



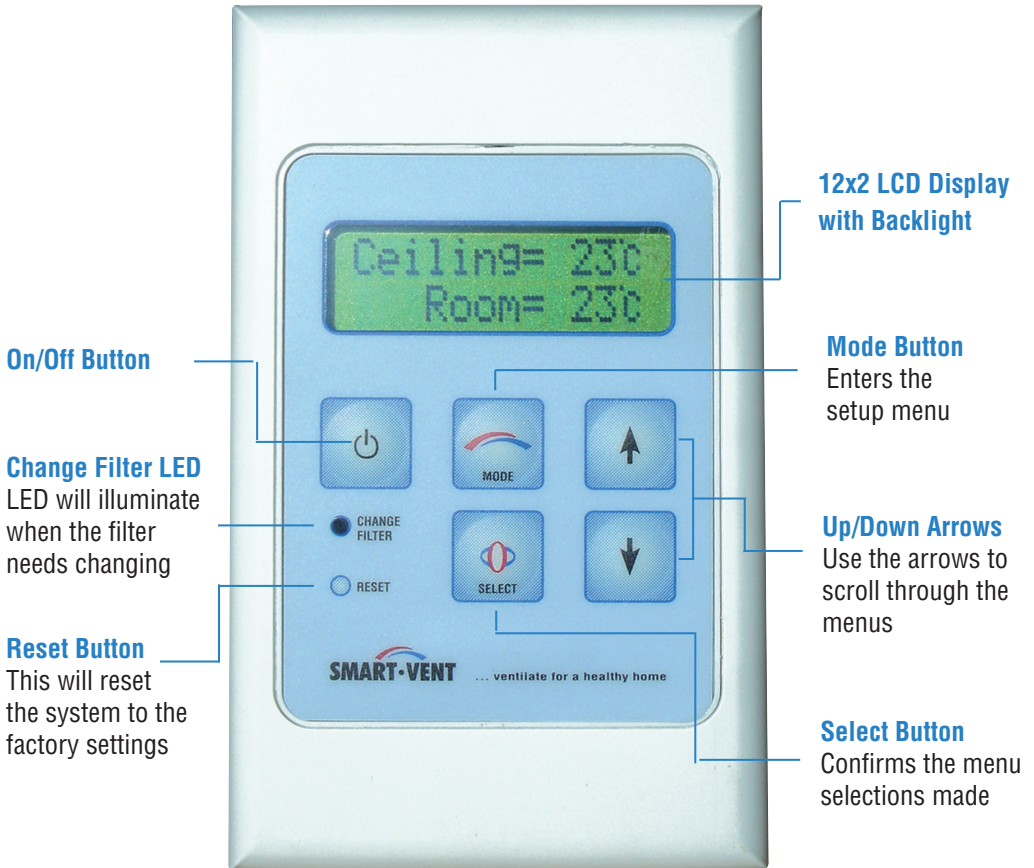
SMART•VENT

...the SMART way to Ventilate your Home

.....User Guide

Introducing....

...your **SMART-VENT** Digital Control Panel



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.

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SMART-VENT SUPPORT

For further support with your Smart-Vent controller please contact customer service:

phone: (09) 259 1662

email: sales@securimax.co.nz

1. General Information

The stylish, digital Smart-Vent controller provides automatic control of your family's living environment. With an easy-to-follow menu you can simply relax while your Smart-Vent 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
- "Future-Proof" ability built in
- 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
- A LED flashes when the filter needs replacing
- Customer Service menu option
- Child lock facility
- Heat Transfer Mode available

HOW THE SMART-VENT SYSTEM WORKS

A Smart-Vent system lets you ventilate your home 24 hours a day.


Smart-Vent utilises any available warm air from the sunny side of your roof space. Smart-Vent passes the ventilation air through a high grade filter before being gently distributed around the home via diffusers set in the ceiling at strategic points. This continuous circulation of fresh drier air creates a positive pressure in the home thus pushing damp stale air out of the home.

In operational mode the Smart-Vent system will display the ceiling temperature which determines the operation of the system and the room temperature for the consumers benefit.

SMART-VENT PRODUCT RANGE

There two main Smart-Vent product variants. The Smart-Vent controller will identify whether you have a summer function model or not by the text shown on the display. The Summer Function is where you have an inlet drawing air from outside used during the hotter months to draw cooler air into the house.

