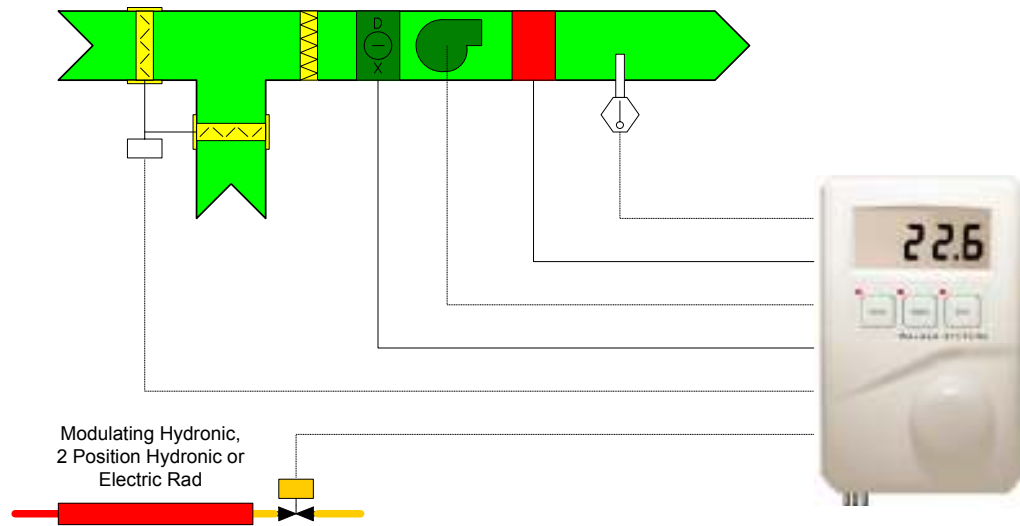


## Programmable Stat - Rooftop HVAC/Radiation



### Description

Affordable programmable thermostat capable of controlling up to three stages of heating and three stages of cooling. Unlike ordinary programmable stats, the Empire stat can coordinate the operation of the rooftop unit with modulating radiation or reheat and provides anti recycle protection for compressors and burners, and can be incorporated into a future Building Automation System.

### Guide Specification

#### Products

##### 2.x Programmable Thermostat - Rooftop HVAC and Radiation

Programmable Thermostat for Rooftop HVAC and radiation, Model BNR-RTU complete with space and supply air temperature sensors, control relay kit, control valve assembly, transformer and control fuse, Real Time Clock, 7 day TOD scheduling and liquid crystal display as manufactured by Empire Controls Limited of Woodbridge, Ph 905-264-7282, Fax 905-850-8564, empire@empirecontrols.com. Stats without analogue output points and non communicating stats are not acceptable.

### Execution - Sequence of Operations

##### 3.4.x Programmable Thermostat - Rooftop HVAC and Radiation

The stat shall monitor space temperature, space setpoint, supply air temperature, and cycles the heating and cooling as required to maintain space temperature at setpoint. The stat shall coordinate the operations of this unit with any modulating or two position radiation zones that serve the same area. The reheat or radiation shall be activated before the stages of gas heating. (Or in such order as may be requested by Engineer at time of shop drawing review.)

Programmable stat shall implement time of day scheduling with night setback and cooling setup, and mode override. During Occupied Mode fans shall run continuously, and outside air damper (if any) shall be held open to at least the minimum outside air position. During Unoccupied mode, the fan shall run intermittently as required to maintain space temperature between the night setback temp and the cooling setup temperature, with the minimum outside air set to 0%.

As a default, the LCD displays the room temperature. Operator with password may log on to view the Supply Air Temperature and adjust the Deadband or Weekly Schedule, Min/Max Setpoints, and Unoccupied Heating and Cooling Setpoints or to view and manually command the stages of heating and cooling.

Mount thermostat, and connect to rooftop unit and SAT sensor. Check operation of sensors, valve(s) and compressors and heat exchanger stages in rooftop unit.

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