

激光键盘使用说明书 Virtual Keyboard User Guide

Certifications



1

安全注意事项

1. 避免阳光直射此产品的时间过长，并远离热源。
2. 如果在使用过程中所处环境发生突发或极端温度的变化，会引起产品故障。
3. 施加过大力量撞击到本产品可能导致产品损坏，将导致无法保修。
4. 为了确保安全和防止损坏，请使用专用 USB 连接线的 USB 与此产品连接。
5. 切勿自己尝试拆解或维修本产品。这样做可能会导致触电以及保修失效。
6. 请勿在激光发射体与键盘投影之间放置物体，这样做会导致产品无法正常使用。
7. 请不要在凹凸不平或不规则的表面以及如玻璃，镜子带反射透明的表面使用本产品。
8. 切勿将激光直射眼睛。

2

目录

1.产品特点.....	4
2.包装清单.....	4
3.产品连接方法.....	6
3.1 通过 USB HID 连接.....	6
3.2 通过蓝牙 HID 连接.....	6
3.3 与 Android 系统的主机设备连接.....	11
3.4 组合功能键.....	13
3.5 语言切换.....	13
4.产品规格.....	14

3

1. 产品特点

- 超强便携性，体积很小。
- 英式 QWERTY 全键盘布局，快速和准确的数据输入。
- 同时支持 USB 接口和蓝牙，与移动设备的连接非常便利。
- 内置锂聚合物可充电电池方便移动和携带
- 兼容最新的设备 Windows XP/VISTA/7, Windows Phone 7, IOS4/5/6/7/8(Iphone and Ipad) Android 3.1 及更高版本, Mac OS X.

2. 包装清单

- 激光键盘
- USB 数据线
- 用户手册

4

红色指示灯	
长亮	充电中
熄灭	充电完成
蓝色指示灯	
闪烁	配对状态
熄灭	已配对
黄色指示灯	
闪亮一次	启动正常

注：用户使用激光蓝牙键盘，每按下一个键系统会自动发出“嘀”声。

USB 连接模式

1. 方法: USB 装置连接
2. USB 接头:标准的 USB 类型
3. 接口规格: USB HID 键盘
4. 输入功率: 1A 5V USB 电荷

5

3. 产品连接方法

本产品是通过蓝牙 HID 和 USB HID 连接的激光蓝牙键盘,本产品与所有的 USB HID 功能的操作系统均兼容, USB HID 连接即插即用, 无需安装单独的驱动程序。

3.1 通过 USB HID 连接

- 激光蓝牙键盘和主机设备使用 USB 数据线连接, 主机设备必须支持 USB HID (大多数 Windows 设备支持 USB HID)。
- 打开激光蓝牙键盘。
- 正确连接 LED 指示灯后, 如果 LED 指示灯显示红色, 则表示充电中, LED 红色指示灯停止, 则表示充电完成, 充电状态下可以正常使用本产品。

3.2 通过蓝牙 HID 连接

6

兼容蓝牙 HID 的设备: 所有 Microsoft OS, IOS4/5/6(iPhone and iPad), Android 3.1 或更高版本, Mac OS X。

本产品支持蓝牙 HID 连接, 无需安装单独的驱动程序, 和一台手机或者平板电脑只需要连接一次, 蓝牙机关键盘关机后会保存这个连接信息, 如果需要和另一个设备连接, 需要先清除之前的连接。

- 打开激光蓝牙键盘设备
- 清除蓝牙现有连接: 按住并保持“FN+B”, 哔哔声后设备被设置为配对状态, 此时关机, 然后再开机后可以被其他设备发现。
- 蓝色 LED 会稳定闪烁, 这表明该设备已准备配对。
- 主机开始扫描蓝牙装置(iPhone or PC or iPad)。
- 在 IOS 上, 进入 Settings-Bluetooth

7



8



9



- 点击 ON 键 表示打开蓝牙, iPhone/iPad 开始寻找配对设备。



- 点击 Laser Keyboard, 即可完成配的, 配对成功后显示“已连接”, 蓝色 LED 会停止闪烁。

10



3.3 与 Android 系统的主机设备连接

- Android 系统下导航图标如下所示: Home → Main Menu → Settings → Wireless and Network → Bluetooth setting.
- 点击“Laser Keyboard”开始配对, 配对成功后, 蓝色 LED 灯会停止闪烁。

