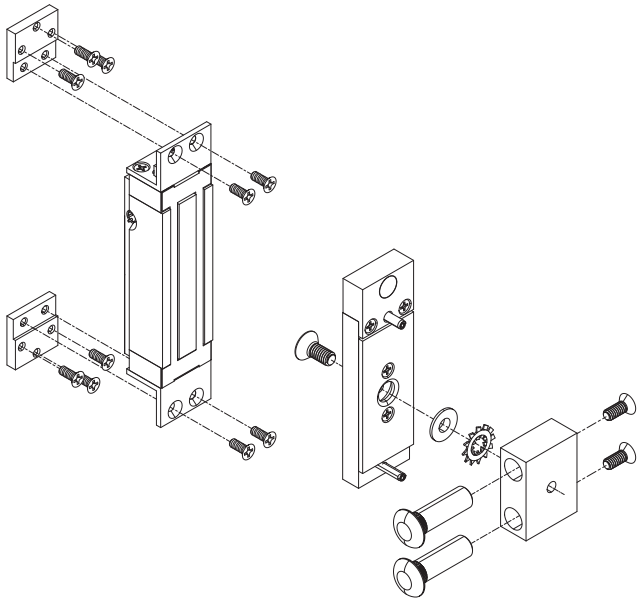
30020

320 Series
Electromagnetic Lock

Model 320M

Installation Instructions



Customer Service

1-877-671-7011 www.allegion.com/us

Description

The 320M (MiniLine, Electromagnetic Lock) is a medium security, mortise mounted, high performance lock, which was designed for sliding doors. Because the 320M has no moving parts, it requires minimal maintenance. The 320M meets Security and Life Safety requirements and is Field Selectable for 12VDC or 24VDC.

Maintenance

The electromagnet and armature are plated for corrosion resistance and require little maintenance.

For maximum performance, it is recommended that the electromagnet and armature be occasionally cleaned. Perform the following as required: Clean all functional surfaces of the electromagnet and armature by applying a light coating of silicon lubricant and wipe with a clean cloth.

Product Specifications

Voltage	12VDC or 24VDC Field Selectable
Current	0.225A @ 12VDC 0.450A @ 24VDC (for metal frames only, NOT RECOMMENDED FOR WOOD FRAMES)
Rated Holding Force	400lbs @12VDC, 550lbs @ 24VDC

General Information

- Carefully handle all equipment. Damage to mating surfaces of electromagnet or armature might reduce locking efficiency.
- The electromagnet is mortised into door frame vertically. Armature mounts to door and is designed to pivot about its center, compensating for any door misalignment.
- When installing an electromagnetic lock with DSM option, make certain permanent magnet is directly opposite DSM switch in magnet assembly.

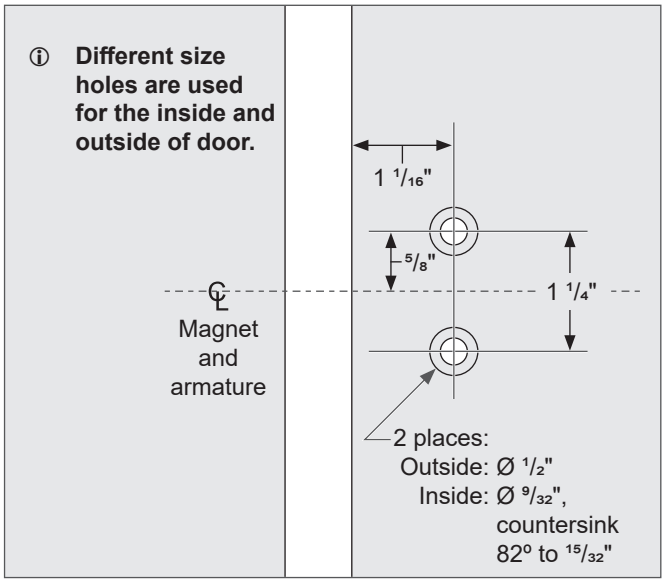
WARNING

Failure to secure armature to door may result in serious injury to door user. For safety, security and proper operation, sex bolt/nut assembly, washers and spacers must be assembled in order illustrated and securely tightened 1/8 to 1/4 turn past hand-tight.

