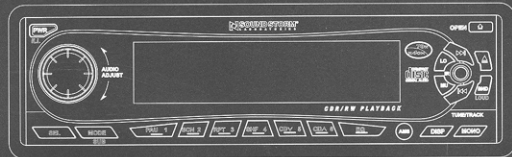


# OWNER'S MANUAL

Mobile Audio System

---



- AM/FM/CD Receiver
- Motorized Slide Down Full Detachable Front Panel
- Vacuum Fluorescent Display (VFD)
- CD-R/CD-RW Compatible
- PLL Synthesized Tuner

## **CONTENTS**

---

<b>Installation</b>	2
DIN Front-Mount (Method A)	2
Installing the unit	2
Removing the unit	3
DIN Rear-Mount (Method B)	3
<b>Using the Detachable Front Panel</b>	4
<b>Wiring Connection</b>	5
<b>Operation</b>	6
<b>Trouble Shooting</b>	10
<b>Specification</b>	11

## INSTALLATION

### Notes:

- Choose a mounting location where the unit will not interfere with the driver's ability to control the vehicle.
- Before final installation, temporarily connect the wiring. Make sure all connections are done correctly, and that the system operates 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 to the vehicle.
- If installation angle exceeds 30° from horizontal, the unit might not give its optimum performance.



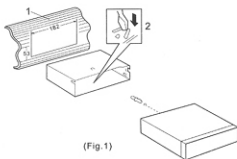
- Install the unit only where it is not subject to excessive temperature from heated air or direct sunlight, or where it is protected from dust, dirt and excessive vibration.

### DIN FRONT/REAR-MOUNT

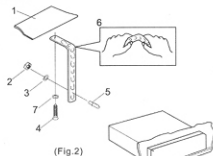
This unit can be properly installed either from "Front" (conventional DIN Front-mount) or "Rear" (DIN Rear-mount installation, utilizing threaded screw holes at the sides of the unit chassis). For details, refer to the following illustrated installation methods.

### DIN FRONT-MOUNT(Method A)

#### Installing the unit



1. Dashboard
2. Mounting Bracket  
After inserting the holder into the dashboard, select the appropriate tabs according to the thickness of the dashboard material and bend them outward to secure the bracket in place.
3. Screw



1. Dashboard
2. Nut (5mm)
3. Spring washer
4. Screw (5 x 25mm)
5. Screw
6. Backstrap  
Be sure to use the back-strap to secure the back of the unit in place. The back-strap can be bent by hand to the desired angle.  
Note: The trim piece, backstrap, and mounting bracket are not used for REAR-MOUNT.
7. Plain washer

## SPECIFICATIONS

### CD PLAYER

Signal to Noise Ratio	: More than 60 dB
Channel Separation	: More than 60 dB
Frequency Response	: 20 Hz- 20KHz

### RADIO

Frequency Coverage	: 87.5 to 107.9 MHz
IF	: 10.7 MHz
Sensitivity (S/N = 30dB)	: 3 $\mu$ V
Stereo Separation	: >30 dB

### Frequency Coverage

IF	: 450KHz
Sensitivity (S/N=20dB)	: 32dBu

### GENERAL

#### Tone Controls

- Bass (at 100 Hz)	: $\pm$ 10 dB
- Treble (at 10 KHz)	: $\pm$ 10 dB

#### Maximum Output Power

: 70 Watts x 4

#### Power Supply Requirements

: DC 12 Volts, Negative Ground

#### Current Consumption

: 7 Amperes (max.)

#### Dimensions

: 178 (W) x 180 (D) x 50 (H) mm

7" x 6.1" x 1.9"

#### Weight

: 2 kg

4.4 lb

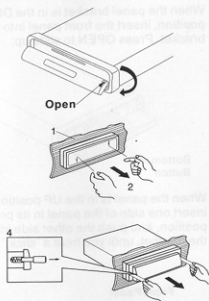
## TROUBLESHOOTING

Before going through the check list, check wiring connection. If any of the problems persist after check list has been made, consult your nearest service dealer.

