

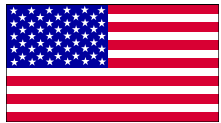


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A DIVISION OF 

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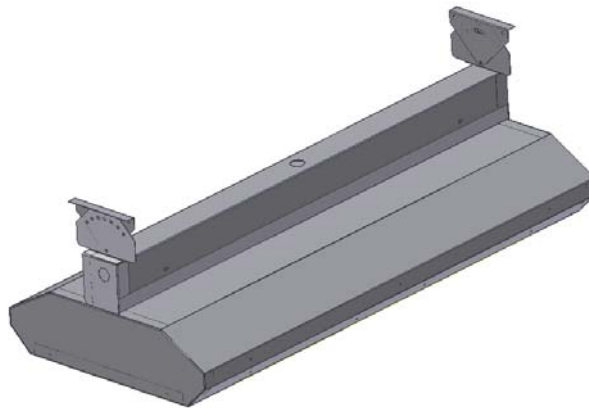



# MTM Series

## 2 and 3 Lamp Units



### OVERHEAD ELECTRIC INFRARED HEATER



	<b>⚠ WARNING</b>
	<p><b>IMPORTANT SAFETY INFORMATION INSIDE</b></p> <ul style="list-style-type: none"> <li>• Serious injury or death possible</li> <li>• Read, understand, and follow all safety information and instructions in this manual before using or servicing this product.</li> <li>• Retain these instructions for future reference.</li> </ul>

- **INSTALLATION**
- **OPERATION**
- **MAINTENANCE**
- **SERVICE PARTS**
- **ACCESSORIES**
- **WARRANTY**

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**Do NOT proceed to sections of this instruction manual without first completely reading and understanding all the information in the warnings on Page 3!!**





## WARNING



**READ THIS MANUAL CAREFULLY** before installing or servicing this product. Improper installation, operation, or maintenance can result in death, severe injury, or property damage!

**NOT FOR RESIDENTIAL USE!**

**FOR USE INDOORS AND OUTDOORS**

**NOT FOR USE IN HAZARDOUS OR EXPLOSIVE ATMOSPHERES!**

**INSTALLATION AND SERVICE OF THESE PRODUCTS MUST BE CONDUCTED BY TRAINED PERSONNEL EXPERIENCED WITH ELECTRICAL EQUIPMENT.**

**CLEARANCES TO COMBUSTIBLES AS DOCUMENTED IN THIS MANUAL AND ON THE HEATER MUST BE MAINTAINED AT ALL TIMES!**

**Combustibles:** Failure to maintain minimum clearances to combustible materials can result in serious fire hazard. Locations used for storage of combustible materials must have signs posted to specify maximum permissible stacking heights such that required clearances are maintained. These signs must be conspicuously located or adjacent to heater thermostats.

**Vehicles:** These heaters must be installed such that the minimum clearances described in this manual are maintained from vehicles parked below the heater.

**Suspension:** The use of appropriate mounting hardware (beam clamps, chains, rods, turnbuckles, etc.) are a must. The weight of the heater must be entirely supported from a permanent part of the building structure having adequate load characteristics.

Do not attach ductwork to this heater or attempt to use it as a make-up air heater. Such use voids the warranty and may create unsafe conditions.

Do not insert fingers or foreign objects into the heater. Do not block or tamper with the heater while it is in operation. Do not touch heater while it is in operation or just after it has been turned off, as some parts may be hot enough to cause injury.

Make certain that the power source conforms to the electrical requirements of the heater. Disconnect power before installing or servicing. If the power disconnect is out of sight, lock it in the open position and tag it to prevent unexpected application of power. Failure to do so could result in fatal electric shock.

**WARNING: DO NOT DEPEND UPON A THERMOSTAT OR OTHER SWITCH AS THE SOLE MEANS OF DISCONNECTING POWER WHEN INSTALLING OR SERVICING THE HEATER. FOR CE APPLICATIONS AN ALL POLE DISCONNECT WITH CONTACT SEPARATION OF AT LEAST 3mm MUST BE USED. ALWAYS DISCONNECT BREAKER AS DESCRIBED ABOVE. FAILURE TO DO SO COULD RESULT IN FATAL ELECTRIC SHOCK.**

This heater is intended **ONLY** for permanent installation in accordance with the National Electric Code (NEC), all applicable local codes and ordinances, and all sections of this manual. Any variance voids the warranty and may create unsafe conditions.

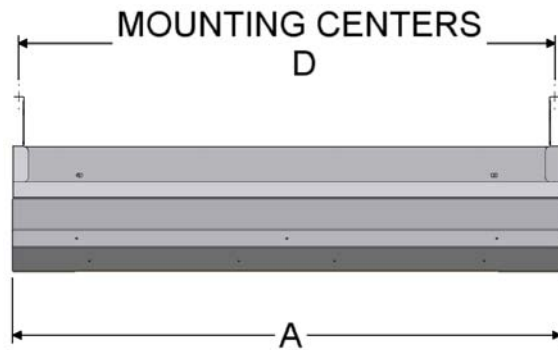
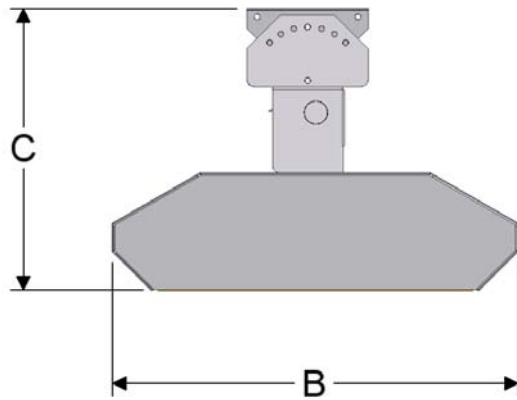
### **USE COPPER WIRING ONLY**

Special attention must be given to any grounding information pertaining to this heater. To prevent the risk of electrocution, the heater must be securely and adequately grounded. This should be accomplished by connecting a grounded conductor between the service panel and the green grounding screw provided on the heater. To ensure a proper ground, the grounding means must be tested by a qualified electrician.

