MR2180UA

FULLY MARINIZED
MP3/CD AM/FM RECEIVER
FEATURING REAR USB AND REAR AUX INPUT

01.2012

BOSS®
AUDIO SYSTEMS

3451 Lunar Court • Oxnard, CA 93030
www.bossaudio.com
800.999.1236

tech support: www.bossaudio.com/support

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MR2180UA

OWNER'S MANUAL
Mobile Audio System
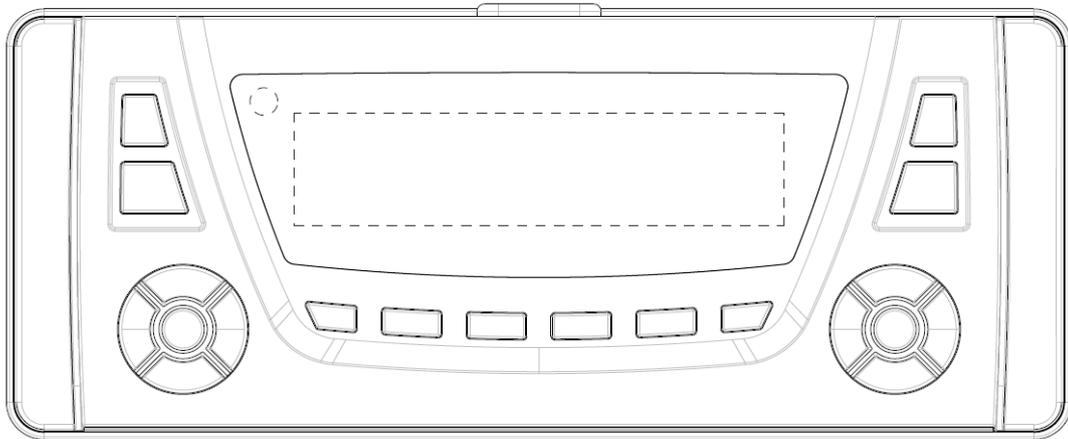
- **PLL Synthesizer Stereo Radio**

- **CD/MP3/WMA Player**

- **RBDS Operation**

- **Automatic Memory Storing**

- **Preset Equalization**

- **Electronic Shockproof (ESP) Function**

- **USB Interface**

- **Auxiliary Input Function**

- **Remote Control**

# CONTENTS

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 angel exceeds 30° from horizontal, the unit might not give its optimum performance.
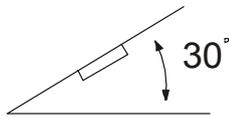
- Avoid installing the unit where it would be subject to high temperature, such as from direct sunlight, or from hot air, from the heater, or where it would be subject to dust, dirt or excessive vibration.

TAKE OUT SCREW BEFORE INSTALLATION

Before install the unit, please remove the two screws.

Take out screw before installation.
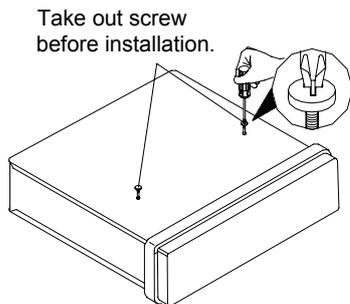
NOTE: If this unit is installed on the ship, you can use two pieces of plastic film to seal the two holes after remove the screws. And this will be waterproof.

Installation Opening

You can select the installation area and the size of the opening according to the installation paper.

INSTALLATION PAPER
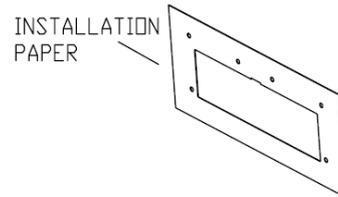
Installing the unit

1. Press the OPEN button, then the front panel will be folded down.

Front panel

OPEN button
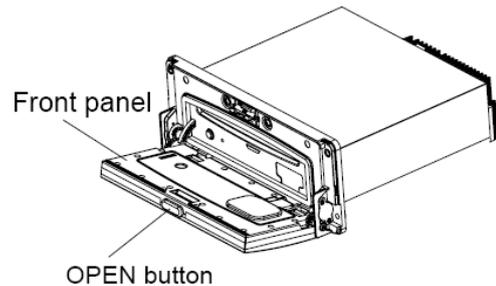
2. First remove the two caps on two sides of the unit. **(**Note to pull out the top side of the cap first.)

