

User's Manual

644UA

**MP3-COMPATIBLE IN-DASH
AM/FM CD RECEIVER**
WITH FRONT PANEL USB PORT,
SD MEMORY CARD PORT AND
AUX INPUT



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AM/FM CD RECEIVER**
WITH FRONT PANEL USB PORT,
SD MEMORY CARD PORT AND AUX INPUT

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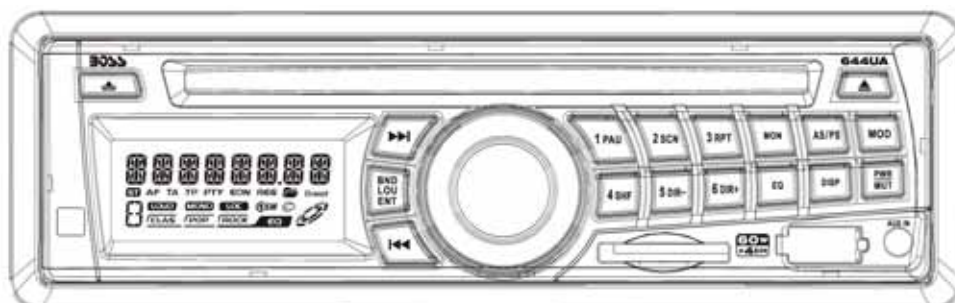
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644UA

OWNER'S MANUAL

Mobile Audio System



- **PLL Synthesizer Stereo Radio**
- **CD/MP3/WMA Player**
- **Automatic Memory Storing**
- **Full Detachable Panel**
- **Preset Equalization**
- **Electronic Shockproof (ESP) Function**
- **Memory Card Interface**
- **USB Interface**
- **Auxiliary Input Function**
- **Remote Control**

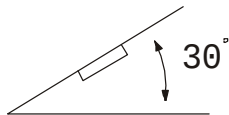
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INSTALLATION

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.



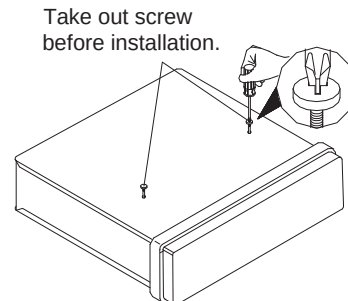
- Avoid installing the unit where it would be subject to high temperature, such as from direct sunlight, or hot air, from the heater, or where it would be subject to dust, dirt or excessive vibration.

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.

TAKE OUT SCREW BEFORE INSTALLATION

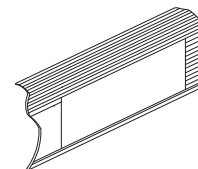
Before install the unit, please remove the two screws.



DIN FRONT-MOUNT (Method A)

Installation Opening

This unit can be installed in any dashboard having an opening as shown below:

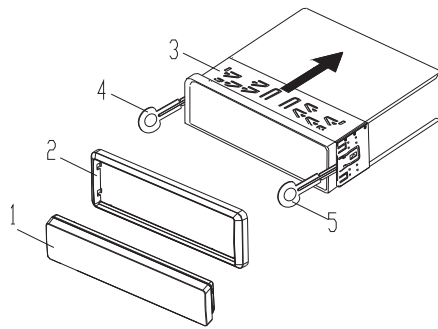


Installing the unit

Be sure you test all connections first, and then follow these steps to install the unit.

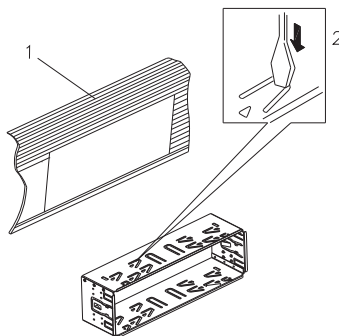
1. Make sure the ignition is turned off, and then disconnect the cable from the vehicle battery's negative (-) terminal.
2. Disconnect the wire harness and the antenna.
3. Press the release button on the front panel and remove the control panel (see the steps of "removing the front panel").
4. Lift the top of the outer trim ring then pull it out to remove it.
5. The two supplied keys release tabs inside the unit's sleeve so you can remove it. Insert the keys as far as they will go (with the notches facing up) into the appropriate slots at the middle left and right sides of the unit. Then slide the sleeve off the back of the unit.

