

Server Room Kit Installation Guide

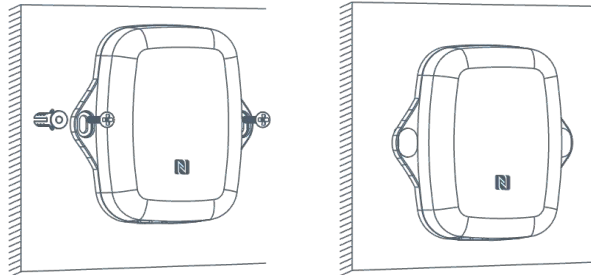
Table of Contents

Water Leakage Sensor	1
Fire & Smoke Alarm.....	3
2 in 1 IAQ Sensor	5
Mini LoRaWAN Gateway.....	7

Water Leakage Sensor

Main Device Installation

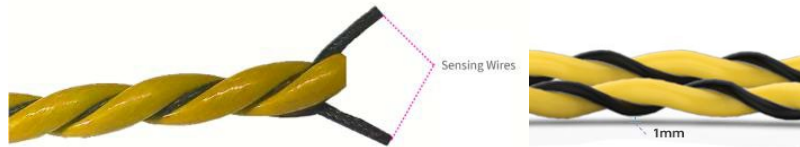
1. Attach the main device to the wall and mark the two holes in the wall. The connecting line of two holes must be a horizontal line.
2. Drill the holes according to the marks and screw the wall plugs into the wall.
3. Mount the main device to the wall via mounting screws.
4. Cover the mounting screws with screw caps.



Besides, it can also be mounted to a wall via 3M tape or be mounted to a pole via cable-tie.

Sensor Installation

EM300-ZLD sensing cable consists of two black sensing wires and polyethylene. When the water covers the cable, touching sensing cables (soaking water length ≥ 3 cm and depth ≥ 1 mm), the device will send leakage alarms. It's important to note that this sensing cable does not pinpoint the exact location of the leakage.



1. Connect Sensing Cable to EM300-ZLD Device

Connect the connector on one end of the sensing cable to the EM300-ZLD device connector, then tighten the connectors. Please note that the sensing cable comes with only one connector and does not support the connection of additional sensing cables to extend the detection length. If you need to expand the length, please contact Neuron to customize the cable length or purchase a sensing cable with connectors on both ends to replace the default one.



2. Install the Sensing Cable

- 1) Select the installation location to detect the leakage. The sensing cable can be wrapped around pipes, routed along to walls or placed on the floors. Ensure that the surfaces of the installation location are clean and free of debris, dirt, adhesive residues, water droplets, and other contaminants.

Note

- Installation location should be away from foot traffic, sharp objects and areas where heavy items rolling, dropping on the cable.
 - Keep the cable away from air-conditioning outlet or moist places to avoid error alarm report.
- 2) Install the sensing cable at the designated installation locations.

Install cable to floors/walls: attach the sensing cable to the installation location without a gap and fix it tightly with cable clips. Do not fix the cable with glue or metal which may affect the detection sensitivity.



Install cable to pipes: wrap the sensing cable around the pipe and fix it tightly with cable ties.

When installed, the cable can't be twined or accumulated together.



Note: to ensure best LoRaWAN® communication, keep the EM300-ZLD device away from metal objects and obstacles. Besides, the connectors should be kept away from the water to avoid error alarm report.

- 3) After removing the cable from the leakage location, dry the cable and ensure the leakage status back to “Normal”. The cable can be reused in other places.
- 4) Although the sensing cable can resist dust and dirt, it is recommended to clean the cable regularly to maintain optimal detection sensitivity. When cleaning, remove the sensing cable from the EM300-ZLD device connector, then use alcohol or soap water to clean the cable and hang it to dry.

