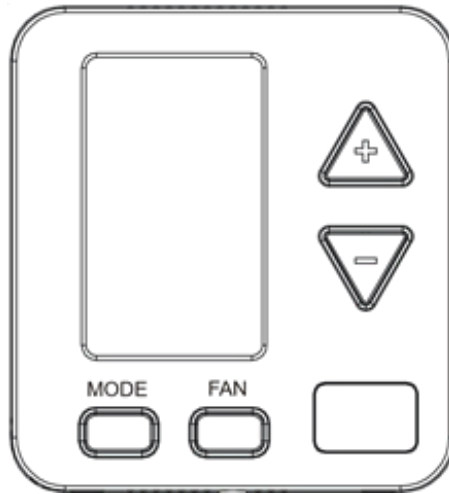


# PTAC WIRED KIT (DS02G-H) INSTALLATION INSTRUCTIONS



Model: DS02G-H

As a professional installer you have an obligation to know the product better than the customer. This includes all safety precautions and related items. Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings. Often during installation or repair it is possible to place yourself in a position which is more hazardous than when the controlled unit is in operation. Remember, it is your responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use. The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.



## WARNING

**ONLY PERSONNEL THAT HAVE BEEN TRAINED TO INSTALL, ADJUST, SERVICE OR REPAIR (HEREINAFTER, "SERVICE") THE EQUIPMENT SPECIFIED IN THIS MANUAL SHOULD SERVICE THE EQUIPMENT. THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR ANY INJURY OR PROPERTY DAMAGE ARISING FROM IMPROPER SERVICE OR SERVICE PROCEDURES. IF YOU SERVICE THIS UNIT, YOU ASSUME RESPONSIBILITY FOR ANY INJURY OR PROPERTY DAMAGE WHICH MAY RESULT. IN ADDITION, IN JURISDICTIONS THAT REQUIRE ONE OR MORE LICENSES TO SERVICE THE EQUIPMENT SPECIFIED IN THIS MANUAL, ONLY LICENSED PERSONNEL SHOULD SERVICE THE EQUIPMENT. IMPROPER INSTALLATION, ADJUSTMENT, SERVICING OR REPAIR OF THE EQUIPMENT SPECIFIED IN THIS MANUAL, OR ATTEMPTING TO INSTALL, ADJUST, SERVICE OR REPAIR THE EQUIPMENT SPECIFIED IN THIS MANUAL WITHOUT PROPER TRAINING MAY RESULT IN PRODUCT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.**

### PROP 65 WARNING FOR CALIFORNIA CONSUMERS



### WARNING

Cancer and Reproductive Harm -

[www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

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Our continuing commitment to quality products may mean a change in specifications without notice.