INSTALLATION



- (1) Front panel; (2) Outer trim ring;
(3) Sleeve; (4) L key; (5) R key

6. Mount the sleeve by inserting it into the opening of the dashboard and bend open the tabs located around the sleeve with a screwdriver. Not all tabs will be able to make contact, so examine which ones will be most effective. Bending open the appropriate tabs behind the dashboard to secure the sleeve in place.

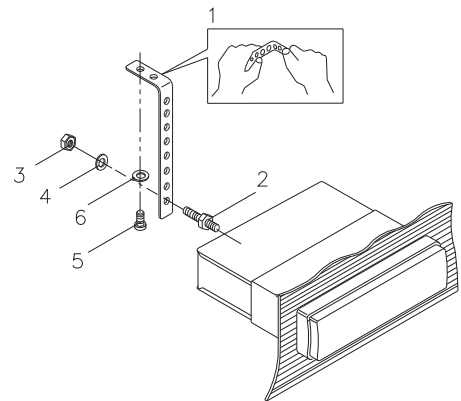


- (1) Dashboard (2) Tabs

7. Reconnect the wire harness and the antenna and be careful not to pinch any wires or cables.
8. Slide the unit into the sleeve until it locks into place.
9. To further secure the unit, use the supplied metal strap to secure the back of the unit in place. Use the supplied hardware (Hex Nut (M5mm) and Spring Washer) to attach one end of the strap to the mounting bolt on the back of the unit. If necessary, bend the metal strap

to fit your vehicle's mounting area. Then use the supplied hardware (Tapping Screw and Plain Washer) to attach the other end of metal strap to a solid metal part of the vehicle under the dashboard. This strap also helps ensure proper electrical grounding of the unit.

Note to install the short threading terminal of the mounting bolt to the back of the unit and the other long threading terminal to the dashboard.



- (1) Metal Strap; (2) Mounting Bolt;
(3) Hex Nut; (4) Spring Washer;
(5) Tapping Screw; (6) Plain Washer

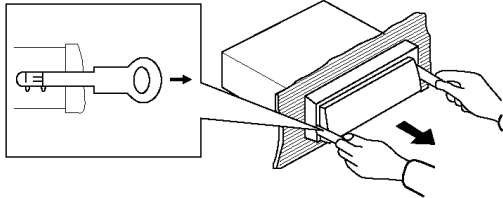
10. Reconnect the cable to the vehicle battery's negative (-) terminal. Then replace the outer trim ring and install the unit's front panel (see the steps of "Installing the front panel").

Removing the unit

1. Make sure the ignition is turned off, then disconnect the cable from the vehicle battery's negative (-) terminal.
2. Remove the metal strap attached the back of the unit (if attached).
3. Press the release button to remove the front panel.
4. Lift the top of the outer trim ring then pull it out to remove it.

INSTALLATION

5. Insert both of the supplied keys into the slots at the middle left and right sides of the unit, then pull the unit out of the dashboard.

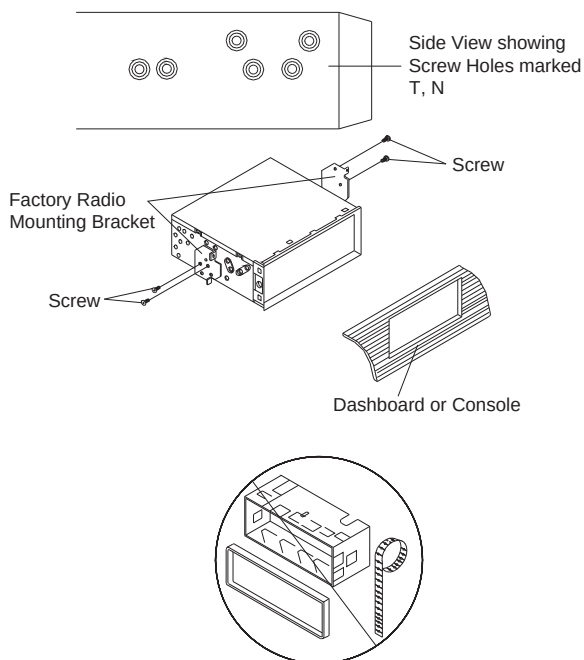


Note: The outer trim ring, sleeve and the metal strap are not used for method B installation.

DIN REAR-MOUNT (Method B)

If your vehicle is a Nissan, Toyota, follow these mounting instructions.

Use the screw holes marked T (Toyota), N (Nissan) located on both sides of the unit to fasten the unit to the factory radio mounting brackets supplied with your vehicle.



