



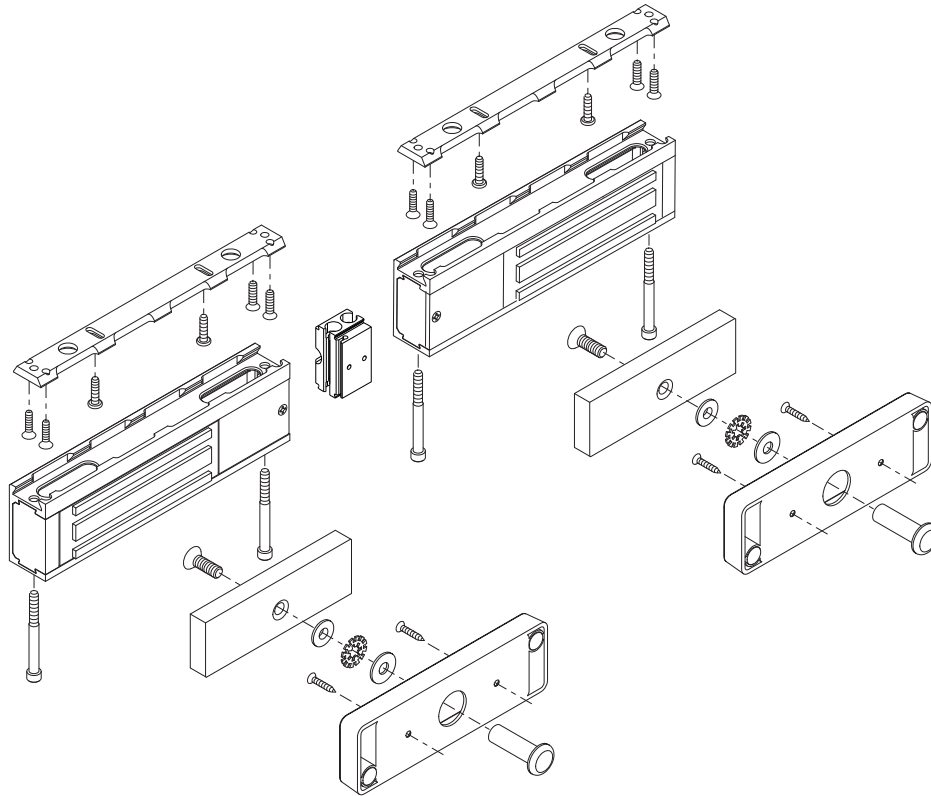
44487304

# M400 Series Double Locks



Double Electromagnetic Locks: M422, M452, M492

Installation Instructions



## Features

### Automatic Voltage Selection (AVS)

Magnet immediately detects 12VDC or 24VDC when power is connected.

### Anti-Tamper Switch (ATS)

An indication is provided should the magnet cover become unsecured from lock.

### Magnetic Bond Sensor (MBS)

Detects proper bond between magnet and armature. It can be monitored remotely and locally with an LED.

### LED

Provides local indication of MBS status.

### Door Position Switch (DPS)

Indicates whether door is open or closed. This feature is used in conjunction with the MBS.

### Relock Time Delay (RTD)

Relock time can be changed. Range is 1 - 30 seconds.

## Models

### M422 (Traffic Control)

UL1034 and 10C/500 lb and 3 hr rating

### M452 (High Security)

UL1034 and 10C/1000 lb and 3 hr rating

### M492 (Max Security)

UL1034 and 10C/1500 lb and 3 hr rating. Trims

## Trims

### Basic

Auto Voltage Selection (AVS) for 12 or 24VDC

### Plus

Basic features + Door Position Switch (DPS), Magnetic Bond Sensor (MBS), Relocking Time Delay (RTD), LED Status Indicator (LED) and Anti-Tamper Switch (ATS)

## UL Requirements

- Units shall not impair operation of panic hardware mounted on door.
- Units shall not impair intended operation of an emergency exit.
- Not to be used without UL approved latching hardware.
- Units/Models are intended to be connected to UL Listed Equipment, not intended for Burglar or Fire Alarm Initiating or Indicating Devices.
- Ambient Conditions - "For Indoor Use Only".
- Wiring methods shall be in accordance with the National Electrical Code, ANSI/NFPA 70.

- **This device complies with part 15 of FCC rules.**

Operation is subject to following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including any interference that may cause undesired operation. Changes or modifications not expressly approved by party responsible for compliance could void user's authority to operate equipment.

## Electrical Specifications

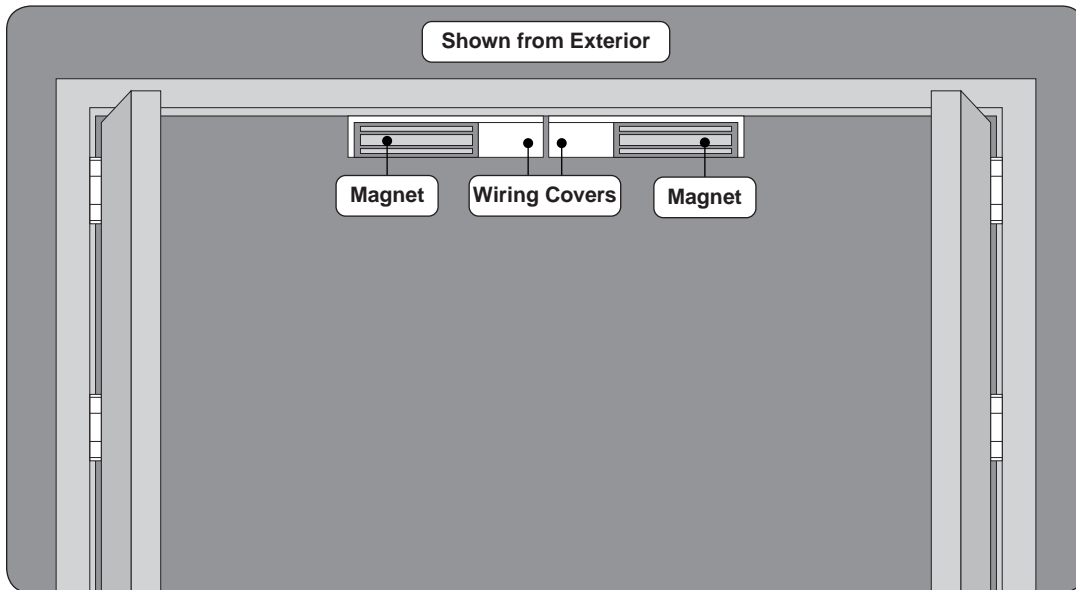
Model	Amps (12VDC) Per Lock	Amps (24VDC) Per Lock	Holding Force (lbs) Per Coil
M422	1.500	0.760	500
M452	1.500	0.760	1000
M492	1.300	0.700	1500

