

Bluetooth Stereo Headset Kit (BT6 TX-RX) User Manual

Version 1.3



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Notice: The changes or modifications not expressly approved by the party

responsible for compliance could void the user's authority to operate the equipment.

IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

FCC Information

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

The equipment has been tested and found to comply with the limits for a Class B Digital Device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction, may cause harmful interference to radio communication. However, there is no grantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The user should not modify or change this equipment without written approval from PALM GARDEN ENTERPRISES CORP. Modification could void authority to use this equipment.

Bluetooth Introduction

Bluetooth is a global wireless standard for enabling short-range wireless connections. It is a simple and instant radio solution that allows different devices to talk to one another. Bluetooth eliminates the need for cables/wires/cords between devices such as mobile phones and headphones. Bluetooth facilitates fast and secure transmissions of both voice and data between devices even if they are not in line-of-sight. Most Bluetooth devices are described as 'Class 2'. These are very low power and have a range of about 10 meters. Some devices are Class 1. These have range comparable to that of Wi-Fi and have a range up to 100 meters.

A limited, but growing number of devices use Bluetooth at present. Devices that are starting to have Bluetooth connectivity built in include:

- Headsets
- Headphone
- Cell Phones
- PDAs
- Laptops
- Digital cameras and camcorders
- Printers
- Scanners
- Keyboards and Mice
- In-car handsfree kits
- GPS navigation receivers
- Home appliances (microwaves, washers, driers, refrigerators)

In addition, add on Bluetooth adapters are available for computers (i.e. with a USB interface) and for PDAs.

Package List

The following checked items should be in the package.

| Items | Quantity |
|--|----------|
| <input checked="" type="checkbox"/> Transmitter (TX) | 1 |
| <input checked="" type="checkbox"/> Headset (HS) | 1 |
| <input checked="" type="checkbox"/> USB Cable | 1 |
| <input checked="" type="checkbox"/> Audio Cable | 1 |

Bluetooth Stereo Headset Kit

Thank you for choosing Bluetooth Stereo Headset Kit. It is unique and different from most Bluetooth products in the market for its good integration of AV and Headset Profiles. It is a multifunctional device that provides users with dual capability for listening to music in a wireless mode as well as answering the cell phone. While the phone rings, the conversation can be transferred back and forth between the headset and the Bluetooth enabled cell phone, even when the music is being streamed.

The music source for this headset can be any consumer device such as a Portable MP3 Player, a Mobile Phone, a PC, a Music System, or an In-car Entertainment System that is compliant with the Bluetooth specification version 1.1 or 1.2 and is supporting the Advanced Audio Distribution Profile (A2DP).

The headset can also be used with cell phones that are compliant with the Bluetooth specification version 1.1 or 1.2 and it is supporting either the Headset (HS) or Handsfree (HF) profiles.

Stereo Headset Features

- Superior audio quality - Delivers 44.1 kHz and 48 kHz, 16 bit stereo music (near CD quality audio).
- Pick up / drop a phone calls – Pick up / drop phone calls with buttons on the headset.
- Listen to music and respond to phone calls – Enable switching between music and calls made to your Bluetooth enabled cell phone.
- Wireless mobility – It is very convenient without being restricted by cables.
- No “Line-of-sight” restriction - Unlike infrared devices, it offers you a wide transmission range (up to 10 meters).
- Long battery life – The self-contained battery of can be easily charged with a USB cable and long battery life ensures hassle free music experience.
- Supported profiles - Supports A2DP, AVRCP Headset and Handsfree profiles of the Bluetooth specification, version 1.1.

