



Glossary of Fire Alarm and Mass Notification Terminology

A guide to the language of modern building system design

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This glossary is for information only and is not intended as a substitute for verbatim legislated requirements. For authoritative specifications regarding the application of life safety and security systems, consult current editions of applicable codes and standards. For authoritative interpretation of those codes and standards, consult your local authority having jurisdiction.

While every effort has been made to ensure the accuracy and completeness of this glossary, the authors and publishers assume no responsibility for errors, inaccuracies, omissions, or any inconsistencies herein.

Also from Edwards:

85001-0541: Handbook of Visual Notification Appliances for Fire Alarm Applications

A practical guide to regulatory compliance

85001-0582: Remote Booster Power Supply Application Guide

A summary of typical wiring and configuration for everyday and advanced applications

85010-0139: Installer's Wire Guide

A concise pocket reference to wire and cable requirements for Edwards products and systems

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Intelligent/conventional life safety for small to mid-sized applications

85005-0105: EST2 Submittal Guide

Networkable intelligent life safety with voice audio

Introduction

The language of building systems is continually evolving to keep pace with the advances in technology. New approaches to system design and implementation bring with them new concepts that need to be expressed in terms that can be understood by people who come from a wide range of disciplines and backgrounds.

This is especially true with the advent of unified systems. The union of life safety and security functions heightens the need for clear understanding of the principles held in common. Two dialects of technology are in the process of merging to form a new building systems language. This language establishes the basis upon which future discussion of life safety and security is based. It's now more important than ever for professionals in both fields to reacquaint themselves with the terminology they use. It's even more important for professionals entering the field to begin their new careers with a good understanding of the lexicon they will use in the years ahead.

This book is an collection of terms in common use today that describe the features and operation of life safety and security systems. It is not an authoritative work: definitions for the purpose of regulatory compliance must continue to be derived from the standards and codes in effect, and as interpreted by the authority having jurisdiction over any specific application.

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20 mA Current Loop: A data communications format that can be used for long distance network communications over dedicated “hard copper” telephone lines. Logic states are represented by current flow and the absence of current flow.

25 VRMS Audio: Audio distribution that uses a constant 25 VRMS signal and a multi-tap transformer at each speaker to adjust individual speaker volume.

70 VRMS Audio: Audio distribution that uses a constant 70 VRMS signal and a multi-tap transformer at each speaker to adjust individual speaker volume.

A

A-Weighted: A method of measuring sound loudness as perceived by the human ear.

ACAM: Access Control and Alarm Monitoring.

Access: A means to enter an area or obtain certain information.

Access Code: A combination of numbers and/or letters that identifies an individual to a system, for the purpose of authorizing entry or use by the individual.

Access Control: Controlling the movement of persons, vehicles, and materials in and out of a restricted area or premise.

Access Control: The enforcement of specified entry authorization rules based on positive identification of users and the systems or data they are permitted to access.

Access Group: A collection of individuals having the same access privileges.

Access Level: The privileges assigned to an individual specifying the doors, entry times

A

days of the week, etc. the individual is permitted entry.

B

Access Mode: An alarm system operating mode in which no alarm signal is generated when the protected area is entered. Tamper signals will be initiated if the sensor, annunciator, or control unit is disturbed or opened.

C

D

Access Parameters: Information stored in an access control system that defines authorization levels, entry times, holidays, and other system information.

E

F

Access Point: A single point of passage (door, gate, etc.) that is controlled and monitored by an access control system.

G

Access Privileges: See Access Level

H

Account: A subscription to a Central Monitoring Station's services.

I

K

Acknowledgement: (1) Confirmation that a message has been received. (2) In telecommunications, a control signal that completes the handshaking sequence.

L

Acoustic Burglar Alarm: An alarm system that generates an alarm in response to the sound generated by an intruder.

M

Activate: To turn on an output or function.

N

Active Sensor: A sensor that radiates energy into a protected area as part of its detection process.

O

Activity Report: A record of events maintained by a central monitoring station of the openings, closings, alarms, and other signals received from a protected premise.

P

Address: A number that provides a unique identifier for a specific device, module, or power supply. Address numbers may be in binary, hexadecimal, or decimal format

R

Addressable Device: A system component that is uniquely identifiable by the system.

S

Addressable Loop: An alarm system circuit that supports addressable alarm, supervisory, monitor, output, or relay devices.

T

Addressable System: A system that can individually identify a specific initiating and output devices.

U

Addressable Zone Module: An addressable device that acts as a transponder for one or more conventional alarm devices. Activation of any conventional device connected to the zone module results in the addressable device's address being reported.

V

W

Agency Listings and Approvals: Standards to which the system equipment and operation conforms, as set by the applicable standards/approvals agency.

Y

AHU: An Air Handling Unit.

Z

Air Sampling-type Detector: A smoke detector that uses a suction fan and tubing to sample remote areas for products of combustion.

- Alarm:** The state of a system that generates a visible or audible warning signal when abnormal conditions exist in a machine, system, or environment. See Alarm Condition and Alarm Signal.
- Alarm Bypass:** To purposely override the normal system response.
- Alarm Circuit:** An electrical path that produces or transmits alarm information.
- Alarm Condition:** (1) A threatening condition sensed by a detector. (2) The state of an alarm control indicator that has been activated.
- Alarm Discrimination:** The ability of an alarm system to distinguish between its normal surrounding environment and the stimuli of an actual alarm condition.
- Alarm Dispatch:** A notification sent to police, fire, or medical personnel, indicating an unauthorized intrusion or other emergency. Initiated by a person or alarm system in response to a stimulus.
- Alarm Replay:** A control panel feature whereby emergency response personnel can review the sequence in which a multiple zone fire has occurred in order to determine the origin and progress of the fire.
- Alarm Screen:** A window screen having a fine gauge wire woven through its fabric that generates an alarm when the wire is cut. Typically a magnetic contact is built into the frame to detect attempts to remove the screen.
- Alarm Signal:** An indication of an off-normal condition requiring immediate attention, e.g. a notification of fire or intrusion.
- Alarm Signal Cutoff:** See Automatic Signal Silence Timer
- Alarm Silence/Reset Inhibit:** A control panel feature that automatically disables the system silence and reset functions for a predetermined period of time.
- Alarm Threshold:** The temperature, obscuration level, etc. above which an alarm is initiated by a particular sensor.
- Alarm Verification:** Technique used to reduce unwanted alarms in automatic fire detection and alarm systems. To be accepted as a valid alarm initiation signal, smoke detectors must report alarm conditions for a minimum time period or confirm alarm conditions within a given time after being reset. Also called Verified Alarm.
- Alert Signal:** Notification that advises occupants of a possible fire condition, but not requiring immediate evacuation.
- All Call:** Selection of all paging zones for the purpose of making a facility-wide page or notification.
- All Call Minus:** Selection of all paging zones EXCEPT alert and alarm zones.
- All Clear:** An audible signal used to communicate a “safe to return” condition to people already evacuated from a building.

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Alphanumeric: Text consisting of both letters and numbers.

Alphanumeric Keypad: An operator interface component for entering text and numeric information into a system to control system functions, e.g. programming, shunting or arming/disarming the system.

Alternate Prealarm: The ability of an analog device to change prealarm threshold levels. Typically used to automatically change detector sensitivity levels for day and night operation.

Alternate Sensitivity: The ability of an analog device to change alarm threshold levels. Typically used to automatically change detector sensitivity levels for day and night operation.

American Wire Gauge (AWG): The standard American designation of wire sizes. Wire size is an inverse relation to gauge numbers that range from 0000 to 40 AWG. Also called Brown and Sharpe or B&S gauge.

Americans with Disabilities Act (ADA): A US Federal act to ensure that individuals with handicaps will be reasonably accommodated. Relevant sections of this Act detail the requirements for audible and visual notification appliances and mounting heights for manual pull stations.

