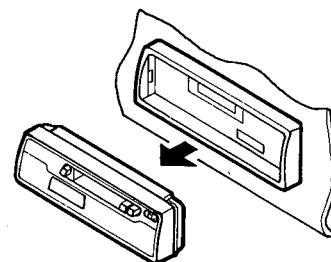
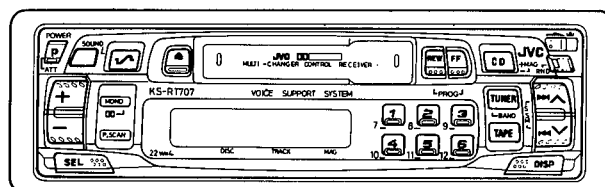


**JVC**

# SERVICE MANUAL

## MULTI - CHANGER CONTROL RECEIVER

# KS-RT707 C/J



### Area Suffix

C..... Canada  
J..... U.S.A

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## FEATURES

- Detachable Control Panel
- Voice Support System
- This unit is for control of a JVC CD changer (Applicable models: KD-MK70/MK66 etc.).
- AM/FM Stereo PLL Synthesizer Tuner
- 24-Station Preset Tuning (FM-18, AM-6)
- Preset Scan/Seek/Manual Tuning
- Strong-station Sequential Memory (SSM)
- U-Turn Auto-Reverse Mechanism
- Ignition Key-off Release/Key-on Play Mechanism
- Multi Music Scan
- Dolby\* B Noise Reduction
- 4-Channel Amplifier System
- Maximum Power Output of 30 watts per channel (Front)/30 watts per channel (Rear) (KS-RT808)
- Maximum Power Output of 22 watts per channel (Front)/22 watts per channel (Rear) (KS-RT707)
- One Touch Operation
- Sound Control Memory
- Wireless Remote Control (KS-RT808 only)
- Digital Clock Display
- Line Output Terminal

\* Dolby Noise Reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation.

## SPECIFICATIONS

### AUDIO AMPLIFIER SECTION (KS-RT808)

Maximum Power Output: (Front) 30 watts per channel (Rear) 30 watts per channel  
 Continuous Power Output (RMS): (Front) 13 watts per channel into 4  $\Omega$ , 40 to 20,000 Hz at no more than 0.8% total harmonic distortion. (Rear) 13 watts per channel into 4  $\Omega$ , 40 to 20,000 Hz at no more than 0.8% total harmonic distortion.  
 Maximum Power Output: (Front) 22 watts per channel (Rear) 22 watts per channel  
 Continuous Power Output (RMS): (Front) 8 watts per channel into 4  $\Omega$ , 40 to 20,000 Hz at no more than 0.8% total harmonic distortion. (Rear) 8 watts per channel into 4  $\Omega$ , 40 to 20,000 Hz at no more than 0.8% total harmonic distortion.

Load Impedance: 4  $\Omega$  (4 to 8  $\Omega$  allowance)  
 Tone Control Range  
 Bass:  $\pm 10$  dB at 100 Hz  
 Treble:  $\pm 10$  dB at 10 kHz  
 Frequency Response: 40 to 20,000 Hz  
 Signal-to-Noise Ratio: 70 dB  
 Line-Out Level/Impedance: 0.5 V/20 k $\Omega$  load (250 nWb/m)

### RADIO SECTION

Frequency Range  
 FM: 87.5 to 107.9 MHz  
 (with channel interval set to 200 kHz)  
 87.5 to 108.0 MHz  
 (with channel interval set to 50 kHz)  
 AM: 530 to 1,710 kHz  
 (with channel interval set to 10 kHz)  
 531 to 1,602 kHz  
 (with channel interval set to 9 kHz)  
 [FM Tuner]  
 Usable Sensitivity: 11.3 dBf (1.0  $\mu$ V/75  $\Omega$ )  
 50 dB Quieting Sensitivity: 16.3 dBf (1.8  $\mu$ V/75  $\Omega$ )  
 Alternate Channel Selectivity: (400 kHz): 65 dB  
 Frequency Response: 40 to 15,000 Hz  
 Stereo Separation: 35 dB  
 Capture Ratio: 1.5 dB  
 [AM Tuner]  
 Sensitivity: 20  $\mu$ V  
 Selectivity: 35 dB

### CASSETTE DECK SECTION

Wow & Flutter: 0.11% (WRMS)  
 Fast-Wind Time: 100 sec. (C-60)  
 Frequency Response: 50 to 16,000 Hz ( $\pm 3$  dB)  
 Signal-to-Noise Ratio:  
 (Dolby NR-ON): 60 dB  
 (Dolby NR-OFF): 52 dB  
 Stereo Separation: 40 dB

### GENERAL

Power Requirement  
 Operating Voltage: DC 14.4 volts (11 to 16 volts allowance)  
 Grounding System: Negative ground  
 Dimensions (W x H x D)  
 Installation Size: 182 x 52 x 152 mm  
 (7-3/16" x 2-1/16" x 6")  
 Panel Size: 189 x 58 x 14 mm  
 (7-1/2" x 2-5/16" x 5/8")  
 Gross Weight: 2.0 kg (4.5 lbs) (KS-RT808)  
 1.9 kg (4.2 lbs) (KS-RT707)

*Design and specifications subject to change without notice.*

## Instructions

Thank you for purchasing a JVC product. Please read all instructions carefully before operation, to ensure your complete understanding and to obtain a longer service life from the unit.

### CONTENTS

|                                      |    |
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| Features .....                       | 2  |
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### IMPORTANT INFORMATION

1. This unit is designed to operate with 12 volts DC, NEGATIVE ground electrical systems only.
2. Replace the fuse with one of the specified rating. If the fuse blows frequently, consult your JVC car audio dealer.
3. Do not touch the highly-polished head with any metallic or magnetic tools.
4. If noise is a problem...  
This unit incorporates a noise filter in the power circuit. However, with some vehicles, clicking or other unwanted noise may occur. If this happens, connect the unit's rear ground terminal to the car's chassis using shorter and thicker cords, such as copper braiding or gauge wire. If noise still persists, consult your JVC car audio dealer.
5. Never play dirty or dusty tapes since they will greatly degrade the sound and performance of your unit. Always keep your tapes clean. (See page 41.)

#### Antenna Noise

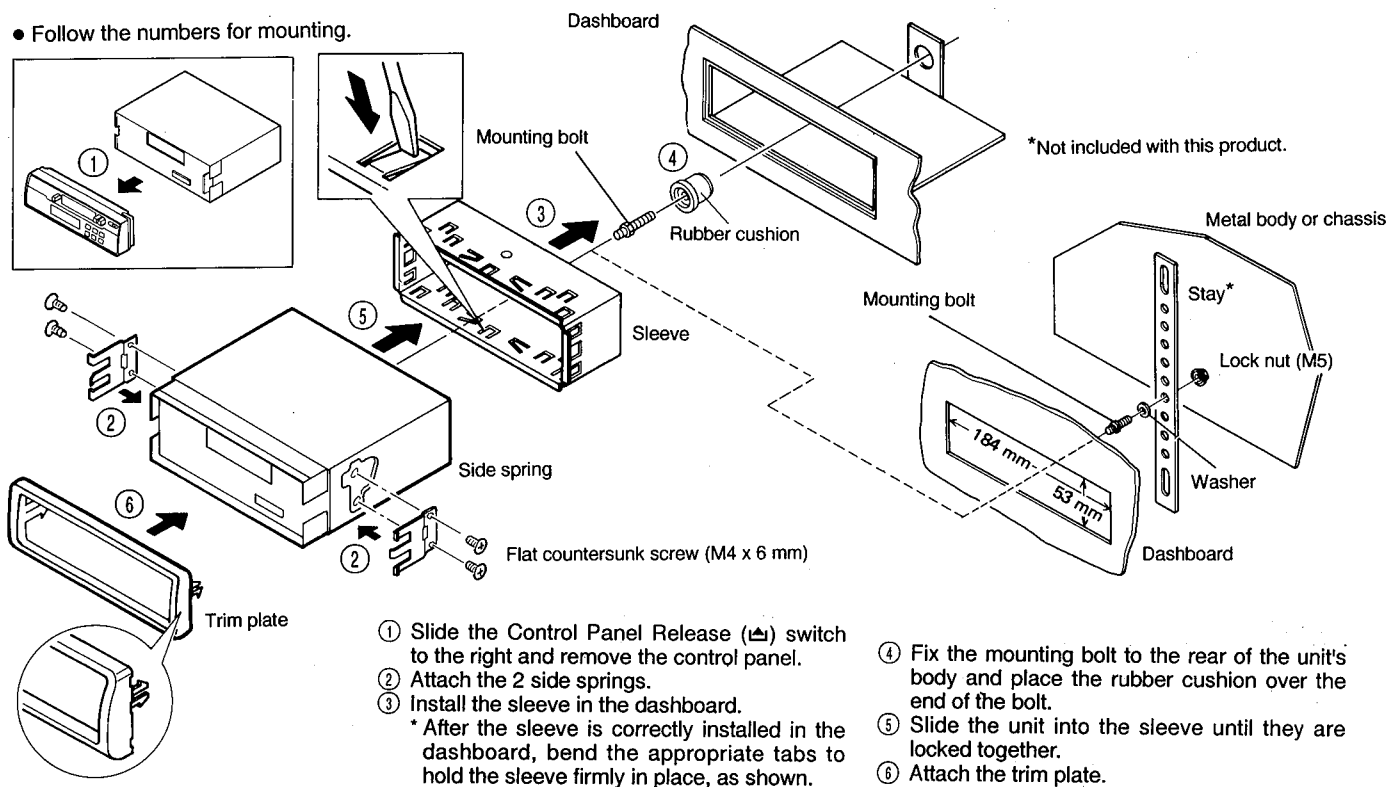
If you can hear static noise when listening to either AM or FM, check for loose antenna connections.

### INSTALLATION (IN-DASH MOUNTING)

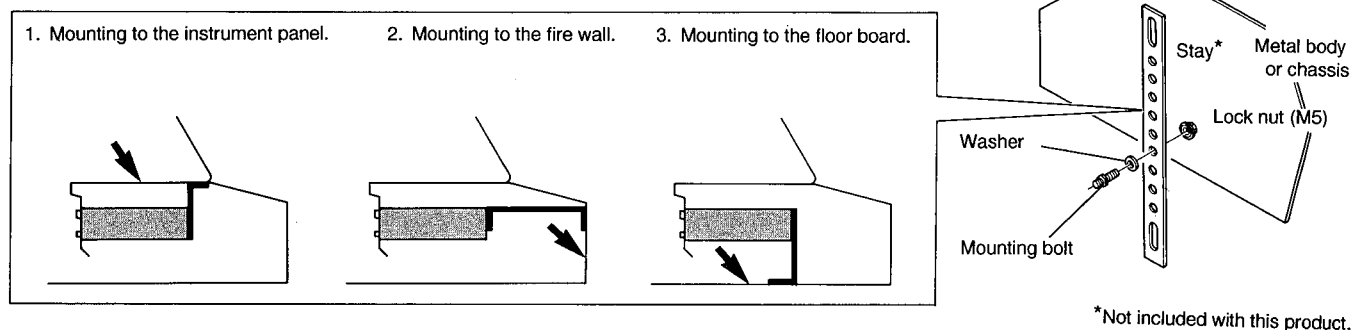
#### IMPORTANT

- Before using this unit for the first time, press the Eject button fully, to reset the mechanism.

- Follow the numbers for mounting.



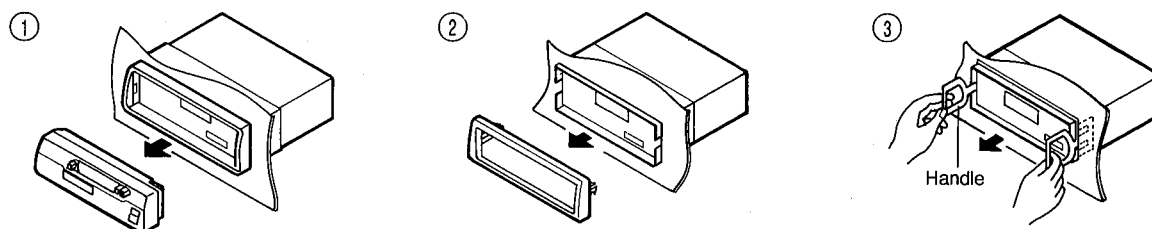
- Examples for use of the back stay:



### Removing the unit

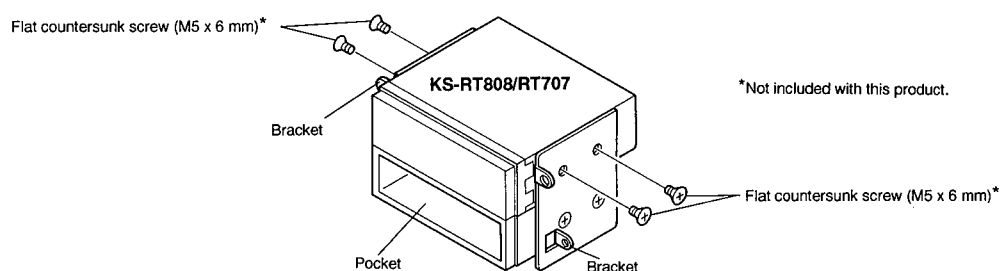
- Before removing the unit, release the rear section.

- ① Remove the control panel.
- ② Remove the trim plate.
- ③ Insert the 2 handles between the side springs and the sleeve, as shown. Then, while gently pulling the handles away from each other, slide out the unit.



### When installing the unit without using the sleeve.

In a Toyota for example, first remove the car radio and install the unit in its place.



### Note:

- When installing the unit on the mounting bracket, make sure to use the 6 mm-long screws. If longer screws are used, they could damage the unit.

## ELECTRICAL CONNECTIONS

To prevent short circuits, we recommend that you disconnect the battery's negative terminal and make all electrical connections before installing the unit. If you are not sure how to install this unit correctly, have it installed by a qualified technician.

### Note:

This unit is designed for a 12-volt DC negative ground. If your vehicle does not have this system, a voltage inverter is required, which can be purchased at JVC car audio dealers.

- Maximum input of the speakers should be more than 30 watts at the rear and 30 watts at the front, with an impedance of 4 to 8 ohms. (KS-RT808)
- Maximum input of the speakers should be more than 22 watts at the rear and 22 watts at the front, with an impedance of 4 to 8 ohms. (KS-RT707)

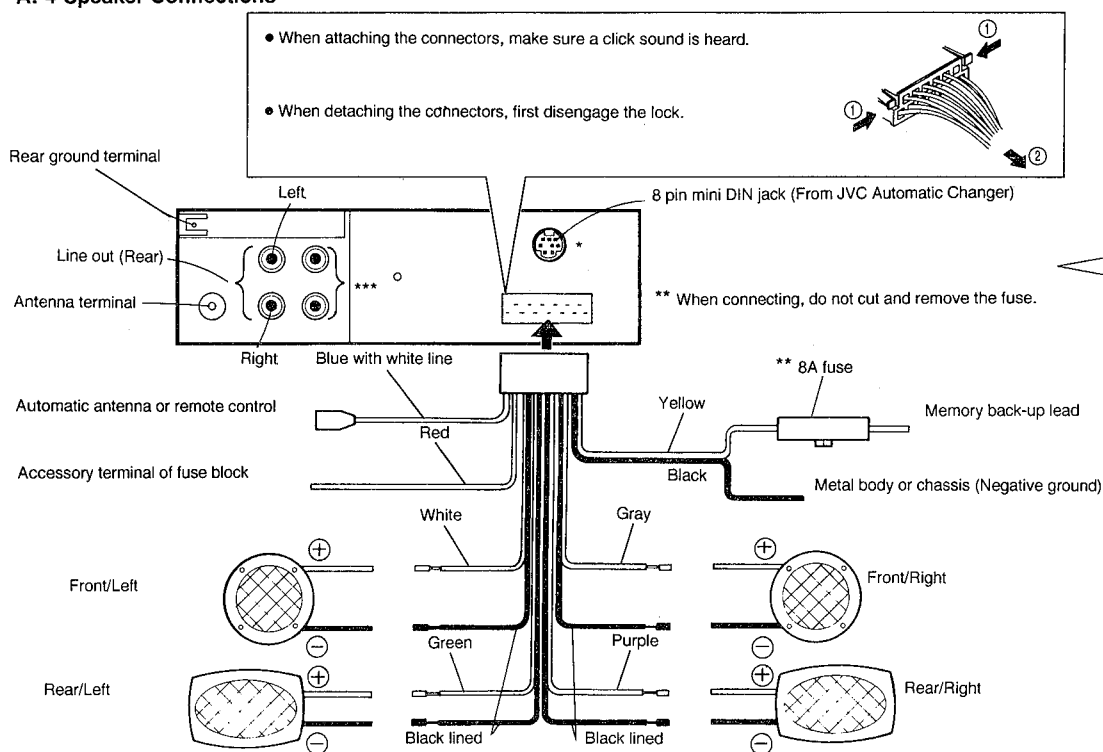
### CAUTIONS:

As this unit uses BTL (Balanced Transformerless) amplifier circuitry (floating ground system), please comply with the following:

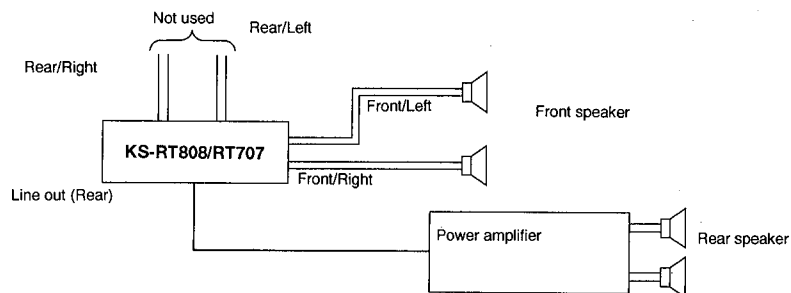
1. Do NOT connect the black-lined speaker leads to a common point.
2. Do NOT connect the speaker leads to the metal body or chassis.
3. Cover the terminals of the leads that are NOT used with insulating tape, to prevent them from shorting.

- Be sure to ground this unit to the car's chassis.

### A. 4-Speaker Connections



## B. 4-Speaker connections when adding a power amplifier

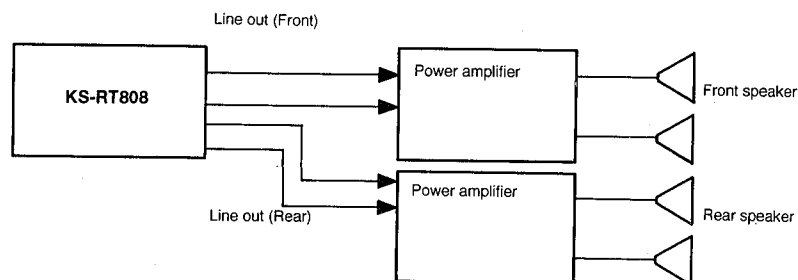


## C. Line Terminal Connections (Line Out)

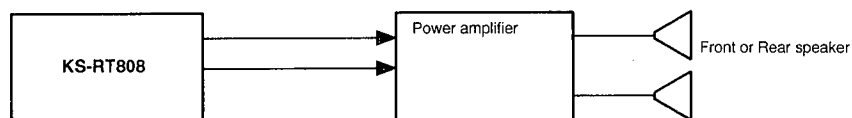
Since this unit has line-out terminals, an amplifier and other equipment can be used to upgrade your car stereo system.

- With an amplifier, connect this unit's line-out terminals to the amplifier's line-in terminals.

### 1. 2-Amplifier connections (KS-RT808 only)



### 2. Single amplifier connections (front or rear) (KS-RT808 only)



## D. Automatic Antenna Connections

To use the automatic antenna, connect its remote lead (blue with white lines) terminal. For details of installation, see the automatic antenna's Instruction Manual.

## E. Memory Back-Up Lead

Connect this lead to a LIVE power source (supplied even when vehicle ignition is OFF).

## F. Fader Control

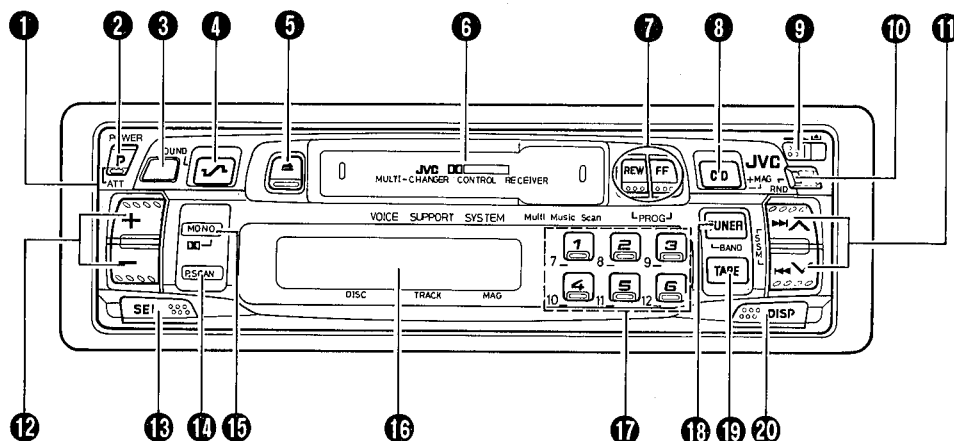
### • When used in a 4-speaker system

Use this control to balance the volume levels of the front and rear speakers. Set Fader mode using the SEL button and press the + Level Control button to decrease the volume level of the rear speakers, and - to decrease that of the front speakers. The overall volume level can be adjusted in Volume mode. (See page 20.)

### • When used in a 2-speaker system

Set this control to the center position ("00" is displayed).

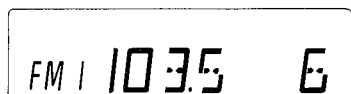
## LOCATION OF CONTROLS



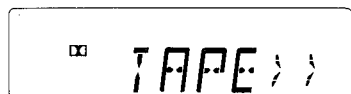
21



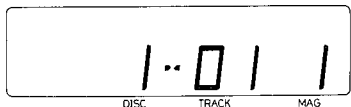
22



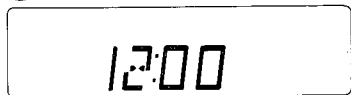
23



24



25

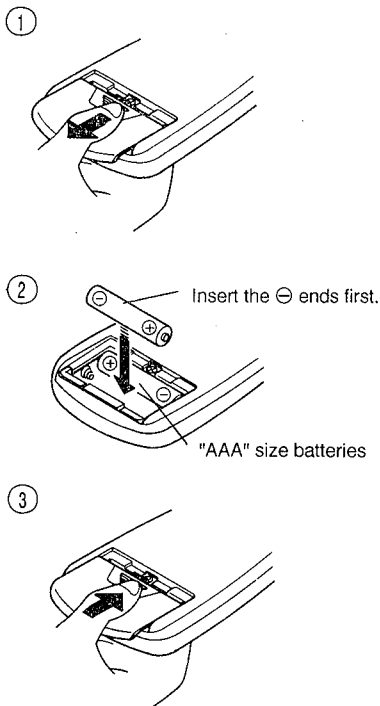


- 1 Control panel
- 2 POWER (P)/Attenuator (ATT) switch  
POWER: Press to turn the power ON. Press for more than 1 second to turn the power OFF.  
ATT: When this button is pressed during operation, the volume drops and the ATT indicator blinks. Press again to return to the original volume.
- 3 Remote Sensor section (KS-RT808 only)
- 4 SOUND button
- 5 Eject (▲) button
- 6 Cassette loading slot
- 7 Program (PROG)/REW, FF buttons
- 8 CD mode button  
Magazine select (+MAG) button
- 9 Control Panel Release (▲) switch
- 10 Random (RND) button
- 11 Tuning/SSM/Time Adjustment/Skip (search) buttons  
Up frequency/Minute adjustment (▲)/(▶▶▶)  
Down frequency/Hour adjustment (▼)/(◀◀◀)

- 12 Level Control buttons
- 13 Electronic Control Mode Select (SEL) button
- 14 Preset Scan (P. SCAN) button
- 15 MONO button
- 16 Dolby B NR (□□) button
- 17 Display window
- 17 Preset Station buttons (No. 1 to No. 6)/Music Scan Preset buttons (No. 1 to No. 6)/Disc Number buttons (No. 1 to No. 12)
- 18 Tuner (TUNER) mode button  
BAND button
- 19 TAPE mode button
- 20 Display (DISP) button
- 21 Indicators (for Audio Control section)  
Volume (VOL)  
Bass (BAS)  
Treble (TRE)  
Fader (FAD)  
Balance (BAL)  
Loudness (LOUD)  
Attenuator (ATT)  
VOICE (0/1/2/3)  
Level value  
Level indicator  
BEAT  
SOFT  
POP  
OFF
- 22 Indicators (for Tuner section)  
Band (FM1-FM2-FM3-AM)  
Radio frequency  
Preset Station  
FM Stereo (ST)  
Mono (MO)  
SSM (---)  
Manual (MANU)
- 23 Indicators (for Tape Deck section)  
TAPE mode  
Tape direction (TAPE >>>, TAPE <<<)  
Dolby B (□□) NR  
Music Scan preset number
- 24 Indicators (for CD Changer Control sections)  
Disc number  
Track number  
Magazine number  
RND  
-----  
RST1 – RST8
- 25 Indicators (for other controls)  
Time

**Remote Control unit (KS-RT808 only)**

- Installing batteries in the remote control unit.



- **Battery replacement**

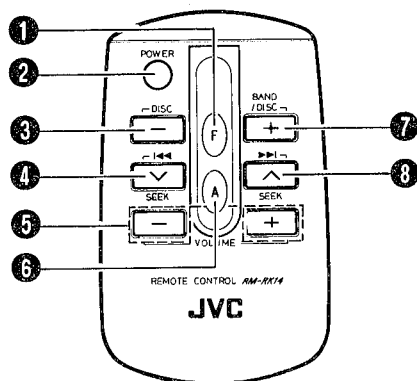
When the remote control operation becomes unstable or the distance from which remote control is possible becomes shorter, replace the batteries with new ones.

**Using the remote control unit**

To use the remote control unit, point it at the remote sensor and press the buttons gently and firmly. 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.

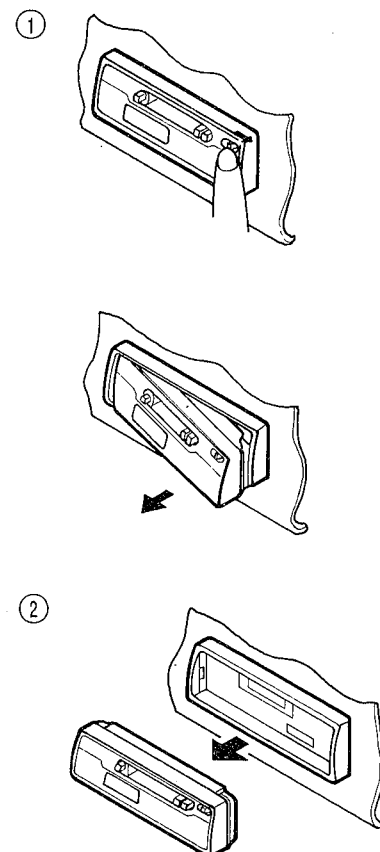
- Check the functions of the operation buttons carefully and operate them correctly.



