

# Packaged Water Heater



## Technical Bulletin / Product Enhancement

### *Solid State Operating Controller—Cem-Trol® II*

Cemline® Cem-Trol® II Solid State Water Heater Control Module incorporates operating and limit functions in one solid state controller. This controller replaces the current controls used on Cemline Packaged Water Heaters. The controller features a LCD touch screen display of the temperature and on board operating PID temperature control along with high temperature safety cut offs and alarm indications. The Cem-Trol® II simplifies the control of Cemline Packaged Steam and Boiler Water Fired Water Heaters, enhances the look of the product, and follows the industry trend to touch screen and solid state controls.



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Cemline Cem-Trol® II Solid State Water Heater Control Module combines all temperature control and limit functions for Cemline Packaged Steam and Boiler Water Fired Water Heaters into one simple to use and easy to understand control module.

## Features:

### PID Control Signal

- PID Control Signal used to modulate an electronic control valve or to control I-P transducer modulating an air operated control valve. The PID controller allows for precise temperature control of the water heater.

### LCD Touch Screen Display

- Display of operating temperature, set point temperature, control output signal along with user friendly interface of the controller.

### On-Off Switch

- Allows for local on/off and is convenient for service in the unlikely event of service.

### Single Point Wiring

- Only one 120 VAC connection required to the unit, integral circulation pump pre-wired to control panel.

### Temperature Readout

- The Cem-Trol® II features an easy to read LCD digital readout of the water temperature.

### High Temperature Set Point

- Closes control valve in the event of a high temperature situation.

### Secondary High Temperature Set Point

- Opens an optional water solenoid to dump over heated water down the drain.

### Remote Temperature Setting

- Building Automation System can remotely set the temperature using a 4-20 mA signal.

### Remote Temperature Readout

- Building automation system can remotely read the temperature using 4-20 mA signal

### Modbus Interface

- Building automation system can remotely communicate with the CEM-TROL® II via an RS-485 connection.

### LCD Display of Functions

- Power On
- Primary High Temperature Indication
- Secondary High Temperature Indication

### Contacts to notify BAS (Building Automation System) of Functions

- Power On
- Primary High Temperature
- Secondary High Temperature

### Remote ON/OFF Control

- Building Automation System can remotely turn the unit ON/OFF via a dry contact.



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## Ratings:

Input: Selectable 120/220v AC - 50/60 Hz

Output Contacts: 1 amp at 24v AC

Building Automation outputs: Dry contacts, NO  
0.5 amp maximum, non inductive

Display: LED display with resolution of 0.3% of scale

Operating water temperature range: 32°F - 200°F

Operating ambient temperature: Min 32°F max 140°F

Operating Humidity: 5% to 95% relative humidity  
(RH) non-condensing NEMA 4 enclosure

