
GAI GLOSSARY OF ARCHITECTURAL HARDWARE TERMS



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Ironmongers

A

Acoustic seal

A seal with an integral flexible gasket, normally fitted on all four sides of a door, designed to reduce airborne sound transmission.

Active door leaf

The door leaf, in a pair of doors, which opens first, and the one to which the locking mechanism is fitted. The other door in the pair is known as the slave or inactive door leaf.

Anodised finish

A hard, highly durable, electrolytic finish applied to aluminium extrusions, which greatly enhances the appearance at the same time. It is naturally clear, giving a silver effect, but coloured tints such as bronze, gold or gunmetal may be incorporated.

Automatic drop (door bottom) seal

A seal fixed at the bottom (threshold) of the door leaf which automatically retracts from the floor as soon as the door leaf is opened by a few millimetres, and generally requires no electrical connections. These can be fully rebated, semi rebated or face fixed.



Acoustic seals

B

Backplate

The backplate is the plate on which a set of lever lock or lever latch door handles is mounted for fixing to the door surface. Many external and internal door handle designs offer the choice of handles on a backplate or on a rose.

Backset

The horizontal distance measured from the outside face of the forend to the centre of the keyway (or cylinder), or to the centre of the follower or to both.

Barrel bolt

A standard door bolt with a round shoot which runs through a continuous barrel or guide attached to a backplate. Available in a wide range of sizes and metal finishes.

Bathroom lock

A bathroom lock normally has two operational elements. A sprung latch bolt, operated by handles to open/close the door from either side. Plus a deadbolt operated by a knob or thumbturn from the inside to lock the door. Usually the opposite end of the thumbturn, on the outside of the door, includes an emergency release.



Bathroom lock

C

Battery backup

Rechargeable battery which fits into a DC Power Supply (PSU) to provide power for a limited period in a power failure.

Break glass / Manual call point

Means of emergency release for a Fail-safe locking device. Has a switch inside which is operated when glass panel is broken when pushed.

Butt hinge

The most popular type of hinge for domestic and commercial use consisting of two equal leaves connected by a knuckle and hinge pin. One leaf is morticed into the door frame, and the other into the door.

When measuring hinges (e.g. a 4"x3" or 100mm x 75mm hinge) the first measurement is the height of the hinge. The second measurement is the breadth of the two leaves in the open position.



Break glass

Cabin hook

Uses a hook on a small backplate and an eye to hold a door open. The hook should be fitted to the wall, and the eye to the door at the appropriate height. The "silent pattern" variety has a close knuckle swivel joint which prevents any rattling or potential damage to the wall surface when the hook is not engaged.

Cabinet and cupboard lock

Cabinet locks for cupboards/desks/cabinets are of simple construction and are either "straight" or "cut". Straight locks are mounted on the inside face of the drawer or door. Cut locks are cut into the edge of the drawer or door. There are two types of locking mechanisms, either lever lock or pin cylinder.

Centres

The distance measured from the centre of the follower to the centre of the keyway (or cylinder).

Cylinder

This item allows a key to be used to operate a lock. The cylinder is operated by the key allowing a series of pins/springs to become aligned thus allowing the door to unlock.



Cylinder

D

Deadlock

A deadlock is a standard lock operated only by a key, which throws a square-ended deadbolt into a keep or strike plate on the door frame in order to secure the door. Deadlocks are available in both mortice and rim variants. In some models the deadlock bolt is operated by a key from the outside, and a thumbturn on the inside.

Door assembly

A door assembly comprises a door leaf or leaves, frame, glazing, seals and hardware all typically supplied with parts from more than one source, with each company being legally responsible for the fire test evidence or relevant fire certification of its own part of the final assembly. This means separate responsibilities for each part supplied.

Door closer

A manually operated door closing mechanism where the energy for closing is generated by the user upon opening the door, and when released, returns the door to the closed position, in a controlled manner. These can be specified as either surface mounted or concealed units.

Door furniture

A "catch-all" term to cover the additional items required to operate a lock or latch e.g. door handles, door knobs. An upright mortice lock or latch would normally be matched with a pair of lever door handles. If door knobs are preferred (noting that these are not recommended on public buildings under BS 8300) then a horizontal mortice lock should be specified to avoid damaging knuckles on the door frame.

Door loop

Flexible metal tube used to transfer cable securely from the frame of a door to the door leaf of a pair of doors with an electric strike fitted.

Doorset

A doorset comprises a door leaf or leaves, frame, glazing, seals and hardware all supplied by one legal entity, or Company. This Company takes responsibility for the complete doorset which is supplied as a warranted, tested whole unit.

Double action door leaves

This is a single door or pair of doors which is /are hinged or pivoted to swing in both directions.

Double leaf

This features two panels hinged or pivoted in to a frame section.



