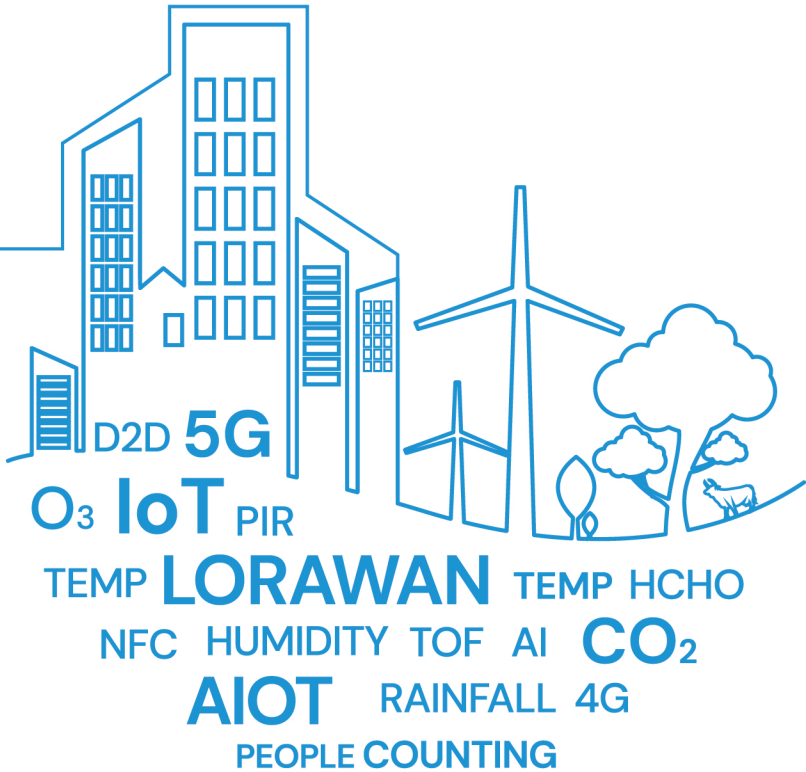


- Better Inside, More in Sight ▪

iBox

From Concept to Connectivity.
Simplify the starting process and help you tap into more sophisticated LoRaWAN® insights.



Smart Building Kit

Optimize Economic Benefits and Improve Your ESG Performance



CoWork Kit

Operational Efficiency, Energy Saving and Workplace Optimization



Smart Restroom Kit

Enhance Your Everyday Hygiene and Accessibility



Smart Agriculture Kit

Leads to Stable Yields and a More Resilient Landscape



IAQ Kit

Create a Healthy Indoor Ambience with Visualized CO₂ & PM2.5 Monitoring



IBOX KIT SOLUTION

EASE, EMPOWER AND EVOLVE

CONTENTS

IAQ Kit



01

CoWork Kit-A



09

Smart Restroom Kit



17

Smart Building Kit



05

CoWork Kit-B



13

Smart Agriculture Kit



21

1、Device List

Item	AM102L 2-in-1 IAQ Sensor	AM103 3-in-1 IAQ Sensor	AM307 7-in-1 IAQ Sensor	AM319 9-in-1 IAQ Sensor	UG56 LoRaWAN® Gateway	1 Year (Pro1) Milesight IoT Cloud
Quantity	1	1	1	1	1	/
Description	AM102L is a 2-in-1 ambience monitoring sensor featuring the measurement of temperature and humidity. It is able to transmit to network server using LoRaWAN® technology.	AM103 is a 3-in-1 ambience monitoring sensor including the measurement of temperature, humidity and CO ₂ concentration and can display indoor status visually on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.	AM307 is a 7-in-1 ambience monitoring sensor including the measurement of temperature, humidity, CO ₂ concentration, TVOC, pressure, light, motion, etc. It can show visually with different modes on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.	AM319 is a 9-in-1 ambience monitoring sensor including the measurement of temperature, humidity, CO ₂ concentration, TVOC, pressure, light, motion, PM2.5 & PM10 HCHO/O ₃ , etc. It can show visually with different modes on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.	UG56 LoRaWAN® Gateway provides stable connectivity between sensors and mainstream network servers or Milesight IoT Cloud.	Milesight IoT Cloud provides unparalleled levels of vertical integration with Milesight LoRaWAN® gateways and sensors. It visualizes field data and enables user to monitor and control remote assets on an intuitive dashboard.
Applications	<ul style="list-style-type: none">• Monitor temperature and humidity	<ul style="list-style-type: none">• Monitor temperature, humidity and CO₂ levels• Indicate CO₂ levels via traffic light and emoticon on the E-ink screen• Suitable for office or school indoor air quality monitoring	<ul style="list-style-type: none">• Monitor main pollutants in indoor environment• Indicate polluted levels via traffic light and emoticon on the screen• Suitable for office or school indoor ambience monitoring• Real-time alarm with buzzer for polluted indoor air quality	<ul style="list-style-type: none">• Monitor main pollutants in indoor environment• Indicate polluted levels via traffic light and emoticon on the screen• Suitable for office or school indoor ambience monitoring• Real-time alarm with buzzer for polluted indoor air quality	<ul style="list-style-type: none">• Collect data from LoRaWAN® sensors• Forward data to Milesight IoT Cloud or mainstream network servers via Ethernet	<ul style="list-style-type: none">• Drag & drop dashboard to display data• Real-time alarm notifications• Exportable historical data and generate reports• Custom trigger conditions & actions to enable collaborative interaction among end-devices• Android & iOS versions available

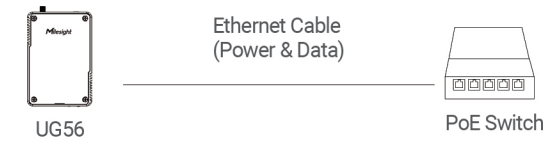
2、Packing List

Item	AM10x	AM307	AM319	UG56
Device	●	●	●	●
Batteries	●	●		
Mounting Bracket		●	●	●
3M Tape	●	●	●	
Wall Mounting Kits	●	●	●	●
Fixing Screws	●	●	●	●
LoRaWAN® Antenna				●
Type-C Cable & Power Adapter			●	○
Warranty Card			●	

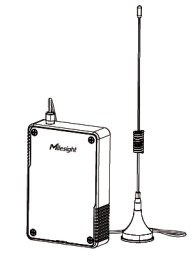
Note: ●=standard, ○=optional.

3 Setting-up the Gateway Internet Connection

1. Power on the gateway via 802.3af PoE switch, PoE injector or type-C port.



2. Connect LoRaWAN® antenna to the gateway.

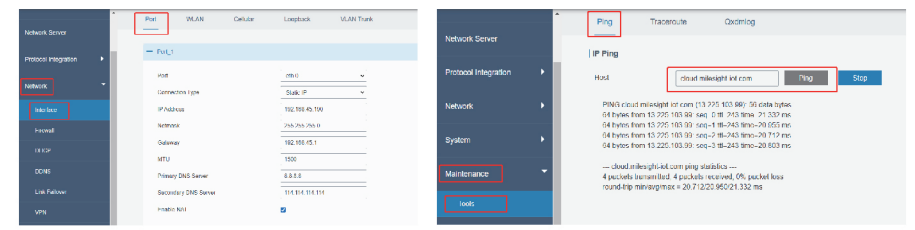


3. Access the web GUI and configure the network setting to get Internet connection.

Username: **admin**
Password: **password**

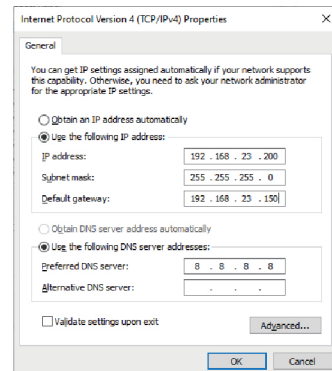
Method 1:

- 1) Search and connect the Wi-Fi SSID of gateway (Gateway_*****), then open the browser and type 192.168.1.1 to log in the web GUI.
- 2) Select the Connection Type of Ethernet port and fill in the IP information, then connect gateway Ethernet port to network devices like a router or a modem to get Internet access.



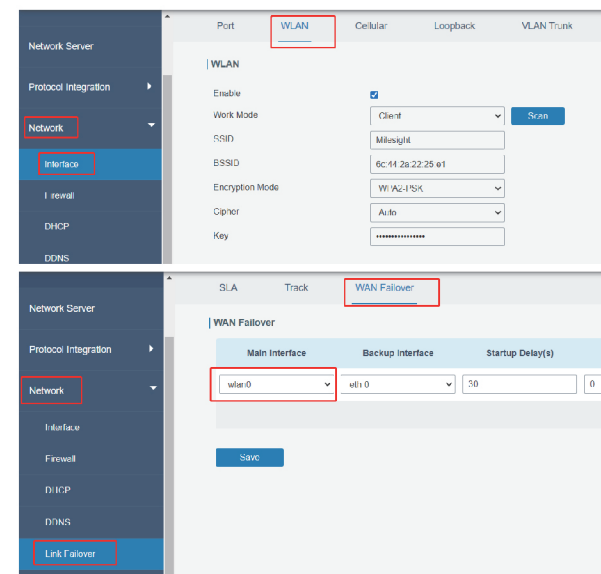
Method 2 :

1) Connect to PC via Ethernet port and manually configure the IP address of computer to the same subnet.



