

Installation Instructions

7000 ELR Series

Multi-Point Lock

SARGENT®

ASSA ABLOY

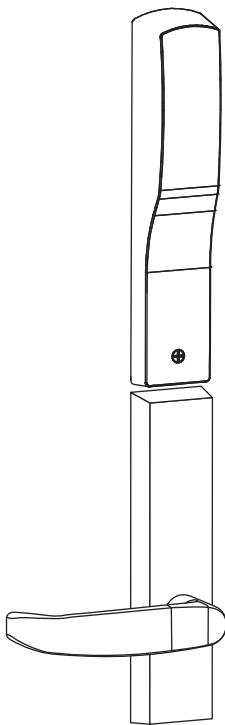


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Warnings

Changes or modifications to this unit could void the user's authority to operate the equipment. **ALWAYS** disconnect power before making any electrical or mechanical adjustments to the system. Observe precautions for handling electrostatic sensitive devices.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected
- Consult the dealer or an experienced TV technician for help

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme avec la norme NMB-003 du Canada.

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met. This Class B digital apparatus meets all requirements of the Canadian Interference Causing Equipment Regulations.

Cet appareillage numérique de la classe B répond à toutes les exigences de l'interférence canadienne causant des règlements d'équipement. L'opération est sujette aux deux conditions suivantes:

1. ce dispositif peut ne pas causer l'interférence nocive, et
2. ce dispositif doit accepter n'importe quelle interférence reçue, y compris l'interférence qui peut causer l'opération peu désirée.

Important: Any retrofit or other field modification to a fire rated opening can potentially impact the fire rating of the opening, and SARGENT Manufacturing makes no representations or warranties concerning what such impact may be in any specific situation. When retrofitting any portion of an existing fire rated opening, or specifying and installing a new fire-rated opening, please consult with a code specialist or local code official (authority having jurisdiction) to ensure compliance with all applicable codes and ratings.

General Description

The SARGENT stand alone ELR 7000 series multi point lock is designed to automatically retract the rods, concealed within the door.

1. Functions

The 7000 ELR can be configured to work in either of two modes:

POWER MODE: (see Section 9: Electrical Operation, Section I: POWER MODE) The device is not energized when locked. When electrified, the device will retract and remain in the retracted position until power is removed. Power is typically applied through a relay triggered by an access control device.

TIMER MODE: (see Section 9: Electrical Operation, Section II: TIMER MODE) The device is always energized, and retraction is triggered by a momentary or maintain switch.

In TIMER MODE: When the timer circuit is closed using a momentary switch, the device retracts, remains retracted for a set duration, and releases. The duration of the retraction is set through an onboard timer setting. When the timer circuit is closed using a maintain switch, the device retracts. The device releases when the contact is opened.

2. Important:

Caution: Disconnect all input power before servicing. Installer must be a trained and experienced service person. Wiring must comply with applicable local electrical codes, ordinances and regulations.

3. Installation Notes

Earth Ground: Required for electrostatic discharge (ESD) protection, unless already grounded through the metal door and frame.

Hardware Specifications

All Harmony Multi Point Locks

- Certified ANSI/BHMA A156.3 Grade 1
- Fire rated devices available
- UL and CUL listed for use on Fire Doors
- Multi point lock furnished for 1-3/4" doors
- Wire from EAC Panel to door must be shielded with a drain terminated at EAC Panel controller

Electronic Specifications

12VDC System

- 12VDC ELR Draw = 850mA

24VDC System

- 24VDC ELR Draw = 700mA

Hardwiring Made Easy®



Wire Gauge Charts

Total One-Way Length of Wire Run (ft)	Load Current @ 12VDC							
	1/4A	1/2A	3/4A	1A	1-1/4A	1-1/2A	2A	3A
100	20	18	16	14	14	12	12	10
150	18	16	14	12	12	12	10	—
200	16	14	12	12	10	10	—	—
250	16	14	12	10	10	10	—	—
300	16	12	12	10	10	—	—	—
400	14	12	10	—	—	—	—	—
500	14	10	10	—	—	—	—	—
750	12	10	—	—	—	—	—	—
1,000	10	—	—	—	—	—	—	—
1,500	10	—	—	—	—	—	—	—

Total One-Way Length of Wire Run (ft)	Load Current @ 24VDC							
	1/4A	1/2A	3/4A	1A	1-1/4A	1-1/2A	2A	3A
100	24	20	18	18	16	16	14	12
150	22	18	16	16	14	14	12	10
200	20	18	16	14	14	12	12	10
250	18	16	14	14	12	12	12	10
300	18	16	14	12	12	12	12	10
400	18	14	12	12	10	10	—	—
500	16	14	12	10	10	—	—	—
750	14	12	10	10	—	—	—	—
1,000	14	10	10	—	—	—	—	—
1,500	12	10	—	—	—	—	—	—

