MerryIoT Sensors & App
Quick Installation Guide

MERRYIOT

Content

 # Safety Warning

Read this manual before attempting to install the device!

Failure to observe recommendations included in this manual may be dangerous or cause a violation of the law. The manufacturer, **Browan Communications Inc.** will not be held responsible for any loss or damage resulting from not following the instructions of this user manual.

• The device must not be dismantled or modified in any way.
• The device is only intended for indoor use. Do not expose it to moisture.
• The device is not intended to be used as a reference sensor, and **Browan Communications Inc.** will not be held liable for any damage which may result from inaccurate readings.
• The battery should be removed from the device if it is not to be used for an extended period. Otherwise, the battery might leak and damage the equipment. Never leave a discharged battery in the battery compartment.
• The device must never be subjected to shocks or impacts.
• To clean the device, wipe with a soft moistened cloth. Use another soft, dry cloth to wipe dry. Do not use any detergent or alcohol to clean the device.
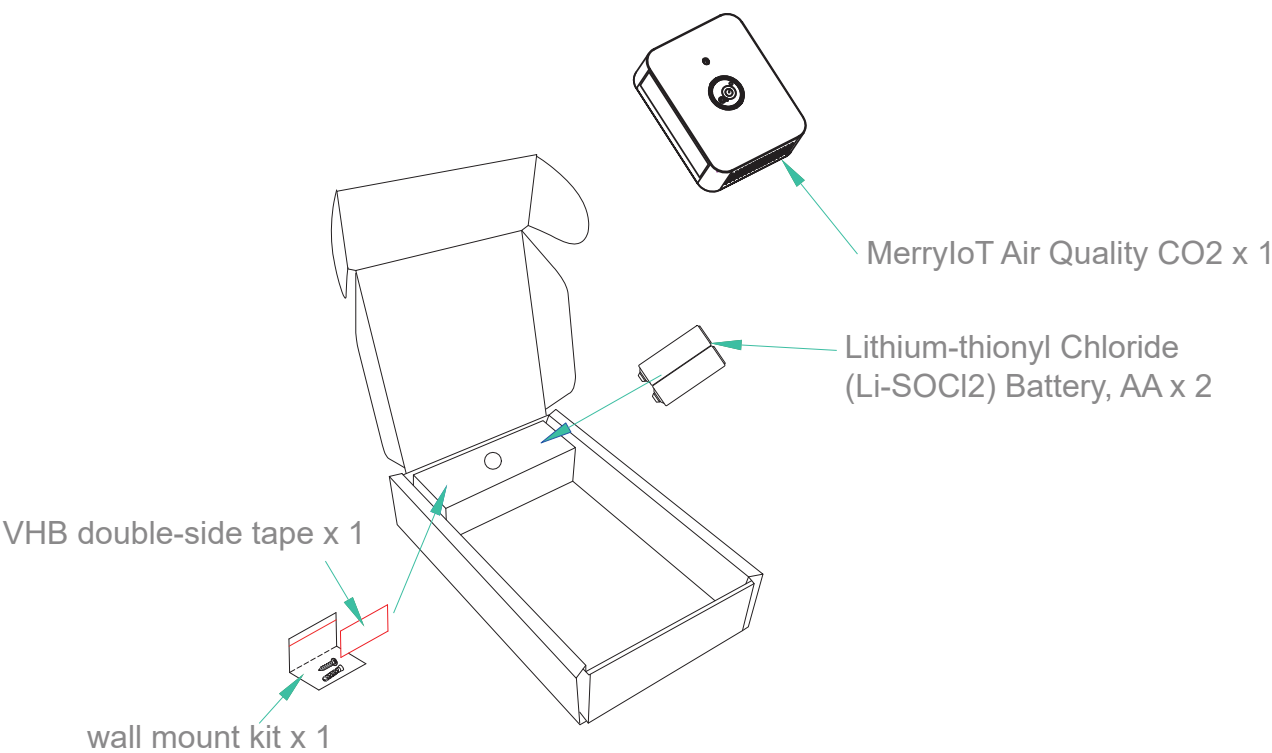
Contact Us

Website: https://www.merryiot.com

E-mail: sales@merryiot.com
        support@merryiot.com

Address : Browan Communications Incorporation
No.15-1 Zhonghua Rd., Hsinchu Industrial Park,
Hukou, Hsinchu, Taiwan, 30352
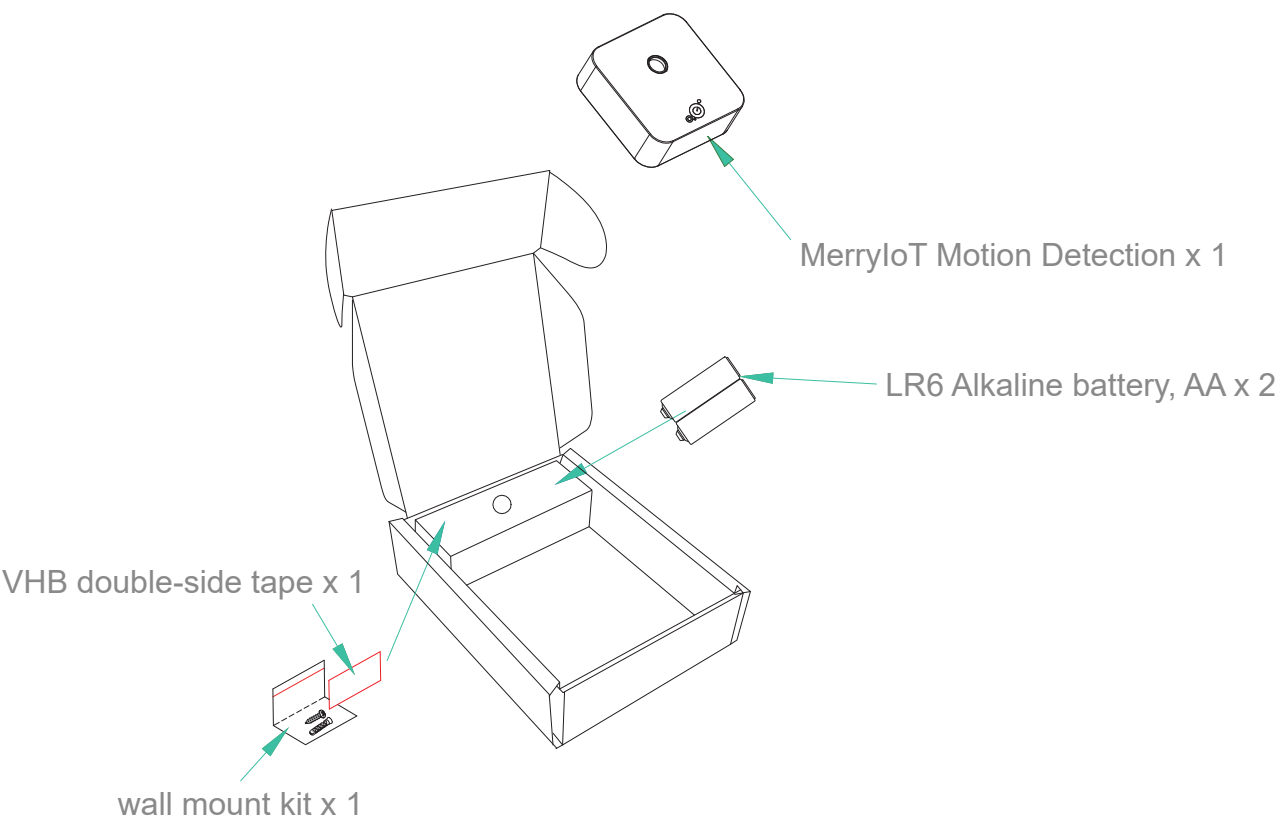
Chapter 2 - Package Content

MerryIoT Air Quality CO2(CD10)

