UHF Handheld Reader

- RP200 -



User Manual

Version 1.2

Revision History

Date	Change Description	Version
2023/8/30	First Version	1.0
2023/11/15	Delete 2.3.2	1.1
2024/6/14	Update Package Contents	1.2

Preface

About This Manual

Thank you for purchasing the Unitech product.
This manual explains how to install, operate and maintain our product.
No part of this publication may be reproduced or used in any form, or by any electrical or mechanical means, such as photocopying, recording, or information storage and retrieval systems, without permission in writing from the manufacturer. The material in this manual is subject to change without notice.

This product is KC, FCC, CE and TELEC certified, but we are not responsible for any issues arising during use outside of the certified area. For more details, please contact the distributor or Unitech.

Regulatory Compliance Statements

FCC Warning Statement

This device 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 with radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference with radio or television reception, which can be determined by turning the equipment off and on, the user is

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encouraged to try to correct the interference by one or more 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.

1. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2. This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. To maintain compliance with FCC RF exposure requirements, avoid direct contact to the transmitting antenna during transmitting.
3. Any changes or modifications (including the antennas) made to this device that are not expressly approved by the manufacturer may void the user's authority to operate the equipment.

FCC Label Statement

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.
2. This device must accept any interference received, including interference that may cause undesired operation.

RF Radiation Exposure Statement

For body contact during operation, this device has been tested and meets FCC RF exposure guidelines when used with an accessory that contains no metal and that positions the handset a minimum of 1.0 cm from the body.

Use of other accessories may not ensure compliance with FCC RF exposure guidelines.

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European Conformity Statement

Unitech Electronics co., Ltd herewith declares that the Unitech product is in compliance with the essential requirements and all other provisions of the RED 2014/53/EU directive. The declaration of conformity is available for download at :
https://portal.Unitech.eu/public/Safetyregulatorystatement

CE RF Exposure Compliance

For body-worn operation, this device has been tested and meets the ICNIRP guidelines and the European Standard EN 62209-2, for use with dedicated accessories, SAR is measured with this device at a separation of 0.5 cm to the body, while transmitting at the highest certified output power level in all frequency bands of this device. Use of other accessories which contain metals may not ensure compliance with ICNIRP exposure guidelines.

CE Mark Warning

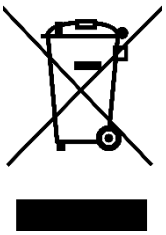


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RoHS Statement

This device conforms to RoHS (Restriction Of Hazardous Substances) European Union regulations that set maximum concentration limits on hazardous materials used in electrical and electronic equipment.

Waste electrical and electronic equipment (WEEE)



Unitech has set up a policy and process to meet the 2012/19/EU concerning electronic waste disposal.

For more detailed information of the electronic waste disposal of the products you have purchased from Unitech directly or via Unitech's resellers, you shall either contact your local supplier or visit us at : https://portal.Unitech.eu/public/WEEE

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LED Information

The Unitech product contains LED indicator(s) or LED ring whose luminance is not harmful to human eyes during normal operation, user maintenance or prescribed service operations.

*LED information only applies to the products with LED components.

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Battery Notice

1. To guarantee optimal performance, it is recommended that rechargeable batteries be replaced every year, or after 500 charging cycles are completed. It is normal for the battery to balloon or expand after one year or 500 cycles. Although it does not cause damage, it cannot be used again and must be disposed of according to the location's safe battery disposal procedures.
2. If a battery performance decreases more than 20%, the battery is at the end of its life cycle. Stop use and ensure the battery is disposed of properly.
3. The length of time that a battery lasts depends on the battery type and how the device is used. Conserve the battery life by doing the following:
   - Avoid fully uncharging the battery because this places additional strain on it. Several partial uncharges with frequent charges are better than a fully uncharged battery. Charging a partially charged battery does not cause harm to the unit.
   - Keep the battery cool. Avoid hot vehicles. For prolonged storage, keep the battery at a 40% charge level.
   - Do not leave the battery uncharged and unused for an extended period of time, the battery will wear out and the longevity of the battery will be at least half of one with frequent charges.
4. Protect battery life by not over or under charging the battery.
5. Please do not leave battery unused for long time without charging it. It is recommended to charge the battery to at least 30% every six months to ensure optimal performance and longevity. Despite Unitech’s safety precautions, the battery pack may experience changes in shape or swelling. If so, stop using it immediately. Please check to see if you are using a proper power adapter to charge the battery or contact your service provider for service.
6. If you cannot charge the battery after it has been idle for an extended period of

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time and it begins to heat up, please do not try to charge it. It may not be functional anymore.

7. Please only use the original battery from Unitech. Using a third party battery can damage our products. Please note that when such damage occurs, it is not covered by Unitech's warranty policy.

CAUTION!

- RISK OF EXPLOSION IF BATTERY IS REPLACED INCORRECTLY.
  DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.
- 電池若未正確更換，可能會爆炸。請用原廠建議之同款或同等級的電池來更換。請依原廠指示處理廢電池。
  請依製造商說明書處理用過之電池
- 如果更换不正确之电池行事会有爆炸的风险
  请依制造商说明书处理用过之电池

Battery charge notice

It is important to consider temperature when the battery pack is charging. Charging is most efficient at normal room temperature or in a slightly cooler environment. It is essential that batteries are charged within the stated range of 0°C to 40°C. Charging batteries outside of the specified range could damage the batteries and shorten their life cycle.

CAUTION! Do not charge batteries at a temperature lower than 0°C. This will make the batteries unstable and dangerous. Please use a battery temperature detecting device for a charger to ensure a safe charging temperature range.

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.

CAUTION! If the connector is damaged, please ensure the connector is being fully repaired before use the unit to avoid causing short circuited.

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Storage and safety notice

Although charged batteries may be left unused for several months, their capacity may be depleted due to build up of internal resistance. If this happens, they will require recharging prior to use. Batteries may be stored at temperatures between -20°C to 60°C, however they may deplete more rapidly at higher temperatures. It is recommended to store batteries at room temperature.

** The message above only applies to the usage of the removable batteries. For the products with non-removable batteries / without batteries, please refer to the specification of each product.*

Product Operation and Storage Notice

The Unitech product has applicable operation and storage temperature conditions. Please follow the limitation of suggested temperature conditions to avoid failure, damage or malfunction.

**For applicable temperature conditions, please refer to the specification of each product.*

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Adapter Notice

1. Please do not leave the power adapter in the socket when it is not connected to your Unitech product for charging.
2. Please remove the power adapter when the battery is fully recharged.
3. The bundled power adapter that comes with your Unitech product is not meant to be used outdoors. An adapter exposed to water or rain, or a very humid environment can cause damage to both the adapter and the product.
4. Please only use the bundled power adapter or same specification of adapter to charge your Unitech product. Using the wrong power adapter can damage your Unitech product.

** The message above only applies to the product connected to the adapter. For the products without using the adapters, please refer to the specification of each product.*

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Hearing Damage Warning

To prevent possible hearing damage, do not listen at high volume levels for long periods.



Figure 1 – Warning label (IEC 60417-6044)

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Worldwide Support

Unitech's professional support team is available to quickly answer questions or assist with technical-related issues. Should an equipment problem occur, please contact the nearest Unitech regional service representative. For complete contact information please visit the Web sites listed below:

Taipei, Taiwan – Headquarters	Europe
Tel: +886-2-89121122 **E-mail:** info@hq.ute.com **Address:** 5F, No. 136, Lane 235, Baoqiao Road, Xindian District, New Taipei City 231, Taiwan (R.O.C.) **Website:** http://www.ute.com	**Tel:** +31-13-4609292 **E-mail:** info@eu.ute.com **Address:** Kapitein Hatterasstraat 19, 5015 BB, Tilburg, the Netherlands **Website:** http://eu.ute.com
China	**Japan**
Tel: +86-59-2310-9966 **E-mail:** info@cn.ute.com **Address:** Room401C, 4F, RIHUA International Mansion, Xinfeng 3nd Road, Huoju Hi-tech District, Xiamen, Fujan , China **Website:** http://cn.ute.com	**Tel:** +81-3-62310896 **E-mail:** info@jp.ute.com **Address:** Tosei Building 3F.,18-10 Nihonbashi-Hakozakicho, Cyuouku, Tokyo, 103-0015, Japan **Website:** http://jp.ute.com
Asia & Pacific / Middle East	**Latin America**
Tel: +886-2-27911556 **E-mail:** info@apac.ute.com info@india.ute.com info@mideast.ute.com **Address:** 4F., No. 236, ShinHu 2nd Rd., NeiHu Chiu, 114, Taipei,Taiwan **Website:** http://apac.ute.com / http://mideast.ute.com	**Tel:** +52-55-5171-0528 **E-mail:** info@latin.ute.com **Address:** 17171 Park Row, Suite 210 Houston, TX 77084USA (Rep.) **Website:** http://latin.ute.com
North America	**Please scan QR Code to visit us :**
Tel: +1-714-8916400 **E-mail:** info@us.ute.com / info@can.ute.com **Address:** 6182 Katella Ave, Cypress, CA 90630, USA **Website:** http://us.ute.com	

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Warranty Policy

The following items covered under the Unitech Limited Warranty are free from defects during normal use:

The warranty period is varied from each country. Please consult with your supplier or Unitech local office for actual length of warranty period to your purchased product.

