



# HOME VENTILATION SYSTEMS



Firmware Version 4.0

## User Manual

Your guide to a healthier home

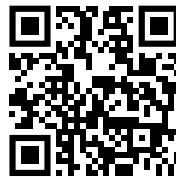
## Warning

- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.
- Isolate the mains supply before attempting to replace the system's air filter.



For more assistance,  
please go to our website  
**smartvent.co.nz**

or call us on  
**0800 140 150**



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# SmartVent Positive3 System

Firmware Version 4.0

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## How the System Works

Some features covered in this instruction manual are only available when installed and activated. Contact SmartVent for more information if you are interested in adding additional features to your system.

### The SmartVent Positive3 System



SmartVent Positive3 is a positive pressure system which uses air taken from the roof cavity to ventilate your home.

### Seasonal Upgrades <sup>1)</sup>



#### Flexi Air Source/Summer Feature

Adds outside air as second air source for continued quality ventilation in warmer months supplying outdoor air when the roof cavity temperature exceeds that of the outside air.



#### Heat Transfer

To draw excess heat from your heated lounge and transfer it to bedrooms.

Includes a recycle function where inside air can be recirculated if the outside air temperature is too cold to bring in as part of the primary ventilation process.



#### Tempering Heater

To help take the chill off incoming air (*not a home heating solution*).

When seasonal upgrades are added, your system can offer greater options in how it operates.

The options can override or influence one another as in the following examples.

**Example:** When the environment in your home meets your chosen heat transfer condition the ventilation and tempering heater functions deactivate.

**Example:** When the system is ventilating and conditions are met for the heater to turn on, the speed of the fan will be influenced by the heater function.

<sup>1)</sup> For more information about SmartVent seasonal upgrades, contact 0800 140 150 or email [enquiry@smartvent.co.nz](mailto:enquiry@smartvent.co.nz)

## App Control and WiFi Connect

1. Install the Smart Life App.

Method 1: Download the Smart Life App from the App Store mobile App Store.

Method 2: Scan the QR code to download Smart Life App






2. Open Smart Life App, tap the  button to “Add Device” ,tap the scan button on the top right corner.



3. Put system into Wi-Fi pairing mode by turning the Touch Screen off and on **3 times (allow at least 2 seconds between button presses)**.

Ceiling box will emit a long beep.

You will notice the thermometer  and water drop  icons on the screen to begin flashing in an alternating pattern.

Choose the corresponding one according to the flashing water drop  icon in the house.

Blink Quickly = 2 seconds on, 2 seconds off cycle

Blink Slowly = 4 seconds on, 2 seconds off cycle

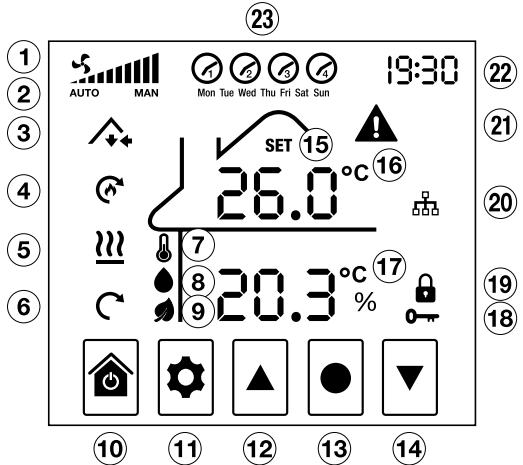
Follow the prompt on the App to proceed.

Pairing mode can be exited by either turning the touch screen off, successful pairing, or waiting 3 minutes.

If pairing with Blink Quickly does not succeed try Blink Slowly by turning the touch screen off and on 3 times again.

## Home Screen Icons

- 1) System Fan Speed
- 2) Ventilation Mode <sup>1)</sup>
- 3) Air Source Indicator (Roof/Outside)
- 4) Heat Transfer ON <sup>2)</sup>
- 5) Tempering Heater ON <sup>2)</sup>
- 6) Recycle ON
- 7) Temperature Sensing ON
- 8) Dew Control Mode ON
- 9) Dew Point Temperature
- 10) Home and Power
- 11) Settings
- 12) Up
- 13) Select
- 14) Down
- 15) Set <sup>3)</sup>
- 16) Fresh Air Temperature <sup>3)</sup> or  
Fresh Air Relative Humidity <sup>4)</sup>
- 17) Current Room Temperature or  
Current Room Relative Humidity <sup>5)</sup>
- 18) Key Lock ON
- 19) Rental Mode ON <sup>6)</sup>
- 20) COMs <sup>7)</sup>
- 21) Alert <sup>8)</sup>
- 22) Time <sup>9)</sup>
- 23) Scheduler Period and Day