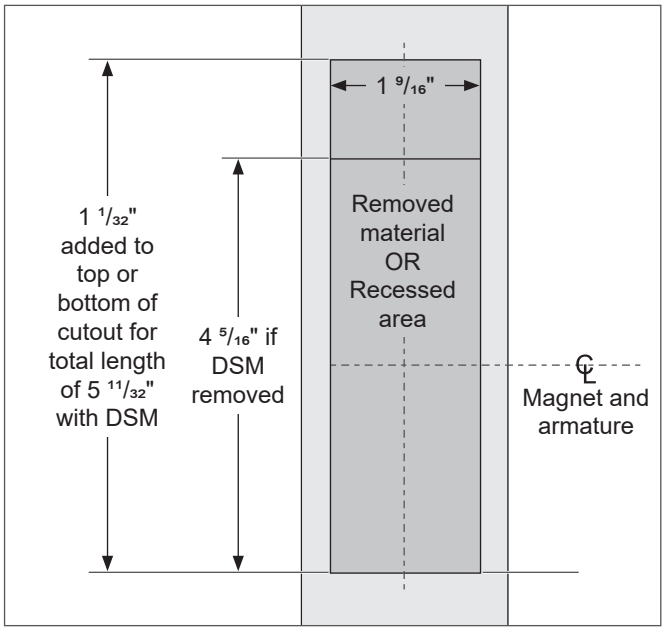
Door and frame preparation

Using mounting block:

Door face

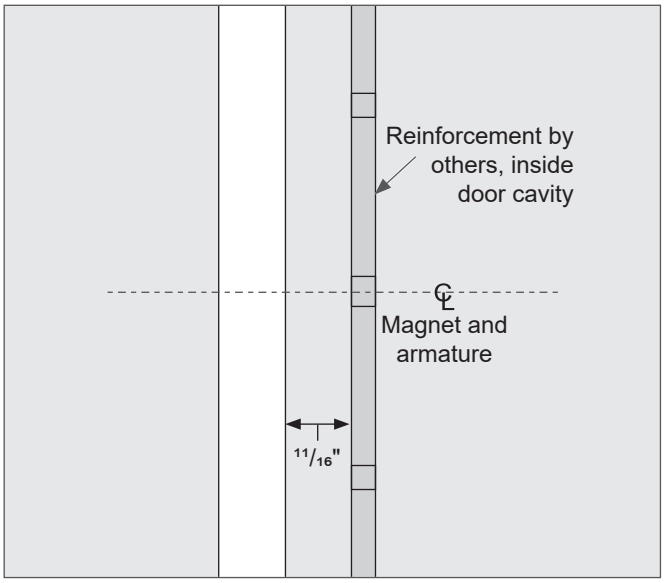


Door edge

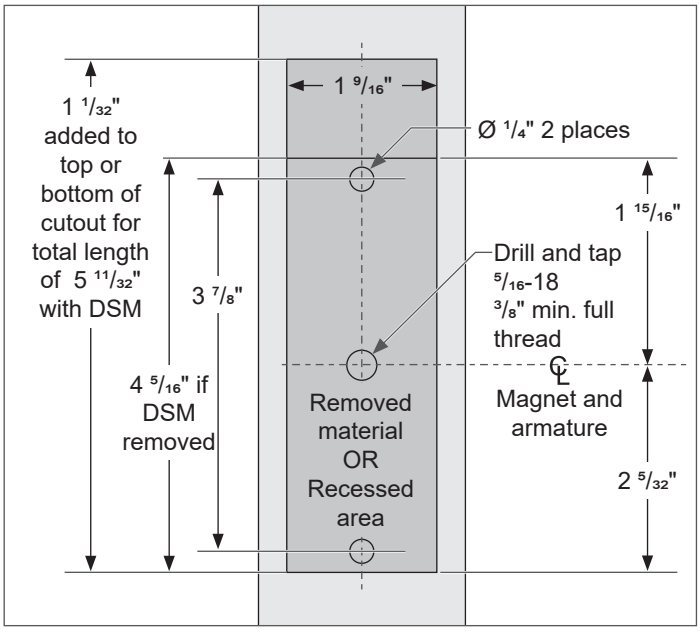


Mounting directly into sliding door:

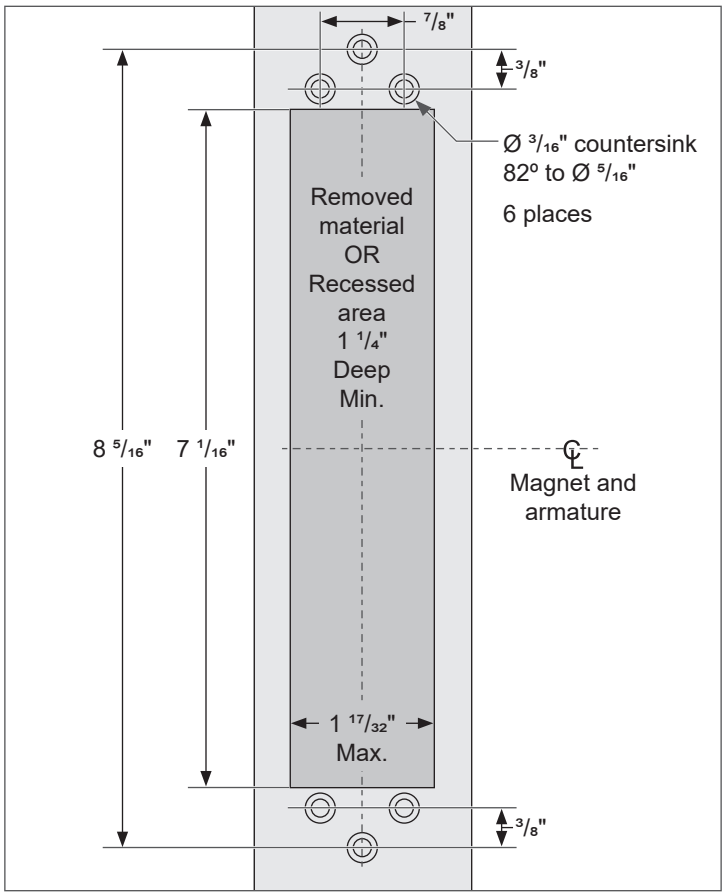
Door face



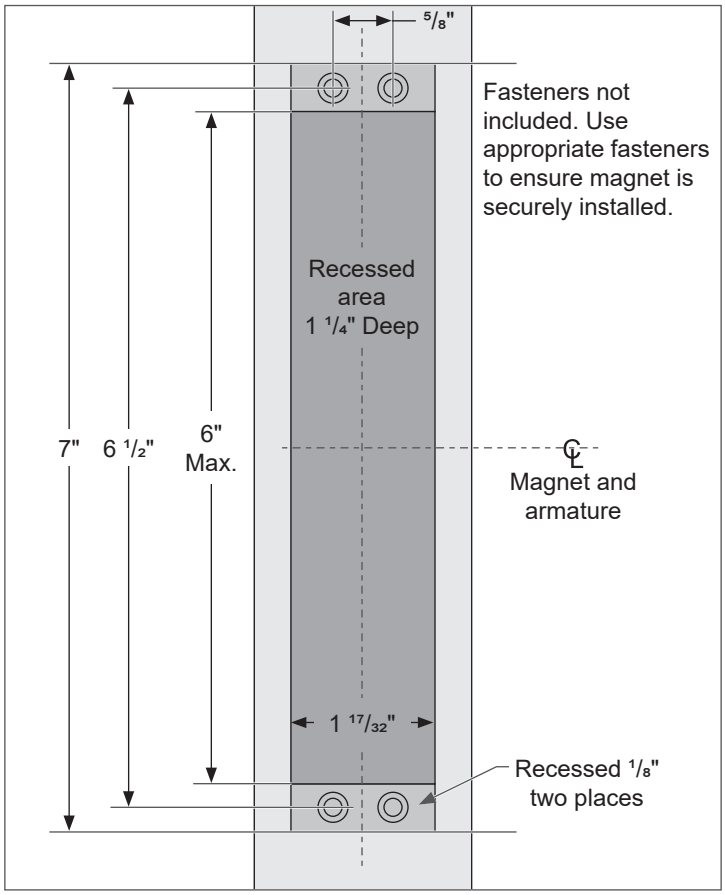
Door edge



Frame: Standard metal



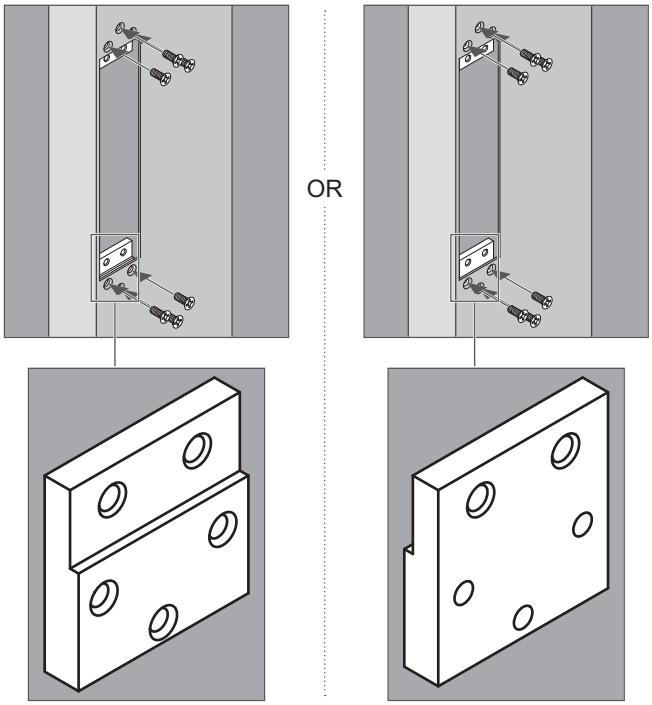
Frame: Wood/non-hollow



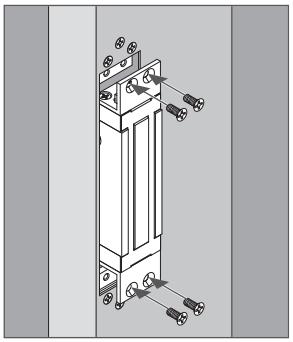
Installation

1 Install magnet into frame.

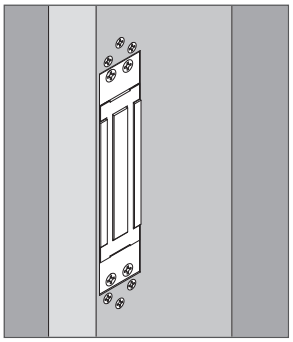
1a Orient mounting blocks as shown for your installation. The magnet should be flush with frame after installation.



1b Install magnet into frame.



