



BOX-Type Mini User Manual

ASR-P37U

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Revision History

Version	Modified Contents	Date
V1.0	Initial version	2023/11/06
V1.1	1. Updated the Specifications 2. Added how to use the Android device while charging	2024/1/29
V1.2	Added the description of mounting frame	2024/2/29

Contents

1 About BOX-Type Mini 3

- 1.1. Introduction 3
- 1.2. Safety instructions 6
- 1.3. Product appearance 8
- 1.4. Specifications 9

2 Basic operations 10

3 Working mode 12

4 How to connect (Serial mode) 14

5 How to attach 18

- 5.1. Prepare accessories for affixing to a surface 18
- 5.2. Method of mounting the ASR-P37U to the mounting frame 19
- 5.3. Method of removing the mounting frame of ASR-P37U 20
- 5.4. Method of affixing the ASR-P37U using a mounting frame 21

1 About BOX-Type Mini

1.1. Introduction

Thank you for purchasing the BOX-Type Mini ASR-P37U.

This manual describes how to operate the BOX-Type Mini ASR-P37U (hereinafter referred to as the ASR-P37U, or the AsReader). Please read the manual carefully and keep it for as long as you have the device.

ASR-P37U is a high-performance UHF RFID reader, which supports desktop and wall mounted use.

ASR-P37U supports USB serial mode and HID data transmission mode.

ASR-P37U can be used in a wide 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 on 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 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.

 **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 surface. It may fall and cause damage.

1.3. Product appearance

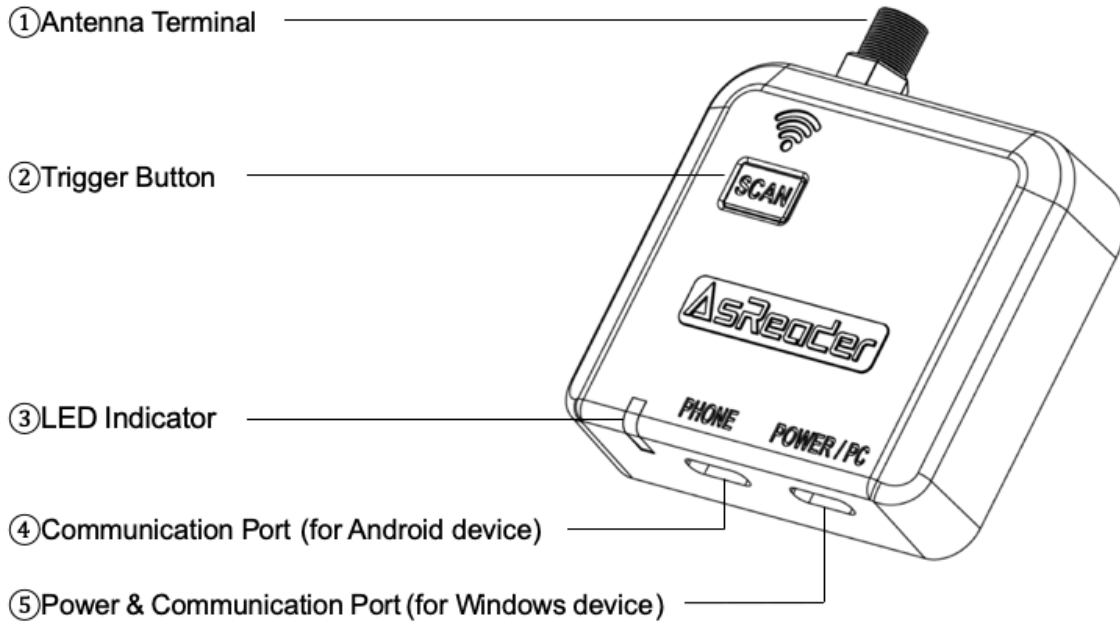


FIG. 1-3-1 Appearance (Front)