Then set the rubber base on the main unit close to the back of the front panel.

Install the main unit to the dashboard thought the six screws with washers and the three brackets. You can use the plastic film to seal the six holes after remove the screws on the front panel of the unit.

Bracket
Rubber base
Washer (M4)
Screw M4X30mm
Cap
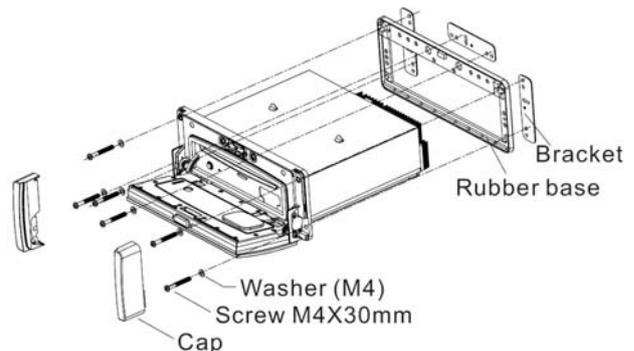
WIRING CONNECTION
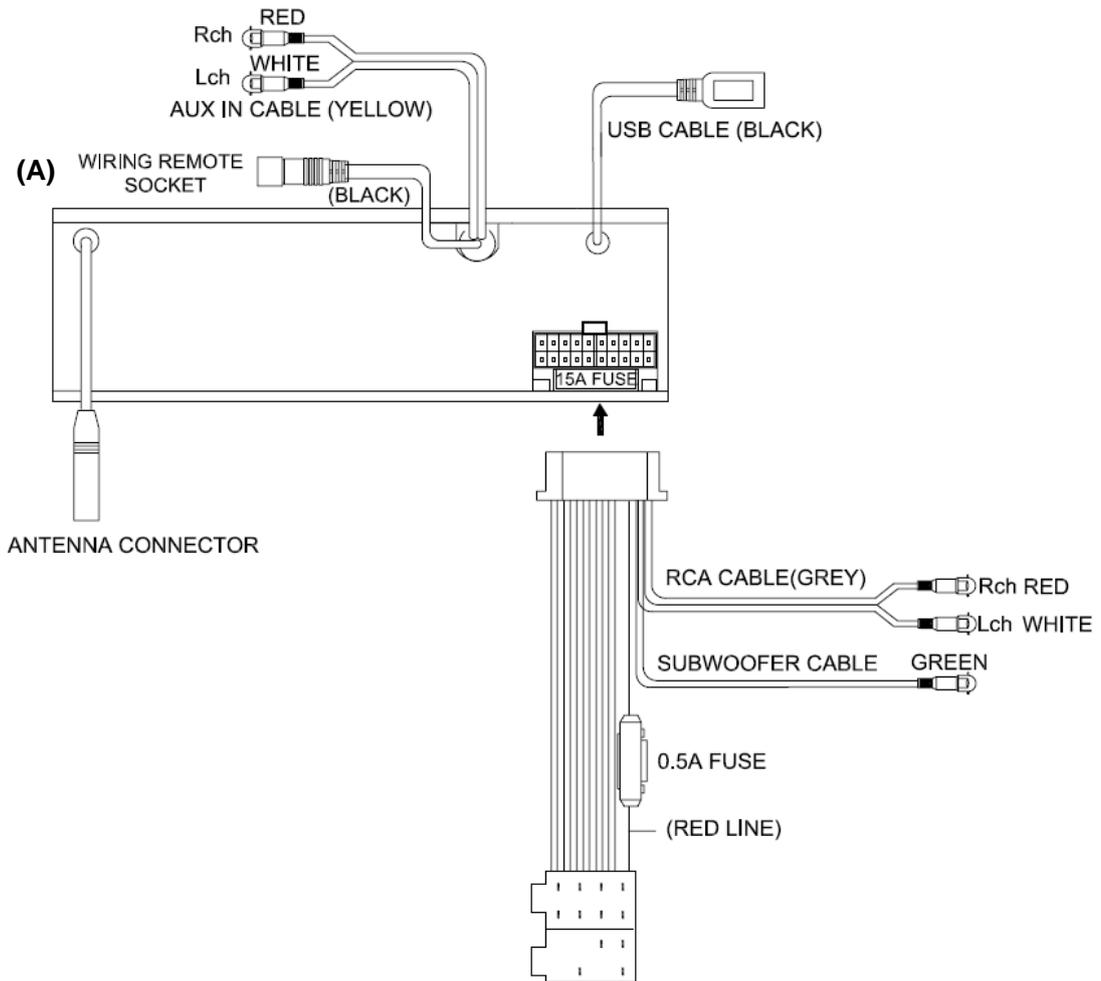
Connector A
1. N.C.
2. N.C.
3. N.C.
4. MEMORY +12V (YELLOW)
5. AUTO ANTENNA OUTPUT (BLUE)
6. N.C.
7. +12V (TO IGNITION KEY) (RED)
8. GROUND (BLACK)

