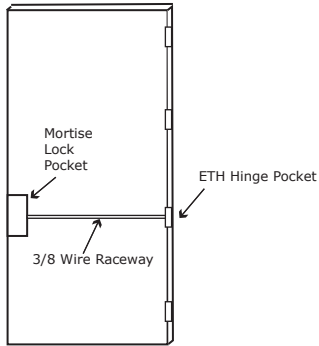


# Installation Instructions

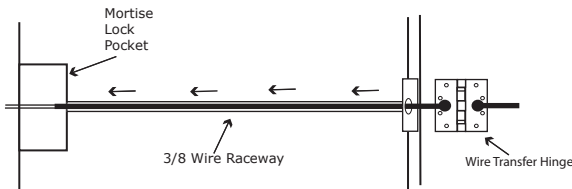
## ML170/180/182/1480/1485



**STEP 1:** The door must be machined with a 3/8" wire raceway, mortise lock pocket & prepped for an energy transfer hinge. **Make sure the mortise pocket is free of debris.**

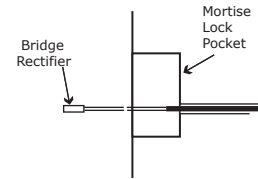


**STEP 2:** Run the wires from the ETH hinge through the 3/8" raceway starting at the ETH hinge & exiting into the mortise pocket.

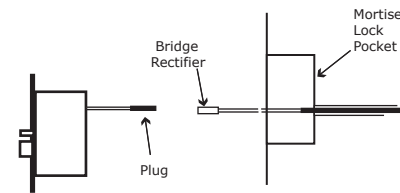


**STEP 3:** Screw the ETH hinge to the door. At this time **DO NOT** connect the hinge wires on the jamb side to the wires coming from the power supply.

**STEP 4:** Connect the wires exiting the mortise pocket to the Bridge Rectifier (included).



**STEP 5:** Connect the Bridge Rectifier to the plug exiting the mortise chassis.



**STEP 6:** Carefully slip the connected mortise lock chassis into the mortise pocket paying close attention not to pinch any wires.

**STEP 7:** Mount the chassis per manufacturer's instructions.

**STEP 8:** Connect the wires from the power supply at the ETH hinge on the jamb side. Connect the hinge to the jamb.

### LEGEND OF TERMS

**EU:** (Fail Secure) When power is applied, the outside trim will unlock. When power is removed, the outside trim is locked.

**EL:** (Fail Safe) When power is applied, the outside trim will lock. When power is removed, the outside trim is unlocked.

**REX:** (Request to Exit Switch) Monitors the inside handle.

**DPS:** (Door Position Switch) Monitors the door position via the anti pick (Deadlatch).

**LBM:** (Latchbolt Monitor Switch) Monitors the position of latchbolt.

### ELECTRICAL SPECIFICATIONS

#### SOLENOIDS:

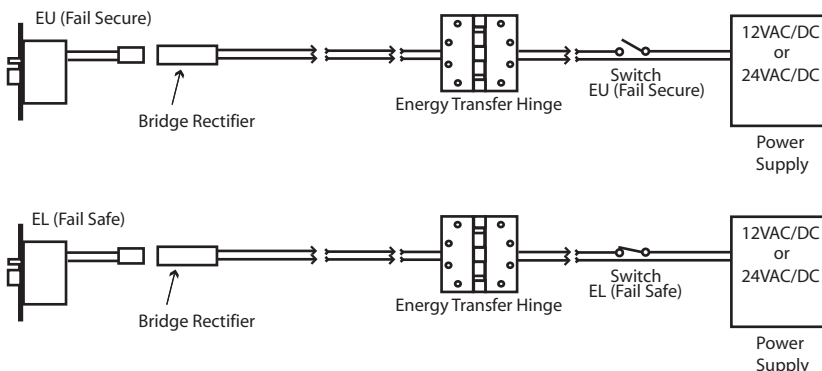
VOLTS	CURRENT	COIL RESISTANCE
24VAC/DC	350mA	69 Ohms +/- 10%
12VAC/DC	700mA	18 Ohms +/- 10%

