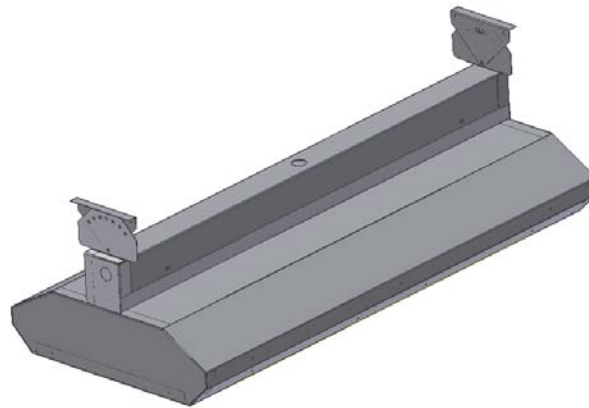


MTM Series

2 and 3 Lamp Units

OVERHEAD ELECTRIC INFRARED HEATER



WARNING

IMPORTANT SAFETY INFORMATION INSIDE

- Serious injury or death possible
- Read, understand, and follow all safety information and instructions in this manual before using or servicing this product.
- Retain these instructions for future reference.

REFER TO COMPLETE
INDEX OF
INFORMATION ON
PAGE 2





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ATTENTION:

The table to the right provides definitions of the signal words that can be found throughout this manual. These signal words are used to express the severity of the hazard at hand. The signal words are generally used in conjunction with safety symbols that correspond to the text for that particular hazard. As you read this manual, refer back to this table when you are unsure of the signal word definition.

SIGNAL WORD DEFINITIONS	
	DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
	WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
	CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
	CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.
As defined in ANSI Z535.4-2002	



! WARNING

SAFETY INFORMATION

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 INDOOR RESIDENTIAL USE!

FOR INDOOR COMERCIAL/INDUSTRIAL USE.

FOR PROTECTED AND UNPROTECTED OUT-DOOR USE.

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

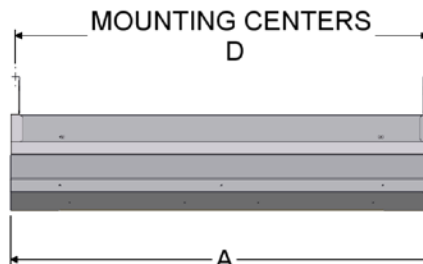
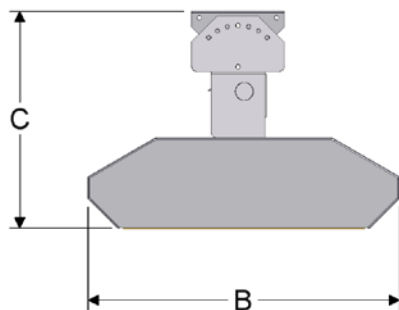
Special attention must be given to any bonding* (grounding) information pertaining to this heater. To prevent the risk of electrocution, the heater must be securely and adequately bonded. This should be accomplished by connecting a conductor between the service panel and the green grounding screw provided on the heater. To ensure a proper bond, the bonding 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.

*Bonding is the term that describes the completion of the electrical circuit back to its source, which allows a breaker or fuse to clear if a short occurs in the line.

SPECIFICATIONS



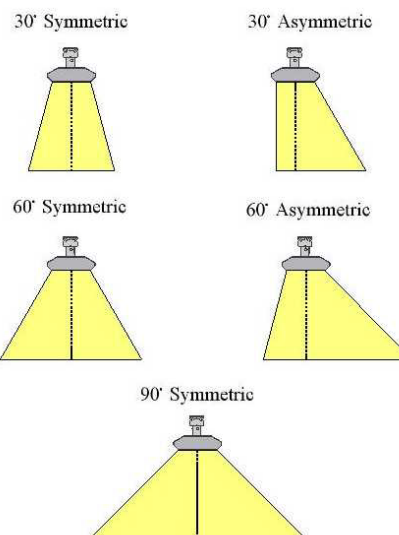
HEATER SERIES	NUMBER OF LAMPS	VOLTAGE and PHASE	WATTAGE	BTU'S	A	B	C	D
222	2	208; 1ph	3200	10,992	24"	15"	10-1/2"	23-1/2"
		240; 1ph						
		277; 1ph						
		480; 1ph						
223	3	208; 1 or 3ph	4800	16,382	24"	21-1/2"	10-1/2"	23-1/2"
		220; 1 or 3ph						
		240; 1 or 3ph						
		277; 1 or 3ph						
		380; 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						
		600; 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						
		600; 1 or 3ph						
462	2	480; 1ph	7300	24,915	46"	15"	10-1/2"	45-1/2'
		600; 1ph	7600					
463	3	380; 1 or 3ph	10950	37,372	46"	21-1/2"	10-1/2"	45-1/2"
		480; 1 or 3ph						
		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			220V
342	90		SS = STAINLESS STEEL	240V
343	A30			277V
462	A60			380V
463				480V
				577V

