



From Wired to Smart: Choosing the Right Intrusion Alarm

An intrusion alarm is a security system designed to detect unauthorized entry into a building, property, or restricted area. When triggered, the system can activate alarms, send alerts to security personnel, or notify a monitoring service to respond to the intrusion. They are commonly used in homes, businesses, and high-security areas to prevent theft, vandalism, and unauthorized access.



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Five Types of Intrusion Alarm Systems

Intrusion alarms come in different forms, including wired alarm systems, wireless alarm systems, monitored alarm systems, unmonitored alarm systems, and smart alarm systems. Depending on the specific security needs of the property, these systems can also be categorized based on features such as motion sensors, glass break detectors, and access control systems.

How Each of These Alarm Systems Work

- **Wired Alarm Systems:** These traditional security systems use physical wiring to connect sensors to a central control panel. Hardwired alarm systems for homes and offices are often considered to be more secure and reliable due to their stable connections and resistance to wireless interference.
- **Wireless Alarm Systems:** These security systems use radio signals to connect sensors to the control panel, allowing for flexible and easy installation without the need for wiring. Modern wireless alarm systems are just as reliable as wired systems and offer several advantages, such as remote access, easy scalability, and integration with smart home technology. However, choosing between wired and wireless intrusion detection systems depends on factors like property size, security needs, and budget.
- **Monitored Alarm Systems:** These security systems are connected to a central monitoring station, where operators respond to triggered alarms. When a sensor detects an intrusion, it not only activates an alarm but also sends an alert to a professional monitoring service.

Many modern monitored alarm systems can also notify you directly via a smartphone or other mobile devices. This type of home and/or office security solution is more expensive since they can also include a 24/7/365 monitoring service.

- **Unmonitored Alarm Systems:** These systems trigger a loud siren, noisy device, or alarm on-site when an intrusion is detected but do not send alerts to a monitoring service or authorities. Instead, they rely on people nearby to respond. While unmonitored alarms can deter intruders, they may be less effective for remote properties or rural areas where fast assistance may not be available.
- **Smart Alarm Systems:** These advanced security systems integrate with smart home technology, allowing you to remotely control and monitor them via a smartphone app. A key feature of smart alarms is the ability to arm or disarm the system as needed. A home security system is typically armed when the owner is away but remains off while they are present. The same principle applies to business security—during work hours, the system may not need to be armed, but after hours, activating the alarm is crucial for protection. For example, when a home has a security system, the system is not always on — it's only armed when the owner is gone. This logic can easily be applied to your security system. During a normal workday, you might not need to have your alarm armed because you and your team will be present. At other times, though, it's necessary to have your system's alarms ready to go. During the evening or on days with high foot traffic, you should consider arming your alarm, which will immediately alert your entire operations team with a message or email as soon as someone attempts to access one of those spaces without the proper security clearance. You'll be able to protect your restricted amenities even when you're not around, which is an incredibly powerful tool for protecting your office's assets.

Additional Types of Intrusion Alarm Systems

Access Control Systems: These security solutions restrict entry to specific areas using methods such as keycards or PIN codes. Good for protecting sensitive locations, including businesses and cannabis operations, access control systems come in various types, including local host access control, access control methods, role-based access control, discretionary access control, and mandatory access control, each offering different levels of security.

Video surveillance systems: These systems use cameras to monitor activity on a property.

Motion Sensor Alarm Systems: These systems detect movement within a designated area and trigger an alarm if unauthorized activity is detected

Motion Sensors

Infrared sensors also known as IR Sensors: Infrared sensors are devices that detect and analyze their environment using infrared radiation. There are two main types of infrared sensors: active infrared sensors and passive infrared sensors (PIR). In residential and commercial security systems, passive infrared sensors are the most used. These sensors detect changes in temperature by measuring the infrared radiation emitted by objects within a room.

- **Active Infrared Sensors:** These both emit and receive infrared radiation. They are primarily used in proximity-based applications, as they project infrared rays that bounce off nearby objects and return to the sensor. This allows the sensor to determine the distance to the object. However, for intrusion detection, the primary concern is simply whether an intrusion is taking place, rather than the distance of the intruder from the sensor. This is why passive infrared (PIR) sensors are so widely used in security systems.
- **Passive Infrared Sensors:** These only detect radiation in the surroundings and trigger the alarm if there are objects that have a much higher temperature than what is around them, like an intruder.

Contact Sensors or contact Switches: These focus on contact rather than motion, making them particularly effective for perimeter security in an office. They detect any object that comes into contact with a door or window, providing reliable protection against unauthorized entry.

- **Door and window switches:** These are contact sensors that trigger the alarm when a door or a window is opened. They work with a magnet and a sensor installed on the door/window but in different areas. The magnet is installed on the door itself, whereas the sensor is placed on the door frame. The alarm is activated when the magnet moves away from the sensor, which occurs when a door or window is opened.
- **Wired Sensors:** Hardwired sensors require a more complex and costly installation process, as they involve running cables throughout the facility, which can also be less visually appealing. However, their advantage is that they do not need batteries, which eliminates ongoing maintenance costs.
- **Wireless Sensors:** Wireless sensors are easy to install as they come ready “out-of-the-box” and are, in general, perceived as more aesthetically pleasing since they do not require cables. Wireless sensors operate on batteries, which means you need to regularly check that each sensor is functioning properly. As a result, you may incur higher maintenance costs over time compared to hardwired sensors.

- **Glass break detectors:** A glass-break sensor is designed to detect unauthorized entry by monitoring the sound of glass breaking, such as from a window or door. Unlike magnetic sensors, these devices respond to vibrations. The sensor is installed directly on the glass surface you want to protect and triggers an alarm if it detects rapid changes in vibration, such as when someone strikes the glass forcefully or if the glass shatters. When used in together with door and window contact sensors, glass-break sensors efficiently monitor the entry points of your facility.

Be In-the-Know, Be Secure

Intrusion alarm systems play a crucial role in enhancing security for both residential and commercial properties. Understanding the different types of intrusion alarms available allows property owners to choose the best solution for their specific needs, ensuring a safer environment and peace of mind.



Tim Shafer

With decades of experience in access control and perimeter security, Tim Shafer is a trusted expert in the field. As a proven sales leader and dedicated community advocate, he blends deep industry knowledge with a passion for building safer environments. His work bridges innovative security solutions and meaningful client partnerships across diverse markets.

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