



# Operation Manual

Model No.: MBB-3.45



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**PLEASE NOTE:** This black box should be used with MC-19 front panels for operation. In order to receive Sirius Satellite Radio broadcast, you must install SCC-1ML as well as a satellite antenna (both sold separately).

**What is SIRIUS Satellite Radio?**

SIRIUS, headquartered in New York, offers over 120 channels of digital quality radio transmitted across the continental US from three high-tech satellites. Along with offering a full spectrum of music genres, users can also listen to popular news, entertainment and sports channels. SIRIUS currently offers 65 music channels, 24 news channels (including traffic and weather), 7 sports channels (including two dedicated play-by-play channels) and 24 talk / entertainment channels.

For more information on SIRIUS, visit [siriusradio.com](http://siriusradio.com).



**1. To Access Satellite Radio**

- Press MODE button until SIRIUS appears on the LCD.

**2. For Direct Channel Entry**

While in SIRIUS mode, press and hold MODE button for over 1.5 seconds to enter Direct Mode. At that point, the display will show "Channel \_\_\_". Simply enter the desired number to go directly to the channel (example: 123).

**3. To Access SIRIUS ID number**

In SIRIUS mode, press MODE button for over 1.5 seconds, "Channel \_\_\_" will display on LCD, enter "000" to display your SIRIUS ID number. "SID" followed by 12 digits will appear on the LCD. Or simply use the TUNE up/down buttons to navigate to channel 000.

**4. To Enter Category Mode**

While in SIRIUS mode, press BD/FN button for over 1.5 seconds to enter Category mode. The Category icon will appear on the LCD. Momentarily press Tune up/down button to switch between category channels. To change categories, press and hold Tune up/down button for 1.5 seconds, then repeatedly press this button until your desired category is displayed. To return to Direct mode, press and hold BD/FN button until the display says DIRECT.

**5. To Preset Channels (up to 20 presets):**

You can save up to 20 channels in the memory for direct mode and up to 10 channels in category mode. There are two possible ways to preset:

1. Press MODE button for over 1.5 seconds until "Channel \_\_\_" displays on LCD. Then use the numeral keys to directly enter what ever channel you would like to store (example:104). Press the preset button where you would like to store the channel for over 1.5 seconds to save it to memory.
2. Use TUNE UP/DN button to find a channel you would like to store. Press the preset button where you would like to store the channel for over 1.5 seconds to save it to memory.

**6. To Display Song Title or Artist**

In SIRIUS mode, press SEL until "SHIFT" displays; then press the VOL down button to display SHIFT icon. Press the SEL button until you have chosen the desired display field (Artist, Song, Composer, Ect...)

**7. For Parental Lock Out Programming**

- In SIRIUS mode, select the channel that you want to lock out. Press SEL button to display SHIFT, then press VOLDN to display SHIFT icon on LCD. Now simply press numeral 5 button. It has been locked when "Locked Channel" appears on the display.
- To temporarily unlock a channel, manually tune to the channel. When prompted, the display will read CHANNEL LOCKED, then it will display CODE. Enter your password and the channel will be unlocked until you change to another channel.
- To permanently unlock a channel, after temporarily unlocking the channel press SEL button to display SHIFT, then press VOLDN to display SHIFT icon on LCD. Now simply press numeral 5 button. Then enter your password again, the channel becomes totally unlocked when "LOCK RELEASE" displays.

**8. To Change the Password (CODE)**

In SIRIUS mode, press and hold SEL button, then momentarily press SEL repeatedly until CODE displays on LCD. Enter your current password first, once you see NEW CODE displays, enter your new 4-digit password. Now display will show UPDATE CODE, it means the system accept your new password.

