



Three Functions. One Control.

Temperature Limit

Universal replacement for common Aquastat models*

- Provides cold-start and tankless-coil operation
- Easy to set, dial-type limit settings
- Industry standard wiring designations

Boiler Reset

Lowers the boiler temperature to save fuel without sacrificing comfort

- Easy to install – no outdoor sensor required
- Easy to set – just dial in the number of heating zones
- Works with virtually any boiler

Low Water Cut-Off

Protects boilers from damaging low water conditions

- Automatically activated when installed with Hydrolevel Electro-Well™
- Saves cost and time associated with installing a separate control.



MODEL 3200 for gas-fired boilers
MODEL 3250 for oil-fired boilers



Innovators in Boiler Protection
Since 1965

On new boilers...

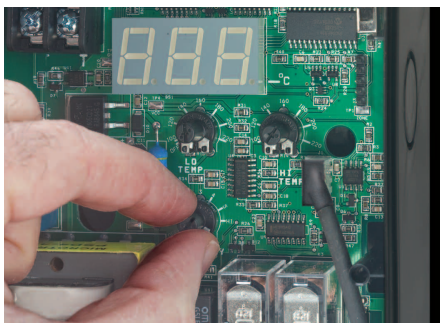
Install **Fuel Smart HydroStat®** with a Hydrolevel Electro-Well™ to meet local and state low water cut-off requirements and to provide your customer with fuel-saving Thermal Targeting technology.

On existing boilers...

Replace common Aquastat® models in the field to quickly upgrade older boilers with **Fuel Smart HydroStat®**. If you choose to add the protection of a low water cut-off, just replace the immersion well with a Hydrolevel Electro-Well™ (sold separately).

■ Dial-Type Settings

Allows for quick and easy set-up.



■ Dynamic Display



Continually displays boiler temperature. Changes to indicate control settings when they are adjusted. Displays current settings when the Test/Settings button is pressed. Displays **Pur** when control is in Thermal Pre-Purge mode.

■ Test/Settings Button

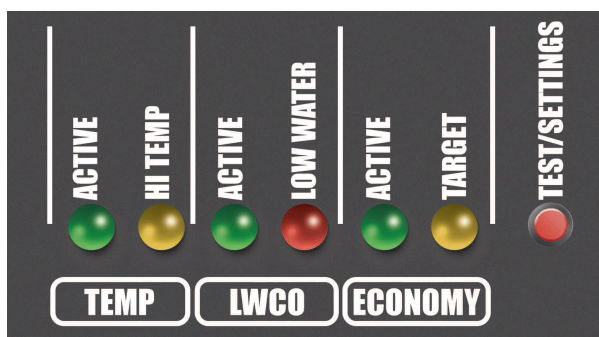
- Tests the low water cut-off operation when installed with an Electro-Well™.
- Displays all settings (High Limit, Low Limit, Economy, current Target Temp and Thermal Pre-Purge).

■ Indirect Water Heater Compatible

Bypasses the Thermal Targeting function on calls from the indirect water heater allowing the boiler to fire to the high limit setting ensuring quick response.

■ Diagnostic Lights

Continually indicates which features are active and if the control is holding the burner off for any reason. No complicated menus to scroll through.



- **TEMP ACTIVE** – Indicates the control is powered and the temperature function is active.
- **TEMP HI TEMP** – Illuminates any time the burner is off as a result of the boiler reaching the high limit setting.
- **LWCO ACTIVE** – Illuminates when the control is providing low water cut-off protection. This function is activated by installing a Hydrolevel Electro-Well™. This LED will not illuminate when the control is installed on a standard immersion well.
- **LWCO LOW WATER** – Indicates a low water condition in the boiler.
- **ECONOMY ACTIVE** – Indicates that the Economy dial is turned on and that Thermal Targeting function is active.
- **ECONOMY TARGET** – Illuminates any time the burner is off as a result of the boiler reaching the Target temperature range calculated by the control.

■ DHW Priority with Override Protection

Provides priority to the indirect water heater. Allows zone heating after a sustained 30 minute call from the indirect water heater.

■ Circulator Hold-Off

Delays circulator on a call for heat until the boiler temperature reaches 120°F to reduce potential for condensing.

■ Call for Heat Indicator



Illuminates on any call for heat.

How Fuel Smart HydroStat® Saves Fuel

Thermal Targeting

The boiler and radiation installed in a house is designed to keep the house warm on the coldest day of the year. For every other day, the heating system is essentially larger than it needs to be. With conventional boiler controls, this “oversized” boiler burns more fuel than is needed to keep the house warm. Fuel Smart HydroStat® uses Thermal Targeting technology to analyze thermostat activity and continually evaluate how much heat the house requires. When it's very cold outside, the heat demand is high and Fuel Smart HydroStat® will raise the boiler's Target temperature to provide needed heat to the home. When the outside temperature is milder, the heat demand is lower. During these periods, Fuel Smart HydroStat® will lower the boiler's Target temperature – saving fuel – while continuing to provide comfort to the home.

