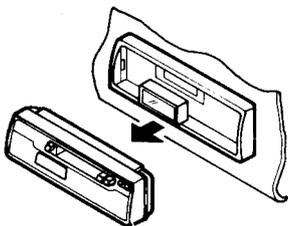
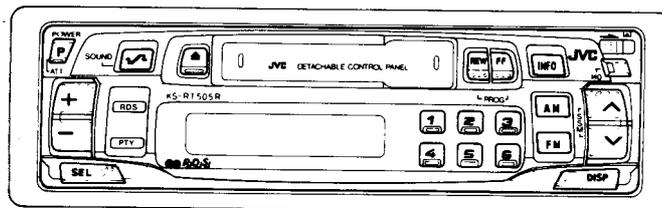


# JVC

## SERVICE MANUAL

### CASSETTE CAR RECEIVER

## KS-RT505R B/E/G/GE/GI



#### Area Suffix

B	.....	U.K.
E	.....	Continental europe
G	.....	Germany
GE	.....	Eastern Europe Austria and Switzland
GI	.....	Italy

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## FEATURES

- Detachable Control Panel
- Radio Data System (RDS)
- AM/FM Stereo PLL Synthesizer Tuner
- 18-Station Preset Tuning (FM-12, AM-6)
- Seek/Manual Tuning
- Strong-station Sequential Memory (SSM)
- U-Turn Auto-Reverse Mechanism
- 4-Channel Amplifier System
- Maximum Power Output of 8 watts per channel (Front)/8 watts per channel (Rear)
- Sound Control Memory
- Digital Clock Display
- Line Output Terminal

## SPECIFICATIONS

### AUDIO AMPLIFIER SECTION

Maximum Power Output: (Front) 8 watts per channel (Rear) 8 watts per channel  
 Continuous Power Output (RMS): (Front) 3 watts per channel into 4  $\Omega$ , 100 to 20,000 Hz at no more than 0.8% total harmonic distortion. (Rear) 3 watts per channel into 4  $\Omega$ , 100 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 108.0 MHz  
 AM: 522 to 1,620 kHz  
 [FM Tuner]  
 Usable Sensitivity: 12.1 dBf (1.1  $\mu$ 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: 30 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: 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: 1.9 kg (4.2 lbs)

*Design and specifications subject to change without notice.*

## MAINTENANCE

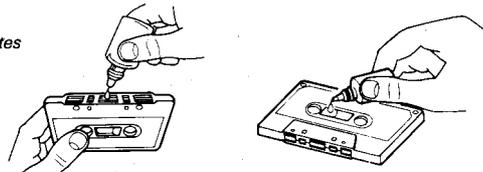
### • Cleaning The Head

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.)

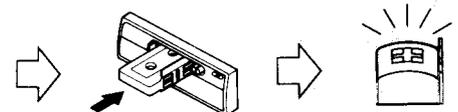
These are NOT malfunctions. However, before these symptoms appear, clean the heads after every 10 hours of use using a wet-type head cleaning tape, available from an audio store. For more details, refer to the Instructions of the Head Cleaning Tape.

- Head cleaning tape
- Kopfreinigungscassette
- Cassette de nettoyage de têtes



### • 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.

# 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.

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Features .....	2
Specifications .....	2
Maintenance .....	2
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Installation(In-dash mounting) .....	3
Electrical connections .....	4
Location of controls .....	5
Tape operation .....	8
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Digital clock display .....	12
Tape care hints .....	12

**Note:**

For security reasons, a numbered ID card is provided with this unit, and the same ID No. is imprinted on the unit's chassis. Keep the card in a safe place, as it will help the authorities to identify your unit if stolen.

## INSTALLATION (IN-DASH MOUNTING)

**IMPORTANT**

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

- The following illustration shows a typical installation. However, you should make adjustments corresponding to your specific car. If you have any questions or require information regarding installation kits, consult your JVC "IN-CAR ENTERTAINMENT" dealer.

- Follow the numbers for mounting.

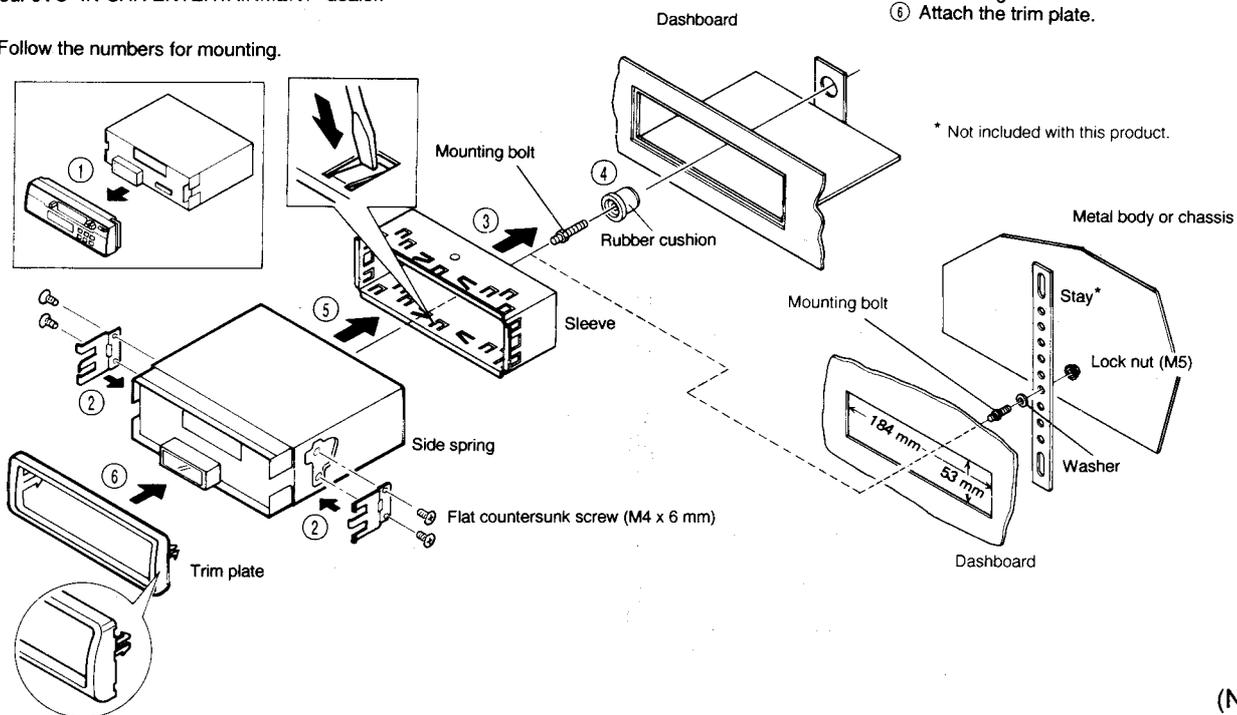
## IMPORTANT INFORMATION

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 "IN-CAR ENTERTAINMENT" 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 "IN-CAR ENTERTAINMENT" 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 40.)

**Antenna Noise**

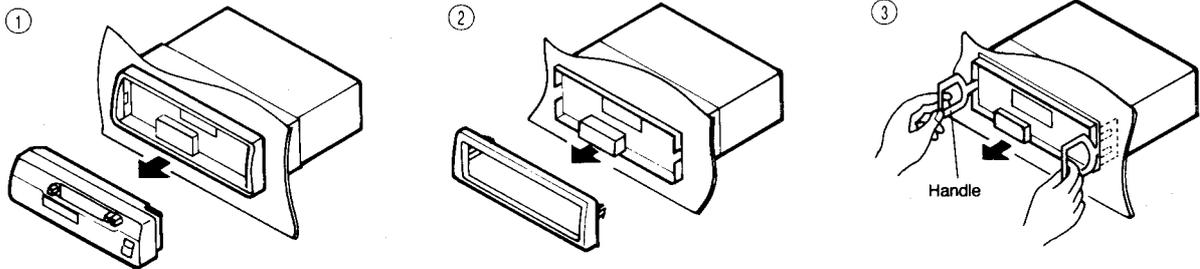
If you can hear static noise when listening to either AM or FM, check for loose antenna connections.

- ① Slide the Control Panel Release (⬅) switch to the right and remove the control panel.
- ② Attach the 2 side springs.
- ③ Install the sleeve in the dashboard.  
\* After the sleeve is correctly installed in the dashboard, bend the appropriate tabs to hold the sleeve firmly in place, as shown.
- ④ Fix the mounting bolt to the rear of the unit's body and place the rubber cushion over the end of the bolt.
- ⑤ Slide the unit into the sleeve until they are locked together.
- ⑥ Attach the trim plate.



**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.



**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.

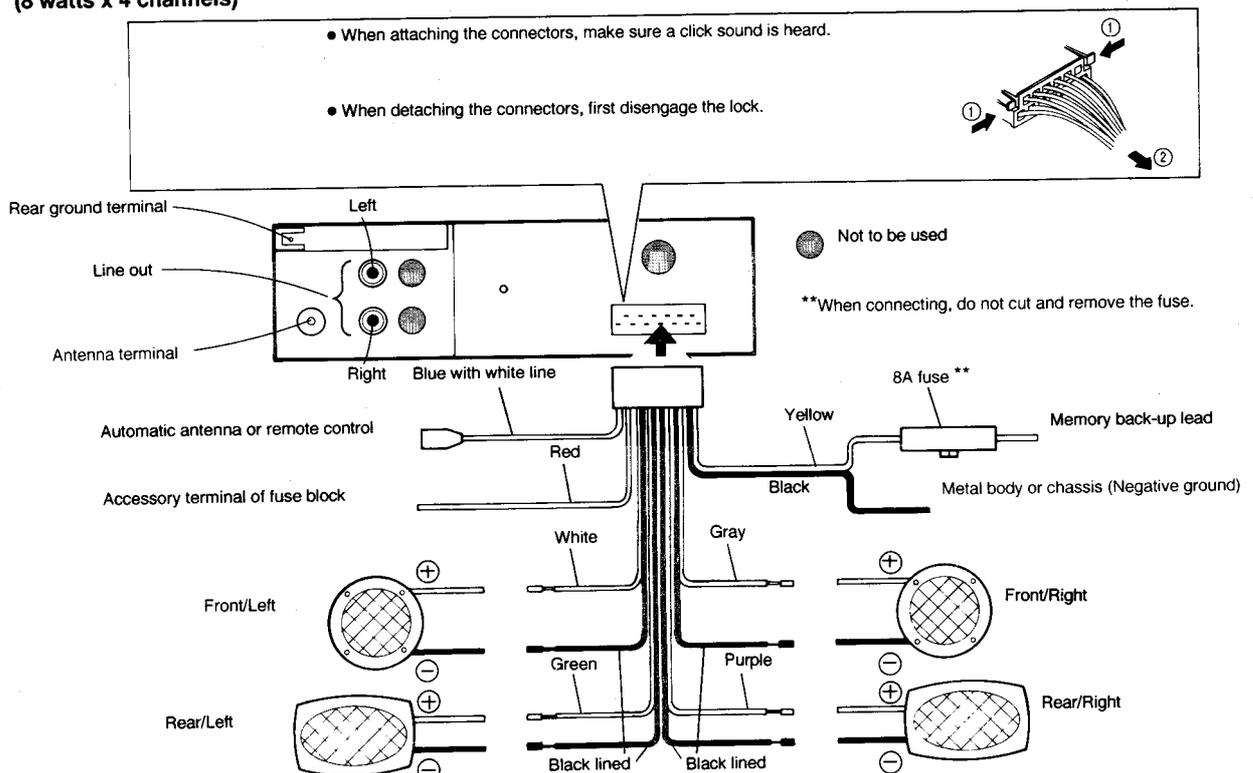
**Note:**  
This unit is designed for a 12-volt DC negative ground. If your vehicle does not have this system, a voltage inverter is required, which can be purchased at JVC "IN-CAR ENTERTAINMENT" dealers.

- Use the speakers having a power handling capability of more than 8 watts at the rear and 8 watts at the front, with an impedance of 4 to 8 ohms.
- When using a 2-speaker connection, use the speakers having a power handling capability of more than 25 watts with an impedance of 4 to 8 ohms.

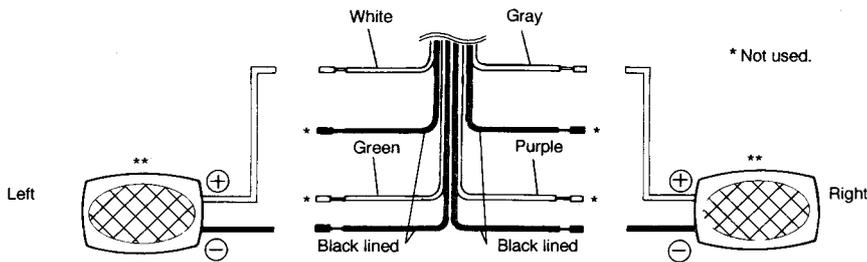
**CAUTIONS:**

1. Do NOT connect the speaker leads to the metal body or chassis.
  2. When NOT using the automatic antenna, cover the terminal with insulating tape to prevent the remote lead from shorting.
- Be sure to ground this unit to the car's chassis.

**A. 4-Speaker Connections  
(8 watts x 4 channels)**

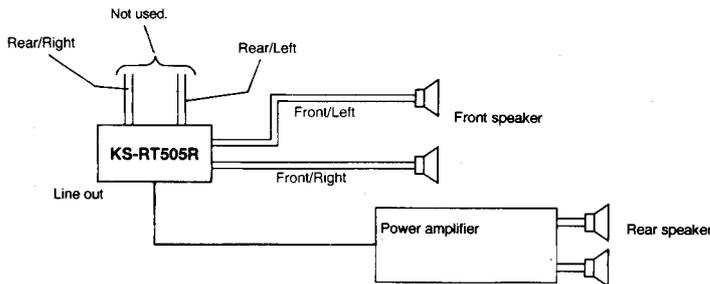


**B. 2-Speaker connections  
(25 watts x 2 channels)**



\*\* Use the speakers having a power handling capability of more than 25 watts with an impedance of 4 to 8 ohms.

**C. 4-Speaker connections when adding a power amplifier**



**D. 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.

**E. Power Aerial (Automatic Antenna) Connections**

This unit can perform automatic extension/retraction of a power aerial when the power is turned ON/OFF. The remote lead connection (blue with white lines) from the audio unit is via a separate relay to the aerial motor unit.

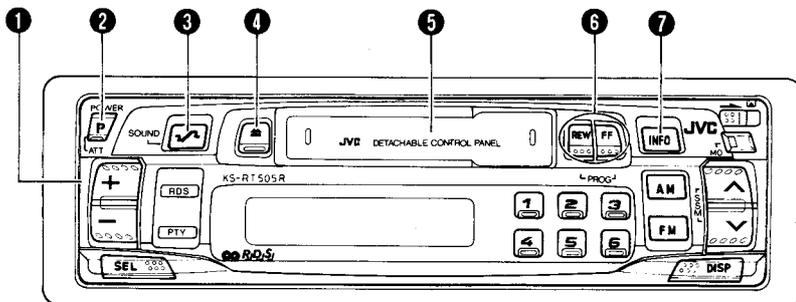
**F. Memory Back-Up Lead**

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

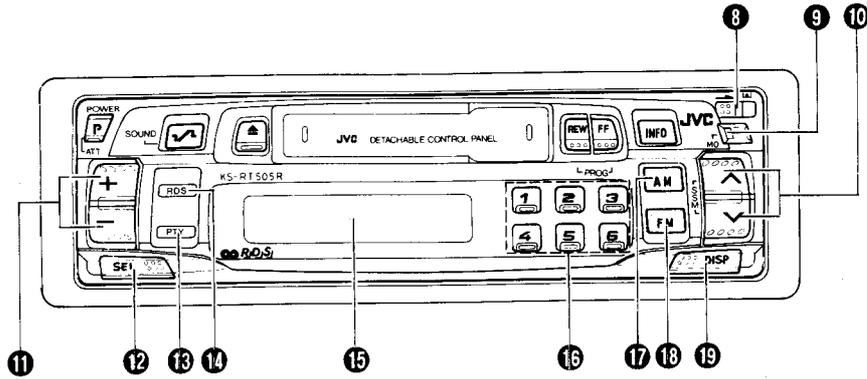
**G. Fader Control**

- **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 17.)
- **When used in a 2-speaker system**  
Set this control to the center position ("0" is displayed).

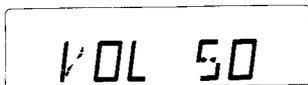
**LOCATION OF CONTROLS**



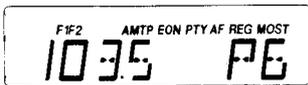
- 1 Control panel
- 2 POWER (P)/Attenuator (ATT) switch  
POWER: Press to turn the power ON. Press for more than 1 second to turn the power OFF.  
ATT: When this button is pressed during operation, the volume drops and the ATT indicator blinks. Press again to return to the original volume.
- 3 SOUND button
- 4 Eject (▲) button
- 5 Cassette loading slot
- 6 Program (PROG)/REW, FF buttons
- 7 Information (INFO) button



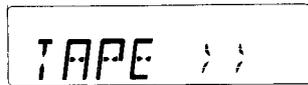
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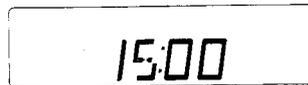
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22



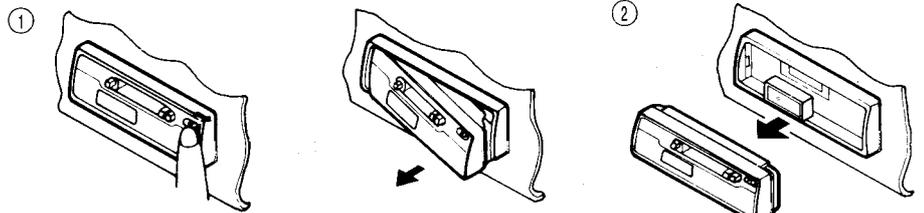
23



- 8 Control Panel Release (⏏) switch
- 9 MONO (MO) button
- 10 Tuning/SSM/Time Adjustment buttons
  - Up frequency/Hour adjustment (▲)
  - Down frequency/Minute adjustment (▼)
- 11 Level Control buttons
  - Use to adjust the volume, bass, treble, fader, balance and loudness. (See page 17.)
- 12 Electronic Control Mode Select (SEL) button
- 13 Programme Type (PTY) button
- 14 RDS button
- 15 Display window
- 16 Preset Station buttons (No. 1 to No. 6)
  - Programme Type (PTY) select buttons (No. 1 to No. 6)
- 17 AM Band button
- 18 FM Band button
- 19 Display (DISP) button
- 20 Indicators (for Audio Control section)
  - Volume (VOL)
  - Bass (BAS)
  - Treble (TRE)
  - Fader (FAD)
  - Balance (BAL)
  - Loudness (LOUD) ON
  - Loudness (LOUD) OFF
  - Attenuator (ATT)
  - Level value
  - BEAT
  - SOFT
  - POP
  - OFF
- 21 Indicators (for Tuner section)
  - Band (FM1 [F1]-FM2 [F2]-AM)
  - Radio frequency
  - Preset Station
  - Station name display
  - TP (Traffic Programme identification)
  - AF (Alternative Frequencies)
  - REG (Region)
  - EON (Enhanced Other Networks)
  - PTY (Programme Type)
  - PTY codes (See page 31.)
  - Manual (M)
  - FM Stereo (ST)
  - Mono (MO)
  - SSM
  - T-INFO
  - NEWS
  - ALARM
- 22 Indicators (for Tape Deck section)
  - TAPE mode
  - Tape direction (TAPE>>>, TAPE<<<)
- 23 Indicators (for other controls)
  - Time

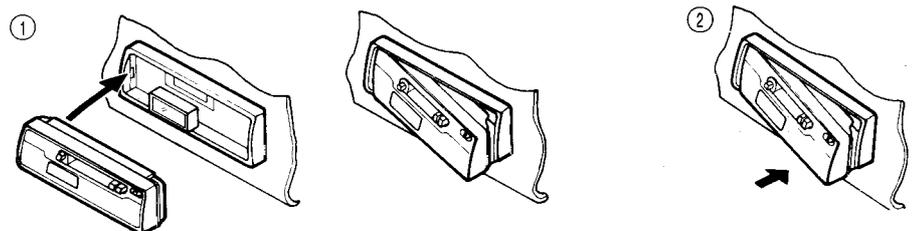
**How To Detach The Control Panel**

- 1 Slide the Control Panel Release (⏏) 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.