TX Features

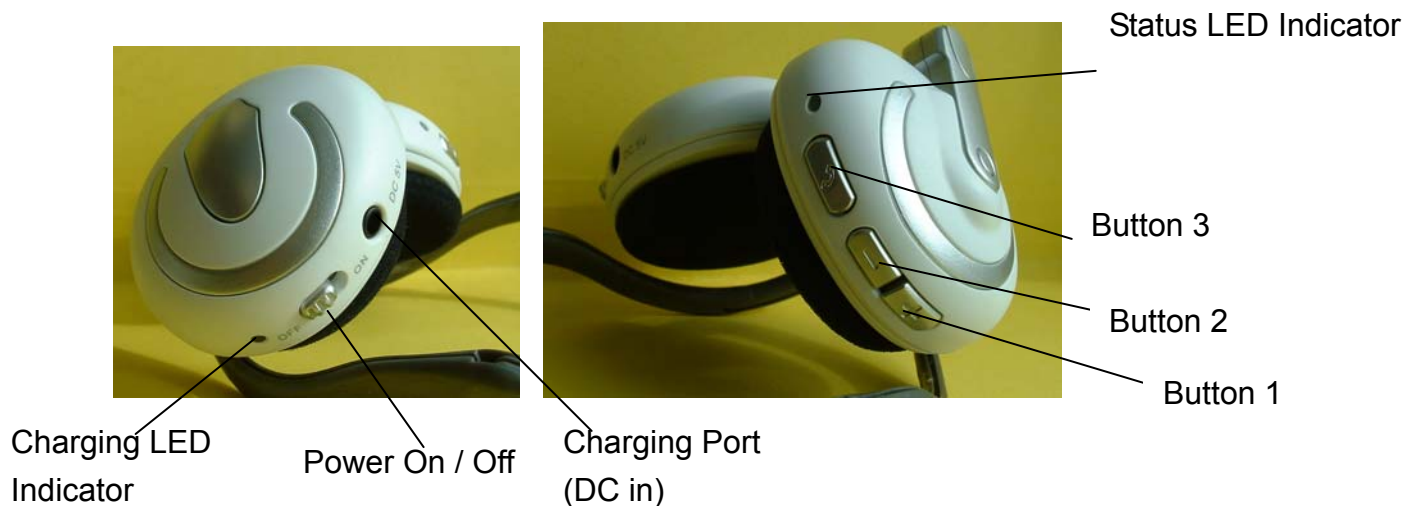
- Auto Pairing – Search any Bluetooth receivers automatically and show the link status on the status LED indicator.
- Easy to link with the music source – Plug an audio cable in TX and connect the other side of the cable to audio source.

Bluetooth Stereo Headset Kit Outline

Bluetooth Stereo Headset is shown in figure 1 and figure 2 below with dimensions specified. Functions and dimensions for TX are listed in figure 3.



Figure 1 – Stereo headset



| Function | Button 1 | Button 2 | Button 3 |
|------------|-----------|-------------|---------------------|
| Mode | | | |
| Phone Mode | Volume Up | Volume Down | Accept / Drop Calls |
| Music Mode | Volume Up | Volume Down | No Function |

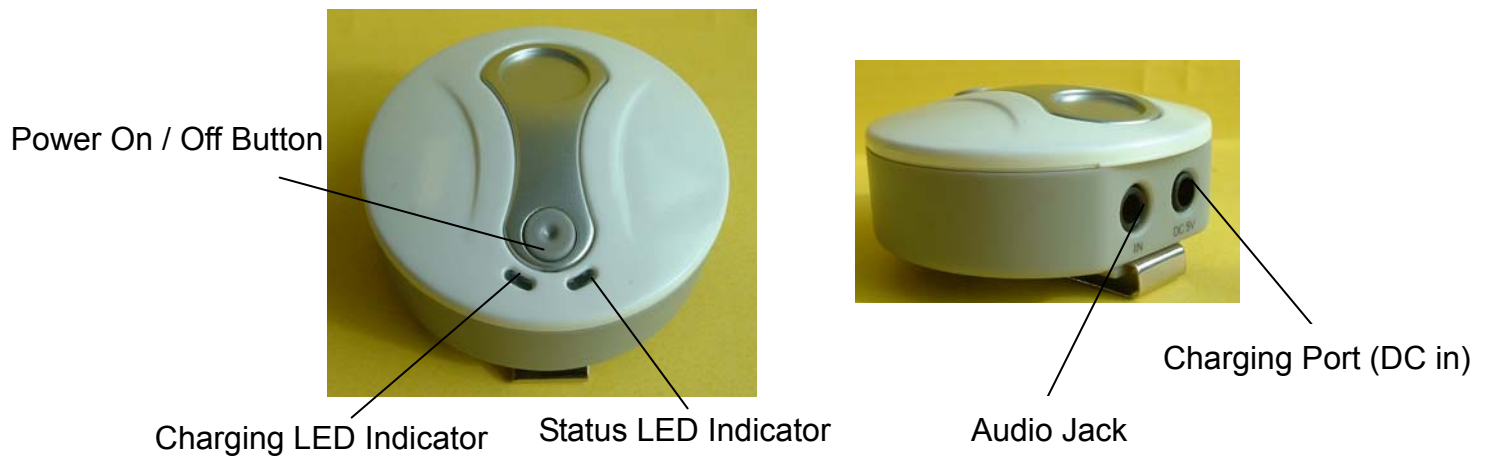


Figure 3 – Bluetooth TX

How to Use

Bluetooth Stereo Headset performs well with the Bluetooth TX and can be used to demonstrate the following usage scenarios:

- Responding to cell phone
Pick up / drop calls made to the headset from Bluetooth enabled cell phones. Unlike the mono headsets, Stereo Headset can transfer ring/voice to both your ears with two channels. In this scenario, the ability of the headset to stream music is not utilized.
- Enjoying the superior music quality
Connect a Bluetooth TX with any audio source with a 3.5 ϕ mm audio jack and play music. Let the music be streamed to the Stereo Headset. Users can also use another Bluetooth enabled device that minimally supports the A2DP profile of the Bluetooth specification, version 1.1 to play music. In this scenario the ability of the headset to pick up / drop phone calls is not utilized.
- Switching between music and phone calls
The headset can switch between listening to music and answering calls made to your Bluetooth enabled cell phone. In this scenario, the complete functionalities of the Stereo Headset are demonstrated.

