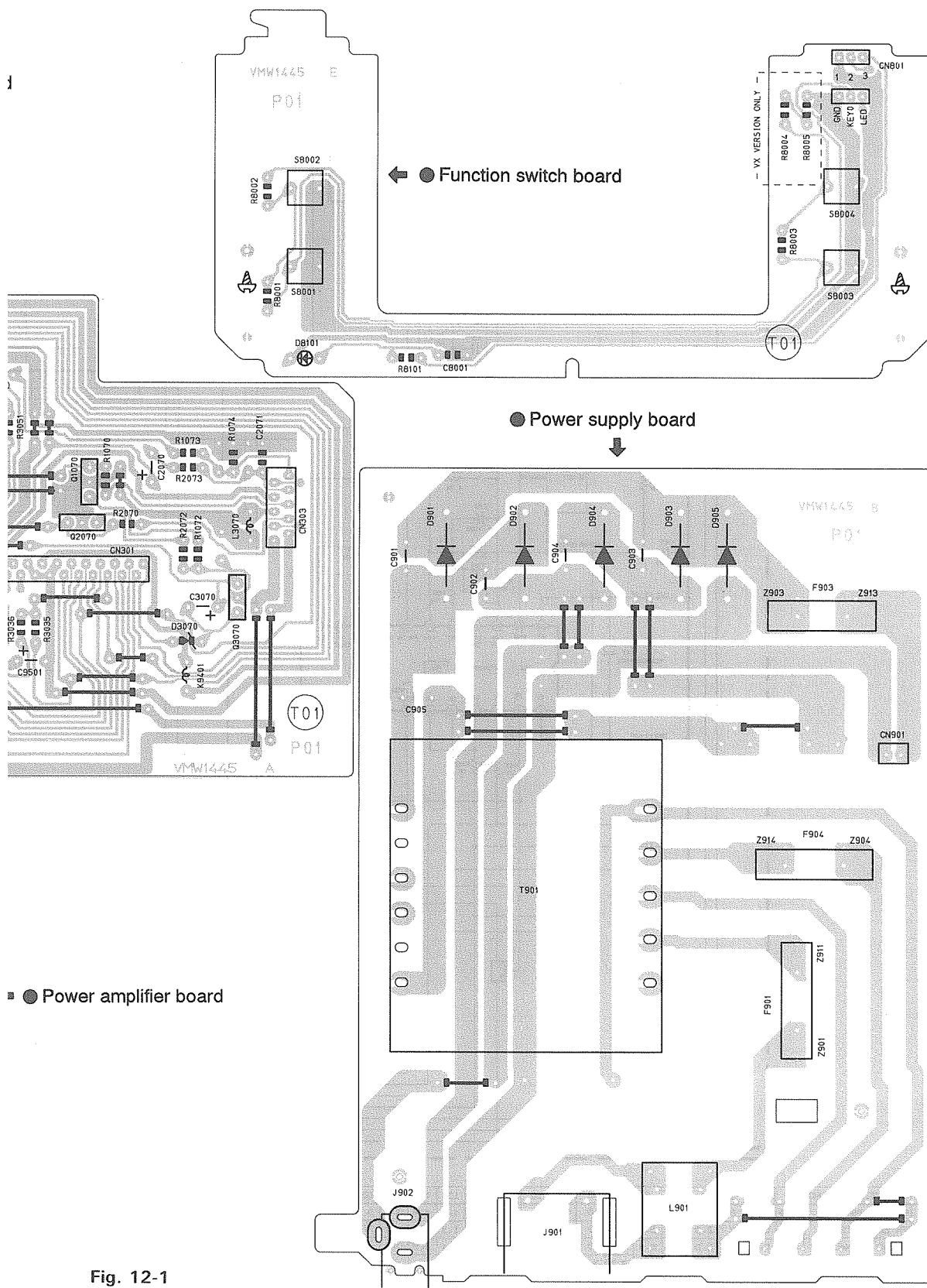


Fig. 12-1



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■ CD Servo Control Board: Block No. 03