Amplifier: An electronic component that increases signal level. Typically used to take increase signals from microphones and pre-recorded message units for reproduction by audio speakers.

Amplifier, Centralized: An audio alarm system installation method that locates all audio power amplifiers in a common location. Also known as a banked amplifier.

Amplifier, Distributed: An audio alarm system installation method that locates audio power amplifiers in multiple locations throughout the facility.

Amplifier, Zoned: An audio alarm system installation method that utilizes one amplifier per audio speaker circuit.

Analog Initiating Device (Sensor): An initiating device (sensor) that transmits levels being sensed to a control panel. The control panel makes the alarm decision.

Analog Smoke Sensor: See Smoke Sensor (Analog)

Ancillary Device: A device connected to a fire alarm system not required by the fire alarm standard but may be required by other standards, e.g. door holders, smoke control fans, remote LED indicators, remote alarm, or trouble units.

AND Statement: A logic function used in system programming. If condition A is true AND condition B is true, then the AND is true (Perform Action).

Annunciator: A visual and/or audible system component that indicates an alarm or other condition. Annunciators are typically located at building entrances or at emergency control locations. May consist of LEDs, and/or LCDs and may take the form of a graphic representation of the building. Annunciators may also incorporate features such as system common controls, auxiliary fan and damper controls, and paging controls.

Anti-passback: A feature of an access control system that prevents the passing of an access key or card from one person to another for re-use to gain unauthorized access.

Application Program Interface (API): A set of routines, protocols, and tools for building software programs for such applications as access control and video surveillance.

Area Detection: Protection of a volume using a space detection sensor.

Area Sensor: A sensor with a field of view that approximates the dimensions of the space or object to be protected.

Arm: To activate a portion of the control system.

Armed Signal: A signal transmitted to a central monitoring station indicating that the system is ready to perform its function.

Arming Station: A system component used to ready the alarm system.

ASCII: American Standard Code for Information Interchange. A standardized alphanumeric character computer code.

Attack: An attempt at unauthorized entry or an attempt to defeat an alarm system.

Audible: Able to be detected by the human ear.

Audible Notification Appliance: An indicating device that alerts an individual via the sense of hearing.

Audible Signal Circuit: See Notification Appliance Circuit

Audio System: A fire alarm system that uses voice or electronic tone transmissions to notify occupants of alarm events.

Audio System (Dual Channel): An audio system capable of simultaneous signaling and paging.

Audio System (Single Channel): An audio system capable of either signaling or paging, but not both at the same time.

Audio System (Tri-Channel): An audio system capable of simultaneous alert signaling, alarm signaling and paging. Selected zones may be paged individually without affecting the signals in the rest of the building.

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Audit Trail: A sequential record of system activity used to reconstruct and review a series of system events.

Authority Having Jurisdiction: The government body, organization, office, or individual having the power to enforce and/or interpret laws, codes, and rules. Also responsible for approving equipment, installations or procedures (e.g.: Fire Marshall, building inspector).

Automatic Alarm: An alarm input activated by a device such as a smoke detector, heat detector, flame detector, or water-flow switch, without any manual operation.

Automatic Evacuation Timer: A control panel feature that enables evacuation signals after a preset time period if no action has been taken to inhibit the signals. The timer period of this feature may be individually set according to local jurisdiction, or disabled, as applicable.

Automatic Evacuation Timer Cancel: A control panel feature that cancels the automatic evacuation timer after being manually activated by the panel operator. Depending on jurisdiction, the automatic evacuation timer may restart should a new alarm occur after automatic evacuation has been canceled.

Automatic Fire Alarm system: A fire warning system that reacts to environmental changes (heat and smoke, etc.) without the need for human intervention.

Automatic Signal Silence Timer: A control panel feature that automatically turns off the notification appliances after a predetermined time period.

Automatic Switchover: A control panel operation that automatically switches from the primary CPU to the backup CPU in the event of the primary CPU failure, without operator intervention.

Auxiliary Fire Alarm System: A protected premise alarm system that transmits signals via the municipal fire alarm system to the public service answering point using the same equipment and in the same manner as alarms transmitted manually from street-side municipal fire alarm box.

Auxiliary Relay: An electrically operated switch contact that is activated by control panel programming to perform functions such as shutting down fans, controlling dampers, closing doors, recalling elevators, etc.

Average Ambient Sound Level: A weighted sound pressure level measured over a 24-hour period.

AWG: See American Wire Gauge

B

BA: Burglar Alarm.

Back box: See Wallbox

Badge-out Reminder: An audible signal that sounds when a door equipped with an inside card reader is opened without badging out. The signal reminds the user to present their credentials to the reader.

Badging: The process of creating identification card; may include obtaining badge holder data and photograph, and printing the badge.

Banked Amplifier: See Amplifier, Centralized

Bar Code: A computer-readable code composed of thick and thin lines that may be printed on an object.

Barium Ferrite: A material encoded with magnetic spots that create unique codes, and used in some styles of access cards.

Barrier-free Access: Access control system features that allows physically challenged people to have easy access to an area with controlled space.

Battery: A chemical-based secondary electrical source for the alarm system to ensure operability in the event of an AC power failure.

Battery Charger: An integral power supply element that maintains the backup batteries at a constant charge level when the system is powered by primary AC power.

Battery Time: The period of time that system batteries must fully power the system. Equals the specified supervisory time followed by the specified alarm time

Battery Time (Alarm): The period of time that the batteries must power the system while it is in an alarm state in the event of a primary AC power failure.

Battery Time (Supervisory): The period of time that the batteries must power the system while it is in the normal (supervisory) state in the event of a primary AC power failure.

Baud Rate: The measure of the speed of transmission of a digital signal.

Beam Detector: See Smoke Detector, Projected Beam.

Bell: An electro-mechanical resonant audible notification appliance.

Bio-metric Access Control: A method of verifying access privileges in which a person is identified by a unique physical characteristic.

Biometrics: An access control device that identifies an individual using a unique characteristic of the body.

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Block Diagram: A drawing showing the major components of a system, their relative locations, and the relationship between components.

Bolt: The part of a lock that extends into a strike plate, preventing a door or window from opening.

Bolt Position Switch: A switch used to monitor a lock's bolt state.

Bonding: The permanent joining of all non-current-carrying metal parts to assure electrical continuity with the capacity to safely conduct any likely current.

Bonding Conductor: A conductor connecting the non-current-carrying parts of the equipment or enclosures to the service equipment or system-grounding conductor.

Break: (1) To open an electrical circuit. (2) To destroy the integrity of an object.

Break-glass Station: A manual alarm pull station with a visible glass rod that is broken when the station is operated. The rod is designed to serve as a psychological barrier against false alarms.

Building Management System (BMS): An integrated computer system for monitoring and controlling various aspects of a building's operation such as heating, lighting, air conditioning, alarm systems, physical security, etc. Also called a Building Automation System (BAS).

Bus: A wire channel or path for transferring data and electrical signals, e.g. data bus, audio signal bus, signal bus.

C

CA31A or CA38A Jack: Canadian terminology. A modular connector used to connect telephone line devices (DACTs) to the telephone line. Known as RJ-31X in the U.S.

Cabinet: See Wallbox

Candela: The SI (metric) unit of measure for the luminous intensity of a light or strobe.

Capacitance Card: A type of access card containing a series of capacitor plates.

Card, Access: See Credential..

Card Key: See Card, Access

Card, Proximity: An access control credential with a form similar to a playing card that may be read by holding the card in the vicinity of the card reader, e.g.: not requiring any physical contact with the card reader.

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Card Reader: A device that reads the information contained on an access card and sends it to the access control system. This system compares the data on the card against preprogrammed parameters, granting or denying access. Intelligent card readers use distributed intelligence to perform this function at the reader location. On-line or central processing readers communicate with a central processor that performs the decision function.

