

# USER'S MANUAL

## 616UAB

**BLUETOOTH®** | MP3-COMPATIBLE DIGITAL  
MEDIA AM/FM RECEIVER

**BLUETOOTH®** | REPRODUCTOR DE MEDIOS  
DIGITALES AM/FM COMPATIBLE CON MP3

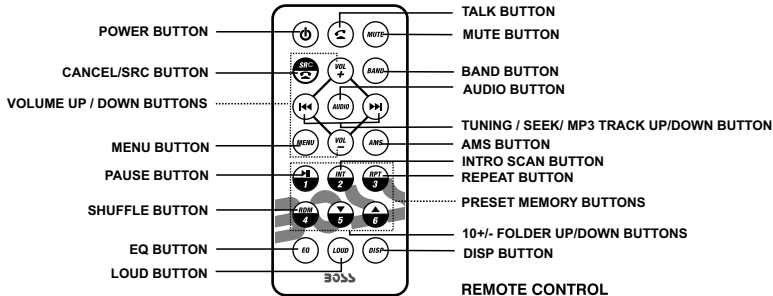
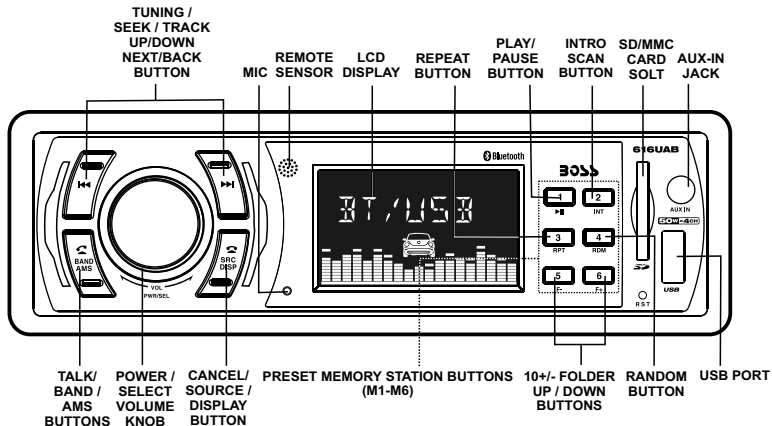


Bluetooth®

**BOSS®**  
AUDIO SYSTEMS

# INSTRUCTION MANUAL

## CAR MP3 PLAYER/RECEIVER WITH BLUETOOTH HAND FREE SYSTEM



## INSTALLATION

- Before finally installing the unit, connect the wiring temporarily and make sure it is all connected up properly and the unit and 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.
- Avoid installing the unit where it would be subject to high temperature, such as from direct sunlight, or from hot air, from heater, or where it would be subject to dust dirt or excessive vibration.

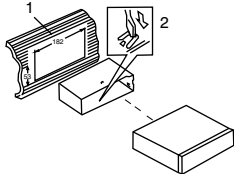
### DIN FRONT/REAR-MOUNT

This unit can be properly installed either from Front (conventional DIN Front-mount) or Rear (DIN Rear-mount installation, utilizing threaded screw holes at the sides of the unit chassis).

For details, refer to the following illustrated installation methods A and B.

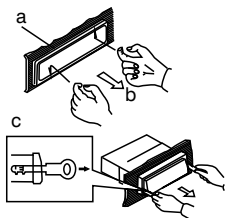
#### - DIN FRONT-MOUNT (Method A)

Installation the unit



1. Dashboard
  2. Holder
- After inserting the half sleeve into the dashboard, select the appropriate tab according to the thickness of the dashboard material and bend them inwards to secure the holder in place.

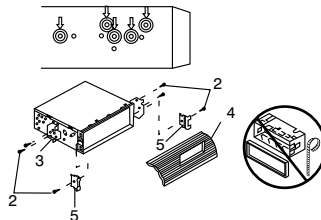
#### Removing the unit



- a. Frame
- b. Insert fingers into the groove in the front of frame and pull out to remove the frame. (When re-attaching the frame, point the side with a groove down wards and attach it.)
- c. Insert the levers supplied with the unit into the grooves at both sides of the unit as shown in figure until they click. Pulling the levers makes it possible to remove the unit from the dashboard.