#### SWITCHES: .5A 24VAC/DC

**REX:** Green - Common (C)  
Blue - Normally Open (NO)  
Gray - Normally Closed (NC)

**LBM:** Green/Black - Common (C)  
Blue/Black - Normally Open (NO)  
Gray/Black - Normally Closed (NC)

**DPS:** Green/Red - Common (C)  
Blue/Red - Normally Open (NO)  
Gray/Red - Normally Closed (NC)

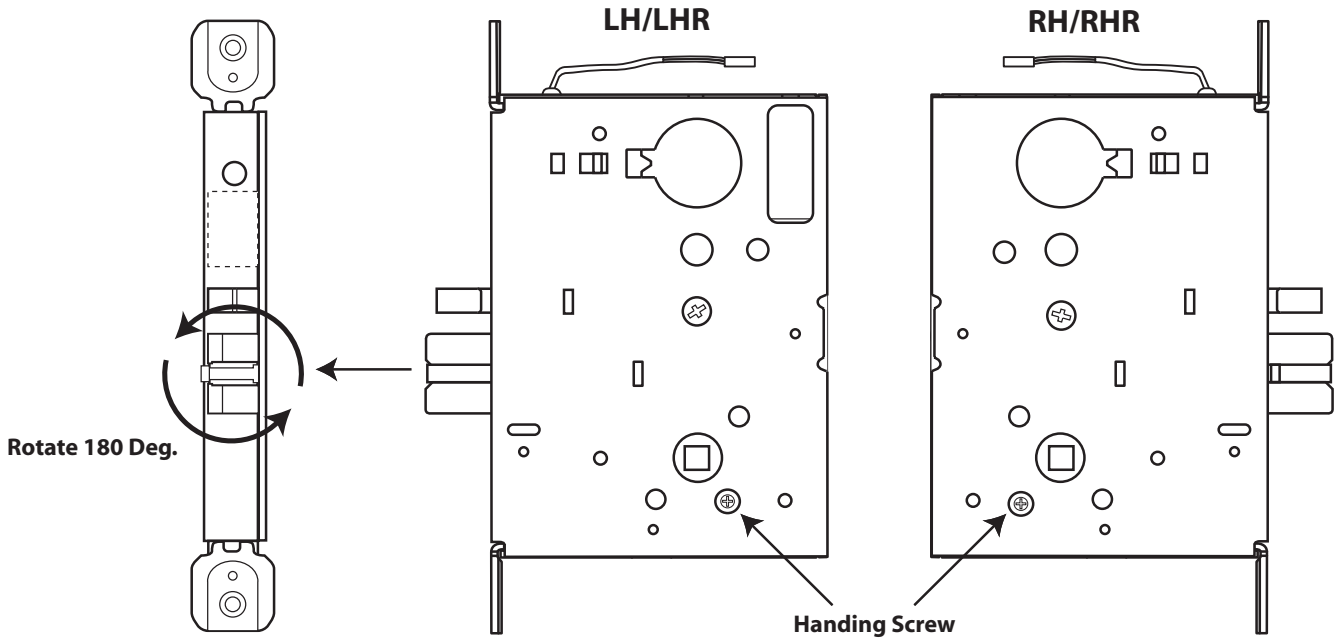


#20221\_B

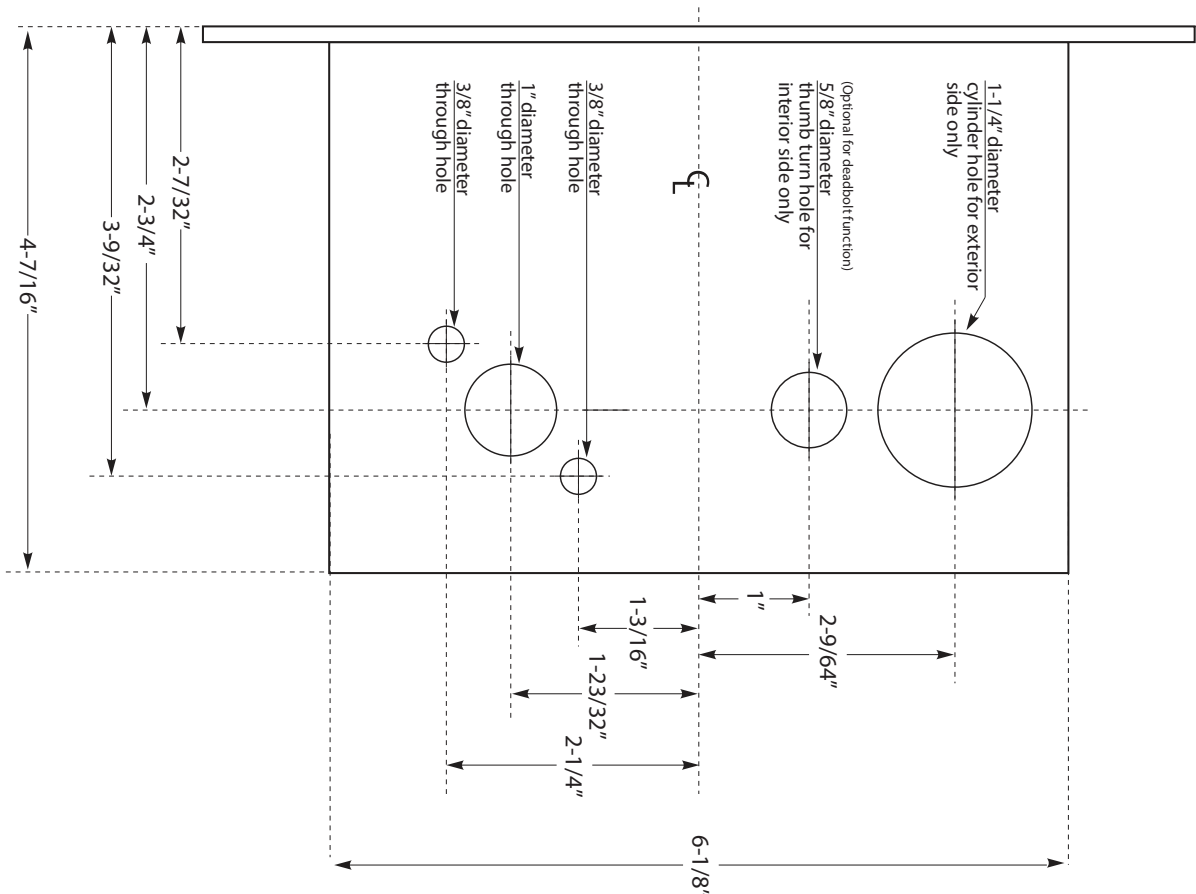
## Handing Instructions for Mortise Locks

**STEP 1:** Locate the handing screw. This screw is used to hand the handles. The Locking side is opposite the screw.

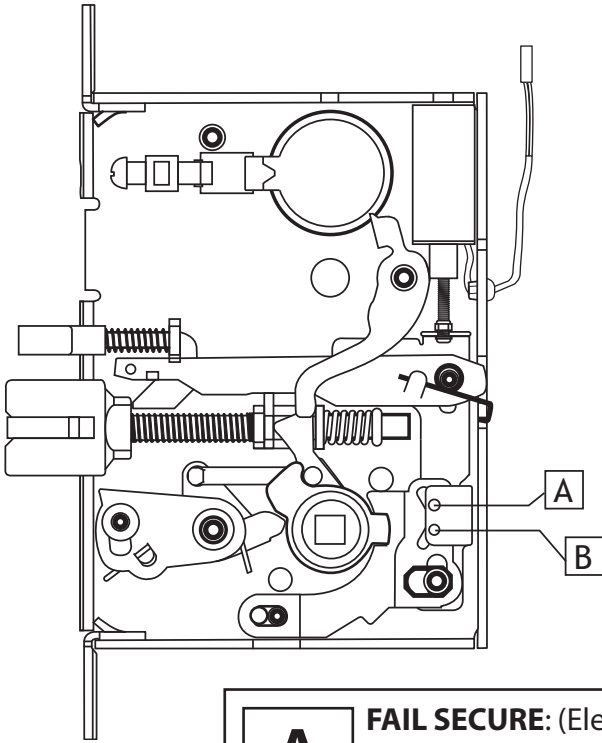
**STEP 2:** To hand the latchbolt, remove the faceplate. Pull the latchbolt out of the chassis and rotate, then release. The latchbolt is spring loaded and will return on it's own.



## Template for ML170/180/182/1480/1485 Mortise Locks



## Instructions To Set Function Fail Safe or Fail Secure for ALL ML1 Locks



**STEP 1:** Remove the (4) philips head screws holding on the cover.

**STEP 2:** Locate the holes "A" & "B" in the illustration.

**STEP 3:** Remove the metal pin with a magnetized screw driver. Make sure the pin is completely seated when re-inserted in either hole "A" or "B".

**STEP 4:** Be careful to make sure the solenoid remains in the correct position in the machined cavity in the cover. Re-install the cover with the 4 screws previously removed. The cover should lay flat on the lock chassis. If not, check to see if the lock parts are seated correctly in the chassis.

**A** **FAIL SECURE:** (Electrically Unlocked) - Make sure the pin is in hole "A"

**B** **FAIL SAFE:** (Electrically locked) - Make sure the pin is in hole "B"

**\*\*\* We recommend that this procedure be done by someone having experience with mortise locks \*\*\***