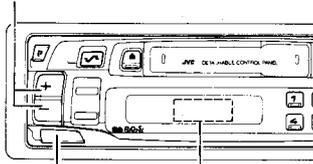


**Note:**

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

**Audio Level Control**

Level control buttons



Level value

Electronic control mode select button (SEL)

Electronic control mode			
<i>VOL</i> Volume		(00 – 50) Decreases	(00 – 50) Boosts
<i>BASS</i> Bass		(-6) – (0) Decreases	(0) – (+6) Boosts
<i>TRE</i> Treble		(-6) – (0) Decreases	(0) – (+6) Boosts
<i>FADER</i> Fader		(R5 – 0) Rear	(0 – F5) Front
<i>BAL</i> Balance		(L6 – 0) Left	(0 – R6) Right
<i>LOUD</i> Loudness		OFF Off	ON On

**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.

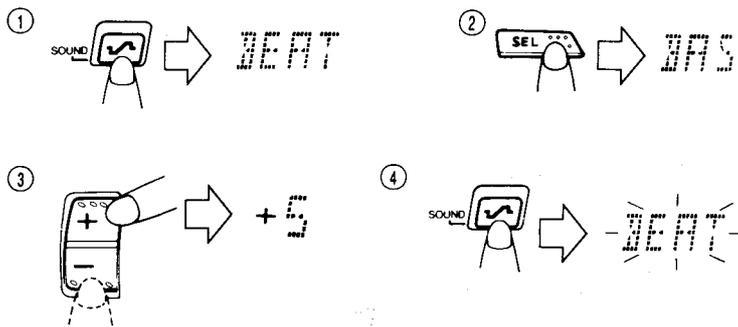
**Sound Mode Button**

Sound mode			Preset level value		
			Bass	Treble	Loudness
<i>OFF</i> Off		(flat characteristics)	0	0	Off
<i>BEAT</i> Beat		For music with a heavy beat, such as rock or disco music.	+2	0	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.

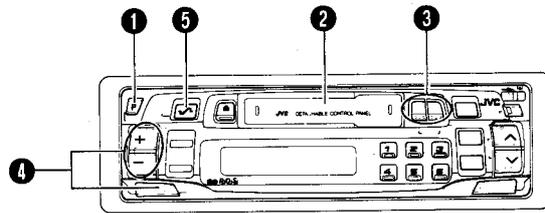
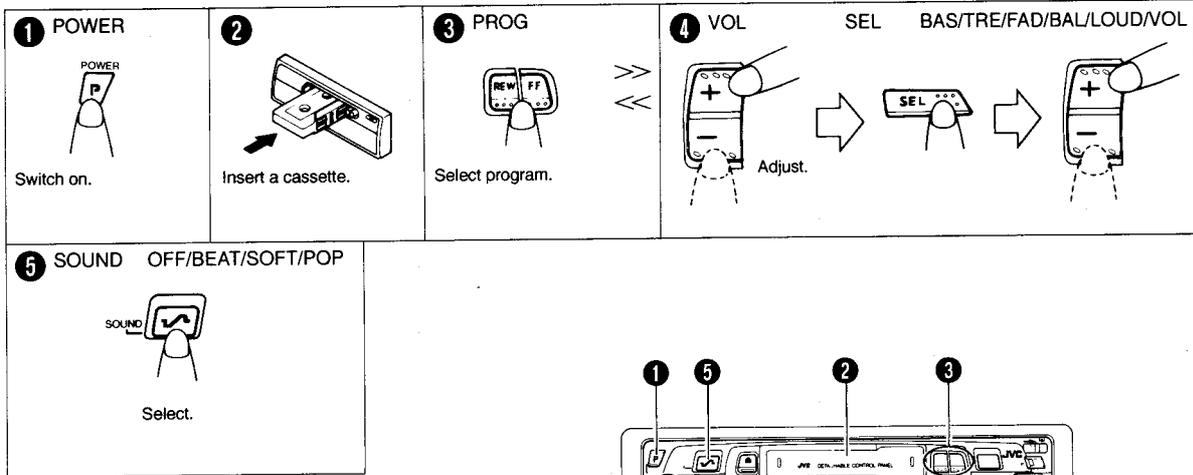
(Example: To emphasize bass sound in the Beat mode)



- 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.

**TAPE OPERATION**

Operate in the order shown.



**How To Fast-Forward And Rewind Tapes**

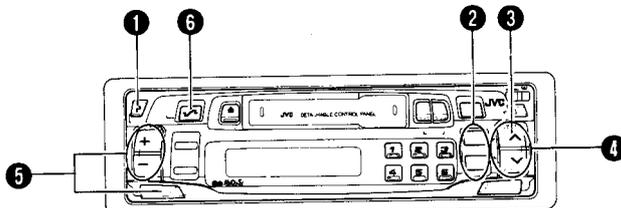
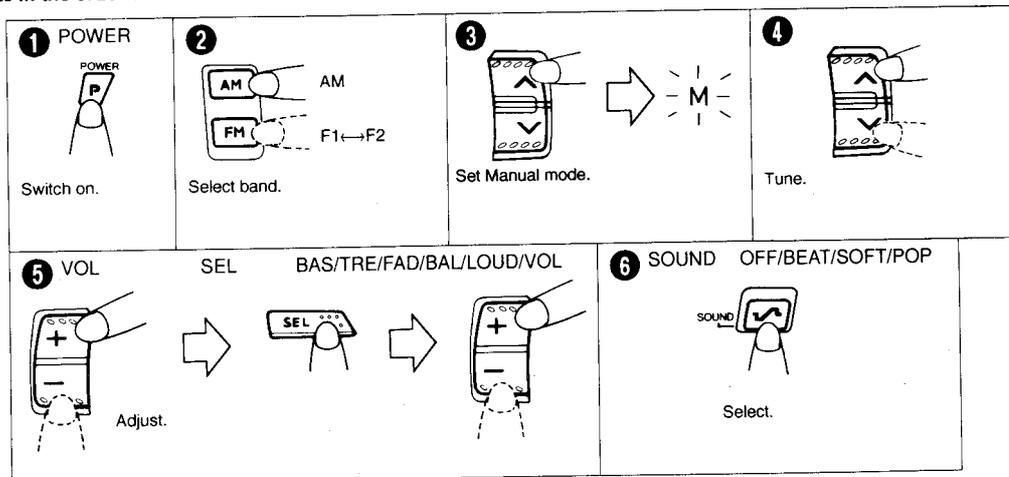
Press the FF button to fast-forward the side being played; when the tape end is detected, the tape is reversed and playback starts from the beginning of the other side.  
Press the REW button to rewind the tape to its beginning, where playback restarts.  
Lightly press the PROG button to start playback from the current position during fast-forward or rewind.

**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.

**RADIO OPERATION**

Operate in the order shown.

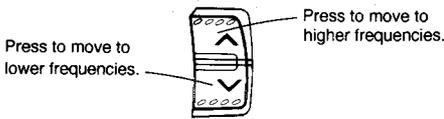


### Manual Tuning

Set Manual mode by pressing the tuning button (▲ or ▼) for more than 1 second. When the "M" 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 50 kHz units  
 AM – in 9 kHz units

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



### Seek Tuning

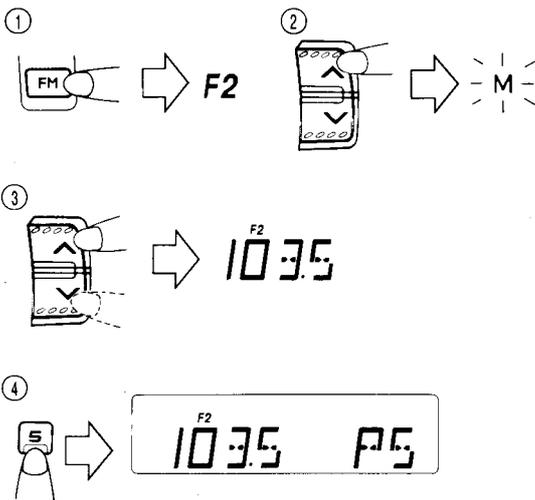
Press the ▲ or ▼ button; the unit enters the seek tuning mode and tunes to higher or lower frequencies. When a broadcast is received, tuning stops automatically and the broadcast can be heard.

### Preset Button Tuning

#### How to Preset Stations

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

- Example (when presetting Preset Station button "5" of the FM2 band to an FM station at 103.5 MHz)



- ① Select the FM2 band using the FM Band button.
  - ② Set Manual mode.
  - ③ Tune to the desired station.
  - ④ Press Preset Station button "5" for more than 2 seconds. (When "P5" 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 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).

### 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 or FM2) 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, "SSM" 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.

### RDS (Radio Data System)

RDS is a broadcasting system in which digital data is multiplexed together with normal FM radio signals. In this way, RDS offers a wide variety of new functions including AF (Alternative Frequencies — automatic tuning) and TA (Traffic Announcement Identification), plus other PTY, CT, EON, PI, PS and TP codes:

- PTY (Programme Type)
- CT (Clock Time)
- EON (Enhanced Other Networks)
- PI (Programme Identification)
- PS (Programme Service name)
- TP (Traffic Programme identification)

### RDS operation

- Traffic programmes and announcements can be automatically received using the TP/TA codes.
- Network Tracking reception uses the PI and AF codes. The PI code identifies the country, area and station for automatic tuning, while AF "knows" what stations are broadcasting the same programme and automatically tunes to the strongest signal for optimum frequency response.
- The PS code allows station names to be displayed automatically when an RDS station is received.

### Note:

RDS operates when in FM mode only.

**Display Button**

The DISP button is used to select the Operation (Tuner or TAPE) and Time modes. Each time the button is pressed, the display changes as follows:

Operation mode (Station name\* → Frequency being received → PTY\* (or TAPE)) → Time.

The display returns to the initially preset mode after a short while.

\* When the RDS or PTY signal is weak or when not tuned to an RDS or PTY station, the Station name or PTY is NOT displayed.

**RDS button**

To select Network-Tracking mode, press the RDS button.

● **Mode 1 (AF: on/REG: on):**

Network-Tracking is activated and Regional mode is engaged (switches between stations broadcasting the same programme, at all times).

● **Mode 2 (AF: on/REG: off):**

Network-Tracking is activated. Switches between stations belonging to the network being received.

**Note:**

In Mode 2, the broadcast may switch between different programmes even within the same network at certain times.

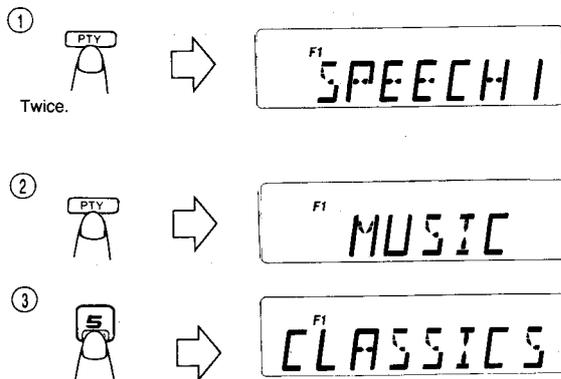
● **Mode 3 (AF: off):**

Network-Tracking deactivated.

**2. To search for programme by PTY codes**

① Press the PTY button twice quickly when FM tuner mode is active. SPEECH 1 (or SPEECH 2, MUSIC) is displayed and the programme search mode becomes engaged.

② After this mode is engaged, every press of the PTY button within 5 seconds of the previous press changes the indication as follows:  
SPEECH 1 → SPEECH 2 → MUSIC  
→ Programme search mode is cleared.



④ 5 seconds after setting, programme search starts.

⑤ Successful programme search results in the desired PTY station being received so its programme can be heard.

- When a PTY station cannot be tuned in, the previous station is received.
- After searching, the mode selected last will be memorized, then displayed first when a programme type is selected again.

**PTY button**

**1. Setting and operating NEWS standby mode**

- When the PTY button is pressed in the FM mode, the "PTY" indicator is lit during reception of a PTY station and the NEWS standby mode is engaged after approx. 2 seconds.

When "PTY" blinks (when the station being received is not a PTY station), press the tuning buttons (▲, ▼) to engage the NEWS standby mode. NEWS station search starts, and when the PTY station is tuned in, "PTY" is lit.

- If you're listening to a tape and wish to hear a PTY news broadcast, press the PTY button to enter the NEWS standby mode. (The "PTY" indicator lights up.)

If the news programme starts broadcasting while NEWS standby mode is active, "NEWS" is displayed and the FM mode is engaged. Then volume increases to the preset level and the NEWS programme can be heard.

- ③ For each of the three modes, each PTY select button numbered 1 through 6 corresponds to a distinct programme type. For the given activated mode, a numbered PTY select button can be pressed within 5 seconds to select the programme type that corresponds to it.

(Example: When selecting the programme type "CLASSICS".)

	Programme select button	Indication
SPEECH 1	No. 1	NEWS
	No. 2	AFFAIRS
	No. 3	INFO
	No. 4	SPORT
	No. 5	EDUCATE
	No. 6	DRAMA
SPEECH 2	No. 1	CULTURE
	No. 2	SCIENCE
	No. 3	VARIED
	No. 4	_____
	No. 5	_____
	No. 6	_____
MUSIC	No. 1	POP M
	No. 2	ROCK M
	No. 3	M. O. R. M
	No. 4	LIGHT M
	No. 5	CLASSICS
	No. 6	OTHER M

**Note:**

There may be areas where PTY functions (NEWS standby mode, programme search) will not work.

### Descriptions of the PTY Codes

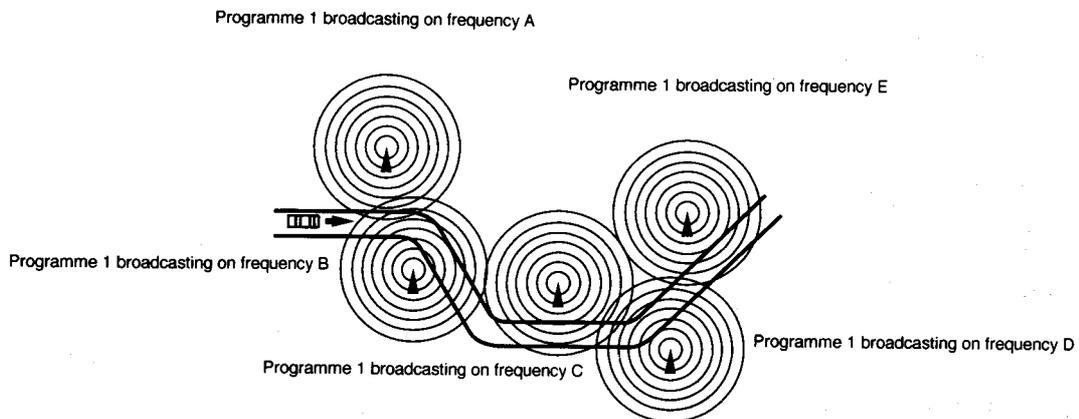
NEWS:	News
AFFAIRS:	Topical programme expanding on the current news or affairs
INFO:	Programmes on medical service, weather forecast, etc.
SPORT:	Sport events
EDUCATE:	Educational programmes
DRAMA:	Radio plays
CULTURE:	Programmes on national or regional culture
SCIENCE:	Programmes on natural sciences and technology
VARIED:	Other programmes like comedies or ceremonies
POP M:	Pop music
ROCK M:	Rock music
M.O.R.M:	Middle-of-the-road music (usually called "easy listening")
LIGHT M:	Light music
CLASSICS:	Classical music
OTHER M:	Other music

### Network-Tracking reception

When driving in an area where the signal strength drops, the tuner automatically uses PI and AF codes to retune to the same programmes with a stronger signal from another RDS station in the network. By utilizing these codes, you can continue to listen to the same programmes in its finest condition, no matter where you drive. (See illustration.)

- When the RDS station to which you are tuned does not provide AF data or the unit is unable to receive AF data for any reason, Network-Tracking reception will NOT operate even when the signal strength drops below the reference level.

The same programme can be received on different frequencies.  
Das gleiche Sendeprogramm kann über verschiedene Sendefrequenzen empfangen werden.  
*Le même programme peut être reçu sur différentes fréquences.*



### EON (Enhanced Other Networks)

- When tuning in a broadcasting station transmitting EON data, the EON indicator is lit and the following operations start. EON automatically stores the frequencies of stations from other networks transmitting information codes (TP/TA/AF/PTY/PS etc.) so they can be mutually used. The following points have been improved:

When listening to a station NOT transmitting traffic information or NEWS for example, EON automatically tunes to a station in a local network when this information is broadcast and then switches back to the original programme when the broadcast ends.

The transmitted information (AF and other codes) is constantly and automatically updated so that preset programme information can be heard immediately even if in a different network area.

#### Automatic reception of traffic information

1. Press the INFO button (the TP indicator blinks). Seek tuning will now stop only at stations broadcasting traffic information TP signals. When traffic information is received, the TP indicator lights.
2. Traffic information will automatically interrupt cassette playback if TP is set. After the traffic information ends, the unit switches back to cassette tape playback.

### Traffic Information and NEWS Volume Control

This function adjusts the volume of traffic information broadcasts or NEWS.

1. Press the INFO button for more than 2 seconds while pressing the FM band button; "INFO VOL" will be displayed.
2. While "INFO VOL" is displayed, set to the required volume using the Volume Level Control buttons.

#### Note:

When the INFO button is set to ON, an alarm sound can be heard if the tuner is not receiving a station broadcasting traffic information. In this case, perform seek tuning or set the INFO button to OFF.

### Preset Station buttons

When a Preset Station button is pressed, if the station with that frequency is broadcasting a sufficiently strong signal, the receiver will tune to that frequency.

When the signal strength is not sufficient for good reception, by referring to the AF list, the receiver searches for a station broadcasting the same program with a stronger signal. If a station cannot be found in the AF list, PI-seek tuning starts. If a station broadcasting the same PI code cannot be detected in one search-cycle, PI-seek tuning is released and the original preset frequency is tuned to.

**CT (Clock Time)**

When CT data is received in the RDS signal, the time is correctly renewed.

- RDS updates the local time according to Greenwich mean time.
- When automatic renewal of clock time is NOT required, press the DISP button for more than 2 seconds while pressing the FM band button. "ADJ OFF" is displayed and the clock time is NOT renewed even if the CT (Clock Time) data is received with the RDS signal. Repeat the same procedure to reset to ON. "ADJ ON" will be displayed and clock time will be automatically renewed when CT data is received.

**Note:**

It takes at least 2 minutes to renew the time after receiving CT data. The station must be received for more than 2 minutes continuously, otherwise the time will NOT be renewed.

