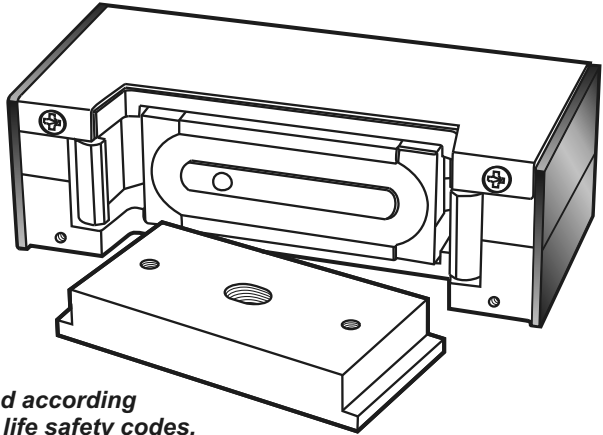


# MS1500 Maglock



**ADAMS RITE**  
MANUFACTURING CO.

# Installation Instructions



*This product must be installed according to all applicable building and life safety codes.*

## MS MAGLOCK MOUNTING BASICS

Maglocks are used in a wide variety of applications; therefore it is important to inspect the door frame area for proper placement of the device. For optimum performance, the mounting surface should be strong enough so that the full holding strength of the MS Maglock is utilized.

Different door frame configurations require specific fastening methods. A filler plate or angle bracket is often needed to properly support the MS Maglock. Rivnuts 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 Rivnuts is 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. This action is very important in assuring total mating of the armature with the face of the electro-magnet.

Handle all electro-magnetic locks and armature plates carefully. Any damage to the mating surfaces may significantly reduce holding efficiency.

### Site Survey

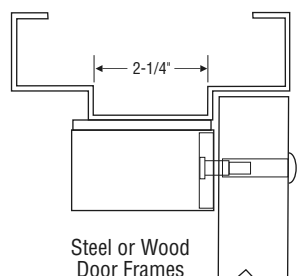
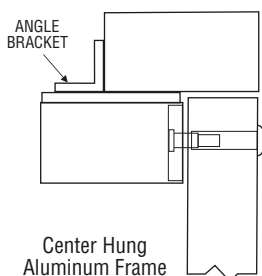
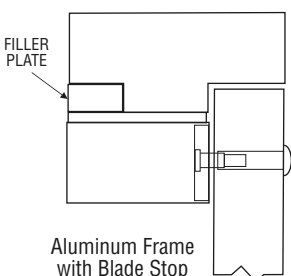
When used with frames with an integral jamb or with narrow frames that do not fully support the MS Maglock, use the appropriate filler plate or angle bracket to adequately support the base of the MS Maglock. A Z-bracket is required when installing the MS Maglock on in-swinging door. The Z-bracket installation instructions are included in the Adams Rite Z-Bracket Kit.

### Aluminum Door Systems:

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 MS Maglock.

### Steel/Wood Door Frames:

For adequate support, a door with stops accessories less than 2-1/4" wide should be fitted with a filler plate.



# MS1500 Maglock



# Installation Instructions

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*Installation shown with use of filler plate. Mounting will differ for other applications.*

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.

To ensure the proper location of the maglock and armature for successful mounting, adjust the MS Maglock to clear other hardware or door and frame features that would interfere with the installation.

## FRAME PREPARATION

**1** Place the filler plate on the mounting plate. The filler plate should be aligned 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.

Using the pre-drilled 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.

**3** If not using conduit, mark one of the wire feed hole locations.

**4** In each mounting location, drill a  $\text{\O} 21/64$ " hole in the header and install Rivnuts, using the supplied Rivnut Installation tool. Refer to Rivnut installation instructions in the mounting hardware kit.

Note: In reinforced steel frames, it is permissible to drill a  $\text{\O} 13/64$ " hole and tap for 1/4-20 pan head screws.

