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INSTALLATION INSTRUCTIONS FOR PS82 POWER SUPPLY

dwg# 106030

FOR INDOOR USE ONLY
TO BE MOUNTED IN A PROTECTED AREA

Table of Contents	Page
Device parts breakdown view.....	2
Part number list.....	3
Installing the enclosure.....	4
Blank page.....	5
Connection Diagram & Instructions.....	6-7
Latch Retraction (ER) & Inputs.....	8-9

FILTERED AND REGULATED (SPECIAL APPLICATION) POWER SUPPLY
INPUT: 110VAC @ 1.5 amps 60 Hz / 240VAC @ 870 mA 50Hz
OUTPUT: 24VDC @ 0.8 amps per output

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 AC 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.

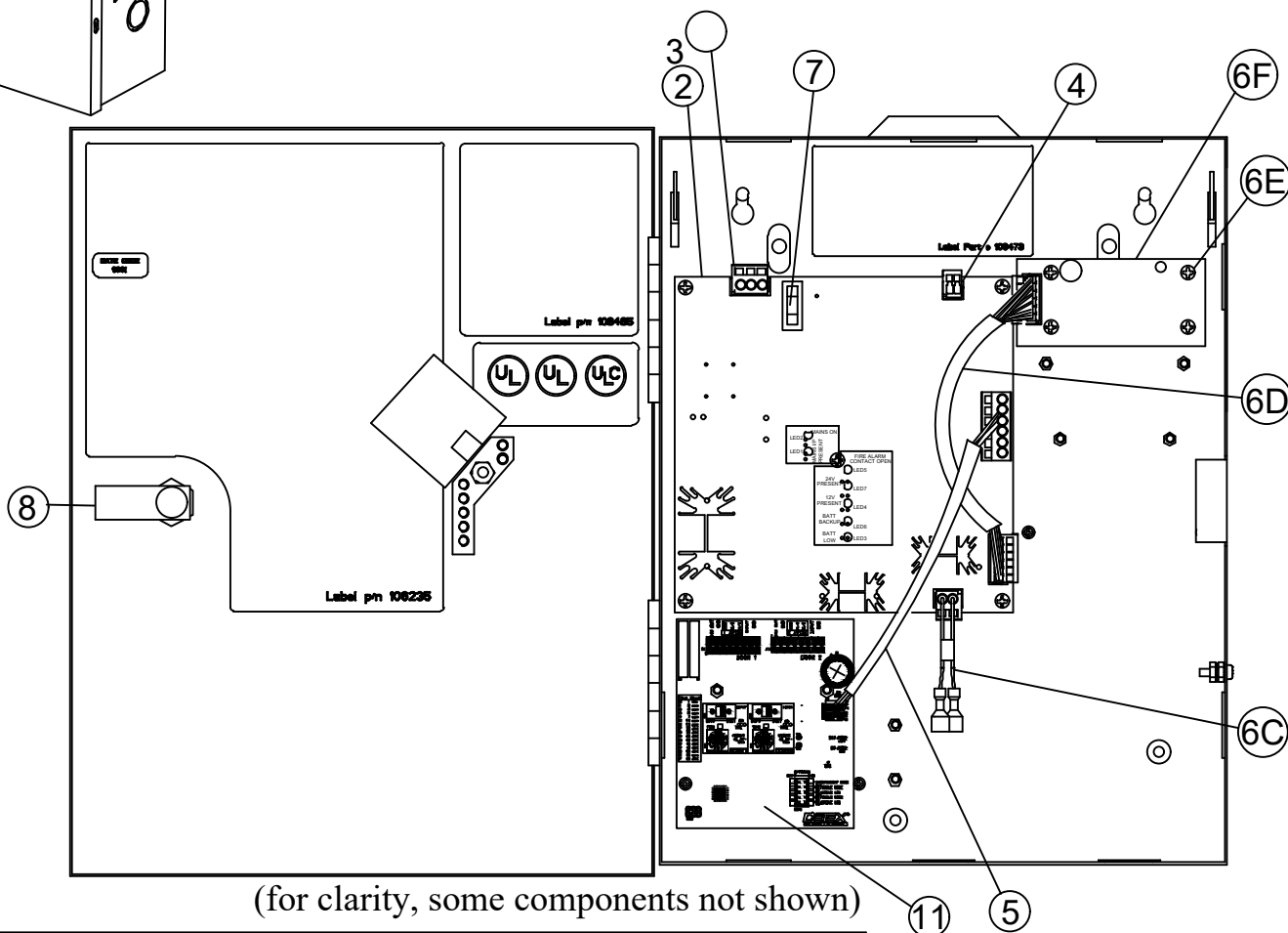
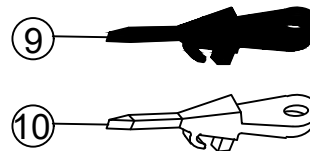
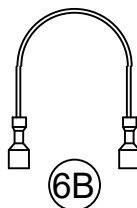
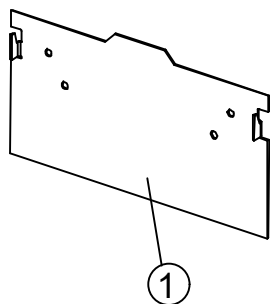
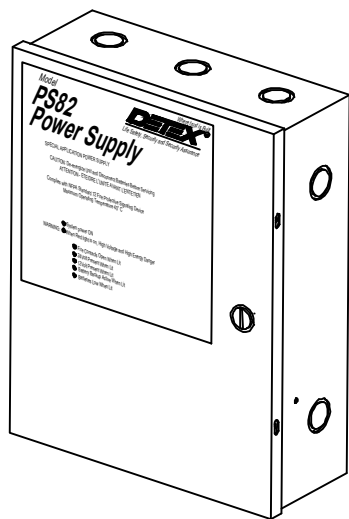
For **WARRANTY** information,
scan code below or
go to www.detex.com/warranty



