



# Wireless Keyfob

## User's Manual








# Foreword

## General

This manual introduces the installation, functions and operations of the wireless keyfob (hereinafter referred to as the "keyfob"). Read carefully before using the device, and keep the manual safe for future reference.

## Safety Instructions

The following signal words might appear in the manual.

| Signal Words  | Meaning  |
|---|--|
|  <b>DANGER</b>   | Indicates a high potential hazard which, if not avoided, will result in death or serious injury.   |
|  <b>WARNING</b>  | Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.                                       |
|  <b>CAUTION</b> | Indicates a potential risk which, if not avoided, could result in property damage, data loss, reductions in performance, or unpredictable results. |
|  <b>TIPS</b>   | Provides methods to help you solve a problem or save time.   |
|  <b>NOTE</b>   | Provides additional information as a supplement to the text.   |

## Revision History

| Version | Revision Content  | Release Time |
|---------|---|--------------|
| V1.1.0  | <ul style="list-style-type: none"> <li>Added technical specifications.</li> <li>Updated descriptions of parameters.</li> <li>Updated images.</li> </ul> | January 2022 |
| V1.0.0  | First release.  | October 2021 |

## Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face, fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

## About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.
- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.

- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user's manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.
- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

# Important Safeguards and Warnings

This section introduces content covering the proper handling of the keyfob, hazard prevention, and prevention of property damage. Read carefully before using the keyfob, and comply with the guidelines when using it.

## Operation Requirements



- Make sure that the power supply of the device works properly before use.
- Do not pull out the power cable of the device while it is powered on.
- Only use the device within the rated power range.
- Transport, use and store the device under allowed humidity and temperature conditions.
- Prevent liquids from splashing or dripping on the device. Make sure that there are no objects filled with liquid on top of the device to avoid liquids flowing into it.
- Do not disassemble the device.

## Installation Requirements



- Connect the device to the adapter before power on.
- Strictly abide by local electrical safety standards, and make sure that the voltage in the area is steady and conforms to the power requirements of the device.
- Do not connect the device to more than one power supply. Otherwise, the device might become damaged.



- Observe all safety procedures and wear required protective equipment provided for your use while working at heights.
- Do not expose the device to direct sunlight or heat sources.
- Do not install the device in humid, dusty or smoky places.
- Install the device in a well-ventilated place, and do not block the ventilator of the device.
- Use the power adapter or case power supply provided by the device manufacturer.
- The power supply must conform to the requirements of ES1 in IEC 62368-1 standard and be no higher than PS2. Note that the power supply requirements are subject to the device label.
- Connect class I electrical appliances to a power socket with protective earthing.

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# 1 Introduction

## 1.1 Overview

Wireless keyfob is a miniature remote that connects to the hub and controls the alarm system in your home. It works by sending wireless communication signals to the alarm system, which will recognize the signal and then perform the function that is assigned to the area.

## 1.2 Technical Specifications

This section contains technical specifications of the keyfob. Please refer to the ones that correspond with your model.

Table 1-1 Technical specifications

| Type                | Parameter                 | Description  |   |
|---------------------|---------------------------|--|---|
| Port                | Indicator Light           | 1 × two-color status indicator (green: normal, red: abnormal)    |   |
|                     | Button                    | 4 (Home, Away, Disarm, and SOS)                                  |   |
| Function            | Remote Update             | Cloud update   |   |
|                     | Low Battery Alarm         | Yes  |   |
| Wireless Parameters | Carrier Frequency         | DHI-ARA24-W2(868):<br>868.0 MHz–868.6 MHz                        | DHI-ARA24-W2:<br>433.1 MHz–434.6 MHz                        |
|                     | Communication Distance    | DHI-ARA24-W2(868):<br>Up to 900 m (2,952.76 ft) in an open space | DHI-ARA24-W2:<br>Up to 500 m (1,640.42 ft) in an open space |
|                     | Communication Mechanism   | Two-way  |   |
|                     | Encryption Mode           | AES128   |   |
|                     | Frequency Hopping         | Yes  |   |
| General             | Power Supply              | CR2032 battery   |   |
|                     | Battery Voltage           | 3 VDC  |   |
|                     | Min. Voltage              | 1.8 VDC  |   |
|                     | Battery Low Threshold     | 2.6 VDC  |   |
|                     | Battery Restore Threshold | 2.65 VDC   |   |
|                     | Consumption               | Quiescent current 3 uA<br>Max current 50 mA                      |   |
|                     | PS Type                   | Type C   |   |

