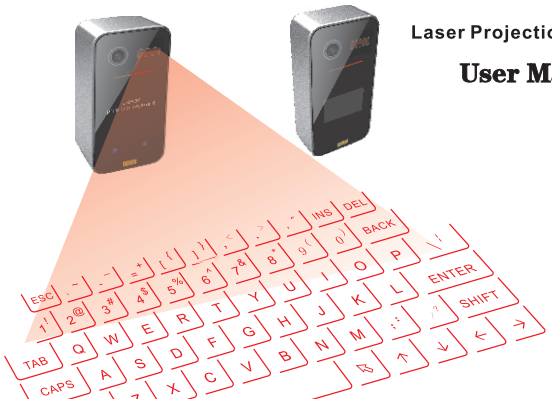


Laser Projection Keyboard

User Manual

1. Product Features

- English QWERTY keyboard layout.
- Truly portable design:perfect for on-the-go
- Full size key pitch and shortcut keys for ease of operation
- Superior durability (No moving component inside)
- Built-in Lithium-ion Polymer rechargeable battery for mobility and convenience
- Compatible with latest operating systems: Windows XP & later, Windows Phone 7 & later, iOS8 & later, Android 4.0 & later, Mac OS X & later.

2. Package Contents

- Laser projection keyboard
- USB Cable
- User's Manual

3. 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. Never attempt to disassemble or service this product yourself. Doing so can result in electrical shock and will void the warranty.
5. This is a Class 2 Laser product. For your safety, please do not stare directly into the laser source. Doing so could damage your eyes.
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.

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.

4. Identifying Parts and Their Functions.

1. Projector: laser projects an image of keyboard pattern onto a flat surface in front of the typist
2. Sensor: detects reflection of infrared and triangulates the location to determine a keystroke
3. IR Light: emits an invisible plane of light to blanket operational area

LED Indicator

Left LED	
Searching bluetooth device	Blue(Blinking)
Seccessfull pairing	Blue out

Right LED	
"SHIFT" Tap	Blue
"SHIFT" Cancel	Blue out
Text Input	Blue(Blinking)
Low battery	Red(Blinking)
Battery charging	Red

Display Icon: (product with a OLED screen)

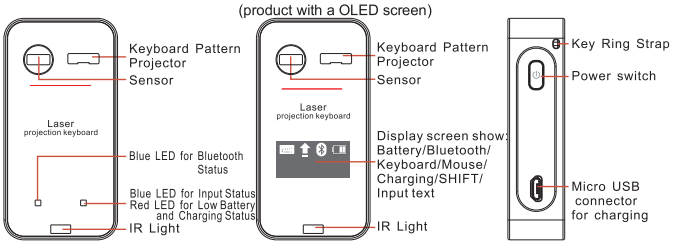
/ : Keyboard / Mouse mode

: "Shift" status,"Shift" tap: Solid , "Shift" cancel: No display.

: Bluetooth status, searching :blinking, succesfull pairing: solid.

: The battery power display and charging status.

FRONT VIEW **FRONT VIEW** (product with a OLED screen) **SIDE VIEW**



5. Connecting via Bluetooth

- Laser Projection Keyboard supports Bluetooth HID:
- Connection via Bluetooth HID does not require installation of separate driver as long as the host device has HID compatibility.
- Bluetooth 2.1 or higher required for connecting to some devices.

Note: Laser Projection Keyboard will automatically attempt to re-connect to the recently connected devices. If no previous device is found then it will listen for a new connection with any available HID compatible device.

Bluetooth Connection Instruction

1. Power on Laser Projection Keyboard
2. Left blue LED will be blinking indicating the Laser Projection Keyboard is searching for a new device or previously paired devices within its proximity . Laser Projection Keyboard will automatically attempt to re-connect to the recently connected devices

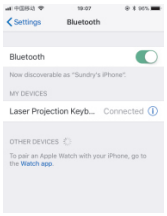
This feature is added for convenience, assuming there is a single host device.