- 1) Ventilation mode selections are AUTO or MAN (manual)
- 2) Only displayed if the seasonal upgrade is installed
- 3) The SET icon will appear when the temperature is being changed and the progressive temperature changes being made will be displayed instead of the Fresh Air temperature
- 4) Relative Humidity value is showing if the °C symbol is not displayed
- 5) Relative Humidity value is showing if the percentage % symbol is displayed instead of the °C symbol.
- 6) When RENTAL mode is ON, user cannot switch system OFF
- 7) Flashes when communicating with ceiling controller
- 8) When an electronic fault in the system occurs, the alert icon will appear and the applicable error code(s) will be displayed instead of the time
- 9) Time is displayed in a 24 hour clock format

## Button Functions



Power OFF/ON - press and hold for 2 seconds, or discard selections and return to Home Screen



From Home Screen enter setting screen or return to previous setting option

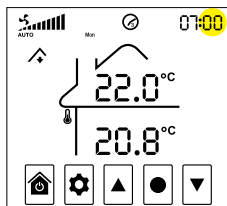


Scroll through setting options and change setting values



Save setting selection and go to next setting option

## Screen Highlights




**Yellow** highlight indicates icon is flashing



**Green** highlight indicates button(s) to push












# Modes

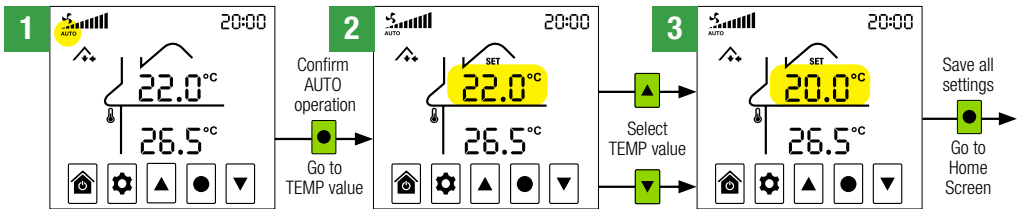
## Auto Operation and Temperature (TEMP) Setting

Your SmartVent Positive3 system can choose where to draw air from and at what speed depending on the DEW POINT , and the indoor and outdoor air temperatures, when ventilation mode is set to AUTO. If the system is in either BOOST or RECYCLE modes, the fan will, instead, operate at the speeds set for those particular modes.

You select the **SET Temperature** you want it to be in the home (ie. 22°C (default)) and the system will work on the best air source to achieve your SET Temperature <sup>1)</sup>.

For example, if you set your system to 20°C while the current house temperature is 18.3°C, the control system measures the incoming air temperature and alters the fan speed to suit. If the incoming air temperature is 20°C or higher, the fan will operate at a high speed to use the free heat to try and increase the overall house temperature. If lower than 20°C, the fan speed would decrease to reduce the cooling effect <sup>2)</sup>.

- On the Home Screen, press SETTINGS , use UP  or DOWN  to toggle and press SELECT  to choose Roof Air Source .
- Press UP , or Down  to set desired ventilation mode between AUTO or MANUAL. Press SELECT  to confirm AUTO mode.
- Press UP  to increase or DOWN  to decrease SET Temperature, and then press SELECT  to save SET Temperature (default 22°C).











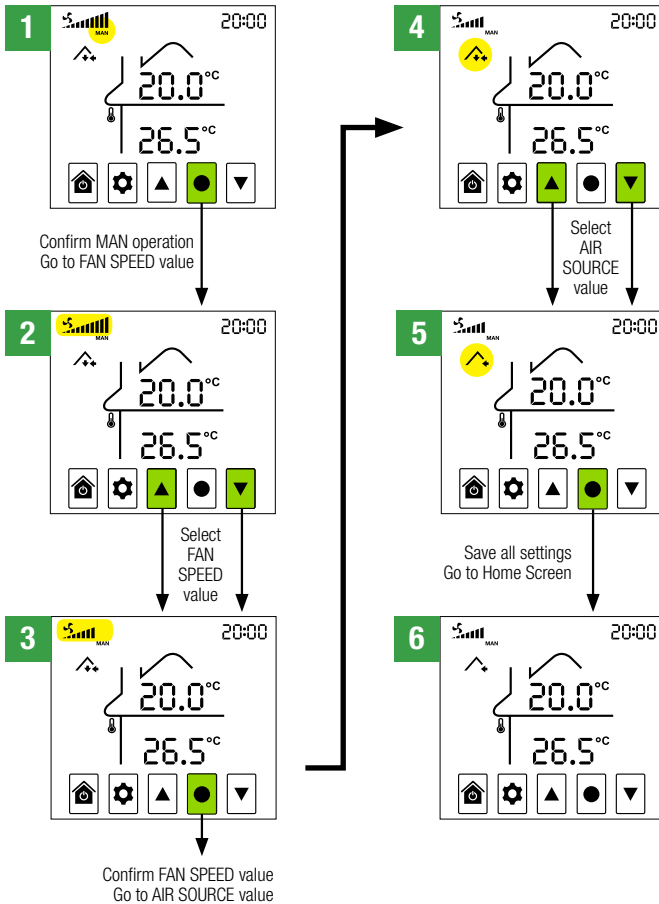
1) Your system is not a heating or cooling device. This parameter is designed to reduce nuisance over-heating or over-cooling of your home.  
2) Additional features are available when low temperatures are present. See HEAT TRANSFER, TEMPERING HEATER and RECYCLE modes.

