

ELD Series Installation Manual



Overhead Electric Infrared Heater

Dual Lamp Units



⚠ WARNING



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

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)

LIOELD-Rev. 33924
Print: XM-05/25 (XXX)

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 **WARNING**

California Proposition 65

This product can expose you to chemicals including lead, which is known to the State of California to cause birth defects or other reproductive harm.

For more information, go to www.P65Warnings.ca.gov.

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

This is not an explosion proof heater. No ELD series heater may be used in a Class 1 or Class 2 Explosive Environment. Consult your local fire marshal, insurance carrier, and other authorities for approval if the proposed installation is in question.

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 clearances to combustibles.

Outdoor Residential Only

This heater is **NOT** approved for use in an indoor residential application. This includes, but is 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, RVs, mobile homes, etc. may result in property damage, fire, serious injury, or death.

Chart 1.1 • Model Number Designation Chart

Series	Type	Length	Material Type	Voltage	Total Heater Wattage
ELD	M = Medium Wave	24 = 24"	B = Black Powder Coat	120 VAC	Total heater wattage in kW (e.x., 2.72 = 2,720 W)
		33 = 33"		208 VAC	
		46 = 46"		240 VAC	
	T = H.O. Medium Wave	60 = 60"	S = Stainless Steel	277 VAC	
				480 VAC	
				575 VAC	

Model Configuration Examples: ELDM-24B-120-2.72 or ELDT-46B-480-6.4

Chart 1.2 • Available Models and Specifications - Medium Wave

Model Number	Replacement Lamp	Voltage*	Total Amps	Total Watts	BTU/h
ELDM-24B-120-1.5 / ELDM-24S-120-1.5	EL-MW-A24	120	12.50	1,500	5,118
ELDM-24B-208-1.5 / ELDM-24S-208-1/5	EL-MW-B24	208	7.21	1,500	5,118
ELDM-24B-240-1.5 / ELDM-24S-240-1.5	EL-MW-C24	240	6.25	1,500	5,118
ELDM-24B-277-1.5 / ELDM-24S-277-1.5	EL-MW-D24	277	5.42	1,500	5,118
ELDM-33B-120-2.5 / ELDM-33S-120-2.5	EL-MW-A33	120	20.83	2,500	8,530
ELDM-33B-208-2.5 / ELDM-33S-208-2.5	EL-MW-B33	208	12.02	2,500	8,530
ELDM-33B-240-2.5 / ELDM-33S-240-2.5	EL-MW-C33	240	10.42	2,500	8,530
ELDM-33B-277-2.5 / ELDM-33S-277-2.5	EL-MW-D33	277	9.03	2,500	8,530
ELDM-46B-208-4.0 / ELDM-46S-208-4.0	EL-MW-B46	208	19.23	4,000	13,648
ELDM-46B-240-4.0 / ELDM-46S-240-4.0	EL-MW-C46	240	16.67	4,000	13,648
ELDM-46B-277-4.0 / ELDM-46S-277-4.0	EL-MW-D46	277	14.44	4,000	13,648
ELDM-46B-480-4.0 / ELDM-46S-480-4.0	EL-MW-G46	480	8.33	4,000	13,648
ELDM-60B-208-6.0 / ELDM-60S-208-6.0	EL-MW-B60-3.0	208	28.85	6,000	20,472
ELDM-60B-240-6.0 / ELDM-60S-240-6.0	EL-MW-C60-3.0	240	25.00	6,000	20,472
ELDM-60B-277-6.0 / ELDM-60S-277-6.0	EL-MW-D60-3.0	277	21.66	6,000	20,472

* Heaters are configured at the factory for single phase wiring. If three phase service is desired, it must be wired as such in the field by a trained installer / electrical contractor.

Chart 1.3 • Available Models and Specifications - High Output Medium Wave

Model Number	Replacement Lamp	Voltage*	Total Amps	Total Watts	BTU/h
ELDT-24B-120-2.72 / ELDT-24S-120-2.72	EL-HO-A24	120	22.67	2,720	9,281
ELDT-24B-208-2.72 / ELDT-24S-208-2.72	EL-HO-B24	208	13.08	2,720	9,281
ELDT-24B-240-2.72 / ELDT-24S-240-2.72	EL-HO-C24	240	11.33	2,720	9,281
ELDT-24B-277-2.72 / ELDT-24S-277-2.72	EL-HO-D24	277	9.82	2,720	9,281
ELDT-24B-480-2.72 / ELDT-24S-480-2.72	EL-HO-G24	480	5.67	2,720	9,281
ELDT-33B-208-4.0 / ELDT-33S-208-4.0	EL-HO-B33-2.0	208	19.23	4,000	13,648
ELDT-33B-240-4.0 / ELDT-33S-240-4.0	EL-HO-C33-2.0	240	16.67	4,000	13,648
ELDT-33B-277-4.0 / ELDT-33S-277-4.0	EL-HO-D33-2.0	277	14.44	4,000	13,648
ELDT-33B-480-4.0 / ELDT-33S-480-4.0	EL-HO-G33-2.0	480	8.33	4,000	13,648
ELDT-33B-208-4.25 / ELDT-33S-208-4.25	EL-HO-B33	208	20.43	4,250	14,501
ELDT-33B-240-4.25 / ELDT-33S-240-4.25	EL-HO-C33	240	17.71	4,250	14,501
ELDT-33B-277-4.25 / ELDT-33S-277-4.25	EL-HO-D33	277	15.34	4,250	14,501
ELDT-33B-480-4.25 / ELDT-33S-480-4.25	EL-HO-G33	480	8.85	4,250	14,501
ELDT-46B-240-6.0 / ELDT-46S-240-6.0	EL-HO-C46-3.0	240	25.00	6,000	20,472
ELDT-46B-277-6.0 / ELDT-46S-277-6.0	EL-HO-D46-3.0	277	21.66	6,000	20,472
ELDT-46B-480-6.0 / ELDT-46S-480-6.0	EL-HO-G46-3.0	480	12.50	6,000	20,472
ELDT-46B-575-6.0 / ELDT-46S-575-6.0	EL-MW-H46	575	10.43	6,000	20,472
ELDT-46B-277-6.4 / ELDT-46S-277-6.4	EL-HO-D46	277	23.10	6,400	21,837
ELDT-46B-480-6.4 / ELDT-46S-480-6.4	EL-HO-G46	480	13.33	6,400	21,837
ELDT-46B-575-6.4 / ELDT-46S-575-6.4	EL-HO-H46	575	11.13	6,400	21,837
ELDT-60B-277-6.5 / ELDT-60S-277-6.5	EL-HO-D60-3.25	277	23.47	6,500	22,178
ELDT-60B-480-6.5 / ELDT-60S-480-6.5	EL-HO-G60-3.25	480	13.54	6,500	22,178
ELDT-60B-480-8.0 / ELDT-60S-480-8.0	EL-HO-G60	480	16.67	8,000	27,296
ELDT-60B-575-8.0 / ELDT-60S-575-8.0	EL-HO-H60	575	13.91	8,000	27,296

* Heaters are configured at the factory for single phase wiring. If three phase service is desired, it must be wired as such in the field by a trained installer / electrical contractor.

Clearances 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, or vapors 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
- Plastics

Moving Objects Include:

- Overhead doors
- Vehicles on lifts
- Cranes
- Hoists

When installing the infrared heater system, the minimum clearances to combustibles must be maintained. These distances are shown in Chart 1.5 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 1.5 • Clearances to Combustibles in Inches (Millimeters) - see Figure 1.1

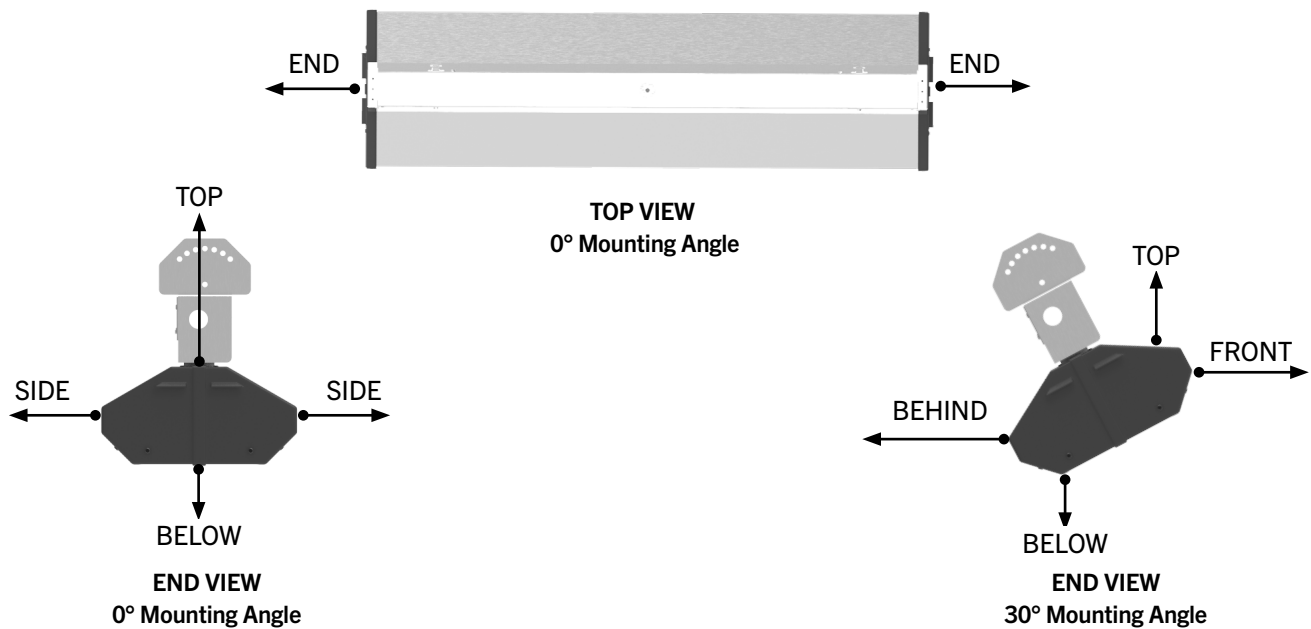
Model	Mounting Angle*	Side		End	Top	Below	Min. Mtg. Height	
		Front	Behind				US	Canada
24" 33"	ELDM	0°	18 (457)	18 (457)	16 (406)	7 (178)	6 ft.	2.4 m
		30°	35 (889)	4 (102)	16 (406)	9 (229)		
	ELDT	0°	24 (610)	24 (610)	16 (406)	7 (178)		
		30°	39 (991)	6 (153)	16 (406)	9 (229)		
46"	ELDM	0°	23 (584)	23 (584)	16 (406)	7 (178)	7 ft.	2.4 m
		30°	42 (1067)	4 (102)	16 (406)	9 (229)		
	ELDT	0°	30 (762)	30 (762)	20 (508)	7 (178)		
		30°	50 (1270)	8 (203)	20 (508)	9 (229)		
60"	ELDM	0°	29 (737)	29 (737)	16 (406)	7 (178)	8 ft.	2.4 m
		30°	45 (1143)	6 (153)	16 (406)	9 (229)		
	ELDT	0°	36 (915)	36 (915)	20 (508)	7 (178)		
		30°	55 (1397)	9 (229)	20 (508)	9 (229)		

* Heaters mounted on an angle between 0° and 30° must maintain clearances posted for 0° or 30°, whichever is greater.

** Clearances to combustibles must be maintained when using recessed mount kits (P/N: EL1-FRxx). For additional information, refer to form # LSH123a - Recessed Mounting Frame Installation Instructions or contact the factory.

