

















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1. INFORMATION ON YOUR SYSTEM

Synergy consists of supply airflow, extract airflow and a Heat Exchanger. A balanced system is created by extracting stale moist air from the home and, at the same time, introducing fresh filtered dry air into the home. The two-air paths flow through a Heat Exchanger which is situated in the roof cavity. As the airflows pass by each other, up to 90% of heat from the extracted air is transferred to the incoming air which is delivered into the home. Synergy offers a 24 hour, 7 day a week ventilation system that truly recovers heat and ultimately saves you money in heating and cooling your home.

The state-of-the-art controller offers you complete control of your system including:

- 9 Fan Speeds
- Heat Transfer and Summer By-Pass Modes
- Comfort Temperature range and Humidity settings
- Heater Settings (if installed)

The controller also gives you up-to-date readings on:

- A range of Temperatures
- Relative Humidity Readings
- Energy and Dollars recovered
- Carbon Footprint
- Moisture removed from the home

2. GETTING STARTED

To get started you must set up your Synergy system by completing the following steps:

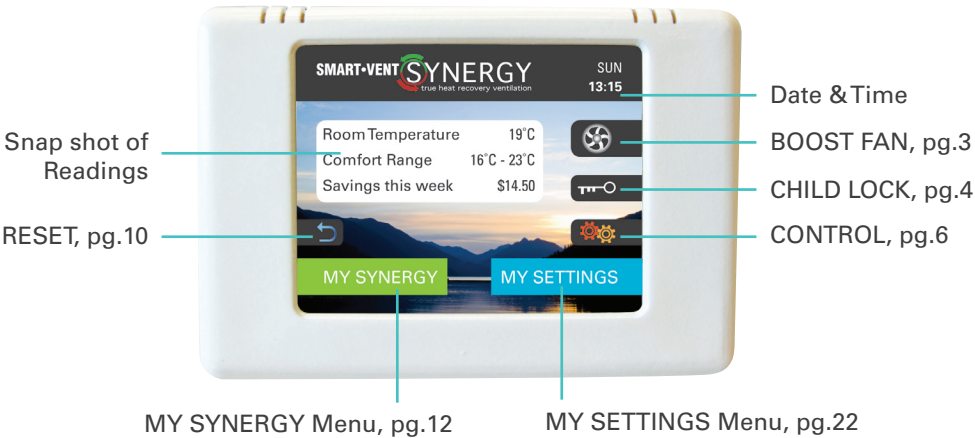
- | | |
|--|-------------------------------------|
| 1) Enter your 'House Size' | Go to page 27 to set this up |
| 2) Enter your 'Electricity Costs' | Go to page 29 to set this up |
| 3) Set up the Clock | Go to page 37 to set this up |

Once these 3 settings are entered you can continue to learn more about your system using this User Manual.

3. HOME PAGE

The Home Page (pictured below) is where you enter all other pages from and provides you with a snap shot of the following readings:

- ▶ **Room Temperature:** Your current Room Temperature as read from your Controller.
- ▶ **Comfort Range:** Your set temperature range that you find comfortable to live in.
- ▶ **Savings this week:** How much money you have saved this week through running your Synergy System over a Positive Pressure System.



To enter any of these pages just press on the tab or icon.

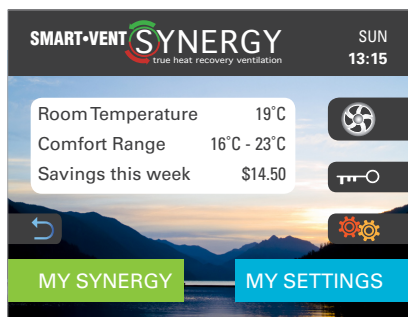


Note:

'Date & Time' and 'Snap shot of Readings' are for your information only and can not be entered into.

The Boost Fan function is used to increase Synergy's fans to their maximum speed for a 15 minute interval. Useful when the home environment is experiencing a build up of toxins (e.g. cigarette smoke, cooking smells) or high levels of humidity in specific areas of the house.

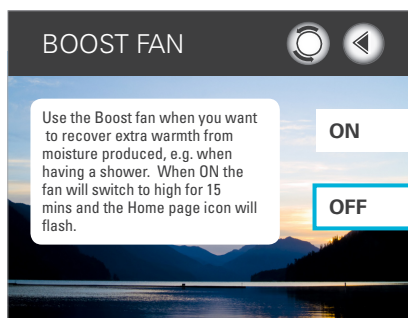
To enter the Boost Fan mode, press the 'fan' icon on the Home page:



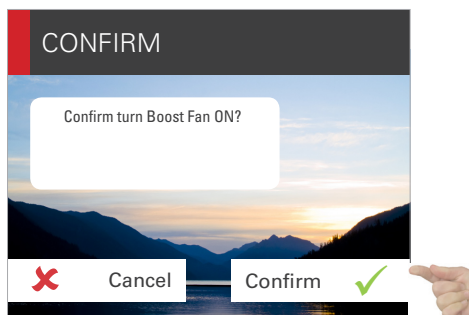
The BOOST FAN page will show the status of the Boost Fan. It is OFF when the OFF tab is highlighted with a blue border.

To activate the Boost Fan

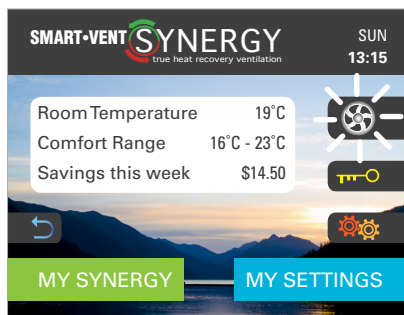
Press the ON tab:



A CONFIRM page will prompt you to confirm your decision. Press Confirm to turn Boost Fan ON:



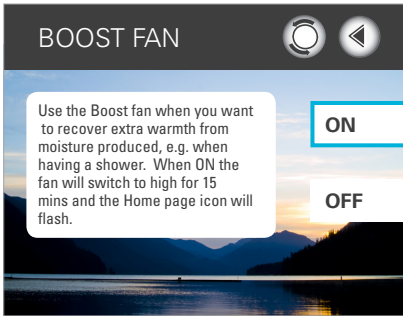
Once confirmed, the Home page will display with the 'fan' icon flashing on/off every half second. This icon will continue to flash for 15 minutes while the fan is in Boost mode. After 15 minutes the fan icon will stop flashing and the fans will return to their last fan speed setting.



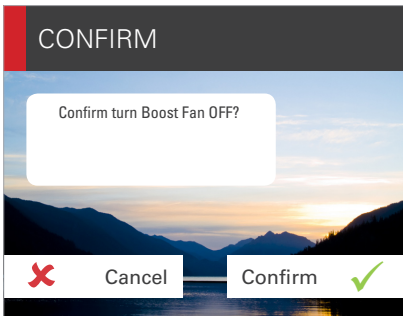
To deactivate the Boost Fan when ON

The Boost Fan can be deactivated before the 15 minutes have expired. Press the flashing 'fan' icon, this will take you to the BOOST FAN page. This page will show the ON tab highlighted with a blue border.

Press the OFF tab:



A CONFIRM page will prompt you to confirm your decision. Press Confirm to turn Boost Fan OFF:

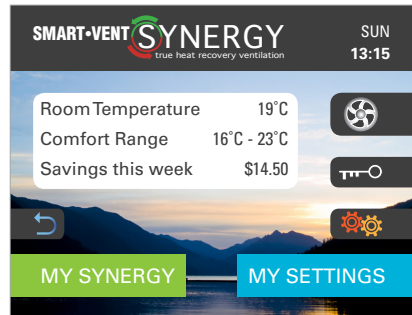


Once confirmed, you will return to the Home page where the fan icon will no longer be flashing.

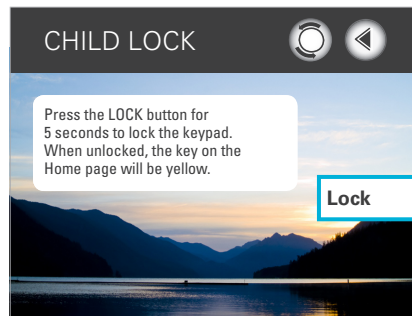
Prevents those 'little fingers' from changing details on your controller. When in Child Lock mode, the Touch Screen will not respond to anything other than a direct touch of the Child Lock 'key' icon.

To activate Child Lock

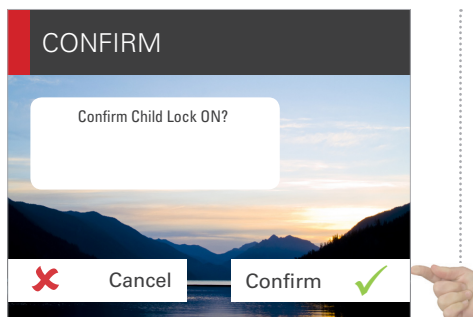
Press the 'key' icon (coloured white) on the Home page:



The CHILD LOCK page will display. Press the Lock button for 5 seconds to place Synergy in Child Lock mode, as you press 'Lock' you will hear a beeping sound for the 5 seconds.



After a 5 second time period a CONFIRM page will prompt you to confirm your decision. Press Confirm to Lock the controller screen:



Once confirmed, the Home page will resume.

Note:

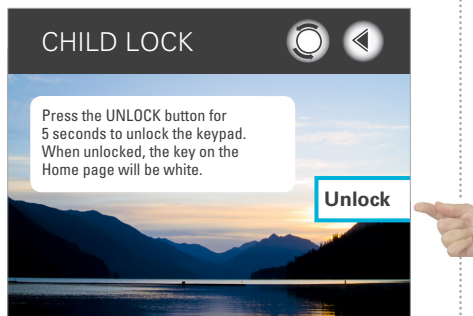
The 'key' icon on the Home page has now turned yellow to indicate Synergy is locked.

If the screen is pressed in Child Lock mode a display appears saying the system is locked and how to restore it to normal operation:

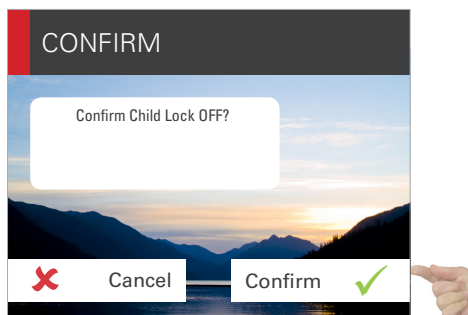


To unlock the Controller

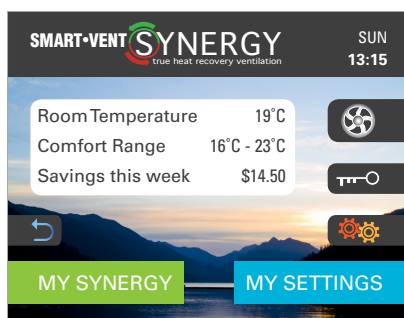
Press the yellow 'key' icon and the CHILD LOCK page will appear:



Press the Unlock button for 5 seconds to disable the Child Lock mode. After a 5 second time period a CONFIRM page will prompt you to confirm your decision. Press Confirm to Unlock the Controller screen:



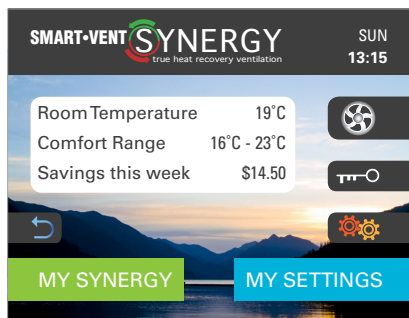
Once confirmed, the Home page will display and Synergy will be returned to normal with the Child Lock 'key' icon white, not yellow:



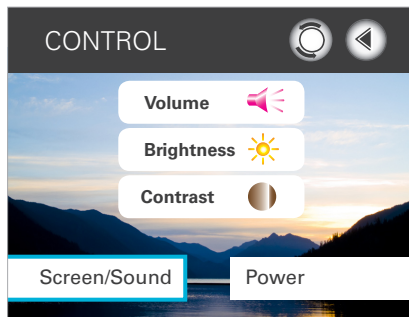
The CONTROL page allows you to:

- ▶ Adjust the controller speaker volume level
- ▶ Adjust screen contrast & brightness
- ▶ Turn Synergy ON and OFF

To access these settings, press the Control 'cogs' icon on the Home page:



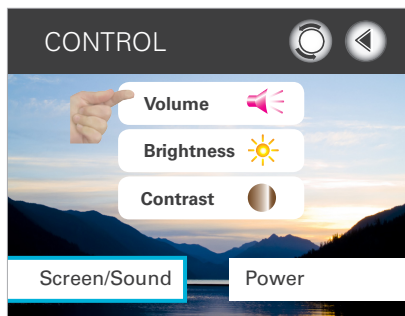
and the CONTROL page is will appear:



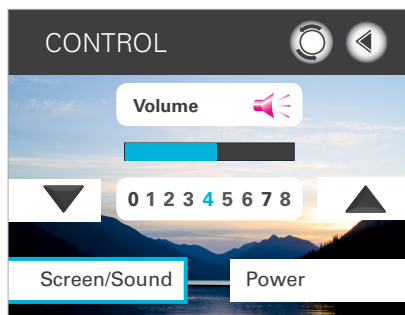
The Screen/Sound tab is highlighted indicating the CONTROL Page which displays the Volume, Contrast and Brightness is active.

