

**HTC SERIES III**Dual Voltage  
Enabled Controller ®

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**HTC-3****1 Heat & 1 Cool TEMPERATURE  
CONTROLLER with LED ROOM  
TEMPERATURE DISPLAY**

*The **HTC-3** temperature controller is primarily designed for the control of 1 Stage Heat and 1 Stage Cool Air-conditioning units.*

*All output relays are voltage free, permitting use on either 240 V or 24 Volt circuitry.*


*Stage switch on points are adjustable with their ON/OFF status displayed via LED indicators.*

*The **HTC-3** also incorporates a random time delay on the fan relay output enabling multiple A/C Unit startups using only one Time Clock or System Start Switch.*

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**Features**

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- Australian made and designed.
- Power Supply can be either 24v or 240v A.C  ®
- 10 AMP (resistive) Voltage free relay contacts.
- Large LED Temperature Display with 0.1 Degree Increments.
- Upgradeable via Plug in Auxiliary Cards. (Many options available.)
- Random time delay for Fan Relay Start.
- DIP Switch configurable for HEAT/COOL or COMP/RV type wiring.
- Wide compatibility to all packaged AC units and Heat Pumps.

**AUTOMATED  
BUILDING  
SOLUTIONS**

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## HTC-3 Technical Specifications and Terminal Designations HEVAC CONTROLS

<i>Power supply requirements</i>	<i>24VAC or 240VAC</i>
<i>Power consumption on 240 volts</i>	<i>7 VA</i>
<i>Power consumption on 24 volts</i>	<i>1 VA</i>
<i>Sensor Input</i>	<i>NTC 4000 Ohms at 25 Degrees Centigrade</i>
<i>Relay outputs</i>	<i>240VAC 10 amp resistive or 3 amp inductive</i>
<i>Temperature range (Factory Set to 22oC)</i>	<i>16 to 28 Degrees Centigrade</i>
<i>Switching differential (Switching Span)</i>	<i>0.3 Degrees Centigrade (NON-Adjustable)</i>
<i>Stage dead zone adjustment range</i>	<i>0.5 to 2.5 Degrees Celsius</i>
<i>Stage dead zone (Factory Settings)</i>	<i>1.0 oC per Stage</i>
<i>Relay Output indication</i>	<i>Green LED for Cooling Red LED for Heating</i>
<i>Room temperature LED Indication</i>	<i>10mm High RED 3 digit 7 segment display</i>
<i>Room temperature LED Display Resolution</i>	<i>0.1 Degrees Centigrade Increments</i>
<i>Plug in Auxiliary Card Options</i>	<i>Refer to data sheet HAX53 for specific details</i>
<i>Dip Switch Configurations (Factory Default)</i>	<i>Dip Switch 1 &amp; 2 set to YES = Controller is configured for HEAT/COOL wiring. Dip Switch 3 set to NO = Remote Set point Feature is turned OFF</i>
<i>Dip Switch Configurations (Option 2)</i>	<i>Dip Switch 1 &amp; 2 set to NO = Controller is configured for COMPRESSOR/RV wiring</i>
<i>Dip Switch Configurations (Option 3)</i>	<i>Dip Switch 3 set to YES = Remote Set point Feature is turned ON</i>
<i>Fan Relay random time delay (Factory Preset)</i>	<i>1 to 5 seconds (Not user adjustable)</i>
<i>Mounting method</i>	<i>35mm DIN rail (Not supplied)</i>

