MR1580DI
AM/FM Receiver with with universal docking cradle for iPod, iPhone

USER'S MANUAL

CONTENTS

Installation

Before installing your new BOSS AUDIO SYSTEMS **AM/FM Receiver, please review the items below carefully.**

Choose a mounting location where the unit will not distract or otherwise interfere with the driver's ability to control the vehicle.

Before final installation, temporarily connect the wiring, check it to ensure that it has been connected properly, and test the unit to make sure it is working correctly.

Use only the installation parts and hardware provided with the unit to ensure proper installation. Using other parts can cause malfunction and possible damage to your BOSS AUDIO SYSTEMS AM/FM receiver.

If installation requires drilling holes or other modifications to the vehicle, consult with your nearest dealer or professional car audio installer.

Do not install this unit at an angle in excess of 30º from horizontal, as it may affect performance.

Avoid installing the unit in a location which is subject to high temperatures, direct sunlight, hot air from such sources as heaters or exhaust lines, or where it will be subject to contact with dust, dirt, moisture or excessive vibration.

BE HEARD

INSTALLATION

PRECAUTIONS

- Install the unit in an ideal location where it will not interfere with normal driving procedures.
- Do not install the unit in a place where it will be expose to high temperatures or direct sunlight, or where it will be prone to dirt, dust, moisture ore excessive vibration.
- Use only the supplied mounting hardware for a safe installation.
- Remove first the front panel before mounting the unit.

NOTE: Do not install the unit so that it will be tilted at more than 30˚ upward.

1 Release screw and bracket **2** 182mm 53mm **3** TAP Bend these claws, if necessay **4**
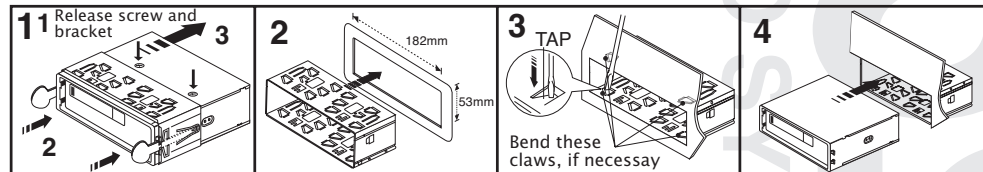
NOTE: Secure the release key in a safe and convenient place for future use in removing the unit from the car.

TO SUPPORT THE UNIT

1. UNIT
2. RELEASE CASE
3. DASH BOARD
4. HEX NUT
5. LOCK WASHER
6. PLAIN WASHER
7. CAR BODY
8. REAR SUPPORT STRAP
9. TAPPING SCREW
10. M5 X 15 HEX BOLT

Dashboard
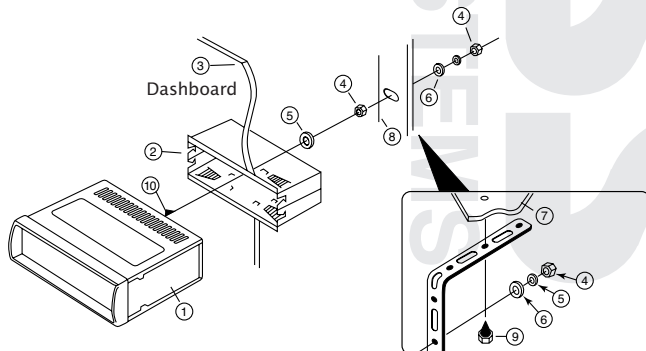
Detaching and attaching the front panel

The front panel of this unit can be detached in order to prevent the unit from being stolen.
Before detaching the front panel, turn off the power first by pressing the ⏻ .
Then press the ⭡ button and detach the panel by pulling it towards you as illustrated.

