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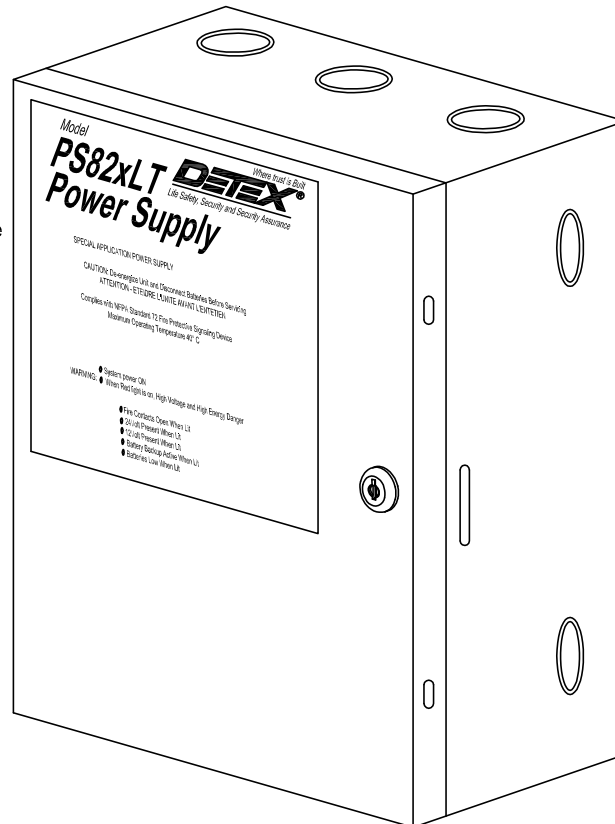
INSTALLATION INSTRUCTIONS FOR PS-82xLT POWER SUPPLY

FOR INDOOR USE ONLY**dwg# 106030**

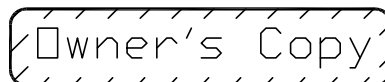
TO BE MOUNTED IN
A PROTECTED AREA

Model Series PS82 was evaluated for the following UL294 6th Edition performance levels:

Feature	Level
Destructive Attack	1
Line Security	1
Endurance	4
Standby Power	4



Wiring methods that shall be in accordance with the National Electrical Code, ANSI/NFPA 70 or in accordance with CSA C22.1, Canadian Electrical Code, Part 1, Safety Standard for Electrical Installations. Wire size not less than 22AWG.

FILTERED AND REGULATED POWER SUPPLY**INPUT: 24VAC @ 50/60 Hz 3 amps****OUTPUT: 24VDC @ 0.8 amps per output****OUTPUT RELAY: Dry contact 24VDC @ 1 amp****Evaluated for UL Operation with Detex ® TMFR277 only****OPTIONS:****BB - Battery Backup**

CAUTION: De-energize unit before servicing.