# Modes

## Manual (MAN) Ventilation Mode and System Fan Speed and Air Source Settings

Your SmartVent Positive3 system allows manual control of the fan speed and air source if required. Fan speed will remain constant at the speed set.

- On the Home Screen, press SETTINGS , use UP  or DOWN  to toggle and press SELECT  to choose Roof Air Source .
- Press UP , or Down  to set desired ventilation mode between AUTO or MANUAL. Press SELECT  to confirm MAN mode.
- Follow the guide below to complete the setting of the system fan speed and the selection of the air source.





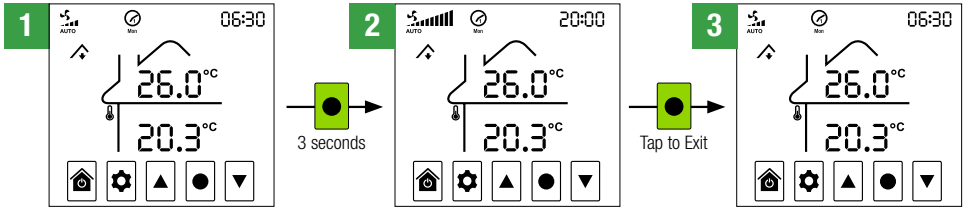


# Modes

## Boost


BOOST enables you to immediately override fan speed settings and boost fan speed to maximum.

- On the Home Screen, press SELECT  for 3 seconds and system's fan will boost to maximum speed.
- In BOOST mode, the time segments will become a count down to the end of the BOOST mode.
- A quick tap of SELECT  on the Home Screen will exit BOOST mode.






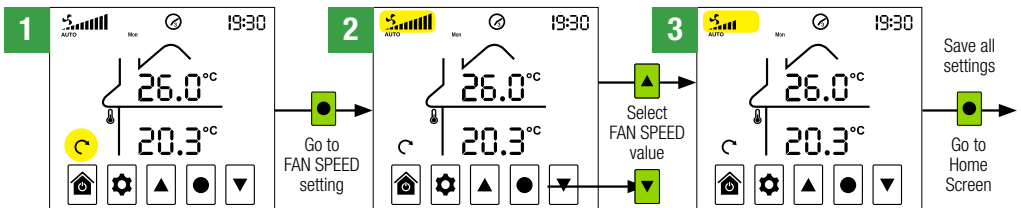
## Recycle

RECYCLE is designed for environments where extremes of temperature are common. When your system is in VENTILATION mode and the roof cavity temperature exceeds the maximum roof cavity temperature (30°C) setting, or goes below the minimum roof cavity temperature (5°C) setting, your SmartVent system will limit the amount of air entering your home.

If HEAT TRANSFER is installed, the RECYCLE  icon will be displayed to indicate that your system is in RECYCLE mode recycling indoor air to help reduce condensation build-up. In RECYCLE mode the fan will operate at the Recycle speed you set in the Recycle setting (default = OFF). Recycle temperature settings (004 and 005) can be adjusted in the Advanced Setting Menu on page 15.

If a HEAT TRANSFER kit is not installed, it is recommended that Recycle speed is set to OFF.







- On the Home Screen, press SETTINGS  and then UP , or DOWN , to toggle to RECYCLE  mode and follow the guide below to complete.



RECYCLE mode may need to be activated. See Installation Instructions for details.

## Key Lock Setting

When Key Lock is ON, system settings cannot be changed

- Press UP  and DOWN  together for 3 seconds, until the KEY LOCK  icon is displayed, to confirm that the system is locked.
- Press UP  and DOWN  together for 3 seconds, until the KEY LOCK  icon is not displayed, to confirm that the system is unlocked.

## Heat Transfer








When HEAT TRANSFER is ON, the fan speed will be set to low when the lounge temperature exceeds the SET temperature, and it will gradually speed up as your lounge gets warmer.

HEAT TRANSFER mode has priority over VENTILATION mode. For consistent ventilation in your home, we recommend you use the SCHEDULER Mode to turn HEAT TRANSFER OFF during daytime, midnight and early morning hours.