**Note: If power is completely removed from stereo, the password will revert back to 0000.**

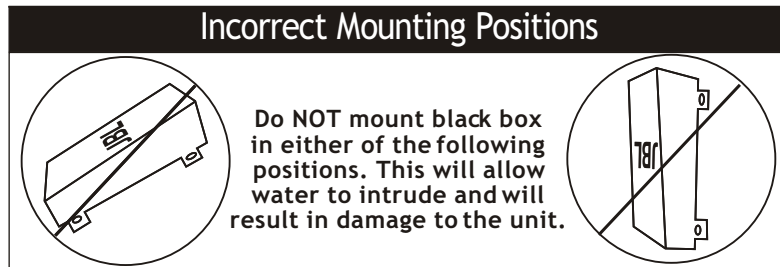
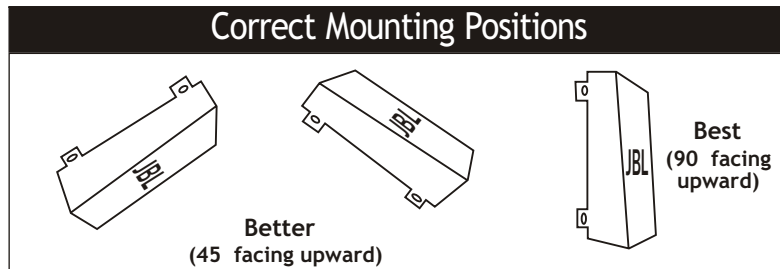
## Mounting the Black Box

### 1. Precautions

Choose the mounting location carefully so that the unit will not interfere with the normal driving functions of the boat.

Avoid installing the unit where it would be subject to high temperature, such as from direct sunlight or hot air, or where it would be subject to dust, dirt or excessive vibration. Use only the supplied mounting hardware for a safe and secure installation.

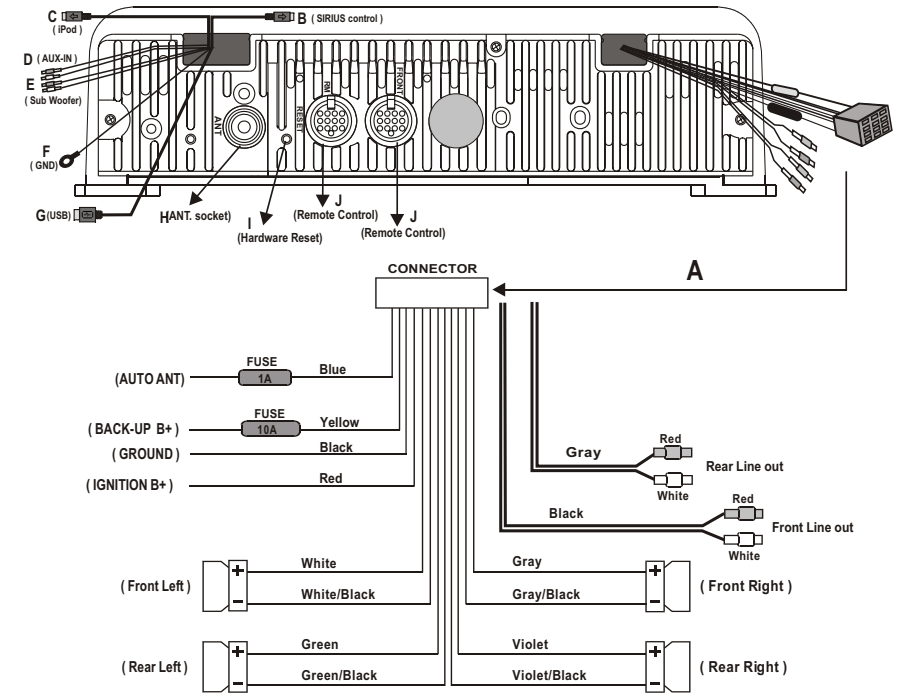
### 2. Mounting illustrations



### 3. Installation Note

Please find enclosed nylon wire tie-downs (wire clamps) for added support. (Use the wire clamps to hold down the harness, preventing water from running along the wires and into the unit.)

