# LASER KEYBOARD

## User's Guide

## Certifications

● CE

CE 0890

● FCC

● ISO 9001

● ROHS

● FDA: CLASS II




## Safety Precautions

1. Avoid exposing this product to direct sunlight for extended periods of time, and keep it away from heat sources.
2. There is a risk of malfunction if product is used in places where sudden or extreme temperature changes occur.
3. Applying excessive force or impact to this product may result in product damage, and will void warranty.
4. To ensure safety and prevent damage, use only the dedicated mini-USB to USB cable supplied with this product.
5. Never attempt to disassemble or service this product yourself. Doing so can result in electrical shock and will void the warranty.
6. Avoid placing any object within the space between the main unit and the laser projection keyboard layout.
7. Please do not use this product on uneven or irregular surfaces. Place the product on a flat surface. Avoid table or surface that is as transparent or reflective as glass or mirror.



## FCC Compliance Information

This device complies with Part 15 of the FCC Rules. Its 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.

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

## FCC Class B Notice

Note: This product 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 product generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this product 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.



## Content





## 1. Product Overview

- Compact and ultra-portable for mobility
- English QWERTY keyboard layout
- Easy connection via Bluetooth 3.0 HID profile or USB
- Lithium-ion Polymer rechargeable battery, Mini-B Type charge interface
- Compatible with latest operating systems:
  Windows XP/VISTA/7, Windows Phone 7, IOS4/5/6/7/8 (iPhone and iPad)
  Android 3.1 higher, Mac OS X.

## 2. Package Contents

- Laser keyboard
- USB cable
- User's Guide



## 3. How this product works

When the user presses a key on the projected keyboard, the infrared layer is interrupted. This produces IR reflections that are recognized by the sensor in three dimensions, allowing the system to assign a coordinate.

### Conditions to avoid

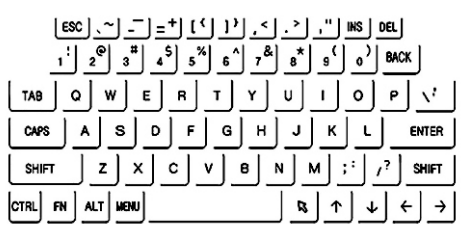
1. Avoid direct sunlight
2. Avoid low color temperature light source, such as tungsten, halogen, or incandescent lamp.
3. Avoid uneven or irregular surface, Put the product on flat, opaque surface.
4. Avoid putting any objects within the space between the main unit and the laser projected keyboard layout.

Note:

Because this product uses infrared rays, strong infrared radiation from direct or reflected sunlight or from tungsten (halogen or incandescent) lighting may cause operating error.



### Laser Keyboard Use:






- FN+B Clear the current Bluetooth pair and search status

Note: Please restart the device after clearing the current Bluetooth search status so that Bluetooth start new searching.

- FN+P Switch on/off key stroke sound

Adjusting keyboard brightness:

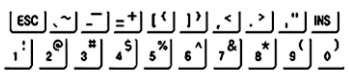
- FN+↑ Increase the keyboard brightness
- FN+↓ Lower the keyboard brightness

Note: when users press every key on the projected keyboard, the device will make "beep" key stroke sound.

Language input Switch:

IOS system: Press and hold "MENU" key + Space key

ANDROID system: Press and hold "SHIFT" key + Space key




IOS system: Press and hold "SHIFT" key +press any of the above shift keys.

ANDROID system: it depends on input method, normally Press and hold "SHIFT" key +press any of the above shift keys. In a few case that press "SHIFT" key, then loose and press any of the above shift keys.



Note: when press in" SHIFT" combination with any of the above shift keys, please press and hold them both with your fingers of right and left hands at the same time, as two fingers from one hand pressing and hold two key at the same time easily block sensor light.

USB Connection Terminal

Interface Specification: USB HID keyboard
Input Power: 1A 5V USB charge

## 4. Using Laser Keyboard

This product is used as keyboard via Bluetooth HID and USB HID connection.
This device is compatible with all USB HID capable operation system, USB HID connection allows plug-n-play without installing a separate driver.

### 4.1 USB HID Connection Instruction

- Connect laser keyboard and host device using supplied USB cable, and your host device must support USB HID.
- Turn on laser keyboard.
- Green LED indicates proper connection. If LED indicates blinking red, it is charging.