## Lock Installation

### 1 Prepare for installation.

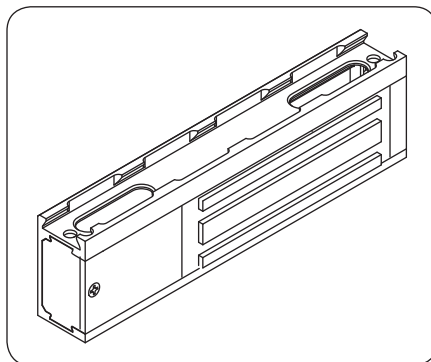
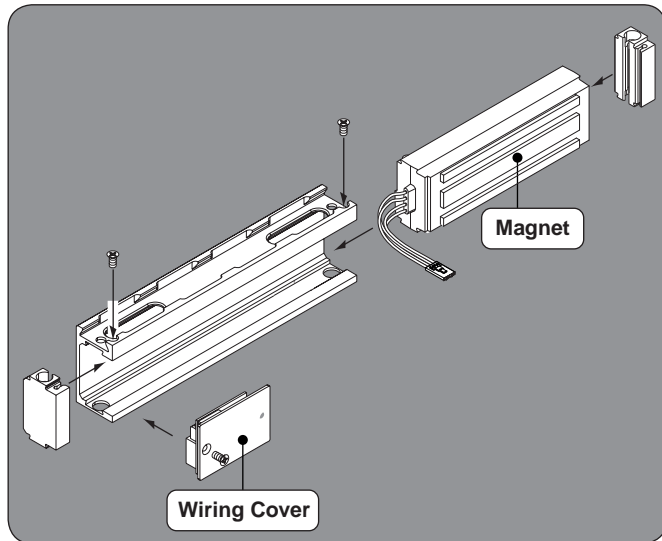
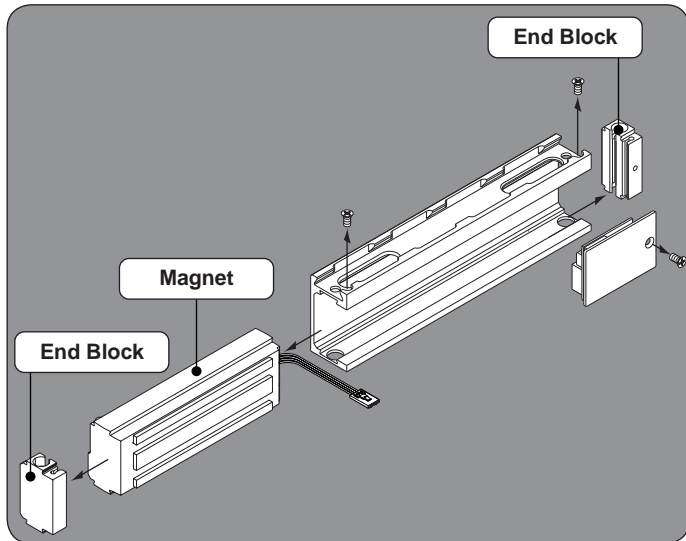
#### 1a Lock orientation

- Locks should be installed with wiring covers in the middle, so the magnet in one of the locks must be reoriented.



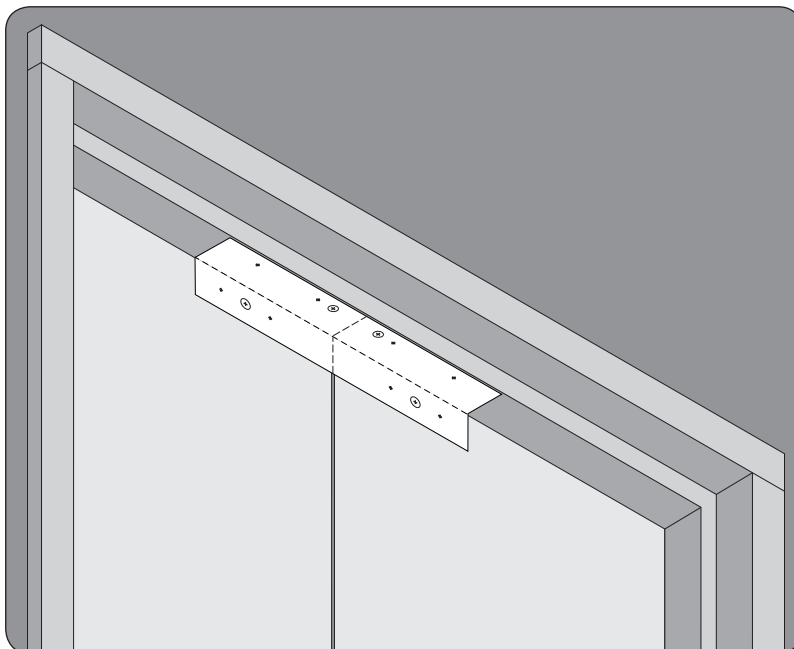
1b Reorient magnet and board (if necessary)

- Remove screws, wiring cover and end blocks.
- Rotate magnet, end blocks and wiring cover as shown, then reassemble.



