



44487023

# PS902



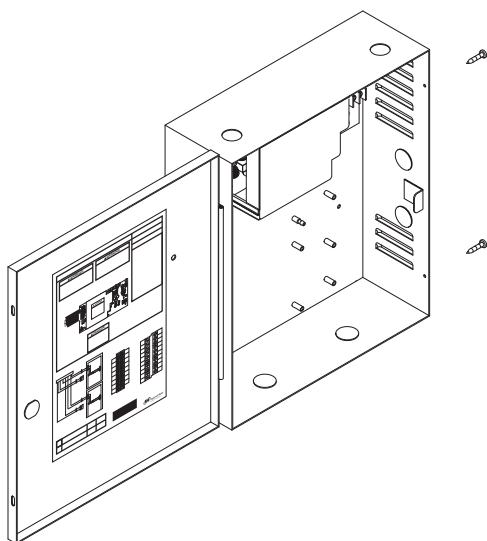
Power Supply

Installation Instructions

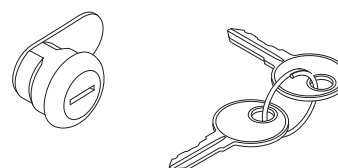


To avoid risk of electric shock, turn off AC power before installing or servicing PS902 power supply

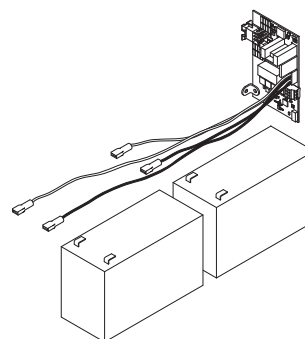
These instructions cover the following parts:



PS902 Power Supply - Pages 1-3



900-KL Keylock (optional) - Page 2



900-BB Battery Backup (optional) - Page 3

## PS902 Power Supply Specifications:

Input	120/240 VAC, 1.1 A, 50/60Hz, High Voltage Class 1 Wiring Required	
Output	2 Amp DC @ 12/24 VDC	
Enclosure	14" H x 12" W x 4" D (8 knockouts, 1/2" or 3/4" )	
Temperature Range	32°-120° F (0°- 49° C)	
Fuse	F1, T3.15A 250VAC	<div><div><div>⚠ CAUTION ⚠</div><div>For protection against risk of fire, replace fuse with same type and rating</div></div></div>
Compliance	UL 294, ULC-S318, RoHS, & FCC Part 15, Class 2 Output	
Compatible Boards (Optional, 1 board maximum)	900-2RS 900-2Q 900-4R 900-4RL 900-8F 900-8P	INST. INSTRUCTIONS - 24125007 INST. INSTRUCTIONS - 44487098 INST. INSTRUCTIONS - 44487106 INST. INSTRUCTIONS - 44487080 INST. INSTRUCTIONS - 44487106 INST. INSTRUCTIONS - 44487106
Fire Alarm Input Board (Optional)	900-FA	INST. INSTRUCTIONS - 44487072
Battery Backup Board (Optional)	900-BB	INST. INSTRUCTIONS - 44487064

## Mounting notes

The PS902 must be installed in accordance with the article 760 of the National Electrical Code or NFPA 72, Canadian Electrical Code, or any other applicable codes.

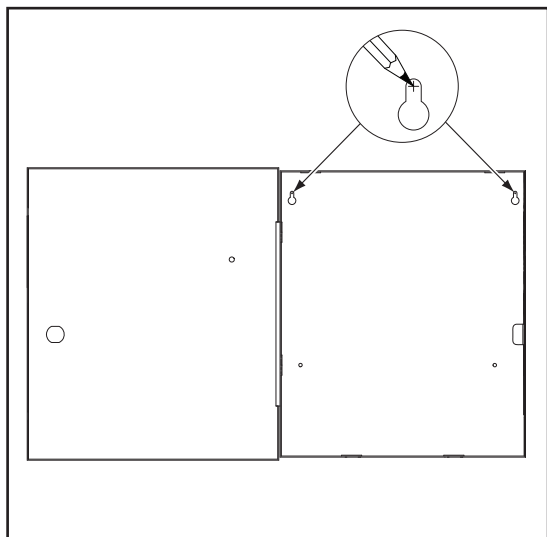
Install the PS902 indoors within the protected premises.

Check national and local codes for additional installation requirements.