**Mono Button**

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

**Note:**

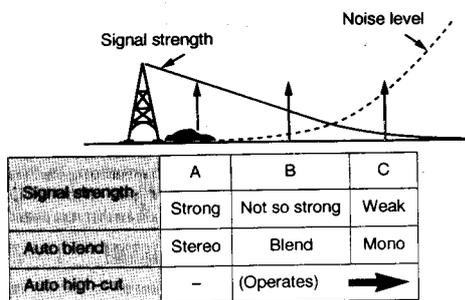
Set to mono when a stereo FM broadcast is too noisy and cannot be heard satisfactorily.

**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.

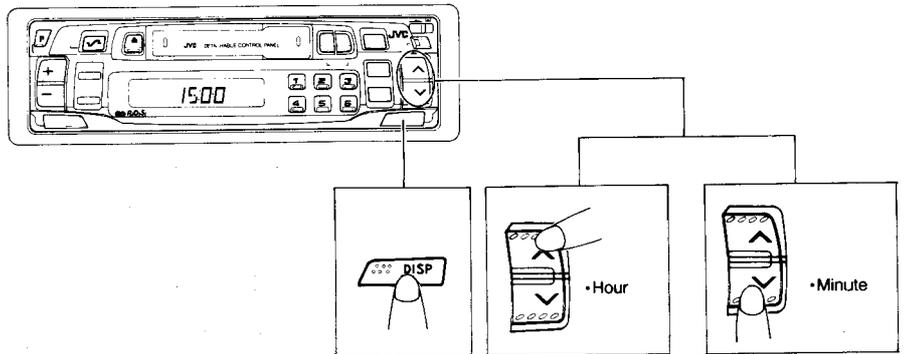


**DIGITAL CLOCK DISPLAY**

To select Time mode, press the DISP button for more than 2 seconds. 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 for more than 2 seconds to cancel Time mode.

**How To Adjust The Time**

While pressing the DISP button, press the Hour Adjustment button (⤴) to adjust the "hours", and press the Minute Adjustment button (⤵) to adjust the "minutes".

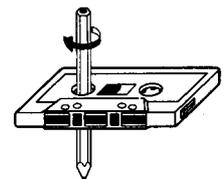


**TAPE CARE HINTS**

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.

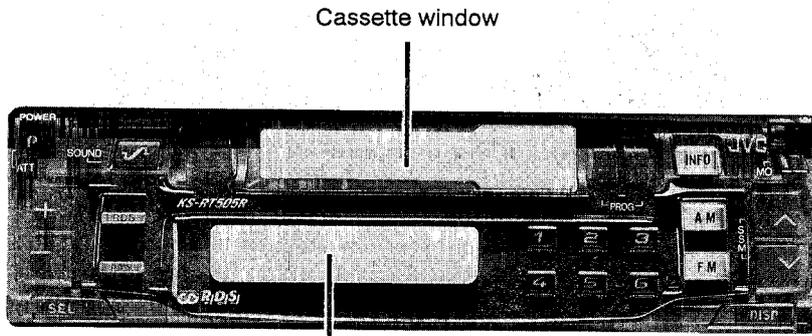
**Note:**

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

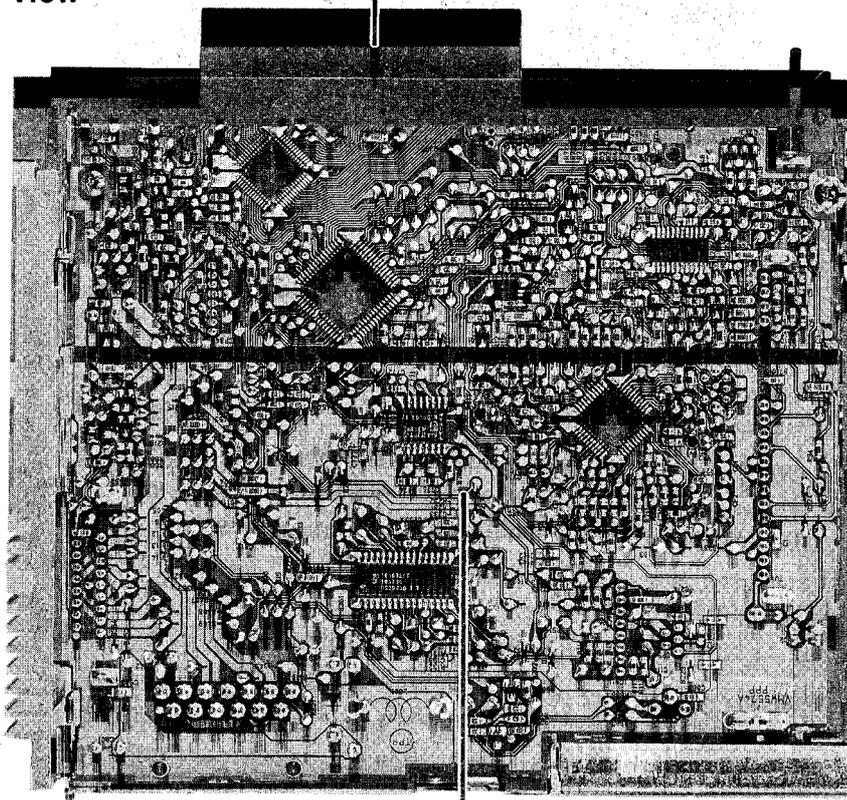


Cassette window

Display window

LCD Display section

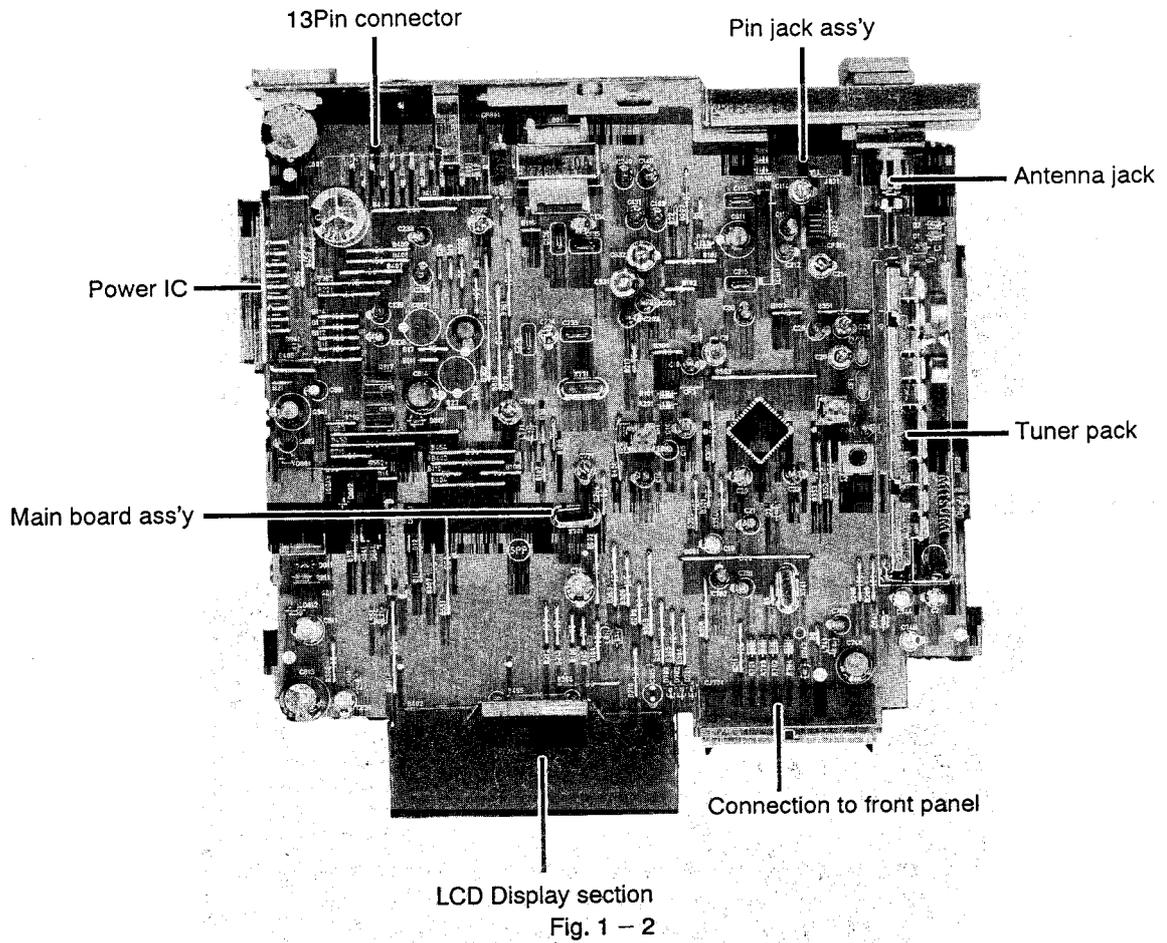
## ◆ Bottom side view



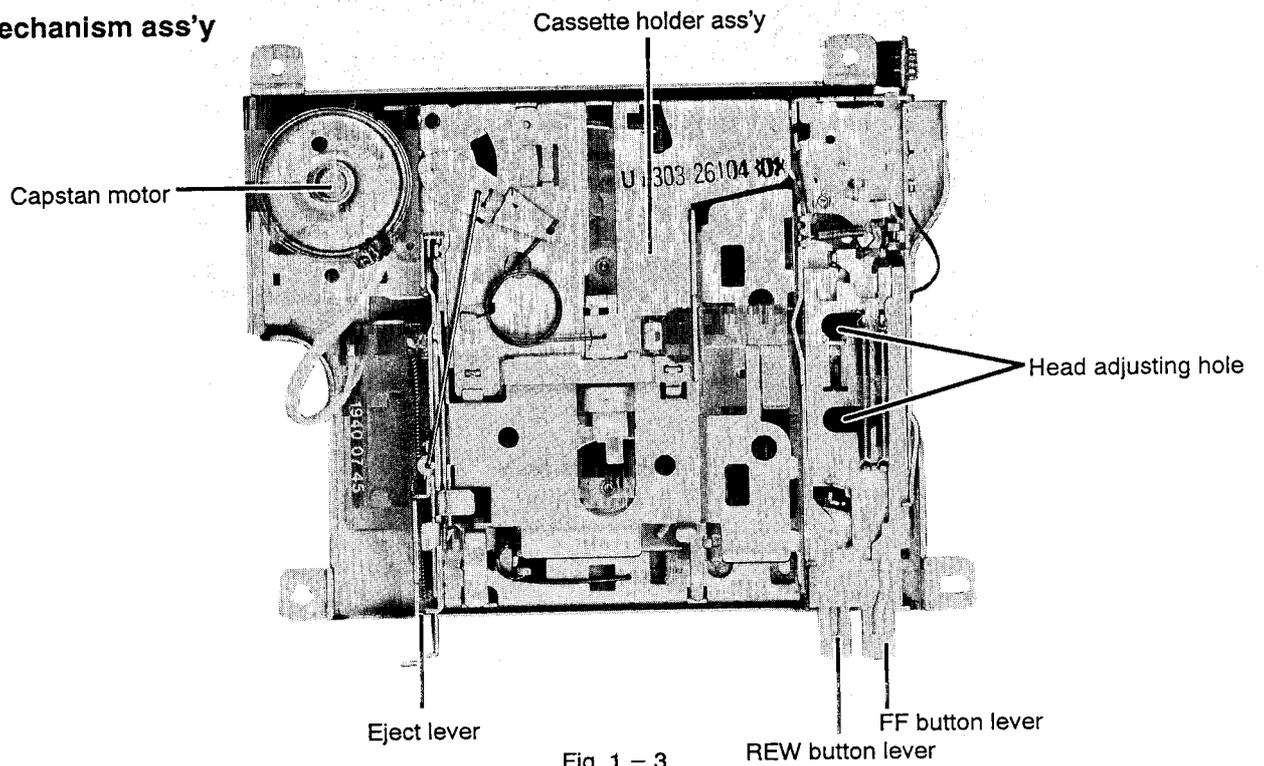
Main board ass'y

Fig. 1 - 1

◆ Main board ass'y(Top side)



◆ Mechanism ass'y



## 2 Removal of Main

### ■ 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.

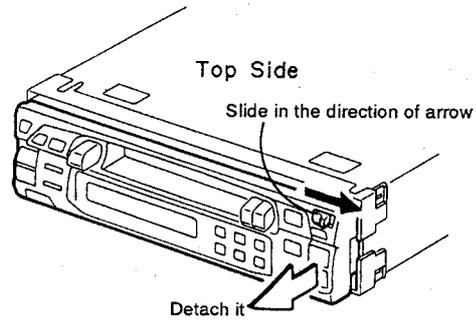


Fig. 2 - 1

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

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

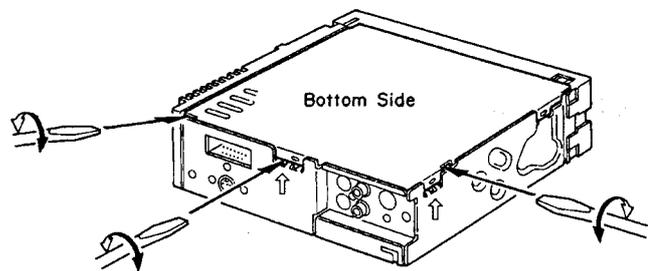


Fig. 2 - 2

#### ◆ 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.

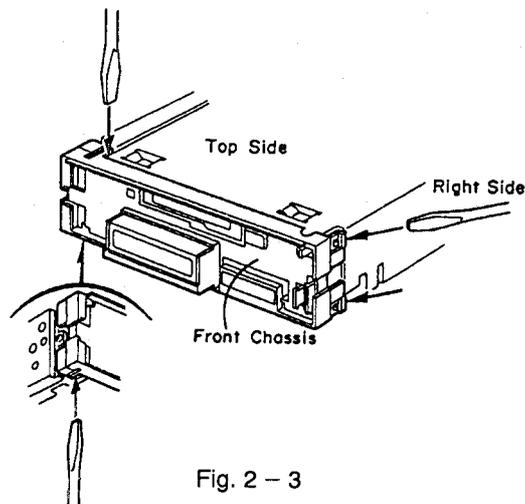


Fig. 2 - 3

#### ◆ 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.

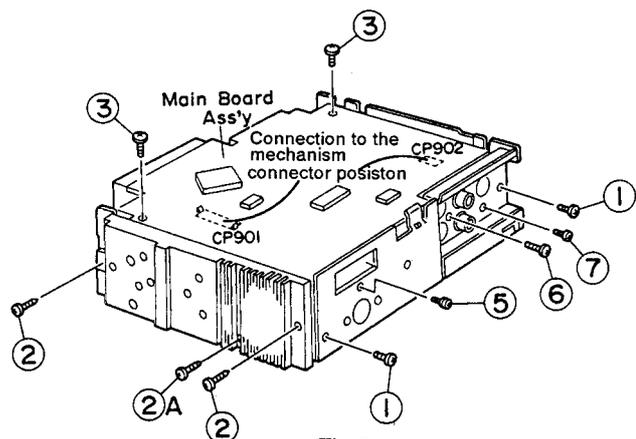


Fig.2 - 4

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

Remove five screws retaining the jacks or the like. 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.

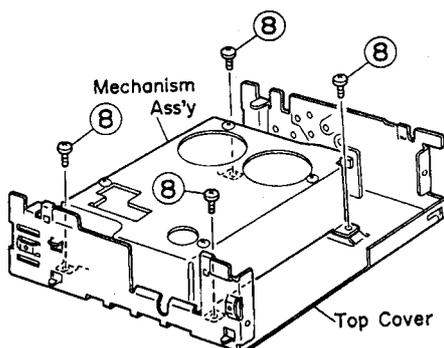


Fig. 2 - 5

## ■ 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.

### ◆ 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.

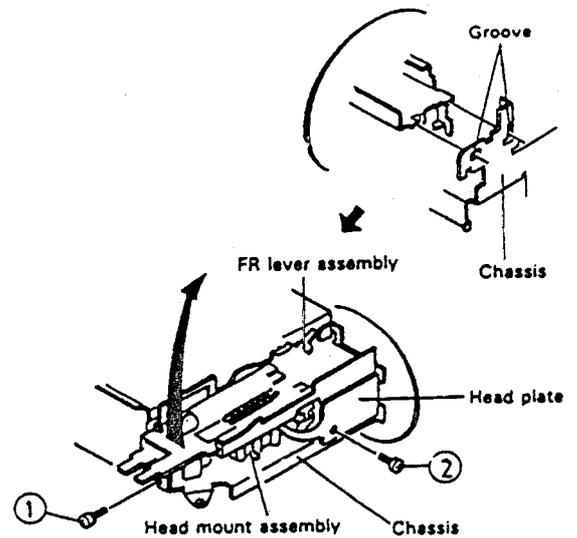


Fig. 2-6

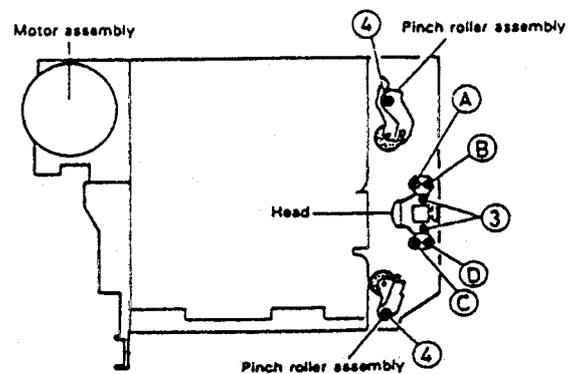


Fig. 2-7

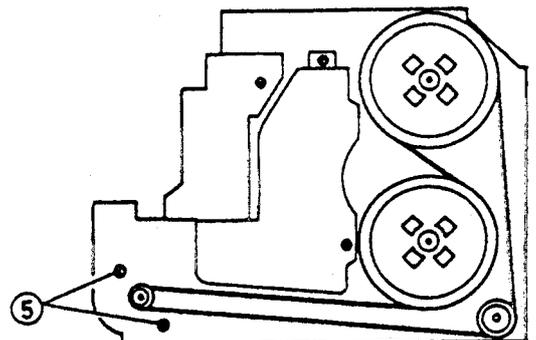


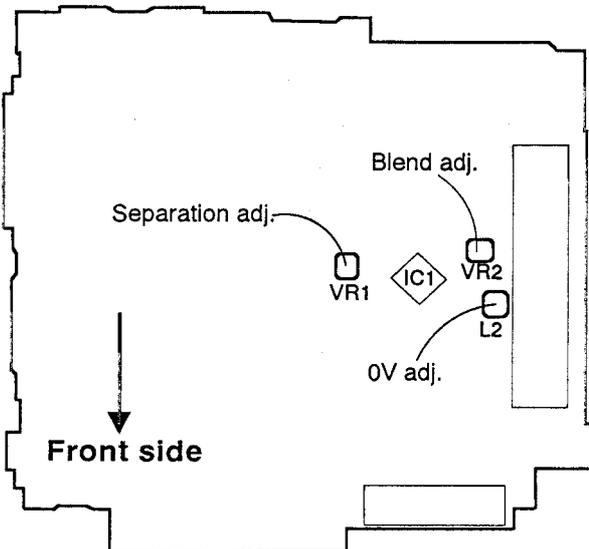
Fig. 2-8

### 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 Ω )
- Attenuator(impedance;600 Ω )
- Frequency counter
- AM Standard signal generator
- FM Standard signal generator
- Wow flutter mater
- Torqu 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



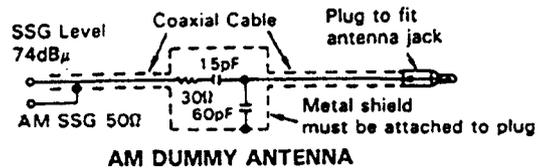
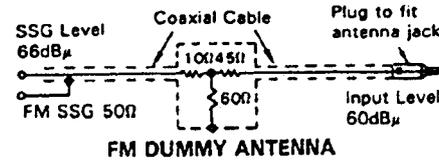
#### ■ Condition for measurement

- Power Supply ..... DC14.4V  
(Reduced Voltage:10.5V)
- Load ..... 4 Ω  
(4- speaker connection)
- BASS/TRE, FADER,BALANCE ..... 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, 40kHz deviation, pilotsignal 7.5kHz, 66dB μ V
- **AM**;400Hz, 30% modulation ,74dB μ V
- Output impedance ;50 Ω

#### ■ Dummy antenna



#### ● Preset memory Initialization

Band	Preset Memory					
	M1	M2	M3	M4	M5	M6
FM(MHz)	87.5	89.9	97.9	105.9	108.0	87.5
AM(kHz)	144	153	603	999	1404	1620

#### ● Manual Tuning Up/Down Frequency

- FM**;50kHz Step
- AM**;9kHz Step

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

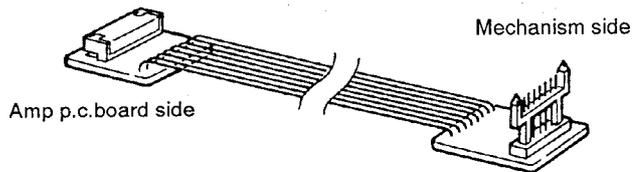
◆ For 1995, we're advancing efforts to make our extension cords common for all Car Stereo products.