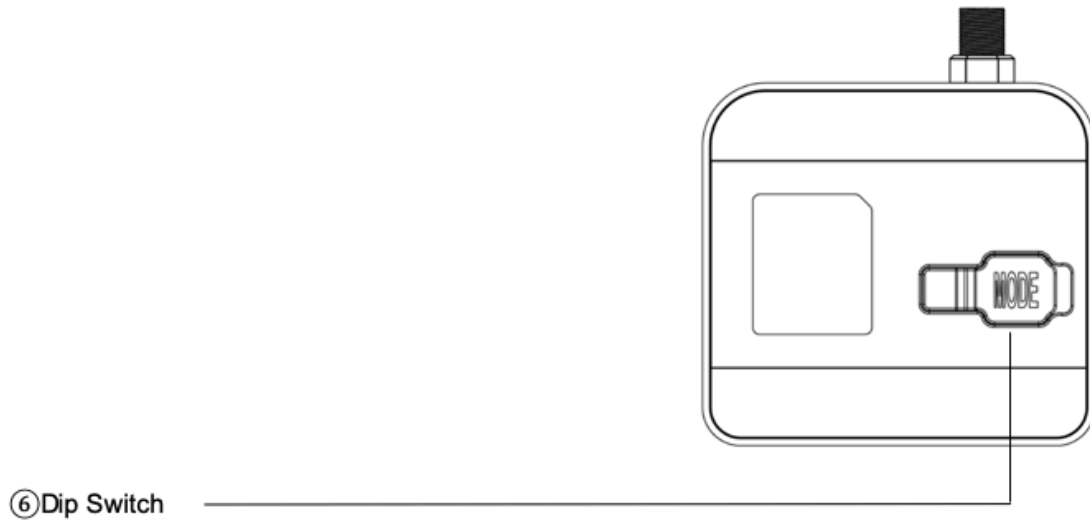


FIG. 1-3-2 Appearance (Back)

1.4. Specifications

Model		ASR-P37U
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) EU, UK: Max 500mW (27dBm)
	Antenna terminal	SMA male
	Functions	Read/Write/Lock/Kill
Power source		USB Type-C port (POWER/PC) Input rating: 5V/0.5A
Button		Trigger button
Switch		Dip switch
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) (*1) (USB 2.0)
	Power & Communication	USB Type-C port (POWER/PC) (*2) (Power input and USB 2.0)
Appearance	Dimensions (W)x(D)x(H)	2.0 × 2.2 × 0.6 inches (52 × 56 × 16mm) (*3)
	Weight	Approx. 1.4oz (40g)
	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 (*4)
	Drop resistant	4.9 feet (1.5m) Twice each on 6-sides and 4-corners (*4)
Certifications		TELEC
Supported OS		Android, Windows, iOS (*5)
Accessories		USB Type-C to Standard-A cable, Mounting frame

*1: For Android device.

*2: For power input and Windows device connection.

*3: The dimensional values do not include the antenna terminal.

*4: These tests were conducted on the device alone

*5: Only supports the HID mode.

2 Basic operations

- **Connect an antenna**

Please connect the RF cable of an antenna to the Antenna Terminal (see [FIG. 1-3-1①](#)) of the ASR-P37U.

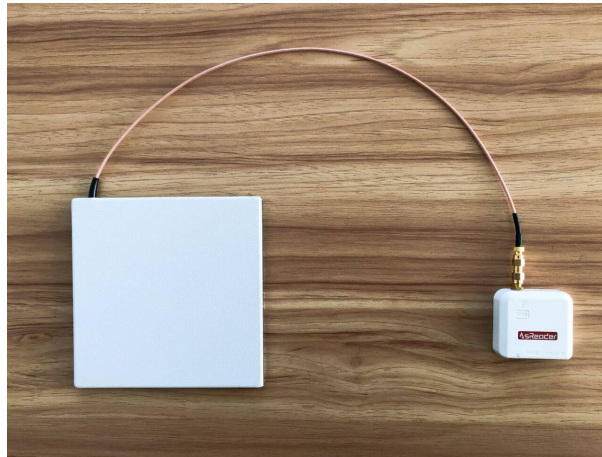


FIG. 2-1 Connect the antenna

- **Power on/off**

Use a USB Type-C data cable to connect the ASR-P37U to a power adapter via the Power & Communication Port (see [FIG. 1-3-1\(5\)](#)). The LED Indicator flashes slowly when power on is successful (see [FIG. 1-3-1\(3\)](#)) and there will be two buzzing prompts.

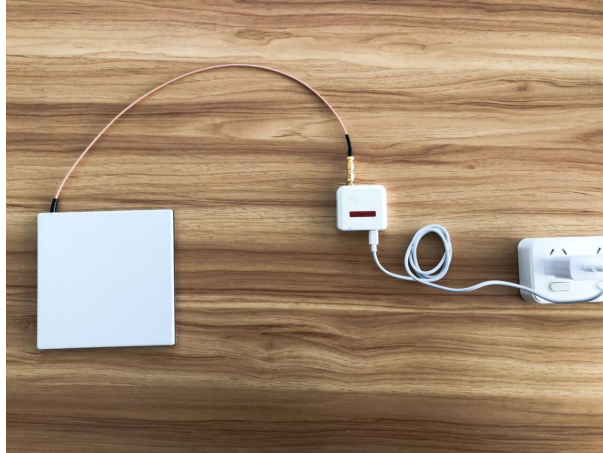


FIG. 2-2 Power on

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

- **Power supply**

DC 5V/0.5A.

