

# **Bluetooth Virtual Keyboard For Symbian UIQ Smartphones**

User Guide v1.15



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## **Introduction**

Congratulations on choosing the Bluetooth enabled Virtual Keyboard (VKB) for your Smartphone. The keyboard will allow you to effortlessly compose documents and e-mails and will turn your Smartphone into a truly indispensable tool whether in the office or on the go.

Please take a few minutes to review the simple operating instructions in order to get the most out of your keyboard.

### ***General Product Description***

The Virtual Keyboard is a miniature, stand-alone accessory that emulates the function of a standard, full-sized keyboard. The Virtual Keyboard can connect via Bluetooth to almost any information appliance, including PCs, Tablet PCs, Laptops, PDAs and Smartphones, with the use of an appropriate driver.

### ***Laser Safety Precaution***

The Virtual Keyboard device emits two laser beams. One beam (red) projects the keyboard image, and the other beam (invisible) is used for sensing the touched keys.

The radiation levels of both laser beams do not exceed the Accessible Emission Limits of Class 1, as defined by the international standard IEC 60825-1 (A2) and the American standard 21 CFR 1040.10.

The Virtual Keyboard device is a “Class 1 Laser product”. This means that the Virtual Keyboard device is safe under reasonably foreseeable conditions of operation.

Although the emitted laser beams are safe (as defined in the above standard), it is highly recommended not to stare directly into laser beams.

### ***Disclaimer***

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### ***Trademarks***

**Symbian** is a registered trademark of Symbian Ltd.

**VKB Virtual Keyboard** is a registered trademark of VKB Inc.

**Bluetooth** is a registered trademark of Bluetooth SIG.

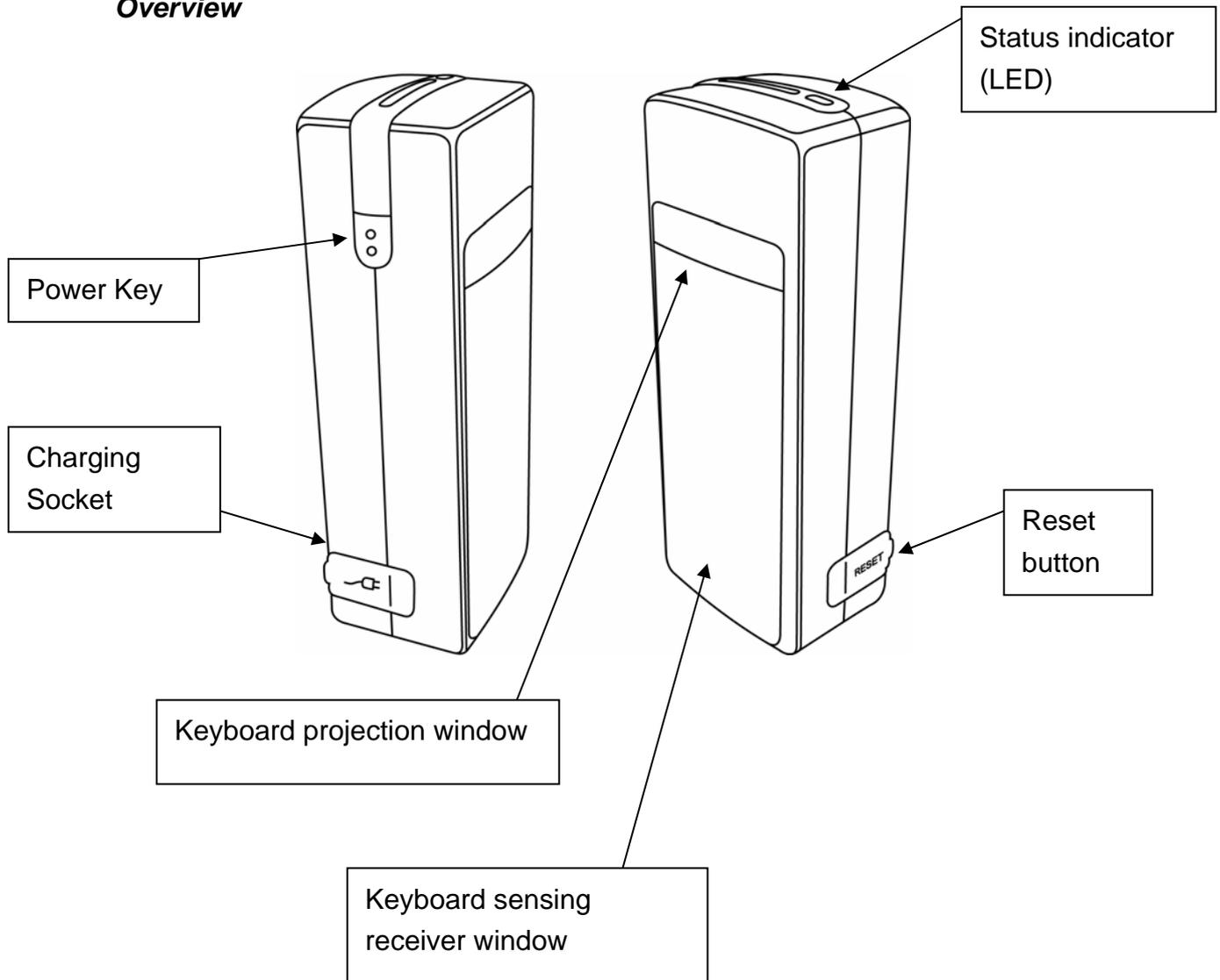
**Smartphone** is a registered trademark of Microsoft Corporation.