< 10°
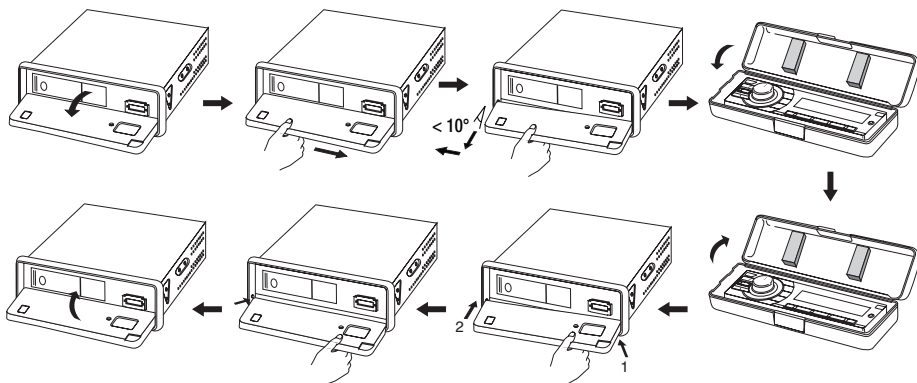
Notes:

- When attaching the front panel to the unit, carefully press the panel lightly against the unit. Excessive force may dislodge the unit and cause some malfunction.
- When you carry the front panel with you, put it in the supplied front panel case.

Cleaning the connector

The unit may not function properly if the connectors between the unit and the front panel are contaminated with dirt. In order to prevent this from happening, detach the front panel by pressing the ⏏ button and clean the connector from time to time. Clean the connector with a cotton swab together with contact cleaner as illustrated. Be sure to clean them carefully pin by pin and make sure not to damage the connecting points.

Rear of front panel   Main unit

Cotton Swab
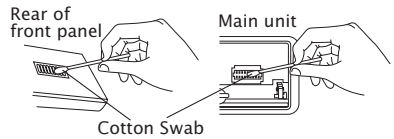
WIRE CONNECTION

RCA Jack Line Out:
Red (right)   White (left)

Subwoofer: Orange

USB Drive: Black
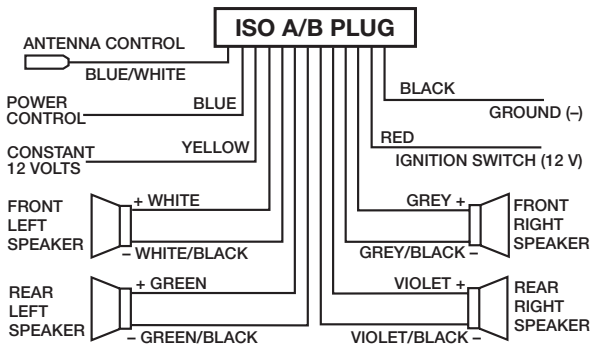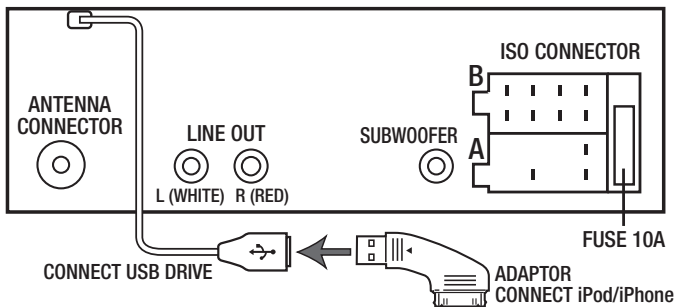Connect USB Drive /
Use Adaptor Connect iPod/iPhone

Maintenance
FUSE REPLACEMENT
If the fuse blows, check the power connection and replace the fuse. If the fuse blows again after the replacement, there may be an internal malfunction. In this case, consult your nearest repairing center.
Warning
Use the correct ampere for the use in each lead. Improper use of such amperes may cause serious damage to the unit.

