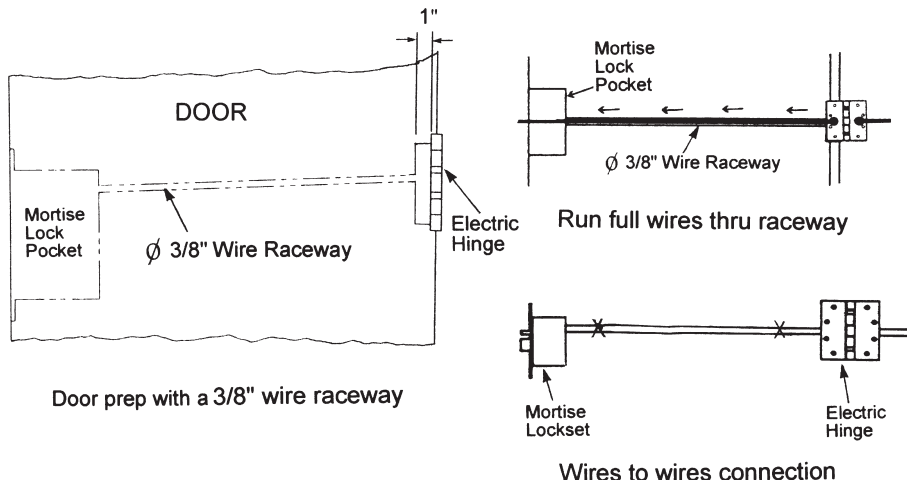


Electrified ML3000 Series Mortise Lock Grade-1

Installation Instructions

USE MANUFACTURER'S INSTRUCTIONS AND TEMPLATE FOR BASIC DOOR PREP LOCATIONS IN DOOR BEFORE PROCEED THE FOLLOWING STEPS FOR CONNECT THE ELECTRIC WIRES.

1. Door fabricator must provide a 3/8" diameter (minimum) raceway through door to allow the insertion of electrical wires running between the mortise lock pocket and the electric hinge.
2. Lengthen the electric hinge wires enough to connect to the wires of the mortise lock case side.
3. Run the full wires from the electric hinge side through the 3/8" raceway starting at the electric hinge and exiting into the mortise lock case pocket.
4. Mount the electric 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.
5. Connect the wires coming from the electric hinge to the wires exiting from the mortise lock case.
6. Slip the mortise lock case into mortise lock case pocket and pay attention not to pinch any wires.
7. Fasten mortise lock case on the door per manufacturer's instructions.
8. Connect the wires from the power supply at the electric hinge on the jamb, and the door control if any. See the figure on page 7.



Fail Safe or Fail Secure Function

Fail Safe Control (Power Lock)

When power is applied, the outside trim will lock. When power is removed, the outside trim is unlocked.

Fail Secure Control (Power Unlock)

When power is applied, the outside trim will unlock. When power is removed, the outside trim is locked.

Key Function

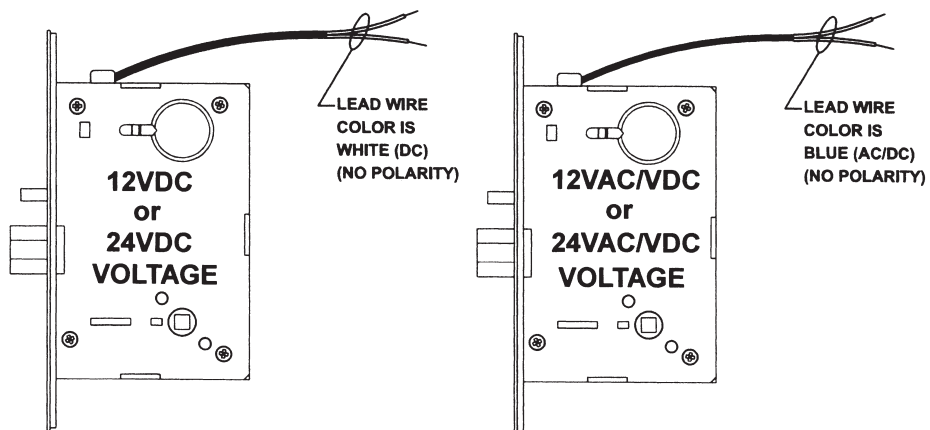
When key cylinders are installed into locks, the latchbolt may be momentarily retracted from the outside with key even if lockset is electrically locked.