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 listed for spot-heat or total building heat indoors (excluding residential), or for totally unprotected outdoor applications. Fixtures are also listed for recessed applications, such as in ceilings or canopies.

2-Lamp models are available in either Stainless Steel or 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 customer service 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 BONDING (GROUNDING)

A protective non-corrosive conductor terminal must be firmly attached to a protective bonding 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 bond (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°

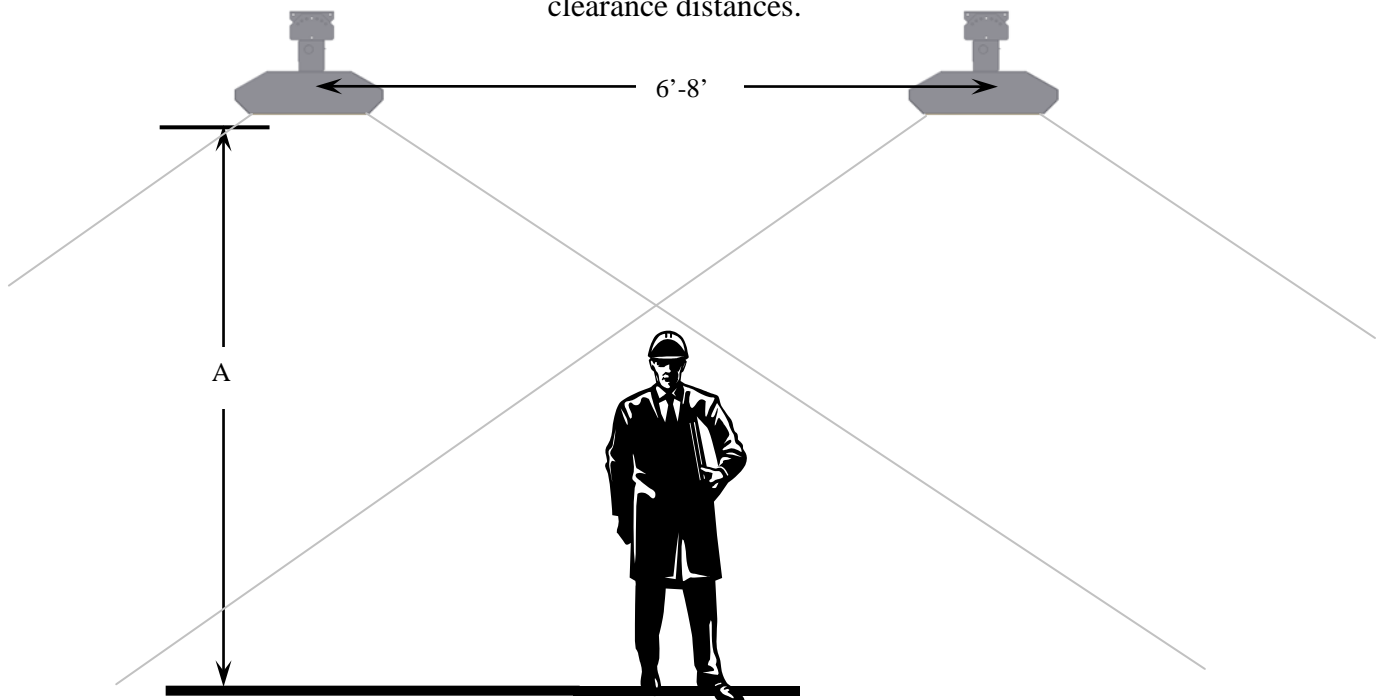
INDOOR SPOT HEATING

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**



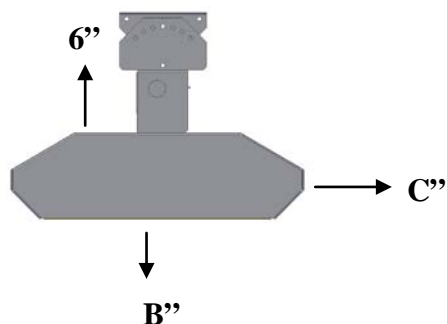


**EXPLOSION HAZARD
FIRE HAZARD
BURN HAZARD**

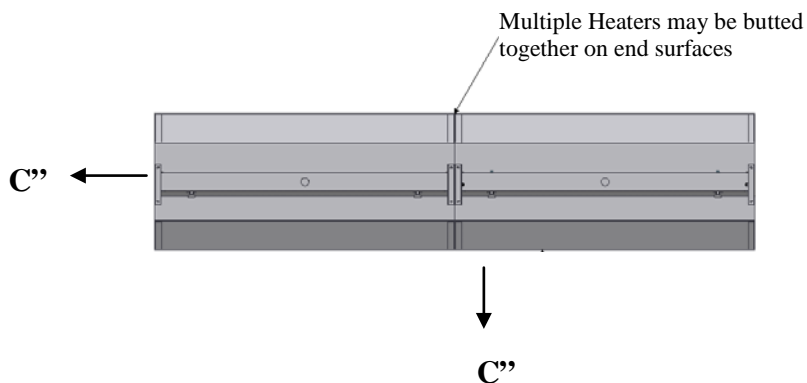