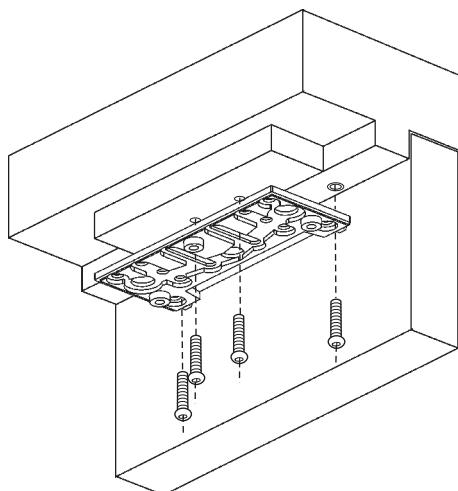
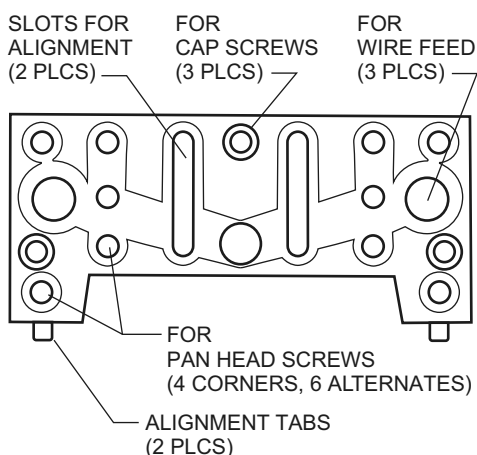
**5** If not using conduit, drill one  $\text{\O} 9/16$ " (or 3/8" minimum) wire feed hole in the door frame.

**6** Replace the mounting plate and filler plate, then secure with pan head screws.

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

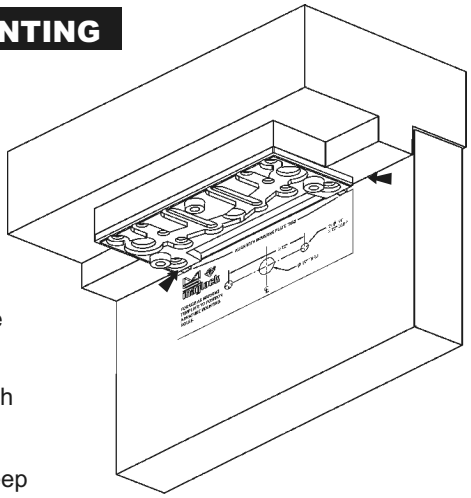
### WARNING:

This device 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.

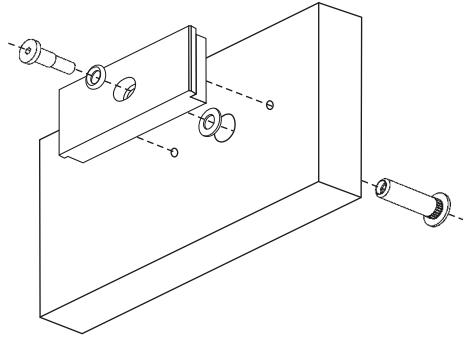
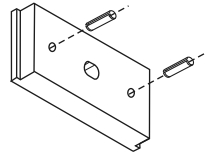


## DOOR PREP/ARMATURE MOUNTING

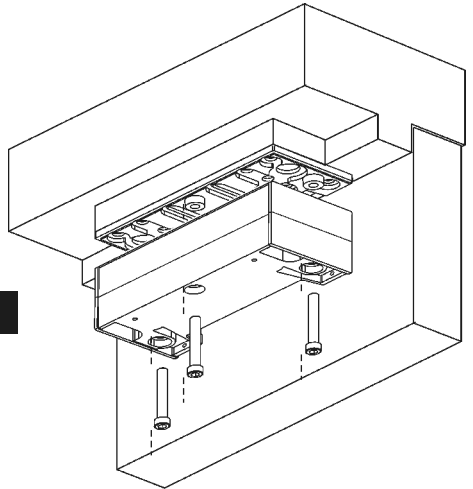
- 1 With the door closed, align the armature template between the tabs on the mounting plate and mark the three holes.
- 2 For Metal Doors: Locate the middle marked hole. Center punch and drill a  $\text{\O} 3/8$ " hole through the door. Enlarge hole from the outside face to  $1/2$ ".  
  
For Wood doors: Drill a  $\text{\O} 1/2$ " hole through the door.
- 3 Center punch and drill two  $\text{\O} 1/4$ " ( $\times 1/2$ " deep min.) holes in the inside face of the door for the two anti-rotation pins.



- 4 Lay the armature on a clean, flat surface and insert the  $3/16 \times 3/4$  roll pins provided into the two holes on the back of the armature. Gently tap the roll pins with a small hammer or mallet until they are firmly seated.
- 5 Insert sex bolt from the outside face of the door.
- 6 Place the O-ring on the shoulder screw and insert through the armature.
- 7 Place the spring washer(s) on the shoulder screw to provide the spacing required for the armature to fully contact the MS Maglock.
- 8 Locate the armature with roll pins onto the door.