VOLUME

To adjust the speaker volume, press the Volume button:



and a new CONTROL page will appear with an up and down arrow and a sliding scale of 0 to 8:



Press the black arrows to adjust the speaker level. At every press of the button the speaker will sound at the new volume level. 0 setting turns the speaker volume OFF and 8 is the loudest.



Press the Back page button to return to the Screen/Sound CONTROL page,



or the Home button to return to the Home Page at any time.

Note:

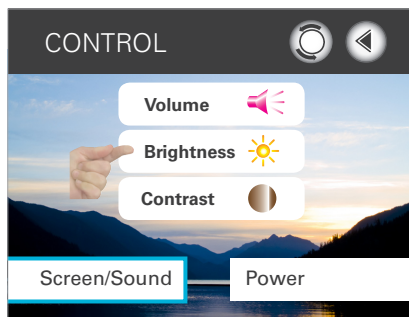


When speaker volume is OFF, a 'mute' icon will appear on the Home page.

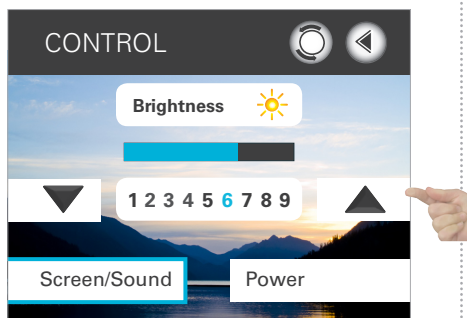


BRIGHTNESS

To adjust the screen Brightness, press the Brightness button:



and a new CONTROL page will appear with an up and down arrow and a sliding scale of 1 to 9:



Press the black arrows to adjust the screen's Brightness level. Level 1 is the darkest and level 9 is the brightest.



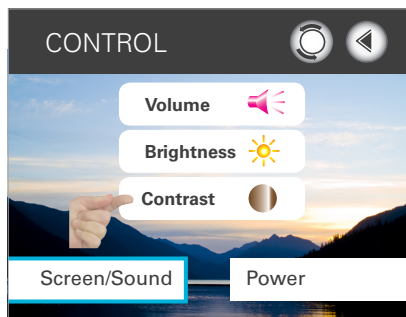
Press the Back page button to return to the Screen/Sound CONTROL page,



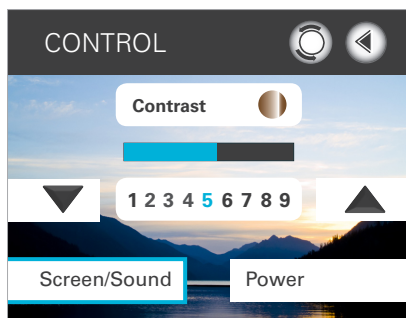
or the Home button to return to the Home Page at any time.

CONTRAST

To adjust the screen Contrast, press the Contrast button:



and a new CONTROL page will appear with an up and down arrow and a sliding scale of 1 to 9:



Press the arrows to adjust the screen's contrast level. Level 1 gives the least contrast and level 9 the highest.

Note:

The best screen display is a subjective mixture of both Brightness and Contrast controls.



Press the Back page button to return to the Screen/Sound CONTROL page,



or the Home button to return to the Home Page at any time.

Note:

Reset returns the brightness, contrast and sound to mid level.

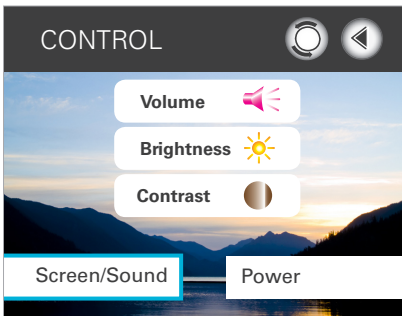


POWER

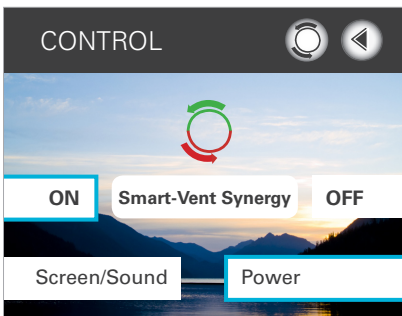
Turning Synergy OFF

When Synergy is turned OFF, all heat recovery, ventilation and heat transfer will stop. All your customised settings and accumulative Energy savings will be remembered for the next time you turn the system ON. This excludes the Heater Override mode; if this mode is currently ON with time remaining, the system will turn the heater OFF and revert back to Heater Timer or Normal mode and not the Override mode.

To turn your Synergy system OFF, press the Power button:

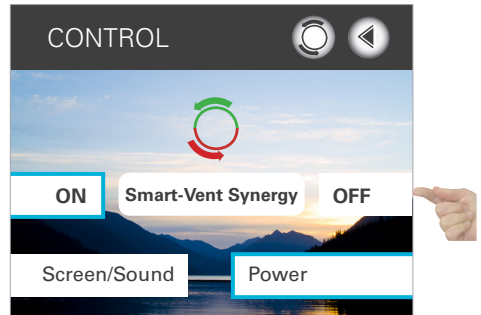


and a new CONTROL page will appear:

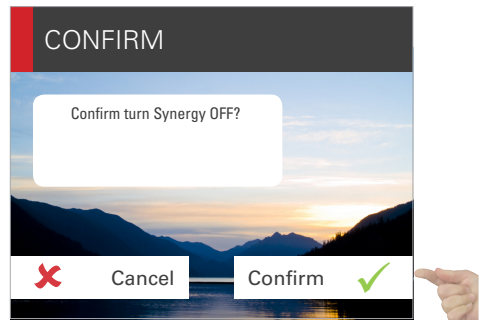


The ON button will be highlighted blue and the Synergy logo will be coloured green and red, indicating Synergy is currently ON.

Press the OFF button:



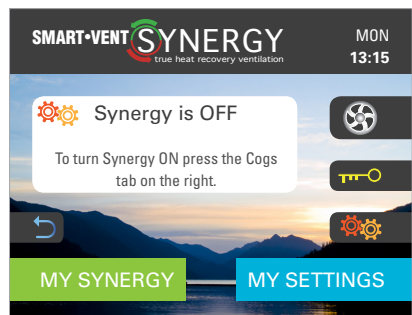
and Synergy will automatically prompt you to confirm your decision:



Note:

*Press Cancel if you wish to return to the Home page **without** turning Synergy OFF.*

Once confirmed the display will revert to a modified Home page:



The screen will not respond to anything other than a direct touch to the Control 'Cogs' icon:



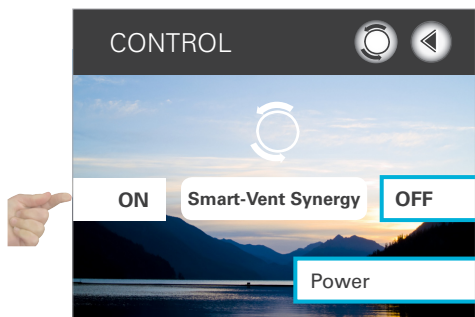


Turning Synergy back ON

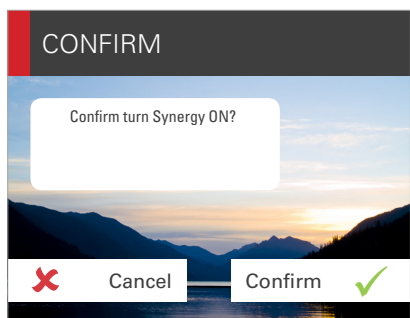
Press the Control 'cogs' icon to access the CONTROL page:



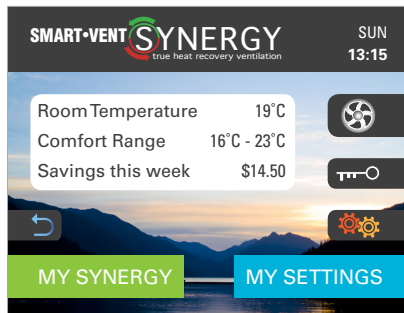
and the CONTROL pages will appear showing the status of Synergy as OFF. The OFF button will be highlighted blue, the Synergy logo will be white and the Screen/Sound tab will be absent:



Press the ON button and Synergy will automatically prompt you to confirm your decision:



Once confirmed, the Home page will display and Synergy will be switched back ON, restoring all your previous MY SETTINGS.



When Synergy is first installed, the operating system defaults to set conditions. Most importantly, the in-line tempering heater (if installed) is disabled.

The following is the status of Synergy when Reset or when first installed:

- ▶ **Minimum temperature:** 18°C
- ▶ **Maximum temperature:** 26°C
- ▶ **Humidity:** 75%
- ▶ **Sensor Control:** Touch Screen Sensor
- ▶ **Clock*:** 00:00 (Hr:Min), MONDAY
- ▶ **Energy Cost:** \$0.20 / kWh
- ▶ **Heat Transfer Mode:** Disabled
- ▶ **Summer By-pass Mode:** Disabled
- ▶ **House Size:** 210m² - 240m²
- ▶ **Fan Speed:** Speed 5 (0.35 air changes per hour)
- ▶ **Heater:** Disabled (if installed)
- ▶ **Speaker Volume:** Level 4 (medium)
- ▶ **Contrast:** Lever 5 (medium)
- ▶ **Brightness:** Level 5 (medium)
- ▶ **Automatic Boost Fan:** Enabled

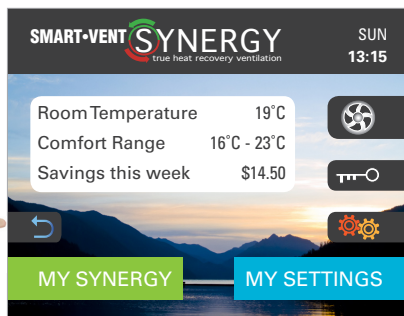
** A system RESET will not reset the Clock to zero, this only occurs when first installed.*

Synergy can be RESET at any time. This procedure enables you to restore the system to the known values above BUT all customised settings will be lost as a result of this action.

Note:

*The filter usage and Energy recovered totals are **not** affected by a system RESET and will revert back to the readings prior to the system being reset.*

To RESET Synergy, press the RESET icon on the Home page:

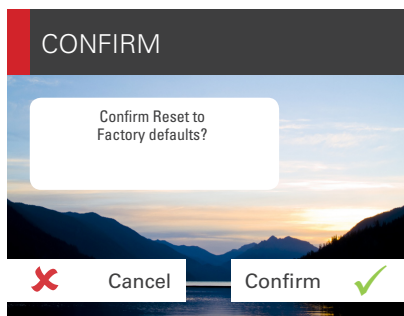


and the SYSTEM RESET page will appear:



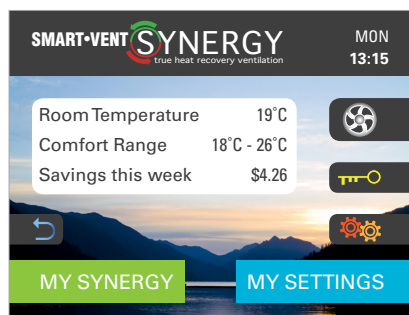
Press the 'RESET' button down for 5 seconds to RESET Synergy. As you press 'RESET' you will hear a beeping sound every second.

After 5 seconds a CONFIRM page will automatically appear. Press Confirm to RESET your Synergy system:





To check that the RESET was successful check that the Home page shows the Comfort Range as being 18°C - 26°C (minimum and maximum temperature settings):









or check that the status of your MY SETTINGS agree with those specified on the previous page,(e.g. Energy Cost = \$0.20 / kWh).