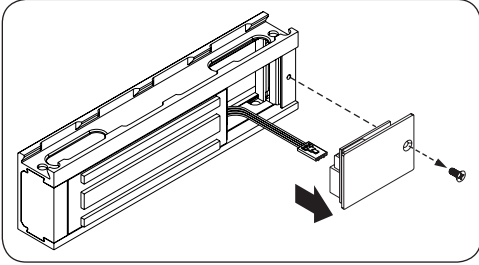
1c Place template and mark holes

- Place template on top centerline of doors.
- Mark holes and prepare them per template.

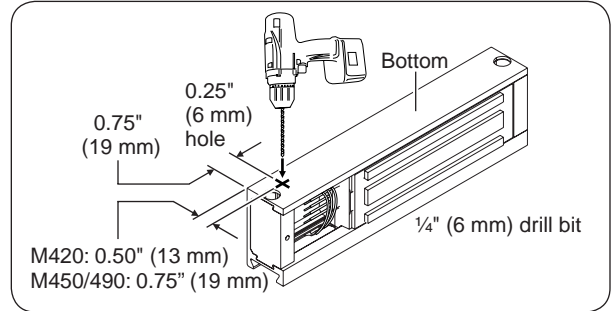


## 2 Install MBS indicator (optional, Plus models ONLY).

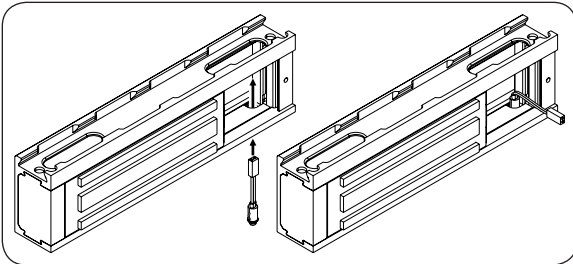
2a Remove cover.



2b Drill hole for MBS indicator.

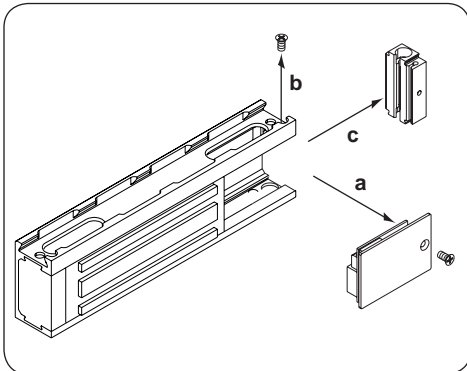


2c Install MBS indicator

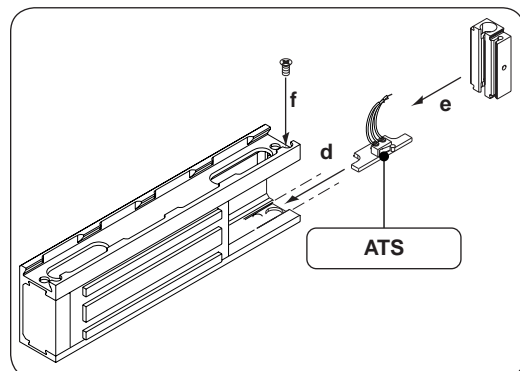


## 3 Install ATS (Plus models ONLY).

3a Remove end block and wiring cover.

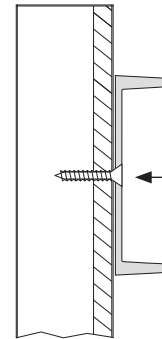
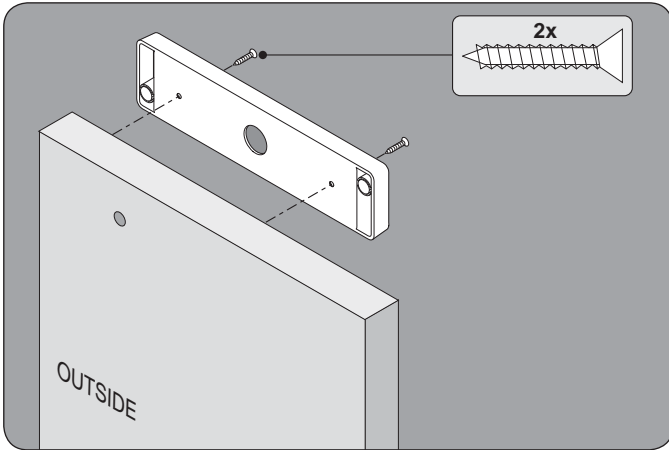


3b Install ATS and reassemble.



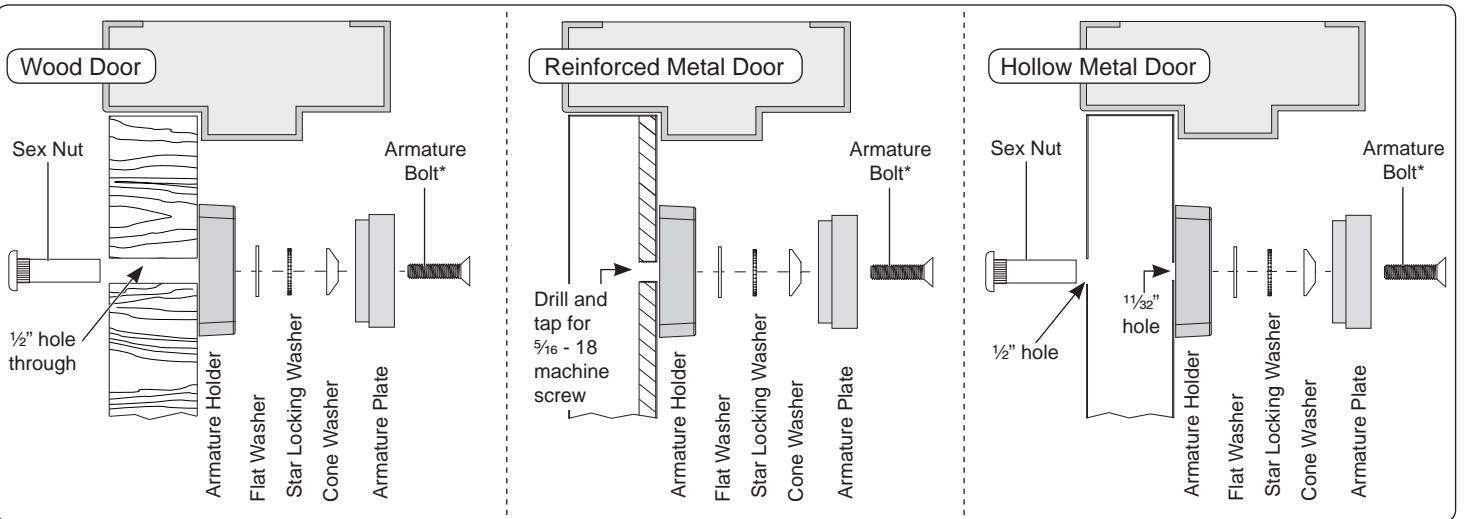
## 4 Attach armatures to doors.