E

Electric strike

Locking plate using electrically operated means to enable locking and/or unlocking.

Electro-mechanical lock

Mechanical locking device with electrical control of components or linkages e.g. solenoid or motor lock.

Electro-magnetic lock

Locking device with electric control of main elements e.g. maglock

Electronic key

Device containing credential(s) necessary to authorize operation of the (mechatronic) cylinder mechatronic cylinder; MC device with an integrated or a remote electronic system, which is to be used with a lock for the purpose of operating the lock and/or detaining elements after verifying the authorisation of an electronic key.



Electro-magnetic lock

Escutcheon

Otherwise known as a keyhole cover, escutcheons are fitted over/around the keyhole to match the rest of the door furniture. Both open (i.e. no cover) and covered escutcheons are widely available.

A covered escutcheon would normally be used on an external door to prevent draughts.

Espagnolette bolt/lock

A surface-mounted window or door fastening which has a bolt running vertically the full height of the door/window, operated by a centrally positioned handle.

Exit button

Electrical spring switch which is used to momentarily control the electrical current to an electric locking device. Can be used with other devices.



Exit button

F

Fail safe/ fail unlocked

Released when power is cut.

Fail secure/ fail locked

Secure when power is cut.

Floor spring

A hydraulic unit fitted to doors with heavier duty requirements. They are used in place of the more standard face fixed door closing device. They are set into the floor underneath the door and are covered by a metal cover plate, made in either stainless steel or brass finish. They can close the door in either single or double action and can also be held open electro-magnetically as an integral part of the unit.

Finger guard

A device covering the gap between a door leaf and its frame on the hinged edge, extending and contracting with the movement of the door.

Its purpose is to provide protection from the risk of fingers being accidentally caught in the gap if the door should suddenly close.



Floor spring

Fob

Plastic proximity device which works exactly the same as a proximity card but is more robust and can be attached to a key ring or chain.

Follower

The part of the lock or latch which, when turned by a spindle, operates the bolt. The square hole is usually 8x8mm to suit a standard spindle which extends from the handle to the follower. On a bathroom lock there is often a second follower to accept a spindle from a thumb turn, which controls the deadbolt. The thumb turn may have a 5x5mm hole to accept a 5mm spindle.

Forend

The part of the mortice lock or latch through which the bolt(s) protrude, and by which the lock or latch is screwed to the door. This can be radius or square profile.



Forend

H,I,K

Horizontal lock

A deeper profile mortice lock which is specified most typically with knob furniture in order to avoid damaging knuckles on the door frame.

Inactive door leaf

The door leaf, in a pair of doors which is stationary and to which the strike plate of the locking mechanism is fitted. The other door in the pair is known as the active door leaf and secures the door.

Intumescent

A material which does not immediately melt on exposure to elevated temperature but first expands to a cellular structure many times its original volume, sometimes accompanied by pressure development.

Intumescent fire and smoke seal

A combined seal designed to enhance the performance of a fire & smoke door assembly, generally by virtue of an intumescent core in the seal profile along with a flexible smoke sealing element (fin or brush).

Keep

Alternative word for a staple or strike plate i.e. the part of the lock which receives the bolt and secures the door.

Key switch

Key operated switch used to override an electric locking device.

L

Latch/latchbolt

A latch is a bevelled, spring-loaded bolt commonly used on both external and internal doors to secure a door in the closed position i.e. "closed" but not necessarily "locked". A latch is usually operated by a pair of door handles or doorknobs.

Lever action flush bolt

This is a flush bolt designed to be morticed into either the leading edge of the door, or the door face. The lever is also in a recess within the bolt to achieve the flush surface.

Lever lock

This is a lock usually operated by longer lever key where the cuts on the key bit align with sprung levers within the lockcase to allow the door to unlock.

Low energy power operated doorset

Power operated pedestrian doorset with a limited kinetic energy.



Low energy power operated doorset

M,N

Mechanical digital lock

A lock that is operated by a keypad with buttons set to a pre-determined code. Entering the correct code operates the lock.

Mechatronic door furniture

Combination of lever handles or knobs on backplates or roses with an integrated or a remote electronic system, which is to be used with a mechanical or electromechanical lock for the purpose of operating the lock after verifying the authorization of a credential mechatronic door furniture.

Mortice lock

A mortice is a recess or pocket cut into the leading edge of a timber or metal door. So a mortice lock is fitted into the recess which is cut into the door edge. Once fitted the only visible part of the lock is the forend when the door is in the open position.

Multi-point lock

A morticed window or door fastening which has a bolt running vertically the full height of the door/window, operated by a centrally positioned handle.

Nightlatch

A nightlatch is normally rim-style (i.e. surface mounted) and has a bevelled spring-loaded latch bolt which secures the door closed. Usually operated by a key from the outside, and knob on the inside. There is often a snib which can hold back the latch. It should be noted that there are also variants of mortice nightlatch on the market.

