



NZ's Home Ventilation Specialists



Keypad Controller User Guide Manual

www.smartvent.co.nz



Introducing...

SmartVent 

Keypad Control Panel



12x2 LCD Display with Backlight

On/Off Button

Mode Button

Enters the setup menu

Select Button

Confirms the menu selections made

Up/Down Arrows

Use the arrows to scroll through the menus

Change Filter LED

LED will illuminate when the filter needs changing

Reset Button

This will reset the system to the factory settings

CONTROL PANEL MAINTENANCE

To clean the control panel gently wipe the surface with a moist tissue. Do not spray cleaning solutions or water onto the control panel. It is not waterproof.

Keypad Control Panel



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SMARTVENT SUPPORT

For further support with your SmartVent system please contact Technical Support:
p: 09 259 1662 | e: enquiry@smartvent.co.nz



View our SmartVent videos

youtube.com/user/SmartVentNZ



1. General Information

This SmartVent controller provides automatic control with an easy-to-follow menu you can simply relax while your SmartVent system is hard at work providing a healthy comfortable living environment for you and your family.

- Key system settings displayed in summary screens
- Customisation of the system to individual preferences
- SmartVent grows with you, this controller will operate any upgrades you choose to add at a later date.
- Maximum and minimum temperature range adjustable between 0 and 35°C
- Three heater settings available when a heater is installed
- System calculates and displays the % of the filter used
- An LED flashes when the filter needs replacing
- Customer service menu option
- Child lock facility
- Heat transfer mode and heater mode upgrades will activate once installed

HOW THE SMARTVENT SYSTEM WORKS

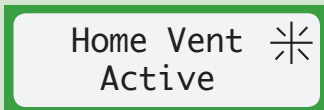
A SmartVent system lets you ventilate your home 24 hours a day.

SmartVent utilises any available warm air from your roof space. SmartVent passes the air through a high grade F7 filter before gently distributing it around the home via diffusers set in the ceiling. This continuous circulation of fresh, drier air creates a positive pressure in the home therefore pushing damp, stale air out of the home. In Operating Mode the SmartVent system will display the ceiling temperature, which determines the operation of the system, and the room temperature for the consumers benefit.

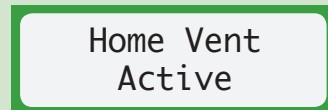
SMARTVENT PRODUCT RANGE

There are two main SmartVent Positive product variants. The SmartVent controller will identify whether you have a summer function model on the display. The Summer Function is used to draw cooler air from outside the house in the hotter summer months.

Display shows as follows for models with Summer Function included:



Display shows as follows for models without the Summer Function:





2.Quick Set Up Guide

STEP ONE:

Set the clock



(Press x2)



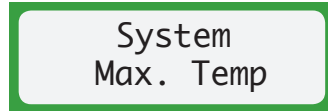
The clock appears in 24 hour format of hours, minutes and seconds. Use the up and down arrows to set the hours and minutes. See page 17 for more details

STEP TWO:

Set the maximum temperature



(Press x2)



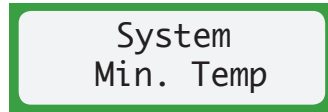
What this does - If a summer feature is installed it will draw air from outside above this temperature, if not you can choose for the system to turn off above this temperature by setting the fan mode. See page 9 for more details.

STEP THREE:

Set the minimum temperature



(Press x3)



What this does - If a heater is installed it activates below this temperature, if not the fan speed will drop to low speed. See page 9 for more details.

Settings	Summer	Winter	Default	Page Ref.
Maximum Temp	22	35	30	8
Minimum Temp	12	12	5	8-9
Heat Transfer	disabled	23	25	20-24

WITH A HEATER installed see page **10**

WITH HEAT TRANSFER installed see page **20**



3. Getting Started

ON/OFF BUTTON

This button turns the SmartVent controller ON and OFF.
When the SmartVent is OFF the display shows either:



OR

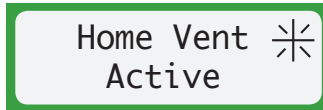


If the model purchased includes a summer function then the controller will display a flashing sun icon

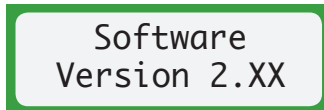
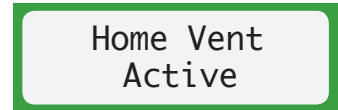
Note:

- **All relays in the ceiling unit are turned OFF but the motor, damper assembly and heater should be treated as live ⚡ at all times.**
- **The controller and the ceiling unit continue to communicate but remain passive in operation**
- **The other buttons will have no effect other than to illuminate the LCD if pressed**
- **Power is still active on both the controller and ceiling unit**

To turn your SmartVent system ON, press the ON/OFF button and the following screens will appear:



Or:



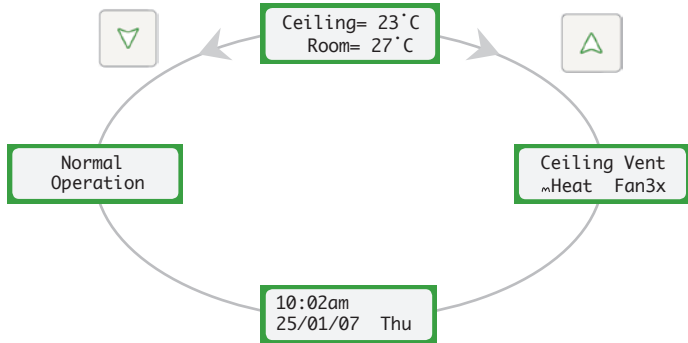
Note: Software version 2.XX
- The XX denotes the version number of the software (2.08 or greater)



4. Operating Mode

SmartVent operates to the parameters set either by pushing the RESET button or those entered using the Setup Mode.

The 4 screens available for display in operating mode are shown below:



The default screen shows the temperature of the ceiling space and of the room that the controller is situated in.

Ceiling= 23°C
Room= 27°C

To show the other pages press either the up or down arrows as shown
Press the up button:



Ceiling Vent
mHeat Fan3x

This screen shows where the SmartVent air is being drawn from, the status of the heater and the fan speed.

In this example, the SmartVent air is drawn from the roof cavity, the heater is disabled and the fan is operating at maximum speed.



10:02am
25/01/07 Thu

Real time clock showing time, date and day.



Normal
Operation

Display indicates the SmartVent is operating in Normal Mode, which means that the Maximum and the Minimum temperature settings determine the fan speed and whether the air is drawn from the roof cavity or the outside.

If the Heater is in Override Mode the display will show:

Heater ON
Override

If the Heater is set to Timer Mode the display will show:

Heater ON
Timer Mode

And if the SmartVent Heat Transfer Mode is operating the display will show:

Heat Transfr
Mode

Push the up button to return to the default display screen.

Note: The display illuminates on the first press of a button, but no action is taken until the second press of any button.

After 15 seconds if the up or down buttons are not pressed the controller reverts to the default display.



5.Setup Mode

The Setup Mode allows you to customise the SmartVent operational parameters to your individual requirements. Setup Mode also provides information on filter usage, customer service, clock settings.

