



# eventube

SERIES ETS SUBMITTAL DOCUMENT MODELS: ETS40, ETS50, ETS60, ETS80, ETS100



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For further information and assistance please contact us at info@irenergy.ca or 1 855 295 3922



# **SUBMITTAL FORM**

PROJECT:				
ADDRESS:				
CITY:	STATE/PROV:	POSTAL CODE/ZIP:	COUNTRY:	
ENGINEER:		ENGINEER FIRM:		
CONTRACTOR:	MODEL#:	DATE:		
SUBMITTED BY:		APPROVED BY:		

# **PRODUCT DETAILS**

MODEL	ΩТΥ	EXTERIOR FINISH	LENGTH	WT. lbs.	QTY	GAS TYPE	QTY	GAS TYPE	RATED BTU/HR INPUTS
ETS40		Marine Grade Aluminum	116.25"	95		NG		LPG	High 38,500 Low 23,000
ETS40BL		High-Temp Black Powder Coated on Marine Grade Aluminum	116.25"	100		NG		LPG	High 38,500 Low 23,000
ETS40MS		Marine Grade 316 Stainless	116.25"	100		NG		LPG	High 38,500 Low 23,000
ETS50		Marine Grade Aluminum	116.25"	95			NG Only		High 50,000 Low 35,000
ETS50BL		High-Temp Black Powder Coated on Marine Grade Aluminum	116.25"	100			NG Only		High 50,000 Low 35,000
ETS50MS		Marine Grade 316 Stainless	116.25"	100	NG Only				High 50,000 Low 35,000
ETS60		Marine Grade Aluminum	200.25"	120		NG		LPG	High 60,000 Low 45,000
ETS60BL		High-Temp Black Powder Coated on Marine Grade Aluminum	200.25"	125		NG		LPG	High 60,000 Low 45,000
ETS60MS		Marine Grade 316 Stainless	200.25"	125		NG		LPG	High 60,000 Low 45,000
ETS80		Marine Grade Aluminum	200.25"	120		NG		LPG	High 80,000 Low 50,000
ETS80BL		High-Temp Black Powder Coated on Marine Grade Aluminum	200.25"	125		NG		LPG	High 80,000 Low 50,000
ETS80MS		Marine Grade 316 Stainless	200.25"	125		NG		LPG	High 80,000 Low 50,000
ETS100		Marine Grade Aluminum	200.25"	120		NG		LPG	High 100,000 Low 62,000
ETS100BL		High-Temp Black Powder Coated on Marine Grade Aluminum	200.25"	125		NG		LPG	High 100,000 Low 62,000
ETS100MS		Marine Grade 316 Stainless	200.25"	125		NG		LPG	High 100,000 Low 62,000

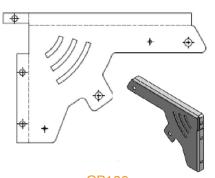
# **PRODUCT BRACKET OPTIONS**

MODEL	EXTERIOR FINISH	LENGTH	WT.	ΩТΥ	CEILING BRACKET KIT HORIZONTAL MOUNT	WT.	ΩТΥ	CEILING BRACKET KIT 30° ANGLE MOUNT	WT.	ОТҮ	WALL BRACKET KIT 30° ANGLE MOUNT	WT.
ETS40	304 Stainless Steel	116.25"	95		ETSCB9S	4		ETSCAB9S	5		ETSWB9S	5
ETS40BL	High-Temp Black Powder Coated on Marine Grade Aluminum	116.25"	100		ETSCB9BL	4		ETSCAB9BL	5		ETSWB9BL	5
ETS40MS	304 Stainless Steel	116.25"	100		ETSCB9S	4		ETSCAB9S	5		ETSWB9S	5
ETS50	304 Stainless Steel	116.25"	95		ETSCB9S	7		ETSCAB9S	8		ETSWB9S	8
ETS50BL	High-Temp Black Powder Coated on Marine Grade Aluminum	116.25"	100		ETSCB9BL	7		ETSCAB9BL	8		ETSWB9BL	8
ETS50MS	304 Stainless Steel	116.25"	100		ETSCB9S	7		ETSCAB9S	8		ETSWB9S	8
ETS60	304 Stainless Steel	200.25"	120		ETSCB17S	7		ETSCAB17S	8		ETSWB17S	8
ETS60BL	High-Temp Black Powder Coated on Marine Grade Aluminum	200.25"	125		ETSCB17BL	7		ETSCAB17BL	8		ETSWB17BL	8
ETS60MS	304 Stainless Steel	200.25"	125		ETSCB17S	7		ETSCAB17S	8		ETSWB17S	8
ETS80	304 Stainless Steel	200.25"	120		ETSCB17S	7		ETSCAB17S	8		ETSWB17S	8
ETS80BL	High-Temp Black Powder Coated on Marine Grade Aluminum	200.25"	125		ETSCB17BL	7		ETSCAB17BL	8		ETSWB17BL	8
ETS80MS	304 Stainless Steel	200.25"	125		ETSCB17S	7		ETSCAB17S	8		ETSWB17S	8
ETS100	304 Stainless Steel	200.25"	120		ETSCB17S	7		ETSCAB17S	8		ETSWB17S	8
ETS100BL	High-Temp Black Powder Coated on Marine Grade Aluminum	200.25"	125		ETSCB17BL	7		ETSCAB17BL	8		ETSWB17BL	8
ETS100MS	304 Stainless Steel	200.25"	125		ETSCB17S	7		ETSCAB17S	8		ETSWB17S	8

