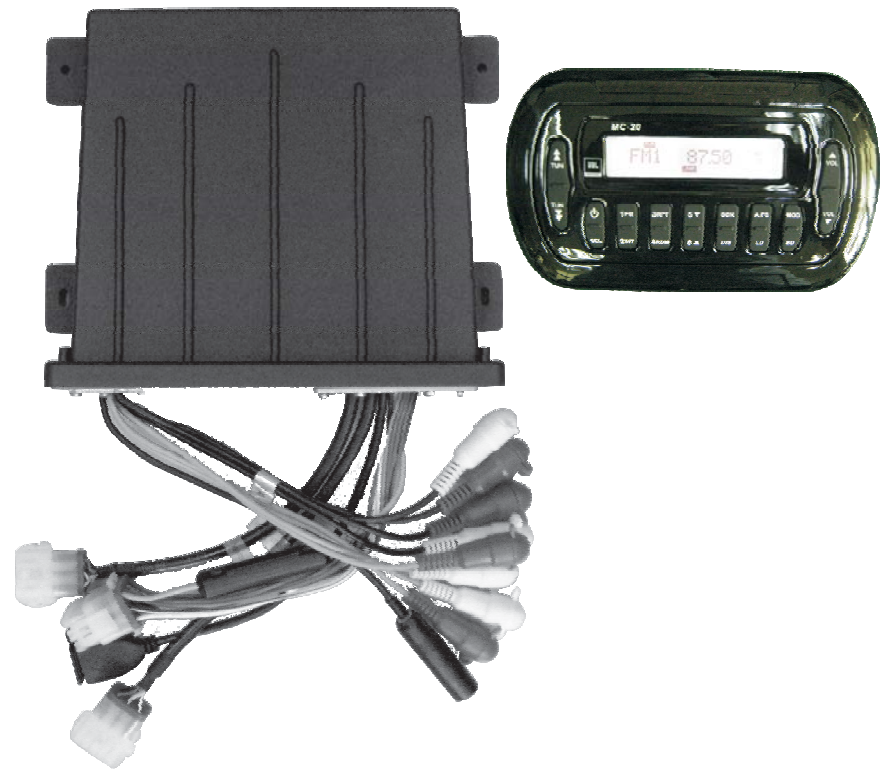




# Operation Manual

## Model No.: MBB-2020



This product is sold and serviced exclusively by Prospec Electronics Inc. and must be returned to Prospec for in and out of warranty repairs. It can not be serviced under warranty by other JBL service centers.

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This product is designed and manufactured by Prospec Electronics. Please contact us for any additional questions.

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## Product Description

This radio features state of the art Bluetooth technology allowing music to wirelessly stream from an audio source to the receiver you just purchased. Why Bluetooth? From a practical standpoint, Bluetooth enables your music device (if applicable) to be placed in a glove box, your overhead console, or even your pocket-places that are dry-without having to install a separate docking station. In addition, Bluetooth audio streaming will work with any Bluetooth enabled device, not just one brand of media. Once connected, you can use your receiver to control your media device and vice versa! Bluetooth has a range of approximately 30', depending upon conditions, so once your boat is parked, feel free to control the stereo through your media device!

The MBB200 Black Box incorporates the following features:

-  AM/FM
-  Bluetooth Audio Streaming
-  USB input
-  Auxiliary input
-  Waterproof Black Box
-  45W x 4 amplifier
-  RF remote/wired remote option
-  U.S. and European tuning
-  Charging through USB
-  2 pair of RCA output plus Subwoofer output