## Getting Started

### *Your Virtual Keyboard*

Unpack and inspect your Virtual Keyboard. Take a few moments to familiarize yourself with device using the diagram below.

### *Overview*



**Figure 1 – Getting to know your Virtual Keyboard**

Before using your Virtual Keyboard:

- Ensure that you remove all packaging and protective materials including the clear plastic protection sheet covering the laser windows.

- Your Virtual Keyboard should be charged for at least 2 hours before use.

**Switching On**

Place the Virtual Keyboard on a flat surface with the Keyboard projection and sensing windows facing you. To switch it on press the On/Off button, located on the upper-left hand side of the keyboard.

Once the unit is switched on an image of a keyboard is projected onto the surface. Notice that the keyboard image is the basic English keyboard, including 4 Arrow keys, 1 Control key, 2 Shift keys, 1 Alt and a dedicated “Fn” function key.

A two-color LED located at the top of the unit indicates the current functional status of the Virtual Keyboard, where:

Colour	Status/Cause	Action
<b>Blinking Blue</b>	Virtual Keyboard is ready to pair to a Bluetooth device	
<b>Long Flash Blue</b>	Virtual Keyboard is paired to a Bluetooth device	
<b>Blinking Red</b>	Virtual Keyboard’s battery is low.	Recharge the Virtual Keyboard
<b>Solid Red</b>	The area of the projected keyboard is exposed to direct sunshine or some other source of direct light.	Move the Virtual Keyboard to a shaded location

**Table 1 – Functional Status Indicator**

## Installation & Pairing

The Virtual Keyboard (VKB) is equipped with Bluetooth, a short-ranged radio communications technology which allows the device to communicate with your Smartphone up to 10 meters away without the need for a physical connection.

As with all Bluetooth devices, to connect with your Smartphone you will need to do the following:

- Pair your Smartphone with the virtual keyboard...
- ...open the VKB Driver to set up a connection...
- ...and connect.

The first time you use your Virtual Keyboard with a Smartphone you will need to install some software, called a driver, on your Smartphone.