## Black Box Wiring Identification



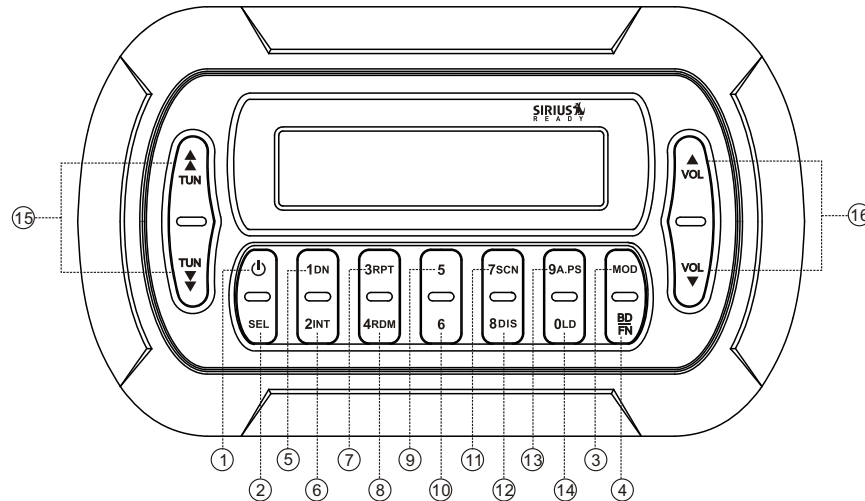
### Installation Notes

Applicable to both 2 and 4-speaker connection:

- A. Connections
- B. Din cable connection for SIRIUS control
- C. Din cable connection for IPOD control
- D. AUX-IN Connection
- E. Sub Woofer
- F. GND
- G. USB Connection
- H. Antenna socket
- I. Hardware Reset
- J. Din cable connection for remote control

## Identification of controls and functions

### Remote Control (Option):



1. POWER ON / OFF button, MUTE button
2. SELECT button
3. MODE button
4. BD / FN button
5. Track play / pause button, radio preset 1 button
6. Track intro scan button, radio preset 2 button
7. Track repeat button, radio preset 3 button
8. Track random play button, radio preset 4 button
9. Radio preset 5 button
10. Radio preset 6 button
11. SCAN button (#7 SIRIUS only)
12. DISP (display) button (#8 SIRIUS only)
13. A.P.S - Auto Preset Scan button (#9 SIRIUS only)
14. LOUD (loudness) button (#0 SIRIUS only)
15. Radio tune UP / DOWN button, CD track UP / DOWN button
16. Volume decrease or increase button

## Trouble shooting Guide

### INTERFERENCE ON RADIO

- Poor atmospheric conditions - Try again later in the day
- Antenna / lead broken or damaged

### DISTORTED AUDIO

- Check loudspeaker wiring
  - This product contains a biamp. It is important not to connect the front loudspeaker ground to the rear speaker ground.
- Faulty loudspeaker
- Distortion at highest volume levels may be normal, as amplifier has reached maximum power output. Otherwise the power and ground wire might be too small of a gauge. Use 10amp cable or more.
- Reduce the bass effect or switch off the loudness mode
- Boat battery and or charging circuit may be faulty

## Specifications

FM TUNER	AM TUNER (OPTION)
<b>Tuning Range :</b> 87.5 ~ 107.9MHz(USA) 87.5 ~ 108MHz(EUR) <b>Sensitivity :</b> 10dB / uV <b>Separation :</b> 30dB	<b>Tuning Range :</b> 530 ~ 1710KHz(USA) 522 ~ 1620KHz(EUR) <b>Sensitivity :</b> 35dB / uV
AUDIO AMP & GENERAL	
<b>Power Output :</b> 4 x 45 watts <b>Power Supply :</b> DC + 12V Negative Ground <b>Speaker Impedance:</b> 4 ohm	

## Important Notes

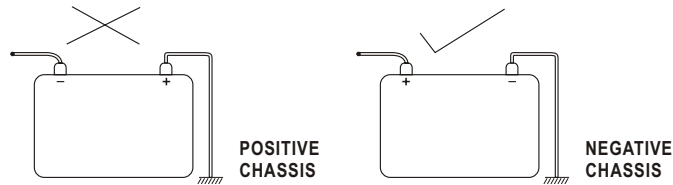
### 1. Grounding

Make sure that the black wire on the wiring harness is connected to a good ground point on the boat. If the chassis of the boat is used as a grounding point, make sure that the surface is scraped clean of paint before attaching the wire to it.