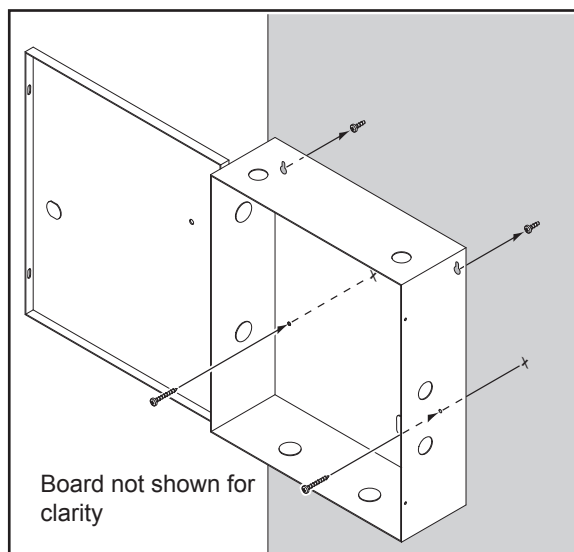
Enclosure must be firmly mounted to a solid surface using hardware suitable for the surface.

### 1 Mount power supply

#### 1a Mark 2 Top Holes



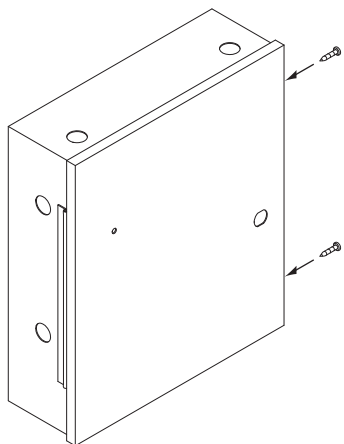
#### 1b Secure Enclosure with 4 Screws



### 2 Secure enclosure door

#### If No Keylock

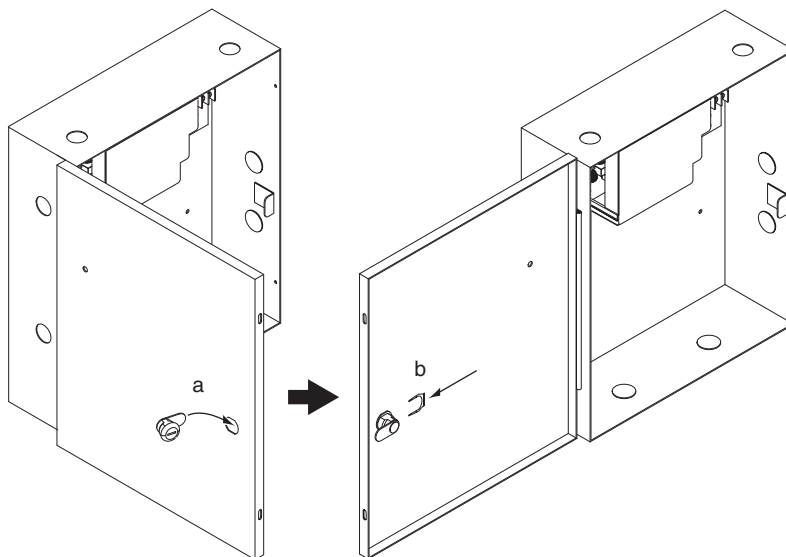
Enclosure will be secured with 2 screws as shown (done as last step)



OR

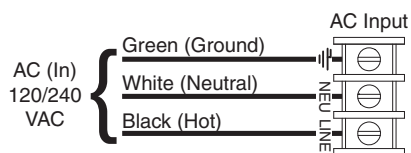
#### If Keylock

Remove knockout and insert key cylinder, then slide in clip

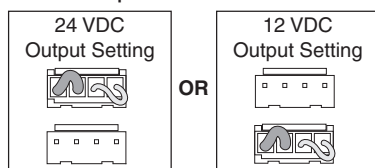


### 3 PS902 setup and testing

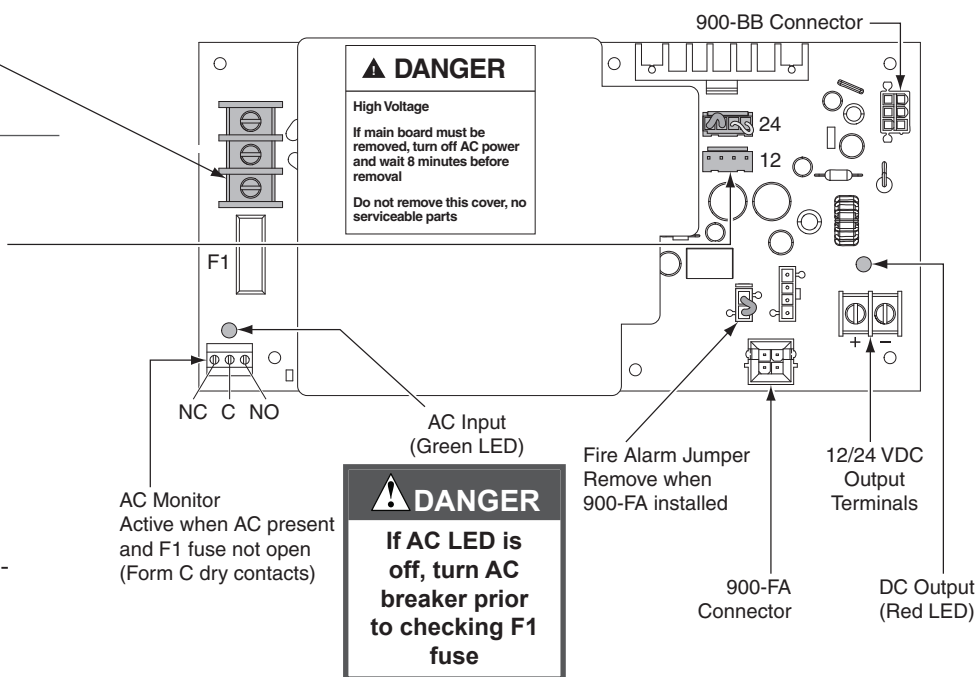
#### 3a Connect AC Wiring



#### 3b Use Jumper to Select 24 VDC or 12 VDC Output



Note: Minimum of 1/4" separation between AC and DC wiring as well as power limited and non-power limited.



### 4 Install 900-BB battery backup (If Included)

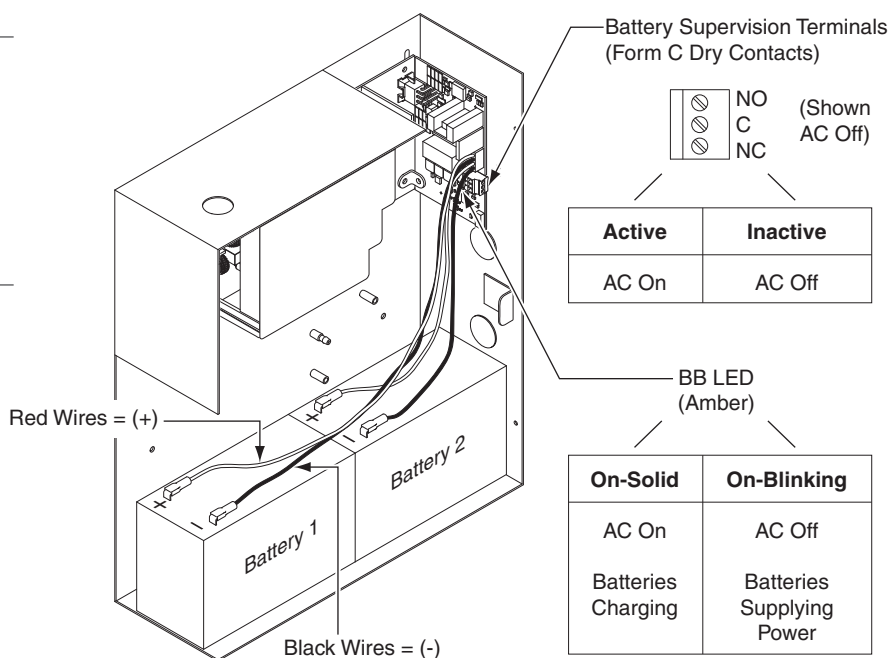
Refer to 900-BB instructions for additional info

#### 4a Place Batteries in Box with Terminals to the left

#### 4b Attach Wire from Battery Board

Red wires = (+)  
Black wire = (-)

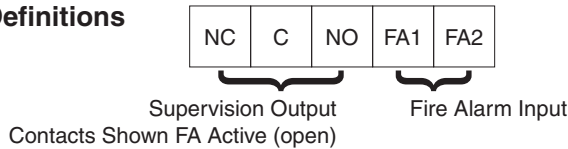
Note: allow 24 hours for batteries to fully charge



### 5 Turn on AC breaker to test power supply

- Verify AC LED is On = GREEN
- Verify DC LED is On = RED
- Verify BB LED (if applicable) is On = AMBER

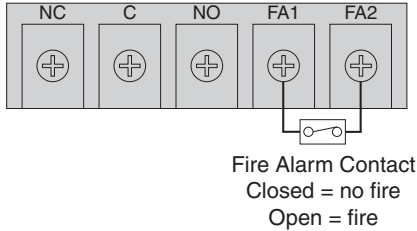
### Terminal Definitions



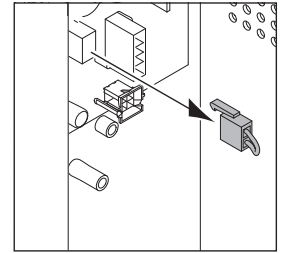
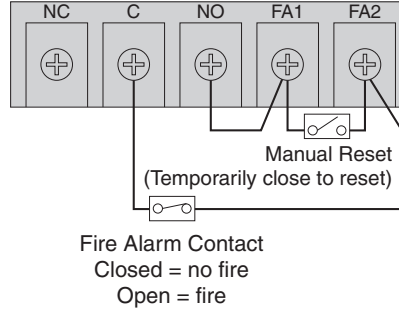
**Note:** If FA is installed on PS902:

- Verify jumper J13 is removed
- Power will be removed from PS902 when fire alarm is active

### One 900-FA Board - Automatic Reset

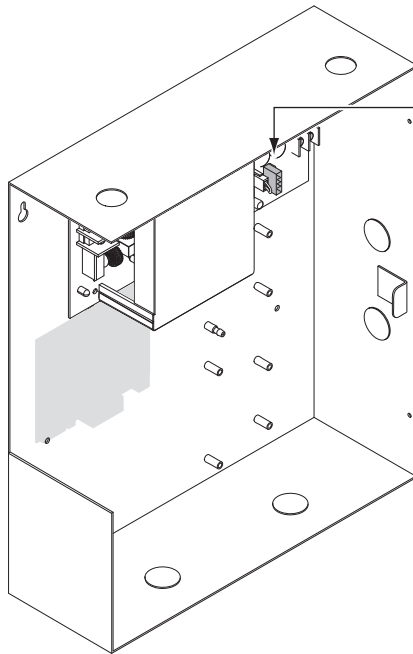


### One 900-FA Board - Manual Reset

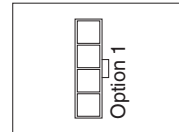


### Option Boards

Refer to appropriate instructions if any board shown below is factory-installed



### Option Board to be Plugged into Option Connector

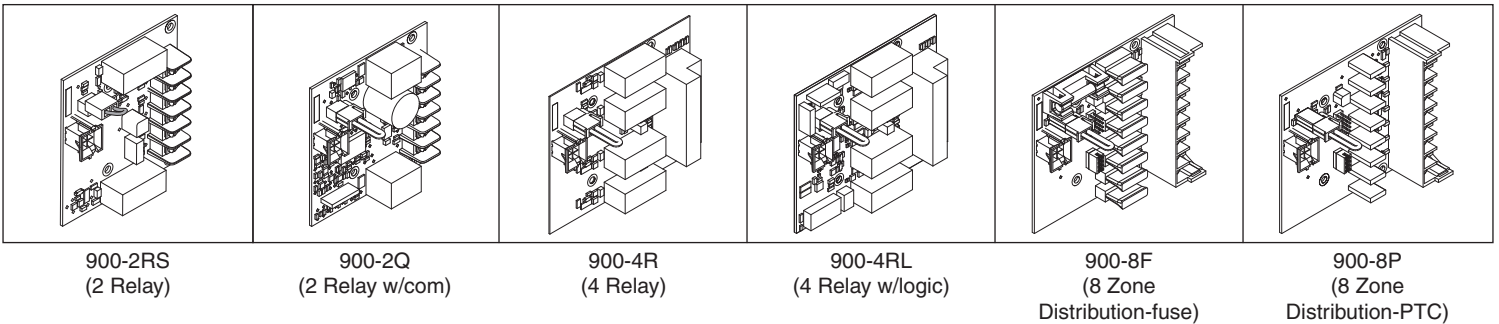


- See option board installation instructions for wiring info

### Notes:

1. When powering (2) QEL's with a PS902, both cannot be activated at the same time, they must be sequenced.
2. Latchbolt retraction of (2) sequenced QEL's requires more than 1 second to complete.
3. For double door QEL applications with auto operators, it is recommended to use a PS904, 906, or 914 power supply.