#### - DIN REAR-MOUNT (METHOD B)

Installation using the screw holes on the sides of the unit. Fastening the unit to the factory radio mounting bracket.



1. Select a position where the screw holes of the bracket and the screw holes of the main unit become aligned (are fitted) and tighten the screws at 2 places on each side.
2. Screw
3. Factory radio mounting bracket.
4. Dashboard or Console
5. Hook (Remove this part)

Note: the mounting box, outer trim ring, and half-sleeve are not used for method B installation.

## ELECTRICAL CONNECTION

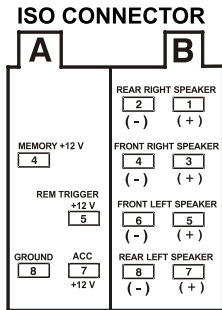
- Make sure your car battery is a 12 volt negative ground system.
- Before starting wiring connections, disconnect the power supply by removing the fuse from fuse box at rear side.
- Connect the power wire to one of the extra terminals of the fuse box ISO connector harness provided.
- Connect the black ground wire to a metal part of the car. It is important to make good contact.
- Make other wiring connections as shown. Plug ISO connector harness to ISO connector and plug fuse to fuse box at rear side.
- If your car does not have ISO connector, you can procure it from any car accessory shop.

**NOTES: INCORRECT WIRING OR OPERATION WILL AVOID THE WARRANTY OF THIS UNIT.**

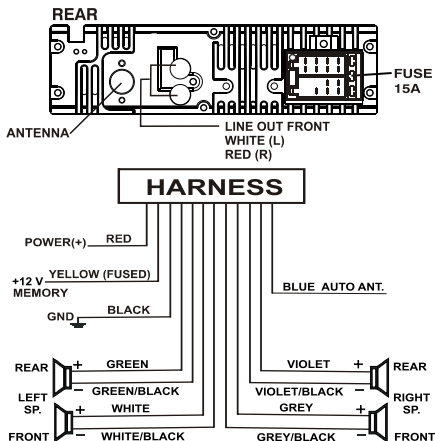
## ELECTRICAL CONNECTIONS

Fuse Replacement:

To replace the fuse, pull out the blown fuse from the socket. Insert a new one with same rating, 15A



SIDE A	SIDE B
4 YELLOW	1 VIOLET
5 BLUE	2 VIOLET/BLACK
7 RED	3 GREY
8 BLACK	4 GREY/BLACK
	5 WHITE
	6 WHITE/BLACK
	7 GREEN
	8 GREEN/BLACK



# GENERAL OPERATION

## POWER ON/OFF

Press any button to turn on The unit. Long press the knob to turn power off.

## AUDIO AND AREA SETTINGS

You can select the following settings by pressing the KNOB ONCE. Rotate it to adjust:

BASS (BAS)-> TREBLE (TRE)-> BALANCE (BAL)-> FADER (FAD)->LOUD(LD ON/OFF)

->EQ (POP/ROCK/CLASSIC/EQ OFF)->DX/LOC->STEREO/MONO(STEREO/MO)

->Frequency Area (USA/EUR)

- LOC / DX MODE

Use this mode to change between Local and Distant (DX) tuning mode. Local mode improves reception in some areas where the signal is too strong.

- FM MONO / STEREO BUTTON (MONO)

Use this control to select stereo or monaural reception for FM radio stations. You can sometimes improve reception of distant stations by selecting mono mode.

- CLOCK DISPLAY AND ADJUST

LONG PRESS DISP(SRC)button to display clock. LCD will display clock for 3-4 seconds and then resume to display current playing status (e.g. Frequency of Radio/AUX/Music information of USB/SD-MMC mode) When LCD is displaying clock, press DISP(SRC)button and clock digit will flash. Rotate knob to adjust. Press the knob again to switch between hours and minutes digits. Press DISP(SRC)button to confirm adjusted time.

