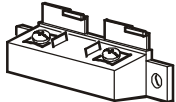


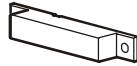
# NetShelter Door Sensor Switch Kit Installation—AP9513

This kit is for use with NetShelter VX, NetShelter SX, or other standard 19-inch enclosures.

## Inventory



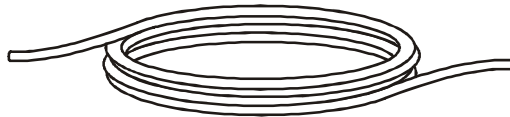
Switch (2)



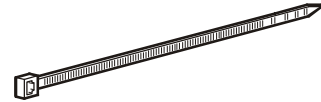
Magnet (2)



Hex nut (4)



22 Gauge gray cable (1)



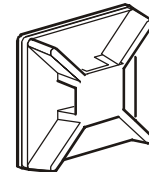
Cable tie (20)



Dual adhesive tape (4)

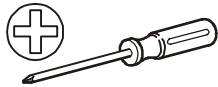


Rolock screw (4)

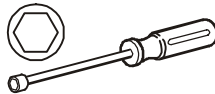


Adhesive cable tie holder (10)

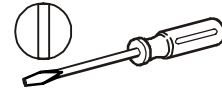
## Tools required (not provided)



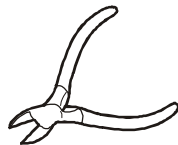
#2 Phillips screwdriver



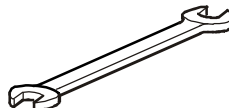
Nut driver



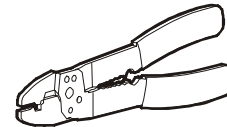
1/8-inch flat blade screwdriver



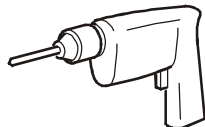
Wire cutters



Wrench (3 mm)



Wire strippers



1/16-inch (1.5 mm) drill

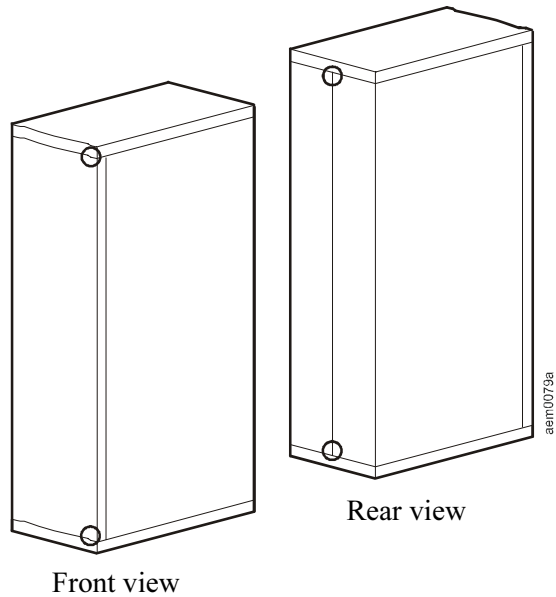
# How to Install the Door Sensor Switch

The switch and magnet can be mounted at the bottom of a NetShelter VX enclosure or at the top of a NetShelter SX enclosure.



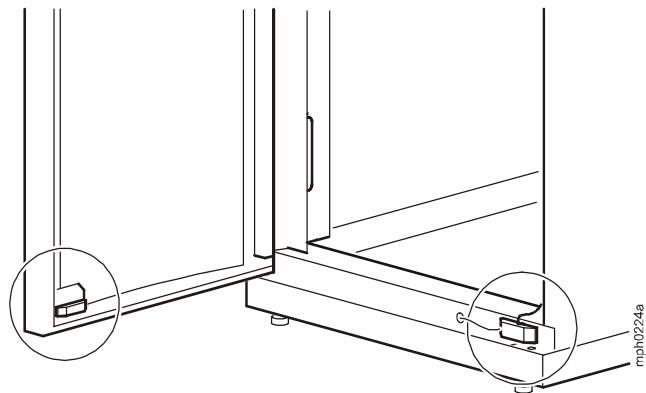
**Note**

Mount the switch and magnet on the side of the enclosure opposite the hinges.



## Mounting the switch and magnet to a NetShelter VX

The switch and magnet can be mounted at the bottom of a NetShelter VX enclosure on either the front (shown) or rear doors. Use the following procedure for both locations.