- ① Function (F) button  
Used to select the source.
- ② POWER button
- ③ DISC Select (-) button
- ④ SEEK tuning/Skip (Search) button  
Down SEEK ( $\nabla$ )/( $\blacktriangleleft$ )
- ⑤ VOLUME level control buttons ( $-/+$ )
- ⑥ Attenuator (A) button
- ⑦ BAND/DISC Select (+) button
- ⑧ SEEK tuning/Skip (Search) button  
Up SEEK ( $\blacktriangledup$ )/( $\blacktriangleright$ )

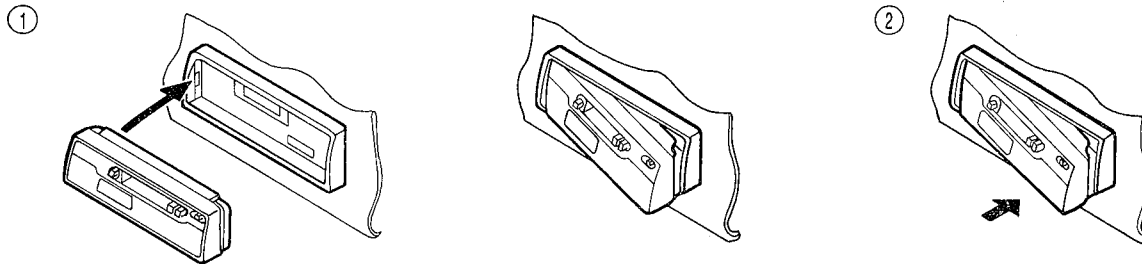
**How To Detach The Control Panel**

- ① Slide the Control Panel Release ( $\blacktriangle$ ) switch in the direction of the arrow to detach the control panel.
  - ② Pull the control panel out of the main unit, as shown below.
- Put the control panel in the provided case for protection.



### How To Attach The Control Panel

- ① Insert the left side of the control panel into the groove on the left side of the holder.
- ② Press the right side to set it correctly.



#### Note:

- Be careful not to damage the connector terminals when attaching/detaching the control panel or while the control panel is removed.

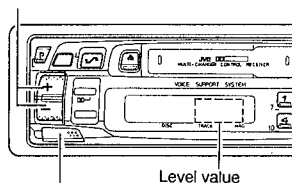
### One Touch Operation

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

|  | Function mode | Operations                                                                                  |
|--|---------------|---------------------------------------------------------------------------------------------|
|  | CD            | Place a CD in the CD changer connected to this unit and press this button to start CD play. |
|  | TUNER         | When this button is pressed, the tuner is engaged.                                          |
|  | TAPE          | When this button is pressed with a tape loaded, tape playback begins.                       |

### Audio Level Control

Level control buttons



Electronic control mode select button (SEL)

|              | Electronic control mode |             |           |                    |
|--------------|-------------------------|-------------|-----------|--------------------|
|              |                         |             |           |                    |
| <b>VOL</b>   | Volume                  | (00 – 50)   | Decreases | (00 – 50) Boosts   |
| <b>BAS</b>   | Bass                    | (–6) – (00) | Decreases | (00) – (+6) Boosts |
| <b>TRE</b>   | Treble                  | (–6) – (00) | Decreases | (00) – (+6) Boosts |
| <b>FAD</b>   | Fader                   | (R5 – 00)   | Rear      | (00 – F5) Front    |
| <b>BAL</b>   | Balance                 | (L6 – 00)   | Left      | (00 – R6) Right    |
| <b>LOUD</b>  | Loudness                |             | Off       | On                 |
| <b>VOICE</b> | Voice support volume    | (0 – 3)     | Decreases | (0 – 3) Boosts     |

## Loudness Control

At low volumes, the human ear is less sensitive to low and high frequencies. When the volume is low, set the loudness control to ON to boost these frequencies and produce well-balanced sound.

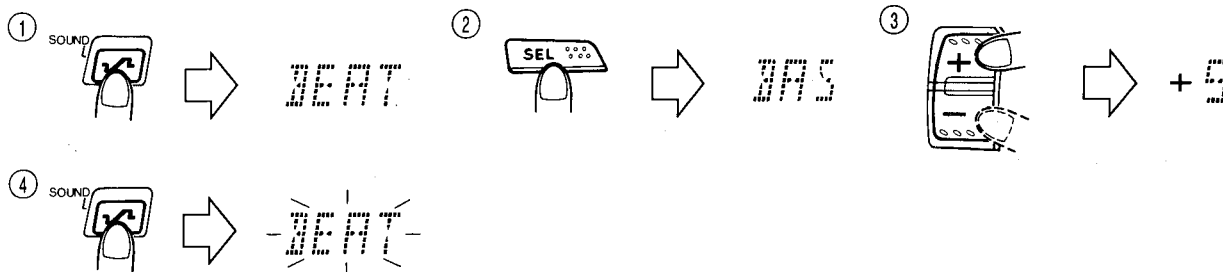
## Sound Mode Button

| Sound mode                                                                        |      |                                                           | Preset level value |        |          |
|-----------------------------------------------------------------------------------|------|-----------------------------------------------------------|--------------------|--------|----------|
|                                                                                   |      |                                                           | Bass               | Treble | Loudness |
|  | Off  | (flat characteristics)                                    | 00                 | 00     | Off      |
| <i>BEAT</i>                                                                       | Beat | For music with a heavy beat, such as rock or disco music. | +2                 | 00     | On       |
| <i>SOFT</i>                                                                       | Soft | For quiet background music.                               | +1                 | -3     | Off      |
| <i>POP</i>                                                                        | Pop  | For light music including popular and vocal music.        | +4                 | +1     | Off      |

## Sound Control Memory

The Sound mode's preset values can be changed to suit your tastes.

(Example: To emphasize bass sound in the Beat mode)



- ① Press the SOUND button to select the mode to be changed (Beat, Soft, Pop).
  - ② Press the SEL button within 5 seconds to select the sound characteristics to be changed (Bass, Treble, Loudness).
  - ③ Set the desired level with the level control button (within 5 seconds).
  - ④ To store the set level in memory, press the SOUND button within 5 seconds and hold it for more than 2 seconds. (The mode indication blinks when the level has been stored in memory.)
- \* To change other preset values, repeat the above procedure.
- \* To restore the preset value, repeat the above procedure using the level value for the SOUND button as a reference.

## Voice Support System

The system responds **in English** with a voice message, according operation. (e.g. When the power is turned on, the unit responds "HELLO".)

- Adjust the volume for the Voice Support System with the audio level control (refer to page 20).

- This system responds as shown in the table below.

### Principal operations

| Button                           | Command          | Tape operation                                                               | Radio operation              | CD changer operation        |
|----------------------------------|------------------|------------------------------------------------------------------------------|------------------------------|-----------------------------|
| P (POWER)                        | on<br>off<br>ATT | HELLO<br>SEE YOU<br>Pi ↔ Bi                                                  | HELLO<br>SEE YOU<br>Pi ↔ Bi  | HELLO<br>SEE YOU<br>Pi ↔ Bi |
| SOUND                            |                  | BEAT → SOFT → POP<br>OFF ←<br>(MEMORY when storing the set level in memory/) |                              |                             |
| TAPE<br>PROG (Auto-reverse mode/ |                  | FORWARD PLAY<br>REVERSE PLAY                                                 | —                            | —                           |
| TUNER                            |                  | —                                                                            | FM1, FM2, FM3, AM            | —                           |
| CD                               |                  | —                                                                            | —                            | DISC x (No.)                |
| 1 – 6 (7 – 12)                   |                  | MMS<br>LAST 5 → 4 → 3 → ...                                                  | PRESET 1 – 6<br>MEMORY 1 – 6 | DISC 1 (7) — DISC 6 (12)    |

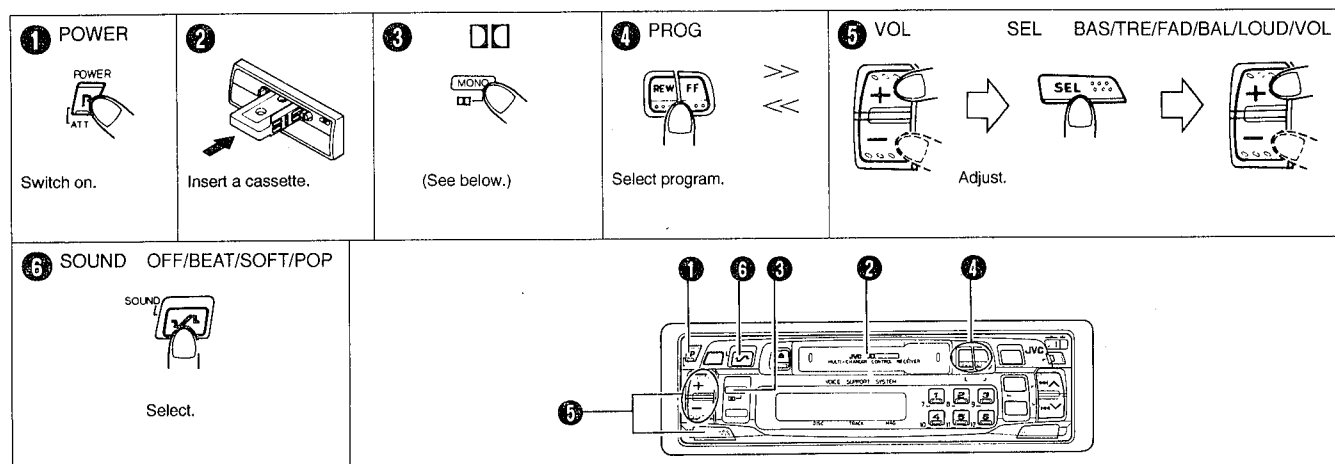
| Button                | Command | Tape operation | Radio operation | CD changer operation/ |
|-----------------------|---------|----------------|-----------------|-----------------------|
| ▶▶                    | ⏮       | —              | Pi              | Pi                    |
| ◀◀                    | ⏭       | —              | Bi              | Bi                    |
| P. SCAN               | on      | —              | PRESET 1 – 6    | —                     |
|                       | off     | —              | PRESET 1 – 6    | —                     |
| RND                   | on/off  | —              | —               | RANDOM 1, 2/OFF       |
| MONO<br>Dolby NR (□□) | on/off  | DOLBY B ON/OFF | MONAURAL ON/OFF | —                     |
| DISP                  |         | Pi             | Pi              | Pi                    |

|     |                                                                           |
|-----|---------------------------------------------------------------------------|
| SEL | BASS → TREBLE → FADER → BALANCE → LOUDNESS → VOICE → VOLUME → BASS → .... |
|-----|---------------------------------------------------------------------------|

| Position | Bass   | Treble | Fader  | Balance | Loudness     | Voice   | Volume |
|----------|--------|--------|--------|---------|--------------|---------|--------|
| +        | —      | —      | —      | —       | LOUDNESS ON  | LEVEL 3 | —      |
|          | CENTER | CENTER | CENTER | CENTER  | LOUDNESS OFF | LEVEL 2 |        |
| -        | —      | —      | —      | —       |              | LEVEL 1 |        |
|          |        |        |        |         |              | OFF     |        |

## TAPE OPERATION

Operate in the order shown.



### • DOLBY B NR button

Set the Dolby B NR ( ) button as required.

ON — ( ) indicator lights.

OFF — ( ) indicator goes out.

### Ignition Key-Off Release (Key-On Play) Mechanism

When the ignition key is turned OFF, the "key-OFF release" mechanism automatically releases the tape from the magnetic head, then enters Standby mode. When the ignition is turned ON, Playback mode automatically restarts.

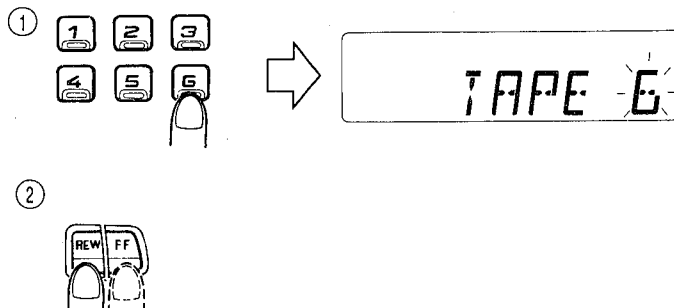
### How To Fast-Forward And Rewind Tapes

Press the FF button to fast-forward the side being played; when the tape end is detected, the tape is reversed and playback starts from the beginning of the other side.

Press the REW button to rewind the tape to its beginning, where playback restarts.

**Lightly** press the PROG button to start playback from the current position during fast-forward or rewind.

### • Example



① Load a cassette and press the Music Scan Preset button (No. 6).

② Press the REW or FF button.

• When the beginning of the specified tune is detected, the indication number goes out and tape playback starts.

### Note:

During scanning, when the tape is rewound to its beginning in Rewind mode, playback starts from the beginning of that side. When the tape reaches its end in Fast-Forward mode, it is reversed and played from the beginning of the other side.

### Note:

In the following cases, the Multi Music Scan mechanisms may not operate correctly. These are NOT malfunctions; use the mechanisms to suitably accommodate the materials and situations.

- Tapes with tunes having long pianissimo passages (very quiet parts) or non-recorded portions during tunes.
- Tapes with tunes recorded at low recording levels.
- Tapes with short non-recorded sections.
- Tapes with high level noise or humming between tunes.
- The Dolby NR button settings do not match the tape's NR mode.

### Auto-Reverse Mechanism

When the tape reaches its end, this mechanism automatically switches over to play back the other side. To listen to the other side of the tape during playback, press the PROG button. The change in direction can be checked in the Tape Direction indicator.

### Multi Music Scan Operation

This function enables you to automatically start playback from the beginning of a specified tune (by skipping over a maximum of 6 tunes), in forward or reverse.

## RADIO OPERATION

### To Change The Intervals Between Channels

When this unit is shipped, the channel intervals are set to 10 kHz for AM and 200 kHz for FM. If the unit is used in an area other than North or South America, adjust as follows:

①



②



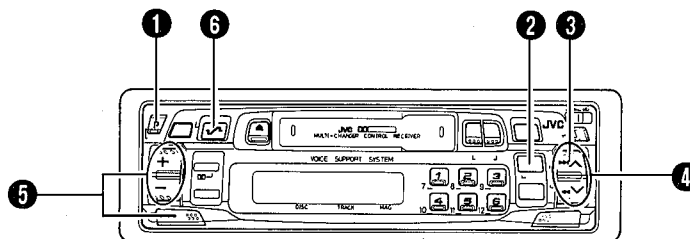
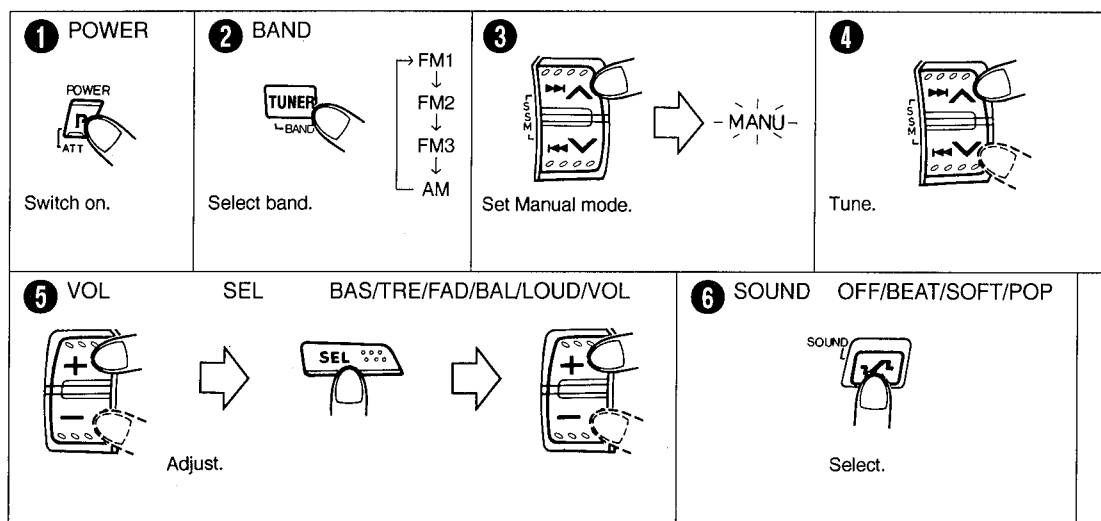
① Switch the power ON.

② While pressing the BAND button, press Preset Station button 1 for more than 3 seconds.

Performing this procedure sets the channel intervals to 9 kHz for AM and 50 kHz (Manual mode), 100 kHz (Seek mode) for FM.

To change back to the original intervals, repeat the above operation.

Operate in the order shown.



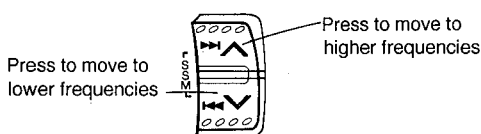
## Manual Tuning

Set Manual mode by pressing the tuning button (▲ or ▼) for more than 1 second. When the MANU indicator is blinking, the unit is in Manual mode. Press the Tuning button, to move up/down the frequency band. Scanning continues as long as either side of the button is pressed.

Frequency scan steps are as follows:

FM — in 200 kHz/50 kHz units  
AM — in 10 kHz/9 kHz units

- About 5 seconds after completing manual tuning, the unit switches back to Seek mode and the MANU indicator goes out.



## Seek Tuning

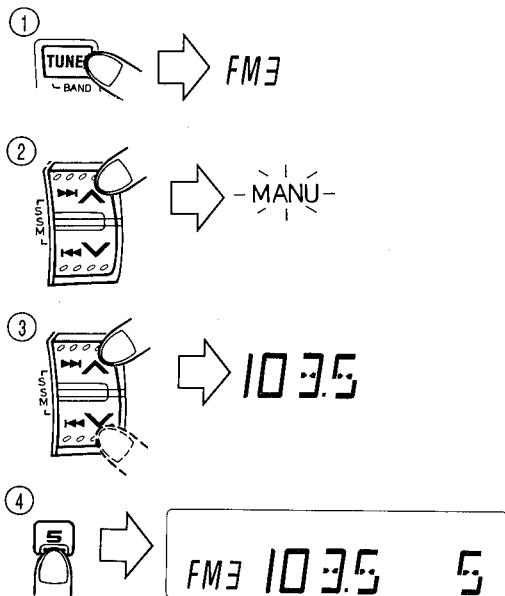
Press the ▲ or ▼ button; the unit enters the seek tuning mode and tunes to higher or lower frequencies. When a broadcast is received, tuning stops automatically and the broadcast can be heard.

## Preset Button Tuning

### How to Preset Stations

6 stations in each band (FM1, FM2, FM3 and AM) can be preset as follows:

- Example (when presetting Preset Station button "5" of the FM3 band to an FM station at 103.5 MHz)



- ① Select the FM3 band using the Band (BAND) button.
  - ② Set Manual mode.
  - ③ Tune to the desired station.
  - ④ Press Preset Station button "5" for more than 2 seconds. (When "5" blinks in the Preset Station display, the station is preset.)
- Repeat the above procedure for the other 5 Preset Station buttons and other bands (FM1, FM2 and AM).

### Notes:

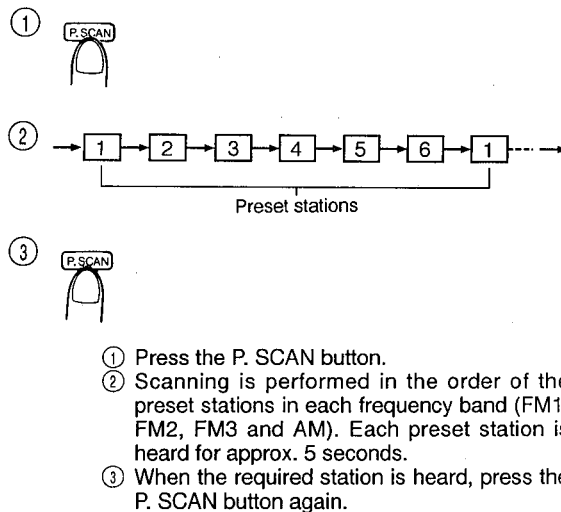
- A previously preset station is erased when a new station is stored in memory.
- The preset stations are erased when the power supply to the memory circuit is interrupted during battery replacement, etc. When this occurs, preset the stations again.

## Preset Tuning

- ① Select the band.
- ② Press the required Preset Station buttons (No. 1 to No. 6).

## Preset Scan Button Tuning

This function makes it possible to automatically scan preset FM and AM stations.



- ① Press the P. SCAN button.
- ② Scanning is performed in the order of the preset stations in each frequency band (FM1, FM2, FM3 and AM). Each preset station is heard for approx. 5 seconds.
- ③ When the required station is heard, press the P. SCAN button again.

## Strong-Station Sequential Memory (SSM)

This function searches for FM stations broadcasting strong signals. The 6 strongest stations are held in memory in the order of increasing frequency, and can be recalled with the Preset Station buttons No. 1 to No. 6.

(Procedure)

- ① Press the SSM buttons (▲, ▼) for more than 3 seconds.
- ② The strongest signals in the band you are listening to (FM1, FM2 or FM3) will be searched and selected automatically. Six stations are preset in the Preset Station buttons (No. 1 to No. 6), in the order of increasing frequency. (During this operation, "---" lights in the display.) The unit then automatically tunes to the broadcast stored in Preset Station button "1".

### Note:

Previously preset stations are canceled automatically when SSM is used.

### Mono Button

When listening to FM, set the MONO button to stereo or mono.

#### Note:

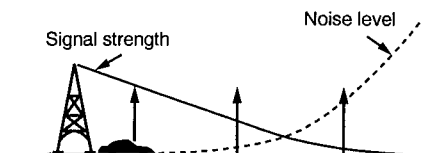
Set to MONO when a stereo FM broadcast is too noisy and cannot be heard satisfactorily.

### FM Pulse Noise Suppressor

This unit has built-in circuitry to effectively eliminate engine noise picked up by the antenna, etc. in the form of FM pulses, for a more favorable FM reception.

### Automatic FM Noise Suppressor (AFNS)

This unit incorporates an automatic FM noise suppression circuit to ensure satisfactory reception of FM broadcasts when a vehicle is moving and signal strengths are continuously fluctuating.



| Signal strength | A      | B             | C          |
|-----------------|--------|---------------|------------|
|                 | Strong | Not so strong | Weak       |
| Auto blend      | Stereo | Blend         | Mono       |
| Auto high-cut   | -      | ➡             | (Operates) |

## CD AUTOMATIC CHANGER OPERATION

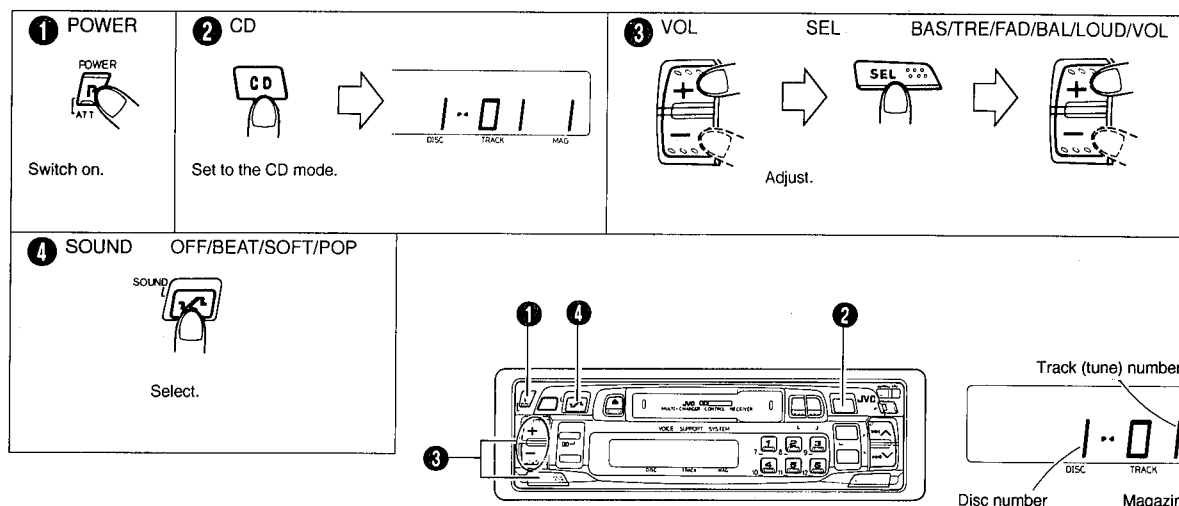
### PRECAUTIONS

- This unit is for the control of a JVC CD Automatic Changer (to be purchased separately).  
(Applicable models; XL-MK500/MG700RF/MG800RF/MG1800/KD-MK70/MK66 etc.)
- For correct usage, refer to the Instructions of the CD Automatic Changer.
- When there are no discs in the CD changer's magazine or the discs are inserted upside down, "----" will be shown in the display. If this happens, remove the magazine and set the discs correctly.
- When "RST1 - RST8" is shown in the display of the unit, confirm that the cord is connected and press the RESET button of the CD Changer.

## PLAYING COMPACT DISCS

### How To Play All Tracks

Operate in the order shown.



- When all tracks on the first disc have been played, the second disc starts automatically from the first track.

## Magazine Selection

- Press the Magazine Select button (+MAG) for more than 1 second to select the required magazine.  
(Example: to select the 3rd magazine in the XL-MG1800 changer.)



- When selecting the 10th or higher magazine with four or more connected XL-MG1800 changers, the unit digit of the magazine number blinks.  
(For example, when the 18th magazine is being selected, the "8" blinks.)

### Note:

The KS-RT808/RT707 can be connected to up to 6 XL-MG1800s, each containing 3 magazines, which means that the KS-RT808/RT707 can control up to 18 magazines.

## Disc Selection

### • Direct disc selection

Press the disc number button that corresponds to the desired disc (press it quickly to select No. 1 through No. 6 or for more than 1 second to select No. 7 through No. 12). The disc number and track number light and CD play starts.

Example: (To specify disc 5)

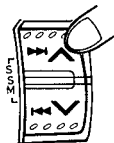


## Skip Playback

- During playback, you can easily skip to the beginning of the previous, current, or next track, and playback will start again from there.

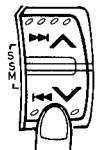
### How to listen to the next track...

Press the (▶▶) button once to skip to the beginning of the next track.



### How to listen to the previous track...

Press the (◀◀) button once to skip to the beginning of the current track, then again to skip to the previous track.

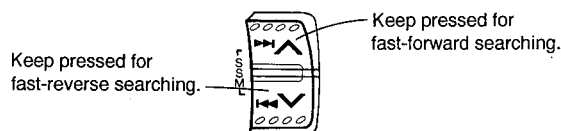


\* When Magazine Select, Disc Select and Skip operations are performed in sequence, the required track from a designated disc can be selected.

## Search Playback

(How to locate a required position on the disc.)

- The required position can be located using fast-forward or reverse search during playback.
- Hold down the button to commence searching. (The search speed increases the longer the button is pressed.)
- Since a low sound level can be heard (approx. one quarter of playback), monitor the sound and release the button when the required position is located.



## Random Playback

Each time the RND button is pressed, the mode changes from Random 1 (the RND indicator lights) to Random 2 (the RND indicator blinks) to Clear.

### Random 1:

Randomly plays all tracks on the current disc once, then on each of the following discs in order.

### Random 2:

Randomly selects and plays tracks from all of the CDs in the loaded magazine.

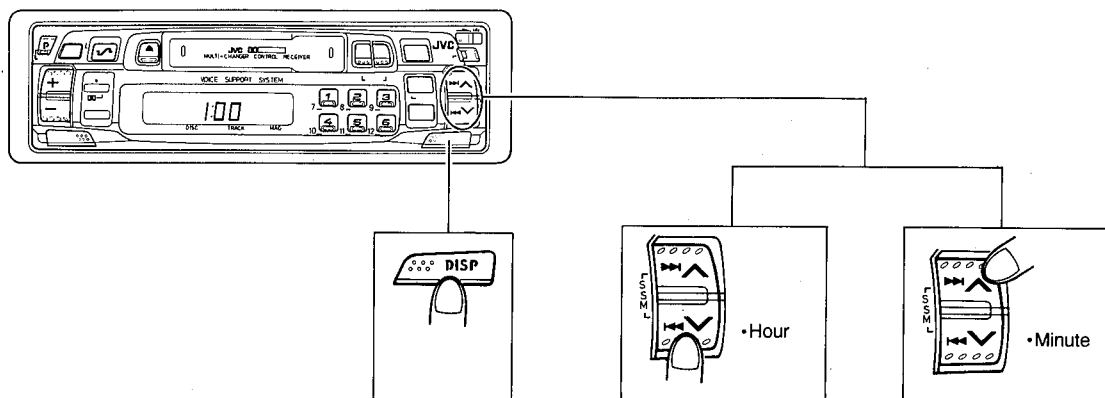


## DIGITAL CLOCK DISPLAY

To select Time mode, press the DISP button. When any operation button is pressed in Time mode, the display changes to indicate the source mode selected, and returns to Time mode after a few seconds. Press the DISP button again to cancel Time mode.