For more ETS brackets options please contact us at info@irenergy.ca or 1 855 295 3922

# **Combustible Wall Mounting Bracket kits**

SRP has developed combustible wall mounting bracket kits for the model ETS. The current wall mount bracket kit, in 304 S/S or black finish is made with a shorter bracket (CR139), which is only suitable for non-combustible installations. The new wall mount bracket kit in 304 S/S or black finish is made with a larger bracket (CR225) which meets the clearance requirements for mounting on a combustible surface.



CR139
Non-combustible Wall Mounting Bracket Kit
Surface area = 79.08 square inches



Combustible Wall Mounting Bracket Kit Surface area = 140.69 square inches

MODEL	EXTERIOR FINISH	LENGTH	WT. lbs.	QTY	COMBUSTIBLE WALL BRACKET KIT 30° ANGLE MOUNT	WT. lbs.
ETS40	304 Stainless Steel	116.25"	95		ETSCW9S	4
ETS40BL	High-Temp Black Powder Coated on Marine Grade Aluminum	116.25"	100		ETSCW9BL	4
ETS40MS	304 Stainless Steel	116.25"	100		ETSCW9S	4
ETS50	304 Stainless Steel	116.25"	95		ETSCW9S	4
ETS50BL	High-Temp Black Powder Coated on Marine Grade Aluminum	116.25"	100		ETSCW9BL	4
ETS50MS	304 Stainless Steel	116.25"	100		ETSCW9S	4
ETS60	304 Stainless Steel	200.25"	120		ETSCW17S	6
ETS60BL	High-Temp Black Powder Coated on Marine Grade Aluminum	200.25"	125		ETSCW17BL	6
ETS60MS	304 Stainless Steel	200.25"	125		ETSCW17S	6
ETS80	304 Stainless Steel	200.25"	120		ETSCW17S	6
ETS80BL	High-Temp Black Powder Coated on Marine Grade Aluminum	200.25"	125		ETSCW17BL	6
ETS80MS	304 Stainless Steel	200.25"	125		ETSCW17S	6
ETS100	304 Stainless Steel	200.25"	120		ETSCW17S	6
ETS100BL	High-Temp Black Powder Coated on Marine Grade Aluminum	200.25"	125		ETSCW17BL	6
ETS100MS	304 Stainless Steel	200.25"	125		ETSCW17S	6



# **ETS FEATURES**

- MADE IN CANADA
  Reliable High Quality Durable Excellent Warranty
- C EASY TO INSTALL

  Maintenance free heat solution
- ENCLOSED & SEALED BURNER
   High Quality Engineered for Harsh Environments
- VERSATILE
  Optional brackets to fit all ceiling heights & wall situations
- AVAILABLE IN MULTIPLE FINISHES

  Marine grade aluminum, black or 316 marine stainless
- SMART CONTROLS
  Compatible with smart controls and BACnet connection

- O% TUBE IMPINGEMENT
  Absolutely no infrared is absorbed by the tube
- MINIMIZED CLEARANCES
  Clearance to combustibles as low as 4"
- LOWEST PROFILE IN THE INDUSTRY Heater dimensions at 6.85" height
- TRUE TWO-STAGE TECHNOLOGY
  Air modulated on high fire and low fire
- **EVEN HEAT DISTRIBUTION**100% efficient reflector in all models
- NO VISUAL GLOW