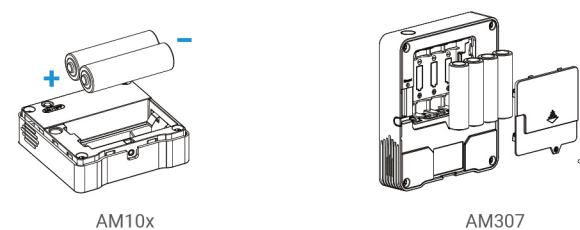
2) Type 192.168.23.150 into the browser on PC to log in the web GUI of gateway.

3) Connect to another Wi-Fi access point to get network connection and set wlan0 as main interface.

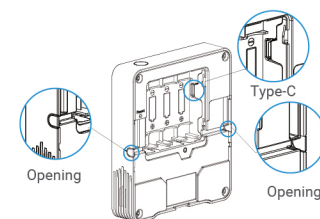


4 Setting-up the Sensors

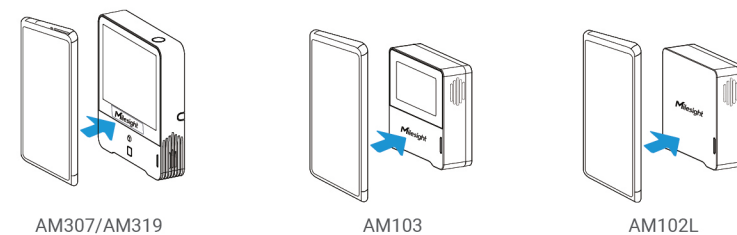
1. Install the batteries onto AM10x devices and AM307 devices.



For AM319, connect the type-C cable to the USB port and left or right side should make an opening to pass through the type-C cable.

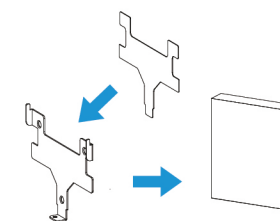


2. Use an NFC-enabled smart phone to install Milesight ToolBox App from Google Play or App store, place the NFC area of phone close to devices and use Milesight ToolBox App to power on, read and configure the device.

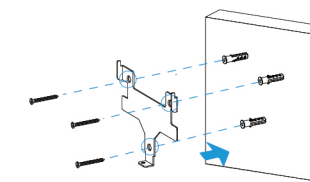


3. Fix devices to the wall via wall mounting kits or 3M tapes, then fix the bottom of the device to the bracket or rear cover with the theft-detering screw.

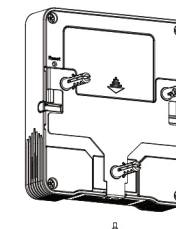
AM307/AM319:



Fixed by 3M Tapes

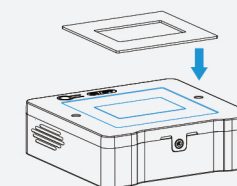


Fixed by Screws

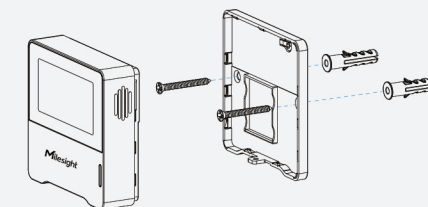


Theft-Detering Screw Installation

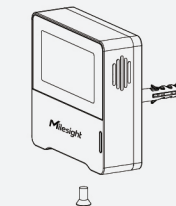
AM10x:



Fixed by 3M Tapes



Fixed by Screws



Theft-Detering Screw Installation

1、Device List

Item	WS101 Smart Button	WS301 Magnetic Contact Switch	AM103 3-in-1 IAQ Sensor	WS303 Leak Detection Sensor	WS558 Light Controller	UC300 IoT Controller	UG56 LoRaWAN® Gateway	1 Year (Pro1) Milesight IoT Cloud
Quantity	1	1	1	1	1	1	1	/
Description	WS101 smart button supports sending different alerts depending on various press actions and can be used in emergency alarm system, remote control or other remote push button applications.	WS301 sensor uses a magnet to detect the open/closed status of door/window or something has been moved. It's wire-free and can be easily mounted on the doors, panes, cabinets, etc.	AM103 is a 3-in-1 ambience monitoring sensor including the measurement of temperature, humidity and CO ₂ concentration and can display indoor status visually on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.	WS303 is used for detecting leakage of conductive liquids like water, weak base or weak acid.	WS558 light controller provides 8 switches to control the indoor lights locally or remotely. LN or switch circuit types are optional for different room deployment.	UC300 IoT controller equips with multiple data interfaces including digital inputs, relay outputs, RS232, RS485, analog inputs and PT100 RTD input, which can convert legacy sensors to work with LoRaWAN® network and control devices.	UG56 LoRaWAN® Gateway provides stable connectivity between sensors and mainstream network servers or Milesight IoT Cloud.	Milesight IoT Cloud provides unparalleled levels of vertical integration with Milesight LoRaWAN® gateways and sensors. It visualizes field data and enables user to monitor and control remote assets on an intuitive dashboard.
Applications	<ul style="list-style-type: none">• Easy to be carried out by the seniors and the disabled and can be installed anywhere• Remote control like lights or curtains	<ul style="list-style-type: none">• Entry/fire door monitoring• Asset protection in the cabinets or boxes• Suitable for offices, homes or factories applications	<ul style="list-style-type: none">• Monitor temperature, humidity and CO₂ levels• Indicate CO₂ levels via traffic light or emoticon on the E-ink screen• Suitable for office or school indoor air quality monitoring	<ul style="list-style-type: none">• Building flood monitoring• Machine room monitoring	<ul style="list-style-type: none">• Office light control• Power management	<ul style="list-style-type: none">• Acquire data from legacy sensors and send via LoRaWAN® networks• Control the on/off status via relay outputs or RS485 Modbus commands	<ul style="list-style-type: none">• Collect data from LoRaWAN® sensors• Forward data to Milesight IoT Cloud or mainstream network servers via Ethernet	<ul style="list-style-type: none">• Drag & drop dashboard to display data• Real-time alarm notifications• Exportable historical data and generate reports• Custom trigger conditions & actions to enable collaborative interaction among end-devices• Android & iOS versions available

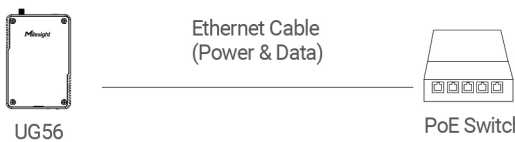
2、Packing List

Item	AM103	WS101	WS301	WS303	WS558	UC300	UG56
Device	●	●	●	●	●	●	●
Batteries	●			●			
Mounting Bracket						●	●
3M Tape	●	●		●			
Wall Mounting Kits	●	●			●	●	●
Fixing Screws	●		●			●	●
DIN Rail Clip						●	
LoRaWAN® Antenna						●	●
Terminal Block						●	
DC Power Adapter						●	
Type-C Cable & Power Adapter						●	○
Warranty Card				●			

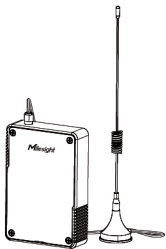
Note: ●=standard, ○=optional.

3 Setting-up the Gateway Internet Connection

1. Power on the gateway via 802.3af PoE switch, PoE injector or type-C port.



2. Connect LoRaWAN® antenna to the gateway.



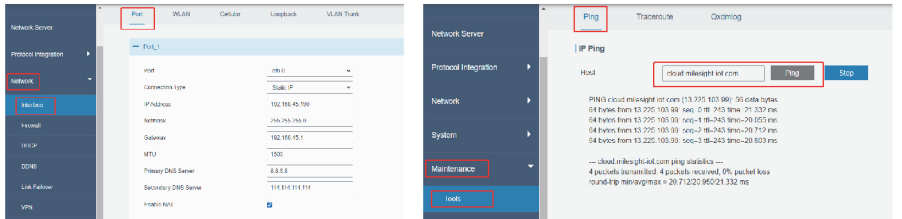
3. Access the web GUI and configure the network setting to get Internet connection.