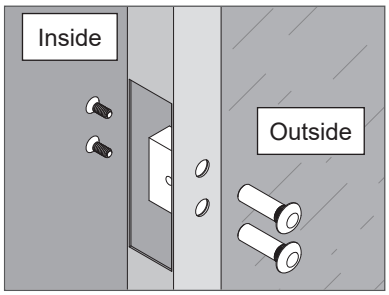
1c Magnet should be completely flush with frame.



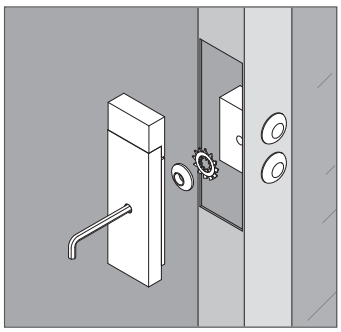
2 Install armature into door.

Using mounting block:

2a Install armature mounting block if the door has not been otherwise reinforced.

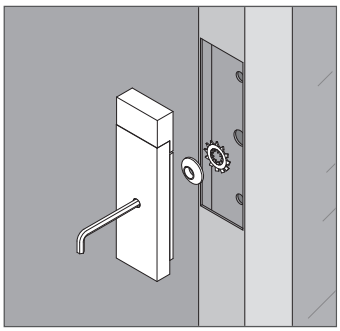


2b Install armature.



Mounting directly into sliding door:

2a Install armature.



3 Complete wiring for lock.

Use configuration appropriate for your installation.

