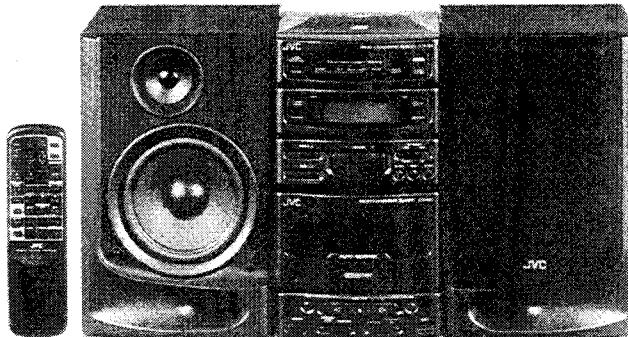


JVC

SERVICE MANUAL

MICRO COMPONENT SYSTEM

UX-A4 B/E/G/GI/EN



**COMPACT
disc
DIGITAL AUDIO**

Area suffix

B	U.K.
E	Continental Europe
G	Germany
GI	Italy
EN	Northern Europe

Contents

	Page		Page
1 Safety Precautions	2	9 Block Diagram	47
2 Safety Precautions about UX-A4	3	10 Wiring Connections	48
3 Features	5	11 Standard Schematic Diagram	50
4 Specifications	5	12 Location of P.C. Board Parts	57
5 Instructions (Extract)	6	13 Electrical Parts List	65
6 Location of Main Parts	23	14 Illustration of Packing and Parts List	74
7 Removal of Main Parts and Parts List	24	15 Accessories	75
8 Main Adjustments	39		

1. Safety Precautions

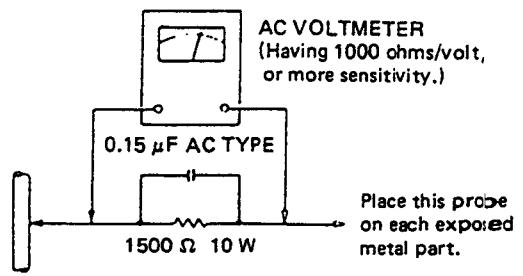
1. The design this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original 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 must not exceed 0.75V AC(r.m.s.). This corresponds to 0.5mA AC(r.m.s.).



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.

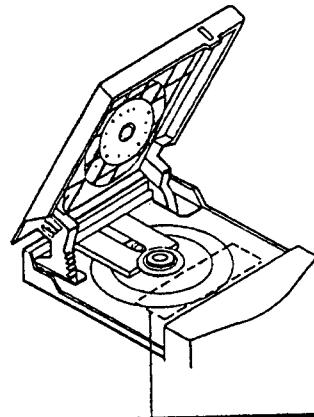
2. Safety Precaution about UX – A4

IMPORTANT FOR LASER PRODUCTS

PRECAUTIONS

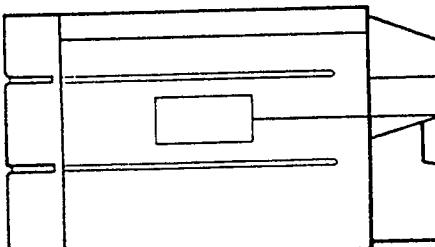
1. CLASS 1 LASER PRODUCT
2. DANGER: Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. CAUTION: Do not open the rear cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
4. CAUTION: The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent the emission of radiation when the CD door 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 are 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



**ADVARSEL-Der vil udstråles osynlig laserstråling når apparatet åbnes og låsesmekanismen frigøres.
UNDGA AT BLIVE UDSET FOR LASERSTRÅLING.**

**DANGER-Invisible laser radiation when open and Interlock defeated.
AVOID DIRECT EXPOSURE TO BEAM.**



CD player/tuner section

Obs:
Apparaten innehåller laser-komponent av högre laserklass än klass 1.

IMPORTANT (in the United Kingdom)

Mains Supply (AC 240 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.

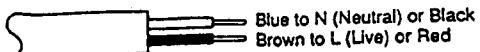
BE SURE to replace the fuse only with an identical approved type, as originally fitted, and to replace the fuse cover.

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.

IMPORTANT

DO NOT make any connection to the terminal which is marked with the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:



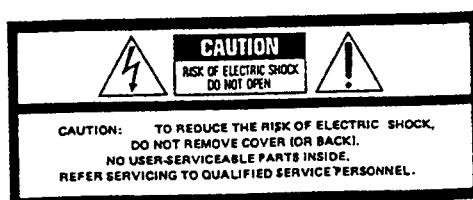
As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

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.

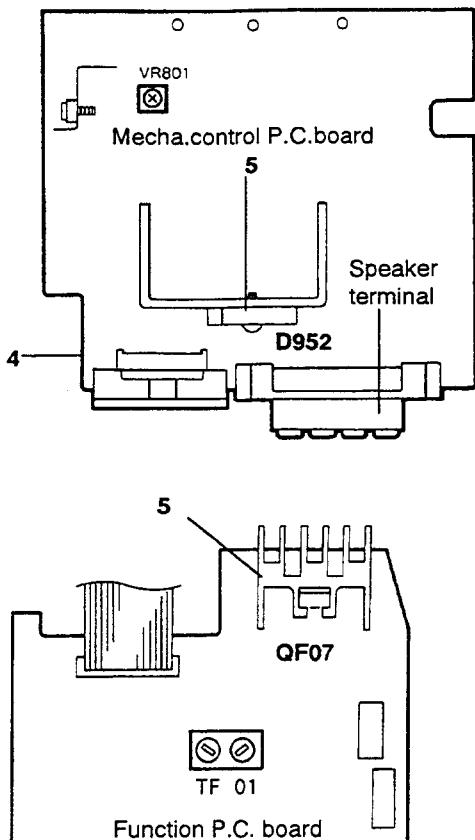
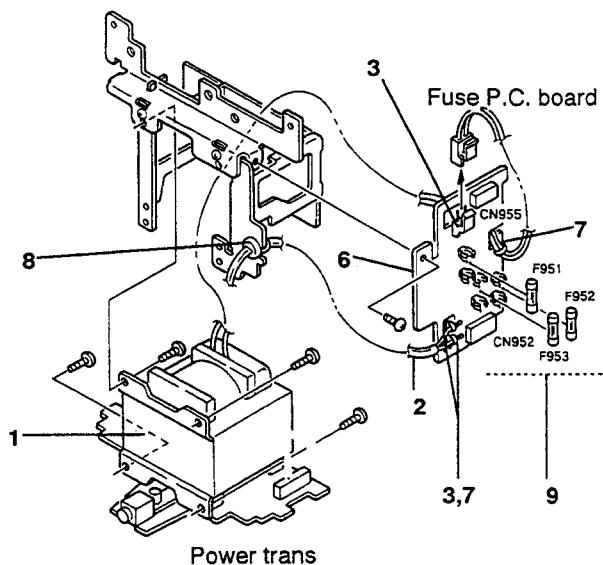
WARNING:
**TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,
DO NOT EXPOSE THIS APPLIANCE TO RAIN OR
MOISTURE.**



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 the literature accompanying the appliance.



■ Important points for safety management

1. Check "VTP66J2 – 24D (UX – A4 E/G/GI/EN)", "VTP66T2 – 12D (UX – A4 B)" of power transformer and make sure that any bolt is not loosened.
2. Check the power source cord indication " \triangle VDE \triangleright (UX – A4E/G/GI/EN)", "SASEC: BS6500(UX – A4B)" of attachment plug "KP – 419C or SE – 1(UX – A4 E/G/GI/EN)", "KP – 610, 3A or SE – 5, 3A(UX – A4B)" and make sure that the cord is free from any defect(Damage).
3. ① 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.
② The tab for winding the power cord must be twisted and soldered to prevent disconnection.
③ The lead of the power cord must be wound around the tab and soldered the spatial distance must be 3.2mm or more.

5. Since the following parts are exothermic, make sure that such parts will not come into contact with any electrolytic capacitor, wire and other parts.
ICA05, ICA06, IC502, IC701, D952, Q808, QF02, R867, R857, RF38 and heat sink are exothermic parts.
6. Any wire, etc. should be clamped or bonded as indicated in the above diagram so that such wire will not be positioned close to any exothermic parts.
7. Wires must be clamped or secured at the locations shown in the figure so that the wire do not touch to live parts moving part, hot part, or sharp edges.
8. By using the special tool , attach the power cord bushing to the position where "4N – 4" is marked.
9. Set and firmly fix the fuses F951, F952 and F953 respectively to T400mA, T6.3A and T6.3mA after confirming the respective positions.

3. Features

1. Disc-size micro component system consisting of 4 units
2. Active Hyper-Bass circuit for low-frequency sound reproduction
3. Sound mode control (Beat, Vocal, Instrument)
4. One touch operation (COMPU PLAY)
 - When a source button (CD, tape, or tuner) is pressed, the unit's power is turned on and initiates the playback even when the power is set to STANDBY.
5. 35-key remote control unit opens and closes the motor-driven CD door, and operates the usual CD, cassette deck and tuner functions
 - The remote control operates the power ON/OFF switching, volume control, bass/treble control, sound mode control, Active Hyper-Bass ON/OFF switching, and a variety of editing functions.
6. Multi-function CD player
 - Capable of auto-edit recording and programmed play.

7. U-Turn auto-reverse full-logic mechanism with Dolby® B NR
 - Auto tape select mechanism.
 - Metal (type IV) and CrO₂ (type II) tape can be played back for superior tone quality.
 - CrO₂ (type II) tape recording capability
 - Music scan** in forward or reverse direction
 8. 2-Band digital synthesizer tuner with 30-station (15 FM and 15 AM (MW/LW)) preset capability
 - Seek/manual tuning.
 - Auto preset tuning
 9. Timer/Clock function
 - Timer on/off with preset volume function.
 - Wake-up volume setting with 50 different levels.
 - Sleep timer can be set for up to 120 minutes.
- * Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol  are trade-marks of Dolby Laboratories Licensing Corporation.
- ** Under license of Staar S.A. Brussels, Belgium.

4. Specifications

Compact disc player section

Type	: Compact disc player
Signal detection	: Non-contact optical pickup
Number of channels	: 2 channels
Frequency range	: 20 Hz – 20,000 Hz
Dynamic range	: 86 dB
Signal-to-noise ratio	: 86 dB
Total harmonic distortion	: 0.03 %
Wow & flutter	: Less than measurable limit

Radio section

Frequency ranges	: FM 87.5 – 108 MHz AM: (MW) 522 – 1,629 kHz (LW) 144 – 288 kHz
Antennas	: Loop antenna for AM (MW/LW) External antenna terminal for FM (75 ohms)

Tape deck section

Track system	: 4-track 2-channel stereo
Motor	: Electronic governor DC motor (capstan x 1, reel x 1)
Heads	: Hard permalloy head for recording/playback, 2 gap ferrite head for erasure (Combination head)
Frequency response	: 50 – 15,000 Hz (with metal tape)
Wow and flutter	: 0.09 % (WRMS)
Fast wind time	: Approx. 120 sec (C-60 cassette)

Speaker section (each unit)

Speaker	: 12 cm x 1 (Woofer) 5 cm x 1 (Tweeter)
Dimensions	: 160(W) x 251(H) x 203(D) mm
Weight	: Approx. 2.2 kg

General

Power output	: Max. 40 W (20 W + 20 W) at 4 Ω
	: 28 W (14 W + 14 W) at 4 Ω (10 % THD)

Output jacks	: Speaker x 2 (matching impedance 4 Ω – 16 Ω) Headphones (0 – 30 mW/32 Ω) (matching impedance 16 Ω – 1 kΩ)
--------------	--

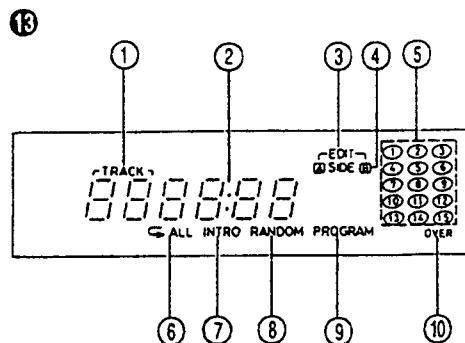
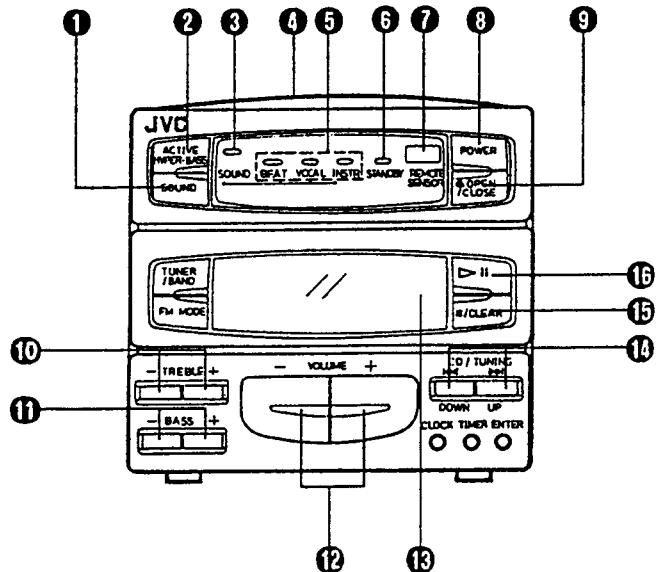
Power supply	: AC 240 V, 50/60 Hz, (UX-A4B) AC 230 V, 50/60 Hz, (UX-A4E/G/GI/EN) Ext. DC 12 V (car battery via optional CA-R120E car adapter)
Power consumption	: 66 W (with POWER SW ON) 4 W (with POWER SW STANDBY)
Dimensions	: 458.5(W) x 255(H) x 208(D) mm including knobs
Weight	: Approx. 8.9 kg
Accessories provided	: Remote control unit (RM-RXUA4) x 1 Battery "R6" x 2 (for the remote control) FM feeder antenna x 1 Loop antenna stand x 1 Speaker cord x 2 Antenna adapter x 1

Design and specifications are subject to change without notice.

5. Instructions (Extract)

NAMES OF PARTS AND THEIR FUNCTIONS

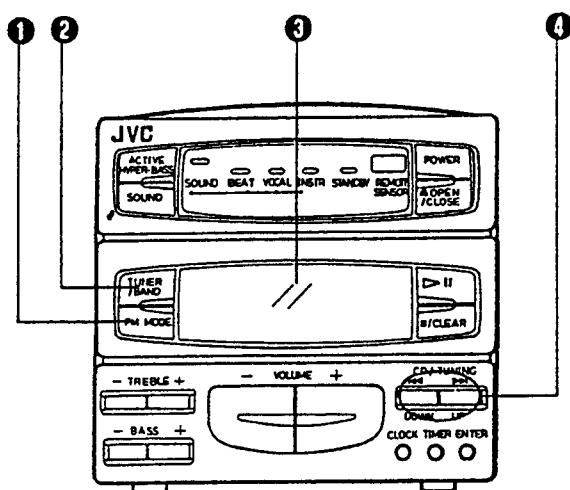
CD player/General section



- ① SOUND button
- ② ACTIVE HYPER-BASS button
- on: The ACTIVE HYPER-BASS Indicator will light. Set to this position to listen to the ACTIVE HYPER-BASS sound.
- off: The ACTIVE HYPER-BASS indicator goes out. Set to this position when ACTIVE HYPER-BASS sound is not required.
- ③ Active Hyper-Bass indicator
- ④ CD door
- ⑤ Sound mode indicators (BEAT/VOCAL/INSTR.)
- ⑥ Power STANDBY indicator
- ⑦ REMOTE SENSOR section
- ⑧ POWER button
- Press to switch the power on or off.
- ⑨ CD door OPEN/CLOSE button (Δ)

- ⑩ TREBLE buttons (+,-)
(control range from -6 to 6)
- ⑪ BASS buttons (+,-)
(control range from -6 to 6)
- ⑫ VOLUME buttons
- +: Use to increase the volume
-: Use to decrease the volume
(control range from VOL 0 to VOL 50)
- ⑬ Display window
- ① Function/Track number display
- ② Playback time display
- ③ EDIT recording mode indicator
- ④ SIDE (A)/(B) indicator
- ⑤ Music calendar display
- ⑥ Repeat playback indicator
- ⑦ INTRO scan indicator
- ⑧ RANDOM playback indicator
- ⑨ PROGRAM mode indicator
- ⑩ OVER indicator
- ⑭ CD SEARCH buttons (\blacktriangleleft , \triangleright):
Press to locate the beginnings of tunes and to start forward and reverse search operations.
- ⑮ Stop/CLEAR button (■):
Press to stop playing a disc and to cancel programmed playback. This also sets the CD mode.
- ⑯ Play/pause button ($\triangleright\text{II}$):
Press to play a disc and to stop temporarily.

Tuner/Deck section



① FM MODE button

② TUNER/BAND button

Press to select the tuner mode.

Press to select the band (FM/AM (MW/LW)).

③ Display window

① Band indicator (FM/AM (MW/LW))

② Radio frequency display

③ MONO indicator

④ STEREO indicator

⑤ Preset station display

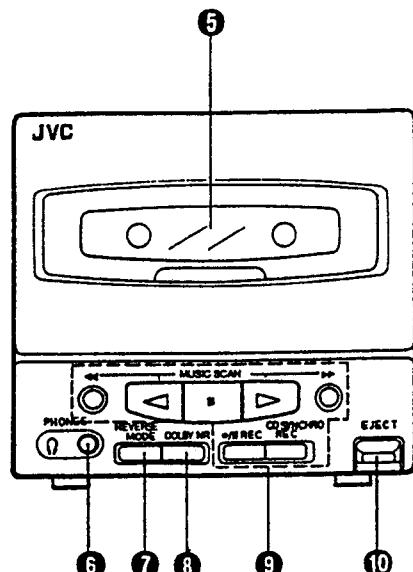
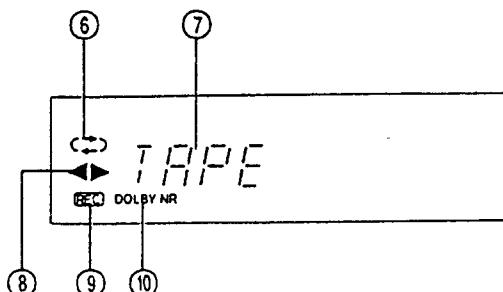
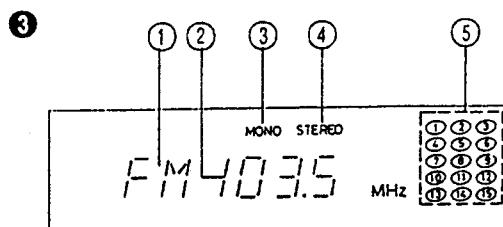
⑥ Reverse mode indicator (↔ / ↔ / ↔)

⑦ Tape mode display

⑧ Tape direction indicator (◀, ▶)

⑨ Recording indicator (REC)

⑩ DOLBY NR indicator (DOLBY NR)



④ Tuning button (UP/DOWN)

⑤ Cassette holder

⑥ Headphones jack (PHONES) (3.5 mm dia. stereo mini)
Connect headphones (impedance 16Ω - 1kΩ) to this jack. The speakers are automatically switched off when the headphones are connected.

⑦ REVERSE MODE switch

↔ : For single-side recording or playback

↔ : For both-sides recording or playback

↔ : For continuous play

⑧ DOLBY NR button

Set to ON when recording or playing back tapes using the noise reduction system.

⑨ Cassette operation buttons

◀ : Press to fast wind the tape from right to left/Music scan.

◀ : Press to play back the tape in the reverse direction.

■ : Press to stop the tape.

This also sets the TAPE mode.

▶ : Press to play back the tape in the forward direction.

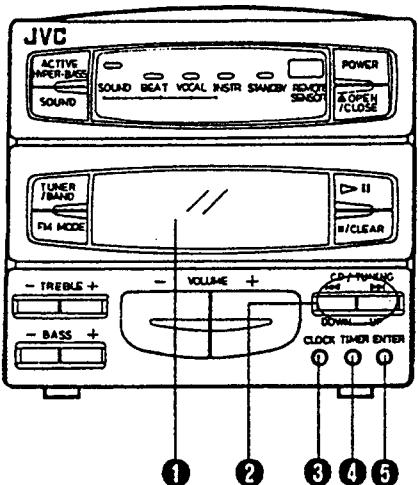
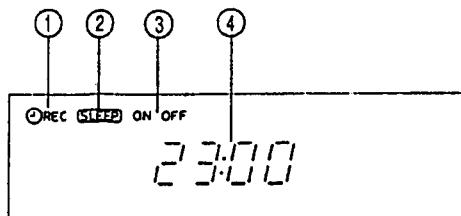
▶ : Press to fast wind the tape from left to right/Music scan.

●/II REC : Press to set the unit to the record or record-pause mode.

CD SYNCHRO REC : Press to start CD edit recording/synchro recording.

⑩ EJECT button

Clock/Timer section

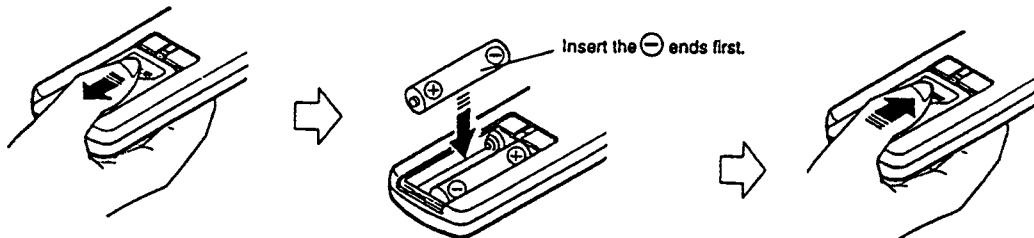
**①****①** Display window

- ① Timer mode indicator
 - ② SLEEP indicator
 - ③ Timer indicator (ON/OFF)
 - ④ Time display
- ②** UP/DOWN buttons
Set the time or timer setting.
- ③** CLOCK button
Set the time and current time displays.
- ④** TIMER button
Set the timer setting or timer ON/OFF (to reset or cancel the timer).
- ⑤** ENTER button
Register the time or timer setting.

REMOTE CONTROL UNIT

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 "R6" size batteries.
 - Insert the batteries with the \oplus and \ominus terminals matching the indication inside the battery compartment.



3. Replace the cover.

- **Battery replacement**
When the remote control operation becomes unstable or the distance from which remote control is possible becomes shorter, replace the batteries with new ones.

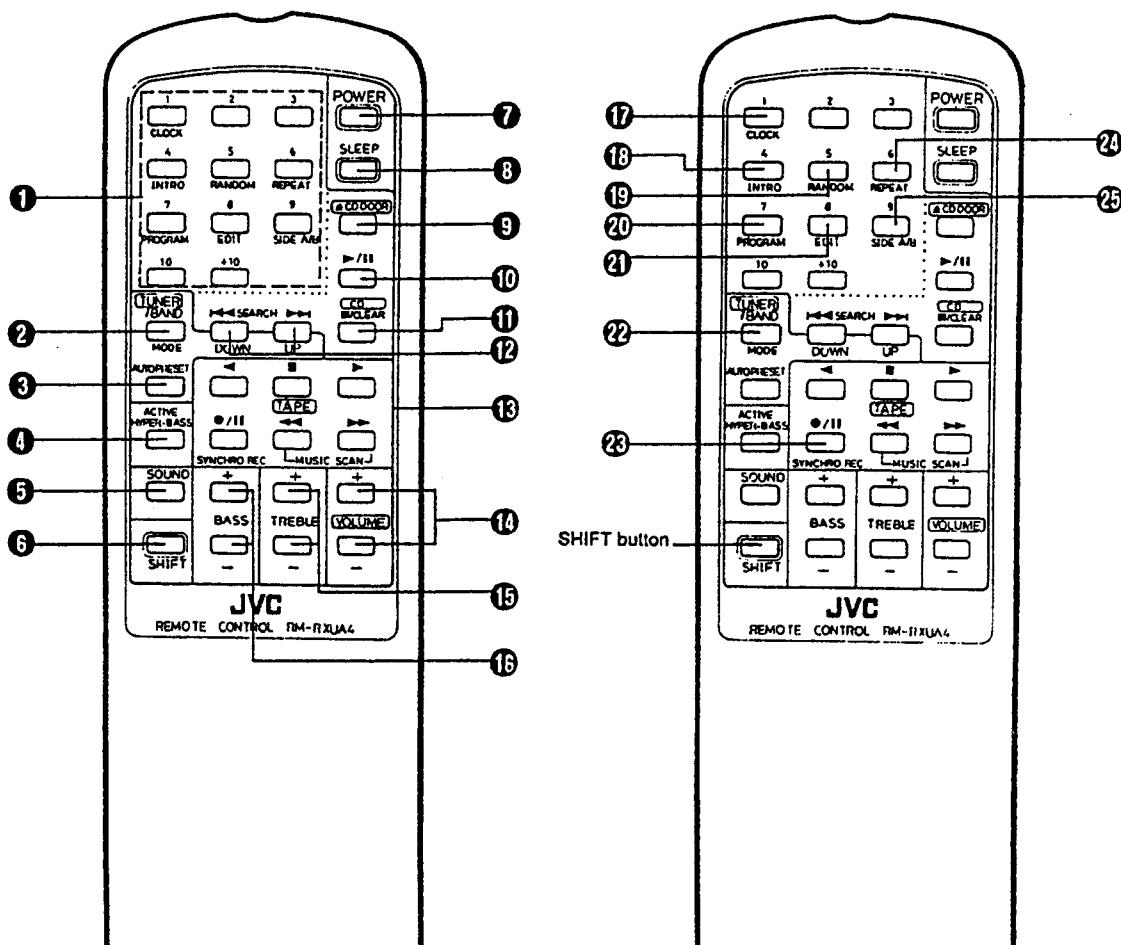
Using the remote control unit

To use the remote control unit, point it at the REMOTE SENSOR and press the buttons gently and firmly. Remote control operation is possible within about 7 m (approx. 23 ft). However, since the remote control range is less when the unit is used at an angle, use directly in front of the REMOTE SENSOR, as far as possible.

Do not expose the REMOTE SENSOR to strong light (direct sunlight or artificial lighting) and make sure that there are no obstacles between the REMOTE SENSOR and the remote control unit.

The following operations can be performed using the remote control unit.

- Check the functions of the operation buttons carefully and operate them correctly.

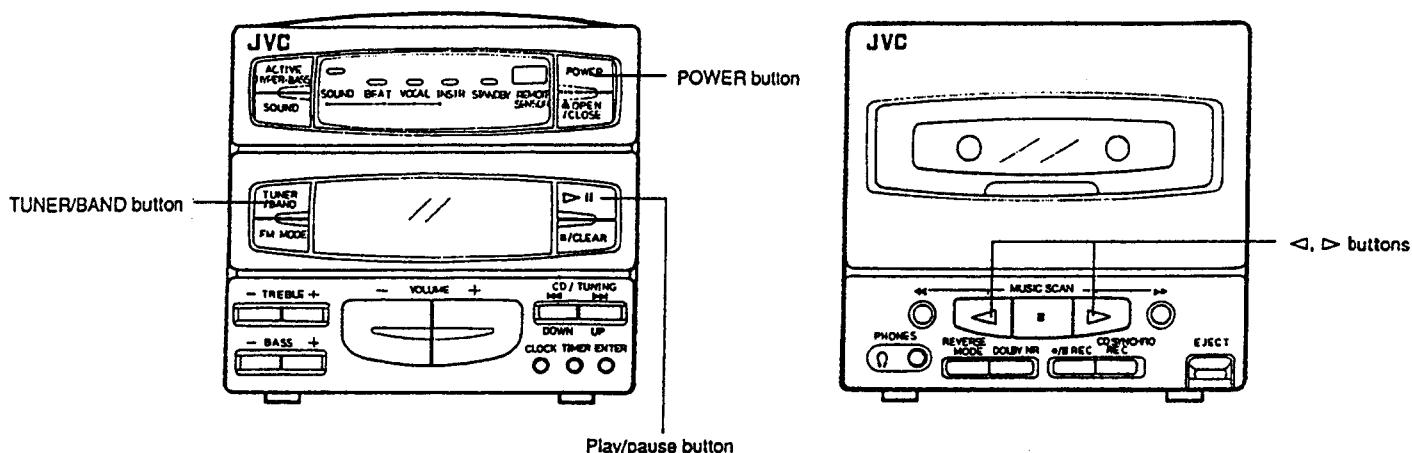


- ① Track (tune) number buttons (No.1 – No.10, +10)
- ② TUNER/BAND button
- ③ AUTO PRESET button
- ④ ACTIVE HYPER-BASS button
- ⑤ SOUND button
- ⑥ SHIFT button
- ⑦ POWER button
- ⑧ SLEEP button
- ⑨ CD DOOR button (▲)
- ⑩ CD ▶/II: CD mode/play/pause button
- ⑪ ■/CLEAR:stop/clear button
- ⑫ CD SEARCH/DOWN and UP button (◀◀, ▶▶)
 - In the CD mode, to scan to the beginning of a tune and to start forward or reverse search.
 - In the tuner mode, to tune to broadcasts.
- ⑬ Cassette operation buttons
 - ◀ : Play button (reverse direction of tape)
 - : Stop button
 - ▶ : Play button (forward direction of tape)
 - / II : Record/Record-pause button
 - ◀◀ : Fast wind (from right to left)/Music scan button
 - ▶▶ : Fast wind (from left to right)/Music scan button
- ⑭ VOLUME buttons (+,-)
- ⑮ TREBLE buttons (+,-)
- ⑯ BASS buttons (+, -)

Press the following buttons while holding down the SHIFT button ⑥.

- ⑰ CLOCK button
Use to display a current time.
- ⑱ INTRO button
- ⑲ RANDOM button
- ⑳ PROGRAM button
- ㉑ EDIT button
- ㉒ MODE(STEREO/AUTO/MONO) button
- ㉓ SYNCHRO REC button
- ㉔ REPEAT button
- ㉕ SIDE A/B button

SWITCHING THE POWER ON/OFF



Switching the power on/off

- Switching on:



The indicator goes out.

- The indicator in the display window lights.

COMPU PLAY

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

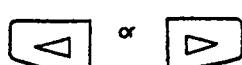
Function mode



CD

Operations

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

When the CD door OPEN/CLOSE button (Δ) is pressed, the source sound does not switch over, the CD door can open or close.

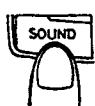
Notes:

1. When switching off the power, be sure to press the power button.
2. The COMPU PLAY button on the remote control has the same function as the UX-A4.
3. When the CD door opens and the Play/pause ($>\text{II}$) button is pressed, the CD door closes and the CD play starts.

Sound mode button

The UX-A4 has three preset sound modes (BEAT, VOCAL, INSTR.). These modes can be selected to enhance the type of music being played.

- Press the SOUND button to select Sound mode. Each time the SOUND button is pressed, Sound mode changes as follows;



No display mode → BEAT → VOCAL → INSTR.



- When INSTR. mode is selected, Active-Hyper Bass sound is automatically switched ON.

Sound mode selection

BEAT:

Set to this position for music with a heavy beat, such as rock or disco music.

VOCAL:

Set to "VOCAL" for popular or vocal music.

INSTR.:

Select this position for background and instrumental music.

Note:

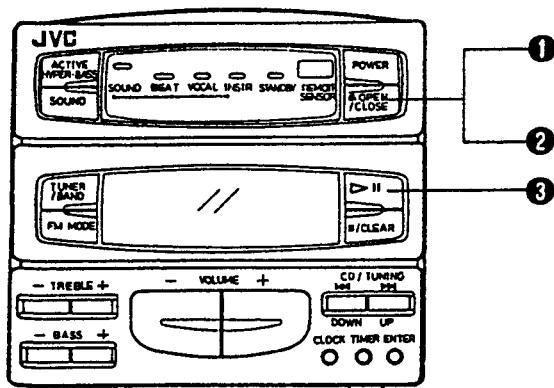
When the BASS or TREBLE button is pressed in any sound mode, No Display mode is selected automatically.

PLAYING COMPACT DISCS



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

Operate in the order shown



- Press to open the CD door. (The power is switched on.)
 - Load a disc with the label side facing up. Press to close the CD door. (The door can be closed by pressing the > II button.)
 - Press to start play.
 - As tunes are played, their track numbers go out one by one.
- After loading a CD, simply press the > II button to switch on the power and start CD playback.

• 8-cm (3-3/16") compact discs can be used in this unit without an adapter.

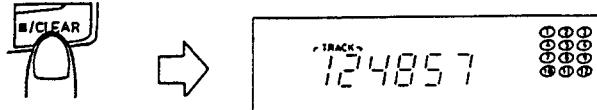
Note:

When the CD door is closed by pressing the > II button, the CD starts as soon as the CD door is closed.

To stop play

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

- To stop a disc temporarily
Press the > II button to stop play temporarily and the playing time blinks. When pressed again, play resumes from the point where it was paused.



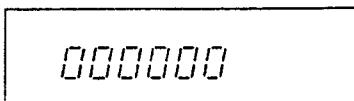
- The total number of tracks (tunes) and total playing time are displayed.

Caution:

- To change discs, press the ■/CLEAR button; check that the disc has stopped rotating completely before unloading it.

Notes:

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



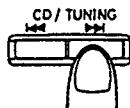
- Do not use the unit at excessive high or cold temperatures. The recommended temperature range is from 5°C (41°F) to 35°C (95°F).**
- After playback, unload the disc and close the CD door.
- If mistracking occurs during play, lower the volume.
- Mistracking may occur if a strong shock is applied to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

Skip playback

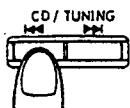
- During playback, it is possible to skip forward to the beginning of the next tune or back to the beginning of the tune being played or the previous tune; when the beginning of the required tune has been located, play starts automatically.

To listen to the next tune ...

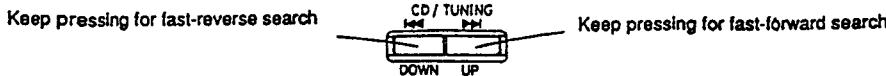
Press the **▶▶I** button once to skip to the beginning of the next tune.

**To listen to the previous tune ...**

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

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

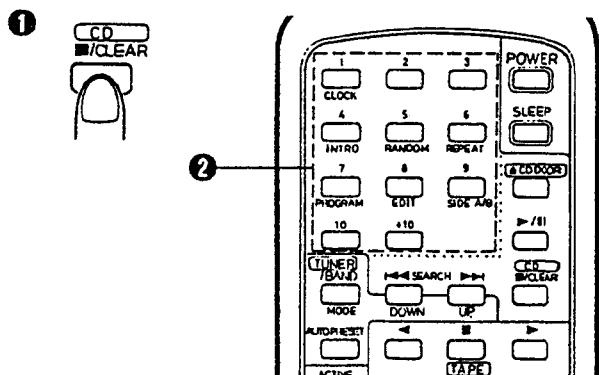
- The required position can be located using fast-forward or reverse search while playing a disc.



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

Direct access playback (using the remote control)

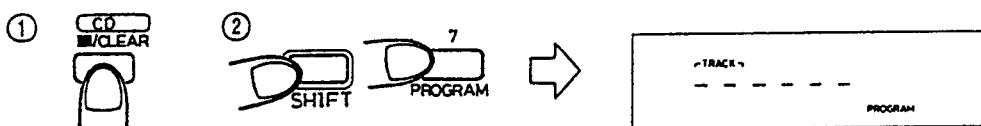
- Pressing any of the track number buttons will start play from the beginning of the designated tune, without your having to press the **CD ▶/II** button. (This function cannot be used during programmed play.)



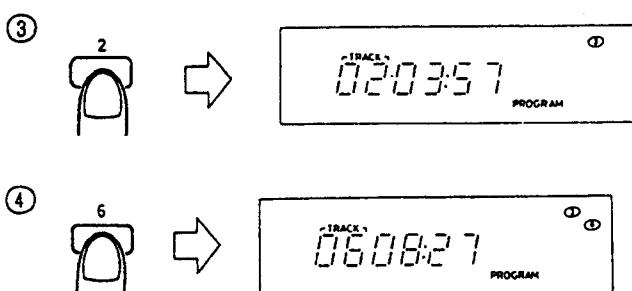
- Press the **■/CLEAR** button to set to the CD mode.
- Designate the required tune using the track number buttons.
 - To designate tune numbers 1 to 10, press the track number button corresponding to the tune (track) number.
 - To designate tune number 11 or higher, press the **+10** button the required number of times, then the track number button. (Example: To designate the 20th tune, press the **+10** button once, then press track number button 10.)
 - +10 button:**
Each time this button is pressed, the number increases by 10. First press this button to set the 10's digit, then press the track number button to set the 1's digit.
 - To skip to another tune during play**
When the required track number button is pressed, the display shows the designated track number and play starts from the beginning of the designated tune.

Programmed play (using the remote control)

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



To designate the 2nd tune.