Fire & Smoke Alarm

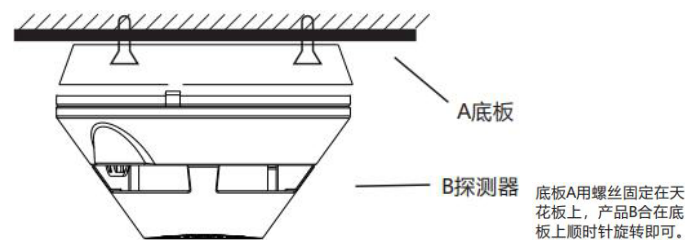
Sensor Installation

In general, the protection area is 60m² when the alarm space is under 6m high. So, the alarm should be mounted on the ceiling.

1. First step, attach the alarm base to the selected mounting location on the ceiling, mark the ceiling with a pencil along the base mounting holes, remove the bottom case, punch two

holes in the center of the marks, and secure the alarm base with expansion plugs and tapping screws.

2. Second step, press and hold the small cylinder at the bottom of the alarm to turn it on, then press and hold the "TEST" button. If the light flickers rapidly and sounds, the alarm is working. If it's not working, check the battery.
3. Third step, test the alarm. Then, rotate it counterclockwise to the base and fasten it. Screw the base with 1.7*6KA screws. Press the "TEST" button. The alarm should sound and flash.



Operation Instruction

1. Normal status: The alarm works when the batteries are installed correctly and the red LED flashes once every 340seconds.
2. Self-Checking Status: Press and hold the "TEST" button. The red LED will flash, and the alarm will issue three beeps. Then, the alarm will sound again after about 1.5 seconds. Release the button to resume normal monitoring.
3. Failure Status: If the alarm beeps for about 45 seconds, it means the battery is low. Replace it with new batteries to keep the alarm working properly.
4. Alarm Status: When the smoke reaches a certain level, the alarm will sound and flash.
5. Alarm Memory Status: The alarm stops when the smoke clears and the green LED flashes three times a minute. The alarm will automatically turn off after 24 hours to save power. Or you can press and hold the "TEST" button. Then the green light flashes, the alarm makes a short sound, and the button is released. The alarm will exit the memory state.
6. Muting Status: In alarm mode, press the "TEST" button once to mute the alarm. The red LED will flash once ever10secondsds. After about 70seconds, the alarm will exit the muting status. And the alarm will sound again if there's more smoke.

Failure Analysis and Troubleshooting

1. The alarm sounds for 45seconds when the battery is low. Replace the battery.
2. Frequent false alarms: There may be too much dust in the sensor. You'd better clean the external black plastic part with a vacuum cleaner.
3. The "TEST" button does not respond: Check if the alarm is installed correctly. If it still doesn't respond, contact the after-sales team.

Maintenance

1. If you have any problems, please contact the after-sales team. Do not disassemble or repair it yourself.
2. Test the alarm once a month by pressing the "TEST" button. If there's a fault, please fix it in a timely manner.

2 in 1 IAQ Sensor

Button and LED Indicator

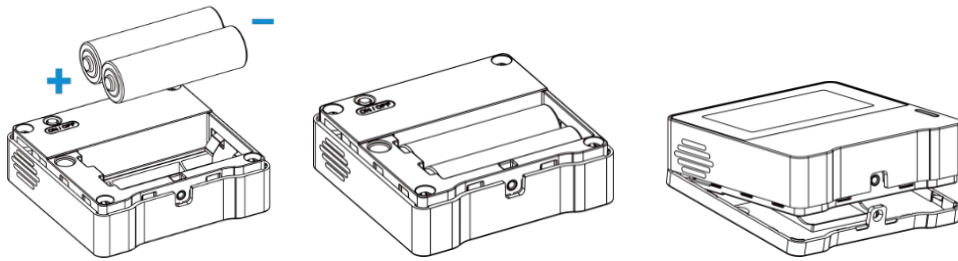
Function	Action	LED Indicator
Power ON/OFF	Press and hold the power button for more than 3 seconds	Power On: Off → On
		Power Off: On → Off
Reset to Factory Default	Press and hold the power button for more than 10 seconds	Quickly Blinks
Check On/Off Status	Quickly press the power button	Light On: Device is on.
		Light Off: Device is off.
CO ₂ Level Indication (AM103/AM103 L Only)	When the CO ₂ concentration exceeds the threshold	Excellent: Blinks
		Polluted: Blinks
		Bad: Blinks

Note: If the LED Indicator is disabled, it will not show air quality level indication.

