



Common Causes of False Alarms and How to Prevent Them

Preventing false alarms is as varied as the different types of false alarms. Here are some of the most common causes for false alarms and the ways you can help prevent future false alarms from happening:

Improper alarm type – Alarm systems sound three different alarm types: Trouble, Supervisory, and Fire alarm. The only one that should come to the fire department is the Fire Alarm. The rest should go to the building owner or manager. If the alarm is not set up correctly or the monitoring company has it programmed incorrectly, trouble or supervisory alarms can come through to the fire department, causing a false alarm.

Prevention: Correct initial setup and good continued annual maintenance will help prevent this most of the time. But in the event it happens at your building, get with your alarm company to correct the programming to ensure the alarms go to the right place. Also, be sure your alarm monitoring company has at least two up-to-date, after-hours emergency contacts for your home or facility.

Pull station activation – Fire alarm pull stations are there to allow a quick activation of the fire alarm system in an emergency. They also can be a great temptation for young children to pull out of curiosity; sometimes, others may pull it maliciously. There are also times that these can be bumped, broken, or fail to cause the alarm to sound.

Prevention: Annual maintenance by licensed personnel will help prevent many failures. For accidental or intentional activations, you can install protective covers over the pull stations to prevent or deter these activations. If needed in an emergency, the cover can be quickly removed, and the alarm pulled. The cover usually has a small buzzer to alert people nearby that the cover has been removed, preventing any accidental or intentional activations. These covers must be listed for the system and installed by a licensed fire alarm contractor.

Dust in a smoke detector – Smoke detectors and alarms are looking for particulates in the air; dust, smoke, and steam are all examples of that.

Prevention: Licensed personnel's annual maintenance and cleaning will help prevent many failures. If a detector is near a dust-producing appliance, an alarm can be changed to a heat detector to prevent accidental activation. Sometimes detectors need more regular cleaning than annual maintenance. Any changes to systems in commercial buildings require a permit and must be done by a licensed fire alarm contractor.

Smoke from burnt food activating a smoke detector – Burnt food such as toast and popcorn produce smoke, which is what a smoke alarm and detector are looking for.



Prevention: The cooking appliance is often just too close to the smoke detector. Moving the appliance further away can help. In break rooms and food bar areas, replacing the detector with a heat detector can reduce the false alarm chances and still provide protection. Any changes to systems in commercial buildings require a permit and must be done by a licensed fire alarm contractor.

System not in Test Mode – When servicing a fire alarm or sprinkler system, an alarm system can be triggered unintentionally and cause a response when one is not warranted.

Prevention: Whenever any work is to be done on the building's fire alarm, fire sprinkler, hood suppression, or special extinguishing systems, the fire alarm system monitoring company should be contacted before the work to place the system into what is considered "test mode." This allows the alarm system to still work in the building but will not transmit an alarm to the fire department right away. Instead, the alarm company will verify with the servicing company their actions did not cause the activation before having us respond. Test mode can be used other times: when painting occurs in fire alarm protected areas, pest control spraying, or whenever an alarm could be accidentally caused by servicing or maintenance operations.

Activations by particulates in the air (steam, dust, fake smoke, etc.) – Smoke detectors check for particulates in the air. Steam, dust, and fake smoke are all particulates. Any of these in the air can cause the fire alarm system to activate.

Prevention: Annual maintenance and cleaning by licensed personnel will help prevent many of these. Equipment operators should be aware of the fire alarm system and work to keep steam, dust, or particulates from their operation from getting to the detectors. If a detector is near steam, dust, or a fake smoke-producing appliance, the alarm could be covered to prevent accidental activations. You can also contact your fire alarm company to have the system put into a "test mode" so that any unintentional activation does not transmit to the fire department but still protects the building's occupants. This must be approved by the Fire Inspector.

Equipment failure – Alarm system components fail from time to time. Sometimes they fail and cause the alarm system to signal the alarm monitoring company even when the bells and strobes don't activate.

Prevention: Pay attention to abnormal conditions at your alarm panel. A beeping panel usually means something has failed and needs to be repaired. Indicator lights or messages indicating "trouble" or "supervisory" also need to be investigated and corrected. Annual maintenance by licensed personnel will help prevent many failures. But in the event, it happens at your building, have your fire alarm service company out as soon as possible to find the problem and correct it to prevent future false alarms and to be assured that your system functions properly in an actual emergency.



Unknown fire alarm causes – Fire alarm systems that activate for unknown reasons can be complicated to diagnose and fix.

Prevention: Annual maintenance by licensed personnel will help prevent many failures. Having a fire alarm service tech examine the system as soon as possible after the unknown activation can increase the chances that the cause can be determined. Also, due to the unknown circumstances of the alarm activation, it is not known if the alarm system is actually working until a service person examines the system.