

Resource Guide



AKRON HARDWARE™

COMMERCIAL AND RESIDENTIAL
DOOR HARDWARE
QUICK REFERENCE GUIDE

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AE	See Authorized Egress
Active Door	The leaf that opens first and the one to which the lock is applied.
AHC	Architectural Hardware Consultant. (AHC) are trained and certified to recognize a builder's hardware requirements for door openings in all types of public, commercial, industrial and institutional buildings. AHCs coordinate thousands of builder's hardware items and options to ensure door openings are in compliance with fire, life safety, accessibility and building code requirements and that they function properly for the lifetime of the building
Anti Friction Latchbolt	The latchbolt of a lock that has been equipped with a device for lessening friction between bolt and strike. May be a small trigger attached to the bolt that contracts the strike and exerts a lever action to depress the bolt (three-piece latchbolt). May also be a latchbolt with some form of nylon insert or surface.
ALOA	The Associated Locksmiths of America Inc. (ALOA) is an international professional organization of highly qualified security professionals engaged in consulting, sales, installation and maintenance of locks, keys, safes, premises security, access controls, alarms, and other security related endeavors. http://www.aloa.org
Architectural Finish Hardware	Functional hardware with a finished appearance. A part of the decorative treatment of the building and its rooms.
ANSI	American National Standards Institute (ANSI) - a private, non-profit organization (501(c)3) that administers and coordinates the U.S. voluntary standardization and conformity assessment system. http://www.ansi.org/
AOC	Architectural Openings Consultants (AOCs) are individuals who have attained AHC, CDC and EHC professional certifications. AOCs have mastered all facets of the commercial door and hardware industry and exemplify the highest standards of expertise and professionalism.
Authorized Egress	A signal generated by a pushbutton, a motion detector, or any other contact closure to indicate an authorized egress from within a secured area. Signal may electronically unlock a door and/or shunt an alarm during exiting.
Auxiliary Deadlatch	A supplementary latch, which, when the door is closed, automatically deadlocks the latchbolt against end pressure. It does not interfere with the normal operation of the lock.
Auxiliary Lock	A lock having a latchbolt or a deadbolt operated by a key or a thumbtum, or both. The lock often is used in addition to another lock, which may or may not be key operated, but which has a latchbolt operated by knobs or levers.
Backcheck	Optional feature in hydraulic door closers, which takes effect at a certain degree of opening and controls the speed of the door during the balance of its opening cycle.



Backset (of a lock)	A term used in referring to a horizontal distance from the face of the lock to the centerline of the cylinder, key hole or knob hub. On locks with beveled fronts, this distance is measured from the center of the lock edge. On locks with rabbeted fronts it is measured from the lower step of the center of the lock face.
Ball-Bearing Hinge	A hinge equipped with ball bearings between hinge knuckles to reduce friction.
Battery Standby	A means of automatically switching over to stored battery power during local primary power failure. Also referred to as battery backup.
Bevel	A machine angle other than a right angle, i.e., a 3 degree bevel which is equivalent to a 1/8" drop in a 2" span (1mm in 16mm).
Bevel of Door	The angle of the edge of the door in relation to the inside and outside surfaces of the stile. Thin doors are not usually beveled. The commonly used bevel for heavier doors is 1/8" in 2". (A beveled edge on a thick door is necessary for a close fit when the door is closed because of the arched swing of the door.
BHMA	Builders Hardware Manufacturers Association is the trade association for North American manufacturers of commercial builders hardware. Since its founding in 1925, BHMA has endeavored to promote the general development and welfare of the builders hardware industry and its member companies. BHMA currently authors 31 ANSI/BHMA standards in the builder's hardware category, covering everything from hinges to locks to power door. In addition, BHMA is involved in international standards, code and life safety regulations and other activities that specifically impact builders hardware. http://www.buildershardware.com
Bitting	A number that represents a depth of a cut on a pin tumbler-type key. A bitting is often expressed as a series of numbers and/or letters that designate all the cuts on a key.
Bored Deadlatch	A lock fitting round bored openings in the face and edge of a door and having a deadlatch operated by a key or thumbturn, or both.
Bored Deadlock	A lock fitting round bored openings in the face and edge of a door and having a deadbolt operated by a key or thumbturn, or both.
BOCA	Building Officials and Code Administrators International, Inc. http://www.iccsafe.org/
Bored Lock (or Bored Latch)	A lock or latch installed into a drilled or bored opening in a door. A tubular or cylindrical lock. See Lock Function Chart.
Bottom Rail	See Rail
Box Strike	A strike containing a housing in the back to enclose the bolt opening in the frame. May be a separate piece from the strike. Metal frames usually have a box already built into the strike area to protect it from mortar and cement
Break	To open an electrical unit
Builders' Hardware	All hardware used in building, both finish and rough. See Architectural Hardware, Rough Hardware.



