Habitat Central - 340

Energy Recovery Ventilation (ERV)

User Manual

Version 1.0

Contents

Before proceeding with the installation of your new Fanco Habitat Central-340 ERV, please read these instructions carefully - even if you have previous experience with similar products.

This document contains important information regarding installation, operation, servicing, and maintenance. Retain it for future reference.

1. SAFETY REQUIREMENT & WARNING

Before installation, ensure the Habitat Central-340 is suitable for the intended application and ventilation requirements of the building. System design and installation must be carried out by qualified HVAC professionals. Installers should have appropriate training and experience in mechanical ventilation systems, including associated accessories. All electrical, technical and construction work must comply with relevant local and national codes, standards and regulations.
Failure to install or operate the unit according to the instructions may result in reduced performance, system damage, or safety hazards.

1.1 Safety Precautions for Installation and Operation

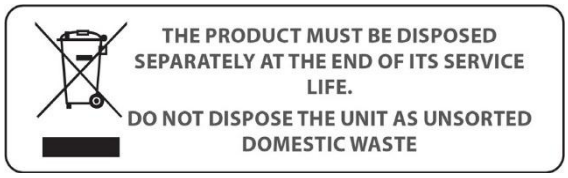
• Keep this manual for the entire service life of the Fanco Habitat Central-340 ERV system.
• Read all instructions and safety warnings carefully before starting installation or operation.
• Always take the necessary precautions to avoid unsafe or dangerous situations.
• Only trained and certified HVAC professionals should carry out installation, commissioning- and maintenance.
• Improper wiring or installation can result in system failure and serious safety risks.
• Tools and materials used must be appropriate for HVAC installation and meet the system's specific requirements. Tools may include a screwdriver and a drill. Materials may include air ducting, an air distribution box, connection clips, sealing tape, grilles, and other components required for proper installation.
• Do not attempt to disassemble, repair, or modify the system without the guidance of a qualified HVAC professional.
• If the power cable becomes damaged, it must be replaced only by a suitably qualified and authorised service technician, in accordance with local regulations and using genuine replacement parts.
• Fanco strongly recommends using original Fanco parts and accessories to maintain system performance and reliability.
• If a gas leak is detected, immediately ventilate the area by opening windows. Do not operate the Fanco Habitat Central-340 system until the area has been declared safe.
• Do not store flammable or combustible materials in the same area as the ventilation unit.
• Never expose the system to explosive substances or volatile chemicals.
• If the unit produces abnormal noise, odours, or behavior, stop use immediately and contact the Fanco warranty team.
• Ensure transferred air does not pass through areas containing ignition sources, open flames,

oils, or corrosive chemicals.
• Ensure air ducts remain clear of obstructions while the system is operating.
• Install and operate the system indoors, in a dry and well-ventilated area. The unit must not be installed in areas exposed to direct sunlight, excessive humidity, weather, water ingress, or other environmental conditions outside the specified operating limits.
• Do not use the system during outdoor dust events such as sandstorms or bushfires, or other periods of poor outdoor air quality.

• Always disconnect power before removing any covers, performing installation, or maintenance.
• Do not allow water to come into contact with the unit, control panel, or any system components during installation or maintenance.
• This appliance may be used by children aged 8 and above, and by persons with reduced physical, sensory, or mental capabilities, provided they have received appropriate supervision or instruction on safe use of the appliance and understand the hazards involved. Children must not play with the appliance. Cleaning and user maintenance must not be carried out by children without supervision.

RECYCLE AT THE END OF THE SERVICE LIFE.

DO NOT DISPOSE THE PRODUCT WITH UNSORTED MUNICIPAL BIN.



2. HABITAT CENTRAL-340 ERV

2.1 Delivery Set

The Fanco Habitat Central-340 ERV is supplied with the following items:

Standard Contents

- 1 x Habitat Central-340 ERV Unit
- 1 x User Manual

Note:

Optional accessories are only supplied if they were included as part of the original purchase order.
Upon receipt of the product, inspect the packaging contents and verify that all ordered accessories have been supplied.
If any items are missing or damaged, contact Fanco or your supplier before proceeding with the installation.

2.2 Technical Specification

The table below provides the technical specifications of the Fanco Habitat Central-340 ERV.

These specifications should be reviewed prior to installation to ensure compatibility with the intended application and site requirements.

Parameter	Value
Model	Fanco Habitat Central 340
Fan Motor Type	EC
Max. Airflow	300 m³/h @ 100Pa
Rated Max. Power	180W, 1.6A (230V~50Hz)
Power Input Range	200-240V~, 50/60Hz
Weight	37 kg
Extract Filter	G4
Supply Filter	G4
Supply Filter (Optional)	F8/H13
Max. Static Pressure	450 Pa
Heat / Energy Recovery Core Type	Counter-flow
Internal Insulation Material	Polyethylene Foam
Case Material	Coated Sheet Steel
Transferred Air Temperature	-25 to +50°C
Operating Ambient Temperature	+5 to +40°C
Operating Ambient Relative Humidity	<80%
Connected Air Duct Diameter	150 mm

Note:

Product specifications may be subject to change without notice as part of ongoing product development and improvement.

2.3 Product Structure

The illustration below identifies the main components of the Habitat Central-340 ERV.

Familiarity with the product layout will assist installers and users during installation, operation, maintenance, and troubleshooting procedures.

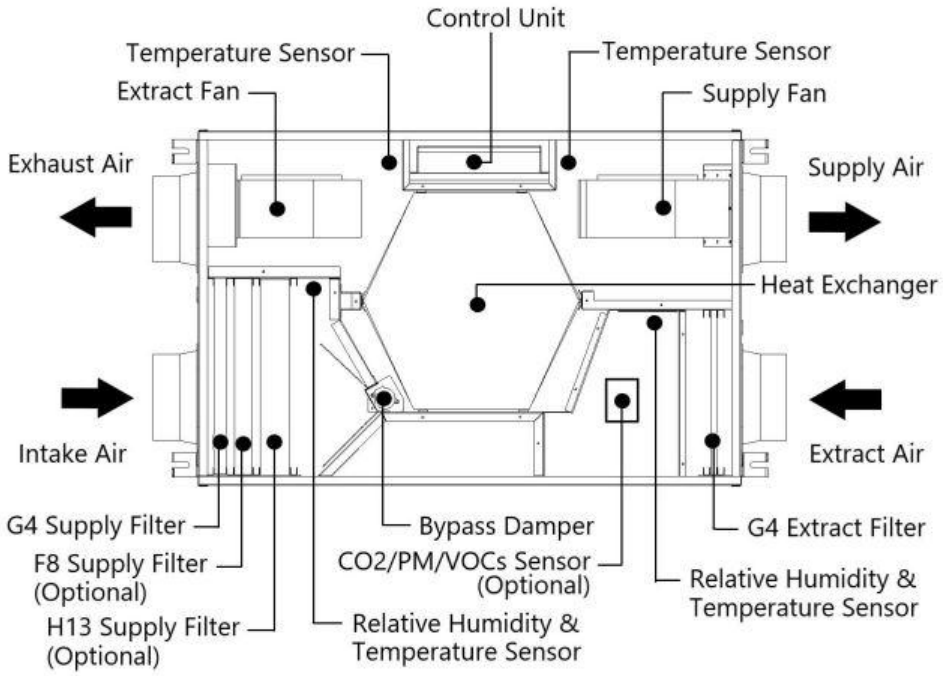
The diagram identifies key serviceable components including, but not limited to:

- Heat/Energy Recovery Core
- Supply Air Fan
- Extract Air Fan
- Supply Air Filter
- Extract Air Filter
- Electrical Control Compartment
- Duct Connections
- Condensate Drain Connection (where applicable)
- Access Panels

Understanding the location and function of these components will assist with routine maintenance and system servicing.

Note:

The appearance and arrangement of internal components may vary slightly depending on the model configuration and optional accessories installed.



2.4 Overall Dimensions

The diagram below shows the overall external dimensions of the Habitat Central-340 ERV unit in millimetres (mm).

These dimensions should be used when planning the installation location and ensuring adequate space is available for mounting, duct connections, electrical connections, and future maintenance access.

Prior to installation, verify that sufficient clearance is available around the unit to allow for:

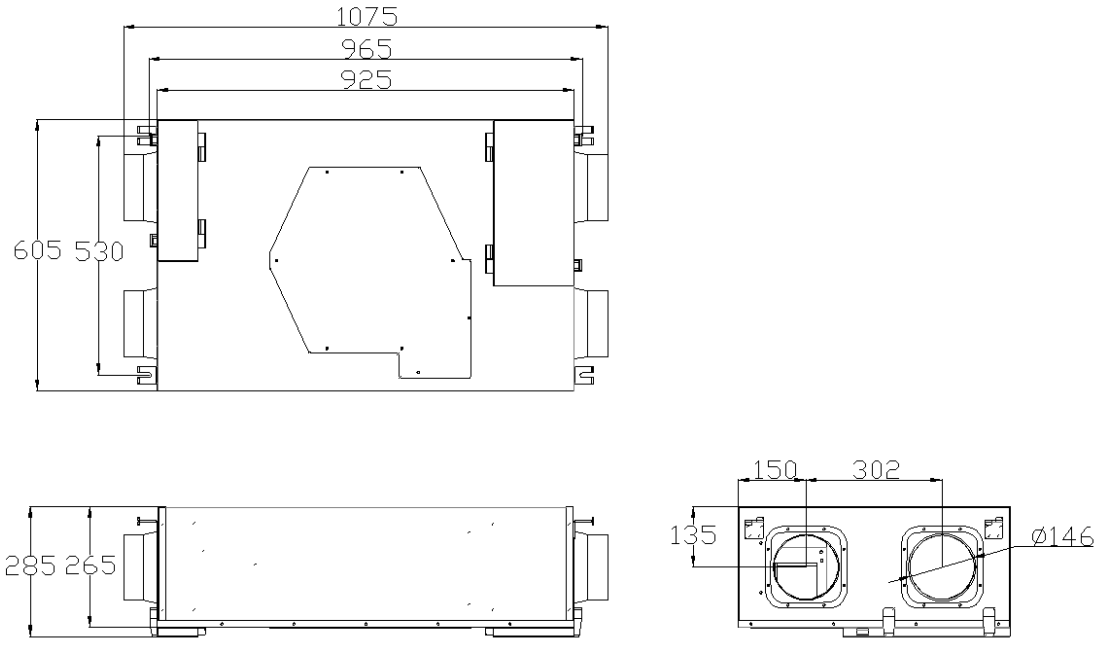
- Filter inspection and replacement.
- Removal and installation of the Heat / Energy Recovery Core.
- Access to electrical connections and controls.
- Routine servicing and maintenance.
- Removal of access panels where required.

Important:

When selecting the installation location, allow sufficient space around the unit for future maintenance and servicing. Restricted access may increase servicing time and affect the ability to perform routine maintenance procedures.

Note:

All dimensions shown are nominal and should be verified against the unit supplied prior to installation.



3. ELECTRICAL CONNECTIONS

The electrical installation of the Habitat Central-340 ERV must be carried out by a suitably qualified professional in accordance with applicable local electrical regulations and the instructions provided in this manual.

Before commencing any electrical work, ensure that all safety precautions are understood and followed.

Safety Precautions

Warning:

Failure to follow the electrical installation instructions may result in electric shock, equipment damage, fire, or personal injury.

Before installation or maintenance:

- Isolate and disconnect the main power supply.
- Verify that power has been removed before accessing any electrical components.
- Ensure all wiring is installed in accordance with applicable electrical regulations.
- Use only the specified wiring types and cable sizes required for the installation.
- Ensure all wiring connections are secure and properly terminated.
- Protect wiring from mechanical damage, excessive heat, sharp edges, and moisture.
- Do not modify any electrical components or the control system. Unauthorized modifications may result in product damage, electric shock, fire, or void the warranty.

Electrical Connection Overview

The electrical connection table shown below provides an overview of the wiring connections between the Habitat Central-340 ERV control PCB and the various compatible accessories and control devices described in this manual.

These may include:

- Standard Controller
- Premium Controller
- External Wi-Fi Module
- External Sensors
- External Boost Connection Box
- External Relay Board
- External Dampers
- External Heater Interlocks
- Other compatible accessories

The table below should be used as a reference during installation to ensure all components are connected correctly. More wiring information is provided in the corresponding sections for each accessory.

TERMINAL BLOCK				CABLE CONFIGURATION
T1	POWER	←	POWER	<300W, 3*0.75mm² or 18AWG
		OR		300-600W, 3*1.0mm² or 16AWG
T2	RELAY	←	EXTERNAL RELAY BOARD	PURCHASE FROM SUPPLIER
T3	RELAY CONTROL	←		PURCHASE FROM SUPPLIER
T4	BOOST	←	EXTERNAL BOOST CONNECTION BOX	2*0.3mm² or 22AWG
	WALL SWITCH	←	EXTERNAL WALL SWITCH	4*0.3mm² or 22AWG
T5	RS485	←	RS485	2*0.2mm² or 24AWG
	WIFI	←	EXTERNAL WIFI BOX	PURCHASE FROM SUPPLIER
	DISPLAY UNIT	←	BLACK & WHITE 3.5" CONTROL PANEL	PURCHASE FROM SUPPLIER
		OR	COLOR 7" CONTROL PANEL	4*0.3mm² or 22AWG

ACCESSORIES		ACCESSORIES	CABLE CONFIGURATION
EXTERNAL BOOST CONNECTION BOX	←	EXTERNAL BOOST SWITCH	2*0.3mm² or 22AWG
EXTERNAL RELAY BOARD	←	EXTERNAL ELECTRICAL HEATER	INTERLOCK, 2*0.3mm² or 22AWG
EXTERNAL RELAY BOARD	←	EXTERNAL ELECTRICAL AIR DAMPER	3*0.3mm² or 22AWG

Using the Electrical Connection Diagram

Before connecting any accessory:

1. Identify the appropriate connection terminals on the control PCB.
2. Verify the wiring requirements for the accessory being installed.
3. Confirm all connections correspond with the wiring diagram.
4. Check that all terminals are securely tightened after wiring is completed.
5. Verify wiring polarity and terminal identification where applicable.

Following installation, inspect all wiring and connections before restoring power to the ventilation system.

Important:

Incorrect wiring may result in communication faults, accessory malfunction, damage to the control system, or loss of functionality.

Note:

The electrical connection diagram serves as the primary reference for installing accessories and troubleshooting wiring-related issues. Fanco recommends referring to this diagram whenever adding, servicing, or replacing system components.

3.1 Habitat Central-340 Power Connection

The Habitat Central-340 ERV (Model: E9000/0200) must be connected to a suitable power supply in accordance with applicable electrical regulations and the requirements specified in this manual.

All electrical work must be carried out by a suitably qualified and licensed electrical installer.

Warning:

Incorrect electrical installation may result in electric shock, fire, equipment damage, or personal injury.

Installation Requirements

Before connecting power to the unit:

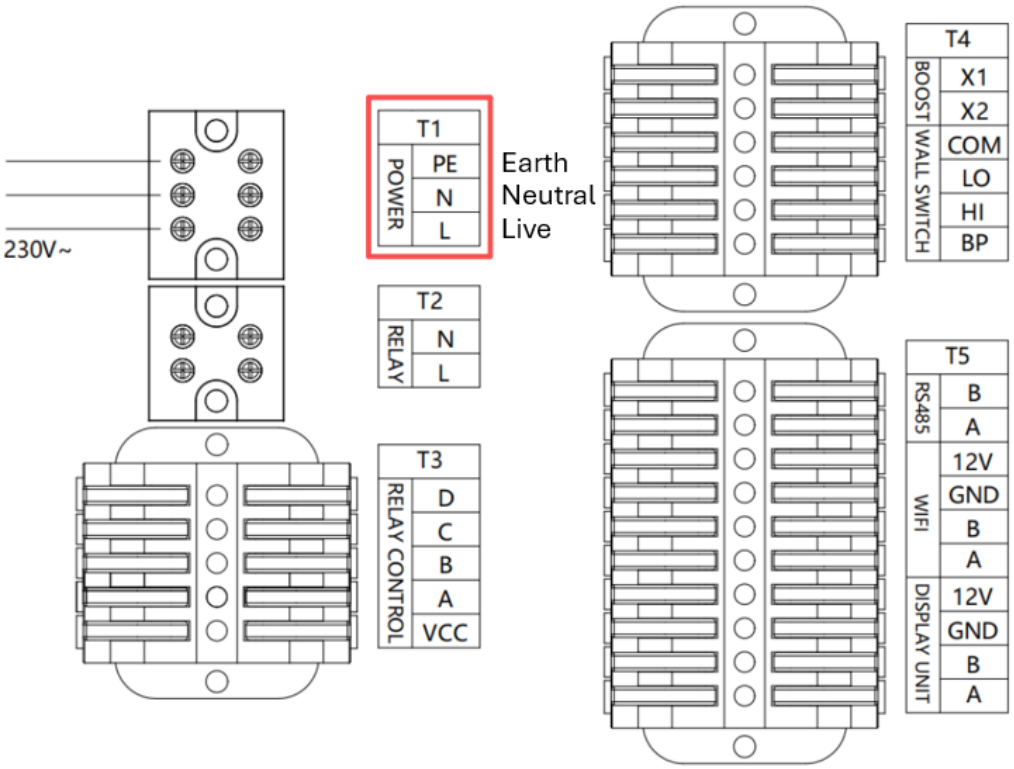
- Verify that the power supply matches the electrical requirements specified in the Technical Specifications section of this manual.
- Ensure the electrical supply is isolated before commencing any wiring work.
- Confirm that all wiring complies with applicable local electrical regulations and standards.
- Use appropriately rated cables and protection devices suitable for the installation.
- Ensure all electrical connections are secure and correctly terminated.

Power Connection

Refer to the wiring diagram below for the correct power connection arrangement for the Habitat Central-340 unit.

After completing the electrical installation:

1. Verify all wiring connections.
2. Confirm that all terminals are securely tightened.
3. Inspect cables for signs of damage or strain.
4. Ensure all access covers have been correctly refitted before restoring power.



Important:

Do not energise the ventilation system until all installation, wiring, and inspection procedures have been completed.

3.2 Connection of Accessories to the Habitat Central-340 Unit

The Habitat Central-340 ERV is compatible with a range of optional accessories that can enhance system monitoring, automation, control, and operating flexibility.

This section provides information regarding the installation, connection, and operation of compatible accessories.

All accessories should be installed in accordance with the instructions provided in this manual and the applicable wiring diagrams.

Compatible Accessories

The following accessories may be used with the Habitat Central-340 system:

- Premium Controller
- Standard Controller
- External Wi-Fi Module
- Internal Air Quality Sensor

- External Temperature and Humidity Sensors
- External CO_2. Temperature and Humidity Sensors
- External PM2.5. Temperature and Humidity Sensors
- External Boost Connection Box
- External Relay Board
- Other compatible Fanco accessories, where applicable

Installation Requirements

Before connecting any accessory:

- Isolate power to the ventilation unit.
- Confirm compatibility of the accessory with the Habitat Central-340 system.
- Refer to the relevant wiring diagram and installation instructions.
- Verify all wiring connections before restoring power.
- Ensure communication cables are routed and secured to prevent damage.

Incorrect installation may result in:

- Communication faults
- Accessory malfunction
- Reduced system functionality
- Damage to the control system

Accessory Connection Overview

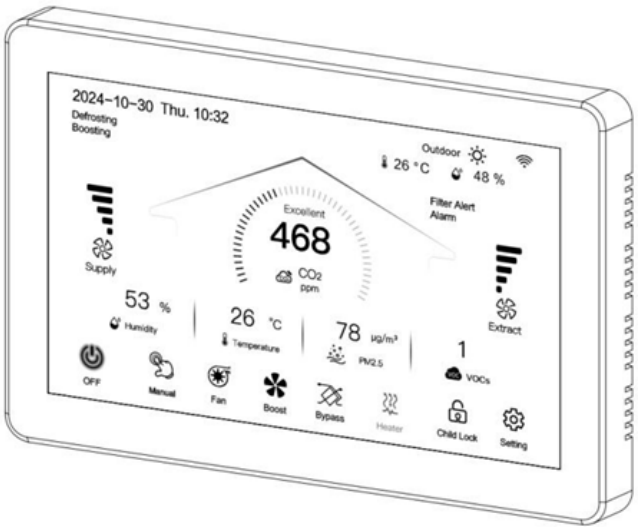
The following sections describe the installation, wiring, configuration, and operation of each compatible accessory.

Refer to both the electrical connection overview diagram and the individual accessory instructions to ensure correct installation and reliable operation.

Note:

Some accessories are optional and may not be included with the ventilation unit. Refer to your purchase documentation or contact Fanco for information regarding available accessories and compatibility.

3.2.1 Premium Controller – 7" Colour Screen, White



Model: E9020/0001A

The Premium Controller provides full control and monitoring of the Habitat Central-340 ERV system through an intuitive 7" colour touchscreen interface.

3.2.1.1 Power Connection

The figures below show the Premium Controller and the correct wiring arrangement for connection to the Habitat Central-340 control Printed Circuit Board (PCB).

Refer to the diagrams below when identifying controller connection points and wiring terminals.

Warning

Incorrect electrical installation may result in electric shock, fire, equipment damage, or personal injury.

Installation Requirements

Before connecting power to the unit:

- Verify that the power supply matches the electrical requirements specified in the Technical Specifications section of this manual.
- Ensure the electrical supply is isolated before commencing any wiring work.
- Confirm that all wiring complies with applicable local electrical regulations and standards.
- Use appropriately rated cables and protection devices suitable for the installation.
- Ensure all electrical connections are secure and correctly terminated.

Important

Incorrect wiring may result in communication faults, loss of controller functionality, or damage to the control system.

Once installation has been completed successfully, the controller will provide access to all primary operating, monitoring, scheduling, and configuration functions of the Habitat Central-340 ventilation system.

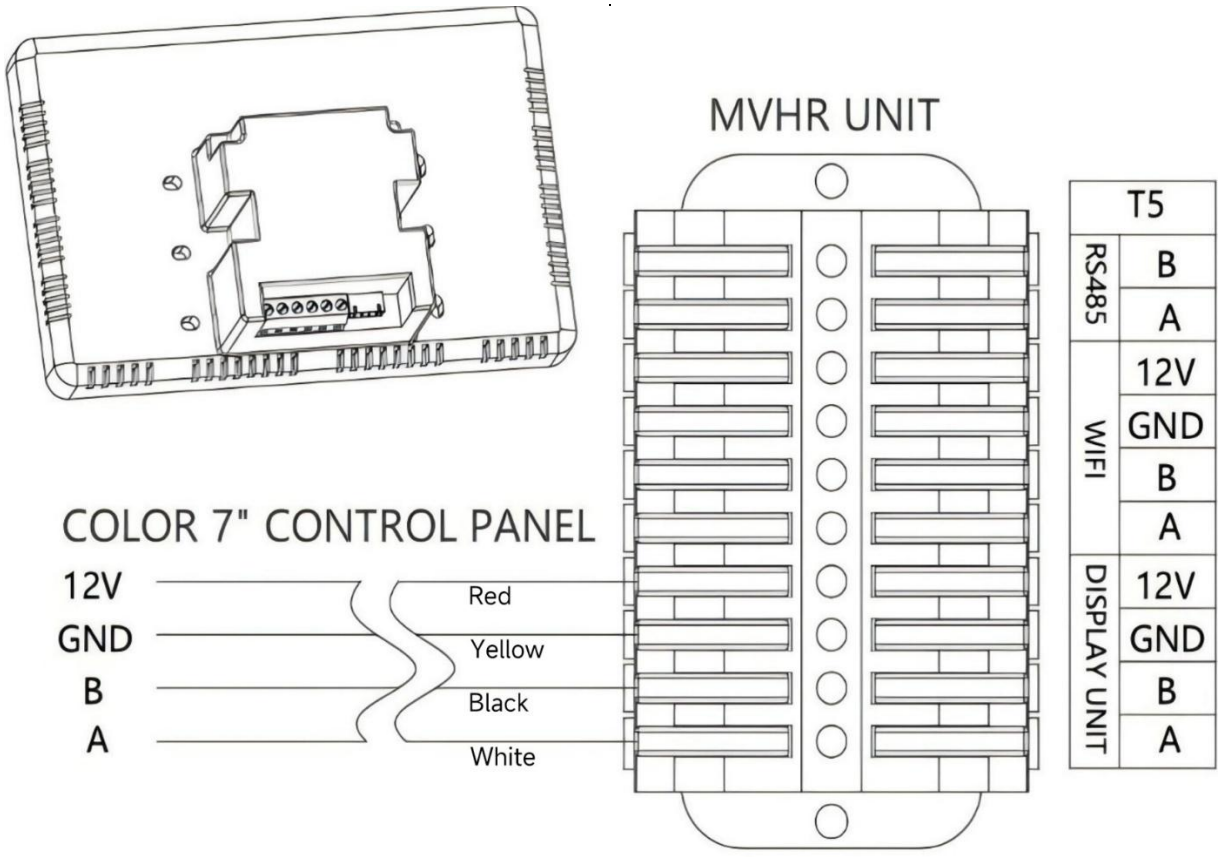
Note

Please note that the connection cable between the Premium Controller and the ventilation unit is supplied by Fanco and must be purchased separately.

System Overview

The figures below illustrate:

- The connection between the controller and the Fanco Habitat Central Unit.



3.2.1.2 Premium Controller Operation and Functions Overview

This section explains the operation and functions available through the Premium 7" Colour Controller.

The controller has been designed to provide users with easy access to system information, operating modes, air quality monitoring, scheduling functions, maintenance information, and advanced control settings.

Following system start-up, the controller will display the Home Screen, which serves as the primary interface for monitoring and controlling the ventilation system.

The Home Screen provides real-time information relating to:

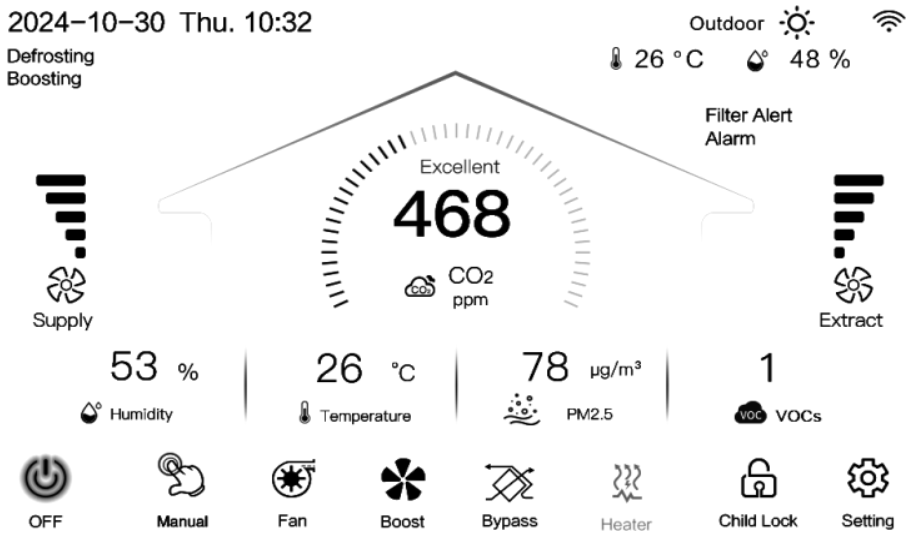
- System operating status
- Fan operation
- Temperature readings
- Relative humidity readings
- Air quality information
- Active operating modes
- Alarm notifications
- Connected accessories and sensors

A diagram of the Home Screen is provided below.

The following sections describe each icon, indicator, menu, and control function in detail, including:

- Its purpose and operation.
- Information displayed on the screen.
- Available settings and adjustments.
- User interaction and navigation procedures.
- Operational notes and recommendations.

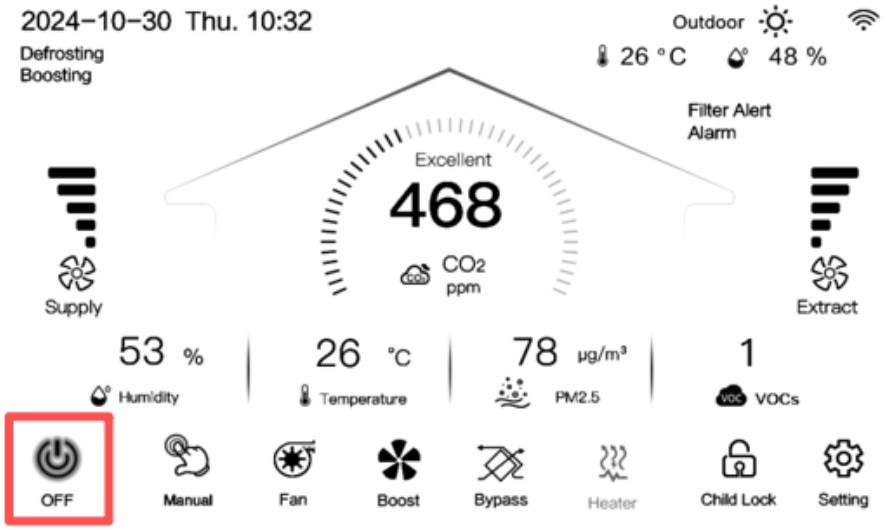
Understanding the Home Screen layout and controller functions will assist users and installers in obtaining the best performance from the Habitat Central-340 ventilation system.



Note:

Certain functions and menu options may vary depending on the system configuration and installed accessories. Features relating to optional accessories will only be displayed when the corresponding accessory is installed and communicating with the Habitat Central-340 unit.

3.2.1.3 Power Control



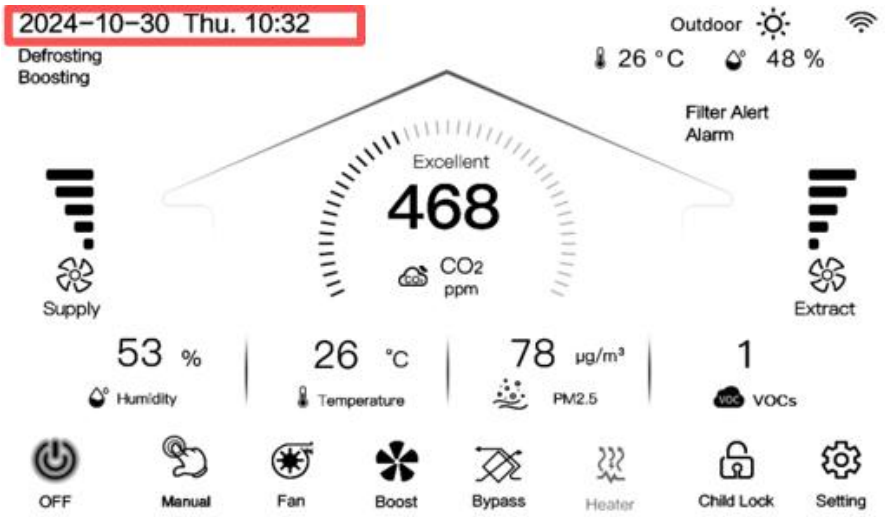
The ON/OFF [⏻]control allows the user to start or stop the ventilation system.

Operation

- Press [ON] to start the Habitat Central unit.
- Press [OFF] to stop the Habitat Central unit.

When the unit is switched OFF, ventilation operation will stop; however, previously configured settings, schedules, and parameters will be retained in memory.

3.2.1.4 Date, Day and Time Settings



The current date, day, and time are displayed at the top left of the Home Screen [2024-10-30] [Thu.] [10:32].

Accurate date and time settings are required and important for the correct operation of system schedules, timed functions, and event logging.

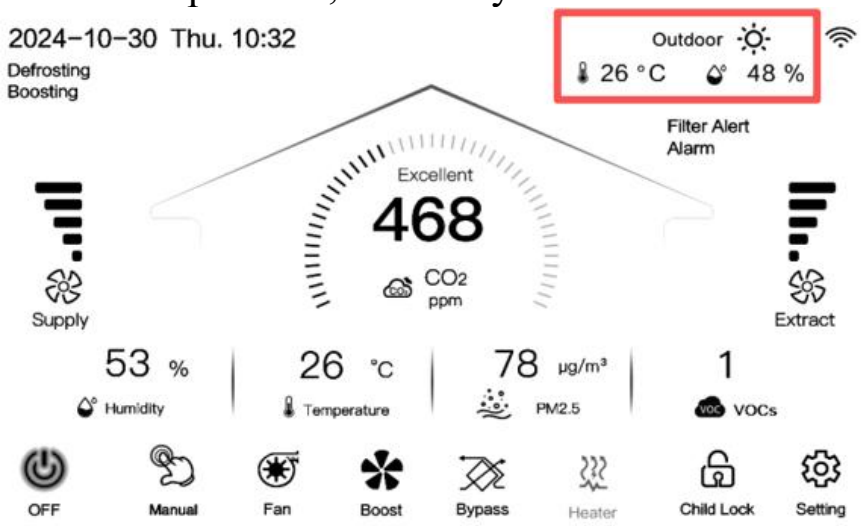
Accessing the Date and Time Settings

For more information, please refer to Section 3.2.1.23.2 Date and Time, in this manual.

Notes

- Accurate date and time settings help ensure scheduled functions operate correctly.
- Time-based operating modes rely on the controller clock being set correctly.
- Date and time information may also be used for event logging and system records.
- Following a prolonged power interruption, verify that the displayed date and time remain correct.

3.2.1.5 Outdoor Temperature, Humidity and Weather Status



The Home Screen displays real-time information relating to outdoor air conditions, [Outdoor] [26°C] [48%] [☼].

This information assists in monitoring the environmental conditions that may influence ventilation operation.

Outdoor Temperature

Displays the current outdoor air temperature measured by the outdoor air sensor within the unit.

The temperature value updates automatically during operation.

Outdoor Relative Humidity

Displays the current outdoor air relative humidity (RH) measured by the outdoor air sensor within the Habitat Central unit.

The humidity value updates automatically during operation.

Outdoor Weather Status

When the ventilation system is connected to the internet through the Tuya Smart platform, the controller can display live outdoor weather information.

The weather status icon provides a visual indication of current outdoor weather conditions obtained through the cloud service.

Depending on the available data, the displayed weather condition may include:

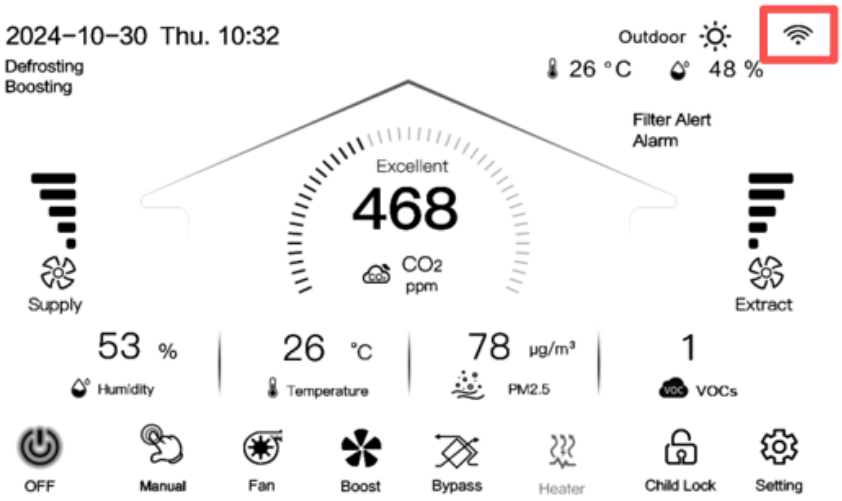
- Sunny
- Cloudy
- Rainy

- Stormy
- Other local weather conditions

Notes

- Outdoor temperature and humidity values are measured directly by sensors connected to the ventilation system.
- Weather status information is obtained through the Tuya Smart cloud platform and requires an active Wi-Fi connection.
- If the Wi-Fi connection is unavailable, the weather status icon may not be displayed.
- Outdoor weather information is provided for reference only and should not be used as a substitute for official weather forecasts.

3.2.1.6 Wi-Fi Connection Status



The Wi-Fi Connection Status icon is displayed in the upper-right corner of the Home Screen and indicates whether the ventilation system is connected to the cloud platform through the Tuya Smart app.

When connected, cloud-based features become available, including:

- Remote monitoring and control via the Tuya Smart app.
- Weather information display.
- Synchronisation with supported smart functions and accessories.

A stable Wi-Fi connection is required to ensure reliable operation of all remote-control functions.

Connection Status

When the Wi-Fi icon is displayed:

- The system has successfully connected to the configured Wi-Fi network.
- Communication with the cloud platform is available.
- Remote control functions can be accessed through the Tuya Smart app.

If the Wi-Fi icon is not displayed:

- The Wi-Fi Module may not be installed.
- The system may not be connected to a Wi-Fi network.
- Communication with the cloud platform may be unavailable.

If the connection is lost, verify the network configuration and Wi-Fi settings before attempting to reconnect.

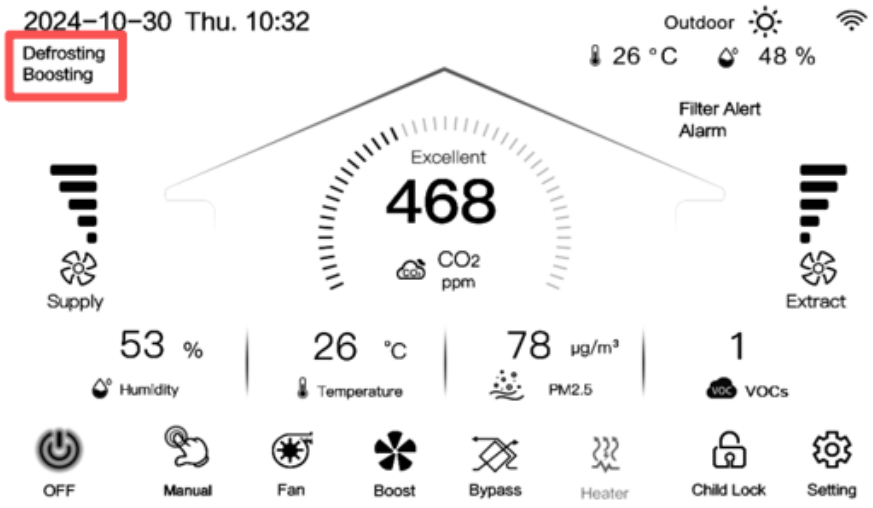
Important

Wi-Fi functionality is only available when the optional External Wi-Fi Module is installed and configured.

The External Wi-Fi Module is sold separately and is not supplied as standard with the Premium 7" Colour Controller.

Refer to Section 3.2.1.23.1 WI-FI and Section 3.2.3 External Wi-Fi Module – Wired for installation and configuration instructions.

3.2.1.7 Defrost Mode



The Defrost Mode [Defrosting] function protects the Heat/Energy Recovery Core from frost accumulation during cold weather operation.

When outdoor temperatures fall below the configured defrost threshold, the Habitat Central unit will automatically enter Defrost Mode.

During operation, the [Defrosting] indicator will be displayed on the Home Screen.