Available option boards:



**NOTE:** When installation is complete, secure enclosure door with screws (provided) or keylock

### Customer Service

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24125007

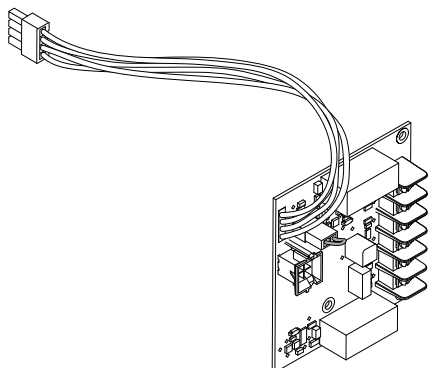
# 900-2RS



Option Board

Installation Instructions

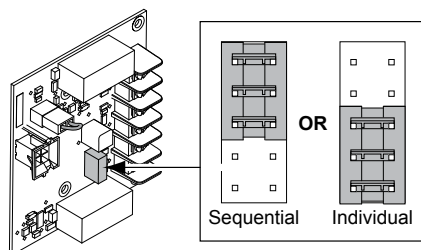
## 900-2RS Specifications:



Inputs I1 , I2	Dry contacts required (Closed = Active) Connect control contacts between SC (Signal Common) and any input
Outputs o1 , o2	<ul style="list-style-type: none"><li>• 12/24VDC, 3A (wet) when AC powered</li><li>• 9.6-13.2VDC or 19.2-26.4VDC when battery powered</li><li>• May be used with PS914 to power EL device at 24VDC, 16A, 300ms</li><li>• Maximum load cannot exceed power supply ratings or 3A for outputs combined</li></ul>
Board Input Power	Board requires 0.1A max. of power supply output current to operate
Temperature Range	32°-120° F (0°- 49° C)
Compliance	UL 294, ULC-S318, RoHS, & FCC Part 15
Fire Alarm Input	Accepts 900-FA Fire Alarm Board (Optional)

## 1 INSTALL 900-2RS OPTION BOARD (IF REQUIRED)

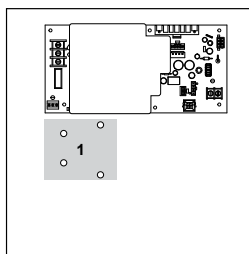
### 1a Use Jumper to Select Function



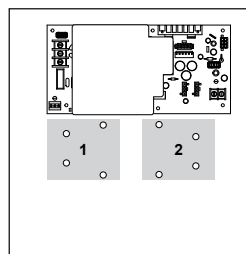
#### ⚠ DANGER:

Ensure AC breaker is turned off when installing or wiring option boards

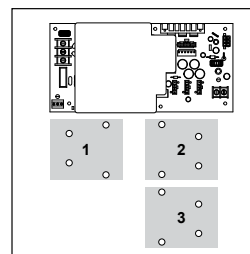
### 1b Review Available 900 series Option Board Mounting Locations (Gray)



PS902

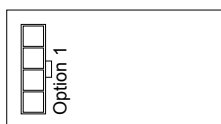


PS904  
PS914

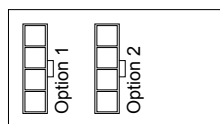


PS906

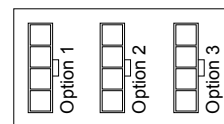
### 1c Plug 2RS Cable into any Available Option Connector



PS902  
1 Board



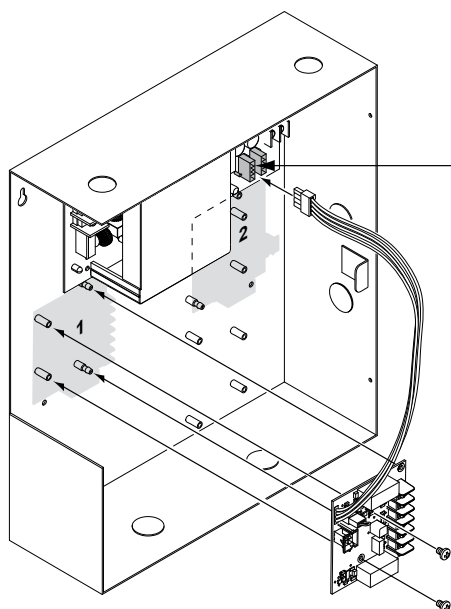
PS904, 914  
2 Boards



PS906  
3 Boards

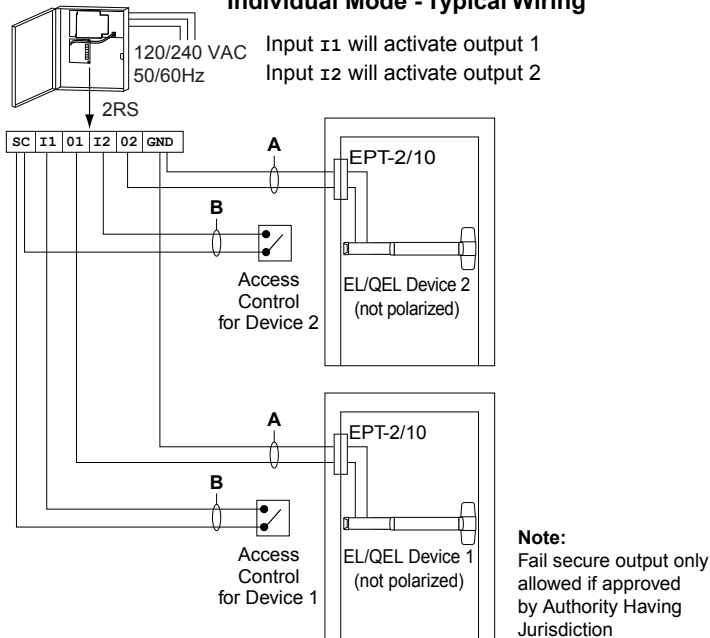
### 1d Secure Board with Screws

- Notes:**
1. 24VDC output setting required when EL or QEL device connected
  2. If installing board in location 2 or 3, rotate board 180°
  3. When powering (2) QEL's with a PS902, both cannot be activated at the same time, they must be sequenced.
  4. Latchbolt retraction of (2) sequenced QEL's requires more than 1 second to complete.
  5. For double door QEL applications with auto operators, it is recommended to use a PS904, 906, or 914 power supply.

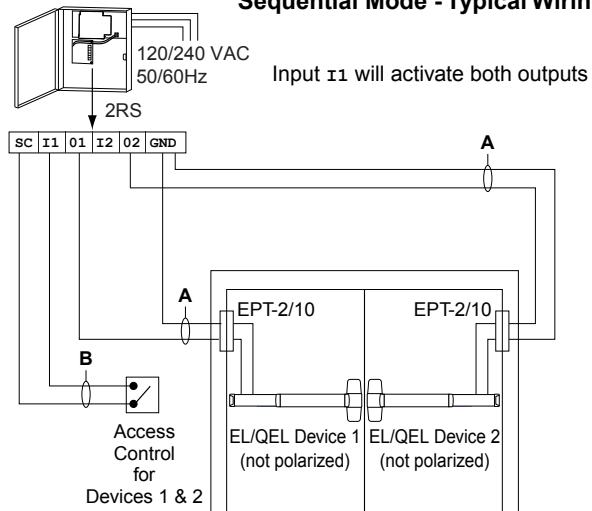


## 2 CONNECT WIRING TO 900-2RS OPTION BOARD

### Individual Mode - Typical Wiring



### Sequential Mode - Typical Wiring



### Wire Table

Device Type	Wire Ga (AWG)	Distance (max. ft.)*	
		Output A	Input B
EL Exit Device with EPT or Door Loop (PS914 Power Supply Required)	12	200	
	14	100	
EL Exit Device with Electric Hinge/Pivot (PS914 Power Supply Required)	12	150	
	14	75	
QEL Exit Device with EPT or Electric Hinge	12	800	
	14	500	
	16	320	
	18	200	
Other Low Current Devices (.5 Amps DC)	14	500	
	18	200	
Other Low Current Devices (.3 Amps DC)	14	850	
	18	340	
Access Control Device	18		1200

\* Wiring allows for 10% voltage drop at device current at 12 or 24VDC  
Max. ft = one way distance between power supply and device

### Customer Service

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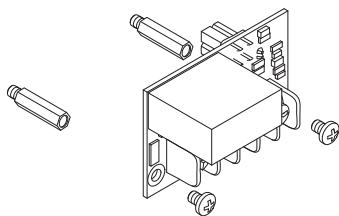


44487072

# 900-FA Fire Alarm Input



## Installation Instructions

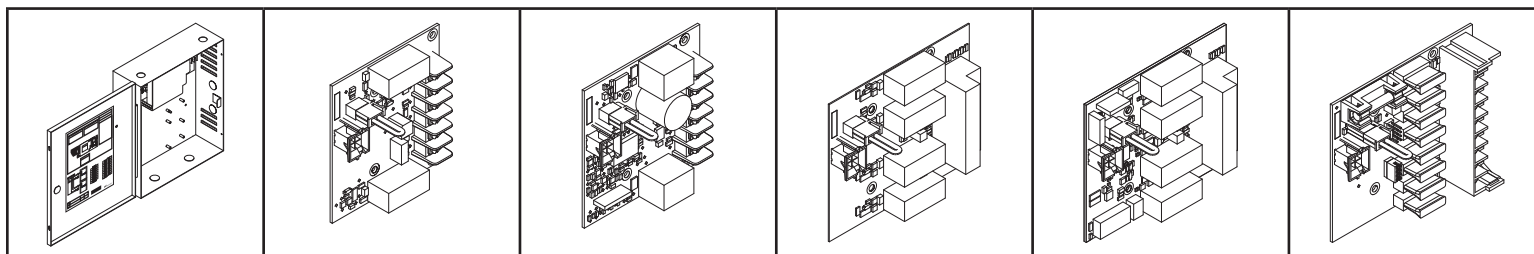


The 900-FA Fire Alarm board can be installed on any one of the following power supply or option boards (refer to installation instructions):