4. MY SYNERGY

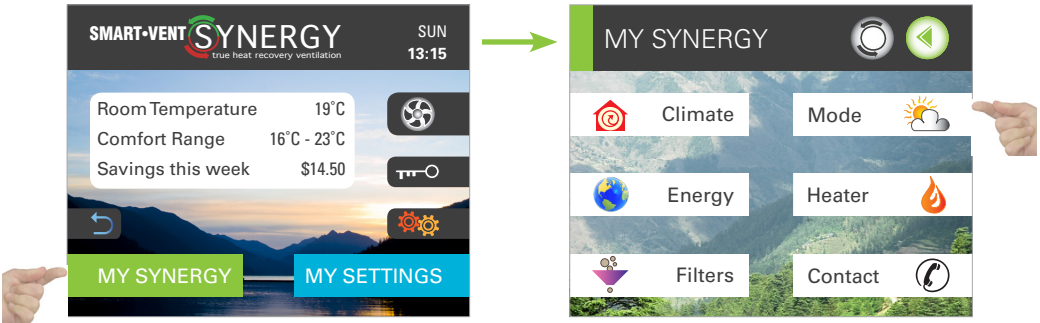
MY SYNERGY

Pages within the MY SYNERGY menu are designed to present you with a summary ‘snap-shot’ of your Synergy system. The information contained within these pages can not be altered, they contain decisions you have made using the MY SETTINGS pages as well as readings and calculations made by the system.

MY SYNERGY MENU provides six different information pages:

	Climate	13		Mode	19
	Energy	15		Heater	20
	Filters	17		Contact	21

To enter into one of these pages simply press the MY SYNERGY tab on the Home page and then again on the related tab:



Note:
All MY SYNERGY pages have a Green coloured theme running throughout the pages; they all have a green strip at the top left of each page and use a green coloured outline when distinguishing between pages within a section.

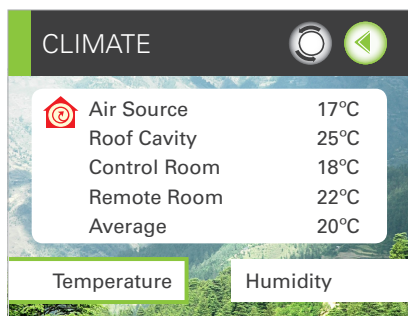
MY SYNERGY CLIMATE

An information page providing you with up-to-date readings on Temperature and Relative Humidity readings.

To access MY SYNERGY CLIMATE press the Climate tab on the MY SYNERGY Menu page:



and the CLIMATE page will appear showing your current temperature readings:



The Temperature tab is highlighted with a green border to indicate that this is the active page.

TEMPERATURE

- ▶ **Air Source:** temperature of the incoming air, either from outside or from the Roof Cavity (depending on your Heat Transfer mode setting).
- ▶ **Roof Cavity:** air temperature measured at the Heat Exchanger in your roof space.
- ▶ **Control Room:** air temperature measured at the Colour Touch Screen controller.
- ▶ **Remote Room:** If you have installed the Remote Sensor which is an optional component (Order Code FAN2047) then the temperature in the room where the Remote Sensor Panel is installed will be displayed.
- ▶ **Average:** If you have installed the Remote Sensor which is an optional component (Order Code FAN2047) then this temperature reading is the average of the Control Room and Remote Room.

Temperatures are measured in degrees Celsius.

Note:

The Remote Room and Average temperatures will only show if the optional Remote Sensor is installed: Order Code: FAN2047)



Press Home to return to the Home page at any time

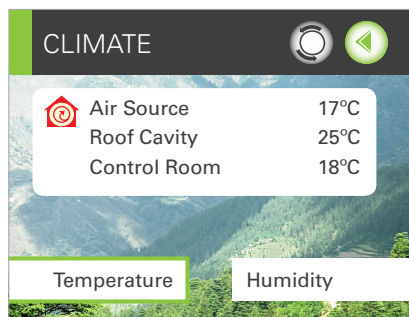


Press Back button to step back to the MY SYNERGY Menu page

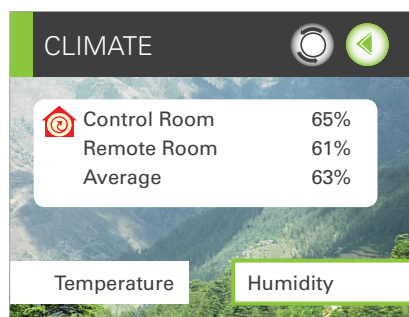


HUMIDITY

To view the Relative Humidity page, press the Humidity tab:



The Humidity tab is now highlighted with a green border to indicate that this is the active page.



- **Control Room:** relative humidity measured at the ColourTouch Screen controller.
- **Remote Room:** If you have installed the Remote Sensor which is an optional component (Order Code FAN2047) then the relative humidity in the room where the Remote Sensor Panel is installed will be displayed.
- **Average:** If you have installed the Remote Sensor which is an optional component (Order Code FAN2047) then this humidity reading is the average of the Control Room and the Remote Room.

Relative Humidity is measured in percentages, please refer to the Glossary of Terms (page 42) for a more detailed explanation on Relative Humidity.

Note:

The Remote Room and Average temperatures will only show if the optional Remote Sensor is installed: Order Code: FAN2047



Press Home to return to the Home page at any time

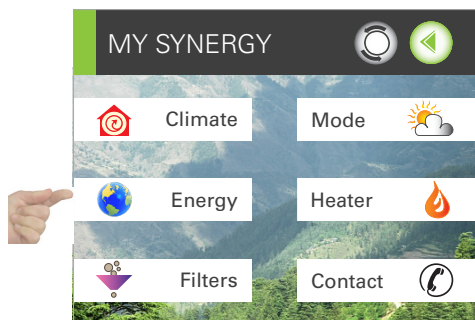


Press Back button to step back to the MY SYNERGY Menu page

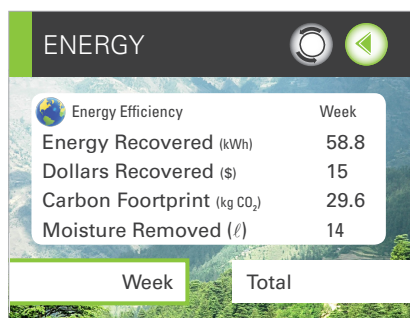
MY SYNERGY ENERGY

An information page which displays the amount of energy which has been recovered by your Synergy system for the Week (starting as of Monday) and Total (starting from installation or last Energy Reset).

To access MY SYNERGY ENERGY press the Energy tab on the MY SYNERGY Menu page:



and the ENERGY page will appear displaying your Weekly Energy Totals:



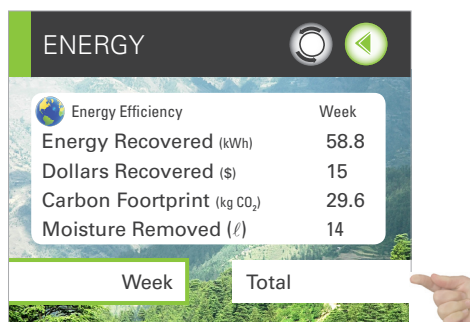
The 'Week' tab is highlighted with a green border to indicate that this is the active page.

Note:

A 'Week' begins at midnight on Sundays

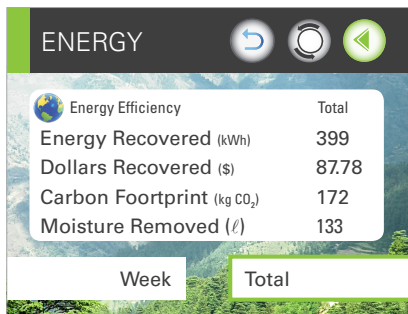
- **Energy Recovered:** The estimated amount of energy recovered by your Synergy System, measured in kilowatt hours. This is calculated from the temperature difference between the inlet and exhaust air streams within the Heat Exchanger core.
- **Dollars Recovered:** The estimated amount of money saved by your Synergy system. This is calculated from your entered ENERGY COST in MY SETTINGS (refer to page 29 to set this up) and the Energy Recovered.
- **Carbon Footprint:** The total estimated amount of CO₂ which has NOT been emitted into the atmosphere from a mixed-fuel power station due to the energy that has been recovered by Synergy. This is measured in kilograms of CO₂.
- **Moisture Removed:** The estimated volume of water which has been removed from your home, which would otherwise accumulate as condensation and cause damage to the home environment. This is measured in litres.

To view your Total Energy savings, press the Total Tab:





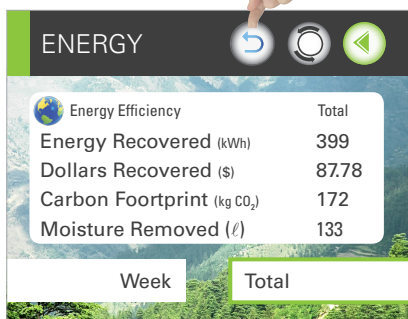
and the Total Energy page will appear:



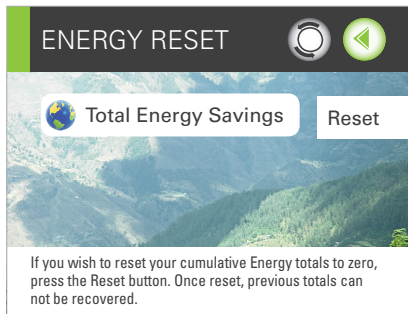
To Reset your Total Energy savings

At times, you may wish to reset your Total Energy values, such as at the end of each month or at the beginning of a new season. This will reset all values back to zero.

Press the RESET button at the top of the page:



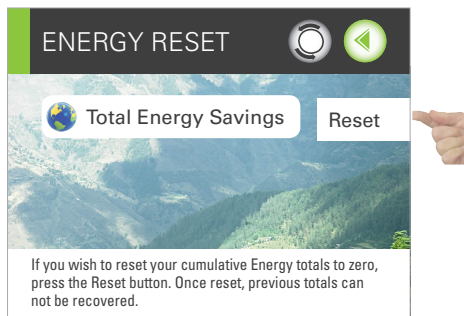
and the ENERGY RESET page will appear:



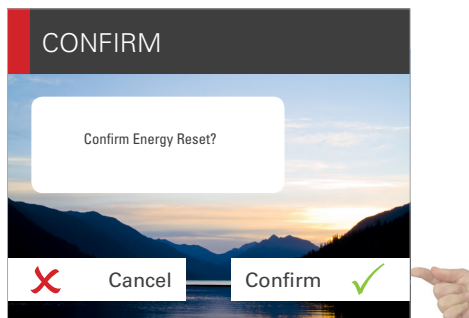
Note:

When you reset your Total Energy Savings, these values will be deleted from Synergy's memory and you will be unable to recover them. All Total values will be reset to zero. Weekly totals will be unaffected.

Press the RESET button on the right hand side:



A CONFIRM page will appear asking you to confirm your decision:



Press Confirm to Reset your Total Energy Savings and return to the ENERGY Week page.



Press Home to return to the Home page at any time

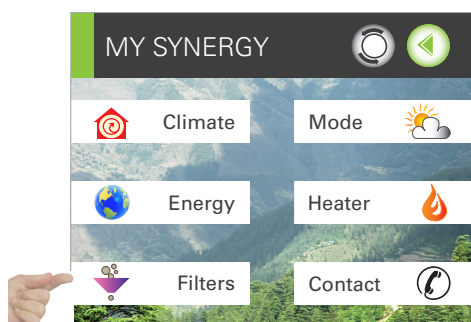


Press Back button to step back to the MY SYNERGY Menu page

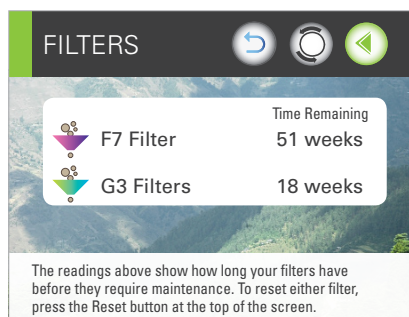
MY SYNERGY FILTERS

An information page displaying the usage of your 2 x G3 and 1 x F7 filters in terms of weeks remaining before they require either cleaning or replacing.

To access MY SYNERGY FILTER press the Filters tab on the MY SYNERGY Menu page:



and the FILTERS page will appear:



- ▶ **F7 Filter:** The F7 filter replacement time is 52 weeks (1 year). Refer to page 38 for replacement instructions.
- ▶ **G3 Filters:** The G3 filters are both located in the Heat Exchanger which should be cleaned every 26 weeks (6 months) and replaced every 3 to 4 years. Refer to page 39 for maintenance instructions.

