1. Package Contents

Red 8
Eight Door Controller (1)

Can Lock (1)

Battery Leads (1)
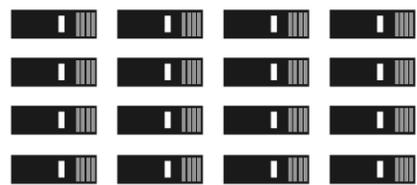
Jumpers (16)
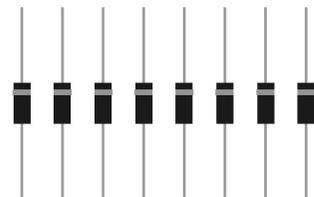
Diodes (8)

2. Mounting Controller
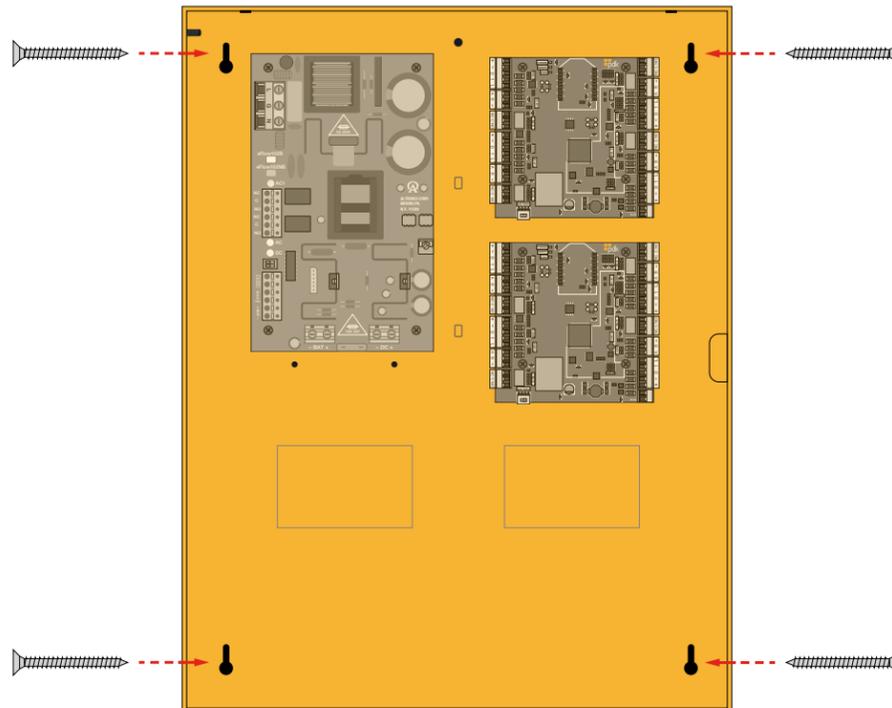
Mount - Mount the Red 8 enclosure securely to a wall.

3. Reader Connection

A Reader(s)

B OSDP Wiring **+** OSDP
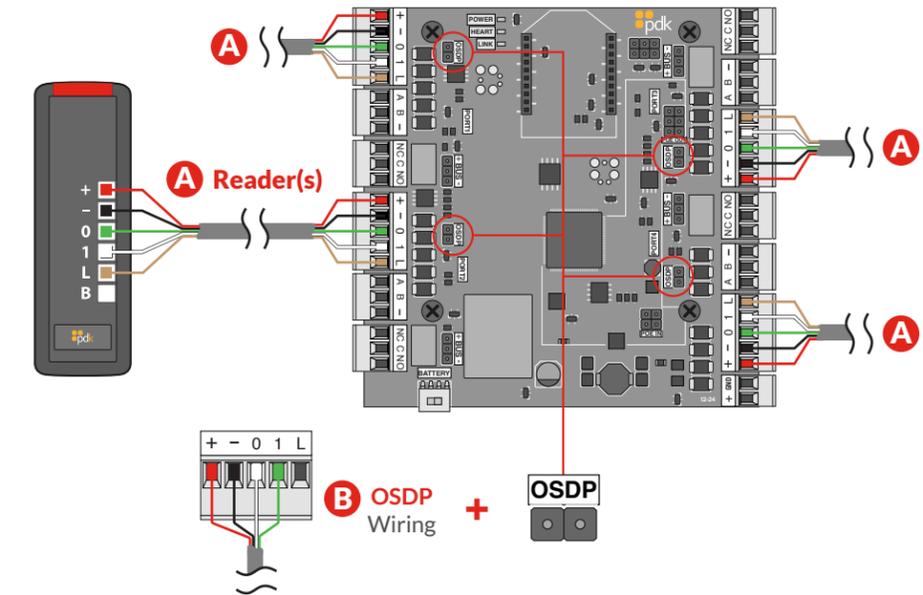
A **Reader(s) -** Use a 22/5 or 22/6 wire to wire the reader to the controller, as shown above. Be sure to check polarity and voltage prior to powering the controller.