- SWITCHING BETWEEN USA AND EUROPE FREQUENCY

While LCD displays USA or EUR rotate volume knob to switch between USA and EUR (Europe)frequency. Leave it for 3-4 seconds until current frequency menu resumes or press any button to continue operation. Every time desired area frequency is selected, frequency and tuning step will be switched to corresponding settings automatically.

- EQ SETTINGS

EQ OFF->ROCK->CLASSIC->POP

At EQ off mode preset equalizer will be controlled by Bass / Treble setting.

## VOLUME KNOB

When the settings function is not activated, rotate the knob to adjust volume level.

## SOURCE(SRC) BUTTON

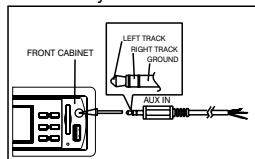
- Press this button to select different sources, sequence as follow:
  - A) Tuner mode (Radio)
  - B) BT MODE (only if until is paired to a mobile phone)
  - C) USB (only if a USB drive is inserted)
  - D) SD / MMC (Only if a SD or MMC card is inserted)
  - E) AUX IN

## SOURCES PRIORITY

- Whenever a USB or SD/MMC is being inserted, unit will automatically switch to USB or SD/MMC mode, does not matter the unit is currently in what mode.  
When in USB or SD / MMC mode, if the USB or SD / MMC is being removed, unit will automatically switch to radio mode.

## FRONT AUX INPUT

Connect the external device to the front 3.5mm jack on front panel, Press SRC button to select AUX IN mode, At AUX IN mode, LCD displays AUX.



## TUNER MODE (RADIO) OPERATION

### AUTO MEMORY STORE (AMS)

AUTO MEMORY STORE: long press BAND AMS button to enter auto store mode. The radio will automatically search and store stations to the preset memories of the band. To stop auto store, press AMS button again.

### TUNING UP / DOWN BUTTON (◀▶▶▶)

Press these buttons once to auto scan for next station. Long press to tune radio frequency manually.

### CHANGING BAND

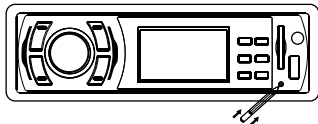
Press BAND AMS button to change between FM and AM bands F1,F2,F3, A1(M1),A2(M2).

## RESET THE SYSTEM

The RESET button is located on the front panel (as shown on the diagram). Press it vertically with a ballpen or metal object will activate it. The reset button function 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 and reset is necessary.
- Error symbol on the display and reset is necessary.

**Note:** If the unit cannot function normally after resetting, please use a cotton swab soaked in isopropyl alcohol to clean the socket on the back of the control panel.



## LIQUID CRYSTAL DISPLAY PANEL (LCD)

The LCD panel display the frequency, time and activated functions.

### NOTE:

It is a characteristic of LCD panel that if subjected to COLD temperatures for an extended period of time, they will take longer time to illuminate than under normal conditions, in addition, the visibility of the numbers on the LCD may slightly decrease. The LCD read-out will return to normal when temperatures increase to a normal range.

## STATION PRESET BUTTONS (M1-M6)

You can store & recall six preset radio stations by pressing M1-M6 buttons

TO STORE A STATION: 1) select a band (if needed)

2) select a station by tuning up / down button

3) hold a preset button which you want store the station for at least 2 seconds. The preset number will appear on the display.

TO RECALL A STATION: 1) select a band (if needed)

2) press a preset button briefly to recall the stored station.

## MP3/SD/USB OPERATIONS

### M1)PLAY/PAUSE AND FIRST TRACK BUTTON

Press this button briefly to pause MP3 play, press again to release pause.

### M2)INTRO SCAN BUTTON

Press this button to select Intro Scan function, the first 10 seconds of each track will be played sequentially until this button is pressed again, then normal play will resume at the current track.

### M3)REPEAT BUTTON

Pressing this button will activate Repeat Function in the following order:

**RPT ON →RPT OFF**

### M4)RANDOM PLAY BUTTON

When random play mode is selected, the tracks will be played in random order, press this key one more time to cancel random play mode.

