

# 8900 EMF

Surface Applied Closer (no Detector)

## Installation instructions

08281000 – 03-2020

| EN |

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# 1 Technical specifications

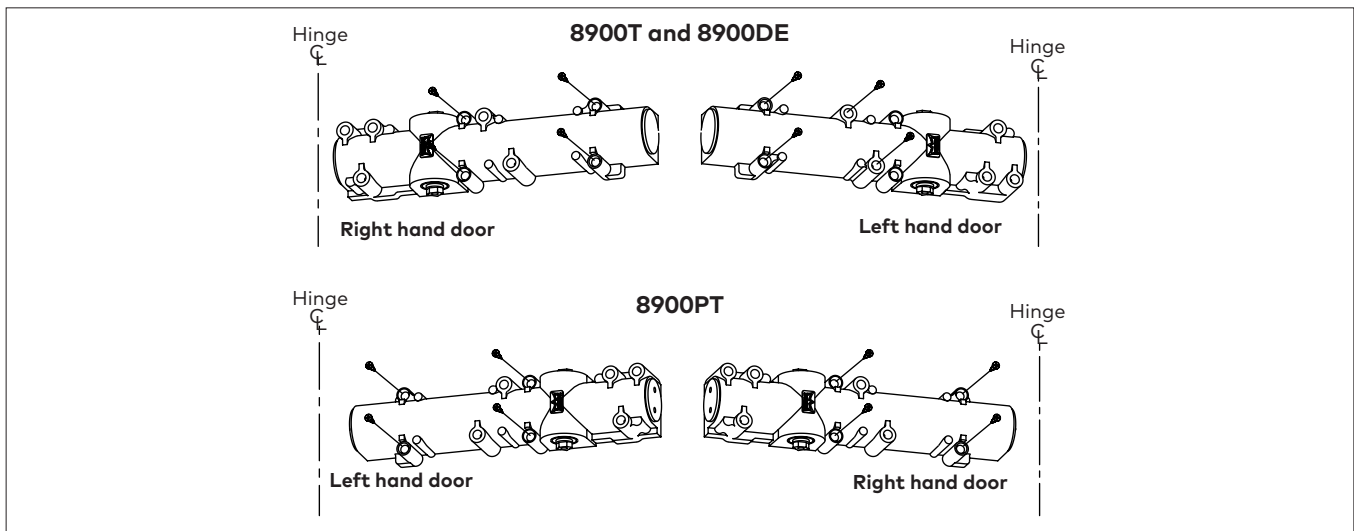
## 1.1 Preparation notes

1. Each (HO) hold open unit contains a door closer and track assembly with hold open electromagnet. The unit can be connected directly to a fire control panel.
2. Read entire instruction sheet prior to installation and refer to NFPA 72E. Standards may be obtained from THE NATIONAL PROTECTION ASSOCIATION, Batterymarch Park, Quincy, MA 02269.
3. Reference unit carton for unit mounting style and voltage.
4. Prepare door and frame for fasteners using the appropriate template. Mark, drill, and tap holes as indicated. If surface wiring is used, omit 7/8" hole for wire access.

