

HVAC Smart Relay System (HSRS)

HVAC Smart Relay Switch

(4th Generation)



**wired
& wireless
models**

HSRS Wireless System

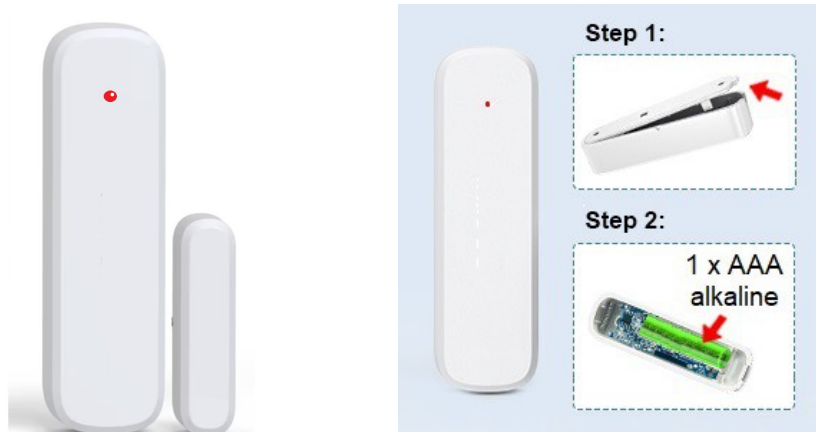
(Wired systems also available.)

In an era of high fuel costs, the HVAC Smart Relay Switch (HSRS) lowers energy bills by eliminating wasted power consumption. The HSRS automatically interrupts the HVAC system in the event of a violation such as a door or window that has remained open for a period of time or a room that has remained vacant. The HSRS is a fully configurable device that provides energy efficient control for heating and cooling systems. In addition, the HSRS can be used as a general purpose controller for devices including dampers, fans, etc.

The controller accepts wired and/or wireless switch sensor inputs. For wired sensors, most any switch device having normally open or normally closed contacts is acceptable. Mechanical sensors including reed, push-button, and toggle switches are also allowable. For applications where wire runs are not desired or simply inconvenient, wireless sensors may be used (requires RF receiver add-on). Intended for use with doors and windows, these sensors can also be applied in a myriad of other uses where simple on/off detection is needed. You may even employ a mix of both wired and wireless sensor types.

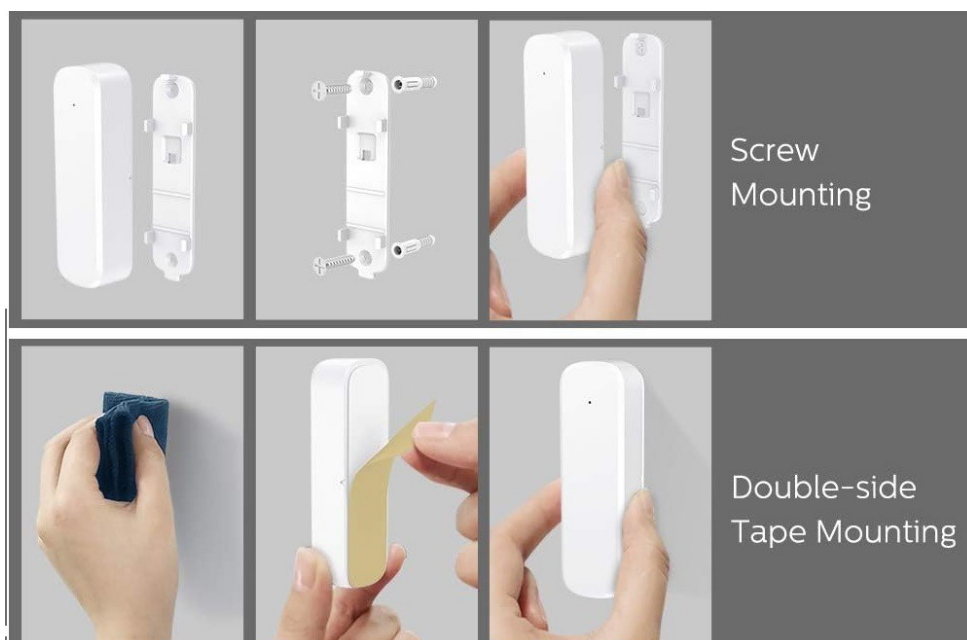
Wireless Door/Window Sensor

The door/window sensor is compact and simple to install. Using a single AAA alkaline battery (not included), the device delivers 2 to 3 years of working operation. It is a two-part solution that consists of electronic transmitter and magnet. The sensor/transmitter is typically applied to the stationary door frame while the magnet is installed on the door itself.