Fig. 1: 24V with MBS, ATD and/or DSM

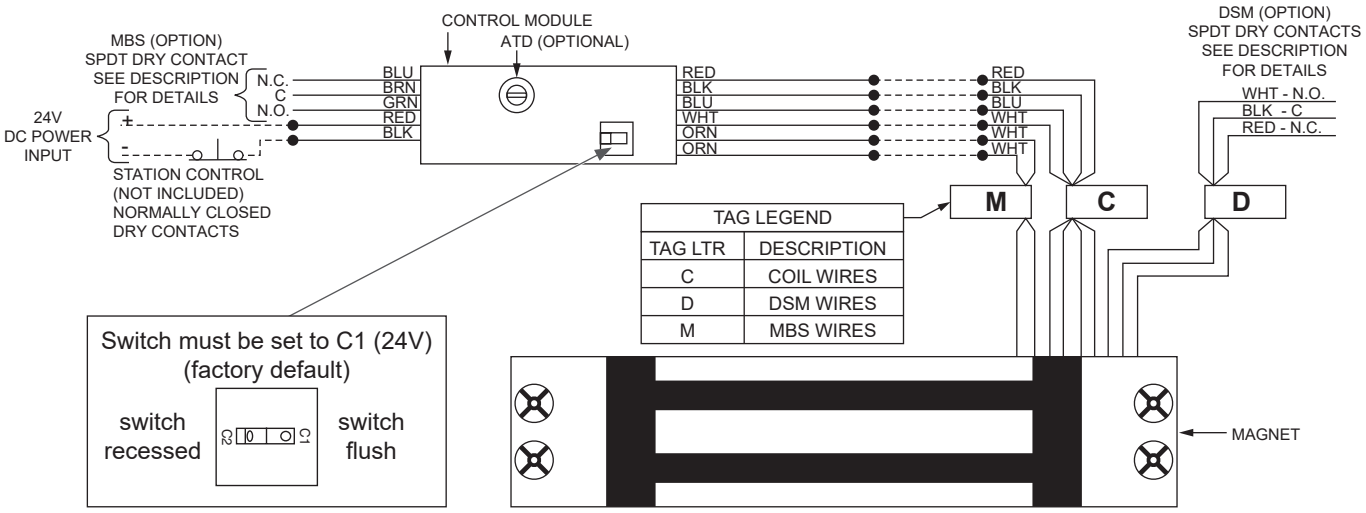


Fig. 2: 12V with MBS, ATD and/or DSM

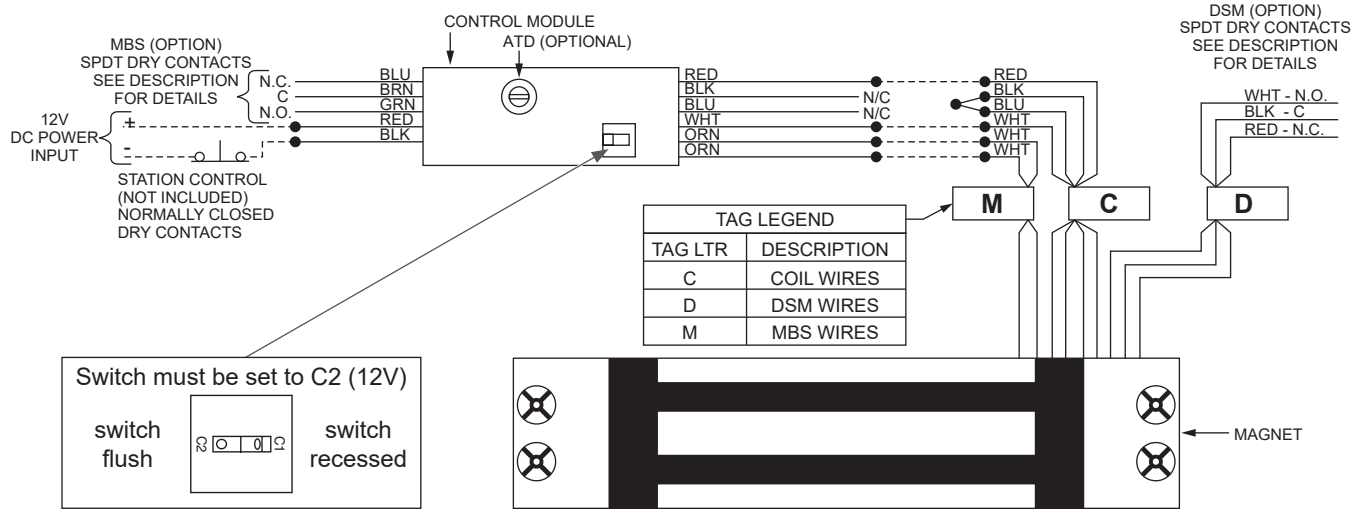
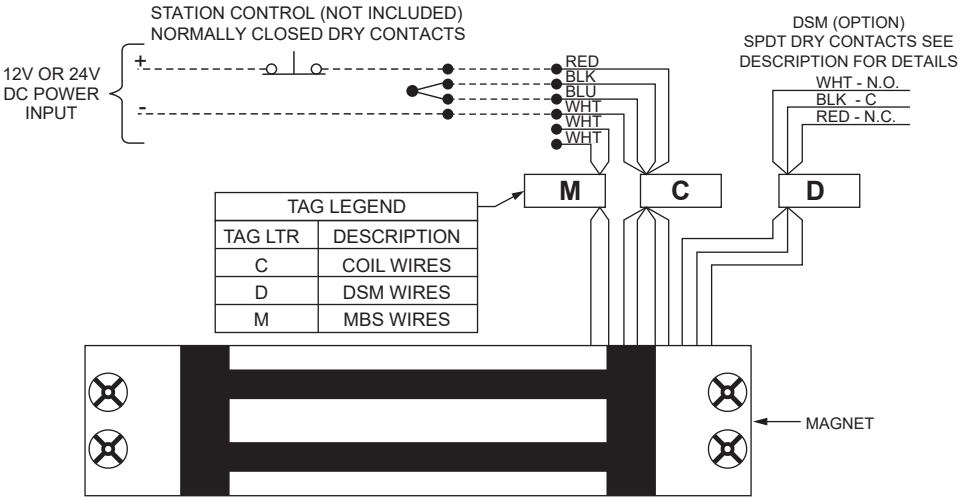


Fig. 3: 12V or 24V without MBS or ATD



4 Adjust lock as necessary.

ATD (Adjustable Time Delay)

ATD can be set to delay relock from 0 to 30 seconds. To increase time, turn adjustment potentiometer clockwise (CW). To decrease time, turn adjustment potentiometer counterclockwise (CCW). ATD will operate whenever input power is interrupted and then reapplied. For potentiometer location, see Fig. 1 and Fig. 2.

DSM (Door Status Switch)

The DSM provides a signal to indicate whether door is open or closed. The lock's mounting instructions should be followed closely to