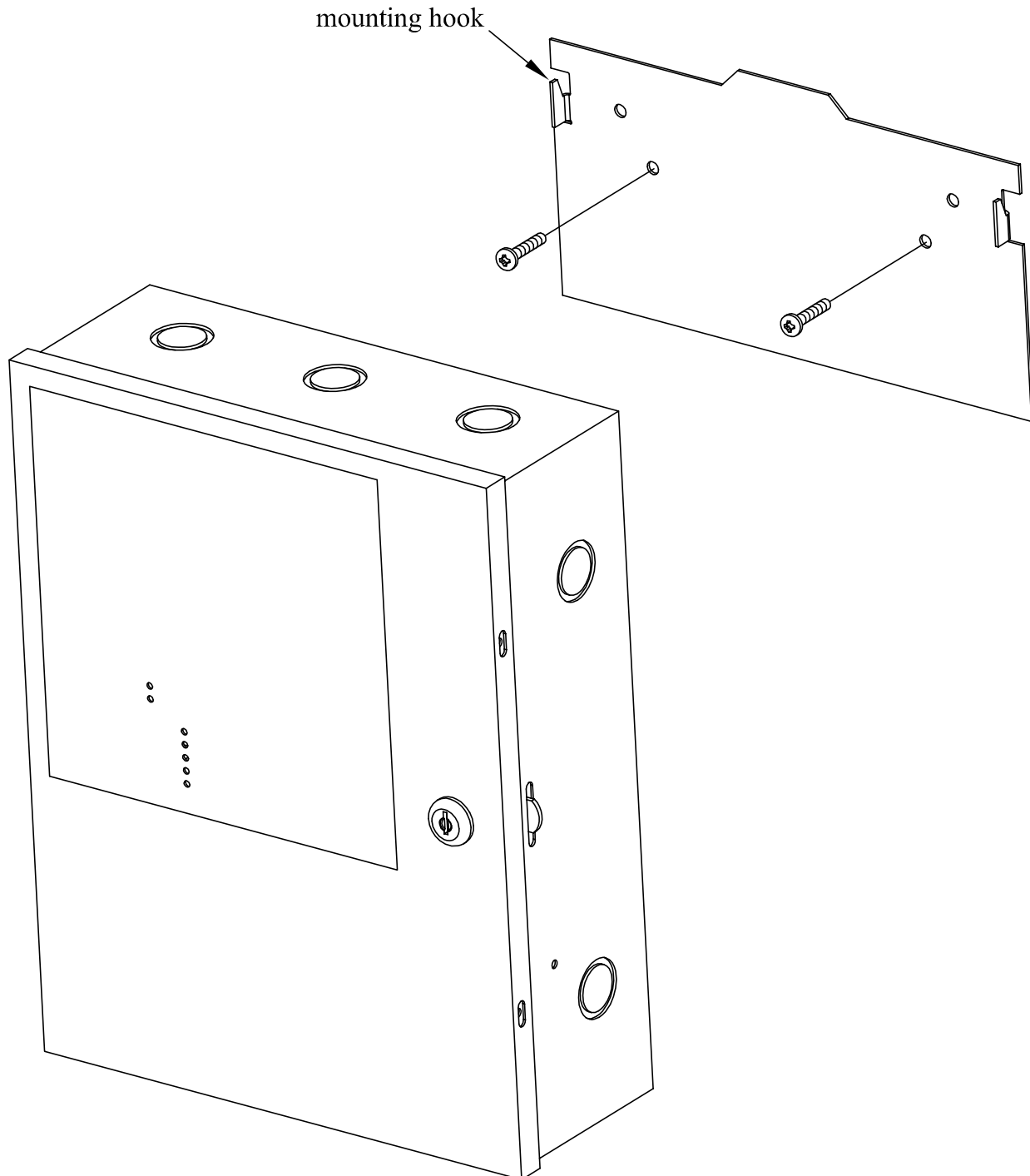
ATTENTION : éteindre l'unité avant l'entretien.

Enclosure provides protection against electric shock and fire. Do not open without removing power. Only trained personnel should operate or service this equipment.

Le couvercle protège contre les chocs électriques et incendies. Ne pas l'ouvrir sans préalablement couper l'alimentation. Seul le personnel formé doit opérer ou effectuer l'entretien de cet équipement.

Installing the Enclosure

1. Install mounting plate in desired location with two #10 sheetmetal screws (p/n PP-5183-68).
2. Slide the enclosure over the mounting hooks.
3. Secure the enclosure to the wall with four additional #10 sheetmetal screws from inside the enclosure.



Connection Diagram and Instructions

The PS82xLT is a regulated and filtered power supply. It has a primary output voltage of 24 volts DC and a secondary output of 12 volts DC.

Refer to the drawing of the power supply (Figure 1A AND FIGURE 1B) for connections and features.

All connections and adjustments should be made with the power supply de-energized **AND** main power switch (item 3) in the OFF position.