## Specifications

- Operation Voltage ----- 12 volts DC, Negative Ground
- Output Power ----- 180 watts maximum  
(45 watts x 4 channels)
- Output Impedance ----- compatible with 4 ~8 ohm speakers
- Tuning Range
  - USA AREA ----- FM: 87.5 ~ 107.9MHz. (200KHz step)  
AM: 530 ~1710 KHz. (10KHz step)
  - EUR AREA ----- FM: 87.5 ~ 108MHz. (50KHz step)  
AM: 522 ~1620 KHz. (9KHz step)
- Sensitivity ----- AM: 35 dBu  
FM: 10 dBu
- FM Stereo Separation ----- 30 dB
- USB Frequency Response ----- 20 ~20,000 Hz
- USB S/N Ratio ----- 63 dB
- USB Channel Separation ----- 50 dB
- AUX Input Sensitivity ----- 2V (VOLUME STEP 20)  
400 and 800mV@10K ohm
- Bluetooth ----- Version 2.0  
Profile ----- Advanced Audio Distribution Profile  
Audio/Video Remote Control Profile

## Trouble shooting Guide

\*Note: In many respects, a stereo acts much like a computer and occasionally requires a reboot. In the unlikely event of product malfunction, a reset can usually fix the issue. **A reset is accomplished by holding the POWER and Preset 1 button simultaneously until the unit turns off.**

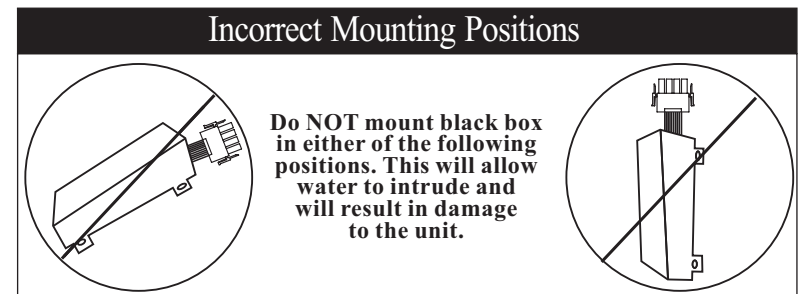
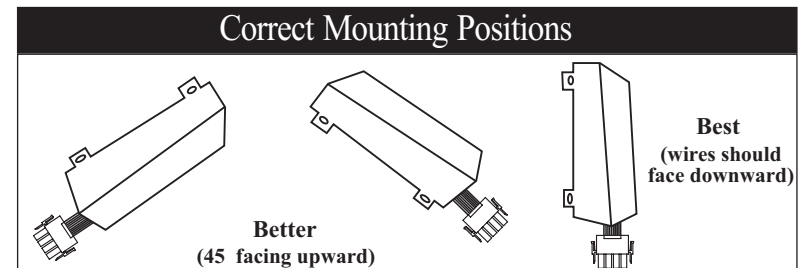
Issue	Cause	Solution
No power	<ol style="list-style-type: none"> <li>1. Incorrect wiring</li> <li>2. Fuse is blown</li> <li>3. Low battery voltage</li> </ol>	<ol style="list-style-type: none"> <li>1. Double check wiring</li> <li>2. Replace fuse</li> <li>3. Check voltage of vehicle battery with multimeter. Voltage must be at least 11V.</li> </ol>
No Sound	<ol style="list-style-type: none"> <li>1. Speaker connection came loose</li> <li>2. Bad speaker</li> <li>3. Output blown</li> <li>4. Volume too low on media device</li> </ol>	<ol style="list-style-type: none"> <li>1. Double check connections.</li> <li>2. Replace bad speaker with known good speaker and connect.</li> <li>3. Send unit in for repair.</li> <li>4. Increase volume of media device</li> </ol>
No Reception	<ol style="list-style-type: none"> <li>1. Antenna not firmly seated in socket</li> </ol>	<ol style="list-style-type: none"> <li>1. Insert firmly</li> </ol>
USB stick not reading	<ol style="list-style-type: none"> <li>1. File must be a mp3 or wma file</li> </ol>	<ol style="list-style-type: none"> <li>1. Convert format to mp3 or mwa.</li> </ol>
While in Bluetooth mode:		
No Connection	<ol style="list-style-type: none"> <li>1. You are not connect to the "JBL-BT" address on your portable media device.</li> <li>2. Out of range</li> <li>3. The connection is already in use.</li> </ol>	<ol style="list-style-type: none"> <li>1. Choose "JBL-BT"</li> <li>2. Bring portable media device closer to the receiver. Device needs to be within 30'.</li> <li>3. Ask the person who first paired to drop out.</li> </ol>