Display shows as follows for models with Summer Function included:

Home-Vent 
Active

Display shows as follows for models without the Summer Function:


Home-Vent
Active

2. Getting Started



ON/OFF BUTTON

This button turns the Smart-Vent controller ON and OFF. When the Smart-Vent is OFF the display shows either:


Home-Vent 
OFF

OR

Home-Vent
OFF


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 Smart-Vent system ON, press the ON/OFF button and the following screens will appear:



Home-Vent 
Active

Or:

Home-Vent
Active

↓
Software
Version 2.XX

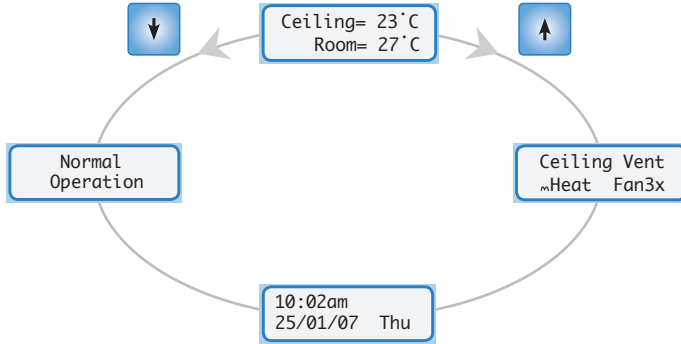
Note: Software version 2.XX
- The XX denotes the version number of the software (2.07 or greater)

↓
Ceiling= 22°C
Room= 23°C

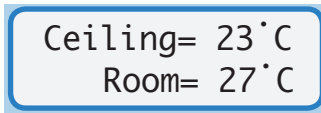
3. Operating Mode



Smart-Vent 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:



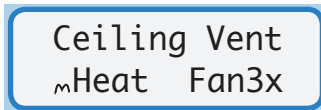
The default screen shows the temperature of the ceiling space and of the room that the controller is situated in.



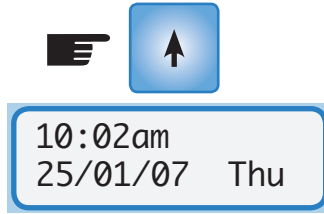
To show the other pages press either the up  or down  arrows as shown
For the up button:



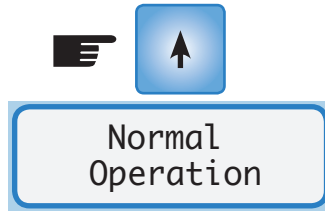
The next screen shows where the Smart-Vent air is being drawn from, the status of the heater and the fan speed.



In this example, the Smart-Vent air is drawing from the ceiling cavity, the heater is disabled and the fan is operating at maximum speed.

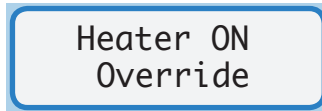


Real time clock showing time, date and day.

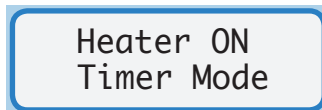


Display indicating the Smart-Vent is operating in Normal Mode, which means that the Maximum and the minimum temperature setting determine the fan speed and whether the air is vented from the ceiling cavity or the outside.

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



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



And if the Smart-Vent Heat Transfer Mode is operating the display will show:



Push the  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  or  buttons are not pressed the controller reverts to the default display.

4. Setup Mode

The Setup Mode allows you to customise the Smart-Vent 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 Mode

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

Fan Mode**

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

**Fan Mode option only applies to Smart-Vent models excluding Summer Function: SV01, 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:

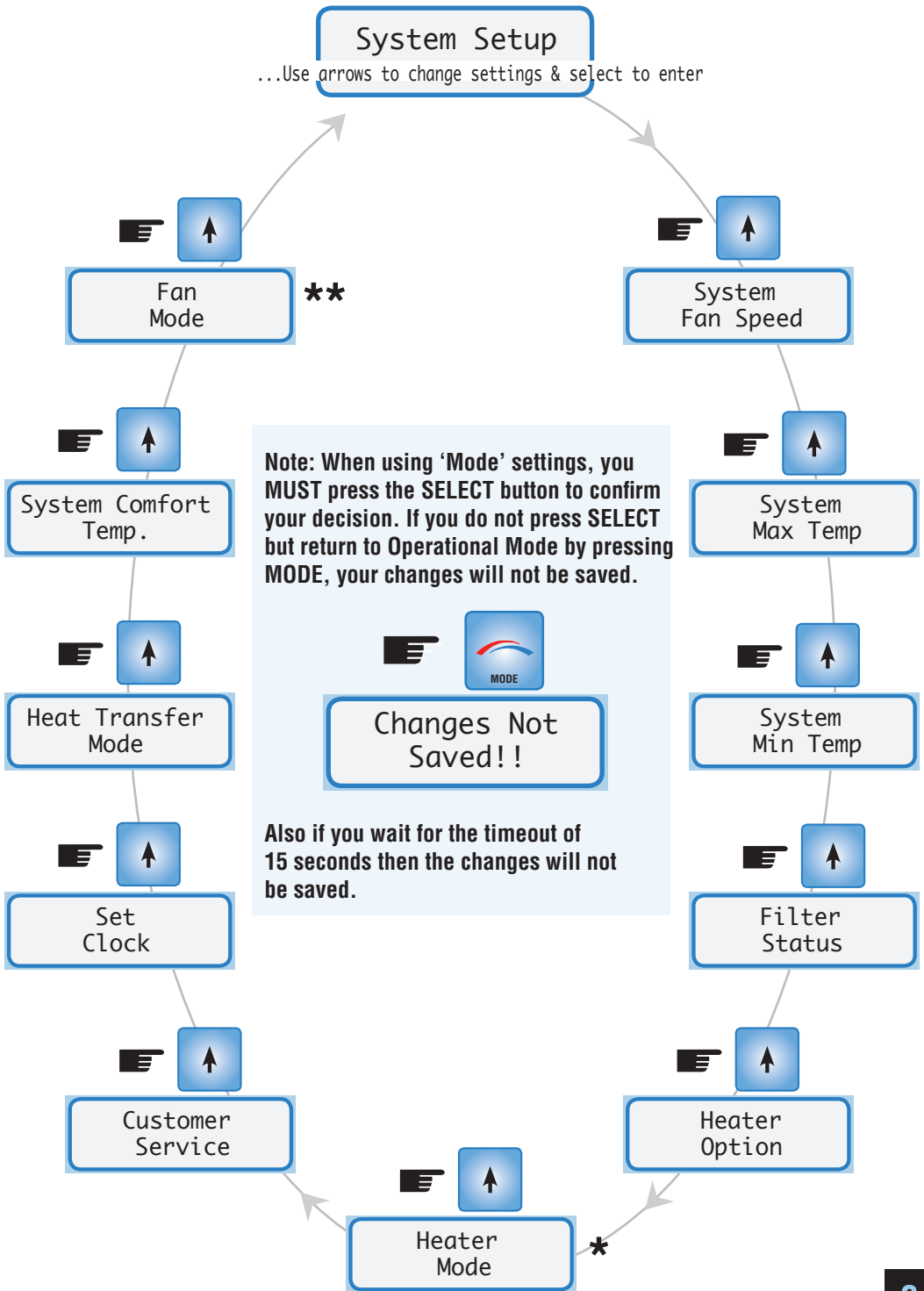
Either: Press the MODE button and return to Operational Mode:



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

System Setup

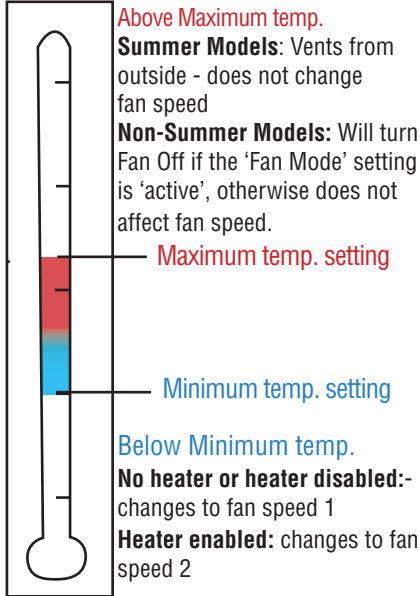
...Use arrows to change settings & select to enter



5.Setup Functions

SYSTEM FAN SPEED

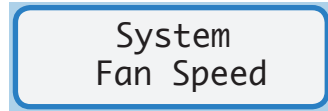
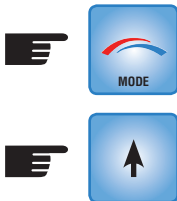
The Smart-Vent controller uses a multi-speed motor to control the flow of filtered air into the house, the Fan speed is determined by your Minimum and Maximum temperature settings.



