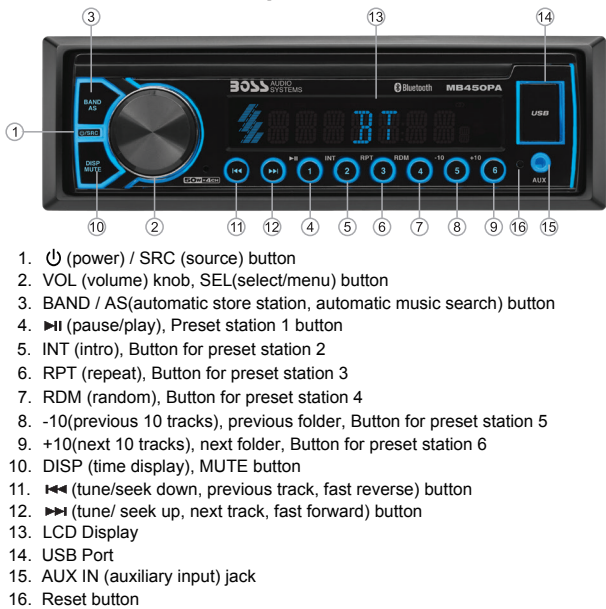


**MB450PA USER'S MANUAL**  
**BLUETOOTH® | MP3-COMPATIBLE**  
**USB/MP3/WMA/PA DIGITAL MEDIA AM/FM RECEIVER**



**Overview of the Components**



**General Operation**

**Turn Unit on/off, Change the Source**  
• Press the **⏻/SRC** button to turun on the unit. Press and hold the **⏻/SRC** button to turn off the unit.  
• Press the **⏻/SRC** button to select the different modes: Radio, USB(with USB device inserted), AUX IN-F(Front 3.5mm AUX input) , AUX IN-R(Rear RCA AUX input) and BT(Bluetooth) modes.

**Adjust the volume (VOL)**  
Rotate the **VOL** knob to increase or decrease the volume level.

**USB Operation**

Play MP3/WMA music inside a USB stick. Insert the USB stick with MP3/WMA musics into the USB port, it will play automatically.

Note: the USB port also supports charging mobile phone, the maximum charging ability is 5V 1A.

**Select Next Track or Previous Track**  
In the USB mode, briefly press the **▶▶** or **◀◀** button to play the the next or previous track.

**Fast Forward/Reverse**  
Press and hold the **▶▶** or **◀◀** button to fast forward or reverse a track.

**Play / Pause**  
Press the **▶||** button to interrupt the playback of a music (pause function). Press this button again to continue the playback.

**Introduction Scan**  
Press the **INT** button to play the first 10 seconds of all track. Press again to stop the introduction scan, and play the current tracks.

**Repeating the track**  
Press the **RPT** button to toggle between RPT ALL (Play all track), RPT FLR (Continuously repeat all tracks in current folder) and RPT ONE (Continuously repeat current track).

**Playing all tracks in random**  
Press **RDM** once, play all tracks randomly. Press **RDM** once again, exit from random playback.

**Track/Folder Navigation**  
- Press the **-10/+10** buttons to jump 10 tracks backward or forward. It only works when there are more than 10 tracks inside the USB stick.  
- Press and hold the **-10/+10** button to select the previous or the next folder. (If there are folders on the storage medium.)

**Select the track or file for playback in MP3 format**  
a) Press and hold the **BAND/AS** button to enter track search mode. First "TRK0000" will appear on the display.  
b) Rotate the volume knob and select the "first number". Then press the **◀◀** button to move the "first number" to the left and enter the next number.  
c) When the desired track number appears, confirm your selection by pressing **SEL** button.