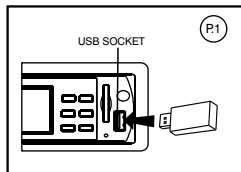
## MP3 TRACK UP / DOWN BUTTONS (◀◀▶▶)

Under normal play mode, press the Track Up Button once to skip the playback to the next track, or press the Track Down Button once to return to the beginning of the current track, press this button one more time to skip to the previous track. When any of these buttons is pressed for more than 1 second, the MP3 player will enter Rewind/fast forward mode, this is indicated by the flashing track number on the LCD. When the key is released, normal play will resume.

## MMC/SD CARD & USB DEVICE OPERATIONS

### START THE USB DEVICE MODE

- 1.The USB socket is accessible as indicated in picture 1.(P.1)
- 2.Plug in the USB drive / device completely as indicated in picture 1(P.1) and display will show USB to indicate that the USB drive / device is being plugged in correctly & the download has begun.
- 3.Does not matter which source the unit is in (TUNER,SD/MMC,AUX,etc), once a USB drive / device is being plugged into the unit, unit will automatically switch to USB mode.
- 4.All the USB files playback function is same as normal MP3 files playback.



Warning: Excessive weight or size USB drive/device may cause permanent & serious damage to the unit and may cause access to the buttons on the front panel impossible. User must use an extension cable (provide by USB device manufacturer) to connect with USB socket to prevent any damage cause.

### TO STOP USB PLAYBACK

- 1.The USB drive / device is unplugged, the unit automatically switch to radio mode. Or user can press SRC button to switch to other mode.
2. User can press SRC button to choose USB mode (only if USB drive / device is inserted in the unit ) or any other modes, when they are in any mode.

### USB SPECIFICATION

- \* SUPPORT MAX 32G USB FLASH MEMORY
- \* SUPPORT MAX 999 SONGS
- \* USB 1.1 DEVICE SUPPORT
- \* USB 2.0 DEVICE SUPPORT  
(TRANSFER SPEED SAME AS VER 1.1)
- \* FILE MANAGER: FAT12/FAT16/FAT32
- \* CURRENT SUPPLY: MAX 500mA

### CAUTION

- 1.Always unplugged the USB gently from the unit, excessive force used will cause permanent & serious damage to the unit & the USB drive / device.

### COMPATIBILITY

Due to the fast changing technology world, this unit may or may not be compatible to all the USB drive / device available with all the future technology, especially those USB drive / device which require to install a driver. Always choose a compatible USB drive / device which is compatible with this unit.

### NOTE:

This unit is not compatible with portable Hard-Disc.



## START THE SD/MMC MODE

1. The SD/MMC card slot is located on top of the front panel as indicated in (P.2).
2. Insert the SD/MMC card into the card slot in the correct direction until a CLICK sound is heard.
3. The display will show SD-CARD to indicate that the SD or MMC card is correctly inserted. Once the SD or MMC card is inserted, the MP3 file will automatically loaded & playback will also start.
4. Does not matter the unit is in what mode (Tuner,USB,AUX,etc), once a SD or MMC card is being inserted in the unit, unit will automatically switch to SD / MMC mode.
5. All the SD / MMC files playback function is same as normal MP3 files playback.

## TO STOP SD/MMC CARD PLAYBACK

1. Push on the end of the SD or MMC card to eject the sd or MMC card. Once the SD or MMC card is taken out, the unit will automatically switch to previous mode.
2. User can use the mode button to choose SD / MMC mode (only if SD or MMC is inserted in the unit ) or any other modes, when they are in any mode.

## SD/MMC SPECIFICATION

- \* SUPPORT MAX32G SD/MMC CARD
- \* SUPPORT MAX 999 SONGS
- \* FILE MANAGER: FAT12 / FAT16 / FAT32

## CAUTION

Please make sure to insert the SD or MMC card in the correct direction / orientation as indicated in picture 2(P.2). Wrong insert will cause permanent & serious damage to the unit & the SD or MMC card.

## MP3 OPERATIONS (MP3/SD/MMC/USB FILES)

### Loading MP3 File (SD/MMC / USB Mode)

During MP3 play, current Track Number & Time Elapsed of current track will be shown on the LCD.

If the track is ID3 compatible, press BAND AMS button once to display elapsed time and ID3 tag of currently playing track.