### *Installing the driver on your Smartphone*

1. Insert the Bluetooth Virtual Keyboard & User Guide Disk into a CD-ROM drive on your computer. (The CD should run automatically however if it does not start by itself, please open the CD and run **setup.exe**)

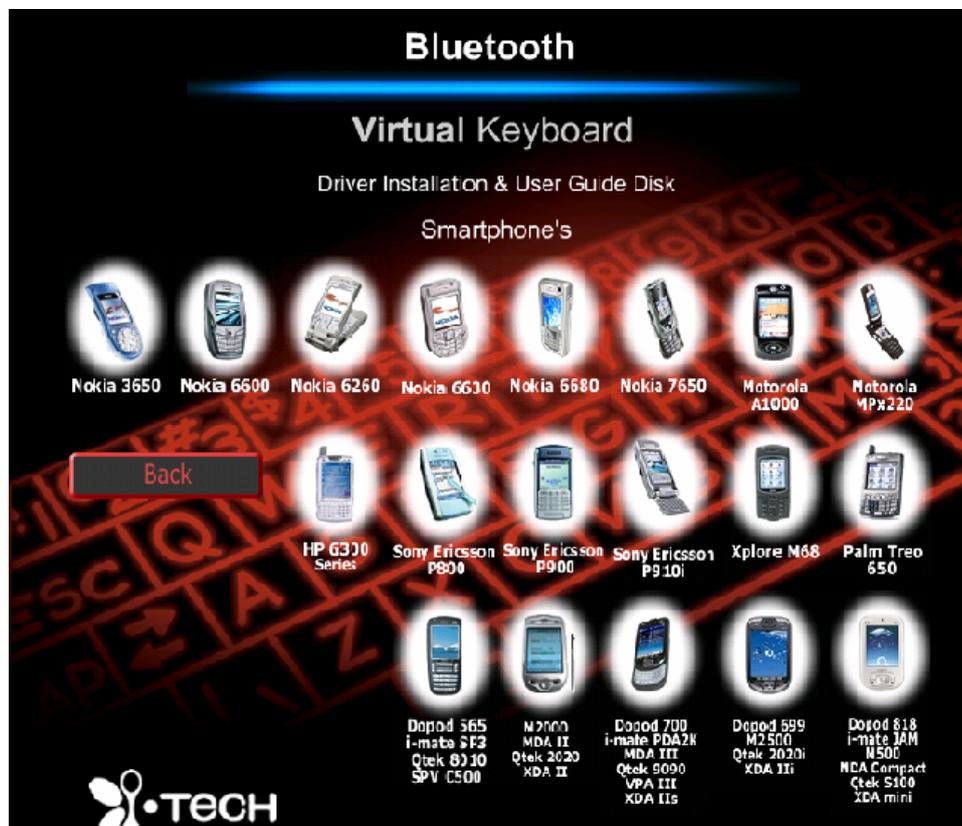


Figure 2 – Driver Installation and User Guide Device Selection

2. Select your Smartphone from the list.
3. Select **Install Software** and follow the on-screen instructions to copy the software onto your Smartphone. (Note: You can copy the software onto your Smartphone, by either connecting your Smartphone to your PC or copying the software to a compatible memory card.)
  - 3.1 Firstly, connect your Smartphone to your PC, either using Bluetooth, Infrared or Data Cable or insert the memory card into the PC.
  - 3.2 Select **Continue with Installation** and transfer the .sis file to the mobile device using the appropriate method.
  - 3.3 Follow the instructions on your Smartphone to accept and install the software.
4. After installation of the software, pair your keyboard with your Smartphone.

### ***Preparing your keyboard for pairing***

Place the Virtual keyboard on a flat surface and turn it on. The blue LED at the top should flash approximately once every 5 seconds (showing that the VKB is “unpaired” with any device.)

Please note for subsequent pairing attempts with a different host device, reset the keyboard:

- Turn the keyboard on, and on the projected keyboard image press the keys  $\hat{u}+Fn+B$  simultaneously for 3 seconds.
- The keyboard will emit a short beep and the LED will flash blue to indicate it is ready for pairing with another device.