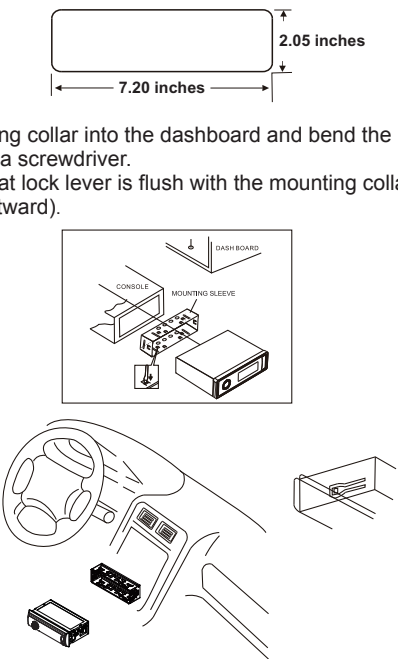
**Specifications**

<b>General</b>	
Power supply Requirement :	DC 12V
Maximum power output :	50W X 4CH
Speaker impedance :	4 - 8 Ohm
Unit Dimensions(WxHxD) :	7.0 X 2.0 X 4.25 inches
Weight :	1.32 Lb (0.6 kg)
Fuse :	15 A
<b>RADIO</b>	
<b>FM</b>	
Frequency Range:	87.5 MHz - 107.9 MHz
Channel step:	200 KHz
<b>AM</b>	
Frequency Range:	530 KHz - 1710 KHz
Channel step:	10 KHz
<b>USB</b>	
Usable Audio Formats:	MP3/WMA
USB Version:	2.0
USB Charging:	5V/1A
Frequency Response:	20 Hz - 20KHz
S/N Ratio:	60dB
<b>BT</b>	
BT Profile supports:	A2DP & AVRCP
Range of frequency:	2.4GHz
<b>PA Microphone</b>	
Optional Microphone Pack PAK104	
Available from MITO Corporation (888) 433-6486	

**Installation**

**Installation Procedures**  
First complete the electrical connections and then check for correctness.

**Installation Opening**  
This unit can be installed in any dashboard Having an opening as shown below.



**General Operation**

**Adjust Menu Options (SEL)**  
• In any mode, press **SEL** button to enter into setting menu. Press the **▶▶** or **◀◀** button together with **SEL** button to select setting items, rotate **VOL** knob to change values.

- BASS: -7, -6, ~, 1, 0, +1, ~, +6, +7
- TREBLE: -7, -6, ~, 1, 0, +1, ~, +6, +7
- BALANCE: L7, L6, ~, L1, L=R, R1, ~, R6, R7
- FADER: R7, R6, ~, R1, F=R, F1, ~, F6, F7
- EQ(Equalizer) Setting: OFF, CLASS, ROCK, POP, FLAT
- Loudness: LOUD ON/OFF
- DX/LOCAL: Enables or disables the local broadcast mode (LOCAL).
- Stereo/Mono: Switches between MONO and STEREO reception mode for radio frequencies.
- BEEPON/OFF: Enables or disables the "BEEP" signal to confirm use.
- CLOCK Settings: Rataate the **VOL** knob clockwise to adjust the minutes. Rotate the **VOL** knob counterclockwise to adjust hours

**Display System information**  
Press and hold the **DISP** button to switch the display information, system time and playing source.

**Mute On/Off**  
In power on mode, briefly press the **MUTE** button to toggle mute on or off.

**USB Port**  
Insert a USB stick with MP3/WMA musics into the USB port, it will start playback automatically. The USB port also support USB charging, the charging ability is 5V 1A

**Front 3.5mm AUX Input Jack**

**Reset**  
Push the **RESET** button with a thin object with a pointed end to reset the unit. This function may be used when the LCD does not display normally or sound is distorted, or when an of controls are disabled

**PAK104 PA Microphone Operation**

This unit supports the (optional) PAK104 microphone. To operate the PA mic, press the PTT thumb button on mic to activate and release to deactivate. PA will override all other source selections of the radio.

PA Volume is adjustable on mic with the slide control. PA volume is independent of radio volume setting.

**Auxiliary Operation**

It supports auxiliary input through 3.5mm AUX IN jack in the front or RCA socket in the rear, connect other music player such as MP3 player, CD player etc. with MB450PA through an audio cable.

- Press the SRC button on the front panel to select "AUX IN-F". AUX IN-F is just for audio content with 3.5mm Jack connector plugged into audio-in socket on the front panel.
- Press the SRC button on the front panel to select "AUX IN -R". AUX IN-R is for audio content with a audio auxiliary input RCA connector.

Note:  
Do not use the front AUX IN jack and the audio auxiliary input RCA connector at the same time, otherwise, it may not work properly.

**Troubleshooting**

If you suspect something is wrong, immediately switch power off. Do not use the unit in abnormal condition, for example without sound, or with smoke or foul smell, can cause fire or electric shock. Immediately stop using it and call the store where you purchased it. Never try to repair the unit by yourself because it is dangerous to do so.

■ **General**

- Car's engine switch is not on.**  
Turn you car's key to ACC or ON.
- Cable is not correctly connected.**  
Check the connection.
- Fuse is burnt.**  
Replace fuse.
- Volume is in mute or minimum.**  
Check volume or mute on/off, adjust volume to a desired level.
- Sound skips.**  
The installation angle is more than 30°. Adjust the installation angle less than 30°.
- The operation keys do not work.**  
The built-in micro- computer is not operating properly due to noise. Press the RESET button to reset the unit.