CCTV: See Closed Circuit Television.

Central Alarm Control Facility (CACF): The main command and control center for fire alarm and other monitoring functions (e.g. security, air handling), or the room from which an emergency situation is managed.

Central Monitoring Station (CMS): A location that maintains a vigilant watch over a number of remote systems and takes appropriate action in response to system activity.

Change of State: The transformation of an input zone or device from the restored condition to active condition or from the active condition back to the restored condition.

Channel: A data or communications path.

Chime: A mechanical or electronic signaling device that produces a sound similar to a set of attuned bells.

City Tie Module (CTM): A system component that provides a connection to either the local fire department or a central monitoring station. Also known as Fire Department Relay (FDR).

Class A: A wiring classification of circuits capable of transmitting an alarm signal during a single open or non-simultaneous ground fault on a conductor.

Class B: A wiring classification of circuits NOT capable of transmitting an alarm signal beyond a single open or during a short between conductors.

Closed Circuit Television: A proprietary television system in which a camera feeds one or more monitors through a cable.

Coded: An audible or visible notification appliance that conveys discrete information. Coded notification information takes the form of the number of pulses of an audible appliance or number of flashes of a visible appliance.

Coded Signals: An alarm signaling method in which affected areas and types of alarms are identified by using different signaling sequences.

Coder: A system component that pulses coded signals in the prescribed code or sequence.

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Color - Correlation

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Color Graphics Computer: A central alarm control and annunciation tool that uses graphic representations of the building shown on a computer screen, along with displays of specific device and alarm zone information and common control features.

Combination Detector: A device that (1) employs more than one operating principle to sense a fire phenomenon (smoke, heat, flame, etc.) (2) responds to more than one indication of an intrusion attempt (glass breakage, vibration, or motion).

Command Port: A supervised network communications port that can receive and transmit network instructions to and from interactive subsystems, e.g.: color graphics or third party gateway computers.

Common Alarm: A control panel operating sequence where any active alarm input will cause all output circuits to activate.

Common Controls: The control panel feature switches and indicators that operate on a global or system wide basis, e.g.: signal silence, reset, acknowledge.

Common Entry Door: A door in a multi-tenant building that is used by all tenants.

Common Relays: An electrically operated switch that operates whenever any one of a number of pre-defined events occurs, e.g. trouble relays, alarm relays.

Compatibility: The suitability of one device or system to be used in conjunction with another device or system.

Contact: (1) The mechanical parts of a switch/relay that make or break the electrical path. (2) A switch type sensor.

Contact Chatter (Contact Bounce): The mechanical vibration that occurs on closure of the switching elements of relays or switches. A contact may make and break many times before settling. Chatter can also be caused by external vibration or shock to a closed contact.

Contact Device: A sensor or component that opens/closes a switch or relay as its system interface.

Control Panel: The central unit of an alarm system which monitors the detection and input devices; then responds by activating signaling and other control devices in a prescribed manner.

Control Unit: A system component that provides the operational relationship between system inputs and system outputs and acts as the interface between the system and operator.

Correlation: The relationship between input functions (alarm, supervisory, monitor, etc.) and output functions (signals, relays, etc.).

Counting Zone: An alarm circuit detection and processing method that tallies the number of detection devices activated on a circuit, and upon reaching a specified number, activates its output, generating an alarm. Typically used in automatic suppression system applications.

Credential: A card or other object that contains electronic identification information that is used in an electronic access control system to identify an individual.

Cross Zone: An alarm detection and processing method using two initiating device circuit such that both circuits must be activated before an output is generated. Typically used in automatic suppression system applications.

Customer Connect: Terminal strip to which external field wiring is connected.

D

Damper Control: The process of opening and/or closing heating and ventilating hardware (dampers), to isolate and exhaust smoke and to pressurize areas surrounding a fire.

Data Gathering Panel (DGP): An addressable system interface that converts input signals to the format required by the addressable system and can convert commands from the addressable system controller into output contacts and signals.

Day/Night Switch: A device for toggling system status between daytime and nighttime modes.

DC-Blocking Capacitor: An electronic component wired in series with a device that allows the passage of an AC signal while blocking the DC supervisory current.

Deadfront: Panel construction that makes all live electrical parts inaccessible to unauthorized persons.

Degraded Mode: (1) A feature of an access control system that allows a card reader controller to grant or deny access independently of the system's central control unit. (2) Predetermined system operation that occurs in the event of a fault, providing some basic level of system operation.

Detection Pattern: The area of coverage a space detection device will detect its stimulus.

Detection Range: The distance at which a sensor will detect its stimulus.

Detector: A system initiating device containing a sensor that responds to external stimulus such as heat, smoke, movement, vibration, etc.

Detector Coverage: (1) The recommended maximum distance between adjacent detectors. (2) The area, range & pattern that a detector is designated to protect.

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Diagnosis: The identification and isolation of an equipment or system malfunction or failure.

Dialer: This system component that sends system status information over the public switched (dial-up) telephone network to a compatible receiver. See Digital Alarm Communicator Transmitter.

Digital Alarm Communicator Receiver (DACR): A system component that accepts and displays signals from digital alarm communicator transmitters (DACTs) sent over the public switched telephone network.

Digital Alarm Communicator System (DACS): A system that transmits signals from a digital alarm communicator transmitter (DACT) located on protected premises through the public switched telephone network to a digital alarm communicator receiver (DACR) at a monitoring location.

Digital Alarm Communicator Transmitter (DACT): A system component at the protected premise that transmits system information to a DACR via the public switched telephone network.

Digital Alarm Radio Receiver (DARR): A system component that receives and decodes radio signals, then displays the data.

Digital Alarm Radio System (DARS): System components that transmit and receive system signals via a radio channel.

Digital Alarm Radio Transmitter (DART): A DACT that provides an alternate radio transmission channel in addition to the public switched telephone network.

Digital Communicator: See Digital Alarm Communicator Transmitter, Digital Alarm Communicator Receiver, Digital Alarm Communicator System.

Digital Keypad: An operator interface component for entering numeric information into the system to control system functions, e.g. programming, shunting or arming/disarming the system.

Digital Video Recorder (DVR): A device that records video onto a hard disk from one or more video cameras. Part of a security system, the DVR typically supports 4, 8 or 16 separate camera channels.

Digitized Message: A pre-recorded system audio message that is stored in computer memory chips.

DIP Switch: A group of two-position electrical contacts mounted in a Dual Inline Package (DIP), typically used to set address or function information.

Direct Hold: A type of magnetic lock that can be used on most types of doors. The lock is put on the outside of the doorframe to align with a plate on the door.

Disable: A system command that intentionally places a device or system out of service, typically for maintenance.

Disarm: To intentionally turn off a portion of the control system.

Display: A system component that visually presents system information to the user.

Distributed Intelligence: The decentralization of system processing power and information between multiple locations/devices instead of concentrating power/information at a single location.

Door Contact: A switch used to monitor the open/closed status of a door.

Door Holder: An electromagnetic device that retains a fire door in the open position and releases the door when directed by the fire alarm panel to control the spread of smoke.

Door Strike: The component of a door locking mechanism that mounts in the doorframe and receives the lock bolt.

Door Trip Switch: An electro-mechanical contact that is operated by any movement of a door.

Door-Ajar Signal: An indication that a door has not closed properly.

Double Hung Window: A window comprised of vertically sliding upper and lower sashes.

Down-Line Programming: A system feature that permits programming remote panels via the network, from a single location.

Dual Tone Multi-Frequency (DTMF): A method of representing numeric characters and symbols using two simultaneous voice-band tones. Also called Touch-Tone(R) dialing.

Duct Smoke Detector: A device that senses the visible and/or invisible products of combustion in an HVAC system.

Duress Alarm: An alarm indication that an individual is in a threatening situation.

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EEPROM (E2PROM): Electrically Erasable Programmable Read Only Memory. A non-volatile, reprogrammable memory chip.

Egress: Exit. See NFPA 101, chapter 5.

Egress Button: A door release switch located near an access-controlled door that releases the door-locking device.

EIA (Electrical Industry of America) Rack Mounting: A standardized measurement unit system for mounting equipment in a cabinet in which 1 EIA Space = 1.75 inches. The standard rack mounting width is 19 inches.

Electric Door Bolt: An electro-mechanical door locking mechanism that uses an electromagnet (solenoid) to extend or retract the locking pin, permitting the door to be opened.

Electric Hinge: The hardware on which a door pivots and is also capable of passing electrical signals to equipment mounted on the door such as electric doorknobs.

Electric Strike: An electro-mechanical door locking mechanism that replaces the conventional door strike plate and uses an electromagnet (solenoid) to lock or release the strike, permitting the door to be opened.

Electrical Supervision: Monitoring the integrity of a circuit or device to detect a fault condition that would prevent normal operation.

Electronic Access Control: See Access Control

Elevator Homing Alternate Floor: The floor to which an elevator will automatically be directed in the event of smoke detected in the elevator lobby of the primary elevator homing floor.

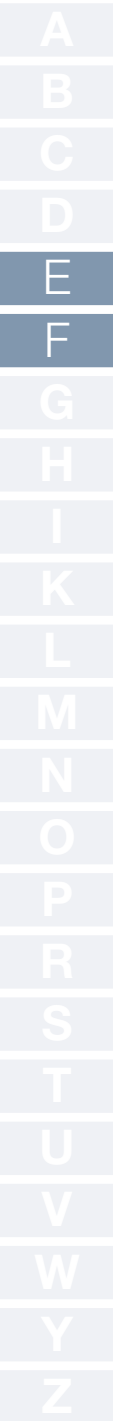
Elevator Homing Floor: The floor to which an elevator will automatically be directed in the event of smoke detected in an elevator lobby.

Emergency Lighting: An automatic illumination system that is activated whenever AC power fails in a building.

Emergency Power Supply: A secondary source of electrical power independent of the primary power supply, used to power critical systems in the event of an AC power failure.

Emergency Telephone System: A dedicated two-way voice communications network consisting of a master control panel and strategically located emergency telephone stations and/or phone jacks.

- Emergency Voice Alarm Communications System:** A dedicated one-way emergency audio communications system for originating and distributing voice instructions and signals to building occupants; may be manual, automatic, or both.
- Enable:** A command that allows an input device/circuit/zone to report its change of state or an output device/circuit/ zone to change state.
- End-Of Line Device (EOL):** An electronic component physically installed as the furthest device from the control panel; whose presence on the circuit is used to monitor the integrity of the circuit.
- End-of-Line Resistor:** A resistive electrical component installed at the physical end of a device wiring loop to establish a supervision path to the control unit.
- Entrance Delay:** The time allowed between the activation of a sensor and the sounding and/or transmission of an alarm signal by the control unit. The delay allows authorized personnel with a control key to enter without causing an alarm if the access is located within the protected area.
- Environmental Compensation:** The process used by a smoke detector to adjust its sensitivity baseline for the effects of as dirt, humidity, etc. that can generate false alarms.
- Evacuation:** The exiting of occupants from a building.
- Evacuation Signal:** Notification to occupants to leave the facility.
- Event Log:** A record of system operation and events with time, date, and other pertinent information.
- Exhaust Fan:** A component of an air handling or smoke control system that removes air from the area being serviced.
- Exit Alarm:** Notification that a controlled egress door is in open.
- Exit Button:** An electrical switch that releases a lock on an egress door.
- Exit Delay:** The time allowed between arming a control unit and the sounding and/or transmission of an alarm signal by the control unit. The delay permits a person to turn on the alarm system and leave through the protected door or gate without causing an alarm.
- Expandability:** The ability of a system or control panel to accommodate additional devices or remote panels.
- Explosion proof:** The ability of a device to contain an explosion within the device so as not to cause a vapor ignition or explosion in the atmosphere surrounding the device.



F

FACP: Fire Alarm Control Panel

Fail Safe: A mode of operation that leaves a device in a harmless state in the event of a failure.

Fail Safe Lock: A locking mechanism designed to permit access in the event power to the device is lost.

Fail Secure Lock: A locking mechanism designed to deny access in the event power to the device is lost.

False Alarm: An unwarranted system event, typically caused by mischief, man-made disturbances, environmental conditions, equipment malfunction or unknown stimulus. Also called a nuisance alarm.

FasTest: A one-person test mode that facilitates testing of initiating devices and circuits, as well as notification appliances and circuits. Useful for installation and maintenance checks.

FCC (Fire Command Center): A centralized operator control unit for displaying, monitoring, and controlling fire emergency situations with appropriate switches, indicators, common controls, graphic annunciators, and fan and damper controls.

FDR (Fire Department Relay): See City Tie Module.

Fiber Optics: A thin glass thread that is used to achieve secure, noise-immune, wide band communications while providing immunity to cross-talk, lightning and power surges; and is suitable for use in explosive environments.

Field Panel: See Transponder

Field Programmable: The ability to customize control panel operation at the installation site.

Fingerprint Reader: A biometric device that scans the ridges and swirls on a person's finger to verify a person's identity.

Fire Alarm Control Panel (FACP): An electronic unit that monitors fire detection devices and activates appropriate alarm notification appliances and other auxiliary appliances according to programmed instructions.

Fire Alarm Signal: An event initiated by a manual fire alarm box, automatic fire detector, water-flow switch or other device that indicates the presence of a fire or fire products.

Fire Alarm System: A specialized control system that monitors initiation devices that detect smoke and fire and provides appropriate notification, control, and system supervision functions.

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- Fire Alarm/Evacuation Signal Tone Generator:** An electronic component that electronically generates fire alarm/evacuation tones for use with an emergency notification system.
- Fire Command Center:** A centralized operator control unit for displaying, monitoring, and controlling fire emergency situations with appropriate switches, indicators, common controls, graphic annunciators, and fan and damper controls.
- Fire Detector:** A device that detects a fire signature and automatically initiates an electrical signal to actuate an alert or alarm signal.
- Fire Drill:** The manual activation of fire alarm notification appliances in order to test evacuation procedures. The fire drill feature typically does not operate any programmed auxiliary functions or the central station connection.
- Fire Fighters Elevator:** A specially designated elevator, installed in its own separate shaft, suitable for use during a fire emergency.
- Fire Fighters Telephone:** A dedicated two-way emergency communications system provided as part of the fire alarm control system to facilitate communications between the fire command center and strategic outlying areas of the facility.
- Fire Pump:** A dedicated pump that provides additional water pressure for fire extinguishing systems (standpipe, sprinkler, hose lines).
- Flame Detector:** A device that senses the infrared, ultraviolet, and/or visible radiation produced by a fire to actuate an alarm signal.
- Flow Switch:** See Water-flow Alarm
- Flush Mounting:** Mounting equipment such that it has a minimum protrusion from the wall.
- Form A Contact:** A Normally Closed (N.C.) relay configuration
- Form B Contact:** A Normally Open (N.O.) relay configuration.
- Form C Contact:** A Single Pole Double Throw (SPDT) normally open/normally closed relay configuration.
- Four-Wire Smoke Detector:** A fire detection device that initiates an alarm (short) on one pair of wires and receives power over a second pair of wires.
- Full Duplex:** A communications path that allows simultaneous transmission of data in two directions.

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G

General Alarm (GA): A facility-wide evacuation signal.

Giant Voice: A high power Mass Notification system typically installed as a wide-area solution to provide siren signal, pre-recorded, and live voice messages.

Glass-break Vibration Detector: An intrusion sensor that attaches to window glass to sense the vibrations caused by cutting/breakage of the glass.

Graphic Annunciator: An system annunciator that features a scaled drawing of the facility and incorporating LEDs and switches for point annunciation and control of system features.

Ground Fault: An unwanted circuit path to earth ground.

Guard's Tour Supervision: Monitoring of the sequence and timing of patrol stations activated by a guard on his rounds. Delayed activation or activation out of sequence initiates a supervisory alarm.

H

Half Duplex: A communications path that allows transmission of data in two directions, but in only one direction at a time.

Hand Geometry: A biometric technique that compares a stored "image" of a person's hand to the "image" of the hand presented to a reader in order to verify a person's identity.

Hardwired System: A non-addressable alarm system that utilizes contact devices and circuit continuity to initiate an alarm condition and direct wired DC circuits to operate notification appliances. Also called a conventional system.

Harmonized Cordage: The European standard governing the construction, identification, and use of wire sizes and stranding.

Heat Detector, R-O-R Fixed Temperature: A heat sensitive switch that activates when the temperature of its operating element reaches a predetermined level or the rate of temperature rise (ROR) exceeds a preset limit.

Heat Detector, Fixed Temperature: A heat sensitive switch that activates when the temperature of its operating element reaches a predetermined level.

Heat Detector, Line: A linear heat activated switch that is sensitive along its path (as opposed to a spot detector), and activates when the temperature along its operating element reaches a predetermined level.

Heat Detector, Non-restorable: A heat sensitive switch with a sensing element that is destroyed in the process of detecting a fire.

Heat Detector, Rate Compensation: A fast acting fixed temperature sensor exhibiting low thermal lag.

Heat Detector, Rate-of-Rise: A heat sensitive switch that activates when the rate of temperature rise (ROR) exceeds a preset limit.

Heat Detector, Restorable: A heat sensitive switch with a sensing element that is not destroyed in the process of detecting a fire. Restoration may be automatic or require replacement of sensing elements.

Heat Detector, Self-Restoring: A heat sensitive switch with a sensing element that automatically returns to the non-alarm condition when its temperature is below the alarm threshold.

Heat Detector, Spot: A thermal detection device whose element senses temperature at a single point as opposed to along a path.

Holdup Alarm: A switch that allows a person to signal a crime (holdup) in progress.

HVAC: Heating, Ventilating, and Air Conditioning. HVAC systems are governed under the provisions of NFPA 90A.

Hydraulic Motor Gong: A water-operated sprinkler bell that activates whenever water is flowing in the fire sprinkler system to alert passersby to call the fire department.

I

Indicating Appliance Circuit (IAC): See Notification Appliance Circuit (NAC)

Infrared Motion Detector, Passive (PIR): An intrusion detector that detects the presence of a person using changes in the intensity of the heat (infrared light) radiated by the person, commonly used in access control systems to initiate as a request to exit.

Initiating Device: A manual device or automatic sensor that starts the processing of an event by a control system, i.e. manual fire alarm station or smoke detector.

Initiating Device Circuit (IDC): A supervised input circuit that connects detectors, manual stations, etc. to the control panel.

Installation Drawing: A graphic representation of a system that details the methods, parts, locations, and other information for the proper installation, wiring, and testing of the system.

Integrated System: A combination of fire, security, access control, and CCTV functions in a seamless system that uses common hardware and facilitates interaction between these functional elements.

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Intelligent Device: A sensor or output device incorporating a microprocessor and logic that is capable of making alarm/output decisions independent of a centralized host processor.

Interactive Device: An operator interface that delivers information to the operator and/or receives information from the operator, e.g. keypad, graphic annunciator, color graphics computer.

Interface: Hardware and/or software required to convert communications protocols between different equipment or systems

Interfaced System: A system consisting of two or more functional sub-systems that interact using hardware and/or software to convert communications protocols between the two sub-systems.

Interior Perimeter Protection: Protection provided along the inside boundary of a protected area.

Interior Zone: A protection circuit that connects to sensing devices that monitor only the interior of the premises.

Intrinsically Safe: A category of devices that will not generate a spark or thermal effect during normal or fault condition that is capable of causing ignition of a specified gas, vapor, or dust.

IO: Input/Output

Ionization Smoke Detection: A sensing method using radioactive material to ionize the air between two electrodes; a sufficient number of smoke particles entering the ionized air space reduces ion mobility, and is processed as a smoke conditions.

IP Camera: A camera capable of using the internet packet-based protocol for delivering video and sometimes audio, data across a network.

IR: Infrared

K

Key Station: A key-operated initiating device used in institutions to prevent false fire alarms. Also used as a guard patrol station.

Keypad: A control unit interface used to input alphanumeric information.

L

Lamp Test: A control panel switch/feature that turns on all panel indicators to verify their operation.

Latching: An operating mode where a device's state follows the state if the initiating stimulus.

LCD: Liquid Crystal Display

LED: Light Emitting Diode

Lexan®: A clear tough plastic material commonly used in alarm equipment doors/enclosures. Manufactured by Edwards Plastics.

Light Scattering: The process of using reflection and/or refraction of light off particles of combustion in a photoelectric smoke detector.

Line Security: The protection provided against compromise of the communications path that connects the protected premise to the monitoring station.

Line Seizure: The process used by a dialer (DACT) to gain and maintain access to a dial-up telephone line from other devices on the same phone circuit.

Line Supervision: The process of monitoring circuit security by sending a known signal over the circuit and measuring the signal/circuit for any change in characteristics that indicate tampering.

Listed: An indication that the equipment, material, or service meets the identified standards or has been tested and found suitable for the specified purpose and is included in a publication of a standards organization.

Local Alarm: An alarm system that limits notification to the protected premise only.

Log: A permanent record or history of system operation, listing each event, time of occurrence, etc.

Logic Functions: Boolean operators such as AND, OR, NOT, etc. that are used when programming control panels to achieve desired operation sequences.

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Man Trap: See Security Interlock.

Magnetic Contact: See Magnetic Reed Switch.

Magnetic Lock: A door-securing device that consists of an electromagnet mounted on the doorframe opposite a strike plate mounted on the door. When current is sent through the electromagnet, the attraction of the magnet to the armature holds the door shut.

Magnetic Reed Switch: An alarm-initiating component that consists of a thin magnetically activated contact (reed) enclosed in a hermetically sealed tube.

Magnetic Stripe Card: A type of access card featuring data in an encoded ferro-magnetic stripe.

Magnetic Switch: See Magnetic Reed Switch

Maintenance Alert: A system indication that an analog sensor has reached a level of contamination from dirt, etc. that requires routine maintenance.

Manual Fire Alarm Box: An occupant operated device used to initiate a fire alarm signal.

Manual Pull Station: An occupant operated device used to initiate a fire alarm signal.

March Time: An audible notification appliance rate equivalent to 90/120 strokes per minute to promote a fast walking cadence.

Mass Notification: The capability to provide real-time information and instructions to people, in a building, area, site, or installation using intelligible voice communications including visible signals, text, and graphics, and possibly including other tactile or other communication methods.

Mat Switch: A security alarm-initiating component used on open floors or under carpeting that activates when sufficient weight is placed on the mat.

I/O (Input/Output) Matrix: A spreadsheet used to indicate the relationship of system inputs to outputs.

Medical Alert: An alarm that summons medical assistance.

Mixer: An electronic device that receives several sources of audio and/or video input signals and combines them into a single signal.

Modem: Abbreviation for MODulator-DEModulator. A communications device that converts data to audio tones in order to transmit/receive data via telephone lines.

Module: A functional system element packaged so that it can easily be added or removed from a system.

Monitor: (1) A CCTV display. (2) To maintain vigilance.

Monitor Input: A system input connected to a status switch in order to report the operating status of devices such as dampers or doors.

Monitoring: The process of maintaining a vigilant watch over a system or point and taking appropriate action in response to system activity.