Before You Use

Please make sure the battery power of the headset and the TX is sufficient. If the power is low, the charging LED indicator of headset or TX will start to flash.

Please charge the headset and the TX when you see the low power signal. When you are charging the battery, TX or headset charging LED indicator will constantly on. When the battery is full, the light of headset or TX will shut off automatically.

Responding to Cell Phone

1. Setting Up

Before you turn on the headset and TX, please use the USB charging cable to charge them.

2. Pairing

(1) Turn on the Bluetooth enabled cell phone.

(2) Turn on the headset.

(3) Operate the Bluetooth enabled cell phone to search headset

Note: Users need to keep the two devices between 2 meters in case of connection failure. The status LED indicator of headset will be constantly on during search.

(4) Enter PIN code "0000" when the pop-up screen is shown on the cell phone.

(5) Pairing is done while the status LED indicator start flashing.

3. Connecting

(1) "Pairing" creates a link between Bluetooth enabled cell phone and Stereo Headset. It allows the phone to remember the headset's unique Bluetooth ID. You could add it to a list of "Paired Device" in the phone.

(2) The headset only needs to be paired ONE time with the phone before use.

(3) Once the headset is paired, it can be easily connected to the phone.

-
-
- (4) If the pairing information or log were deleted from the phone, the headset must be paired with the phone again.
- (5) Start to use Stereo Headset to pick up / drop calls in a wireless mode.

***Note:**

- 1. Some cell phones require that an explicit connection be established with the headset. For example, Nokia 3650 requires a Bluetooth connection to the headset be initiated and stay connected before proceeding further. Other phones may initiate a Bluetooth connection only when a call is received. Please refer to the user manual of the cell phone being used and fully understand its behavior.*
- 2. Some cell phones send the ring indication to the headset while others do not. If your cell phone supports this feature, you should hear the ring tone of your cell phone on the headset. Phones that do not support ring indication will automatically accept the call.*

4.Main Machine Interface (MMI)

- Headset

Function Keys

| Location | Keys | Function |
|-----------------------|---------------------|--|
| Headset (Module Side) | Volume up | Volume up (in both music & phone mode) |
| | Volume down | Volume down (in both music & phone mode) |
| | Accept / Drop calls | Use in phone mode |
| Headset (Power Side) | Power switch | Power on / off |

LED indicators

| Location | LED Status | Function |
|-----------------------|-------------------------------|--|
| Headset (Module Side) | Status LED lights up steady | Pairing mode |
| | Status LED flashes | Standby / Linked |
| Headset (Power Side) | Charging LED flashes slowly | Low battery output |
| | Charging LED lights up steady | Charging (Indicator turns off when charging is completed.) |

-
- TX Dongle

Function Keys

| Location | Keys | Function |
|-----------|-----------|----------------|
| TX Dongle | Power Key | Power on / off |

LED indicators

| Location | LED Status | | Function |
|-----------|--------------|------------------|--|
| TX Dongle | Status LED | Flashes | Pairing mode |
| | | Flashes slowly | Standby / Linked |
| | Charging LED | Flashes slowly | Low battery output |
| | | Lights up steady | Charging (Indicator turns off when charging is completed.) |

5.Re-connecting

When the headset loses connection to Bluetooth enabled cell phone, you need to repeat step 3 to re-connect it.

6.Turning Off

Turn off the headset by setting the power switch to “off”.

Enjoying the Superior Music Quality

Before using the headset to listen to music, you should make a music connection as follows:

1. Setting Up Music Source

- (1) Please make sure you have 3.5 ϕ mm audio jack in your music source, i.e CD Player, a MP3 player or a PC.
- (2) Link the TX to the audio source with an audio cable.
- (3) Press the Power Key on TX about 5 seconds until the LED indicator is flashing. Release it and the TX will be turned on.

2.Connecting TX / Headset

- (1) Turn on the headset. Meanwhile, you can hear the opening sound from the headset.
- (2) The TX and the headset will be paired automatically after a few seconds.
- (3) When the pairing is done, the LED indicator on headset will start flashing.
- (4) Play music.
- (5) You can hear music from the headset.

