

Detroit Radiant Products Co.

SW Series Manual

Overhead Electric Infrared Heater
Installation, Operation, Maintenance and Parts
1, 2 and 3 Lamp Units



All persons involved with the installation, operation and maintenance of the heater system must read and understand the information in this manual.

⚠ WARNING



Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read and understand the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

INSTALLER: Present this manual to the end user.

Keep these instructions in a clean and dry place for future reference.

Model#: _____ **Serial #:** _____
(located on rating label)

LIOSW-Rev. 06311
Print: 3M-12/13 (CDS)
Replaces: LIOSW-1M-9/12 (CDS)

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1.0 Safety

⚠ WARNING



Improper installation, adjustment, alteration, service or maintenance can cause property damage, serious injury or death. Read and understand the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment. Only trained, qualified personnel with proper electrical experience may install or service this equipment.

Safety Symbols

Safety is the most important consideration during installation, operation and maintenance of the infrared heater. You will see the following symbols and signal words when there is a hazard related to safety or property damage.

⚠ WARNING

Warning indicates a potentially hazardous situation which, if not avoided, could result in death or injury.

⚠ CAUTION

Caution indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

Notice indicates a potentially hazardous situation which, if not avoided, could result in property damage.

Applications

Commercial / Industrial (Indoors & Outdoors)

Infrared heaters are designed and certified for use in industrial and commercial buildings such as warehouses, manufacturing plants, aircraft hangars and vehicle maintenance shops. For maximum safety, the building must be evaluated for potential hazards before installing the heater system. A critical safety factor to consider before installation is the clearance to combustibles.

Outdoor Residential Only

This heater is **NOT** approved for use in an indoor residential application. This includes, but not limited to, attached garages, living quarters, solariums, etc. Consult the local fire marshal and/or insurance provider if unsure of your application.

⚠ WARNING



Not For Residential Use.

Installation of this infrared heater system in residential indoor spaces, RV's, mobile homes, etc. may result in property damage, fire, serious injury or death.

Model Number Designation Chart

Series	Material Type	Lamp Qty.	Voltage Code	Lamp Wattage Code	Lamp Type (Color)
SW-24 SW-33 SW-46	B= Black Powder Coat or S= Stainless Steel	1	A= 120 VAC B= 208 VAC C= 240 VAC D= 277 VAC G= 480 VAC H= 575 VAC	16 25 36 38	R= Ruby Lamp or W= Standard Lamp
		2			
		3			

Model Configuration Examples:
SW-24B1-C16R, or SW-33S2-G25W

Available Models and Operational Specifications

Series	Lamp Qty.	Voltage; Phase	Amperes	Watts	BTU/h
SW-24	1	120; 1ph	13.33	1,600	5,459
		208; 1ph	7.69		
		240; 1ph	6.67		
		480; 1ph	3.33		
	2	208; 1ph	15.38	3,200	10,919
		240; 1ph	13.33		
		480; 1ph	6.67		
	3	208; 1 or 3ph	23.08	4,800	16,378
		240; 1 or 3ph	20.00		
480; 1 or 3ph		10.00			
SW-33	1	208; 1ph	12.02	2,500	8,530
		240; 1ph	10.42		
		480; 1ph	5.21		
	2	208; 1ph	24.04	5,000	17,065
		240; 1ph	20.83		
		480; 1ph	10.42		
3	480; 1 or 3ph	15.625	7,500	25,590	
SW-46	1	480; 1ph	7.60	3,650	12,454
		575; 1ph	6.60	3,800	12,978
	2	480; 1ph	15.21	7,300	24,909
		575; 1ph	13.22	7,600	25,955
	3	480; 1 or 3ph	22.81	10,950	37,636
		575; 1 or 3ph	19.83	11,400	38,933

Clearance to Combustibles

⚠ WARNING



Placement of explosive objects, flammable objects, liquids and vapors close to the heater may result in explosion, fire, property damage, serious injury or death. Do not store, or use, explosive objects, liquids and vapor in the vicinity of the heater.



Failure to comply with the published clearances to combustibles could result in personal injury, death and/or property damage.



The outside surfaces of the heater are hot during operation and after operation. If contact is made, permanent skin damage may occur. Do not move, handle, or service the unit during operation or while hot.

⚠ CAUTION



Signs shall be posted specifying the maximum permissible stacking height in order to maintain clearances to combustibles.

Hazards Include:

For maximum safety the building must be evaluated for hazards before installing the heater system. Examples include, but are not limited to:

- Gas and electrical lines
- Combustible and explosive materials
- Chemical storage areas
- Areas of high chemical fume concentrations
- Provisions for accessibility to the heater
- Adequate clearances around air openings
- Vehicle parking areas
- Vehicles with lifts or cranes
- Storage areas with stacked materials
- Lights
- Sprinkler heads
- Overhead doors and tracks
- Dirty, contaminated environment

A critical safety factor to consider before installation is the clearances to combustibles. Clearance to combustibles is defined as the minimum distance you must have between the indicated surface and the combustible item. Considerations must also be made for moving objects around the infrared heater. The following is a partial list of items to maintain clearances from:

Combustible Items Include:

- Wood
- Paper
- Fabric
- Chemicals
- Wall or roof insulation

Moving Objects Include:

- Overhead doors
- Vehicles on lifts
- Cranes
- Hoists
- Car wash equipment

When installing the infrared heater system, the minimum clearances to combustibles must be maintained. These distances are shown in Chart 1.1 and on the heater. If you are unsure of the potential hazards, consult your local fire marshal, fire insurance carrier or other qualified authorities on the installation of infrared heaters for approval of the proposed installation.