- Serious injury or death may occur.
- Do not use in locations containing hazardous atmospheres.
- Do not touch any part of heater while in operation or directly thereafter. It is very HOT.

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

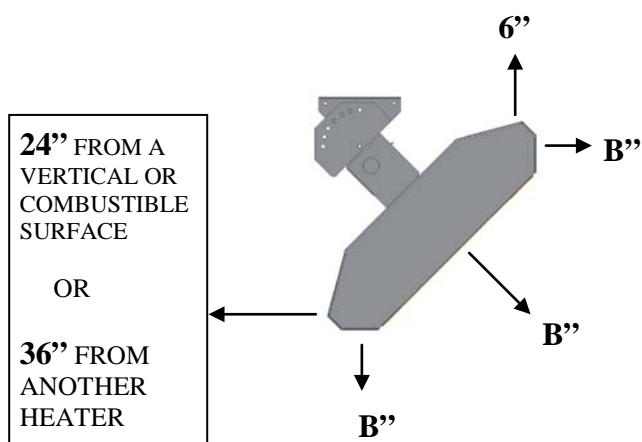
END VIEW – 0 DEGREE TILT



TOP VIEW - 2 UNITS SHOWN



END VIEW – 0-45 DEGREE TILT



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

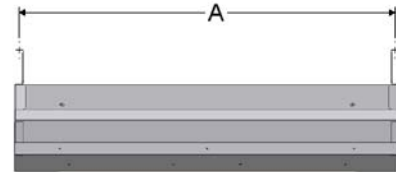
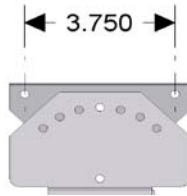
CLEARANCES TO COMBUSTIBLES AS ON PAGE 6 OF THIS MANUAL AND ON THE HEATER MUST BE MAINTAINED AT ALL TIMES!

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

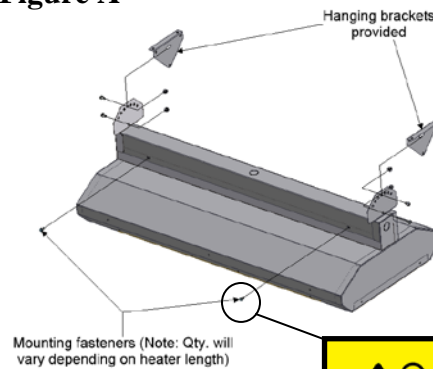
Heater Series	“A” dimension
222 & 223	23-1/2
342 & 343	32-1/2
462 & 463	45-1/2



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) 8-32 x 3/8 screws provided in hardware pack. **NOTE:** Quantity will vary depending on heater length.