## 2 Installation instructions

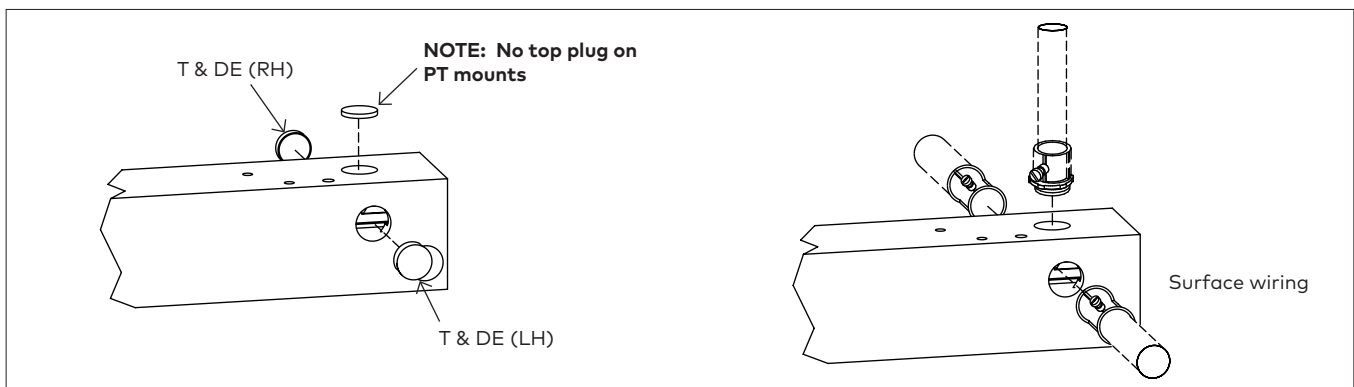
### 2.1 Install closer to door

Fig.1



### 2.2 Remove wire access plug

Fig.2

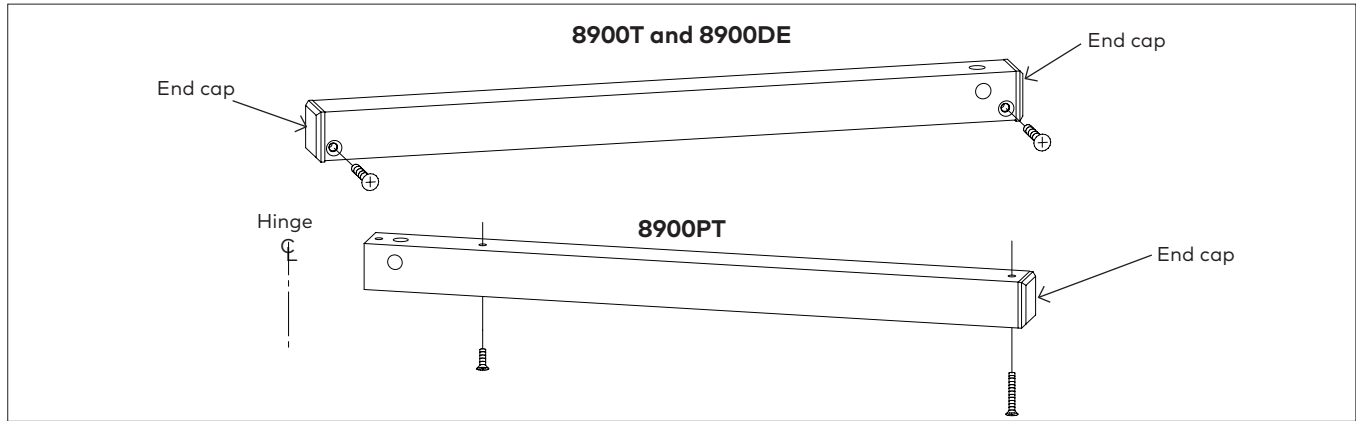


2.2.1 Remove one wire access plug according to the installation type.

NOTE: Three access wire holes on optional surface wired units only.