P

Panic bolt

A surface mounted device normally fitted to the inside of an external door to allow immediate escape using a single action in an emergency. This unit can be held back to allow free entry/exit by use of a key operated "dogging device".

Powered pedestrian doorset

Doorset for pedestrian passage only with one or more leaves that is moved, at least in one direction, by an external energy supply (e.g. electrically) instead of manual or stored mechanical energy.

Projection

On a door knob or handrail the "projection" is the distance measured from the surface on which the item is mounted to the furthest point of the item from the surface.

Proximity card

Electronic card which is used with proximity readers. The card details are programmed onto a microchip attached to a coil of copper wire which acts as an aerial to pick up the radio signal from the proximity reader.

Proximity reader

Access control reader which transmits a radio signal that reads the card or fob information when it is held in front of the reader.

PSU

Power Supply Unit. Converts mains voltage to low voltage AC or DC.

R

Ramp

A sloping plate used to facilitate a smooth transition from one floor level to another.

Rebate components/kits

Rebate kits are required when you wish to fit a mortice lock to a pair of doors which have rebated meeting stiles. Stepped forends enable the body of the lock to be correctly morticed into the centre of the stile.

Rim lock

A rim lock is surface mounted on the inside surface of a door.

Rose

A rose is a small shaped plate on which the door handle or door knob is mounted, mainly to enhance the appearance and improve the fitting of the door furniture on the door. Many handle designs offer the choice of handles on a rose or on a backplate.



S

Sashlock

A sashlock is an upright mortice lock which combines a latch bolt (operated by a pair of handles or door knobs) to open/close the door, and a key-operated deadbolt which locks/unlocks the door.

Single action door leaf

This is a single door or pair of doors which is/are hinged or pivoted to swing in one direction only.

Spindle

A square metal bar that passes through the door connecting the handles or knobs together and operates the latch or lock mechanism.

Sprung

A term used to indicate that a door handle or knob is fitted with a spring in the backplate or rose to return the lever / knob once released.

Stainless steel grades

Stainless steel is available in differing grades which can be specified according to the performance required. If in a marine or highly corrosive environment, grade 316 should be specified. Grades 304 or 430 can be used on more generic types of project.

Strike plate

A flat metal plate fixed to the door frame into which the bolt or bolts shoot. There is a shaped or bevelled lip on one side to guide the latchbolt. A strike plate is always provided with a mortice lock or latch, and with rim locks on an outward opening door.

T

Threshold plate

A metal strip designed to fit across the doorway to form a level surface on which a better sealing efficiency may be achieved. It may also provide a transition from one floor surface to another.

Thumbturn

The name given to any small fitting which is gripped between thumb and finger for turning.

Thumbturn and emergency release

Used with a bathroom mortice lock to operate the deadbolt instead of a key, in order to provide privacy. The bathroom door is locked from the inside by the knob/thumbturn. From the outside a coin can be inserted in to the release which will unlock the door in case of emergency.

Transom closer

A concealed hydraulic unit fitted to doors with heavier duty requirements. They are most often used with aluminium doors in shop-fitting situations. The mechanism is fitted in to the transom of a door frame and covered by a metal cover plate. These are rarely used in timber doors as they require a large transom in order to be correctly fitted. They can close the door in either single or double action.

Tubular mortice latch

A tubular latch is a compact and efficient latch, morticed into the door and operated by a pair of lever handles or door knobs. Ideal for internal doors which need to be closed but are never locked.

U

Unequal double door leaf / Leaf and a half

This can also be referred to as a "penny farthing" door. It comprises two panels of unequal size which are hinged or pivoted in to a frame section. The smaller leaf is often locked in to place in order to act as an inactive leaf.

Unsprung

A term used to indicate that a door handle or knob is not fitted with a spring in the backplate or rose. Therefore the handle or knob will spin freely. An unsprung handle/knob will require a heavy sprung latch or lock.

Unsprung lever handles are also used with multi-point locks.



Unequal double door leaf

The Guild of Architectural Ironmongers

The Guild of Architectural Ironmongers (GAI) supports, represents and assures the architectural ironmongery industry.

Working as a not-for-profit professional association, we promote the highest standards of education, technical excellence, and professionalism in our sector, and promote those standards to the wider construction industry and its clients.

Our work is built of three core pillars.

In education, we offer a worldwide programme of courses and qualifications, leading to diploma qualification and ultimately to RegAI, the benchmark for the demonstration of professional competence in architectural ironmongery (see page 5).

In technical standards, we advise on issues relating to the legislation, regulations and standards governing the use of architectural ironmongery and related hardware.

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Through its mission of 'advancing architectural ironmongery', the GAI works to ensure and improve the safety, security and accessibility of the worldwide built environment.



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