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

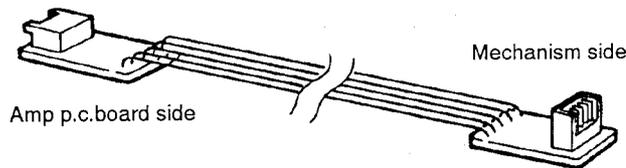
EXT - KSRT001 - 8P (8 pin extension cord)



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)



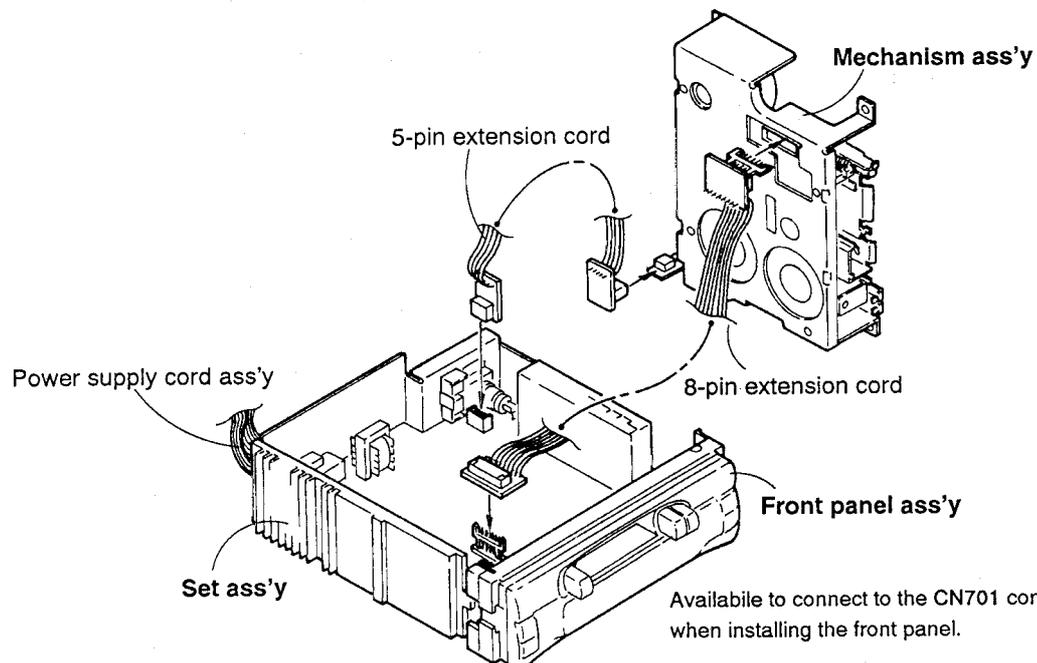
For connection between mechanism assembly and main PCB assembly.

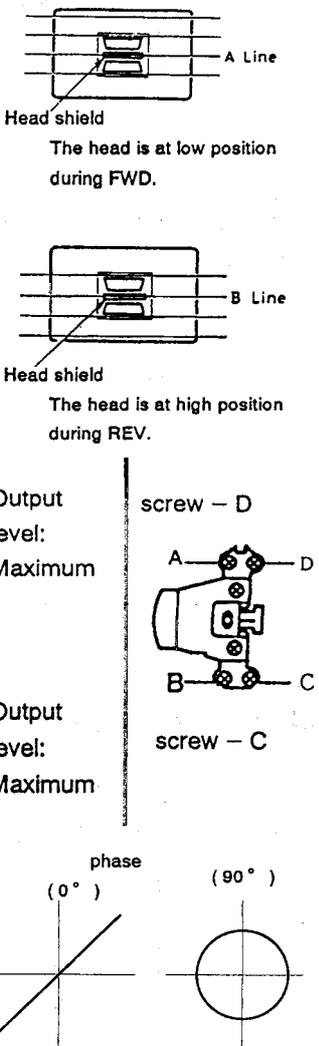
Check for head signal section.

◆ 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

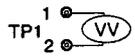


Item	Conditions	Adjustment and Confirmation methods	S.Values	Adjust
1. Head azimuth adjustment	Test tape: SCC – 1659  MTT942SP(10kHz)	<p>★ In case the head and its height have been changed, it will be necessary to adjust the height of the head.</p> <p>1. Adjustment of the height of head</p> <p>1)When 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 90° ) 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 90° ) 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 preform bonding after adjustment.</p>	<p>S.Values</p>	<p>Adjust</p> 
2. Tape speed and wow flutter confirmantion	Test tape:VTT712 (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 specefication, adjust the motor with a built-in volume resistor.</p>	Tape speed: 3015 ~3045Hz Wow flutter: less than0.35%	Built-in volume resistor
3.Playback frequency response confirmation	Test tape:VTT724 (1kHz) VTT736 (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                      1kHz/8kHz: 0 ± 3dB,                      1kHz/125Hz: 0 ± 3dB.</p> <p>3. When 8 kHz is out of specification, it will be necessary to read adjust the azimuth</p>	Speaker out 1kHz/125Hz :0 ± 3dB 1kHz/8kHz :0 ± 3dB	

Item	Conditions	Adjustment and Confirmation methods	S.Values	Adjust
4.Maximum output power confirmation	Test tape :VTT721 (1kHz) volume:maximum BASS/TRE:center	1. Confirm the rear and front output be more than 8.3V((17W). (4-speaker connected.) 2. Confirm that consumption current at above condition to be less than 5A. 4. Sound leakage should not occur at volume minimum. 5. Oscillation should not occur at BASS/TRE at maximum.	Output level:more than 17W(8.3V) Consumption current :less than 5A	
5. Line out level adj.	Test tape:VTT721 (1kHz) Test point : line out	1. Comfirm the line out level to be within 350~700mV	Line out level 350~700mV	

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

**■ Tuner section adjustment**

Item	Conditions	Adjustment and Confirmation methods	S.Values	Adjust
1. Radio/Tape level difference	AM 1000 kHz, 1kHz, 30% modulation, 74dB $\mu$	Against VTT724, the output difference level to be within - 1 to $\pm$ 3 dB	within - 1 to $\pm$ 3 dB	
2. FM 0V adjustment	Test point: TP1 FM 97.9MHz, 66 dB non-modulation	Adjust L2 so that the TP1 DC voltage level become 0 V when 97.9 MHz is indicated.	0 $\pm$ 10mV 	L2
3. Separation adjustment	TP:AFout FM97.9MHz,66dB $\mu$ (1kHz,40kHz Dev. 7.5kHzDev.)	1. With signal of 97.9MHz,66dB $\mu$ supplied from the signal generator to L or R channel. 2. Adjust VR1 to minimize leak of a channel's output to other channel .	minimum	VR1
4. S.meter adjustment	TP:TP781 out FM97.9MHz,52dB $\mu$ non-modulation	1. With signal of 97.9MHz,46dB $\mu$ v supplied from the signal generator to L or R channel. 2. Adjust VR2 so that the TP781 DC level become 3V.	3V	VR2

# 4 Block diagram

## Integrated circuit

◆ IC1 (LA1867M) FM IF/MPX AMP.

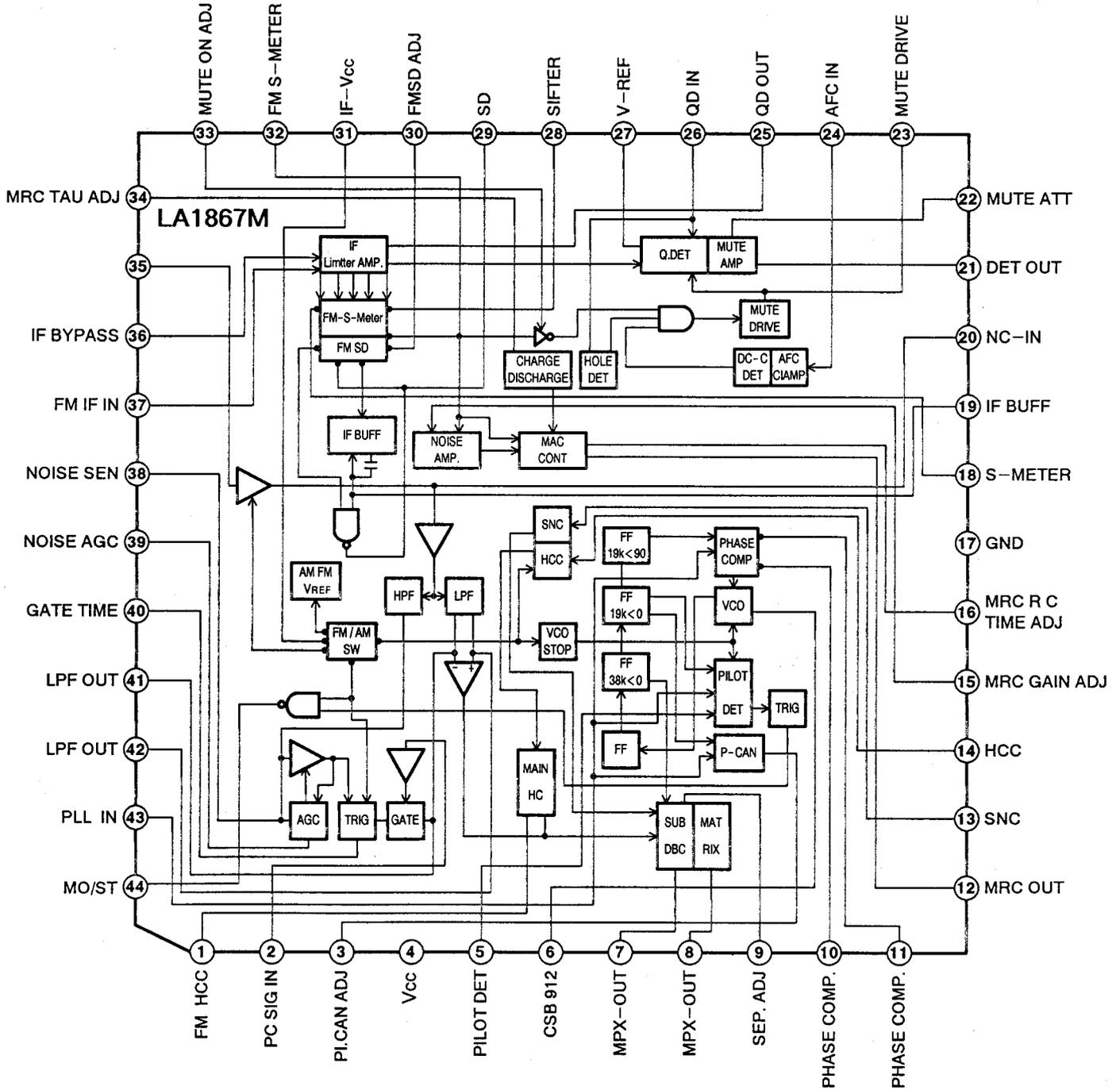


Fig. 4 - 1

◆ IC931 (TEA6320T) E.VOLUME

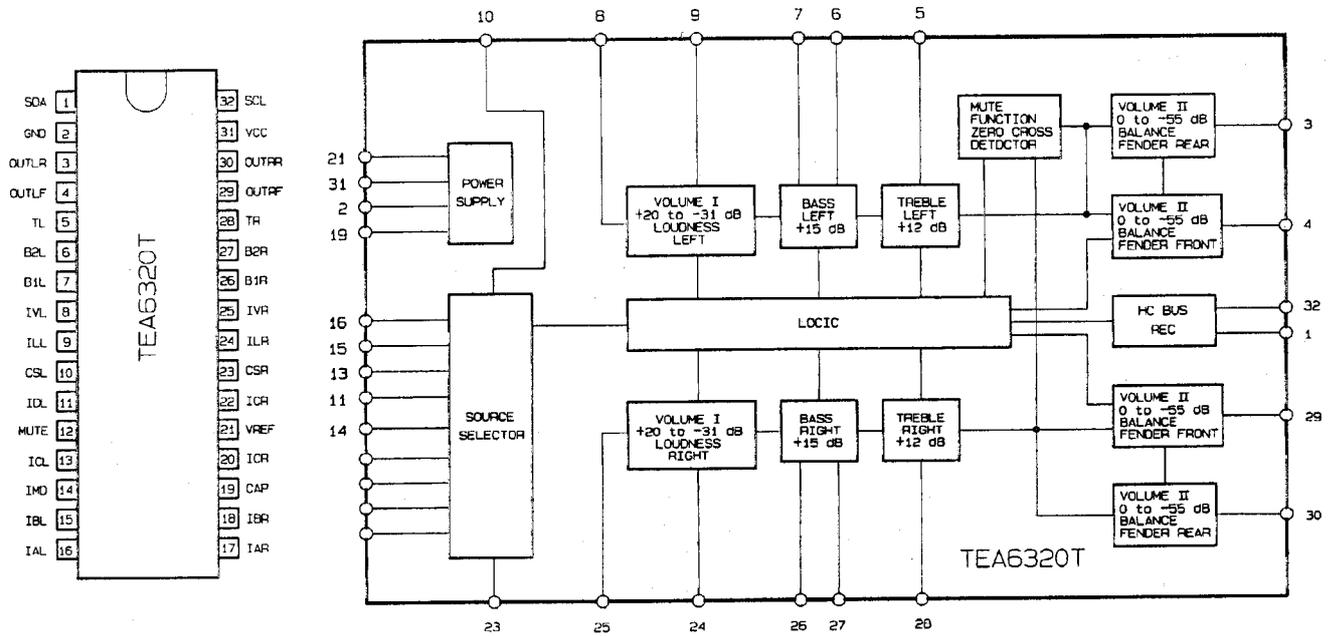


Fig. 4 - 2

◆ IC551 (UPD7225GB) LCD DRIVER

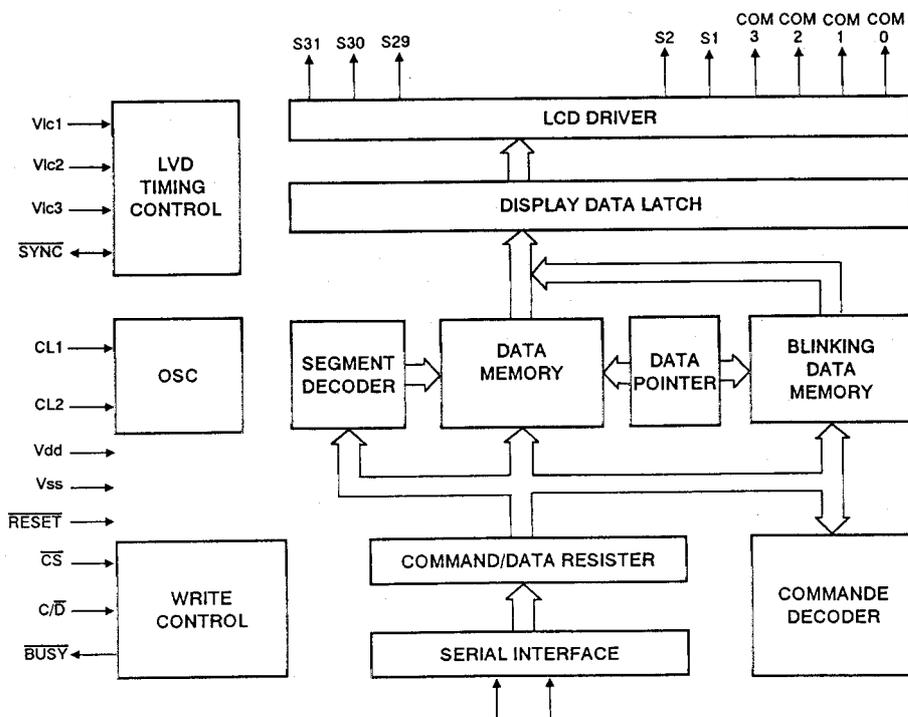


Fig. 4 - 3

◆ IC911 (UPC1228HA) HEAD AMP. -

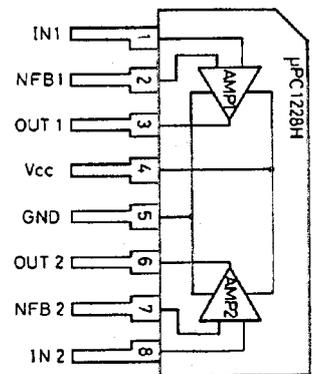


Fig. 4 - 4

◆ IC941 (TDA8561Q) POWER AMP.