Power Supply

Remove the rear cover of device to install the batteries, do not reverse the direction of batteries when installing.

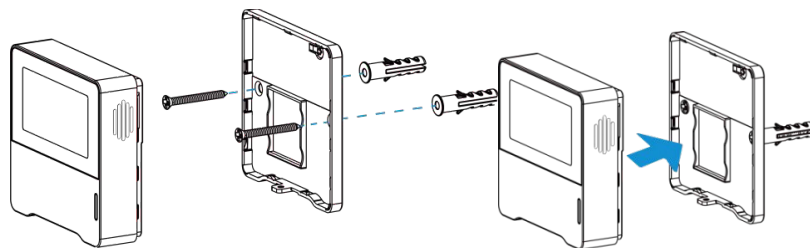
Note: The device can only be powered by ER14505 Li-SOCl₂ batteries not alkaline batteries.



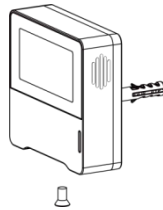
Installation

1. Fixed by Screws

- a) Remove the rear cover of the device, screw the wall plugs into the wall and fix the rear cover with screws on it, then install back the device.

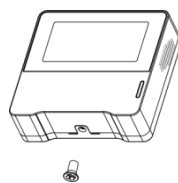


- b) Fix the bottom of the device to the rear cover with the theft-detering screw.

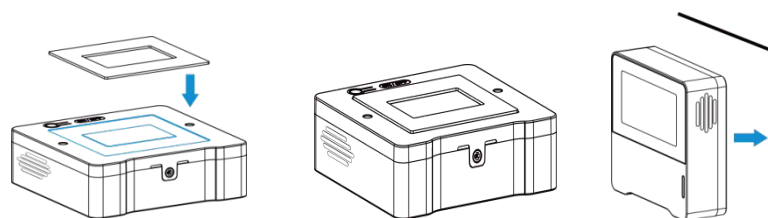


2. Fixed by 3M Tape

- a) Fix the bottom of the device to the rear cover with the theft-detering screw.



- b) Paste 3M double-sided tape to the back of the device, then tear the other side and place it on a flat surface.

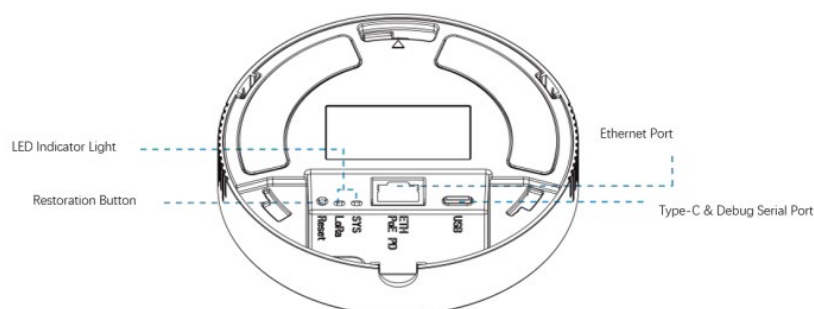


Note

To ensure the best detection and LoRaWAN® communication work, it is recommended to install device as follows:

- Do not mount the device where the temperature is below/above operating range and temperature varies greatly.
- Stay far away from any heat source or cold source like oven, refrigerator.
- Do not mount the device close to where airflow varies greatly like windows, vent, fan and air conditioner.
- Do not mount the device upside down.
- Do not place the device right to the window or door. If you have to, you'd better pull the curtain.
- It is recommended to install it at least 1.5 m high from the floor.

