



# TOP TEN INSTALLATION MISTAKES

- 1. Vent Run Exceeds the Limit** - Many vent runs exceed the limitation of elbows because the contractor did not account for the termination, especially when common venting. Maximum vent runs for individual units are 100 feet with 3" SCH40 PVC. Deduct 5 feet per 90° elbow and 3 feet per 45° elbow. 6 elbows max including terminations. **See the installation and operation manual for more details.**
- 2. Improper Venting Material** - The Eternal can be power or direct vented with 3" Schedule 40 PVC, CPVC, and PolyPro. Solid core materials only. **NO FOAM CORE PIPING IS ALLOWED.**
- 3. Gas Line Undersized** - Check the gas meter rating plate to ensure the gas line can support the Eternal and all of the other gas appliances in the building. Consult the Natural or Propane Gas Supply Piping chart and plumbing diagrams in the manual to size the gas piping system correctly. For GU100 and GU120 models, use CSST Pipe 1/2" or Black Iron Pipe. For GU145S and GU195(S,M) models, use CSST Pipe 3/4" or Black Iron Pipe. **Confirm the BTU load and check the BTU rating on the gas connector package.**
- 4. Gas Shut Off Valve Not Full Port** - A full port manual gas control shut off valve must be connected to the gas line before connecting to the unit.
- 5. Used Dielectric or Galvanized Nipples, Pipes, or Unions** - Do not use dielectric or galvanized materials.
- 6. Did Not Bleed the Air Out of the Tank Before Powering On** - Before starting up the unit, the contractor should close the water heater drain and open the cold water supply valve to fill the tank. Then, they must purge the air by opening the nearest hot water faucet. Allow water to run until a smooth, constant flow occurs. Then, turn off the water and power the unit on.
- 7. Not Enough Pitch on the Exhaust Run** - To avoid accumulation of condensate water in the exhaust run, position the start of the horizontal venting section lower than the upwards slope with no less than 1/4" per foot towards the venting termination. Proper support is crucial when hanging materials. **The venting diameter must not be reduced.**
- 8. Improper Venting on Condensate Drain** - Use factory supplied bullnose T-fitting on the condensate drain to stop vacuum air lock and allow for overflow if the condensate line is clogged. Do not add a riser.
- 9. Recirculation System Lacks Proper Control** - Control the recirculation system with a timer and an aquastat or the internal pump controller (residential only). Consult the recirculation diagram in the Eternal manual for instructions.
- 10. Incorrect Condensate Drain Pipe Material** - Use PVC or CPVC for the drain line. Do not use metallic materials. Condensate is 4.0 ph and must drain with PVC or CPVC and/or be neutralized first.

**Consult the manual for installation diagrams and instructions. Improper installations will void the warranty.**

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