### How To Adjust The Time

Make sure the display is in Time mode, then, while pressing the DISP button, press the Hour Adjustment button (⏰) to adjust the "hours", and press the Minute Adjustment button (⌚) to adjust the "minutes".



## MAINTENANCE

### • Cleaning The Head

Heads are important as they pick up sound. When they become dirty, the following symptoms become noticeable:

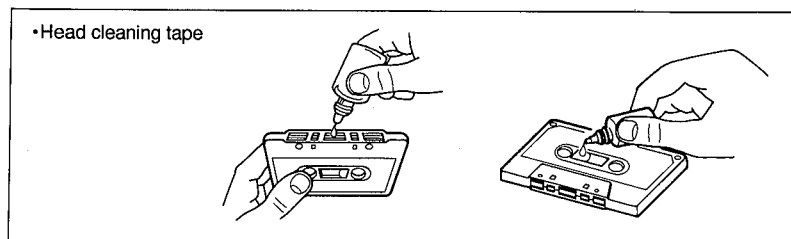
- The sound quality is reduced.
- The sound level is decreased.
- The sound can be heard intermittently. (Sound drop occurs.)

These are NOT malfunctions. However, before these symptoms appear, clean the heads after every 10 hours of use using a wet-type head cleaning tape, available from an audio store. For more details, refer to the Instructions of the Head Cleaning Tape.

### • Cleaning The Connector

If the control panel is frequently detached, a poor connection may occur with the control panel holder. To minimize this possibility, periodically wipe the connector with a cotton swab or cloth moistened with alcohol, being careful not to damage the connector terminals.

Your unit requires very little attention, but you will be assured of top performance only if you follow the above notes.



## TAPE CARE HINTS

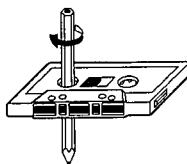
It is very important to keep your tapes clean. Always return them to their storage boxes after playback.

Never store tapes in direct sunlight, high humidity or extremely hot temperatures.

Never play dirty or dusty tapes — they can damage the head.

Slack tape in a cassette can cause trouble by becoming entangled with the capstan or pinch roller.

This may also cause the auto-reverse mechanism to malfunction. Avoid this by tightening the tape, as shown.

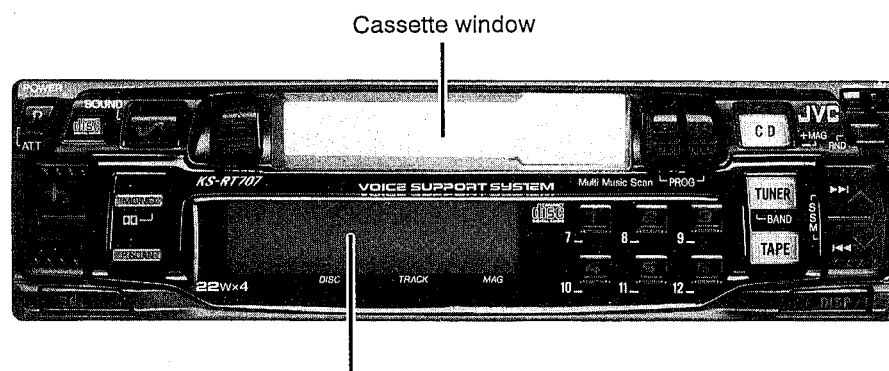


### Note:

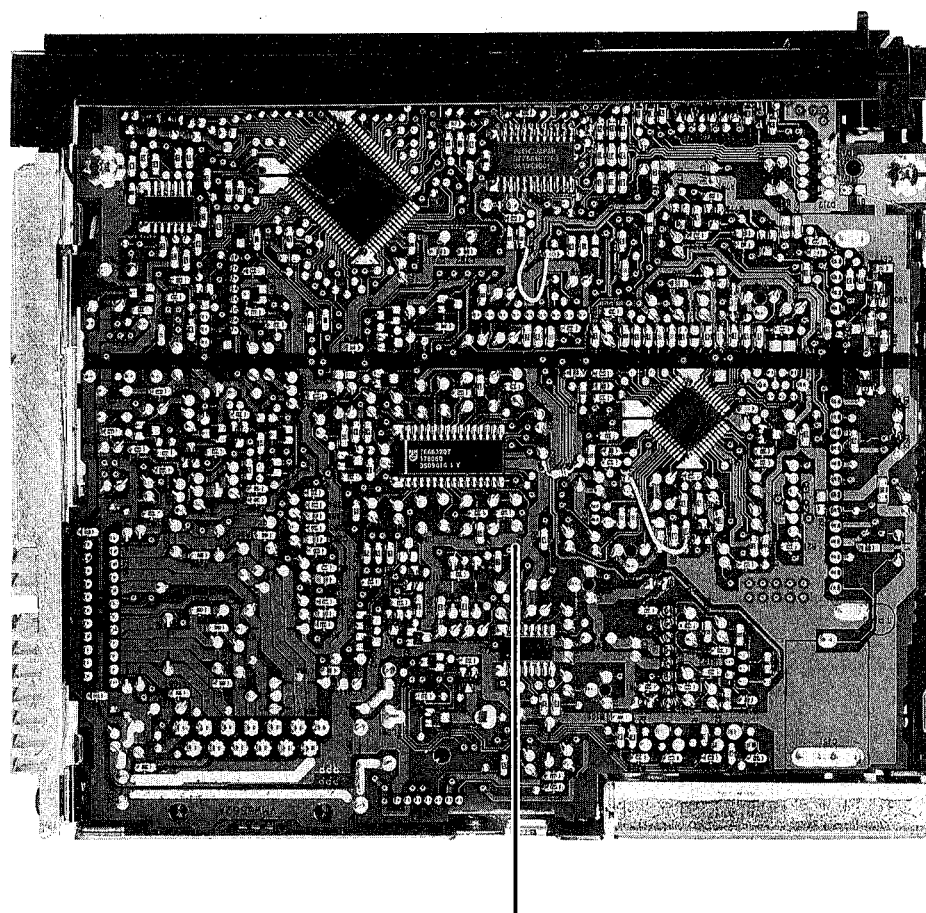
Always remove cassettes from the loading slot when not listening to them, as the tape may become slack.

# 1 Location of main parts

## ◆ Front panel ass'y



## ◆ Bottom side view



Main board ass'y

Fig. 1 - 1

# ◆ Main board (Top side) ass'y

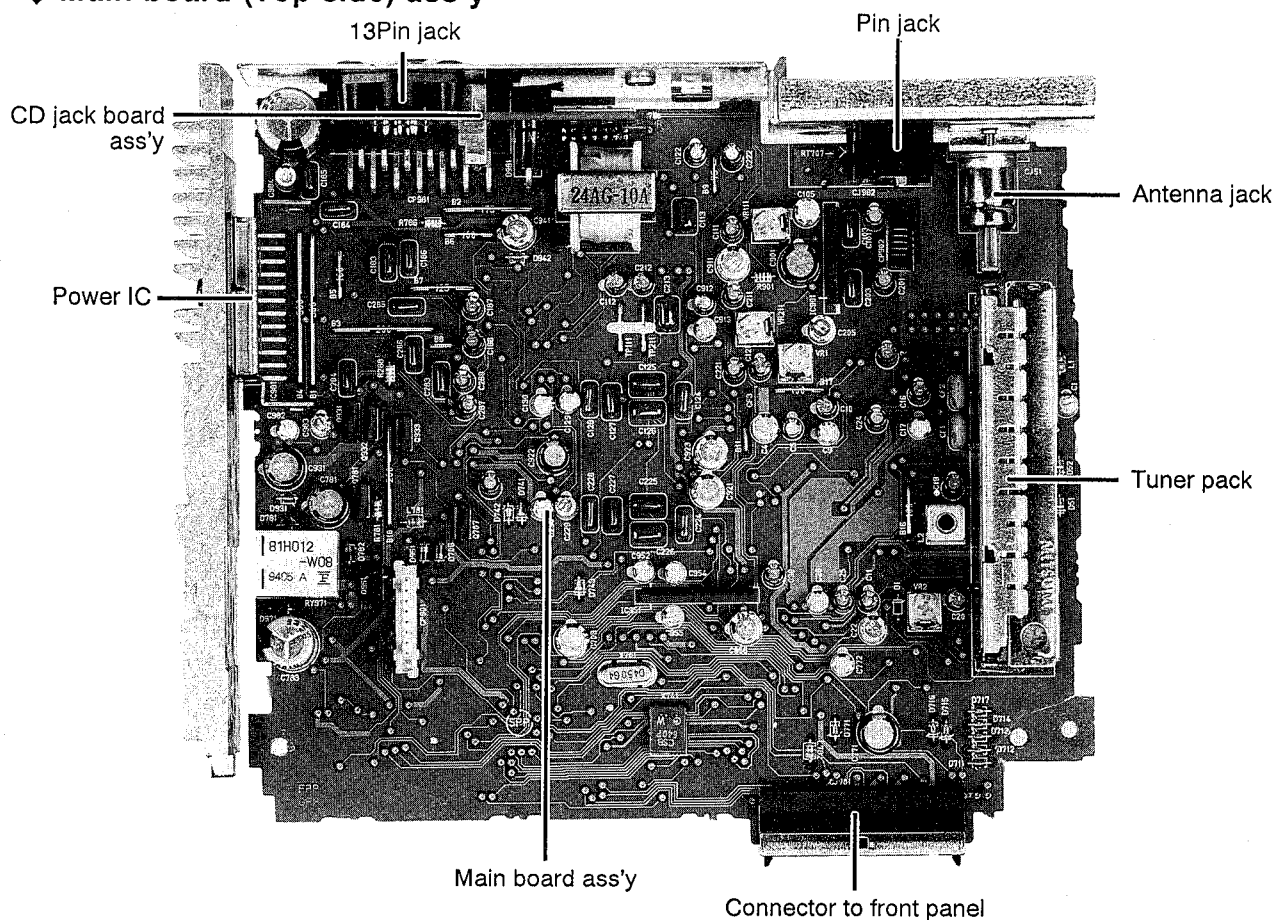


Fig. 1 - 2

# ◆ Mechanism ass'y

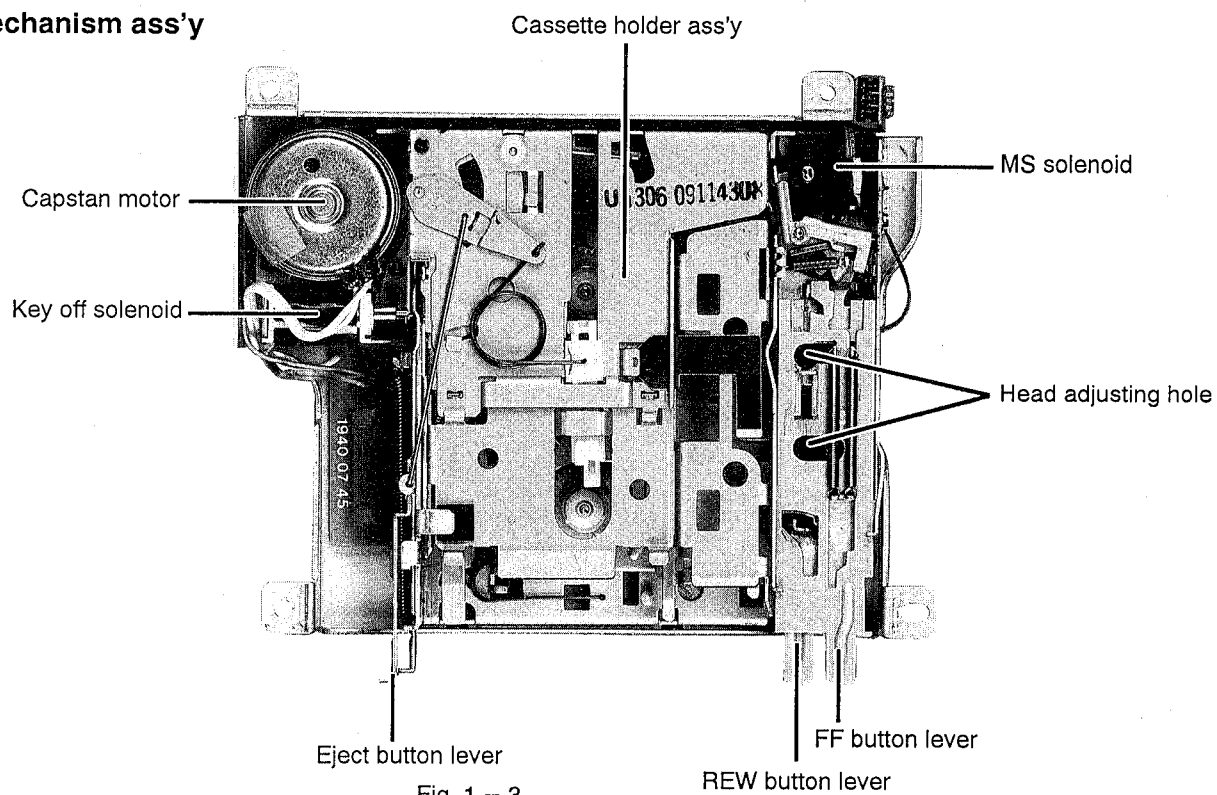


Fig. 1 - 3

## 2 Removal of Main Parts

### ■ Encoosuer section

#### ◆ Detaching the front panel unit (See Fig. 2-1)

Slide the Eject slide knob in the direction of arrows to detach the front panel unit.

#### ◆ Removing the bottom cover (See Fig. 2-2)

Turn the unit upside down, then insert and turn the screwdriver to remove the bottom cover.

#### ◆ Removing the front chassis (See Fig. 2-3)

Remove the four tabs in the right and left sides of unit and pull the front chassis forward to remove it.

#### ◆ Removing the main P.C.B. assembly (with rear panel) (See Fig. 2-4)

1. Remove two screws ① retaining the rear panel to the chassis.
2. Remove one screw ② A retaining the IC to the heat sink.
3. Remove two screws ③ retaining the amp. P.C.B. assembly.
4. Lift up the main P.C.B. assembly to remove it. At this time, remove the connectors CP901 and CP902 connecting the main P.C.B. assembly and mechanism assembly.
5. Remove two screws ② to remove the heat sink.

#### ◆ Removing the rear panel (See Fig. 2-4)

Remove five screws retaining the jacks or the like.  
Remove two screws ④ to remove the 8-pin jack.  
Remove one screw ⑤ to remove the 13-pin jack.  
Remove one screw ⑥ to remove the line-out jack.  
Remove one screw ⑦ to remove the antenna jack.

#### ◆ Mechanism assembly (See Fig. 2-5)

Remove four mechanism assembling screws ⑧ retaining the top cover.

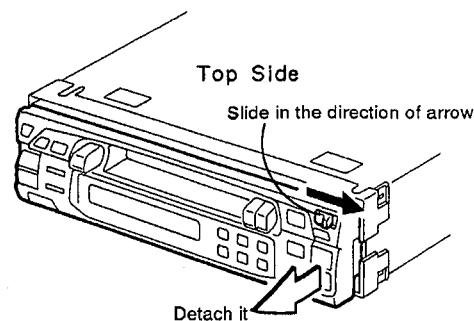


Fig. 2 - 1

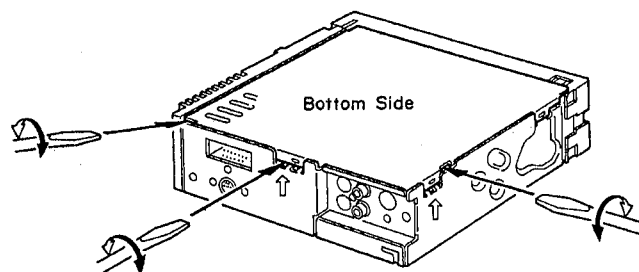


Fig. 2 - 2

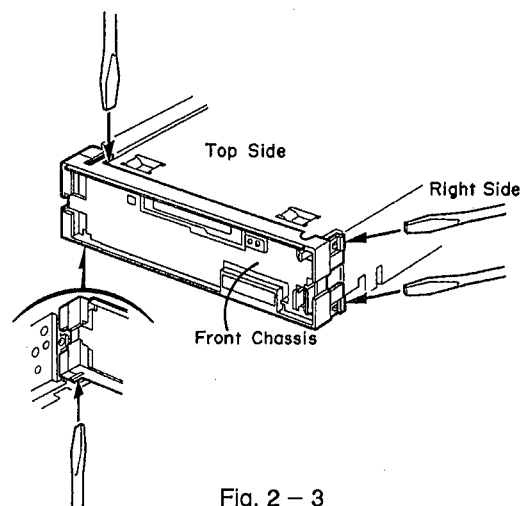


Fig. 2 - 3

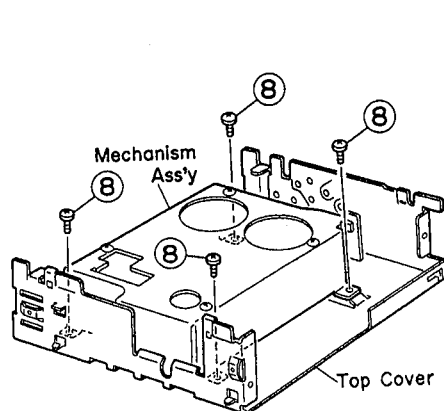


Fig. 2 - 5

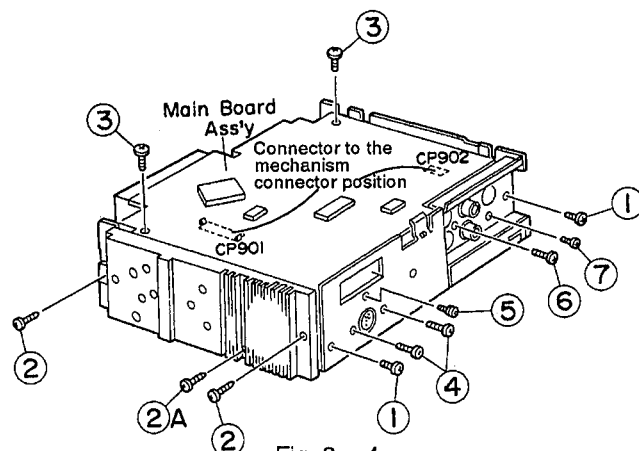


Fig. 2 - 4

## ■ Mechanism section

### ◆ Head Removal

1. Remove screw ① retaining the FR bracket.
2. Left the FR lever assembly up in the direction of the arrow and remove the FR lever assembly from the chassis slots.
3. Remove the screw ② retaining the head plate.
4. Remove two screws ③ retaining the head.
5. When replacing the head make sure to adjust screws(A-D) and perform head angle and height adjustment.

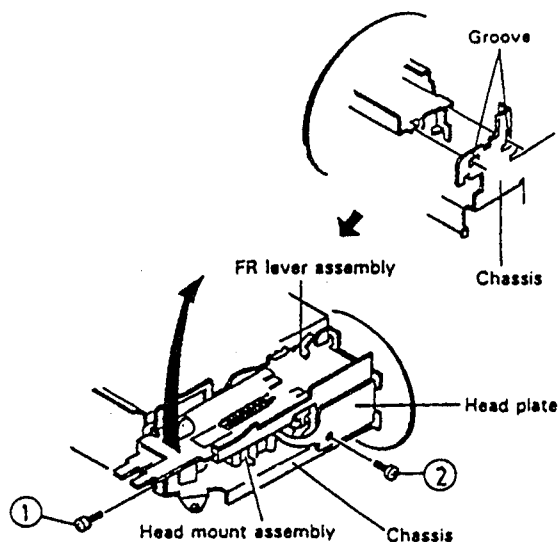


Fig. 2-6

### ◆ Pinch roller assembly

1. Remove the nylon washers retaining the left and right pinch rollers.
2. Pull out the pinch roller.

### ◆ Motor Assembly

Remove two screws(5) retaining the motor.

※ This operation is facilitated by leaving the belt hooked on to one of the chassis protrusions.

### ◆ Belt

Thread the belt as indicated in the figure when replacing the belt.

※ Take care to avoid contact with grease or oil when replacing the belt.

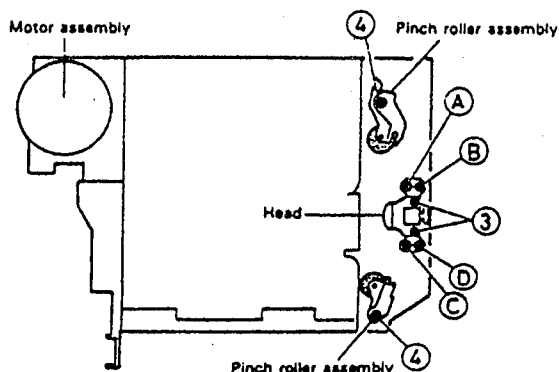


Fig. 2-7

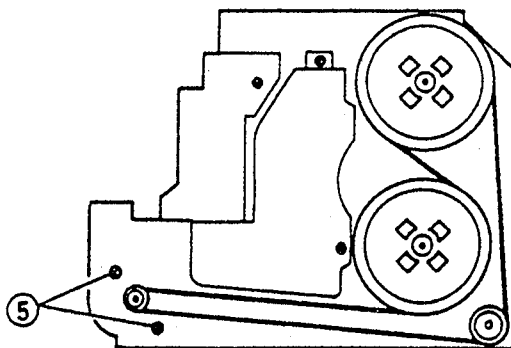


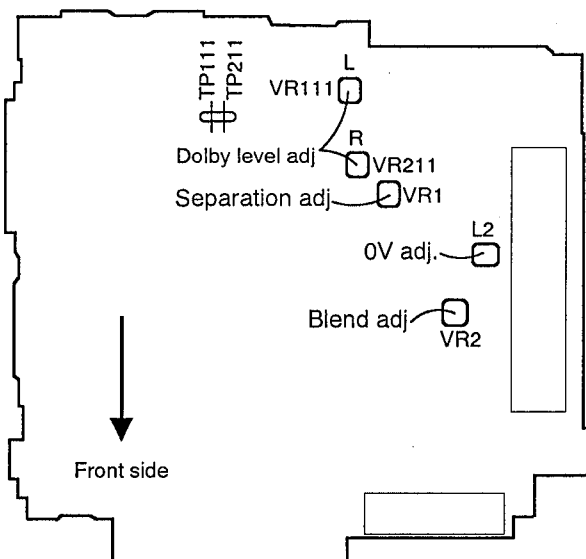
Fig. 2-8

### 3 Main adjustment

#### ■ Equipment and measuring instruments used for adjustment

- Electronic voltmeter
- Audio frequency oscillator  
(range:50~20kHz and output 0 dB with impedance of 600  $\Omega$  )
- Attenuator(impedance;600  $\Omega$  )
- Frequency counter
- AM Standard signal generator
- FM Standard signal generator
- Wow flutter meter
- Torque testing cassette gauge  
CTG – N (mechanical adjusting)  
TW – 2111A (FWD play)  
TW – 2121A (REV play)
- Standard tape  
VTT712(tape speed,wow&flutter adj.)  
VTT724(reference level )  
VTT736(playback frequency response )  
VTT721(output level)  
SCC – 1659 (mirror tape)  
MTT – 942SP (azimuth)

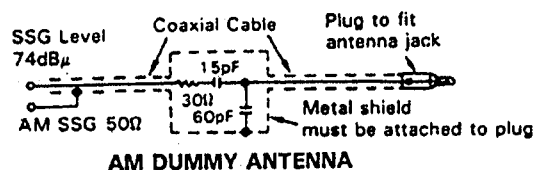
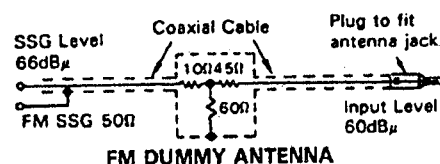
#### ■ Location of Adjustment



#### ■ Condition for measurement

- Power Supply ..... DC14.4V  
(Reduced Voltage:10.5V)
- Load ..... 4  $\Omega$   
(4- speaker connection)
- BASS/TRE, FADER ..... Center
- Main volume ..... Position with an output level of 1.4V during VTT724 playback
- Tuner section
  - **[FM]**;400Hz, 22.5kHz deviation(MONO)
  - **[FM]**STEREO ;1kHz, 67.5kHz deviation, pilot signal 7.5kHz, 66dB  $\mu$  V
  - **[AM]**;400Hz, 30% modulation ,74dB  $\mu$  V
  - Output impedance ;50  $\Omega$

#### ■ Dummy antenna



#### ● Preset memory Initialization

| Band    | Preset Memory |      |      |       |       |      |
|---------|---------------|------|------|-------|-------|------|
|         | M1            | M2   | M3   | M4    | M5    | M6   |
| FM(MHz) | 87.5          | 89.9 | 97.9 | 105.9 | 107.9 | 87.5 |
| AM(kHz) | 530           | 600  | 1000 | 1500  | 1710  | 530  |

#### ● Manual Tuning Up/Down Frequency

- [FM]**;200kHz Step
- [AM]**;10kHz Step

## ■ Information for using a Car Stereo service jig (for adjustment and checking)

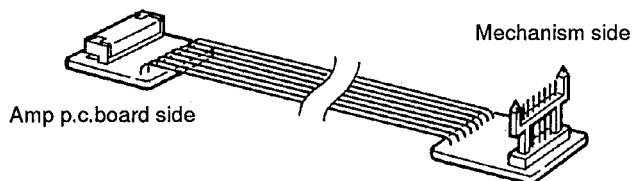
- ◆ For 1995, we're advancing efforts to make our extension cords common for all Car Stereo products.

Please use this type of extension cord as follows.

- ◆ As a U – shape type top cover is employed, this type of extension cord is needed to check operation of the mechanism assembly after disassembly.

- ◆ Extension cords

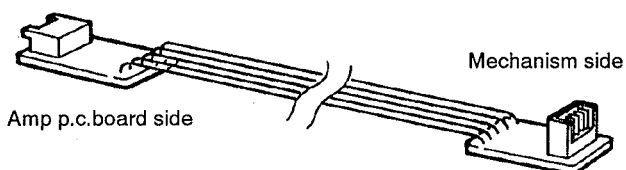
EXT – KSRT001 – 8P (8 pin extension cord)



For connection between mechanism assembly and main PCB assembly.

Check for mechanism-driving section such as motor, solenoid, etc.

EXT – KSRT001 – 5P (5 pin extension cord)



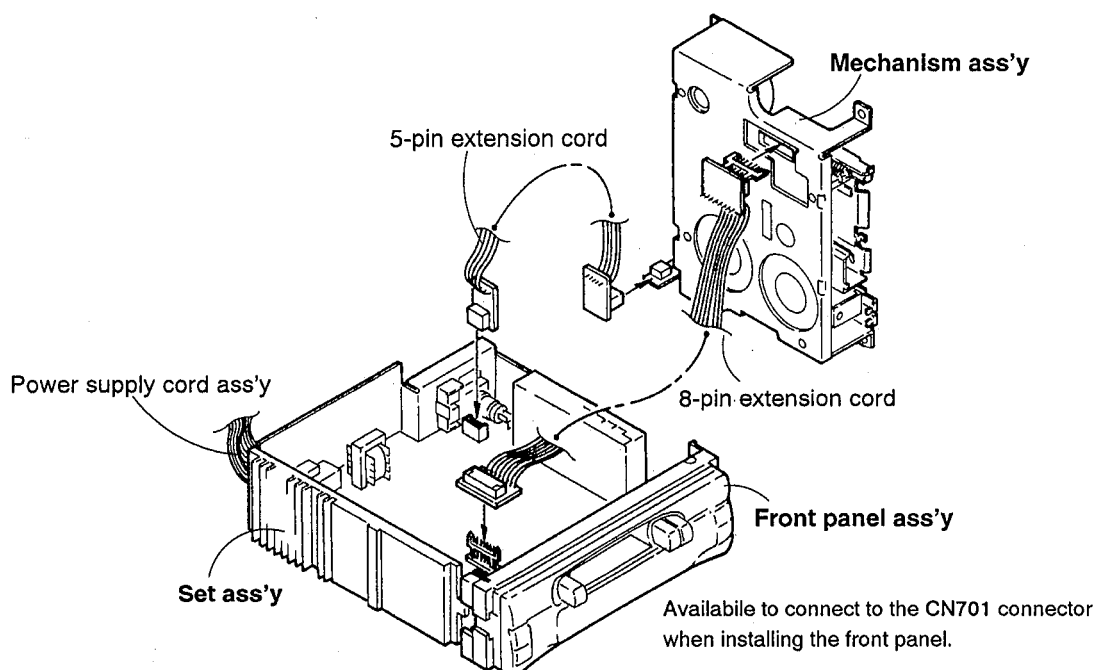
For connection between mechanism assembly and main PCB assembly.