Username: **admin**
Password: **password**

Method 1:

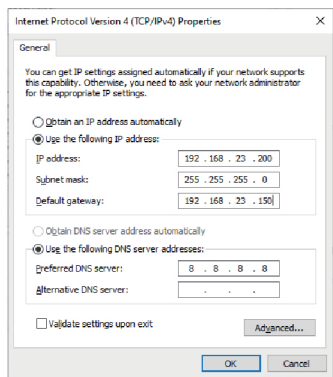
1) Search and connect the Wi-Fi SSID of gateway (Gateway_*****), then open the browser and type 192.168.1.1 to log in the web GUI.

2) Select the Connection Type of Ethernet port and fill in the IP information, then connect gateway Ethernet port to network devices like a router or a modem to get Internet access.



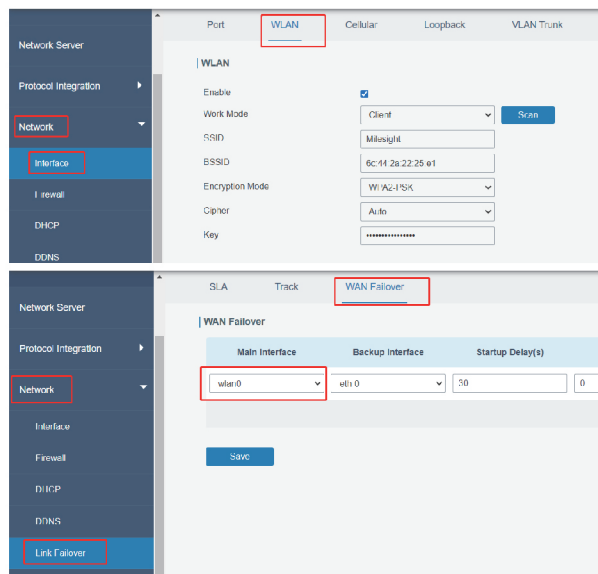
Method 2 :

1) Connect to PC via Ethernet port and manually configure the IP address of computer to the same subnet.



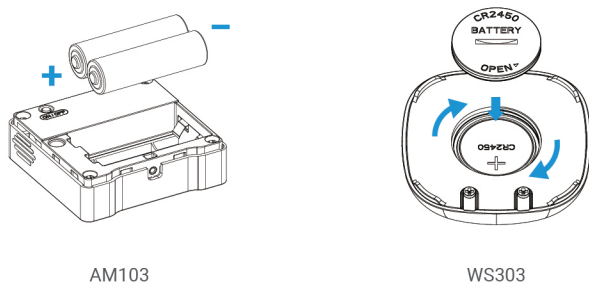
2) Type 192.168.23.150 into the browser on PC to log in the web GUI of gateway.

3) Connect to another Wi-Fi access point to get network connection and set wlan0 as main interface.

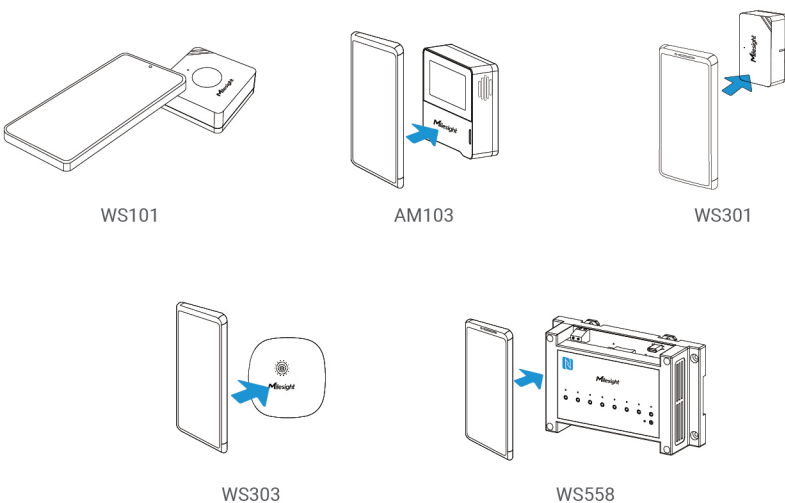


4 Setting-up the Sensors

1. Pull out the battery insulating sheet to power on WS series sensors and install the batteries onto AM103/WS303 device.

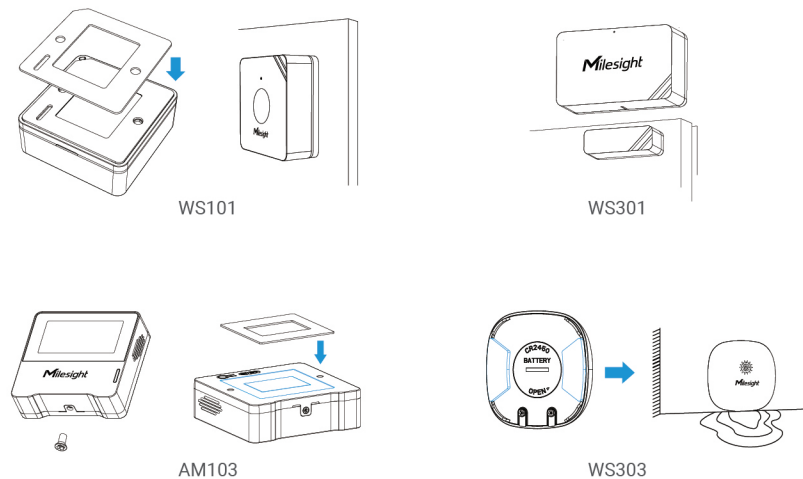


2. Use an NFC-enabled smart phone to install Milesight ToolBox App from Google Play or App store, place the NFC area of phone close to the device and use Milesight ToolBox App to read and configure the device.

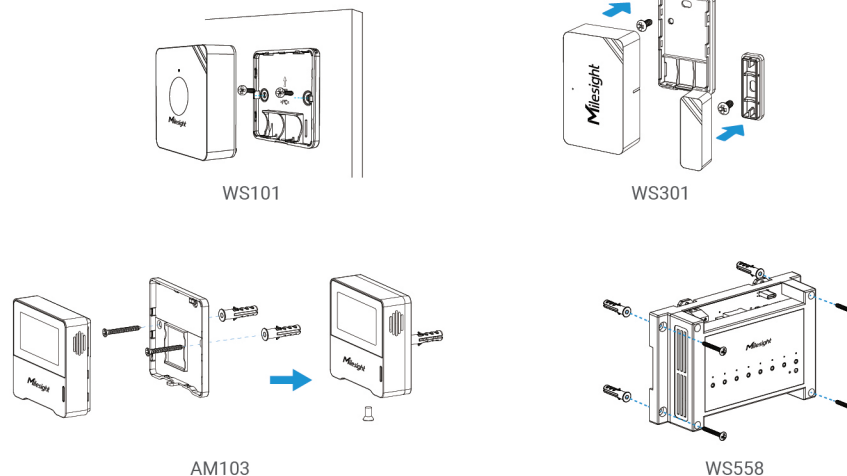


3. Fix devices to the wall via 3M tapes or wall mounting kits.

Fixed by 3M Tapes:



Fixed by Screws:



5 Setting-up UC300 IoT Controller

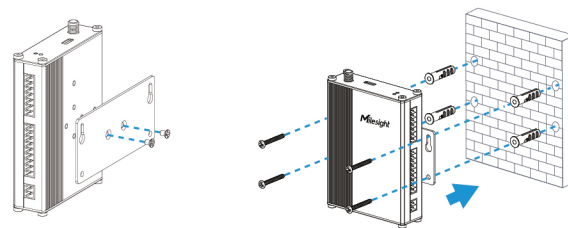
1. Connect the sensors to corresponding data interfaces of UC300 and install LoRaWAN® antenna.

2. Power on UC300 via power adapter and connect the type-C port to PC, use ToolBox software downloaded from Milesight website to configure the device and test if it can read sensor data.

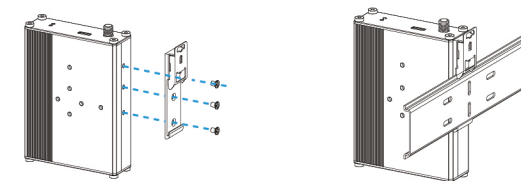
3. Add device to Milesight IoT Cloud and ensure it is online, enable the corresponding data interfaces displayed on the cloud page.