The following menu options are available:

System Fan Speed

System Maximum Temperature

System Minimum Temperature

Filter Status

Heater Option

Heater Mode*

Customer Service

Set Clock

Heat Transfer Option

Heat Transfer Mode

System Comfort Temp (if heat transfer is installed and enabled)

Fan Mode**

Recycle Mode (if heat transfer is installed and enabled)

* Setup Heater Mode is displayed only if the heater is installed and 'Enabled' in the Heater Option.

**Fan Mode max option only applies to SmartVent models excluding Summer Function: SV02, SV04 & SV06. It does not apply to Summer-Vent models: SV02S, SV04S & SV06S.

To enter Setup Mode, press the MODE button:



System Setup

...Use arrows to change settings & select to enter

To select any of the settings press SELECT button.



To "exit" the Setup Mode at any stage:
Either: Press the MODE button and return to Operating Mode:

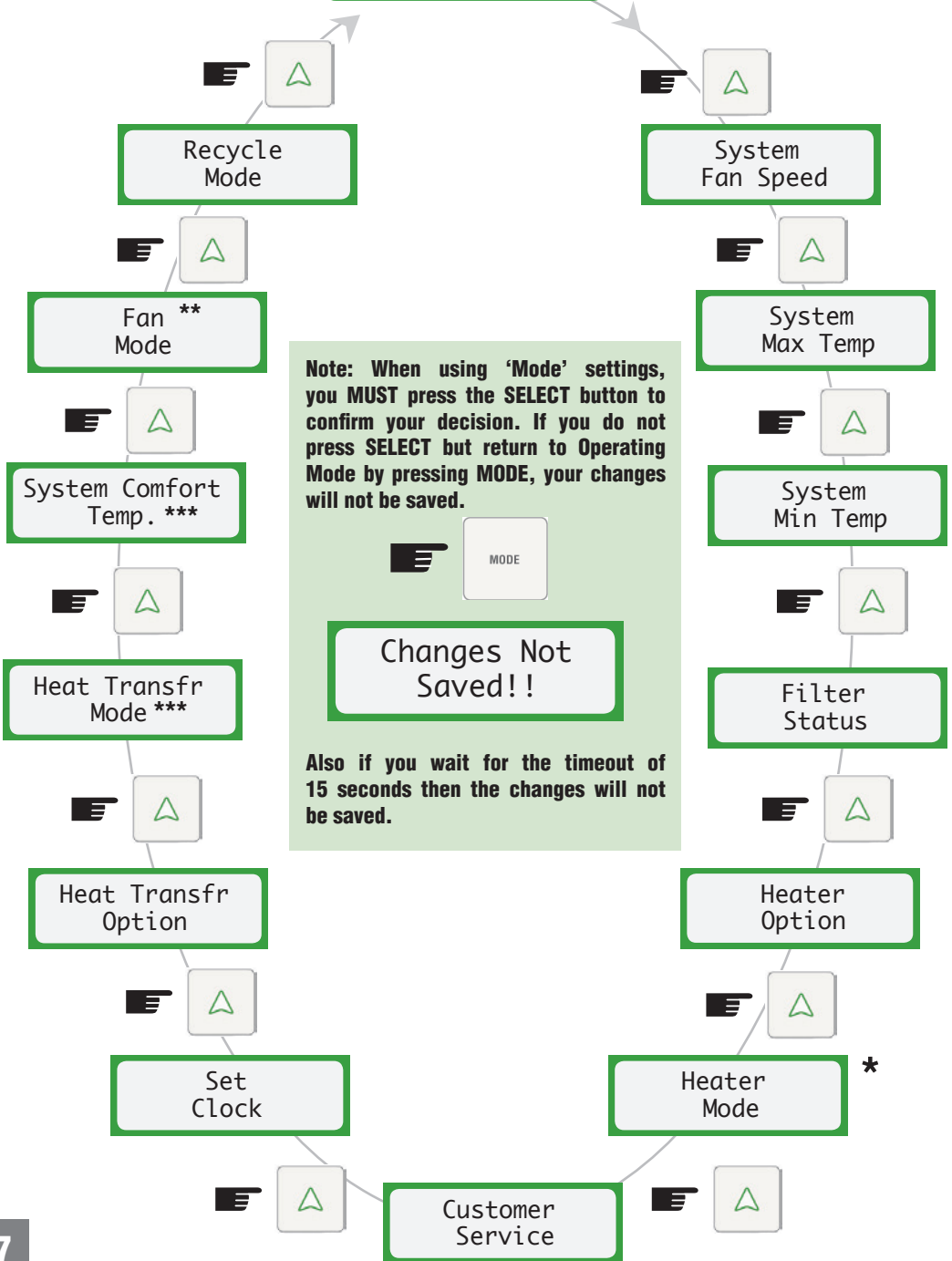


Or: Wait 15 seconds and the controller will time out to Operating Mode



System Setup

...Use arrows to change settings & select to enter

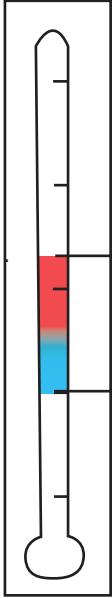




6.Setup Functions

SYSTEM FAN SPEED

The SmartVent controller uses a multi-speed motor to control the flow of filtered air into the house, the Fan speed is determined by your Minimum and Maximum temperature settings.



Above Maximum temp.

Summer Models: Vents from outside - does not change fan speed

Non-Summer Models: Will turn Fan Off if the 'Fan Mode Max' setting is 'active', otherwise does not affect fan speed.

Maximum temp. setting

Minimum temp. setting

Below Minimum temp.

No heater or heater disabled:- changes to fan speed 1 or turn off if fan mode min is enabled.

Heater enabled: changes to fan speed 2

Ceiling Temperature

When the ceiling temperature drops below the minimum temperature the fan speed automatically sets to fan speed 1 if the heater is disabled (or no heater is installed) or speed 2 if the heater is enabled.

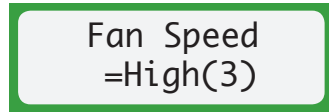
The controller uses a number 1,2 or 3 to represent low, medium and high speeds and a rotating icon on screen one of Operating Mode to represent a fan running at speed.



The display will indicate the current Fan speed for example: Speed 2:



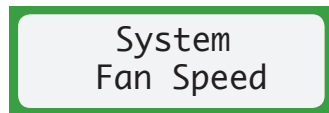
Use the up and down buttons to alter the fan speed, for example to change from displayed Medium speed (2) to high (3), press the up button once.



To activate this change in fan speed press SELECT, and the new fan speed is saved in memory.



Once SELECT is pressed the display returns to Setup Mode



Either press MODE or wait for 15 second timeout to return to Operating Mode.

Ceiling= 24°C
Room= 20°C

Or use the up and down buttons to step forward or backward to another setup selection.

SYSTEM MAXIMUM TEMPERATURE

The controller uses the maximum temperature to control the point at which outside air is vented into the house (if the summer feature is installed) or the Fan Mode becomes active for non-summer models which turns the fan completely off. When the roof space temperature exceeds the maximum temperature the controller opens the outside air damper or turns the fan off when Fan Mode is 'Active'. This temperature is adjustable up to 35°C and any setting that is at least 5°C greater than the minimum temperature.