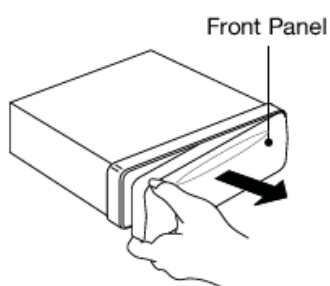
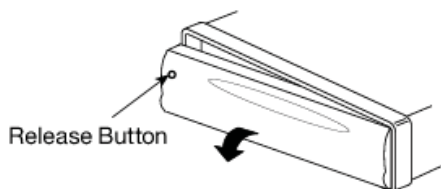
To fasten the unit to the factory radio mounting brackets.

Align the screw holes on the bracket with the screw holes on the unit, and then tighten the screws (5x5mm) on each side.

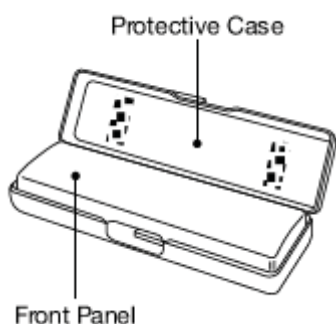
USING THE DETACHABLE FRONT PANEL

REMOVING THE FRONT PANEL

1. Press the release button on the front panel and pull off the front panel.

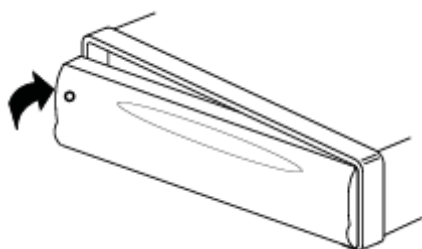


2. Keep front panel into the case.



INSTALLING THE FRONT PANEL

To install the front panel, insert the panel into the housing and make sure the panel is properly installed. Otherwise, abnormality occurs on the display or some keys will not function properly.

