WESTON
C L I M A T E

WALL MOUNTING VENTILATION SYSTEM
USER MANUAL | VERSION 1.0
INSTALLATION & OPERATION

SERIES BG MODEL

BG150 N
BG1 50N -F
BG150 R
BG150R-F

CONTENTS

☐   For BG150N/BG150N-F, there is no Extract Fan, Extract Filter and Heat / Energy Recovery Core in the unit

01/ SAFETY REQUIREMENT & WARNING

☐ Users should entrust professional HVAC engineers to carry out the ventilation system selection and engineering design, and hire experienced construction units to complete the construction of the project. The electrical, technical, design and construction shall be carried out in accordance with the relevant applicable local and national norms, standards and regulations. Users who do not meet the above conditions can complete the ventilation system installation by referring to the instructions in this manual. If the ventilation system is not installed according to the specified requirements, the ventilation system may not work properly

1.1 PrecautionforInstallation&Operation

☐ Keep the user manual properly throughout the entire service life of the ventilation system
☐ Read the user manual and the requirements carefully before installation or operation takes place
☐ Corresponding measures must be taken to prevent the occurrence of dangerous operations
☐ Do not disassemble, repair or modify the ventilation system at will without the advice of professional personnel
☐ It is necessary to buy the dedicated components from its supplier or maintenance department
☐ If there is gas leakage in the house, open the windows for ventilation, do not use the ventilation system
☐ Flammable materials that prone to fire should not be stored in the same area with the ventilation system
☐ Explosive substances or combustible objects should not be stored in the same area with the ventilation system
☐ Contact the supplier when there is abnormal operation from the ventilation system such as abnormal sound or smell
☐ Avoid the transferred air flows in contact with the fire sources such as open flame, oils or chemicals
☐ Air duct should not be blocked when the ventilation system is operating
☐ Avoid direct sunlight or wet conditions to the ventilation system, keep it in dry and ventilated area
☐ Installation, operation, maintenance should be carried out by well trained and qualified expert
☐ If the outdoor dust is too much such as during sandstorm weather, do not use the ventilation system for ventilation
☐ Incorrect wiring or operation will lead to serious damage to the ventilation system and personal safety accidents
☐ Make sure that the power supply is disconnected before removing the protective case, installation or operation
☐ Do not wet the ventilation system, control panel or other parts during installation, operation or maintenance
☐ Children or persons with reduced physical, mental or sensory capacities should not be allowed to operate
☐ Use of tools or materials should meet the specific requirements for installation

02/ VENTILATION UNIT MODEL

2.1 Delivery Set

VENTILATION UNIT - 1 PC
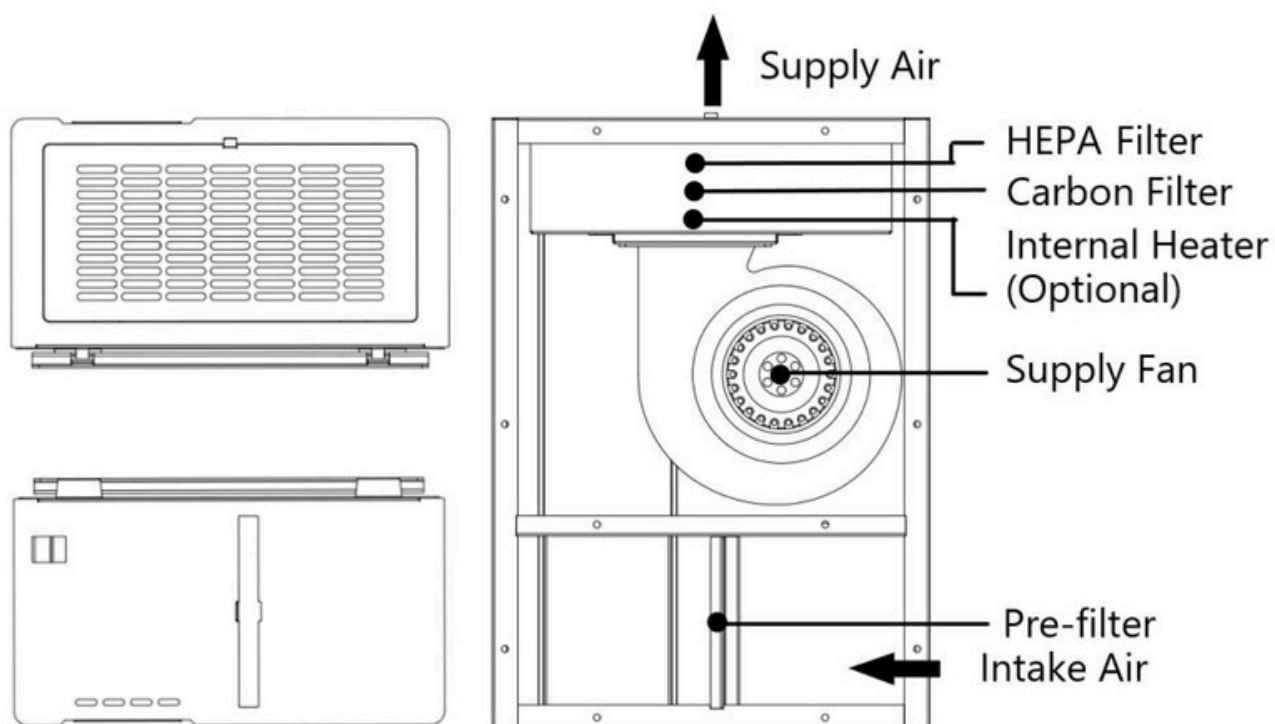INSTALLATION KIT - 1 SET
USER MANUAL - 1 PC