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7000 ELR Series

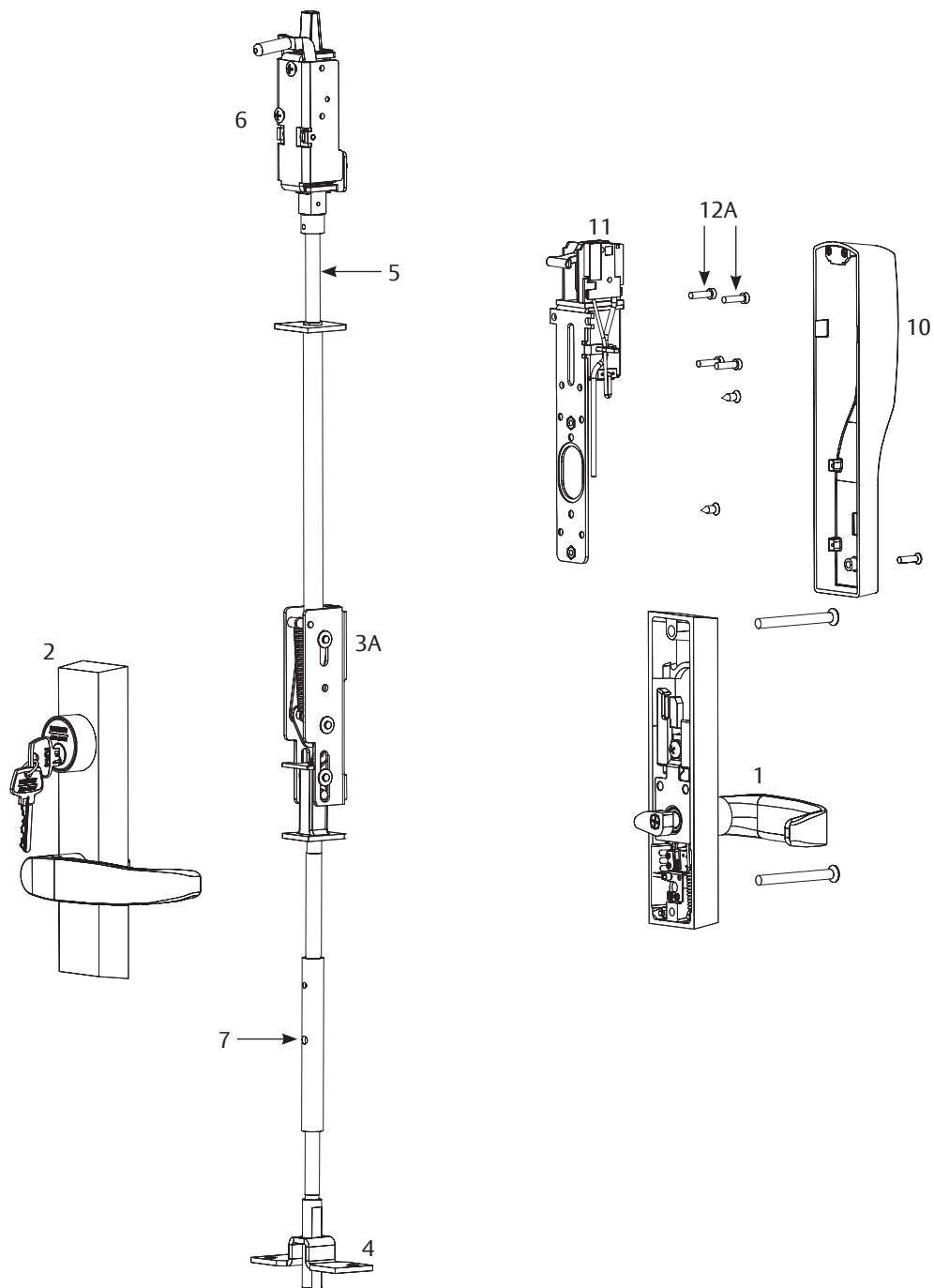
Multi-Point Lock

Installation Instructions

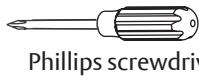
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Parts Breakdown - (See reference list on page 5).
ELR 7000 Series



Tools Required - (Same for all Series Products)



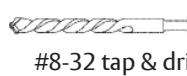
Phillips screwdriver



Slotted screwdriver



Drill with bits

#8-32 tap & drill
(for metal door applications)

Parts Breakdown - (Continued)

