

## Before Use

Thank you for purchasing a MANN+HUMMEL Indoor Air Quality Monitor. Before using the product, please read this operating manual and follow the instructions carefully to prevent any accidents.

## Warranty and Service

Scope of Warranty:

- The product is used according to the instructions in the operating manual;
- The product is handled properly according to its intended usage;














The MANN+HUMMEL warranty does not apply if the product is damaged due to accidents, errors, normal wear and tear, or inappropriate usage.

Please refer to the MANN+HUMMEL website at [www.mann-hummel.com](http://www.mann-hummel.com) for more information or assistance.

## Important Information



**Caution:** To prevent accidents or damages to property, please follow the guidelines and instructions below.

-  Do not operate the product or touch the power plug if your hand is wet as you may get an electric shock.
  -  Do not wet the product as this may cause short circuits and electric shocks.
  -  Keep the product away from flammable substances or fire sources.
  -  Do not operate the product if any of the parts, including the power plug or the body is damaged. The damaged parts must be replaced by the manufacturer or authorized service centre in order to avoid hazards.
  -  Do not disassemble, repair or alter the product without authorization. Unauthorized disassembly or repair may cause failure and danger. Unauthorized alteration may result in fire or breakdown.
  -  Do not use alcohol or solvents to clean the product as it will damage the product or cause electric shocks leading to injuries or fire, etc.
  -  Unless under supervision by persons responsible for their safety, persons who are not familiar with operating instructions, are not allowed to operate the product.
  -  RF Power (Output power): 16dBm (2412MHz – 2462MHz)
  -  The max operating temperature of the product is 40°C and shouldn't be lower than 0°C.
- Declaration of Conformity
-  This device complies with the essential requirements in Directive 2014/53/EU, and can be used across EU member states or regions.
  -  This device complies with part 15 of the FCC Rules (FCC ID: 2AQ3Q-SPB308). Operation is subject to the following two conditions:
    - (1) This device may not cause harmful interference, and
    - (2) This device must accept any interference received, including interference that may cause undesired operation. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
  -  This device has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
    - Reorient or relocate the receiving antenna.
    - Increase the separation between the equipment and receiver.
    - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
    - Consult the dealer or an experienced radio / TV technician for help.
  -  This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.



## 1. Overview

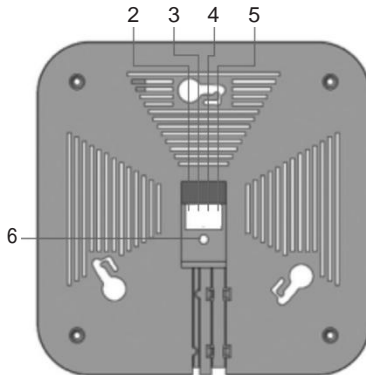
### Front View

Air Inlet for Sensors



| No. | Description                     |
|-----|---------------------------------|
| 1   | LED ON : Wi-Fi Connected        |
|     | LED Flashing : Connecting Wi-Fi |
|     | LED Off : No Wi-Fi Connection   |

### Rear View



| No. | Description                |
|-----|----------------------------|
| 2   | 485B                       |
| 3   | 485A                       |
| 4   | DC 24V-                    |
| 5   | DC 24V+                    |
| 6   | Wi-Fi Configuration Button |



**Caution:** Pay attention to the polarity of power connection

## 2. Installation

### Step 1:

- Fix the wall mount bracket to the wall. Please refer to the picture below.
- Please use the screws provided in the packaging, or the head of the screws must have a low profile.



**Caution:** Note where the electrical/Ethernet cables run, if they are embedded in the wall.

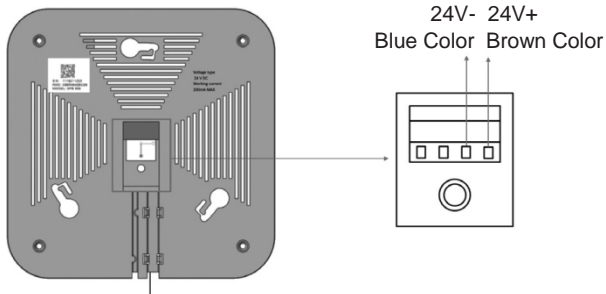
Fixing hole



Wall Mount Bracket

### Step 2:

- Connect the SPB308 with the power adapter provided with the unit to an electrical outlet.
- Do not use power adapters other than those provided in the packaging or recommended by MANN+HUMMEL.



The wiring power cord is placed through the wire groove

Step 3:

- Refer to the picture below to install main unit to the wall mount bracket.