Defrost Mode is fully automatic under normal operating conditions. If required, users with a Premium Controller can adjust the defrost temperature to suit specific environmental conditions or system performance requirements.

Defrost Operation

When Defrost Mode is active:

- Frost prevention functions are activated automatically.
- The system operates according to the configured defrost strategy.
- Normal operation will automatically resume once suitable operating conditions have been restored.

The duration and frequency of defrost cycles will vary depending on outdoor conditions and system configuration.

Adjusting the Defrost Temperature Setting

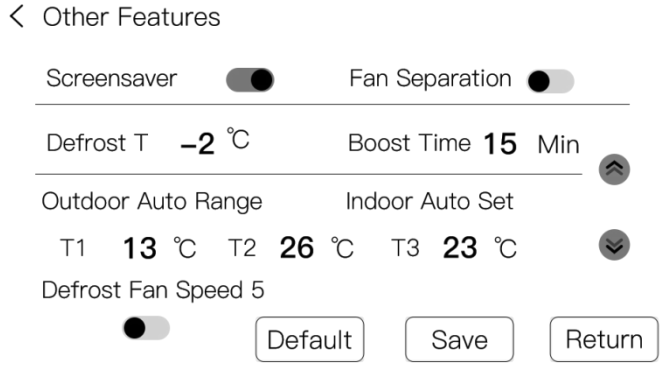
To modify the defrost temperature threshold:

1. From the Home Screen, press and hold [Setting].
2. Select [Other].
3. Locate [Defrost T].
4. Tap the displayed temperature value.
5. Use the [▲] or [▼] buttons to adjust the setting.
6. Save the new value if required.

Example:

[Defrost T] → [-2°C]

The system will use the selected temperature as the trigger point for automatic defrost operation.



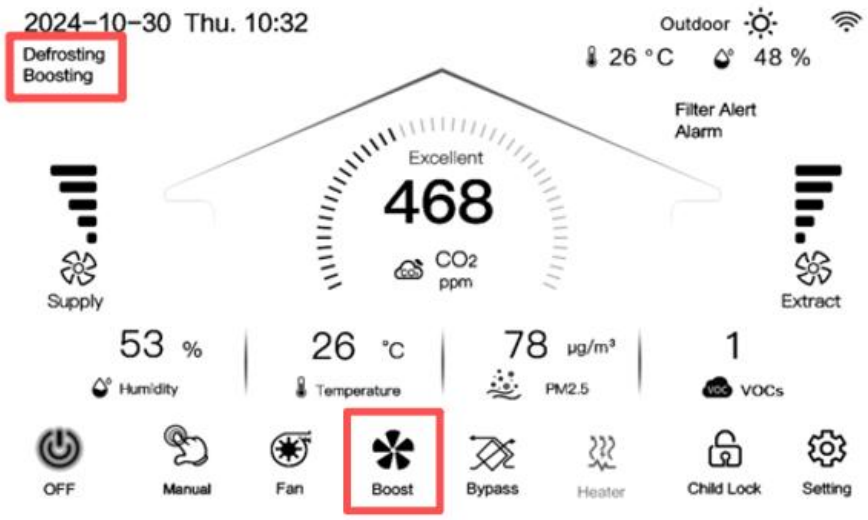
Important

Defrost operation may require auxiliary heating functions, however, at the time of publication of this manual these are not available for purchase and installation from Fanco. For further information, please contact Fanco Technical Support.

Notes

- Defrost Mode operates automatically and cannot be manually activated.
- The [Defrosting] indicator is displayed only when a defrost cycle is active.
- Defrost performance may vary depending on outdoor temperature, humidity, and system configuration.
- The installation of incompatible third-party accessories may affect system performance and warranty coverage.

3.2.1.8 Boost Ventilation Mode



The [Boosting] indicator confirms that the ventilation system is operating in Boost Mode.

Boost Mode temporarily increases ventilation airflow to provide rapid air exchange when higher ventilation rates are required, such as:

- During cooking activities.
- After showering or bathing.
- To assist with the removal of odours.
- During periods of increased occupancy.
- When additional fresh air ventilation is desired.

When Boost Mode is activated, the system will operate according to the configured Boost Conditions and remain active for the programmed boost duration.

Once the Boost period has expired, the system will automatically return to its previous operating mode.

Activating Boost Mode

To activate Boost Mode:

1. Press and hold the [Boost] icon for approximately 2 seconds.
2. Continue holding until an audible confirmation tone is heard.
3. The [Boosting] indicator will appear on the Home Screen.
4. The ventilation system will begin operating at the configured Boost setting.

Boost Duration

1. The factory default Boost duration is 15 minutes.
2. Once the programmed Boost period has expired, the system will automatically return to the operating mode that was active before Boost Mode was initiated.

Adjusting the Boost Duration

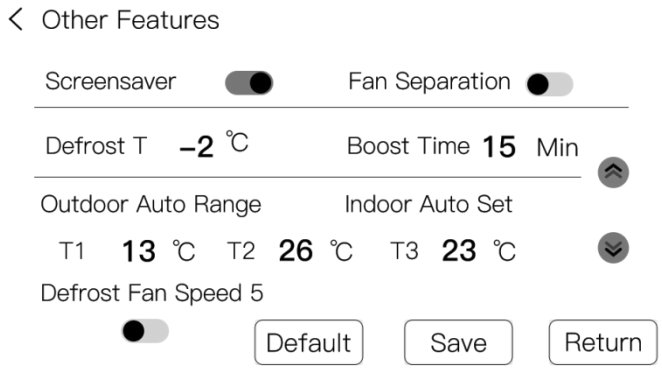
The Boost operating time can be customised to determine how long the unit remains in Boost mode before automatically returning to its normal operating mode.

To adjust the Boost duration:

1. Press and hold [Setting] from the Home Screen.
2. Select [Other].
3. Locate [Boost Time].
4. Tap the displayed time value.
5. Use the [▲] or [▼] buttons to adjust the required duration.
6. Save the new setting if required.

Dending on requirements, the boost duration can be adjusted between:

- 5 minutes
- 25 minutes



Example:

[Boost Time] → [15 min]

The selected duration will be applied each time Boost Mode is activated.

Boost Operation

When Boost Mode is active:

- The [Boosting] indicator will be displayed on the Home Screen.
- Fan operation will follow the selected Boost Condition setting.
- Airflow will increase to the configured Boost level.
- The system will automatically return to normal operation when the Boost period ends.

Available Boost Conditions

Boost mode can be configured to operate in one of the following modes:

- Both ON – The Supply and Extract fans operate together.
- Supply Only – Only the Supply fan operates during Boost mode.
- Extract Only – Only the Extract fan operates during Boost mode.

Changing the Boost Mode

To change the Boost mode:

1. Press and hold [Settings] from the Home Screen.
2. Select [Away Mode].
3. Select [Boost Mode].
4. Choose the required Boost mode option.

Recommended Setting

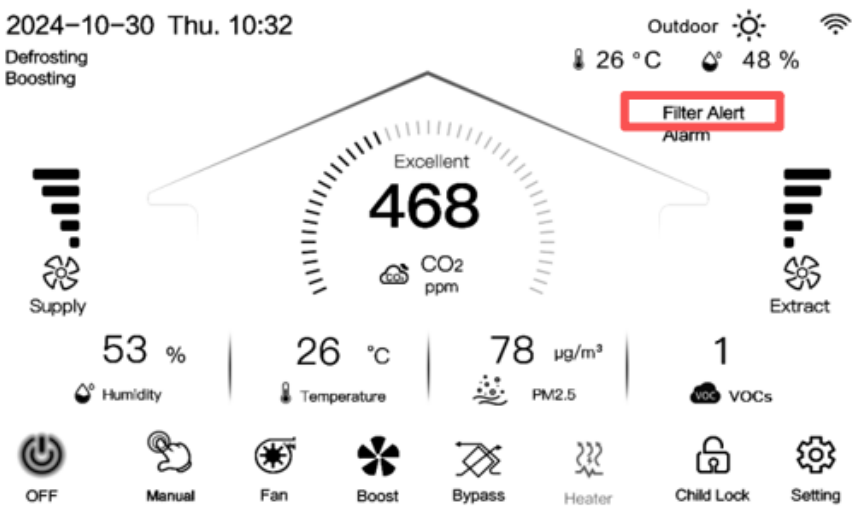
Fanco recommends using Both ON. This ensures that the Supply and Extract fans operate at the same speed when Boost mode is activated, helping to maintain balanced airflow and avoid pressure differences within the building.

Refer to 3.2.1.23.7 Away Mode Settings section of this manual for additional information.

Notes

- Boost Mode is intended for temporary increases in ventilation demand.
- Repeated use of Boost Mode may increase energy consumption.
- Boost Mode can be activated from compatible controllers, or the Tuya Smart app.
- The actual airflow achieved during Boost Mode may vary depending on the duct system design and installation conditions.

3.2.1.9 Filter Maintenance Alert



The [Filter Alert] indicator notifies the user when one or more filters have reached their configured service interval and may require inspection, cleaning, or replacement.

The alert is based on accumulated filter operating hours and is intended to assist with routine maintenance planning and the continued efficient operation of the ventilation system.

Regular filter maintenance helps:

- Maintain airflow performance.
- Preserve indoor air quality.
- Protect internal components from dust accumulation.
- Improve overall system efficiency.

Responding to a Filter Alert

When a [Filter Alert] is displayed:

1. Inspect the indicated filter.
2. Clean or replace the filter as required.
3. Reset the corresponding filter timer after maintenance has been completed.

Resetting the Filter Alert

To reset the filter service reminder:

1. Press and hold [Setting] from the Home Screen.
2. Select [Filter].
3. Review the filter working hours displayed for each filter.
4. Identify the filter that has reached its maintenance interval.
5. Clean or replace the filter as required.
6. Select the corresponding filter type.
7. Press [RESET].

8. Press [Save] to confirm the reset.

The filter working hours will return to zero and the maintenance interval will restart.

Filter Information

The Filter page provides information relating to:

- Filter type
- Initial service interval
- Accumulated operating hours
- Maintenance status

Available filter types may include:

- Filter-G
- Filter-F
- Filter-H

Depending on the system configuration and installed filtration option.

Important

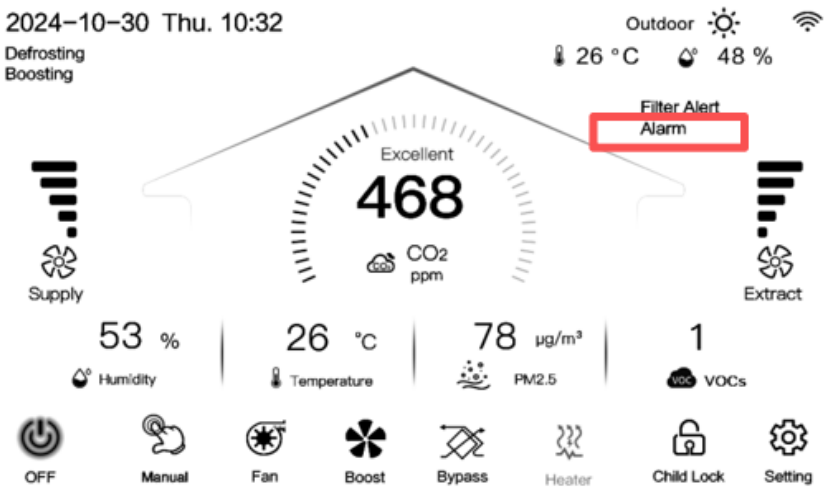
The Filter Alert function monitors accumulated operating hours only and does not directly measure the actual condition of the filter.

Filters may require cleaning or replacement before the alert is displayed if operating conditions involve elevated dust levels, construction activities, bushfire smoke, or other airborne contaminants.

Notes:

- Always inspect the filter before resetting the maintenance timer.
- Reset the filter timer only after the filter has been cleaned or replaced.
- Operating the ventilation system with blocked or heavily contaminated filters may reduce airflow performance and increase energy consumption.
- Refer to Section 3.2.1.23.8 Filter Management, for more information about Filters and Filter Management.
- Refer to Section 5 – Filter & Heat/Energy Recovery Core Maintenance Guide for detailed filter maintenance instructions and recommended service intervals.

3.2.1.10 Alarm



The Alarm [Alarm] function notifies the user when the Habitat Central unit detects a fault or abnormal operating condition.

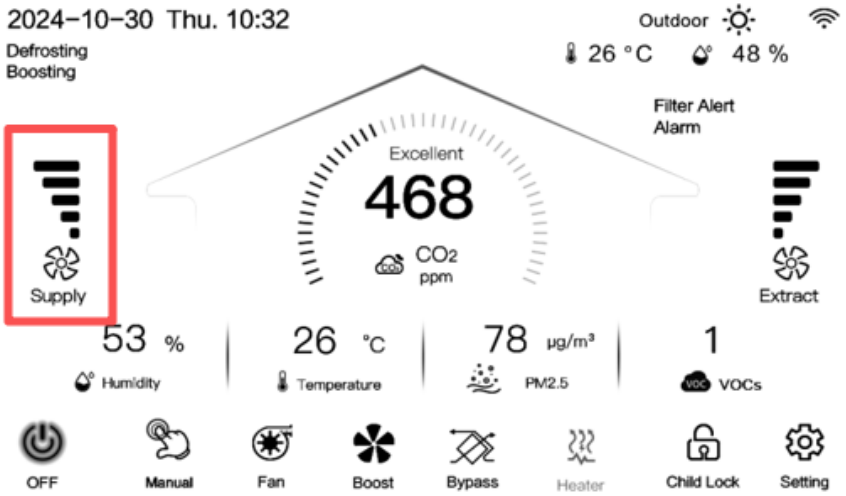
When a fault occurs:

- The Alarm icon will be displayed on the Home Screen.
- The controller status indicator will change from green to red.
- The system may limit or modify certain functions depending on the type of fault detected.

The Alarm function assists with fault identification by displaying an error code corresponding to the affected component or system function.

For more information about Alarm Information and Management, please refer to Section 3.2.1.23.14 Alarm Information, in this Manual.

3.2.1.11 Supply Fan Status



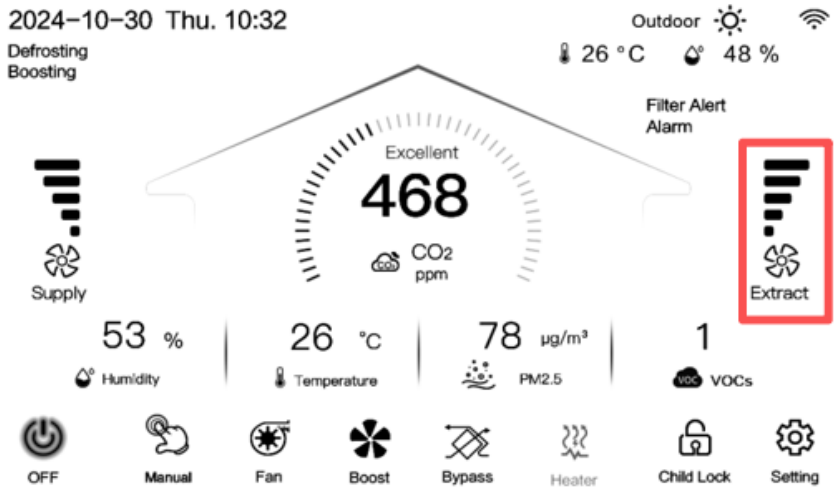
The Supply Fan indicator displays the current operating speed of the supply fan.

The supply fan is responsible for delivering fresh, filtered outdoor air into the building.

Supply Fan Speed

- The supply fan can operate at up to five (5) speed levels.
- The current fan speed is displayed in real time on the Home Screen.
- Fan speed may change automatically depending on the selected operating mode and control settings.

3.2.1.12 Extract Fan Status



The Extract Fan indicator displays the current operating speed of the extract fan.

The extract fan removes stale indoor air from the building and directs it through the Heat/Energy Recovery Core before discharging it outdoors.

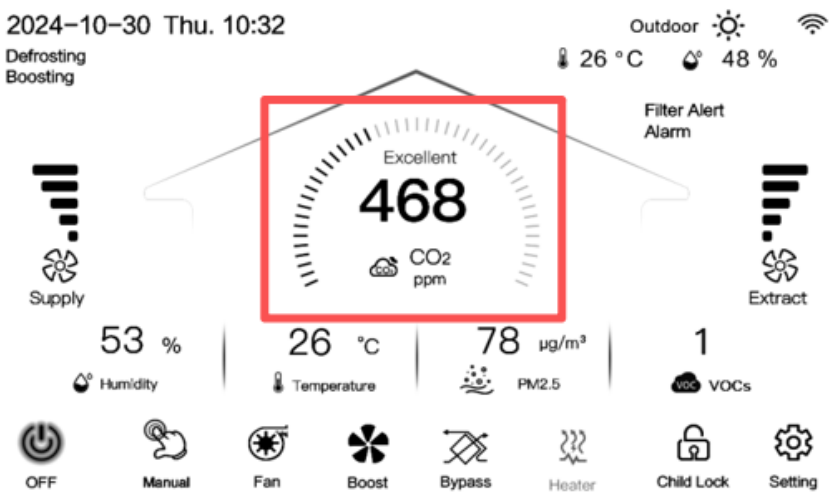
Extract Fan Speed

- The extract fan can operate at up to five (5) speed levels.
- The current operating speed is displayed in real time on the Home Screen.
- Fan speed may vary automatically depending on the selected operating mode and system conditions.

Note:

For balanced ventilation operation, Fanco recommends operating both fans at the same speed unless a specific application requires independent adjustment

3.2.1.13 Carbon Dioxide (CO_2)



The CO_2 display provides a real-time indication of indoor carbon dioxide concentration.

The reading displayed on the Home Screen is obtained from compatible connected sensors and assists with monitoring indoor air quality.

Sensor Sources

The CO_2 value may be obtained from:

Internal Air Quality Sensor (Optional)

Where installed, the Internal CO_2 / PM2.5 / TVOC Sensor can provide:

- Carbon Dioxide (CO_2)
- PM2.5
- TVOC

External Sensors (Optional)

If the system is equipped with:

- An External Wi-Fi Module, and
- One or more compatible external CO_2 sensors,

the controller can display CO_2 readings from the connected sensors.

Display Priority

Where multiple CO_2 sensors are connected, the controller will display the highest CO_2 concentration currently detected.

CO_2 Status Indicator

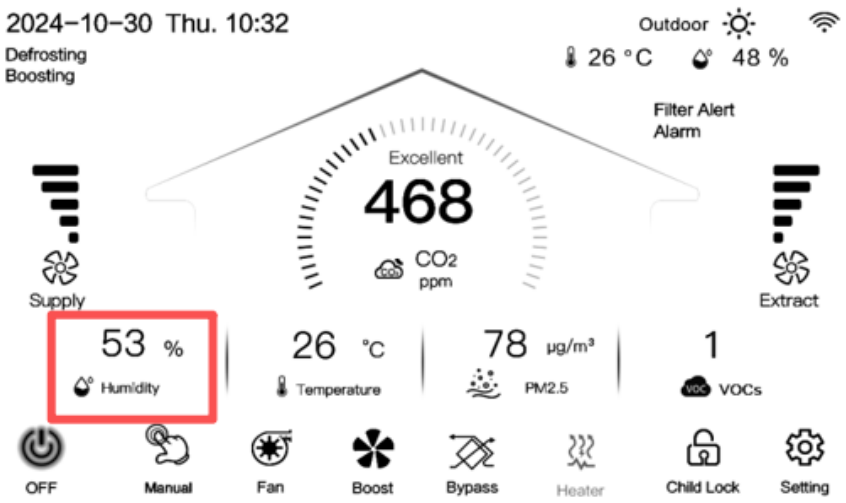
A colour bar is displayed to provide a quick visual indication of indoor air quality.

Colour	Condition
Green	Excellent CO_2 Level
Yellow	Good CO_2 Level
Red	High CO_2 Level

Note:

Elevated CO_2 levels may indicate that additional ventilation is required.

3.2.1.14 Relative Humidity



The Humidity display provides a real-time indication of indoor relative humidity (RH).

Internal Sensor

The Habitat Central unit includes an internal humidity sensor that continuously monitors extracted air humidity levels.

The displayed value represents the measured indoor relative humidity.

External Sensors (Optional)

Where compatible external humidity sensors are connected through the External Wi-Fi Module, additional humidity readings may be available.

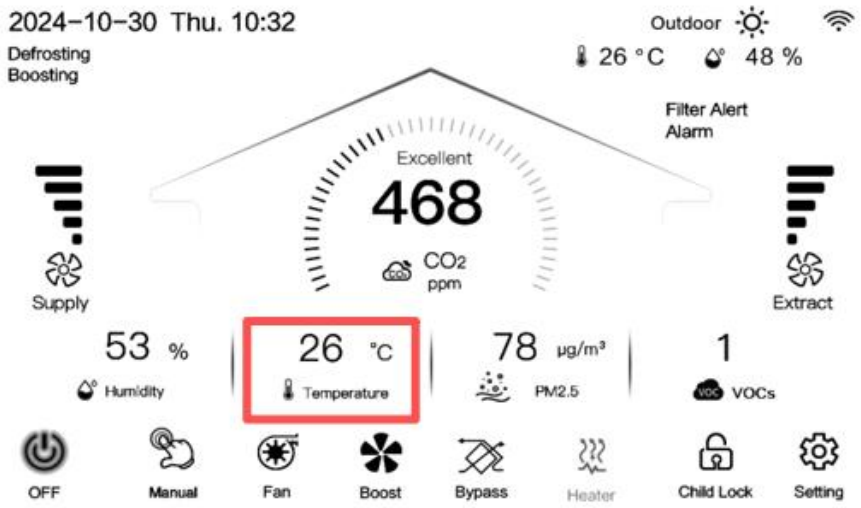
Display Priority

When multiple humidity sensors are connected, the controller displays the highest indoor humidity value currently detected.

Note:

Maintaining appropriate indoor humidity levels can assist with occupant comfort and indoor air quality.

3.2.1.15 Temperature



The Temperature display provides a real-time indication of indoor temperature conditions.

Internal Sensor

The Habitat Central unit includes an internal temperature sensor that monitors the extract air temperature.

The measured value is displayed on the Home Screen.

External Sensors (Optional)

Where compatible external temperature sensors are installed, temperature data may also be received from those devices.

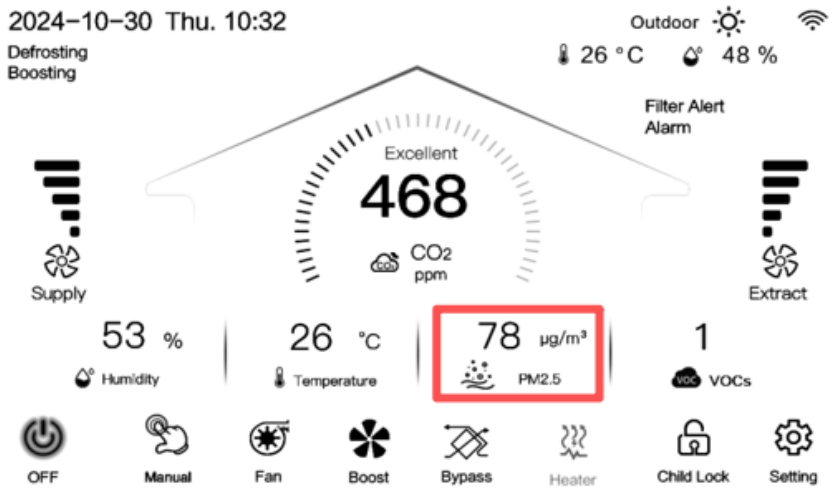
Display Priority

When multiple temperature sensors are connected, the controller displays the highest temperature currently detected.

Note:

Temperature readings are intended for ventilation system monitoring and control purposes and may vary slightly from standalone room thermostats.

3.2.1.16 PM2.5



The PM2.5 display provides a real-time indication of fine airborne particulate matter levels.

PM2.5 refers to particles with a diameter of 2.5 micrometres or smaller, which may affect indoor air quality.

Sensor Sources

PM2.5 information may be obtained from:

Internal Air Quality Sensor (Optional)

Where installed, the Internal CO_2 / PM2.5 / TVOC Sensor can provide reading corresponding to:

- CO_2
- PM2.5
- TVOC

External Sensors (Optional)

When connected through the External Wi-Fi Module, compatible external PM2.5 sensors can also provide air quality data.

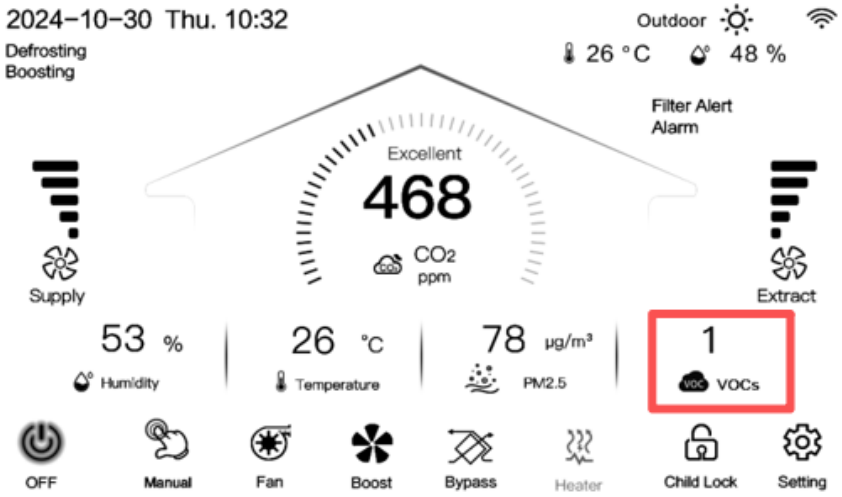
Display Priority

Where multiple PM2.5 sensors are connected, the controller displays the highest PM2.5 concentration currently detected.

Note:

Increased PM2.5 levels may indicate elevated airborne dust, smoke, or other fine particulates within the monitored environment.

3.2.1.17 Total Volatile Organic Compounds (TVOC)



The TVOC display provides a real-time indication of Total Volatile Organic Compound concentration.

TVOCs are airborne gases emitted from a variety of materials and products, including:

- Cleaning products
- Paints and coatings
- Furnishings
- Building materials
- Household chemicals

Monitoring TVOC levels can assist with assessing overall indoor air quality.

Sensor Sources

TVOC monitoring is available when the optional Internal CO_2 / PM2.5 / TVOC Sensor is installed.

The sensor provides measurements for:

- Carbon Dioxide (CO_2)
- PM2.5
- Total Volatile Organic Compounds (TVOC)

Operation

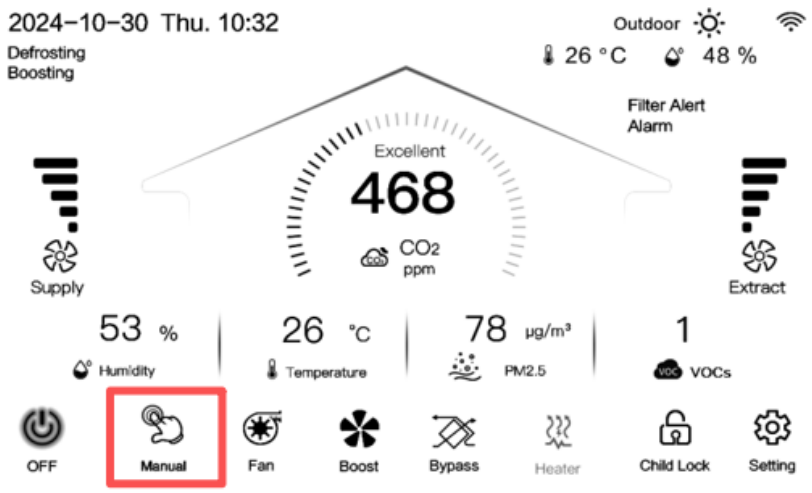
The displayed value updates automatically based on real-time measurements from the installed sensor.

Higher TVOC readings may indicate an increased concentration of airborne chemical compounds within the indoor environment.

Note:

TVOC monitoring is only available when a compatible TVOC-capable sensor is installed and communicating with the Habitat Central unit.

3.2.1.18 Operating Modes



The Premium Controller provides four operating modes, allowing the Habitat Central unit to operate according to different ventilation requirements.

To select an operating mode:

1. Navigate to the Home Screen.
2. Tap the required operating mode icon.

The selected mode will become active immediately.

3.2.1.18.1 Manual Mode

Manual Mode provides direct control over ventilation operation.

In this mode, the user can manually adjust the Supply Fan and Extract Fan speeds according to the desired ventilation requirements.

Features

- Manual fan speed adjustment.
- Direct control of ventilation performance.
- Independent fan speed adjustment when Fan Separation is enabled.

Fan Separation

When operating in Manual Mode, the Supply and Extract Fans can operate independently.

To enable Fan Separation:

1. Press and hold [Setting].
2. Select [Other].
3. Select [Fan Separation].
4. Set the function to ON.

Once enabled, the Supply and Extract Fan speeds can be adjusted separately, by pressing either of the Supply or Extract icons on the screen.

Sensor Operation

While Manual Mode is active:

- Connected sensors continue to monitor and display environmental conditions.
- Sensor readings remain visible on the controller.
- Automatic airflow adjustments based on sensor readings are disabled.

The ventilation system will continue operating according to the manually selected settings until another operating mode is selected.

Note:

Automatic control functions are inactive while the system is operating in Manual Mode.

Recommendation:

For most applications, Fanco recommends operating the Supply Fan and Extract Fan at the same speed to help maintain balanced air pressure within the building. Independent fan adjustment should only be used where there are specific ventilation requirements.

3.2.1.18.2 Timing Mode

Timing Mode allows the ventilation system to operate according to a factory or user-defined weekly schedule.

This mode enables users to define specific operating periods and fan speeds throughout the week.

Features

- Up to four operating periods per day.
- Independent scheduling for each day of the week.
- Adjustable Supply and Extract Fan speeds for each period.

Default Timer Schedule

The Habitat Central unit is supplied with a factory default schedule.

When activating Timer function with the Premium Control, if not changes were made, with Premium Control, the Timer Schedule will work as follows:

Monday to Friday

Timed Period	Time Range	Supply Fan Speed	Extract Fan Speed
Period 1	00:00 – 06:00	Level 1	Level 1
Period 2	06:00 – 16:00	Level 2	Level 2
Period 3	16:00 – 21:00	Level 4	Level 4
Period 4	21:00 – 23:59	Level 2	Level 2

Saturday and Sunday

Timed Period	Time Range	Supply Fan Speed	Extract Fan Speed
Period 1	00:00 – 07:00	Level 1	Level 1
Period 2	07:00 – 11:00	Level 3	Level 3
Period 3	11:00 – 21:00	Level 4	Level 4
Period 4	21:00 – 23:59	Level 2	Level 2

Setting a Timer Schedule

For settings of the timer schedule, please refer to the Section 3.2.1.23.3 Timer Settings.

Sensor Operation

While Timing Mode is active:

- The ventilation unit operates according to the programmed schedule.
- Automatic sensor-based airflow adjustments are disabled.
- Connected sensors continue to display environmental information.

Note:

For balanced ventilation performance, Fanco recommends operating the Supply and Extract Fans at the same speed unless a specific application requires otherwise.

3.2.1.18.3 Away Mode

Away Mode is designed for periods when the building is unoccupied, such as during holidays, business travel, or extended absences.

The purpose of Away Mode is to maintain background ventilation while reducing energy consumption.

This can assist in:

- Maintaining acceptable indoor air quality.
- Controlling indoor humidity levels.
- Reducing the risk of condensation.
- Limiting conditions that may contribute to mould or fungal growth.

Setting Away Mode

For further information about the Away Mode settings, please refer to the Section 3.2.1.23.7 Away Mode Settings.

Note:

For balanced airflow operation, Fanco recommends operating the Supply and Extract Fans at the same speed unless a specific application requires otherwise.

3.2.1.18.4 Auto Mode

Auto Mode allows the Habitat Central unit to automatically adjust its operation in response to environmental conditions detected by connected sensors.

This mode is designed to provide automatic indoor air quality management and maximise user convenience.

Automatic Operation

When Auto Mode is active:

- The ventilation system continuously monitors connected sensors.
- Fan speeds are adjusted automatically as required.
- Indoor air quality conditions are continuously evaluated.
- Ventilation performance is optimised according to real-time environmental data.

Depending on the installed accessories, the system may utilise information from:

- Internal Temperature Sensors
- Internal Humidity Sensors
- Internal CO_2 Sensors
- Internal PM2.5 Sensors
- Internal TVOC Sensors
- External Temperature Sensors
- External Humidity Sensors
- External CO_2 Sensors
- External PM2.5 Sensors

Activating Auto Mode

To activate Auto Mode:

1. Navigate to the Home Screen.
2. Select [Auto].

The system will immediately begin automatic operation.

Sensor Parameters

The Premium Controller allows adjustment of various sensor thresholds and operating parameters used by Auto Mode.

These settings can be customised to suit specific application requirements.

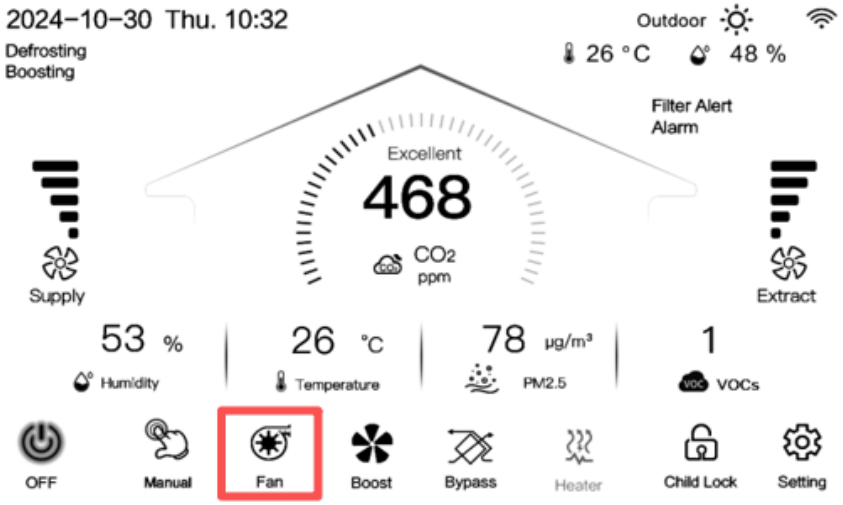
Note:

Refer to the relevant Sensor Settings sections of this manual for detailed information on configuring sensor parameters and automation thresholds.

Important:

Manual Mode, Timing Mode, Away Mode, and Auto Mode are mutually exclusive. Only one operating mode can be used at a time. When you select a new mode, the previous mode is automatically turned off.

3.2.1.19 Fan Speed Control



The [Fan] icon on the Home Screen allows the user to adjust the ventilation speed when the system is operating in Manual Mode.

When Fan Speed Control is used, both the Supply Fan and Extract Fan speeds are adjusted simultaneously to maintain balanced ventilation throughout the building.

Adjusting Fan Speed

To adjust the ventilation speed:

1. Ensure the operating mode is set to Manual.
2. Press the [Fan] icon on the Home Screen.
3. Select the desired fan speed level.

The selected speed will be applied to both the Supply Fan and Extract Fan.

Fan Speed Levels

The Habitat Central unit provides up to five (5) fan speed levels.

Higher fan speed levels provide increased airflow, while lower speeds reduce airflow and energy consumption.

Fan Separation

The Fan Speed Control function is only available when Fan Separation is disabled.

When Fan Separation is enabled:

- The [Fan] icon becomes unavailable.
- The Supply Fan and Extract Fan can be adjusted independently.
- Separate speed settings can be applied to each fan.

To adjust fan speeds independently, use the [Supply] and [Extract] icons on the Home Screen.

Enabling or Disabling Fan Separation

To enable or disable Fan Separation:

1. Press and hold [Setting] from the Home Screen.
2. Select [Other].
3. Locate [Fan Separation].
4. Select ON or OFF as required.

Fan Separation Modes

Setting	Description
OFF	The Supply Fan and Extract Fan operate together at the same speed. The [Fan] control is available.
ON	The Supply Fan and Extract Fan can be adjusted independently. The [Fan] control is disabled.

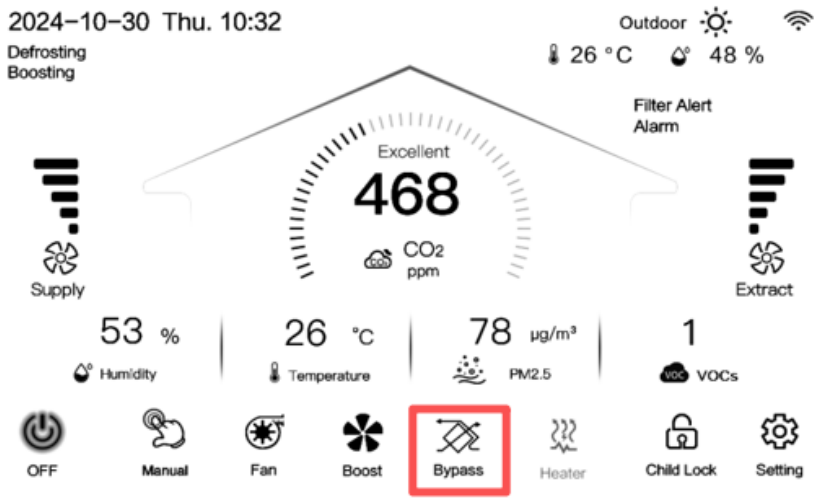
Note:

Fan Separation is only available when the ventilation system is operating in Manual Mode.

Recommendation:

For most applications, Fanco recommends operating the Supply Fan and Extract Fan at the same speed to help maintain balanced air pressure within the building. Independent fan adjustment should only be used where there are specific ventilation requirements.

3.2.1.20 Bypass Mode



The Bypass function determines whether incoming fresh air passes through the Heat/Energy Recovery Core or bypasses it completely.

When the bypass damper is closed, fresh air passes through the Heat/Energy Recovery Core, allowing heat and energy transfer to occur.

When the bypass damper is open, fresh air bypasses the Heat/Energy Recovery Core and is supplied directly to the building.

Bypass operation can be controlled either:

- Manually by the user, or
- Automatically by the controller.

Automatic control can help improve indoor comfort and energy efficiency when outdoor conditions are suitable.

3.2.1.20.1 Manual Bypass Control

Before the system can operate automatically, the user must first select how the bypass damper will be controlled.

Three operating modes are available:

1. Bypass ON

   Selecting Bypass ON forces the bypass damper to remain open at all times.

   - Fresh air bypasses the Heat/Energy Recovery Core.
   - Air is supplied directly to the building.
   - The damper remains open regardless of any automatic control settings.

2. Bypass OFF

   Selecting Bypass OFF forces the bypass damper to remain closed at all times.

   - All incoming air passes through the Heat/Energy Recovery Core.
   - Heat and energy recovery functions operate normally.
   - The damper remains closed regardless of any automatic control settings.

3. Bypass AUTO

   Selecting Bypass AUTO allows the controller to automatically operate the bypass damper.

   When this mode is selected, the damper will open or close according to the automatic control method selected in the same menu:

   - Outdoor Auto Mode, or;

- Indoor Auto Mode

The selected automatic mode determines when the bypass damper opens and closes based on temperature conditions.

Selecting a Bypass Mode

To change the bypass operating mode:

1. Navigate to the Home Screen.
2. Press the current Bypass setting.
3. Continue pressing to cycle through:
    - Bypass ON
    - Bypass OFF
    - Bypass AUTO
4. Stop when the desired setting is displayed.

Notes

- Automatic bypass operation is only available when Bypass AUTO is selected.
- Manual settings (Bypass ON or Bypass OFF) override all automatic bypass functions.
- Automatic operation uses the comfort temperature settings configured within the controller.
- Bypass operation can improve indoor comfort during mild weather conditions.
- Availability of the bypass function depends on the unit configuration.

3.2.1.20.2 Automatic Bypass Control

When Bypass AUTO is selected, the Habitat Central unit automatically controls the bypass damper based on temperature conditions.

Two automatic control methods are available:

- Outdoor Auto Mode
- Indoor Auto Mode

Important:

These automatic modes only operate when Bypass AUTO is selected.
If Bypass ON or Bypass OFF is selected, the damper position is fixed and automatic control is disabled.

1. Outdoor Auto Mode

When Outdoor Auto Mode is selected, the controller monitors the outdoor air temperature and compares it to the configured outdoor comfort temperature range.

The comfort range can be adjusted through:

Settings → Other → Outdoor Comfort Temperature Range

Default setting: 13°C to 26°C

Refer to Section 3.2.1.23.6 Other Settings for further information on how to set the Outdoor Temperature range.

How It Works

When both Bypass AUTO and Outdoor Auto Mode are selected:

- The unit continuously monitors the outdoor temperature.
- If the outdoor temperature falls within the configured comfort range, the controller may open the bypass damper.
- Fresh air is then supplied directly to the building without passing through the Heat/Energy Recovery Core.
- The controller automatically opens or closes the damper as required to assist with indoor comfort.

Note

The bypass damper is operated based solely on the outdoor temperature. Indoor temperature is not considered when Outdoor Auto Mode is active.

2. Indoor Auto Mode

When Indoor Auto Mode is selected, the controller monitors the indoor temperature and compares it to the configured indoor comfort temperature setpoint.

The comfort temperature can be adjusted through:

Settings → Other → Indoor Comfort Temperature Point

Default setting: 23°C

Refer to Section 3.2.1.23.6 Other Settings for further information on how to set the Indoor Temperature.

How It Works

When both Bypass AUTO and Indoor Auto Mode are selected:

- The unit continuously monitors the indoor temperature.
- When the indoor temperature rises above the configured comfort temperature, the bypass damper will automatically open.
- Fresh air is supplied directly to the building to assist in maintaining comfortable indoor conditions.
- The controller automatically opens or closes the damper as required.

Note

Indoor Auto Mode operates based solely on the indoor temperature and does not monitor outdoor temperature conditions.

Recommended Setting

When using Bypass AUTO, Fanco generally recommends selecting Outdoor Auto Mode.

Outdoor Auto Mode allows the system to take advantage of favourable outdoor conditions and is suitable for most applications. However, users may select either automatic mode according to their individual preferences and comfort requirements.

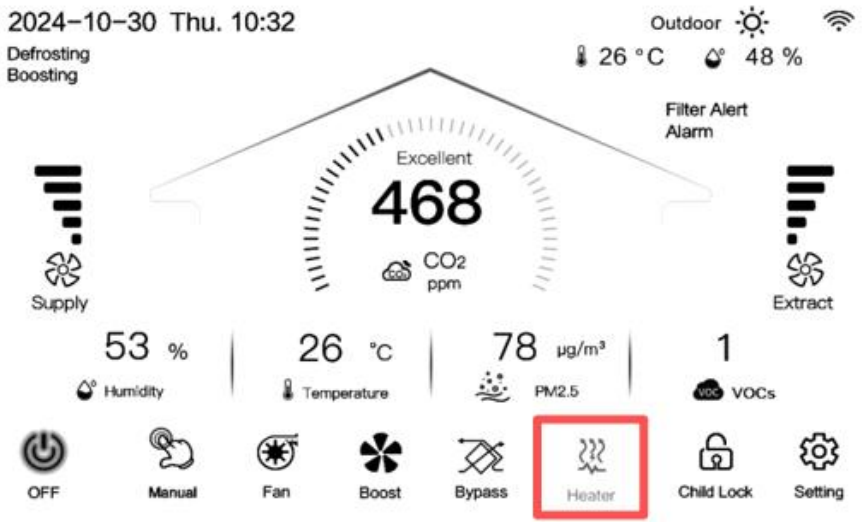
Free Cooling

Free Cooling is not available on the current Fanco Habitat Central range.

This feature is typically intended for ventilation systems that do not incorporate automatic bypass dampers. Because the Habitat Central 340 already includes an intelligent automatic bypass damper, similar comfort benefits are achieved through the unit's built-in bypass control functions.

In other words, the Habitat Central 340 does not need a separate Free Cooling mode because the system is already designed to automatically manage fresh air delivery when conditions are favourable.

3.2.1.21 Heater Control



The Heater Control function is not available at the time of publishing this manual. Further information can be request to the Fanco specialist team if required.

Important:

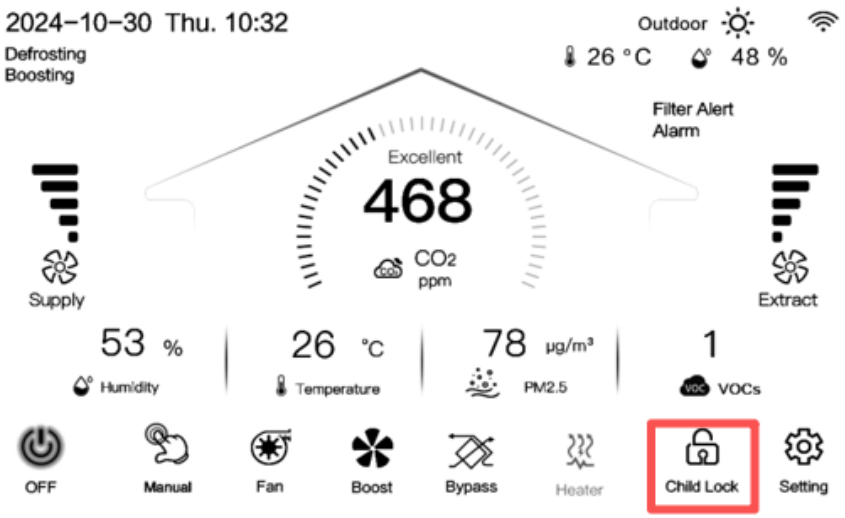
Heater control functions are disabled by default on Habitat Central units, as external heater integration is not currently offered as a standard product configuration by Fanco.

Customers intending to use external heating equipment are strongly advised to discuss their requirements with Fanco before purchase to ensure the appropriate system configuration is provided. Any future changes to system configuration may be subject to technical assessment and compatibility requirements.

Important:

External heaters are optional accessories and are not supplied with the Habitat Central unit.

3.2.1.22 Child Lock (Screen Lock)



The Child Lock function prevents unintended operation of the controller by disabling all touchscreen inputs.

This feature is particularly useful in residential environments where accidental changes to system settings may occur, helping to ensure the ventilation system continues operating with the current configuration.

Activating Child Lock

To enable the Child Lock function:

1. Press and hold the [Child Lock] icon.
2. Continue holding until the controller confirms activation, by a sound on the screen and illumination of the [Child Lock] icon.
3. The screen will become locked and user inputs will be disabled.

Deactivating Child Lock

To disable the Child Lock function:

1. Press and hold the [Child Lock] icon.
2. Continue holding until the controller confirms deactivation, by a sound on the screen and the [Child Lock] icon not being illuminated.
3. Normal touchscreen operation will be restored.

Child Lock Indication

When Child Lock is enabled:

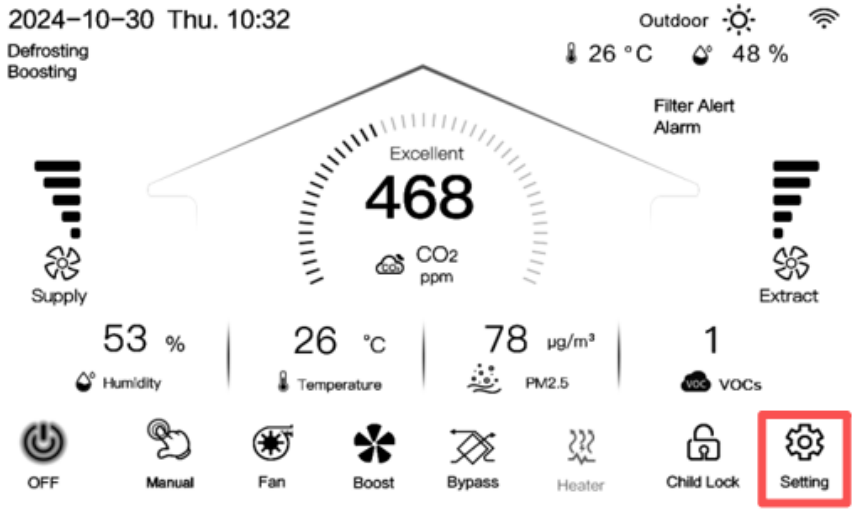
- The controller will display a lock indicator on the screen.
- All touchscreen inputs will be disabled.

- System settings cannot be changed until the controller is unlocked.

Notes:

- The Child Lock function only affects operation of the controller and does not stop the ventilation system.
- The ventilation unit will continue operating using the last active settings and operating mode.
- Any programmed schedules, timers, and automatic functions will continue to operate normally while Child Lock is enabled.
- To regain access to the controller, the Child Lock function must be manually disabled.

3.2.1.23 Settings Menu



The Settings Menu provides access to the configuration, monitoring, and advanced control functions of the Habitat Central ventilation system.

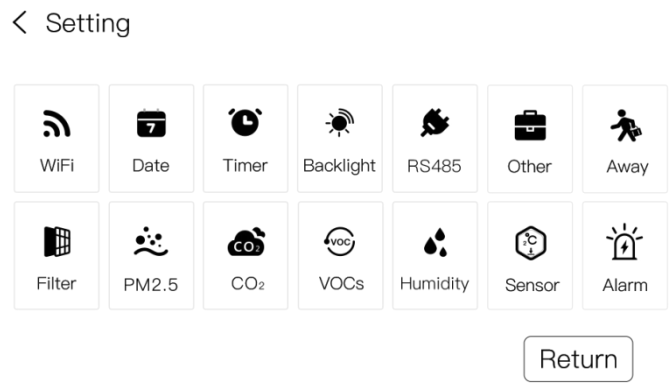
Through this menu, users can configure operating schedules, network settings, air quality control parameters, sensor settings, maintenance functions, and other system features.

Accessing the Settings Menu

To enter the Settings Menu:

1. Press and hold [Setting] from the Home Screen.
2. The Settings Menu will be displayed.

From this menu, users can access the available configuration and monitoring functions described below.



Available Settings:

3.2.1.23.1 Wi-Fi

The Wi-Fi Configuration function allows the Habitat Central ventilation system to connect to the Tuya Smart App, enabling remote monitoring and control using a compatible smartphone or tablet.

Once connected, users can monitor system operation, adjust settings, and access supported smart features remotely.

Functions may include:

- Wi-Fi configuration
- App connectivity

- Remote monitoring
- Remote control functions

Requirements

Before beginning the setup process, ensure the following requirements have been met:

- An External Wi-Fi Module is installed and connected to the Habitat Central unit.
- A stable Wi-Fi network is available.
- A compatible smartphone or tablet is available.
- The Tuya Smart App has been downloaded and installed.

Important

Wi-Fi functionality is only available when the optional External Wi-Fi Module is installed and operating correctly. – For more information on how to install the External Wi-Fi Module, refer to section: 3.2.3 External Wi-Fi Module -Wired.

Preparing the Smartphone App

Before pairing the ventilation system:

1. Download and install the Tuya Smart App from the appropriate app store.
2. Enable both Wi-Fi and Bluetooth on your smartphone or tablet.
3. Open the Tuya Smart App.
4. Create a new account or log in to an existing account.
5. Press [Add Device].

The app is now ready to begin the pairing process.

Entering Network Configuration Mode

To place the Habitat Central unit into pairing mode:

1. Press and hold [Setting] from the Home Screen.
2. Select [Wi-Fi].
3. Select [Network].

When pairing mode has been activated:

- The Wi-Fi icon on the controller will begin flashing.
- The ventilation system is ready to connect to the Tuya Smart App.

Pairing the Ventilation System

Once the system has entered pairing mode:

1. Open the Tuya Smart App.

2. If the ventilation system is automatically detected, select [Add] when prompted.
3. If the device does not appear automatically, navigate to:

   Small Home Appliances → Ventilation System (BLE + WiFi)

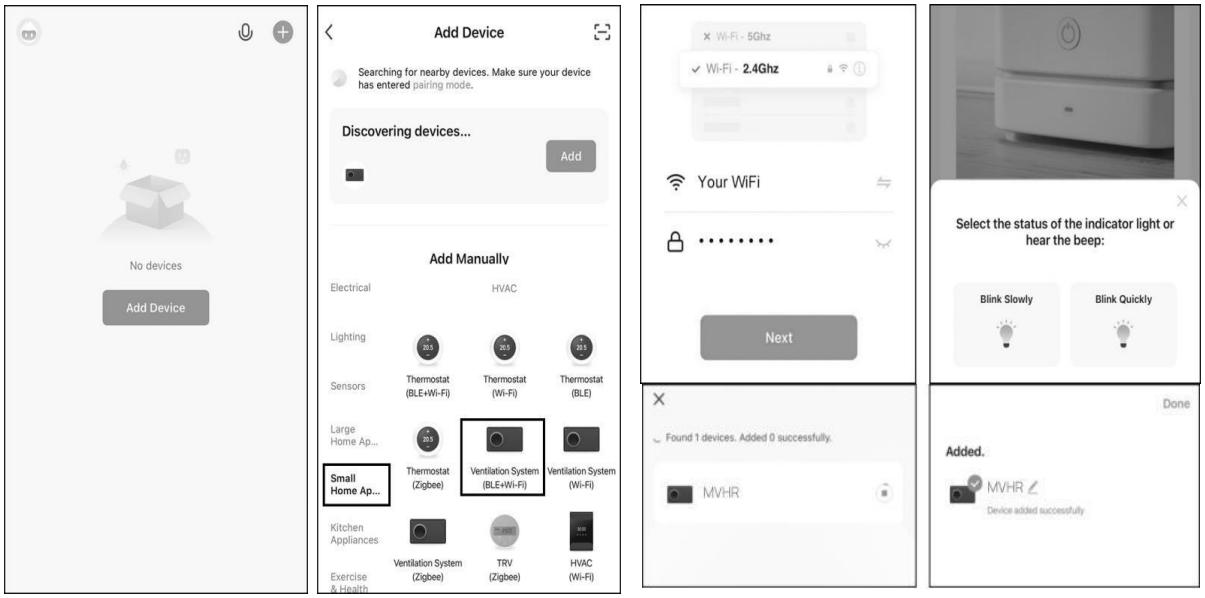
4. Follow the on-screen instructions.
5. Enter the Wi-Fi network name and password when requested.
6. Wait for the pairing process to complete.

Completing the Connection

The pairing process is complete when:

- The ventilation system appears within the Tuya Smart App.
- The Wi-Fi icon remains continuously illuminated on the controller.
- Remote monitoring and control functions become available.

The Habitat Central unit can now be monitored and controlled remotely through the Tuya Smart App.



Wi-Fi Status Indicators

The Wi-Fi icon on the controller provides information regarding the connection status.

Wi-Fi Icon Status	Description
Flashing	Network Configuration Mode active and ready for pairing.
Solid On	Successfully connected to the Wi-Fi network and cloud platform.
Not Displayed	Wi-Fi Module not installed, unavailable, or not connected.

Depending on the pairing stage, the Tuya Smart App may request confirmation of the Wi-Fi icon flashing speed.

Troubleshooting

If pairing is unsuccessful:

- Confirm the External Wi-Fi Module has been installed correctly.
- Check that the smartphone is connected to the intended Wi-Fi network.
- Verify that Wi-Fi and Bluetooth are enabled on the smartphone.
- Confirm the controller is in Network Configuration Mode.
- Restart the pairing procedure and try again.

Notes:

- Keep the smartphone close to the ventilation unit during the pairing process.
- Do not exit the setup procedure until pairing has been completed successfully.
- Poor Wi-Fi signal strength may affect connection reliability and remote operation.
- Some router security settings or network configurations may prevent successful pairing.
- If connection issues persist, refer to the Wi-Fi Module section of this manual or contact Fanco Technical Support for assistance.

3.2.1.23.2 Date and Time

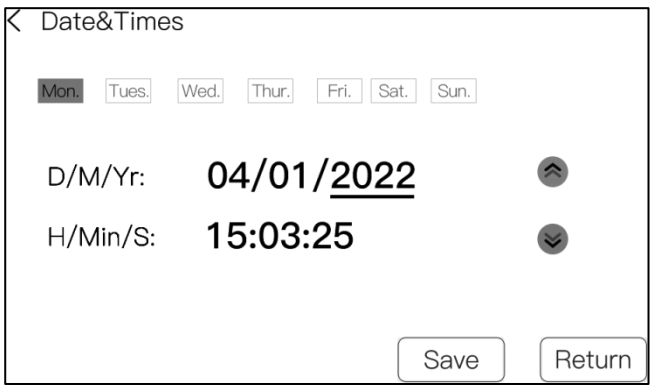
The Date & Time menu allows the current date, time, and day of the week to be configured.

Accessing the Date and Time Settings

To view or adjust the date and time:

1. Press and hold [Setting] from the Home Screen.
2. Select [Date].

The Date and Time Settings screen will be displayed.



Setting the Day of the Week

Tap the screen to select the current day from the available options:

Mon | Tues | Wed | Thur | Fri | Sat | Sun

Setting the Date

The date is displayed in the following format:

[D/M/Yr] – Day/Month/Year

To change the date:

1. Tap the field you wish to modify.
2. Use the [▲] or [▼] buttons to adjust the value.
3. Repeat for the day, month, and year as required.

Example:

[D/M /Yr] → [04/01/2022]

Setting the Time

The time is displayed in the following format:

[H/Min/S]

Time will be displayed in 24hr format (example: 3:03:25PM becomes 15:03:25)

To change the time:

1. Tap the field you wish to modify.
2. Use the [▲] or [▼] buttons to adjust the value.
3. Repeat for hours, minutes, and seconds as required.

Example:

[H/Min/S] → [15:03:25]

Saving the Settings

Once all values have been adjusted:

1. Press [Save].
2. The controller will store the new settings.
3. The updated date and time will be displayed on the Home Screen.

Notes

- Accurate date and time settings help ensure scheduled functions operate correctly.
- Time-based operating modes rely on the controller clock being set correctly.
- Date and time information may also be used for event logging and system records.
- Following a prolonged power interruption, verify that the displayed date and time remain correct.

3.2.1.23.3 Timer Settings

The Timer function allows the Habitat Central ventilation system to operate according to a user-defined schedule.

Each day of the week can be divided into up to four (4) timed periods, with independent Supply Fan and Extract Fan speed settings assigned to each period.

This feature allows ventilation rates to be adjusted automatically throughout the day, helping to maintain indoor air quality while optimising energy consumption and occupant comfort.

Functions include:

- Weekly scheduling
- Start and stop times
- Fan speed selection
- Multiple operating periods per day

Note:

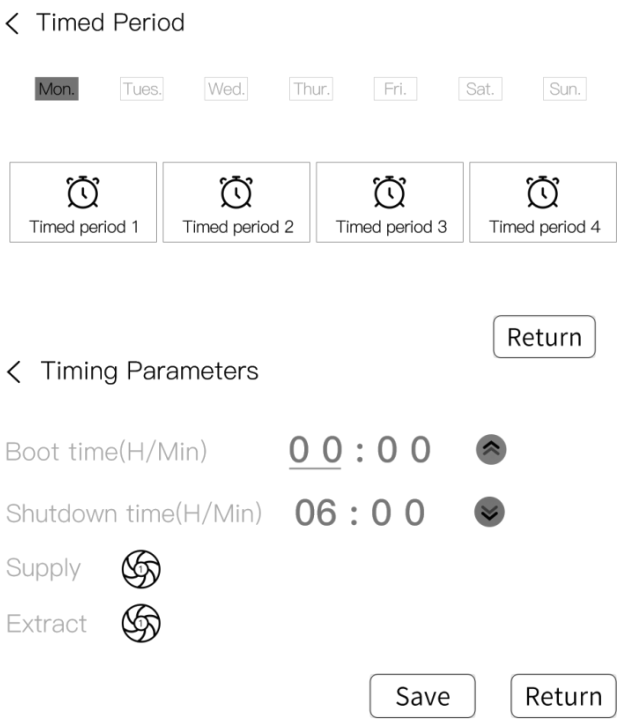
Timer schedules are only active when the system is operating in Timing Mode.

Accessing the Timer Menu

To access the Timer settings:

1. Press and hold [Setting] from the Home Screen.
2. Select [Timer].

The Timer Settings screen will be displayed.



Selecting a Day

A separate schedule can be configured for each day of the week.

Select the required day:

- Mon. – Monday
- Tue. – Tuesday
- Wed. – Wednesday
- Thu. – Thursday
- Fri. – Friday
- Sat. – Saturday
- Sun. – Sunday

Selecting a Timed Period

Each day includes four configurable operating periods:

- Timed Period 1
- Timed Period 2
- Timed Period 3
- Timed Period 4

Select the required Timed Period to access its operating parameters.

Setting the Start Time

The Start Time defines when the selected Timed Period begins.

Note:

Some controller screens may refer to the Start Time as Boot Time.

To adjust the Start Time:

1. Select [Boot Time (H/Min)].
2. Select the Hours or Minutes field.
3. Use the [▲] or [▼] buttons to adjust the value.

All timer schedules use the 24-hour time format.

Example:

[06] [00] = 6:00 AM

[18] [00] = 6:00 PM

Setting the End Time

The End Time defines when the selected Timed Period finishes.

Note:
Some controller screens may refer to the End Time as Shutdown Time.

To adjust the End Time:

1. Select [Shutdown Time (H/Min)].
2. Select the Hours or Minutes field.
3. Use the [▲] or [▼] buttons to adjust the value.

Example:

[09] [00] = 9:00 AM

[21] [00] = 9:00 PM

Setting the Supply Fan Speed

To configure the Supply Fan speed for the selected Timed Period:

1. Press the [Supply] icon.
2. Select the desired fan speed level.
3. The selected speed will be displayed within the icon.

Setting the Extract Fan Speed

To configure the Extract Fan speed for the selected Timed Period:

1. Press the [Extract] icon.
2. Select the desired fan speed level.
3. The selected speed will be displayed within the icon.

Saving the Schedule

Once all timing and fan speed settings have been configured:

1. Press [Save].
2. The schedule will be stored and applied to the selected day and Timed Period.

Repeat this process for additional periods or days as required.

Default Timer Schedule

The Habitat Central unit is supplied with a factory default schedule which can be modified at any time.

Monday to Friday

Timed Period	Time Range	Supply Fan Speed	Extract Fan Speed
Period 1	00:00 – 06:00	Level 1	Level 1
Period 2	06:00 – 16:00	Level 2	Level 2
Period 3	16:00 – 21:00	Level 4	Level 4
Period 4	21:00 – 23:59	Level 2	Level 2

Saturday and Sunday

Timed Period	Time Range	Supply Fan Speed	Extract Fan Speed
Period 1	00:00 – 07:00	Level 1	Level 1
Period 2	07:00 – 11:00	Level 3	Level 3
Period 3	11:00 – 21:00	Level 4	Level 4
Period 4	21:00 – 23:59	Level 2	Level 2

Recommendations

For most residential applications, Fanco recommends operating the Supply Fan and Extract Fan at the same speed to maintain balanced ventilation and minimise pressure differences within the building.

Independent fan speed adjustment should only be used where a specific ventilation strategy has been designed for the installation.

Notes:

- All timer schedules use the 24-hour time format.
- Each day of the week can have an independent operating schedule.
- Up to four Timed Periods can be configured per day.
- Supply Fan and Extract Fan speeds can be configured individually for each Timed Period.
- The system date and time must be configured correctly for Timer Mode to operate as intended.
- Editing a Timed Period will overwrite any previously saved settings for that period.
- Timer schedules are only active while the unit is operating in Timing Mode.

3.2.1.23.4 Backlight Settings

The Backlight & Screen Settings menu allows adjustment of the controller display brightness and screen timeout behaviour.

These settings can be used to improve display visibility during normal operation while reducing light output during periods of inactivity.

Functions may include:

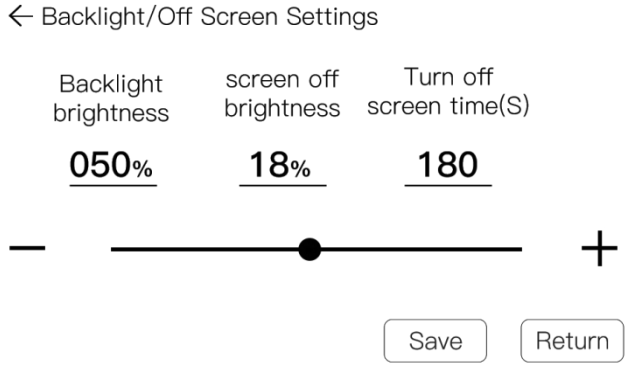
- Display brightness adjustment
- Screen saver settings
- Automatic backlight timeout

Accessing the Backlight Settings Menu

To access the Backlight settings:

1. Press and hold [Setting] from the Home Screen.
2. Select [Backlight].

The Backlight Settings screen will be displayed.



Active Screen Brightness

The Backlight Brightness setting adjusts the display brightness while the controller is in use.

To adjust the active screen brightness:

1. Select [Backlight Brightness].
2. Press [+] or [-] to increase or decrease the brightness level.
3. The selected value will be displayed as a percentage.

Example:

[50%] = Display brightness is set to 50% during normal operation.

Screen-Off Brightness

The Screen Off Brightness setting controls the display brightness after the controller has remained inactive for the configured timeout period.

This allows the display to remain visible while reducing light output and power consumption.

To adjust the inactive screen brightness:

1. Select [Screen Off Brightness].
2. Press [+] or [-] to increase or decrease the brightness level.
3. The selected value will be displayed as a percentage.

Example:

[18%] = Display brightness is reduced to 18% after the inactivity timeout period.

Screen Timeout

The Screen Timeout setting determines how long the controller remains fully illuminated before entering Screen Saver mode.

To adjust the timeout period:

1. Select [Turn Off Screen Time (S)].
2. Press [+] or [-] to adjust the timeout value.
3. Enter the required time in seconds.

Example:

[180] = The display will enter Screen Saver mode after 180 seconds (3 minutes) of inactivity.

Saving the Settings

Once all display settings have been adjusted:

1. Press [Save].
2. The new settings will be stored and applied immediately.

Screen Saver Operation

When the configured timeout period has elapsed:

- The display brightness will automatically reduce to the configured Screen Off Brightness level.
- The ventilation system will continue to operate normally.
- Touching the screen will immediately restore the display to the active brightness level.

Notes:

- Backlight Brightness applies while the controller is actively being used.
- Screen Off Brightness applies after the inactivity timeout period has elapsed.
- Touching the display will restore the controller to the active brightness setting.
- Lower Screen Off Brightness settings may help minimise light disturbance in bedrooms and other low-light environments.
- Display brightness settings do not affect ventilation system performance or operation.
- Screen timeout settings only affect the display and do not stop or modify any active ventilation functions.

3.2.1.23.5 RS485 / Modbus Settings

[RS485] → Modbus Communication

The RS485 / Modbus function allows the Habitat Central ventilation system to communicate with external control systems, including:

- Building Management Systems (BMS)
- Home Automation Systems
- Supervisory Control Systems
- Third-Party Controllers
- Energy Management Platforms

Communication is provided through an RS485 network using the Modbus RTU protocol.

Important:

RS485 communication should only be configured by personnel familiar with Modbus communication systems and network integration requirements.

Accessing the RS485 Menu

To access the RS485 settings:

1. Press and hold [Setting] from the Home Screen.
2. Select [RS485].

The RS485 Communication Settings menu will be displayed.

Modbus Address

Each device connected to the same RS485 network must be assigned a unique Modbus address.

Address Range

Parameter	Value
Supported Address Range	1–254
Factory Default Address	1

Default 1	10000	Add.7	11100
Add.2	01000	Add.8	00010
Add.3	11000	Add.9	10010
Add.4	00100	Add.10	01010
Add.5	10100	Add.11	11010
Add.6	01100	Add.12	00110
Add.7	11100	Add....	.....

Changing the Modbus Address

The Modbus address is configured using the DIP switches located on the main PCB.

To modify the Modbus address:

1. Isolate the power supply to the ventilation unit.
2. Open the electrical compartment and locate the main control PCB.
3. Locate the Modbus Address DIP switches.
4. Adjust the switches to the required address.
5. Restore power to the ventilation unit.

Note:

Refer to the DIP Switch Configuration Table in the Installation Section of this manual for address configuration details.

RS485 Wiring Connections

Connect the RS485 communication cable to the designated communication terminals on the Habitat Central control board.

Terminal	Connection
RS485 A	External RS485 A
RS485 B	External RS485 B

Ensure polarity is maintained throughout the RS485 network.

Important:

Incorrect polarity or wiring may prevent communication between devices.

Communication Parameters

The Habitat Central unit supports the following communication settings:

Parameter	Value
Communication Type	RS485
Protocol	Modbus RTU
Baud Rate	9600
Data Bits	8
Stop Bits	1
Parity	None

Supported Modbus Function Codes

The following Modbus functions are supported:

Function Code	Description
0x03	Read Holding Registers
0x06	Write Single Register
0x10	Write Multiple Registers

Modbus Register Map

The following registers are available for monitoring and control through Modbus communication.

DEC	Register type	Description	DEC Data Range
00	Read/Write	Equipment condition	0:Power off, 1:Power on
01	Read/Write	Operation mode	0:Auto, 1:Manual, 2:Timer, 3:Away
02	Read/Write	Supply fan speed	Gear speed matching 1-5
03	Read/Write	Extract fan speed	Gear speed matching 1-5
04	Read/Write	Bypass mode Indoor Auto / Outdoor Auto	0:Indoor auto mode, 1:Outdoor auto mode
05	Read/Write	Bypass damper setting	0:Manual off, 1:Manual on, 2:Auto mode
06	Read/Write	Freecooling	0:Off, 1:Open, 2:Auto
07	Read/Write	Postheat	0:OFF, 1:ON (Auto)
08	Read/Write	Preheat	0:OFF, 1:ON (Auto)
09	Read/Write	H-Filter usage time	Hour range:0-999, Write:0XAA for reset
10	Read/Write	F-Filter usage time	Hour range:0-999, Write:0XAA for reset
11	Read/Write	G-Filter usage time	Hour range:0-999, Write:0XAA for reset
12	Read/Write	Boost command	0:End, 1:Trigger
13	Read/Write	Boost function setting	0:Both fan, 1:Supply fan only, 2:Extract fan only
14	Read/Write	OD Damp condition	0:Both fan ON, 1:Both fan OFF, 2:Extract fan only
15	Read/Write	Fan separation control	0:Synchronous speed,1:Independent speed
16	Read	Filter alert	0:No alert 1: Alert
17	Read	Defrost condition	0:Not defrosted 1:Exhaust fan defrosting 2: Preheat defrosting
18	Read	Bypass damper feedback	0:Damper OFF, 1:Damper ON
19	Read	Return air(RA) temperature	Temperature range:-50-50℃
20	Read	Return air(RA) humidity	Humidity range:0-99%
21	Read	PM2.5 (Highest data after logic)	PM2.5 range:0-999ug/m^3
22	Read	CO2 (Highest data after logic)	CO2 range:400-5000ppm
23	Read	Return air(RA) VOCs	VOCs Level:1~4
24	Read	Alarm	0:Communication error, 1:Reserve,2:Reserve,3:RA sensor error 4:SA sensor error,5:OA sensor error,6:EA

			sensor error,7:Supply fan failure, 8:Extract fan failure, 9:Reserve
25	Read	Outdoor air(OA) humidity	Humidity range:0-99%
26	Read	Outdoor air(OA) temperature	Temperature range:-50-50℃
27	Read	Exhaust air(EA) temperature	Temperature range:-10-50℃
28	Read	Supply air(SA) temperature	Temperature range:-10-50℃
29	Read	External temperature (Onsite1)	Temperature range:-40-70℃
30	Read	External humidity (Onsite1)	Humidity range:0-99%
31	Read	External CO2 (Onsite1)	CO2 range:400-5000ppm
32	Read	External PM2.5 (Onsite1)	PM2.5 range:0-999ug/m^3
33	Read	External temperature (Onsite2)	Temperature range:-40-70℃
34	Read	External humidity (Onsite2)	Humidity range:0-99%
35	Read	External CO2 (Onsite2)	CO2 range:400-5000ppm
36	Read	External PM2.5 (Onsite2)	PM2.5 range:0-999ug/m^3
37	Read	External temperature (Onsite3)	Temperature range:-40-70℃
38	Read	External humidity (Onsite3)	Humidity range:0-99%
39	Read	External CO2 (Onsite3)	CO2 range:400-5000ppm
40	Read	External PM2.5 (Onsite3)	PM2.5 range:0-999ug/m^3
41	Read	External temperature (Onsite4)	Temperature range:-40-70℃
42	Read	External humidity (Onsite4)	Humidity range:0-99%
43	Read	External CO2 (Onsite4)	CO2 range:400-5000ppm
44	Read	External PM2.5 (Onsite4)	PM2.5 range:0-999ug/m^3
45	Read	External temperature (Onsite5)	Temperature range:-40-70℃
46	Read	External humidity (Onsite5)	Humidity range:0-99%
47	Read	External CO2 (Onsite5)	CO2 range:400-5000ppm
48	Read	External PM2.5 (Onsite5)	PM2.5 range:0-999ug/m^3
49	Read	External temperature (Onsite6)	Temperature range:-40-70℃
50	Read	External humidity (Onsite6)	Humidity range:0-99%
51	Read	External CO2 (Onsite6)	CO2 range:400-5000ppm
52	Read	External PM2.5 (Onsite6)	PM2.5 range:0-999ug/m^3
53	Read	External temperature (Onsite7)	Temperature range:-40-70℃
54	Read	External humidity (Onsite7)	Humidity range:0-99%
55	Read	External CO2 (Onsite7)	CO2 range:400-5000ppm
56	Read	External PM2.5 (Onsite7)	PM2.5 range:0-999ug/m^3
57	Read	External temperature (Onsite8)	Temperature range:-40-70℃
58	Read	External humidity (Onsite8)	Humidity range:0-99%
59	Read	External CO2 (Onsite8)	CO2 range:400-5000ppm
60	Read	External PM2.5 (Onsite8)	PM2.5 range:0-999ug/m^3

3.2.1.23.6 Other Settings

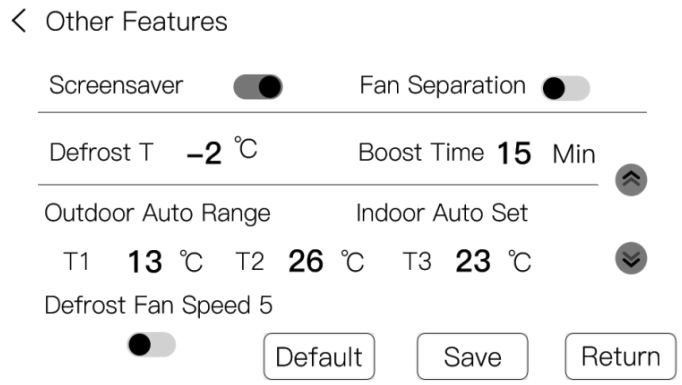
The Other Features menu provides access to additional system settings relating to display behaviour, fan operation, frost protection, boost control, and automatic bypass operation.

To access the Other Features menu:

1. Press and hold [Setting] from the Home Screen.
2. Select [Other].

The available settings may vary depending on the system configuration and installed accessories, such as:

- Boost Time
- Fan Separation
- Defrost Temperature
- Indoor Comfort Temperature
- Outdoor Comfort Temperature
- Other advanced operating parameter



Screensaver

The Screensaver function controls whether the display automatically enters Screen Saver mode after a period of inactivity.

Enabling this function can help reduce display brightness and minimise light output when the controller is not being used.

Enabling or Disabling the Screensaver

To adjust the Screensaver setting:

1. Locate [Screensaver] within the Other Features menu.
2. Select ON or OFF as required.

Operation

When the Screensaver function is enabled:

- The display will enter Screen Saver mode after the inactivity period configured within the menu Section 3.2.1.23.4 Backlight Settings.
- The ventilation system will continue operating normally.
- Touching the screen will immediately return the display to normal operation.

Notes:

- The Screensaver function only affects the controller display.
- Ventilation operation, schedules, and control settings are not affected while the screen is in Screen Saver mode.
- Screen timeout duration is configured separately through the Backlight & Screen Settings menu.

Fan Separation

The Fan Separation function allows the Supply Fan and Extract Fan to operate at different speed levels.

This feature enables independent airflow adjustment and can be used where specific ventilation requirements call for positive or negative building pressure.

Enabling or Disabling Fan Separation

To adjust the Fan Separation setting:

1. Locate [Fan Separation] within the Other Features menu.
2. Select ON or OFF as required.

Fan Separation OFF

When Fan Separation is disabled and the system is operating in Manual Mode:

- The [Fan] icon controls both the Supply Fan and Extract Fan simultaneously.
- Both fans operate at the same speed level.
- Balanced ventilation operation is maintained.

Fan Separation ON

When Fan Separation is enabled and the system is operating in Manual Mode:

- The [Supply] icon can be used to adjust the Supply Fan independently.
- The [Extract] icon can be used to adjust the Extract Fan independently.
- Different speed levels may be assigned to each fan.

This allows customised airflow balancing based on the ventilation requirements of the building.

Recommendations

For most residential applications, Fanco recommends operating the Supply Fan and Extract Fan at the same speed to maintain balanced airflow throughout the building.

Independent fan speed adjustment should only be used where a specific ventilation strategy requires positive or negative pressure control.

Notes

- Fan Separation is only available when the system is operating in Manual Mode.
- Automatic operating modes continue to manage airflow automatically and do not support independent fan adjustment.
- Excessive imbalance between Supply and Extract airflow may affect building pressure and overall system performance.
- Fan Separation settings remain active until manually changed by the user.

Defrost Temperature

The Defrost Temperature [Defrost T] setting determines the temperature at which the automatic frost protection function is activated during cold weather operation.

The purpose of this function is to minimise frost accumulation within the Heat/Energy Recovery Core and maintain reliable ventilation performance.

