

*A smart way to save on your commercial forced air heating costs.*



# **intelliCon<sup>®</sup>-CFA**

Commercial Forced Air Heating System Fuel Economizer



**IntelliCon<sup>®</sup>-CFA** is a microprocessor-controlled fuel-saving device for commercial forced-air heating systems. **IntelliCon-CFA** reduces: fuel consumption, wear and tear on parts, flue emissions and electrical usage, when installed on any new or existing forced air furnace.

## **Features**

- Patented process reduces fuel consumption – typically 10% to 20% or more
- Saves fuel without replacing or upgrading costly system components and without violating manufacturers' warranties
- Saves energy without sacrificing comfort
- Guaranteed to reduce fuel consumption
- Short payback period – typically 4 to 18 months
- Field-tested and validated energy saving control
- Works with any thermostat including setback and multi-zone thermostats
- UL listed, "Energy Management Equipment"
- "State-of-the-art" microcomputer controller
- Easily installed plug-in sensor(s) (includes 1 required sensor)
- LCD display shows operating modes, diagnostics, system temperatures
- Simple 60 – 90 minute installation by qualified installer
- Fail-safe operation
- No programming or follow-up visits required
- Maximum efficiency year-round
- Reduces maintenance and extends furnace life
- 15-year replacement warranty for breakdowns or defects



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## **Commercial Forced Air Heating System Fuel Economizer**

### **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.**

A heating system must keep a workplace comfortably warm at the coldest anticipated outdoor temperature. Most forced-air heating systems in the U.S. and abroad are between 50% and 100% larger than necessary for maintaining a comfortable temperature on most days when the temperature is not as low as those extreme days. This excess capacity causes the burner to cycle on and off continuously to prevent the furnace from overheating. It also causes uncomfortable swings in temperature space. Even on furnaces with programmable setback thermostats or multi-zone controls, the burner cycling is not optimized. This burner cycling pattern wastes fuel and electricity while increasing the wear and tear on the entire heating system.

When a forced air furnace receives a call for heat, the burner ignites, and the temperature starts rising in the heat exchanger. The *IntelliCon-CFA* monitors this temperature rise using its own sensors. The sensor tracks the temperature rise throughout the burner cycle. As the heat exchanger warms up, the temperature rise begins to level out, indicating that the output air temperature is stabilizing. When a constant temperature is reached, the *IntelliCon-CFA* shuts the burner off. While in "Economy" mode, burner ignition is prevented even if the thermostat continues to call for heat. Once the sensed temperature drops to the calculated optimal temperature, the burner is again allowed to fire. This firing cycle repeats until the call for heat is satisfied.

The intelligent interaction between the *IntelliCon-CFA*, the thermostat and the burner ensures that the heating system provides a more even and comfortable level of heating while using less fuel. *The IntelliCon-CFA* ensures that the furnace delivers the appropriate amount of heated air necessary to heat the space at the desired temperature without noticeable and uncomfortable temperatures changes. At the same time, the reduction in burner runtime measurably reduces fuel consumed and generates significant fuel bill savings.

Service personnel will appreciate the LCD readout, which displays useful unit status information, including discharge air temperature and, optionally, return air temperature. This display is useful for system diagnostics and maintenance.

*IntelliCon-CFA* typically reduces fuel consumption 10% to 20%.

Installation by a qualified service technician takes about 60 - 90 minutes. The *IntelliCon-CFA's* small 4"H x 4"W x 2 1/2"D size allows it to be installed almost anywhere. After installation, *IntelliCon-CFA* does not require any adjustment, programming or maintenance and will not violate the manufacturers' warranty.



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