We also recommend HEAT TRANSFER is set to ON in the evening.

### OFF Mode







HEAT TRANSFER mode is OFF.

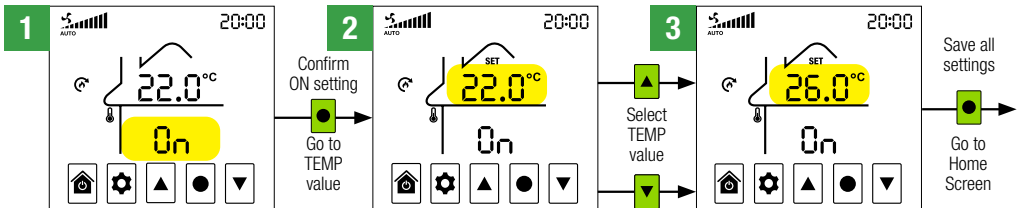
- On the Home Screen, press SETTINGS  and then UP , or DOWN , to toggle to HEAT TRANSFER mode
- Press SELECT  to enter HEAT TRANSFER mode
- Press UP , or DOWN , to toggle to OFF and press SELECT  to save

### ON Mode and Temperature (TEMP) Setting

HEAT TRANSFER starts when the lounge temperature is higher than the temperature you choose.

SET is the minimum temperature you want in your lounge before your system commences transferring heat.

- On the Home Screen, press SETTINGS  and then UP , or DOWN , to toggle to HEAT TRANSFER mode
- Press SELECT  to enter HEAT TRANSFER mode
- Press UP , or DOWN , to toggle to ON and follow the guide below to complete



**CAUTION:** The SmartVent Positive3 touch screen controller, with a built-in thermostat, must be located in the heat source room for it to be effective.

### SCHEDULER Mode

HEAT TRANSFER can be set to work to a schedule which enables you to make the most of your HEAT TRANSFER feature. We recommend you use the SCHEDULER Mode to turn HEAT TRANSFER OFF during daytime, midnight and early morning hours.

We also recommend HEAT TRANSFER is set to ON in the evening.








See Scheduler Settings for detail on how to set up the scheduled times on pages 13 and 14.

## Tempering Heater

Your TEMPERING HEATER works with VENTILATION mode to take the chill off incoming air. When the TEMPERING HEATER is active, the fans will run at medium speed. The TEMPERING HEATER is not designed to warm your home, however, it will take the chill off the incoming air.







### OFF Mode

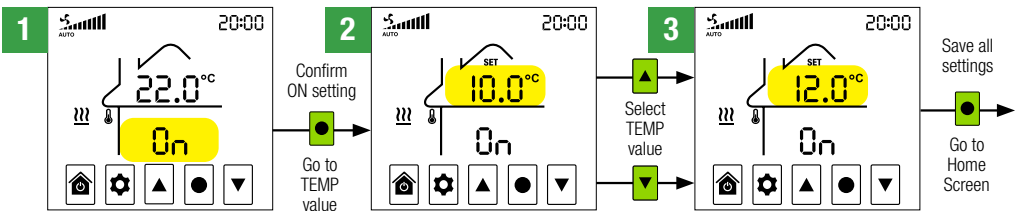
TEMPERING HEATER is OFF.

- On the Home Screen, press SETTINGS  and then UP , or DOWN , to toggle to TEMPERING HEATER mode
- Press SELECT  to enter TEMPERING HEATER mode
- Press UP , or DOWN , to toggle to OFF and press SELECT  to save

### ON Mode and Temperature (TEMP) Setting

The TEMPERING HEATER turns ON when the fresh air temperature is cooler than the SET temperature.

- On the Home Screen, press SETTINGS  and then UP , or DOWN , to toggle to TEMPERING HEATER mode
- Press SELECT  to enter TEMPERING HEATER mode
- Press UP , or DOWN , to toggle to ON and follow the guide below to complete



### SCHEDULER Mode

TEMPERING HEATER can be set to work to a schedule which can reduce the running cost of your TEMPERING HEATER. We recommend you use the timer function to turn your TEMPERING HEATER OFF during the day and evening, and set to ON overnight and early morning.

TEMPERING HEATER will be disabled if HEAT TRANSFER is operating.



See Scheduler Settings for detail on how to set up the scheduled times on pages 13 and 14.