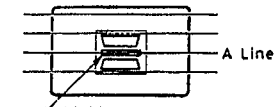
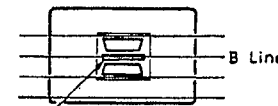
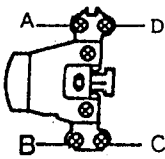
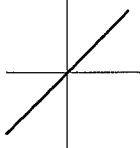
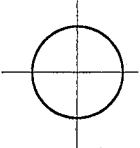
Check for head signal section.

- ◆ Disassembly method (Refer to method to remove main parts)

1. Remove the bottom cover.
2. Remove the front panel assembly.
3. Remove the top cover. (Remove the screws at each side of heat sink and rear panel.)
4. Install the front panel (whose assembly was removed in step 2) to the main unit.
5. Confirm that current is being carried by connecting an extension cord jig.

- ◆ Connection diagram



| Item                                        | Conditions                                                 | Adjustment and Confirmation methods                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | S.Values                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Adjust                   |
|---------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| 1. Head azimuth adjustment                  | Test tape:<br>SCC - 1659<br><br>MTT942SP(10kHz)            | <p>★ In case the head and its height have been changed, it will be necessary to adjust the height of the head.</p> <p>1. Adjustment of the height of head</p> <p>1) When the mirror tape SCC - 1659(2-line tape) is travelling in the FWD direction, adjust the screws A and B so that the line A is located the center of the shield plate between the head channels.</p> <p>2) When the mirror tape SCC - 1659(2-line tape) is travelling in the REV direction, adjust the screws C and D so that the line B is located the center of the shield plate between the head channels.</p> <p>2. Head azimuth</p> <p>1) Adjust the screw B so that the output level becomes maximum (L-R difference level to be within 2 dB) and the phase difference becomes minimum (less than <math>90^\circ</math>) when MTT942SP is travelling in the FWD direction.</p> <p>2) Adjust the screw C so that the output level become maximum (L-R difference level to be within 2-dB) and the phase difference become minimum (less than <math>90^\circ</math>) when MTT942SP is travelling in the REV direction.</p> <p>3) By repeating the above adjustment steps 1) and 2), make sure that the output level and phase difference are as specified respectively.</p> <p>4) There is no need to perform bonding after adjustment.</p> |  <p>A Line</p> <p>Head shield</p> <p>The head is at low position during FWD.</p>  <p>B Line</p> <p>Head shield</p> <p>The head is at high position during REV.</p> <p>Output level: Maximum</p>  <p>screw - D</p> <p>screw - C</p> <p>Output level: Maximum</p> <p>phase</p>  <p>(<math>0^\circ</math>)</p>  <p>(<math>90^\circ</math>)</p> |                          |
| 2. Tape speed and wow flutter confirmation  | Test tape: VTT712<br>(3kHz)                                | <p>1. Check to see if the reading of the F. counter/wow flutter meter is within 3015~3045 (FWD/REV), and less than 0.35% (JIS RMS).</p> <p>2. In case of out of specification, adjust the motor with a built-in volume resistor.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>Tape speed:<br/>3015<br/>~3045Hz</p> <p>Wow flutter: less than 0.35%</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Built-in volume resistor |
| 3. Playback frequency response confirmation | Test tape: VTT724<br>(1kHz)<br>VTT736<br>(125Hz/1kHz/8kHz) | <p>1. Play test tape VTT724, and set the volume position at 2 V</p> <p>2. Play test tape VTT736 and confirm</p> <p>1kHz/8kHz: <math>0 \pm 3\text{dB}</math>,<br/>1kHz/125Hz: <math>0 \pm 3\text{dB}</math>.</p> <p>3. When 8 kHz is out of specification, it will be necessary to read adjust the azimuth</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <p>Speaker out</p> <p>1kHz/125Hz<br/><math>: 0 \pm 3\text{dB}</math><br/>1kHz/8kHz<br/><math>: 0 \pm 3\text{dB}</math></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          |

| Item                                | Conditions                                                       | Adjustment and Confirmation methods                                                                                                                                                                                                                                                      | S.Values                                                                  | Adjust                 |
|-------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------|
| 4.Maximum output power confirmation | Test tape :VTT721<br>(1kHz)<br>volume:maximum<br>BASS/TRE:center | 1. Confirm the rear and front output be more than 8.3V((17W). (4-speaker connected.)<br>2. Confirm that consumption current at above condition to be less than 5A.<br>4. Sound leakage should not occur at volume minimum.<br>5. Oscillation should not occur at BASS/TRE at maximum.    | Output level:more than 17W(8.3V)<br><br>Consumption current :less than 5A |                        |
| 5. Line out level adj.              | Test tape:VTT721<br>(1kHz)<br>Test point : line out              | 1.Confirm the line out level to be within 350~700mV                                                                                                                                                                                                                                      | Line out level<br>350~700mV                                               |                        |
| 6. DOLBY NR level adj.              | Test tape :VTT724<br>test point :<br>Lch TP111<br>Rch TP211      | 1.Playback the test tape VTT724,Adjust VR111/VR211 so that the output level at terminal TP111/TP211 is 318mV.<br>2. Playback the non-signal recorded portion and turn on and off the DOLBY NR switch repeatedly while making sure that level difference at TP111 or TP211 is 8.5dB more. | 318mV $\pm$ 2mV                                                           | Lch:VR111<br>Rch:VR211 |

### ■ Tuner section adjustment

(Each condition of input level is shown by EMF value(open load value) of SSG under using dummy antenna.)

| Item                          | Conditions                                                            | Adjustment and Confirmation methods                                                                                                                                                                                            | S.Values                                                                                                                                                                                                   | Adjust |
|-------------------------------|-----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|
| 1.Radio/Tape level difference | AM 1000 kHz, 1kHz,<br>30% modulation,<br>74dB $\mu$                   | Against VTT724, the output difference level to be within - 7 to $\pm$ 3 dB                                                                                                                                                     | within - 7 to $\pm$ 3 dB                                                                                                                                                                                   |        |
| 2.FM 0V adjustment            | Test point: TP1 ,TP2<br>FM 97.9MHz, 66 dB<br>non modulation           | Adjust L2 so that the TP1,TP2 DC voltage level become 0 V when 97.9 MHz is indicated.                                                                                                                                          | 0 $\pm$ 10mV<br><br>TP1 <br>TP2  | L2     |
| 3.Separation adjustment       | TP:AFout<br>FM97.9MHz,66dB $\mu$<br>(1kHz,67.5kHz Dev.<br>7.5kHzDev.) | 1. With signal of 97.9MHz,66dB $\mu$ supplied from the signal generator to L or R channel.<br>2. Adjust VR1 to minimize leak of a channel's output to other channel .                                                          | minimum                                                                                                                                                                                                    | VR1    |
| 4.Bland adjustment            | TP:AFout<br>FM97.9MHz,66dB $\mu$<br>(1kHz,67.5kHz Dev.<br>7.5kHzDev.) | 1. With signal of 97.9MHz,66dB $\mu$ supplied from the signal generator to L or R channel.<br>2. Adjust VR2 so that speaker output level of the other channel becomes 20dB and signal levels of the two channels are balanced. | 20dB                                                                                                                                                                                                       | VR2    |

## 4 Block diagram

### ■ Integrated circuit

#### ◆ IC1 (LA1867M) FM IF

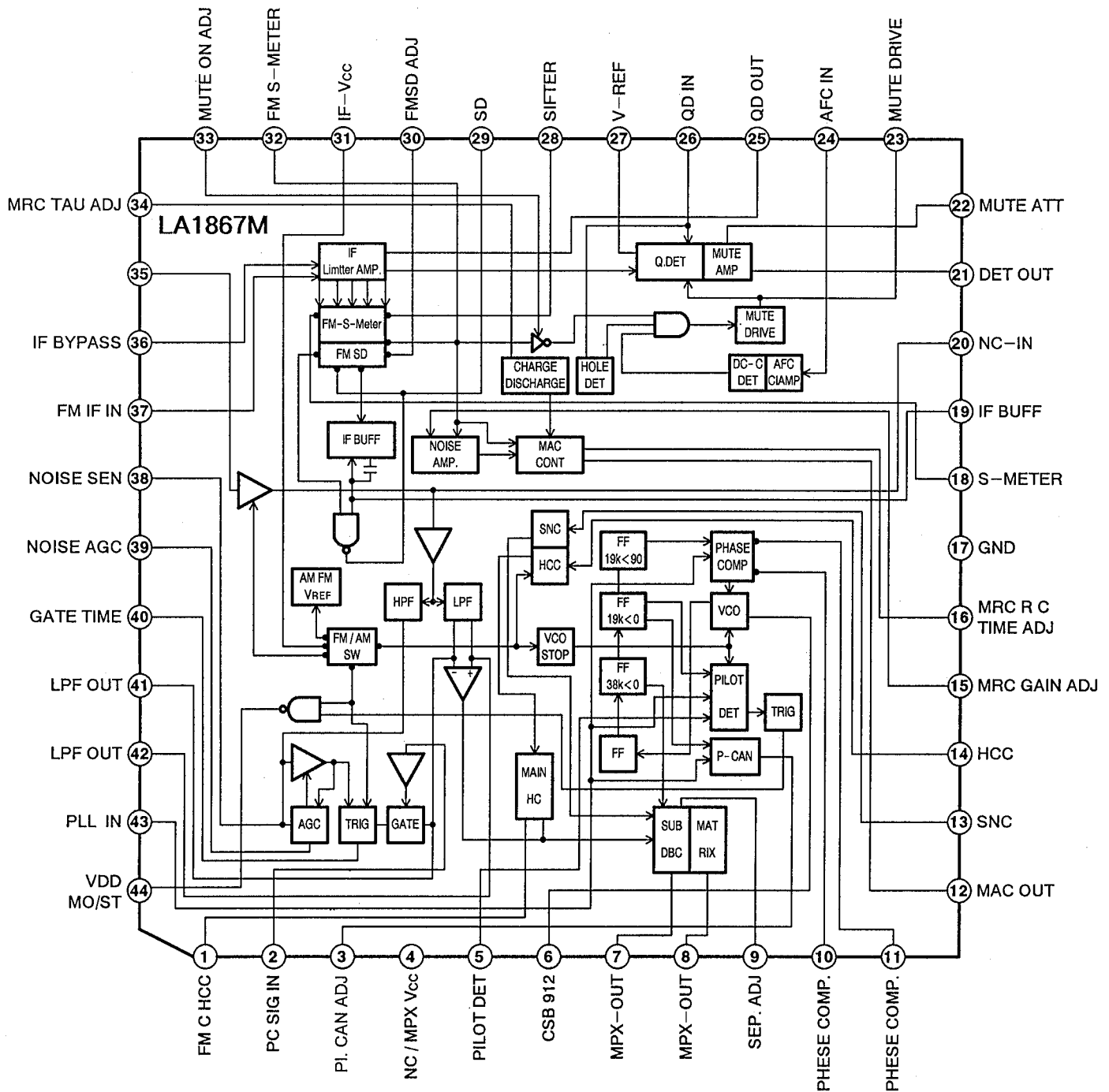


Fig. 4 - 1

◆ IC921 (TEA6320T) E . Volume

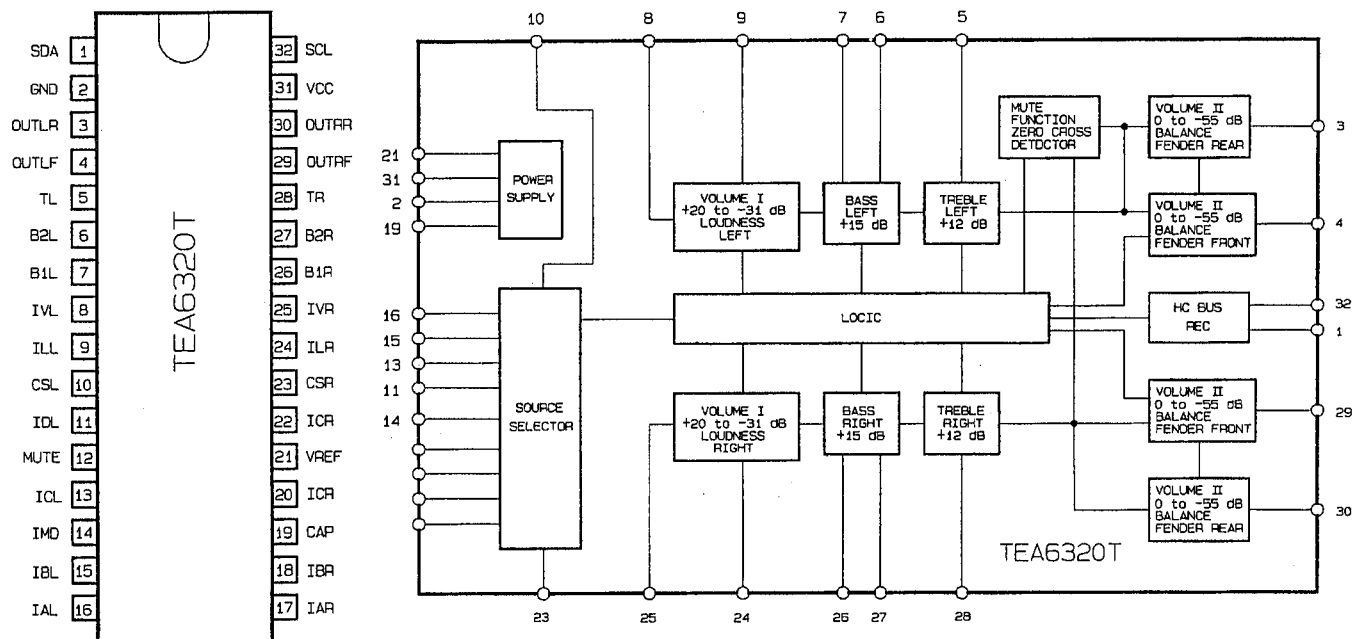


Fig. 4 – 2

◆ IC741 (UPD7758AGT) Voice cont.

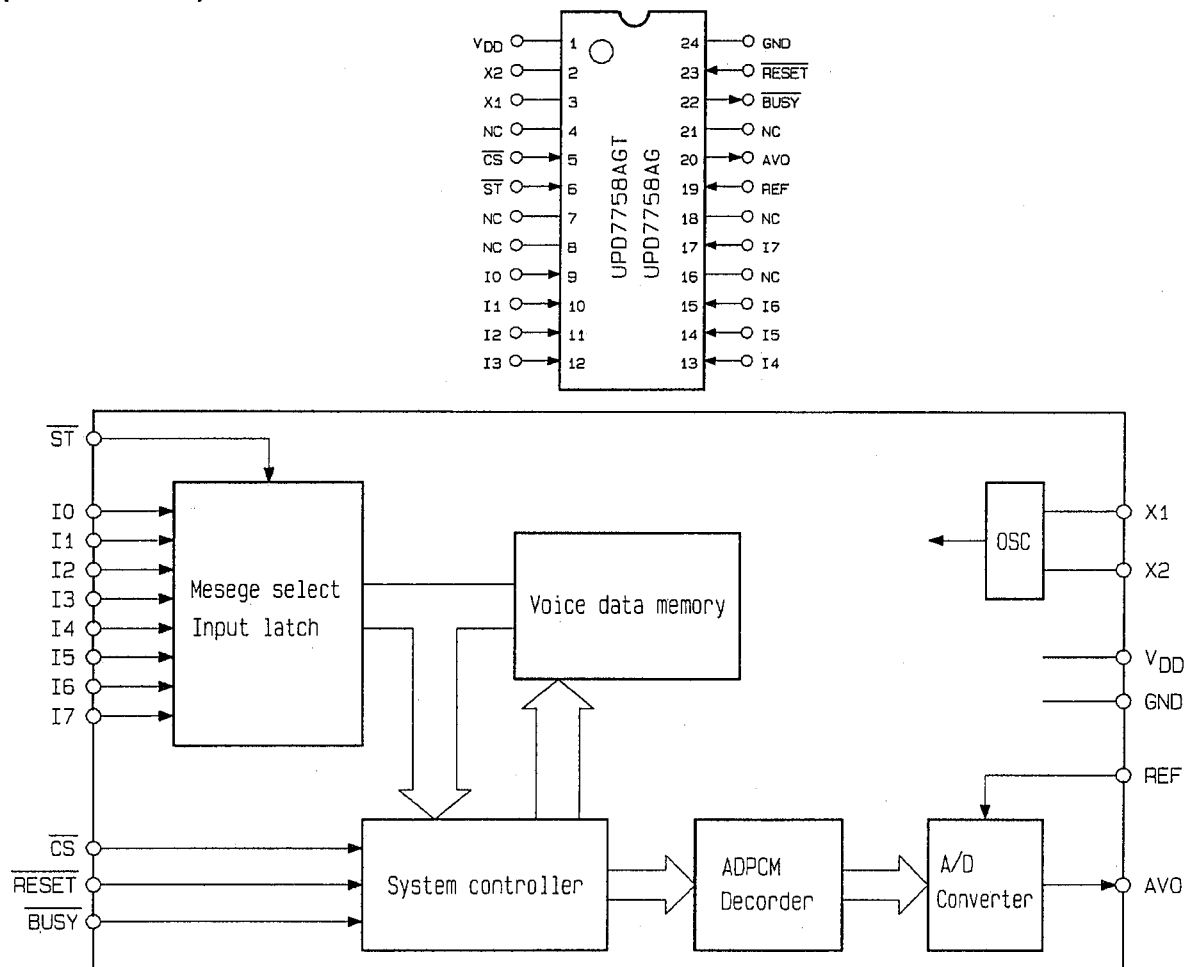


Fig. 4 – 3

## ◆ IC521 (LC7582E) LCD driver

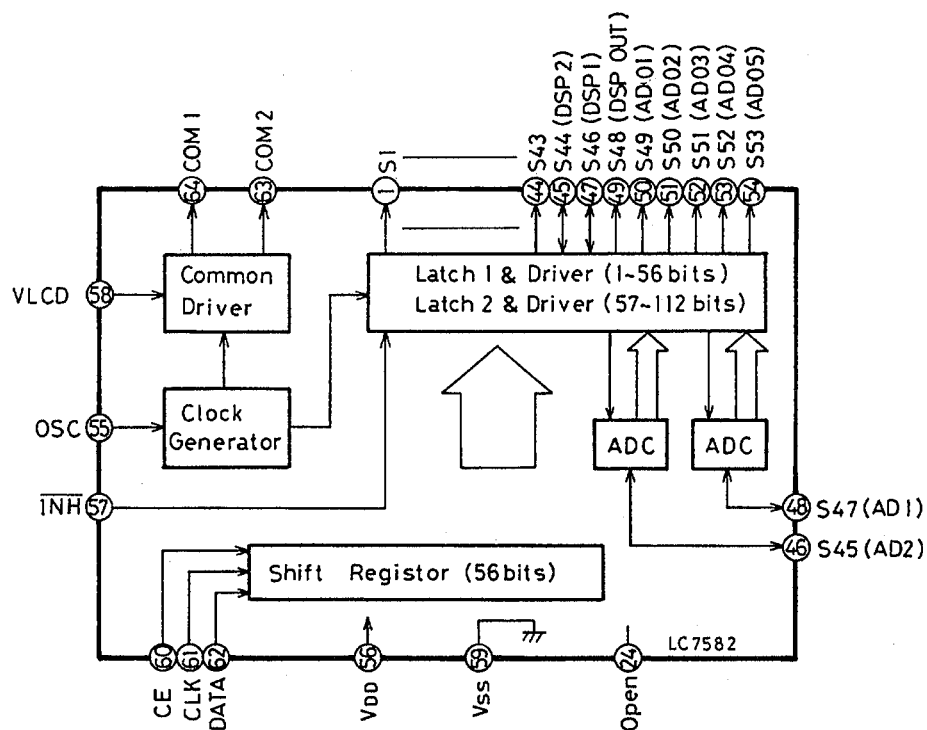
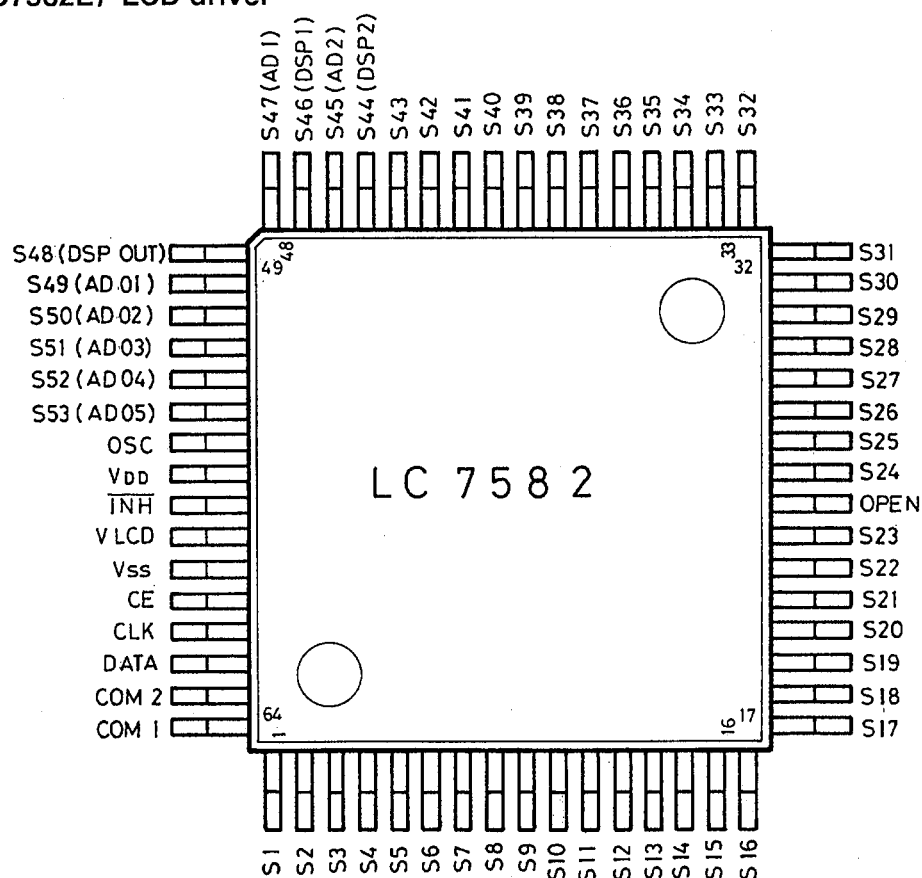