If the Laser Projection Keyboard has re-connect the recently connected devices but it need pair for a new device, Turn the connected device Bluetooth off, the left blue LED will be blinking again.

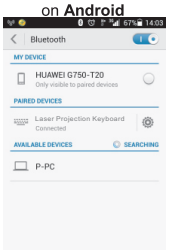
3. On primary device,go to Bluetooth setting;search for Bluetooth devices.
4. When the device discovers"Laser projection keyboard",tap to connect.
5. Upon successful pairing, the LED will stop blinking and go out.

The status indication of the product with a OLED screen's bluetooth connection is the icon on the screen. searching :blinking, succesfull pairing: solid.

Screen shot of successful pairing on **iOS**



on **Android**



6. Special Function of "SHIFT" Key

Normally we need press "Shift" key all the time on the normal keyboard. To improve Laser Projection Keyboard typing convenience and accuracy, this product has special using method. We need type "Shift" key only one time and the function of shift will keep. meanwhile the right LED light turn blue, which we called "locking shift". Press "Shift" key again to cancel the shift function, meanwhile the right blue LED light will stop.

The status indication of the product with a OLED screen's "Shift" is the on the screen. If the shift been locked ,the on screen keeping solid.

Note: If the right LED is keeping blue,or the on screen keeping solid, which means "Shift" key has been locked.

7. Power Saving Mode Guide

- The brightness will change to low level if there is no operation on the keyboard within 30 seconds.

Press any key to resume to standard brightness.

Factory default brightness is the highest level during power on.

- The product will be automatically standby if there is no operation on the keyboard within 5 minute.

Press Power Switch to restart the product.

8. Making Adjustments

>Sound Feedback Ajustment

- There are total of 5 levels;sound level remains as adjusted when device is turned off and on.
- To incease sound level:Tap and hold "FN" key and tap "RIGHT" arrow key.
- To decrease sound level:Tap and hold "FN" key and tap "LEFT" arrow key.

>Projection Brightness Adjustment

- There are total of 4 brightness levels.
- To increase brightness:Tap and hold "FN" key and tap "UP"arrow key.
- To decrease brightness:Tap and hold "FN" key and tap "DOWN"arrow key.

Note: All adjustments must be repeated for each level.

9.Mouse Mode

To change keyboard mode to mouse mode on the keyboard, press the key. The projection keyboard brightness will change to low level.

To Change mouse mode to keyboard mode, on the keyboard, press the key. The projection keyboard resume to standard brightness.

+Mouse/cursor function is available on devices that support such feature (Most Windows,Android and Mac OS).

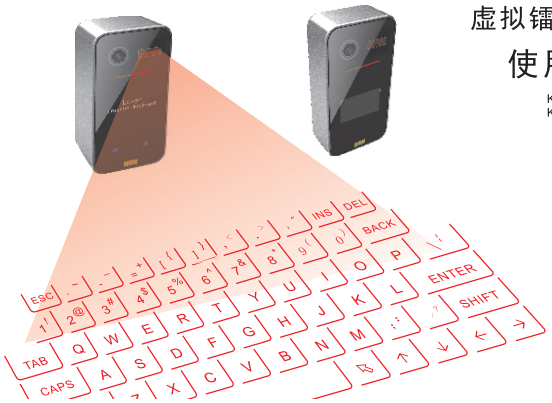
Note: iOS devices do not support mouse function.

Note: If the Laser Projection Keyboard brightness change to low level,and tap the keyboard has not any response,please confirm whether it into mouse mode,Press the key change to keyboard mode

Default mode on power on is keyboard function

12. SPECIFICATION

Item	Specification
Pattern Projector	
Light Source	Red Laser Diode
Keyboard Layout	Approx. 19mm Pitch, QWERTY Layout
Keyboard Size	Approx. Width : 240mm, Height: 100mm
Keyboard Location	Approx. 90mm from the bottom of device
Project Surface	Non-reflective, opaque flat surface
Keyboard Sensor	
Recognition Rate	Approx. up to 350 characters per minute
Operating Surface	Any firm flat surface
Electrical Characteristics	
External Power Supply	USB Power / less than 5V 500mA
Battery & Capacity	Lithium-ion Polymer Battery, 700mAh(MA X) @ 3.7V
Battery Operating Time	Approx. 120min
Battery Charging Time	Approx. 120min
Bluetooth	V3.0, HID Profile Ver 1.0
Frequency Range	2402-2480MHz
Channel	79
Modulation	GFSK
Dimensions and Weight	
Size (mm)	78mm x 40mm x 20mm
Weight (g)	Approx.60 g



