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AsReader ASR-A24D DOCK-Type Barcode Reader User Manual

ASR-A24D
AsReader DOCK-Type Barcode Reader for Android
User's Manual

Contents

Preface

Thank you for purchasing the AsReader ASR-A24D. This manual describes precautions for handling the AsReader ASR-A24D correctly. Please read the manual carefully before use.

※ In some sections of this manual, we may refer to the "AsReader ASR-A24D" as "the device", "this product", "the product", or "the AsReader".

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

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★ The copyright of this manual belongs to our company, and it is prohibited to copy, reprint, modify, or translate part or all of this manual into other languages without our consent.

★ The images shown in this manual are for illustrative purposes only and may differ 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 are not responsible for any damage caused by natural disasters, such as earthquakes, lightning, winds, floods, fire outside our responsibility, third-party behavior, other accidents, intentional or negligent abuse, or other improper use.

★ If damage is caused by dropping, crushing, or impacting our device, as determined by our company, a fee will be charged for repairs, even within the warranty period.

★ We 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 items 1) to 4).

1. If used in combination with components, products, devices, data processing systems, or software outside our company.

2. If our products are used in unexpected ways.

3. If our products are modified by any person or company other than our company.

4. If used in countries other than where purchased.

Safety Instructions

In order to avoid personal injury, device failure, fire or the like circumstances, please make sure to read the following information about warnings and cautions below.

⚠ **Warning**

Do not attempt to disassemble, modify or repair the device yourself as it may cause malfunction, fire, or electric shock. We are not responsible for any malfunction of this product or mobile device caused by modification.

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

Do not drop or throw the product or subject it to strong impact. It may cause damage, fire, electric shock, or malfunction. If the product is damaged by being dropped and the inside of the device is exposed, do not touch the exposed part with your hands, because there is a risk of electric shock or injury from the damaged part.

Do not charge the battery in wet environments. Doing so may result in electric shock, short circuits, fire, or burns.

Do not use if the magnetic charging port is damaged or broken. It may cause fire or electric shock If charging is not completed within the specified charging time, stop charging the device. It may cause liquid leakage, heat generation, fire, or failure.

Do not throw the product into fire or heat. It may burst or cause a fire.

Do not look into the light emitted from the AsReader or point it at other people's eyes .

This is a Class 2 Laser product. Do not look into the laser light or point it at anyone else. Looking directly into the laser may cause injury to the eyes. If the injury seems to have occurred from the laser light, please see a doctor immediately.

⚠️ **Caution**

For charging, please use a dedicated cable and Magconn gender adapter. Also, please use a charging adapter with an output power of 20W or lower. Usage of a charging adapter whose output exceeds 20W can cause malfunction of the charger and the AsReader.

Please refer to local regulations when you recycle this device.

Please contact your supplier immediately if any defects occur.

Continuous use of this product in water or rain may cause damage to the attached mobile device. If it gets wet, please wipe it off immediately with a clean, dry cloth.

The magnetic charging port of the product and its charging cable have built-in magnets, which may erase the data on magnetic cards such as credit cards. To protect your data, please keep magnetic cards, such as credit cards, more than 10 cm (4 in) away from these magnets.

How to Care for the Device

Please keep the device clean. If the device gets dirty, wipe it with a soft, dry cloth.

Using strong solvents or cleaners may cause deterioration or color changes.

Assembly of Products and Accessories

1.1 Assembly of Products and Accessories

The AsReader ASR-A24D is a 1D and 2D barcode reader used together with an Android phone, which supports USB HID mode and USB CDC mode.

In order to use an AsReader, you need an AsReader, an Android device, and a joint connector cable. To use it in USB CDC mode, a corresponding application will also need to be installed in the Android device. USB HID mode does not require any corresponding applications. For more details, please see Chapter 4.

● AsReader　　　　　　● Android device　　　　　　● Joint connector cable

ASP-074

Note

1. Since the interface standards vary depending on mobile phones, please confirm with distributors whether there is a suitable joint connector for your intended mobile phone.

2. For instructions on charging, please see Chapter 6.

1.2 Inside the Box

A default box of AsReader ASR-A24D contains only the AsReader. Please purchase optional parts separately, such as a Magconn(PIN2) cable or gender adapter for charging, a USB-C cable, and a joint connector. Please make sure that everything is ready before use.

In case any items are missing or broken, please contact the distributor from whom you purchased the device immediately.