Note: The controller will not allow the maximum temperature to be set lower than the minimum.

To change or check the value of the maximum temperature enter the Setup Mode as follows:



System
Max. Temp



SELECT

Max. Temp
= 31°C

Use the up and down buttons to increase or decrease the maximum temperature setting.

Note: To activate this change in the maximum temperature setting you must press SELECT, and the new temperature will be saved in memory.

To return to Operating Mode either wait for the 15 second timeout or press MODE

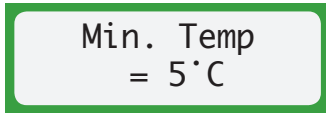
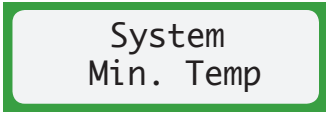
Note: Reset default for maximum temperature is 30°C

SYSTEM MINIMUM TEMPERATURE

The controller uses the minimum temperature to control the point at which the fan speed drops to speed 1 if no heater is fitted or drops to speed 2 if a heater is fitted and enabled, or drops to speed 1 if a heater is fitted but disabled. This temperature is adjustable from 0°C to at least 5°C below the maximum temperature.

Note: The controller will not allow the minimum temperature to be set greater than the maximum.

To change or check the value of the minimum temperature enter the Setup Mode as follows:



Use the up and down buttons to increase or decrease the minimum temperature setting.

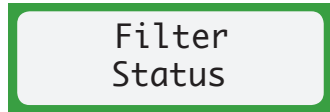
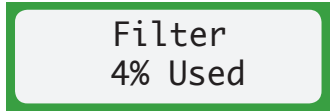
Note: To activate this change in the minimum temperature setting you must press SELECT, and the new temperature will be saved in memory.

To return to Operating Mode either wait for the 15 second timeout or press MODE

Note: Reset default for minimum temperature is 5°C

FILTER STATUS

The SmartVent controller monitors the filter and calculates the % used. To show the % used enter the Setup Mode as follows:



To return to Operating Mode either wait for the 15 second timeout or press MODE

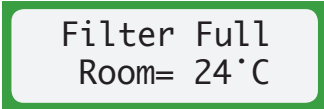
When the filter is 100% used then it should be replaced. Please phone the customer service number 09 259 1662 to be directed to your nearest outlet to purchase a replacement filter.

The SmartVent controller flashes the 'change filter' light on the control panel when the filter needs replacing.

Change Filter Light flashing

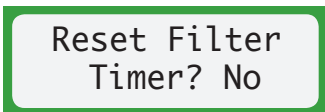


The first line on the display changes from the ceiling temperature to show a 'filter full' message.

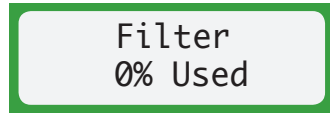


Once a new filter has been installed it is a simple matter of resetting the filter usage to 0% through the Setup Mode.

When the filter has reached 100% an additional operation becomes available in the Setup Mode to reset the filter.



Use the up and down buttons to toggle between yes and no.



Note: Once the filter timer has been reset the Reset Filter Timer page is removed until the filter is full again. The timer calculates % usage of the filter based on the fan speed.

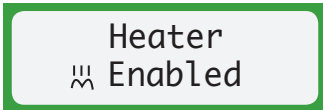
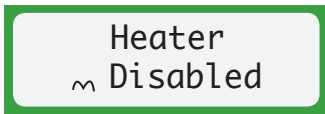
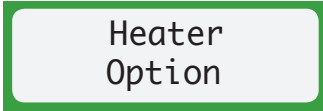
A SmartVent system operating on low speed will take approx 1½ years before reaching 100% filter usage. Personal fan speed preferences will affect the % filter usage rate.

HEATER OPTION

This option allows the householder to enable or disable the heater (if installed).

Note: For the heater to work the heater must first be enabled. The reset default setting is for the heater to be turned OFF.

To enable the heater enter Setup Mode:

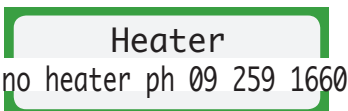


Note: The heater icon changes from  to 



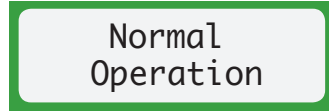
Heater is now enabled in Normal Mode. Return to Operating Mode by pressing MODE or 15 second timeout


If a heater is not installed the following screen will be displayed when you press SELECT:



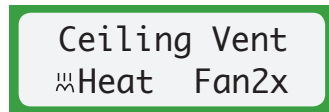
This informs the householder that they will need to phone customer services to purchase the heater option.

In the Operating Mode the screens will show as follows:





Please note: The heater icon will show  if the heater is disabled and also if the heater is enabled but not operating.

If the heater is enabled and the ceiling temp. drops below your set minimum temperature. Screen 2 in the Operating Mode would show:



Note:

The heater icon flashes on () then off () whilst the heater is ON. The fan speed automatically adjusts to medium (2) speed to ensure sufficient air passes over the heater element. The fan speed can not be adjusted in Heater Mode. The fan speed can be changed in Setup Mode but this change will not take effect until the ceiling temperature rises above your minimum temperature setting.

HEATER MODE

Once the heater is enabled this additional menu option is available. Heater Mode allows the householder to choose between the three heater mode settings.

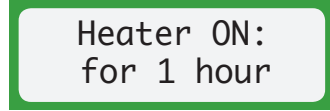
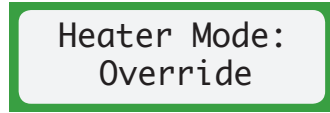
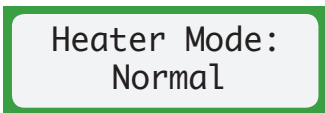
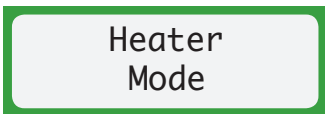
- Normal Mode, where the heater is turned ON and OFF depending on the ceiling temperature in relation to the minimum temperature.

- Override Mode, where the householder can force the heater ON for a certain time period irrespective of the ceiling temperature and minimum temperature setting.
- Timer Mode, where one or two time periods can be set by the householder to control the time the heater comes on, when the ceiling temperature is below the minimum temperature setting.

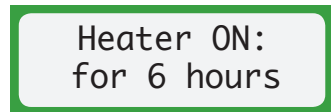
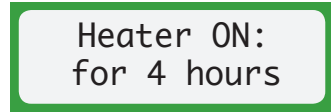
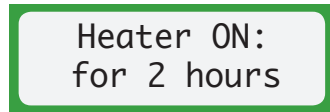
Note: To operate in the Override and Timer modes the real time clock must be set properly, because these are time relative operating modes. Refer to the Set Real Time Clock section.

OVERRIDE HEATER MODE

This mode operates independently of the temperature in the ceiling. The householder can enter this mode if the heater is enabled and wishes to have the heater turn on for either 1, 2, 4, or 6 hours from the time selected. The heater will stay ON for this period then turn OFF and Normal Mode will continue.