虚拟镭射键盘
使用说明

KB560系列,
KB580系列 通用

1. 产品特性

- 英式 QWERTY 键盘布局
- 标准键盘按键大小和间距，方便操作
- 鼠标功能
- 便携式设计
- 内置高性能锂聚合物电池
- 兼容最新的操作系统: Windows XP 及以上版本， Windows Phone7 及以上版本，iOS8 及以上版本，Android 4. 0 及以上版本， Mac OS X 及以上版本。

2. 包装清单

- 镭射投影键盘
- USB 充电电缆
- 使用说明书

3. 安全使用注意事项

1. 避免太阳直晒和长时间置于高温环境。
2. 在温度变化剧烈或者恶劣温度条件下工作有可能会出现功能失常。
3. 过大压力或撞击导致的产品损坏，不在保修范围内。
4. 不要试图自己拆解维修，否则导致的电气损坏不在保修范围内。
5. 本产品为二类激光产品，为了安全考虑，不要直视激光光源，否则会损伤眼睛
6. 不要在主机和投射键盘之间放置任何其他物品。
7. 不要在不平和不规则的表面使用本产品，请放置在平面上使用，但是不能是透明或者反射面上，比如玻璃和镜面。

注意: 因为该产品使用红外线，外界较强的红外线容易导致误操作，所以要避免阳光直射或反射的地方，避免低色温光源，如钨，卤素，或白炽灯。

4. 部件说明

1.键盘投射器：用红色激光投射键盘图像在使用者前面的平面上。
2. 传感器：收集使用者手指的反射红外光来定位应输入的键。
3. 红外灯： 使用红外激光管投射一个不可见的红外线平面在离操作平面几个毫米高度，以便传感器接收手指对红外线的反射光。

KB560 系列 LED 指示灯

左侧 LED	
蓝牙等待配对	蓝灯闪烁
配对成功	蓝灯亮

右侧 LED	
“SHIFT” 按住	蓝灯亮
“SHIFT” 取消	蓝灯灭
字符输入	蓝灯闪烁
低电	红灯闪烁
充电	红灯亮

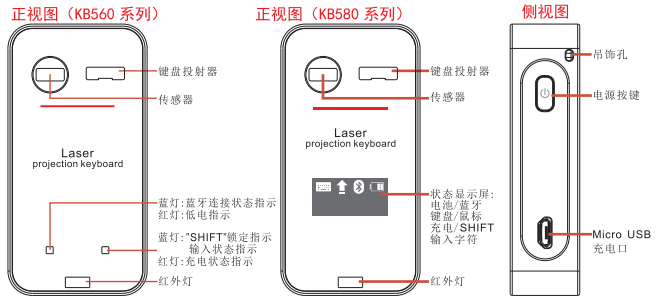
KB580 系列状态符号

/ : 键盘/鼠标模式

: “SHIFT”键锁定指示,SHIFT 键按下：长亮，SHIFT 键未按下：不显示

: 蓝牙连接指示,蓝牙未连接:闪烁,蓝牙已连接:长亮

:电池电量及充电状态指示



5. 蓝牙连接

•镭射键盘支持蓝牙 HID
•只要主设备有 HID 兼容，蓝牙 HID 的连接无需安装另外的驱动
•需要蓝牙 2.1 及以上版本
注意:镭射键盘将自动回连最近连接过的设备，如果这些设备连不上则进入搜索状态等待新设备的连接。