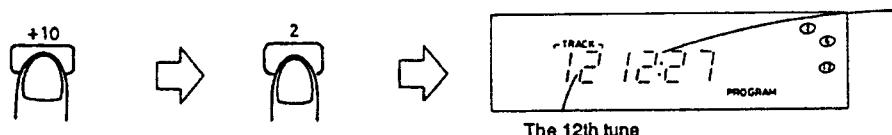
- Press the **CD/CLEAR** button.
- Press the **PROGRAM** button while pressing the **SHIFT** button to set to the programming mode.
- Press to designate the required track number.
- Designate the remaining tunes by pressing the track number buttons.
- Press the **>/II** button when programming is completed. Programmed playback starts.

To clear the programmed tunes ...

Press the **CD/CLEAR** button before playing a disc. During programmed playback, press this button twice. When the CD door is opened, programmed tunes are cleared automatically.

To designate the 12th tune.

The total playback time of programmed tunes is displayed.

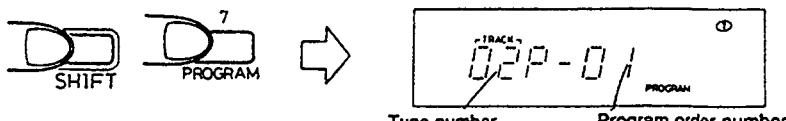


The 12th tune



To confirm the details of a program...

Press the **PROGRAM** button while pressing the **SHIFT** button; the tunes making up the program will be displayed in programmed order.



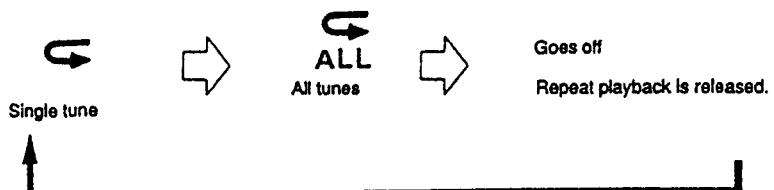
Notes:

- If the total playing time of the programmed tunes exceeds 99 minutes 59 seconds, the total playing time indication will go out.
- Programming 21 or more tunes is impossible.
- When a disc with 16 or more tunes is loaded, the "OVER" indicator will appear.
- When a track number that is higher than 21 is programmed for a disc which contains more than 21 tunes, the track No. is displayed, however, "—:-—" is shown in the total playback time.
- When performing timer playback in the order of "Programmed play", step ⑤ above is not required.

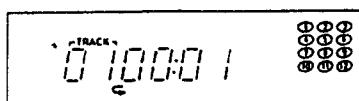
Repeat play (using the remote control)

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

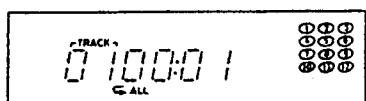
Whether a single tune or all tunes are to be repeated can be specified. Each time the REPEAT button is pressed while pressing the SHIFT button, the mode will change from a single tune (\square), to all the tunes (\square ALL), to the clear mode, in this order.



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



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



Random playback (using the remote control)

Press the RANDOM button while pressing the SHIFT button, all tunes on a disc are played once, in random order.



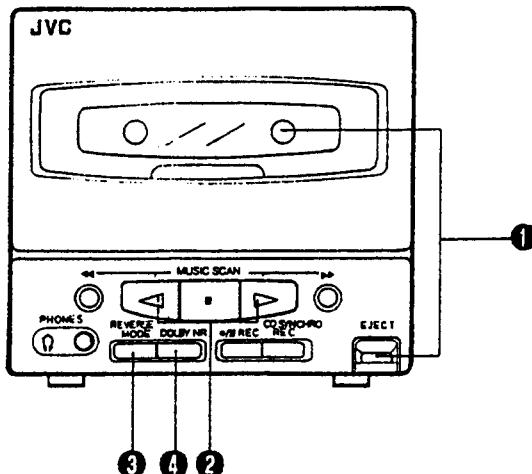
INTRO scan operation (using the remote control)

- Simply press the INTRO scan button while pressing the SHIFT button to play the first 15 seconds of each tune. The operation is released after playing the introductions of all tunes or all programmed tunes.
- If the INTRO scan button is pressed in the middle of a tune while pressing the SHIFT button, the intro scan operation will start from the next tune.
- To release the intro scan mode, press the INTRO scan button again while pressing the SHIFT button and normal playback (or programmed playback) will resume.



CASSETTE PLAYBACK

Operate in the order shown



- ① Load a cassette tape with side A facing out.
 - ② Press to start playback. (The power is switched on and the TAPE mode is engaged to start the tape playback.)
 - ③ Select the reverse mode (\square / \square / \square).
 - ④ Set the DOLBY NR switch as required.
- After loading a cassette tape, simply press the \square or \square button. The power is switched on and the tape starts playback.
 - When the tape is played back with the reverse mode set to the \square (single side play) or \square (both side play) mode, the tape stops automatically at the end of tape after playing one side or both sides.

Music scan

- The beginning of the current tune or the next tune can be located using the music scan facility.
- ① Press the \triangleright or \triangleleft button for tape playback.
 ② Press the $\blacktriangleright\blacktriangleright$ or $\blacktriangleleft\blacktriangleleft$ button for music scan.

- ③ When music scanning is completed, playback will start automatically.
- To skip two tunes or more, repeat the above steps ② and ③.

Notes:

With the following types of tape, the Music Scan mechanism may not operate correctly. This is not a malfunction; use the Music Scan facility only with suitable tapes.

- Tapes with tunes having long pianissimo passages (very quiet parts) or non-recorded portion during tunes.
- Tapes with short non-recorded sections.
- Tapes with high-level noise or hum between tunes.

- To the start of the next tune
- To the start of the tune being played back

(Forward (\triangleright) direction playback)



(Reverse (\triangleleft) direction playback)

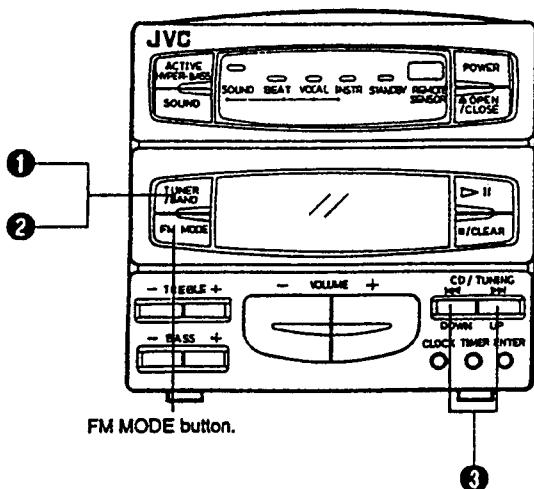


The tape direction indicators blink during music scanning.



RADIO RECEPTION

Operate in the order shown



- ① Press the TUNER/BAND button.
 • The power is switched on and a band and radio frequency will be shown in the display.
 ② Select the band (FM or AM (MW/LW)).
 ③ Tune to the required station.

FM MODE button

AUTO:

Set to this position when listening to or recording an FM stereo broadcast. The STEREO indicator lights when the FM stereo broadcast is received.

MONO:

Set to this position when FM stereo reception is noisy.

• Seek tuning

Press the UP or DOWN button for one second or more; the unit enters the seek tuning mode and tunes to higher or lower frequencies, and when the broadcast is received, it stops tuning automatically and the broadcast can be heard.

In AM operation, the frequency moves continuously from the MW to the LW band and vice versa.

- **Manual tuning**

Each time the UP or DOWN button is pressed, the unit steps through the current frequency band. Tuning is in steps of 50 kHz for FM and 9 kHz for AM (MW/LW).

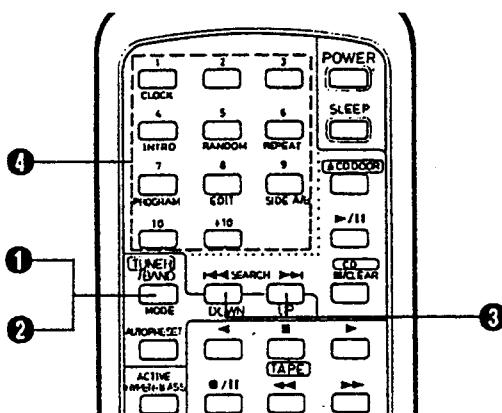
In AM operation, the frequency moves continuously from the MW (522 - 1,629 kHz) to the LW (144 - 288 kHz) band and vice versa.



Auto preset tuning (using the remote control unit)

This function scans the current band (FM or AM (MW/LW)), detecting frequencies used to broadcast signals, and stores the first 15 frequencies in memory automatically.

- Press the AUTO PRESET button. The frequencies of stations broadcasting signals can be preset automatically in the order of increasing frequency.(15 stations in each band (FM and AM (MW/LW)).



Preset tuning (using the remote control unit)

- ① Press the TUNER/BAND button
 - ② Select the band (FM or AM (MW/LW)) using the TUNER/BAND button.
 - ③ Press the required preset station buttons (No.1 - No.10, +10).
- The preset station number and frequency corresponding to the button pressed are shown.

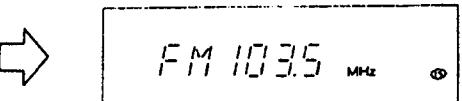
Notes:

- When seek tuning to the required station is not possible because it is broadcasting too weak a signal, press the UP or DOWN button momentarily to perform manual tuning.
- When the power is set to STANDBY, or another mode (TAPE or CD) 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 heard.

Presetting stations (using the remote control unit)

15 stations in each band (FM and AM (MW/LW)) can be preset as follows:

- Example (when presetting an FM station broadcasting at 103.5 MHz to preset button "15")



- 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 preset.)

- Repeat the above procedure for each of the other stations, using a different preset button each time.
- Repeat the above procedure for the AM (MW/LW) band.

To change preset stations

Perform step ④ above after tuning to the required station.

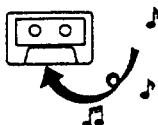
Notes:

- The previous preset station is erased when a new station is set as the new station's frequency replaces the previous frequency in memory.
- When listening to an AM (MW/LW) broadcast, noise may be heard if the remote control is used.
- All preset stations will be erased when the power cord is disconnected or a power failure occurs for more than 24 hours. In such cases, preset them again.

Using the antennas

FM: Connect the provided FM feeder antenna
(see page 7).

AM (MW/LW): Adjust the position of AM (MW/LW)
loop antenna.

RECORDING

- In recording, the ALC circuit automatically optimizes the recording level; adjustment of the recording level is unnecessary.
- Check that the safety tab on the cassette tape is not broken off.

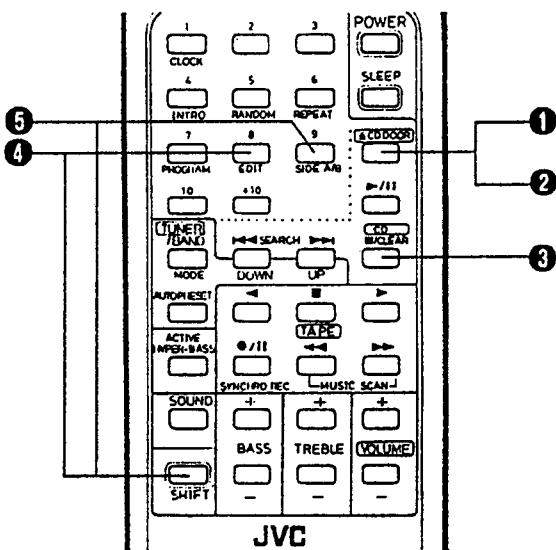
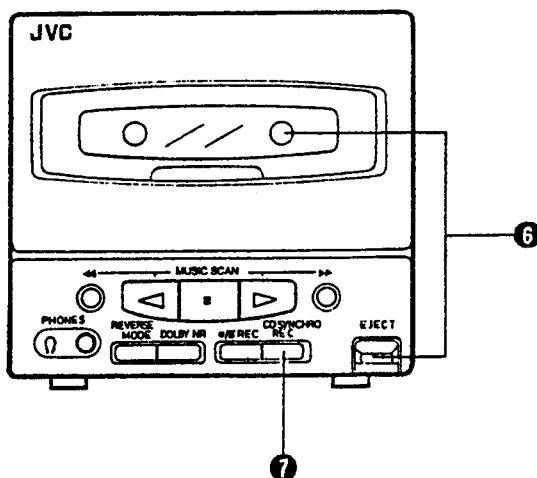
Notes:

This unit has recording characteristics suitable for normal and CrO₂ tapes. Normal and CrO₂ tapes have different characteristics from metal tape.

CD edit recording (for CDs with up to 20 tunes)

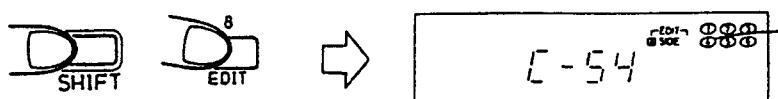
- By checking the total playing time of the CD, a microcomputer in the unit automatically calculates the optimum length (recording time) of the tape to be used, displays the required tape length, and divides the tunes on the disc into two groups to be recorded on the two sides of the tape so as to minimize tape waste.

Operate in the order shown



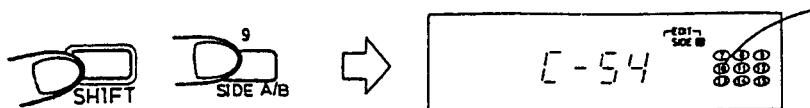
- ① Press to open the CD door. (The power is switched on.)
- ② Load a disc and press to close the CD door.
- ③ Set to the CD mode.

- ④ Press the EDIT button while pressing the SHIFT button.



The tune numbers recorded on side A appear.

- ⑤ Press the SIDE A/B button while pressing the SHIFT button.



The tune numbers recorded on side B appear.

- ⑥ Insert a cassette with a suitable length (recording time) with side A facing out.
 - The tape length can be set from the remote control. (See below.)
- ⑦ Press the CD SYNCHRO REC button to start CD edit recording.
 - Recording starts in the forward direction (on the side facing out).
 - During edit recording, the leader tape section (approx first 10 sec.) is wound automatically and then recording starts. The reverse mode is set to \Rightarrow mode automatically.
 - The tape stops automatically when the CD has been played.

• To change the tape length (recording time)

When the EDIT button is pressed while pressing the SHIFT button with a CD loaded, the tape length required to record the entire disc is displayed (C-46, C-54, C-60, C-74 or C-90).

At this time, the displayed tape length can be changed by pressing the track number buttons.

Example: To change to C-50

Press the +10 button four times, and within 10 seconds, press the 10 button.

When the length of the tape is changed, some of the tunes that were to be recorded on side A may be indicated as to be recorded on side B or vice versa, according to the tape length specified.

Depending on the tape length specified, some tunes may not be recorded on the tape. Set the tape length (recording time) so that the entire disc can be recorded.

- When editing a disc with 16 to 20 tunes
CD editing can be used to record discs containing up to 20 tunes, however, the music calendar shows up to only 15 tunes.

As the 16th to 20th tunes will not appear in the music calendar display (the "OVER" indicator will light), be sure to check the tunes you have recorded after completing editing.

- Set the DOLBY NR as required. The DOLBY NR indicator lights.

Note:

The optimum sound quality will not be obtained if different DOLBY NR switch settings are used during recording and playback.

Notes:

- When a disc with 21 tunes or more is loaded, "C---" will appear in the display. In such a case, set the required tape length using the track number buttons on the remote control.
- In CD edit recording blanks of approx. 4 seconds will automatically be left between tunes on the recorded tape.

When automatic spacing between tunes is not required ...

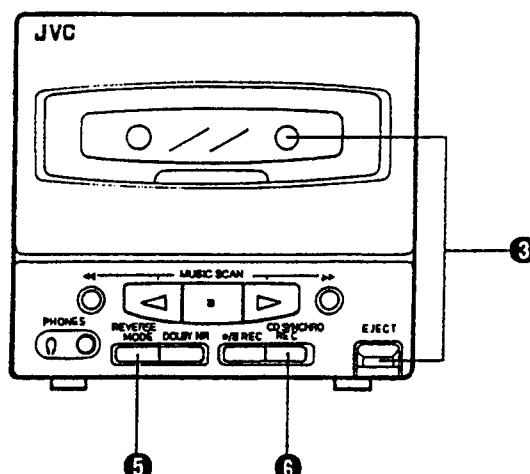
Perform the following.

1. Press the \triangleright button of the CD player twice. The CD Player enters the pause mode.
2. Press the CD SYNCHRO REC button to start recording.

Note:

- Depending on the disc used, blanks of a specified length may be left between tunes

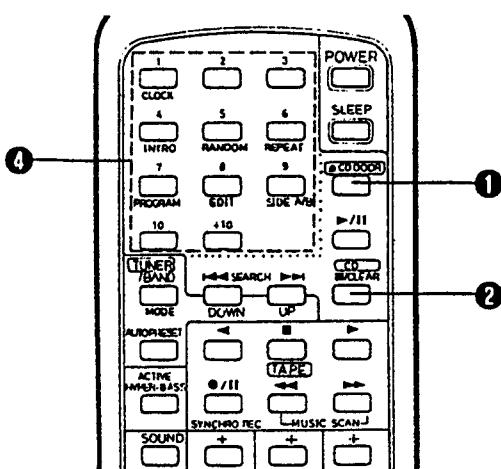
- After use
Press the \blacksquare /CLEAR button to release the CD edit recording mode. (The CD edit recording mode is also released when the CD door is open.)



Synchronized recording with the CD player

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

Operate in the order shown



- ① Load a disc and close the CD door. (The power is switched on.)
- ② Set to the CD mode.
- ③ Load a cassette with side A facing out. (Wind past the leader tape before starting recording.)
- ④ When programmed playback is required, program the required tunes using the remote control. (See page 27.)
 - Select tunes with a total playing time which does not exceed the tape length.
- ⑤ Select the required reverse mode (\Rightarrow or \Leftarrow).
- ⑥ Press the CD SYNCHRO REC button; synchronized recording will start.
 - Recording starts in the forward direction and CD play starts automatically.

- When the CD player has played the disc or programmed tunes, the deck stops automatically.
- Non-recorded sections of approx. 4 seconds are automatically left between tunes.
- To stop recording in the middle, press the ■ (stop) button of the cassette deck.
- CD complete recording function (Synchro 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 10 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 tune.
 - When more than 10 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 tune.
- To record an entire disc in the tune order of the CD**
After the operations in steps ① - ④ above, press the ▶/II button of the CD player after the ●/II REC and ▶ buttons have been pressed.

Note:

- During CD edit recording and synchro recording, the PAUSE and SEARCH buttons do not function.

- Load a cassette with side A facing out.
(Wind past the leader tape before starting recording.)
 - Press the TUNER/BAND button. Tune to the required station.
 - Select the required reverse mode (or).
 - Press the ●/II REC button (recording-pause mode).
 - The tape direction indicator (↔) blinks.
 - The function switch is locked and its position cannot be changed.
 - Press to start recording.
- To stop recording temporarily, press the ●/II REC button. To resume recording, press the ▶ or ◀ button corresponding to the tape direction indicator which is blinking.

Erasing

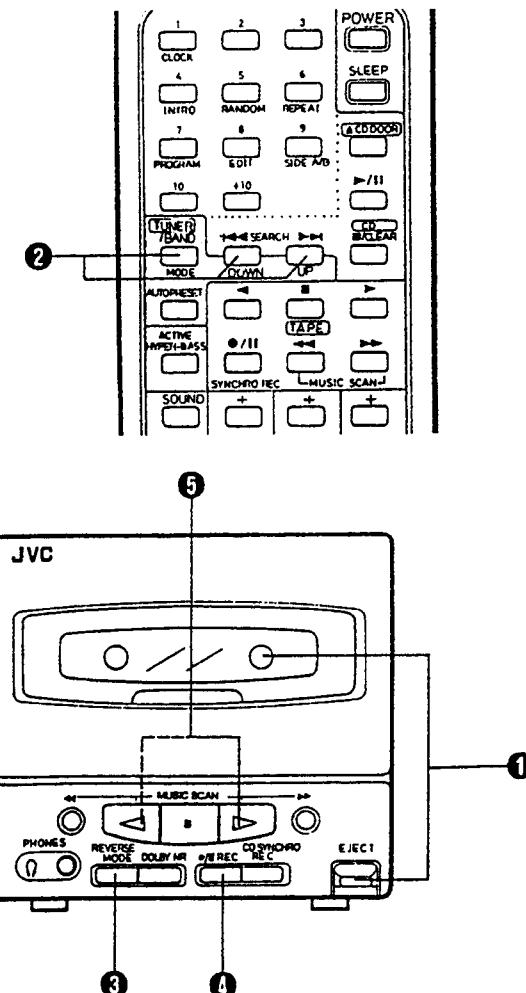
When recording on a pre-recorded tape, the previous recording is automatically erased and only the new material can be heard when the tape is played.

To erase a tape without making a new recording...
Press the ■ (stop) button to set to the TAPE mode, then perform recording.

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.

Recording from the radio

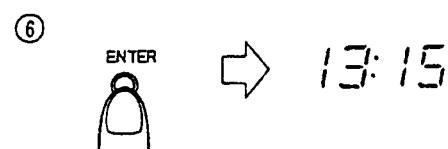
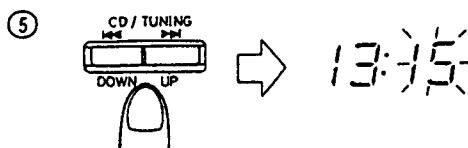
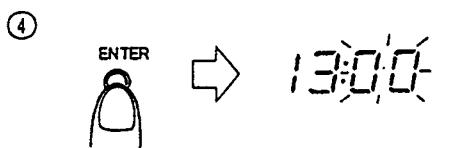
Operate in the order shown



CLOCK/TIMER ADJUSTMENT

Setting the current time
(when the UX-A4 is used for the first time)

(Example: to set the clock to 13:15.)



- ① Connect the AC power cord; "0:00" will blink in the display.
 - ② Press the CLOCK button for 2 sec. or more; the hour's digits will blink.
 - ③ Set to 13:00 by pressing the UP/DOWN buttons. (When the buttons are kept pressed, the time indication changes continuously.)
 - ④ Press the ENTER button; the minute's digits will blink.
 - ⑤ Set to 13:15 by pressing the UP/DOWN buttons.
 - ⑥ Press the ENTER button; the time will light in the display.
- To set to the nearest second...
Press the ENTER button when you hear the time signal from a TV or radio.

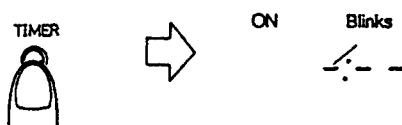
Notes:

- Before performing timer recording or playback, it is necessary to set the current time.
- It is recommended to set the current time with the power switch 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 display will blink or light in the display. Set the current time again.

Setting the timer

- The current time must be set before the timer can be used.

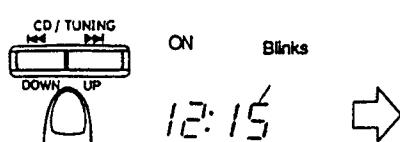
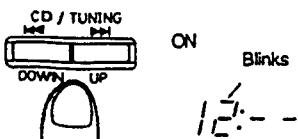
- ① Press the TIMER button.



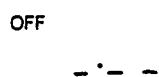
- ② Set the start time
(Example: when the timer start time is set to 12:15.)

- ① Adjust the hours.

- ② Adjust the minutes.

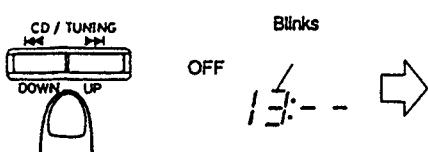
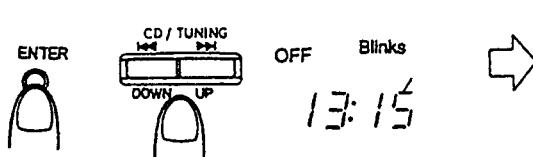


- Press to set the start time.

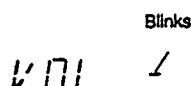
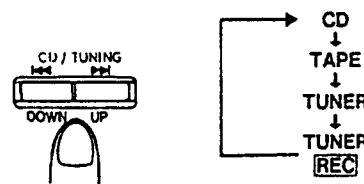


① Set the stop time

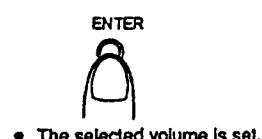
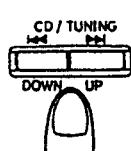
(Example: when the timer stop time is set to 13:15.)

① Adjust the hours.**② Adjust the minutes.**

- Press to set the timer off time.

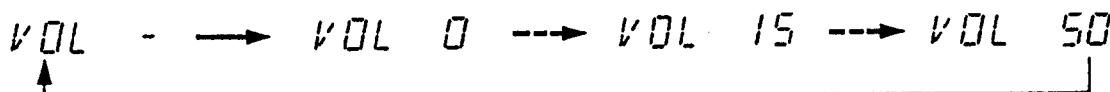
④ Select the TIMER mode.

When the UP button is pressed to select the timer mode, the mode changes from the, CD (timer playback of a CD), TAPE (timer playback of a tape), TUNER (timer reception of a broadcast) to TUNER/REC (timer recording of a broadcast), in this order.

⑤ Set the volume.

The playback level is determined by the position of VOLUME control.

When the UP button is used to select the volume.



The volume decreases to zero at the timer start time, and the sound fades in.

- The unit enter the previously engaged mode and timer setting is complete.
- To check the timer setting
 1. Press the TIMER button.
 2. Press the ENTER button to check the timer mode.
 3. When the previous engaged mode is displayed, timer setting has been completed.

Notes:

- When the timer is set incorrectly or the correct mode is not selected, perform "Setting the timer" from the beginning.
- When the timer is set, "-:-" in the display is replaced by the input digits.
- When the timer stop time is not set, the timer operates for 2 hours and then the unit is switched off. To continue listening after the timer stop time, display the timer stop time, change the hours digits to "-" using the UP button and press the ENTER button.

TIMER OPERATIONS

Timer recording of broadcast

- The current time must be set correctly before you set timer recording.
- Make sure that the erase protection tabs of the cassette have not been broken off.

Operations

- Set the POWER button to ON.
- Load a cassette.
 - Insert the cassette with the side to be recorded facing out.
 - Set the reverse mode button to "↔" or "↔↔" and set the DOLBY NR button as required.
- Set the timer start and stop times, set the timer recording mode, then set the required volume, in this order. (Refer to "Setting the timer" on page 46.)
 - Set the timer about a minute before the broadcast to be recorded is scheduled to start.
- Tune to the station to be recorded. (Refer to page 34.)
- Set the POWER button to STANDBY.

Timer playback

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

Operations

- Set the POWER switch to ON.
- Set the timer start and stop times, set the timer playback mode, then set the volume, in this order. (Refer to "Setting the timer" on page 46.)

- Timer recording will start at preset start time and the power will be switched off at preset stop time. When timer recording is completed, the timer mode is switched to the "TUNER" (timer reception of broadcast) mode.

- To cancel timer operation

Press the TIMER button so that the timer mode indicator (⌚) goes out.

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

Notes:

Once the timer 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 unit 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.

Source sound	Timer mode	Operations
CD play	CD	Load a disc.
Tape playback	TAPE	Load a cassette tape.
Broadcast	TUNER	—

- Timer playback of a CD is possible in programmed order. (See page 27.)
- The volume can be set to 50 different levels.

- Tune to the required frequency when the timer playback of a broadcast is to be performed.

- Switch the power off.

- Timer playback will start at the timer start time and the power will be switched off at the timer stop time. The unit remains in the same timer mode even after the power is switched off and the same timer function will be repeated at the same time on the following day.

6. Location of Main Parts

■ Tape Deck/Amplifier Section

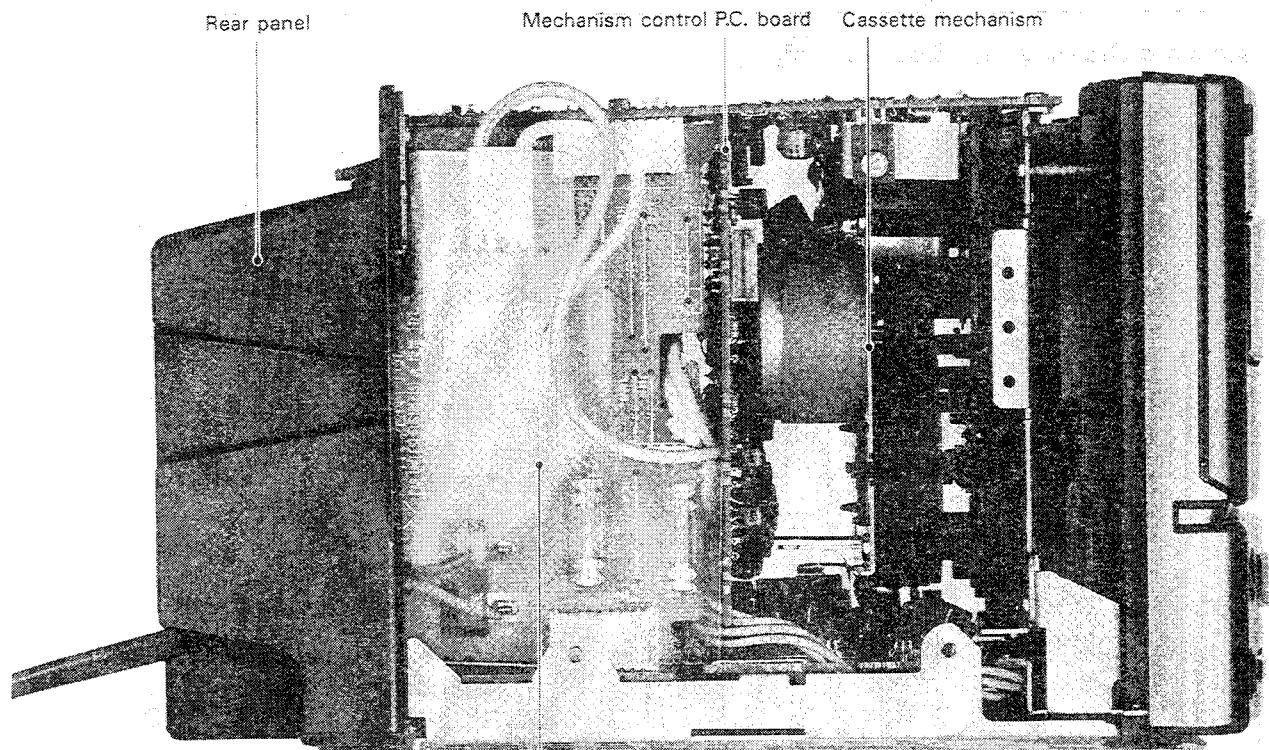


Fig. 6-1

■ CD/Tuner Section

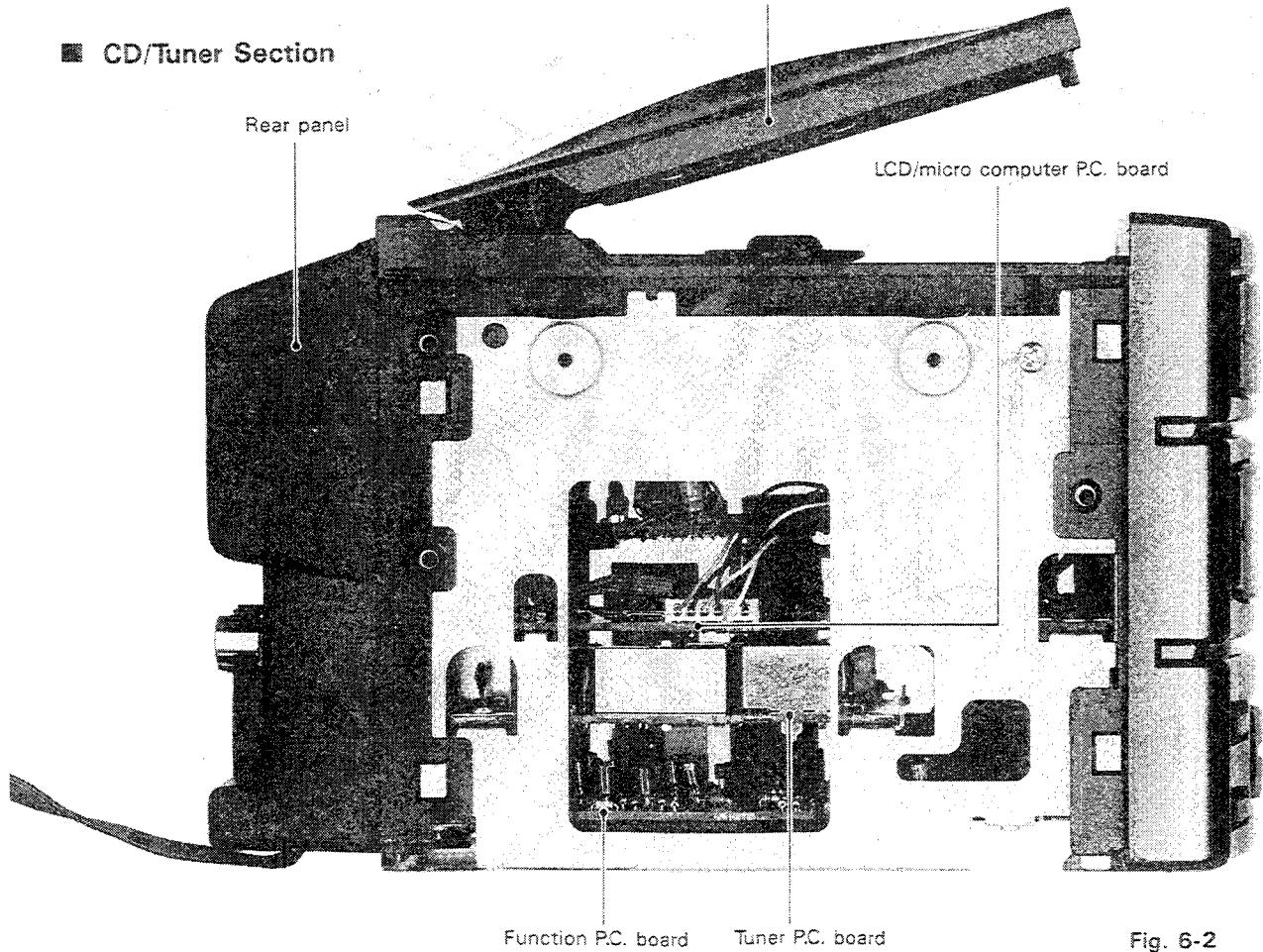


Fig. 6-2

7. Removal of Main Parts and Analytic Drawing

1 2 3 4 5

■ Analytic Drawing (1): Block No. M 1

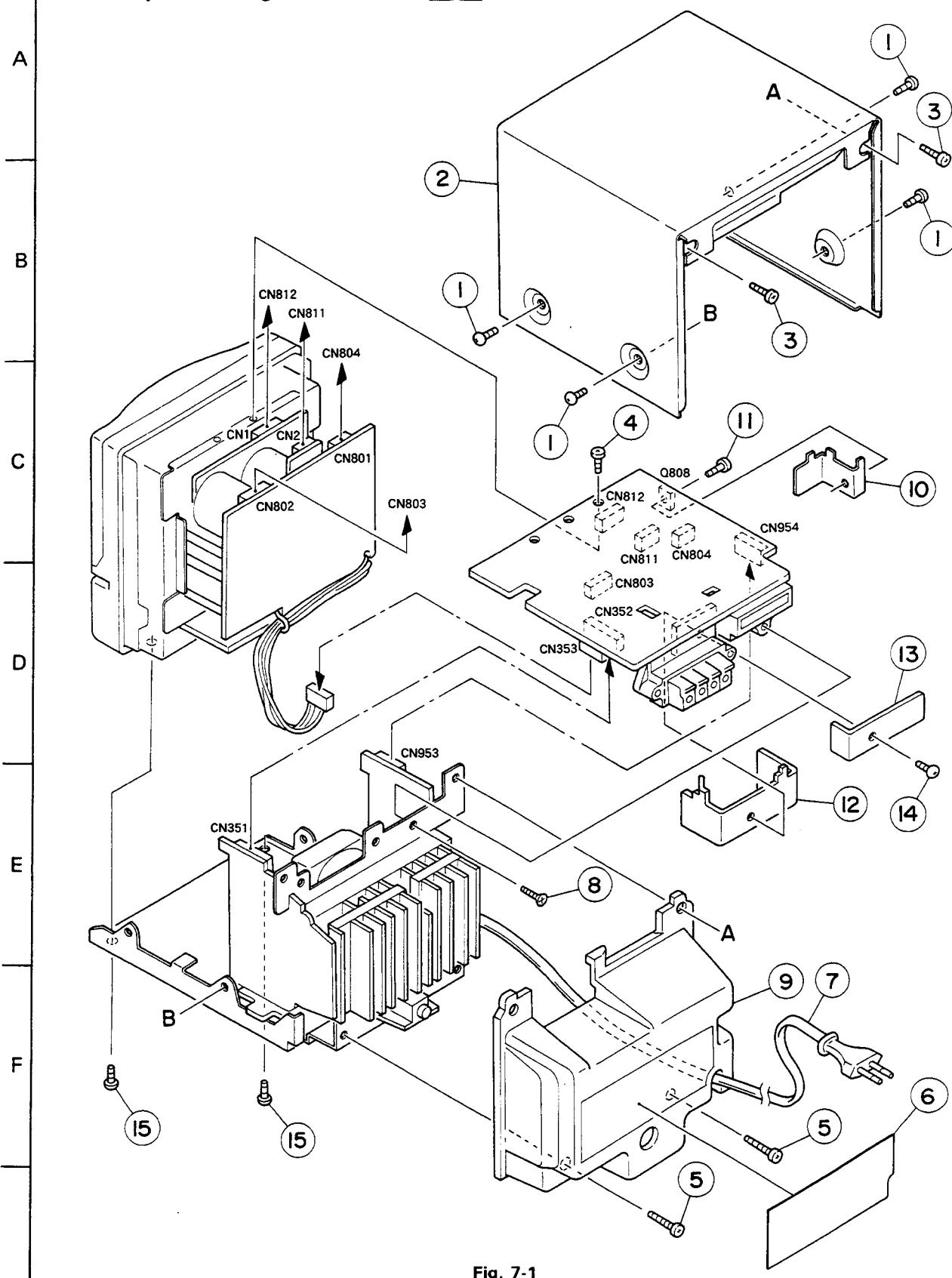


Fig. 7-1

■ Separation of Front Panel Ass'y and Power Supply Unit Ass'y

1. Remove the four screws ① retaining the right and left sides of the top cover from the body.
2. Remove the two screws ③ retaining the rear side of the top cover.
3. Remove the two screws ⑤ retaining the rear panel from the body.
4. Remove the one screw ⑧ retaining the mechanism control speaker terminal P.C. board from the transformer bracket.
5. From the front panel ass'y, remove the one screw ④ retaining the mechanism control speaker terminal P.C. board.
6. After raising (floating) the mechanism control P.C. board upward, dismount the connectors CN954, CN353, CN352, CN812, CN803, CN804 and CN811 on the mechanism control P.C. board respectively from the connector CN953 on the fuse P.C. board, connector CN351 on the power amplifier P.C. board and connector CN1 on the leaf switch P.C. board, connectors CN801 and CN802 on the pre-amplifier P.C. board, and connector CN2 on the actuator reel motor P.C. board.
7. Remove the two screws ⑯ retaining the front panel ass'y from the bottom side of the body.
8. Separate the front panel ass'y and power supply unit ass'y.

