



System Controller Instructions

Model HEG-RHRSC-02, Dec 2011

Document Overview	Instructions for the use of the HEG System Controller, Model HEG-RHRSC-02, used for the operation of HEG Ducted Air Circulation Systems that have the Roof Heat Recovery Module installed.	
Picture of installed controller		<p>Bottom left: Fan speed dial Bottom right: Free Heat Indicator Light Top left: Fan switch Top right: Free Heat (Roof Heat Recovery) switch</p> <p>Note: Due to aesthetic and practical considerations, this controller is often installed in either a landscape (shown) or portrait position. The controllers are identical apart from the orientation.</p>
System Overview	<p>The HEG Ducted Air Circulation Systems distributes air around a house for the primary purpose of heating, but can also be used to cool houses. One of the optional add-on modules is the Roof Heat Recovery Module, which uses a filtered intake and a motorised air valve within the roof space to extract heated air from solar gain to offset heating costs. The air becomes heated due to solar gain on a bright day, mostly in spring and autumn. The air valve which allows the flow of air from the roof space is operated by a thermostat, and usually opens after roof temperatures are 23 degrees or greater (however, this temperature setting is configurable between 15 and 30 degrees C). The thermostat will automatically close the air valve when the thermostat reading is less than 23 degrees or the "Heat Switch" is turned off, or the Fan switch is turned off. The roof heat recovery module is most effective in the spring and autumn months on bright days, and should not be relied upon in winter for warmth.</p> <p>Auto cut out: Above approximately 40 degrees, the thermostat will automatically switch itself off and the valve will close. This is to prevent the house from overheating and becoming uncomfortably warm. The fan will still circulate air within the house, but no additional heat is added from the roof cavity.</p> <p>The system is designed to be left on 24/7 for 9 months of the year in cooler climates, such as Tasmania. In winter, heat from window solar gain and traditional heaters is circulated, and in spring and autumn the solar gain from the roof cavity is added to this.</p>	
Fan Switch	This is the master switch which turns off power to the entire system, including the air valve and fan, so that nothing in the system is operational.	
Heat Switch	During cooler months where warming is desired, leave the heat switch on. This allows the thermostatically-controlled air valve to harvest heat when applicable. Alternatively, if you desire cool air to be distributed throughout the house. (say from a reverse-cycle air conditioner or well-ventilated area of the house) then turn the heat switch off. In this instance, the thermostat will be ignored and the air valve will be kept closed so as not to introduce warm air.	
Fan Speed Controller	<p>As the name suggests, this mechanism adjusts the operating speed of the fan, which impacts on the air volume being delivered via the room outlets. A faster fan speed will mean that air circulates around the house faster, often making the system more efficient. However, it is suggested that customers should:</p> <ul style="list-style-type: none"> • Use the system with the fan on full • Every few hours, or subsequent evenings, turn the fan speed down by regular increments • When you are at a fan speed whereby you are still happy with the temperature of "outlet" rooms and window condensation (if applicable) is still eradicated, then leave the fan speed controller at that point 	
Free Heat Indicator	<p>This neon light indicator will come on when both of the following conditions are met:</p> <ol style="list-style-type: none"> (a) The "Heat Switch" is on, and (b) The thermostat is reading above the pre-set level (default of 23 degrees, adjustable) <p>When the light is on, the air valve is taking warm air from the roof space and distributing it to "outlet" rooms within the house. The light will go out when:</p> <ol style="list-style-type: none"> (a) The master fan switch is off, or (b) The thermostat is below the pre-selected temperature 	