

Service Bulletin G3-03

Models: 715ES, C800ES, C920ES, C920ESC, 2400ES, 2700ES

Measuring gas pressure



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Introduction

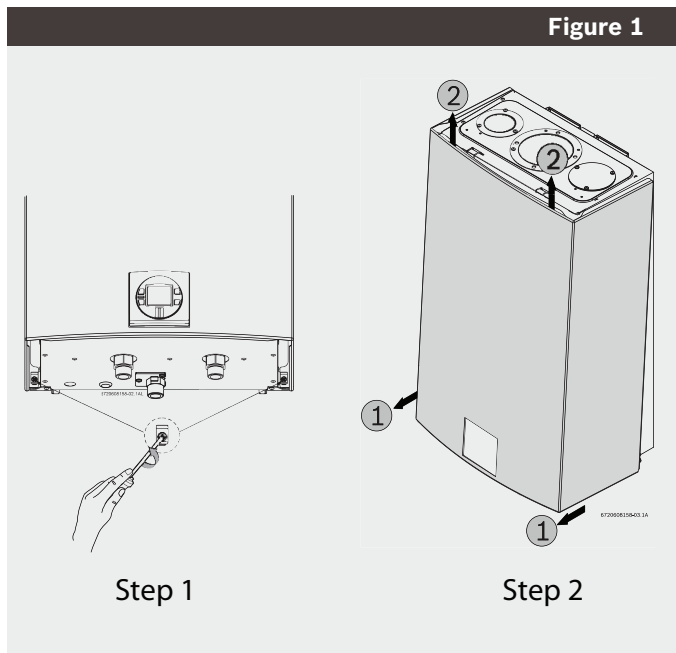
- ▶ In order to meet the full design capacities of this water heater, the gas supply must be adequate.
- ▶ It is important to size the gas line to meet the requirements of ALL gas appliances on the same piping system. Please consult the National Fuel Gas Code NFPA 54, or a local gas technician if you are unsure of the necessary gas line size.

Tools needed:

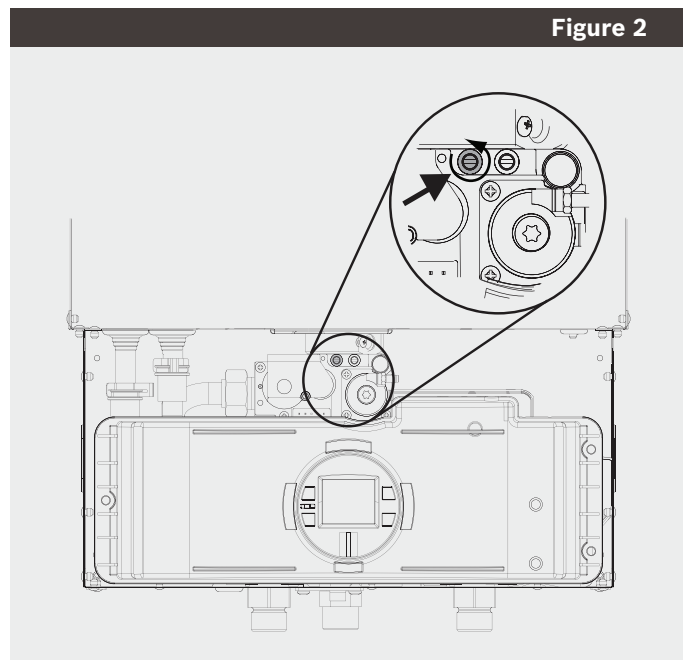
- ▶ Manometer
- ▶ Phillips head screw driver
- ▶ Small flat head screw driver

Preparation

1. Shut off gas supply to heater with installer supplied shut off valve.
2. Loosen two Phillips head screws and remove front cover. (Fig. 1)



3. Locate inlet gas pressure test port on gas valve. (Fig. 2)
4. Loosen screw inside the left test port with a small flat head screw driver (do not remove). Connect manometer tube to the test port. (Fig. 2)