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 • Clearances to Combustibles



Safety Labels and Their Locations

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 clearances 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.

CLEARANCES TO COMBUSTIBLES - Inches (Millimeters)

Model	Mounting Angle	Clearance					
		Front	Side	Behind	End	Top	Below
24°	0°	18 (457)	18 (457)	16 (406)	7 (178)	38 (965)	
	30°	35 (889)	4 (102)	16 (406)	9 (229)	38 (965)	
33°	0°	24 (610)	24 (610)	16 (406)	7 (178)	46 (1168)	
	30°	39 (991)	6 (153)	16 (406)	9 (229)	46 (1168)	
46°	0°	23 (584)	23 (584)	16 (406)	7 (178)	44 (1118)	
	30°	42 (1067)	4 (102)	16 (406)	9 (229)	44 (1118)	
60°	0°	39 (991)	30 (762)	20 (508)	7 (178)	56 (1422)	
	30°	50 (1270)	8 (203)	20 (508)	9 (229)	56 (1422)	
EELM	0°	29 (737)	29 (737)	16 (406)	7 (178)	50 (1270)	
	30°	45 (1143)	6 (153)	16 (406)	9 (229)	50 (1270)	
ELDT	0°	36 (915)	36 (915)	20 (508)	7 (178)	61 (1549)	
	30°	50 (1270)	9 (229)	20 (508)	9 (229)	61 (1549)	

*Heaters mounted on an angle between 0° and 30° must maintain clearances posted for 0° or 30°, whichever is greater.

F/N: LLECL001d - Clearances to Combustibles Label

⚠ CAUTION
VERIFY SUPPLY VOLTAGE
 -VÉRIFIEZ LA TENSION D'ALIMENTATION.
 DISCONNECT FROM ELECTRICAL SUPPLY BEFORE SERVICING THE HEATER.
 DÉBRANCHEZ DE L'ALIMENTATION ÉLECTRIQUE AVANT ENTRETIEN DE CET APPAREIL DE CHAUFFAGE.
 THIS APPLIANCE MUST BE PROPERLY GROUNDED TO THE ELECTRICAL SOURCE, CET APPAREIL DOIT ÊTRE CORRECTEMENT MIS À LA TERRE À LA SOURCE ÉLECTRIQUE.
 NOTE: USE COPPER CONDUCTORS ONLY
 ATTENTION: UTILISER DES CONDUCTEURS EN CUIVRE L146106-004-0193 (10/05)

Electrical Label
 (Located inside the raceway)

WARNING
 Avoid Serious Injury, Death, or Property Damage. Maintain Clearances to Combustible to Prevent the Risk of Fire.
 Clearances 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.
 California Proposition 65
 This product can expose you to chemicals including lead and carbon monoxide, which are known to the State of California to cause birth defects or other reproductive harm.
 For more information go to www.P65Warnings.ca.gov.
 - INSTALLER: READ AND POST THIS NOTICE - L146106-001-0105

F/N: LL001 - Clearance Safety Tag
 (Affix adjacent to heater's controller)

ELECTRIC INFRARED HEATER
INFRAROUGE À CHAUFFE AU ÉLECTRIQUE

MODEL NUMBER / NUMÉRO DE MODÈLE ELDM-24B-120-1.5	SERIAL NUMBER / NUMÉRO DE SÉRIE 2412DTRXXXXX 0001		
VOLTAGE / TENSION 120	WATTAGE / PUISSANCE 1,500	PHASE Single	VERSION 12/24
MIN. MOUNTING HEIGHT / HAUTEUR ANNUELLE DE MONTAGE 6"	MIN. MOUNTING ANGLE / MIN. ANGLE DE SOUTIEN 0°	MAX. MOUNTING ANGLE / MAX. ANGLE DE SOUTIEN 30°	FREQUENCY / FRÉQUENCE 50/60 Hz

THIS DESIGN COMPLIES WITH STANDARDS: CONFORME À CETTE CONCEPTION AVEC LA NORME:
 IUL 2021 - Edition 8 (revision 2018) • CSA C22.2 46-13 (R2018)

THIS HEATER WAS INSTALLED WITH THE FOLLOWING ELEMENTS:
 CET APPAREIL DE CHAUFFAGE A ÉTÉ INSTALLÉ AVEC LES ÉLÉMENTS SUIVANTS:

Element Part Number: EL-MW-A24
Output Wave: Medium Wave
Amps per Lamp / Total Amps: 12.50 / 12.50
Watts per Lamp / Total Watts: 1500 / 1500

©2001 Radiant Products Company
 21405 Hoover Road, Waukesha, WI 53090
 (262) 788-0050

FOR COMMERCIAL, INDUSTRIAL, AND OUTDOOR RESIDENTIAL USE.
 POUR INTÉRIEUR OU OUTDOOR USE.
 MADE IN USA.

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 Company units comply with or are certified by one or more of the following organizations or standards:

- CSA 22.2 #46 - M1988
- UL 2021

2.0 Installation

⚠ WARNING



Read and understand the installation, operation, 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 clearances to combustibles (see Chart 1.5 on page 8), consideration should also be given to factors such as the environment (e.g., cold/drafty, average, protected), heat coverage (sq. ft.) needed, heater centers, the distance behind a person or work station(s), etc. 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, clearances to combustibles **must** always be maintained! Refer to hazards on page 7.

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

This installation manual, along with national, state, provincial, and local codes, addresses 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 clearances 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 applicable NFPA codes. Always observe applicable state and local codes.

Chart 2.1 • Estimating Required Heat Load

Type of Building	Watts Required per Square Foot at Floor Level*
Insulated	5 to 10
Uninsulated	10 to 15
Outdoor Sheltered	20 to 30
Outdoor Unsheltered	25 to 40

* For load purposes only, not for determining coverage.

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.

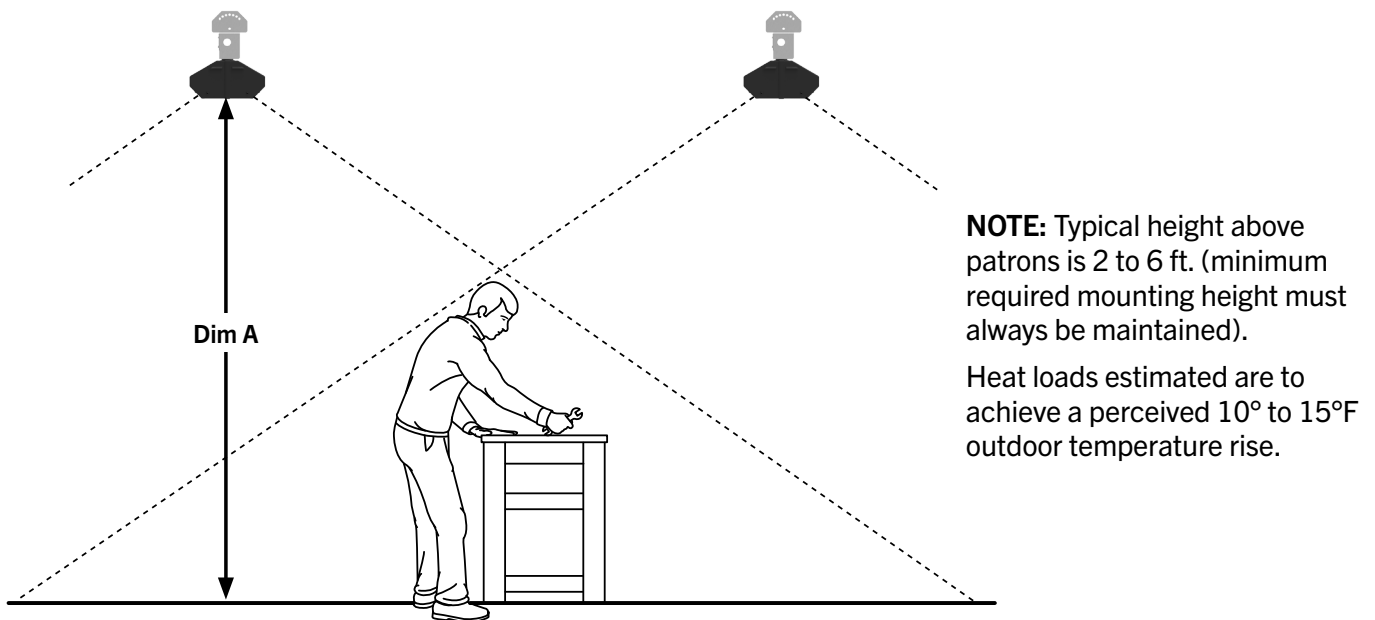
Chart 2.2 • Heating Application Chart

Length	Minimum Mounting Height (Ft.)		Recommended Mounting Height (Ft.)** [Dim. A]	Outdoor Unprotected†	Outdoor Protected†	Average†
	US	Canada				
24 in.	6 ft.	2.4 m	6 to 7	6' x 6'	8' x 8'	7' x 7'
33 in.	6 ft.	2.4 m	7 to 8	7' x 7'	9' x 9'	8' x 8'
46 in.	7 ft.	2.4 m	8 to 10	8' x 8'	11' x 11'	10' x 10'
60 in.	8 ft.	2.4 m	8 to 12	8' x 8'	13' x 13'	12' x 12'

** Clearances to combustibles published in this manual and on safety labels 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.

† Approximation only. Mounting height and environmental conditions will impact performance.

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: LL001) adjacent to heater's 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.

Clearances to combustibles must be maintained when using recessed mount kits (P/N: EL1-FRxx). For additional information, refer to form # LSH123a - Recessed Mounting Frame Installation Instructions or contact the factory.

The heater must be level from end to end and may be 0° to 30° on horizontal. Refer to Figures 2.2 and 2.3.

Figure 2.2 • Heater Dimensions

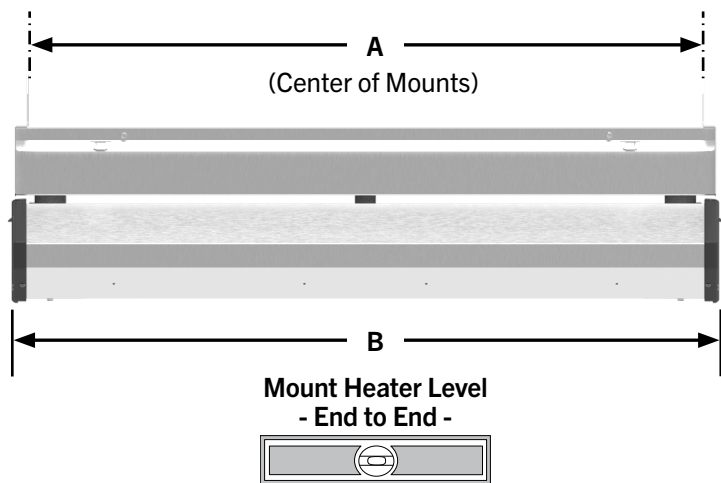
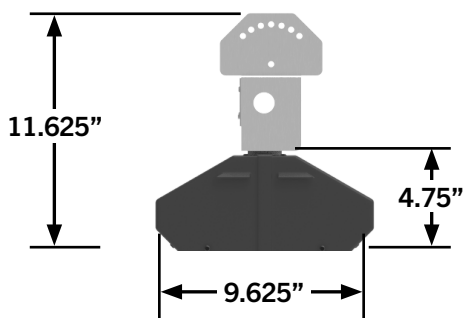
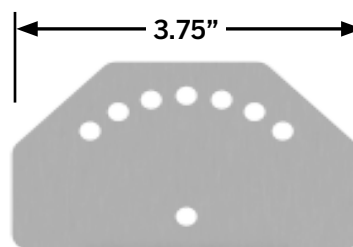


