AsReader®

DESKTOP-Type Mini User Manual

ASR-P35U

Revision History

Version	Modified Contents	Date
V1.0	Initial version	2023/8/25
V1.1	1. Updated the Specifications 2. Added a description of how to use the Android device while charging 3. Added the description of the mounting frame included in the package	2024/2/8

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1 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 for 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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★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.

⚠Warning
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 it negatively 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.

People 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.
L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: 1. L'appareil ne doit pas produire de brouillage; 2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
⚠ 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 between the radiator and your body should be at least 20 cm (8 inches), 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 RSS-102. It should be installed and operated with a minimum distance of 20cm (8 inches) between the radiator and any part of your body. Cet équipement est conforme à l'exemption des limites d'évaluation habituelle de la section 2.5 de la norme RSS-102. Il doit être installé et utilisé à une distance minimale de 20 cm entre le radiateur et toute partie de votre corps.
To maintain compliance with the relevant EU and UK RF exposure legislations, the distance must be at least 20 cm (8 inches) between the antenna and your body.

1.3. Product appearance

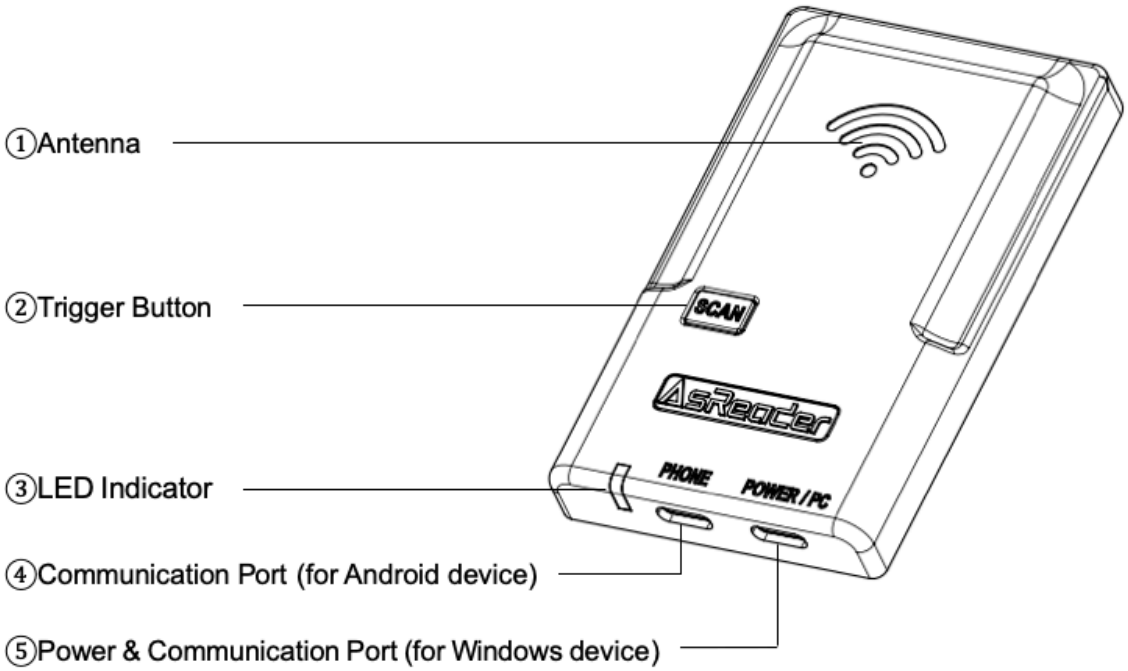

FIG. 1-3-1 Appearance (Front)

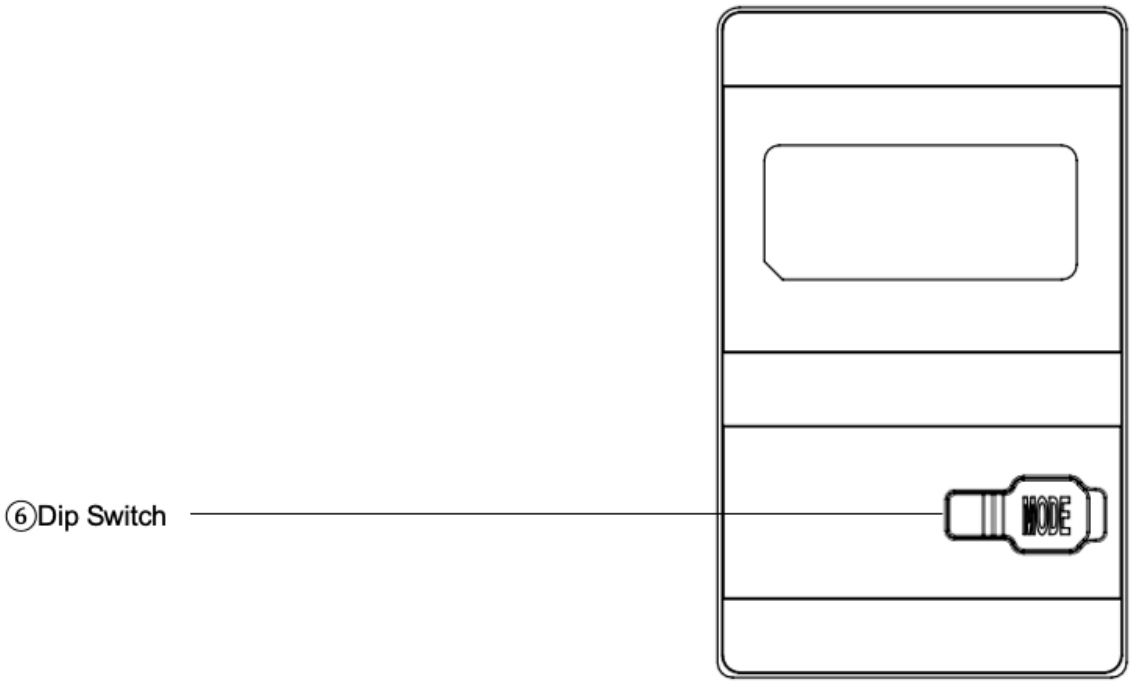

FIG. 1-3-2 Appearance (Back)

1.4. Specifications

Model		ASR-P35U-01 (US, Canada, Japan) ASR-P35U-02 (EU, UK)
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 EU, UK: 865.7 ~ 867.5MHz
	RF output power	Japan: Max 200mW (23dBm) North America: Max 500mW (27dBm) EU, UK: Max 500mW (27dBm)
	Reading distance	~4.3 feet (~130cm) at 500mW (*1)
	Polarization characteristics	Circular polarization (Internal antenna)
	Functions	Read/Write/Lock/Kill
Power source		USB Type-C port (POWER/PC) Input rating: 5V/0.5A
Human interface		Trigger button (SCAN) Dip switch (MODE) Beep sound Blue LED Power on: Slow flashing USB connection: Light on Reading RF tags: Fast flashing
Interface	Communication	USB Type-C port (PHONE) (*2) (USB 2.0)
	Power and Communication	USB Type-C port (POWER/PC) (*3) (Power input and USB 2.0)
Appearance	Dimensions (W)x(D)x(H)	3.5 × 2.2 × 0.5 inches (90 × 55 × 13mm)
	Resin material	PC+ABS
	Resin color	White
Weight		Approx. 2.8oz (80g)
Environment	Operating	-10 ~ 45˚C, 20 ~ 85%RH
	Storage	-20 ~ 60˚C, 10 ~ 95%RH
	Protection Ratings	IP54 compliant
	Drop resistant	4.9 feet (1.5m) Twice each on 6-sides and 4-corners (*4)
Certifications		FCC/ISED CE/UKCA TELEC
Supported OS		Android, Windows, iOS (*5)
Accessories		USB Type-C to Standard-A cable, Mounting frame

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

*2: For Android device.

*3: For power input and Windows device connection.

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

*5: Only supports the HID mode.

2 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/0.5A.

3 Working mode

◆ **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, Windows and iOS 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

If it is powered on, the mode switching is completed after two buzzes.

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

When the ASR-P35U is powered on, put RFID tags close to the Antenna of the ASR-P35U (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, Windows or iOS device. Press the Trigger Button again to stop reading.

4 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.

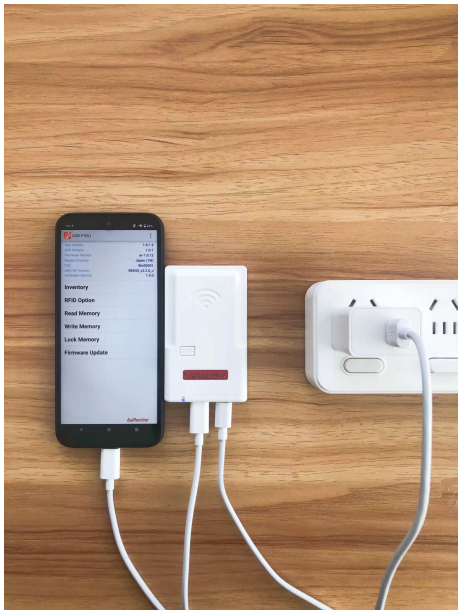

FIG. 4-1 Connect Android device (Method 1)

4. When using the Android device while charging, please connect the USB hub to the Power & Communication Port (see FIG. 1-3-1⑤) of the ASR-P35U using the USB Type-C to Type-C data cable, and then connect the USB hub to the Android device. In this way, you can charge the device using the charging port of the USB hub and use the ASR-P35U at the same time.

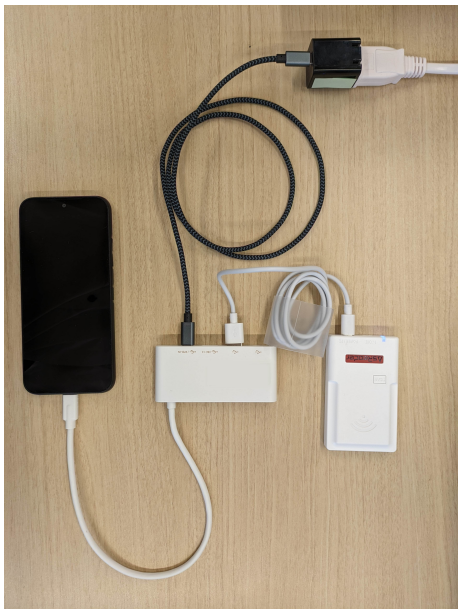

FIG. 4-2 Connect Android device (Method 1, When using the Android device while charging)

- **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.

* With 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.

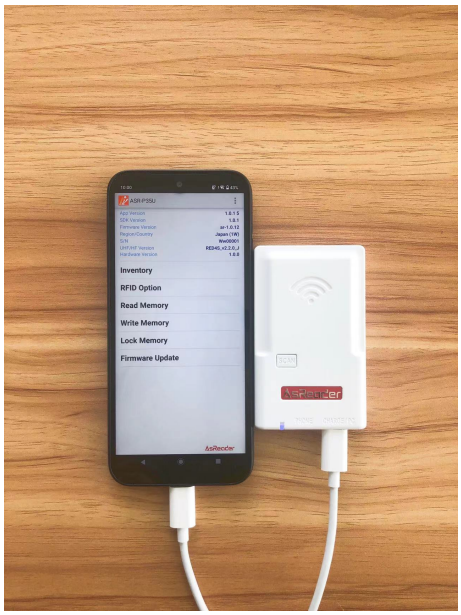

FIG. 4-3 Connect Android device (Method 2)

◆ **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.

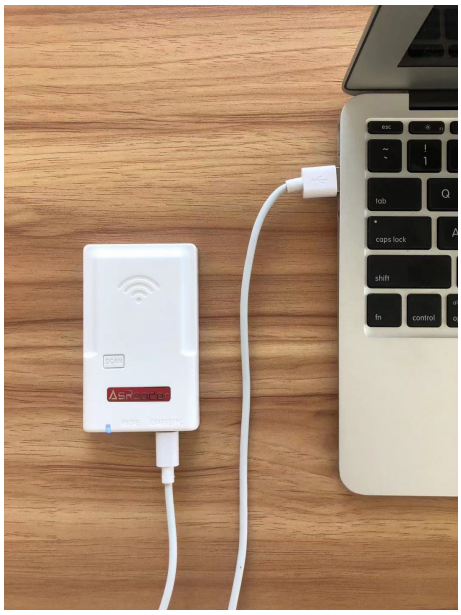

FIG. 4-4 Connect Windows device

5 How to affix to a surface

5.1. Prepare accessories for setting up

To set the ASR-P35U in place, please use a mounting frame (it contains a resin part and a metal part) and 4 screws which are included in the accessories. (See FIG. 5-1-1)