ITEM	PART #	Description	Req.
1	MP-7XX-2	WD/MD/AD Inside Trim Assembly	1
2	7XX-2	Outside Trim Assembly	1
3A	94-2411	MD/AD Inner Chassis Assembly	1
	94-2412	MD/AD Inner Chassis Assembly, Fire (12-)	1
	94-2414	MD/AD Monitoring Inner Chassis, Fire (53-/12-53-)	1
3B	94-2423	WD Inner Chassis Assembly	1
	94-2424	WD Monitoring Inner Case (53-)	1
4	68-0888	Bottom Case	1
5	68-5829	Top Rod and Bolt Assembly	1
6	68-5374	Top Case Assembly	1
7	96-2085	Bottom Rod and Bolt Assembly	1
8	97-0825	Standard Plate (Rectangular) (Not shown)	2
	97-0826	Sculpted Plate (Optional) (Not shown)	2
9	68-1264	WD Top Case Bracket (Not shown)	1
10	97-4056	Cover Assembly	1
10B	650	Top Strike Pack (Not shown)	1
	606	Bottom Strike Pack, Fire (12-) (HC)(WS) (Not shown)	1
	652	Top and Bottom Strike Pack, STD (Not shown)	1
11	52-4697	ELR Assembly	1
11A	94-2415	MD/AD Screw Pack (Not shown)	1
11B	94-2431	WD Screw Pack (Not shown)	1
12	52-5236	Screw Pack (Not shown)	1
12A	52-4723	MD/AD Mounting Hardware	1
12B	52-4724	WD Mounting Hardware	1

How to Specify ET Trim

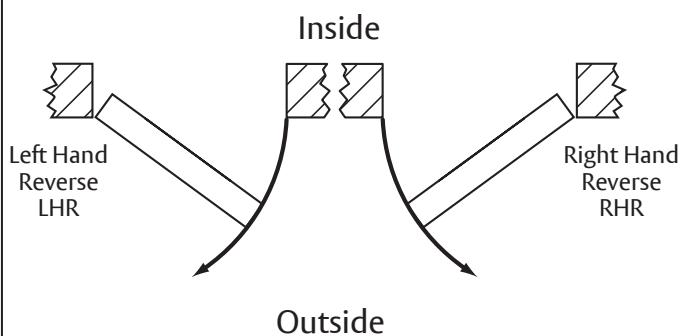
Specify: 7 for ET Series Trim, Function, Suffix, Lever, Finish and handing
(e.g., 713-2 ETL x 26D x RH).

NOTE: Suffix requirements are based on type of device to be used:

- -2 suffix is required for all 7000, WD, MD and AD.
- MP - prefix is for inside 7000 trim.

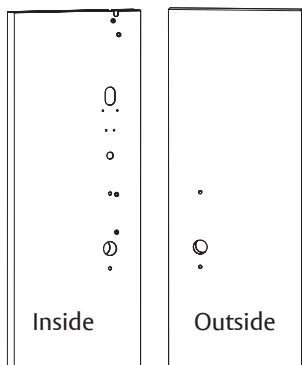
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1 Verify Hand and Bevel of Door.



- Check hand of door. The Multi-Point lock may be handed.
- Door should be fitted and hung.
- Verify box label for size of the Multi-Point lock, function and hand.

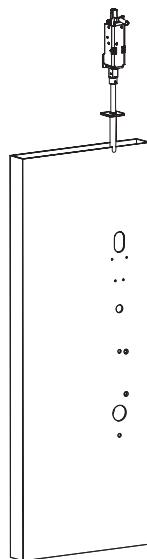
2 Door Preparation.



If door is not pre-drilled, prepare door according to the appropriate template. Refer to templates at www.sargentlock.com.

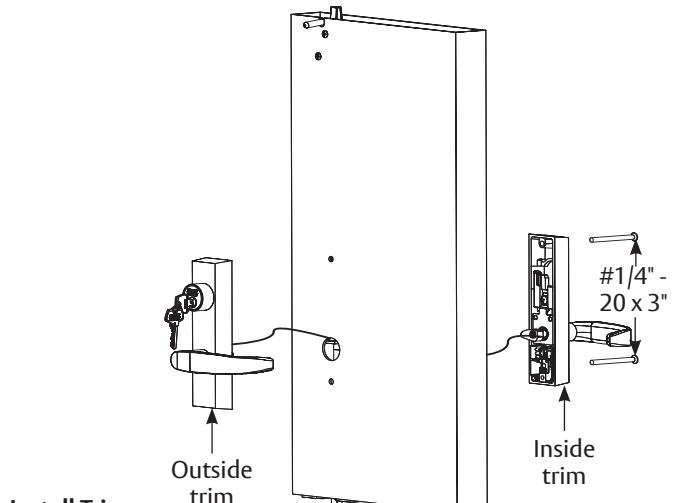
- Metal door (MD/AD): A7860
 - Templates: 4582
- Wood door (WD): A7971
 - Templates: 4624

3 Rod and Top Case Installation.



1. Refer to instruction sheet A7860 for rod and inner case installation on metal doors.
2. Refer to instruction sheet A7971 for rod and inner case installation on wood doors. (Figure 3).

4 Install Outside and Inside Trim.



1. Mount inside trim lever to outside trim lever using (2) # 1/4"-20 x 3" Phillips oval head machine screws.
2. Feed wire through the hole and attach the outside exit trim to the door.