Electrical Specifications

All solenoids are continuous duty type, keep operating voltage at $\pm 10\%$ of rated voltage.

<u>VOLTS</u>	<u>AMP</u>
12 VAC/VDC	.612 A
12 VDC	.612 A
24 VAC/VDC	.330 A
24 VDC	.330 A

Note: Red TY-Wrap on solenoid leads designates 12 volts.



For wiring, see page 7.

Authorized Egress Function

Mortise locks with dual authorized egress monitoring also referred to as request to exit (REX) or RX switch.

AE2 – Dual Authorized Egress

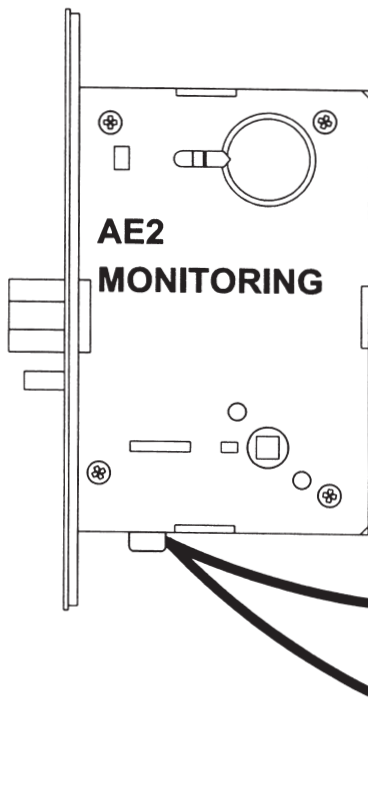
Authorized egress is a SPDT switch mounted inside the lockset. This SPDT switch monitors the activation of the inside trim "when the lockset is in the locked position only".

Electrical Specifications

SPDT Switch:

<u>VOLTS</u>	<u>CURRENT</u>
125 VAC	3 AMP
30 VDC	2 AMP

Note: Mainly used as a dry contact monitoring switch.



Wiring Diagram

For use with RH & RHR hands

Yellow wire – Common

Red wire – Normally open

Grey wire – Normally closed

For use with LH & LHR hands

Black wire – Common

Orange wire – Normally open

Violet wire – Normally closed

Note:

These wires connect to the security system, not the power supply.

LM Monitoring Function

Mortise locks with Latch Bolt monitoring (LM) function. Also referred to as main latch or bolt monitoring function.

LM – Latch Bolt Monitoring

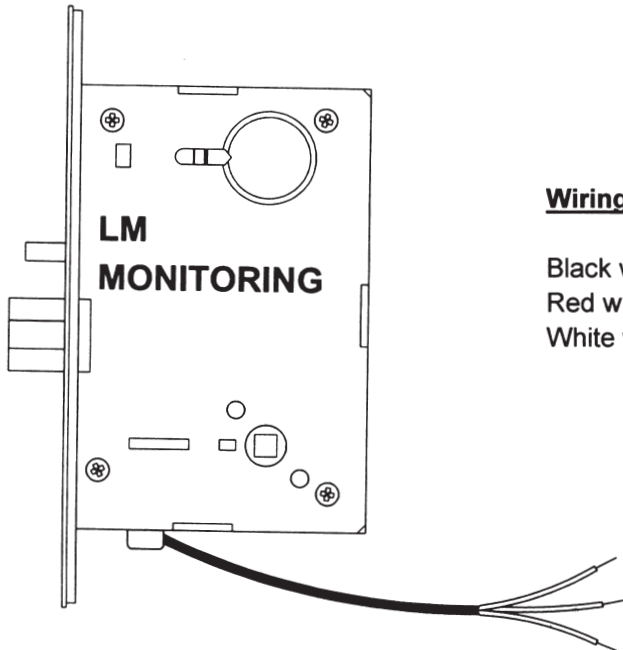
Latch Bolt monitoring is a SPDT switch mounted inside the lockset. The LM switch monitors the full extension of the main latch.

Electrical Specifications

SPDT Switch:

<u>VOLTS</u>	<u>CURRENT</u>
125 VAC	3 AMP
30 VDC	2 AMP

Note: Mainly used as a dry contact monitoring switch.



Wiring Diagram

Black wire – Common
Red wire – Closed loop secure
White wire – Open loop secure

Note:

These wires connect to the security system, not the power supply.

AM Monitoring Function

Mortise locks with dead latch monitoring (AM) function.

AM – Dead Latch Monitoring

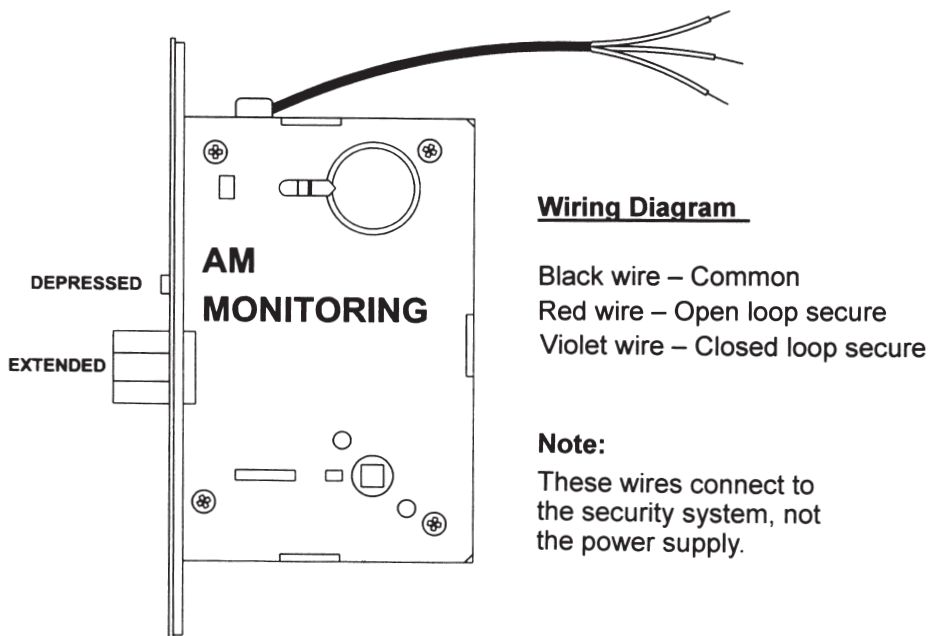
Dead latch monitoring is a SPDT switch mounted inside the lockset. AM switch monitors the position of the dead latch function of lockset. The lockset must be in the closed position with the auxiliary latch depressed and main latch extended to active switch.

Electrical Specifications

SPDT Switch:

<u>VOLTS</u>	<u>CURRENT</u>
125 VAC	3 AMP
30 VDC	2 AMP

Note: Mainly used as a dry contact monitoring switch.



DPS Monitoring Function

Mortise locks with door position monitoring (DPS) monitoring.

DPS –Door Position Monitoring

Door position monitoring is a SPDT magnetic reed switch mounted inside the lockset with the activation magnet mounted in the ANSI strike plate.

- Closed Loop Secure

When the door is secure (closed position), the monitor switch shows a contact closed state. When the door opens (unsecure position), an open contact is detected as an alarm.

- Open Loop Secure

When the door is secure (closed position), the monitor switch contacts are open, when the door opens (unsecure position), a closed contact is detected as an alarm.

Electrical Specifications

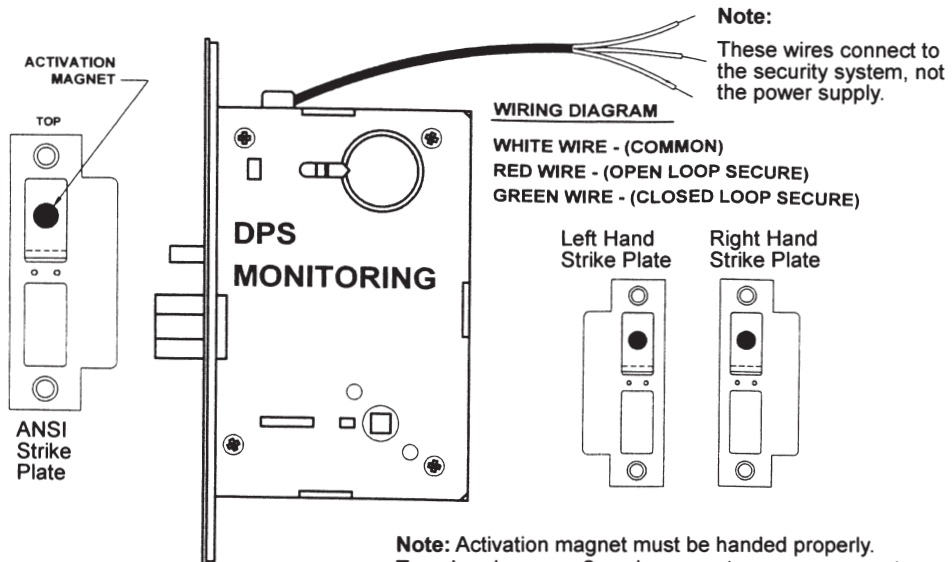
SPDT Switch:

VOLTS
28 VDC

CURRENT
.300 ma

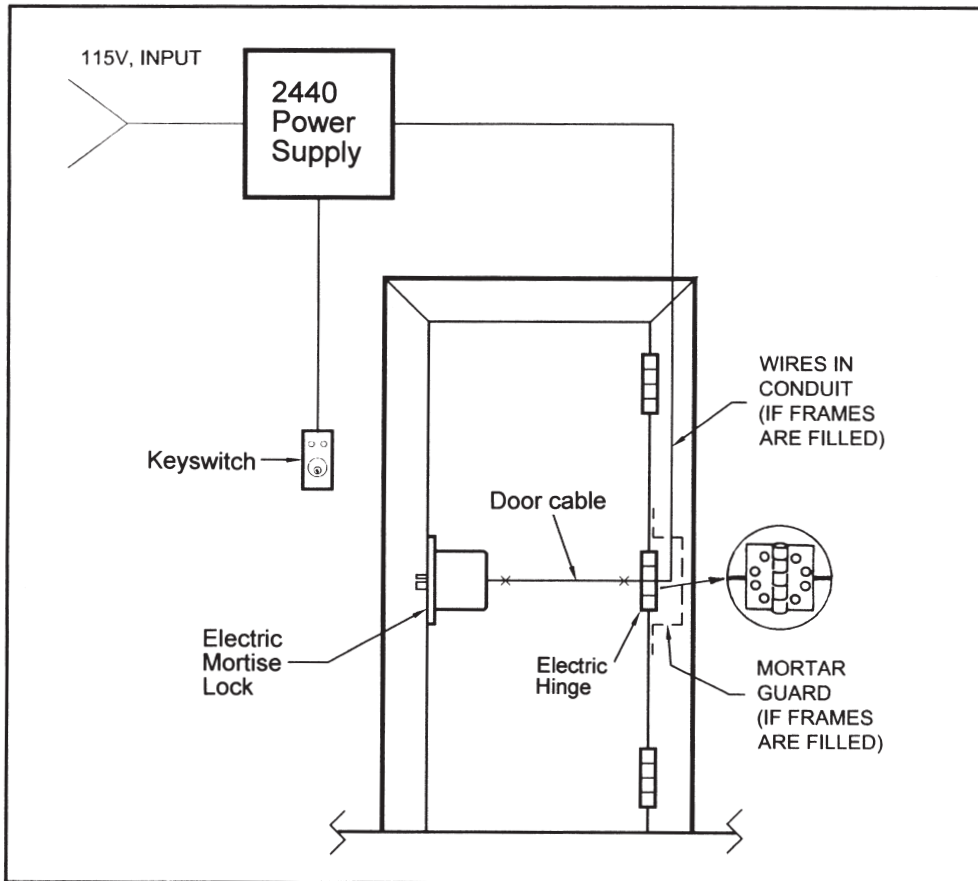
Note:

Used as a dry contact monitoring switch.



Note: Activation magnet must be handed properly. To re-hand remove 2 each screws to remove magnet and bracket assembly. Replace bracket on proper side for your handing and mount with 2 each screws. Use illustration above for proper handing.

TYPICAL WIRING



Fail Safe Control (Power on, locks the outside lever) –
The two wires on the lockcase go through the electric hinge to connect with " NO " terminals in the 2440 power supply.

Fail Secure Control (Power on, unlocks the outside lever) –
The two wires on the lockcase go through the electric hinge to connect with " NC " terminals in the 2440 power supply.

Note:

- Follow the power supply installation instructions.
- Mortise lock manufacturer is not responsible for any malfunction due to incorrect installation.

