

## HAX SERIES

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### HAX- 53Y

**Auxiliary Plug in Card for  
HTC5 or HTC3 Series Controllers  
3 x 0-10VDC Outputs**



*The **HAX-53Y** auxiliary plug in card incorporates 3 x 0-10VDC Outputs, Yh for Heating, Ye for Economy Cycle and Yc for Cooling.*

*The Yh & Yc outputs have a common Dead Zone adjustment ranging from 0.5 to 5.0 Degrees Celsius and the Ye output has a Damper Minimum Position Adjustment ranging from 0 to 10 VDC which is equal to 0 to 100 %.*

*The **HAX-53Y** has LED status indication for all outputs, and also incorporates a Damper Auto Close Feature which negates the use of an outside air thermostat for Damper Override.*

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#### **Features**

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- ☐ Australian made and designed.
- ☐ Incorporates 3 x 0-10VDC Outputs **Yh, Ye & Yc**.
- ☐ LED Indication of all modulating outputs.
- ☐ Can be Plugged into any existing HTC 5 or HTC 3 controller.
- ☐ Auto Close feature for Economy Cycle Override.
- ☐ **Yh & Yc** Outputs have Dead Zone Adjustment.
- ☐ Damper Minimum Positioner adjustment for **Ye** Output.
- ☐ Compact size and simple to use.



**HAX-53Y Technical Specifications**

<i>Yh Heating Signal Output Range</i>	<i>0 to 10 Volts DC</i>
<i>Ye Economy Cycle Signal Output Range</i>	<i>0 to 10 Volts DC</i>
<i>Yc Cooling Signal Output Range</i>	<i>0 to 10 Volts DC</i>
<i>Yh-Yc Dead Zone Adjustment</i>	<i>0.5 to 5.0 Degrees Centigrade</i>
<i>Yh, Ye &amp; Yc Proportional Band</i>	<i>1.0 Degrees Centigrade Fixed</i>
<i>Ye Damper Minimum Position Range</i>	<i>0 to 10 Volts DC equal to 0 to 100%</i>
<i>LED Indication for Yh Heating Signal Output</i>	<i>Red LED (Intensity varies with signal output)</i>
<i>LED Indication for Ye Economy Cycle Signal</i>	<i>Yellow LED (Intensity varies with signal output)</i>
<i>LED Indication for Yc Cooling Signal Output</i>	<i>Green LED (Intensity varies with signal output)</i>
<i>Damper Auto Close Feature Disabled</i>	<i>Jumper NOT Fitted (Factory Default)</i>
<i>Damper Auto Close Feature Enabled</i>	<i>Jumper Fitted</i>

**Terminal Designations**

<b>Yh</b>	0-10 VDC HEATING OUTPUT
<b>Ye</b>	0-10VDC ECONOMY CYCLE OUTPUT
<b>Yc</b>	0-10 VDC COOLING OUTPUT

**Economy Cycle Auto Close Feature Description**

*The Economy Cycle Auto Close feature causes the Damper motors to revert back to the Return Air Mode 0.2 Degrees before the first stage of cooling would start, this assumes that the Yh/Yc Deadzone is set to 1.0 Degrees Celsius.*

*What this means is that the Auto Close feature assumes that the fresh air is not suitable for use because the cooling demand in the zone is still increasing.*

*If this feature is not desired it can be disabled by removing the 2 way finger Jumper on the HAX-53Y. If this is done another means of closing the Fresh Air mode would have to be used. (See default Drawing on Page 3)*

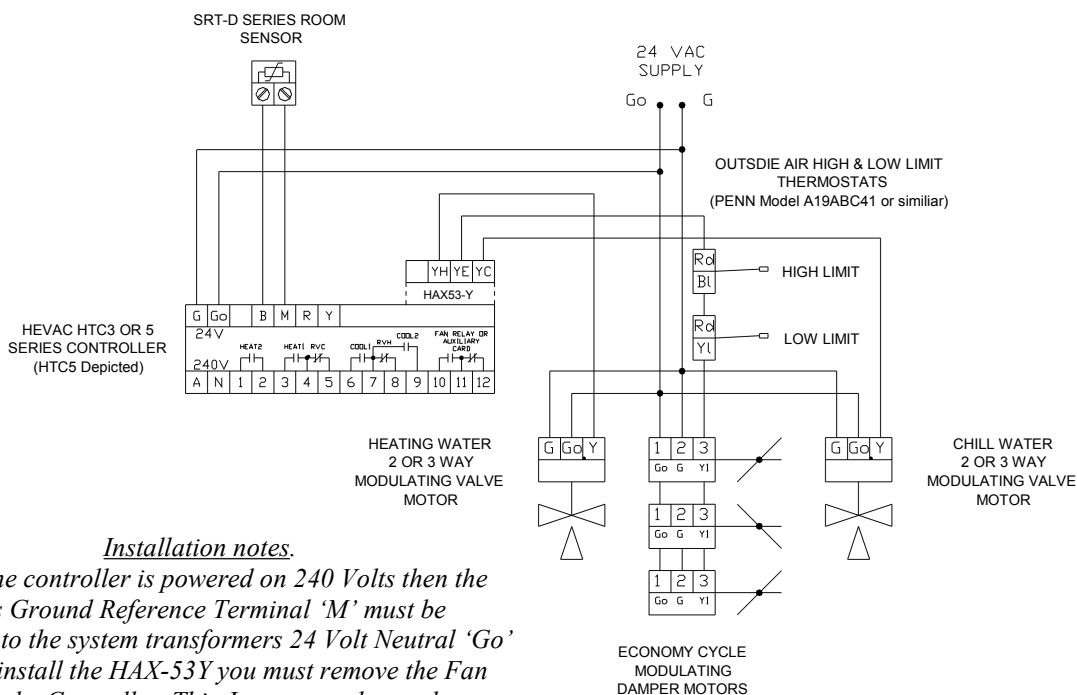
**'Y min' Damper Positioner Adjustment Description**