B **OSDP -** Place jumper to enable OSDP (see OSDP reference guide at the end of this guide for more info)

4. Input A / DPS Connection

DPS Contact **A**

Double DPS Contact
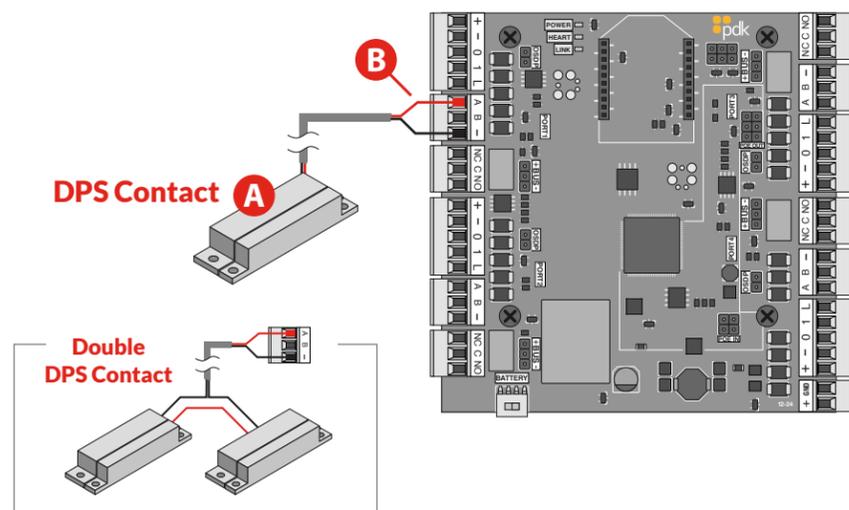
A **DPS (Door Position Switch)** - The DPS is mounted on the door frame in the desired location with a 22/2 wire running from the DPS to the controller. Wire the DPS to the controller as shown above. When using two DPS sensors for double doors, you will wire them in series with only two conductors running back to the controller for connection.

B **AUX Input** - A rule can be set up to trigger events or outputs based on this input trigger.

5. Input B / REX Connection

A Maglock

If using a powered REX, run to any 12VDC output on controller.
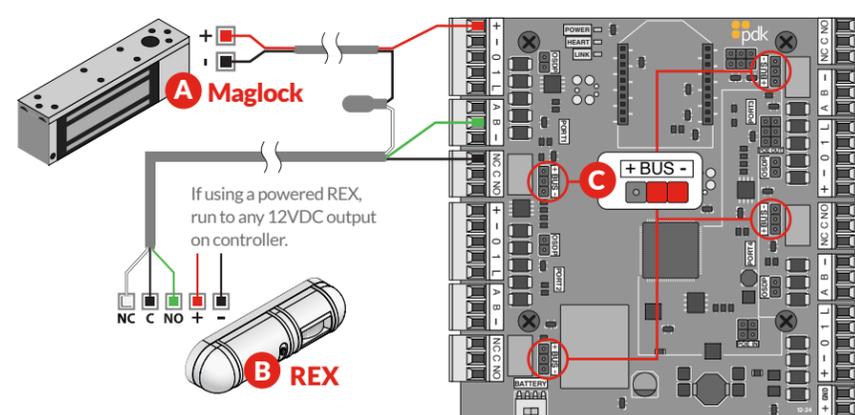
B REX

A **Maglock** - When installing a Maglock, it is typical to install a REX (Request to Exit) at the door for free egress. Run an 18/2 wire from the Maglock to the Door Controller, connecting to the Maglock as shown.