Owner's Copy

For device installation videos,
scan code below or
go to www.detex.com/videos





PARTS BREAKDOWN		
Item	Order Part #	Description
1	106003	Mounting Plate PS80
2	106006	PWA, Main Board
3	106206-3	Terminal Block, 3 position
4	106208-2	Terminal Block, 2 position
5	106486	Cable, Power, PS82
6KIT	106475	Battery & PWA Kit (optional - includes 6A-6F)
6A	BB-0001/0/12	Battery, 12V, 4.5A (2 required, not shown)
6B	102979	Assembly, Battery Connector
6C	106476	Cable, Battery, PS80 Power Supply
6D	106017	Interconnect Battery Cable
6E	PP-5367-106	Screw, Mach, 6-32 x 3/8 PPH
6F	106008	PWA, Battery Charger Interface
7	104267-3	Main Fuse, 2.5A Slow Blow
8	106029	Kit, Lock Cam and Key, PS80 (optional, plastic lock is standard)
9	106472	Tool, Wago, Red, 5.08mm (for orange connectors)
10	106472-1	Tool, Wago, White, 3.50mm (for white connectors)
11	106012-1	PWA, PS82 ER Controller Option Board

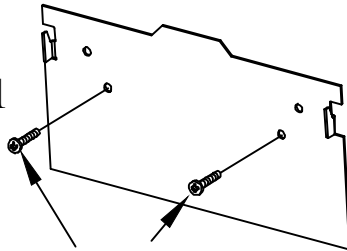
Installing the Enclosure For Indoor Use only. To be mounted in a protected area.

Tools required: Safety glasses, Pencil, Level, Drill, Drill bit set, #4 Phillips screwdriver, Medium Flat screwdriver

See Fig 1:

1. #10 x 1" sheetmetal screws (p/n PP-5183-68) are included with the enclosure for mounting the plate and enclosure to the wall. Other mounting hardware such as concrete anchors or expanding anchors may be required for different types of mounting surfaces.
2. Install mounting plate level in desired location.

Fig. 1



mounting plate attachment holes and screws (two) (see notes 1 & 2)

See Fig 2:

3. Slide the enclosure over the mounting hooks & mark the four holes at the locations shown inside the enclosure in Fig 3.
- Remove the enclosure from the hooks to drill the 4 mounting holes.
4. Secure the enclosure to the wall at these four locations from inside the enclosure.