Warranty becomes void if equipment is modified, improperly installed or used, damaged by accident or neglect, or if any parts are improperly installed or replaced by the user.

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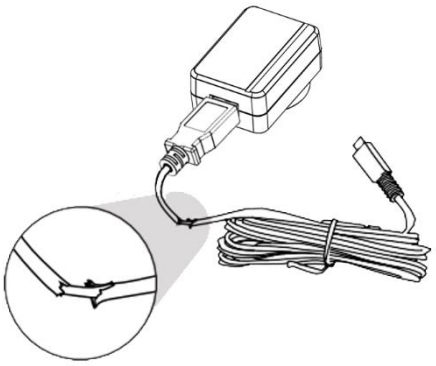
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Before Use

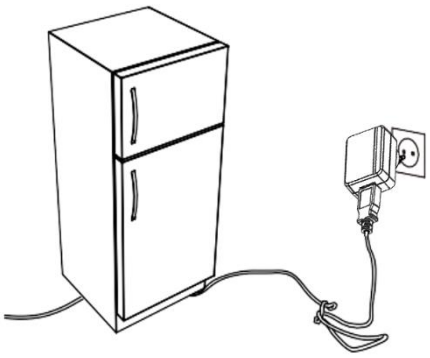
- **Be sure to read and use safety precautions before using them.**
- **If there is any problem or inconvenience during use, please contact your dealer or place of purchase.**
- **Please ensure that the following is used more safely and correctly to prevent accidents and physical damage.**
- **The user is responsible for any injury caused by the user who did not follow this instruction, so please be sure to observe it.**

1. Precautions for Charging

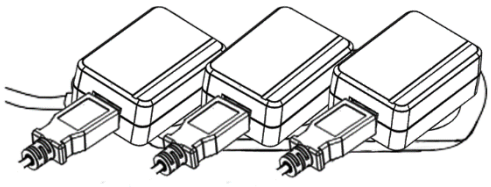
1) It is very dangerous to use a charger with a damaged cord, so please replace the charger with a new one.



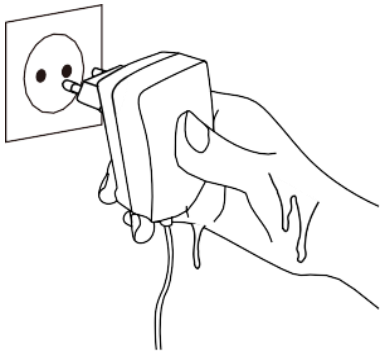
2) Do not bend the power cord too much or keep it pressed by heavy objects.



3) Do not plug multiple power outlets at the same time. (This may cause a fire or electric shock.)



4) Do not touch the power plug with wet hands or pull the cord out. (This may cause electric shock and short circuits.)



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2. Precautions for Use

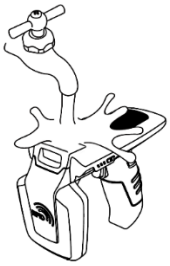
1) Wipe the surface of the product lightly with a dry towel, and do not use chemicals or cleaning agents as they will deteriorate the surface and peel off the paint.



2) Avoid high temperatures such as direct sunlight and near heating appliances. If the product or charger smokes or smells strange, stop using it immediately and contact your dealer or purchaser. (This may cause a fire or electric shock.)



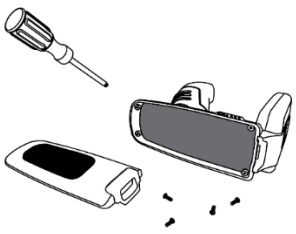
3) Do not spray water directly on each part of the product during cleaning. (This may cause a fire, electric shock, or failure.)



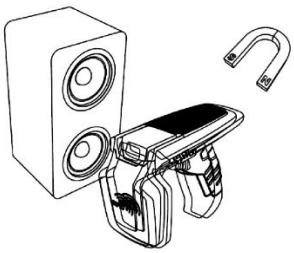
4) Do not use in places where there is a lot of moisture, dust, or soot. (This may cause a fire, electric shock, or failure.)



5) Do not modify, remove, or repair it arbitrarily. We are not responsible for any accidents caused by it.



6) Keep away from home appliances, vibrations, or magnetic types. (This may cause product malfunction.)



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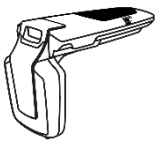
Chapter 1 – Overview

1.1 Package

Please make sure the following contents are in the RP200 gift box. If something is missing or damaged, please contact your Unitech representative.

The Package Contents

- RP200 UHF Handheld Reader (Product Body)
- Gun Handle (Built-in Battery)
- USB Type-C Cable
- Hand Strap
- USB Type-C to Type-C Cable
- Double-sided tape
- Cradle
- Charging Adapter
- EA520 Jacket for RP200



RP200 UHF Handheld Reader (Product Body)



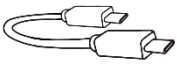
Gun Handle (Built-in Battery)



USB Cable (Type-C)



Hand Strap



USB Cable (Type-C to Type-C)



Double-sided tape



Cradle



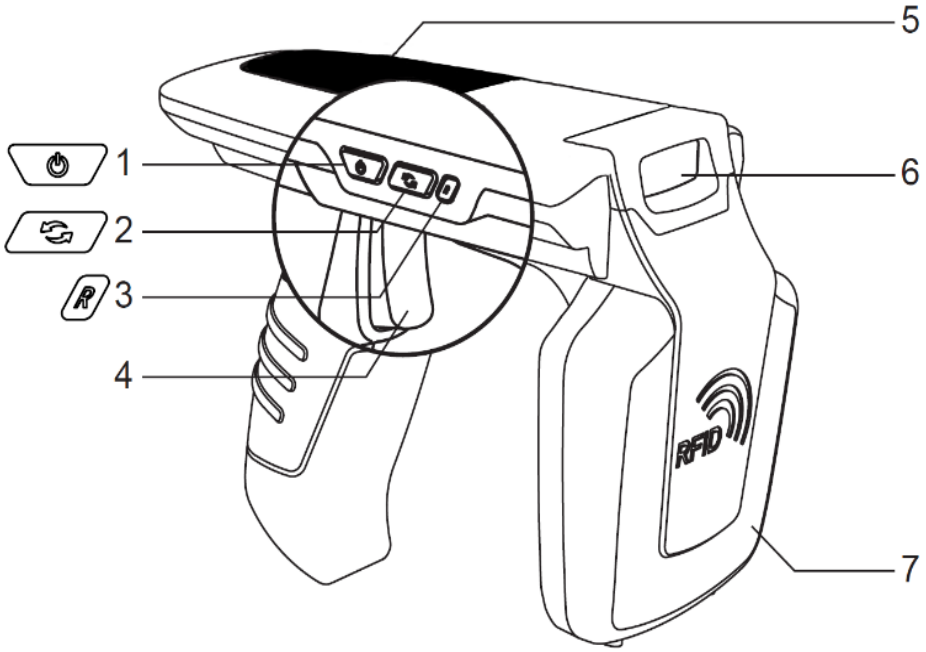
Charging Adapter

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1.2 Product Detail

RP200 Product View

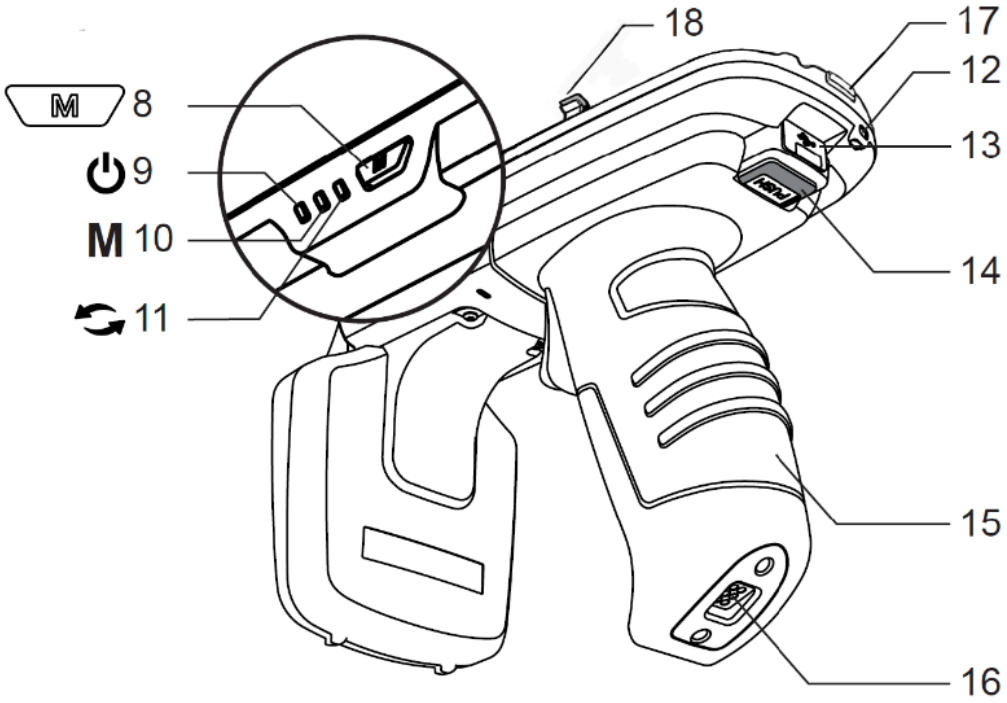
TOP VIEW



1. Power Button
2. Communication Mode Switch Button
3. Reset Button
4. Trigger
5. Top Cover
6. Barcode Scanner Window
7. RFID Antenna

