

Description and Requirements for Special Locking Hardware

Door hardware release of electrically locked egress doors

A special locking permit is required.

A locking system where the mechanical action of the door hardware (panic bar, door lever, etc.) breaks power to and releases the electric locking system to allow egress. Typically used with a mag lock but may be applied to other systems which require the deactivation of the electric locking to allow egress.

The releasing hardware must:

- Be installed on the operable door leaf
- Have an obvious method of operation
- Be easily operated in poor lighting
- Be operable with one hand
- Not require grasping or twisting the wrist
- Immediately interrupt power to the lock when operated
- Be listed panic hardware if panic hardware is required

The locking system must

- Unlock as soon as it loses power.
- Be listed in to comply with UL 294

These requirements do not apply when the locking system does not require the release of power to exit through the door or it complies with the requirements of the other locking system outlined in this document.

Sensor release of electrically locked egress doors

A special locking permit is required.

A locking system where a proximity sensor is used to release the electric locking system to allow egress. Typically used with a mag lock but may be applied to other systems which require the deactivation of the electric locking to allow egress.

The system must comply with the following:

- The sensor is the primary release device
- The sensor must detect the approach of a person on the egress side of the door
- The sensor must unlock the door
- Loss of power to the sensor must unlock the door
- Loss of power to the lock must unlock the door

- A secondary (emergency) release button shall be installed adjacent to the door to release the lock
 - The button shall be 40 to 48 inches above the finished floor
 - The button shall be within 5 feet of the door
 - The button shall be readily accessible
 - A sign shall be provided at the button saying “Push to exit”
 - The button must interrupt power to the locking device independent of any programming, control system or other electronics
 - Pressing the button shall release the lock for not less than 30 seconds
- Activation of the fire alarm, if provided, shall unlock the door and the door shall remain unlocked until the fire alarm is reset
- Activation of the fire sprinkler, if provided, shall unlock the door and the door shall remain unlocked until the system is reset
- Emergency lighting is required on the egress side of the door
- The locking system shall be listed to UL 294

Delayed Egress

A special locking permit is required

Delayed Egress locking provides a short time after the door hardware is activated to allow for security to respond prior to the door opening. Frequently used in mercantile or business occupancies to monitor egress.

- Delayed egress is not permitted in building without a fire sprinkler system or a fire alarm with smoke or heat detection
- Delayed egress is permitted in group B, F, M, R, S, and U occupancies
- Delayed egress is permitted in classrooms with an occupant load of less than 50 in group E
- In sprinklered group A-3 or B courtrooms delayed egress is permitted on doors other than the main exit
- Delayed egress is permitted in a group A-3 airport facility
- Emergency supplemental hardware is not delayed egress
- Delayed egress doors shall unlock when the fire alarm or sprinkler systems activate
- A loss of power to the delayed egress lock or to the control system for the delayed egress lock shall unlock the delayed egress door
- A switch located in the fire command center or other approved location shall unlock all delayed egress doors
- A delay of not more than 15 seconds is permitted. Approval of not more than 30 seconds may be granted by the building official.
- A path of egress cannot have more than one delayed egress door.
 - Not more than 2 delayed egress locks with a total delay of not more than 30 seconds are permitted in:
 - Custodial care where occupants may require the assistance of one care provider in an emergency and not more than 5 occupants require physical assistants from more than one care provider in an emergency

- Custodial care where up to 5 occupants require physical assistance in an emergency provided they are housed at grade level
 - Hospitals and nursing homes
 - Jails and prisons
- Signage stating “PUSH (or PULL) UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 SECONDS” is required
- Emergency lighting is required on the egress side
- The delayed egress locking system is to be listed to UL 294

Stair locking

High-rise

A special locking permit is required

Interior stair doors may be locked to prevent entering the floor. Provided:

- The doors are capable of being unlocked without unlatching from the fire command center
- Two-way communication is provided at no less than every fifth floor

Not high-rise

A special locking permit is required

Interior stair doors are permitted to be locked to prevent entering the floor provided the doors can be unlocked without unlatching from the fire command center or the main entrance.

Electric locking for fire doors

A special locking permit is required

The special locking permit is required to ensure:

- The integrity of the fire door is maintained
- The proposed hardware is listed for use on fire doors
- The rating of the hardware is consistent with the rating of the fire door
- The fire door remains latched during a fire emergency
- The electric locking is not arranged to impede egress

Mantrap

Medical research labs, spaces dealing with classified information, cash processing, and similar facilities needing security checkpoints often want to install secure vestibules (mantraps) at the entrances and exits to secure areas. A mantrap consists of two doors in a series intended to allow one door to close before the next door is opened. This reduces the security breaches due to tailgating or stalking the entry.

Where the mantrap doors are part of the required means of egress they cannot be locked to prevent egress.

- Interlocking the doors in the path of egress so one door cannot be opened until the other door is closed is not permitted
- A delayed egress lock on one of the doors may be acceptable when installed as outlined above
- Installing alarms that sound when the door opens without proper authorization is acceptable
- Using card readers to sound the alarm to authorize opening the door is acceptable
- Using electric locking or electric strikes to interlock the doors on the ingress path may be acceptable provided they do not obstruct egress

Elevator lobbies

All elevator lobbies 2 or more stories above (3rd floor) or below (level B2) the level of exit discharge require access to not less than two exits.

- Provided the occupant load of the elevator lobby does not exceed 50 people, one exit access door from the elevator lobby may be provided, but once out of the lobby you must have access to not less than two exits (exit stairs, exit ramps, horizontal exits, etc.)
- The elevator is not a means of egress from the elevator lobby
- A delayed egress door as described above may be acceptable.