

MM15

Magnetic Electromechanical Lock (MEMLOCK™)

Installation Instructions

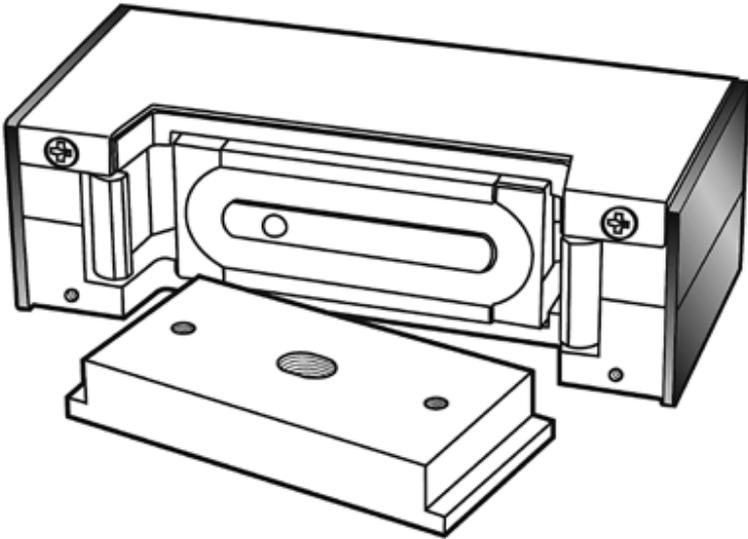


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WARRANTY

The MM15 is covered by the MagnaCare® lifetime replacement no fault warranty. No registration is required. Product will be replaced forever, for any reason, including but not limited to installation error, vandalism, or act of God. Replacement product is shipped at Securitron's expense next day air, if needed.

For more information, visit www.securitron.com

IMPORTANT: This product must be installed according to all applicable building and life safety codes!

SPECIFICATIONS

Holding Force	4,000 lbs [1,016 kg]
Current Draw	AC Current
and Voltage:	130 mA max @12 VDC
	250 mA max @ 24 VDC
	DC Current
	100 mA max @ 12 VDC
	200 mA max @ 24 VDC

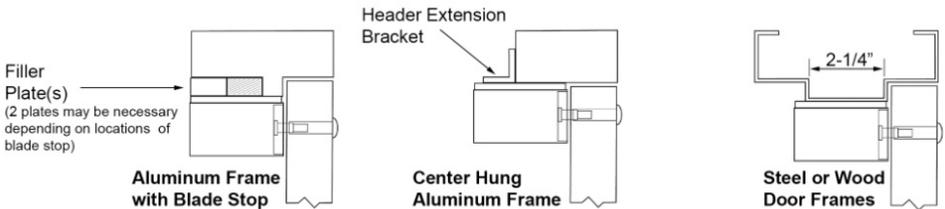
Operating Temperature: -40 to +140F (-40 to +60C)

INSTALLATION

Mounting Basics and Site Survey

1. **INSPECT** the door frame area for proper placement of the device to ensure the mounting surface is strong and can withstand the full holding strength of the MM15.
2. Because different door frame configurations require specific fastening methods, **CONSIDER** the following:
 - A filler plate or header extension bracket is often needed to properly support the MM15.
 - Steel blind nuts are the preferred method of mounting in steel and aluminum frame construction, although drilling and tapping is acceptable in reinforced hollow metal frames.
 - A minimum of four blind nuts are required to provide adequate strength.
 - For standard applications, the electro-magnet should be mounted firmly to the underside of the header in the corner farthest away from the hinges.
 - The armature mounts to the face of the door with special hardware, which allows for proper floating action.
 - Handle all electro-magnetic locks and armature plates carefully, because any damage to the mating surfaces may significantly reduce holding efficiency.

- When used with frames with an integral jamb, or with narrow frames that do not fully support the MM15, the appropriate filler plate or header extension bracket must be used to adequately support the base of the MM15.
- A Z-Bracket is required when installing the MM15 on in-swinging door (Z-Bracket installation instructions are included in the MM15 Z-Bracket Kit).
- In aluminum door systems, the door frames with blade-type/narrow stops will require a filler plate. The height of the stop is needed when ordering filler plates. Narrow frame sections and center-hung doors require an angle bracket to support the MM15.
- For adequate support in steel/wood door frames, a door with stops less than 2-1/4" wide should be fitted with filler plate.



