

APOLLO

Wall Mounted Energy Recovery Ventilator

— CO₂ Sensor Version —



Multiple HEPA purification



Indoor & outdoor air filtration



High efficiency heat and humidity recovery



Indoor slight positive pressure



High efficiency fans with DC motors



Remote control



CO₂ monitoring



Easy installation





Delivering a healthy indoor environment

The indoor air can be many times worse than outdoor air. Exchange your indoor air with Klimavex. In the pursuit of keeping our homes insulated and energy efficient we have also sealed in molds, bacteria, fungus, VOCs, allergens, carbon dioxide and carbon monoxide, all inevitably contributing to the potential for illness.

Between home, work and school, 90% of our lives are lived indoors. That's why the quality of your indoor air is of utmost importance. Klimavex wall mounted ductless energy recovery ventilator will remove the indoor polluted air with ease and provide a constant supply of clean filtered air, allowing you and your family to live in an ideal indoor environment.



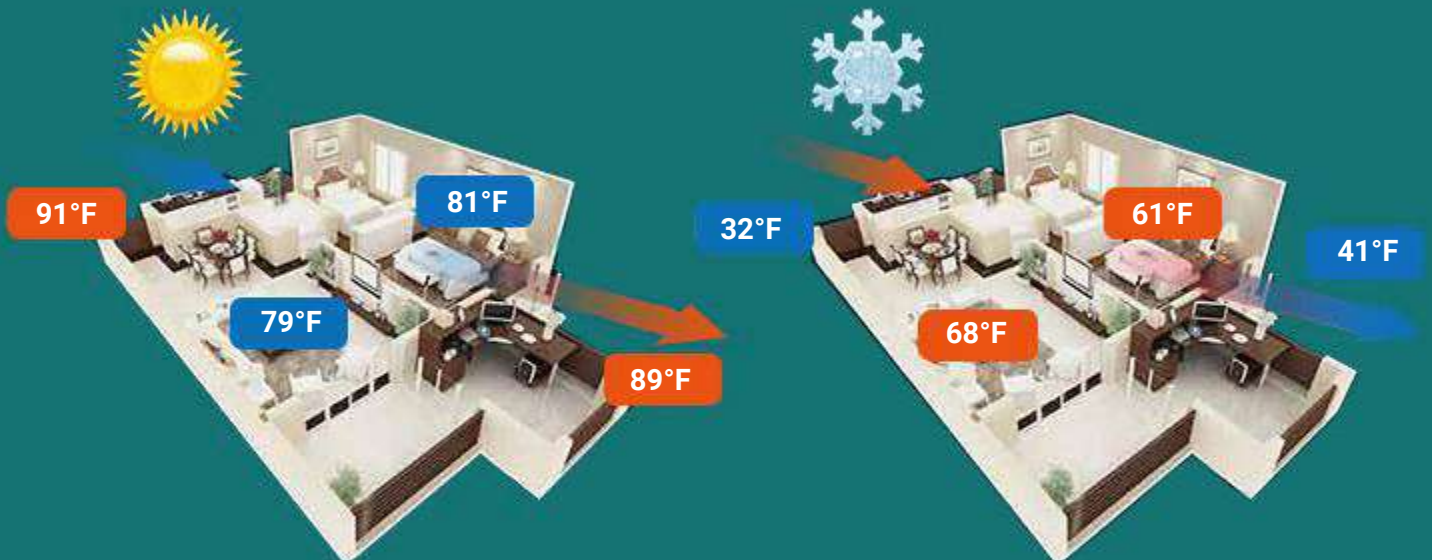
Reducing the electric bills

Struggling with high electricity bills by using the air conditioner and wanna lower energy bill? Most ventilation systems drive up heating and cooling costs while decreasing indoor comfort. Much like venting a room by opening a window, ventilation systems can degrade energy performance because they expel air without capturing the heat. ERV systems conserve energy, lowering electric bills.

The ERV reduces the costs of heating ventilated air in the winter by transferring heat from the warm inside exhaust air to the fresh (but cold) outside supply air. In the summer, the inside air cools the warmer supply air to reduce cooling costs.

The heat from the exhaust air is transferred to the incoming air via a heat exchanger. The heat recovery efficiency is up to 82%. The ERV saves energy up to 30% compared to natural ventilation. This also helps reduce the size of the HVAC equipment needed because it doesn't have to work as hard to heat and cool when the intake air is conditioned by the ERV unit.

Because the ERV transfers some of the moisture from the exhaust air to the usually less humid incoming winter air, the humidity of the house air stays more constant. This also keeps the heat exchanger core warmer, minimizing problems with freezing.