Fig. 2

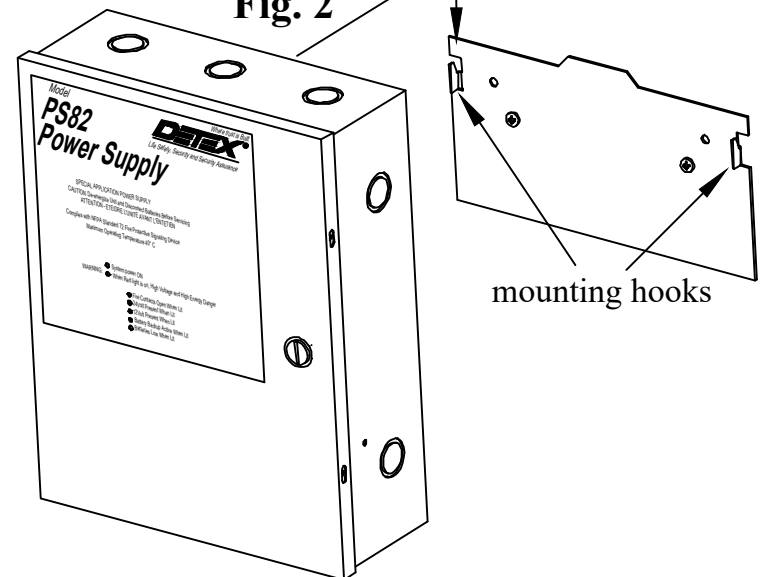
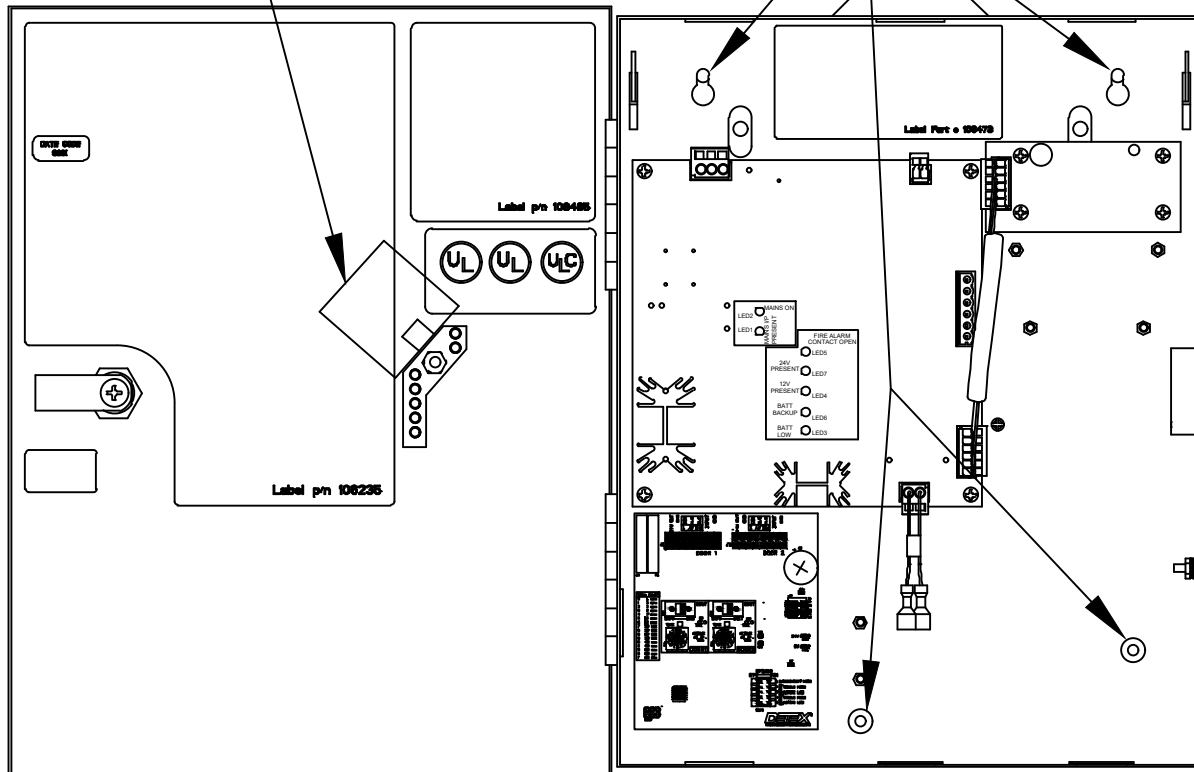


