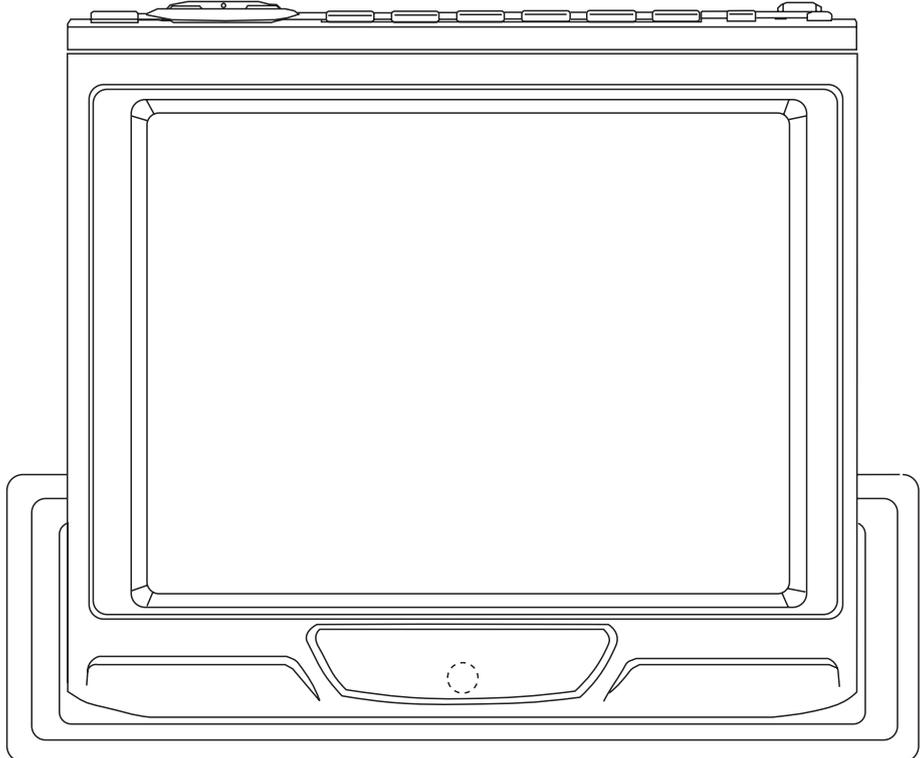
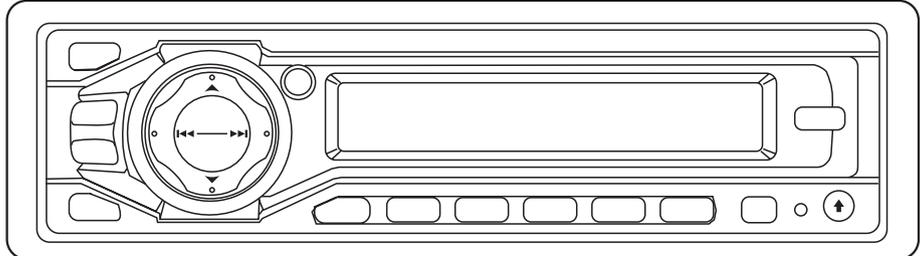


# **OWNER'S MANUAL**

## **Mobile Video System**

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**COLOR LCD TV/RECEIVER WITH  
CD CHANGER CONTROL**



# CONTENTS

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# **IMPORTANT SAFETY INSTRUCTION**

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## **CAUTION:**

Please read and observe all warnings and instruction given in this owner's manual and those marked on the unit. Keep these instructions. Retain this booklet for future reference.

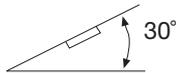
Please read the following safety instructions carefully.

1. This set has been designed and manufactured to assure personal safety. Improper use can result in electric shock or fire hazard. The safeguards incorporated in this unit protect you if you observe the following procedures for installation, use and servicing. This unit doesn't contain any parts that can be repaired by the user.
2. The screen display is operated automatically. Do not draw the screen display out or turn it upward or downward manually. Otherwise, the mechanism construction may be harmed to some degree.
3. When you operate the display unit, do not touch the display by your hands. It may harm your fingers.