- Install as shown.

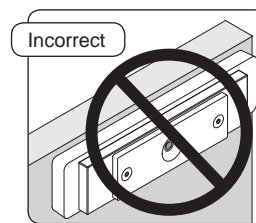
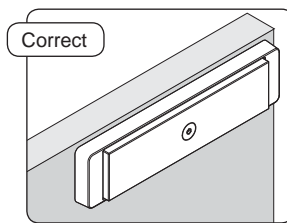


Armature holder screws must be flush to inside of armature holder.

### 4a Install armature plate as shown for door type.



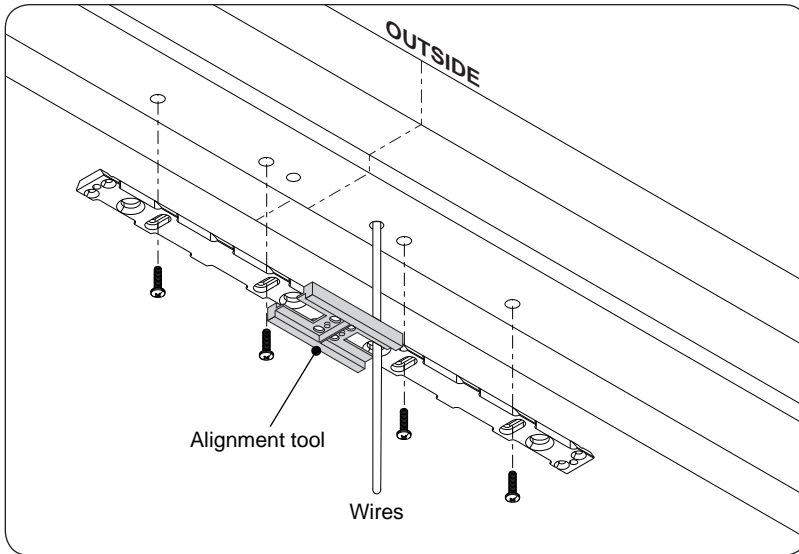
Armature bolt must be tightened to 120 in-lbs.



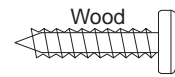
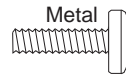
## 5 Install mounting brackets into frame.

### 5a Attach mounting brackets temporarily.

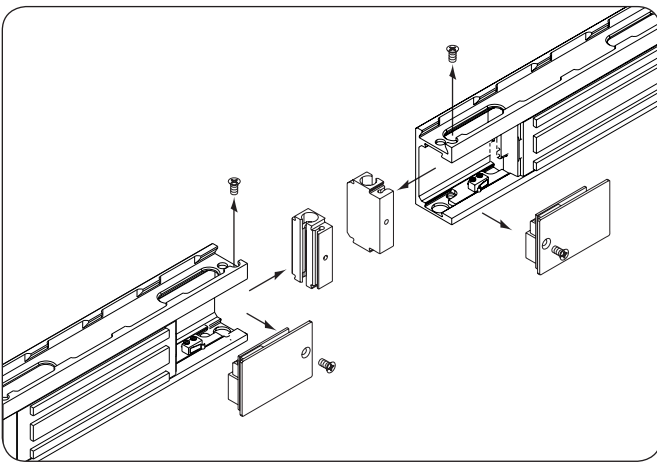
- Install alignment tool onto brackets.
- Install four (4) screws into slotted holes and partially tighten.



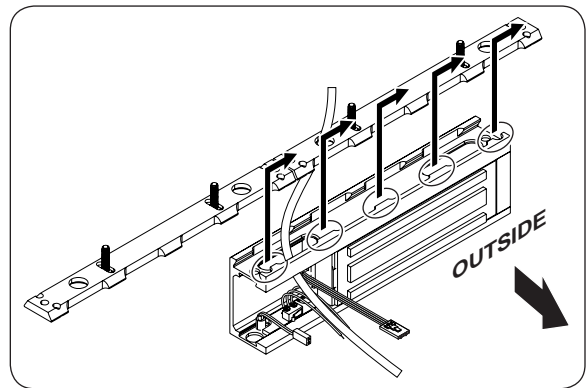
Actual Size



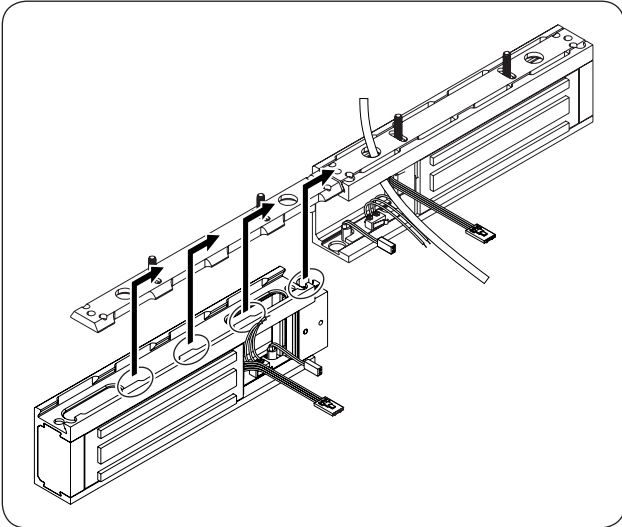
### 5b Remove wiring covers and end blocks.