Fig. 3 Mounting holes

remove foam shipping block



(for clarity, some components not shown)

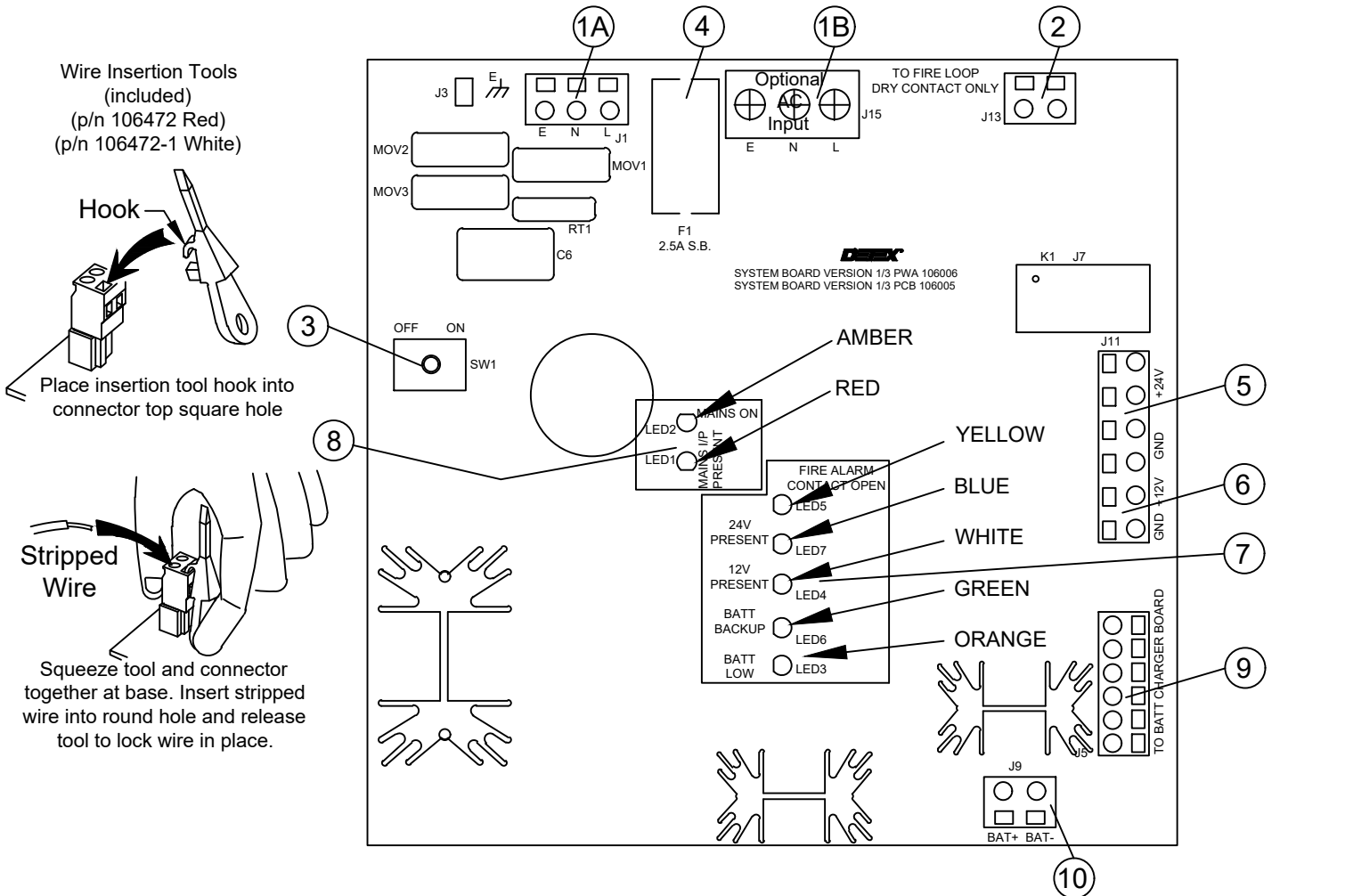
Connection Diagram and Instructions

The PS-82 is a filtered and regulated 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 Latch Retraction (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.

Power Supply

Figure 1A

(for clarity, some components not shown)



1: Main Power Connection (J1 and J15 optional).

Input power is 110 volts to 240 volts AC at 3 amps maximum current. Observe correct terminal connections. Color code requires connections be made per NFPA72.

Leave circuit de-energized while installing and servicing unit. Disconnect batteries if present.

FOR 110V:

Line = BLACK

Neutral = WHITE

Earth = GREEN

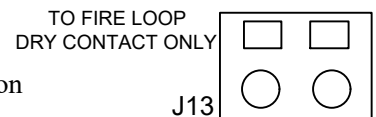
2: Fire Loop Control (J13) [not used on LF version].

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 J11, pins 3 through 6 (see item 5).

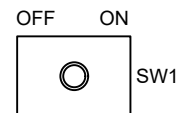
LED 5 will turn off when the circuit connection is made (see item 7).