# INSTALLATION

## Notes:

- Choose the mounting location where the unit will not interfere with the normal driving function of the driver.
- Before finally installing the unit, connect the wiring temporarily and make sure it is all connected up properly and the unit and the system work properly.
- Use only the parts included with the unit to ensure proper installation. The use of unauthorized parts can cause malfunctions.
- Consult with your nearest dealer if installation requires the drilling of holes or other modifications of the vehicle.
- Install the unit where it does not get in the driver's way and cannot injure the passenger if there is a sudden stop, like an emergency stop.
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance.



- Avoid installing the unit where it would be subject to high temperature, such as from direct sunlight, or from hot air, from the heater, or where it would be subject to dust, dirt or excessive vibration.

Double Sided Tape (2 pcs)



Lever (2 pcs)



Hexagonal Bolt (M6 x 12) (4 pcs)



Tapping Screw (M5 x 12) (4 pcs)



Mounting Bolt (M5 x 5) (8 pcs)



Strap (1 pcs)



Tapping Screw (M5 x 25) (1 pcs)



Nut (M5) (1 pcs)



Plain Washer (M5) (1 pcs)

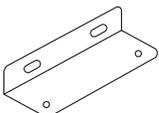


Spring Washer (M5) (5 pcs)

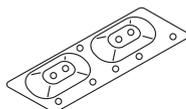


## INSTALLATION HARDWARE

Bracket (A) (2 pcs)



Bracket (B) (2 pcs)

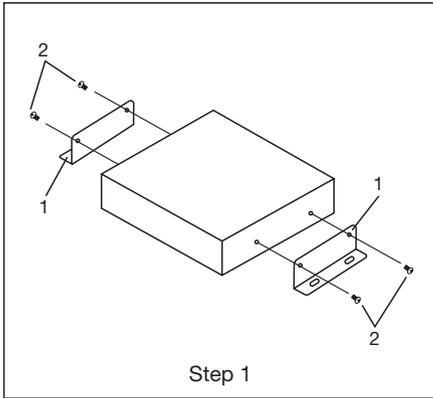


Spring Washer (M6) (4 pcs)

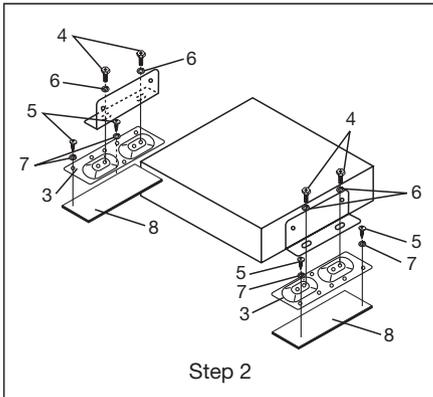


# INSTALLATION

## MOUNTING THE TUNER UNIT



Step 1



Step 2

1. Bracket (A)
2. Mounting Bolt (M5 x 5)
3. Bracket (B)
4. Hexagonal Bolt with Washer (M6 x 12)
5. Tapping Screw with Washer (M5 x 12)
6. Spring Washer (M6)
7. Spring Washer (M5)
8. Double Sided Tape

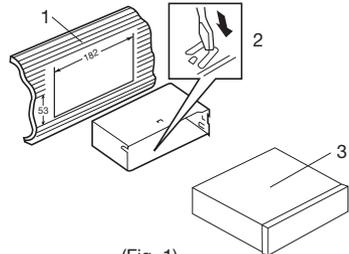
## INSTALL THE DISPLAY UNIT

Before install the display unit, please remove its tail screw and cable parts. This unit can be properly installed either from "front" (conventional DIN Front-mount) or "rear" (DIN Rear-mount installation, utilizing threaded screw holes

at the sides of the unit chassis). For details, refer to the following illustrated installation methods.