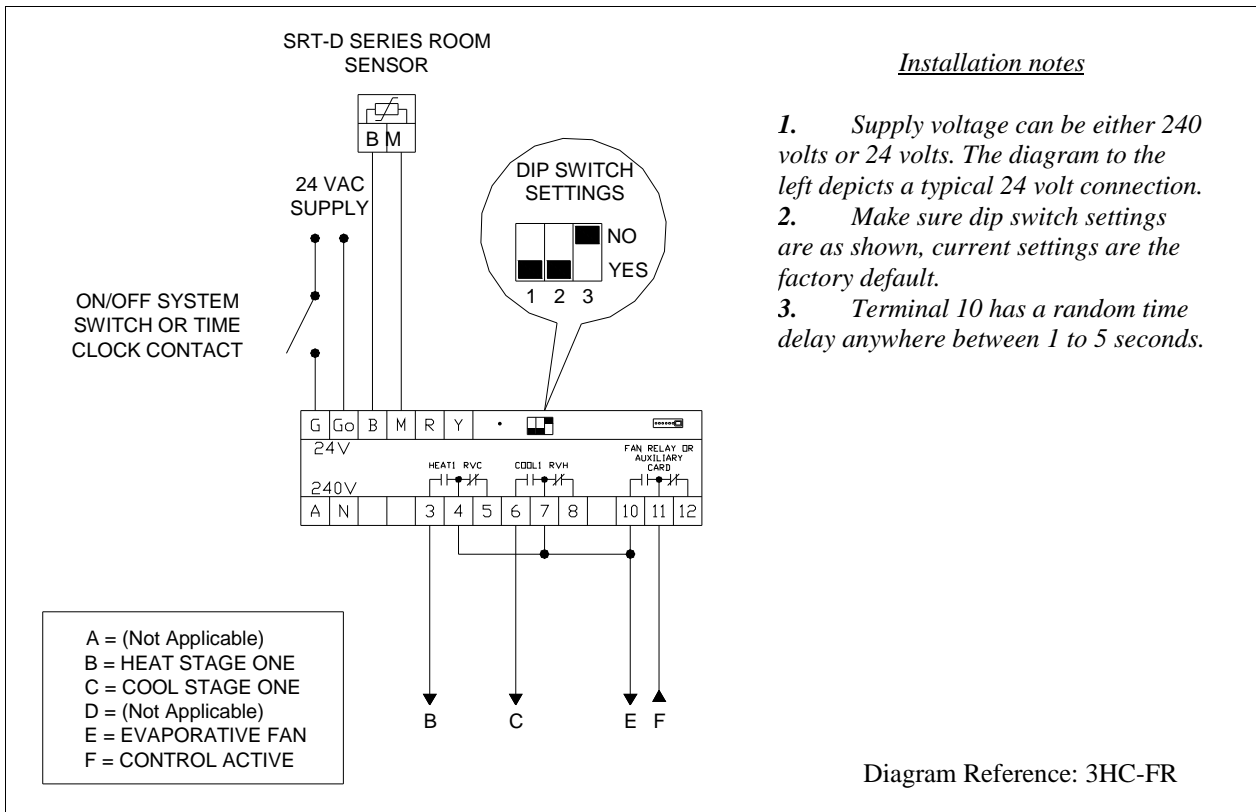
### Terminal Designations

<b>G</b>	24 VOLT AC SUPPLY ACTIVE	<b>3</b>	HEATING OUTPUT <b>OR</b> R/V FOR HEAT
<b>Go</b>	24 VOLT AC SUPPLY GROUND REFERENCE	<b>4</b>	(HEATING OUTPUT & R/V FOR COOL) COMMON
<b>B</b>	SENSOR INPUT	<b>5</b>	REVERSING VALVE FOR COOLING OUTPUT
<b>M</b>	SENSOR INPUT COMMON	<b>6</b>	COOLING OUTPUT
<b>R</b>	REMOTE SET POINT SHIFT	<b>7</b>	(COOLING OUTPUT & R/V FOR HEAT) COMMON
<b>Y</b>	Y SIGNAL OUTPUT	<b>8</b>	REVERSING VALVE FOR HEATING OUTPUT
<b>A</b>	240 VOLT AC SUPPLY (ACTIVE)		
<b>N</b>	240 VOLT AC SUPPLY (NEUTRAL)	<b>10</b>	FAN RELAY <b>OR</b> AUXILIARY CARD NORMALLY OPEN
		<b>11</b>	FAN RELAY <b>OR</b> AUXILIARY CARD COMMON
		<b>12</b>	FAN RELAY <b>OR</b> AUXILIARY CARD NORMALLY CLOSED

