REGULATORY INFORMATION

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

FCC ID: S6J3128

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	12 dBm
UHF RFID	902 MHz - 928 MHz	30 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 3128 User Guide (www.tsl.com/3128-downloads). 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 TSL-approved cradles, chargers and power supplies with the 3128 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

Replacement of a battery with an incorrect type can defeat a safeguard (for example, in the case of some lithium battery types)

CAUTION!

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

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

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 surrounding 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.

SUPPORT

User Documentation

To download the 3128 User Guide, visit: www.tsl.com/3128-downloads

Troubleshooting

If you are having difficulties using your 3128 Reader, please use the online Troubleshooting Guide at www.tsl.com/troubleshooting-guides.

If you have consulted both the 3128 Reader User Guide and the online Troubleshooting Guide and still need assistance, contact TSL at: www.tsl.com/contact.

Waste Electrical and Electronic Equipment (wEEE)

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

TERMS & CONDITIONS

Warranty Information

For warranty information and provisions, please see the Warranty section of the 3128 Reader User Guide (available to download at www.tsl.com/3128-downloads)

ABOUT TSL®

Technology Solutions UK Ltd (TSL®), part of HID, 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.

TSL is an ISO 9001:2015 certified company.

ISO 9001: 2015

Contact

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Telephone: +44 (0)1509 238248

Fax: +44 (0)1509 214144

Email: enquiries@tsl.com

Website: www.tsl.com

ABOUT HID

HID powers the trusted identities of the world's people, places and things. We make it possible for people to transact safely, work productively and travel freely. Our trusted identity solutions give **people** convenient access to physical and digital **places** and connect **things** that can be identified, verified and tracked digitally. Millions of people around the world use HID products and services to navigate their everyday lives, and billions of things are connected through HID technology. We work with governments, educational institutions, hospitals, financial institutions, industrial businesses and some of the most innovative companies on the planet. Headquartered in Austin, Texas, HID has over 4,000 employees worldwide and operates international offices that support more than 100 countries. HID is an ASSA ABLOY Group brand.

For more information, visit www.hidglobal.com.

TECHNOLOGY SOLUTIONS UK LTD
part of HID

QUICK-START GUIDE

3128

BLUETOOTH® UHF RFID RAIN READER

FCC

www.tsl.com

v1.01

PARTS OF THE READER

Technology Solutions' 3128 Reader provides Ultra High Frequency (UHF) Radio Frequency Identification (RFID), with optional barcode scanning functionality. The unit can be used stand alone or paired with a *Bluetooth*® wireless technology enabled host device. The 3128 can read and write to EPC Global Class 1 Gen 2 UHF RFID transponders.

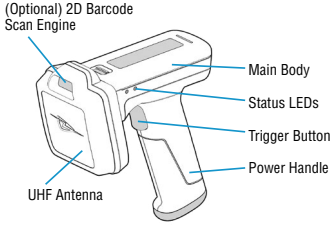
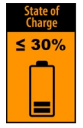


FIGURE 1: Parts of the 3128 UHF RFID Reader

For detailed information on setting up and using the 3128 Reader, please download the 3128 Reader User Guide from www.tsl.com/3128-downloads.

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 3128 Reader for the first time. Please note that the Power Handle will take 2-3 charge cycles to reach full capacity.

3128 Readers fitted with a USB-C Power Handle can be charged using any 30W or higher USB-C Power Delivery (PD) power supply. 3128 Readers fitted with an '8-Way Power Pins' Power Handle also require a cradle kit (3138-CRD-01-KIT) for charging.

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

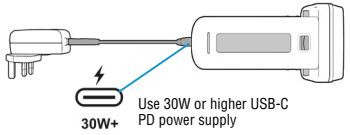
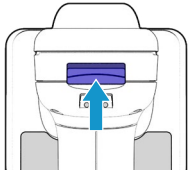


FIGURE 2: Charging the 3128 Reader

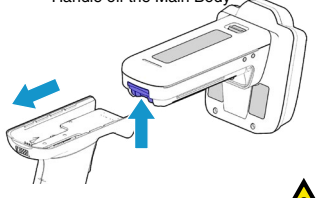
POWER HANDLE INSTALLATION OR REMOVAL

A high capacity battery is contained within the Power Handle. To remove or replace the Power Handle, please follow the steps below.

1. Push the Handle Release latch upwards



2. Continue to push the Handle Release latch upwards, and slide the Power Handle off the Main Body



3. To replace or fit a new Power Handle:
   - Slide the Power Handle onto the main unit, making sure that the guide rails are properly aligned
   - The release latch will audibly 'click' to indicate the Power Handle is fixed in place

CAUTION!