- Butt Hinge (or Butt)** A hinge mortised into both the door and frame.
- Button-in-Knob** An inside knob with a built-in button that controls the locking and unlocking of the outside knob. May be either push button or tum button.
- Cam (of a cylinder)** A piece attached to the end of the cylinder plug. As the proper key turns the cylinder plug, the cam is rotated. This, in tum, moves the bolt or other locking mechanism.
- Case (of a lock)** The box containing the mechanism.
- CDC** (CDCs) are trained in the construction and application of standard and custom hollow metal doors and frames, architectural flush and stile and rail wood doors and aluminum doors and frames. CDCs must master a myriad of fire, life safety, accessibility and building code requirements for all types of buildings
- Center Pivot** A special type of hanging device for heavy-duty doors that usually swing both ways (double-acting).
- Change Key** A key that operates an individual cylinder. Also called “day key” or individual key*.
- Circuit** The path through which electrical energy flows.
- CML** The highest level of locksmith certification is Certified Master Locksmith (CML). A Certified Master Locksmith has reached the highest level of ALOA’s Proficiency Registration Program and has successfully demonstrated proficiency in ninety percent of the available categories of the Proficiency Registration Program. A CML has advanced knowledge of most areas of locksmithing and electronic security.
- Closed Circuit** (1) An electrical circuit in which current normally flows until interrupted by the opening of a switch-type electronic component (2) A circuit or switch in which the contacts are closed during normal operation.
- CRL** The first level of locksmith certification is Certified Registered Locksmith (CRL). A Certified Registered Locksmith has passed the ten mandatory categories, as well as at least two specialized electives of his choice. A CRL has a good working knowledge of general locksmithing.
- Coil, electric** Successive turns of insulated wire that create a magnetic field when and electric current is passed through them. Ex: solenoid
- CPL** The second level of locksmith certification is Certified Professional Locksmith (CPL) A Certified Professional Locksmith has earned the CRL designation and has successfully demonstrated proficiency in an additional twelve elective categories. A CPL has an advanced knowledge of general locksmithing and of many specialized areas.
- Concealed Hinge** A hinge so constructed that no parts are exposed when the door is closed.
- Conductivity** The capability of a material to carry electrical current . usually expressed as percentage of copper conductivity (copper being 100 percent)



Conductor	Material with the ability to carry electric current. The term is also used for an electric wire.
Conduit	A tube trough for protecting electrical wires or cables. It may be solid or flexible tube in which insulated electrical wires are run.
Connector	Generally, any device used to provide rapid connect/disconnect service for electrical cable and wire terminations.
Contacts	Electrically conductive points, or sets of points, used to make or an electrical circuit mechanically.
Continuity	The state of being complete and uninterrupted, like a normally closed circuit.
Continuous Duty	Refers to device or a control that can operate continuously with no off or rest periods.
Continuous Hinge	A hinge designed to extend for the length of the moving part to which it is applied. Also called "piano hinge."
Control Key	A key used to remove the removable core from a removable core cylinder/lock.
Coordinator	A device used on a pair of doors to insure that the inactive leaf closes first, before the active leaf. Necessary when an overlapping astragal is present, with certain exit device combinations and when automatic or self-latching bolts are used. Both door leaves must have closers.
Curved-Lip Strike	A strike with a lip curved to conform to the detail of the door casing.
Cuts	An indentation or notch made in a key that enables it to turn. It may be either square or rounded. In tumbler locks, the cuts align tumblers properly to allow the key to rotate. In warded locks, the cuts clear the wards and allow the key to rotate.
Cylinder	The part of a lock that contains the tumbler mechanism and keyway. The cylinder will permit only the correct key to enter and turn, thus operating the locking mechanism.
Cylinder Ring (or Cylinder Collar)	A collar or washer that fits snugly around the head of a cylinder. It enhances the appearance of the installation, and in some cases, protects the cylinder from tampering.
Cylinder Set Screw	The set screw in the front of a lock that prevents the mortise cylinder from being removed after installation.
Cylindrical Lock	A type of bored lock. The locking mechanism is usually contained within a cylindrical case, and actuated by a cylinder and/or button in the knob.
Deadbolt	A lock bolt having no spring action, usually rectangular in shape, which operated by a key or turn knob. It is locked against end pressure when projected.
Deadlatch	See Deadlocking Latchbolt
Deadlock	Lock having a deadbolt only.



Deadlocking Latchbolt	A spring actuated latchbolt with a beveled end and incorporating a plunger that, when depressed, automatically locks the projected latchbolt against return by end pressure. See Auxiliary Deadlatch.
DHI	See - Door and Hardware Institute
DIP switch	A miniature switch used to program, set or change circuit functions. DIP is an abbreviation for the dual-inline package which house the switch.
Direct Current (DC)	Electrical current that travels in only one direction and has negative and positive polarity. It may or may not have an AC ripple component. The DC sources that are unfiltered should be referred to as full-wave or half-wave rectified AC.
Dogging	Term used with exit devices. A mechanism that allows the latchbolt to remain in a retracted position thus permitting free push-pull operation of the door from either side. Cannot be used on fire rated exit devices.
Door and Hardware Institute	The Door and Hardware Institute is a professional organization that serves the North American marketplace as the advocate and primary resource for information, professional development and certification resource for the architectural openings industry with a focus on the channels of distribution. http://www.dhi.org/
Door Closer (or Door Check)	A device attached at the top of the door, either on the surface or mortised, to regulate and control the operation of the door.
Foot Holder	Used for fastening a door in selected open positions.
Door Pull	A handle or drip, commonly mounted on a plate, designed for attachment to a door to facilitate opening and closing.
Door Status Switch	A DSS is a switch used to monitor whether a door is in an opened or closed position.
Door Stop	A device to limit the opening swing of a door. Also, that part of a door frame against which the door closes.
Double Egress	A pair of doors that are comprised of two single-acting doors swinging in opposite directions, both doors being of the same hand.
Double Pole, Double Throw (DPDT)	A term used to describe a switch or relay output contact form (2 form C) in which two separate switches are operating simultaneously, each with a normally open and normally closed contact and a common connection. This form is used to make and break two separate circuits.
Double-Acting Door	A door equipped with hardware that permits it to swing to either side of the plane of its frame.
Double-Acting Spring Hinge	A device for hanging a door, permitting the door to swing in either direction and return to a close position.
Dry Contact	Metallic points making (shorting) or breaking (opening) a circuit. The switched circuit must have its own source of power and is merely routed through the dry contacts.
Dummy Cylinder	One without operating mechanism, for use where effect is desired.