Symptom	Cause	Solution
No power.	The car ignition switch is not on.	If the power supply is properly connected to the car accessory circuits, but the engine is not moving, switch the ignition key to "ACC".
	The fuse is blown.	Replace with a new fuse of equal rating
Disc cannot be loaded or ejected.	A CD is in the player.	Remove the disc in the player, then put a new one.
	Disc is inserted upside down	Insert the CD with the label facing up.
	CD is very dirty or defective.	Clean the disc or try to play a new one.
	Temperature inside the car is too high.	Allow the ambient temperature to cool down to a normal level.
	Condensation is present in the CD player.	Leave the player off for an hour or so, then try again.
No sound.	Volume control is set to the minimum level.	Adjust volume to a desired level.
	Wiring is not properly connected.	Check wiring connection.
Sound skips.	The installation angle is more than 30 degrees.	Make sure the head unit is installed at an angle of less than 30 degrees from horizontal.
	The disc is extremely dirty or defective disc.	Clean the compact disc, then try to play a new one.
The operation keys do not work.	The built-in microcomputer is not operating properly due to noise.	Press the RESET button and try again.
	Front panel is not attached or seated properly.	Remove and reinsert the front panel according to the instructions in this manual and try again.
The radio does not work. The radio station automatic selection does not work.	The antenna cable is not connected.	Insert the antenna cable firmly.
	The signals are too weak.	Select a station manually.

## INSTALLATION

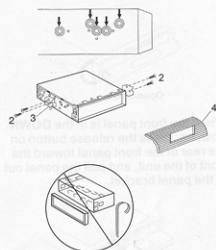
### Removing the unit



1. Before removing the frame, press the OPEN button to slide down the front panel.
2. Insert fingers into the groove in the right side of the frame and pull out to remove the frame. (You can also remove the frame from the left side.)
3. After removing the frame, press the OPEN button again to slide up the front panel. Then 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 makes it possible to remove the unit from the dashboard.

### DIN REAR-MOUNT (Method B)

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



Fastening the unit to the factory radio mounting bracket.

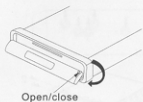
1. Select a position where the screw holes of the bracket and the screw holes of the main unit become aligned (are fitted), and tighten the screws at 2 places on each side. Use either truss screw (5 x 5mm) or flush surface screw (4 x 5mm), depending on the shape of the screw holes in the bracket.
2.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

**Note:** The trim piece, backstrap, and mounting bracket are not used for REAR-MOUNT.

## USING THE DETACHABLE FRONT PANEL

### To Detach the Front Panel

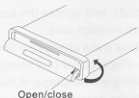
To slide down the front panel, press the **OPEN/CLOSE** button.



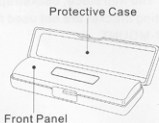
When the front panel is in the **DOWN** position, press the release button on the rear of the front panel toward the front of the unit, and pull the panel out of the panel bracket.



Pressing the **OPEN/CLOSE** button again will cause the front panel to slide up.

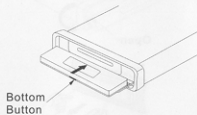


For safekeeping, store the front panel in the supplied protective case immediately after being removed.

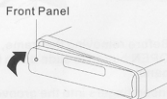


### To Reinstall the Front Panel

1. When the panel bracket is in the **DOWN** position, insert the front panel into the bracket. Press **OPEN** to slide up.



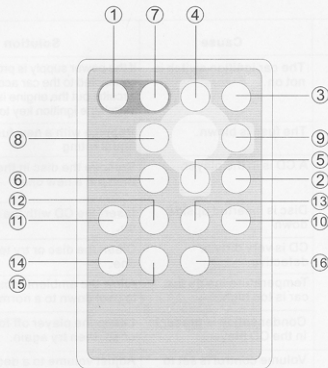
2. When the panel is in the **UP** position, insert one side of the panel in its proper position, and push the other side into the bracket, until you hear a "click."



3. Note that if the front panel fails to lock in position properly, some controls and functions may not work and some segments of LCD display may be missing. Press the **OPEN** button and then reinstall the front panel again.

