



ELU Combi Boiler Submittal Sheet

Models: Combi ELU-120WCN / ELU-150WCN / ELU-199WCN - Wall Mount Models

JOB NAME:

LOCATION:

ARCH. / ENGR.:

WHOLESALE:

MECH. CONTRACTOR:

MODEL NUMBER:

BTU/HR INPUT LOW - HIGH FIRE:

TYPE OF GAS:

NOTES:

Heat Exchanger

- Type 441 Stainless Steel Water Tube ASME “H” Stamped Construction
- National Board listed
- XTRATECH Heat Exchanger provides 150% to 450% greater opening area versus traditional water tube designs, providing very low pressure drop, a gasketless water seal, and a single circuit water tube combustion heat exchanger design with superior heat transfer capabilities
- 30 PSI Relief Valve for all ELU models
- The Stainless-Steel Combi counter flow heat exchanger provides superior heat transfer and fast recovery

Combustion System

- Modulating burner with up to 11 to 1 turndown
- Up to 96% AFUE
- High-Grade Stainless-Steel Burner Design
- Spark Ignition with Ignition Transformer
- Shipped Ready for Natural Gas Operation – Propane Gas Conversion Kits are Included
- Flame safety probe to monitor flame

Integrated Control System

- Digital operating control with LCD display to program and monitor boiler operation
- Pump outputs for Boiler Pump – System Pump – DHW Pump with Timed Domestic Hot Water priority
- Programmable settings: Outdoor Heating Curve – DHW Supply Set Point – Step Sequence for delayed response for small zones – Boost Function - Field Program Service reminders with date or runtime activation
- Connection Board – Line voltage terminal strip with 120 VAC / 60 Hertz power / low voltage terminal strip with multiple contacts - Cascade wiring
- Boiler output regulation (Adjustment of boiler output from 100 to 50 percent)
- Built in water pressure switch
- Error History Logging – Last 10 Error Codes
- Factory Default Freeze Protection Parameters
- User activated Comfort Function to maintain internal brazed plate temperature and provide instant hot water

Additional Features

- Superior condensate collection system with overflow protection switch and clean out for easy maintenance
- Intake and exhaust vents up to 100 feet in 2-inch or 150 feet in 3-inch pipe (ELU-199WCN vents in 3-inch ONLY)
- Built-in highly efficient ECM pump
- Built-in Three-Way Valve for internal circulation to brazed plate heat exchanger for instant domestic hot water production
- Built-in automatic bypass prevents need for expensive primary / secondary piping in smaller heating systems
- 15 Year Limited Residential Warranty
- Manual reset high temperature limit
- Included wall mount bracket
- Corrugated condensation hose
- Automatic air vent installed on boiler
- Additional Fittings for Relief Valve installation
- Included 2 and 3-inch vent screens (2 each)
- Piping adapter kit (ELU-85WBN – ELU120WBN Models)
- Outdoor Sensor
- Tridicator to monitor temperature and pressure
- 0-10 VDC input for Building Management System (with optional Analog Clip-In Board)

Optional

- Indirect Water Heater Sensor (7250P-325)
- 3” Polypro Flex Vent Kit (8400P-001)
- 3” (80mm) PP Concentric Vent Kit (KGAVT0601CVT)
- 3” Stainless Steel Termination Vent Kit (V1000)
- 4” Stainless Steel Termination Vent Kit (V2000)
- Condensate Neutralizer (7450P-212)
- Optional Analog Clip-In Board – 0-10 VDC Input (3319457)