2.2 Technical Specification

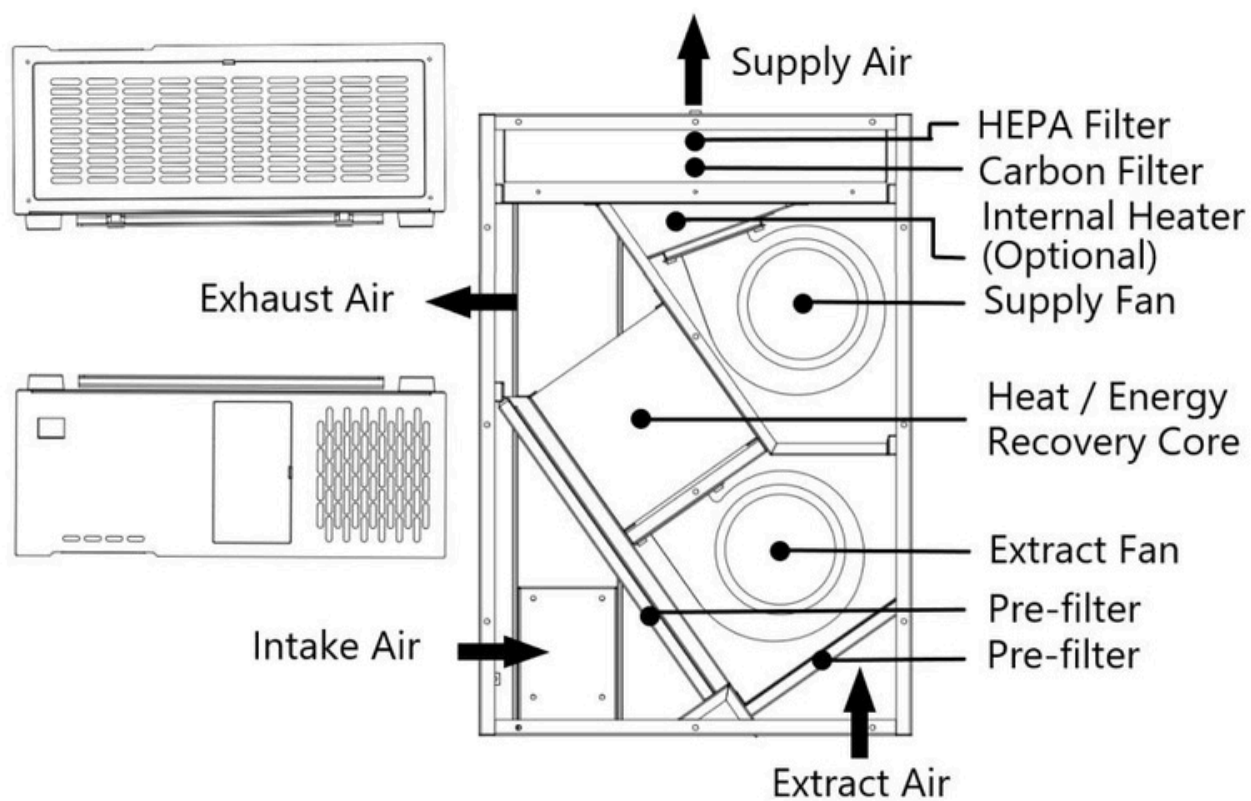| Model	BG 150N	BG1 50N -F
Max. Airflow [m3/h]	150	150
Rated Max. Power [230V~50Hz]	36W,0.28A	36W,0.28A
Power Input Range	200-240V~, 50/60Hz	200-240V~, 50/60Hz
Internal Heater Power	N/A	200W
Weight [kg]	11	11
Extract Filter	N/A	N/A
Supply Filter	Pre-filter + Carbon + HEPA	Pre-filter + Carbon + HEPA
Internal Insulation Material	Polyethylene Foam	Polyethylene Foam
Case Material	Coated Sheet Steel	Coated Sheet Steel
Transferred Air Temperature [°C]	(-25 to +50)	(-25 to +50)
Operating Ambient Temperature [°C]	(+5 to +40)	(+5 to +40)
Operating Ambient Relative Humidity [%]	<80	<80
Connected Air Duct Diameter [mm]	110	110