## 2.3 Secure track to frame

Fig.3



### 2.3.1 8900T and 8900DE:

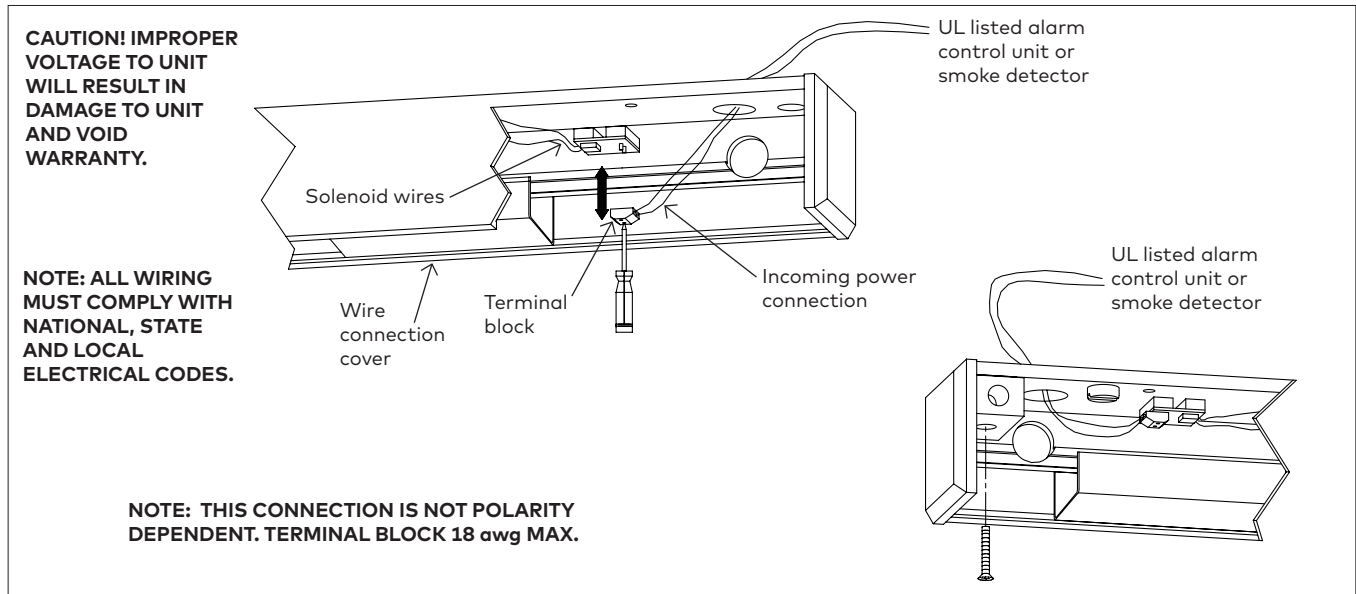
- Install the wire access plugs toward latch edge of door.
- Use (2) 1/4-20x2" metal or (2) No.14 x 2-3/4" wood screws.
- Route wires from frame through appropriate wire access hole in track, being careful not to pinch wires during installation.

### 2.3.2 8900PT:

- Install PT track to soffit with wire access plugs toward hinge.
- Install with (1) 1/4-20x1-1/4" combo screw and (1) 1/4-20x2" metal or (1) No.14 x 2-3/4" wood screw as shown.
- Route wires from frame through appropriate wire access hole in track, being careful not to pinch wires during installation. (DO NOT INSTALL END CAP ON HINGE SIDE IN THIS STEP.)

