DIY Alarm Forum's Glossary of Security Related Terms

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Symbols and Numbers

24-hour circuit

A circuit that is continuously active regardless of whether the alarm system is armed or disarmed.

24-Hour Clock

Time keeping convention, commonly known as military time, wherein the day runs from midnight to midnight and is divided into 24 hours. The hours run from 0 to 23 with 24 designating the day's end at midnight. For example, 00:10 = 10 minutes after midnight, 08:20 = 8:20 am, and 20:15 = 8:15 pm.

24-Hour Zone

A zone that is continuously active regardless of whether the alarm system is armed or disarmed.

2-Wire Smoke Detector

A class of smoke detectors that employs the same two conductors to supply power and to signal detector activation.

4-Wire Smoke Detector

A class of smoke detectors that employs two conductors to supply power and two to signal detector activation.

Alphabetical Listing

A

ampere (amp).

AC

alternating current. Also, armored cable.

AC line carrier

Refers to a technology that employs existing 120 VAC wiring to carry signals from a transmitter to a receiver for purposes of controlling devices or appliances, also referred to as power line carrier (PLC).

AC voltage

A voltage that is constantly changing in both amplitude and polarity. It is generally described by it's amplitude and frequency (cycles per second expressed in Hertz).

Example: 120 VAC, 60 Hz

Access code

(1) A group of numbers (usually 4 - 6 digits) that is used to arm/disarm and control various functions of a security alarm system.

(2) Personal Identification Number (PIN). A group of numbers and/or letters that allow entry to a restricted area or system.

Access control

The act or process of limiting ingress to, egress from, or both, by persons or vehicles, any buildings or areas.

Access control card

A card that can be coded with data which is required by a card reader to gain access to an access controlled area.

Access privileges

The specific access rights conveyed to an individual by access code, personal identification code or other means.

Account

A file or record of client information maintained by an alarm or monitoring company.

Account code

The number assigned to a file or record of client.

Acoustic

Pertains to sound, hearing, audio frequencies.

Acoustic sensor

A device that is designed to detect and respond to sound. It may be a simple microphone or a sophisticated detector employing filters, discriminators and signal processing circuitry which responds only to a particular sound or sound patterns.

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Active card

An access card that emits a signal after being excited or interrogated by the card reader.

Active sensor

A device that generates and transmits a signal into the area to be protected. It then monitors the returned signal for certain changes which are processed and tested to determine if a triggering threshold has been met. Examples of active sensors include ultrasonic, microwave and photoelectric detectors.

Activity report

A record or file maintained by a monitoring facility of all events communicated by a customers alarm system.

ADA

Abbreviation for the Americans with Disabilities Act. See Americans with Disabilities Act.

Addressable device

A module, sensor or other component of an alarm system that can be uniquely identified by the system for the purpose of supervision and/or control.

AFC

Abbreviation for the automatic frequency control. See Automatic frequency control.

AGC

Abbreviation for the automatic gain control. See Automatic gain control.

AH

Abbreviation for the ampere hour (AH or Ah). See Ampere hour.

AHJ

Abbreviation for the authority having jurisdiction. See Authority having jurisdiction.

Alarm

(1) A system or device to used to detect and indicate specific events or conditions.

(2) A condition, status or mode of a system employed to monitor prescribed conditions that indicates a state of alert.

Alarm Abort

A false alarm reduction feature supported by some control panels which cancels transmission of an alarm to the monitoring facility if the system is disarmed by entering a valid User Code at the system keypad before the expiration of the Communications Delay Time. Transmission of an Alarm Abort Code is usually a programming option.

Alarm condition

A state of alert status indicated by a device or system employed to monitor prescribed conditions when those conditions have occurred.

Alarm control

(1) A device that controls, monitors and processes signals from sensing devices and initiates prescribed outputs according to those signals.

(2) A computer processor that controls an alarm system.

Alarm discrimination

The ability of some devices to differentiate between the burglar and fire outputs of a control panel.

Alarm dispatch

An alarm condition that results in off-site notification and the summoning of police, fire, etc.

Alarm indicating device

Any device which generates an audible, visual or electrical signal upon an alarm condition such as sirens, bells, strobes, digital communicators, etc.

Alarm initiating device

Any device which when activated will generate, or cause to be generated, an alarm condition.

Alarm Memory

A feature provided by most control panels that provides an indication if an alarm has occurred during the last armed period.

Alarm receiver

A device used by a monitoring facility that receives and decodes the signals sent by a control panel's digital communicator.

Alarm Reporting Codes

Signals transmitted by the alarm system's digital communicator to a monitoring facility's receiver that identify specific events occurring on the system.

Alarm response time

The time period between when an alarm system goes into an alarm condition and when responders such as police and fire department arrive on the scene.

Alarm screen

A window screen which has a fine wire conductor interwoven with the screen fabric such that if the screen is cut the conductor will be cut as well creating a fault on the zone to which the screen is connected.

Alarm system

A device or an assembly of devices for the purpose of indicating a prescribed condition such as unauthorized entry; fire, over temperature, water flow, etc.

Alarm verification

A false alarm reduction feature supported by some control panel that resets a fire/smoke detector for a brief period and reports only if the detector trips a second time or if another detector on the fire loop trips.

Alkaline cell

A primary cell which uses potassium hydroxide as an electrolyte rather than ammonium chloride as found in the carbon-zinc cells. Alkaline cells offer longer shelf and better performance than their predecessors.

Alligator clip

A spring loaded clip with two long, serrated jaws made of a conducting material that is used to make temporary connections.

Alphanumeric

A character set containing letters and numbers.

Alphanumeric keypad

(1) A small keyboard device used for entering alphanumeric data into an alarm system for the purpose of controlling and/or programming.

(2) An alarm system keypad which displays system information alphanumeric information on a Liquid Crystal Display or indicator lights.

Alternating current

(AC) A current that is constantly changing in amplitude and direction. It flows in a

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circuit in one direction while it rises from zero to a maximum value then decreases to zero and reverses direction, it rises from zero to a maximum value in the new direction then decreases to zero thus completing one cycle.

Alternating current voltage

(AC, ACV) A voltage that is constantly changing in amplitude and direction. It increases in amplitude in one direction while it rises from zero to a maximum value then decreases to zero and reverses direction, it rises from zero to a maximum value in the new direction then decreases to zero thus completing one cycle.

Ambush code

A code entered into the keypad by the user of an alarm system indicating a duress condition that initiates a silent alarm.

American National Standards Institute

(ANSI) A United States organization of companies, governmental agencies, trade associations and consumer groups that develops and promulgates standards and operates a voluntary certification program.

American Standard Code for Information Exchange

(ASCII) A code that employs 7 or 8 bits (1 byte) to represent 256 alphanumeric characters and control codes used to standardize communications for data devices.

American Wire Gauge

(AWG) is the American standard for measuring the diameter of non-ferrous conductors. Gauge numbers range from 0000 to 40, the smaller the gauge number the larger the diameter of the conductor. In general, the larger the diameter the greater the Ampacity (current carrying capacity) and the lower the resistance of a given conductor.

Americans with Disabilities Act

(ADA), federal law requiring that "reasonable accommodation" be made in public places for those with disabilities.

Ammeter

Instrument used to measure the flow of an electrical current in a circuit.

Amp

Abbreviation for ampere.

Ampacity

Current carrying capacity expressed in amperes.

Ampere

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A unit of measurement of electrical current. A rate of electron flow of 1 coulomb per second (6.3×10^{18} electrons) past a given point on a conductor equals 1 ampere.

Ampere hour

Ampere hour (amp hour, AH, Ah) is one ampere of electrical current flowing for a period of one hour. It is expressed as the product of the value of current flow times the period of flow.

Example: 1 amp flowing for 5 hours = 5 AH
1 amp flowing for .5 hours = .5 AH or 500 milliamp hours
.5 amp (500ma) for 24 hours = 12 AH

Term is generally used in the alarm industry to express the storage capacity of standby batteries and how that capacity relates to the length of time the battery could power the alarm system in the event of power failure.

Amplifier

A device used to increase the amplitude or strength of a signal.

Analog

Refers to continuous change in a property.

Analog meter

An electro-mechanical measuring device which uses a moving pointer on a graduated scale.

Analog sensor

A device that is capable of producing an output that is continuously variable over a given range. Examples of analog sensors include temperature sensors, rate-of-flow sensors, pressure sensors, etc.

Analog signal

A signal that is continuously variable. Opposite of analog is digital.