MerryIoT Air Quality CO2 x 1

Lithium-thionyl Chloride
(Li-SOCl2) Battery, AA x 2

VHB double-side tape x 1

wall mount kit x 1
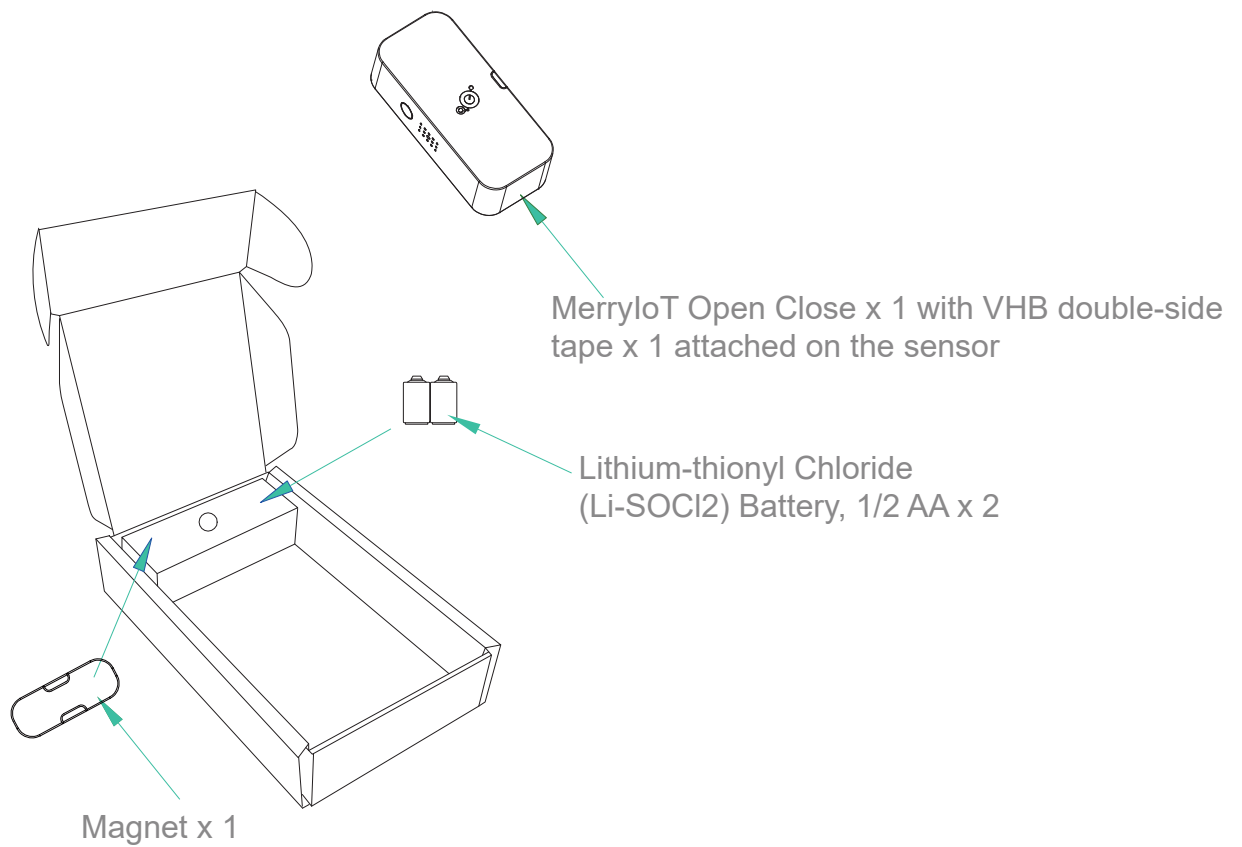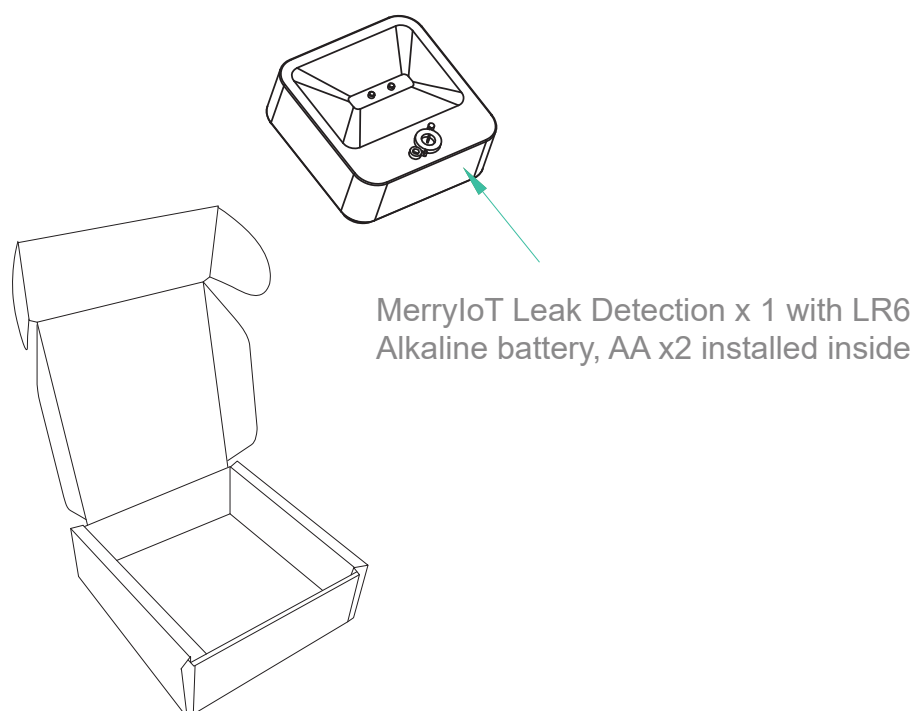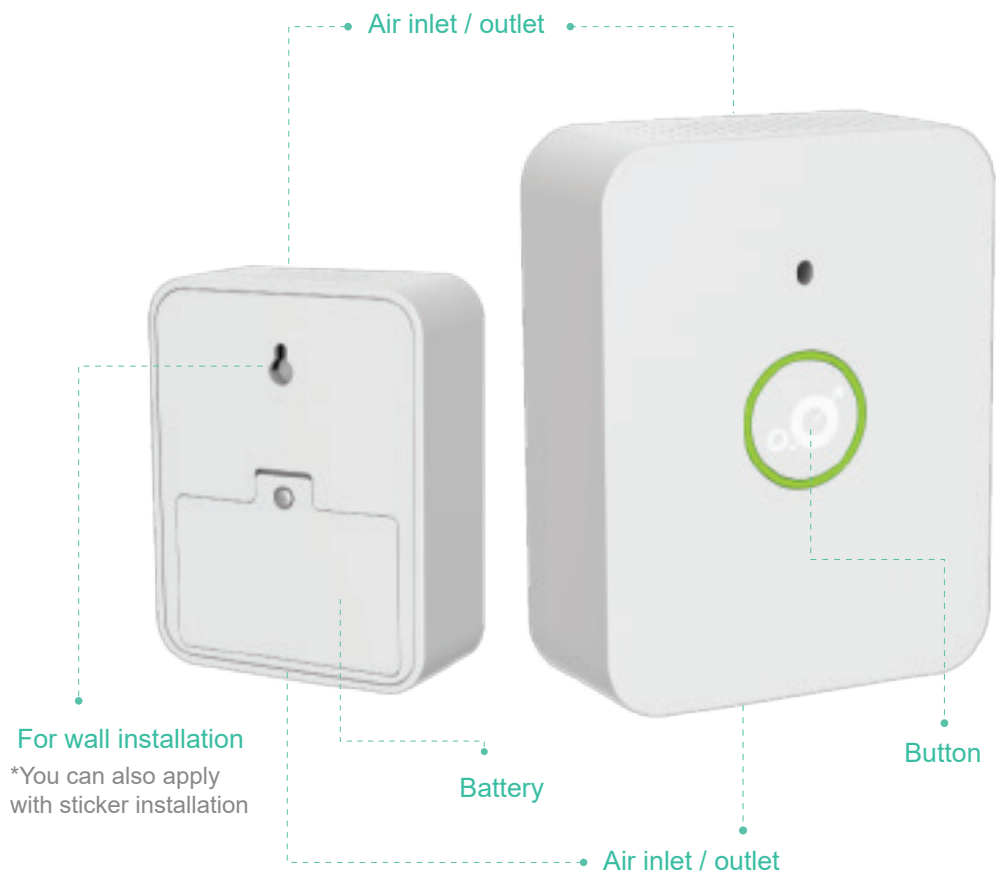
MerryIoT Motion Detection(MS10)

MerryIoT Motion Detection x 1

LR6 Alkaline battery, AA x 2

VHB double-side tape x 1

wall mount kit x 1

Chapter 2 - Package Content

MerryIoT Open / Close(DW10)

MerryIoT Open Close x 1 with VHB double-side tape x 1 attached on the sensor

Lithium-thionyl Chloride (Li-SOCl2) Battery, 1/2 AA x 2

Magnet x 1

MerryIoT Leak Detection(WL10)

MerryIoT Leak Detection x 1 with LR6 Alkaline battery, AA x2 installed inside

Chapter 3 - Input / Output

MerryIoT Air Quality CO2(CD10)

Air inlet / outlet

For wall installation
*You can also apply with sticker installation

Battery

Button

Air inlet / outlet

MerryIoT Motion Detection(MS10)

For wall installation
*You can also apply with sticker installation

Motion sensor

Button

Temperature & humidity sensor

LED

Battery

Chapter 3 - Input / Output

MerryIoT Open / Close(DW10)

Hall effect sensor
*Install magnet on this side

LED

Button

Temperature &
humidity sensor
with buzzer

Magnet

Battery

MerryIoT Leak Detection(WL10)

LED

Button

Sump

Leak probe

Chapter 4 - Sensor Introduction

MerryIoT Air Quality CO2 sensor (CD10) is a professional LoRaWAN smart device. Its minimalistic design makes it ideal for mounting on walls at home or at work. It provides full surveillance over the CO2 levels, temperature, and humidity.

MerryIoT Air Quality CO2
CD10

Features:
- 3 sensors in 1 (CO2 & Temperature & Humidity)
- Built-in buzzer for alarm if the CO2 level is more than 1000 ppm
- Years of battery lifetime
- LoRaWAN technology with a long communication distance
- Coverage test button for easy installation

MerryIoT motion detector (MS10) is an easy step to a safer home. Monitor front and back doors, driveways, sheds, garages, and gates. It can be applied to all your properties. It provides an additional level of security and safety to your properties and protects your loved ones. Not to mention is alerts you in case of emergency.

MerryIoT Motion Detection
MS10

Features:
- 4 sensors in 1 (PIR & Temperature & Humidity & Vibration)
- Detect human presence accurately
- LoRaWAN technology with a long communication distance
- Coverage test button for easy installation
- Alarm message for the device is been moved or tampered
- Years of battery lifetime
- Ultrawide range detection
  - 125° Horizontal
  - 100° Vertical
  - Up to 7 m distance

The MerryIOT Open/Close sensor (DW10) give you a peace of mind, anywhere, anytime. Get real time alerts at the exact moment you have unexpected guests, broken windows, opened safes, an opened mailbox or escaped pets.

MerryIoT Open / Close
DW10

Features:
- 4 sensors in 1 (Open/Close & Temperature & Humidity & Vibration)
- Years of battery lifetime
- LoRaWAN technology with a long communication distance
- Alarm message for the device is been moved or tampered
- Coverage test button for easy installation

Chapter 4 - Sensor Introduction

The MerryIoT Water Leak Sensor (WL10) will in real-time alert you the moment it comes in contact with leaking water. Don't ever worry about leaks or floods in your basement, under your sinks, from your water heater, or anywhere else in the house.

MerryIoT Leak Detection
WL10

Features:
- 4 sensors in 1 (Drip/Leak/Flood & Temperature & Humidity & Vibration)
- Built-in water-sensing probes on top and bottom for leak/flooding detection
- Years of battery lifetime
- LoRaWAN technology with a long communication distance
- Coverage test button for easy installation
- Alarm message for the device is been moved or tampered

Chapter 5 - Sensor Installation

1. Please make sure you have Helium coverage before installing the MerryIoT Sensors.

   1. Best senerio is you already have a Helium miner up and running.

   2. If you don't have a Helium miner running, you need to check your neighborhood's helium coverage. Go to https://explorer.helium.com and follow the following steps.

① Press "find my location" icon, and the map will redirect to the vicinity of your location.

② According to the vicinity of your location, to find your accurate location to see if any Helium coverage around here.
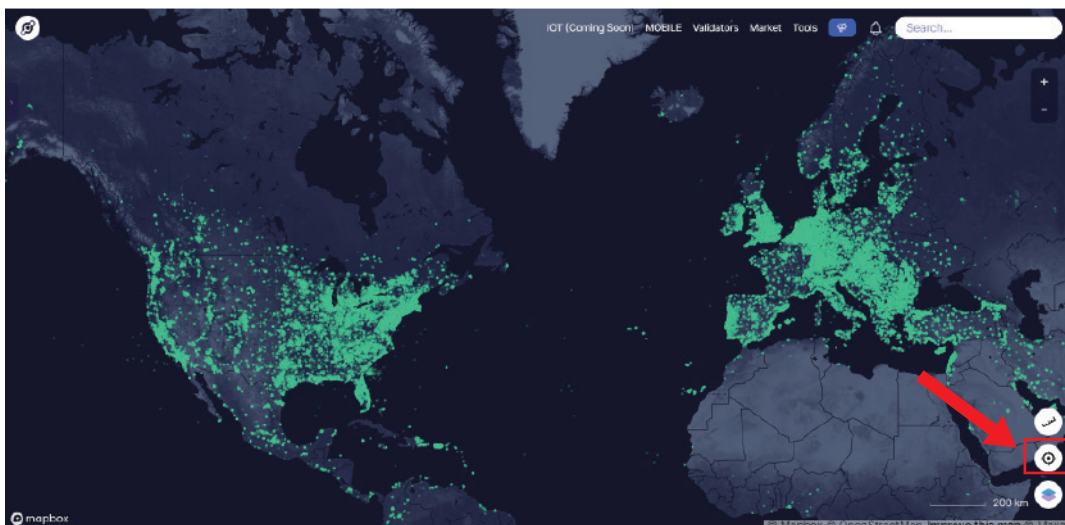
*Annotation: Hexagons in Helium, it is a semi-precise point location covering 300 m² (3200 ft²), which is comparable to the footprint of a large house. The number display on the Hexagons, it means how many Helium hotspot is been asserted location here, you could imagine that how many Helium hotspots installed in 300 m² (3200 ft²).

Chapter 5 - Sensor Installation

2. Install and launch MerryIoT mobile application on your phone

*Search:MerryIoT Sensor
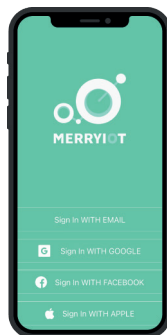
GET IT ON Google Play

Download on the App Store
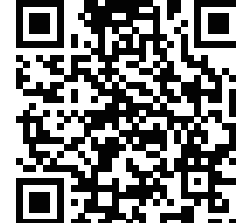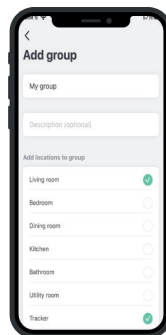
3. Register your account.
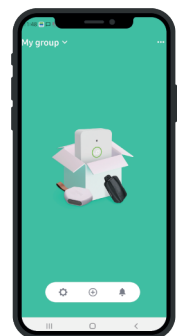
Sign in by social media

1. Press Sign In
2. select Sign In WITH GOOGLE/FACEBOOK/APPLE
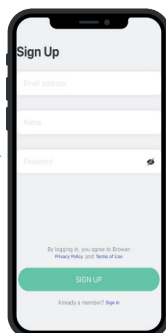3. Add your group, you will see the main view after
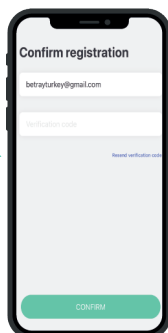

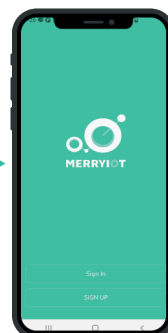Sign In successfully

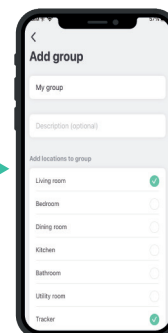## Create an account

1. Press Sign Up
2. Fill in your information
3. Confirm your mail (fill in the verification code)
4. Press Sign In and select "Sign In WITH EMAIL"
5. Add your group, you will see the main view after

Chapter 5 - Sensor Installation

④ Add your device to the App
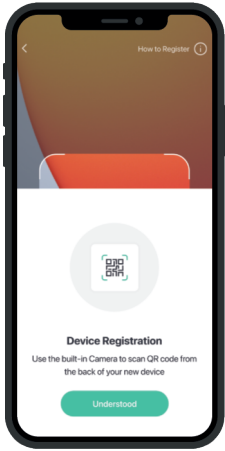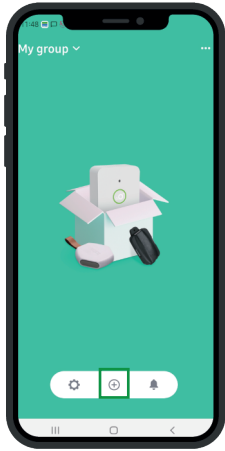
Click the "complete", after the group page show, you successfully added your sensors!

MerryIoT Air Quality CO₂
CD10

After scan
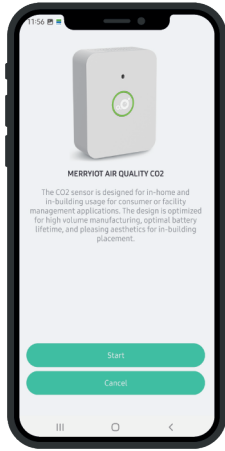
fill in the name and the location

Click the "complete", after the group page show, you successfully added your sensors!

MerryIoT Motion Detection
MS10

After scan

fill in the name and the location

Chapter 5 - Sensor Installation

MerryIoT Open/Close
DW10

After scan
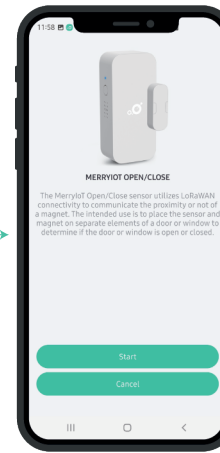
fill in the name and the location
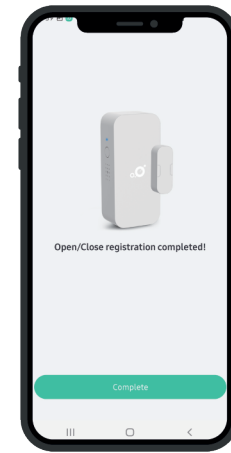
Click the "complete", after the group page show, you successfully added your sensors!

Device Registration
Use the built-in Camera to scan QR code from the back of your new device

Understood

MERRYIOT OPEN/CLOSE
The MerryIoT Open/Close sensor utilizes LoRaWAN connectivity to communicate the proximity or not of a magnet. The intended use is to place the sensor and magnet on separate elements of a door or window to determine if the door or window is open or closed.

Start
Cancel

Open/Close registration completed!

Complete
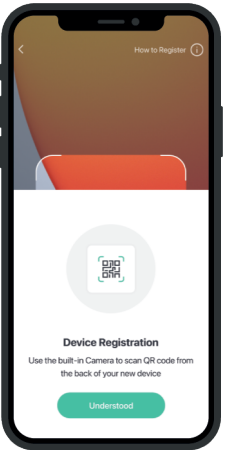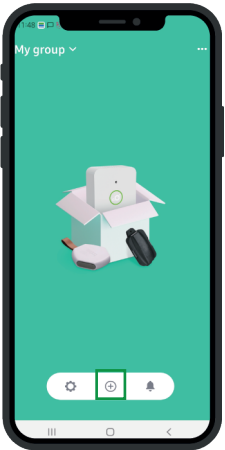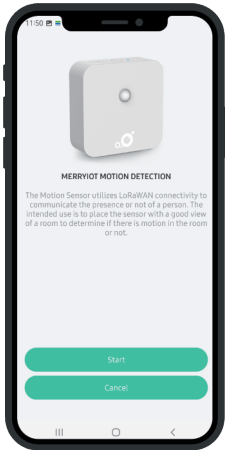
MerryIoT Leak Detection
WL10

After scan
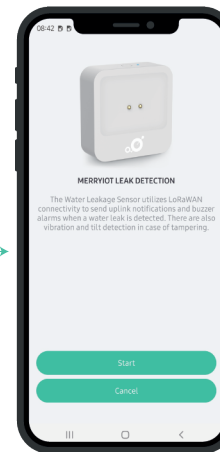
fill in the name and the location

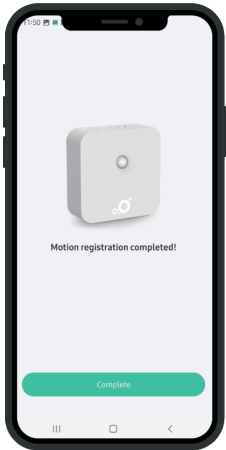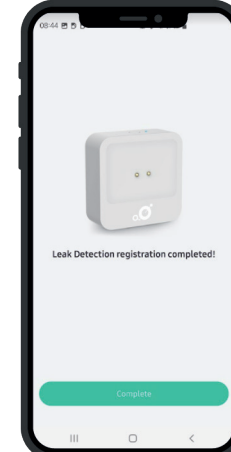Click the "complete", after the group page show, you successfully added your sensors!