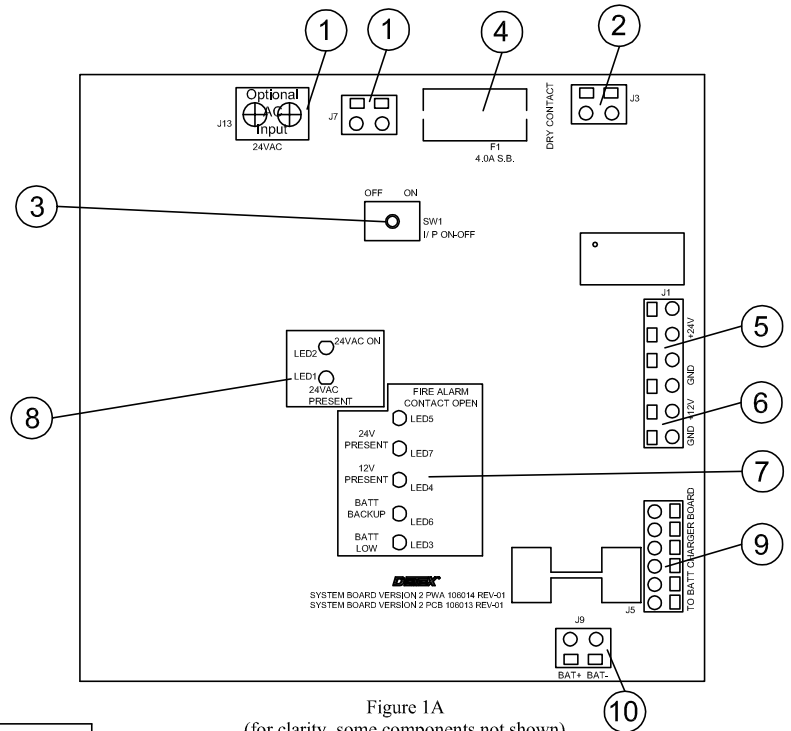


Figure 1A
(for clarity, some components not shown)

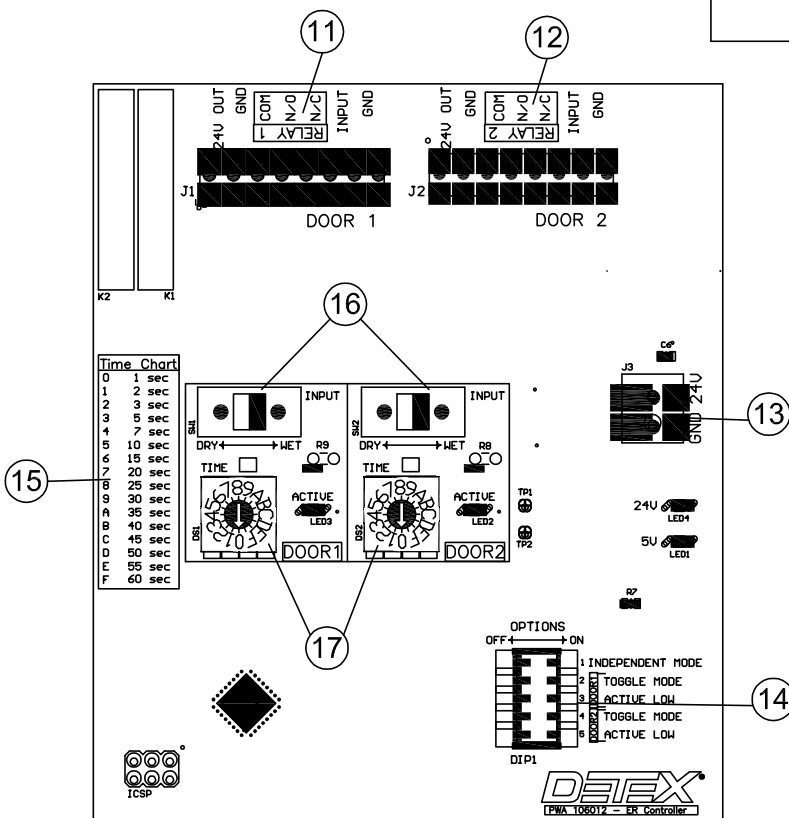
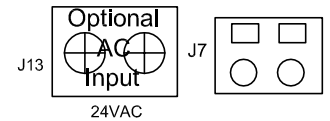


Figure 1B
(for clarity, some components not shown)

1: Main Power Connection (J7 and J13 optional).

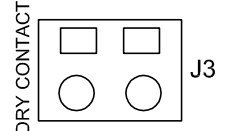
Input power is 24 volts AC at 3.5 amps maximum current. This connection is not polarity sensitive. Leave circuit de-energized while installing and servicing unit.



2: Fire Loop Control (J13).

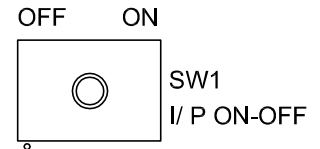
The fire loop control requires a connection be made between the two terminals using a dry contact to enable the output voltages. Some locking devices require this terminal be connected to the building fire system. For independent operation, a jumper wire may be used to make the connection. When the connection is made, the power supply outputs 24 volts at J1, pins 3 through 6 (see item 5) and 12 volts at pins 1 and 2 (see item 6). LED 4 will turn off when the circuit connection is made (see item 7).

