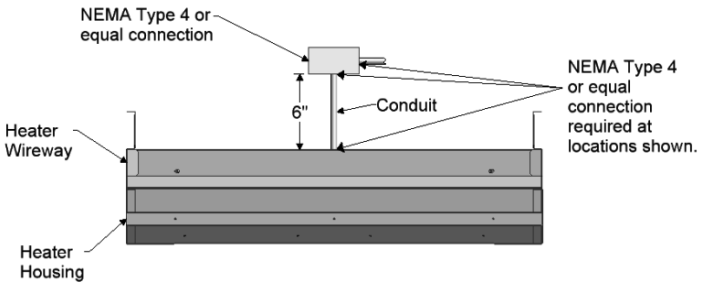
TOTALLY EXPOSED OUTDOOR APPLICATIONS

For totally exposed outdoor applications (not ceiling protected) the connections must be made as illustrated at right.

CAUTION

Red sleeves used for visible light reduction are not recommended for applications near coastal waters. Purchase lamps with integral light filter from factory for these applications.



Note: All conduit, conduit fittings and junction boxes are supplied by the customer.

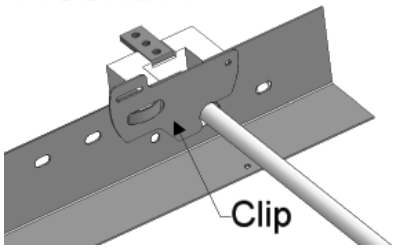
LAMP INSTALLATION & REPLACEMENT

CAUTION: Disconnect power before installing or replacing supplied quartz lamps or quartz tubes. These elements can and should be installed prior to mounting heater.

1. Remove the housing end caps and open positioning clips.
2. Position heating elements in "L" slots at ends of reflector. Avoid handling quartz glass as much as practical. Quartz glass should be wiped off with a clean cloth before energizing heater.
3. Close positioning clips to secure the heating element in the slot (see figure A).
4. Carefully wrap heating element pigtail clockwise around terminal screws (see figure B).
5. Tighten terminal screws (see figure B). **CAUTION: Do not draw pigtail so tight that pressure is put on heating element. Maintain a partial loop (or looseness) in the pigtail 1/2" max. see FIGURE B.**
   NOTE: Cut excess pigtail off at terminal to prevent lead from touching metal parts.
6. Install end caps using sheet metal screws supplied in parts kit.

Note: The Mul-T-Mount heaters are designed for use with Fostoria quartz lamp infrared heating elements only. **They are NOT intended to be used with straight metal rod heating elements.**

FIGURE A



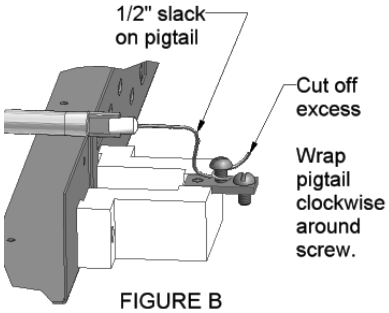


FIGURE B

⚠WARNING

POSSIBLE LAMP FAILURE

The heating elements used in this product can be damaged by contamination (salt deposits from perspiration or coastal air) on the surface of the quartz sleeve. At high temperatures, these salts will cause the quartz to become porous and leak, allowing air to come in contact with the tungsten element. When this occurs, the element will burn out quickly and the outer quartz sleeve can break. The instructions below must be followed.

- Always wear cotton or latex gloves when installing or replacing elements.
- Always clean the quartz sleeve with an alcohol moistened soft cloth before using the heater
- Whenever contamination (milky white appearance on quartz sleeve) is observed, the element must be immediately replaced.

WIRING FOR UNITS WITH (2) LAMPS

⚠WARNING

ELECTRICAL SHOCK HAZARD

- **Serious injury or death may occur.**
- **Disconnect from electrical supply before installing or servicing this heater.**
- **This appliance must be connected to a properly bonded (grounded) electrical source.**

This fixture is equipped with 4 high-temperature silicone lead wires to accommodate either single phase or three phase electrical service. They are shipped wire-tied together. Remove the wire-tie before making electrical connections.