Ceiling Temperature



When the ceiling temperature drops below the minimum temperature the fan speed automatically sets to fan speed one if the heater is disabled (or no heater is installed) or speed two 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 Operational Mode to represent a fan running at speed.

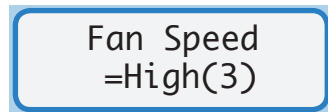


The display will indicate the current Fan speed for example: Speed 2:



Use the  and  buttons to alter the fan speed, for example to change from displayed Medium speed (2) to high (3),

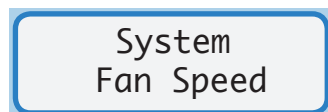
press the  button once.



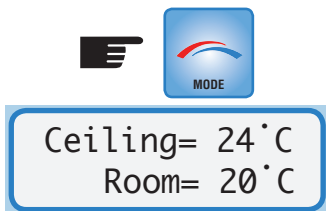
To activate this change in fan speed press SELECT, and the new fan speed is saved in memory.





Once SELECT is pressed the display returns to Setup Mode



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



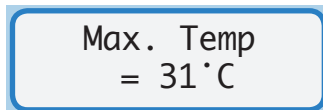
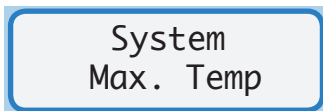
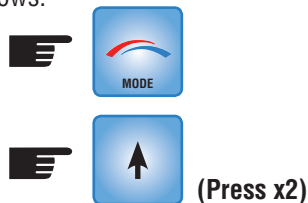
Or use the  and  buttons to step forwards or backwards to another setup selection.



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:



Use the  and  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 Operational Mode either wait for the 15 second timeout or press MODE



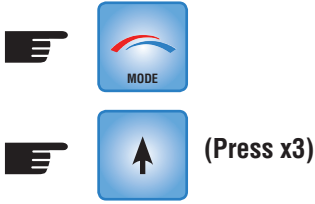
Note: Reset default for maximum temperature is 30°C

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:



System
Min. Temp



Min. Temp
= 5°C

Use the  and  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.



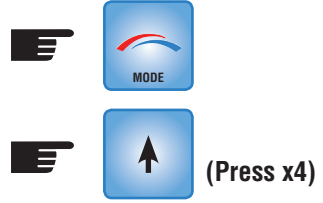
To return to Operational Mode either wait for the 15 second timeout or press MODE



Note: Reset default for minimum temperature is 5°C

FILTER STATUS

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



Filter
Status



Filter
4% Used



Filter
Status

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



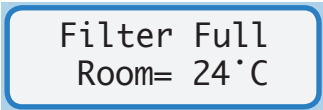
When the filter is 100% used then it should be replaced. Please phone the customer service number (09) 259 1662 to be directed to your nearest outlet to purchase a replacement filter.

The Smart-Vent controller flashes the 'change filter' light on the control panel when the filter is full.

Change Filter Light flashing



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

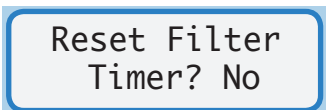
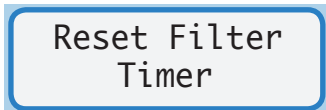


Once a new filter has been installed it is a simple matter of resetting the filter usage to 0% through the Setup Mode.

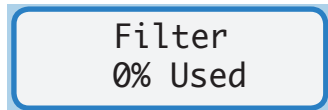
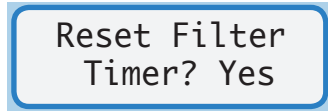
When the filter has reached 100% an additional operation becomes available in the Setup Mode to reset the filter.



(Press x5)



Use the  and  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.

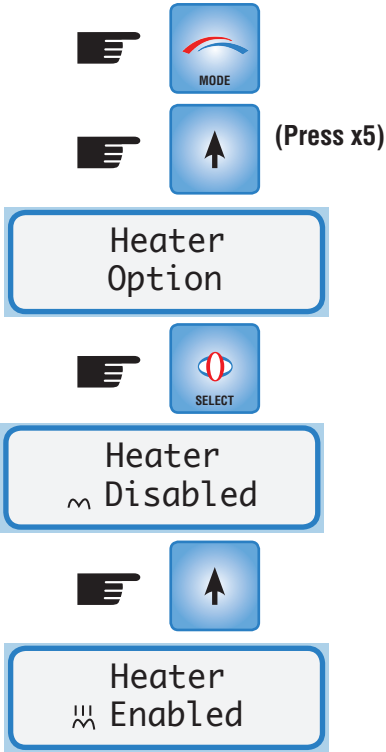
A Smart-Vent system operating on low speed will take approx 1¹/₂ years before reaching 100% filter usage. Personal fan speed preferences will affect the % filter usage rate.