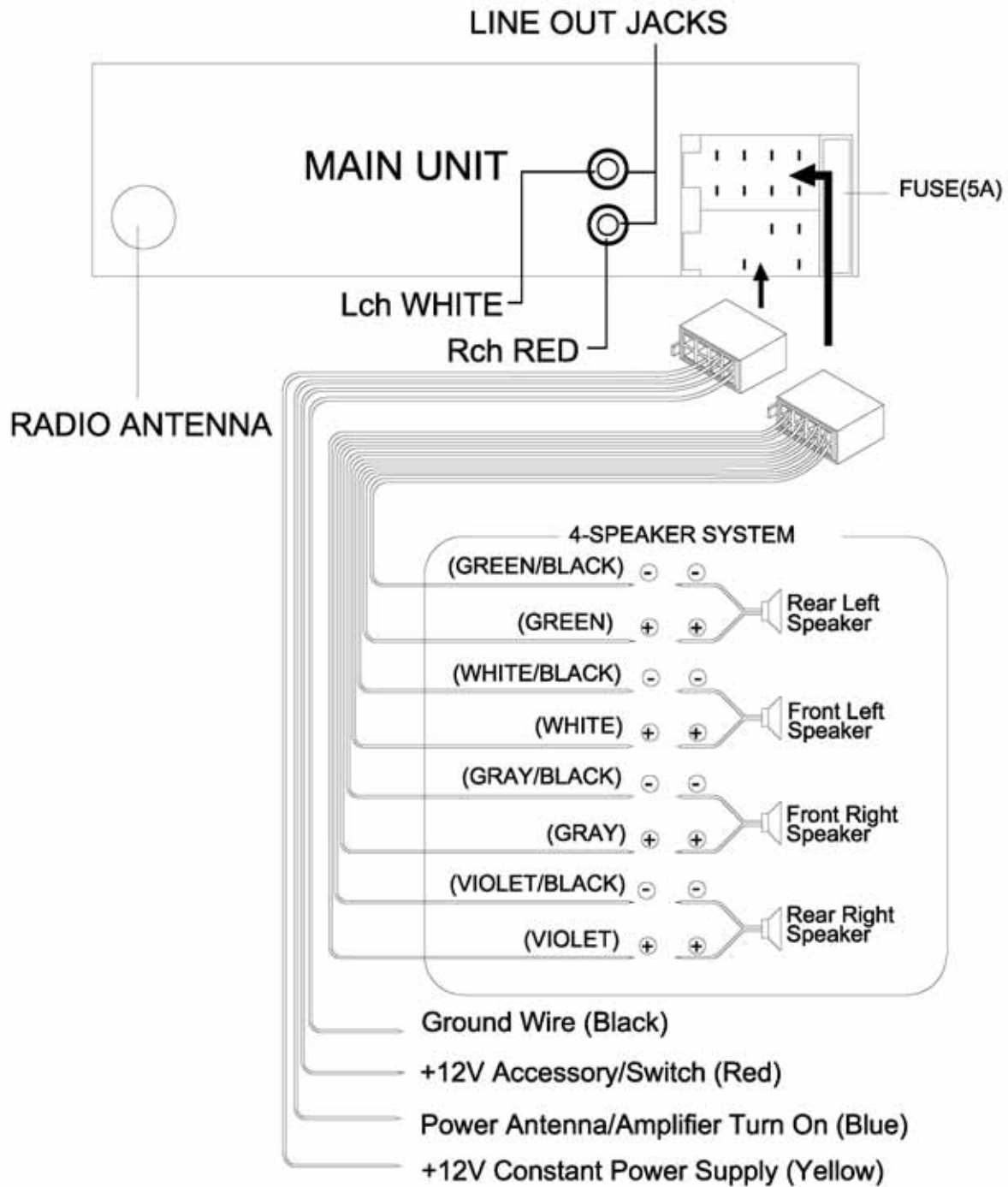


Precautions when handling

1. Do not drop the front panel.
2. Do not put pressure on the display or control buttons when detaching or re-installing the front panel.
3. Do not touch the contacts on the front panel or on the main unit body. It may result in poor electrical contact.
4. If any dirt or foreign substances adhered on the contacts, they can be removed with a clean and dry cloth.
5. Do not expose the front panel to high temperatures or direct sunlight in anywhere.
6. Keep away any volatile agents (e.g. benzene, thinner, or insecticides) from touching the surface of the front panel
7. Do not attempt to disassemble the front panel.

