A smart way to save on your commercial heating costs.

# intelliCon°-LCS

Light Commercial Steam Heating System Fuel Economizer



IntelliCon®-LCS is a microprocessor-controlled, fuel-saving device for light-commercial steam heating systems. IntelliCon-LCS reduces fuel consumption, wear on parts, flue emissions and electrical usage, when installed on any new or existing gas or oil burner. IntelliCon-LCS 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-LCS determines the "heat load" by using an easily installed pressure sensor that monitors the boiler's steam-pressure and the rate that this pressure is changing.

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#### **Features**

- 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
- For commercial systems rated up to 2.5 million BTU
- LCD display shows operating modes, diagnostics, system pressure/temperature
- 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



### **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.

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Any heating system must be able to provide acceptable comfort at the lowest anticipated outdoor temperature. 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 continuously to maintain the desired steam pressure.

Using our patented technology, *IntelliCon®-LCS* increases "system efficiency." Thus, the heating system uses less fuel to generate the same amount of heat. This is done by dynamically changing the pressure-controller's effective dead-band based upon the measured "heating load." This causes the average steam pressure 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®-LCS* improves the fuel utilization of heating systems, by supplementing the antiquated on/off control action of the pressure-controller with the analysis and control capabilities of a computer.

Service personnel will appreciate the LCD readout, which displays useful information relative to the unit's status, steam pressure and domestic hotwater temperature (if the optional sensor is installed), which can be useful for system diagnostics and maintenance.

*IntelliCon*<sup>®</sup>-*LCS* typically reduces fuel consumption 10% to 20% and decreases burner cycling 30% or more. Installation is simple for a qualified service technician and does not require any programming or adjustments. After installation, *IntelliCon*<sup>®</sup>-*LCS* requires no maintenance.



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