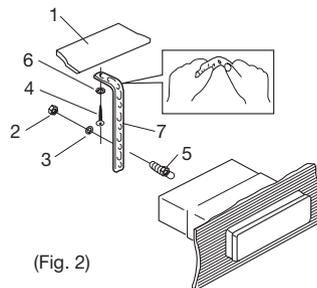
## DIN FRONT-MOUNT

Installing the unit



(Fig. 1)

1. Dashboard
  2. Holder
  3. Display Unit
- After inserting the holder into the dashboard, select the appropriate tab according to the thickness of the dashboard material and bend them inwards to secure the holder in place.



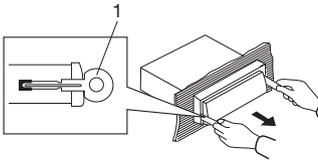
(Fig. 2)

1. Dashboard
2. Nut (M5)
3. Spring Washer
4. Tapping Screw with Washer (M5 x 25)
5. Screw
6. Plain Washer
7. Strap

Be sure to use the strap to secure the back of the unit in place. The strap can be bent by hand to the desired angle.

# INSTALLATION

## Removing the unit



### 1. Lever

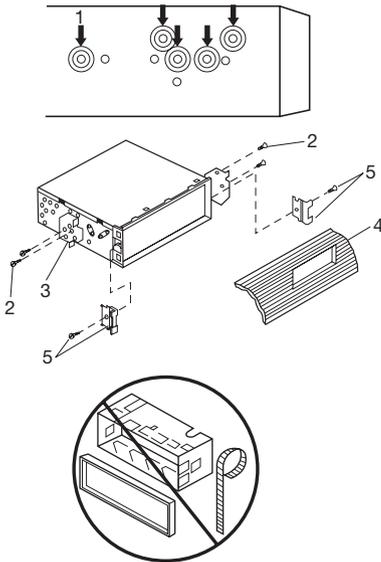
Insert the levers supplied with the unit into the grooves at both sides of the unit as shown in figure until they click. Pulling the levers upward and out to makes it possible to remove the unit.

1. Select a position where the screw holes of the bracket and the screw holes of the main unit become aligned (are fitted), and tighten the screws at 2 places on each side. Use either truss screws (5 x 5mm), depending on the shape of the screw holes in the bracket.
2. Screw
3. Factory Radio Mounting Bracket
4. Dashboard or Console
5. Hook and Screw (Remove this part)

Note: The frame, strap, and half-sleeve are not used for REAR-MOUNT.