Model	BG150 R	BG150R-F
Max. Airflow [m3/h]	150	150
Rated Max. Power [230V~50Hz]	60W,0.4A	60W,0.4A
Power Input Range	200-240V~, 50/60Hz	200-240V~, 50/60Hz
Internal Heater Power	N/A	200W
Weight [kg]	19	19
Extract Filter	Pre-filter	Pre-filter
Supply Filter	Pre-filter + Carbon + HEPA	Pre-filter + Carbon + HEPA
Internal Insulation Material	Polyethylene Foam	Polyethylene Foam
Case Material	Coated Sheet Steel	Coated Sheet Steel
Transferred Air Temperature [°C]	(-25 to +50)	(-25 to +50)
Operating Ambient Temperature [°C]	(+5 to +40)	(+5 to +40)
Operating Ambient Relative Humidity [%]	<80	<80
Connected Air Duct Diameter [mm]	110	110

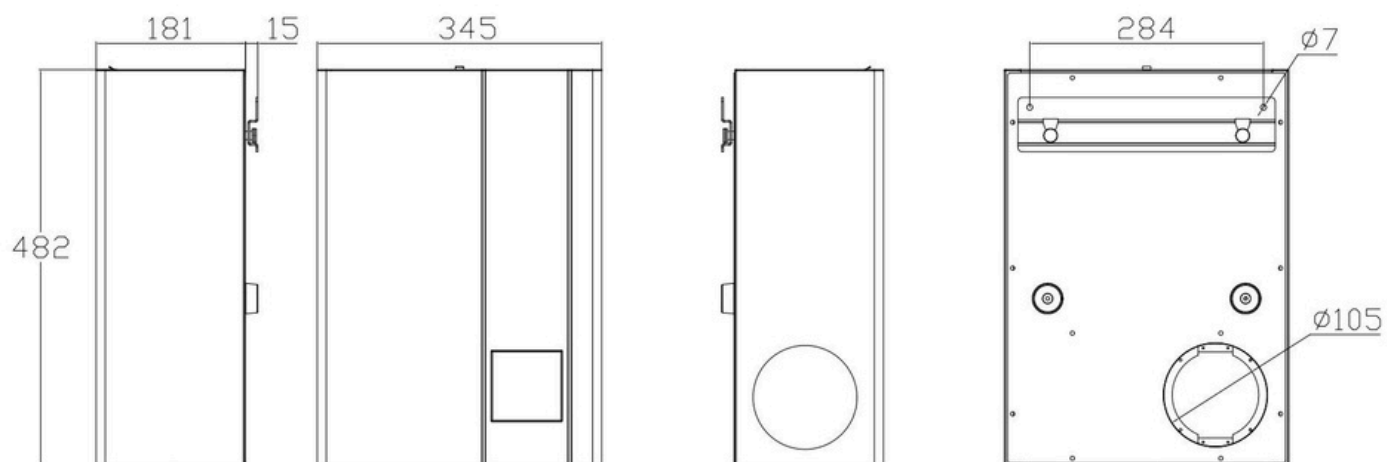## 2.3 Product Structure

☐ BG150N / BG150N-F

Supply Air

- HEPA Filter
- Carbon Filter
- Internal Heater (Optional)
- Supply Fan
- Pre-filter
  Intake Air