蓝牙连接说明

KB560

1. 开机
2. 左侧蓝色 LED 闪烁，指示镭射键盘正在搜索新的设备或者之前匹配过的设备。镭射键盘会自动连接最近连接过的设备。

如果是单一的主设备，此特性很便捷。
如果镭射键盘已重新连接最近连接过的设备，如需匹配一个新设备，需先关掉连接设备的蓝牙，镭射键盘左侧蓝色 LED 会再次闪烁。

3. 在主设备上，进入蓝牙连接设置处，搜索蓝牙设备。
4. 当设备发现"Laser projection keyboard"，点击连接。
5. 一旦成功匹配，左侧蓝色 LED 停止闪烁并长亮。

KB580 蓝牙连接的状态指示是 显示屏上的蓝牙符号 ，蓝牙处于搜索状态，符号闪烁，连接成功后符号停止闪烁并长亮。

iOS 和 Android 上配对成功界面

iOS 界面

Android 界面

6. SHIFT 键的特殊定义

我们在一般的键盘上通常要一直按住 SHIFT 键。为了提高镭射键盘的键入方便性和精准性，此产品有特殊用法。我们只需按“SHIFT”键一次则该键的功能即被保留，同时右侧蓝色 LED 点亮，SHIFT 键锁住。再次按压“SHIFT”键 SHIFT 功能取消，同时右侧蓝色 LED 熄灭。

KB580 系列的 SHIFT 键的状态指示是显示屏上的符号 ，如果显示屏的 符号显示出来，表示 SHIFT 键被按住。

注意: 如果右侧蓝色 LED 常亮，或者显示屏上的 符号显示出来，表示 SHIFT 键被按压住。

7. 省电模式

- 如果键盘上 30 秒钟无操作，则键盘图案亮度变暗。
  可按任意键恢复标准亮度。通电时，出厂默认亮度为最亮。
- 如果键盘上 5 分钟无操作则自动待机 按电源开关重启。

8. 参数调整

>声音调整
- 共 5 级音量。设备开关时，保持调整后的音量。
- 提高音量：按住 FN 键同时点击向右箭头。
- 降低音量：按住 FN 键同时点击向左箭头。

>键盘亮度调整
- 共 4 级亮度。设备开关时，保持调整后的亮度。
- 增加亮度：按住 FN 键同时点击向上箭头。
- 降低亮度：按住 FN 键同时点击向下箭头。

9. 鼠标模式

从键盘模式切换到鼠标模式，在键盘上点击 按键，键盘图案的亮度会变暗，点击按键区域，键盘不发出任何声音。

从鼠标模式切换到键盘模式，在键盘上点击 按键，键盘图案的亮度会变亮，点击按键区域，键盘发出“嘀”“嘀”声。
+只有支持鼠标/光标功能的设备才能使用鼠标（大部分 Windows,Android 和 Mac OS 设备都支持此功能)。

注意: iOS 设备不支持鼠标功能。

注意: 如果键盘图案的亮度变暗，点击按键没有任何反应，请确认是否进入到鼠标模式。点击 可以切换到键盘模式。

镭射键盘每次开机默认进入键盘模式。

10. 产品规格

项目	规格
键盘投射器	
光源	红色激光灯
键盘布局	键距约 19mm, QWERTY 布局
键盘尺寸	宽约:240mm, 高约: 100mm
键盘位置	距离设备约 90mm
投射面	不透明，无反射平面
传感器	
识别率	每分钟 350 字以上
操作面	任何固体平面
电气特性	
充电电源	USB 电源/ 大于 5V 500mA
电池容量	锂离子聚合物电池, 700mAh(MAX) @ 3.7V
电池使用时间	约 120 分钟
电池充电时间	约 120 分钟
蓝牙	V3.0, HID Profile Ver 1.0
频率范围	2402-2480MHz
通道	79
调制制式	GFSK
外观尺寸和重量	
尺寸 (mm)	78mm x 40mm x 20mm
重量 (g)	约 60 g

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.
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
NOTE: This 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 instructions, may cause harmful interference to radio communications. However, there is no guarantee 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 device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction