

SmartCom³

BENSON HEATING



Energy Management
Control

Free Blowing and
Ducted Warm Air Units

Radiant Tubes

SmartCom³

Introduction

Environmental issues dictate that buildings need to operate as effectively and efficiently as possible. Initiatives such as the Climate Change Levy and the subsequent introduction of the Government's Energy Technology List (ECA scheme), together with upgrading Part L of the Building Regulations, have resulted in consulting engineers, contractors and end users becoming increasingly energy conscious.

Benson Heating has introduced SmartCom³, an 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, SmartCom³ provides cost-effective energy management for small single heater installations through to large multi-zone applications requiring contained control.



Features & Benefits

- Easy to program – simple multi-key entry and on-screen prompts
- Suitable for controlling heating and/or 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 screen for easy 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 unauthorised access to unit
- Dual temperature settings for sports/non-sports comfort heating

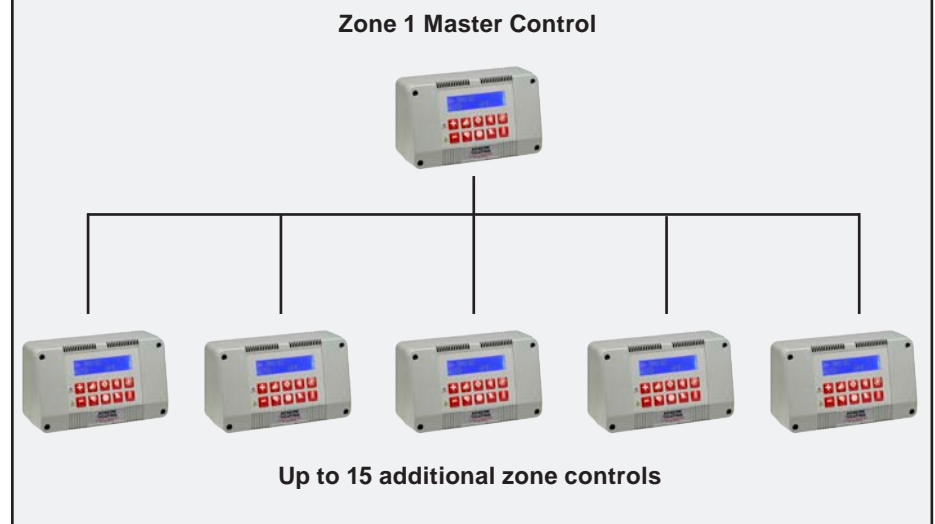
SmartCom³ Functions

Suitable for use with both standard warm air heaters and radiant tubes together with ducted installations.

Functions include:

- Self adapting optimised start
- Volt free remote on/off
- Ability to communicate with up to 15 slave units which may be centrally controlled by one master control (Smartcom³ multi-zone only)
- 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)

Multi-Zone System





Remote Sensor Options

Warm Air Sensors

Remote sensors for applications where the temperature sensor must be located away from the controller. Remote sensors can also be used for temperature averaging in conjunction with the controller's 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 (SmartCom³ Multi-Zone only).



Radiant Black Bulb Sensors

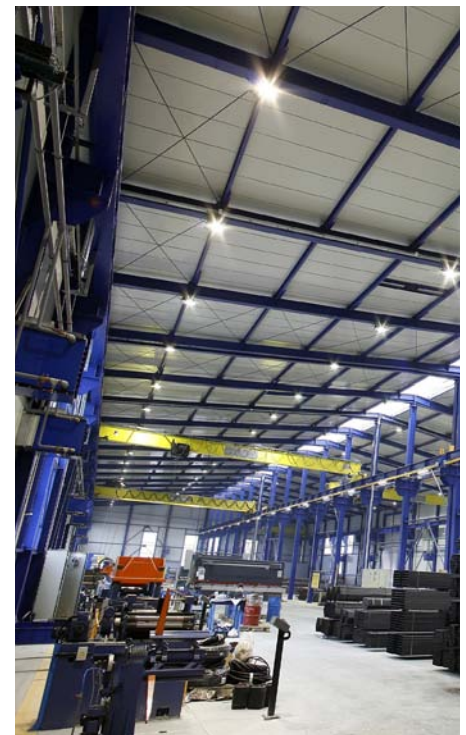
Essential for efficient radiant heating systems, black bulb sensors enhance the energy saving capability by measuring the effective radiant temperature within the space being heated.



Applications

Universal applications - compatible with:

- Free blowing warm air heaters
- Single heaters
- Ducted warm air heaters
- Radiant heating



SmartCom³ - A quick ref

Modes of Operation

Auto Mode

For fully automatic control of combined heating and free cool ventilation or heating and cooling, the SmartCom³ panel will control the burner plus integral fresh air dampers or cooling coils where appropriate.

It also ensures correctly sequenced operation of heating combined with ventilation or cooling.

Off Mode

All functions are switched off.

Heat Only

For control of simple heating only units the SmartCom³ standard provides on/off burner control and the SmartCom³ advanced unit provides hi/lo or modulating burner control.

Fan Only

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

Frost Only

For constant frost protection at 5°C (non adjustable). When the controller is set to holiday mode it will operate as frost only.



Increase a value



Decrease a value



Accept a newly entered value



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



Initialise programming sequence



Initiate a timed period of forced ventilation



Extend a period of heating



Set the control to holiday mode



Toggle the display between set and actual room temperatures



Clear a flame failure lockout

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