·Included by default

● AsReader

·Optional parts

● Magconn(PIN2) gender adapter for charging   ●Joint connector cable

● USB-C cable

1.3 Application development
In order to use AsReader in the USB CDC mode, you will need to install a corresponding application to your Android device. Our "A24D Demo App" on the Google Play Store is one such example.
To develop your own Android applications for the ASR-A24D, you can download our SDK from our official website. (Please refer to our SDK Reference Guide and sample code).
Official website: **https://asreader.com/products/asr-a24d/**

Name of Each Part of the AsReader

⑦USB-C charging port

⑥USB-C communication port

④Power indicator

⑤Reset button

②Trigger button

① Barcode engine

③Magnetic charging port

Functions and Operations

1. Barcode engine

 When the trigger button(s) on either side of the product are pressed, the scanning window emits white light with an aiming laser, reading 1D and 2D barcodes.

 The settings of the barcode engine can be changed using the Barcode Parameters Manual. You can also refer to the Barcode Parameters Manual for the factory default settings.

※Please make sure that your AsReader is charged more than 10% when changing settings. The memory inside the AsReader may be broken if settings are changed when its battery is charged less than 10%, making the AsReader unusable.

※In USB HID mode, settings are kept in the AsReader until the next time they are changed. In USB CDC mode, users can either keep settings in the application temporarily or keep settings in the AsReader until the next setting change. In the case of our A24D Demo App, settings are kept in AsReader.

※For the Barcode Parameters Manual and A24D Demo App, please visit **https://asreader.com/products/asr-a24d/** .

 The scan timeout is 5 seconds by default. In other words, if no barcode is detected within 5 seconds of scanning, the barcode engine will turn off the white light and laser.

2. Trigger button

 When one or both trigger buttons are pressed with the AsReader's power on, the device starts scanning. Scanning can also be triggered by applications, using USB CDC mode.

 In USB CDC mode, the event of the press of trigger buttons can be sensed by the SDK. This enables users to use trigger buttons for usages other than reading 1D/2D barcodes, if desired. Please note that while one of the two trigger buttons is pressed, the other is not available.

 The LEDs of the "power indicator" light up for 3 seconds when both trigger buttons are pressed for more than 2 seconds to show the battery status.

By pressing both trigger buttons at the same time, an AsReader in sleep mode can be woken up.

3. Magnetic charging port

The magnetic charging port can be used in combination with a magnetic gender adapter and a USB-C cable. Please see Chapter 6 for details on charging.

4. Power indicator

The LEDs on the back of the AsReader light up, indicating the battery's status.

Running status	LED status
Both trigger buttons are pressed for more than 2 seconds	A corresponding number of LEDs light up for 3 seconds
Charging	The leftmost LED lamp lights up red
Fully Charged	Red LED off

※The battery level is displayed as illustrated below:
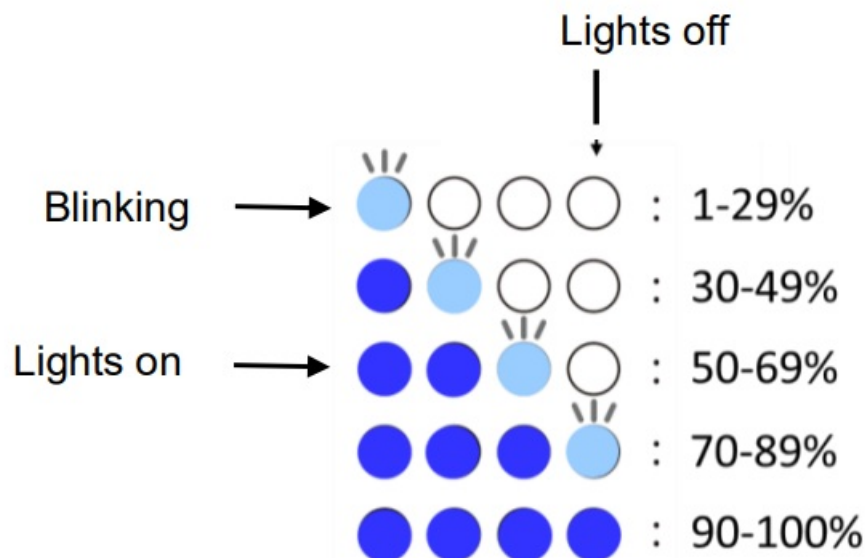
In USB CDC mode, LEDs light up only when LEDs are set "on" in the application.

In USB HID mode, LEDs light up only when LEDs are set "on" with Barcode Parameters Manual.

※ Please visit **https://asreader.com/products/asr-a24d/** for Barcode Parameters Manual "ASR-A24D_Barcode_Parameters_for_HID_Mode."