## Black Box Installation

### 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.

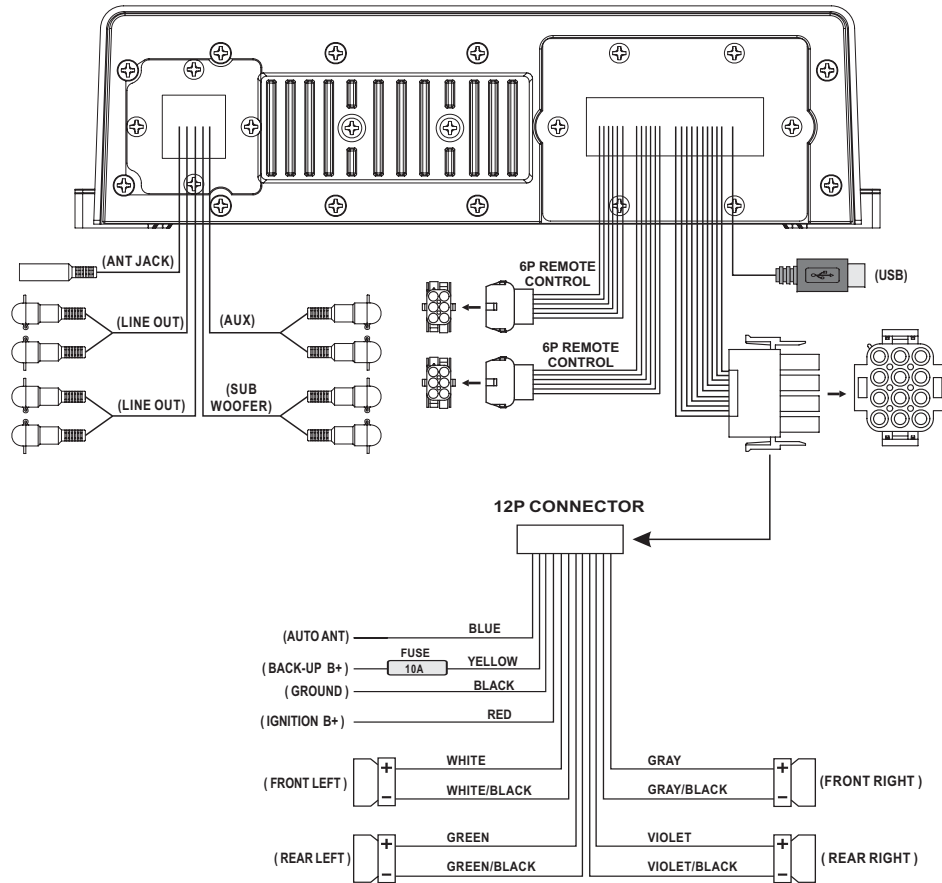
### 2. Mounting illustrations



### 3. Installation Note

Please find enclosed nylon wire tie-downs (wire clamps) for added support.

## Wiring Identification



**NOTE:** When wiring, both the yellow and red lead must be hooked up. The yellow lead goes to the battery while the preferred method for the red wire is ACC/ignition power lead.

## Auxiliary Input Mode

- Press the Mode button until “AUX” appears on the LCD screen.
- The use of auxiliary mode allows you to play the portable music device through the headphone jack. An auxiliary adaptor will need to be purchased separately (Prospec offers part, SEAMINI2).

## RCA output

Description: The use of RCA outputs allow an amplifier or subwoofer to be hooked up.

## Remote Option

- RF remote option.  
This black box was built with an internal RF receiver. Simply purchase the associated transmitter (Prospec part, MILRF9) to complete the option. The RF remote will allow wireless remote operability up to 30 feet away.
- Wired remote.  
Proprietary wired remotes may also be used with this Black Box. Part # JBLMC20 may be purchased.

Your media device must incorporate the Bluetooth option in order to stream music.