It is preferable to connect the black ground wire directly to negative terminal (-) of the boat battery.

### 2. Warning: polarity...

This model is only suitable for use in boats which have a negative ground system, e. g. : the negative terminal of the boat battery is connected to the chassis.



### 3. Connecting the Speakers and Power Cables

Before you wire your system, disconnect your boat battery's positive (+) cable. This helps prevent damage in case of a short. When you complete the wiring, reconnect the battery cable and test your marine stereo. When connecting your marine stereo's black ground wire, be sure to connect the wire to a metal part of your boat or preferably to the negative (-) terminal of the boat battery.

This radio contains four separate power amplifiers. To prevent possible damage to these amplifiers please ensure the following:

- i) The boat chassis is not used as a loudspeaker ground(-).
- ii) Front and rear loudspeaker connecting wires are not joined together.
- iii) Any wires not used when completing a two speaker installation are fully insulated.
- iv) The memory wire (yellow) is connected to a permanent + 12V supply.
- v) The power wire (red) is connected via the ignition switch of the boat.

### 4. Reset Function

A microprocessor reset function has been provided to facilitate manual resetting of the internal microprocessor. If you are faced with a malfunction during the operation, press and hold MODE and BD/FN button simultaneously for about 3 seconds to reset the unit.

**Note:** It will be necessary to re-enter the radio preset memories and other personal settings as these will have been erased when the microprocessor was reset. After resetting the player, ensure all functions are operation correctly.

## General Controls (In Detail)

### 1. POWER ON/OFF button (1)

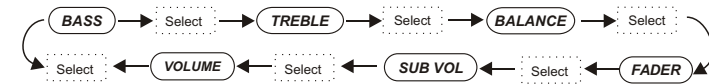
When unit is off, short push power button (1) once to turn on the unit;

When unit is on, short push works as MUTE function; long push to turn off the unit.

### 2. MENU SELECTION (2)

#### 2-1. Audio Control

This button can adjust the sound effect and other things. Each time you short press button (2), LCD displays as follows:



On each setting, the level can be adjusted by VOL +/- button (16). The display will automatically return to the previous display mode 5 seconds after the last adjustment is made.

#### a. BASS Control

To adjust the bass tone level, first select the bass mode by pressing button (2) until "BASS" appears on the display panel. Press VOL +/- (16) within 5 seconds to adjust the bass level as desired. The bass level will be shown on the display panel from a minimum of "BASS -7" to a maximum of "BASS +7".

#### b. TREBLE Control

To adjust the treble tone level, first select the treble mode by pressing button (2) until "TREBLE" appears on the display panel. Press VOL +/- (16) within 5 seconds to adjust the treble level as desired. The treble level will be shown on the display panel from a minimum of "TREBLE -7" to a maximum of "TREBLE +7".

#### c. BALANCE Control

To adjust the left-right speaker balance, first select the balance mode by pressing button (2) until "BALANCE" appears on the display panel. Press VOL +/- (16) within 5 seconds to adjust the left-rear speaker level as desired. The balance position will be shown by the bars on the display panel from "BALANCE L15" (full left) to "BALANCE R15" (full right).

#### d. FADER Control

To adjust the front-rear speaker balance, first select the fader mode by pressing button (2) until "FADER" appears on the display panel. Press VOL +/- (16) within 5 seconds to adjust the front-rear speaker level as desired. The fader position will be shown by the bars on the display panel from "FADER F15" (full front) to "FADER R15" (full rear).

#### e. SUB VOL Control

To adjust the volume of subwoofer, first select the sub vol mode by pressing button (2) until "SUB VOL" appears on the display panel. Press VOL +/- (16) within 5 seconds to adjust the dual volume level as desired. The dual volume level will be shown on the display panel from a minimum of "SUB VOL 00" to a maximum of "SUB VOL 10".