4. Install the controller to the wall via wall mounting kits or hang it to the DIN rail.

Wall Mounting:



DIN Rail Mounting:



1、Device List					
Item	VS121 AI Workplace Occupancy Sensor	VS340 Desk & Seat Occupancy Sensor	DS3604 IoT E-Ink Display	UG56 LoRaWAN® Gateway	1 Year (Pro1) Milesight IoT Cloud
					
Quantity	1	1	1	1	/
Description	VS121 counts people based on AI technology and can monitor the occupancy and utilization in workplaces.	VS340 is an occupancy sensor designed to detect whether desks or seats are occupied.	DS3604 is a three-color E-ink display to show custom and flexible contents.	UG56 LoRaWAN® Gateway provides stable connectivity between sensors and mainstream network servers or Milesight IoT Cloud.	Milesight IoT Cloud provides unparalleled levels of vertical integration with Milesight LoRaWAN® gateways and sensors. It visualizes field data and enables user to monitor and control remote assets on an intuitive dashboard.
Applications	<ul style="list-style-type: none">• Meeting room or sitting room occupancy monitoring• Line crossing counting• People flow analysis	<ul style="list-style-type: none">• Office desk occupancy• Library hot desk detection• Dining area occupancy	<ul style="list-style-type: none">• Workplace display signage• Hot desk reservation	<ul style="list-style-type: none">• Collect data from LoRaWAN® sensors• Forward data to Milesight IoT Cloud or mainstream network servers via Ethernet	<ul style="list-style-type: none">• Drag & drop dashboard to display data• Real-time alarm notifications• Exportable historical data and generate reports• Custom trigger conditions & actions to enable collaborative interaction among end-devices• Android & iOS versions available

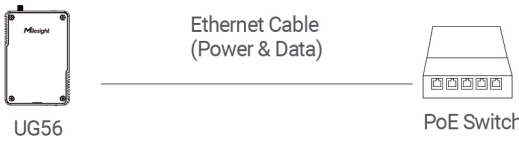
2、Packing List

Item	VS121	VS340	DS3604	UG56
Device	●	●	●	●
LoRaWAN® Antenna				●
PIR Covers		●		
Mounting Bracket and Fixing Screws				●
Mounting Sticker	●			
Wall Mounting Kits	●	●		●
3M Tape		●		
Type-C Cable & Power Adapter	●		●	○
Warranty Card			●	

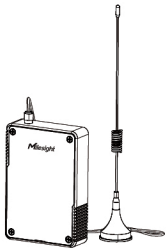
Note: ●=standard, ○=optional.

3 Setting-up the Gateway Internet Connection

1. Power on the gateway via 802.3af PoE switch, PoE injector or type-C port.



2. Connect LoRaWAN® antenna to the gateway.



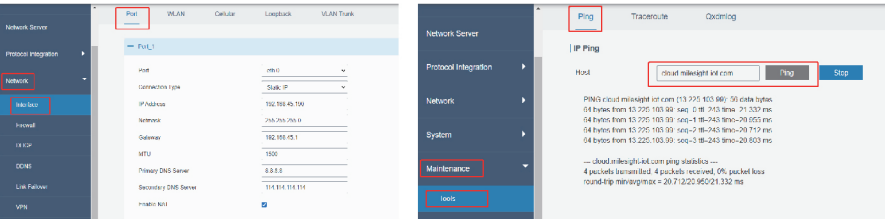
3. Access the web GUI and configure the network setting to get Internet connection.

Username: **admin**
Password: **password**

Method 1:

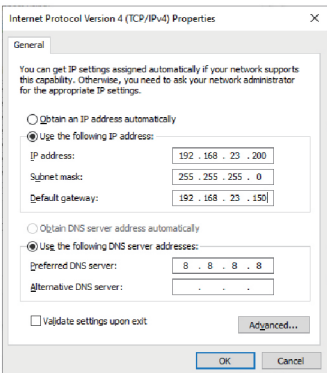
1) Search and connect the Wi-Fi SSID of gateway (Gateway_*****), then open the browser and type 192.168.1.1 to log in the web GUI.

2) Select the Connection Type of Ethernet port and fill in the IP information, then connect gateway Ethernet port to network devices like a router or a modem to get Internet access.



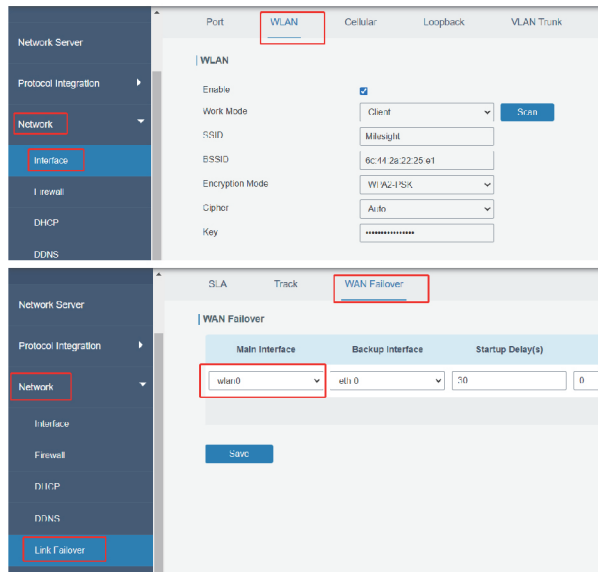
Method 2 :

1) Connect to PC via Ethernet port and manually configure the IP address of computer to the same subnet.



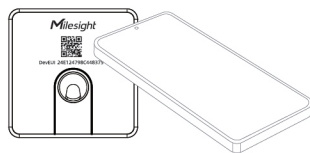
2) Type 192.168.23.150 into the browser on PC to log in the web GUI of gateway.

3) Connect to another Wi-Fi access point to get network connection and set wlan0 as main interface.



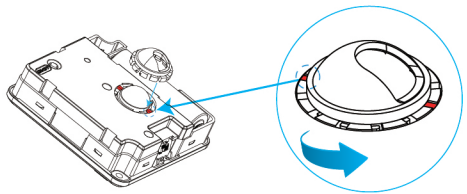
4 Setting-up the VS340 Sensor

1. Use an NFC-enabled smart phone to install Milesight ToolBox App from Google Play or App store, place the NFC area of phone close to the device and ToolBox App to power on, read and configure the device.

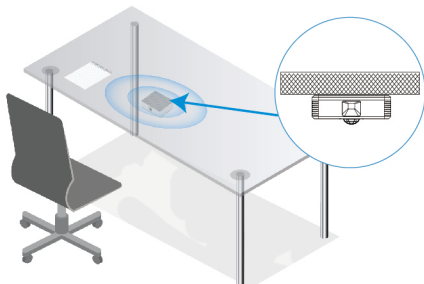


2. Add the device to Milesight IoT Cloud and ensure it is online.

3. Take off the front cover of the device, then select the PIR cover as required and put it on the PIR sensor with groove alignment.



4. Fix the device under the working desk by 3M tape or wall mounting kits.



5 Setting-up the VS121 Sensor

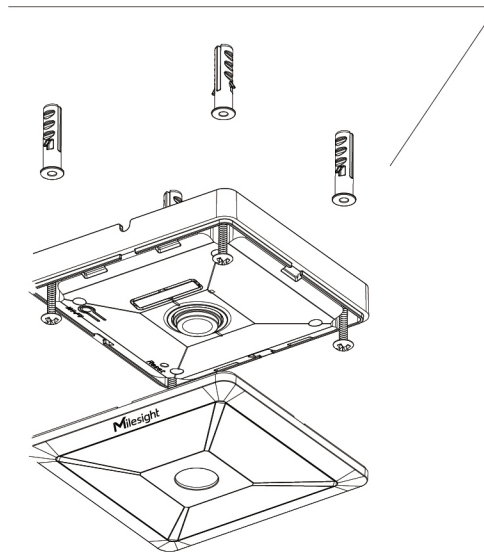
1. Power on VS121 sensor via type-C port.

2. Search and connect the Wi-Fi SSID of VS121(SSID can be found on the label of device), then open the browser and type 192.168.1.1 to access the web GUI.

3. Select the language and set the password to log in the web GUI, then complete the sensor settings.

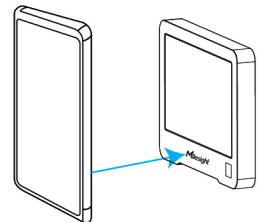
4. Add the device to Milesight IoT Cloud and ensure it is online.

5. Use mounting sticker to mark the mounting holes and fix the sensor with wall mounting kits. Installation requirement: the height should be 3m, and the thickness of ceiling should be more than 30mm.



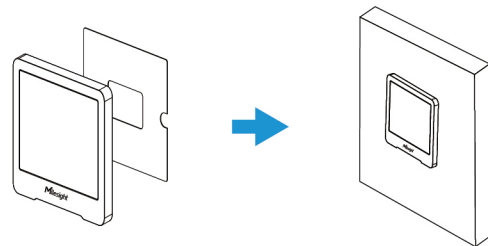
6 Setting-up the DS3604 Screen

1. Use an NFC-enabled smart phone to install Milesight ToolBox App from Google Play or App store, place the NFC area of phone close to the device and ToolBox App to power on, read and configure the device.