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Rear View



8. Barcode / RFID Toggle Button
9. Charging LED
10. Barcode / RFID LED
11. Communication Mode LED
12. Hand Strap Connection Hole
13. USB Port (Type-C)
14. Gun Handle Release Button
15. Gun Handle (Built-in Battery)
16. Cradle Connection Terminal
17. Top Cover release button
18. Cable Holder

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1.3 Product Specification

Performance			
Processor		**ARM7 Core**	
Supported Platforms		**Windows, Android, iOS (BLE Only)**	
Internal Storage		**-**	
Physical Characteristics			
Dimensions (W x L x H)		**76.1 x 173.7 x 139.8 mm**	
Weight		**420g (With Battery)**	
Power		**5,200mAh Lithium-Ion Battery (Rechargeable)**	
Display		**-**	
USB Interface		**2 USB Type-C Port (Charging, Data Communication / Host Connection)**	
Notification		**LED Indicator, Buzzer, Vibrator**	
Data Collection			
RFID (UHF)	**Protocol**	**EPC GEN2, ISO/IEC 18000-6C**	
	Reading Range	**~ 6m (Depending on environment and tag type)**	
	Writing Range	**~ 0.5m**	
	RF Output	**1W (MAX)**	
	Frequency Range	**US / FCC** **EU / CE** **KR / KC** **JP / TELEC**	**: 902MHz ~ 928MHz** **: 865MHz ~ 868MHz** **: 917MHz ~ 921MHz** **: 916MHz ~ 921MHz (1W)** **: 916MHz ~ 924MHz (0.25W / Optional)**
	Antenna	**Circular Antenna / 1dBi**	
Barcode		**2D Engine (Support to read 1D & 2D Barcode)**	
Communication			
Bluetooth		**BT V2.1+EDR / BLE V4.1**	

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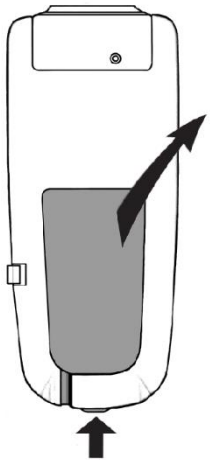
WLAN	**-**
User Environment	
Operating Temp	**-20°C to 50°C**
Storage Temp	**-30°C to 70°C**
Charging Temp	**0°C to 45°C**
Humidity	**5~95% (non-condensing, +25°C**
Drop Spec	**1.5m**
Sealing	**IP65**

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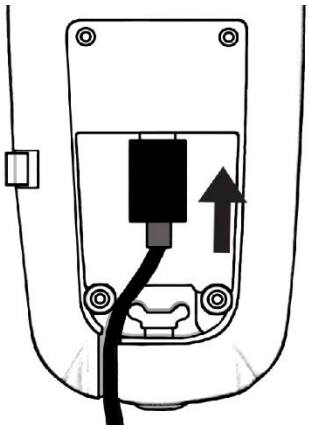
1.4 Getting Started

1.4.1 USB Cable Connection

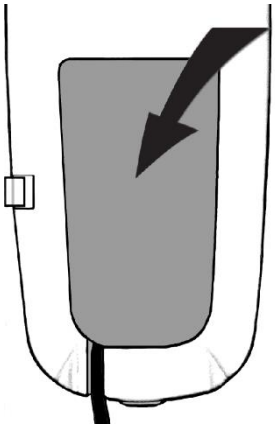
1) If you lift the top cover while pressing the button on the back of the product, the top cover will be removed.



2) Connect the host connection cable included with the product to the exposed USB port when the Top Cover is removed as shown below.



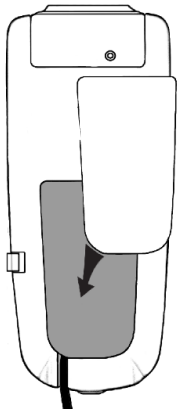
3) After completing the USB cable connection, reattach the Top Cover.



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1.4.2 Smartphone Mounting

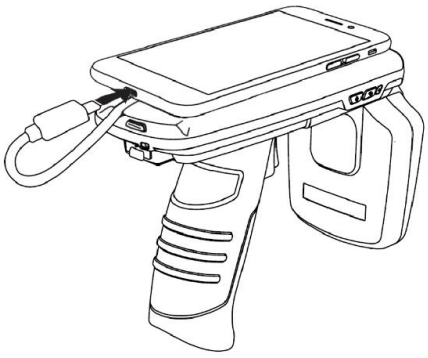
1) Attach the double-sided tape included with the product to the Top Cover.



2) Attach the smartphone to the top of the device. (Support Unitech EA520)



3) Connect the USB cable to the smartphone USB connection port.



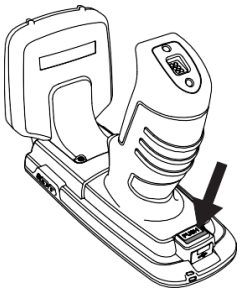
The USB cable does not need to be connected unless charging or data communication via the USB port is desired. Please decide whether to connect or not according to the environment of use.

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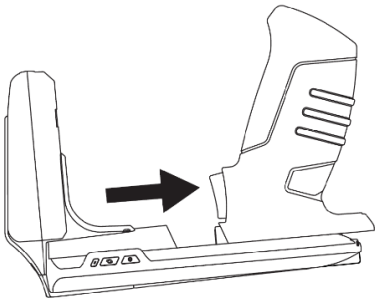
1.4.3 Removing and Installing the Gun Handle

Removing the Gun Handle

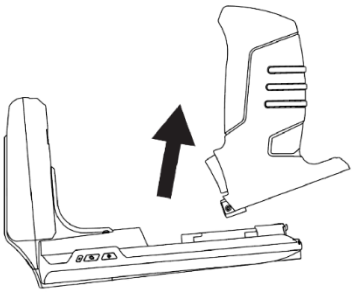
1) Press the gun handle release button.



2) Push gun handle back.



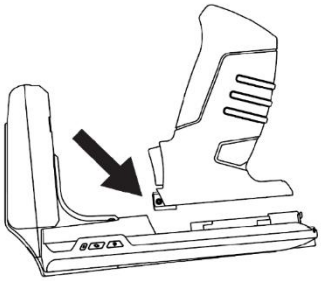
3) Pull the gun handle up.



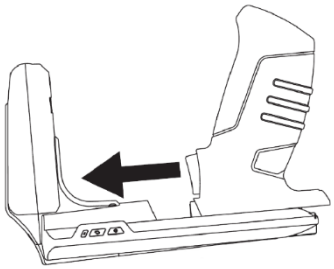
Be careful not to injure your hands while removing the gun handle.

Installing Gun Handle

1) Attach the gun handle to the **RP200** body.



2) Install the gun handle by sliding it forward. (The button with 'PUSH' written on it with a click sound must come up to ensure it is properly installed.)

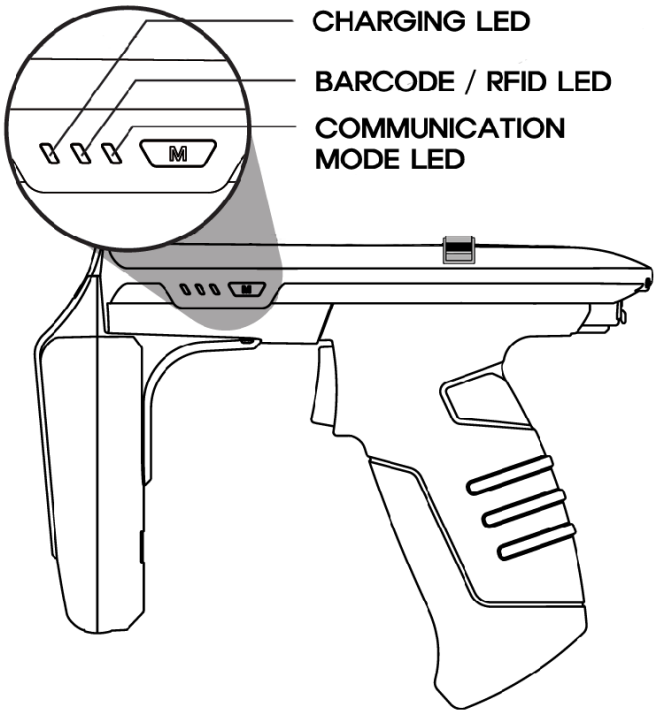


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1.5 LED Indication by status

RP200 displays the current device settings or status as shown below with LED operation.