■ Analytic Drawing (1) Parts List

BLOCK NO. M1MM 1111

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	SDST3006M	SCREW		4		
	2	VJC2412-003	TOP COVER		1		
	3	SDST3008M	SCREW		2		
	4	SBST3006Z	SCREW		2		
	5	SDST3010N	SCREW	FRONT+BOTTOM REAR	2		
A	6	VYN9214-S002	NAME PLATE		1	B	
A		VYN9214-S015	NAME PLATE		1	EN	
A		VYN9214-S108	NAME PLATE		1	GI	
A		VYN9214-008	NAME PLATE		1	G	
A		VYN9214-005	NAME PLATE		1	E	
	7	QMP5530-0085BS	POWER CORD		1	B	
		QMP3900-200	POWER CORD		1	E,G,GI,EN	
	8	SSSF3008Z	SCREW	JACK HOLDER+JAC	1		
	9	VJG1125-104	REAR PANEL (D)		1		
	10	VMH4049-001	HEAT SINK		1		
	11	SDST2608Z	SCREW		1		
	12	VMH4047-002	HEAT SINK		1		
	13	VMH4048-001	HEAT SINK		1		
	14	SBSF3012Z	SCREW		1		
	15	SDST2606Z	SCREW	PCB+MECHA.	2		

1 2 3 4 5

■ Analytic Drawing (2): Block No. M 2

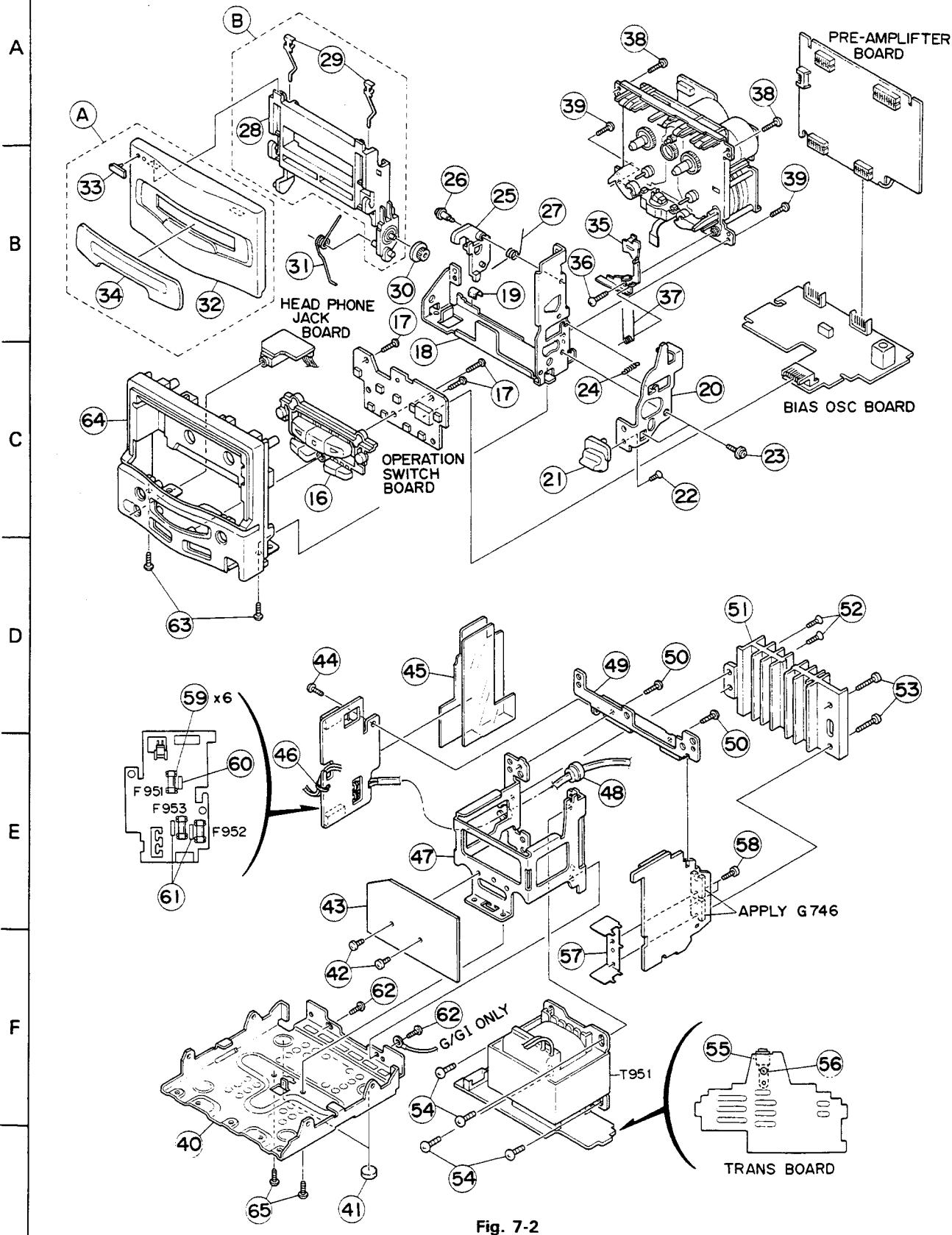


Fig. 7-2

■ Analytic Drawing (2) Parts List

BLOCK NO. M2MM							
A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A	ZCUXDA4K-CLB	CASSETTE LID	REF.32-34	1		
	B	ZCUXDA4K-CH	CASSETTE HOLDER	REF.28,29	1		
16	VXP3602-001	BUTTON			1		
17	SBSF2608Z	SCREW	FRONT+SW BOARD		3		
18	VYH3787-001	HOLDER			1		
	19	VYSA1R4-059	SPACER	HOLDER	1		
	20	VYH7817-001	EJECT LEVER		1		
	21	VXQ4118-001	EJECT KNOB		1		
	22	SDSF2608Z	SCREW	EJECT KNOB	1		
	23	VKZ4323-002	SCREW	EJECT LEVER	2		
	24	VKW3002-274	TENSION SPRING	EJECT LEVER	1		
	25	VYH7347-001	EJECT ARM		1		
	26	VKZ4341-001	SPECIAL SCREW	EJECT ARM	1		
	27	VKW4938-001	TORTION SPRING	EJECT ARM	1		
	28	VJT2263-003	CASS DOOR		1		
	29	VKY4180-001	CASSETTE SPRING		2		
	30	VYH5601-001	GEAR		1		
	31	VWK5110-001	DOOR SPRING		1		
	32	VJT2330-001	DOOR COVER		1		
	33	E406971-221	JVC MARK		1		
	34	VJT4209-001	DOOR LENS		1		
	35	VKL7293-001	EJECT SAFETY(R)		1		
	36	SBSF3010Z	SCREW	EJECT SAFETY	1		
	37	VKW5069-001	TORSION SPRING	EJECT SAFETY	1		
	38	SBSF3008Z	SCREW	F.PANEL+MECHA.	2		
	39	SBST3006Z	SCREW	HOLDER+MECHA.	2		
	40	VJC3237-003	BOTTOM COVER		1		
	41	VJF4003-003	FOOT		2		
	42	SDST3004Z	SCREW		2		
	43	VMA4603-001	SHIELD PLATE		1		
	44	SBST3008Z	SCREW	J.HOLDER+FUSE P	1		
	45	VMA4604-002	BARRIER	FOR FUSE PCB	1		
	46	QHX5080-001	WIRE CLAMP		3		
	47	VYH3658-002	TRANS BRACKET		1		
	48	QHS3876-162BS	CORD STOPPER	POWER CORD	1	B	
		QHS3876-162	CORD STOPPER				
	49	VYH7698-002	JACK HOLDER		1		
	50	SBST3008Z	SCREW	J.HODER+TRANS B	2		
	51	VMH4046-002	HEAT SINK		1		
	52	SSST3008Z	SCREW	HEAT SINK+T.BKT	2		
	53	SDST3012Z	SCREW		2		
	54	SBST4006Z	SCREW	POWER TRANS	4		
	55	VYH7696-001	JACK STOPPER		1		
	56	SBSF3008Z	SCREW	JACK STOPPER	1		
	57	VYH7708-002	IC HOLDER		1		
	58	SDST2608Z	SCREW	IC+IC BKT	2		
	59	VMZ0087-001Z	FUSE CLIP		6		
	60	VND4003-034	FUSE LABEL	FOR F951	1		
	61	VND4003-050	FUSE LABEL	FOR F952	1		
		VND4003-050	FUSE LABEL	FOR F953	1		
	62	SBST3006Z	SCREW	TRANS BKT	4		
	63	SBST3006Z	SCREW	HOLDER+F.PANEL	2		
	64	VJG1238-001	FRONT PANEL(D)		1		
	F 951	QMF51E2-R40J1	FUSE	F951	1		

BLOCK NO. M2MM							
A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	F 952	QMF51E2-6R3J1	FUSE	F952	1		
	F 953	QMF51E2-6R3J1	FUSE	F954	1		
	T 951	VTP66T2-12DBS	POWER TRANS		1	B	
		VTP66J2-12D	POWER TRANS		1	E,G,GI,EN	

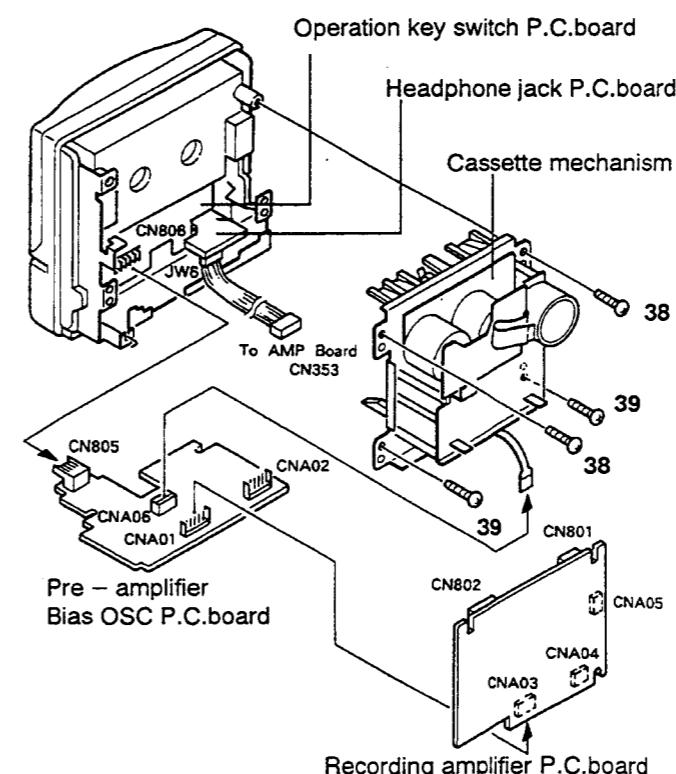


Fig. 7-3

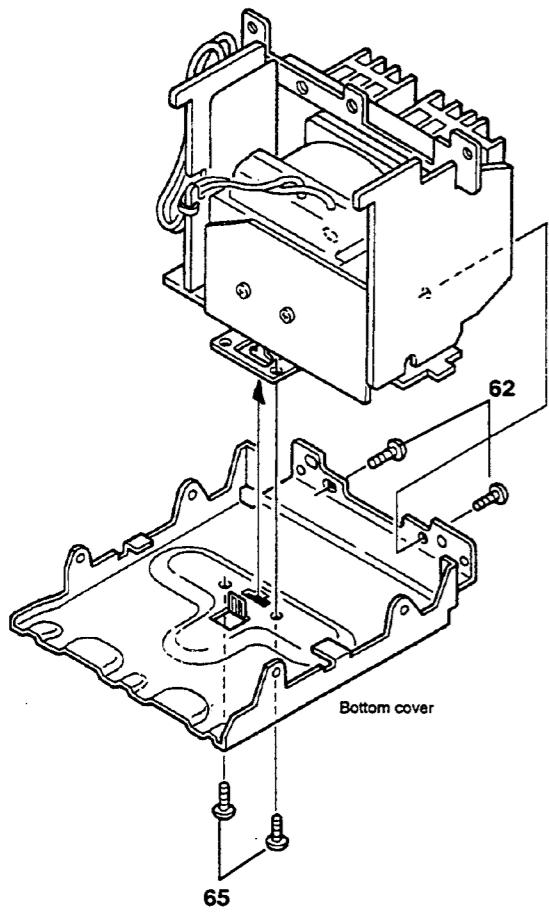
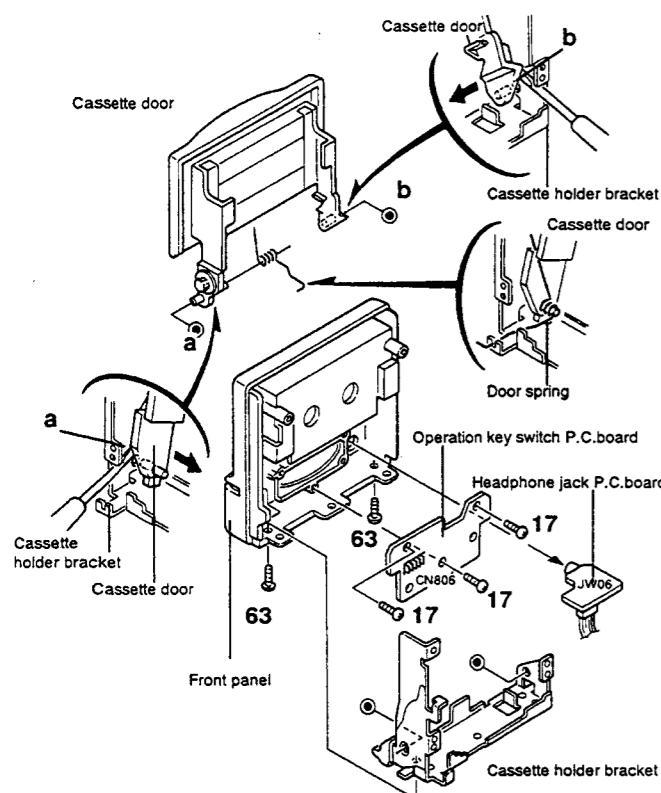
■ Disassembly of Front Panel Ass'y

• Cassette Mechanism (Fig. 7-2, 3)

1. After raising (floating) the recording amplifier P.C. board upward, dismount the connectors CNA03 and CNA04 on the P.C. board respectively from the connectors CNA01 and CNA02 on the pre-amplifier bias OSC P.C. board.
2. Remove the four screws (38) x 2 and (39) x 2 retaining the cassette mechanism from the front panel ass'y.
3. Pull out the flexible head wire from the connector CNA06 on the pre-amplifier bias OSC P.C. board.
4. After drawing the pre-amplifier bias OSC P.C. board toward the front side, dismount the connector CN805 on the P.C. board from the connector CN806 on the operation switch P.C. board.

• Headphone Jack P.C. Board (Fig. 7-2, 3)

The headphone jack P.C. board can be dismounted by drawing it out toward the front side from inside the front panel ass'y.



• Operation Key Switch P.C. Board and Front Panel

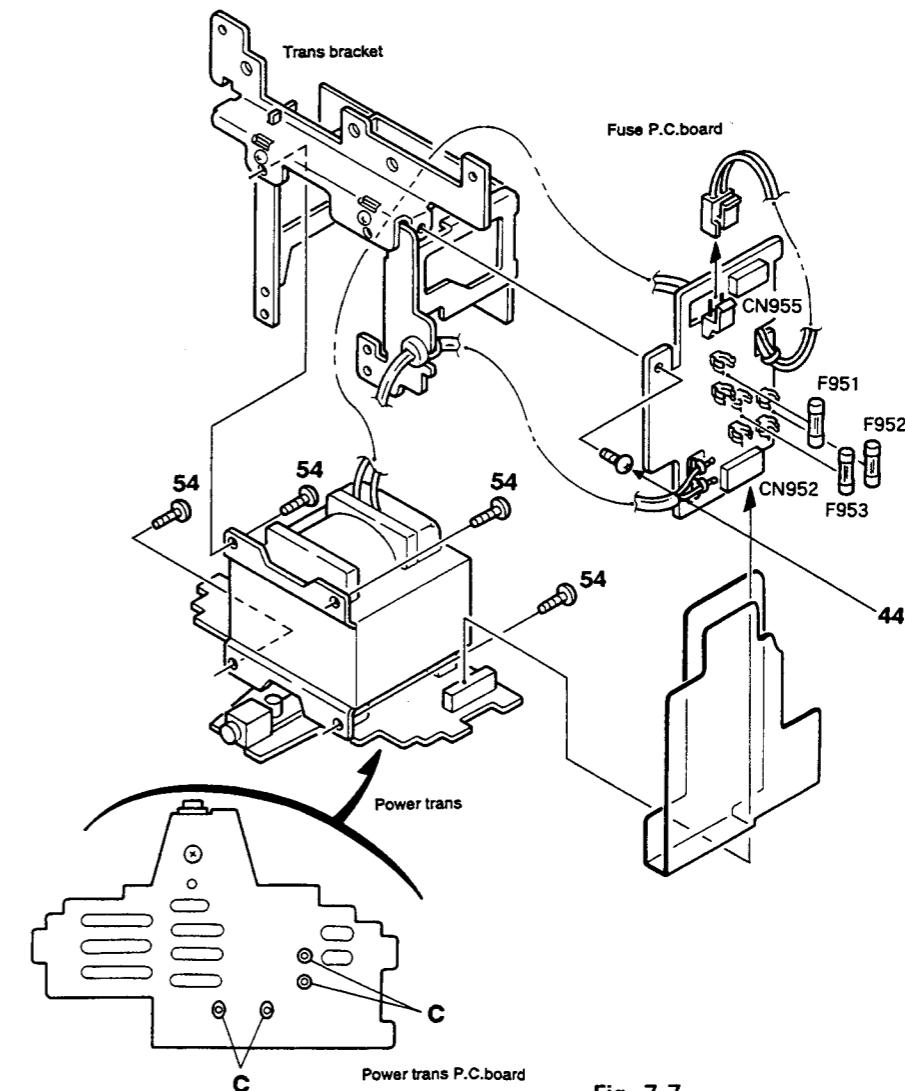
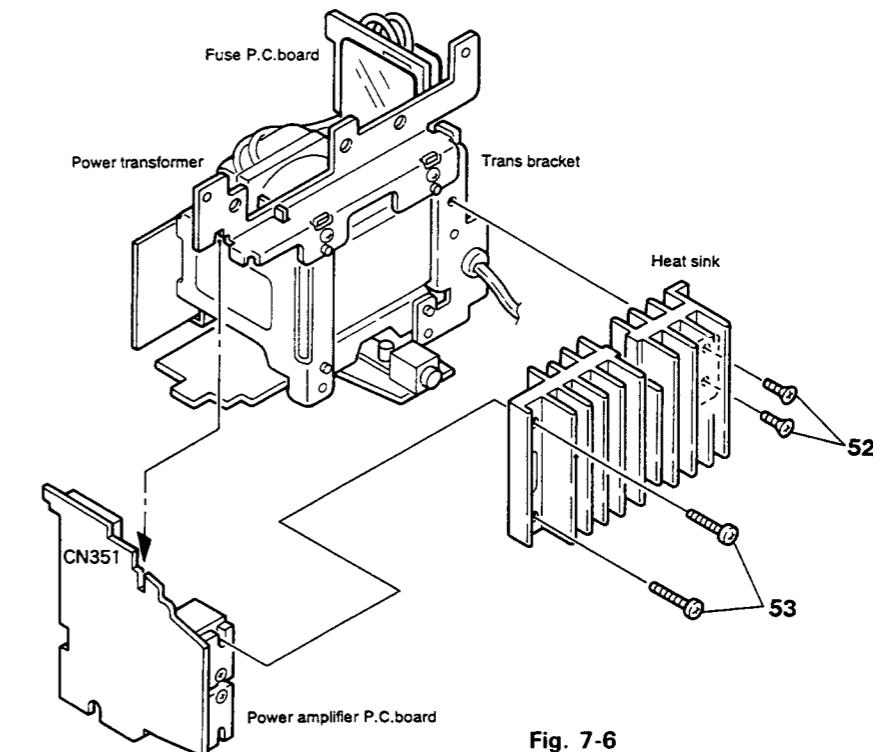
(Fig. 7-2, 4)

1. Remove the two screws ⑥3 retaining the cassette holder bracket from the lower side of the front panel.
2. Insert minus screw drivers into the two right and left engagement points (a, b) of the cassette door and cassette holder bracket from inside the front panel, and disengage the above door and bracket.
3. Remove the door spring and dismount the cassette door from the front panel.
4. Draw out the cassette holder bracket from the front cover.
5. Draw out the headphone jack P.C. board from the front panel.
6. Remove the three screws ⑯7 retaining the operation key switch P.C. board, and draw out the P.C. board.

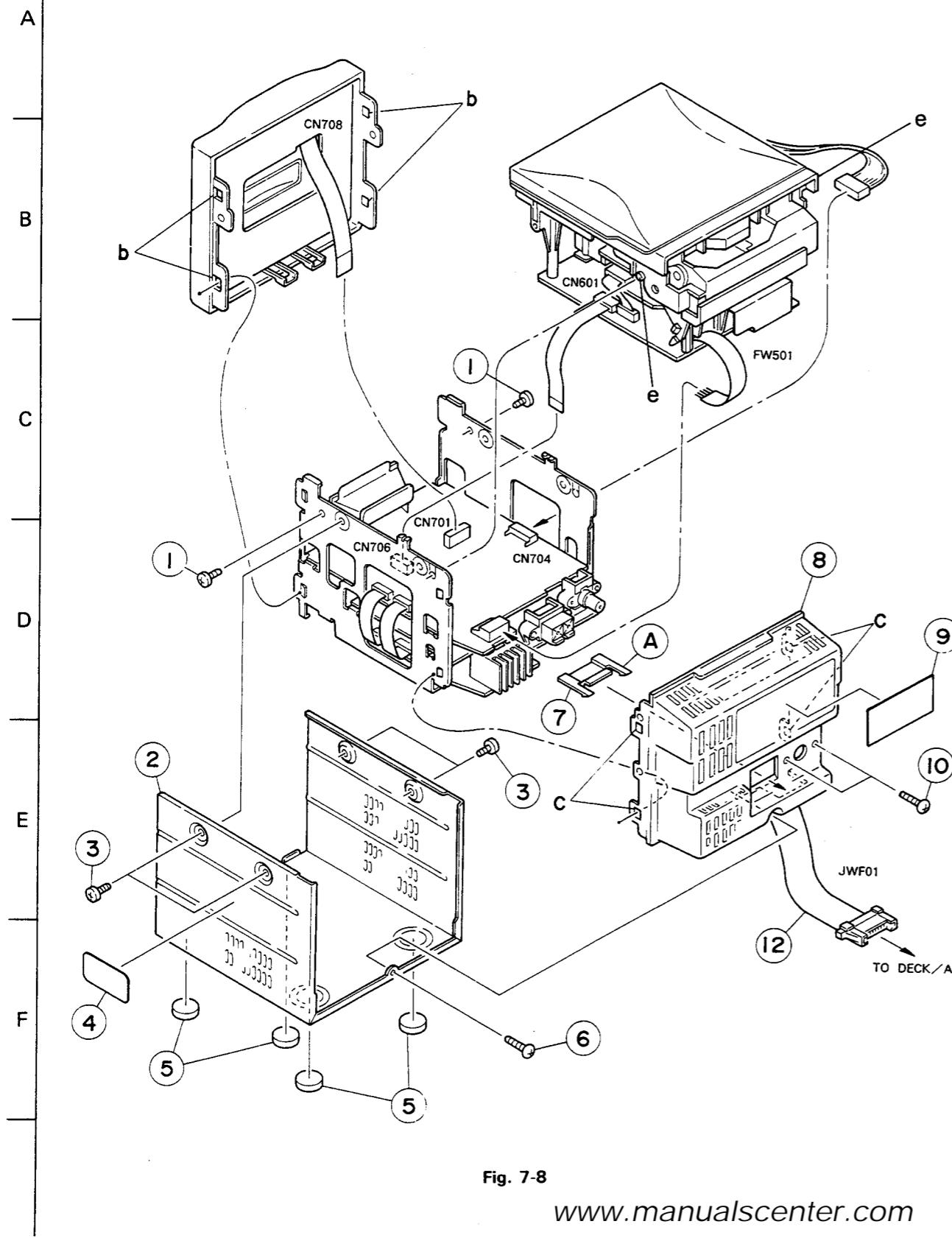
■ Power Amplifier Power Supply Ass'y

• Power Supply Transformer (Fig. 7-2, 5~7)

1. Remove the four screws (⑤5 × 2 and ⑥2 × 2) retaining the bottom cover and power supply unit.
2. Remove the four screws (⑤2 × 2 and ⑤3 × 2) retaining the heat sink from the transformer bracket and dismount the power amplifier P.C. board.
3. Remove the one screw ④4 retaining the fuse P.C. board from the transformer bracket.
4. Remove the bushing retaining the power supply cord from the transformer bracket.
5. From the connector CN955 on the fuse P.C. board, remove the #2PIN connector outgoing from the power supply transformer.
6. Dismount the connector CN952 on the fuse P.C. board and connector CN951 on the transformer P.C. board.
7. Remove the soldering connecting the power supply transformer from the soldered surface of the transformer P.C. board and dismount the P.C. board.
8. Remove the four screws ⑤4 retaining the power supply transformer from the transformer bracket.



1 | 2 | 3 | 4 | 5

■ Analytic Drawing (3): Block No. M 3

www.manualscenter.com

■ Disassembly of CD Player Ass'y and Front Panel Ass'y**• Metal Cover (Fig. 7-8)**

1. Remove the four screws ③ retaining the metal cover from the body.
2. Remove the one screw ⑥ retaining the metal cover from the back surface of the body.
3. Dismount the metal cover while expanding it outward.

• Front Panel Ass'y (Fig. 7-8)

From the connector CN701 on the LCD microcomputer P.C. board, remove the card wire outgoing from the connector CN708 on the operation key switch P.C. board attached to the front panel ass'y, and separate the card wire from the front panel ass'y.

• CD Player Ass'y (Fig. 7-8 ~ 11)

1. After turning the body upside down, insert a minus screw driver into the hole ④ engaging the system wire inserting wire holder and the rear cover, and disengage the holder and cover. Then, dismount the wire holder while pulling it out.
2. Remove the two screws ⑩ retaining the rear panel from the body.
3. After inserting a minus screw driver between the four engagement points ⑤ fixing the rear cover, release the engagements and separate the rear cover from the body.
4. After inserting a minus screw driver between the front panel and chassis, release the four engagement points ⑥ fixing the front panel ass'y, and separate the front panel ass'y from the body.
5. Remove the two screws ① retaining both sides of the CD player ass'y from the chassis.
6. After expanding the right and left sides of the chassis outward, release the right and left engagements ⑦ of the CD player ass'y and chassis, and separate the CD player ass'y from the body.

7. From the connector CN704 on the LCD microcomputer P.C. board, dismount the door switch P.C. board attached to the CD player ass'y and the #6PIN connector outgoing from the door motor P.C. board.

8. From the connector CN706 on the LCD microcomputer P.C. board, dismount the card wire outgoing from the connector CN601 on the CD amplifier P.C. board attached to the CD player ass'y.

9. From the connector CN705 on the LCD microcomputer P.C. board, dismount the #PIN parallel wire outgoing from FW501 on the CD amplifier P.C. board.

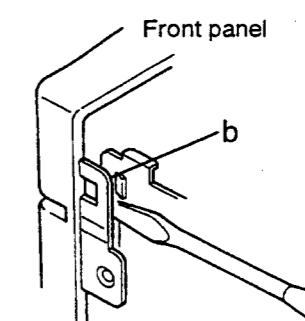


Fig. 7-9

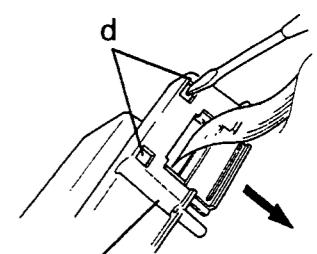


Fig. 7-10

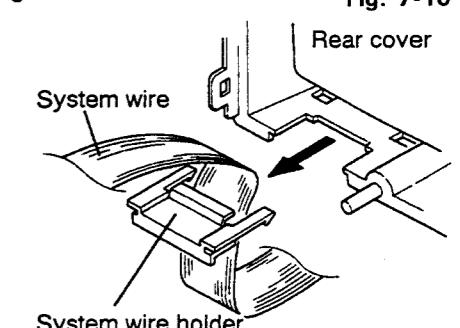


Fig. 7-11

■ Analytic Drawing (3) Parts List M 3

BLOCK NO. M3MM						
A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX
	1	SDFS3008Z	SCREW	CD+CHASSIS UNIT	2	
	2	VJC2411-004	METAL COVER		1	
	3	SDST3006M	SCREW	METAL COVER	4	
	4	VND4221-001	CLASS 1 LABEL		1	
	5	VJF4003-003	FOOT		4	
	6	SBSF3008N	T.SCREW		1	
	7	VYH7707-001	WIRE HOLDER	SYSTEM WIRE 94H	1	
	8	VJG1137-001	REAR PANEL(T)		1	
	9	VYN9214-001	NAME PLATE		1	
	10	SBSF3008N	T.SCREW		1	
	11	EMV7130-017	WIRE HOLDER	FOR SYSTEM WIRE	1	
	12	VMP0092-001	SYSTEM WIRE ASY	JWF01	1	

1 | 2 | 3 | 4 | 5

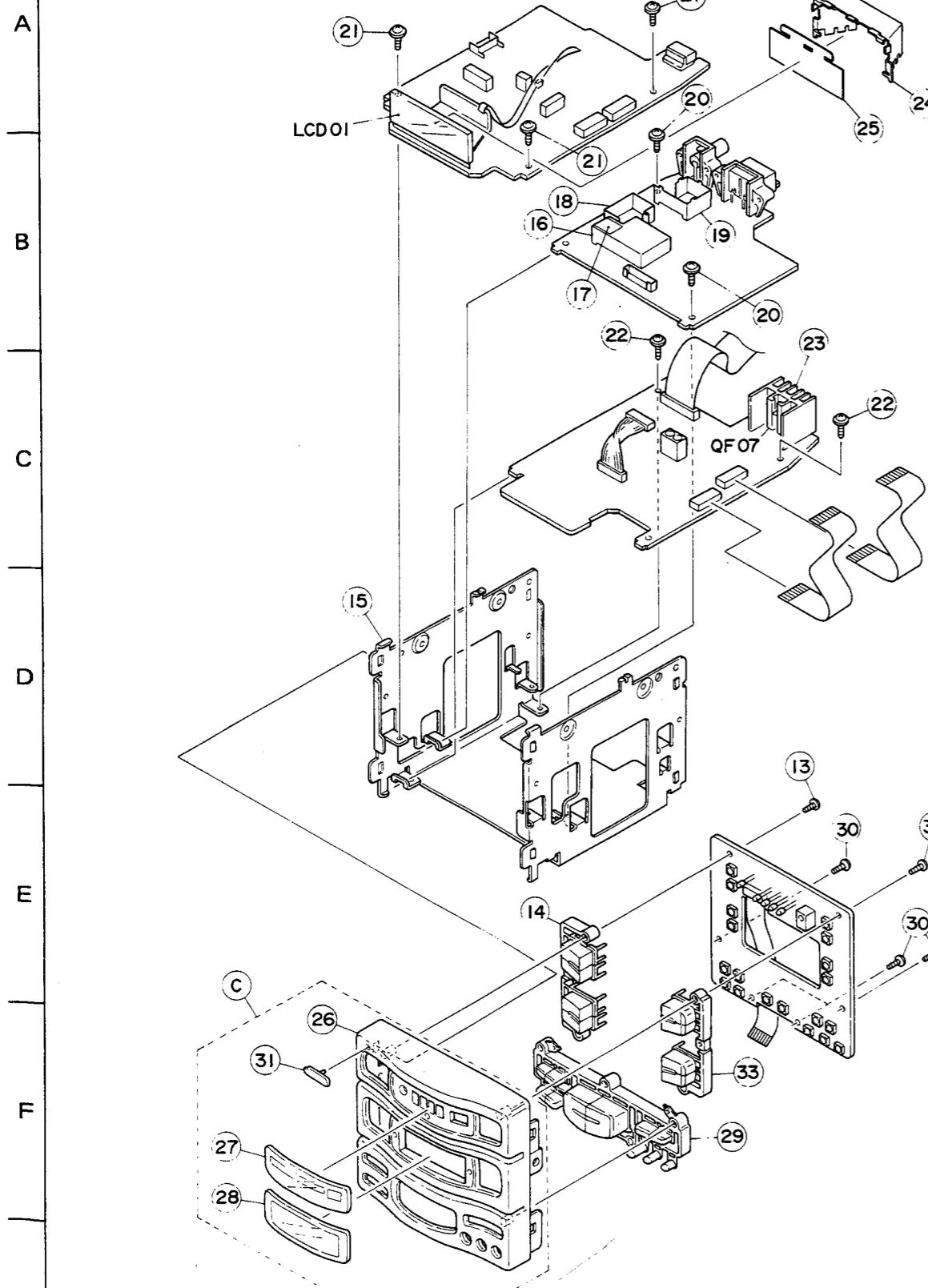
■ Analytic Drawing (4): Block No. M4

Fig. 7-12

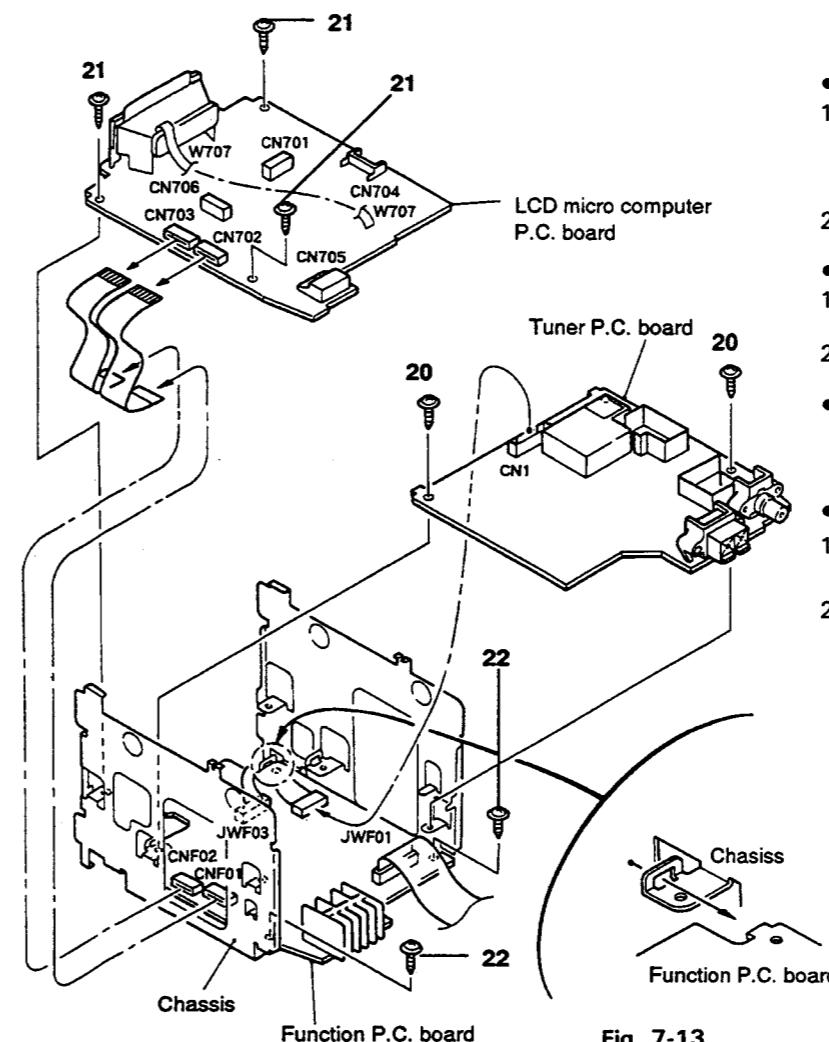
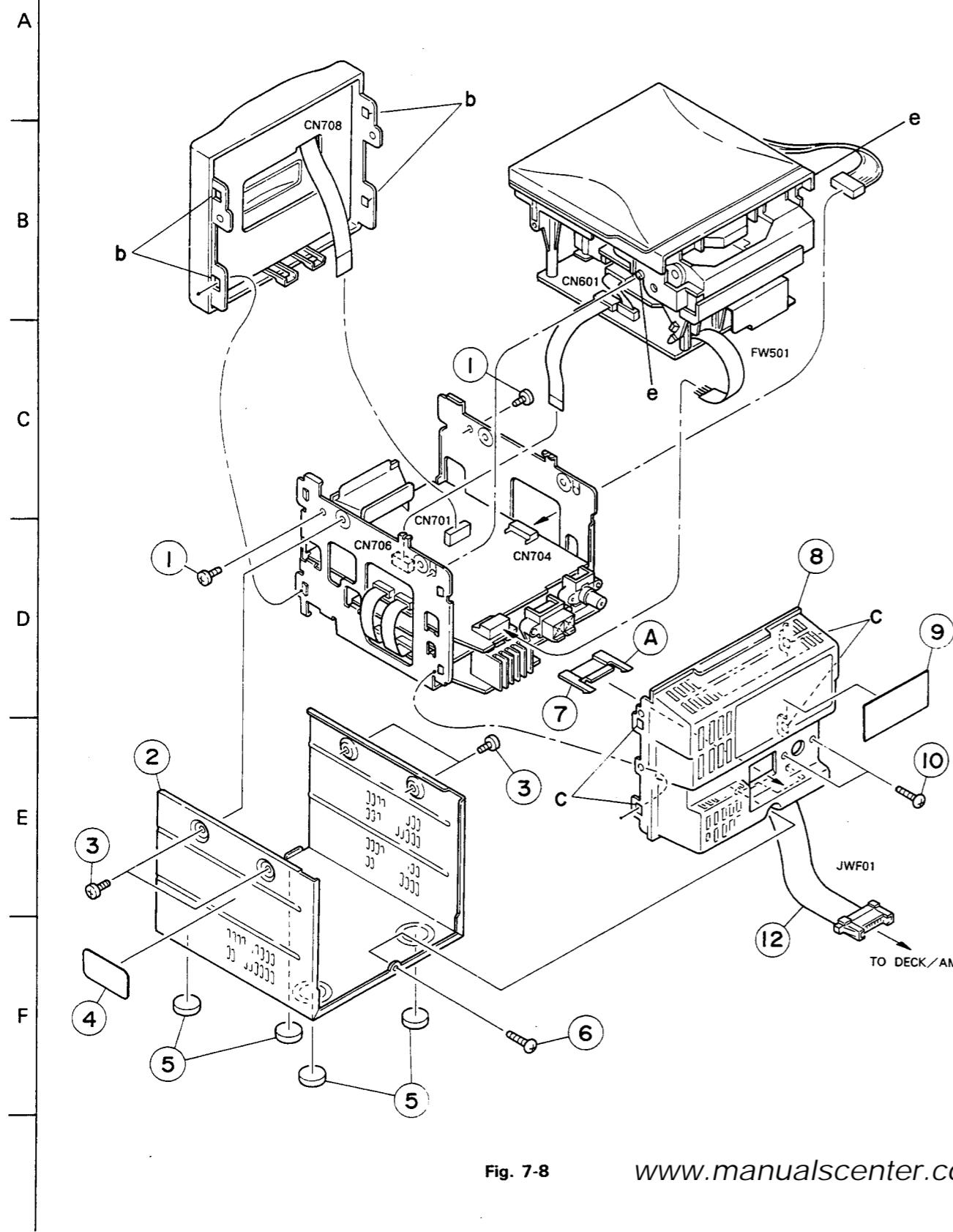


Fig. 7-13

■ Analytic Drawing (4) Parts List

BLOCK NO. M4MM						
REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
C	ZCUXRA4K-FB	FRONT CABINET	REF. 26-28, 31	1		
13	SBSF2610Z	SCREW		1		
14	VXP3618-002	BUTTON(A)		1		
15	VYH2269-002	CHASSIS		1		
16	VMA4561-001	SHIELD CASE		1		
17	PU59915-105	SPACER		1		
18	VMA4522-001	SHIELD(B)		1		
19	VMA4521-001	SHIELD(A)		1		
20	GBST3006Z	SCREW	TU PWB+CHASSIS	2		
21	GBST3006Z	SCREW	CPU PWB+CHASSIS	3		
22	GBST3006Z	SCREW	FUNC PWB+CHASSIS	2		
23	VYH7734-001	HEAT SINK	QF07	1		
24	VYH3784-001	LAMP CASE	SPTE	1		
25	VYTT635-001	LCD FILTER	カクサン イロタシヨウ	1		
26	VJG1237-001	FRONT PANEL(T)		1		
27	VJK4403-002	REMOTE LENS	AS SILKX4	1		
28	VJK4404-002	LCD LENS	AS SILKX2	1		
29	VXP3601-001	VOLUME BUTTON	ABS	1		
30	SBSF2610Z	SCREW	VOLUME BUTTON	4		
31	E406971-221	JVC MARK	22.5W	1		
32	SBSF2610Z	SCREW	FOR BOTTOM(B)	1		
33	VXP3619-002	BUTTON(B)	ABS	1		
LCD01	VGL1146-001	LCD		1		

1 | 2 | 3 | 4 | 5

■ Analytic Drawing (3): Block No. M 3**■ Disassembly of CD Player Ass'y and Front Panel Ass'y****• Metal Cover (Fig. 7-8)**

1. Remove the four screws ③ retaining the metal cover from the body.
2. Remove the one screw ⑥ retaining the metal cover from the back surface of the body.
3. Dismount the metal cover while expanding it outward.

• Front Panel Ass'y (Fig. 7-8)

From the connector CN701 on the LCD microcomputer P.C. board, remove the card wire outgoing from the connector CN708 on the operation key switch P.C. board attached to the front panel ass'y, and separate the card wire from the front panel ass'y.

• CD Player Ass'y (Fig. 7-8 ~ 11)

1. After turning the body upside down, insert a minus screw driver into the hole ④ engaging the system wire inserting wire holder and the rear cover, and disengage the holder and cover. Then, dismount the wire holder while pulling it out.
2. Remove the two screws ⑩ retaining the rear panel from the body.
3. After inserting a minus screw driver between the four engagement points ⑤ fixing the rear cover, release the engagements and separate the rear cover from the body.
4. After inserting a minus screw driver between the front panel and chassis, release the four engagement points ⑥ fixing the front panel ass'y, and separate the front panel ass'y from the body.
5. Remove the two screws ① retaining both sides of the CD player ass'y from the chassis.
6. After expanding the right and left sides of the chassis outward, release the right and left engagements ⑦ of the CD player ass'y and chassis, and separate the CD player ass'y from the body.

7. From the connector CN704 on the LCD microcomputer P.C. board, dismount the door switch P.C. board attached to the CD player ass'y and the #6PIN connector outgoing from the door motor P.C. board.

8. From the connector CN706 on the LCD microcomputer P.C. board, dismount the card wire outgoing from the connector CN601 on the CD amplifier P.C. board attached to the CD player ass'y.

9. From the connector CN705 on the LCD microcomputer P.C. board, dismount the #PIN parallel wire outgoing from FW501 on the CD amplifier P.C. board.

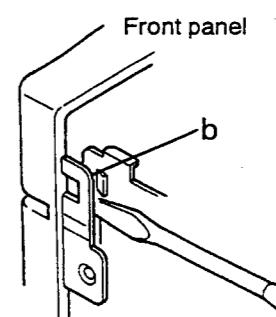


Fig. 7-9

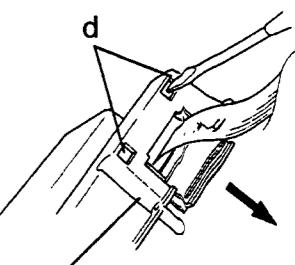


Fig. 7-10

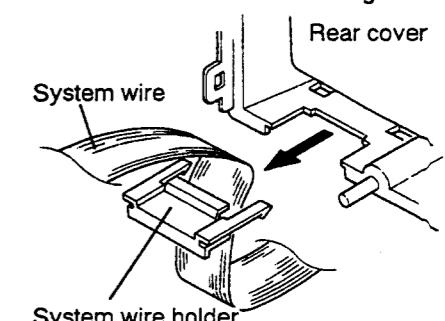
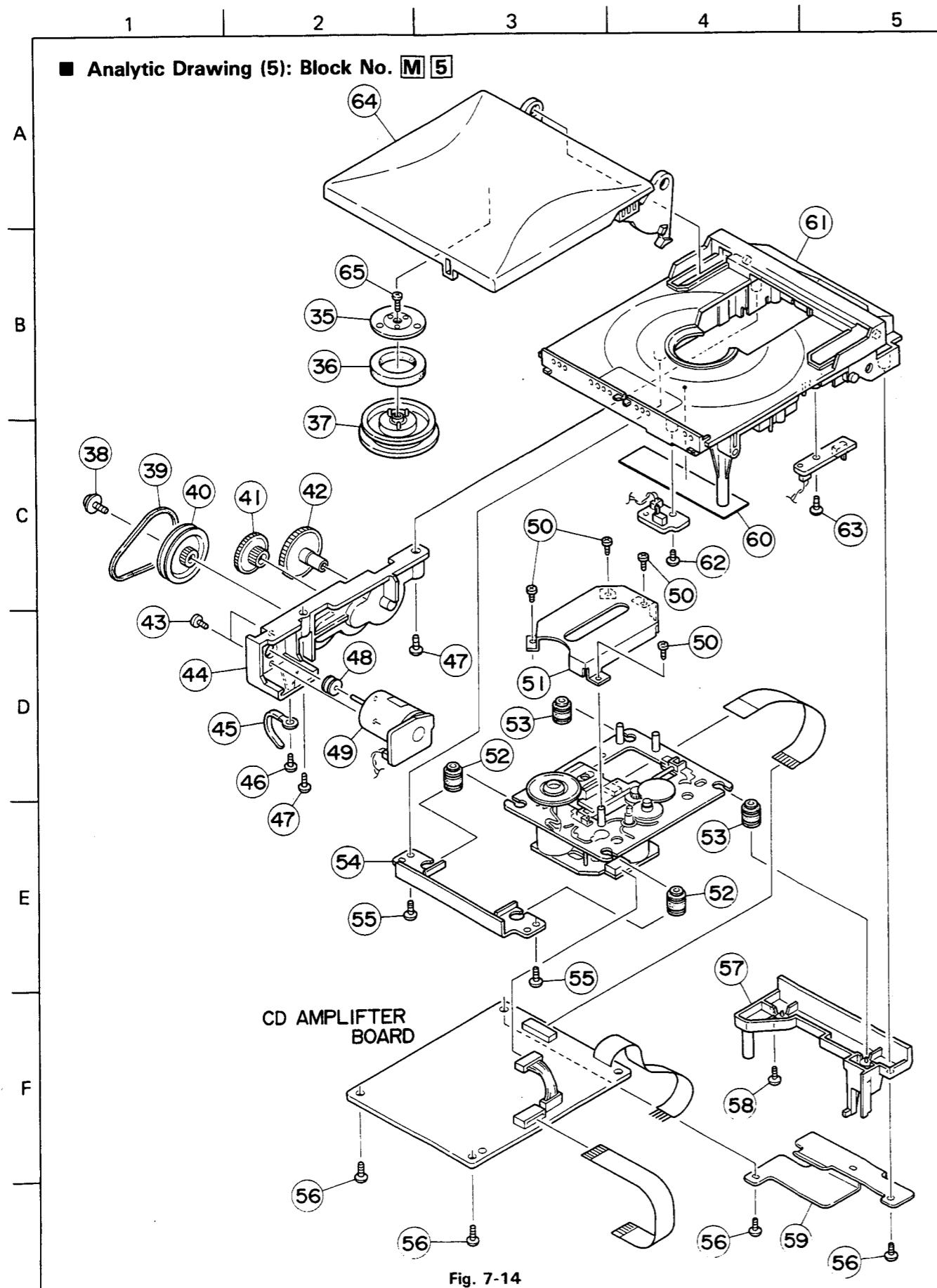


Fig. 7-11

■ Analytic Drawing (3) Parts List M 3

BLOCK NO. M3MM						
REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
1	SDSF3008Z	SCREW	CD+CHASSIS UNIT	2		
2	VJC2411-004	METAL COVER		1		
3	SDST3006M	SCREW	METAL COVER	4		
4	VND4221-001	CLASS 1 LABEL		1		
5	VJF4003-003	FOOT		4		
6	SBSF3008N	T.SCREW		1		
7	VYH7707-001	WIRE HOLDER	SYSTEM WIRE 94H	1		
8	VJG1137-001	REAR PANEL(T)		1		
9	VYN9214-001	NAME PLATE		1		
10	SBSF3008N	T.SCREW		1		
11	EMV7130-017	WIRE HOLDER	FOR SYSTEM WIRE	1		
12	VMP0092-001	SYSTEM WIRE ASY	JWF01	1		

**■ Analytic Drawing (5) Parts List**

BLOCK NO. M5MM						
REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
35	VYH7677-201	YOKE		1		
36	VYH7313-001R	MAGNET		1		
37	VYH3726-001	CLAMPER		1		
38	GBSF3006Z	SCREW	PULLEY+GEAR BKT	1		
39	VKB3000-144Y	BELT		1		
40	VYH7356-002	PULLEY		1		
41	VYH7357-001	GEAR(A)		1		
42	VYH7358-001	GEAR(B)		1		
43	SPSP3004Z	SCREW	MOTOR+GEAR BKT	2		
44	VYH3785-001	GEAR BKT		1		
45	VKZ4001-110	WIRE CLAMP		1		
46	SBSF3010Z	SCREW	FOR WIRE CLAMP	1		
47	SBSF3010Z	SCREW	CD CASE+GEAR BK	2		
48	VYH7699-001	PULLEY	MOTOR	1		
49	MXN-13FB12F	DC MOTOR ASS'Y	CASSETTE DOOR	1		
50	SDST2006M	SCREW	CD MECHA+P.COVE	4		
51	VJD5410-005	PICK COVER		1		
52	E75609-002	INSULATOR		2		
53	E75609-001	INSULATOR		2		
54	VYH7815-001	CD MECHA HOLDER		1		
55	SBSF3010Z	SCREW	CASE+HOLDER	2		
56	SBSF3010Z	SCREW	CD AMP PWB+CD	4		
57	VYH3790-001	CD MECHA HOLDER		1		
58	SBSF3010Z	SCREW	CASE+HOLDER	1		
59	VMA3215-001	SHIELD(CD)	FOR CD MECA WIR	1		
60	VND4220-001	LASER CAUTION		1		
61	VJD1177-001	CD CASE		1		
62	SBSF3006Z	SCREW	SW PWB+CD CASE	1		
63	SBSF3010Z	SCREW	SW-PWB*CD CASE	1		
64	VJT2328-001	CD DOOR		1		
65	SBSF2606Z	SCREW	FOR CLAMPER	1		

• **CD Amplifier P.C. Board (Fig. 7-14, 15)**

1. Remove the three screws 56 retaining the CD amplifier P.C. board from the CD player ass'y.
2. From the optical pickup unit P.C. board, pull out the card wire outgoing from the connector CN501 on the CD amplifier P.C. board.
3. From the connector P011 on the spindle feed motor P.C. board, dismount the #6PIN connector outgoing from the connector CN502 on the CD amplifier P.C. board.

• **CD Mechanism Ass'y (Fig. 7-14, 16)**

By removing the three screws (55 × 2 and 58 × 1) simultaneously retaining the CD mechanism, rear and front brackets, separate the CD mechanism ass'y (from the brackets).

• **CD Door Motor Ass'y (Fig. 7-14, 16 ~ 18)**

Insert a minus screw driver into the positions (h) and (i) when the right and left CD door assemblies and CD cases are engaged, and dismount the CD door assemblies.

• **CD Door Motor Ass'y (Fig. 7-14, 16)**

Remove the two screws 47 retaining the CD door assemblies from the CD cases.

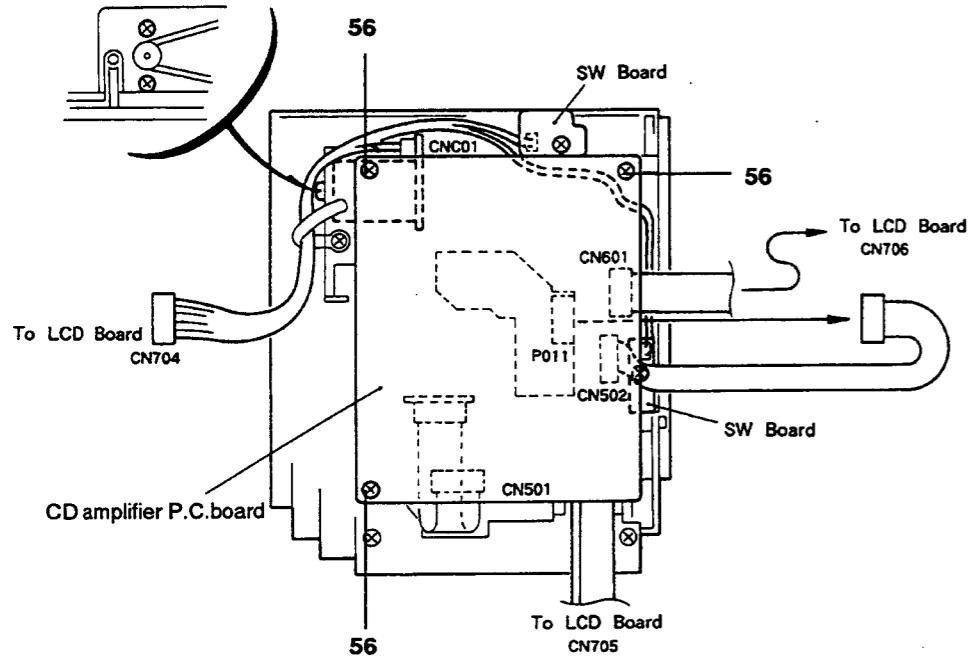


Fig. 7-15

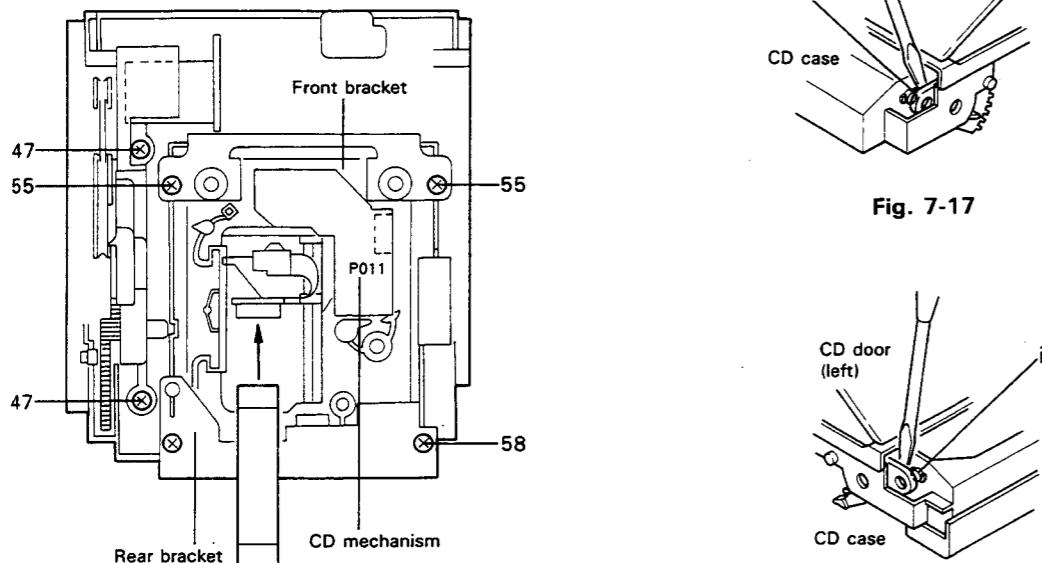


Fig. 7-16

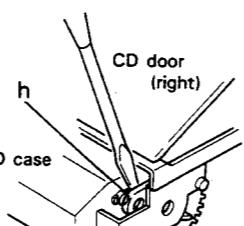


Fig. 7-17

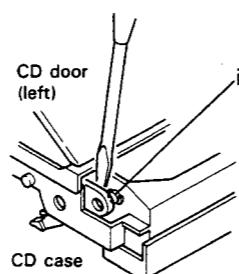


Fig. 7-18

■ CD/Tuner Section

Color codes are shown below.

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

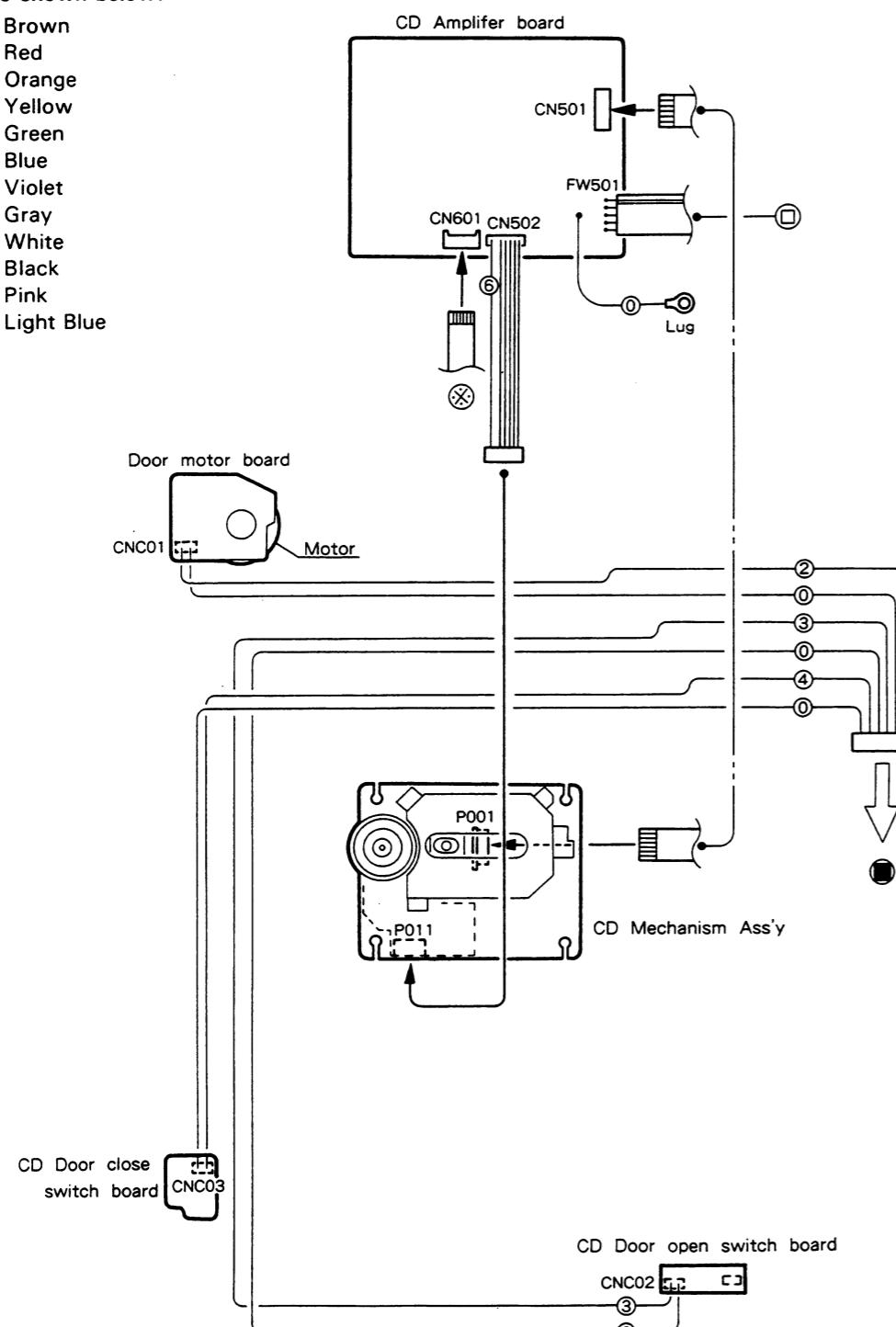


Fig. 10-2

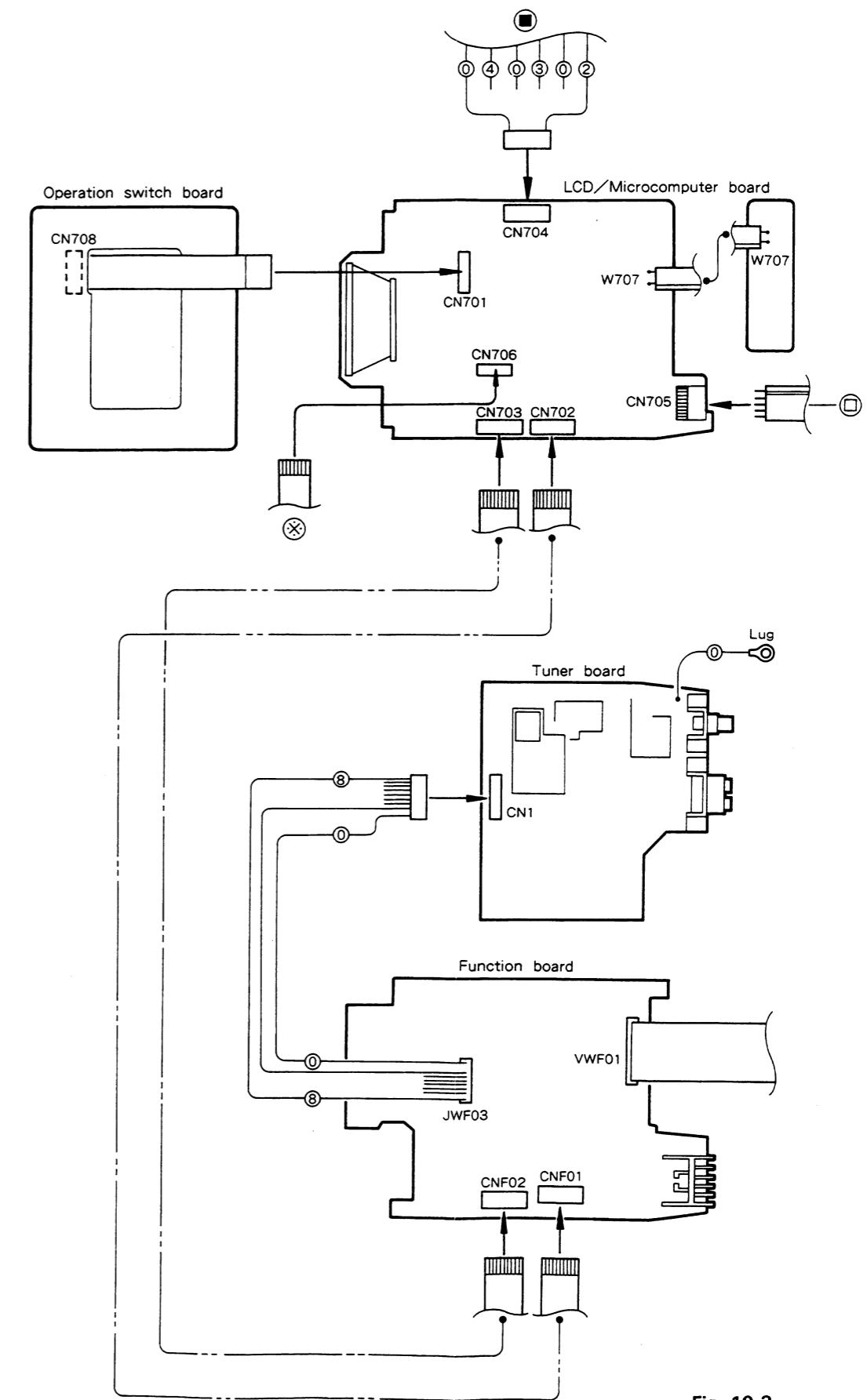


Fig. 10-3

11. Standard Schematic Diagram ■ Tuner Circuit: Drawing No. VDH9214-005TW (UX-A4 B/E/EN)

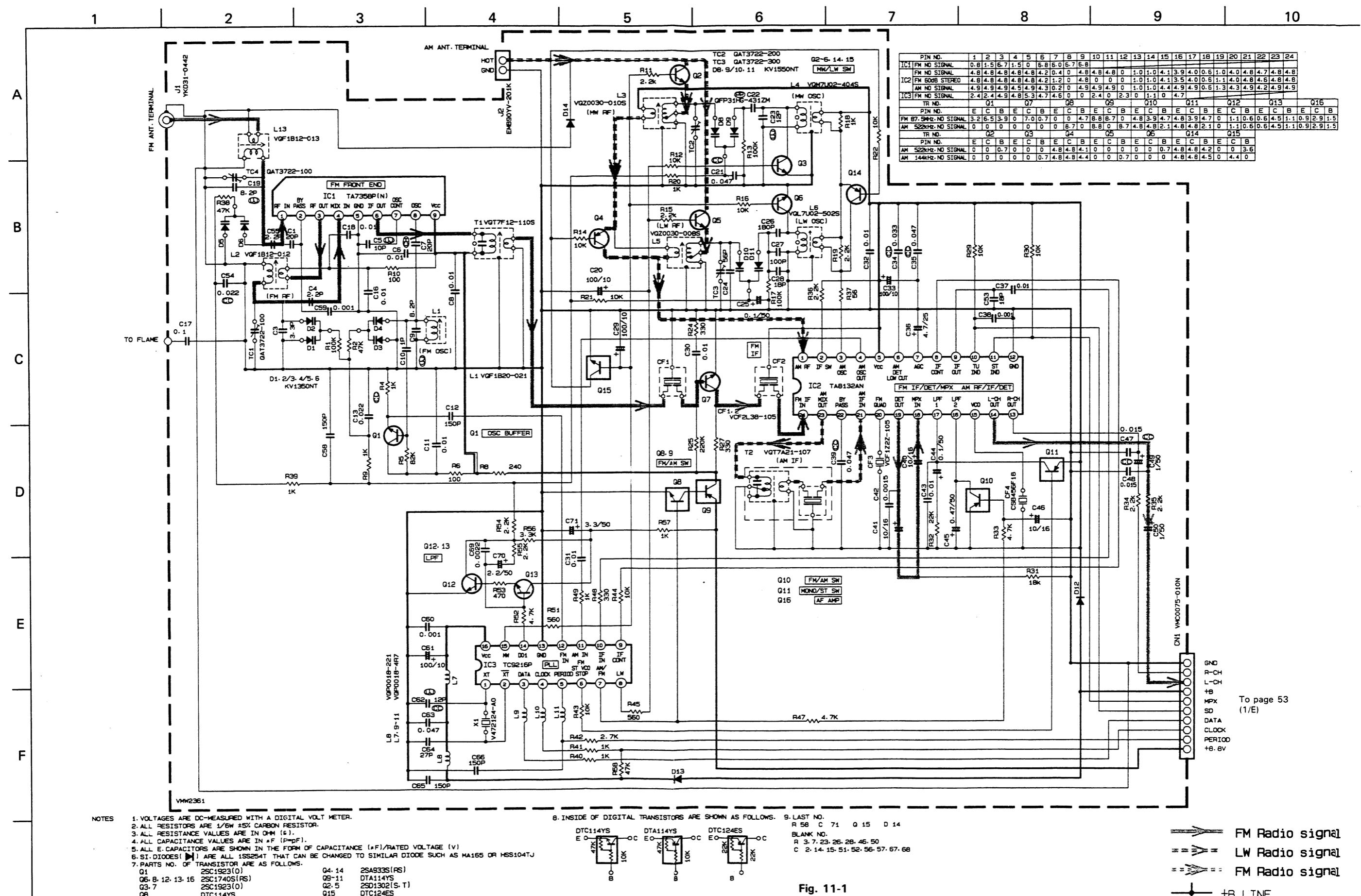
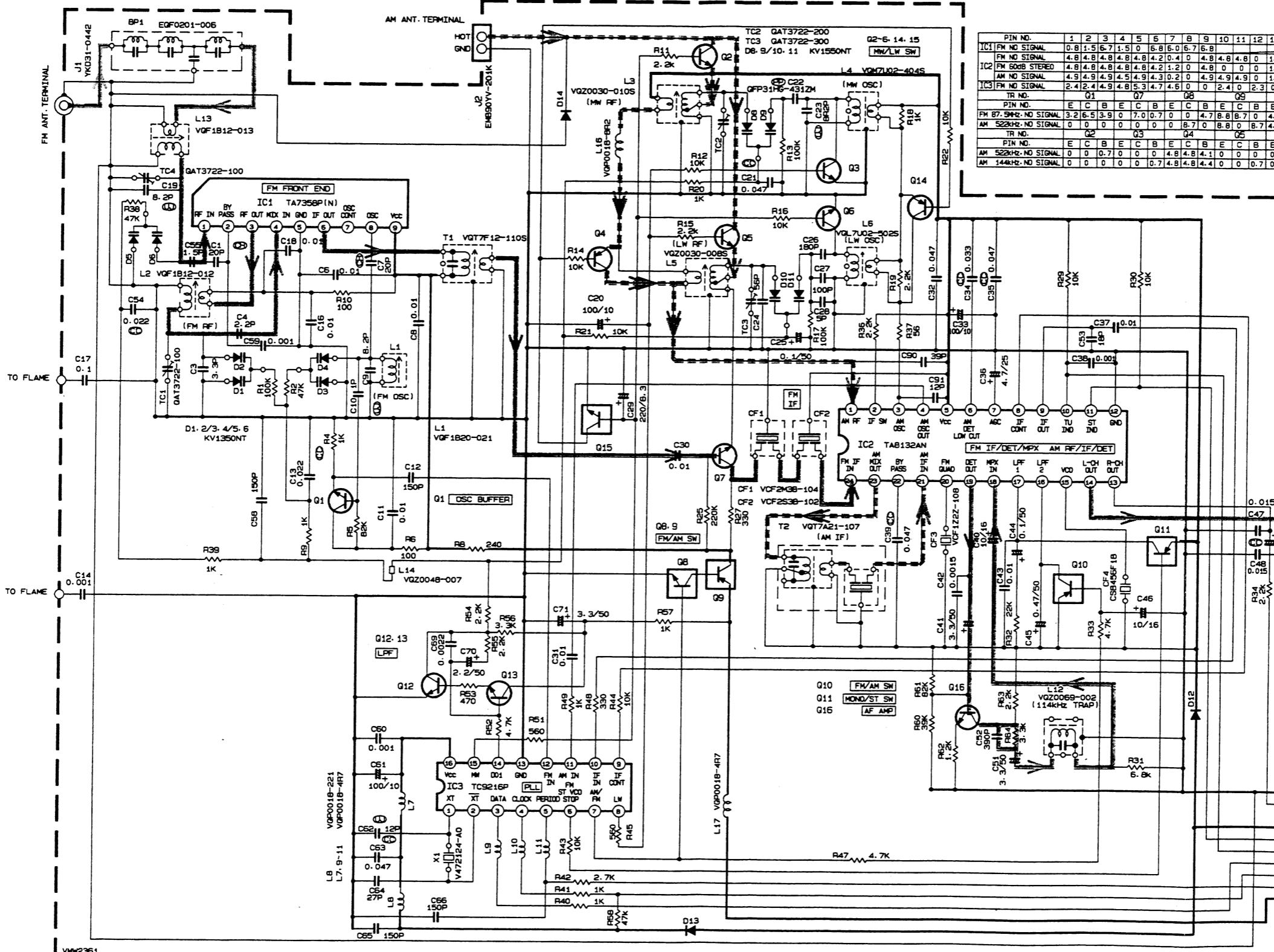