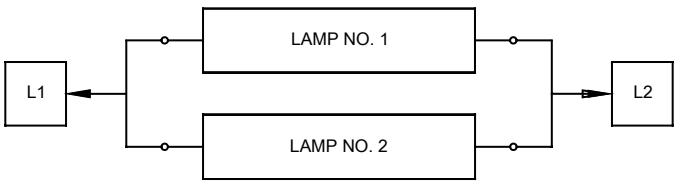
Wiring connections should always be made through one of the knockouts in the top wire channel. Consult the factory, or a qualified electrician for details on staging.

Wires in wiring channel are identified with wire markers. **Markers indicate lamp number.**

Supply wires must be copper and rated for at least 90º C. Wire connectors should also have a minimum rating of 90º C.

For use in TOTALLY EXPOSED OUTDOOR APPLICATIONS refer to page 10.

SINGLE-STAGE WIRING Connect both wires from one end of heater to L1 and the remaining wires from the other end to L2 in the control panel.



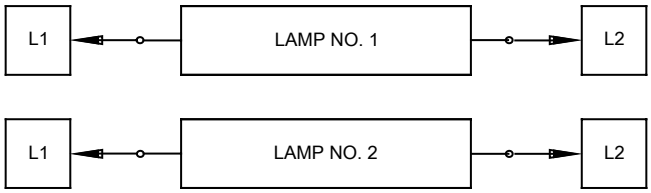
TWO-STAGE WIRING

Two-stage operation allows one or both lamps in the heater(s) to be energized, depending on the signal from an appropriate two-stage control device (e.g. two-stage thermostat). This will allow the heater(s) to operate at 50% on, 100% on, or 100% off; instead of limiting the operation to 100% on or 100% off.

Two circuits are required for two-stage wiring.

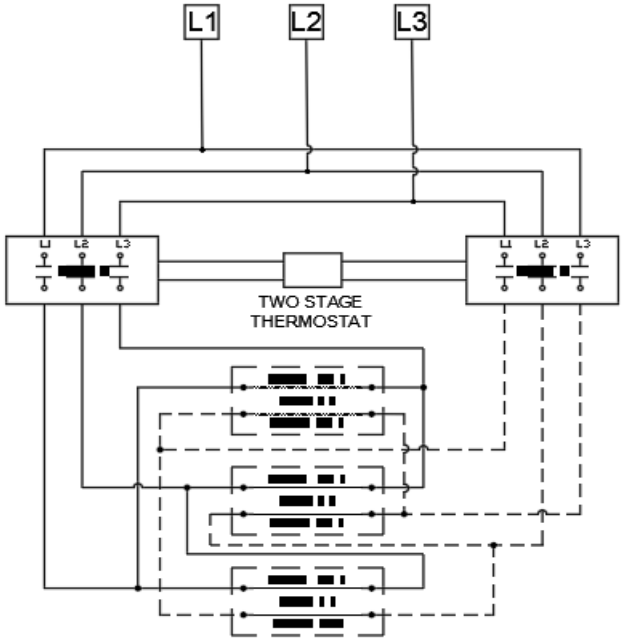
For two-stage operation connect L1 & L2 of circuit #1 to lamp #1 and connect L1 & L2 of circuit #2 to lamp #2 as illustrated below.

CIRCUIT #1



CIRCUIT #2

Common component layout for controlling Fostoria Mul-T-Mount heaters
(2 Stage wiring shown)
This is NOT a wiring schematic



WIRING FOR UNITS WITH (3) LAMPS

⚠ WARNING

ELECTRICAL SHOCK HAZARD

- **Serious injury or death may occur.**
- **Disconnect from electrical supply before installing or servicing this heater.**
- **This appliance must be connected to a properly bonded (grounded) electrical source.**

This fixture is equipped with 6 high-temperature silicone lead wires to accommodate either single phase or three phase electrical service. They are shipped wire-tied together. Remove the wire-tie before making electrical connections.