Setting the Defrost Temperature

To adjust the Defrost Temperature:

1. Select [Defrost T].
2. Press the [▲] or [▼] button to adjust the temperature setting.

Available Range:
-5°C to +3°C

Defrost Operation

Automatic Defrost Mode is activated when:

- The Exhaust Air (EA) temperature falls below the configured Defrost Temperature.

When Defrost Mode is active:

- The Supply Fan is stopped.
- The Extract Fan operates at Speed Level 4.
- Frost accumulation within the Heat/Energy Recovery Core is reduced.

Defrost Mode will end when either of the following conditions is met:

- The Exhaust Air temperature rises above the Return Air temperature minus 3°C.

The controller evaluates defrost conditions approximately every 45 minutes.

Once the defrost cycle has been completed, the system automatically returns to its previous operating mode.

Notes

- Depending on the system configuration, the Extract Fan may be configured to operate at Speed Level 5 during defrost operation.
- Defrost operation is fully automatic and requires no user intervention.
- Defrost performance may vary depending on outdoor temperature, humidity, and installation conditions.

Boost Time

The Boost Time setting determines how long the ventilation system remains in Boost Mode after it has been activated.

Setting the Boost Duration

To adjust the Boost duration:

1. Select [Boost Time].
2. Press the [▲] or [▼] button to adjust the operating duration.

Boost Operation

Boost Mode may be activated by:

- Pressing and holding the [Boost] icon on the Home Screen.
- Activating through the Tuya App if Wi-Fi module has been installed.

When Boost Mode is active:

- The ventilation system operates according to the configured Boost Conditions.
- Fan operation increases to the selected Boost setting.
- The system remains in Boost Mode for the configured duration.
- Upon completion, the system automatically returns to the previously active operating mode.

Notes:

- Boost Mode is intended for temporary increases in ventilation demand.

- Longer Boost durations may increase energy consumption.
- The configured Boost Time will be applied each time Boost Mode is activated.

Outdoor Auto Range (Bypass Control)

The Outdoor Auto Range setting defines the outdoor temperature range used by the automatic bypass control system when operating in Outdoor Auto Mode.

The controller uses these temperature parameters to determine when bypass operation may be beneficial for occupant comfort.

Setting the Temperature Range

To adjust the Outdoor Auto Range:

1. Select [Outdoor Auto Range].
2. Adjust T1 and T2 using the [▲] or [▼] buttons.

Available Ranges

Parameter	Range
T1	+10°C to +20°C
T2	+20°C to +40°C

Automatic Bypass Operation

When Outdoor Auto Mode is selected, the bypass damper will open when:

- The indoor extract air temperature exceeds the outdoor intake air temperature by more than 3°C, and
- The outdoor intake air temperature falls within the configured T1–T2 range.

The bypass damper will close when:

- The temperature difference falls below 3°C, or
- The outdoor temperature falls outside the configured range.

Notes:

- Outdoor Auto Mode uses outdoor air temperature as the primary reference for bypass control.
- Correct operation depends on accurate temperature sensor readings.
- Bypass functionality is only available on models fitted with a bypass damper.

Indoor Auto Set (Bypass Control)

The Indoor Auto Set parameter defines the preferred indoor comfort temperature used when the system operates in Indoor Auto Mode.

The controller uses this setting to determine when bypass operation may improve indoor comfort conditions.

Setting the Indoor Comfort Temperature

To adjust the Indoor Auto Set temperature:

1. Select [Indoor Auto Set].
2. Adjust T3 using the [▲] or [▼] buttons.

Available Range

+15°C to +40°C

Automatic Bypass Operation

When Indoor Auto Mode is selected, the controller continuously compares:

- Indoor extract air temperature.
- Outdoor intake air temperature.
- The configured Indoor Comfort Temperature (T3).

Based on these values, the controller will automatically open or close the bypass damper to assist in maintaining comfortable indoor conditions.

This function allows the system to utilise favourable outdoor temperatures when beneficial, reducing reliance on heat recovery operation where appropriate.

Notes:

- Indoor Auto Mode typically operates within a temperature differential of approximately ±3°C from the configured comfort temperature.
- Bypass operation is fully automatic once configured.
- Actual bypass behaviour may vary depending on environmental conditions and system configuration.

Saving or Restoring Settings

Saving Changes

After modifying any parameter:

1. Press [Save].
2. The updated setting will be stored and applied immediately.

Restoring Factory Default Values

To restore an individual setting to its factory default value:

1. Select the parameter to be restored.
2. Press [Default].
3. The selected parameter will revert to its original factory configuration.

Important:

Some settings within the Other Features menu may only be available on specific models or when certain accessories are installed.

Important:

Changes to Defrost, Boost, and Bypass control parameters may affect overall system performance, comfort levels, and energy efficiency.

Recommendation:

For most residential applications, Fanco recommends retaining the factory default settings unless a specific installation or operating requirement exists.

Note:

If changes are made to advanced operating parameters, allow sufficient operating time to evaluate their effect on system performance before making further adjustments.

3.2.1.23.7 Away Mode Settings

Away Mode is designed to maintain background ventilation during extended periods when the building is unoccupied.

Typical applications include:

- Holidays

- Business travel
- Seasonal properties
- Extended periods of vacancy

During Away Mode, the ventilation system operates according to a predefined schedule and operating parameters, helping to maintain indoor air quality while reducing energy consumption.

The function periodically cycles the ventilation system on and off while maintaining the selected fan speeds and control settings.

Functions may include:

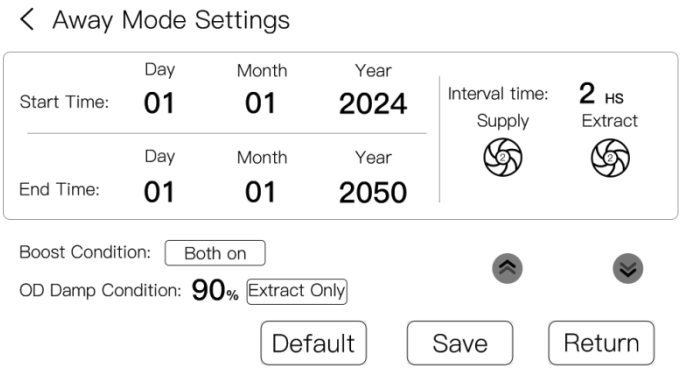
- Start Date
- End Date
- Interval Time
- Supply Fan Speed
- Extract Fan Speed
- Outdoor Damper (OD) Condition

Accessing Away Mode Settings

To access the Away Mode configuration menu:

1. Press and hold [Setting] from the Home Screen.
2. Select [Away].

The Away Mode Settings screen will be displayed.



Start Date

The Start Date determines when Away Mode will become active.

To configure the Start Date:

1. Select the Day, Month, or Year field.
2. Press the [▲] or [▼] button to adjust the selected value.
3. Repeat until the required activation date is displayed.

Once the configured Start Date is reached, Away Mode will automatically become active.

End Date

The End Date determines when Away Mode will end and normal operation will resume.

To configure the End Date:

1. Select the Day, Month, or Year field.
2. Press the [▲] or [▼] button to adjust the selected value.
3. Repeat until the required end date is displayed.

When the configured End Date is reached, the system will automatically return to its previous operating mode.

Interval Time

The Interval Time determines how frequently the ventilation system operates while Away Mode is active.

Setting the Interval Time

1. Select [Interval Time].
2. Press the [▲] or [▼] button to adjust the value.
3. Select the required operating interval.

Operation

The selected interval is applied equally to both the operating and standby periods.

Example:

[2 HS]

The ventilation system will:

- Operate for 2 hours.
- Enter standby mode for 2 hours.
- Restart automatically for another 2 hours.

This cycle will continue until Away Mode ends.

Supply Fan Speed

The Supply Fan [Supply] speed used during Away Mode can be adjusted independently.

To configure the Supply Fan speed:

1. Select [Supply].
2. Choose the required fan speed level.
3. The selected speed will be displayed on the icon.

Extract Fan Speed

The Extract Fan [Extract] speed used during Away Mode can be adjusted independently.

To configure the Extract Fan speed:

1. Select [Extract].
2. Choose the required fan speed level.
3. The selected speed will be displayed on the icon.

Recommendation:

For most applications, Fanco recommends operating the Supply Fan and Extract Fan at the same speed to maintain balanced airflow and minimise pressure differences within the building.

Boost Condition

The Boost Condition setting determines how the system will respond if Boost Mode is activated.

Available Options

Setting	Operation
Both ON	Supply and Extract Fans operate together at maximum speed.
Supply Only	Only the Supply Fan operates at maximum speed.
Extract Only	Only the Extract Fan operates at maximum speed.

The selected Boost Condition will be applied whenever Boost Mode is triggered.

Outdoor Damper Condition (OD Damp Condition)

The Outdoor Damper Condition function uses outdoor relative humidity measurements to influence system operation.

This feature can help manage indoor moisture levels by responding to changes in outdoor air humidity.

Setting the Humidity Threshold

1. Select the displayed humidity value.
2. Press the [▲] or [▼] button to adjust the required threshold.

Example:

90% RH

The system will use the configured outdoor humidity threshold when determining operating behaviour.

Available Operating Conditions

Setting	Operation
Both ON	Supply and Extract Fans operate together.
Extract Only	Only the Extract Fan operates.
Both OFF	Both Supply and Extract Fans stop operating.

Operating Conditions

The OD Damp Condition function is available only when the system is operating in:

- Auto Mode
- Timing Mode
- Away Mode

This function is not available during Manual Mode operation.

Saving Settings

Once all Away Mode parameters have been configured:

1. Press [Save].
2. The settings will be stored and applied immediately.

The configured settings will remain active until modified or reset.

Restoring Factory Default Settings

To restore an individual parameter to its factory default value:

1. Select the parameter to be restored.
2. Press [Default].
3. The selected setting will return to its original factory value.

Notes:

- Away Mode is intended for extended periods of reduced occupancy.
- The function helps maintain indoor air quality while reducing operating costs and energy consumption.
- In humid climates, periodic ventilation during Away Mode may assist in reducing the risk of condensation and mould growth.
- Incorrect Interval Time or Fan Speed settings may reduce ventilation effectiveness.
- Balanced Supply and Extract Fan speeds are recommended unless a specific pressure-control strategy has been designed for the building.
- Away Mode remains active until the configured End Date is reached or another operating mode is manually selected.

3.2.1.23.8 Filter Management

The Filter Management function monitors accumulated filter operating hours and provides maintenance reminders when filters reach their configured service intervals.

Regular filter maintenance is essential for maintaining:

- Ventilation performance.
- Indoor air quality.
- Energy efficiency.
- Long-term system reliability.

The controller tracks the operating hours of each installed filter and displays a maintenance alert when the configured service life has been reached.

The Habitat Central system supports the following filter types:

- H-Filter (H13 HEPA Filter)
- F-Filter (F8 Fine Filter)
- G-Filter (G4 Primary Filter)

Note:

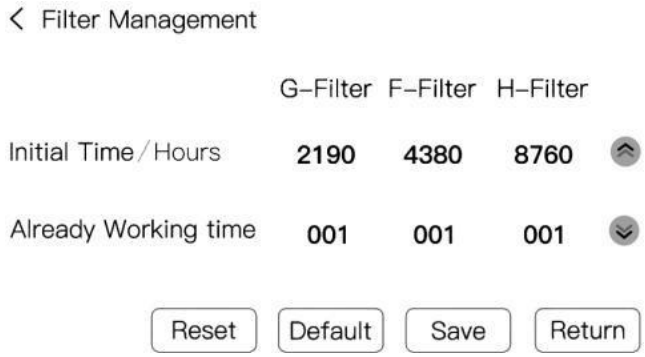
Filter service intervals are based on accumulated operating hours and do not directly measure the physical condition of the filter. Actual maintenance requirements may vary depending on operating conditions and local air quality.

Accessing Filter Management

To access the Filter Management menu:

1. Press and hold [Setting] from the Home Screen.
2. Select [Filter].

The Filter Management screen will display the installed filter types and their associated operating information.



H-Filter (H13 HEPA Filter)

Service Life Setting

[Initial Time / Hours] → [H-Filter]

The Initial Time setting defines the filter service interval used by the maintenance reminder function.

Factory Default Service Life

8760 Hours

Adjusting the Service Life

1. Select [Initial Time / Hours].
2. Select [H-Filter].
3. Use the [▲] or [▼] buttons to adjust the value.
4. Press [Save] when complete.

Operating Hours

[Already Working Time] → [H-Filter]

Displays the accumulated operating hours of the H-Filter.

When the accumulated operating hours reach the configured service life:

- A Filter Alert will appear on the Home Screen.
- Filter maintenance should be performed.

Resetting the H-Filter Timer

After cleaning or replacing the filter:

1. Select [Already Working Time].
2. Select [H-Filter].
3. Press [Reset].
4. Confirm the reset if prompted.

The operating hours counter will return to 000 Hours.

F-Filter (F8 Filter)

Service Life Setting

[Initial Time / Hours] → [F-Filter]

The Initial Time setting defines the maintenance reminder interval for the F8 filter.

Factory Default Service Life

4380 Hours

Adjusting the Service Life

1. Select [Initial Time / Hours].
2. Select [F-Filter].
3. Adjust the value using the [▲] or [▼] buttons.
4. Press [Save].

Operating Hours

[Already Working Time] → [F-Filter]

Displays the accumulated operating hours of the F8 filter.

When the configured service interval has been reached:

- A Filter Alert will be displayed on the Home Screen.
- Filter inspection and maintenance should be performed.

Resetting the F-Filter Timer

After cleaning or replacing the filter:

1. Select [Already Working Time].

2. Select [F-Filter].
3. Press [Reset].

The operating hours counter will return to 000 Hours.

G-Filter (G4 Filter)

Service Life Setting

[Initial Time / Hours] → [G-Filter]

The Initial Time setting defines the maintenance reminder interval for the G4 filter.

Factory Default Service Life

2190 Hours

Adjusting the Service Life

1. Select [Initial Time / Hours].
2. Select [G-Filter].
3. Adjust the value using the [▲] or [▼] buttons.
4. Press [Save].

Operating Hours

[Already Working Time] → [G-Filter]

Displays the accumulated operating hours of the G4 filter.

When the configured service interval is reached:

- A Filter Alert will appear on the Home Screen.
- Filter maintenance should be carried out.

Resetting the G-Filter Timer

After cleaning or replacing the filter:

1. Select [Already Working Time].
2. Select [G-Filter].
3. Press [Reset].

The operating hours counter will return to 000 Hours.

Additional Functions

Restoring Factory Default Values

To restore the factory default service life of a filter:

1. Select the required Initial Time / Hours setting.
2. Press [Default].
3. The selected filter service interval will return to its factory default value.

Factory Default Service Life Values

Filter Type	Default Service Life
H-Filter (H13)	8760 Hours
F-Filter (F8)	4380 Hours
G-Filter (G4)	2190 Hours

Hiding Unused Filter Types

If a particular filter type is not installed:

1. Select the filter type.
2. Disable the filter from the Filter Management menu.

The filter will no longer be displayed within the active interface.

Note:

Hiding a filter only removes it from the controller display and maintenance reminders. It does not alter the physical filter configuration of the ventilation unit.

Saving Filter Settings

After making any changes:

1. Press [Save].
2. The updated settings will be stored and applied immediately.

Recommendations

- Always inspect the filter before resetting the operating hours counter.
- Reset the filter timer only after the filter has been cleaned or replaced.

- Filters may require servicing before the configured service interval is reached if the installation is exposed to elevated dust levels, bushfire smoke, construction activities, or other airborne contaminants.
- Refer to Section 5 – Filter & Heat / Energy Recovery Core Maintenance Guide for detailed cleaning, inspection, and replacement procedures.

Notes:

- Filter operating hours are based on accumulated system run time.
- Filter life may vary depending on environmental conditions and system usage.
- Regular filter inspection is recommended even when no alert is displayed.
- Operating the unit with dirty or blocked filters may reduce airflow performance and increase energy consumption.
- Maintaining clean filters helps maximise indoor air quality and overall system efficiency.

3.2.1.23.9 PM2.5 Control Parameters

The PM2.5 Control function allows the Habitat Central ventilation system to automatically adjust ventilation rates in response to indoor PM2.5 concentrations.

PM2.5 refers to fine airborne particles measuring 2.5 micrometres or less in diameter. Elevated PM2.5 levels may be caused by dust, smoke, cooking activities, or other airborne contaminants that can affect indoor air quality.

When PM2.5 Control is enabled and the system is operating in Auto Mode, the ventilation system automatically adjusts fan speeds according to the measured PM2.5 concentration.

The controller uses PM2.5 data obtained from:

- The optional Internal CO_2 / PM2.5 / TVOC Sensor, where installed.
- Compatible External PM2.5 Sensors connected through the External Wi-Fi Module.

Note:

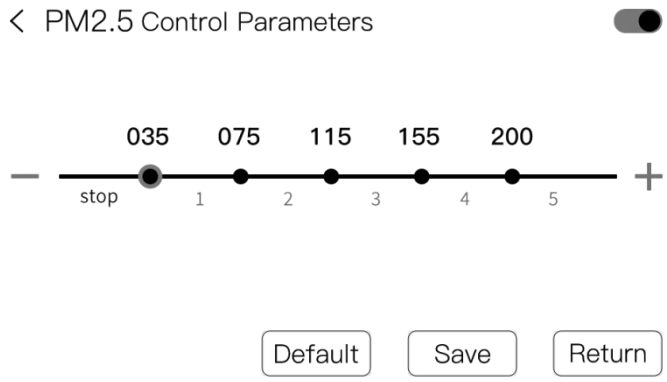
When multiple PM2.5 sensors are installed, the controller uses the highest PM2.5 value currently detected to determine system operation.

Accessing PM2.5 Settings

To access the PM2.5 Control Parameters menu:

1. Press and hold [Setting] from the Home Screen.
2. Select [PM2.5].
3. Open [PM2.5 Control Parameters].

The PM2.5 configuration screen will be displayed.



Automatic Operation

When PM2.5 Control is enabled and Auto Mode is active, the ventilation system automatically adjusts fan speed according to indoor air quality conditions.

Available Fan Speed Levels

The system can operate at:

- Stop
- Speed 1
- Speed 2
- Speed 3
- Speed 4
- Speed 5

As PM2.5 concentrations increase:

- Ventilation rates increase automatically.
- Higher fan speeds are applied to improve indoor air quality.

As PM2.5 concentrations decrease:

- Ventilation rates are reduced automatically.
- Fan speed may return to a lower setting or stop, depending on the configured thresholds.

PM2.5 Threshold Settings

The following threshold values determine when the controller changes between fan speed levels:

- 35 µg/m³
- 75 µg/m³
- 115 µg/m³

- 155 μg/m³
- 200 μg/m³

These values represent the PM2.5 concentrations used by the controller to determine the appropriate ventilation response.

Adjusting Threshold Values

To modify a threshold:

1. Select the required threshold value.
2. Press [+] or [-] to adjust the setting.
3. Repeat as required for additional thresholds.
4. Press [Save] when complete.

The revised thresholds will be used during automatic PM2.5 control operation.

Important:

Threshold values should be configured in ascending order to ensure correct automatic operation.

Enabling or Disabling PM2.5 Control

The PM2.5 automatic control function can be enabled or disabled independently.

ON

When set to ON:

- The ventilation system automatically responds to PM2.5 levels.
- Fan speeds are adjusted according to the configured thresholds.
- PM2.5 data actively influences system operation.

OFF

When set to OFF:

- PM2.5 readings continue to be displayed.
- PM2.5 data does not influence fan operation.
- Automatic PM2.5-based ventilation control is disabled.

Restoring Factory Default Values

To restore the factory default PM2.5 control settings:

1. Press [Default].
2. The original PM2.5 threshold values will be restored.

Saving Settings

After making any changes:

1. Press [Save].
2. The new settings will be stored and applied immediately.

Recommendations

- PM2.5 Control is most effective when a compatible PM2.5 sensor is installed in a representative indoor location.
- Factory default values are suitable for most residential applications.
- Threshold adjustments should only be made where specific indoor air quality requirements exist.
- Allow sufficient time to evaluate system performance after changing control parameters.

Notes

- PM2.5 automatic control is only available when a compatible PM2.5 sensor is installed and communicating with the ventilation unit.
- When multiple PM2.5 sensors are installed, the highest detected value is used for control purposes.
- PM2.5 readings continue to be displayed even when automatic PM2.5 control is disabled.
- Sensor placement may influence measured values and overall system response.
- Fanco recommends that advanced air-quality control parameters be configured by a suitably qualified installer or technician.

3.2.1.23.10 CO_2 Control Parameters

The CO_2 Control function allows the Habitat Central ventilation system to automatically adjust ventilation rates based on real-time indoor carbon dioxide (CO_2) concentrations.

Monitoring CO_2 levels can help maintain healthy indoor air quality by increasing ventilation when occupancy levels are high and reducing ventilation demand when CO_2 levels return to normal.

When CO_2 Control is enabled and the system is operating in Auto Mode, the ventilation system automatically adjusts fan operation according to the measured CO_2 concentration.

The controller uses CO_2 data obtained from:

- The optional Internal CO_2 / PM2.5 / TVOC Sensor, where installed.
- Compatible External CO_2 Sensors connected through the External Wi-Fi Module.

Note:

When multiple CO_2 sensors are connected, the controller uses the highest CO_2 concentration currently detected to determine system operation.

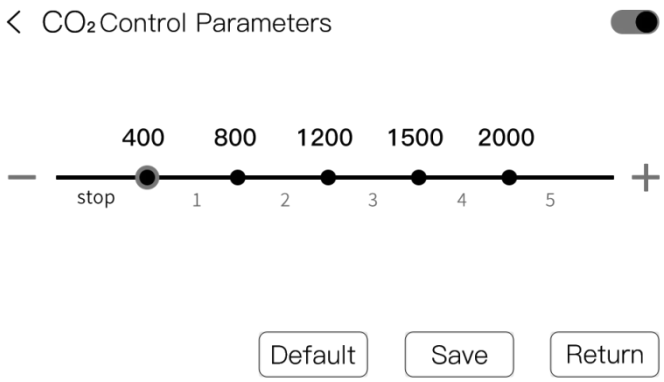
Accessing CO_2 Settings

To access the CO_2 Control Parameters menu:

1. Press and hold [Setting] from the Home Screen.
2. Select [CO_2].
3. Open [CO_2 Control Parameters].

The CO_2 configuration screen is used to define how the ventilation system responds to changing indoor CO_2

Concentrations:



Automatic Operation

When CO_2 Control is enabled and the unit is operating in Auto Mode, fan speed is automatically adjusted according to the measured indoor CO_2 concentration. As occupancy levels increase and CO_2 concentrations rise, the controller increases ventilation rates to introduce more outdoor air and maintain indoor air quality. When CO_2 concentrations decrease, the controller reduces ventilation rates to minimise energy consumption while continuing to maintain acceptable air quality.

Available Fan Speed Levels

The system can operate at the following fan speeds:

- Stop
- Speed 1
- Speed 2
- Speed 3
- Speed 4
- Speed 5

As CO_2 concentrations increase:

- Ventilation rates increase automatically.
- Higher fan speeds are applied to introduce additional fresh air.
- Indoor air quality conditions are improved.

As CO_2 concentrations decrease:

- Ventilation rates are automatically reduced.
- Fan speeds return to lower operating levels.
- The system may stop operation if permitted by the configured thresholds.

CO_2 Threshold Settings

The following threshold values determine how the system responds to changing indoor CO_2 concentrations:

- 400 ppm
- 800 ppm
- 1200 ppm
- 1500 ppm
- 2000 ppm

Each threshold corresponds to a fan speed level. As the measured CO_2 concentration rises above a threshold, the controller automatically increases the fan speed to the next configured level. As the CO_2 concentration falls below a threshold, the controller reduces the fan speed accordingly. For example:

- If the CO_2 concentration is below 400 ppm, the unit may remain stopped or operate at the minimum configured speed.
- When the CO_2 concentration rises above 800 ppm, the controller increases ventilation to the fan speed assigned to that threshold.
- If the concentration continues to rise above 1200 ppm, the controller increases to the next configured speed level.
- If the concentration exceeds 1500 ppm or 2000 ppm, progressively higher fan speeds are selected to maximise fresh air delivery.
- As CO_2 levels decrease, fan speeds are reduced step-by-step as each threshold is crossed in the downward direction.

Adjusting Threshold Values

To modify a threshold value:

1. Select the required threshold.
2. Press [+] or [-] to adjust the setting.
3. Repeat for any additional thresholds that require adjustment.
4. Press [Save] when complete.

The updated values will be used for automatic CO_2 control.

Important:

CO_2 threshold values should always be configured in ascending order to ensure correct operation of the automatic control logic.

Enabling or Disabling CO_2 Control

The CO_2 automatic control function can be enabled or disabled independently.

ON

When set to ON:

- The ventilation system automatically responds to indoor CO_2 levels.
- Fan speeds are adjusted according to the configured thresholds.
- CO_2 readings actively influence ventilation performance.

OFF

When set to OFF:

- CO_2 readings continue to be displayed on the controller.
- Automatic CO_2-based ventilation control is disabled.
- Fan operation is controlled by the active operating mode and other enabled control functions.

Restoring Factory Default Values

To restore the factory default CO_2 control settings:

1. Press [Default].
2. The original threshold values will be restored.

Saving Settings

After making any changes:

1. Press [Save].
2. The new settings will be stored and applied immediately.

Recommendations

- CO_2 Control is most effective when a compatible CO_2 sensor is installed in a representative occupied space.
- Factory default threshold values are suitable for most residential applications.

- Threshold values should only be modified where specific indoor air quality targets are required.
- After modifying threshold settings, allow sufficient operating time to evaluate system performance before making further adjustments.

Notes:

- CO_2 automatic control is only available when a compatible CO_2 sensor is installed and communicating with the ventilation unit.
- When multiple CO_2 sensors are connected, the controller uses the highest detected CO_2 value for control purposes.
- CO_2 readings remain visible on the Home Screen even when automatic CO_2 control is disabled.
- Sensor location may influence readings and overall system response.
- Fanco recommends that advanced air quality control parameters be configured by a suitably qualified installer or technician.

3.2.1.23.11 TVOC Control Parameters

The TVOC (Total Volatile Organic Compounds) Control function allows the Habitat Central ventilation system to automatically adjust ventilation rates in response to indoor TVOC levels.

Volatile Organic Compounds (VOCs) are gases released from a variety of indoor sources, including, but not limited to:

- Paints and coatings
- Cleaning products
- Household chemicals
- Furniture and furnishings
- Building materials
- Personal care products

When TVOC Control is enabled and the system is operating in Auto Mode, the ventilation system automatically increases airflow when elevated TVOC levels are detected and reduces airflow as indoor air quality improves.

The controller uses TVOC data obtained from the optional Internal CO_2 / PM2.5 / TVOC Sensor.

Note:

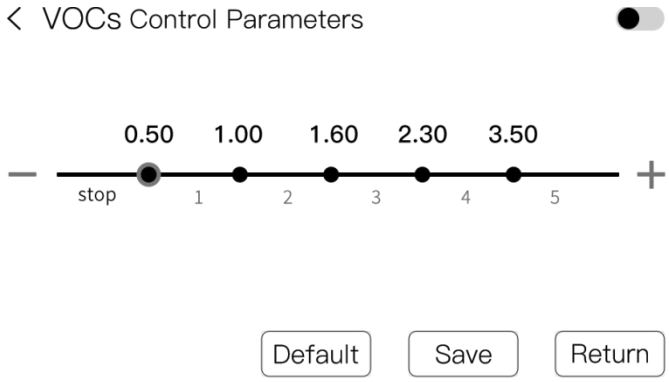
TVOC Control is only available when a compatible TVOC sensor is installed and communicating with the ventilation unit.

Accessing TVOC Settings

To access the TVOC Control Parameters menu:

1. Press and hold [Setting] from the Home Screen.
2. Select [TVOC].
3. Open [TVOC Control Parameters].

The TVOC configuration screen will be displayed.



Automatic Operation

When TVOC Control is enabled and Auto Mode is active, the controller automatically adjusts ventilation rates according to indoor TVOC levels.

Available Fan Speed Levels

The system can operate at:

- Stop
- Speed 1
- Speed 2
- Speed 3
- Speed 4
- Speed 5

As TVOC concentrations increase:

- Ventilation rates increase automatically.
- Higher fan speeds are applied to improve indoor air quality.
- Additional fresh air is introduced into the building.

As TVOC concentrations decrease:

- Ventilation rates are reduced automatically.
- Fan speeds return to lower operating levels.
- The system may stop operation if permitted by the configured thresholds.

TVOC Threshold Settings

The following threshold values determine how the Habitat Central responds to changing TVOC concentrations:

- 0.50
- 1.00
- 1.60
- 2.30
- 3.50

Each threshold corresponds to a fan speed level. As the measured VOC concentration rises above a threshold, the controller automatically increases the fan speed to the next configured level. As the VOC concentration falls below a threshold, the controller reduces the fan speed accordingly. For example:

- If the VOC concentration is below 0.50, the unit may remain stopped or operate at the minimum configured speed.
- When the VOC concentration rises above 0.50, the controller increases ventilation to the fan speed assigned to that threshold.
- If the concentration continues to rise above 1.00, the controller increases to the next configured speed level.
- If the concentration exceeds 1.60 or 2.30, progressively higher fan speeds are selected to maximise fresh air delivery.
- As VOC levels decrease, fan speeds are reduced step-by-step as each threshold is crossed in the downward direction.

Adjusting Threshold Values

To modify a threshold value:

1. Select the required threshold.
2. Press [+] or [-] to adjust the setting.
3. Repeat for any additional thresholds that require adjustment.
4. Press [Save] when complete.

The updated values will be used during automatic TVOC control operation.

Important:

TVOC threshold values should always be configured in ascending order to ensure correct operation of the automatic control logic.

Enabling or Disabling TVOC Control

The TVOC automatic control function can be enabled or disabled independently.

ON

When set to ON:

- The ventilation system automatically responds to measured TVOC levels.
- Fan speeds are adjusted according to the configured thresholds.
- TVOC data actively influences system operation.

OFF

When set to OFF:

- TVOC readings continue to be monitored and displayed where applicable.
- Automatic TVOC-based ventilation control is disabled.
- Fan operation is controlled by the active operating mode and other enabled control functions.

Restoring Factory Default Values

To restore the factory default TVOC control settings:

1. Press [Default].
2. The original threshold values will be restored.

Saving Settings

After making any changes:

1. Press [Save].
2. The new settings will be stored and applied immediately.

Recommendations

- TVOC Control is most effective when the sensor is installed in a representative indoor location.
- Factory default threshold values are suitable for most residential applications.
- Threshold values should only be adjusted where specific indoor air quality targets are required.
- After modifying control parameters, allow sufficient operating time to evaluate system performance before making further adjustments.

Notes:

- TVOC automatic control requires a compatible Internal CO_2 / PM2.5 / TVOC Sensor.
- TVOC values may fluctuate depending on occupancy, household activities, cleaning products, cooking processes, and building materials.
- Sensor placement may influence measured values and overall system response.
- TVOC readings continue to be available even if automatic TVOC control is disabled.
- Fanco recommends that advanced air quality control parameters be configured by a suitably qualified installer or technician.

Maintaining appropriate TVOC control settings can assist in improving overall indoor air quality and occupant comfort.

3.2.1.23.12 Humidity Control Parameters

The Relative Humidity (RH) Control function allows the Habitat Central ventilation system to automatically adjust ventilation rates in response to indoor humidity levels.

Maintaining appropriate indoor humidity levels can improve occupant comfort and assist in reducing the risk of condensation, dampness, and mould growth.

When Humidity Control is enabled and the system is operating in Auto Mode, the ventilation system automatically increases ventilation when humidity levels rise and reduces ventilation as humidity returns to normal levels.

These settings may be used to:

- Increase ventilation during periods of high humidity.
- Assist with moisture control.
- Reduce the risk of condensation.

The controller uses humidity data obtained from:

- The built-in humidity sensor.
- Compatible External Humidity Sensors, where installed.

Note:

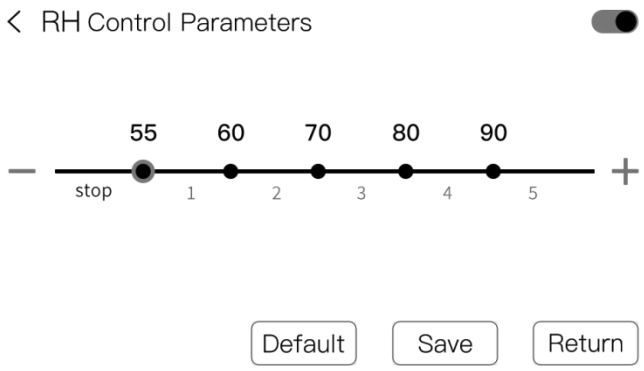
When multiple humidity sensors are connected, the controller uses the highest indoor relative humidity reading currently detected to determine ventilation demand.

Accessing Humidity Settings

To access the RH Control Parameters menu:

1. Press and hold [Setting] from the Home Screen.
2. Select [Humidity].
3. Open [RH Control Parameters].

The Humidity Control configuration screen will be displayed.



Automatic Operation

When Humidity Control is enabled and Auto Mode is active, the ventilation system automatically adjusts fan speed according to indoor humidity levels.

Available Fan Speed Levels

The system can operate at:

- Stop
- Speed 1
- Speed 2
- Speed 3
- Speed 4
- Speed 5

As indoor humidity increases:

- Ventilation rates increase automatically.
- Higher fan speeds are applied to remove excess moisture from the building.
- Indoor humidity levels are reduced more quickly.

As humidity decreases:

- Ventilation rates are automatically reduced.
- Fan speeds return to lower operating levels.
- The system may stop operation if permitted by the configured control thresholds.

Relative Humidity Threshold Settings

The following factory default thresholds determine how the controller responds to indoor humidity levels:

- 55% RH
- 60% RH
- 70% RH
- 80% RH
- 90% RH

Each threshold corresponds to a fan speed level. As the measured RH concentration rises above a threshold, the controller automatically increases the fan speed to the next configured level. As the RH concentration falls below a threshold, the controller reduces the fan speed accordingly. For example:

- If the RH concentration is below 55%, the unit may remain stopped or operate at the minimum configured speed.
- When the RH concentration rises above 55%, the controller increases ventilation to the fan speed assigned to that threshold.

- If the concentration continues to rise above 60%, the controller increases to the next configured speed level.
- If the concentration exceeds 70% or 80%, progressively higher fan speeds are selected to maximise fresh air delivery.
- As RH levels decrease, fan speeds are reduced step-by-step as each threshold is crossed in the downward direction.

Adjusting Threshold Values

To modify a humidity threshold:

1. Select the required threshold value.
2. Press [+] or [-] to adjust the setting.
3. Repeat for additional thresholds as required.
4. Press [Save] when complete.

The updated values will be used during automatic humidity control operation.

Important:

Humidity threshold values should be configured in ascending order to ensure correct operation of the automatic control logic.

Enabling or Disabling Humidity Control

The Humidity Control function can be enabled or disabled independently.

ON

When set to ON:

- The ventilation system automatically responds to indoor humidity levels.
- Fan speeds are adjusted according to the configured thresholds.
- Humidity data actively influences ventilation operation.

OFF

When set to OFF:

- Humidity readings continue to be displayed.
- Automatic humidity-based ventilation control is disabled.
- Fan operation is determined by the active operating mode and other enabled control functions.

Restoring Factory Default Values

To restore the factory default humidity control settings:

1. Press [Default].
2. The original humidity threshold values will be restored.

Saving Settings

After making any changes:

1. Press [Save].
2. The new settings will be stored and applied immediately.

Typical Applications

Humidity Control can be particularly beneficial in areas where elevated moisture levels are common, including:

- Bathrooms
- Laundries
- Kitchens
- Drying rooms
- High-occupancy living areas

Automatic humidity-based ventilation can assist in managing short-term increases in indoor moisture without requiring manual intervention.

Recommendations

- The factory default humidity thresholds are suitable for most residential installations.
- Where multiple humidity sensors are installed, place sensors in representative locations for the most effective control performance.
- Avoid setting humidity thresholds unnecessarily low, as this may result in excessive ventilation and increased energy consumption.
- Allow sufficient operating time to evaluate system performance after adjusting humidity control parameters.

Notes:

- Humidity Control requires at least one compatible humidity sensor to operate.
- When multiple humidity sensors are installed, the highest detected humidity value is used for control purposes.
- Humidity readings remain visible even if automatic humidity control is disabled.
- Indoor humidity levels can vary significantly due to occupancy, weather conditions, cooking, bathing, laundry activities, and building construction characteristics.
- Sensor location may influence measured values and system response.
- Fanco recommends that advanced humidity control parameters be configured by a suitably qualified installer or technician.
- Maintaining appropriate indoor humidity levels can assist in improving occupant comfort and protecting the building from moisture-related issues.

3.2.1.23.13 Sensor Data

The Sensor Data page provides real-time information from the Habitat Central unit's internal sensors and any compatible external sensors connected to the system.

Depending on the installed accessories, information may include:

- Temperature
- Relative Humidity (RH)
- CO_2
- PM2.5
- TVOC
- Sensor identification

The Sensor Data page can also assist with identifying connected external sensors.

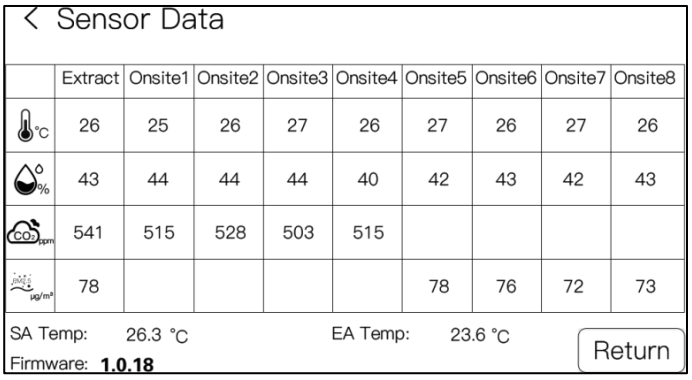
The Sensor Data page is intended as a monitoring and diagnostic tool for users, installers, and service technicians.

Accessing the Sensor Data Page

To access Sensor Data:

1. Press and hold [Setting] from the Home Screen.
2. Select [Sensor].
3. Open [Sensor Data].

The controller will display all available sensor readings currently detected by the system.



Internal Sensor Data

The Habitat Central unit continuously monitors operating conditions using its internal sensors.

Depending on the model configuration and installed accessories, the following information may be available.

Extract Air Temperature

Display Label: [Extract]

Displays the current temperature of the air being extracted from the indoor environment.

This reading is used by the controller for monitoring and various automatic control functions.

Extract Air Relative Humidity (RH)

Display Label: [Extract]

Displays the current relative humidity of the air being extracted from the building.

This value may be used by Humidity Control functions when enabled.