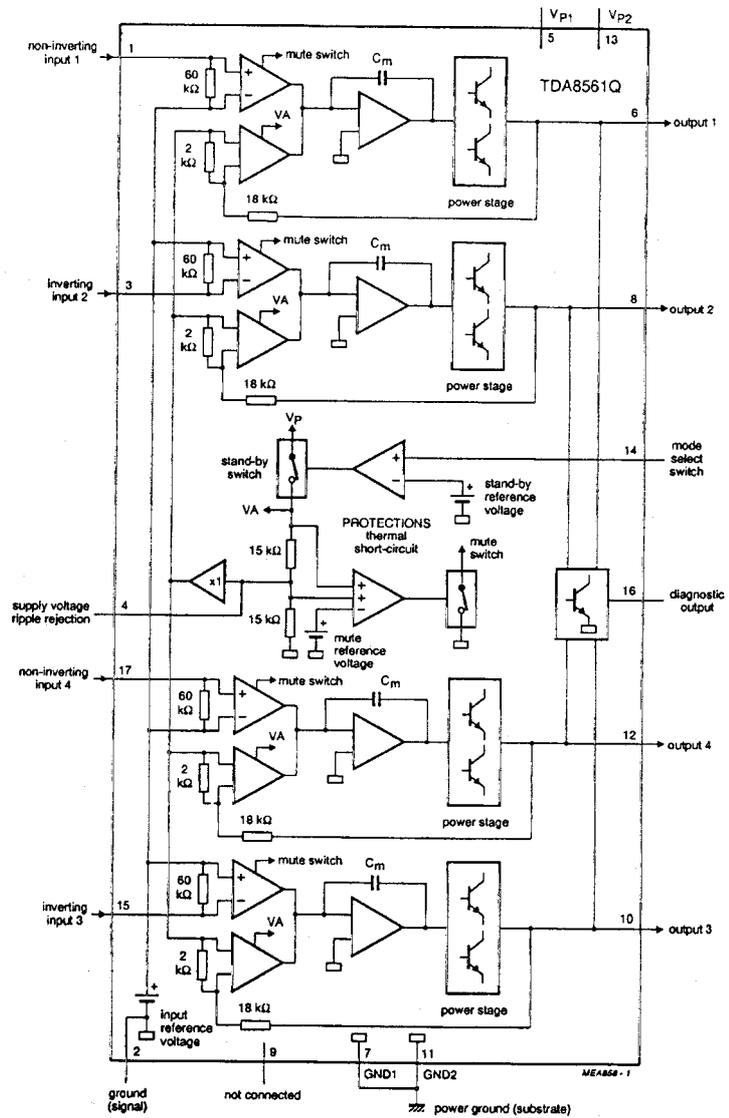


Fig. 4 - 5

◆ IC771 (SAA6579T) RDS

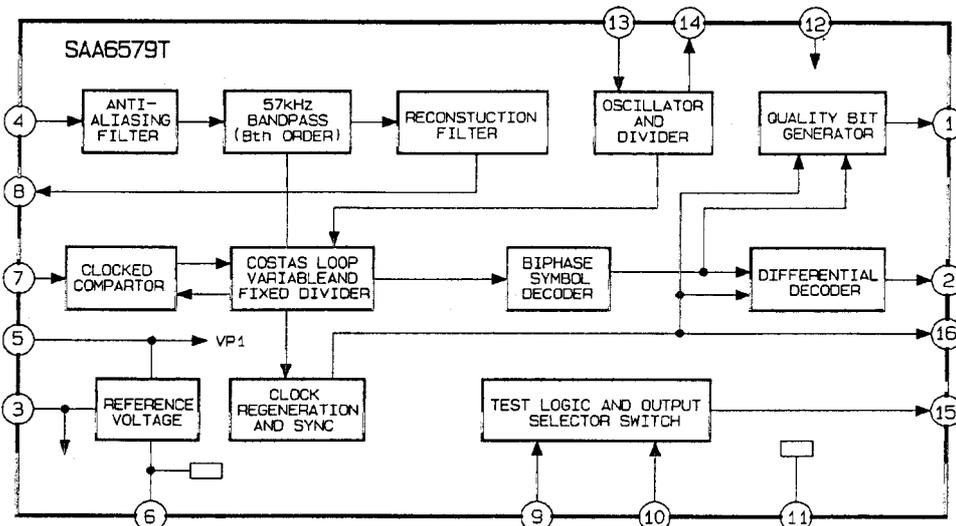
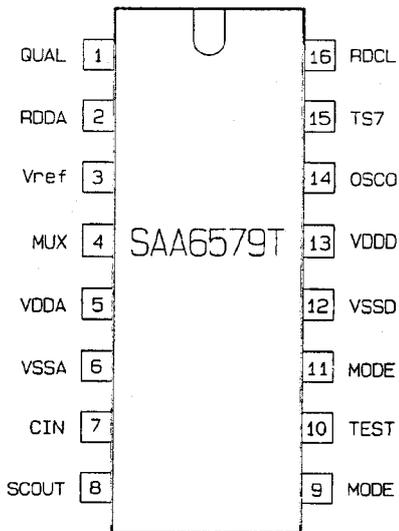


Fig. 4 - 6

◆ IC741 (LC72146M) PLL

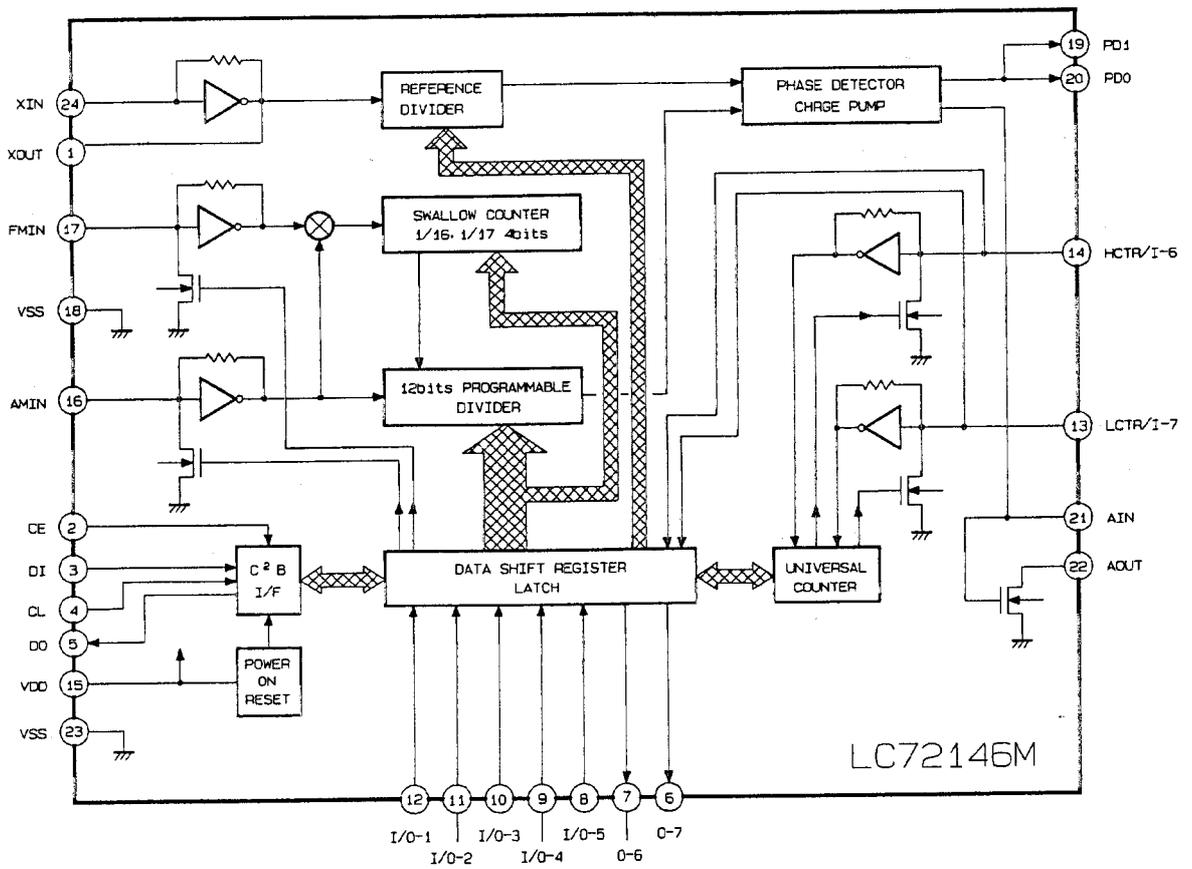
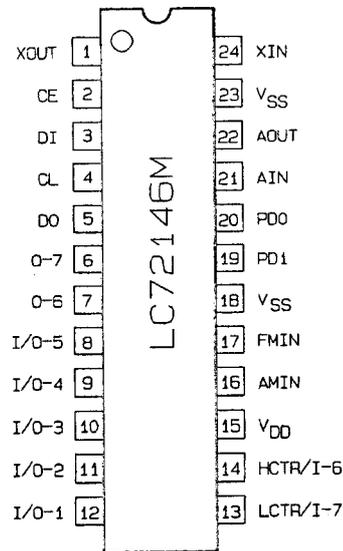


Fig. 4 - 7



■ Signal block diagram

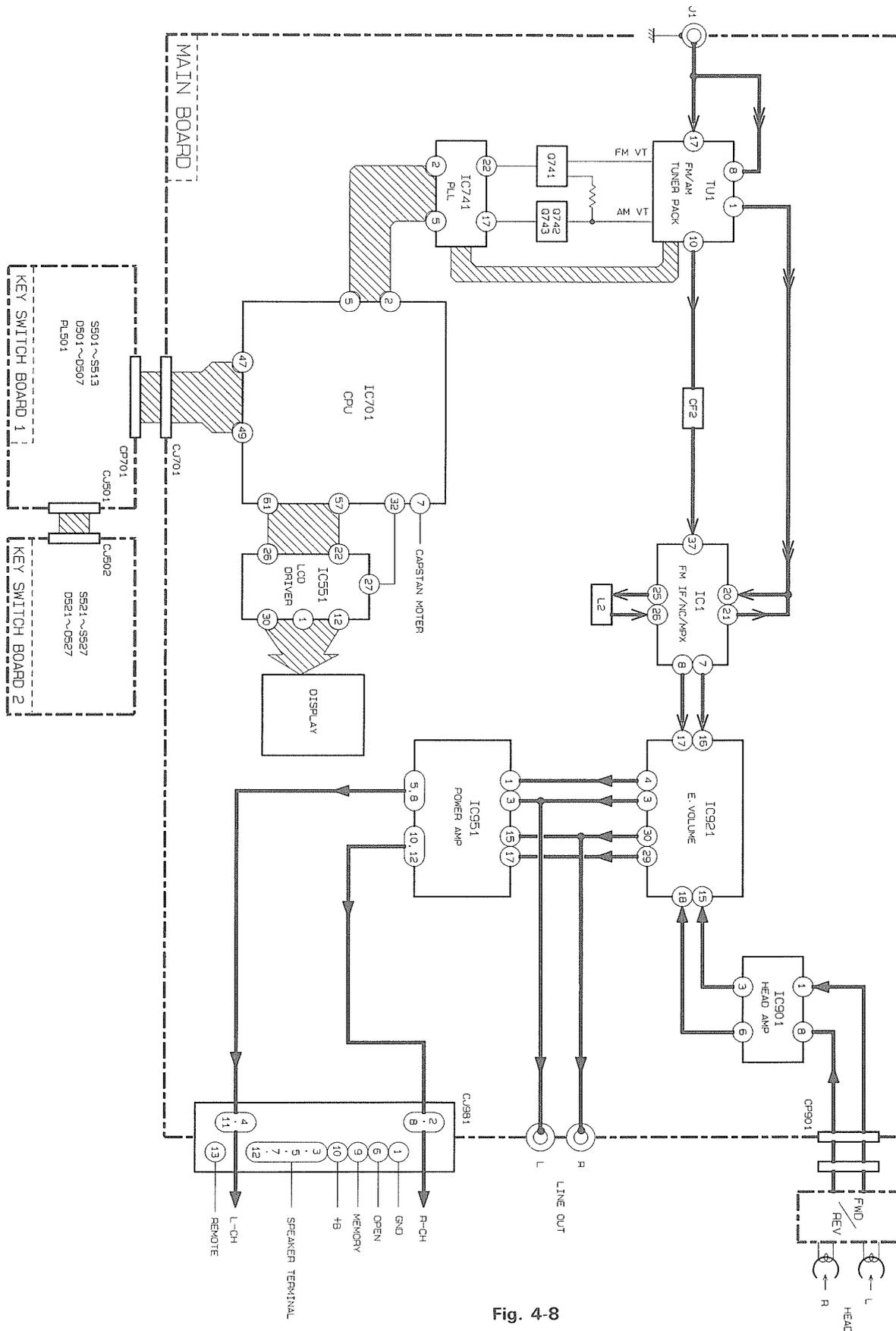
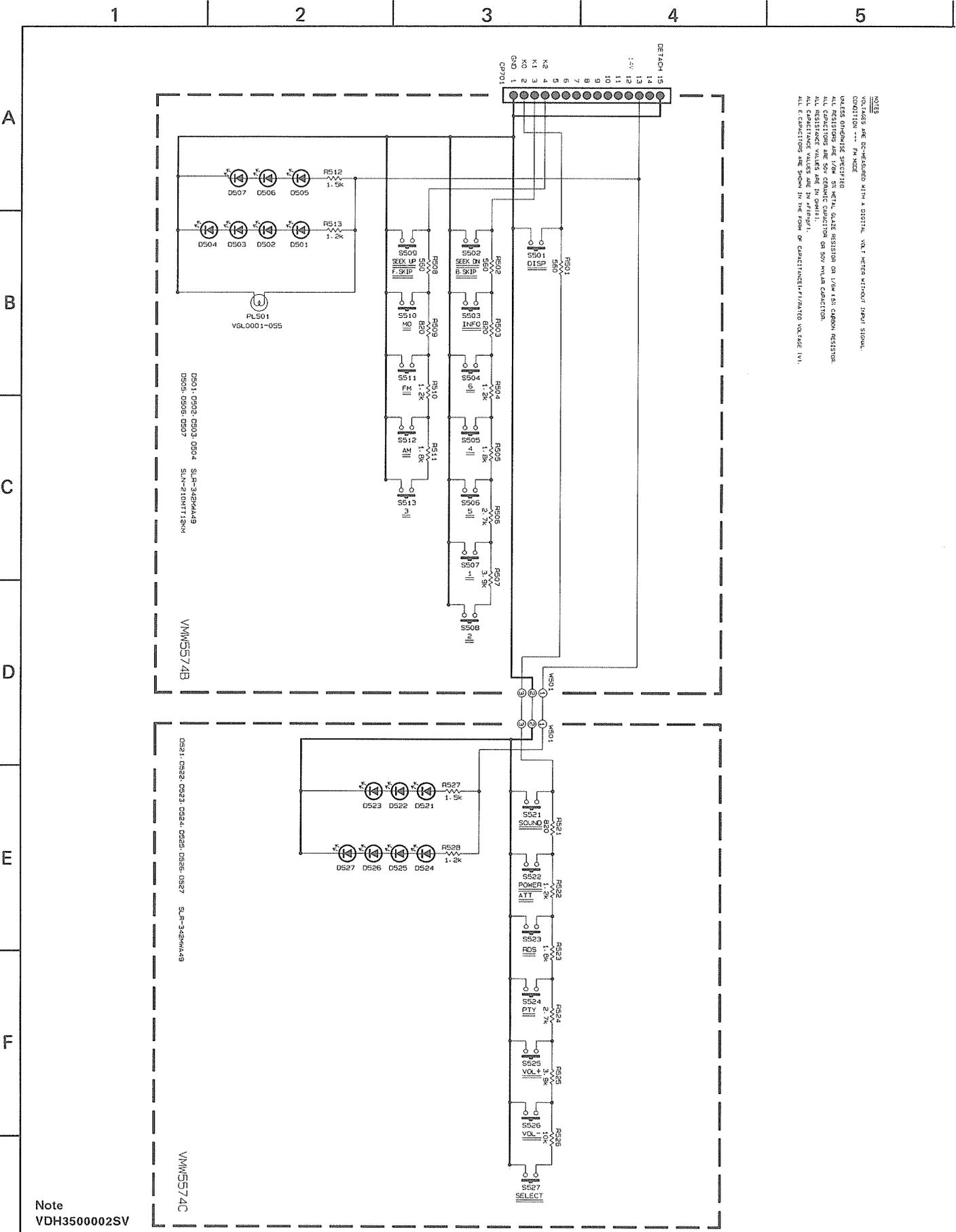


Fig. 4-8

5 Standard schematic diagram ■ Key switch circuit

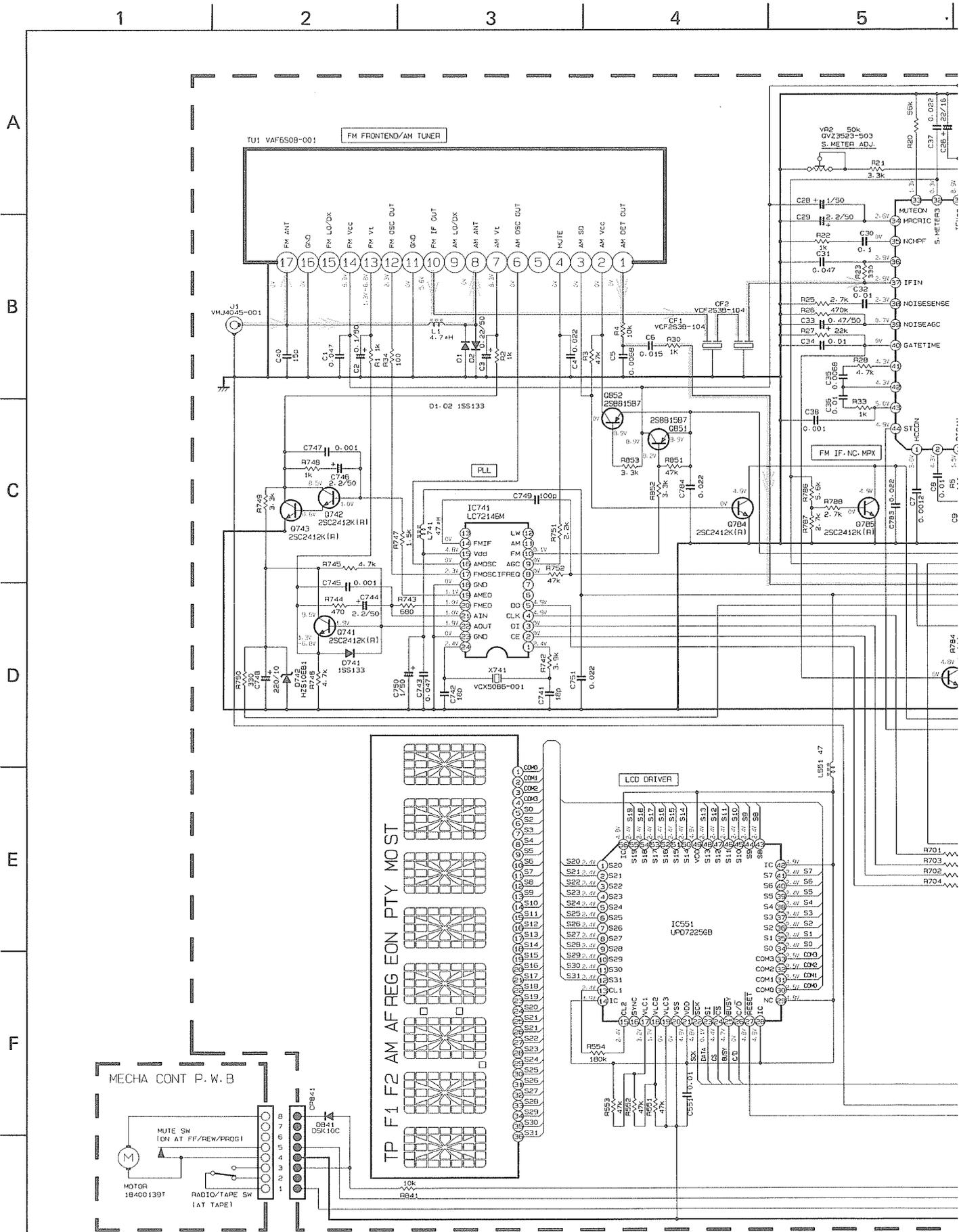


NOTES  
 VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLTMETER WITHOUT INPUT SIGNAL.  
 CONDITION --- FM KCEE  
 UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS ARE 1/8W 5% METAL FILM QUARTZ RESISTOR OR 1/4W 1%S CARBON RESISTOR  
 ALL CAPACITORS ARE 50V 5% TANTALUM CAPACITOR OR 50V MYLAR CAPACITOR.  
 ALL RESISTOR VALUES ARE IN OHMS UNLESS OTHERWISE SPECIFIED.  
 ALL CAPACITOR VALUES ARE IN PICOFARADS UNLESS OTHERWISE SPECIFIED.  
 ALL DIMENSIONS ARE SHOWN IN THE FORM OF CHANGELIST/DATE VOL. 1/1.