Chart 2.3 • Physical Dimensions (inches)

Model No.	A	B
ELD[M,T]-24[B,S]	23.50	24.50
ELD[M,T]-33[B,S]	32.50	33.50
ELD[M,T]-46[B,S]	45.50	46.50
ELD[M,T]-60[B,S]	59.50	60.50

Figure 2.3 • Mounting Centers



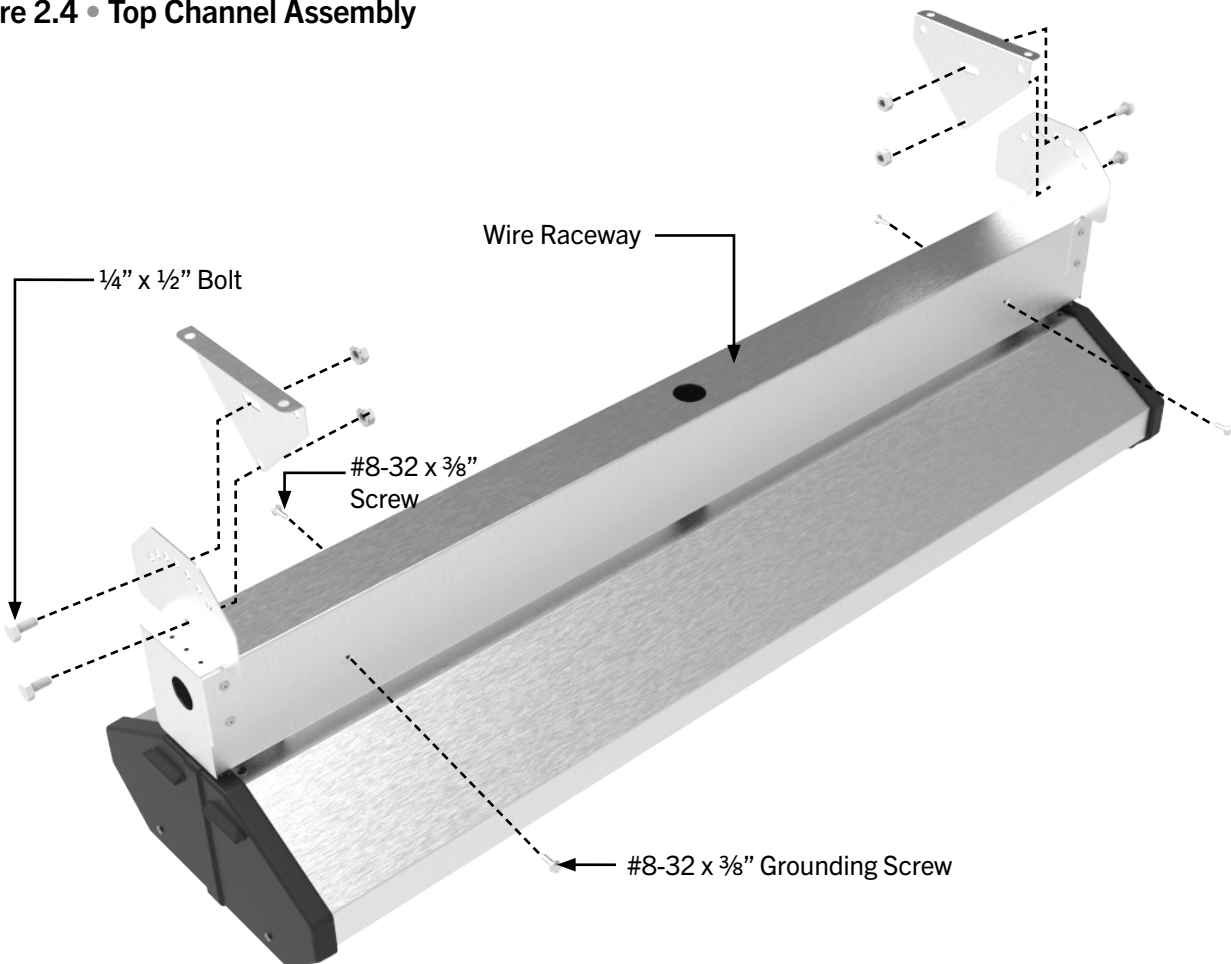
Top Channel Assembly

- 1 Attach the mounting brackets to the top wire raceway. On each end, place (1) $\frac{1}{4}$ " x $\frac{1}{2}$ " bolt through the bottom hole of the mounting bracket and through the bottom hole of the top wire raceway. Place (1) $\frac{1}{4}$ " 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) $\frac{1}{4}$ " x $\frac{1}{2}$ " bolt through slot in the mounting bracket and the hole in the top wire raceway. Place (1) $\frac{1}{4}$ " 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 $\frac{3}{8}$ " grounding screws provided in hardware pack.