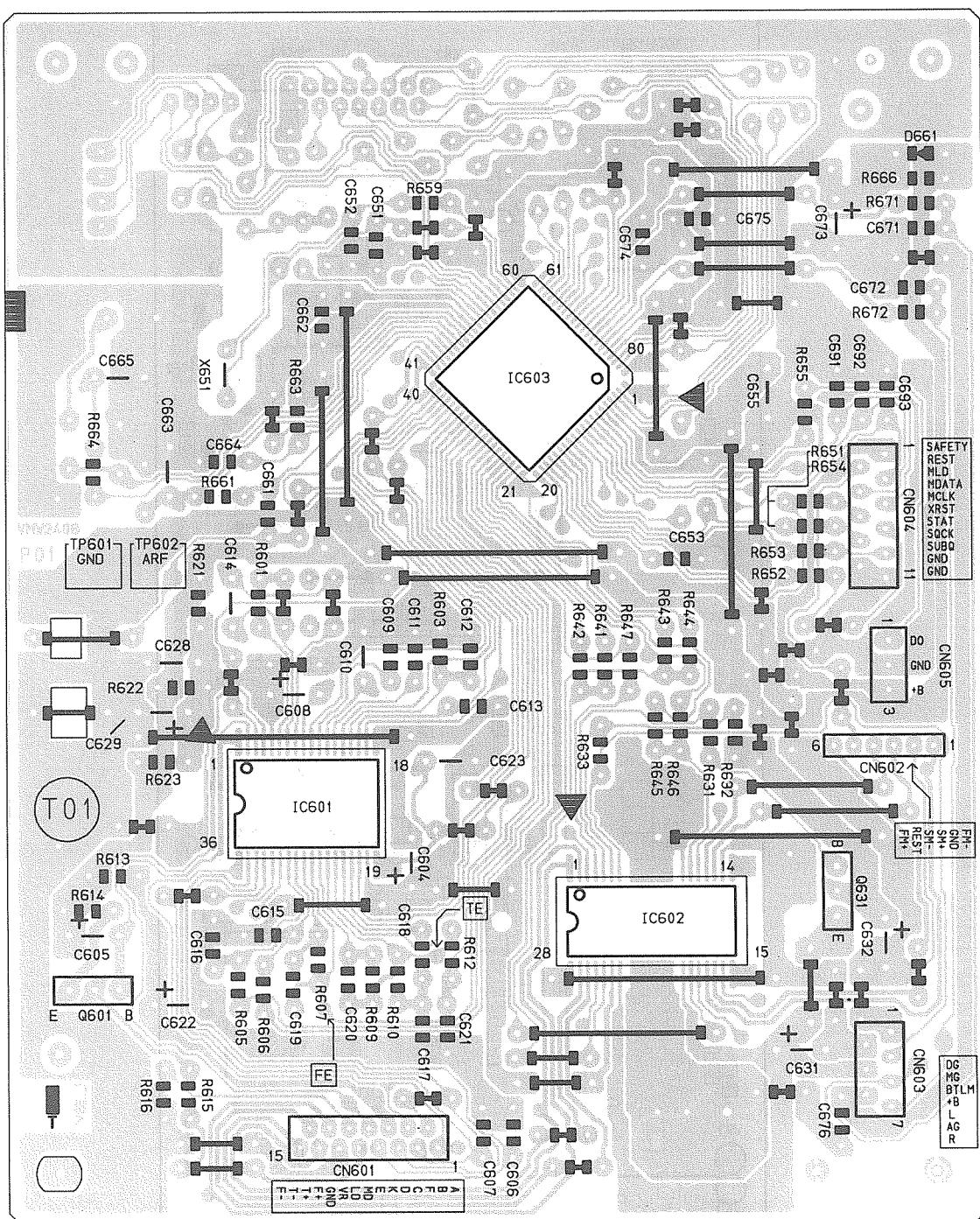


Fig. 12-3

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■ Tuner Board: Block No. 04

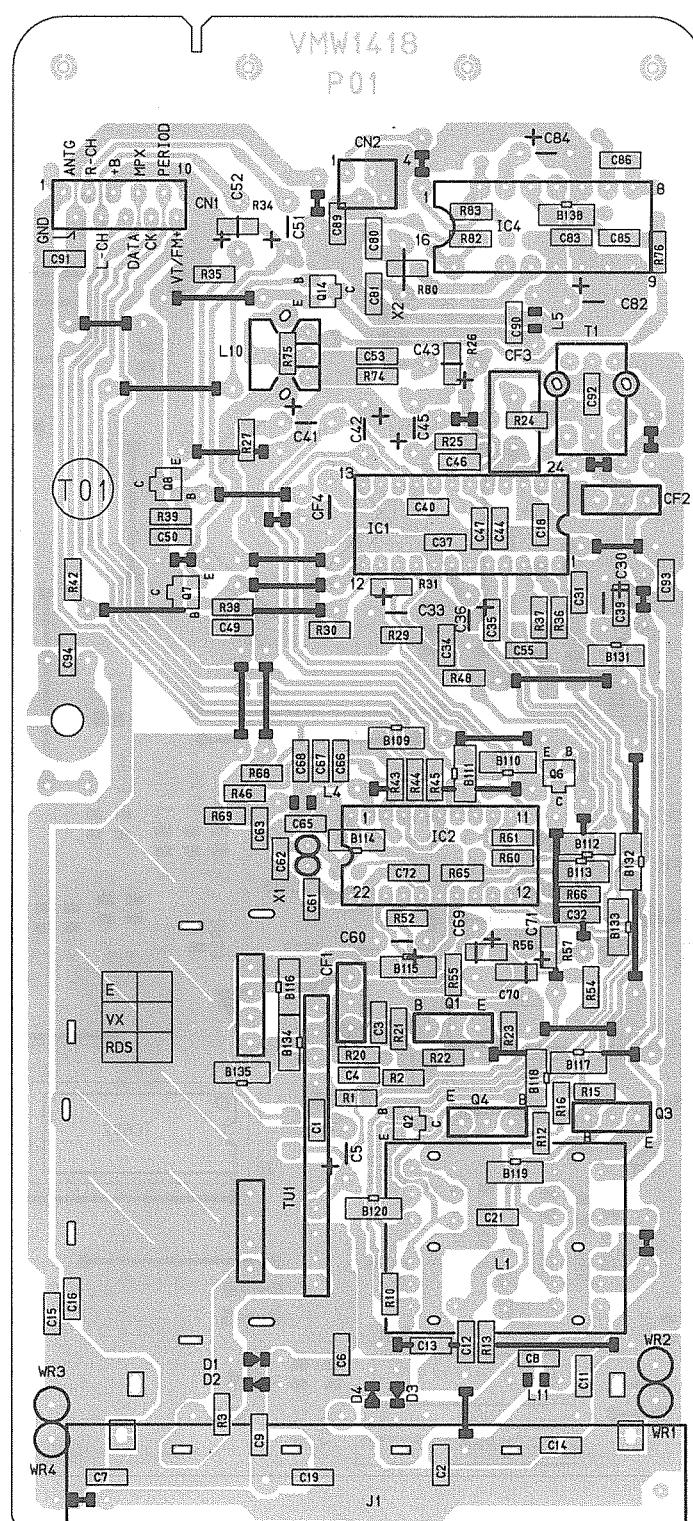


Fig. 12-4

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### 《Cassette Mechanism》

■ Reel Pulse Board: Block No. 05

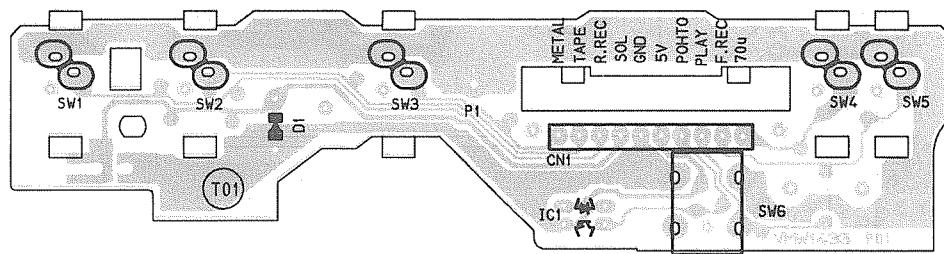


Fig. 12-5



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**■ Head Amplifier & Mechanism Control Board: Block No. 06**

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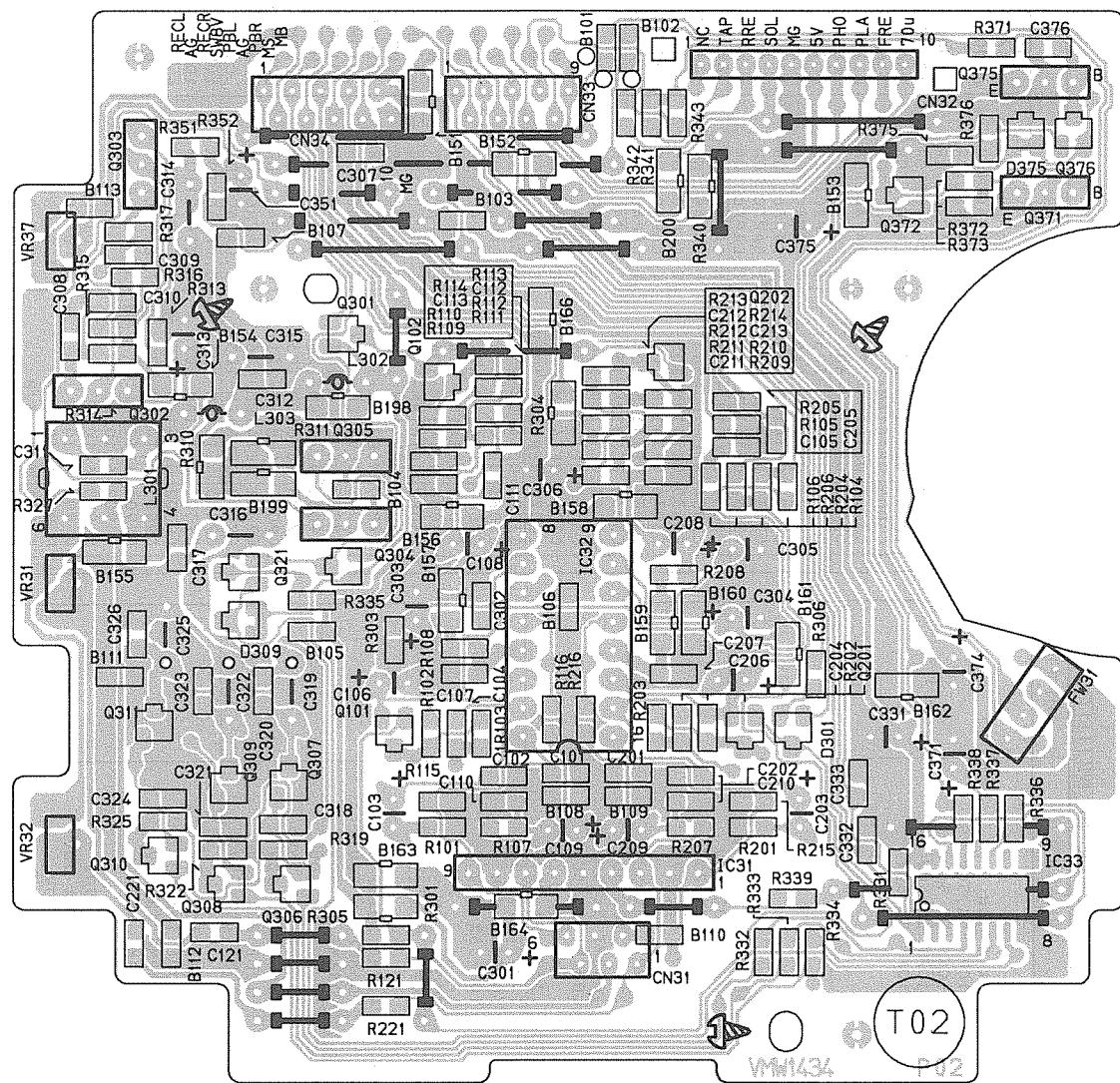


Fig. 12-6



## BLOCK NO [011111]

A	REF.	PARTS NO.	PART'S NAME	REMARKS	SUFFIX	A	REF.	PARTS NO.	PART'S NAME	REMARKS	SUFFIX
D3090	MTZ6-8JB	ZENER DIODE	STANDBY LED RED			R1001	GRD161J-2R2	CARBON RESISTOR	2.2% 1/6W		
D8101	L-34-ID-T-12	LED	SI DIODE			R1002	GRD161J-2R2	CARBON RESISTOR	2.2% 1/6W		
D9001	1N4148M-T2	SI DIODE	ZEIER DIODE			R1003	GRD161J-151	CARBON RESISTOR	150% 1/6W		
D9002	MT28-2JC	ZEIER DIODE	ZEIER DIODE			R1004	GRD161J-471	CARBON RESISTOR	4.70% 1/6W		
D9003	MTZ0JAT-77	ZEIER DIODE				R1010	GRD161J-102	CARBON RESISTOR	1.0K 5%		
D9201	MTZ4-3JB	ZEIER DIODE				R1011	GRD161J-224	CARBON RESISTOR	220% 5% 1/6W		
D9201	MTZ3-9JB	ZEIER DIODE				R1012	GRD161J-625	CARBON RESISTOR	62K 5% 1/6W		
D9202	1N4148M-T2	SI DIODE				R1013	GRD161J-153	CARBON RESISTOR	15K 5% 1/6W		
D9203	1N4148M-T2	SI DIODE				R1014	GRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W		
D9204	1N4148M-T2	SI DIODE				R1015	GRD161J-153	CARBON RESISTOR	15K 5% 1/6W		
IC 31	LA7-05NA	IC				R1022	GRD161J-224	CARBON RESISTOR	220% 5% 1/6W		
IC 32	BA15218N	IC				R1023	GRD161J-182	CARBON RESISTOR	1.8K 5%		
IC 35	BA1521N	IC				R1024	GRD161J-202	CARBON RESISTOR	2.0K 5% 1/6W		
IC 38	BH852S	IC				R1026	GRD161J-153	CARBON RESISTOR	15K 5% 1/6W		
A J 902	QMA319-V01	FILM CAPACITOR				R1027	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
J 9021	QSW0547-001	ROTARY ENCODER				R1028	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		
J 9001	QNN0090-001	PIN JACK	KUNMING HSP-242			R1029	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		
J 9002	QNB035-001	SPK TERMINAL	KUNMING HSP-324V			R1030	GRD161J-202	CARBON RESISTOR	4.7K 5% 1/6W		
J 9003	VMI6026-001	HEADPHONE JACK				R1032	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W		
K9001	VQZ0107-002	INDUCTOR				R1033	GRD161J-103	CARBON RESISTOR	22K 5% 1/6W		
L1001	VQF0018-470	INDUCTOR				R1041	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		
L1002	VQZ0048-007	INDUCTOR				R1042	GRD161J-154	CARBON RESISTOR	150% 1/6W		
L1003	VQF0104-003	INDUCTOR				R1052	GRD161J-102	CARBON RESISTOR	4.7K 5% 1/6W		
L2001	VQF0018-470	INDUCTOR				R1054	GRD161J-472	CARBON RESISTOR	22K 5% 1/6W		
L2002	VQF0048-007	INDUCTOR				R1055	GRD167J-332	CARBON RESISTOR	22K 5% 1/6W		
L2003	VQZ0104-003	INDUCTOR				R1056	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
L3001	VQF0018-470	INDUCTOR				R1057	GRD161J-124	CARBON RESISTOR	120% 5% 1/6W		
L3070	VQZ0048-007	INDUCTOR				R1070	GRD161J-183	CARBON RESISTOR	1.0K 5% 1/6W		
Q1010	2SD2144S-(W)	TRANSISTOR				R1071	GRD161J-153	CARBON RESISTOR	4.7K 5% 1/6W		
Q1031	KTC3199(GL)-T	TRANSISTOR				R1072	GRD167J-332	CARBON RESISTOR	3.3K 5% 1/6W		
Q1041	2SC2001(L-K)	TRANSISTOR				R1073	GRD161J-102	CARBON RESISTOR	10K 5% 1/6W		
Q1070	KTC3199(GL)-T	TRANSISTOR				R1074	GRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W		
Q1090	KTC3199(GL)-T	TRANSISTOR				R1075	GRD161J-124	CARBON RESISTOR	120% 5% 1/6W		
Q2010	2SD2144S-(W)	TRANSISTOR				R1076	GRD161J-302	CARBON RESISTOR	1.0K 5% 1/6W		
Q2031	KTC3199(GL)-T	TRANSISTOR				R1083	GRD161J-182	CARBON RESISTOR	1.0K 5% 1/6W		
Q2041	KRA101M-T	TR I/M				R1090	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
Q3070	KRA101M-T	TR I/M				R1091	GRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W		
Q3090	KRA101M-T	TR I/M				R1092	GRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W		
Q7603	2SC2412KK1	TRANSISTOR				R2001	GRD161J-2R2	CARBON RESISTOR	2.2% 1/6W		
Q9001	2SB1565(CE,F)	TR.				R2002	GRD161J-2R2	CARBON RESISTOR	2.2% 1/6W		
Q9002	KTC3199(GL)-T	TRANSISTOR				R2003	GRD161J-151	CARBON RESISTOR	150% 1/6W		
Q9003	KTA1267(Y)-T	TRANSISTOR				R2004	GRD161J-471	CARBON RESISTOR	4.70% 1/6W		
Q9004	KTC3199(GL)-T	TRANSISTOR				R2010	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
Q9005	DIA144TSPP	TRANSISTOR				R2011	GRD161J-224	CARBON RESISTOR	220% 5% 1/6W		
Q9006	KTC3199(GL)-T	TRANSISTOR				R2012	GRD161J-623	CARBON RESISTOR	2.0K 5% 1/6W		
A Q9007	KTC3199(GL)-T	TRANSISTOR				R2024	GRD161J-202	CARBON RESISTOR	2.0K 5% 1/6W		
Q9201	2SC1355(DY)	TRANSISTOR				R2026	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
Q9202	KTC3199(GL)-T	TRANSISTOR				R2027	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		
Q9301	KTA1267(Y)-T	TRANSISTOR				R2028	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		
Q9302	K1C3199(GL)-T	TRANSISTOR				R2029	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		
Q9501	2SC2001(L-K)	TRANSISTOR				R2031	GRD161J-223	CARBON RESISTOR	220% 5% 1/6W		

