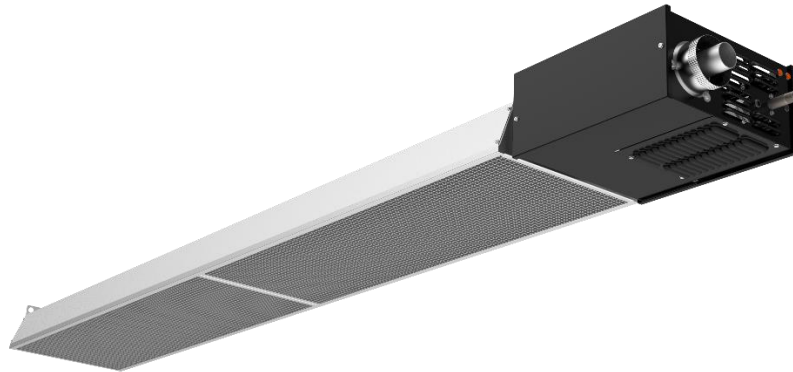


INFRARED HEATER



SUPERIOR
RADIANT PRODUCTS

Series GRT Infrared Heater Two-Stage



STEP 1 BEFORE INSTALLING

WARNING

These instructions, the layout drawing, local codes and ordinances, and applicable standards such as to gas piping and electrical wiring comprise the basic information needed to complete the installation, and must be thoroughly understood along with general building codes before proceeding. **This guide is not intended to replace the Instruction Manual.**

Only personnel who have been trained and understand all applicable codes should undertake the installation. SRP Representatives are Factory Certified in the service and application of this equipment and can be called on for helpful suggestions about installation.

INSTALLATION AND GAS CODES

Heaters must be installed only for use with the type of gas appearing on the rating plate, and the installation must conform to the National Fuel Gas Code, ANSI Z223.1/NFPA 54 in the USA and CSA B149.1 and B149.2 Installation Codes in Canada.

This heater maybe approved for either indoor or outdoor installation. Not for use in residential dwellings, refer to Rating plate.

General Specifications

Configurations

Gas Supply

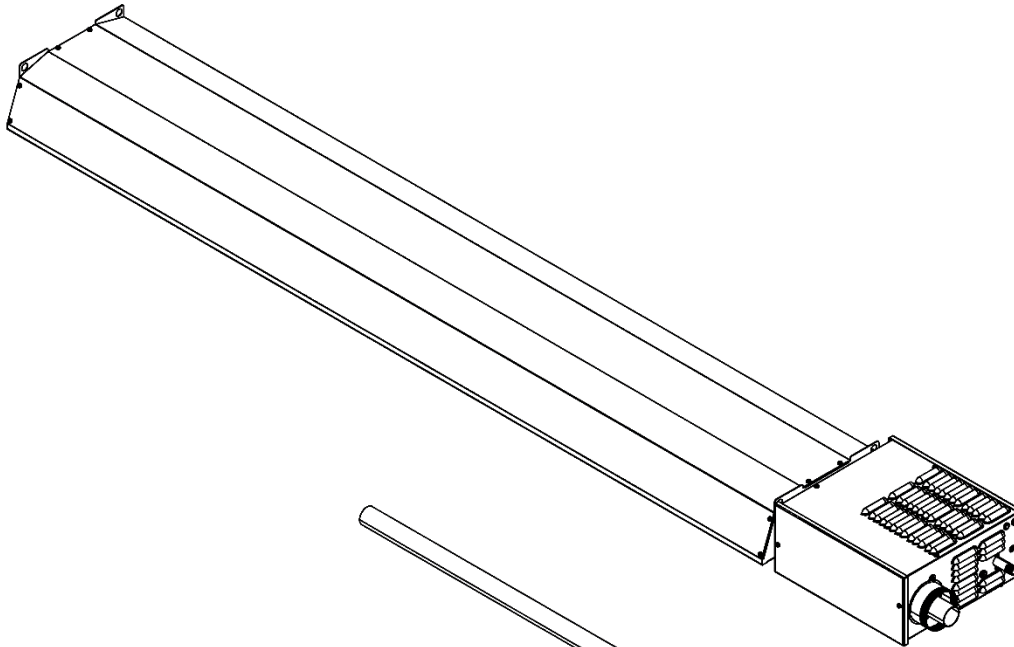
<u>Inlet Pressure</u>		Natural Gas	Propane Gas	Natural gas		GRT45N
Minimum:		5.0" W.C.	11.5" W.C.	Heat Input	BTU/hr	45,000
Maximum:		14.0" W.C.	14.0" W.C.	Partial Heat Input	BTU/hr	30,000
<u>Manifold Pressure</u>		Natural Gas	Propane Gas	Propane		GRT45P
High Rate:		3.5" W.C.	10.5" W.C.	Heat Input	BTU/hr	45,000
Low Rate:		2.0" W.C.	5.4" W.C.	Partial Heat Input	BTU/hr	30,000
<u>Inlet Connection</u>		Natural Gas	Propane Gas			
		½" Female NPT	½" Female NPT			

Electrical Supply

120 VAC 60Hz. 1Amp: 36" Cord with grounded 3 prong plug.

STEP 2 UNPACKING

GRT45



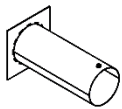
GRT45
QTY: 1



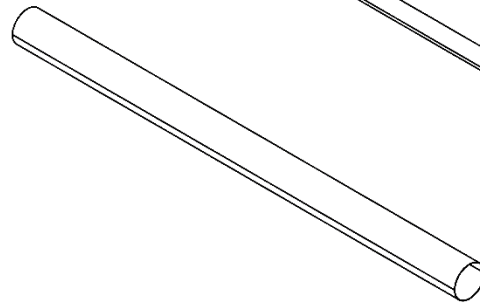
CG011
QTY: 1



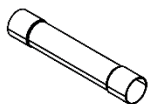
CT005
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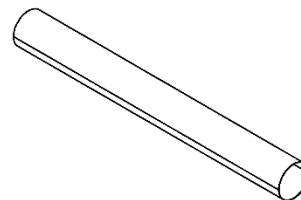
RS006
QTY: 1