5. Reset button

The AsReader restarts when its reset button is pressed.

6. USB-C communication port

Connects to an Android device via a joint connector cable. Please note that an AsReader cannot communicate with an Android device while charging. Also please note that this USB-C port in the middle is intended for data only.

Please do not attempt to charge the AsReader from this USB-C port.

7. USB-C charging port

Charge the AsReader using a USB-C cable with this port. This port supports fast charging of Android devices. For details on charging, please see Chapter 6.

※Charging using this port is prioritized when the AsReader is charged using both the magnetic charging port

and this port.

Preparation before Use

Connect your AsReader and the Android device using a joint connector. If you have a case for your AsReader and Android device, please attach it to your AsReader and the Android device.

※Cases for AsReaders and Android devices are sold separately from AsReaders. Case availability for your AsReader and Android device vary depending on the model of your Android device. For available cases, please contact your distributor.

● USB CDC mode

This mode uses an application and SDK. In this mode, the AsReader may automatically switch on when you switch on your Android device with the AsReader connected.

Please install a corresponding application for Android devices before use. Our demo application "A24D Demo App" is also available on the Google Play Store. Please open the application and connect your Android device to your AsReader.

● USB HID mode

In this mode, the AsReader sends the information it reads to the Android device as if from a keyboard. This enables the Android device to receive information from 1D/2D barcodes as if it had been entered using a keyboard.

Using USB HID mode allows you to use your AsReader without installing corresponding applications. The AsReader automatically switches on when you switch on your Android device with the AsReader connected.

● How to switch between USB CDC mode and USB HID mode

USB CDC mode and USB HID mode require different firmware. When switching these modes, you need to rewrite the firmware of your AsReader. You can rewrite the firmware of your AsReader using our application "AsFWUpdater," which is available in the Google Play store and from the QR code below.

https://play.google.com/store/apps/details?id=jp.co.asterisk.asreader.fwupdaterdemo

How to Scan

● USB HID mode

1. After getting ready as described in Chapter 4 above, make sure the battery is fully charged.
2. Start "NotePad" or some other app with text tools, press any of the triggers, and scan the 1D/2D barcodes. The scanned data will be displayed in the text.

    ※You can also scan 1D/2D barcodes using our "A24D Demo App" application.

● USB CDC mode

1. After getting ready as described in Chapter 4 above, make sure the battery is fully charged.
2. Start the application and check the connection status between the AsReader and the application. In some cases, popup messages may ask you for permission to connect to the application. In these cases, please

select to connect. After the connection, press one or both trigger buttons and point the AsReader at 1D/2D barcodes to scan. You can also scan using the "Scan" button on the screen of the demo application.

3. The data scanned is then displayed in the application.

How to Charge

1. Charging using the magnetic charging port:

    Connect the USB-C cable and the Magconn(PIN2) gender adapter. Then, put the gender adapter on the magnetic charging port to charge.

    ※In this magnetic adapter method, the maximum input to the AsReader is 5V2A.

2. Charging using USB-C charging port:

    Plug the USB-C cable into the USB-C charging port.

    ※In this USB-C port method, the maximum input to the AsReader is 5V3A. This method supports fast charging of Android devices (USB PD and QC2.0/3.0).

    Note: Fast charging may not be supported for some models of Android devices.

3. Recommended adapter

    Please make sure to use an adapter that has an output of 5V3A or higher when charging an AsReader. When you use an adapter that supports USB PD, please be sure to use adapters with outputs of 20W (12V) or lower. The usage of an adapter whose output exceeds 20W can cause fire, smoking, and malfunction of the

AsReader.

When connected to an Android device, the AsReader and the Android device are charged at the same time.

While the battery of an AsReader is being charged, the leftmost LED of the battery indicator will light up red. This red LED turns off when the charging is complete.

If the battery of an AsReader is empty, it takes about 3.5 hours to charge it completely.

An AsReader and an Android device cannot communicate while they are being charged together. The USB-OTG path only allows either charging, or data, not both simultaneously.

※When using the AsReader for the first time or if it has been left idle for a long period of time, please charge the AsReader sufficiently before use.