The following categories of ID3 tag will be shown: 1. Track name SONG 2. Title name TITLE 3. Artist name ARTIST

4. Album name ALBUM
5. Folder name DIR

### Navigating through Folders and Tracks:

There are Four ways to select your favourite folder/tracks.

#### 1. By Track Up/Down buttons ( ◀◀ ▶▶ )

Press track up/down button to skip track backward or forward.

#### 2. Skip-10/+10 tracks by M5(F-) and M6(F+) buttons

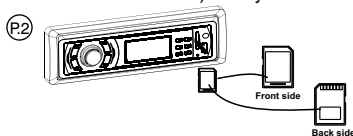
Press M5(F-) / M6(F+) for more than 1 second to skip 10 tracks backward or forward.

#### 3. Folder UP/Down

Press M5(F-) / M6(F+) buttons briefly to skip to previous /next folder.

## 4. NAVIGATING THROUGH DIRECTORIES AND TRACKS

Under MP3 play modes, long press BAND AMS button and display shows TRK-SCH (Track Search). Then rotate VOLUME KNOB or press 1-6 to enter track numbers directly. Press VOLUME KNOB to confirm track number.



## **BLUETOOTH MODE OPERATION**

### **INSTRUCTION FOR HANDSFREE FUNCTION**

#### **1. PAIR IT WITH YOUR PHONE (PAIRING)**







Before you use your Car HANDSFREE System, you need to pair it with your mobile phone.

1. The Bluetooth set system on the head unit will automatically go into pairing mode when the POWER turned on .
2. Set your Bluetooth phone to discover the BOSS 616UAB
3. Your phone will find the BOSS 616UAB



Your phone then asks if you want to pair with it. Accept by pressing Yes or OK on the phone and confirm with the passkey or PIN=0000 (4 zeros). Your phone will confirm when pairing is complete.

In case of unsuccessful pairing, repeat steps 1 to 3 .



#### **2. OPERATION**

- Call Accept: Single click TALK  button during an incoming call to accept the call.
- Call Reject: Click CANCEL (SRC ) or (STOP) on the remote during an incoming call will reject the call.
- Call End: Single click SRC  button when communication or dialling an outgoing call to hang up.
- Call Disconnect: No BT mode Click TALK  button about seconds when it is not in communication mode. And Disconnect and BT OFF will showed on the display.
- Call Re-connect, Click TALK  button again at the Disconnect Status. The connection will be reconnected and CONNECT & BT ON will showed on the display.
- Call Transfer (Private mode): Click TALK  button about seconds at communicating time, transfer the call to phone, click talk button once again, transfer the call to Bluetooth.
- Auto Answer (Depend on mobile phone feature): Pls refer to your own mobile phone manual for handsfree auto answer setting.
- Volume Adjust: User can use the volume up/down to adjust the volume level.


#### **3. WHAT DISPLAY CAN SHOW DURING THE INCOMING/OUTGOING CALL MODE INCOMING CALL**

- When there is an incoming call, the display will display the incoming caller telephone number If the incoming call has no caller number, the LCD will display 00000000 user can short press the TALK  button answer / accept the call and the Talking display will be showed when the call is answered.
- To end the conversation, press the CANCEL (SRC ) or (STOP) at the Remote control and the Hang up will showed on display. The unit and the display on the LCD will switch back to the previous mode automatically.

## OUTGOING CALL


- User can use his / her Mobile Phone or remote control to dial and make an outgoing call . Once the user start dialling, the display should show DIALING.
- The audio output of the present mode will ONLY be muted after pressing the TALK  button as a confirmation to dial the outgoing call.
- During talking mode, the LCD Display will display talking time.
- To end the conversation, press the CANCEL (SRC ) button or (STOP) at the Remote control and the Hang up will showed on display. The unit and the display on the LCD will switch back to the previous mode automatically. The mute of the previous mode will be released at the same time.

