

REGULATORY INFORMATION



This product is RoHS Compliant (2011/65/EU).



FCC ID: S6J1128

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

The reader operates using the specified frequencies up to the maximum output powers as in the table below:

Radio	Frequency of operation	Maximum Output Power
Bluetooth®	2.4 GHz - 2.4835 GHz	3 dBm
UHF RFID	902 MHz - 928 MHz	29 dBm

HEALTH AND SAFETY RECOMMENDATIONS

Ergonomic Recommendations

Caution: In order to avoid or minimize the potential risk of ergonomic injury, follow the recommendations in the Indium Reader User Guide (www.vulcanRFID.com/support). Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

Power Supply

Use only approved cradles, chargers and power supplies with the Indium Reader. Use of an alternative power supply will invalidate any approval given to this device, void the warranty for the product and may be dangerous.

Battery Safety

Disposal of a battery into fire or a hot oven, or mechanically crushing or cutting a battery, can result in an explosion.

Leaving a battery in an extremely high temperature environment can result in an explosion or the leakage of flammable liquid or gas.

A battery subjected to extremely low air pressure may result in an explosion or the leakage of flammable liquid or gas.



Waste Electrical and Electronic Equipment (wEEE)

For EU Customers: All products at the end of their life must be returned to Vulcan RFID™ for recycling. For information on how to return product please contact Vulcan RFID™.

Warranty Information

For warranty information and provisions, please see the Warranty section of the Indium Reader User Guide (available to download at www.vulcanRFID.com/support).

ABOUT



Vulcan RFID™ offers a broad range of innovative RFID readers, antennas, custom RFID tags, and accessories suited for a wide variety of industries and applications. Designed to deliver superior accuracy and reliability, Vulcan RFID™ products offer exceptional flexibility and performance. Vulcan RFID™ delivers an extensive product portfolio that includes both UHF and NFC products that support a large variety of market solutions. Manufactured to withstand environments ranging from mild to extreme, Vulcan RFID™ products enable end-users to reach and sustain high levels of performance in the UHF or NFC frequency bands.

Contact

Address:

112 28th Street South, Birmingham, AL 35233

Phone:

Phone: +1 205-383-2244

Email:

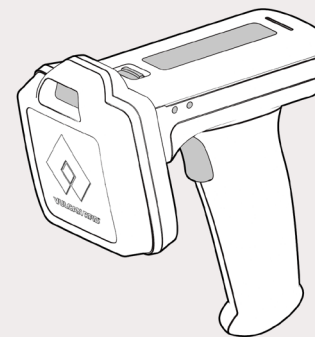
Sales, Product, & Return Information:
info@vulcanRFID.com

Website:

www.vulcanRFID.com



Indium Bluetooth® UHF RFID Reader



QUICK-START GUIDE

FCC

www.vulcanRFID.com

PARTS OF THE READER

Vulcan RFID™'s Indium Reader provides Ultra High Frequency (UHF) Radio Frequency Identification (RFID), with barcode scanning functionality. The unit can be used stand alone or paired with a *Bluetooth®* wireless technology enabled host device. The Indium can read and write to EPC Global Class 1 Gen 2 UHF RFID transponders.

For detailed information on setting up and using the Indium Reader, please visit www.vulcanRFID.com/support to download the Indium Reader User Guide.

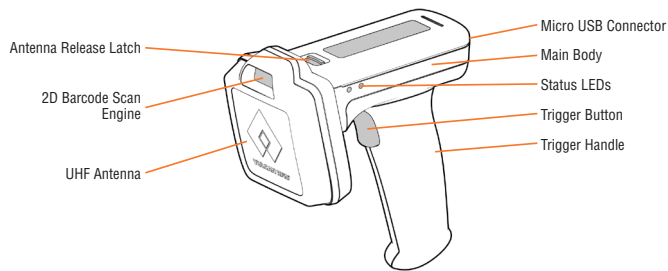
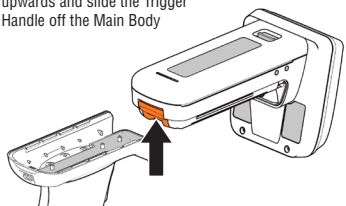


FIGURE 1: Parts of the Indium Reader

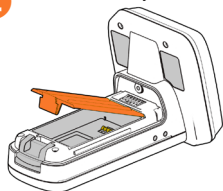
BATTERY INSTALLATION

The battery is charged using the supplied micro USB lead and therefore is unlikely to need to be changed once installed. To access the battery compartment the grip handle must first be removed.

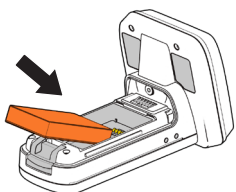
1 Push the Handle Release latch upwards and slide the Trigger Handle off the Main Body



2 Remove the Battery Cover



3 Insert the Battery, ensuring that the battery contacts align with the contacts on the Main Body.



Re-attach the Battery Cover and Trigger Handle.

CAUTION!

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

CONNECTING THE USB CABLE

The Indium Reader kit is supplied with a Micro-USB cable for charging and synchronisation. A USB PSU is also supplied for independent charging of the Indium Reader. The Micro-USB cable is inserted into the Indium Reader as shown below.