2. Add the device to Milesight IoT Cloud and ensure it is online.

3. The screen can be placed on the desktop directly or fixed by 3M tape.



1、Device List

Item	VS121 AI Workplace Occupancy Sensor	WS101 Smart Button	WS301 Magnet Switch Sensor	WS156 Smart Scene Panel	UC100 IoT Controller	UG56 LoRaWAN® Gateway	1 Year (Pro1) Milesight IoT Cloud
Quantity	1	1	1	1	1	1	/
Description	VS121 counts people based on AI technology and can monitor the occupancy and utilization in workplaces.	WS101 smart button sensor supports different alerts depending on various press actions and can be used in emergency alarm system, remote control or other remote push button applications.	WS301 sensor uses a magnet to detect the open/closed status of door/window or something has been moved. It's wire-free and can be easily mounted on the doors, panes, cabinets, etc.	WS156 has 6 buttons to define 6 scenes and each scene can consist of multiple device controls. Besides, it equips a programmable E-ink screen which can customize the display content depending on scenarios.	UC100 IoT controller equips with a RS485 interface, which can convert legacy sensors to work with LoRaWAN® network and control devices.	UG56 LoRaWAN® Gateway provides stable connectivity between sensors and mainstream network servers or Milesight IoT Cloud.	Milesight IoT Cloud provides unparalleled levels of vertical integration with Milesight LoRaWAN® gateways and sensors. It visualizes field data and enables user to monitor and control remote assets on an intuitive dashboard.
Applications	<ul style="list-style-type: none">Meeting room or sitting room occupancy monitoringLine crossing countingPeople flow analysis	<ul style="list-style-type: none">Easy to be carried out by the seniors and the disabled and can be installed anywhereRemote control like lights or curtains in smart office	<ul style="list-style-type: none">Entry/fire door monitoringAsset protection in the cabinets or boxesSuitable for offices, homes or factories applications	<ul style="list-style-type: none">Remote control or alarmsSuit for offices, hotels or schools	<ul style="list-style-type: none">Acquire data from legacy RS485 sensors and send via LoRaWAN® networksControl the on/off status via RS485 commands	<ul style="list-style-type: none">Collect data from LoRaWAN® sensorsForward data to Milesight IoT Cloud or mainstream network servers via Ethernet	<ul style="list-style-type: none">Drag & drop dashboard to display dataReal-time alarm notificationsExportable historical data and generate reportsCustom trigger conditions & actions to enable collaborative interaction among end-devicesAndroid & iOS versions available

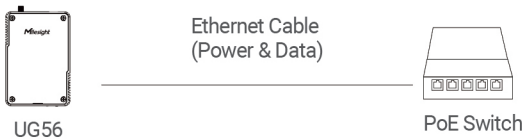
2、Packing List

Item	VS121	WS101	WS301	WS156	UC100	UG56
Device	●	●	●	●	●	●
LoRaWAN® Antenna						●
Mounting Bracket and Fixing Screws						●
Mounting Screws			●	●		
Mounting Sticker	●					
Wall Mounting Kits	●	●			●	●
3M Tape		●		●		
Terminal Block					●	
Type-C Cable & Power Adapter	●				●	○
Warranty Card				●		

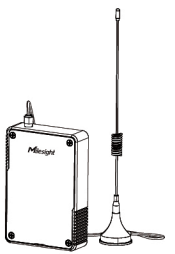
Note: ●=standard, ○=optional.

3 Setting-up the Gateway Internet Connection

1. Power on the gateway via 802.3af PoE switch, PoE injector or type-C port.



2. Connect LoRaWAN® antenna to the gateway.

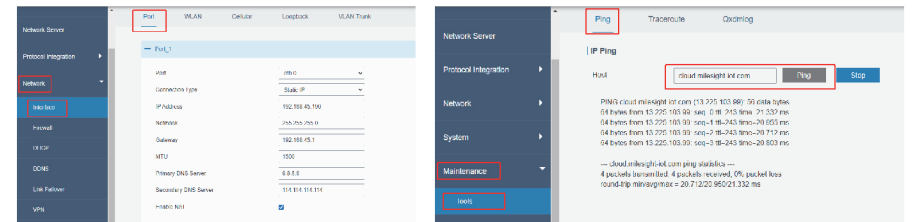


3. Access the web GUI and configure the network setting to get Internet connection.

Username: **admin**
Password: **password**

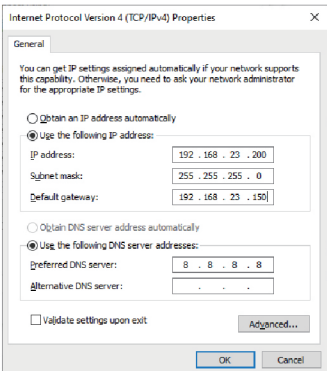
Method 1:

- 1) Search and connect the Wi-Fi SSID of gateway (Gateway_*****), then open the browser and type 192.168.1.1 to log in the web GUI.
- 2) Select the Connection Type of Ethernet port and fill in the IP information, then connect gateway Ethernet port to network devices like a router or a modem to get Internet access.



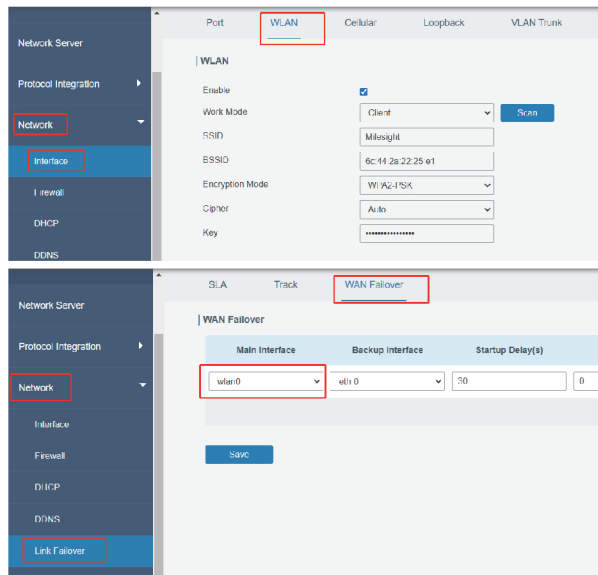
Method 2 :

1) Connect to PC via Ethernet port and manually configure the IP address of computer to the same subnet.



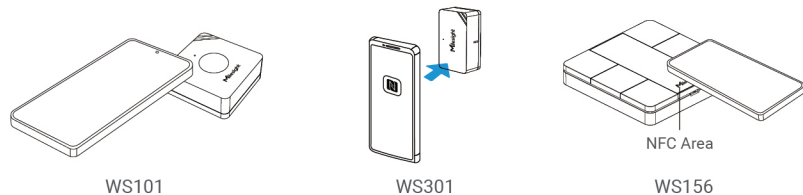
2) Type 192.168.23.150 into the browser on PC to log in the web GUI of gateway.

3) Connect to another Wi-Fi access point to get network connection and set wlan0 as main interface.



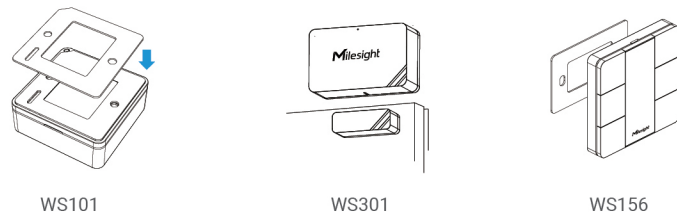
4 Setting-up the WS Series Devices

1. Pull out the battery insulating sheets to power on WS series devices.
2. Use an NFC-enabled smart phone to install Milesight ToolBox App from Google Play or App store, place the NFC area of phone close to the device and ToolBox App to power on, read and configure the devices.

