



# Supplemental Installation Instructions For BRASCH Electric Duct Heaters with Type 3R Terminal Boxes

These instructions are in addition to all standard installation instructions.

## APPLICATION INFORMATION

These duct heaters have special construction features and installation requirements so that they may be installed in outdoor locations and operated safely.

Site Selection: The site where the heaters are to be installed should not exceed Type 3R conditions. The construction provides “a degree of protection against falling rain and sleet and is undamaged by the formation of ice on the enclosure.” Hosedown, windblown, corrosive, or NEC/CEC classified hazardous locations are not included.

## MECHANICAL INSTALLATION

A. Flange Heater Construction. Follow the standard instructions through step #6, and then do the following. After completing the following steps, return to step #10 of the standard instructions.

### WARNING

Failure to follow sealing instructions could result in short circuit and severe shock hazard resulting in possible loss of life or major equipment damage.

1. The flange connections to the heater flanges and/or terminal box must be sealed watertight. An approved RTV silicone rubber sealing material, GE-112, Dow-736, or Dow-738 Silicone rubber must be used for all connections to the terminal box.
2. Following the manufacturer’s instructions apply a bead of RTV silicone rubber between mating surfaces and around all screw holes.
3. Apply RTV silicone rubber sealant to the end of all sheet metal screws before installing them.
4. Use ¼” sheet metal screws on 4 to 8 inch centers for all connections to the terminal box.
5. Do not seal the two- (2) ¼” diameter drain holes in the bottom of the terminal box.

B. Slip-In Heater Construction. Follow the standard instructions through step #8, and then do the following. After completing the following steps return to step #10 of the standard instructions.

### WARNING

Failure to follow sealing instructions could result in short circuit and severe shock hazard resulting in possible loss of life or major equipment failure.

1. The connection between the heater and the duct must be sealed watertight. An approved RTV silicone rubber sealing material, GE-112, Dow 736, or Dow-738 must be used for all connections to the terminal box.
2. Following the manufacturer’s instructions apply a bead of RTV silicone rubber between mating surfaces and around all screw holes.
3. Apply RTV silicone rubber sealant to the thread end of all sheet metal screws before installing them.
4. Use ¼” sheet metal screws provided with the heater for the connection of the terminal box to the duct.
5. Do not seal the two- (2) ¼” diameter drain holes in the bottom of the terminal box.

## ELECTRICAL INSTALLATION

### WARNING

Failure to follow hookup instructions could result in short circuit and severe shock hazard resulting in possible loss of life or major equipment damage.

Follow the standard instructions through step #14, and then do the following. After completing the following steps, return to step #15 of the standard instructions.

1. Use the conduit hubs provided with the heater for all wiring connections to the heater.
2. If additional conduit connections are required, use UL Listed / CSA Certified rain-tight hubs.
3. Do not make any conduit connections in the top surface of the terminal box.
4. All conduit connections to the terminal box should have a tee and a drain leg installed to keep water from entering the box through the conduit.
5. If a conduit connection is located in the bottom of the terminal box, use conduit sealer and a wiring “drip loop” to prevent moisture from entering the conduit.
6. Use liquid tight conduit for all wiring connections to the heater.

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