BLOCK NO. 01				SUFFIX	BLOCK NO. 01				
A	REF.	PARTS NO.	PARTS NAME	REMARKS	A	REF.	PARTS NO.	PARTS NAME	REMARKS
R2032	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W		R9002	GRD161J-1R0	CARBON RESISTOR	1.0 5% 1/6W	
R2033	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		R9003	GRD161J-1R0	CARBON RESISTOR	1.0 5% 1/6W	
R2041	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		R9004	GRD161J-471	CARBON RESISTOR	4.7K 5% 1/6W	
R2051	GRD161J-154	CARBON RESISTOR	150K 5% 1/6W		R9005	GRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W	
R2052	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		R9006	GRD161J-242	CARBON RESISTOR	2.4K 5% 1/6W	
R2054	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		R9007	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R2055	GRD161J-332	CARBON RESISTOR	3.3K 5% 1/6W		R9008	GRD67J-682	CARBON RESISTOR	6.8K 5% 1/6W	
R2056	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		R9009	GRD161J-331	CARBON RESISTOR	3.3K 5% 1/6W	
R2057	GRD161J-124	CARBON RESISTOR	120K 5% 1/6W		R9010	GRD161J-331	CARBON RESISTOR	3.3K 5% 1/6W	
R2070	GRD161J-183	CARBON RESISTOR	18K 5% 1/6W		R9012	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R2071	GRD161J-153	CARBON RESISTOR	15K 5% 1/6W		R9013	GRD161J-471	CARBON RESISTOR	4.7K 5% 1/6W	
R2072	GRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W		R9014	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R2073	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		R9015	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R2074	GRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W		R9016	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R2082	GRD161J-302	CARBON RESISTOR	3.0K 5% 1/6W		R9017	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R2083	GRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W		R9018	GRD161J-103	CARBON RESISTOR	1.0K 5% 1/6W	
R2090	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		R9019	GRD161J-391	CARBON RESISTOR	3.9K 5% 1/6W	
R2091	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W		R9021	GRD161J-331	CARBON RESISTOR	3.3K 5% 1/6W	
R2092	GRD161J-392	CARBON RESISTOR	3.9K 5% 1/6W		R9021	GRD161J-5R6X	F.ES. I.M	5.6 1/0W	
R3001	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		R9201	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R3021	GRD161J-101	CARBON RESISTOR	100 5% 1/6W		R9202	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
R3022	GRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W		R9203	GRD161J-221	CARBON RESISTOR	220 5% 1/6W	
R3031	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		R9204	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W	
R3032	GRD161J-472	CARBON RESISTOR	4.7K 5% 1/6W		R9202	GRD161J-333	CARBON RESISTOR	3.3K 5% 1/6W	
R3033	GRD161J-124	CARBON RESISTOR	120K 5% 1/6W		R9203	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
R3034	GRD161J-154	CARBON RESISTOR	150K 5% 1/6W		R9204	GRD161J-390	CARBON RESISTOR	3.9 5% 1/6W	
R3035	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W		R9401	GRZ0077 4R7X	FUSE RESISTOR	4.7 1/0W	
R3036	GRD161J-513	CARBON RESISTOR	51K 5% 1/6W		R9401	GRD161J-221	CARBON RESISTOR	220 5% 1/6W	
R3051	GRD161J-101	CARBON RESISTOR	100 5% 1/6W		SB8001	QSQ4H11-V122	TACT SW	AUX POWER	
R3052	GRD161J-473	CARBON RESISTOR	4.7K 5% 1/6W		SB8002	QSQ4H11-V122	TACT SW		
R3053	GRD161J-473	CARBON RESISTOR	4.7K 5% 1/6W		SB8003	QSQ4H11-V122	TACT SW		
R3081	GRD161J-101	CARBON RESISTOR	100 5% 1/6W		SB8004	QSQ4H11-V122	TACT SW		
R3082	GRD161J-124	CARBON RESISTOR	120K 5% 1/6W		SB8011	QSQ4H11-V122	TACT SW		
R3083	GRD161J-154	CARBON RESISTOR	150K 5% 1/6W		SB8012	QSQ4H11-V122	TACT SW		
R3084	GRD161J-124	CARBON RESISTOR	120K 5% 1/6W		SB8013	QSQ4H11-V122	TACT SW		
R3090	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W		SB8014	QSQ4H11-V122	TACT SW		
R7647	NRSA02J-104NY	MG RESISTOR	100K 5% 1/10W		SB8015	QSQ4H11-V122	TACT SW		
R7648	NRSA02J-394NY	MG RESISTOR	390K 5% 1/10W		SB8016	QSQ4H11-V122	TACT SW		
R7649	NRSA02J-823NY	MG RESISTOR	82K 5% 1/10W		SB817	QSQ4H11-V122	TACT SW		
R8001	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		SB8018	QSQ4H11-V122	TACT SW		
R8002	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		SB819	QSQ4H11-V122	TACT SW		
R8003	GRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W		SB820	QSQ4H11-V122	TACT SW		
R8005	GRD161J-103	CARBON RESISTOR	VERSION		S8861	QSPK21-V01	PUSH SWITCH		
R8011	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		2 901	EMG7331-0032	FUSE CLIP		
R8012	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		2 903	EMG7331-0032	FUSE CLIP		
R8013	GRD161J-122	CARBON RESISTOR	1.2K 5% 1/6W		2 911	EMG7331-0032	FUSE CLIP		
R8014	GRD161J-152	CARBON RESISTOR	1.5K 5% 1/6W		2 913	EMG7331-0032	FUSE CLIP		
R8015	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W						
R8016	GRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W						
R8017	GRD161J-32	CARBON RESISTOR	3.9K 5% 1/6W						
R8018	GRD161J-562	CARBON RESISTOR	5.6K 5% 1/6W						
R8019	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W						
R8101	GRD161J-271	CARBON RESISTOR	270 5% 1/6W						
R9001	GRD161J-1R0	CARBON RESISTOR	1.0 5% 1/6W						

## LCD & System CPU Board

BLOCK NO. [02] [01]