Motherboard: The main circuit board into which daughter cards or modules are connected.

Mullion: (1) The center post used in double door openings for locking purposes. (2) The vertical and/or horizontal dividers in windows, doors, or other openings.

Multi-criteria Detection: An alarm initiating device that uses two or more sensing technologies to generate an alarm condition.

Multiple Channel Audio: A one-way emergency communication system capable of simultaneously sounding three or more independent audio signals (live page, alarm message, alert message, elevator cab message, stairwell message, etc.) to different areas of the building in response to an alarm condition.

Multiplex: To interleave or simultaneously transmit two or more signals from remote devices over a single communications channel.

Multiplexing: A communications technique that can simultaneously process multiple signals over a single channel.

Multisensor Detection: See multi-criteria detection.

Multitasking: The ability of a computer to run two or more programs simultaneously.
Example: Printing a report while simultaneously monitoring an alarm system.

Multi-tenant Operation: The ability of a single access control system to support many different user organizations simultaneously.

Municipal Tie Module: See City Tie Module

Muster Operation: An access control function used to track system users and to identify their last known location in a facility. During a facility evacuation, the muster report provides a list of people who have not reported to the muster station indicating they may still be in the facility.



N

National Fire Protection Association (NFPA): An organization that is internationally recognized as a definitive authority on fire protection. The NFPA publishes and administers the development of codes, standards, and other materials concerning all aspects of fire safety for the United States.

Network: A group of interconnected functional elements that work together to create an overall functional group.

Node: The basic functional element of a network.

Non-Coded Signal: A constant output from a notification appliance.

Non-latching: An operating mode where a device's state follows the state of the the initiating stimulus.

Non-restorable Initiating Device: A detection device with a sensing element that is not capable of re-use after sensing an alarm.

Normal Standby Condition: The quiescent state of a panel - not indicating any alarm, trouble, supervisory or off-normal status conditions.

Notification Appliance: A fire alarm system output device such as a horn, bell, strobe, speaker, or text display designed to gain the attention of occupants and signal appropriate action.

Notification Appliance Circuit: A supervised output circuit that connects horns, bells, strobe, speaker, etc. to the control panel.

Nuisance Alarm: See False Alarm.

O

Obscuration: The reduction in the atmospheric transparency caused by smoke or dust, expressed as a percentage.

On-Auto-Off Switch: A 3-position control panel switch used to set the manual (on or off) or automatic operation of a motor, fan, or other appliance.

Open Fault: An abnormal high circuit series resistance increase resulting in a trouble condition at the control panel.

Operating Mode, Private: Selected notification of only individuals directly involved with carrying out emergency procedures in an area protected by the fire alarm system.

Operating Mode, Public: Notification of occupants in an area protected by a fire alarm system, by audible or visible means.

Operating System Software: The fundamental system software that operates a micro-processor based system; sometimes referred to as “firmware’ or the “executive program.” Site-specific software is used by the operating system to customize system operation.

Optical Fiber: A thin glass thread that is used to achieve secure, noise-immune, wide band communications while providing immunity to cross-talk, lightning and power surges; and is suitable for use in explosive environments.

OR Statement: A logical function used in system programming in order to control an event based on the sequence: if (Condition A = True) OR (Condition B = True) Then (Perform Action).

OS&Y Valve: Outside Screw and Yoke Valve typically used as a sprinkler shut-off valve. A tamper switch is used to indicate when the valve is closed.

Output: A signal generated to control external devices such as signals, relays, LEDs, control modules, etc.

P

Paging Inhibit: A one-way emergency audio communication system feature that prevents voice paging for a predetermined period of time after the first alarm is received.

Paging Microphone: A microphone that is used for issuing emergency instructions over the one-way emergency audio communication system.

Paging System: A non-supervised public address system for distributing voice messages to building occupants.

Palm Geometry Reader: An access control device that identifies an individual by optically scanning the hand geometry.

Panic Alarm: A switch that allows a person to signal an emergency that does not threaten the life of the user immediately or directly.

Panic Exit Bar: A mechanical, electro-mechanical or electronic door release that uses a horizontal push mechanism that opens the door when the bar is pushed.

Paper Trail: Written documentation, including dates and times, etc. that verifies performance or completed work, tasks, tests, maintenance, etc. See Audit trail, Log.

Passive Infrared Sensor (PIR): An intrusion detector that detects the presence of a person using changes in the intensity of the heat (infrared light) radiated by the person, commonly used in access control systems to initiate a request to exit.

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Passive Ultrasonic Alarm System: An alarm system that uses special microphones and circuitry to detect ultrasonic frequency changes generated during forcible entry.

Password: A sequence of alphanumeric characters associated with an individual to identify the person to a system.

Password Controlled System Access: A confidential system that permits operators and/or service personnel to operate various levels of protected features of a system. Used to prohibit unauthorized system operation or changes to the operation of the system.

Pattern: The shape of the coverage area/volume of a detection device.

Personal Identification Number (PIN): A unique number associated with a person, used to verify the individual's identity to a system.

Photoelectric Light Obscuration Smoke Detection: A sensing method that utilizes a light source that transmits its output directly to a light sensitive receiver. When smoke particles enter the light path, some of the light is scattered or absorbed, reducing the light at the receiver and processed as an alarm condition.

Photoelectric Smoke Detector: A sensing method that uses visible and/or infrared light to sense the presence of smoke particles. When smoke particles enter a light trap, light is reflected or refracted to a light sensitive component, which is processed as an alarm condition.

PIN Pad: A numeric entry keypad usually found in combination with an access control credential reader.

PIR: See Passive Infrared.

Plenum Area: A building compartment or chamber that forms part of the environmental air distribution system. Examples include the space above a suspended ceiling or under raised floors that carry environmentally conditioned air.

Plenum Cable: Specially insulated cable designed to limit fire and smoke spread for use in spaces that are also used to carry environmentally conditioned air.

Plenum Rated: Product construction that complies with code requirements for use spaces that are also used to carry environmentally conditioned air.

Point Contact Transmitter: A system transponder that is connected to a conventional contact device and capable of individually reporting the device's status to the system.

Polarized Notification Device: A signaling appliance that incorporates a series diode such that the device operates only when the correct electrical polarity is provided. The series diode permits monitoring the integrity of the circuit Notification Appliance Circuit (on which the device is installed) using a small current of the "wrong" polarity through an end of line resistor.

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Polling: The process of sequentially interrogating addressable devices to determine the device's status.

Positive Alarm Sequence: Fire alarm operation that permits a short delay for investigation before generating an alarm signal.

Power Supply: The source of a system's electrical operating power; usually a primary supply (AC mains) backed up by a secondary (DC Battery) supply.

Pre-Amp, Audio: Electronic circuitry that conditions and increases low level audio signals, to line level signals for distribution and use by audio distribution amplifiers.

Pre-Announce Tone: A signal or sound that precedes a voice message from a one-way emergency audio communications system, alerting occupants to pay attention to the message that follows.

Presignal System: A fire alarm that sends the first notification to a constantly attended location (maintenance/security office, switchboard, etc.) of an alarm event. A full alarm may be manually initiated, or is automatically initiated within 1 minute after the prealarm.

Pressure Alarm System: An alarm system that monitors an enclosed volume by increasing the air pressure in the protected volume, then monitoring the pressure differential between the protected volume and the environment outside the protected volume. Equalization of pressure due to compromising the structure will initiate an alarm signal.

Pressure Mat: A security alarm-initiating component used on open floors or under carpeting that activates when sufficient weight is placed on the mat.

Pressure Switch: As part of a dry sprinkler system, the pressure switch would cause water to charge the sprinkler piping if it detected a sudden drop in air pressure in the system caused by the opening of a closed sprinkler head.

Pressurization Fan: The component of a smoke control system that blows air into a smoke zone, thus increasing air pressure to minimize the entry of smoke into the zone.

