

# Defender® XTE-412

## Installation Instructions



CAUTION

**CAUTION.** Electrician must have experience with Hazardous Location equipment. Disconnect and lock off power supply before wiring or servicing. All wiring must comply with local codes and ordinances.



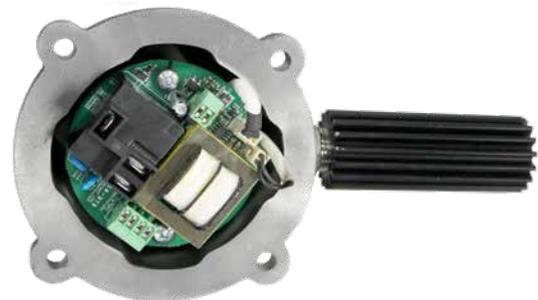
CAUTION

**CAUTION.** To prevent risk of ignition of hazardous atmospheres, disconnect equipment from the supply circuits before opening. Keep assembly tightly closed when in operation.



CAUTION

**CAUTION.** To reduce the risk of electric shock—Do not connect to a circuit operating at more than 150V to ground.



**HEATING**  
SYSTEMS

### Feed-thru Models: XTE-412 SPDT

- Resistive: 10 Amps N.C., 20 Amps N.O., 240 VAC Max.; 24V AC/DC, 120V, 240V
- Pilot Duty: 120 VAC, N.O. 470 VA, N.C. 275 VA
- Class I, Division 1 & 2, Groups C & D; Class II, Division 1, Groups E, F & G;
- Class II, Division 2, Groups F & G; Class III; Class I, Zones 1 & 2, Groups IIA & IIB.

#### Step 1

Mount thermostat approximately 5' (1.5 m) above the floor where average room temperature will be sensed and air circulates freely. Keep thermostat away from hot and cold surfaces.

#### Step 2

1. Three types of power supply terminals are supplied. Installed on the thermostat is a J4 connector wired for 120V. See Figure 1.



Figure 1

2. A J4 connector is supplied separately for 240V power supply. Simply remove 120V J4 connector and install 240V J4 connector. See Figure 2 and 3.

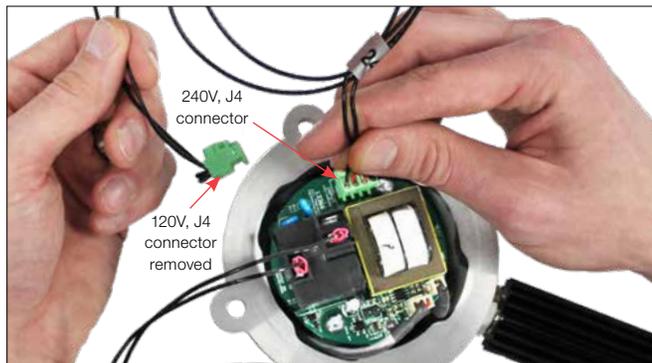


Figure 2

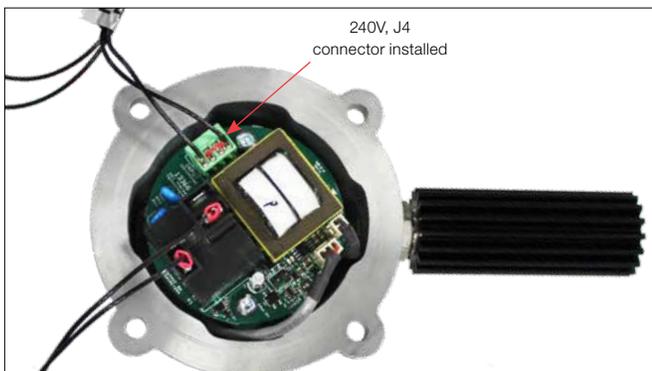


Figure 3

3. For 24V power supply a J2 type connector is supplied. Install J2 connector as shown. Remove J4 connector if necessary. See Figure 4.

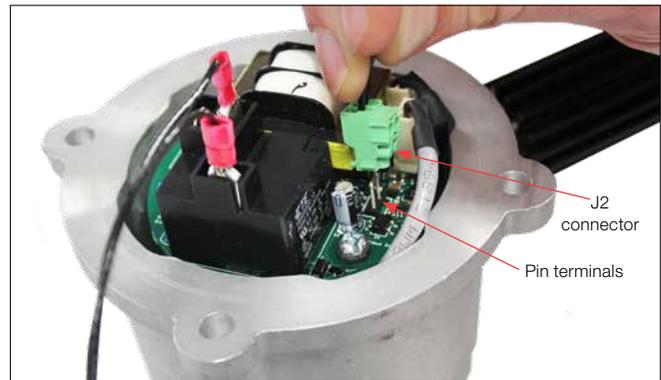


Figure 4

**NOTE:** If rewiring of connectors is required, see Figure 5 or 6 for wire control power supply terminals. J2 connector is for 24V AC/DC, 100 mA and J4 connector is for 120V or 240V, 100 mA. Use only 18–26 AWG copper wire rated for 90°C for connections.