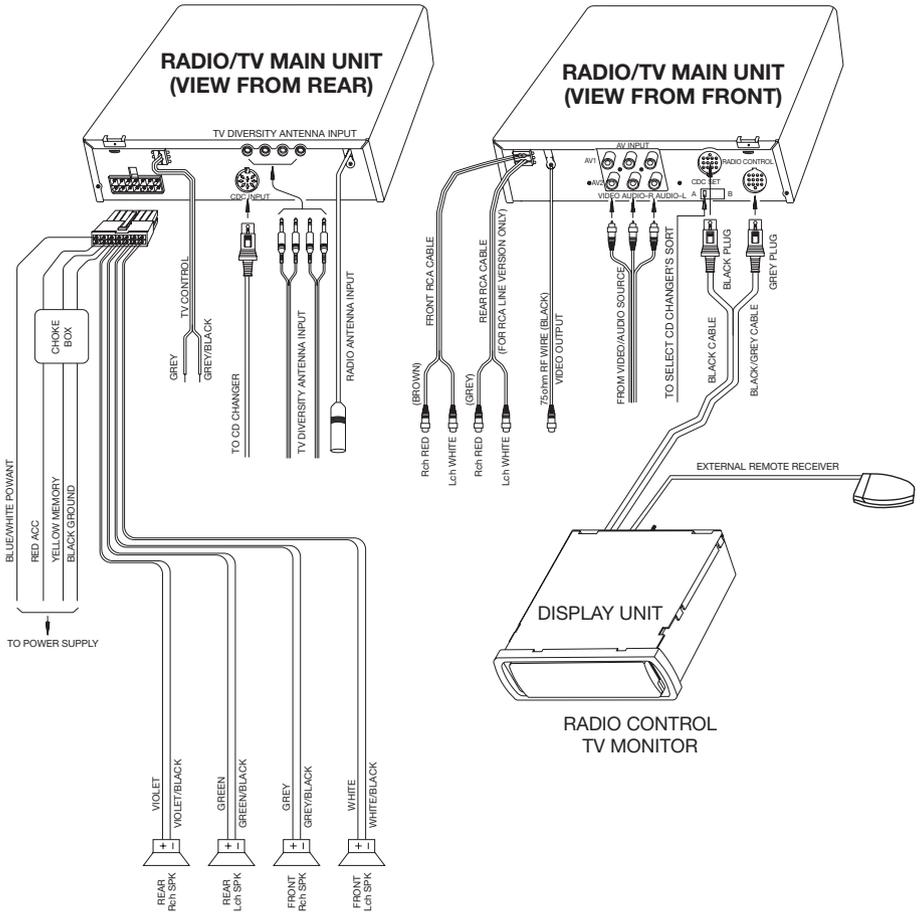
## DIN REAR-MOUNT

Installation using the screw holes on the both sides of the unit.



Fastening the unit to the factory radio mounting bracket.