Check branch voltage. Heaters should be operated at voltages no higher than the heating elements and the heater are designed for. (Lower voltages, however, pose no problem other than a loss of wattage). Heaters are not intended for process heating applications.

In cases where property damage may result from malfunction of the heater, a back-up system or a temperature alarm should be used.

# SPECIFICATIONS



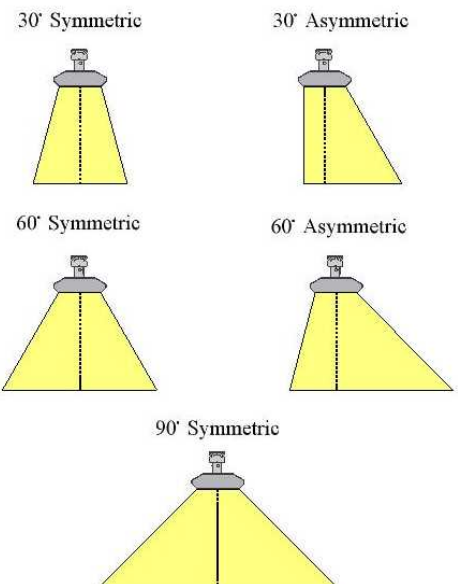
HEATER SERIES	NUMBER OF LAMPS	VOLTAGE and PHASE	WATTAGE	BTU'S	A	B	C	D
222	2	208; 1ph	3200	10,992	24"	15"	10-1/2"	23-1/2"
		240; 1ph						
		277; 1ph						
		480; 1ph						
223	3	208; 1 or 3ph	4800	16,382	24"	21-1/2"	10-1/2"	23-1/2"
		240; 1 or 3ph						
		277; 1 or 3ph						
		480; 1 or 3ph						
342	2	208; 1ph	5000	17,065	33"	15"	10-1/2"	32-1/2"
		240; 1ph						
		277; 1ph						
		480; 1ph						
343	3	208; 1 or 3ph	7500	25,298	33"	21-1/2"	10-1/2"	32-1/2"
		240; 1 or 3ph						
		277; 1 or 3ph						
		480; 1 or 3ph						
462	2	480; 1ph	7300	24,915	46"	15"	10-1/2"	45-1/2'
		600; 1ph	7600					
463	3	480; 1 or 3ph	10950	37,372	46"	21-1/2"	10-1/2"	45-1/2"
		600; 1 or 3ph	11400					

## MODEL NUMBER DESIGNATION CHART

SERIES	REFLECTOR PATTERNS	TAB HINGE	HOUSING MATERIAL	VOLTAGE
222	30	TH	BLANK = BROWN	208V
223	60			240V
342	90		SS = STAINLESS STEEL	277V
343	A30			480V
462	A60			577V
463				

**Model Configuration Examples:** 222-30-TH-240V  
or  
343-90-THSS-480V

## REFLECTOR PATTERNS



## **INSTALLATION PLANNING**

**The Fostoria Mul-T-Mount Series offers the highest watt density and heating efficiency in an electric infrared heater. All models are UL Listed for spot-heat or total building heat indoors, or for totally unprotected outdoor applications. Fixtures are also UL Listed for recessed applications, such as in ceilings or canopies.**

2-Lamp models are available in either Stainless Steel and a Hi-Temp Brown Powder Coated finish.  
3-Lamp models are only available in Stainless Steel.

**The specially designed “T” Tab wire channel allows for one-man installation.**

No asbestos or mercury is used in the manufacture of these heaters.

### **CHECKING YOUR SHIPMENT**

Upon receipt of your shipment, check the carton(s) for damage.

Any accessory items ordered for heater will be shipped in their own carton.

Claims for damaged material or shortages that were not evident upon receipt of shipment must be reported to carrier and Fostoria Industries customer service (800-495-4525) immediately.

Before starting to install the heater, make sure that all components and accessories ordered are available.

### **INSTALLER QUALIFICATIONS**

Only firms or individuals qualified to perform work in accordance with the applicable specifications for electrical equipment should be engaged to install Fostoria MTM systems. Consult local building inspectors, fire marshals, your local Fostoria representative or the factory for guidance.

### **INSTALLER RESPONSIBILITY**

National and local codes and ordinances together with specifications provided by Fostoria Industries, Inc. comprise the information needed for proper installation. The installer must furnish all materials that have not been purchased from Fostoria Industries or its representatives. It is the installer's responsibility that the materials and methods of installation result in a job that is workmanlike and in keeping with all applicable codes.

In storage areas where stacking of materials may occur, the installer must provide signs which specify the maximum stacking height so as to maintain the required clearances to combustibles.

### **ELECTRICAL GROUNDING**

A protective non-corrosive conductor terminal must be firmly attached to a protective earthing conductor (both supplied by customer). This must then be secured to the heater with the supplied green screw and lock washer in the heater wireway to ensure a proper ground.

## **LAYOUT DESIGN**

When positioning heaters, keep in mind the clearance to combustible materials, lights, sprinkler heads, overhead doors, storage areas with stacked materials, gas and electrical lines, parked vehicles, cranes, etc. Refer to page six (6) for minimum clearance to verify that a safe installation condition exists.

# APPLICATION GUIDE

## OUTDOOR COMFORT HEATING

Two (2) watts per square foot is equal to One (1) degree temperature rise. Heater installation shall comply with all OIPM, NEC, and local restrictions.