***Note:**

- 1. It may take you a few seconds in paring headset with TX for the first time. It will be quicker in searching after that.*
- 2. During the pairing mode, the status LED indicator on TX will flash quickly. When the pairing is done, the LED indicator on TX will flash slowly and steadily.*

Switching Between Music and Phone Calls

1.Setting Up / Prerequisite

Please confirm the headset has been added to a list of “Paired Device” in the Bluetooth enabled cell phone.

**Note:*

If you haven't paired the headset with the Bluetooth enabled cell phone before, you need to refer to the section “Responding to Cell Phone”.


2. Making the Switch


- (1) Repeat the procedure “Enjoying the Superior Music Quality”, and play music.
- (2) Use the cell phone and find the headset on the “Paired Device” list. Then, operate the cell phone to connect to headset.
- (3) When the connection is set up, the music will pause and you can switch to the cell phone mode automatically. You can start to make an outgoing call and are able to converse over the phone.
- (4) When your conversation is done and you stop using the cell phone, the streaming of music will resume immediately and automatically.
- (5) If someone calls you, the music will pause and you can answer the phone.
- (6) After the phone call ends, the music will resume again.
- (7) You can repeat this scenario and switch freely between cell phone and music mode.

3.Turning Off

- (1) If you don't want to use the headset, turn off the headset by the power switch.
- (2) Turn off the TX.

Specification

| | |
|-----------------------|--|
| Product Name | Bluetooth Stereo Headset |
| Photo |  |
| Standard | Bluetooth 1.2 compliant |
| Power Class | Class 2 |
| Frequency Band | 2.402~2.480 GHZ unlicensed ISM band |
| Profile Supported | AV, Headset and Hand Free Profiles |
| Audio Format | SBC |
| Memory | 8M flash external memory |
| Rx Sensitivity | -86 dBm |
| RF Output Power | 4 dBm |
| Sampling Rate | 44.1 KHz |
| SNR | <82 dB |
| Antenna | embedded antenna |
| Working Distance | up to 10 meters (in open space) <i>Note: The maximum operating range depends on the paired phone model, battery power, and environmental factors.</i> |
| Power Consumption | Decoder (75 mA) |
| Power Supply | Lithium Ion Battery |
| Operating Temperature | -10 °C ~ +55 °C |
| Dimensions | Folded: 70 mm (L) x 95 (W) x 60 (H)mm Unfolded: 150mm (L) x 110 (W) x 65 (H)mm Max. extended ear-to-ear distance: 150mm |
| Weight | About 200 grams |

| | | |
|-----------------------|--|--|
| Product Name | Bluetooth Transmitter | |
| Photo |  | |
| Standard | Bluetooth 1.2 compliant | |
| Power Class | Class 2 | |
| Frequency Band | 2.402~2.480 GHZ unlicensed ISM band | |
| Profile Supported | AV, Headset and Hand Free Profiles | |
| Audio Format | SBC | |
| Memory | 8M flash external memory | |
| Rx Sensitivity | -86 dBm | |
| RF Output Power | 4 dBm | |
| Sampling Rate | 44.1 KHz | |
| SNR | <82 dB | |
| Antenna | embedded antenna | |
| Working Distance | up to 10 meters (in open space) <i>Note: The maximum operating range depends on the paired phone model, battery power, and environmental factors.</i> | |
| Power Consumption | Encoder (75 mA) | |
| Power Supply | Lithium Ion Battery | |
| Operating Temperature | -10 °C ~ +55 °C | |
| Dimensions | 47.54(L)×47.54mm(W)× 29.52mm(H) | |
| Weight | About 20 grams | |

FAQ

1. Q : How do I know that the battery of the headset have insufficient power?

A : The battery power is almost exhausted when one or more following scenarios happen:

- (1) The headset starts to reset automatically.
- (2) You can constantly hear breaks on the audio link, or
- (3) You cannot connect the headset to the TX after several tries.

2. Q : Why cannot I create a connection to the headset?

A :

- (1) Verify that the battery power of headset is not running low.
- (2) Check if the headset is powered on and the indicator LED is steadily light on.
- (3) Verify that the headset is within the specified range of 10 meters from the audio source.
- (4) Check if any other Bluetooth device has connected to the headset. If headset is connected with other devices, the indicator LED on the headset is flashing.
- (5) Turn both the headset and the audio source device off. Power on the headset on and then power on the audio source and try connecting again.

3. Q : Can I adjust volume when I am in the phone mode?

A: The volume key can be adjusted in both music and phone mode.

4. Q : Why do I hear beep from the headset?

A: The beep means the headset is in the low power status. The headset will beep every 20 seconds to remind you to charge it. Meanwhile, the charging LED indicator is flashing.

5. Q : How do I know the maximum and minimum volume?

A: You can hear beep if you adjust the volume up key to the maximum. If you adjust the volume down key to the minimum, you can also hear beep.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Notice: Any changes or modification not expressly approved by the party responsible could void the user's authority to operate the device.