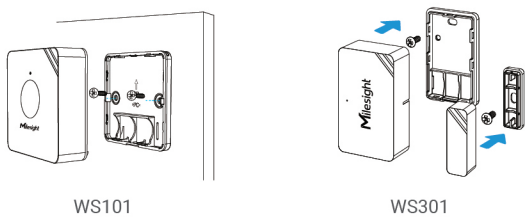


3. Fix devices to flat surface via 3M tapes or wall mounting kits.

Fixed by 3M Tapes:

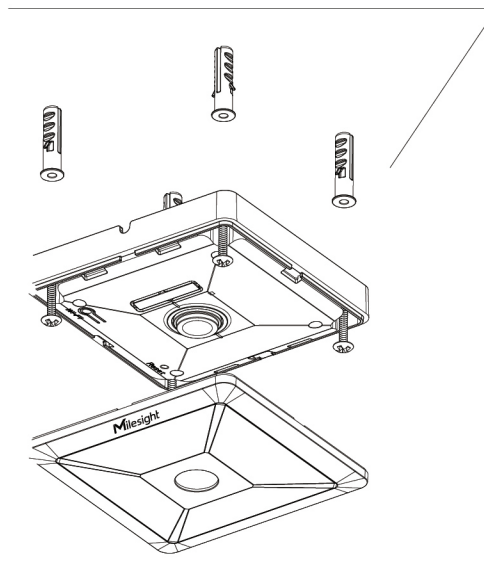


Fixed by Wall Mounting Kits:



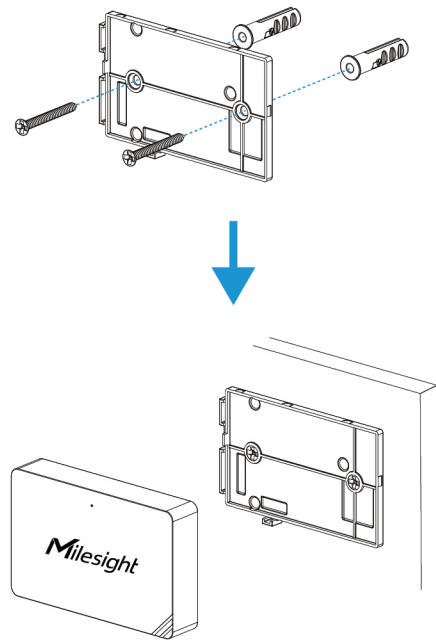
5 Setting-up the VS121 Sensor

1. Power on VS121 sensor via type-C port.
2. Search and connect the Wi-Fi SSID of VS121(SSID can be found on the label of device), then open the browser and type 192.168.1.1 to access the web GUI.
3. Select the language and set the password to log in the web GUI, then complete the sensor settings.
4. Add the device to Milesight IoT Cloud and ensure it is online.
5. Use mounting sticker to mark the mounting holes and fix the sensor with wall mounting kits. Installation requirement: the height should be 3m, and the thickness of ceiling should be more than 30mm.



6 Setting-up UC100 IoT Controller

1. Connect RS485 terminal devices to UC100 via terminal block.
2. Power on UC100 device via power adapter or type-C port.
3. Connect type-C port of device to computer, download Milesight ToolBox PC software from Milesight official website to configure the device and test if it can read RS485 terminal device data.
4. Add the device to Milesight IoT Cloud and ensure it is online.
5. Install the device to flat surface via wall mounting kits.



SMART RESTROOM KIT

1、Device List

Item	WS101 Smart Button	WS201 Smart Fill Level Monitoring Sensor	GS301 Bathroom Odor Detector	VS330 Bathroom Occupancy Sensor	UC100 IoT Controller	UG56 LoRaWAN® Gateway	1 Year (Pro1) Milesight IoT Cloud
Quantity	1	1	1	1	1	1	/
Description	WS101 smart button sensor supports different alerts depending on various press actions and can be used in emergency alarm system, remote control or other remote push button applications.	WS201 sensor is designed to monitor the fill level of toilet tissue boxes based on ToF technology.	GS301 4-in-1 detector is able to detect the temperature, humidity, NH ₃ and H ₂ S in the air and supports LED and buzzer alarms.	VS330 sensor is designed to monitor the occupancy status of bathrooms and cubicles of toilets based on ToF technology.	UC100 IoT controller equips with a RS485 interface, which can convert legacy sensors to work with LoRaWAN® network and control devices.	UG56 LoRaWAN® Gateway provides stable connectivity between sensors and mainstream network servers or Milesight IoT Cloud.	Milesight IoT Cloud provides unparalleled levels of vertical integration with Milesight LoRaWAN® gateways and sensors. It visualizes field data and enables user to monitor and control remote assets on an intuitive dashboard.
Applications	<ul style="list-style-type: none">• Easy to be carried out by the seniors and the disabled and can be installed anywhere• Remote control like lights or curtains	<ul style="list-style-type: none">• Toilet tissue boxes• Remaining status monitoring	<ul style="list-style-type: none">• Office bathroom air monitoring• Mall restroom air monitoring	<ul style="list-style-type: none">• Squat toilet or seat toilet• 100% anonymous detection	<ul style="list-style-type: none">• Acquire data from legacy RS485 sensors and send via LoRaWAN® networks• Control the on/off status via RS485 commands	<ul style="list-style-type: none">• Collect data from LoRaWAN® sensors• Forward data to Milesight IoT Cloud or mainstream network servers via Ethernet	<ul style="list-style-type: none">• Drag & drop dashboard to display data• Real-time alarm notifications• Exportable historical data and generate reports• Custom trigger conditions & actions to enable collaborative interaction among end-devices• Android & iOS versions available

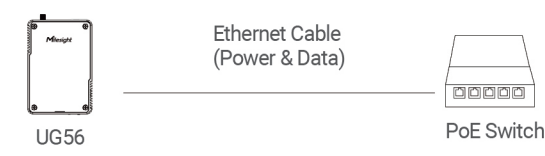
2、Packing List

Item	WS101	WS201	GS301	VS330	UC100	UG56
Device	●	●	●	●	●	●
Battery		●				
LoRaWAN® Antenna						●
Mirror Cleaning Cloth		●		●		
Mounting Bracket and Fixing Screws						●
Wall Mounting Kits	●		●	●	●	●
3M Tape	●	●				
Terminal Block					●	
Type-C Cable & Power Adapter					●	○
Warranty Card				●		

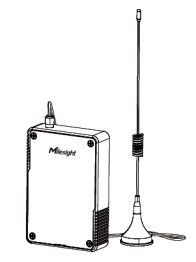
Note: ●=standard, ○=optional.

3 Setting-up the Gateway Internet Connection

1. Power on the gateway via 802.3af PoE switch, PoE injector or type-C port.



2. Connect LoRaWAN® antenna to the gateway.

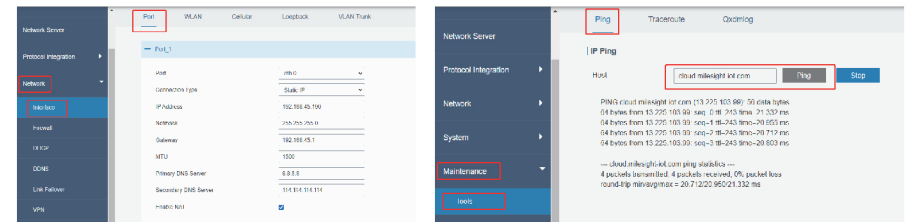


3. Access the web GUI and configure the network setting to get Internet connection.

Username: **admin**
Password: **password**

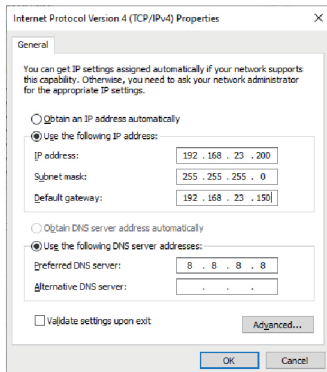
Method 1:

- 1) Search and connect the Wi-Fi SSID of gateway (Gateway_*****), then open the browser and type 192.168.1.1 to log in the web GUI.
- 2) Select the Connection Type of Ethernet port and fill in the IP information, then connect gateway Ethernet port to network devices like a router or a modem to get Internet access.



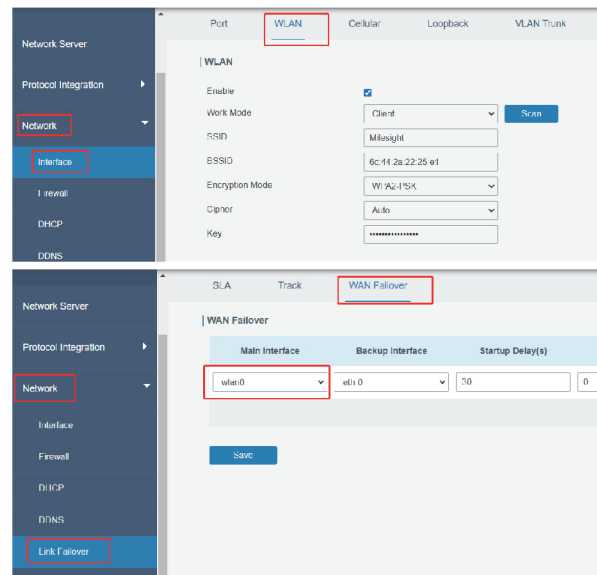
Method 2 :

1) Connect to PC via Ethernet port and manually configure the IP address of computer to the same subnet.



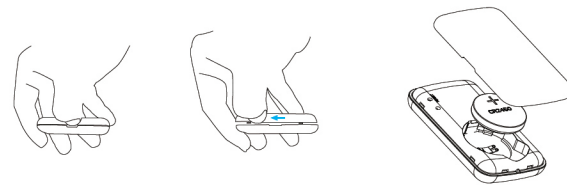
2) Type 192.168.23.150 into the browser on PC to log in the web GUI of gateway.