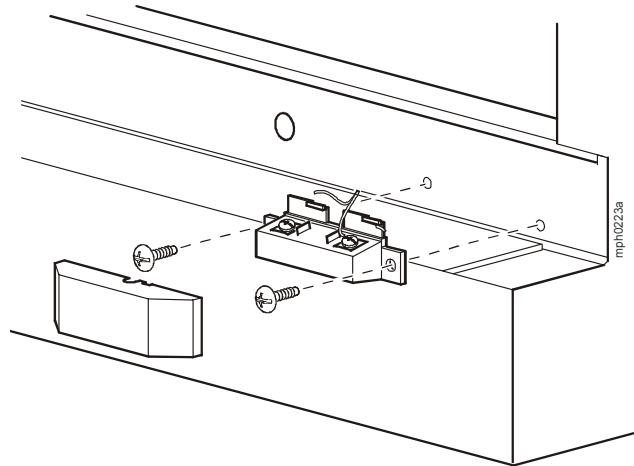


**Connect the switch to the enclosure frame.**



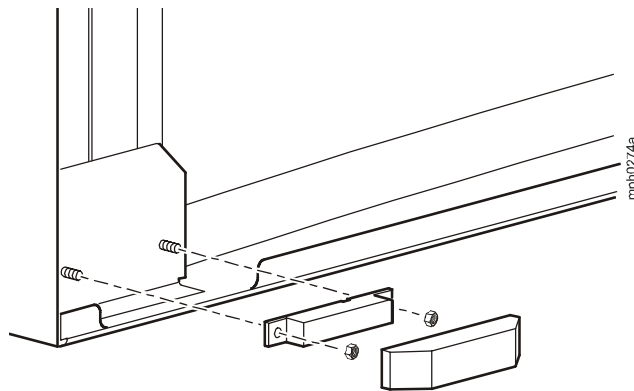
To mount the sensor to a NetShelter SX, see “Mounting the switch and magnet to a NetShelter SX” on page 4.

1. Attach the switch with the wire connectors to the door frame of the enclosure, using two screws (provided).
2. Strip the ends of the wires on the cable (provided). Place the bare ends under the square metal washers and wrap them clockwise around the screw. Tighten the screw.
3. Place the plastic cover over the switch, and snap the cover into place. Route the cable out of the opening on the top of the cover.



**Connect the magnet to the enclosure door.**

1. Attach the magnet to the enclosure door, using the nuts (provided).
2. Slide the magnet over the existing pegs and bolt it into place, using two nuts.
3. Cover the magnet with the plastic casing, and snap the cover into place.



The magnet and switch do not need physical contact to operate properly. See “Specifications” on page 7 for maximum gap allowed.

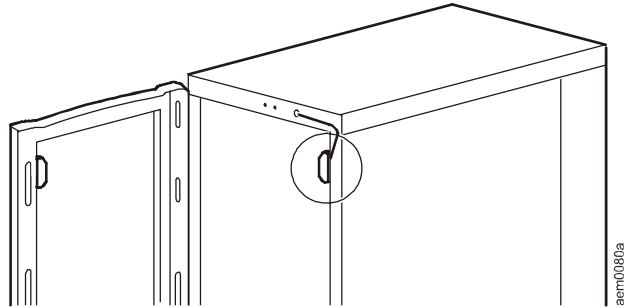
## Mounting the switch and magnet to a NetShelter SX



See “Connect the switch to the enclosure frame” and “Connect the magnet to the enclosure door” on page 3 for instructions on mounting the switch and magnet.

### Mounting the switch and magnet to the front door of a NetShelter SX.

The switch and magnet can be mounted at the top of the front door of a NetShelter SX. The switch and magnet mount perpendicular to the floor.

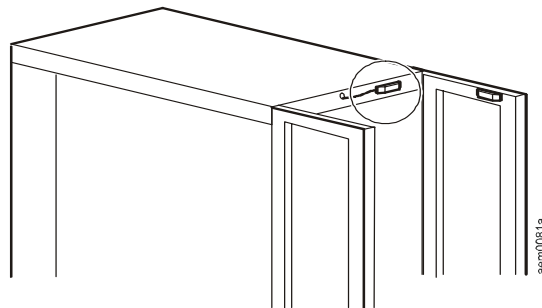


**Note**

When mounting the switch and magnet to the front door of the NetShelter SX, the switch and magnet both mount with sheet metal screws. When mounting to the rear door of the NetShelter SX, the switch mounts with sheet metal screws while the magnet mounts on studs.

