



AsReader ASR-P35U DESKTOP-Type Mini UHF RFID Reader User Manual

[Home](#) » [AsReader](#) » AsReader ASR-P35U DESKTOP-Type Mini UHF RFID Reader User Manual 



DESKTOP-Type Mini User Manual ASR-P35U

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Revision History

| Version | Modified Contents | Date |
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Contents

- 1 [About DESKTOP-Type Mini](#)
- 2 [Basic operations](#)
- 3 [How to connect \(Serial mode\)](#)
- 4 [Documents / Resources](#)
 - 4.1 [References](#)

About DESKTOP-Type Mini

1.1. Introduction

Thank you for purchasing the DESKTOP-Type Mini ASR-P35U.

This manual describes how to operate the DESKTOP-Type Mini ASR-P35U (hereinafter referred to as the ASR-P35U, or the AsReader). Please read the manual carefully and keep it as long as you have the device.

ASR-P35U is a high-performance UHF RFID reader, which supports desktop and wall mounted use.

It supports USB serial mode and HID data transmission mode, and it can be used with Android and Windows devices.

ASR-P35U can be widely used in a variety of radio frequency identification (RFID) application systems, such as asset management, checking inventory, retail transactions, attendance management, conference check-in, access control, production process control, and many more.

If you have any comments or questions about this manual, please contact us:

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<https://asreader.com/>

- The copyright of this manual belongs to the company. Without the permission of the company, no reproduction, reprinting, modification or translation into other languages is allowed.
- The contents of this manual are subject to change without prior notice. In addition, the images in this manual are all reference images and may be different from the actual product.
- Warning: Please read this manual before use. Incorrect use of this device could result in property damage, serious personal injury, or even death. We will not be responsible for any loss caused by non-compliance with this manual.
- We cannot take responsibility for any damage resulting from natural disasters like earthquakes, lightning, wind, floods, or fires beyond our control. Additionally, damages caused by third-party actions, accidents, intentional or negligent acts, misuse, or abuse are also not our responsibility.
- If the damage is caused by falling or collision as determined by our company, the maintenance fee will be charged even within the warranty period.
- We will take appropriate measures to ensure that our products do not infringe other patents, but we are not responsible for any patent infringement caused by any of the following (1) to (4).
 - (1) Used in combination with components, products, equipment, data processing systems or software outside our company.
 - (2) Our products are used in unexpected ways.
 - (3) Modification of our products by any person or company other than our company.
 - (4) Use outside of the country where the products are purchased.

1.2. Safety instructions

Please read the following instructions carefully to prevent injury, malfunction, fire, etc.



Do not attempt to disassemble, modify or repair the AsReader yourself, otherwise it may cause malfunction, fire or electric shock. We will not be held responsible for any problems that may occur with the AsReader, PC, smart devices, etc. due to modifications.

If you notice any abnormalities such as smoke, abnormal odor, or strange noise coming from the AsReader during use, stop using it immediately. Continued use may cause fire or electric shock.

Do not drop or throw the AsReader and subject it to strong impact. It may cause damage, fire, electric shock, or malfunction. It may also cause injury. If the AsReader is damaged by dropping and the inside of the AsReader is

exposed, do not touch the exposed part with your hands, because there is a risk of electric shock or injury on the damaged part. Do not allow metal or other objects to come into contact with the terminals of each connector. Doing so may cause a large current to flow, resulting in overheating, fire, or damage to the device. Do not get the AsReader wet with water or any other liquid. Doing so may result in fire or electric shock. If foreign matter or water does get inside the AsReader, unplug the power cable immediately.

Do not use, store, or leave the AsReader in hot places (eg. by the fire, near a heater, in direct sunlight, in a car in hot weather). It may cause rupture, malfunction, fire or injury.

Do not use the AsReader with any power supply voltage other than the specified. Doing so may result in damage to the equipment or an accidental fire.

When constructing a system that may affect human life, such as the management of chemicals using the AsReader, please pay close attention to redundancy and safety design so that even if the data is incorrect, there is no possibility of affecting human life.

The AsReader is an RFID reader that uses UHF radio waves with an output power of 500 mW. Therefore, depending on the application and location of use, it may affect medical equipment. In order to minimize this effect, the following must be strictly observed during operation.

The AsReader operators should keep the AsReader at least 22cm (9in) from any site where implantable medical devices are installed.

Persons with implanted medical devices should not come within 22cm (9in) of the AsReader. When taking the AsReader overseas, please consult with us in advance, as it is necessary to comply with the laws and regulations of each country and region.

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.

This device contains licence-exempt transmitter(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.



Caution

This product has been certified in accordance with the radio wave laws of each country. Since each country or region has different regulations regarding radio waves, it is necessary to comply with the respective regulations. Modification of this product is prohibited, and violations may result in penalties according to the regulations of each country or region.