Prioritized Reporting: A system function that sequences event annunciation such that life safety events (fire) are processed before lower priority events, i.e. security, trouble, etc.

Priority: The relative importance of system events.

Private Branch Exchange (PBX): A private telephone switchboard.

Products of Combustion: The products that result from a fire such as heat, gases, and particles.

Projected Beam Smoke Detector: See Smoke Detector, Projected Beam

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Proprietary Alarm System: An alarm system that serves one or more facilities under common ownership and is continuously monitored by trained personnel.

Protected premises: The facilities protected by an alarm system.

Proximity Alarm System: A system in which a protected object is electronically connected as a capacitance sensor so that its capacitance forms part of a tuned circuit. The approach of an intruder causes sufficient change in capacitance to upset the balance of the system and initiate an alarm signal.

Proximity Card: An access control credential with a form similar to a playing card that may be read by holding the card in the vicinity of the card reader, e.g.: not requiring any physical contact with the card reader.

PSNI: Positive, Successive, Non-Interfering. A process used to sequentially output multiple event codes while preventing signals from clashing with each other.

Pull Station: See Manual Pull Station

R

Radio Frequency (RF): Electromagnetic radiation, generally above 20 kHz.

RAM: Random Access Memory

Reader: A device that can retrieve the information encoded on an access card or other access credential.

Receiver: (1) Any device equipped for detecting electronically transmitted signals. (2) A device which monitors and displays signals from alarm systems.

Redundancy: (1) The availability of duplicate functional system elements such that should one element fail, the duplicate is available as to replace the failed element. (2) The availability of more than one method for performing a function. (3) The availability of multiple copies of data or equipment in the event of failure or damage.

Redundant Wiring Circuit (or Alternate Path Circuit): A communications path having two or more independent routes between the same end points such that the failure of one route switches the data to an alternate route, maintaining continuity of communications between the end points.

Reed Switch: An alarm-initiating component that consists of a thin magnetically activated contact (reed) enclosed in a hermetically sealed tube.

Regenerative Network: A distributed communications network system that is capable of regenerating itself into several new and fully functioning network families, independent of the main CPU, in the event of a data line break or a control panel failure.

- Releasing Device Service:** The control of building safety systems by the fire alarm system. Examples of controlled systems include elevators; smoke control and venting systems, fire doors, and extinguishing systems.
- Remote Alarm:** Alarm signal that is sent to a remote monitoring station. May also activate a local alarm.
- Remote Annunciator:** See Annunciator
- Remote LED Indicator:** A device status indicator LED mounted separately from a device to indicate the device's status. Typical applications are for smoke detectors located above false ceilings or below raised floors.
- Remote Protective Signaling System:** A fire alarm system that transmits alarm conditions to a remote manned location where appropriate action is taken.
- Remote Receiving Equipment:** Control panel and accessories for receipt of signals from fire alarm control panels located in distant buildings.
- Remote Trouble Unit (RTU):** A panel fault annunciator that is located separately from the control panel.
- Reset:** A manually initiated alarm system function that returns the system and attached devices/systems back to normal operating condition.
- Response Time:** The delay between the activation of an initiating device and the operation of an output device or function.
- Restorable Initiating Device:** A detection device with a sensing element that is operational after being reset.
- Restore:** Returning a device's state back to normal.
- Reverse Polarity:** The process of providing normal/alarm indications on a DC circuit by swapping the (+) and (-) terminals. On some systems, trouble is indicated by an absence of any voltage.
- Riser:** An electrical path used to distribute power or signals.
- Riser Diagram:** A cross-section drawing that shows building levels, relative equipment locations and interconnecting system wiring.
- RJ-31X Jack:** A modular connector used to connect telephone line devices (DACTs) to the telephone line. Also known as CA31A or CA38A in Canada.
- ROM:** Read Only Memory
- RS-232:** A serial data communications format used for computer peripheral devices such as printers, modems, etc.
- RS-485:** A differential communications format used for networks and interconnecting control panels.

S

Satellite Station: An unattended location housing local receiving equipment. Signals are then sent from the satellite station to the remote receiving equipment station via high speed a communications channel.

Schedule: (1) The times and days of the week, etc. used to track details concerning when an individual can gain access to a secured area. (2) Tables used on drawings giving number, size, type, manufacturer, and location of equipment to be installed.

Security Circuit: A dedicated electrical path used to monitor protected areas, doors, or windows for access and/or intrusion violations.

Security Interlock: A series configuration of two normally locked doors designed so that unlocking one door prohibits unlocking the second door until the first door is re-locked. Sometimes referred to as a mantrap.

Security System: A specialized control system that monitors initiation devices that detect intrusion or unauthorized access and provides appropriate notification, control, and system supervision functions.

Self-Diagnostics: The ability of a system to isolate and identify system faults.

Semi-Flush Mounting: Equipment installation where the equipment is partly recessed into a wall and partly protruding out from the wall.

Sensitivity: The alarm threshold of a sensing device.

Sensitivity Report: A list of sensors, current sensitivity values and in some reports, alarm threshold.

Sequence of Operation: A description of the series of events that will take place in response to the activation of a system input device.

Sequential Display: A visual output device that provides information on multiple events, one event at a time.

Short-circuit Fault: A low resistance between two conductors resulting from an abnormal condition.

Shunt: (1) Deliberate shorting of an electrical circuit. (2) A switch that bypasses some portion of the protective system.

Signal Circuit: See Notification Appliance Circuit

Signal Rate: The repetitive frequency/pattern at which a notification appliance operates.

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Single Channel: A one-way emergency communication system capable of sounding one audio signal (live page, alarm message, alert message, etc.) at a time in response to an alarm condition.

Siren: An audible notification appliance characterized by a cyclical rising and falling output frequency.

Smart Card: A plastic identification card with an embedded microprocessor and memory capable of recording transactions and data.

Smoke Control System: A coordinated arrangement of supply, exhaust, and pressurization fans, dampers and monitoring devices, etc. configured to contain and/or evacuate smoke within a facility during a fire condition.

Smoke Detector: A device that senses the visible and/or invisible products of combustion.

Smoke Detector, Combination: A detector that employs more than one smoke detecting principle in one unit with each principle contributing in the response either entirely or partially.

Smoke Detector, Ionization: A detector containing a small amount of radioactive material which ionizes the air in the sensing chamber, thus rendering it conductive and permitting a current flow between two charged electrodes in the sensing chamber. When products of combustion enter the chamber they decrease the conductance of the air by attaching themselves to the ions. When the conductance is less than the preset level, the detector activates.

Smoke Detector, Photoelectric: A detector containing a light source and a photosensitive sensor that are arranged so that the rays of the light source do not normally fall on the sensor. When smoke particles enter the light path, some of the light is scattered by reflection and refraction onto the sensor causing the detector to activate.

Smoke Detector, Projected Beam: A detector where light is transmitted and monitored between a source and a photosensitive receiver. When smoke particles are introduced in the light path, some of the light is scattered and some absorbed, thereby reducing the intensity of the light reaching the receiver causing the detector to activate.

Smoke Detector, Sampling: A detector that draws air samples through piping or tubing into the detector's sampling ports. At the detector, the air sample is analyzed for products of combustion by ionization or photoelectric methods.

Smoke Exhaust Fan: The component of a smoke control system that sucks air from a smoke zone in order to remove smoke and gases from the zone being protected.

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Smoke Detector (Analog): A smoke sensitive sensor that continuously transmits (when polled) smoke obscuration values to the control panel. The panel evaluates the obscuration data against various alarm thresholds contained in its memory and responds accordingly.

Software Development Kit (SDK): A package that enables a programmer to develop applications for a specific platform, such as video surveillance or access control. Typically a SDK includes one or more APIs, programming tools, and documentation.