### Mounting the switch and magnet to the rear door of a NetShelter SX.

The switch and magnet can be mounted at the top of the rear door of a NetShelter SX. The switch and magnet mount parallel to the floor.



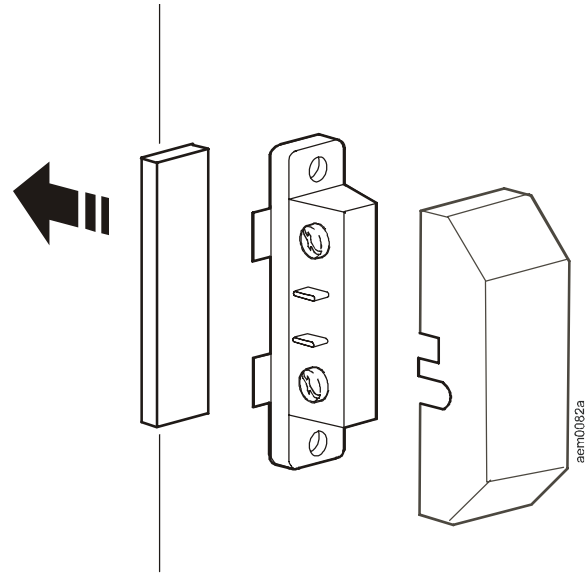
## Mounting the switch and magnet for non-standard applications

The hardware supplied with this kit allows you to mount the switch and the magnet using the following methods:

- Double-sided tape
- Self-tapping screws

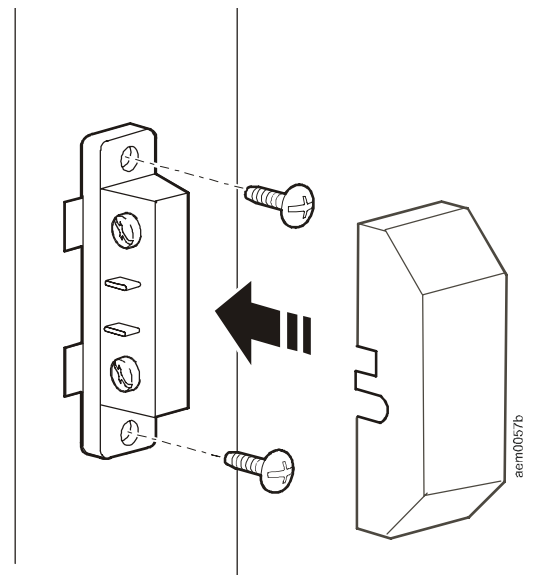
**Mounting with double-sided tape.**

1. Mark the intended location of both the switch and the magnet.
2. Peel the paper backing from one side of the double-sided tape, and apply the tape to the base of the switch.
3. Peel the remaining backing from the tape, and place the switch assembly in the desired location. Press firmly.
4. Repeat steps 2 and 3 to mount the magnet.
5. Wire the switch according to the guidelines in “Wiring the switch” on page 5.



**Mounting with self-tapping screws.**

1. Place the switch in the intended position, and mark the location of the mounting holes.
2. Remove the switch, and make a small pilot hole for each screw with a 1/16-in (1.5 mm) drill.
3. Use two self-tapping screws (included) to mount the switch to the surface.
4. Repeat steps 2 and 3 to mount the magnet.
5. Wire the switch according to the guidelines in “Wiring the switch” on page 5.



Using excessive force when tightening the screws will damage the plastic mounting tabs on the switch.

**Wiring the switch**

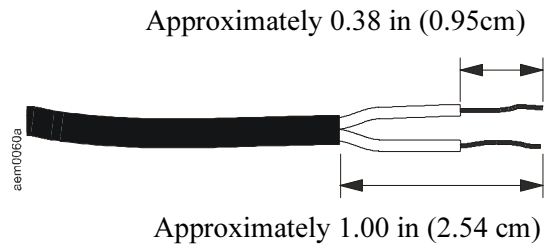
1. Cut back the covering of the two wires and remove a small amount of insulation from the end of each wire.



Be careful not to cut through the insulation into the wire itself.