### COMFORT (OUTDOOR) APPLICATION CHART

Model Series	Recommended Mounting Height (ft.)	Coverage of Heater Length x Width (ft.)	Watts per Square Foot	Temperature Rise Expected
222-60	8-10	10.5 x 9.5	32	15°
223-60	8-10	10.5 x 9.5	48	24°
342-60	10-12	14 x 12	30	15°
343-60	10-12	14 x 12	45	23°
462-60	10-12	15 x 12	41	20°
463-60	10-12	15 x 12	61	30°

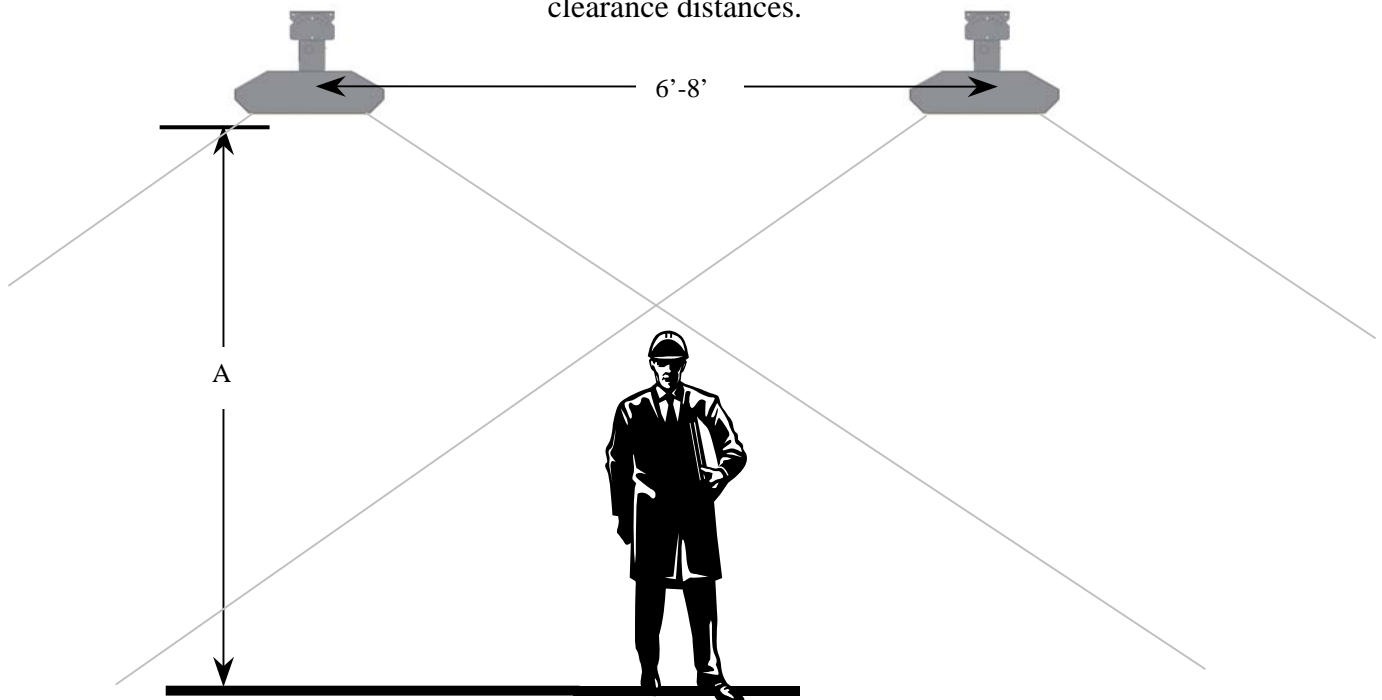
## INDOOR SPOT HEATING

One (1) watt per square foot is equal to One (1) degree temperature rise. When comfort spot heating people, two heaters should be used to heat both sides of the individual. Heater installation shall comply with all OIPM, NEC, and local restrictions.

### SPOT HEATING (INDOOR) APPLICATION CHART

Model Series	Recommended Mounting Height (ft.) A*	Coverage of Heater Length x Width (ft.)	Watts per Square Foot	Temperature Rise Expected
222-60	8-10	13 x 12	21	20°
223-60	10-12	15 x 14	23	23°
222-30	12-14	8.5 x 7.5	50	50°
342-60	8-10	14 x 12	30	30°
343-60	10-12	16 x 14	34	34°
462-60	12-14	19 x 16	24	24°
463-60	12-14	19 x 16	36	36°

\*Clearances to combustibles must be maintained regardless of recommended mounting height. See page 7 for clearance distances.



# MINIMUM CLEARANCES TO COMBUSTIBLES



**WARNING**

Failure to follow these instructions can result in death or injury.

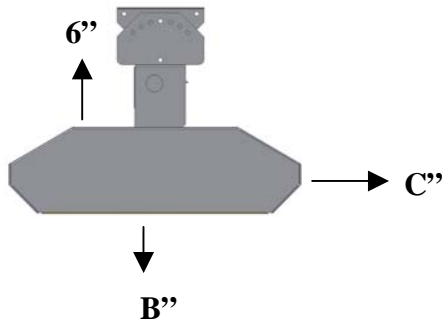
Keep all flammable objects, liquids and vapors the required minimum distance from the heater.

Burn hazard! Heater is very HOT. Do not touch any part of heater.

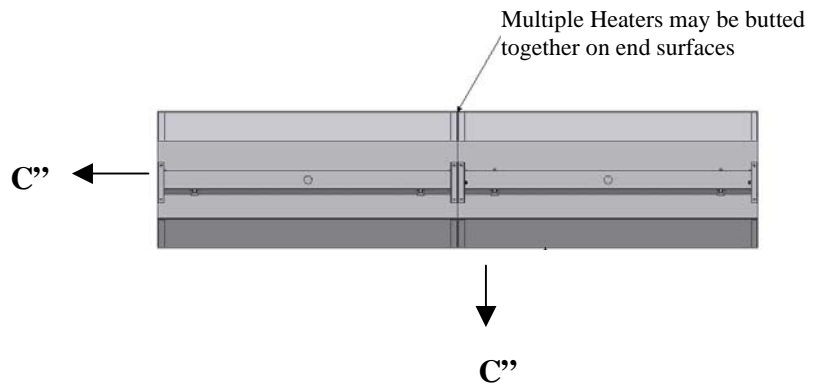
Fire hazard! Some objects will catch fire or explode when placed close to heater.

