

Dayton Gas Infra-Red Heaters Specification Sheet

⚠ WARNING! *This heater must be installed and serviced by trained gas installation and service personnel only! Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury or death. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment. Protect yourself and others by observing all safety information. Retain these instructions for future reference.*

DAYTON[®] GAS INFRA-RED HEATERS

ENGINEERING SUBMITTAL DATA - GAS FIRED INFRA-RED HEATERS.

Model	Input	Gas	Volts	Operating Temp. °F	Square In. Radiant Surface	Recommended Mtg. Hgt.	Net Weight		Ship Weight	
							Truckline	UPS		
3E132	30,000	NATURAL	120V.	1780	85 SQ. IN.	12-14 FT.	18#	25#	30#	
3E460	30,000	PROPANE	120V.	1780	85 SQ. IN.	12-14 FT.	18#	25#	30#	
5VD61	30,000	NATURAL	25V.	1780	85 SQ. IN.	12-14 FT.	18#	25#	30#	
5VD62	30,000	PROPANE	25V.	1780	85 SQ. IN.	12-14 FT.	18#	25#	30#	
3E133	60,000	NATURAL	120V.	1780	170 SQ. IN.	14-16 FT.	27#	35#	35#	
3E461	60,000	PROPANE	120V.	1780	170 SQ. IN.	14-16 FT.	27#	35#	35#	
5VD63	60,000	NATURAL	25V.	1780	170 SQ. IN.	14-16 FT.	27#	35#	35#	
5VD64	60,000	PROPANE	25V.	1780	170 SQ. IN.	14-16 FT.	27#	35#	35#	
3E134	90,000	NATURAL	120V.	1780	255 SQ. IN.	16-18 FT.	36#	46#	70#	
3E462	90,000	PROPANE	120V.	1780	255 SQ. IN.	16-18 FT.	36#	46#	70#	
5VD65	90,000	NATURAL	25V.	1780	255 SQ. IN.	16-18 FT.	36#	46#	70#	
5VD66	90,000	PROPANE	25V.	1780	255 SQ. IN.	16-18 FT.	36#	46#	70#	

Project: _____ **Date:** _____
Location: _____
City: _____ **State:** _____ **Zip:** _____
Contractor: _____
Engineer: _____
Local Representative: _____
Customer Name: _____
Address: _____
City: _____ **State:** ___ **Zip:** _____ **Phone #:** _____
Notes: _____





DAYTON GAS INFRA-RED HEATER CONSTRUCTION FEATURES

- Proven design – manufactured for over 30 years
- Mounting chain set included with each unit.
- Exclusive DAYTON ceramic burner provides maximum conversion to radiant energy.
- A.G.A. Design Certified, U.L. Listed, Accepted by F.I.A. and F.M.
- Solid state direct spark ignition system.
- Lower installation cost through compact modular heater design.
- Rugged non-corrosive materials used throughout.
- Proven burner design – over 2,000,000 burners in use.
- Stainless steel re-radiating rods increase heater efficiency.
- Potted control circuitry (120V only) for high moisture applications.

DAYTON GAS INFRA-RED HEATER SPECIFICATIONS

1. HEATER PARAMETERS/SPECIFICATIONS

- A. Gas Infra-Red Heaters shall be DAYTON brand, as supplied by W. W. Grainger, Inc., Niles, IL.
- B. Gas Infra-Red Heaters shall be Designed Certified by the American Gas Association, (AGA), comply with current Occupational Safety and Health Act (OSHA) requirements, and be accepted by Factory Insurance Association (FIA) and Mutual Fire Insurance Companies (FM).
- C. The manufacturer shall provide a published warranty covering the heater's ceramic burner for a minimum five (5) year period and all components utilized in the heater control assembly for a period of one (1) year.
- D. Gas Infra-Red Heaters shall be designed to operate when burning natural gas having a heat value of _____ BTU per cubic foot with a specific gravity of _____, or when burning propane gas having a heat value of 2500 BTU per cubic foot with a specific gravity of 1.53.
- E. The ceramic burner face shall operate at a temperature range of 1660 degrees F. to 1810 degrees F. and shall incorporate a secondary re-radiating surface of stainless steel rods to obtain maximum operating temperature and radiant output.
- F. The manufacturer shall have a minimum of 25 years of manufacturing experience producing gas infra-red heaters.