Fig. 11-1

■ Tuner Circuit: Drawing No. VDH9214-008TW (UX-A4 G/GI)

11 12 13 14 15 16 17 18 19 20



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	0.8	1.5	6.7	1.5	0	6.8	0	6.7	6.8																		
FM NO SIGNAL	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	0	4.8	4.8	4.8	0	1.0	1.0	4.1	3.9	4.0	4.0	1.0	4.0	4.8	4.8			
IC2 FM 500K STEREO	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	0	4.8	0	0	0	1.0	1.0	4.1	3.5	4.0	0.6	1.1	4.0	4.8	4.8			
AM NO SIGNAL	4.9	4.9	4.9	4.5	4.5	4.5	4.5	4.5	4.5	0	4.9	4.9	4.9	0	1.0	1.0	4.4	4.9	4.9	0.6	1.3	4.3	4.9	4.9			
IC3 FM NO SIGNAL	2.4	2.4	4.9	4.8	5.3	4.7	4.6	0	2.4	0	2.3	0	1.1	0	4.7	0	0	0	0	0	0	0	0	0			
TR NO.	Q1									Q8								Q10									
PIN NO.	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B			
FM 87.5MHz NO SIGNAL	3.2	6.5	3.9	0	7.0	0.7	0	0	4.7	8.8	8.7	0	4.8	3.9	4.7	4.8	3.9	4.7	0	1.1	0.6	0.6	4.5	1.1	0.9		
AM 520kHz NO SIGNAL	0	0	0	0	0	0	0	0	0	8.7	0	8.8	0	8.7	4.8	4.8	2.1	4.8	4.8	2.1	0	1.1	0.6	0.6	4.5	1.1	0.9
TR NO.	Q2									Q3								Q4									
PIN NO.	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B	E	C	B			
AM 520kHz NO SIGNAL	0	0	0	0	0	0	0	0	0	4.8	4.8	4.8	4.1	0	0	0	0	0	0	0	0	0	0	0	3.6		
AM 144kHz NO SIGNAL	0	0	0	0	0	0	0	0	0	4.8	4.8	4.4	0	0	0	0	0	0	0	0	0	0	0	0	4.4		

A

B

C

D

E

F

To page 53
(1/E)

Q10 R-CH

L-CH

MPX

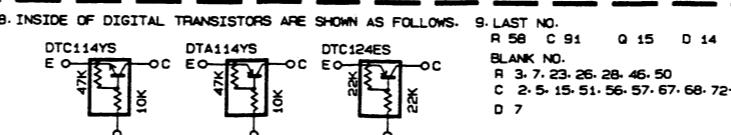
SD

DATA

CLOCK

PERIOD

+6.8V



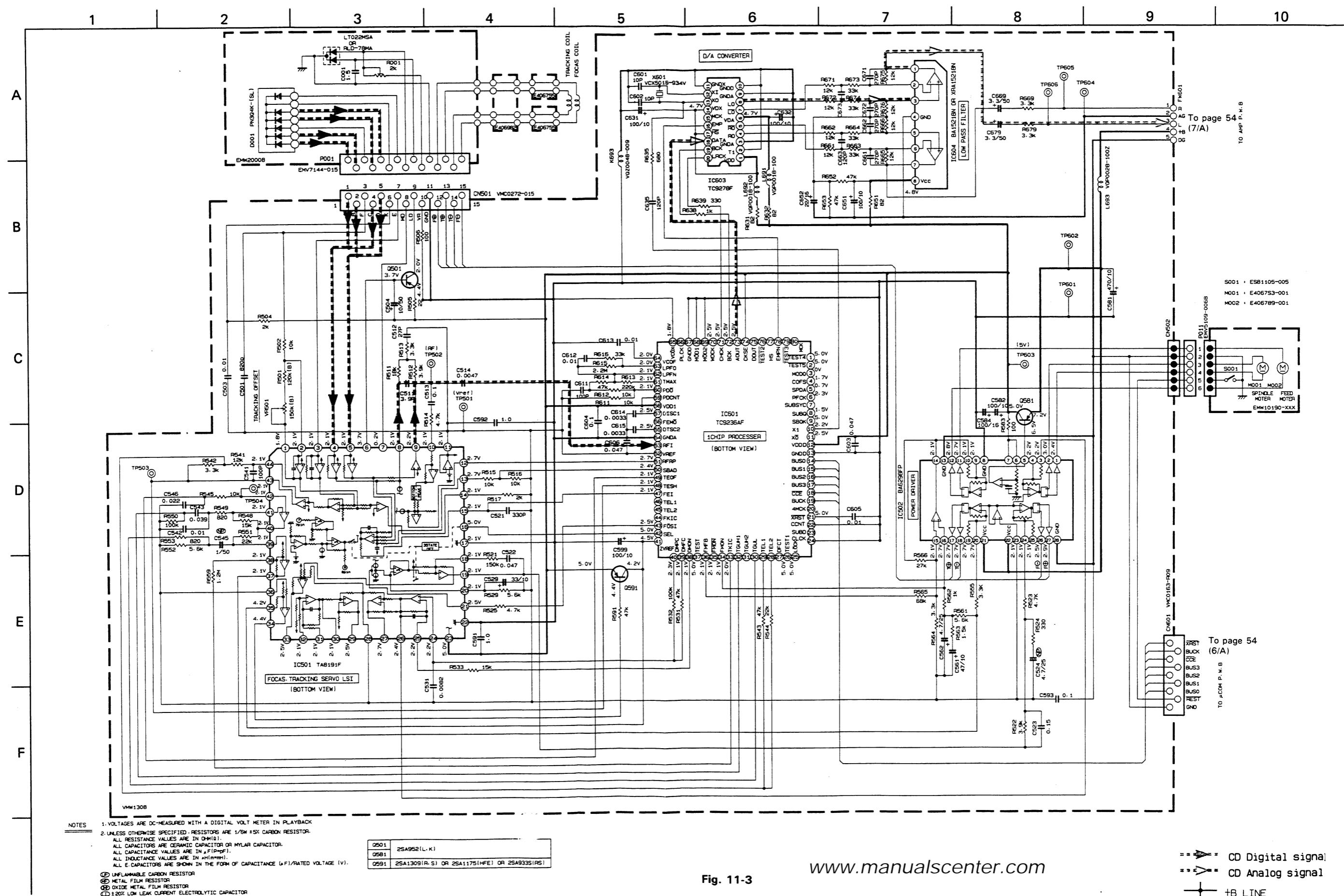
8. INSIDE OF DIGITAL TRANSISTORS ARE SHOWN AS FOLLOWS.
9. LAST NO.
R 58 C 91 Q 15 D 14
BLANK NO.
R 3.7 23.26.28.46.50
C 2.5 15.51.56.57.67.68.72.89
D 7

- NOTES
- VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER.
 - ALL RESISTORS ARE 1/6W ±5% CARBON RESISTOR.
 - ALL RESISTANCE VALUES ARE IN OHM (Ω).
 - ALL CAPACITANCE VALUES ARE IN pF (pF).
 - ALL C CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (pF)/RATED VOLTAGE (V).
 - SI DIODES (■) ARE ALL 1SS254T THAT CAN BE CHANGED TO SIMILAR DIODE SUCH AS MA165 OR HSS104TJ.
 - PARTS NO. OF TRANSISTOR ARE AS FOLLOWS:
- | | |
|--------------------|--------------------|
| Q1-3 2SC2668(0) | Q4-14 2SA1175(HFE) |
| Q5-11 2SC2785(E,F) | Q9-11 DTA114YS |
| Q8 DTC114YS | Q2-5 2SD1302(S,T) |
| Q15 DTC124ES | |

Fig. 11-2

— LW Radio signal
— MW Radio signal
— FM Radio signal
+B LINE

■ CD Amplifier Circuit: Drawing No. VDH9214-005CV (All version)



■ Function/Line Amplifier Circuit: Drawing No. VDH9214-005BV

1 2 3 4 5 6 7 8 9 10

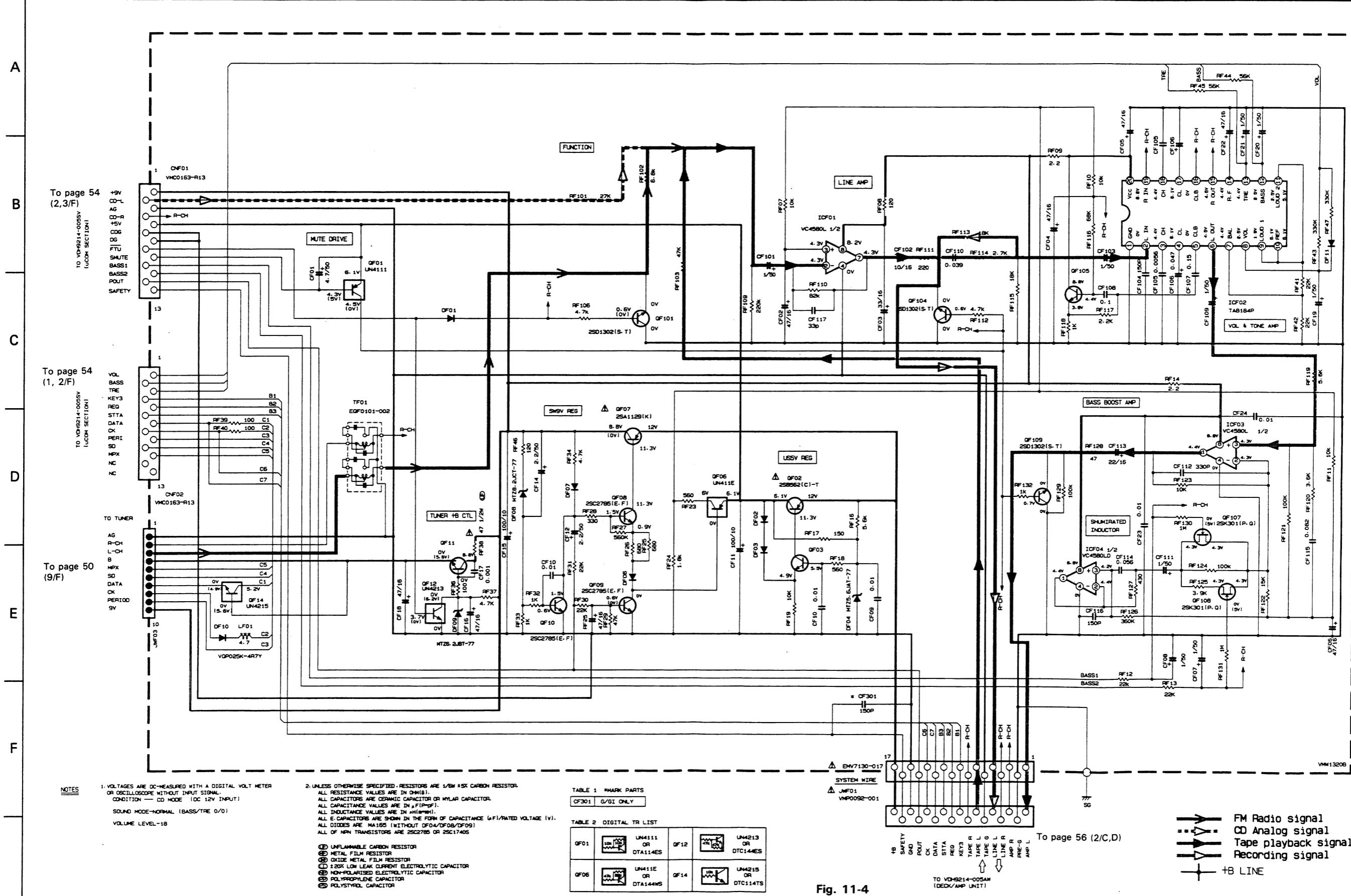
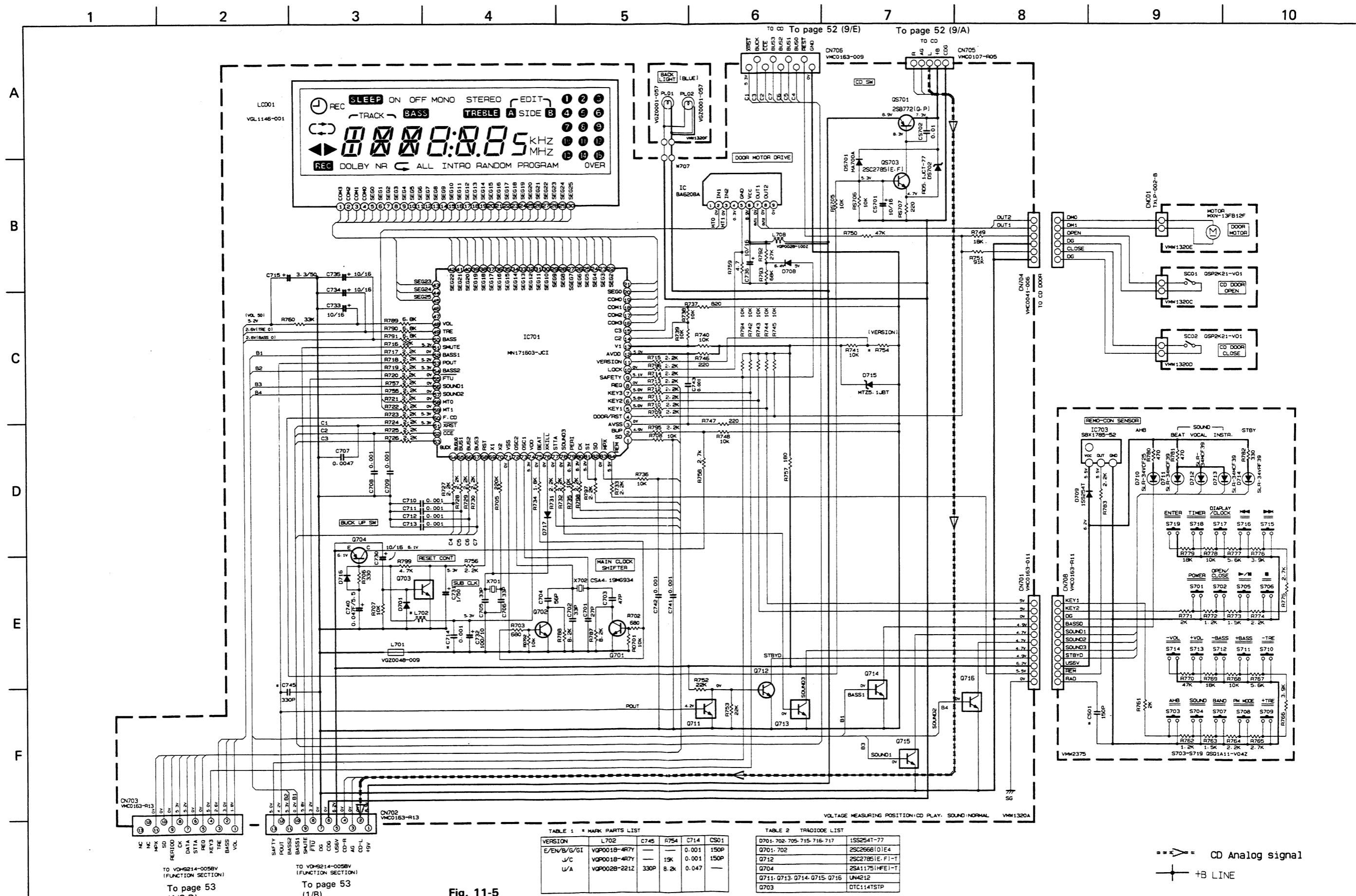


Fig. 11-4

■ LCD/Micro Computer Circuit: Drawing No. VDH9214-005SV (All version)



■ Pre-Amplifier Circuit: Drawing No. VDH9214-005PV (All version)

11

12

13

14

15

16

17

18

19

20

A

B

C

D

E

F

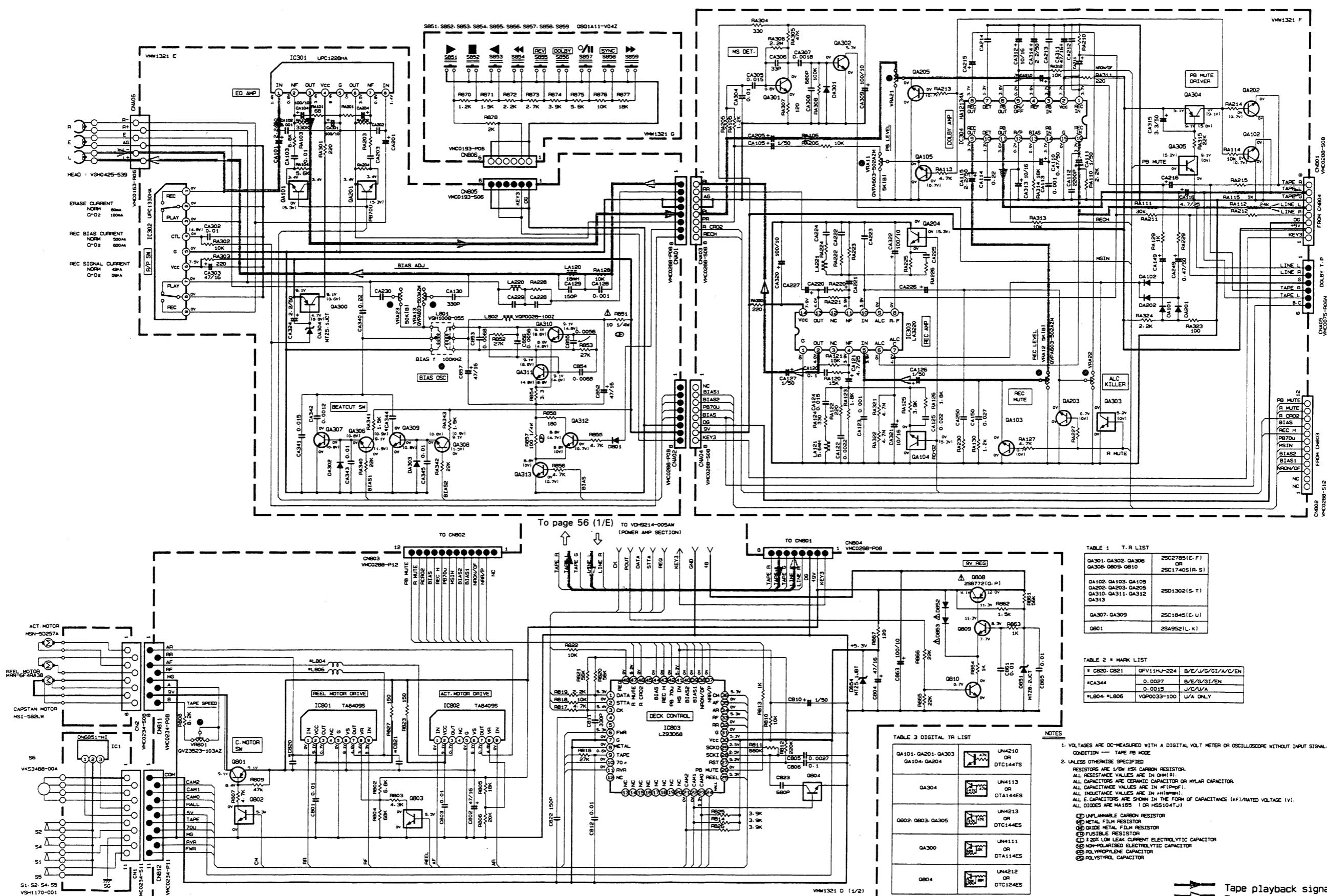


Fig. 11-6

QA301-QA302-QA306	2SC2785(E,F) OR 2SC1740S(I,S)
QA308-QA309-QA310	2SD13021S-T
QA310-QA311-QA312	2SD13021S-T
QA307-QA309	2SC1845(E,U)
Q901	2SA952(L,K)

#C820-C821	QFV11HJ-224 B/E/J/G/GI/A/C/EN
#CA344	0.0027 B/E/G/GI/EN
	0.0015 J/C/A
#L804-L805	VDP0033-100 U/A ONLY

QA101-QA201-QA303	UN4210 OR DTC144TS
QA304	UN4113 OR DTA144ES
Q902-Q903-Q905	UN4213 OR DTC144ES
QA300	UN4111 OR DTA144ES
Q904	UN4212 OR DTC124ES

NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER OR OSCILLOSCOPE WITHOUT INPUT SIGNAL CONDITION = TAPE PB MODE
2. UNLESS OTHERWISE SPECIFIED, RESISTORS ARE 1/4W 5% CARBON RESISTOR.
RESISTANCE VALUES ARE IN OHM (Ω).
ALL CAPACITORS ARE CERAMIC CAPACITOR OR MYLAR CAPACITOR.
ALL CAPACITANCE VALUES ARE IN PF (PF).
ALL INDUCTANCE VALUES ARE IN MH (MH).
ALL ELETROLYTIC CAPACITORS ARE SHOWN IN FORM OF CAPACITANCE (PF) / RATED VOLTAGE (V).
ALL DIODES ARE MA165 (OR HSS104T).

TABLE 1 T-R LIST

TABLE 2 MARK LIST

TABLE 3 DIGITAL TR LIST

- POLYCARBONATE RESISTOR
- METAL FILM RESISTOR
- ZINC OXIDE METAL FILM RESISTOR
- FUSIBLE RESISTOR
- 100Ω LOW LEAK CURRENT ELECTROLYTIC CAPACITOR
- 100PF POLYPROPYLENE CAPACITOR
- 10PF POLYSTYROL CAPACITOR

Tape playback signal
Recording signal
+B LINE

■ Power Supply/Power Amplifier Circuit: Drawing No. VDH9214-005AW (All version)

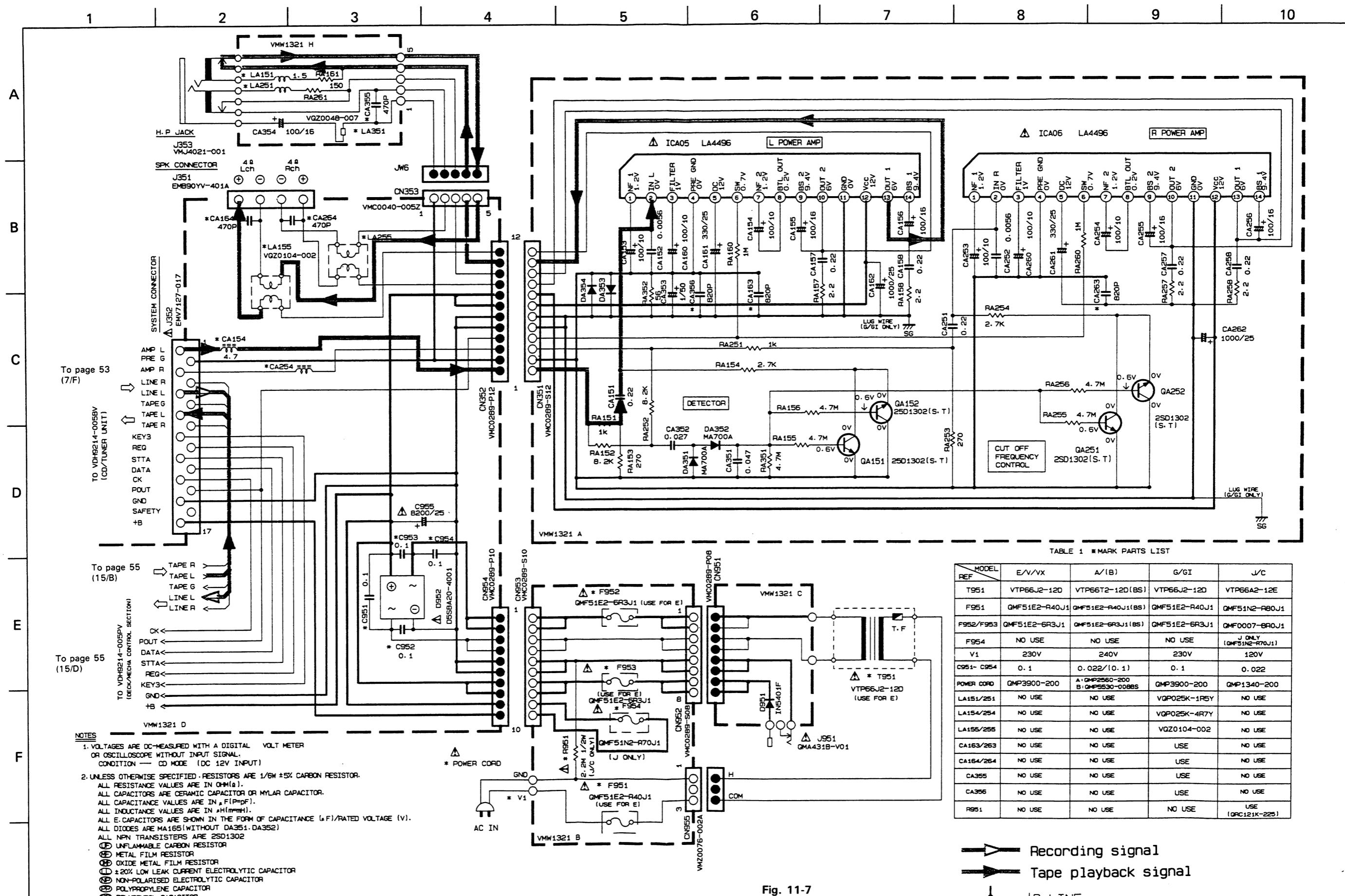


Fig. 11-7

12. Location of P.C. Board Parts

1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10

CD/Tuner Section

■ Tuner P.C. Board: Drawing No. VMW2361, Block No. 0 9

A

(UX-A4 B/E/EN)

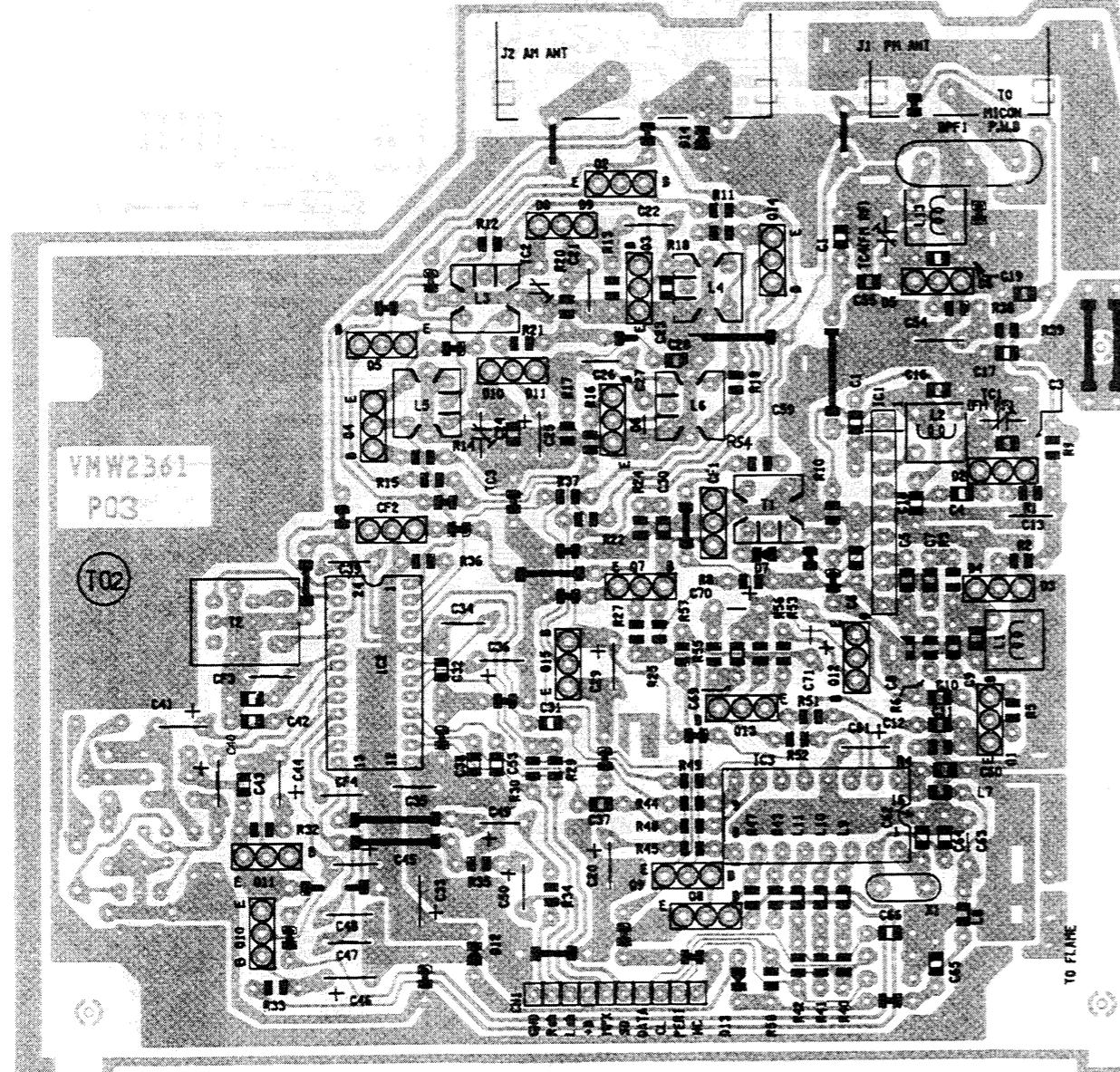


Fig. 12-1

(UX-A4 G/GI)