Extract Air CO_2 (Optional)

Display Label: [Extract]

Displays the current carbon dioxide (CO_2) concentration measured by the optional Internal CO_2 Sensor.

This function is only available when an Internal Air Quality Sensor has been installed.

The displayed value is measured in:

ppm (parts per million)

Extract Air PM2.5 (Optional)

Display Label: [Extract]

Displays the current PM2.5 concentration measured by the optional Internal Air Quality Sensor.

PM2.5 represents fine airborne particles measuring 2.5 micrometres or smaller.

This function is only available when an Internal Air Quality Sensor has been installed.

The displayed value is measured in:

µg/m³ (micrograms per cubic metre)

Extract Air TVOC (Optional)

Display Label: [Extract]

Where an Internal Air Quality Sensor is installed, the controller may also display Total Volatile Organic Compound (TVOC) readings.

TVOCs are airborne chemical compounds released from products such as:

- Cleaning products
- Paints
- Furniture
- Building materials
- Household chemicals

This information may be used by the automatic TVOC Control function.

External Sensor Data

The Habitat Central system can support compatible external sensors connected through the External Wi-Fi Module.

Where installed, the Sensor Data page may display information from multiple monitoring locations throughout the building.

External sensors are typically identified as:

Onsite 1 – Onsite 8

To simplify servicing and troubleshooting, Fanco recommends recording the physical location assigned to each external sensor during commissioning.

External Temperature

Display Label: [Onsite]

Displays the current temperature measured by an external temperature sensor.

External Relative Humidity (RH)

Display Label: [Onsite]

Displays the current relative humidity level measured by an external humidity sensor.

External CO_2

Display Label: [Onsite]

Displays the current carbon dioxide concentration measured by an external CO_2 sensor.

The displayed value is shown in:

ppm (parts per million)

External PM2.5

Display Label: [Onsite]

Displays the current PM2.5 concentration measured by an external air quality sensor.

The displayed value is shown in:

µg/m³ (micrograms per cubic metre)

Additional System Sensors

The Habitat Central unit monitors temperatures at several key points within the ventilation system.

These readings assist with automatic functions such as heat recovery, bypass control, frost protection, and performance monitoring.

Supply Air Temperature

Display Label: [SA Temp]

Displays the temperature of the air being supplied into the building after passing through the ventilation unit.

This value may be influenced by:

- Outdoor air temperature
- Heat recovery operation
- Bypass operation
- External heating accessories (where fitted)

Exhaust Air Temperature

Display Label: [EA Temp]

Displays the temperature of the air being discharged from the ventilation system to the outdoors.

This value is used by several internal control functions, including automatic defrost operation.

Firmware Version

The Sensor Data page also displays the controller firmware version.

The firmware version identifies the software currently installed within the Habitat Central control system.

This information may be required when:

- Contacting Fanco Technical Support.
- Diagnosing faults.
- Verifying compatibility with accessories.
- Confirming eligibility for software updates.

Managing Sensor Displays

The controller automatically displays readings from sensors that are installed and communicating with the system.

If a particular sensor is not installed:

- No sensor data will be displayed.
- Associated readings may be hidden from the interface.
- The available sensor list may vary depending on the system configuration.

This allows the Sensor Data page to remain relevant to the installed equipment.

Notes:

- Available sensor readings may vary according to the model, controller version, and installed accessories.
- Optional sensors must be correctly installed, paired, and communicating before data can be displayed.
- Sensor values are updated automatically and represent current operating conditions.
- The Sensor Data page is intended for monitoring and diagnostic purposes only.
- Viewing sensor data does not directly alter the operation of the ventilation system.
- When multiple sensors of the same type are installed, some control functions may use the highest detected value for automatic ventilation control.
- Fanco recommends reviewing sensor operation during commissioning to confirm correct installation and communication of all connected devices.

3.2.1.23.14 Alarm Information

The Alarm function provides notification of system faults and assists with fault identification by indicating the affected component or operating function.

Functions include:

- Fault identification
- Error code display
- Alarm status monitoring
- Troubleshooting assistance

When the controller detects a fault condition, an alarm notification is generated and recorded within the system for troubleshooting purposes.

The Alarm page is intended to assist users, installers, and service technicians in identifying issues that may affect normal operation of the ventilation system.

Fault Indication

When a fault is detected:

- The Alarm icon on the Home Screen will flash.
- The controller status indicator will change from green to red.
- The fault will be recorded by the controller and displayed within the Alarm menu.
- Depending on the fault type, some system functions may be restricted until the issue is resolved.

Accessing the Alarm Menu

To view active alarms:

1. Press and hold [Setting] from the Home Screen.
2. Select [Alarm].

Alarm Codes

The following alarm codes may be displayed:

Error Code	Description
E0	Communication Error
E1	Bypass Damper Fault
E2	Outside Air (OA) Damper Fault
E3	Return Air (RA) Temperature and Humidity Sensor Fault
E4	Supply Air (SA) Temperature Sensor Fault
E5	Outside Air (OA) Temperature and Humidity Sensor Fault
E6	Exhaust Air (EA) Temperature Sensor Fault
E7	Supply Fan Fault
E8	Extract Fan Fault
E9	Exhaust Air (EA) Damper Fault

Alarm Information

The Alarm page assists with basic fault diagnosis by identifying the affected component or system function.

Depending on the type of fault, alarm information may relate to:

- Internal sensors
- External sensors
- Supply Fan operation
- Extract Fan operation
- Communication systems
- Bypass Damper operation
- Temperature protection functions
- Connected accessories
- Other system components

Where applicable, the controller will display the corresponding fault code for reference.

Responding to an Alarm

If an alarm is displayed:

1. Record the error code shown on the controller.
2. Refer to the fault description above.
3. Review Section 6 – Troubleshooting to identify any recommended corrective actions before contacting support.
4. Contact a qualified service technician or Fanco Technical Support for assistance.

Note

Detailed descriptions of alarm codes and recommended corrective actions can be found in Section 6 – Troubleshooting.

Clearing an Alarm

Once the cause of the fault has been identified and rectified:

- Some alarms will clear automatically.
- Other alarms may require the ventilation system to be restarted.
- Certain faults may remain active until normal operating conditions are restored.

If an alarm remains active after the issue has been corrected, contact Fanco Technical Support or a qualified service technician for assistance.

Important

Warning:

Repairs, modifications, or any work on the electrical, control, or internal mechanical components of the ventilation system must only be carried out by suitably qualified and authorised personnel. Failure to do so may result in equipment damage, personal injury, unsafe operation, and voidance of the product warranty

Notes:

- Some alarms may clear automatically once the fault condition has been resolved.
- The Alarm function is intended as a fault identification and troubleshooting aid.
- Some alarm conditions may affect system performance until the fault has been resolved.
- Repeated or recurring alarms may indicate an underlying issue requiring professional diagnosis.
- When contacting Fanco Technical Support, record the displayed alarm code, unit model, controller model, and firmware version where available.
- Refer to Section 6 – Troubleshooting for a complete list of alarm codes and fault descriptions.
- Certain menu options will only be displayed when the corresponding accessory, sensor, or communication device is installed.
- Changes to advanced settings may affect system operation and performance.
- Fanco recommends that Modbus settings, automation thresholds, and other advanced parameters be configured only by a qualified installer or technician.
- Incorrect configuration of control parameters may result in reduced system performance or unintended operation.

3.2.2 Standard Controller – 3.5" Black & White Display

Model: E9010/0001A

The Standard Controller provides local control and monitoring of the Fanco Habitat Central ventilation system through a compact 3.5" black and white display.

While the Standard Controller offers access to the system's core operating functions, some advanced settings available on the Premium Controller cannot be adjusted directly from this control panel. These parameters are either factory configured or require adjustment through the Premium Controller.

3.2.2.1 Power Connection

The figures below show the Standard Controller and the correct wiring arrangement for connection to the Habitat Central-340 control Printed Circuit Board (PCB).

Before installation:

- Ensure power to the ventilation unit is isolated.
- Verify all wiring connections against the electrical connection diagram.
- Use the designated communication terminals specified for the controller.
- Ensure all connections are secure before restoring power.

Refer to the diagrams below when identifying controller connection points and wiring terminals.

Warning

Incorrect electrical installation may result in electric shock, fire, equipment damage, or personal injury.

Important

Incorrect wiring may result in communication faults, loss of controller functionality, or damage to the control system.

Once installation has been completed successfully, the controller will provide access to all primary operating, monitoring, scheduling, and configuration functions of the Habitat Central-340 ventilation system.

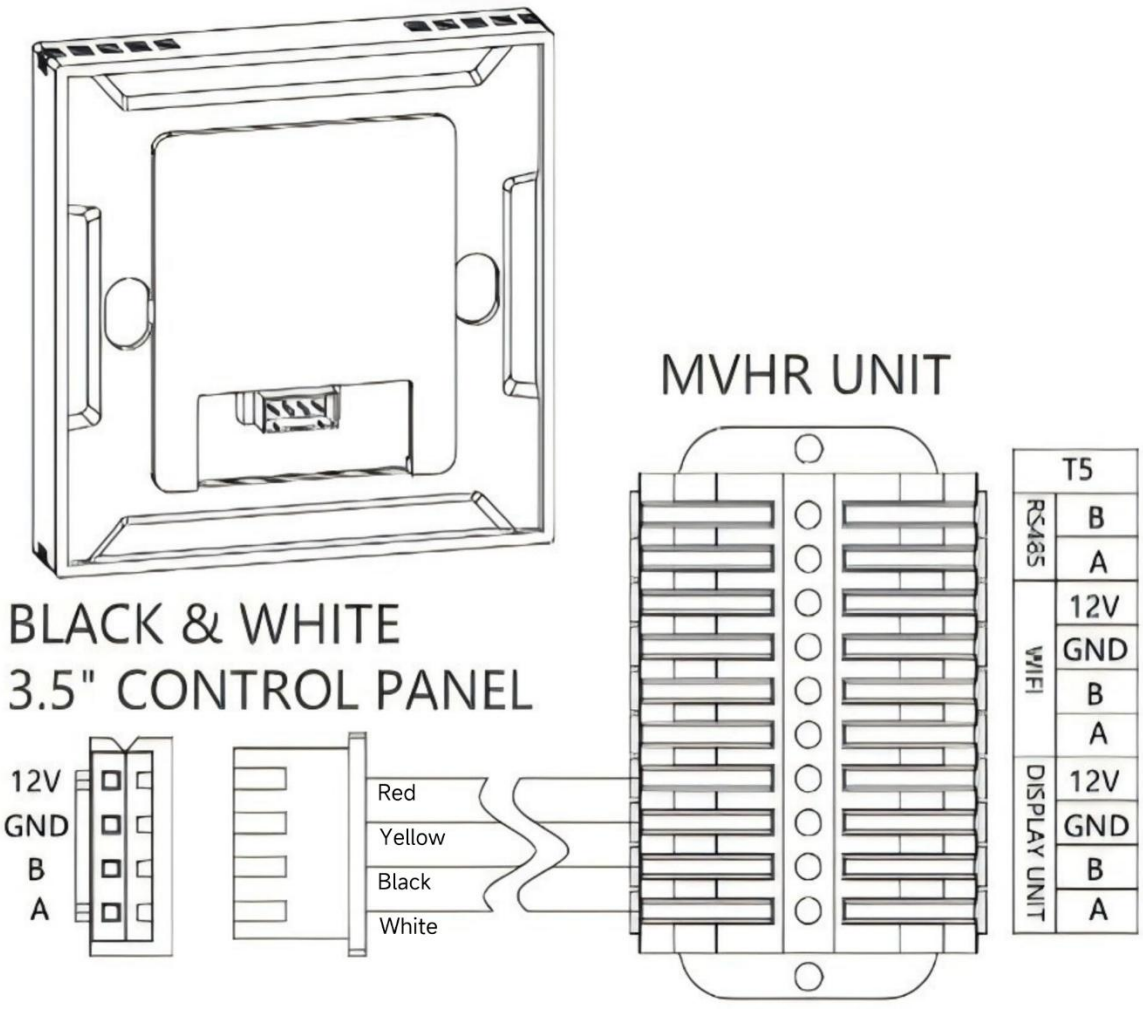
Note

Please note that the connection cable between the Standard Controller and the ventilation unit is supplied by Fanco and must be ordered separately.

System Overview

The figures below illustrate:

- The connection between the controller and the Fanco Habitat Central Unit.



3.2.2.2 Standard Controller Operation and Functions Overview

This section explains the operation and functions available through the Standard Controller.

The controller has been designed to provide users with easy access to system information, operating modes, air quality monitoring, scheduling functions, maintenance information, and advanced control settings.

Following system start-up, the controller will display the Home Screen, which serves as the primary interface for monitoring and controlling the ventilation system.

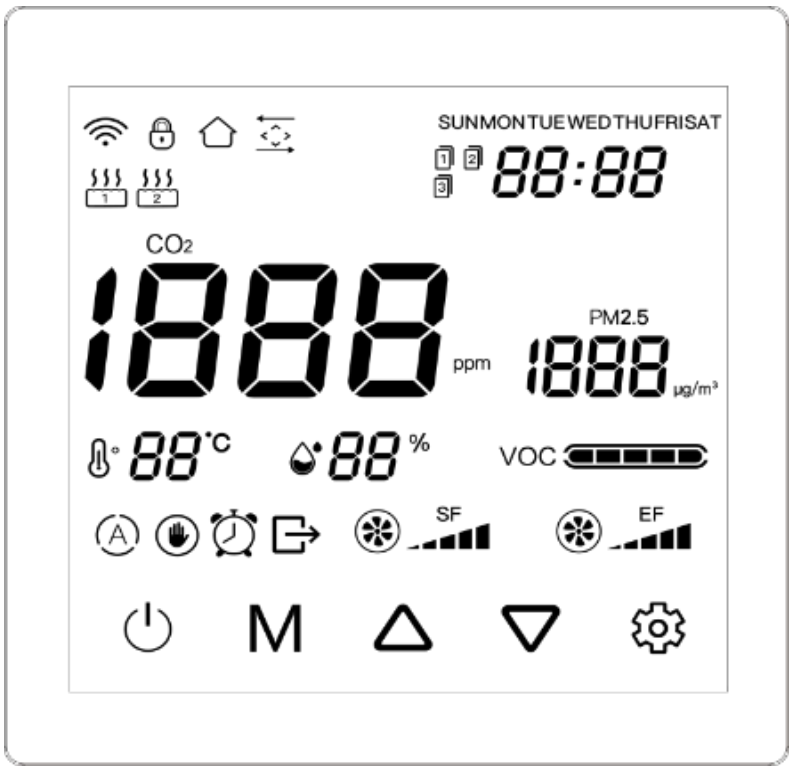
The Home Screen provides real-time information relating to:

- System operating status
- Fan operation
- Temperature readings
- Relative humidity readings
- Air quality information
- Active operating modes
- Alarm notifications
- Connected accessories and sensors

The following sections describe each icon, indicator, menu, and control function in detail, including:

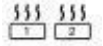
- Its purpose and operation.
- Information displayed on the screen.
- Available settings and adjustments.
- User interaction and navigation procedures.
- Operational notes and recommendations.

Understanding the Home Screen layout and controller functions will assist users and installers in obtaining the best performance from the Fanco Habitat Central ventilation system.



The table below describes each icon displayed on the controller screen and its corresponding function.

	Control power ON/OFF switch key
M	Operating mode switch key
	Parameter up key
	Parameter down key
	Setting key
	Wi-Fi connection status indication
	Child lock indication
	Bypass Automatic modes: • Steady icon indicates that Bypass Outdoor Auto; • Disappearance of icon indicates that the Bypass Indoor Auto mode is enabled.
	Bypass damper indication: • Steady icon indicates that the Bypass Damper is open; • Flashing icon signifies that Bypass Auto is

	enabled, and; • Absence of the icon indicates that the Bypass Damper function is disabled.
	Indication of Pre-heater 1 and Post-heater 2 ON and OFF
	Notification of cleaning or replacement of filters: • G Filter:1 • F Filter: 2 • H Filter: 3
	Indication of Auto/Manual/Timer/Away mode
SUN MON TUE WED THU FRI SAT	rent day indication
88:88	Current time indication
CO2 1888	Real-time CO2 concentration data (optional)
PM2.5 1888	Real-time PM2.5 concentration data (optional)
VOC	Real-time VOCs concentration level (optional)
88°C	Real-time Temperature data
88%	Real-time Relative Humidity data
SF	Current supply fan speed level indication
EF	Current extract fan speed level indication

3.2.2.3 Power Control

To switch the ventilation system ON or OFF:

1. Briefly press the Power button.
2. The unit will start or stop operating.

Operation

- Press [ON] to start the Habitat Central unit.
- Press [OFF] to stop the Habitat Central unit.

When the unit is switched OFF, ventilation operation will stop; however, previously configured settings, schedules, and parameters will be retained in memory.

3.2.2.4 Operating Modes

The ventilation system can operate in four different modes:

- Auto Mode
- Manual Mode
- Timer Mode
- Away Mode

To change operating mode:

1. Briefly press the Mode button (M).
2. Each press cycles through the available operating modes.

Important:

Manual Mode, Timing Mode, Away Mode, and Auto Mode are mutually exclusive. Only one operating mode can be active at any given time. Switching to a new operating mode will automatically cancel the previously active mode.

Notes:

- Parameters used in Auto, Timer, and Away modes are factory preset and cannot be modified using the Standard Controller.
- To adjust these settings, during installation use the Premium Controller or contact the installer or supplier.
- Away Mode is only available when the Standard Controller is used in conjunction with an optional WiFi module.

3.2.2.4.1 Auto Mode

Auto Mode (Ⓐ) allows the Habitat Central unit to automatically adjust its operation in response to environmental conditions detected by connected sensors.

This mode is designed to provide automatic indoor air quality management and maximise user convenience.

Automatic Operation

When Auto Mode is active:

- The ventilation system continuously monitors connected sensors.
- Fan speeds are adjusted automatically as per sensors reading, given factory settings or adjusted when previously used a Premium Control to set them during installation.
- Indoor air quality conditions are continuously evaluated.
- Ventilation performance is optimised according to real-time environmental data.

Depending on the installed accessories, the system may utilise information from:

- Internal Temperature Sensors
- Internal Humidity Sensors
- Internal CO_2 Sensors
- Internal PM2.5 Sensors
- Internal TVOC Sensors
- External Temperature Sensors
- External Humidity Sensors
- External CO_2 Sensors
- External PM2.5 Sensors

Activating Auto Mode

To activate Auto Mode:

3. Navigate to the Home Screen.
4. Select [Auto] Ⓐ

The system will immediately begin automatic operation.

Sensor Parameters

The Standard Controller does not allows adjustment of sensor thresholds and operating parameters used by Auto Mode.

These settings cannot be customised with the Standard Control to suit specific application requirements, a Premium Control would be required during installation to modify specific setting, for more information refer to Section 3.2.1 in this manual.

3.2.2.4.2 Manual Mode

Manual Mode (✋) provides direct user control over ventilation operation.

In this mode, the user can manually adjust the Supply Fan and Extract Fan speeds according to the desired ventilation requirements.

Features

- Manual fan speed adjustment.
- Direct control of ventilation performance.
- Independent fan speed adjustment.

Sensor Operation

While Manual Mode is active:

- Connected sensors continue to monitor and display environmental conditions.
- Sensor readings remain visible on the controller.
- Automatic airflow adjustments based on sensor readings are disabled.

The ventilation system will continue operating according to the manually selected settings until another operating mode is selected.

Note:

Automatic control functions are inactive while the system is operating in Manual Mode.

Fanco recommends maintaining the same speed setting for both extraction and supply at all times, unless specific ventilation requirements dictate otherwise.

When Manual mode is active, the Up (△) and Down (▽) arrows will independently control the Supply and Extract speeds respectively.

3.2.2.4.3 Timing Mode

Timing Mode ( ) allows the ventilation system to operate according to a user-defined weekly schedule.

This mode enables users to define specific operating periods and fan speeds throughout the week.

Features

- Up to four operating periods per day.
- Independent scheduling for each day of the week.
- Adjustable Supply and Extract Fan speeds for each period.

Default Timer Schedule

The Habitat Central unit is supplied with a factory default schedule.

When activating Timer function with the Standard Control, if not changes were made, by using a Premium Control, the Timer Schedule will work as follows:

Monday to Friday

Timed Period	Time Range	Supply Fan Speed	Extract Fan Speed
Period 1	00:00 – 06:00	Level 1	Level 1
Period 2	06:00 – 16:00	Level 2	Level 2
Period 3	16:00 – 21:00	Level 4	Level 4
Period 4	21:00 – 23:59	Level 2	Level 2

Saturday and Sunday

Timed Period	Time Range	Supply Fan Speed	Extract Fan Speed
Period 1	00:00 – 07:00	Level 1	Level 1
Period 2	07:00 – 11:00	Level 3	Level 3
Period 3	11:00 – 21:00	Level 4	Level 4
Period 4	21:00 – 23:59	Level 2	Level 2

Setting a Timer Schedule

Settings the timer schedule are not available with the Standard Control, however, setting can be adjusted by using the Premium Control during installation, any changes made with the Premium Control, such as, timer scheduling modifications will remain saved in the unit memory and will then be reflected when the Standard Control is connected. For more information about settings with the Premium Control refer to section 3.2.1 in this manual.

Sensor Operation

While Timing Mode is active:

- The ventilation unit operates according to the programmed schedule.
- Automatic sensor-based airflow adjustments are disabled.
- Connected sensors continue to display environmental information.

Note:

For balanced ventilation performance, Fanco recommends operating the Supply and Extract Fans at the same speed unless a specific application requires otherwise.

3.2.2.4.4 Away Mode

Away Mode ( ) is designed for periods when the building is unoccupied, such as during holidays, business travel, or extended absences.

The purpose of Away Mode is to maintain background ventilation while reducing energy consumption.

This can assist in:

- Maintaining acceptable indoor air quality.
- Controlling indoor humidity levels.
- Reducing the risk of condensation.
- Limiting conditions that may contribute to mould or fungal growth.

Setting Away Mode

Important:

Setting Away Mode is not available through the Standard Control, however, its function is available when is set with the Wi-Fi App, only available when connecting the Fanco Habitat Central with the Wi-Fi Module. For more information in how to set Away Mode refer to the Section 3.2.3 in this manual.

Note:

For balanced airflow operation, Fanco recommends operating the Supply and Extract Fans at the same speed unless a specific application requires otherwise.

3.2.2.5 Bypass Mode

The Bypass function determines whether incoming fresh air passes through the Heat/Energy Recovery Core or bypasses it completely.

When the bypass damper is closed, fresh air passes through the Heat/Energy Recovery Core, allowing heat and energy transfer to occur.

When the bypass damper is open, fresh air bypasses the Heat/Energy Recovery Core and is supplied directly to the building.

Bypass operation can be controlled either:

- Manually by the user, or
- Automatically by the controller.

Automatic control can help improve indoor comfort and energy efficiency when outdoor conditions are suitable.

3.2.2.5.1 Manual Bypass Control

Before the system can operate automatically, the user must first select how the bypass damper will be controlled.

Three operating modes are available:

1. Bypass Valve ON 

Selecting Bypass ON forces the bypass damper to always remain open.

- Fresh air bypasses the Heat/Energy Recovery Core.
- Air is supplied directly to the building.
- The damper remains open regardless of any automatic control settings.

To identify Bypass Valve ON is active, icon () will be displayed on the controller screen.

2. Bypass OFF

Selecting Bypass OFF forces the bypass damper to always remain open.

- All incoming air passes through the Heat/Energy Recovery Core.
- Heat and energy recovery functions operate normally.
- The damper remains closed regardless of any automatic control settings.

To identify Bypass Valve OFF is active, icon () will not be displayed on the controller screen.

3. Bypass AUTO 

Selecting Bypass AUTO allows the controller to automatically operate the bypass damper.

When this mode is selected, the damper will open or close according to the automatic control method selected in the same menu:

- Outdoor Auto Mode
- Indoor Auto Mode

The selected automatic mode determines when the bypass damper opens and closes based on temperature conditions.

To identify Bypass Valve AUTO is active, icon () will flash on the controller screen.

Selecting a Bypass Mode

To change the bypass operating mode:

1. Press and hold the Settings button, and release it.
2. The controller will cycle through the above-mentioned mode.
    - Bypass ON
    - Bypass OFF
    - Bypass AUTO
3. Stop when the desired setting is obtained.

Notes

- Automatic bypass operation is only available when Bypass AUTO is selected.
- Manual settings (Bypass ON or Bypass OFF) override all automatic bypass functions.
- Automatic operation uses the comfort temperature settings set by factory or adjusted during installation if a Premium Wall Control was available.

- Bypass operation can improve indoor comfort during mild weather conditions.
- Availability of the bypass function depends on the unit configuration.

3.2.2.5.2 Automatic Bypass Control

When Bypass AUTO is selected, the Habitat Central unit automatically controls the bypass damper based on temperature conditions.

Two automatic control methods are available:

- Outdoor Auto Mode
- Indoor Auto Mode

Important:

These automatic modes only operate when Bypass AUTO is selected.
If Bypass ON or Bypass OFF is selected, the damper position is fixed and automatic control is disabled.

1. Outdoor Auto Mode

When Outdoor Auto Mode is selected, the controller monitors the outdoor air temperature and compares it to the configured outdoor comfort temperature range. This function is active when the icon ( ) is displayed on the screen.

The comfort range can be adjusted through the Premium Wall Control:

Settings → Other → Outdoor Comfort Temperature Range

Default factory settings: 13°C to 26°C

(This temperature range can be adjusted using the Premium Controller.)

How It Works

When both Bypass AUTO and Outdoor Auto Mode are selected:

- The unit continuously monitors the outdoor temperature.
- If the outdoor temperature falls within the configured comfort range, the controller may open the bypass damper.
- Fresh air is then supplied directly to the building without passing through the Heat/Energy Recovery Core.
- The controller automatically opens or closes the damper as required to assist with indoor comfort.

Note

The bypass damper is operated based solely on the outdoor temperature. Indoor temperature is not considered when Outdoor Auto Mode is active.

2. Indoor Auto Mode

When Indoor Auto Mode is selected, the controller monitors the indoor temperature and compares it to the configured indoor comfort temperature setpoint. This function is active when the icon ( ) is NOT displayed on the screen.

The comfort temperature can be adjusted through the Premium Wall Control:

Settings → Other → Indoor Comfort Temperature Point

Default setting: 23°C

(This temperature setpoint can be adjusted using the Premium Controller.)

How It Works

When both Bypass AUTO and Indoor Auto Mode are selected:

- The unit continuously monitors the indoor temperature.
- When the indoor temperature rises above the configured comfort temperature, the bypass damper will automatically open.
- Fresh air is supplied directly to the building to assist in maintaining comfortable indoor conditions.
- The controller automatically opens or closes the damper as required.

Selecting a Bypass Auto Mode

To change the bypass operating mode:

1. Short press the Settings button.
2. The controller will cycle through the above-mentioned mode.
3. Continue pressing to cycle through:
    - Outdoor Auto Mode
    - Indoor Auto Mode
4. Stop when the desired setting is obtained.

Note

Indoor Auto Mode operates based solely on the indoor temperature and does not monitor outdoor temperature conditions.

Recommended Setting

When using Bypass AUTO, Fanco generally recommends selecting Outdoor Auto Mode.

Outdoor Auto Mode allows the system to take advantage of favourable outdoor conditions and is suitable for most applications. However, users may select either automatic mode according to their individual preferences and comfort requirements.

3.2.2.6 Fan Speed Adjustment

Fan speed can only be adjusted when the system is operating in Manual Mode.

To change fan speed:

1. Press the Increase or Decrease buttons.
2. The selected speed level will be displayed on the screen.

Fan Speed Levels

The Habitat Central unit provides up to five (5) fan speed levels.

Higher fan speed levels provide increased airflow, while lower speeds reduce airflow and energy consumption.

Notes

- Adjustments affect both the Supply Fan and Extract Fan simultaneously.

3.2.2.7 Heater Function

The Heater Control function allows compatible external heating devices to be integrated with the Habitat Central ventilation system to assist with air temperature conditioning.

Depending on the system configuration, the controller can provide operation of:

- Pre-Heater – typically installed within the outdoor air intake duct.
- Post-Heater – typically installed within the supply air duct.

These functions can assist in maintaining comfortable supply air temperatures under specific operating conditions.

Important:

Heater control functions are disabled by default on Habitat Central units, as external heater integration is not currently offered as a standard product configuration by Fanco.

Customers intending to use external heating equipment are strongly advised to discuss their requirements with Fanco before purchase to ensure the appropriate system configuration is

provided. Any future changes to system configuration may be subject to technical assessment and compatibility requirements.

Important:

At the time of publication, external electrical heaters are not available for purchase through Fanco. For Further information please contact Fanco technical support.

3.2.2.8 Boost Function

The Boost Function temporarily increases the ventilation rate to provide rapid air exchange when additional ventilation is required.

Boost Mode is particularly useful during activities that generate excess moisture, odours, or indoor pollutants, including:

- Cooking activities.
- Showering or bathing.
- Removal of odours.
- Periods of increased occupancy.
- Any situation where enhanced fresh air ventilation is desired.

When activated, the Habitat Central system will operate at maximum airflow for a predetermined period before automatically returning to the previously selected operating mode.

Activating Boost Mode

To activate Boost Mode:

1. Long press the Power and Setting buttons simultaneously.

Deactivating Boost Mode

To deactivate Boost Mode:

1. Long press the Power and Setting buttons simultaneously.

Boost Operation

During Boost Mode:

- The Supply Fan operates at maximum speed.
- The Extract and Supply Fan operates at maximum speed.
- The fan speed indicators flash rapidly to indicate that Boost Mode is active.

Default Boost Duration

Factory Default Setting: 15 minutes

The ventilation system will remain in Boost Mode for 15 minutes before automatically returning to the previous operating mode and fan speed settings.

3.2.2.9 Defrost Operation

The Defrost Function is designed to protect the Heat/Energy Recovery Core from frost accumulation during cold weather operation.

When operating conditions indicate a risk of frost formation, the Habitat Central unit will automatically initiate a defrost cycle to maintain system performance and protect internal components.

Defrost operation is fully automatic and does not require any user interaction. If required, users with a Premium Controller can adjust the defrost temperature to suit specific environmental conditions or system performance requirements.

Defrost Operation

During a defrost cycle:

- The Supply Fan temporarily stops operating.
- The Extract Fan operates at Speed Level 4.
- The Extract Fan speed indicator flashes slowly to indicate that Defrost Mode is active.

The unit uses warm extract air from inside the building to assist in removing frost from the Heat/Energy Recovery Core.

Automatic Defrost Control

When unit enters in Defrost Mode:

- Frost protection functions are activated automatically.
- The ventilation system operates according to the configured defrost settings.
- The Heat / Energy Recovery Core is protected from excessive frost accumulation.
- Normal ventilation operation is automatically restored once suitable operating conditions are achieved.

Defrost cycle frequency and duration will vary depending on outdoor temperature, humidity levels, and system operating conditions.

Note:

Defrost Mode is a normal operating function during cold weather and does not indicate a fault with the ventilation system.

Important:

To ensure effective frost protection, all temperature sensors and associated components must be correctly installed and operating normally.

3.2.2.10 Time Setting

The Standard Controller allows the system date and time parameters to be adjusted directly from the control panel.

Adjusting the Time

To enter the time setting menu:

1. Long press Power and Mode buttons combination simultaneously.
2. The controller will enter the time setting interface.

Once inside the menu:

1. Briefly press the setting button (⚙) to cycle between:
    - Week
    - Hour
    - Minute
2. The selected parameter will flash on the display.
3. Use the Up and Down buttons to increase or decrease the selected value.
4. Once all settings have been configured, exit the menu to save the new values. You can do this by either waiting for the values to stop flashing or by briefly pressing the Settings button to cycle through all available options.

Notes

- The system clock is used for timer-based operation.
- Ensure the correct date and time are configured for scheduled functions to operate accurately.

3.2.2.11 Filter Maintenance Alert

The Filter Alert function monitors accumulated filter operating hours and notifies the user when a filter has reached its configured maintenance interval.

This reminder helps ensure the ventilation system continues to operate efficiently while maintaining optimum indoor air quality and airflow performance.

Regular filter maintenance helps to:

- Maintain designed airflow performance.
- Improve indoor air quality.
- Protect internal components from dust accumulation.
- Maximise system efficiency and service life.

Filter Maintenance Notification

When a filter reaches its configured operating hour limit, a filter alert will be displayed on the Home Screen.

The filter indicator will identify which filter requires attention:

Displayed Filter	Filter Type
G Filter: 1	G4 Filter
F Filter: 2	F8 Filter
H Filter: 3	H13 Filter

Responding to a Filter Alert

When a Filter Alert is displayed:

1. Inspect the indicated filter.
2. Clean or replace the filter as required.
3. Reset the corresponding filter operating hour counter after maintenance has been completed.

Important

Always inspect the filter before resetting the operating hour counter.

Viewing Filter Operating Hours

The Standard Controller allows users to view the accumulated operating hours for each installed filter.

To view filter operating hours:

1. Ensure the unit is operating in Timer Mode.
2. Press and hold the Up button [▲].
3. The display will change from the current time to the accumulated operating hours of the selected filter.

Switching Between Filter Types

While viewing filter operating hours:

1. Briefly press the Up [▲] or Down [▼] button.
2. The display will cycle through the available filters:
    - G Filter (G4)
    - F Filter (F8)
    - H Filter (H13)
3. The accumulated operating hours for the selected filter will be displayed.

Resetting Filter Operating Hours

After cleaning or replacing a filter:

1. Select the corresponding filter type.
2. Press and hold the DOWN button [▼].
3. The operating hour counter will reset to zero.

The maintenance interval will then restart for the selected filter.

Important

The Filter Alert function is based on accumulated operating hours only and does not directly measure the condition of the filter.

Important

Filters may require cleaning or replacement before the programmed maintenance interval is reached, particularly in environments affected by:

- High dust levels
- Construction activities
- Bushfire smoke
- Elevated airborne contaminants
- Heavy system usage

Notes

- Filter operating hours are provided as a maintenance reminder only.
- Filters should be inspected regularly regardless of the displayed operating hours.
- Reset the operating hour counter only after the filter has been cleaned or replaced.
- Operating the ventilation system with dirty, blocked, or damaged filters may reduce airflow performance and indoor air quality.
- Restricted airflow caused by contaminated filters may increase energy consumption and place additional load on system components.

- Refer to Section 5 – Filter & Heat/Energy Recovery Core Maintenance Guide for detailed cleaning, inspection, and replacement procedures.

3.2.2.12 Temperature and Humidity Monitoring

The Standard Controller allows users to view real-time temperature and humidity information measured by the Habitat Central ventilation system.

This feature provides valuable insight into the operating conditions of the ventilation system and can assist with monitoring indoor comfort, system performance, and heat recovery operation.

The controller can display environmental data from the following air streams:

- Outside Air (OA) – Fresh air entering the ventilation unit from outdoors.
- Supply Air (SA) – Conditioned air supplied to the indoor environment.
- Exhaust Air (EA) – Stale air extracted from the indoor environment and discharged outdoors.

Accessing Temperature and Humidity Information

To view temperature and humidity readings:

Step 1 – Confirm Manual Mode

Ensure the ventilation system is operating in Manual Mode.

The Manual Mode indicator must be displayed on the controller before sensor information can be accessed.

Step 2 – Enter Sensor Display Mode

1. Press and hold the Up button [▲].
2. The controller will enter the Sensor Display interface.

The first available sensor reading will be displayed.

Step 3 – View Outside Air (OA) Conditions

The controller will display:

OA (Outside Air)

This represents the outdoor air entering the ventilation unit.

The following information is displayed:

- Outside Air Temperature (°C)
- Outside Air Relative Humidity (%RH)

Monitoring outside air conditions can assist users in understanding how outdoor weather conditions may influence ventilation performance and indoor comfort.

Step 4 – Cycle Through Available Air Streams

To view additional sensor information:

1. Press the Up [▲] or Down [▼] button.
2. The display will cycle through the available readings.

Supply Air (SA)

Display Label: SA

The Supply Air reading represents the temperature of the fresh air being delivered into the building after passing through the Heat/Energy Recovery Core.

This value can be used to observe the effectiveness of the heat recovery process during operation.

Displayed Information:

- Supply Air Temperature (°C)

Exhaust Air (EA)

Display Label: EA

The Exhaust Air reading represents the temperature of the air being discharged from the ventilation system to the outdoors.

This value is used by the controller for various operating functions, including heat recovery performance monitoring and automatic defrost protection.

Displayed Information:

- Exhaust Air Temperature (°C)

Understanding the Readings

The displayed sensor values are updated automatically during operation and reflect current system conditions.

Differences between the displayed temperatures may be influenced by:

- Outdoor weather conditions.

- Indoor occupancy levels.
- Heat recovery operation.
- Ventilation airflow rates.
- Seasonal temperature variations.

Monitoring these values can help users understand how the ventilation system is operating and may assist installers or service technicians when diagnosing performance issues.

Notes

- Outside Air (OA) displays both temperature and relative humidity.
- Supply Air (SA) displays temperature only.
- Exhaust Air (EA) displays temperature only.
- Sensor readings are updated continuously and may change as operating conditions vary.
- Displayed values are intended for monitoring and diagnostic purposes and do not require user adjustment.
- Sensor availability may vary depending on the unit configuration and installed accessories.

Note

Temperature and humidity monitoring provides information only and does not alter the operation of the ventilation system. Automatic ventilation adjustments are controlled separately through the selected operating mode and configured control parameters.

3.2.2.13 Child Lock (Screen Lock)

The Child Lock function prevents unintended operation of the controller by disabling all touchscreen inputs.

This feature is particularly useful in residential environments where accidental changes to system settings may occur, helping to ensure the ventilation system continues operating with the current configuration.

Activating Child Lock

To enable the Child Lock function:

1. Press and hold the [▲] and [▼] keys simultaneously.
2. Continue holding both keys until the lock icon appears in the upper-left corner of the display.
3. The screen will become locked and user inputs will be disabled.

Deactivating Child Lock

To disable the Child Lock function:

1. Press and hold the [▲] and [▼] keys simultaneously.
2. Continue holding both keys until the lock icon disappears from the display.
3. Normal touchscreen operation will be restored.

Child Lock Indication

When Child Lock is enabled:

- The controller will display a lock indicator on the screen.
- All touchscreen inputs will be disabled.
- System settings cannot be changed until the controller is unlocked.

Notes:

- The Child Lock function only affects operation of the controller and does not stop the ventilation system.
- The ventilation unit will continue operating using the last active settings and operating mode.
- Any programmed schedules, timers, and automatic functions will continue to operate normally while Child Lock is enabled.
- To regain access to the controller, the Child Lock function must be manually disabled.

3.2.2.14 Wi-Fi Connection

The Wi-Fi Connection function allows the Habitat Central ventilation system to be remotely monitored and controlled using the Tuya Smart App.

When connected to a Wi-Fi network, users can access supported system functions, monitor operating conditions, and adjust settings using a compatible smartphone or tablet.

