

CycleGard™

The Best Steam Boiler Protection on the Market!

- Intermittent Level Test – Maximum Protection for Foaming Boilers
- 15 Second Burner Off Delay
- 30 Second Burner On Delay
- Automatic Reset
- Low Water Indicating Light
- Direct Boiler Mounting – Eliminates Blowdowns

Today's steam boilers contain less water and generate more steam than ever before! Combined with mineral content, rust and oils from the system, foaming and volatile water conditions can occur and make the true water level difficult to detect. The CycleGard is the premier low water cut-off on the market designed specifically to address the needs of today's steam boilers, providing *maximum protection* against problems related to foam and volatile water.

How CycleGard Works

While continuously monitoring the water level, CycleGard adds protection against false signals created by foam and volatile

water conditions. At preset intervals, CycleGard's Intermittent Level Test removes power from the burner for 60 or 90 seconds. During this test, foam dissipates and the water level stabilizes— allowing CycleGard to monitor the true water level in the boiler assuring accurate operation.

CycleGard's intermittent level test function has made it the industry standard for steam boiler protection.



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Intermittent Level Test Function

To provide added protection to today's smaller boilers, the CycleGard low water cut-off is equipped with an Intermittent Level Test. This feature adds protection against false signals that can be caused by foam and volatile water conditions inside the boiler.

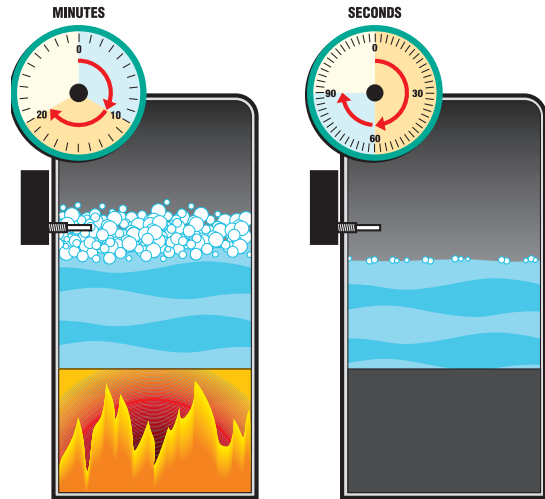
How do you know if the boiler is foaming?

Even when water in the gauge glass appears calm and stable, water in the boiler can be experiencing significant foaming and volatility.

If you have ever drained the boiler water to the bottom of a gauge glass and the low water cut-off did not shut down the burner, you were likely experiencing a foaming condition inside the boiler. To determine if that is the case, end the call for heat (but keep power to the system) after lowering the water level. Odds are, the Low Water light will come on in about 30 seconds. You can then re-establish the call for heat; the control will remain in low water and prevent the burner from firing.

This simple test proves two things. First, it proves that something (foam) prevented the low water cut-off from detecting the water level when the burner was running, but not when the burner was off. Second, it proves the effectiveness of the Intermittent Level Test equipped on all CycleGard cut-offs. The CycleGard gets an accurate reading at regular intervals and protects the boiler like no other low water cut-off.

Despite the unprecedented level of protection offered by CycleGard controls, Hydrolevel still strongly recommends that you clean the boiler when a foaming condition is discovered. Proper cleaning of the boiler – following the boiler manufacturer's instructions – will greatly reduce or eliminate foaming and provide for optimal steam performance.



CycleGard Model	Voltage	Frequency of Intermittent Level Test	Duration of Intermittent Level Test
CG400-2090*	24 VAC	every 20 minutes	90 seconds
CG450-1560**	120 VAC	every 15 minutes	60 seconds
CG450-2060	120 VAC	every 20 minutes	60 seconds

*Standard on most gas boilers

**Standard on most oil boilers

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