  Low intensity tube heaters emit not visible light







CAD / SketchUp / Revit / BIM files Available on CADdetails.com

# **PERFORMANCE CHARTS**

# Input Updates Power & Gas Specifications

	ETS40	ETS50	ETS60	ETS80	ETS100		
Rated Input							
High Fire Rate	38,500 BTU/HR	50,000 BTU/HR	60,000 BTU/HR	80,000 BTU/HR	100,000 BTU/HR		
Low Fire Rate	23,000 BTU/HR	35,000 BTU/HR	45,000 BTU/HR	50,000 BTU/HR	62,000 BTU/HR		
Inlet Pressure			Natural Gas				
Maximum			14.0" W.C.				
Minimum			5.0" W.C.				
Inlet Pressure	Propane						
Maximum			14.0" W.C.				
Minimum			11.5" W.C.				
Manifold Pressure			Natural Gas				
High Rate			3.3" W.C.				
Low Rate	1.5" W.C.	2.0"	W.C.	1.5"	W.C.		
Manifold Pressure			Propane				
High Rate	10.2" W.C.						
Low Rate	4.2" W.C. 6.4" W.C. 4.2" W.C.						
Inlet Connection		N	atural Gas & Propar	ne			
			½" Female NPT				

#### **Electrical Supply**

120 VAC 60Hz1Amp: 36" cord with grounded 3 prong plug

# Output Updates Clearance & Heat Specifications

MODEL	HEIGHT TO BOTTOM OF HEATER	HEAT PATTERN LXW (APPROX.)	HEATED SQUARE FEET (APPROX.)
	8′	13′ x 16′	208 FT²
ETS40	9′	13′ x 18′	234 FT²
ETS50	10′	13' x 20'	260 FT <sup>2</sup>
	11'	13' x 22'	286 FT²
	8′	21' x 16'	336 FT²
ETS60	9′	21' x 18'	378 FT <sup>2</sup>
ETS80 ETS100	10'	21' x 20'	420 FT <sup>2</sup>
	11'	21' x 22'	462 FT <sup>2</sup>

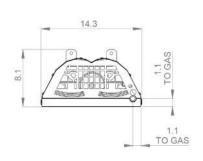


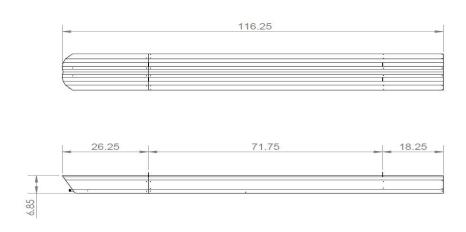
# **TECHNICAL SPECIFICATIONS**

# **Pre-Install**

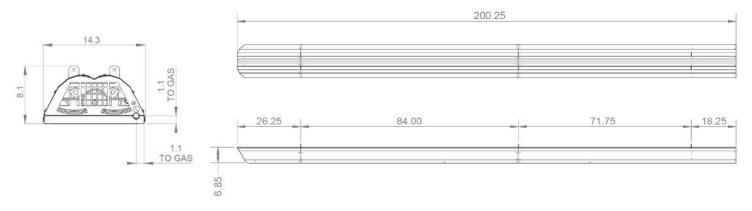
# **Dimensions Note: All dimensions are in inches**

**Models: ETS40 & 50** 





# Models: ETS60 - 80 & 100



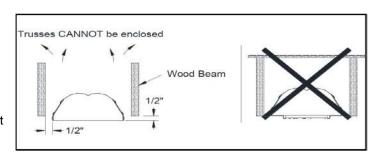
# Heater Mounting & Bracket Specifications Standard ceiling/wall mounting kits

#### **ETS All Models**

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

Air flow MUST NOT be restricted. The space above the heater must not be enclosed in order to allow air for ventilation.

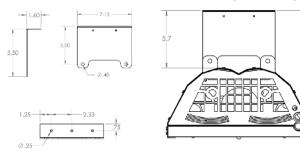
**Note:** Surfaces between joists or flush with the heater must not exceed 50°C (90°F) above ambient temperature.



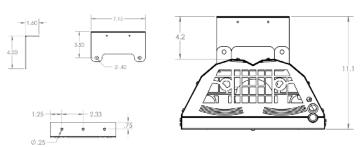
The heater can be mounted in a variety of ways, using a combination of chains and mounting bracket. It is critical that the heater is prevented from swaying and putting stress on the gas connection. Also, be sure to check local codes for seismic bracing requirements for outdoor heating equipment.

