Atid AT188N Plus Compact RFID or Barcode Bluetooth Reader User Guide

Contents

Atid
All that Identification

Atid AT188N Plus Compact RFID or Barcode Bluetooth Reader

Product Overview

The AT188N Plus is a compact Barcode / RFID reader that can be held in one hand. It is designed to provide basic performance of an industrial product that can be used without any problem even in awaterproof/dustproof environment with an IP65 rating and drop test of 1.5m. The device can be used as a data collector in various fields including medicine management, inventory management, logistics, delivery tracking, production management, and access control.

Screen Configuration

The AT188N Plus has a status display area and a message display area. The status display area shows the battery level,communication status, and other device information. The message display area displays scanned barcode or RFID tag data.

Barcode and RFID Tag Data Capture

The AT188N Plus can capture barcode and RFID tag data. The barcode data capture function allows you to scan barcodes using the device’s built-in scanner. The RFID tag data capture functionallows you to read RFID tags using the device’s built-in RFID reader.

Using the Android Demo Application

The AT188N Plus comes with an Android demo application that canbe used to test the device’s functionality. The user guide provides instructions on how to use this demo application.

Windows Host Bluetooth Connection Settings

The AT188N Plus can be connected to a Windows host device using Bluetooth. The user guide provides instructions on how to configurethe Bluetooth connection settings for Windows 7 and Windows 10 platforms.

Using the Windows Host Demo Application

The AT188N Plus comes with a Windows host demo application that can be used to test the device’s functionality. The user guideprovides instructions on how to use this demo application.

Using the iOS Host Demo Application

The AT188N Plus comes with an iOS host demo application that can be used to test the device's functionality. The user guide provides instructions on how to use this demo application.

Firmware Update

The user guide provides instructions on how to update the firmware of the AT188N Plus. The firmware update procedure involvespreparation steps and the firmware update procedure itself.

SDK (Software Development Kit)

The user guide provides information about the Software Development Kit (SDK) for the AT188N Plus. The SDK can be used todevelop custom applications for the device.

Product Usage Instructions

To use the AT188N Plus, follow these steps:

1. Turn on the device by pressing and holding the power button.
2. If required, connect the device to a host device using Bluetooth.
3. To capture barcode data, aim the device's built-in scanner atthe barcode and press the scan button.
4. To capture RFID tag data, hold the device's built-in RFID reader near the RFID tag and wait for the device to read thetag.
5. The captured data will be displayed in the message display area of the device's screen.
6. To update the firmware of the device, follow the instructions provided in the user guide.
7. To develop custom applications for the device, use the Software Development Kit (SDK) provided in the user guide.

Before the Beginning

The objective of user guide is to pass the basic contents related with AT188N Plus' maintenance and smooth uses. User guide inclusive of text, images, logos, product name may not be distributed, modified, displayed, reproduced (in whole or in part) without the prior written permission of ATID Co,.Ltd. Furthermore, the described contents in this document are subject to change without notice for improving or maintaining the product and we inform the user that some material can be different with the described contents due to the firmware changes of product.
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Product Overview

AT188N Plus is a compact Barcode / RFID reader that can be held in one hand . This product basically satisfies the basic performance of an industrial product that can be used without any problem even in a waterproof/dustproof over IP65 and drop test of 1.5m. It is a product that can be used as a data collector in various fields such as medicine management, inventory management, logistics , Delivery tracking, production managemen t and access control.
This product can collect 1D/2D barcode and UHF RFID Tag information from one device. The collected data can be sent to the Host device via Bluetooth or USB transfer in a Realtime / Batch / Interactive manner. SDK is supported for eas y processing of collected data on host devices with Windows, Android, and iOS.

Key Features

1. Compact size barcode/RFID reader.
2. It is a sturdy industrial product that meets IP65 and 1.5m drop standards.
3. Zebra (formerly Motorola)’s SE4710 barcode engine is adopted, enabling fast and accurate barcode data collection
4. PHYCHIPS RFID Module is applied to read/write UHF RFID Tag.
5. Three modes are available: Batch Process, Realtime Process, and Interactive Process.
6. Using a USB cable, it can be connected to a PC and charged.
7. Even if user do es n’t have an adapter for charging, user can use a regular smartphone charger to charge it.
8. The 1.3 inch OLED screen allows user to immediately check the collected data
9. Battery replacement is simple, and if the user runs out of battery during use, the battery can be replaced

Product Specifications

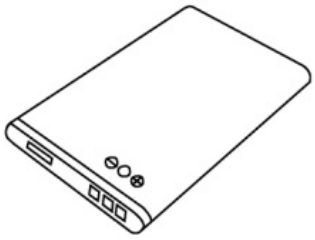
Performance			
Processor		ARM7 Core	
Supported Platforms		Windows, Android, iOS (BLE Only)	
Internal Storage		1Mbyte Flash Memory	
Physical Characteristics			
Dimensions (W x L x H)		115 x 50 x 35 mm	
Weight		160g (With Battery & UHF Option)	
Power		1,100mAh Lithium-Ion Battery	
Display		1.3 inch OLED Diaplay	
USB Interface		1 USB Port / USB Type-C	
Notification		LED Indicator, Buzzer, Vibrator	
Data Collection			
RFID UHF	Protocol	EPC GEN2, ISO/IEC 18000-6C	
	Reading Range	~ 1m (Depending on environment and tag type)	
	Writing Range	~ 0.5m	
	RF Output	FCC / CE JAPAN	: 0.5W (MAX) : 0.2W (MAX)
	Frequency Range	US / FCC EU / CE JAPAN	: 902MHz ~ 928MHz : 865MHz ~ 868MHz : 920MHz ~ 923MHz
	Antenna	Circular Antenna / 1.6 dBic	
Barcode		2D Engine (Support to read 1D & 2D Barcode)	
Communication			
Bluetooth		BT V2.1+EDR / BLE V4.1	
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	

Configuration of the product

Product Components

AT188N Plus

USB Type-C Cable

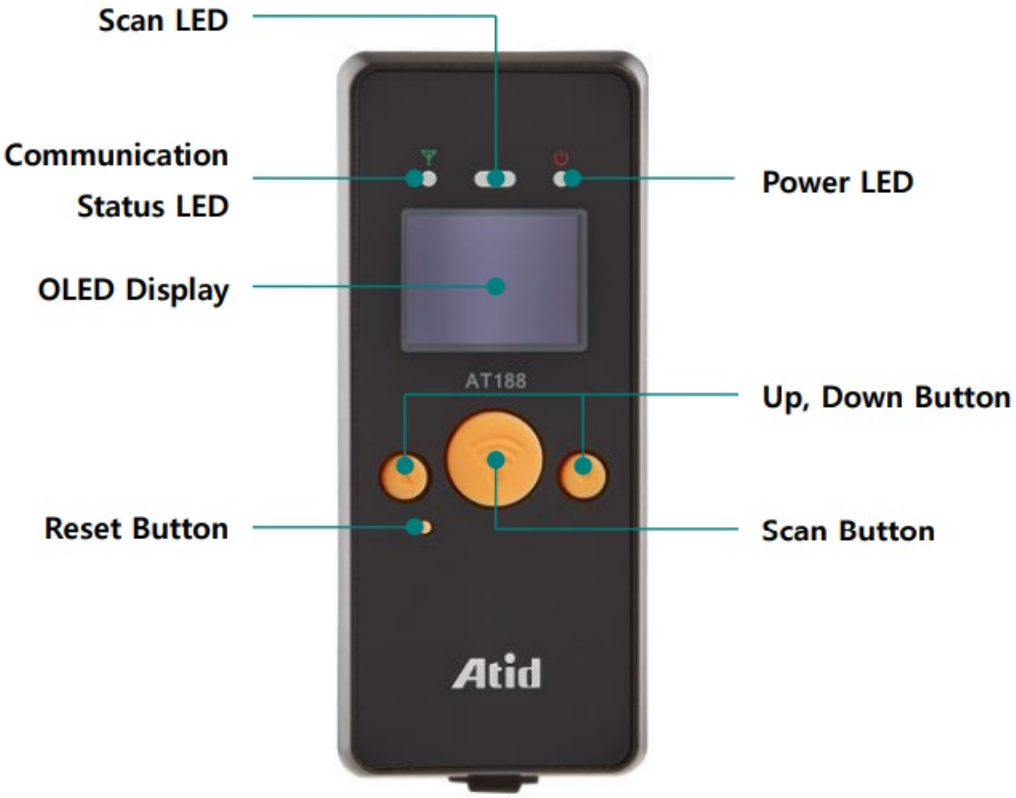


Battery

Hand Strap or Neck Strap

Charging Adaptor (Option)

