

## MODEL SB-MXD DOOR MOVEMENT EXIT DELAY INSTALLATION AND OPERATING INSTRUCTIONS

### 1. DESCRIPTION

The Securitron SB-MXD consists of a set of components which when combined with a Magnalock will produce an "initiate" signal for delayed exit. Functioning is controlled by Securitron's XDT logic timer when a person pushes on the door enough to move it a modest distance. This distance depends on the door type and the existing gap between the door and frame but is usually within the range of 1/2"-3/4" [13mm to 19mm].

The SB-MXD kit includes the following components and features:

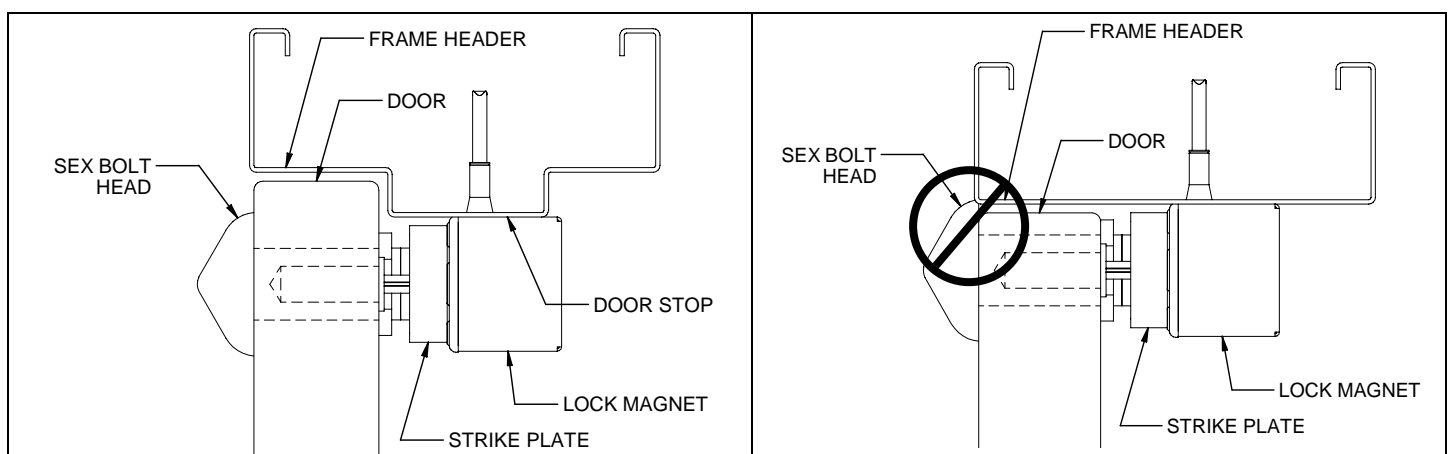
- A special sex bolt with an internal spring. This assembly permits the door to move away from the strike plate even though the strike is still engaged with the magnet. This will create an "initiate" signal when a person pushes on and moves the door up to one inch.
- Concealable magnetic contacts (Reed switch) which when installed furnish the actual "initiate" signal after the 1/2" to 3/4" of door movement. The switch provided will function properly on steel, wood and aluminum doors/frames.
- The kit also includes two long roll pins which are to replace the standard length pins provided with the Magnalock.

Use of the SB-MXD permits delayed exit without the need to alter the existing door latch and hardware. The relatively large door movement provided eliminates the potential problem of false triggering from incidental door travel due to the door being rattled or subject to wind loads.

### 2. PHYSICAL INSTALLATION

#### **SPECIAL NOTE FOR MODEL 32 MAGNALOCK INSTALLATION!**

When a model 32 Magnalock is installed directly to the door frame header rather than the door stop, the large diameter head of the SB-MXD sex bolt will extend beyond the edge of the door. This condition should be avoided for proper door clearance and function (see Figure 1). In the situation that it is necessary to mount a model 32 directly to the header, a spacer of at least 1/2" [12.7mm] thickness should be employed to elevate the lock magnet body away from the header. This spacer can be furnished locally (by the installer) or through Securitron which offers several accessory brackets that will provide the proper spacing.



