

“Quick Start” Guide



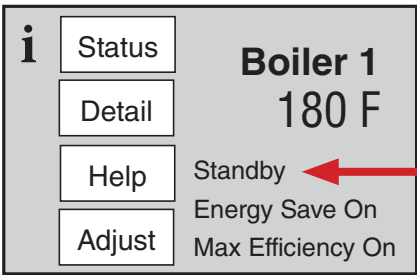
Models ASPN-085 to ASPN-399; 10:1 turndown

IMPORTANT: Follow all pre-start checks, inspections, and boiler fill instructions prescribed in the Aspen Installation, Operating and Service (I,O&S) Instructions. Check and correct any gas line leaks and purge all air pockets. A separate conversion kit is required to convert to L.P. gas (propane) as described in I,O&S Instructions; do not operate boiler without proper LP conversion and adjustments. If installation is above 2,000 ft., see I,O&S Instructions, Appendix A

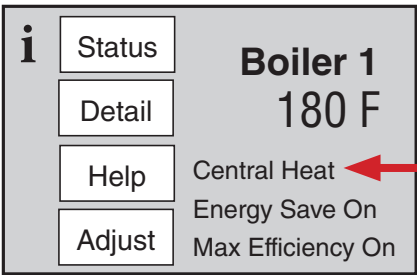
1.

Start boiler following instructions inside boiler front panel. Boiler display should look like illustrations (at right).

NOTE: Boiler will attempt to fire 30 seconds after a call for heat. Consult I,O&S Instructions if the boiler enters a soft lockout after six ignition tries.



Without a call for heat



With a call for heat

2.

Inspect flame through window. A high fire flame should be stable and blue without yellow tipping. Intermittent yellow and orange flecks are OK.



3.

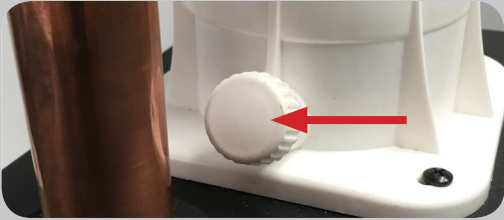
Verify inlet gas pressure. It should be within the proper range when all gas appliances are on and off.

GAS PRESSURE REQUIREMENTS

Max (natural gas and LP gas): 14.0 in.wc
Min (natural gas, 085-270): 3.0 in. wc
Min (natural gas, 320-399): 3.5 in. wc
Min (LP gas): 8.0 in. wc

4.

Connect combustion analyzer – Insert probe into test port on the boiler vent adapter.



5.

Use commands at right to check CO₂ (or O₂) and CO at both HIGH FIRE and LOW FIRE.

HIGH FIRE / LOW FIRE Test Command Sequence (starting from boiler display HOME screen)

- Press “**ADJUST**” twice
- Press “**LOGIN**”
- Press “**000**”
- Type “**086**”
- Press **RETURN ARROW**
- Press “**SAVE**”
- Press “**ADJUST**”
- Press “**MANUAL CONTROL**”
- Press “**HIGH**”
- Complete full combustion test (Step 6)
- Press “**LOW**”
- Complete full combustion test (Step 6)
- After combustion test, press “**AUTO FIRE**”

6.

PERFORM COMBUSTION TESTS. Check and adjust combustion readings per below. Final readings must be taken with all boiler doors and covers in place.

- Check at high fire and low fire
- **Replace cap on the boiler vent adapter immediately upon removal of probe!**

NOTE: If throttle screw is far out of adjustment, boiler will either not start or not pass combustion. If so:

- Shut down boiler
- Fully close throttle screw
- Re-open screw to number of turns in I,O&S Instructions

ACCEPTABLE COMBUSTION READINGS (ASPN-085 to ASPN-399 ONLY)

0-2,000 ft; Otherwise see I,O&S Instructions
Max. CO Air free: 200ppm

Natural Gas

CO₂*: 9.0% to 9.7% O₂** : 5.0% to 3.8%

*Low fire CO₂ must be less than or equal to high fire CO₂

**Low fire O₂ must be greater than or equal to high fire O₂

LP Gas

See I,O&S Instructions for correct conversion kit p/n

7.