Device Registration
Use the built-in Camera to scan QR code from the back of your new device

Understood

MERRYIOT LEAK DETECTION
The Water Leakage Sensor utilizes LoRaWAN connectivity to send uplink notifications and buzzer alarms when a water leak is detected. There are also vibration and tilt detection in case of tampering.

Start
Cancel

Leak Detection registration completed!

Complete

5 When the sensor is successfully online, the LED will go on to constant lumination for 3 seconds.

6 Once the Sensor is successfully connected, the following icon will appear on the dashboard
*Press the button on the senser, the sensor's real-time status will be updated.

MerryIoT Air Quality CO2
CD10

MerryIoT Motion Detection
MS10

13

Chapter 5 - Sensor Installation
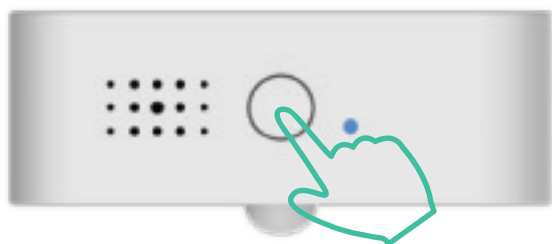
MerryIoT Open/Close
DW10

MerryIoT Leak Detection
WL10
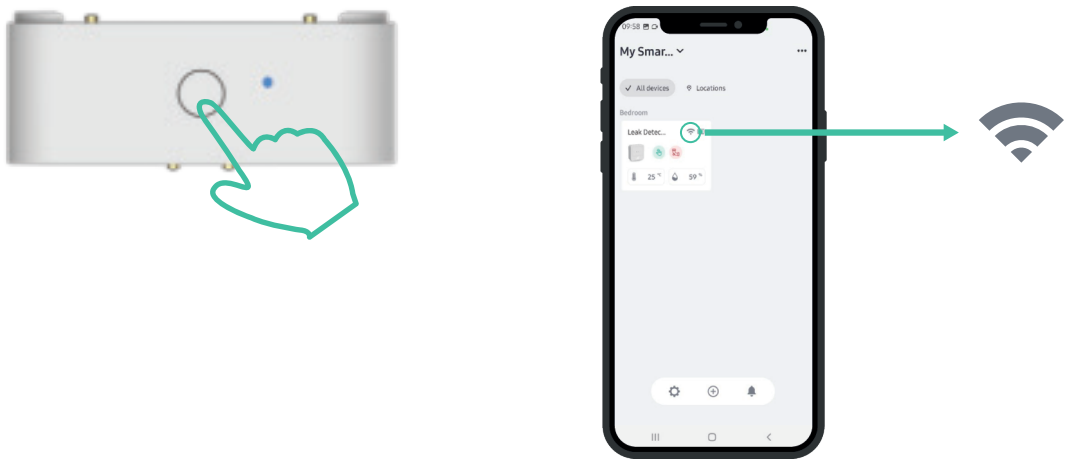
Chapter 5 - Sensor Installation

7 Once the Sensor is connected, install the Sensor to your desired location

MerryIoT Air Quality CO2(CD10)

It is important to know, that the CO2 sensor unit should be mounted at 48 inches or 122cm above the floor, and they should not be near outside doors or windows that can make the space appear to have more fresh air than it actually does. Think of CO2 flowing like water. Water will fill a cup from the bottom upwards. The same will happen in interior spaces like draft coolers, restaurants, breweries, and grow facilities. Because the CO2 gas is heavier than normal air it will flow down stairs or collect in low lying areas first.
So, please avoid these placement:
- Restricted air flow
- In derict sunlight from windows
- Close to heat source

48 inches
(122 cm)

● Restricted airflow
● In direct sunlight from window
● Close to heat sources
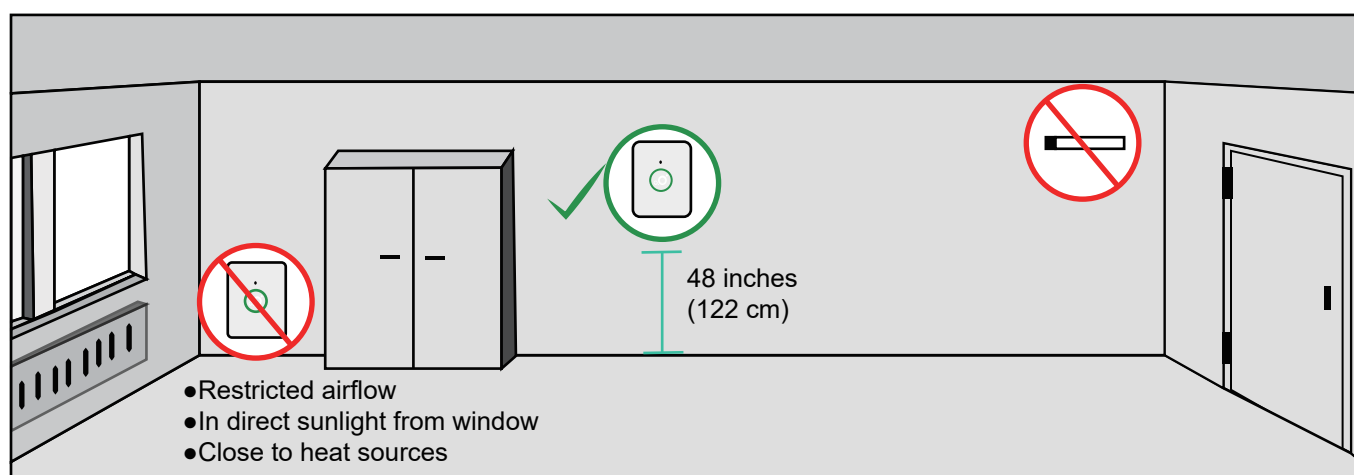
MerryIoT Motion Detection(MS10)

Assets where intruders are most likely to enter, or other applications like occupied space purpose.
Places like:
1. Garage Entrence (for security purpose)
The eye of the sensor should point to the direction where the intruders may come from.
2. Meeting Room (for occupied space purpose)
It is recommanded to install 2 MerryIoT Motion Detections in one space where you would like to know whether the space is occupied or not.
One with the eye of the sensor pointing the entrence of the space, and the other one pointing at where people assumed to be stayed in the space, the meeting table in this case.

Meeting Room

Garage Entrence

Chapter 5 - Sensor Installation
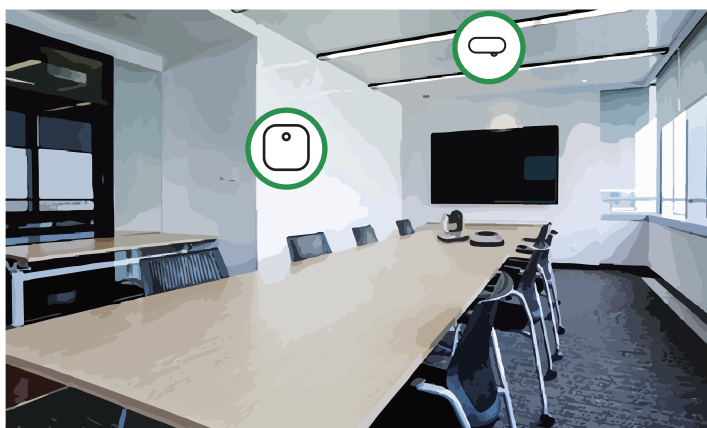
MerryIoT Open/Close(DW10)

1. Clean the installaon area.
2. Remove the protecve layer from the double-sided tape on the door sensor, place the door sensor in the desired-posion(the fixed part of your door or window), and press firmly for at least 5 seconds.
3. Remove the protective layer from the double-sided tape on the magnet, place the magnet in the desired postion(align the magnet marking with the hall sensor marking on the sensor), and press firmly for at least 5 seconds.
*Note: the maximum sensing distance is 10mm.

Open / Close

10mm
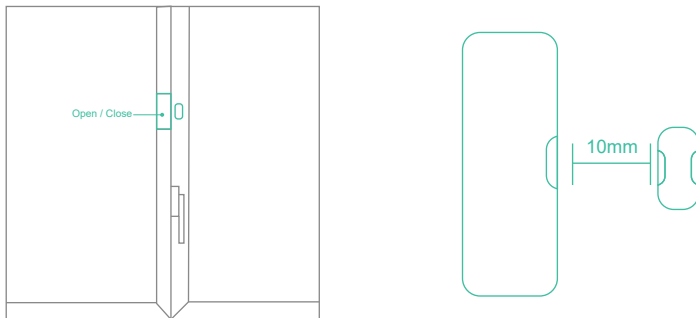
In any rooms / mailbox
on the window or door

MerryIoT Leak Detection(WL10)

The most common application for our water detection sensors is underneath AC units that are susceptible to leaks. However, it is important to ensure you cover other potential threats such as existing pipework, heating systems, kitchens, toilets and areas that may be likely to flood first in the event of extreme weather conditions (by doors/windows)
It is recommanded to install mulitple MerryIoT Leak Detection in one space, where the potential leakage may occure.
1. For Home basement use
2. For server rooms and data centers

Leak Detection
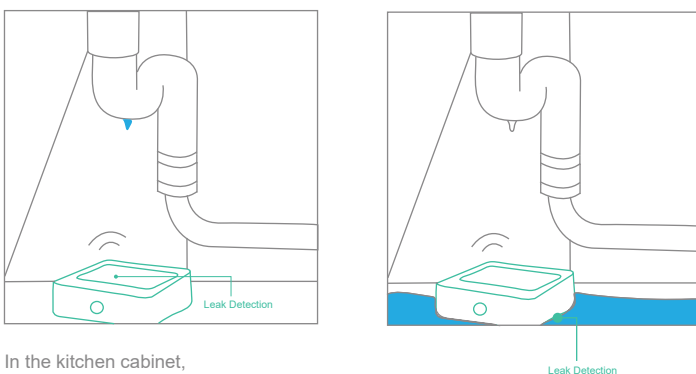
In the kitchen cabinet,
where the water pipes locate

Leak Detection

Chapter 6 - APP Functions

MerryIoT Air Quality CO2(CD10)

Device settings

Device group name
Editable

Back to main screen

Group settings
Changing groups

Location filter

Device Status
Click to see more
details of the device

Device current status

Device log

Notifications

General settings

Add button

Account management

Add new devices via QR code

Icons

Battery status
Sufficient / Low / Exhausted

LoRaWAN Connection status
On/off

22°C Temperature (oC / oF)

50% Relative Humidity (%)

Both the icon of Temperature and Relative Humidity
will be updated by 2 situations:
1. Periodically every 1 hour
2. Press the device's test button

Button pressed
this icon will be displayed on your app dashboard when you press the
device's test button, also the CO2 level, temperature and humidity will
be updated at the same time.

Air quality/CO₂ concentration
Excellent (Green): <800 ppm
Good (Yellow): 800~1000ppm
Bad (Red): >1000 ppm

This icon will be updated by 3 situations:
1. Periodically every 1 hour
2. Immediately if the CO2 level is more than 1000 ppm
3. Press the device's test button

17

Chapter 6 - APP Functions

MerryIoT Motion Detection(MS10)

Device settings

Device group name
Editable

Group settings
Changing groups

Back to main screen

Location filter

Battery life **33%**

Motion

Device Status
Click to see more details of the device

22 °C	68 %
Temperature	Humidity (Rh)

Device current status

Moved

Device log

📅 Device log	>

Device information

Location	Peep dessert
Last Uplink	Sep 2nd, 2022 11:50
Model	MS10

My Smar... ∨

✓ All devices   📍 Locations

Bedroom

Motion   🛜 🔋

📷   ⚡   {◻}

🌡 23 ℃   💧 66 %

Notifications

General settings
Account management

Add button
Add new devices via QR code

Icons

🔋 🔋 🔋   **Battery status**
Sufficient / Low / Exhausted

🛜 🚫   **LoRaWAN Connection status**
On/off

🌡 **22**°C   **Temperature (oC / oF)**

💧 **50**%   **Relative Humidity (%)**
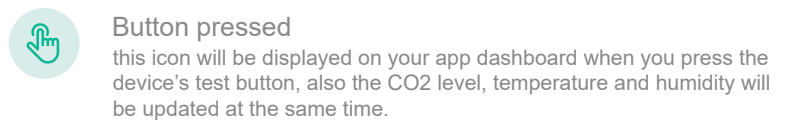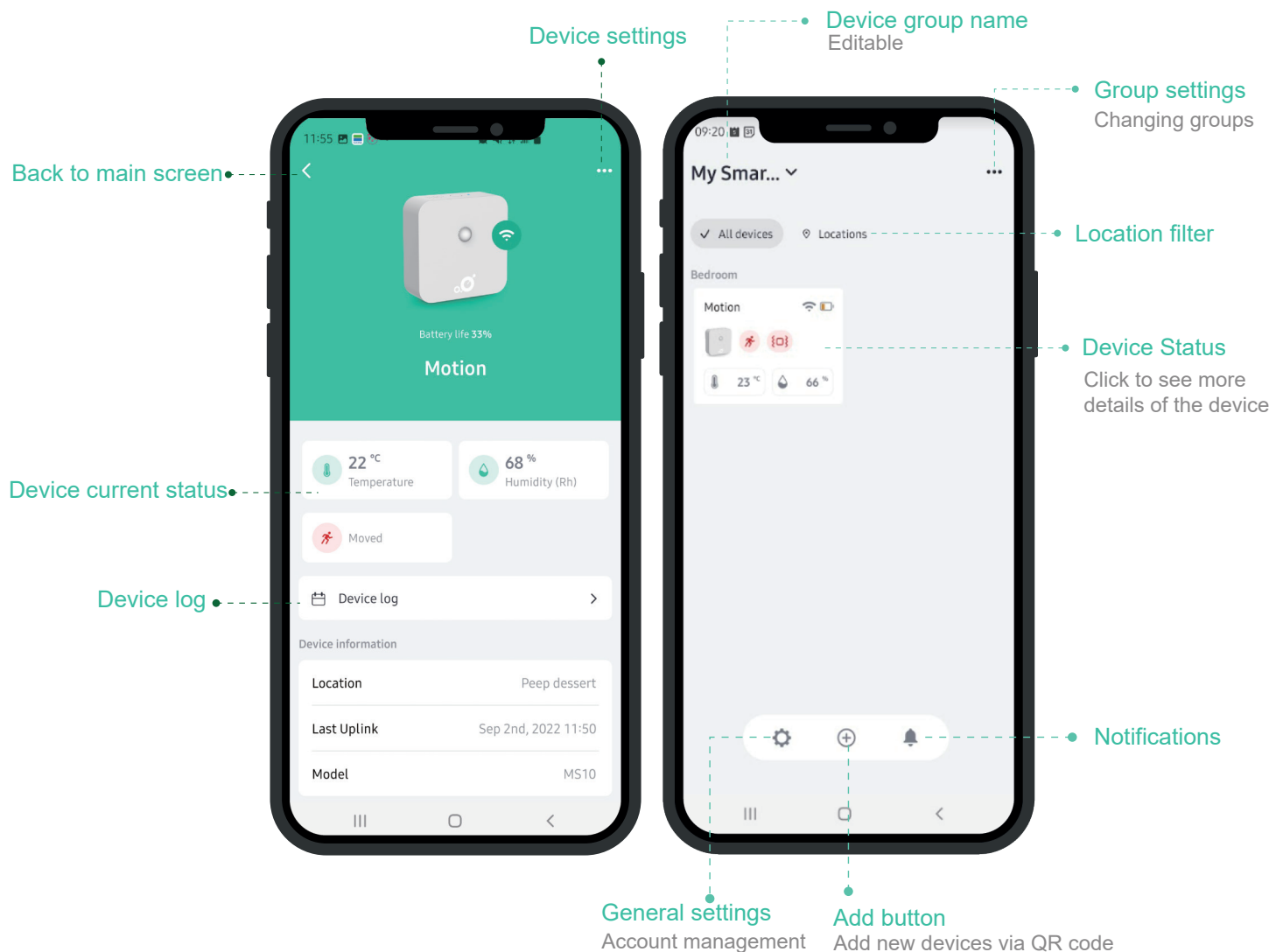
Both the icon of Temperature and Relative Humidity will be updated by 2 situations:
1. Periodically every 1 hour
2. Press the device's test button

👆 **Button pressed**
this icon will be displayed on your app dashboard when you press the device's test button, also the temperature and humidity will be updated at the same time.

🏃 **Motion detected**
this icon will be displayed on your app dashboard immediately when the device detect a human motion, and the icon will disappear if there is no human detection in the last 5 minutes.