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 



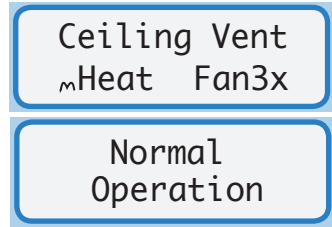
Heater is now enabled in Normal Mode. Return to Operational Mode by pressing MODE or 15 second timeout


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

Heater
...no heater ph (09)259-1662

This informs the householder that they will need to phone customer service 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 turning the fan on screen two in Operational 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.

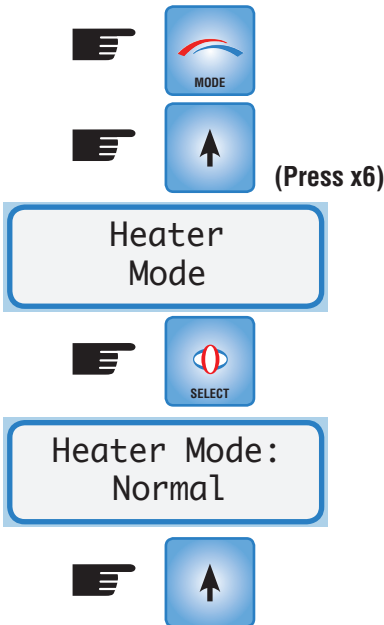
- Normal Mode, where the heater is turned ON and OFF depending on the ceiling temperature in relation to the minimum temperature.

- **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.

OVERVERRIDE HEATER MODE

This mode operates independently of the temperature in the ceiling. The householder can enter this mode if the heater is enabled and choose the heater to 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.





Heater Mode:
Override



Heater ON:
for 1 hour



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

Heater ON:
for 2 hours



Heater ON:
for 4 hours



Heater ON:
for 6 hours



When a choice has been made press SELECT

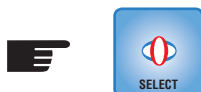


Smart-Vent will turn ON the heater at fan speed 2 when the controller returns to Operational Mode. Screen three in Operational Mode will display:

Heater On
Override

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

Heater
Mode



Heater Mode:
Normal



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:



Heater
Mode



Heater Mode:
Normal



Heater Mode:
Override



Heater ON:
for 1 hour



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

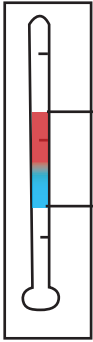
TIMER MODE

The purpose of Timer Mode is so the householder can set certain times when the Smart-Vent 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

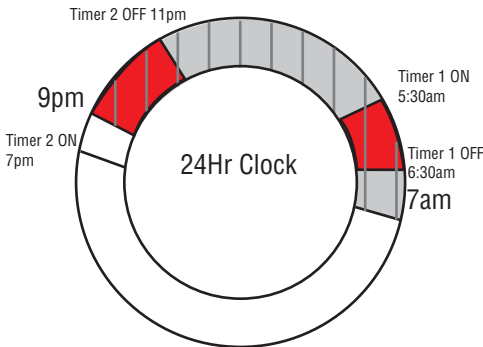
hours of 3am and 7am. In Normal Mode the heater (if enabled) would come ON during this time. However if the householder only wants the heater on only between 5:30am and 6:30am, then the householder can set the Timer Mode to achieve this.