Fig. 4 - 4

## ◆ IC981 (HA13150A) Power amp.

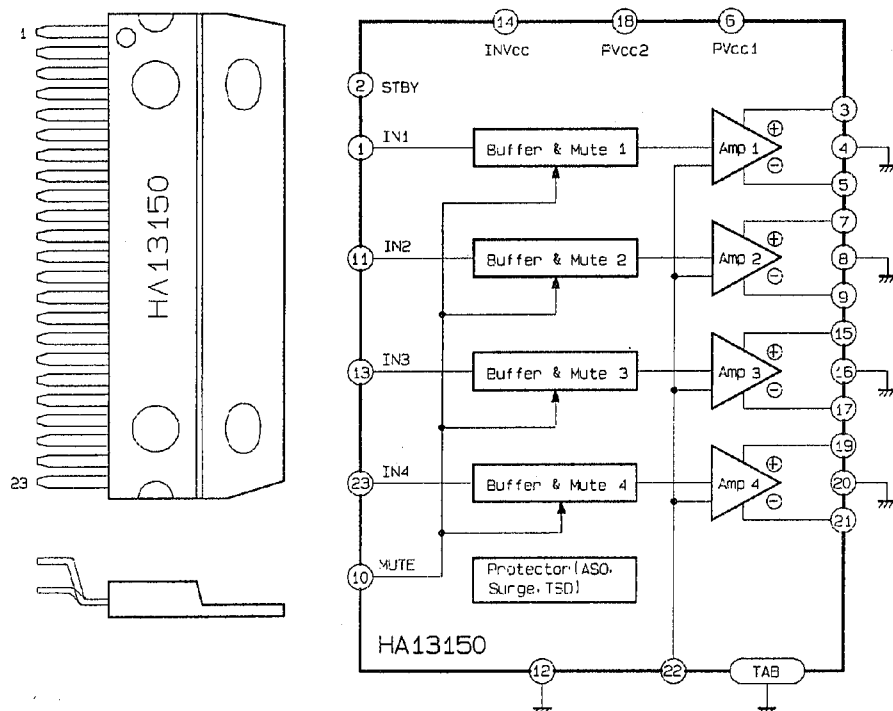


Fig. 4 - 5

## ◆ IC901 (UPC1228HA) Head amp.

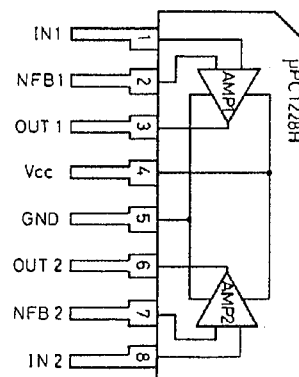


Fig. 4 - 6

## ◆ IC911 (HA12135AFT) DOLBY NR.

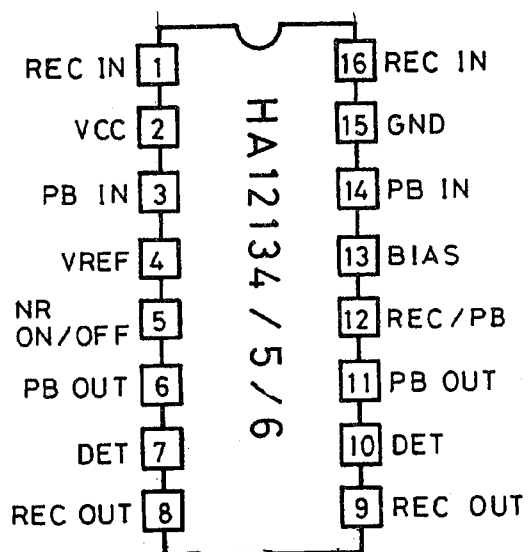


Fig. 4 - 7

## ◆ IC951 (LA2000S) MS

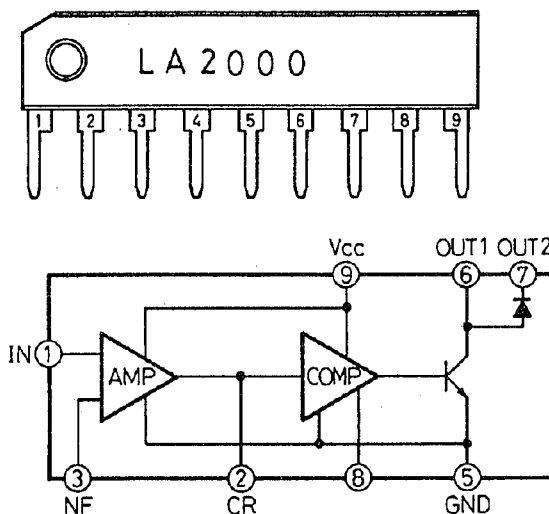


Fig. 4 - 8

## Signal diagram

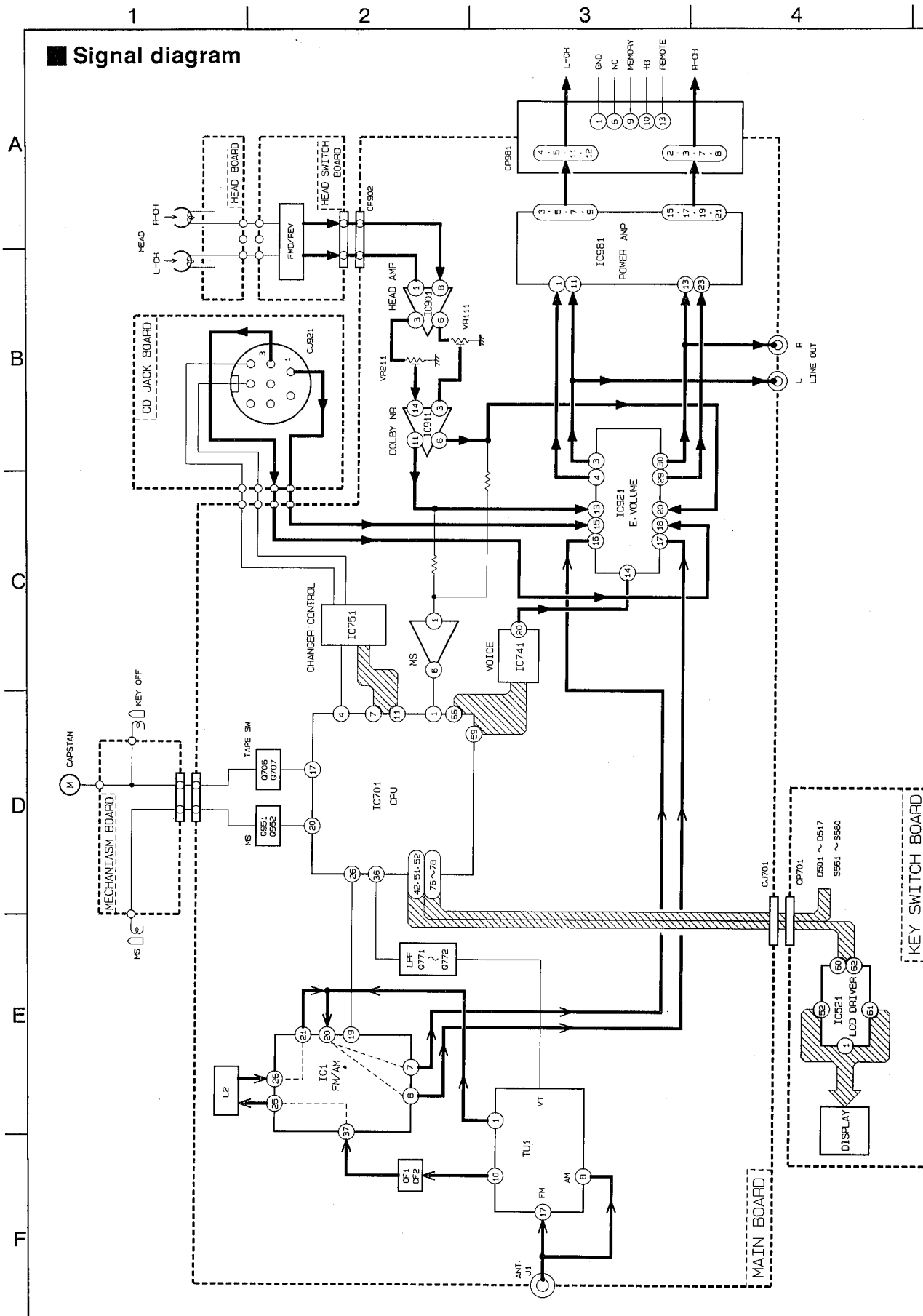


Fig. 4 - 9



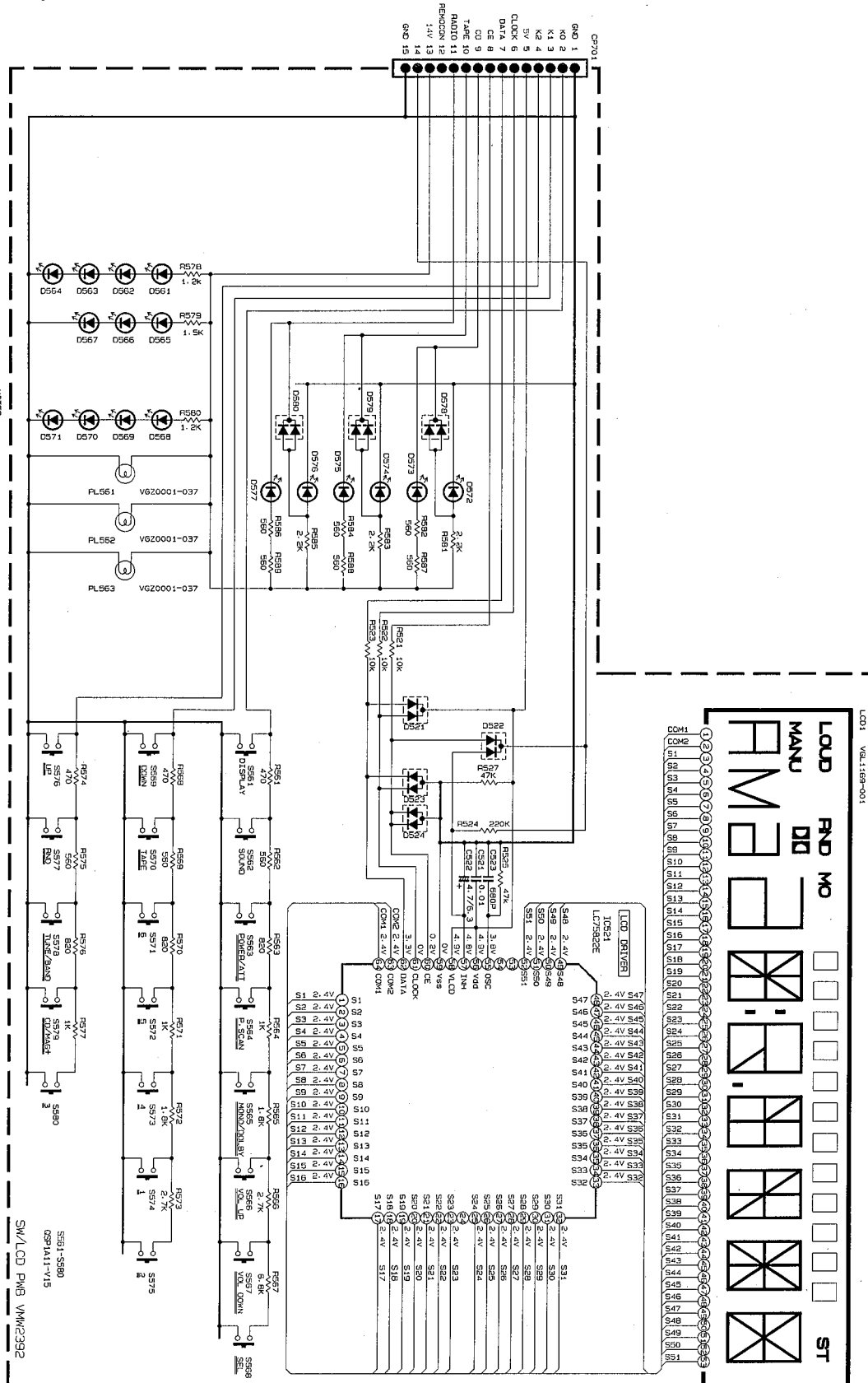
# 5 Standard schematic diagram

## Indicator/key switch circuit

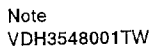
To F-9 on page 32

|              |                               |
|--------------|-------------------------------|
| SLR-3429MA49 | D561, 562, 563, 564, 565, 566 |
| 5K-010MT87   | D572, 574, 576                |
| 5K-010MT87   | D573, 575, 577                |
| HS6238C      | D581, 582, 578, 579, 580      |
| HS6238C      | D583, 584                     |

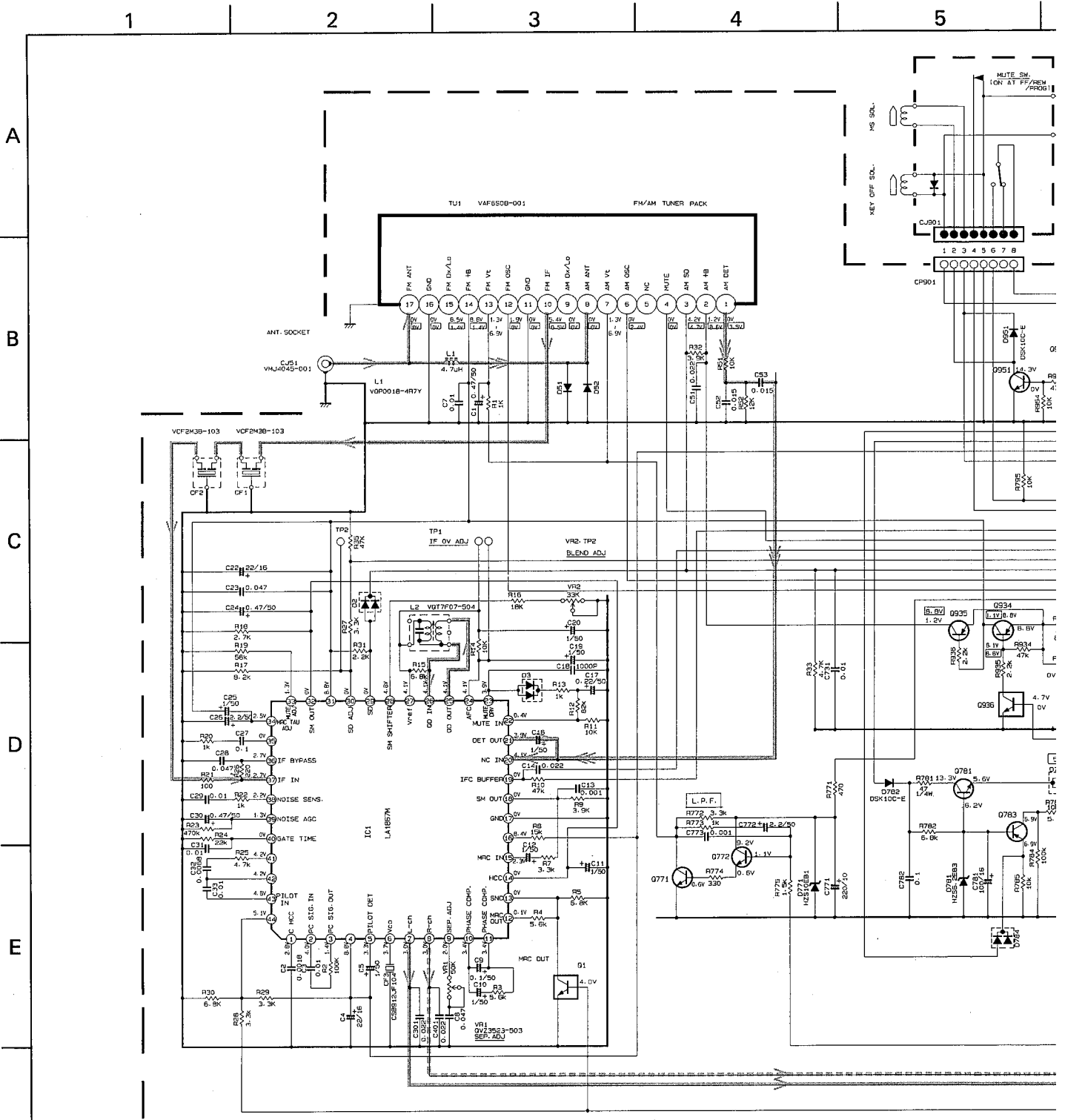
NOTES  
1. VOLTAGES ARE DC-HEADS/RED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL.  
CONDITION --- PM MODE  
2. UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS ARE 1/8W OR 1/10W 1% METAL GLAZE RESISTOR.  
ALL CAPACITORS ARE 50V OR 25V CERAMIC CAPACITOR.  
ALL CAPACITANCE VALUES ARE IN MICROFARADS.  
ALL CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE/RATED VOLTAGE (V).



## Fig. 5 - 2



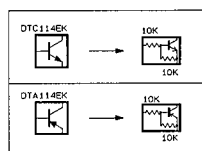
# System control circuit



## NOTES

1. VOLTAGES ARE DC-MEASURED WITH A DIGITAVOLT METER WITHOUT INPUT SIGNAL.  
CONDITION: — FM MODE □ AM MODE ( ) TAPE MODE ( ) CD MODE
2. UNLESS OTHERWISE SPECIFIED:  
ALL RESISTORS ARE 1/8W ±5% METAL GLAZE RESISTOR.  
ALL CAPACITORS ARE 50V CERAMIC CAPACITOR OR 50V MYLAR CAPACITOR.  
ALL RESISTANCE VALUES ARE IN OHM(S).  
ALL CAPACITANCE VALUES ARE IN PICO(F).  
ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE (μF)/NOMINAL VOLTAGE (V).  
ALL DIODES ARE 1SS137 OR HA1605  
(C) 50V ±5% MYLAR CAPACITOR OR 50V ±5% THIN FILM CAPACITOR

|                |                            |
|----------------|----------------------------|
| DTC114EK       | 01.701.702.703.706.786.936 |
| DTA114EK       | 0941.959                   |
| DTA144EK       | 0711                       |
| 25C2412K(R)    | 0771.772.784               |
| 25A1037K(R)    | 0782.783                   |
| 25B81587       | 0934.935                   |
| 25B13221(R)    | 0707                       |
| 25D105110(R)   | 0951                       |
| 25D15944(R, S) | 0781.931.935.933           |
| HSM2838C       | D2.3.723.724.784.941       |
| HSM2835C       | 0783                       |



Note  
VDH3548001CV

Fig. 5-3

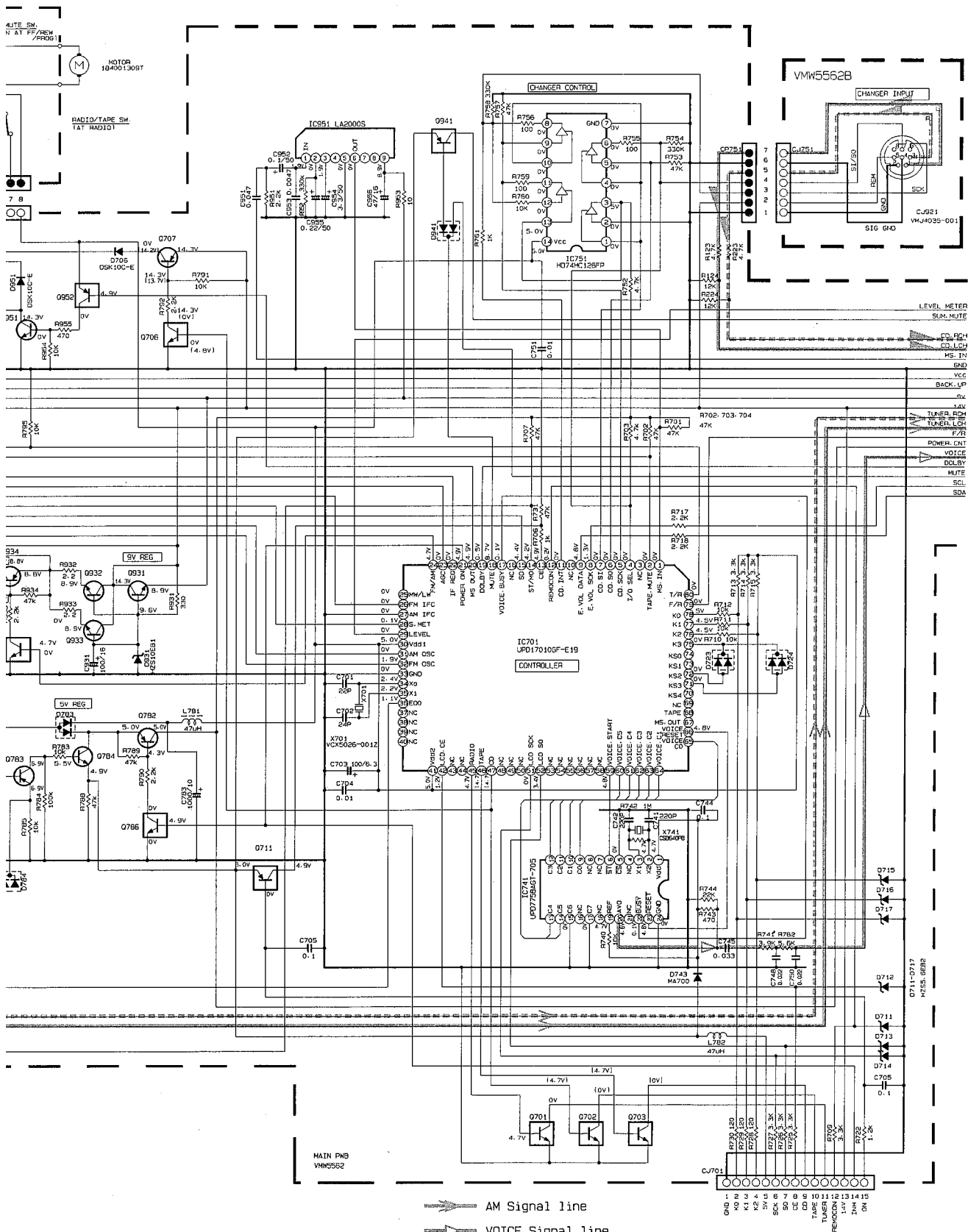
6

7

8

9

10



- AM Signal line
- VOICE Signal line
- FM and Radio signal line
- CD Signal line

To A-3  
on page 31  
Fig. 5-1

# Amplifier circuit

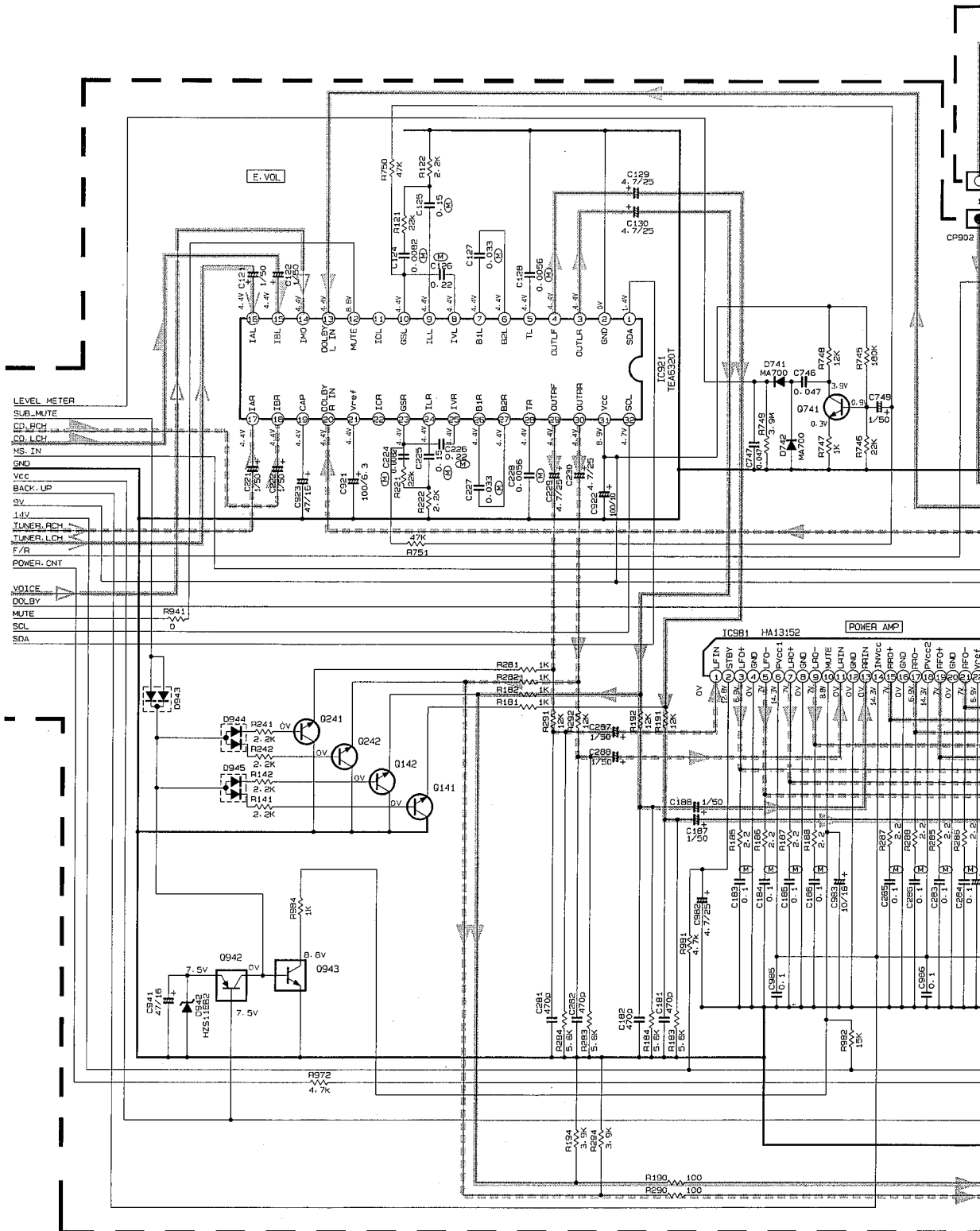
11

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14

15



## NOTES

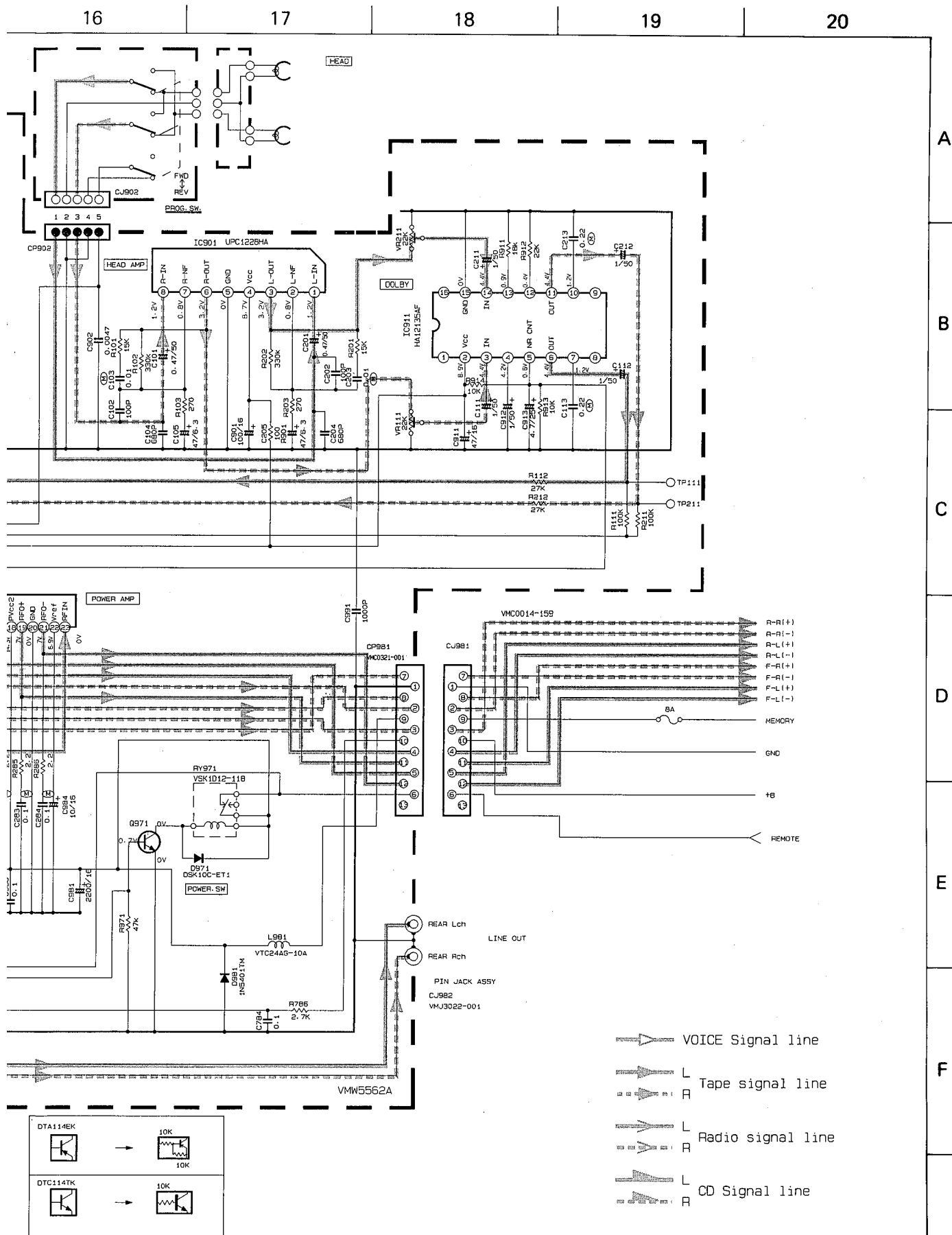
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL. CONDITION - - - FM MODE. I I TAPE MODE
2. UNLESS OTHERWISE SPECIFIED. ALL RESISTORS ARE 1/8W 5% CARBON RESISTOR. ALL CAPACITORS ARE 50V CERAMIC CAPACITOR. ALL RESISTANCE VALUES ARE IN OHM(Ω). ALL CAPACITANCE VALUES ARE IN nF(N=P=F). ALL E. CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(V) / RATED VOLTAGE(VI). ALL DIODES ARE 1SS133T

Ⓢ - - - MYLAR CAPACITOR

|             |                     |
|-------------|---------------------|
| DTA114EK    | Q942                |
| DTC114TK    | Q943                |
| 2SC2412K(R) | Q971                |
| 2SD1048X-6  | Q141, 142, 241, 242 |
| 2SC162316   | Q741, Q742          |
| HSM2638C    | Q943                |
| HSY2636C    | Q944, Q945          |