## General Controls (In Detail)

### 2-2. Beep 2nd, I-VOL, Area, DSP Selection

When the SEL button (2) is held over 2 seconds, the unit will be operated as below:



#### a. BEEP Control

To adjust the beep mode, first select the beep mode by pressing button (2) until “BEEP” appears on the display panel. Press VOL +/- (16) within 5 seconds to select between BEEP 2ND and BEEP ON. Select “BEEP 2ND” when you wish to hear “BEEP” sound whenever any button is pressed for more than 2 seconds. Select “BEEP ON” when you wish to hear “BEEP” sound whenever any button is pressed.

#### b. I-VOL Control

I-VOL is the volume level the unit will play at when next turned on. To adjust the I-VOL level, first select the I-VOL mode by pressing button (2) until “I-VOL” appears on the display panel. Press VOL +/- (16) within 5 seconds to adjust the I-VOL level from a minimum of “I-VOL 00” to a maximum of “I-VOL 45”. This feature controls the max volume level desired when powering the unit on. If the volume level is higher than the initial volume setting when audio unit is turned off, once the unit is switched back on again, the unit will keep the volume adjusted to the preset level. If the volume level is lower than the initial volume setting when unit is turned off, it will remember the lower level and resume volume at that level when unit is turned on again.

#### c. AREA Control

To adjust the area selection, first select the area mode by pressing button (2) until “AREA” appears on the display panel. Press VOL +/- (16) within 5 seconds to select between EUR and USA. Press and hold BD/FN (4) for more than 2 seconds to confirm selection.

#### d. SUB-W Control

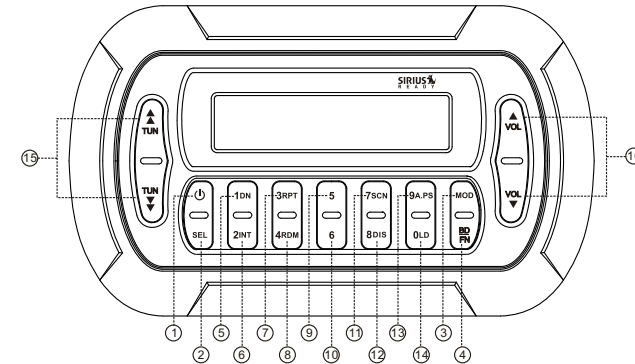
To adjust the sub-woofer mode, first select the SUB-W mode by pressing button (2) until “SUB-W” appears on the display panel. Press VOL +/- (16) within 5 seconds to select between SUB-W ON and SUB-W OFF.

#### e. DSP Control

To adjust the DSP selection, first select the DSP mode by pressing button (2) until “DSP” appears on the display panel. Press VOL +/- (16) within 5 seconds to select an equalizer curve from 4 music types (FLAT, CLASSIC, POP, ROCK).

- DSP OFF : Cancel the sound feature.
- FLAT : Normal operation mode.
- CLASSIC : For the dramatic depth of classical music in an auditorium.
- POP : For the electric excitement of stadium pop.
- ROCK : For the subtle extension of the music’s dimensions.

## i-Pod Operation (i-Pod purchased separately)



### 1. i-Pod Operation

Press MOD button (3) to select i-Pod mode.

\* An i-Pod must be connected, if you want to operate i-Pod function.

### 2. Play / Pause button (5)

Push this button to pause playing. Push this button again to resume play.

### 3. ID3 Display button (12)

While a MP3 or WMA track is playing, pushing DIS button (12) repeatedly to display the ID3 information in a sequence of:

TITLE --> FILE --> ARTIST --> ALBUM --> CLOCK --> ELAPSE TIME

### 4. Track Seeking (15)

To select the next track, press the TUNE up button once and the track counter will increase one track. When the final track is reached, play will resume on track #1.

To select the previous track, press the TUNE down button and the track counter will decrease one track. When the first track is reached, play will resume on the final track.

*Note: it will go back to the beginning of the playing track when you press the tune down button once. If you want to select the previous track, press the button once again within 2 seconds.*

To fast forward through tracks: press and hold the tune up button until the track counter displays the desired track, then release the button.

To rewind the current track: press and hold the tune down button, the track will quickly rewind until you release the button.