ANTENNA CONNECTOR

LINE OUT
L (WHITE)   R (RED)

SUBWOOFER

ISO CONNECTOR
B
A

FUSE 10A

CONNECT USB DRIVE

ADAPTOR
CONNECT iPod/iPhone

ISO A/B PLUG

ANTENNA CONTROL
BLUE/WHITE

POWER CONTROL — BLUE

CONSTANT 12 VOLTS — YELLOW

FRONT LEFT SPEAKER — + WHITE / − WHITE/BLACK

REAR LEFT SPEAKER — + GREEN / − GREEN/BLACK

BLACK
GROUND (–)

RED
IGNITION SWITCH (12 V)

GREY + / GREY/BLACK − FRONT RIGHT SPEAKER

VIOLET + / VIOLET/BLACK − REAR RIGHT SPEAKER

BE HEARD

Location of Parts and Controls
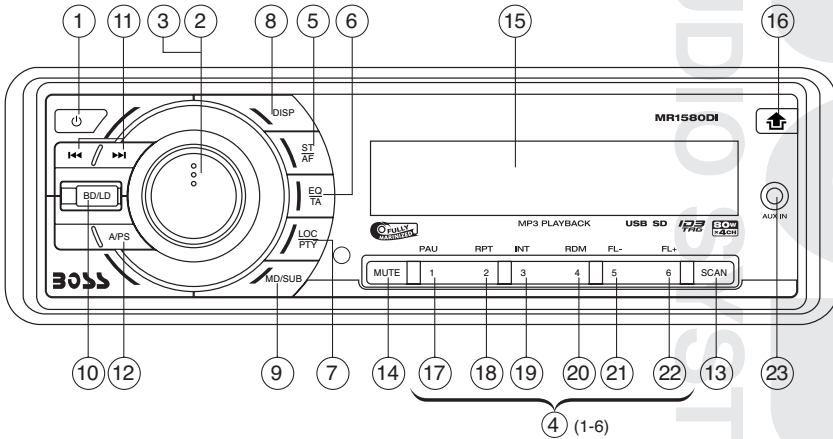
1. POWER ON/OFF (⏻)
2. FUNCTION SELECT BUTTON:
   VOLUME/BASS/TREBLE/BALANCE/FADER /
   without RDS (for USA AREA): BEEP/TADJ TIME/AUDIO DSP/AREA
   RDS (for EUROPE AREA): TA SEEK/PI SOUND/RETUNE/MASK DPI/
   EON/BEEP/TA VOL/ADJ TIME/AUDIO DSP/AREA
3. TURN VOL LEFT OR RIGHT TO ADJUST BASS/TREBLE/BALANCE/
   FADER
4. PRESET STATIONS (1,2,3,4,5,6)
5. STEREO/MONO (ST) /
   'AF' function (ALTERNATIVE FREQUENCIES) (AF)
6. EQUALIZER (EQ) /
   'TA' function (TRAFFIC ANNOUNCEMENT) (TA)
7. LOCAL/DISTANT (LOC) /
   'PTY' function (PROGRAM TYPE) (PTY)
8. DISPLAY BUTTON (DISP)
9. MODE / SUBWOOFER BUTTON (MD/SUB)
10. BAND / LOUDNESS BUTTON (BD/LD)
11. AUTOMATIC OR MANUAL TUNING
    (FREQ UP ▶▶ OR FREQ DOWN ◀◀ / TRACK/SEARCH)
12. AUTO SEEK SEARCH TUNING (A/PS)
13. 'SCAN' AUTOMATIC TUNING CONTROL (SCAN)
14. MUTE BUTTON (MUTE)
15. LCD DISPLAY
16. OPEN PANEL RELEASE BUTTON (⏏)
17. PAUSE BUTTON
18. REPEAT BUTTON
19. INTRO BUTTON (Preview all Tracks)
20. RANDOM BUTTON
21, 22. SEARCH PREVIOUS / NEXT FOLDER
23. FRONT AUX IN
24. USB TUNE TRAY
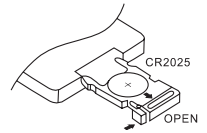25. SD/MMC CARD SLOT
26. RESET