Connector B
1. REAR RIGHT SPEAKER (+) (VIOLET)
2. REAR RIGHT SPEAKER (-) (VIOLET/BLACK)
3. FRONT RIGHT SPEAKER (+) (GRAY)
4. FRONT RIGHT SPEAKER (-) (GRAY/BLACK)
5. FRONT LEFT SPEAKER (+) (WHITE)
6. FRONT LEFT SPEAKER (-) (WHITE/BLACK)
7. REAR LEFT SPEAKER (+) (GREEN)
8. REAR LEFT SPEAKER (-) (GREEN/BLACK)
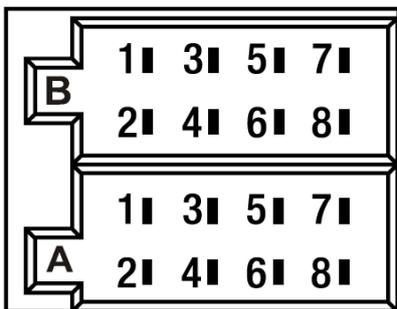
Note: The black wiring remote cable/socket (A) on the unit is for the commander MRC21 and it is also compatible with the MRF90 receiver.

OPERATION

LOCATION OF KEYS
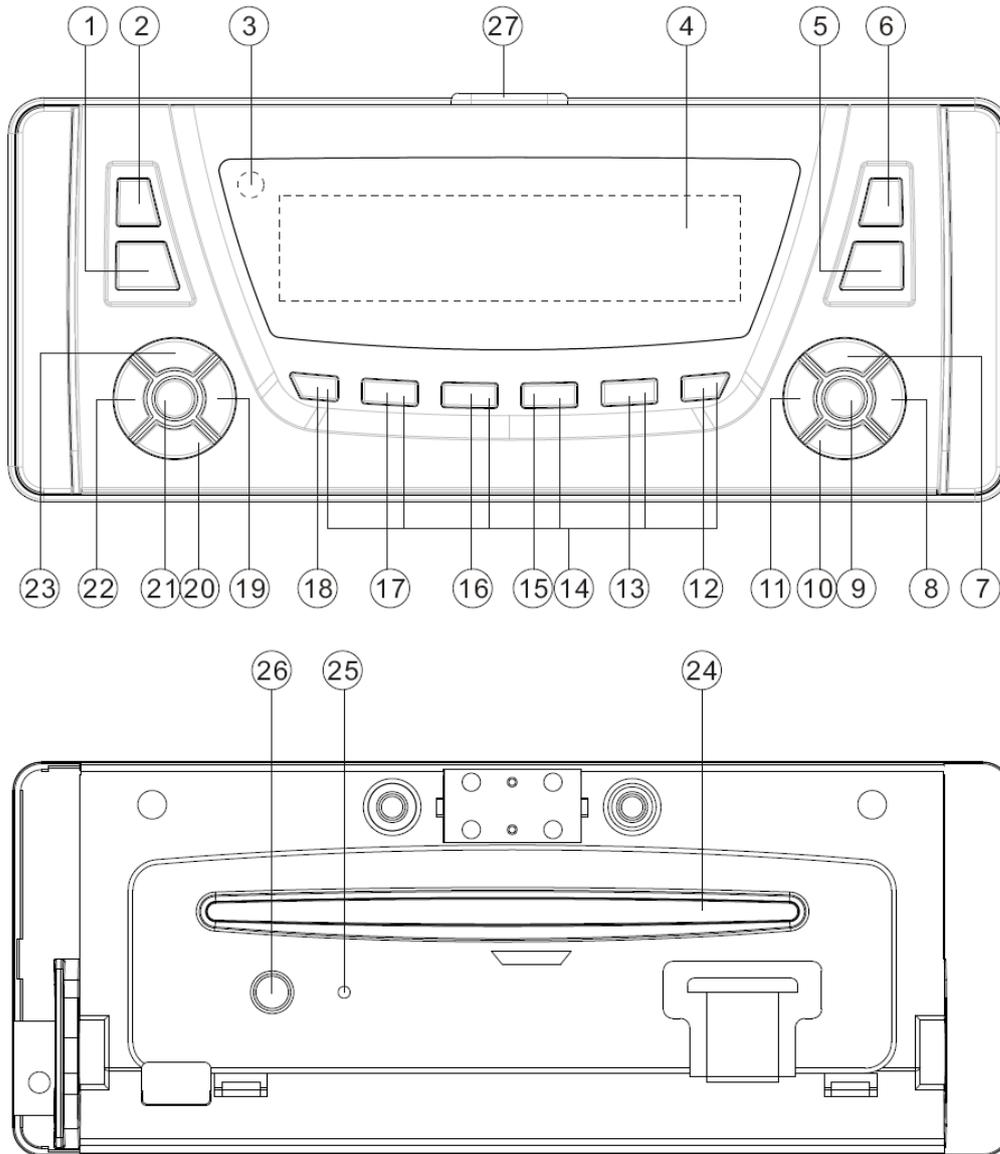
1. EQ button
2. ⏻ (power) button
3. Remote sensor
4. Liquid crystal display
5. BND/LOUD/ENT button
6. AS/PS button
7. DISP button
8. PTY button
9. MOD/SW button
10. AF/MUTE button
11. TA button
12. 6 DIR+
13. 5 DIR-
14. 1-6 preset buttons
15. 4 SHF button
16. 3 RPT button
17. 2 SCN button
18. 1 PAU button
19. ▶▶ tune/seek/track up button
20. VOL- button
21. SEL button
22. ◀◀ tune/seek/track down button
23. VOL+ button
24. Disc slot
25. Reset button
26. ⏏ Eject button
27. OPEN button