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

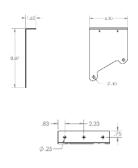
### ETS40 & 50 Standard Ceiling Mounting

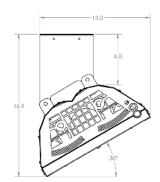


# ETS60, 80 & 100 Standard Ceiling Mounting

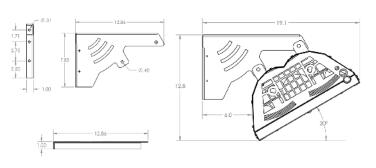


#### 30° Ceiling Angle Mounting All Models





#### 30° Wall Angle Mounting All Models



# Combustible Wall 30° Angle Mounting Bracket kits All Models



Surface area = 140.69 square inches

For more ETS brackets options please contact us at info@irenergy.ca or 1 855 295 3922

# **Electrical Wiring**

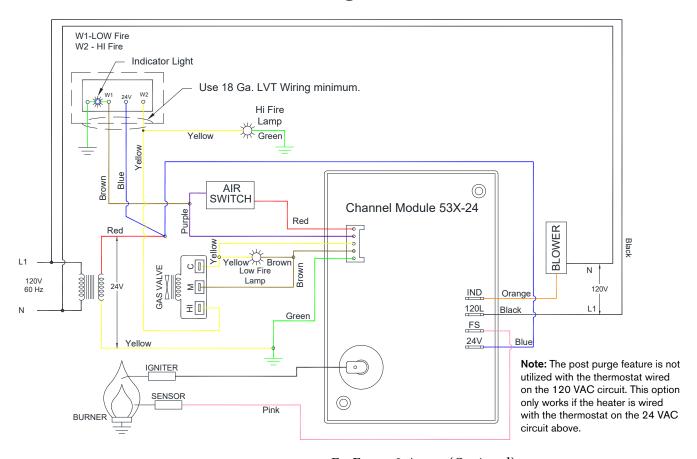
# **General Requirements**

Heaters are normally controlled by line voltage (120V) or low voltage (24V) thermostats. Line voltage thermostats are wired directly while low voltage thermostats use a relay. In all cases, heaters must be grounded in accordance with the National Electric Code, ANSI/NFPA 70 in the US, and the Canadian Electric Code, CSA C22.1 in Canada, and must comply with all local requirements. Heaters may also be controlled with a manual line switch or timer switch in place of the thermostat.

Refer to wiring diagrams below for guidance on electrical wiring of heaters.

If application is above sea level, please contact us at info@irenergy.ca or 1 855 295 3922

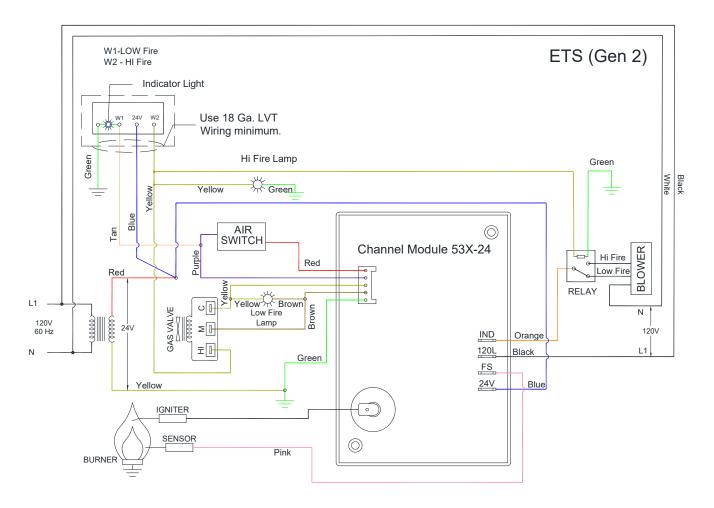
# **Internal Wiring ETS50 & 60**



F - Fuse - 2 Amps (Optional)

**Note:** If any of the original wire supplied with the heater must be replaced, it must be replaced with wiring having a rating of at least 105°C temperature.