### 5c Slide one magnet onto bracket.

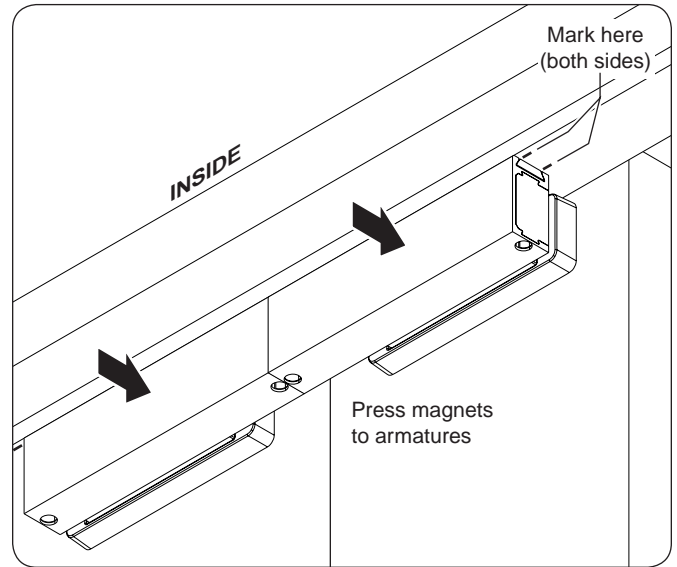


5d Slide second magnet onto bracket.

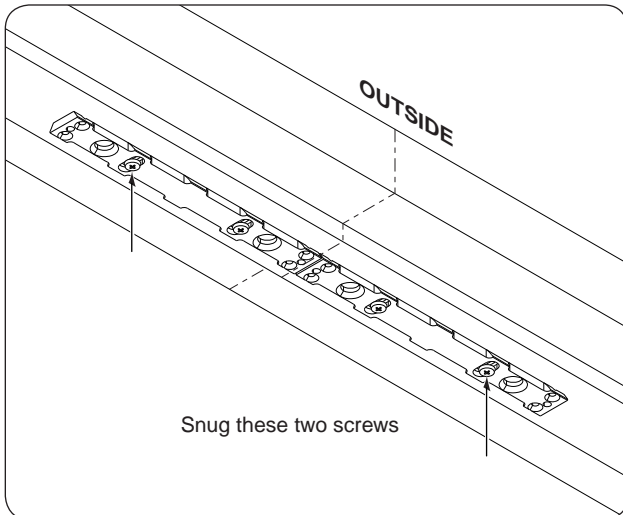


5e Align magnets to armatures

- Close doors.
- Press magnets to fully engage with armatures.
- Mark brackets on ends.

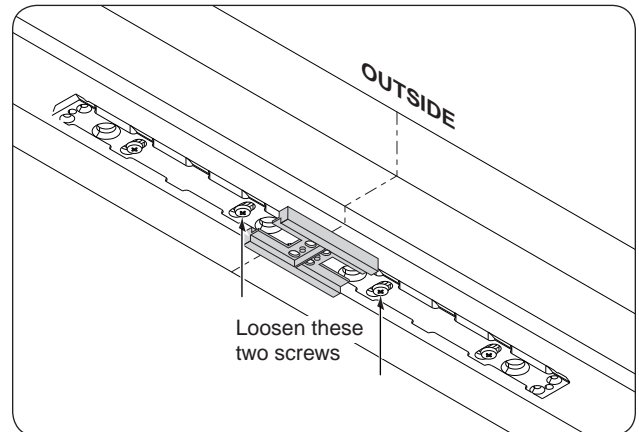


5f Remove magnet and snug two (2) outer screws.



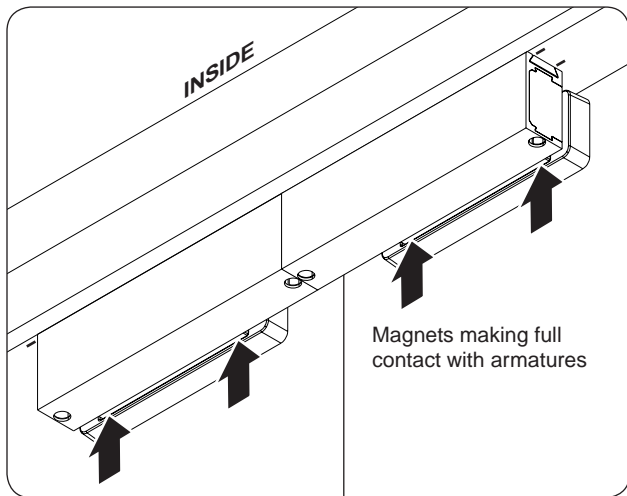
5g Align Center of Brackets Using Alignment Tool

- Loosen two (2) innermost screws.
- Place alignment tool over brackets.
- Tighten all four (4) screws.



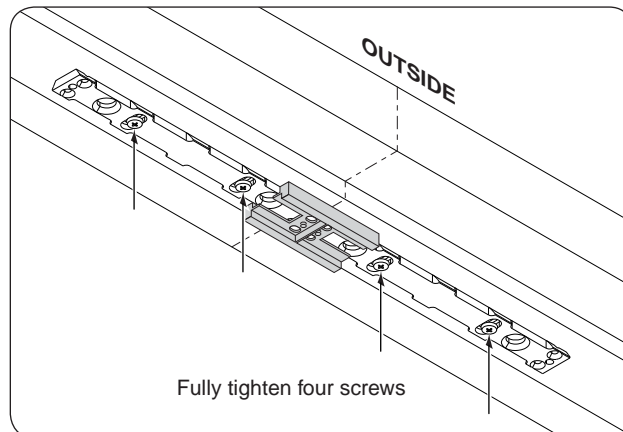
**5h Verify magnet adjustment.**

- Close door and verify magnets make full contact with armatures.
- If alignment is satisfactory, go to step 5i.
- If further adjustment is required, repeat steps 5e through 5h.