2. GAS INFRA-RED HEATER BURNER CONTROLS

- A. Gas Infra-Red Heaters shall be equipped with a Direct Spark Ignition System where ignition of the main burner is achieved through a solid state ignition module operating a spark electrode mounted on the ceramic surface of the main burner. Loss of power causes 100% safety shut-off of the main burner(s). System shall operate on 120 or 24 volts (must be specified). Gas inlet shall be 1/2" FPT. Ampere ratings shall be 0.10 amps-120v. units and 0.48 amps-24 volt units.

3. GAS INFRA-RED HEATER CONSTRUCTION

- A. The heater reflector housing shall be constructed of on-side bright high polished aluminum. The emitter shall be composed of a perforated ceramic tile on which combustion takes place on the surface. The burner plenum shall be constructed of aluminized steel of one-piece construction. The heater shall be of a modular design employing multiple burners to achieve a specified input rating.
 - B. The venturi shall be constructed of stainless or aluminized steel.
 - C. The secondary re-radiating rods shall be constructed of high temperature stainless steel alloy placed in close proximity of the ceramic burner face.
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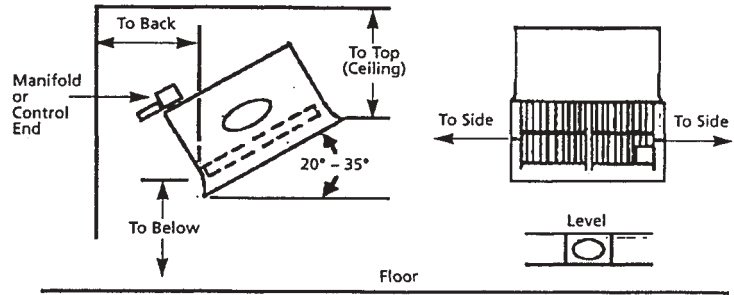
CLEARANCE TO COMBUSTIBLES

WARNING
 Failure to comply with the stated clearance to combustibles could result in personal injury, death, and/or property damage.

WARNING
 This heater should be installed so that the minimum clearances to vehicles, as marked on the heater, will be maintained. If vehicle lifts are present, ensure that these clearances will be maintained from the highest raised vehicle.

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 thermostats or in the absence of such thermostats in a conspicuous location.

CLEARANCE TO COMBUSTIBLES				
MODEL NO.	SIDE	BACK	TOP	BELOW
30 MBTU/H				
3E132 3E460 5VD61 5VD62	30"	18"	28"	72"
60 MBTU/H				
3E133 3E461 5VD63 5VD64	32"	18"	40"	72"
90 MBTU/H				
3E134 3E462 5VD65 5VD66	48"	30"	42"	98"



TYPICAL WIRING DIAGRAMS

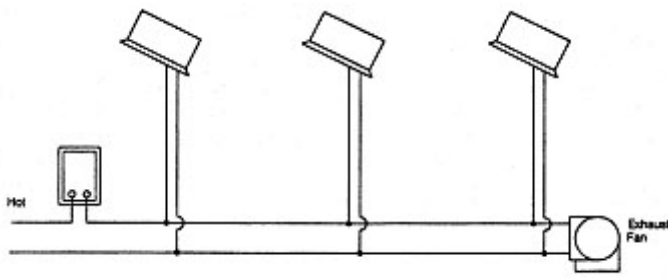


Figure 1 - Typical 120-volt units with thermostat & exhauster.

