

STATUS LEDs

The status LEDs on the left and right sides of the 1128 UHF Reader provide an indication of the operating status:

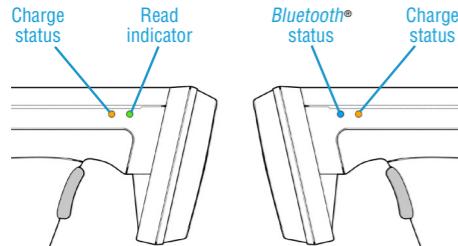


FIGURE 5: Location of status LEDs

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

HEALTH AND SAFETY

Power Supply

Use only TSL®-approved power supplies with the 1128 UHF 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.

Ergonomic Recommendations

Caution: In order to avoid or minimize the potential risk of ergonomic injury, follow the recommendations below. Consult with your local Health & Safety Manager to ensure that you are adhering to your company's safety programs to prevent employee injury.

- Reduce or eliminate repetitive motion
- Maintain a natural position
- Reduce or eliminate excessive force
- Keep frequently used objects within easy reach
- Perform tasks at correct heights
- Reduce or eliminate vibration
- Reduce or eliminate direct pressure
- Provide adjustable workstations
- Provide adequate clearance
- Provide a suitable working environment
- Improve work procedures

Laser Warning

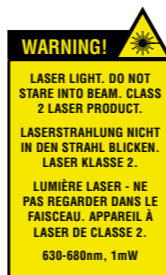
A warning label is present on the back of the antenna when a barcode reader antenna is fitted.

The barcode reader module complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007, EN60825-1:2007 and IEC60825-1:2001 (Ed.1.2)

Avoid unnecessary exposure to the laser light emitted from the barcode reader.

Caution: Use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous laser light exposure.

Caution: Viewing the illumination from the barcode reader with optical instruments may result in increased hazard.



REGULATORY INFORMATION

CE Marking and European Economic Area (EEA)

Technology Solutions UK Ltd hereby declares that this radio equipment is in compliance with Directives 2014/53/EU and 2011/65/EU. For more information refer to the 1128 User Guide (www.tsl.com/download-manager/1128-user-guide) or the product's download page (www.tsl.com/1128-downloads).

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®	2.4GHz	3dBm
UHF RFID	865MHz - 868MHz	29dBm

For further region-specific regulatory information, please refer to the 1128 User Guide (www.tsl.com/download-manager/1128-user-guide)

SUPPORT

User Documentation

To download the 1128 Bluetooth® UHF RFID Reader User Guide, visit: www.tsl.com/1128-downloads



User Guide and Downloads

Troubleshooting

If you are having difficulties using your 1128 UHF Reader, please use the online Troubleshooting Guide at: www.tsl.com/troubleshooting-guides

If you have consulted both the 1128 UHF Reader User Guide and the online Troubleshooting Guide and still need assistance, contact TSL® at: www.tsl.com/contact

Warranty

TSL®'s hardware Products are warranted against manufacturing defects for a period of twelve (12) months from the date of shipment, unless otherwise provided by TSL® in writing, provided the Product remains unmodified and is operated under normal and proper conditions.

For further warranty information and provisions, please see the Warranty section of the 1128 UHF Reader User Guide (available to download at www.tsl.com/1128-downloads/#User-Guides)

ABOUT

TSL® - Global Leaders in Mobile RFID

Technology Solutions UK Ltd (TSL®) is a leading manufacturer of high performance mobile RFID readers used to identify and track products, assets, data or personnel.

For over two decades, TSL® has delivered innovative data capture solutions to Fortune 500 companies around the world using a global network of distributors and system integrators. Specialist in-house teams design all aspects of the finished products and software ecosystems, including electronics, firmware, application development tools, RF design and injection mould tooling.



ISO 9001: 2015

TSL® is an ISO 9001:2015 certified company.

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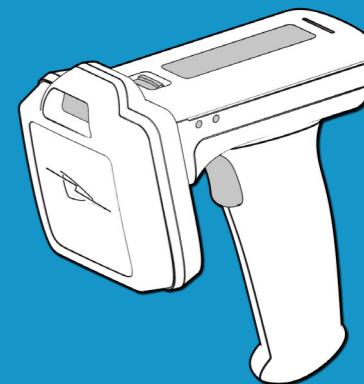
Website: www.tsl.com



TSL® | Global Leaders in Mobile RFID

1128

Bluetooth® UHF RFID Reader



Quick Start Guide

www.tsl.com

Design • Development • Manufacture

INTRODUCTION

The TSL® 1128 *Bluetooth*® UHF RFID Reader provides Ultra High Frequency (UHF) Radio Frequency Identification (RFID), with optional barcode scanning functionality. The unit can be used in batch mode using an optional Micro SD card, or connected to a host device via *Bluetooth*®. The 1128 can read and write to EPC Global Class 1 Gen 2 UHF RFID transponders.

For detailed information on setting up and using the 1128 UHF Reader, please visit www.tsl.com/1128-downloads to download the 1128 UHF Reader User Guide.