| Type           | Parameter   | Description  |                             |
|----------------|---|--|-----------------------------|
|                | Battery Life  | 5 years  |                             |
|                | Power Consumption   | DHI-ARA24-W2(868):<br>Max. 100 mW  | DHI-ARA24-W2:<br>Max. 85 mW |
|                | Operating Environment   | Indoor: -10 °C to +55 °C (+14 °F to +131 °F)<br>Certified temperature: -10°C to +40°C (+14°F to +104 °F) |                             |
|                | Operating Humidity  | 10%–90% (RH)   |                             |
|                | Product Dimensions  | 60.0 mm × 39.5 mm × 15.0 mm (2.36" × 1.56" × 0.59")<br>(L × W × H)                                       |                             |
|                | Packaging Dimensions  | 135.0 mm × 98.5 mm × 27.8 mm (5.31" × 3.88" × 1.09")   |                             |
|                | Net Weight  | 20 g (0.04 lb)   |                             |
|                | Gross Weight  | 65 g (0.14 lb)   |                             |
|                | Casing  | PC + ABS   |                             |
|                | ACE Type  | Type B   |                             |
| Certifications | DHI-ARA24-W2(868):<br>EN 50131-1:2006+A1: 2009+A2:2017+A3:2020<br>EN 50131-5-3: 2017<br>EN 50131-6:2017<br>EN 50131-3: 2009<br>Security Grade 2<br>Environmental Class II<br>CE | DHI-ARA24-W2:<br>CE<br>FCC   |                             |

## 2 Checklist

Check the package according to the following checklist. If you find device damage or any loss, contact the after-sales service.

Figure 2-1 Checklist

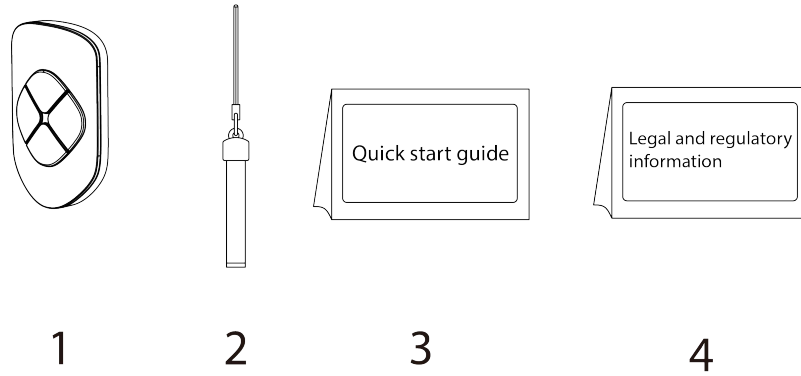


Table 2-1 Checklist

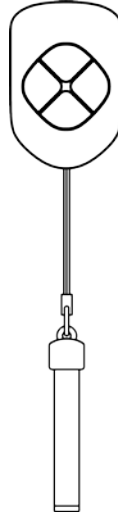
| No. | Item Name                        | Quantity |
|-----|----------------------------------|----------|
| 1   | Wireless keyfob                  | 1        |
| 2   | String                           | 1        |
| 3   | Quick start guide                | 1        |
| 4   | Legal and regulatory information | 1        |



