



# SSC



**STAINLESS STEEL CONDENSING**

Engineer: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_

Contractor: \_\_\_\_\_



**APPLICATION:**

Gas fired hot water heating boiler for indoor installations. Approved for closet or alcove installations. For use with natural or liquefied petroleum gases (LP/propane) LP conversion kit provided with the boiler. Wall mounted, optional floor mount kit available. Constructed and hydrostatically tested for maximum allowable working pressure of 150 PSIG (pounds per square inch gauge) in accordance with ASME boiler and pressure vessel code, section IV, rules for construction of heating boilers.

**BOILERS INCLUDE:**


- Wall Mount Bracket
- Boiler Control Module
  - ▶ Line voltage/intermittent direct spark ignition. Replaceable fuse /extra spare fuse shipped with the control.
  - ▶ Controlling premix modulating gas valve and blower.
  - ▶ User interface with LCD screen display English text—boiler status indication.
  - ▶ Function Programming Keys - Reset, Menu, Enter and arrow s (+ - ).
  - ▶ Central Heating CH and Domestic Hot Water DHW setpoints. Domestic hot water priority with programmable maximum priority time.
  - ▶ Outdoor air sensor. Programmable reset curves and warm weather shutdown or fixed water temperature operation.
  - ▶ Boost function temperature setting and adjustable boost time .
  - ▶ Integral multiple boiler control capability up to 15 boilers. Requires an optional system sensor
  - ▶ Service reminder status.
- Boiler Combustion System
  - ▶ Premix Gas valve and blower assembly with 20-100% modulating firing rate. Turn down ratio (5:1) gas input.
  - ▶ Stainless Steel Fiber Mesh Burner
  - ▶ Flame Sensor

- UL listed probe type low water cutoff with status indicator lights and test feature.
- Heat Exchanger Assembly
  - ▶ Vertically mounted single piece helical fin tube coil. Manufactured out of 316L stainless steel tubing with 444 stainless steel fins welded onto the coil with a laser automated process. ASME stamped with a 150 psi maximum allowable working pressure. A 30psi safety relief valve is standard.
  - ▶ Built-in Primary/Secondary manifold and piping system and heat exchanger pump.
  - ▶ Non-metallic flue gas collector with built in condensate drain trap .
- Electrical
  - ▶ Removable low voltage terminal strip.
  - ▶ Line voltage junction box with DWH Pump and CH Pump connections.



OPTIONAL EQUIPMENT:

- Floor mounting stand
- Multiple boiler system sensor

 <b>Models &amp; Capacities</b>					
Size	Boiler Input Rate (MBH) <sup>(1)</sup>		Heating Capacity (MBH) <sub>(1)(2)</sub>	Net AHRI Rating, Water (MBH) <sup>(1)(3)</sup>	AFUE <sup>(2)</sup>
	Maximum	Minimum			
<b>UBSSC-050</b>	50	10	46	40	95.0
<b>UBSSC-075</b>	75	15	69	60	95.0
<b>UBSSC-100</b>	100	20	91	79	95.0
<b>UBSSC-150</b>	150	30	139	121	95.0
<b>UBSSC-200</b>	200	40	185	161	94.0
<b>UBSSC-299</b>	299	60	273	239	94.0