### 1. Pairing your Stereo and Bluetooth Device

- 1) Press and hold MOD button for 2 seconds on the stereo until Pairing appears and the Bluetooth icon begins to blink.
- 2) Next, go to settings on the Bluetooth device and turn the Bluetooth option to “on”.
- 3) Pick the “JBL-BT” option on your Bluetooth enabled device (please note that if you are prompted for a password, the code entered will be “1234”.
- 4) Confirm and establish the connection on your Bluetooth Device. Once finished, it would display Bluetooth Icon and PAIR OK on the display.
- 5) If you want to exit pairing mode, press MOD button briefly while pairing, then it will show PAIR CLR on the display.
- 6) If the pairing failed, it would display PAIR FAIL on the display for 3 seconds.

#### NOTE:

- Each Bluetooth Device has distinct menu so you may need to refer to your manufacturer's instruction for the correct procedure on how to connect a new Bluetooth device.
- Please retry a pairing instruction if JBL-BT does not appear on your Bluetooth Device.

### 2. Bluetooth connection and disconnection

- 1) When pairing between the stereo and bluetooth device occurs, the Bluetooth icon will stop blinking.
- 2) To disconnect Bluetooth Link  
While in BT MUSIC mode, press and hold MOD button for 2 seconds to disconnect the Bluetooth Link, the bluetooth icon will blink.
- 3) To connect the Bluetooth Link  
Once you switch back to BT MUSIC mode, it blinks Bluetooth Icon on the display. Simply press Preset 4 button to re-connect the last paired Bluetooth Device automatically.

### 3. To listen Bluetooth Music

- 1) Once successful connection occurs, in most cases, the music will play automatically. In rare cases, you may have to activate the play function on the media device first.
- 2) During BT Music playing, you could select the previous or next track by pressing TUN UP or Down button (15) on the Stereo or operate via your Bluetooth Device.
- 3) To Pause the music, press PAUSE button (5) briefly; Press it again to resume playback.

Prior to the final installation, perform a sound check. If high distortion or intermittent sound is experienced, it is possible that the wiring from the receiver to the boat's electrical system is poor or that the battery needs recharging.

If the battery and its charging circuit are OK, then rewire the yellow fused wire of the player directly to the positive terminal (+) of the boat battery.

Marine accessory shops stock the connector blocks and the 10 Amp cable that may be necessary for extending the fuse wire connection.

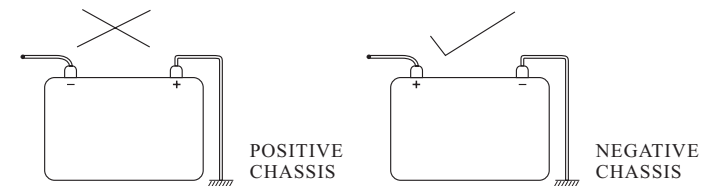
#### ■ Grounding

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.

#### ■ Warning: polarity...

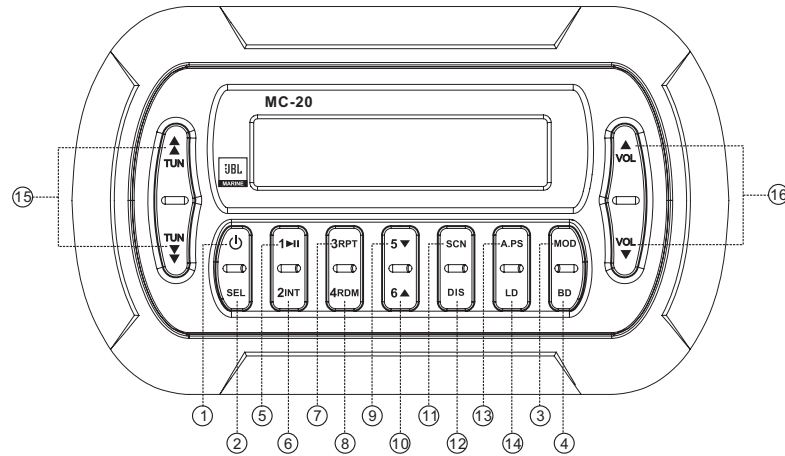
This model is only suitable for use in boats which have a Negative ground system, e. g. : the negative terminal of the boat battery is connected to the chassis.



