# ENFORCER®

Access Control Power Distribution Board

PD-5PAQ

Installation Manual

RoHS

The PD-5PAQ 5-Output Power Distribution Board centralizes the power sources for access control electronic locking devices, such as maglocks, shear locks, electric door strikes, deadbolt locks, and so on. It provides a separate fuse for each output so that problems with one device may be isolated from the other devices.

- Five individually PTC-fused (1.1A) outputs
- Each output will operate in both fail-safe and fail-secure modes
- Output current limit: 1.1A@12/24 VDC each
- For 12VDC or 24VDC operation
- Equipped with dry and wet trigger inputs
- Power failure supervision relay (3A@24VDC)
- Auxiliary supervision relay (3A@24VDC)
- Individual LED status indicator for each output, power input, and trigger
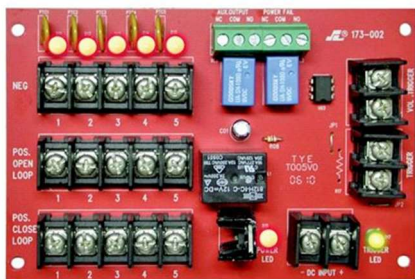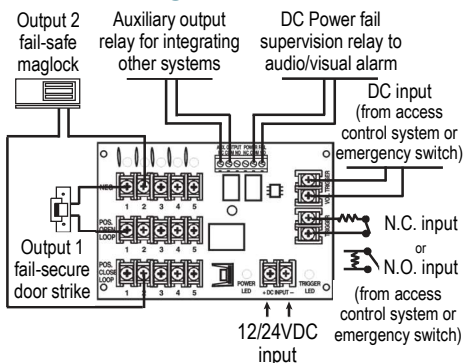
Parts List

1x	Distribution Board	1x	2.2kΩ Resistor
2x	Power leads (red, black)	1x	Manual
4x	Mounting spacers		

Specifications

Input voltage		12/24 VDC
Number of outputs		5
Output fuse		PTC 1.1A
Auxiliary supervision output		SPDT 3A@24VDC
LEDs	Power	1 Red
	Triggered	1 Green
	Output failure	5 (Red, channel short/overload)
Operating humidity		Up to 95%, non-condensing
Operating temperature		-40°~167° F (-40°~75° C)
Dimensions		$3^9/_{16}$"x$5^5/_{16}$"x$1^1/_{16}$" (90x135x27 mm)
Weight		8.8-oz (250g)

Basic Wiring

Output 2 fail-safe maglock
Auxiliary output relay for integrating other systems
DC Power fail supervision relay to audio/visual alarm
DC input (from access control system or emergency switch)
N.C. input or N.O. input (from access control system or emergency switch)
Output 1 fail-secure door strike
12/24VDC input

Installation

1. Mount the power distribution board (PDB) in a location or enclosure easily accessible for future servicing.
2. Connect a 12/24 VDC power supply output to the PDB *DC INPUT* terminals, observing correct polarity.
3. Connect the power input of access control devices or accessories to the PDB, ensuring correct polarity.
   For fail-secure devices, connect positive to *POS. OPEN LOOP* terminals and negative to *NEG* terminals.
   For fail-safe devices, connect positive to *POS. CLOSE LOOP* terminals and negative to *NEG* terminals.

   NOTE: For best results and to minimize voltage drop, wires should be a minimum of 18-gauge.
4. Connect a visual or audio device (such as siren or strobe) to the POWER FAIL supervision relay and Auxiliary output relay if needed. Use between 22AWG and 18AWG wire.

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Installation (Continued)

5. Trigger the PDB either from a wet and or dry contact switch from the control station by following the connection diagrams shown in Figs. 1~7. See Table 1 on how trigger input function works.

IMPORTANT NOTE: If the *TRIGGER* terminal block is not used, a 2.2kΩ resistor **must** always be connected to the *TRIGGER* terminal block as shown in Fig. 1.

Table 1

Legend	Function
TRIGGER	Connect N.O. or N.C. input (supervised 2.2kΩ resistor) from access control panel. A short or open circuit will transfer power from *POS. CLOSE LOOP* to *POS. OPEN LOOP*.
VOL TRIGGER	Connect wet (5~30VDC) input from access control panel. Applying voltage will transfer power from *POS. CLOSE LOOP* to *POS. OPEN LOOP*.
POWER FAIL	To notify loss of DC power, connect a visual or audio warning device (such as siren or strobe, dry contact relay rated 3A@24VDC). If VDC input to the PDB is interrupted, the connected warning device will be activated.
AUX OUTPUT	To activate other auxiliary device when trigger signal is received from the *TRIGGER* or *VOL TRIGGER* terminals.
– DC INPUT +	12 or 24 VDC input from main board.

Fig. 1 Wiring unused "Trigger" terminal
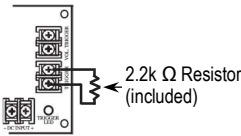
2.2k Ω Resistor (included)

Fig. 2 Momentary trigger, wet/dry N.O.
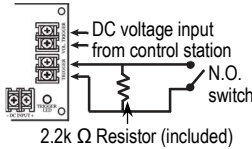
DC voltage input from control station
N.O. switch
2.2k Ω Resistor (included)

Fig. 3 Momentary trigger, wet/dry N.C.

DC voltage input from control station
2.2k Ω Resistor (included)

Fig. 4 Latch trigger, wet/dry N.O

N.C. Switch for reset
2.2kΩ Resistor (included)
N.O. Switch from access control panel

Fig. 5 Latch trigger, wet/dry N.C.

N.O. Switch for reset
N.C. Switch from access control panel
2.2kΩ Resistor (included)
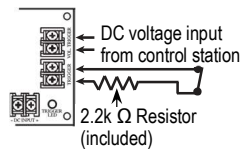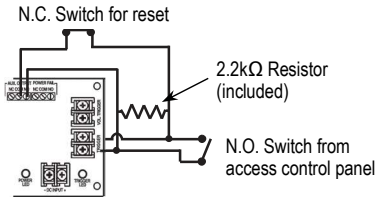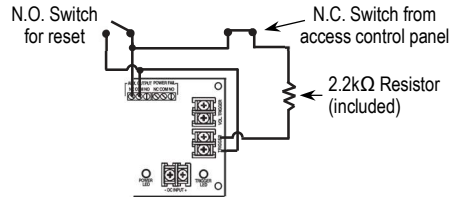
Fig. 6 Multiple PDB momentary, wet/dry N.O.

For Additional PDM if needed
2nd PDB
1st PDB
DC voltage input from control station
N.O. switch
2.2kΩ Resistor (included)
2.2kΩ Resistor (included)

Fig. 7 Multiple PDB momentary, wet/dry N.C.

For Additional PDM if needed
2nd PDB
1st PDB
DC voltage input from control station
N.C. switch
2.2kΩ Resistor (included)
2.2kΩ Resistor (included)

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