- Dimensions are listed in inches
- Dimension “B” indicates the required clearance to combustibles; it DOES NOT indicate the required mounting height.

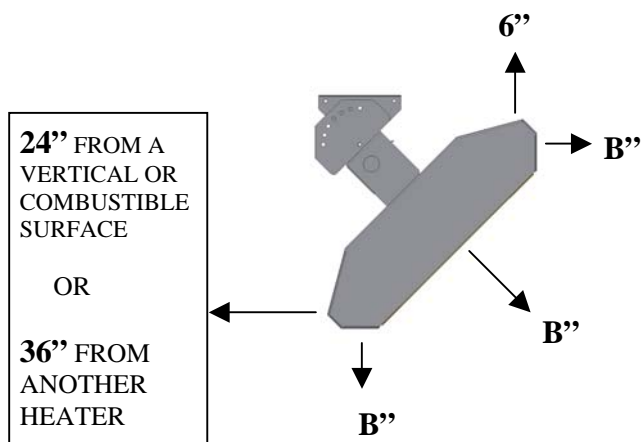
**END VIEW – 0 DEGREE TILT**



**TOP VIEW - 2 UNITS SHOWN**



**END VIEW – 0-45 DEGREE TILT**



<b>B" Dimension</b>	<b>C" Dimension</b>
<p><b>2-Lamp units:</b>                      -72" for a single unit                      -72" for (2) or more heaters being mounted end-to-end.</p> <p><b>3-Lamp units:</b>                      -72" for a single unit                      -96" for (2) or more heaters being mounted end-to-end.</p>	<p><u>TYP. BOTH SIDES AND ENDS</u></p> <p><b>24" FROM A VERTICAL OR COMBUSTIBLE SURFACE</b></p> <p><b>36" FROM ANOTHER HEATER</b></p>

## WARNING!

Heaters should be installed so that the minimum clearance to vehicles, as marked on the heater, will be maintained. If vehicle lifts are present, ensure that the minimum clearance to combustibles will be maintained from the highest raised vehicle.

# MOUNTING INSTRUCTIONS

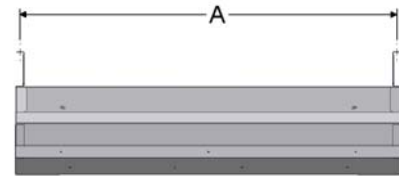
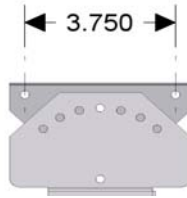
**CLEARANCES TO COMBUSTIBLES AS ON PAGE 6 OF THIS MANUAL AND ON THE HEATER MUST BE MAINTAINED AT ALL TIMES!**

**NOTE:** If asymmetrical reflectors are used, be sure to mount the wireway with the “T” slots facing away from the wall or obstruction, and toward the area to be heated.

**CAUTION:** Install heater so that the quartz lamps are horizontal. Failure to do this may cause the heating element within the tube to sag and cause premature burnout.

## Mounting Centers

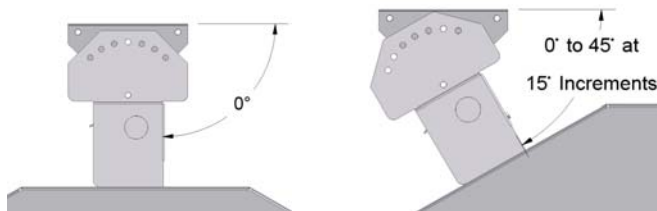
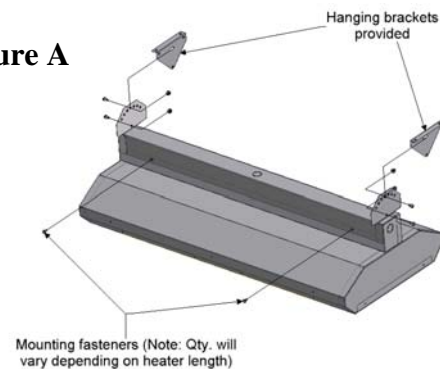
Heater Series	“A” dimension
222 & 223	23-1/2
342 & 343	32-1/2
462 & 463	45-1/2



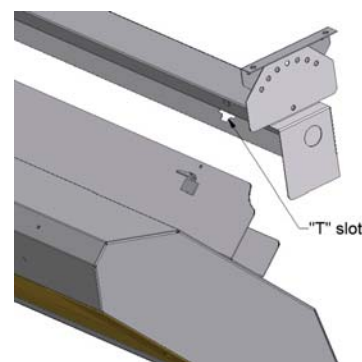
## Top channel assembly

1. Attach the adjustment hanging brackets to the top wire channel. On each end, place (1) 10-32 x 1/2 screw through the bottom hole of the adjustment hanging bracket and through the bottom hole of the top wire channel. Place (1) 10-32 lock nut on the screw. Don't tighten completely. **NOTE:** The adjustment hanging brackets are **NOT** required for chain suspension.
2. Adjust bracket to desired mounting angle (see figure B).
3. Place (1) 10-32 x 1/2 screw through the slot in the adjustment hanging bracket and the hole in the top wire channel. Place (1) 10-32 lock nut on the screw and tighten.
4. Tighten 10-32 lock nuts from step #1.
5. Hook heater body into mounted wire channel cover. Unit will hang freely by the “T” tabs, leaving both hands free to wire unit (see figure C).
6. Close wire channel using the (4 or 6) 8-15 x 1/2 screws provided in hardware pack. **NOTE:** Quantity will vary depending on heater length.