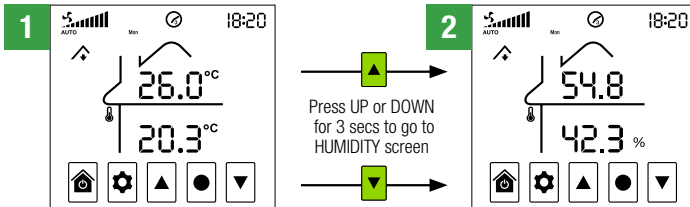
## Home Screen Display Options

The default Home Screen displays the Current Temperature in the roof cavity and the room. The standard Home Screen can, however, be easily changed to display Relative Humidity instead by following the guide below. Using the guide below, the preferred standard Home Screen selection can be made by cycling through Current Temperature, Relative Humidity loop.

### Relative Humidity Home Screen

The standard Home Screen can be changed to display the current Relative Humidity percentages in the roof cavity and the room at any time.

- On the Home Screen, press UP  , or DOWN  , for 3 seconds to change the standard Home Screen display from Current Temperature values to the Relative Humidity percentages in both the roof cavity and the room.
- Relative Humidity percentages will remain as the standard Home Screen display until changed back to display the Current Temperature.





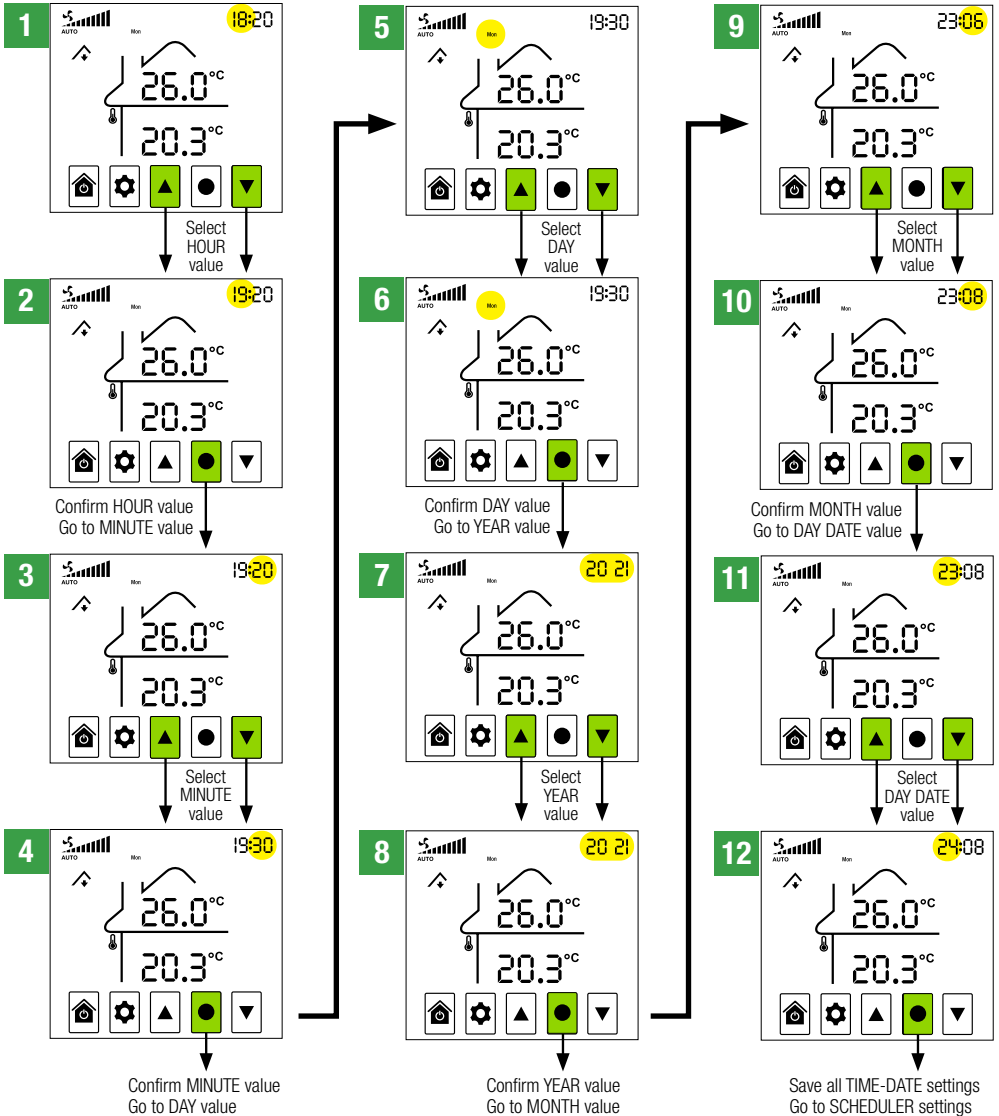
# System Time-Date Settings

System Time-Date Settings must be entered before system functions, such as scheduled start times for HEAT TRANSFER and TEMPERING HEATER (if installed), can be set.