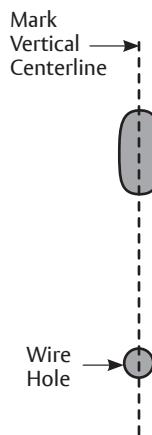
Multi-Point Lock

Installation Instructions

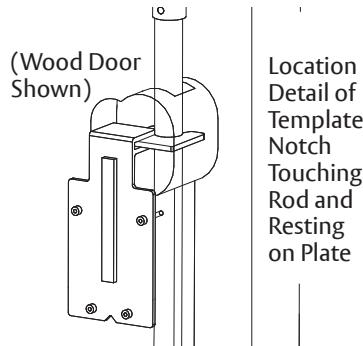
Preparation of ELR Mounting Holes (If required)

! Important: If the manufacturer has not pre-drilled the door, prepare the door per instructions below, using plastic template included with the device. Screw hole orientation is not affected by handing. (See steps 1-4). If the door is pre-drilled by the manufacturer, continue to instructions on the following page.

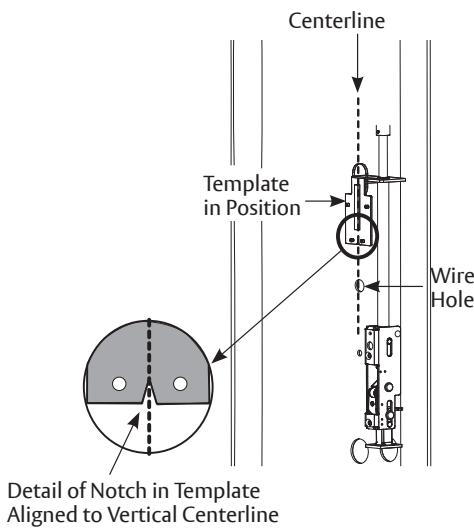
1 **Mark vertical centerline of slot and wire hole on door.**



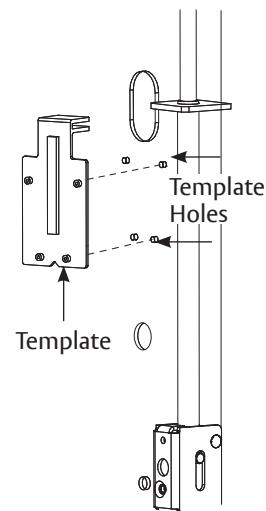
2 **Mount Temple onto plate as shown. For wood doors, ensure the template notch is touching the rod to provide lateral positioning.**



3 **Check that template is square to door.**



4 **Using template bushings as a guide, drill (4)1/16" holes.**

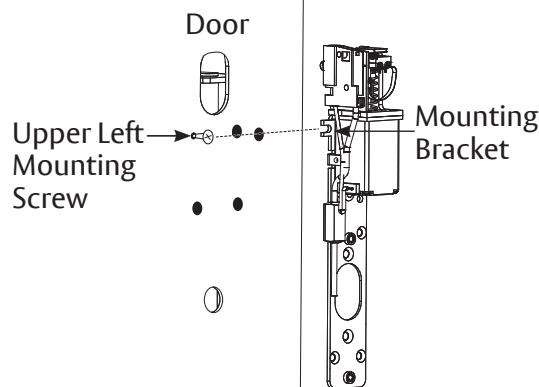


5 **Remove template.**

6 **For metal door, increase 1/16" pilot holes to #29 (.136) and tap for #8-32.**

Installation of ELR Assembly

- 1** Install the upper left mounting screw, #8-32 x 5/8" Fillister head for metal door and #8 x 5/8" self-tapping wood screw for wood doors.



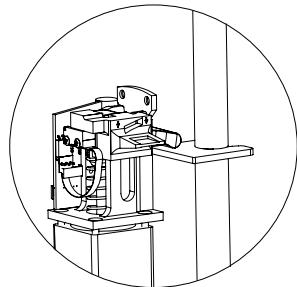
NOTE: Leave the screw loose enough to slide the ELR assembly on.

- 2** Snake the wire through the ELR assembly underneath the installed screw and secure in place.
- 3** Slide the mounting bracket of the ELR assembly underneath the installed screw and secure in place.