Dummy Trim	Trim only, without lock. Usually used on the inactive door of a pair of doors to give balance.
Electric Strike	An electrical device that replaces a regular lock strike and allows opening of the door from a remote location or by special access equipment.
Electromagnet	A coil of wire, Usually wound on an iron core, that produces a strong magnetic field when current is sent through the coil.
Electromagnetic	Pertaining to combined electric and magnetic fields associated with movements of electrons through conductors.
Emergency Release	An optional feature of a lock that provides a means of overriding the lock and retracting the bolt in an emergency. It can be operated either mechanically or electrically.
Escutcheon	An elongated plate, either protective or ornamental, containing openings for the cylinder, knob or thumbturn.
Exit Device	A door locking device designed to grant instant exit from an area by pressing on a crossbar, which releases the locking bolt or latch.
Face (of a lock)	That part of a lock visible in the edge of a door after installation. See Front.
Fail-Safe Lock/Strike	An electric lock that automatically unlocks with any power interruption.
Fail-Secure Lock/Strike	An electric lock that requires power to unlock.
Finish Hardware	Functional hardware with a finished appearance. A part of the decorative treatment of the building and its rooms. See Architectural Finish Hardware.
Fire-Rated Doors	A door which has been constructed in such a manner that when installed in an assembly and tested will pass ASTM E-152 "Fire Test of Door Assemblies", and can be rated as resisting fire for 20 minutes (1/3 hour), 30 minutes (1/2 hour), 45 minutes (3/4 hour), (C), 1 hour (B), 1 1/2 hours (B) or 3 hours (A) The door must be tested and carry an identifying label from a qualified testing and inspection agency.
Flat Lip Strike	A strike with a flat (non-curved) lip. May often be non-handed.
Floor Clearance	The size of the space between the bottom of a door and the finished floor.
Floor Closer	A door closing device that is installed in a recess in the floor below the door in order to regulate and control the opening and closing of the door.
Form C Contact	A switch mechanism that contains three terminals (normally open, common and normally closed)
Friction Hinge	A hinge designed to swing a door and hold it at any desired position by means of friction control incorporated in the knuckles of the hinge.
Full Mortise	Hinge with one leaf mortised in the edge of the door, the other leaf mortised in the door jamb.



Full Surface	Hinge with one leaf secured to surface of door, the other leaf secured to surface of door jamb.
Full-Wave	A term used for both AC and DC voltages, suggesting that both halves of the sine wave are utilized (e.g., full-wave AC and full-wave rectified AC or unfiltered full-wave DC).
Fuse	A protective device placed in a circuit as a safeguard, containing a strip of easily melted metal. When the current flow becomes too great, the metal melts, thus breaking the circuit.
Grand Master Key (GMK)	A key that operates all of a large group of locks, which contain two or more master key groups.
Ground	A conducting connection between an electrical circuit and the earth or other large conducting bolt to serve as an electrical ground, thus making a complete electrical circuit.
Half-Mortise	Hinge with one leaf mortised in the edge of the door, the other leaf secured to the surface of the door jamb
Half-Surface	Hinge with one leaf mortised in the door jamb, the other leaf secured to surface of door.
Hand	The term used to indicate the direction a door swings
Handed Hardware	Locks, closers and other hardware, limited to use with doors that swing in given direction.
Hardware Sets	A group of hardware listed in the specification, under execution, for a specific opening.
Hard-Wired	Refers to groups of connections that require the use of wire conductors.
Hinge	Two jointed plates hinged together and attached to a door and its frame. Serves to support or “hang” the door and allows the door to swing or move.
Hinge Jamb	Vertical member of a door frame to which the hinges are applied.
Hinge Stile (of a door)	The door stile to which the hinges are applied.
Hub	The part of a lock through which a spindle passes (either knob or turnknob) to actuate the mechanism.
Inactive Door	That leaf of a pair of doors that is bolted when dosed and to which the lock strike is fastened to receive the latch of the active door.
Indicator	A device, usually an inward- or outward-moving button, used in connection with hotel locks to indicated whether room is occupied.
Input Voltage	The designed power source requirement needed by equipment in order to operate properly.



Inrush	The initial surge of current through a load when power is first applied. Lamp loads, inductive motors, solenoids and capacitive load types all have inrush or surge currents higher than the normal running or steady state currents. Resistive loads, such as heater elements, have no inrush.
Insulation	A material that provides high electric resistance, making it suitable for covering components, terminals and wires to prevent possible future contact of adjacent conductors, resulting in a short circuit.
Interlock	A system of multiple doors with controlled interaction, Interlocks are also known as light traps, air traps, mantraps and sally-ports. (see safety interlock, security interlock.)
Intermittent Duty	A solenoid designed to be energized for short periods of time. Continuous operation may damage an intermittent duty solenoid.
Jamb	The vertical member forming the side of a door, window or wall opening frame. The hinge jamb is the jamb at which the hinges or pivots are installed. The strike jamb is the jamb in which a strike may be installed and away from which the door or window swings. A blank jamb is one that has not been prepared to receive hardware.
Jamb Depth	The width of a jamb, measured perpendicular to the door or wall face at the edge of the opening.
Jumper	A short length of conductor used to make a connection between terminals, around a break in a circuit or around an instrument. It is usually a temporary connection.
Junction	A point in a circuit where two or more wires are connected.
Keeper	A metal plate or box that is pierced or recessed to receive the bolt or latch of a lock. Same as Strike
Key Change	The bitting of a key to operate the lock for which it is intended.
Key Change Number	The recorded code or bitting number indicating the key change, usually stamped on key.
Key Section	The cross-sectional shape or configuration applied lengthwise to a key blade that may restrict its insertion into the lock mechanism through the keyway. Each key section is usually assigned a designation or code by the manufacturer. (This is usually shown as a cross-section view from the bow toward the tip of the key).
Key Set Symbols	The symbol that identifies keying instructions for each lock in the schedule.
Keyed Alike (KA)	A group of locks in which each is operated by the same change key
Keying Schedule	A complete listing and explanation of all keys and keying requirements.
Key-in-the-Knob	A door knob with built-in cylinder for locking and unlocking with a key.
Keyway	The shape or configuration of the hole in the lock mechanism that allows only a key with the proper key section to enter.