Figure A



CAUTION

 Use blunt tip #8-32 x 3/8 screws (provided) to secure top channel to wiring channel

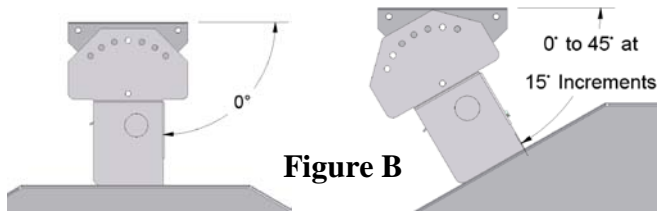


Figure B

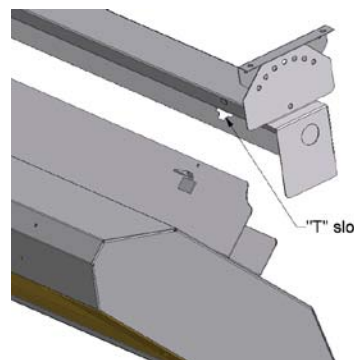


Figure C

MOUNTING OPTIONS

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.

***NOTE – 462 & 463 Series heaters are not designed for chain suspension. One of the three mounting options to the right should be used for these heaters.**

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.

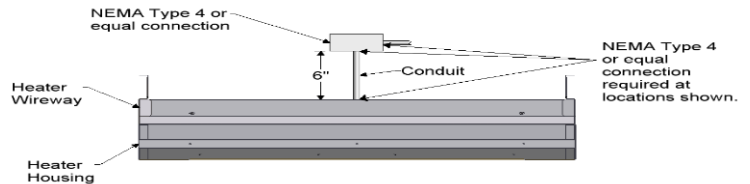
RECESSED MOUNTING: Refer to page 15 of this manual.

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. See page 13.



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

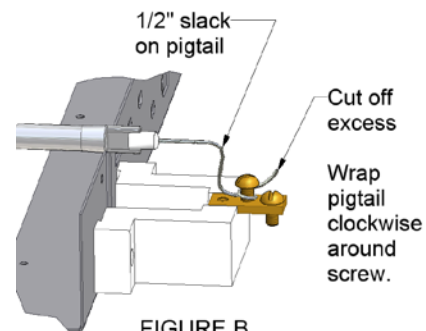
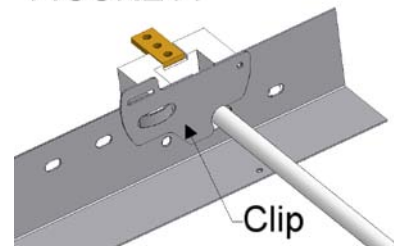


FIGURE B

CAUTION

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.

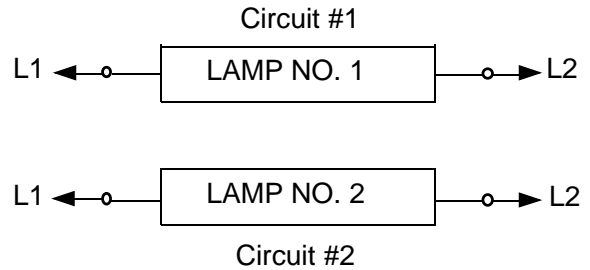


TWO-STAGE WIRING

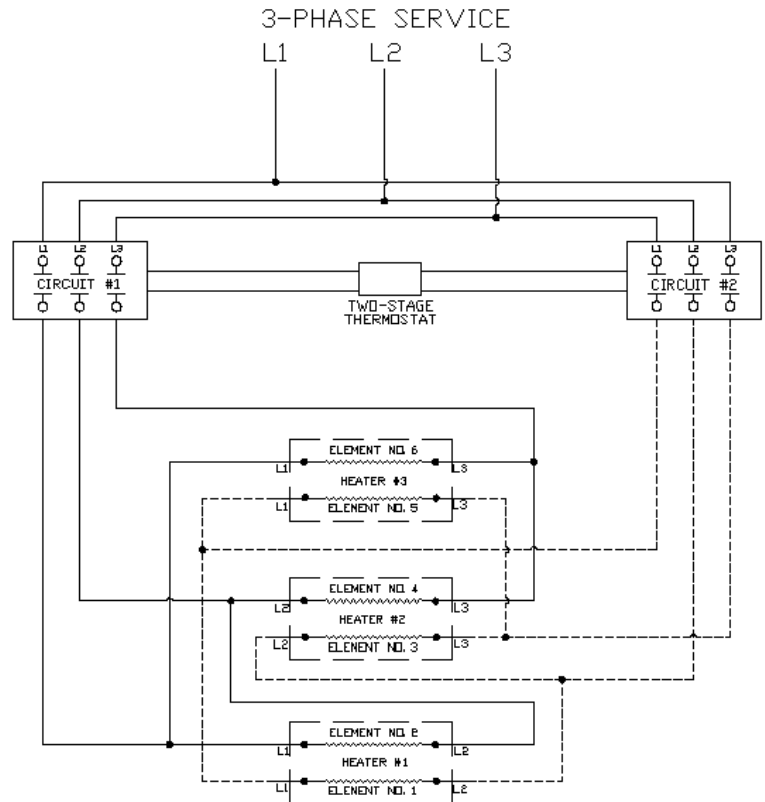
Two-stage operation allows one or both lamps in the heater(s) to be energized, depending on the signal from an appropriate two-stage control device (e.g. two-stage thermostat). This will allow the heater(s) to operate at 50% on, 100% on, or 100% off; instead of limiting the operation to 100% on or 100%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



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



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.

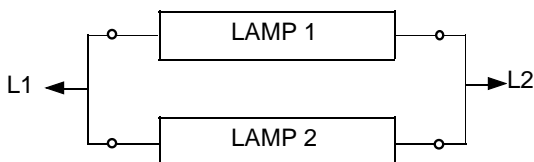
Wiring connections should always be made through one of the knockouts in the top wire channel. Consult the factory, or a qualified electrician for details on staging.

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 L1 and the remaining wires from the other end to L2 in the control panel.



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.

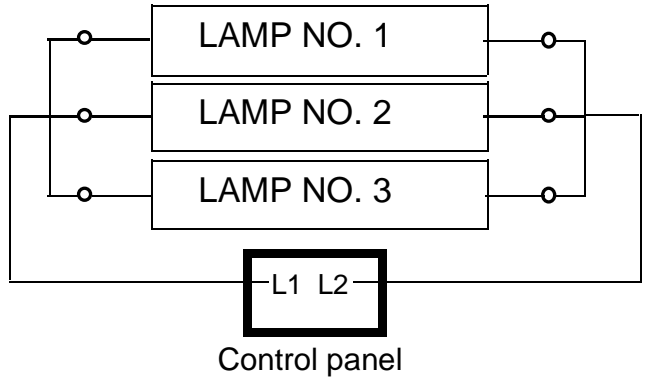
Wiring connections should always be made through one of the knockouts in the top wire channel. Refer to Figure C for totally exposed outdoor applications. Consult the factory, or a qualified electrician for details on staging.

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.

