



**Model CHS**

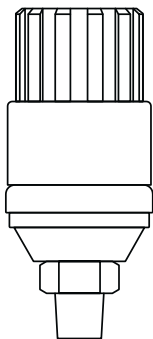
## Operation

After installation, setting the power switch to “ON” activates the control. The four-line LCD display indicates the various modes of the control, sensed pressure and/or temperatures, burner run time, and any warning messages. The *IntelliCon*<sup>®</sup>-*CHS* will monitor the boiler steam pressure with a pressure transducer. If the boiler also supplies domestic hot water through an internal coil, a separate sensor will be mounted to the supply pipe of the internal domestic hot water coil. When the burner is called to run, the *IntelliCon*<sup>®</sup> will interrupt that signal and dynamically delay the burner from firing based upon a load analysis. The load analysis is determined by evaluating the steam pressure drop vs time, as sensed by the pressure sensor. Subsequent dynamic cycle management of the burner results in less boiler cycling and allows the burner to deliver heat more efficiently per burner run cycle.

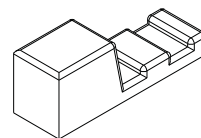
LCD (Message) Screen

On-Off/Bypass Switch

Power/Fault Indicator LED



Pressure Sensor



Temperature Sensor

## First-Line Display Messages & Meanings

```
STANDBY MODE
PSI  DOM.  RTN.
06.9  135°  145°
BURNER HRS: 016323.7
```

The boiler's operating control is satisfied and does not require the burner to run.

```
ECONOMIZER MODE
PSI  DOM.  RTN.
06.9  135°  145°
BURNER HRS: 016323.7
```

The burner is requested to fire, but the *IntelliCon*® senses there is available heat to be used before burning fuel, so it delays the start.

```
HEATING MODE
PSI  DOM.  RTN.
06.9  135°  145°
BURNER HRS: 016323.7
```

The burner is running.

```
HEATING / LO LIM
PSI  DOM.  RTN.
01.5  135°  145°
BURNER HRS: 016323.7
```

The unit switched the burner on (the burner is running) due to an increase in load. The pressure and/or water temperature at the sensor is below the heating low limit setpoint.

## Second & Third-Line Display Messages & Meanings

```
STANDBY MODE
PSI  DOM.  RTN.
06.9  135°  145°
BURNER HRS: 016323.7
```

PSI / KPa - Heating Steam Pressure: The pressure measured by the pressure sensor is displayed in PSI or KPa.  
DOM. - Domestic Water Temp: The temperature measured by the domestic hot water outflow sensor is displayed in degrees F or C.  
RTN. - Return Water Temp: The temperature measured by the boiler return water sensor is displayed in degrees F or C.

**NOTE:** "N/U" indicates no sensor was detected during power-up.

## Fourth-Line Display Messages & Meanings

```
STANDBY MODE
PSI  DOM.  RTN.
06.9  135°  145°
STBY  HRS: 000000.0
```

Total accumulated time the *IntelliCon*® was in standby because there was no call from the operating control.

```
STANDBY MODE
PSI  DOM.  RTN.
06.9  135°  145°
ECONO HRS: 000000.0
```

Total accumulated economizing time.

```
STANDBY MODE
PSI  DOM.  RTN.
06.9  135°  145°
BURNER HRS: 000000.0
```

Total accumulated burner run time.

```
STANDBY MODE
PSI  DOM.  RTN.
06.9  FAIL  145°
**SYSTEM BYPASSED**
```

In the event that a sensor fails, the power indicator will blink and the unit will return full control of the boiler to the operating control. The display will indicate which sensor has failed and the "SYSTEM BYPASSED" message will be displayed.

## ***Troubleshooting***

After installation and checkout, the controller does not require maintenance. If you do not have heat or hot water, locate the "ON/OFF" switch on the front of the *IntelliCon*<sup>®</sup> and place switch to "OFF/BYPASS". The LCD screen will go blank indicating the *IntelliCon*<sup>®</sup> is no longer in the boiler control circuit. If your boiler doesn't start, there is a problem with the boiler and you should call your boiler service company. *If it does start, leave it in "OFF/BYPASS" and call your installer.*

If the message "TIMER FAULT" is displayed, the switch should be placed into the "OFF/BYPASS" position and service called.