LED	Action	Function
Charging LED	Blinking Red LED	Low Battery
	Red LED On	Charging
	Green LED On	Full Charging
Barcode / RFID LED	Blue LED On	Barcode Mode
	Blinking Blue LED	Trigger Input Mode
	LED Off	RFID Mode
Communication Mode LED	Blinking Green LED	Bluetooth Mode
	Blinking Red LED	USB Mode



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1.5.1 Button Operation

1. Power On

1) Turn on the power by pressing the power button until the buzzer sounds.
2) If the communication mode LED blinks after the buzzer sounds, the power is on.

If the gun handle has been disassembled and reassembled, the instrument will not power on immediately when the power button is pressed. This is not a malfunction, but a procedure to check the battery status when first connecting the battery. In this case, if you hold down the power button longer than normal, it will power on normally**.**

2. Power Off

1) If the power button is pressed while the power is on, the power is turned off.
2) If the communication mode LED turns off after the buzzer sounds, the power is off.

3. Data Communication Mode Setting

1) Press the communication mode switch button to sequentially switch between 'Bluetooth data communication mode' and 'USB data communication mode'.
2) It takes about 2~3 seconds to change data communication mode.

4. Switch Barcode / RFID Function (Barcode is optional function)

Each time the Barcode/RFID toggle button is pressed, the 'Barcode', 'RFID', 'Trigger Input' mode is sequentially switched.

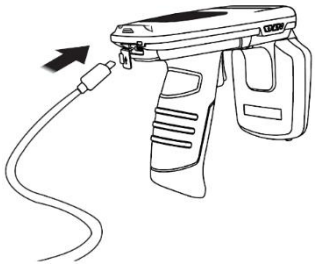
'Trigger input mode' is a mode in which the barcode or RFID reading function does not operate when a trigger signal is input and only the trigger signal is input to the host device.

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1.6 Charging

1.6.1 Charge using the adapter

1) Plug the charging adapter into the USB port on the back of the **RP200**.
2) It is recommended to use an adapter of 5V / 2A or higher. Charging time will increase if you use an adapter with a low power output.

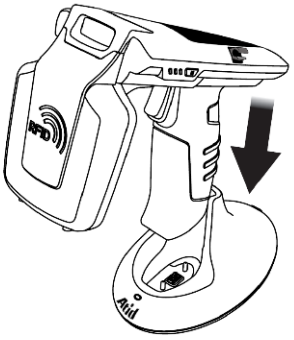


1.6.2 Charging with PC USB Port

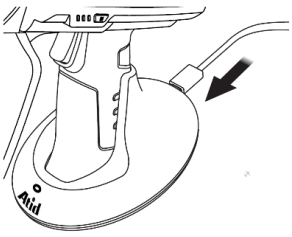
1) The device is charged even when a USB cable is connected for data communication with a PC.
2) In this case, it is charged at a low speed and if the device and the smartphone are connected, the smartphone is not charged.

1.6.3 Charging with Cradle

1) Attach the product to the cradle.



2) After connecting the USB cable to the cradle, connect it to the charger to start charging.



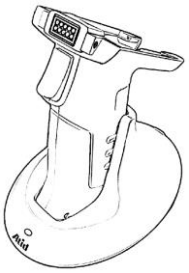
When charging in the cradle while the battery is connected to the main body, the charging LED on the main body indicates the charging progress.

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1.6.4 Charging the Gun Handle

1) The gun handle can be charged in the cradle by itself.
2) It is recommended to charge with the supplied adapter (5V/3A). If you use an adapter with a low output, the charging time will increase.
3) When charging the gun battery, the LED on the cradle indicates the charging status as shown below.

LED	Action	Function
Cradle LED	Orange LED On	Charging
	Green LED On	Full Charging



1.6.5 Support for simultaneous charging of Smartphones

1) If the **RP200** is connected to the smartphone through the host connection cable, the **RP200** and the smartphone are charged at the same time.
2) In Android and Windows, communication with **RP200** through USB port is not possible while charging.
3) If the **RP200** is charged while it is connected to the device, the charging speed will be slow.
4) Simultaneous charging is not possible when connected to a PC. If you want simultaneous charging, use a charging adapter.
5) This product does not support Quick Charge.

'Simultaneous charging of smartphones' may not be supported depending on the smartphone model.

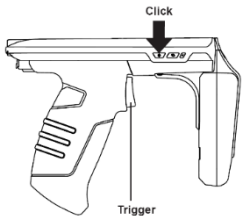
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Chapter 2 – Installation & Operation

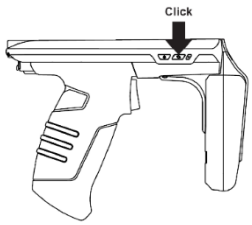
2.1 Bluetooth Mode Setting

2.1.1 Enter setting mode

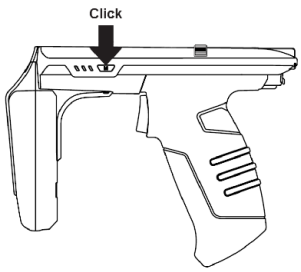
1) While pulling the trigger of the **RP200**, press the power button to turn on the power.



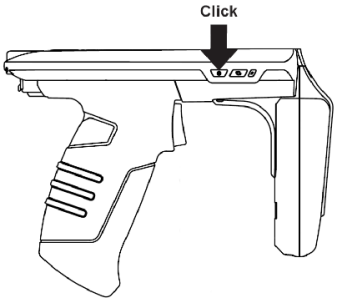
2) Press the communication mode switch button to set the communication mode LED to blink green. (set to Bluetooth mode).



3) Each time you press the barcode/RFID toggle Button 'BLE/HID/SPP' mode is switched sequentially. Communication mode LED operates differently depending on the mode.

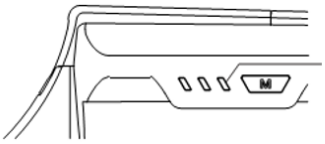


4) After setting the mode you want to set, press and hold the power button to complete the setting.



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2.1.2 LED Indication for each Bluetooth Mode



LED	Action	Function
Communication Mode LED	Green LED blinks quickly	BLE Mode
	Keep Green LED on	HID Mode
	Green LED blinks every 2 sec	SPP Mode

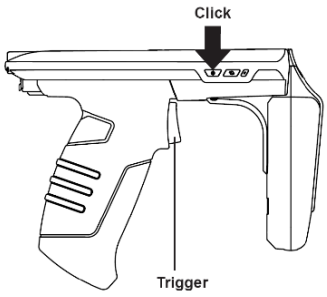
- **If the Bluetooth data communication mode setting is incorrect, it may not be able to connect to the iPhone, Android, or Windows Host device being used. Please pay attention to the settings.**
- **iPhone can only be connected in BLE mode.**
- **For Android and Windows, SPP mode or HID mode can be used. However, in HID mode, the RP200 main body cannot be controlled by the application.**

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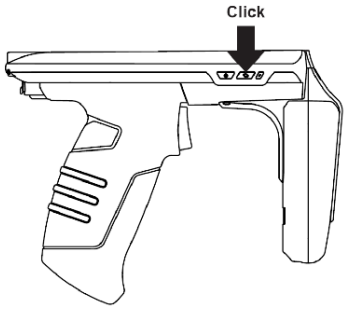
2.2 USB Data Communication Mode Setting

2.2.1 Enter Setting Mode

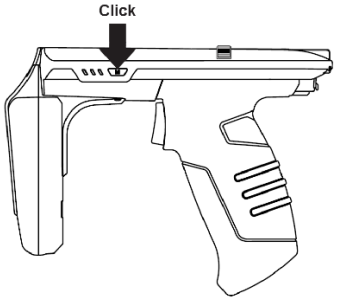
1) While pulling the trigger of the **RP200**, press the Power Button to turn on the power.



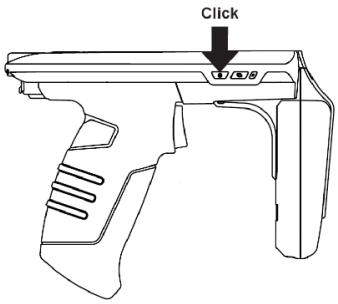
2) Press the Communication Mode Switch Button to set the communication mode LED to blink Red. (set to USB mode.)