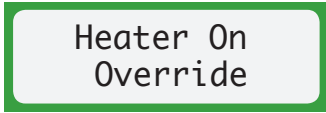
Use the up and down buttons to display the time duration for the Override Heater Mode.



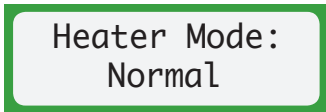
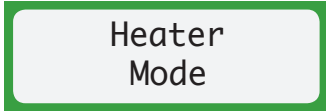
When a choice has been made press SELECT

SmartVent will turn ON the heater at fan speed 2 when the controller returns to Operating Mode.

Screen three in Operating Mode will display:



To disable Override Mode enter Setup Mode, and scroll to Heater Mode option:

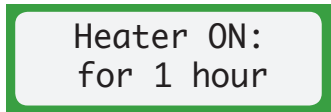
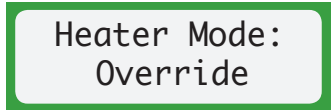
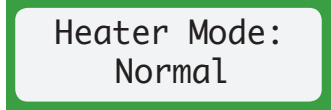
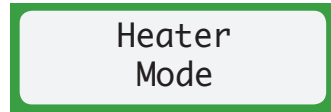


Heater will return to Normal Operation. Pressing Reset will also return the heater to Normal Operation.

Note: Having entered an override time, this can be changed to a greater or lesser duration by simply re-entering Heater Mode, selecting Override, changing the time and selecting the new period.

For example:

A four hour Override has been chosen but the householder decides that this is too long. Enter Setup mode and step through to Heater Mode. Select Override Mode and set the heater for 1 hour:



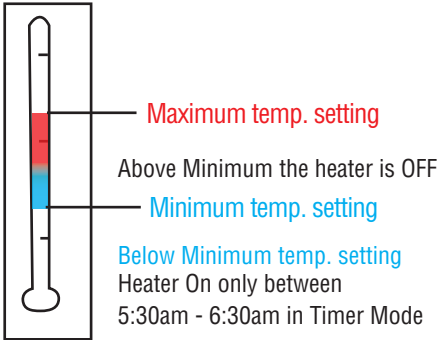
The heater will now stay on for 1 hour from the moment SELECT is pressed.

TIMER MODE

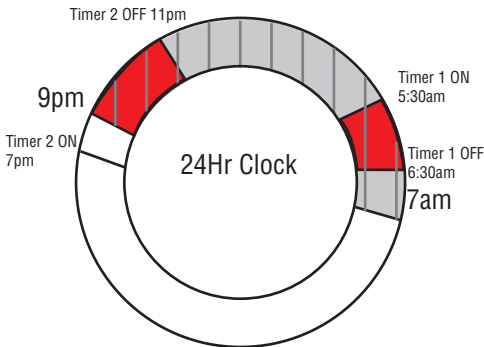
The purpose of Timer Mode is to enable the householder to set certain times when the SmartVent heater can be active. Normally the heater will come ON and go OFF under the control of the ceiling temperature and the minimum temperature 24 hours a day. The Timer Mode allows the householder to limit this to one or two time periods during the day when the ceiling temperature is below the minimum temperature.

For example:

The ceiling temperature may fall below the minimum setting of 5°C between the hours of 3am and 7am. In Normal Mode the heater (if enabled) would come ON during this time. However if the householder only wants the heater on between 5:30am and 6:30am, then the householder can set the Timer Mode to achieve this.



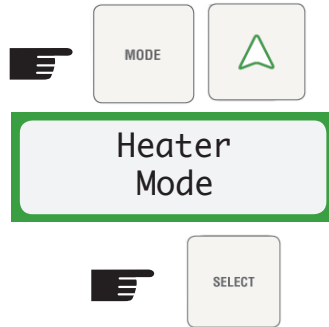
The mode has two timers and either one or both can be active. This is designed for a morning and evening period.



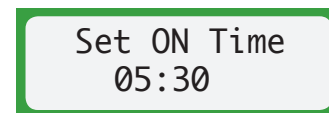
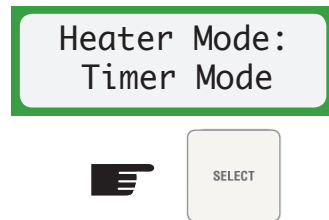
- Ceiling temp. below Minimum (9pm-7am)
- Timer Mode when Heater Active - Time settings that the heater will operate only when the ceiling temperature drops below your minimum setting

This example assumes that the ceiling temperature is below the minimum setting from 9pm to 7am. The heater will only come ON if the ceiling temperature is less than the minimum temperature and the time at which this occurs lies within the Timer periods set. Timer 2 is set from 7pm however since the temperature in the ceiling space is above the minimum temperature setting the heater will not come on until the temperature drops below the minimum level. (In this instance 9pm)

To enter Timer Mode, ensure the heater is enabled and go to the Setup Mode



Use the up and down buttons to step to Timer Mode:



The hours flash. Use the up and down buttons to set the hour you want the heater to come on. Press SELECT

Set ON Time
05:30

The minutes flash. Use the up and down buttons to set the minutes. Press Select:



Set OFF Time
06:30

Set the hours and minutes as for the ON time and press SELECT



The second time duration is then offered as a choice.

Set Period 2
=No

Use the up and down buttons to scroll through YES or NO and press SELECT:

Set Period 2
=Yes



Set ON Time
19:00

Set the hours and minutes as for the first time period using the up and down buttons then SELECT:

Set OFF Time
23:00

Set the hours and minutes as for the ON time and press SELECT to exit the mode.



Screen 3 in Operating Mode shows

Heater On
Timer Mode

To exit this mode, return to Setup and Heater Mode:

Heater
Mode



Heater Mode
Normal



Heater returns to Normal Operation. Pressing Reset will also return the heater to Normal Operation.

Note: For all heater modes, pressing the Reset button defaults to Normal Heater Mode with the heater disabled.

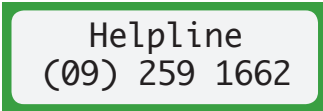
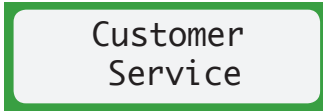
CUSTOMER SERVICE

To assist with any questions you may have regarding your SmartVent controller a contact number is conveniently stored in setup mode.

To access the help-line press MODE:



(Press x7) If heater is installed and enabled.



Press SELECT or MODE to exit.



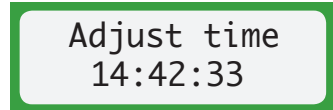
SET REAL TIME CLOCK

The SmartVent controller has a real time clock, one to display the time but essentially to allow the householder to set the times the heater is active.

When the SmartVent is first installed it will be necessary to set the correct time, date and day in Setup Mode. Press MODE button:



(Press x4) If heattransfer is installed and enabled.



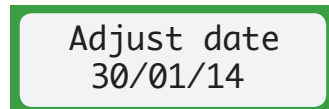
The clock appears in 24 hour format of hours, minutes and seconds. The hours will blink.