If the circuit is open, the output relay is de-energized and the 24 volt output of the power supply is turned off, LED 4 will light indicating an open fire loop



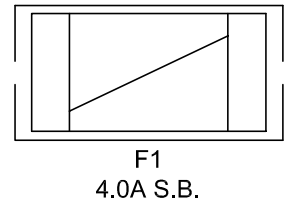
3: Main ON-OFF Switch (SW1).

This switch can be used to de-energize the power supply for service and adjustments. Voltage is still present inside the enclosure as long as the main power at J7 or J13 is still energized. Caution should be used when performing service even when this switch is used.



4: Main Power Fuse (F1).

This is a slow blow fuse and protects the main power into the power supply PWA. If the fuse fails, check and correct the cause of the overload before replacing with Littlefuse 0218004.HXP, Detex p/n 104267-4 or equivalent fuse.

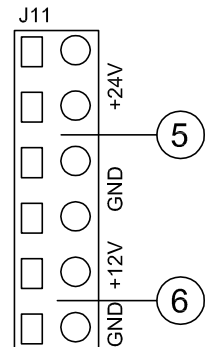


5: 24 volt output terminals (J1, pins 3-6).

The power supply outputs 24 volts at a maximum of 2 amps total current.

The output is protected by a thermally resettable fuse.

The output is DC, and the PWA is marked with polarity indicators.



6: 12 volt output terminals (J1, pins 1-2).

The power supply outputs 12 volts at a maximum of 500 milliamps total current.

The output is DC, and the PWA is marked with polarity indicators.

7: System status LEDs.

These 5 LEDs indicate the status of key features of the power supply.

LED 5 lights yellow when the fire loop input is open. System outputs are disabled.

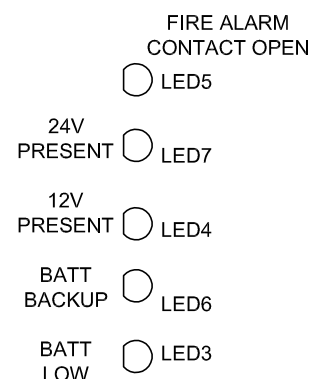
LED 7 lights blue when 24 volts DC is present at the output of the regulator

Output at J11 is disabled when the fire loop is open.

LED 4 lights white when 12 volts DC is present at the regulator.

LED 6 lights green when the optional battery charger board, batteries and cables are installed.

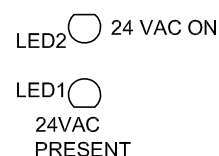
LED 3 lights orange when the optional batteries are discharged. If they are over 3 years old, replacement may be needed.



8: Input status LEDs.

LED 1 lights amber when input power is applied to the power supply.

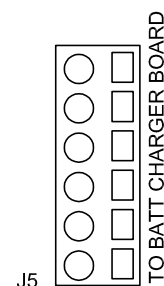
LED 2 lights red when the Mains switch is turned ON (item 3).



9: Optional battery charger connector (J5).

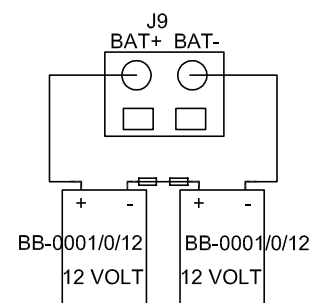
If ordered as a factory option, this connection will be already installed.

If added in the field, use Detex p/n 106475 Battery and PWA kit and follow supplied instructions.



10: Optional back up batteries (J9).

These batteries come supplied when this option is factory ordered or can be ordered separately. The add on kit is Detex p/n 106475. Follow included instructions. Observe polarity when installing batteries.



Latch Retraction (ER) and Inputs

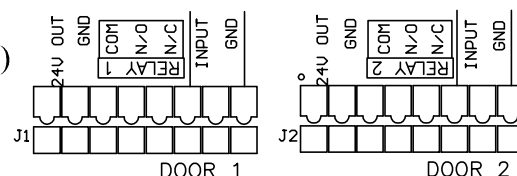
11 and 12: System Input pins 6 & 7 of J1 & J2.

These are the inputs for DOOR1 (PS81) & DOOR2 (PS82).

They are factory configured as a dry input, but can be configured as a wet input (see item 6). Output to the latch retraction device(s) are on pins 1 & 2.

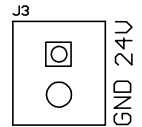
Relay outputs can be used to signal a door operator.

Detex tool p/n 106472-1 (white in color) is provided to simplify making the wiring connections. DOOR2 is n/a for PS81.



13: Power Input to Latch Retraction PWA (J3).

Pre-wired at the factory. LED 4 indicates power is applied and LED1 indicates logic power on the board is good. Both are on during proper operation.

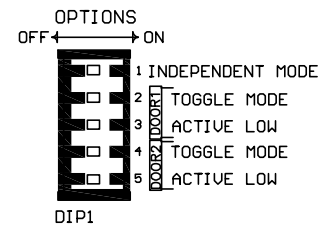


14: Mode selection Switches (DIP1).

These switches are used to configure the latch retraction functions. Switch 1 turns on Independent mode on two door systems. With Independent mode, each door has its own input and timing adjustments (DS1 and DS2). In Dependent mode, either input operates both doors, and door 1 configuration is used.

Switch 2 (DOOR1) and Switch 4 (DOOR2) turn on Toggle Mode. When a valid input is detected, the doors will operate and hold until a second valid input is detected, causing the latches to release and operator signal to turn off.

Switch 3 (DOOR1) and Switch 5 (DOOR2) turn on Active Low Mode. This inverts the output voltage during normal operation. It can be used to directly control a maglock, strike or other logic inverted devices.



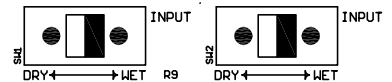
15: Timing Chart.

Setting the rotary switches (item 7) to the selection listed holds the latch retracted for the amount of time listed. Use a maintain switch on the input for continuous hold operation.

Time Chart	
0	1 sec
1	2 sec
2	3 sec
3	5 sec
4	7 sec
5	10 sec
6	15 sec
7	20 sec
8	25 sec
9	30 sec
A	35 sec
B	40 sec
C	45 sec
D	50 sec
E	55 sec
F	60 sec

16: Input Select switches (SW1, SW2).

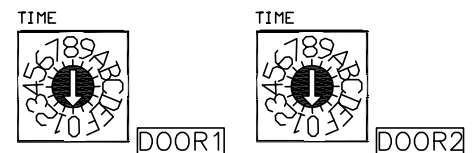
Used to select a dry contact or live voltage (wet) input. Each input (DOOR1, DOOR2) must be configured separately. A dry contact should be normally open, which is closed to activate the system. If using a wet input, the voltage is connected to pin 6 (INPUT) and the reference (ground) connected to pin 7 (GND). A valid wet input must be between 5 and 24 volts DC. Exceeding this rating may damage the PWA and is not covered under warranty. Factory setting is for dry contact.



