The HVAC Occupancy Switch (HOS) lowers energy bills by interrupting the HVAC system in the event of a violation such as a room that has remained vacant for a period of time. The HOS is a fully configurable device that provides energy efficient control for heating and cooling systems. In addition, it can be used as a general purpose controller for devices including dampers, fans, etc.

The controller is compatible for use with wired motion sensors. For applications where wire runs are not desired or simply inconvenient, wireless sensors may be used (requires RF receiver add-on). You may even use a mix of both wired and wireless sensor types.
Ideal for energy management, the controller reduces your power consumption in situations where monitored occupancy is required. For instance, the controller can temporarily disable air conditioning or heating if the living space remains empty for a predetermined period of time.

**Reduce your heating and cooling bills!**

The HVAC Smart Relay Switch (HSRS) effortlessly lowers your energy bills by eliminating wasted power consumption due to open doors / windows and/or vacant spaces. For instance, configure the HSRS to shut down the air conditioning or heating system when an entry door is left open or if a room has been vacant for a period of time. The HSRS re-enables the system when the door is closed or occupancy is detected. Convenient onboard configuration switches let you define operational mode and delay parameters. The HSRS is ideal for these venues:

- Hotels
- Hospitals
- Apartments
- Warehouses
- Condominiums
- Storage facilities
- Office complexes
- Shopping centers
- Schools & universities
- Manufacturing facilities

Installation is straightforward, requiring 1 to 2 hours of labor by any qualified HVAC technician. The HVAC controller is typically mounted near the indoor air handler with appropriate low-voltage wiring routed from the HVAC unit for direct access to the system’s 24vac power supply.
The schematic below illustrates the simplicity of a typical installation:
How much will you save on your electric bills? Savings will vary for each installation and depends on a number of factors including the following:

- Energy costs in your area ($ per kWh)
- Hours of vacancy per month
- Power rating and efficiency of your HVAC system

Generally speaking, applications which incur "worst-case" infractions are likely to see significant savings. Once such instance is hotel and vacation rental applications where guests are frequently away from the dwelling while the air conditioning is running - a scenario that is certain to result in extreme energy bills. The analysis below highlights the severity of these expenditures and the potential savings from a solution such as the HOS which can eliminate cost overruns.

![Energy Cost Overage in Vacant Living Spaces](image)

This analysis estimates incurred HVAC cost overages that result when living spaces remain vacant for extended periods. The chart below was derived on the presumption of a 3-ton HVAC system with a power rating of 3500 watts, illustrating the cost overages for each hour of vacant runtime. (Costs were computed using September 2014 statistics from the U.S. Energy Information Administration.)
Available sensor types include wired and wireless varieties. The wireless sensor is compact and simple to install. This device uses two AA batteries and contains internal RF transmitter. The unit is typically installed on a wall and positioned for maximum coverage of the monitored space.

![Wireless Motion Sensor](image)

The HOS controller can be configured for one of two possible shut-off modes:

- Vacancy
- Occupancy

In vacancy mode, the HVAC system will be shut off when the living space has remained vacant for a period of time. In occupancy mode, system operation reversed – the HVAC will be shut off when the space is continually occupied for a period of time.
For wireless systems, accessory items are included which consist of antenna, coax cable and mounting bracket.

**Accessories for Wireless Operation**

For additional information about the HSRS including ordering instructions, please contact us:

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