■ **Radio**

- Much noise in broadcasts.**  
Station or signal is too weak. Select other stations of stronger signal level.
- The antenna cable is not connected.**  
Insert the antenna cable firmly into the antenna socket of this car radio.
- Preset station is reset.**  
Battery cable is not correctly connected. Connect the battery cable to the terminal that is always live.

■ **USB**

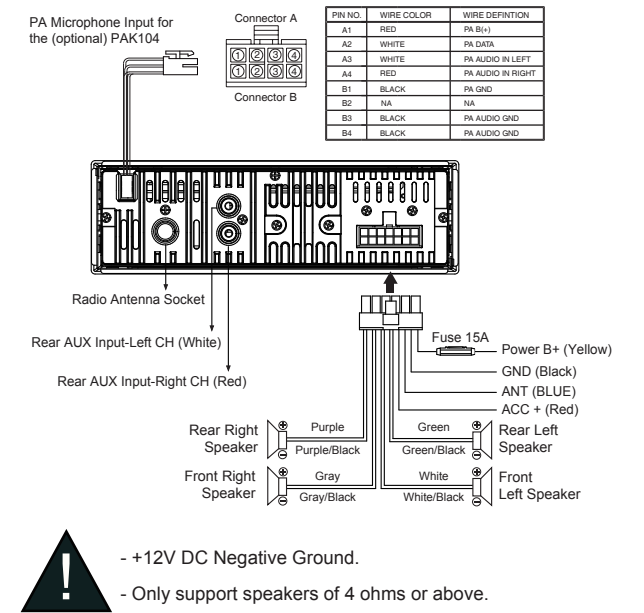
**USB is connecting but no sound**

- USB connection is not good. Take it out and insert again.
- USB is damaged or no music file inside.  
Change to another USB, or record music inside it.

**Installation**

Connect all wiring harness and slide the head unit into the mounting collar until it clicks into place.

**Wiring Connections**



- +12V DC Negative Ground.
- Only support speakers of 4 ohms or above.

**Radio Operation**

**Change Bands**  
In radio mode, shortly press the **BAND/AS** button to switch between the FM1(F1), FM2(F2), FM3(F3) and AM1(A1), AM2(A2) bands.

**To Store / Recall Preset Stations**  
The radio can be stored 6 preset stations for each band (FM1, FM2, FM3, AM1 and AM2) for atotal of 30 preset stations.

- **To memorize a station:**  
Press and hold the desired preset buttons (1-6) to save a radio station.

- **To recall a preset station:**  
Briefly press the respective station button (1-6) to recall the corresponding preset station.

**Manual Tuning**  
In the radio mode:  
Press and hold the **▶▶** or **◀◀** button to enter the manual tuning mode. In manual tuning mode, briefly press the **▶▶** or **◀◀** button to search the next or previous frequency step by step.

**Seek Tuning**  
In radio mode, press the **▶▶** or **◀◀** button, the automatic search will start, it will search upward or downward for the strong signal radio station within the band. The auto searching will stop once a found.

**Automatic Store Preset station (AMS)**  
Press and hold the **BAND/AS** button to store 18 FM stations and 12 AM stations automatically.

**Bluetooth Operation**

**Pair and Connect**  
Pair the mobile phone with the device before using it.

- In any mode, prior to pairing and connecting, the BT symbol flashes that stands for no Bluetooth device connected. To begin pairing, enable BT mode on your mobile phone.
- When the phone finds the car audio system, the "MB450PA" name will be displayed.
- Choose the "MB450PA" from the device list to pair and connect with the car audio system. Upon confirming, the BT logo will stop flashing.
- When pairing is complete, the mobile phone audio will automatically transfer to the car audio system whenever a call is made or received, or when the mobile phone plays music.

**Audio Streaming (A2DP)**  
The unit supports A2DP (advanced audio distribution profile) wireless streaming audio from your Bluetooth mobile device directly to your head unit. You can also control your music from the front panel of the head unit using AVRCP (audio video remote control profile).

- After pairing, connecting and enabling streaming audio from a compatible mobile device, Press the **SRC** button to enter BT mode and the "BT AUDIO" will be shown on the LCD display.
- Press the **▶▶** or **◀◀** button to play the next or previous on the mobile phone.
- Press the **▶||** button to pause or resume music playback.