PS914

VON DUPRIN®

⚠ **DANGER** ⚠
To avoid risk of electric shock, turn off AC power before installing or servicing PS914 power supply

These instructions cover the following parts:

PS914 Power Supply Pages 1-3	900-KL Keylock (optional) Page 2	900-BB Battery Backup (optional) Page 3	900-2RS (optional) - Page 4 (2 Zone EL Control - Individual/Sequential)
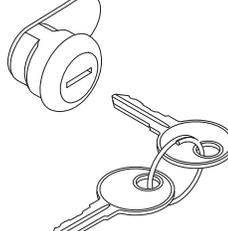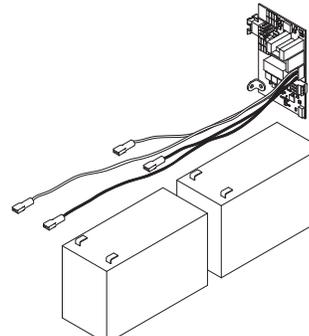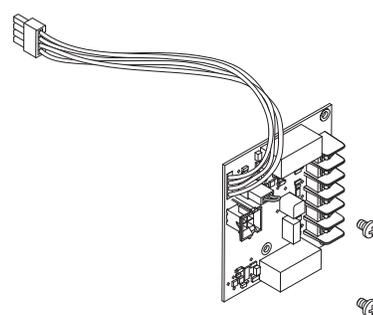
PS914 Power Supply Specifications:

Input	120/240 VAC, 1.4 A, 50/60Hz, High Voltage Class 1 Wiring Required
Output	4 Amp DC @ 12/24 VDC
	May be used to power Von Duprin & Falcon EL device at 24VDC, 16A, 300ms
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, T6.3A 250 VAC
Compliance	UL 294, ULC-S318, RoHS, & FCC Part 15, Class 2 Output
Compatible Boards (Optional, 2 boards maximum)	900-2RS — INST. INSTRUCTIONS - 44487056 900-2Q — INST. INSTRUCTIONS - 44487098 900-4R — INST. INSTRUCTIONS - 44487106 900-4RL — INST. INSTRUCTIONS - 44487080 900-8F — INST. INSTRUCTIONS - 44487106 900-8P — INST. INSTRUCTIONS - 44487106
Fire Alarm Input Board (Optional)	900-FA (Requires one option board above) INST. INSTRUCTIONS - 44487072
Battery Backup Board (Optional)	900-BB INST. INSTRUCTIONS - 44487064
AC Monitor Output	Form C Contacts, 30 VDC, 1 Amp, Resistive Load

Within the Fuse row:

⚠ **CAUTION** ⚠
For protection against risk of fire, replace fuse with same type and rating

900-2RS Specifications:

Inputs `I1`,`I2`	Dry contacts required (Closed = Active)
	Connect control contacts between SC (Signal Common) and any input
Outputs `O1`,`O2`	• 12/24VDC, 3A (wet) when AC powered • 9.6-13.2VDC or 19.2-26.4VDC when battery powered
	• May be used with PS914 to power EL device at 24VDC, 16A, 300ms
	• Maximum load cannot exceed power supply ratings or 3A for outputs combined
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)

Mounting notes

The PS914 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 PS914 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
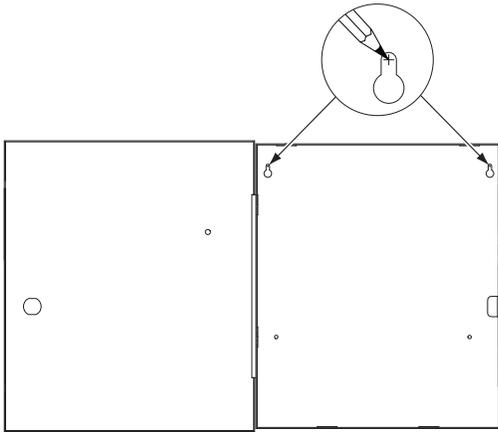
1b   Secure Enclosure with 4 Screws