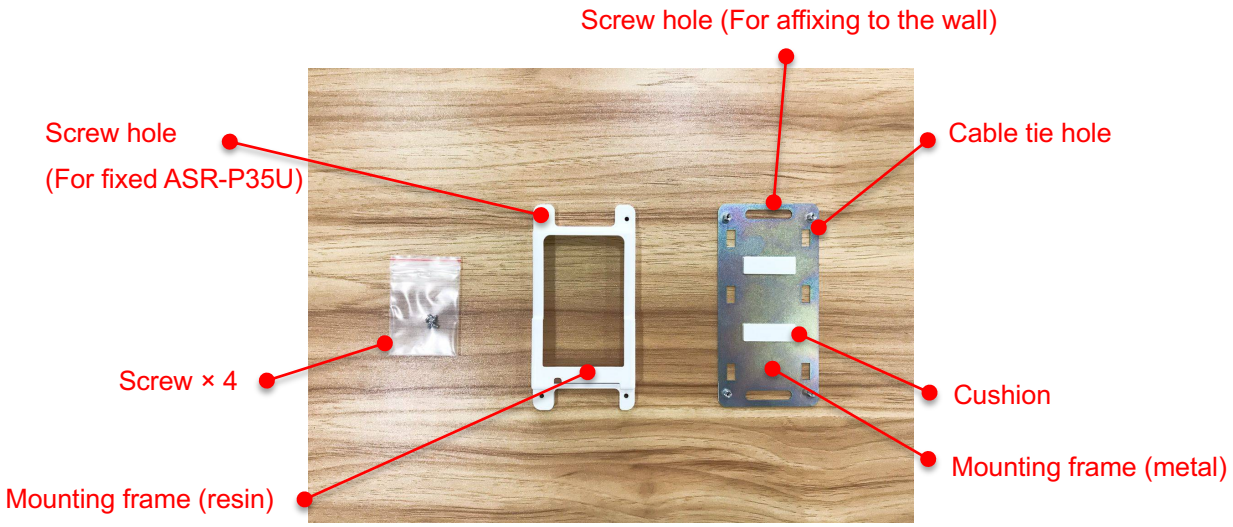

FIG. 5-1-1 Accessories for fixing

5.2. Method of affixing the ASR-P35U using a mounting frame

Install the ASR-P35U and the mounting frame together using the attached screws.

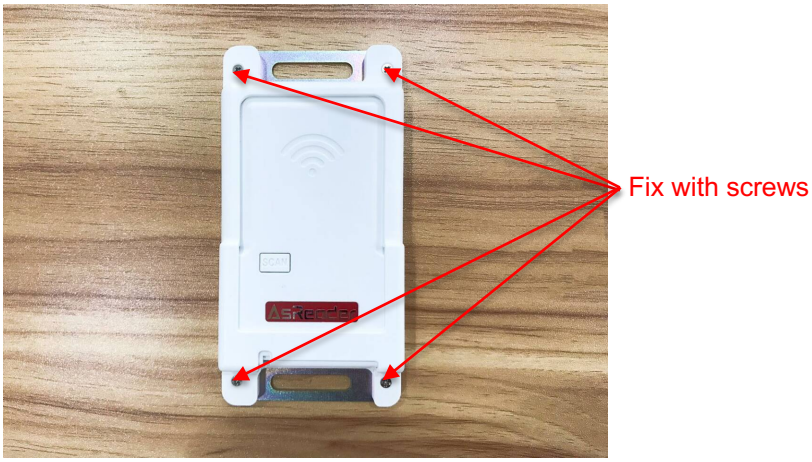

FIG. 5-2-1 The ASR-P35U is fixed by the mounting frame

◆ ASR-P35U can be fixed through any of the following methods:

● **Method 1:**

Affix the ASR-P35U to a surface such as a wall through the screw holes on the mounting frame.

Please prepare appropriate screws for affixing to the wall.

FIG. 5-2-2 Method of fixing (1)

- **Method 2:**

Affix the ASR-P35U to a surface such as a desktop with double-faced adhesive on the lower shell of the mounting frame.

Please prepare appropriate double-faced adhesive for affixing.

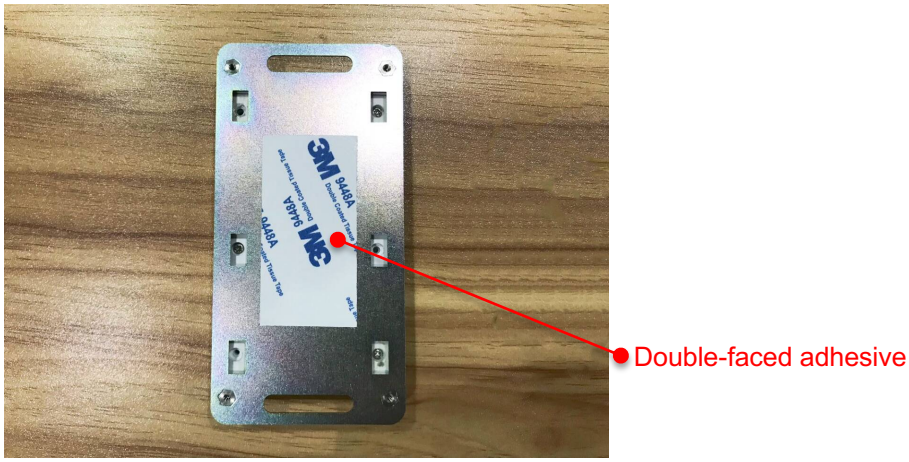

FIG. 5-2-3 Method of affixing (2)

- **Method 3:**

Affix the ASR-P35U to a cylinder using the cable tie holes on the mounting frame.

Please prepare an appropriate cable tie for fixing.

FIG. 5-2-4 Method of fixing (3)

AsReader DESKTOP-Type Mini

(ASR-P35U)

User Manual

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