**Figure A**



**Figure B**



**Figure C**

# MOUNTING OPTIONS

**RECESSED MOUNTING:** Refer to page 15 of this manual.

**CHAIN SUSPENSION:** Use 14 gauge jack chain and “S” hooks (not supplied). “S” hooks must be crimped shut so the heater cannot be inadvertently lifted off of its mounting.

**STEM SUSPENSION:** Use solid rods (1/4” diameter min.) or suitable tubing. Drill holes in top wire channel 4” from each end for mounting.

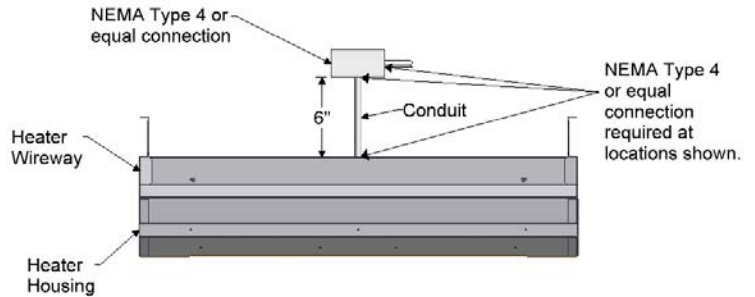
**VMB-41-SS:** Wall Mounting Bracket.



## TOTALLY EXPOSED OUTDOOR APPLICATIONS

**CAUTION: FOR TOTALLY EXPOSED OUTDOOR APPLICATIONS (NOT CEILING PROTECTED) THE CONNECTIONS MUST BE MADE AS ILLUSTRATED**

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.
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 A). NOTE: Cut excess pigtail off at terminal to prevent lead from touching metal parts. Avoid handling quartz glass as much as practical. Quartz glass should be wiped off with a clean cloth.
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.**
6. Replace end caps using sheet metal screws removed in Step 1.

**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

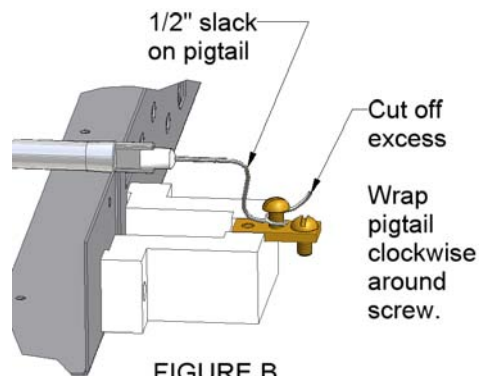
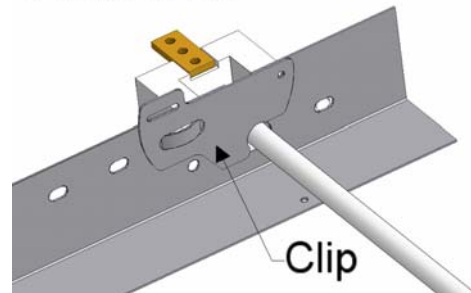


FIGURE B

# WIRING FOR UNITS WITH (2) LAMPS



**WARNING**



**Electrical Shock Hazard**

**Disconnect electrical power before servicing.**

**This appliance must be connected to a properly grounded electrical source.**

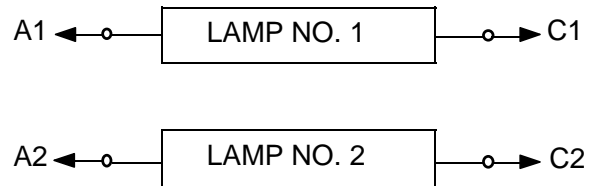
**Failure to follow these instructions can result in death or electrical shock.**

## TWO-STAGE WIRING

Two-staging allows either one or both lamps in the heater to be energized at a time, depending on the signal from an appropriate two-stage control device (e.g. two-stage thermostat). One lamp (one stage) may be all that is required for adequate heating during milder temperature conditions. Two-staging, therefore, allows for totally off, half on, or totally on operation; instead of limiting the operation to 100% "on" or 100% "off".

Two circuits are required (A1, A2 and C1, C2) for two-stage wiring.

For two-stage operation connect the wire from the end of one lamp to A1 and the wire from the same end of the other lamp to A2, with the corresponding wires from the other ends of the lamps to C1 and C2, ETC...

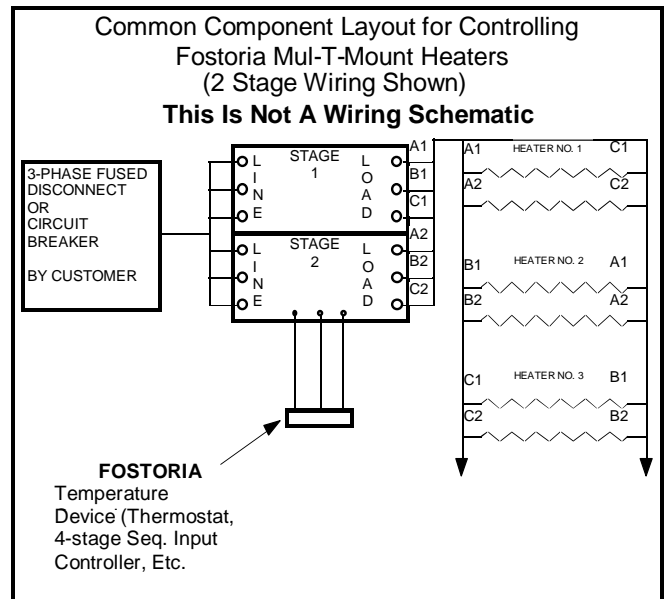


This fixture is equipped with 4 high-temperature silicone lead wires to accommodate either single phase or three phase electrical service. They are shipped wire-tied together. Remove the wire-tie before making electrical connections.

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.