Note  
VDH3548001AV

Fig. 5-4



## ■ Main board



(No. 49260) 34

6

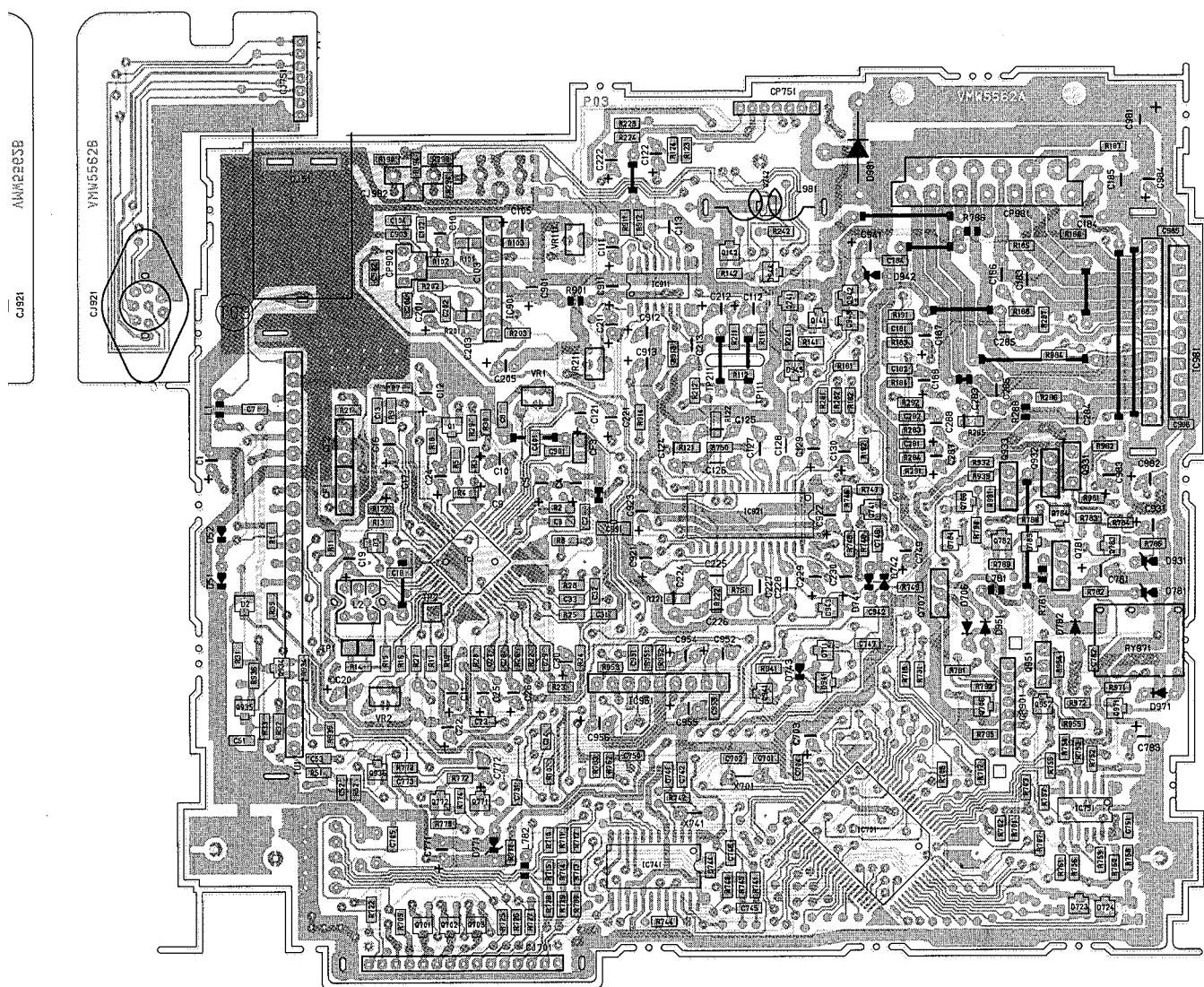
7

8

9

10

◆ Bottom side



Parts side

Fig. 6-2



● Main board parts list

BLOCK NO. 01

| REF.  | PARTS NO.      | PARTS NAME     | REMARKS         | SUFFIX |
|-------|----------------|----------------|-----------------|--------|
| C 186 | QFV41HJ-1042M  | FILM CAPACITOR | .10MF 5% 50V    |        |
| C 187 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V   |        |
| C 188 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V   |        |
| C 201 | QER41HM-474ZM  | E.CAPACITOR    | .47MF 20% 50V   |        |
| C 202 | NCS21HJ-101AY  | C CAPACITOR    | 100PF 5% 50V    |        |
| C 203 | QFV71HJ-103    | FILM CAPACITOR | .010MF 5% 50V   |        |
| C 204 | NCB21HK-681AY  | C CAPACITOR    | 680PF 10% 50V   |        |
| C 205 | QERF1HM-476ZN  | E.CAPACITOR    | 47MF 20% 6.3V   |        |
| C 211 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V   |        |
| C 212 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V   |        |
| C 213 | QFV41HJ-224    | FILM CAPACITOR | .22MF 5% 50V    |        |
| C 221 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V   |        |
| C 222 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V   |        |
| C 224 | QFLA1HJ-822ZM  | M.CAPACITOR    | 8200PF 5% 50V   |        |
| C 225 | QFV11HJ-154AZM | FILM CAPACITOR | .15MF 5% 50V    |        |
| C 226 | QFV41HJ-224    | FILM CAPACITOR | .22MF 5% 50V    |        |
| C 227 | QFV41HJ-333    | FILM CAPACITOR | .033MF 5% 50V   |        |
| C 228 | QFLA1HJ-562ZM  | M.CAPACITOR    | 5600PF 5% 50V   |        |
| C 229 | QER41EM-475VM  | E.CAPACITOR    | 4.7MF 20% 25V   |        |
| C 230 | QER41EM-475VM  | E.CAPACITOR    | 4.7MF 20% 25V   |        |
| C 281 | NCS21HJ-471AY  | C CAPACITOR    | 470PF 5% 50V    |        |
| C 282 | NCS21HJ-471AY  | C CAPACITOR    | 470PF 5% 50V    |        |
| C 283 | QFV41HJ-1042M  | FILM CAPACITOR | .10MF 5% 50V    |        |
| C 284 | QFV41HJ-1042M  | FILM CAPACITOR | .10MF 5% 50V    |        |
| C 285 | QFV41HJ-1042M  | FILM CAPACITOR | .10MF 5% 50V    |        |
| C 286 | QFV41HJ-1042M  | FILM CAPACITOR | .10MF 5% 50V    |        |
| C 287 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V   |        |
| C 288 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V   |        |
| C 301 | NCB21HK-223AY  | C CAPACITOR    | .022MF 10% 25V  |        |
| C 401 | NCB21HK-223AY  | C CAPACITOR    | .022MF 10% 25V  |        |
| C 701 | NCT21CH-220AY  | C CAPACITOR    | 22PF +50:-10% 1 |        |
| C 702 | NCT21CH-240    | C CAPACITOR    | 24PF +50:-10% 1 |        |
| C 703 | QER40JM-107    | E.CAPACITOR    | 100MF 20% 6.3V  |        |
| C 704 | NCB21HK-103AY  | C CAPACITOR    | .010MF 10% 50V  |        |
| C 705 | NCB21HK-104    | C CAPACITOR    | .10MF 10% 25V   |        |
| C 731 | NCB21HK-103AY  | C CAPACITOR    | .010MF 10% 50V  |        |
| C 741 | NCT21CH-221AY  | C CAPACITOR    | 220PF +50:-10%  |        |
| C 742 | NCT21CH-221AY  | C CAPACITOR    | 220PF +50:-10%  |        |
| C 744 | NCF21HJ-104AY  | C CAPACITOR    | .10MF +80:-20%  |        |
| C 745 | NCB21HK-333AY  | C CAPACITOR    | .033MF 10% 25V  |        |
| C 746 | NCB21HK-473AY  | C CAPACITOR    | .047MF 10% 25V  |        |
| C 748 | NCB21HK-473AY  | C CAPACITOR    | .047MF 10% 25V  |        |
| C 749 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V   |        |
| C 750 | NCB21HK-223AY  | C CAPACITOR    | .022MF 10% 25V  |        |
| C 751 | NCB21HK-103AY  | C CAPACITOR    | .010MF 10% 50V  |        |
| C 771 | QERF1HM-227ZM  | E.CAPACITOR    | 220MF 20% 10V   |        |
| C 772 | QER41HM-225    | E.CAPACITOR    | 2.2MF 20% 50V   |        |
| C 773 | NCB21HK-102AY  | C CAPACITOR    | 1000PF 10% 50V  |        |
| C 781 | QERF1CM-107ZM  | E.CAPACITOR    | 100MF 20% 16V   |        |
| C 782 | NCB21HK-104    | C CAPACITOR    | .10MF 10% 25V   |        |
| C 783 | QET41AM-108    | E.CAPACITOR    | 1000MF 20% 10V  |        |
| C 784 | NCF21HJ-104AY  | C CAPACITOR    | .10MF +80:-20%  |        |
| C 901 | QERF1CM-107ZM  | E.CAPACITOR    | 100MF 20% 16V   |        |
| C 902 | NCB21HK-472AY  | C CAPACITOR    | 4700PF 10% 50V  |        |

BLOCK NO. 02

| REF.  | PARTS NO.      | PARTS NAME     | REMARKS        | SUFFIX |
|-------|----------------|----------------|----------------|--------|
| C 1   | QERF1HM-474ZM  | E.CAPACITOR    | .47MF 20% 50V  |        |
| C 2   | NCB21HK-182AY  | C CAPACITOR    | 1800PF 10% 50V |        |
| C 3   | NCB21HK-103AY  | C CAPACITOR    | .010MF 10% 50V |        |
| C 4   | QER41CM-226VM  | E.CAPACITOR    | 22MF 20% 16V   |        |
| C 5   | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V  |        |
| C 7   | NCB21HK-103AY  | C CAPACITOR    | .010MF 10% 50V |        |
| C 8   | NCB21HK-473AY  | C CAPACITOR    | .047MF 10% 25V |        |
| C 9   | QERF1HM-104ZN  | E.CAPACITOR    | .10MF 20% 50V  |        |
| C 10  | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V  |        |
| C 11  | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V  |        |
| C 12  | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V  |        |
| C 13  | NCB21HK-102AY  | C CAPACITOR    | 1000PF 10% 50V |        |
| C 14  | NCB21HK-223AY  | C CAPACITOR    | .022MF 10% 25V |        |
| C 16  | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V  |        |
| C 17  | QERF1HM-224ZN  | E.CAPACITOR    | .22MF 20% 50V  |        |
| C 18  | NCB21HK-102AY  | C CAPACITOR    | 1000PF 10% 50V |        |
| C 19  | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V  |        |
| C 20  | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V  |        |
| C 22  | QER41CM-226VM  | E.CAPACITOR    | 22MF 20% 16V   |        |
| C 23  | NCB21HK-473AY  | C CAPACITOR    | .047MF 10% 25V |        |
| C 24  | QERF1HM-474ZM  | E.CAPACITOR    | .47MF 20% 50V  |        |
| C 25  | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V  |        |
| C 26  | QER41HM-225    | E.CAPACITOR    | 2.2MF 20% 50V  |        |
| C 27  | NCB21HK-104    | C CAPACITOR    | .10MF 10% 25V  |        |
| C 28  | NCB21HK-473AY  | C CAPACITOR    | .047MF 10% 25V |        |
| C 29  | NCB21HK-103AY  | C CAPACITOR    | .010MF 10% 25V |        |
| C 30  | QERF1HM-474ZM  | E.CAPACITOR    | .47MF 20% 50V  |        |
| C 31  | NCB21HK-103AY  | C CAPACITOR    | .010MF 10% 25V |        |
| C 32  | NCB21HK-682AY  | C CAPACITOR    | 6800PF 10% 50V |        |
| C 33  | NCB21HK-103AY  | C CAPACITOR    | .010MF 10% 25V |        |
| C 51  | NCB21HK-223AY  | C CAPACITOR    | .022MF 10% 50V |        |
| C 52  | NCB21HK-153AY  | C CAPACITOR    | .015MF 10% 50V |        |
| C 53  | NCB21HK-153AY  | C CAPACITOR    | .015MF 10% 50V |        |
| C 101 | QERF1HM-474ZM  | E.CAPACITOR    | .47MF 20% 50V  |        |
| C 102 | NCS21HJ-101AY  | C CAPACITOR    | 100PF 5% 50V   |        |
| C 103 | QFV71HJ-103    | FILM CAPACITOR | .010MF 5% 50V  |        |
| C 104 | NCB21HK-681AY  | C CAPACITOR    | 680PF 10% 50V  |        |
| C 105 | QERF1HM-476ZN  | E.CAPACITOR    | 47MF 20% 6.3V  |        |
| C 111 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V  |        |
| C 112 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V  |        |
| C 113 | QFV41HJ-224    | FILM CAPACITOR | .22MF 5% 50V   |        |
| C 121 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V  |        |
| C 122 | QER41HM-105VM  | E.CAPACITOR    | 1.0MF 20% 50V  |        |
| C 124 | QFLA1HJ-822ZM  | M.CAPACITOR    | 8200PF 5% 50V  |        |
| C 125 | QFV11HJ-154AZM | FILM CAPACITOR | .15MF 5% 50V   |        |
| C 127 | QFV41HJ-333    | FILM CAPACITOR | .033MF 5% 50V  |        |
| C 128 | QFLA1HJ-562ZM  | M.CAPACITOR    | 5600PF 5% 50V  |        |
| C 129 | QER41EM-475VM  | E.CAPACITOR    | 4.7MF 20% 25V  |        |
| C 130 | QER41EM-475VM  | E.CAPACITOR    | 4.7MF 20% 25V  |        |
| C 181 | NCS21HJ-471AY  | C CAPACITOR    | 470PF 5% 50V   |        |
| C 182 | NCS21HJ-471AY  | C CAPACITOR    | 470PF 5% 50V   |        |
| C 183 | QFV41HJ-1042M  | FILM CAPACITOR | .10MF 5% 50V   |        |
| C 184 | QFV41HJ-1042M  | FILM CAPACITOR | .10MF 5% 50V   |        |
| C 185 | QFV41HJ-1042M  | FILM CAPACITOR | .10MF 5% 50V   |        |

● Main board parts list

BLOCK NO. 01

| A  | REF. | PARTS NO.       | PARTS NAME  | PARTS NO. | PARTS NAME | REMARKS              | SUFFIX |
|----|------|-----------------|-------------|-----------|------------|----------------------|--------|
| D  | 951  | DSK10C-E        | DIODE       |           |            |                      |        |
| D  | 971  | DSK10C-E        | DIODE       |           |            |                      |        |
| D  | 981  | 1N5401M         | SI DIODE    |           |            |                      |        |
| IC | 1    | LA1867M         | IC          |           |            | FM/IF IF AMP.<br>CPU |        |
| IC | 701  | UPD17010GF-E19  | IC          |           |            |                      |        |
| IC | 741  | UPD7758AGT-705  | IC          |           |            | VOICE                |        |
| IC | 751  | HD74HC126FP     | IC          |           |            | CANGER J BUS         |        |
| IC | 901  | UPC1228HA       | IC          |           |            | HEAD AMP.            |        |
| IC | 911  | HA12135AFT      | IC          |           |            | DOLBY NR             |        |
| IC | 921  | TEA6320T        | IC          |           |            | E VOLUME             |        |
| IC | 951  | LA2000S         | IC          |           |            | MS                   |        |
| IC | 981  | HA13152         | IC          |           |            | POWER AMP.           |        |
| L  | 1    | VQP0018-4R7     | INDUCTOR    |           |            |                      |        |
| L  | 2    | VQ17F28-501     | IFT         |           |            |                      |        |
| L  | 781  | VQP0018-470     | INDUCTOR    |           |            |                      |        |
| L  | 782  | VQP0018-470     | INDUCTOR    |           |            |                      |        |
| L  | 981  | VC24AG-10A      | CHOKO COIL  |           |            |                      |        |
| Q  | 1    | DT1144EK        | TRANSISTOR  |           |            |                      |        |
| Q  | 141  | 2SD1048X7T-HL   | TRANSISTOR  |           |            |                      |        |
| Q  | 142  | 2SD1048X7T-HL   | TRANSISTOR  |           |            |                      |        |
| Q  | 241  | 2SD1048X7T-HL   | TRANSISTOR  |           |            |                      |        |
| Q  | 242  | 2SD1048X7T-HL   | TRANSISTOR  |           |            |                      |        |
| Q  | 701  | DT1144EK        | TRANSISTOR  |           |            | TUNER                |        |
| Q  | 702  | DT1144EK        | TRANSISTOR  |           |            | TAPE                 |        |
| Q  | 703  | DT1144EK        | TRANSISTOR  |           |            | CD                   |        |
| Q  | 706  | DT1144EK        | TRANSISTOR  |           |            |                      |        |
| Q  | 707  | 2SB1322(RS)     | TRANSISTOR  |           |            |                      |        |
| Q  | 711  | DT1144EK        | TRANSISTOR  |           |            |                      |        |
| Q  | 741  | 2SC1623(G)      | TRANSISTOR  |           |            |                      |        |
| Q  | 771  | 2SC2412KK1      | TRANSISTOR  |           |            |                      |        |
| Q  | 772  | 2SC2412KK1      | TRANSISTOR  |           |            |                      |        |
| Q  | 781  | 2SD1994A(R,S)TA | TRANSISTOR  |           |            |                      |        |
| Q  | 782  | 2SA1037K(R)     | TRANSISTOR  |           |            |                      |        |
| Q  | 783  | 2SA1037K(R)     | TRANSISTOR  |           |            |                      |        |
| Q  | 784  | 2SC2412KK1      | TRANSISTOR  |           |            |                      |        |
| Q  | 786  | DT1144EK        | TRANSISTOR  |           |            |                      |        |
| Q  | 931  | 2SD1994A(R,S)TA | TRANSISTOR  |           |            |                      |        |
| Q  | 932  | 2SD1994A(R,S)TA | TRANSISTOR  |           |            |                      |        |
| Q  | 933  | 2SD1994A(R,S)TA | TRANSISTOR  |           |            |                      |        |
| Q  | 934  | 2SB815B7-T-HL   | TRANSISTOR  |           |            |                      |        |
| Q  | 935  | 2SB815B7-T-HL   | TRANSISTOR  |           |            |                      |        |
| Q  | 936  | DT1144EK        | TRANSISTOR  |           |            |                      |        |
| Q  | 941  | DT1144EK        | TRANSISTOR  |           |            |                      |        |
| Q  | 942  | DT1144EK        | TRANSISTOR  |           |            |                      |        |
| Q  | 943  | DT1144TK146     | TRANSISTOR  |           |            |                      |        |
| Q  | 951  | 2SD1051         | TRANSISTOR  |           |            |                      |        |
| Q  | 952  | DT1144EK        | TRANSISTOR  |           |            |                      |        |
| Q  | 971  | 2SC2412KK1      | TRANSISTOR  |           |            |                      |        |
| R  | 1    | NRSA02J-102NY   | MG RESISTOR |           |            | 1.0K 5% 1/10W        |        |
| R  | 2    | NRSA02J-104NY   | MG RESISTOR |           |            | 100K 5% 1/10W        |        |
| R  | 3    | NRSA02J-562NY   | MG RESISTOR |           |            | 5.6K 5% 1/10W        |        |
| R  | 4    | NRSA02J-562NY   | MG RESISTOR |           |            | 5.6K 5% 1/10W        |        |
| R  | 5    | NRSA02J-682NY   | MG RESISTOR |           |            | 6.8K 5% 1/10W        |        |
| R  | 7    | NRSA02J-332NY   | MG RESISTOR |           |            | 3.3K 5% 1/10W        |        |
| R  | 8    | NRSA02J-153NY   | MG RESISTOR |           |            | 15K 5% 1/10W         |        |

BLOCK NO. 01

| A  | REF. | PARTS NO.      | PARTS NAME     | REMARKS        | SUFFIX |
|----|------|----------------|----------------|----------------|--------|
| C  | 903  | NCB21HK-472AY  | C CAPACITOR    | 4700PF 10% 50V |        |
| C  | 911  | QER41CM-476M   | E CAPACITOR    | 47MF 20% 16V   |        |
| C  | 912  | QER41HM-105VM  | E CAPACITOR    | 1.0MF 20% 50V  |        |
| C  | 913  | QER41EM-475VM  | E CAPACITOR    | 4.7MF 20% 25V  |        |
| C  | 921  | QER40JM-107    | E CAPACITOR    | 100MF 20% 6.3V |        |
| C  | 922  | QER41AM-107    | E CAPACITOR    | 100MF 20% 10V  |        |
| C  | 923  | QER41CM-476M   | E CAPACITOR    | 47MF 20% 16V   |        |
| C  | 931  | QERF1CM-107ZM  | E CAPACITOR    | 100MF 20% 16V  |        |
| C  | 941  | QER41CM-476M   | E CAPACITOR    | 47MF 20% 16V   |        |
| C  | 951  | NCB21HK-473AY  | C CAPACITOR    | .047MF 10% 25V |        |
| C  | 952  | QERF1HM-104ZN  | E CAPACITOR    | .10MF 20% 50V  |        |
| C  | 953  | NCB21HK-472AY  | C CAPACITOR    | 4700PF 10% 50V |        |
| C  | 954  | QERF1HM-224ZN  | E CAPACITOR    | .22MF 20% 50V  |        |
| C  | 955  | QERF1HM-335ZN  | E CAPACITOR    | 3.3MF 20% 50V  |        |
| C  | 956  | QER41CM-476M   | E CAPACITOR    | 47MF 20% 16V   |        |
| C  | 981  | QETA1CM-228L20 | E CAPACITOR    | 2200MF 20% 16V |        |
| C  | 982  | QER41EM-475VM  | E CAPACITOR    | 4.7MF 20% 25V  |        |
| C  | 983  | QER41CM-106    | E CAPACITOR    | 10MF 20% 16V   |        |
| C  | 984  | QER41CM-106    | E CAPACITOR    | 10MF 20% 16V   |        |
| C  | 985  | NCB21HK-104    | C CAPACITOR    | .10MF 10% 25V  |        |
| C  | 986  | NCB21HK-104    | C CAPACITOR    | .10MF 10% 25V  |        |
| C  | 991  | NCS11HJ-102AY  | C CAPA. C.M    | 1000PF 5% 50V  |        |
| CF | 1    | VCF2M3B-103    | CERAMIC FILTER |                |        |
| CF | 2    | VCF2M3B-103    | CERAMIC FILTER |                |        |
| CF | 3    | CSB912JF104    | CERA ROCK      |                |        |
| CJ | 51   | VNJ4045-001    | ANT-SOCKET     |                |        |
| CJ | 701  | VNC0319-001    | CONNECTOR      |                |        |
| CJ | 751  | VNC0136-007    | CONNECTOR      |                |        |
| CJ | 921  | VNJ4035-001    | MINI DIN JACK  |                |        |
| CJ | 982  | VNJ3022-001    | PIN JACK       |                |        |
| CP | 751  | VNC0135-007    | CONNECTOR      |                |        |
| CP | 901  | ENV5159-1008   | CONNECTOR      |                |        |
| CP | 902  | VNC0234-P05    | CONNECTOR      |                |        |
| CP | 981  | VNC0321-001    | 13PIN CONN     |                |        |
| D  | 2    | HSM2838C       | DIODE          |                |        |
| D  | 3    | HSM2838C       | DIODE          |                |        |
| D  | 51   | MA165          | SI DIODE       |                |        |
| D  | 52   | MA165          | SI DIODE       |                |        |
| D  | 706  | DSK10C-E       | DIODE          |                |        |
| D  | 723  | HSM2838C       | DIODE          |                |        |
| D  | 724  | HSM2838C       | DIODE          |                |        |
| D  | 741  | MA700          | ZENER DIODE    |                |        |
| D  | 742  | MA700          | ZENER DIODE    |                |        |
| D  | 743  | MA700          | ZENER DIODE    |                |        |
| D  | 771  | HZS10EB1       | ZENER DIODE    |                |        |
| D  | 781  | HZS6.2EB3      | ZENER DIODE    |                |        |
| D  | 782  | DSK10C-E       | DIODE          |                |        |
| D  | 783  | HSM2836C       | DIODE          |                |        |
| D  | 784  | HSM2836C       | DIODE          |                |        |
| D  | 931  | HZS10EB1       | ZENER DIODE    |                |        |
| D  | 941  | HSM2838C       | DIODE          |                |        |
| D  | 942  | HZS11EB2       | ZENER DIODE    |                |        |
| D  | 943  | HSM2838C       | DIODE          |                |        |
| D  | 944  | HSM2836C       | DIODE          |                |        |
| D  | 945  | HSM2836C       | DIODE          |                |        |

BLOCK NO. 01

| A REF. | PARTS NO.      | PARTS NAME  | REMARKS       | SUFFIX |
|--------|----------------|-------------|---------------|--------|
| R 9    | NRSA02J-392NY  | MG RESISTOR | 3.9K 5% 1/10W |        |
| R 10   | NRSA02J-473NY  | MG RESISTOR | 4.7K 5% 1/10W |        |
| R 11   | NRSA02J-103NY  | MG RESISTOR | 10K 5% 1/10W  |        |
| R 12   | NRSA02J-823NY  | MG RESISTOR | 82K 5% 1/10W  |        |
| R 13   | NRSA02J-102NY  | MG RESISTOR | 1.0K 5% 1/10W |        |
| R 14   | NRSA02J-103NY  | MG RESISTOR | 10K 5% 1/10W  |        |
| R 15   | NRSA02J-682NY  | MG RESISTOR | 6.8K 5% 1/10W |        |
| R 16   | NRSA02J-183NY  | MG RESISTOR | 18K 5% 1/10W  |        |
| R 17   | NRSA02J-123NY  | MG RESISTOR | 12K 5% 1/10W  |        |
| R 18   | NRSA02J-272NY  | MG RESISTOR | 2.7K 5% 1/10W |        |
| R 19   | NRSA02J-563NY  | MG RESISTOR | 56K 5% 1/10W  |        |
| R 20   | NRSA02J-102NY  | MG RESISTOR | 1.0K 5% 1/10W |        |
| R 21   | NRSA02J-101NY  | MG RESISTOR | 100 5% 1/10W  |        |
| R 22   | NRSA02J-102NY  | MG RESISTOR | 1.0K 5% 1/10W |        |
| R 23   | NRSA02J-474NY  | MG RESISTOR | 470K 5% 1/10W |        |
| R 24   | NRSA02J-223NY  | MG RESISTOR | 22K 5% 1/10W  |        |
| R 25   | NRSA02J-472NY  | MG RESISTOR | 4.7K 5% 1/10W |        |
| R 26   | NRSA02J-221NY  | MG RESISTOR | 220 5% 1/10W  |        |
| R 27   | NRSA02J-332NY  | MG RESISTOR | 3.3K 5% 1/10W |        |
| R 28   | NRSA02J-332NY  | MG RESISTOR | 3.3K 5% 1/10W |        |
| R 29   | NRSA02J-332NY  | MG RESISTOR | 3.3K 5% 1/10W |        |
| R 30   | NRSA02J-682NY  | MG RESISTOR | 6.8K 5% 1/10W |        |
| R 31   | NRSA02J-222NY  | MG RESISTOR | 2.2K 5% 1/10W |        |
| R 32   | NRSA02J-392NY  | MG RESISTOR | 3.9K 5% 1/10W |        |
| R 33   | NRSA02J-472NY  | MG RESISTOR | 4.7K 5% 1/10W |        |
| R 35   | NRSA02J-473NY  | MG RESISTOR | 4.7K 5% 1/10W |        |
| R 51   | NRSA02J-103NY  | MG RESISTOR | 10K 5% 1/10W  |        |
| R 52   | NRSA02J-123NY  | MG RESISTOR | 12K 5% 1/10W  |        |
| R 101  | NRSA02J-153NY  | MG RESISTOR | 15K 5% 1/10W  |        |
| R 102  | NRSA02J-334NY  | MG RESISTOR | 330K 5% 1/10W |        |
| R 103  | NRSA02J-271NY  | MG RESISTOR | 270 5% 1/10W  |        |
| R 111  | NRSA02J-104NY  | MG RESISTOR | 100K 5% 1/10W |        |
| R 112  | NRSA02J-273NY  | MG RESISTOR | 27K 5% 1/10W  |        |
| R 121  | NRSA02J-223NY  | MG RESISTOR | 22K 5% 1/10W  |        |
| R 122  | NRSA02J-222NY  | MG RESISTOR | 2.2K 5% 1/10W |        |
| R 123  | NRSA02J-472NY  | MG RESISTOR | 4.7K 5% 1/10W |        |
| R 124  | NRSA02J-123NY  | MG RESISTOR | 12K 5% 1/10W  |        |
| R 141  | NRSA02J-222NY  | MG RESISTOR | 2.2K 5% 1/10W |        |
| R 142  | NRSA02J-222NY  | MG RESISTOR | 2.2K 5% 1/10W |        |
| R 181  | NRSA02J-102NY  | MG RESISTOR | 1.0K 5% 1/10W |        |
| R 182  | NRSA02J-102NY  | MG RESISTOR | 1.0K 5% 1/10W |        |
| R 183  | NRSA02J-562NY  | MG RESISTOR | 5.6K 5% 1/10W |        |
| R 184  | NRSA02J-562NY  | MG RESISTOR | 5.6K 5% 1/10W |        |
| R 185  | NRSA02J-2R2NYM | MG RESISTOR | 2.2 5% 1/10W  |        |
| R 186  | NRSA02J-2R2NYM | MG RESISTOR | 2.2 5% 1/10W  |        |
| R 187  | NRSA02J-2R2NYM | MG RESISTOR | 2.2 5% 1/10W  |        |
| R 188  | NRSA02J-2R2NYM | MG RESISTOR | 2.2 5% 1/10W  |        |
| R 190  | NRSA02J-101NY  | MG RESISTOR | 100 5% 1/10W  |        |
| R 191  | NRSA02J-123NY  | MG RESISTOR | 12K 5% 1/10W  |        |
| R 192  | NRSA02J-123NY  | MG RESISTOR | 12K 5% 1/10W  |        |
| R 194  | NRSA02J-392NY  | MG RESISTOR | 3.9K 5% 1/10W |        |
| R 201  | NRSA02J-153NY  | MG RESISTOR | 15K 5% 1/10W  |        |
| R 202  | NRSA02J-334NY  | MG RESISTOR | 330K 5% 1/10W |        |
| R 203  | NRSA02J-271NY  | MG RESISTOR | 270 5% 1/10W  |        |
| R 211  | NRSA02J-104NY  | MG RESISTOR | 100K 5% 1/10W |        |