3) Connect to another Wi-Fi access point to get network connection and set wlan0 as main interface.

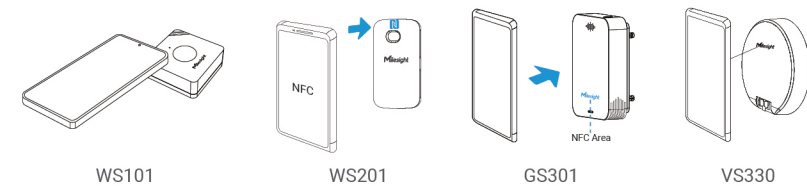


4 Setting-up the Sensors

1. Install the battery into WS201 device to power on it. When installing, insert your fingernail or other tools into the center groove and slide it towards the end to remove the back cover of device.

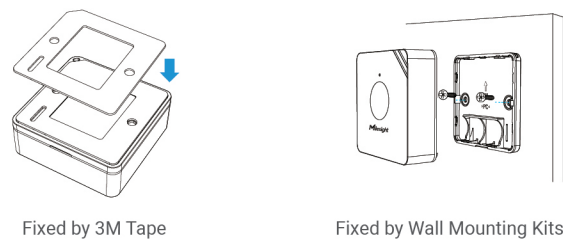


2. Use an NFC-enabled smart phone to install Milesight ToolBox App from Google Play or App store, place the NFC area of phone close to the device and ToolBox App to power on, read and configure the devices.

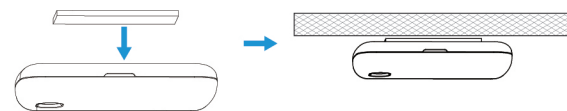


3. Add all devices to Milesight IoT Cloud and ensure they are all online.

4. Fix the WS101 button via 3M tape or wall mounting kits.

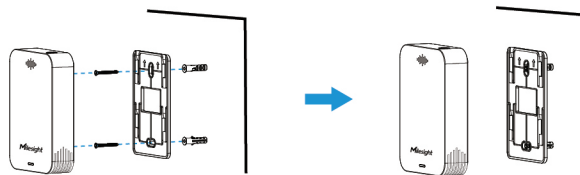


5. Fix the WS201 sensor horizontal inside the top of tissue box via 3M tape, then remove the protective film on the ToF lens. Do not touch the lens directly so as to avoid leaving fingerprint on the lens and clean it with mirror cleaning cloth periodically.



6. Fix the mounting bracket on the back of GS301 device to the wall via wall mounting kits, then hang the device to the bracket. Do not install the device next to door or window or any air ventilation openings like ventilation fans, bents, etc.

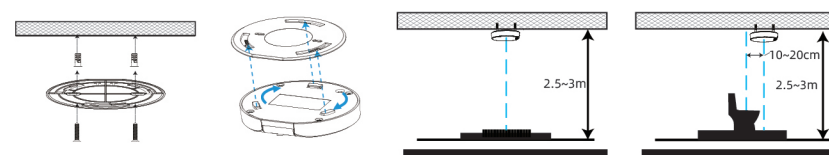
Note: the device will stop working when operating temperature is higher than 35°C.



7. Fix the mounting plate on the back of VS330 device to ceiling or the wall via wall mounting kits or 3M tape, then turn the device clocking to lock it to the mounting plate. After installation, remove the protective film on the ToF lens. Do not touch the lens directly to avoid leaving fingerprint on the lens and clean it with mirror cleaning cloth periodically.

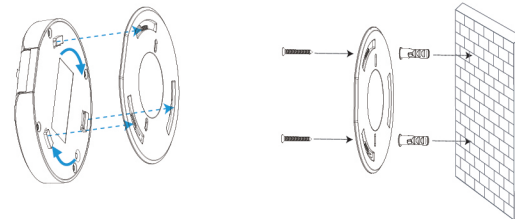
Ceiling Mount:

- The sensor part should face the front of toilet and the sensor should be installed horizontally to the ceiling, sensor angle is set to 0°.
- It is suggested to enable test mode to check if opening and closing door will affect the detection results and then adjust the mounting location accordingly.



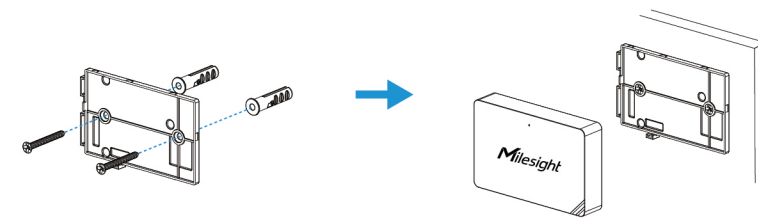
Wall Mount:

- Locate the device exactly on the wall and at the back of the flush toilet, and the sensor part should face downwards.
- Do not make the sensor face to door directly or cover the door into detection area when adjusting the sensor angle.
- The installation height should be higher than the height of standing toilet lid to avoid potential interference on the detection accuracy.
- It is suggested to enable test mode to check if opening and closing door will affect the detection results and then adjust the mounting location accordingly.







5 Setting-up UC100 IoT Controller

1. Connect RS485 terminal devices to UC100 via terminal block.
2. Power on UC100 device via power adapter or type-C port.
3. Connect type-C port of device to computer, download Milesight ToolBox PC software from Milesight official website to configure the device and test if it can read RS485 terminal device data.
4. Add the device to Milesight IoT Cloud and ensure it is online.
5. Install the device to flat surface via wall mounting kits.



1、Device List

Item	EM500-SMTC Soil Moisture, Temperature and Electrical Conductivity Sensor	UC511 Solenoid Valve Controller	UG56 LoRaWAN® Gateway	1 Year (Pro1) Milesight IoT Cloud
				
Quantity	1	1	1	/
Description	EM500-SMTC soil sensor is able to measure the temperature, humidity and electrical conductivity of soil in harsh environments.	UC511 is designed to control the solenoid valve to open or close remotely or locally. It can also connect pulse water meters for flow monitoring.	UG56 LoRaWAN® Gateway provides stable connectivity between sensors and mainstream network servers or Milesight IoT Cloud.	Milesight IoT Cloud provides unparalleled levels of vertical integration with Milesight LoRaWAN® gateways and sensors. It visualizes field data and enables user to monitor and control remote assets on an intuitive dashboard.
Applications	<ul style="list-style-type: none">Greenhouse controlGolf course maintenanceAgriculture management	<ul style="list-style-type: none">Smart irrigationWater flow monitoring and management	<ul style="list-style-type: none">Collect data from LoRaWAN® sensorsForward data to Milesight IoT Cloud or mainstream network servers via Ethernet	<ul style="list-style-type: none">Drag & drop dashboard to display dataReal-time alarm notificationsExportable historical data and generate reportsCustom trigger conditions & actions to enable collaborative interaction among end-devicesAndroid & iOS versions available

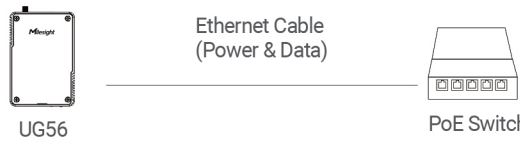
2、Packing List

Item	EM500-SMTC	UC511	UG56
Device	●	●	●
Data Cables		●	
LoRaWAN® Antenna			●
Mounting Bracket and Fixing Screws	●	●	●
Wall Mounting Kits	●	●	●
Hose Clamps	●	●	
Rubber Screw Caps	●		
Type-C Cable & Power Adapter			○
Warranty Card		●	

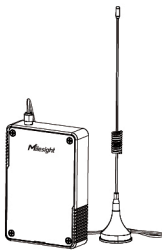
Note: ●=standard, ○=optional.

3 Setting-up the Gateway Internet Connection

1. Power on the gateway via 802.3af PoE switch, PoE injector or type-C port.



2. Connect LoRaWAN® antenna to the gateway.



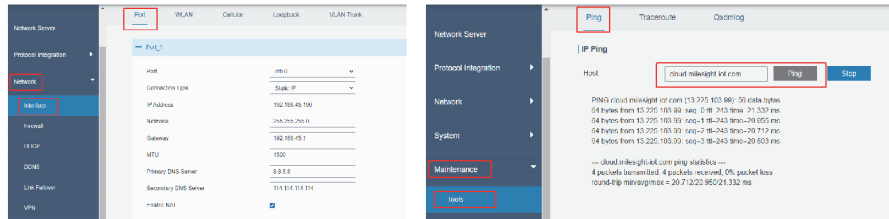
3. Access the web GUI and configure the network setting to get Internet connection.

