



# GV BOILER

## Front Section Repair Kit

Part Number 382-200-300 for Series 1 & 2

Part Number 382-200-300 for Series 3 & 4

# Replacement Instructions

The following terms are used in these instructions to bring attention to presence of hazards of various risk levels, or to important information concerning the life of the product.

### WARNING

Indicates presence of hazard which can cause severe personal injury, death or substantial property damage.

### CAUTION

Indicates presence of hazard which will or can cause minor personal injury or property damage.

### WARNING

Failure to follow items below can cause severe personal injury, death or substantial property damage:

- These instructions are for use by a qualified installer/service technician. Follow all instructions in proper order.
- Shut off main gas valve and disconnect electricity to boiler.
- Wait until boiler is cooled down before proceeding with replacement.

### Contents of Kit:

- Ignitor Replacement Kit
- Studs, nuts, washers, adapters, flange gaskets pump/return water tubing
- Square cut seals, silicone sealant
- Instructions
- Instructions for blower motor/replacement

1. Remove jacket top and front panels. Lay aside boiler insulation.
2. Close isolation valves between boiler and system. Drain boiler.
3. Remove:
  - All wiring connectors from control tray.
  - Control tray (if applicable).
  - External system gas and water piping from boiler.
  - Thermostat wiring.
  - External vent piping.
  - External combustion air piping, if used.
  - Vent condensate drain hose.
  - Blower assembly and burner. See "Blower Assembly or Burner Replacement Instructions," part number 550-141-608, packed with kit.
  - High limit control and well.
  - External relief valve piping.
  - External air vent piping (if used).
  - Remaining outside and interior jacket panels.
  - Block temperature limit switch.
  - Circulator(s).
4. Tilt block assembly onto back section to rest on 2 short pieces of 2 x 4's.

### CAUTION

Section block is heavy - care must be taken in moving to avoid personal injury.

5. Remove drain valve and all other remaining piping on front section.
6. Remove vent ell and clean silicone sealant from vent ell (Series 1 & 2 only).

7. Remove base rail assembly and tie rods from block assembly.
8. Remove front section from block and remove silicone sealant from mating intermediate section.
9. Clean new front section and mating intermediate section of any oil and dirt - silicone sealant will not adhere properly.
10. Clean square cut sealing surfaces on new and mating sections.

### CAUTION

Do not use any cleaner containing petroleum-based distillate (oil). Square cut seal failure will occur.

11. Apply bead of silicone sealant around perimeter of intermediate section, NOT on inside of waterway holes (see Figure 1).

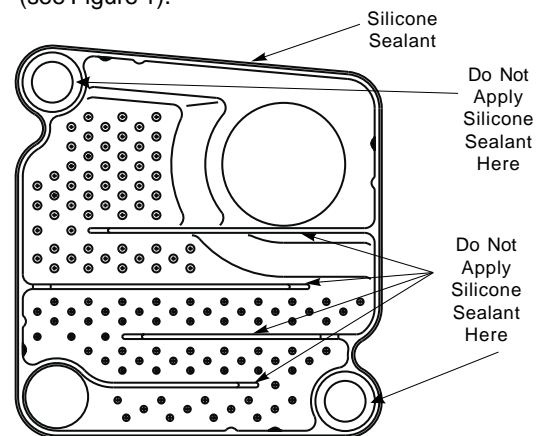


Figure 1

12. Insert new square cut seals.
13. Align front section and lay it on top of intermediate section.

## Installation — assembly

14. Insert draw rods. Make sure all sections are aligned when drawing together, tighten tie rod nuts evenly ( $35 \pm 5$  ft. lbs. torque).
15. Re-install base rail assembly to bottom of block assembly. Use a level to assure rails are parallel.
16. Apply silicone sealant around vent ell and install, securing with screw (Series 1 & 2 only) (check that condensate drain hose is securely fastened).
17. Install studs for blower housing mounting bracket and block temperature limit switch.
18. Reconnect drain valve and piping on front section. See Boiler Manual.
  - a. Do not solder water tubing until Step 19 and all piping components are doped and tightened, alignment is critical.
  - b. When re-soldering water tubing, wet elbows to prevent pipe dope shrinkage.
19. Install circulator, assuring proper alignment of pump(s) to all circulator(s) flanges.
20. After all piping components are connected, then solder water tubing.
21. Pressure test block assembly and water tubing for leaks as described in Boiler Manual. Repair, if found.
22. Replace blower assembly and burner. See "Blower Assembly or Burner Replacement Instructions," part number 550-141-608, packed with kit.
23. Tilt block assembly back onto base rails.
24. Re-install:
  - Block temperature limit switch.
  - Jacket left and interior panels.
  - External relief valve piping.
  - External air vent piping.
  - High limit control and well.
  - External vent piping.
  - External combustion air piping, if used.
  - Vent condensate drain hose.
  - External system gas and water piping to boiler.
  - Control tray (if applicable).
  - All wiring connectors to control tray.
  - Thermostat wiring.
25. Fill boiler as described in Boiler Manual.
26. Turn on electric and gas to boiler. Check boiler normal sequence of operation and follow checkout procedure in Boiler Manual.
27. Check for flue gas leakage around new section using mirror. Leaks will cause fog on mirror. Repair any leaks with silicone sealant and recheck.
28. Replace insulation and jacket right, back, front and top panels.