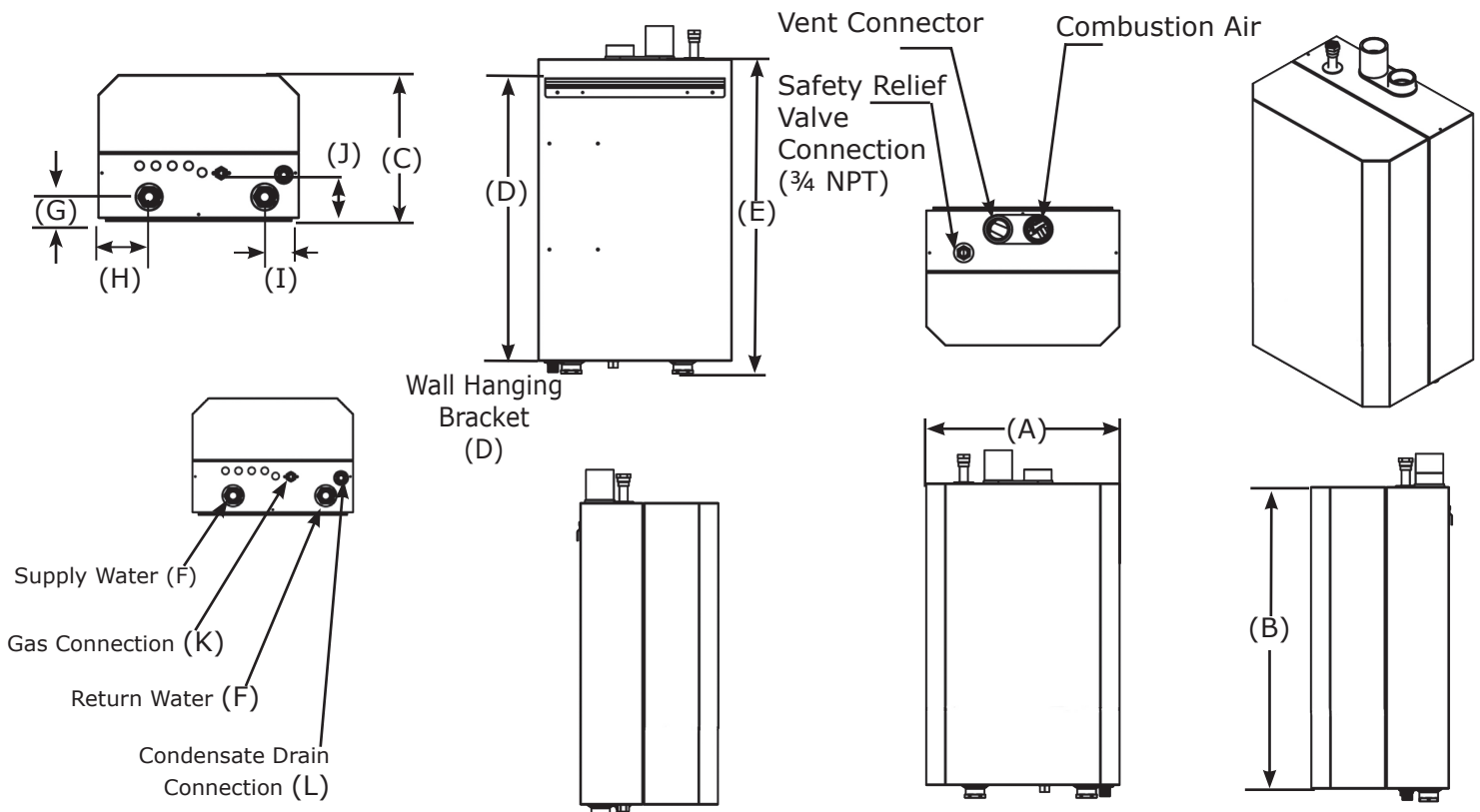
\* The UBSSC Models are ENERGY STAR rated products.

<sup>(1)</sup> 1000 Btu/hr (British Thermal Units Per Hour)

<sup>(2)</sup> Heating Capacity and AFUE (Annual Fuel Utilization Efficiency) are based on DOE (Department of Energy) test procedures.

<sup>(3)</sup> Net AHRI Ratings based on piping and pickup allowance of 1.15. Contact Technical Support before selecting boiler for installations having unusual piping and pickup requirements, such as intermittent system operation, extensive piping systems, etc.

Physical Data				
Models		050/075/100	150/200	299
<b>Width (A)</b>		20" (508mm)	23" (584mm)	
<b>Height (B)</b>		30" (762mm)	41" (1041mm)	
<b>Depth (C)</b>		14" (356mm)	16.0" (406mm)	18.3" (465mm)
<b>Bracket (D)</b>		28" (711mm)	40" (1016mm)	
<b>Height (E)</b>		31" (787mm)	42" (1092mm)	
<b>Water Connections</b>	<b>Size (F)</b>	1-1/4" NPT	1-1/4" NPT	
	<b>Location (G)</b>	2" (51mm)	2" (51mm)	
	<b>Location (H)</b>	5" (127mm)	3" (76mm)	
	<b>Location (I)</b>	3" (76mm)	4-1/2" (114mm)	
<b>Gas Connection</b>	<b>Location (J)</b>	4-1/2" (114mm)	4-1/2" (114mm)	
	<b>Size (K)</b>	1/2" NPT	3/4" NPT	
<b>Condensate Drain Connection (L)</b>		3/4" NPT	3/4" NPT	
<b>Weight</b>	<b>Shipping</b>	111 lb (50 kg)	~182 lb (83 kg)	~225 lb (102 kg)
	<b>Unit</b>	91 lb (41 kg)	~157 lb (71kg)	~195 lb (89 kg)
<b>Vent Connector</b>		2" (51mm)	3" (76mm)	