ensure reliable performance. DSM provides a signal via a set of form "C" dry contacts rated 100mA, resistive at 24VDC. These contacts, which are labeled in an open door condition are accessed by three (3) wires:

- White - N.O. (Normally Open)
- Black - C (Common)
- Red - N.C. (Normally Closed).

When the door closes, black and white wire contacts close and black and red wire contacts open. See Fig. 4, Fig. 5 and Fig. 6.

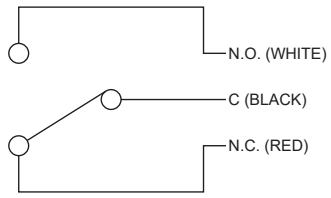


Fig. 4: Contact configuration when door is open

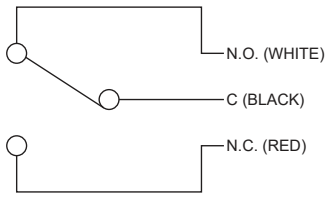


Fig. 5: Contact configuration when door is closed

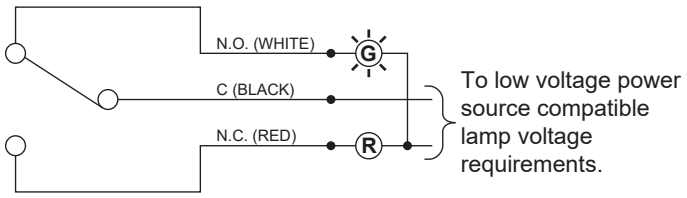


Fig. 6: Wiring example of contacts used to switch external indicators (not included). Shown door closed. Green LED lit.