{◻} **Device is being tampered**
this icon will be displayed on your app dashboard immediately when the device is been moved or tampered

18

Chapter 6 - APP Functions

MerryIoT Open/Close(DW10)

Device group name
Editable

Device settings

Group settings
Changing groups

Back to main screen

Location filter

Open/Close

Battery life 100%

Device Status
Click to see more
details of the device

Device current status

22 °C
Temperature

69 %
Humidity (Rh)

Device log

Device log

Device information

Location	Peep dessert
Last Uplink	Sep 2nd, 2022 11:50
Model	DW10

Notifications

General settings
Account management

Add button
Add new devices via QR code

Icons

Battery status
Sufficient / Low / Exhausted

LoRaWAN Connection status
On/off

22°c Temperature (oC / oF)

50% Relative Humidity (%)

Both the icon of Temperature and Relative Humidity
will be updated by 2 situations:
1. Periodically every 1 hour
2. Press the device's test button

Button pressed
this icon will be displayed on your app dashboard when you
press the device's test button, also the temperature and
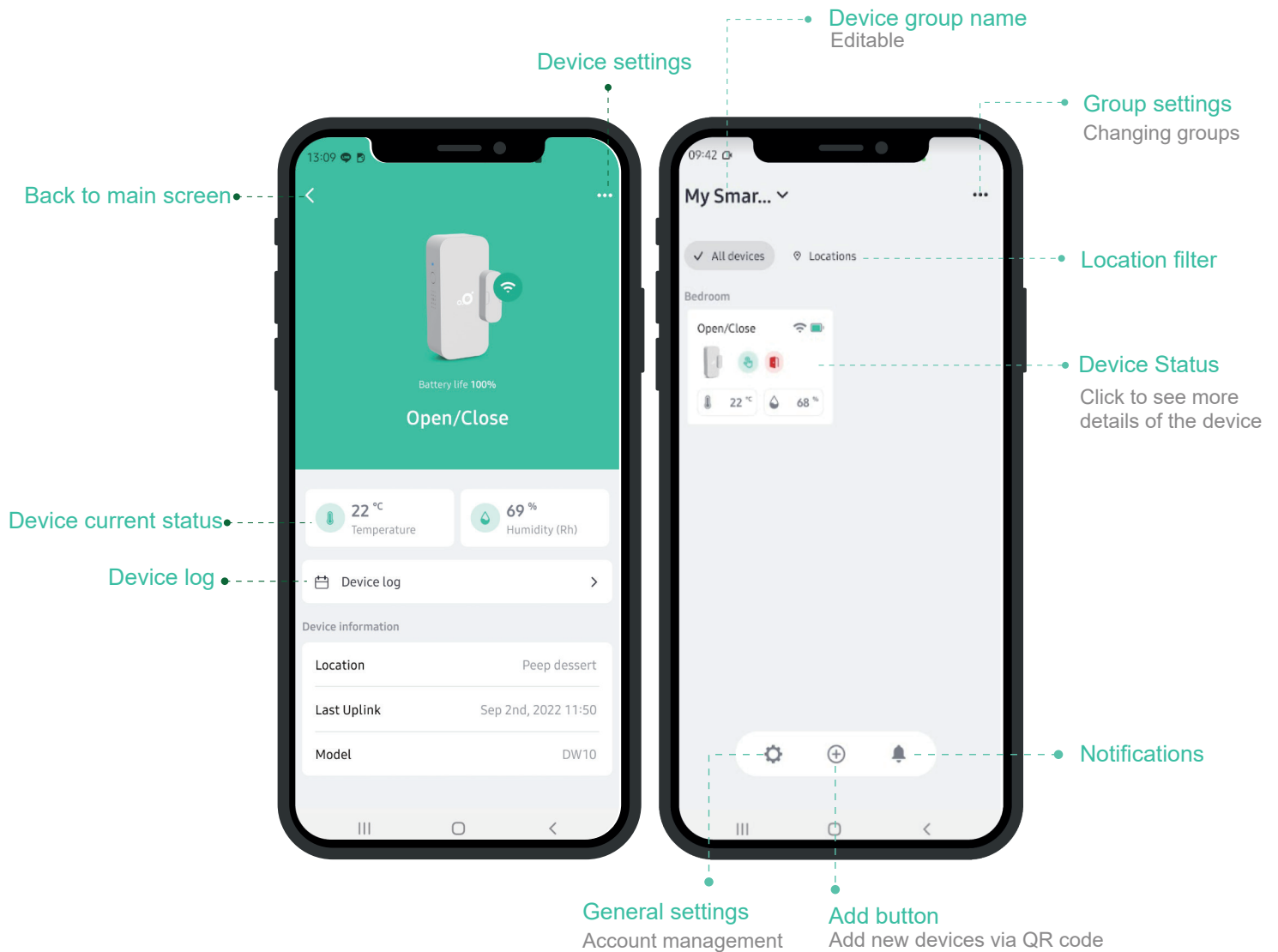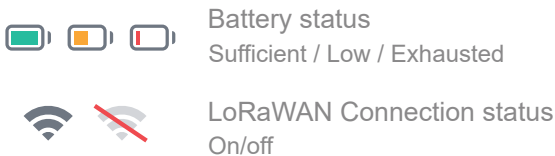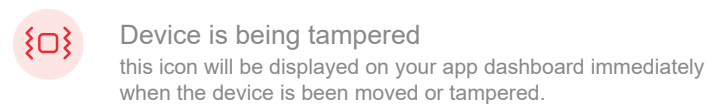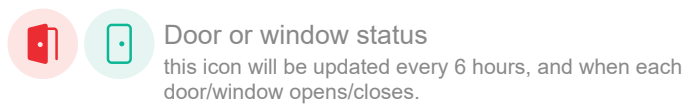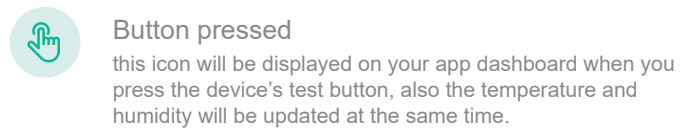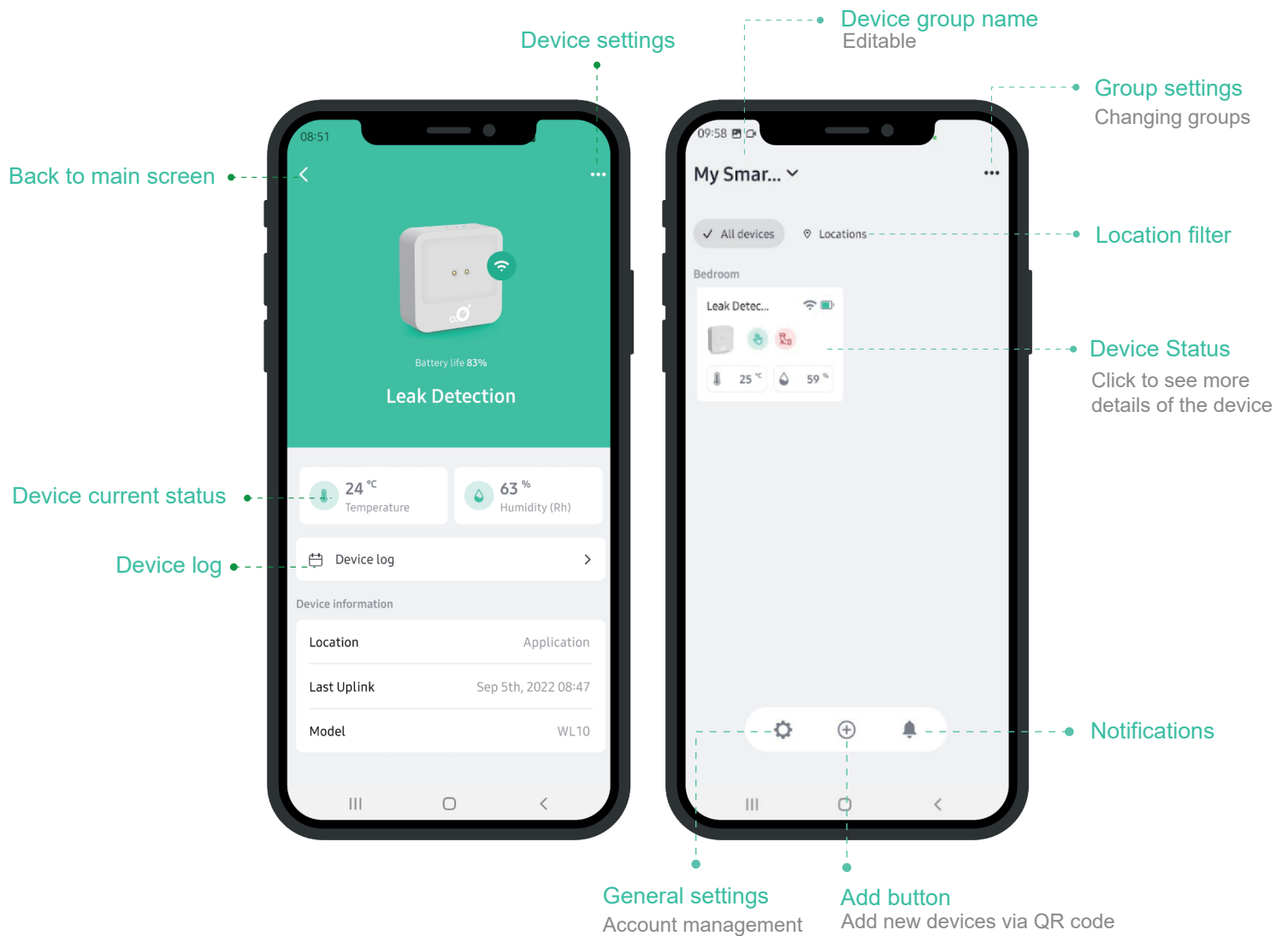humidity will be updated at the same time.

Door or window status
this icon will be updated every 6 hours, and when each
door/window opens/closes.

Device is being tampered
this icon will be displayed on your app dashboard immediately
when the device is been moved or tampered.

19

MerryIoT Leak Detection(WL10)

Device settings

Device group name
Editable

Group settings
Changing groups

Back to main screen

Location filter

08:51

Leak Detection

Battery life **83%**

Device Status
Click to see more
details of the device

09:58

My Smar... ∨

✓ All devices   ⊙ Locations

Bedroom

Leak Detec...

25 ℃   59 %

Device current status

24 ℃
Temperature

63 %
Humidity (Rh)

Device log

📅 Device log   >

Device information

Location	Application
Last Uplink	Sep 5th, 2022 08:47
Model	WL10

Notifications

General settings
Account management

Add button
Add new devices via QR code

Icons

🔋 🔋 🔋   **Battery status**
Sufficient / Low / Exhausted

📶 📶   **LoRaWAN Connection status**
On/off

🌡 **22**℃   Temperature (oC / oF)

💧 **50**%   Relative Humidity (%)

Both the icon of Temperature and Relative Humidity
will be updated by 2 situations:
1. Periodically every 1 hour
2. Press the device's test button

👆 **Button pressed**
this icon will be displayed on your app dashboard when you
press the device's test button, also the temperature and
humidity will be updated at the same time.