IMPORTANT: Ensure ELR retraction lever is resting on plate

KEEP ANGLE FIXTURE ON
UNTIL ELR IS SECURE ON
DOOR



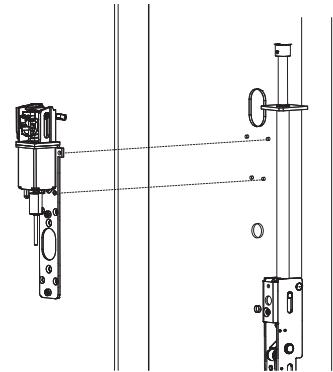
#8 - 32 x 5/8" Fillister Head Machine Screw 1/4" Self-Tapping Screw #8 x 5/8" Wood Screw



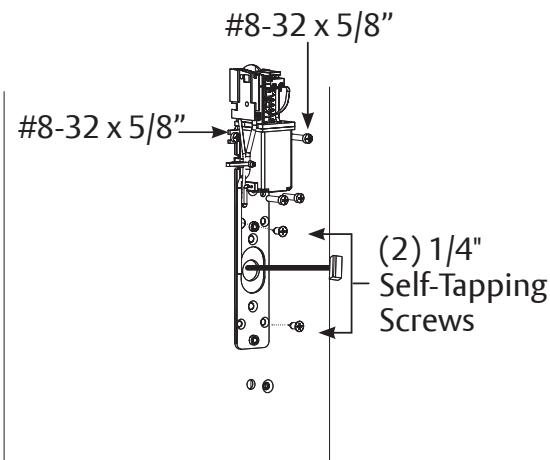
- 4** Completely tighten the upper left mounting screw.

IMPORTANT: Be careful not to pinch or disconnect the wires located in that area.

- 5** Install the remaining (3) #8-32 x 5/8" Fillister mounting screws on metal doors. Install the remaining (3) #8 x 5/8" self-tapping wood screws on wood doors.



- 6** Install (2) 1/4" self-tapping screws on either diagonal, one above Molex connector and one below.



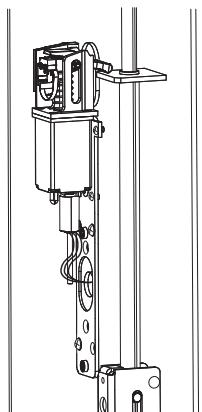
- 7** Connect the 8-pin Molex connectors.
- 8** Remove Angle fixture.

Multi-Point Lock

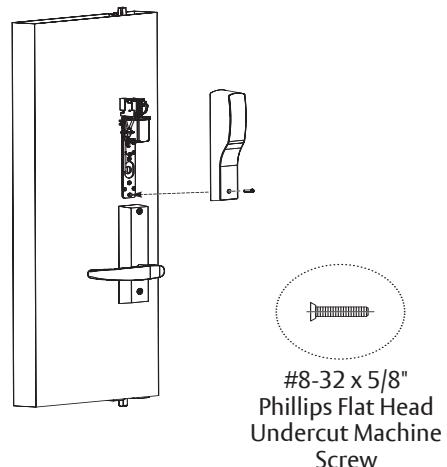
Installation Instructions

Installation of Inside Escutcheon

- 1** Position escutcheon against door by hooking the top edge on the top of the ELR assembly. Again, verify that no wires are being pinched.

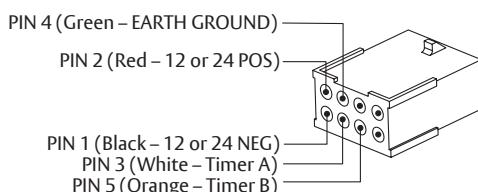
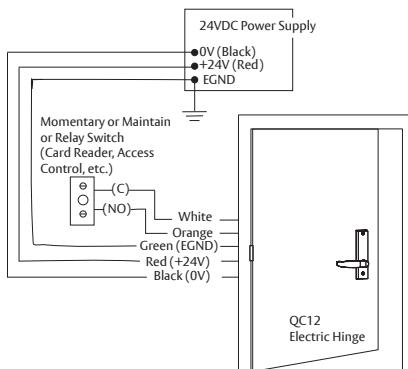


- 2** Mount inside escutcheon assembly to plate using (1) #8-32 x 5/8" Phillips flat head undercut machine screw.



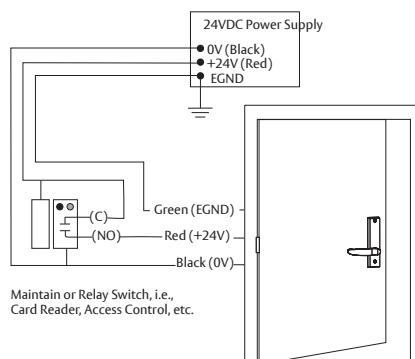
Wiring Diagrams

Product	8 PIN CONNECTOR				
	1-Black	2-Red	3-White	4-Green	5-Orange
ACCESS CONTROL DEVICES: ELR 7000 ElectroLynx Wire Color / Function Assignments					
SARGENT - ELR 7000	NEG	POS	Timer A	EGND	Timer B

**1** Timer Mode: Typical Wiring

1. For use when wiring in TIMER MODE (using the on board timer).
2. If more than 20 seconds timed delay is necessary, an external timer delay relay is required (not provided).

NOTES: 24V supply is constant in TIMER MODE.

2 Power Mode: Typical Wiring

NOTES:

- Onboard timer will not function in POWER MODE. Add external time delay if necessary.
- The switch is wired between the power supply and the load. Do not cycle the power supply.

