SmartCom

ENERGY MANAGEMENT CONTROL

AMBIRAD

ENERGY EFFICIENT HEATING SYSTEMS

SmartCom

Introduction

Environmental issues dictate that buildings need to operate as effectively and efficiently as possible. Initiatives such as achieving compliance with the LEED (Leadership in Energy and Environmental Design) green building rating system, which encourages the adoption of green building practices, has resulted in consulting engineers, contractors and end users becoming increasingly energy conscious.

AmbiRad has introduced SmartCom, the intelligent energy management controller, in order to satisfy the growing need for higher efficiencies and to complement the development of efficient heating systems.

Simple to program and operate, SmartCom provides cost-effective energy management for small single heater installations through to large multi-zone applications requiring centralized control.

Features & Benefits

- **Easy to program – simple multi-key entry and on-screen prompts**

- **Controls heating and cooling**

- **Reduced installation time – units can be networked via screened cable**

- **Integral warm air temperature sensor**

- **Optional remote air sensor, remote black bulb sensor, duct sensor or outdoor sensor**

- **Alphanumeric backlit display with angled viewing**

- **Remote burner lock out facility**

- **Easy-set overtime and holiday periods**

- **Hours run metering and service data logging**

- **Compact IP30 enclosure complete with top or bottom cable entry**

- **Security – optional passwords prevent unauthorized access to unit**

- **Dual temperature settings for sports/non-sports comfort heating**
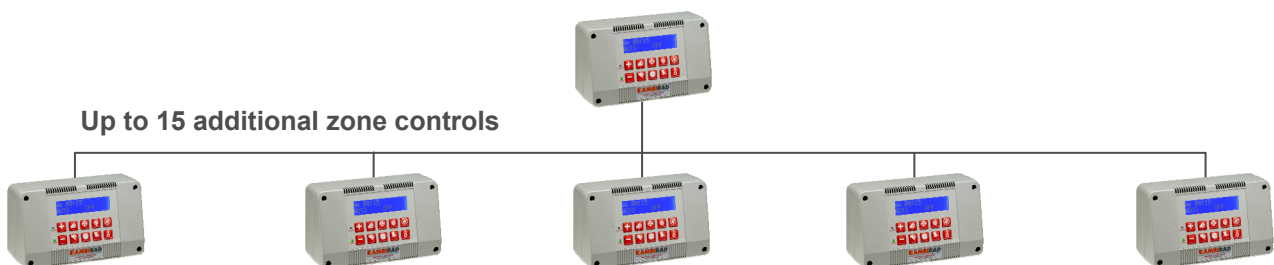
SmartCom Functions

Suitable for use with both standard radiant tube, standard warm air heaters and air handling units.
Functions include:

- **Self adapting optimized start**

- **Volt free remote on/off**

- **Ability to communicate with up to 15 slave units which may be centrally controlled by one master control**

- **Single stage heating/cooling**

- **Hi/lo heat (two) stage heating (warm air only)**

- **Three stage cooling or ventilation**

- **Fully modulating heating and cooling**

- **Clock update, temperature functions and program settings**

- **Zonal lock out indication and reset Functions**

- **Multi-zone or split zone (radiant applications)**

Zone 1 master control

Up to 15 additional zone controls

Remote Sensor Options

Radiant Black Bulb Sensors

Essential for efficient radiant heating systems, black bulb sensors enhance the energy saving capability by measuring the effective radiant temperature within the space being heated.

Warm Air Sensors

Internal and External controller for applications where the temperature sensor must be located away from the controller. Four remote sensors may also be used to provide averaging control with the integral sensor.

Warm Air Duct Sensors

The sensor may be located in the return air duct (prior to any mixing with fresh air). Alternatively for make up air applications requiring a constant supply air temperature the duct sensor may be located in the supply duct to control hi/lo or modulating burners (SmartCom Multi-Zone only).

Applications

Universal applications - compatible with:

• Radiant heating

• Warm air heating

• Single heaters

• Air handling units

• Air turnover units

Modes Of Operation

Auto mode

For fully automatic control of combined heating and free cool ventilation or heating and cooling

The SmartCom panel will control the burner plus integral fresh air dampers or cooling coils where appropriate

It also ensures correctly sequenced operation of heating ventilation or cooling

Off mode

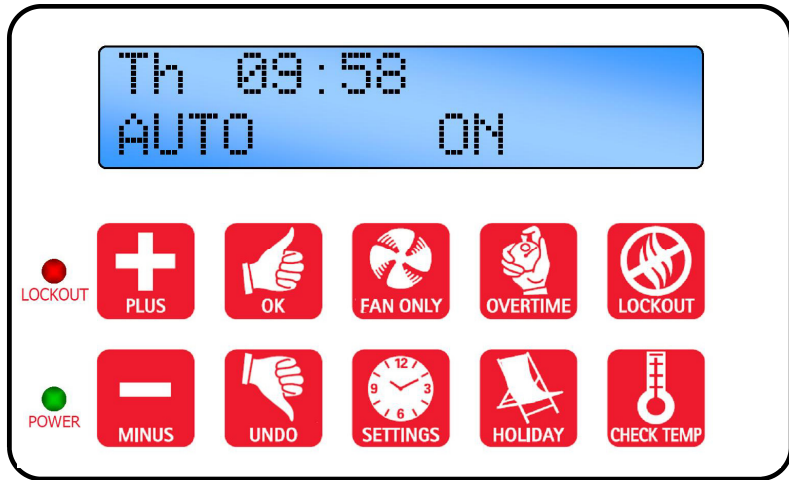All functions are switched off

Heat only

For control of simple heating only units the SmartCom standard provides on/off burner control and the SmartCom advanced unit provides hi/lo or modulating burner control

Fan only

Provides two stages of ventilation during clock 'on' periods. The vent only facility is temperature controlled ensuring that it only operates if the temperature rises above the defined set point. A further 2ºF rise in temperature operates the second stage vent where applicable

Frost only

Provides permanent frost protection at 40ºF (non adjustable). When the controller is set to holiday mode it will operate as frost only

Display: Th 09:58 AUTO ON

LOCKOUT
POWER

| PLUS | OK | FAN ONLY | OVERTIME | LOCKOUT |
| MINUS | UNDO | SETTINGS | HOLIDAY | CHECK TEMP |

PLUS — Increase a value

MINUS — Decrease a value

OK — Accept a newly entered value

UNDO — Press once to cancel overtime, vent off and holiday modes or a newly entered value not yet OK'd. When in programming press once to revert to normal operation

SETTINGS — Initialize programming sequence

FAN ONLY — Initiate a timed period of forced ventilation

OVERTIME — Extend a period of heating

HOLIDAY — Set the control to holiday mode

CHECK TEMP — Toggle the display between set and actual room temperatures

LOCKOUT — Clear a flame failure lockout

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