Input (Fire Alarm)	Dry contacts required (Closed = no fire alarm) Connect control contacts between FA1 and FA2
Output (Supervision)	30VDC, 1A resistive dry contact
Board Input Power	Board requires 0.05A max. of power supply output current to operate
Temperature Range	32°-120° F (0°- 49° C)
Compliance	UL 294, ULC-S318, RoHS, & FCC Part 15

### WARNING

To avoid risk of electric shock, turn off AC power to power supply before installing or wiring 900-FA board. In the event a fire alarm is active, this board will remove power from the PS902 DC output and any 900-series option board output.



PS902 Power Supply

900 2RS (2 relay)

900-2Q  
(2 Relay w/com)

900-4R (4 Relay)

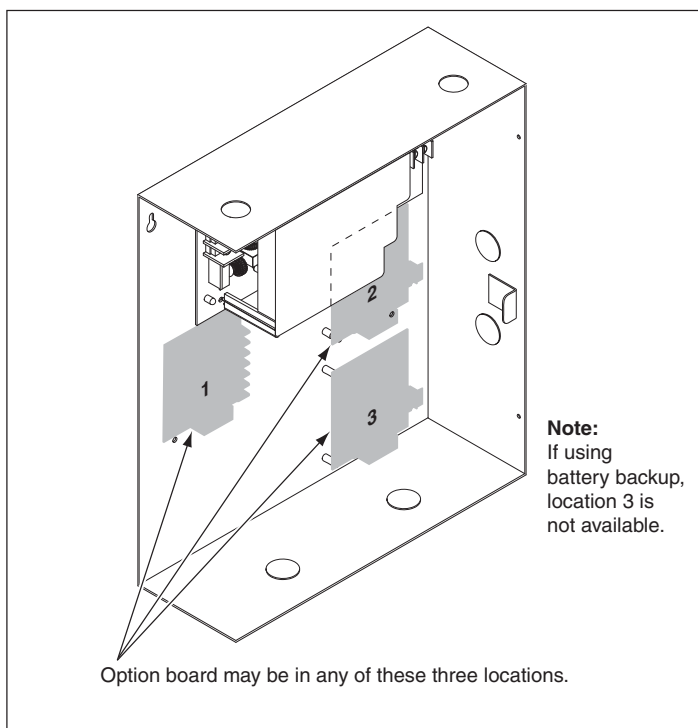
900-4RL  
(4 Relay w/logic)

900-8F (8 Zone,  
Distribution-fuse)  
900-8P (8 Zone,  
Distribution-PTC)

- If 900-FA was factory installed, go to step 2
- If installing to option board, go to 1a
- If installing to PS902 main board, go to 1b

## 1a If installing to option board

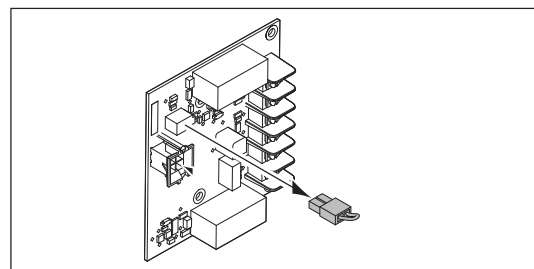
### Choose Option Board where 900-FA is to be Installed



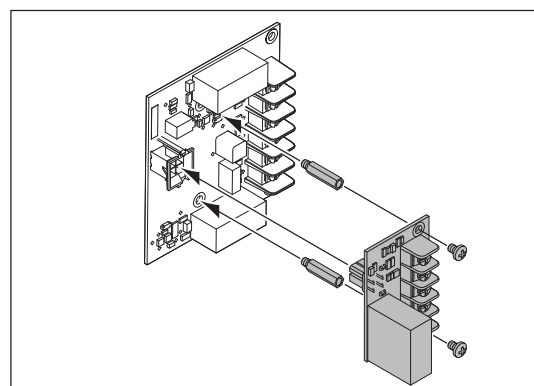
Option board may be in any of these three locations.