Board not shown for clarity
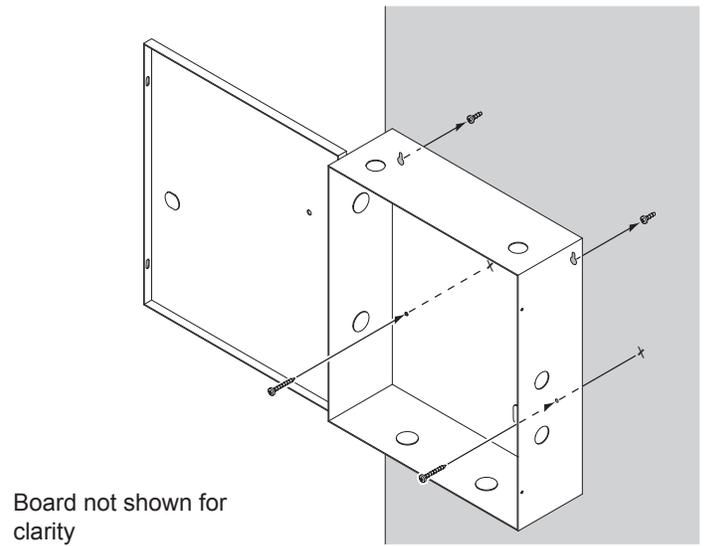
2   Secure enclosure door

If No Keylock

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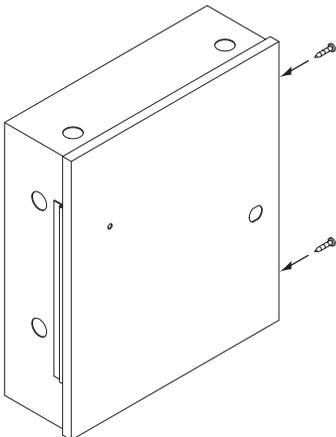
OR

If Keylock

Remove knockout and insert key cylinder, then slide in clip

a

b

3a Connect AC Wiring

AC Input

AC (In)
120/240
VAC
Green (Ground)
White (Neutral)
Black (Hot)

NEU LINE

⚠ **DANGER** ⚠
Ensure AC breaker is turned off

⚠ **DANGER** ⚠
High Voltage

If main board must be removed, turn off AC power and wait 8 minutes before removal. Do not remove this cover, no servicable parts

900-BB Connector

24

12

F1
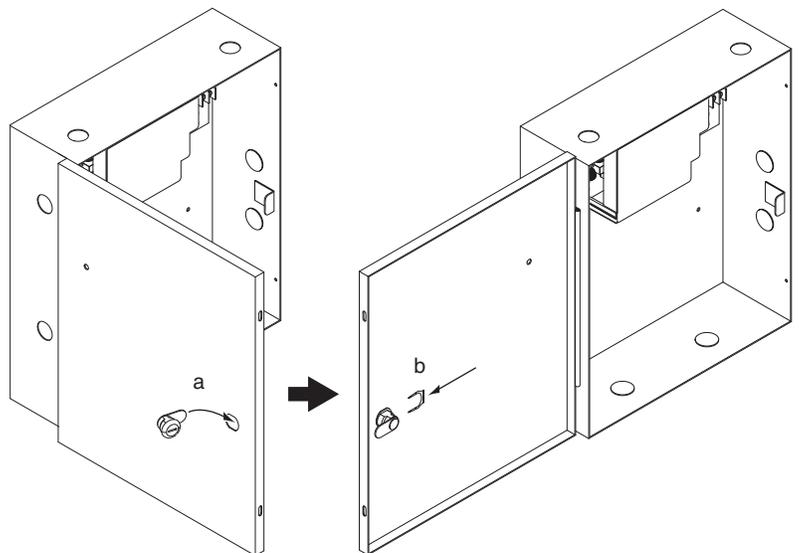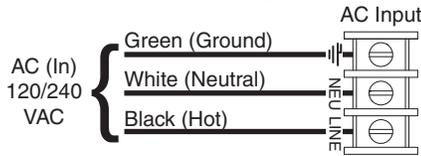
3b Use Jumper to Select 24 VDC or 12 VDC Output

24 VDC
Output Setting

OR

12 VDC
Output Setting
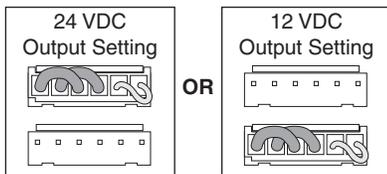
Note: Minimum of 1/4" separation between AC and DC wiring as well as power limited and non-power limited.
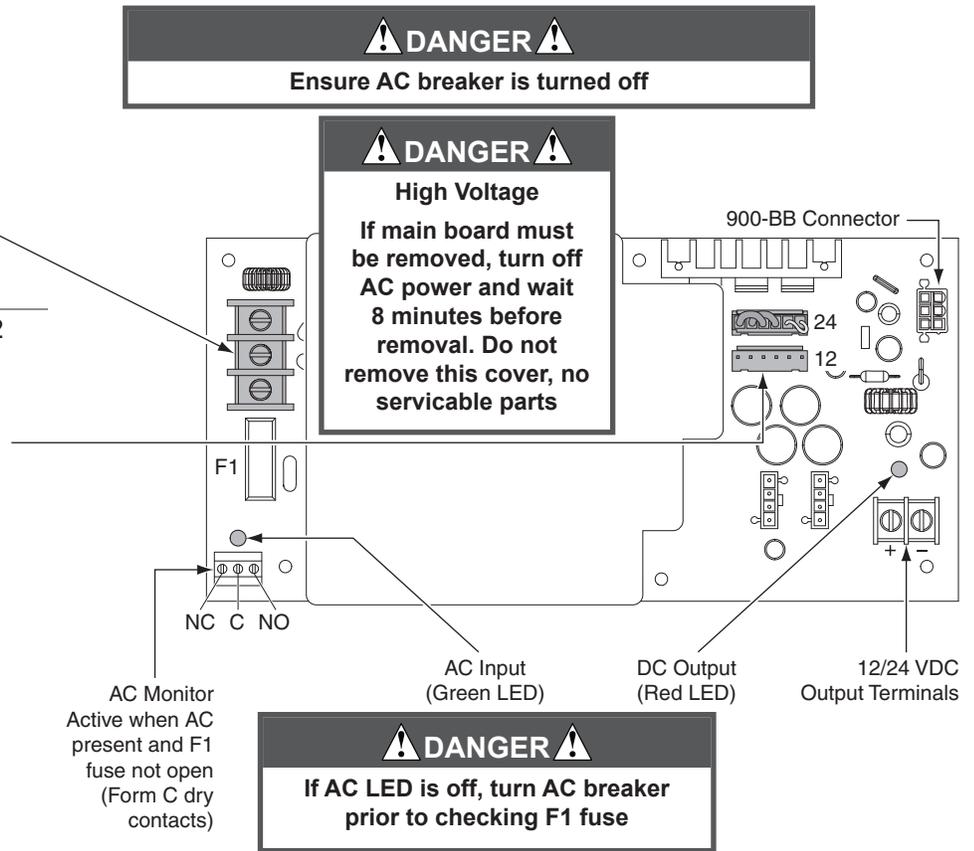
NC C NO

AC Monitor
Active when AC present and F1 fuse not open (Form C dry contacts)

AC Input
(Green LED)

DC Output
(Red LED)

12/24 VDC
Output Terminals

⚠ **DANGER** ⚠
If AC LED is off, turn AC breaker prior to checking F1 fuse

1a Place Batteries in Box withTerminals to the Left

Battery Supervision Terminals
(Form C Dry Contacts)

NO
C
NC

(Shown AC Off)

Active	**Inactive**
AC On	AC Off

1b Attach Wires from Battery Board
Red wires = (+)
Black wires = (-)

Red Wires = (+)

Battery 2

Battery 1

BB LED
(Amber)

On-Solid	**On-Blinking**
AC On	AC Off
Batteries Charging	Batteries Supplying Power

Note: Allow 24 hours for batteries to fully charge

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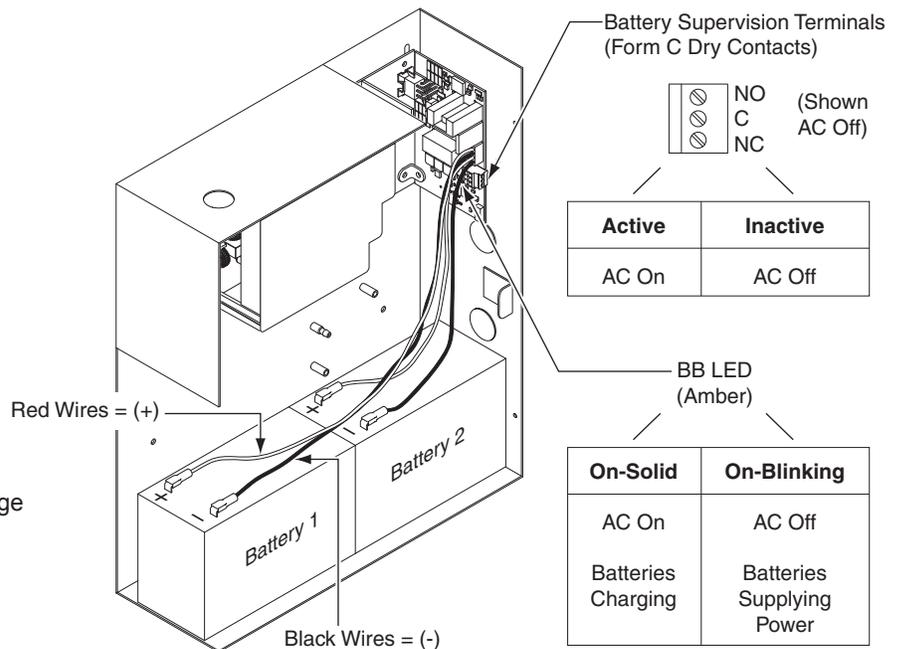
- **Verify AC LED is On = GREEN**
- **Verify DC LED is On = RED**
- **Verify BB LED (if applicable) is On = AMBER**

6   Install 900-2rs option board (if required)

6a   Use Jumper to Select Function

OR

Sequential   Individual
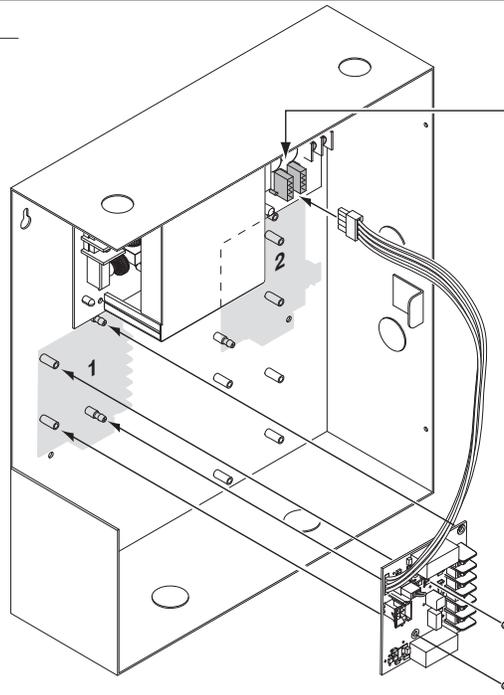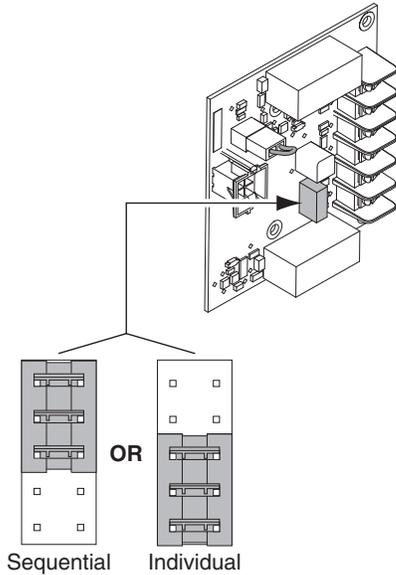
⚠ **DANGER** ⚠

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

### 6b   Plug 2RS Cable into any Available Option Connector
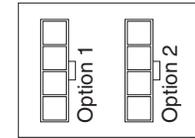
Option 1   Option 2

6c   Secure Board with Screws

Note: 24VDC output setting required when EL device connected

If installing board in location 2, rotate board 180˚

7   Connect wiring to 900-2rs option board

Individual Mode - Typical Wiring

120/240 VAC
50/60Hz

Input I1 will activate output 1
Input I2 will activate output 2

2RS

| SC | I1 | O1 | I2 | O2 | GND |

A — EPT-2/10
B — Access Control for Device 2
EL Device 2 (not polarized)

A — EPT-2/10
B — Access Control for Device 1
EL Device 1 (not polarized)

Note:
Fail secure output only allowed if approved by Authority Having Jurisdiction

Sequential Mode - Typical Wiring

120/240 VAC
50/60Hz

Input I1 will activate both outputs

2RS

| SC | I1 | O1 | I2 | O2 | GND |

A — EPT-2/10 | EPT-2/10
B — Access Control for Devices 1 & 2
EL Device 1 (not polarized) | EL Device 2 (not polarized)

Wire table (suggested maximum)

Wire Ga (AWG)	Device Current (Amps DC)	Output* (max. ft)	Input (max. ft)
14	0.3	850	
	0.5	500	
18	0.3	340	1200
	0.5	200	
12	Using EL device with EPT or Door Loop (PS914 required)	200	
14		100	
12	Using EL device with Electric Hinge/Pivot (PS914 required)	150	
14		75	

*Wiring allows for 10% voltage drop at device current at 12 or 24VDC

Max. ft = one way distance between power supply and device

8   IF PS-914 has other option boards, see their instructions

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

Customer Service

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900-2RS Specifications:

| Inputs I1,I2	Dry contacts required (Closed = Active) Connect control contacts between SC (Signal Common) and any input
Outputs O1,O2	• 12/24VDC, 3A (wet) when AC powered • 9.6-13.2VDC or 19.2-26.4VDC when battery powered • May be used with PS914 to power EL device at 24VDC, 16A, 300ms • Maximum load cannot exceed power supply ratings or 3A for outputs combined
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

OR

Sequential   Individual
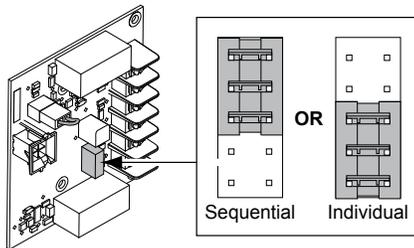
⚠DANGER:

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

#### 1b Review Available 900 series Option Board Mounting Locations (Gray)
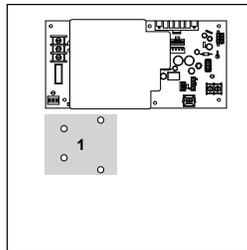
PS902
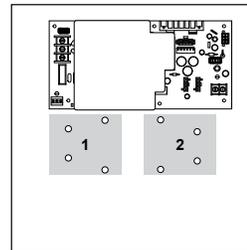
PS904
PS914
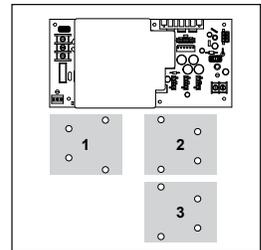
PS906

1c Plug 2RS Cable into any Available Option Connector

Option 1

PS902
1 Board

Option 1   Option 2

PS904, 914
2 Boards

Option 1   Option 2   Option 3
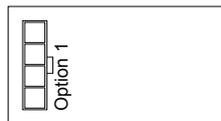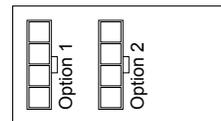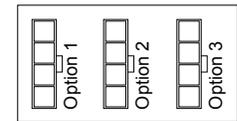
PS906
3 Boards

1d Secure Board with Screws
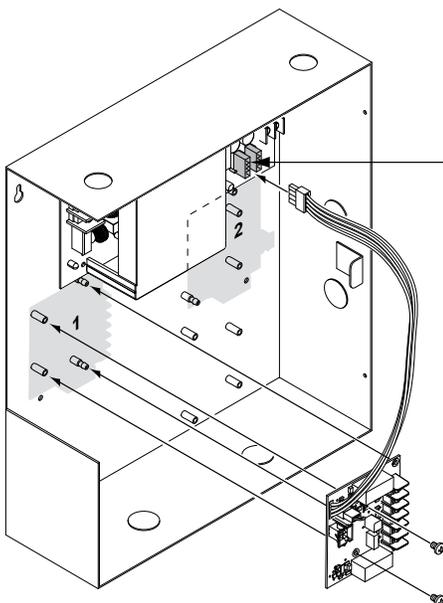
Notes:
1. 24VDC output setting required when EL or QEL device connected
2. If installing board in location 2 or 3, rotate board 180˚
3. When powering (2) QEL's with a PS902, both cannot be activated at the same time, they must be sequenced.
4. Latchbolt retraction of (2) sequenced QEL's requires more 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.

Individual Mode - Typical Wiring

120/240 VAC 50/60Hz

Input I1 will activate output 1
Input I2 will activate output 2

2RS

| SC | I1 | 01 | I2 | 02 | GND |

A — EPT-2/10

B — Access Control for Device 2

EL/QEL Device 2 (not polarized)

A — EPT-2/10

B — Access Control for Device 1

EL/QEL Device 1 (not polarized)

Note:
Fail secure output only allowed if approved by Authority Having Jurisdiction

Sequential Mode - Typical Wiring

120/240 VAC 50/60Hz

Input I1 will activate both outputs

2RS

| SC | I1 | 01 | I2 | 02 | GND |

A

A — EPT-2/10   EPT-2/10

B — Access Control for Devices 1 & 2

EL/QEL Device 1 (not polarized)   EL/QEL Device 2 (not polarized)
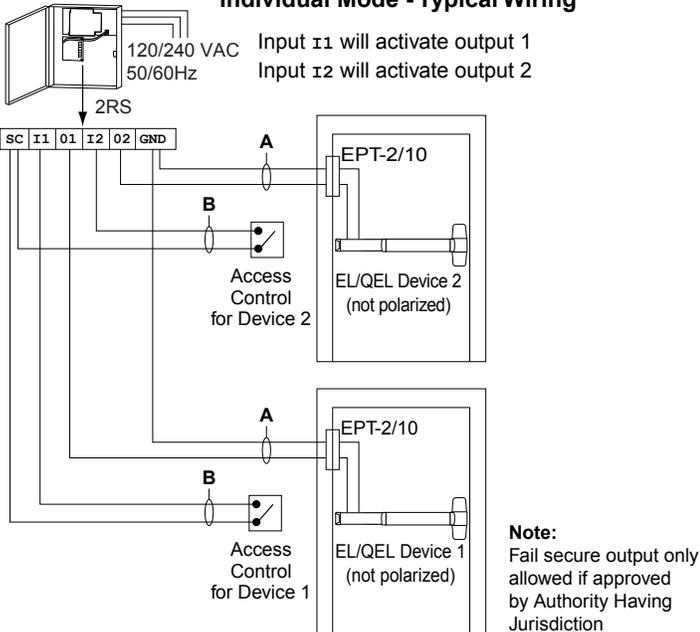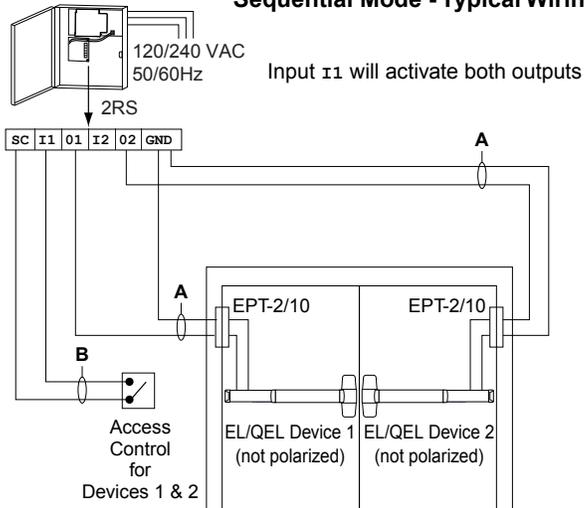
Wire Table

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

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