Mechanical Operational Check

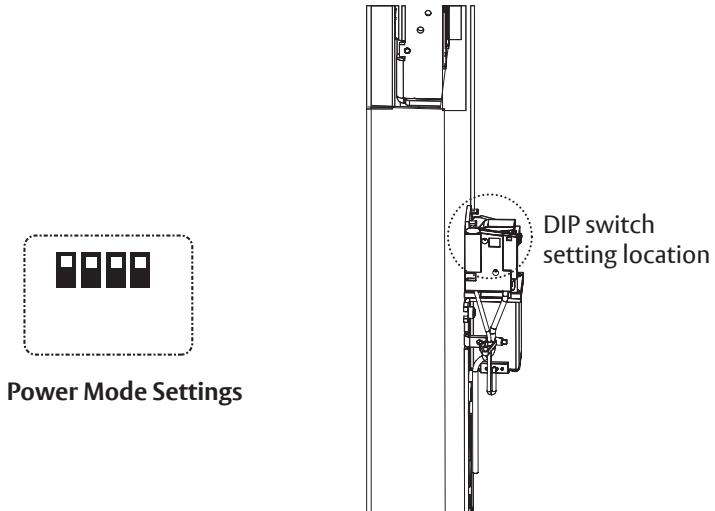
For devices without cylinders, go to "Install Outside and Inside Trim" on page 6.

- 1 For devices with cylinders, insert key into cylinder and rotate.
- 2 Rotate the lever to retract latch and rods.

Electrical Operational Check

SECTION I: POWER MODE

In this configuration, the device is not energized when locked. When energized with a 12 or 24 volt input, the latch(es) will retract and remain in the retracted position until power is removed. Power is typically applied through a relay triggered by an access control device. For installations using the onboard timer circuit, refer to SECTION II: TIMER MODE.



1 Power Mode Installation Instructions

How it works: The ELR module retracts when power is applied and releases when power is removed.

1. Mount ELR 7000 Multi-point device using instruction sheets provided.

NOTE: Ensure proper mechanical function before attempting electrical retraction:

- Verify the levers can be full rotated and the latch is fully retracted.
 - Adjust device mechanically, as required, before applying power.
2. Connect the ElectroLynx harness in the door (Figure 15, POWER MODE Installation): Plug the 8-pin ElectroLynx connector from the rail into the ElectroLynx harness or splice into non-ElectroLynx harness.
 3. Ensure all four DIP switches are in the UP position. (This enables POWER MODE).
 4. Connect the ElectroLynx harness to the hinge and secure the electric hinge to door.

NOTE: Make sure no wires are pinched or damaged in the process. Refer to detailed wiring instructions under POWER MODE wiring.

5. Apply 12V or 24V according to ELR input requirements (on next page): Confirm that the LED is blinking, that the system fully unlocks, and that all bolts clear the strikes. Troubleshoot the device if issues are observed using the steps outlined at the end of the POWER MODE section.
6. Store excess wiring under cover and assemble with provided screws. Avoid pinching wires.

2 ELR- Input Requirements

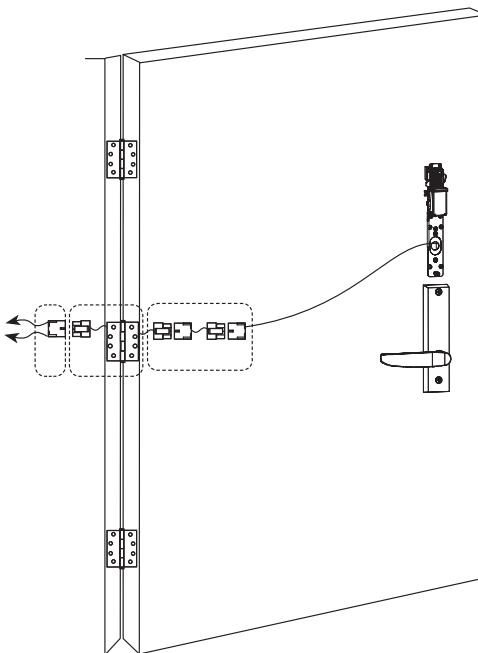
Voltage: 24VDC

- Filtered and regulated power supply
- Motor operating current: 700mA
- Motor hold current: 150mA

Voltage: 12VDC

- Filtered and regulated power supply
- Motor operating current: 850mA
- Motor hold current: 250mA

NOTE: Earth Ground is required for Electrostatic Discharge (ESD) protection unless the metal door and frame are already earth grounded; otherwise, earth ground wiring is required at pin 4.