Use the up and down buttons to set the correct hours, then press SELECT.

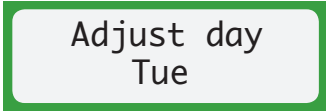
Then the minutes will blink.

Use the up and down buttons to set the correct minutes, then press SELECT.

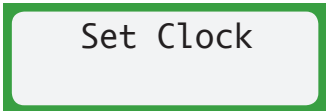
Then the seconds will blink. Use the up and down buttons to set the correct seconds, then press SELECT.



The date page appears in DD/MM/YY format. Repeat the procedure as per the time page to set the correct date and press SELECT.



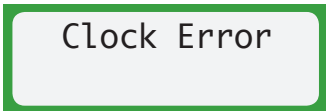
Use the up and down buttons to set the day, then press SELECT.



The real time clock has been set. Return to Operating Mode by pressing MODE or wait for timeout

Note:

- 1) In a power cut situation an on-board battery keeps the clock operational**
- 2) The setting of the clock is done in 24hr format but for readability the clock that is displayed on screen 2 of Operational Mode is a 12 hour format (am/pm)**
- 3) If for some reason such as touching the circuitry during installation the clock is 'upset' then the display flashes:**



This can be fixed by resetting the clock as described on page 16.

- 4) If a heater is installed, enabled and in Timer or Override mode then a clock error disables the heater and these modes which rely on the clock are not functional until the clock is reset.**

FAN MODE

Fan Mode controls the operation of the fan and will turn the system OFF above the maximum or below the minimum temperature.

Maximum Temperature function

Use this function if you would like your system to turn OFF once your ceiling temperature exceeds the maximum temperature so the system stops pushing hot air into your home in summer.

Minimum Temperature function

Use this function if you would like your system to turn OFF once your ceiling temperature drops below the minimum temperature so the system stops pushing cold air into your home in winter.

PLEASE NOTE

Max Temp Setting Options applies to Non-Summer Vent Models

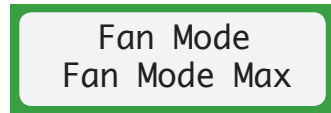
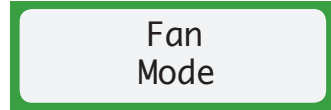
(SV02, SV04 & SV06) The Summer Function models will automatically draw air from outside when temperature is above your Maximum settings.

Enable -will turn the fan OFF

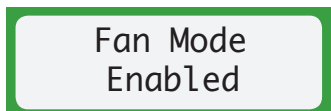
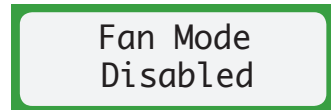
Disable - will continue to operate as Normal

To disable or enable the fan above maximum temperature:

To access the Fan Mode press:



Fan Mode Max option only for Non-Summer Models



To disable or enable the fan below minimum temperature. To access the Fan Mode press:



Fan Mode

Fan Mode Max option only for Non-Summer Models



Fan Mode
Fan Mode Max



Fan Mode
Fan Mode Min



Fan Mode
Disabled



Fan Mode
Enabled

The Fan icon will return to a rotating display when the ceiling temperature falls below the maximum temperature setting, rises above the minimum temperature setting or the fan operation is restored to normal or the system is RESET.

Ceiling Vent
Heat Fan x

The Fan Mode has been set. Return to Operating Mode by pressing MODE.

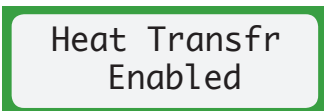
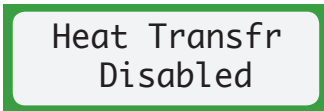
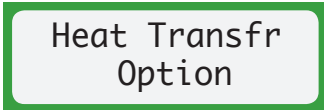
If the maximum temperature threshold has been exceeded then the Normal Operating Mode shows the fan icon as stationary & no fan speed number.

In the 'Normal' setting the fan continues as normal when the roof cavity temperature rises above your maximum temperature setting.

HEAT TRANSFER OPTION

This mode is used to enable or disable the heat transfer of air. When enabled, and when your set 'comfort temperature' is exceeded, the system stops sourcing air from the roof cavity or outside the house and instead transfers excess warmed air from the heat source room to the other SmartVent outlets in your home.

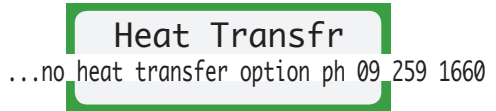
To enable heat transfer enter Setup Mode:



* Press x8 if heater is 'disabled' or x9 if heater is 'enabled'

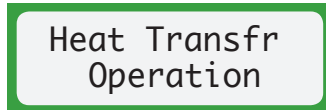
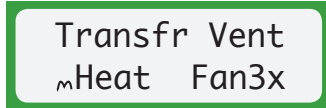
Heat Transfer is now enabled. Return to Operating Mode by pressing MODE or 15 second timeout. You will now need to set your 'Comfort Temperature'.


If a heat transfer kit is not installed the following screen will be displayed when you press SELECT:



This informs the householder that they will need to phone customer service to purchase the Heat Transfer Upgrade Kit.

When the system is in heat transfer mode, the Operating screens will show as follows:



Please note: The heater icon will show  as the heater will always be **disabled** in the Heat Transfer Mode. The Fan speed can still be changed to any of the 3 speed settings.

HEAT TRANSFER MODE

Once the heat transfer is enabled this additional menu option is available. Heat Transfer Mode allows the householder to choose between the three heater mode settings.

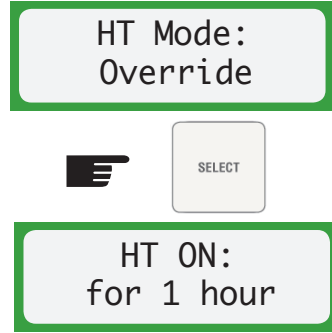
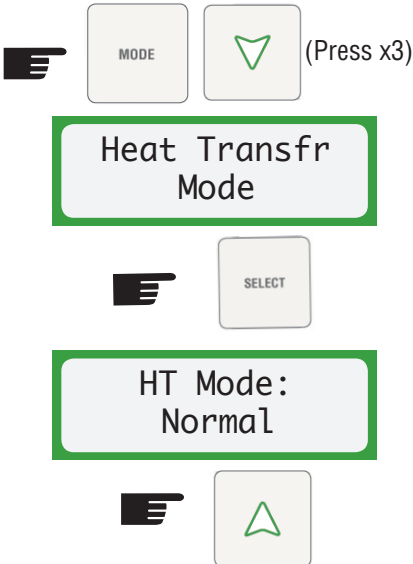
- **Normal Mode:** where the heat transfer is turned ON and OFF depending on the room temperature in relation to the system comfort temp.

- **Override Mode:** where the householder can force the heat transfer ON for a certain time period irrespective of the room temperature and system comfort.
- **Timer Mode:** where one or two time periods can be set by the householder to control the time the heat transfer comes on, when the room temperature is above the system comfort.