Speaker Tap: A speaker output wattage adjustment on constant voltage (25 or 70 V) speakers having an integral transformer.

Split Reporting: A dialer (DACT) function that sends specific event types to different receiving stations, i.e. fire alarms to one receiving station and security events to a second station.

Spot Detector: An initiating device with a sensing element that is concentrated in a specific location.

Stand Alone Operation: A secondary mode of system operation that provides local device monitoring, control, and signaling in the event of a communications failure.

Standby Amplifier: A backup audio amplifier installed to replace a faulty amplifier in order to maintain the operation of an audio emergency communication system.

Status: The state of a system or device. Examples; alarm, disabled, active, or off-normal.

Strobe Light: A visual notification appliance that produces a bright flashing high-intensity light using a Xenon flash tube.

Style: A classification system used to identify the performance of fire alarm Initiating Device Circuits (IDC), Notification Appliance Circuits (NAC), and Signal Line Circuits (SLC) in response to various fault conditions.

Subscriber: A monitoring station customer.

Subscriber Account Code: A unique number assigned by a monitoring station that uniquely identifies the customer and the protected premise.

Supervised Auxiliary Relay: An electrically operated switch contact whose wiring and operation is monitored by the control panel.

Supervising Station: A facility that receives signals and is maintained at all times to respond to these signals.

Supervision: Monitoring of a device or circuit for proper operation and the annunciation of off-normal conditions that prevent normal operation.

Supervisory Device: Equipment used to signal a condition that could prevent proper operation of guard tour, fire suppression system or related equipment.

Supervisory Signal: An indication that a device monitoring guard tour, fire suppression or related equipment has activated.

Supervisory Signal-initiating Device: Sensors used to detect condition that could prevent proper operation of guard tour, fire suppression system or related equipment. Examples include valve supervisory switches, water level indicators, and low-air pressure switches.

Supply Fan: A blower in a heating, ventilating, and air conditioning (HVAC) system that provides air to a building.

Suppression System: Equipment designed to extinguish a fire.

Surge Suppressor: An electrical circuit protective device that reduces the effect of a high voltage transients, such as a lightning spike.

Survivability: The ability of a system to be able to withstand wiring, communications, and internal faults while maintaining maximum functionality. Class A wiring, redundant equipment, peer-to-peer networking, and degraded mode operation all contribute to system survivability.

Swinger: The repetitive opening/closing of a detection circuit or device for no apparent reason.

Synchronized Notification Appliances: Visible signaling devices that flash simultaneously (within 0.01 second) at a one to two Hertz flash rate.

T

Tailgate: To closely follow an authorized person through an access control point to gain unauthorized access.

Tamper Device: Any sensor used to detect access to or modification of protected intrusion alarm circuitry.

Tamper Proof: Resistant to unauthorized opening or access.

Telephone Call-In: A control panel indicator that alerts the operator of an incoming call on the two-way emergency communications system.

Temperature, Ambient: The air temperature under normally expected conditions.

Temporal Pattern: The universal evacuation signal consisting of a three-pulse pattern sent over the notification appliances to advise occupants to evacuate the building.

Thermal Detector: See Heat Detector

Thermal Lag: The delay a heat-detecting element experiences in reaching its operating temperature.

Threshold: See Alarm Threshold

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Time Control: A programmed system event that is activated by the time of day, day of the week.

Toggle: The alternating ON/OFF action of a switch or operation.

Tone Generator: The electronic circuitry that creates alarm and alert signals that are distributed by the one-way emergency communication system.

Touch Screen: A computer display terminal that allows the operator to control the system and activate various controls by placing a finger on the image on a monitor.

Traditional System: A non-addressable alarm system that utilizes contact devices and circuit continuity to initiate an alarm condition and direct wired DC circuits to operate notification appliances. Also called a hardwired or conventional system.

Transponder: An addressable system interface that converts input signals to the format required by the addressable system and can convert commands from the addressable system controller into output contacts and signals.

Trouble Signal: A system indication of a fault, such as circuit break or battery failure, occurring in the devices, wiring, or associated system component.

T-tap: Branch wiring conductors. T-tapped or branch wiring should be avoided in all fire alarm installations unless the system specifically supports this wiring method.

Two Man (person) Rule: An access control function that requires at least two (or no) personnel are to be present in a specified area at all times.

Two-Wire Smoke Detector: A smoke detector that initiates an alarm condition on the same two wires that supply power to the detector.

U

Unified Facilities Criteria (UFCs): Formal documents issued by the United States Department of Defense, which specify the characteristics of a building system as it is to be applied to all DOD facilities.

Unified Facilities Criteria 4-021-01: Design and Operation of Mass Notification Systems issued by the Department of Defense includes requirements similar to those of NFPA 72 in order to take advantage of available technologies and manufacturers. A number of "Service Exceptions" in these requirements apply to the Air Force, the Army, the Marine Corps, and the Navy.

Uninterruptible Power Supply (UPS): A battery powered device that provides standby AC power to its load in the event of a failure of the AC power mains.

User ID: A sequence of alphanumeric characters associated with an individual to identify the person to a system.

V

Valve, Deluge: An electrically actuated valve used to release water into an open (deluge system) or closed (pre-action) pipe sprinkler system.

Valve, Gate: Shut-off valves used in dry pipe, air, and water piping equipment.

VDU (Video Display Unit): A computer monitor that displays system information.

Verified Alarm: A system feature used to validate an alarm input by sensing an alarm condition for a minimum specified period of time, or reconfirming the alarm after the device has been reset.

Video Switcher: An electronic device that routes video signals from one or more camera locations to one or more monitors. A switcher may be manually or computer operated and control sequencing, and camera presets.

Visible Notification Appliance: A signaling device such as a strobe, beacon, or flashing light that stimulates the sense of sight to indicate an alarm condition

Voice/Alarm Communication System: A one-way emergency audio signaling system that uses electronic tones, live and recorded messages to notify occupants of an emergency condition.

W

Wallbox: The cabinet in which control panel equipment or devices are installed. Wall-boxes may be surface, semi-flush, or flush mounted.

Warble: An electronic tone characterized by a high frequency, fast repetitive signal.

Warden Station: A permanently installed firefighters telephone enclosure with handset.

Watchdog: A hardware circuit that monitors the integrity of microprocessor-based electronics/software and generates a trouble condition in the event of a failure.

Water-flow Alarm: A sensor that initiates an alarm condition whenever water movement is detected in sprinkler system piping.

Weatherproof: Resistant to the effects of rain, cold, moisture, or heat. For cold climate regions, equipment may be installed with an automatic thermostat/heater unit included.

Whoop: An electronic tone characterized by a repetitive signal starting at a low frequency, then rising steadily in frequency, and then terminating.

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Wiegand - Zone

Wiegand Card: An electronic access control card that uses ferromagnetic wires to create a unique identification code

Window Foil: Conductive metal tape (usually lead) applied to detect intrusion by breaking circuit continuity.

Y

Yeow: An electronic tone characterized by a repetitive signal starting at a high frequency, then falling steadily, then ending.

Z

Zone: A defined area within a facility in which related functional elements work together. Zoned items can include alarm annunciation, security partitions, occupant notification, smoke control, ventilation, compartmentation.

Zone Disconnect: A control panel feature that disables the devices that make up a zone such that activation of any device that is part of the zone is ignored and programmed zone instructions are not executed. Primarily used for system maintenance.

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Glossary of Fire Alarm and Mass Notification Terminology

A guide to the language of modern building system design

The Glossary of Fire Alarm and Security System Terminology contains more than 500 terms in common use today in the life safety and security industries. Clearly written and easy to use, it is an ideal resource for new and established professionals alike. As a desk reference or field guide, the Glossary of Fire Alarm and Security System Terminology will quickly become a valuable tool for anyone wishing to communicate clearly with others on matters dealing with fire alarm and security systems.



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