Note  
 VDH3500002SV

Fig. 5-1

Radio/System control circuit



Note  
VDH3550002CV



# Amplifier circuit

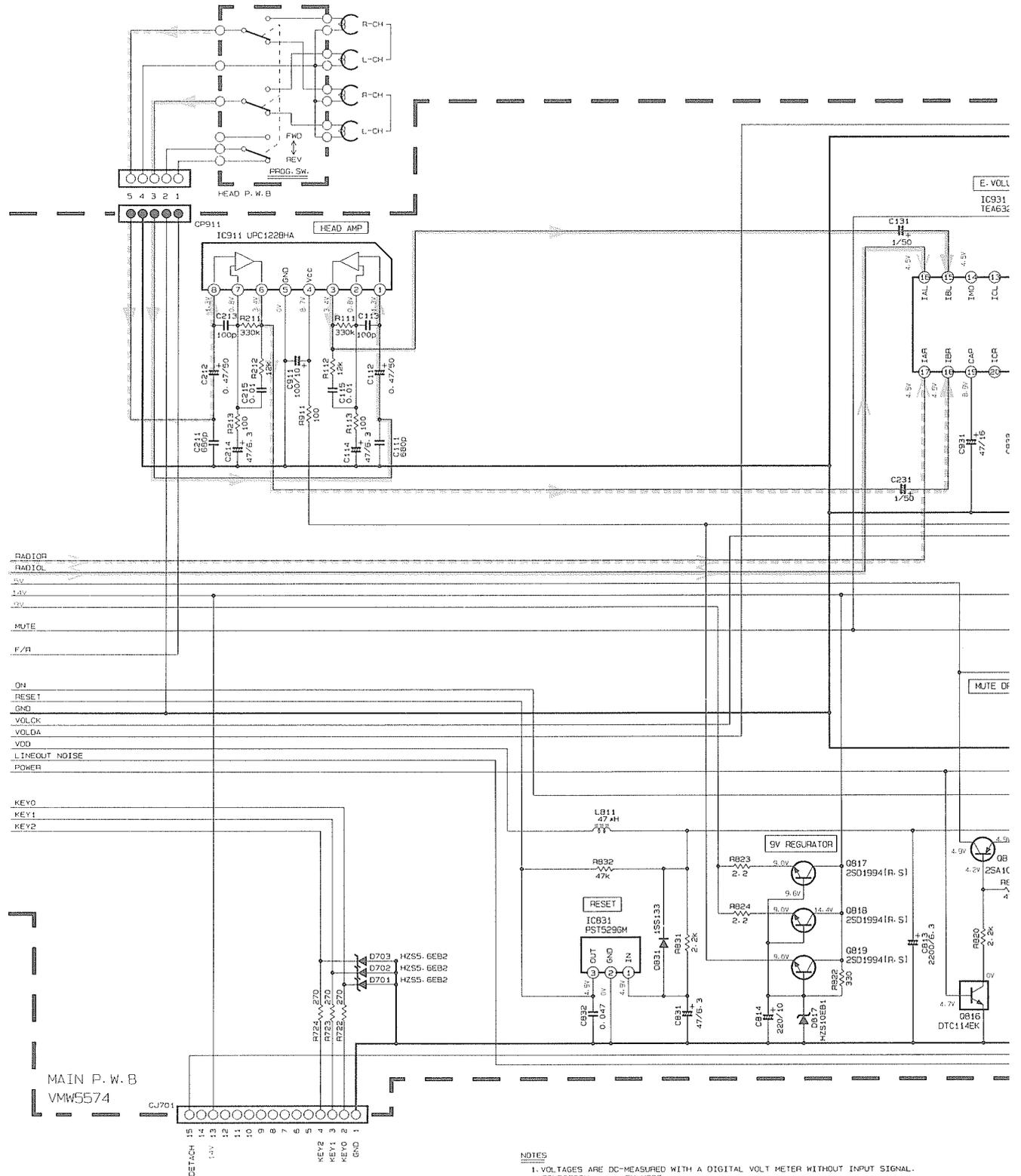
11

12

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15



- NOTES**
1. VOLTAGES ARE DC-MEASURED WITH A DIGITAL VOLT METER WITHOUT INPUT SIGNAL. CONDITION - "FM" MODE.
  2. UNLESS OTHERWISE SPECIFIED:  
 ALL RESISTORS ARE 1/4W 5% CARBON RESISTOR OR 1/4W 1/10W 5% METAL GLAZE RESISTOR.  
 ALL CAPACITORS ARE 50V CERAMIC CAPACITOR.  
 ALL RESISTANCE VALUES ARE IN Ω(M).  
 ALL CAPACITANCE VALUES ARE IN μF(PF).  
 ALL E-CAPACITORS ARE SHOWN IN THE FORM OF CAPACITANCE(μF) / RATED VOLTAGE(V).  
 (M) MYLAR CAPACITOR

Note  
VDH3550002AV

Fig. 5-3

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A

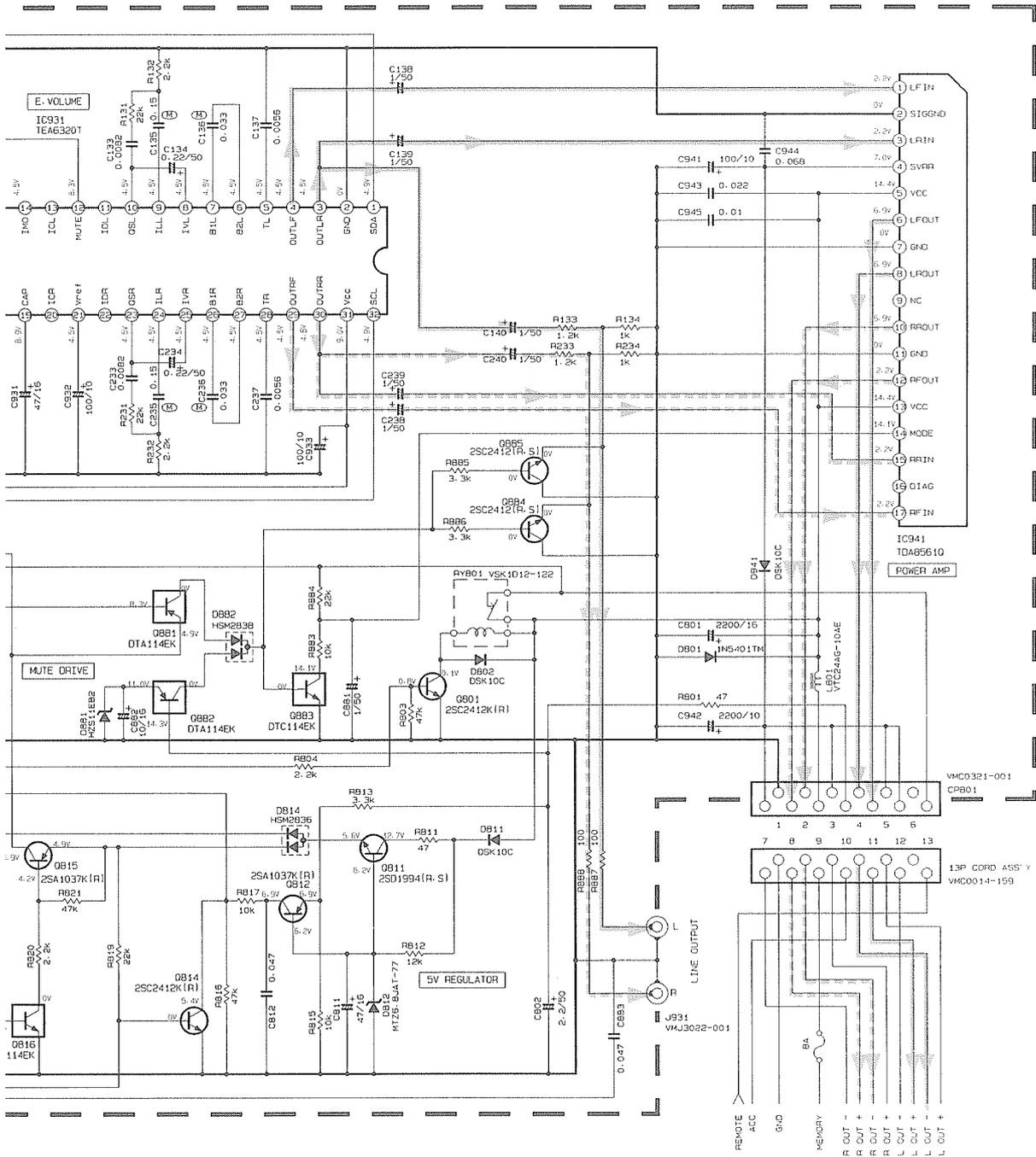
B

C

D

E

F



DIGITAL TRANSISTORS	R1	R2			
	R1	10k	10k	DTA114EK	OBB1 OBB2
	R1	47k	47k	DTA144EK	
	R1	10k	10k	DTC114EK	OBB1 OBB3
	R1	47k	47k	DTC144EK	

- L Tape signal line
- L FM Signal line
- L AM Signal line

# 6 Location of P. C. board parts and parts list

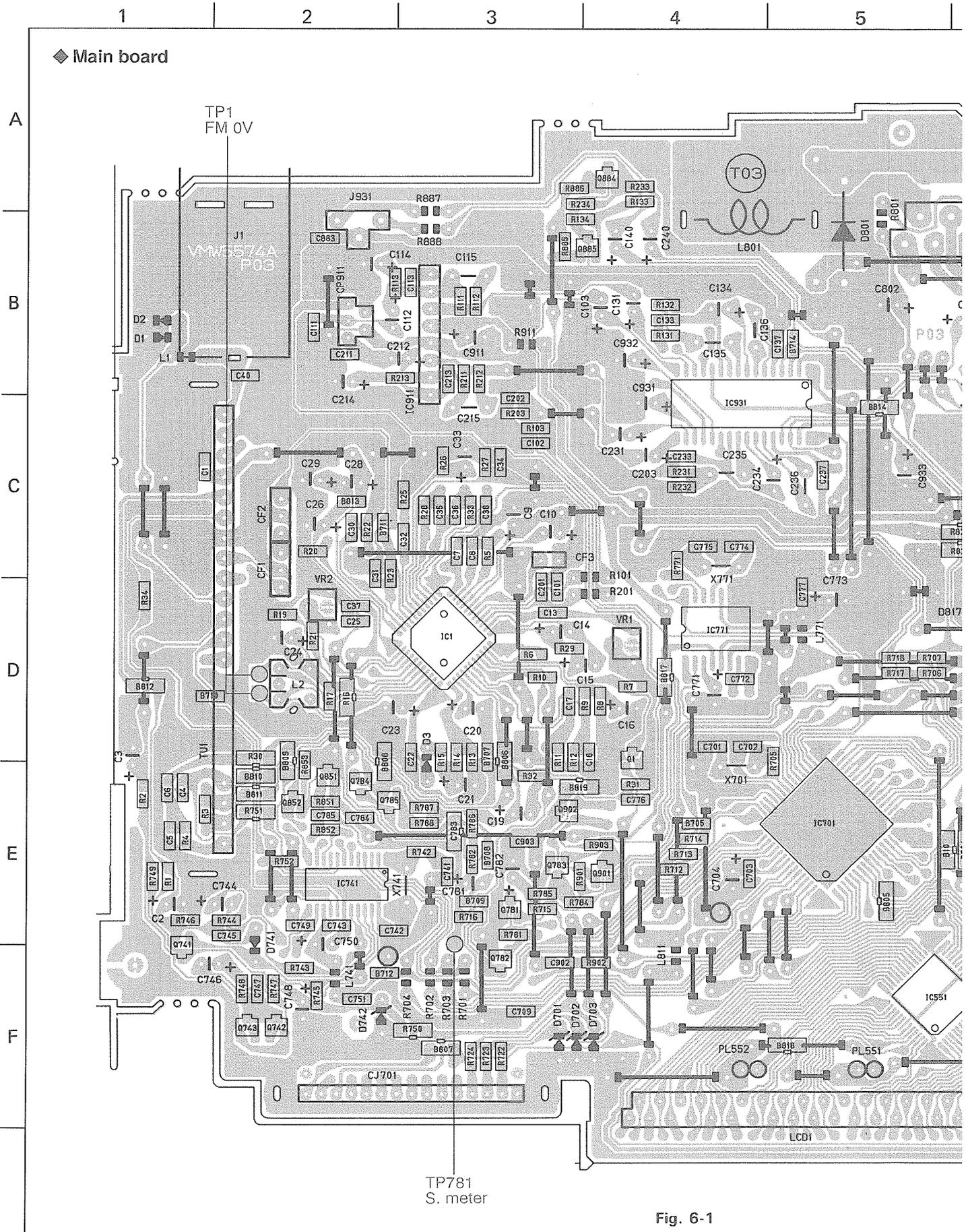
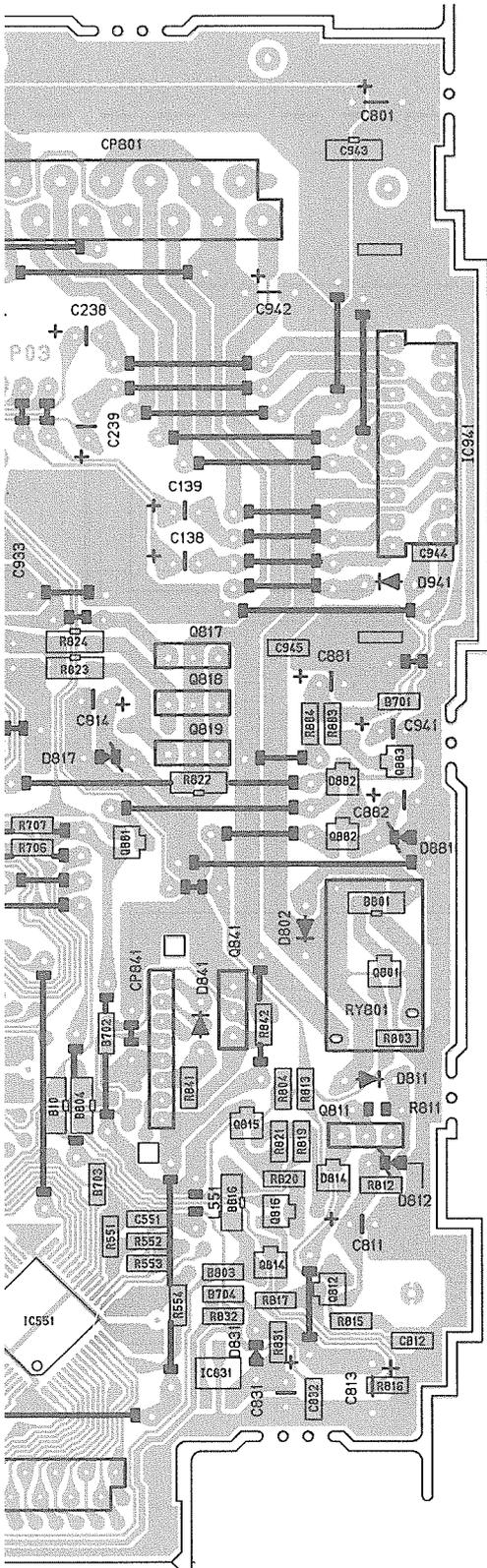


Fig. 6-1



◆ Key switch board 1

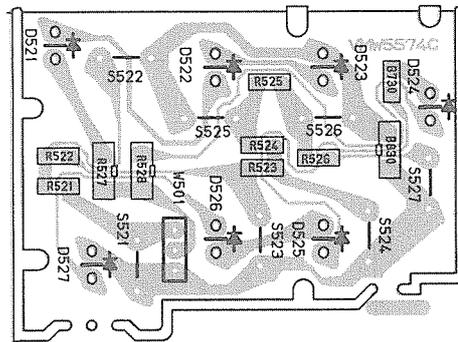
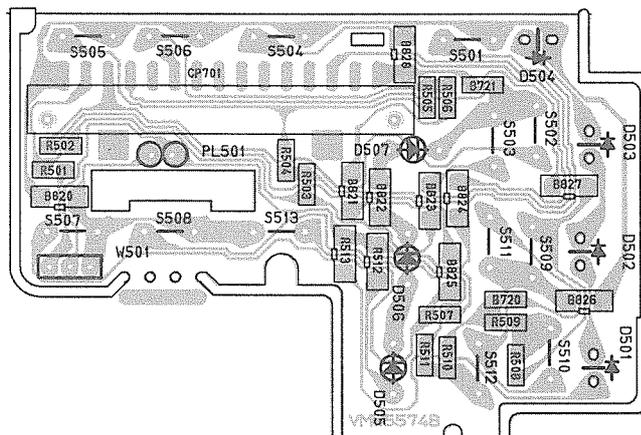


Fig. 6-2

◆ Key switch board 2





● Main /key switch board parts list

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 15	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 16	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 17	NCB21HK-104	C CAPACITOR	.10MF 10% 25V	
C 18	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V	
C 19	GER41HM-225	E-CAPACITOR	2.2MF 20% 50V	
C 20	GER41HM-225	E-CAPACITOR	2.2MF 20% 50V	
C 21	GERF1HM-104ZN	E-CAPACITOR	.10MF 20% 50V	
C 22	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V	
C 23	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 24	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 25	NCB21HK-473AY	C CAPACITOR	.047MF 10% 25V	
C 26	GER41CM-226VM	E-CAPACITOR	22MF 20% 16V	
C 28	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 29	GER41HM-225	E-CAPACITOR	2.2MF 20% 50V	
C 30	NCB21HK-104	C CAPACITOR	.10MF 10% 25V	
C 31	NCB21HK-473AY	C CAPACITOR	.047MF 10% 25V	
C 32	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 33	GERF1HM-474ZM	E-CAPACITOR	.47MF 20% 50V	
C 34	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 35	NCB21HK-682AY	C CAPACITOR	6800PF 10% 50V	
C 36	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 37	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V	
C 38	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V	
C 40	NCT21CH-150AY	C CAPACITOR	15PF +50% -10% 1	
C 101	NCB21HK-183AY	C CAPACITOR	.018MF 10% 50V	
C 102	NCB21HK-152AY	C CAPACITOR	1500PF 10% 50V	
C 103	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 111	NCS21HJ-681AY	C CAPACITOR	680PF 5% 50V	
C 112	GERF1HM-474ZM	E-CAPACITOR	.47MF 20% 50V	
C 113	NCS21HJ-101AY	C CAPACITOR	100PF 5% 50V	
C 114	GERFOJM-476ZN	E-CAPACITOR	47MF 20% 6.3V	
C 115	QFV71HJ-103	FILM CAPACITOR	.010MF 5% 50V	
C 131	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 133	NCB21HK-822AY	C CAPACITOR	8200PF 10% 50V	
C 134	GERF1HM-224ZN	E-CAPACITOR	.22MF 20% 50V	
C 135	QFV11HJ-154AZM	FILM CAPACITOR	.15MF 5% 50V	
C 136	QFV41HJ-333	FILM CAPACITOR	.033MF 5% 50V	
C 137	NCB21HK-562AY	C CAPACITOR	5600PF 10% 50V	
C 138	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 139	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 140	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 201	NCB21HK-183AY	C CAPACITOR	.018MF 10% 50V	
C 202	NCB21HK-152AY	C CAPACITOR	1500PF 10% 50V	
C 203	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 211	NCS21HJ-681AY	C CAPACITOR	680PF 5% 50V	
C 212	GERF1HM-474ZM	E-CAPACITOR	.47MF 20% 50V	
C 213	NCS21HJ-101AY	C CAPACITOR	100PF 5% 50V	
C 214	GERFOJM-476ZN	E-CAPACITOR	47MF 20% 6.3V	
C 215	QFV71HJ-103	FILM CAPACITOR	.010MF 5% 50V	
C 231	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 233	NCB21HK-822AY	C CAPACITOR	8200PF 10% 50V	
C 234	GERF1HM-224ZN	E-CAPACITOR	.22MF 20% 50V	
C 235	QFV11HJ-154AZM	FILM CAPACITOR	.15MF 5% 50V	
C 236	QFV41HJ-333	FILM CAPACITOR	.033MF 5% 50V	
C 237	NCB21HK-562AY	C CAPACITOR	5600PF 10% 50V	