**CAUTION.** All circuits must have a common disconnect and be connected to the same pole of the disconnect. Electrical ratings stated must not be exceeded.

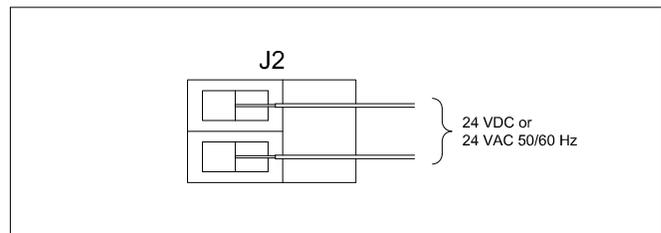


Figure 5

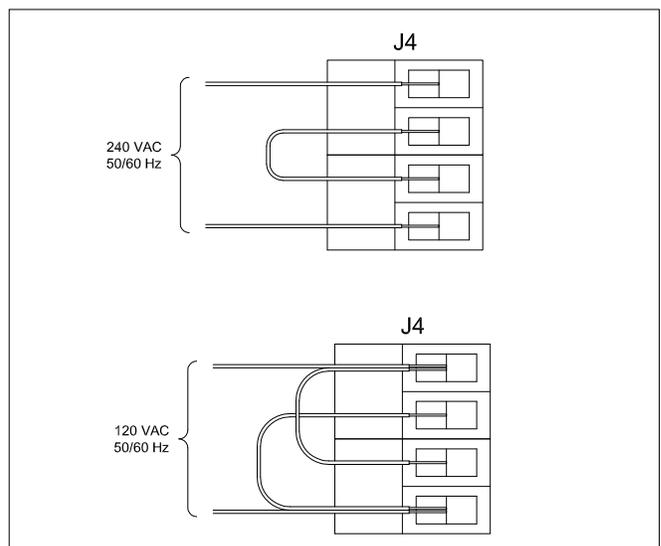


Figure 6

### Step 3

Wire load switch relay as per Figure 7 for resistive heating load and Figure 8 for pilot duty load. Use correct rated wire depending on voltage used. Use copper wire rated for 90°C connections.

For heating applications, attach wire to N.O. terminal. See Figure 9.

For cooling applications attach wire to N.C. terminal. See Figure 10.

### Step 4

Install the cover using the 4 bolts supplied and tighten.

### Step 5

Fill any unused conduit opening using plug supplied.

### Step 6

Rotate the adjustment knob until the desired set temperature is displayed by the indicator. See Figure 11.

### Step 7

Periodically ensure all field wiring connections are secure and undamaged.



**CAUTION.** The thermostat must not be modified in any way. It is factory calibrated and cannot be recalibrated in the field.

