

Door Controls International

PS17

Power Supply Installation Instructions

Overview:

The DCI PS17 is a power limited power supply that will convert 115VAC/60Hz input into two individually PTC protected 12VDC or 24VDC outputs (*refer to specifications*).

It is intended for use in applications requiring UL Listing for Access Controls (UL294) and applications requiring an interface with Fire Alarm Control Panels.

It must be installed in accordance with National and Local Electrical Codes and Regulations.

Specifications:

- UL Listed for Access Control System Units (UL 294).
- Switch selectable 12VDC or 24VDC power limited output
- Input 115VAC/60Hz, .6 amp.
- 1.75A continuous supply current @ 12VDC or 24VDC
- Filtered and electronically regulated output
- Aux relay output (Form “C”, 1 amp @ 28VDC)
- AC Fail output relay (Form “C”, 1 amp @ 28 VDC)

Enclosure dimensions: 8.5”H x 7.5”W x 3.5”D



Power Supply Output Specifications:

Output VDC	Switch Position	Max. Load DC
12VDC	SW1 Open	1.75 amp
24VDC	SW1 Closed	1.75 amp

Installation Instructions:

The PS17 should be installed in accordance with the National Electrical Code and all applicable Local Regulations.

See Terminal Identification Chart on Page 2 for a description of each terminal function.

1. Mount the PS17 in desired location.
2. Connect 115VAC to the black and white flying leads of the transformer. Secure green wire lead to earth ground.
Use 18 AWG for all power connections (relay DC outputs). Use 22, 20, or 18 AWG for power limited circuits (trigger inputs, dry outputs).
Keep power limited wiring separate from non-power limited wiring (115VAC from all DC Outputs & trigger). Minimum .25” spacing must be provided.
3. Open SW1 for 12VDC output - Close SW1 for 24VDC.
4. Measure output voltage before connecting. This helps avoid potential damage.
5. Jumper TRG1 and TRG2 unless continuity is provided through a fire alarm circuit as shown on page 3.
6. Connect appropriate signaling notification devices to AC Fail supervisory outputs marked NC, C, NO.
7. For Access Control Device & Fire Alarm Interface connections refer to desired Applications Diagrams (page 3) and Terminal Identification Chart (page 2).

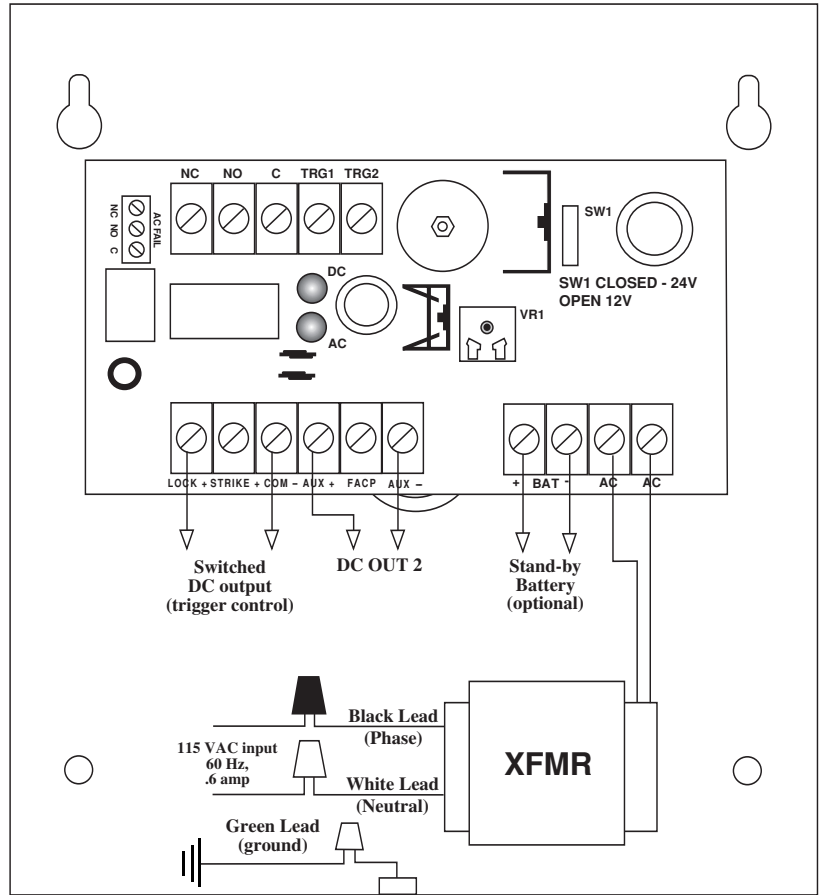
LED Diagnostics:

RED (DC)	GREEN (AC)	POWER SUPPLY STATUS
ON	ON	Normal Function
OFF	ON	No DC Output
OFF	OFF	System Off

Maintenance:

Unit should be tested at least once a year for the proper operation as follows:

Output Voltage Test: Under normal load conditions, the DC output voltage should be checked for proper voltage Level (refer to Power Supply Output Specifications Chart).



Terminal Identification:

Terminal Legend	Function / Description
TRG1 & TRG2	These input terminals are designed to connect to the closed “C” and “NO” terminals of an access control or fire alarm relay. These must be jumpered otherwise. These terminals control LOCK+, and STRIKE+, as well as PS17 output relay contacts “NC”, “NO”, “C”.
LOCK+	This terminal provides DC output voltage when TRG1 TRG2 are shorted together and are typically used to power electromagnetic locks. Two locks may be connected in parallel on LOCK+ and “COM-”
STRIKE+	This terminal provides DC output voltage when TRG1 and TRG2 are unshorted and are typically used to power Electric Strikes.
NC, NO, C	Isolated dry Form “C” contracts. Shortening TRG1 and TRG2 together causes these contacts to switch. They are typically used for controlling multiple power supplies with fire alarm tie-in (refer to Fig. 4 and Fig. 5, page 3).
AUX+	Continuous positive (+)DC power output voltage. It is not affected by TRG1, TRG2 operation.
COM-	Common negative (-) output (ground).
FACP	Spare wiring terminal used for fire alarm tie-in application (refer to Fig. 3, page 3)
BAT+/BAT-	Stand-by battery connections.

Application Diagrams:

Fig. 1 - Typical single mag lock or door strike installation with fire alarm tie-in using trigger controlled output:

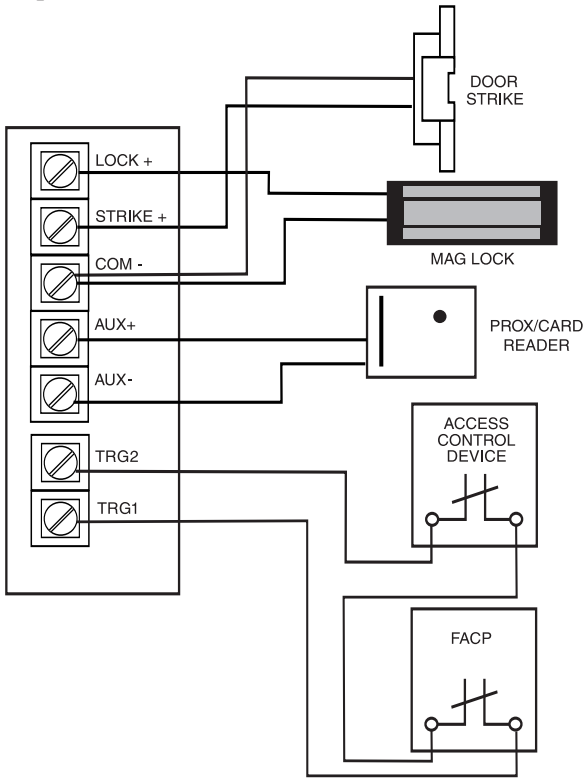


Fig. 2 - Typical dual mag lock installation with fire alarm tie-in using trigger controlled outputs:

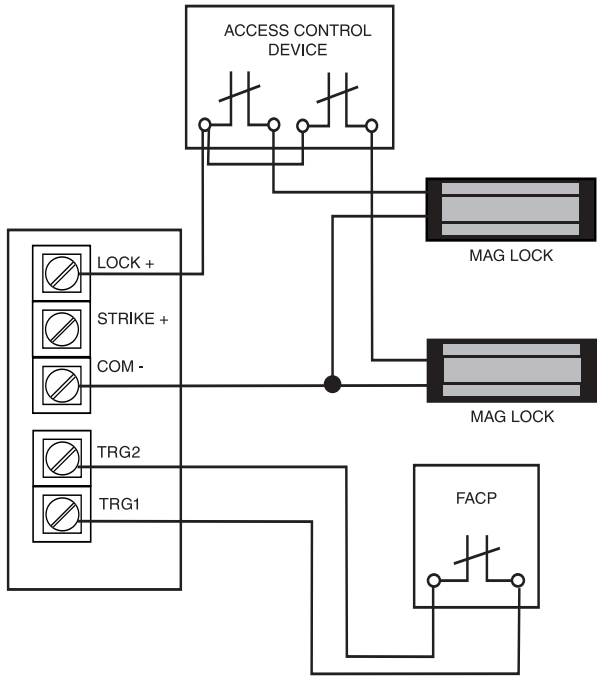


Fig. 3 - Typical mag lock with fire alarm tie-in using aux output installation:

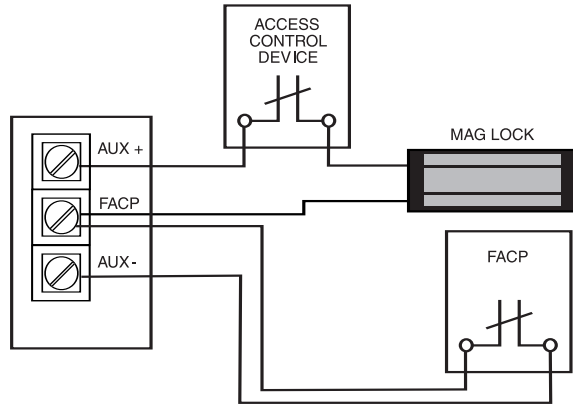


Fig. 4 - Latching fire alarm tie-in with manual reset:

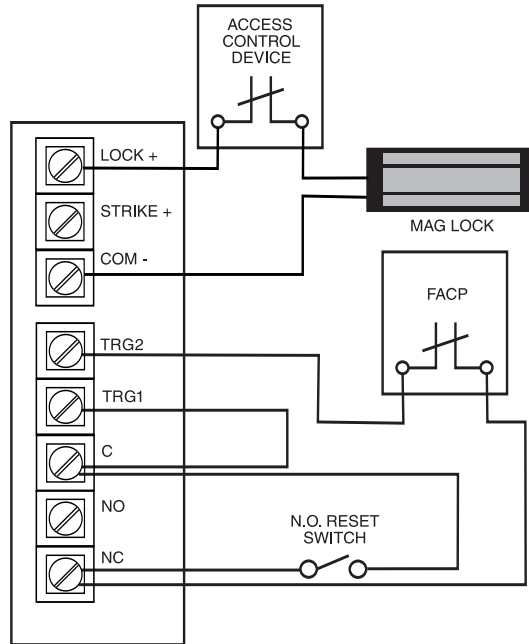
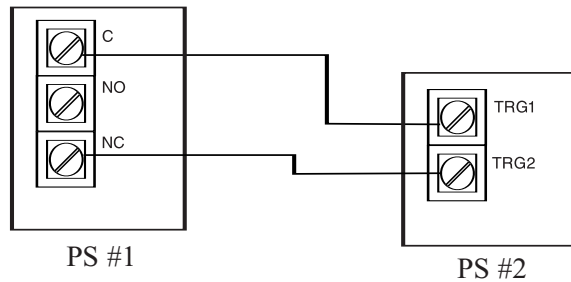


Fig. 5 - Multiple PS17 power supply connections:



Notes: