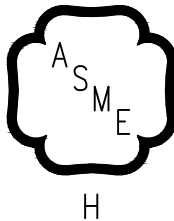


INSTALLATION, OPERATING AND SERVICE INSTRUCTIONS FOR

ASPEN™ CONDENSING HIGH EFFICIENCY DIRECT VENT ***GAS - FIRED HOT WATER BOILER***



Space Heating Models:

- ASPN-085
- ASPN-110
- ASPN-155
- ASPN-205
- ASPN-270

Combi Domestic Hot Water and Space Heating Model:

- ASPNC-155



TO THE INSTALLER: Affix these instructions adjacent to boiler.

TO THE CONSUMER: Retain these instructions for future reference.

As an ENERGY STAR® Partner, U.S. Boiler Company has determined that the ASPEN™ Series meets the ENERGY STAR® guidelines for energy efficiency established by the United States Environmental Protection Agency (EPA).



WARNING

Improper installation, adjustment, alteration, service or maintenance can cause property damage, injury, or loss of life. For assistance or additional information, consult a qualified installer, service agency or the gas supplier. This boiler requires a special venting system. Read these instructions carefully before installing.

II. Specifications (continued)

Table 2.4: Vent Lengths

Model Size	Nominal Vent/Intake Size (in)	Min Vent Length (in)	Max Vent Length (ft)	Approx. Derate at Max Vent (%)
85	2	30	60	7.6
	3	30	135	3.7
110	2	30	60	9.7
	3	30	135	4.2
155	3	30	135	7.2
205	3	30	135	9.7
270	3	30	135	11.3

See Section VII “Venting” for additional requirements and details.

III. Before Installing

- Safe, reliable operation of this boiler depends upon installation by a professional heating contractor in strict accordance with this manual and the requirements of the authority having jurisdiction.
 - In the absence of an authority having jurisdiction, installation must be in accordance with this manual and the National Fuel Gas Code, ANSI Z223.1. In Canada, installation must be in accordance with the B149.1 Installation Code.
 - Where required by the authority having jurisdiction, this installation must conform to the *Standard for Controls and Safety Devices for Automatically Fired Boilers* (ANSI/ASME CSD-1).
- Read Section VII “Venting” to verify that the maximum combustion air and exhaust pipe lengths will not be exceeded in the planned installation. Also verify that the vent terminal can be located in accordance with Section VII “Venting”.
- Make sure that the boiler is correctly sized:
 - For heating systems employing convection radiation (baseboard or radiators), use an industry accepted sizing method such as the $I=B=R$ Guide RHH published by the Air-Conditioning, Heating and Refrigeration Institute (AHRI).
 - For new radiant heating systems, refer to the radiant tubing manufacturer’s boiler sizing guidelines.
 - For system which includes an indirect water heater, make sure the boiler has the output called for by the indirect water heater manufacturer’s instructions.
- All boilers are shipped from the factory configured for 0 - 2,000 ft. altitude. For high altitude installation above 2,000 ft., see Appendix A.
- All boilers are shipped from the factory configured for use with natural gas. They may be converted for use with LP gas (“propane”) using proper conversion kit per Table 3.1. Use a combustion analyzer and follow all instructions supplied with conversion kit.