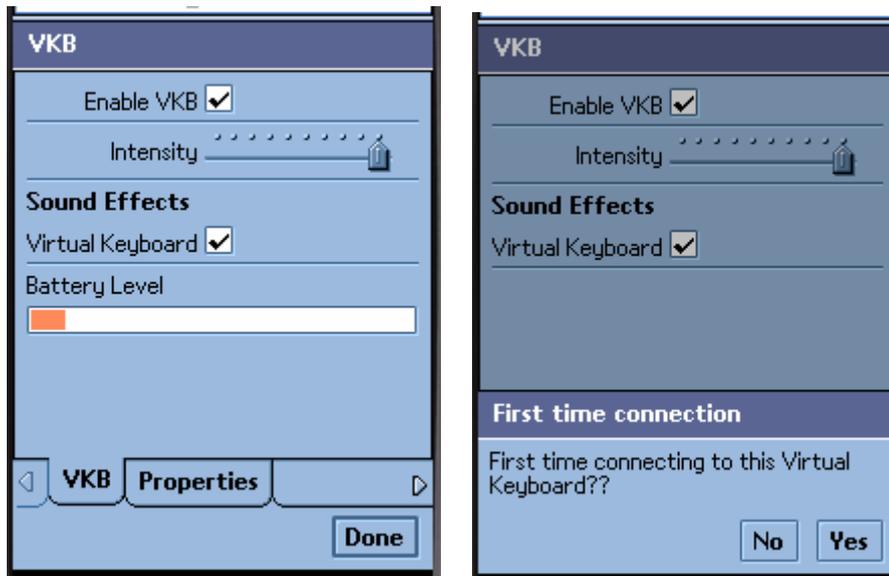
Your keyboard is now ready for pairing.

### ***Pairing with your device***

1. Go to **Control Panel > Connections > Bluetooth > Settings** on your Smartphone
2. Ensure that Bluetooth is on and Click **Done**
3. Go to **Bluetooth > Devices > Add** on your Smartphone
4. Select **VKB Keyboard**.
5. Following the “beep” prompt from the VKB, use the projected keyboard to enter any passkey of between 1 - 8 characters and press return [↵].
6. At the prompt, enter the same passkey on your Smartphone followed by **Done**.

NOTE: It is normal for there to be a delay in response between your Smartphone and the VKB.

7. From the **Menu**, select **VKB**, then select **Enable VKB**.



**Figure 3 – Virtual Keyboard Driver Dialogue**

8. In the Bluetooth Setup dialogue box (First time connection) select **Yes** if this is the first connection or select **No** for all subsequent connections.
9. Select the **VKB Keyboard** from the list and tap **OK**. (Please select the device until searching mode is finished.)

**10.** At the prompt select “Accept”. (If you select “Reject”, please unclick the “Enable VKB” Check box and re-active again. Then repeat Step 6 – 9 again)

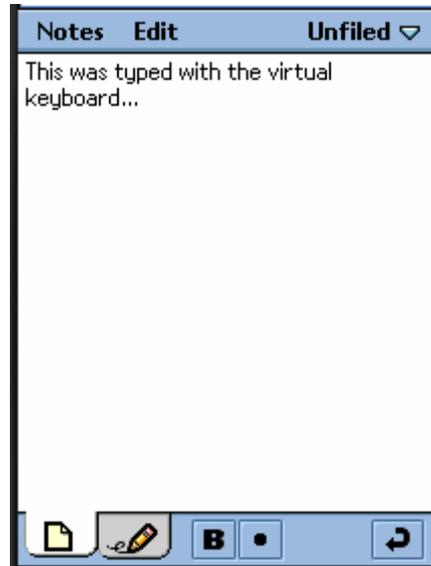
The blue LED will go on to show your successful connection. Your Virtual Keyboard is now connected to your Smartphone .

NOTE: It is normal for there to be a short delay enabling the Bluetooth VKB with the Smartphone when pairing has been completed and activated for the first time.

You are now ready to use the keyboard.

### ***Application Demonstration***

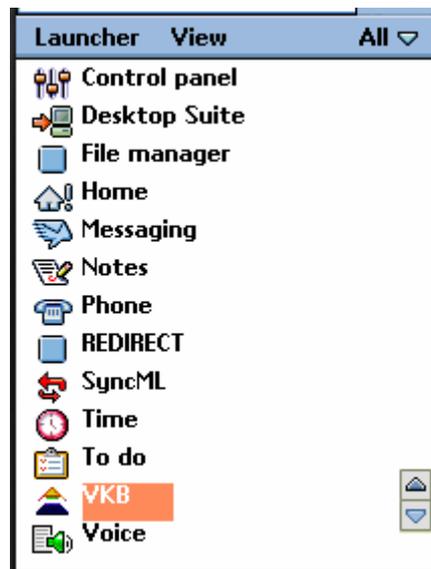
Open any application and start typing.