Product Appearance – Front



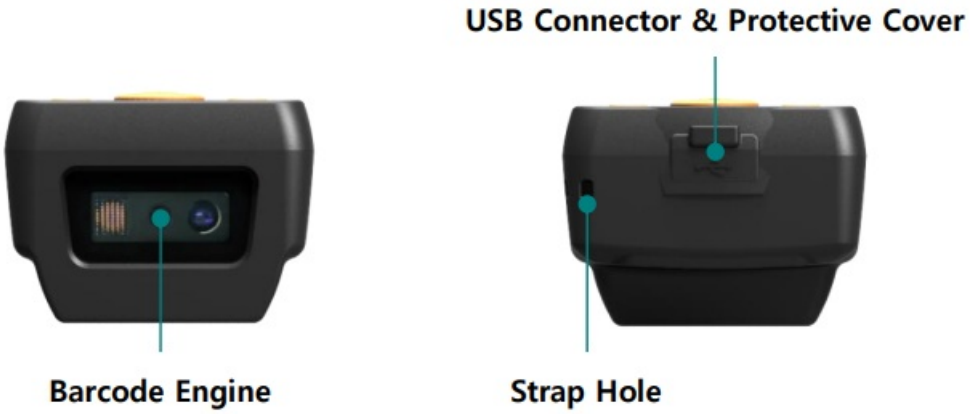
1. **Scan LED :** When the barcode or RFID tag information is recognized, the blue LED is turned on off
2. **Communication Status LED :** Displays the connection status of Bluetooth and USB
3. **Power LED :** Displays the charging status. (R ed charging, G reen fully charged)
4. O LED Display Displays the current status of the product and collected data

5. Up, Down Button Moves items such as menu selection or calls the setting menu
6. **Scan Button :** It is used to ‘S can or select a menu
7. **Reset Button :** Rebooting the product

Product Appearance – Back, Left/Right

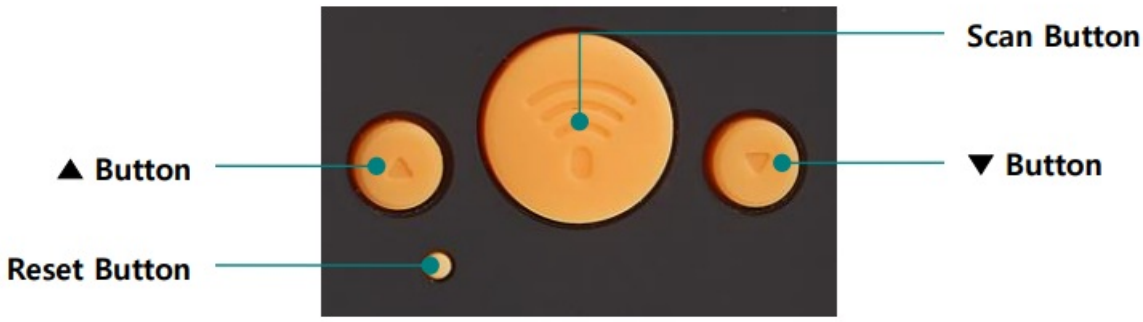
1. RFID Antenna HF or UHF RFID antenna is built in, and radio waves are emitted through this part when tag data is recognized.
2. **Battery Cover :** After removing the cover, the battery can be replaced
3. **Battery Cover Lock :** Secure the battery cover to prevent the battery from coming off

Product Appearance – Top, Bottom



1. **Barcode Engine:** This is where the barcode engine is built. 1D or 2D modules are optional. This part is very important for barcode data recognition, so be careful not to get contaminated or damaged.
2. **USB Connector & Protective Cover :** When user open s the cover covered by the protective cover, the USB Type C connector is located. User can charge the product by connecting a USB cable or charging adapter to the USB port, or transfer data stored in the product to a PC. When using or storing the product, close the protective cover to protect the product.
3. **Strap Hole :** User can enhance the p ortability of the product by connecting a hand strap or neck strap

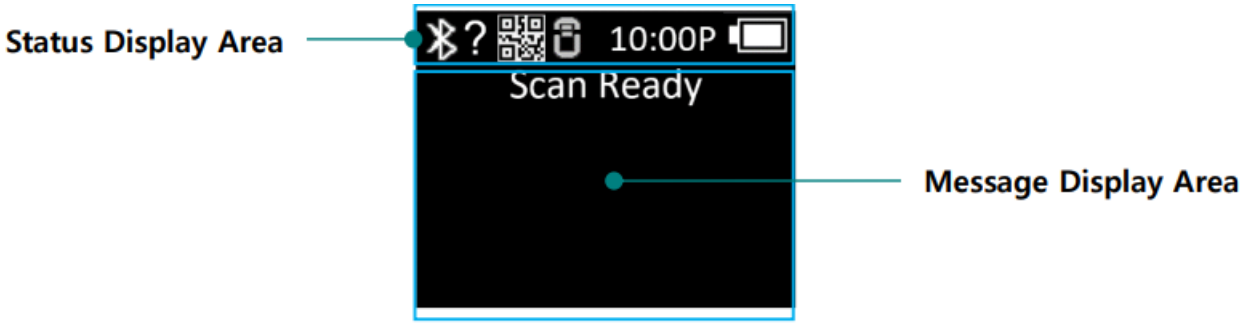
The purpose and function of the buttons



1. ▲Button Scrolls the screen upwards or allows user to select the next item. Each short press on the ‘Scan Ready’ screen switches between B arcode and RFID functions.
2. Scan Button Collects B arcode or RFID tag data, or serves as a decision button to enter the menu of the currently selected item
3. ▼ Button Scrolls the screen downwards, or allows you to select the next item. Long press to power off
4. Reset Button R ebooting the product

Screen Configuration

This product displays various contents, such as displaying the current status and read data of the product through a small OLED screen. The screen is largely divided into a ‘Status Display Area’ and a ‘Message (data) Display Area’.



Status Display Area
Displays the operation setting status of the product, the current time, and the remaining battery level information.

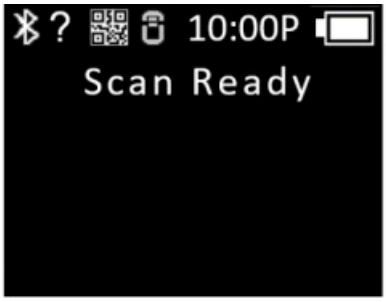
1. Display of , Connection Mode : Displays USB ( ) connection mode or Bluetooth ( ) connection mode.
2. **? , H , S , L :** Displays the connection status with the Host.
   - No Connection : ?
   - Connected by HID Mode : H
   - Connected by Serial Mode : S
   - Connected by BLE Mode : L
3. , : Displays Scanner Mode and the activation status of Barcode ( ) and RFID ( ) functions through Icon. (Light state : ON, Dark state : OFF)
4. **10:00P :** Displays the time set in the device. (It may be different from the current time. User can reset it in the System Preferences menu.)
5. Battery Status : Display the current battery level in 4 levels through icon. ( )

Message Display Area
Displays captured the Barcode and RFID tag information and the quantity of currently recognized data.

Selection of Operation Mode

This product provides a function to read basic B arcode and RFID tag data after turning on the power without connecting to the host device

Scan Mode
This is the first screen user will see when user turn s on the product, and it is a mode wher e user can check the read barcode and RFID tag data in real time or connect to the host device.