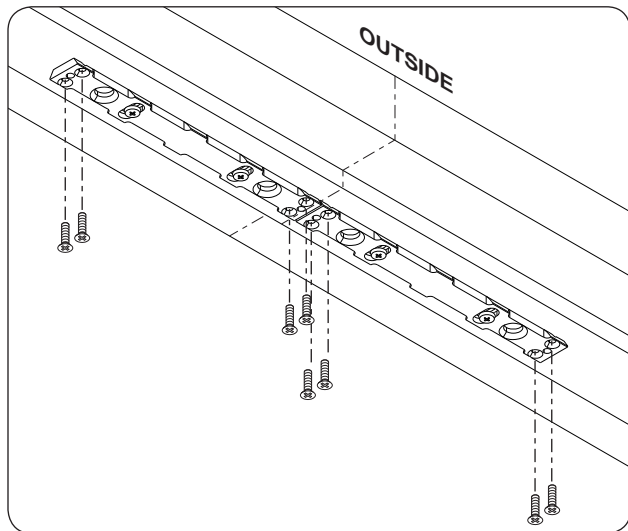
**5i Prepare additional holes.**

- Install alignment tool on brackets.
- Fully tighten four (4) screws.
- Drill eight (8) remaining holes. Use #10-24 tap if metal is reinforced.

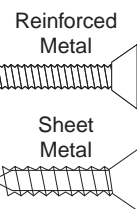


**5j Install eight (8) screws**

- Remove alignment tool.
- Install and fully tighten eight (8) screws.



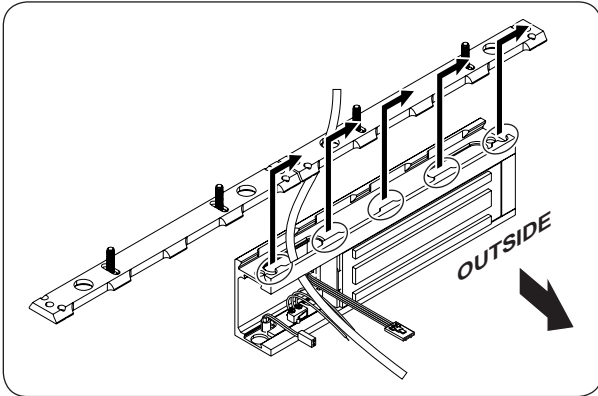
**Actual Size**



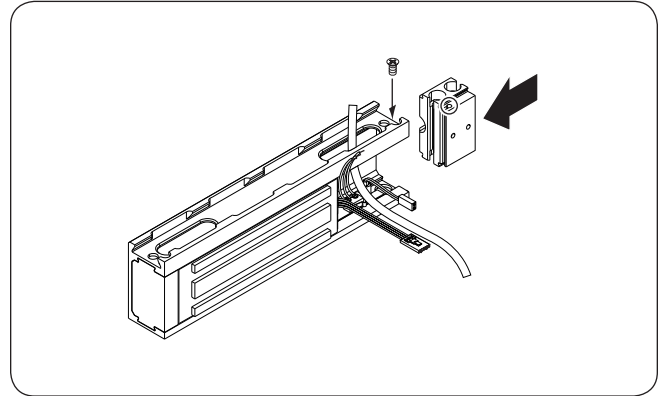


**6** Attach magnets to mounting brackets.

6a Slide one magnet onto bracket.

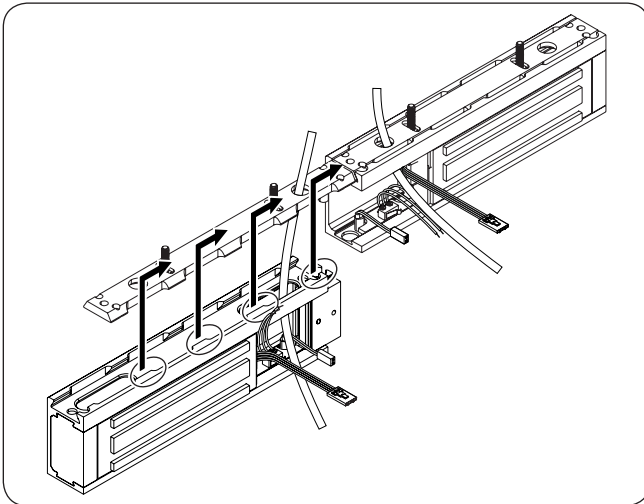


6b Install joining block into lock.

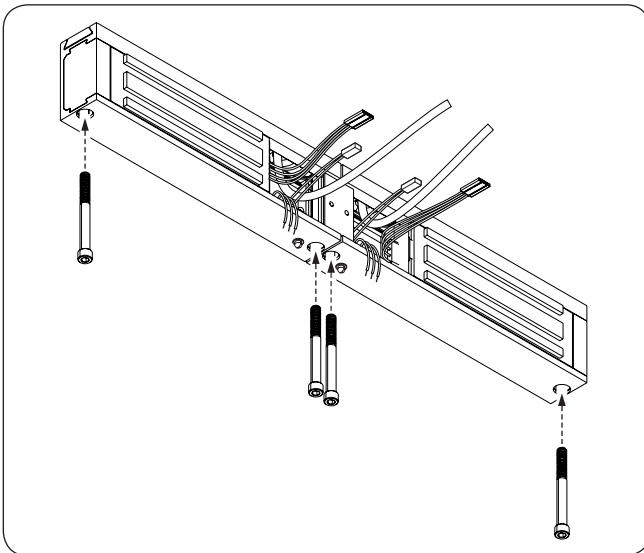


6c Slide second magnet onto bracket.

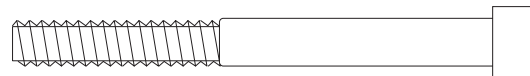
- Align with joining block.