5
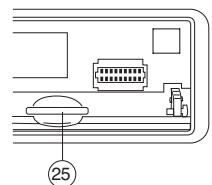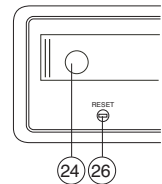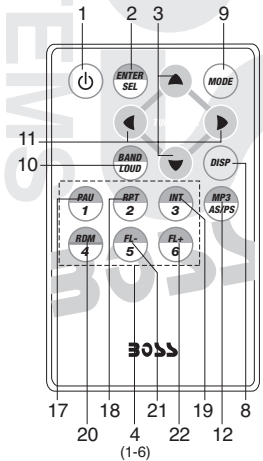
HOW TO OPERATE THE REMOTE CONTROL
Installing the battery
Slide the tray out from the back of the remote control and insert battery with the (+) and minus (-) poles pointing in the proper direction.
- When use for the first time, pull out the film protruding the tray.

CR2025

OPEN

CAUTIONS
- Remove battery if the remote control is not used for a month or longer.
- Do not store battery with metallic materials.
- In the event of battery leakage, replace the old battery with a new one. Clean first the surface of the remote control including the compartment of the battery.
- When disposing of used batteries, make sure that you comply with government regulations and environmental safety procedures in your area.

Using the remote control
Point the remote control in the direction of the front panel to operate.

IMPORTANT
- Do not store the remote control in high temperatures or direct sunlight.

GENERAL OPERATIONS

1. POWER
   By pressing ⏻ , the unit is switched on. Press and hold again to turn off unit.

2. SELECT BUTTON
3. VOLUME KNOB (Turn left or right to adjust)
   In standard operation, the VOLUME control (3) is for setting the volume.
   Press the SELECT button (2) once or several times, to change the parameters BAS (bass control), TRB (treble control), BAL (balance control) and FAD (fader control) by turning the VOLUME control (3)

1 — **SEL** → 2 — **SEL** → 3 — **SEL** → 4 — **SEL** → 5 — **SEL**
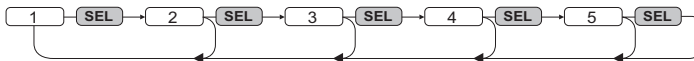
Fig. 1 Selection of sound control functions

1. VOL   2. BAS   3. TRB   4. BAL   5. FAD

Without RDS (for USA Area): Press and hold **VOL** to adjust BEEP/TADJ TIME/AUDIO DSP/AREA

BEEP MODE (2)
Press the VOL knob again (for more than 2 seconds) to activate Selecting mode for BEEP:

2 sec.
SEL — **BEEP** → (VOL) — **2nd / OFF**

2nd Button sound is triggered by secondary button functions (hold button down for a while)
OFF Button sound is off

ADJUST TIME (2)
Press the VOL knob again (for more than 2 seconds) to activate Selecting mode for ADJUST TIME:

2 sec.
SEL — **BEEP** → **SEL** — **ADJ** → (VOL) (VOL) to set minute **/** (VOL) to set hour

Turn VOL knob clockwise to set hours and counter clockwise to set minutes.

AUDIO DSP CONTROLS (2)
Press the VOL knob again (for more than 2 seconds) to activate Selecting mode for DSP:

2 sec.
SEL — **BEEP** → **SEL** — **ADJ** → **SEL** — **DSP** → (VOL) — **FLAT / POP / ROCK / CLASSICAL**

USA/EUROPE FREQUENCY TUNING (2)
This unit supports both the USA and EUROPE radio frequencies tuning. Turn VOL knob to adjust between the two frequencies.

2 sec.
SEL — **BEEP** → **SEL** — **ADJ** → **SEL** — **DSP** → **SEL** — **AREA** → (VOL) — **AREA USA/EUR**

USING THE RDS FUNCTION
What is RDS?

The RDS (Radio Data System) is a digital information system developed by the EBU (European Broadcast Union). Piggy-backed on normal FM broadcasts, RDS offers a variety of information services and automatic retuning functions for RDS-compatible car stereos.