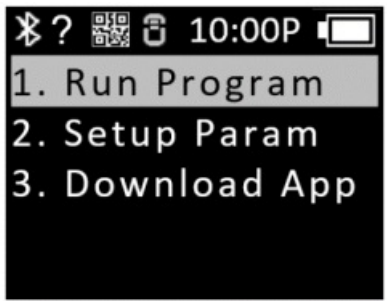


Scan Setting Mode

1. This is a mode in which the user can check the B arcode or RFID tag information read, manage the storage memory, and select the communication mode
2. In Scan Mode ’’, press ‘▲ B utton for 2 seconds to enter

Device Setting Mode

1. Set all functions related to product operation or change the set contents. User can mainly change the reader operation mode setting, communication mode setting, and system setting
2. If user turn s on the power while pressing the ‘▲ B utton in the power off s tate, user can enter this mode



Each menu is as follows.

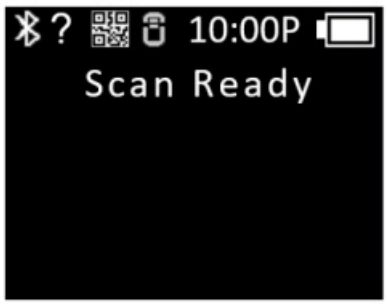
- **Run Program :** Completes setting and returns to scan mode

- **Setup Param :** User can change the system settings
- **Download App :** Activate the device's USB interface and enter Firmware Download mode.

Power ON, OFF

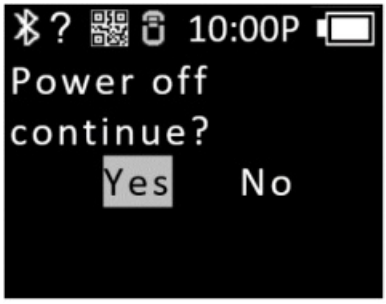
Power ON

1. Press and hold the 'Scan B utton' in the center of the product for about 2 seconds
2. Booting… ' message is displayed on the screen and then When the 'Wait…' message is displayed, release the 'Scan B utton'.
3. When the 'Scan Ready' message is displayed, it means the B arcode or RFID tag data is ready to be read.



Power OFF

1. In the Scan Ready state, press and hold the '▼ B utton for about 2 seconds.
2. Select Y es using the '▲ B utton or '▼ B utton and then press the Scan B utton to turn off the power.
3. If select 'No', it will return to scan mode again



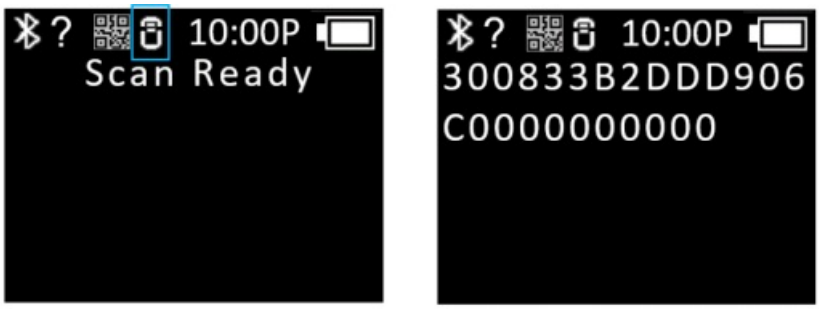
Barcode, RFID Tag Data Capture

Barcode Data Capture

1. With the product powered on, press the '▲ B utton briefly to brighten the barcode icon ( ) to switch to B arcode recognition mode. (Light state: ON, Dark state: OF F)
2. When the 'Scan Ready' message is displayed, the barcode can be recognized by pressing the 'ScanButton'.

RFID Tag Data Capture

1. When the product is powered on, press the '▲ B utton briefly to brighten the RFID icon ( ) to switch to the RFID tag data recognition mode. (Light state: ON, Dark state: OFF
2. When the 'Scan Ready' message is displayed, you can read the RFID Tag data by pressing the 'Scan Button'.

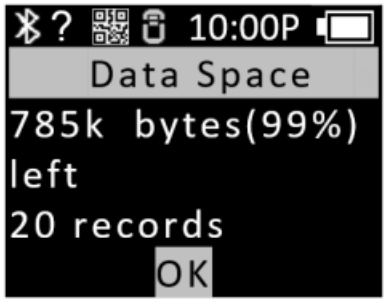


Scan Setting Mode

The scan setting mode can be entered by pressing the'▲ Button for 2 seconds in the scan mode. It consists of a total of 8 menus, and the contents of each item are as follows

1. **Scan Data**

   After completing the setting, return to Barcode or RFID tag data scanning mode.
2. **View Data**
    1. When set to 'Batch Process Mode', it shows the data stored in the internal memo
    2. User can check the next or previous item by using the '▲ Button or '▼ Button
    3. Press the 'Scan B utton' to return to the scan setting menu selection screen
3. **Upload Data**
    1. Transmits all data stored in the internal storage to the host device via USB or Bluetooth
    2. If you want to upload, select 'Yes'
    3. Data in memory remains after transfer
4. **Erase Data**
    1. Deletes all data stored in the internal storage
    2. If you want to delete, select 'Yes'
5. **Data spase**
    1. Shows the usage of internal storage
    2. Press the 'Scan B utton' to return to the scan setting mode menu selection screen



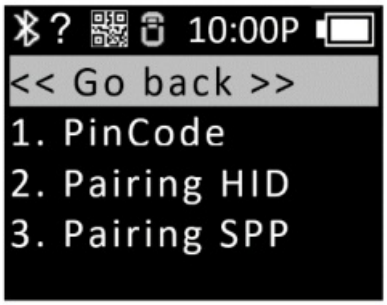
6. **Comm & Mode**

   Select the communication method and data transmission method between AT188N Plus and the host device. ‘ * ’ indicates the currently set

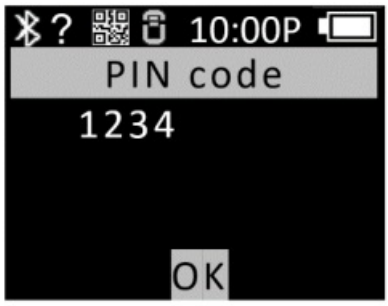
   1. **Realtime BTH :** Transmits recognized data in raw data format to the host device through Bluetooth in real time.
   2. **Realtime USB :** Transmits recognized data in raw data format to the host device through USB in real time
   3. **Batch BTH :** The recognized data is stored in the internal storage and then sent to the host device in batches via Bluetooth
   4. **Batch USB :** The recognized data is saved in the internal storage and then sent to the host device in batches via USB
   5. **Interactive BTH :** Transmits recognized data to host device according to ATID Protocol through Bluetooth. In the host device, it is linked with the application developed with ATID SDK. (Android, Windows, iOS)
   6. **Interactive USB :** Transmits recognized data to host device according to ATID Protocol through USB. In the host device, it is linked with the application developed with ATID SDK. (Windows).

7. **Bth Pairing**

   When the connection mode is Bluetooth, it provides a function for pairing with the host device



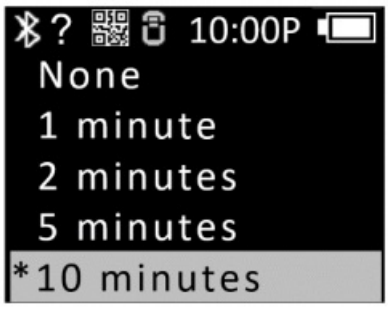
   1. 1. : Check the ‘PinCode’ required for pairing



2. 2. Pairing HID' HID connection method exposes the product name to the host device and waits for pairing to be completed

3. '3. Pairing : The product name is exposed to the host device through the SPP connection method, and it waits for pairing to be completed

8. **Power down**
    1. User can select the time to automatically turn off the power when the device is left unused for a while
    2. The settable time can be selected from among '1 min, 2 min, 5 min, 10 min, 30 min, 60 min, 120 min, None'
    3. After the set time has elapsed from the time the screen is turned off, the power is automatically turned off
    4. ' is displayed in front of the currentl y applied setting value in the menu



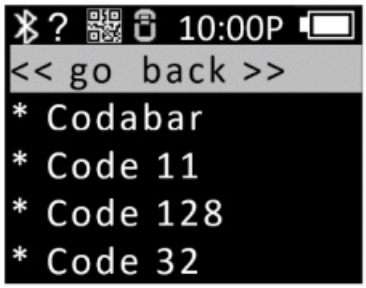
Device Setting Mode – Setup Param

User
can enter the device setting mode by pressing the '▲ button and Scan button at the same time when the power of the device is turned off. Among the activated menus, 2. Setup Param to enter the device set ting menu. There are total of 7 selectab le menus. Each menu is as follows.