# ELECTRICAL CONNECTION

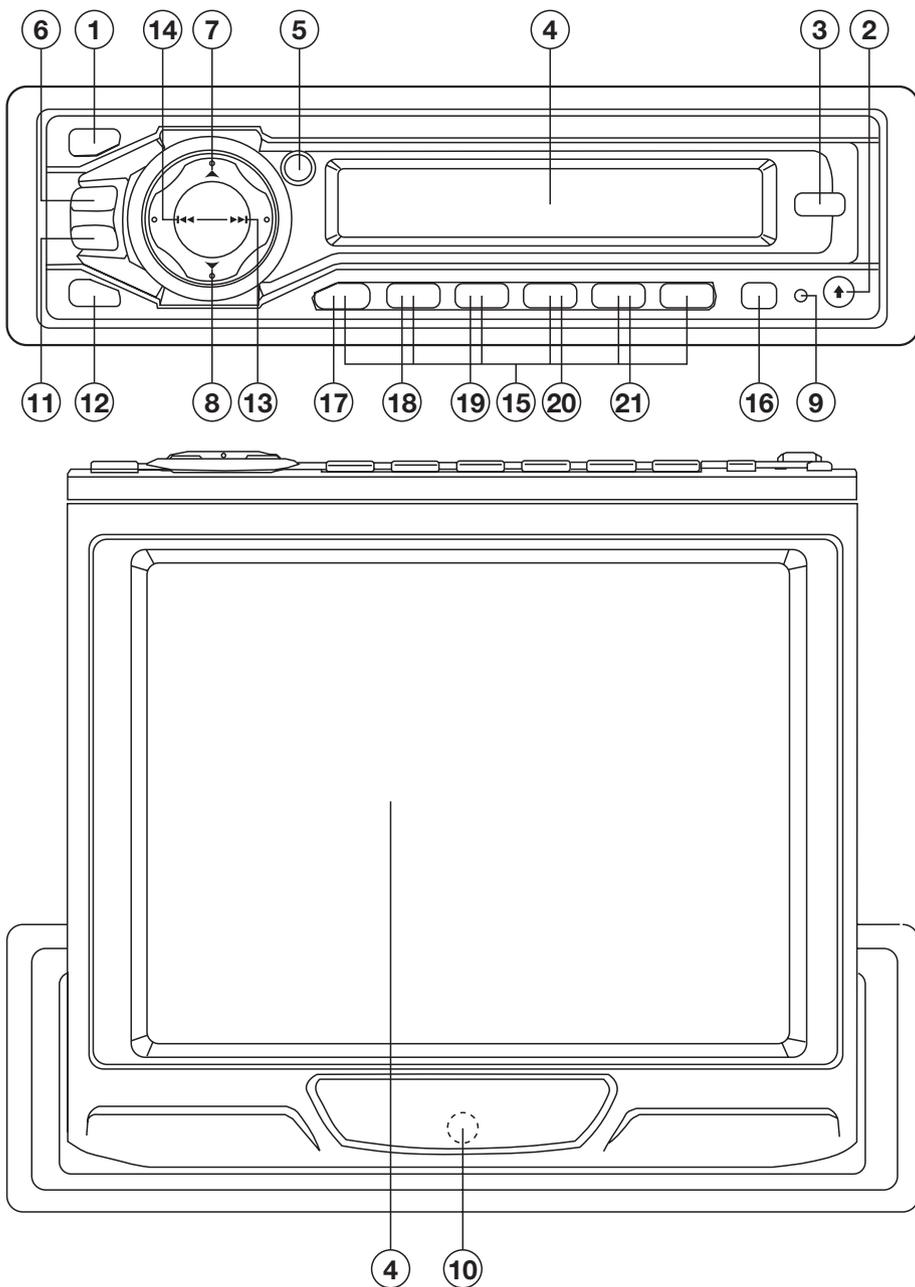


## CAUTION:

- If the TV control grey cable is connected to car brake, when the car is running, you cannot switch into TV mode, and the **↑** button (2) or **⏏ (OPEN/CLOSE)** button (31) is unavailable.
- To select CD changer's sort:  
Before installing the unit, connect the CD changer with the unit correctly and turn on the power to make the unit work in CD changer state. If the operation normally, the switch button's position is right, otherwise, please dial the switch button to the other position.  
Note: How to select A or B in CDC SET is different according to the units of the customers use.

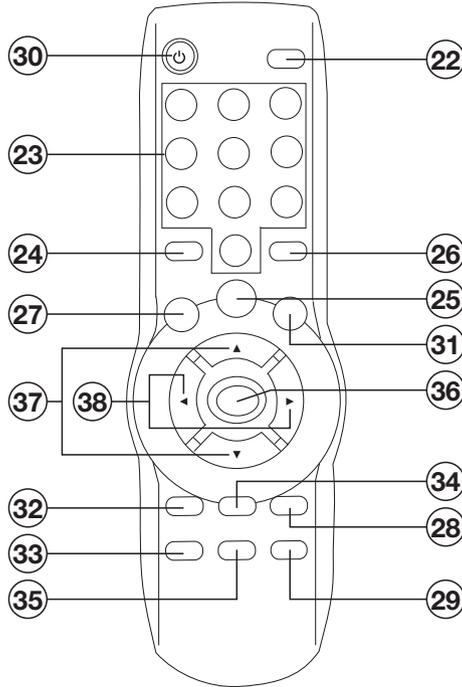
# OPERATION

## LOCATION AND FUNCTION OF KEYS



# OPERATION

## LOCATION AND FUNCTION OF KEYS



- |                  |                                   |
|------------------|-----------------------------------|
| 1. PWR           | 20. SCN                           |
| 2. ↑             | 21. RND                           |
| 3. MUT           | 22. TV/AV                         |
| 4. LCD           | 23. 0 ~ 9 Numeric Buttons         |
| 5. T/F           | 24. -/-- Digital Selecting Button |
| 6. SEL           | 25. MUTE                          |
| 7. VOL ▲         | 26. DSP (=SCREEN DISPLAY)         |
| 8. VOL ▼         | 27. SORT                          |
| 9. RESET         | 28. CH +                          |
| 10. IR           | 29. CH -                          |
| 11. BND          | 30. POWER                         |
| 12. MOD          | 31. ▲ (OPEN/CLOSE)                |
| 13. TUNE/SKIP ►► | 32. VOL +                         |
| 14. TUNE/SKIP ◄◄ | 33. VOL -                         |
| 15. M1 ~ M6      | 34. ANGLE ADJ. +                  |
| 16. AS/PS        | 35. ANGLE ADJ. -                  |
| 17. CD +         | 36. MENU                          |
| 18. CD -         | 37. ▲ / ▼                         |
| 19. RPT          | 38. ◀ / ▶                         |

# OPERATION

## GENERAL OPERATION

### • ON/OFF

Switch on the unit by pressing **PWR** button (1). When system is on, press it again to turn it off.

### • SELECTING SOUND MODE

Press **SEL** button (6) to move display through volume, bass, treble, balance and fader functions. Use **VOL ▲** (7) and **VOL ▼** (8) buttons to adjust the selected mode. When mode has not been adjusted for several seconds, display returns to previous display status (e.g. radio display or CDC display).