- On the Home Screen, press SETTINGS  for 3 seconds to enter Time-Date Settings and follow the guide below to complete

**NOTE:** Settings shown are examples only

- Press HOME  at any stage to exit and enter Scheduler Settings
- Press SETTINGS  at any stage to return to the previous screen





# System Operating Settings



## Scheduler Settings

Setting the Scheduler is only necessary if you want HEAT TRANSFER or TEMPERING HEATER to operate for predetermined times during each of the four periods available every 24 hours. Each period of time starts with the scheduled start time for that period and ends at the start time for the next scheduled period.

Scheduler can be used with HEAT TRANSFER and TEMPERING HEATER seasonal upgrades and the period time settings are common to both if installed. VENTILATION and TEMPERING HEATER functions will be disabled if HEAT TRANSFER is operating.

- On the Home Screen, press SETTINGS  for 3 seconds then press HOME  to enter Scheduler Settings and follow the guide below to complete

**NOTE:** Settings shown are examples only

- Press HOME  at any stage to exit Scheduler Settings and return to the Home Screen
- Press SETTINGS  at any stage to return to the previous screen

**1**

**Period 1** Select HOUR value 06:28

**Period 2** Select HOUR value 10:05

**Period 3** Select HOUR value 13:24

**Period 4** Select HOUR value 22:43

**2**

Select MINUTE value

**3**

Confirm all PERIOD 1 settings Go to PERIOD 2

Confirm all PERIOD 2 settings Go to PERIOD 3

Confirm all PERIOD 3 settings Go to PERIOD 4

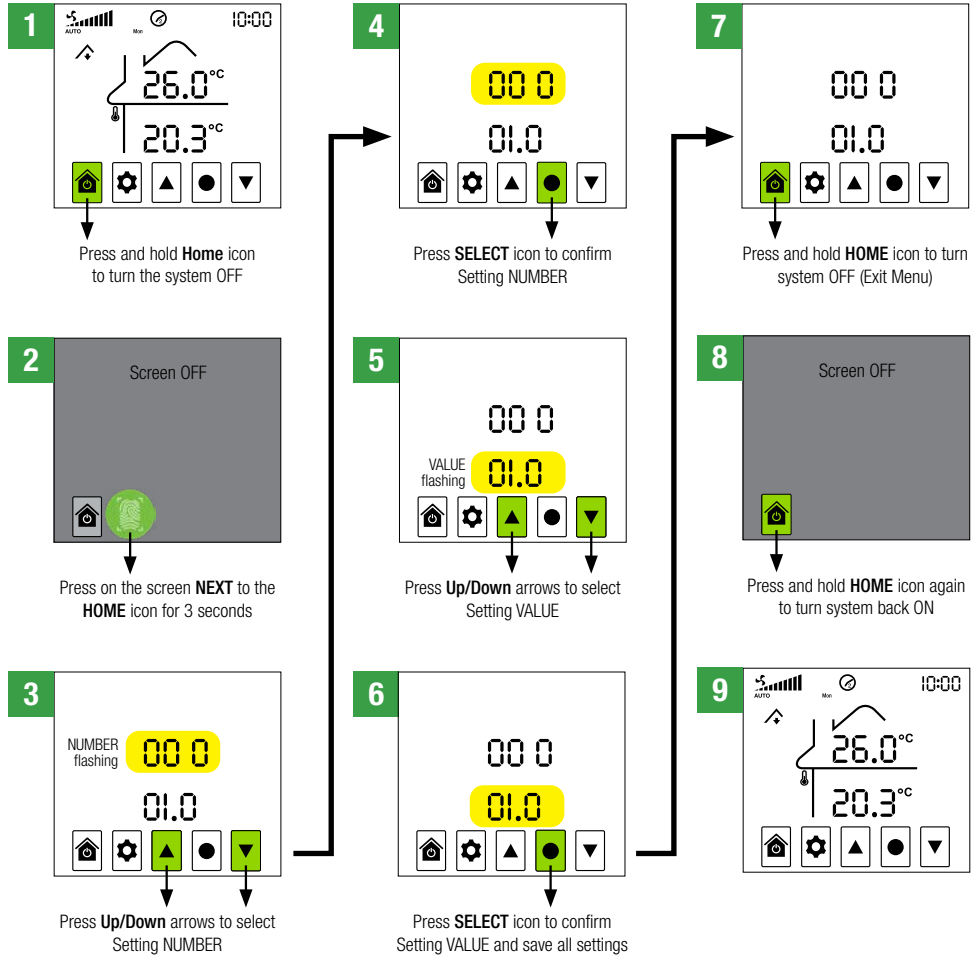
Save all PERIOD 1-4 settings Go to Home Screen

# Advanced Settings

## Advanced Setting Selection

Advance Settings enable you to change your SmartVent Positive3 system settings at any time to ensure you gain maximum benefit of comfortable living conditions in a healthy home. Access to Advanced Settings is disabled when RENTAL mode is ON.