'1. Barcode'

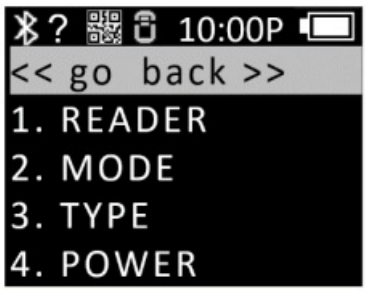
1. User can select whether to recognize the B arcode S ymbol supported by the barcode module
2. Depending on the type of barcode module and supported functions, the items that can be set are changed

Enabled Symbol items are marked with '



UHF RFID'

Set the operation mode for Barcode and UHF RFID functions. It also sets the basic functions of the UHF RFID module. Each menu has submenus



READER

Set barcode and RFID operation mode according to scan button input .

- **BARCODE :** It is set to b arcode o nly mode, and when the 'Scan B utton' is pressed, only the barcode operates
- **UHF RFID :** It is set to RFID only mode, and when the 'Scan B utton' is pressed, UHF RFID operates
- **BARCORDE RFID :** This is a mode where barcode and RFID can be selected on the Scan Ready screen. To switch between the two modes, press the '▲ B utton in the Scan Ready state. The currently set mode is indicated by an icon in the status display area.
- **BARCORDE + RFID :** When the 'Scan Button' is pressed, barcode and RFID tag data are simultaneously recognized

Mode

Set the Report Mode of RFID. It sets the way to process the read data. User can set whether to operate continuously or whether to double check

- **MULTI :** Recognizes all surrounding tags, but recognizes the same tag only once

- **SINGLE :** When one RFID tag data is recognized, operation is stopped
- **MULTI Repeat :** Recognizes all surrounding RFID tag data and duplicates even the same RFID tag

TYPE : Set 6C and 6 B among UHF RFID standards AT188N
Plus only supports 6C tag reading function
POWER : Adjust the radio wave output strength of the RFID module

Comm & Mode'
AT188N Plus can be connected to the host device via Bluetooth or USB. In the 'Comm & Mode' menu, set the data communication method (Protocol) with the host device

1. **BTH Protocol :** Select the communication method to use when connecting via Bluetooth. Move to the option user want s to select and press the 'Scan B utton' to set

   - **BTH HID :** HID (Human Interface Device) is connected to the host device, and the data to be transm itted is transmitted as if typing with the keyboard where the cursor is currently located. Depending on the keyboard language setting of the host device, the data recognized by the actual device and the data displayed at the current cursor position may appear differently, so be careful when using it
   - **BTH SPP :** Connected using Bluetooth SPP (Serial Port Profile), and transmitted data is transmitted to the Serial Port (COM Port) of the host device. In order to utilize the data transmitted from the host device , a separate application must be developed using the ATID SDK
   - **BTH BLE :** Connects to the host device through BLE (Bluetooth Low Energy) and can be used in the iOS environment. Compared to the existing Bluetooth, the recognition distance is shorter, but the power efficiency is high. In order to utilize the data transmitted from the host device, a separate application must be developed using the ATID SDK
2. **USB Protocol :** This is the communication protocol to use when connecting with the host device via USB. Only Windows platforms are supported
   - **USB HID** HID (Human Interface Device) is connected to the host device, and the transmitted data is transmitted as if typing on the keyboard where the cursor is currently located. Depending on the keyboard language setting of the host device, the data recognized by the actual device and the data displayed at the current cursor position may appear differently, so be careful when using it
   - **USB VCP :** It is connected to the host device through the VCP (Virtual Com Port) provided by USB, and the transmitted data is transm itted to the COM port of the host device. In order to utilize the transmitted

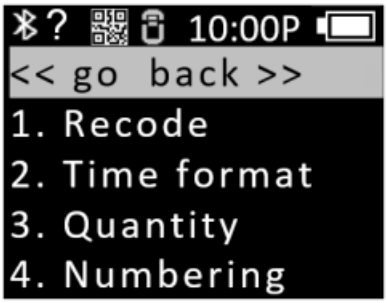
data at the host device, a separate application must be developed using the ATID SDK

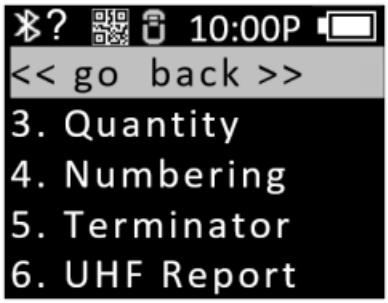
3. **Com Mode :** Set communication method and data transmission method between AT188N Plus and ho st device. The currently applied setting is preceded by a ‘ * ’. Move to the option you want to select and press the ‘Scan button’ to set it

- **Realtime BTH :** Transmits recognized data in raw data format to the host device through Bluetooth in real time.
- **Realtime USB :** Transmits recognized data in raw data format to the host device through USB in real time
- **Batch BTH :** The recognized data is stored in the internal storage and then sent to the host device in batches via Bluetooth
- **Batch USB :** The recognized data is saved in the internal storage and then sent to the host device in batches via USB
- **Interactive BTH :** Transmits recognized data to host device according to ATID Protocol through Bluetooth. In the host device, it is l inked with the application developed with ATID SDK. (Android, Windows, iOS)
- **Interactive USB :** Transmits recognized data to host device according to ATID Protocol through USB. In the host device, it is linked with the application developed with ATID SDK.

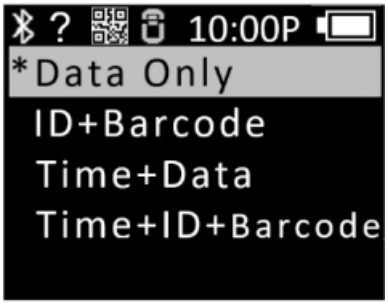
4. **Data’**

The contents of this mode are explained based on what happens when the Barcode is recognized. When RFID Tag data is recognized, the behavior may not be the same





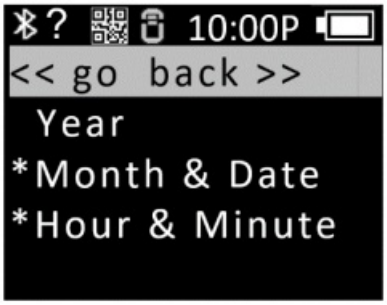
1. ‘1. Record : After recognizing the barcode data, decide whether to use the time to attach or ‘Barcode Type ID’ when saving or transmitting the data. The currently applied setting is preceded by a ‘ * ’. Move to the option you want to select and press the ‘Scan button’ to set



- **Data Only :** Transmits or saves only recognized data.