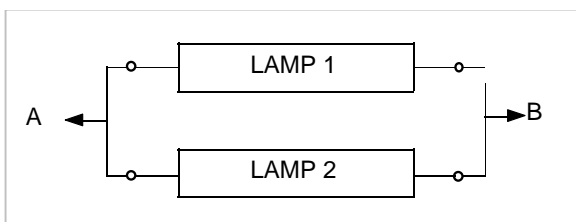
Supply wires must be copper and rated for at least 90° C. Wire connectors should also have a minimum rating of 90° C.

**For Use in TOTALLY EXPOSED OUTDOOR Applications refer to page 9.**



## SINGLE-STAGE WIRING

Connect both wires from one end of heater to "A" and the remaining wires from the other end to "B" in the control panel



# WIRING FOR UNITS WITH (3) LAMPS

WARNING

**Electrical Shock Hazard**

**Disconnect electrical power before servicing.**

**This appliance must be connected to a properly grounded electrical source.**

**Failure to follow these instructions can result in death or electrical shock.**

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.

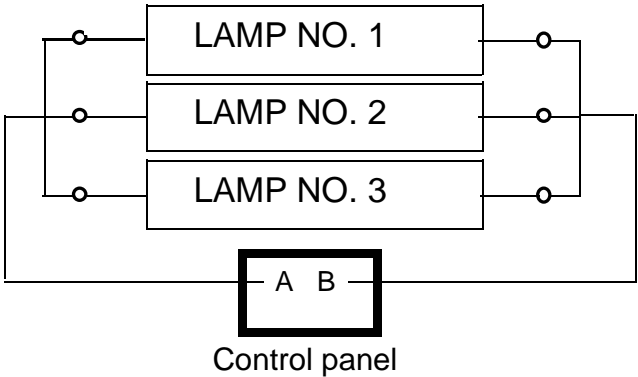
Wiring connections should always be made through one of the knockouts in the top wire channel. Refer to Figure C for totally exposed outdoor applications. Consult the factory, or a qualified electrician for details on staging.

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

**For Use in TOTALLY EXPOSED OUTDOOR Applications refer to page 9.**

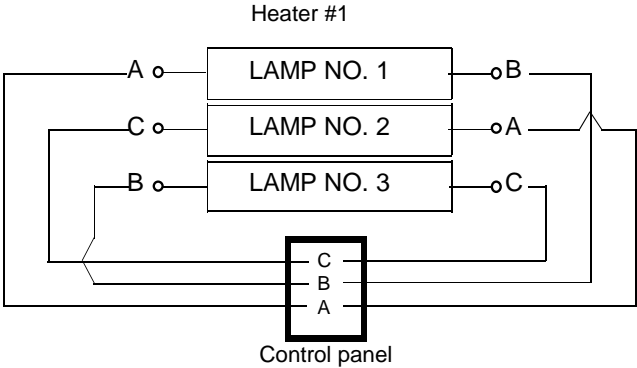
**SINGLE PHASE, SINGLE STAGE WIRING**

Connect all three wires from one end of heater to “A” and the remaining three wires from the other end to “B”; refer to diagram below.



**THREE PHASE, SINGLE STAGE WIRING**

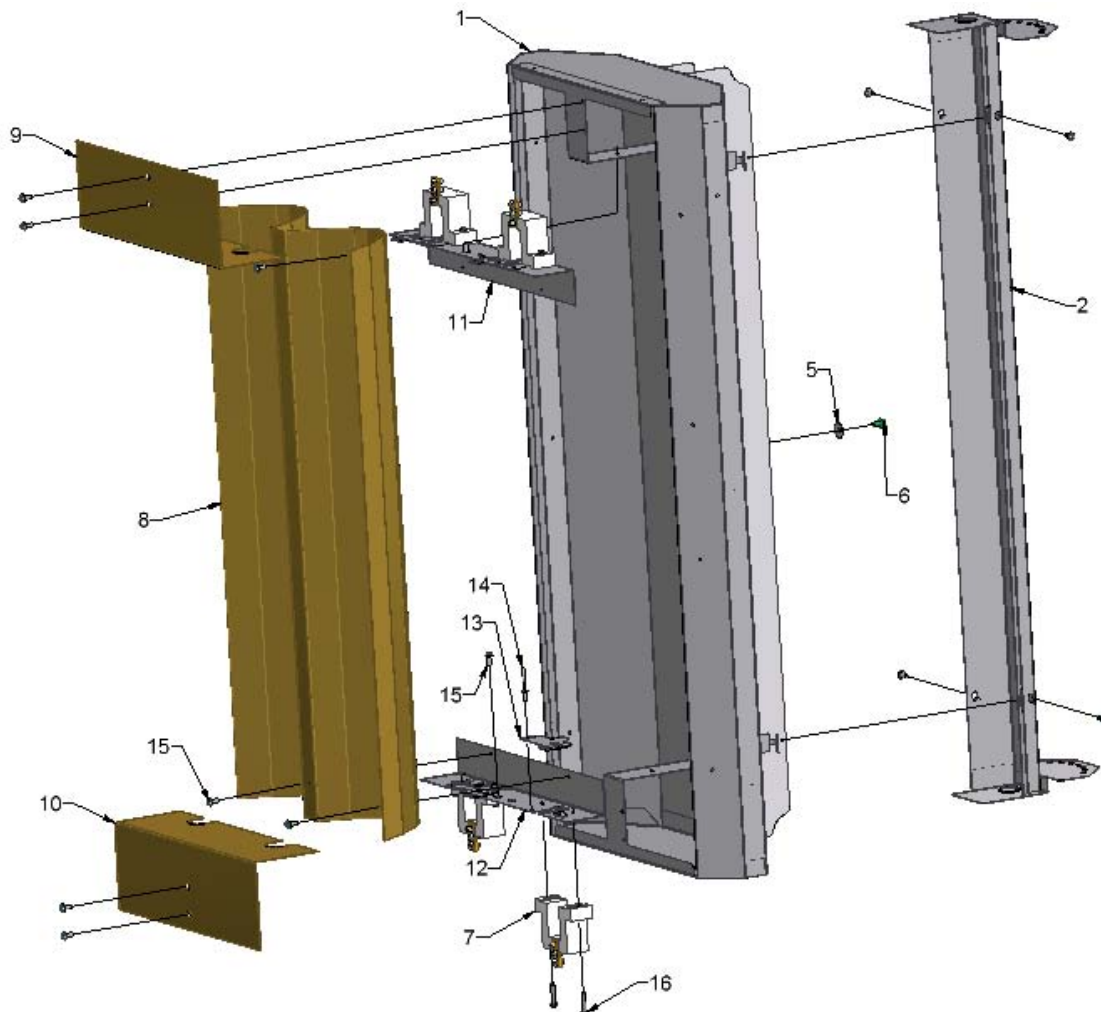
Balance each leg throughout the three elements in each heater, as shown below.



