

How to Create and Measure the Worst Case Depressurization in the CAZ

Do this setup before turning on any combustion appliances and before testing for spillage, CO, and draft pressure. This is what's called **Worst Case CAZ Depressurization** setup.

*You will be turning on anything that moves air in the house because that can cause pressure differences in the house. Pressure differences in the building can cause spillage and draft problems. You will also position room doors so the CAZ is the most starved for air. You need to always keep an eye on the CAZ pressure even when you are upstairs! We use a baby monitor - camera on the manometer on the CAZ. The wireless receiver goes with us. Watch our YouTube demonstration: **Pure Energy Coach – CAZ Depressurization Monitoring with a Baby Camera***

Steps:

1. MEASURE THE BASE PRESSURE

Exterior doors and windows closed. Interior doors open. Open the door that separates the CAZ from the rest of the house. Hose from the CAZ to the outside. CAZ with reference to the outside. Record this number. Or, use the BASELINE feature on your DG 700.

2. TURN ON AIR HANDLER FAN

Switch to the ON Position. Duct leak may change CAZ pressure, and unbalanced room pressures can cause more CAZ depressurization.

3. TURN ON ALL MECHANICAL VENTILATION

Turn on all fans that exhaust to the outside, and the dryer (on heat) if it is vented to the outside. Include the attic fan. Start with the fan farthest from the CAZ and work your way toward the CAZ.

4. POSITION ROOM DOORS

Try to keep air away from the CAZ. Keep your back toward the CAZ. Close the doors to the rooms that are pressurized with reference to where you are standing. ***If it blows on your nose or toes, keep it closed.*** If the room is depressurized (air is leaving that room faster than it is entering the room), leave the door open as it might be sucking on the CAZ air, which might bring air down the flues.

Best practice: Watch the pressure in the CAZ with a baby monitor while you are positioning room doors.

5. CHECK THE CAZ PRESSURE

With reference to the outside again. Record this number. Is the CAZ more negative with the air handler on or the air handler off? Which number is more negative? If the CAZ pressure with reference to the outside is a bigger negative, leave the air handler on. If the number is lower with the air handler on, turn it off. (Return duct leaks can suck air out of the CAZ making it more depressurized).

6. Record the Highest Negative Number. This is the Worst Case CAZ Pressure.

7. Subtract the Base Pressure from the Worst Case CAZ Pressure. This is the Net Worst Case CAZ Pressure. Or, if you used the Baseline feature on your DG 700, record that number.

8. Compare the Net Worst Case CAZ Pressure number with the table in the BPI Standards called CAZ DEPRESSURIZATION LIMITS: If your CAZ is a more negative number than the allowable number, the CAZ is too depressurized and it fails the CAZ Depressurization Limit Test and the combustion appliance will probably spill flue gasses. You will have to include a pressure fix plan in your work order. This includes: add make-up air; modify the exhaust appliance; unairseal the CAZ; replace the atmospheric draft appliance with a direct vent appliance; repair the chimney or appliance; or airseal the attic from the rest of the house. Watch our YouTube Instructional Videos: **Pure Energy Coach - Flue Gas Spillage: Caused by Blocked Chimney? or Air Leakage? AND Pure Energy Coach - Zonal Pressure Diagnostics (ZPD) House**