Username: **admin**
Password: **password**

Method 1:

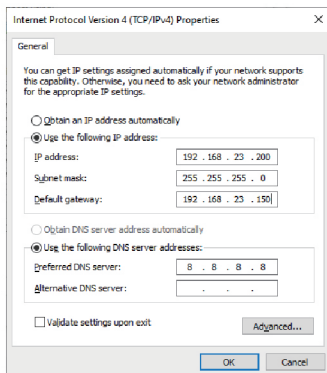
1) Search and connect the Wi-Fi SSID of gateway (Gateway_*****), then open the browser and type 192.168.1.1 to log in the web GUI.

2) Select the Connection Type of Ethernet port and fill in the IP information, then connect gateway Ethernet port to network devices like a router or a modem to get Internet access.



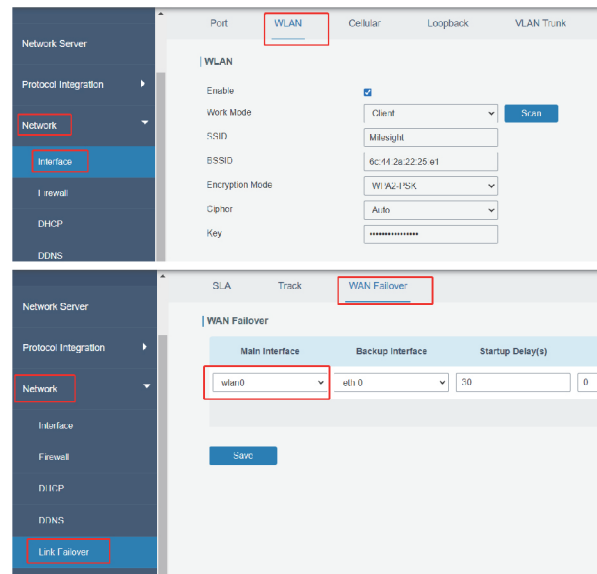
Method 2 :

1) Connect to PC via Ethernet port and manually configure the IP address of computer to the same subnet.



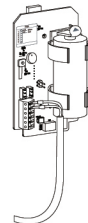
2) Type 192.168.23.150 into the browser on PC to log in the web GUI of gateway.

3) Connect to another Wi-Fi access point to get network connection and set wlan0 as main interface.



4 Setting-up the EM500-SMTC Sensor

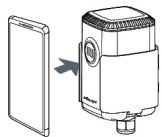
1. Take off the mounting bracket and remove the bottom cover of EM500 device, lock the SMTC soil sensor wires to the block according to the label on the board, then pass the sensor cable through the cap, rubber seal and cover.



2. Pull out the battery insulating sheet on the board, then put the board back and restore everything to its due position. When restoring the cover, ensure the arrow faces the front of the EM500 device.

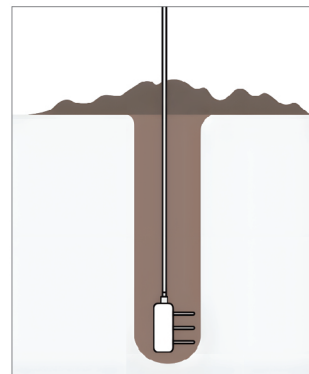
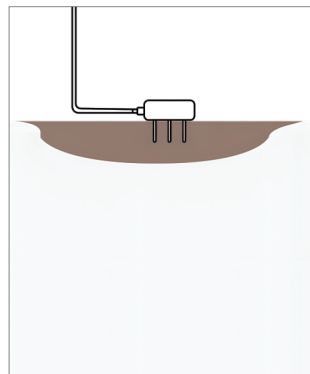


3. Use an NFC-enabled smart phone to install Milesight ToolBox App from Google Play or App store, place the NFC area of phone close to the device and ToolBox App to power on, read and configure the device. EM500-SMTC also supports to connect to computer via internal type-C port and be configured via ToolBox PC software.

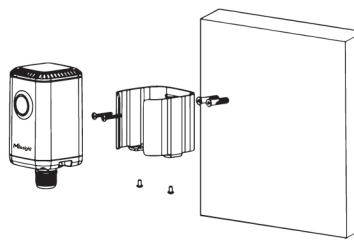


4. Add the device to Milesight IoT Cloud and ensure it is online.

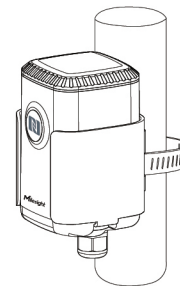
5. Dig a hole and put the SMTC soil sensor into the soil horizontally or vertically, then backfill the hole. When inserting the sensor, clean the sticks, bark, roots around and keep away from metal objects to affect the testing accuracy.



6. Fix the EM500 device to wall via wall mounting kits or to a pole via hose clamp.



Fixed by Wall Mounting Kits

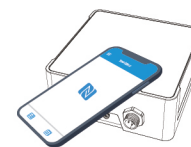


Fixed by Hose Clamp

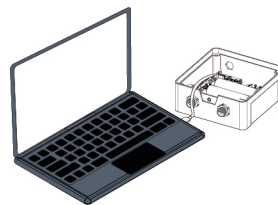
5 Setting-up the UC511 Controller

1. Connect data cables to the connectors of UC511 device, then connect solenoid valves to solenoid interfaces and pulse water meters to pulse interfaces. UC511 only supports 2-wire latching solenoid valves and reed switch pulse meters.

2. Use an NFC-enabled smart phone to install Milesight ToolBox App from Google Play or App store, place the NFC area of phone close to the device and ToolBox App to power on, read and configure the device, and control the valve status.

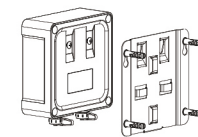


UC511 also supports to connect to computer via internal type-C port and be configured via ToolBox PC software which downloaded from Milesight official website.

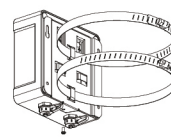


3. Add the device to Milesight IoT Cloud and ensure it is online.

4. Fix the UC511 device to wall via wall mounting kits or to a pole via hose clamps. Please ensure the solar panel on the device can be caught in the sun to power and charge the device.



Fixed by Wall Mounting Kits

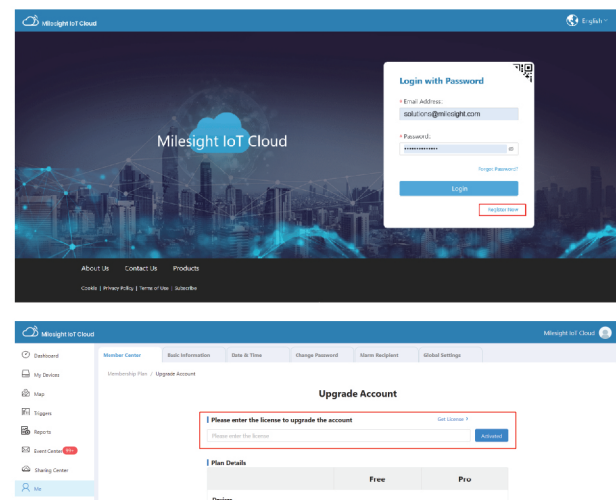


Fixed by Hose Clamp

3-STEP TO START MILESIGHT IoT CLOUD MANAGEMENT

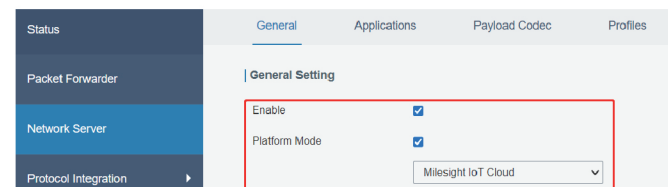
1 Registration and Activation

Go to cloud.milesight-iot.com to register a Milesight IoT Cloud account and activate this account to pro 1 plan by entering the activation code. Please contact Milesight sales representative to get this code.

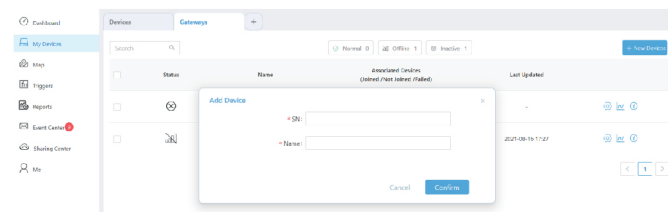


2 Add Gateway to Cloud

Power on Milesight LoRaWAN® gateway and connect it to Internet connection, then enable Milesight IoT Cloud mode.



Fill in the gateway SN to add gateway on Milesight IoT Cloud and ensure it is online.



3 Add Sensors to Cloud

Power on Milesight LoRaWAN® sensors, fill in the device SN to add sensors on Milesight IoT Cloud to view the data and start the management. Milesight IoT Cloud App also supports to quickly add devices to cloud by scanning the QR code on the label of devices.