## REPLACEMENT PART LIST and EXPLODED VIEW

Item No.	Description	Part Number	2-Lamp Qty.	3-Lamp Qty.
1	Housing Assembly	See chart	1	1
2	Top Wire Channel	See chart	1	1
3	Quartz Lamp	See chart	2	3
4	Hardware Package	3406939	1	1
5	Washer curved	3476700	1	1
6	Screw #10-32 x 3/8	3475000	1	1
7	Socket Assembly	8500002	4	6
8	Reflector	See chart	1	1
9	End Cap – LH	See chart	1	1
10	End Cap – RH	See chart	1	1
11	Lamp Positioner – LH	See chart	1	1
12	Lamp Positioner – RH	See chart	1	1
13	Lamp Clip	8506939	4	6
14	Pop Rivet	3482200	4	6
15	Screw #8-15 x 1/2	3470800	6	8
16	Screw #8-18 x 7/8	2465000	8	12

**MODEL 342 SHOWN  
FOR REFERENCE**



## REPLACEMENT PARTS LIST (con't)

<b>Item #1 - Housing Assembly</b>		
<b>Series</b>	<b>Description</b>	<b>Part No.</b>
222	Painted	8565614
	Stainless Steel	8565639
342	Painted	8565714
	Stainless Steel	8565739
462	Painted	8565814
	Stainless Steel	8565839
223	Stainless Steel	8565939
343	Stainless Steel	8566039
463	Stainless Steel	8566139

<b>Item #2- Top Wire Channel Assembly</b>		
<b>Series</b>	<b>Description</b>	<b>Part No.</b>
222 & 223	Painted (222 models only)	8565014
	Stainless Steel	8565039
342 & 343	Painted (342 models only)	8565114
	Stainless Steel	8565139
462 & 462	Painted (462 models only)	8565214
	Stainless Steel	8565239

<b>Item #3- Quartz Lamp</b>		
<b>Series</b>	<b>Description</b>	<b>Part No.</b>
222 & 223	208V 1600W	04401602
	240V 1600W	04401702
	277V 1600W	04401802
	480V 1600W	04817302
342 & 343	208V 2500W	04817402
	240V 2500W	04817502
	277V 2500W	04817602
	480V 2500W	04405402
462 & 463	480V 3650W	04406702
	600V 3800W	04817702

<b>Series</b>	<b>Reflector Pattern</b>	<b>Item #8 Part No.</b>	<b>Item #9 Part No.</b>	<b>Item #10 Part No.</b>	<b>Item #11 Part No.</b>	<b>Item #12 Part No.</b>
222	30	8550000	8502300	8502300	8567800	8567800
	60	8550100	8502400	8502400	8567900	8567900
	90	8550200	8504800	8504800	8568000	8568000
	A30	8550300	8502000	8501900	8567601	8567600
	A60	8550500	8502200	8502100	8567701	8567700
223	30	8551800	8542100	8542100	8567300	8567300
	60	8551900	8542200	8542200	8567400	8567400
	90	8552000	8542300	8542300	8567500	8567500
	A30	8552100	8541600	8541500	8568101	8568100
	A60	8552200	8542000	8541900	8568201	8568200
342	30	8550600	8502300	8502300	8567800	8567800
	60	8550700	8502400	8502400	8567900	8567900
	90	8550800	8504800	8504800	8508000	8568000
	A30	8550900	8502000	8501900	8567601	8567600
	A60	8551100	8502200	8502100	8567701	8567700
343	30	8552300	8542100	8542100	8567300	8567300
	60	8552400	8542200	8542200	8567400	8567400
	90	8552500	8542300	8542300	8567500	8567500
	A30	8552600	8541600	8541500	8568101	8568100
	A60	8552700	8542000	8541900	8568201	8568200
462	30	8551200	8502300	8502300	8567800	8567800
	60	8551300	8502400	8502400	8567900	8567900
	90	8551400	8504800	8504800	8508000	8568000
	A30	8551500	8502000	8501900	8567601	8567600
	A60	8551700	8502200	8502100	8567701	8567700
463	30	8552800	8542100	8542100	8567300	8567300
	60	8552900	8542200	8542200	8567400	8567400
	90	8553000	8542300	8542300	8567500	8567500
	A30	8553100	8541600	8541500	8568101	8568100
	A60	8553200	8542000	8541900	8568201	8568200

## 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. Make sure heater is secure on all hanging points.
3. **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.

## LIMITED WARRANTY

FOSTORIA INDUSTRIES, INC. - Fostoria, Ohio 44830-0986 - (419) 435-9201

The warranty herein set forth is in lieu of all other warranties expressed or implied.

Fostoria Industries, Inc. of Fostoria, Ohio 44830, warrants its products to the owner against defects in material and workmanship for a twelve (12) month period under normal use and service following date of manufacture or installation when proof of such is provided to seller.

This Warranty requires that the owner, or his agent, install the equipment in accordance with the National Electrical Code, any other applicable heating or electrical codes and the manufacturer's installation instructions. It further requires that he perform reasonable and necessary maintenance on the unit. The company is not liable for abuse or misuse of product as may be finally determined by the company.