## HTC-3 Electrical Connection Schematics (Page One)

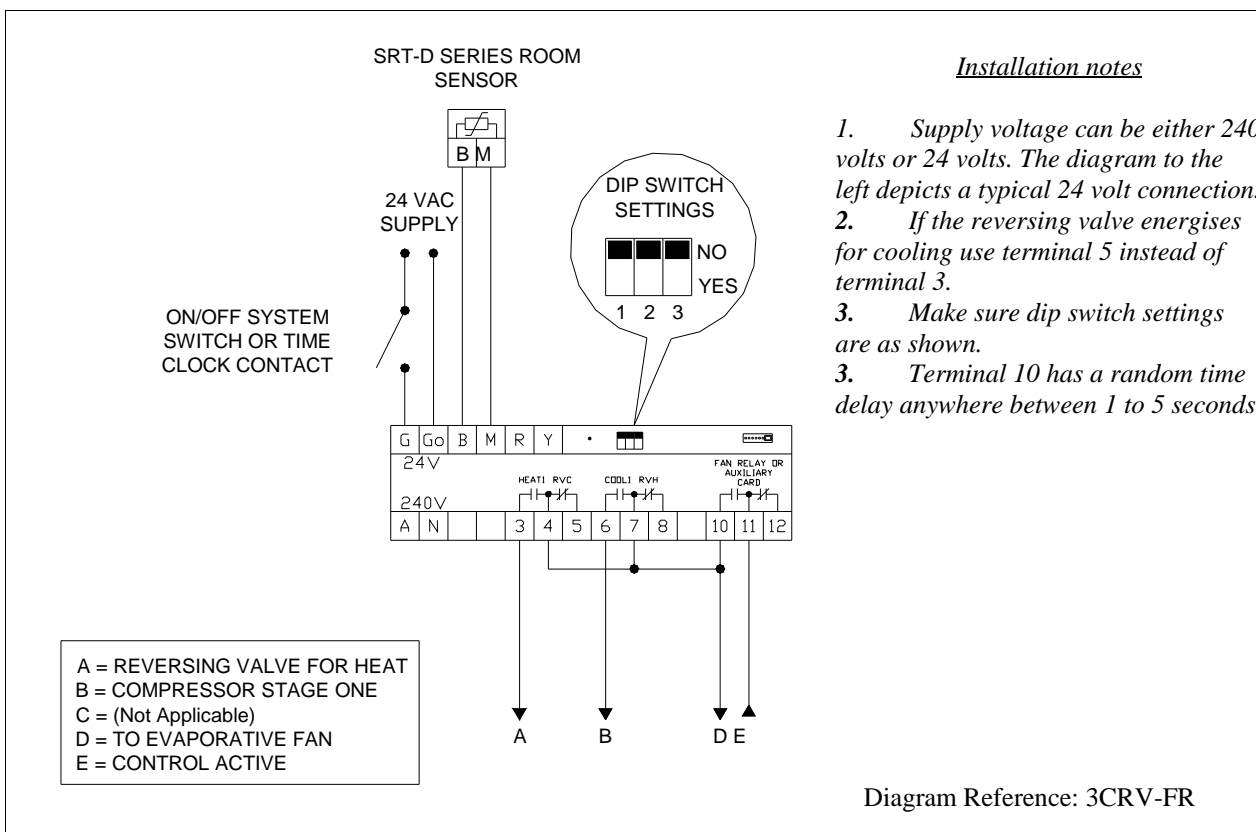
### Heat/Cool Type A/C Units utilizing the Internal Fan Relay

