

# INFRARED HEATER



**SUPERIOR**  
RADIANT PRODUCTS

## Series ETS 80/100 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 is approved for outdoor installation.**

### General Specifications

#### Gas Supply

<u>Inlet Pressure</u>	Natural Gas	Propane Gas
Minimum:	5.0" W.C.	11.5" W.C.
Maximum:	14.0" W.C.	14.0" W.C.
<u>Manifold Pressure</u>	Natural Gas	Propane Gas
ETS 80, ETS 100	High Rate: 3.3" W.C.	10.2" W.C.
	Low Rate: 1.5" W.C.	4.2" W.C.
<u>Inlet Connection</u>	Natural Gas	Propane Gas
	½" Female NPT	½" Female NPT

#### Electrical Supply

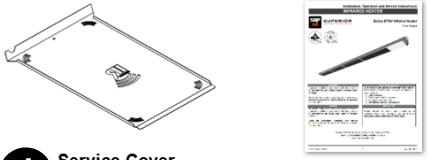
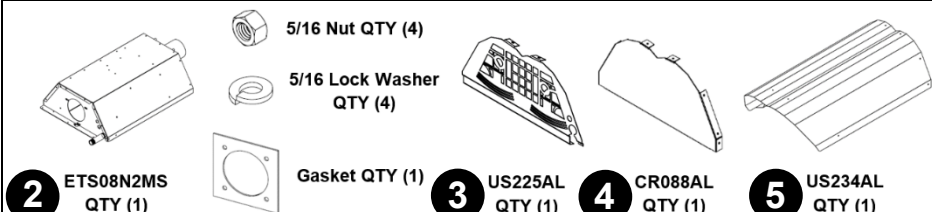
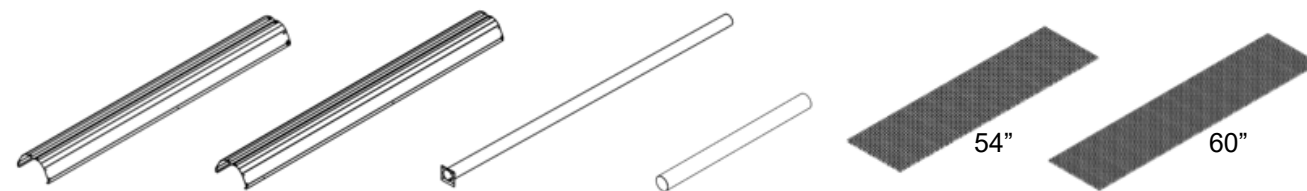
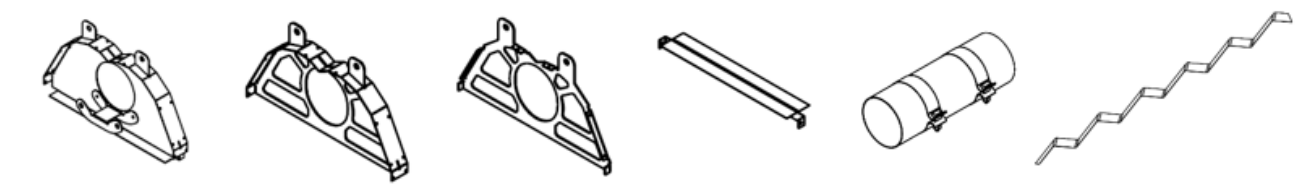

120 VAC 60Hz. 1Amp: 36" Cord with grounded 3 prong plug.

### Configurations

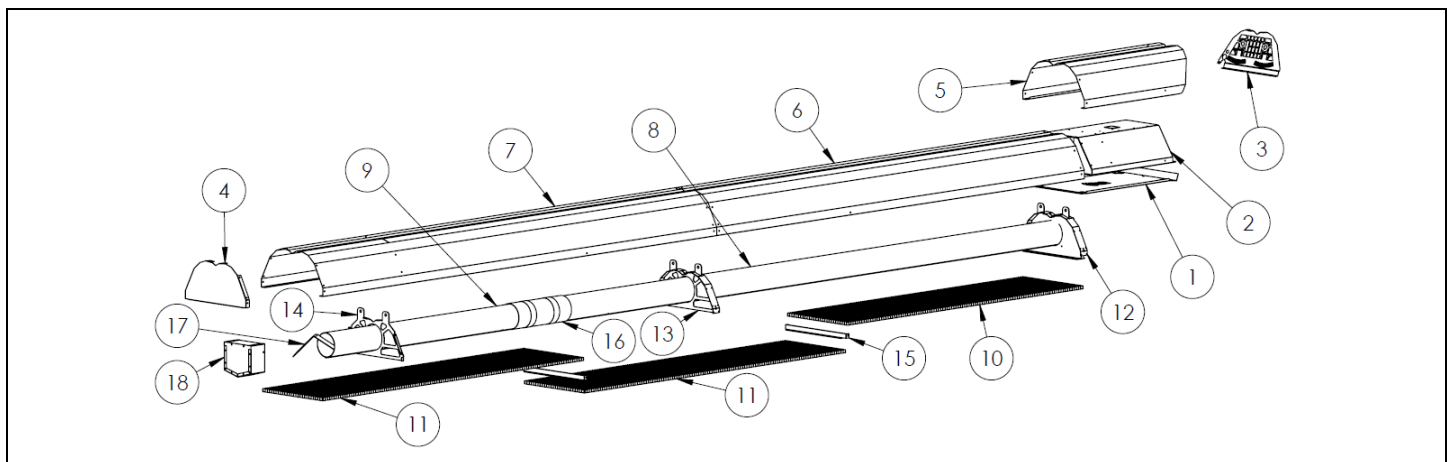
		ETS 80	ETS100
Natural gas	Heat Input	80,000	100,000
Natural gas	Partial Heat Input	50,000	62,000
		ETS 80	ETS100
Propane	Heat Input	78,000	92,000
Propane	Partial Heat Input	49,000	58,000

## STEP 2 UNPACKING

Note: A box contents label can be found on each box.