## THERMOSTAT MOUNTING

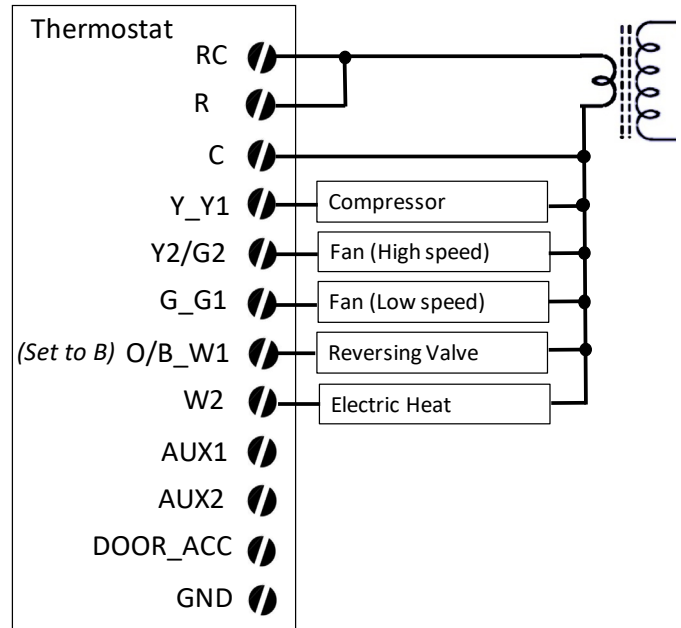
- For new construction, select thermostat mounting location about five feet above the floor, on an inside wall, out of direct sunlight, away from sources of radiant heat (lamps, fireplaces, heating and air conditioning equipment, etc.), away from windows or door to the outside, and avoid areas with poor air circulation. If the motion sensor in the thermostat is to be used, point the thermostat towards the area where you are requiring motion sensing. Ensure location is out of the path of foot traffic where a person might accidentally bump into the thermostats and damage the device.
- Set flush-mount base extension aside from mounting baseplate.
- Remove thermostat from mounting base plate by gently pulling apart at the bottom of the thermostat about 1", and slide thermostat up to release from the top of the mounting base plate. If mounting thermostat flush to wall with extension proceed to step 4. If mounting thermostat recessed into drywall proceed to step 7, or if mounting thermostat to an electrical box proceed to step 10.
- Place flush-mount base extension against the wall at desired location and mark placement of the top and bottom mounting holes. Make sure rectangular opening is on the left side so that when mated with the mounting base plate the UP arrow is pointing up on the mounting base plate.
- If mounting in drywall, drill 7/32" holes, tap plastic anchors into wall. For other surfaces, drill hole as required.
- Screw mounting base plate and flush-mount base extension assembly to the wall. Proceed to Connecting HVAC Wires instructions.
- If mounting thermostat with wiring compartment recessed into drywall, cut drywall opening 2" wide by 2 & 7/8" tall in desired location. The flush-mount base extension may be used as a template. Due care should be taken if wiring, plumbing or other contents behind the wall are unknown.
- Discard flush-mount base extension. Place the mounting base plate against the wall in the desired location and mark placement of right and top mounting holes. Make sure the UP arrow is pointing up on the mounting base plate.
- Drill a 7/32" holes and tap plastic anchors into wall. Screw mounting base plate to wall. Proceed to Connecting HVAC Wires instructions.
- If mounting thermostat to one or two gang electrical box, discard flush-mount base extension. Screw mounting base plate to electrical box (Screws not included).

## CONNECTING HVAC WIRES

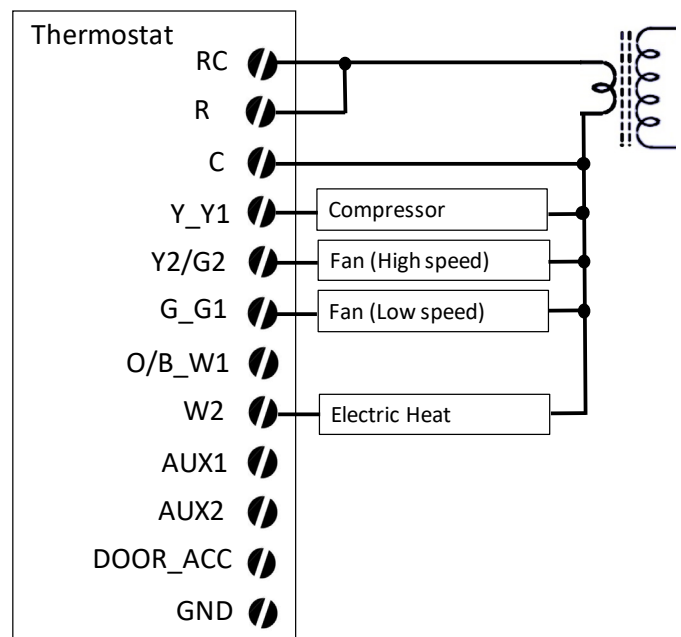
Thermostat wires (20 gauge minimum field supplied) can be connected to the thermostat. **WARNING**, Power should be turned off on the unit prior to connecting wires to prevent damaging the unit transformer by electrical shorts.

