

*A smart way to save on your commercial hot water heating costs.*



# **IntelliCon®-LCH**

Light Commercial Hot Water Heating System Fuel Economizer



**IntelliCon®-LCH** is a microprocessor-controlled, fuel-saving device for light-commercial hot-water (hydronic) heating systems. *IntelliCon-LCH* reduces fuel consumption, wear on parts, flue emissions and electrical usage, when installed on any new or existing gas or oil burner. *IntelliCon-LCH* saves energy by adjusting the burner run pattern to match the system's "heat load". Its action is similar to the industry-accepted method of "outdoor-air temperature reset control," but does not require an outdoor-air temperature sensor or the need to profile the building in order to adjust the "reset" controller properly. *IntelliCon-LCH* determines the "heat load" by using an easily installed strap-on temperature sensor that monitors the boiler's out-flow water temperature and the rate that this temperature is changing.

## **Features**

- For commercial systems rated up to 2.5 million BTU
- Illuminated LCD display shows fuel consumption savings, operating modes, system diagnostics and operating temperatures
- Patented process reduces fuel consumption—typically 10% to 20%
- UL listed, "Energy Management Equipment"
- Increased savings without replacing or upgrading costly system components
- "State-of-the-art" microcomputer controller
- Easily installed plug-in sensor(s) (includes 1 required sensor)
- Simple installation by qualified installer
- No programming or follow-up visits required
- Maximum year-round efficiency
- Reduces maintenance and extends boiler life
- Fail-safe operation
- Guaranteed to save energy
- 15-year replacement warranty for breakdowns or defects



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### Specifications

**Mounting:**

In any position via molded-on 1/2"  
Electrical Fitting

**Size:**

4"H x 4"W x 2 1/2"D

**Operating Humidity:**

5% - 95% Non-Condensing

**Operating Temperature Range:**

-10°F - +120°F

**Power Input:**

24/115/220 VAC @ 5W

**Control Circuit:**

24 VAC/DC, 115/220 VAC

**Relay Contact:**

10A @ 220VAC General Purpose

**UL Listed,**

"Energy Management Equipment"

**Made in U.S.A.**

Any heating system must be able to provide acceptable comfort at the lowest anticipated outdoor temperatures. In the U.S. and abroad, most light commercial boilers have a heat capacity between 1.5 to 2 times larger than that needed to maintain the facility's temperature on those extreme days. Due to this over-sizing of the boiler, the burner will cycle on and off repeatedly to prevent overheating of the system water.

Using our patented technology, *IntelliCon<sup>®</sup>-LCH* increases "system efficiency." Thus, the heating system uses less fuel to generate the same amount of heat. This is done by dynamically changing the aquastat's effective dead-band based upon the measured "heating load." This causes the average water temperature to be varied (depending upon the measured load), and is accomplished by extending the burner's "off-time." Extending the "off-time" also results in longer burns that are more efficient and a reduction in burner on/off cycling. Just as computer control has increased the gas mileage of automobiles, *IntelliCon-LCH* improves the fuel utilization of heating systems by supplementing the antiquated on/off control action of the aquastat with the analysis and control capabilities of a computer.

Service personnel will appreciate the illuminated LCD readout, which displays the fuel consumption savings and other useful information relative to the unit's status, system temperatures and diagnostics, all of which are useful during routine system maintenance..

Installation is simple for a qualified service technician and does not require any programming or adjustments. *IntelliCon-LCH* typically reduces fuel consumption 10% to 20% and decreases burner cycling 30% or more. After installation, *IntelliCon-LCH* does not require any maintenance or seasonal programming.



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