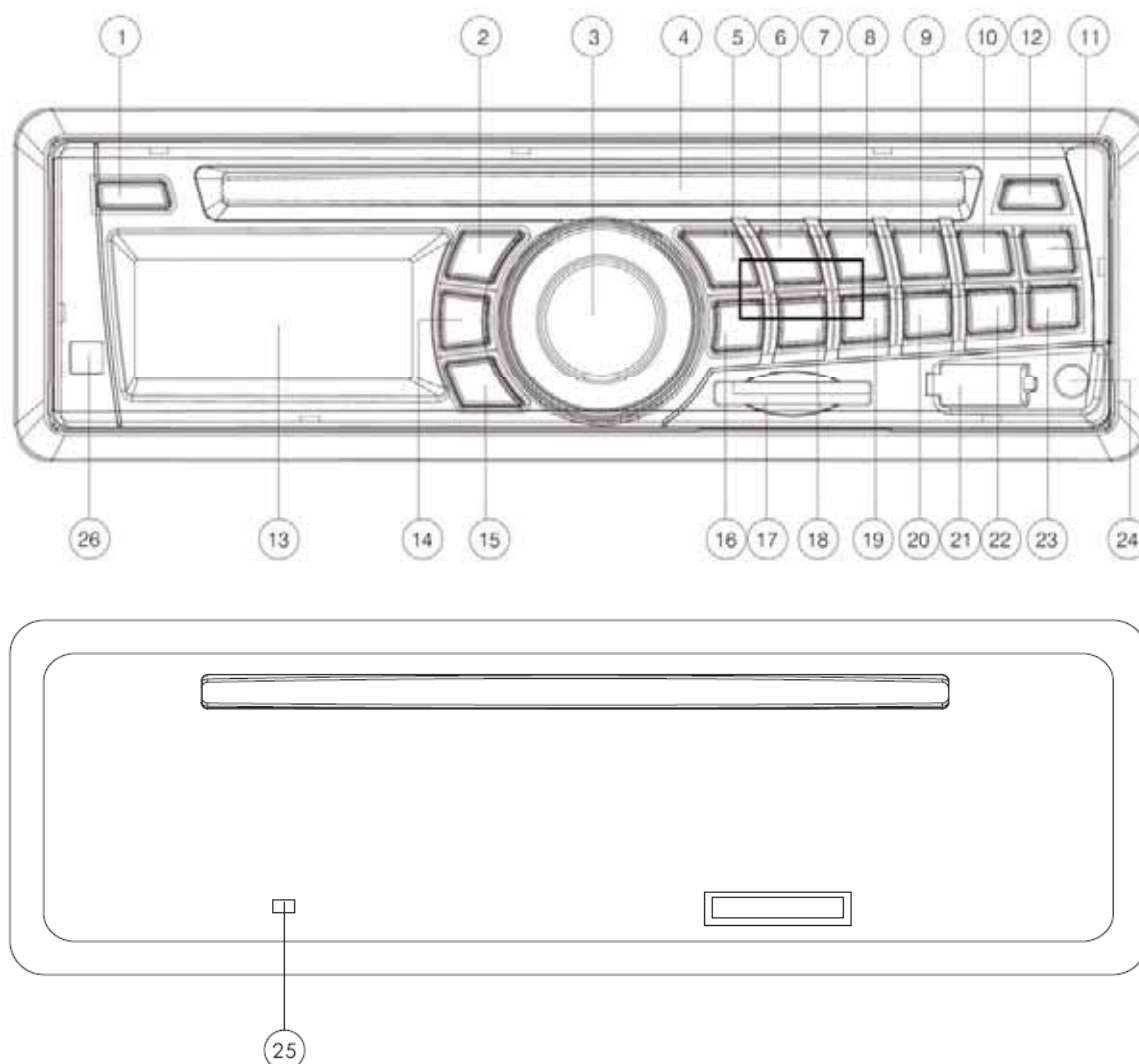
WIRING CONNECTION

FOR 60X4W SYSTEM



OPERATION

LOCATION OF KEYS



- | | |
|--|-----------------------------|
| 1. release button | 14. BND/LOU/ENT button |
| 2. (tune/seek/track up) | 15. (tune/seek/track down) |
| 3. Volume knob (when rotated)
SEL button (when pressed) | 16. 4 SHF button |
| 4. Disc slot | 17. Memory card interface |
| 5. 1 PAU button | 18. 5 DIR- button |
| 6. 2 SCN button | 19. 6 DIR+ button |
| 7. 1-6 preset buttons | 20. EQ button |
| 8. 3 RPT button | 21. USB interface |
| 9. MON button | 22. DISP button |
| 10. AS/PS/Navi-SCH button | 23. PWR/MUT button |
| 11. MOD button | 24. Auxiliary input jack |
| 12. Eject button | 25. Reset button |
| 13. Liquid crystal display | 26. Remote sensor |

OPERATION

BASIC OPERATION

SWITCHING ON/OFF THE UNIT

Press **PWR/MUT** button (23) to switch on the unit. When system is on, press and hold **PWR/MUT** button (23) to turn off the unit.

FACEPLATE RELEASE

Press  button (1) to detach the removable faceplate.

SOUND ADJUSTMENT

Press the volume button (3) shortly to select the desired adjustment mode. The adjustment mode will change in the following order:

VOL → BAS → TRB → BAL → FAD
(Volume) (Bass) (Treble) (Balance) (Fader)

By rotating the volume knob (3) clockwise or counter-clockwise, it is possible to adjust the desired sound quality.

SYSTEM SETTING

Press and hold the volume button (3) on the front panel to enter system setting mode. Then shortly press the volume button (3) to select the item you want to change and rotate the volume knob (3) to change the corresponding setting.

1) BEEP ON/OFF

Use the volume knob (3) to set Beep sound ON or OFF.

2) AREA OIR/EUR/USA/ASI/S-R/JPN

In radio mode, Use the volume knob (3) to set the different area frequency spacing.

3) DIM HIGH/LOW/MID

In this menu, rotate the volume knob (3) to change the brightness of the backlight among High, Low and Middle.

LOUDNESS

Press **BND/LOU/ENT** button (14) for several seconds to reinforce the bass output. Press it for several seconds again to release this function.

SET THE CLOCK

Press the **DISP** button (22) until the clock is shown on the display. Then hold the button until the clock flashes. Then press **▶▶** button (2) to change the minutes and **◀◀** button (15) to change the hours.

DISPLAY INFORMATION

Press **DISP** button (22) to operate as the conversion of each display mode.

EQUALIZATION

Press **EQ** button (20) to turn on equalization function and to select desired audio mode. There are five kinds of mode as below:

→FLAT→CLASSICS→POP M→ROCK M→DSP OFF

MUTE

Press **PWR/MUT** button (23) shortly to mute down the sound instantly. Press it again to resume the sound.

LIQUID CRYSTAL DISPLAY

Exhibit current frequency and activated functions on the display (13).