Kick Plate	A protective plated applied on the lower rail of the door to protect against the door being marred.
Knob	That portion of the lock protruding from the door, it is grasped and turned for entry.
Knob Shank	The projecting stem of a knob into which the spindle is fastened.
Knuckle	The enlarged part of a hinge into which the pin is inserted
Labeled Door (or Frame)	A door or frame that conforms to all the applicable requirements-in respect to fire resistance-Of nationally recognized testing authority and bears a label designating that fire rating.
Latching Relay	The locking in of a circuit by means of a holding contact; used in relay logic when a momentary initiation is required.
Latch Retractor	In a cylindrical lock, the device that is activated by the spindle, and in tum, retracts the latchbolt.
Latch Unit	That portion of a cylindrical lock that fits into the edge of the door housing the latchbolt and latchtail. In a tubular lock, it also contains the retracting mechanism.
Latch bolt	A lock component having a beveled end that projects from the lock front but may be forced back into the lock case by end pressure or drawn back by action of the lock mechanism. When the door is closed, the latchbolt projects into a hole provided in the strike, holding the door in a dosed position
Lead-Lined	A door, frame or lock designed for use in hospitals or other areas where there is a potential radiation hazard. The door or frame is lined with sheet lead. The lock is sheathed or lined with lead.
Leaf (of a hinge or butt)	One of the two movable plates which, when fastened together by the hinge pin, form a complete hinge.
Lever Handle	A horizontal handle on a lockset or auxiliary lock
Light-Emitting Diode (LED)	A diode, a solid-state device, that gives off virtually heatless colored light when electric current is passed through it. LEDs are very efficient and long lasting and are often used for digital readouts and annunciators. Common colors are red, green and amber.
Lip of Strike	The projecting part on which the latchbolt rides. It may be either a curved-lip or flat lip.
Load	Any device that consumes electrical power; the amount of power required for operation of a circuit or device. (ex light bulb, electric lock)
Lock	A device for securing a door in the closed position against unauthorized or forced entry. It requires actuation to project or to retract its bolt.
Lock Block	A concealed block the same thickness as the door stile or core which is adjacent to the stile at a location corresponding to the lock location and into which a lock is fitted.
Lock Front	A plate fastened to the edge of a door through which the bolts pass.



Lock Rail (of a door)	The horizontal member of a door that received the locking mechanism
Lock Stile (of a door)	The vertical member of a door to which the lock is applied, as distinguished from the hinge stile.
Lockset	A complete lock or latch assembly, includes the lock or latch mechanism and trim (knobs, levers, handleless, roses and escutcheons).
Loose Joint Hinge	A hinge having only two knuckles, to one of which the pin is fastened permanently, the other containing the pinhole, whereby the two parts of the hinge can easily be separated. These hinges are handed.
Loose Pin Hinge	A hinge having a removable pin to permit the two leaves of the hinge to be separated.
Magnetic Catch	A cupboard catch that uses a magnetized strike to hold the door closed.
Maintained Contact Switch	A switch designed for applications requiring sustained contact, but with provision for resetting.
Master Key (MK)	A key with bitting arranged to operate two or more locks of different changes in a group, each lock also being operated by its own individual key.
Milliampere	One one-thousandth of an ampere. (0.001)
Momentary Switch	A spring-loaded contact that, when pressed, closes two contacts. When pressure is removed, the contacts open.
Mortise	An opening, recess or cut-out made to receive a lock or other hardware. Also the act of making such an opening.
Mortise Bolt	A bolt assembly designed to be mortised into a door (in opposition to being surface mounted)
Mortise Cylinder	A cylinder with a threaded body and cam. Normally used with mortise locks.
Mortise Lock	A lock assembly designed to be mortised into the edge cut out in a door.
Mullion	A fixed or movable vertical member dividing a door opening.
Normally Closed (NC)	The condition or position of a contact prior to initiation or energization - in this case, a closed condition.
Normally Open (NO)	The condition or position of a contact prior to initiation or energization - in this case, an open condition.
Offset Pivot	A special hanging device for heavy duty doors, used on doors swinging one way only.
Open Circuit	(1) An electrical circuit in which current does not flow until permitted by the closing of a switch-type electronic component. (2) A circuit or switch in which the contacts are open during normal operation.



Opening Size	The size of a door frame opening, measured horizontally between jamb rabbets and vertically between the head rabbet and the finished floor. The opening size is usually the nominal size and is equal to the actual door size plus clearances.
Operating Voltage	The voltage by which a system operates; a nominal voltage with a specified tolerance applied; the design voltage range necessary to remain within the operating tolerances. For example, for a system specified 120 volts +/- 10 percent of nominal, 120 volts is the nominal voltage and the design voltage range is 108 to 132 volts AC.
Output Voltage	The designed power source produced by a power supply to operate equipment.
Overhead Concealed Closer	A closer concealed in the frame header with an arm connecting to the door at the top rail.
Padlock	A small, portable lock consisting of a case containing a lock mechanism, a shackle or U-shaped bar that fastens into the lock case, and usually a key to open the locking mechanism.
Panic Hardware	A door locking device designed to grant instant exit from an area by pressing on a crossbar, which releases the locking bolt or latch. See Exit Device
Piano Hinge	A hinge designed to extend for the length of the moving part to which it is applied. See Continuous Hinge.
Pin Tumblers	Small sliding pins in a lock cylinder working against coil springs and preventing the cylinder plug from rotating until aligned by the biting of the correct key.
Pivot-Reinforced Hinge	Butt hinge combined and interlocked with a pivot to increase shock load resistance.
Plug (of a lock cylinder)	The round part containing the keyway and rotated by the key to transmit motion to the bolt, or other locking mechanism.
Polarity	The positive or negative orientation of a signal or power source.
Potentiometer (POT)	Variable resistor
Pre-Assembled Lock	A lockset that has all the parts assembled as a unit at the factory requires little or no assembly for installation. Installs into a rectangular notch cut into the door hinge.
Push Plate	A plate placed on the surface of a door to protect it from wear and soiling, as a result of persons pushing the door open.
Rabbet	A term used to define that portion of a door frame into which the door fits. Also a term used to describe the abutting edges of a pair of doors or windows so shaped as to provide a tight fit. One half of the edge projects beyond the other half, usually 1/2".
Rabbeted Lock (or Latch)	A lock whose front conforms to the rabbet on the edge of the door.
Rail	A full-thickness, horizontal structural member forming the top or bottom edge of a door or sash. May be located at an intermediate height in a door, separating panels or glazed areas.