A	REF.	PARTS NO.	PART'S NAME	SUFFIX	REMARKS				BLOCK NO. [02] [01]
	B7102	NRS181J-0R0Y	MG RESISTOR	5% 1/8W					
	B7103	NRS181J-0R0Y	MG RESISTOR	5% 1/8W					
	B7104	NRS181J-0R0Y	MG RESISTOR	5% 1/8W					
	CN701	VMC0163-10	CONNECTOR	TO TUNER PWB	RD	SI DIODE	BUCKUP CLOCK		
	CN702	VMC0163-R04	CONNECTOR	TO TUNER PWB	RD	SI DIODE	RESET		
	CN711	VMC0314-P0	CONNECTOR	TO AMP PWB	CONT	ZENER DIODE	BUCKUP CONT.		
	CN712	VMC0314-P06	CONNECTOR	TO AMP PWB	SIG.	SI DIODE	USSV		
	CN731	VMC063-009	CONNECTOR	TO MECHA PWB		SI DIODE	SUBQ RDS ONLY		
	CN766	VMC0163-R11	CONNECTOR	TO CD PWB		SI DIODE	SUBQ RDS ONLY		
	CN781	VMC0289-P03	CONNECTOR	TO FRONT SW PWB		IC	SYSTEM MICON		
	CN782	VMC0163-R05	CONNECTOR	TO TOP SW PWB		IC	REMORON SENSOR		
	C7001	NCS21HJ-180AY	C CAPACITOR			IC	US6V REG		
	C7002	NCS21HJ-180AY	C CAPACITOR			IC	ICVSS		
	C7003	NCB21HK-102AY	C CAPACITOR			AVSS	AVSS		
	C7004	NCS21HJ-260AY	C CAPACITOR						
	C7005	NCS21HJ-390AY	C CAPACITOR						
	C7006	NCS21HJ-200AY	C CAPACITOR						
	C7007	NCS21HJ-220AY	C CAPACITOR						
	C7008	NCB21HK-102AY	C CAPACITOR						
	C7009	NCB21HK-102AY	C CAPACITOR						
	C7011	QER41AM-107	E.CAPACITOR	MAIN CLOCK SHIFT		INDUCTOR	AVDD		
	C7012	NCB21HK-103AY	C CAPACITOR	MAIN CLOCK		INDUCTOR	AVREF		
	C7013	QF1C1HJ-104ZM	M.CAPACITOR	MAIN CLOCK		INDUCTOR			
	C7014	QER41CM-106	E.CAPACITOR	MAIN CLOCK		INDUCTOR			
	C7021	QER41CM-176M	E.CAPACITOR	1000PF 10% 50V		INDUCTOR			
	C7022	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V		INDUCTOR			
	C7031	QEIBOJM-228N	E.CAPACITOR	100MF 20% 10V		INDUCTOR			
	C7051	QER61HM-084ZM	E.CAPA 1.M	-010MF 10% 50V		INDUCTOR			
	C7052	QER41CM-225	E.CAPACITOR	-10MF 5% 50V		INDUCTOR			
	C7081	NCS21HK-104	C CAPACITOR	10MF 20% 16V		INDUCTOR			
	C7601	NCS21HJ-151AY	C CAPACITOR	47MF 20% 16V		INDUCTOR			
	C7602	NCS21HJ-151AY	C CAPACITOR	1000PF 10% 50V		TRANSISTOR	CLOCK SHIFT		
	C7619	NCS21HJ-271AY	C CAPACITOR	150PF 5% 50V		TRANSISTOR	CLOCK SHIFT		
	C7620	NCS21HJ-271AY	C CAPACITOR	150PF 5% 50V		TRANSISTOR	CLOCK SHIFT		
	C7621	NCS21HJ-271AY	C CAPACITOR	150PF 5% 50V		TRANSISTOR	CLOCK SHIFT		
	C7633	NCB21HK-102AY	C CAPACITOR	150PF 5% 50V		TRANSISTOR	CLOCK SHIFT		
	C7641	NCS21HJ-151AY	C CAPACITOR	150PF 5% 50V		TRANSISTOR	CLOCK SHIFT		
	C7644	QER41HM-105VM	E.CAPACITOR	1.0MF 20% 50V		TRANSISTOR	CLOCK SHIFT		
	C7724	NCB21HK-102AY	E.CAPACITOR	1.0MF 20% 50V		TRANSISTOR	CLOCK SHIFT		
	C7701	NCS21HJ-151AY	C CAPACITOR	1000PF 10% 50V		TRANSISTOR	CLOCK SHIFT		
	C7702	NCS21HJ-151AY	C CAPACITOR	150PF 5% 50V		TRANSISTOR	CLOCK SHIFT		
	C7705	NCS21HJ-321AY	C CAPACITOR	1000PF 10% 50V		TRANSISTOR	CLOCK SHIFT		
	C7723	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V		TRANSISTOR	CLOCK SHIFT		
	C7724	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V		TRANSISTOR	CLOCK SHIFT		
	C7734	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V		TRANSISTOR	CLOCK SHIFT		
	C7744	QER41HM-225	E.CAPACITOR	2.2MF 20% 50V		TRANSISTOR	CLOCK SHIFT		
	C7745	QER61HM-355ZM	E.CAPACITOR	3.3MF 20% 50V		TRANSISTOR	CLOCK SHIFT		
	C7746	QER41HM-225	E.CAPACITOR	2.2MF 20% 50V		TRANSISTOR	CLOCK SHIFT		
	C7802	NCB21HK-103AY	C CAPACITOR	MICOM NOISE		RES. C.M	STANDBY LED CON		
	C7803	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V		RES. C.M	STANDBY LED CON		
	D1701	VGL1221-002	LCD	44PIN		RES. C.M	STANDBY LED CON		
	D7001	1N4148M-T2	Si DIODE	USSV		MG RESISTOR	RDS ONLY		
	A D7012	1N4148M-T2	Si DIODE	SHORT HOGO		MG RESISTOR	1.0K 5% 1/10W		
	A D7012	1N4148M-T2	Si DIODE	SHORT HOGO		MG RESISTOR	1.2K 5% 1/10W		

UX – T200RGD B/E/EN/G

BLOCK NO. 02

A	REF.	PARTS NO.	PARTS NAME	SUFFIX	REMARKS	BLOCK NO. 02
R77620	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W		
R77621	NRSA02J-122NY	MG RESISTOR	1.2K 5%	1/10W		
R77622	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W		
R77625	NRSA02J-823NY	MG RESISTOR	82K 5%	1/10W		
R77628	NRSA02J-823NY	MG RESISTOR	82K 5%	1/10W		
R77629	NRSA02J-103NY	MG RESISTOR	10K 5%	1/10W		
R77630	NRSA02J-563NY	MG RESISTOR	56K 5%	1/10W		
R77631	NRSA02J-104NY	MG RESISTOR	100K 5%	1/10W		
R77632	NRSA02J-103NY	MG RESISTOR	56K 5%	1/10W		
R77633	NRSA02J-103NY	MG RESISTOR	10K 5%	1/10W		
R77634	NRSA02J-103NY	MG RESISTOR	10K 5%	1/10W		
R77635	NRSA02J-104NY	MG RESISTOR	100K 5%	1/10W		
R77639	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77641	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W		
R77642	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W		
R77643	NRSA02J-103NY	MG RESISTOR	10K 5%	1/10W		
R77644	NRSA02J-683NY	MG RESISTOR	68K 5%	1/10W		
R77646	NRSA02J-683NY	MG RESISTOR	68K 5%	1/10W		
R77701	NRSA02J-103NY	MG RESISTOR	10K 5%	1/10W		
R77702	NRSA02J-103NY	MG RESISTOR	10K 5%	1/10W		
R77703	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W		
R77704	NRSA02J-103NY	MG RESISTOR	10K 5%	1/10W		
R77705	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W		
R77711	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77712	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W		
R77713	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77714	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W		
R77715	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77716	NRSA02J-472NY	MG RESISTOR	4.7K 5%	1/10W		
R77717	NRSA02J-472NY	MG RESISTOR	4.7K 5%	1/10W		
R77718	NRSA02J-222NY	MG RESISTOR	1.0K 5%	1/10W		
R77719	NRSA02J-102NY	MG RESISTOR	2.2K 5%	1/10W		
R77720	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W		
R77721	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W		
R77722	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W		
R77723	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77724	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77725	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77726	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77728	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77729	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77730	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77731	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77733	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77734	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77735	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77738	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77739	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77741	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77742	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77743	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W		
R77744	NRSA02J-563NY	MG RESISTOR	56K 5%	1/10W		
R77745	NRSA02J-472NY	MG RESISTOR	47K 5%	1/10W		
R77746	NRSA02J-333NY	MG RESISTOR	33K 5%	1/10W		