MBS (Magnetic Bond Sensor)

The MBS senses whether sufficient magnetic holding force exists for adequate locking. It responds to low line voltage, foreign materials in magnetic gap, and damaged or dirty magnet and/or armature surfaces. The MBS option provides a signal via a set of form "C" dry contacts rated 1A @ 30VDC resistive load maximum. Dry contacts, which are labeled in a deenergized/no bond condition are accessed by three (3) wires:

- Green - N.O. (Normally Open)
- Brown - C (Common)
- Blue - N.C. (Normally Closed)

Once the lock is energized with magnet and armature properly bonded, C and N.O. contacts close and C and N.C. contacts open. See Fig. 7, Fig. 8 and Fig. 9.

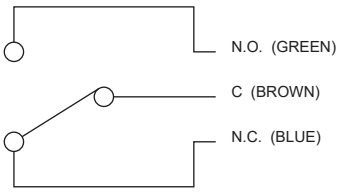


Fig. 7: Contact configuration when insufficient or no bond exists

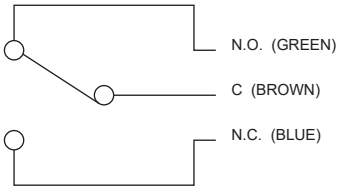


Fig. 8: Contact configuration when sufficient bond exists

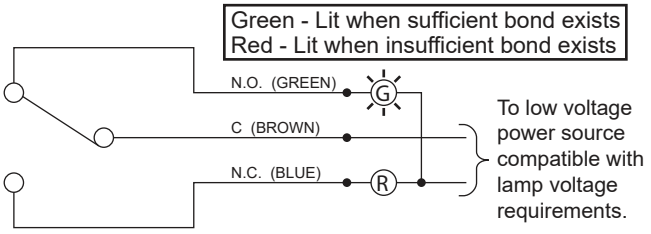
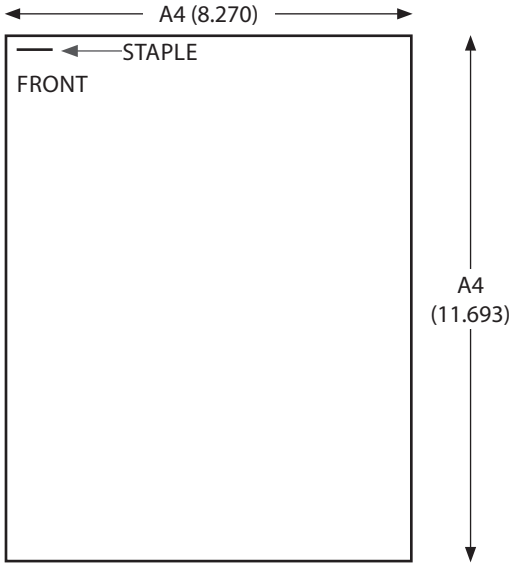


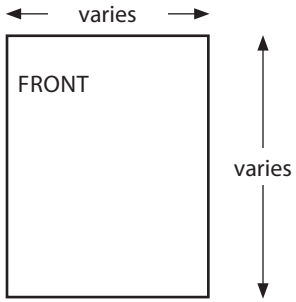
Fig. 9: Wiring example of contacts used to switch external indicators (not included). Shown door closed. Green LED lit.

ALLEGION

30020 Rev. 08/19-j



BEGINNING SHEET



FOLDED SHEET

Additional Notes:
1. Final folded size may vary to fit in box.

Revision History					
D	E	F	G	H	J
009827	013686	013687	23854	046613	081608

Revision Description:
J > Revised artwork

Material	Edited By	Approved By	EC Number	Release Date
White Paper	M. Sasso	D. Toppins	081608	08-12-19

Notes
1. printed two sides
2. printed black
3. stapled in top left corner
4. tolerance ± .06
5. printed in country may vary
6. drawings not to scale

Title
SHEET, INSTALLATION, 320M

Creation Date	Number	Revision
11-12-2012	30020	J

Created By	Activity
P. Bockelman	3899 Hancock Expwy Security, CO 80911
Software: InDesign CS6	