B **REX (Request to Exit)** - The REX is mounted in the desired location with an 18/5 wire ran from the REX to the controller. Wire the REX to the controller and Maglock, as shown above. If reporting is not needed in the system, simply eliminate the green-labeled wire.

C **Jumper Block(s)** - Use to designate (+) or (-) board voltage out of NO and NC. If the jumper is off, the relay is a standard dry contact needing input into common.

✳ **AUX Input** - A rule can be set up to trigger events or outputs based on this input trigger.

6. Locking Relay
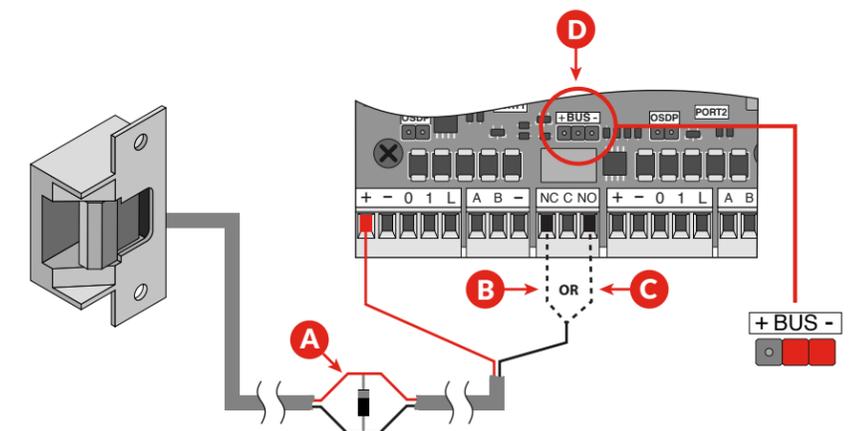
A **Diode** - The provided diode must be installed when using a strike. Install at the strike with the grey stripe of the diode on positive and the black on negative.

B **NC** - Used for maglocks (or strikes in fail-safe configuration). Connect the negative (-) of the maglock or strike to NC on the door controller.

C **NO** - Used for strikes in fail-secure configuration. Connect the negative (-) of the strike to NO on the door controller.

D **Jumper Block** - Use to designate (+) or (-) board voltage out of NO and NC. If the jumper is off, the relay is a standard dry contact needing input into common.

# 7. Communication Connections

(A) Ethernet - All Red controllers come with a built-in RJ45 connection for network connectivity. Once connected, the Red 8 controller is **Self-Discoverable** from pdk.io using IPV6. Alternatively, you may use IPV4 or assign a static IP using pdk.io if desired.
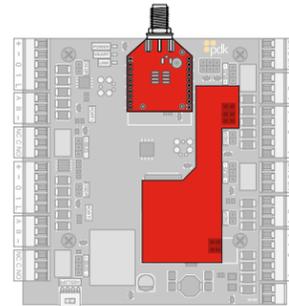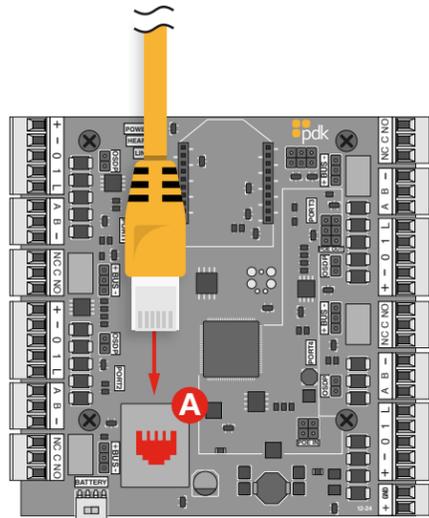
✳ Wireless (PN: RMW) and **PoE** (PN: RMPOE) module kits can be purchased for optional communication add-ons.