Static Pressure Test

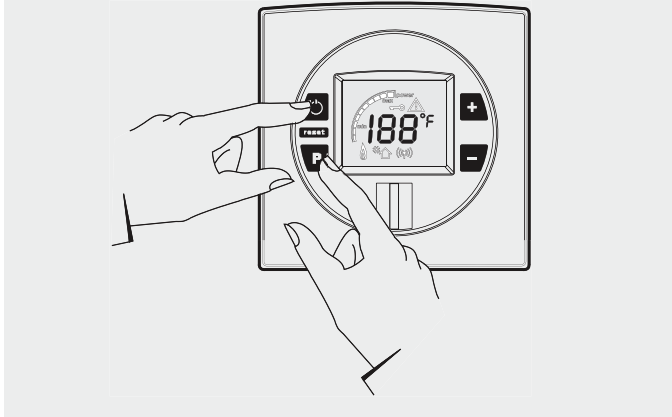
1. Turn gas supply back on.
2. Record Static Pressure reading.
3. Static Pressure testing rules out over pressure and should be less than 15"WC. Static Pressure testing is not an effective way to test supply pressure. Proceed to Operating Pressure test to check for adequate supply pressure.

Operating Pressure Test

NOTE: Reset any error codes with reset button first.

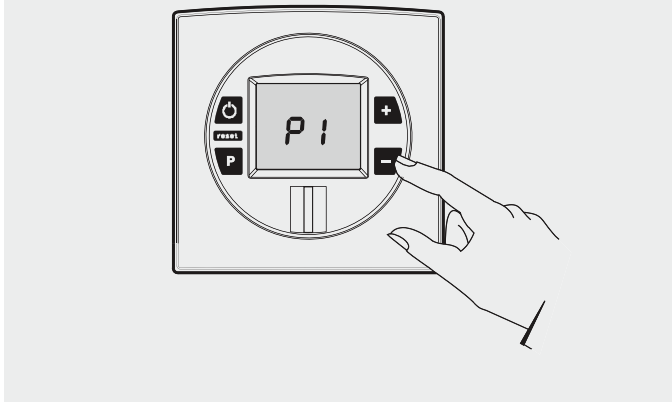
1. Press ON/OFF switch to the OFF position. (Fig. 3)
2. Press and hold the Program 'P' button and press ON/OFF switch to ON position. (Fig. 3)
3. As soon as '188' is displayed, release "Program" button and the display should read 'P2'. (Fig. 3)

Figure 3



4. Press the minus '-' button, until P1 appears. (Fig. 4)

Figure 4



5. Turn on a high volume of hot water flow (at least 6 gpm) and the heater will ignite.
6. If heater display reverts back to P2, open more hot water fixtures to allow sufficient flow. Press the plus '+' button until P1 reappears on the display.

7. Operate all other gas appliances on the same gas piping system at maximum output. Record operating pressure reading measured at the gas valve test port.
8. Minimum operating pressures for each model can be found in Table 1. Operating pressures below the indicated minimum will result in error codes, insufficient degree rise for the hot water being used and must be corrected.

Minimum Operating Pressures		Table 1
Models	Natural Gas	Liquid Propane
715ES, C800ES, 2400ES, 2700ES	4.0" W.C.	9.0" W.C
920ES, 920ESC	3.5" W.C.	8.0" W.C.

9. Turn off hot water taps and close installer supplied gas shutoff valve.
9. Remove manometer from measuring port and securely tighten screw inside port.
10. Reopen gas supply shutoff valve and return heater to service.



WARNING

SECURELY TIGHTEN GAS PRESSURE TEST PORT SCREW TO PREVENT GAS LEAK. FAILURE TO DO SO COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.

Common causes of low gas pressure

- ▶ Appliance gas connector is not at least 3/4" I.D.
- ▶ Gas line was not sized large enough. Most often found in retrofit applications.
- ▶ The gas filter on the bottom of the unit is clogged with pipe dope or other debris.
- ▶ Gas meter or regulator is not set to deliver adequate pressure, is undersized or is defective. Have gas or propane supplier verify proper operation and capacity.



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