Rectifier	A solid state electrical device that will allow current to flow in one direction only. It is designed to convert alternating current to direct current.
Regulated Power Supply	A power supply that provides a constant output regardless of input voltage variations.
Relay	An electrically controlled device that opens and closes electrical contacts to effect the operation of other devices in the same or another electrical circuit.
Removable Core Cylinder	A cylinder containing an easily removable core assembly, which incorporates the entire tumbler mechanism including the plug, tumblers and separate shell. The cores normally are removable and interchangeable by use of a special key (called a "control key")
Removable Mullion	A mullion separating doors vertically with a door frame. Required for the normal operation of doors but designed to permit its temporary removal so the entire door width of the opening can be utilized.
Request to Exit	A signal generated by a pushbutton, a motion detector, or any other contact closure to indicate an authorized egress from within a secured area. Signal may electronically unlock a door and/or shunt an alarm during exiting.
Reveal (of the door frame)	That part of a back bend that projects out from the finished wall. Also, the dimension from the inside face of the door to the face of the frame at the side opposite from the direction of the door swing.
Reverse Bevel	A term used to designate the hand of a door when the door swings to the outside/key side.
REX	See Request to Exit
Rim	A term indicating articles of hardware designed for application to the surface of the door or frame.
Rim Cylinder	Mounted through the door independently of the lock, usually by screws from the reverse side, and engaging the lock mechanism by means of a tailpiece.
Riser Diagram	A document which explains wire type, size and the number of conductors to be run from a control panel to each control or monitor location.
RX	See Request to Exit
Security Industry Association	SIA - International trade association promoting growth, expansion, and professionalism within the security industry by providing education, research, technical standards, representation, and defense of member's interests. http://www.siaonline.org
Shank (of a knob)	The projecting stem of a knob into which the spindle is fastened.
Shear Line	The interface between the plug and shell in a cylinder that is normally obstructed by the pin tumblers. The pins must be raised to the shear line by the correct key to allow the plug/key to tum.



SIA	See Security Industry Association
Silencer	A small piece of resilient material attached to the stop on a door frame to cushion the closing of the door.
Single Pole Single Throw (SPDT)	A term used to describe a switch or relay contact form (1 form C) that has a normally open and a normally dosed contact with a common connection.
Single Pole Single Throw (SPST)	A switch with only one moving and one stationary contact, available either normally open (NO) or normally closed (NC).
Single-Acting Door	A door mounted to swing to only one side of the plane of its frame.
Spike	A momentary increase in electrical current. Spikes can damage electronic equipment.
Spindle (of a knob)	The bar connecting the knobs or levers and passing through the hub of the lock for the purpose of transmitting the knob/lever action to the latchbolt.
Spring Hinge	A hinge containing one or more springs to move the door into a closed position. It may be either single- or double-acting.
Standard Door	By industry practice, a standard door is book size in both width and height.
Stile	The vertical members of a door to which the lock and hinges are applied.
Stop (of a lock)	The buttons or other manual device to lock or unlock the outside knob or thumbpiece. A similar device in an auxiliary lock to keep the latchbolt retracted.
Strike	A metal plate or box that is pierced or recessed to receive the bolt or latch of a lock. Sometimes called a “keeper”
Surface Bolt	A rod or bolt mounted on the face of the inactive door of a pair to lock it to the frame and/or sill; operated manually.
Surface Hinge	One having both leaves secured to the surface of the door and frame.
Switch Maintained	A switch that, when activated, maintains its activated position until it is inactivated.
Switch Momentary	A switch that, when activated, automatically returns to its original position afterwards.
Switch Normally Closed	A switch that, when not activated, is dosed to form a path for current.
Switch Normally Open	A switch that, when not activated, is open to prevent a path for current.
Swivel Spindle	A spindle having a joint midway in its length to permit the knob at one end to be made rigid by the stop work, which the other end is free to operate.
Tailpiece	The connecting link attached to the end of a rim cylinder which transmits the rotary motion of the key through the door, into the locking mechanism.