If the circuit is open, the output relay is de-energized and the 24 volt output of the power supply is turned off, LED 5 will light indicating an open fire loop. 12 volts at pins 1 and 2, item 6 are always present.



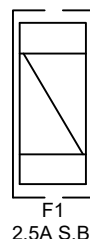
3: Main ON-OFF Switch (SW1).

This switch can be used to de-energize the power supply for service and adjustments. High voltage is still present inside the enclosure as long as the main power at J1 or J15 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 021802.5MXP, Detex p/n 104267-3 or equivalent fuse.

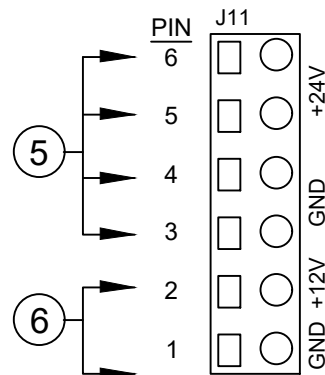


5: 24 volt output terminals (J11, pins 3-6).

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.

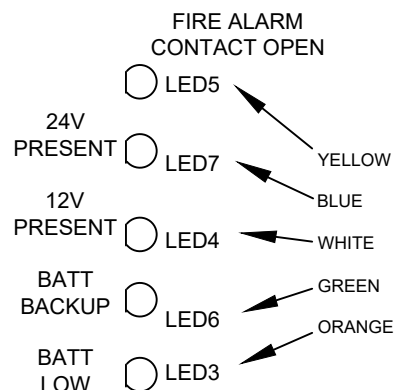
6: 12 volt output terminals (J11, pins 1-2).

The power supply outputs 12 volts at a maximum of 500 milliamps total current with or without fire loop. The output is DC, and the PWA is marked with polarity indicators.



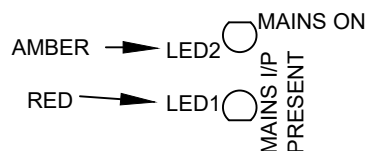
7: System status LEDs.

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.



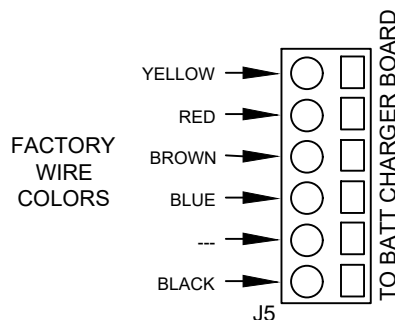
8: Input status LEDs.