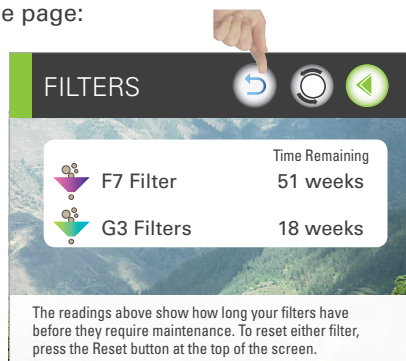
To Reset your Filters

The Filter Resets are to be used when you have cleaned or replaced your filters and wish to reset the filters back to empty/new. This will reset the replacement time back to the start. Refer to page 38 for further information on replacing and cleaning your filters.

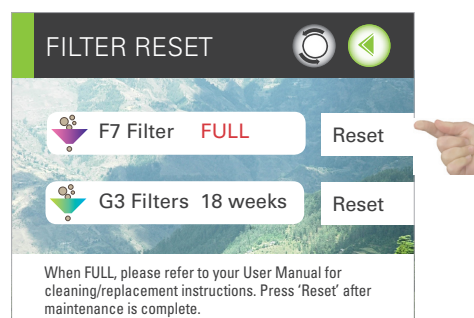
Note:

DO NOT reset the filter before the filters have been cleaned or replaced as this will void your warranty.

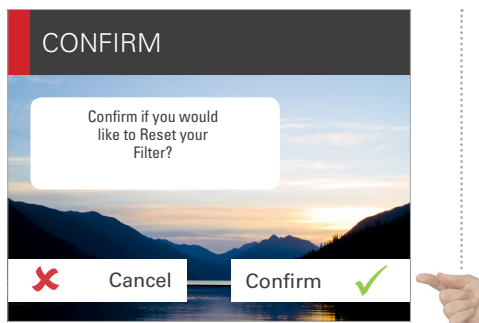
Press the RESET button at the top of the page:



Press the 'Reset' tab adjacent to the Filter(s) you wish to Reset:



A CONFIRM page will appear asking you to confirm your decision:



Press Confirm to Reset the filter(s) and return to the FILTERS page.



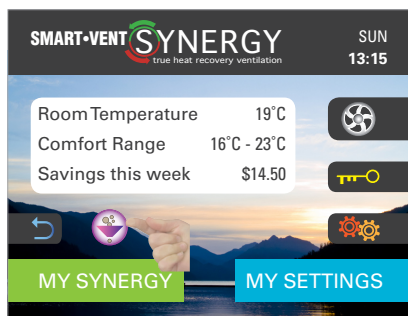
Press Home to return to the Home page at any time



Press Back button to step back to the MY SYNERGY Menu page

Note:

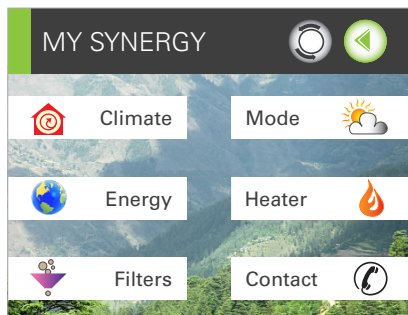
A Filter Replacement button will appear on the HOME PAGE when either filter requires cleaning or replacing. Press the button to take you directly to the FILTER RESET page and follow the maintenance instructions on Page 38 .



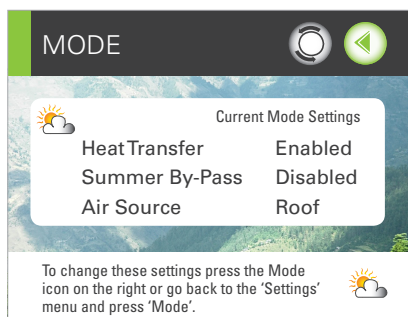
MY SYNERGY MODE

An information page providing the status of the Heat Transfer and Summer By-Pass modes. These will be displayed as either 'Enabled' or 'Disabled' as read from your set preferences in the MY SETTINGS MODE pages (refer to Page 30 to set these up).

To access MY SYNERGY MODE press the Mode tab on the MY SYNERGY Menu page:



and the MODE page will appear:



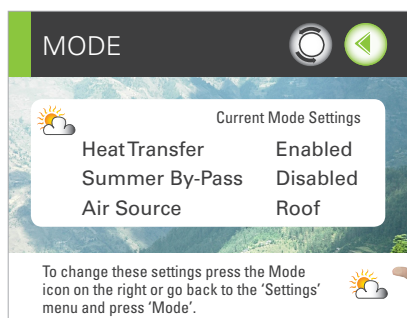
- **Heat Transfer:** When this mode is enabled, excess heat will be transferred from your living area to the rest of your home, via the Heat Exchanger, whenever your Maximum Temperature setting is exceeded, but heat will not be transferred back into the living area.

- **Summer By-Pass:** When this mode is enabled, inlet air will by-pass the Heat Exchanger core, therefore no heat will be transferred to incoming air.
- **Air Source:** This is where the air is being sourced from; either the Roof Cavity or Outside.

Note:

Please refer to the Glossary of Terms on page 42 for an explanation on the above modes.

The status of the modes can be altered by pressing the Mode icon in the bottom right hand corner of the MODE page.



This jumps you straight to the MY SETTINGS MODE page. The status of the Heat Transfer and/or Summer By-Pass can now be altered. Refer to the MY SETTINGS MODE section for details on how to change these modes (page 30).



Press Home to return to the Home page at any time

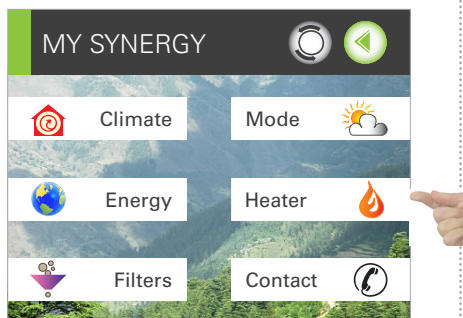


Press Back button to step back to the MY SYNERGY Menu page

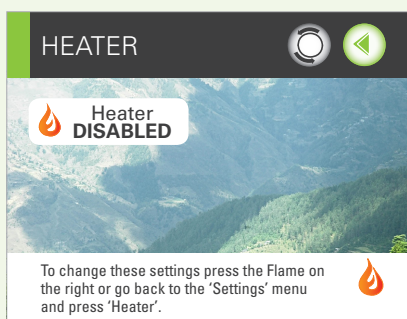
MY SYNERGY HEATER

An information page providing the status of your heater (if installed), showing whether the heater is ON or OFF and (if ON) which of the 3 modes (Normal, Override or Timer) is active. This information reads directly from your settings in the MY SETTINGS HEATER pages (refer to page 33 to set these up).

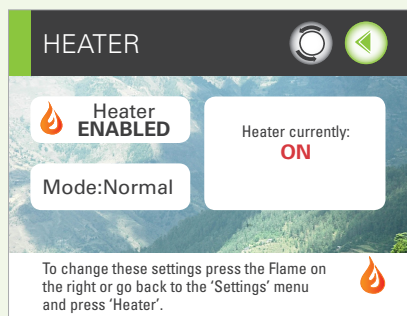
To access MY SYNERGY HEATER press the Heater tab on the MY SYNERGY Menu page:



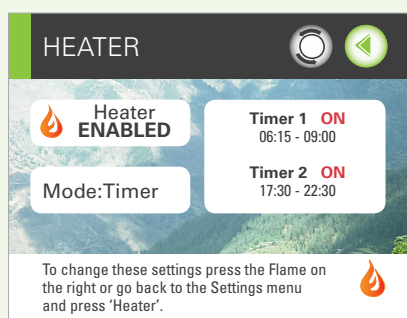
and a HEATER page will appear: Shown below are samples of possible heater pages:



In this example the heater has been 'disabled' which means under no circumstances will the heater turn on.



In this example, the heater is enabled and active (ON) and operating in **Normal** mode, which means the heater turns ON when the Room temperature falls below your minimum temperature setting.

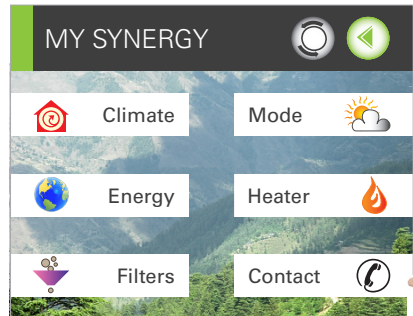


In this example the heater is in **Timer** mode with it programmed to turn ON at 6:15hrs and OFF at 9:00hrs on Timer 1, and then ON again at 17:30hrs and OFF at 22:30hrs on Timer 2, provided the room temperature is below your minimum temperature setting.

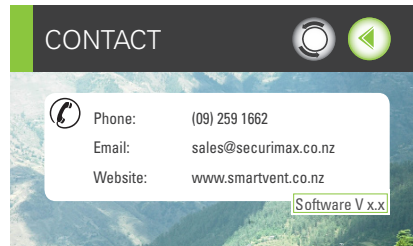
MY SYNERGY CONTACT

An information page listing several contact modes for technical assistance and advice on your Synergy System.

To access MY SYNERGY CONTACT press the Contact tab on the MY SYNERGY Menu page:



and the CONTACT page will appear:



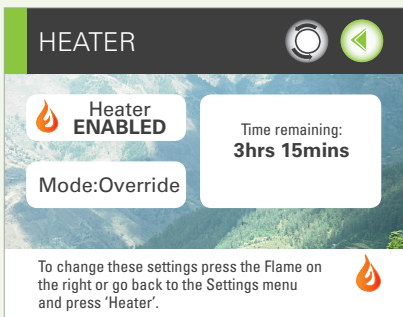
For any questions on your system please first refer to your Users Manual, otherwise use one of the above points of contact.

To assist with any questions you may have regarding your Synergy Controller, please use one of the following points of contact, (quoting your Software Version number):

Phone: (09) 259 1662

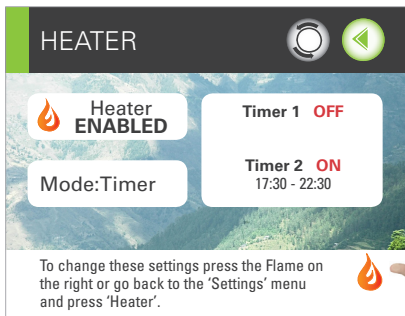
Email: sales@securimax.co.nz

Website: www.smartvent.co.nz



In this example the heater is in **Override** mode and there is currently 3 hours and 15 minutes remaining of the ON time, irrespective of room temperature.

The status of the heater modes can be altered by pressing the Heater icon in the bottom right hand corner of the HEATER page.



This jumps you straight to the MY SETTINGS HEATER page. The status of the Heater can now be altered. Refer to the MY SETTINGS HEATER section for how to change these settings (page 33).



Press Home to return to the Home page at any time









Press Back button to step back to the MY SYNERGY Menu page

MY SETTINGS

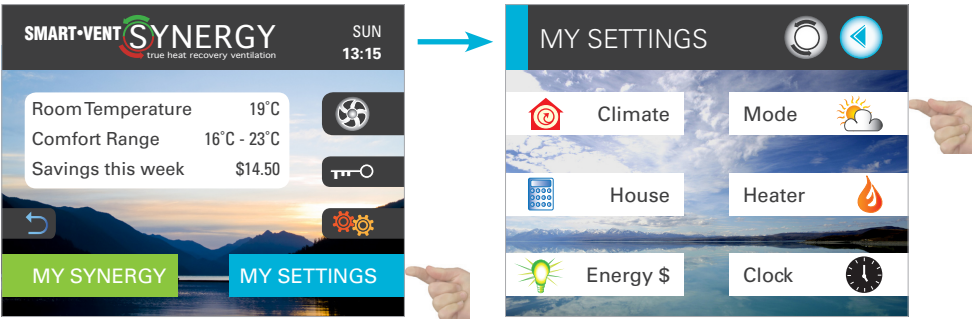
MY SETTINGS

MY SETTINGS pages are the control pages where you setup your Synergy system to your desired settings. Every time you change settings within MY SETTINGS it automatically changes your MY SYNERGY pages where applicable.

MY SETTINGS MENU provides six different setting pages:

	Climate	23		Mode	30
	House	27		Heater	33
	Energy Cost	29		Clock	37

To enter into one of these pages simply press the MY SETTINGS tab on the home page and then again on the related tab.



Note:
All MY SETTINGS pages have a Blue coloured theme running throughout the pages; they all have a blue strip at the top left of each page and use a blue coloured outline when distinguishing between pages within a section.

MY SETTINGS CLIMATE

MY SETTINGS CLIMATE is the defining setting for the control over your home comfort. The 'comfort zone' is the preferred band of temperatures (minimum and maximum temperature in degrees Celsius) and relative humidity (%) for comfortable living.