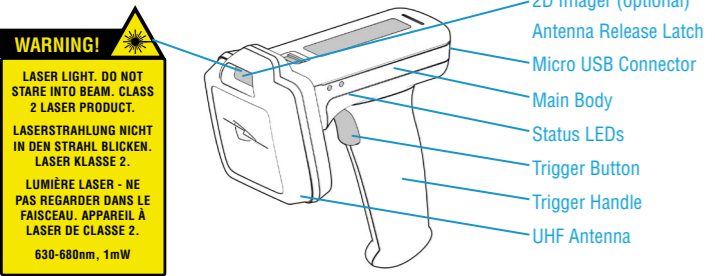
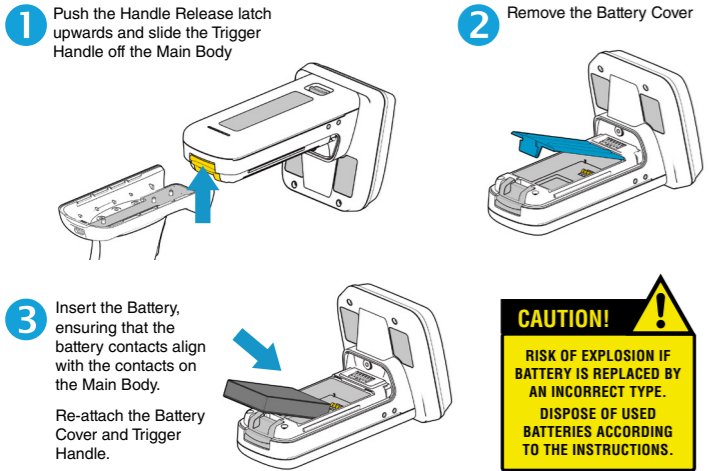


FIGURE 1: Parts of the 1128 UHF RFID Reader

BATTERY INSTALLATION

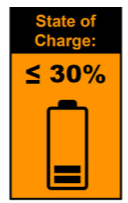
The battery is charged using a docking station and is therefore unlikely to need to be changed once installed. To access the battery compartment the grip handle must first be removed.



CHARGING

To comply with international shipping regulations, **all batteries included with TSL® 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 1128 UHF Reader for the first time.

The 1128 UHF Reader can be charged using the supplied USB charger and Micro USB cable.



Use Supplied 5V 2A USB Charger Only

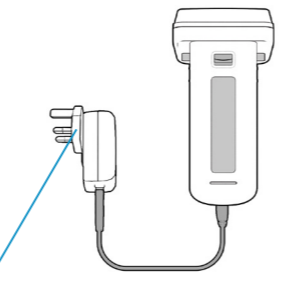


FIGURE 2: Charging the 1128 UHF Reader

BUTTON OPERATION

The 1128 UHF 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 laser barcode scanner - this is only available when using the 2D Imager Antenna variant).

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

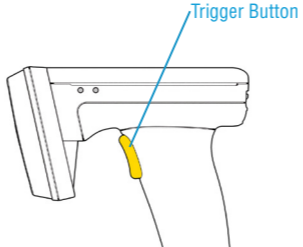


FIGURE 3: Trigger Button location

READING TRANSPONDERS

The 1128 UHF Reader can read and write to UHF RFID transponders when they are in range of the antenna. The antenna is located on the front of the 1128 UHF Reader and the read zone is in front of the antenna.

The range at which a transponder can be read depends on the transponder type and size, and the number of transponders in the field.

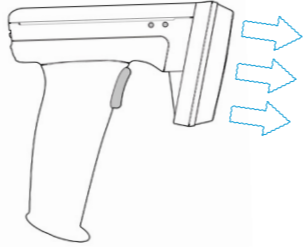


FIGURE 4: Antenna read direction

BLUETOOTH® CONNECTION

The 1128 *Bluetooth*® Handheld UHF RFID Reader is compatible with many *Bluetooth*® wireless technology enabled host devices including Android, iOS and Windows 10/8/7.

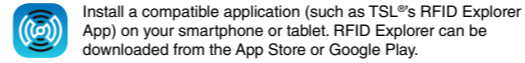
The *Bluetooth*® version is BT2.1 and supports SPP, HID and Apple iAP profiles.

To pair with a *Bluetooth*® host device

Squeeze the Trigger Button to wake up the 1128 UHF Reader and wait for the blue LED to start flashing (if it does not flash, please check the battery is charged and properly installed).

In your host device's '*Bluetooth*® Settings' page, search for and pair with the 1128 UHF Reader. In the list of *Bluetooth*® devices, the 1128 UHF Reader will be identified by its serial number (xxxxx-1128). (Make sure the Reader has not 'timed-out' and gone to sleep, as it will not be discoverable).

Once a *Bluetooth*® connection has been successfully established, the blue LED will stop flashing and stay on continuously.



Open your compatible application and select the 1128 UHF Reader from the list of available devices. The 1128 UHF Reader should now be ready to use!



BLUETOOTH® OPERATING MODES

PLEASE NOTE: Our UHF RFID *Bluetooth*® Readers support **two different modes of operation** over *Bluetooth*®.

1. *Bluetooth*® SPP Mode

By default the 1128 UHF Reader is set to SPP Mode. In this mode, the 1128 UHF Reader will only work with Apps that have been written with specific support for the 1128 UHF Reader. SPP Mode allows access to the full range of features available on the 1128 UHF Reader.

The 1128 UHF Reader must be set to SPP mode in order to work with RFID Explorer or any of the other free TSL® Apps (www.tsl.com/apps).

2. *Bluetooth*® HID Mode

In HID mode, the 1128 UHF 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 better suited to reading UHF 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 '*Comparison of Bluetooth® Modes for TSL® UHF Readers*' document from the 1128 Downloads Page (www.tsl.com/1128-downloads).

For information and examples on configuring HID mode, download the '*Bluetooth® HID mode*' application note (www.tsl.com/1128-downloads).

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