

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



# IntelliCon®-CHW

Commercial Hot Water Heating System Fuel Economizer



**IntelliCon®-CHW** is a microprocessor-based fuel-saving control for commercial hot-water heating systems. *IntelliCon-CHW* reduces: fuel consumption, wear on parts, flue emissions and electrical usage, when installed on any new or existing gas or oil burner. *IntelliCon-CHW* uses intelligent Dynamic Cycle Management (DCM) technology to save energy by adjusting the burner run pattern to match the system's "heat load."

## Features

- For systems with ratings above 2.5 million BTU
- Illuminated LCD display shows fuel consumption savings, operating modes, system diagnostics and operating temperatures
- Dynamic Cycle Management (DCM) technology reduces fuel consumption—average savings 15.6%
- Short payback period—less than 18 months
- UL listed, "Energy Management Equipment"
- Increased savings without replacing or upgrading costly system components
- "State-of-the-art" microprocessor-based control
- Easily installed plug-in sensor(s) (includes 1 required sensor)
- Simple installation by qualified heating professional
- Fail-safe operation
- Easily programmed for maximum savings
- Reduces maintenance and extends boiler life
- Guaranteed to reduce fuel consumption by 10%
- 15 year limited warranty against breakdowns or defects





## Specifications

### Mounting:

On Vertical Surface via 3-point Mounting System

### Size:

7 1/2"H x 9 1/2"W x 4"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.

# IntelliCon®-CHW

## Commercial Hot Water Heating System Fuel Economizer

A heating system must be able to provide acceptable comfort at the lowest anticipated outdoor temperature. In the U.S. and abroad, most commercial boilers have a heating 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. Even on boilers with proportional controls, once the heating load goes below the burner's low-fire point, the burner will cycle on and off to prevent overheating of the system water.

*IntelliCon®-CHW* uses Dynamic Cycle Management (DCM) Technology to save energy by adjusting the burner run pattern to match the system's "heat load." This 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" control properly. *IntelliCon-CHW* determines the "heat load" in real time by using an easily installed strap-on temperature sensor that monitors the boiler's out-flow water temperature and the rate this temperature is changing.

By using our patented DCM Technology, *IntelliCon-CHW* increases "system efficiency." Thus, the heating system uses less fuel to generate the required 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 vary (depending upon the measured load), and is accomplished by extending the burner's "off-time." Extending the "off-time" also results in longer, more efficient burn cycles and reduces burner on/off time. Just as computer controls have increased the gas mileage of automobiles, *IntelliCon-CHW* 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.

Facility engineers will appreciate the illuminated LCD readout, displaying 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.

*IntelliCon-CHW* typically reduces fuel consumption 10% to 20% and decreases burner cycling by 30% or more.

Installation is simple for a qualified heating technician. The *IntelliCon-CHW*'s small 7 1/2"H x 9 1/2"W x 4"D size allows it to be installed almost anywhere. After installation, *IntelliCon-CHW* does not require any maintenance or seasonal programming.



303 Sunnyside Boulevard, Suite 75, Plainview, NY 11803-1508, USA  
Telephone: (516) 676-0777 • Toll Free: (866) 216-0777 • Fax: (516) 676-2640  
www.intellidynellc.com

©2009 Intellidyne and the *IntelliCon* logo are registered trademarks of Intellidyne LLC.  
The Energy Star logo is a registered trademark courtesy of Energy Star Corporation. All rights reserved.

200902