



ENERGY & WATER EFFICIENCY

# E-con 325

Hot Water Heating System Fuel Economizer

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

## E-con 325

Hot Water Heating System Fuel Economizer



*E-con* is a microprocessor-based, fuel-saving control for hot water (hydronic) heating systems. E-con 325 reduces fuel consumption, wear on parts, flue emissions and electrical usage, when installed on any new or existing gas or oil burner. E-con 325 uses intelligent Dynamic Cycle Management (DCM) technology to save 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. E-con 325 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 systems up to 400,000 BTU
- Dynamic Cycle Management (DCM) technology reduces fuel consumption—typically 10% to 20%
- Illuminated LCD display shows fuel consumption savings, operating modes, system diagnostics and operating temperatures
- Short payback period—typically 12 to 24 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 installer
- No programming or follow-up visits required
- Maximum efficiency year-round
- Reduces maintenance and extends boiler life
- Fail-safe operation
- Guaranteed to reduce fuel consumption
- 10-year replacement warranty for breakdowns or defects

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## Specifications

### Mounting:

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 @ 220 VAC General Purpose

### UL cUL Listed:

"Energy Management Equipment"

Made in USA

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## Hot Water Heating System Fuel Economizer

A heating system must be able to provide acceptable comfort at the lowest anticipated outdoor temperatures. In the U.S. and abroad, most residential boilers have a heat capacity between 1.5 to 2 times larger than that needed to maintain the room 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 during any call for heat.

Using our intelligent Dynamic Cycle Management (DCM) Technology, E-con 325 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, E-con 325 with DCM Technology 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.

Installation is simple for a qualified service technician and does not require any programming or adjustments. E-con 325 typically reduces fuel consumption 10% to 20% and usually decreases burner cycling 30% or more. After installation, the E-con 325 does not require any maintenance or seasonal programming.

