unitech RP902 Bluetooth UHF Pocket Reader User Guide

RP902
Bluetooth UHF Pocket Reader

Quick Start Guide
V1.2

Contents

Package

Please make sure the following contents are in the RP902 gift box.
If something is missing or damaged, please contact your Unitech representative.
The Package Contents

- RP902 Terminal
- Battery (P/N 1400-900066G)
- USB Type-C Cable (P/N 1550-905908G)

Optional Accessories

- RP902 One-Slot Charging Cradle
- Hand Strap (P/N 5500-900007G)
- Neck Strap (P/N 3210-900019G)
- Power Supply (P/N 1010-900067G)
- RFID tags/labels

Product View

1. Status LED	7. Antenna Area
2. Communication LED	8. Battery Lock
3. 0.96" LCD	9. Battery Cover
4. Power/Triger Key	10. USB Type-C Port
5. Select Down/Power Off	11. POGO Pin
6. Function/Select Up Key	12. NFC Tag

LCD Display & Operation Mode

Left: The icon and the alphabet indicates the operation mode.
Middle: Time
Right: Battery State

Operation Mode	
Icon	Operation Mode
	USB SPP
	BT SPP
	BT HID
	Buffer
	BLE HID

Note: Once you select a different operation mode, the terminal will automatically restart.

https://www.ute.com/en/products/detail/RP902

To enable USB SPP and BT SPP mode, Please click the URL Tag Access APK or scan the barcode to download.

Specifications

Frequency	865 – 928 MHz (US/EU/JP/TW/CN)
Standard	EPC global Classl Gen2, ISO/IEC 18000-6C
Read Range	1M: When Power is 22dBm 2M: When Power is 27dBm (Depends on the type and quantity of RFID tag and environment)
Weight	106g
Operating Time	> 12 hours with 75,000 tag readings
Charge Time	2 hours (via RP902 charging cradle) 3.5 hours (via USB type-C cable)
Bluetooth	Bluetooth Class 2, BLE 5.0 (HID / SPP)
Compatibility	RP902 with Mfi Versinon: BT: Android / Windows / iOS (MFi) USB: Windows RP902 W/O Mfi Version BT: Android / Windows / iOS (BLE) USB: Windows
Operating Temp	-10`C to 50 C

Default Settings

Operating Mode	BT SPP Mode
Read Mode	Single Read
Power Setting	22 dBm
Beep Setting	Low
Vibrate Setting	Enable
Auto Power-off	2 min

LED Indication

LED /LED Statu	Status LED	Communication LED
Off	Power off/ Fully charged	____
Red Solid	Battery charging	Connected with USB cable
Green Flash	RFID tag being successfully read	RP902 turned on
BlueFlashing	―	Waiting for BT connection
Blue Solid	―	BT connection is successful

Note: During F/W Upgrade, Status LED shows red solid light & Communication LED shows green solid light.

Install the Battery

1. Turn the terminal to its rear side, and push the battery lock to the right to unlock the battery.

2. Grab two protrusions on two sides of the battery cover, and lift upward to remove it.

3. Insert the battery into the battery compartment from the top side and press down, make sure to leave half of the battery strap outside.

4. Press down the battery.

5. Align two hooks at the bottom of the battery cover with the recesses on the batter compartment and insert, please make sure to completely cover the battery strap.

6. Press down the battery cover and push the battery lock to the left to secure the battery.

Note: Please ensure the battery strap is not revealed.

Charging the Battery

1. Plug one end of the USB Type-C cable into the port on the reader and another end into a USB port on the host PC or power adapter.
2. Please fully charge the reader (or until the Status LED turns off) before use. Required Time for full charge: RP902 Charging Cradle: 2 hours. USB Type-C Cable: 3.5 hours.
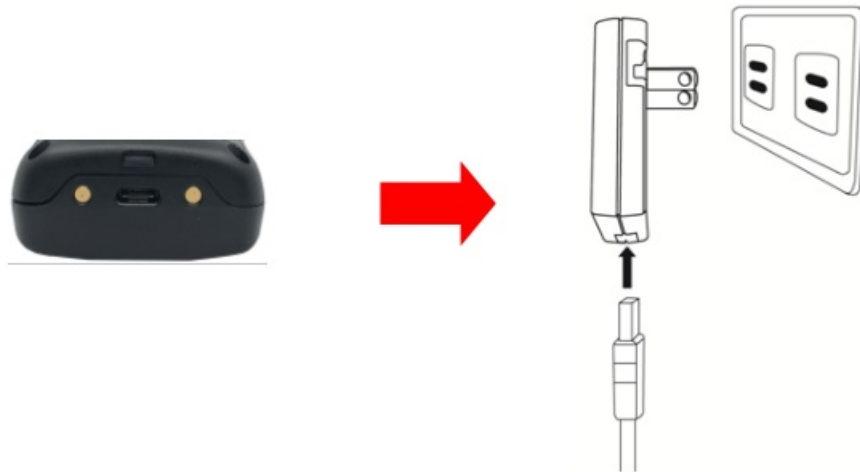
Buttons Behavior

Power On / Off	
Power On	Short press Power / Trigger Key
Power Off	Long press Select Down / Power Off Key about 3 secs
Setting Page	
Setting Page	Short press Function / Select Up Key
Enter	Short press Power / Trigger Key
Up	Short press Function / Select Up Key
Down	Short press Select Down / Power Off Key
Read Mode	
Single Reading: Short press Power / Trigger Key Continuous Reading: Keep pressing Power / Trigger Key **Note:** Please select the multiple reading mode to enable Continuous Reading.	
Return to Scan Page	
Long press Function / Select Up Key about 3 secs	

Power Up / Shut Down

Power Up

- Short press the Power / Trigger Key to power up.