Important

Wi-Fi functionality is only available when the optional External Wi-Fi Module is installed and configured.

The External Wi-Fi Module is sold separately and is not supplied with the Standard Controller.

Refer to Section 3.2.3 – External Wi-Fi Module for installation and wiring instructions.

Wi-Fi Status Indicator

A Wi-Fi status icon is displayed on the controller screen to indicate the current connection status of the ventilation system.

When the Wi-Fi icon is visible and illuminated:

- The ventilation system is connected to the configured Wi-Fi network.
- Communication with the Tuya cloud platform is available.
- Remote monitoring and control functions can be accessed through the Tuya Smart App.

If the Wi-Fi icon is not displayed:

- The External Wi-Fi Module may not be installed.
- The Wi-Fi network connection may not be configured.
- Communication with the cloud platform may be unavailable.

If connectivity is lost, verify the Wi-Fi network settings and internet connection before attempting to reconnect.

Connecting the System to a Wi-Fi Network

Step 1 – Install the Tuya Smart App

1. Download the Tuya Smart App by scanning the supplied QR code or by downloading it from the appropriate app store.
2. Install and open the application.
3. Create a new account or sign in to an existing account.
4. Ensure both Wi-Fi and Bluetooth are enabled on your mobile device.

Step 2 – Enter Network Configuration Mode

1. Press and hold the [M] button for approximately 2 seconds.
2. The controller will enter Network Configuration Mode.
3. The Wi-Fi icon will begin flashing rapidly, indicating that the system is ready for pairing.

Step 3 – Add the Device in the Tuya Smart App

1. Open the Tuya Smart App.
2. Select the "+" icon in the upper-right corner of the screen.
3. Navigate to:

   Add Device → Small Home Appliance → Ventilation System (Wi-Fi + Bluetooth)

4. Follow the on-screen instructions.
5. Enter the required Wi-Fi network details when prompted.

Step 4 – Complete the Connection

Once pairing has been completed successfully:

- The Wi-Fi icon will stop flashing and remain continuously illuminated.
- The ventilation system will appear within the Tuya Smart App.
- Remote monitoring and control functions will become available.

Wi-Fi Status Indications

Wi-Fi Icon Status	Description
Flashing Rapidly	Network Configuration Mode active and ready for pairing.
Solid On	Successfully connected to the Wi-Fi network and cloud platform.
Off	Wi-Fi Module not installed, disconnected, or unavailable.

Remote Functions

When connected through the Tuya Smart App, users may be able to:

- Monitor system operating status.
- Adjust operating modes.
- Change fan speeds.
- Activate Boost Mode.
- View sensor information.
- Monitor filter maintenance alerts.
- Configure selected controller settings.

Available functions may vary depending on the controller model, firmware version, and installed accessories.

Notes

- An External Wi-Fi Module must be installed before Wi-Fi functionality becomes available.
- During setup, ensure the mobile device remains within range of the ventilation system.
- The Wi-Fi network should provide adequate signal strength at the installation location to ensure reliable communication.
- If pairing fails, exit Network Configuration Mode and repeat the setup procedure.
- Remote control functionality is only available after successful pairing with the Tuya Smart App.
- Connection times may vary depending on network conditions and internet availability.

Note:

The Standard Controller does not provide Wi-Fi functionality independently. All cloud-based features require the installation of the optional External Wi-Fi Module.

3.2.2.15 Screen Saver Timeout

The Screen Saver Timeout function automatically switches off the controller display backlight after a period of inactivity.

This feature helps reduce power consumption, minimise light output in low-light environments, and extend the operational life of the display.

Screen Saver Operation

The controller continuously monitors user interaction.

- The display backlight will illuminate whenever a button is pressed.
- If no buttons are pressed for 60 seconds, the display backlight will automatically switch off.
- The ventilation system will continue operating normally while the display is inactive.

The Screen Saver function affects the display only and does not alter any ventilation settings or operating modes.

Reactivating the Display

To restore the display backlight:

1. Press any button on the controller.
2. The display will immediately illuminate.
3. Normal controller operation will be restored.

Notes

- The Screen Saver Timeout function only affects the display backlight.
- Ventilation operation continues normally while the display is in Screen Saver mode.
- Active schedules, timers, alarms, and operating modes remain unaffected.
- The display backlight will automatically reactivate whenever user input is detected.
- The Screen Saver function does not erase or modify any saved controller settings.
- The screen entering Screen Saver mode is normal operation and does not indicate a fault with the controller or ventilation system.

3.2.2.16 Fault Display

The Fault Display function assists users and service personnel by identifying abnormal operating conditions detected by the ventilation system.

When a fault is detected, the controller will display an error code to indicate the affected component or system function. This information can be used to assist with fault diagnosis and troubleshooting.

Fault Indication

When the ventilation system detects a fault:

- An error code will be displayed on the controller screen.
- The error code will replace the PM2.5 value normally shown on the display.
- The fault indication will remain visible until the fault condition has been corrected or the system has been reset, where applicable.
- Depending on the type of fault, certain system functions may be restricted until the issue has been resolved.

Error Codes

The following error codes may be displayed:

Error Code	Description
E0	Communication Error
E1	Bypass Damper Fault
E2	Outside Air (OA) Damper Fault
E3	Return Air (RA) Temperature and Humidity Sensor Fault
E4	Supply Air (SA) Temperature Sensor Fault
E5	Outside Air (OA) Temperature and Humidity Sensor Fault
E6	Exhaust Air (EA) Temperature Sensor Fault
E7	Supply Fan Fault
E8	Extract Fan Fault
E9	Exhaust Air (EA) Damper Fault

Responding to a Fault

If an error code is displayed:

1. Record the displayed error code.
2. Identify the affected component using the table above.
3. Check for any obvious issues, such as loose connections or power interruptions, where safe and appropriate to do so.
4. Refer to Section 6 – Troubleshooting of this manual for detailed information relating to the displayed error code and recommended corrective actions.
5. If the fault remains active after the recommended checks have been completed, contact a qualified service technician or Fanco Technical Support.

Important

Do not attempt to disassemble, repair, modify, or bypass any electrical or mechanical components unless you are suitably qualified and authorised to perform such work.

Troubleshooting Reference

Detailed fault descriptions, possible causes, and recommended corrective actions for each error code are provided in:

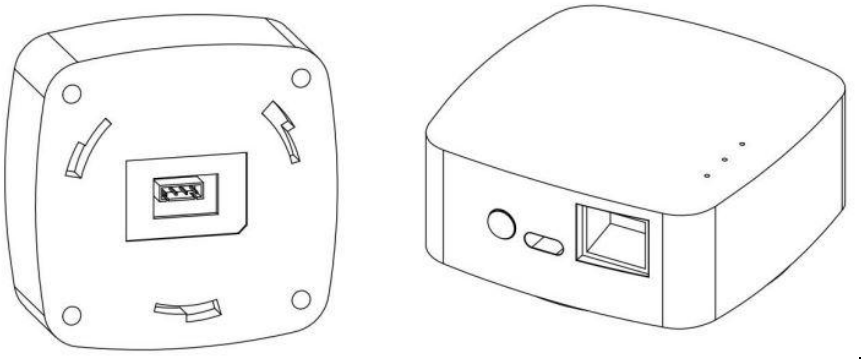
Section 6 – Troubleshooting

Users and installers should refer to this section before requesting technical support, as it contains additional information to assist with fault identification and diagnosis.

Notes:

- When a fault is active, the displayed error code will replace the PM2.5 reading on the controller screen.
- Some faults may affect ventilation performance or temporarily disable certain system functions.
- Certain faults may clear automatically once normal operating conditions have been restored.
- Persistent or recurring faults may indicate an underlying issue requiring professional diagnosis.
- When contacting Fanco Technical Support, record the displayed error code, unit model, controller model, and firmware version (where available) to assist with fault diagnosis.
- Refer to Section 6 – Troubleshooting for comprehensive fault information and recommended corrective actions.

3.2.3 External Wi-Fi Module – Wired



Model: E9170/0000A

The External Wi-Fi Module provides the communication interface between the Habitat Central ventilation system, the Tuya Smart App, compatible wireless sensors, and supported control devices.

When installed and configured correctly, the Wi-Fi Module enables smart monitoring and control functions, allowing users to remotely access and manage their ventilation system from a compatible mobile device.

The Wi-Fi Module also acts as the communication gateway for supported wireless accessories connected to the Habitat Central system.

3.2.3.1 Wi-Fi Module Power Connection

The figures below show the WIFI Module and the correct wiring arrangement for connection to the Habitat Central-340 control Printed Circuit Board (PCB).

Installation Procedure

1. Isolate power to the Habitat Central unit.
2. Locate the communication terminals on the main control PCB.
3. Locate the corresponding communication terminals on the Wi-Fi Module.
4. Connect the communication cable in accordance with the wiring diagram.
5. Verify that all wiring connections are secure.
6. Restore power and confirm normal operation.

Refer to the diagram below when identifying controller connection points and wiring terminals.

Warning

Incorrect electrical installation may result in electric shock, fire, equipment damage, or personal injury.

Important

Incorrect wiring may prevent communication between the Habitat Central unit, the Wi-Fi Module, and connected smart devices.

Once installation has been completed successfully, the WIFI Module will provide access to all primary operating, monitoring, and configuration functions of the Habitat Central-340 ventilation system, through the Tuya APP.

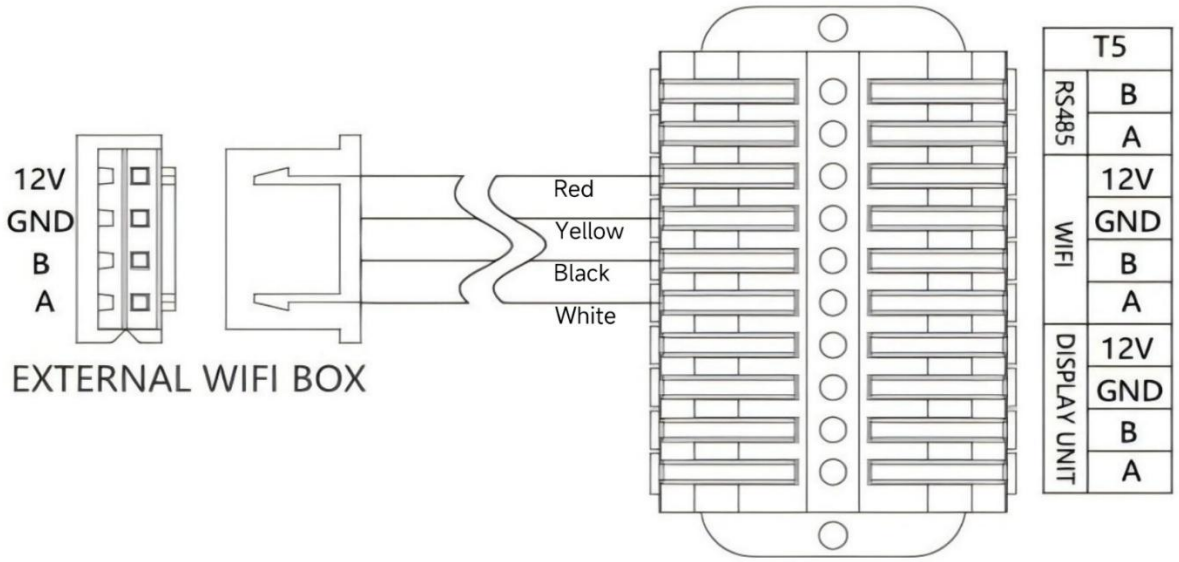
Note

Please note that the connection cable between the WIFI Module and the ventilation unit is supplied by Fanco and must be ordered separately.

System Overview

The figures below illustrate:

- The connection between the WIFI Module and the Fanco Habitat Central Unit.
- The wiring arrangement required between the control PCB and the Wi-Fi Module.



Smart Function Integration

Once installed and connected, the External Wi-Fi Module enables communication between the Habitat Central unit and supported smart devices and services.

Available functions may include:

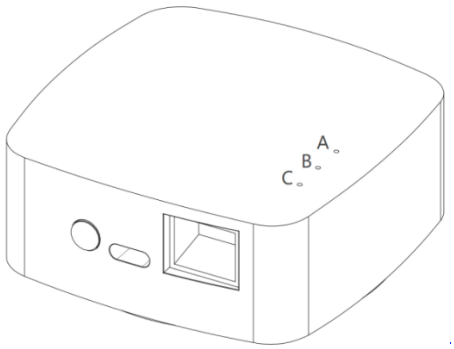
- Remote monitoring through the Tuya Smart App.
- Remote control of ventilation system functions.
- Integration with compatible wireless sensors.
- Outdoor weather information display.

- Communication with supported Standard and Premium Controllers.
- Cloud-based monitoring and notification functions.

The available features may vary depending on the installed accessories, controller type, and firmware version.

3.2.3.2 Wi-Fi Module Status Indicators

The External Wi-Fi Module is equipped with three status indicator lights that provide information regarding operating status and communication activity. See image below for reference:



These indicators can be used during installation and troubleshooting to verify correct communication between connected devices.

Indicator	Status	Description
A	Flashing	Network Configuration Mode active.
	Solid On	Connected to the network and operating normally.
B	Flashing	Data is being received from one or more connected wireless sensors.
C	Flashing	Data is being received from the Habitat Central control PCB.

3.2.3.3 Network Configuration

Before the Wi-Fi Module can communicate with the Tuya Smart App, it must first be placed into Network Configuration Mode.

Entering Network Configuration Mode

1. Press and hold the configuration button located on the Wi-Fi Module.
2. Release the button when only Indicator A remains illuminated.

After releasing the button:

- Indicator A will begin flashing.
- Network Configuration Mode is active.
- The Wi-Fi Module is ready to pair with the Tuya Smart App.

Completing App Pairing

After entering Network Configuration Mode:

1. Open the Tuya Smart App on a compatible mobile device.
2. Follow the device pairing instructions provided in:
- Section 3.2.3.5 Smartphone App Setup and Wi-Fi Connection or,
- Section 3.2.1.23.1 Wi-Fi Connection – for Premium Control or,
- Section 3.2.2.14 – Wi-Fi Connection – for Standard Control.
3. Complete the network connection procedure.

When pairing is successful:

- Indicator A will remain continuously illuminated.
- The Habitat Central unit will appear in the Tuya Smart App.
- Remote monitoring and control functions will become available.

Troubleshooting

If the Wi-Fi Module cannot be detected or pairing fails:

- Confirm the module has been wired correctly.
- Verify that power is available to the ventilation unit.
- Ensure the module is in Network Configuration Mode.
- Check that the mobile device has Wi-Fi and Bluetooth enabled.
- Verify that the selected Wi-Fi network has adequate signal strength.
- Restart the pairing process if required.

Note

Refer to Section 6 – Troubleshooting for additional information regarding communication faults, Wi-Fi connection issues, and sensor communication problems.

3.2.3.4 Connecting Wireless Sensors

The External Wi-Fi Module supports communication with compatible wireless sensors, allowing the Habitat Central system to receive real-time environmental data from multiple locations within the building.

Depending on the sensor type installed, this information may be used for monitoring, air quality reporting, and automatic ventilation control functions.

Required Components

The following components are required for wireless sensor operation:

- External Wi-Fi Module
- Habitat Central ventilation unit

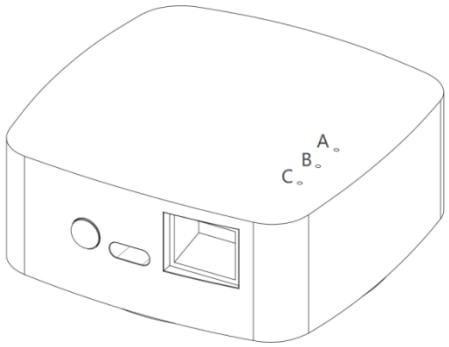
- Communication cable (sold separately)
- Tuya Smart App
- Compatible wireless sensors
- Standard Controller or Premium Controller (where applicable)

Pairing a Wireless Sensor

Before pairing a sensor, ensure the External Wi-Fi Module has been installed correctly and is communicating with the Habitat Central unit.

Step 1 – Enable Wi-Fi Module Pairing Mode

1. Press and hold the button located on the External Wi-Fi Module.
2. Observe the indicator light sequence.
3. Release the button when only Indicator B remains illuminated.



The Wi-Fi Module is now ready to accept a wireless sensor connection.

Step 2 – Activate Sensor Pairing

1. Using a suitable pin or similar tool, press and hold the pairing button located on the wireless sensor.
2. The sensor status indicator will begin flashing.
3. Continue holding the button until the sensor indicator turns off.

Once the indicator light turns off:

- Pairing has been completed successfully.
- The wireless sensor is connected to the External Wi-Fi Module.
- Sensor data will become available to the Habitat Central system.

Connecting Additional Sensors

Multiple wireless sensors can be connected to a single External Wi-Fi Module.

To pair additional sensors:

1. Repeat the pairing procedure for each sensor.

2. Confirm successful pairing before proceeding to the next device.
3. Record the installation location of each sensor for future reference and troubleshooting.

Recommendation

When installing multiple sensors, record the physical location assigned to each device (for example: Living Room, Master Bedroom, Office, etc.) to simplify commissioning and future service work.

Clearing Stored Sensor Connections

The External Wi-Fi Module allows all previously paired wireless sensors to be removed and reset if required.

This function may be useful when replacing sensors or reconfiguring the system.

Resetting Connected Devices

1. Press and hold the button located on the External Wi-Fi Module.
2. Observe the indicator light sequence.
3. Release the button when Indicators A, B, and C are illuminated simultaneously.

The Wi-Fi Module will clear all stored wireless sensor connections.

Important

Once deleted, all sensors must be paired again before communication can be restored.

Verification of Successful Pairing

After a sensor has been paired:

- The sensor should appear within the controller sensor menus.
- Sensor readings should become visible within the relevant monitoring screens.
- The Wi-Fi Module communication indicators should show normal activity.
- Sensor information should be available through the Tuya Smart App, where applicable.

If sensor data is not displayed, verify that the pairing procedure has been completed successfully.

Troubleshooting

If a wireless sensor cannot be paired or communication is lost:

- Confirm the External Wi-Fi Module is powered and operating correctly.
- Verify the sensor is compatible with the Habitat Central system.
- Repeat the pairing procedure.

- Ensure the sensor is installed within the recommended communication range.
- Check for excessive building materials or obstructions that may interfere with wireless communication.
- Confirm that the sensor is correctly powered and operating.

Note

Refer to Section 6 – Troubleshooting for additional information regarding sensor communication faults, pairing issues, and wireless network diagnostics.

Notes

- The External Wi-Fi Module acts as the communication gateway between the Habitat Central unit, wireless sensors, compatible controllers, and the Tuya Smart App.
- All communication wiring must be installed in accordance with the instructions provided in this manual.
- Sensor readings may take several minutes to update following initial pairing.
- Poor wireless signal conditions may affect communication reliability and response times.
- If pairing is unsuccessful, verify that the Wi-Fi Module has been placed into the correct configuration mode before attempting the procedure again.
- Wireless sensors should be installed in representative locations away from direct heat sources, air outlets, windows, or other conditions that may affect measurement accuracy.

3.2.3.5 Smartphone App Setup and Wi-Fi Connection

The Tuya Smart App allows the Habitat Central ventilation system to be monitored and controlled remotely using a compatible smartphone or tablet.

Once connected, users can remotely access supported system functions, view operating conditions, monitor air quality information, and adjust ventilation settings from virtually anywhere with an internet connection.

Important

Before commencing the setup process, ensure the External Wi-Fi Module has been installed and wired correctly in accordance with Section 3.2.3.1 – Wi-Fi Module Installation.

Step 1 – Prepare the Wi-Fi Module

Before pairing the Habitat Central unit with the Tuya Smart App:

1. Confirm that the External Wi-Fi Module has been installed correctly.

2. Verify that power has been supplied to the ventilation unit.
3. Check that Indicator Light A on the Wi-Fi Module is flashing.

A flashing Indicator Light A indicates that the Wi-Fi Module is in Network Configuration Mode and ready for pairing.

Note

If Indicator Light A is not flashing, refer to Section 3.2.3.1 – Wi-Fi Module Installation for instructions on entering Network Configuration Mode.

Step 2 – Download and Prepare the Tuya Smart App

1. Scan the supplied QR code or search for Tuya Smart in your device's app store.
2. Download and install the application.
3. Enable both Wi-Fi and Bluetooth on your smartphone or tablet.
4. Open the Tuya Smart App.
5. Create a new account or sign in to an existing account.

Once logged in, the app is ready to begin the pairing process.

Step 3 – Add the Habitat Central Device

1. Open the Tuya Smart App.
2. Select the "+" icon located in the upper-right corner of the screen.
3. Navigate to:

   Add Device → Small Home Appliance → Ventilation System (Wi-Fi + Bluetooth)

4. Follow the on-screen instructions.
5. Select the appropriate Wi-Fi network.
6. Enter the Wi-Fi network password when prompted.

The application will automatically begin the pairing process.

Step 4 – Complete the Connection

When pairing has been completed successfully:

- The Habitat Central unit will appear within the Tuya Smart App.
- The Wi-Fi Module will establish communication with the cloud platform.

- Remote monitoring and control functions will become available.
- Real-time operating information can be viewed remotely.
- Supported system settings can be adjusted through the application.

Verifying Successful Connection

The connection process is complete when:

- The Habitat Central unit appears within the Tuya Smart App.
- Indicator Light A on the Wi-Fi Module remains continuously illuminated.
- Remote functions are accessible through the application.

If the unit does not appear within the app, repeat the pairing process and verify the network settings.

Troubleshooting

If connection cannot be completed:

- Confirm the Wi-Fi Module has been installed and powered correctly.
- Verify that Indicator Light A is flashing before commencing setup.
- Ensure Wi-Fi and Bluetooth are enabled on the mobile device.
- Confirm the smartphone is within communication range of the Wi-Fi Module.
- Check that the selected Wi-Fi network is operational and has internet access.
- Repeat the pairing procedure if required.

Note

Refer to Section 6 – Troubleshooting for additional information regarding Wi-Fi connection issues, app pairing failures, and communication faults.

Notes

- Wi-Fi functionality requires the optional External Wi-Fi Module.
- Remote control functions are only available after successful pairing with the Tuya Smart App.
- Available app functions may vary depending on controller type, firmware version, and installed accessories.
- Connection times may vary depending on local network conditions and internet performance.
- For reliable operation, Fanco recommends installing the Wi-Fi Module in a location with adequate wireless signal strength.

3.2.3.6 App Home Screen Overview

Once the Habitat Central unit has been successfully paired with the Tuya Smart App, the Home Screen provides access to the primary monitoring and control functions of the ventilation system.

The Home Screen displays real-time system information, environmental conditions, operating status, and quick-access controls, allowing users to monitor and manage the ventilation system remotely.

Depending on the system configuration and installed accessories, the Home Screen may display information including:

- Unit operating status.
- Current operating mode.
- Fan speed settings.
- Indoor temperature.
- Indoor relative humidity (RH).
- CO_2 levels.
- PM2.5 levels.
- TVOC levels.
- Filter maintenance notifications.
- Wi-Fi connection status.
- Connected sensors and accessories.

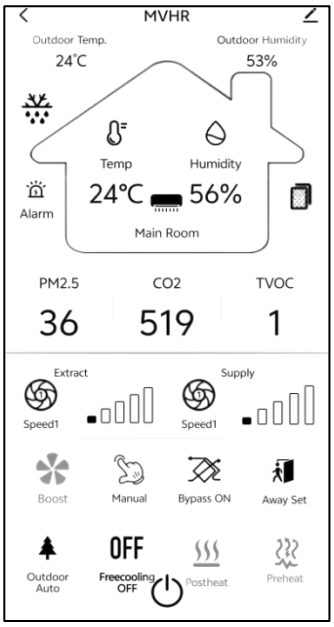
The Home Screen also provides access to key system functions, including:

- Operating Mode selection.
- Fan Speed adjustment.
- Boost Mode.
- Timer schedules.
- Away Mode.
- Air quality monitoring.
- System settings and configuration options.

Note

The information and functions displayed within the Tuya Smart App may vary depending on the controller type, firmware version, installed accessories, and connected sensors.

The following sections describe each Home Screen icon, indicator, and control function in detail, including their purpose, operation, and available settings.



3.2.3.6.1 Power Control

The ON/OFF control allows the Habitat Central ventilation system to be started or stopped remotely through the Tuya Smart App.

This function provides the same operating control as the ON/OFF function available from the connected wall controller.

Operation

To start or stop the ventilation system:

1. Tap the ON/OFF icon.
2. The system status will update to reflect the selected operating state.

When the unit is turned ON, ventilation operation will resume according to the previously selected operating mode and settings.

When the unit is turned OFF, fan operation will stop; however, stored schedules, control parameters, and system settings will be retained.

Note

Switching the unit OFF through the app does not disconnect electrical power from the ventilation system.

3.2.3.6.2 Defrost Status

Defrosting []

The Defrosting icon indicates that the Habitat Central unit is currently operating in an automatic defrost cycle.

Defrost Mode is designed to protect the Heat/Energy Recovery Core from frost accumulation during cold weather operation and is activated automatically when operating conditions require frost protection.

Operation

When the Defrosting icon is displayed:

- Automatic frost protection is active.
- The unit is operating according to its programmed defrost strategy.
- Ventilation performance is being managed to prevent excessive frost build-up within the Heat/Energy Recovery Core.
- No user action is required.

Once suitable operating conditions have been restored, the system will automatically return to normal ventilation operation.

Note

The appearance of the Defrosting icon is a normal operating condition and does not indicate a fault with the ventilation system.

Further Information

Refer to Section 3.2.1.7 – Defrost Mode, or Section 3.2.2.9 – Defrost Operation for additional information regarding defrost operation and frost protection functions.

3.2.3.6.3 Alarm Status

The Alarm icon [

] indicates that the Habitat Central system has detected a fault or abnormal operating condition.

When an alarm is active, the system records the fault and provides information to assist with diagnosis and troubleshooting.

Operation

When the Alarm icon is displayed:

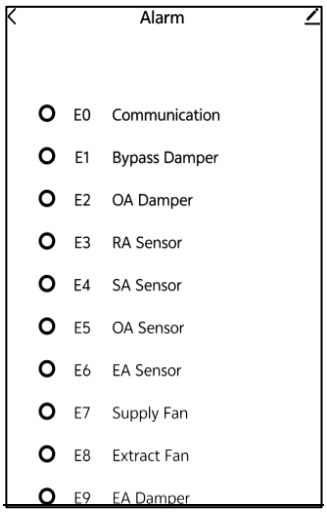
- A fault condition is currently active.

- Certain system functions may be limited depending on the fault type.
- Additional alarm information can be viewed by selecting the Alarm icon.
- Corrective action may be required before normal operation can resume.

Viewing Alarm Information

To view additional fault details:

1. Tap the Alarm icon.
2. Review the displayed fault information and error code.
3. Follow the recommended troubleshooting procedures.



Important

Alarm notifications should not be ignored, as continued operation under fault conditions may affect system performance.

Further Information

Refer to Section 3.2.1.10 – Alarm, or Section 3.2.2.16 – Fault Display for a summary of alarm codes and fault indications.

Troubleshooting

Refer to Section 6 – Troubleshooting for detailed fault descriptions, possible causes, and recommended corrective actions.

3.2.3.6.4 Outdoor Conditions

Outdoor Temperature

The Outdoor Temperature display provides a real-time measurement of the outside air entering the ventilation system.

This information is obtained from the Outdoor Air (OA) temperature sensor and may be used by several automatic control functions, including:

- Defrost protection.
- Bypass control.
- Auto Mode operation.
- Comfort temperature management.

The displayed value updates automatically as outdoor conditions change.

Outdoor Relative Humidity

The Outdoor Humidity display provides a real-time measurement of outdoor relative humidity (RH).

This information is used by the controller for monitoring purposes and may also be utilised by functions such as:

- Outdoor Damper (OD) Conditions.
- Auto Mode operation.
- Moisture management strategies.
- Bypass and comfort-control functions.

The displayed value updates automatically during operation.

Note

Outdoor temperature and humidity readings are intended for monitoring and automatic control purposes. Values may vary depending on sensor location and environmental conditions.

Further Information:

Refer to Section 3.2.1.5 – Outdoor Temperature, Humidity and Weather Status and Section 3.2.2.12 – Temperature and Humidity Monitoring for additional information regarding environmental monitoring and sensor operation.

3.2.3.6.5 Indoor Information

The Indoor Information section displays real-time environmental data collected from the internal sensors and any compatible external sensors connected to the Habitat Central system.

This area of the Tuya Smart App allows users to monitor indoor environmental conditions at multiple locations throughout the building.

Depending on the installed sensors, the following information may be available:

- Temperature
- Relative Humidity (RH)
- Carbon Dioxide (CO_2)
- PM2.5
- Total Volatile Organic Compounds (TVOC)

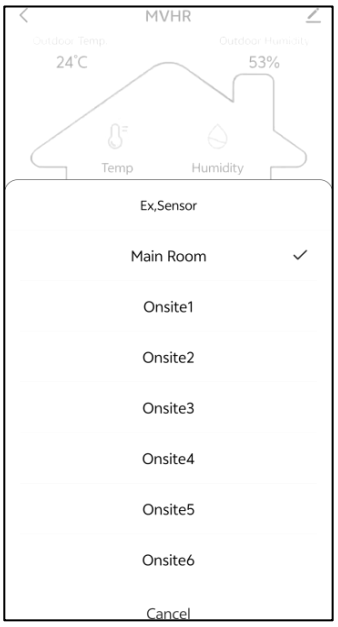
The information displayed will vary depending on the selected sensor location and the capabilities of the connected sensor.

Selecting a Sensor Location

The temperature and humidity area displayed within the building diagram also functions as a sensor selection menu.

To view data from a different sensor:

1. Tap the Indoor Information area.
2. A list of available sensor locations will be displayed.
3. Select the desired sensor location.



The app supports monitoring of up to eight (9) sensor locations:

- Main Room
- Onsite 1
- Onsite 2
- Onsite 3
- Onsite 4
- Onsite 5
- Onsite 6
- Onsite 7
- Onsite 8

Only locations with connected sensors will display measurement data.

Internal Sensor Display

When Main Room is selected, the app displays information from sensors installed within the Habitat Central unit.

Depending on the accessories fitted, the following data may be available:

- Temperature
- Relative Humidity (RH)
- Carbon Dioxide (CO_2)
- PM2.5
- TVOC

For example, if the optional Internal Air Quality Sensor has been installed, all available environmental parameters will be displayed simultaneously.

External Sensor Display

When an external sensor location is selected, the app displays only the measurements supported by that particular sensor.

For example:

Onsite 1

If an external CO_2 / Temperature / Humidity Sensor is installed at this location, the app will display:

- Temperature
- Relative Humidity (RH)
- Carbon Dioxide (CO_2)

PM2.5 and TVOC values will not be shown because they are not measured by that sensor.

Similarly, if a PM2.5 sensor is installed at another location, only the parameters supported by that device will be displayed.

Indoor Temperature

Displays the current temperature measured by the selected sensor location.

The displayed value updates automatically as environmental conditions change.

Indoor Relative Humidity

Displays the current relative humidity measured by the selected sensor location.

The displayed value updates automatically as changes in indoor moisture levels are detected.

Additional Air Quality Information

Depending on the selected sensor and installed accessories, the following additional parameters may also be displayed:

Carbon Dioxide (CO_2)

Displays the current CO_2 concentration measured by the selected sensor.

PM2.5

Displays the concentration of fine airborne particulate matter detected by the selected sensor.

TVOC

Displays the measured concentration of Total Volatile Organic Compounds.

This information can assist users in monitoring overall indoor air quality.

Notes

- The Habitat Central system supports monitoring of up to eight (8) external sensor locations.
- Only sensors that have been paired and are actively communicating with the Wi-Fi Module will appear in the sensor selection list.
- The information displayed depends on the capabilities of the selected sensor.
- Not all sensor locations will display the same parameters.
- Environmental values update automatically and reflect current conditions at the selected sensor location.
- Sensor readings are intended for monitoring and automatic control purposes and do not require user adjustment.
- Refer to Section 3.2.3.4 – Connecting Wireless Sensors for information regarding sensor pairing and setup.
- Refer to Section 6 – Troubleshooting if a connected sensor does not appear within the app or sensor data is unavailable.

3.2.3.6.6 Filter Maintenance Alert

The Filter Management page allows users to monitor filter operating hours, review filter service intervals, and reset filter maintenance reminders following filter cleaning or replacement.

The Habitat Central system can monitor the following filter types:

- Filter-G – G4 Primary Filter
- Filter-F – F8 Fine Filter

- Filter-H – H13 HEPA Filter

Regular filter maintenance helps maintain airflow performance, indoor air quality, and overall system efficiency.

Accessing the Filter Management Page

To view filter information:

1. Tap the Filter icon from the Home Screen.
2. The Filter Management page will be displayed.

The information shown on the screen relates to the currently selected filter type.

Filter Information Display

The Filter Management page displays the following information:

Initial Filter Service Time

Displays the configured filter service interval for the selected filter.

This value represents the operating hours assigned to the filter before a maintenance reminder is generated.

Accumulated Operating Hours

Displays the total operating hours accumulated since the filter timer was last reset.

The controller uses this value to determine when a Filter Alert should be generated.

Switching Between Filter Types

The currently selected filter type is displayed at the bottom of the Filter Management screen.

To view information for a different filter:

1. Tap the displayed filter name or filter icon.
2. Select the required filter type:
    - Filter-G (G4 Filter)
    - Filter-F (F8 Filter)
    - Filter-H (H13 HEPA Filter)
3. The screen will update to display the service interval and accumulated operating hours for the selected filter.

Resetting Filter Operating Hours

After the filter has been cleaned or replaced:

1. Open the Filter Management page.
2. Select the appropriate filter type.
3. Press [RESET], located on the right-hand side of the screen.
4. Confirm the reset if prompted.

The accumulated operating hours will return to zero and the maintenance interval will restart for the selected filter.

Important

Always inspect, clean, or replace the filter before resetting the operating hour counter.

Filter Maintenance Alerts

When a filter reaches its configured service interval:

- A Filter Alert notification will be generated.
- The affected filter can be identified within the Filter Management menu.
- Filter maintenance should be performed as required.

Note

Filter maintenance reminders are based on accumulated operating hours only and do not directly measure the physical condition of the filter.

Recommendations

- Regularly inspect filters, even if a Filter Alert has not been displayed.
- Filters may require maintenance before the configured service interval is reached in environments with elevated dust levels, construction activities, bushfire smoke, or other airborne contaminants.
- Reset the filter timer only after maintenance has been completed.

Notes

- Filter operating hours are used as a maintenance reminder only.
- Filter service life may vary depending on environmental conditions and system usage.
- Dirty or blocked filters may reduce airflow performance and increase energy consumption.
- Maintaining clean filters helps maximise indoor air quality and overall system performance.
- Refer to Section 5 – Filter & Heat/Energy Recovery Core Maintenance Guide for detailed filter cleaning, inspection, and replacement procedures.

- Refer to Section 6 – Troubleshooting if a Filter Alert remains active after the filter has been serviced and the operating hour counter has been reset.

3.2.3.6.7 Fan Speed Display

The Fan Speed Display section provides real-time information regarding the current operating speed of the Supply Fan and Extract Fan.

The Tuya Smart App allows users to monitor fan operation and adjust the overall ventilation speed when the system is operating in Manual Mode.

Important

Unlike the Premium Controller, the Tuya Smart App does not support Fan Separation. The Supply Fan and Extract Fan always operate at the same speed when controlled through the app.

Important

Independent Supply Fan and Extract Fan speed adjustment is only available through the Premium Controller when Fan Separation has been enabled, and the system is operating in Manual Mode.

Extract Fan Speed

Displays the current operating speed of the Extract Fan.

The displayed value updates automatically and reflects the fan speed currently being commanded by the ventilation system.

Available fan speeds:

- Speed 1
- Speed 2
- Speed 3
- Speed 4
- Speed 5

Supply Fan Speed

Displays the current operating speed of the Supply Fan.

The displayed value updates automatically and reflects the fan speed currently being commanded by the ventilation system.

Available fan speeds:

- Speed 1
- Speed 2

- Speed 3
- Speed 4
- Speed 5

Manual Mode Operation

When the system is operating in Manual Mode:

- Fan speed can be adjusted directly through the app.
- The selected speed is applied to both the Supply Fan and Extract Fan simultaneously.
- Both fans will always operate at the same speed.
- Balanced ventilation operation is maintained.

The app provides a single fan speed control and does not allow separate adjustment of the Supply Fan and Extract Fan.

Notes

- Fan speed information is displayed in real time.
- Changes made through the app are applied immediately to the ventilation system.
- Supply and Extract Fans operate synchronously when controlled through the Tuya Smart App.
- Fan Separation is not supported through the app or the External Wi-Fi Module.
- For most residential applications, equal Supply and Extract airflow is recommended to maintain balanced building pressure and optimum ventilation performance.
- Refer to Section 3.2.1 – Premium Controller for information regarding Fan Separation functionality.

3.2.3.6.8 Boost Mode

Boost Mode temporarily increases the ventilation rate to provide rapid air exchange when additional ventilation is required.

Typical applications include:

- Cooking activities.
- Showering or bathing.
- Removal of odours.
- Periods of increased occupancy.
- Temporary increases in indoor humidity.
- Any situation where enhanced fresh air ventilation is desired.

When activated, the Habitat Central unit operates according to the configured Boost Condition, increasing the selected fan operation to maximum speed for a predetermined period before automatically returning to the previous operating mode.

Boost Operation

When Boost Mode is activated:

- The selected fan(s) automatically operate at Speed Level 5.
- Boost operation remains active for the configured Boost period.
- Once the Boost period expires, the system automatically returns to its previous operating mode and settings.

Factory Default Boost Duration: 15 Minutes

Note

Boost duration can only be adjusted using the Premium Controller.

Refer to Section 3.2.1 – Premium Controller → Boost Time for additional information.

Activating Boost Mode

To activate Boost Mode:

1. Tap the Boost icon.
2. The system will immediately enter Boost Mode.
3. The selected Boost Condition will determine which fan(s) operate at maximum speed.

Boost Conditions

The Boost operating behaviour can be configured through:

Away Mode Settings → Boost Condition

The following Boost Conditions are available:

Both ON

Both the Supply Fan and Extract Fan operate simultaneously at Speed Level 5.

This is the recommended setting for most residential applications as it maintains balanced ventilation airflow.

Supply Only

Only the Supply Fan operates at Speed Level 5.

The Extract Fan will continue operating according to the active system settings.

Extract Only

Only the Extract Fan operates at Speed Level 5.

The Supply Fan will continue operating according to the active system settings.

Notes

- The selected Boost Condition applies whenever Boost Mode is activated through the Tuya Smart App, Premium Controller, Standard Controller, or compatible external boost devices.
- Boost settings remain active until manually changed.
- Boost Mode is intended for temporary increases in ventilation demand.
- Increased ventilation rates may result in higher energy consumption during the Boost period.
- For most applications, Fanco recommends using the Both ON setting to maintain balanced airflow throughout the building.
- Refer to Section 3.2.1.8 – Boost Function for additional information regarding Boost Mode operation.
- If Boost Mode does not operate as expected, refer to Section 6 – Troubleshooting for further assistance.

3.2.3.6.9 Operating Modes

The Habitat Central ventilation system can operate in several different modes to suit varying ventilation requirements and occupancy patterns.

The current operating mode can be selected directly from the Home Screen and determines how the system responds to user inputs, schedules, and environmental conditions.

The following operating modes are available:

- Auto Mode
- Manual Mode
- Timing Mode
- Away Mode

Note

Only one operating mode can be active at any given time. Selecting a new operating mode will automatically cancel the previously active mode.

3.2.3.6.9.1 Auto Mode

Auto Mode [Ⓐ] allows the Habitat Central unit to automatically adjust ventilation performance based on real-time environmental conditions.

When Auto Mode is active, the system continuously monitors available internal and external sensors and automatically adjusts fan speeds to maintain indoor air quality and comfort.

Depending on the installed accessories and enabled control functions, Auto Mode may respond to:

- Carbon Dioxide (CO_2)
- PM2.5
- TVOC
- Relative Humidity (RH)
- Temperature
- Outdoor air conditions

The controller automatically increases or decreases ventilation rates in response to environmental conditions and the configured control parameters.

Most parameter adjustment functions, including CO_2, PM2.5, TVOC, humidity, and bypass control thresholds, are only accessible through the Premium Controller.

When these parameters have not been modified, or when a Premium Controller is not installed, the Habitat Central unit will operate using the factory default control settings, which are suitable for most residential applications.

Auto Mode Operation

When Auto Mode is active:

- Fan speeds are adjusted automatically.
- Air quality control functions remain active.
- Humidity control functions remain active.
- Bypass control functions operate automatically where applicable.
- Defrost protection functions operate automatically when required.

Notes

- Auto Mode provides the highest level of automatic ventilation control.
- Sensor readings continue to be monitored continuously.
- Individual control thresholds can be adjusted through the Premium Controller.
- Factory default sensor parameters are suitable for most residential applications.

3.2.3.6.9.2 Manual Mode

Manual Mode [

] provides direct user control of ventilation operation.

When Manual Mode is selected, the user determines the ventilation rate by manually selecting the desired fan speed.

Automatic control functions and programmed schedules are disabled while Manual Mode remains active.

Manual Mode Operation

When Manual Mode is active:

- Fan speeds can be adjusted manually.
- Automatic sensor-based adjustments are disabled.
- Timer schedules are ignored.
- Away Mode is disabled.
- Environmental data continues to be displayed for monitoring purposes.

The ventilation system will continue operating according to the selected fan speed until another operating mode is selected.

Fan Operation Through the App

When using the Tuya Smart App:

- A single fan speed setting is applied.
- The Supply Fan and Extract Fan operate at the same speed.
- Fan Separation is not available.
- Independent fan speed adjustment is not supported.

Important

Fan Separation can only be configured and used with the Premium Controller, when the system is operating in Manual Mode.

Notes

- Sensor readings remain visible while Manual Mode is active.
- Environmental conditions continue to be monitored.
- Sensor data will not automatically alter system operation.

3.2.3.6.9.3 Timing Mode

Timing Mode [] allows the Habitat Central system to operate according to a programmed schedule configured through the controller.

This mode is designed to automatically adjust ventilation operation throughout the day based on predetermined operating periods and fan speed settings, helping to balance indoor air quality, occupant comfort, and energy efficiency.

When Timing Mode is active, the system follows the configured schedule and automatically changes operating settings at the programmed times.

Features

- Up to four operating periods per day.
- Independent scheduling for each day of the week.
- Adjustable Supply and Extract Fan speeds for each period.

Timing Mode Operation

When Timing Mode is active:

- The ventilation unit operates according to the programmed timer schedule.
- Fan speeds automatically change based on the configured time periods.
- Start and stop times are applied automatically.
- Manual fan speed adjustments are overridden by the active schedule.
- Sensor readings continue to be displayed for monitoring purposes.

The system will continue following the programmed schedule until another operating mode is selected.

Setting a Timer Schedule

Settings the timer schedule are not available with the Smart App, however, setting can be adjusted by using the Premium Control during installation, any changes made with the Premium Control, such as, timer scheduling modifications will remain saved in the unit memory and will then be reflected when the Smart App is connected. For more information about settings with the Premium Control refer to section 3.2.1 in this manual.

Default Timer Schedule

The Habitat Central unit is supplied with a factory default schedule.

When activating Timer function with the Standard Control, if not changes were made, by using a Standard Control, the Timer Schedule will work as follows:

Monday to Friday

Timed Period	Time Range	Supply Fan Speed	Extract Fan Speed
Period 1	00:00 – 06:00	Level 1	Level 1
Period 2	06:00 – 16:00	Level 2	Level 2
Period 3	16:00 – 21:00	Level 4	Level 4
Period 4	21:00 – 23:59	Level 2	Level 2

Saturday and Sunday

Timed Period	Time Range	Supply Fan Speed	Extract Fan Speed
Period 1	00:00 – 07:00	Level 1	Level 1
Period 2	07:00 – 11:00	Level 3	Level 3
Period 3	11:00 – 21:00	Level 4	Level 4
Period 4	21:00 – 23:59	Level 2	Level 2

Sensor Operation

While Timing Mode is active:

- The ventilation unit operates according to the programmed schedule.
- Automatic sensor-based airflow adjustments are disabled.
- Connected sensors continue to display environmental information.

Note

For balanced ventilation performance, Fanco recommends operating the Supply and Extract Fans at the same speed unless a specific application requires otherwise.

Notes

- Accurate date and time settings are required for Timing Mode to operate correctly.
- Timer schedules remain stored in memory until modified.
- When Manual Mode is selected, all scheduled operation is suspended.
- Automatic sensor-based control functions do not override the programmed timer schedule while Timing Mode is active.
- The Tuya Smart App cannot be used to configure or modify timer schedules.
- Schedule creation and editing are only available through the Premium Controller.

3.2.3.6.9.4 Away Mode

Away Mode [Away] is designed for extended periods when the building is unoccupied, helping to maintain indoor air quality while reducing energy consumption.

Typical applications include:

- Holidays
- Business travel
- Seasonal properties
- Extended vacancies
- Unoccupied dwellings

During Away Mode, the Habitat Central unit operates according to a predefined schedule and operating parameters configured by the user. This allows the system to continue providing background ventilation while minimising unnecessary energy consumption.

Away Mode Operation

While Away Mode is active:

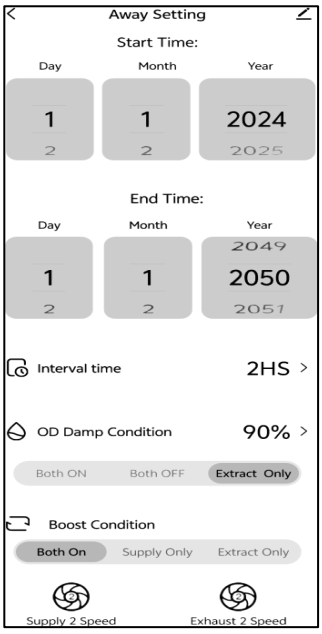
- The ventilation system operates intermittently based on the configured Interval Time.
- Background ventilation is maintained throughout the building.
- Indoor humidity levels can be better controlled during periods of vacancy.
- The risk of condensation and mould growth may be reduced.
- Energy consumption is reduced compared to continuous operation.

Once the programmed Away Mode period ends, the system automatically returns to normal operation.

See Away Setting below, for further information on how to set away mode thought the Smart App.

3.2.3.6.10 Away Settings

The Away Settings page allows users to configure the operating parameters used during Away Mode.



To access Away Settings:

1. Tap Away Set.
2. The Away Settings page will open.

The following parameters can be configured:

Start Date

Defines when Away Mode will become active.

Once the programmed start date is reached, the system will automatically enter Away Mode.

End Date

Defines when Away Mode will end.

Once the programmed end date is reached, the system will automatically exit Away Mode and return to normal operation.

Interval Time

Defines the operating interval used while Away Mode is active.

The unit will automatically cycle between operating and standby periods according to the selected interval.

Example:

2 Hours

- Unit operates for 2 hours.
- Unit enters standby mode for 2 hours.
- The cycle repeats until the Away Mode period expires.

Fan Speeds

The operating speed of the Supply Fan and Extract Fan can be configured for Away Mode operation.

For most residential applications, Fanco recommends operating both fans at the same speed to maintain balanced airflow throughout the building.

Boost Condition

Defines how the system responds if Boost Mode is activated while Away Mode is active.

Available options include:

- Both ON
- Supply Only
- Extract Only

Outdoor Damper (OD) Condition

The Outdoor Damp (OD) Condition function uses outdoor relative humidity measurements to modify ventilation operation when high outdoor moisture levels are detected.

This feature is intended to help manage moisture levels by limiting or modifying ventilation operation when outdoor air becomes excessively humid.

Humidity Threshold

The Outdoor Damp Condition is activated when the measured outdoor relative humidity reaches or exceeds the configured humidity threshold.

Example:

- Threshold = 90% RH
- Outdoor Relative Humidity = 92% RH

The selected OD Condition will become active.

Available Operating Conditions

Setting	System Response
Both ON	Supply Fan and Extract Fan continue operating normally.
Extract Only	Supply Fan stops and only the Extract Fan operates.
Both OFF	Both Supply Fan and Extract Fan stop operating.

Operation

When the outdoor humidity falls below the configured threshold, the system automatically returns to normal operation.

Notes

- Away Mode is intended for extended periods when the building is unoccupied.
- Proper configuration of operating intervals, fan speeds, and Outdoor Damp (OD) Condition settings is recommended to help maintain indoor air quality and manage indoor moisture levels.
- The Outdoor Damp (OD) Condition function uses the outdoor humidity sensor to monitor outdoor air conditions and may assist in reducing unwanted moisture transfer during periods of high outdoor humidity.
- OD Condition is available when the system is operating in Auto Mode, Timing Mode, or Away Mode, and is not active during Manual Mode.
- Sensor information continues to be monitored while Away Mode is active.
- For most applications, Fanco recommends operating the Supply Fan and Extract Fan at the same speed to maintain balanced ventilation throughout the building.

- Away Mode remains active until the programmed End Date is reached or a different operating mode is selected manually.
- Actual system performance will vary depending on climate conditions, occupancy patterns, building characteristics, and system configuration.

Recommendation

Away Mode should be used primarily during extended periods of reduced occupancy.

3.2.3.6.11 Bypass Modes

The Bypass function determines whether incoming fresh air passes through the Heat/Energy Recovery Core or bypasses it completely.

When the bypass damper is closed, fresh air passes through the Heat/Energy Recovery Core, allowing heat and energy transfer to occur.

When the bypass damper is open, fresh air bypasses the Heat/Energy Recovery Core and is supplied directly to the building.

Bypass operation can be controlled either:

- Manually by the user, or
- Automatically by the controller.

Automatic control can help improve indoor comfort and energy efficiency when outdoor conditions are suitable.

3.2.3.6.11.1 Bypass Manual Modes

Before the system can operate automatically, the user must first select how the bypass damper will be controlled.

Three operating modes are available:

1. Bypass Valve ON

Selecting Bypass ON forces the bypass damper to always remain open..

- Fresh air bypasses the Heat/Energy Recovery Core.
- Air is supplied directly to the building.
- The damper remains open regardless of any automatic control settings.

2. Bypass OFF

Selecting Bypass OFF forces the bypass damper to always remain open.

- All incoming air passes through the Heat/Energy Recovery Core.
- Heat and energy recovery functions operate normally.
- The damper remains closed regardless of any automatic control settings.

3. Bypass AUTO

Selecting Bypass AUTO allows the controller to automatically operate the bypass damper.

When this mode is selected, the damper will open or close according to the automatic control method selected in the same menu:

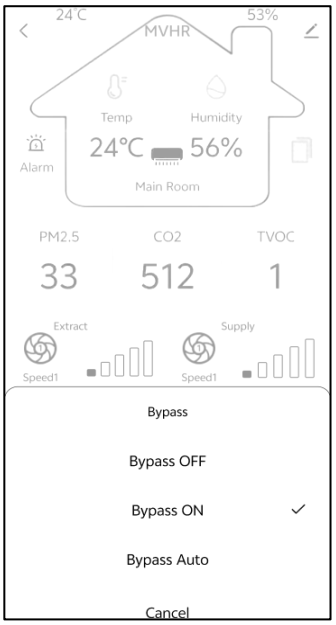
- Outdoor Auto Mode
- Indoor Auto Mode

The selected automatic mode determines when the bypass damper opens and closes based on temperature conditions.

Selecting a Bypass Mode

To change the bypass operating mode:

1. Press Bypass Auto button in the home screen of the Tuya App.
2. Select:
    - Bypass ON
    - Bypass OFF
    - Bypass AUTO



Notes

- Automatic bypass operation is only available when Bypass AUTO is selected.
- Manual settings (Bypass ON or Bypass OFF) override all automatic bypass functions.
- Automatic operation uses the comfort temperature settings set by factory or adjusted during installation if a Premium Wall Control was available.
- Bypass operation can improve indoor comfort during mild weather conditions.
- Availability of the bypass function depends on the unit configuration.

3.2.3.6.11.2 Automatic Bypass Control

When Bypass AUTO is selected, the Habitat Central unit automatically controls the bypass damper based on temperature conditions.

Two automatic control methods are available:

- Outdoor Auto Mode
- Indoor Auto Mode

Important:

These automatic modes only operate when Bypass AUTO is selected.
If Bypass ON or Bypass OFF is selected, the damper position is fixed and automatic control is disabled.

1. Outdoor Auto Mode

When Outdoor Auto Mode is selected, the controller monitors the outdoor air temperature and compares it to the configured outdoor comfort temperature range.

The comfort range can be adjusted through the Premium Wall Control:

Settings → Other → Outdoor Comfort Temperature Range

Default factory settings: 13°C to 26°C

(This temperature range can be adjusted using the Premium Controller.)

How It Works

When both Bypass AUTO and Outdoor Auto Mode are selected:

- The unit continuously monitors the outdoor temperature.
- If the outdoor temperature falls within the configured comfort range, the controller may open the bypass damper.

- Fresh air is then supplied directly to the building without passing through the Heat/Energy Recovery Core.
- The controller automatically opens or closes the damper as required to assist with indoor comfort.

Note

The bypass damper is operated based solely on the outdoor temperature. Indoor temperature is not considered when Outdoor Auto Mode is active.

2. Indoor Auto Mode

When Indoor Auto Mode is selected, the controller monitors the indoor temperature and compares it to the configured indoor comfort temperature setpoint.

The comfort temperature can be adjusted through the Premium Wall Control:

Settings → Other → Indoor Comfort Temperature Point

Default setting: 23°C

(This temperature setpoint can be adjusted using the Premium Controller.)

How It Works

When both Bypass AUTO and Indoor Auto Mode are selected:

- The unit continuously monitors the indoor temperature.
- When the indoor temperature rises above the configured comfort temperature, the bypass damper will automatically open.
- Fresh air is supplied directly to the building to assist in maintaining comfortable indoor conditions.
- The controller automatically opens or closes the damper as required.

Note

Indoor Auto Mode operates based solely on the indoor temperature and does not monitor outdoor temperature conditions.

Selecting a Bypass Auto Mode

To change the bypass operating mode:

1. Press Button on the Home screen on the Tuya.
2. Continue pressing to cycle through:
    - Outdoor Auto Mode
    - Indoor Auto Mode
3. Stop when the desired setting is obtained.

Recommended Setting

When using Bypass AUTO, Fanco generally recommends selecting Outdoor Auto Mode.

Outdoor Auto Mode allows the system to take advantage of favourable outdoor conditions and is suitable for most applications. However, users may select either automatic mode according to their individual preferences and comfort requirements.

3.2.3.6.12 Heater Function

The Heater Control function allows compatible external heating devices to be integrated with the Habitat Central ventilation system to assist with air temperature conditioning.

Depending on the system configuration, the controller can provide operation of:

- Pre-Heater – typically installed within the outdoor air intake duct.
- Post-Heater – typically installed within the supply air duct.

These functions can assist in maintaining comfortable supply air temperatures under specific operating conditions.

Important:

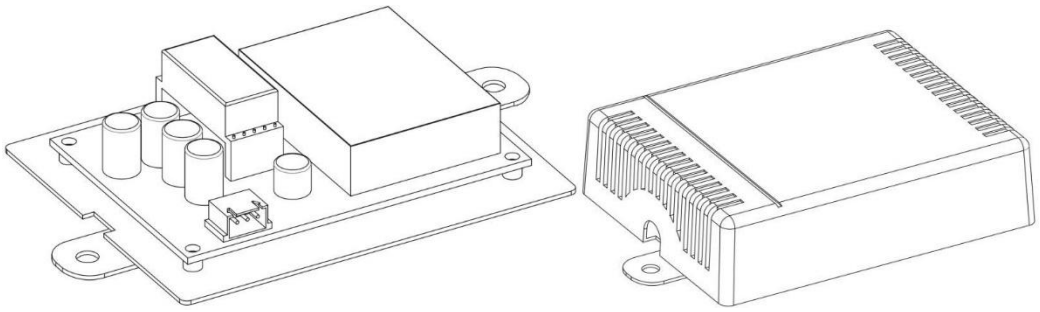
Heater control functions are disabled by default on Habitat Central units, as external heater integration is not currently offered as a standard product configuration by Fanco.

Customers intending to use external heating equipment are strongly advised to discuss their requirements with Fanco before purchase to ensure the appropriate system configuration is provided. Any future changes to system configuration may be subject to technical assessment and compatibility requirements.

Important:

At the time of publication, external electrical heaters are not available for purchase through Fanco. For Further information please contact Fanco technical support.

3.2.4 Internal CO_2 / PM2.5 / TVOC Sensor



Model: E9220/0000A

The Internal CO_2 / PM2.5 / TVOC Sensor is an optional air quality monitoring accessory designed for installation within the Habitat Central ventilation unit.

Installed within the extract air stream, the sensor continuously monitors indoor air quality conditions and provides real-time environmental data to the ventilation system controller. This information can be displayed through compatible controllers and the Tuya Smart App and may also be used by the system to automatically adjust ventilation performance.

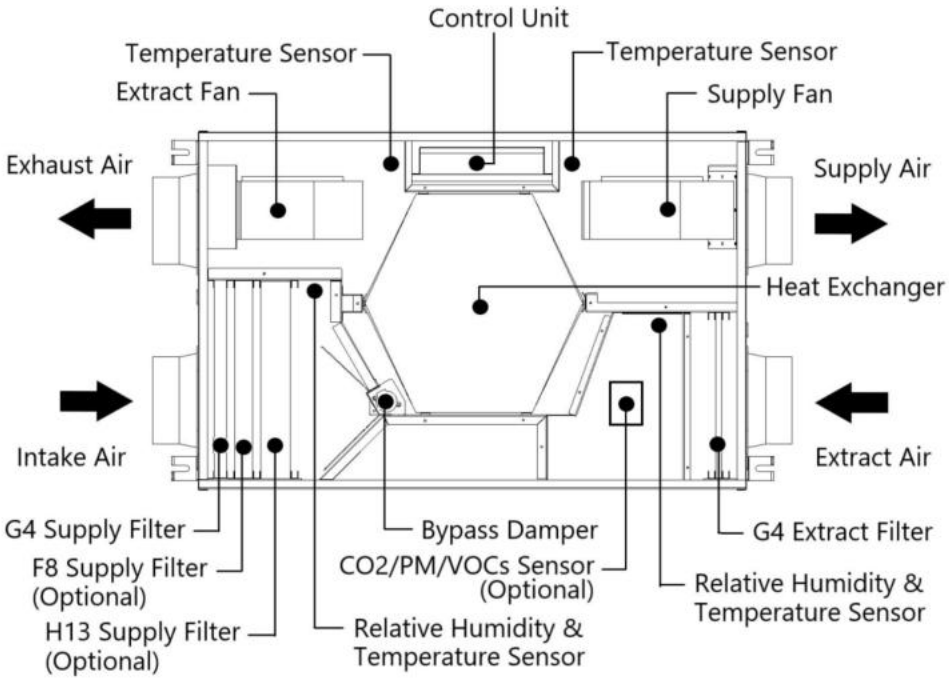
The sensor allows the Habitat Central system to respond to changing indoor air quality conditions, helping to maintain a healthier and more comfortable indoor environment.

3.2.4.1 Installation Location

The Internal CO_2 / PM2.5 / TVOC Sensor must be installed within the Extract Air (EA) section of the Habitat Central unit.

Positioning the sensor within the extract air stream allows it to sample air returning from the occupied spaces of the building, providing representative measurements of indoor air quality conditions.

The sensor should only be installed in the designated mounting location shown in the installation diagrams supplied with the unit. See image below for reference:



Important

Do not install the sensor in alternative locations unless specifically instructed by Fanco.

In most cases Internal Sensor should be pre-installed by Fanco. Confirm with Fanco specialist if internal sensor has been pre-installed in your Fanco Habitat Central system.

3.2.4.2 Power Connection

The figure below shows the Internal Sensor correct wiring arrangement for connection to the Habitat Central-340 control Printed Circuit Board (PCB).

To install the sensor:

1. Isolate power to the ventilation unit.
2. Locate the sensor connection cable within the Extract Air section of the unit.
3. Connect the cable to the Internal CO_2 / PM2.5 / TVOC Sensor.
4. Position the sensor in the designated mounting location.
5. Secure the sensor using the supplied mounting points and fixing screws.
6. Confirm that the sensor is firmly mounted and all connections are secure.
7. Restore power to the ventilation unit.

Once powered, the sensor will automatically begin transmitting air quality data to the ventilation system.

Refer to the diagrams below when identifying controller connection points and wiring terminals.

Warning

Incorrect electrical installation may result in electric shock, fire, equipment damage, or personal injury.

Important

Incorrect wiring may result in communication faults, or damage to the Habitat Central system.

Upon successful installation, the internal sensor will commence monitoring and reporting real-time indoor air quality information according to the parameters it is configured to measure.

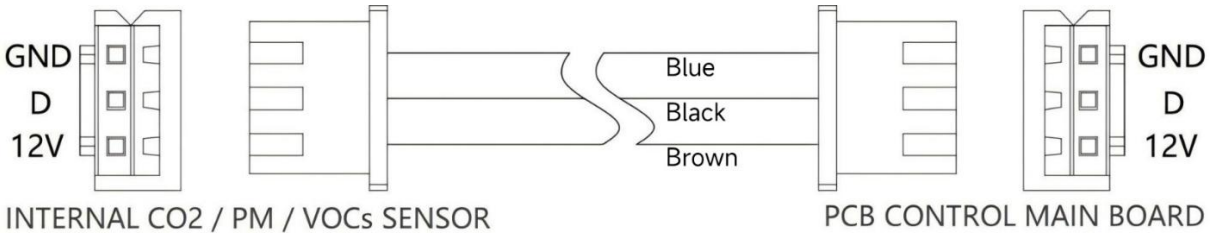
Note

Please note that the connection cable between the Internal Sensor and the ventilation unit is supplied by Fanco and must be ordered separately.

System Overview

The figures below illustrate:

- The connection between the internal sensor and the Fanco Habitat Central Unit.



3.2.4.3 Sensor Functions

The Internal CO_2 / PM2.5 / TVOC Sensor continuously monitors the quality of the air being extracted from the occupied space.

The sensor measures:

- Carbon Dioxide (CO_2)
- PM2.5 (Fine Particulate Matter)
- Total Volatile Organic Compounds (TVOC)

Sensor data may be used to:

- Monitor indoor air quality in real time.

- Display environmental information on compatible controllers and mobile devices.
- Support automatic ventilation control functions.
- Increase or decrease ventilation rates in response to changing indoor air quality conditions.

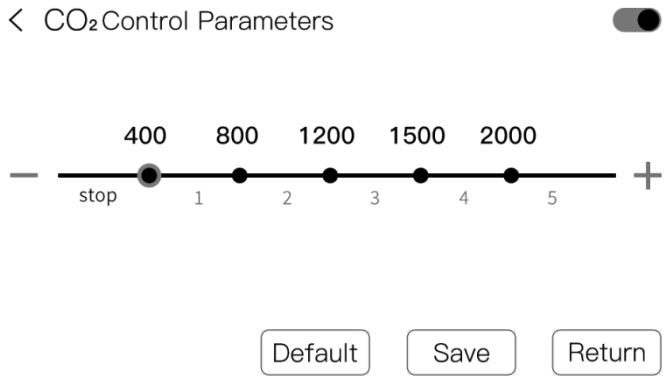
When the system is operating in Auto Mode, the controller can automatically adjust fan speeds according to the configured CO_2, PM2.5, and TVOC control parameters.

Factory Default Air Quality Control Parameters

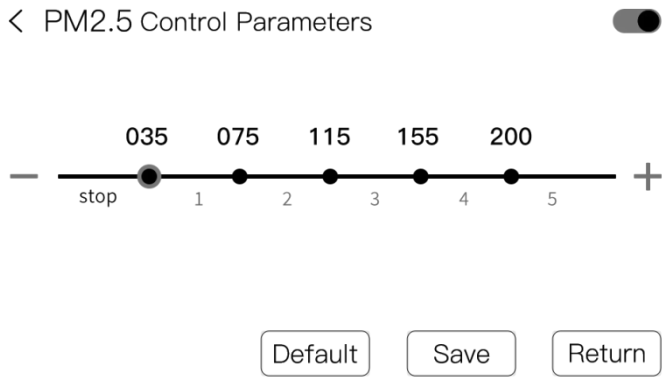
The following screens illustrate the factory default settings used by the Habitat Central system for automatic air quality control.

These settings are accessible through the Premium Controller and determine how the ventilation system responds to changing indoor levels of:

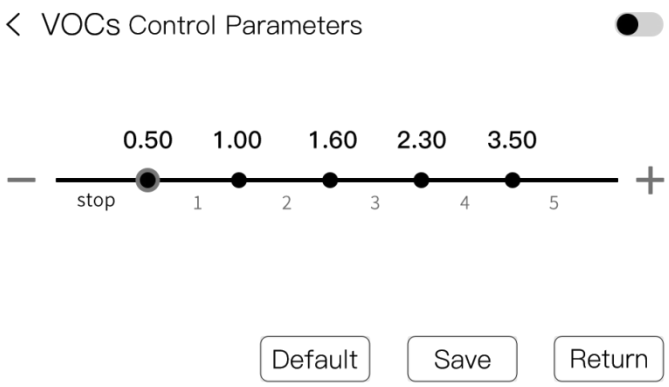
- Carbon Dioxide (CO_2)



- PM2.5 (Fine Particulate Matter)



- Total Volatile Organic Compounds (TVOC)



When the system is operating in Auto Mode, the controller uses these parameters to automatically adjust fan speeds in response to measured indoor air quality conditions.

The following screens are provided as a reference to help users understand how the automatic air quality control functions operate.

Note

Air quality control thresholds can only be modified using the Premium Controller. Where these settings have not been adjusted, the system will operate using the factory default control parameters.

Operation

During normal operation, the sensor continuously monitors:

- CO_2 concentration (ppm)
- PM2.5 concentration (µg/m³)
- TVOC levels

Depending on the controller type and installed accessories, this information may be viewed through:

- Premium Controller
- Tuya Smart App
- Sensor Data screens
- Auto Control functions

Where Auto Mode and air-quality control functions have been enabled, the controller may automatically increase or decrease ventilation rates to respond to changing indoor environmental conditions.

Maintenance and Inspection

The Internal CO_2 / PM2.5 / TVOC Sensor requires minimal maintenance during normal operation.

To help ensure reliable long-term performance:

- Inspect the sensor during routine system maintenance.
- Confirm the sensor remains securely mounted.
- Check that the connection cable has not become loose or damaged.
- Keep the surrounding area free from excessive dust accumulation.

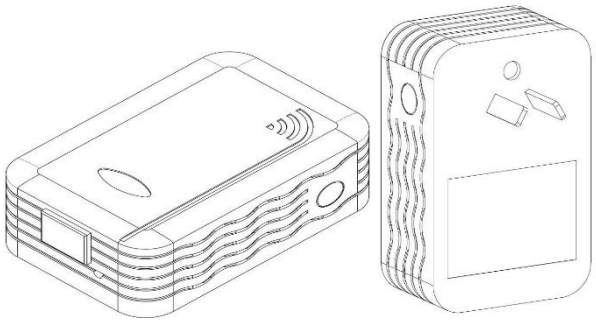
Important

Do not use solvents, cleaning chemicals, or compressed air directly on the sensor assembly unless specifically instructed by Fanco.

Notes

- The Internal CO_2 / PM2.5 / TVOC Sensor is an optional accessory and may not be fitted to all Habitat Central models.
- The sensor is designed to measure air quality within the extract air stream and provide representative indoor air quality data.
- Sensor data is updated automatically and can be used for both monitoring and automatic ventilation control.
- Automatic air quality control functions are dependent on the controller type and system configuration.
- If sensor values are unavailable, incorrect, or appear abnormal, refer to Section 6 – Troubleshooting for further diagnostic information and recommended corrective actions.
- If the sensor fails to communicate with the controller, associated air quality control functions may become unavailable until the issue is resolved.

3.2.5 External RH & Temperature Sensor



Model: E9150/0000A

The External RH & Temperature Sensor is a wireless environmental sensor designed to monitor indoor temperature and relative humidity conditions at a specific location within the building.

When connected to a Habitat Central system, the sensor provides real-time environmental data that can be viewed through compatible controllers and the Tuya Smart App. The sensor may also be used to support automatic ventilation control functions, depending on the controller type, operating mode, and system configuration.

The External RH & Temperature Sensor is suitable for monitoring conditions in individual rooms or occupied spaces, including:

- Living rooms
- Bedrooms
- Home offices
- Meeting rooms
- Other regularly occupied indoor areas

Sensor Functions

The External RH & Temperature Sensor continuously monitors:

- Indoor Temperature (°C)
- Indoor Relative Humidity (%RH)

Measured data is transmitted wirelessly to the Habitat Central system through the External Wi-Fi Module.

Depending on the installed accessories and active operating mode, this information may be used for:

- Environmental monitoring
- Indoor comfort assessment
- Humidity-based ventilation control
- Auto Mode operation
- Away Mode operation
- Remote monitoring through the Tuya Smart App

System Requirements

The External RH & Temperature Sensor requires an External Wi-Fi Module to be installed and connected to the Habitat Central unit.

The sensor cannot communicate directly with the ventilation unit and must communicate through the External Wi-Fi Module.

Communication Requirements

For reliable operation:

- The recommended maximum direct-line communication distance between the sensor and the Wi-Fi Module is 20 metres.
- The number of walls and physical obstructions between the sensor and the Wi-Fi Module should be minimised.
- Sensors should be installed where the strongest possible wireless signal can be achieved.
- Avoid areas subject to significant wireless interference.

Important

Wireless communication performance may vary depending on building construction materials, installation location, and surrounding environmental conditions.

Pairing the Sensor

The pairing process for the External RH / Temperature Sensor is identical to that used for other compatible wireless sensors.

For detailed pairing instructions, refer to:

Section 3.2.3.4 – Connecting Wireless Sensors

Once pairing has been completed successfully:

- The sensor will automatically establish communication with the External Wi-Fi Module.
- Environmental data will begin transmitting to the Habitat Central system.
- Sensor information will become available through compatible controllers and the Tuya Smart App.

Additional sensors can be connected using the same procedure.

Identifying Connected Sensors

Each paired sensor is automatically assigned a location identifier within the system.

When using the Premium Controller, sensor information can be viewed through:

Settings → Sensor → Sensor Data

Connected sensors are displayed as:

- Onsite 1
- Onsite 2
- Onsite 3
- Onsite 4
- Onsite 5
- Onsite 6
- Onsite 7
- Onsite 8

Fanco recommends recording the assigned Onsite number and corresponding installation location during commissioning.

Example

Onsite Number	Location
Onsite 1	Living Room
Onsite 2	Master Bedroom
Onsite 3	Home Office

This information may assist with future servicing, troubleshooting, and system configuration.

Multiple Sensor Installation

Multiple compatible wireless sensors can be connected to a single Habitat Central system.

When installing multiple sensors:

1. Complete the pairing process for all sensors.
2. Disconnect power from all paired sensors.
3. Wait approximately 3 minutes.
4. Reconnect the sensors individually, one at a time.
5. Verify and record the Onsite number assigned to each sensor.

This process assists with correctly identifying each sensor location within the system.

Viewing Sensor Information

Once paired successfully, sensor data can be viewed through:

- Premium Controller
- Tuya Smart App
- Sensor Data menus
- Indoor Information screens

The displayed information will include:

- Temperature
- Relative Humidity (RH)

Sensor readings are updated automatically and reflect current room conditions.

Further Information

Refer to Sensor Data, Indoor Information, Auto Mode, and Humidity Control Parameters for additional information regarding sensor monitoring and automatic control functions.

Sensor Placement Recommendations

For the most representative measurements, install the sensor within the occupied space being monitored.

When selecting an installation location:

- Mount the sensor on an internal wall within the room.
- Install the sensor within the normal occupant breathing zone.
- A mounting height of approximately 1.5 m to 1.8 m above floor level is recommended.
- Avoid locations exposed to direct sunlight.
- Avoid installation directly adjacent to supply air diffusers, return air grilles, windows, doors, or heating appliances.
- Avoid mounting near large metal objects or other sources of wireless interference.
- Select a location that best represents the typical environmental conditions experienced within the space.

Correct sensor placement will help ensure accurate temperature and humidity measurements and improve the effectiveness of automatic ventilation control functions.

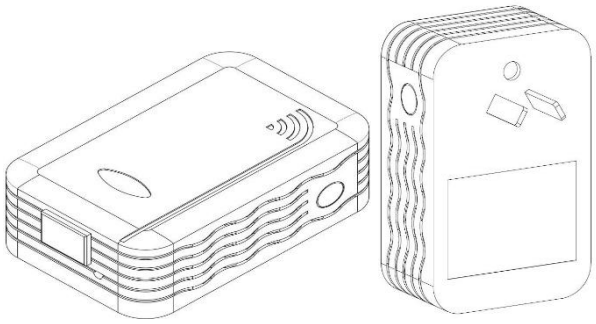
Note

Sensors installed outside the normal occupied zone, or close to local heat, moisture, or airflow sources, may provide readings that do not accurately represent overall room conditions.

Notes

- The External RH & Temperature Sensor provides continuous real-time temperature and humidity measurements.
- The sensor requires an External Wi-Fi Module for communication with the Habitat Central system.
- Up to eight (8) external sensor locations can be displayed within the system.
- Sensor readings may be used for monitoring and automatic ventilation control functions depending on the controller type and system configuration.
- Wireless communication performance may be affected by distance, obstructions, and building construction materials.
- Sensor data may take several minutes to update following initial installation and pairing.
- If the sensor does not appear within the controller or app after pairing, refer to Section 6 – Troubleshooting for further diagnostic information and recommended corrective actions.

3.2.6 External CO_2 / RH / Temperature Sensor



Model: E9130/0000A

The External CO_2 / RH / Temperature Sensor is a wireless environmental sensor designed to monitor indoor air quality and comfort conditions within occupied spaces.

The sensor continuously measures:

- Carbon Dioxide (CO_2)
- Temperature
- Relative Humidity (RH)

Measured data is transmitted wirelessly to the Habitat Central system through the External Wi-Fi Module, allowing environmental conditions to be monitored through compatible controllers and the Tuya Smart App.

When used in conjunction with the Habitat Central automatic control functions, the sensor can assist the system in responding to changing occupancy and indoor air quality conditions by automatically adjusting ventilation rates as required.

Typical applications include:

- Living rooms
- Bedrooms
- Home offices
- Meeting rooms
- Other frequently occupied indoor spaces

Sensor Functions

The External CO_2 / RH / Temperature Sensor continuously monitors:

- Carbon Dioxide (CO_2) concentration
- Indoor Temperature
- Indoor Relative Humidity (RH)

Depending on the system configuration and controller type, sensor information may be used for:

- Indoor air quality monitoring
- Occupancy-based ventilation control
- CO_2 Control functions
- Humidity Control functions
- Auto Mode operation
- Remote monitoring through the Tuya Smart App

When operating in Auto Mode, the Habitat Central system may automatically increase or decrease ventilation rates based on the measured environmental conditions and configured control parameters.

System Requirements

The External CO_2 / RH / Temperature Sensor requires an operational External Wi-Fi Module to communicate with the Habitat Central ventilation system.

For reliable communication:

- The recommended direct-line communication distance should not exceed 20 metres.
- Walls and other physical obstructions between the sensor and Wi-Fi Module should be minimised.
- The sensor should be installed within the occupied area being monitored.
- Installation locations should provide the strongest possible wireless communication path.

Important

Wireless communication performance may vary depending on building construction materials, installation location, and surrounding environmental conditions.

Pairing the Sensor

The pairing process for the External CO_2 / RH / Temperature Sensor is identical to that used for other compatible wireless sensors.

For detailed pairing instructions, refer to:

Section 3.2.3.4 – Connecting Wireless Sensors

Once pairing has been completed successfully:

- The sensor will automatically establish communication with the External Wi-Fi Module.
- Environmental data will begin transmitting to the Habitat Central system.
- Sensor information will become available through compatible controllers and the Tuya Smart App.

Additional sensors can be connected using the same procedure.

Identifying Connected Sensors

Each paired sensor is automatically assigned a location identifier within the system.

When using the Premium Controller, sensor information can be viewed through:

Settings → Sensor → Sensor Data

Connected sensors are displayed as:

- Onsite 1
- Onsite 2
- Onsite 3
- Onsite 4
- Onsite 5
- Onsite 6
- Onsite 7
- Onsite 8

For ease of commissioning and future servicing, Fanco recommends recording the assigned Onsite number and corresponding room location after installation.

Example

Onsite Number	Location
Onsite 1	Living Room
Onsite 2	Master Bedroom
Onsite 3	Home Office

This information can simplify future system configuration, maintenance, and troubleshooting.

Multiple Sensor Installation

Where multiple wireless sensors are installed:

1. Pair all sensors with the External Wi-Fi Module.
2. Disconnect power from all paired sensors.
3. Wait approximately 3 minutes.
4. Reconnect the sensors individually, one at a time.
5. Verify and record the assigned Onsite identifier for each sensor.

This process assists with accurately identifying each sensor location within the system.

Viewing Sensor Information

Once paired successfully, sensor information can be viewed through:

- Premium Controller
- Tuya Smart App
- Sensor Data menus
- Indoor Information screens

The following sensor data may be displayed:

- Temperature
- Relative Humidity (RH)
- Carbon Dioxide (CO_2)

Sensor readings are updated automatically and reflect current room conditions.

Further Information

Refer to Sensor Data, Indoor Information, CO_2 Control Parameters, Humidity Control Parameters, and Auto Mode for additional information regarding sensor monitoring and automatic ventilation control functions.

Sensor Placement Recommendations

For optimal measurement accuracy, the sensor should be installed in a representative occupied area of the building.

For detailed installation recommendations, including mounting height and preferred installation locations, refer to:

Section 3.2.5 – Sensor Placement Recommendations

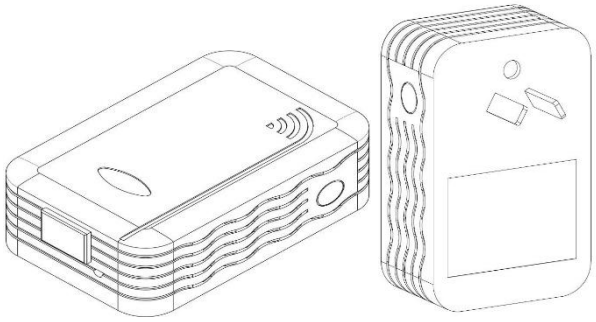
Proper sensor placement is important to ensure accurate CO_2, temperature, and humidity measurements and to maximise the effectiveness of automatic ventilation control functions.

Notes

- The External CO_2 / RH / Temperature Sensor continuously monitors indoor air quality and comfort conditions.
- The sensor requires an External Wi-Fi Module for communication with the Habitat Central system.
- Up to eight (8) external sensor locations can be displayed within the system.
- Sensor readings may be viewed through compatible controllers and the Tuya Smart App.
- When enabled, CO_2 and humidity control functions may use sensor data to automatically adjust ventilation rates.
- Communication range may vary depending on installation conditions and building construction.
- Sensor data may take several minutes to update following initial installation and pairing.

- If the sensor does not appear within the controller or smartphone application after pairing, refer to Section 6 – Troubleshooting for further diagnostic information and recommended corrective actions.

3.2.7 External PM2.5 / RH & Temperature Sensor



Model: E9140/0000A

The External PM2.5 / RH & Temperature Sensor is a wireless environmental sensor designed to monitor indoor air quality and comfort conditions within a specific area of the building.

The sensor continuously measures:

- PM2.5 (Fine Particulate Matter)
- Temperature
- Relative Humidity (RH)

Measured data is transmitted wirelessly to the Habitat Central system through the External Wi-Fi Module, allowing environmental conditions to be monitored through compatible controllers and the Tuya Smart App.

When used in conjunction with the Habitat Central automatic control functions, the sensor can assist the system in responding to changing indoor air quality conditions by automatically adjusting ventilation rates as required.

Typical applications include:

- Living rooms
- Bedrooms
- Home offices
- Studies
- Meeting rooms
- Other occupied indoor spaces

Sensor Functions

The External PM2.5 / RH & Temperature Sensor continuously monitors:

- PM2.5 concentration

- Indoor Temperature
- Indoor Relative Humidity (RH)

Depending on the system configuration and controller type, sensor information may be used for:

- Indoor air quality monitoring
- Environmental monitoring
- PM2.5 Control functions
- Humidity Control functions
- Auto Mode operation
- Remote monitoring through the Tuya Smart App

When operating in Auto Mode, the Habitat Central system may automatically increase or decrease ventilation rates based on the measured environmental conditions and configured control parameters.

System Requirements

The External PM2.5 / RH & Temperature Sensor requires an operational External Wi-Fi Module to communicate with the Habitat Central ventilation system.

For reliable communication:

- The recommended direct-line communication distance should not exceed 20 metres.
- Walls and other physical obstructions between the sensor and Wi-Fi Module should be minimised.
- The sensor should be installed within the occupied area being monitored.
- Installation locations should provide the strongest possible wireless communication path.

Important

Wireless communication performance may vary depending on building construction materials, installation location, and surrounding environmental conditions.

Pairing the Sensor

The pairing process for the External PM2.5 / RH & Temperature Sensor is identical to that used for other compatible wireless sensors.

For detailed pairing instructions, refer to:

Section 3.2.3.4 – Connecting Wireless Sensors

Once pairing has been completed successfully:

- The sensor will automatically establish communication with the External Wi-Fi Module.
- Environmental data will begin transmitting to the Habitat Central system.
- Sensor information will become available through compatible controllers and the Tuya Smart App.

Additional sensors can be connected using the same procedure.

Identifying Connected Sensors

Each paired sensor is automatically assigned a location identifier within the system.

When using the Premium Controller, sensor information can be viewed through:

Settings → Sensor → Sensor Data

Connected sensors are displayed as:

- Onsite 1
- Onsite 2
- Onsite 3
- Onsite 4
- Onsite 5
- Onsite 6
- Onsite 7
- Onsite 8

For ease of commissioning and future servicing, Fanco recommends recording the assigned Onsite number and corresponding room location after installation.

Example

Onsite Number	Location
Onsite 1	Living Room
Onsite 2	Master Bedroom
Onsite 3	Home Office

This information can simplify future system configuration, maintenance, and troubleshooting.

Multiple Sensor Installation

Where multiple wireless sensors are installed:

1. Pair all sensors with the External Wi-Fi Module.
2. Disconnect power from all paired sensors.
3. Wait approximately 3 minutes.
4. Reconnect the sensors individually, one at a time.

5. Verify and record the assigned Onsite identifier for each sensor.

This process assists with accurately identifying each sensor location within the system.

Viewing Sensor Information

Once paired successfully, sensor information can be viewed through:

- Premium Controller
- Tuya Smart App
- Sensor Data menus
- Indoor Information screens

The following sensor data may be displayed:

- Temperature
- Relative Humidity (RH)
- PM2.5

Sensor readings are updated automatically and reflect current room conditions.

Further Information

Refer to Sensor Data, Indoor Information, PM2.5 Control Parameters, Humidity Control Parameters, and Auto Mode for additional information regarding sensor monitoring and automatic ventilation control functions.

Sensor Placement Recommendations

For optimal measurement accuracy, the sensor should be installed in a representative occupied area of the building.

For detailed installation recommendations, including mounting height and preferred installation locations, refer to:

Section 3.2.5 – Sensor Placement Recommendations

Proper sensor placement is important to ensure accurate PM2.5, temperature, and humidity measurements and to maximise the effectiveness of automatic ventilation control functions.

Notes

- The External PM2.5 / RH & Temperature Sensor continuously monitors indoor air quality and comfort conditions.
- The sensor requires an External Wi-Fi Module for communication with the Habitat Central system.
- Up to eight (8) external sensor locations can be displayed within the system.

- Sensor readings may be viewed through compatible controllers and the Tuya Smart App.
- When enabled, PM2.5 and humidity control functions may use sensor data to automatically adjust ventilation rates.
- Communication range may vary depending on installation conditions and building construction.
- Sensor data may take several minutes to update following initial installation and pairing.
- If the sensor does not appear within the controller or smartphone application after pairing, refer to Section 6 – Troubleshooting for further diagnostic information and recommended corrective actions.

4. INSTALLATION INSTRUCTIONS

The Habitat Central ventilation system must be installed by a suitably qualified person and in accordance with:

- Applicable local building regulations.
- Applicable electrical regulations.
- Relevant ventilation and mechanical services standards.
- The instructions contained within this manual.

Correct installation is essential to achieve the expected levels of:

- Ventilation performance.
- Energy efficiency.
- Indoor air quality.
- Acoustic performance.
- System reliability and service life.

Before commencing installation:

- Inspect the unit and all supplied components for damage.
- Verify the model supplied is suitable for the intended application.
- Confirm that all accessories required for the installation are available.
- Review all relevant installation drawings and project documentation.

Important

Failure to install the system in accordance with this manual may adversely affect system performance and may void the product warranty.

4.1 Air Duct Installation

The performance of the Habitat Central system is heavily dependent upon the design and installation of the duct system.

Poorly designed or incorrectly installed ductwork can significantly reduce airflow performance, increase operating noise, and reduce system efficiency.

Fanco recommends the use of ducting components and accessories supplied or approved by Fanco wherever possible.

General Duct Installation Requirements

When installing ductwork:

- Install ducts horizontally or vertically wherever practical.
- Keep duct runs as short and direct as possible.

- Minimise pressure losses by avoiding unnecessary offsets and changes in direction.
- Avoid excessive duct lengths.
- Ensure ductwork is supported correctly throughout the installation.
- Protect ducts from damage during construction activities.

Flexible ducting should:

- Be installed fully extended.
- Remain free from excessive compression.
- Avoid twisting and kinking.
- Be supported to prevent sagging.

Recommendation

Excessive use of flexible ducting should be avoided wherever possible, as it may increase airflow resistance and reduce system performance.

Duct Supports

All ductworks must be adequately supported.

As a general guide:

- Supports should be installed at intervals of approximately 1 metre.
- Additional supports may be required for larger duct sizes or site-specific conditions.
- Support systems should prevent movement, vibration, and long-term sagging.

Incorrectly supported ductwork may result in:

- Reduced airflow performance.
- Increased noise levels.
- Premature component wear.

Duct Connections

All duct connections must be secure and airtight.

When connecting ductwork:

- Ensure all joints are securely fitted.
- Seal all connections using suitable approved sealing materials.
- Apply foil tape continuously without gaps or wrinkles.
- Verify that no visible air leakage paths remain.

Proper sealing assists in:

- Maintaining airflow performance.
- Improving energy efficiency.

- Reducing condensation risk.
- Minimising system leakage.

Duct Materials and Insulation

Ducting materials must be suitable for ventilation applications and comply with all applicable regulations.

Where required by the installation design:

- Insulate ductwork to minimise heat transfer.
- Protect ducts against condensation formation.
- Insulate outdoor air and exhaust air ductwork where exposed to unconditioned spaces.

Particular attention should be given to:

- Roof spaces.
- Ceiling cavities.
- Basements.
- Plant rooms.

Duct Bends and Elbows

Airflow resistance increases whenever airflow direction changes.

To minimise pressure losses:

- Keep the number of bends to a minimum.
- Avoid sharp directional changes.
- Use long-radius bends wherever practical.
- Use sweep elbows in preference to sharp 90° fittings.

Important

Poor duct design may increase system pressure losses, reduce airflow, increase operating noise, and negatively affect overall system performance.

4.2 Installation of Air Inlets and Air Outlets

Correct positioning of indoor air terminals and external grilles is essential for effective system operation.

Improper placement may result in:

- Reduced ventilation effectiveness.
- Air recirculation.
- Contaminant transfer.
- Occupant discomfort.

Outdoor Air Intake and Exhaust Terminals

The outdoor air intake must be located in a clean, uncontaminated location.

Avoid installation near:

- Exhaust discharge points.
- Gas appliance flues.
- Dryer vents.
- Vehicle parking areas.
- Waste storage locations.
- Cooling tower discharges.
- Any source of pollutants or odours.

Similarly, exhaust air should be discharged to a location where it cannot be drawn back into the building.

Separation Distance

To minimise the risk of air recirculation:

- Maintain a minimum separation distance of 1 metre between outdoor air intake and exhaust terminals.
- Greater separation distances are recommended where practical.
- Positioning intake and exhaust terminals on separate walls is preferred.

Indoor Air Terminals

Supply and extract terminals should be positioned to promote effective airflow throughout the occupied space.

Avoid locating air terminals:

- Behind furniture.
- Above cupboards.
- Inside confined spaces.
- In room corners where airflow may be restricted.

The final layout should encourage effective movement of air from supply areas towards extract areas.

Important

Incorrect terminal placement may significantly reduce ventilation effectiveness and occupant comfort.

4.3 Ventilation Unit Installation

4.3.1 Installation Position Requirements

The Habitat Central unit may be installed in the following orientations:

- Ceiling Mounted (Horizontal)
- Wall Mounted (Vertical)
- Wall Mounted (Horizontal)
- Floor Mounted (Horizontal)

Installation Location

The selected installation location should:

- Be weather protected.
- Allow adequate maintenance access.
- Permit filter removal and replacement.
- Allow access to electrical connections.
- Provide sufficient space for future service work.

Important

The installer should always consider future maintenance requirements before selecting the installation location.

Service Access Requirements

Adequate clearance must be maintained to allow:

- Filter inspection and replacement.
- Heat / Energy Recovery Core servicing.
- Electrical inspections.
- Access to accessories and control devices.
- General maintenance and fault diagnosis.

Warning

Do not install the unit in a location where safe servicing access cannot be maintained throughout the life of the product.

4.3.2 Ceiling and Wall Mounting Installation

Before installation, verify that the mounting structure is capable of safely supporting the fully assembled operating weight of the ventilation unit.

Installation Procedure

1. Refer to Section 2.4 – Overall Dimensions.
2. Mark all mounting positions.
3. Verify service clearances.
4. Drill mounting points as required.
5. Install suitable anchors or support fixings.
6. Position the unit.
7. Secure the unit using suitable fixing hardware.
8. Verify alignment and structural stability.

Mounting Hardware

Mounting brackets are supplied with the ventilation unit.

The installer is responsible for selecting suitable fixings appropriate for the installation surface, including:

- Concrete
- Brick
- Timber
- Steel
- Other construction materials

Warning

Inadequate mounting arrangements may result in excessive vibration, equipment damage, property damage, or personal injury.

4.4 Inspection Before Trial Operation

Before powering the system, complete the following inspections.

Ductwork Inspection

Confirm that:

- Duct installation complies with the project design.
- Duct connections are secure and sealed.
- Air terminals are correctly installed.
- Duct supports are installed correctly.
- Airflow directions are correct.

Mechanical Inspection

Confirm that:

- The unit is securely mounted.
- All panels are correctly fitted.
- No debris remains within the system.
- All filters are installed correctly.

Electrical Inspection

Confirm that:

- Wiring complies with the supplied diagrams.
- All electrical terminations are secure.
- Accessories are connected correctly.
- Control wiring has been installed correctly.

Power Supply Verification

Verify:

- Power supply voltage matches the unit rating.
- Supply voltage is approximately 230V AC.
- Electrical protection devices are installed correctly.

Important

The ventilation system must not be operated until all installation and inspection checks have been completed successfully.

4.5 Ventilation System Commissioning

Following installation, the Habitat Central system should be fully commissioned to verify correct operation and performance.

Commissioning should only be carried out after all installation work has been completed.

Safety Precautions

Warning

Never insert fingers, tools, or foreign objects into the ventilation unit while electrical power is connected.

Trial Operation

1. Energise the ventilation system.
2. Start the unit using the controller.
3. Verify operation of the Supply Fan and Extract Fan.
4. Confirm airflow at all terminals.

5. Verify controller operation.
6. Confirm communication with installed sensors and Wi-Fi accessories (if applicable).
7. Verify operation of dampers, relay boards, and other accessories where installed.

Commissioning Checks

During commissioning, confirm:

- No abnormal vibration is present.
- No abnormal noise is present.
- Airflow is present at all terminals.
- Control functions operate correctly.
- Sensor readings are displayed correctly.
- Filter monitoring functions operate correctly.
- Alarm functions operate correctly.
- Accessory operation is correct.

Where system balancing is required, airflow measurements should be performed and adjusted in accordance with the project design requirements.

Fault Conditions

If any abnormal condition is identified:

1. Stop the ventilation unit.
2. Isolate electrical power.
3. Investigate the cause.
4. Rectify the fault.
5. Repeat commissioning procedures.

Further Information

Refer to Section 6 – Troubleshooting for guidance on alarms, fault codes, and diagnostic procedures.

Construction and Renovation Precautions

The Habitat Central system should not be used as temporary construction ventilation.

During construction activities:

- Dust may damage filters and sensors.
- Paint particles may contaminate internal components.
- Debris may damage fans and the Heat / Energy Recovery Core.

The system should only be placed into normal operation once:

- Major construction works have been completed.

- Dust-generating activities have ceased.
- The building has been cleaned thoroughly.

Important

Failure to protect the ventilation system from construction contaminants may result in reduced performance, increased maintenance requirements, premature component wear, and void warranty.

5. FILTER & HEAT / ENERGY RECOVERY CORE MAINTENANCE GUIDE

Regular maintenance of the filters, Heat/Energy Recovery Core and other components is essential to maintain ventilation performance, indoor air quality, energy efficiency, and long-term system reliability.

Over time, airborne dust, pollen, particulate matter, and other contaminants can accumulate within the filters and Heat/Energy Recovery Core. Routine inspection and maintenance will help ensure the Habitat Central system continues to operate efficiently and effectively.

Fanco recommends regularly inspecting all filters, the Heat/Energy Recovery Core, and air grilles & diffusers and adjusting maintenance intervals where required.

The most important maintenance activities are:

- Regular filter inspection.
- Filter cleaning or replacement.
- Heat recovery core inspection and cleaning.
- Cleaning supply and exhaust air grilles and internal vents.
- Responding to maintenance reminders.

Failure to maintain the system may result in:

- Reduced airflow.
- Reduced indoor air quality.
- Increased operating noise.
- Reduced system efficiency.
- Premature component wear.

Important

The Habitat Central ventilation system must always be operated with the appropriate filters installed.

Operating the unit without filters may allow dust and debris to accumulate within the Heat/Energy Recovery Core, fans, sensors, ductwork, and other internal components, potentially resulting in reduced performance, increased maintenance requirements, or equipment damage.

General Maintenance Precautions

Before performing any maintenance:

1. Switch the ventilation unit OFF.

2. Isolate and disconnect the power supply.
3. Wait until all moving components have come to a complete stop.
4. Open the access panel only after electrical isolation has been confirmed.

Warning

- Never carry out maintenance while the ventilation system is connected to power.

Warning

- Do not use excessive force when removing filters or the Heat/Energy Recovery Core, as damage to internal components may occur.
- Do not attempt to disassemble internal electrical components.
- If servicing beyond the procedures described in this guide is required, contact a qualified service technician.

Reinstallation Guidelines

When reinstalling filters:

- Ensure the replacement filter matches the original filter type.
- Confirm airflow direction arrows are correctly aligned.
- Install the filter in the same orientation as originally supplied.

When reinstalling the Heat/Energy Recovery Core:

- Ensure the core is returned to its original orientation.
- Verify the core is fully seated within the unit.
- Confirm all access panels are securely fitted before restoring power.

Maintenance Schedule

The following maintenance schedule is recommended for normal residential operation.

Component	Action	Recommended Interval
G4 Filters	Inspect, clean or replace	Every 3 Months
F8 Filter (if fitted)	Inspect, vacuum clean or replace if required	Every 6 Months
H13 Filter (if fitted)	Inspect, vacuum clean or replace if required	Every 12 Months
Heat Recovery Core	Inspect and clean	Every 12 Months
Air Grilles and Diffusers	Inspect and clean	Every 6 Months

Note:

The maintenance intervals provided in this section are intended as a general guide only. Actual maintenance requirements may vary depending, but not limited to:

- Local environmental conditions.
- Air quality levels.
- Occupancy patterns.
- Operating hours.
- Construction activity.
- Bushfire smoke exposure.
- Dust-producing activities.

Fanco recommends regularly inspecting all filters, the Heat/Energy Recovery Core and air grilles & diffusers and adjusting maintenance intervals where required.

5.1 G4 Supply and Extract Filter Maintenance

The G4 filters provide primary filtration for both the Supply and Extract air streams and assist in protecting internal components from dust accumulation.

Regular maintenance of the G4 filters helps maintain airflow performance and extends the service life of the Heat/Energy Recovery Core.

Recommended Maintenance Interval

Inspect, clean, or replace the filters every:

3 Months

More frequent maintenance may be required in dusty environments or areas with elevated airborne contaminants.

Cleaning Method

G4 filters are washable and may be cleaned using clean water:

1. Remove loose dust using a vacuum cleaner with a soft brush attachment.
2. If required, wash using warm water.
3. Allow the filter to dry completely before reinstallation.

Important

Never reinstall damp or wet filters.

Filter Replacement Procedure

1. Switch OFF the ventilation system.
2. Disconnect the power supply.
3. Open the service access panel.
4. Carefully remove the filter.
5. Inspect the filter condition.

6. Clean or replace the filter as required.
7. Reinstall the filter in the original orientation.
8. Ensure the filter is correctly seated within the filter frame.
9. Close and secure the service panel.
10. Restore power to the unit.

Notes

- Operating with dirty or blocked filters may reduce airflow performance.
- Dirty filters may increase energy consumption.
- Poor filter maintenance may negatively affect indoor air quality.
- Replace filters that are damaged or cannot be cleaned effectively.

5.2 F8 Supply Filter and H13 Supply Filter Maintenance

The F8 and H13 filters provide enhanced filtration performance and are designed to remove fine airborne particles from incoming outdoor air.

These filters help improve indoor air quality by capturing contaminants that may pass through conventional coarse filtration systems.

Recommended Maintenance Intervals

Filter Type	Recommended Maintenance Interval
F8 Supply Filter	Every 6 Months
H13 Supply Filter	Every 12 Months

Maintenance frequency may need to be increased where air quality conditions are poor.

Cleaning Method

Permitted Cleaning Method

- Vacuum cleaning only.

Prohibited Cleaning Methods

- Washing with water.
- Steam cleaning.
- Compressed air cleaning.
- Chemical cleaning products.

Important

Washing or chemically cleaning F8 or H13 filters may permanently damage the filter media and significantly reduce filtration efficiency.

Filter Replacement Procedure

1. Switch OFF the ventilation system.
2. Disconnect the power supply.
3. Open the service access panel.
4. Carefully remove the filter.
5. Prevent dust and debris from entering the unit.
6. Install the replacement filter in the original position.
7. Confirm airflow direction markings are correctly aligned.
8. Verify the filter is correctly seated.
9. Close and secure the service panel.
10. Restore power to the unit.

Important

Replace the filter immediately if it is:

- Damaged.
- Torn.
- Excessively dirty.
- Blocked.
- Unable to be effectively cleaned.

Failure to replace degraded filters may reduce airflow performance and filtration efficiency.

5.3 Heat/Energy Recovery Core Maintenance

The Heat/Energy Recovery Core is the primary component responsible for transferring heat and, where applicable, moisture between the incoming and outgoing air streams.

Routine inspection and cleaning of the core assists in maintaining:

- System efficiency.
- Heat recovery performance.
- Airflow capacity.
- Long-term reliability.

Recommended Maintenance Interval

Inspect and clean the Heat/Energy Recovery Core every:

12 Months

More frequent inspection may be required where the system operates in dusty or heavily contaminated environments.

Cleaning Methods

The Heat/Energy Recovery Core may be cleaned using:

- Vacuum cleaning.
- Clean water washing.

Cleaning Procedure

1. Switch OFF the ventilation system.
2. Disconnect the power supply.
3. Open the service access panel.
4. Carefully remove the Heat/Energy Recovery Core.
5. Inspect the core for dust, dirt, or debris accumulation.
6. Clean the core using a vacuum cleaner or rinse with clean water.
7. If washed, allow the core to dry completely.
8. Reinstall the core in its original orientation.
9. Confirm the core is correctly seated.
10. Close and secure the service panel.
11. Restore power to the system.

Important

The Heat/Energy Recovery Core must be completely dry before reinstallation.

Reinstalling a wet core may:

- Reduce heat recovery performance.
- Affect system operation.
- Damage internal electrical components.
- Increase the risk of mould growth within the system.

Filter Alerts and Maintenance Reminders

The Habitat Central controller includes a Filter Maintenance Alert function that monitors accumulated filter operating hours and provides a maintenance reminder when service intervals have been reached.

After cleaning or replacing a filter:

- Inspect the filter condition.
- Reinstall the filter correctly.
- Reset the corresponding filter operating hour counter.

Further Information

Refer to Section 3.2.1.9, or 3.2.2.11, or 3.2.3.6.6 – Filter Maintenance Alert for information regarding filter operating hours, maintenance reminders, and timer reset procedures.

Maintenance Recommendations

To maximise system performance and service life, Fanco recommends:

- Inspecting filters regularly, regardless of maintenance reminders.
- Maintaining a record of filter replacements and core cleaning activities.
- Increasing maintenance frequency during bushfire events, renovation works, or periods of elevated dust levels.
- Verifying filter condition whenever airflow performance appears reduced.
- Using only genuine or approved replacement filters designed for the Habitat Central system.

Note

If airflow performance remains unsatisfactory after filter or Heat/Energy Recovery Core maintenance has been completed, refer to Section 6 – Troubleshooting for further assistance.

5.4 Cleaning Air Grilles and Diffusers

Supply and exhaust grilles should be inspected periodically.

Dust accumulation may reduce airflow and affect performance.

Cleaning Procedure

1. Turn off the Fanco Habitat Central.
2. Carefully remove loose dust using a vacuum cleaner.
3. Wipe surfaces with a soft damp cloth.
4. Reinstall components if removed.

Do not paint over air grilles or obstruct airflow openings.

5.5 Before Returning the Unit to Service

After completing maintenance:

- Filters are correctly installed.
- Heat recovery core is correctly installed.
- Access panel securely fitted.
- No tools or loose components left inside the unit.
- Power restored.
- Controller operates normally.
- No alarms displayed.

Once all checks are complete, return the system to its normal operating mode.

5.6 Maintenance Tips & Recommendations

To help maximise the performance and service life of your Habitat Central-340 ERV:

- Inspect filters regularly, even if a maintenance reminder has not been displayed.
- Increase inspection frequency in dusty environments or during construction works.
- Replace damaged filters immediately.
- Keep supply and exhaust grilles free from obstructions.
- Ensure access panels are correctly fitted after maintenance.
- Do not operate the system without filters installed.
- Contact a qualified technician if unusual noises, persistent alarms or abnormal operation are observed.

Regular maintenance helps maintain indoor air quality, system efficiency and long-term reliability.

6. TROUBLESHOOTING

The Habitat Central system continuously monitors critical operating functions and will display an error code if a fault is detected.

The following information is intended to assist with basic fault identification.

If a fault persists after performing the recommended checks, contact Fanco Technical Support or a qualified service technician.

Error Code Reference

E0 – Communication Error

A communication fault has occurred between the controller and the ventilation unit.

Possible Causes

- Loose communication wiring.
- Incorrect controller wiring.
- Damaged communication cable.

Corrective Actions

- Verify that communication terminals A and B are connected correctly.
- Confirm all communication wiring connections are secure.
- Inspect the cable for damage.

E1 – Bypass Damper Fault

The bypass damper has encountered an operating fault or obstruction.

Possible Causes

- Damper obstruction.
- Foreign object preventing damper movement.
- Damper actuator malfunction.

Corrective Actions

- Inspect the bypass damper for obstructions.
- Remove any foreign objects.
- Reset the unit by disconnecting and restoring power.
- Contact technical support if the fault remains active.

E2 – Outdoor Air (OA) Damper Fault

Reserved for future functionality.

If this error is displayed, contact Fanco Technical Support for assistance.

E3 – Return Air Temperature and Humidity Sensor Fault

A fault has been detected with the return air temperature and humidity sensor.

Possible Causes

- Loose sensor connection.
- Damaged sensor.
- Sensor communication fault.

Corrective Actions

- Verify the sensor connector is secure.
- Inspect the sensor wiring.
- Replace the sensor if required.

E4 – Supply Air Temperature Sensor Fault

A fault has been detected with the supply air temperature sensor.

Possible Causes

- Loose sensor connection.
- Damaged sensor.
- Sensor failure.

Corrective Actions

- Verify the connector is secure.
- Inspect wiring and connections.
- Replace the sensor if necessary.

E5 – Outdoor Air Temperature and Humidity Sensor Fault

A fault has been detected with the outdoor air temperature and humidity sensor.

Possible Causes

- Loose sensor connection.
- Sensor failure.
- Damaged wiring.

Corrective Actions

- Verify wiring connections.
- Inspect the sensor for damage.
- Replace the sensor if required.

E6 – Exhaust Air Temperature Sensor Fault

A fault has been detected with the exhaust air temperature sensor.

Possible Causes

- Loose connector.

- Faulty sensor.
- Damaged wiring.

Corrective Actions

- Verify all sensor connections.
- Inspect wiring integrity.
- Replace the sensor if required.

E7 – Supply Fan Fault

The supply fan is not operating as expected.

Possible Causes

- Fan wiring disconnected.
- Fan motor fault.
- Control board communication issue.

Corrective Actions

- Verify the fan connector is secure.
- Inspect fan wiring.
- Contact a qualified technician if the fan fails to operate.

E8 – Extract Fan Fault

The extract fan is not operating as expected.

Possible Causes

- Fan wiring disconnected.
- Fan motor fault.
- Control board communication issue.

Corrective Actions

- Verify the fan connector is secure.
- Inspect fan wiring.
- Contact a qualified technician if the fan fails to operate.

E9 – Exhaust Air Damper Fault

Reserved for future functionality.
If this error is displayed, contact Fanco Technical Support for assistance.

Notes

- Some faults may affect system operation until the issue is resolved.
- Repeated fault alarms may indicate a persistent system issue requiring professional diagnosis.
- When contacting Fanco Technical Support, record the displayed error code, unit model, and controller firmware version where available.
- Never operate the unit with disconnected sensors, damaged wiring, or removed safety components

7. WARRANTY AND SUPPORT

7.1 Warranty Coverage

Fanco warrants the Habitat Central 340 (model: E9000/0200A) ("Product") against defects in materials and workmanship under normal installation, operation, and maintenance conditions during the applicable warranty period.
For Products installed in a residential application, the warranty period is:
• 2 years from the date of installation, provided installation occurs within 6 months of the invoice date.

For Products installed in a commercial or non-domestic application, the warranty period is:
• 3 months from the date of installation, provided installation occurs within 6 months of the invoice date.

Where proof of installation cannot be provided, or installation occurs more than 6 months after the invoice date, the warranty period shall commence from the original invoice date.

Subject to the terms and exclusions of this warranty, Fanco will, at its sole discretion:

- Repair the Product;
- Replace the defective component; or
- Replace the Product with the same or a comparable model.

Any repair or replacement carried out under this warranty does not renew, restart, or extend the original warranty period.

Any component or Product replaced under this warranty becomes the property of Fanco.

7.2 Conditions of Warranty

This warranty applies only where the Product:

- Has been installed by a suitably qualified and licensed professional.
- Has been installed, commissioned, operated, and maintained in accordance with this Installation and Operation Manual.
- Has been installed in Australia.
- Has been installed and used in accordance with all applicable Australian Standards, building regulations, electrical regulations, and local statutory requirements.
- Has been operated within the specifications and environmental conditions stated by Fanco.
- Routine maintenance, cleaning, and filter replacement has undergone as specified in this manual.
- Proof of installation and commissioning may be requested when assessing a warranty claim.

7.3 Genuine Parts Requirement

To maintain product performance, safety, and warranty protection, only genuine Fanco parts, accessories, filters, or components approved by Fanco may be used.
Damage or failure resulting from the use of non-genuine, incompatible, or unapproved

components is not covered by this warranty.

7.4 Intended Application

The Habitat Central is designed for use in residential and light-commercial ventilation systems serving habitable indoor spaces.

Examples of intended applications include:

- Detached homes
- Townhouses and apartments
- Multi-residential developments
- Serviced apartments
- Hotels and accommodation facilities
- Aged care and healthcare accommodation areas
- Student accommodation
- Offices and similar occupied indoor environments

The Product is not intended for use in industrial, manufacturing, mining, agricultural, highly corrosive, or other harsh operating environments unless expressly approved by Fanco in writing.

Damage, deterioration, or performance issues arising from installation in unsuitable operating environments are not covered under this warranty.

7.5 Transferability

This warranty applies to the original purchaser and transfers with the Product to subsequent owners of the installation address during the applicable warranty period, provided satisfactory proof of original purchase and installation can be supplied.

7.6 Your Entitlement to Make a Warranty Claim

You may make a warranty claim if:

- You are the owner of the Product or have the owner's authority to act on their behalf.
- You notify Fanco within a reasonable period after discovering a fault.
- The Product remains within the applicable warranty period.
- You provide the information and documentation reasonably required to assess the claim.
- Customers should retain proof of purchase and installation records for the duration of the warranty period.

7.7 How to Make a Warranty Claim

To assist with the assessment of your warranty claim, Fanco may request the following information:

- Product model number
- Product serial number

- Proof of purchase
- Installation date
- Name and contact details of the owner
- Installation address
- Description of the fault
- Details of the installer
- Copies of installation or compliance documentation

Warranty claims may be submitted by:

1. Contacting the retailer from whom the Product was purchased; or
2. Contacting Fanco directly using the details below:

Fanco Australia

Authorised National Distributor: Universal Fans Australia Pty Ltd
ABN: 7610 4243 898
Address: 18 Cleeland Road, Oakleigh South VIC 3167
Phone: 03 8658 9588
Email: service@fanco.com.au

7.8 Assessment and Inspection Rights

Fanco reserves the right to inspect, test, repair, replace, or request return of the Product to determine the validity of a warranty claim.

Where reasonably required, Fanco may request photographs, operating data, inspection reports, or other supporting information before approving a warranty claim.

If necessary for proper assessment, the Product or component may be removed and tested at another location.

7.9 Service Access Requirements

The Product must be installed in a location that provides safe and reasonable access for inspection, servicing, maintenance and replacement throughout the warranty period.

The owner is responsible for ensuring that suitable access to the Product is always maintained and that adequate working clearance exists for inspection, servicing and replacement.

Fanco may refuse, suspend or defer warranty service where access is unsafe, restricted or otherwise inadequate.
Any costs associated with gaining access to the Product, including the removal of obstructions, building works, access equipment, reinstatement works or specialist trades, are the responsibility of the owner.

Fanco is not responsible for any costs, loss or damage arising from the Product being installed or subsequently enclosed, obstructed or otherwise made inaccessible for inspection, servicing, maintenance and replacement throughout the warranty period.

7.10 Warranty Exclusions

This warranty does not cover faults, failures, or damage resulting from:

- Incorrect installation, commissioning, operation, servicing, or maintenance.
- Failure to follow instructions contained in this manual.
- Failure to perform routine maintenance or cleaning.
- Failure to replace filters at recommended intervals.
- Operation outside specified voltage, temperature, humidity, or environmental limits.
- Connection to an incorrect, unstable, or unsuitable power supply.
- Accident, misuse, abuse, negligence, vandalism, or improper handling.
- Water ingress, flooding, condensation damage arising from incorrect installation, or exposure to severe environmental conditions.
- Transport, storage, or handling damage occurring before installation.
- Normal wear and tear.
- Corrosion caused by environmental conditions beyond those specified by Fanco.
- Insect, vermin, rodent, or animal infestation.
- Fire, flood, lightning, storm damage, bushfire, power surge, natural disaster, or other events beyond Fanco's reasonable control.
- Unauthorised modification, repair, or service work.
- Use of non-genuine or unapproved replacement parts.
- Removal, alteration, or illegibility of the Product serial number or rating label.

Minor cosmetic imperfections, minor discolouration, cosmetic marks, or variations that do not materially affect the Product's safety, functionality, or performance shall not be considered defects under this warranty.
Components subject to normal wear through ordinary use are not covered except where a manufacturing defect is demonstrated.
Filters are consumable items and are not covered under this warranty except where a manufacturing defect is identified at the time of supply.
This warranty does not apply where the Product has been installed in an application or environment outside its intended use, including but not limited to industrial facilities, manufacturing plants, mining operations, agricultural facilities, highly corrosive environments, or other conditions that may adversely affect Product performance or longevity.
Fanco reserves the right to reject a warranty claim where any of the above circumstances apply.

7.11 System Performance Exclusion

This warranty applies only to defects in the Product itself and does not extend to the performance, design, installation, commissioning, balancing, or operation of the wider ventilation system.
Fanco shall not be responsible for issues arising from:

- Ductwork design or installation;
- Airflow balancing or commissioning;
- Building design or construction;
- External control devices;
- Third-party equipment;
- Electrical infrastructure;
- Site conditions beyond Fanco's control.

This warranty does not cover dissatisfaction with system performance where such performance is affected by building design, ductwork design, system balancing, installation practices, occupancy conditions, or factors outside the Product itself.

7.12 Charges Not Covered by Warranty

Unless otherwise required under the Australian Consumer Law, this warranty covers only the repair or replacement of the Product or defective component, at Fanco's discretion.

This warranty does not cover costs associated with:

- Removal, reinstallation, commissioning, or recommissioning of the Product;
- Routine maintenance, servicing, cleaning, or filter replacement;
- Freight, transport, delivery, or handling charges;
- Travel, accommodation, or attendance costs;
- Building works or modifications required to access, remove, repair, or replace the Product;
- Scaffolding, elevated work platforms, cranes, lifting equipment, or other specialised access equipment;
- Rectification of faults arising from other equipment, building defects, installation deficiencies, or site conditions;
- Any labour costs incurred by the owner, installer, contractor, or third party.

Where a warranty assessment determines that the reported fault is not covered by this warranty, Fanco reserves the right to recover reasonable costs associated with:

- Inspection and testing;
- Service attendance;
- Labour;
- Travel and accommodation;
- Freight, transport, and handling; and
- Any other costs reasonably incurred in assessing the claim.

Where the Product has been installed or operated outside its intended application or in an environment for which it was not designed, Fanco may, at its sole discretion:

- Decline warranty coverage; or
- Limit any approved warranty remedy to the supply of replacement parts only.

In such cases, all labour, freight, travel, access equipment, accommodation, commissioning, testing, removal, reinstallation, and associated costs shall be the responsibility of the owner.

7.13 Software and Connectivity

Fanco may from time to time provide software, firmware, or control updates intended to improve Product functionality.
Fanco does not warrant uninterrupted operation of third-party networks, internet services, mobile applications, cloud services, communications infrastructure, or external devices connected to the Product.
Failures or interruptions caused by third-party services or equipment are not considered Product defects under this warranty.

7.14 Limitation of Liability

To the maximum extent permitted by law, Fanco's liability under this warranty is limited to the repair or replacement of the Product or defective component, or reimbursement of the

reasonable cost of such repair or replacement, at Fanco's discretion.
Fanco shall not be liable for any indirect, incidental, special, exemplary, punitive, consequential, commercial, or economic loss or damage arising from the installation, operation, failure, malfunction, repair, replacement, or inability to use the Product.

Without limitation, Fanco shall not be liable for:

- Loss of revenue, income, profits, contracts, or business opportunities;
- Loss of use or occupancy of any building, room, area, facility, or premises;
- Business interruption or operational downtime;
- Loss of productivity;
- Increased operating costs;
- Costs associated with temporary equipment, temporary accommodation, or alternative services;
- Damage arising from delays in construction, commissioning, occupancy, or project completion;
- Claims made by third parties;
- Any other economic or financial loss arising directly or indirectly from the Product or its failure.

Nothing in this warranty excludes, restricts, or modifies any rights or remedies that cannot be excluded or limited under the Australian Consumer Law or any other applicable legislation.

7.15 Australian Consumer Law

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.
This warranty is provided in addition to all rights and remedies available under the Australian Consumer Law and other applicable legislation.

Technical Support

Fanco provides technical assistance relating to:

- Product operation
- Installation guidance
- Commissioning support
- Troubleshooting
- Maintenance requirements
- Spare parts identification
- Warranty support

For technical assistance, warranty enquiries, or product support, please contact:

Fanco Australia
Authorised National Distributor: Universal Fans Australia Pty Ltd
Phone: 03 8658 9588
Email: service@fanco.com.au
Website: www.fanco.com.au