Thermal Pre-Purge

To further enhance fuel efficiency, Fuel Smart HydroStat® is also equipped with a Thermal Pre-Purge feature. When activated, the control will purge standing heat in the boiler at the start of any thermostat call, supplying the “free” latent energy to the heating zone that is calling. If this latent heat is not sufficient to satisfy the thermostat, the control will then energize the burner. This feature works with single and multi-zone heating systems utilizing circulators or zone valves and requires no change in wiring.



Electro-Wells are available in a variety of sizes to fit virtually any boiler

To enable HydroStat's low water cut-off function, Electro-Wells are available in eight sizes to replace standard immersion wells.

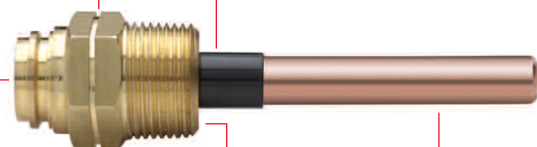
Machined Identification Groove. Distinguishes Electro-Well™ from standard immersion well without the need to remove from boiler.

Electrical Insulator. Made from special high temperature resin, it's the key to Fuel Smart HydroStat's low water cut-off capability.

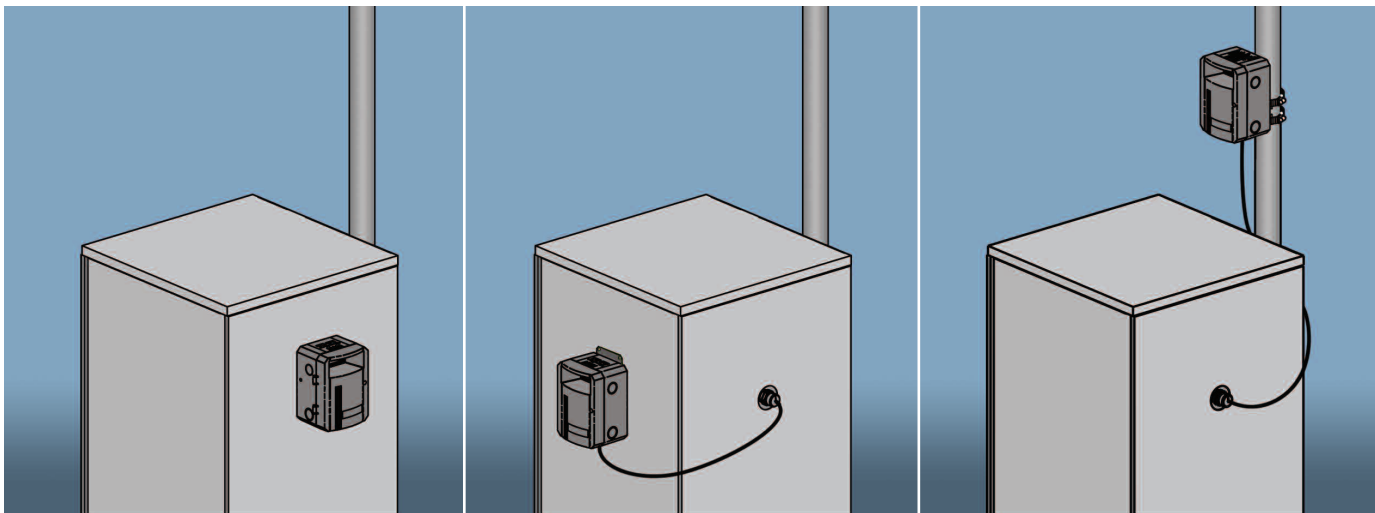
Reverse Compatible Mounting Method. Industry standard immersion well attachment method allows HydroStat® to be mounted on an Electro-Well™ or standard immersion well. Conversely, virtually any Aquastat® can be mounted on the Electro-Well. Great for tackling no heat calls no matter what control you have.

Available in 1/2" and 3/4" NPT

Copper Immersion Tube. Strong and proven, it provides more conductive surface area than any other probe-type low water cut-off.



Mounting



Standard Mounting

Control attaches directly to immersion well or Electro-Well™ (sold separately).

Wall/Jacket Mounting Kit

Control attaches to any flat surface. Kits with 2', 4', 10' or 20' sensors sold separately.

Pipe Mounting Kit

Control attaches to supply pipe. Kits sold separately.

Specifications and Settings – Model 3200 and Model 3250

High Limit: 100°F - 220°F

Low Limit: Off or 110°F - 200°F

Differentials: Automatic – will vary between 10° and 20° subtractive based on control settings and boiler temperature.

Economy: • Settings:

OFF	Operates like standard limit control with no boiler reset function
LO	Provides minimal efficiency
1	Default setting for single zone system
2	Default setting for two zone system
3	Default setting for three zone system
4	Default setting for four zone system
5	Default setting for five zone system
HI	Provides maximum efficiency

- Minimum Operating Temp: Target Less Diff = 135°F
- Max Target Temp: Equal to High Limit Setting.

Input Voltage: 120 VAC, 60 HZ

Burner Contacts: Model 3200: 30 VA@24 VAC
Model 3250: 7.4 FLA, 44.4 LRA@120 VAC

Circulator Contacts: 5.8 FLA, 34.8 LRA@120 VAC