3) Each time you press the barcode/RFID toggle Button M, 'BLE/HID/SPP' mode is switched sequentially. Communication mode LED operates differently depending on the mode.

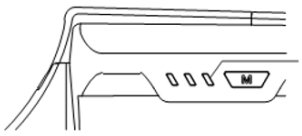


4) After setting the mode you want to set, press and hold the Power Button to complete the setting.



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2.2.2 LED Indication for each USB Mode



LED	Action	Function
Communication Mode LED	Red LED blinks every 2 secs	VCP Mode
	Keep Red LED on	HID Mode

- **If the USB data communication mode setting is incorrect, it may not be able to connect to the Android or Windows device being used. Please pay attention to the settings.**
- **Connection with iPhone is not supported.**
- **For Android and Windows, SPP mode or HID mode can be used. However, in HID mode, the RP200 main body cannot be controlled by the application.**

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2.3 Setting Mode with Barcode (Optional)

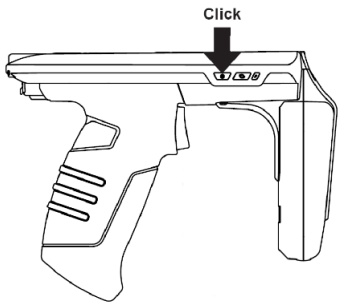
2.3.1 Functional Description

Bluetooth Data Communication mode (BLE , HID, SPP), USB Data Communication mode (VCP, HID), and System Default Settings can be easily set by reading the special barcode.

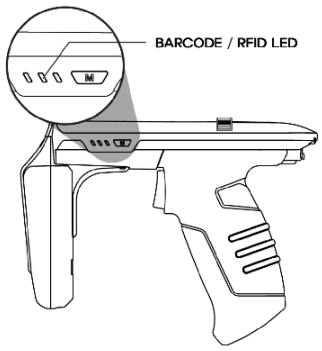
- **This setting mode is supported from firmware version ‘ats-5.1.1.11’.**
- **When setting with the USB cable connected, the device does not reset after setting.**

How to set up

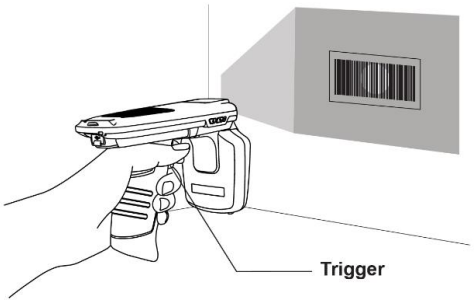
1) Press the power button to turn on the power.



2) Press the Barcode/RFID Toggle Button to set to Barcode mode. (In Barcode Mode, the LED lights Blue.)



3) Aim at the barcode of the function you want to set and scan by pressing the trigger button.



4) If the setting is completed normally, the system is reset.

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Chapter 3 – Android Demo Application

3.1 Andorid Host Demo Application

3.1.1 Android Host – Bluetooth Connection

1) Install the Demo Application (Unitech Reader: Demo App) included in the provided SDK.

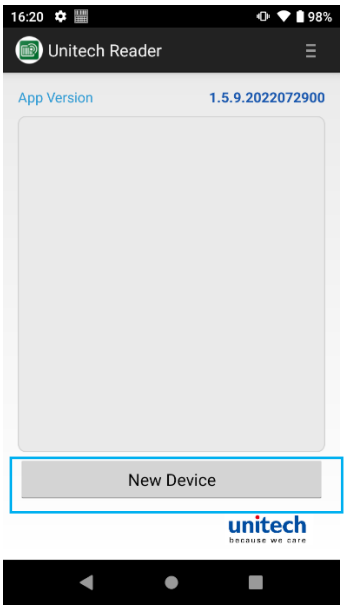
- **In order to connect the Android Demo App and the device, the Bluetooth Data Communication Mode of the device must be set to SPP mode.**
- **Demo App for Android is available from Android version 4.2 Jelly Bean or later.**
- **For the smooth operation of the app, it is recommended to use a device with Android version 6.0 or higher.**

2) Run the downloaded Demo App with the icon shown below.



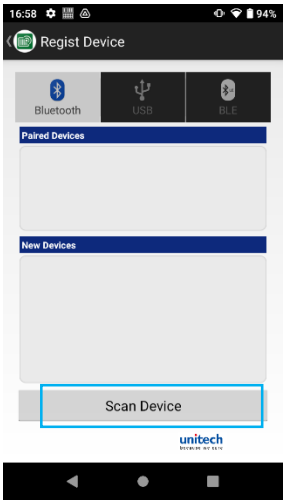
Unitech Reader

3) Click 'New Device' on the next screen to activate the Bluetooth function of the host device.

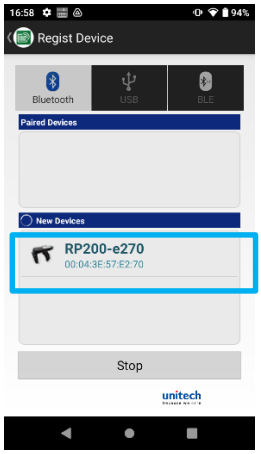


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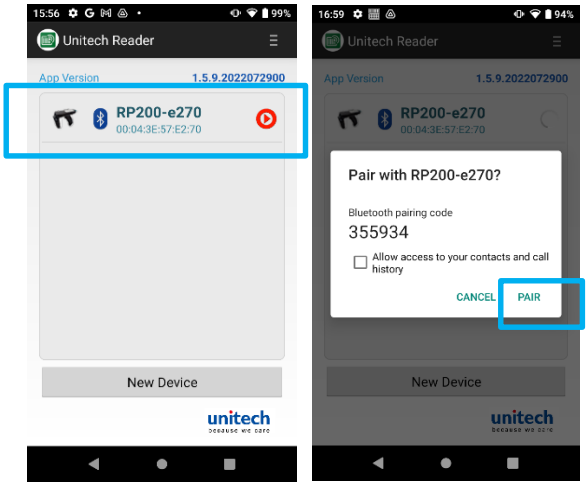
4) Select ‘Bluetooh’ on the converted ‘Regist Device’ screen and click 'Scan Device' from the menu.



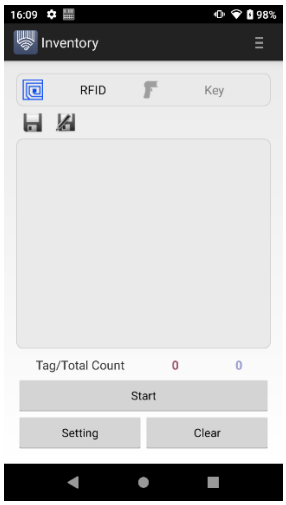
5) Connectable devices are displayed in ‘New Devices’. If you click on the product, the device information is registered and you return to the previous screen.



6) Click the “product section” and “Pair” to connect the RP200 to the host device.



7) When connected to the device normally, the ‘Inventory’ window is activated.

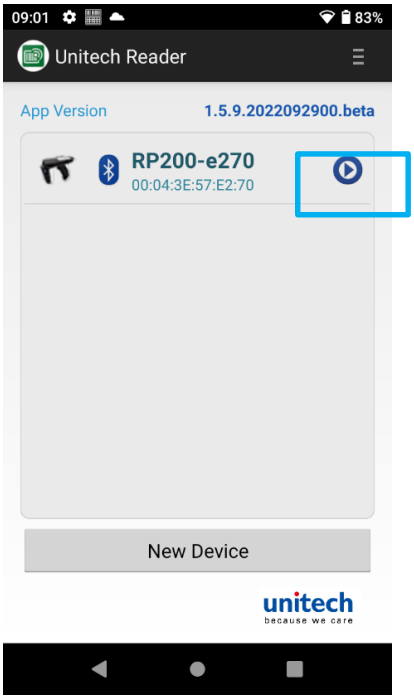


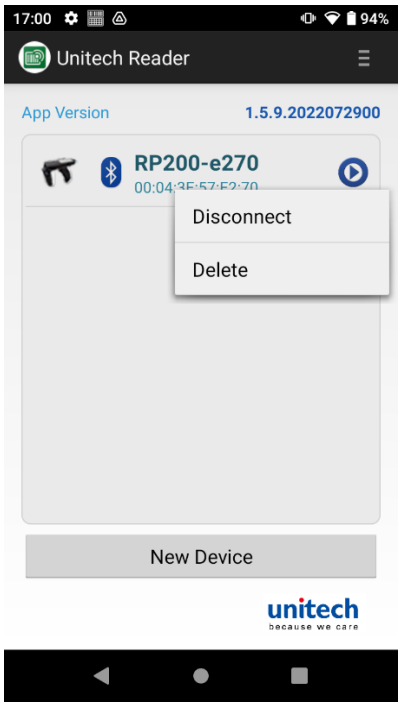
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3.1.2 Android Host – Disconnect Bluetooth

1) While the **RP200** is connected to the host device, touch the icon of the registered device on the ‘Registered Devices’ selection screen.