Within CLIMATE is also the availability to read either or both temperature and humidity from different rooms (when the optional Remote Sensor is installed).

Some modes are dependent on this temperature range being setup such as the Heat Transfer and tempering heater modes.

COMFORT

The default values for COMFORT are:

- ▶ Maximum Temperature = 26°C
- ▶ Minimum Temperature = 18°C
- ▶ Relative Humidity = 75%

*Note:
(80% of the New Zealand population prefer these settings.)*

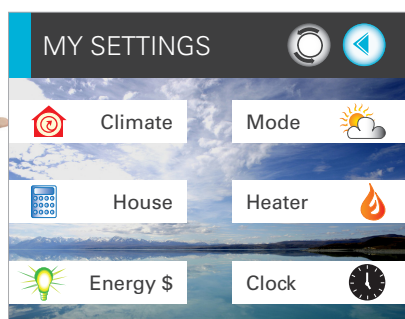
Synergy aims to keep your home environment within this comfort zone by using these settings in conjunction with your Heat Transfer and Summer By-Pass mode set-up.

The COMFORT page allows modification of these upper and lower limits in order to customise the comfort zone to your personal preferences.

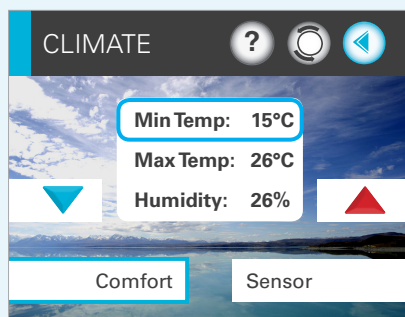
*Note:
Relative Humidity only has a maximum value available.*



- ▶ **Minimum temperature** can not be lower than 0°C or higher than 20°C.
- ▶ **Maximum temperature** can not be greater than 50°C or lower than 24°C.
- ▶ **Relative Humidity** can be no greater than 90% and no lower than 30%.

To set new Comfort levels press MY SETTINGS on the Home page and then press Climate:



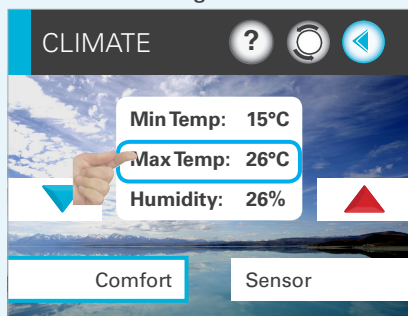
and the CLIMATE page is displayed:



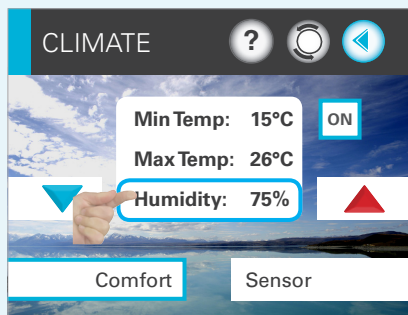
The COMFORT tab is highlighted with a blue border to indicate that this is the active page. The Minimum Temperature setting is highlighted to indicate that this is the active setting. Use the  arrow to decrease and the  arrow to increase the temperature to your desired level.



Press Maximum Temperature and then the ▲ and ▼ arrows to increase/decrease the setting as desired.

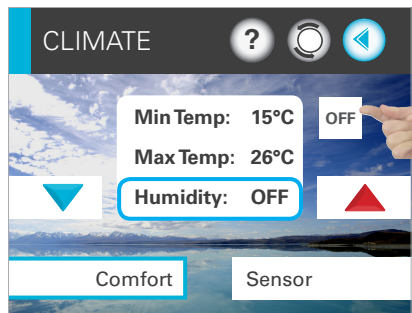


Press Humidity to alter the humidity setting to your preference.



When Relative Humidity (RH) exceeds your maximum setting, the Synergy fans automatically switch to maximum speed (Boost) and stay on Boost until the RH drops back below your maximum setting. They will then remain on for a further 15 minutes or until the RH falls 5% below your maximum setting, at which point the fans will return to their last Fan Speed setting.

Unlike the temperature settings, the humidity can be disabled using the ON/OFF button:

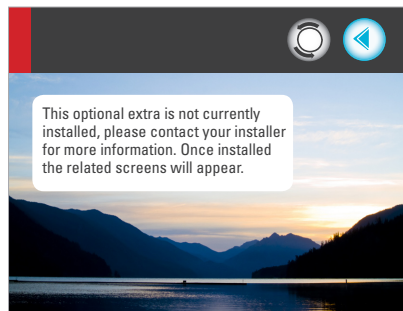


SENSOR

Synergy monitors the comfort zone settings from a humidity/temperature sensor which is mounted inside the Colour Touch Screen Controller. An optional Remote Sensor Panel (Order Code: FAN2047) is available which can be installed for the express purpose of remote monitoring a specific area in the house, e.g, wet areas prone to moisture build up or to localise the use of the Heat Transfer function.

If this Remote Sensor Panel is installed, you can set which sensor will monitor the temperature and which will monitor the humidity.

If the Remote Sensor Panel is not installed when the SENSOR tab is pressed, an information page will be displayed:





In this case:



Press the Home button to return to the Home Page or

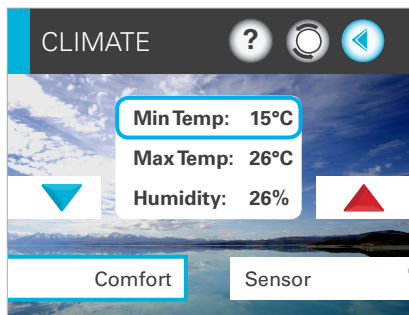


Press the Back button to step back to the MY SETTINGS Menu

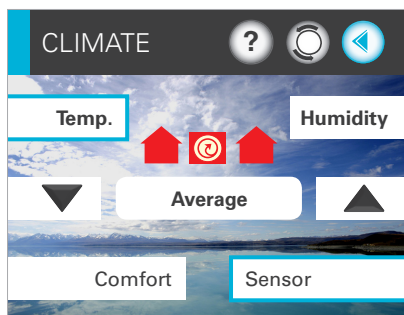
If the Remote Sensor Panel is installed then the following options are available:

- ▶ **Temperature** can be sensed at the Control Room (Colour Touch Screen Controller) or the Remote Room (where your Remote Sensor is located) or an Average of both.
- ▶ **Humidity** can be sensed at the Control Room (Colour Touch Screen Controller) or the Remote Room (where your Remote Sensor is located) or an Average of both.
- ▶ An **Average** reading is ideal for a representative sample of your home environment. Readings at either the Control Room or Remote Room allow for site specific control, e.g, damp areas subject to build up of moisture or heat transfer when temperature reaches threshold in certain areas.

To check or change your Sensor settings, press the Sensor tab on the CLIMATE page:



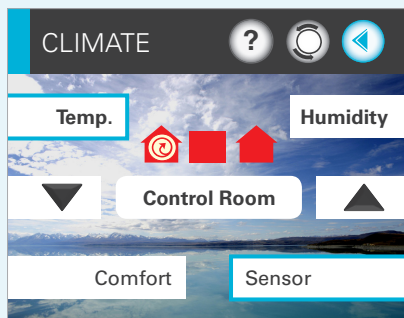
and the Sensor page will be displayed:



Notice that the 'Temp.' tab border is highlighted blue, indicating that you are selecting where you would like your temperature readings taken from.

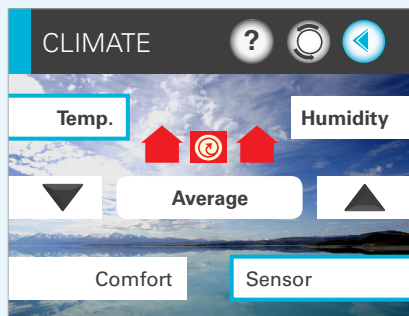
Use the black arrows to choose whether temperature is sensed from the Control Room, an Average of both sensors, or from the Remote Sensor:

In this example below, the Temperature Sensor has been selected at the Control Room:

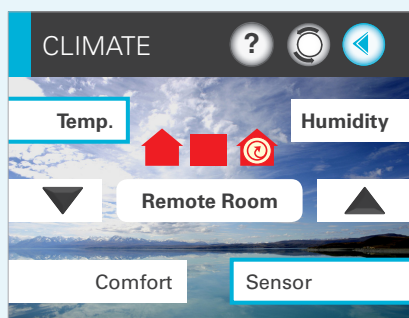




In this example, the Average temperature between the Control Room and the Remote Room has been selected:

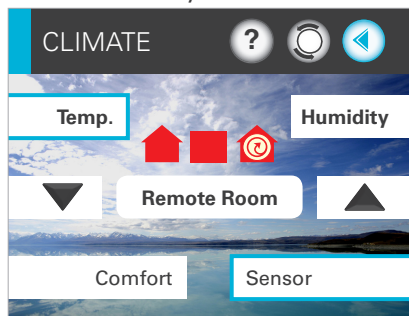


In this example, the Temperature Sensor in the Remote Room has been selected:

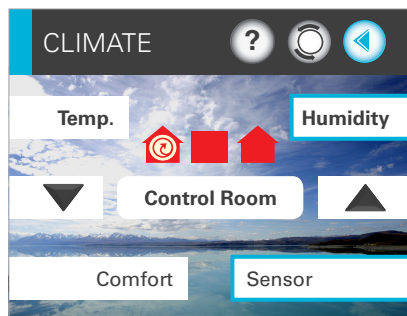



You can also choose where you would like your Relative Humidity sensed from; either the Control Room, the Remote Room or the Average of both.


Press the 'Humidity' tab:




and repeat the same steps as for Temperature.

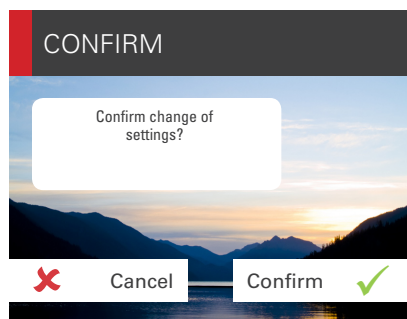


 Press the help page icon at any stage to provide information on these settings.

 Press the Home button to return to the Home Page at any time

 Press the Back button to step back to the MY SETTINGS Menu

If any changes have been made to the settings in this section, Synergy will prompt you to confirm your decision:





HOUSE

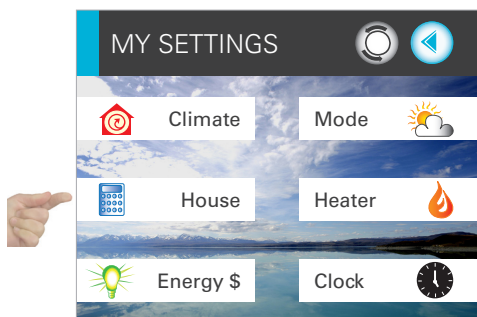
MY SETTINGS HOUSE

The House Size and Fan Speed determine how many air exchanges per hour takes place (in how many hours the air inside your home is replaced with new incoming air). Healthy living and wellness is best provided in living areas at 0.35 air exchanges per hour (as per Australasian standard AS/NZS 4303; 1990).

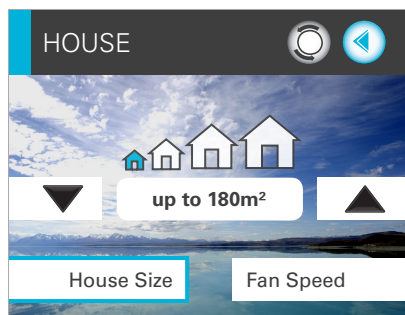
HOUSE SIZE

Synergy has a range of x4 House Sizes to choose from and for each range the middle speed (5) is the default 0.35 air exchanges per hour for that size home. Once your house size has been selected, Synergy will automatically provide you with the sufficient ventilation rate.

To set or check your House Size, press MY SETTINGS then select HOUSE:



and the HOUSE page will display:



The currently selected House Size range will be shown in the middle information box and related house above highlighted blue. Ranges available are (in square metres);

- ▶ up to 180m²
- ▶ 180m² - 210m²
- ▶ 210m² - 240m²
- ▶ 240m² - 330m²

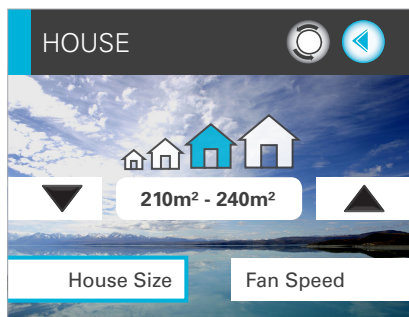
Use the ▲ and ▼ arrows to select the House Size range suitable for your home.