Please refer to local regulations when you recycle this device.

If you notice any abnormalities, please discontinue use and contact your distributor immediately.

Do not place the AsReader in direct sunlight or where the temperature is very high, which will damage the data cable and components, or cause fire.

Do not place the product on an unstable surface such as a wobbly table or a tilted place. It may fall and cause damage.

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 different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The Grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. Such modifications could void the user's authority to operate the equipment.

The device has been evaluated to meet general RF exposure requirements.

To maintain compliance with FCC's RF exposure guidelines, the distance must be at least 20 cm (8 inches)

between the radiator and your body, and fully supported by the operating and installation configurations of the transmitter and its antenna(s).

RF exposure statement:

This equipment meets the exemption from the routine evaluation limits in section 2.5 of RSS102.

It should be installed and operated with a minimum distance of 20cm (8 inches) between the radiator and any part of your body.

1.3. Product appearance

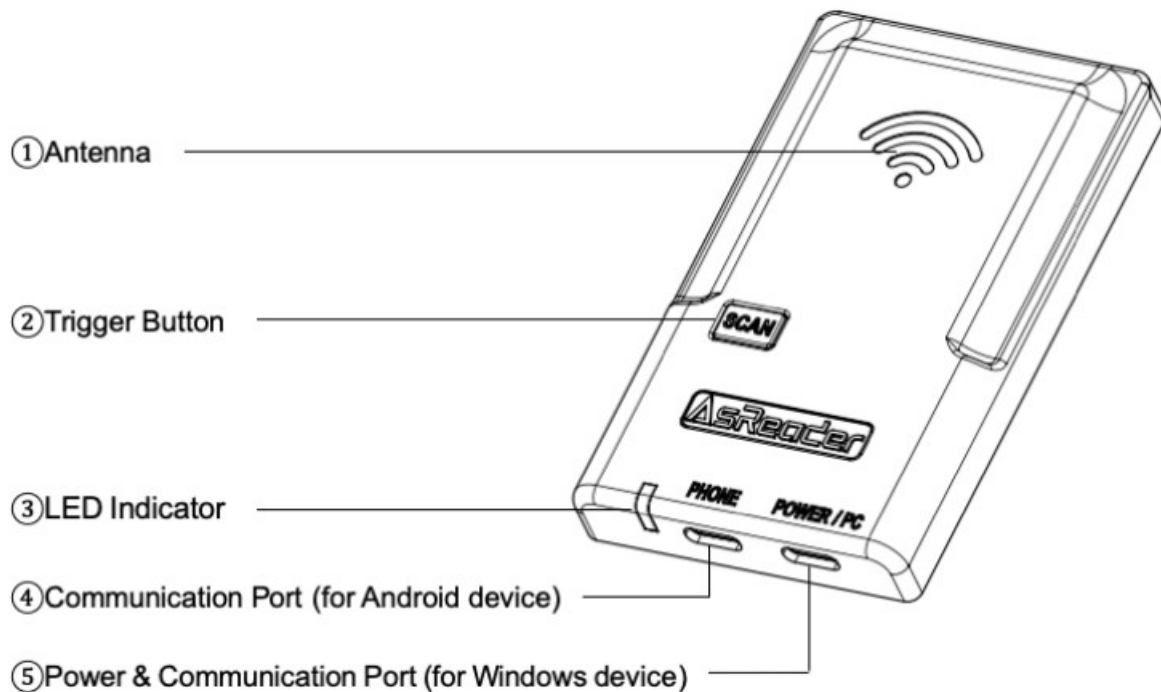


FIG. 1-3-1 Appearance (Front)