The obligation of Fostoria Industries, Inc. under the terms of this warranty, shall be to supply a new part, repair of defective part, or a refund, at the company's option with no cost to owner for the new or repaired part. Such parts are to be returned to the factory, or such other location as the company may designate. This warranty does not obligate Fostoria Industries, Inc. to bear the cost of labor in replacing any assembly, unit or component part thereof, nor does the company assume any liability for secondary charges, expenses for installing or removal, or any other consequential losses. The company's maximum liability shall not in any case exceed the list price for the product claimed to be defective.

The warranty shall not apply to any product or parts of products that have been repaired or altered outside of Seller's factory in any manner. Warranty is void on products that have been determined to have been subjected to misuse, negligence or accident or which have been used in a manner contrary to Seller's instructions.

# OPTIONAL RECESSED MOUNTING FRAME INSTALLATION

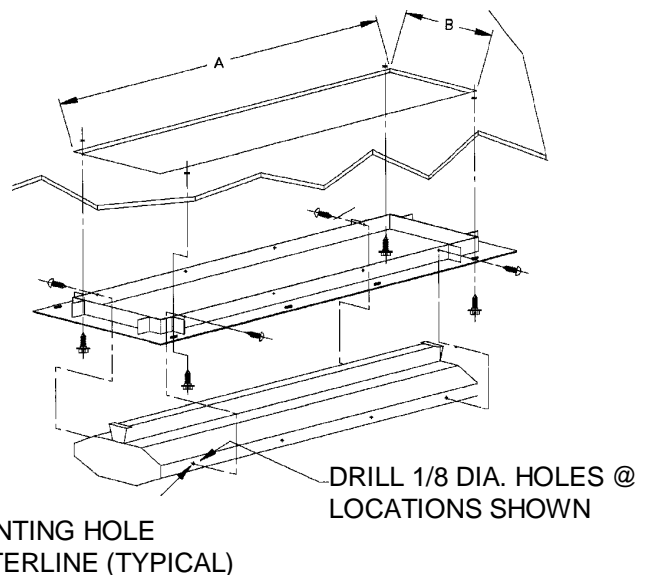
## MOUNTING INSTRUCTIONS

1. Mount frame to heater with #8 x 1/2" long sheet metal screws supplied by customer. Four screws are required on the RMF-222-A, six required on the RMF-342-A and eight on the RMF-462-A and RMF-223-SS units; twelve screws are required on the RMF-463-SS models. Use the frame as a template for laying out the holes.
2. Mount the frame to the ceiling, using the outside slots only, with 1/4" lag screws provided by the customer. Four lag screws are required on the RMF-222-A and RMF-223-SS units, six on the RMF-342-A and eight on the RMF-462-A and RMF-463-SS units. Tabs will center frame in opening. **CAUTION: To maintain required clearance above heater, refer to minimum clearances to combustibles on page 7.**

## FIELD WIRING CONNECTIONS

- A. Select the appropriate knockout on the top wiring channel, and install a 12" conduit nipple and splice box (customer supplied).
- B. Route the leads from the wiring channel through the conduit and connect with the supply wiring inside the splice box.
- C. Follow local and national electric codes.

**NOTE: Hold dimensions A and B to + 1/8" for rough opening in the ceiling.**



Heater Series		Model	Part No.	DIM. A (IN.)	DIM B. (IN.)
222	Painted	RMF-222-A	04494402	27 ¼	18
	Stainless	RMF-222-SS-A	04419902		
342	Painted	RMF-342-A	04418702	36 ¼	
	Stainless	RMF-342-SS-A	04420702		
462	Painted	RMF-462-A	04494502	49 ¼	
	Stainless	RMF-462-SS-A	04421002		
223		RMF-223-SS	08811039	32 ¼	29 5/8
343		RMF-343-SS	08811339	41 ¼	
463		RMF-463-SS	08811139	54 ¼	

## OPTIONAL WIRE GUARD INSTALLATION

Heater Series	Wire Guard	Part Number
222	CHWG-222-A	08511500
223	CHWG-223	08543600
342	CHWG-342	08511400
343	CHWG-343	08543500
462	CHWG-462	08516200
463	CHWG-463	08543400

**CAUTION: DISCONNECT POWER BEFORE INSTALLING OR SERVICING. IF THE POWER DISCONNECT IS OUT OF SIGHT, LOCK IT IN THE OPEN POSITION AND TAG IT TO PREVENT UNEXPECTED APPLICATION OF POWER. FAILURE TO DO SO COULD RESULT IN FATAL ELECTRICAL SHOCK.**

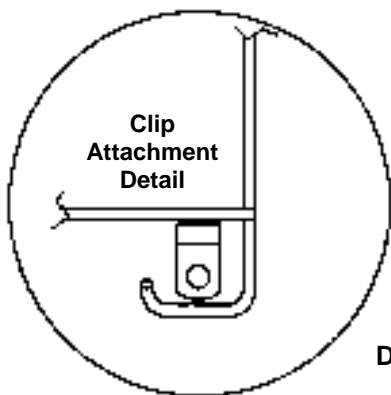
Mounting holes for attaching the lamp guard are provided in heater housing. NOTE: Mounting holes are not provided on older models. Using the drill starts provided in the heater housing, drill a 1/8" diameter hole at each location. (See dimensional details.)

1. Place mounting clips provided, on the loops of the lamp guard (see Detail A below).
2. Attach the lamp guard to the heater using the #8 sheet metal screws provided.

### MAINTENANCE

**CAUTION: Disconnect power before installing or servicing. If the power disconnect is out of sight, lock it in the open position and tag it to prevent unexpected application of power. Failure to do so could result in fatal electrical shock.**

To service the heater in the overhead position, it will be necessary to remove the screws from only one side of the lamp guard. The lamp guard will then swing clear of the heater.



**Detail A**