Preparing the Frame

CAUTION

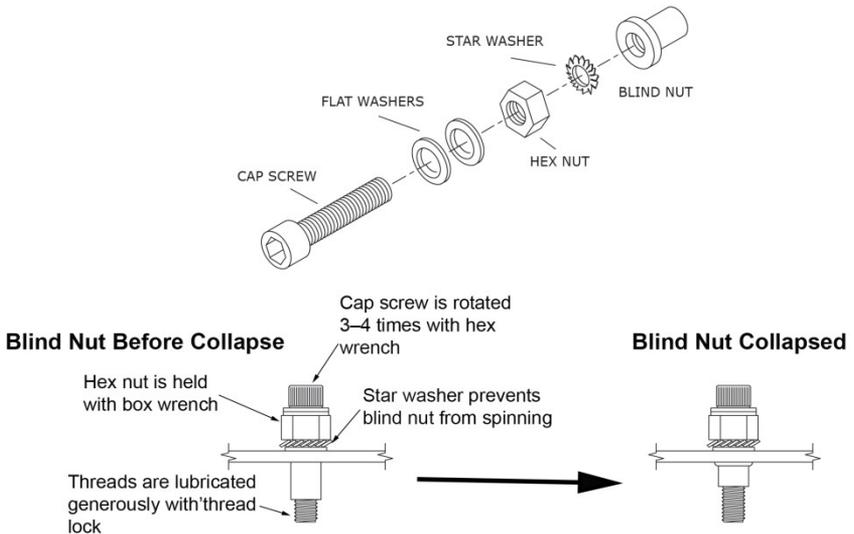
The MM15 is capable of holding 4000 lbs. It is the responsibility of the installer to provide adequate strength to prevent screw pullout or collapse of the frame or header.

NOTE 1: Frames need to be marked for drilling using the mounting plate as a template. Doors need to be marked for drilling using the plastic armature template. All measurements should be made with the door in the fully closed position.

NOTE 2: To ensure the proper location of the memlock and armature for successful mounting, the MM15 is adjusted to clear other hardware or door and frame features that would interfere with the installation.

1. PLACE the filler plate on the mounting plate, aligning it with the back edge and sides of the mounting plate.
2. With the door fully closed, LOCATE the mounting plate and the filler plate to the header with the alignment tabs resting on the face of the door.

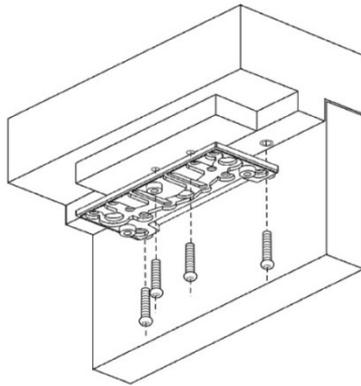
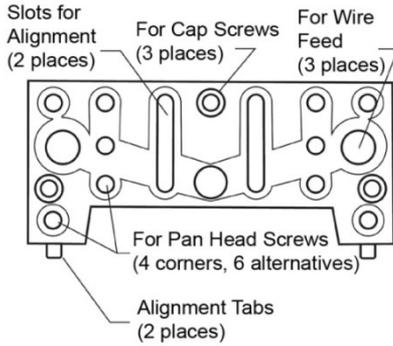
3. Using the predrilled holes in the center of the filler plate and two of the furthest forward corner holes, MARK four holes for mounting the two plates to the header.
4. If not using conduit, MARK one of the wire feed hole locations.
5. In each mounting location, DRILL a 3/8" hole in the header and INSTALL Blind Nuts using the supplied hex wrench.



6. **IF** not using conduit, **THEN DRILL** one 9/16" (or 3/8" minimum) wire feed hole in the door frame.

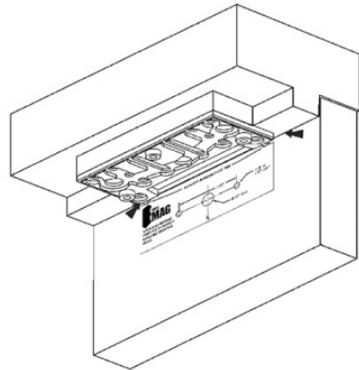
NOTE: Additional screws may be installed for added stability and strength in any of the alternate holes.