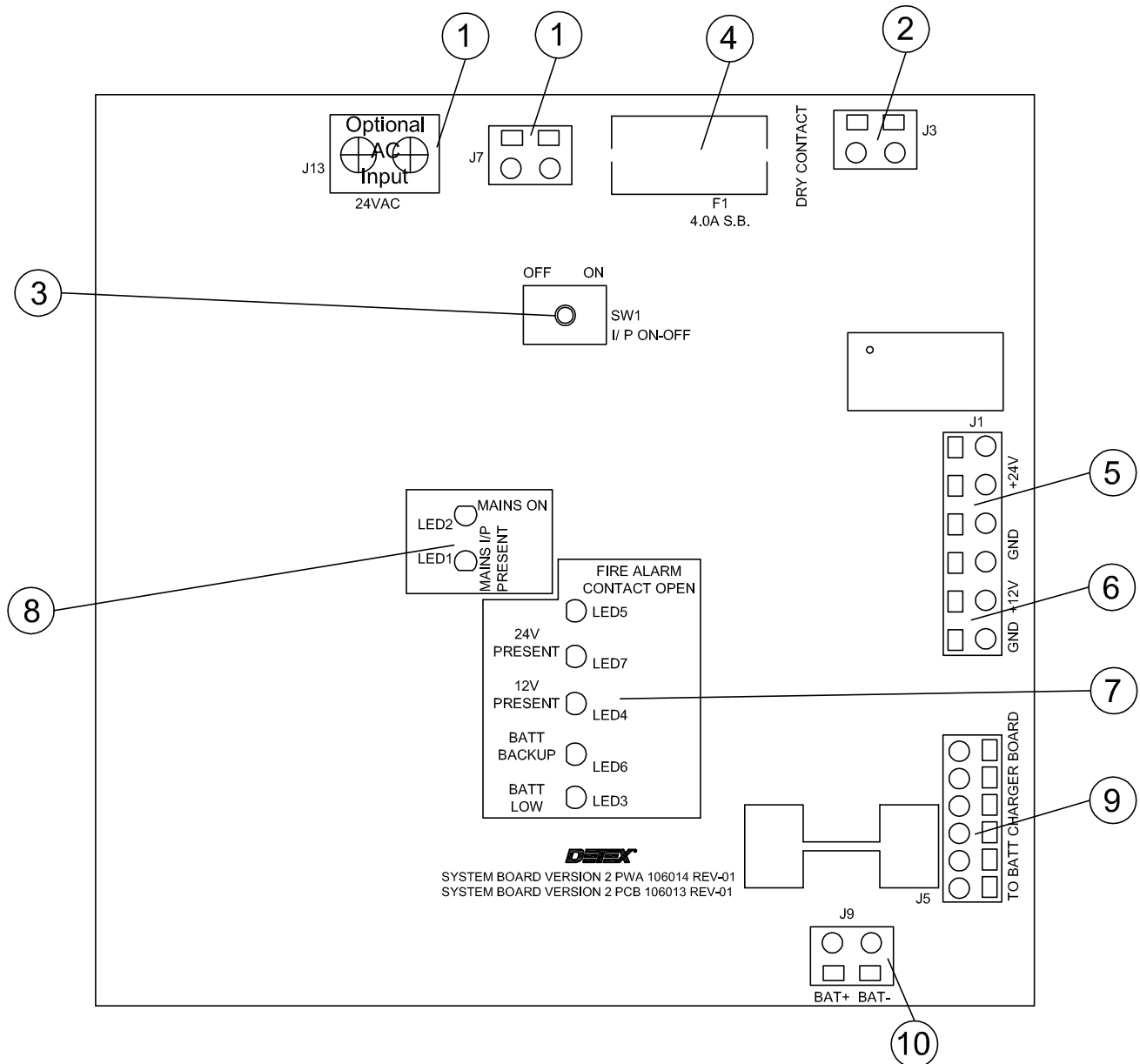
17: Timing Selection and Status LEDs (LED2, LED3).

Door hold time is selected by rotating these switches to the desired hold times as shown in the Timing Chart (item 5). Use the flat side of the provided tool (p/n 106472-1) to rotate the switch.

LEDs 2 and 3 glow red, indicating a valid input has been made and the latch retraction signal has been sent to the panic device(s). Both LEDs will light during proper operation, even in a single door configuration.