Figure 2.4 • Top Channel Assembly



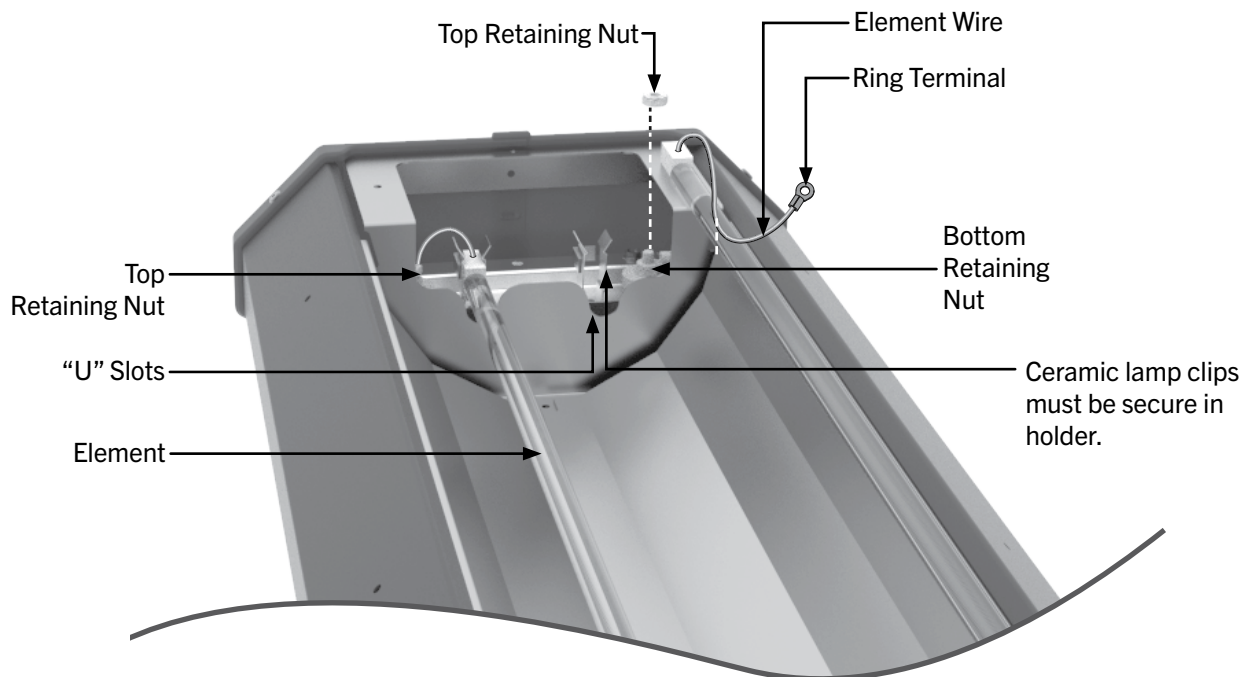
Lamp Installation

⚠ 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 Ensure appliance is OFF and is cool to the touch.
- ② Remove both service access panels using a ¼" nut driver.
- ③ Position heating elements in "U" slots and firmly press the ceramic connector end into the clip(s), one end at a time. Avoid handling the quartz glass as much as possible.
- ④ Remove the top element wire retaining nut. Slide the ring terminal over the bolt until it meets the bottom retaining nut. Replace top retaining nut and torque to 15 in.-lbs. Do not overtighten.
- ⑤ Repeat steps 3 and 4 for the second heating element.
- ⑥ After heating elements have been installed, the quartz glass should be wiped down with alcohol using a clean cloth.
- ⑦ Reinstall the service access panels.

Figure 2.5 • Lamp Installation



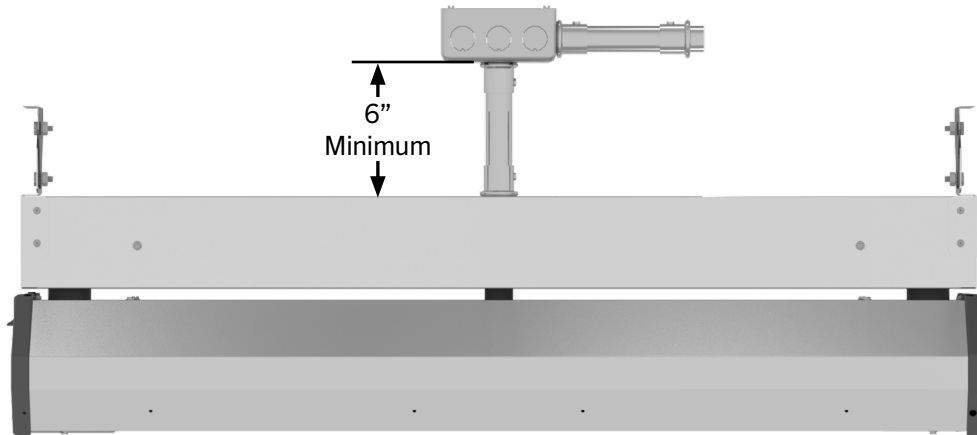
NOTE: ELD series heaters are designed for use with quartz lamp infrared heating elements only. **They are NOT intended to be used with straight metal rod heating elements. Replace lamps with parts from Detroit Radiant Products Company only!**

Outdoor Applications

⚠ CAUTION

For totally exposed outdoor applications (not ceiling protected) ensure connections are made as illustrated in Figure 2.6.

Figure 2.6 • 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, and 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 of the top of the wire raceway. Consult the factory or a qualified electrician for details on staging.

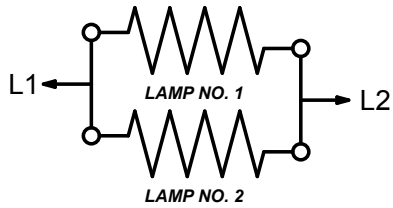
Supply wires must be a copper conductor type with a minimum size of 10 AWG suitable for at least 200°C.

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

Reference top of page 16 for use in outdoor applications.