7. REPLACE the mounting plate and filler plate, then SECURE with pan head screws using thread lock (see Figure on next page).

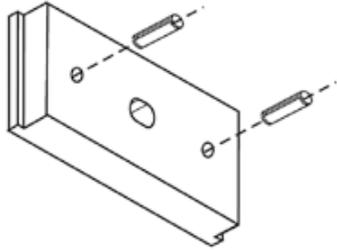


Preparing the Door / Mounting the Armature

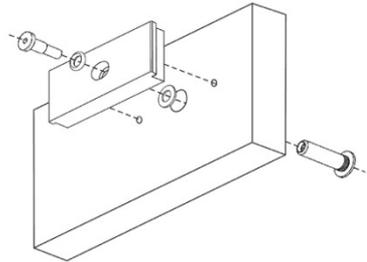
1. With the door closed, ALIGN the armature template between the tabs on the mounting plate, and MARK the three holes.
2. **For Metal Doors:** LOCATE the middle marked hole.
3. CENTER PUNCH and DRILL a 3/8" hole through the door.
4. ENLARGE hole from the outside face to 1/2".
5. **For Wood Doors:** Drill a 1/2" hole through the door.



6. CENTER PUNCH and DRILL two 1/4" (by 1/2" deep minimum) holes in the inside face of the door for the two anti-rotation pins.
7. LAY the armature on a clean, flat surface and INSERT the 3/16" x 3/4" roll pins provided into the two holes on the back of the armature.
8. Gently TAP the roll pins with a small hammer or mallet until they are firmly seated.
9. INSERT sex bolt from the outside face of the door.
10. PLACE the O-ring on the shoulder screw and INSERT through the armature.
11. PLACE the spring washer(s) on the shoulder screw to provide the spacing required for the armature to fully contact the MM15.
12. LOCATE the armature with roll pins onto the door.

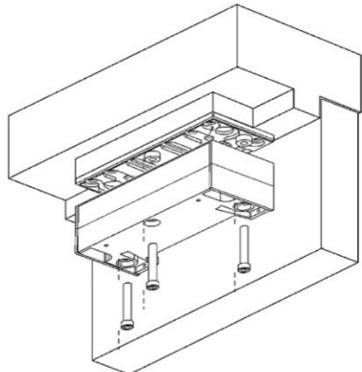


- NOTE:** Additional spring washers may be necessary to ensure that the armature floats properly, but is not loose.
13. FASTEN shoulder screw to sex bolt with a 3/16" hex wrench using thread lock.



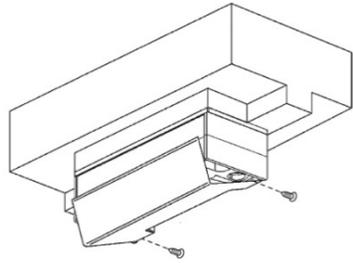
Mounting the MM15 MEMLOCK

1. REMOVE the cover from the MM15.
- NOTE:** For the following step, if using conduit option, wires exit through the side of the MM15 Memlock.
2. SECURE the MM15 to the mounting plate with the three 1/4-20 x 1-3/4" cap screws,



feeding the wiring through the filler plate and header

3. REPLACE the MM15 cover by aligning it with the tapped holes and pushing it up until the lip snaps into place.
4. FASTEN cover with the two #6-32x1/4" flat head screws..



Installing the Electrical and Wiring

1. CONSIDER the following when installing the electrical and wiring:
 - Standard MM15 Memlock unit operates on 12–24 VAC or VDC and is not polarity sensitive.
 - Use of 18-gauge (minimum) wire to minimize voltage drop.
 - Connection of a reverse diode or M.O.V. in parallel with the MM15's power input is not necessary.
 - The MM15's internal circuitry suppresses the inductive kickback often seen with electromagnetic coil locks.

Using Monitor Switches

MM15 Memlocks ordered with the monitoring option are fitted with two SPDT micro switches that provide the following indications:

- Door Position – Armature closed against the MM15 Memlock.
- Tamper Warning – Indicates that the MM15 is being forced enough to activate the locking arms. When locking arms are activated, tamper switch changes state.