☐ BG150R / BG150R-F

Supply Air

- HEPA Filter
- Carbon Filter
- Internal Heater (Optional)
- Supply Fan
- Heat / Energy Recovery Core
- Extract Fan
- Pre-filter
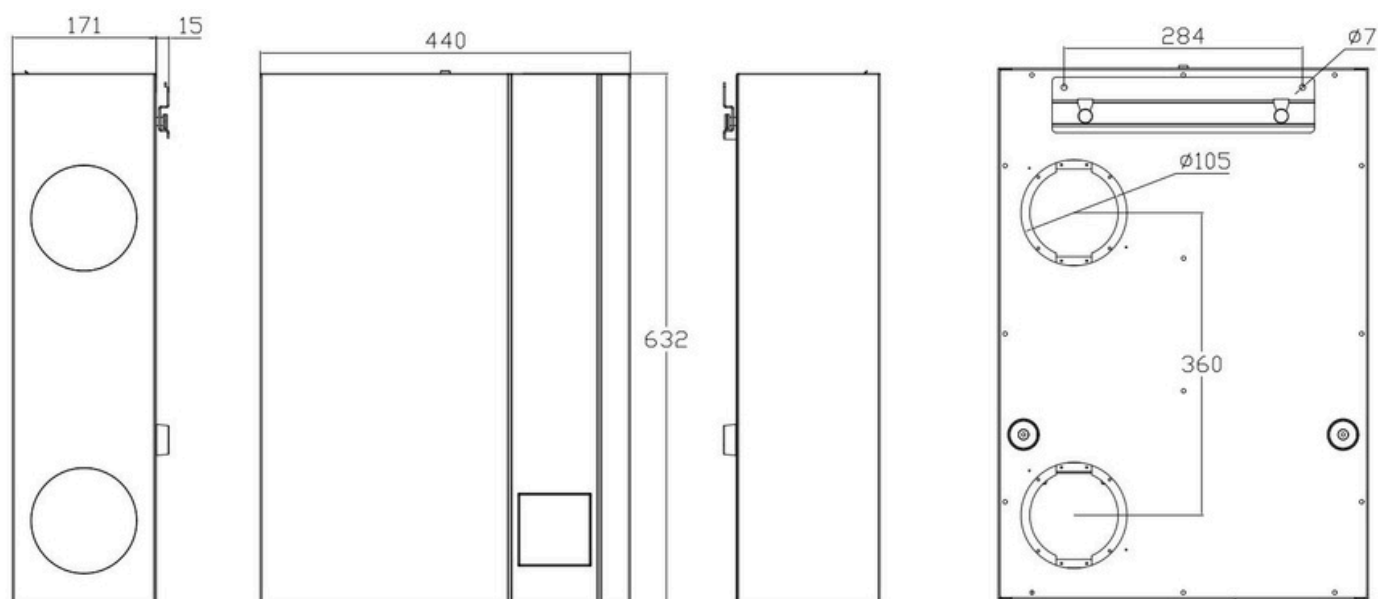- Pre-filter

Exhaust Air

Intake Air

Extract Air

2.4 Overall Dimension

- Dimension in (mm)

- BG150N / BG150N-F

- BG150R / BG150R-F

03/ INSTALLATION INSTRUCTION & OPERATION GUIDE

Control Panel

☐   Before installing or maintaining the system, main power must be turned OFF to avoid personal injury due to electric shock

☐   Wiring should be strictly in accordance with the cable configuration requirements

☐   Protective measures must be taken to prevent the ventilation system failure, risk of electric shock and fire

Function description of touch buttons on the main interface:

1. [icon] : Power on/off

2. [Fan icon] : Fan speed key (stop, low, medium, high, four fan speed states)

3. [Manual icon] : Working mode key (manual, automatic, timing, three working modes)

4. [Heater icon] : Heater key

5. [Set icon] : Setup Menu

Note: In the automatic mode, the fan speed is switched according to the sensor data. In the timing mode, the fan is switched on and off according to the timing time. When the timing is the shutdown time, the fan is stopped, the fan operates according to the manual fan speed when the timing is power on time.

Display description:

1. Maininterface:

Turn on the controller and enter the main display interface, which displays indoor PM2.5 / CO2 / VOC. There is WIFI icon display when connected to the Internet.

Indoor air quality: excellent, good, medium, poor (the air quality level changes according to the secondary interface sensor setting parameters. The larger the sensor data, the air quality will display the air quality level based on the maximum sensor data. The larger the air quality level, the worse the air quality will be.)
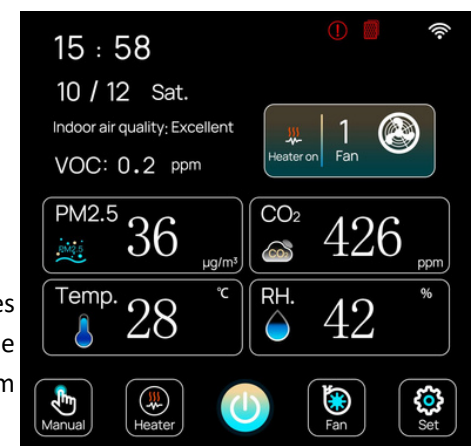
2. Menusettinginterface:

Press the set button in the main interface to enter the setting selection interface. The setting interface includes language selection, backlight setting, WIFI network configuration, time parameter configuration, filter setting, ModBus device address configuration, sensor data configuration under automatic mode control, and fault viewing.
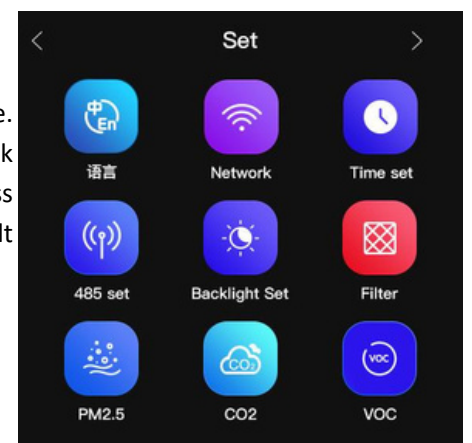
3. WIFIsettinginterface:

In the WIFI settings interface, use your phone to scan the QR code. Download and install the application, and complete the setting sequence under the guide in the application. Press and hold the network distribution button on the right until the WIFI icon in the network distribution button flashes quickly. Click the "+" at the top right corner of the APP to manually add the ventilation system. Follow the prompts to enter the connection status. When WIFI is connected to the device, there will be a prompt "The device is connected to the cloud platform" below the QR code.

4. Dateparameterinterface:
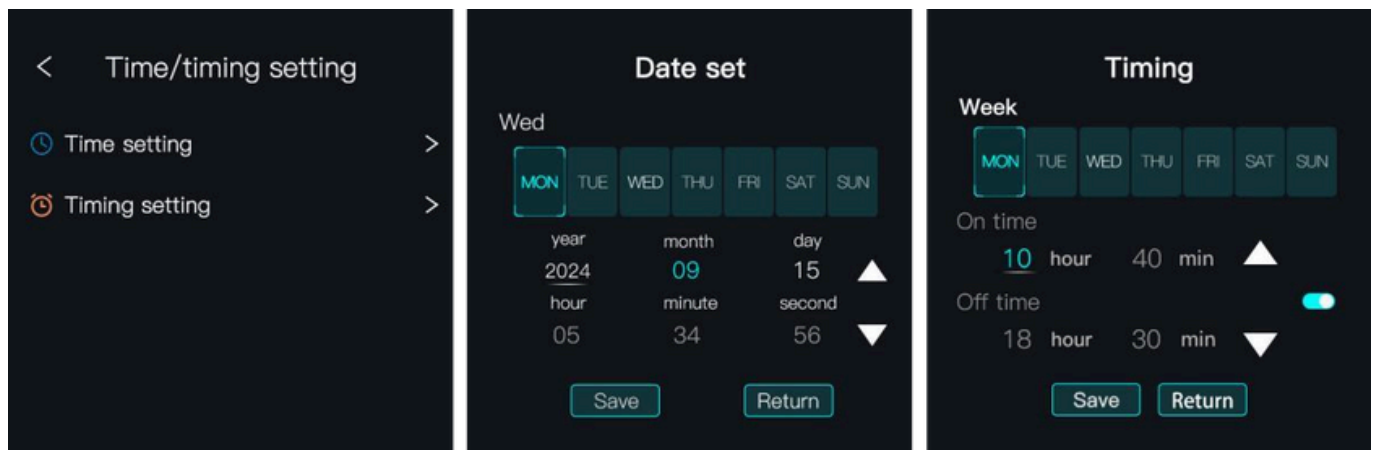
Touch the time to be set on the date interface, and then press the plus and minus keys to modify the time. After the modification is completed, press the save key to save, and press the return key to return to the previous interface.

In the timing parameter setting interface, press Monday to Sunday respectively to select whether to turn on or off the timing state for the corresponding timing time of the week.

If the timing button is turned off, the fan will run at manual speed.

If you turn on the button corresponding to the day of the week, the fan will run at the manually set fan speed according to the startup time and turn off the fan according to the shutdown time. (The timing power-on time and timing power-off time are not to switch the whole controller, but to run the fan and stop the fan).

After setting the timing parameters, press the save key to save and return to the previous interface.