OPERATION

BASIC OPERATION

SWITCHING ON/OFF THE UNIT

Switch on the unit by pressing any button (except ⏏ button (26)). When system is on, press ⏻ button (2) to turn off the unit.

FACEPLATE RELEASE

Press **OPEN** button (27), then the faceplate will be folded down.

SOUND ADJUSTMENT

Press **SEL** button (21) 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)

Press the **VOL+/-** buttons (23&20) to adjust the desired sound quality.

SYSTEM SETTING

Press and hold **SEL** button (21) to enter system setting mode. Then shortly press **SEL** button (21) to select the item you want to change and press the **VOL+/-** buttons (23&20) to change the corresponding setting.

1) BEEP ALL/OFF/2ND

   Use the **VOL+/-** buttons (23&20) to set Beep sound ALL, OFF or 2ND.

   - BEEP 2ND mode:
     The beep is only generated when all allowed double keys are held long (1 sec).
     E.G.:
     When **BND/LOU/ENT** button (5) is pressed.
     When **AS/PS** button (6) is pressed.
   - BEEP ALL mode:
     The beep is generated when every key is pressed.
   - BEEP OFF mode:
     The beep is disabled.

2) AREA USA/EUR

   Use the **VOL+/-** buttons (23&20) to set USA or EUR area frequency spacing.

3) TA SEEK/ALARM

   Use the **VOL+/-** buttons (23&20) to set TA SEEK or TA ALARM.
   Traffic announcements

   - TA SEEK: With activated TA function the unit searches for a station with traffic announcements.
   - TA ALARM: No automatic station search. The unit sounds a beep tone if no traffic information is received and NO TP/TA is displayed. SEEK PI is displayed if the selected station does not transmit an RBDS signal.

MUTE

Press **AF/MUTE** button (10) for several seconds to mute down the sound instantly. Press it for several seconds again to resume the sound.

LOUDNESS

Press **BND/LOU/ENT** button (5) for several seconds to reinforce the bass output. Press it for several seconds again to release this function.