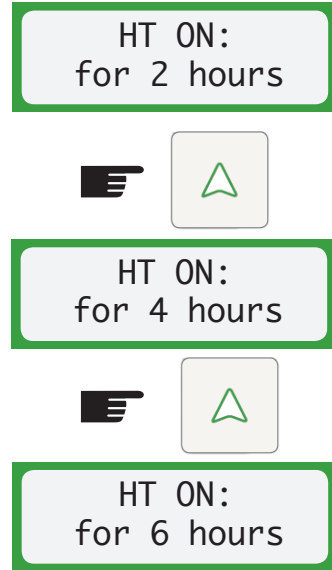
Note: To operate in the Override and Timer modes the real time clock must be set properly, because these are time relative operating modes. Refer to the Set Real Time Clock section.

OVERRIDE HEAT TRANSFER MODE

This mode operates independently of the temperature in the room. The householder can enter this mode if Heat Transfer is enabled and choose the heat transfer to turn on for either 1, 2, 4, or 6 hours from the time selected. The heat transfer will stay ON for this period then turn OFF and Normal Mode will continue.



Use the up and down buttons to display the time duration for the Override Heat Transfer Mode.



When a choice has been made press SELECT



Screen three in Operating Mode will display

Heat Transfr
Operation

To disable Override Mode enter Setup Mode,
& scroll to heat transfer Mode option:

Heat Transfr
Mode



SELECT

HT Mode:
Normal



SELECT

Heat transfer will return to Normal
Operation. Pressing Reset will also return
the heat transfer to Normal Operation.

**Note: Having entered an override time,
this can be changed to a greater or
lesser duration by simply re-entering
Heat Transfer Mode, selecting Override,
changing the time and selecting the new
period.**

For example:

A four hour Override has been chosen but
the householder decides that this is too
long. Enter Setup mode and step through to
Heat transfer Mode. Select Override Mode
and set the heat transfer for 1 hour:



MODE



(Press x3)

Heat Transfr
Mode



SELECT

HT Mode:
Normal



HT Mode:
Override



SELECT

HT ON:
for 1 hour



SELECT

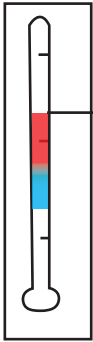
The heat transfer will now stay on for 1 hour
from the moment SELECT is pressed.

TIMER MODE

The purpose of Timer Mode is to enable
the householder to set certain times when
the SmartVent heat transfer can be active.
Normally the heat transfer will come ON
and go OFF under the control of the room
temperature and the system comfort
temperature 24 hours a day. The Timer
Mode allows the householder to limit this
to one or two time periods during the day
when the room temperature is above the
system comfort temperature.

For example:

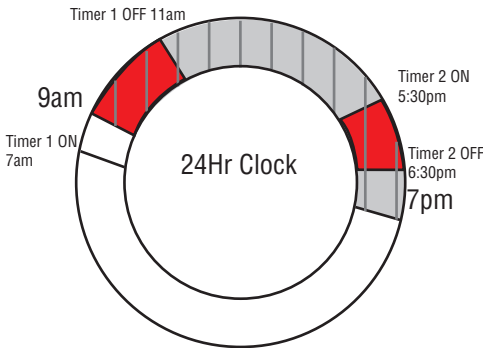
The room temperature may rise above the comfort setting of 25°C between the hours of 7am and 7pm. In Normal Mode the heat transfer (if enabled) would come ON during this time. However if the householder only wants the heat transfer ON only between 5:30pm and 6:30pm, then the householder can set the Timer Mode to achieve this.



Above system comfort temperature the heat transfer is ON

System Comfort Temp

The mode has two timers and either one or both can be active. This is designed for a morning and evening period.



Room temp. above system comfort temperature (9am-7pm)

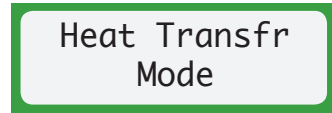
Timer Mode when heat transfer Active - Time settings that the heat transfer will operate only when the room temperature exceeds the systems comfort temperature.

This example assumes that the room temperature is above the comfort setting from 9am to 7pm. The heat transfer will

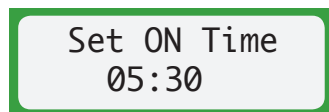
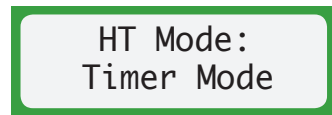
only come ON if the room temperature is above the system comfort temperature and the time at which this occurs lies within the Timer periods set.

Timer 1 is set from 7am, however since the temperature in the room is below the system comfort temperature settings, the heat transfer will not come on until the temperature rises above the system comfort temperature (in this case at 9am).

To enter Timer Mode, ensure the heat transfer is enabled and go to the Setup Mode



Use the up and down buttons to step to Timer Mode:



The hours flash. Use the up and down buttons to set the hour you want the heat transfer to come on. Press SELECT. The minutes flash. Use the up and down buttons to set the minutes. Press Select:



Set OFF Time
06:30

Set the hours and minutes as for the ON time and press SELECT



The second time duration is then offered as a choice.

Set Period 2
=No

Use the up and down buttons to scroll through YES or NO and press SELECT:

Set Period 2
=Yes



Set ON Time
19:00

Set the hours and minutes as for the first time period using the up and down buttons. Press Select:



Set OFF Time
23:00

Set the hours and minutes as for the ON time and press SELECT to exit the mode.



Screen 3 in Operating Mode shows

HT Mode:
Timer Mode

To exit this mode, return to Setup and Heat Transfr Mode:

Heat Transfr
Mode



HT Mode
Normal



Heat Transfer returns to Normal Operation. Pressing Reset will also return the heater to Normal Operation.

Note: For all heater modes, pressing the Reset button defaults to Normal Heater Mode with the heater disabled.



Set ON Time
05:30

SYSTEM COMFORT TEMPERATURE

When the Heat Transfer Mode has been 'enabled', the controller uses the temperature sensed (the system comfort temperature) by the wall panel controller to control the transfer of hot air from this heated room.

When the comfort temperature is exceeded the system stops sourcing air from the roof cavity or outside the house and instead transfers excess heated air from the controller room to other outlets in your home.

When the air temperature in the controller room reaches the pre-set comfort temperature the system will automatically start functioning in the Heat Transfer Mode. When the temperature in the controller room drops 1°C below the preset comfort level, the system reverts back to a standard SmartVent™ configuration.

Note: The default setting and reset setting for the system comfort temperature is 25°C. This temperature is independent on the systems maximum and minimum temperatures. The comfort temperature range you can choose from is 0°C - 35°C.

To change or check the value of the comfort temperature, enter the Setup Mode:



System
Comfort Temp

Note: Heat Transfer Mode has precedence over minimum and maximum temperature settings.



Comfort Temp
= 25°C

Use the up and down buttons to set your desired comfort temperature, then press SELECT:

Note: To activate this change you must press SELECT, and the new temperature will be saved in memory.