3 Working mode

◆ **The ASR-P37U 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.” 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-P37U 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-P37U.

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 the HID mode?

With the ASR-P37U powered on, put RFID tags close to the Antenna attached to it(see [FIG. 1-3-1\(1\)](#)). Then, press the “SCAN” trigger button (see [FIG. 1-3-1\(2\)](#)). The blue light flashes quickly and the data will be entered at the cursor on the screen of the connected 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-P37U (see [Power on/off](#)).
2. Launch the ASR-P3xU app for Android.
3. Connect the Android device and the ASR-P37U with USB Type-C to USB Type-C data cable via the Communication Port (see [FIG. 1-3-1\(4\)](#)). 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.

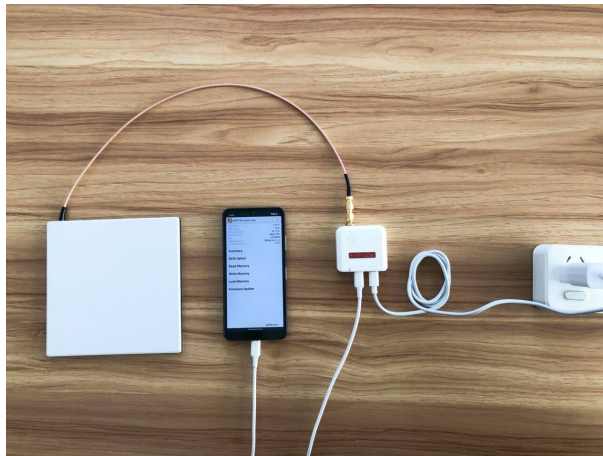


FIG. 4-1 Connect Android device (Method 1)

4. When using while charging the Android device, please connect a USB hub to the Power & Communication Port (see [FIG. 1-3-1⑤](#)) of the ASR-P37U using the USB Type-C to Type-C data cable, and then connect the USB hub to the Android device. Then, connect the power adapter to the USB Hub to supply power to the Android device.



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-P37U with a USB Type-C to USB Type-C data cable via the Power & Communication Port. The LED Indicator stays ON to indicate that the power is on and the connection is successful.

*In this method, the ASR-P37U is powered by the Android device. If an Android device with low output current is connected, the ASR-P37U may not work properly.

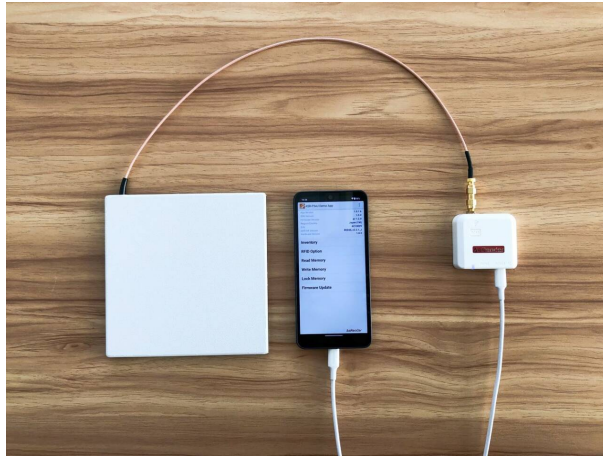


FIG. 4-3 Connect Android device (Method 2)

◆ Windows

1. Use the USB Type-C data cable to connect the ASR-P37U to a Windows device via the Power & Communication Port. The LED Indicator stays ON to indicate that the power is on and the connection is successful.
2. Launch the ASR-P3xU app for Windows.