**Figure 1**  
**Model 32 Installation**

## 2.1. MOUNTING THE SB-MXD SEX BOLT AND THE MAGNALOCK STRIKE PLATE

The special SB-MXD sex bolt provided is to replace the standard sex bolt provided with the Magnalock. Also the longer roll pins included are to replace those furnished with the original Magnalock. Use the SB-MXD template and refer to the installation instructions included with the Magnalock for mounting the lock and for marking the hole locations for the strike plate. Please note that a 1" [25.4mm] diameter hole is required for the installation of the SB-MXD sex bolt (instead of the 1/2" diameter hole that the original Magnalock template calls for). To install the strike plate using the SB-MXD sex bolt, mark and drill the holes in the door as shown in Figure 2.

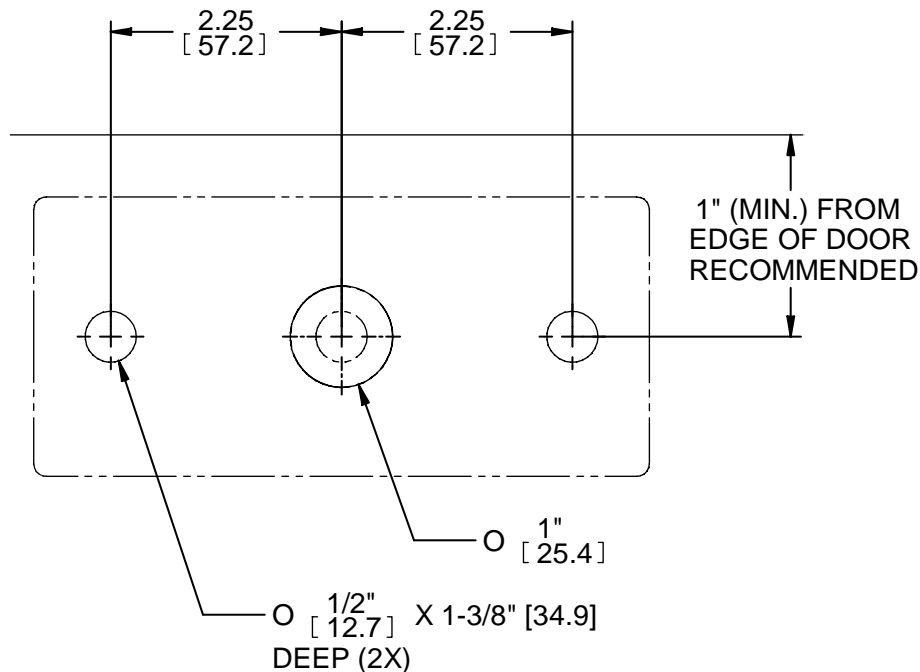
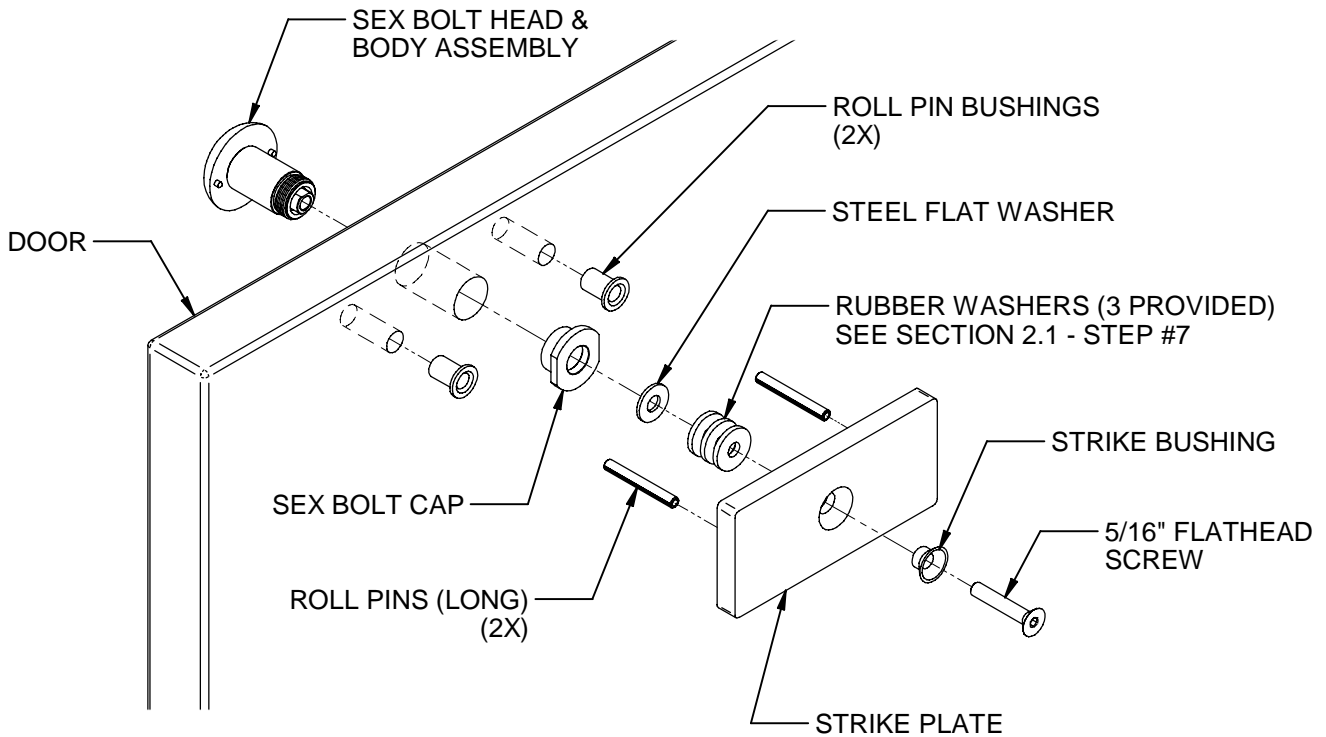