## 3 Design

### 3.1 Appearance

Figure 3-1 Appearance



### 3.2 Function Key

Figure 3-2 Function key

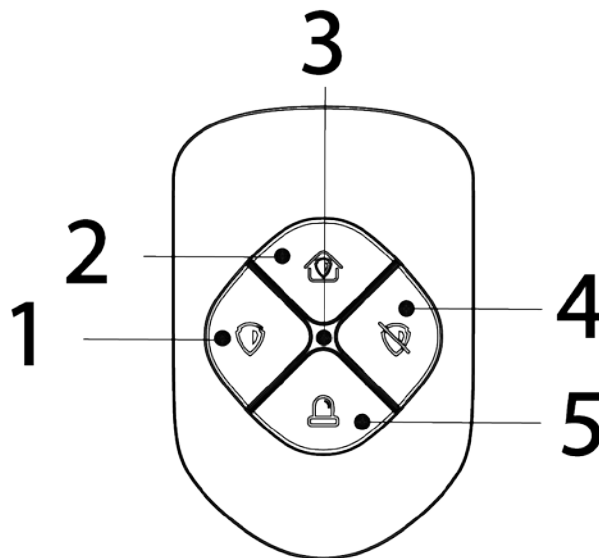




Table 3-1 Description of function key

| No. | Name          | Description   |
|-----|---------------|---|
| 1   | Arming button | <p>Press the button once to arm the system.</p> <p>After pressing the arming button, if the system fails to arm, you can press the button again within 10 seconds to override preventions that resulted in the previous arming failure and arm successfully.</p>  <ul style="list-style-type: none"> <li>• There are many prevention of setting conditions, including intruders being detected by other detectors, detector faults, tamper alarms going off and other situations that can all interrupt the arming process.</li> <li>• If you arm during the exit delay process, the system will start to arm immediately. If you disarm during this process, the system will stop arming itself.</li> <li>• Failures that occur during the exit delay process function differently to how failures occur with the typical arming process seen above.</li> </ul>   |
| 2   | Home mode     | <p>Press home mode, and then the selected accessories that were configured in home mode will be home armed.</p> <p>After pressing the home mode button, if the system fails to arm, you can press the button again within 10 seconds to override preventions that resulted in the previous arming failure and arm successfully.</p>  <ul style="list-style-type: none"> <li>• There are many prevention of setting conditions, including intruders being detected by other detectors, detector faults, tamper alarms going off and other situations that can all interrupt the arming process.</li> <li>• If you arm during the exit delay process, the system will start to arm immediately; if you disarm during such process, the system will cancel the arming.</li> <li>• Failures that occur during the exit delay process function differently to how failures occur with the typical arming process seen above.</li> </ul> |

| No. | Name             | Description   |
|-----|------------------|---|
| 3   | Indicator        | <ul style="list-style-type: none"> <li>● Solid green for 2 seconds: Power on.</li> <li>● Flashes green quickly: Pairing mode.</li> <li>● Solid green for 2 seconds: Pairing is successful.</li> <li>● Flashes green 3 times: Pairing fails.</li> <li>● Flashes green slowly: Exit delay.</li> <li>● Flashes green once: The command was successfully sent.</li> <li>● Flashes red once: Failed to send the command.</li> <li>● Flashes green once after the command is successfully sent: The command was successfully executed.</li> <li>● Flashes red once after the command is successfully sent: Delayed in responding to the command.</li> <li>● Flashes red twice after the command is successfully sent: Failed to execute the command.</li> <li>● Flashes red and then turns off: Low battery.</li> </ul> |
| 4   | Disarming button | Press the button once to disarm the system.   |
| 5   | SOS              | Press the panic button, and then the keyfob will send alarm signal to the alarm system.   |

## 4 Adding the Keyfob to the Hub

### Prerequisites

Device configurations are performed on the DMSS app. Make sure that you have installed the DMSS app, created an account, and added the hub to the app. For details on adding the hub, see the user's manual of the corresponding hub.






- Make sure that the hub has a stable internet connection.
- Make sure that the hub is disarmed.

### Background Information

You can add the keyfob to the hub. This user's manual uses the operations on iOS as an example.

### Procedure

- Step 1 Go to the hub screen, and then tap **Accessory** to add the keyfob.
- Step 2 Tap  to scan the QR code at the bottom of the keyfob, and then tap **Next**.
- Step 3 Tap **Next** after the keyfob has been found.
- Step 4 Follow the on-screen instructions and press  and  once at the same time, and then tap **Next**.
- Step 5 Wait for the pairing.
- Step 6 Customize the name of the keyfob, and then tap **Completed**.

## 5 Keyfob Configuration

You can view and edit general information of the keyfob.

### 5.1 Viewing Status

On the hub screen, select a keyfob from the accessory list, and then you can view the status of the keyfob.