Terminals	Metal wire termination devices designed to handle one or more conductors and to be attached to a board, bus or block with mechanical fasteners or clipped on. Common types are ring tongue, spade, flag, hook, blade, quick connect, offset, flanged. Special types include taper pin, taper tab and others, either insulated or non-insulated.
Threshold	A strip fastened to the floor beneath a door. May be required to cover the joint of two types if floor materials where they meet.
Throw	The distance that a deadbolt or latchbolt projects when in the locked position
Time Delay	An electronically controlled delay period designed into a component that will either send a prolonged signal or delay transmitting a signal.
Top Rail	See Rail
Transformer	An electric device that changes voltage in direct proportion to currents and in inverse proportion to the ratio of the number of turns of its primary and secondary windings. The input side of a transformer is called the primary side; the output or low-voltage side is called the transformer secondary. (i.e., 110 volts AC to 24 VAC)
Trim	A decorative member applied to the face of the door jambs. Often used to cover or hide the joint between a door frame and the adjacent wall surface. Also, decorative as well as functional components of a lockset (i.e., knob, rose or escutcheon). Also, decorative and/or functional components applied to a door to assist in its operation (i.e., push plates, pull plates, pulls or kickplates).
Tubular Lockset	A lockset made up of three components: outside knob, rose and spindle assembly; latch unit with retracting mechanism; and inside knob and rose assembly.
Turnknob	A small knob usually crescent or oval shaped, with spindle attached, for operating the deadbolt of a mortise lock.
Unit Lock	A lockset that has all the parts assembled as a unit at the factory requires little or no assembly for installation. Installs into a rectangular notch cut into the door hinge. See Pre-Assembled Lock
Universal	A term used to describe a lock, door closer or other device that can be used on doors of either hand, without modification or change.
Utility Lock	Also called "cam locks". Used for a variety of locking purposes. They are identified by the flat metal piece extending from the lock barrel, which is the cam.
Volt/Amp (VA) Rating	The product of rated input voltage multiplied by the rated current. This establishes the "apparent energy" available to accomplish work.
Voltage	The term most often used (in place of electromotive force, potential, difference or voltage drop) to designate electrical pressure that exists between two points and is capable of producing a flow of current when a closed circuit is connected between the two points.
Voltage Drop	Voltage loss experienced by electrical circuits due to two principal factors: (1) wires size and, (2) length of wire runs.



WIRE SELECTION CHART

12 VDC: MAXIMUM DISTANCE (IN FEET) BETWEEN POWER SUPPLY AND LOAD																	
AMPS																	
	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3	4	6	8	10	16
AWG																	
12 Gauge			493	370	296	246	211	185	164	148	134	123	92	61	46	37	23
14 Gauge		465	310	232	186	155	132	116	103	93	84	77	58	38	29	23	14
16 Gauge		293	195	146	117	97	83	73	65	58	53	48	36	24	18	14	
18 Gauge	368	184	122	92	73	61	52	46	40	36	33	30	23	15			
20 Gauge	230	115	76	57	46	38	32	28	25	23	20	19	14				
22 Gauge	145	72	48	36	29	24	20	18	16	14	13	12					

24 VDC: MAXIMUM DISTANCE (IN FEET) BETWEEN POWER SUPPLY AND LOAD																	
AMPS																	
	0.25	0.50	0.75	1.00	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3	4	6	8	10	16
AWG																	
12 Gauge						493	423	370	329	296	269	246	185	123	92	74	46
14 Gauge				465	372	310	265	232	206	186	169	155	116	77	58	46	29
16 Gauge			391	293	234	195	167	146	130	117	106	97	73	48	36	29	18
18 Gauge		368	245	184	147	122	105	92	81	73	67	61	46	30	23	18	
20 Gauge	461	230	153	115	92	76	65	57	51	46	41	38	28	19	14		
22 Gauge	290	145	96	72	58	48	41	36	32	29	26	24	18	12			

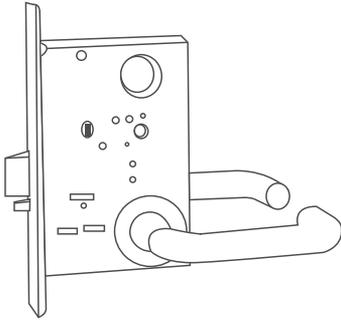


FINISH CHART

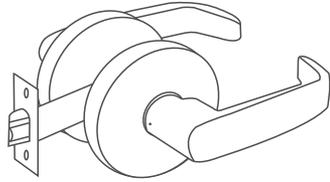
BHMA FINISH SYMBOL	DESCRIPTION	US EQUIVALENT
605	Bright brass, clear coated	US3
606	Satin brass, clear coated	US4
611	Bright bronze, clear coated	US9
612	Satin bronze, clear coated	US10
613	Dark oxidized satin bronze, oil rubbed	US10B
622	Flat black coated	US19
625	Bright chrome plated	US26
626	Satin chrome plated	US26D
628	Satin aluminum, clear anodized	US28
629	Bright stainless steel	US32
630	Satin stainless steel	US32D
689	Aluminum painted	
690	Dark bronze painted	
691	Light bronze painted	
696	Satin brass painted	