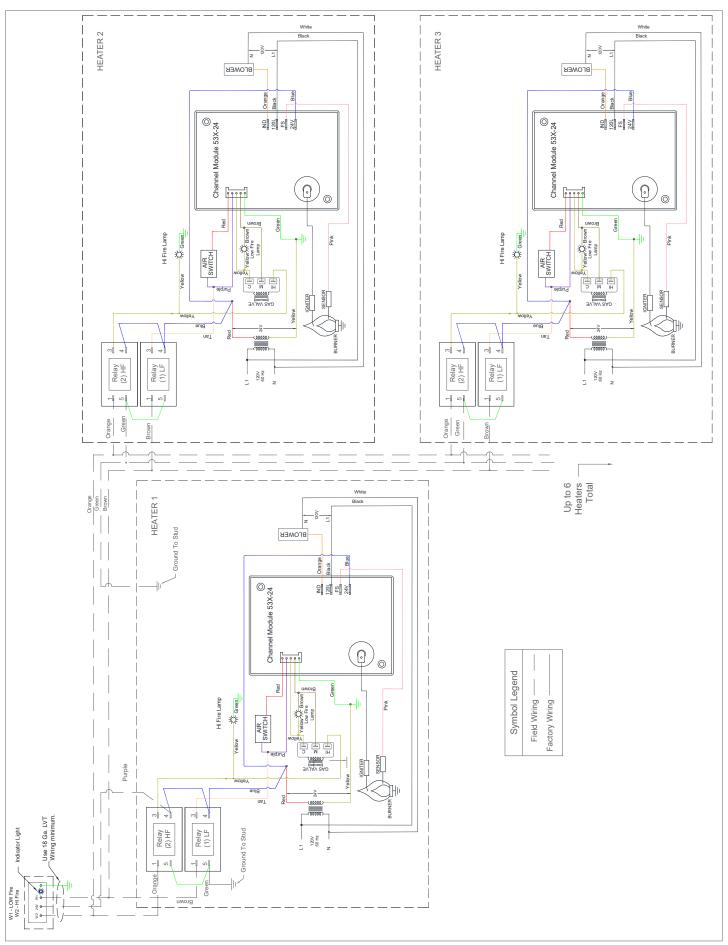
# Internal Wiring ETS40 - 80 & 100



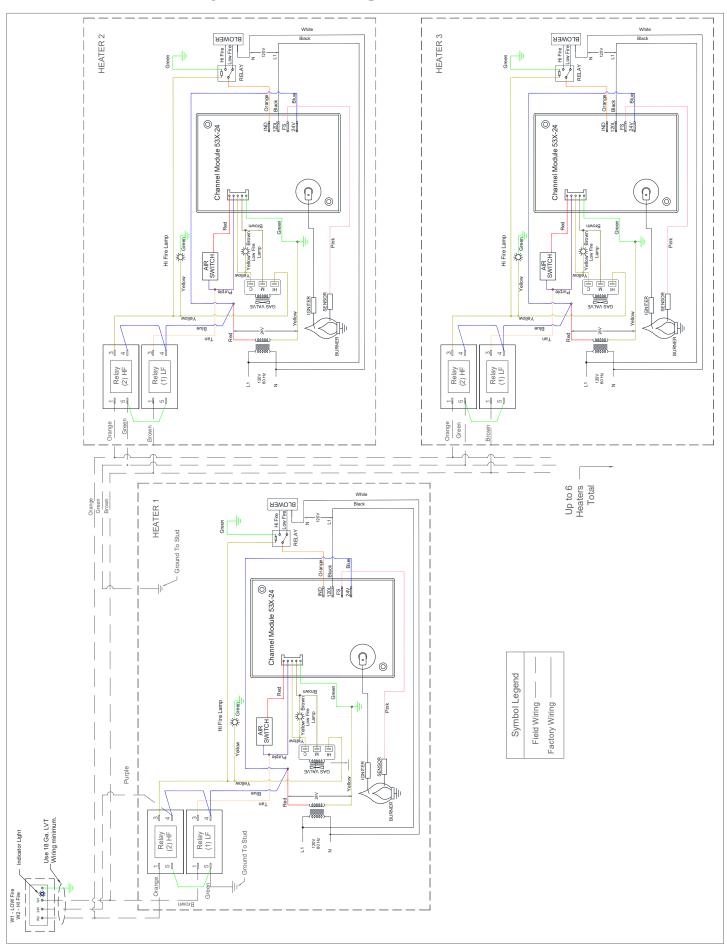
F - Fuse - 2 Amps (Optional)

**Note:** If any of the original wire supplied with the heater must be replaced, it must be replaced with wiring having a rating of at least 105°C temperature.

# **Multiple Heaters Wiring Models ETS50 & 60**



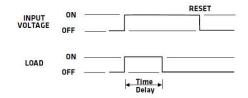
# Multiple Heaters Wiring Models ETS40 - 80 & 100

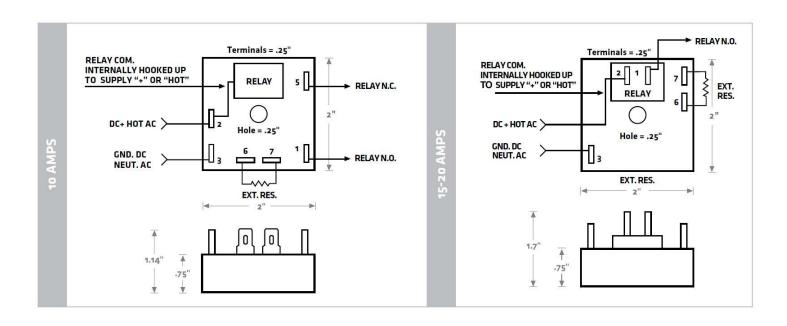


# **Timer Specifications**

# **Timer Mode (Optional Feature)**

Application of input voltage to the timer energizes the load and starts the time delay. At the end of the time delay, the load is de-energized. Removal and re-application of input voltage resets the timer. Has the capability to be installed in the burner or externally.