DEFAULT DRAWING



### Compressor Reversing Valve Type A/C Units utilizing the Internal Fan Relay

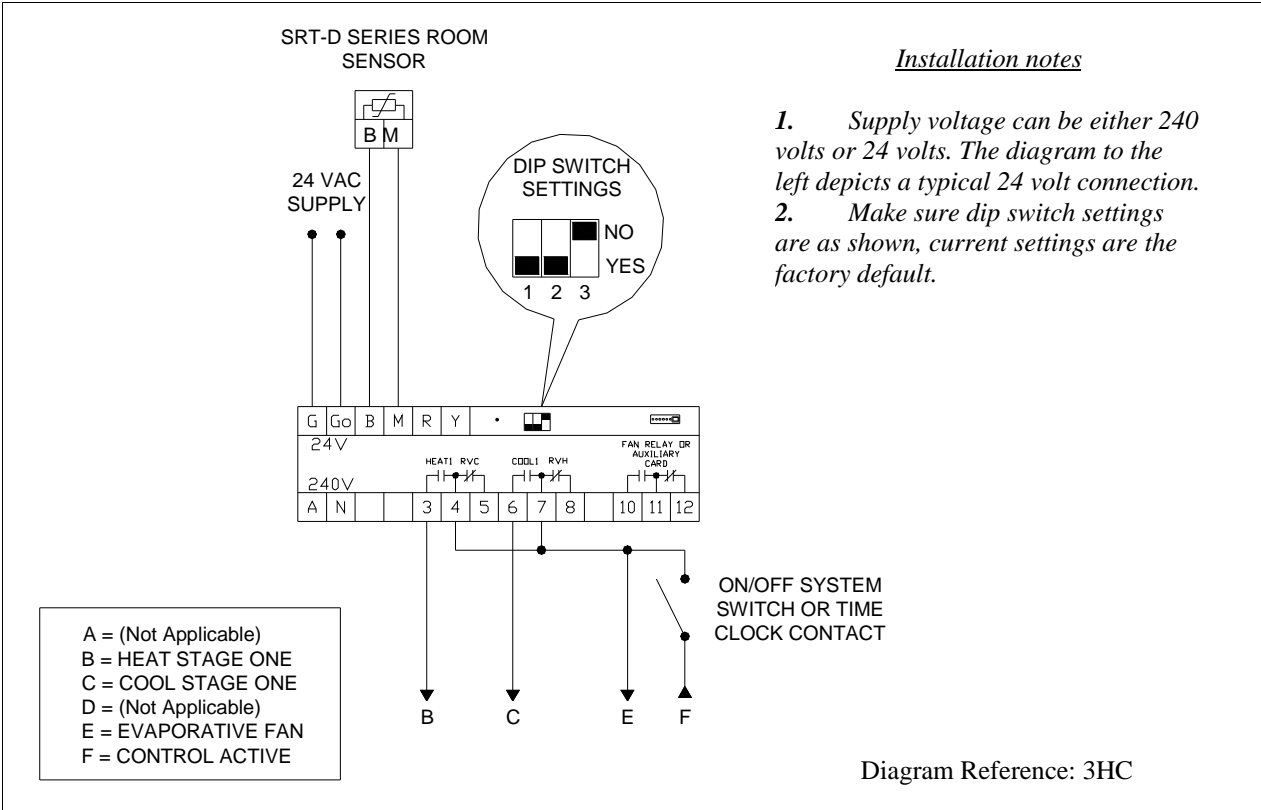
OPTION ONE



HTC-3 Electrical Connection Schematics (Page Two)