### 3. Connectivity

#### 3.1 Wi-Fi Connection

- For personal computer or laptop with Windows OS, click on Wi-Fi setting and connect to Wi-Fi of the OurAir\_xxxxxx.
- For iOS and Android mobile phone, go to setting and connect to the Wi-Fi of the OurAir\_xxxxxx.
- Open Internet browser like IE, Firefox, Safari or Chrome.
- Enter the IP address 10.10.10.1 in the address bar, then we will see the configuration interface for Wi-Fi.

#### Station Parameter Setting

|                 |                                      |                                     |
|-----------------|--------------------------------------|-------------------------------------|
| SSID            | <input type="text"/>                 | <input type="button" value="scan"/> |
| Encryption Mode | <input type="text" value="Disable"/> | <input type="button" value="save"/> |

- Click on scan to search for Wi-Fi SSID and select your Wi-Fi or manually enter the Wi-Fi SSID.

Please select the wireless network you are currently using

| Select                | Name                | Rss  |
|-----------------------|---------------------|------|
| <input type="radio"/> | MHioTLab            | -44% |
| <input type="radio"/> | MXCHIP_427622       | -44% |
| <input type="radio"/> | MHioTGuest          | -52% |
| <input type="radio"/> | MHioTGuest2         | -52% |
| <input type="radio"/> | wIO1                | -52% |
| <input type="radio"/> | MANN-HUMMEL-GUEST   | -53% |
| <input type="radio"/> | OurAir              | -53% |
| <input type="radio"/> | Ourair-F0FE6B96CC04 | -58% |
| <input type="radio"/> | MHioTLab            | -59% |
| <input type="radio"/> | wIM1                | -59% |



OK

refresh

- Enter Wi-Fi Encryption information and click save to save your settings.
- The device will restart to complete the Wi-Fi configuration.
- If the front LED is on, the Wi-Fi is connected successfully.

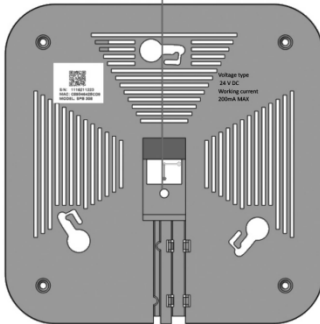
### Wi-Fi Setting

|                 |        |      |
|-----------------|--------|------|
| SSID            | OurAir | scan |
| Encryption Mode | Enable |      |
| Password        |        |      |
|                 |        | save |



**Caution:** It will take up to 3 seconds to restart the device. Please do not click on any other commands during reboot to avoid errors.

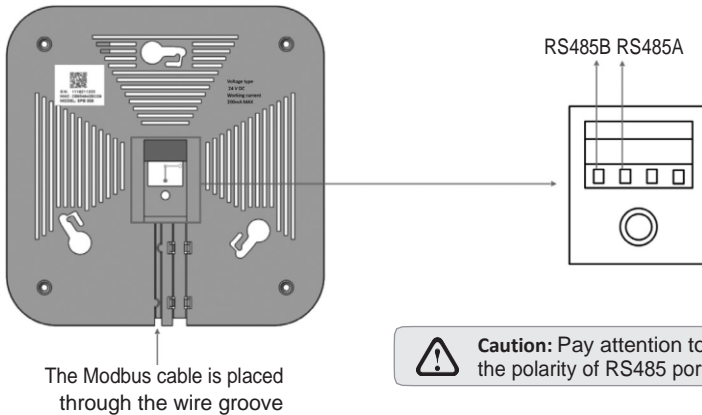
Wi-Fi configuration button



Tips: Press Wi-Fi configuration button for at least 5 seconds to reset the Wi-Fi setting

### 3.2 Modbus Connection

- Connect SPB308 to RS485 port with Modbus cable.



## 4. On-Boarding with the OurAir App

### 4.1 Download the OurAir App

- 1 For Android users, go to Google Play store to search and download the mobile application “OurAir” or scan the QR-Code.



- 2 For iPhone users, go to App store to search and download the mobile application “OurAir” or scan the QR-Code.



- 3 For China Android, go to Tencent store to search and download the mobile application “OurAir” or scan the QR-Code.



**Caution:** Your smart phone needs to meet the following criteria

- iOS system: version 8.0 +
- Android system: version 4.4 +



## 4.2 Using the OurAir App

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### Step 1. Log-in to the OurAir App only by Email

MANN+  
HUMMEL

NEXT >

WELCOME TO  
OURAIR!