In 1988, RDS became available in the United Kingdom, France, West Germany, Ireland and Sweden. Test transmissions are being conducted in many other European countries. It is expected that RDS will be available in most western European countries in the near future.

RDS (for European Broadcast Union Area): Press and hold **VOL** to adjust TA SEEK/PI SOUND/RETUNE/ MASK DPI/EON/BEEP/TA VOL/ADJ TIME/AUDIO DSP/AREA

2 sec.

SEL → TA → SEL → PI → SEL → RETUNE → SEL → MASK → SEL → EON

AREA ← SEL ← DSP ← SEL ← ADJ ← SEL ← TA VOL ← SEL ← BEEP ← SEL

SEEK/ALARM (turn VOL knob to select TA SEEK/TA ALARM)

TA SEEK mode: When newly turned station does not receive TP information for 5 sec., the radio retunes to next station which has not the same station (PI) as the last station, but has the TP information.

In TA seek mode, the current station can be changed to the completely different station because the unit searches TP station when the field strength of the current station is very weak, or the current station has no TP signal.

TA ALARM mode: Any automatic retune mode is not activated, just can hear Beep sound.

PI SOUND (turn VOL knob to select PI SOUND/PI MUTE)

Action when 2 stations with different programme identification (PI) codes are on the same frequency:
SOUND: The radio switches to the new channel for a few seconds and then switches back again
MUTE: The radio is muted

RETUNE L/S (turn VOL knob to select RETUNE L/RETUNE S)
RETUNE L: Select 90 seconds as the initial time of automatic TA search.
RETUNE S: Select 30 seconds as initial time.

MASK DPI/ALL (turn VOL knob to select MASK DPI/MASK ALL)
MASK DPI: masked only the AF which has different PI.
MASK ALL: masked the AF which has different PI and NO RDS signal with field strength.

EON (turn VOL knob to select EON ON/EON OFF)
Selected EON condition, ON or OFF.

BEEP (turn VOL knob to select BEEP 2nd/BEEP OFF)
ALL: Button sound is on permanently
2nd: Button sound is triggered by secondary button functions (hold button down for a while)
OFF: Button sound is off

TA VOL (turn VOL knob to select TA VOL ON/TA VOL OFF)
Traffic Announcement Volume

ADJ (turn VOL knob to adjust TIME)
Digital Clock. To adjust, turn VOL knob to right for hours and turn VOL knob to left for minutes.

DSP Modes (turn VOL knob to select AUDIO DSP modes)
CLASSIC, ROCK, POP, FLAT, NONE

USA/EUROPE FREQUENCY TUNING (turn VOL knob to select without RDS/RDS)
This unit supports both the USA and EUROPE radio frequencies tuning. Turn VOL knob to adjust between the two frequencies.

4. **PRESET STATIONS (1-6)**

   Six numbered preset buttons store and recall stations for each band.
   ### Storing a station:
   1. Select a band (if needed)
   2. Select a station
   3. Hold a preset button longer than one second. Preset station number appears in the display when station is saved.
   ### Recall a station:
   1. Select band (if needed)
   2. Press a preset button for less than one second to select stored station.
   Note: This unit is equipped with built-in memory I.C. (Integrated Circuits) to save user settings such

*as tuner preset stations and audio control settings. To cancel these settings, switch to Radio mode, press and hold button "1" for 2 seconds (do not release button) followed by pressing **MD** button. Unit will automatically restart after 5 seconds.*

5. STEREO/MONO BUTTON (ST)

Press **ST** button to switch between stereo and mono sound for FM radio reception. When reception of an FM station is weak, listening quality can be improved by switching to mono sound.

'AF/REG' function (ALTERNATIVE FREQUENCIES)

When pressed momentarily, AF/REG switching mode is selected.
When AF/REG switching mode is selected, the radio checks the signal strength of the AF all the time.
When pressed long, it activate the regional mode ON/OFF function.
– Regional mode ON:
AF switching or PI SEEK is implemented to the station which have all PI codes same as current station.
REG segment is turned on, in LCD display.
– Regional mode OFF
The regional code in the format of PI code is ignored when AF switching or PI SEEK is implemented.