WALL MOUNTED ENERGYRECOVERY VENTILATOR



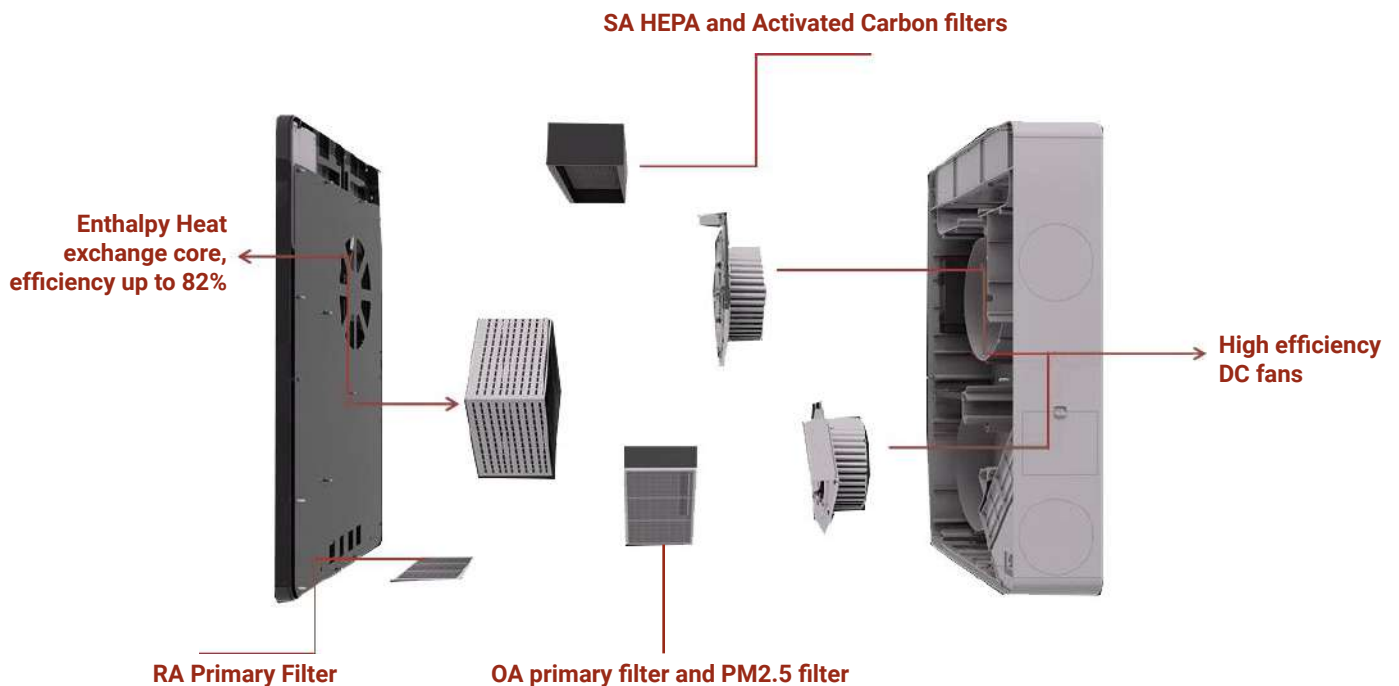
DUCTLESS TYPE ENERGY RECOVERY VENTILATOR

The single room ERV is designed for both residential and commercial spaces. It's ductless design, suitable for easy and high-efficient ventilation in the new or retrofitting buildings no need to run ducts anywhere in the room.

FEATURES

- Easy installation to supply and exhaust ventilation for single room size 10-50m²
- Heat recovery efficiency up to 82%
- Brushless DC motor with low energy consumption, 8 speeds
- Silent operation noise (22.6-37.9dBA)
- Indoor air quality monitor (humidity + temperature + CO₂)
- Supply air purification with primary filter+medium filter+HEPA filter(H10) with activated carbon filter as standard, the PM2.5 purification efficiency is up to 99%.
- Thin and light weight and compact size
- Two kinds of installation to suit room
- Slight positive ventilation to ensure fresh air won't come through doors or windows without purification.
- Smart phone control Android / IOS

DESIGN



CASING

The casing is integrated with a seamless and leakproof ABS frame made by molding. It has good quality of high strength, light weight, good insulation, smooth surface and easy to clean. The upper panel ensures convenient access to the replacement of HEPA filter and activated carbon filter. The OA primary filter and medium filter are at the side of the ventilator while RA primary filter is at the bottom of the unit. The unit has two inlets and outlet spigot with a diameter of 4in for fresh air intake and stale air outlet.

AIR FILTRATION

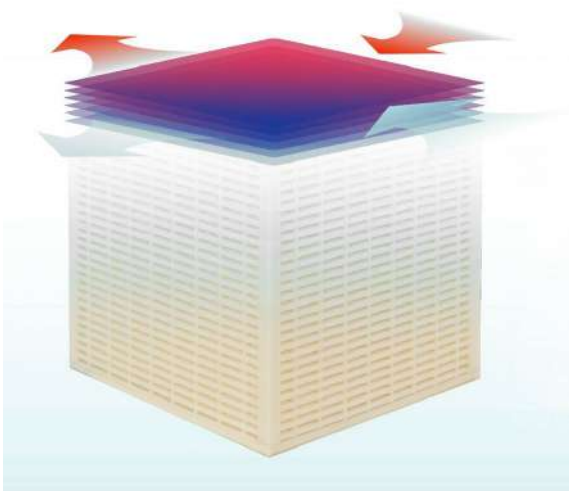
The primary filter, F5 filter, the HEPA H10 filter, and activated carbon filters are included at the supply air side. The purification efficiency of PM2.5 is up to 99%. The primary filter is included in the extract air side. Both primary filters are washed and durable for use for a long time. It can reduce the maintenance costs of the unit.



FANS

The unit takes advantage of using brushless DC motors and 8-speed regulation for supply air and exhaust air. It freely adjusts the air supply volume slightly larger than the exhaust air volume to form a slight positive pressure in the room to ensure that no pollutants can penetrate into the gaps such as windows and doors. The DC motor has strong vibration resistance with lower noise and smooth operation, good reliability and stability.

ENTHALPY HEAT EXCHANGER (HEAT AND HUMIDITY RECOVERY)



The model ERVQ-B150-1B1 unit is equipped with a crossflow heat exchanger with enthalpy membrane. The membrane is made of imported pulp by special processing methods and adding some inorganic materials and fire retardant, to keep the heat exchange paper thin while maintaining high heat transmissibility, anti-tear properties, fireproof and keep the corrugated paper stiff and strong but thin.