REMOTE SENSOR

Point the remote control handset to the remote sensor (26). Press the function keys on the handset to control the system.

ESP FUNCTION

The unit can be shockproof about ten seconds.

AUXILIARY INPUT

The unit can be connected to a portable audio player through the auxiliary input jack (24) on the front panel. After finishing the connection, you can press **MOD** button (11) on the front panel to switch the mode to AUX IN mode.

RESET FUNCTION

Reset button (25) must be activated with either a ballpoint pen or thin metal object.

OPERATION

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.

Note: if press reset button (25), the unit can't work yet, please use a cotton swab soaked in isopropyl alcohol to clean the socket on the front panel.

RADIO OPERATION

SWITCHING TO RADIO MODE

Press **MOD** button (11) shortly to select radio mode, the radio mode appears in the display together with the memory band and frequency.

SELECTING THE FREQUENCY BAND

At radio mode, press **BND/LOU/ENT** button (14) shortly to select the desired band.

The reception band will change in the following order:



SELECTING STATION

Press **▶▶** button (2) or **◀◀** button (15) shortly to activate automatic seek function. Press for several seconds until "**MANUAL**" appears on the display, the manual tuning mode is selected. If both buttons have not been pressed for several seconds, they will return to seek tuning mode and "**AUTO**" appears on the display.

AUTOMATIC MEMORY STORING & PROGRAM SCANNING

- Automatic memory storing
Press **AS/PS** button (10) for several seconds, the radio searches from the current frequency and checks the signal strength until one cycle search is finished. And then 6 strongest stations are stored into the corresponding preset number button.

- Program scanning

Press **AS/PS** button (10) shortly to scan preset station. When the field strength level is more than the threshold level of stop level, the radio is holding at that preset number for several seconds with release mute, then searches again.

STATION STORING

Press any one of the preset buttons (7) (1 to 6) to select a station, which had been stored in the memory. Press this button for several seconds to store the current station into the number button.

MONO/STEREO

Press **MON** button (9) to select mono or stereo mode. You can sometimes improve reception of distant stations by selecting mono operation.

CD/MP3/WMA OPERATION

SWITCHING TO CD MODE

If there is no CD/MP3/WMA disc inserted in the driver:

Gently insert the disc with the printed side uppermost into the CD compartment until you feel some resistance. The disc is drawn into the driver automatically. Disc playback begins.

If a CD/MP3/WMA disc is already inserted in the driver:

Keep pressing **MOD** button (11) shortly until the CD mode display appears.

SELECTING TRACKS

Press **◀◀** button (15) or **▶▶** button (2) to move to the previous track or the following track. Track number shows on display. Hold **◀◀** button (15) or **▶▶** button (2) to fast reverse or fast forward. Disc play starts from when you release the button.

PAUSING PLAYING

Press **PAU** button (5) to pause the player. Press it again to resume play.

OPERATION

PREVIEWING TRACKS

Press **SCN** button (6) to play first several seconds of each track on the current disc. Press again to stop intro and listen to track. When playing MP3/WMA disc, press and hold **SCN** button (6) to play first several seconds of each track in the current directory. Press it again to exit this mode.

REPEATING TRACKS

Press **RPT** button (8) to continuously repeat the same track. Press it again to stop repeat.

When playing MP3/WMA disc, press and hold **RPT** button (8) to repeat all tracks in the current directory. Press it again to exit this mode.

PLAYING TRACKS IN RANDOM

Press **SHF** button (16) to play all tracks on CD in random order. Press again to cancel the function.

When playing MP3/WMA disc, press and hold **SHF** button (16) to play all tracks in the current directory in random order. Press it again to exit this mode.

EJECTING A DISC

Press **▲** button (12) to stop CD playing and eject the disc from the disc slot (4).

SPECIAL FUNCTIONS FOR MP3/WMA DISC

1) SELECTING DIRECTORY UP/DOWN

Press **DIR-** button (18) or **DIR+** button (19) to select directory downward or upward. If the MP3/WMA disc does not contain any directory, there is no function of pressing **DIR-** button (18) or **DIR+** button (19).

2) SELECTING TRACKS BY AS/PS /Navi-SCH BUTTON

AS/PS (Navi-SCH) button (10) is assigned as Digital Audio Mode selection button in MP3/WMA operation.

When pressed, it is activated as selecting each mode of Digital Audio.

“Searching track directly” => “Searching Directory or File Name”=> “Navigation” from root => “Navigation” from current directory.