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
B 10	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 701	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 702	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 703	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 704	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 705	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 707	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 708	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 709	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 710	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 711	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 712	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 714	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 720	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 721	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 730	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 801	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 803	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 804	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 805	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 806	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 807	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 808	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 809	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 810	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 811	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 812	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 813	NRSA02J-ORONY	MG RESISTOR	5% 1710W	
B 814	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 816	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 817	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 818	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 819	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 820	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 821	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 822	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 823	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 824	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 825	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 826	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 827	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 828	NRS181J-ORONY	MG RESISTOR	5% 178W	
B 830	NRS181J-ORONY	MG RESISTOR	5% 178W	
C 1	NCB21HK-473AY	C CAPACITOR	.047MF 10% 25V	
C 2	GERF1HM-104ZN	E-CAPACITOR	.10MF 20% 50V	
C 3	GERF1HM-224ZN	E-CAPACITOR	.22MF 20% 50V	
C 4	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V	
C 5	NCB21HK-682AY	C CAPACITOR	6800PF 10% 50V	
C 6	NCB21HK-153AY	C CAPACITOR	.015MF 10% 50V	
C 7	NCB21HK-122AY	C CAPACITOR	1200PF 10% 50V	
C 8	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 9	GER41CM-226VM	E-CAPACITOR	22MF 20% 16V	
C 10	GER41HM-105VM	E-CAPACITOR	1.0MF 20% 50V	
C 13	NCB21HK-473AY	C CAPACITOR	.047MF 10% 25V	
C 14	GERF1HM-104ZN	E-CAPACITOR	.10MF 20% 50V	

● Main/Key switch board parts list

BLOCK NO. 01111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 238	QER41HM-105VM	E. CAPACITOR	1.0MF 20% 50V	
C 239	QER41HM-105VM	E. CAPACITOR	1.0MF 20% 50V	
C 240	QER41HM-105VM	E. CAPACITOR	1.0MF 20% 50V	
C 551	NCB21HK-103AY	C. CAPACITOR	.010MF 10% 50V	
C 701	NC121CH-180AY	C. CAPACITOR	18PF +50:-10% 1	
C 702	NC121CH-180AY	C. CAPACITOR	18PF +50:-10% 1	
C 703	NCB21HK-103AY	C. CAPACITOR	.010MF 10% 50V	
C 704	QER40JM-107	E. CAPACITOR	100MF 20% 6.3V	
C 741	NC121CH-180AY	C. CAPACITOR	18PF +50:-10% 1	
C 742	NC121CH-180AY	C. CAPACITOR	18PF +50:-10% 1	
C 743	NCB21HK-473AY	C. CAPACITOR	.047MF 10% 25V	
C 744	QER41HM-225	E. CAPACITOR	2.2MF 20% 50V	
C 745	NCB21HK-102AY	C. CAPACITOR	1000PF 10% 50V	
C 746	QER41HM-225	E. CAPACITOR	2.2MF 20% 50V	
C 747	NCB21HK-102AY	C. CAPACITOR	1000PF 10% 50V	
C 748	QER41HM-227ZM	E. CAPACITOR	220MF 20% 10V	
C 749	NCB21HK-101AY	C. CAPACITOR	100PF 5% 50V	
C 750	QER41HM-105VM	E. CAPACITOR	1.0MF 20% 50V	
C 751	NCB21HK-473AY	C. CAPACITOR	.047MF 10% 25V	
C 771	QER41HM-225	E. CAPACITOR	2.2MF 20% 50V	
C 772	NCB21HK-681AY	C. CAPACITOR	680PF 5% 50V	
C 773	QER40JM-476ZM	E. CAPACITOR	47MF 20% 6.3V	
C 774	NC121CH-470AY	C. CAPACITOR	47PF +50:-10% 1	
C 775	NC121CH-820AY	C. CAPACITOR	82PF +50:-10% 1	
C 776	NCB21HK-681AY	C. CAPACITOR	680PF 5% 50V	
C 777	NCB21HK-104	C. CAPACITOR	.10MF 10% 25V	
C 781	QER41EM-475VM	E. CAPACITOR	4.7MF 20% 25V	
C 782	QER41EM-475VM	E. CAPACITOR	4.7MF 20% 25V	
C 783	NCB11HK-223PY	C. CAPA. C.M	.022MF 10% 50V	
C 784	NCB21HK-223AY	C. CAPACITOR	.022MF 10% 50V	
C 801	QETB1CM-227ZM	E. CAPACITOR	2200MF 20% 16V	
C 802	QER41HM-225	E. CAPACITOR	2.2MF 20% 50V	
C 811	QER41CM-476M	E. CAPACITOR	47MF 20% 16V	
C 812	NCB21HK-473AY	C. CAPACITOR	.047MF 10% 25V	
C 813	VCE040J-228Z	E. CAPACITOR	220MF 20% 10V	
C 814	QER41AM-227ZM	E. CAPACITOR	47MF 20% 6.3V	
C 831	QER40JM-476ZM	E. CAPACITOR	47MF 10% 25V	
C 832	NCB21HK-473AY	C. CAPACITOR	.047MF 10% 25V	
C 881	QER41HM-105VM	E. CAPACITOR	1.0MF 20% 50V	
C 882	QER41CM-106	E. CAPACITOR	10MF 20% 16V	
C 883	NCB21HK-473AY	C. CAPACITOR	.047MF 10% 25V	
C 902	NCB21HK-103AY	C. CAPACITOR	.010MF 10% 50V	
C 903	NCB21HK-102AY	C. CAPACITOR	1000PF 10% 50V	
C 911	QER41AM-107	E. CAPACITOR	1000MF 20% 10V	
C 931	QER41CM-476M	E. CAPACITOR	47MF 20% 16V	
C 932	QER40JM-107	E. CAPACITOR	100MF 20% 6.3V	
C 933	QER41AM-107	E. CAPACITOR	100MF 20% 10V	
C 941	QER41AM-107	E. CAPACITOR	100MF 20% 10V	
C 942	QETB1AM-228N	E. CAPACITOR	2200MF 20% 10V	
C 943	NCB11HK-223PY	C. CAPA. C.M	.022MF 10% 50V	
C 944	NCB21HK-473AY	C. CAPACITOR	.047MF 10% 25V	
C 945	NCB21HK-103AY	C. CAPACITOR	.010MF 10% 25V	
CF 1	VCF2S3B-104Z	C. FILTER		
CF 2	VCF2S3B-104Z	C. FILTER		
CF 3	CSB912J.F104	CERA ROCK		

BLOCK NO. 01111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
CJ701	VMC0319-001	CONNECTOR		
CP701	VMC0320-001	CONNECTOR		
CP801	VMC0321-001	13PIN CONN		
CP841	EMV5159-1008	CONNECTOR		
CP911	VMC0234-PO5	CONNECTOR		
D 1	1SS133	SI DIODE		
D 2	1SS133	SI DIODE		
D 3	1SS133	SI DIODE		
D 501	SLR-342MWA49	LED		
D 502	SLR-342MWA49	LED		
D 503	SLR-342MWA49	LED		
D 504	SLR-342MWA49	LED		
D 505	SLN-210MTT12KM	LED		
D 506	SLN-210MTT12KM	LED		
D 507	SLN-210MTT12KM	LED		
D 521	SLR-342MWA49	LED		
D 522	SLR-342MWA49	LED		
D 523	SLR-342MWA49	LED		
D 524	SLR-342MWA49	LED		
D 525	SLR-342MWA49	LED		
D 526	SLR-342MWA49	LED		
D 527	SLR-342MWA49	LED		
D 701	HZS5.6EB2	ZENER DIODE		
D 702	HZS5.6EB2	ZENER DIODE		
D 703	HZS5.6EB2	ZENER DIODE		
D 741	1SS133	SI DIODE		
D 742	HZS10EB1	ZENER DIODE		
D 801	1NS401TM	SI DIODE		
D 802	DSK10C-E	DIODE		
D 811	DSK10C-E	DIODE		
D 812	MT76-8JAT-77	ZENER DIODE		
D 814	HSM2836C	DIODE		
D 817	HZS10EB1	ZENER DIODE		
D 831	1SS133	SI DIODE		
D 841	DSK10C-E	DIODE		
D 881	HZS11EB2	ZENER DIODE		
D 882	HSM2838C	DIODE		
D 941	DSK10C-E	DIODE		
IC 1	LA1867M	IC		
IC551	UPD7225GB	IC		
IC701	UPD780136C-678	IC		
IC701	UPD780136C-681	IC		
IC741	LC72146MHS-TRM	IC		
IC771	SAA6579T	IC		
IC831	PST529GM-T	IC		
IC911	UPC1528HA	IC		
IC951	TEA6320T	IC		
IC941	TDA8561Q	IC		
J 1	VMJ4045-001	ANT. SOCKET		
J 931	VMJ3022-001	PIN JACK		
L 1	VGP0018-4R7	INDUCTOR		
L 2	VGT7F28-501	IFT		
L 551	VGP0018-470	INDUCTOR		
L 741	VGP0018-470	INDUCTOR		
L 771	VGP0018-470	INDUCTOR		

BLOCK NO. 01111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 25	NRSA02J-331NY	MG RESISTOR		
R 25	NRSA02J-272NY	MG RESISTOR		
R 26	NRSA02J-474NY	MG RESISTOR		
R 27	NRSA02J-223NY	MG RESISTOR		
R 28	NRSA02J-472NY	MG RESISTOR		
R 29	NRSA02J-562NY	MG RESISTOR		
R 30	NRS181J-102NY	MG RESISTOR		
R 31	NRSA02J-104NY	MG RESISTOR		
R 32	NRSA02J-102NY	MG RESISTOR		
R 33	NRSA02J-102NY	MG RESISTOR		
R 34	NRSA02J-101NY	MG RESISTOR		
R 101	QRD161J-103	CARBON RESISTOR		
R 103	NRSA02J-153NY	MG RESISTOR		
R 111	NRSA02J-334NY	MG RESISTOR		
R 112	NRSA02J-123NY	MG RESISTOR		
R 113	NRSA02J-101NY	MG RESISTOR		
R 131	NRSA02J-223NY	MG RESISTOR		
R 132	NRSA02J-222NY	MG RESISTOR		
R 133	NRSA02J-122NY	MG RESISTOR		
R 134	NRSA02J-102NY	MG RESISTOR		
R 201	QRD161J-103	CARBON RESISTOR		
R 203	NRSA02J-153NY	MG RESISTOR		
R 211	NRSA02J-334NY	MG RESISTOR		
R 212	NRSA02J-123NY	MG RESISTOR		
R 213	NRSA02J-101NY	MG RESISTOR		
R 231	NRSA02J-223NY	MG RESISTOR		
R 232	NRSA02J-222NY	MG RESISTOR		
R 233	NRSA02J-122NY	MG RESISTOR		
R 234	NRSA02J-102NY	MG RESISTOR		
R 501	NRSA02J-561NY	MG RESISTOR		
R 502	NRSA02J-561NY	MG RESISTOR		
R 503	NRSA02J-821NY	MG RESISTOR		
R 504	NRSA02J-122NY	MG RESISTOR		
R 505	NRSA02J-182NY	MG RESISTOR		
R 506	NRSA02J-272NY	MG RESISTOR		
R 507	NRSA02J-392NY	MG RESISTOR		
R 508	NRSA02J-561NY	MG RESISTOR		
R 509	NRSA02J-821NY	MG RESISTOR		
R 510	NRSA02J-122NY	MG RESISTOR		
R 511	NRSA02J-182NY	MG RESISTOR		
R 512	NRS181J-152NY	MG RESISTOR		
R 513	NRS181J-122NY	MG RESISTOR		
R 521	NRSA02J-821NY	MG RESISTOR		
R 522	NRSA02J-182NY	MG RESISTOR		
R 523	NRSA02J-152NY	MG RESISTOR		
R 524	NRSA02J-272NY	MG RESISTOR		
R 525	NRSA02J-392NY	MG RESISTOR		
R 526	NRSA02J-103NY	MG RESISTOR		
R 527	NRS181J-152NY	MG RESISTOR		
R 528	NRS181J-122NY	MG RESISTOR		
R 551	NRSA02J-473NY	MG RESISTOR		
R 553	NRSA02J-473NY	MG RESISTOR		
R 554	NRSA02J-184NY	MG RESISTOR		
R 701	QRD161J-222	CARBON RESISTOR		

BLOCK NO. 01111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
L 801	VTC24AG-10A	CHOCO COIL		
L 811	VQ0018-470	INDUCTOR		
LCD 1	VGL1170-002	LCD		
PL501	VGZ0001-055	LAMP		
PL551	VGZ0001-056	LAMP		
Q 1	DTC114EK	TRANSISTOR		
Q 741	2SC2412KK1	TRANSISTOR		
Q 742	2SC2412KK1	TRANSISTOR		
Q 743	2SC2412KK1	TRANSISTOR		
Q 781	DTA114EK	TRANSISTOR		
Q 782	2SC2412KK1	TRANSISTOR		
Q 783	2SC2412KK1	TRANSISTOR		
Q 784	2SC2412KK1	TRANSISTOR		
Q 801	2SC2412KK1	TRANSISTOR		
Q 811	2SD1994A(R,S)TA	TRANSISTOR		
Q 812	2SA1037K(R)	TRANSISTOR		
Q 814	DTC114EK	TRANSISTOR		
Q 815	2SA1037K(R)	TRANSISTOR		
Q 816	DTC114EK	TRANSISTOR		
Q 817	2SD1994A(R,S)TA	TRANSISTOR		
Q 818	2SD1994A(R,S)TA	TRANSISTOR		
Q 819	2SD1994A(R,S)TA	TRANSISTOR		
Q 841	2SC1740S(R,S)	TRANSISTOR		
Q 851	2SB815B7-T-HL	TRANSISTOR		
Q 852	2SB815B7-T-HL	TRANSISTOR		
Q 881	DTA114EK	TRANSISTOR		
Q 882	DTA114EK	TRANSISTOR		
Q 883	DTC114EK	TRANSISTOR		
Q 884	2SC2412KK1	TRANSISTOR		
Q 885	2SC2412KK1	TRANSISTOR		
Q 901	2SA1037K(R)	TRANSISTOR		
Q 902	2SC2412KK1	TRANSISTOR		
R 1	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 2	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 3	NRSA02J-473NY	MG RESISTOR	47K 5% 1/10W	
R 4	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 5	NRSA02J-104NY	MG RESISTOR	100K 5% 1/10W	
R 6	NRSA02J-682NY	MG RESISTOR	6.8K 5% 1/10W	
R 7	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 8	NRSA02J-683NY	MG RESISTOR	68K 5% 1/10W	
R 9	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W	
R 10	NRSA02J-153NY	MG RESISTOR	15K 5% 1/10W	
R 11	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 12	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
R 13	NRSA02J-273NY	MG RESISTOR	27K 5% 1/10W	
R 14	NRSA02J-823NY	MG RESISTOR	82K 5% 1/10W	
R 15	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 16	NRS181J-103NY	MG RESISTOR	10K 5% 1/8W	
R 17	NRSA02J-682NY	MG RESISTOR	6.8K 5% 1/10W	
R 19	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 20	NRSA02J-563NY	MG RESISTOR	56K 5% 1/10W	
R 21	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 22	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	

BLOCK NO. 01111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 852	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 853	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 883	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 884	NRSA02J-223NY	MG RESISTOR	22K 5% 1/10W	
R 885	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 886	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 887	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R 888	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
R 901	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 902	NRSA02J-473NY	MG RESISTOR	47K 5% 1/10W	
R 903	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 911	QRD161J-101	CARBON RESISTOR	100 5% 1/6W	
RY801	VSK1D12-122	RELAY	DISPLAY	
S 501	QSPIA11-V15	TACT SWITCH	SEEK DOWN/B SKI	
S 502	QSPIA11-V15	TACT SWITCH	INFO	
S 503	QSPIA11-V15	TACT SWITCH	PRESET 6	
S 504	QSPIA11-V15	TACT SWITCH	PRESET 4	
S 505	QSPIA11-V15	TACT SWITCH	PRESET 5	
S 506	QSPIA11-V15	TACT SWITCH	PRESET 1	
S 507	QSPIA11-V15	TACT SWITCH	PRESET 2	
S 508	QSPIA11-V15	TACT SWITCH	SEEK UP/F.SKIP	
S 509	QSPIA11-V15	TACT SWITCH	MONO	
S 510	QSPIA11-V15	TACT SWITCH	FM	
S 511	QSPIA11-V15	TACT SWITCH	AM	
S 512	QSPIA11-V15	TACT SWITCH	PRESET 3	
S 513	QSPIA11-V15	TACT SWITCH	SOUND	
S 521	QSPIA11-V15	TACT SWITCH	POWER/ATT	
S 522	QSPIA11-V15	TACT SWITCH	RDS	
S 523	QSPIA11-V15	TACT SWITCH	PTY	
S 524	QSPIA11-V15	TACT SWITCH	VOLUME +	
S 525	QSPIA11-V15	TACT SWITCH	VOLUME -	
S 526	QSPIA11-V15	TACT SWITCH	SELECT	
S 527	QSPIA11-V15	TACT SWITCH	PAC	
TU 1	VAF6S08-001	FM/AM TUNER		
VR 1	QVPA601-503A	V-RESISTOR	ST SEPARATION	
VR 2	QVPA601-503A	V-RESISTOR	S-METER	
X 701	VCX5085-001Z	CRYSTAL		
X 741	VCX5086-001Z	CRYSTAL		
X 771	VCX5057-001	CRYSTAL		

BLOCK NO. 01111111

REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R 702	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 703	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 704	QRD161J-222	CARBON RESISTOR	2.2K 5% 1/6W	
R 705	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
R 706	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 707	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 712	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W	
R 713	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W	
R 714	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W	
R 715	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 716	NRSA02J-103NY	MG RESISTOR	10K 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-271NY	MG RESISTOR	270 5% 1/10W	
R 723	NRSA02J-271NY	MG RESISTOR	270 5% 1/10W	
R 724	NRSA02J-271NY	MG RESISTOR	270 5% 1/10W	
R 742	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W	
R 743	NRSA02J-681NY	MG RESISTOR	680 5% 1/10W	
R 744	NRSA02J-471NY	MG RESISTOR	470 5% 1/10W	
R 745	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W	
R 746	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W	
R 747	NRSA02J-102NY	MG RESISTOR	1.5K 5% 1/10W	
R 748	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R 749	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 750	NRS181J-332NY	MG RESISTOR	350 5% 1/8W	
R 751	NRS181J-222NY	MG RESISTOR	2.2K 5% 1/8W	
R 752	NRSA02J-473NY	MG RESISTOR	47K 5% 1/10W	
R 771	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 781	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 782	NRSA02J-473NY	MG RESISTOR	47K 5% 1/10W	
R 784	NRSA02J-153NY	MG RESISTOR	15K 5% 1/10W	
R 785	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 786	NRSA02J-562NY	MG RESISTOR	5.6K 5% 1/10W	
R 787	NRSA02J-272NY	MG RESISTOR	2.7K 5% 1/10W	
R 788	NRSA02J-272NY	MG RESISTOR	2.7K 5% 1/10W	
R 801	QRD145J-470S	CARBON RESISTOR	47 5% 1/4W	
R 803	NRSA02J-473NY	MG RESISTOR	47K 5% 1/10W	
R 804	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 811	QRD145J-470S	CARBON RESISTOR	47 5% 1/4W	
R 812	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R 813	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W	
R 815	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 816	NRSA02J-473NY	MG RESISTOR	47K 5% 1/10W	
R 817	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 819	NRSA02J-223NY	MG RESISTOR	22K 5% 1/10W	
R 820	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 821	NRSA02J-473NY	MG RESISTOR	47K 5% 1/10W	
R 822	NRS181J-331NY	MG RESISTOR	330 5% 1/8W	
R 823	NRS181J-2R2NY	MG RESISTOR	2.2 5% 1/8W	
R 824	NRS181J-2R2NY	MG RESISTOR	2.2 5% 1/8W	
R 831	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W	
R 832	NRSA02J-473NY	MG RESISTOR	47K 5% 1/10W	
R 841	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W	
R 842	NRSA02J-473NY	MG RESISTOR	47K 5% 1/10W	
R 851	NRSA02J-473NY	MG RESISTOR	47K 5% 1/10W	