🚰 **Water leak detected**
this icon will be displayed on your app dashboard immediately
when the device detect a leak/flooding event, and the icon will
disappear when the water dry up.

⦃□⦄ **Device is being tampered**
this icon will be displayed on your app dashboard immediately
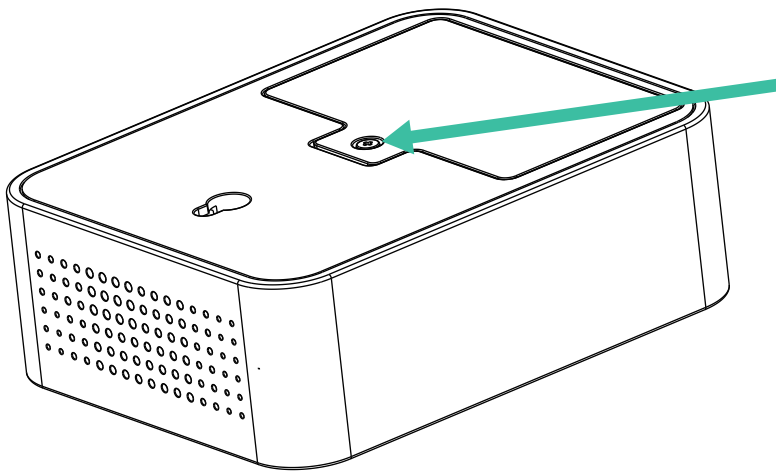when the device is been moved or tampered .

Chapter 7 - Battery Replacement

MerryIoT Air Quality CO2(CD10)
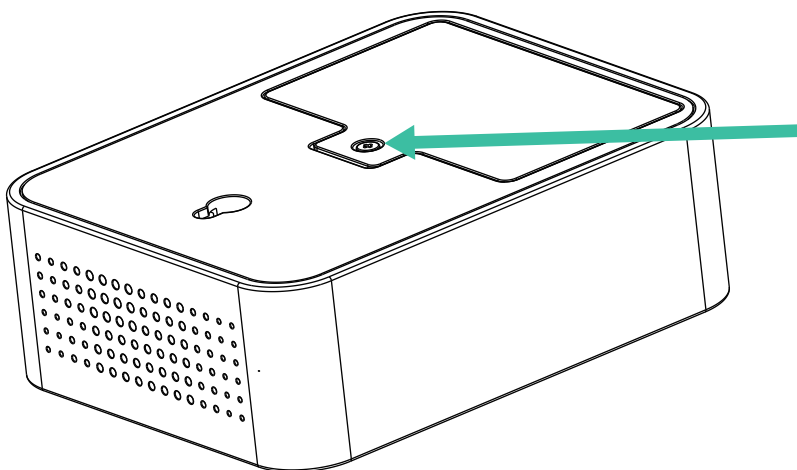
1 Tools: Cross-type screw driver x 1(PH0)

2 Remove the battery cover of the sensor with a cross-type screwdriver(PH0 size).

3 Replace the battery with new ones(Li-SiO2 battery, "ER14505", AA size x 2 pcs).
*Caution: Using batteries other than the ones provided may result in loss of performance and battery life, and also damage to the device. Dispose of properly, observing environmental protection rules. Mixing of cells can result in battery leakage and sub-optimal device performance.

X2

ER14505*
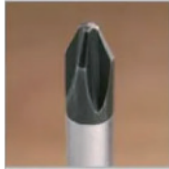
Lithium-thionyl Chloride
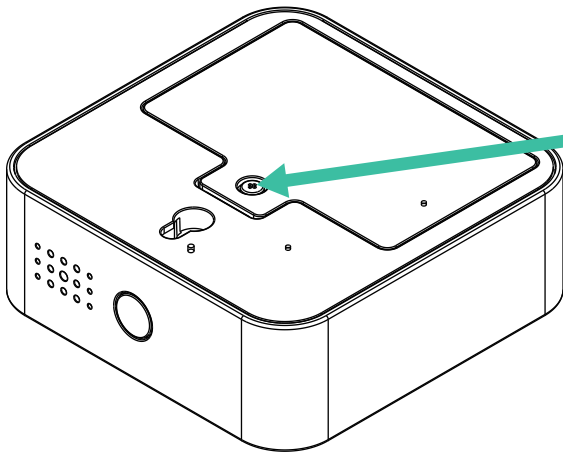(Li-SOCl2) Battery, AA

3 Re-assemble the battery cover.

Chapter 7 - Battery Replacement

MerryIoT Motion Detection(MS10)

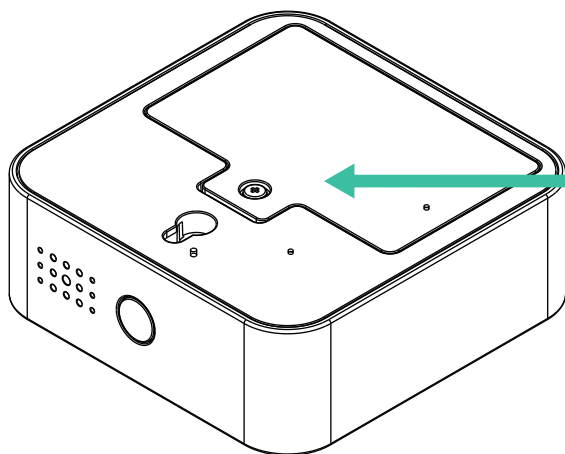**1**   Tools: Cross-type screw driver x 1(PH0)

2   Remove the battery cover of the sensor with a cross-type screwdriver(PH0 size).

3   Replace the battery with new ones(Alkaline Battery, "LR6", AA size x 2 pcs).
*Caution: Using batteries other than the ones provided may result in loss of performance and battery life, and also damage to the device. Dispose of properly, observing environmental protection rules. Mixing of cells can result in battery leakage and sub-optimal device performance.

X2

Alkaline AA

LR6 Alkaline battery, AA
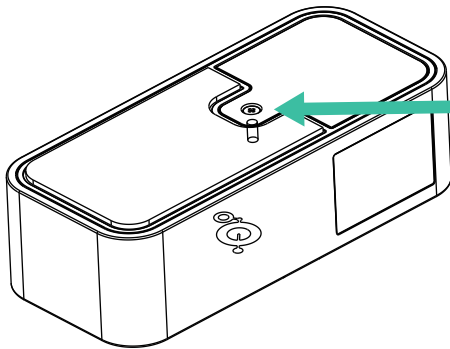
3   Re-assemble the battery cover.

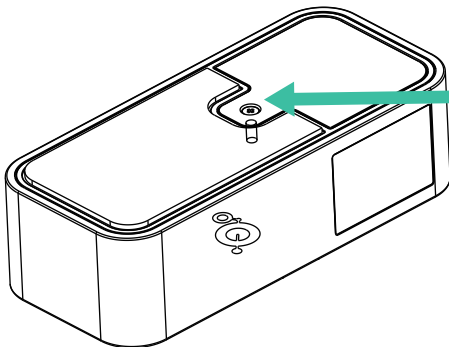# Chapter 7 - Battery Replacement

MerryIoT Open/Close(DW10)

1   Tools: Cross-type screw driver x 1(PH0)

2   Remove the battery cover of the sensor with a cross-type screwdriver(PH0 size).

3   Replace the battery with new ones(Li-SiO2 battery, "ER14250", 1/2 AA size x 2 pcs).
*Caution: Using batteries other than the ones provided may result in loss of performance and battery life, and also damage to the device. Dispose of properly, observing environmental protection rules. Mixing of cells can result in battery leakage and sub-optimal device performance.

X2

ER14250*

Lithium-thionyl Chloride
(Li-SOCl2) Battery, 1/2 AA
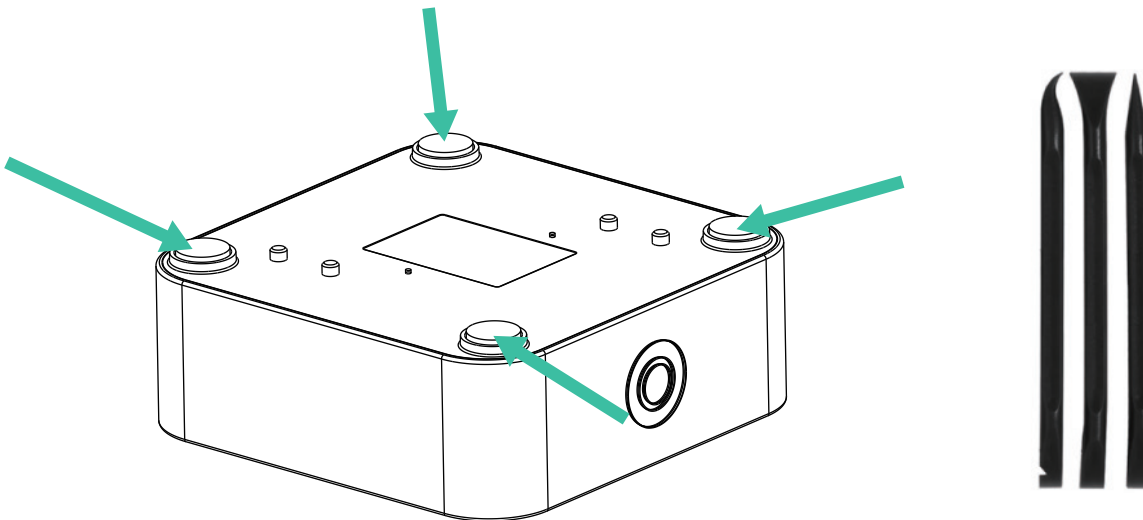
3   Re-assemble the battery cover.