Enthalpy heat exchanger was coated with a hygroscopic agent with high absorption and release ability on the surface. The small particle diameter water moisture molecule can pass while the bigger particle diameter like harmful gas or peculiar smell gas molecules can't pass, to make sure heat exchanger paper has strong penetrability, good selective ability and air tightness.

TECHNICAL DATA

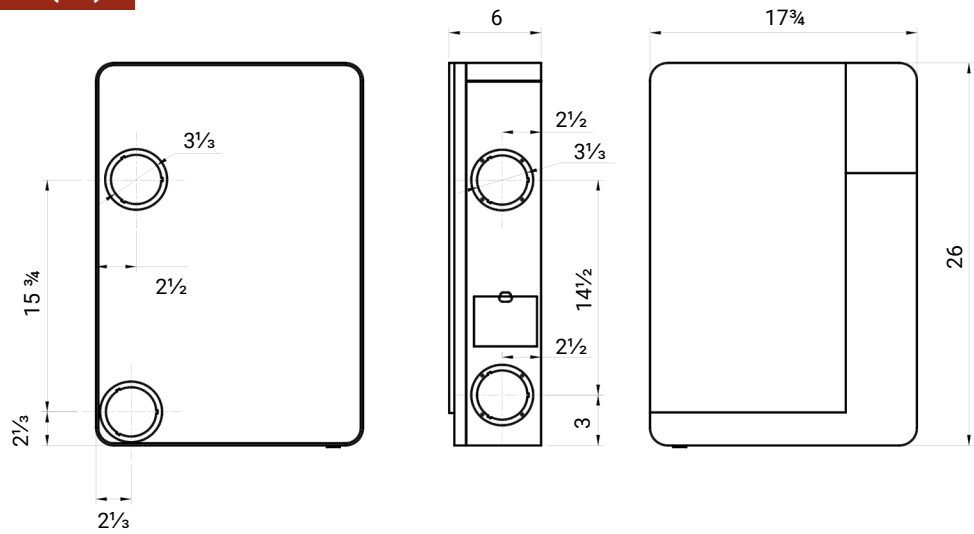
TECHNICAL PARAMETERS

Model	ERVQ-B150 -1B1							
Speed	1	2	3	4	5	6	7	8
Supply Airflow [ft ³ /h]	1765	2260	2755	3249	3743	4238	4732	5297
Voltage [V/50(60)Hz]	1~110-240							
Max. unit power [W]	12.6	16.9	18.1	2.9	25.2	29.2	34.2	43.8
Max. unit current [A]	0.16	0.18	0.19	0.21	0.24	0.27	0.31	0.37
Sound pressure level at 1.5 m distance [dBA]	22.6	25.1	27.7	29.7	31.7	33.1	35.1	37.9
Transported air temperature [°F]	59~104							
Casing material	ABS							
Motor Type	DC Type							
Filtration efficiency [%]	99% HEPA							
Filtration mode	Pure High, Pure Medium, Pure Low							
Temperature efficiency [%]	82							
Enthalpy efficiency (heating) [%]	58							
Enthalpy efficiency (Cooling) [%]	52							
Control	Touch Screen Panel / Remote control							
Air quality display	CO ₂ , Temperature and Relative Humidity							
Operational Mode	Manual / Auto / Timer / Sleep							
Suitable room size [ft ²]	215-484							
Dimension [inch*]	450*155*660 17¾*6*26							
Weight [lb]	22.05							

ECODESIGN INFORMATION

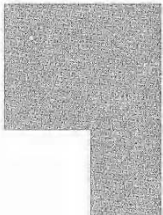
Model	ERVQ-B150 -1B1					
Specific energy consumption (SEC) [kWh/(m ² .a)]	Cold		Average		Warm	
	-88.8	A+	-45.17	A+	-20.14	E
Type of ventilation unit	Bidirectional					
Type of drive installed	Eight speed					
Type of heat recovery system	Recuperative					
Thermal efficiency of heat recovery [%]	82%					
Maximum airflow rate [ft ³ /h]	5297					
Power [W]	43.8					
Sound power level [dBA]	37.9					
Reference airflow rate [ft ³ /s]	1.4726					
Reference pressure difference [Pa]	0					
Specific power input (SPI) [W/(ft ³ /h)]	10.312					
Control typology	Local demand control					
Maximum internal leakage rate [%]	3.5					
Maximum external leakage rate [%]	5					
Mixing rate of bidirectional units [%]	20					
Airflow sensitivity at +20Pa and -20Pa	27					
The classification of the indoor/outdoor air tightness [f ³ /h]	247					

DIMENSIONS (IN)



INSTALLATION ACCESSORIES

The package has included all the accessories needed for the installation.
User don't need to prepare extra accessories and save costs.

			
Installation panel 1 pc	Power cable 1 pc	Remote control 1 pc	PVC Ducts 2 pcs
			
OA and EA Side/Back cover 2 pcs	Air vent flange 2pcs	Air inlet grille 1 pc	Air outlet grille 1 pc
			
Rain proof cover 2 pcs	Rubber sealing ring 2 pcs	Back seal ring 2 pcs	Side sealing ring 2 pcs
			
Knock-on anchor bolt 5 sets	Screws M3x6 and Nut M3 8sets	Tapping screws 4 pcs	Back plate insulation foam

INSTALLATION ACCESSORIES

Fresh Air supply to indoor



Exhaust air to outdoor

Take fresh air from outdoor

Extract air from indoor

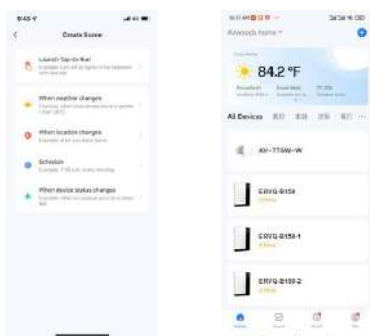
CONTROL

- The touch screen control panel
- The remote control is supplied as standard
- Wi-Fi communication
- Controlled by Android or iOS smartphone or tablet.