Figure 2

Using the following step-by-step instructions and Figure 3, install the sex bolt and the strike plate to the door.

1. Remove the cap from the sex bolt assembly and insert the sex bolt into the 1" [25.4mm] diameter hole from the opposite side of the door that strike is to be installed.
2. Using a mallet or hammer, lightly tap the head of the sex bolt to mark locations for the sex bolt head anti-rotation pins.
3. Remove the sex bolt assembly, then drill two (2) 3/16" [5mm] diameter holes into the door at the previously marked locations.
4. Apply thread locking compound to the external threads at the cap end of the sex bolt, then insert the assembly back into the 1" hole ensuring that the anti-rotation pins engage the holes.
5. Install the sex bolt cap to the opposite end of the sex bolt assembly. Tighten using a 1-1/4" (or adjustable) wrench.
6. Install the two (2) long roll pins into the strike plate and the two (2) plastic roll pin bushings into the 1/2" holes in the door.
7. Assemble the strike bushing, the 5/16" flathead screw, 1 - 3 rubber washers (2 recommended) and the steel flat washer through the center hole of the strike plate in the sequence shown (see Figure 3).
8. Assemble the strike with washers to the sex bolt by aligning the roll pins into the bushings and partially threading the 5/16" flat head screw into the sex bolt (just 3-4 turns is okay).
9. To fully tighten the assembly:
  - a. Pull the strike plate away from the door to disengage the roll pins from their bushings and turn the strike plate so that the roll pins rest against the surface of the door. This will expose the end of the sex bolt plunger.
  - b. Using a 7/16" (or adjustable) wrench on the end of the exposed sex bolt plunger and a 3/16" hex wrench in the 5/16" flat head screw, tighten the assembly. DO NOT over tighten the rubber washers.
  - c. Pull the strike plate away from the door face. Realign the roll pins into their door bushings and allow the sex bolt to pull the assembly back into place.