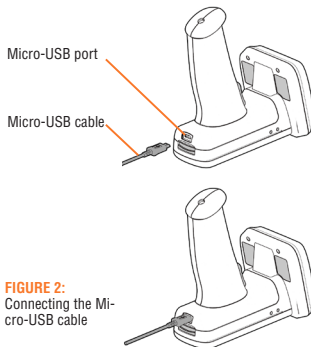


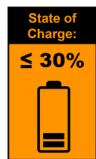
FIGURE 2: Connecting the Micro-USB cable

CHARGING

To comply with international shipping regulations, **all batteries included with Vulcan RFID™ products are discharged to less than 30% of their maximum capacity when shipped.** It is therefore important that the unit is fully charged before using your Indium Reader for the first time.

The Indium Reader can be charged using the supplied USB charger and Micro USB cable.

The USB Power Adaptor (PSU) should be connected to an accessible power outlet to permit easy disconnection if required.



Use Supplied 5V 2A USB Charger Only

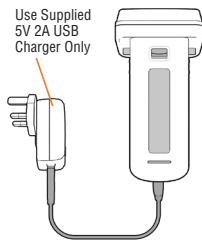


FIGURE 3: Charging the Indium Reader

STATUS LEDS

The status LEDs on the left and right sides of the Indium Reader provide an indication of the operating status:

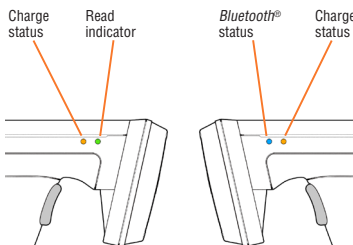


FIGURE 4: Location of status LEDs

LED	Status
Blue slow flash (50% on, 50% off)	The Reader is awake but there is no connection
Blue constant	The Reader is awake and connected to a host
Short green flash	The Reader has successfully read a tag or barcode or executed the alert command
Green slow flash (50% on, 50% off)	Antenna error - try reseating the antenna
Orange slow flash (50% on, 50% off)	Battery low warning (<10% capacity remaining), please recharge immediately
Orange short single slow flash	Battery charging with battery level less than 33%
Orange short double flash	Battery charging with battery level less than or equal to 66%
Orange short triple flash	Battery charging with battery level greater than 66%
Orange rapid flash	There is a charge error / battery fault
Orange constant	The Reader is fully charged
All off	The Reader is off and not charging

PAIR WITH A *BLUETOOTH®* HOST DEVICE



Install a compatible application (such as the Vulcan RFID™ Explorer App) on your smartphone, tablet or other Bluetooth compatible host device. The Vulcan RFID™ Explorer App can be downloaded from the App Store, Google Play and Windows Phone Store. Squeeze the trigger button to wake up the Indium Reader - wait for the blue LED light to start flashing (if it does not flash, check the battery is charged and properly installed).

In your host device's '*Bluetooth®* Settings' page, search for and pair with the Indium Reader. In the list of *Bluetooth®* devices, the Indium Reader will be identified by its serial number (xxxxxx-xx-Indium). Make sure the reader hasn't 'timed-out' and gone to sleep, as it will not be discoverable.

In your host device's '*Bluetooth®* Settings' page, search for and pair with the Indium Reader. In the list of *Bluetooth®* devices, the Indium Reader will be identified by its serial number (xxxxxx-xx-Indium). Make sure the reader hasn't 'timed-out' and gone to sleep, as it will not be discoverable.

DEVICES	
V01524-US-Indium	Not Paired
V01926-US-Indium	Not Paired
PC00347LW7	Not Paired

Once paired, the Blue LED will stop flashing and stay on continuously.

Open your compatible application and select the Indium Reader from the list of available devices.

The Indium Reader should now be ready to use!

For further information on connecting, contact us at info@vulcanRFID.com.

BLUETOOTH® MODES

PLEASE NOTE: The Indium Reader supports two different modes of operation over *Bluetooth®*:

1. *Bluetooth®* SPP Mode (Default)

In this mode, the Indium Reader will only work with Apps that have been written with specific support for the Indium Reader. SPP Mode allows access to the full range of features available on the Indium Reader.

The Indium Reader must be set to SPP mode in order to work with the Vulcan RFID™ Explorer App or any of the other Demo Apps.

2. *Bluetooth®* HID Mode

In HID mode, the Indium Reader appears as a *Bluetooth®* Keyboard, making it compatible with the majority of Apps or Web Apps. Apps receive input

as key strokes from the Reader. HID mode is limited to reading single tags one at a time.

Further Information

For a detailed comparison between *Bluetooth®* HID and SPP modes - and instructions on how to switch between these modes - download the '*Bluetooth® HID mode*' and '*Comparison of Bluetooth® Modes*' documents from www.vulcanRFID.com/support.

BUTTON OPERATION

The Indium Reader has a Primary button action and a Secondary button action, which can be initiated by single or double-clicks of the Trigger Button:

Single-click and hold:

Primary action (by default, the Primary action scans for UHF transponders).

Double-click and hold:

Secondary action (by default, the Secondary action initiates the barcode scanner).

The Single and Double-click button options are also programmable for custom applications.

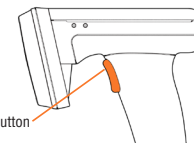


FIGURE 5: Trigger Button location

READING TRANSPONDERS

RFID transponders can be read when they are in range of the antenna. The antenna is located on the front of the Indium Reader. The range at which a transponder can be read depends on the transponder type and size, and the number of transponders in the field.

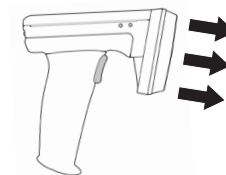


FIGURE 6: Antenna read direction