Note:
House size ranges exclude garage.

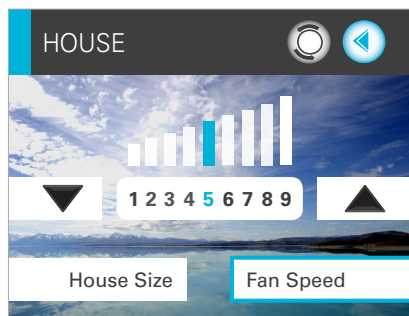
FAN SPEED

The 9 Fan Speeds offer a comfortable Fan Speed range based on your House Size. Fan Speed 5 offers approximately 0.35 air changes per hour. The larger House Size in the range is used to determine the Fan Speed. For example, for the range 180m² - 210m² Synergy will use House Size 210m² to meet 0.35 air changes per hour at default Fan Speed 5

To check or alter the current ventilation rate press the Fan Speed button:



and the page will change to display a colour speed bar indicating the current Fan Speed:



Use the ▲ and ▼ arrows to alter the speed settings if required from low speed (speed 1) to maximum boost speed (speed 9).

Note:

Speed 5 is also the preferred choice (middle speed) of ventilation rates from very low (speed 1) through to the maximum 'boost' (speed 9).

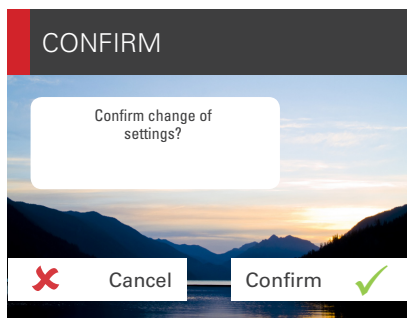


Press the Home button to return to the Home Page at any time.



Press the Back button to step back to the MY SETTINGS Menu.

If any changes have been made to the settings in this section, Synergy will prompt you to confirm your decision:



Press the 'Confirm' button to accept the changes and exit this section.

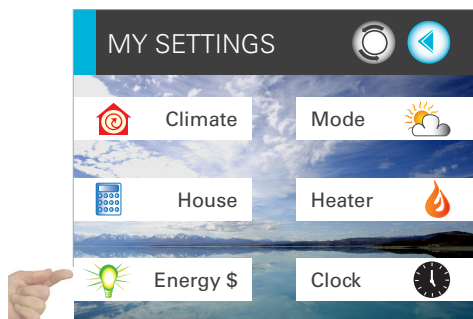
Note:

Resetting Synergy restores the house size to 210m² - 240m² and the fan speed to speed 5.

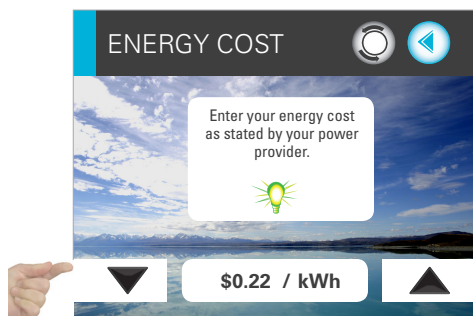
MY SETTINGS ENERGY COST

Synergy uses your entered Energy Cost to calculate your savings shown in the MY SYNERGY ENERGY section. Typical household energy units are expressed as kWh (kilowatt hours) and are metered and charged accordingly by your energy supplier. Refer to your energy bill for your current energy charge.

To check or change the current Energy Cost, enter MY SETTINGS then press Energy \$:



to display the ENERGY COST page. Use the ▲ and ▼ arrows to set your current charge for energy units:



Note:
The default Reset value for the energy cost is \$0.20 / kWh.

Once the current amount has been entered,

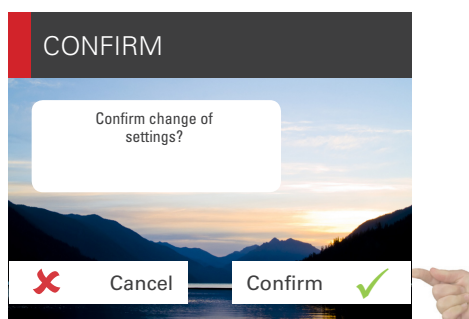


Press the Home button to return to the Home Page or



Press the Back button to step back to the MY SETTINGS Menu.

If any changes have been made to the settings in this section, Synergy will prompt you to confirm your decision:



Press the Confirm button and the display will return to the MY SETTINGS Home page.

MY SETTINGS MODE

Synergy incorporates both a Heat Transfer Mode and Summer By-Pass mode. These provide complete control of your system for all year round ventilation. Both or either modes can be ON/OFF.

HEAT TRANSFER MODE

This mode is perfect for when you have a heat source (fireplace, heat pump etc) in the Control Room, (or Remote Room if Remote Sensor is installed), which creates too much heat for that one room. When ON, the excess heat is extracted from this room, passing it through the heat exchanger, taking maximum advantage of this excess heat which is used to warm the incoming air entering your home via your other inlet diffusers.

Synergy's Heat Transfer mode goes one step further by blocking the flow of inlet air into the heat source room, therefore giving the other inlet diffusers the full benefit of the 'heated' supply air.

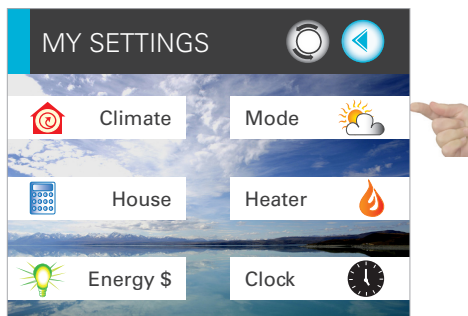
When Heat Transfer is Enabled

Once the room temperature exceeds your set maximum temperature setting (as set up in MY SETTINGS Climate) the system starts pulling this excess heated air from the warmed room, transferring it through the heat recovery system to warm the incoming supply air. When the room temperature drops below the maximum temperature the system reverts back to supplying air to all inlets (i.e. Heat Transfer damper opens)

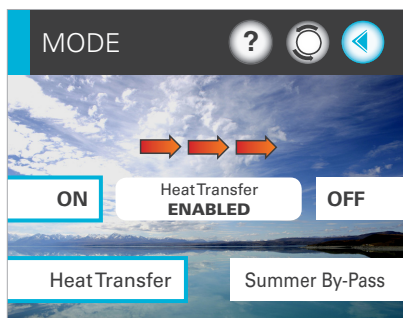
When Heat Transfer is Disabled

The system will draw air from the roof space and supply it to all inlets.

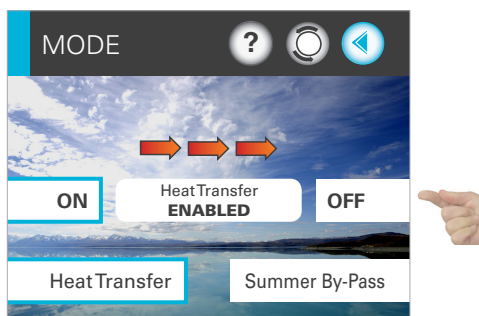
To enable or disable the Heat Transfer mode, press MY SETTINGS then select MODE:



The MODE page will display the current status of the Heat Transfer mode. If the ON button has a blue border and the 3 arrows are coloured orange, then Heat Transfer mode is enabled:

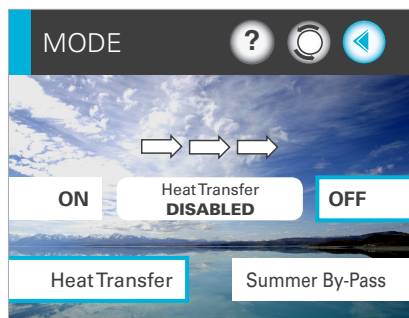


To disable the Heat Transfer mode press the OFF button:





and the page will change so that the OFF button is highlighted blue and the arrows are clear:



Note:

Unlike more conventional heat transfer systems which transfers the excess heat and stops ventilating the Synergy system ensures that heat transfer air is filtered, fresh and uncontaminated.

SUMMER BY-PASS MODE

Synergy has a built-in Summer By-pass damper. This mode operates a damper which allows the fresh inlet air supplied into your home to by-pass the Heat Exchanger and therefore it avoids being warmed by the outgoing, warm exhaust air. When disabled in summer, this mode can act as an air conditioning system, whereby cool exhaust air passes through the 'heat exchanger' which recovers this cool air-conditioned air which in-turn cools the incoming warmer air from outside.

When Summer By-Pass is Enabled

Enable this mode in the warmer Summer months when you wish to make your home cooler. When enabled the damper 'opens' allowing the inlet air to bypass the heat recovery core. This feature is useful in summer to prevent the exhaust air from your home warming the incoming cooler inlet air from outside.

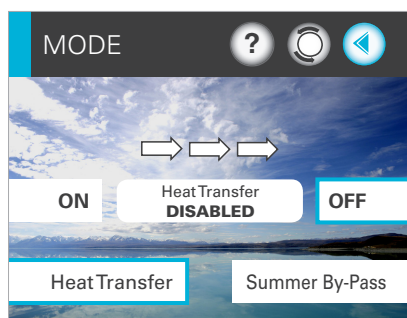
Note:

The by-pass damper is a manual setting. If 'ENABLED' in winter then Synergy will not recover heat as air will not pass through the Heat Exchanger.

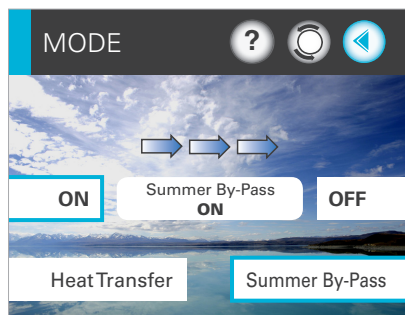
When Summer By-Pass is Disabled

Disable the Summer By-Pass mode in the cooler Winter months. This allows the warm exhausted air from your home to flow through the Heat Exchanger to warm the incoming air.

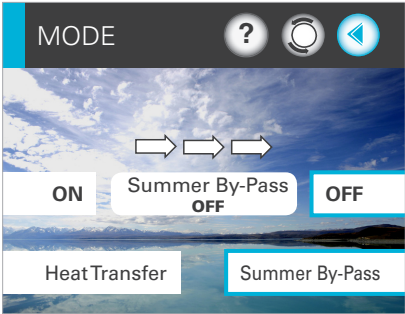
To enable or disable the Summer By-Pass mode press the Summer By-Pass tab:



The MODE page will display the status of the Summer By-pass mode. If this mode is ON then the ON button border will be highlighted and the 3 arrows are coloured blue:



To disable the Summer By-Pass mode press the OFF button and the page changes so that the OFF button is highlighted blue and the arrows clear:



Note:
As a safety feature, if the inlet air falls below -1°C, the Summer By-Pass damper opens to prevent the Heat Exchanger core icing up.



Press the help page icon at any stage to provide information on these modes.

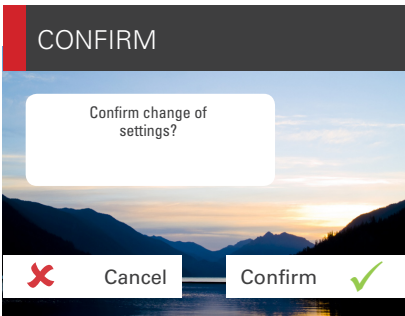


Press the Home button to return to the Home page at any time.



Press the Back button to step back to the MY SETTINGS Menu.

If any changes have been made to the settings in this section, Synergy will prompt you to confirm your decision:

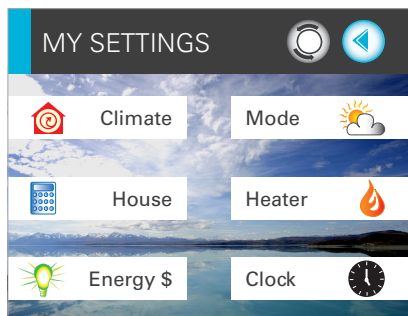


Press the 'Confirm' button to accept the changes. Synergy will either disable or enable the modes based on the choices.