**Figure 4 - Memo editing demonstration screen**

### **Settings**

Go to the Home page, locate the software driver on your Smartphone.



**Figure 5 - Screen for VKB Application Icon**

## VKB Page

Open the VKB page by clicking on the VKB icon.

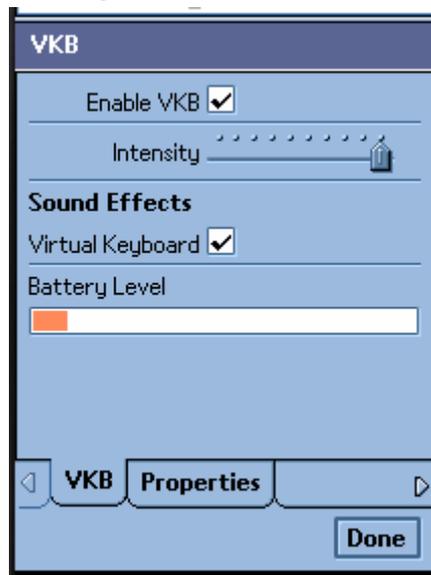


Figure 6 - VKB Main Page

### Battery Level

The battery level displays the current level of the battery in the Virtual Keyboard. Use this indicator to check when the Virtual Keyboard requires charging.

### Projection intensity

You may adjust the intensity of the projected keyboard to so that it is visible in different light conditions. Select from Low, Medium and High settings.

### Sound Effects

The Virtual Keyboard can be set up to emit a “key-click” sound whenever you press a key on the Virtual Keyboard. Turn the **Phone Sounds** and **Keyboard Sounds** on or off to adjust your liking.

## Properties Page

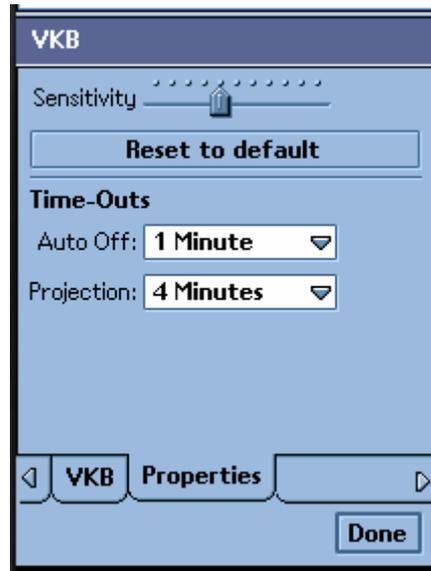


Figure 8 - VKB Properties Page

### Sensitivity

You can adjust the sensitivity of the Virtual Keyboard's key-press detection. If you are experiencing missed key presses, try raising the sensitivity setting. If you are experiencing extra key presses, try lowering the sensitivity.

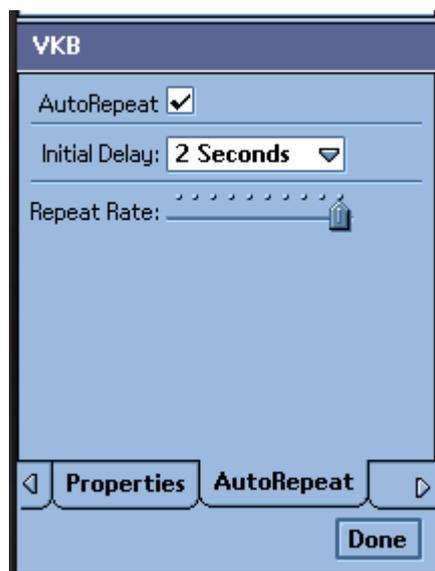
### Default Sensitivity

Pressing the **Reset to default** button will cause the Virtual Keyboard and driver to reset the sensitivity to the keyboard's original factory settings (default value 10).