**NOTE:** Settings shown are examples only



## Advanced Settings

### Advanced Setting Menu

SETTING	DESCRIPTION	RANGE	DEFAULT	NOTE
000	Touch Screen Controller - Firmware Version	N/A	N/A	
001	Ceiling Controller - Hardware Version	N/A	N/A	
002	Ceiling Controller - Firmware Version	N/A	N/A	
003	Ceiling Controller - Macro Version	N/A	N/A	
004	Recycle Temperature - Maximum	20°C - 50°C	30°C	1
005	Recycle Temperature - Minimum	0°C - 20°C	5°C	1
006	Temperature Set - Threshold	0°C - 5°C	1°C	
007	Temperature Set - Differential	0°C - 20°C	5°C	
008	Heat Transfer Speed - High	0°C - 15°C	5°C	
009	Heat Transfer Speed - Medium	0°C - 15°C	2°C	
010	Dew Point - High	0°C - 15°C	5°C	
011	Dew Point - Control Level	0°C - 5°C	1°C	
012	Dew Point - Start	-5°C - 5°C	0°C	
013	Filter Used Percentage	0 - 100%	0%	
014	Reserved	N/A	N/A	
015	Temperature - Room	-5°C - 5°C	-0.5°C	2
016	Screen Brightness - Maximum	0-100%	80%	
017	Screen Brightness - Minimum	0-100%	10%	
018	Boost Time	0 min – 60 min	20 min	
019	Filter Reset	0 - 100	0	3

1. If RECYCLE  is enabled and the roof cavity sensor reading goes above the maximum recycle temperature setting or goes below the minimum recycle temperature setting, then recycle mode will activate.
2. If your roof cavity or room temperature readings are inaccurate, use these settings to calibrate them.
3. To reset the filter change 019 setting value to 10 and press SELECT .



# Maintenance

## Filter Replacement

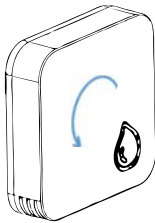
The filter will require replacing when the ERROR CODE **FILE** is displayed.

- When replacing with a filter of the same type, go to FILTER RESET (setting 019) to reset the filter.
- Contact SmartVent on 0800 140 150 for more information on the other filter types available and the replacement of your current filter type if required.
- The **FILE** alert will still be displayed if the filter is not installed correctly.

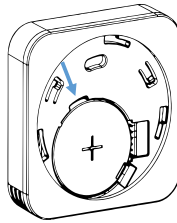
FILTER TYPE	PRODUCT CODE	TYPICAL LIFE
F7	DCT2093	12 months
F7 Carbon	DCT2277	6 months
HEPA Carbon	DCT2278	6 months

## Replace Sensor Battery

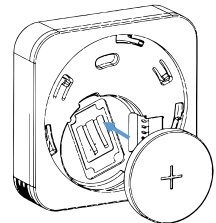
The original battery provided with sensors is expected to last between 2 to 5 years or more.



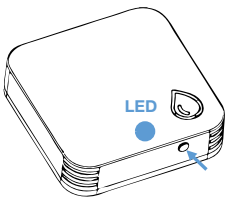
**1** **Step 1**  
Turn the unit **counter-clockwise** gently. The lid should separate from the unit with an audible click. The battery compartment lid will remain adhered to the wall/ceiling.



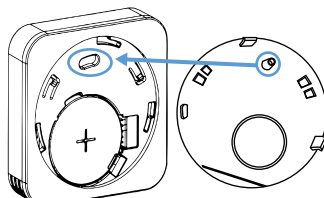
**2** **Step 2**  
Leverage the CR2032 coin cell from the compartment using a small tool as shown in image. Then insert the replacement battery back into the compartment.



**3** **Step 3**  
Insert the replacement battery back into the compartment.



**4** **Step 5**  
Wait >3sec. Press the small button on the underside of the unit and observe the LED should flash once. (if not, see troubleshooting guide)




**5** **Step 6**  
Replace the unit back onto the battery compartment lid. Turn the unit **clockwise** gently. Locking the unit on the lid.



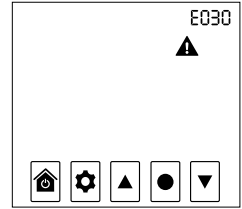
**Note:** Alignment guide must be inserted into the alignment slot when putting the battery cover on.

## Troubleshooting

An ALERT  icon and an error code will appear on the Home Screen when there is an electronic fault in the system.

If there are multiple faults the error codes will cycle to the next code periodically.

Contact SmartVent for assistance if error codes not listed above appear or the actions above do not clear the errors.