#### ■ 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.



1. Power ON / OFF button, MUTE button
2. SELECT button
3. MODE button ( Radio --> USB --> AUX-IN --> BT MUSIC )
4. BAND button
5. Radio preset 1 button, Play/Pause button
6. Radio preset 2 button, Intro Play button
7. Radio preset 3 button, Repeat Play button
8. Radio preset 4 button, Random Play button
9. Radio preset 5 button, Directory Up button
10. Radio preset 6 button, Directory Down button
11. SCAN button
12. DISP (display) button
13. A.P.S - Auto Preset Scan button
14. LOUD (loudness) button
15. Tune Up/Down button, Track Up/Down button
16. Volume Up/Down button

### 1. USB Operation

With a USB stick connected, press MOD button (3) to select USB mode.

Note: The music in the USB stick must be of mp3 or wma format.

The USB drive is for USB drives only. Do not attempt to hook up any other portable media forms as they will not be recognized.

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

Push this button to Pause playback. Push it again to resume playback.

### 3. Intro Scan button (6)

Short push INT to hear the first 10 seconds of each track in the USB. Press and hold INT for 2 seconds to hear the first 10 seconds of each track in current directory. Simply push INT again to return to normal play mode.

### 4. Repeat play button (7)

Short push RPT button to play the current track repeatedly. Press and hold RPT for 2 seconds to play all the tracks in current directory repeatedly. Simply push RPT button again to return to normal play mode.

### 5. Random play button (8)

Short push RDM button to play all the tracks in the USB in a random sequence. Press and hold RDM for 2 seconds to play all the tracks in current directory randomly. Simply push RDM button again to return to normal play mode.

### 6. Directory UP or Down button (9, 10)

Simply push the Directory UP or Down button to select the next or previous directory. If the USB stick does not contain directories, it would play the track at 10- file when you push Directory Down button (9), and play the track at 10+ file when you push Directory UP button (10).

### 7. 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.

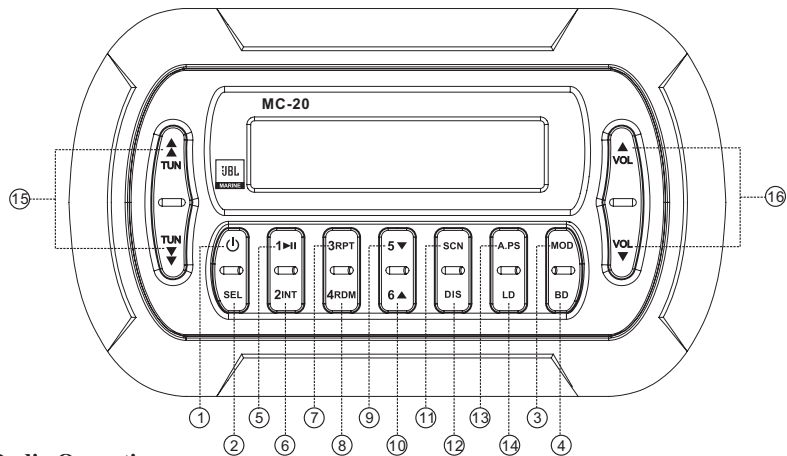
### 8. Track Up or Down button (15)

Simply press Track Up or Down button (15) to select the next or previous track. Press and hold the button to advance the track rapidly in forward or backward direction.

### 9. File or Directory Search button (13)

- To search file: Short push A.P.S button, then push VOL +/- button to search the tracks upward or downward in one track step. At your desired track, press BD button to confirm your selection, and it will automatically begin to play the track.
- To search directory: Press and hold A.P.S button for 2 seconds, then push VOL +/- button to search the directory upward or downward in one directory step. At your desired directory, press BD button to confirm your selection. Then search sub-directory and file as above method.