5. Backlightparametersettinginterface:

The brightness can be adjusted in the backlight parameter setting interface. After adjustment, press the save key to save.
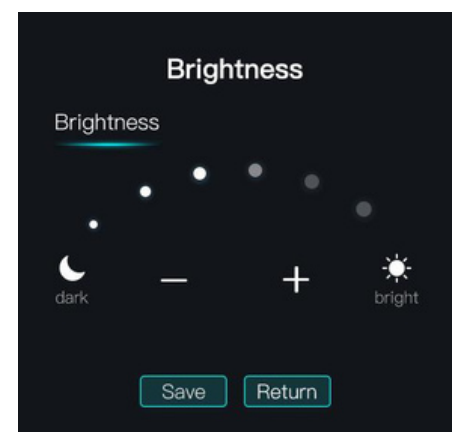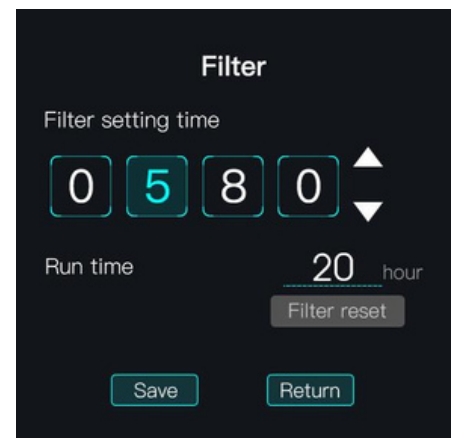
6. RS485settinginterface:

Modbus slave address setting, setting range 1-254, press the save key to save after setting.

7. Filtertimesettinginterface:

In the filter time setting interface, the filter initial time (filter life) setting range is 1-9999 hours. Displays the working time of the filter. Press the Filter reset button to clear the working time of the filter. If the working time of the filter is greater than or equal to the filter life setting time, a small red filter alarm icon will be displayed in the upper right corner of the main interface.

8. CO2parametersettinginterface:

In the CO2 parameter setting interface, set return value, low, medium and high value. When the CO2 value switch button is turned on, the fan will switch to the fan speed according to the CO2 value in the automatic mode. When it is turned off, the fan will not be affected by the CO2 value in the automatic mode.
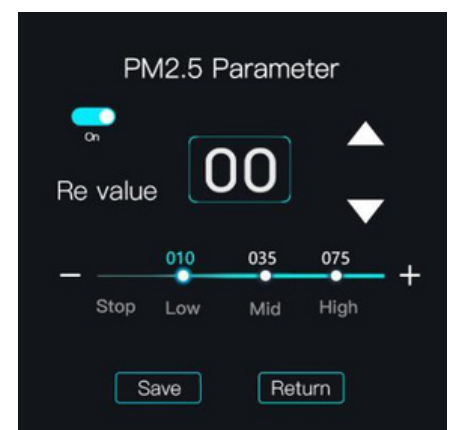
When the CO2 button is turned on, in the automatic mode, the CO2 value is greater than the set value, the fan operates at the corresponding speed, when the fan speed changes from high speed to low speed, CO2 value should be lower than setting value minus return value.

9. PM2.5parametersettinginterface:

In the PM2.5 parameter setting interface, set return value, low, medium and high value. When the PM2.5 value switch button is turned on, the fan will switch to the fan speed according to the PM2.5 value in the automatic mode. When it is turned off, the fan will not be affected by the PM2.5 value in the automatic mode.

When the PM2.5 button is turned on, in the automatic mode, the PM2.5 value is greater than the set value, the fan operates at the corresponding speed, when the fan speed changes from high speed to low speed, PM2.5 value should be lower than setting value minus return value.

10. VOCparametersettinginterface:

In the VOC parameter setting interface, set return value, low, medium and high value. When the VOC value switch button is turned on, the fan will switch to the fan speed according to the VOC value in the automatic mode. When it is turned off, the fan will not be affected by the VOC value in the automatic mode.