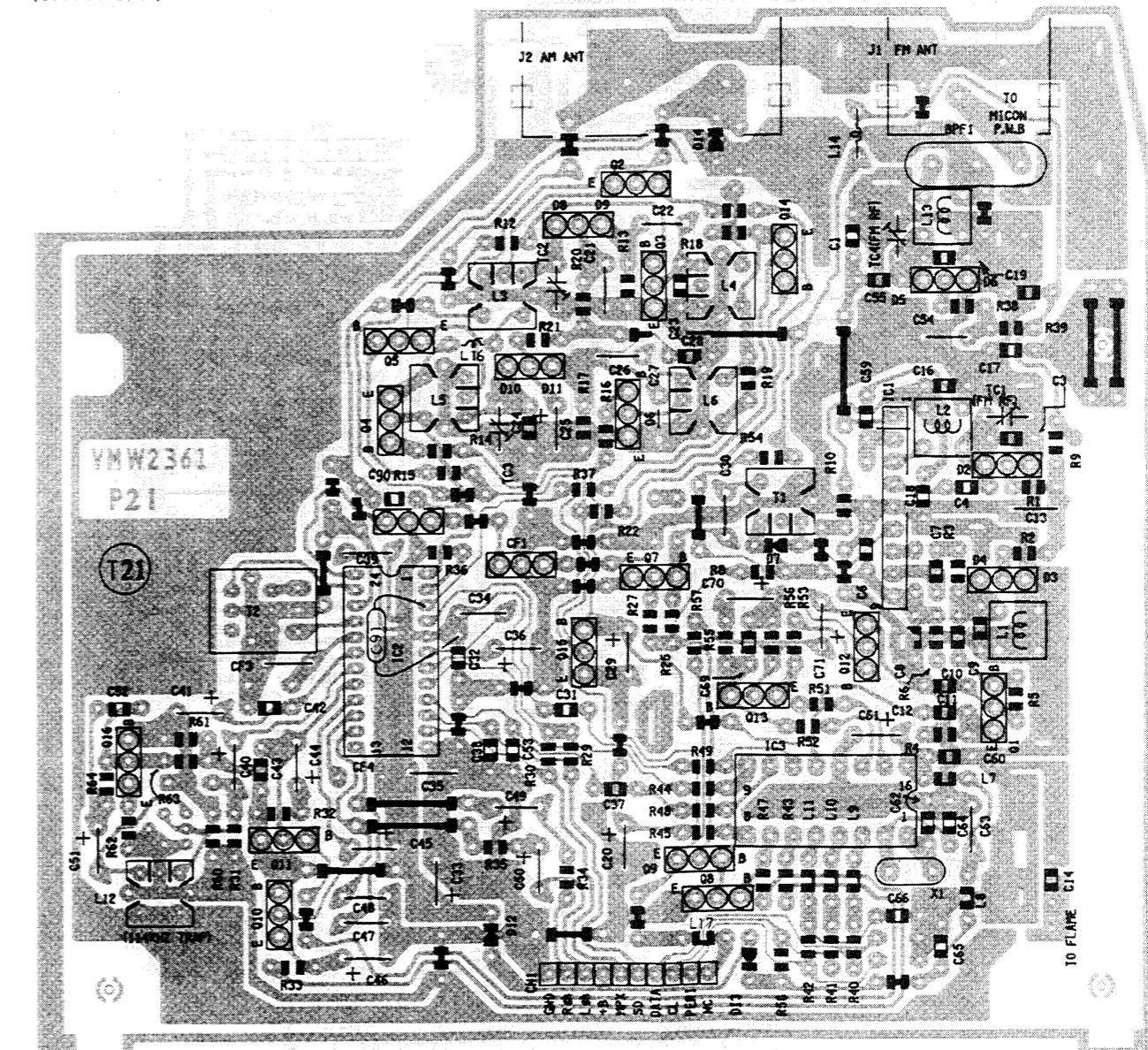


Fig. 12-2

1 2 3 4 5 6 7 8 9 10

■ LCD/Micro Computer P.C. Board: Drawing No. VMW1320A, Block No. 0 5

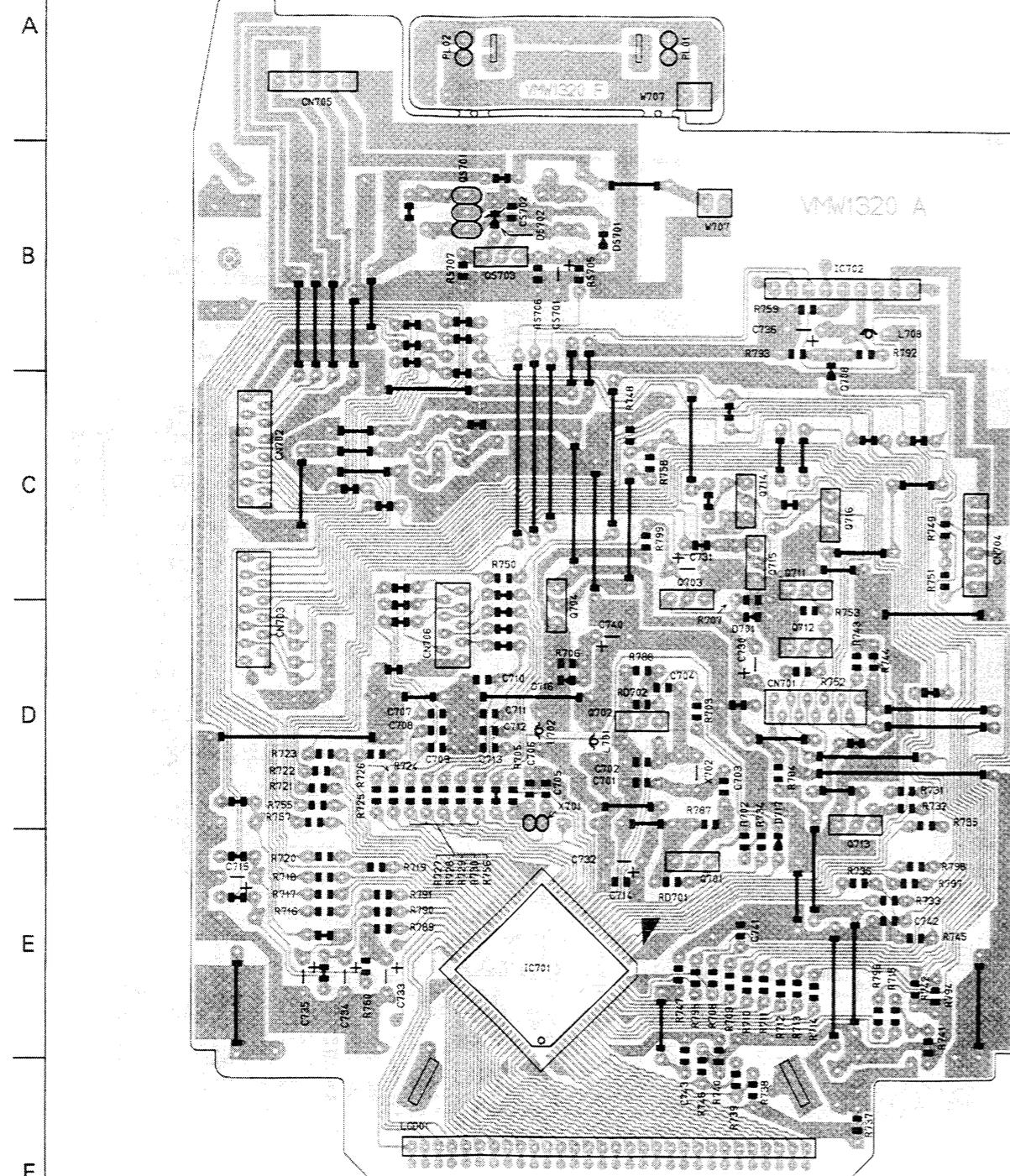


Fig. 12-3

■ CD Door Motor P.C. Board:
Drawing No. VMW1320E
Block No. 0 5

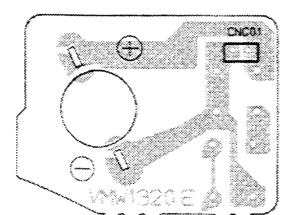


Fig. 12-4

■ Function P.C. Board: Drawing No. VMW1320B, Block No. 0 6

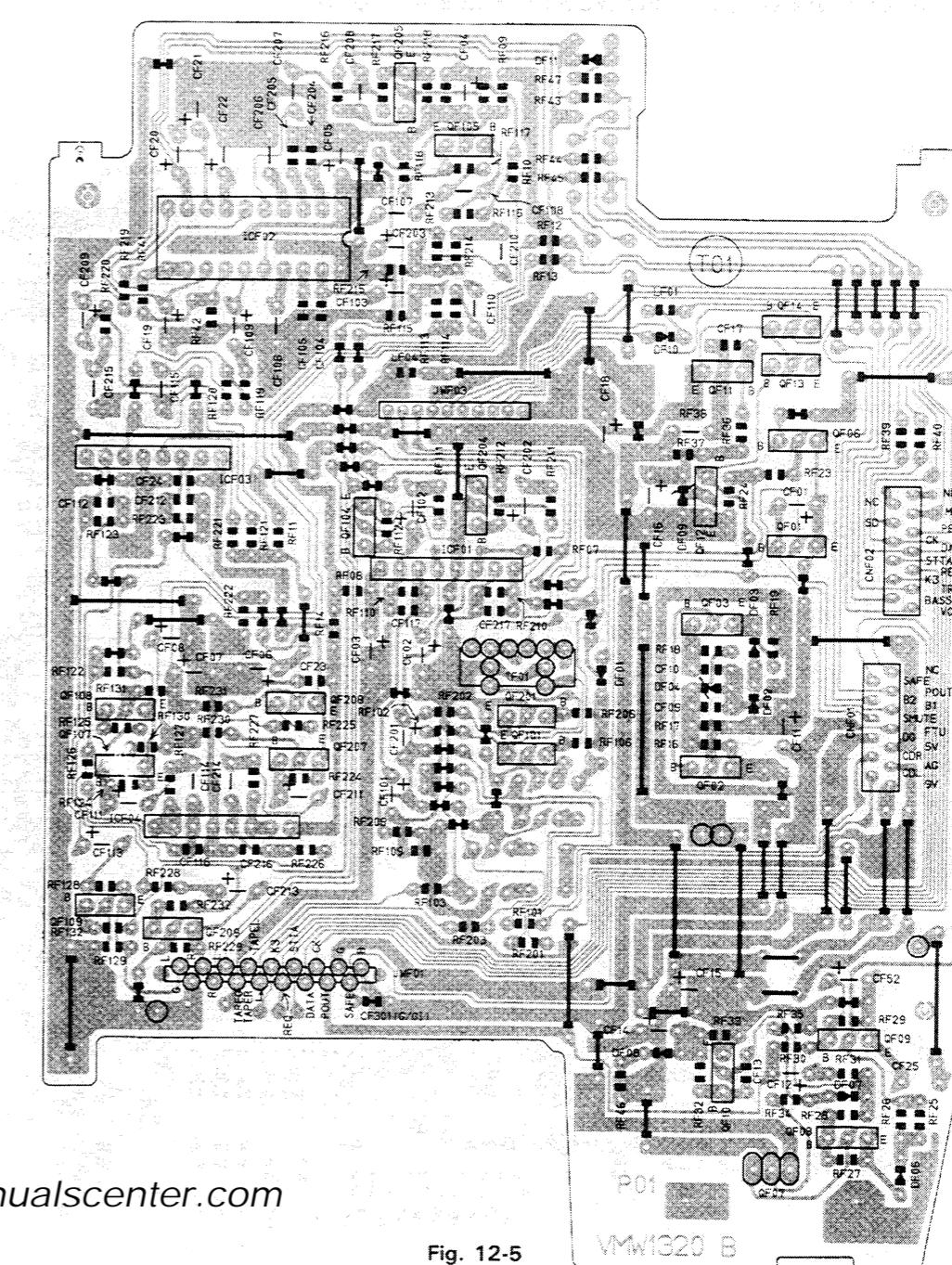


Fig. 12-5

■ CD Door Close Switch
P.C. Board
: Drawing No. VMW1320D
Block No. 0 5

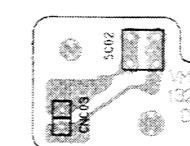


Fig. 12-6

■ CD Door Open Switch
P.C. Board
: Drawing No. VMW1320C
Block No. 0 5

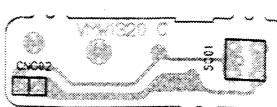


Fig. 12-7

13. Electrical Parts

1 | 2 | 3 | 4 | 5

■ Leaf Switch P.C. Board: Drawing No. VMW1312A

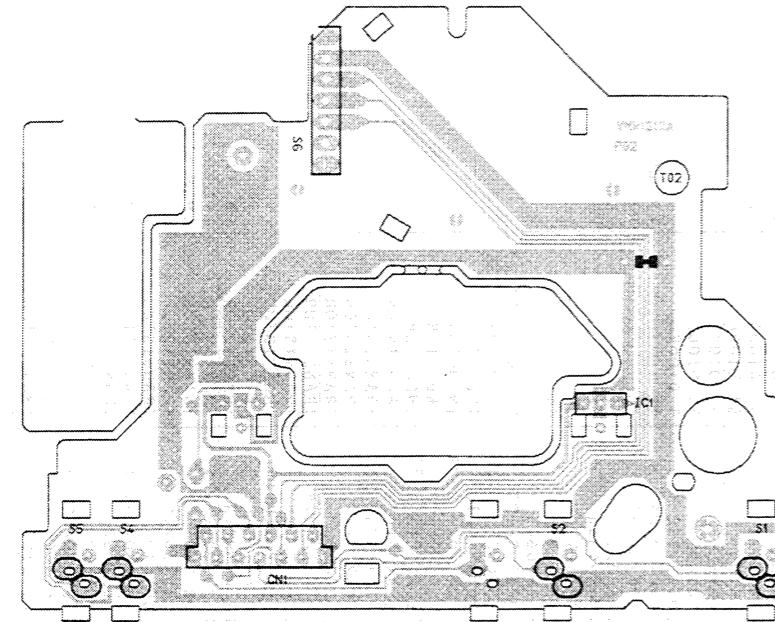


Fig. 12-17

■ Actuator/Reel Motor P.C. Board: Drawing No. VMW1312B

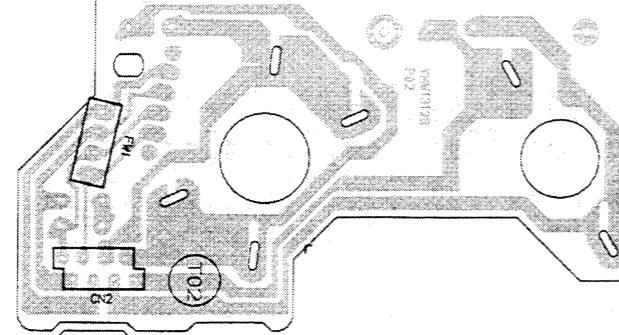


Fig. 12-18

• Power Supply P.C. Board

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	BLOCK NO. []
A	C 951	QFV41HJ-104	TF CAPACITOR	*10MF 5X 50V		
A	C 952	QFV41HJ-104	TF CAPACITOR	*10MF 5X 50V		
A	C 953	QFV41HJ-104	TF CAPACITOR	*10MF 5X 50V		
A	C 954	QFV41HJ-104	TF CAPACITOR	*10MF 5X 50V		
A	C 955	QET11EM-828	E CAPACITOR	DECUP		
A	CN352	VMC0289-P12	CONNECTOR	10 CN351		
A	CN352	VMC0289-P08	CONNECTOR	10 JW6		
A	CN352	VMC0289-S08	CONNECTOR	2ND		
A	CN352	VMC0289-S10	CONNECTOR	2ND		
A	CN954	VMC0289-P10	CONNECTOR	1M		
A	CN955	VMC0076-002A	CONNECTOR	SI DIODE		
A	D 951	1N5001F	SI DIODE			
A	D 952	DSSB420-4.001	SI DIODE			
A	J 352	EMV127-017	SPK TERMINAL			
A	J 951	QMA431B-V01	DC JACK			
			CONN. TERMINAL			
			DC JACK			

• Power Amplifier P.C. Board

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	BLOCK NO. []
A	CA151	QFV1HJ-224	TF CAPACITOR	*22MF 5X 50V		
A	CA152	QCR81CM-562Y	C CAPACITOR	5600PF 20X 16V		
A	CA153	QEKG1AM-107ZN	E CAPACITOR	1000F 20X 10V		
A	CA155	QET11CM-107ZN	E CAPACITOR	100MF 20X 10V		
A	CA156	QET11CM-107ZN	E CAPACITOR	100MF 20X 16V		
A	CA157	QFV1HJ-224	TF CAPACITOR	*22MF 5X 50V		
A	CA158	QFV1HJ-224	TF CAPACITOR	*22MF 5X 50V		
A	CA160	QET11AM-107ZN	E CAPACITOR	100MF 20X 10V		
A	CA161	QET11EM-337ZN	E CAPACITOR	330MF 20X 25V		
A	CA162	QTB1EM-108N	E CAPACITOR	1000MF 20X 25V		
A	CA251	QFV1HJ-224	TF CAPACITOR	*22MF 5X 50V		
A	CA252	QCX01CM-562Y	C CAPACITOR	5600PF 20X 16V		
A	CA253	QEKG1AM-107ZN	E CAPACITOR	1000F 20X 10V		
A	CA254	QET11AM-107ZN	E CAPACITOR	100MF 20X 10V		
A	CA255	QET11CM-107ZN	E CAPACITOR	100MF 20X 16V		
A	CA256	QET11CM-107ZN	E CAPACITOR	*22MF 5X 50V		
A	CA257	QFV1HJ-224	TF CAPACITOR	*22MF 5X 50V		
A	CA258	QFV1HJ-224	TF CAPACITOR	*22MF 5X 50V		
A	CA260	QET11AM-107ZN	E CAPACITOR	100MF 20X 10V		
A	CA261	QET11EM-337ZN	E CAPACITOR	330MF 20X 25V		
A	CA262	QEIB1EM-107ZN	E CAPACITOR	1000MF 20X 25V		
A	CA263	QEIB1EM-107ZN	E CAPACITOR	1000MF 20X 25V		
A	CA351	QFV81HJ-473	TF CAPACITOR	*04MF 5X 50V		
A	CA352	QFV81HJ-273AZM	TF CAPACITOR	*02MF 5X 50V		
A	CA353	QEKA1HM-105	E CAPACITOR	1.0MF 20X 50V		
A	CN351	UNC0289-S312	CONNECTOR	10 CN352		
A	DA351	MA700	ZENER DIODE			
A	DA352	MA700	ZENER DIODE			
A	DA353	MA105	SI DIODE			
A	DA354	MA165	SI DIODE			
A	ICA05	LA4496	IC	L-CH R-CH		
A	ICA06	LA4498	IC	L-CH R-CH		
A	QA151	2SD1302(G,T)	TRANSISTOR			
A	QA152	2SD1302(S,T)	TRANSISTOR			
A	QA251	2SD1302(S,T)	TRANSISTOR			
A	QA252	2SD1302(S,T)	TRANSISTOR			
A	RA151	QRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
A	RA152	QRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W		
A	RA153	QRD161J-822	CARBON RESISTOR	2.7K 5% 1/6W		
A	RA154	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W		
A	RA155	QRD161J-475	CARBON RESISTOR	4.7M 5% 1/6W		
A	RA156	QRD161J-475	CARBON RESISTOR	4.7M 5% 1/6W		
A	RA157	QRD161J-282	CARBON RESISTOR	2.7K 5% 1/6W		
A	RA158	QRD161J-822	CARBON RESISTOR	2.7K 5% 1/6W		
A	RA159	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W		
A	RA251	QRD161J-102	CARBON RESISTOR	4.7M 5% 1/6W		
A	RA252	QRD161J-472	CARBON RESISTOR	8.2K 5% 1/6W		
A	RA253	QRD161J-271	CARBON RESISTOR	2.7K 5% 1/6W		
A	RA254	QRD161J-272	CARBON RESISTOR	2.7K 5% 1/6W		
A	RA255	QRD161J-475	CARBON RESISTOR	4.7M 5% 1/6W		
A	RA256	QRD161J-475	CARBON RESISTOR	4.7M 5% 1/6W		
A	RA257	QRD161J-822	CARBON RESISTOR	2.2K 5% 1/6W		
A	RA258	QRD161J-822	CARBON RESISTOR	2.2K 5% 1/6W		
A	RA260	QRD161J-105	CARBON RESISTOR	1.0M 5% 1/6W		
A	RA351	QRD161J-775	CARBON RESISTOR	4.7M 5% 1/6W		
A	RA352	QRD161J-260	CARBON RESISTOR	5.6 5% 1/6W		

10. Wiring Connection

■ Tape Deck/Amplifier Section

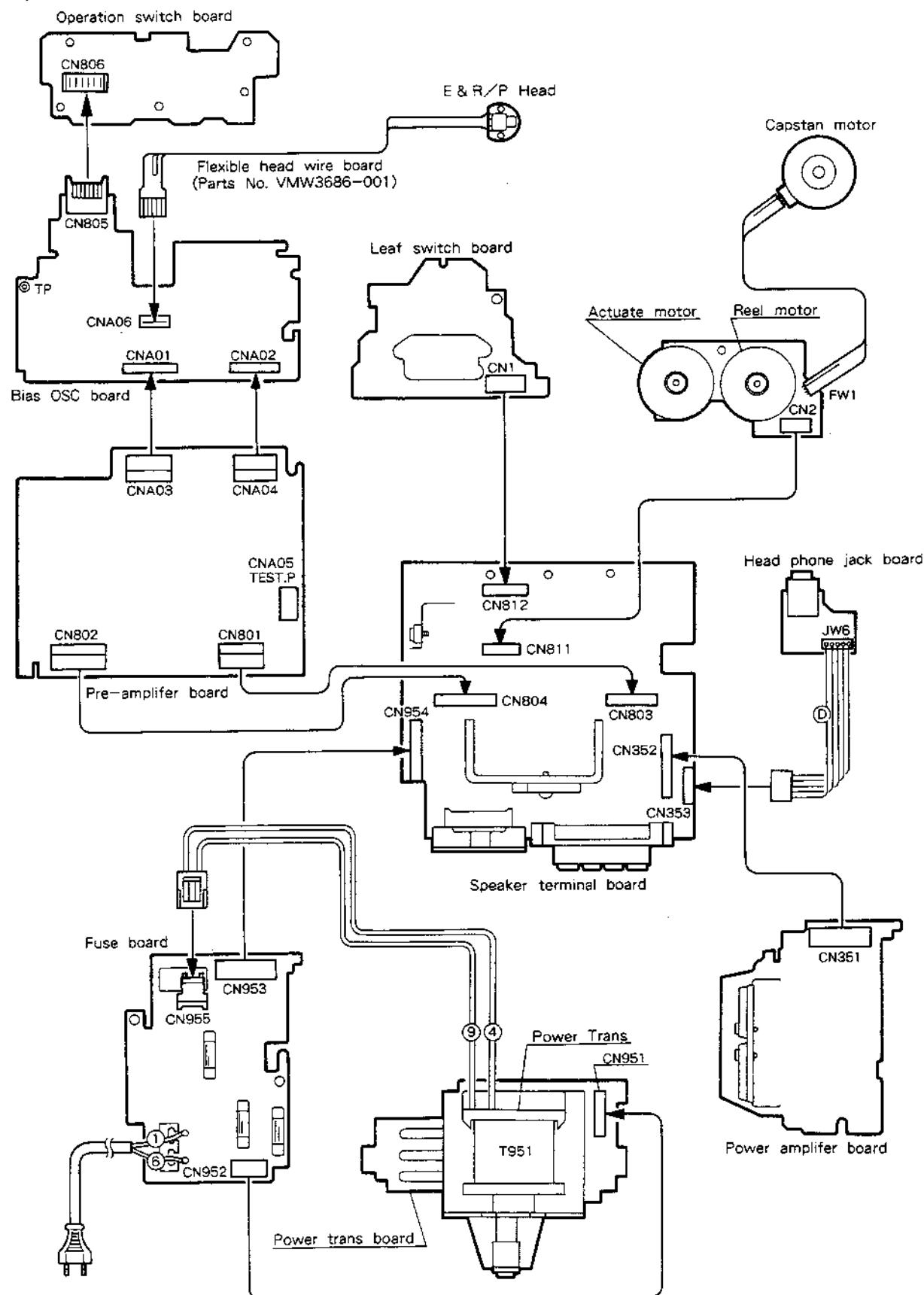


Fig. 10-1

9. Block Diagram

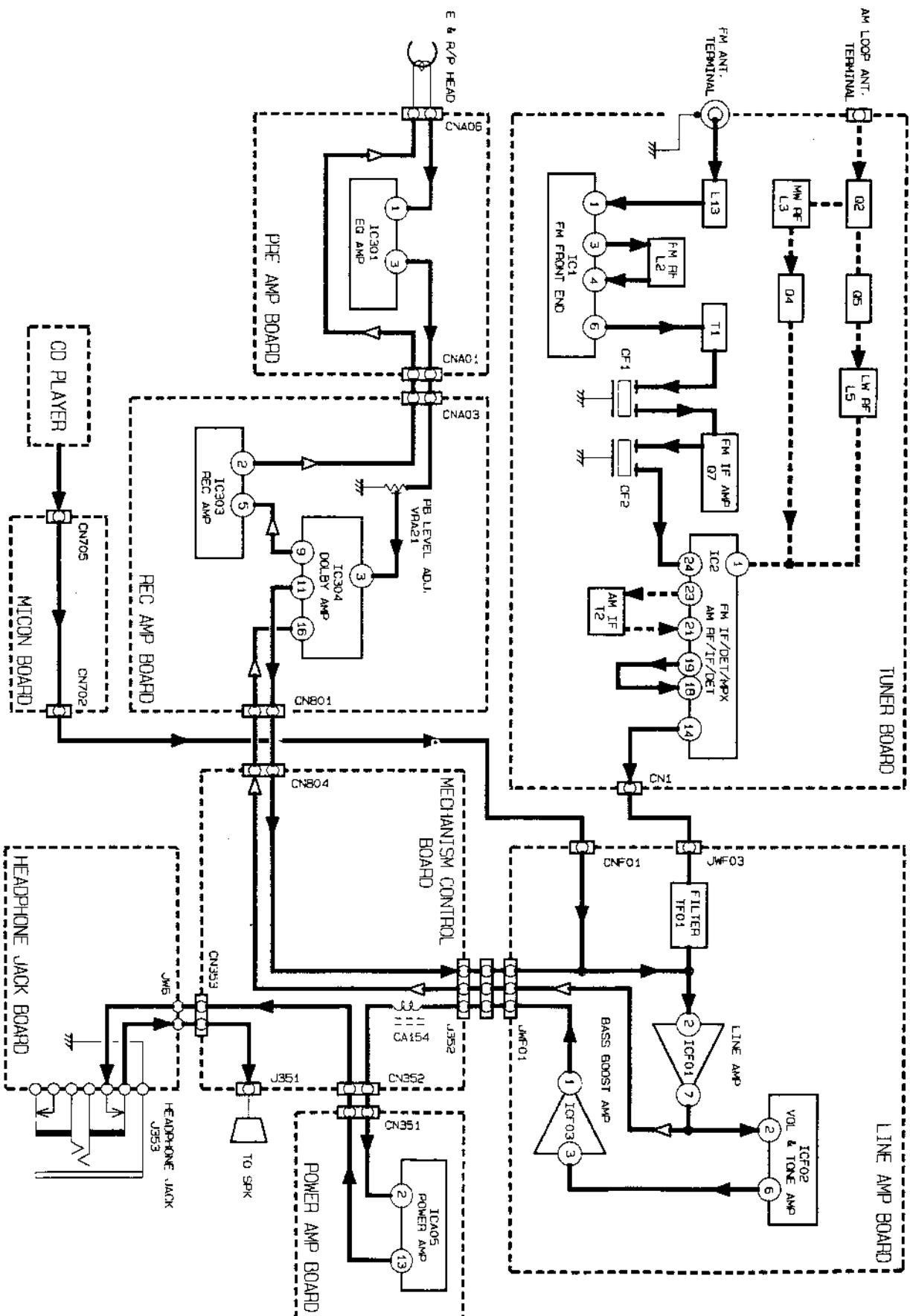
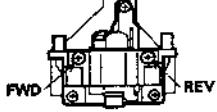
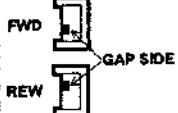
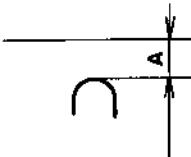


Fig. 9-1

■ Cassette mechanism specification

Item	Specification	condition	Posture
1. Winding torque (g·cm)	PLAY FF/REW :27~60g·cm (Both , FWD, REV) :90~200g·cm	Cassette tape TW2111A(for FWD) TW2231A(for FF/REV) TW2121A(for REV)	Sideways
2. Speed devaluation	FWD at tape end VVT 712 :4.8cm/sec Deviation of speed :2940~3060Hz between FWD/REV to be within 4.5Hz.	VVT 712 Wow/Flutter meter	Sideways
3. WOW/FL (%)	At bigining of tape and end.VVT 712 :JIS wrms below 0.18% (Both FWD, REV)	VVT 712 Wow/Flutter meter	Sideways
4. Back tension (g·cm)	In in play :1.0~5.0g·cm (Both FWD, REV)	Cassette tape TW2111 (for FWD) TW2422 (for REV)	Sideways
5. Winding torque (g·cm)	In play :Above 90g·cm (Both FWD, REV)	Cassette tape TW2412 (for FWD) TW2422 (for REV)	Sideways
6. E, head tilt	Both FWD, REV :90° ± 45'	M300 gauge 45' chip	Sideways

■ Cassette mechanism part

Item	Conditions	Adjustment & Confirmation Methods	Stand. values	Adjust
1. Thrust gap flywheel		Check with finger feeling.	0.2 ~ 1.0mm (BOTH FWD, REV)	
2. Mecha operation	Mecha control	Following operation to be normal (Both FWD, REV) and, in that time, noise, vibration should not occur. (Running noise during PLAY, FF, REW, is accepted if noise can't be heard with loading cassette type.)	PLAY, DIR, FF, REW, SCAN (FF, REW), PAUSE, STOP	
3. Signal of auto stop	Mecha control	Lead light to be on and off normally play (SIG) (Caution: Without tape fwd side only, led to be on and off.)		
4. Leaf switch position		1. All switch leds, should light when putting cassette gauge for confirming leaf SW on. 2. All SW leds should not light when putting cassette gauge for confirming leaf SW off.		
5-1. Azimuth	M300 gauge $t=3.4\text{mm chip}$ VVT 704(12.5KHz)	Adjust azimuth to the peak point by play back 12.5KHz. At that time, difference Lch - Rch below 4dB and difference Lch - Rch FWD/REV below 3dB.		
5-2. Guide height	Head amp	$t=3.4\text{mm chip}$ can be inserted into guide of R/P head after adjusting azimuth. ($t=3.4\text{mm chip}$ can after be inserted into dummy guide, both FWD, REV.)		
5-3. Tape running	Upper side curling of FWD, lower side curling of REV.	Curl running should not occur at guide of R/P head with loading C-90 at midle.(Both FWD, REV)		MECHA CONTROL
	Lower side curling of FWD, upper side curling of REV	Curling at oposite of gap is corrected by turning azimuth screw within $\frac{1}{2}$ turns can be acceptable.(After checking above item azimuth screw to be returned to previous position.) Curling at gap side is corrected by turning azimuth screw within $\frac{1}{4}$ turns can be acceptable (After checking above item, azimuth screw to be returned to be returned to previous position.)		
5-4. Stretching		Stretching not to occur at the beginning of C-90. (Without pad)	Sampling check	C-90
5-5. Head position	IN PLAY A 3.10~3.65mm (3.25~3.80) IN MS A 4.4~5.1mm (1.8~2.5)			Head position jig. Figures in () is against standard cassette guide
6. Separation		Reversing L and R cross talk not to occur by play back 1KHz.		Mecha control OSC scope VVT 752

■ Tuner Section

Item	Conditions	Adjustment & Confirmation Methods	Stand. values	Adjust
LW RF tracking check and adjust (All version)	Band select : LW Tuner Input : Standard loop antenna Measuring point : TP9	<ul style="list-style-type: none"> Frequency of SSG : 144kHz Number preset memory : Max. capacity(M6) <p>1. Adjust L6 to obtain $1.1V \pm 0.02V$ at TP9.</p> <ul style="list-style-type: none"> Frequency range : 144 kHz Receive 144 kHz(M6) <p>2. Receive 144kHz signal from an AM oscillator by the set while adjusting L5 to maximize headphone output.</p> <ul style="list-style-type: none"> Frequency range : 288kHz Receive 288 kHz(M7) <p>3. Receive 288 KHz signal from an AM oscillator by the set while adjusting TC3 to maximize headphone output.</p> <p>4. Repeat the above steps 2. and 3. to obtain maximum outputs respectively.</p>	$1.1V \pm 0.02V$	L6
MW or AM RF tracking check and adjust (All version))	Band select : AM or MW Tuner Input : Standard loop antenna	<p>1. Receive 603 kHz signal (preset No.3) from the AM oscillator by the set while adjusting L3 to maximize headphone output.</p> <p>2. Receive 1404 kHz signal from an AM oscillator by the set while adjusting TC2 to maximize headphone output.</p> <p>3. Repeat the above steps 1. and 2. to obtain maximum outputs respectively.</p>	Output level : maximum	L3 TC2 L3, TC2
FM RF tracking check and adjust (UX – A4 B)	<ul style="list-style-type: none"> Band select : FM Tuner input : Dummy antenna for unbalanceed 75Ω 	<ul style="list-style-type: none"> Receive 88 MHz signal (preset No.3) from an FM oscillator by the set while adjusting L2 to maximize headphone output . 	Output level : maximum	L2
FM RF tracking check and adjust (UX – A4 E / G / GI / EN)	<ul style="list-style-type: none"> Positive side to TP1 Negative side to TP2 	<p>1. Adjust L1 to obtain $1.3 V \pm 0.02 V$ at TP9. G/GI version use : $1.0V \pm 0.02V$.</p> <p>2. Receive 88MHz signal from an FM oscillator by the set while adjusting L2, L13 to maximize headphone output.</p> <p>3. Next, receive 106MHz signal while adjusting TC1, TC4 to maximize headphone output.</p> <p>4. Repeat the above steps 2. and 3. to obtain maximum outputs respectively.</p>	$1.3 \pm 0.02V$ G/GI version : $1.0 \pm 0.02V$	L2, L13 TC1, TC4

■ Tuner Section

Item	Conditions	Adjustment & Confirmation Methods	Stand. values	Adjust
AM IF tadjust and check (All version)	<ul style="list-style-type: none"> • Band select : MW or AM • Receiving frequency <ul style="list-style-type: none"> : Near the upper band edge where no signal comes in. • Volume control <ul style="list-style-type: none"> : Minimum gain position. • Tuner Input <ul style="list-style-type: none"> : Positive side to TP3 • Tuner output <ul style="list-style-type: none"> : Positive side to TP6 : Negative side to TP7 	<ul style="list-style-type: none"> • Adjust above mentioned aligning position, so that maximum and symmetrical wave from (See Fig.a) can be obtained, in this case, the wave peak should appear on the center marker(450kHz) in the scope of sweeper. • On the AM IF circuit, IF filter is solid units, so there is unnecessary for IF tuning. • In case if tuning may be needed (Repair etc.), do the above mentioned alignment. 		T2
FM IF adjust and check (All version)	<ul style="list-style-type: none"> • Band select : FM • Receiving frequency • Volume control <ul style="list-style-type: none"> : Minimum gain position. • Tuner input <ul style="list-style-type: none"> : Positive side to TP5 • Tuner output <ul style="list-style-type: none"> : Positive side to TP6 : Negative side to TP7 	<p>① Remove CF3 so that " S " curve may be changed to IF wave from as shown Fig. a. Adjust T1 farther more to obtain maximum and balanced wave from .</p> <p>② Put back CF3 so that " S " curve on the scope may obtain maximum and balanced wave from as shown Fig.b.</p> <p>* On the FM circuit, IF filter and discriminator is solid units so there is unnecessary for IF tuning. In case IF tuning may be needed (Repair etc.), do that above mentioned alignment.</p> <p>* Note for G/GI , E/EN version</p> <p>① As to " G/GI " , " E/EN " version, FM IF alignment is necessary.</p> <p>② Receive 98MHz, 22.5 kHz dev. Input level, about - 3dB limiting sensitivity level.</p> <p>③ Adjust T1, no farther improvement.</p>		T1

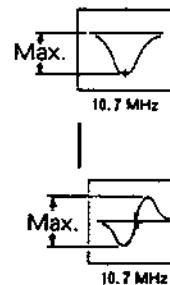


Fig.a

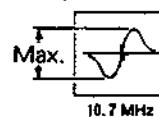


Fig.b

Item	Conditions	Adjustment & Confirmation Methods	Stand. values	Adjust
Recording /playback frequency response check and adjustment	Test tape : UR(Normal tape) Standard frequency : 1kHz (REF. – 20dB) Test point IN : AUX IN Test point OUT : DOLBY TP	While inputting REF. – 20dB from AUX IN, perform recording and replay with the normal tape TS8 . At this time, confirm the output with VRA13(Lch) and VRA23(Rch) so that the deviation between 1.25 kHz and 12.5 kHz at the DOLBY TP becomes 0 ± 1 dB.	1.25/ 12.5 kHz : 0 ± 1 dB	Lch : VRA13 Rch : VRA23
Recording /playback sensitivity adjustment	Test tape : UR(Normal tape) Test point In : AUX IN Test point out : DOLBY TP	① While inputting REF.1 kHz to AUX IN perform recording and replay with the normal tape TS8. ② Adjust Lch and Rch respectively with VRA12 and VRA22 so that the output at the DOLBY test point at this time becomes 0 ± 1 dB. ③ Next, perform recording and replay with the chromium tape TS10 and metal tape TS11 according to the same procedures in the Step ①. ④ Confirm that the DOLBY TP output at this time is 0 ± 1 dB.	Reference level :Monitor levelWithin 0 ± 1 dB	Lch : VRA12 Rch : VRA22
Recording / playback distortion check	Test tape : UR(Normal tape) Test point In : AUX Test point : DOLBY TP	Supply 1 kHz, – 8 dBs signal to the AUX and record it. Play it back while checking that distortion is less than 5 %.	Less than 5 %	–
Bias frequency adjustment	• Tape mode • Test point : DOLBY TP	Switch tape select to Normal position. In case that the bias frequency is out of specification, L801 should be readjusted to standard and set to Tuner, Recording position for alignment. ① Adjust bias frequency at FM mode. ② Confirm bias frequency at AMmode.	DOLBY TP :100 ± 0.2 kHz	L801

■ Mechanism & Amplifier Sections

Item	Conditions	Adjustment & Confirmation Methods	Stand. values	Adjust
Head azimuth adjustment	Test tape :VTT704(12.5kHz) Test point :Headphones	<p>① Playback the test tape VTT704(12.5kHz) in the forward direction, adjust the head azimuth screw (A) to maximize the headphones output while minimum the phase difference between channels</p> <p>② Playback the test tape in the reverse direction, adjust the head azimuth screw (B) for the same purpose as the forward playback.</p> <p>③ Deviation forward and reverse : within 3 dB * Whenever the head is changed the azimuth should be readjusted.</p>	Output : within – 2dB from the peak Phase difference :minimum	Head azimuth screw
Tape speed adjustment	Test tape : VTT712(3kHz) Test point : Headphone	Playback the test tape VTT712 (3kHz) at the tape end position. Should the following tape speed is out of specification, it is necessary to adjust the VR801 so that standard value obtain within 3000~3020 Hz.	Normal speed : within 3000~3020Hz	VR801
Wow and flutter check	Test tape :VTT712(3kHz) Test point :Headphone	Playback the test tape VTT712(3kHz) to tape start, midle and end position. Wow and flutter should be within the following allowance at the three positions.	Playback FWD / REV should be less than 0.2% (JIS RMS)	—
Playback output level adjustment	Test tape :VTT724(1kHz) Test point : DOLBY TP	<p>1. Playback the test tape VTT724(1kHz) and switch the tape select to NORMAL position.</p> <p>2. Adjust VRA11(Lch) and VRA21(Rch) so that standard value obtain less than – 11dB ± 1 dB.</p> <p>3. L, R difference level to be less than ± 2dB.</p>	Less than – 11dB ± 1dB Less than ± 2dB	Lch : VRA11 Rch : VRA21
Frequency response check	Test tape :VTT – 7063(1kHz) Test point : DOLBY TP(CNA05)	<p>① Switch tape select to Normal position and playback the test tape VTT – 7063(1kHz).</p> <p>② Confirm the output level at the DOLBY TP becomes as follows with reference to 1kHz.</p> <p>③ Compare the level between 1 kHz and 63Hz , 1 kHz and 12.5kHz.</p> <p>④ Then defference level should be within 0dB ± 4 dB, 0 dB ± 4dB.</p>	63 Hz/ 1 kHz level : within 0 ± 4dB 1kHz / 12.5kHz : within 0 ± 4dB	—

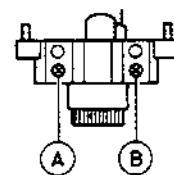


Fig. 2

■ Arrangement of adjusting positions

● Tape deck/amplifier section

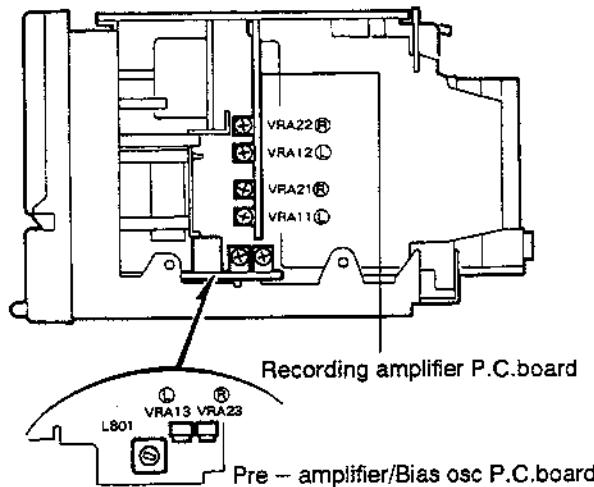


Fig. 8-1

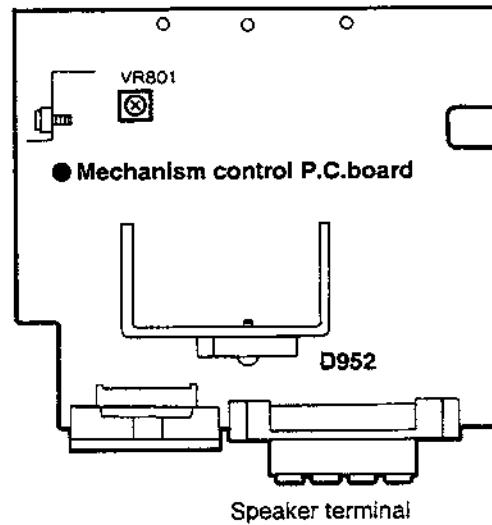


Fig. 8-2

● CD player assembly section

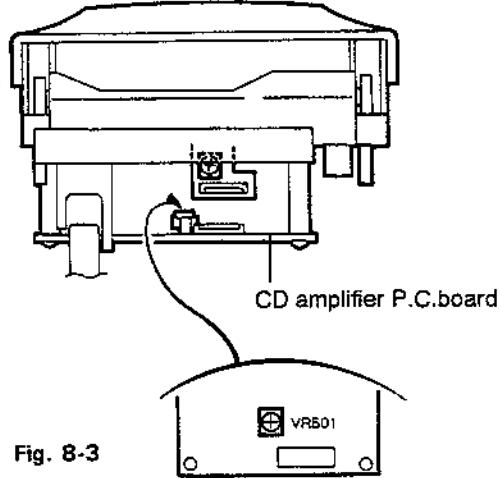


Fig. 8-3

● Tuner P.C.board :UX - A4 B

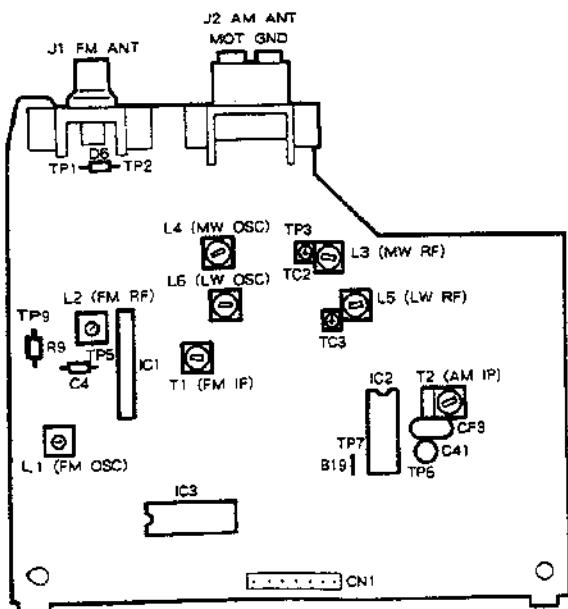


Fig. 8-4

● Tuner P.C.board :UX - A4 E/G/GI/EN

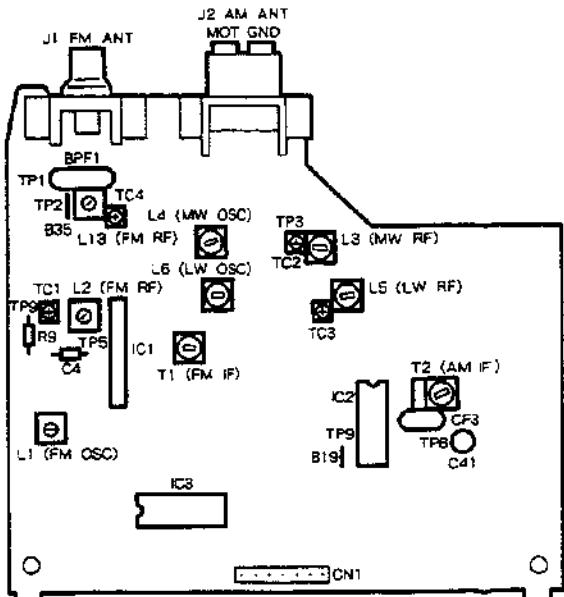


Fig. 8-5

8. Main Adjustments

■ Test Instruments required for adjustment

1. Low frequency oscillator
(oscillation frequency: 50Hz to 20kHz)
(Output : 0 dBs with 60 Ω terminator)
2. Attenuator(Impedance : 600 Ω)
3. Test Tapes
- VTT712 For tape speed,wow and flutter measurement
- VTT724 For 3kHz reference level check
- VTT736 For playback frequency response check
- VTT752 For playback channel check(1kHz)
4. Electronic voltmeter, Distortion meter
5. Resistor...600 Ω for attenuator matching
6. Torque gauge..... Cassette type for CTG - N mechanism adjustment
7. Wow and Flutter meter , Frequency counter
8. Extension cord for check EXTUXT1 - KIT

■ Measuring conditions (Amplifier section)

Supply voltage AC 230V(50/60Hz);UX - A4 E/G/GI/EN
AC240V(50/60Hz);UX - A4B
Reference output : Speaker 0 dBs (0.775V) / 4 Ω
: Headphone 0 dBs (0.775V) / 32 Ω

● Standard position of functionswitches

Function switch TAPE
Tape select switch NORMAL
Timer , DOLBY NR , Active hyper bassswitch OFF
Beat cut switch Position 1 or Normal

● Standard position of volume control

BASS, TREBLE CENTER
Main volume adjust 0 dBs output
Test tape for REC/PB Normal tape : UR8
Standard test frequency 1 kHz
; unless otherwise specified.
Reference input level AUX IN : - 8dBs
Input for REC/PB, Check &measuring AUX IN
: - 28.0 dBs
Output for measuring unless otherwise specified

: At speaker terminal

● Test remarks

1. Negative side of the input and output on the testing set, that ought to be separately to each other, and then bear in mind there connection the testing set with 2 channels Electronic voltmeter, the negative side never connect commonly.
2. Replaced output load with a dummy and that lead wire to be used as big as possible.
3. Attach top cover when measuring and connect filter shown below Fig. 1 to V. meter.