## OPERATION

### REMOTE CONTROL HANDEST



### CONTROL & FUNCTION KEYS

- |                             |   |
|-----------------------------|---|
| 1. <b>POWER/ILL</b>         | = Power ON/OFF/ILLUMINATE Button              |
| 2. <b>DSP</b>               | = Display Button                              |
| 3. <b>SOURCE</b>            | = Source Button                               |
| 4. <b>VOL ^</b>             | = Volume Up Button                            |
| 5. <b>VOL v</b>             | = Volume Down Button                          |
| 6. <b>BND</b>               | = Band Select Button                          |
| 7. <b>AUDIO</b>             | = Audio Button                                |
| 8. <b>TUN/SEEK &lt;&lt;</b> | = Tune/Seek Up Button                         |
| 9. <b>TUN/SEEK &gt;&gt;</b> | = Tune/Seek Down Button                       |
| 10. <b>AS/PS</b>            | = Automatic Storing & Program Scanning Button |
| 11. <b>PAU</b>              | = Pause Button                                |
| 12. <b>SCN</b>              | = Scanning Button                             |
| 13. <b>RPT</b>              | = Repeat Button                               |
| 14. <b>SHF</b>              | = Shuffle Button                              |
| 15. <b>5</b>                | = CD Changer Disc Down Button                 |
| 16. <b>6</b>                | = CD Changer Disc Up Button                   |

## OPERATION

### - PROGRAM SCANNING

Press and release **AMS** button (18) to engage preset scanning.

### • STATION STORING

Press any one of the preset buttons (14) (M1 to M6) to select a station which has been stored in the memory. To add a station to memory, press and hold the desired preset button for several seconds.

## CD OPERATION

### • SELECT TRACKS

During CD operation, press **TUNE/SKIP/TRACK**  $\leftarrow /$  - button (16) or **TUNE/SKIP/TRACK**  $+ / \rightarrow$  button (17) to move to the previous track or the following track. Track number is shown on display.

During CD or CDC operation, hold **TUNE/SKIP/TRACK**  $\leftarrow /$  - button (16) or **TUNE/SKIP/TRACK**  $+ / \rightarrow$  button (17) to fast reverse or fast forward. CD play starts from when you release the button.

### • PAUSE PLAYING

Press **PAU** button (19) to pause CD player. Press it again to resume play.

### • REPEAT THE SAME TRACK

During CD operation, press **RPT** button (21) to continuously repeat the same track. Press again to stop repeat. During CDC operation, press **RPT** button (21) shortly to continuously repeat the same track. Press and hold **RPT** button (21) for several seconds to continuously repeat all tracks on the current disc. Press it again to stop repeat.

### • SCN: PREVIEW ALL TRACKS

During CD operation, press **SCN** button (20) to play first several seconds of each track on the current disc. Press again to stop **SCN** and listen to current track.

During CDC operation, press **SCN** button (20) to play first several seconds of each track on the current disc. Press it again to play first several seconds of each track on all discs in the CD magazine. Press it at a time to stop intro and listen to track.

### • PLAY ALL TRACKS

During CD operation, press **SHF** button (22) to play all tracks on CD in random order. Press again to cancel the function.

During CDC operation, press **SHF** button (22) shortly to play all tracks on the current disc. Press it for several seconds to select a disc in random and play the selected disc in random order. Press it again to cancel the function.

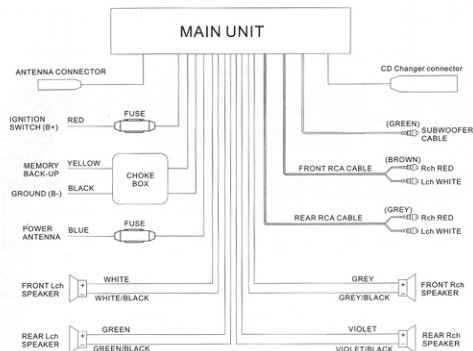
### • MONO/STEREO

**MO/ST** (23) button will only affect the FM reception. Press this button if FM reception becomes noisy or hissy. Press this button again to return the receiver to normal reception.