Input Voltage:

VDC: 12, 24 or 48

VAC: 24, 48, 120 or 230, 50/60 Hz

Repeatability: ±0.5%

Relay Life Expectancy:

Mechanical: 20 million operations Electrical: 1 million operations Protection:

Polarity Protection: All DC units have

reverse polarity protection Transient Protection: 10 joules

Dielectric Strength: 1800V RMS 60Hz

Temperature Ranges:

Storage: -40°C to +85°C

Operating Strength: -25°C to +65°C

# Venting

This heater does not require venting as it is approved for OUTDOOR APPLICATIONS ONLY.

#### **WARNING!**

- This heater is NOT approved for any indoor application.
- If in doubt of your application, consult with your local fire marshal or gas authority having jurisdiction.
- Indoor spaces include but are not limited to attached garages, solariums, living quarters, etc.

# **External Wiring Options (Outdoor Installation Only)**

#### **NEMA RATINGS**

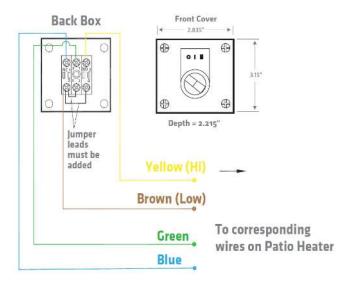
**NEMA** ratings are specific enclosure 'types', their applications, and the environmental conditions they are designed to protect against, when completely and properly installed.

**NEMA4** – Enclosures constructed for either indoor or outdoor use to provide a degree of protection to personnel against incidental contact with the enclosed equipment; to provide a degree of protection against falling dirt, rain, sleet, snow, wind-blown dust, splashing water, and hose-directed water and that will be undamaged by the external formation of ice on the enclosure.

- Max. 10 Heaters per 1 switch
- Allow 20VA / 24V Transformer per Heater (already inside burner)

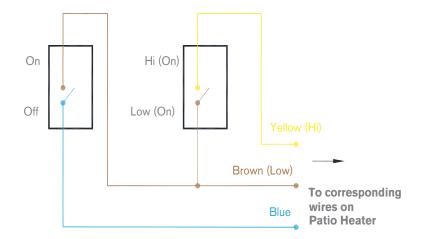
#### Two Stage Switch Wiring

- Using 2-stage switch (P/N EE020)
- Maximum 10 heaters per 1 switch



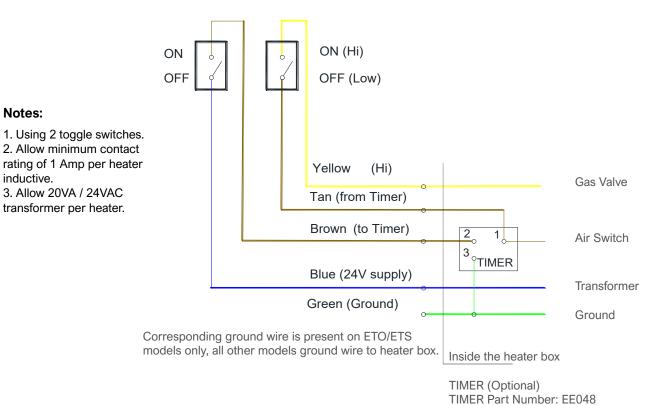
### Manual Line Switch with Hi-Low Wiring

- · Using 2 toggle switches
- Allow minimum contact rating of 1Amp per heater inductive

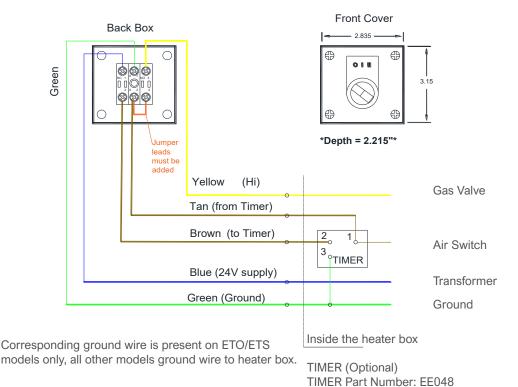


# **External Wiring Options (With Optional Timer)**

#### **Manual Line Switch**



# **Two Stage Switch**



### Notes:

Notes:

inductive.