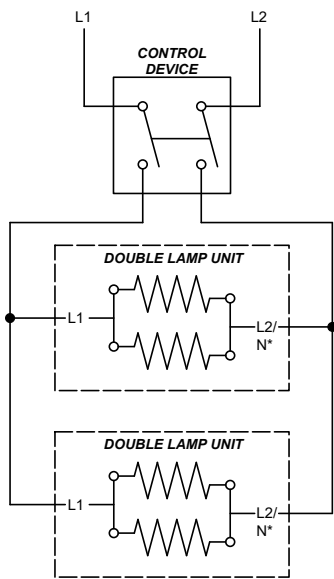
Wiring Diagrams

Figure 2.7 • Wiring Diagram for Dual Element Models



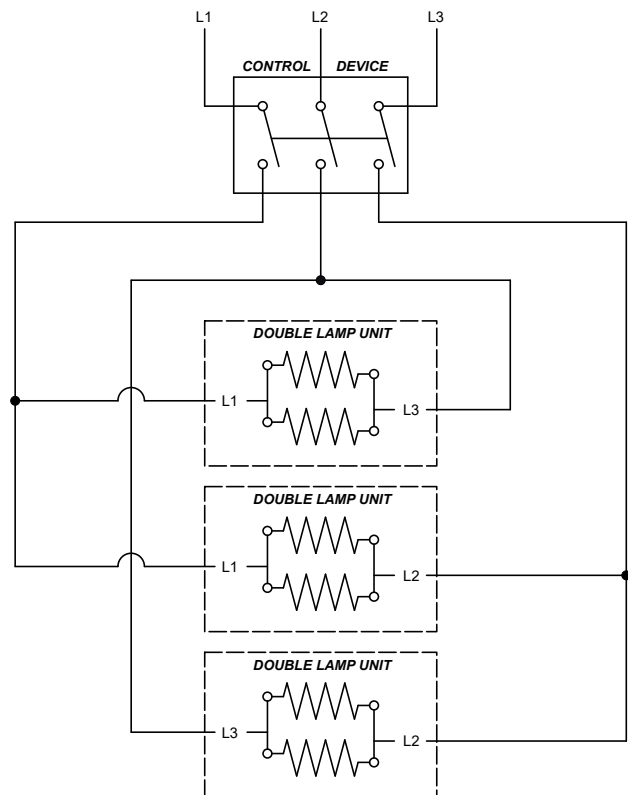
Field Wiring

Figure 2.8 • Single Phase Service
Heaters are built as single phase.

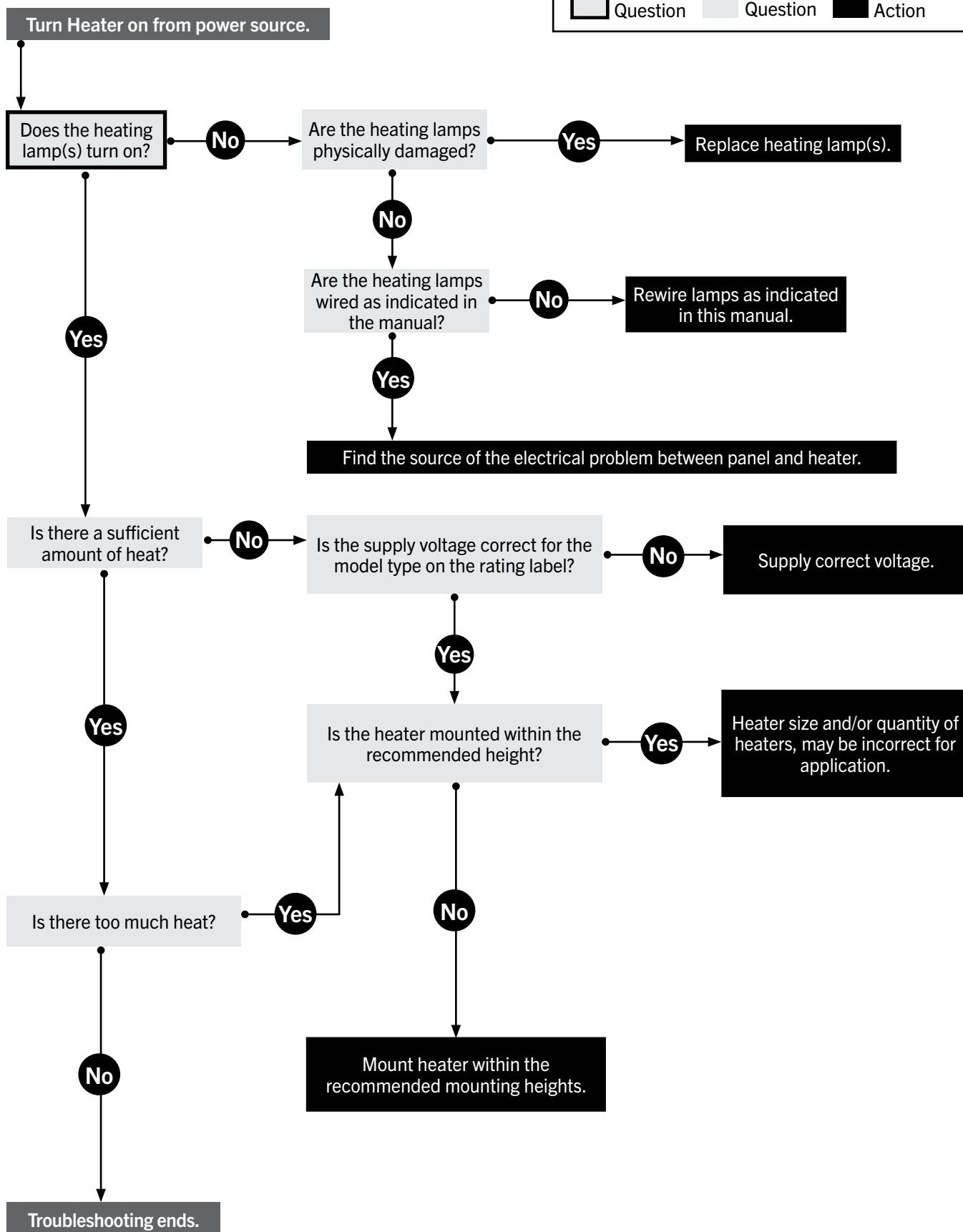
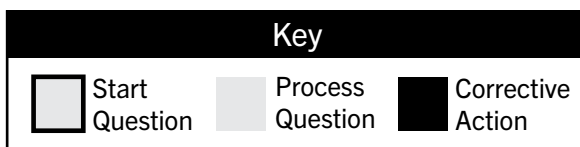


*N for 120 V and 277 V

Figure 2.9 • Three Phase Service
Field configured.