Sign in by email

Email

or by a social account

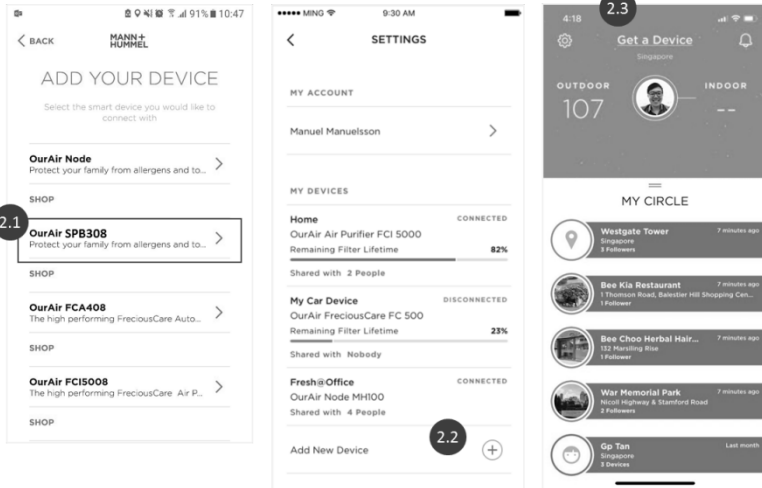
facebook

Back

## EN Step 2. Adding a device to your account

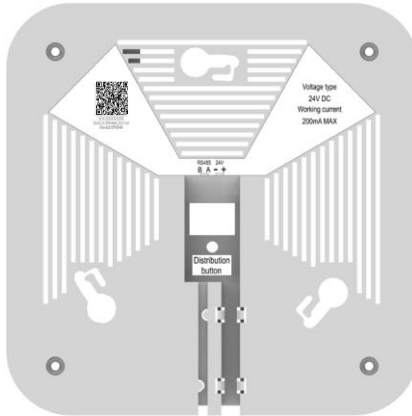
### Ways to add your first OurAir device

- 2.1 – After you’ve logged in successfully for the first time, you can select the device that you want to add
- 2.2 – Alternatively, you can go to the settings of the OurAir App and tap the “+” symbol to add new devices
- 2.3 – You can also add the device at the home screen (if no device was added previously)



### 4.3 Pair a Device with the OurAir App

- Scan the QR code with the OurAir APP to pair the device.



## 5. Limitation of Use

- The SPB308 is made for indoor application.
- The accuracy of the SPB308's readings can be influenced by the conditions of usage
- Do not use the SPB308 in dusty environments. Otherwise the sensitivity, accuracy and lifetime of the device will be affected seriously.
- The sensors and chips used in this device are high tech precision instruments; to minimize interference to the precision components, please prevent the unit from being exposed to high temperature, high humidity, combustible gases and liquids.
- Please prevent excessive exposure to ethanol, perfume, and alcohols. In addition, the rear side of monitor should be kept away from vents, cooking equipment, and humidifiers.

**EN**

- Normally, SPB308 need 30 minute to warm up.
- SPB308 is not intended to be used:
  - o For outdoor measurements
  - o Under extreme temperature or humidity condition
  - o Next to a source of heat or fire
  - o As a medical device or a substitute to any medical treatment.

## 6. Specification

|   |   |
|---|---|
| Material                                      | ABS plastic                               |
| Color   | White                                     |
| Connection                                    | Wi-Fi (2.4Ghz, 802.11b/g/n), Modbus RS485 |
| Operating Voltage                             | DC 24V                                    |
| Input current                                 | 200 mA                                    |
| Operating Temperature                         | 0 - 40°C                                  |
| Operating Humidity                            | 10 - 95% RH                               |
| TVOC measurement principle                    | MEMS metal oxide sensor technology        |
| TVOC measurement range                        | 125 - 600 ppb (relative)                  |
| PM2.5 measurement principle                   | Laser-based light scattering (mie)        |
| PM2.5 measurement range (PM2.5 concentration) | 1 - 500 µg/m <sup>3</sup>                 |
| CO2 measurement principle                     | Non-dispersive infrared                   |
| CO2 measurement range                         | 400 - 2000 ppm                            |
| Temperature measurement range                 | 0 - 40°C                                  |
| Relative humidity measurement range           | 0 - 99%                                   |
| Dimensions                                    | 131 * 131 * 45mm                          |
| Weight  | 400 g                                     |



**Caution:** Wi-Fi does not support 5.0GHz and/or 802.11n

## 7. Environment



Please play a part in preserving the environment by not discarding the indoor air quality monitor with usual household waste at the end of its lifespan. Please bring it in to a recycling collection point instead.