## 2.4 Set up wire connections

Fig.4



2.4.1 Slide wiring connection cover to allow access to wire connections.

2.4.2 Determine power supply and unit voltage type: 24 VAC, 24VDC.

**CAUTION! DO NOT CONNECT 120VAC TO A 24 VOLT UNIT TYPE!**

2.4.3 Connect power supply wires to terminal block as shown (Terminal Block can be removed for easier wiring).

**NOTE: Be sure to use ground screw for power supply ground wire when supplying 120 VAC.**

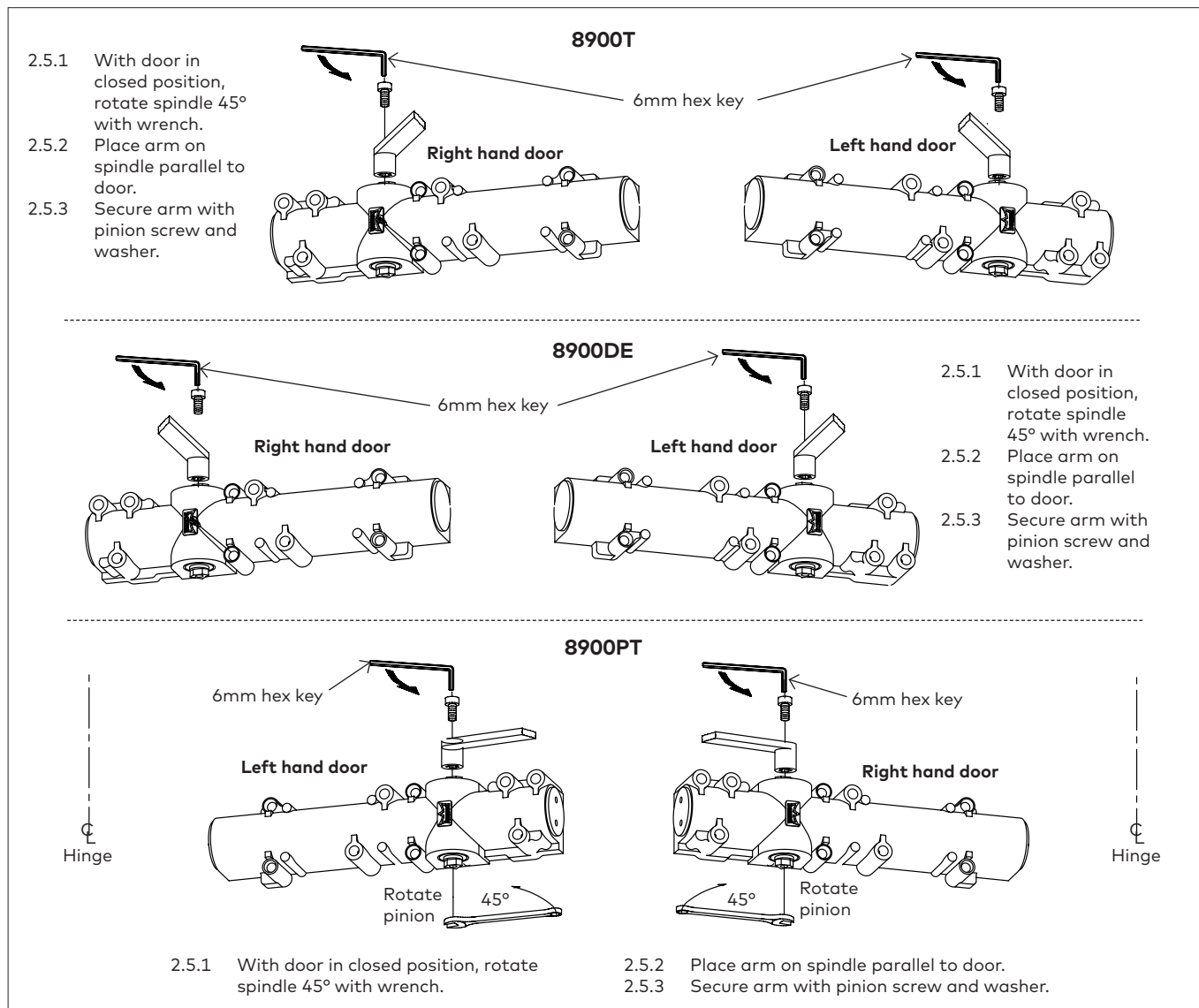
2.4.4 Slide wiring connection cover over wire connections.