- **ID+Barcode :** Saves or transmits barcode ID and recognized barcode data together
- **Time+Barcode :** Saves or transmits time data and recognized data together
- **Time+ID+Barcode :** Saves or transmits time data, barcode ID and recognized data together Barcode ID is output only when reading Barcode Data

2. ‘2. Time format : If it is set to store or transmit the time with the recognized barcode data, set the data format for the time. The currently applied setting is preceded by a ‘ ’. Move to the option you want to select and press the ‘Scan B utton’ to set

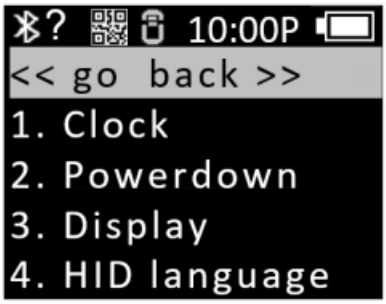


- **Year :** Set whether to use year data for time data. (YYYY)
- **Month & Date :** Set whether to use month/day for time data. (MMDD)
- **Hour & Minute :** Set whether to use hour/minute for time data. (HHMM)

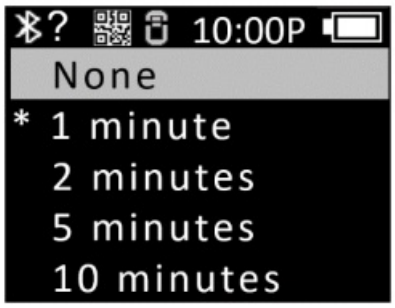
3. **‘3. Quantity :** S et whether to input the quantity of barcode data. The Quantity setting works only in the barcode function, and the quantity can be entered immediately after reading the barcode. The quantity can be entered from 1 to 9999, and other barcodes cannot be read until the quantity of the corresponding barcode is entered. The currently applied setting is preceded by a ‘ * ’. Moveto the option you want to select and press the ‘Scan button’ to set it
4. **‘4. Numbering :** When barcode data is recognized or RFID tag data is recognized, the number of recognized data recognition sequence number is included in front of the recognized data and stored or transmitted. When internal storage is clear , it starts over at 1
5. **‘5. Terminator :** When sending data to the host device in HID mode, select which character to attach to the end of the data. Move to the option you want to select and press the ‘Scan button’ to set it. The currently applied setting is preceded by a ‘ *
    - **LF <0x0a> :** Recognized data is output and the cursor moves to the next line.
    - **CR <0x0d> :** Recognized data is output and a space as much as ‘Space’ is appended to the end of the data.
    - **CRLF <0x0d+0x0a> :** Recognized data is output and the cursor moves to t he next line after ‘Space’ is added to the end of the
    - **Tab <0 x 09> :** Recognized data is output and a space as much as ‘Tab’ is appended to the end of the data.
    - **Space <0x20> :** A space as much as ‘Space’ is appended to the end of the recognized data.
    - **SemiColon <0x3B> :** Recognized data is output and ‘ ; ‘ is attached.
    - **None :** Outputs data continuously without attaching anything to the end of the data.
6. **‘6. UHF :** When transmitting UHF RFID Tag data, select whether to send only EPC data or bot h EPC data and PC data.
7. ‘7. : Select whether to use an identification number when transmitting data to the host device. It does not apply in ‘Interactive Mode’.
8. **‘8. Input :** Enter the identification number to be used. It can be set from 1 to 999 and works only when ‘Discriminate Mode’ is set.

5. **System’**

Set functions such as time, buzzer, vibrator, screen, and Scan LED.

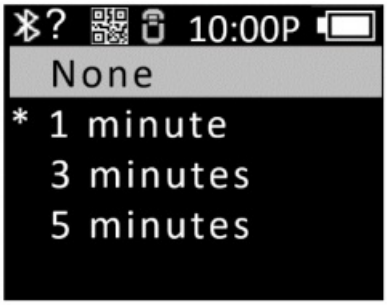


1. **Clock :** Set the current time of this unit. The set time can be used with B arcode or RFID tag information. Time data may have time differnece , so please reset it periodically
2. **Power down :** When the device is not used for a while, user can select the time when the power is automatically turned off when left unused. The currently applied setting is preceded by a ‘ * ’. Move to the option you want to select and press the ‘Scan button’ to set it



- User can select a set value from ‘1 min, 2 min, 5 min, 10 min, 30 min, 60 min, 120 min, None’
- Power is automatically turned off after a set time from the time the screen is turned off.

3. **Display :** Set the amount of time to temporarily turn off the screen to save battery. When the set time arrives, the screen turns off automatically.



4. **HID language :** When connected in HID mode, set the language type. You can select from ‘UNIVERSAL’, ‘FRENCH’, ‘UK’, and ‘US’. The keyboard layout is change d according to the set option.
5. **Scan button :** After the product is powered on, select the default action for the ‘Sca n button’ among RFID and barcode functions
6. **Notification :** Set the action when a button is pressed or in an Alert situation
    - **1. Button notify ’’:** Set whether to operate Beep, Vibrate, and Light when the button is pressed
        - If move to the option user want s to apply and press the “Scan button”, the setting will be set with ‘*’ attached
        - Multiple options can be set.
    - **2. Alert notify :** Set whether to operate Beep, Vibrate, and Light in alert situations such as booting, scan suc cess, or connection failure with the host
        - If move to the option user want s to apply and press the “Scan button”, the setting will be set with ‘*’ attached

- Multiple options can be set
- The operating time may vary depending on the situation

- 3. Button m ode Select the duration of Button notify among ‘None’, ‘Short’ and ‘Long’
  - **None :** There is no response when the button is pressed
  - Short When set, the set notify option operates for 0.3 seconds
  - **Long :** The set notify option continues until the button is released

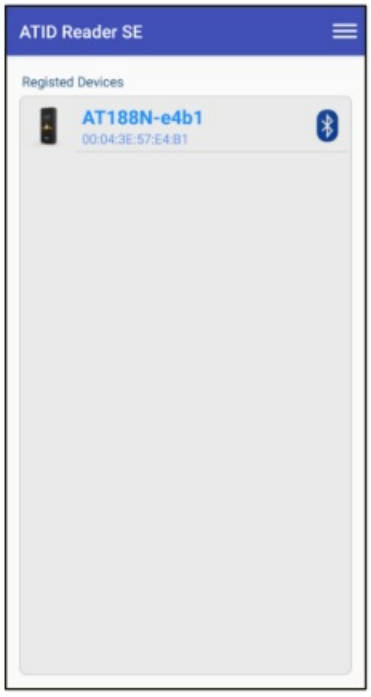
7. **F/W version :** Displays the firmware version installed in this product. User can change the firmware to improve the product’s functions or change the basic operation. For details on firmware, please contact the seller or manufacturer

6. **‘6. Default’**
   Returns all settings to factory defaults
7. **‘7. Exit’**
   Exit System Setup
   1. **Save & Exit :** Saves the changed settings and exits the system settings
      No save & Exit : Exits the system settings without saving the changed settings

Using Application

Using the Android Demo Application

1. In order to transmit/receive data to/from the AT188N Plus with the Android platform device, select 3. Comm & Mode 1. BTH Protocol should be set to BTH SPP ’’, and 3. Comm & Mode 3. Com mode must be set to Interactive BTH
2. User can download the demo app through ‘Google App Store’ or install it on the host device by using the installation file included in the SDK



For details on how to use the Android demo app lication , refer to the ‘ATID Reader Demo Guide for Andorid’ document included in the SDK

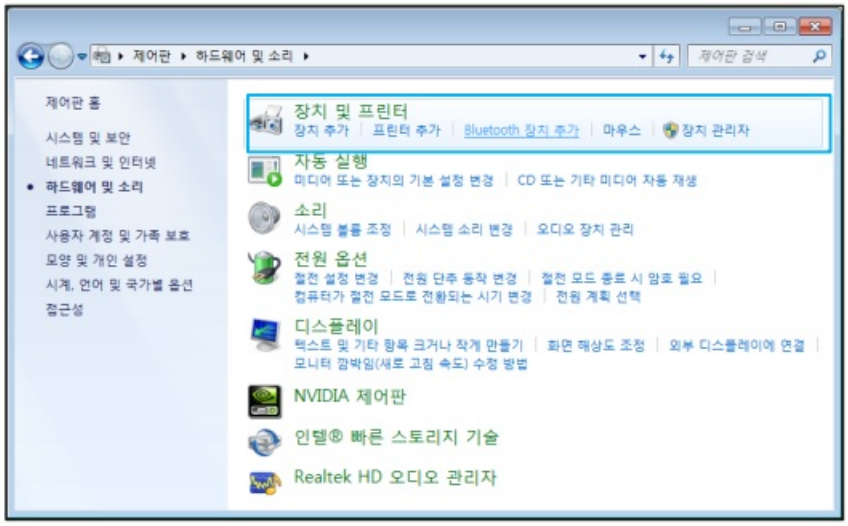
Windows Host Bluetooth Connection Settings

