

Thank you for your continued interest and support of Weil-McLain products and services.

To better serve your needs, and increase your confidence level when installing and servicing Weil-McLain equipment, we have created this bi-monthly newsletter with answers to some of the “most frequently asked questions” that come into our Technical Services group.

If you would like to submit a question, please forward it to wm_webmaster@weil-mclain.com. For all current and obsolete product manuals, literature and wiring diagrams, please visit our website at www.weil-mclain.com.

As always, our knowledgeable Technical Services experts are available Monday-Friday 7:00am to 4:30pm cst at (219) 879-6561 for live technical support.

Q: Why is primary/secondary piping used?

A: Primary/secondary piping has been used since the 1950s. The fundamental concept is to “uncouple” circulators from each other in a system. Primary/secondary piping allows any pump in the system to operate with virtually no tendency to induce flow in any other loop other than its own. It can also stop circulation in non-active zones.

Q: How does outdoor reset work?

A: Estimated heat loss is based on a minimum design temperature that is relative to the coldest weather in a given geographic area. For example, if your geographic area has a design (outdoor minimum) temperature of 10° F, 180° F boiler water temperature may be required to overcome the heat losses of the building. However, the temperature on most days never drops to the minimum design temperature. The outdoor reset feature reduces the boiler water temperature target as the outdoor temperature rises. So, when it is 10° F outside, the boiler delivers the set 180° F water temperature. However, when it is 50° F outside, the boiler target water temperature may only be 140° F (based on a 1:1 ratio). The boiler shuts off sooner based on the lower water temperature target, which reduces energy consumption and extends the life of the boiler.

Q: Why do I need a 24” minimum distance from the steam boiler water line to the boiler header?

A: A 24” minimum distance assures dry steam is delivered to the system. With wet steam, as water condenses from the steam and moves along the pipe, water hammer (the loud banging sound resulting from water and steam moving in the same pipe) can occur. A distance less than 24” greatly increases the risk of wet steam being carried into the system, and reduces the water line.

Q: Can the CGa or PFG draft hood be shortened to accommodate a lower chimney opening?

A: No, the draft hood is specifically tested and provides the correct draft for proper burner operation. Shortening the draft hood would alter the burner draft and may cause the burner to operate with improper combustion. An approved alternative is to install an elbow directly on top of the draft hood and mount the damper horizontally.

Q: Why is the 1 amp glass fuse blown in the damper harness on a CGa, EG, or PFG standing pilot boiler?

A: The fuse is designed to blow (open) whenever a damper is installed and power is initially applied to the boiler. DO NOT REPLACE THE FUSE! This is a safety precaution. Blowing the fuse prevents the damper bypass plug from being installed.

Q: Can continually adding make-up water destroy a cast iron boiler?

A: Oxygen corrosion is a definite factor in many returned “defective” castings with leaks. Oxygen corrosion and lime scale is often caused by continually adding fresh, oxygen-rich water to a boiler system with an automatic fill that replenishes water when the system becomes low. Installing a water meter to the incoming water supply can show exactly how much water is being added.