*The 'Y min' Damper Positioner Adjustment is to allow the setting of a minimum Fresh Air ratio to be achieved by inhibiting the 'Ye' output signal from dropping below an adjustable amount.*

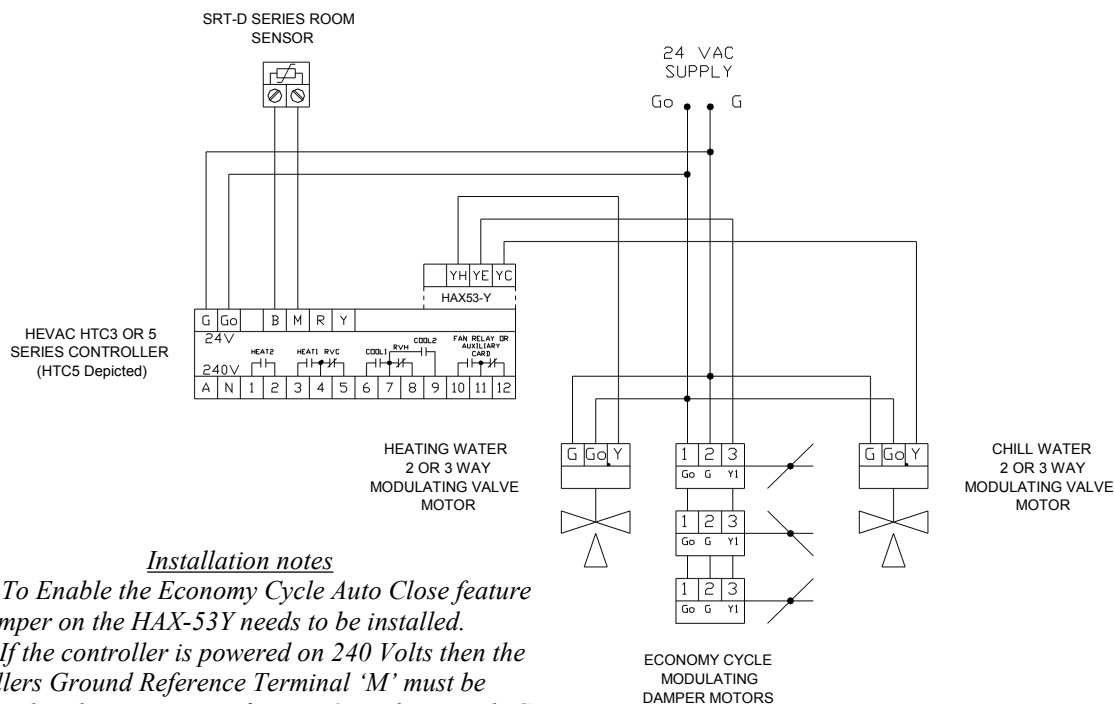
*As an example setting the 'Y min' Potentiometer to 3 Volts would be equivalent to a minimum position of 30 % on the Economy Cycle Damper motors.*

**HAX-53Y DEFAULT WIRING DETAIL (ECONOMY CYCLE AUTO CLOSE FEATURE DISABLED)**

DEFAULT DRAWING

**HAX-53Y UTILISING ECONOMY CYLCE AUTO CLOSE FEATURE**

OPTION ONE



# Other HEVAC Quality Products

## HEVAC CONTROLS

### ***SENSORS***

- AVERAGING ROOM SENSORS
- DUCT SENSORS
- PIPE SENSORS
- ROOM SENSORS WITH LCD DISPLAY
- REMOTE SETPOINT ADJUSTERS
- ROOM SENSORS WITH VARIOUS SWITCH FUNCTIONS

### ***HTC ANALOGUE CONTROLLERS with the following features***

- DUAL SUPPLY VOLTAGE 24 VOLT OR 240 VOLTS AC
- 0 –10 VDC ECONOMY CYCLE OUTPUTS
- COMPARATORS EITHER ON/OFF OR MODULATING
- 0-10 VDC MODULATING CHILL WATER & HOT WATER OUTPUTS
- AUXILIARY ELECTRIC ELEMENT STAGES
- TRIPLE COMPRESSOR HEAT PUMP MODELS
- ON/OFF ECONOMY CYCLE OUTPUTS

### ***RTC ELECTRONIC ROOM THERMOSTATS with the following features***

- DUAL SUPPLY VOLTAGE 24 VOLT OR 240 VOLTS AC
- 5 AMP (Resistive) POTENTIAL FREE RELAY CONTACTS
- L.E.D INDICATION OF ALL OUTPUTS
- CONCEALED OR EXPOSED SETPOINT ADJUSTMENT

### ***HHC HUMIDITY CONTROLLER with the following features***

- 0 –10 VDC HUMIDIFICATION OUTPUT
- 0 –10 VDC DE-HUMIDIFICATION OUTPUT
- ON/OFF HUMIDIFICATION OUTPUT
- ON/OFF DE- HUMIDIFICATION OUTPUT
- DC POWER SUPPLY FOR HUMIDITY SENSOR

### ***HDT-6 MULTISTAGE DELAY ON TIMER with the following features***

- DUAL SUPPLY VOLTAGE 24 VOLT OR 240 VOLT
- SEVEN USER ADJUSTABLE DELAY SETTINGS
- TEST FACILITY

### ***LT-SERIES LAMP TEST MODULES***

***IF YOU HAVE A SPECIFIC REQUIREMENT OR REQUIRE FURTHER TECHNICAL ASSISTANCE PLEASE CONTACT OUR FRIENDLY SALES STAFF.***

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