6d Secure locks with four (4) screws

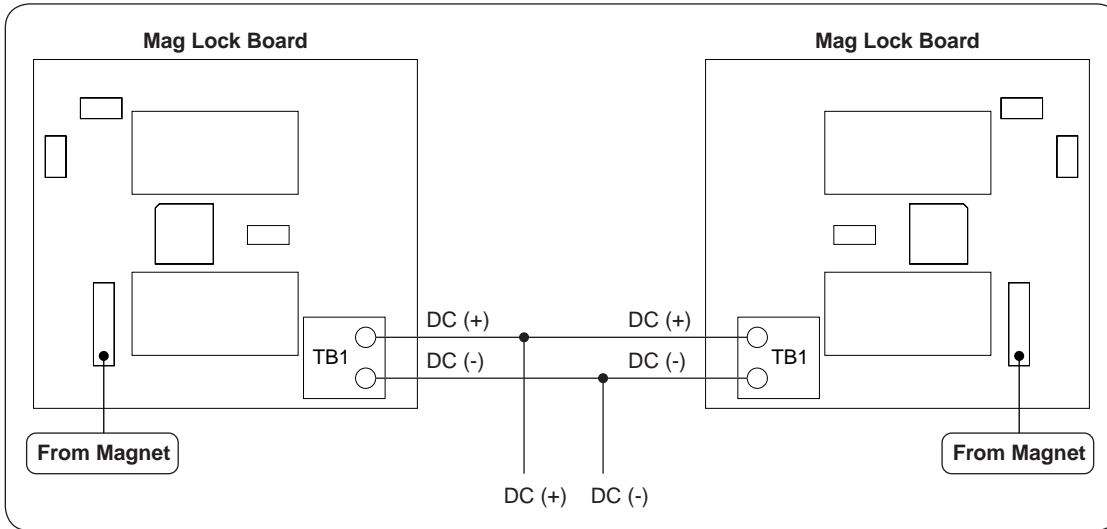


Actual Size

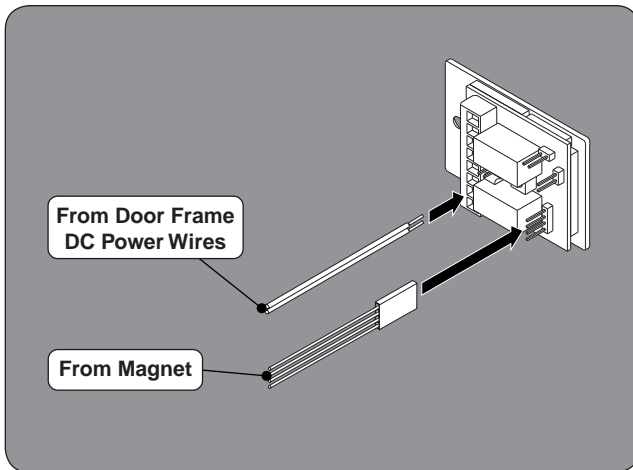


## 7 Correct wiring to board (standard model)

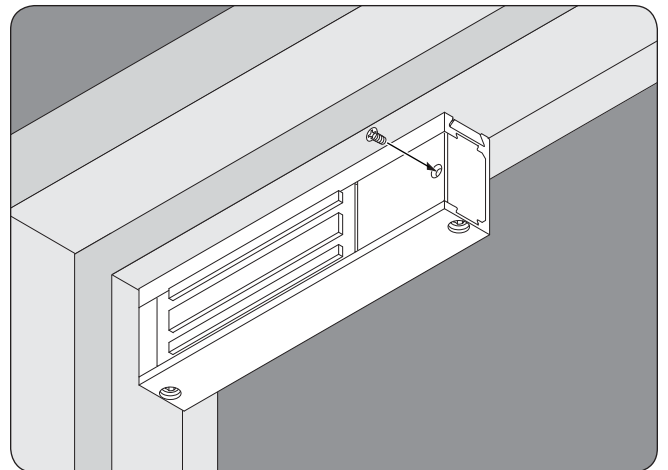
7a Review wiring connections.



7b Connect wires to boards.



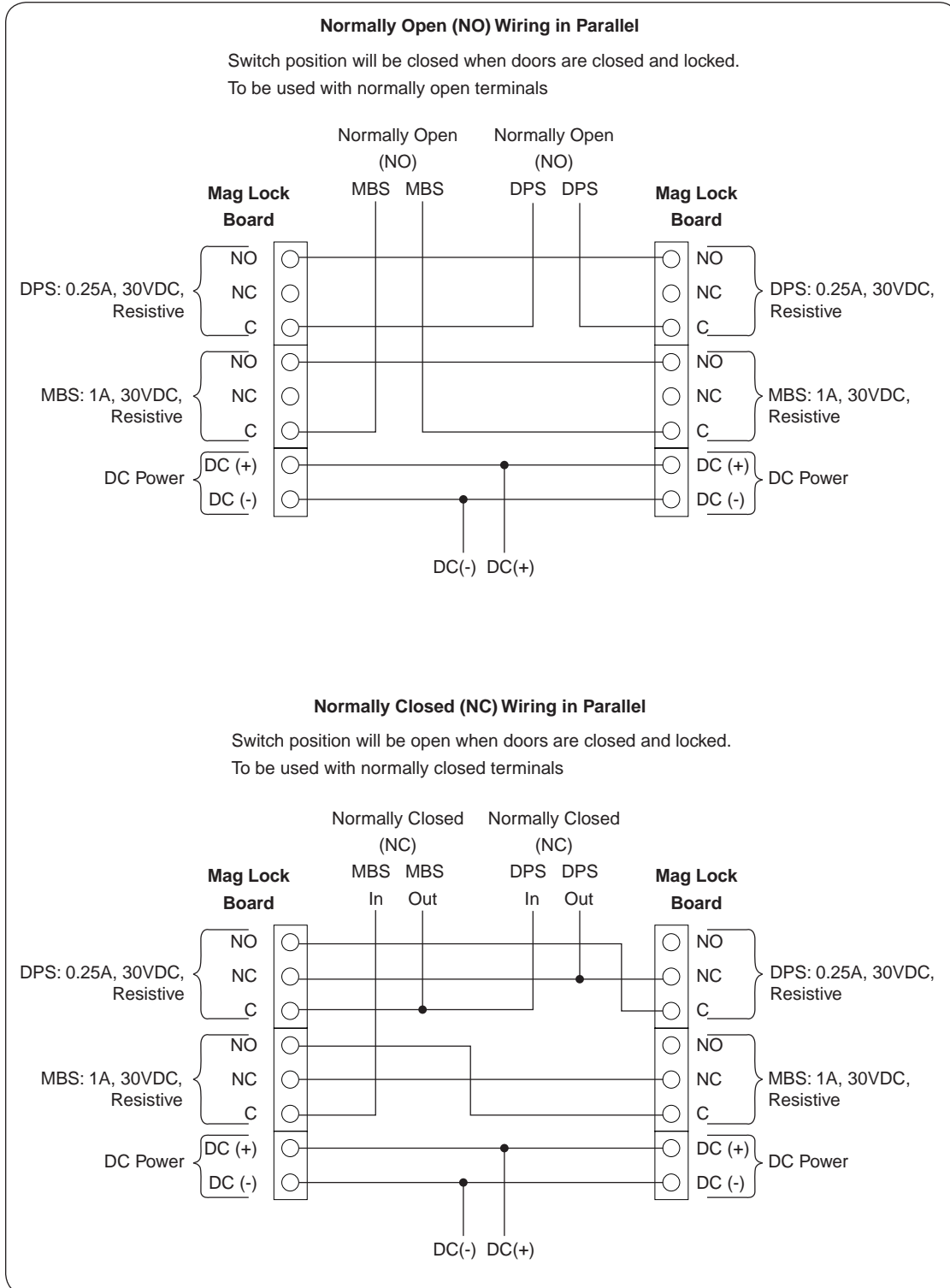
7c Install covers.