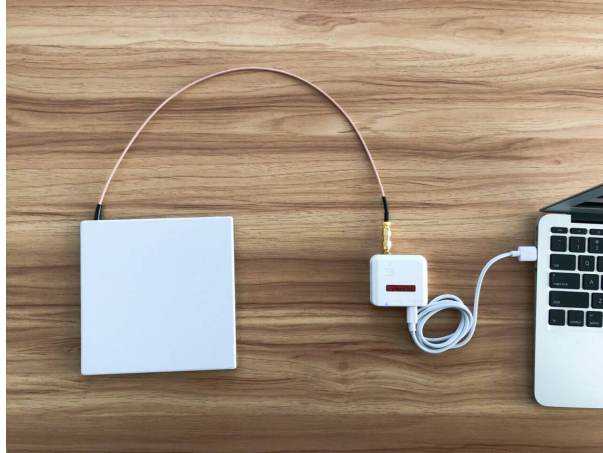


FIG. 4-4 Connect Windows device

5 How to attach

5.1. Prepare accessories for affixing to a surface

A mounting frame to affix the ASR-P37U is included in the accessories.

* The ASR-P37U is mounted to the mounting frame when it leaves the factory.

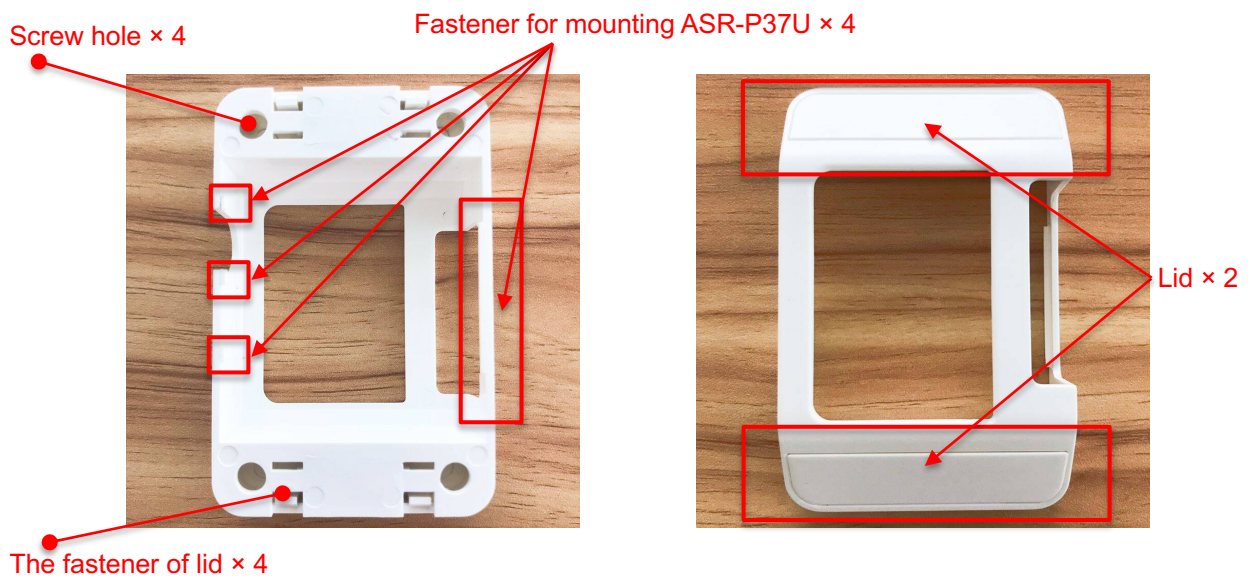


FIG. 5-1 Accessories for mounting

5.2. Method of mounting the ASR-P37U to the mounting frame

Please follow the steps below to mount the ASR-P37U to the mounting frame. (see FIG. 5-2)

- 1) Insert the ASR-P37U under the larger fastener of the mounting frame.
- 2) Press the upper part of the ASR-P37U into the mounting frame.
- 3) The installation is complete when the pressed side of the ASR-P37U fits in the three smaller fasteners.



FIG. 5-2 Mount the ASR-P37U to the mounting frame

5.3. Method of removing the mounting frame of ASR-P37U

Please follow the steps below to remove the mounting frame of ASR-P37U. (see FIG. 5-3)

- 1) Open the three smaller fasteners of the mounting frame.
- 2) Lift the ASR-P37U up and remove it from the mounting frame.



FIG. 5-3 Remove the mounting frame of ASR-P37U

5.4. Method of affixing the ASR-P37U using a mounting frame

◆ ASR-P37U can be affixed through any of the following methods.

① Affixed by magnets of the mounting frame (see FIG. 5-4)

- 1) Mount the ASR-P37U to the mounting frame. (see FIG. 5.3)
- 2) Attach to a metal object using the built-in magnets of the mounting frame. (The magnets are under the lids of the mounting frame.)