**CD Sercvo Control Board**

## BLOCK NO. 03111111

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C	604	QEK51AN-107	E.CAPACITOR	100MF 20% 10V		R	606	GRD161J-913	CARBON RESISTOR	91K 5% 1/6W
C	605	GET41EM-106	E.CAPACITOR	10MF 20% 25V		R	607	GRD161J-273	CARBON RESISTOR	27K 5% 1/6W
C	606	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V		R	609	GRD161J-114	C.RESISTOR	110K 5% 1/6W
C	607	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V		R	610	GRD161J-154	CARBON RESISTOR	150K 5% 1/6W
C	608	GET41HM-105	E.CAPACITOR	1.0MF 20% 50V		R	612	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W
C	609	QCBB1HK-101Y	C.CAPACITOR	100PF 10% 50V		R	613	GRD161J-121	CARBON RESISTOR	120K 5% 1/6W
C	610	QFLC1HJ-273ZM	M.CAPACITOR	0.027MF 5% 50V		R	614	GRD161J-100	CARBON RESISTOR	10K 5% 1/6W
C	611	QCXB1CM-222Y	C.CAPACITOR	2200PF 20% 16V		R	615	GRD161J-120	CARBON RESISTOR	12K 5% 1/6W
C	612	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V		R	616	GRD161J-910Y	CARBON RESISTOR	91K 5% 1/6W
C	613	QCBB1HK-331Y	C.CAPACITOR	330PF 10% 50V		R	621	GRD161J-330	CARBON RESISTOR	33K 5% 1/6W
C	614	QFLC1HJ-104ZM	M.CAPACITOR	-10MF 5% 50V		R	622	GRD161J-330	CARBON RESISTOR	33K 5% 1/6W
C	615	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%		R	623	GRD161J-330	CARBON RESISTOR	33K 5% 1/6W
C	616	QCHB1EZ-223	C.CAPACITOR	.022MF -80:-20%		R	631	GRD161J-331	CARBON RESISTOR	330K 5% 1/6W
C	617	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%		R	632	GRD161J-101	CARBON RESISTOR	100K 5% 1/6W
C	618	QCBX1CM-222Y	C.CAPACITOR	2200PF 20% 16V		R	633	GRD161J-273	CARBON RESISTOR	27K 5% 1/6W
C	619	QCBB1HK-271Y	C.CAPACITOR	270PF 10% 50V		R	641	GRD161J-563	CARBON RESISTOR	56K 5% 1/6W
C	620	QCS11HJ-470	C.CAPACITOR	47PF 5% 50V		R	642	GRD161J-123	CARBON RESISTOR	12K 5% 1/6W
C	621	QCBB1HK-821Y	C.CAPACITOR	820PF 10% 50V		R	643	GRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W
C	622	GET41AM-476	E.CAPACITOR	47MF 20% 10V		R	644	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W
C	623	QFLC1HJ-104ZM	M.CAPACITOR	.10MF 5% 50V		R	645	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W
C	628	GCC11EM-473V	C.CAPACITOR	.047MF 20% 25V		R	646	GRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W
C	629	GET41AM-107	E.CAPACITOR	100MF 20% 10V		R	647	GRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W
C	631	GET41AM-477	E.CAPACITOR	470MF 20% 10V		R	651	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W
C	632	GEK51AM-107	E.CAPACITOR	100MF 20% 10V		R	652	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W
C	651	QCS11HJ-120	C.CAPACITOR	12PF 5% 50V		R	653	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W
C	652	QCS11HJ-150	C.CAPACITOR	.047MF 5% 50V		R	654	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W
C	653	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%		R	655	GRD161J-471	CARBON RESISTOR	4.7K 5% 1/6W
C	655	GCC11EM-473V	C.CAPACITOR	.047MF 20% 25V		R	659	GRD161J-471	CARBON RESISTOR	4.7K 5% 1/6W
C	661	QCBB1HK-471Y	C.CAPACITOR	470PF 10% 50V		R	661	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W
C	662	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%		R	663	GRD161J-124	CARBON RESISTOR	120K 5% 1/6W
C	663	QFC1C1HJ-273ZM	M.CAPACITOR	.022MF 5% 50V		R	664	GRD161J-681	CARBON RESISTOR	6.8K 5% 1/6W
C	664	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%		R	666	GRD161J-120	CARBON RESISTOR	22K 5% 1/6W
C	665	QFV7HJ-334ZM	FILM CAPACITOR	.33MF 5% 50V		R	671	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W
C	671	QCXB1CM-152Y	C.CAPACITOR	1500PF 20% 16V		R	672	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W
C	672	QCVB1CM-152Y	C.CAPACITOR	1500PF 20% 16V		X	651	VCX5016-934V	CRYSTAL	16.934MHz
C	673	QTE1C05-227	E.CAPACITOR	.022MF +80:-20%						
C	674	QCBB1EZ-223	C.CAPACITOR	.022MF +80:-20%						
C	675	QCBB1HK-102Y	C.CAPACITOR	AG-DG						
C	676	QCBB1HK-102Y	C.CAPACITOR	AG-DG						
C	691	QCBB1HK-151Y	C.CAPACITOR	DENGEN NOISE						
C	692	QCBB1HK-151Y	C.CAPACITOR	DENGEN NOISE						
C	693	QCBB1HK-151Y	C.CAPACITOR	DENGEN NOISE						
CN601		QGT1008F1-15	1SPIN CONNECTOR	TO RF						
CN603		VMO0163-RO7	CONNECTOR	TO AUDIO						
CN604		VMO0163-R11	CONNECTOR	TO MICRON						
CN605		VNC0041-003	CONNECTOR	TO DIGITAL OUT						
D	661	1S133	SI DIODE							
IC601		AN8806SB	IC	RF AMP						
IC602		BA6897FP	IC	DRIVER						
IC603		MM35510	IC	1CHIP PROCESSER						
Q	601	2SA952 (L-K)	TRANSISTOR							
Q	631	2SA952 (L-K)	TRANSISTOR							
R	601	GRD161J-123	CARBON RESISTOR	12K 5% 1/6W						
R	603	GRD161J-125	CARBON RESISTOR	1.2M 5% 1/6W						
R	605	GRD167J-134	C.RESISTOR	130K 5% 1/6W						



**Reel Pulse Board**

BLOCK NO. 04111111

▲ REF.	PART'S NO.	PART'S NAME	REMARKS	SUFFIX	REMARKS
R 30	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W		
R 31	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W		
R 34	NRSA02J-333NY	MG RESISTOR	33K 5% 1/10W		
R 35	NRSA02J-333NY	MG RESISTOR	33K 5% 1/10W		
R 36	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W		
R 37	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W		
R 38	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W		
R 39	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W		
R 42	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 43	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 44	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 45	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 46	NRSA02J-473NY	MG RESISTOR	4.7K 5% 1/10W		
R 48	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 52	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W		
R 54	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W		
R 55	NRSA02J-182NY	MG RESISTOR	1.8K 5% 1/10W		
R 56	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W		
R 57	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 60	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 61	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 65	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W		
R 66	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W		
R 68	NRSA02J-223NY	MG RESISTOR	2.2K 5% 1/10W		
R 69	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W		
R 74	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W		
R 75	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W		
R 76	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 80	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W		
R 82	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 83	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 84	NRSA02J-103NY	IFT	10K 5% 1/10W		
T 1	VQT7A21-113	FRONT END	FMTU		
TU 1	GAU0034-001	CRYSTAL			
X 1	VCX5044-001	CRYSTAL			
X 2	VCX5057-001	CRYSTAL			

BLOCK NO. 05111111

▲ REF.	PART'S NO.	PART'S NAME	REMARKS	SUFFIX	REMARKS
CN 1	EMV7159-010	TOP PLUG ASSY			
D 1	1SR139-100	SI DIODE			
IC 1	SG-105F3-BB-C	PHOTO SENSER			
P 1	VMZ0015-002	POST PIN			
SW 1	MKS00220MVLO	CASSETTE SWITCH			
SW 2	MKS00220MVLO	CASSETTE SWITCH			
SW 4	MKS00220MVLO	CASSETTE SWITCH			
SW 5	MKS00220MVLO	CASSETTE SWITCH			
SW 6	QSEC001-E03	SWITCH			