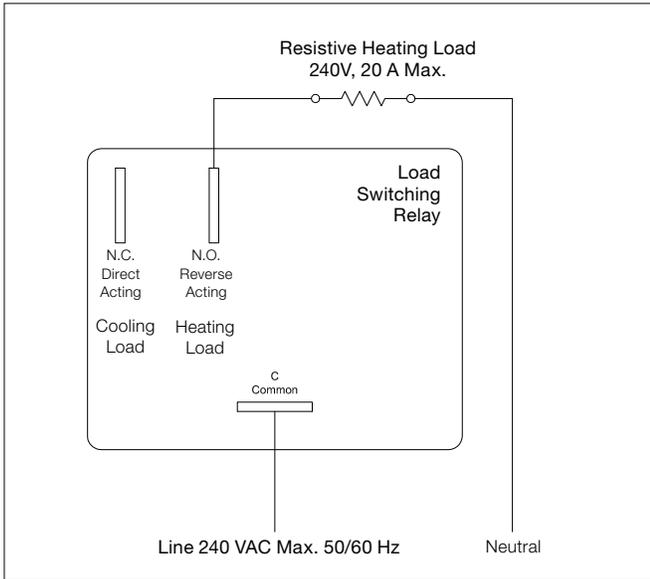


Figure 7



Figure 9

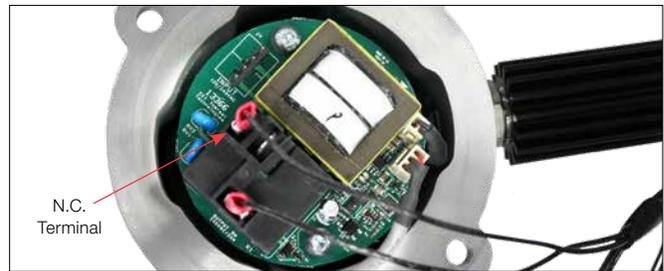


Figure 10

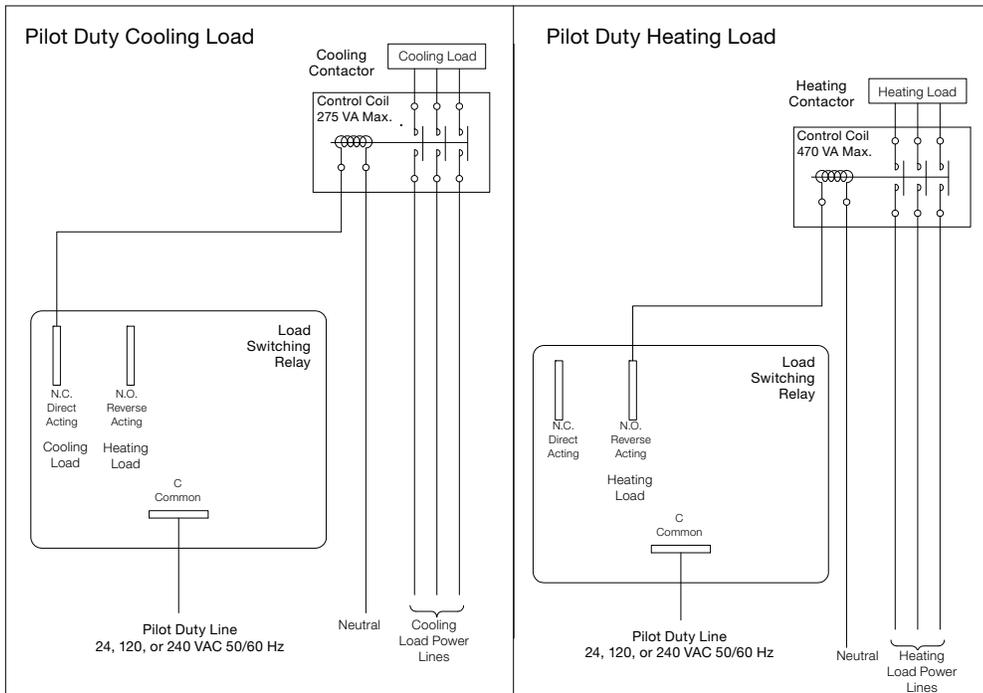


Figure 8



Figure 11

For further assistance, please call 24hr hotline: 1-800-661-8529 (U.S.A. and Canada)  
Please have model and serial numbers available before calling.

**WARRANTY:** Under normal use the Company warrants to the purchaser that defects in material or workmanship will be repaired or replaced without charge for a period of 18 months from date of shipment, or 12 months from the start date of operation, whichever expires first. Any claim for warranty must be reported to the sales office where the product was purchased for authorized repair or replacement within the terms of this warranty.

Subject to State or Provincial law to the contrary, the Company will not be responsible for any expense for installation, removal from service, transportation, or damages of any type whatsoever, including damages arising from lack of use, business interruptions, or incidental or consequential damages.

The Company cannot anticipate or control the conditions of product usage and therefore accepts no responsibility for the safe application and suitability of its products when used alone or in combination with other products. Tests for the safe application and suitability of the products are the sole responsibility of the user.

This warranty will be void if, in the judgment of the Company, the damage, failure or defect is the result of:

- Vibration, radiation, erosion, corrosion, process contamination, abnormal process conditions, temperature and pressures, unusual surges or pulsation, fouling, ordinary wear and tear, lack of maintenance, incorrectly applied utilities such as voltage, air, gas, water, and others or any combination of the aforementioned causes not specifically allowed for in the design conditions or,
- Any act or omission by the Purchaser, its agents, servants or independent contractors which for greater certainty, but not so as to limit the generality of the foregoing, includes physical, chemical or mechanical abuse, accident, improper installation of the product, improper storage and handling of the product, improper application or the misalignment of parts.

No warranty applies to paint finishes except for manufacturing defects apparent within 30 days from the date of installation.

The Company neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the product(s).

The Purchaser agrees that all warranty work required after the initial commissioning of the product will be provided only if the Company has been paid by the Purchaser in full accordance with the terms and conditions of the contract.

The Purchaser agrees that the Company makes no warranty or guarantee, express, implied or statutory, (including any warranty of merchantability or warranty of fitness for a particular purpose) written or oral, of the Article or incidental labour, except as is expressed or contained in the agreement herein.

**LIABILITY:** Technical data contained in the catalog or on the website is subject to change without notice. The Company reserves the right to make dimensional and other design changes as required. The Purchaser acknowledges the Company shall not be obligated to modify those articles manufactured before the formulation of the changes in design or improvements of the products by the Company.

The Company shall not be liable to compensate or indemnify the Purchaser, end user or any other party against any actions, claims, liabilities, injury, loss, loss of use, loss of business, damages, indirect or consequential damages, demands, penalties, fines, expenses (including legal expenses), costs, obligations and causes of action of any kind arising wholly or partly from negligence or omission of the user or the misuse, incorrect application, unsafe application, incorrect storage and handling, incorrect installation, lack of maintenance, improper maintenance or improper operation of products furnished by the Company.



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