LED 1 lights red when input power is applied to the power supply.
LED 2 lights amber when the Main switch is turned ON (item 3).



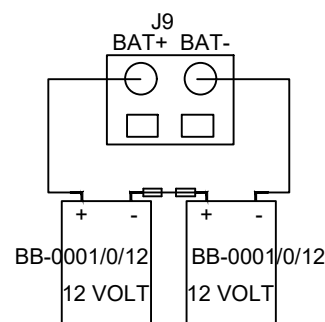
9: Optional battery charger connector (J5).

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).

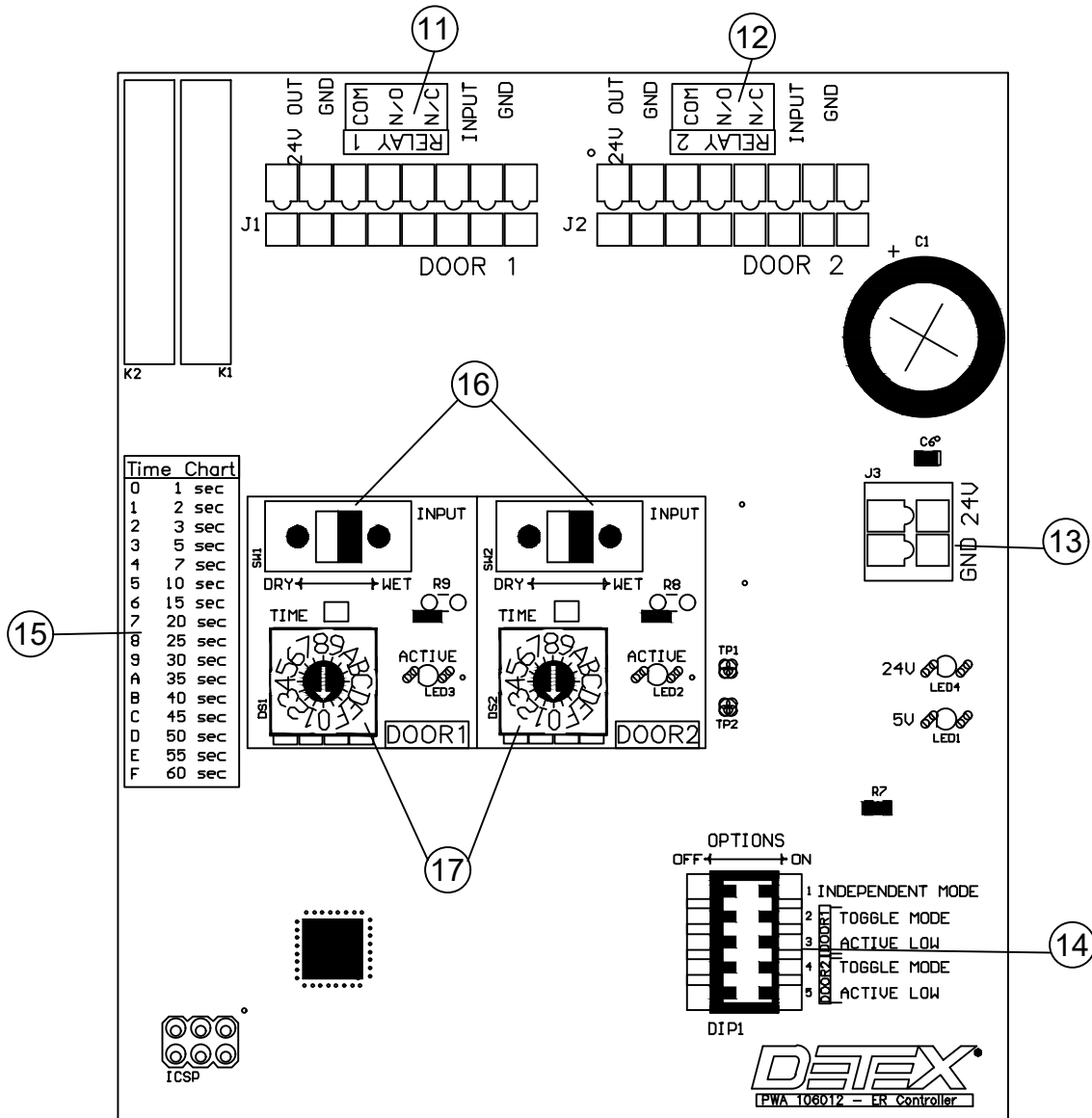
These batteries come supplied when this option is factory ordered or can be ordered separately. The add on kit is Detex p/n 106475. Follow included instructions. Observe polarity when installing batteries.