Check ignition safety shut-off on firing boiler.

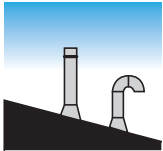

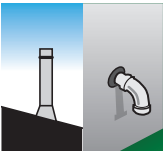


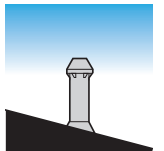
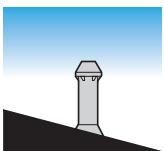
- Carefully unplug orange flame rod wire at the flame rod using insulated pliers.
- The burner should shut off immediately.
- Reconnect flame rod wire

Installation Tips



Models ASPN-085 to ASPN-399; 10:1 turndown

✓ VENTING

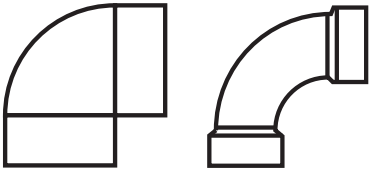








Horizontal 2-pipe Horizontal 2-pipe low profile Vertical 2-pipe concentric Vertical exhaust/sealed B-vent for combustion air

Illustrations are for representation only. Improperly located vent can cause property damage; for complete venting information, please see I,O&S Instructions.

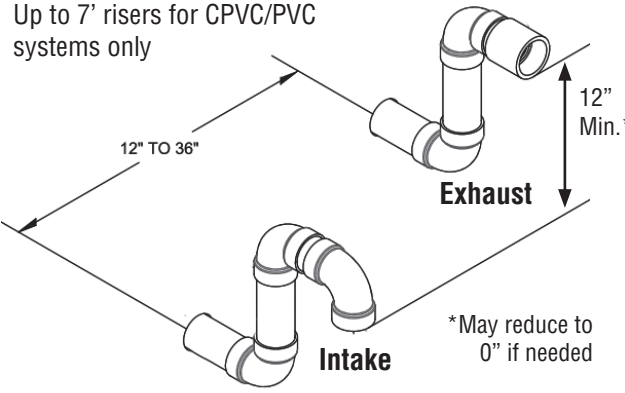
✓ ELBOWS

Regular “short bend” and “long sweep” elbows.
(see chart in I,O&S Instructions)



✓ HIGH SNORKEL OPTION

Up to 7' risers for CPVC/PVC systems only



12" TO 36" 12" Min.*

Exhaust Intake

*May reduce to 0" if needed

Top water connection option – supply & return (heating-only boilers, sizes 85-270)
Safety relief valve location. Do not install any valves between the boiler and relief valve or on the outlet of the relief valve (all Aspen boilers).
LWCO Option – Installed tee and wiring harness included (sizes 85-270)

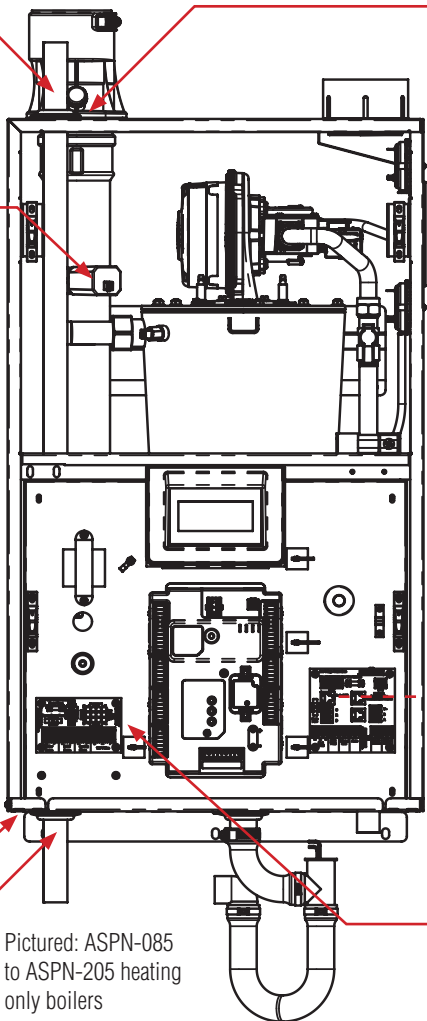
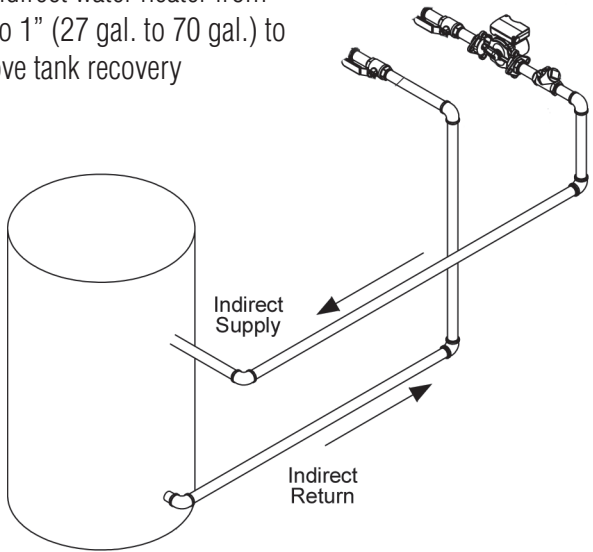
1. Remove plug
2. Install Hydrolevel 1100 LWCO
3. Plug into existing boiler harness (cut cable tie)