6. EQUALIZER CONTROL (EQ)

Press **EQ** to select between Off/Pop/Rock/Classic/Flat equalizer modes.

'TA' function (TRAFFIC ANNOUNCEMENT)

When pressed momentarily, it is activated as TA mode on or off
When TA mode is on and traffic announcement is transmitted
– When the unit is in MP3 mode, it will switch to radio mode temporarily.
– If the volume level was under the threshold point, it will be raised to the threshold point.
– When TP station is received, TP segment is turned in LCD display.

7. LOCAL/DISTANT BUTTON (LOC)

Press Local/Distant (LO/DX) button for listening to weak stations. "LOCAL" indicator will appear on the display. Press this button again (Distant mode) for normal operation.

'PTY' function (PROGRAM TYPE)

Each press of **PTY** button will toggle between *PTY Music, PTY Speech and PTY Off*.
When *PTY Music* is selected, press Buttons **(1-6)** for desired program types. Unit automatically search for corresponding programs.

1 Pop M, Rock M	2 Easy M, Light M	3 Classics, Other M
4 Jazz, Country	5 Nation M, Oldies	6 Folk M

When *PTY Speech* is selected, press Buttons **(1-6)** for desired program types. Unit automatically search for corresponding programs.

1 News, Affairs, Info	2 Sport, Educate, Drama	3 Culture, Science, Varied
4 Weather, Finance, Children	5 Social, Religion, Phone IN	6 Travel, Leisure, Document

Tips:
Program Type function is available only in radio FM mode.
Since each button number can store multiple program types, i.e. Button 1 stores Pop and Rock music, to switch between Pop and Rock music, simply press button 1 repeatedly until the desired program type shows in display.

8. DISPLAY (DISP)

Press **DISP** button to switch between display informations such as radio frequencies, clock, track and other informations depending on the playing MODE.

9. MODE / SUBWOOFER BUTTON (MD/SUB)

By pressing this key, user can select TUNER/USB1/USB2/MMC/SD/AUX mode.
SUBWOOFER: Press and hold button to engage subwoofer output.

10. BAND / LOUDNESS BUTTON (BD/LD)

Each band is toggled cyclically by pressing this key FM1---FM2---FM3---MW(AM)1---MW(AM)2.
LOUDNESS: Press and hold the button to select LOUDNESS mode.

11. AUTOMATIC OR MANUAL TUNING (FREQ UP ▶▶ OR FREQ DOWN ◀◀)

(A) RADIO MODE
When pressed momentarily, these keys are operated as MANUAL tuning mode.
When pressed longer than 1 sec., they operate as SEEK tuning mode.
(B) MP3/WMA PLAYER MODE
When pressed momentarily, they operate as TRACK UP or TRACK DOWN mode.
When pressed longer than 1 sec., they operate as CUE or REVIEW mode.

12. AUTO SEEK / PRESET SCAN (A/PS)

Preset Scan (PS) - By pressing shortly, the radio plays each preset station for 5 seconds.
Auto Seek (AS) - By pressing longer than 1 sec, auto seek is activated. The 6 strongest stations are preset and stored in the corresponding preset number. When Auto Seek operation is finished, the radio executes the preset scan.

13. 'SCAN' AUTOMATIC TUNING CONTROL (SCAN)

This button starts the auto-scan. When a station has been found, it is played for 5 seconds and then the auto-scan is continued. Press the button again to stop the auto-scan to listen to the currently played station.

14. MUTE BUTTON

Press this button to silent the sound at once. Press again to return to previous volume level.

15. LCD DISPLAY

The Liquid Crystal Display will display the current state of the unit.

16. OPEN THE FRONT PANEL (⏏)

Press ⏏ button and the front panel will open.