2.4.5 Insert cover into track, align end cap in end of track.

2.4.6 Install remaining screw as shown using 1/4-20x2" metal or No.14 x 2-3/4" wood screw.

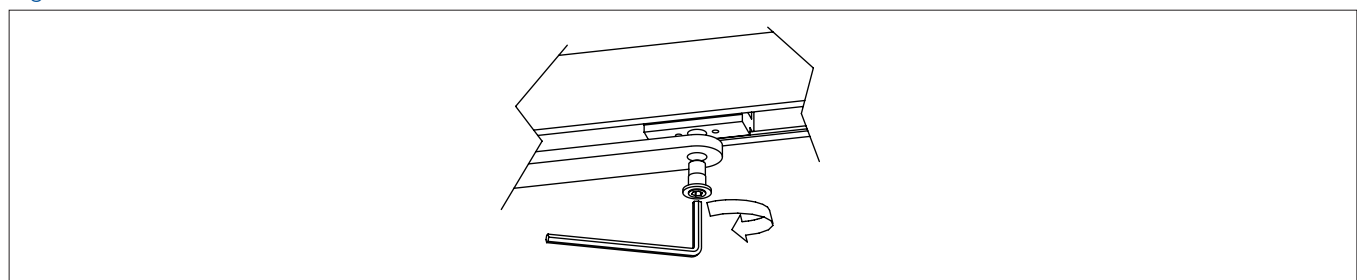
## 2.5 Secure main arm

Fig.5



## 2.6 Secure arm to slide shoe

Fig.6



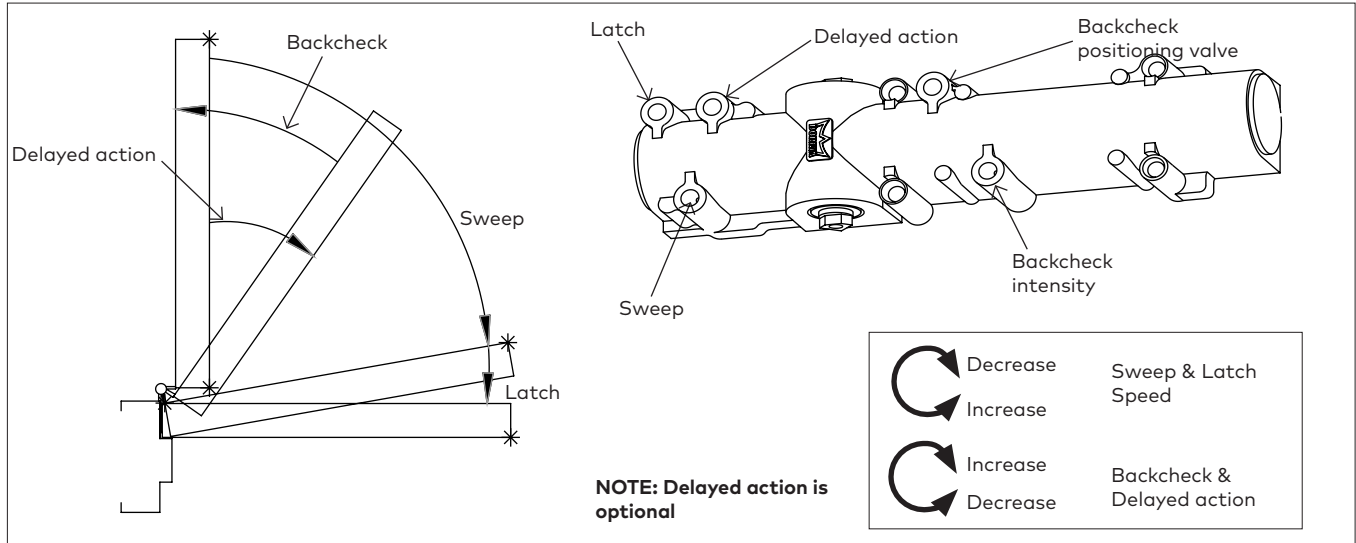
2.6.1 Secure arm to slide shoe.

2.6.2 Use 3/16" hex head wrench.

# 3 Adjustments

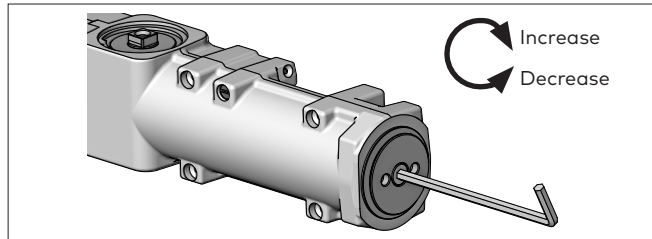
## 3.1 Adjust closing speeds: sweep, latch, backcheck, delayed action