- 1. One heater per switch, unless using relay kits installed in each burner head.
- 2. Switch part number EE020.

## **Connections**

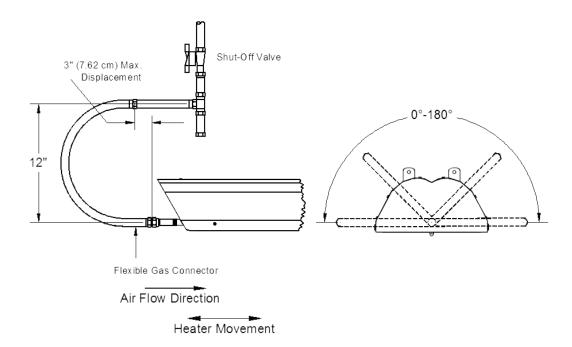
### **Connections for all ETS Models**

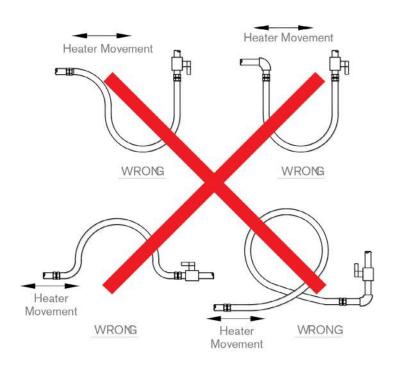
Installation must comply with local building codes and/or, for the USA/National Fuel Gas Code, ANZI Z 223.1 (NFPA 54) and for Canada, CSA B149.1 National Gas and Propane Installation Code (latest editions).

Appliance must be electrically grounded in accordance with local codes or, in their absence; the National Electrical Code, ANSI/NFPA 70 in the USA, CSA C22.1 Canadian Electrical Code in Canada.

#### Notes:

- Check for gas leaks at all connections with appropriate soap solution.
- Never connect an unregulated gas supply to the heater.
- Do not use high pressure (above  $\frac{1}{2}$  psig) to test the gas supply system with the appliance connected. Failure to comply can result in damage to the appliance.





#### **Clearance to Combustibles**

#### **General Recommendations**

A general clearance of 18" (0.5 m) in every direction is recommended for servicing around each burner. This ensures adequate air flow in and around the **heating system**.

In addition to this, it is very important to observe the minimum clearance to combustibles at all times to avoid any possibility of property damage or personal injury.

Combustible materials are considered to be wood, compressed paper, plant fibres, plastics, Plexiglas or other materials capable of being ignited and burned. Such materials shall be considered combustible even though flame-proofed, fire-retardant treated or plastered.

Adequate clearance to sprinkler heads must be maintained. NOTE: Sprinkler head heat fuse link performance may alter with age.

The stated clearance to combustibles represents a surface temperature of 65°C (117°F) above room temperature. Building materials with low heat tolerance (such as plastics, vinyl siding, canvas, tri-ply, etc.) may become subject to degradation at lower temperatures. It is the installer's responsibility to ensure that adjacent materials are protected from degradation.

Table below lists the minimum clearance to combustible materials for various installation configurations. Additional clearance may be required for glass, painted surfaces and other materials which may be damaged by radiant or convective heat.

Reflector Configurations	Dim.	ETS 40	ETS 50	ETS 60, 80 & 100
Horizontal	А	4"	5.5"	4"
	В	18"	25"	29"
B. ( ) D	С	54"	66"	73.5"
Ç	D	18"	25"	29"
30 Deg.	А	6"	-	6"
	В	4"	-	6"
B ( )	С	42"	-	58"
ç	D	30"	-	41"
45 Deg.	А	8"	8"	8"
<b>₽</b>	В	4"	3"	2.5"
_ B _	С	40"	50"	55.5"
Ç	D	38"	40"	43"
Burner End		4"	4"	4"
Exhaust End		6"	6"	4"

# **Durability**

Some of our customers live around the coast, so we make sure our units are upgraded to a standard component and hardware list.