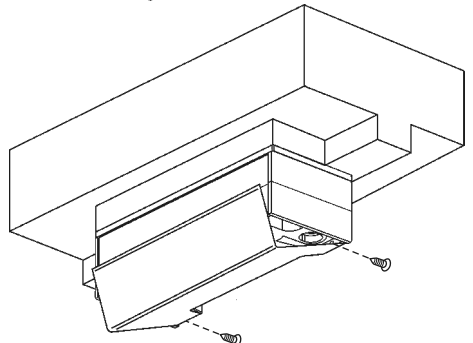


- 9 Fasten shoulder screw to sex bolt with a  $3/16$ " Allen wrench. Additional spring washers may be necessary to ensure that the armature floats properly, but is not loose.



## MS MAGLOCK MOUNTING

- 1 Remove the cover from the MS Maglock.
- 2 Secure the MS Maglock to the mounting plate with the three  $1/4-20 \times 1-3/4$ " cap screws, feeding the wiring through the filler plate and header. If using conduit option, the wires exit through the side of the MS Maglock.
- 3 Replace the MS Maglock cover by aligning it with the tapped holes and pushing it up until the lip snaps into place.
- 4 Fasten cover with the two #6-32  $\times 1/4$ " flat head screws.



# MS1500 Maglock

## ELECTRICAL INSTALLATION AND WIRING

The standard MS Maglock unit will operate on 12 to 24 VAC or VDC and is not polarity sensitive.

18-gauge (minimum) wire should be used to minimize voltage drop.

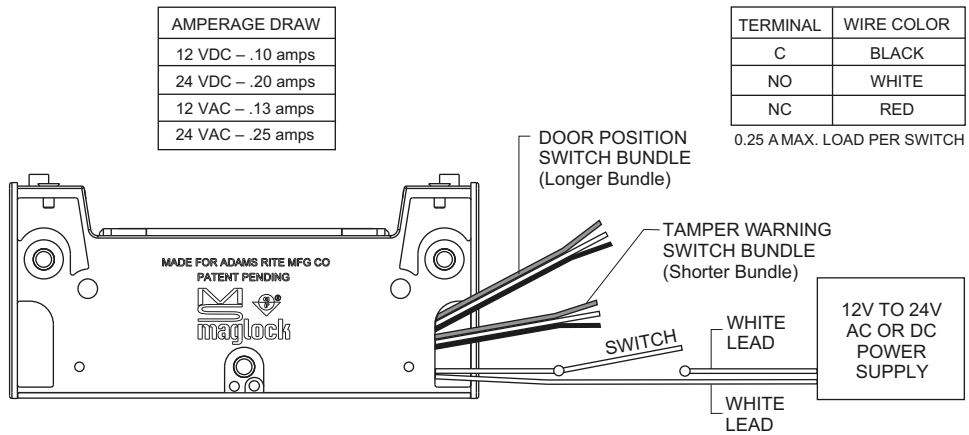
Connection of a reverse diode or M.O.V. in parallel with the MS Maglock's power input is not necessary. The MS Maglock's internal circuitry suppresses the inductive kickback often seen with solenoids and relay coils.

### Monitor Switches

MS Maglocks ordered with the monitoring option are fitted with two SPDT microswitches that provide the following indications:

Door Position – Armature closed against the MS Maglock.

Tamper Warning – Indicates that the MS Maglock is being forced enough to activate the locking arms.



## COMPONENT LIST AND IDENTIFICATION

QTY	COMPONENT	PART NUMBER
(1)	MS Maglock with Cover	MS1500
(1)	Mounting Plate	23-1005
(1)	Armature	23-1010
(1)	Armature Template	22-0999
(2)	Roll Pins - 3/16 x 3/4"	P170-06-12-603
(1)	Sex Bolt	26-1000
(1)	Shoulder Screw	26-1001
(1)	Rubber O-Ring	DZ350
(3)	Spring Washers	WB-5805-140-40Z2
(4)	Rivnuts	B825-25-145
(4)	Pan Head Screws -1/4-20x1"	S242B416-16-631
(3)	Socket Head Cap Screws 1/4-20x1-3/4"	S242A416-28-631
(1)	Rivnut Installation Kit	31-0999
(8)	Wire Nuts	29-0074

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