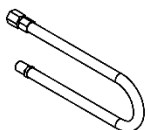
CS021
QTY: 1



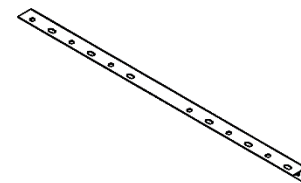
RT003
QTY: 1



CS020
QTY: 1



CG052 (Rubber, CAN)
CG012 (SS, USA)
QTY: 1



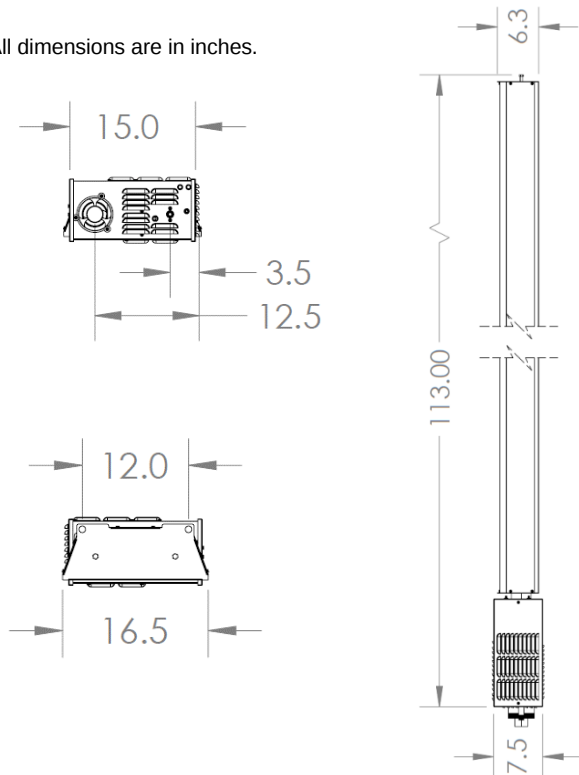
CS013
QTY: 2

STEP 3 INSTALLATION

Dimensional Chart

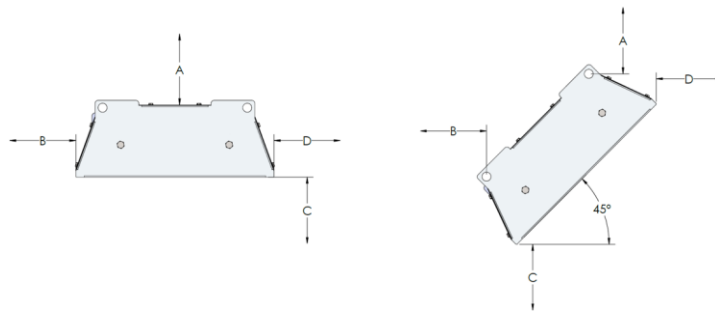
GRT45

Note: All dimensions are in inches.



Heater Mounting & Clearances

Note: Minimum mounting height is 7' in Canada and 8' in the US.



Configuration	Dimension	45,000 BTU/h
Standard	A	2"
	B	18"
	C	50"
	D	18"
45° Tilt	A	3"
	B	3"
	C	48"
	D	48"
Vented	End	5"

Controls

In all cases, heaters must be grounded in accordance with the National Electric Code, ANSI/NFPA 70 in the USA, and the Canadian Electric Code, CSA C22.1 in Canada, and must comply with all local requirements.

Heaters are equipped with a control terminal, featuring these connections:

1. R – 24Vac supplied from heater transformer.
2. C – ground connection. This terminal is used when a 24Vac thermostat controls the heater. In the case of a battery powered thermostat this terminal is not used.
3. W1 – return from thermostat to turn the heater on and operate the low fire.
4. W2 – return from thermostat to turn on the high fire.

The heater is equipped with two jumpers, R-W1 and R-W2. If heater is powered without removing these jumpers, heater will operate at high fire.

Lighting Instructions

1. Turn the thermostat up. When the thermostat calls for heat, blower motor will energize.
2. When the motor approaches nominal running RPM, the air-proving switch closes and activates the ignition module.
3. The ignition module, after a pre-purge period of approximately 30 seconds, energizes the igniter. Additionally, the gas valve is energized for this ignition trial period of 15 seconds.
4. If a flame is detected, the ignition sensing rod "reads" a rectification signal and the gas valve remains open. The sparking stops when the flame signal is established.
5. If no flame is detected, the gas valve closes and a 30 sec inter-purge period begins. After the inter-purge, the module repeats the trial for ignition period. If flame is still not established, a third and final inter-purge followed by a final ignition trial cycle begins. After three trials, the module will lockout for a period of approximately 1 hour or until reset. (*Reset is accomplished by removing power from the module for at least 5 seconds.*) After this 1-hour period, the module re-attempts the full ignition sequence.
6. When using a 24V thermostat and the heat requirement has been met and the thermostat opens, the burner shuts off, but the fan continues to run for approximately 30 seconds. This is referred to as a post purge. This allows the products of combustion to be removed from the heat exchanger to avoid nuisance condensation and increase heat exchanger life.
7. When using a line voltage thermostat and the heat requirement has been met and the thermostat opens, the burner and fan shut off with no post purge.