## Head Amplifier &amp; Mechanism Control Board

BLOCK NO. 06111111

▲ REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX		BLOCK NO. 06111111
C 101	NCS21HJ-821AY	C CAPACITOR	820PF 5% 50V		CN 33 VMC0163-R09	REMARKS
C 102	NCS21HJ-221AY	C CAPACITOR	220PF 5% 50V		CN 34 VMC0163-R10	PRI/MICON
C 103	QEKA0JM-227	E.CAPACITOR	220MF 20% 6.3V		D 301 MA152WA-TX	PRI/AMP
C 104	NCB21HK-333AY	C CAPACITOR	0.033MF 10% 50V		D 309 MA704A	DIODE
C 105	NCB21HK-222AY	C CAPACITOR	2200PF 10% 50V		D 375 MA3051(K)	SHORT TEST TAIS
C 106	QEKA1CM-106	E.CAPACITOR	10MF 20% 16V		FW 341 VWS304-C6A13K	ZENER DIODE
C 107	NCS21HJ-561AY	C CAPACITOR	560PF 5% 50V		IC 31 BA3126N	FLAT WIRE
C 108	QEKA1EM-475	E.CAPACITOR	4.7MF 20% 25V		IC 32 AN7317	HEAD SW
C 109	QEKA1EM-475	E.CAPACITOR	4.7MF 20% 25V		IC 33 BU0948CF-X	PBBREC
C 110	NCB21HK-682AY	C CAPACITOR	6800PF 10% 50V		L 301 QR0620-001	OSC COIL(BIAS)
C 111	NCB21HK-122AY	C CAPACITOR	1200PF 10% 50V		L 303 VPO033-100Z	INDUCTOR
C 112	NCB21EK-682AY	C CAPACITOR	-0.68MF 10% 25V		Q 101 FA1A4ZX	TRANSISTOR
C 113	NCB21HK-222AY	C CAPACITOR	2200PF 10% 50V		Q 102 FA1A4ZX	TRANSISTOR
C 121	NCS21HJ-331AY	C CAPACITOR	330PF 5% 50V		Q 201 FA1A4ZX	TRANSISTOR
C 201	NCS21HJ-821AY	C CAPACITOR	820PF 5% 50V		Q 202 FA1A4ZX	TRANSISTOR
C 202	NCS21HJ-221AY	C CAPACITOR	220PF 5% 50V		Q 301 FN14M	TRANSISTOR
C 203	QEKA0JM-227	E.CAPACITOR	220MF 20% 6.3V		Q 302 2SC2001(L,K)	TRANSISTOR
C 204	NCS21HK-333AY	C CAPACITOR	0.033MF 10% 50V		Q 303 SC2001(L,K)	TRANSISTOR
C 205	NCB21HK-222AY	C CAPACITOR	2200PF 10% 50V		Q 304 2SC2001(L,K)	TRANSISTOR
C 206	QEKA1CM-106	E.CAPACITOR	10MF 20% 16V		Q 305 2SC2001(L,K)	TRANSISTOR
C 207	NCS21HJ-561AY	C CAPACITOR	560PF 5% 50V		Q 306 2SC1623(6)	TRANSISTOR
C 208	QEKA1EM-475	E.CAPACITOR	4.7MF 20% 25V		Q 307 2SC1623(6)	TRANSISTOR
C 209	QEKA1EM-475	E.CAPACITOR	4.7MF 20% 25V		Q 308 2SC1623(6)	TRANSISTOR
C 210	NCB21HK-682AY	C CAPACITOR	6800PF 10% 50V		Q 309 2SC1623(6)	TRANSISTOR
C 211	NCB21HK-122AY	C CAPACITOR	1200PF 10% 50V		Q 321 FA14M	TRANSISTOR
C 212	NCB21EK-682AY	C CAPACITOR	680MF 10% 25V		Q 323 2SC1623(6)	TRANSISTOR
C 213	NCB21HK-222AY	C CAPACITOR	2200PF 10% 50V		Q 371 2SA952(L,K)	TRANSISTOR
C 221	NCS21HK-331AY	C CAPACITOR	330PF 5% 50V		Q 372 FA1F4MX	D-TRANSISTOR
C 301	QEKF1AM-1072N	E.CAPACITOR	100MF 20% 10V		Q 375 2SB562(C)	TRANSISTOR
C 302	NCB21HK-393AY	C CAPACITOR	.039MF 10% 50V		Q 376 2SC1623(6)	TRANSISTOR
C 303	QEKA0JM-227	E.CAPACITOR	220MF 20% 6.3V		R 101 NRSAO2J-220NY	MG RESISTOR
C 304	QEKA1CM-226	E.CAPACITOR	22MF 20% 16V		R 102 NRSAO2J-182NY	MG RESISTOR
C 305	QEKA1CM-226	E.CAPACITOR	22MF 20% 16V		R 103 NRSAO2J-242NY	MG RESISTOR
C 306	QEKA1CM-476	E.CAPACITOR	4.7MF 20% 16V		R 104 NRSAO2J-122NY	MG RESISTOR
C 307	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V		R 105 NRSAO2J-104NY	MG RESISTOR
C 308	NCB21HK-562AY	C CAPACITOR	5600PF 10% 50V		R 106 NRSAO2J-332NY	MG RESISTOR
C 309	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V		R 107 NRSAO2J-123NY	MG RESISTOR
C 310	NCB21HK-682AY	C CAPACITOR	6800PF 10% 50V		R 108 NRSAO2J-562NY	MG RESISTOR
C 311	NCB21HK-682AY	C CAPACITOR	6800PF 10% 50V		R 109 NRSAO2J-122NY	MG RESISTOR
C 313	QEKF1AM-1072N	E.CAPACITOR	100MF 20% 10V		R 110 NRSAO2J-472NY	MG RESISTOR
C 314	GCZ0205-155	ML.C.CAPACITOR	1.5MF		R 111 NRSAO2J-333NY	MG RESISTOR
C 315	QCZ0205-155	ML.C.CAPACITOR	1.5MF		R 112 NRSAO2J-222NY	MG RESISTOR
C 316	QFG32AJ-132N	PP.CAPACITOR	.010MF 5% 100V		R 113 NRSAO2J-472NY	MG RESISTOR
C 318	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V		R 114 NRSAO2J-277NY	MG RESISTOR
C 319	QFG32AJ-B212N	TF.CAPACITOR	820PF 5% 100V		R 116 NRSAO2J-102NY	MG RESISTOR
C 321	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V		R 121 NRSAO2J-102NY	MG RESISTOR
C 322	QFG32AJ-1522N	PP.CAPACITOR	1500PF 5% 100V		R 201 NRSAO2J-220NY	MG RESISTOR
C 331	QEKA1CM-476	E.CAPACITOR	4.7MF 20% 16V		R 202 NRSAO2J-182NY	MG RESISTOR
C 351	QEKA1CM-106	E.CAPACITOR	4.7MF 20% 16V		R 203 NRSAO2J-242NY	MG RESISTOR
C 371	QEKA1EM-475	E.CAPACITOR	4.7MF 20% 25V		R 204 NRSAO2J-122NY	MG RESISTOR
C 374	QEKF1AM-1072N	E.CAPACITOR	MOTOR +B		R 205 NRSAO2J-104NY	MG RESISTOR
C 375	QEKF1AM-1072N	E.CAPACITOR	100MF 20% 10V		R 206 NRSAO2J-332NY	MG RESISTOR
C 376	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V		R 207 NRSAO2J-123NY	MG RESISTOR
CN 31	VMC0163-RO6	CONNECTOR	PRI/HEAD		R 208 NRSAO2J-562NY	MG RESISTOR
CN 32	QGB201M1-10	PWB CONNECTOR	PRI/MECHA		R 209 NRSAO2J-122NY	MG RESISTOR