2) Click ‘Disconnect’ in the activated menu to disconnect the connection between the host device and the **RP200**.



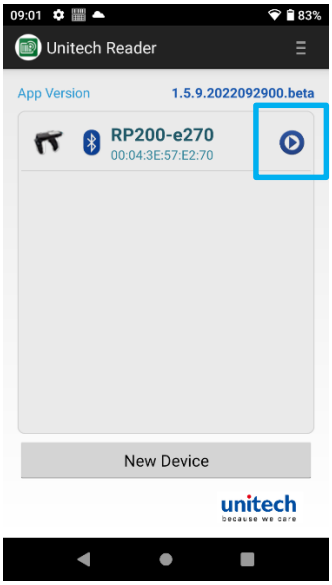


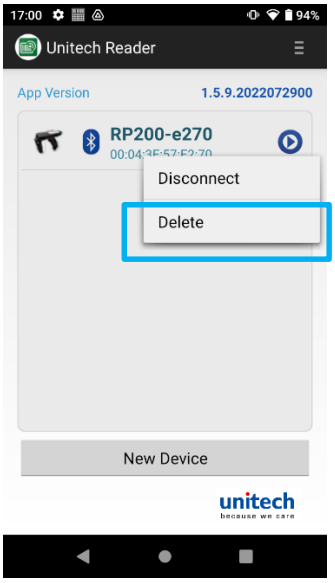
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3.1.3 Android Host – Remove Bluetooth Connection Information

1) While the **RP200** is connected to the host device, touch the icon of the registered device on the ‘Registered Devices’ selection screen.

2) Click ‘Delete’ in the activated menu to delete **RP200** device registration information.





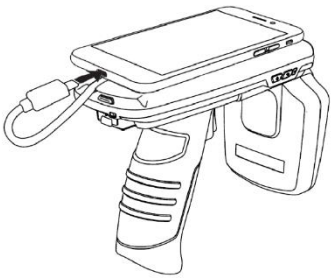
Even if the connected device is deleted from the app list, it is not removed from the Android device's Bluetooth connection list.

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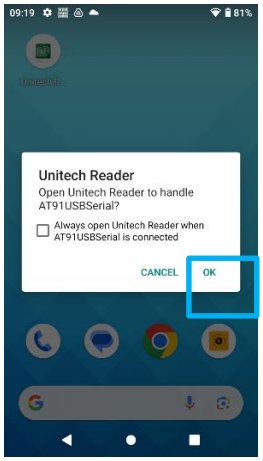
3.1.4 Android Host – USB Connection

- **The device must have USB data communication mode set to VCP mode in order for the demo app for Android and the device to connect to the USB port.**
- **Press the communication mode switch button to sequentially switch between 'Bluetooth data communication mode' and 'USB data communication mode'.**

1) Connect the USB cable for host connection to the smartphone USB port.

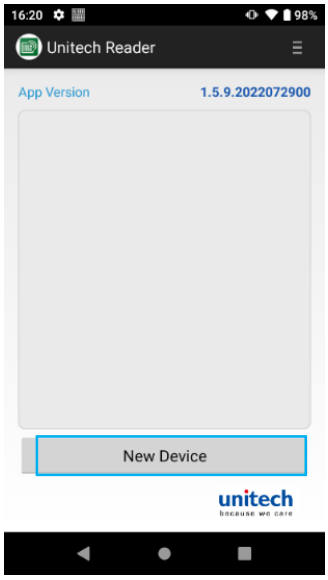


2) When connected to the device normally, a window asking whether to allow access is activated. Click 'OK' to connect the RP200 to the host device.

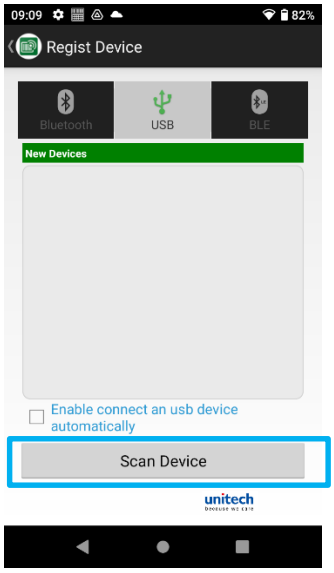


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3) Click 'New Device' from the menu that is activated.



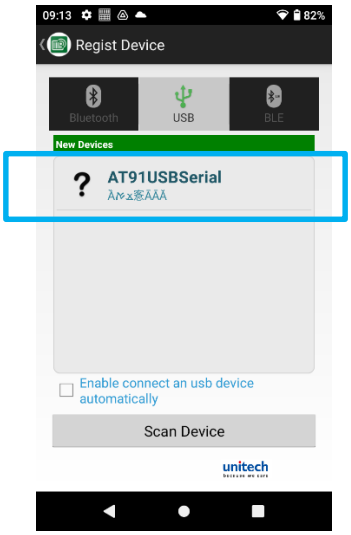
4) the converted ‘Regist Device’ screen, select the ‘USB’ menu and click the ‘Scan Device’ button.



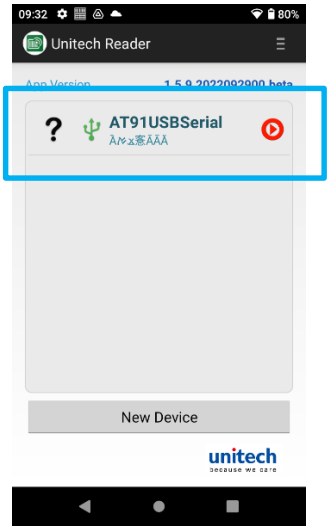
If you check the ‘Enable connect an usb device automatically’ option, it will be connected automatically from the next connection.

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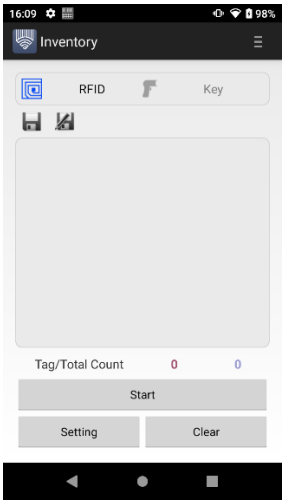
5) Connectable devices are displayed in the ‘New Devices’ item. If you click on the product, the device information is registered and you return to the previous screen.



6) Click the “product section” to connect the RP200 to the host device.



7) When connected to the device normally, the ‘Inventory’ window is activated.

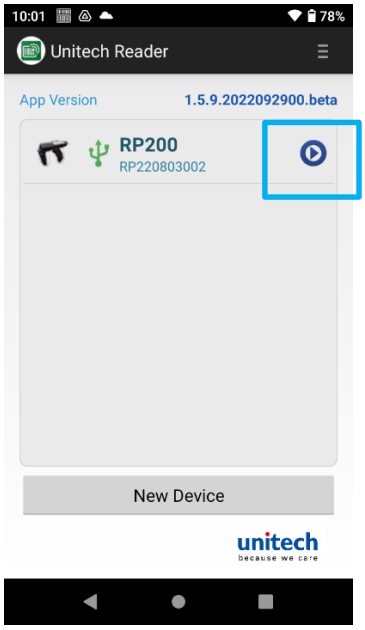


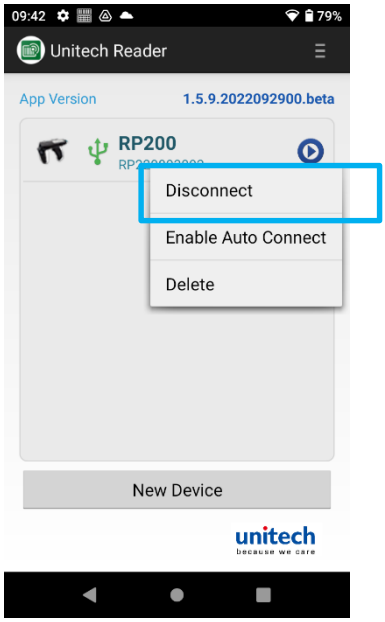
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3.1.5 Android Host – Disconnect USB

1) With the **RP200** connected to the host device, touch the registered device information icon on the ‘Registed Devices’ selection screen.

2) Click ‘Disconnect’ in the activated menu to disconnect the connection between the host device and the **RP200**.