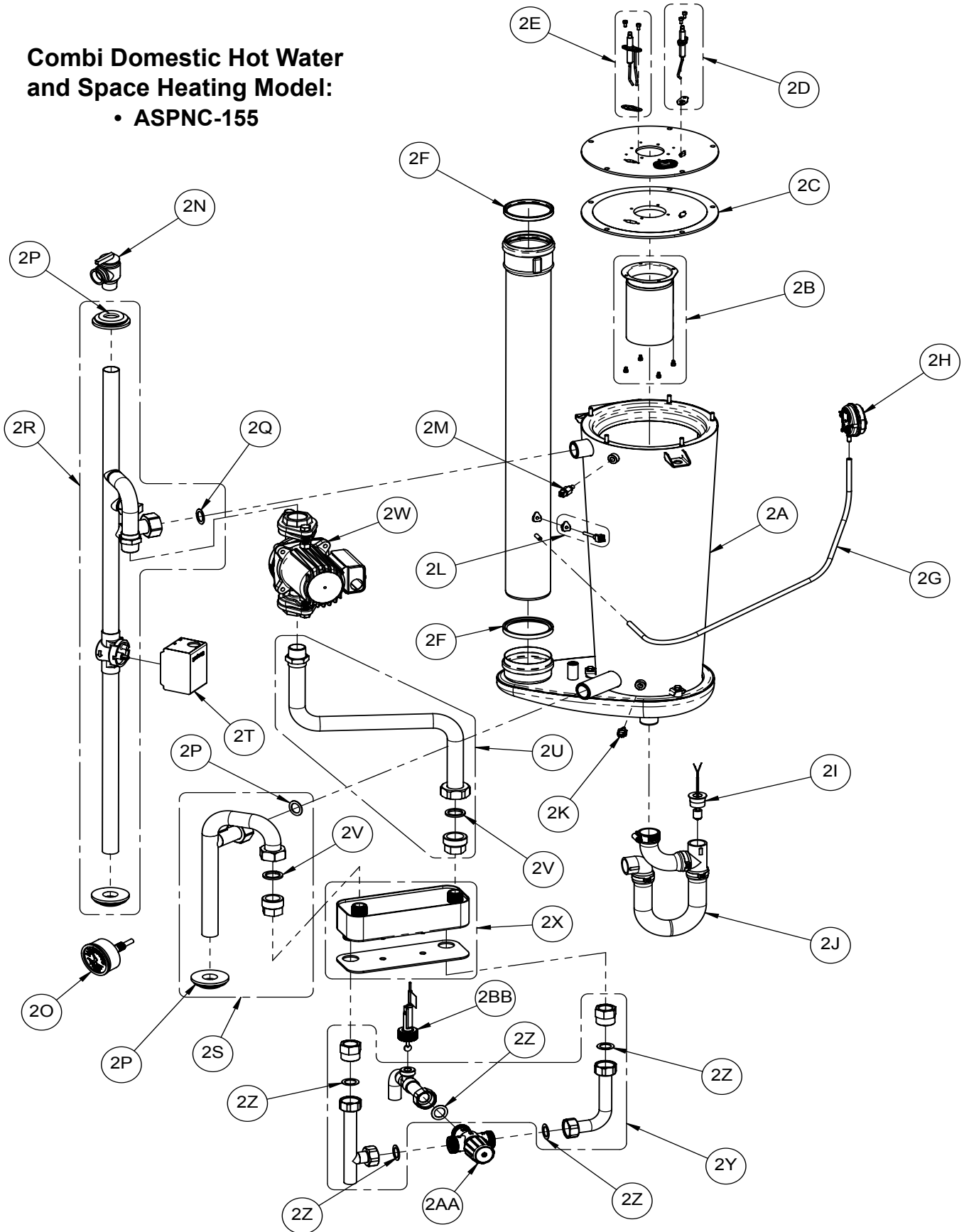
Table 3.1 LP Conversion Kits

Size	LP Conversion Kit
85	107934-01
110	107935-01
115	107936-01
205	107937-01
270	107938-01

XV. Service Parts (continued)

**Combi Domestic Hot Water
and Space Heating Model:**

- **ASPNC-155**



XV. Service Parts (continued)

All Models MBH Blower and Gas Train Service Parts						
Key No.	Description	Part Number (Qty)				
		ASPN-085	ASPN-110	ASPN-155 & ASPNC-155	ASPN-205	ASPN-270
3A	Natural Gas (NG) Combustion Assembly (includes Blower, NG Venturi Assembly, Gas Valve, and Hardware)	107944-01	107945-01	107946-01	107947-01	107948-01
	LP (Propane) Combustion Assembly (includes Blower, LP Venturi Assembly, Gas Valve, and Hardware)	107939-01	107940-01	107941-01	107942-01	107943-01
Not Shown	LP (Propane) Conversion Kit	107934-01	107935-01	107936-01	107937-01	107938-01
3B	Blower Outlet Gasket	106029-01				
3C	Gas Valve Flange	107901-01				108103-01
3D	Flare Fitting	107247-01				108102-01
3E	Gas Valve Rectifier Module	105829-01				105830-01
3F	Gas Line Flex Tube	107009-01				107009-02
3G	Gas Shutoff Valve	107010-01				
3H	22 Inch Gs Pipe W/ Flange	108050-01				
3I	Silicone Tubing	106989-01				
3J	Air Proving Switch	107933-01	105849-01		107933-01	
3K	Polypropylene Inlet Attenuator	108051-01				