BLOCK NO. 01

| A REF. | PARTS NO.      | PARTS NAME      | REMARKS       | SUFFIX |
|--------|----------------|-----------------|---------------|--------|
| R 212  | NRSA02J-273NY  | MG RESISTOR     | 27K 5% 1/10W  |        |
| R 221  | NRSA02J-223NY  | MG RESISTOR     | 22K 5% 1/10W  |        |
| R 222  | NRSA02J-222NY  | MG RESISTOR     | 2.2K 5% 1/10W |        |
| R 223  | NRSA02J-472NY  | MG RESISTOR     | 4.7K 5% 1/10W |        |
| R 224  | NRSA02J-123NY  | MG RESISTOR     | 12K 5% 1/10W  |        |
| R 241  | NRSA02J-222NY  | MG RESISTOR     | 2.2K 5% 1/10W |        |
| R 242  | NRSA02J-222NY  | MG RESISTOR     | 2.2K 5% 1/10W |        |
| R 281  | NRSA02J-102NY  | MG RESISTOR     | 1.0K 5% 1/10W |        |
| R 282  | NRSA02J-102NY  | MG RESISTOR     | 1.0K 5% 1/10W |        |
| R 283  | NRSA02J-562NY  | MG RESISTOR     | 5.6K 5% 1/10W |        |
| R 284  | NRSA02J-562NY  | MG RESISTOR     | 5.6K 5% 1/10W |        |
| R 285  | NRSA02J-2R2NYM | MG RESISTOR     | 2.2 5% 1/10W  |        |
| R 286  | NRSA02J-2R2NYM | MG RESISTOR     | 2.2 5% 1/10W  |        |
| R 287  | NRSA02J-2R2NYM | MG RESISTOR     | 2.2 5% 1/10W  |        |
| R 288  | QRD161J-2R2    | CARBON RESISTOR | 2.2 5% 1/6W   |        |
| R 290  | NRSA02J-103NY  | MG RESISTOR     | 100 5% 1/10W  |        |
| R 291  | NRSA02J-123NY  | MG RESISTOR     | 12K 5% 1/10W  |        |
| R 292  | NRSA02J-123NY  | MG RESISTOR     | 12K 5% 1/10W  |        |
| R 294  | NRSA02J-392NY  | MG RESISTOR     | 3.9K 5% 1/10W |        |
| R 701  | NRSA02J-473NY  | MG RESISTOR     | 47K 5% 1/10W  |        |
| R 702  | NRSA02J-473NY  | MG RESISTOR     | 47K 5% 1/10W  |        |
| R 703  | NRSA02J-472NY  | MG RESISTOR     | 4.7K 5% 1/10W |        |
| R 706  | NRSA02J-102NY  | MG RESISTOR     | 1.0K 5% 1/10W |        |
| R 707  | NRSA02J-473NY  | MG RESISTOR     | 47K 5% 1/10W  |        |
| R 709  | NRSA02J-332NY  | MG RESISTOR     | 3.3K 5% 1/10W |        |
| R 710  | NRSA02J-103NY  | MG RESISTOR     | 10K 5% 1/10W  |        |
| R 711  | NRSA02J-103NY  | MG RESISTOR     | 10K 5% 1/10W  |        |
| R 712  | NRSA02J-103NY  | MG RESISTOR     | 10K 5% 1/10W  |        |
| R 713  | NRSA02J-332NY  | MG RESISTOR     | 3.3K 5% 1/10W |        |
| R 714  | NRSA02J-332NY  | MG RESISTOR     | 3.3K 5% 1/10W |        |
| R 715  | NRSA02J-332NY  | MG RESISTOR     | 3.3K 5% 1/10W |        |
| R 717  | NRSA02J-222NY  | MG RESISTOR     | 2.2K 5% 1/10W |        |
| R 718  | NRSA02J-222NY  | MG RESISTOR     | 2.2K 5% 1/10W |        |
| R 722  | NRSA02J-122NY  | MG RESISTOR     | 1.2K 5% 1/10W |        |
| R 725  | NRSA02J-332NY  | MG RESISTOR     | 3.3K 5% 1/10W |        |
| R 726  | NRSA02J-332NY  | MG RESISTOR     | 3.3K 5% 1/10W |        |
| R 727  | NRSA02J-332NY  | MG RESISTOR     | 3.3K 5% 1/10W |        |
| R 728  | NRSA02J-121NY  | MG RESISTOR     | 120 5% 1/10W  |        |
| R 729  | NRSA02J-121NY  | MG RESISTOR     | 120 5% 1/10W  |        |
| R 730  | NRSA02J-121NY  | MG RESISTOR     | 120 5% 1/10W  |        |
| R 731  | NRSA02J-473NY  | MG RESISTOR     | 47K 5% 1/10W  |        |
| R 740  | NRSA02J-103NY  | MG RESISTOR     | 10K 5% 1/10W  |        |
| R 741  | NRSA02J-392NY  | MG RESISTOR     | 3.9K 5% 1/10W |        |
| R 742  | NRSA02J-105NY  | MG RESISTOR     | 1.0M 5% 1/10W |        |
| R 743  | NRSA02J-471NY  | MG RESISTOR     | 470 5% 1/10W  |        |
| R 744  | NRSA02J-223NY  | MG RESISTOR     | 22K 5% 1/10W  |        |
| R 745  | NRSA02J-184NY  | MG RESISTOR     | 180K 5% 1/10W |        |
| R 746  | NRSA02J-223NY  | MG RESISTOR     | 22K 5% 1/10W  |        |
| R 747  | NRSA02J-102NY  | MG RESISTOR     | 1.0K 5% 1/10W |        |
| R 748  | NRSA02J-123NY  | MG RESISTOR     | 12K 5% 1/10W  |        |
| R 749  | NRSA02J-395NY  | MG RESISTOR     | 3.9M 5% 1/10W |        |
| R 750  | NRSA02J-473NY  | MG RESISTOR     | 47K 5% 1/10W  |        |
| R 751  | NRSA02J-473NY  | MG RESISTOR     | 47K 5% 1/10W  |        |
| R 752  | NRSA02J-472NY  | MG RESISTOR     | 4.7K 5% 1/10W |        |
| R 753  | NRSA02J-473NY  | MG RESISTOR     | 47K 5% 1/10W  |        |

[illegible]BLOCK NO. 01

| A     | REF.           | PARTS NO.       | PARTS NAME    | REMARKS | SUFFIX |
|-------|----------------|-----------------|---------------|---------|--------|
| R 754 | NRSA02J-334NY  | MG RESISTOR     | 330K 5% 1/10W |         |        |
| R 755 | NRSA02J-101NY  | MG RESISTOR     | 100 5% 1/10W  |         |        |
| R 756 | NRSA02J-101NY  | MG RESISTOR     | 100 5% 1/10W  |         |        |
| R 757 | NRSA02J-473NY  | MG RESISTOR     | 47K 5% 1/10W  |         |        |
| R 758 | NRSA02J-334NY  | MG RESISTOR     | 330K 5% 1/10W |         |        |
| R 759 | NRSA02J-101NY  | MG RESISTOR     | 100 5% 1/10W  |         |        |
| R 760 | NRSA02J-103NY  | MG RESISTOR     | 10K 5% 1/10W  |         |        |
| R 761 | NRSA02J-102NY  | MG RESISTOR     | 1.0K 5% 1/10W |         |        |
| R 762 | NRSA02J-562NY  | MG RESISTOR     | 5.6K 5% 1/10W |         |        |
| R 763 | NRSA02J-OR0NY  | MG RESISTOR     | 5% 1/10W      |         |        |
| R 771 | NRSA02J-471NY  | MG RESISTOR     | 470 5% 1/10W  |         |        |
| R 772 | NRSA02J-332NY  | MG RESISTOR     | 3.3K 5% 1/10W |         |        |
| R 773 | NRSA02J-102NY  | MG RESISTOR     | 1.0K 5% 1/10W |         |        |
| R 774 | NRSA02J-331NY  | MG RESISTOR     | 330 5% 1/10W  |         |        |
| R 775 | NRSA02J-152NY  | MG RESISTOR     | 1.5K 5% 1/10W |         |        |
| R 781 | GRD145J-470S   | CARBON RESISTOR | 47 5% 1/4W    |         |        |
| R 782 | NRSA02J-682NY  | MG RESISTOR     | 6.8K 5% 1/10W |         |        |
| R 783 | NRSA02J-103NY  | MG RESISTOR     | 10K 5% 1/10W  |         |        |
| R 784 | NRSA02J-104NY  | MG RESISTOR     | 100K 5% 1/10W |         |        |
| R 785 | NRSA02J-103NY  | MG RESISTOR     | 10K 5% 1/10W  |         |        |
| R 786 | GRD161J-27Z    | CARBON RESISTOR | 2.7K 5% 1/6W  |         |        |
| R 788 | NRSA02J-473NY  | MG RESISTOR     | 47K 5% 1/10W  |         |        |
| R 789 | NRSA02J-473NY  | MG RESISTOR     | 47K 5% 1/10W  |         |        |
| R 790 | NRSA02J-222NY  | MG RESISTOR     | 2.2K 5% 1/10W |         |        |
| R 791 | NRSA02J-103NY  | MG RESISTOR     | 10K 5% 1/10W  |         |        |
| R 792 | NRSA02J-222NY  | MG RESISTOR     | 2.2K 5% 1/10W |         |        |
| R 795 | NRSA02J-103NY  | MG RESISTOR     | 10K 5% 1/10W  |         |        |
| R 901 | GRD161J-101    | CARBON RESISTOR | 100 5% 1/6W   |         |        |
| R 911 | NRSA02J-183NY  | MG RESISTOR     | 18K 5% 1/10W  |         |        |
| R 912 | NRSA02J-223NY  | MG RESISTOR     | 22K 5% 1/10W  |         |        |
| R 913 | NRSA02J-103NY  | MG RESISTOR     | 10K 5% 1/10W  |         |        |
| R 914 | NRSA02J-103NY  | MG RESISTOR     | 10K 5% 1/10W  |         |        |
| R 931 | NRSA02J-331NY  | MG RESISTOR     | 330 5% 1/10W  |         |        |
| R 932 | NRSA02J-2R2NYM | MG RESISTOR     | 2.2 5% 1/10W  |         |        |
| R 933 | NRSA02J-2R2NYM | MG RESISTOR     | 2.2 5% 1/10W  |         |        |
| R 934 | NRSA02J-473NY  | MG RESISTOR     | 47K 5% 1/10W  |         |        |
| R 935 | NRSA02J-222NY  | MG RESISTOR     | 2.2K 5% 1/10W |         |        |
| R 936 | NRSA02J-222NY  | MG RESISTOR     | 2.2K 5% 1/10W |         |        |
| R 941 | NRSA02J-OR0NY  | MG RESISTOR     | 5% 1/10W      |         |        |
| R 951 | NRSA02J-222NY  | MG RESISTOR     | 2.2K 5% 1/10W |         |        |
| R 952 | NRSA02J-334NY  | MG RESISTOR     | 330K 5% 1/10W |         |        |
| R 953 | NRSA02J-100NY  | MG RESISTOR     | 10 5% 1/10W   |         |        |
| R 954 | NRSA02J-103NY  | MG RESISTOR     | 10K 5% 1/10W  |         |        |
| R 955 | NRSA02J-471NY  | MG RESISTOR     | 470 5% 1/10W  |         |        |
| R 971 | NRSA02J-473NY  | MG RESISTOR     | 47K 5% 1/10W  |         |        |
| R 972 | NRSA02J-472NY  | MG RESISTOR     | 4.7K 5% 1/10W |         |        |
| R 981 | NRSA02J-472NY  | MG RESISTOR     | 4.7K 5% 1/10W |         |        |
| R 982 | NRSA02J-153NY  | MG RESISTOR     | 15K 5% 1/10W  |         |        |
| R 984 | NRSA02J-102NY  | MG RESISTOR     | 1.0K 5% 1/10W |         |        |
| RY971 | VSK1D12-121    | RELAY           |               |         |        |
| TU 1  | VAF6S08-001    | FM/AM TUNER PAC |               |         |        |
| VR 1  | QWPA601-503A   | V.-RESISTOR     | SEPALATION    |         |        |
| VR 2  | QVZ5523-333AZ  | BLEND           | BLEND         |         |        |
| VR111 | QVZ5523-223    | V.-RESISTOR     | DOLBY LEVEL 1 |         |        |
| VR211 | QVZ5523-223    | V.-RESISTOR     | DOLBY LEVEL 2 |         |        |



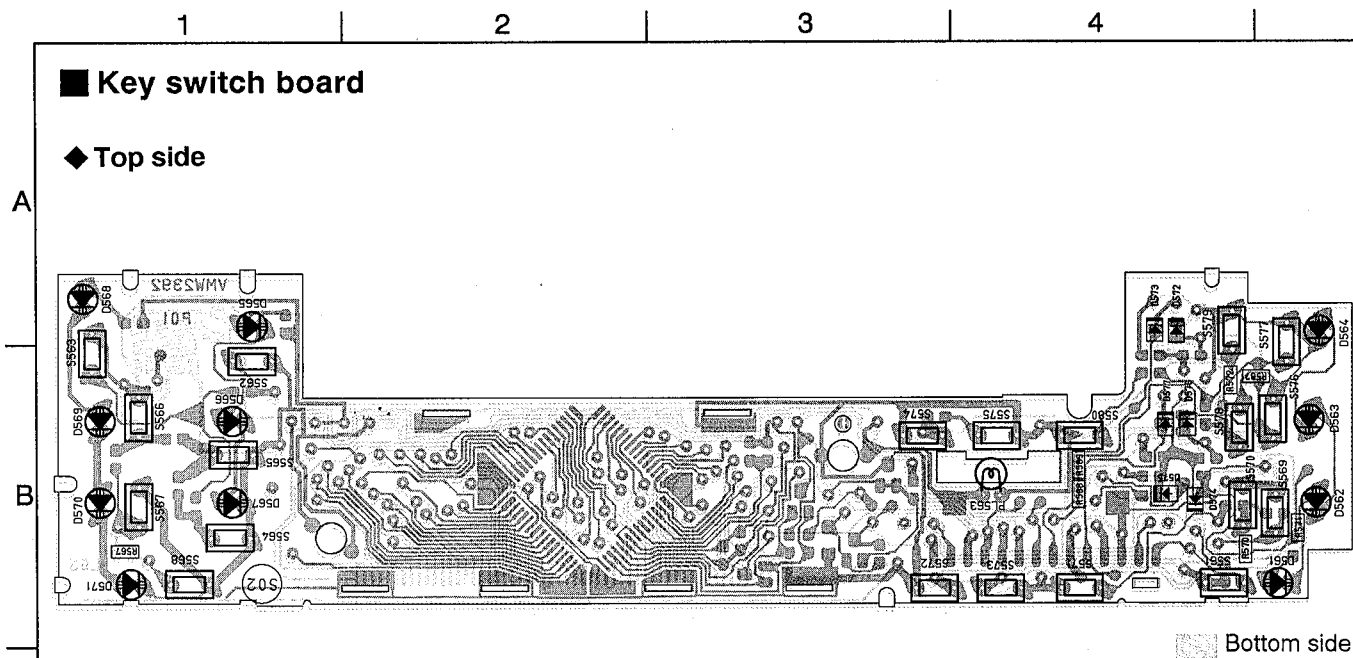


Fig. 6 - 3

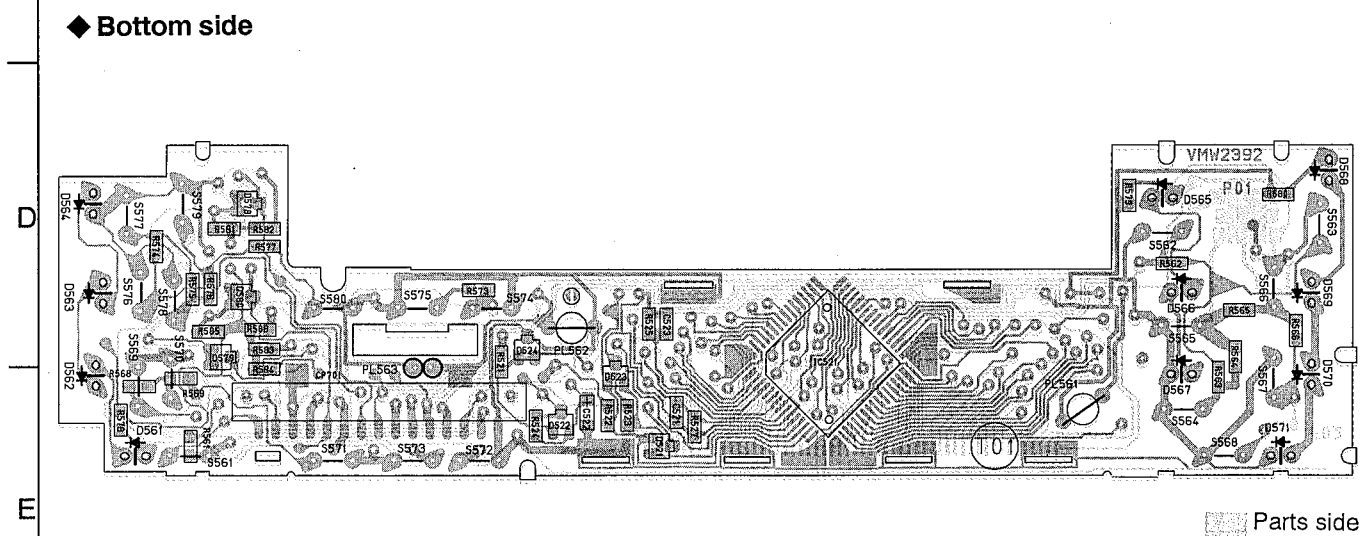


Fig. 6 - 4

● Key switch board parts list

● Key switch board parts list

| BLOCK NO. 02 |      |               |                |                |        | BLOCK NO. 02 |      |               |             |               |        |
|--------------|------|---------------|----------------|----------------|--------|--------------|------|---------------|-------------|---------------|--------|
| A            | REF. | PARTS NO.     | PARTS NAME     | REMARKS        | SUFFIX | A            | REF. | PARTS NO.     | PARTS NAME  | REMARKS       | SUFFIX |
| C            | 521  | NCB21HK-103AY | C CAPACITOR    | .010MF 10% 50V |        | R            | 575  | NRSA02J-561NY | MG RESISTOR | 560 5% 1/10W  |        |
| C            | 522  | NEF20JM-475RY | TS-E CAPACITOR | 4.7MF 20% 6.3V |        | R            | 576  | NRSA02J-821NY | MG RESISTOR | 820 5% 1/10W  |        |
| C            | 523  | NCB21HK-681AY | C CAPACITOR    | 680PF 10% 50V  |        | R            | 577  | NRSA02J-102NY | MG RESISTOR | 1.0K 5% 1/10W |        |
| CP           | 701  | VMC0320-001   | CONNECTOR      |                |        | R            | 578  | NRSA02J-122NY | MG RESISTOR | 1.2K 5% 1/10W |        |
| D            | 506  | SLR-342MWA49  | LED            |                |        | R            | 579  | NRSA02J-152NY | MG RESISTOR | 1.5K 5% 1/10W |        |
| D            | 507  | SLR-342MWA49  | LED            |                |        | R            | 580  | NRSA02J-122NY | MG RESISTOR | 1.2K 5% 1/10W |        |
| D            | 521  | HSM2838C      | DIODE          |                |        | R            | 581  | NRSA02J-222NY | MG RESISTOR | 2.2K 5% 1/10W |        |
| D            | 522  | HSM2838C      | DIODE          |                |        | R            | 582  | NRSA02J-561NY | MG RESISTOR | 560 5% 1/10W  |        |
| D            | 523  | HSM2836C      | DIODE          |                |        | R            | 583  | NRSA02J-222NY | MG RESISTOR | 2.2K 5% 1/10W |        |
| D            | 524  | HSM2836C      | DIODE          |                |        | R            | 584  | NRSA02J-561NY | MG RESISTOR | 560 5% 1/10W  |        |
| D            | 561  | SLR-342MWA49  | LED            |                |        | R            | 585  | NRSA02J-222NY | MG RESISTOR | 2.2K 5% 1/10W |        |
| D            | 562  | SLR-342MWA49  | LED            |                |        | R            | 586  | NRSA02J-561NY | MG RESISTOR | 560 5% 1/10W  |        |
| D            | 563  | SLR-342MWA49  | LED            |                |        | R            | 587  | NRSA02J-561NY | MG RESISTOR | 560 5% 1/10W  |        |
| D            | 564  | SLR-342MWA49  | LED            |                |        | R            | 588  | NRSA02J-561NY | MG RESISTOR | 560 5% 1/10W  |        |
| D            | 565  | SLR-342MWA49  | LED            |                |        | R            | 589  | NRSA02J-561NY | MG RESISTOR | 560 5% 1/10W  |        |
| D            | 566  | SLR-342MWA49  | LED            |                |        | S            | 561  | QSP1A11-V15   | TACT SWITCH | DISPLAY       |        |
| D            | 567  | SLR-342MWA49  | LED            |                |        | S            | 562  | QSP1A11-V15   | TACT SWITCH | SOUND         |        |
| D            | 568  | SLR-342MWA49  | LED            |                |        | S            | 563  | QSP1A11-V15   | TACT SWITCH | POWER/ATT     |        |
| D            | 569  | SLR-342MWA49  | LED            |                |        | S            | 564  | QSP1A11-V15   | TACT SWITCH | P-SCAN        |        |
| D            | 570  | SLR-342MWA49  | LED            |                |        | S            | 565  | QSP1A11-V15   | TACT SWITCH | MONO/DOLBY    |        |
| D            | 571  | SLR-342MWA49  | LED            |                |        | S            | 566  | QSP1A11-V15   | TACT SWITCH | VOLUME UP     |        |
| D            | 572  | SML-010MTT87  | LED            |                |        | S            | 567  | QSP1A11-V15   | TACT SWITCH | VOLUME DOWN   |        |
| D            | 573  | SML-010D1T87  | LED            |                |        | S            | 568  | QSP1A11-V15   | TACT SWITCH | SEL           |        |
| D            | 574  | SML-010MTT87  | LED            |                |        | S            | 569  | QSP1A11-V15   | TACT SWITCH | DOWN          |        |
| D            | 575  | SML-010D1T87  | LED            |                |        | S            | 570  | QSP1A11-V15   | TACT SWITCH | TAPE          |        |
| D            | 576  | SML-010MTT87  | LED            |                |        | S            | 571  | QSP1A11-V15   | TACT SWITCH | PRESET 6      |        |
| D            | 577  | SML-010D1T87  | LED            |                |        | S            | 572  | QSP1A11-V15   | TACT SWITCH | PRESET 5      |        |
| D            | 578  | HSM2838C      | DIODE          |                |        | S            | 573  | QSP1A11-V15   | TACT SWITCH | PRESET 4      |        |
| D            | 579  | HSM2838C      | DIODE          |                |        | S            | 574  | QSP1A11-V15   | TACT SWITCH | PRESET 1      |        |
| D            | 580  | HSM2838C      | DIODE          |                |        | S            | 575  | QSP1A11-V15   | TACT SWITCH | PRESET 2      |        |
| IC           | 521  | LC75822E      | IC             | LCD DRIVER     |        | S            | 576  | QSP1A11-V15   | TACT SWITCH | UP            |        |
| LCD          | 1    | VGL1169-001   | LCD            |                |        | S            | 577  | QSP1A11-V15   | TACT SWITCH | RND           |        |
| PL           | 561  | VGZ0001-056   | LAMP           |                |        | S            | 578  | QSP1A11-V15   | TACT SWITCH | TUNER BAND    |        |
| PL           | 562  | VGZ0001-056   | LAMP           |                |        | S            | 579  | QSP1A11-V15   | TACT SWITCH | CD MAD+       |        |
| PL           | 563  | VGZ0001-055   | LAMP           |                |        | S            | 580  | QSP1A11-V15   | TACT SWITCH | PRESET 3      |        |
| R            | 521  | NRSA02J-103NY | MG RESISTOR    | 10K 5% 1/10W   |        |              |      |               |             |               |        |
| R            | 522  | NRSA02J-103NY | MG RESISTOR    | 10K 5% 1/10W   |        |              |      |               |             |               |        |
| R            | 523  | NRSA02J-103NY | MG RESISTOR    | 10K 5% 1/10W   |        |              |      |               |             |               |        |
| R            | 524  | NRSA02J-224NY | MG RESISTOR    | 220K 5% 1/10W  |        |              |      |               |             |               |        |
| R            | 525  | NRSA02J-473NY | MG RESISTOR    | 47K 5% 1/10W   |        |              |      |               |             |               |        |
| R            | 527  | NRSA02J-473NY | MG RESISTOR    | 47K 5% 1/10W   |        |              |      |               |             |               |        |
| R            | 561  | NRSA02J-471NY | MG RESISTOR    | 470 5% 1/10W   |        |              |      |               |             |               |        |
| R            | 562  | NRSA02J-561NY | MG RESISTOR    | 560 5% 1/10W   |        |              |      |               |             |               |        |
| R            | 563  | NRSA02J-821NY | MG RESISTOR    | 820 5% 1/10W   |        |              |      |               |             |               |        |
| R            | 564  | NRSA02J-102NY | MG RESISTOR    | 1.0K 5% 1/10W  |        |              |      |               |             |               |        |
| R            | 565  | NRSA02J-182NY | MG RESISTOR    | 1.8K 5% 1/10W  |        |              |      |               |             |               |        |
| R            | 566  | NRSA02J-272NY | MG RESISTOR    | 2.7K 5% 1/10W  |        |              |      |               |             |               |        |
| R            | 567  | NRSA02J-682NY | MG RESISTOR    | 6.8K 5% 1/10W  |        |              |      |               |             |               |        |
| R            | 568  | NRSA02J-471NY | MG RESISTOR    | 470 5% 1/10W   |        |              |      |               |             |               |        |
| R            | 569  | NRSA02J-561NY | MG RESISTOR    | 560 5% 1/10W   |        |              |      |               |             |               |        |
| R            | 570  | NRSA02J-821NY | MG RESISTOR    | 820 5% 1/10W   |        |              |      |               |             |               |        |
| R            | 571  | NRSA02J-102NY | MG RESISTOR    | 1.0K 5% 1/10W  |        |              |      |               |             |               |        |
| R            | 572  | NRSA02J-182NY | MG RESISTOR    | 1.8K 5% 1/10W  |        |              |      |               |             |               |        |
| R            | 573  | NRSA02J-272NY | MG RESISTOR    | 2.7K 5% 1/10W  |        |              |      |               |             |               |        |
| R            | 574  | NRSA02J-471NY | MG RESISTOR    | 470 5% 1/10W   |        |              |      |               |             |               |        |

