CONTROLLED AIR

PIRO-NETWork

A new solution to energy efficiency... making life easier!

"PIRO Sensing" automatically changes the mode of the controls based on occupancy. An easy way to keep the environment comfortable while saving energy.

Just by entering or leaving a room ..... thermostats, dampers, lights, fans, hot water heater, curtains will change to the occupied or un-occupied conditions.

ENERGY SAVINGS AND COMFORT BECOMES AUTOMATIC!

CONTROLLED AIR

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General:

Most of the energy saving products on the market today are time based, for example set back thermostats and timers. In order to maximize energy efficiency and to provide a comfortable environment one needs to reset, re-program, or temporarily override these schedule dependant products.

Today, most people have ever changing schedules. With the PIRO-net System, there is no programming of thermostats or timers. Air conditioning and heating equipment, lights, hot water heaters, and other energy consuming appliances will be automatically placed in the occupied or un-occupied mode as one enters and leaves the room.

Controls having the PIRO-net capability have proven to

*save energy up to 45%**

What is PIRO-net:

The PIRO-net system consists of a sensor and an OC interface that allows one to activate various environmental equipment, for example thermostats, lighting and sound.

A passive infra-red sensor is used to identify the presence of occupants. When a person enters the sensor's field-of-view, it activates the PIRO-net circuitry and places the control in the occupied mode. The sensor requires both heat and motion to be activated. The sensor detects the infra-red radiation emitted by an occupant as he/she crosses between the horizontal and vertical zones in the sensor's field-of-view.

There is a time delay that can be selected for the occupied mode. This time delay feature allows occupants to leave the room for short periods of time without the control changing to the un-occupied mode thus preventing equipment short cycling and allowing for continuous efficiency and comfort.

* Data on file at CAS

The PIRO-net System equipment:

PIRO Sensor

When the room is occupied, the OC terminals are shorted.
When the room is un-occupied, the OC terminals are open.

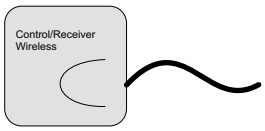
Thermostats:

TC1 series, T23 series, T30 series, T60/T61 series

When the room is un-occupied, the OC terminals are shorted placing the heating and cooling set points in the energy saving mode.
When the room is occupied, the OC terminals are opened placing the heating and cooling set points in the comfort mode.

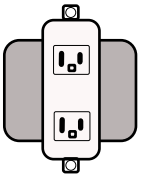
Relay Control Interface:

Model: CRW-1-24
2amps @24 VAC



Outlet, Wireless

Model: ORW-15-120
15 amps @120 VAC



Duct Dampers:

Model: DDW-1-24
1/16 HP @24 VAC

Curtain Motor

Model: MCW-25-120
1/4 HP @120 VAC

PIRO-NETWork

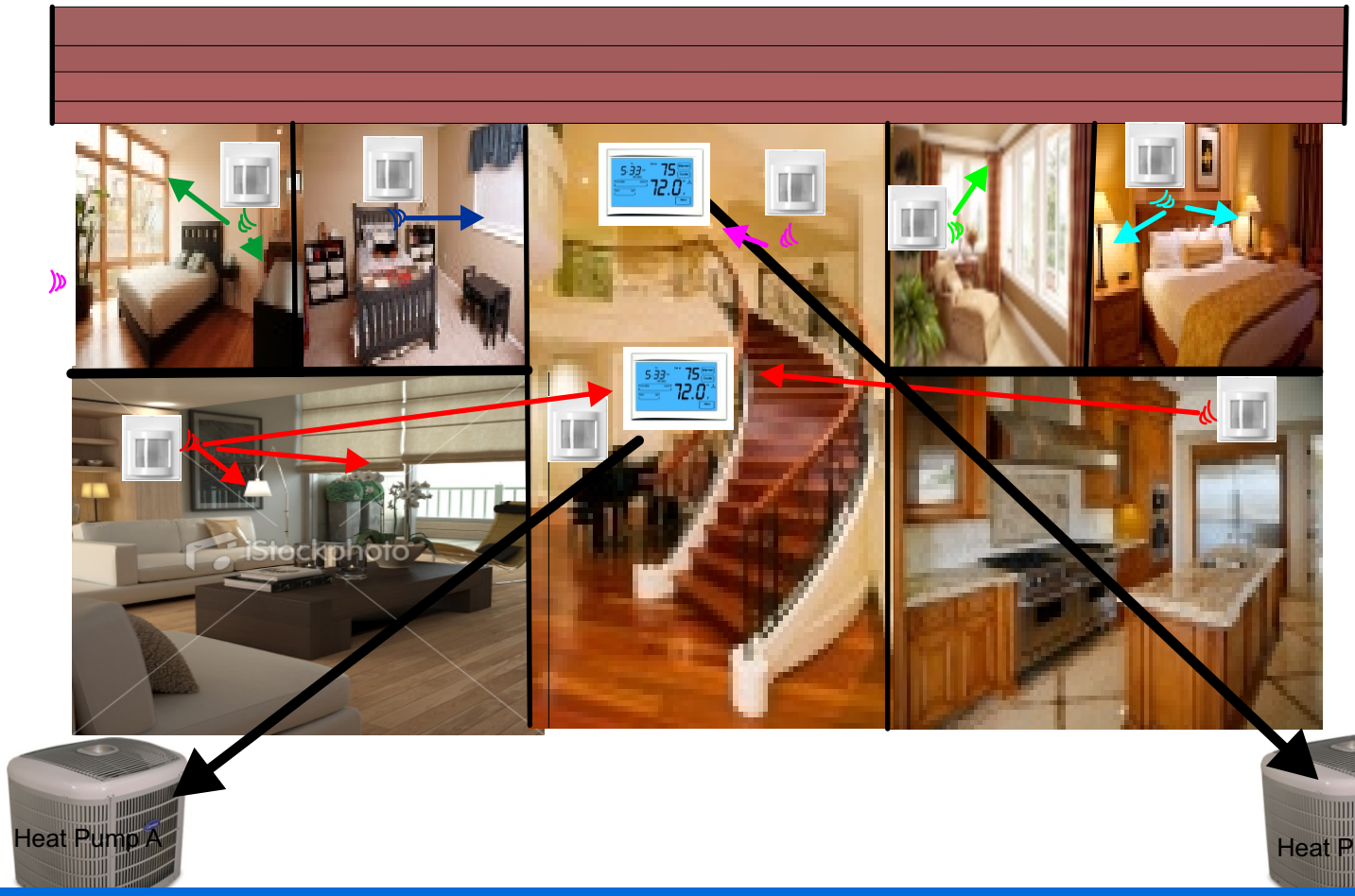
When a person enters the house the “foyer PIRO sensor” detects occupancy, the thermostat is automatically placed in the “occupied” mode, the foyer lights turn “on” and curtains “open”, as they enter the different rooms lights will turn “on” and curtains “open”.
As one enter’s the different 1st floor rooms, the HVAC system is kept in the occupied mode.
When the rooms become un-occupied for the selected un-occupied time, the lights are turned “off”, curtains “close”, TV/sound systems are turned “off”, HVAC dampers close.

When they go upstairs to go to sleep, the 2nd floor PIRO sensor detects occupancy, placing the 2nd floor thermostat in the occupied mode and turning the hall light “on”.
When entering the various bedrooms’, zoning dampers are opened, the lights turn “on”, along with any other device.

If no one enters the hallway, for the selected delay hours, the 2nd floor thermostat is placed in the “un-occupied / sleep mode”.

Thermostat - Lights - Curtains - Dampers - TV/Sound system

Each transmitting PIRO sensor has its’ own operating code, which allows it to communicate only with the device that has the matching code.



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