- Route wires through the rectangular opening on the flush-mount base extension if used, and through the label in the area marked by a circle on the mounting base plate.
- Loosen set screws on wired terminals and insert wires into the opening. Tighten set screws (See following figures)

Do not snap the thermostat onto the mounting base until after the thermostat has been configured



Heat Pump PTAC Wiring

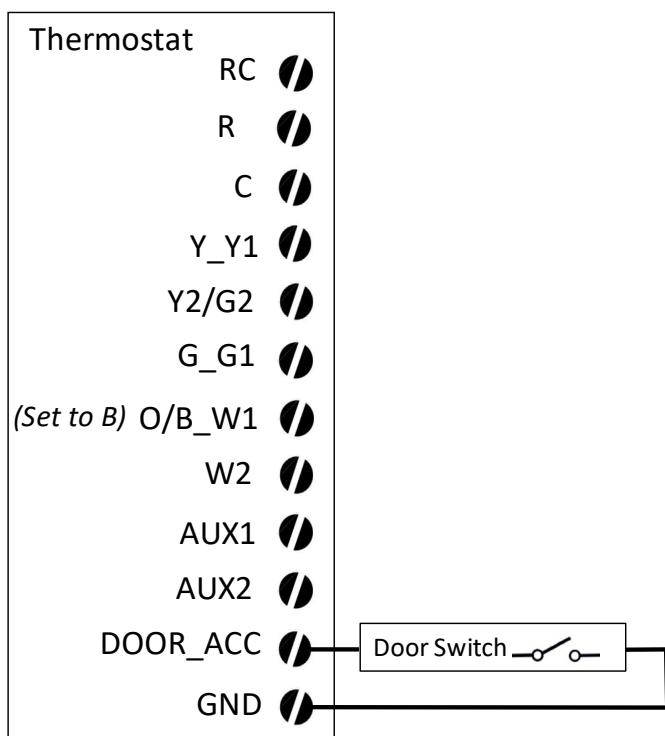


Cooler PTAC Wiring

## WIRED DOOR SWITCH OPTION (SKIP IF NOT USING DOOR SWITCH)

**NOTE: THERMOSTAT HAS MOTION SENSING CAPABILITY FOR ENERGY MANAGEMENT OPERATION, AND THERMOSTAT MAY BE CONNECTED TO A WIRED DOOR SWITCH IF DESIRED FOR IMPROVED DETECTION. IF CONNECTING A WIRED DOOR SWITCH TO THIS THERMOSTAT USE 20 GAUGE MINIMUM FIELD SUPPLIED WIRING.**

1. Route wires through the rectangular opening on the flush-mount base extension if used, and through the label in the area marked by a circle on the mounting base plate.
2. Loosen set screws on wired terminals labeled DOOR and GND and insert wires into the openings. Tighten set screws. (See following figure for switch connection).
3. Connect wires at door switch.



## Door Switch Wiring

### CONFIGURATION SETTINGS

**NOTE: MULTIPLE SET UP OPTION ARE AVAILABLE BASED UPON THE TYPE OF HVAC EQUIPMENT BEING CONTROLLED, PERSONAL OPERATIONAL PREFERENCES, AND ENERGY MANAGEMENT FUNCTIONALITY.**

To enter configuration feature mode

1. Press and continue to hold the (+) and (-) buttons.
2. Press and release the MODE button twice.
3. And release the (+) and (-) buttons

Once you are in the configuration program, you can use the FAN button to move through the various configuration settings. The (+) or (-) keys will move up or down the selectable codes that you can change for each configurable option setting. The display will alternate between displaying the feature code and the option code. Ensure that you are in the proper configuration setting before pressing the FAN button as you may accidentally change a setting that you did not intent to change. Refer to the Configuration Table for configuration options