#### Volume

Adjust volume level using **VOL ▲** (7) and **VOL ▼** (8) buttons.

#### Bass

Press **SEL** button (6) for one time. Adjust bass level using **VOL ▲** (7) and **VOL ▼** (8) buttons.

#### Treble

Press **SEL** button (6) for two times. Adjust treble level using **VOL ▲** (7) and **VOL ▼** (8) buttons.

#### Balance

Press **SEL** button (6) for three times. Adjust sound balance between left and right speakers using **VOL ▲** (7) and **VOL ▼** (8) buttons.

#### Fader

Press **SEL** button (6) for four times. Adjust sound balance between front and rear speakers using **VOL ▲** (7) and **VOL ▼** (8) buttons.

### • SELECTING PLAYING MODE

When the screen display is drawn in, press **MOD** button (12) to select desired playing mode between radio and CDC. When the screen display is drawn out, the unit will automatically switch into TV mode.

By pressing **MOD** button (12), you can select desired playing mode among TV, radio and CDC.

**CAUTION:** The unit cannot be switched into TV mode, when the car is running. So at this time, you just select playing mode between radio and CDC.

### • MUTE

Press **MUT** button (3) to cut down sound output, “**MUTE**” will appear on the display. Press it again to resume the previous volume mode.

### • SETTING THE CLOCK

Press **T/F** button (5) to change the display into clock display. While the current time is appeared on the display, press it again to return to frequency showing.

#### Time Setting

- Set hours:  
Holding down **T/F** button (5) for several seconds, and the clock is blinking on the display, press **TUNE/SKIP ◀◀** button (14) to adjust the hour.
- Set minutes:  
Holding down **T/F** button (5) for several seconds, and the clock is blinking on the display, press **TUNE/SKIP ▶▶** button (13) to adjust the minutes.

### • LIQUID CRYSTAL DISPLAY

The **LCD** (4) can show the current state of the unit.

### • RESET

Reset button (9) must be activated with either a ball point pen or thin metal object. The reset button is to be activated for the following reasons:

- Initial installation of the unit when all wiring is completed.
- All the function buttons do not operate.
- Error symbol on the display.

# OPERATION

---

## RADIO OPERATION

### • SELECTING BAND

Press **BND** button (11) to change between three FM bands and two AM bands and one LW band. Each band stores up to six preset stations.



### • SELECTING STATION

During radio mode, press **TUNE/SKIP** **▶▶** button (13) to increase frequency or **TUNE/SKIP** **◀◀** button (14) to decrease frequency by one step of channel spacing. Hold the button longer for fast tuning. The frequency is updated correspondingly on display.

### • SELECTING MEMORY

Press preset memory buttons (15) to preset stations at tuner mode. With this system, a total of 30 stations can be stored in the memory of six buttons. The stations might be FM1, FM2, FM3, AM1/MW and AM2/LW band. The operation is as below:

- Store in Memory  
Press and hold desired memory location button for several seconds. The current listening station will be stored into the number button.
- Retrieve a Preset Station  
Press any one of the buttons (15) to retrieve a station which had been stored in the memory in advance the chosen number is shown on display.

### • AUTO MEMORY STORING & SCANNING

- Auto Memory Storing  
Seeks the six strongest stations in the pre-selected band automatically and stores the stations automatically in preset memories. Initially the tuner seeks and memories the stations in local mode until 6 stations are fully occupied. Otherwise, seeking is proceeded in distance mode.

- Auto Memory Scanning  
Check the stations stored in the preset memories. Press to retrieve automatically the current stations stored in six preset memories and it will display for several seconds. Press either the **AS/PS** button (16) again or anyone of the memory buttons to stop the scan operation. During the preset scan operation, the channel number flashes on the display for several seconds. Preset station scan continuously in the pre-selected band.

## CDC OPERATION

### • SELECTING TRACK

During CDC mode, press **TUNE/SKIP** **◀◀** button (14) or **TUNE/SKIP** **▶▶** button (13) to move to the previous track or the next track. The track number shows on the display.

