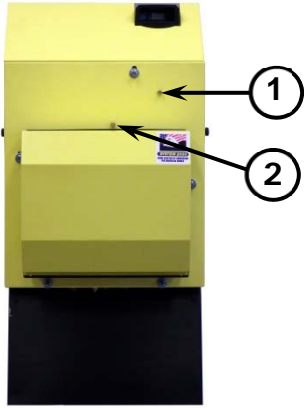


Please refer to owner and installation manual for complete details.

Step 1 Initial Test (Draft Loss & CO₂)

If there is an optional Silent Burner Cover, make sure it is in place before testing



1. Remove the 1/8" brass plugs from the "over fire" test port (2) above the burner and the flue box plug (1) in the top right corner of the front cover. Check draft through the "over fire" test port (2) and at the flue box (1). Use a 12" long piece of 1/4" O.D. steel or copper tubing and insert it approximately 8" into the boiler. Connect this tube to your test probe using a piece of hose.

Clean boiler flue passage if the draft difference between the flue box (1) and "over fire" test port (2) is greater than .06" w.c.

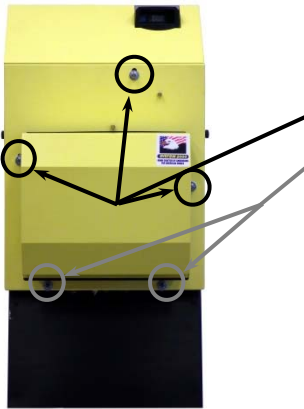
2. Check CO₂ through the "over fire" test port (2). Insert the 12" long steel or copper tube approximately 8" in through the test port.

Recommended settings at the test port:

Natural: CO₂ : 8.6%-9.2%, O₂ : 5.5%-4.5%

Propane: CO₂ : 9.7%-10.7%, O₂ : 6.0%-4.5%

Step 2 Open Front Cover

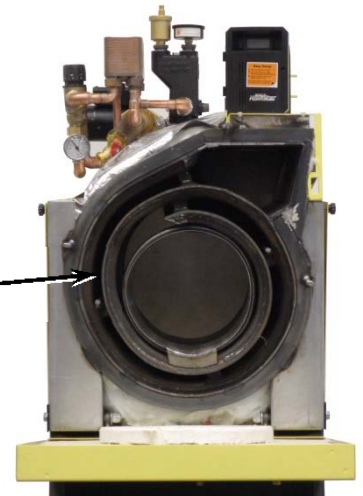


1. Remove (3) upper nuts and support cover while opening.
2. Loosen, but **DO NOT REMOVE** (2) lower nylock nuts on hinge bolts below burner.
3. Inspect burner head/end cone condition.

Step 3 Inspect Flue Passage

If passage is clean, no scale, then close cover and tighten all hardware evenly.

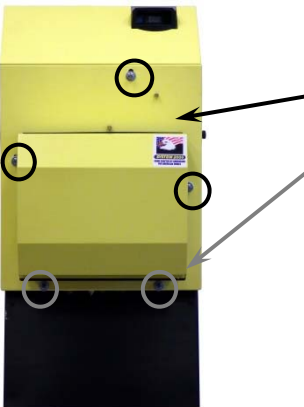
Clean ONLY if dirty.



Step 4 Clean Boiler

Remove stainless steel alloy combustion chamber, using caution, it may be hot. Brush and vacuum the heat exchanger surface if needed.

Step 5 Close Front Cover



1. Clean studs if dust present.
2. Install (3) upper nuts and washers.
3. Tighten nuts (5) uniformly - **DO NOT overtighten.**
4. Check and tighten (6) rear cover nuts.
4. Check Flue Pipe. Clean and seal if necessary.
5. Check chimney base and clean if necessary.



Step 6 Remove Drawer Assembly

(Refer to burner manual for detailed instructions on removal and for burners other than EZ-Gas)

1. Close the front cover and finger tighten a nut on the top center stud to hold the cover closed while working on the burner. Do not tighten the rest of the nuts at this time because you will need to open the cover up again to check the drawer assembly to the diffuser plate
2. Check porcelain condition.
3. Check and clean flame sense rod.