□ Searching Track Directly

Press **AS/PS (Navi-SCH)** button (10) for one time. The unit searches the track selected by the volume knob (3). Then press the volume button (3) or **BND/LOU/ENT** button (14) to start playing the track.

□ Searching Directory or File Name

Press **AS/PS (Navi-SCH)** button (10) two times.

The unit searches files and directories that have the same character which is inputted by the user rotating the volume knob (3).

Explain as follows:

- Use the volume knob to select the characters A to Z, blank, 0 to 9, **_**, **-**, **+**.
- Press the volume button (3) to confirm entry of each characters.
- Press **BND/LOU/ENT** button (14) to start the title search.

□ Searching From Root Directory

Press **AS/PS (Navi-SCH)** button (10) three times. The unit searches file or directory from root by the volume button (3).

Select the desired directory/songs by using the volume button (3) and **BND/LOU/ENT** button (14) or volume button (3) to confirm. If the selected title is a song, it starts to play.

□ Searching From Current Directory

Press **AS/PS (Navi-SCH)** button (10) four times. The unit searches file or directory from current directory by the volume button (3). The user can select the directory or file in the directory by the volume button (3). The selected file can be played by pressing **BND/LOU/ENT** button (14) or volume button (3).

OPERATION

3) DISPLAY INFORMATION

Press **DISP** button (22) to show the following information, such as the clock, ID3 TAG (if available: song title, directory name, artist name, other contents...) (FOR MP3/WMA ID3 FUNCTION VERSION ONLY) and other information.

USB PLAY OPERATION

On the front panel of unit, there is an USB interface (21), you can connect an USB driver through this interface.

When you connect an USB driver through the interface, the unit will search the MP3/WMA files and start to play it automatically. In other mode, you can also press **MOD** button (11) to select USB mode.

When playing the MP3/WMA files in the device, the operation is the same with the MP3 operation described above.

Note:

- The main unit can only support the standard USB-memory disc.
- USB MP3 player is not a standard which means different brand name or different models have their own standard. So our product cannot support all MP3 players.
- When connecting an MP3 player and there has normal battery in the player (non rechargeable battery), you should remove the battery from the MP3 player then connect it to the USB interface. Otherwise, it may cause battery burst.
- When in USB play mode, be sure not to remove the USB driver from the USB interface.

MEMORY CARD OPERATION

There is a memory card interface (17) on the front panel of the unit.

When you insert a memory card in the memory card interface, the unit will search the MP3 files in the card and start to play MP3 files automatically.

The operation is the same with the MP3 operation described above. If in other mode, you can also press **MOD** button (11) to select memory card play mode.

CAUTION

When there are important files in the USB device or memory card, do not connect it to the main unit to play. And don't play the CD-R/RW disc that has important files in it. Because any wrong operation may cause files loss. And our company assumes no responsibility for this.

DISC NOTES

A. Notes on discs:

1. Attempting to use non-standard shape discs (e.g. square, star, heart) may damage the unit. Be sure to use round shape CD discs only for this unit.
2. Do not stick paper or tape, etc, onto the label side or the recording side of any discs, as it may cause a malfunction.
3. Dirt, dust, scratches and warping discs will cause misoperation.

B. Notes on CD-Rs (recordable CDs)/CD-RWs (rewritable CDs):

1. The unit cannot play a CD-R and CD-RW that is not finalized. (Please refer to the manual of your CD-R/CD-RW recorder or CD-R/CD-RW software for more information on finalization process).
2. Depending on the recording status, conditions of the disc and the equipment used for the recording, some CD-Rs/CD-RWs may not be played on this unit. (see *1)

*1: To have more reliable play back, please see following recommendations:

- a: Use CD-RWs with speed 1x to 4x and write with speed 1x to 2x.