Fig.7



## 3.2 Adjust spring force

Fig.8



**8916:** Supplied with a size 3 spring setting

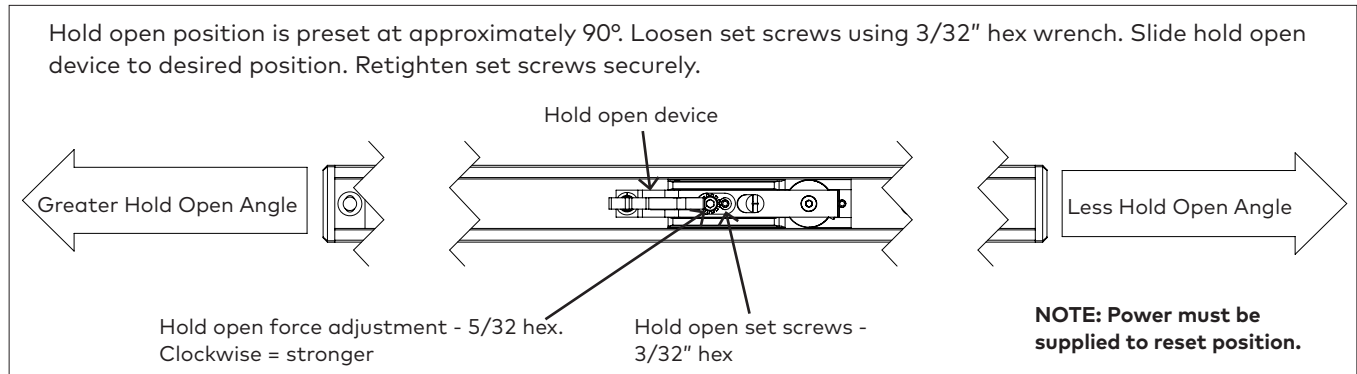
**8956:** Supplied with a size 6 spring setting.

**NOTE:**  
DO NOT ADJUST SPRING LOWER THAN SIZE 3.

	Closer size	Max door weight (lbs)	Door width	Full turns
			Interior	
8916	4	125	2'6"	0
	5	150	3'	+8
	6	200	3'6"	+16
8956	6	200	3'6"	0
	6+	250	4'	+6

### 3.3 Adjust hold open

Fig.9



### 3.4 Auxiliary stops

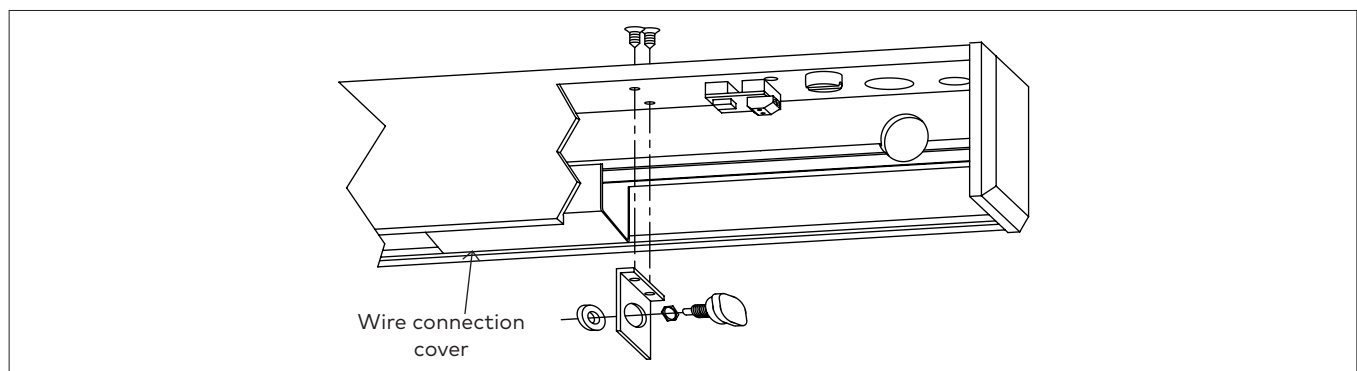
Fig.10

An auxiliary door stop (by others) must be installed to limit the maximum degree of door swing. Failure to do so may result in damage to the unit.