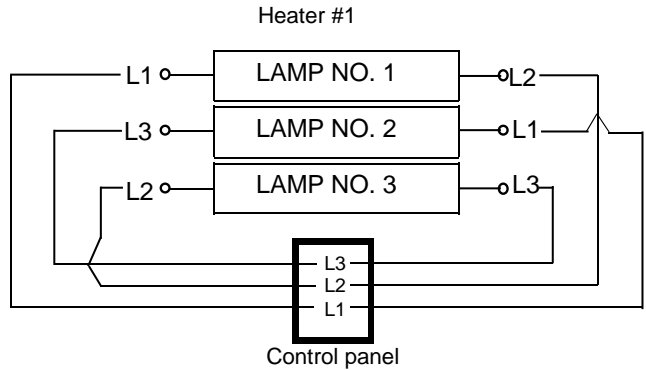
SINGLE PHASE, SINGLE STAGE WIRING

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



THREE PHASE, SINGLE STAGE WIRING

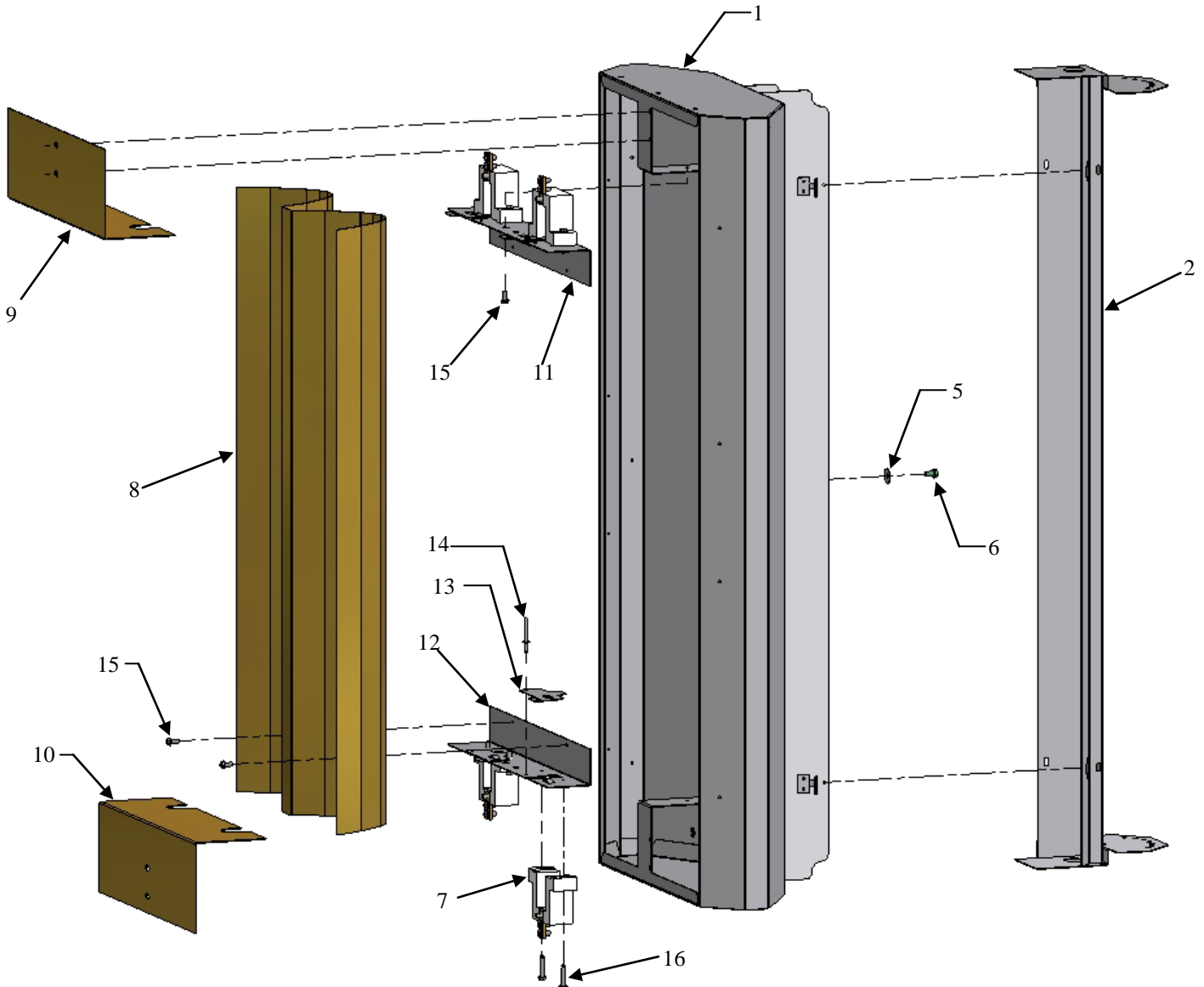
Balance each leg throughout the three elements in each heater, as shown below.



REPLACEMENT PART LIST and EXPLODED VIEW

Item No.	Description	Part Number	2-Lamp Qty.	3-Lamp Qty.
1	Housing Assembly	Call Factory	1	1
2	Top Wire Channel	Call Factory	1	1
3	Quartz Lamp	See chart	2	3
4	Hardware Package	2406939	1	1
5	Washer curved	03476700	1	1
6	Screw #10-32 x 3/8	1458	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	Rivet - SS	32196002	4	6
15	Screw #8-15 x 1/2	03470800	6	8
16	Screw #8-18 x 7/8	24650000	8	12

MODEL 342 SHOWN FOR REFERENCE



REPLACEMENT PARTS LIST (cont.)