Chapter 7 - Battery Replacement

MerryIoT Leak Detection(WL10)

1   Tools: Cross-type screw driver x 1(PH1), Star-type screw driver x 1(T8H), Plastic disassembly stick(recommended).

**2**   Remove 4 rubber stands of the sensor with disassembly stick.

3   Remove the bottom cover of the sensor with a star-type screwdriver(T8H size).
*Caution: Removing the bottom cover may affect the water-tightness. Please get help from Browan team before you do so.
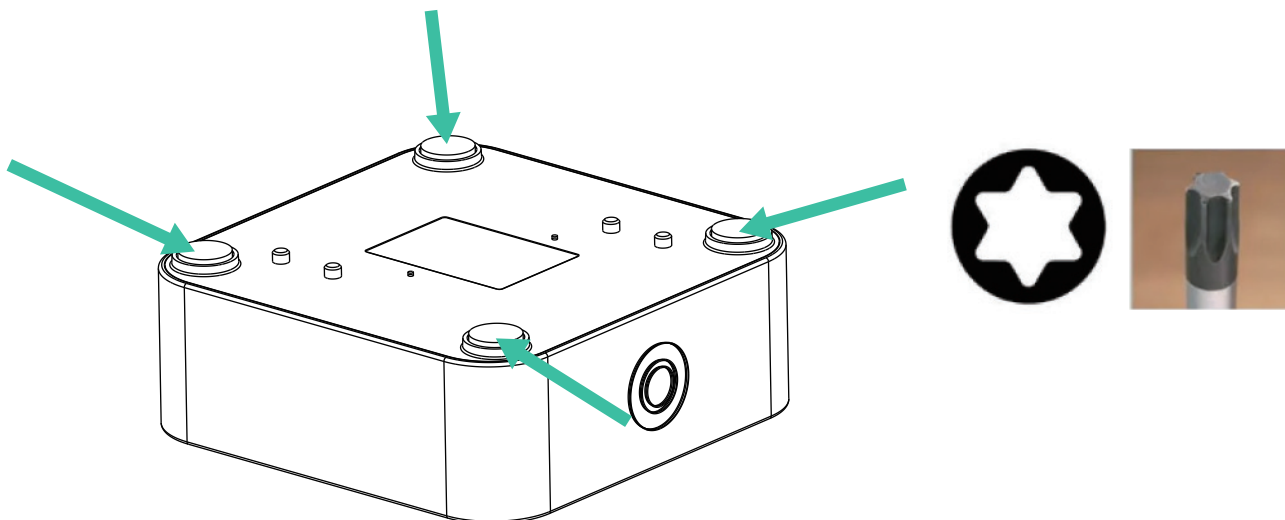
Chapter 7 - Battery Replacement

**4** Remove the circuit board of the sensor with a cross-type screw driver x 1(PH1)
*Caution: Avoid touching the circuit board with bare hand. Touching boards can release static discharge. Please wear a plastic/rubber glove.
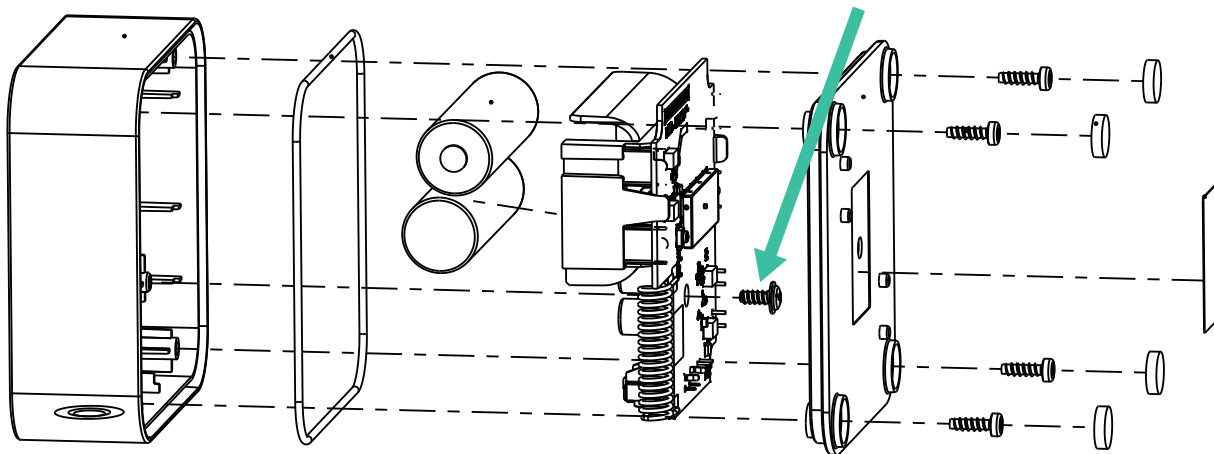
5 Replace the battery with new ones(Alkaline Battery,"LR6", AA x 2 pcs)
*Caution: DO NOT remove the battery holder.
*Caution: Using batteries other than the ones provided may result in loss of performance and battery life, and also damage to the device. Dispose of properly, observing environmental protection rules. Mixing of cells can result in battery leakage and sub-optimal device performance.
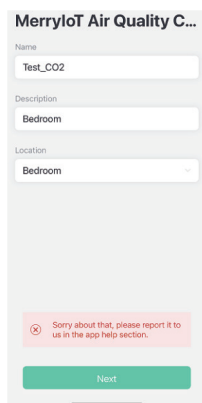
X2

Alkaline AA
LR6 Alkaline battery, AA
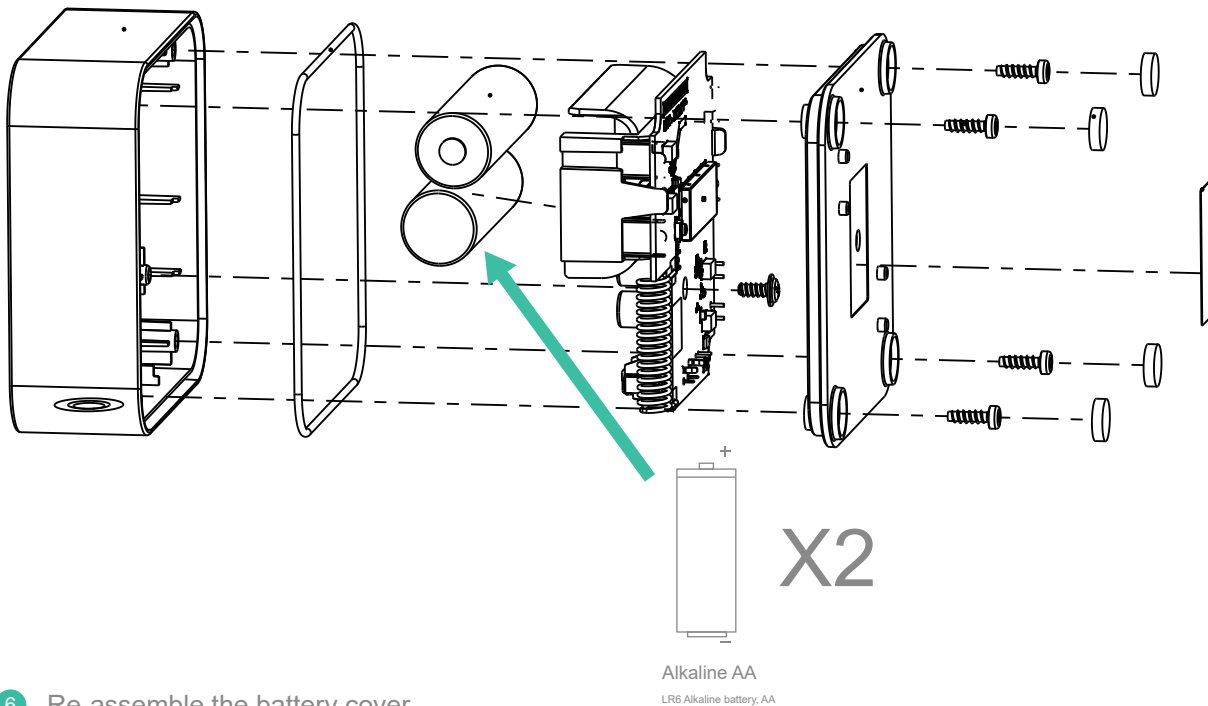
6 Re-assemble the battery cover.

Chapter 8 - FAQ

1.

Why do I get the error message "Sorry about that, please report it to us in the app help section" while binding the MerryIoT sensor through the MerryIoT sensor APP?

Answer:

Since the MerryIoT sensor APP is only for a specific batch number of MerryIoT sensors, kindly check with your supplier whether the one you purchase is for using with the MerryIoT sensor APP.

2.

How long will it take to get the CO2 value?

Answer:

It takes more than 20 minutes at least to get the CO2 value by manually activation, or 1 hour automatically.

3.

Why do I have to "sign in" via Google/Apple ID/Facebook twice?

Answer:

The first "sign in" is identified as a presign-up process in AWS Cognito which the MerryIoT Sensor uses to manage third-party social media registration. Once the presign-up is complete, the mobile app page will redirect you to the "sign in" page again, then, you can sign in to the mobile app successfully.

For more FAQs please visit https://www.merryiot.com/FAQ

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