## 4 Bypass switch (optional)

### 4.1 Secure bypass switch

Fig.11



4.1.1 Slide wiring connection cover to allow access.

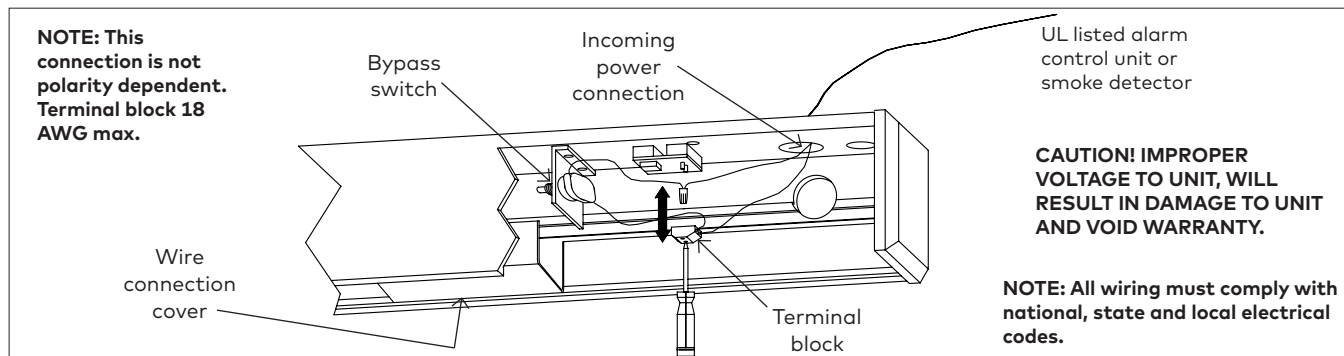
4.1.2 Attach bracket and assembly bypass switch.



# 5 Final steps

## 5.1 Determine power supply

Fig.12



5.1.1 Determine power supply and unit voltage type: 24VAC/24VDC.

**CAUTION! DO NOT CONNECT 120VAC TO A 24 VOLT UNIT TYPE!!!**

5.1.2 Connect power supply wires, one (1) to terminal block one (1) to bypass switch.

5.1.3 Connect other bypass switch wire to terminal block. (Terminal block can be removed for easier wiring).

5.1.4 Slide wiring connection cover over wire connections.

## 5.2 Final steps

1. After installation is completed, recheck all connections. Apply power to units.
2. Open door so slide block engages with hold open assembly.
3. Advise fire officials prior to testing.
4. Activate system into alarm so the electromagnet releases and the doors close.
5. If the closer is used in conjunction with a detected unit, trip the test switch of the main closer detector as explained in the test procedure for that unit. After a short time delay, the hold open electromagnet of both units will release and the doors will close. Resetting the test switch will allow the units to return to standby.

## 5.3 Unit testing

IMPORTANT: THE UNIT MUST BE TESTED AFTER THE INSTALLATION, BY THE END USER, TO ASSURE THAT THE DOOR CLOSER UNITS FUNCTION PROPERLY WHEN THE ALARM SYSTEM IS ACTIVATED. THE ENTIRE SYSTEM MUST ALSO BE TESTED PERIODICALLY AFTER THE INITIAL INSTALLATION TEST, IN CONJUNCTION WITH THE TESTING OF THE FIRE ALARM SYSTEM. THE END USER IS ALSO RESPONSIBLE FOR THE ADJUSTMENTS AND MAINTENANCE TO RETAIN THE SYSTEM IN WORKING ORDER.

## 5.4 Operation

<p><b>NORMAL:</b> The closer unit's solenoid will be energized across a normally closed alarm contact from 24VDC, 24VAC or 120VAC power supply based on unit voltage.</p>	<p><b>ELECTRICAL SPECIFICATION:</b> Voltage input - 24VDC + 10% - 15% 24VAC + 10% - 15%</p>
<p><b>FIRE ALARM:</b> When the alarm sounds, the alarm contact will open and interrupt current to the solenoid which releases the hold open allowing the door to close and latch.</p>	<p>Maximum input current - 24VDC 166mA 24VAC 166mA</p>