### 5. A.PS button (13)

Short push A.PS, it displays MUSIC first and then scroll Playlist. Use VOL +/- button (16) to select your desired folder from Artists, Albums, Generes, Songs, Composers, Audio-books, Podcasts, ets. At your desired folder, push BD/FN (4) button to enter into sub-folder selection. Repeat the operation of pushing VOL and BD/FN button until your desired file been to play.



## USB & NAND Operation (USB purchased separately)

### g. Track Seeking (15)

To select the next track, press the TUNE up button once and the track counter will increase one track. When the final track is reached, play will resume on track #1.

To select the previous track, press the TUNE down button and the track counter will decrease one track. When the first track is reached, play will resume on the final track.

*Note: it will go back to the beginning of the playing track when you press the tune down button once. If you want to select the previous track, press the button once again within 2 seconds.*

To fast forward through tracks: press and hold the tune up button until the track counter displays the desired track, then release the button.

To rewind the current track: press and hold the tune down button, the track will quickly rewind until you release the button.

### h. File or Folder Search button (13)

- To search file: Short push A.PS button (13), then push VOL +/- button (16) to search the tracks upward or downward in one track step. At your desired track, press BD/FN button (4) to confirm your selection, and it will automatically begin to play.

- To search folder: Long push A.PS button (13), then push VOL +/- button (16) to search the folder upward or downward in one folder step. At your desired folder, press BD/FN button (4) to confirm your selection. Then search your desired file as above method.

### 3. Operation of Copying from USB to NAND (internal memory)

In USB mode, press and hold SEL button (2) for 2 seconds until "ONE COPY" displays on LCD; press VOL up or down button (16) to select between ONE and ALL. At your desired selection, press BD/FN button (4) to confirm it.

- If ONE COPY is selected, the record percent "DOWN LOAD XX%" would display on LCD and the current track would be copied into NAND (internal memory); after copying process is finished, it would begin to play the next track.

- If ALL COPY is selected, "the number of total track --> the number of recorded track" would display on LCD and all the tracks in the USB would be copied into NAND (internal memory); after copying process is finished, it would beep for about 3 seconds and then begin to play from the first track in the USB.

*Note: In copying process, you can change to other modes by pushing MOD button (3). (USB and NAND modes could not be selected during copying process.) While in other modes, the screen will default to the downloading process after 3 seconds.*

### 4. Operation of Deleting Files in NAND (internal memory)

In NAND mode, press and hold SEL button (2) for about 2 seconds until "ONE DELETE" displays on LCD; then press VOL +/- button (16) to select between ONE and ALL, at your desired selection, press BD/FN button (4) to confirm it.

- If ONE DELETE is selected, it would begin to play the next track once deleting process is finished.

-If ALL DELETE is selected, it would display "DELETING" during the deleting process, and display "NO FILE" when the process is finished. Once deleting process is finished, it would automatically switch to Radio mode.

## General Controls (In Detail)

### 3. VOLUME Control (16)

Press volume up or down button (16) to increase or decrease volume. Current volume setting is briefly indicated on the display panel from 00 to 45.

### 4. MODE Selection (3)

Press MODE button (3) to cycle through available program sources as follows:  
Radio --> USB --> NAND --> IPOD --> SIRIUS --> AUX.

### 5. CLOCK/TIME Adjustment

In Radio mode, press 8.DIS button (12) once to display the time.

A. Press and hold the DIS (12) button until time flashes on the display.

B. Press VOL up (16) to set hour.

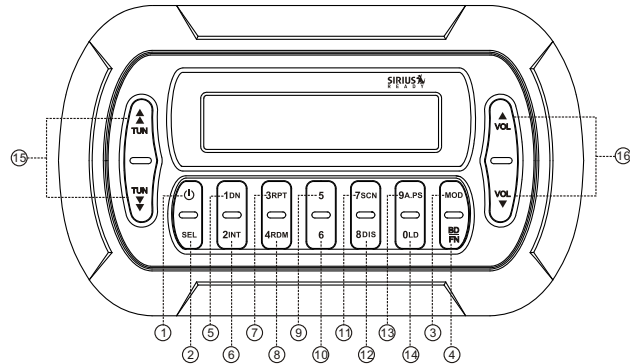
C. Press VOL down (16) to set minute.