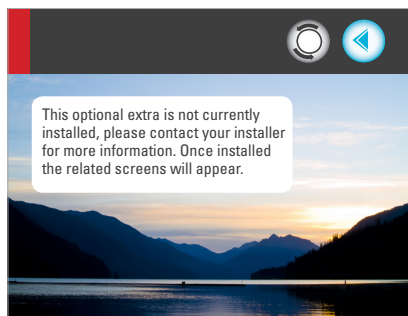
MY SETTINGS HEATER

An in-line tempering heater is available as an optional extra to the Synergy system (order Code DCT1483). The heater 'tempers' the inlet air in situations where the amount of heat recovery from your home air is insufficient to bring the incoming air temperature to your minimum temperature comfort setting.

To enter the Heater, press MY SETTINGS on the Home page and then press HEATER:



If there is no heater installed an information page will be displayed:



In this case:



Press the Home button to return to the Home Page or

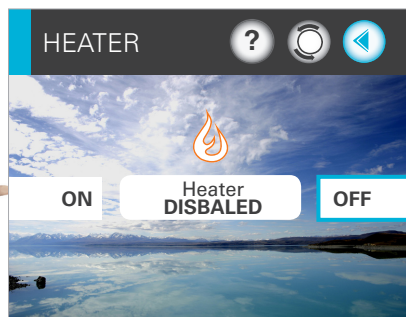


Press the Back button to step back to the MY SETTINGS Menu.

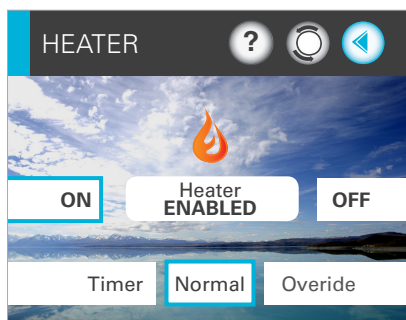
If installed, the HEATER page will appear. When the heater is OFF, the OFF button will have a blue border and the flame will be white.

To Enable the heater

Press the ON button:



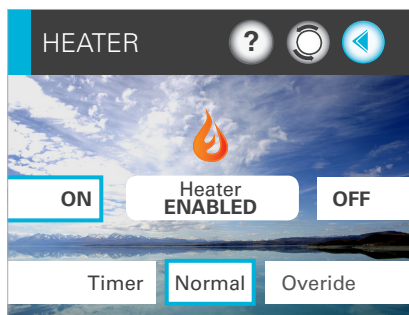
and the page changes to show the 3 available Heater modes: Timer, Normal and Override:



NORMAL HEATER MODE

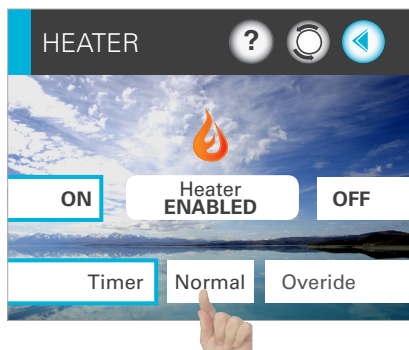
Normal mode is driven by the Minimum Temperature setting. If the heater is enabled and this mode is active, then it will automatically turn the tempering heater ON when your Control Room drops below the minimum temperature and OFF again when it rises 1°C above your minimum set comfort temperature.

The Normal tab border is highlighted blue indicating this mode is active:



Note:
Normal mode is the default mode. Synergy will automatically select this mode when the heater is turned ON, providing neither of the other two modes were active prior to the heater being turned OFF.

If a different mode is active and you wish to enable Normal mode, press the Normal tab:

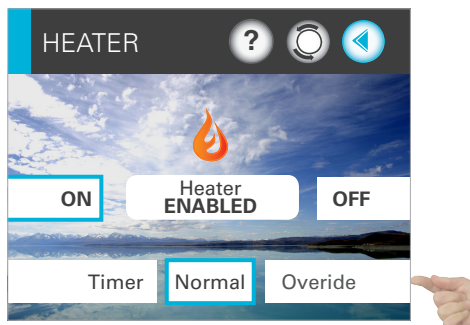


To deactivate Normal heater mode either turn the heater OFF on the HEATER page or change to another heater mode.

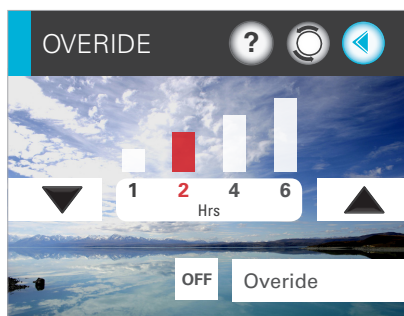
OVERRIDE HEATER MODE

Override mode allows you to turn the heater ON, irrespective of any other variable settings (such as Maximum or Minimum Temperature settings). This mode is useful to temper the incoming air in situations where the internal heating has been off and human activity is at a minimum.

To enable the Override mode press the Override tab:

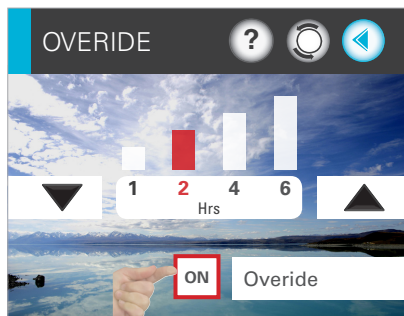


and the OVERRIDE page will be displayed:



Use the ▲ and ▼ arrows to select the number of hours that you wish the heater to turn ON for (1, 2, 4 or 6 hours).

When you have chosen how long you wish to run the heater for, press the ON/OFF button to read ON so that border is highlighted red, indicating the Override mode is now active.





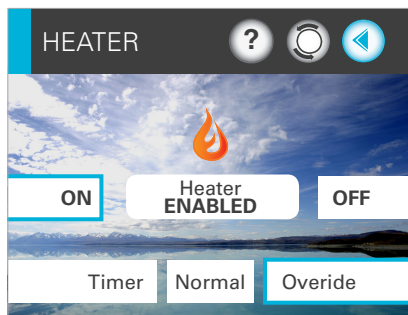
Note:

Once this setting is confirmed the heater will instantly turn ON. After the time has lapsed, the heater will turn OFF and the system will revert back to the previous active mode (either Normal or Timer mode). If you have not used either before enabling the Heater it will revert to Normal Mode (default).



Return to the Heater page by pressing the Back button

The Override tab border is now highlighted blue indicating this mode is operative:



To deactivate Override heater mode either turn the heater OFF on the HEATER page or change to another heater mode.

TIMER HEATER MODE

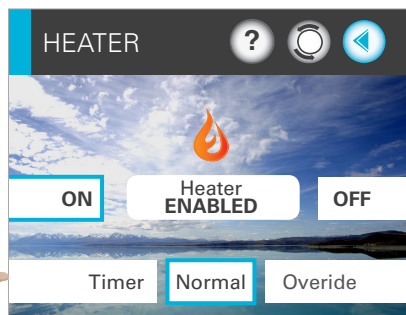
Timer Mode is a combination of time intervals which are conditional on the temperature falling below the minimum temperature setting.

For the heater to turn ON in Timer mode, two conditions must be met:

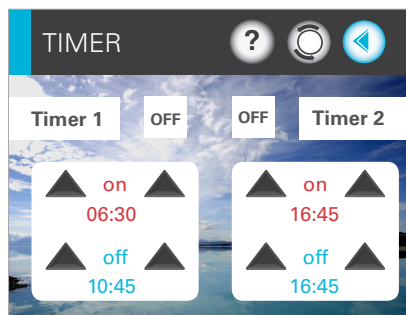
- 1) The time of day must fall within either of the 2 x set time periods as set by you.
- 2) The temperature in your Control Room must be less than the minimum temperature setting.

Two timers allow morning and evening operations but there are no restrictions of the timer band width or even overlap.

To enable the Timer heater mode press the Timer tab:

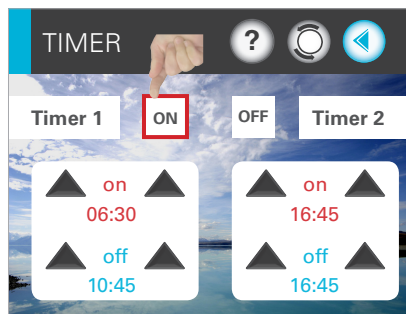


and the TIMER page is displayed showing Timer 1 and Timer 2 on/off times:



To set the Timer(s)

To turn Timer 1 ON, press the button adjacent to the Timer 1 tab labelled 'OFF'. This will change to an ON button with a red border:






Use the ▲ arrows to adjust the time in hours and minutes that the heater will turn on, provided the room temperature is below than the minimum temperature setting. The arrows on the left hand side of the Timer 1 'clock box' adjust the Hour, and the ones of the right hand side adjust the Minutes.

If two timer periods are required, repeat the procedure for Timer 2. Both or either times can be on/off.

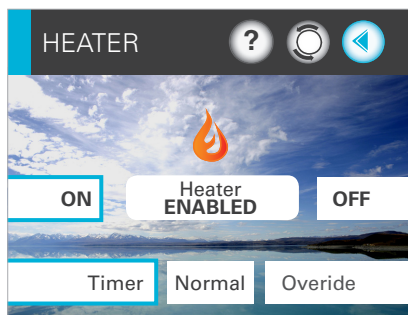
As an example the heater could come on between 6am and 8am in the morning and between 5pm and 8pm at night, all provided the room temperature was less than the minimum temperature setting.

Note:

1. If your room temperature is above your Minimum Temperature setting during your timer periods, then the heater will not turn ON.
2. If your room temperature falls below your Minimum Temperature outside of your chosen time periods, then the Heater will NOT turn ON.

 Return to the HEATER page by pressing the Back button

The Timer tab border is now highlighted blue indicating this mode is operative:



To deactivate Timer heater mode either turn the heater OFF on the HEATER page or by change to another heater mode.



Press the help page icon at any stage to provide information on these Heater modes.

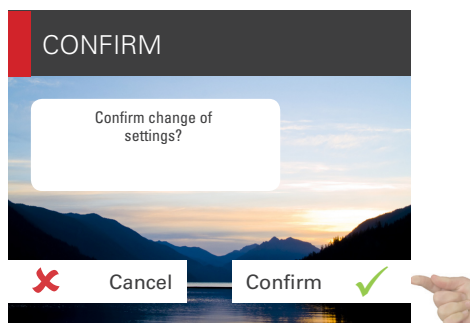


Press the Home button to return to the Home Page at any time.



Press the Back button to step back to the MY SETTINGS Menu.

If any changes have been made to the settings in this section, Synergy will prompt you to confirm your decision:



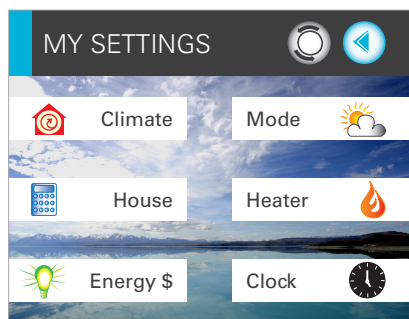
MY SETTINGS - CLOCK

The CLOCK needs to be set before your system can correctly calculate your savings or operate the tempering heater (if installed).

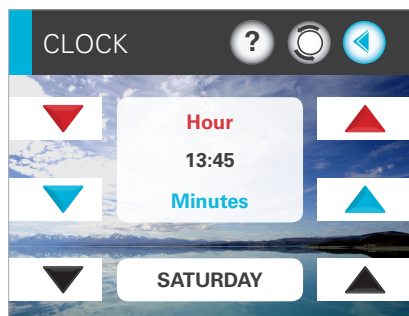
Note:

Once the Clock is set, the current day and time will be displayed in the top right hand corner of the HOME PAGE.

To set the Clock, press MY SETTINGS on the Home page then press Clock:



and the CLOCK page will display showing the current hour, minute and day settings.



- ▶ Use the red arrows to adjust the Hour
- ▶ Use the blue arrows to adjust the Minutes
- ▶ Use the black arrows to adjust the Day

Once the clock has been set correctly,

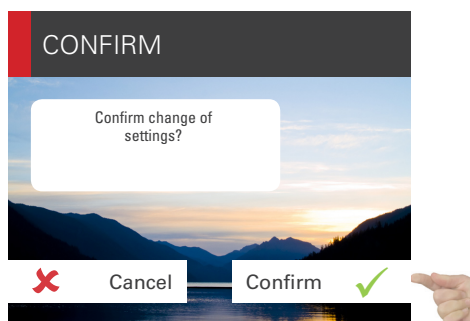


Press the Home button to return to the Home Page or



Press the Back button to step back to the MY SETTINGS Menu

If any changes have been made to the settings in this section, Synergy will prompt you to confirm your decision:



Push the confirm button and the display will return to the MY SETTINGS Home page.

Note:

In the event of a power cut, an internal battery will maintain the proper CLOCK operation.