Level boiler within 5 degrees
 (front to back and side-to-side)

Bottom water connections – supply & return
 (all Aspen wall hung boilers, sizes 85-270)

NOTE: Top and bottom connections may be used together on heating-only boilers

Increase supply and return pipe sizing between boiler and indirect water heater from 3/4" to 1" (27 gal. to 70 gal.) to improve tank recovery

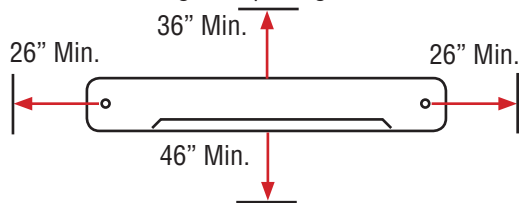


Pictured: ASPN-085 to ASPN-205 heating only boilers

Universal vent connection attaches to CPVC, polypropylene or listed stainless steel flex venting

QUICK DRILLING GUIDE:

Allow these clearances from 5/16" wall mount bracket holes or consult boiler I,O&S Instructions if tighter spacing is needed.



Time Saving Option

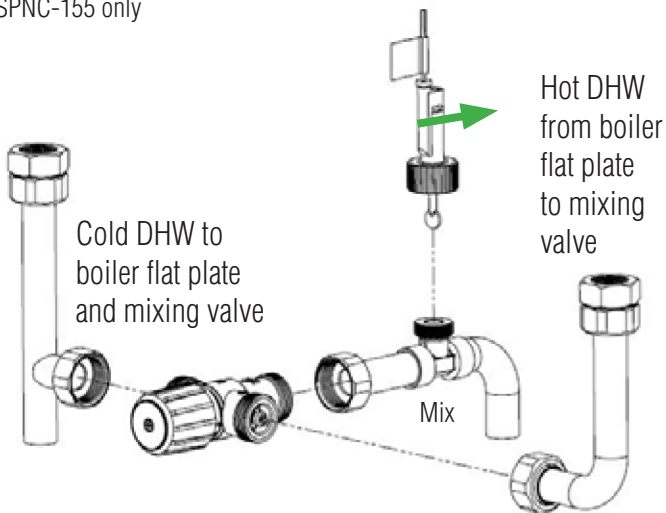


Fast cat 5 cable from boiler to Sage Zone Control

Save money on a zone relay! Use the DHW relay as an extra heating zone

COMBI TIPS Model ASPNC-155 only

1. **Assemble** combi parts
2. **Measure/set** mixing valve with thermometer to 120° F max to prevent scalding
3. **Orient** flow switch with arrow pointing away from mixing valve →
4. **Wire** flow switch to “DHW T’stat” on boiler low voltage PCB



DHW flow rate guidelines: 4.0 gpm @ 70°F TR; 3.6 gpm @ 77°F TR
 TR=Temperature rise between domestic inlet and outlet.

⚠ 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 Installation, Operating and Service Instructions carefully before installing.