### • SELECTING CD

Press **CD +** button (17) to select next disc and **CD -** button (18) to select previous disc.

### • REPEAT THE SAME TRACK

Press **RPT** button (19) to continuously repeat the same track on the current disc. Press it again to continuously repeat all tracks on the current disc. Press it the third time to stop repeating.

### • PREVIEW ALL TRACKS

Press **SCN** button (20) to play the first several seconds of each track on the current disc. Press it again to stop intro and listen to track.

### • PLAY ALL TRACKS

Press **RND** button (21) to play all tracks on the current CD in random order. Press it again to cancel the mode.

# OPERATION

## TV OPERATION

### • REMOTE SENSOR

On the screen display, there is a remote sensor **IR** (10) to receive remote control signal. You can point the remote control handset to **IR** (10) and press function keys on the handset to control TV.

The unit is also connected an external remote receiver (See the electrical connection diagrams on Page 7 & 8), and the function is the same with **IR** (10).

#### Notes:

- The external remote receiver is placed near the display for the best to receiver remote signal easily.
  - If the display doesn't stretch out, you cannot control the TV through the **IR** (10), and you must point the remote control handset to the external receiver.
  - If the angle of the display from vertical exceeds  $\pm 20^\circ$  (Especially the distance exceeds 3m.), controlling the TV through **IR** (10) cannot get good effect. You are suggested to use the external remote receiver.
  - In all playing modes, such as radio, CDC or TV, the **POWER** button (30) and the **VOL + / -** buttons (32 & 33) are available.
- 
- **ON/OFF THE UNIT**  
Switch on the unit by pressing **POWER** button (30). When system is on, press it again to turn it off.
  - **OPEN/CLOSE THE DISPLAY AND ANGLE ADJUSTMENT**
    - Press **↑** button (2) on the faceplate or point the remote handset to the external remote receiver and press **⏏ (OPEN/CLOSE)** button (31), the screen display will stretch automatically.

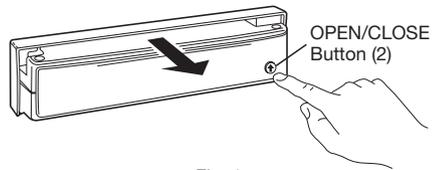


Fig. 1

- When the display stretches to a certain location, it will turn upward automatically.

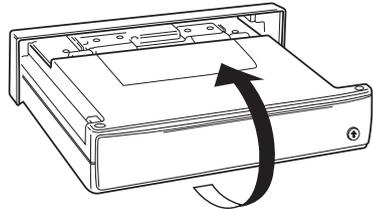


Fig. 2

- Adjusting the viewing angle.  
The display will stop when it turns upward to a certain angle, then you can press **ANGLE ADJ. +** button (34) or **ANGLE ADJ. -** button (35) to turn the display upward or downward to a desired viewing angle. In this case, you need to consider if the **IR** (10) is available.

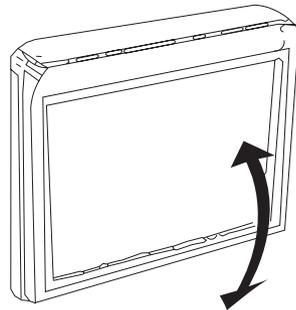


Fig. 3

- When you switch the **POWER** off or press **↑** button (2) or press **⏏ (OPEN/CLOSE)** button (31), the display will turn downward automatically.

# OPERATION

In this case, you also need to consider if the **IR** (10) is available.

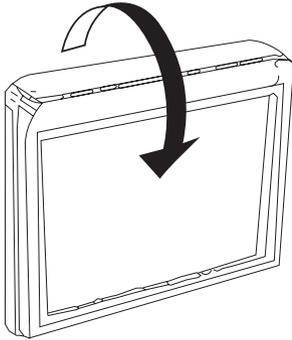


Fig. 4

- When the display turns downward to a certain angle, it will draw in.

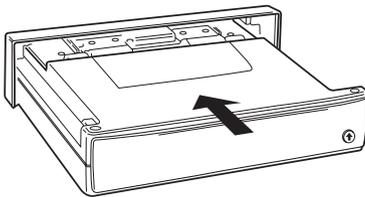


Fig. 5

## • SELECTING RECEIVING MODE

Press **TV/AV** button (22) to select among AV1/AV2/TV.