SCENE CONTROL

User can create the scene according to the weather changes, schedule or the device status changes. For example, when the weather shows the outdoor relative humidity is higher than 85%, user can set the ventilator to stop running, to prevent the outdoor humidity coming inside. On the other hand, users can add the devices with Tuya APP to their home screen. For example, they can add all the single room ventilator, exhaust fans or light switches in the APP and control them at their will.



INSTALLATION ACCESSORIES



1. The upper left corner is the WIFI connection status.
2. The upper right corner of the screen is the clock or timing status.
3. The upper central part of the screen is the current indoor CO₂ concentration / PM2.5 value.
4. The lower left side of the screen is the current room temperature and humidity values.
5. The lower right side of the screen is the current operation speed of the device.
6. At the bottom of the screen are three adjustable buttons.
7. "Auto", "Manual", "Timing", "Sleep", "PURE-L", "PURE-M", and "PURE-H" are mode indication.

APP CONTROL

- Speed change over
- Filter replacement indication
- Alarm indication
- Speed setting
- Timer
- Weekly schedule
- Group control
- Scene control

SMART LIFE app is available at Google Play market and App Store



GROUP CONTROL

The ventilator can create group control at the APP, the quantity is not limited. User can control all the ventilator in the group easily.



WIFI FUNCTION

Installation of "Smart Life"

1. If your phone is Android system, please search and download the APP of "Smart Life" from Google play, while the IOS system can download it from the Apple App Store.



2. Or scan the below QR code to download.



Operation Instruction

1. Registration and log-in

If you do not have an account of "Smart Life", please register and log in by following the processes:

- Click "agree" when "User Agreement and Privacy Policy" appear on the interface.
- Click "Sign up" button, choose your country and enter your mobile number/email to register, tick "I Agree User Agreement and Privacy Policy", then click "Get Verification Code" button, the phone you're registering will receive a registration verification code;
- Enter the verification code, fill in the password, you will get into the homepage of the App or back to the log-in interface to log-in the app by using the account you registered.

2. Adding new device

- Make sure your phone is connected to WIFI(2.4G network only, does not support 5G network or any others), click the "+" at the upper right corner in the homepage, entering into network matching.
- After entering, long press "On/Off + Speed" button when the ventilator is ON, until the WIFI symbol on the display screen flashes. (Fast flashing refers to WIFI connection, slow flashing refers to hotspot network.)
- Choose "Small Home appliance" in the network matching interface, slip downward to find "Ventilation System (Zigbee)", shown as below. After entering into WIFI network matching interface, operate according to the instructions step by step, until network matched successfully, please pay some patience during the network matching.



**Ventilation
System (Zigbee)**

3. Controlling operation

Entering into the homepage of the App, click the "On/Off" button to control the running status of the ventilator, click "Speed" button to adjust the airflow (Different models correspond to different operations, please operate accordingly based on your purchased model).

4. Modify the device name

- Click the  symbol at the upper right corner in the homepage, enter into the home-page menu.
- Click the  symbol, entering into the setting interface, click "name" button to modify your desired name, then click "Save" button.

5. Device authorization and sharing

- The 1st person binding to the device enters into the device menu(as instructed on 4. Modify the device name), then clicks "device sharing"
- Enter into the sharing menu, and enter the account number that you want to share, click "Done".
- The shared user account appears on the menu if the sharing is successful.

6. Device deletion (unbinding)

- Enter into the device menu(as instructed on 4. Modify the device name), then click "device removing".
- Click "Removing Binding", followed by "confirm", the device can be unbinding.

7. User information editing

- Click "I" on the bottom right corner of the homepage.
- Click on the picture above to enter the user information page
- After entering into the user information page, you can modify the user information, including avatar, user name (nickname, account number, and security, etc.)

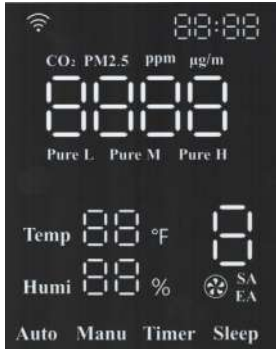
8. Sign out

- Click "Me" on the bottom right corner of the homepage, then click "setting" button.
- Select "Sign out at the bottom to logout.

Comprehensive Timely Monitoring, Intelligent Multiple Purification Modes Switch

Original function of "Pure L""Pure M""Pure H", 30mins quick deeply clean

USER MANUAL OF THE MAIN INTERFACE OF DISPLAY SCREEN



1. The upper left corner is the WIFI connection status, devices that are not equipped with WIFI symbol do not display;
2. The upper right corner of the screen is the clock or timing status.
3. The upper central part of the screen is the current indoor CO₂ concentration / PM2.5 value.
4. The lower left side of the screen is the current room temperature and humidity values.
5. The lower right side of the screen is the current operation speed of the device.
6. At the bottom of the screen are three adjustable buttons.
7. "Auto" "Manual" "Timing" "Sleep" "PURE-L" "PURE-M" and "PURE-H" are mode indication.