### 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 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)

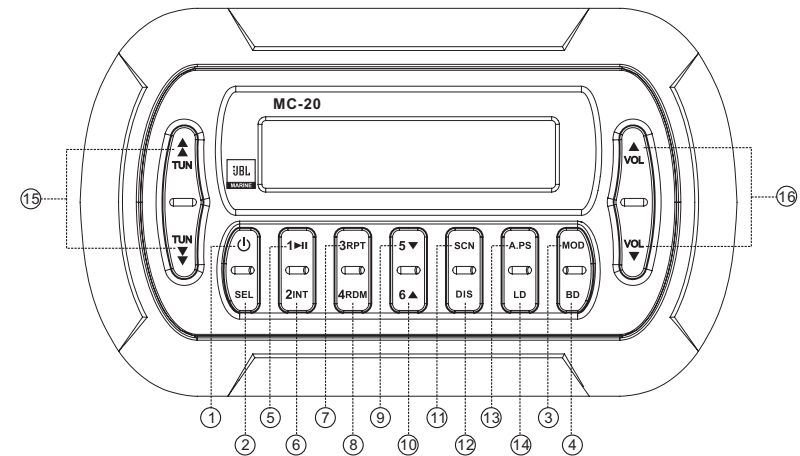
Press and hold A.PS button for approximately 2 seconds until you hear a beep which confirms the memory function is engaged. The unit will SEARCH for six strong stations and automatically store them on buttons 1 - 6. (FM/AM only)  
You can override the preset station on any button by manually setting 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. POWER ON/OFF button, MUTE button (1)

With the unit off, press the Power button (1) to turn on the unit.  
A quick press of the Power button while "on" results in the MUTE function.  
With the unit on, press and hold for more than 2 seconds to turn off the unit.

### 2. SELECT button (2)

#### 2-1 Audio control ( VOLUME / BASS / TREBLE / BALANCE / FADER )

Press SEL button (2) repeatedly to select the desired mode in the following order:

**BASS --> TREBLE --> BALANCE --> FADER--> EQ**

At each feature, press VOL UP/DOWN button to adjust to the desired level. If the key or one of the keys is not pressed within 5 seconds, the radio automatically switches into volume control mode.

Please note that if an EQ setting is chosen, then you will not be able to access BASS and TREBLE functions. This is because the stereo has pre-chosen those levels for you. You may adjust BASS and TREBLE if EQ is in the OFF position.

#### 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 L10 (full left) to BALANCE R10 (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 F10 (full front) to FADER R10 (full rear).

### e. EQ Control

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

EQ 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.

## 2-2. I-VOL, AREA, BEEP 2ND, SUB W, BT VOL Selection

When the SEL button (2) is held over 2 seconds, the unit will enter into a submenu. Once entered, a single press of the SEL button will result in the following functions:

**I-VOL --> AREA --> BEEP 2ND --> SUB W --> BT VOL**

### a. I-VOL Control

I-VOL is the volume level the unit will play when the unit is first 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. This JBL unit also incorporates memory retention. For example, if you power the boat off at volume 45 and your initial volume setting was at 30, the unit will turn back on at 30. If however, you power the boat off at volume 15 and your initial volume setting was at 30, the unit will turn on at 15. The JBL unit will always remember the lowest volume as a way of protecting your hearing.

### b. 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.

### C. 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, BEEP ON, and BEEP OFF. 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. Select BEEP OFF then no beep sound would be heard.

### 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. BT-VOL Control

BT-VOL is the default volume level for BT MUSIC mode. To adjust the BT-VOL level, first select the BT-VOL mode by pressing button (2) until BT-VOL appears on the display panel. Press VOL +/- (16) within 5 seconds to adjust the BT-VOL level from a minimum of BT-VOL 00 to a maximum of BT-VOL 45.

## 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 --> AUX --> BT MUSIC.

**Note:** A valid USB drive must be inserted into the USB port in order for that mode to appear.

## 5. CLOCK/TIME Adjustment

In Radio mode, press 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. Press the LD button (14) once to turn LOUD ON, LOUD icon would appear on the display panel. Press the LD button (14) once again to turn LOUD OFF, and LOUD icon would disappear from display panel.