### 4.2 Bluetooth HID Connection Instruction

Connection via Bluetooth HID
Compatible with All Microsoft OS.
IOS4/5/6(iPhone and iPad), Android 3.1 Up, Mac OS X

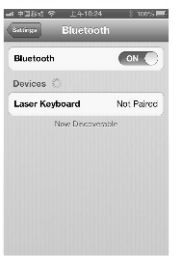
Laser keyboard support Bluetooth HID, it's connection does not require installation of separate driver. It only needs pairing with your device for one time and automatically register it, if the user wants to connect it with another device, it require to clear the previous paired device by pressing and hold " FN+B " on the projection keyboard.

- Power on device
- Press and hold "FN+B", device become pairing status after beep sound , then shutdown and restart this device once, it can be researched by other host.
- Blue LED with flash fast indicates that the device is ready to pair



- Scan Bluetooth device from your host(phone or PC or PAD)
- On IOS, tap on Settings-General-Bluetooth

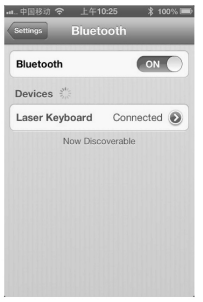
- Turn on Bluetooth by tapping the ON button. If phone/iPad will now search for pairing device ⟹ Laser keyboard shown as follows:




- Click " Laser keyboard " to pair



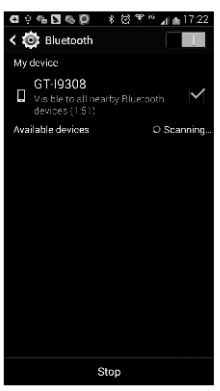
- Successful pairing will be indicated by "Connected" message, and blue LED stop flash.




### 4.3 Connection to Android devices

- Navigate through Android as follows:
  Home → Main Menu→ Settings→ WIRELESS & NETWORKS→ Bluetooth.
- Turn on the Bluetooth on Android, From the same screen, with Bluetooth ON, tap on Scan devices.

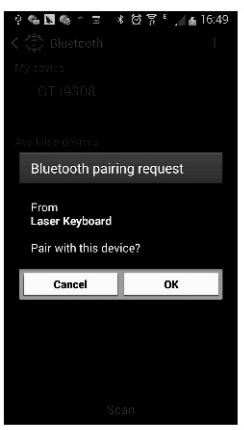





- Click " Laser keyboard " to pair

A new message will display on your Android device: "Bluetooth pairing request", and click " OK " to pair with the laser keyboard.






- Upon successful pairing, blue "Laser keyboard connected" will be displayed on your Android device.



➢ Ulti-touch Mouse Function : 1. FN+ start mouse function while keyboard pattern dark. Mouse move: Control the cursor move your finger freely in any direction within operational area. Left mouse button : one finger click. Right mouse button : two fingers click simultaneously. Scroll mode: Click and hold with two finger, slide and move up and down. FN+ exit mouse and switch keyboard function. Mouse function only supports Android system. For IOS system, users need to download BTC Mouse & Trackpad App in it then can be used. FN+K power on/off voice speaker (only letters and part function key).

### 4.4 Laser keyboard key stroke sound adjustment

- Press and hold "FN" key and press left arrow key to increase volume
- Press and hold "FN" key and press right arrow key to decrease volume



## 5. SPECIFICATION

| Pattern Projector | |
|---|---|
| Item | Description |
| Keyboard light source | Red laser diode |
| Keyboard layout | Approx.19mm incline, sized QWERTY layout |
| Projection size | 250mm(W)*110mm(H) |
| Keyboard location | Approx. 100mm from keyboard device |
| Required projection surface | Non-reflective, opaque flat surface |
| **Electrical Characteristics** | |
| Item | Description |
| Recognition rate | Over 350 characters per minute |
| Operation Surface | Any opaque flat surface |
| Physical Dimension | 38mmx75mmx18mm |
| weight | Approx. 47g |
| Power source | The USB power, Lower 1A @ 5V |
| Battery capacity: | Polymer rechargeable battery, 1000mAH(MAX) @ 3.7V |
| Battery working time | 120 minutes |
| Battery charging time | 200 minutes |
| USB interface | USB 1.1 and 2.0. USB HID Ver. 1.0 |
| Bluetooth | V3.0(class 2), HID Profile Ver. 1.0 |
| Frequency Range | 2402-2480MHz |
| Channel | 79 |
| Modulation | GFSK |
| **Environmental Conditions** | |
| Item | Description |
| Working Temperature | Approx. -10~40° C/90%RH |
| Storage Temperature | Approx. -20~40° C° C/~90%RH |