8. Power Connection

(A)
AC Power
120VAC 60Hz
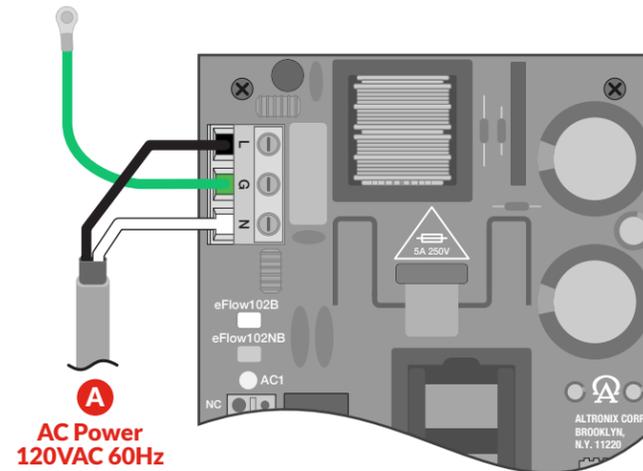
(A) Powering Board - Connect unswitched AC power (120VAC 60Hz) to terminals marked [L, G, N]. L to hot, N to neutral, G to ground. Use 14 AWG or larger for all power connections. Secure green wire lead to earth ground.

✳ Disclaimer -Installers must adhere to all regulations and hold the proper state licenses prior to supplying voltage to the power supply.

✳ Battery Backup is strongly recommended on all ProdataKey hardware. The recommended backup battery for the Red 8 is a 12V 8ah battery.

Reference Guide

Fire Input - To integrate the fire system using a Red 8 door controller, refer to wiring diagrams in the Partner Portal at prodatakey.zendesk.com

Programming - After the Red 8 door controller has been connected back to the Cloud Node, access the configuration software as instructed in the programming manual. This manual is available for download at prodatakey.zendesk.com

Reader Compatibility - ProdataKey does not require proprietary readers. Door controllers accept a Wiegand input, including biometric readers and keypads. OSDP readers are supported by using an included jumper (see OSDP reference guide). Contact support for details.

UL 294 Compliance - All equipment must meet appropriate UL certifications. For UL listed installations, all cable runs must be less than 30 meters (98.5')

Part Number - R8

PDK Technical Support
Phone: 801.317.8802 option #2
Email: support@prodatakey.com
PDK Knowledge Base: prodatakey.zendesk.com

OSDP Reference Guide

What is OSDP - Open Supervised Device Protocol (OSDP) is an access control communications standard developed by the Security Industry Association to improve interoperability among access control and security products. OSDP brings heightened security and improved functionality. It is more secure than Wiegand and supports AES-128 encryption.

OSDP Wire Specification - Four (4) conductor twisted pair shielded is recommended to remain fully TIA-485 compliant at the maximum supported baud rates and cable distances.
NOTE - It's possible to reuse existing Wiegand wiring for OSDP. However, using a simple stranded cable typical of Wiegand readers generally does not meet the RS485 twisted pair recommendations.

OSDP Multi-Drop - Multi-drop gives you the capability to accommodate many readers by running one length of 4-conductor cable, eliminating the need to run wire for each wire.
NOTE - Four (4) is the maximum number of readers each port can support.

NOTE - Wiegand readers will not work when OSDP jumpers are installed.

Red™ | 8
eight door **controller**

Quick Start **Guide**
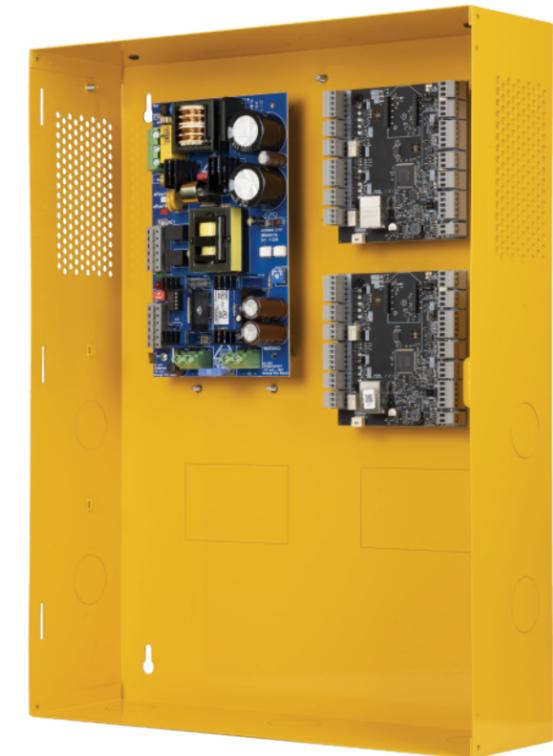
View the user manual here:
prodatakey.zendesk.com

PN: R8

www.prodatakey.com
801.317.8802