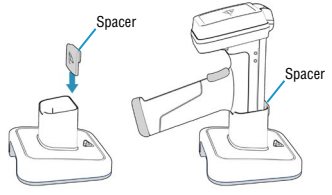
RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

DOCKING CRADLE

3128 Readers fitted with a Power Handle ***with 8-Way Power Pins*** can be charged using the 3128/3138 Docking Cradle (3138-CRD-01-KIT). The Docking Cradle has a USB-C connector that can be used for either charging or data communications.

Before using the cradle, ensure that the plastic Spacer has been fitted.



ATTACHING DEVICES

The 3128 Reader has rails embedded into the main body, which allow a smartphone or Hand Held Terminal to be physically attached to the UHF Reader using slide-on mounts.

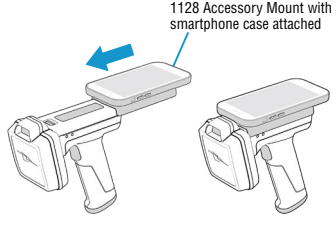


FIGURE 3: Mounting a device onto the 3128 Reader

Steps to mount a device:

1. Fit the smartphone into the phone case attached to the Accessory Mount
2. Align the Accessory Mount with the rails on the 3128 Reader, and slide it into position in the direction indicated in Figure 3. The mount will 'click' into place.
3. The Accessory Mount should slide on with minimal effort. If it seems to be sticking, do not force it. Remove the mount and check the alignment of the mount with the rails.
4. To remove the mount, simply pull firmly to slide it along the rails in the opposite direction.

STATUS LEDS

The LEDs on the left and right sides of the 3128 Reader provide an indication of the operating status:

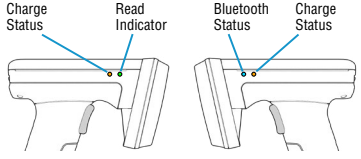


FIGURE 4: Location of Status LEDs

For detailed information regarding the Antenna Indicators please refer to the 3128 Reader User Guide (available at www.tsl.com/3128-downloads).

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 - contact TSL
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 TSL's RFID Explorer App) on your smartphone, tablet or other Bluetooth compatible host device. The RFID Explorer App can be downloaded from the App Store, Google Play or Microsoft Store. Squeeze the trigger button to wake up the 3128 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 3128 Reader. In the list of *Bluetooth* devices, the 3128 Reader will be identified by its serial number (xxxxxxxx-3128). Make sure the reader hasn't 'timed-out' and gone to sleep, as it will not be discoverable.

Once a connection has been established, the Blue LED will stop flashing and stay on continuously.

Open your compatible application and select the 3128 Reader from the list of available devices.

The 3128 Reader should now be ready to use!

For further information on connecting a TSL Reader, visit www.tsl.com/connect-reader/bluetooth.

BLUETOOTH MODES

PLEASE NOTE: The 3128 Reader supports four different modes of operation over Bluetooth:

1. Bluetooth Classic HID Mode (Keyboard)
2. Bluetooth Classic SPP Mode (Connect to Apps)
3. Bluetooth LE HOG Mode (BLE Keyboard)
4. Bluetooth LE SOG Mode (BLE Connect to Apps)

Bluetooth Classic SPP Mode (Default)

In this mode, the 3128 Reader will only work with Apps that have been written with specific support for the 3128 Reader. SPP Mode allows access to the full range of features available on the 3128 Reader.

The 3128 Reader must be set to SPP mode in order to work with RFID Explorer or any of the other TSL Demo Apps (www.tsl.com/apps).

Bluetooth Classic HID Mode

In HID mode, the 3128 Reader appears as a Bluetooth Keyboard, making it compatible with the majority of Apps and 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

More information regarding Bluetooth Modes can be downloaded from www.tsl.com/3128-downloads.

BUTTON OPERATION

The 3128 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 - this is only available when using the 2D Imager Antenna variant).

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

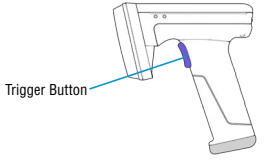


FIGURE 5: Trigger Button location

READING TRANSPONDERS

RFID transponders can be read when they are in range of the antenna. The antenna is located on the front of the 3128 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.

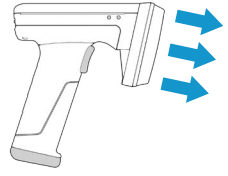


FIGURE 6: Antenna read direction