# 7 Exploded view of enclosure assembly

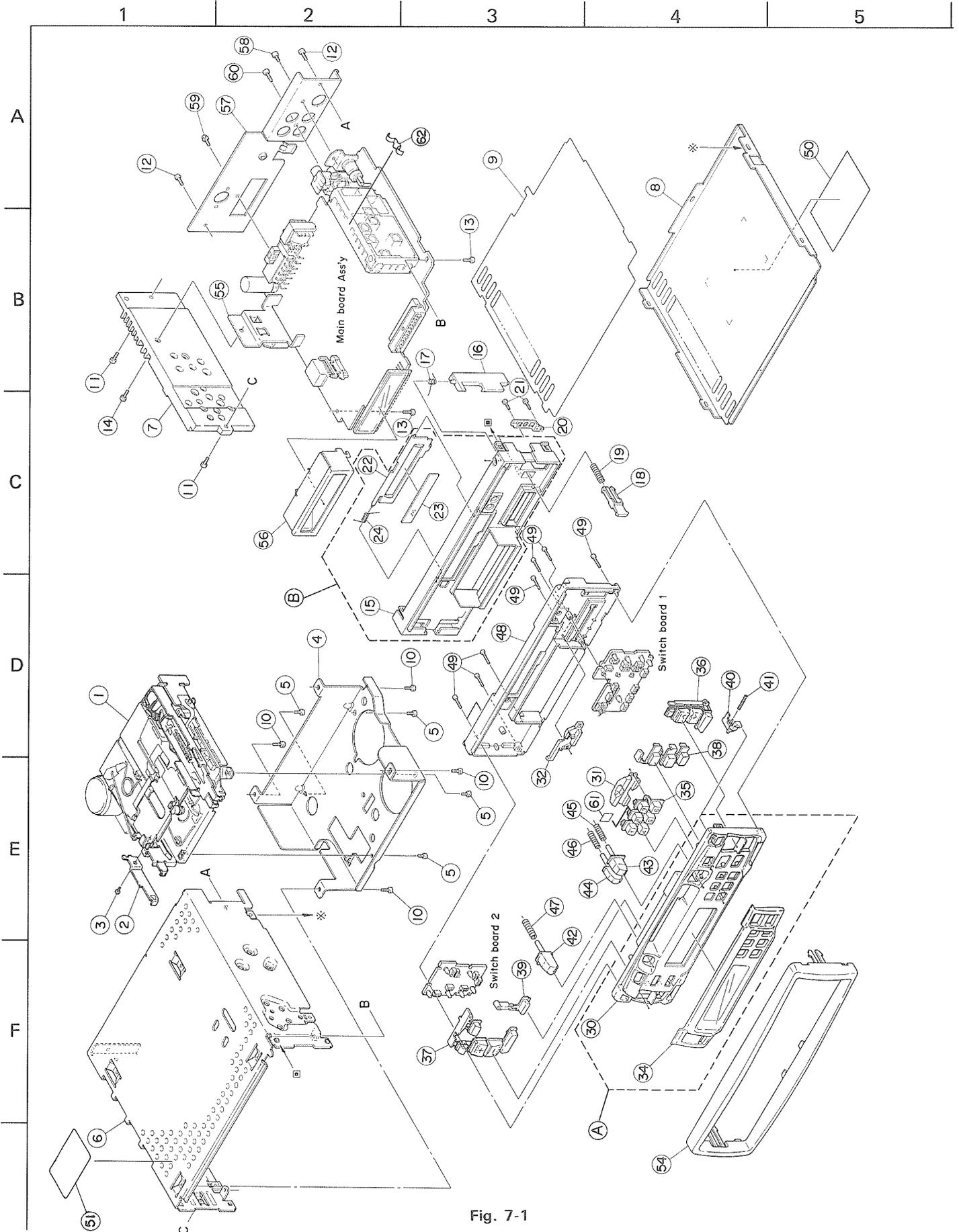


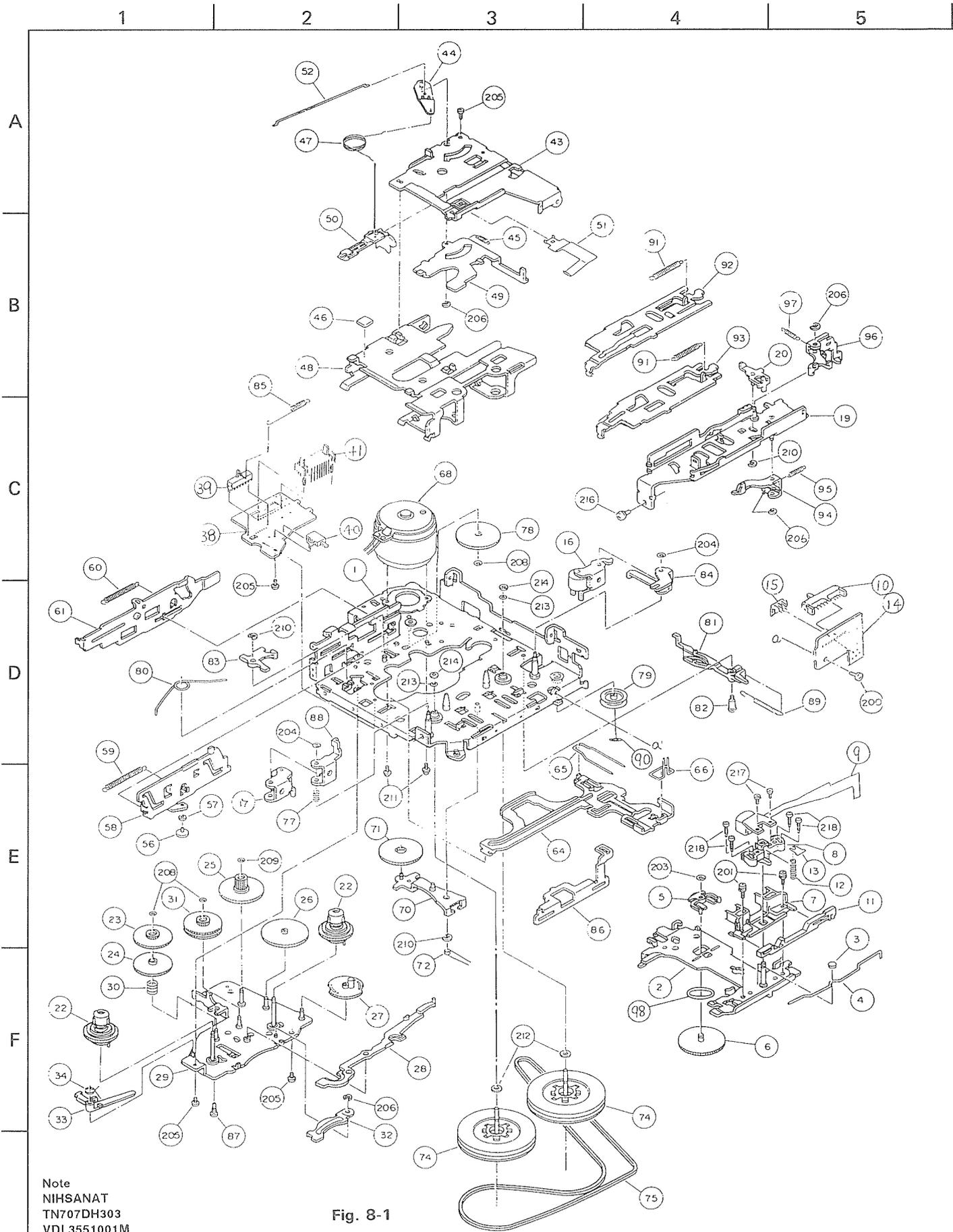
Fig. 7-1

## ● Enclosure assembly parts list

BLOCK NO. M1MM

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	A	ZCKSRT505RK-NPA	FRONT PANEL ASS	NO.30,NO.34	1		
	B	ZCKSRT505K-FB	FRONT CHASSIS	NO.15,NO.22-24	1		
	1	-----	MECHANISM ASS7Y	2CH HEAD MECHA	1		
	2	VKL7226-003	EJECT LEVER		1		
	3	SPSK2625Z	MINI SCREW	EJECT LEVER	1		
	4	FSKM2002-001	MECHA BRACKET		1		
	5	VKZ4333-002	SPECIAL SCREW	MECHA BRACKETCF	4		
	6	FSJC1014-001	CHASSIS		1		
	7	FSKL3008-001	SIDE PANEL		1		
	8	FSKM3004-001	BOTTOM COVER		1		
	9	FSMA3001-001	INSULATOR		1		
	10	SDST2604Z	SCREW	MECHA BRACKET	4		
	11	SDST2608Z	SCREW	SIDE PANEL	2		
	12	SDST2606Z	SCREW	REAR PANEL	2		
	13	SDST2606Z	SCREW	MAIN BOARD	2		
	14	SDST2608Z	SCREW	IC BRACKET	1		
	15	FSJC2005-001	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	HOLDER PLATE	2		
	22	VJC4145-002SS	CASSETTE LID		1		
	23	FSJC4001-002	LID PLATE		1		
	24	VKW4947-003	DOOR SPRING		1		
	30	FSJC1015-004	FRONT PANEL		1		
	31	FSJK3001-002	LIGHT LENS		1		
	32	FSJK3002-001	LENS		1		
	34	VJK2197-008	FINDER		1		
	35	VXP2099-001	PRESET BUTTON	1/2/3/4/5/B	1		
	36	VXP1005-001	UP/DOWN BUTTON		1		
	37	VXP1006-001	+/- BUTTON		1		
	38	VXP2100-004	D.FUNC BUTTON	INFO/AM/FM	1		
	39	FSXP3019-006	PUSH BUTTON	RDS/PTY	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	FSJC1016-002	REAR COVER		1		
	49	SPSN1780N	MINI SCREW	FRONT+REAR	8		
	50	VYN3550-S002SA	NAME PLATE	B/E/G/GE	1		
		VYN3550-S003SA	NAME PLATE	GI	1		
	51	VND4391-001	CAUTION LABEL		1		
	54	FSJD2004-003	TRIM PLATE		1		
	55	VKL7790-001	IC BRACKET	FOR IC941	1		
	56	FSYH2002-003	LAMP CASE		1		
	57	FSKM3003-001	REAR BRACKET		1		
	58	LPSP2606Z	SCREW	REAR BKT+ANT JA	1		
	59	LPSP2606Z	SCREW	REAR BKT+13P CN	1		
	60	SDSF2608Z	SCREW	REAR BKT+PIN JA	1		
	61	VYTT666-001	SEAL	PRESET BUTT. 2	1		
	62	VMA4631-002	SHIELD PLATE	TUNER PACK	1		

# 8 Exploded view of mechanism assembly



Note  
 NIHSANAT  
 TN707DH303  
 VDL3551001M

Fig. 8-1

● Mechanism assembly parts list

BLOCK NO. M2MM    

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	194001519T	CHASSIS ASS'Y		1		
	2	194016501T	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		
	38	19400745T	SW SUBSTRATE		1		
	39	64020206T	SLIDE SWITCH	SSSSA2001A	1		
	40	64020405T	PUSH SWITCH	SPVC11001A	1		
	41	68150227T	RECEPTACLE	TKC-A08X-C1	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		
	56	19400901T	H.P.ROLLER(A)		1		
	57	19400902T	H.P.ROLLER(B)		1		
	58	19400903T	C.H.PUSH PLAT.M		1		
	59	19400905T	C.H.SPRING		1		
	60	19400906T	PUSH LEVER SP.		1		
	61	19400907T	PUSH LEVER M		1		
	64	19401001T	MAIN PLATE		1		
	65	19401002T	M.S.SPRING		1		



BLOCK NO. M2MM

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
66	19401007T	H.S.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	19401403T	HEAD PANEL SP.M		1		
81	19401405T	TRIGGER ARM(C)		1		
82	19401406T	COLLAR SCREW(T)		1		
83	19401408T	H.P.PUSH ARM		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		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		
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	S1.5	4		
208	9W0625030T	HL WASHER CUT	1.2 X 3 X 0.25	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		

## 9 Illustration of packing and parts list

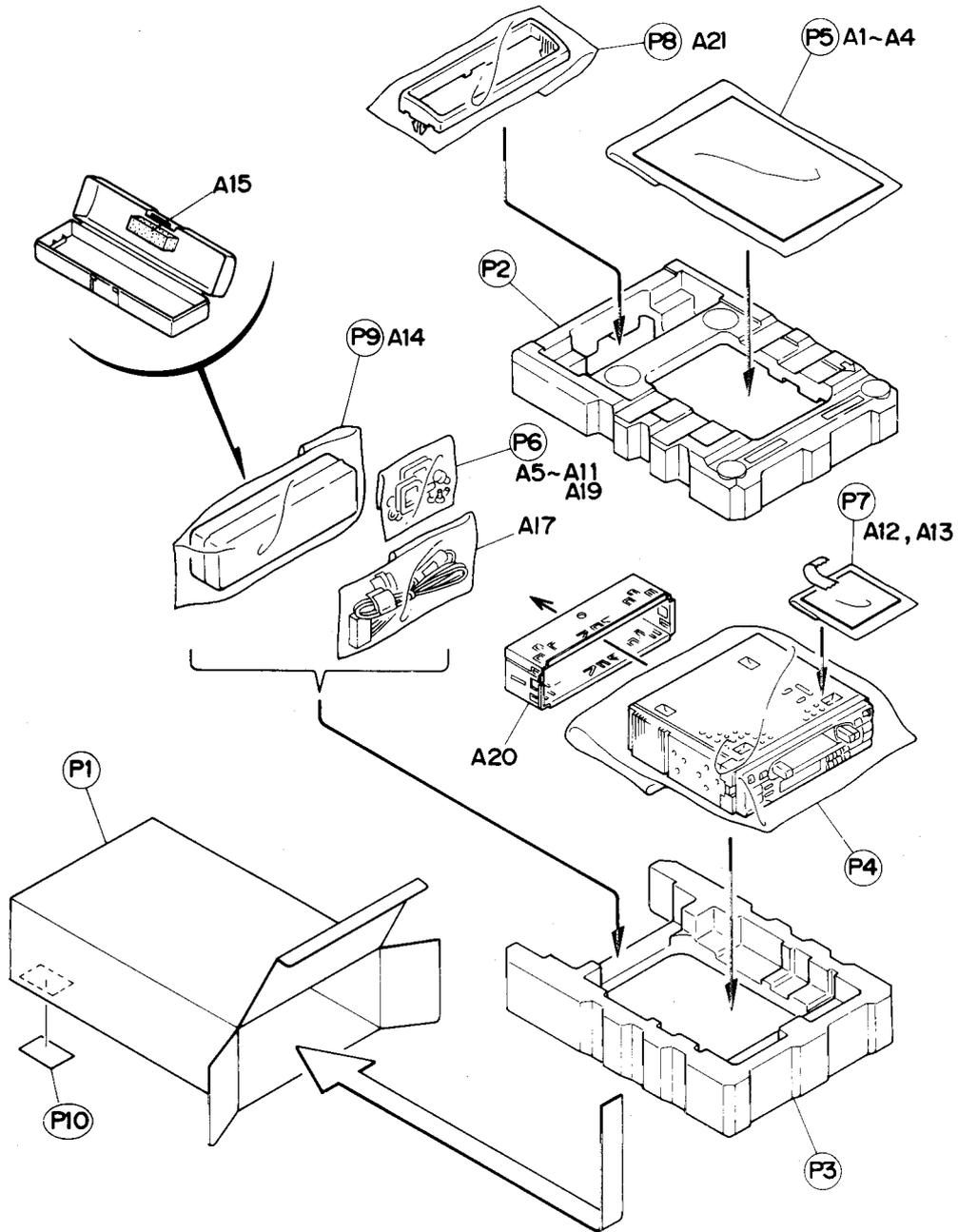


Fig. 9 - 1

### ● Packing parts list

BLOCK NO. M3MM

△	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
P	1	VPC3550-S001	CARTON	PRINTED IN SING	1		
P	2	FSPH1003-001	CUSHION(TOP)		1		
P	3	FSPH1004-001	CUSHION(BOTTOM)		1		
P	4	VPE3005-066	POLY BAG	SET	1		
P	5	QPGB017-02404	POLY BAG	FOR INSTRUCTION	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	FOR TRIM PLATE	1		
P	9	QPGA010-03003	POLY BAG	FOR HARD CASE	1		
P	10	-----	CARTON LABEL	CARTON(CODE39)	1		

● Accessories parts list

BLOCK NO. M3MM

REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
A 1	VNN3550-211S	INSTRUCTIONS	PRINTED IN SING	1		
	VNN3550-451S	INSTRUCTIONS		1	E	
	VNN3550-481S	INSTRUCTIONS		1	E	
	VNN3550-471S	INSTRUCTIONS		1	GI	
A 2	VNC2400-090	CAUTION SHEET		1		
A 3	BT-20066A	WARRANTY CARD		1	B	
	BT20060	WARRANTY CARD		1	B	
A 4	VND3050-001	IDENTITY CARD		1		
A 5	VKZ4027-002	PLUG NUT		1		
A 6	VKH4871-001	MOUNT BOLT		1		
A 7	VKZ4328-001	LOCK NUT	FOR M5	1		
A 8	WNS5000Z	WASHER		1		
A 9	VKY3124-001	SIDE SPRING		2		
A 10	SSSP4006Z	SCREW	FOR 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		1		
A 17	VMC0014-159	13P CORD ASS'Y		1		
A 19	QHX5080-001	WIRE CLAMP	FOR CORD HOLDER	1		
A 20	VKM3819-001	MOUNTING SLEEVE		1		
A 21	FSJD2004-003	TRIM PLATE		1		
KIT 1	KSRT600K-SCREW1	SCREW PARTS KIT	P6,A5-A11,A19	1		
KIT 2	KSRT75RK-SCREW2	SCREW PARTS KIT	P7,A12-A13	1		

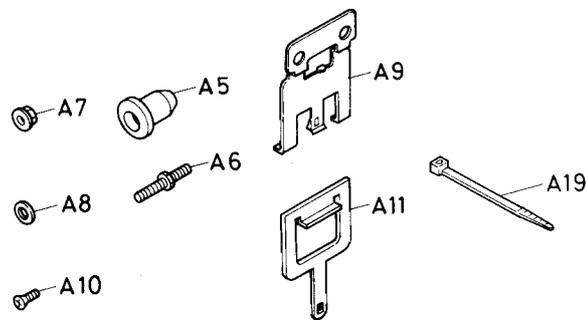


Fig. 9-2

KS - RT505R B/E/G/GE/GI

**JVC**

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