* Load at measured terminal

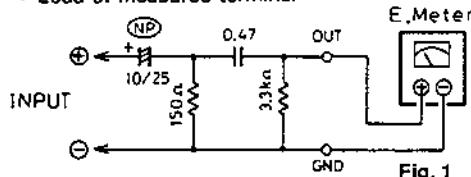


Fig. 1

■ Measuring condition (Radio section)

Refer to rating source Tuner+B : DC 5.8V
Reference output Speaker : 50mW(0.45 V) / 4 Ω
Headphon : (0.06V) / 32 Ω
AM frequency 400Hz modulation 30%
FM frequency 400Hz modulation
frequency deviation 22.5kHz

● Standard position of switches and controllers

Function RADIO
Mode STEREO
Super bass OFF

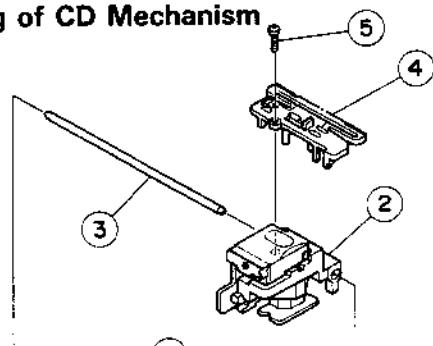
● Careful points for adjustment

1. Connect 30 pF capacitor and 33 k Ω resistor to the output side of the IF sweeper in series while 0.082 μ F capacitor and 100k Ω resistor to the input side in series.
2. Set output level of the IF sweeper as minimum as adjustable.
3. RF Alignment order
Procedure of the steps of tracking should be kept.

1 2 3 4 5

■ Analytic drawing of CD Mechanism

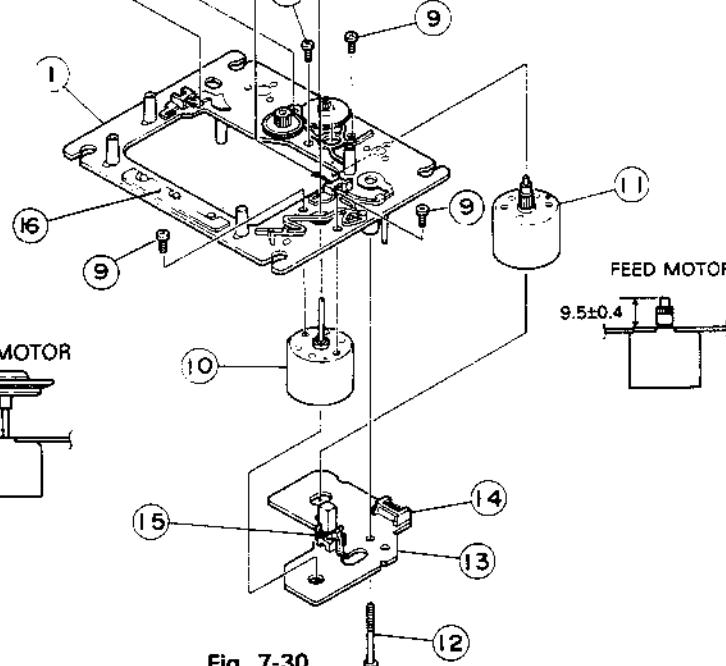
A



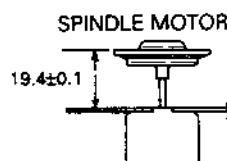
B



C



D



E

Fig. 7-30

Apply grease to the points 'a, b, c' as follows:

a : Grease No. G-31KB

Apply a drop approx. ø3 mm onto the hole.

b : Grease No. G-31KB

Apply thin before assembling the pickup unit.

c : Grease No. G-31KB

 Apply a drop approx. ø4 mm after installation
 of the pickup unit.* After installation of (7), apply bond lock "Lock
Tight #460", or equivalent.

■ CD Mechanism Parts List

BLOCK NO. M8MM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	C.R
	1	EPB-002A	MECHA BASE ASSY		1		
	2	OPTIMA-6S	OPTICAL PICK-UP		1		
	3	E406777-001	GUIDE SHAFT		1		
	4	E307746-001	CD RACK		1		
	5	SDSF2006Z	SCREW		1		
	6	EPB-003A	MECHA GEAR		1		
	7	E75807-301	TURN TABLE		1		
	8	SDSP2003N	SCREW		1		
	10	E406783-001	DC MOTOR	SPINDLE	1		
	11	E406784-001SA	DC MOTOR ASSY	FEED	1		
	12	E75832-001	SPECIAL SCREW		1		
	13	EMW10190-001	PRINTED BOARD		1		
	14	EMV5109-006B	CONN.TERMINAL		1		
	15	ESB1100-005	LEAF SWITCH		1		
	16	E407212-001	DAMPER		1		

■ Reel and Actuator motor assembly (Fig. 7-27, 7-28)

1. Remove four screws (23, 26) retaining the reel motor (21) and the actuator motor assembly (24). (Fig. 7-27)
2. When removing the reel motor, unsolder the two points (D) on the back side. (Fig. 7-28)
3. When removing the actuator motor, unsolder the two points (E) in the same manner. (Fig. 7-28)

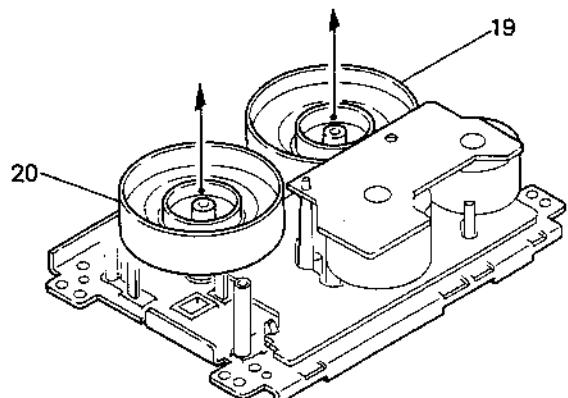


Fig. 7-25

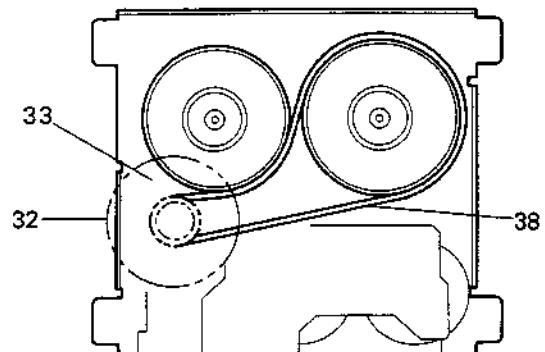


Fig. 7-26

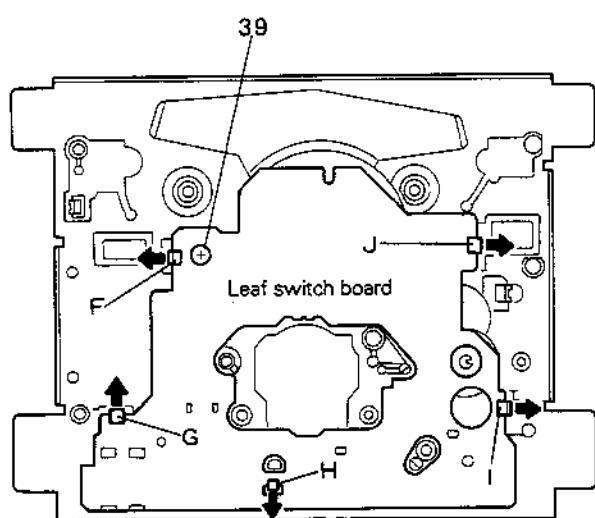


Fig. 7-29

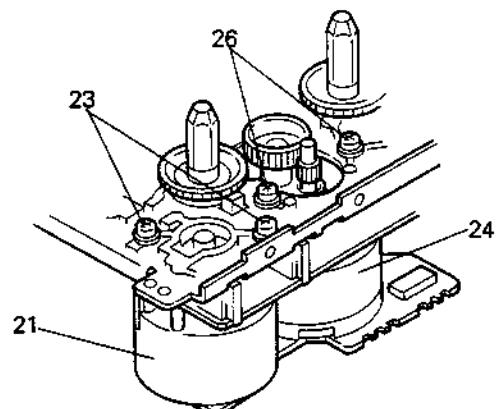


Fig. 7-27

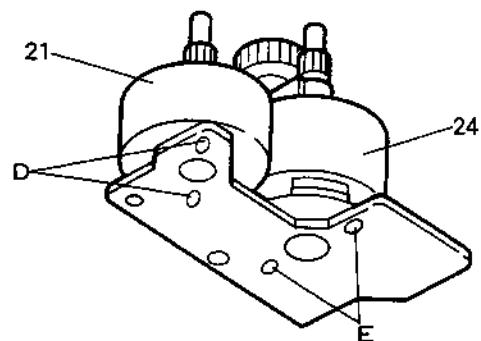


Fig. 7-28

■ **Head mount assembly (A) (Fig. 7-20, 7-21)**

Remove three screws (13) retaining the head mount assembly (A) from the chassis base assembly.

Note: After replacing the head mount assembly, make sure to adjust the azimuth screw (46).

■ **Pinch roller assembly (Fig. 7-22)**

1. Expand the pawl (A) retaining the pinch roller assembly (27) on the right side in the direction of the arrow while pulling out the pinch roller assembly upwards.
2. In the same manner as above, expand the pawl retaining the pinch roller assembly (28) on the left side to remove the left pinch roller assembly. (Fig. 7-20, too)

■ **Capstan motor and Flywheel (Fig. 7-24 through 7-26)**

1. Place the cassette mechanism upside down to expose the bottom. (Fig. 7-24)
2. Remove three screws (37) retaining the FR bracket assembly from the chassis base. (Fig. 7-24)
3. Expand two pawls (B, C) retaining the FR bracket assembly in the direction of the arrow to remove them. (Fig. 7-24)
4. Remove the FR bracket assembly.
5. Remove two screws (34) retaining the capstan motor (32) from the FR bracket assembly. (Fig. 7-23)
6. Disengage the belt (38) and pull out the flywheels (19, 20). (Fig. 7-25, 7-26)

Note: When disengaging the belt, carefully do it not to stain it with oil, etc.

For reengaging the belt, refer to Fig. 7-26.

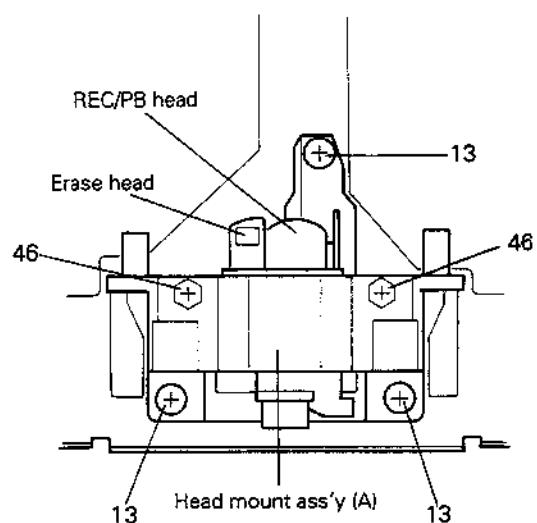


Fig. 7-21

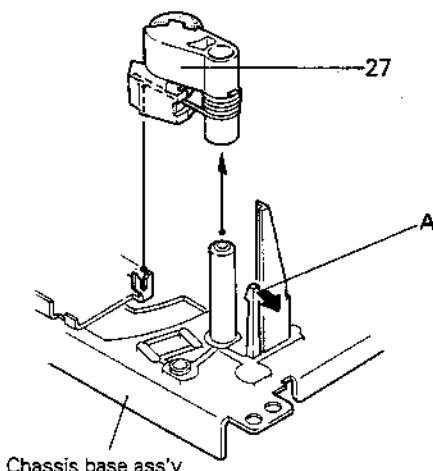


Fig. 7-22

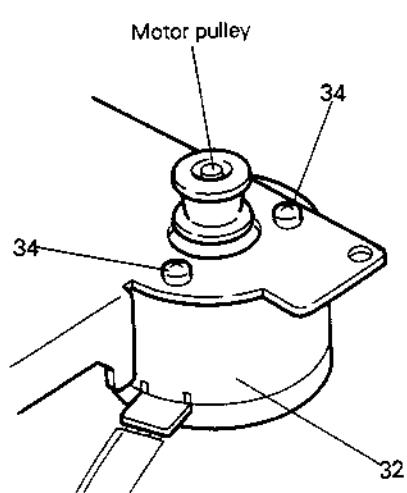


Fig. 7-24

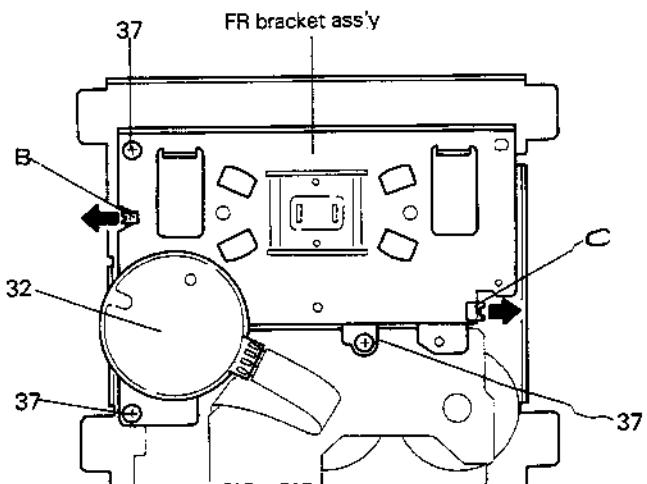


Fig. 7-23

■ Cassette Mechanism Parts List

BLOCK NO. M7MM 111

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A	VKS3629-008	HEAD BLOCK	REF.13,45,47	1		
	B	MSI5B2LW-SA1	CAPSTAN MOTOR	REF.32,33	1		
	C	MSN5D257A-SA1	DC MOTOR	REF.24,25	1		
1	VKS1126-008	CHASSIS B ASS'Y			1		
2	VKS5428-008	T-UP REEL ASSY			1		
	3	VKW5043-001	B.T. SPRING		1		
	4	VKS3617-002	REEL		1		
	5	VKW5043-001	B.T. SPRING		1		
	6	VKS3627-001	PINCH LEVER		1		
	7	VKS2224-001	CONTROL CAM		1		
	8	VKS5454-001	ACT GEAR(2)		2		
	9	VKS5455-001	ACT GEAR(3)		1		
10	VKS3655-002	F.P.C. HOLDER			1		
11	VKM3632-001	HEAD BASE			1		
13	SDST2004Z	SCREW		PRESS KIT S	3		
	14	VKZ4708-001	SPECIAL SCREW		1		
	16	VKS5430-008	FR ARM ASSY		1		
19	VKF3184-00H	FLYWHEEL(R)ASY			1		
20	VKF3186-00H	FLYWHEEL(L)ASY			1		
21	MMN-6F4RA38	D.C.MOTOR		FOR REEL,MOTOR	1		
	22	VKS5432-001	REEL MOT. GEAR		1		
	23	VKZ4705-001	SPECIAL SCREW		2		
24	MSN-5D257A	D.C.MOTOR		FOR ACT,MOTOR K	1		
25	VKS5433-001	ACT.MOTOR GEAR		GEAR KIT S	1		
26	VKZ4705-002	SPECIAL SCREW			2		
	27	VKP4227-008	PINCH R.(R) ASY		1		
	28	VKP4229-008	PINCH R.(L) ASY		1		
29	VKW5045-003	P.R. SP.(R)		FOR PINCH (R)	1		
30	VKW5046-003	P.R. SP.(L)		FOR PINCH (L)	1		
31	VKY4670-001	CASSETTE SPRING		PRESS KIT S	1		
	32	MSI-5B2LW	D.C.MOTOR		1		
	33	VKR4364-002	MOTOR PULLEY		1		
34	SPSP2603Z	SCREW			2		
35	VKM3636-002	FM. BRACKET			1		
36	VKS5327-004	THRUST PLATE		PRESS KIT S	1		
	37	SDSF2608Z	SCREW		3		
	38	VKB3001-051	BELT		1		
39	SDST2612Z	SCREW			1		
40	VKS3616-00A	CAM SW UNIT			1		
41	DN6851-H1	HALL IC			1		
	42	VKS3630-001	IC HOLDER		1		
	43	VSH1170-001	CASSETTE SWITCH		4		
44	VKS3614-001	TURN OVER GEAR			1		
45	VKW5063-003	HEAD SPRING			1		
46	VKZ4629-003	SPECIAL SCREW			2		
	47	VKS3654-001	HEAD MT. COVER		1		

1 2 3 4 5

■ Analytic Drawing of Cassette mechanism: Block No. M 7

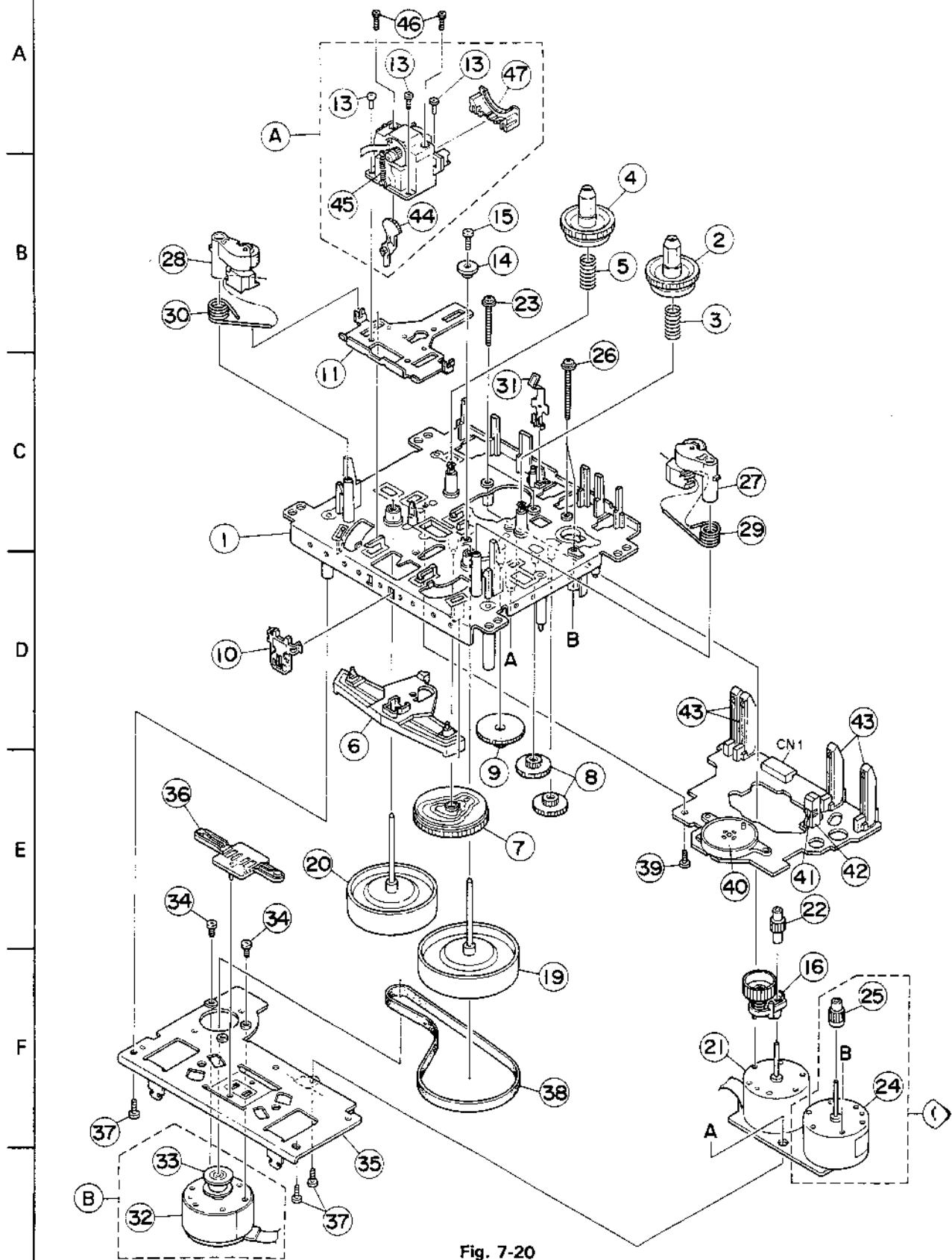


Fig. 7-20

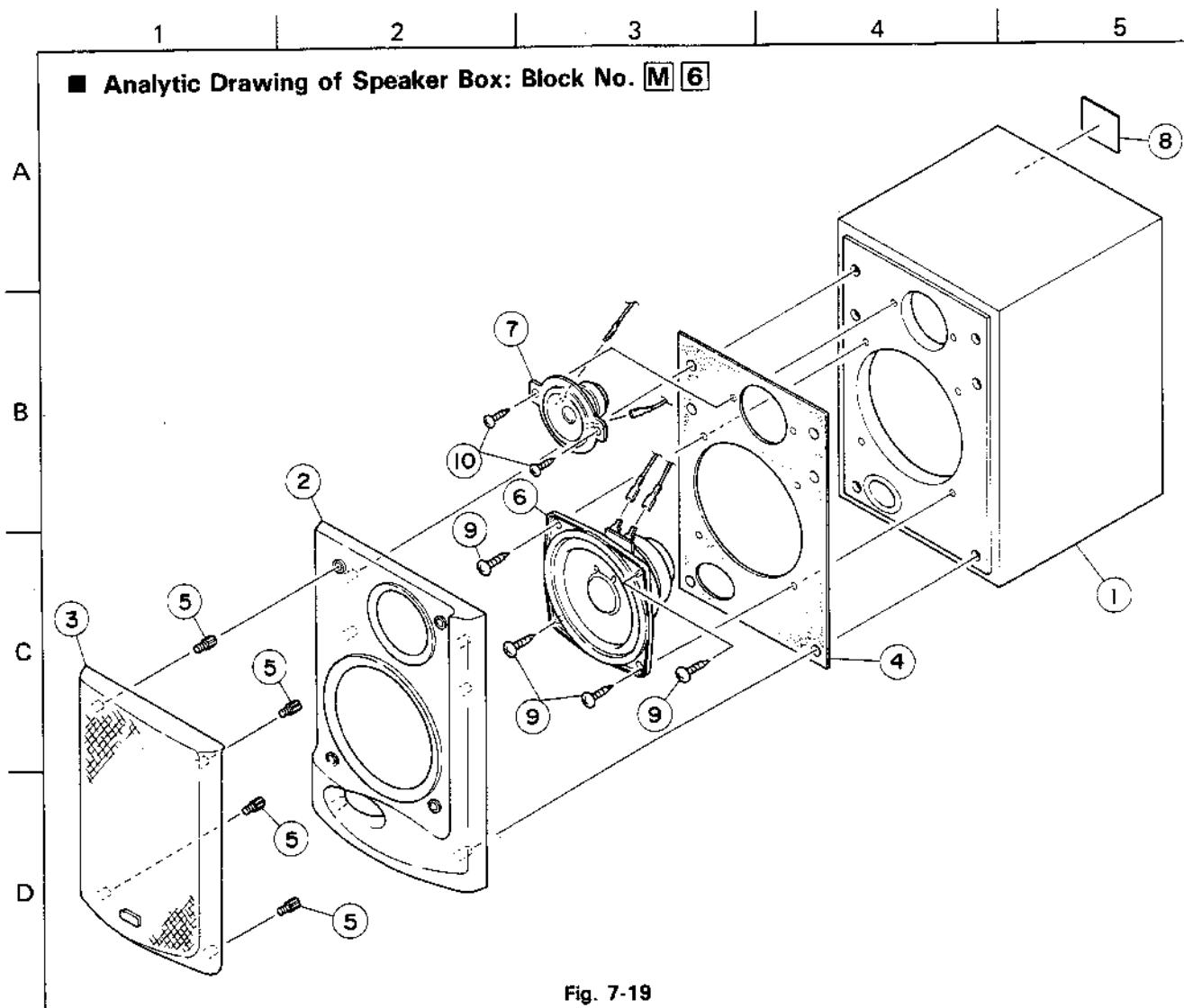


Fig. 7-19

BLOCK NO. M6MM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	DH505-LUX-A4 DH505-RUX-A4	SPEAKER BOX ASY	LEFT RIGHT	1 1		
	2	DH401-LUX-A4 DH401-RUX-A4	FRONT PANEL	LEFT RIGHT	1 1		
	3	DH903-LUX-A4	SPEAKER NET	LEFT	1		
		DH903-RUX-A4	SPEAKER NET	RIGHT	1		
	4	DH429-1UX-A4	RUBBER PACKING		1		
	5	DH429-UX-A4	INSERT NUT		4		
	6	VGS1201-008	SPEAKER	12CM	1		
	7	VGS0501-004	SPEAKER	5CM	1		
	8	DH610-UX-A4	NAME PLATE		1		
	9	SDSA4014M	SCREW	12CM SPEAKER	4		
	10	SDSA4012M	SCREW	5CM SPEAKER	2		

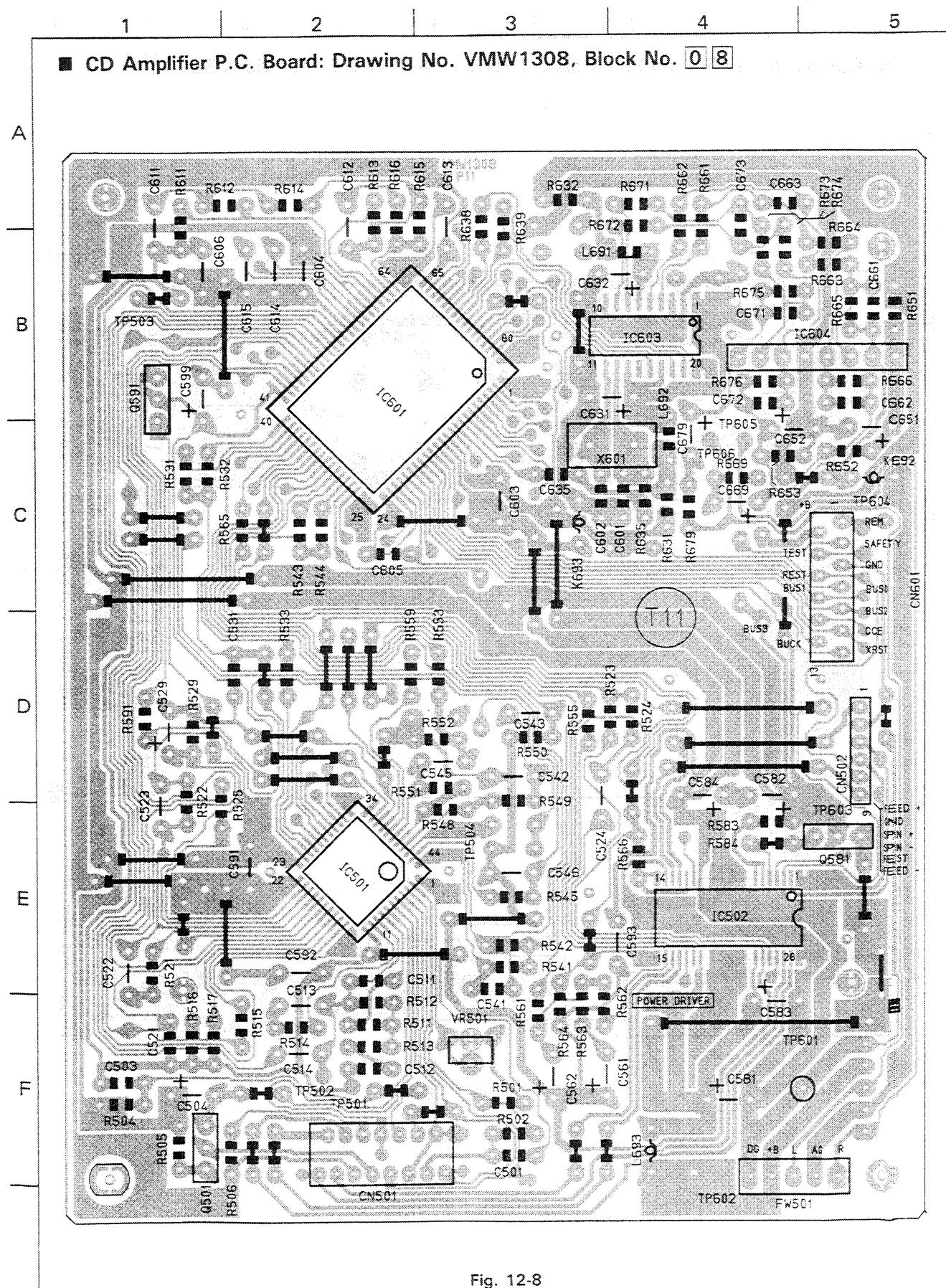


Fig. 12-8

1 2 3 4 5

■ Operation Key Switch P.C. Board: Drawing No. VMW2375, Block No. 0 7

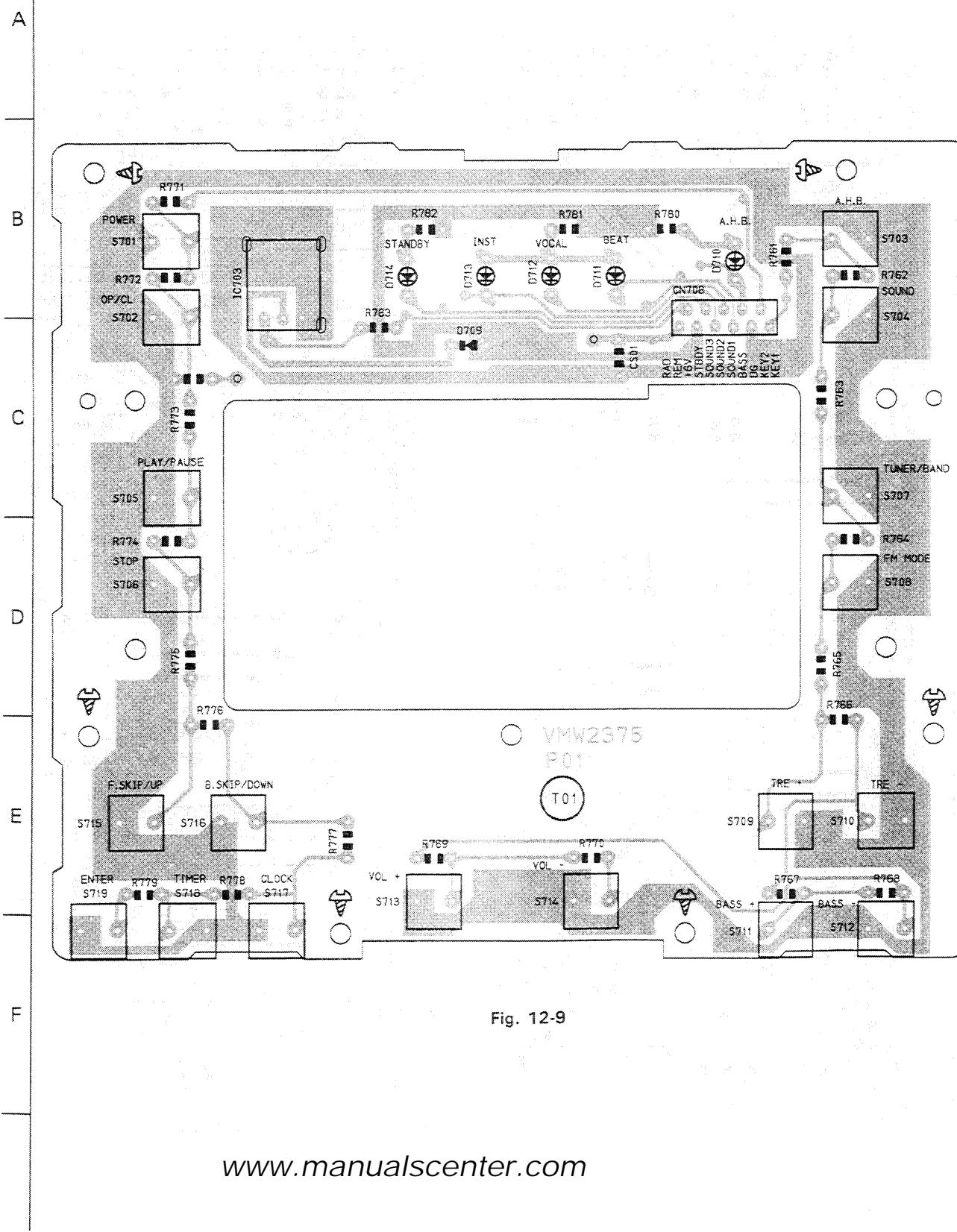


Fig. 12-9

1 2 3 4 5

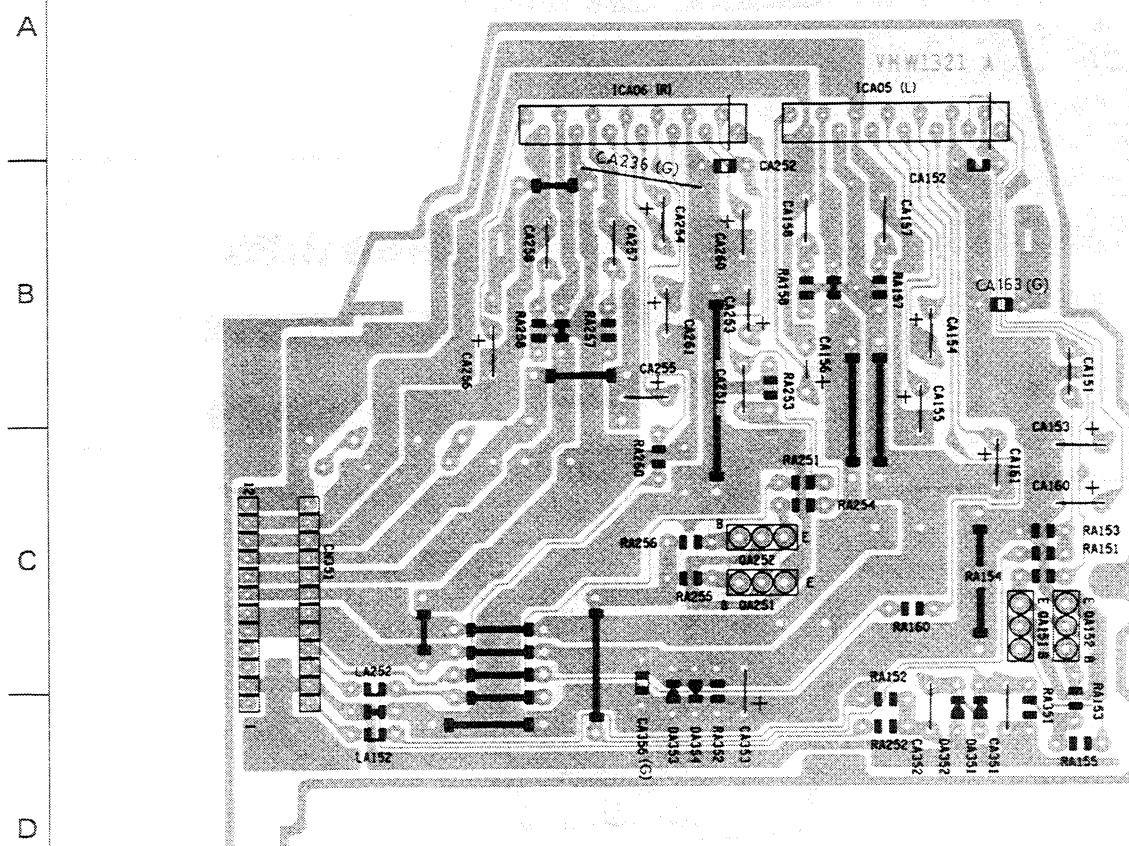
Tape Deck/Amplifier Section**■ Power Amplifier P.C. Board: Drawing No. VMW1321A, Block No. 0 [2]**