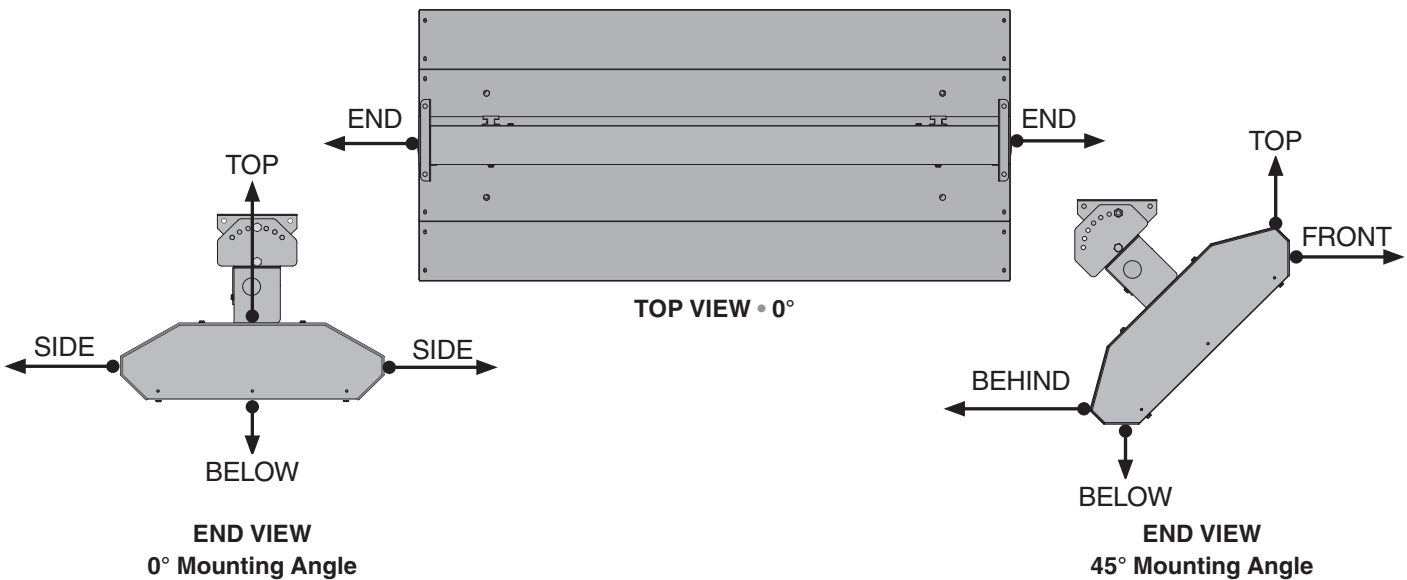
Chart 1.1 • Clearance to Combustibles in Inches (see Figure 1.1)

Model Wattage	Mounting Angle	Side		End	Top	Below
		Front	Behind*			
1,600	0°	24	24	24	6	40
	45°	40	24	24	10	40
2,500	0°	24	24	24	6	46
	45°	46	24	24	10	46
3,200	0°	24	24	24	6	56
	45°	56	24	24	10	56
3,650 3,800	0°	24	24	24	6	62
	45°	62	24	24	10	62
4,800	0°	24	24	24	6	72
	45°	72	24	24	10	72
5,000	0°	24	24	24	6	72
	45°	72	24	24	10	72
7,300	0°	24	24	24	6	84
	45°	84	24	24	10	84
7,500 7,600	0°	24	24	24	6	84
	45°	84	24	24	10	84
10,950 11,400	0°	24	24	24	6	96
	45°	96	24	24	10	96

*A minimum clearance of 36 inches must be maintained from behind another heater.

NOTE: Ensure that building materials with a low heat tolerance (i.e, awnings, fabrics, plastics, sprinklers, insulation, etc.) are protected against degradation. This may require the heater to be mounted at a distance in excess of the published clearances to combustibles. Contact the material manufacturer for specific details.

Figure 1.1 • Clearance to Combustibles



Safety Signs and Labels

It is important to provide warnings to alert individuals to potential hazards and safety actions. Signs should state the hazards for the particular application and be legible to the building occupants. Consult the factory or a factory representative for additional information on signage compliance.

Safety warning labels must be maintained on the infrared heater. Illustrations of the safety labels, and their locations, are pictured below. When no longer legible, they must be replaced. Contact either your local distributor or the product manufacturer for obtaining replacement signs or labels.

Top View

⚠ DANGER

FIRE HAZARD. Always maintain published clearance to combustibles. In locations used for the storage of combustible materials, signs must be posted.

DANGER D'INCENDIE. Toujours maintenir un dégagement publié à combustibles. Dans les endroits utilisés pour le stockage de matériaux combustibles, panneaux doivent être installés.

CLEARANCE TO COMBUSTIBLES (in inches)

Model Wattage	Mounting Angle	Front	Side	Behind*	End	Top	Below
1,600	0°	24	24	24	24	6	40
	45°	40	24	24	24	10	40
2,500	0°	24	24	24	24	6	46
	45°	46	24	24	24	10	46
3,200	0°	24	24	24	24	6	56
	45°	56	24	24	24	10	56
3,650	0°	24	24	24	24	6	62
	45°	62	24	24	24	10	62
4,800	0°	24	24	24	24	6	72
	45°	72	24	24	24	10	72
7,500	0°	24	24	24	24	6	84
	45°	84	24	24	24	10	84
10,950	0°	24	24	24	24	6	96
	45°	96	24	24	24	10	96

*Behind clearance must maintain a minimum of 36" from another heater.

⚠ WARNING/AVERTISSEMENT

SHOCK HAZARD. Disconnect all supplies before working on any circuit.

RISQUE D'ÉLECTROCUTION. Débrancher toutes les alimentations avant d'exécuter des travaux sur un circuit quelconque.

Heater **MUST** be properly grounded prior to operation.

HOT. Do not touch any part of the heater while in operation.

⚠ CAUTION/ATTENTION

AVOID EQUIPMENT FAILURE. Use 10AWG supply wires suitable for 105°C or equivalent.

ÉVITEZ LES PANNES D'EQUIPEMENT. Employer 10AWG des fils d'alimentation adéquats pour 105°C.

Apply proper voltage.

Read and understand the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment. Failure to properly apply product may result in property damage, injury or death.

⚠ CAUTION

VERIFY SUPPLY VOLTAGE

DISCONNECT FROM ELECTRICAL SUPPLY BEFORE SERVICING THIS HEATER.

THIS APPLIANCE MUST BE PROPERLY GROUNDED TO THE ELECTRICAL SOURCE.

(LW102) (M-03/11/07/05)

NOTE: USE COPPER CONDUCTORS ONLY

Electrical Label
(Located inside raceway)

F/N: LLECL001 - Clearance to Combustibles Label

⚠ DANGER

Avoid Serious Injury, Death or Property Damage. Maintain Clearances to Combustible to Prevent the Risk of Fire.

