Magnetic Door Switch Kit
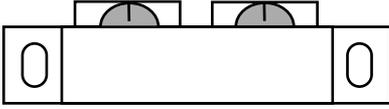## *quick setup guide*
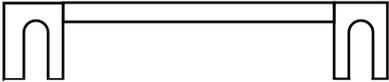
Your Magnetic Door Switch Kit should include the following items:
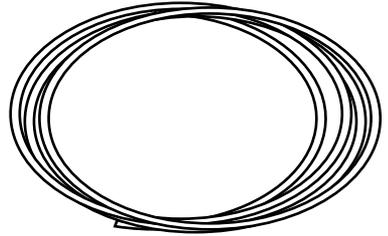
Magnetic Switch

Magnet
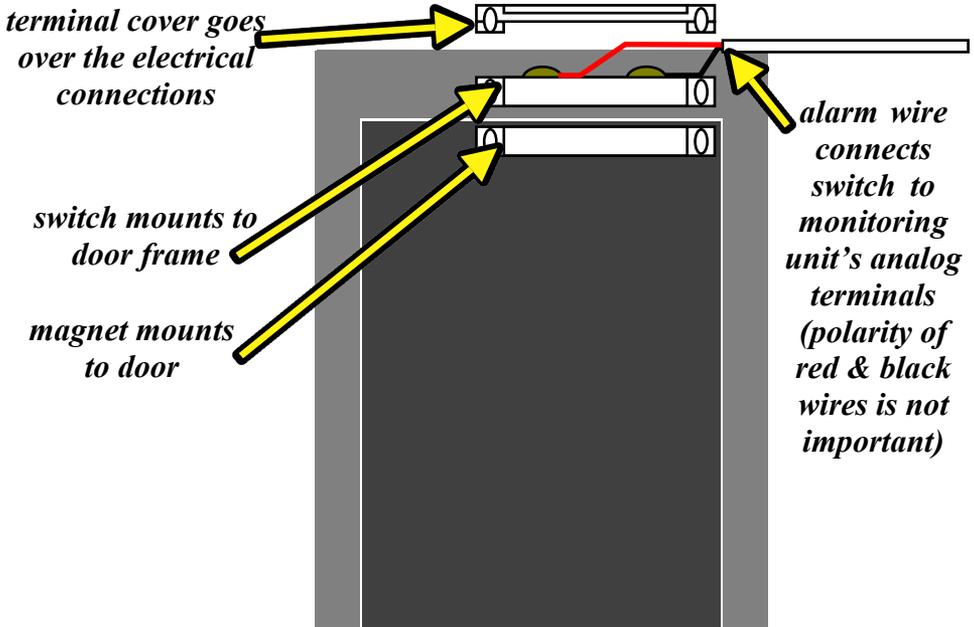
Switch-Contact Cover

2-conductor alarm wire

(30ft (10m), 50ft (16.7m), or 100ft (33.4m), depending on which option was requested when kit was ordered)

MOUNTING THE MAGNETIC DOOR SWITCH:

The switch assembly consists of three parts: The magnetic switch itself, a magnet, and a cover to protect the wire terminals. The preferred mounting method is to mount the magnet on the door or access panel to be monitored, and to mount the switch and terminal cover on the door frame, as shown here. Ideally, they should be positioned such that the two pieces will be within ½in. (1.54mm) of each other when the door is closed, to ensure that the magnet will be close enough to operate the switch.

terminal cover goes over the electrical connections

alarm wire connects switch to monitoring unit's analog terminals (polarity of red & black wires is not important)

switch mounts to door frame

magnet mounts to door

Note that because the door switch is operated by a magnet, it may not function well when mounted directly to a metal door and/or door frame, because the metal will tend to "absorb" or disperse the magnet's field, causing intermittent or unreliable operation. If you find that your door switch is not actuating reliably when mounted to this type of door, inserting at least ½-inch (1.54mm) of some suitable non-magnetic material, such as wood or plastic, between the switch components and the metal door and frame, can often alleviate this problem.