Installation Instructions

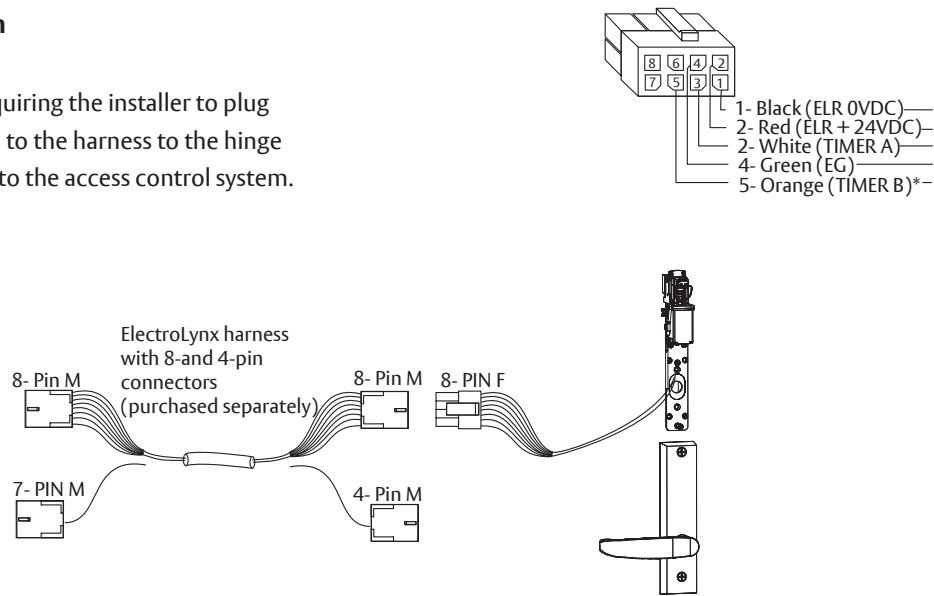
3 TIMER MODE Wiring

ElectroLynx Opening Installation

This is the simplest installation method, requiring the installer to plug the ElectroLynx connectors from the device to the harness to the hinge and then to the pigtail, which is connected to the access control system.

Requirement

- ELR 7000 Series device
- ElectroLynx connector harness (not supplied with ELR- device)
- McKinney QC ElectroLynx hinge (Type of hinge depends on the application)
- ElectroLynx door



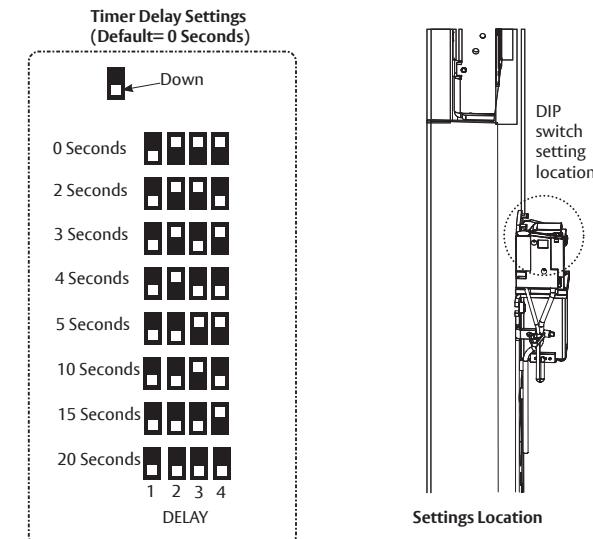
TIMER MODE Adjustment (Onboard Timer)

How it works: The 24/12 volt input is always energized and the system retracts when the timer input circuit is closed.

- When the timer circuit is closed utilizing a momentary switch, the device retracts, remains retracted for a set duration, and releases. The duration of the retraction is set using an onboard timer setting (0 - 20 second timer adjustment). The countdown begins when the rail is first retracted.
- When the timer circuit is closed using a maintain switch, the device retracts. The device releases when the circuit is re-opened.

NOTES:

- 24V/12V supply is constant in **TIMER MODE**. The duration of retraction is determined by whichever is longer: the maintain switch closure or the onboard timer delay.
- If more than 20 seconds delay is necessary (exceeding the maximum setting), an external timer delay relay is required (not provided).



4 POWER MODE Troubleshooting

Prior to electrical troubleshooting, confirm that the mechanical system properly functions, i.e., that the levers fully retract all latches and rods, and the door opens freely. Refer to applicable Sargent 7000 Series Multi-point Device product instruction sheet to correct mechanical installation issues.

IMPORTANT: *ALWAYS disconnect power before making any mechanical adjustments to the system.

The push rail does not move when 24V/12V input is applied:

- Check inputs to confirm proper voltage and wiring orientation.
- Remove cover and confirm that LED is blinking steadily when power is applied. If not, refer to LED signalling.

NOTE: When configured in POWER MODE, power is released to lock the device (LED will not blink when power is released).

- Confirm all four DIP switches are in the UP position.

The ELR module does not fully retract or push rail retracts completely and holds but does not open door

- *Verify mechanical installation and correct as necessary:
 - Is excessive force required to rotate lever?
 - Are latches fully clearing the strikes when mechanically cycled?

The ELR module retracts and unlocks electrically but does not relock:

- Physically disconnect power from rail and confirm that input is off.
- *Check for mechanical interference (e.g., warped door, lack of shims, misalignment of rail, etc.).