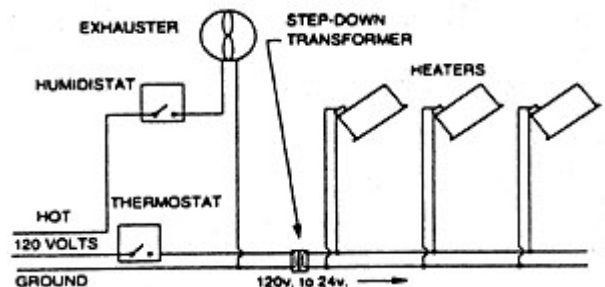
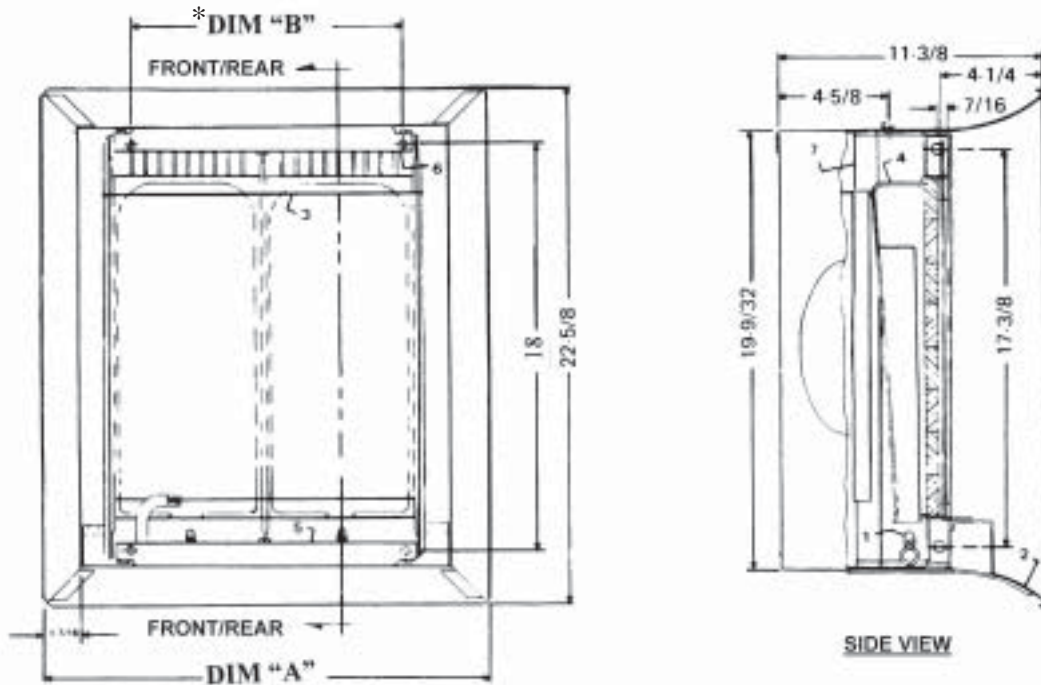


Figure 2 - Typical 24-volt units with 120/24 volt step down transformer, thermostat & exhauster.

DIMENSIONAL INFORMATION



(*) Hanger mounting hole "O.C."

DAYTON GAS INFRA-RED HEATERS					
MODEL #	BTU/H INPUT	GAS TYPE	VOLTAGE	DIM "A"	DIM "B"
3E132	30,000	NATURAL	120V.	12-3/8"	5"
3E460	30,000	PROPANE	120V.	12-3/8"	5"
5VD61	30,000	NATURAL	25V.	12-3/8"	5"
5VD62	30,000	PROPANE	25V.	12-3/8"	5"
3E133	60,000	NATURAL	120V.	18-7/8"	11-1/2"
3E461	60,000	PROPANE	120V.	18-7/8"	11-1/2"
5VD63	60,000	NATURAL	25V.	18-7/8"	11-1/2"
5VD64	60,000	PROPANE	25V.	18-7/8"	11-1/2"
3E134	90,000	NATURAL	120V.	25-3/8"	18"
3E462	90,000	PROPANE	120V.	25-3/8"	18"
5VD65	90,000	NATURAL	25V.	25-3/8"	18"
5VD66	90,000	PROPANE	25V.	25-3/8"	18"