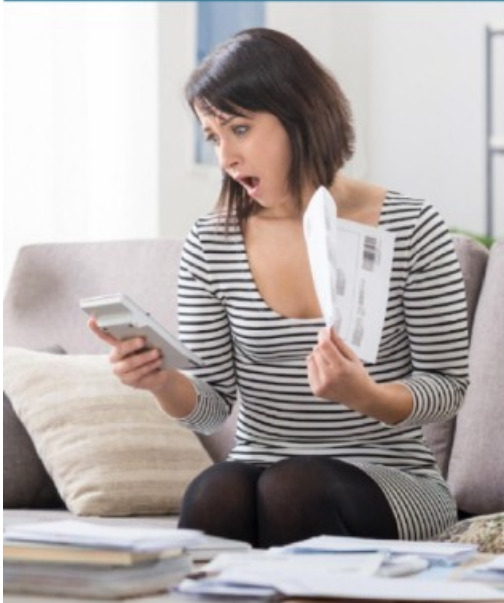
Specifications:

- RF frequency: 433 MHz
- Magnet gap: 1"
- Battery: 1 x AAA (not included)
- Battery life expectancy: 2 to 2 years
- Operating conditions: -4°F (-20°C) to 122°F (50°C), 85% relative humidity
- Dimensions:
 - Transmitter: 3.1" x 0.9" x 0.6"
 - Magnet: 1.6" x 0.4" x 0.6"



The HSRS controller provides 16 user-selectable DIP switch settings for configuration purposes. Thus, the system can be set up to automatically switch off the HVAC system based on parameters you specify.

Automatically shut off the HVAC when doors or windows are left open!



HVAC Smart Relay Switch

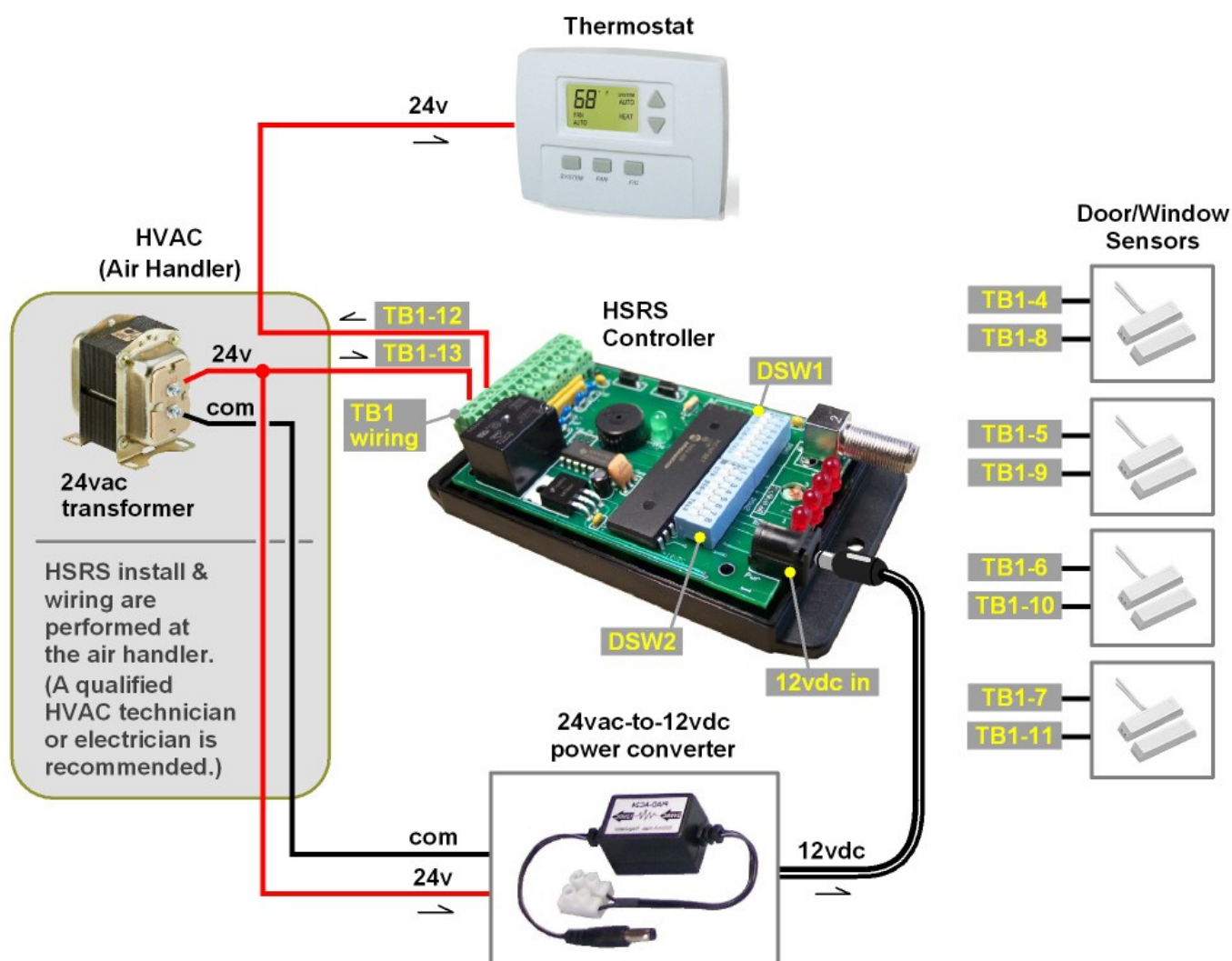
- Conserves energy, reduces utility bills
- Monitors open doors and windows
- Compatible with split (ducted) systems
- Selectable pre-shutoff delay period
- Optional reactivation delay for compressor protection
- Available in wired and wireless variations (shown below):



"As property manager of ocean-front vacation condominiums, we have had ongoing problems with guests who leave patio doors open. This has resulted in enormous electric bills, especially in summer months. We purchased & installed the HSRS and were pleased to discover immediate savings in our electric bills."