D. Press the DIS (12) button again quickly to accept the adjusted time.

If no button is pressed within 5 seconds, then the unit would automatically accept the adjusted time without further intervention from the user.

### 6. LOUD Control

When listening to music at low volume levels, this feature will boost the bass and treble response. This action will compensate for the reduction in bass and treble performance experienced at low volume. To select the loudness feature, press the 0.LD button (14) once. "LOUD" icon would appear on the display panel. Press the 0.LD button (14) once again to turn off loud feature, and "LOUD" icon would disappear from display panel.



### 1. Radio Operation

Press MOD button (3) to select Radio mode. Station frequency is indicated on display.

### 2. To Select Band

Press BD/FN button (4) to toggle through radio modes as follows:  
FM1 --> FM2 --> FM3 --> AM1 --> AM2 --> FM1.

### 3. Manual / Seek tuning button (15)

Press this button quickly to activate the Seek mode. The Seek mode will automatically seek up or down the wave band and stop at the next station of sufficient signal strength. Press and hold tuning button for 2 seconds to enter manual tuning mode. The unit will revert back to Seek mode after 10 seconds without use.

### 4. Manual Station store

Select the desired band and tune to a radio station to be memorized. Choose the preset button memory location span 1-6 (1-10 in Sirius mode) into which the station is to be stored and press and hold that preset button for 2 seconds.

The station will now be entered into the preset memory. 6 stations can be memorized on each of the FM1, FM2, FM3, AM1, AM2 bands.

### 5. A.PS - Auto Store function (13)

Press and hold A.PS button for approximately 2 seconds until you hear a beep which confirms the memory function is engaged. The unit will "SEARCH" for six strong stations and automatically store them on buttons 1 - 6. (FM/AM only)

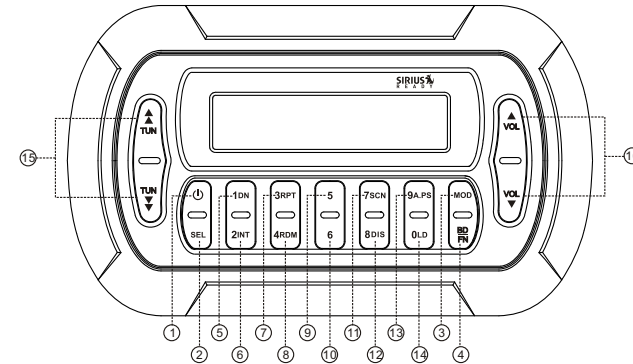
You can override the preset station on any button by manually setting a new frequency.

### 6. Scan function (11)

In Radio mode, press the SCAN button to scan strong stations. At the desired station press the SCAN button again to stop scanning.

### 7. Program Memory Scan

Momentarily press A.PS and the unit will scan for stored stations.  
Momentarily press it again to stop scanning.



### 1. USB & NAND (internal memory) Operation

Press MOD button (3) to select USB or NAND mode.

\* A USB must be connected, if you want to operate USB function.

### 2. General Operation for USB & NAND

#### a. Play / Pause button (5)

Push this button to pause playing. Push this button again to resume play.

#### b. Intro Scan button (6)

Short push this button to hear the first 10 seconds of each track.

Long push this button to hear the first 10 seconds of each track in current folder.

Push this button again to restore the player to its normal play mode.

#### c. Repeat play button (7)

Short push RPT button to play the current track repeatedly.

Long push RPT button to play all the tracks in current folder repeatedly.

Press RPT button again to return to normal play mode.

#### d. Random play button (8)

Short push RDM button to play all the tracks in random sequence.

Long push RDM button to play all the tracks in current folder in random sequence.

Press RDM button again to return the player to normal mode.

#### e. Folder up or down button (9, 10)

Simply push presets button 9 or 10 to select the previous or next folder.

#### f. ID3 Display button (12)

While a MP3 or WMA track is playing, pushing DIS button (12) repeatedly to display the ID3 information in a sequence of:

TITLE --> FILE --> ARTIST --> ALBUM --> CLOCK --> ELAPSE TIME.