## • SELECTING CHANNEL

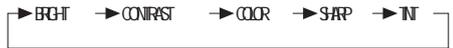
- Press **CH +** button (28) or **CH -** button (29) to choose channel upward or downward.
- The numeric buttons (0, 1 ~ 9) (23) allow you to select the corresponding channel directly.
- Press digital select button (-/--) (24) cooperatively used with numeric buttons to select channel desired.

## • PICTURE ADJUSTMENT/PROGRAM SETTING/SYSTEM CONTROL

In TV mode, press **MENU** button (36) to enter the main menu. And the menu includes three sub-menus: PICTURE MENU, TUNER MENU and SYSTEM MENU.

Press the button repeatedly or press **▲ / ▼** buttons (37) to select the desired item then press **◀ / ▶** buttons (38) to enter the corresponding sub-menu to set.

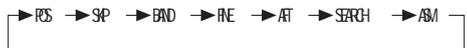
- In PICTURE MENU, use **▲ / ▼** buttons (37) to select picture mode upward or downward as follows:



Then use **◀ / ▶** buttons (38) to adjust the selected item.

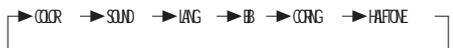
Note: In PAL SYSTEM, there is no "TINT" item.

- In TUNER MENU, use **▲ / ▼** buttons (37) to select picture mode upward or downward as follows:



Then use **◀ / ▶** buttons (38) to adjust the selected item.

- In SYSTEM MENU, use **◀ / ▶** buttons (38) to select picture mode upward or downward as follows:



Then use **◀ / ▶** buttons (38) to adjust the selected item.

In AV mode, press **MENU** button (36), the screen will display PICTURE MENU and SYSTEM MENU but not TUNER MENU. And in SYSTEM MENU, there is no "SOUND" item. The setting method is the same with that in TV mode.

Note: In the menus (except TUNER MENU), if you don't operate over 6 seconds, the screen display will disappear.

# OPERATION

---

- **VOLUME ADJUSTMENT**

Press **VOL +** button (32) or **VOL -** button (33) to adjust volume level.

- **MUTE**

Press **MUTE** button (25) to mute the sound. Press the button again, the screen will display "VOLUME XXX" for about 4 seconds, and this is the AUDIO level setting value of the TV unit. The users may not mind it, and that adjust the volume level by **VOL +** (32) and **VOL -** (33) buttons.

- **SCREEN DISPLAY**

Press **DSP** button (26), the screen will display the current status such as TVch/AV1/AV2, the COLOR SYSTEM and the SOUND SYSTEM on the right-top corner. In AV mode, there is no SOUND SYSTEM display.

- **PROGRAM SORTING**

Sometimes the signal that the TV station sent is in random order. Then you can use the program sorting function to arrange the program in defined sequence to watch conveniently. For example: If you want to arrange channel 9 and press **SORT** button (27) and **-/--** button (24), then press numeric button 1 and press **SORT** button (27) again to complete sorting.

# SPECIFICATION

---

## GENERAL

Power Supply Voltage	: DC 12 Volts, Negative Ground
Maximum Power	: 4 x 60 Watts
Load Impedance	: 10 Ampere (max.)
Tone Controls	
- Bass (at 100 Hz)	: + / - 10 dB
- Treble (at 10 KHz)	: + / - 10 dB

## TV

Monitor Screen Size	: 6.4" TFT
Resolution	: 960 x 234 dots
TV Sensitivity	: 45 dB $\mu$ V/PD (max.) @CH25 in average

## RADIO

### FM

Frequency Coverage	: 87.5 to 107.9 MHz
Sensitivity (30 dB S/N)	: 6 $\mu$ V
Image Rejection	: > 45 dB
Stereo Separation	: > 25 dB

### AM

Frequency Coverage	: 530 to 1710 KHz
Sensitivity (20 dB S/N)	: 35 dB
Image Rejection	: 45 dB