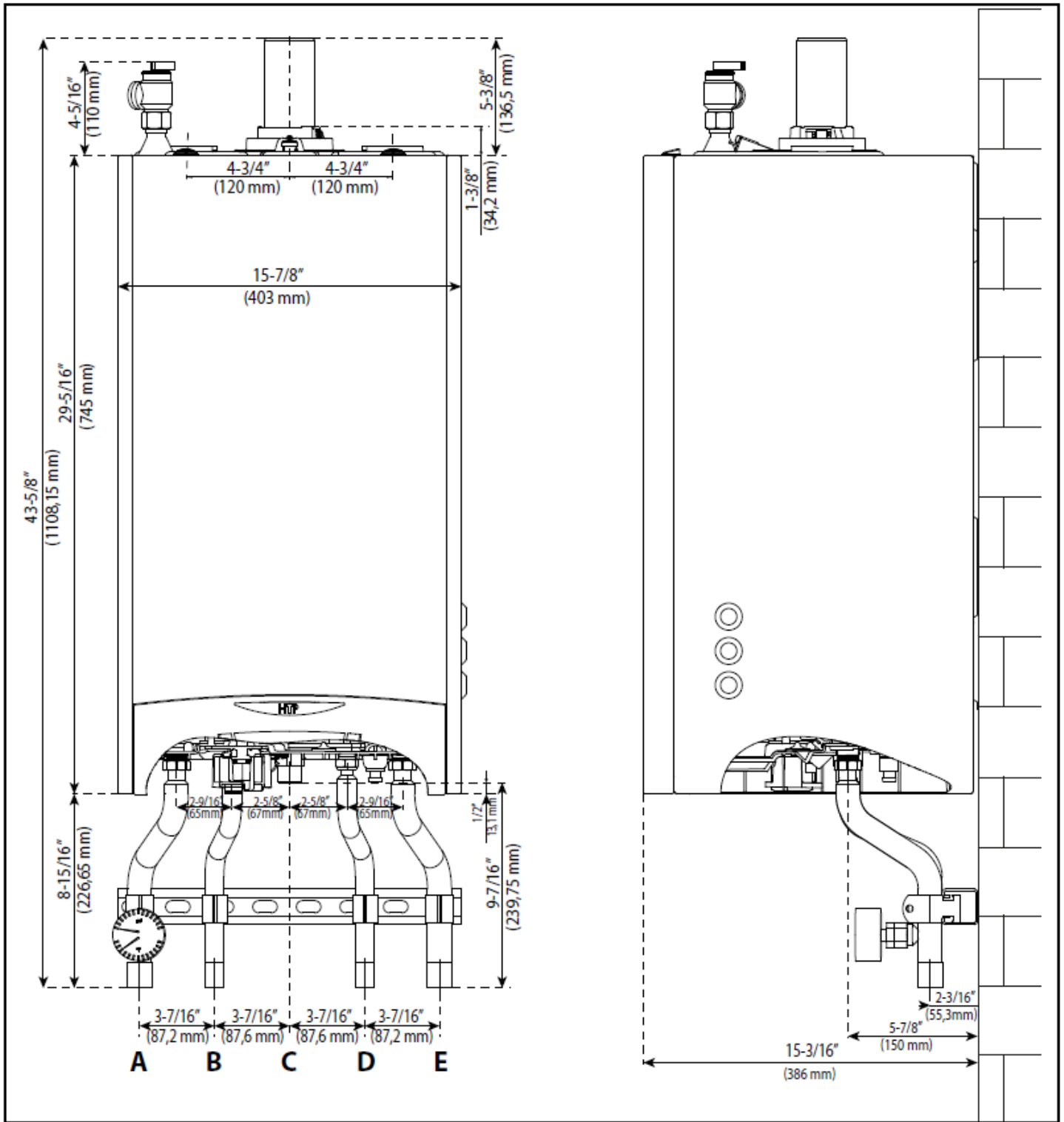


Figure 1 – Boiler Dimensions – NOTE: All Dimensions Are Approximate

Model	ELU-120WCN / ELU-150WCN
A – Central Heating Supply	1"
B – Domestic Hot Water Outlet	3/4"
C – Gas Inlet	3/4"
D – Domestic Hot Water Inlet	3/4"
E – Central Heating Return	1"
F – Pressure Relief Valve	