Troubleshooting Guide

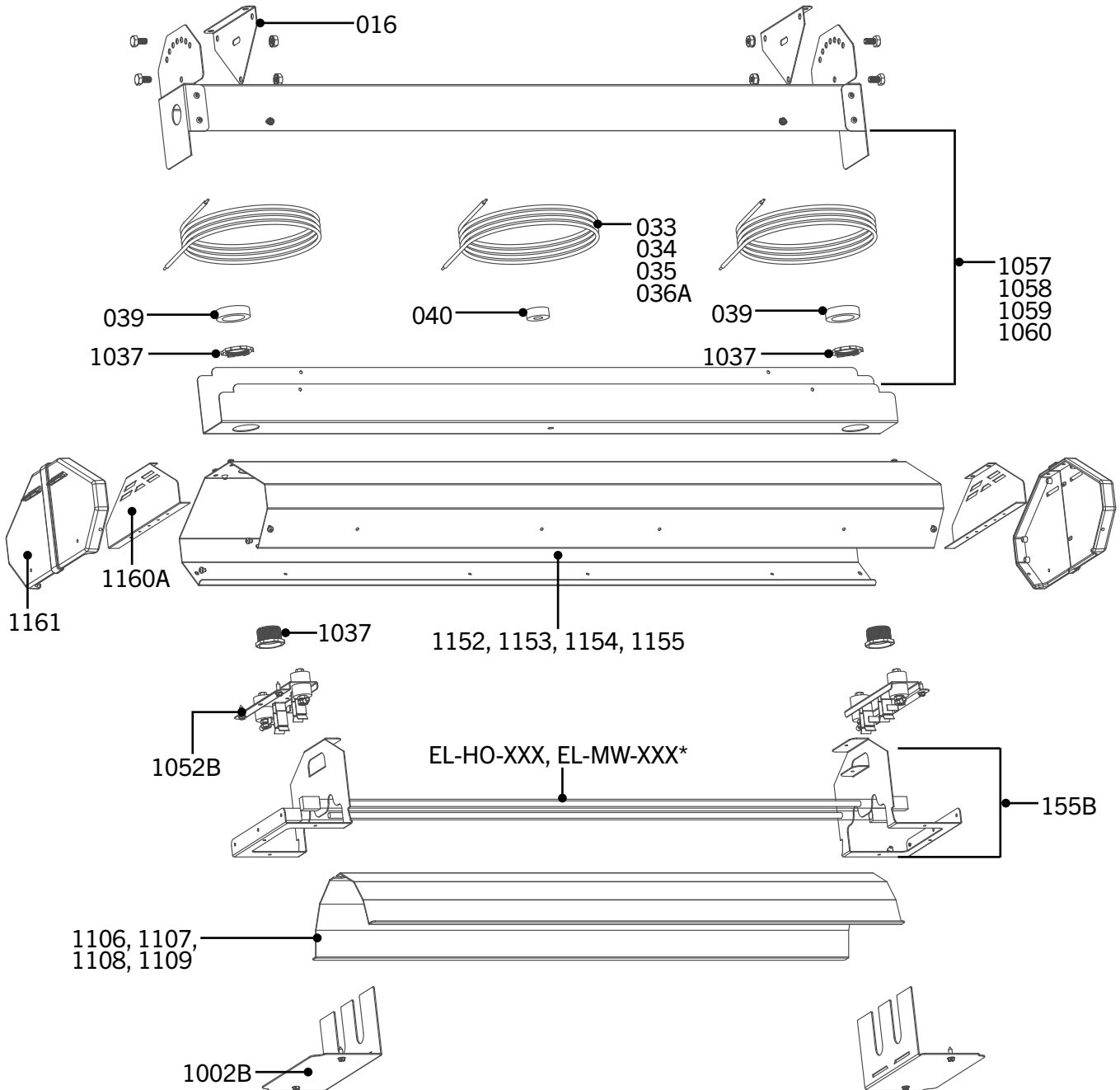


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Heater Assembly Components

For complete information on ELD series replacement parts, visit the online replacement parts library at www.reverberray.com/shop. For discontinued models, consult the factory.

Figure 3.1 • Components



* For replacement elements, refer to pages 4 and 5.

Parts List

Chart 3.1 • General Parts

Part No.	Description	Part No.	Description
EL-016 ¹	Mounting Brackets (set of 2)	EL-1060 ¹	Wire Raceway Assembly, 60" Model
EL-033	12 Gauge Wire Length for 33" (specify color)	EL-1002B	Service Access Panel - Vented
EL-034	12 Gauge Wire Length for 24" (specify color)	EL-1106	Reflector, 24" Model
EL-035	12 Gauge Wire Length for 46" (specify color)	EL-1107	Reflector, 33" Model
EL-036A	12 Gauge Wire Length for 60" (specify color)	EL-1108	Reflector, 46" Model
EL-039	Large Rubber Spacer (End - 2 per heater)	EL-1109	Reflector, 60" Model
EL-040	Small Rubber Spacer (Center)	EL-1152 ¹	Shell Assembly, 24" Model
EL-155B	Chassis Assembly with Lamp Stopper	EL-1153 ¹	Shell Assembly, 33" Model
EL-1037	Wire Bushing	EL-1154 ¹	Shell Assembly, 46" Model
EL-1052B	Element Connector Assembly	EL-1155 ¹	Shell Assembly, 60" Model
EL-1057 ¹	Wire Raceway Assembly, 24" Model	EL-1160A	Rain Shield - Vented
EL-1058 ¹	Wire Raceway Assembly, 33" Model	EL-1161	Nylon End Panel
EL-1059 ¹	Wire Raceway Assembly, 46" Model		

¹ Order part number as is for black finish or add -SS for stainless steel finish. Ex: EL-016 for black mounting brackets and EL-016-SS for stainless steel mounting brackets.

Visit our online parts reference library at www.reverberray.com/shop for further technical data related to parts.

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 Electric 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.



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