## 4. BLUETOOTH NOTICE

- Before you start to use our Bluetooth HEAD UNIT , Please pair the unit with your mobile phone completely. Please refer to the section of PAIRING To ensure the best reception for Pairing & Re-connection, please make sure the phone Battery is fully charged when making the pairing or Re-connection.
- Every time you turn the power on, the unit will automatically re-connect with the mobile phone.
- By pressing the TALK  button the unit will start the Auto-Reconnection . In some conditions, the user will need to reconnect manually. For example like the following.
- If the mobile phone is out of range. (2 meters away from the head unit) the unit will be disconnected from the mobile phone.
- If user wants to re-connect, it will have to be done manually.
- The Bluetooth symbol (...) and the connected symbol (< / >) on the mobile phone will be different from one to another. Please refer lo the corresponding specification.
- When you hang up the phone, the main unit will revert to previous state (radio, SD or other mode).
- Some brand of Mobile Phone like Sony Ericsson may have "Power Saving Mode" selection when Blue Tooth mode is switched on. PLEASE DO NOT Switch ON Power saving Mode when operating with this Head Unit, . As some abnormal communication behaviour will happen Power Saving Mode is switched on.
- To ensure the best conversation quality / performance, please always keep talking within 1 metres of the Head Unit.
- Some Mobile Phones can support IN BAND RING TONE, such as Motorola, Nokia. In such case, the Incoming Ringing Tone will be same as the original Ring-tone of the Mobile Phone. But some Mobile Phones like Sony Ericsson do not support this feature. The Ring-tone will be using the standard Ring-tone of the Head unit.

- Using voice dialling, please make sure the phone and the head unit within 3 metres of each other. Also please make sure your mobile phone support voice dialling function. And please consult with your mobile phone supplier if you want to know the operation further about voice dialling.
- If user wants to Dis-connect the Head unit with the Mobile Phone, please click talk button long once or switch "OFF" Blue Tooth connectivity on the Mobile Phone.

### **LISTENING TO MUSIC USING BOSS 616UAB ON THE BT AUDIO MODE**

- BOSS AUDIO is capable of streaming music over Bluetooth from a mobile phone supporting A2DP. Press the SRC  button to select Bluetooth BT audio mode, once you have paired your Car Handsfree with your mobile phone, use your phone to play, pause, stop, skip forward and backward. When you receive a call, the music will be automatically paused and you will be able to answer or reject a call through the headset. Once you end a call, the music will continue. On some phones you may have to press play to start the music again.
- And you can also make an outgoing call (This function is compatible with some phones which can make outgoing calls during the A2DP mode.)

### **Specifications for Blue tooth (Specifications subject to change without notice).**

#### **BLUE TOOTH**

Power Consumption	200mA Max.
Output Power	0 dBm (Class II)
Frequency Band	2.4GHz ~ 2.4835GHz ISM Band
Range	3 meters (free space)
Standard	Bluetooth 2.1 specification

#### **Remark:**

Our Bluetooth Handsfree System adapts to the Bluetooth spec V2.1. It is compatible with profiles such as Handsfree profile and Head Set profile. However the functionality may be limited due to some phones dedicated interfacing specifications, even with phones of which the actual Bluetooth specifications and used profiles apply to our Bluetooth Handsfree System specifications. Please check the compatibility list or try it out in practice your phone at the local dealer in case it is not mentioned in the list.

#### **Note:**

Compatibility and connectivity with all Bluetooth mobile phones is not guaranteed.

#### **Warning:**

Many jurisdictions have laws regarding the use of a phone in a vehicle. Obey all local laws. Always keep your hands free to operate the vehicle while driving. Your first consideration while driving should be road safety.

## **SPECIFICATIONS**

### **RADIO SECTION**

#### **FM**

Frequency Range	87.5 - 107.9MHz (USA) 87.5 - 108.0 MHz(Europe)
Usable Sensitivity S/N Ratio	15 dB at S/N of 30 dB Better than 50 dB

#### **AM (MW)**

Frequency Range	530 - 1710 KHz(USA) 522-1620 KHz(Europe)
Usable Sensitivity S/N Ratio	40 dB Better than 45 dB

### **GENERAL**

Power Supply	DC 11 -14V
Polarity	Negative Ground
Speaker impedance	4 $\Omega$
Power Output	50W x 4

### **REMARK :**

Specifications subject to change without notice.