- Sam M., Hatteras, North Carolina -

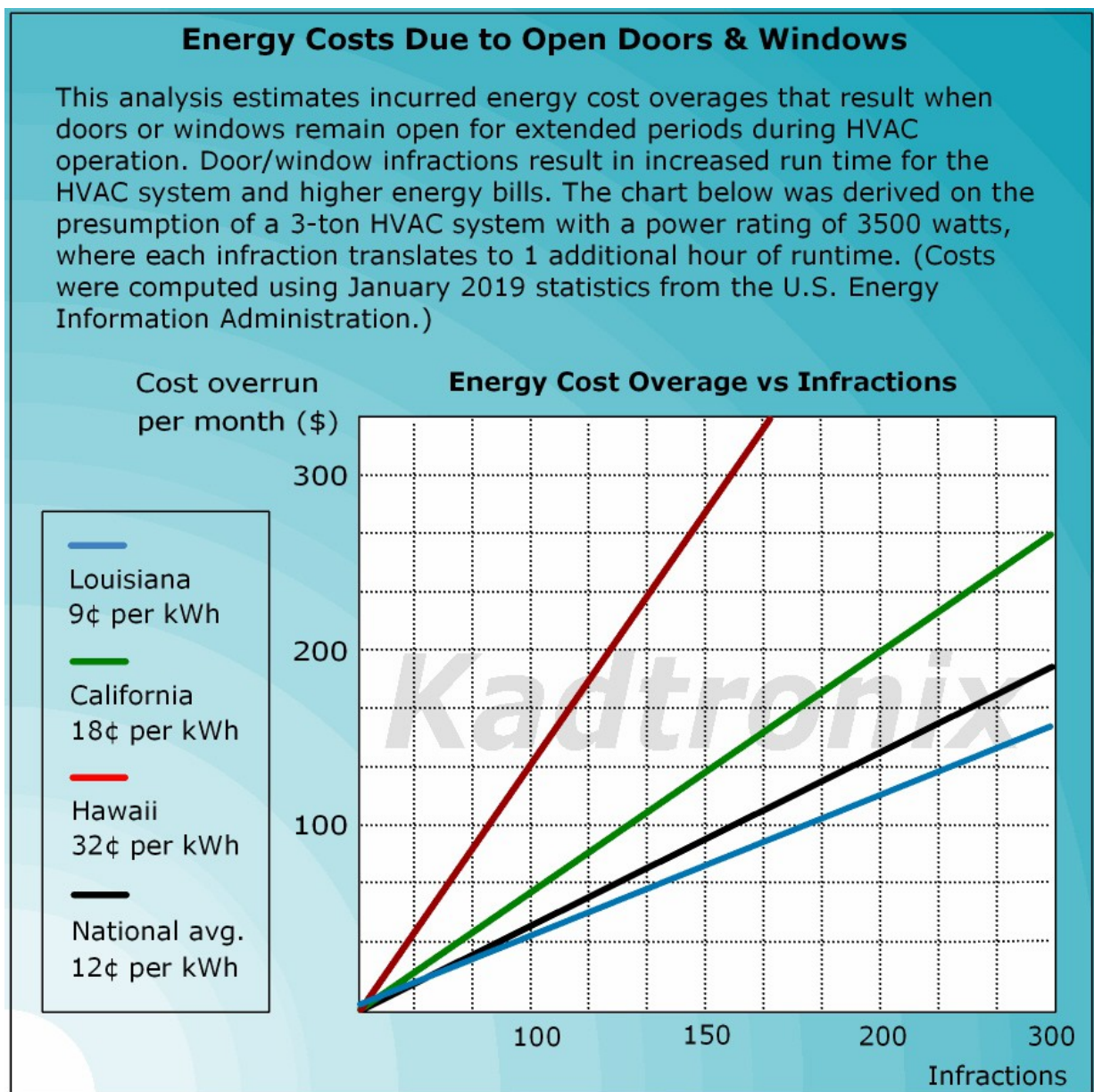
Installation is straightforward, requiring 1 to 2 hours of labor by any qualified HVAC technician. The HSRS controller is typically mounted near the indoor air handler with appropriate low-voltage wiring routed from the HVAC unit for direct access to the system's 24vac power supply. The schematic below illustrates the simplicity of a typical HSRS 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)
- Frequency of door/window infractions
- Power rating and efficiency of your HVAC system

Generally speaking, applications which incur "worst-case" infractions are likely to see significant savings. For instance, many vacation rental owners report that guests frequently leave patio doors open continuously 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 HSRS which can eliminate cost overruns.



HSRS Wireless System

The wireless system is ideal for situations where wired-sensor cable runs may be expensive and/or inconvenient. The package includes controller (with integrated RF receiver), whip antenna, and coax cable.



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