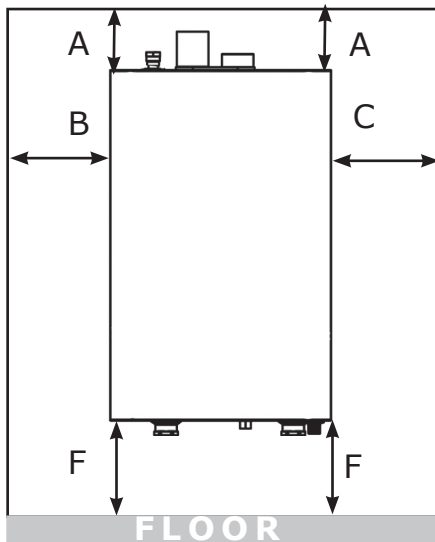


## CLEARANCES

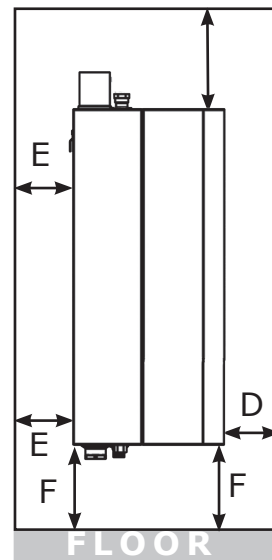
Dimension	Combustible Materials <sup>(1)</sup>	Service <sup>(1)(2)</sup>
<b>Model</b>	<b>050/075/100/150/200/299</b>	<b>050/075/100/150/200/299</b>
<b>Top (A)</b>	0" (0 cm)	14" (36 cm)
<b>Left Side (B)</b>	0" (0 cm)	0" (0 cm)
<b>Right Side (C)</b>	0" (0 cm)	0" (0 cm)
<b>Front (D)</b>	0" (0 cm)	6" (16 cm)
<b>Back (E)</b>	0" (0 cm)	0" (0 cm)
<b>Bottom (F)</b>	0" (0 cm)	12" (32 cm)
<b>Combustion Air/Vent Piping</b>	0" (0 cm)	6" (16 cm)
<b>Hot Water Piping</b>	See local code	6" (16 cm)

<sup>(1)</sup> Required distances measured from boiler jacket.

<sup>(2)</sup> Service, proper operation clearance recommendation.



Front View



Side View

### VENTING

Flue Gas Location	Combustion Air Location	Flue Gas Terminals
Roof	Roof	Two Pipe
		Concentric
	Side Wall	Single Pipe
	Inside Air	Single Pipe
Side Wall	Roof	Single Pipe
	Side Wall	Two Pipe
		Concentric
	Inside Air	Single Pipe

### Minimum/Maximum Vent Lengths

	2" Pipe		3" Pipe			4" Pipe
Model	050	075/100	075/100	150/200	299	299
Minimum	6 ft. (1.8 m)	6 ft. (1.8 m)	6 ft. (1.8 m)	6 ft. (1.8 m)	6 ft. (1.8 m)	6 ft. (1.8 m)
Maximum	100 ft. (30.5 m)	50 ft. (15.2 m)	100 ft. (30.5 m)	100 ft. (30.5 m)	25 ft. (7.7 m)	100 ft. (30.5 m)

### Equivalent Length of Venting Components

Component	Feet	Meters
90° Elbow	5	1.6
45° Elbow	3 ½	1.1
2" x 4" Adapter	0	0
3" x 4" Adapter	0	0
Concentric Vent Kit	5	1.6
Polypropylene Flexible Pipe per Foot	2 5/8	0.8

Note: Allowable Venting Materials - Polypropylene, PVC, CPVC and ABS. Tables shown are for vent systems utilizing PVC. Refer to IOM and vent pipe manufacturer's instructions for equivalent vent lengths and additional information.