**Note**

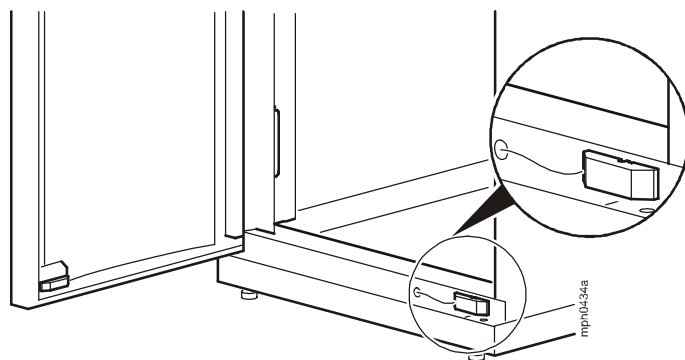
2. Twist the bare ends of the wire, place them under the square metal washers, and wrap them clockwise around the screw on the sensor. Tighten the screw.
3. Route the wire to ensure that it does not interfere with the installation of the switch cover.



**Routing the wire for a NetShelter VX.**

Remove the hole plug from the small hole on the bottom of the enclosure frame, and run the wire from the switch through the hole.

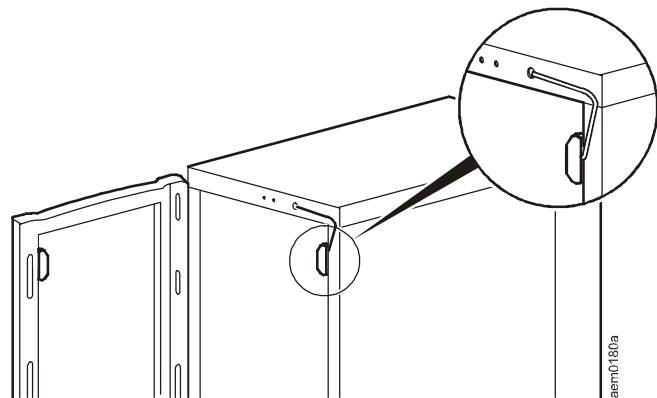
- The small hole is to the left of the switch if it is mounted on the front (shown) of the NetShelter VX.
- The small hole is to the right of the switch if it is mounted on the rear of the NetShelter VX.



**Routing the wire for a NetShelter SX.**

Remove the hole plug from the small hole on the top of the enclosure frame, and run the wire from the switch through the hole.

- The small hole is above and to the left of the switch if it is mounted on the front (shown) of the NetShelter SX.
- The small hole is to the right of the switch if it is mounted on the rear of the NetShelter SX.



Use the wire-fastening devices included in the kit to secure the entire length of the wire. Make sure that the wire is not pinched or chafed at any point.



The wire included in this kit is UL Type CM and is not approved for use in air-handling passages. Refer to local building and electrical codes for information about proper use of wires in your location.

## Connection to Environmental Monitoring Unit

This kit is for use only with the APC Environmental Monitoring Unit (EMU). Connect the switch to one of the sensor inputs that has been configured for use as a normally-closed (NC) zone.



**See also**

To connect the sensor switch to the APC Environmental Monitoring Unit, see the Environmental Monitoring Unit User's Guide (990-0815D) provided on the Environmental Monitoring Unit *Utility* CD and on the APC Web site ([www.apc.com](http://www.apc.com)).

Test the connection by opening and closing the protected door. The sensor is properly installed if the sensor switch signals an appropriate change in status.

## Specifications

### Dimensions

Contact (with cover)	2.54 x 0.54 x 0.76 in (6.54 x 1.38 x 1.94 cm)
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Magnet (with cover)	2.54 x 0.52 x 0.59 in (6.54 x 1.33 x 1.51 cm)
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### Other

Gap distance	Up to 2 in (5.08 cm) in air
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Zone type	Normally closed (NC)
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## APC Worldwide Customer Support

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- Visit the APC Web site to access documents in the APC Knowledge Base and to submit customer support requests.
  - **www.apc.com** (Corporate Headquarters)  
Connect to localized APC Web sites for specific countries, each of which provides customer support information.
  - **www.apc.com/support/**  
Global support searching APC Knowledge Base and using e-support.
- Contact an APC Customer Support center by telephone or e-mail.
  - Regional centers:

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APC headquarters U.S., Canada	(1)(800)800-4272 (toll free)
Latin America	(1)(401)789-5735 (USA)
Europe, Middle East, Africa	(353)(91)702000 (Ireland)
Japan	(0) 3 5434-2021
Australia, New Zealand, South Pacific area	(61) (2) 9955 9366 (Australia)

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