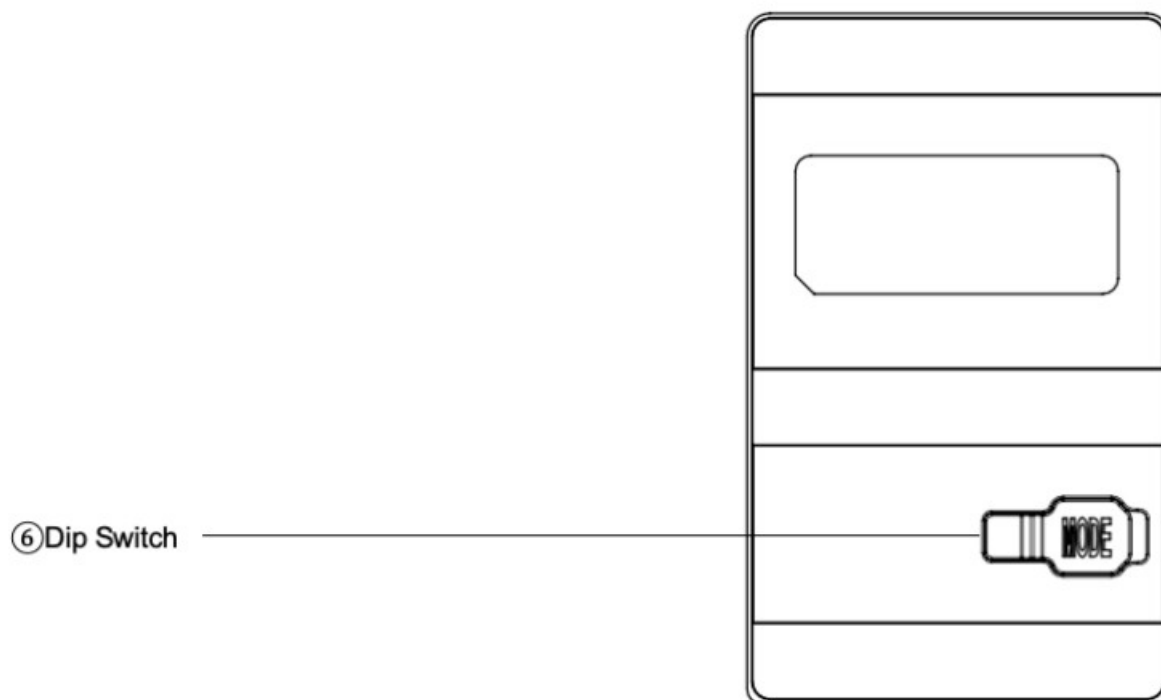


FIG. 1-3-2 Appearance (Back)

1.4. Specifications

| | | |
|---------------------------------|------------------------------|---|
| Model | | ASR-P35U |
| RFID | Spec | ISO/IEC 18000-63 (Former 18000-6C) / EPCglobal Class 1 Gen 2 |
| | Radio frequency | Japan: 920.6 — 923.4MHz North America: 917.1 — 926.9Mhz Europe: 865.7 — 867.5Mhz |
| | RF output power | Japan: Max 200mW 23dBm North America: Max 500mW 27dBm Europe: Max 500mW 27dBm |
| | Reading distance | 3.3 feet (100cm) (*1) |
| | Polarization characteristics | Circular polarization (Internal antenna) |
| | Functions | Read/Write/Lock/Kill |
| Power source USB Type-C port | | port Input rating: 5V/1A |
| Button | | Trigger button |
| Switch | | Dip switch |
| Human interface | | Blue LED (Operating status indication) Beep sound |
| Communication interface | Communication port | USB 2.0 (USB Type-C port, for Android device) |
| | Power & Communication port | USB 2.0 (USB Type-C port, for Windows device) |
| Appearance | Dimensions (W)x(D)x(H) | 90 x 55 x 13mm |
| | Weight | Approx. 80g |
| | Resin material | PC+ABS |
| | Resin color | White |
| Environment | Operating | -10 — 45 °C, 20 — 85 % RH |
| | Storage | -20-60 °C, 10 — 95 % RH |
| | Protection ratings | IP54 compliant |
| | Drop resistant | 5 feet (1.5m) Twice each on 6-sides and 4-corners (*2) |
| Certifications | | TELEC FCC/ISED CE/UKCA |
| Supported OS | | Windows |
| Accessories | | USB Type-A to USB Type-C data cable, Mounting frame. Manual |

*1: The value varies depending on the RF tag, settings, and environment.

*2: These tests were conducted on the device alone.

Basic operations

- **Power on/off**

Use the USB Type-C data cable to connect the ASR-P35U to a power adapter via the Power & Communication Port (see FIG. 1-3-1⑤). The LED Indicator flashes slowly when power on is successful (see FIG. 1-3-1③) and there will be two buzzing prompts.



FIG. 2-1 Power on

Unplug the USB Type-C data cable to power off.

- **Power supply**

DC 5V/1A.

- ◆ The ASR-P35U has two working modes: HID mode and Serial mode.

- **HID mode**

HID (Human Interface Device) mode: When this product is connected to a mobile device (or a PC) in HID mode, this product is recognized as a keyboard, and the data read by this product is sent to the mobile device (or the PC) “as is,” displayed as a text input tool. Therefore, there is no need to use an App that uses a dedicated SDK. HID mode supports Android and Windows devices.

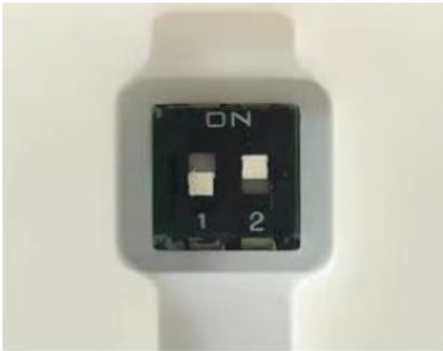
- **Serial mode**

This mode enables real-time data transfer between ASR-P35U and the App that uses a dedicated SDK. There are dedicated SDKs for Android and Windows.