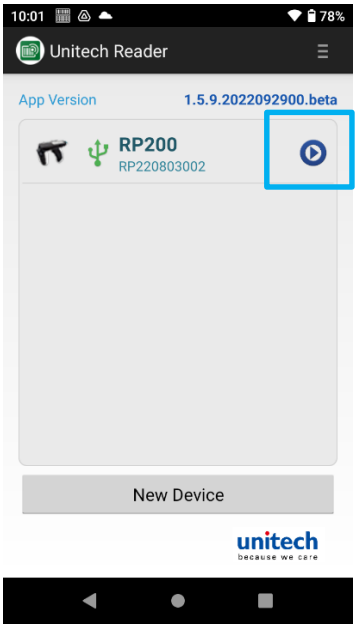


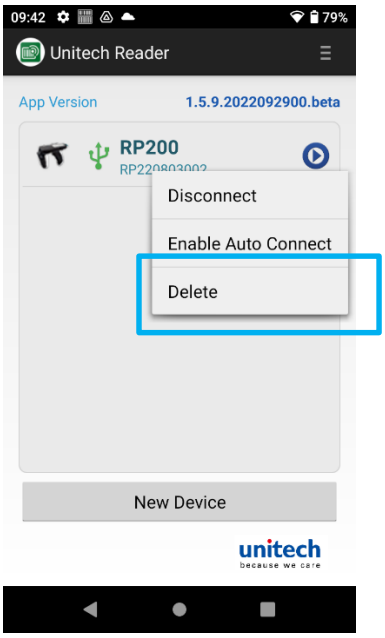
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3.1.6 Android Host – Remove USB Connection Information

1) With the **RP200** connected to the host device, touch the registered device information icon on the ‘Registed Devices’ selection screen.

2) Click ‘Delete’ in the activated menu to delete **RP200** device registration information.



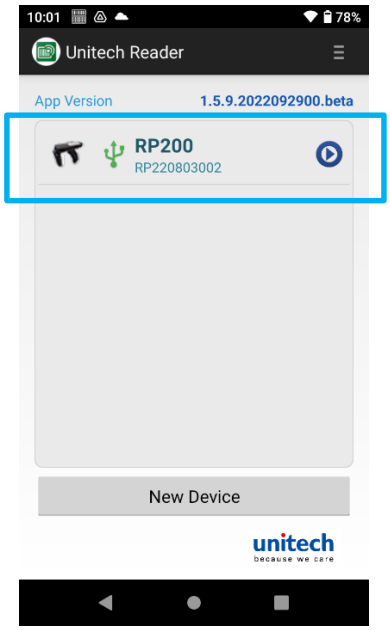


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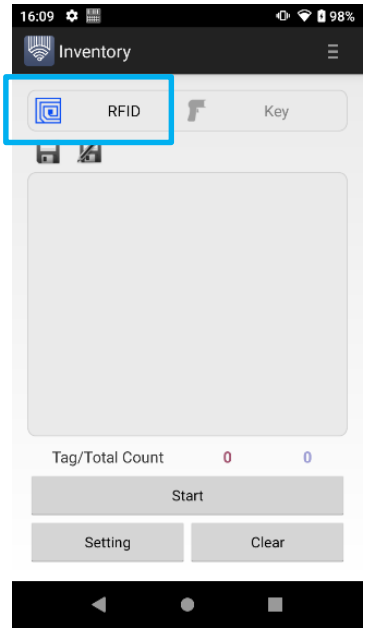
3.1.7 Android Host - RFID Tag Scan

In order to connect the Android Demo App and the device, the Data Communication Mode of the device must be set to 'SPP' for Bluetooth connection and 'VCP' for USB connection.

1) After completing the connection with the host device, touch and hold the device name shown below on the connected device on the 'Registed Devices' screen to enter the 'Inventory' screen.



2) Click 'RFID' in the menu at the top of the 'Inventory' screen.

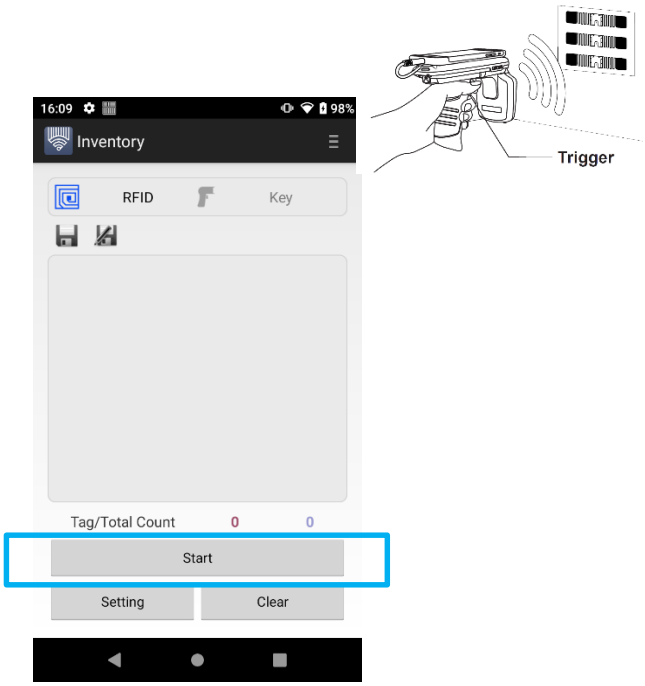


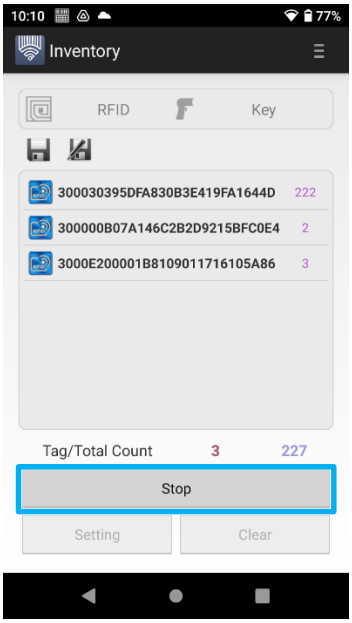
To enter the 'Inventory' screen, you must touch the device name for a certain period of time.

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3) Click the 'Start' button on the Demo App or pull the **RP200** trigger to start data reading.

4) The collected data is displayed on the 'Data' screen of the Demo App. Click the ‘Stop’ button on the Demo App or release the **RP200** trigger to stop data collection.



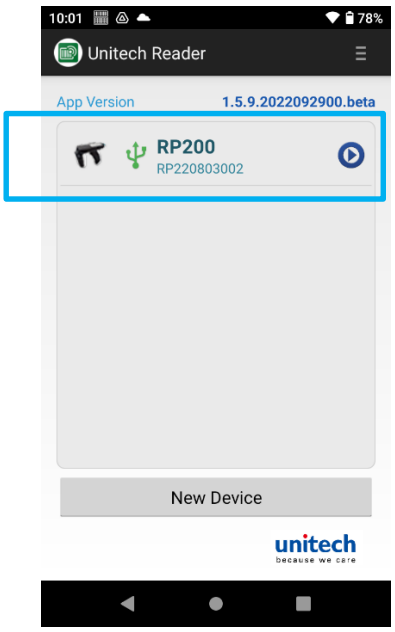


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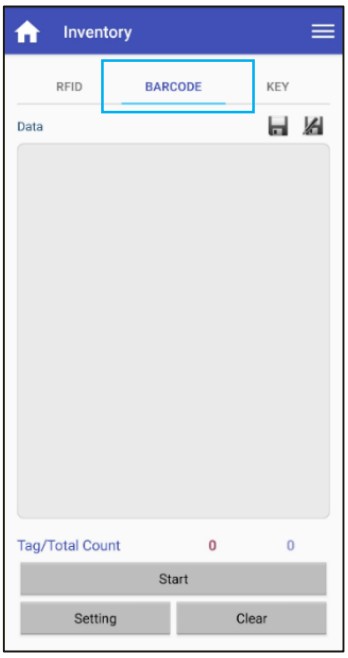
3.1.8 Android Host – Barcode Scan (Optional)

In order to connect the Android Demo App and the device, the data communication mode of the device must be set to ‘SPP’ for Bluetooth connection and ‘VCP’ for USB connection.

1) After completing the connection with the host device, touch and hold the device name shown below on the connected device on the ‘Registed Devices’ screen to enter the ‘Inventory’ screen.



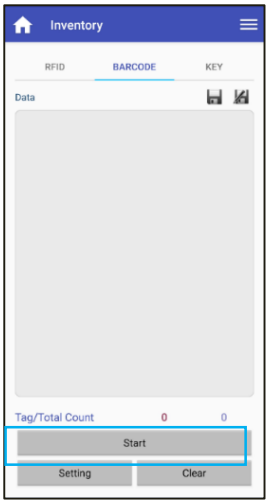
2) Click ‘BARCODE’ in the menu at the top of the ‘Inventory’ screen.