Fig. 12-10

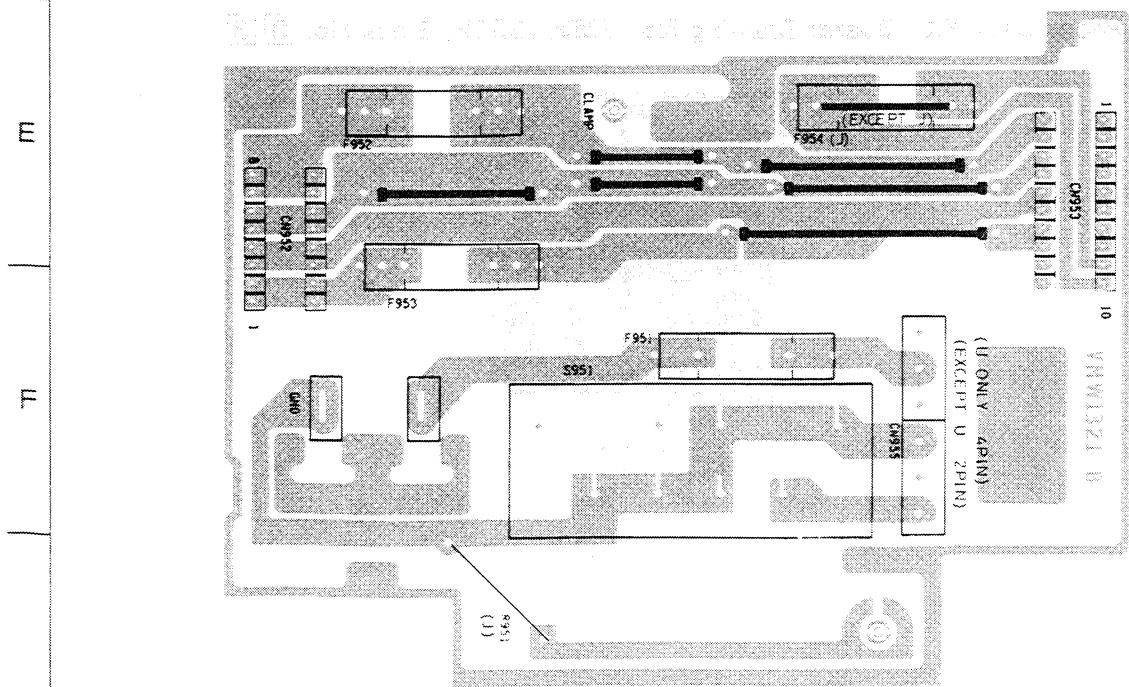
■ Fuse P.C. Board: Drawing No. VMW1321B, Block No. 0 [1]

Fig. 12-11

■ Power Trans P.C. Board: Drawing No. VMW1321C, Block No. 0 1

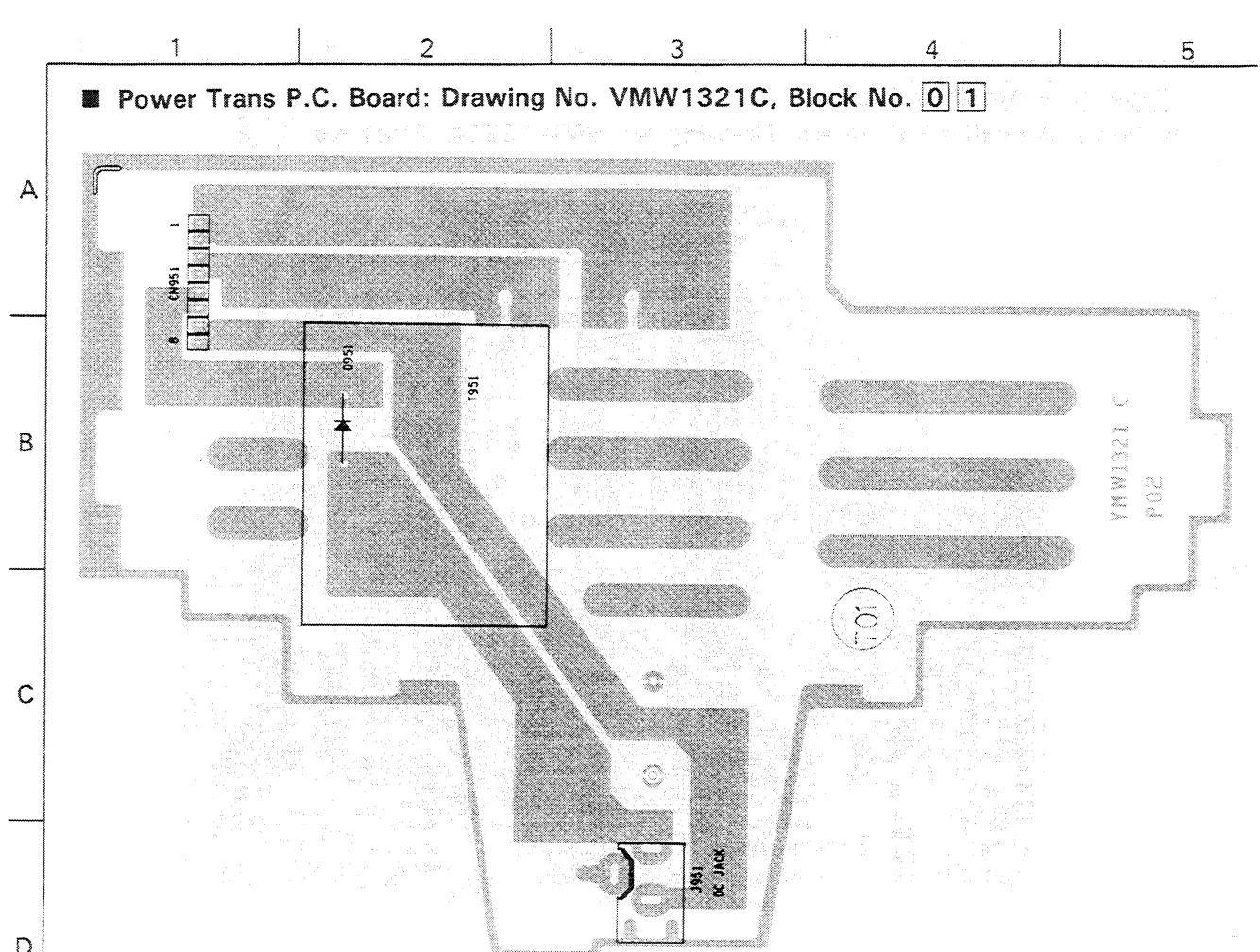


Fig. 12-12

■ Head Phone Jack P.C. Board: Drawing No. VMW1321H, Block No. 0 3

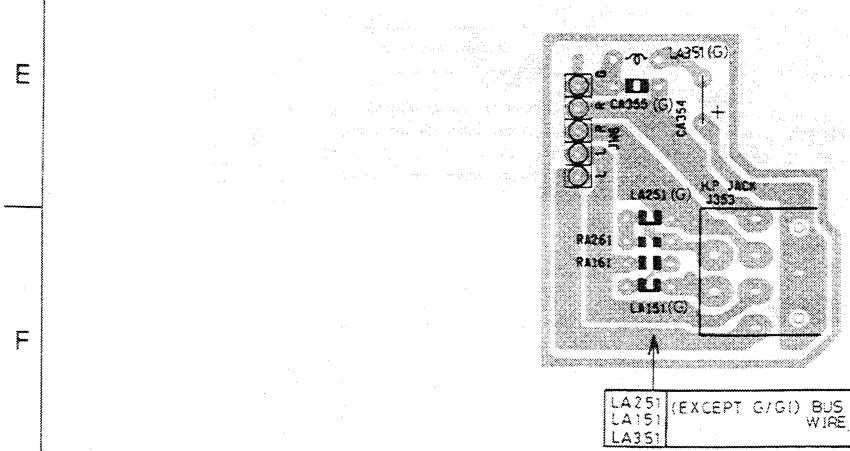


Fig. 12-13

1 2 3 4 5

■ Recording Amplifier P.C. Board: Drawing No. VMW1321F, Block No. 0 4

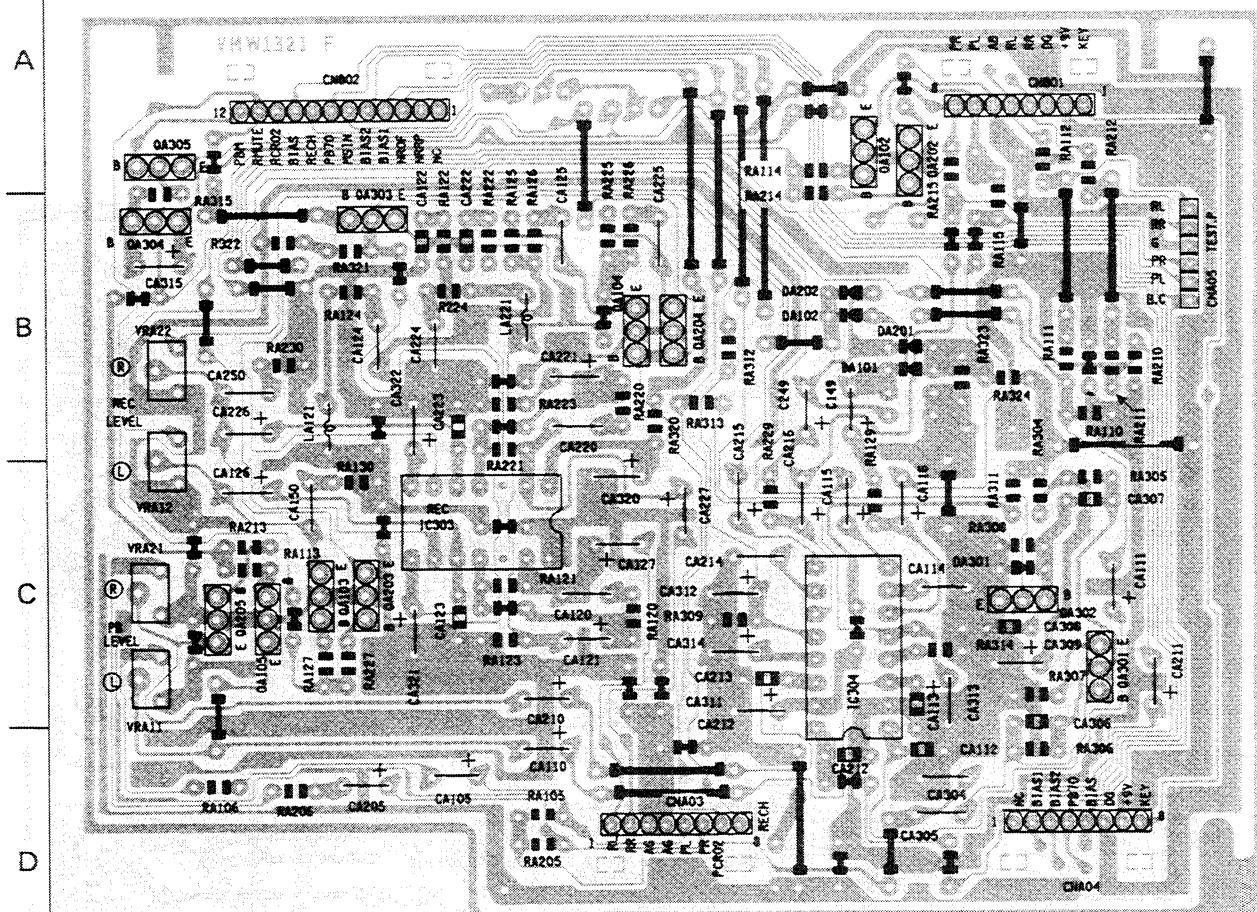


Fig. 12-14

■ Operation Key Switch P.C. Board: Drawing No. VMW1321G, Block No. 0 4

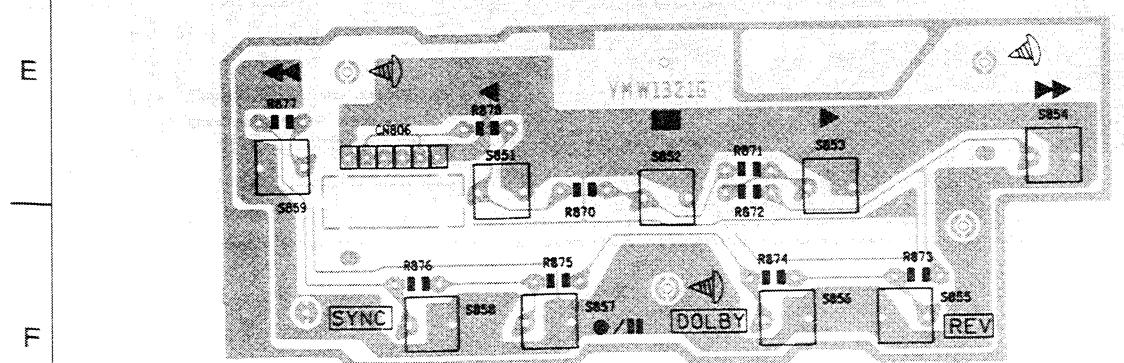


Fig. 12-15

1 2 3 4 5

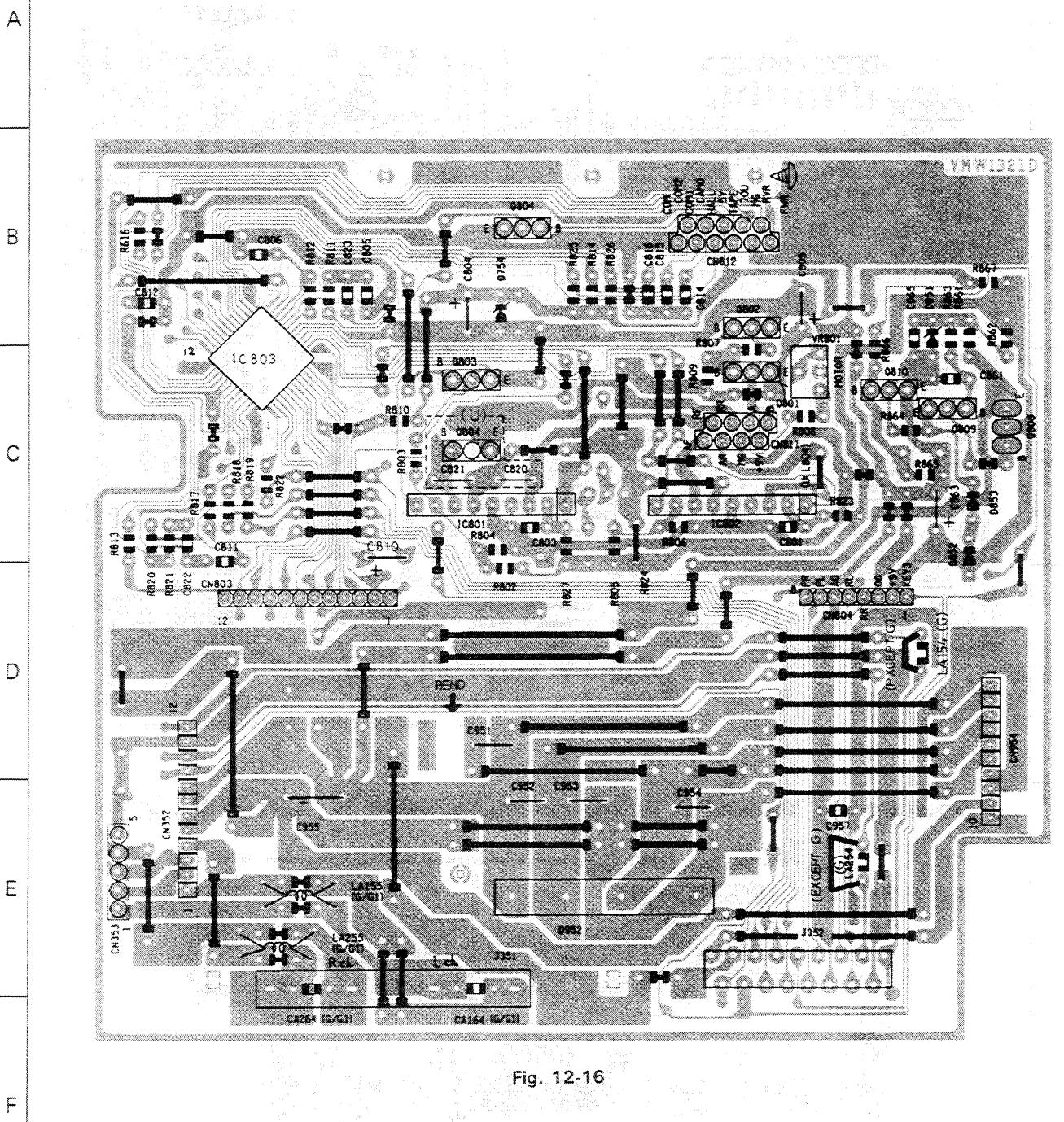
Mechanism Control P.C. Board: Drawing No. VMW1321D, Block No. 0 4

Fig. 12-16

• Function P.C. Board

▲ REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	BLOCK NO. [REF.]
CF 01	QEK41CM-475	E. CAPACITOR	4.7MF 20% 25V		
CF 02	QEK41CM-476	E. CAPACITOR	4.7MF 20% 16V		
CF 03	QEK41CM-336	E. CAPACITOR	3.3MF 20% 16V		
CF 04	QEK41CM-476	E. CAPACITOR	E.VOL		
CF 05	QEK41CM-476	E. CAPACITOR	E.VOL		
CF 06	QEK41CM-476	E. CAPACITOR	4.7MF 20% 16V		
CF 07	QEK41HM-105	E. CAPACITOR	1.0MF 20% 50V		
CF 08	QEK41HM-105	E. CAPACITOR	1.0MF 20% 50V		
CF 09	QCVB1CM-103Y	C. CAPACITOR	0.10MF 20% 16V		
CF 10	QCVB1CM-103Y	C. CAPACITOR	0.10MF 20% 16V		
CF 11	QEK61AM-107ZM	E. CAPACITOR	100MF 20% 10V		
CF 12	QEK41HM-225	E. CAPACITOR	2.2MF 20% 50V		
CF 13	QCBB1HK-102Y	C. CAPACITOR	1000PF 10% 50V		
CF 14	QEK41HM-225	E. CAPACITOR	2.2MF 20% 50V		
CF 15	QEK61AM-107ZM	E. CAPACITOR	100MF 20% 10V		
CF 16	QEK41CM-476	E. CAPACITOR	4.7MF 20% 16V		
CF 17	QCBB1HK-102Y	C. CAPACITOR	1000PF 10% 50V		
CF 18	QEK41CM-476	E. CAPACITOR	4.7MF 20% 16V		
CF 19	QEK41HM-105	E. CAPACITOR	VOL		
CF 20	QEK41HM-105	E. CAPACITOR	BASS		
CF 21	QEK41HM-105	E. CAPACITOR	TRE		
CF 22	QEK41CM-476	E. CAPACITOR	4.7MF 20% 16V		
CF 23	QCVB1CM-103Y	C. CAPACITOR	0.10MF 20% 16V		
CF 24	QCVB1CM-103Y	C. CAPACITOR	0.10MF 20% 16V		
CF 25	QEK41CM-476	E. CAPACITOR	4.7MF 20% 16V		
CF101	QEK41HM-105	E. CAPACITOR	1.0MF 20% 50V		
CF102	QEK41CM-106	E. CAPACITOR	1.0MF 20% 16V		
CF103	QEK41HM-105	E. CAPACITOR	1.0MF 20% 50V		
CF104	QCBB1HK-151Y	C. CAPACITOR	E.VOL		
CF105	QCXBBCM-472Y	C. CAPACITOR	4700PF 20% 16V		
CF106	QFV81HJ-473	TF CAPACITOR	0.047NF 5% 50V		
CF107	QFV11HJ-154AZM	TF CAPACITOR	0.15MF 5% 50V		
CF108	QFV41HJ-104	TF CAPACITOR	E.VOL		
CF109	QEK41HM-105	E. CAPACITOR	1.0MF 20% 50V		
CF110	QFV11HJ-393AZM	TF CAPACITOR	0.039MF 5% 50V		
CF111	QEK41HM-105	E. CAPACITOR	0.1MF 20% 50V		
CF112	QCBB1HK-331Y	C. CAPACITOR	3.30PF 10% 50V		
CF113	QEK41CM-226	E. CAPACITOR	2.2MF 20% 16V		
CF114	QFV11HJ-563AZM	TF CAPACITOR	0.082MF 5% 50V		
CF115	QFV41HJ-823	TF CAPACITOR	0.082MF 5% 50V		
CF116	QCBB1HK-151Y	C. CAPACITOR	150PF 10% 50V		
CF117	QCS11HJ-330	C. CAPACITOR	3.3PF 5% 50V		
CF201	QEK41HM-105	E. CAPACITOR	1.0MF 20% 50V		
CF202	QEK41CM-106	E. CAPACITOR	1.0MF 20% 16V		
CF203	QEK41HM-105	E. CAPACITOR	1.0MF 20% 50V		
CF204	QCBB1HK-151Y	C. CAPACITOR	4.700PF 20% 16V		
CF205	QCXBBCM-472Y	C. CAPACITOR	0.047MF 5% 50V		
CF206	QFV81HJ-473	TF CAPACITOR	0.15MF 5% 50V		
CF207	QFV11HJ-154AZM	TF CAPACITOR	E.VOL		
CF208	QFV41HJ-104	E. CAPACITOR	1.0MF 20% 50V		
CF209	QEK41HM-105	E. CAPACITOR	0.039MF 5% 50V		
CF210	QFV11HJ-393AZM	TF CAPACITOR	1.0MF 20% 50V		
CF211	QEK41HM-105	E. CAPACITOR	3.30PF 10% 50V		
CF212	QCBB1HK-331Y	C. CAPACITOR	2.2MF 20% 16V		
CF213	QEK41CM-226	E. CAPACITOR			

▲ REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	BLOCK NO. [REF.]
CF214	QFV11HJ-563AZM	TF CAPACITOR	0.05MF 5% 50V		
CF215	QFV41HJ-823	TF CAPACITOR	0.08MF 5% 50V		
CF216	QCS11HJ-330	C. CAPACITOR	150PF 10% 50V		
CF217	QCS11HJ-330	C. CAPACITOR	33PF 5% 50V		
CNF01	VMC0163-R13	CONNECTOR	FOR UCOM.1		
CNF02	VMC0163-R13	CONNECTOR	FOR UCOM.2		
DF 01	MA165	SI DIODE			
DF 02	MA165	SI DIODE			
DF 03	MA165	SI DIODE			
DF 04	MT5.6JA	Z.DIODE			
DF 05	MA165	SI DIODE			
DF 06	MA165	SI DIODE			
DF 07	MA165	SI DIODE			
DF 08	M728.2JC	Z.DIODE			
DF 09	M728.2B	Z.DIODE			
DF 10	MA165	SI DIODE			
DF 11	MA165	SI DIODE			
ICP01	VC4580L	IC			
ICP02	TAB84P	IC			
ICP03	VC4580L	IC			
ICP04	VC4580LD	IC			
LF 01	VQP025K-4R7Y	INDUCTOR			
QF 01	UN4111	TRANSISTOR	MUTE.D		
QF 02	2SB162(C)	TRANSISTOR	US6V		
QF 03	2SC785(HFE)	TRANSISTOR	US6V		
QF 04	UN411E	TRANSISTOR			
QF 05	QF 07	TRANSISTOR			
QF 06	2SC785(HFE)	TRANSISTOR			
QF 07	2SC785(HFE)	TRANSISTOR			
QF 08	2SC785(HFE)	TRANSISTOR			
QF 09	2SC785(HFE)	TRANSISTOR			
QF 10	2SC785(HFE)	TRANSISTOR			
QF 11	2SC785(HFE)	TRANSISTOR			
QF 12	UN4213	TRANSISTOR			
QF 13	2SD1302(S-T)	TRANSISTOR			
QF 14	2SD1302(S-T)	TRANSISTOR	S MUTE1		
QF 15	2SD1302(S-T)	TRANSISTOR			
QF 16	2SC785(HFE)	TRANSISTOR			
QF 17	UN4213(P-Q)	FET	BASS 1		
QF 18	2SD301(P-Q)	FET	BASS 2		
QF 19	2SD302(S-T)	FET	S MUTE2		
QF 20	2SD302(S-T)	FET			
QF 21	2SD302(S-T)	FET			
QF 22	2SD302(S-T)	FET			
QF 23	2SD302(S-T)	FET			
QF 24	2SD302(S-T)	FET			
QF 25	2SC785(HFE)	TRANSISTOR			
QF 26	SK301(P-Q)	FET			
QF 27	SK301(P-Q)	FET			
QF 28	2SK301(P-Q)	FET			
QF 29	2SD302(S-T)	TRANSISTOR			
RF 07	QRD161J-103	CARBON RESISTOR			
RF 08	QRD167J-121	CARBON RESISTOR			
RF 09	QRD161J-2R2	CARBON RESISTOR			
RF 10	QRD161J-103	CARBON RESISTOR			
RF 11	QRD161J-103	CARBON RESISTOR			
RF 12	QRD161J-223	CARBON RESISTOR			
RF 13	QRD161J-223	CARBON RESISTOR			
RF 14	QRD161J-2R2	CARBON RESISTOR			
RF 15	QRD167J-562	CARBON RESISTOR			
RF 16	QRD161J-151	CARBON RESISTOR			
RF 17	QRD161J-151	CARBON RESISTOR			
RF 18	QRD161J-561	CARBON RESISTOR			

REF.		PARTS NO.	PARTS NAME	REMARKS	SUFFIX
Q 014	2SA933(CRS)	TRANSISTOR			
Q 015	DTC-24ES	TRANSISTOR			
R 001	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W		
R 002	GRD161J-773	CARBON RESISTOR	47K 5% 1/6W		
R 004	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 005	GRD161J-823	CARBON RESISTOR	82K 5% 1/6W		
R 006	GRD161J-101	CARBON RESISTOR	100 5% 1/6W		
R 008	GRD161J-271	C RESISTOR	2.0 5% 1/6W		
R 009	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 010	GRD161J-101	CARBON RESISTOR	100 5% 1/6W		
R 011	GRD161J-103	CARBON RESISTOR	2.2K 5% 1/6W		
R 012	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 013	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W		
R 014	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 015	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		
R 016	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 017	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W		
R 018	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 019	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		
R 020	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 021	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 022	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 024	GRD161J-331	CARBON RESISTOR	330 5% 1/6W		
R 025	GRD161J-224	CARBON RESISTOR	220K 5% 1/6W		
R 027	GRD161J-331	CARBON RESISTOR	330 5% 1/6W		
R 029	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 030	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 031	GRD161J-183	CARBON RESISTOR	18K 5% 1/6W		
R 032	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W		
R 033	GRD161J-477	CARBON RESISTOR	4.7K 5% 1/6W		
R 034	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		
R 035	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		
R 036	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		
R 037	GRD161J-560	CARBON RESISTOR	56 5% 1/6W		
R 038	GRD161J-477	CARBON RESISTOR	4.7K 5% 1/6W		
R 039	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 040	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 041	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 042	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		
R 043	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 044	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W		
R 045	GRD161J-561	CARBON RESISTOR	560 5% 1/6W		
R 047	GRD161J-562	CARBON RESISTOR	5.6K 5% 1/6W		
R 048	GRD161J-331	CARBON RESISTOR	330 5% 1/6W		
R 049	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 051	GRD161J-561	CARBON RESISTOR	560 5% 1/6W		
R 052	GRD161J-477	CARBON RESISTOR	4.7K 5% 1/6W		
R 053	GRD161J-471	CARBON RESISTOR	470 5% 1/6W		
R 054	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		
R 055	GRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W		
R 056	GRD161J-332	CARBON RESISTOR	3.3K 5% 1/6W		
R 057	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W		
R 058	GRD161J-473	CARBON RESISTOR	4.7K 5% 1/6W		FM IF
T 001	VOT77F12-11				
T 002	VOT77F22-11				

14. Illustration of Packing and Parts List

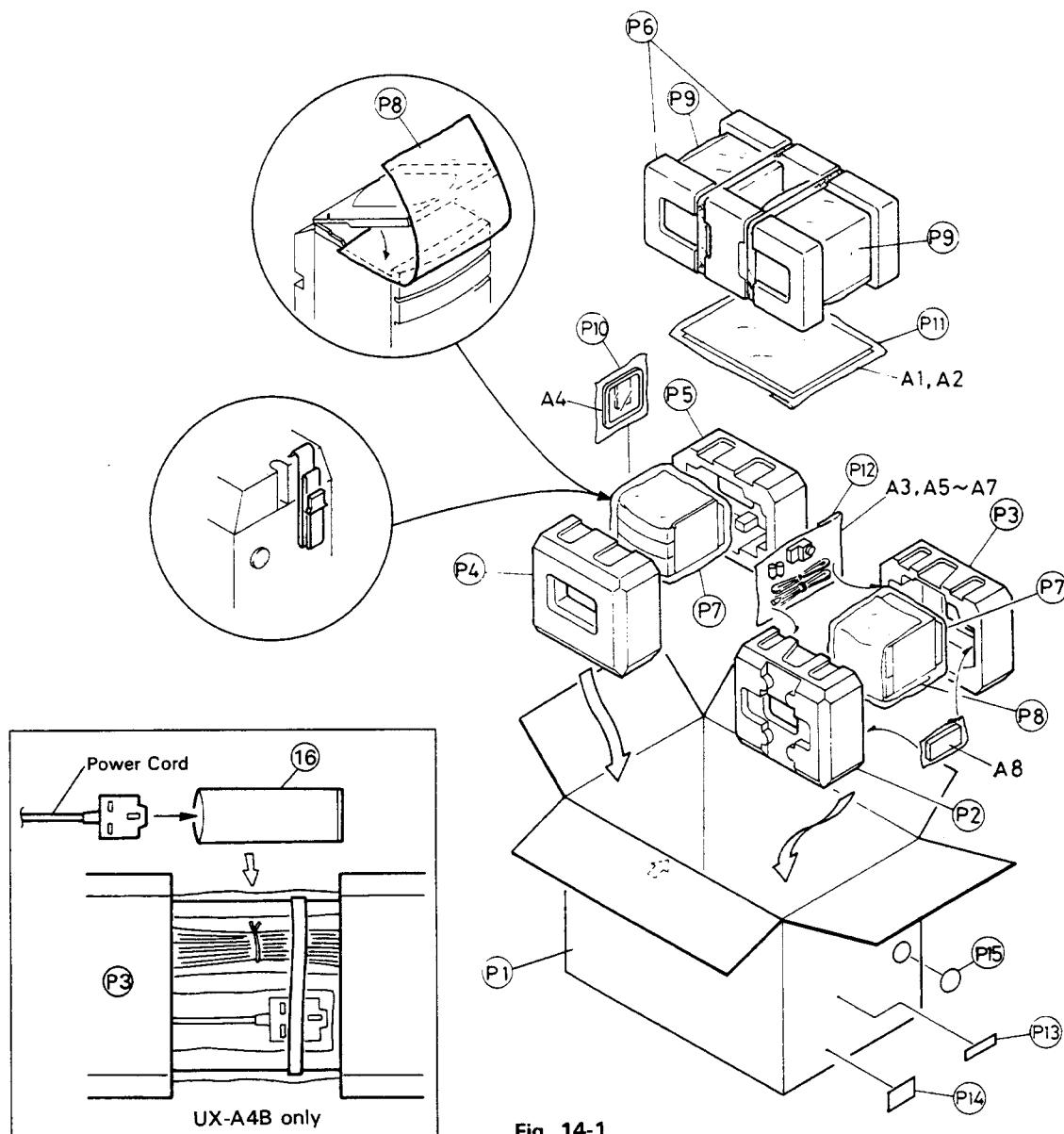


Fig. 14-1

BLOCK NO. M9MM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
P	1	VPC9214-002	CARTON		1		
P	2	VPH1598-003	CUSHION	DECK:FRONT	1		
P	3	VPH1598-004	CUSHION	DECK:REAR	1		
P	4	VPH1599-001	CUSHION	CD:FRONT	1		
P	5	VPH1599-002	CUSHION	CD:REAR	1		
P	6	DH404-UX-A3	SIDE CUSHION	SPEAKER BOX ASY	1		
P	7	VPE3005-065	POLY BAG	300 X 510	2		
P	8	VPK4002-009	SHEET		2		
P	9	DH434-PC-X1000	POLY BAG	SPEAKER BOX ASY	2		
P	10	VPE3005-042	POLY BAG	AM LOOP ANT	1		
P	11	VPE3005-007	POLY BAG	INSTRUCTIONS	1		
P	12	QPGA010-03003	POLY BAG	ACCESSORIES	1		
P	13	VND3044-001	SERIAL TICKET		1	GI, EN	
		VND3044-004	SERIAL TICKET		1	B	
		VND3044-005	SERIAL TICKET		1	G	
P	14	VND3044-003	SERIAL TICKET		1	E	
P	15	VND3025-196	BAR CODE LABEL		1	E, B, G, GI	
P	16	QZLA001-011	GRE.POINT LABEL		1	E, G, EN	
		QPGA012-02505	POLY BAG	POWER CORD	1	B	

15. Accessories

BLOCK NO. MAMM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A 1	VNN9214-251S VNN9214-271S VNN9214-261S	INSTRUCTIONS INSTRUCTIONS INSTRUCTIONS		1 1 1	B, GI EN E, G, EN	
	A 2	BT-20066A BT-20135	WARRANTY CARD WARRANTY CARD		1 1	B, G G	
		BT20060 E43486-340B	WARRANTY CARD SAFETY SHEET		1	B	
	A 3	EWP502-001	FM ANTENNA		1	B	
	A 4	EQB4001-015	AM LOOP ANT		1		
	A 5	VMP0093-002	SPEAKER CORD		2		
	A 6	UM3HJ-2P	BATTERY	REMOCON	2		
	A 7	EMZ2001-014	ADAPTER		1		
	A 8	VGR0023-101	REMOCON UNIT	RM-RX1001	1		