

Please refer to owner installation manual for complete instructions.



①

Step 1 Initial Test (Draft Loss & CO₂)

Make sure air box cover is in place before testing

1. Remove 1/8" brass plug from "over fire" test port (2) under the burner. Check draft through the test port (2) and at the breech (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.

②

Clean boiler if the draft difference between the breech (1) and "over fire" test port (2) is greater than .04" 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.

Check in test port must be: Max: 11% CO₂ / Min: 10% CO₂



DO NOT remove or touch combustion chamber for inspection or when cleaning boiler!



Chamber Liner

Remove & discard baffle if present



Step 2 Rear Cover Removal

Completely remove cover nuts (6), washers and jacket screws at back, sides and top.

With hands at top and bottom, pull cover **and** insulation board straight back as a single unit.

Step 3 Inspect Flue Passage

Remove Chamber Liner ("pac-man"). If passages are clean, no scale, re-install liner and back cover.

Clean ONLY if dirty.

Step 4 Clean Boiler

Do Not Touch, Vacuum or Remove Chamber!

Note: If there is **heavy scale** in last pass:

1. Check for cold returns.
2. Open by-pass valve fully.
3. Set Digital Manager option switch 1 to "ON".
4. If scaling persists, increase firing rate.
5. Classic Manager: Install Dual Aquastat (p/n 10-0417)
Set: High at 155°/170° F
Low at 120°/140° F

Step 5 Reassemble

1. Reinstall chamber liner in unit.
2. Reinstall back cover and insulation.
3. Tighten nuts (6) uniformly.
4. Check and tighten (6) front cover nuts.
5. Check flue pipe.
6. Check chimney base and clean if necessary.

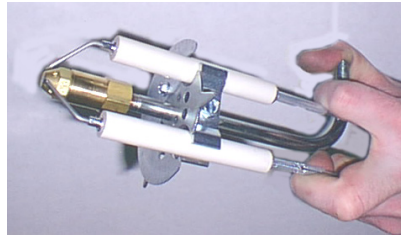


Annual Tune Up & Inspection, Standard Oilheat Boiler

Step 6 Remove Drawer Assembly

1. Check Electrode Setting.
2. Check Porcelain Condition.
3. Check Nozzle for coking/heat.
4. Replace nozzle if necessary.

See installation manual for nozzle selection.



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.
4. Check Filter condition. Replace annually or if vacuum exceeds 7" for single pipe systems.

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



Step 8 Check Zone Valves

Open/Close zone valves several times to see that they move freely.

Step 9 Backflush Plate Heat Exchanger

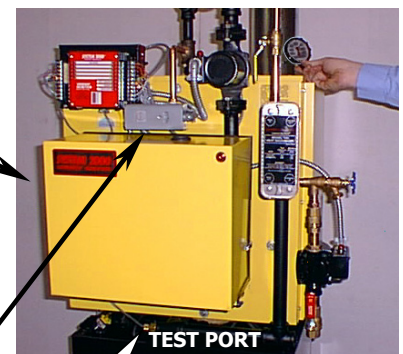
1. Close the valve underneath the domestic hot water circulator.
2. Open drain valve to backflush the heat exchanger.
3. If domestic water supply is "hard" (lime), consider installing Scale Stopper (Item no. 10-0650)
4. Set temperature feeding hot water tank (above heat exchanger) by adjusting the ball valve below the bronze circulator. Adjust the ball valve with the burner running and a continuous flow of hot water from a fixture. You should just be able to hold your hand on the pipe.



Step 10 Start Burner & Check Safety Functions.

Check and Record: Make sure air box cover is in place.

1. Draft Loss: .04" w.c. or *less* between breech and test port.
Sidewall Vent: Draft over fire of $-.10''$ to $-.12''$ wc after 15 minutes of continuous burner operation.
Chimney: Draft over fire should be slightly negative (at least $-.02''$ wc).
2. Check CO₂ at test port: Max of 11% CO₂, Min of 10% CO₂
3. Smoke Test:
Must be zero smoke at Breech. A trace is not acceptable.
4. Stack Temperature:
350°F to 450°F Gross.
5. Set Safety High Limit to: 215°F / 205°F
Test operation by closing bypass valve with zone valves closed.
6. If equipped with a Classic Manager:
Set Return (operating) or Dual Aquastat (High) to 155°/ 170° F.
Set Lo on Dual Aquastat to 120° / 140° F.
7. Check safety lock-out: Shut off fuel supply and operate burner to verify safety lock-out.
8. Sidewall Vent Only:
 - A. Remove power from the inducer. (option switch 2 on a Digital Manager)
 - B. Start burner. Safety lock-out should occur in approximately 1 minute.
 - C. Restore power to the inducer.



Dual Aquastat if present (Classic Manager) Set:
Low to: 120° / 140° F
High to: 155° / 170° F