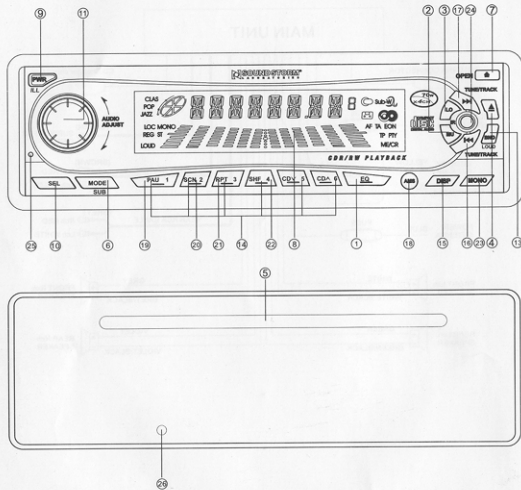
### • EJECT

To eject a CD, first press **OPEN** to sliding down the front panel. Then press **EJ** (4) to stop the CD from playing and to eject it.

## WIRING CONNECTION



## OPERATION



### GENERAL OPERATION

- ON/OFF/ILLUMINATE**  
 Switch on the unit by pressing any button [except OPEN/CLOSE button (7) and EJ button (4)]. When system is on, press **POWER/ILL.** button(9) briefly to control the brightness of VFD. Press and hold for several seconds.
- FACEPLATE RELEASE**  
 Press **OPEN/CLOSE** button (7) to slide down the front panel.

Press it again to return the front panel to be closed position.

- SOUND ADJUSTMENT**  
 Press **SEL** button (10) to move display through volume, bass, treble, balance and fader functions. Rotate **AUDIO CONTROL** knob (11) to adjust the selected mode.



## OPERATION

- LOUDNESS**  
 Press **BND/LOUD** button (13) for several seconds to reinforce the bass output and display will show "LOUD." Press it for several seconds again to release this function.
- SET THE CLOCK**  
 Press and hold **DISP** button (15), then press the **TUNE/SKIP/TRACK** +/- button (16) to change minutes or **TUNE/SKIP/TRACK** + /> button (17) to change hours.
- SELECT MODE**  
 Press **MODE** button (6) briefly to choose desired listening mode. (e.g. radio mode to CD mode to CDC mode )
- SUB**  
 Press **SUB** button (6) for several seconds to engage sub-woofer output. When sub-woofer on, "SUB-W" appears in the display.
- MUTE**  
 Press **MUTE** button (2) to silence the receiver. Press it again to release the mode.
- VACUUM FLUORESCENT DISPLAY**  
 Shows current frequency and active functions on the display (8).
- EQUALIZATION**  
**EQ** button (1). There are four preset response curves:  
 → FLAT → CLASSICS → POP/M → JAZZ → DSP OFF →
- REMOTE SENSOR**  
 Point the remote control handset in the direction of the remote sensor **RX** (24). Press the function keys on the handset to control the system.
- FLASHING LED**  
 This LED flashes when the detachable faceplate has been removed.
- RESET**  
 This button is used:  
 a. after initial installation of the unit and the completion of all wiring.  
 b. if all the function buttons do not operate, or.

c. if an error symbol appears on the display.

In these situation, use a ball pen point or other thin metal object to depress the reset button.

**Note:** If the unit does not function properly after pressing **RESET** button (25), please use a cotton swab soaked in isopropyl alcohol to clean the socket on the back of the front panel.

### RADIO OPERATION

- SELECT BAND**  
 In tuner mode, press **BND/LOUD** button (13) briefly to change between three FM bands and AM bands. Each band stores up to six preset stations.  
 → FM1 → FM2 → FM3 → AM1
- SELECT STATIONS**  
 Press **TUNE/SKIP/TRACK** +/- button (16) or **TUNE/SKIP/TRACK** + /> button (17) to activate automatic seek function. To select the manual tuning mode, press and hold this button until "MANUAL" appears in the display.
- LOCAL/DISTANCE**  
 Press **LOC** button (3) to select between local and distant stations. Local setting for reception of strong station, and a distant setting for reception of weaker stations.
- AUTOMATIC MEMORY PROGRAM SCANNING - AUTOMATIC STORING**  
 Press and hold **AMS** button (18) for several seconds to engage automatic storing function. The tuner searches and store the first six strong stations received into the preset memory. When this function is completed, the unit goes to preset scan mode.