To return to Operating Mode either wait for the 15 second timeout or press MODE

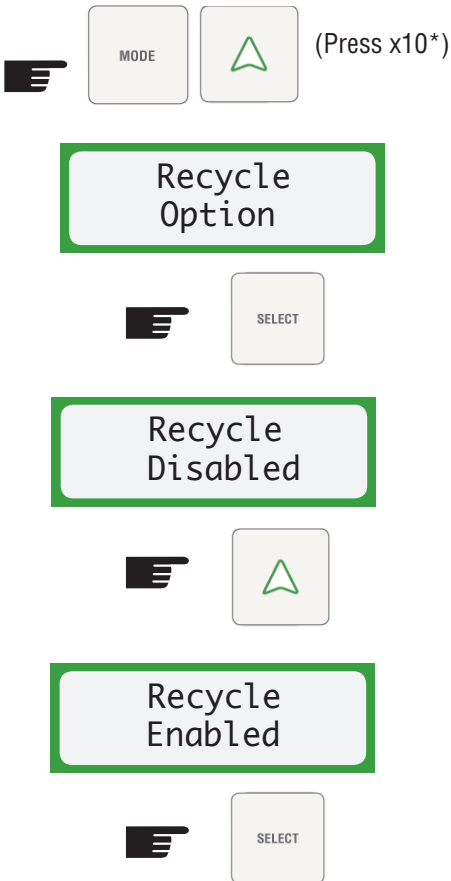


Note: Your controller must be in the heat source room to read the comfort temperature and act accordingly. This system will allow your warmed room to reach your comfort temperature before it starts transferring the excess heat.

RECYCLE OPTION

This mode can be used to recirculate air around the home rather than draw in air from the roof cavity. When enabled, you will set a 'recycle temperature' when the temperature in the roof cavity drops below this, the system stops sourcing air from the roof cavity or outside the house and instead transfers air from the heat source room to the other SmartVent outlets in your home.

To enable recycle mode enter Setup:



* Press x10 if heater is 'disabled' or x11 if heater is 'enabled'

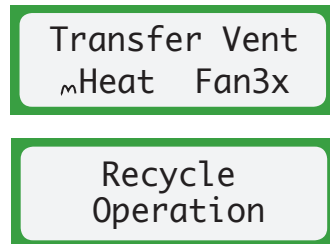
Recycle mode is now enabled. Return to Operating Mode by pressing MODE or 15 second timeout. You will now need to set your Recycle Temperature'.

Recycle Mode is only available with the Heat Transfer Kit installed. If a heat transfer kit is not installed the following screen will be displayed when you press SELECT:



This informs the householder that they will need to phone customer service to purchase the Heat Transfer Upgrade Kit.

When the system is in recycle mode, the Operating screens will show as follows:



Please note: The heater icon will show **M** as the heater will always be **disabled** in the Heat Transfer Mode. The Fan speed can still be changed to any of the 3 speed settings.

RECYCLE MODE

Once the recycle mode is enabled this additional menu option is available. Recycle Mode allows the householder to choose between three operating settings.

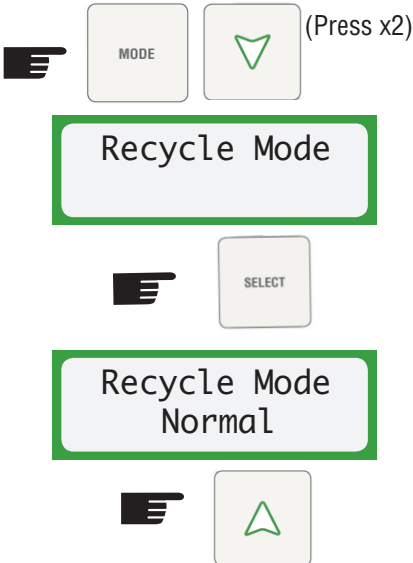
- **Normal Mode:** where the recycle feature is turned ON and OFF depending on the ceiling temperature in relation to the system recycle temp.

- **Override Mode:** where the householder can force the recycle mode ON for a certain time period irrespective of the ceiling temperature and recycle temp.
- **Timer Mode:** where one or two time periods can be set by the householder to control the time the recycle feature comes on, when the ceiling temperature is below the recycle temp.

Note: To operate in the Override and Timer modes the real time clock must be set properly, because these are time relative operating modes. Refer to the Set Real Time Clock section.

OVERRIDE RECYCLE MODE

This mode operates independently of the temperature in the room. The householder can enter this mode if Recycle is enabled and choose the recycle mode to turn on for either 1, 2, 4, or 6 hours from the time selected. The recycle feature will continue for this period then turn OFF and Normal Mode will continue.



REC Mode:
Override



REC ON:
for 1 hour

Use the up and down buttons to display the time duration for the Override Mode.

REC ON:
for 2 hours



REC ON:
for 4 hours



REC ON:
for 6 hours



When a choice has been made press SELECT



Screen three in Operating Mode will display

Recycle
Option

To disable Override Mode enter Setup Mode,
& scroll to Recycle Mode:

Recycle Mode



SELECT

Recycle Mode
Normal



SELECT

Recycle will return to Normal Operation.
Pressing Reset will also return the recycle
fixture to Normal Operation.

**Note: Having entered an override time,
this can be changed to a greater or lesser
duration by simply re-entering Recycle
Mode, selecting Override, changing the
time and selecting the new period.**

For example:

A four hour Override has been chosen but
the householder decides that this is too
long. Enter Setup mode and step through
to Recycle Mode. Select Override Mode and
set the recycle time for 1 hour:



MODE



(Press x2)

Recycle Mode



SELECT

REC Mode:
Normal



REC Mode:
Override



SELECT

REC ON:
for 1 hour



SELECT

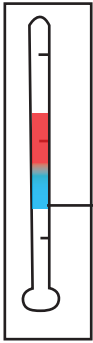
The recycle feature will now stay on for 1
hour from the moment SELECT is pressed.

TIMER MODE

The purpose of Timer Mode is to enable the
householder to set certain times when the
SmartVent recycle feature can be active.
Normally the recycle feature will come
ON and go OFF under the control of the
ceiling temperature and the system recycle
temperature 24 hours a day. The Timer
Mode allows the householder to limit this
to one or two time periods during the day
when the ceiling temperature gets too low.

For example:

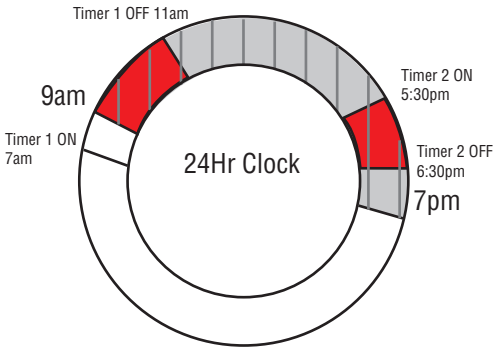
The roof cavity temperature may fall below a comfortable level of 10°C between the hours of 7am and 7pm. In Normal Mode the recycle (if enabled) would come ON during this time. However if the householder only wants the recycle ON between 5:30pm and 6:30pm, then the householder can set the Timer Mode to achieve this.



Below the System recycle Temperature the system will recirculate air around the home rather than draw in air from the roof cavity.

System Recycle Temp

The mode has two timers and either one or both can be active. This is designed for a morning and evening period.