Mini LoRaWAN Gateway



LED Instruction

LED	Status	Light Status	Description
SYS	System status	off	The system is booting up
		Green light	Constant light: System is operating normally
		Red light	System error
LoRa	LoRa status	off	Packet forwarding mode inactive

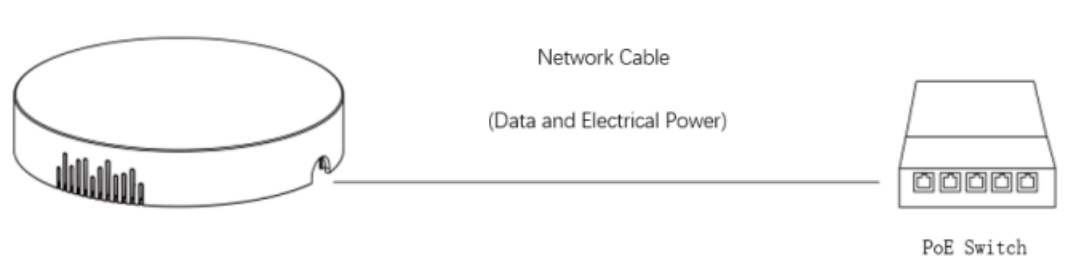
		Green light	Packet forwarding mode active
ETH	Link status (orange light)	off	Not connected/ Disconnect
		Constant light	Connected
		flickering	Data is transmitting
	Data transmission status (green light)	Constant light	100 Mbps mode
		off	Other transmission rate mode

Restoration Button

Function	Description	
	Light Status	Operation Guidance
Reset to the factory settings	Constant light	Press and hold the restoration button for more than 5 seconds
	Green constant light → flickering	Release the button and wait
	Off → constant light	Restore gateway to factory settings

Power Supply for Products

The gateway supports 802.3af standard PoE or Type-C interface (5V, 1A) power supply. If both are connected at the same time, the PoE power supply is preferred.



Note: You must connect the network cable at the gateway before connecting it to the PoE power

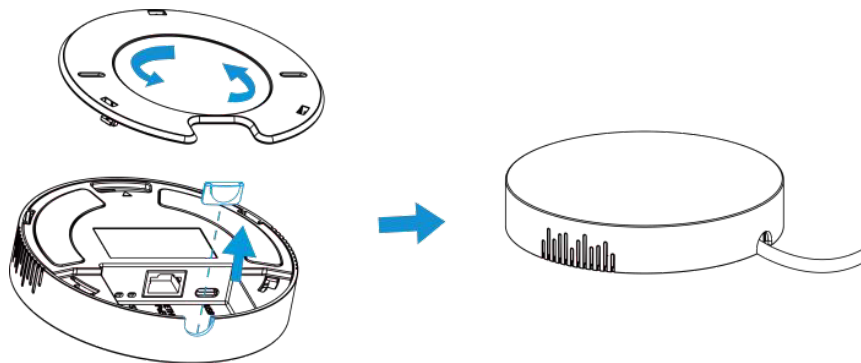
supply device, otherwise it may damage the PoE device or the gateway.

Installation

The gateway supports desktop placement, wall or ceiling mounting. Before installation, please ensure that the wiring is correct, and the product is configured and powered off.

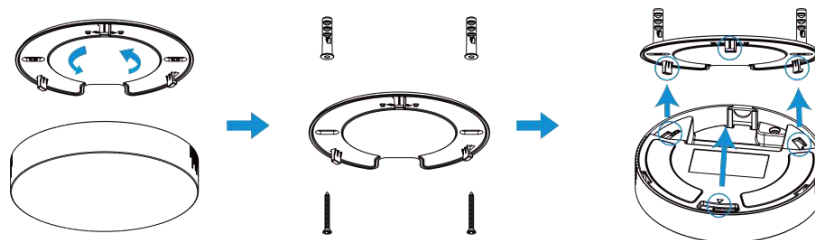
1. Desktop Placement

To use the device, unscrew the mounting plate counterclockwise on the back and place it on a desktop.



2. Wall or Ceiling Mounting

Remove the mounting plate on the back of the device counterclockwise. Drill two holes in the wall or ceiling, and then drill in the expansion bolts. Fasten the mounting plate to the wall with wall mounting screws.



3. Align the device with the mounting plate and turn it clockwise to snap it in.