# 7 Exploded view of enclosure component parts and parts list

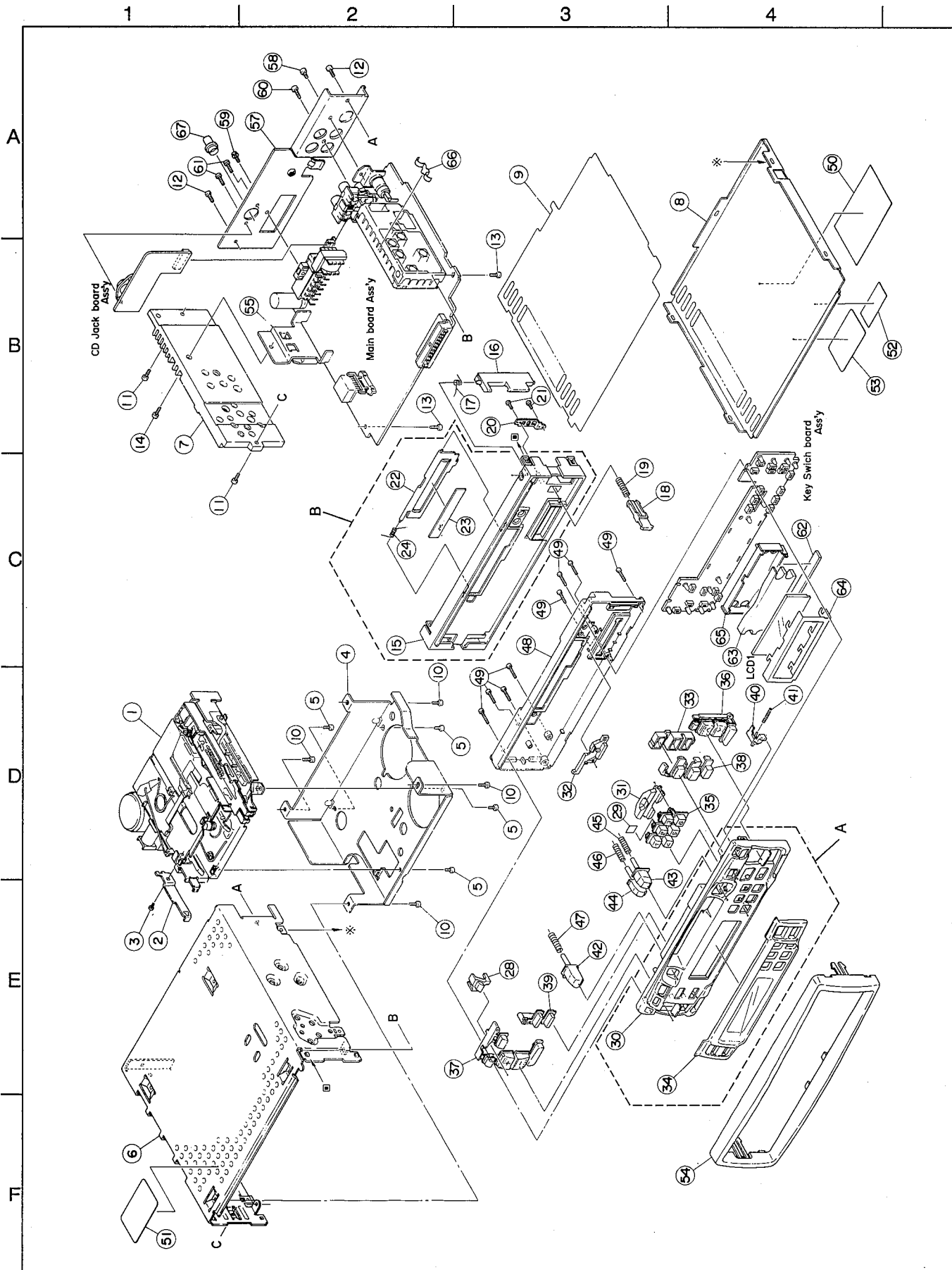


Fig. 7 - 1

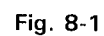
## ● Enclosure component parts list

BLOCK NO. M1MM 11

| △ | REF. | PARTS NO.      | PARTS NAME     | REMARKS         | QTY | SUFFIX | CLR |
|---|------|----------------|----------------|-----------------|-----|--------|-----|
|   | A    | ZCKSRT707J-NPA | FRONT PANEL    | NO.30,34        | 1   |        |     |
|   | B    | ZCKSRT808RK-FB | FRONT CHASSIS  | NO.15,NO.22-24  | 1   |        |     |
|   | 1    | -----          | RT606 MECHA    | 2CH HEAD MECHA  | 1   |        |     |
|   | 2    | VKL7226-003    | EJECT LEVER    |                 | 1   |        |     |
|   | 3    | SPSK2625Z      | MINI SCREW     | EJECT LEVER     | 1   |        |     |
|   | 4    | FSKM2002-001   | MECHA BKT      |                 | 1   |        |     |
|   | 5    | VKZ4333-002    | SPECIAL SCREW  | MECHA BRACKETCF | 4   |        |     |
|   | 6    | FSJC1014-001   | CHASSIS        |                 | 1   |        |     |
|   | 7    | FSKL3004-001   | SIDE PANEL     |                 | 1   |        |     |
|   | 8    | FSKM3004-001   | BOTTOM COVER   |                 | 1   |        |     |
|   | 9    | FSMA3001-001   | INSULATOR      |                 | 1   |        |     |
|   | 10   | SDST2604Z      | SCREW          | MECHANISM UNIT  | 4   |        |     |
|   | 11   | SDST2608Z      | SCREW          | SIDE PANEL      | 2   |        |     |
|   | 12   | SDST2606Z      | SCREW          | CHASSIS+REAR BK | 2   |        |     |
|   | 13   | SDST2606Z      | SCREW          | MAIN BOARD ASSY | 2   |        |     |
|   | 14   | SDST2608Z      | SCREW          | IC BRACKET      | 1   |        |     |
|   | 15   | VJC2534-001    | FRONT CHASSIS  |                 | 1   |        |     |
|   | 16   | FSKS3002-001   | LOCK LEVER     |                 | 1   |        |     |
|   | 17   | FSKW4005-003   | TORSION SPRING | LOCK LEVER      | 1   |        |     |
|   | 18   | FSXP3018-001   | RLS KNOB       |                 | 1   |        |     |
|   | 19   | VKW3001-320    | COMP.SPRING    |                 | 1   |        |     |
|   | 20   | FSKL4008-001   | HOLD PLATE     |                 | 1   |        |     |
|   | 21   | SPSN1745N      | MINI SCREW     | HOLD PLATE      | 2   |        |     |
|   | 22   | VJC4145-002SS  | CASSETTE LID   |                 | 1   |        |     |
|   | 23   | VJC4146-025    | LID PLATE      |                 | 1   |        |     |
|   | 24   | VKW4947-003    | DOOR SPRING    |                 | 1   |        |     |
|   | 28   | VJK4438-002    | REMOCON LENS   |                 | 1   |        |     |
|   | 29   | VYTT666-001    | SEAL           | FOR PRESET BUTT | 1   |        |     |
|   | 30   | VJG1321-001    | FRONT PANEL    |                 | 1   |        |     |
|   | 31   | FSJK3001-002   | LIGHT LENS     |                 | 1   |        |     |
|   | 32   | FSJK3002-001   | LENS           |                 | 1   |        |     |
|   | 33   | FSYH3010-002   | LED HOLDER     |                 | 1   |        |     |
|   | 34   | VJK2197-003    | FINDER         |                 | 1   |        |     |
|   | 35   | VXP2099-001    | PRESET BUTTON  | 1/2/3/4/5/B     | 1   |        |     |
|   | 36   | VXP1005-002    | UP/DOWN BUTTON |                 | 1   |        |     |
|   | 37   | VXP1006-001    | +/- BUTTON     |                 | 1   |        |     |
|   | 38   | VXP2100-002    | D.FUNC BUTTON  | CD/TUNE/TAPE    | 1   |        |     |
|   | 39   | FSXP3019-005   | PUSH BUTTON    | MONO/P.SACN     | 1   |        |     |
|   | 40   | FSXP3020-001   | DETACH BUTTON  |                 | 1   |        |     |
|   | 41   | VKW3001-321    | COMP. SPRING   | DETACH BUTTON   | 1   |        |     |
|   | 42   | FSXP3021-002   | EJECT BUTTON   |                 | 1   |        |     |
|   | 43   | FSXP3022-002   | FF BUTTON      |                 | 1   |        |     |
|   | 44   | FSXP3023-002   | REW BUTTON     |                 | 1   |        |     |
|   | 45   | VKW3001-323    | COMP. SPRING   | FF BUTTON       | 1   |        |     |
|   | 46   | VKW3001-323    | COMP. SPRING   | REW BUTTON      | 1   |        |     |
|   | 47   | VKW3001-323    | COMP. SPRING   | EJECT BUTTON    | 1   |        |     |
|   | 48   | VJG1322-001    | REAR COVER     |                 | 1   |        |     |
|   | 49   | SPSN1780N      | MINI SCREW     | FRONT+REAR      | 8   |        |     |
|   | 50   | VYN3548-S001SA | NAME PLATE     |                 | 1   |        |     |
|   | 51   | VND4391-001    | CAUTION LABEL  | FOR TRANSFERENC | 1   |        |     |
|   | 52   | E407097-002    | HYATT L.LABEL  |                 | 1   |        |     |
|   | 53   | VND5008-001    | FCC LABEL(4)   |                 | 1   |        |     |
|   | 54   | FSJD2004-003   | TRIM PLATE     |                 | 1   |        |     |
|   | 55   | FSKL4007-001   | IC BRACKET     |                 | 1   |        |     |
|   | 57   | FSKM3003-001   | REAR BRACKET   |                 | 1   |        |     |







● Mechaniam component parts list

BLOCK NO. M2MM

| △ | REF. | PARTS NO.  | PARTS NAME      | REMARKS       | QTY | SUFFIX | CLR |
|---|------|------------|-----------------|---------------|-----|--------|-----|
|   | 1    | 194001526T | CHASSIS BASE    |               | 1   |        |     |
|   | 2    | 194016503T | HEAD PANEL ASY. |               | 1   |        |     |
|   | 3    | 19400303T  | SP ROLLER       |               | 1   |        |     |
|   | 4    | 19400304T  | P.R.SPRING      |               | 1   |        |     |
|   | 5    | 19400305T  | P.GEAR METAL    |               | 1   |        |     |
|   | 6    | 19400306T  | P.GEAR          |               | 1   |        |     |
|   | 7    | 19400312T  | TAPE GUIDE U    |               | 1   |        |     |
|   | 8    | 19400327T  | HEAD HOLDER B   |               | 1   |        |     |
|   | 9    | 62010390T  | HEAD            | P-7742BB-0572 | 1   |        |     |
|   | 10   | 64020207T  | SLIDE SWITCH    | SSSSA3002A    | 1   |        |     |
|   | 11   | 19400328T  | SHIFT PLATE B   |               | 1   |        |     |
|   | 12   | 19400315T  | H.G SPRING      |               | 1   |        |     |
|   | 13   | 9F2635010T | FASTEN WASHER   |               | 1   |        |     |
|   | 14   | 19400746T  | H.SUBSTRATE J   |               | 1   |        |     |
|   | 15   | 68170214T  | SOCKET          |               | 1   |        |     |
|   | 16   | 194004301T | P.ROLL.ARM(F)AS |               | 1   |        |     |
|   | 17   | 194004302T | P.ROLL.ARM(R)AS |               | 1   |        |     |
|   | 19   | 194005503T | F.R.BKT(M)ASS'Y |               | 1   |        |     |
|   | 20   | 194005504T | SEESAW P(M)ASY. |               | 1   |        |     |
|   | 22   | 194006302T | T.REEL ASS'Y    |               | 2   |        |     |
|   | 23   | 19400612T  | P.GEAR (R)      |               | 1   |        |     |
|   | 24   | 19400613T  | F.GEAR (R)      |               | 1   |        |     |
|   | 25   | 19400615T  | P.D.GEAR        |               | 1   |        |     |
|   | 26   | 19400616T  | E.D.GEAR        |               | 1   |        |     |
|   | 27   | 19400617AT | REVERSE GEAR(M) |               | 1   |        |     |
|   | 28   | 19400648T  | E.D.PLATE B     |               | 1   |        |     |
|   | 29   | 194002501T | M.G.P.SEMI-ASY. |               | 1   |        |     |
|   | 30   | 19400635T  | TN SPRING       |               | 1   |        |     |
|   | 31   | 194006312T | P.CLUTCH ASS'Y  |               | 1   |        |     |
|   | 32   | 194014129T | LIFT UP PLATE   |               | 1   |        |     |
|   | 33   | 19401464T  | ANTI-REV ARM    |               | 1   |        |     |
|   | 34   | 19401460T  | TRI ARM SPRING  |               | 1   |        |     |
|   | 35   | 19401431T  | P.BRACKET(K)    |               | 1   |        |     |
|   | 36   | 194014140T | SOLENOID        |               | 1   |        |     |
|   | 37   | 19401433T  | CORE(K)         |               | 1   |        |     |
|   | 38   | 19400745T  | SW SUBSTRATE    |               | 1   |        |     |
|   | 39   | 64020206T  | SLIDE SWITCH    | SSSSA2001A    | 1   |        |     |
|   | 40   | 64020405T  | PUSH SWITCH     | SPVC11001A    | 1   |        |     |
|   | 41   | 68150227T  | RECEPTACLE      | TKC-A08X-C1   | 1   |        |     |
|   | 42   | ERB12-01   | DIODE           | ERB12-01      | 1   |        |     |
|   | 43   | 19400801T  | CASE LIFTER     |               | 1   |        |     |
|   | 44   | 184008503T | P.E PLATE ASS'Y |               | 1   |        |     |
|   | 45   | 18400820T  | SPRING          |               | 1   |        |     |
|   | 46   | 18400875T  | CUSSHION RUBBER |               | 1   |        |     |
|   | 47   | 19400813T  | REVERSE SP.C    |               | 1   |        |     |
|   | 48   | 19401410T  | CASSETTE CASE M |               | 1   |        |     |
|   | 49   | 19400804T  | C.D PLATE B     |               | 1   |        |     |
|   | 50   | 19400810T  | PACK SLIDER     |               | 1   |        |     |
|   | 51   | 19400806T  | PACK PRESS.SP.  |               | 1   |        |     |
|   | 52   | 18400823T  | P.E SPRING      |               | 1   |        |     |
|   | 53   | 19401434T  | PLUNGER(K)      |               | 1   |        |     |
|   | 54   | 194020505T | T.A.PLATE ASS'Y |               | 1   |        |     |
|   | 55   | 19401437T  | T.A.PLATE SP.   |               | 1   |        |     |
|   | 56   | 19400901T  | H.P.ROLLER(A)   |               | 1   |        |     |
|   | 57   | 19400902T  | H.P.ROLLER(B)   |               | 1   |        |     |
|   | 58   | 19400953T  | C.H.PUSH PLAT.M |               | 1   |        |     |
|   | 59   | 19400905T  | C.H.SPRING      |               | 1   |        |     |
|   | 60   | 19400906T  | PUSH LEVER SP.  |               | 1   |        |     |
|   | 61   | 19400907T  | PUSH LEVER M    |               | 1   |        |     |

BLOCK NO. M2MM IIII

| Δ | REF. | PARTS NO.  | PARTS NAME      | REMARKS         | QTY | SUFFIX | CLR |
|---|------|------------|-----------------|-----------------|-----|--------|-----|
|   | 62   | 194020506T | GEAR PLATE      |                 | 1   |        |     |
|   | 63   | 194014142T | CAM GEAR        |                 | 1   |        |     |
|   | 64   | 19401001T  | MAIN PLATE      |                 | 1   |        |     |
|   | 65   | 19401002T  | M.S.SPRING      |                 | 1   |        |     |
|   | 66   | 19401007T  | H.S.SPRING      |                 | 1   |        |     |
|   | 67   | 19401444T  | K.F.SPRING      |                 | 1   |        |     |
|   | 68   | 194011310T | MOTOR ASS'Y     | MCI-5U3LCKA     | 1   |        |     |
|   | 70   | 194012504T | FR W.PLT.SEM.AS |                 | 1   |        |     |
|   | 71   | 19401703T  | F.GEAR          |                 | 1   |        |     |
|   | 72   | 19401704T  | FR SPRING M     |                 | 1   |        |     |
|   | 74   | 194013303T | F.L.CAPS.ASS'Y  |                 | 2   |        |     |
|   | 75   | 19401417T  | MAIN BELT       |                 | 1   |        |     |
|   | 77   | 18400437T  | P.P SPRING      |                 | 1   |        |     |
|   | 78   | 194014123T | MAIN GEAR M     |                 | 1   |        |     |
|   | 79   | 194014115T | MIDDLE PULLEY   |                 | 1   |        |     |
|   | 80   | 19401443T  | HEAD PANEL SP.M |                 | 1   |        |     |
|   | 81   | 19401405T  | TRIGGER ARM(C)  |                 | 1   |        |     |
|   | 82   | 19401406T  | COLLAR SCREW(T) |                 | 1   |        |     |
|   | 83   | 19401442T  | H.P.PUSH ARM(K) |                 | 1   |        |     |
|   | 84   | 19401409T  | SEESAW WRK.PLT. |                 | 1   |        |     |
|   | 85   | 19401412T  | POWER SW.SPRING |                 | 1   |        |     |
|   | 86   | 194014127T | FR SLIDE PLT.M  |                 | 1   |        |     |
|   | 87   | 19401415T  | COLLAR SCREW(P) |                 | 1   |        |     |
|   | 88   | 19401416T  | H.P.RETURN ARM  |                 | 1   |        |     |
|   | 89   | 19401407T  | T.A.SPING(C)    |                 | 1   |        |     |
|   | 90   | 9W0225010T | P.WASHER CUT    | 0.85X2.8X0.25   | 1   |        |     |
|   | 91   | 19401589T  | FR LEVER SPRING |                 | 2   |        |     |
|   | 92   | 19401590T  | FF LEVER (MH)   |                 | 1   |        |     |
|   | 93   | 19401591T  | REW LEVER(MH)   |                 | 1   |        |     |
|   | 94   | 19401503T  | P.C.PLATE       |                 | 1   |        |     |
|   | 95   | 19401504T  | P.C.SPRING      |                 | 1   |        |     |
|   | 96   | 19401505T  | ROCK PLATE (M)  |                 | 1   |        |     |
|   | 97   | 19401506T  | ROCK PLATE SP.M |                 | 1   |        |     |
|   | 98   | 9W0540020T | HL WASHER       | 10 X 14 X 0.4   | 1   |        |     |
|   | 99   | 19401509T  | UNROCK PLATE    |                 | 1   |        |     |
|   | 100  | 19401551T  | T.COIL ASS'Y    |                 | 1   |        |     |
|   | 101  | 19401562T  | T.CORE          |                 | 1   |        |     |
|   | 102  | 19401559T  | UNROCK PLATE SP |                 | 1   |        |     |
|   | 200  | 9P1220051T | S TAPPING SCREW | M2 X 5          | 1   |        |     |
|   | 201  | 9P0220051T | TAMS SCREW      | M2 X 5          | 2   |        |     |
|   | 203  | 9W0640070T | HL WASHER CUT   | 2.1 X 4 X 0.4   | 1   |        |     |
|   | 204  | 9W0630060T | HL WASHER CUT   | 1.6 X 3.8 X 0.3 | 2   |        |     |
|   | 205  | 9C0420303T | S TAPPING SCREW | FOR CAMERA M2X3 | 4   |        |     |
|   | 206  | 9E0100152T | E RING          | S 1.5           | 5   |        |     |
|   | 207  | 9P2920900T | TAMS SCREW      | 2 X 9           | 1   |        |     |
|   | 208  | 9W0625030T | HL WASHER CUT   | 1.2X3X0.25      | 3   |        |     |
|   | 209  | 9W0630050T | HL WASHER CUT   | 1.6 X 3.4 X 0.3 | 1   |        |     |
|   | 210  | 9E0100202T | E RING          | S2.0            | 3   |        |     |
|   | 211  | 9P0220031T | TAMS SCREW      | M2 X 3          | 2   |        |     |
|   | 212  | 9W0513060T | HL WASHER       | 2.1 X 5 X 0.13  | 2   |        |     |
|   | 213  | 9W0520010T | HL WASHER CUT   | 1.85 X 3.2 X 0. | 2   |        |     |
|   | 214  | 9W0650030T | HL WASHER CUT   | 1.5 X 3.2 X 0.5 | 2   |        |     |
|   | 216  | 9P0226041T | TAMS SCREW      | M2.6 X 4        | 1   |        |     |
|   | 217  | 9F2720401T | FIX SCREW       | FOR HEAD        | 2   |        |     |
|   | 218  | 9F2220071T | ADJUST SCREW    |                 | 4   |        |     |
|   | 219  | 9B0226531T | SCREW           | M2.6 X 3.5      | 1   |        |     |

## 9 Packing illustration and parts list

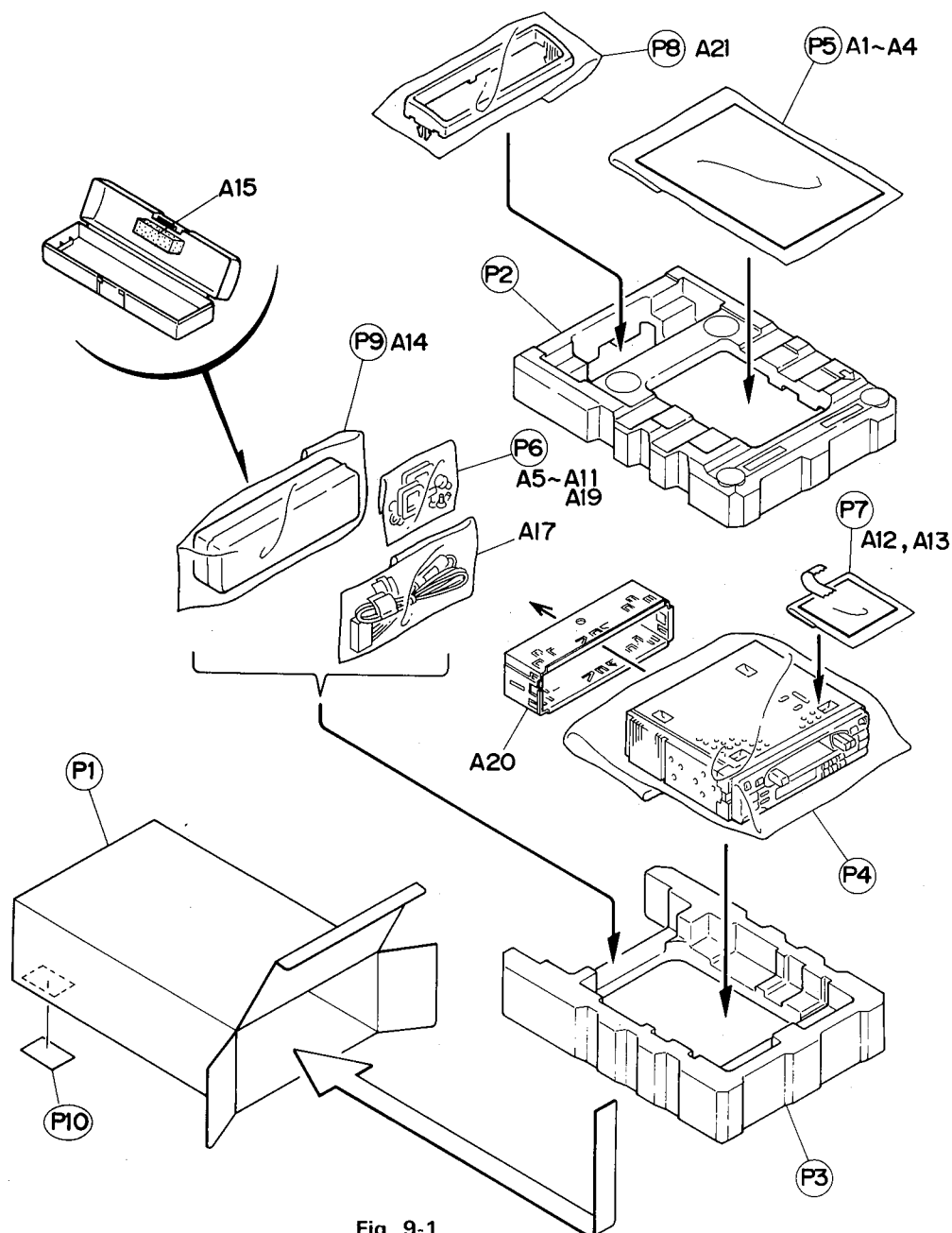


Fig. 9-1

### ● Packing parts list

BLOCK NO. M3MM

| △ | REF. | PARTS NO.     | PARTS NAME      | REMARKS         | QTY | SUFFIX | CLR |
|---|------|---------------|-----------------|-----------------|-----|--------|-----|
| P | 1    | VPC3548-S001  | CARTON          | PRINTED IN SING | 1   |        |     |
| P | 2    | FSPH1003-001  | CUSHION(TOP)    | TOP SIDE        | 1   |        |     |
| P | 3    | FSPH1004-001  | CUSHION(BOTTOM) | BOTTOM SIDE     | 1   |        |     |
| P | 4    | VPE3005-066   | POLY BAG        | SET             | 1   |        |     |
| P | 5    | QPGA017-02505 | POLY BAG        | INSTRUCTIONS    | 1   |        |     |
| P | 6    | QPGA008-01205 | POLY BAG        | SCREW KIT 1     | 1   |        |     |
| P | 7    | QPGA008-01205 | POLY BAG        | SCREW KIT 2     | 1   |        |     |
| P | 8    | QPGA010-03003 | POLY.BAG        | TRIM PLATE      | 1   |        |     |
| P | 9    | QPGA010-03003 | POLY.BAG        | HEAD CASE       | 1   |        |     |
| P | 10   | -----         | CARTON LABEL    | CARTON(CODE39)  | 1   |        |     |

# Accessories

BLOCK NO. M3MM

| △     | REF. | PARTS NO.       | PARTS NAME      | REMARKS         | QTY | SUFFIX | CLR |
|-------|------|-----------------|-----------------|-----------------|-----|--------|-----|
| A     | 1    | VNN3548-631S    | INSTRUCTIONBS   | PRINTED IN SING | 1   |        |     |
| A     | 2    | VNC2400-090     | CAUTION SHEET   |                 | 1   |        |     |
| A     | 3    | BT-20025M       | WARRANTY CARD   |                 | 1   | C      |     |
|       |      | BT-20059D       | WARRANTY CARD   |                 | 1   | J      |     |
| A     | 4    | BT-20071B       | SVC CENTER LIST |                 | 1   | C      |     |
|       |      | BT-20137        | SERVICE NETWORK |                 | 1   | J      |     |
| A     | 5    | VKZ4027-002     | PLUG NUT        |                 | 1   |        |     |
| A     | 6    | VKH4871-001     | MOUNT BOLT      |                 | 1   |        |     |
| A     | 7    | VKZ4328-001     | LOCK NUT        | M5              | 1   |        |     |
| A     | 8    | WNS5000Z        | WASHER          |                 | 1   |        |     |
| A     | 9    | VKY3124-001     | SIDE SPRING     |                 | 2   |        |     |
| A     | 10   | SSSP4006Z       | SCREW           | SIDE SPRING     | 4   |        |     |
| A     | 11   | VKL7233-001     | HOOK            |                 | 2   |        |     |
| A     | 12   | SPSJ1725M       | MINI SCREW      |                 | 1   |        |     |
| A     | 13   | VND4619-005     | SHEET           |                 | 1   |        |     |
| A     | 14   | VJB2014-002     | HARD CASE       |                 | 1   |        |     |
| A     | 15   | VYSH118-002     | SPACER          | FOR HARD CASE   | 1   |        |     |
| A     | 17   | VMC0014-159     | 13P CORD ASS'Y  |                 | 1   |        |     |
| A     | 19   | QHX5080-001     | WIRE CLAMP      |                 | 1   |        |     |
| A     | 20   | VKM3819-001     | MOUNTING SLEEVE |                 | 1   |        |     |
| A     | 21   | FSJD2004-003    | TRIM PLATE      |                 | 1   |        |     |
| KIT 1 |      | KSRT600K-SCREW1 | SCREW KIT PARTS | P6.NO.5-NO.11   | 1   |        |     |
| KIT 2 |      | KSRT75RK-SCREW2 | SCREW KIT PSRTS | P7,NO.12-NO.13  | 1   |        |     |

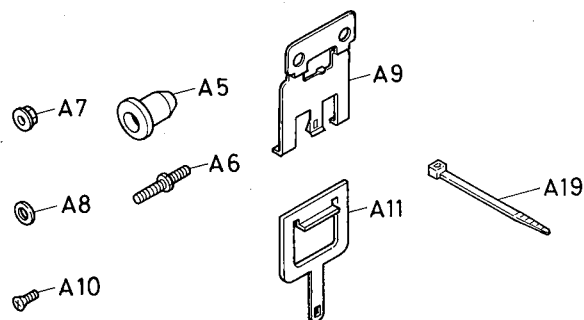


Fig. 9-2

# JVC

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 AUDIO PRODUCTS DIVISION 10-1, 1-chome, Ohwatari-machi, Maebashi-city, Japan