Analog to digital converter

A circuit or device that samples an analog signal and converts it to a collection of bits (binary coded decimal) that accurately represents the signal.

Annunciation

The process or act of indicating an alarm condition or change of status of an alarm system, usually by visual or audible means.

Annunciator

Circuitry or a device either integrated or a separate module that alerts to a condition

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or change of status of an alarm system, usually by visual or audible means.

ANSI

Acronym for American National Standards Institute.

Antenna

A conductor connected or coupled to a receiver or transmitter for the purpose of receiving or transmitting electro-magnetic radiation.

Anti-jam

(1) A feature supported by some control panels that helps prevent phone line tie-up by incoming calls from interfering with out going calls made by an alarm system.

(2) Anti-jam detection is a feature of most control panels supporting wireless receivers that provides for detection and annunciation of radio frequency signals that interfere with the operation of the wireless receiver.

Anti-Takeover

A feature supported by most control panels which utilizes Access Codes or programming methods that makes difficult or prevents assuming control of an alarm system that was installed by another party.

Applied voltage

The electromotive force (EMF) impressed upon a circuit as an input.

Arc

A discharge or flow of an electrical current through or across a material which is normally classified as an electrical insulator.

Area detection

Protective coverage of a space, volume or item.

Area Partitioning

Subdividing a protected area into sections or areas that can be controlled independently by a single control panel and one or more keypads.

Area sensor

A detector that has it's zone of detection primarily focused on a given area, such as an entry way, wall, gun cabinet, etc.

Arm

(1) The act of placing an alarm system in an armed mode of operation.

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(2) To turn on and alarm system.

Armed

A mode of operation of an alarm system that allows any enabled sensor to cause an alarm condition upon activation.

Armed Light

A visual indication, usually an LED, that an alarm system is in an armed state.

Armed report

A signal transmitted to a monitoring facility indicating that an alarm system has been armed.

Armored cable

A cable which employs an outer flexible metal shield, tube or braid to protect the internal conductors.

ASCII

Acronym for American Standard Code for Information Exchange.

Attack

The attempt or the act of gaining access to an area or system.

Attenuation

The reduction of the amplitude of a signal. It is the opposite of gain.

Audible alarm device

A sounding device such as a siren, bell or klaxon used as a local indication of an alarm condition. Also a piezoelectric buzzer, chime or other sounding device used to annunciate a change in status of an alarm system.

Audible Exit Beep

A false alarm reduction feature supported by most control panels that annunciates an Exit Delay in progress by a beeping sound which, on most systems, changes in pitch or rhythm for the last ten or fifteen seconds of the delay period to suggest urgency.

Audio

General term describing sound detected by the human ear. Changes in air pressure detected by the eardrum are perceived as sound. Audio frequencies are generally considered to be those in the region of 20 Hz to 20 kHz.

Audio discriminator

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A circuit used to process and test audio signals for the purpose of qualifying and acting upon certain types of sounds while ignoring others.

Audio frequency

Generally considered to be those frequencies in the region of 20 Hz to 20 kHz. This is considered the normal hearing range for a young adult.

Audio listen-in

A feature supported by some control panels which, when enabled and connected to suitable audio pickup devices, allows remote monitoring of sounds from a protected area.

Audio monitor

A network of audio pickups (microphones) connected to amplifiers which enables monitoring an area for sounds.

Authority having jurisdiction

Any federal, state or local decision making agency, office, appointee or individual having lawful authority to interpret and enforce laws, codes, rules, etc. Examples: Building inspector, Electrical Inspector, Plumbing Inspector, Fire Marshall, Insurance Company Representative, Owner, Owners Representative, etc.

Automatic Arming

A feature supported by Some control panels which provides for automatic arming of an alarm system at a specified time on specified days of the week.

Automatic frequency control

A circuit which automatically maintains the frequency of another circuit by detecting and compensating for frequency changes (drift).

Automatic gain control

A circuit which automatically controls the gain or amplification of another circuit thereby maintaining a constant output for varying input signal levels.

Automatic iris

An optical device that adjusts automatically to varying light levels.

Automatic reset

A feature supported by some alarm systems that, after an alarm, returns the system to its pre-alarm state upon the expiration of a per-programmed period of time.

Automatic shutoff

A feature supported by some control panels, which silences the annunciator after a

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pre-programmed period of time. Also referred to as bell cut-off.

Auxiliary Power Connections

Terminals provided on many alarm system control panels for the purpose of supplying power to ancillary devices.

Away

An alarm system armed condition or mode that activates both interior and perimeter zones.

Away Arming

A feature supported by most alarm systems that activates both interior and perimeter zones.

AWG

Abbreviation for American Wire Gauge.

B Connector

A small, insulated, crimp on style wire splice, sometimes containing a moisture/corrosion resistant silicone gel filling, commonly used in security alarm system wiring. Also referred to as beanies and chicklets.

BA

Abbreviation for burglar alarm.

Backlighting

Lighting used on some alarm system keypads to make an LCD display and or keys easier to read.

Backup battery

A battery used as a temporary power source in the event of interruption of primary power, usually located in the metal enclosure that houses the control panel. Also referred to as standby battery.

Balun

An impedance-matching device used to convert an unbalanced line to balanced or balanced line to unbalanced.

Battery

(1) A DC voltage source that consists of two or more cells.

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(2) A device used for storing electrical energy.

Battery back-up

(Standby battery) A battery used as a temporary power source in the event of interruption of primary power, usually located in the metal enclosure that houses the control panel.

Battery Calculation

A calculation which takes alarm system current requirements and battery capacity into account to determine the length of time the system can function in the event of a primary power failure.

Battery Charger

(1) A DC power source used to charge a storage battery.

(2) The circuitry on a control panel that charges the alarm system's standby battery.

Beanies

See B Connector

Bell

An electro-mechanical sounding device that utilizes an electromagnet to cause an arm (clanger) to strike a gong.

Bell cut-off

(Bell time-out) A feature supported by some alarm systems that will silence a siren or sounding device after a prescribed period of time.

Bell Squawk

A brief sounding of a bell or siren.

Binary

(Binary code) A base two numbering system with only two values, zero (0) and one (1), widely used in digital processing.

Biometric

Refers to authentication/verification via analysis of a physical characteristic (i.e. biological data). Typical physical characteristics used in biometrics are fingerprints, retina, iris, hand geometry and voice patterns.

Building code

Regulations established and enforced by a lawful authority describing minimum standards for construction of buildings.

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Building permit

Approval granted by a local agency that permits the construction or renovation of a building.

Burglar Alarm

A network of sensors and annunciating devices connected to a control panel in such fashion as to form a system capable of detecting a break-in, intrusion or burglary.

Buried Probe

A sensor designed to be buried in the earth, normally used to detect pedestrian of vehicular presence or passing. Examples include ported coaxial cable, seismic detectors, magnetic field detectors, etc.

Bus

An electrical conductor or set of conductors that serve as a common connection for electrical circuits.

Butt Set

A modified telephone handset used to monitor and test telephone lines and equipment, also referred to as Lineman's Test Set.

Cable

Two or more conductors, which may be insulated or un-insulated bound together, they may be covered or encased by a metallic shielding and/or an outer insulating jacket.

Cable tie

A fastener used for binding individual conductors or cables together.

Call-Back

A communications protocol for control panel downloading procedure wherein the control panel answers a downloading computers telephone call, both the control panel and the computer hang up and the control then calls a number which has been designated as that of the downloading computer. This procedure provides a high level of security by insuring that only the designated downloading number has access to system programming.

Can

The metal enclosure that houses an alarm system's control panel.

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Capacitive reactance

(Symbol X_C) Measured in ohms, the opposition offered by a capacitor to the flow of an alternating current. X_C varies inversely with capacitance and frequency.

Capacitor

A device consisting of two conductive surfaces separated by an insulating material which stores electrical energy in an electrostatic field, blocks the flow of direct current and the flow of alternating current in a circuit.

Cell

The smallest unit of a battery, individual cells are interconnected to form a battery.

Central station

An alarm monitoring facility which receives and acts upon signals transmitted to them by subscribers alarm systems.

Charging

The process of storing electrical energy in a storage battery whereby it's chemicals are returned to their original state by the application of an appropriate electrical current.

Charging current

The electrical current flowing into a battery or component being charged.

Chicklets

See B Connector

Chime

An audible signal with a rhythmic tone used to annunciate a change in status of an alarm system, such as the opening of a door.

Circuit

A path for the flow of an electrical current. The path must be complete (closed circuit) before current flow can take place.