The AT188N Plus requires a PC with built in Bluetooth functionality or a dedicated Bluetooth dongle to transmit/receive data from Windows platform devices using Bluetooth. This chapter describes how to connect Blue tooth to Windows 7 and Windows 10, the typical Windows platforms

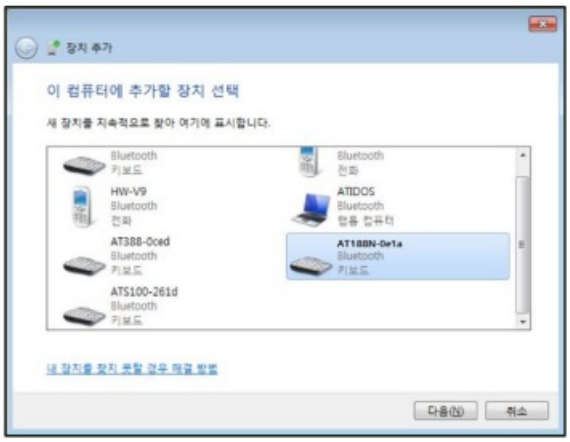
- For details related to the Bluetooth function of the host device, please check with the place of purchase of the PC or the person in charge of product installation
- In this chapter, it is assumed that the Bluetooth related driver is installed normally
- For any problems that occur during the use of the product or during the installation process, please contact the dealer or manufacturer where you purchased the product
- If t he Bluetooth driver is not installed normally, or if a special driver supported separately by Windows 7 and Windows 10 OS is used, the contents of this manual may not match

Windows 7 Platform

1. After entering the Device Setting Mode , set the system to 5. Network Setup 2. Host Paring 3. BTH Pairing
2. Select Start Control Panel Hardware and Sound Devices and Printers Add Bluetooth Device



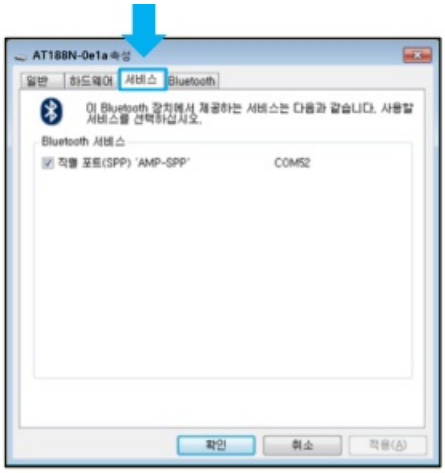
3. The Bluetooth device is automatically searched. After selecting the AT188N XXXX that you want to connect to, press Next (N) to proceed with adding a device



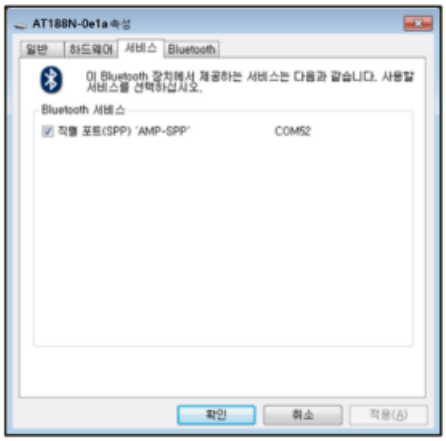
4. When the connection code confirmation window is displayed, click Next (N) to proceed. The connection code does not need to be specially changed

5. After a while, Windows7 will automatically search for the driver and proceed with the instal lation, and the screen will display a message Add device complete

6. Double click the newly added AT188N XXXX in Control Panel Devices and Printers to display its properties, and then move to the Service tab



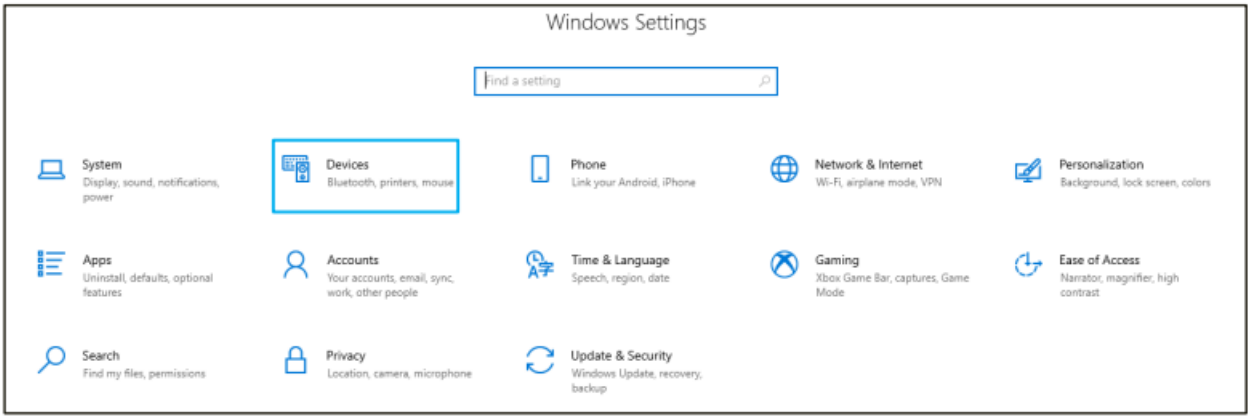
7. After checking all the services that appear in the Bluetooth service, click the OK button to finish adding services and adding Bluetooth devices. From this menu, user can find the COM port information assigned to the Bluetooth device



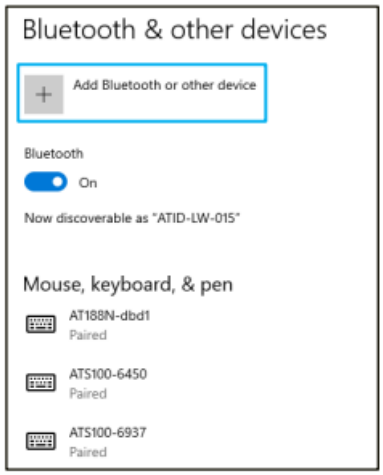
8. After that, exit the AT188N Plus setup menu and set it to the desired operation mode before using it

Windows 10 Platform

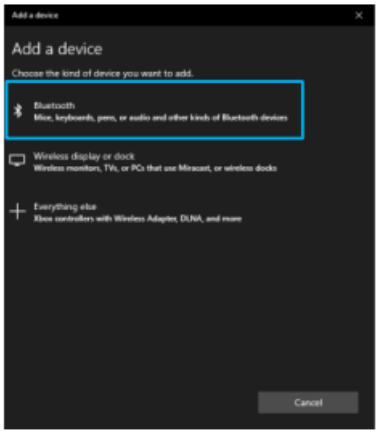
1. After entering the Device Setting M ode of AT 188N Plus , move to 5. Network Setup 2. Host Paring 3. BTH Pairing
2. Enter the Windows Settings menu through Start Settings of Windows
3. Select ‘Device ’ menu in Windows settings



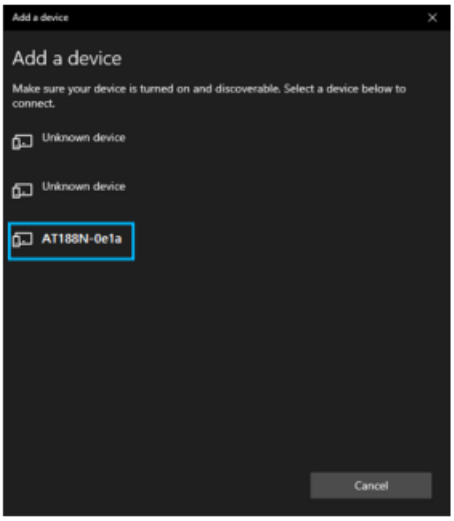
4. Check that the Bluetooth function is turned on. If it is off, turn on the Bluetooth function
5. Select Add Bluetooth or other device ’ menu