Clearance to combustibles must be maintained at all times in order to prevent the ignition of combustible materials. In locations used for the storage of combustible materials, signs must be posted to specify the maximum permissible stacking height to maintain the required clearances from the heater to the combustibles. Signs must either be posted adjacent to the heater's thermostats or in the absence of such thermostats, in a conspicuous location. Clearances are provided on the heater's safety label and in the heater's Installation, Operation and Maintenance manual. Product installation and operation must comply with applicable standards, codes and regulations. Post this tag adjacent to the heater's thermostat or controls before operating the heater.

- INSTALLER: READ AND POST THIS NOTICE -

F/N: LL01 - Clearance Safety Tag
(Affix adjacent to heater's controller)

DETROIT RADIANT INFRARED RADIANT ELECTRIC HEATER

FOR INDOOR COMMERCIAL/INDUSTRIAL USE.
FOR PROTECTED AND UNPROTECTED OUTDOOR USE.
NOT FOR INDOOR RESIDENTIAL USE!

MODEL NO. SW-24B1-C16R	VOLTAGE 240	WATTAGE 1600
PHASE: Single	MINIMUM MOUNTING ANGLE: 0 Degrees	VERSION 11/1020
FREQUENCY: 50/60 Hz	MAXIMUM MOUNTING ANGLE: 45 Degrees	STANDARD LAMP: EL-083
AMPERES 6.67		ALTERNATE LAMP: EL-073

DESIGN COMPLIES WITH:
UL2021 1997 & C22.2 No. 46-M1988 - Electric Air - Heaters

Serial No. 10 10 DETR 021400 0001

DETROIT RADIANT PRODUCTS COMPANY
21400 HOOVER ROAD - WARREN, MI
(586) 756-0950 - www.drp-co.com

Rating Plate

Standards, Certifications and Government Regulations

Installation of this infrared heater must comply with all applicable local, state and national specifications, regulations and building codes. Contact the local building inspector and/or fire marshal for guidance.

The heater must be electrically grounded in accordance with the following codes:

United States: Refer to National Electrical Code®, ANSI/NFPA 70 (latest edition).
Wiring must conform to the latest edition of National Electrical Code®, local ordinances, and any special diagrams from the manufacturer.

Canada: Refer to Canadian Electrical Code CSA C22.1 Part 1 (latest edition).

Detroit Radiant Products units comply or are certified by one or more of the following organizations or standards:

- CSA 22.2 #46 - M1988
- UL 2021, 1997

2.0 Installation

⚠ WARNING



Read and understand, the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

Design

To ensure a safe, properly designed heating system, a layout should be developed for the correct placement of the infrared heater(s).

Aside from safety factors such as clearance to combustibles (see Chart 1.1 on page 6), you should also take into consideration the environment (e.g., cold/drafty, average, protected), heat coverage (sq. ft.) needed, heater centers, the distance behind a person or work station(s). Also, the effective infrared surface temperature of a person or object may be diminished with wind above 5 mph. Wind barrier(s) may be required. Most importantly, clearance to combustibles **must** always be maintained! Refer to hazards on page 5.

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

This installation manual, along with national, state, provincial and local codes, address these issues. It is critical that you read, understand and follow all guidelines and instructions. Always inspect and evaluate the mounting conditions, application, and wiring.

When heated, materials high in hydrocarbons (solvents, paint thinner, mineral spirits, formaldehydes, etc.) can evaporate and/or degrade. This may result in odors or fumes being emitted into the environment. To correct this problem, clean the area and/or introduce additional ventilation. Heaters installed and serviced in accordance with the installation manual do not emit foul odors into the environment.

IMPORTANT: Fire sprinkler heads must be located at an appropriate distance from the heater to avoid an inadvertent discharge. This distance may exceed the published clearance to combustibles. Certain applications may require the use of high temperature sprinkler heads or relocation of the heaters.

⚠ CAUTION

Fire sprinkler systems containing propylene glycol, antifreeze or other potentially flammable substances shall not be used in conjunction with this heater without careful consideration for and avoidance of inadvertent discharge hazards. For further information consult NFPA 13. Always observe applicable state and local codes.

Chart 2.1 • Outdoor Comfort Heating Application Chart

Series	Lamp Qty.	(Dim A) Recommended Mounting Height (Ft.)*	Coverage of Heater Length x Width (Ft.)	Watts per Square Foot
SW-24	1	8-10	17 x 15	6.3
	2	8-10	17 x 16	11.8
	3	10-12	21 x 21	10.9
SW-33	1	8-10	18 x 15	9.3
	2	10-12	22 x 20	11.4
	3	10-12	22 x 21	16.2
SW-46	1	10-12	22 x 19	8.7
	2	12-14	27 x 24	11.3
	3	12-14	27 x 25	16.2

Heater installation shall comply with all IOPM, NEC, ANSI/NFPA-70, CEC, and local restrictions.

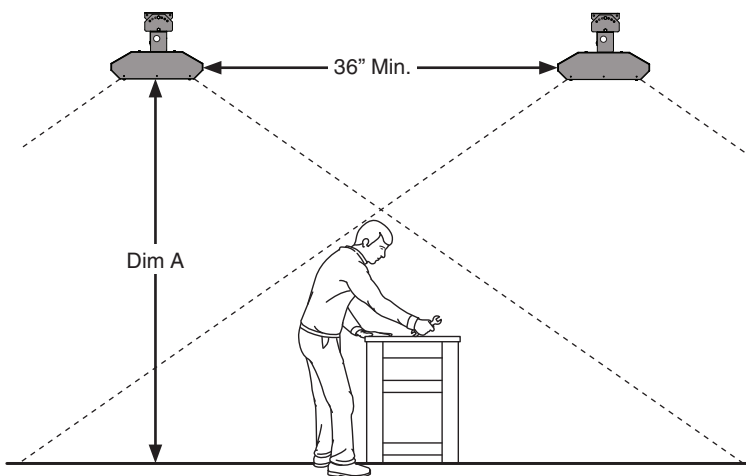
Chart 2.2 • Indoor Spot Heating Application Chart

Series	Lamp Qty.	(Dim A) Recommended Mounting Height (Ft.)*	Coverage of Heater Length x Width (Ft.)	Watts per Square Foot
SW-24	1	8-10	21 x 19	4.0
	2	8-10	21 x 20	7.6
	3	10-12	25 x 23	8.4
SW-33	1	8-10	22 x 19	6.0
	2	10-12	26 x 24	8.0
	3	10-12	26 x 25	11.5
SW-46	1	10-12	26 x 25	5.6
	2	12-14	31 x 26	9.0
	3	12-14	31 x 27	13.1

When comfort heating people, two heaters should be used to heat both sides of the individual. Heater installation shall comply with all IOPM, NEC, ANSI/NFPA-70, CEC and local restrictions.