  You will hear short beeps

  (SPP mode: 1 beep/HID mode: 2 beeps/Buffer mode: 3 beepswith green flash appears on the communication

LED, then the LCD screen will appear.

Shut Down

- Long press the Select Down / Power Off button for about 3 seconds to shut down the terminal.

Start-up Screen

Read Mode

Single Read: The terminal only reads one tag upon each press.
Please release the Power/trigger key and press again to read another tag.
The LCD screen will show the EPC code of the RFID tag being read (shown as picture below).

Multiple Read: The terminal can read multiple tags that are under RF coverage upon each press. Keep pressing the Power/trigger key to read the tags that have not been read. The tags that had been read will not be read again, unless you release the button and press again.

When there is only one tag: Shows the EPC Code of the tag being read.

**Multiple tags being read: This shows** the number of tags being read.

Setting Page

Operating Mode	Buffer mode
	USB SPP mode
	*BT SPP mode
	BT HID mode
	BLE HID mode
Read Mode	Multiple Read
	*Single Read
Power Setting	11-27 dBm (*22 dBm)
Beep Setting	High
	*Low
	Medium
	Mute
Vibrate Setting	*Enable/Disable
Auto-Power-off	Disable
	1-3/5/10 min (*2 min)
Factory Default	Enable/Disable

Note:

- The "*" indicates the default setting.
- The data will be temporarily saved in the reader under Buffer Mode.

Reading RFID Tags
It is recommended to read RFID tags by aiming the antenna area of RP902 at the RFID tag horizontally (as shown in the picture below.)
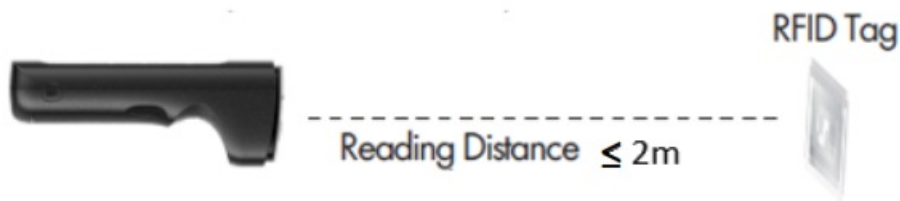
Reading distance may be impacted by the type of tag and environmental conditions.
The reading range is 1m when power is 22dBm, and the maximum reading range is 2m when the power setting is 27 dBm.

Getting Connected

1. Short press the power/trigger key to power on RP902.

2. After powering on RP902, the communication LED should show "flashing blue light", it means RP902 is waiting for a Bluetooth connection.

   Note: RP902 Supports NFC quick pairing.

3. Enable the BT function of the host device and select "RP902_0ABB (RP902 terminal name)" to connect with RP902. After connection, the communication LED should be solid blue light.

Disconnect

Long press (about 3 – 5 secs.) the two buttons at the bottom of RP902 at the same time to release the BT connection between the host device and RP902.

Remove the Battery

1. Turn the terminal to its rear side, and push the battery lock to the right to unlock the battery.

2. Grab two protrusions on two sides of the battery cover, and lift upward to remove it.
3. Pull the battery strap upward to remove it.

Firmware Update
Please click the URL **FW Update Instructions** or scan the barcode for more information.

https://www.ute.com/en/products/detail/RP902

WARNING!
There is a risk of fire and burns if the battery is handled improperly. DO NOT disassemble, crush, puncture, short external contacts, or dispose of the battery pack in fire or water. DO NOT attempt to open or service the battery. Dispose of used batteries according to local recycling guidelines in your area.
CAUTION!
To ensure the unit working properly, please keep all connectors away from the contaminants staying inside of them such as dust, grease, mud, and water. The negligence may cause the unit with no communication, short-circuited, Overheated, and so on. If the connector is damaged, please ensure the connector is being fully repaired before

using
the unit to avoid causing short-circuited.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- FCC Caution: To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example – use only shielded interface cables when connecting to computer or peripheral devices).

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 0.5 centimeters between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The antennas used for this transmitter must be installed to provide a separation distance of at least 0.5 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

http://www.ute.com/

Documents / Resources

unitech RP902 Bluetooth UHF Pocket Reader [pdf] User Guide
RP902BU, HLERP902BU, RP902 Bluetooth UHF Pocket Reader, Bluetooth UHF Pocket Reader

unitech RP902 Bluetooth UHF Pocket Reader [pdf] User Guide
RP902 Bluetooth UHF Pocket Reader, RP902, RP902 Pocket Reader, Bluetooth UHF Pocket Reader, UHF Pocket Reader, Bluetooth Pocket Reader, Pocket Reader, Reader

References

- **Unitech Global | Your Brilliant AIDC Solution Provider**
- **RP902 Bluetooth UHF RFID Pocket Reader | Unitech**