4. The thermostat should be displaying two dashed lines; if not start back at step 1.
5. If the thermostat is controlling a heat pump, press and release the FAN button until "0b" appears. Use the (+) or (-) buttons to select "o" for an "O" terminal (reversing valve energizes on cooling), and "b" for a "B" terminal (reversing valve energizes on heating).
6. Press and release the FAN button until "HE" appears. Use the (+) or (-) buttons to select "HP" for control of a heat pump, or "EL" for control of a cooler with only electric heat.
7. Press and release the FAN button until "CL" appears. Use the (+) or (-) buttons to select the cooling temperature limit, which restricts how low the user can set the thermostat in cooling operation.
8. Press and release the FAN button until "CH" appears. Use the (+) or (-) buttons to select the heating temperature limit, which restricts how high the user can set the thermostat in heating operation.
9. If the thermostat user requires the display to show temperatures in degrees Celsius, press and release the FAN button until "CF" appears. Use the (+) or (-) buttons to select "C" for Celsius or "F" for Fahrenheit.
10. Press and release the FAN button until "LC" appears. Use the (+) or (-) buttons to select "01" for a 3-minute compressor lockout or "00" for no compressor lockout. Note: it is the responsibility of the installer to ensure that the compressor has adequate protection from short cycling.
11. Press and release the FAN button until "OC" appears. Use the (+) or (-) buttons to select "E" for occupancy detection enable or "d" for no occupancy detection.
12. Press and release the FAN button until "UC" appears. Use the (+) or (-) buttons to select the cooling temperature setting when the room is unoccupied.
13. Press and release the FAN button until "UH" appears. Use the (+) or (-) buttons to select the heating temperature setting when the room is unoccupied.
14. Press and release the FAN button until "nA" appears. Use the (+) to display first two hexadecimal digit of the device network short address and the (-) buttons to display last two hexadecimal digits of the device network short address. Note these will only be available if the thermostat is already bound to a Zigbee network.
15. Press and release the MODE button twice to exit the configuration settings. Other codes may be available for factory use.

## CONFIGURATION TABLE

Configuration Code	Configuration Feature Description	Option	Option Code
--	Menu Start	<i>press Fan button for 1st code</i>	<i>none</i>
<b>Ob</b>	Wired T-stat reversing valve signal ("B" or "O")	"B" T-stat Terminal	<b>b</b>
		"O" T-stat Terminal *	<b>o</b> *
<b>HE</b>	Unit Type	Heat Pump	<b>HP</b>
		Cooler with Electric Heat *	<b>EL</b> *
<b>CL</b>	Low Temperature Limited Set Point	60-91°F (but not more than CH); 64°F *	<b>60-90; 64</b> *
<b>CH</b>	High Temperature Limited Set Point	60-92°F (but not less than CL); 82°F *	<b>60-90; 82</b> *
<b>db</b>	Auto-Changeover Deadband °C	1.0-2.5, 2.2* °C (1.8-4.5, 4.0* °F)	<b>1.0-2..5, 2.2*</b>
<b>CF</b>	Display °F or °C Temperatures	Fahrenheit Scale *	<b>F</b> *
		Celsius Scale	<b>C</b>
<b>LC</b>	Compressor Lockout	Minimum 3-minute Compressor Lockout *	<b>01</b> *
		No Compressor Lockout	<b>00</b>
<b>OC</b>	Occupancy Enable	Enable Occupancy Detection	<b>E</b>
		Disable Occupancy Detection *	<b>d</b> *
<b>UC</b>	Un-Occupied Cooling Setpoint	59-92 °F; 82°F *	<b>59-92; 82</b> *
<b>UH</b>	Un-Occupied Heating Setpoint	58-91 °F; 64°F *	<b>58-91; 64</b> *
<b>nA</b>	Network Address - Zibee Short Address <i>Read Only Points</i>	(Press Up Button for) 1st two Hexidedimal Digits	<b>00-FF</b>
		(Press Down Button for) 2nd two Hexidedimal Digits	<b>00-FF</b>
<b>Fr</b>	Factory Reset	Reset to Factory Defaults	<b>05</b>
		Hold Existing Defaults	<b>00</b>

\* Default Value

## FINAL ASSEMBLY

1. Slide top of the thermostat down at a slight angle and press onto the mounting base plate to snap into place.
2. Provided optional security screw may be used in the lower center of the thermostat.



