

accurasee mechanical

MADE IN CANADA

VENTILATION UNITS

MINI
CLIMATE

User Manual

We aim to provide our customers with exceptional niche products that are superior to alternative options.

Our products are handcrafted and built with respectful cognizance of sustainability and quality.

Please kindly contact us if there are any issues or errors in the User Manual.

Table of Contents

Introduction	1
Product Description	1
Warning	2
Installation	3
Maintenance.....	5
Filter.....	5
Duct	5
Air-to-Air Exchanger	6
Electrical Parts.....	6
Caveat.....	6
Terms and Agreements.....	7
Return Policy	7
Disclaimer	7



Introduction

The User Manual presents concise information for correct installation and operation of the products. Except otherwise stated, MINI and CLIMATE are both called “product” and “products”. Failure to strictly follow the instructions in the User Manual nullifies the Terms and Agreements of the manufacturer.

Product Description

ICON KEY

⚠ Warning

🔧 Note

⚠ Caution

MINI performs three functions. First, it supplies fresh air to a space (**ventilation**). Secondly, the fresh air is purified with filters while pollutants are expelled from the space (**purification**). Thirdly, the supplied fresh air is passively conditioned depending on the outdoor conditions (**comfort**). Likewise, **CLIMATE**, which uses the same “plug and play” form factor as MINI, is an exhaust and supply fan system for thermal energy (heat) recovery, and can ventilate rooms, apartments, and houses. The ventilation products are visually depicted in Figure 1.

NOTE

The direction of the supply and exhaust air streams are now the same for CLIMATE and MINI, effective April 1 2025.

NOTE

The product shall be used in only indoor spaces.

NOTE

Please review the specifications of the product in the data sheet.

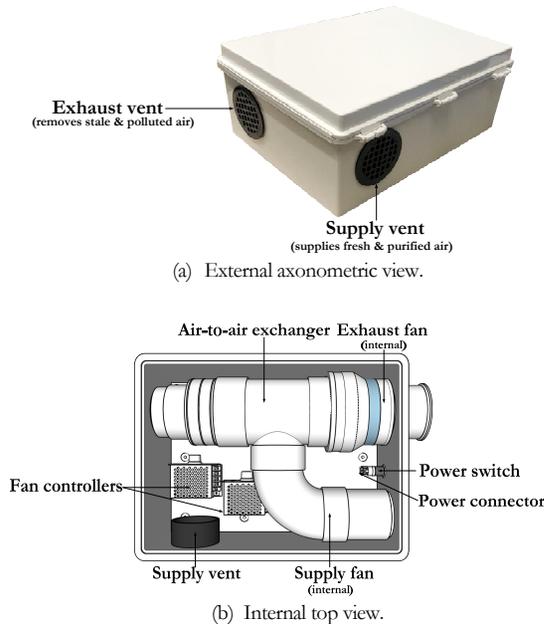


Figure 1. The (a) external axonometric and (b) internal top views of the ventilation units.

The approximate external dimensions of the enclosure of the product, excluding the ports, are ~15.7 in × ~11.8 in × ~6.3 in (~39.9 cm × 29.9 cm × ~16.0 cm). The actual product that is received by the customer may slightly differ from the images in Figure 1. Product variants may carry a combination of zero, one, or multiple fan controllers and/or switch. Note. Figure 1 is not drawn to scale.



Warning

Please observe these warnings:

NOTE

For off-grid use, a 2.1mm×5.5mm male plug connector can be used to directly power MINI from a source that supplies 12V DC. CLIMATE can be powered by a source that supplies 5V / 12V DC.

NOTE

The product shall be installed in spaces with Class 1 and 2 air sources as defined in ANSI/ASHRAE Standard 62.1 – 2019.

NOTE

MINI is a 4-port unit whose supply & exhaust ports plus supply & exhaust vents can be connected to ducts.

NOTE

CLIMATE is a 2-port unit and only its supply & exhaust ports can be connected to ducts.

- Failure to comply with the warnings may result in fire, property damage, electric shock, injury, or death.
- To prevent suffocation, electric shock, injury, or death, the customer is responsible to ensure that children shall NOT access the product.
- The product shall not be modified, disassembled, or serviced.
- The product shall be shut down if the indoor and/or outdoor air temperature exceeds 60°C (140°F).
- The supply and exhaust vents shall NOT be blocked if the product is powered.
- The product comes with pre-installed supply and exhaust ducts and their orifices shall NOT be blocked if the product is powered.
- The enclosure shall not be opened if the product is powered.
- MINI operates by using 12V DC and shall NOT be directly connected to the wall power or mains electricity. It is strongly recommended to use an AC-to-DC power adapter that is rated for 12V DC power supply and can handle at least 3A. An adapter that is rated for 5V / 12V DC and at least 2A is recommended for CLIMATE.
- As soon as possible, the power adapter cord shall be safely disconnected from the wall power if liquid spills on or around the product.
- The power adapter shall only be connected to an electrical receptacle that is permanently installed in a space.
- The electrical parts of the product (i.e., power switch, power connector, fan controller(s) – if applicable, and fans) shall not be handled.
- The cables in the product shall not be disconnected, changed, or modified.

Installation

Please adhere to the following instructions when installing the product:

NOTE

The product shall not be installed where there is probable contact with liquids and/or mists.

NOTE

The product shall be carefully positioned such that it may not trip and cause property damage or bodily injury.

NOTE

Accessories such as screens, boards, duct insulation, AC-to-DC power adapters, self-tapping screws, and wall-mounting brackets are third-party goods which may not be provided by the manufacturer.

NOTE

The product may be mounted on a wall by using four wall-mounting brackets and four M5 × 10mm self-tapping screws.

NOTE

The board(s)/wall holes shall be ≥ 3 in (~7.6 cm).

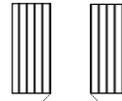
NOTE

The **Boost** mode can be transitioned to **Normal** by simply unlatching the power switch.

- The product shall not be installed near hazardous or toxic materials.
- The product shall be installed in horizontal and vertical orientations as shown in Figure 2(a) and (b), respectively. If the product is positioned at an oblique angle, it shall align with the vertical orientation pattern.
- The product can be sited on a table / floor or mounted on a wall / ceiling.
- The product shall not be installed at a location where there is excessive heat or exposure to direct sunlight.
- The pre-installed supply and exhaust ducts shall be insulated.
- The vents and ducts shall NOT be connected to external appliances such as dryers, fans, furnaces, etc.
- The product shall not be powered until the ducts are installed.
- **Window/Door:** A pair of boards with each having one hole or a single board with two holes shall be fastened to a section of a window/door, and the ducts shall be inserted into the holes.
- **Wall/Ceiling:** The ducts shall be inserted into two holes that are drilled through the wall or ceiling that can support the weight.
- To power the product, connect the plug of the power adapter to the wall power. Next, connect the free end of the power adapter to the power connector port and the product will operate in the **Normal** mode. The **Boost** mode can be activated by pressing the power switch until it latches.
- To shut down the product, disconnect the power adapter cord from the power connector port, and then disconnect the plug of the power adapter from the wall power.
- Consult the installation guide for specific details about installation, power, and control.

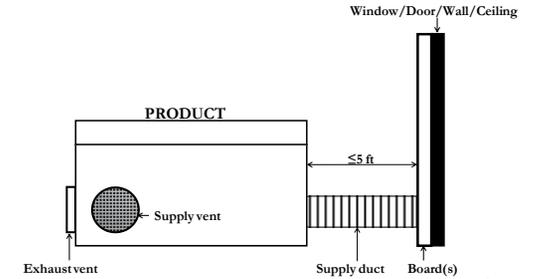
NOTE

To prevent flow recirculation, lowered termination vents can be attached to the supply and exhaust ducts such that the opposing air streams will have a divergent orientation.

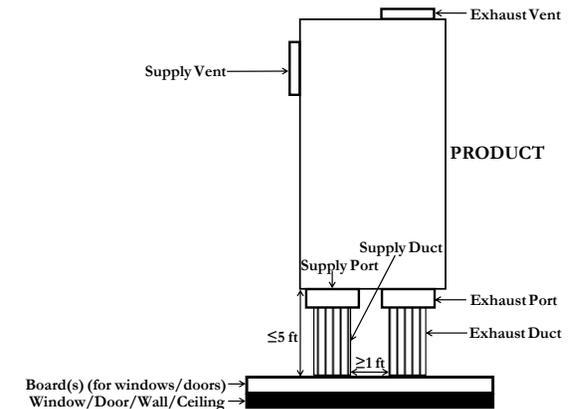


NOTE

Please comply with all applicable codes and regulations when installing the product.



(a) Horizontal orientation.



(b) Vertical orientation.

Figure 2. Schematic depiction of the installation of the product in (a) horizontal (side view) and (b) vertical (front view) orientations.

Although the supply duct is not visible in Figure 2(a), it may be connected to the board(s) to interface with the outdoors. Note: Figure 2 is not drawn to scale.

RECOMMENDATIONS

- Screens may be attached to the orifices of the board(s), ducts, or wall to prevent encroaching organisms from damaging the product or constituting hazard to the space where the product is installed.
- The supply and exhaust ducts shall be at least 1 ft (~30.5 cm) apart, and can be up to 5 ft (~152.4 cm) or more apart as per ASHRAE Standard 62.1 – 2019.
- The ducts shall be straight (tension) without sags or bends that can impede the air streams.

Maintenance

The product is intended to operate with minimal maintenance. However, a few activities may be performed during the course of using the product.

The product shall be shut down before ANY maintenance activity is performed.

Filter

It is recommended to change the filters at least once in three months depending on the outdoor air quality. The procedure for installing a new filter or replacing an existing one is presented accordingly:

NOTE

You may use an Inline Filter Box that connects to the supply port of MINI or CLIMATE.

Exhaust (MINI only)

- Hold the enclosure firmly with one hand and carefully pull out the vent in the exhaust port with the other hand.
- Replace the old filter in the port of the vent with a new one that can fit into a circular shape with a diameter of 3 in (~7.6 cm).
- Carefully re-attach the vent to the product.

Supply (MINI and CLIMATE)

- A new filter with a diameter of 3 in (~7.6 cm) must be inserted into the external louvered vent that brings in outdoor air to the supply port of the product. Alternatively, the Inline Filter Box can be used to purify the outdoor air that is delivered to the supply port of the product.

Duct

Ducts that connect to the supply and exhaust ports of the product can be replaced by using similar ducts with a nominal diameter of 3 in (~7.6 cm). If applicable, you may need to first loosen the nuts of the clamp and remove the old flexible duct from the port. Thereafter, execute the following steps:

NOTE

Do not apply excessive force when tightening the clamp.

- **Flexible duct:** Attach a new duct to the port and then tighten the nuts of the clamp.
- **Solid duct:** Attach one side of a coupling to fit into the port and connect the other side of the coupling to a new duct. Ensure that the connections of the duct and port to the coupling are firm.

NOTE

The air-to-air exchanger of the product shall not be washed.

Air-to-Air Exchanger

The air-to-air exchanger may be cleaned annually by implementing these steps:

- **START:** Power on a vacuum cleaner that has a hose.

Exhaust vent

- For MINI, remove the vent as explained in an aforementioned step.
- Insert the hose of the powered vacuum cleaner into the port of the vent by up to 1 in (~2.5 cm) to extract accumulated dirt, if any, for MINI. For CLIMATE, simply place the hose of the vacuum cleaner on the vent.
- Remove the hose of the vacuum cleaner from the port/surface of the vent.
- For MINI, re-attach the vent to the product.

Supply vent

- Perform the above steps for the supply vent of the product.
- Remove the hose of the vacuum cleaner from the port/surface of the vent.
- **FINISH:** Power off the vacuum cleaner.

Electrical Parts

An electrical part shall only be replaced if it is faulty. In this situation, the product shall be shut down and a qualified service technician may be consulted.

Caveat

The electrical parts of the product are deemed to be certified to ensure customer safety. Notably, the product operates on the load side of a Class 2 power source in accordance with Canada Electric Code Rule 16–222 and US National Electric Code Class 2 Article 725–41. The product may also be subject to the exemption(s) outlined in the US Federal Communications Commission Section 15.103(d). Consequently, the manufacturer is not liable if additional approval is required by the Authority Having Jurisdiction where the product is purchased and/or installed.

Terms and Agreements

The product is protected by intellectual property and shall not be reverse-engineered, imitated, and copied except under an approved licensing agreement with the manufacturer.

Return Policy

- Please check the return policies of the online merchant(s) and store owner(s) from whom the product was purchased.

NOTE

The manufacturer provides a limited warranty for the product that is subject to a Disclaimer.

Disclaimer

- The limited warranty does not apply to defects that are caused by normal wear and tear, normal corrosion, and normal failure that ensue from the operation of electrical or mechanical devices.
- The limited warranty does not extend to products that have been subject to misuse, neglect, abuse, alteration, testing, improper installation, improper storage, improper maintenance, improper handling during shipping, unauthorized attempts to repair, accident, fire, lightning or other hazard, and damage by current, temperature, physical stress, and deviation from the environmental specifications of a conditioned space that is stated in all applicable product documentation.
- The limited warranty does not extend to products that have been modified, disassembled, serviced, or reassembled by a third party.
- The limited warranty is exclusive and in lieu of all other warranties, expressed or implied, including, without limitation, any warranty of merchantability or fitness for a specific purpose. Without limiting the generality of the foregoing, the manufacturer disclaims any other claim against the manufacturer, whether arising by operation of law or otherwise, including any claim or liability for special, indirect or consequential damages of any kind relating to or arising out of the product or any part thereof.
- The manufacturer's obligation is limited to only one warranty option, at the discretion of the manufacturer, to repair or replace any product that is determined to have manufacture defects during its normal use. Replacement parts or products that are provided by the manufacturer, at its discretion, can either be new or refurbished and all defective parts and products become the property of manufacturer. The limited warranty is valid if all these conditions are satisfied that the (i) original proof of payment is presented by the customer, (ii) original serial number of the product shall be present, intact, and undamaged, (iii) limited warranty is non-transferrable to another person, entity, or organization, (iv) costs of

shipping, handling, and all applicable processing fees shall be paid by the customer, (v) cost of labour shall be charged to the customer if there is no fault in the product, (vi) customer purchases filters from the manufacturer at the recommended maintenance time intervals which is a maximum of every six calendar months, without any exceptions or omissions, from the date of purchase, (vii) product is used and/or operated according to the instructions that are specified by the manufacturer, and (viii) limited warranty does not cover any and all of the following: all accessories and goods and services that may or may not be sourced from third-party suppliers; all consumables such as filters; all items that are sold or delivered to the customer on an "as is" basis.

- The limited one year warranty, which includes only parts, covers the air-to-air exchanger and electrical parts for a maximum period of one year from the date of purchase by the customer. Relative to the date of purchase by the customer, the limited five year warranty, which includes parts and labour, covers the air-to-air exchanger for a maximum period of five years and the electrical parts for a maximum period of one year. The limited lifetime warranty, which includes parts and labour, covers the air-to-air exchanger for its lifetime and the electrical parts for a maximum period of one year from the date of purchase by the customer. All the aforementioned warranty options do not cover the enclosure of the product.
- The manufacturer neither assumes nor authorizes any person to assume for it any other liability in connection with the manufacture, sale, shipping, delivery, installation, and operation of the product or any part thereof except as aforesaid.