When the VOC button is turned on, in the automatic mode, the VOC value is greater than the set value, the fan operates at the corresponding speed, when the fan speed changes from high speed to low speed, VOC value should be lower than setting value minus return value.
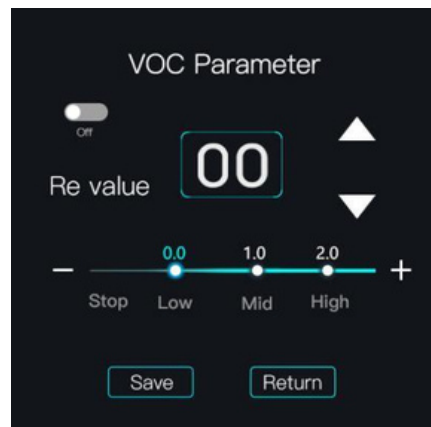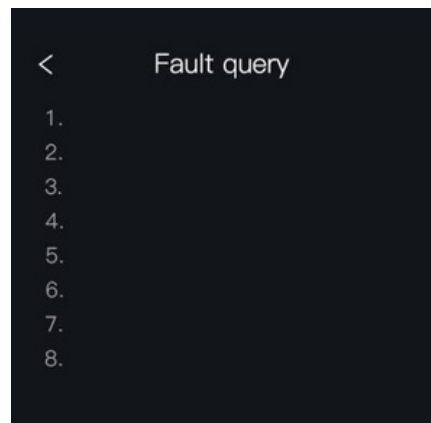
11. Languageswitchsettinginterface:

Language selection, you can choose Chinese or English.
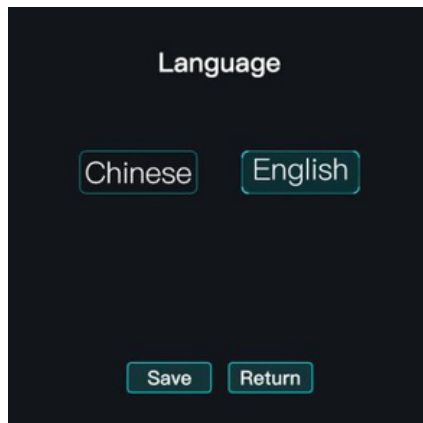
12. Faultinterface:

When there is a fault, a small fault icon will be displayed in the upper right corner of the main interface. When there is no fault, the small icon will not be displayed.

13. Press the return key in the menu interface to return to the previous interface. In the non WIFI setting interface, it will automatically return to the main interface after 1 minute of no operation.

14. Ifthereisnokeyoperationfor1minuteonthemaininterface,thescreenwillturnoff.Whenthescreenisturnedoff, when touch the screen, the backlight will light up again.

15. ThiscontrollerisconnectedtoRS485communication.

16. Thedevice485addresscanbemodified.Thedeviceaddressrangeis1~254.Thedefaultvalueis1.

17. PM2.5 will enter intermittent operation if there is no key operation for 10 minutes. During intermittent operation, PM2.5 is turned on for 60 seconds and off for 4 minutes.

3.1 Installation of the Ventilation System

☐ Choose whether the port(s) on the back or on the side of the unit for installation of duct, remove the cap(s) on the side of the unit for installation if necessary, in case the port(s) on the side is(are) used, place the cap(s) to the port(s) on the back of the unit. When remove the cap(s), open the service panel at the back of the unit and push the cap(s) out from inside the unit

First Step: Positioning

1. Chooseawallwithstrong,noteasilysubjectedtovibrationandenoughtobeartheweightoftheunit
2. Measuretheheightforinstallation
3. Placethepositioningpaperonthewallinthecorrectposition
4. Markthepositionsfordrillingtwoexpansionscrewholesandoneortwoducthole(s)

Second Step: Installing the wall mounting bracket

1. Removethepositioningpaper
2. Useatwistdrilltodrilltwoexpansionscrewholesonthemarkedpositionsofwheretheexpansionscrewsshouldbe installed, install the expansion screws correctly
3. Usetheexpansionscrewstofixthewallmountingbracket,notethatthescrewheadsandthewallshouldleaveabout 5mm space

Third Step: Drilling the duct hole(s)

1. When installing in a refurbished place, to prevent the cement and dust from flying around when drilling, installer should use the dust-proof and water-proof bags or plastic film and tape to conduct pasting protection
2. Drillingoperationtakesplaceattheducthole(s)markedonthewall(thediameterofthehole(s)is(are)about 125mm-135mm). Pay attention that the drilling for the duct hole(s) should be tilting horizontally downward of a level of 5 degrees, so that the indoor side of the hole(s) are slightly higher than the outdoor side of the hole(s)

Fourth Step: Installing the air duct(s)

1. Pushtheairduct(s)intothedrilledducthole(s)fromtheinner wall
2. Push the air duct(s) completely into the duct hole(s)
3. Pullbacktheairduct(s)iftheairduct(s)havepassedthroughthe wall so the hood sticks to the wall tightly, put on the expansion glue and cover the flange
4. Cutofftheunnecessarybitandmaketheairduct(s)evenonthe inner wall