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 210	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W	
R 211	NRSA02J-333NY	MG RESISTOR	33K 5% 1/10W	
R 212	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 213	NRSA02J-672NY	MG RESISTOR	4.7K 5% 1/10W	
R 214	NRSA02J-272NY	MG RESISTOR	2.7K 5% 1/10W	
R 215	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 216	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 221	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 301	NRS181J-221NY	MG RESISTOR	220 5% 1/8W	
R 303	NRSA02J-393NY	MG RESISTOR	39K 5% 1/10W	
R 304	NRS181J-101NY	MG RESISTOR	100 5% 1/8W	
R 305	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 306	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 310	NRS181J-560NY	MG RESISTOR	56 5% 1/8W	
R 311	NRS181J-560NY	MG RESISTOR	56 5% 1/8W	
R 313	NRSA02J-3R3NYM	RESISTOR	3.3 5% 1/10W	
R 314	NRSA02J-223NY	MG RESISTOR	22K 5% 1/10W	
R 315	NRSA02J-100NY	MG RESISTOR	10 5% 1/10W	
R 316	NRSA02J-223NY	MG RESISTOR	22K 5% 1/10W	
R 317	NRSA02J-100NY	MG RESISTOR	10 5% 1/10W	
R 319	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 322	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 327	NRSA02J-474NY	MG RESISTOR	470K 5% 1/10W	
R 332	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 333	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 335	NRSA02J-152NY	MG RESISTOR	1.5K 5% 1/10W	
R 336	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W	
R 337	NRSA02J-333NY	MG RESISTOR	3.3K 5% 1/10W	
R 338	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
R 339	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 340	NRS181J-391NY	MG RESISTOR	390 5% 1/8W	
R 341	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 342	NRSA02J-203NY	MG RESISTOR	20K 5% 1/10W	
R 343	NRSA02J-183NY	MG RESISTOR	18K 5% 1/10W	
R 351	NRSA02J-683NY	MG RESISTOR	SHORT TEST TAIS	
R 352	NRSA02J-912NY	MG RESISTOR	SHORT TEST TAIS	
R 371	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 372	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 375	NRSA02J-151NY	MG RESISTOR	150 5% 1/10W	
R 376	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W	
VR 31	QVPA603-503A2	SEMI.V. RESISTOR	BIA'S ADJ	
VR 32	QVPA603-503A2	SEMI.V. RESISTOR	BIA'S ADJ	
VR 37	QVPA603-103M	SEMI.V. RESISTOR	TAPE SPEED ADJ	

## 14. Packing

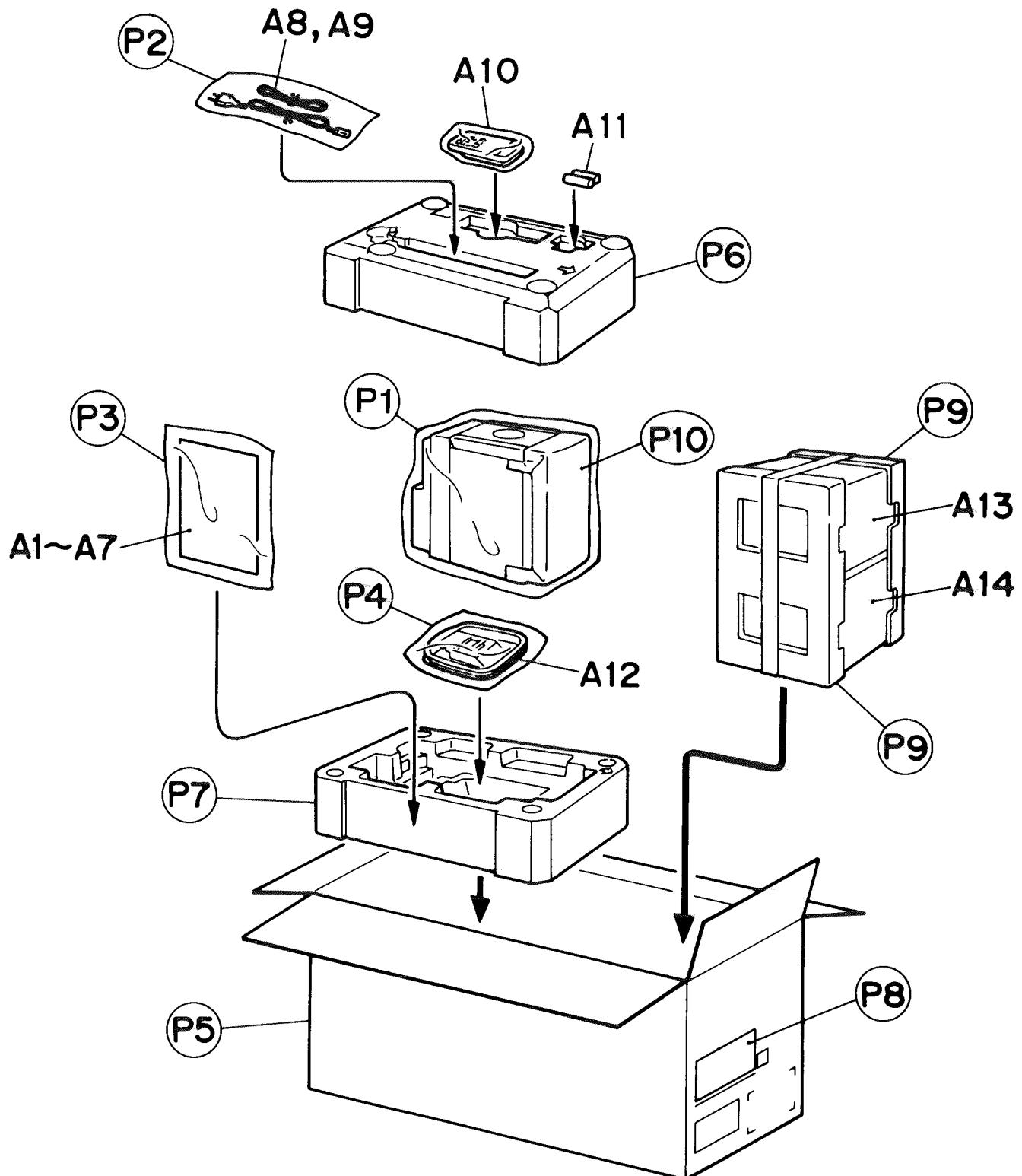


Fig. 14-1

### ■ Packing Parts List

BLOCK NO. M4MM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	P 1	VPE3026-006	POLY BAG	FOR SET	1		
	P 2	QPGA015-03503	POLY BAG		1	B	
	P 3	QPGA012-02505	POLY BAG	FOR P.CORD	1	E, EN, G	
	P 4	VPE3026-004	POLY BAG	INSTRUCTIONS	1		
	P 5	VPE3005-042	POLY BAG	FOR AM ANT.	1		
	P 5	VPC9317-C001	CARTON		1		
	P 6	VPH1709-001	CUSHION(UPPER)		1		
	P 7	VPH1709-002	CUSHION(BOTTOM)		1		
	P 8	VND3111-219	CARTON LABEL		1		
	P 9	VGSP024-004	SIDE CUSHION		2		

### ■ Accessories

BLOCK NO. M5MM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A 1	VPK3001-012	SHEET		1		
	A 2	VNN9317-271C	INSTRUCTIONS		1	EN	
		VNN9317-671C	INSTRUCTIONS		1	B	
		VNN9317-251C	INSTRUCTIONS		1	E, EN, G	
		VNN9317-261C	INSTRUCTIONS		1	E	
	A 3	BT-54003-1	WARRANTY CARD		1	B	
		BT-54006-1	WARRANTY CARD		1	G	
	A 4	BT-20066A	SVC CENTRE LIST		1	B	
	A 5	E43486-340B	SAFETY SHEET		1		
	A 7	VNC1200-107	CAUTION SHEET		1		
	A 8	QMP39F0-183	POWER CORD		1	E, EN, G	
		QMP5520-183BS	POWER CORD		1	B	
	A 9	EWP503-001	ANT.WIRE	FM ANT	1		
	A 10	VGR0063-301	REMOCON UNIT	RM-RXUT100	1		
	A 11	R6SPTT/2STA	BATTERY	FOR REMOCON	1		
	A 12	EQB4001-015	AM LOOP ANT	AM ANT	1		
	A 13	UXT100K-SPBOX	SPEAKER BOX		2	B, E	
		UXT100HK-SPBOX	SPEAKER BOX		2	EN, G	
SVP	1	VGSP024-002	SPEAKER NET		2		



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