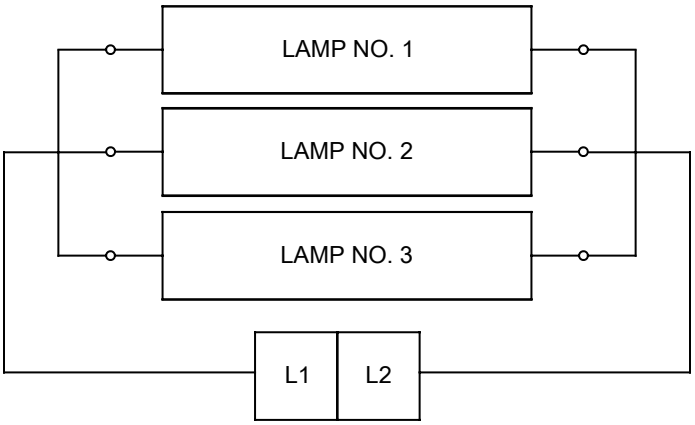
Wiring connections should always be made through one of the knockouts in the top wire channel. Consult the factory, or a qualified electrician for details on staging. Refer to Figure A on page 9.

Supply wires must be copper and rated for at least 90º C. Wire connectors should also have a minimum rating of 90º C.

For use in TOTALLY EXPOSED OUTDOOR APPLICATIONS refer to page 10.

SINGLE PHASE, SINGLE STAGE WIRING

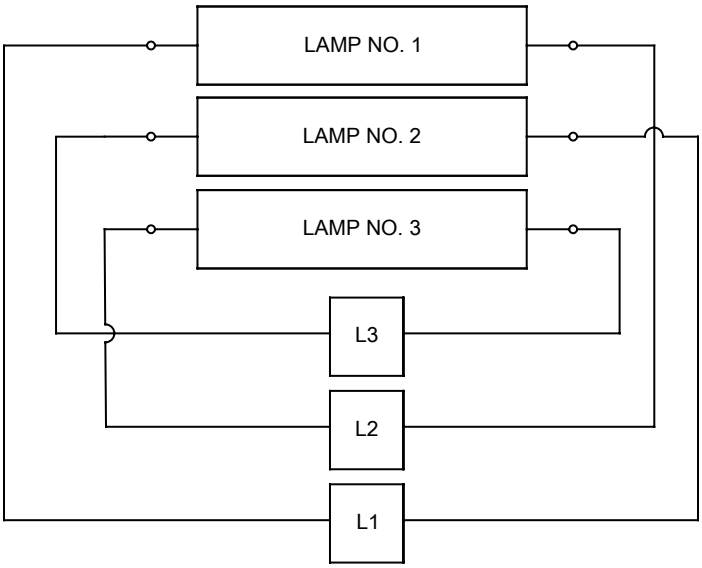
Connect all three wires from one end of heater to L1 and the remaining three wires from the other end to L2; refer to diagram below.



Control Panel
TYPICAL SINGLE PHASE WIRING
Wire markers on lead wires indicate lamp number

THREE PHASE, SINGLE STAGE WIRING

Balance each leg throughout the three elements in each heater, as shown below.



Control Panel
TYPICAL THREE PHASE WIRING
Wire markers on lead wires indicate lamp number

MAINTENANCE

Pre-Season Maintenance and Annual Inspection

To ensure your safety and for years of trouble-free operation of the heating system, annual service and inspections must be done by a qualified contractor.

To obtain maximum performance from your heater(s) each year, we recommend the following be performed at the start of the heating season:

1. Clean reflector surface with a damp cloth.
2. Clean quartz lamp with alcohol moistened soft cloth.
3. Make sure heater is secure on all hanging points.
4. **Maintain the Clearance to Combustibles.** Immediately remove objects in violation of the clearance to combustibles.

If additional service to the heater is required, contact the factory or your local representative.

TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Element does not energize	1. Defective element. 2. Improper connection. 3. Pigtail loose from socket connection.	1. Replace element. 2. Check connection to power source. 3. Rewind or re-insert pigtail into socket.
Not enough heat.	1. Heater too small for application. 2. Heater mounted too high or too far.	1. Add more heaters. 2. Decrease mounting height or distance.
Too much heat.	1. Heater too large for application. 2. Heater mounted too low or too close.	1. Replace with smaller heater. 2. Increase mounting height or distance.

WARNING: WHEN ADJUSTING MOUNTING HEIGHT FOR MORE OR LESS HEAT, STAY WITHIN RECOMMENDED MOUNTING HEIGHTS ON PAGE 7.