OPTIONAL SECURITY SCREW

**NOTE: IT IS RECOMMENDED THAT THE INSTALLER DO A FUNCTIONAL CHECK ON UNIT AFTER THE THERMOSTAT IS INSTALLED AND POWER IS RESTORED.**

## BASIC OPERATION

The MODE button allows for selection of mode of operation between Off or Auto-changeover.

The FAN button adjusts fan speeds between low fan, high fan and automatic fan (where the thermostat determines the most appropriate speed). The FAN button also allows for the selection of Fan Only mode from the Off mode if air circulation is desired without temperature conditioning the room.

The (+) and (-) buttons allow the temperature setting to be adjusted.

## BINDING OPERATION (FOR ZIGBEE NETWORK)

To join the thermostat to a Zigbee network, the Zigbee network must be in discover mode; entering customer's network into discover mode is dependent upon the Zigbee gateway used. When the Zigbee network is in discover mode, press and hold the MODE and (+) buttons simultaneously on the thermostat until the display shows "00". The Dot symbol on LCD display starts blinking which indicates it's in discoverable mode. The discoverable mode will last for 30 seconds. Once Zigbee Network joining process is successful, the dot in the lower left of the display stops flashing and goes solid and LCD backlight will start blinking till Identify time expires. The network short address for identifying this device on the network may be determined by entering configuration settings per above and viewing the two values in the "nA" configuration code

The thermostat may be removed from Zigbee network by holding the MODE and (-) buttons simultaneously until the dot in the lower left of the display blinks. The thermostat goes into discoverable mode again and stops blinking after 30 seconds. The dot should not be displayed if thermostat left the Zigbee network successful.

**NOTE: ONCE A THERMOSTAT HAS BEEN BOUND TO ZIGBEE NETWORK, IT MUST BE REMOVED FROM THAT NETWORK PER THE INSTRUCTIONS ABOVE BEFORE BINDING IT TO A NEW NETWORK.**



## CAUTION

**THIS EQUIPMENT IS AUTHORIZED FOR USE UNDER THE UNITED STATES FEDERAL COMMUNICATION RULES AND REGULATIONS, CODE OF FEDERAL REGULATIONS CHAPTER 47 PART 15 AND MUST BE INSTALLED IN ACCORDANCE WITH THE INSTRUCTIONS PROVIDED IN THIS DOCUMENT. FAILURE TO INSTALL OR OPERATE THIS EQUIPMENT AS INSTRUCTED IN THIS DOCUMENT COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT. THIS EQUIPMENT CONTAINS NO USER SERVICEABLE PARTS. ANY MODIFICATION OR REPAIRS TO THE INTERNAL COMPONENTS OR TO THE ANTENNA CONFIGURATION OF THE EQUIPMENT WITHOUT THE EXPRESS WRITTEN CONSENT OF EVEREX COMMUNICATIONS, INC., COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.**

**NOTE: TO COMPLY WITH FCC RF EXPOSURE REQUIREMENTS IN SECTION 1.1307, A MINIMUM SEPARATION DISTANCE OF 20-CM (8 INCHES) IS REQUIRED BETWEEN THE EQUIPMENT AND ALL PERSONS.**

**NOTE: THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS B DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE IN A RESIDENTIAL INSTALLATION. THIS EQUIPMENT GENERATES, USES AND CAN RADIATE RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTIONS, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. HOWEVER, THERE IS NO GUARANTEE THAT INTERFERENCE WILL OCCUR IN A PARTICULAR INSTALLATION. IF THIS EQUIPMENT DOES CAUSE HARMFUL INTERFERENCE TO RADIO AND TELEVISION RECEPTION, WHICH CAN BE DETERMINED BY TURNING THE EQUIPMENT OFF AND ON, THE USER IS ENCOURAGED TO TRY TO CORRECT THE INTERFERENCE BY ONE OR MORE OF THE FOLLOWING MEASURES:**

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Consult the dealer or an experienced radio/TV technician for help.

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