*Clearance to combustibles must be maintained at all times. Factory recommended mounting heights are listed as a guideline. If infrared heaters are mounted too low or too high, they may result in discomfort or lack of heat.

Figure 2.1 • Heating Application



Heater Mounting

⚠ WARNING



Improper suspension of the infrared heater may result in collapse and being crushed. Always suspend from a permanent part of the building structure that can support the total force and weight of the heater.



Failure to maintain minimum clearance to combustibles may result in fire and/or explosion, property damage, serious injury or death. Always maintain minimum clearances and post signs or provided tags (F/N: LL01) adjacent to heaters controller. Signs should state the hazards for the particular application and be legible to the building occupants. Consult the factory or a factory representative for additional information on signage compliance.

The heater can be suspended with chains or rigid threaded rod. Local codes, or conditions that would cause the unit to move (e.g., wind drafts, blowers, crane rails, etc.), may require rigid threaded rod. Consult all applicable codes before installation.

The heater must be level from side to side and may be 0° to 45° on horizontal. Refer to figures 2.2 and 2.3.

Figure 2.2 • Heater Dimensions

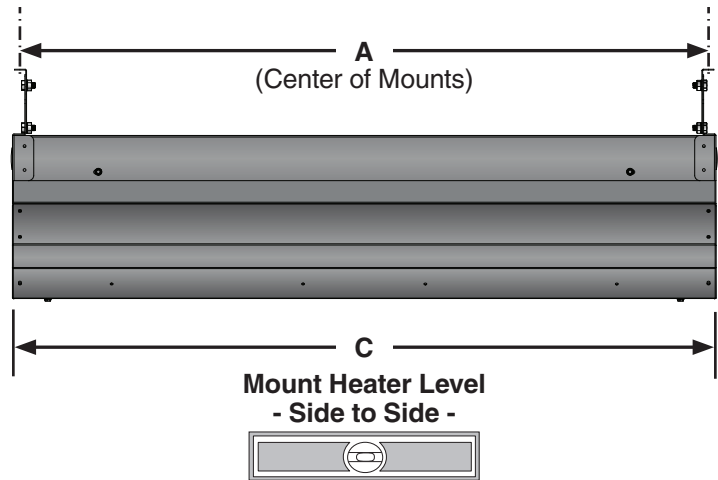
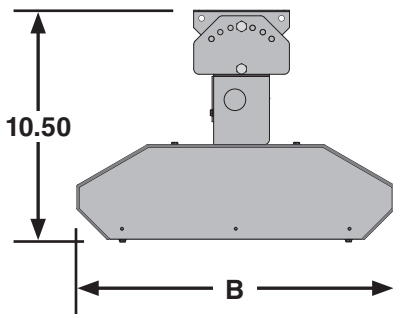
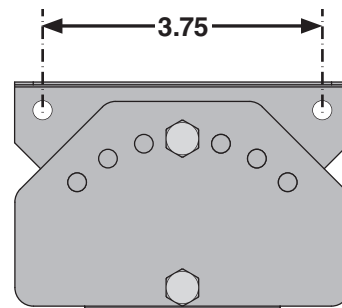


Chart 2.3 • Physical Dimensions (inches)

Model No.	A	B	C
SW-24-X1	23.50	9.25	24.00
SW-24-X2	23.50	15.00	24.00
SW-24-X3	23.50	20.75	24.00
SW-33-X1	32.50	9.25	33.00
SW-33-X2	32.50	15.00	33.00
SW-33-X3	32.50	20.75	33.00
SW-46-X1	45.50	9.25	46.00
SW-46-X2	45.50	15.00	46.00
SW-46-X3	45.50	20.75	46.00

Figure 2.3 • Mounting Centers



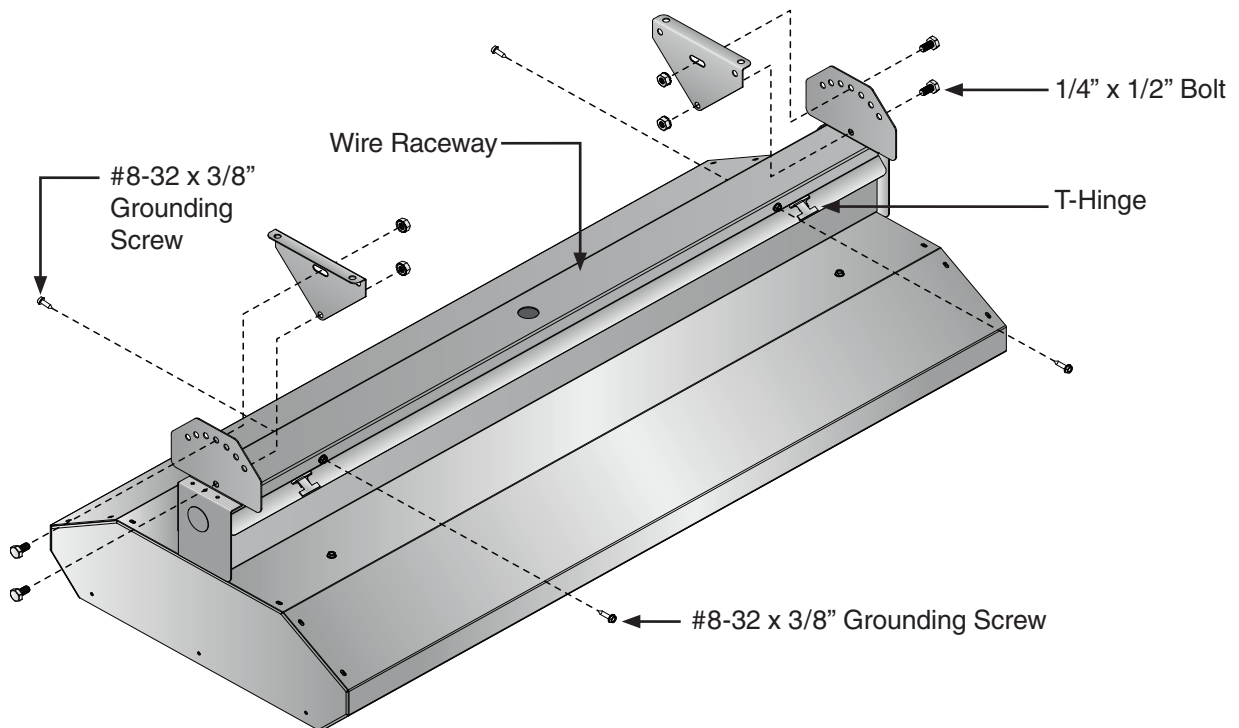
Top Channel Assembly

- 1 Attach the mounting brackets to the top wire raceway. On each end, place (1) 1/4" x 1/2" bolt through the bottom hole of the mounting bracket and through the bottom hole of the top wire raceway. Place (1) 1/4" lock nut on each bolt. Do not tighten completely. Refer to figure 2.4.