CODE	DESCRIPTION	ACTION
E030	Communication error between the touch screen controller and the ceiling controller	Ensure the connection between the touch screen controller and the ceiling controller is correct and secure, and that the cable is not damaged.
0001	Clock Error	Change the time on the touch screen controller.
1080	Outside Sensor Com Failure	1. Check the sensor battery is working by pressing the button on the sensor - the LED will flash once. 2. If the LED doesn't flash replace the battery with a fresh one - see sensor maintenance for how to change the battery.
1180	Roof Sensor Com Failure	
1280	Lounge Sensor Com Failure	Ensure the touch screen controller is ON. Ensure the connection between the touch screen controller and ceiling controller is correct and secure, and the cable is not damaged.
1082	Outside Sensor Not Paired	
1182	Roof Sensor Not Paired	
4002	Sensor Pairing Not Initiated	Turn off the TSC. Turn off the power to the ceiling controller for 30 seconds and begin the sensor pairing process.
FILT	Filter Change Required	Replace filter and reset filter by changing Advanced Setting 019 to 10 and pressing SELECT to confirm.

### Can not pair device to App

- Ensure the correct pairing mode is selected. Switch pairing mode by turning the touch screen off and on 3 times. It will alternate between Blink Quickly (2 seconds on - 2 seconds off) and Blink Slowly (4 seconds on - 2 seconds off).

Choose the correct pairing mode on the App. If Blink Quickly pairing mode does not work then try Blink Slowly pairing mode.

- Ensure the Control Box is within the Wi-Fi router's range. Put system into Blink Slowly pairing mode and check the signal strength of the 'SmartLife-xxxx' is good when standing next to your router. If signal strength is poor move the router or add a Wi-Fi extender.
- Ensure the home router supports 2.4GHz Wi-Fi. 5GHz Wi-Fi is not supported by the product.

## Troubleshooting

### *There is condensation forming on my windows*

- 1 Check that VENTILATION mode is set to AUTO
- 2 If HEAT TRANSFER is installed, ensure the scheduler is utilised to allow periods dedicated to ventilating your home. See HEAT TRANSFER section on page 10 for additional information.
- 3 Test if air is coming out of the diffusers. If not then follow *There is no air coming out my diffusers* steps below.
- 4 To increase the velocity of air coming into the room, reduce the diffuser opening to 5-10mm.

### *There is no air coming out my diffusers*

- 1 Check that the touch screen controller is powered ON.
- 2 Perform a manual test:
  - Set HEAT TRANSFER and TEMPERING HEATER modes to OFF
  - Check RECYCLE mode is OFF. If it is ON then adjust your Recycle Temperatures to turn RECYCLE mode OFF (see SETTINGS 004 and 005).
  - Set VENTILATION mode to MANUAL
  - Cycle through the fan speeds and check for air coming out of your diffusers
  - Make sure you check EVERY diffuser in the house
  - Return your system back to its original settings.
- 3 If there is no air coming out of at least one of your diffusers during the test, report results to your installer.

### *My house feels colder with this system installed*

- 1 Check your set temperature value in the VENTILATION settings.
- 2 Ventilation system brings in air from either the roof cavity or outside to improve the indoor air quality. This air can sometimes be cooler than your desired indoor temperature. This is normal.


### *My house is too hot*

- 1 SmartVent systems are designed to provide ventilation to the home. Being able to cool the home down to a comfortable temperature in extreme temperatures is not guaranteed.

### *The scheduler is not switching at the right time*

- 1 The system has up to a 5 minute delay between switching states.
- 2 Check that your system clock time is correct. The system clock needs to be updated manually when daylight saving begins and ends.

## Technical Specifications

TOUCH SCREEN CONTROLLER V4.0	
Operating Voltage/Frequency	220-240V AC, 50Hz
Switching Voltage	240V AC Max
Switching Current	5A max resistive load
Temperature Range	5-35°C adjustable
Sensor Radio Frequency	867MHz
Sensor Operating Temperature	-20°C to 70°C
Sensor Operating Humidity	5%-90% non-condensing
Sensor Temperature Accuracy	±0.5%
Sensor Relative Humidity Accuracy	±5% at 10-30°C, 40-80% RH
Measurement Resolution - Sensor	0.1°C / 0.1% RH
Measurement Resolution - Controller Display	0.1°C
Wi-Fi Radio Frequency	2.4GHz
Live Output Isolation	Relay
Output Control	Relay / 0-10V DC
Display	3.5" digital LCD touch screen
Approval	All relevant AS/NZS standards
EMC Approval	All relevant AS/NZS standards  E6337

*Specifications are subject to change without notice.*

**Contact: 0800 140 150**  
**enquiry@smartvent.co.nz**



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