11

3.4 鼠标功能键

- FN+鼠标功能键同时长按投影键盘变暗, 启动鼠标功能。
- 在投影键盘面上一根手指可移动鼠标, 两个手指上下滑动为鼠标滚轮, 一个手指点击为鼠标左键, 二个手指点击为鼠标右键。
- FN+ 鼠标功能键同时长按 退出鼠标模式, 切换回键盘模式, 键盘 变亮。
- 鼠标功能仅支持安卓系统, IOS系统需要客户到应用商店下载 (BTC Mouse&Trackpad) 安装后即可使用。

12

3.5 组合功能键

- 按下并保持“FN”键, 按向上箭头键增加亮度。
- 按下并保持“FN”键, 按向下箭头键减低亮度。
- FN+P 开启/关闭 键盘按键音。
- FN+ 向左/右 箭头键, 调节按键音音量
- 功能键FN+K 开关语音播报 (仅字母和部分功能键)

3.6 语言切换

- 在 iPhone 或 iPad 上, 按下并保持“MENU”的同时按下空格;
- 在 Android 和 Windows OS 上, 参照具体输入法的设置来进行。

13

4. 产品规格

名称	规格参数
光源	红色激光二级管
键盘布局	约 19MM 倾斜, QWERTY 键盘布局
盘尺寸	100mm(H)*240mm(W)
键盘位置	距离发射体底部 100mm
投影面	无反射, 不透明的表面
识别率	350 字/每分钟
操作面	任何平实表面
工作环境	0 ~ 35°C / 90%RH
储存环境	-5 ~ 35°C / ~90%RH
尺寸(mm)	38mm x 75mm x 18mm
重量(g)	47g
外接电源	USB 电源 / 低于 5V 1A
电池& 容量	锂聚合物可充电电池, 1000mAH(MAX) @ 3.7V

14

电池工作时间	120 分钟
电池充电时间	200 分钟
USB 接口	USB 1.1 & 2.0, USB HID Ver. 1.0
蓝牙	V3.0 (class 2), HID Profile Ver. 1.0
频率范围	2402-2480MHz
频道	79
调制	GFSK

15

LASER KEYBOARD

User's Guide

Certifications



1

2

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.

3

Laser Keyboard Use:



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.

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.

Content

- 1. Product Overview.....5
- 2. Package Contents.....5
- 3. How this Product Works.....6
- 4. Using Laser Keyboard.....9
- 5. Specification.....15

4

5

6

7

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

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

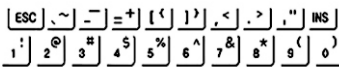
Connection via Bluetooth HID
 Compatible with All Microsoft OS,
 IOS4/5/6 (Phone and iPad), Android 3.1 Up, Mac OS X

Laser keyboard support Bluetooth HID, its 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

9

- > **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

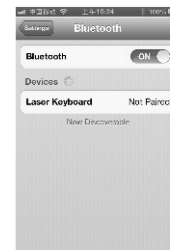


- IOS system: Press and hold "SHIFT" key + press any of the above shift keys.
- ANDROID system: It depends on input method, normally Press and hold "SHIFT" key + press any of the above shift keys. In a few case that press "SHIFT" key, then loose and press any of the above shift keys.

8

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

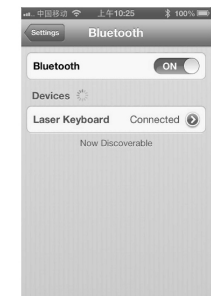
- > Turn on bluetooth by tapping the ON button. If phone/iPad will now search for pairing device => Laser keyboard shown as follows:



- > Click "Laser keyboard" to pair

10

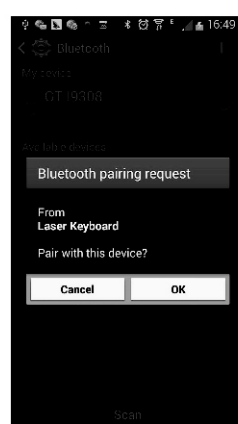
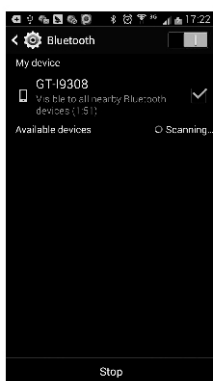
- > Successful pairing will be indicated by "Connected" message, and blue LED stop flash.



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.

11



- > 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.

12

- > **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

14

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	38mm*75mm*18mm
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/80%RH
Storage Temperature	Approx. -20~40° C / -80%RH

15

13

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