Troubleshooting

If you think that there is a malfunction in the AsReader, please check the following before contacting your distributor.
 When the AsReader cannot connect to Android devices (in either USB HID mode or USB CDC mode)

1. Please confirm that the AsReader and the Android devices are properly connected with a joint connector cable. (*IMPORTANT: The ASP-074 joint connector cable is a "one way cable" with the word "PHONE" printed on one side.
   This side MUST be on the phone, with the unmarked side on the AsReader.)
2. Please check whether the battery of the AsReader has been sufficiently charged.
3. Please restart the Android device.
4. Please replace the joint connector cable.
   In USB CDC mode, please also check the following:
5. Please confirm that you have installed a compatible application, such as our "A24D Demo App" from the Google Play Store.
6. Please confirm that you have permitted the USB connection between the Android device and the AsReader.
7. Please restart the application.

 When the AsReader and the Android phone cannot be charged simultaneously (in either USB HID mode or USB CDC mode)

1. Depending on the model of your Android phone, simultaneous charging may not be supported.
2. Please confirm that the AsReader is being charged using an adapter with sufficient output power (Please see Chapter 6 for the detail of adapters).
3. Please confirm that the AsReader and the Android devices are properly connected with a joint connector cable. (*IMPORTANT: The ASP-074 joint connector cable is a "one way cable" with the word "PHONE" printed on one side.
   This side MUST be on the phone, with the unmarked side on the AsReader.)
4. Please replace the joint connector cable.

 When the Trigger button of the AsReader is pressed but no red light is emitted (in either USB HID mode or USB CDC mode)

1. Please confirm that the AsReader and the Android device are connected physically in the proper manner.

2. Please confirm that the "Aimer" is turned on in the settings.

3. Please confirm that the AsReader is charged sufficiently.

4. Please restart the application or try using our "A24D Demo App" (in USB CDC mode).

When the Trigger button of the AsReader is pressed, a red light is emitted but no barcode data is displayed in the application

1. Please restart the application or try using our "A24D Demo App" (in USB CDC mode)

2. Please try other software, as it may be a problem with the text tool. (in USB HID mode).

When the read barcode data is not displayed properly (USB HID mode

1. Please change the settings of "Inter-Character Delay" and retry.

   The settings can be changed using the

   "ASR-A24D_Barcode_Parameters_for_HID_Mode" barcode parameters manual.

   ※Occasionally, in USB HID mode, depending on the Android device model, the application used, and the

   Android OS, the read data may not be displayed correctly due to the delay of data transmission.

Appendix Specifications

Product name		DOCK-Type Barcode Reader for Android
Model		ASR-A24D
Barcode	Reading method	CMOS Sensor
	Number of scans	16,000 Scans (When reading once every S seconds)
Power supply	Battery capacity	Rechargeable lithium-ion batteries, 1050mAh
	Charging method	Magconn(PIN2) magnetic gender adapterX1 USB Type-C (supporting USB PD, QC2.0/3.0 for Android phone) ※1
	Charging time	Approx. 3.5 hours (AsReader only)
Key input		2 trigger keys Reset button
Port		USB-C charging port
Communication	Interface	USB-C communication port ※2
Environment	Operating temperature	-10~45 °C, 20~85 % RH (Charge at 0°C~40°C)
	Storage temperature	-20°C~60°C, 4585 % RH (For 1 month) ~20°C~45°C, 45~85 % RH (For 3 months) 0°C~30°C, 45~85% (For 1 year)
	Drop-tested	Six-sides and 4-corners, once each, from 1.5 m (5 feet)
	IP Rating	IP65 compliant
Appearance	Dimensions (W)x(D)x(H)	65.1 x 11.6 x 120.3mm ※3
	Weight	85g
	Material	PC
	Color	Black
	LED display	LED indicators: Blue LEDs light up when trigger buttons are pressed, indicating battery level. Flashing blue LED indicates an extremely low battery. Red LED lights up while the device is charging and turns off when it's fully charged.
Certificate		FCC / CE / RoHS

※1 We recommend using an adapter that has an output of 5V3A when charging an AsReader using a magnetic charging port. When you use an adapter that supports USB PD, the output power needs to be 20W or lower. Usage of an adapter whose output exceeds 20W can cause malfunction of the charger and the AsReader.
※2 We offer an SDK for USB communications.
※3 Excluding protrusion.

Documents / Resources

AsReader ASR-A24D AsReader DOCK-Type Barcode Reader for Android **User's Manual**	**AsReader ASR-A24D DOCK-Type Barcode Reader** [pdf] User Manual ASR-A24D DOCK-Type Barcode Reader, DOCK-Type Barcode Reader, Barcode Reader, Reader

References

- Δ **AsReader Product Site specializing in RFID and Barcode AutoID to improve business**
- Δ **ASR-A24D||AsReader Product Site specializing in RFID and Barcode AutoID to improve business**
- Δ **AsReader |**