☐ If other hood is used, follow the corresponding methods for installation
☐ The right side of the diagrams is the outdoor side
☐ The left side of the diagrams is the indoor side
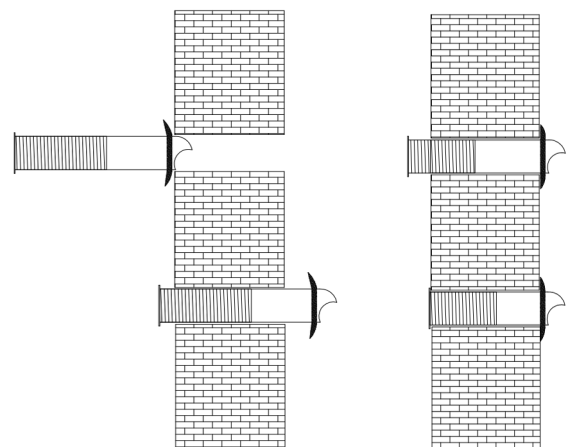
Fifth Step: Mounting the ventilation system

1. Theventilationsystemismountedonthetwoholesofthewallmountingbracketwiththemountingnutsontheback of the ventilation system. Note that the air duct(s) should be attached to the air inlet (and air outlet if there is) of the ventilation system
2. Ensurethattheventilationsystemisfixedandstable

Sixth Step: Testing the ventilation system

1. Pluginthepowersupply,startrunning,andcheckwhethertheventilationsystemoperatessmoothlyandnormally
2. Makesurethereisnoabnormalvibrationorsound

04/ FILTER MAINTAINENCE GUIDE

☐   For BG150N/BG150N-F, there is no Extract Fan, Extract Filter and Heat / Energy Recovery Core in the unit

☐   Regular filter maintenance is recommended in order to maintain the best ventilation efficiency. Different filter maintenance intervals are stated as followings (affected by actual environmental factors, the cleaning cycle and service life of the filter will be subject to change)

☐   Ventilation system must be equipped with filter for operation, otherwise, the dust will block the heat / energy recovery core or the fan, causing the ventilation system failure

☐   Turn OFF the ventilation system and disconnect the power supply before maintenance

☐   Note that the label of the filter should be facing out when placing it back to its original position

4.1 Pre-filter Wash Cleaning & Replacement Guide

☐   Maintenance method (clean and replace)
☐   Recommended maintenance cycle (3 months)
☐   Wash cleaning of the pre-filter is allowed

☐   Replacement
Step 1: Open the filter panel at the bottom of the unit
Step 2: Remove the filter from the unit
Step 3: Insert a new filter back to its original position (the original direction of the filter must be placed correctly)
Step 4: Close the filter panel

4.2 Carbon Filter Replacement Guide

☐   Maintenance method (replace)
☐   Recommended maintenance cycle (6 months)

☐   Replacement
Step 1: Open the filter panel at the top of the unit
Step 2: Remove the filter from the unit
Step 3: Insert a new filter back to its original position (the original direction of the filter must be placed correctly)
Step 4: Close the filter panel

4.3 HEPA Filter Vacuum Cleaning & Replacement Guide

☐   Maintenance method (clean and replace)
☐   Recommended maintenance cycle (12 months)
☐   Vacuum cleaning of the HEPA filter is allowed

☐   Replacement
Step 1: Open the filter panel at the top of the unit
Step 2: Remove the filter from the unit
Step 3: Insert a new filter back to its original position (the original direction of the filter must be placed correctly)
Step 4: Close the filter panel

☐   If you have any specific problems during the use or maintenance of this product, contact the supplier or the maintenance department. Measures shall be taken after approval, otherwise the company will not be responsible for the consequences caused by the user's unauthorized changes

☐   The company will not bear any responsibility for the adverse consequences caused by the user's modification of the ventilation unit or the electronic control system without the permission of the company

☐   Due to the failure to install or use the ventilation system as required, the company will charge corresponding fees for the after-sales service

☐   The contents of this user manual and the specifications of this product are subject to change without prior notice
☐   Contact us if you have questions regarding the configurations of this product

☐   The schematic diagram in this user manual is subject to the actual object

WARNING: DO NOT DISPOSE THE VENTILATION SYSTEM OR THE CONTROL PANEL OR THE ACCESSORIES IN DOMESTIC WASTE. PART OF THE PRODUCT MATERIALS CAN BE RECYCLED AND PART OF THE PRODUCT MATERIALS SHOULD NOT BE DISPOSED IN DOMESTIC WASTE. AT THE END OF THE SERVICE LIFE OF THE PRODUCT, PLEASE DISPOSE ACCORDING TO THE RELEVANT NATIONAL REGULATIONS

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