FUNCTION CHART



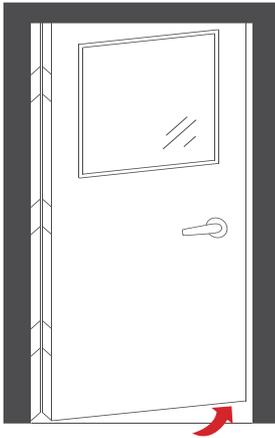
MORTISE LOCK



CYLINDRICAL LOCK

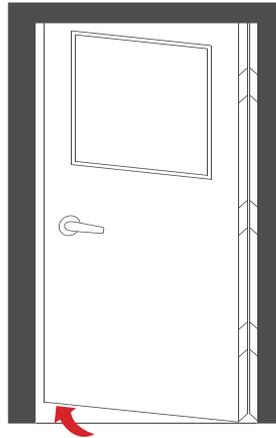
	MORTISE LOCK	CYLINDRICAL LOCK
PASSAGE	Latchbolt operated by lever from either side at all times.	Latchbolt operated by lever from either side at all times.
PRIVACY	Latchbolt operated by lever from either side. Deadbolt operated by turn from inside and by emergency release from outside.	Latchbolt operated by lever from either side. Outside lever is locked by push button or other locking device inside and unlocked by emergency release outside, rotating inside lever or closing door.
ENTRY	Latchbolt operated by lever from either side except when outside lever is made inoperative by a stop or mechanical means other than key. When outside lever is locked, latchbolt may be retracted by key from outside or by rotating inside lever. Auxiliary deadlatch.	Deadlocking latchbolt operated by lever from either side except when outside lever is locked by turn button or other locking device on inside. When outside lever is locked, operating key retracts latchbolt. closing door does not release turn button or other locking device.
CLASSROOM	Latchbolt operated by lever from either side except when outside lever is locked from outside by key. When outside lever is locked, latchbolt may be retracted by key from outside or by rotating inside lever. auxiliary deadlatch.	Deadlocking latchbolt operated by lever from either side except when outside lever is locked from outside by key. When outside lever is locked, latchbolt is operated by key in outside lever or by rotating inside lever.
STORE ROOM	Latchbolt operated by key from outside or by rotating inside lever. Outside lever is always inoperative. Auxiliary deadlatch.	Deadlocking latchbolt operated by key in outside lever or by rotating inside lever. Outside lever is always fixed.





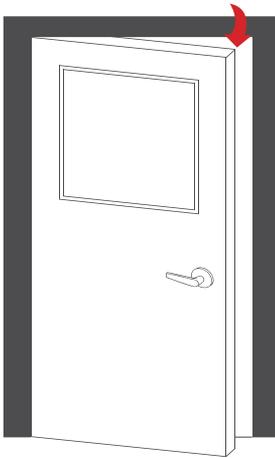
Left Hand

Outside/Secure side



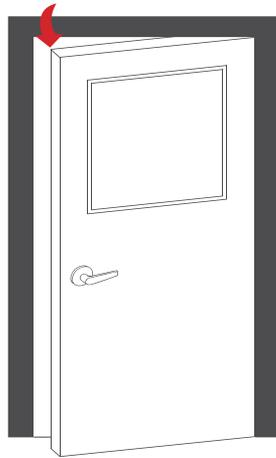
Right Hand

Outside/Secure side



**Left Hand
Reverse**

Outside/Secure side



**Right Hand
Reverse**

Outside/Secure side



SITE WALK-THROUGH SHEET

Project Name:	Location of opening:
---------------	----------------------

Describe the opening:	Describe the frame:	Describe the door:	Describe the intended use(s):
single	wood	wood	ADA entrance
pair	metal	metal	stairwell
in-swing	aluminum	aluminum	exit
out-swing	mortar filled	right hand	classroom
		left hand	storage room
		width	secured entrance
		height	office
			restroom
			delayed egress
			traffic control

Type of Wall:	Type of Ceiling:
Drywall	Plaster
Block	Lay-In Tile
	Interlocking
	Open/Exposed

Describe the existing hardware:

locking/latching mechanism	brand	finish	reuse/replace	
cylindrical lock	backset	latch projection	function	strike type
mortise lock	backset	latch projection	function	
exit device	rim	mortise	vertical rod	concealed vert rod
exterior trim of exit device	none	pull handle	lever/knob	operates by key only

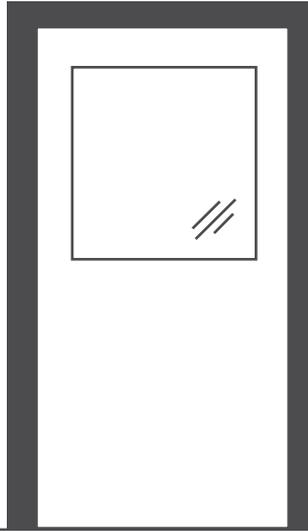
Door hanging by:	brand	finish	reuse/replace
hinges	size		
pivots	size	offset	center hung
floor closer		offset	center hung

Door closing mechanism	brand	finish	reuse/replace	
Mounting	door surface	frame surface	concealed in floor	concealed in header



SITE WALK-THROUGH SHEET

Inside Operation:



Outside Operation:

Notes:



COMMERCIAL HARDWARE BRANDS

	<p>Electrified Cylindrical Locks, Mortise Locks, Hinges, Magnetic Locks, Power Supplies, Accessories</p>
	<p>Aluminum Deadbolts, Deadlatches, Strikes, Flushbolts</p>
	<p>Electric Strikes, Magnetic Locks, Digital Keypads</p>
	<p>Cylindrical Locks, Mortise Locks, Deadbolts, Exit Devices, Electrified Hardware, Accessories</p>
	<p>Cylindrical Locks, Mortise Locks, Deadbolts, Door Closers, Exit Devices, Electrified Hardware, Accessories</p>
	<p>Cylindrical Locks, Deadbolts, Door Closers, Exit Devices</p>
	<p>Pivots, Door Closers, Operators, Exit Devices, Exit Device Trim, Mechanical Safe Locks, Push Button Locks, Electrified Locks, Access Control</p>
	<p>Cylindrical Locks, Mortise Locks, Deadbolts, Door Closers, Exit Devices</p>
	<p>Door Holders, Stops, Push/Pull Latches</p>
	<p>Hinges, Cylindrical Locks, Door Closers, Exit Devices, Trim, Accessories</p>



COMMERCIAL HARDWARE BRANDS

	<p>Architectural Hardware</p>
 <p>ASSA ABLOY Electronic Security Hardware</p>	<p>Electric Strikes</p>
	<p>Hinges, Stops, Window Hardware, Pulls and Plates, Exterior Hardware</p>
	<p>Door Closers, Operators, Door Holders</p>
	<p>Electric Strikes, Electro-magnetic Locks, Access Control Accessories</p>
	<p>Continuous Hinges, Edge Guards</p>
	<p>Hinges - Full Mortise, Half Mortise, Electrified, Continuous, Full Surface, Spring</p>
	<p>Deadbolts, Cylinders, Padlocks, Specialty Locks</p>
	<p>Door Closers, Door Operators, Electrified Hardware, Accessories</p>
	<p>Hinges, Thresholds, Door Bottoms, Gasketing</p>