CONNECTING THE MAGNETIC DOOR SWITCH TO A GEIST ENVIRONMENTAL MONITORING UNIT:

The Magnetic Door Switch is directly compatible with any model of RSE, GRSO, or GBB-series monitoring unit which has analog-sensor inputs. Models which do **not** have built-in analog inputs, such as the RSMINI or GBB-15, will require the use of an appropriately-programmed Analog-to-Digital converter (sold separately) to use the door switch. (An A-to-D converter can also be used if all of your unit's analog inputs are already occupied with other sensors. Information on how to set up and use the door switch with the analog-to-digital converters can be found in the user guide for that device.)

The red and black wires from the switch are connected to the analog-input terminals as shown here. (Different models have different terminal-block styles.) Note that since the door switch is a simple dry-contact switch, with no inherent signal voltage or polarity of its own, the actual order of the wires is not important; however, for consistency, black should be connected to the "C" terminal and red should go to the corresponding numbered terminal.
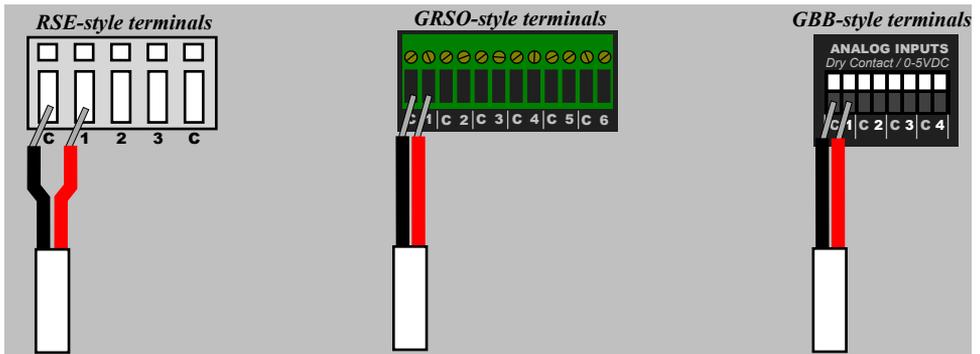
SENSOR CONFIGURATION AND ALARM-THRESHOLD SETTINGS:

Unlike digital sensors such as the GTHD Temperature/Humidity sensor, analog sensors do not automatically show up in the monitoring unit's web page when connected. Since there is no exchange of digital data between the unit and sensor, the unit has no way to know whether a sensor has been connected to the analog input or not. Therefore, sensors connected to the analog inputs need to be configured manually. (The following screenshots are taken from a GBB-100, but the process for configuring other models is essentially the same.)

First, click the **Display** tab, then locate the **Analog Sensors** setting block at the bottom, similar to the one shown here. Change the **Friendly Name** of the analog input which corresponds to the one you connected the door-switch wires to as above, then click **Save Changes**. (**Min**, **Max**, and **Unit** can be left at their default values.)

Next, click the **Alarms** tab. Analog sensors are considered part of the unit's own sensor package, so they will be listed along with the rest of the unit's internal sensors, not as separate devices of their own. Click the **Add New Alarm** button for the monitoring unit's internal sensors, then choose the analog input whose name corresponds to the one you set in the prior step ("Door Switch", in this example) from the drop-down box.

Because of the way the analog inputs work, the door switch will show a value close to 0 when the switch is closed (i.e. when the magnet is close enough to the switch to activate its contacts), and around 99-100 when the switch opens. Setting a trip thesthold of **Trips if: Above** and **Limit: 50** will insure that the reading swings well above or below the trip point when the switch opens or closes. Select any other actions (delay, repeat, e-mail recipients, etc.) as desired, then click **Save Changes**.

Test the configuration by clicking on the **Sensors** or **Overview** page, then open the door. The door switch's reading should turn red, indicating a tripped alarm, displaying a value around 99-100. (If this doesn't happen within a few moments, hit [F5] to refresh the web page.)

Close the door, wait a few moments, then refresh the web page. The reading should turn black ("no alarm"), with a reading at or close to 0.