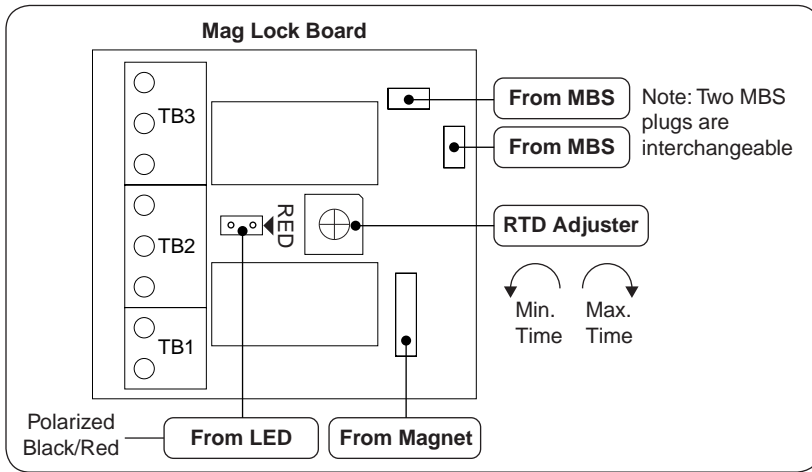
## 8 Connect wiring to board (Plus model)

### 8a Connect outside wires to boards.

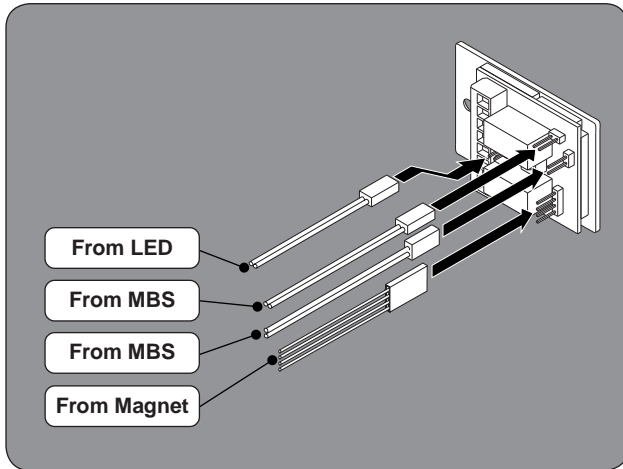
- Choose between NO or NC.



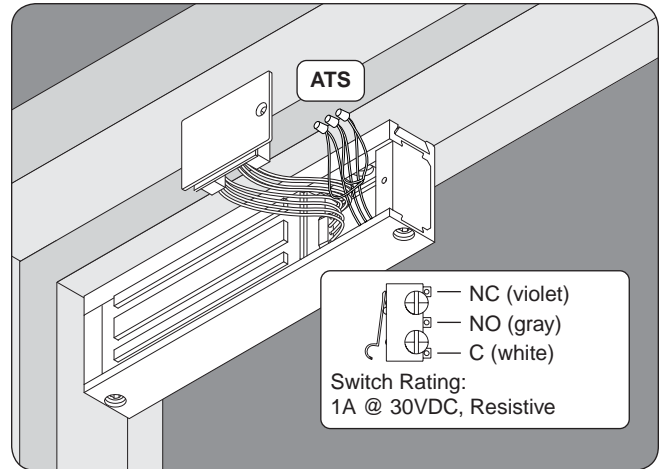
8b Review plug locations.



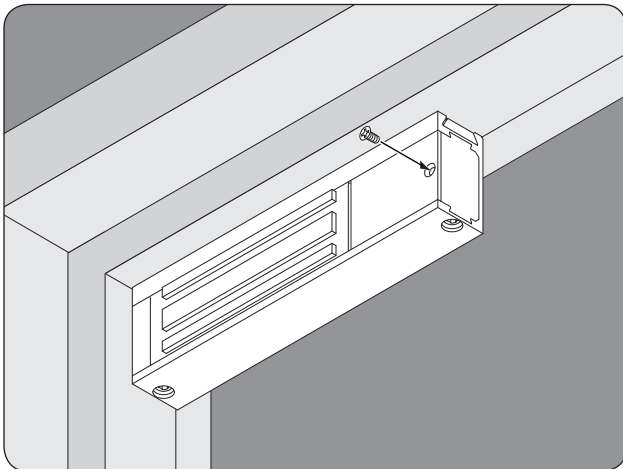
8c Connect plugs to boards.



8d Connect ATS wires.



8e Install covers.



Customer Service

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