DISPLAY INFORMATION

Press **DISP** button (7) to operate as the conversion of each display mode.

EQUALIZATION

Press **EQ** button (1) 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┐

SUBWOOFER

Press **MOD/SW** button (9) for several seconds to toggle sub-woofer output. Press it for several seconds again to release this mode.

LIQUID CRYSTAL DISPLAY

Exhibit current frequency and activated functions on the display (4).

OPERATION

ESP FUNCTION

The unit can be shockproof about ten seconds.

REMOTE SENSOR

Point the remote control handset to the remote sensor (3). Press the function keys on the handset to control the system.

RESET FUNCTION

Reset button (25) must be activated with either a ballpoint 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.

POWER-DOWN MEMORY FUNCTION

The unit has the power-down memory function; some data will never lose even when power's off. You can press the numerical button **1** (18) and **MOD** button (9) together to clear the power-down memory function.

RADIO OPERATION

SWITCHING TO RADIO MODE

Press **MOD** button (9) 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 (5) shortly to select the desired band.

The reception band will change in the following order:

$$\rightarrow FM1 \rightarrow FM2 \rightarrow FM3 \rightarrow AM (MW) \rightarrow$$

SELECTING STATION

Press the ◀◀ button (22) or ▶▶ button (19) 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, it will return to seek tuning mode and "**AUTO**" appears on the display.

AUTOMATIC MEMORY STORING & PROGRAM SCANNING

- Automatic memory storing
  Press **AS/PS** button (6) 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 (6) 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 (14) (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.

RBDS OPERATION

➢ In FM mode, press **TA** button (11), the unit will search Traffic Announcement automatically. When received a Traffic Announcement station, the unit will change to the Traffic Announcement station automatically. Press **TA** button (11) again will exit TA mode.

➢ USE PTY BUTTON (8)
  Press **PTY** button (8) to enter PTY SELECT menu. In the menu, use the **VOL+/-** buttons (23&20) or use the preset buttons (14) (1 to 6) to select the items.

OPERATION

Then press ◀◀/▶▶ button (22&19), the unit will search the program automatically. If there is a corresponding program searched, the unit will play the program.

➢ When you set AREA EUR in system setting, pressing **AF/MUTE** button (10) can switch on or off RDS mode.

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 disc 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 (9) shortly until the CD mode display appears.

SELECTING TRACKS

Press ◀◀ button (22) or ▶▶ button (19) to move to the previous track or the following track. Track number shows on display.

Hold ◀◀ button (22) or ▶▶ button (19) to fast reverse or fast forward. Disc play starts from when you release the button.

PAUSING PLAYING

Press **PAU** button (18) to pause the player. Press it again to resume play.

PREVIEWING TRACKS

Press **SCN** button (17) 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 (17) to play first several seconds of each track in the current directory. Press it again to exit this mode.

REPEATING TRACKS

Press **RPT** button (16) to continuously repeat the same track. Press it again to stop repeat.

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

PLAYING TRACKS IN RANDOM

Press **SHF** button (15) to play all tracks on disc in random order. Press again to cancel the function.

When playing MP3/WMA disc, press and hold **SHF** button (19) to play all tracks in the current directory in random order. Press it again to exit this mode.

EJECTING A DISC

Press **OPEN** button (27) to fold down the faceplate, then press the ⏏ button (26) to stop disc playing and eject the disc from the disc slot (24).

SPECIAL FUNCTIONS FOR MP3/ WMA DISC

1) SELECTING DIRECTORY UP/DOWN
   Press **DIR-** button (13) or **DIR+** button (12) to select directory downward or upward. If the MP3 disc does not contain any directory, there is no function of pressing **DIR-** button (13) or **DIR+** button (12).

2) SELECTING TRACKS BY AS/PS BUTTON

   AS/PS button (6) is assigned as Digital Audio Mode selection button in MP3 operation.
   When pressed, it is activated as selecting each mode of Digital Audio.

   □ **Searching Track Directly**
   Press **AS/PS** button (6) for one time. The unit searches the track selected by the **VOL +/-** buttons (23&20). Then press the **SEL** button (21) or

OPERATION

BND/LOU/ENT button (5) to start playing the track.