Ascent Combi Gas ANNUAL TUNE UP & INSPECTION

Step 7 Check Burner

1. Check end cone through air tube opening with drawer assembly removed.
2. Check Fan/Air Inlet for dirt or lint.
3. Install drawer assembly and check ignitor.

Note: All burners require "Amulet" retention head protector.



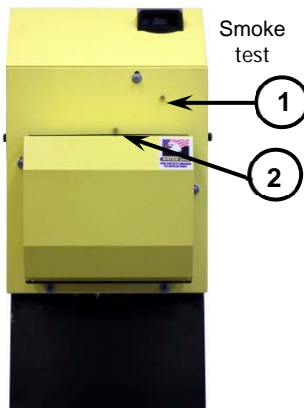
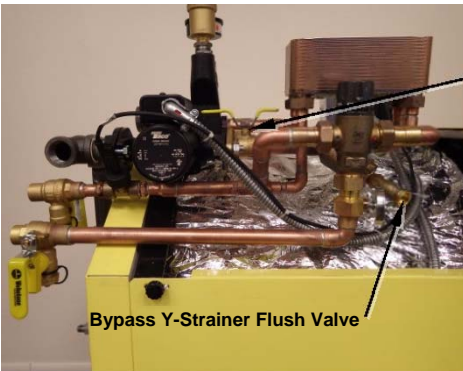
Step 8 Zone controls

Open/Close zone valves or operate zone circulators several times to see that all move freely.

Step 9 Plate Heat Exchanger Maintenance

1. Close the isolating ball valve located on the bypass circulator flange, connect a drain hose to the hydronic bypass Y-strainer, open flush valve, and flush into a bucket to remove debris. Close flush valve, remove drain hose, open isolating ball valve on bypass circulator flange. Confirm boiler pressure is adequate, adding makeup water if necessary.
2. Open a fixture and wait until hot water is continuously flowing. Turn the mixing valve up and down in temperature to ensure that it moves freely. Set the mixing valve temperature feeding the domestic hot water fixtures to the desired temperature of approximately 120°F using mixing valve instructions and hot water temperature gauge. Note that setting a temperature higher than 120° may produce temperature swings from hot water faucets.

Note: If the domestic water supply is "hard" with high mineral or lime content, clean and flush when necessary. Symptoms include poor hot water quality or low domestic hot water flow. See Hot Water Maintenance for mineral cleaning and flushing instructions. Consider installing Scale Stopper (EK P/N: 10-0650) or water softener in hard water conditions so recurring plate heat exchanger cleaning will no longer be necessary in most circumstances.



Step 10 Start Burner & Check Safety Functions.

Check & Record:

1. Draft Loss: A difference of .06" or less between flue box (1) and "over fire" test port (2).

Chimney: Draft at the breach should be slightly negative (at least -.02"wc).

2. Check CO₂ at "over fire" test port (2)

Natural: CO₂ :8.6%-9.2%, O₂ 5.5%-4.5%

Propane: CO₂ :9.7%-10.7%, O₂ 6.0%-4.5%

3. CO Test: Carbon Monoxide (CO) must be less than 400ppm (Port 1).

4. Stack Temp: 350°-550° F. (at stack or flue box port)

5. Test Ascent Hydrostat Safety High Limit operation:

- a. Remove all heat and hot water calls so there is no heating load on the system. Disable all zone controls and DHW flow switch.
- b. Turn System switch off, then jumper T-T on the Ascent Hydrostat control to simulate a thermostat call.
- c. Restore power. The burner should start shortly.
- d. At approximately the High Limit set point, the Ascent Hydrostat control should shut off burner.
- e. Turn off power and disconnect the T-T jumper. Reconnect zone controls and DHW flow switch.

6. Check safety lockout: Shut off fuel supply and operate burner to verify safety lockout.

7. Sidewall Vent Only:

A. Disable power venter motor.

B. Start burner. Safety lockout should occur in approximately 1 minute.