**Figure 3**

**NOTE - IF THE DOOR IS THINNER OR THICKER THAN STANDARD:**

The SB-MXD sex bolt is designed to accurately fit a 1-3/4" [44.5mm] thick door. This thickness is considered a standard door thickness. The sex bolt will also work for slightly thicker doors of up to 1.95" [49.5mm], however when the sex bolt is used in this expanded method it will directly impact (reduce) the door movement distance for the delay initiation. If the door is a different thickness and full movement range is required, please contact Securitron for accessories that can be provided to adapt the sex bolt to other door thicknesses while maintaining the proper full function range of the sex bolt.

**2.2. MOUNTING THE MAGNETIC SWITCH**

The SB-MXD has been supplied with a magnetic (Reed) switch and a choice of two (2) cylindrical actuators (permanent magnets) - one large and one small. The switch is intended to be mounted in the door frame and the actuator (magnet) is to be mounted in the door. Both components are to be mounted adjacently facing each other and each requires a 3/4" [19mm] diameter hole for installation. The switch assembly should be mounted on the vertical edge of the door/frame when the lock is mounted horizontally and should be mounted on the horizontal (top) edge of the door/frame when the lock is mounted vertically. The magnetic switch should be mounted at least 2" [50.8mm] from the Magnalock to prevent the possibility of any magnetic interference and should be located as far away from the hinges as possible. (When mounted too close to the hinges, there may not be enough movement of the magnetic actuator to trip the switch).

The choice of the large or small size of the magnetic actuator can be determined by the door construction material. The small actuator can be used in wood and aluminum (non-ferrous) doors and the larger actuator should be used to overcome the shielding effect of a steel (ferrous metal) door.

**3. WIRING INFORMATION**

The purpose for the magnetic switch is to provide an electronic "initiate" signal to Securitron's XDT exit delay logic timer. The signal is delivered from the two (2) flying leads attached to the switch unit. The switch contacts are in the normally closed position when the door is closed (switch actuated by magnet) and when the door is open to approximately 1/2" to 3/4" [13-19mm] the contacts open. The leads should be connected to the "+" and "IN" terminals on the XDT logic timer circuit board as shown in the Exit Delay Systems (EXD) Installation & Operating Instructions (Securitron P/N 500-13350).

## MAGNACARE® LIMITED LIFETIME WARRANTY

SECURITRON MAGNALOCK CORPORATION warrants that it will replace at customer's request, at any time for any reason, products manufactured and branded by SECURITRON.

SECURITRON will use its best efforts to ship a replacement product by next day air freight at no cost to the customer within 24 hours of SECURITRON's receipt of the product from customer. If the customer has an account with SECURITRON or a valid credit card, the customer may order an advance replacement product, whereby SECURITRON will charge the customer's account for the price of the product plus next day air freight, and will credit back to the customer the full amount of the charge, including outbound freight, upon SECURITRON's receipt of the original product from the customer.

SECURITRON's sole and exclusive liability, and customer's sole remedy, is limited to the replacement of the SECURITRON product when delivered to SECURITRON's facility (freight and insurance charges prepaid by customer). The replacement, at SECURITRON's sole option, may be the identical item or a newer unit which serves as a functional replacement. In the event that the product type has become obsolete in SECURITRON's product line, this MAGNACARE warranty will not apply. This MAGNACARE warranty also does not apply to custom, built to order, or non-catalog items, items made by others (such as batteries), returns for payment, distributor stock reductions, returns seeking replacement with anything other than the identical product, or products installed outside of the United States or Canada. This MAGNACARE warranty also does not apply to removal or installation costs.

SECURITRON will not be liable to the purchaser, the customer or anyone else for incidental or consequential damages arising from any defect in, or malfunction of, its products. SECURITRON does not assume any responsibility for damage or injury to person or property due to improper care, storage, handling, abuse, misuse, or an act of God.

EXCEPT AS STATED ABOVE, SECURITRON MAKES NO WARRANTIES, EITHER EXPRESS OR IMPLIED, AS TO ANY MATTER WHATSOEVER, INCLUDING WITHOUT LIMITATION THE CONDITION OF ITS PRODUCTS, THEIR MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.