Maximum temp. setting
Above Minimum the heater is OFF

Minimum temp. setting
Below Minimum temp. setting
Heater On only between
5:30am - 6:30am in Timer Mode

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

Heater Mode



 

Use the  and  buttons to step to Timer Mode:

**Heater Mode:
Timer Mode**



 

**Set ON Time
05:30**

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

**Set ON Time
05:30**

The minutes flash. Use the  and  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  and  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  and  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 Operational Mode shows

Heater On
Timer Mode

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

Heater
Mode



Heater Mode
Normal



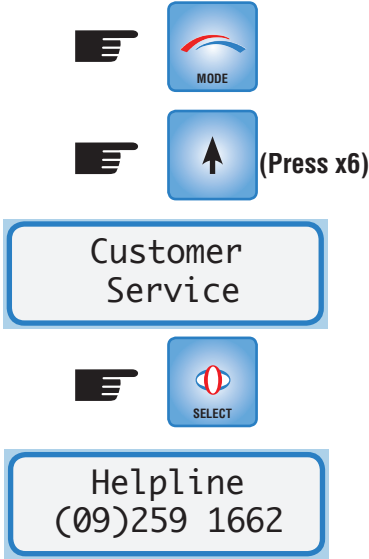
Heater returns to Normal Operation. Pressing Reset will also return the heater to Normal Operation.

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 Smart-Vent controller a contact number is conveniently stored in setup mode.

To access the help-line press MODE:



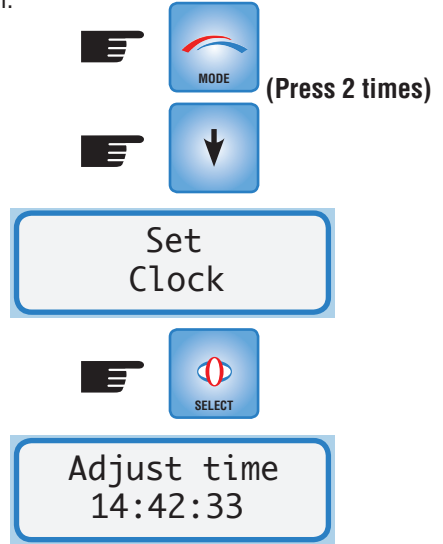
Press SELECT or MODE to exit.



SET REAL TIME CLOCK

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



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

Use the and buttons to set the correct hours, then press SELECT:



Then the minutes will blink.

Use the and buttons to set the correct minutes, then press SELECT:



Then the seconds will blink.

Use the  and  buttons to set the correct seconds, then press SELECT:



Adjust date
30/01/07

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:



Adjust day
Tue

Use the  and  buttons to set the day, then press SELECT:



Set Clock

The real time clock has been set. Return to Operational 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:

Clock Error

This can be fixed by resetting the clock as described above.

- 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

Note: Only applies to Non-Summer-Vent models (SV01, SV02, SV04 & SV06). Does not apply to Summer-Vent models (SV02S, SV04S & SV06S).

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 warm air into your warm home in summer.

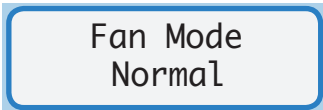
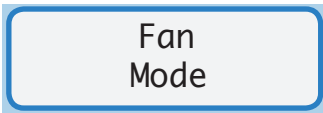
Fan Mode controls the operation of the fan when the ceiling temperature exceeds the system maximum temperature setting. This feature is enabled when the user does not want the system to operate when the air in the ceiling space exceeds 35°C for example.

To disable the fan above maximum temperature:

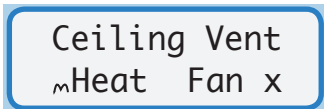
To access the Fan Mode press:



(Press x 1)



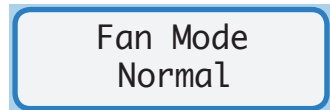
The Fan Mode has been set. Return to Operational Mode by pressing MODE. If the maximum temperature threshold has been exceeded then the Normal Operating Mode shows the fan icon as stationary & no fan speed number.



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

The fan will now turn OFF when the Ceiling cavity temp. rises above your maximum temperature. Repeat the procedure if you want your fan to continue working when the ceiling cavity temperature exceeds your maximum temperature setting.

To enable the fan to work above maximum temperature:

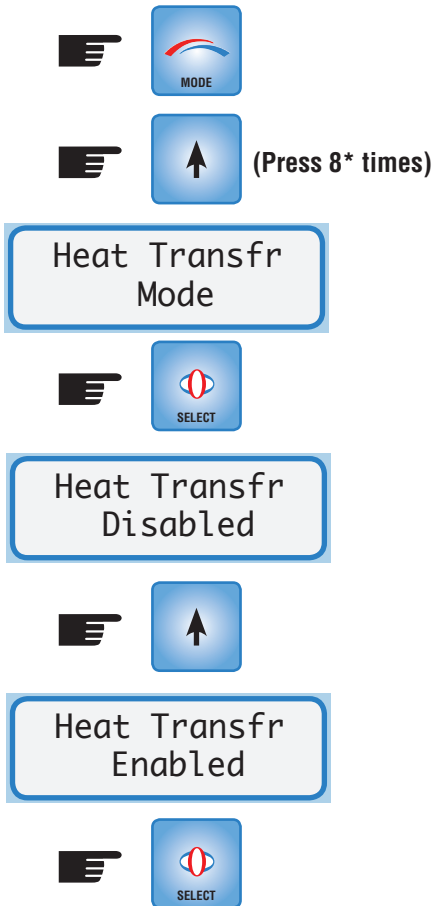


In the 'Normal' setting the fan continue as normal when the ceiling cavity temperature rises above your maximum temperature setting.

HEAT TRANSFER MODE

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 ceiling cavity or outside the house and instead transfers excess warmed air from the heat source room to the other Smart-Vent outlets in your home.

To enable heat transfer enter Setup Mode:



* Press 8 times if heater is 'disabled' or 9 times if heater is 'enabled'

Heat Transfer is now enabled. Return to Operational 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:

Heat Transfr
...no heat transfer option ph (09)259-1662

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:

Heat Vent
mHeat Fan3x

Heat Transfr
Operation

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.

Please continue to the System Comfort Temperature function to set up your Heat Transfer system settings.

SYSTEM COMFORT TEMPERATURE

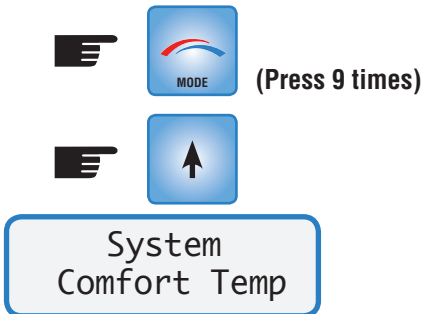
When the Heat Transfer Mode has been 'enabled', the controller uses the temperature sensed (the comfort temperature) at the wall panel controller to control the transfer of air from this heated room.

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

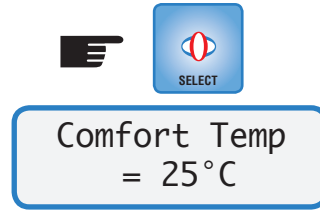
When the temperature in the controller room reaches the pre-set comfort temperature the system will automatically start functioning in the Heat Transfer Mode. When the temperature in the controller room drops 1°C below the preset comfort level, the system reverts back to a standard SmartVent™ configuration.

Note: The default setting and reset setting for the 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:



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



Use the  and  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 Operational 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.

6.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
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

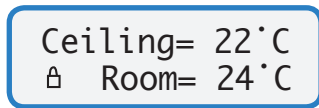
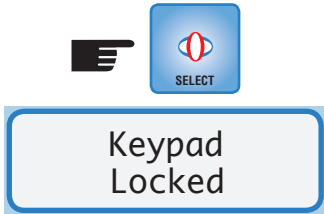
Note: RESET does not function when Smart-Vent is in the OFF mode

Home-Vent
OFF

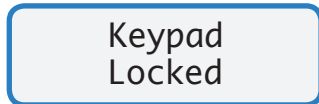
7. Keypad Lock Function

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

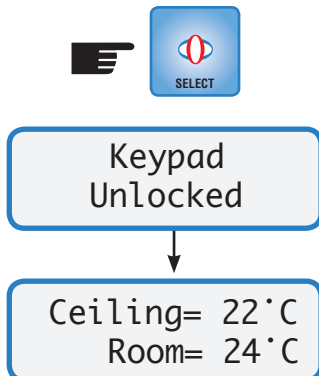
To prevent the keys from being accidentally pressed, press and hold SELECT until the controller beeps x4



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



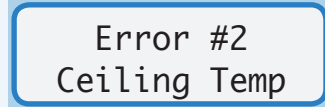
Normal Operation is then restored and the padlock icon vanishes.

8. Error Functions

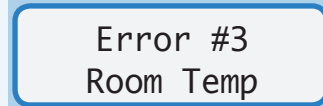
The Smart-Vent system monitors the communications and performance of the system.



If the Smart-Vent 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 no-critical for the operation of the Smart-Vent.

**However in all cases please contact Securimax for technical support
ph (09) 259-1662**



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