FIG. 5-4 Method of fixing ①

② Attached to a surface through the screw holes on the mounting frame. (see FIG. 5-5)

- 1) Mount the ASR-P37U to the mounting frame. (see 5.3)
- 2) Press according to the direction of the arrows on the picture to open the fasteners of lids.
- 3) Remove the lids of the mounting frame.
- 4) Affix the ASR-P37U to a flat surface such as a wall using the screw holes under the lids.

Please prepare appropriate screws for mounting.

- 5) Cover the lids back after affixing with screws.

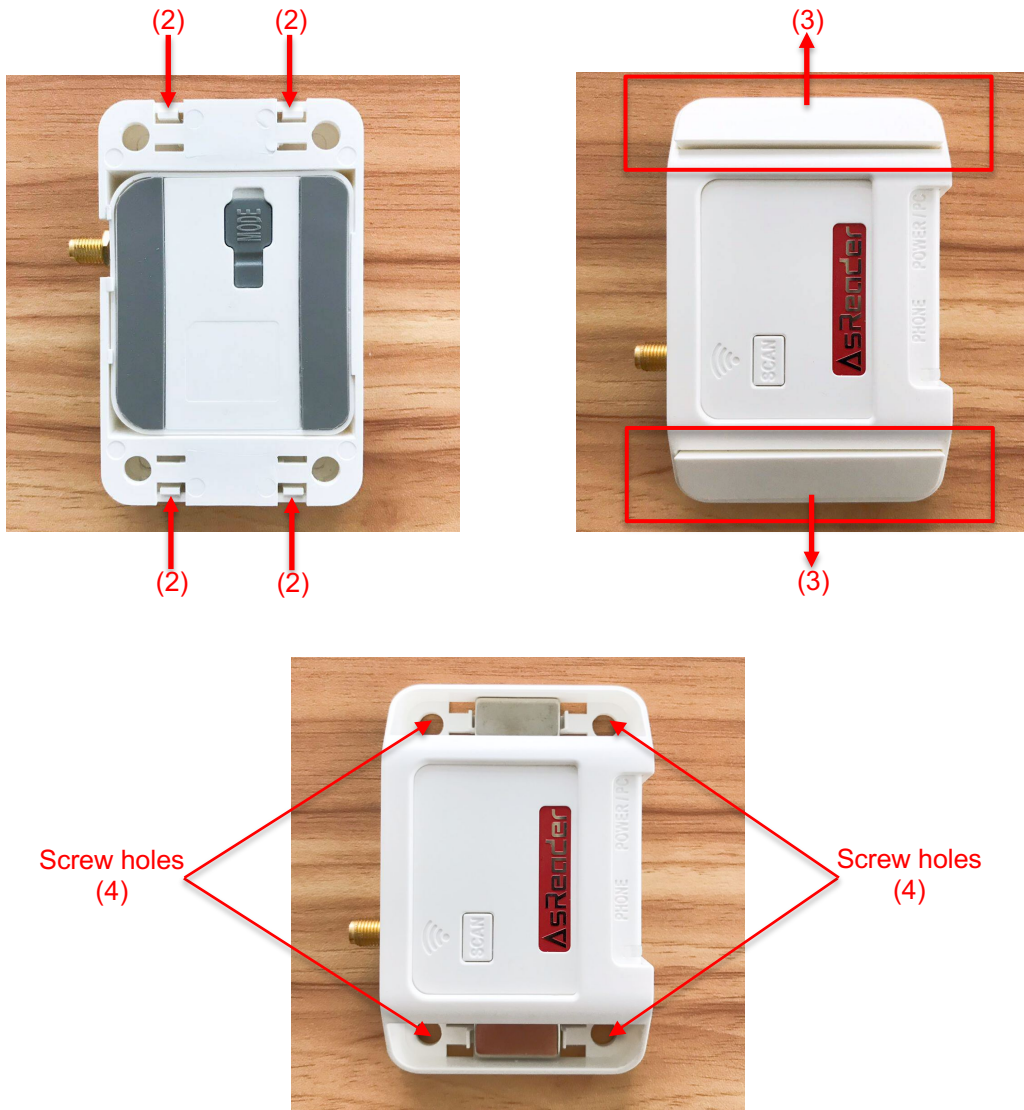


FIG. 5-5 Method of attaching ②

Please remove the lids first when you want to unscrew the screws.

The lids can be removed by opening the fasteners of the lids indicated by the arrows. (see FIG. 5-6)



FIG. 5-6 Method of removing the lids

AsReader BOX-Type Mini

(ASR-P37U)

User Manual

Feb. 2024 3rd Edition

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