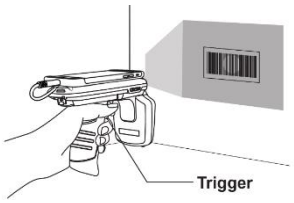


- **To enter the ‘Inventory’ screen, you must touch the device name for a certain period of time.**
- **If you select the ‘BARCODE’ menu on the ‘Inventory’ screen, if the current setting of RP200 is RFID mode, it is automatically changed to barcode mode. The reverse works the same.**

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3) Click the 'Start' Button on the Demo App or pull the **RP200** trigger to start data reading.





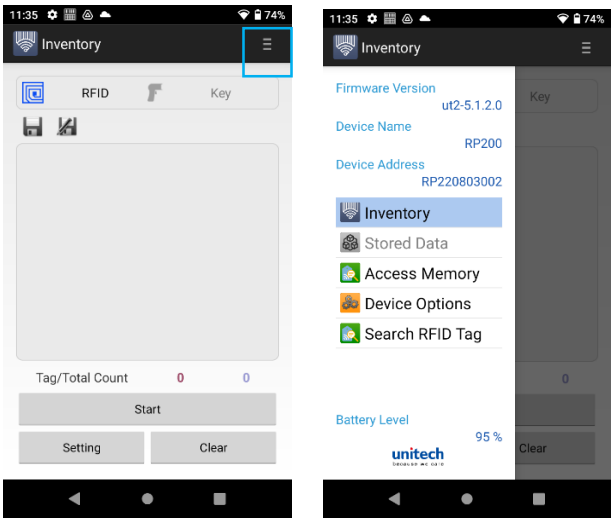
4) If the barcode is read normally, the collected data is displayed on the 'Data' screen of the Demo App.



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3.1.9 Android Host – Demo Application Menu

As shown in the following figure, if you touch the icon on the top right of the Inventory screen or swipe the screen from left to right with your finger, you can see the demo menu appear. In this menu, you can check device information and make basic settings.



1) **Device Name** : Device name composed of device name and Bluetooth MAC Address.
2) **Device Address** : Bluetooth MAC Address of the device.
3) **Firmware Version** : The firmware version currently installed in the device.
4) **Inventory** : Returns to the Inventory screen. You can also return by touching an area other than the menu.
5) **Access Memory** : Enters Memory Access mode of Tag.
6) **Search RFID Tag** : Enters the Search RFID Tag mode.
7) **Device Options**
   - **Firmware Version**
   - **Serial No** : Displays the serial number information of the device.
   - **Auto Off Time** : Set the time to turn off the device when not in use.
   - **Button Mode** : Sets the buzzer sound when the button is pressed.
   - **Button Notify** : Set whether to operate the buzzer and vibrator when the button is pressed.
   - **Alert Notify** : Set whether to operate the buzzer and vibrator when a notification occurs.
8) **Battery Level** : Displays the current remaining battery status.

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For details on how to use the Demo App, refer to the 'RP200 Reader Demo Guide for Android' document included in the SDK.

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3.2 Firmware Update

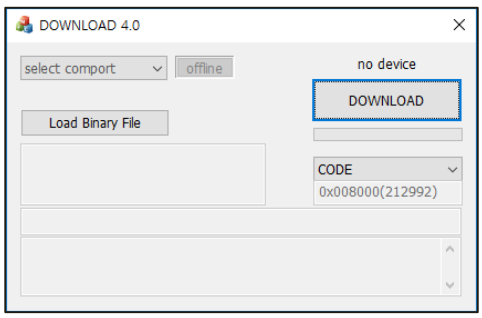
This product may be updated in the future to enhance its functionality and performance. If there is a problem during Firmware's update operation, the product may not be recoverable. So, if you don't have knowledge of software and hardware, please contact your place of purchase or manufacturer for updates.

Firmware Update Preparation

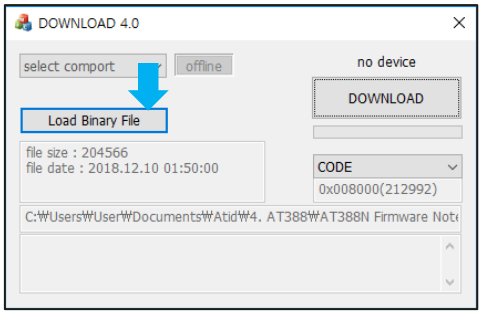
1) PC with Windows 7 or higher version (USB 2.0 Port)
2) RP200
3) USB Type-C Cable
4) Firmware File (xxxx.bin)
5) Firmware Update Tool (Available from reseller or manufacturer if required)

Firmware Update Procedure

1) Save the firmware file in a specific folder on your PC.
2) Execute the firmware update program.

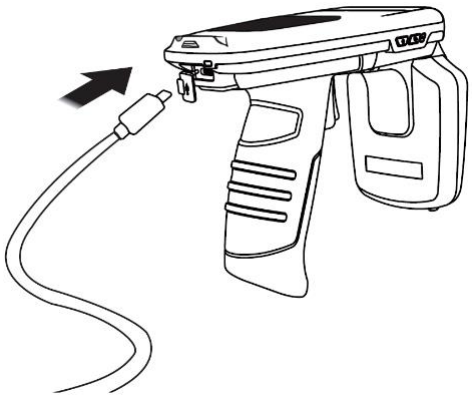


3) After clicking the ‘Load Binary File’ button, designate the folder where the firmware file was previously saved.

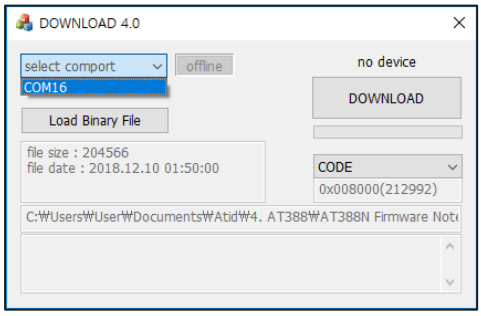


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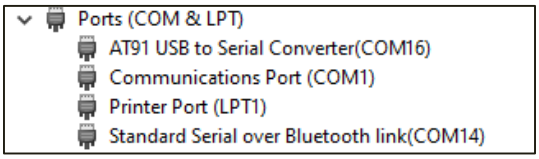
4) Connect **RP200** to PC using USB Cable.



5) Set the communication mode setting of **RP200** to USB mode, VCP.
6) Click the ‘select comport’ button of Firmware Download Tool. Then, select the COM Port assigned to **RP200** connected to your PC.

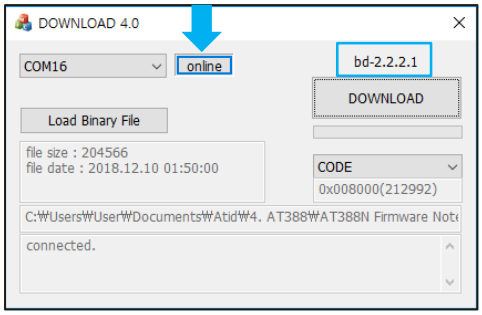


- **COM Port is assigned a different number depending on the PC situation.**
- **Control Panel ‘Device Manager → Ports (COM & LPT)’ Please check the COM Port number assigned to ‘AT91 USB to Serial Converter’ before entering.**

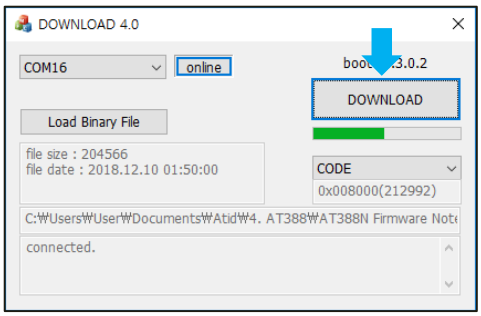


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7) Click the ‘online’ button to attempt to connect to the device. When connected normally, the button changes to ‘online’ and displays the current firmware version.



8) Click the ‘DOWNLOAD’ button to start the firmware update.



- **If the update is interrupted while the update is in progress, the device may become unusable.**
- **The update may fail due to external factors. In this case, please try again.**

9) After a while, the product will automatically restart when the download is complete.

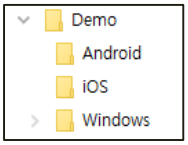
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3.3 SDK (Software Development Kit)

When the device operates in interactive mode, a separate program must be developed by referring to the SDK provided by RP200 in order to utilize the data transmitted from the host device. RP200 Bluetooth Reader SDK supports three platforms: Android, Windows, and iOS.

Platform	Development Tool	Development Language
Android	Andorid Studio	Java
Windows	Visual Studio	.NET Framework (C#), UWP (C#)
iOS	XCODE	Objective-C
SDK Package Configuration	**Details**	
Demo	Demo Application	
Doc	Development documents such as user guides / manuals, programmer guides, demo guides, etc.	
Lib	Library for application development	
Sample	Sample Code	
USB Drive for Windows	Windows USB Driver of RP200 Bluetooth Reader	

Each folder is composed of subfolders for each platform as shown below.



3.3.1 SDK Download

If you need an **RP200** SDK, please contact us info@hq.ute.com

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