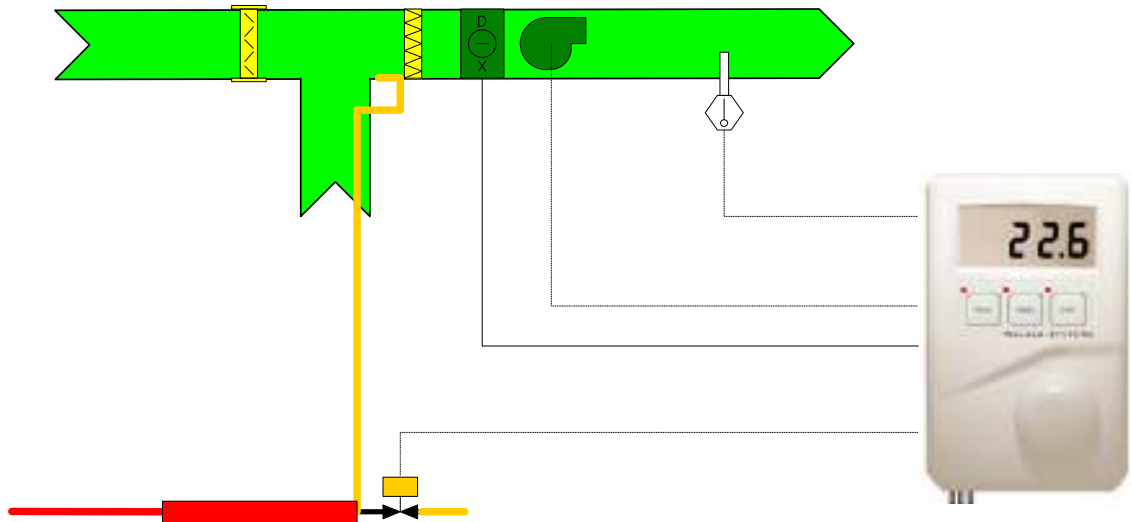


## Programmable Stat - Water to Air Heat Pump/Radiation



### Description

Programmable thermostat capable of controlling water to air heat pump with single or multiple stages. Unlike ordinary programmable stats, the Empire stat can coordinate the operation of the heat pump unit with modulating radiation and can be incorporated into a future Building Automation System. Can be configured for operation in Celcius or Fahrenheit.

### Guide Specification

#### Products

#### 2.x Programmable Thermostat - Water to Air Heat Pump and Radiation

Programmable Thermostat for water to air heat pump and radiation, Model BNR-HPR complete with space and supply air temperature sensors, control relay kit, control valve assembly, transformer and control fuse, optional 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 - Water to Air Heat Pump and Radiation

The stat shall monitor space temperature, and 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 compressor heating.

Programmable stat shall implement time of day scheduling with night setback and cooling setup, and mode override. During Occupied Mode fan shall run continuously. During Unoccupied mode, the fan shall run intermittently as required to maintain space temperature between the night setback temp and the cooling setup temperature.

As a default, the LCD displays the room temperature. Operator with password may log on to view the Supply Air Temperature and and adjust the Deadband or Weekly Schedule, or to view and manually command the fan, compressor(s) and reversing valve.

Mount thermostat, and connect to rooftop unit and SAT sensor. Check operation of sensors, valve(s) and rooftop unit.

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