### Time-Outs

To conserve the battery of the Virtual Keyboard it can be set to switch off automatically if it has not been used for a while. There are two separate settings which may be adjusted to suit you. **Projection Timeout** switches off the projected keyboard. **Auto Timeout** switches off the whole device. When a period exceeding the **Projection Timeout** has elapsed without typing on the keyboard, the projection will automatically turn off. Pressing or touching the area where the keyboard was originally projected will activate the keyboard projection. When the **Auto Time-Out** has elapsed the Virtual Keyboard will switch off. If this occurs, press the button on the Virtual Keyboard to turn it on again.

## ***AutoRepeat Page***



**Figure 9 - VKB AutoRepeat Page**

The AutoRepeat feature automatically repeats a key that is being pressed.

### Enable AutoRepeat

Selecting the **Enable AutoRepeat** checkbox switches the AutoRepeat function on and off.

### Initial Repeat Delay

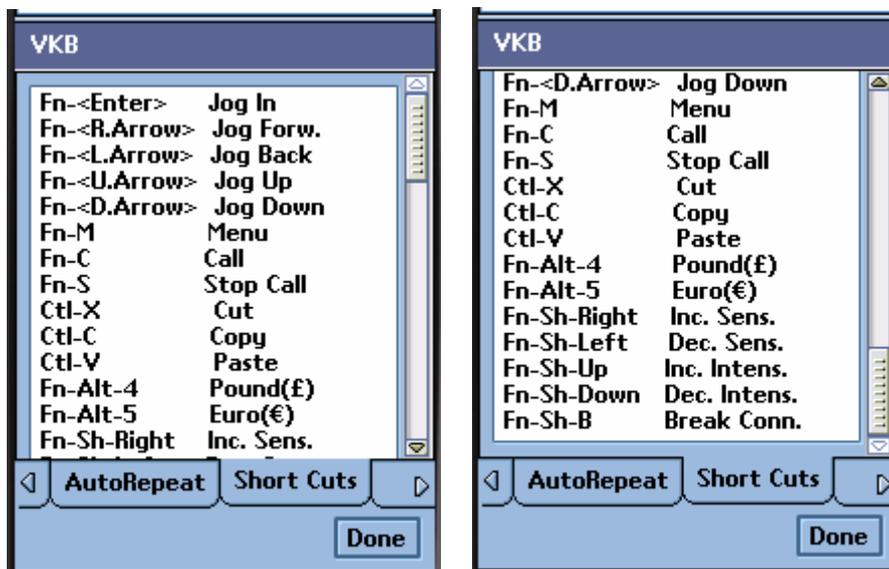
The period before the key press is repeated can be set between 1 and 4 seconds using the **Initial Repeat Delay** drop down box.

### Repeat Rate

The rate at which the key depression occurs is set using the **Repeat Rate** slider.

### Special Short-Cuts Page

The Short-Cuts page displays the Virtual Keyboard's special combination keys, which can be accessed without exiting the application you are working with.



### The About Page

The **About Page** displays the Virtual Keyboard Driver's software version as well as the software version of the Virtual Keyboard. If you have encountered and are reporting a problem, please relay the information displayed on this page.



Remarks : the displayed screen is for reference only, for further details please browse i.Tech website : <http://www.itechdynamic.com>

## **General Handling Instruction**

### ***Micro-switch***

The device is equipped with a micro-switch which disables the Virtual Keyboard's laser when the device is picked up. This is a safety measure. Do not attempt to override this micro-switch.

### ***General Maintenance***

- Avoid touching the keyboard sensing receiver window.
- Never touch the keyboard projection element.
- Avoid exposing the keyboard to moisture or extreme temperatures.
- Do not disassemble or try to touch the inside of the device.
- Do not attempt to charge the device with a different charger other than the one provided.
- If the windows become dirty, clean only with a soft, lint free dry cloth. Do not use any solvents or cleaners.

### ***Resetting the Device for Bluetooth Pairing***

- 1) Turn the keyboard on and gently insert the end of a folded out paperclip into the reset hole found under the rubber flap on the right side of the keyboard. Press gently for a few seconds and then remove the clip.
- 2) After about 2 seconds, the keyboard will emit a short "beep" and the LED will flash blue.
- 3) Pick up the keyboard and wait for it to turn off,
- 4) Place the Virtual Keyboard back on the flat surface and turn it on.
- 5) The Virtual Keyboard is now ready for pairing.