MP3/WMA CONTROL LOCATION OF PARTS

TRACK/SEARCH BUTTON (11)
FORWARD AND REVERSE TRACK SEARCH (or changing songs)

Press the SKIP button (⏮ or ⏭) during play to go to the desired track(song).
⏮ ....REVERSE   ⏭ ....FORWARD
Press and hold the SKIP button (⏮ or ⏭) during play to scan at high speed. When the desired music section is found, release the button. Normal play will resume.

17. PAUSE BUTTON

During "PLAY", press (17) 'PAU' button to "PAUSE". Press it again to resume play.

18. REPEAT BUTTON

When this button is pressed, 'RPT' indication is displayed and play of the selected track will be continually repeated until the Track repeat mode is cancelled by pressing 'RPT' button again.

19. INTRO BUTTON (Preview all Tracks)

When this button is pressed, 'INT' indication is displayed and the first several seconds of each track are played. Press again to stop intro and listen to track.

20. RANDOM BUTTON

When this button is pressed, 'RDM' indication is displayed and each track are played in random instead of normal progression. To cancel RANDOM mode, press 'RDM' button again.

21, 22. SEARCH PREVIOU / NEXT FOLDER: (In case of MP3/WMA files)

Press these buttons to search previous/next folder.
NOTE: These buttons (17 to 22) are available only in MP3 and USB mode.

HOW TO SELECT MP3/WMA FILES

Searching by Track:
- Press "A/PS", digit starts blinking.
- Turn VOL to right or left until the desired track number shows then press VOL knob.
- Song number you selected will start to play.

Searching by Folder:
- Press "A/PS" twice.
- Turn VOL to right or left to select folder name then press VOL knob.
- Turn VOL to right or left to select file to play then press VOL knob to start playback.

23. Connecting AUX IN

An external audio source (e.g. portable MP3 player) can be connected to the AUX IN socket to be played back by the vehicle loudspeakers.
1. Connect the AUX IN socket with the audio output of the external device.
2. Press **MD** button and switch to AUX mode.

PLAYING BACK USB DEVICE / CONNECT iPod/iPhone

A USB device can be connected to the internal/external or both USB connectors. Press **MD** to select USB1(internal), USB2(external).

Playing back via the USB (internal) connector
1. Press ⏏ button and the front panel will open.
2. Press PUSH OPEN on the TUNE TRAY. The TUNE TRAY opens slowly.
3. Connect the USB device to the USB connector. or Use adaptor Connect to USB port for playing iPod/iPhone.
4. Slide in the TUNE TRAY by pressing PUSH CLOSE on the TUNE TRAY until it locks shut.
5. Close the front panel.
6. The player automatically switches to the input used and starts playback.
7. See the section on operations common for audio files.
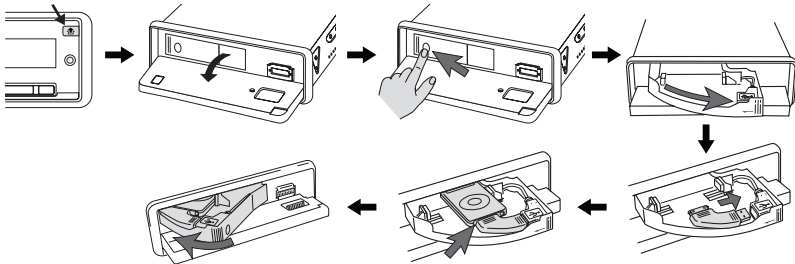
Playing Songs in iPod
1. Press **MD** to select USB1.
2. Press **A/PS**.
3. Rotate **VOL** to select PLAYLIST – ARTISTS – ALBUMS – SONGS – GENRES-COMPOSER
4. Press **BD/LD**.

If you are aware on how to use iPOD, the way to use the car stereo feature is basically just the same. Take note of the equivalent key function below.