- ◆ **How to change modes?**

Switch between Serial mode and HID mode by switching Dip Switch 2's ON/OFF switch (see FIG. 1-3-2⑥) of the ASR-P35U.

Serial mode: 2-ON



HID mode: 2-OFF



FIG. 3-1 Change mode

- **How to read RFID tags in HID mode?**

When the ASR-P35U is powered on, put RFID tags close to the Antenna of the ASRP35U (see FIG. 1-3-1①). Press the “SCAN” Trigger Button (see FIG. 1-3-1②), and the blue light flashes quickly. The data will be entered at the cursor on the screen of the Android device or Windows device. Press the Trigger Button again to stop reading.

How to connect (Serial mode)

Operation steps:

- Android
 - Method 1 (with a power adapter)
 1. Power on the ASR-P35U (see Power on/off).
 2. Launch the ASR-P3xU app for Android.
 3. Connect the Android device and the ASR-P35U with USB Type-C to USB Type-C data cable via the Communication Port (see FIG. 1-3-1④). The LED Indicator stays ON when the connection is successful.
- * If the port of your Android device is not USB Type-C, you can use a cable which is suitable for your Android device port to connect.



FIG. 4-1 Connect Android device (Method 1)

- **Method 2 (without a power adapter)**

1. Launch the ASR-P3xU app for Android.
2. Connect the Android device and the ASR-P35U with a USB Type-C to USB Type-C data cable via the Power & Communication Port. The LED Indicator stays ON when the power is on, and the connection is successful. There will be two buzzing prompts.

*In this method, the ASR-P35U is powered by the Android device. If an Android device with low output current is connected, the ASR-P35U may not work properly.

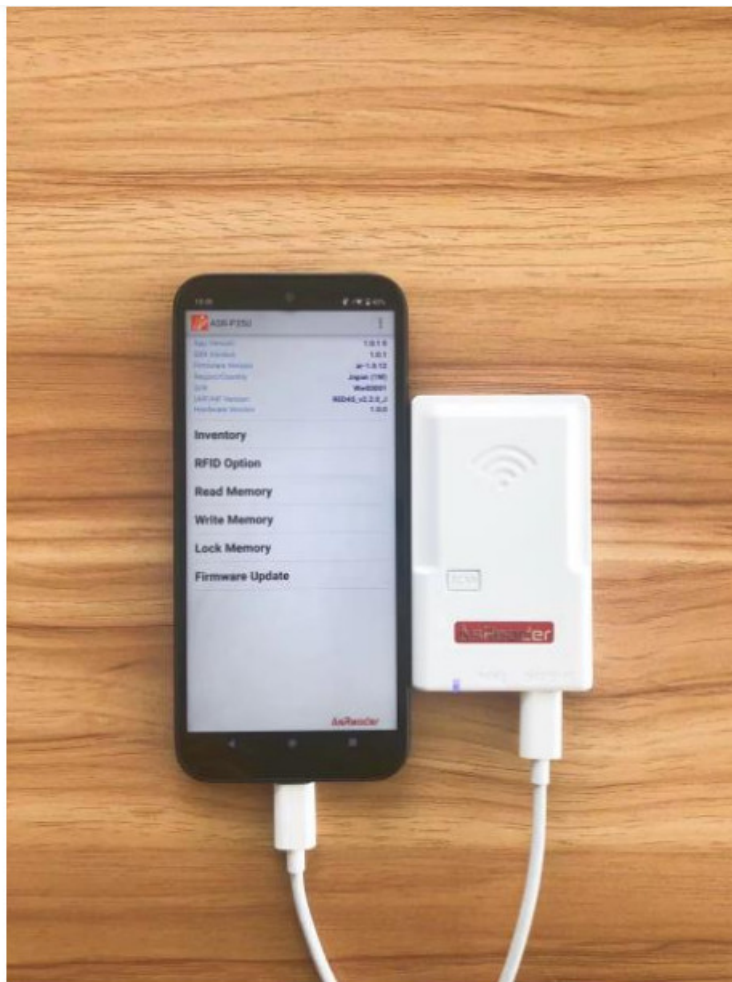


FIG. 4-2 Connect Android device (Method 2)

- **Windows**

1. Use the USB Type-C data cable to connect the ASR-P35U to a Windows device via the Power & Communication Port. The LED Indicator stays ON when the power is on, and the connection is successful. There will be two buzzing prompts.
2. Launch the ASR-P3xU app for Windows.



FIG. 4-3 Connect Windows device

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AsReader DESKTOP-Type Mini
(ASR-P35U)

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