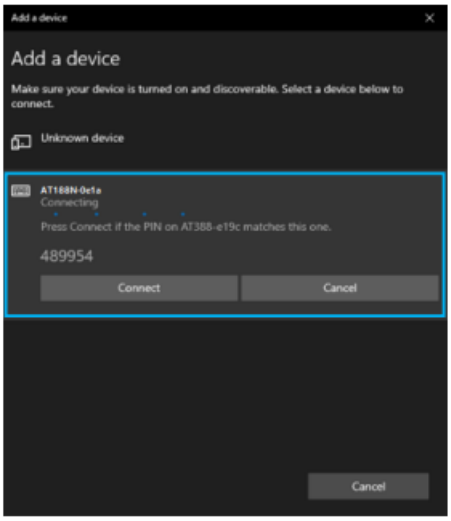


6. Select the device type to add as Bluetooth. When selected, it starts searching for nearby Bluetooth devices that are requesting pairing



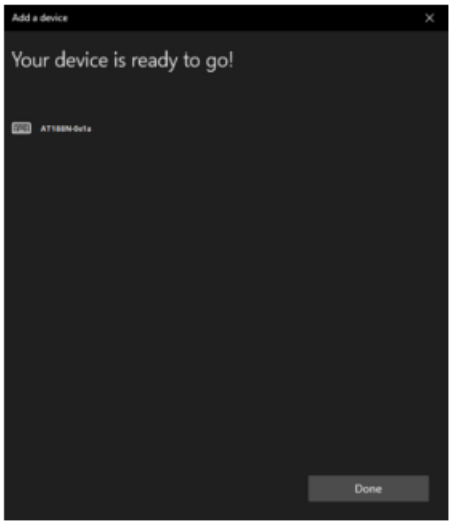
7. If you click the device you want to connect to among the found Bluetooth devices, the pairing information screen of the target device is activated. After checking that it matches information of the screen of AT188N Plus , if it matches, click the Connect button





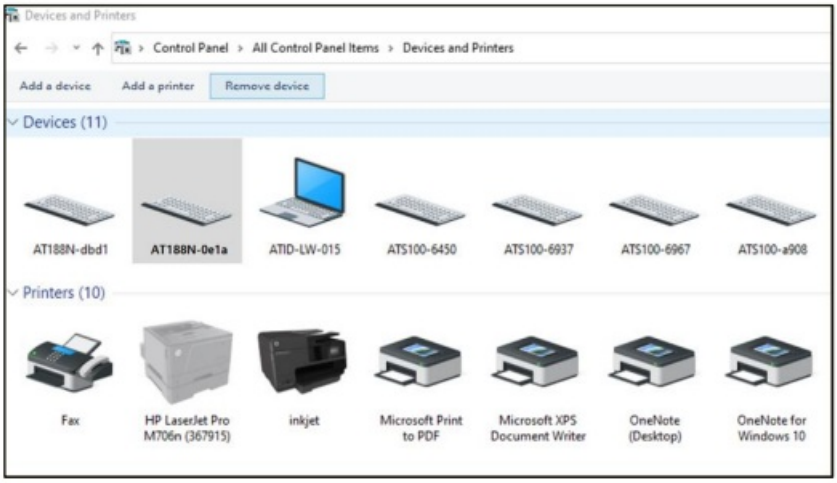
The 4 digits after the device name to be searched are the last 4 digits of the Bluetooth Module MAC Address. This 4 digit value is entered as a different value for all devices

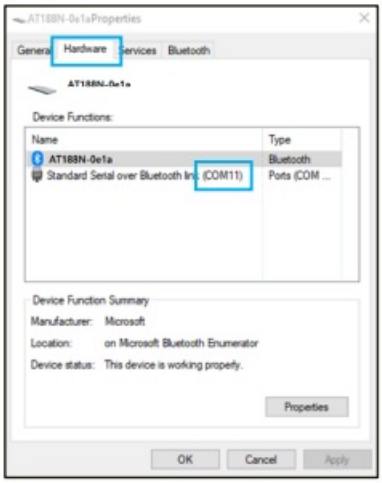
8. When pairing is completed normally, ‘Your device is ready to message is displayed. Click the Done button to complete the pairing process



9. When the device is added successfully, the device will be registered with the message Paired

The COM Port information assigned to the device can be checked in the ‘Hardware’ tab of the ‘Properties’ of the connected device in ‘Devices and Printers’ of the control panel

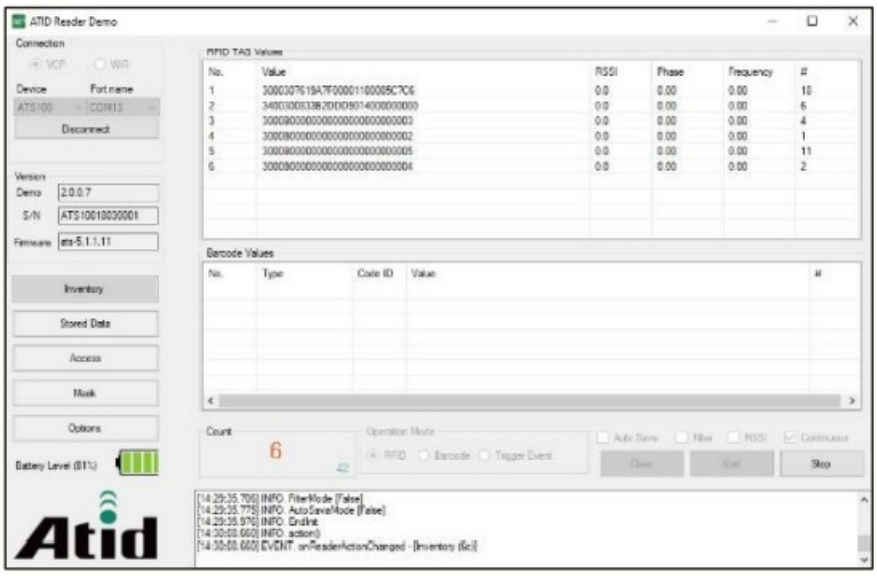




10. After confirming that the AT188N Plus and the host device are connected, exit the Device etting Menu and set the desired operation mode before use

Using the Windows Host Demo Application

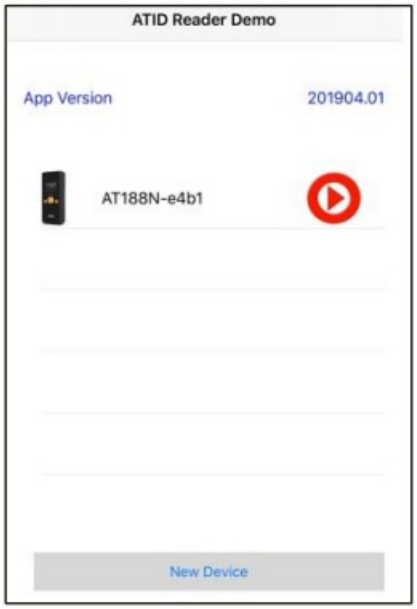
1. To connect AT188N Plus and Windows Host device, connect via Bluetooth or USB
2. According to the connection method, 3. Comm & Mode 3. Com mode must be set to Interactive XXX
3. User can install the demo app included in the SDK on the host device



For details on how to use the Windows d emo application , refer to the ‘ATID Reader Demo Guide for Windows’ document included in the SDK

Using the iOS Host Demo Application

1. In order to transmit/receive data to/from the AT188N Plus with the iOS platform device, select 3. Comm & Mode
   1. BTH Protocol must be set to BTH BLE ’’, and 3. Comm & Mode 3. Com mode must be set to Interactive BTH
2. User can download the demo app through the ‘App Store’

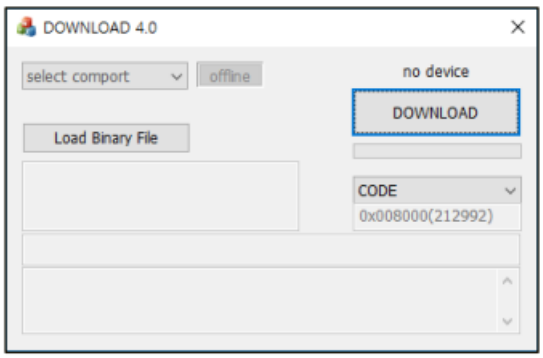


- The demo app lication is available from iOS version 10.2 or later
- For details on how to use the demo app, refer to the ‘ATID Reader Demo Guide for iOS’ document included in the SDK