Table 1 – Boiler Adapter Dimensions

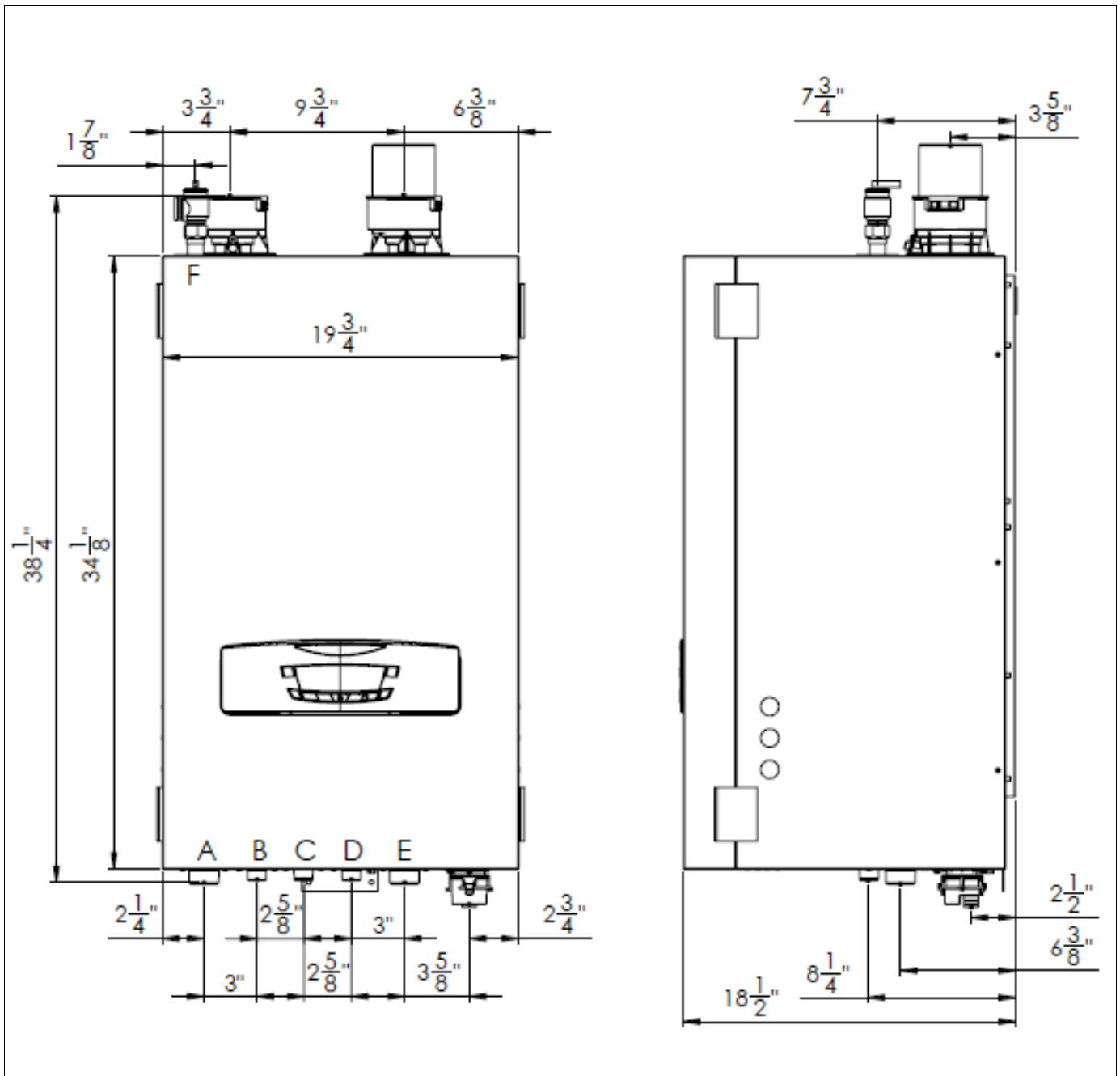


Figure 2 – Boiler Dimensions – NOTE: All Dimensions Are Approximate

Model	ELU-199WCN
A - Central Heating Supply	1 1/4" NPT
B - Domestic Hot Water Outlet	3/4" NPT
C - Gas Inlet	3/4" NPT
D - Domestic Hot Water Inlet	3/4" NPT
E - Central Heating Return	1 1/4" NPT
F - Pressure Relief Valve	3/4" NPT