The ELR module behaves abnormally (multiple cycles, clicking, delayed retraction, etc.):

- Remove cover and confirm that LED is blinking steadily when power is applied. If not, refer to LED signalling.

NOTE: When configured in POWER MODE, power is released to lock the device (LED will not blink when power is released).

For applications using automatic operator(s): Door(s) fail to unlock before doors begin to open:

- Adjust timing of operator to allow 750ms for the ELR module to fully retract.

For additional installation assistance, please contact 1-800-810-WIRE (9473). When calling, please provide the following information to improve our service (provide what you can):

- Your name and contact number.
- Sargent 7000 Multi-point Device product type.
- Location and identification of the affected opening (e.g., site, building, and door number).
- SARGENT order number (located on product box), if available.
- Power supply manufacturer and rated output (i.e., voltage and current).
- Method of operation (e.g., POWER MODE).
- The number of devices connected to the power supply.
- Symptoms of problem (i.e., observed behavior).

5 LED Signalling Chart

SIGNAL	CAUSE	TROUBLESHOOTING
Dark / Unlit	Controller microprocessor is not active	Confirm connections and incoming power
Steady Flashing (GREEN)	Normal operation	Cycle device by closing the timer circuit
Solid Light (GREEN)	Input voltage is dropping out of operating range	Check wire run and power supply output
1 Flashes Followed by Pause (YELLOW)	Retractor sensor problem	Call 800-810-WIRE for assistance
2 Flashes Followed by Pause (YELLOW)	Retractor sensor problem	Call 800-810-WIRE for assistance
3 Flashes Followed by Pause (YELLOW)	Retractor sensor problem	Call 800-810-WIRE for assistance

6 TIMER MODE Troubleshooting

Prior to electrical troubleshooting, confirm that the mechanical system properly functions, i.e., that the levers fully retract all latches and rods, and the door opens freely. Refer to applicable Sargent 7000 Series Multi-point Device product instruction sheet to correct mechanical installation issues.

IMPORTANT: *ALWAYS disconnect power before making any mechanical adjustments to the system.

The push rail does not move when 24V/12V input is applied:
<ul style="list-style-type: none"> Check inputs to confirm proper voltage and wiring orientation. When configured for TIMER MODE, 24V/12V must be constantly applied and the timer circuit must be closed to cycle the device. Remove cover and confirm that LED is blinking steadily when power is applied. If not, refer to LED signalling.
NOTE: When configured in POWER MODE, power is released to lock the device (LED will not blink when power is released).
The onboard timer duration adjustment is not working:
<ul style="list-style-type: none"> Remove power when making adjustments to timer delay settings (DIP Switches). When a momentary signal is applied to the timer circuit, the circuit must be reopened for the timer to function.
The ELR module does not fully retract or ELR module retracts completely and holds but does not open door
<ul style="list-style-type: none"> *Verify mechanical installation and correct as necessary: <ul style="list-style-type: none"> Is excessive force required to rotate lever? Are latches fully clearing the strikes when mechanically cycled?
The ELR module retracts and unlocks electrically but does not release. System does not relock:
<ul style="list-style-type: none"> Confirm that the TIMER MODE contact is opened (the ELR module will remain depressed until the contact is opened and the delay has expired). Physically disconnect power from ELR (while electrically retracted) to verify if the issue is mechanical. *Check for mechanical interference (e.g., warped door, lack of shims, misalignment of rail, rod, etc.).
Rail behaves abnormally (multiple cycles, clicking, delayed retraction, etc.):
<ul style="list-style-type: none"> If a momentary contact is applied to the timer circuit, adjust the onboard timer to a longer duration. Remove cover from rail and confirm that LED is blinking steadily when power is applied. If not, refer to LED signalling.
For applications using automatic operator(s): Door(s) fail to unlock before doors begin to open:
<ul style="list-style-type: none"> Adjust timing of operator to allow 750ms for the rail to fully retract. If a momentary contact is applied to the timer circuit, adjust the onboard timer to a longer duration to prevent the device from locking prior to operator actuation.

6 TIMER MODE Troubleshooting (continued)

For additional installation assistance, please contact 1-800-810-WIRE (9473). When calling, please provide the following information to improve our service (provide what you can):

- Your name and contact number.
- Sargent 7000 Multi-point Device product type.
- Location and identification of the affected opening (e.g., site, building, and door number).
- SARGENT order number (located on product box), if available.
- Power supply manufacturer and rated output (i.e., voltage and current).
- Method of operation (e.g., **TIMER MODE**).
- The number of devices connected to the power supply.
- Symptoms of problem (i.e., observed behavior).

 **WARNING**

This product can expose you to lead which is known to the state of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65warnings.ca.gov.

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 **WARNING**

Attention Installer: Improper installation may result in damage to the product and void the factory warranty.

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