

## Bluetooth Keyboard Adapter

### User Manual (Firmware Version 2.0)



#### 1. LED indicators:

Red LED (for charging and battery status)

If power charger is plugged in: on when battery is charging. Off when battery is fully charged.

If power charger is *not* plugged in: blinks when battery is low (below 3.45V). Otherwise off.

Blue LED (for Bluetooth connection status)

Blinks fast (once per second) when the adapter is not connected to a host. Blinks slowly (once per 2 seconds) when the adapter is connected.

2. The mini USB port is for battery charging only. You can use any wall USB charger or PC to charge the battery.

3. The PS/2 and USB ports can be used at the same time. Maximal combined current can not exceed 200mA.

4. Pairing and connecting to a host (smart phone, tablet or PC):

- Plug a keyboard into the adapter and turn on power. Blue LED should start flashing fast.
- On the host, search for Bluetooth devices. The name of the adapter is *KB\_ADAPTER\_nnnn* where *nnnn* is the last 4 digit of the serial number.
- When the host finds the keyboard, select it and do “pair”. The host should display “Enter Pin Code xxxx on Keyboard”. The pin code may have 4-8 digits. This pin code is randomly generated by the host and there is no default value. If you don’t see this dialog screen, make sure your host supports Bluetooth keyboard. Some low-end smart phones only support Bluetooth headphone but not keyboard. In which case you will see similar screen but no display of pin code.
- On the keyboard, type in the pin code and press ENTER. Now the keyboard and the client are paired and connected. Blue LED should flash slowly. The keyboard is ready to be used.

Pairing is needed only once. Next time when the adapter is turned on, it will go through all previously paired hosts and connect to the first one available. You can also switch to use a keyboard-emulating device such as a barcode scanner or a credit card reader after pairing is one.

**Command mode** (applicable to firmware 2.0 or later): command mode is used to configure adapter features. To enter command mode, pair the adapter with a host. Open a text app (i.e., Notes, Notepad). Make sure when you type on the keyboard, the text enters into the App. Press and hold the power button until it beeps. The following text shows up:

```
BT KB Adapter Firmware v2.0
2014 Handheld Scientific, Inc.
Type help or ?
>
```

Now the adapter is in command mode. Press the power switch again to exit. In command mode, key strokes are interpreted by the adapter as commands. Output is directed to the host. Commands are all lower cases and terminated by Return or Enter. They need to be typed in exactly as shown below. Due to resource constraint, the parser may not give

detailed error if it does not under a command. Enter “help” or “?” for a list of commands which may change from one firmware version to another. The following is all available commands in firmware version 2.0.

**show** -- Display useful adapter information such as battery voltage, USB output voltage and settings.

**save** -- Save changes so they will persist across power cycles.

**exit** – Exit command mode. Same as pressing the power button.

**device clear** – clear paired devices in the adapter. This will speed up startup re-connection.

**reboot** – Restart adapter. Same as power cycle.

**set keycode [on|off]**

Display USB key events. For information or debugging purpose. Each key press generates two events: key down and up. Each event is represent by 8-bytes. Press power button to exit key code display and back to command mode.

**set beep startup [on|off]**

Turn on or off beeping at starting up. Example: set beep startup on

**set beep shutdown [on|off]**

Turn on or off beeping at shutting down. Example: set beep shutdown off

**set time low\_bat\_beep [time]**

Set low battery beeping time period. Value 0 disables this feature. Example: set time low\_bat\_beep 120 (set time period to 120 seconds, or two minutes)

**set time idle\_shutdown [time]**

Set idle (inactivity) shutdown time. Value 0 disables this feature. Example: set time idle\_shutdown 900 (set idle shutdown time to 900 seconds or 15 minutes)

**set voltage low\_bat\_shutdown [voltage]**

Set low battery shutdown voltage. Value 0 disables this feature. Example: set voltage low\_bat\_shutdown 3.4 (set voltage to 3.4)

**set voltage low\_bat\_warn [voltage]**

Set low battery warning beep voltage. Value 0 disables this feature. Example: set voltage low\_bat\_warn 3.6 (set voltage to 3.6)

**keepalive**

Display keep-alive settings. If keep-alive is enabled (period is non-zero), the adapter will send out key strokes periodically. This is useful in preventing the host from falling into sleep or network from timing out due to inactivity. There are 3 settings related to keep-alive: period, beep and key.

**keepalive period [time]**

How often keys are sent (in second). Value 0 disables the feature. Example: keepalive period 60 (set period to 60 seconds)

**keepalive beep [on|off]**

Whether to beep when keys are sent. Example: keepalive beep on (beeps when keys are sent).

**keepalive key**

Set the keys to be sent. After issuing this command, press the key(s) to be sent. Usually one key is enough but you can use up to 4 keys. Each key press will generate two events: key down and key up. Press the power button to end input.

This manual is available for download from our web site. Send us questions and comments: [support@handheldsci.com](mailto:support@handheldsci.com). We love to hear from you!