Table 2 – Boiler Adapter Dimensions

Model		ELU-120WCN	ELU-150WCN	ELU-199WCN
Type		Combi		
Installation		Indoor, Wall Hung, Fully Condensing		
Space Heating Minimum / Maximum Input (Btu/Hr) ¹		11,200 / 106,000	13,200 / 120,000	NG 19,700 / 197,000
Domestic Hot Water Minimum / Maximum Input (Btu/Hr) ¹		11,200 / 114,000	13,200 / 150,000	LP 19,200 / 192,000
DOE AFUE ² (%)		95.5	95	95
Heating Capacity ^{1,2} (MBH)		98	111	184
Net AHRI Rating, Water (MBH) ²		85	97	160
Hot Water Capacity	35°F Rise	6.0	7.9	10.5
	45°F Rise	4.7	6.1	8.2
	77°F Rise	2.7	3.6	4.8
Flue System		Category IV, Sealed Combustion Direct Vent, Power Vent		
Minimum – Maximum Exhaust Vent Run ³		2" (6 - 100 feet), 3" (6 - 150 feet)		3" (6 - 150 feet)
Minimum – Maximum Intake Air Pipe Run ³		2" (0 - 100 feet), 3" (0 - 150 feet)		3" (0 - 150 feet)
Approved Exhaust Vent Materials ³		PVC, CPVC, PP, Stainless Steel		
Shipping Weight (lbs)		83	84	130
Gas Supply Pressure	NG	3.5" to 10.5" WC		
	LP	8" to 13" WC		
Power Supply		120V 60 Hz, less than 12A		
General Operating Conditions		Ambient Temperature Range: 33 – 104°F (0.6 – 40°C) Product Approvals and Requirements: ANSI Z21.13 / CSA 4.9		
Ignition System		Direct Electronic Ignition / Flame Rectification		
Burner System		Premixed Fuel Modulation / Stainless Steel Burner		
Gas Valve System		Air Ratio Valve		
Dimensions	W	15-7/8"		19.75"
	H	29-5/16"		38.25"
	D	15-3/16"		18.5"
Approximate Full Boiler Weight (lbs)		91	92.8	135
Boiler Water Content (Gallons)		1.1	1.2	2.7
Boiler Setpoint Temperature Range		68 – 122°F Low Temperature / 86 – 179°F High Temperature		
DHW Setpoint Temperature Range		97 – 140°F		
Water Pressure (PSI)	Heat Exchanger MAWP	50		
	Pressure Relief Valve	30		
	DHW Max Pressure	125	150	
Control Panel / Main Controller		AristonThermo LCD Display / AristonThermo GALEVO2 Control		
Connection Sizes	CH Supply / Return	1" Male Sweat with Adapter		1 ¼" Male NPT
	DHW Inlet / Outlet	3/4" Male Sweat with Adapter		¾" Male NPT
	Gas Inlet	¾" Male NPT		
Materials	Cabinet	Painted Steel and Plastic		Painted and Galvanized Steel
	Heat Exchanger	SA-312 Type 304L Stainless Steel Water Tube		Type 441 Stainless Steel Water Tube
Safety Devices		Flame Rectifier Probe, Temperature Limit Control (190°F), Water Pressure Switch (Min. 8 PSI), Freeze Protection, Blocked Condensate Pressure Switch, Condensate Trap, Flue Temperature High Limit Sensor (210°F), Blocked Vent Pressure Switch		Flame Rectifier Probe, Temperature Limit Control (190°F), Water Pressure Switch (Min. 8 PSI), Freeze Protection, Condensate Trap, Flue Temperature High Limit Sensor (210°F)

Table 3 – Technical Specifications - NOTE: HTP reserves the right to make product changes or updates without notice and will not be held liable for typographical errors in literature.

¹Listed Input and Output Ratings are at minimum vent lengths at an altitude of 0 – 2000 ft. Numbers will be lower with longer venting and/or altitudes greater than 2000 ft.

²Ratings based on standard test procedures prescribed by the US Department of Energy.

³The ELU requires a special venting system. Use only the vent materials and methods detailed in these installation instructions.