Item #3- Clear Quartz Lamp			Lamps w/integral light filter
Series	Description	Part No.	Part No.
222 & 223	208V 1600W	04401602	6321620
	220V 1600W	04401702	6321624
	240V 1600W	04401702	6321624
	277V 1600W	04401802	--
	380V 1600W	04861102	--
	480V 1600W	04817302	--
342 & 343	208V 2500W	04817402	--
	240V 2500W	04817502	--
	277V 2500W	04817602	--
	480V 2500W	04405402	6322548
	600V 2500W	04406802	--
462 & 463	380V 3638W	04861202	--
	480V 3650W	04406702	6323648
	600V 3800W	04817702	--

Series	Reflector Pattern	Item #8 Part No.	Item #9 Part No.	Item #10 Part No.	Item #11 Part No.	Item #12 Part No.
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.	<ol style="list-style-type: none">1. Defective element.2. Improper connection.3. Pigtail loose from socket connection.	<ol style="list-style-type: none">1. Replace element.2. Check connection to power source.3. Rewind or re-insert pigtail into socket.
Not enough heat.	<ol style="list-style-type: none">1. Heater too small for application.2. Heater mounted too high or too far.	<ol style="list-style-type: none">1. Add more heaters.2. Decrease mounting height or distance.
Too much heat.	<ol style="list-style-type: none">1. Heater too large for application.2. Heater mounted too low or too close.	<ol style="list-style-type: none">1. Replace with smaller heater.2. Increase mounting height or distance.

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; ten screws are required on the RMF-343-SS and twelve on the RMF-463-SS models. Use the frame as a template for laying out the holes.

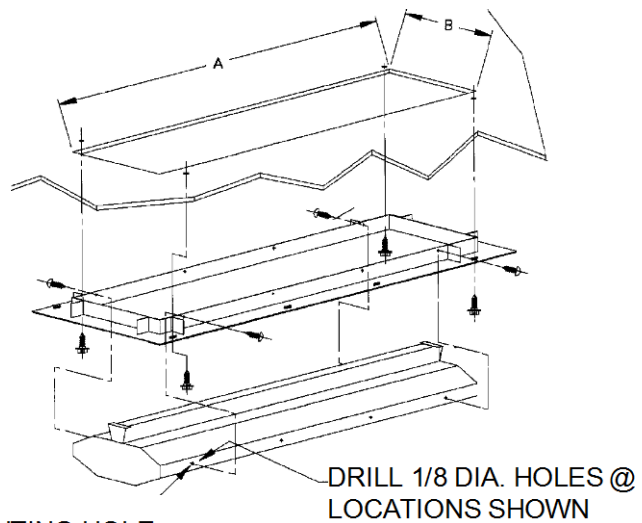
2. Mount the frame to the ceiling, using the outside slots only, with 1/4" lag screws provided by the customer. Four lag screws are required on the RMF-222-A and RMF-223-SS units, six on the RMF-342-A and RMF-343-SS, and eight on the RMF-462-A and RMF-463-SS units. Tabs will center frame in opening. **CAUTION: To maintain required clearance above heater, refer to minimum clearances to combustible 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.

MOUNTING HOLE
CENTERLINE (TYPICAL)

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.