- Epoxy coated ignition module Smart LED
- Hi-temp wires equipped with a rubber boot for the main ignition wire
- Deco grille is standard on all models
- Concealed burner components for minimum exposure to hard elements
- Brass and stainless steel hardware
- Marine grade aluminum and stainless steel internal burner components
- Plated burner cup
- 316 stainless steel hangers

### **Shipping Weights & Dimensions**

- Every shipment MUST be palletized and shipped LTL (other shipment options may be available)
- Max of 10 units, plus accessories per pallet
- ETS40 & 50 are shipped 85% assembled, minimal assembly required on site

- ETS60/80/100 requires additional assembly time
- Two people are needed to lift each heater
- Bracket boxes can vary in size
- 23" x 126" pallets weigh 40lbs and the 42" x 126" pallets weigh 40lbs (Approximately)

MODEL	1 UNIT W/NET WEIGHT	2 UNITS W/NET WEIGHT	4 UNITS W/NET WEIGHT	10 UNITS W/NET WEIGHT
ETS40	23" x 126" x 17" - 123lbs	23" x 126" x 25" - 205lbs	42" x 126" x 39" - 410lbs	42" x 126" x 58" - 905lbs
ETS40BL	23" x 126" x 17" - 128lbs	23" x 126" x 25" - 215lbs	42" x 126" x 39" - 430lbs	42" x 126" x 58" - 955lbs
ETS50	23" x 126" x 17" - 128lbs	23" x 126" x 25" - 215lbs	42" x 126" x 39" - 430lbs	42" x 126" x 58" - 955lbs
ETS50BL	23" x 126" x 17" - 133lbs	23" x 126" x 25" - 225lbs	42" x 126" x 39" - 450lbs	42" x 126" x 58" - 1005lbs
ETS60 80 100	23" x 126" x 17" - 156lbs	23" x 126" x 25" - 271lbs	42" x 126" x 39"- 542lbs	42" x 126" x 58" - 1235lbs
ETS60BL 80BL 100BL	23" x 126" x 17" - 166lbs	23" x 126" x 25" - 291lbs	42" x 126" x 39"- 582lbs	42" x 126" x 58" - 1335lbs

<sup>\*\*\*</sup> Shipping dimensions and weights vary by product (W x L x H)

#### **Applications**

Please note: This heater is NOT approved for any indoor application.

#### **Common Applications**

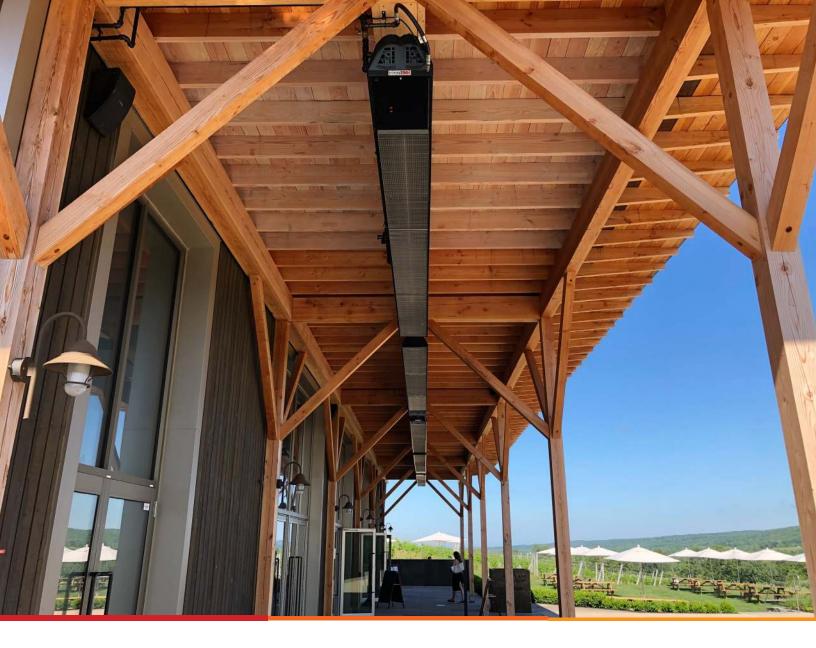
- Ideal for space heating on large patios, valet spaces, rooftop living spaces, golf driving range bays
- Also ideal for aesthetically clean ceilings. Low profile lends itself to a sleek, non-obtrusive look
- Covered patios (awning, canopy, pergola)
- Wall, ceiling, or post mount
- Outdoor only commercial or residential space

#### **Uncommon Applications**

Enclosed patios, small or low ceiling patios

#### Warranty

These heaters have burner and controls warranty of 3 years & a tube warranty of 10 years. Visit www.irenergy.ca for our extensive warranty information.





# eventube

SERIES ETS SUBMITTAL DOCUMENT MODELS: ETS40, ETS50, ETS60, ETS80, ETS100

### **CANADA**

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## USA

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