Firmware Update

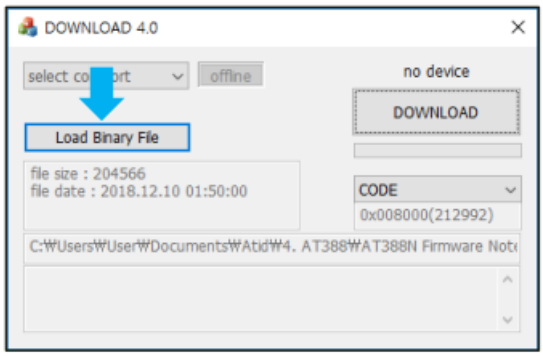
This product may be updated in the future to enhance its functionality and performance. If there is a problem during Firmware’s update operation, the product may not be recoverable . S o if you don’t haveknowledge of software and hardware, please contact your place of purchase or manufacturer for updates

1. **Firmware Update Preparation**
   1. PC with Windows 7 or higher version (USB 2.0 Port)
   2. AT 188 N Plus
   3. Micro USB Cable
   4. Firmware File (xxxx.bin)
   5. Firmware Update Tool A vailable from reseller or manufacturer if required
2. **Firmware Update Procedure**
   1. Save the firmware file in a specific folder on your PC
   2. Execute the firmware update program



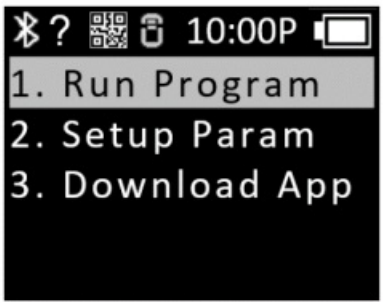
   3. After clicking the Load Binary File button, designate the folder where the firmware file was previously

saved

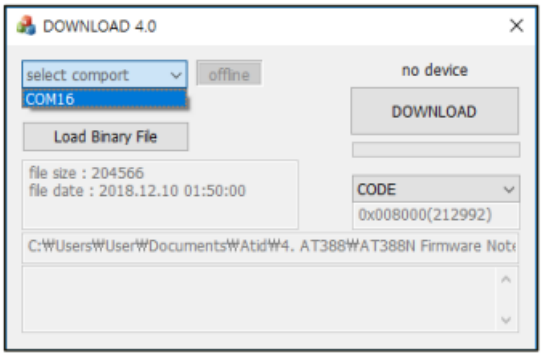


4. Connect AT188N Plus to PC using USB Cable

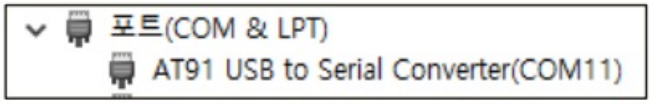
5. Enter ‘3. Download App’ f rom ‘Device Setting Menu’



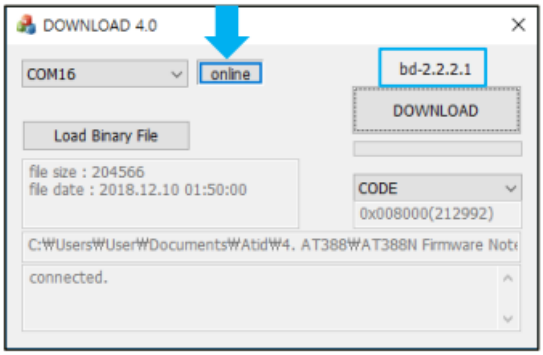
6. Click the select comport button of Firmware Download Tool . Then, select the COM Port assigned to AT188N Plus connected to your PC



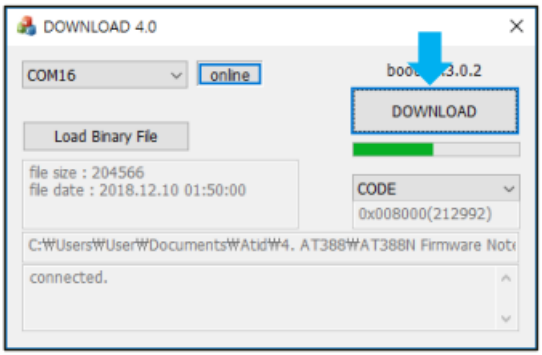
- COM Port is assigned a different number depending on the PC situation
- Control Panel ‘Device Manager → Ports (COM & LPT)’ Please check the COM Port number assigned to ‘AT91 USB to Serial Converter’ before entering



7. Click the offline 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

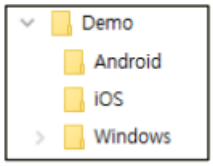
9. After a while, the product will automatically restart when the download is complete

SDK (Software Development Kit)

When the device operates in interactive mode, a separate program must be developed by referring to the SDK provided by ATID in order to utilize the data transmitted from the host d evice . ATID 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	ATID Bluetooth Reader■ Windosws USB Driver	

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



Product Warranty

1. AT188N Plus Product DetailsFor more information on product details AT 188N Plus , please visit the address below below. **http://www.atid1.com**
2. SDK DownloadIf you need an AT 188 Plus SDK, please contact us or the place of purchase purchase.
3. Warranty and Technical SupportAll ATID products can be repaired free of charge for one year based on the product manufacturing date. However, in principle, any defects caused by customer carelessness in use shall be repaired even during the free repair period period. For warranty, technical support and inquiries on this product, please contact the distributor or ATID ATID.
4. CertificationsThis product is KC, FCC, CE and TELEC certified, but we are not responsible for any issues arising during use outside of the certified ar area .

For details, please contact the distributor or ATIDATID.

- **Address :** #1402, 83, Gasan Digital Digital-1ro, Geumcheon Geumcheon-gu, Seoul, Republic of Korea (Zip code. 08589)
- **Phone:** +82 82-2-544544-1436
- **Fax:** +82 82-2-859 -0045
- **Homepage : www.atid1.com**
- **Email: inquiry@atid1.com**

FCC 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, and (2) this device must accept any interference received, including interference that may cause undesired operation.Any changes or modifications not expressly approved by the party responsible for compliancecould void the user's authority to operate the equipment.
NOTE: 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 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 differentfrom that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Specific Absorption Rate (SAR) information: This Handheld reader meets the government's requirements for

exposure to radio waves. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons regardless of age or health. FCC RF Exposure Information and Statement The SAR limit of USA (FCC) is 1.6 W/kg averaged over one gram of tissue. Device types: AT188N Plus (FCC ID: VUJ-AT188N-PLUS) has also been tested against this SAR limit. The highest SAR value reported under this standard during product certification for properly worn on the body is 0.243W/kg. This device was tested for typical body-worn operations with the back of the handset kept 0mm from the body. To maintain compliance with FCC RF exposure requirements, use accessories that maintain a 0mm separation distance between the user's body and the back of the handset. The use of belt clips, holsters and similar accessories should not contain metallic components in its assembly. The use of accessories that do not satisfy these requirements may not comply with FCC RF exposure requirements, and should be avoided. Body-worn Operation This device was tested for typical body-worn operations. To comply with RF exposure requirements, a minimum separation distance of 0mm must be maintained between the user's body and the handset, including the antenna. Third-party belt-clips, holsters, and similar accessories used by this device should not contain any metallic components. Body-worn accessories that do not meet these requirements may not comply with RF exposure requirements and should be avoided. Use only the supplied or an approved antenna.

Documents / Resources

	Atid AT188N Plus Compact RFID or Barcode Bluetooth Reader [pdf] User Guide VUJ-AT188N-PLUS, VUJAT188NPLUS, at188n plus, AT188N Plus, Compact RFID or Barcode Bluetooth Reader, AT188N Plus Compact RFID or Barcode Bluetooth Reader, RFID or Barcode Bluetooth Reader, Barcode Bluetooth Reader, Bluetooth Reader, Reader

References

- ATID / ■■■■■■ - UHF RFID Reader Provider in Korea
- ATID / ■■■■■■ - UHF RFID Reader Provider in Korea