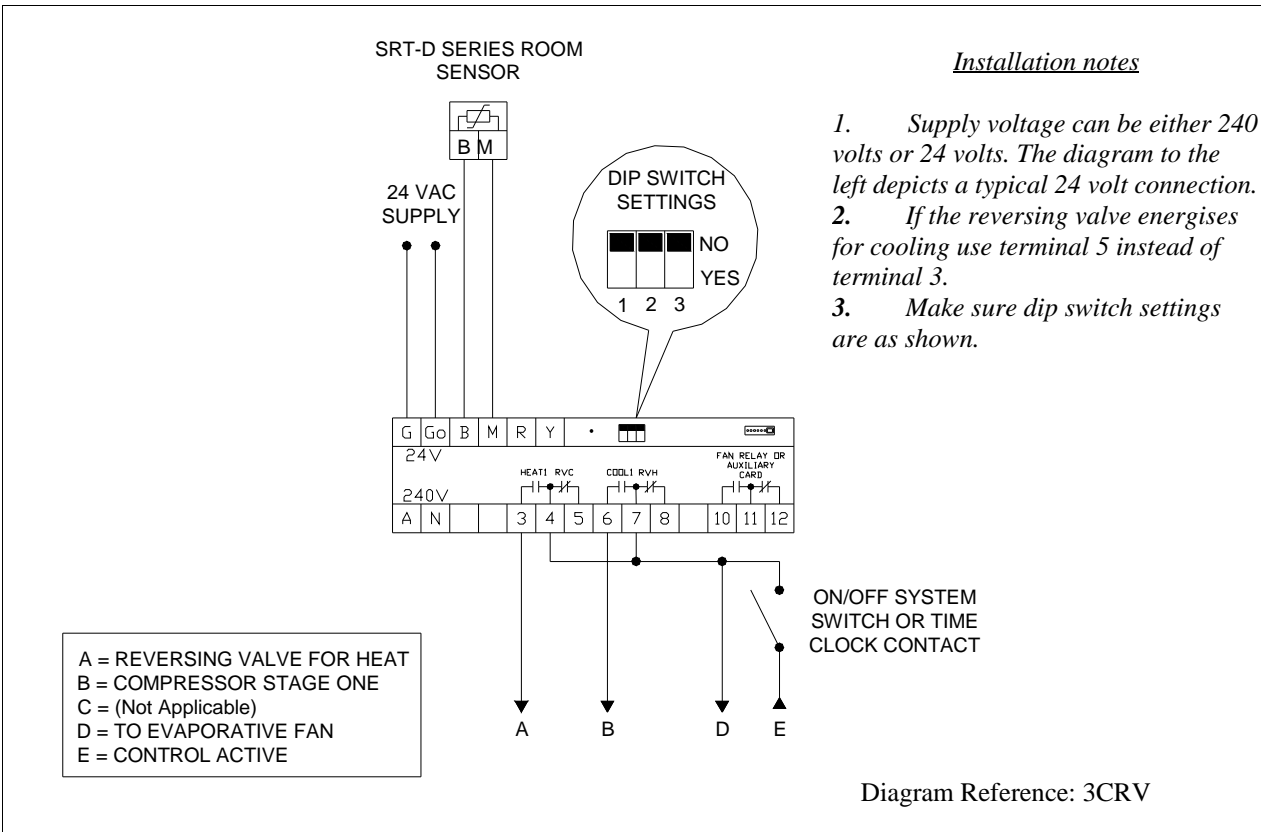
Heat/Cool Type A/C Units without using Internal Fan Relay

OPTION TWO



Compressor Reversing Valve Type A/C Units without using the Internal Fan Relay

OPTION THREE



**HTC-3 Remote Sensor & Auxiliary Card Schematics**

**Connecting a sensor with a Remote Set point Shift**

SRT-DSP ADJUSTABLE ROOM SENSOR

Installation notes

1. DIP SWITCH 3 must be set to YES.
2. The remaining DIP SWITCH Settings do not need to be altered.
3. The controller set point must be set to 22 Degrees.

Diagram Reference: RSP

**Connecting a Plug in Auxiliary Card**

SRT-D SERIES ROOM SENSOR

Installation notes

1. Remove power from the controller before connecting the Auxiliary Card.
2. Remove the shorting jumper as shown in the diagram.
3. Plug in the new Auxiliary card and secure with the screw provided.
4. Follow the Instructions provided with the Auxiliary Card for further information.
5. When using an ON/OFF type Auxiliary Card the fan relay output Terminals 10,11 & 12 are now used by the Card.

**Dimensional Drawings**

All Dimensions are in millimetres.