NOTE: The mounting brackets are **NOT** required for chain suspension.

- 2 Adjust wire raceway to desired mounting angle
- 3 On each side, place (1) 1/4" x 1/2" bolt through slot in the mounting bracket and the hole in the top wire raceway. Place (1) 1/4" lock nut on each bolt and tighten.
- 4 Tighten lock nuts from Step 1.
- 5 Hook heater body into mounted wire raceway. Unit will hang freely by the "T" hinge, leaving both hands free to wire unit. Refer to figure 2.4.
- 6 Run supplied high temperature wires out to field supplied junction box. **DO NOT** make connections inside the wire raceway
- 7 Close wire raceway using the (4) #8-32 x 3/8" grounding screws provided in hardware pack.

Figure 2.4 • Top Channel Assembly



Lamp Installation

⚠ CAUTION

Disconnect power prior to installing or replacing supplied quartz lamp(s). The elements can and should be installed prior to mounting the heater.

- ① Remove the service access panels and open lamp retainers.
- ② Position heating elements in “U” slots at the ends of the reflector. When utilizing the ruby lamps, the lamp adapter plates (EL-006) must first be removed.
- ③ Close lamp retainers to secure the heating element in the slot (see Figure 2.5).
- ④ Carefully wrap the heating element pigtail one revolution clockwise around terminal screws (see Figure 2.6). **NOTE:** Cut excess pigtail off at terminal to prevent lead from touching metal parts. Avoid handling the quartz glass as much as possible. Quartz glass should be wiped off with alcohol using a clean cloth.
- ⑤ Tighten the terminal screws (see Figure 2.6). **CAUTION:** Do not pull pigtail too tightly that pressure is being placed on the heating element. Maintain a 1/2” slack in the pigtail.
- ⑥ Reinstall service access panels using sheet metal screws as removed in Step 1.

Figure 2.5 • Lamp Installation

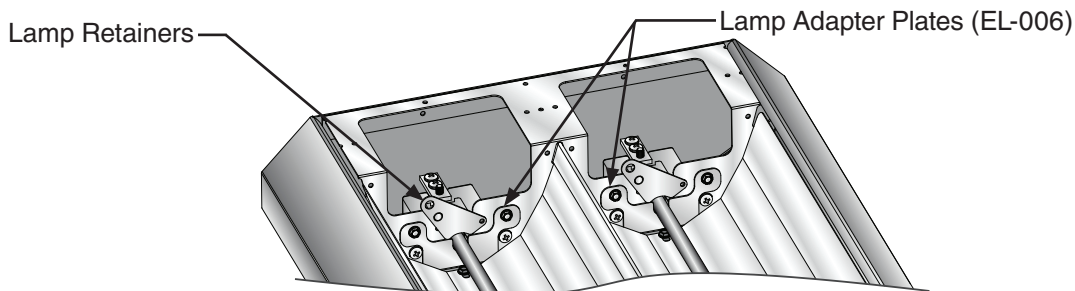
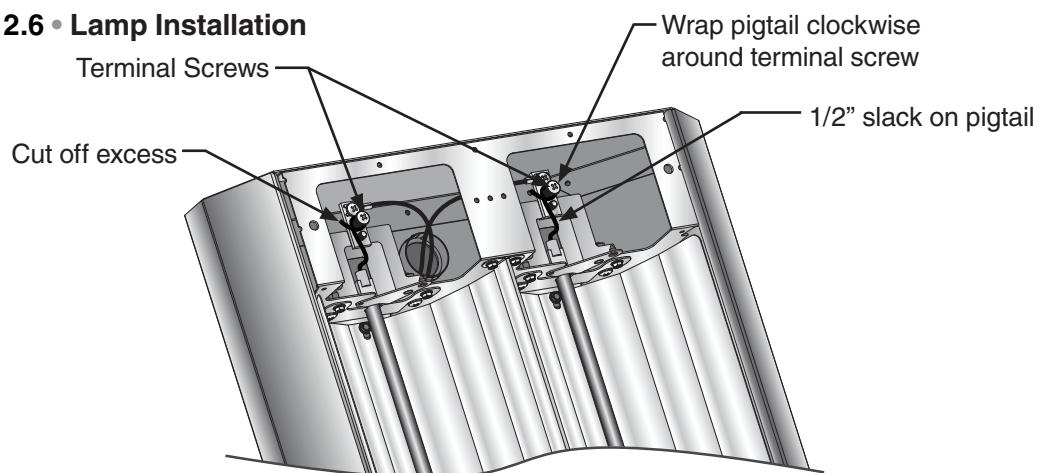


Figure 2.6 • Lamp Installation



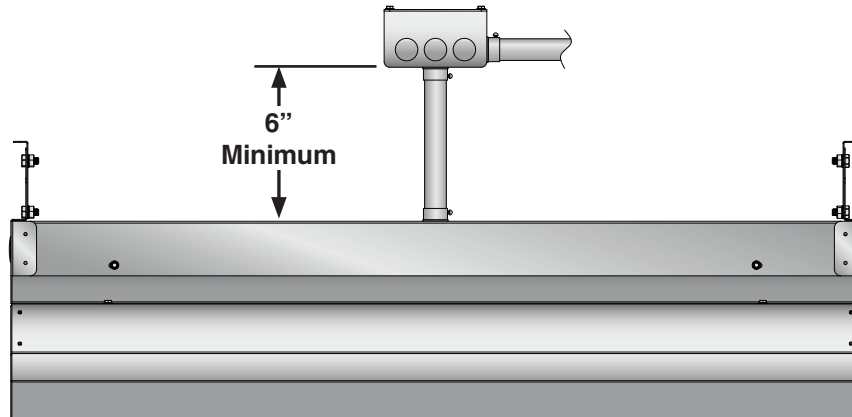
NOTE: SW Series heaters are designed for use with Quartz lamp infrared heating elements only. **They are NOT intended to be used with straight metal rod heating elements. Replace lamps with parts from Detroit Radiant Products only.**

Totally Exposed Outdoor Applications

⚠ CAUTION

For totally exposed outdoor applications (not ceiling protected) ensure connections are made as illustrated in Figure 2.7

Figure 2.7 • Exposed Outdoor Application



NOTE: All conduit, conduit fittings, and junction boxes are field supplied. Must be NEMA Type 4x or equivalent. Heater must be suspended from mounting brackets.