Circuit breaker

A resetable current limiting device used to protect electrical circuits and equipment from excessive current flow.

Class II transformer

A transformer that is inherently current limited.

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Closing report

A signal sent to a central station by an alarm system indicating that the system has been armed.

Coaxial Cable

A cable consisting of an insulated center conductor surrounded by an outer flexible braid or solid tubing which constitutes a second conductor running equidistance and parallel to the first.

Code

(1) A set of rules and regulations promulgated by a governing body specifying minimum standards pertaining to a given subject, such as building code, electrical code, etc.

(2) A group of numbers and/or letters that allow entry to a restricted area or system, such as access code.

Color code

A system using colors to identify various parameters of electrical conductors, circuits and components. Examples:

(1) Battery leads use red and black to indicate the positive and negative leads (respectively).

(2) Conductor pairs in communications cables are indicated using different colors.

(3) Values of resistors and capacitors are marked on the body of the device with colored rings or dots.

Communications Cancel

An optional alarm communications Reporting Code supported by some control panels that may be transmitted when an alarm is aborted by entering a valid access code after the alarm signal has been sent but before the expiration of the Alarm Cancel (Alarm Abort) Window.

Communications Delay

The period of time between the beginning of an alarm condition and the transmission of remote notification signals to a monitoring facility.

Communicator Format

The established communications protocol, designated by control panel programming, that will be used for communications between the alarm system's digital communicator and the receiver at a monitoring facility.

Compatibility listed

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A listing method that identifies certain devices as being compatible with various makes and models of control panels.

Conductor

(1) Any material capable of supporting the flow of an electric current.

(2) A wire that carries an electric current.

Contact

A switching device that is activated manually, by a magnet, by a relay or other means, that acts as a sensor.

Contact ID

A relatively fast DTMF communications format developed by Ademo used by alarm system digital communicators for information exchange with a remote monitoring facility.

Continuous Rating

Refers to the maximum load that a power supply can support indefinitely without excessive temperature rise, voltage drop, ripple voltage, etc and/or interruption of output by activation of an overcurrent protection device.

Control panel

A device that controls, monitors and processes signals from sensing devices and initiates prescribed outputs according to those signals.

CS

Abbreviation for Central Station.

Current

(1) The flow of electrons in a conductor.

(2) The flow of an electric charge.

Data Bus

Conductors or cable that is employed to transfer data and control signals.

Day zone

A zone that is active when the alarm system is armed or disarmed but has different annunciation and reporting characteristics for each mode.

DC

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Abbreviation for direct current.

DC voltage

A voltage that does not change in polarity.

Dealer

A company that sells, leases and installs alarm systems.

Decimal Data

Data or information using the base ten numbering system employing the digits 0 through 9.

Default

(1) Preset values, or original settings and adjustments on a device or system as preassigned by the manufacturer.

(2) The act of returning an alarm system's programming to preset values.

Default programming

An alarm system's basic programming as preassigned by the manufacturer.

Delay Zone

A zone, normally used for entry/exit doors, which when faulted starts a timer and will initiate an alarm on an armed system only upon expiration of the programmed delay period.

DEOL

Abbreviation for Double End of Line.

Detection

The act or process of sensing an event.

Detector

A device capable of sensing an event and generating an output based on its occurrence.

Device

An apparatus, contrivance or instrument suitable for a particular purpose.

Digital communicator

Circuitry integrated on the control panel or a stand-alone device that electronically dials a telephone number and transmits distinctive digital codes that carry

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information regarding the status of the alarm system to an alarm monitoring facility.

Digital meter

A measuring instrument that samples and displays values on a digital readout, typically capable of measuring voltage, current and resistance.

Diode

(1) A non-linear electrical device or component which supports current flow in a single direction only. Also referred to as a rectifier.

(2) A semiconductor device having two terminals which exhibits a high resistance to electrical current flow in one direction and a low resistance in the opposite direction which results in current flowing through the device in one direction only.

Direct current

A flow of electrons through a conductor in one direction only.

Disarm

The act of changing the mode or status of an alarm system from that which allows any enabled sensor to cause an alarm condition upon activation to the systems ready state.

Disarmed

The mode, condition or state of an alarm system that is not armed, sometimes referred to as the alarm being off.

Discharge

To draw, drain or otherwise remove electrical from a battery, capacitor or other electrical or electronic device or component.

Distributor

As pertains to the alarm industry, a company or individual that sell alarm equipment to alarm dealers.

DIY Alarm Forum

An online security alarm forum where professionals from all segments of the industry volunteer their time and expertise to help other professionals, do-it-yourselfers, homeowners and end-users who have questions or problems regarding alarm systems.

Beyond just wanting to help, our objectives are to further consumer education with respect to operation of security and alarm systems, to assist homeowners and do-it-yourselfers with technical support in an effort to raise the overall quality of their projects and to provide for the exchange of ideas amongst the professionals.

We hope that our efforts will be a positive reflection on the alarm industry in general

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and that the information we provide will result in a better appreciation in the importance of proper design, installation and operation of alarm systems.

Door Chime

(1) An annunciator that provides an audible signal upon the opening or opening and closing of a door.

(2) A feature supported by most alarm system control panels which provides an audible signal with a rhythmic tone to annunciate a change in status of a protection circuit, such as the opening or opening and closing of a door.

Doppler Shift

The apparent change in frequency of a signal caused by relative motion between the signal transmitter and receiver, the familiar example being the change in pitch of a train whistle as the train approaches and then passes the location of the observer.

Double End of Line

Referring to the employment of two separate components for End of Line supervision for the purpose of reducing ambiguity with respect to undefined states or conditions on the line.

Downloading

Transferring data from a computer or other programming device to an alarm system via direct connection, telephone or Ethernet connection.

Downloading Access Code

A code that identifies a computer or other programming device to an alarm system's control panel, permitting access for the purpose for the purpose of uploading and/or downloading data.

Downloading software

Software that facilitates transferring data from a computer or other programming device to an alarm system via direct connection, telephone or Ethernet connection.

DTMF

Abbreviation for Dual Tone Multi-Frequency.

Dual Technology Sensors

Sensors that utilize two separate technologies for the purpose of enhancing detection and/or reducing false alarms.

Dual Tone Multi-Frequency

(DTMF) Two simultaneous audio frequencies used to control telephone switching equipment, such as dialing, and other control circuitry.

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Duress Code

(1) A code, password or pass phrase used by an individual when that person is being forced to gain access to a protected area or system.

(2) An special Access Code, which initiates a silent alarm, used when a person is being forced to disarm an alarm system.

DVM

Abbreviation for digital voltmeter.

DVOM

Abbreviation for digital Volt-Ohm-Meter.

Dynamic battery test

A test that checks battery voltage after the battery placed under predetermined load conditions for a given length of time.

E

(1) The symbol for voltage.

(2) The symbol for emitter.

EEPROM

Acronym for Electrically Erasable Programmable Read-Only memory.

Electric current

(1) The flow of electrons in a conductor.

(2) The flow of an electric charge.

Electrical circuit

(1) A path for current flow.

(2) The interconnection of electrical conductors, components and/or devices.

Electrical metallic tubing

Ridged metal tubing used to protect electrical wiring, also known as thin-wall conduit.

Electricity

A form of energy produced by the flow or accumulation of charged particles of matter.

Electromagnetic

(1) Referring to the relationship between the electric and magnetic fields caused by the flow of charged particles through conductors.

(2) Referring to magnets produced by the flow of an electric current through a conductor.

Electromagnetic spectrum

The entire range of electromagnetic radiation beginning with the lowest frequency, longest wavelength and moving in a continuous progression thru the highest frequency shortest wavelength

Electromotive force

(EMF) The pressure or force (voltage) that causes the flow of charged particles.

Electron

A negatively charged particle that orbits the nucleus of an atom. The flow of electrons constitutes and electric current.

Electrostatic

Positive or negative electrical charges at rest.

EMF

Abbreviation for Electromotive Force.

EMT

Abbreviation for Electrical Metallic Tubing.

End of line relay

A device used to supervise or monitor power supplied to powered sensors on an Normally Open loop or zone, such as 4-wire smoke detectors.

End of line resistor

A termination resistor placed at the end of a supervised zone or loop.

End of line supervision

A method of monitoring the integrity of a zone or loop that usually employs a termination resistor of a specified value.

Entrance delay

The time period between the actuation a sensor on a zone defined as a delay zone and the initiation of an alarm, also referred to as Entry Delay.

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EOL

Abbreviation for End of Line denoting the end of an electrical line or circuit.

Event code

A reporting code transmitted by an alarm system's digital communicator that identifies a specific event or occurrence, such as burglary, fire, etc.

Event log

A file containing a limited history of certain actions or mode changes that have occurred on an alarm system.

Exit alarm

An alarm initiated upon exiting a protected area.

Exit delay

The time allotted after arming an alarm system for leaving a protected area without initiating an alarm.

Exit Delay Restart

A False alarm reduction feature supported by some alarm system control panels that provides for a one-time restart of the Exit Delay timer if a violation occurs on a Delay Zone within the original Exit Delay time period. For example: A system having an Exit Delay of 60 seconds is armed, a Delay Zone door is opened and closed as the premises is exited, opening the door again within the original 60 second delay period will restart the delay. A second reentry will not restart the delay for a second time.

Exit Time Restart

See Exit Delay Restart

FA

Abbreviation for Fire Alarm.

Factory default programming

An alarm system's basic programming as preassigned by the manufacturer.

Fail Safe

A type of lock that automatically unlocks in the event of electrical power loss.

Fail Secure

A type of lock that automatically locks in the event of electrical power loss.

Failure to Communicate

(FTC) A condition that results when an alarm system's digital communicator is unable to complete successful communications with a monitoring facility receiver.

False alarm

An alarm, not including properly performed system tests, that is initiated without the presence or existence of an actual alarm condition.

False alarm dispatch

(1) An alarm that results in the summoning of emergency responders when no emergency exists.

(2) A false alarm that results in the summoning of emergency responders.

Fault

An abnormal condition on a circuit or line.

F-Connector

A crimp-on, twist-on or compression connector used to terminate coaxial cable, commonly used on cables for TVs, VCRs and CCTV equipment.

Federal Communications Commission

A government agency responsible for the regulation and supervision of all electronic and electromagnetic communications, transmissions and emissions in the United States.

Fire alarm system

A system and all associated devices, either stand-alone or integrated with another system or systems, that monitors for, detects and annunciates the presence of fire.

Fire detector

Commonly a smoke detector or heat sensor.

Fire Loop

A protective circuit or zone which supports fire detection or fire alarm initiation devices, such as smoke detectors, pull stations, etc.

Fish

(1) To push an object such as a stiff steel wire or a metal, plastic or fiberglass rod through a wall cavity, conduit or hole for the purpose of pulling a wire or cable back through the wall cavity, conduit or hole.

(2) The stiff steel wire or a metal, plastic or fiberglass rod used to fish.

(3) The wire(s) or cable that is being fished.

Fish tape

A stiff but flexible tape used to fish wires or cables.

Fixed English Keypad

An alarm system keypad which displays system information via preprogrammed English language words, messages and/or icons.

Flash memory

A non-volatile memory chip that can be erased and rewritten with appropriate software.

Flush mounted

A mounting or installation method that recesses a device or component into the surrounding material resulting in an even or flush surface.

Flying leads

Refers to a conductor or group of conductors which are terminated in a connector at one end leaving the opposite ends free.

Foil

A thin metallic strips or tape that is cemented to a glass surface for the purpose of forming an electrical circuit that will open if the glass is broken thereby triggering an alarm system.

Force arm

A feature supported by some control panels that automatically bypasses any open or faulted zones which enables arming of the alarm system.

Form A contact

A single-pole, single-throw, normally open contact.

Form B contact

A single-pole, single-throw, normally closed contact.

Form C contact

A single-pole, double-throw, contact.

Fuse

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A non-resetable overcurrent protection device which employs a metal link that melts at a given current level thereby opening the circuit.

Gang box

A steel or plastic box used to mount electrical outlets, switches, etc. and making electrical connections.

Gas Detector

A sensor designed to detect the presence or quantity of a specified gas.

Gel Cell Battery

A lead-acid battery that employs a gelled electrolyte to prevent spillage, commonly used as a standby power source for alarm systems.

Glassbreak vibration detector

A sensor that is attached to glass windows and doors that detects cutting or breakage.

Grommet

A ring or eyelet that is inserted into a hole in a chassis or box to prevent chaffing of wires and cables that pass through the hole.

Ground

(1) An electrical connection to a large common conducting body.

(2) An electrode buried or driven into the earth.

(3) A short (unintentional grounding) in an electrical circuit.

Ground Fault Circuit Interrupter

A power receptacle with a safety device that automatically disconnects power to the circuit if leakage current to ground exceeding a safe value is detected.

Grounding system

(1) A circuit consisting of an electrical ground and a conductor or a network of conductors extending therefrom to various devices, appliances or equipment.

(2) A unified electrical connection to earth ground where utility grounds are connected to a common grounding point resulting in a common electrical potential and reducing hazards from electrical shock, equipment damage and electrical interference.

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Handshake

The initial communications between an alarm system's digital communicator and a monitoring facility's receiver that determines the parameters of the communications format and establishes synchronization.

Hardware Default

A procedure normally requiring a physical act or temporary change to the control panel to affect a default to basic factory programming values, such as depressing a push button, changing the position of a switch or installing a jumper wire.

Hardwire

Physically connecting an alarm systems control, modules and components with conductors and cables.

Heat detector

See heat sensor.

Heat sensor

A device that detects and responds to a given temperature or to a prescribed rate of temperature increase.

Hertz

(Hz) A unit of measurement for frequency equaling one cycle per second (cps).

Example 60 Hz. = 60 cycles per second

Hexadecimal

A numbering system which uses a base of 16, where numbers 0 through 9 and letters A through F represent the 16 digits.

Hexadecimal Data

Data or information using a base 16 numbering system, where numbers 0 through 9 and letters A through F represent the 16 digits.

High frequency

Those frequencies occupying that part of the electromagnetic spectrum between 3 and 30 Megahertz (MHz).

Note: 1 MHz = 1,000,000 Hz = 1,000,000 cps

Holdup alarm

An alarm or zone type which when activated causes a silent alarm, the signal or reporting code transmitted to the monitoring facility by the alarm system's digital

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communicator indicates a crime in progress.

Holdup button

A device used to initiate a holdup alarm condition.

Homerun

A wiring method that routes conductors or cables from individual sensors to the control panel rather than connecting multiple sensors on a single cable run.

Hybrid

See Hybrid Alarm System.

Hybrid Alarm System

An alarm system, which combines the characteristics and functionality of both Hardwired and Wireless system alarm systems.

I

The symbol for current.

Impedance

(Symbol Z) The opposition offered by a circuit to the flow of alternating current. Measured in ohms, impedance is the sum of inductive reactance, capacitive reactance and resistance.

Indicating device

Any visual, audible or communications device that indicates or announces an alarm condition on an alarm system.

Inductive reactance

(Symbol X_L) Measured in ohms, the opposition offered by an inductor to the flow of an alternating current. X_L varies directly with inductance and frequency.

Inductor

(1) A conductor or coil, with a core of air or other material, formed by a conductor used to add inductance to an electrical circuit.

(2) An electronic component exhibiting the properties of inductance: Energy stored in a magnetic field surrounding the device, opposition to changes in current flow and an opposition to the flow of alternating current that increases with frequency.

Infrared

(Symbol IR) Light that is invisible to the human eye, with wavelengths between 760

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nanometers and 1000 microns, it occupies that portion of the electromagnetic spectrum just below visible red.

Infrared beam

A projection or column of light in the infrared portion of the electromagnet spectrum.

Infrared motion detector

A sensor which detects changes in the infrared radiation pattern of a protected area. Signal changes are then processed and compared to known criteria representing the type of motion the sensor was designed to detect.

Infrared sensor

A device used to detect the presence of or changes in infrared radiation or signals. Examples: infrared motion detector, some types of smoke detectors, photoelectric detectors, etc.

Input

Energy, data or condition applied or delivered to a circuit or device to achieve a certain result.

Input voltage

Voltage applied or delivered to a circuit or device to achieve a certain result.

Installer Programming

A level of programming accessed with an Installers Code which is used to program all control panel options.

Installers Lockout

An anti-takeover feature supported by most alarm system control panels which provides the option of restricting access to defaulting procedures.

Instant Zone

A protective circuit, loop or zone which when faulted will initiate an immediate alarm condition on an armed system.

Insulation

A non-conducting material that is used to coat, cover or encapsulate a conductor to prevent current loss.

Insulator

A material or device that resists the flow of an electric current, used to separate conductors from one another, protect circuitry and protect personnel from accidental

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contact with conductors and circuitry.

Interior Stay/Away Zone

A type of protective circuit, loop or zone which is active when an alarm system is armed in an Away mode but inactive when armed in a Stay mode.

Interior zone

A circuit that connects a sensor or sensors to an alarm system for the purpose of monitoring the interior of a building.

Ion

An atom or group of atoms that have gained an electrical charge through the gain or loss of an electron.

Ionization

A process through which an atom gains an electrical charge by loosing or gaining an electron.

Ionization smoke detector

A type of smoke detector that utilizes changes in the conductivity of ionized air within a detection chamber to detect the presence of smoke.

IR

Abbreviation for Infrared.

Item protection

A class of protection used for high value items such as safes, jewelry, art work, business documents, etc. Also referred to as spot detection and point protection.

Jack

A female electrical connector that serves as a receptacle for male electrical connector called a plug.

Jamming

The intentional interference with the reception electrical or electromagnetic signals.

Jump out

Removing an electrical device from a circuit, usually temporarily, using a jumper wire or shunt.

Jumper

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An electrical connection placed between two or more points in an circuit or circuits.

Junction box

An enclosure where electrical connections and splices are made.

k

Abbreviation for kilo, prefix signifying 1000.

Keybus

Conductors or cable that is employed to transfer data and control signals between a control panel and other modules such as keypads, zone expanders, wireless receivers, etc.

Keypad

An alarm system input/output terminal device consisting of a small keyboard, a piezoelectric buzzer and a Liquid Crystal Display and/or indicator lights, used for entering alphanumeric data into the system for purposes of controlling and/or programming and to display system status information. Also see Alphanumeric keypad, LCD Keypad and LED Keypad.

Keypad Lockout

A feature supported by some control panels which provides the ability to lockout or render a keypad inoperative for a programmed time period if a prescribed number of invalid access codes are entered.

Keypad Zone

A feature supported by some control panels which provides for adding a zone to the system by connections made to zone terminals made available on certain keypads.

Keyswitch

Electrical switch requiring a key to operate.

Keyswitch Zone

A feature supported by some control panels which, when enabled in programming and used in conjunction with a keyswitch, allows arming and disarming of the system by the keyswitch.

KHz

Abbreviation for Kilohertz, 1 kHz = 1000 Hertz (Hz) = 1000 cycles per second (cps).

Kilo

Prefix signifying 1000.

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Kilohertz = 1000 Hertz. 1 Kilohertz (1 kHz) = 1000 cycles per second (cps).

Kiss-Off

An electrical signal indicating that a data transmission between two systems or devices is complete. Example: The receiver at a monitoring facility sends a Kiss-off signal to an alarm systems digital communicator signifying completion of communications.

Klaxon

(Trademark) An electromechanical horn used as a signaling device.

LCD Keypad

An alarm system keypad that provides system information on a Liquid Crystal Display (LCD).

LED

Abbreviation for Light Emitting Diode.

LED Keypad

An alarm system keypad that provides system information through the multi-function Light Emitting Diodes (LED).

Light Emitting Diode

A semiconductor device that emits light when it's p-n junction is biased in the forward direction.

Lightning

An electrostatic discharge that occurs between positive and negative charges associated with thunderstorms. Discharge may be cloud to ground, ground to cloud or cloud to cloud. Current flows during the discharge have been calculated to be in excess of 100,000 amperes.

Line carrier

Also referred to as power line carrier (PLC) and AC line carrier, a technology that utilizes the AC power line to conduct signals from a transmitter to a receiver for the purpose of controlling another circuit, device or appliance.

Line seizure

A capability of some data communications devices, such as an alarm system's digital communicator, to take and maintain control of a phone line for the duration of it communications requirements.

Line voltage

The voltage of the main power supply and the branch circuits powering the wall receptacles or the voltage supplied by the power company.

Lineman's Test Set

A modified telephone handset used to monitor and test telephone lines and equipment, also referred to as a Butt Set.

Load

(1) A device or multiple devices drawing electrical current and consuming power.

(2) The current being drawn by a device or multiple devices.

Local alarm

An alarm system that provides audible and/or visual notification of an alarm condition in, on premises only and does not communicate a remote an off-site notification.

Local alarm system Alarm annunciation or notification, usually audible and/or visual, in or on the premises.

Loop

A detection circuit consisting of either Normally closed sensors that are connected in series or Normally Open sensors connected in parallel.

Loop resistance

The resistance of the conductors, sensor contacts and End of Line Termination resistor, if any, as measured across the two loop conductors at the control panel location with the loop disconnected from the panel.

Loop response

The length of time that a zone must remain violated (either open or closed depending upon the loop type) to insure that the control panel circuitry will recognize the event.

M

Abbreviation for the prefix Mega, denotes million or a multiplier of one million, as in MHz (Megahertz), MV (Megavolt), etc.

mA

Abbreviation for milliamp, also represented as ma. 1 mA = 1/1000 of an ampere.

Magnet

A device, object or material that produces a magnetic field and attracts iron and steel.

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Magnetic contact

An electrical switching device designed to be actuated by a magnetic field, also referred to as magnetic switch.

Magnetic reed switch

An electrical switch enclosed in a hermetically sealed tube designed to be actuated by a magnetic field.

Magnetic sensor

A sensor designed to detect changes in magnetic fields, commonly used as a driveway sensor to detect vehicular traffic.

Magnetic switch

An electrical switching device designed to be actuated by a magnetic field, also referred to as magnetic contact.

Main

Referring to electrical power as delivered by electrical utility provider.

Master user code

That access code which provides unrestricted access to all end-user functions on an alarm system.

Mega

Prefix denoting million or a multiplier of one million, as in megahertz, megawatt, etc.

Mercury Switch

An electrical switch, consisting of electrical contacts and a small puddle of mercury encapsulated in a glass bulb, which is actuated when the bulb is positioned such that the mercury flows to the contact(s) and completes the circuit.

MHz

Abbreviation for one million (M) hertz (Hz).

Microwave

A term applied to electromagnetic radiation (radio waves) occupying that portion of electromagnetic spectrum between 1 Gigahertz (1 GHz) and 30 Gigahertz (30 GHz) and characterized by propagation in straight lines.

Module

An independent, self-contained unit capable of functioning on its own that enhances the functionality of an alarm system.

Moisture detector

A sensor that detects the presence or quantity of moisture at a given location.

Monitoring station

(1) A remote facility that receives and supervises communications relating to the status of an alarm system. Also referred to as Central Station (CS).

(2) A device that meters or displays a particular condition or event.

Motion detector

A sensor which detects changes in the environment of a protected area corresponding to known criteria representing motion.

Multimeter

A general purpose measuring device usually capable of measuring voltage, current and resistance.

National Burglar & Fire Alarm Association

(NBFAA) The oldest and largest association representing the electronic life safety, security, and integrated systems industry. The National Training School (NTS), founded by the National Burglar and Fire Alarm Association provides training that meets licensing requirements of most states.

National Electrical Code

(NEC) Rules promulgated by the National Fire Protection Association covering electrical wiring and equipment in public and private buildings. These rules have been adopted in varying form by most state and local Authorities Having Jurisdiction.

NBFAA

Abbreviation for National Burglar & Fire Alarm Association.

Negative

(1) As refers to a negative electrical charge, a state or condition resulting from a surplus of electrons.

(2) The terminal or connection on a direct current power supply from which electrons will flow when connected to a complete electrical circuit, usually designated by "-", "Neg" or the color black.

Negative electrical charge

An electrical charge resulting from an excess of electrons, the opposite of a positive electrical charge.

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Neutron

One of three basic particles of an atom, the neutron carries no electrical charge.

Non-Alarm Zone

Protective circuits, loops or zones which are active at all times and may be annunciated visually, audibly or by other means when faulted but do not cause an alarm.

Non-Power Limited

Refers to circuits and/or devices which are not Power Limited as defined by National Electrical Code 2005 Article 725.41 and Tables 11A and 11B. See Power Limited.

Normally closed

Electrical contacts in a switch, relay or other device that are closed when not actuated by an external force (at rest).

Normally Closed Loops

(1) A protective circuit which in its normal, secure state forms a complete, continuous circuit and is an open circuit when activated.

(2) A term used by some manufacturers of alarm system to designate a protective circuit that does not employ End of Line terminating resistors.

Normally open

Electrical contacts in a switch, relay or other device that are open when not actuated by an external force (at rest).

Notification appliance

A device that provides an audible and/or visual indication of an alarm condition.

Nucleus

The positively charged core of an atom consisting of protons and neutrons.

Nuisance alarm

A false alarm, an alarm caused by a condition or event other than those the system was designed to detect.

Object protection

A class of protection used for high value items such as safes, jewelry, art work, business documents, etc. Also referred to as spot detection and item protection.

Ohm

Unit of measurement for resistance and impedance, defined as that amount of resistance in an electrical circuit that will allow a current flow of one ampere with an applied voltage of one volt. See Ohm's Law.

Ohmmeter

A device used to measure electrical resistance.

Ohm's Law

Expresses the relationship between voltage (E), current (I) and resistance (R) in an electrical circuit. It states that the current in amperes is equal to the applied voltage (electromotive force) in volts divided by the resistance in ohms.

This is normally expressed by the algebraic equation E = IR, where E is equal to the product of I (current in amperes) times R (resistance in ohms).

In it's three basic forms:

E = IR
I = E/R
R = E/I

Open circuit

An electrical circuit that is not a complete path for the flow or electrons and therefore current flow is not possible.

Open circuit system

(Open Loop) A protective circuit in which Normally Open sensors are connected in parallel and no current flows until a sensor is activated.

Opening report

A signal sent to a central station by an alarm system indicating that the system has been disarmed.

Overcurrent device

A device used to protect electrical circuitry from excessive current flow such as a fuse, circuit breaker, or PTC circuitry.

P

Abbreviation for Power.

Panel

The circuitry, usually on a printed circuit board, that provides the primary processing and control functions for an alarm system. Also referred to as Control and Control Panel.

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Panel Identification Code

A code programmed into a control panel which provides a means of identifying the panel to downloading computers.

Panic alarm

An alarm generated by a 24 hour protective circuit that indicates an emergency condition.

Parallel

A method of connecting circuits or devices whereby each element is connected across every other element, the source voltage is applied to each branch of the circuit and there are multiple paths for current flow.

Partition

A section or subdivision of a protected area which can be controlled and operate independently fro other sections.

Passive detector

A sensor which detects changes in the environment of a protected area without emitting any type of signal.

Passive infrared motion detector

A sensor that detects the movement of infrared energy radiated by the human body as it moves across a relatively constant background level of radiation.

Passive infrared sensor

(PIR) Any sensor that utilizes infrared radiation in a measurement or detection process, the term is commonly used to denote a passive infrared motion detector.

Passive sensor

A detector which senses changes in the environment of a protected area without emitting any type of signal.

Password

A word, phrase or a code used by a person to identify themselves, also see access code, PIN.

Perimeter

Referring to boundaries, the outer boundaries of a building, area or object.

Perimeter detection

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Detection of access or entry occurring at the outer boundaries of a building or area.

Permit

An official document from an lawful authority having jurisdiction which conveys permission for a certain act or task.

Personal identification number

(PIN) A number or code assigned to an individual which serves to identify and/or provide access to restricted areas or systems.

PGM

Abbreviation for Programmable or Programmable Output.

Photoelectric detector

A device that converts electromagnetic radiation in the infrared, visible and ultraviolet portions of the spectrum into electrical energy that is used to control indicators or other devices.

Photoelectric sensor

A device that converts electromagnetic radiation in the infrared, visible and ultraviolet portions of the spectrum into electrical energy.

Pico

A prefix signifying one millionth of one millionth, 1 micro micro, 10^{-12} or 0.000000000001

Pigtail

An electrical splice made by placing two or more conductors side-by-side in a tight bundle with their stripped, bared ends parallel and in-line, then twisting the bared ends together.

PIN

Acronym for Personal Identification Number.

PIR

Acronym for Passive Infrared, term is commonly used to refer a Passive Infrared Sensor and a Passive Infrared Motion Detector.

Plenum

A chamber or container used for air-handling which specifically includes the space between a drop-ceiling and the structure above, such chambers, containers and areas require special wiring techniques and materials.

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Plenum rated

A rating (approval) applied to conductors, cables and materials suitable for use in plenum areas.

Plunger Switch

An electrical switch which utilizes the movement of a spring loaded shaft or plunger to make or break an electrical connection. Commonly employed in recessed applications to protect doors and windows or as a Tamper Switch on Panel Enclosures, box covers, cabinet drawers, etc.

Point protection

A class of protection used for high value items such as safes, jewelry, art work, business documents, etc. Also referred to as spot detection and item protection.

Positive

(1) As refers to a positive electrical charge, a state or condition resulting from a deficiency of electrons.

(2) The terminal or connection on a direct current power supply to which electrons will flow when connected to a complete electrical circuit, usually designated by "+", "Pos" or the color red.

Positive electrical charge

A state or condition resulting from a deficiency of electrons, the opposite of a negative electrical charge.

Positive temperature coefficient

A term used to describe a direct relationship with temperature.

Power

(P) The rate of doing work, measured in Watts.

Power consumption

Electrical energy used by a circuit or device, measured in Watts.

Power factor

As applies to alternating current, the ratio of True Power (W) to Apparent Power (VA), expressed as a decimal, that reflects the phase relationship between the voltage and current in the circuit caused by reactive loads.

Power Limited

Refers to circuits and/or devices which are restricted with respect to voltage levels and/or current delivering capacities as defined by National Electrical Code 2005

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Article 725.41 and Tables 11A and 11B.

Power loss

Power that is dissipated by conductors and components that does not contribute to useful work, sometimes referred to as copper loss or I^2R loss.

Power supply

A generator, battery, electrical circuit or other device used as a source of electrical power.

Pre-alarm

A false alarm reduction feature supported by most alarm system control panels which provides audible notification that the Entry Delay timer has been activated and that an alarm will be initiated if the system is not disarmed before the expiration of the delay period.

Pre-Alert

See Pre-alarm.

Pressure mat

A type of sensor, a rubber mat that responds to pressure created when the weight is applied, such as a person stepping on the mat.

Program

(1) A sequence of instructions that define the operation of an alarm system under a specific set of conditions.

(2) The act of placing coded instructions into an alarm systems memory that will define the operation of the system.

Programmable output

Outputs, generally relay or open collector, supported by some control panels that are used to power or control ancillary devices upon alarm or other conditions as defined by system programming.

Programmable Read-Only Memory

A memory chip that becomes a read-only memory after programming.

Programming Worksheets

A complete listing of options and settings that may be programmed into an alarm system control panel, usually showing factory default settings, providing spaces for the installer to write in programming values prior to actual programming.

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PROM

Acronym for Programmable Read-Only Memory.

Protected area

(1) An area monitored by an alarm system.

(2) A controlled or restricted access area.

Protective circuit

A zone, loop or other circuit connecting a sensor or sensors to an alarm system.

PTC

(1) Abbreviation for Positive temperature coefficient.

(2) A solid state, self-restoring current limiting device or component, usually a thermistor, which increases in resistance with an increase in temperature thereby automatically reducing current flow.

Quick Arm

A feature supported by some control panels which, if enabled, provides “short-cut” key presses for arming.

Quick Exit

A feature supported by some control panels which, if enabled, provides means for a single, short (several minutes) exit/reentry through a Delay Zone without requiring disarming an armed system.

R1

Designation used to identify the Ring conductor of a telephone pair when used as an output from a circuit or device.

Radio frequency

Any frequency in the electromagnetic spectrum that is suitable for transferring electronic signals or propagation.

Radio frequency interference

Radio frequency signals, either naturally occurring or generated by man, that cause interference with equipment, device or object.

RAM

Acronym for Random-Access Memory.

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Rate of rise

A type of heat detector that senses a specified temperature increase within a given length of time and initiates an output if those conditions are met.

Reactance

(Symbols X_L, X_C) Measured in Ohms, the resistance offered to alternating current by circuit containing inductive reactance, capacitive reactance or any combination of the two.

Reactive load

A load that includes inductive and/or capacitive reactance and results in a phase difference between the applied alternating current voltage and the current flow in the circuit.

Read-Only Memory

A memory circuit or memory device in which information has been stored (hard-coded or hard-wired) in such fashion that it can be read but not written to or changed except under certain conditions and will be retained when power is removed from the circuit or device.

Ready Light

An alarm system keypad light which, when illuminated, indicates that all zones are secure and/or the system is ready to arm.

Rectifier

A device, electrical circuit or component the converts alternating current into direct current.

Reed switch

A switch consisting of electrical contacts mounted on ferrous metal actuating arms in a hermetically sealed glass tube. The switch, which is actuated by a magnetic field, is commonly used as a sensor on alarm systems.

Regulated power supply

A power supply whose output is automatically maintained within a given range over a prescribed variation in load conditions.

Relay

An Electromechanical switching device that is actuated by an electric current flowing in it's solenoid. Frequently used in a low current circuit to control a high current circuit or to provide electrical isolation between different electrical circuits.

Remote alarm

An alarm system that transmits alarm signals off-site to a remote monitoring facility

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in conjunction with or without local annunciation of the alarm event.

REN

Acronym for Ringer Equivalency Number.

Resistance

(R, Ω) Measured in Ohms, the opposition to the flow of an electric current.

Resistive load

A load comprised of pure resistance, lacking reactive load components.

Resistor

Electrical component or device which opposes the flow of electrons, used in electrical circuitry to control current flow.

Restoral Reporting Codes

Signals sent to a monitoring facility by an alarm system indicating that a previously reported alarm or trouble condition has been cleared.

RF

Abbreviation for Radio frequency.

RFI

Abbreviation for Radio frequency Interference.

Ring

Telephony term describing one of the two conductors that constitute the primary pair or talk circuit providing landline telephone service.

The Ring conductor, usually either Red or Blue/White, is negative with respect to the Tip conductor and the voltage across the pair is approximately 48 VDC.

The term has nothing to do with the "ringing" of the phone but rather is a throwback to the days of operators making manual phone connections using 1/4 inch phone plugs which had Tip, Ring and Ground connections.

Ringer Equivalence Number

A number relating to the load presented by a telecommunications device to a telephone line.

Ring-Hang-Ring

A communications protocol whereby a telecommunications device will answer an incoming telephone call only if a call is made to the number, allowed to ring once or

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twice, hung up and then called a second time within a prescribed time period.

Rings Until

A communications protocol whereby a telecommunications device will answer an incoming telephone call only after a designated number of rings.

Ripple

An alternating current voltage component that is superimposed on a direct current voltage.

RJ

Refers to Registered Jack, telecommunications and data jacks that are registered with the Federal Communications Commission.

RJ31X

A Registered Jack, the usage of which is mandated by the FCC, that provides a quick-disconnect means for automated dialing and signaling equipment while allowing other telephone equipment on the circuit to continue to function normally.

When connected in series with the telephone line and as the first device on the premises line after the Telephone Company service point (Dmarc), it will provide line seizure for the alarm system.

ROM

Acronym for Read-Only Memory.

RS-232

A standard interface for serial communications commonly utilizing a 9 pin (DB-9) or 25 pin (DB-25) connector.

RS-485

A two-wire serial data transmission standard employed by some alarm system control panels for keybus or data bus communications.

Sealed lead acid battery

A maintenance free battery that employs a gelled electrolyte, requires no water replacement and can be operated in any position.

Security Industry Association

An association of manufacturers and other companies serving or related to the security industry which promotes the growth and betterment of the industry.

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Semiconductor

(1) A material that shares some of the characteristics of both conductors and insulators in that it s neither a good conductor nor a good insulator.

(2) A generic reference to solid state devices such as diodes, transistors and integrated circuits.

Sensor

A device capable of detecting an event and generating an output based on its occurrence.

Sensor Reset

To return or restore a sensor to a normal or ready state.

Series circuit

A circuit in which there is only one path for current flow, a given value of current enters the circuit from a power source, flows in turn through each device in the circuit, and then flows back to the power source.

Service loop

Extra wire left in a loop at the ends of wire runs to facilitate future maintenance or modifications.

Shock Sensor

A sensor which detects vibration or movement resulting from an intrusion or attempted intrusion.

Short

A low resistance connection, either intentional or accidental, between two points in an electrical circuit that effectively bypasses part of the circuit.

Short circuit

A low resistance connection, either intentional or accidental, between two points in an electrical circuit that effectively bypasses part of the circuit.

Shunt

(1) A parallel connection.

(2) A bypass of a part of a circuit by a jumper or short.

SIA

Acronym for Security Industry Association.

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SIA CP-01

Standards promulgated by the Security Industry Association which provide guidelines for manufacturers and installers of alarm systems aimed at reducing false alarms.

Single-pole double throw

A three terminal switching device which allows one of its terminals (frequently the center terminal or the terminal designated as Common) to be connected to either of the other two terminals, depending on the switch position, but not both at the same time.

Single-pole single throw

A two terminal switching device which allows its terminals to be either connected or not connected depending on the switch position.

Siren

An audio output device used on an alarm system that consists of a speaker and integrated circuitry that generates high pitched steady tones, warbling tones or a combination thereof. Also referred to as a sounder, local annunciation device, notification appliance, etc.

Smoke detector

A sensor that monitors a given area for visible or invisible products of combustion and upon detection generates an audible warning and/or provides an output to an alarm system.

Snake

Any device used to pull conductors, cables or other items through inaccessible areas such as wall cavities, tubing, conduits, pipes, etc.

Software Default

A procedure normally requiring a programming change to the control panel to affect a default to basic factory programming values.

Solid Conductor

A bare or insulated single strand of drawn material used to transmit a signal or carry an electrical current.

SPDT

Abbreviation for Single-Pole Double Throw.

Speaker

An electromechanical device that converts electrical signals into sound waves.

Splice

(1) An electrical connection formed by joining two or more conductors.

(2) The act of joining or connecting together two or more conductors.

Spot detection

A class of protection used for high value items such as safes, jewelry, art work, business documents, etc. Also referred to as spot protection, point protection and item protection.

Spot protection

A class of protection used for high value items such as safes, jewelry, art work, business documents, etc. Also referred to as spot detection, point protection and item protection.

SPST

Abbreviation for Single-Pole Single Throw.

Standby power

A power source which provides power upon the loss of primary power, such as the standby battery for an alarm system.

Static

An electrical charge that results when an excess or deficiency of electrons occurs on the surface of an object.

Static discharge

The rapid depletion, equalization or neutralization of a static charge which occurs when electrons flow to or from a charged body either through a conductor or through or across a material normally classified as an electrical insulator.

Stay

Referring to an armed mode supported by most control panels which is characterized by an automatic bypassing of certain Interior Sensors when a system is armed and an Entry/Exit Delay Zone is not violated before the expiration of the Exit Delay timer.

Stay Arming

Arming an alarm system by any means that results in the such that certain Interior Sensors are not active. See Stay.

Strip

To remove the insulation from the end of an insulated conductor, usually for the purpose of making a splice or connection.

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Stud finder

Any device used to locate studs behind a finished wall, such as those using a magnet to locate nails driven into the studs and those employing ultrasonic technology to detect a change in density.

Supervise

Monitoring preformed by the control panel for the presence, condition or status of wiring, sensors or devices connected to the alarm system.

Supervised line

Zones, loops or other wiring connected to an alarm system whose integrity is monitored by the control panel as a precaution against tampering and accidental damage.

Supervisory circuit

Circuitry in an alarm system that provides line supervision.

Surface mounted

Describes a mounting or installation method that results in a device or component being mounted on the surface of the item being protected or on a surface in the area being protected.

Surge

A rapid change in voltage or current beyond normal values.

Surge protection

A device, circuitry or component that protects equipment from damage caused by an electrical surge.

Surge suppressor

An electrical device used to protect other electrical equipment and appliances from damage caused by short duration, high voltage surges (transients) on power, telephone, cable TV, Ethernet lines, etc. as may be caused by faulty equipment or lightning.

Swinger

An intermittent opening and closing on a circuit generally caused by faulty wiring, a defective sensor or environmental conditions resulting in false indications on an alarm system.

Swinger Shutdown

A feature supported by most alarm system control panels which automatically

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bypasses protective circuits after they have initiated an alarm in order to prevent repeated alarm reports caused by a malfunctioning circuit.

T1

Designation used to identify the Tip conductor of a telephone pair when used as an output from a circuit or device.

Tamper device

A device or circuitry used to detect an attempt to gain access to or modify circuitry or components of an alarm system.

Tamper switch

A switch used to detect an attempt to gain access to or modify circuitry or components of an alarm system.

Telco

Refers to the telephone company.

Telephone line monitor

A device used to monitor and indicate the operational status of a telephone line.

Telephone Line Monitoring

The act of monitoring a telephone line to verify line integrity and/or functionality.

Terminal

A screw, clip or other fastener used an electrical connection point.

Terminal strip

A row or line of screws, clips or other fasteners used an electrical connection points.

Terminating device

A component or device connected to the end of an electrical line to establish know values on that line.