BOX 1		BOX 2				
 <p><b>1</b> Service Cover QTY (1)</p> <p>Instruction Manual</p>	 <p>5/16 Nut QTY (4)</p> <p>5/16 Lock Washer QTY (4)</p> <p>Gasket QTY (1)</p> <p><b>2</b> ETS08N2MS QTY (1)</p> <p><b>3</b> US225AL QTY (1)</p> <p><b>4</b> CR088AL QTY (1)</p> <p><b>5</b> US234AL QTY (1)</p>					
BOX 3						
 <p><b>6</b> CR164AL QTY (1)</p> <p><b>7</b> CR090AL QTY (1)</p> <p><b>8</b> UT021 QTY (1)</p> <p><b>9</b> CT144 QTY (1)</p> <p><b>10</b> CR165 QTY (1)</p> <p><b>11</b> CR094 QTY (2)</p>						
 <p><b>12</b> US230S QTY (1)</p> <p><b>13</b> US093S QTY (1)</p> <p><b>14</b> CR086MS QTY (1)</p> <p><b>15</b> CR091TG QTY (2)</p> <p><b>16</b> CR010 QTY (1)</p> <p><b>17</b> CT016 QTY (1)</p>						
 <p><b>18</b> CS152 QTY (1)</p> <p><b>19</b> EH013 QTY (48)</p> <p><b>20</b> EH113 QTY (17)</p>						

## STEP 3 ASSEMBLY OVERVIEW

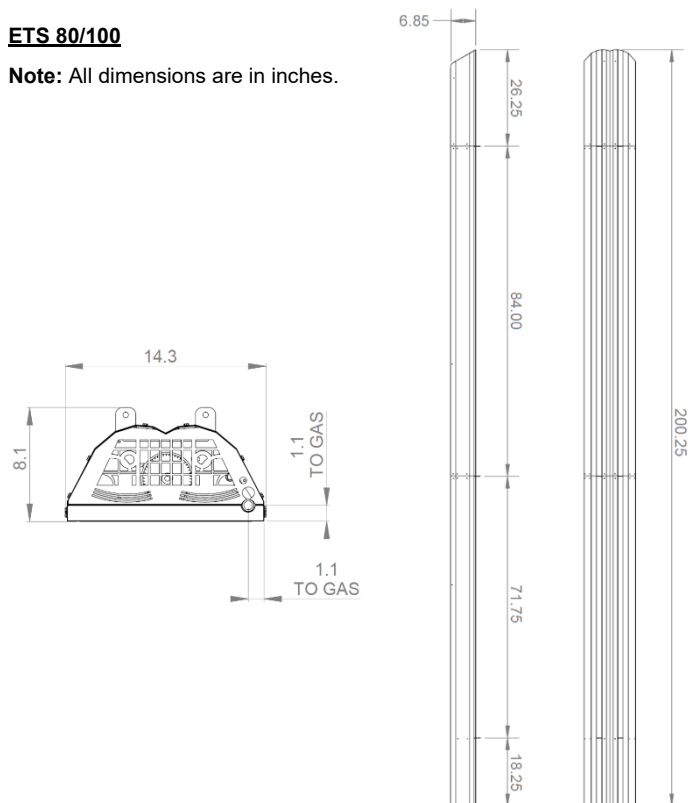


## STEP 4 INSTALLATION

### Dimensional Chart

#### ETS 80/100

Note: All dimensions are in inches.

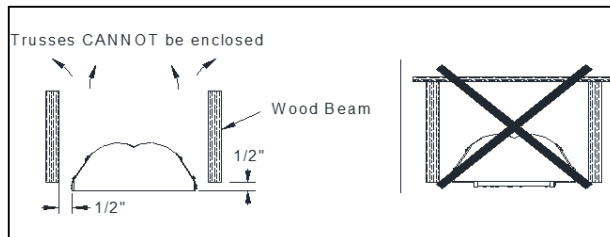


### Heater Mounting

The heater can be mounted in a variety of ways, using a combination of chains or mounting brackets.

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

This heater can be installed between wood beams with minimum distances as shown:



Note: Surfaces between joists or flush with the heater must not exceed 50°C (90°F) above ambient temperature

### Installation Sequence

Note: See manual for detailed installation sequence.

1. Begin by installing hangers on the flanged tube.
2. Fasten reflectors (and canopies) onto hangers.
3. Install baffle.
4. Install vent terminal on tube.
5. Install the burner head onto the flanged tube.
6. Install burner head reflector over burner head.
7. Install grille and service cover.
8. Install 54" deco grille first and then the 60" deco grilles. Deco grille supports in-between each deco grille.
9. Install end cap.

### Lighting & Shutdown Instructions

#### Lighting

1. Open manual gas supply valve (ensure gas supply lines have been purged).
2. Turn on the switch.
3. The blower motor will energize.
4. When the motor approaches nominal running RPM, the air-proving switch closes and activates the ignition module.
5. 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.
6. 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.
7. 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.

#### Shut Down

1. Turn off power to electronic control.
2. For longer periods of shut down, also close manual gas supply valve.