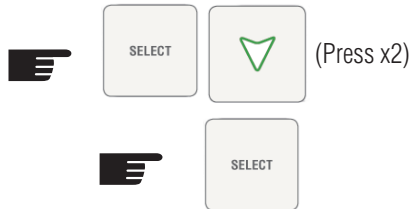
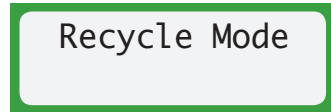
▒▒▒ Ceiling temp. below system recycle temperature (9am-7pm)

■ Timer Mode when recycle mode Active - Time settings that the recycle feature will operate only when the ceiling temperature falls below the systems recycle temperature.

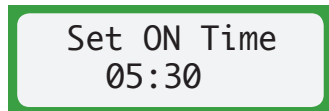
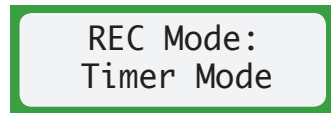
This example assumes that the ceiling temperature is below the recycle setting from 9am to 7pm. The recycle feature will only come ON if the roof cavity temperature is below the system recycle temperature when the time at which this occurs lies within the Timer periods set.

Timer 1 is set from 7am, however since the temperature in the roof cavity is above the system recycle temperature settings, the recycle feature will not come on until the temperature falls below the system recycle temperature (in this case at 9am).

To enter Timer Mode, ensure the recycle feature is enabled and go to the Setup Mode



Use the up and down buttons to step to Timer Mode:



The hours flash. Use the up and down buttons to set the hour you want the heat transfer to come on. Press SELECT. The minutes flash. Use the up and down buttons to set the minutes. Press Select:



Set OFF Time
06:30

Set the hours and minutes as for the ON time and press SELECT



The second time duration is then offered as a choice.

Set Period 2
=No

Use the up and down buttons to scroll through YES or NO and press SELECT:

Set Period 2
=Yes



Set ON Time
19:00

Set the hours and minutes as for the first time period using the up and down buttons. Press Select:



Set OFF Time
23:00

Set the hours and minutes as for the ON time and press SELECT to exit the mode.



Screen 3 in Operating Mode shows

REC Mode:
Timer Mode

To exit this mode, return to Setup and Recycle Mode:

Recycle Mode



REC Recycle Mode
Normal



Recycle returns to Normal Operation. Pressing Reset will also return the heater to Normal Operation.

Note: For all heater modes, pressing the Reset button defaults to Normal Heater Mode with the heater disabled.



Set ON Time
05:30

SYSTEM RECYCLE TEMPERATURE

When the Recycle Mode has been 'enabled', the controller uses the temperature in the roof cavity (the recycle temperature) to control when the system starts recirculating air from the heat source room to the other SmartVent outlets in your home.

When the system drops below the recycle temperature it stops sourcing air from the roof cavity or outside the house and instead recirculates air from the heat source room to other outlets in your home. This is the RECYCLE MODE.

When the temperature in the roof cavity rises 1°C above the preset recycle level, the system reverts back to a standard SmartVent™ configuration.

Note: The default setting and reset setting for the system recycle temperature is 10°C. This temperature is independent to the systems maximum and minimum temperatures. The recycle temperature range you can choose from is 0°C - 35°C.

To change or check the value of the comfort temperature, enter the Setup Mode:



(Press x3)

System Recycle
Temp

Note: Recycle Mode has precedence over minimum and maximum temperature settings.



Recycle Temp
= 10°C

Use the up and down buttons to set your desired recycle temperature, then press SELECT:

Note: To activate this change you must press SELECT, and the new temperature will be saved in memory.



To return to Operating Mode either wait for the 15 second timeout or press MODE





7.Reset Function

RESET This is used to restore the factory default settings for the minimum and maximum temperature range, the fan speed, heater operation, heat transfer and comfort temperature.

Reset is used when the householder needs to clear all previous settings and start over.

Factory default settings are:

Max Temp	30°C
Min Temp	5°C
Fan	3 (Fast)
Heater	Disabled
Heater Mode	Normal
Heat Transfer	Disabled
Recycle	Disabled
Comfort Temperature	25°C

Unlike the other buttons RESET requires a firm press in the centre of the circle until a 'beep' confirms entry to this function. This has been designed deliberately to prevent accidental RESET



Reset System
=No

If a system reset is not required, press SELECT



System will return operation to Normal Mode

Ceiling= 24°C
Room= 20°C

If the system RESET is required press the UP arrow



Reset System
=Yes

Then press SELECT



System
Reset

Home Vent

...take control, ventilate for a healthy home!

Home Vent
Active

Ceiling= 24°C
Room= 20°C

Note: RESET does not function when SmartVent is in the OFF mode

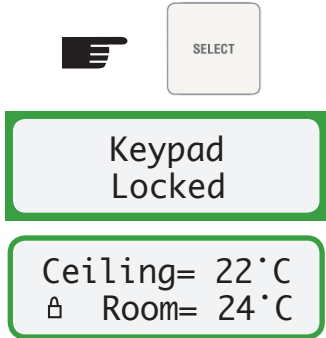
Home Vent
OFF




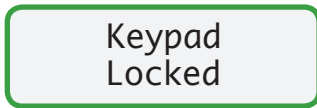
8.Lock Function

At times it is useful to 'lock' the keypad so that those little fingers or even bigger ones don't reconfigure your settings.

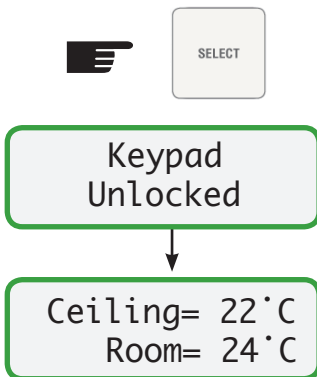
To prevent the keys from being accidentally pressed, press and hold SELECT until the controller beeps x5



The padlock icon  shows the keypad is locked. Pressing any key will have no effect, except to display:



To unlock the keypad, press and hold SELECT until the controller 'beeps' x2



Normal Operation is then restored and the padlock icon vanishes.

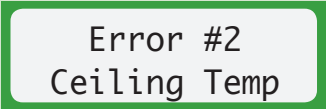
9.Error Functions

The SmartVent system monitors the communications and performance of the system.

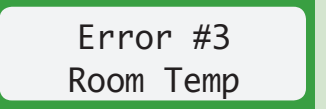
If the SmartVent controller can not communicate with the ceiling unit the operational display flashes the error message every 5 seconds



If the temperature sensor in the ceiling unit fails, the operation display flashes the following error message every 5 seconds



If the temperature sensor in the control panel fails, the display flashes the following error message every 5 seconds



Note: Errors #1 and #2 are critical and with no communications or a failed ceiling temperature sensor the ceiling unit shuts down all relay control of the heater, fan and damper. Error #3 is non-critical as the control panel temperature is not critical for the operation of the SmartVent.

**However in all cases please contact SmartVent for technical support
p: 09 259 1662
e: enquiry@smartvent.co.nz**

SmartVent

NZ's Home Ventilation Specialists



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