Latch Retraction (ER) and Inputs

Figure 1B

(for clarity, some components not shown)



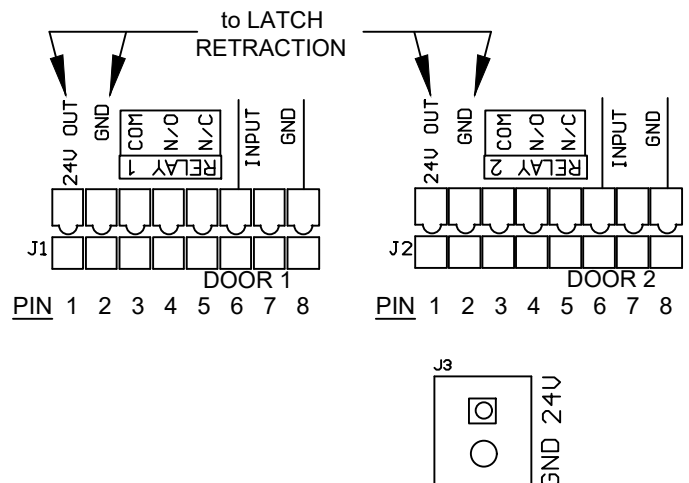
11 and 12: System Input pins 6 & 7 of J1 & J2.

These are the inputs for DOOR1 & DOOR2.

They are factory configured as a dry input, but can be configured as a wet input (see item 16). 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).

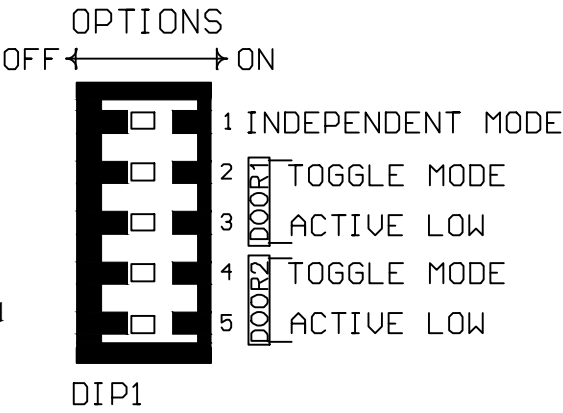
Pre-wired at the factory. LED 4 indicates power is applied and LED1 indicates logic power on the board is good. Both are on during proper operation.

14: Mode selection Switches (DIP1). Default is off
These switches are used to configure the latch retraction functions.

Switch 1 turns INDEPENDENT MODE off or on for two door systems.
With INDEPENDENT MODE on, each door has its own input and timing adjustments (DS1 and DS2).
With INDEPENDENT MODE off, either input operates both doors, and door 1 configuration is used.

Switch 2 (DOOR1) and Switch 4 (DOOR2) turn off or 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 5 (DOOR2) turn off or on ACTIVE LOW.
This inverts the output voltage during normal operation. It can be used to directly control a maglock, strike or other logic inverted devices.
Off = fail secure
ON = fail safe

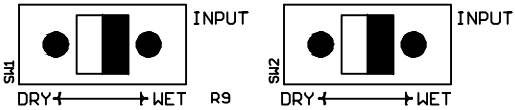


15: Timing Chart.
Setting the rotary switches (item 17) to the selection listed holds the latch retracted for the amount of time listed. Use a maintain switch on the input for continuous hold operation.

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). Default is DRY.
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 see item #7).
Door hold time is selected by rotating these switches to the desired hold times as shown in the Timing Chart (item 15). 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.