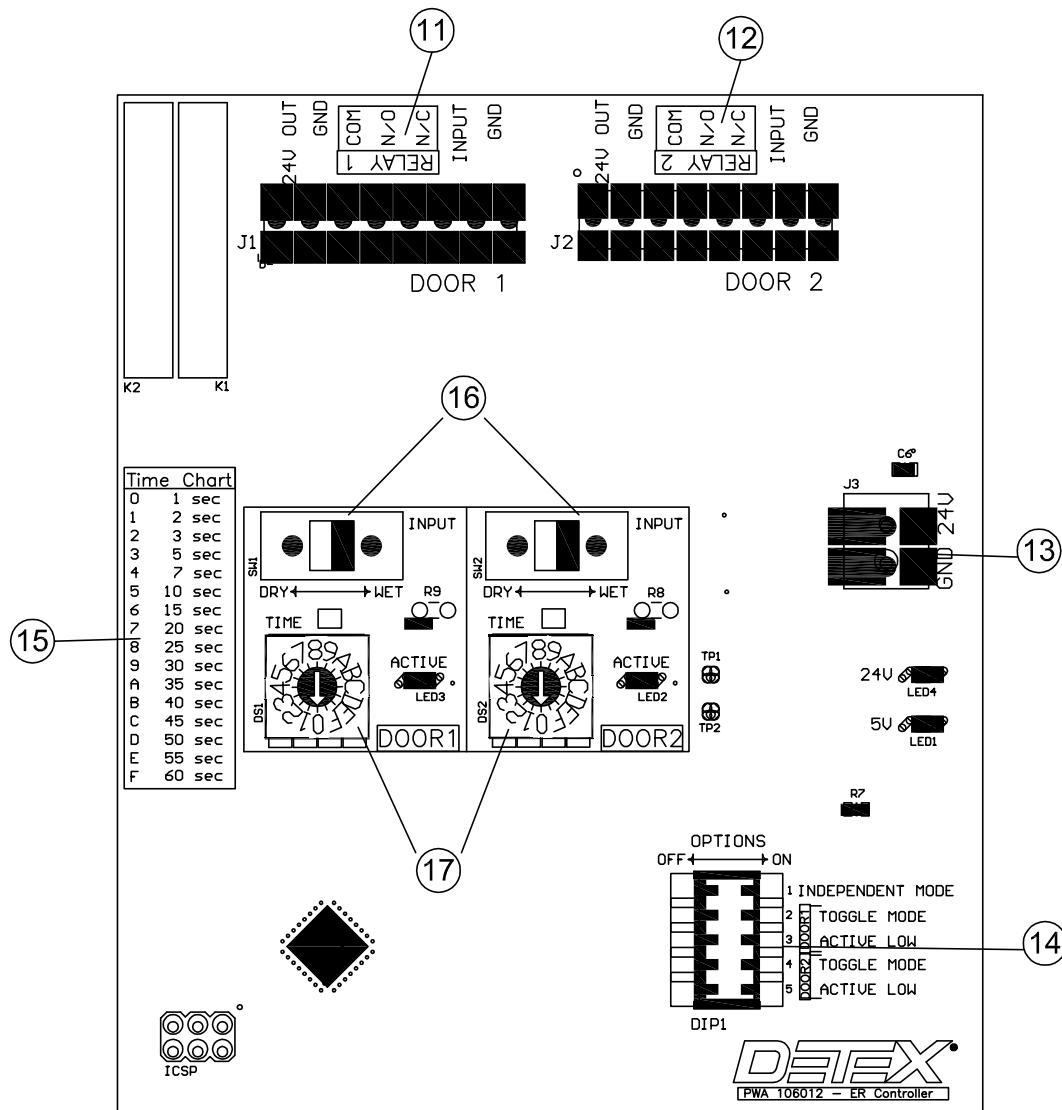


Single page Quick Reference, Power Supply



1. AC input, 24VAC, 50 / 60 HZ, 60VA minimum.
2. Fire loop connection to building fire system, dry contact only.
3. Input A/C On-Off switch. **Caution:** sections of board are still energized with switch in OFF position.
4. Main fuse. Replace with 4.0A Slow Blow @ 250 volt only Detex p/n 104267-4.
5. 24VDC output. 2 amp max load.
6. 12 VDC output. 500 milliamp max load.
7. System status LEDs. See front cover for more information.
8. Input status LEDs. See front cover for more information.
9. Optional battery charger connector. Use with Detex 106008 PWA and Detex 106017 cable.
10. Connector for optional back up batteries. Use Detex BB-0001/0/12 batteries and 102978 connector.

Single page Quick Reference, Latch Retraction



11 and 12: System Input pins 6 & 7 of J1 & J2.

These are the inputs for DOOR1 (PS81) & DOOR2 (PS82). They are factory configured as a dry input, but can be configured as a wet input (see item 6). Output to the latch retraction device(s) are on pins 1 & 2. Relay outputs can be used to signal a door operator. Detex tool p/n 106472-1 (white in color) is provided to simplify making the wiring connections. DOOR2 is n/a for PS81.

13: Power Input to Latch Retraction PWA (J3).

Pre-wired at the factory. LED 4 indicates power is applied and LED1 indicates logic power on the board is good. Both are on during proper operation.

14: Mode selection Switches (DIP1).

These switches are used to configure the latch retraction functions. These include Dependent or Independent operation, Toggle and Active Low. When in Dependent mode, DOOR1 adjustments are used, DOOR2 timing and mode switches are ignored.

15: Timing Chart.

Setting the rotary switches (item 17) to the selection listed holds the latch retracted for the amount of time listed. Use a maintain switch on the input for continuous hold operation.

16: Input Select switches (SW1, SW2).

Used to select a dry contact or live voltage (wet) input. Each input (DOOR1, DOOR2) must be configured separately. A dry contact should be normally open, which is closed to activate the system. A valid wet input must be between 5 and 24 volts DC. Exceeding this rating may damage the PWA and is not covered under warranty. Factory setting is for dry contact.

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Door hold time is selected by rotating these switches to the desired hold times as shown in the Timing Chart (item 5). Use the flat side of the provided tool (p/n 106472-1) to rotate the switch. LEDs 2 and 3 glow red, indicating a valid input has been made and the latch retraction signal has been sent to the panic device(s).