Electrical

⚠ WARNING



Electric Shock

Field wiring to the heater must be connected and grounded in accordance with national, state, provincial, local codes and to the guidelines in this manual. In the United States refer to the most current revisions to the ANSI/NFPA 70 Standard and in Canada refer to the most current revisions to the CSA C22.1 Part I Standard.

Disconnect power to heater before servicing.

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

This fixture is equipped with high temperature silicone lead wires to make connections to branch circuit. Remove the wire-ties prior to making electrical connections.

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

Supply wires must be a copper conductor type, with a minimum size of 10AWG.

Infrared heater must be connected to the earthing conductor (green wire) installed by the factory.

See above for use in Totally Exposed Outdoor Applications.

Wiring Diagrams

Figure 2.8 • SW Wiring Diagram • Units with 1 Lamp



Figure 2.9 • SW Wiring Diagram • Units with 2 Lamps

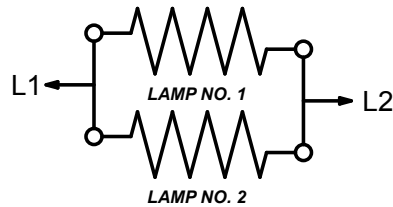
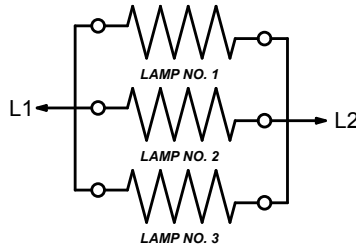


Figure 2.10 • SW Wiring Diagram • Units with 3 Lamps



Field Wiring

Figure 2.11 • Single Phase Service

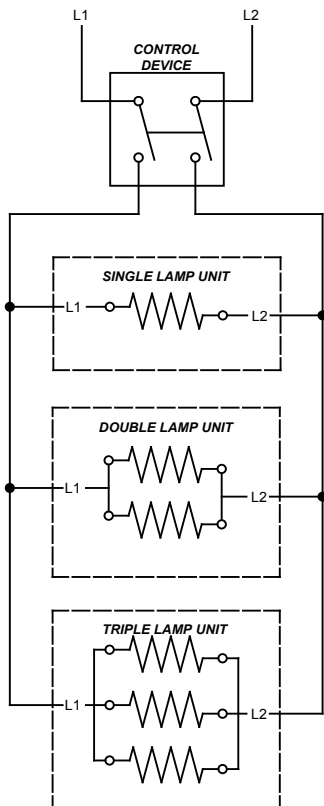
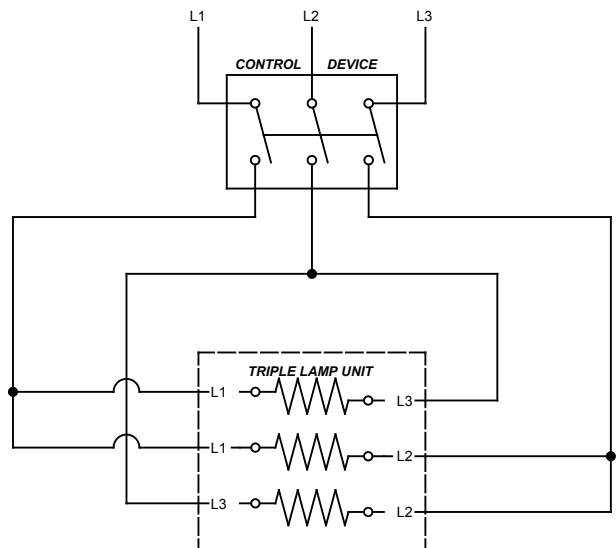


Figure 2.12 • Three Phase Service



3.0 Maintenance

It is recommended that the following become a standard yearly procedure to obtain maximum operating efficiency and trouble free operation.