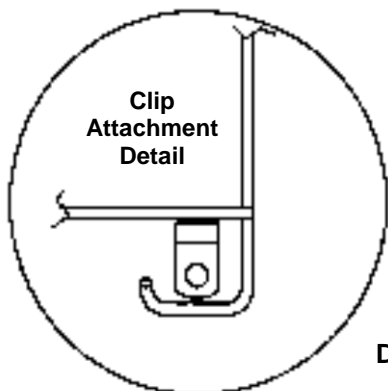
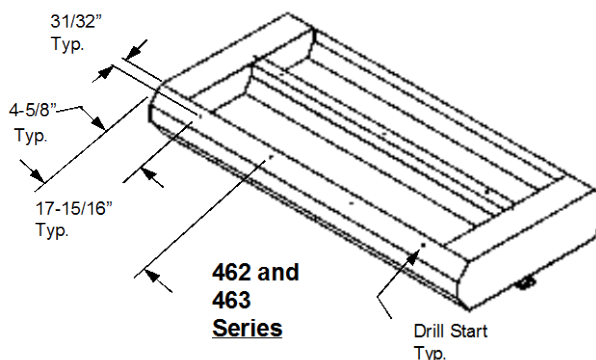
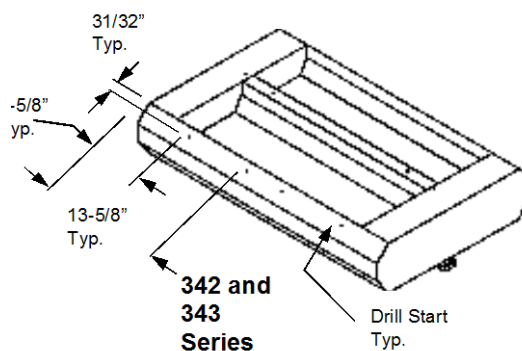
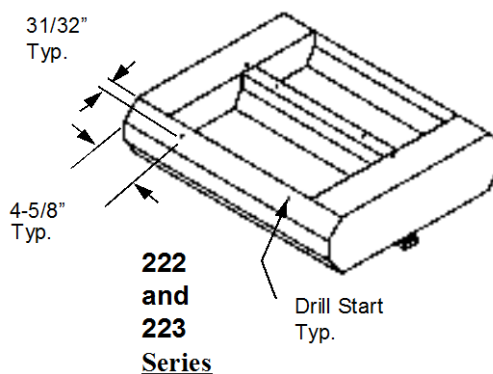
Mounting holes for attaching the lamp guard are provided in heater housing. NOTE: Mounting holes are not provided on older models. Using the drill starts provided in the heater housing, drill a 1/8" diameter hole at each location. (See dimensional details.)

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

LIMITED WARRANTY

Products manufactured by TPI Corporation are warranted to the original consumer to be free from defects in material and workmanship for twelve (12) months from the original purchase date.

The TPI limited warranty does not cover products that have been modified outside of our factory, damage or failure caused by acts of God, abuse, misuse, connected to or placed on other than rated voltage, abnormal usage, fault, installation, failure to follow suggested maintenance procedures enclosed with the product, improper maintenance or any repairs other than those provided by an authorized TPI service center.

There are no obligations or liabilities on the part of the Corporation for consequential damages arising out of or in connection with the use or performance of the product or other indirect damages with respect to loss of property, revenues, profit, costs of removal installation, or reinstallation.

All implied warranties with respect to TPI products, including implied warranties for merchantability and implied warranties for fitness, are limited in duration to twelve (12) months from original date of purchase, except those products or parts of products which are warranted for long periods thereon.

Some states do not allow the exclusions or limitation of incidental or consequential damages and some states do not allow limitations on how long an implied warranty lasts. The above exclusions or limitations may not apply to you.

During the warranty period, TPI Corporation will, at its sole option, repair or replace any defective parts or products returned, freight prepaid, to the TPI Corporation factory or such other locations as TPI Corporation may designate. Returned products must be packaged carefully and TPI Corporation shall not be responsible for damage in transit.

When returning parts, the owner must provide the model number of the product and nature of difficulty being experienced. This warranty does not obligate TPI Corporation 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, freight or damages. There will be charges rendered for product repairs made after the warranty period has expired. Proof of purchase, including date, must accompany request for in-warranty service. In any event, TPI Corporation's maximum liability shall not in any case exceed the list price for the product claimed to be defective. This warranty gives to you specific legal rights and you may have other rights, which may vary from state to state. For the name of your nearest authorized TPI Corporation service center, please write to TPI Corporation, P.O. Box 4973, Johnson City, TN 37602.

HEATING PRODUCTS WARRANTY COVERAGE	
Heating Products Elements in Baseboards	10 Years
All other Heating Products	1 Year
Thermostats and Controls	2 Years

VENTILATION PRODUCTS WARRANTY COVERAGE	
Series HD or HDH Fans	5 Years
Series UHP or IHP Fans	3 Years
All other Ventilation Products	1 Year