COMMERCIAL HARDWARE BRANDS

<p>RIXSON®</p>	<p>Pivots, Door Holders, Concealed Closers, Electrified Hardware, Accessories</p>
<p>ROCKWOOD®</p>	<p>Door Pulls, Push and Pull Bars, Door Stops and Bolts, Protection Plates</p>
<p>SARGENT®</p>	<p>Cylindrical Locks, Mortise Locks, Deadbolts, Door Closers, Exit Devices, Electrified Hardware, Accessories</p>
<p>SCHLAGE</p>	<p>Cylindrical Locks, Mortise Locks, Deadbolts, Deadlocks, Padlocks, Electrified Hardware, Accessories</p>
<p>SECURITRON® ASSA ABLOY Electronic Security Hardware</p>	<p>Magnetic Locks, Electric Strikes, Exit Devices, Power Supplies, Access Control Accessories</p>
<p>VON DUPRIN®</p>	<p>Exit Devices, Electric Strikes, Power Supplies</p>
<p>Yale®</p>	<p>Cylindrical Locks, Mortise Locks, Deadbolts, Door Closers, Exit Devices, Electrified Hardware, Accessories</p>

COMMERCIAL
DOOR HARDWARE



RESIDENTIAL HARDWARE BRANDS

<p>BALDWIN</p>	<p>Estate, Prestige and Reserve Series - Levers, Knobs, Handlesets, Deadbolts, and Accessories</p>
<p>DON-JO MFG., INC.</p>	<p>Accessory Door Hardware, Pulls, Protection Plates, Hinges</p>
<p>EMTEK</p>	<p>Levers, Knobs, Handlesets, Deadbolts, Cabinet Hardware and Accessories</p>
<p>Kwikset</p>	<p>Levers, Knobs, Handlesets, Deadbolts, Electrified Hardware, Accessories</p>
<p>National Hardware</p>	<p>Interior Sliding Door Hardware, Accessories</p>
<p>nest</p>	<p>Smart Home Cameras, Thermostats, Doorbells and Locks (Pro Model Hardware Only)</p>
<p>SCHLAGE</p>	<p>Levers, Knobs, Handlesets, Deadbolts, Electrified Hardware, Accessories</p>
<p>Yale</p>	<p>Levers, Knobs, Handlesets, Deadbolts</p>

RESIDENTIAL
DOOR HARDWARE



ADDITIONAL HARDWARE BRANDS

	<p>Air Louvers and Vision Lites</p>
	<p>Electronic Credential Locks, Door Alarms, Exit Device Alarms</p>
	<p>Electronic Credential Locks, Door Alarms, Exit Device Alarms</p>
	<p>Electronic Access Control System Accessories</p>
	<p>Cylindrical Locks, Mortise Locks, Deadbolts, Padlocks, Cylinders</p>
	<p>Washroom Hardware and Accessories</p>
	<p>Architectural, Geared, Double-Acting, and Specialty Hinges</p>
	<p>Cylindrical Locks, Door Closers, Exit Devices</p>
	<p>Pushbutton Mechanical and Electronic Locks</p>
	<p>Door Operators, Exit Devices, Exit Alarms, and Access Control Accessories</p>



ADDITIONAL HARDWARE BRANDS

 <p>GLOBAL DOOR CONTROLS</p>	<p>Concealed Door Closers</p>
	<p>Access Control Accessories</p>
 <p>jackson crilaurence.com CAL</p>	<p>Exit Devices, Concealed Door Closers, Pivots</p>
	<p>Fire Extinguisher Cabinets, Access Panels</p>
	<p>Armored Door Loops</p>
	<p>Access Control Systems, Keypads</p>
 <p>MMF Industries</p>	<p>Key Storage Cabinets</p>
 <p>NGP NATIONAL GUARD PRODUCTS</p>	<p>Thresholds, Gasketing, Door Sweeps</p>
 <p>phi PRECISION</p>	<p>Exit Devices, Arm-A-Dor</p>
 <p>RCI RUTHERFORD CONTROLS A DORMA Group Company</p>	<p>Mag Locks, Electric Strikes</p>



ADDITIONAL HARDWARE BRANDS

 SECO-LARM [®]	Access Control Accessories
 SELECT HINGES [®] SELECT Products Limited	Continuous Geared Hinges
SOSS [®] Door Hardware	Invisible Hinges
STANLEY	Cylindrical Locks, Deadbolts, Door Closers, Exit Devices, Hinges, Arm-A-Dor
 Trimco SINCE 1949	Accessory Door Hardware, Pulls, Protection Plates
TRINE ACCESS TECHNOLOGY	Electric Strikes



CONTACT US

PHONE: 800-321-9602
FAX: 800-328-6070
WEB: www.akronhardware.com
EMAIL: info1@akronhardware.com

KEY CONTACTS:

Roy Crute
Executive Vice President of Sales
roy.crute@akronhardware.com

Joe Testa
Customer Service Manager
joe.testa@akronhardware.com

John Flower
Quotes and Project Management
john.flower@akronhardware.com

Dwayne Spencer
Director of Strategic Business
dwayne.spencer@akronhardware.com

Donald Hohman
National Accounts Manager
donald.hohman@akronhardware.com

Marty Nicholas
National Accounts Representative
marty.nicholas@akronhardware.com

Mark Williams
National Accounts Representative
mark.williams@akronhardware.com

quotes@akronhardware.com
orderentry@akronhardware.com
techgroup@akronhardware.com



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