Table 5-1 Status

| Parameter            | Description  |
|----------------------|--|
| Temporary Deactivate | <p>The status for whether the functions of the keyfob are enabled or disabled.</p> <ul style="list-style-type: none"> <li>• : Enable.</li> <li>• : Only disable tamper alarm.</li> <li>• : Disable.</li> </ul> <p></p> <p>The function is only available when the version of the DMSS app is 1.96 or later, the hub is V1.001.0000000.6.R.211215 or later, and the keyfob is V1.000.0000001.0.R.20211203 or later.</p> |
| Battery Level        | <p>The battery level of the keyfob.</p> <ul style="list-style-type: none"> <li>• : Fully charged.</li> <li>• : Sufficient.</li> <li>• : Moderate.</li> <li>• : Insufficient.</li> </ul>  |
| SOS Status           | The status of the SOS alarm.   |
| Relay Status         | <p>The status of whether the keyfob forwards accessory messages to the hub through the repeater.</p> <p></p> <p>The function is only available when the version of the DMSS app is 1.96 or later, the hub is V1.001.0000000.6.R.211215 or later, and the keyfob is V1.000.0000001.0.R.20211203 or later.</p>   |
| Program Version      | The program version of the keyfob.   |

### 5.2 Configuring the Keyfob

On the hub screen, select a keyfob from the accessory list, and then tap to configure the parameters of the keyfob.




Table 5-2 Keyfob parameter description

| Parameter            | Description  |
|----------------------|--|
| Device Configuration | <ul style="list-style-type: none"> <li>View device name, type, SN and device model.</li> <li>Edit device name, and then tap <b>Save</b> to save configuration.</li> </ul>  |
| Area                 | <ul style="list-style-type: none"> <li>View the existing area.</li> <li>Add the area that you want to arm, and then tap <b>Save</b> to save configuration.</li> </ul>  |
| Temporary Deactivate | <ul style="list-style-type: none"> <li>Tap <b>Enable</b>, and then the function of the siren will be enabled. <b>Enable</b> is set by default.</li> <li>Tap <b>Only Disable Tamper Alarm</b>, and then the system will only ignore tamper alarm messages.</li> <li>Tap <b>Disable</b>, and then the function of the siren will be disabled.</li> </ul>   |
| LED Indicator        | <p><b>LED Indicator</b> is enabled by default on the app. You also need to press any button on the keyfob to enable the function. For details on indicator behavior, see "3.2 Function Key".</p>  <ul style="list-style-type: none"> <li>If <b>LED Indicator</b> is disabled, the LED indicator will remain off regardless of whether the keyfob is functioning normally or not.</li> <li>The function is only available when the version of the DMSS app is 1.96 or later, the hub is V1.001.0000000.4.R.211014 or later, and the keyfob is V1.000.0000001.0.R.20210818 or later.</li> </ul> |
| Control Permissions  | Select the area over which the keyfob has control permissions.   |
| SOS Alarm            | If enabled, the SOS alarm messages will be pushed when an alarm event is detected.   |
| Siren Linkage        | When an alarm is triggered, the accessories will report the alarm events to the hub and alert with siren.  |
| Alarm-video Linkage  | When an alarm is triggered, the accessories will report the alarm events to the hub and then will be linked with videos.   |
| Video Channel        | Select the video channel as needed.  |
| Cloud Update         | <p>Update online.</p> <p>If the latest version is detected, you need to tap <b>Update</b> on the app, and then press any button on the keyfob to update the keyfob.</p>  |
| Delete               | <p>Delete the online accessory.</p>  <p>Go to the hub screen, select the accessory from the list, and then swipe left to delete it.</p>   |

## 6 Using the Keyfob




Maximum connection distance between the keyfob and the hub is 900 meters. This distance is reduced by walls, inserted floors and any objects hindering the signal transmission.

After the accessories have been added on the hub, you can operate on the keyfob.

- Press  and  once at the same time to connect with the hub.
- Press  once to enable the away mode, and then all the accessories in the area will be armed.



Press  twice if the **System Integrity Check** is enabled in the hub.

- Press  once to enable the home mode, and then the selected accessories in the area will be armed.
- Press  once to enable the disarm mode, and then all the accessories in the area will be disarmed.
- Press  once to enable SOS.

ENABLING A SAFER SOCIETY AND SMARTER LIVING

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