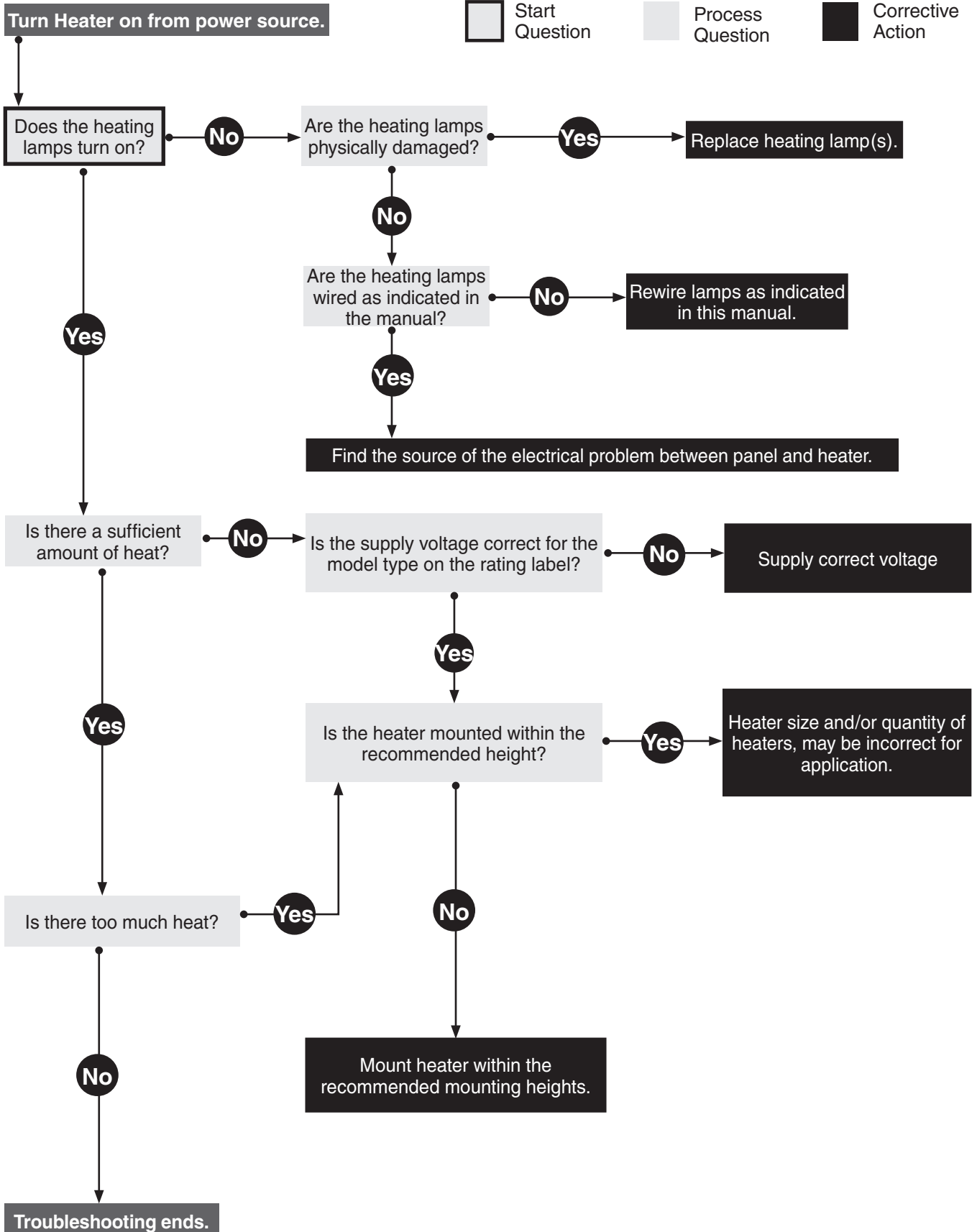
During long periods of non-usage, remove or cover heater with a polyethylene bag and disconnect from power supply. If further service to the heater is desired, contact your representative or the factory.

- ① Clean reflector surface with a damp cloth.
- ② Ensure heater is secure on all hanging points.
- ③ Maintain clearance to combustibles at all times. Immediately remove objects in violations of the published clearance to combustibles.
- ④ Check electrical wires and connections for wear or any kind of damage.

Troubleshooting Guide

Key

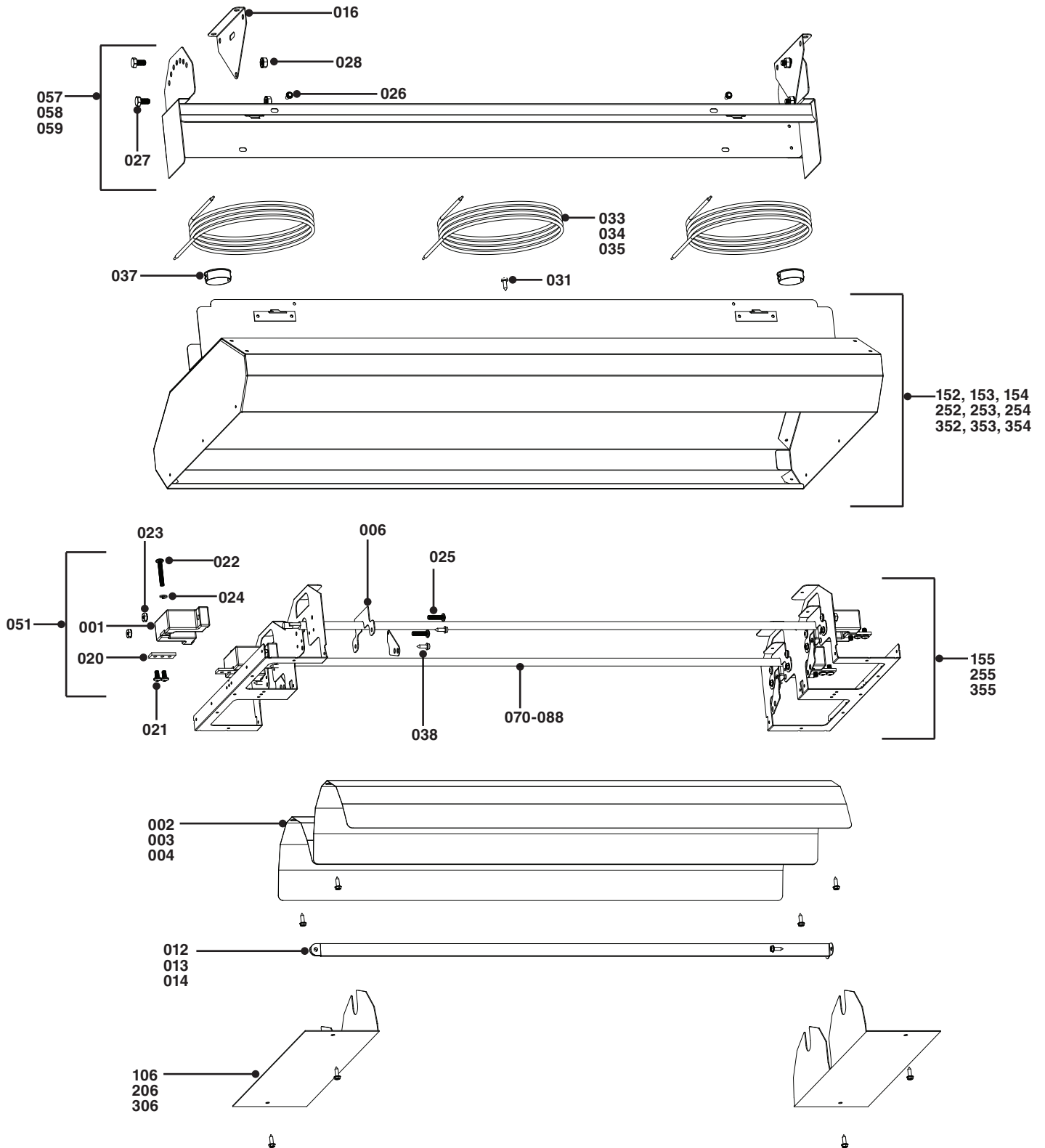
- Start Question
- Process Question
- Corrective Action



Heater Assembly Components

For complete information on SW Series replacement parts, visit the online replacement parts library at www.detroitradiant.com/partscenter. For discontinued models, consult the factory.