### ***Preparing the keyboard to be paired with a different device***

Once the keyboard has been paired and connected to a host device, to pair the keyboard with a different host device, turn the keyboard on, and on the projected keyboard image press the keys **⬆+Fn+B** simultaneously for 3 seconds. The keyboard will emit a short beep and the LED will flash blue to indicate it is ready for pairing with another device.

## Troubleshooting

Problem	Possible cause	Corrective action
My keyboard is connected, but little or no keys are being detected	The detection sensitivity is too low.	Raise the detection sensitivity setting and try again.
When typing, multiple and/or erroneous keys are displayed in addition to those I have pressed.	The detection sensitivity setting is too high.	Lower the detection sensitivity setting and try again.
	Device is not resting on a firm flat surface	Reposition the Virtual Keyboard on a flat surface.
My device doesn't emit sounds when pressing a key	Sound affects, on your Smartphone, have not been enabled.	Enable Sound affects on the Virtual Keyboard.
My keyboard is turned on but no image appears.	Device is not charged	Charge the Virtual Keyboard
	Device is overheating	Move the Virtual Keyboard to a cooler location and wait a few minutes
	Device is not resting on a firm flat surface	Reposition the Virtual Keyboard on a firm surface and verify that the micro-switch is fully depressed.
	Micro-switch stuck	Clean micro-switch

## Specifications

Keyboard Projector	Light source	Red diode laser
	Keyboard layout	63 key / full sized QWERTY layout
	Keyboard size	295 x 95mm projected keyboard size
	Keyboard position	60mm from VKB unit
	Projection surface	Non-reflective, opaque flat surface
	Visibility	Good contrast up to 600 lux ambient illumination
Keystroke Sensor	Ambient illumination	Works under all standard indoor illuminations up to 600 lux
	Detection rate	Up to 400 characters per minute
	Detection algorithm	Multiple keystroke support
	Effective keystroke	Approximately 2mm
	Operating surface	Any firm flat surface with no protrusions greater than 1mm
Bluetooth	Bluetooth Specification	Bluetooth v1.1 class 2
	Bluetooth Profile Supported	HID and SPP
	Range of Frequency	2.4GHz Spectrum
	Transmission range	9m
	Number of supported passkeys	5

Electrical	Power source	Integrated, rechargeable lithium-ion battery
	Voltage	3.6 Volts
	Battery capacity	> 120 minutes continuous typing
	Interface	Bluetooth v1.1 class 2
	Connector – to charger	Vbat, Gnd
Software	Compatibility	MS Windows 2000 / XP, PalmOS, PocketPC, Smartphone2003,Symbian
Mechanical & Environmental	Dimensions	Approximately 35 x 92 x 25 mm
	Weight	~90 gram
	Temperature - operation	10 – 35 C <sup>o</sup>
	Temperature - storage	-10 – 75 C <sup>o</sup>
Certification & Safety*	EMC per CE	EN 55024; 55022; EN 61000-3-2; -3-3
	BQB, CE, FCC	
	Laser safety	IEC 60825-1; Class 1 laser enclosure

## Short-Cuts

Short Cuts	Symbian PDA/Phone	Note
Fn Return	Jog Dial IN	
Fn Up Arrow	Jog Dial Up	
Fn Down Arrow	Jog Dial Down	
Fn Left Arrow	Jog Dial Back	
Fn Right Arrow	Jog Dial Forward	
Fn Alt 4	Pound Symbol (£)	
Fn Alt 5	Euro Symbol (€)	
Fn C	Call	
Fn M	Menu	
Fn S	Stop Call	
Shift Fn Up Arrow	Increase Projection Intensity	
Shift Fn Down Arrow	Decrease projection intensity	
Shift Fn Right Arrow	Increase sensitivity	
Shift Fn Left Arrow	Decrease sensitivity	
Ctrl X	Cut	
Ctrl C	Copy	
Ctrl V	Paste	