Timely display of CO₂,
temperature and hu-
midity

Manual/Auto/Timer
mode optional

Remote controller for
easy function switch

USER MANUAL OF REMOTE CONTROLLER BUTTON FUNCTION INTRODUCTION:

1. Press "on" to turn on the ventilator.
2. Press "off" to turn off the ventilator.
3. Press "lock" to turn off the display, Re-press again to turn on the display.
4. Press "Hour", "Hour" part at the top right corner of the ventilator screen starts twinkling, then press "+" to increase time, press "-" to decrease time, repress "Hour" button to save time and exit.
5. Press "Minute", "Minute" part at the top right corner of the ventilator screen starts twinkling, then press "+" to increase time, press "-" to decrease time, repress "Minute" button to save and exit.

Remark: During twinkling, if no operation in 15s, twinkling ends and save setting automatically.

6. Except for the status of the adjustment and being shut down, press "+" to change speed range from small to large, press "-" to change air speed range from large to small. Switching to "Manual" mode, the SA indicator flashes, press "+" or "-" to adjust the SA speed. After completing the SA speed setting, press "Pure H" switch to the air speed selection of EA (Under this state, the "Pure H" button is equivalent to the "Mode" button), press "+" or "-" to adjust the air speed, after completing the EA speed setting, press "Pure H" button again can exit the speed setting (or automatically exit without action for 15s), the air speed of SA and EA will be saved respectively.
7. The function of "Sleep" button is similar to "Sleep" button on ventilator.
8. The function of "Auto" button is similar to "Auto" button on ventilator.
9. Timer: Press "Timer", timer mode starts, time at the top right corner of the machine screen twinkles. Press "+" to increase time and "-" to decrease time in interval of 30 minutes, the longest time is 8 hours, default timing is 00:00; Repress "Timer" button to save and exit timer setting, top right corner of the ventilator displays current time again.
10. The function of "PURE L", "PURE M", "PURE H" is similar to that on the ventilator.

Remark: During twinkling, if no operation in 15s, twinkling ends and save setting automatically. After time setting is finished, if repress "Timer" button, top right corner of the display shows remaining time for the timer setting, at this time it is ok to set the timer again. To cancel timer function, set the time to 00:00.



Under mode "Auto", the ERV will adjust supply air volume according to indoor CO₂ range, corresponding speed as below:

CO ₂ Value	Status	Operational Speed
500<CO ₂	Excellent	1
500<CO ₂ ≤650	Good	3
650<CO ₂ ≤800	Gentle Pollution	5
800<CO ₂	Serious Pollution	8

Remark: To ensure sufficient indoor fresh air supply, the speed will rise automatically after model "Auto" runs for some time, 5-10 minutes later it will return to previous speed. During this time, the screen shows different speed from above chart.

OPERATION INSTRUCTIONS

- Under any mode, the unit will be switched to "Manual" mode when user presses "Speed" button, then press "Speed" again to enter SA/EA fan setting. When "SA" flashes, press "Speed" to set SA fan speed from speed 1-8 ; press "Mode" to switch to "EA" fan setting "EA" flashes, then press "Speed" to set from speed 1-8 . After setting, press "Mode" to save and exit, or the system will automatically save and exit after 15s.
- "Timer" mode, should be controlled through the remote controller.
- Under "Sleep" mode, the unit runs in speed 1, after 30s the screen luminance will be half as normal.
- Mode "PURE L", "PURE M", "PURE H" are to improve indoor air quality rapidly; The purification performance is enhanced progressively for the 3 modes.

Button Combinations

Combinations	Function
Ventilator is on, long press "On/Off + Speed"	1. RESET WIFI. 2. Clear connection information
Ventilator is on or off, long press "On/Off + Mode"	Reset to EX-factory default setting
Ventilator is off, long press "On/Off"	Set RS485 address

USER MANUAL OF REMOTE CONTROLLER

Button function introduction:

- Press "on" to turn on the ventilator.
- Press "off" to turn off the ventilator.
- Press "lock" to turn off the display, Re-press again to turn on the display.
- Press "Hour", "Hour" part at the top right corner of the ventilator screen starts twinkling, then press "+" to increase time, press "-" to decrease time, repress "Hour" button to save time and exit.
- Press "Minute", "Minute" part at the top right corner of the ventilator screen starts twinkling, then press "+" to increase time, press "-" to decrease time, repress "Minute" button to save and exit.

Remark: During twinkling, if no operation in 15s, twinkling ends and save setting automatically.

- Except for the status of time adjustment and being shut down, press "+" to change speed range from small to large, press "-" to change air speed range from large to small. Switching to "Manual" mode, the SA indicator flashes, press "+" or "-" to adjust the SA speed. After completing the SA speed setting, press "Pure H" switch to the air speed selection of EA (Under this state, the "Pure H" button is equivalent to the "Mode" button), press "+" or "-" to adjust the air speed, after completing the EA speed setting, press "Pure H" button again can exit the speed setting(or automatically exit without action for 15s), the air speed of SA and EA will be saved respectively.

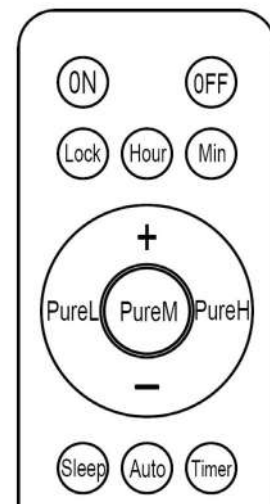
- The function of "Sleep" button is similar to "Sleep" button on ventilator.

- The function of "Auto" button is similar to "Auto" button on ventilator.

- Timer: Press "Timer", timer mode starts, time at the top right corner of the machine screen twinkles. Press "+" to increase time and "-" to decrease time in interval of 30 minutes, the longest timing is 8 hours, default timing is 00:00; Repress "Timer" button to save and exit timer setting, top right corner of the ventilator displays current time again.

Remark: During twinkling, if no operation in 15s, twinkling ends and save setting automatically. After timer setting finished, if repress "Timer" button, top right corner of the display shows remaining time for the timer setting, at this time it is ok to set the timer again. To cancel timer function, set the time to 00:00.

- The function of "PURE L", "PURE M", "PURE H" is similar to that on the ventilator.



INSTALLATION INSTRUCTIONS

Ventilator installation

According to the project site to choose suitable installation location,
Air inlet/outlet from back or from the side.

Back installation

1. Choose the suitable location on wall, mark the OA inlet and EA outlet location, also mark the 5 fixing holes of the installation panel on the wall

Attention: Ventilator bottom to the floor around 3¼ft.

Ventilator left and right side to the wall not less than 1ft.



2. To drill 2 holes on wall for fresh air inlet and exhaust air outlet, recommended size is diameter 4in, The 2 holes should face downward toward the outside to prevent any rain water ingress. Recommended size for the 5 fixing holes is $\phi 1\frac{1}{4} \times 2\frac{3}{4}$ in, and input the 5 plastic bolt Jacket into the holes

Attention: The OA inlet and EA outlet holes size is according to the Holtop accessories (PVC pipes).

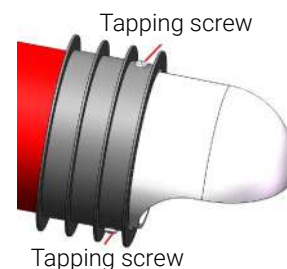
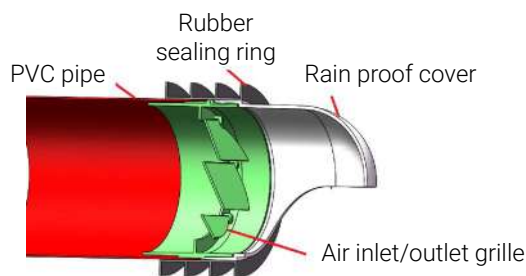
3. Connect the flange to the installation panel by M3X12 bolt and nut



4. According to the wall thickness, cut the suitable length of the PVC pipes, connect the PVC pipes to the OA and EA accessories, OA side: PVC pipe + Air inlet grille + Rain proof cover + Rubber sealing ring + Tapping screws.

EA side: PVC pipe + Air outlet grille + Rain proof cover + Rubber sealing ring + Tapping screws.

Remark: Holes of $\phi 1/8$ in need to be drilled in advance before installing the fixing screw.



INSTALLATION

Installation at the back



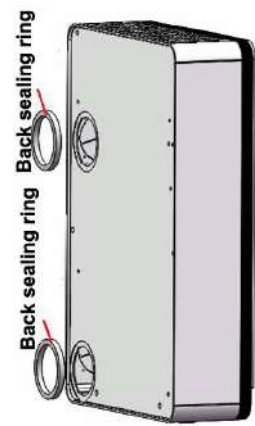
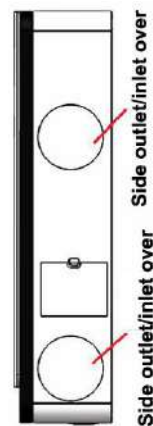
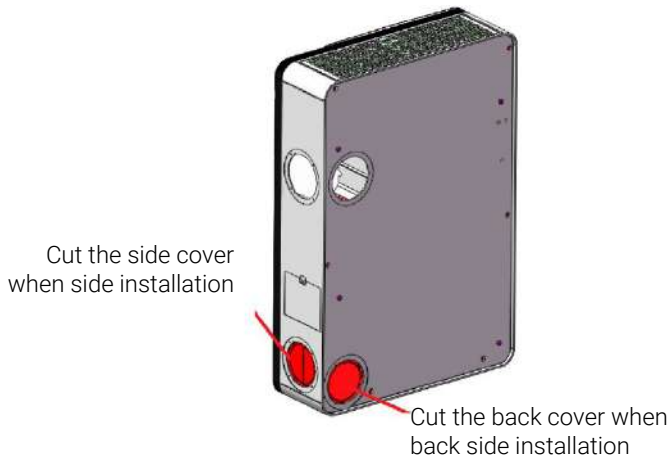
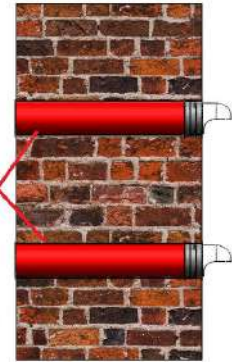
Installation at the side



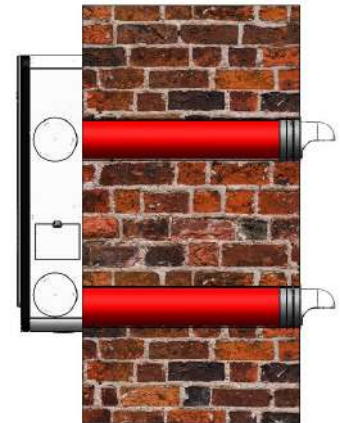
INSTALLATION INSTRUCTIONS

5. Put the assembled ducts into the wall, ensure the rain cover towards down, seal the gaps between the duct and the wall.
6. Fix the installation panel on wall by the knock-on anchor bolt .
7. The above installation is for "back installation" , so, need to cut the EPS "back cover" at the OA vent as the below picture (DON'T cut the EPS side cover).

seal the gaps



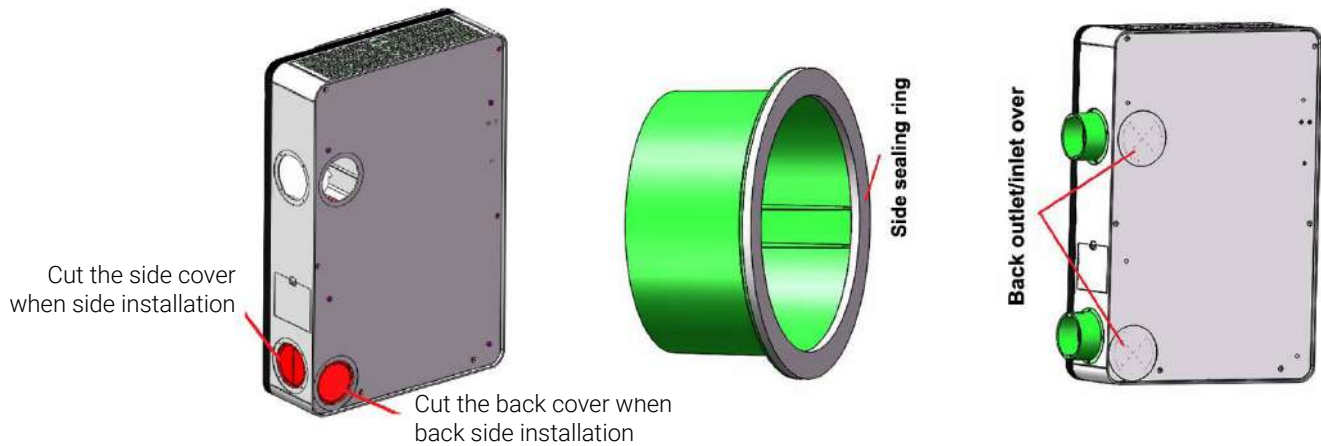
8. Put the 2 round OA and EA Side/Back covers on the side of the ventilator to cover the side air inlet and side outlet. Paste the in seal rings to the back of the air inlet and outlet.
9. Paste the back plate thermal insulated cotton/foam on the back of the ventilator if necessary (around the OA side), it helps avoid the condensing water when the ventilator is used in cold area.
10. Hang the ventilator on the installation panel, user can adjust the 4 pieces M5x18 hanging screws on the back of the ventilator to suit the installation panel.
11. After the installation is completed, power on the ventilator.



INSTALLATION INSTRUCTIONS

Side installation

1. Paste the $\frac{1}{8}$ in side sealing rings on the flanges, connect the flanges to the ventilator side by 8pcs M3x12 bolts and 8pcs M3 nuts. Be careful don't let the nuts drop inside the ventilator during installation.



2. This installation is for "side installation", so, need to cut the EPS "side cover" at the OA vent as the left picture (DON'T cut the EPS back cover), then cover the 2 round OA and EA Side/Back covers to the back of the ventilator.
3. Choose the suitable location on wall, mark the 5 fixing holes of the installation panel on the wall, and mark the side OA inlet and EA outlet location of the side wall according to the ventilator dimension

Attention: Ventilator bottom to the floor around 3¼ft.

Ventilator left and right side to the wall not less than 1ft.

4. Drill 5 fixing holes $\varnothing \frac{1}{4} \times 2\frac{3}{4}$ in (suggesting dimension) on the wall according the installation panel, then fix the installation panel on wall by the 5 Knock-on anchor bolts.
5. Drill 2 holes on wall for fresh air inlet and exhaust air outlet, recommended size is diameter 4in, The 2 holes should face downward toward the outside to prevent any rain water ingress.

Attention: When drilling the outlet hole on the wall, the opening hole size is only a recommended value. When installing the ventilator by the side way, the ducts should be flexible ducts(prepared by end-users), the hole size on the wall should be finalized by the final used duct diameter.

INSTALLATION AND MAINTENANCE

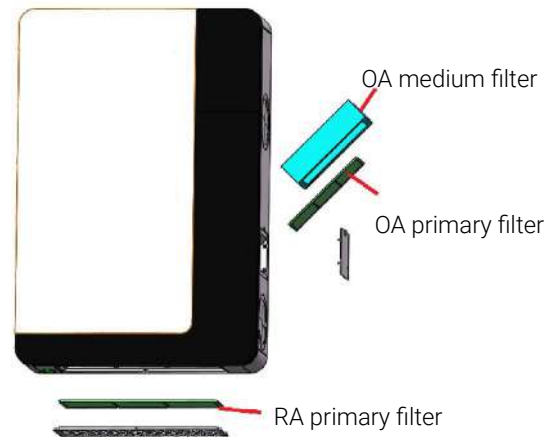
6. Hang the ventilator on the installation panel, user can adjust the 4 pieces M5x18 hanging screws on the back of the ventilator to suit the installation panel.
7. According to the wall thickness, cut the suitable length of the flexible pipes, connect the pipes to the OA inlet grille and EA outlet grille, also the rain cover, etc. accessories same like the "back installation". Rain covers towards down.
8. Input the pipes to the wall, seal the gap between wall and the pipes by sealant.
9. Connect the another sides of the pipes to the flanges on side of the ventilator.
10. After the installation is completed, power on the ventilator

OA and RA primary filter maintenance and change

Attention: Before maintenance, the power must be cut off until the device completely stop, avoiding any injury.

OA primary filter and medium filter is at the side of the ventilator while RA primary filter is at the bottom of the ventilator, as showed by the right picture, used to filter the large particle in the air.

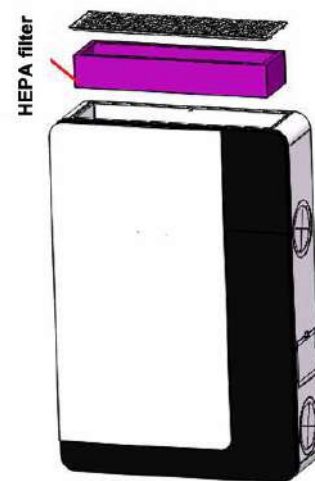
- Open the covers according to the marks on the ventilator, take out the primary filters, medium filters.
- OA medium filter is not washable, It is advised to change the filter every 1-2 months.
- OA and RA primary filters are washable, recommended to replace every 3-4 months.



HEPA filter change

HEPA filter is at the top of the ventilator, as showed by the right picture, it is used to filter the small particle that less than $2.5\mu\text{m}$ in the air

- Open the covers according to the marks on the ventilator, take out the HEPA filters and change to be the new one.
- Recommended exchange period of the HEPA filter is 8 to 12 months.

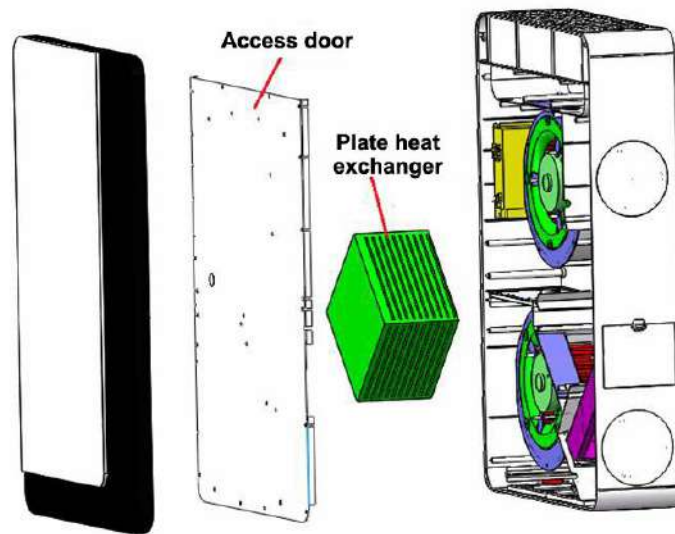


MAINTENANCE

Maintenance of heat exchanger

The plate heat exchanger is installed at the central right of the ventilator, it is the air to air heat exchange device. It's used to separate fresh air and exhaust air, effectively avoid cross-contamination, and ensure that the cleanness of fresh air.

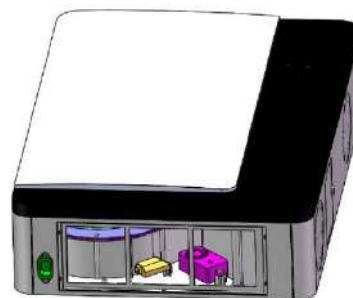
- Take off the ventilator from wall, unscrew the 6 pieces long screws from the back of the ventilator, then to unscrew the access door and take out the plate heat exchanger.
- Clean the dust and dirt on the exchanger by vacuum cleaner
- It is recommended maintain or clean the exchanger every 3 years, for further help can contact manufacturer.



Maintenance of PM2.5/CO2 sensor

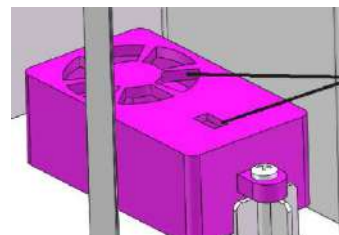
In order to prevent the air quality sensor from being blocked, the sensor needs to be cleaned regularly.

- Remove the bottom grid and take off the return air primary filter.
- According to the right picture, use a hair dryer or blower to clean the sensor, When using the hair dryer, do not turn on the hot air.



Maintenance of motor and controller

Notice: Not for Non-professional, if any questions please contact manufacturer.



FAILURE DIAGNOSE

User can make self trouble shooting following below chart in case of any failure.

Phenomenon	Possible reasons	Solutions
The display doesn't start up	1.Loosen or bad contact of power plug 2.Broken of power cable 3.Fault of display	1.Check if the plug is loosen and reconnect it 2.Replace the power cable of same specification 3.Contact manufacturer for replacement
None or wrong display of temperature, humidity or CO₂ values	Sensor short circuit or open circuit	Contact manufacturer for service
The PM2.5/CO₂ value display abnormally or doesn't display	1. The PM2.5/CO ₂ sensor test probe is covered by dust. 2. The sensor is short-circuited or open.	Following the PM2.5/CO ₂ sensor maintenance method in the manual to clean up first, if not resolved, contact the manufacturer for service.
Abnormal noise	1.The ducts connecting to machine are not fixed. 2.Foreign matter goes inside the Ventilator. 3.Fault of supply fan or exhaust fan.	1.Fix the duct 2.Contact manufacturer for repair
Insufficient of fresh air	1.Blockage of foreign matters at air inlet/outlet. 2.Blockage of primary or HEPA filter.	1.Check and clear the foreign matters 2.Clean or replace the filters
Excess particles at supply air outlet	Overuse of primary and HEPA filters	Replace the filters
No response to the fan speed switch (Code: E0, E1, E3)	1.No feedback from supply and exhaust fan 2.Fault of fans 3. Fault of main controlling board	1.Contact manufacturer for repair 2.Contact manufacturer for fan replacement

Special declaration

The following situations are not included in the warranty.

1. Obvious man-made sabotage during usage.
2. Usage, maintenance and repair not following the instructions of this manual.
3. Damages caused from any force-major.

APOLLO

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