☐ **Searching Directory or File Name**
Press **AS/PS** button (6) for two times. It enters into "Searching Directory or File Name" in Digital Audio CD.
The unit searches files and directories that have the same character which is inputted by **VOL +/-** buttons (23&20). Explain as follows:
- Use the **VOL+/-** buttons to select the characters A to Z, blank, 0 to 9, _, -, +.
- Press **SEL** button (21) to confirm entry of each characters.
- Press **BND/LOU/ENT** button (5) to start the title search.

In case the selected title is a directory name, display will show (' '), then
- Use the tune/seek/track buttons ◀◀ / ▶▶ (22&19) to list all songs under this directory and select the title.
- Press **BND/LOU/ENT** button (5) to confirm and start the play.
- Repeat the above steps if the newly selected title is again a directory.

☐ **Searching From Root Directory**
Press **AS/PS** button (6) for three times. The unit searches file or directory from root by the tune/seek/track buttons ◀◀/▶▶ (22&19).
Select the desired directory/songs by using the tune/seek/track buttons ◀◀/▶▶ (22&19) and **BND/LOU/ENT** button (5) to confirm. If the selected title is a song, it starts to play.

☐ **Searching From Current Directory**
Press **AS/PS** button (6) for four times. The unit searches file or directory from current directory by the tune/seek/track buttons ◀◀/▶▶ (22&19). The user can select the directory or file in the directory by the tune/seek/track buttons ◀◀/▶▶ (22&19). The selected file can be played by pressing **BND/LOU/ENT** button.

3) DISPLAY INFORMATION
Press **DISP** button (7) to show the following information, such as the clock, ID3 TAG (if available: song title, directory name, artist name, other contents…) (FOR WITH MP3 ID3 FUNCTION VERSION ONLY) and other information.

USB PLAY OPERATION

On the back of the unit, there is a USB cable, and you can connect a USB driver through the USB interface.
When you connect a USB driver through the interface, the unit will search the MP3/WMA files and start to play it automatically. In other modes, you can also press **MOD** button (9) 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 device.
● 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.

CAUTION

When there are important files in the USB device, 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

operation may cause file 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, start, 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.
   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
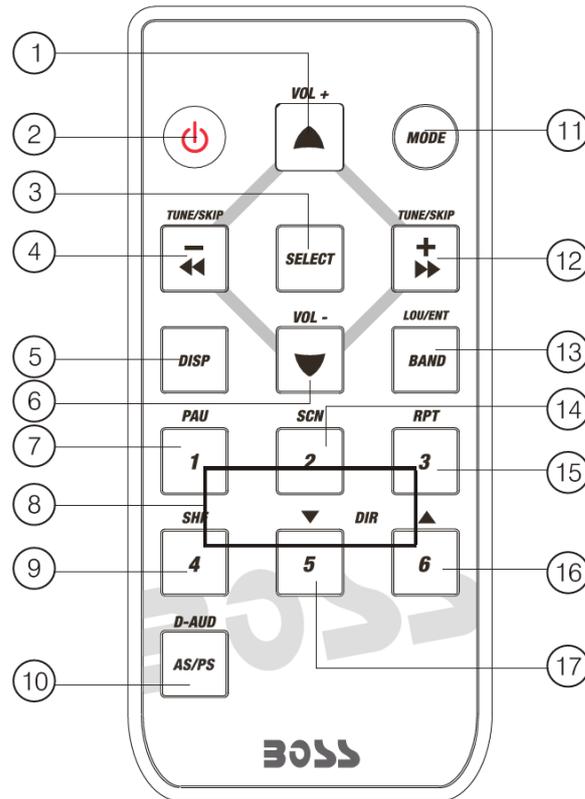
1. VOL+:   Volume Up Button (Character Select (A, B~8,9,0, _,-,+) For MP3/WMA Operation)

2. ⏻: Power ON/OFF Button

3. SEL: 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	: 4x80 watts
Current Drain	: 15 Ampere (max.)

CD PLAYER

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

RADIO

FM

Frequency Coverage	87.5 to 107.9 MHz (USA)
	87.5 to 108 MHz (Europe/Asia)
IF	10.7MHz
Sensitivity (S/N=30dB)	10dBu
Stereo Separation	>25dBu

AM

Frequency Coverage	530 to 1710 KHz (USA)
	522 to 1620 KHz (Europe/Asia)
IF	450kHz
Sensitivity (S/N=20dB)	36dBu

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 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.