Test

To exercise or operate a system or a device for the purpose of establishing its functionality.

Test Transmission

A signal transmitted by an alarm system's digital communicator to a monitoring facility for the purpose of verifying the operation of the communicator and the

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telephone line or other transmission media.

Tip

Telephony term describing one of the two conductors that constitute the primary pair or talk circuit providing landline telephone service.

The Tip conductor, usually either Green or White/Blue, is positive with respect to the Ring conductor and the voltage across the pair is approximately 48 VDC.

TLM

Abbreviation for Telephone Line Monitor or Telephone Line Monitoring.

Toggle

To alternate or switch between states, such as on/off.

Toggle Options

Control panel Programming Options which are enabled or disabled by the repeatedly depressing the same key, button or control.

Tone generator

Circuitry or a device that generates a signal in the audio frequency range.

Toner

A device consisting of a tone generator which is connected to an electrical conductor and a receiving probe which is used to trace, follow and identify that conductor.

Transformer

An electrical device that is used to increase or decrease an Alternating Current Voltage and/or provide isolation between electrical circuits.

Transient

A short duration spike or surge in current or voltage occurring in an electrical circuit.

Transistor

A semiconductor device that controls the flow of an electric current used in switching and amplification applications in electrical circuitry.

Trap detection

A class of protection utilizing sensors in high traffic areas or areas likely to be used by an intruder.

Trouble

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An abnormal event or condition on an alarm system that is diagnosed and annunciated by the system such as loss of AC, low battery, supervisory trouble, etc.

Trouble Display

A visual and/or audible indication annunciated by an alarm system, usually by a keypad, indicating that an abnormal event or condition has been detected and diagnosed by the system such as loss of AC, low battery, supervisory trouble, etc.

Trouble report

A communications sent by an alarm system to a remote monitoring facility that indicates an abnormal event or condition on an alarm system such as loss of AC, low battery, supervisory trouble, etc.

Troubleshoot

The process or procedure of determining the cause of equipment malfunction or failure.

Twenty-four hour circuit

A circuit that is continuously active regardless of whether the alarm system is armed or disarmed.

Two wire detector

A class of detectors that employ the same two conductors to supply power and to signal detector activation.

UHF

Abbreviation for Ultra High Frequency.

UL

Abbreviation for Underwriters Laboratory.

Ultra High frequency

Those frequencies occupying that portion of the electromagnetic spectrum between 300 MHz and 3000 MHz.

Ultrasonic

Audio that is higher in frequency than the upper limit of normal human hearing, generally refers to those frequencies that fall between 20 kHz and 2 MHz.

Ultrasonic frequency

Audio frequencies that are higher than the upper limit of normal human hearing, generally considered to be those frequencies that fall between 20 kHz and 2 MHz.

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Ultrasonic motion detector

An active sensor that transmits ultrasonic signals in a protected area then monitors for changes in those signals as an indication of motion.

Ultraviolet

(Symbol UV) Light that is invisible to the human eye, with wavelengths between 5 and 400 nanometers, it occupies that portion of the electromagnetic spectrum just above visible violet.

Underwriters Laboratory

An independent testing laboratory that tests electrical materials, methods and products and establishes standards relating to safety.

User Functions

Alarm system control panel options and functions which can be programmed or set using a Master User Code or User Code, such as setting the date and time, adding Users, enable/disable Auto-Arm features, performing system tests, etc.

User Programming

Alarm system control panel programming that is accessible by a Master User Code. See User Functions.

UV

Abbreviation for Ultraviolet

V

Abbreviation for Volt.

VA

Abbreviation for Volt Ampere (Volt Amp).

VAC

Abbreviation for Volt(s) Alternating Current.

Valence electrons

Electrons in the outermost shell or orbit of an atom that may be gained or lost due to chemical action or electrical charge.

Very High Frequency

That portion of the electromagnetic spectrum between 30 and 300 MHz.

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Very Low Frequency

That portion of the electromagnetic spectrum between 10 and 30 kHz.

VHF

Abbreviation for Very High Frequency.

Vibration sensor

A passive detector that employs electrical contacts which are opened and closed by vibrations of a protected area or object.

Visible light

That portion of the electromagnetic spectrum that produces light or causes reflections that are visible to the human eye, generally considered to be those wavelengths between 400 and 700 nanometers.

VLF

Abbreviation for Very Low Frequency.

Voice Dialer

A telephone dialing device capable of verbal reporting by delivering prerecorded announcements.

Voice Over IP

(VOIP) is a technology that allows for telephone calls to be made over computer networks by converting analog voice signals into digital data.

VOIP

Abbreviation for Voice Over Internet Protocol.

Volt

A unit of measurement of electrical potential or pressure. See Voltage.

Voltage

Electrical pressure or potential that causes current flow, also referred to as Electromotive force (EMF).

Volt-Ohmmeter

A test instrument used to measure voltage, resistance and current, also referred to as a multimeter.

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Volumetric detection

A class of detection with a specific protected area, such as a given area within a building, a room, a confined area within a room, etc.

VOM

Abbreviation for Volt-Ohmmeter.

Walk test

(1) A procedure performed to verify the functionality of alarm system whereby, after placing the system in test mode, the operation of sensors, detectors, annunciators and communications devices is verified.

(2) The process of checking the operation and adjustment of a motion detector.

Walk through

An inspection procedure performed on a building or area to determine what security measures and alarm system requirements are necessary to meet the level of protection desired by the owner or occupant.

Water sensor

A device that detects the presence or quantity of water at a given location.

Waterflow sensor

A device placed in water pipe that detects the movement or flow of water within the pipe.

Watt

(1) (Abbreviation W, Symbol P) Unit of measurement for electrical power.

(2) The rate of doing work.

More:

In DC circuits calculated by the basic formula: P = IE, where P = power in Watts, I = current flow in Amperes and E = Electromotive force in Volts.

In AC circuits the Power Factor (PF), which reflects the phase difference caused by the reactive component of the load, must be taken into consideration and the formula becomes P = I*E*PF.

Wet cell

A type of electrochemical cell that uses a liquid as an electrolyte.

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Wide gap contact

A type of magnetic contact that is able to operate with a greater separation between the contact switch and the energizing magnet than standard magnetic contacts.

Window foil

A thin metallic strips or tape that is cemented to a glass surface for the purpose of forming an electrical circuit that will open if the glass is broken thereby triggering an alarm system.

Wire

A length of bare or insulated, solid or stranded, drawn metal.

Wire nut

A fastener that is screwed on or over wires used to join two or more wires together.

Wired alarm system

An alarm system that uses wire and cable to physically connect modules and sensors to the control panel.

Wireless

(1) Employing electromagnetic radiation rather than wires or cables.

(2) Radio or radio signals.

Wireless alarm system

An alarm system that employs electromagnetic radiation in the form of radio signals rather than wire and cable to convey information between sensors and the control panel.

Wireless Receiver

A radio receiver which may be either integrated with an alarm system control panel or keypad or an add-on stand-alone module, which provides wireless functionality to the system. See Wireless Alarm System.

Wrong Code Lockout

A feature supported by some control panels which provides the ability to lockout or render a keypad inoperative for a programmed time period if a prescribed number of invalid access codes are entered.

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Z

Symbol for Impedance.

Zinc carbon cell

A primary cell, the zinc carbon (carbon zinc) cell, technically a Leclanche cell, is an electro-chemical cell comprised of a zinc container, electrolytic cathode paste mixture and a carbon rod. The zinc container serves as the negative electrode and the carbon rod, in contact with the paste, provides positive electrode contact.

Developed in the late 1800's, the zinc carbon cell is still widely used today. Better known as the common dry cell battery, it powers our flashlights and runs our toys.

Zip cord

A two conductor cable with parallel conductors separated by a thin section which will separate easily when the conductors are pulled apart.

Zone

A detection circuit comprised of one or more sensors, it is usually a subdivision of a larger protected area based on location or function. The division of a protected area into zones permits individual zones (areas) to function independently and annunciate separately.

Proper zoning (the process of dividing the area into zones) will provide those monitoring the system with information regarding the location and nature of an emergency. It also facilitates service or maintenance of the system by making troubleshooting easier.

Zone Attributes

Programmable options which collectively define the operation of a protective circuit, loop or zone.

Zone Crossing

A feature supported by some alarm system control panels which requires activation or faulting of more than one zone within a prescribed time period before an alarm will be initiated.

Zone expander

Modules or devices added to systems, providing the control panel supports such expansion, to increase the number of zones available on the system.