**Note:**  
If using  
battery backup,  
location 3 is  
not available.

### Remove Jumper from Option Board



### Install 900-FA to Option Board

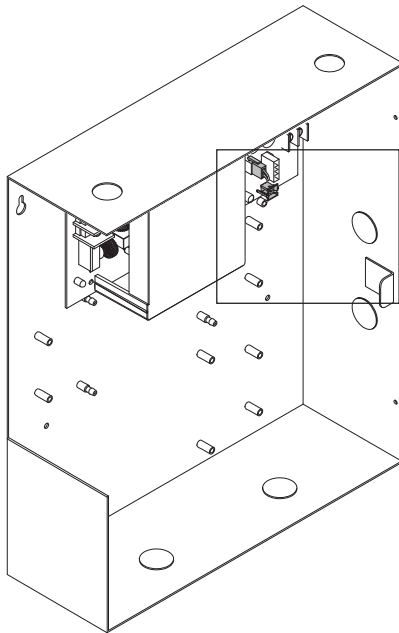


### Customer Service

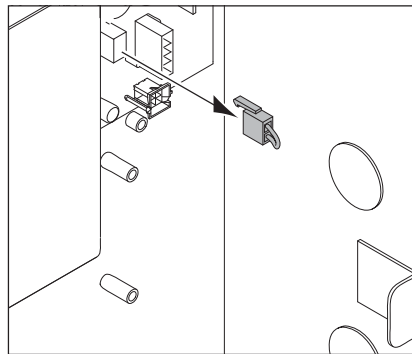
1-877-671-7011

[www.allegion.com](http://www.allegion.com)

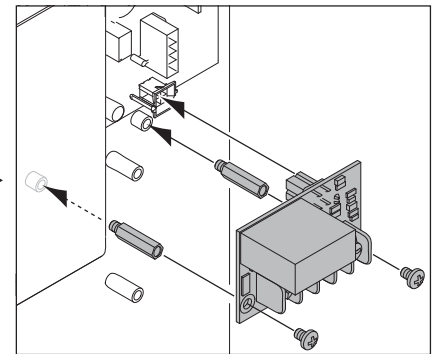
## 1b If installing to PS902 main board



**Remove Jumper**



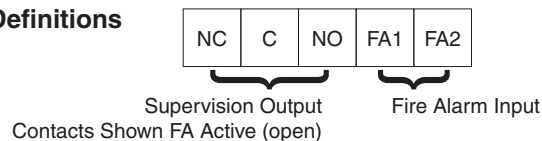
**Install 900-FA Here**



**Note:** Complete power failure shall result in a fail safe operation. When connected to a fire alarm releasing control unit, total loss of power for the locking mechanisms shall be configured for a fail safe operation.

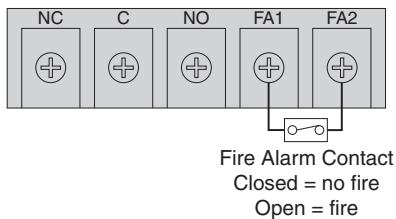
## 2 900-FA wiring

### Terminal Definitions

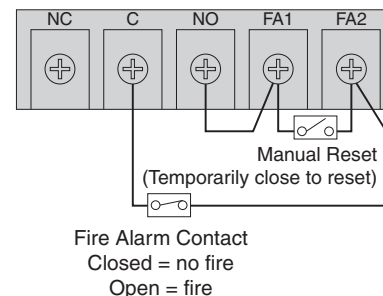


**Note:** Use 18 gauge wire for all wiring. Wire length dependent on physical layout.

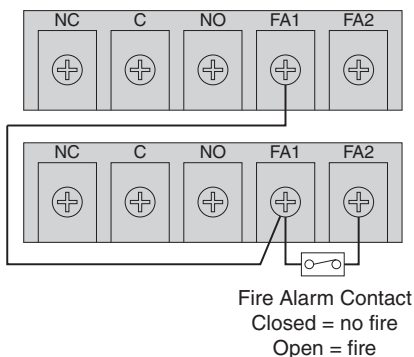
### One 900-FA Board - Automatic Reset



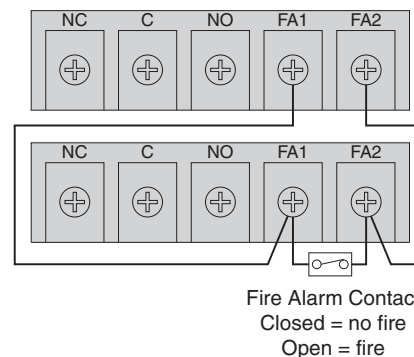
### One 900-FA Board - Manual Reset



### Two 900-FA Boards on one power supply Automatic Reset



### Two 900-FA Boards on two power supplies Automatic Reset



**NOTE: WHEN INSTALLATION IS COMPLETE, SECURE ENCLOSURE DOOR WITH SCREWS OR KEYLOCK**