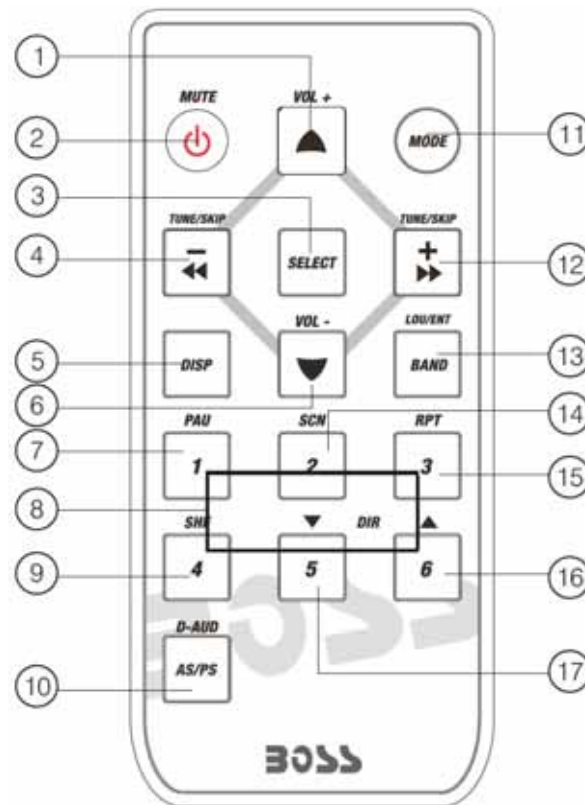
OPERATION

- b. Use CD-Rs with speed 1x to 8x and write with speed 1x to 2x.
- c. Do not play a CD-RW which has been written for more than 5 times.

C. Notes on MP3 files (MP3 Version Only):

1. The disc must be in the ISO9660 level 1 or level 2 format, or Joliet or Romeo in the expansion format.
2. When naming a MP3 file, be sure the file name extension is ".MP3".
3. For a non-MP3 file, even though the file name extension is ".MP3", the unit cannot recognize it.

REMOTE CONTROL



1. VOL+: Volume Up Button (Character Select (A, B~8,9,0, _,-,+) For MP3/WMA Operation)
2. MUTE: Power ON/OFF/MUTE Button
3. SELECT: Sound Mode Select Button (Character Shift Right For MP3/WMA Operation)
4. TUNE/SKIP : Tune/Seek Down Button
5. DISP: Display Button
6. VOL-: Volume Down Button (Character Select (A,B~8,9,0, _,-,+) For MP3/WMA Operation)
7. 1 PAU: Pause Button
8. 1-6: Preset Buttons
9. 4 SHF: Shuffle Button
10. AS/PS/D-AUD: Automatic Memory Storing & Program Scanning Button
(Mode Select Button For MP3/WMA Operation)
11. MODE: Mode Button
12. TUNE/SKIP : Tune/Seek Up Button
13. BAND/LOU/ENT: Band Select Button (When pressed shortly)
Loudness Button (When pressed long)
(Enter Button For MP3/WMA Operation)
14. 2 SCN: Scanning Button
15. 3 RPT: Repeat Button
16. 6 DIR : Directory Up Button
17. 5 DIR : Directory Down Button

SPECIFICATION

GENERAL

Power Supply Requirements	: DC 12 Volts, Negative Ground
Chassis Dimensions	: 178 (W) x 160 (D) x 50 (H)
Tone Controls	
- Bass (at 100 Hz)	: ± 10 dB
- Treble (at 10 kHz)	: ± 10 dB
Maximum Output Power	: 60x4 watts
Current Drain	: 5 Ampere (max.)

CD PLAYER

Signal to Noise Ratio	: More than 55 dB
Channel Separation	: More than 50 dB
Frequency Response	: 40Hz – 18 kHz

RADIO

For 2 Bands

FM

Frequency Coverage	87.5 to 107.9 MHz
IF	10.7 MHz
Sensitivity (S/N=30dB)	10 dBu
Stereo Separation	>25dB

AM

Frequency Coverage	530 to 1710 KHz
IF	450 kHz
Sensitivity (S/N=20dB)	36 dBu

TROUBLE SHOOTING

Before going through the checklist, check wiring connection. If any of the problems persist after checklist 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 connected to the car accessory circuits, but the engine is not moving, switch the ignition key to "ACC".
	The fuse is blown.	Replace the fuse.
Disc cannot be loaded or ejected.	Presence of CD disc inside the player.	Remove the disc in the player, then put a new one.
	Inserting the disc in reverse direction.	Insert the compact disc with the label facing upward.
	Compact disc is extremely dirty or defective.	Clean the disc or try to play a new one.
	Temperature inside the car is too high.	Cool off until the temperature returns to normal.
	Condensation.	Leave the player off for an hour or so, then try again.
No sound.	Volume is in minimum	Adjust volume to a desired level.
	Wiring is not properly connected.	Check wiring connection.
Sound skips.	The installation angle is more than 30 degrees.	Adjust the installation angle less than 30 degrees.
	The disc is extremely dirty or defective.	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. Front panel is not properly fixed into its place.
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.