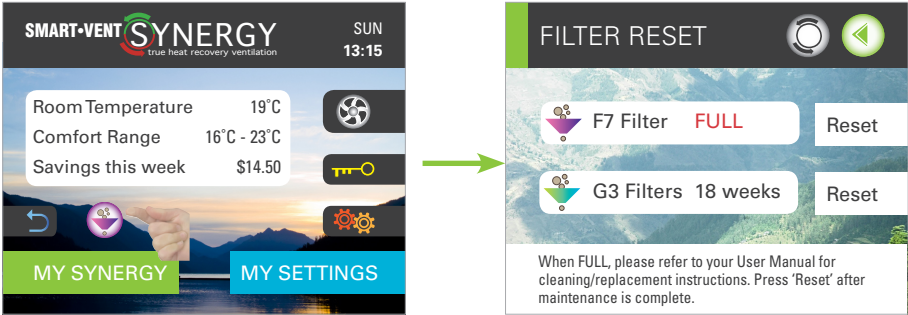
6. MAINTENANCE

This section covers the following maintenance information:

Filter Maintenance	38 & 39
Cleaning the Controller	40
Heat Exchanger Unit Maintenance	40

FILTER MAINTENANCE

This Filter Replacement icon will show on the HOME PAGE when either filter requires cleaning or replacing. Press the icon to take you directly to the FILTER RESET page to find out which filter is FULL:

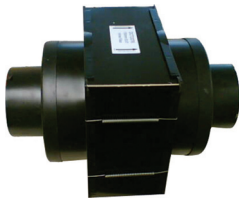


Note: DO NOT reset the filters until you have completed the maintenance.

F7 FILTER REPLACEMENT

The F7 filter’s life span for Smart-Vent Synergy is 1 year (52 weeks) before reaching 100% filter usage/ FULL.

Once the F7 filter is FULL you will need to replace the filter media. You can purchase and change this filter yourself as it is just a matter of undoing clips on the in-line filter (as pictured below) in your roof space and replacing it with the new Filter Media Box. Alternatively you can contact your installer to purchase and replace it for you. The filter is located between duct lengths, close to one of the purple Heat Exchanger spigots. You can purchase your replacement filter from any Electrical Wholesalers by simply quoting the Securimax order code ‘DCT2093’.



In-Line F7 Filter



Replacement F7 Filter Media Box

Order Code: DCT2093

Once replaced, press the Reset tab next to the F7 filter as shown on the next page.

Maintenance

G3 FILTER MAINTENANCE

The G3 filter's life span for Smart-Vent Synergy is 1/2 year (26 weeks) before reaching 100% filter usage/ FULL.

There are 2 x G3 filters situated in the purple Heat Exchanger. Once the G3 filters are FULL you will need to clean the filter media by completing the following steps:

- 1) Turn your Synergy system OFF (refer to page 8 for instructions on turning your system OFF). Only when the fans have stopped are the filters safe to remove.
- 2) Locate and remove the 2 x G3 filters as pictured:
- 3) Create a mild detergent solution (1 x teaspoon of washing up liquid to a bucket of water). Dip the filters into this solution and swirl about slowly.
- 4) Rinse thoroughly using clean water until the water runs clear and there is no solution residue left on the filters. Put outside to dry fully.
- 5) Once completely dry replace the filters back into the Heat Exchanger.
- 6) Turn your Synergy system back ON (refer to page 9 for instructions on turning your system ON).



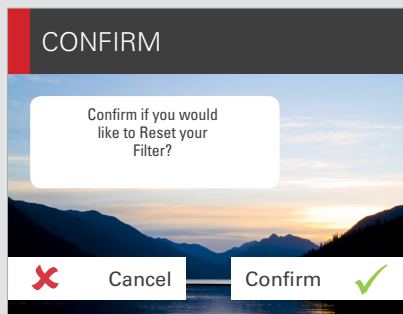
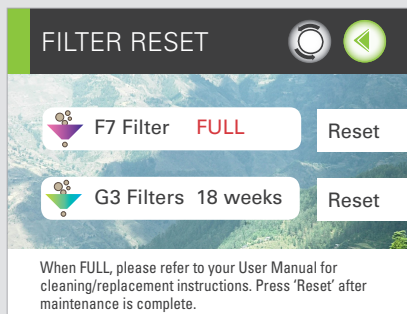
Note:

After 3 or 4 years you may find the filters are not cleaning as well as they used to. If after cleaning they are still dirty you should consider replacing them. Replacement G3 filters are available - please contact Securimax for ordering information.

To Reset your Filters once maintenance is complete

The Filter resets are to be used when you have cleaned or replaced your filter/s and wish to reset the filter/s back to empty/new. This will reset the replacement time back to the start.

Press the RESET button adjacent to the Filter(s) you wish to Reset:



A Confirm page will appear asking you to confirm your decision. Press Confirm to Reset the filter(s) and return to the FILTER page.

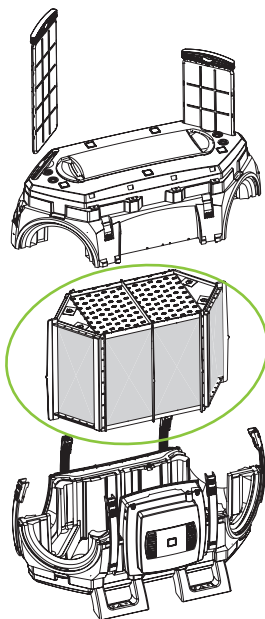
CLEANING THE CONTROLLER

- 1) Turn your Synergy system OFF (refer to page 8 for instructions on turning your system OFF).
- 2) Clean the control screen by gently wiping the surface with a slightly dampened tissue moistened with water only, cleaning solution is not recommended.
DO NOT spray cleaning solutions or water onto the control screen as it is **NOT WATERPROOF**.
- 3) Turn your Synergy system back ON (refer to page 9 for instructions on turning your system ON)

MAINTENANCE OF THE HEAT RECOVERY UNIT

We recommend that the Heat Exchanger Core is cleaned once a year by completing the following steps:

- 1) Turn your Synergy system OFF (refer to page 8 for instructions on turning your system OFF).
- 2) Remove the G3 Filters.
- 3) Unclip the 4 yellow clips on the Heat Exchanger and remove any screws.
- 4) Lift up the top half of the Heat Exchanger.
- 5) Remove the 2 screws and lift out the internal black box; this is the Heat Exchanger Core as circled in green.
- 6) Create a mild detergent solution (1 x teaspoon of washing up liquid to a bucket of water). Soak the heat exchanger in this liquid for a minute.
- 7) Rinse thoroughly using clean water until the water runs clear and there is no solution residue left on the filters. Put outside to dry fully.
- 8) Once completely dry, place back into the Heat Exchanger, lock the yellow clips and then replace the filters - **in this order**.
- 9) Turn your Synergy system back ON (refer to page 9 for instructions on turning your system ON).



7. FREQUENTLY ASKED QUESTIONS

- **What does this symbol mean on my Home page?**



This Filter Replacement icon will show on the HOME PAGE when either filters require cleaning or replacing. Refer to page 38 for more information.



When speaker volume is OFF, this 'mute' icon will appear on the Home page. To adjust/increase the volume, refer to page 6.

- **Why is the Fan Icon on my Home page flashing?**

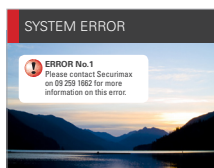


This indicates that the inlet and exhaust fans are on 'Boost' - maximum Fan Speed (speed 9) as a result of manual override or the relative humidity exceeding your pre-set maximum.

- **What happens when the roof cavity and outside air is below freezing?**

The Summer By-Pass damper will automatically open to allow inlet air to by-pass the Heat Exchanger core and prevent it from icing up.

- **My Home page is showing an Error message - what do I do?**



In the event of a system error, Synergy will display this page. Refer to page 43 for more information.

- **What is the difference between 'ON' and 'ENABLED', and 'OFF' and 'DISABLED', regarding the Heat Transfer mode and Heater modes (if installed)?**

The Heat Transfer and Heater modes (discounting Override mode) are conditional on the room temperature above or below a set value: therefore the mode can be 'Enabled' but physically inactive or 'OFF' if the room temperature is within your comfort range. In contrast, the Summer By-Pass mode is a manual override function and so is either definitively 'ON' or 'OFF'.

8. GLOSSARY OF TERMS

Air Source

The source of inlet air: either the ceiling cavity or outside.

Carbon Footprint

A carbon footprint is a measure of the impact that we have on the environment in terms of the amount of greenhouse gas (CO2) produced in kilograms (Kg). The ‘footprint’ is what is left behind as a result of these activities. Energy recovery reduces carbon footprint because less electricity, gas or solid fuels are needed to heat the home to the same temperature. The system calculates the Kg of CO2 based on your entered electricity costs and how much heat you have recovered from the exchange process.

Comfort Range/Zone

The range of temperatures and relative humidity that you find most comfortable to live in which, once programmed into the Controller, Synergy will try and maintain.

Dollars Recovered

The estimated amount of money you have saved through running your Synergy System over a Positive Pressure system, calculated using your Energy Cost from your power provider.

Energy Recovered

The estimated amount of energy recovered from the exhaust air as it passes through the heat exchanger.

Heat Transfer Mode

The Heat Transfer feature is perfect for when your heat source creates too much heat for one room. When enabled, Synergy will pull warm air from your heated room (where your controller is placed), first passing through the Heat Exchanger which significantly warms the incoming air before distributing it throughout the home. Synergy will not return this air back into the heated room.

Relative Humidity

The ratio of the density of water vapour in the air to the density of water vapour in saturated air at the same temperature, expressed as a percentage (%).

Roof Cavity

The roof space where your Synergy system is installed. Provides a source of heated supply air.

Savings per Week

A current snap-shot of the estimated amount of money you have saved through running your Synergy System over a Positive Pressure system since Sunday midnight.

Summer By-Pass Mode

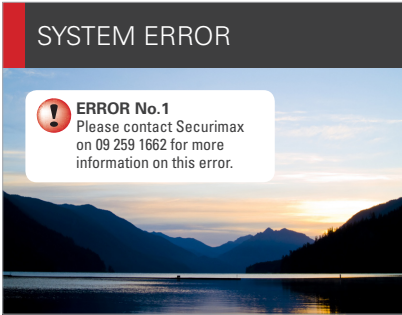
The Summer By-pass feature opens a damper which allows the inlet air to by-pass the Heat Exchanger and therefore not be warmed by the hot exhaust air during Summer months.

Tempering Heater

An in-line 1kW duct heater used to raise the temperature of the inlet air and reduce condensation.

9. ERROR MESSAGES

In the event of a system error, Synergy will display this page.



There are 6 different Error Numbers that can be displayed.

- ▶ **Error No.1** Real time clock error.
- ▶ **Error No.2** Real time clock error.
- ▶ **Error No.3** System Controller internal communication error.
- ▶ **Error No.4** System Controller internal communication error
- ▶ **Error No.5** Communication error between Ceiling Control Unit & Touch Screen Controller.
- ▶ **Error No.6** User variables memory error.

Note:

Error No. 7 indicates an unspecified error.

In all cases, please contact Securimax on **09 28 1612** to speak to an advisor and quote the Error Number displayed on your Controller so that they can direct you accordingly.

The Home page will not be displayed again until the error has been dealt with.

10. WARRANTY

5 YEAR WARRANTY

Securimax warrants to the purchaser that this product is free from defects in the material and workmanship for a period of five years from the date of the original retail purchase. The warranty only operates if proof of purchase in the form of a bill of sale, invoice or purchase receipt is presented at the time of request of service and if the attached warranty card is completed and returned to Securimax.

The customer shall ensure that the goods are fit and suitable for the purpose for which they are required and the company is under no liability if they are not.

The Warranty is in addition to all other conditions, warranties, guarantees, rights and remedies which may be applied by relevant legislation in New Zealand.

This warranty will not be applicable if the product has not been operated and maintained in accordance with the manufacturer’s instructions and recommendations contained in the operating & installation instructions provided with the product, or if the product has been used in a manner other than for which it was originally designed, or if the damage, malfunction or failure has resulted from incorrect voltages, alterations, accident, misuse, neglect, abuse, faulty or improper installation or main supply problems.

We recommend that you keep all the original packaging as it provides the best protection should you have to store or transport this unit in the future. Filter Replacement is not included in this warranty.

INSTALLER DETAILS

Date Installed: _____

Installer’s Name: _____

Company: _____

Contact Phone Number: _____

SMART•VENT  **SYNERGY**
true heat recovery ventilation



SECURIMAX LIMITED

PUB0279 iss:02 07/09

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