Car Stereo	iPOD	Functions
Rotate VOL knob	Rotate CLICK WHEEL	Up/down category/file browsing
Press BD/LD button	Press SELECT button	Selecting a category/Play song

Car Stereo and iPOD equivalent key function

Note: *Please refer to your iPOD user's manual for operating instructions.*
 *Press **A/PS** to go back to Main Menu.*
Note: ▪ *support iPod Classic* ▪ *iPod nano2, 3, 4, 5, 6* ▪ *iPod touch1, 2, 3* ▪ *iPhone, 3G, 3GS, 4*

PLAYING BACK SD/MMC CARD
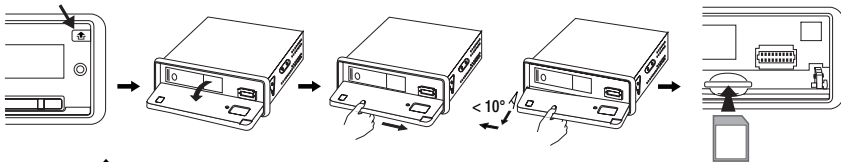
1. Press ⏏ button and the front panel will open.
2. Detach the front panel.
3. Insert SD/MMC into the memory card reader.
4. The player automatically switches to the input used and starts playback.
5. See the section on operations common for audio files on how to control memory card playback.
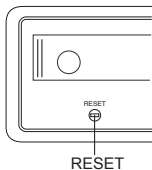
Note:
- *Due to the great variety of devices with USB and SD/MMC card interfaces that sometimes have manufacturer-specific functions, we cannot guarantee that all media will be recognized and that all operational functions will be available with this device.*
- *You cannot operate USB hard drives on the device.*

RESET
This button is behind the front panel and resets all the settings to the original settings that were made in the factory. Press this button in the following cases:
- when you have completed the installation and connection
- when the display shows undefined characters

Note: You have to detached the front panel and use a sharp object to press the "Reset" button.

RESET

Troubleshooting

Symptom	Cause	Solution
No power.	The car ignition switch is not on.	If the head unit is properly connected to the car accessory power circuits, but the engine is running, switch the ignition key to the "ACC" position.
	The fuse is blown.	Replace the fuse.
No sound.	Volume is set to minimum.	Adjust volume to desired level.
	Wiring not properly connected.	Check wiring connections.
Sound skips.	Head unit is installed at an angle of greater than 30° from horizontal.	Adjust installation angle to less than 30° from horizontal.
Keys on front panel do not operate.	The built-in microprocessor is not operating properly due to noise.	Press the RESET button.
	Front panel is not properly fixed in place.	Remove front panel, press RESET button, and re-insert front panel.
Radio does not work, or the radio automatic selection function does not work.	Antenna cable not connected.	Insert the antenna cable firmly into connector.
	The signals are too weak to be received properly.	Select station manually.

Specifications

MR1580DI
AM/FM Receiver with with universal docking cradle for iPod, iPhone

CD/MP3 PLAYER

Signal to noise ratio	> 60 dB
Channel separation	> 50 dB (1kHz)
Frequency response	20Hz - 20 kHz

RADIO

FM Section:

Frequency range	87.5 - 107.9 MHz (America), 87.5-108 MHz (Europe)
Channel step	200 kHz (USA), 50 kHz (Europe)
Sensitivity	2.8 µV
Stereo separation	30 dB
Signal to noise ratio	50 dB

MW(AM) Section:

Frequency range	530 - 1710 KHz (America), 522 - 1620 KHz (Europe)
Usable sensitivity	32 dBµV

TONE CONTROLS

Bass (at 100Hz)	+/- 10 dB
Treble (at 10kHz)	+/- 10 dB

LINE-OUT

Output	1.5V (max.)
Impedance	10k Ohm

AMPLIFIER

Maximum output power	80 watts x 4 channels

GENERAL

Power supply	12V DC (10.8-15.6V allowable)
Speaker impedance	4 or 8 Ohm
Fuse	10A

Instructions on environment protection
Do not dispose or throw away this product in the usual household garbage at the end of its life-cycle. The method of disposal of this product is properly inscribed in this manual. The material used are recyclable, and by recycling this product, you are helping protect our environment.
Please inquire at the community administration for the authorized disposal location.

BE HEARD