Powerware® Smoke Detector
User’s Guide
Smoke Detector

IMPORTANT SAFETY INSTRUCTIONS
SAVE THESE INSTRUCTIONS

This manual contains important instructions that you should follow during installation and maintenance of the smoke detector. Please read all instructions before operating the equipment and save this manual for future reference.

WARNING

- This smoke detector uses a high technology electronic chamber. All repairs and service should be performed by AUTHORIZED SERVICE PERSONNEL ONLY.
- The smoke detector is not warranted to protect lives or property from fire. In addition, it is possible for the smoke detector to fail at any time.

CAUTION

Avoid placing the smoke detector in the following locations:
- In front of forced air ducts used for heating and air conditioning and other high air flow areas.
- In the peak of an “A” frame type of ceiling.
- In areas where temperatures may fall below 4°C (40°F) or rise above 38°C (100°F).
- In dusty areas (dust particles may cause the smoke detector to set off a false alarm or the smoke detector may fail to alarm).
- In very humid areas (moisture can cause the smoke detector to set off a false alarm).
- Near electrical lights (electrical “noise” from the lights may cause a nuisance alarm). Place the smoke detector at least 1.5m (5 ft) from such lights.

The smoke detector is a device that works with the Eaton Powerware Environmental Rack Monitor (ERM) and connects to the TH-Module. Through the ERM, the user can monitor if there is smoke. The smoke detector is powered by 110 Vac/220 Vac and uses a 9-volt battery as a back-up power supply. AC/DC smoke detectors offer added protection in the event of a power failure or a drained battery.

There are two types of smoke detectors:
- **Type A** - AC110V, DC9V Battery with a NEMA Plug
- **Type B** - AC220V, DC9V Battery with an IEC Plug
Recommended Location of Smoke Detectors

- Install the smoke detector on the ceiling or wall closest to the detected area.
- Mount the smoke detector on the ceiling close to the rack or chassis.
- Locate a detector in every room where electrical appliances are operated (i.e., portable heaters or humidifiers).
- When mounting the smoke detector on the ceiling, place it at a minimum of 10 cm (4”) from the side wall and 61 cm (2 ft) from any corner.
- If ceiling mounting is not possible and wall mounting is permitted by your local and state codes, place the smoke detector on the wall 10–15 cm (4–6”) from the ceiling.

Installation

To install the smoke detector:

1. Using the smoke detector’s base as a pattern, trace the outlines of the two keyhole slots onto the mounting surface.
2. Drill a pilot hole in the center of the small end of each keyhole slot in the mounting surface.
3. Insert and tighten mounting screws into the pilot holes until they are approximately 1/8” from the mounting surface.
4. Mount the smoke detector base. Verify that the screws are positioned in the small ends of the keyholes and tighten the screws.
5. Have a qualified electrician connect the smoke detector to AC power.
6. Snap the 9V battery connectors to the battery wire clip and insert the battery into the battery holder.
7. Attach the smoke detector cover to the base by turning it clockwise until it latches. The smoke detector is now operating.

NOTE: The smoke detector cover will not attach to the base unless a battery is installed.
8. Push and hold the test button for approximately two seconds to test the smoke detector. The smoke detector sounds a loud pulsating alarm.

If the alarm does not sound, replace the battery.

9. Loosen the screws on the TH-Module (see Figure 1).

![Adjusting TH-Module Screws](image)

**Figure 1. Adjusting TH-Module Screws**

10. Connect the blue and orange wires of the smoke detector to the TH-Module alarm 1 or alarm 2 connectors, then tighten the TH-Module screws (see Figure 2).

![TH-Module with Smoke Detector Wires](image)

**Figure 2. TH-Module with Smoke Detector Wires**

11. If you are installing additional smoke detectors, repeat Steps 1 through 10.
12. Connect the RJ-45 network cable to the TH-Module port labeled “010101" (see Figure 3).

![Figure 3. Connecting the RJ-45 Network Cable](image)

13. Connect the other end of the RJ-45 network cable to the ERM (see Figure 4).

![Figure 4. ERM and TH-Module](image)
14. Verify that the ERM is connected to the network. Open the ERM Web page and select Monitoring, then TH-Module-1 Setup or TH-Module-2 Setup. The setup screen displays (see Figure 5).

15. Change the status of the TH-Module from “Disable” to “Auto” on the Device Name line. Verify that the TH-Module LED (Power/Status) is flashing.

16. Set the status of alarm 1 and/or alarm 2 to “Normal Close” and select “Smoke Alarm.”

17. Select Set Value to confirm the smoke detector setup.

![Figure 5. Smoke Detector Settings]
18. When the sensor detects smoke, the ERM Web page displays the alarm. The Web page for the alarm table and sensor events also records the alarm.

**Testing**

Test the smoke detector weekly to assure proper operation. To test the smoke detector you can push and hold the test button for approximately two seconds or blow smoke directly into the smoke detector. The smoke detector sounds a loud pulsating alarm. If the alarm does not sound, replace the battery.

Erratic noise or low sound from the smoke detector may indicate a defective detector. Return the smoke detector for service.
False Alarms

The smoke detector is designed to minimize false alarms. Smoking does not normally set off the alarm unless smoke is blown directly into the smoke detector. If the smoke detector does alarm, check for fires first. If a fire is discovered, leave immediately and call the fire department. If no fire is present, check the smoke detector and the surrounding area to verify that the smoke detector was installed in the proper manner.

Resetting the Smoke Detector

To reset the smoke detector after a false alarm, press the test button once.

Maintenance

The smoke detector is virtually maintenance free. However, under dusty conditions, a vacuum hose may be used to clear the sensing chamber of dust. Do not remove the smoke detector’s cover when vacuum is used.

Replace the battery yearly. The smoke detector has a low battery monitoring indicator which will “chirp” at approximately 20 second intervals for a minimum of 7 days. Replace the battery when chirping occurs.

NOTE For more detailed information that is not included in this manual, first register your product at warranty.powerware.com, then visit our Web site: www.powerware.com/rackmonitor. You can also download firmware upgrades, the latest manuals, and other documentation.