Figure 3.1 • Components



Electric Parts Listing

Chart 3.2 • General Parts List

Part No.	Description	Part No.	Description
EL-001	Ceramic Insulating Base	EL-072	Lamp; 2500W 208V Clear
EL-002	Reflector, 24 Inch Model	EL-073	Lamp; 1600W 240V Clear
EL-003	Reflector, 33 Inch Model	EL-074	Lamp; 2500W 240V Clear
EL-004	Reflector, 46 Inch Model	EL-075	Lamp; 1600W 480V Clear
EL-006	Lamp Adaptor Plate	EL-076	Lamp; 2500W 480V Clear
EL-012	Reflector Channel, 24 Inch Model	EL-077	Lamp; 3650W 480V Clear
EL-013	Reflector Channel, 33 Inch Model	EL-078	Lamp; 3800W 575V Clear
EL-014	Reflector Channel, 46 Inch Model	EL-080	Lamp; 1600W 120V Ruby
EL-016	Mounting Brackets	EL-081	Lamp; 1600W 208V Ruby
EL-020	Brass Strip with three (3) #10-32 holes	EL-082	Lamp; 2500W 208V Ruby
EL-021	#10-32 x 3/8 Brass Panhead MS	EL-083	Lamp; 1600W 240V Ruby
EL-022	#10-32 x 1-1/4" Stainless Steel Pan Head MS	EL-084	Lamp; 2500W 240V Ruby
EL-023	#10-32 Keps Nut	EL-085	Lamp; 1600W 480V Ruby
EL-024	#10 medium Split Lock Washer, Stainless Steel	EL-086	Lamp; 2500W 480V Ruby
EL-025	#10-32 x 3/4 SS pan Head #2 Phillips Machine Screw	EL-087	Lamp; 3650W 480V Ruby
EL-026	#10 Hex head with Star Washer, Self Threading, Fine threads 3/8	EL-088	Lamp; 3800W 575V Ruby
Single Lamp Model Parts List			
EL-027	1/4 - 20 x 1/2 inch bolt for bracket	EL-106	Service Access Panel, Single Lamp
EL-028	1/4-20 Nut	EL-152	Single Lamp Shell Assembly, 24 Inches
EL-029	1/4 Split lock washer	EL-153	Single Lamp Shell Assembly, 33 Inches
EL-030	Stainless Steel Rivet	EL-154	Single Lamp Shell Assembly, 46 Inches
EL-031	Green Ground Screw	EL-155	Single Lamp Chassis Assembly
EL-033	Wire, length for 33, 12 Gauge (specify color)	Double Lamp Model Parts List	
EL-034	Wire, Length for 24 12 Gauge (specify color)	EL-206	Service Access Panel, Double Lamp
EL-035	Wire, length for 46 12 Gauge (specify color)	EL-252	Double Lamp Shell Assembly, 24 Inches
EL-036	Snap-on Fork Terminal for connector	EL-253	Double Lamp Shell Assembly, 33 Inches
EL-037	Wire Bushing, 2201	EL-254	Double Lamp Shell Assembly, 46 Inches
EL-038	#8 Stainless Steel Sheet Metal Screw	EL-255	Double Lamp Chassis Assembly
EL-051	Ceramic Insulating Base Assembly	Triple Lamp Model Parts List	
EL-057	Wire Raceway Cover Assembly, 24 Inch Model	EL-306	Service Access Panel, Triple Lamp
EL-058	Wire Raceway Cover Assembly, 33 Inch Model	EL-352	Triple Lamp Shell Assembly, 24 Inches
EL-059	Wire Raceway Cover Assembly, 46 Inch Model	EL-353	Triple Lamp Shell Assembly, 33 Inches
EL-070	Lamp; 1600W 120V Clear	EL-354	Triple Lamp Shell Assembly, 46 Inches
EL-071	Lamp; 1600W 208V Clear	EL-355	Triple Lamp Chassis Assembly

Visit our online parts reference library at store.reverberray.com for further part related technical data.

4.0 Limited Warranty

One-Year Limited Warranty. Detroit Radiant Products Company (hereinafter referred to as the Company) warrants to the original purchaser or original user that all Detroit Radiant Gas Infrared Heaters sold by it and all parts thereof are free from defects in material or workmanship under normal use and service. The Company's sole obligation under this warranty shall be limited to furnishing replacement parts, F.O.B. Warren, Michigan, for 12 months from the date of initial installation of the heater, but not to exceed 18 months from the date of shipment by the Company of the heaters, for any parts which the Company's examination shall disclose to its satisfaction to be defective. Defective parts are to be returned to the Company, transportation charges prepaid.

General Conditions. The warranties set out in this certificate are the exclusive remedy of the original owner or user in lieu of all other warranties written, oral or implied (including any warranty of merchantability or fitness for the purpose) and all other obligations or liabilities on the part of the Company, and the Company neither assumes nor authorizes any person to assume for it any other obligation or liabilities on the part of the Company, and the Company neither assumes nor authorizes any person to assume for it any other obligation or liability in connection with the sale, installation or use of the heater or any parts thereof.

The Company will not be responsible for labor charges for the analysis of a defective condition in the heater or for the installation of replacement parts. The warranties provided herein will not apply if the input of the heater exceeds the rated input at time of manufacturing or if the heater in the judgment of the Company has been subjected to misuse, excessive dust, improper conversion, negligence, accident, corrosive atmospheres, excessive thermal shock, excessive vibration, physical damage to the heater, alterations by unauthorized service personnel, operation contrary to the Company's instructions or if the serial number has been altered, defaced, or removed. The Company shall not be liable for any default or delay in the performance of these warranties caused by contingency beyond its control, including war, government restriction or restraints, strikes, fire, flood, short or reduced supply of raw materials, or parts.

The warranties herein shall be null and void if the heater is not installed by a competent heating contractor and/or if the heater is not installed according to Company instructions, normal industry practices and/or if the heater is not maintained and repaired according to Company's instructions. Normal product degradation and wear (rust, oxidation, etc.) does not constitute a material defect and applicable warranty claim.

Written permission is required for the return of any parts or equipment and any such return must be made on the basis of transportation charges prepaid. Shipment may be refused unless prior written permission is obtained and goods returned prepaid.

This warranty applies only within the United States.

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