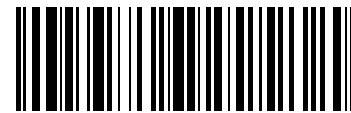


# VON DUPRIN®

## Installation Instructions



941032-00

# PS861 Series Power Supply

### Models Available

PS861 Power Supply  
PS861B Power Supply with Battery Backup  
PS861K Power Supply with Keylock  
PS861BK Power Supply with Battery Backup and Keylock  
PS861FR Power Supply with Fire Release

### Notes

1. The battery option board and batteries can be ordered separately.
2. The fire release board can be ordered separately.
3. All models listed above are 120 VAC input. To order 240 VAC input, add a "-240" suffix to the PS861 model number.

**In the event of trouble,  
contact your local service representative:**

\_\_\_\_\_ (name)

\_\_\_\_\_ (street address)

\_\_\_\_\_ (city, state and zip code)

\_\_\_\_\_ (telephone number)

**⚠ DANGER**

HIGH VOLTAGE  
PRESENT ON AC  
INPUT.

**⚠ CAUTION**

For protection against risk of fire, replace fuse with 2.5 ampere, 250 VAC slow-blow fuse (F1). Connect only to circuits protected by 20 A or less fuse or breaker.

**⚠ NOTE**

Power supply shipped as 24 VDC. For 12 VDC operation, see Steps 3.3 and 4.1.

**⚠ NOTE**

This power supply cannot be used with Von Duprin EL or CX exit devices.

### 1.0 Specifications

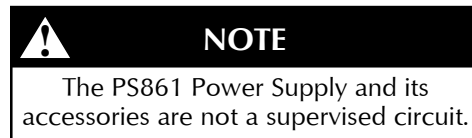
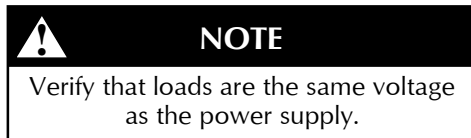
- Input:** 120 VAC, 0.6 A, 50/60 Hz  
240 VAC, 0.3 A, 50/60 Hz (240 VAC option, not field configurable)
- Output:** 12 VDC, 2 A or 24 VDC, 1 A, regulated output  
24 VDC, 0.95 A, regulated output with fire release board  
Protected with 2.5 A slow-blow (1-1/4" x 1/4") fuse  
Accepts 12 to 24 AWG wire  
To be used with any 12 VDC or 24 VDC UL listed locking or releasing device
- Fire Alarm Contacts:** 0.050 A
- Enclosure:** 10" high x 10" wide x 4" deep hinged cover box  
Six (6) 1/2" diameter knockouts total on sides and back  
Optional keylock available
- Battery Backup:** Three (3) hour backup time at 100% load rating, seven (7) hours at 50% load rating  
Two (2) 4AH lead acid batteries

### 2.0 Mounting

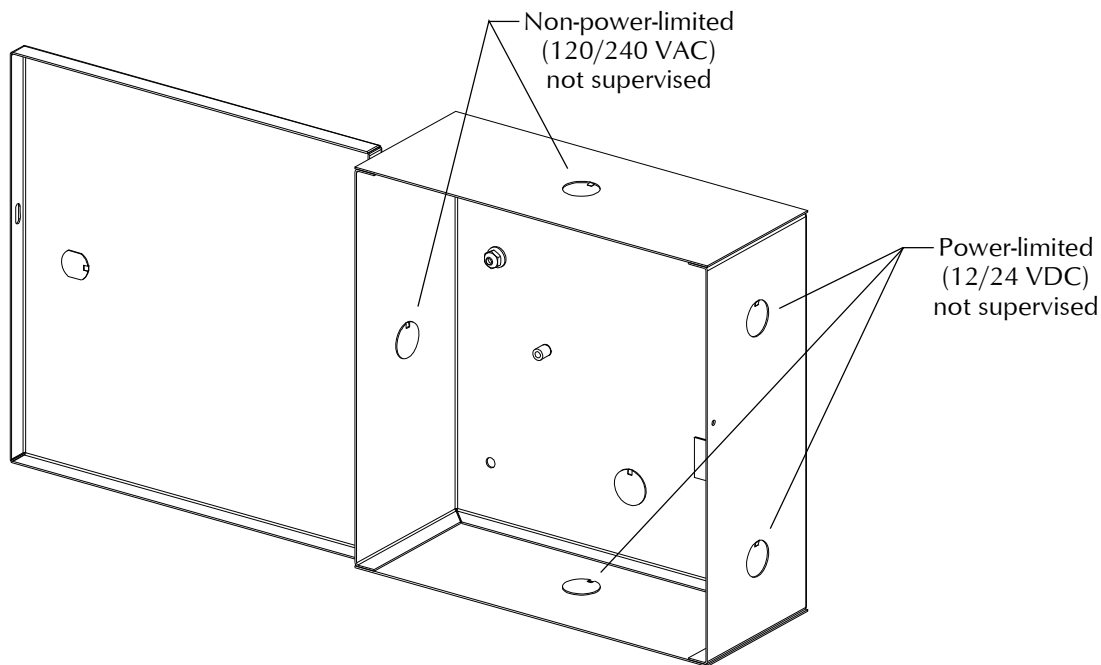
Mount in an area which allows free air circulation to allow for proper ventilation. Mount with appropriate hardware (screws or bolts) through each of the four (4) mounting holes in the rear of the enclosure.

### 3.0 Wiring

- 3.1. Ensure AC breaker is open before connecting AC power to the power supply.
- 3.2. For all supply connections, use wires suitable for at least 90 degrees C (194 degrees F).
- 3.3. Select 12 VDC or 24 VDC in the **DC OUTPUT SELECTION** area on the power supply board by moving the four (4) position jumper to **12 V** or **24 V** position (Figure 2, opposite page).
- 3.4. Maintain 1/4" spacing minimum between power-limited and non-power-limited wiring inside and outside of enclosure.
- 3.5. Connect the load to the **DC OUTPUT** terminals + (positive) and – (negative) through the knockouts indicated in Figure 1.



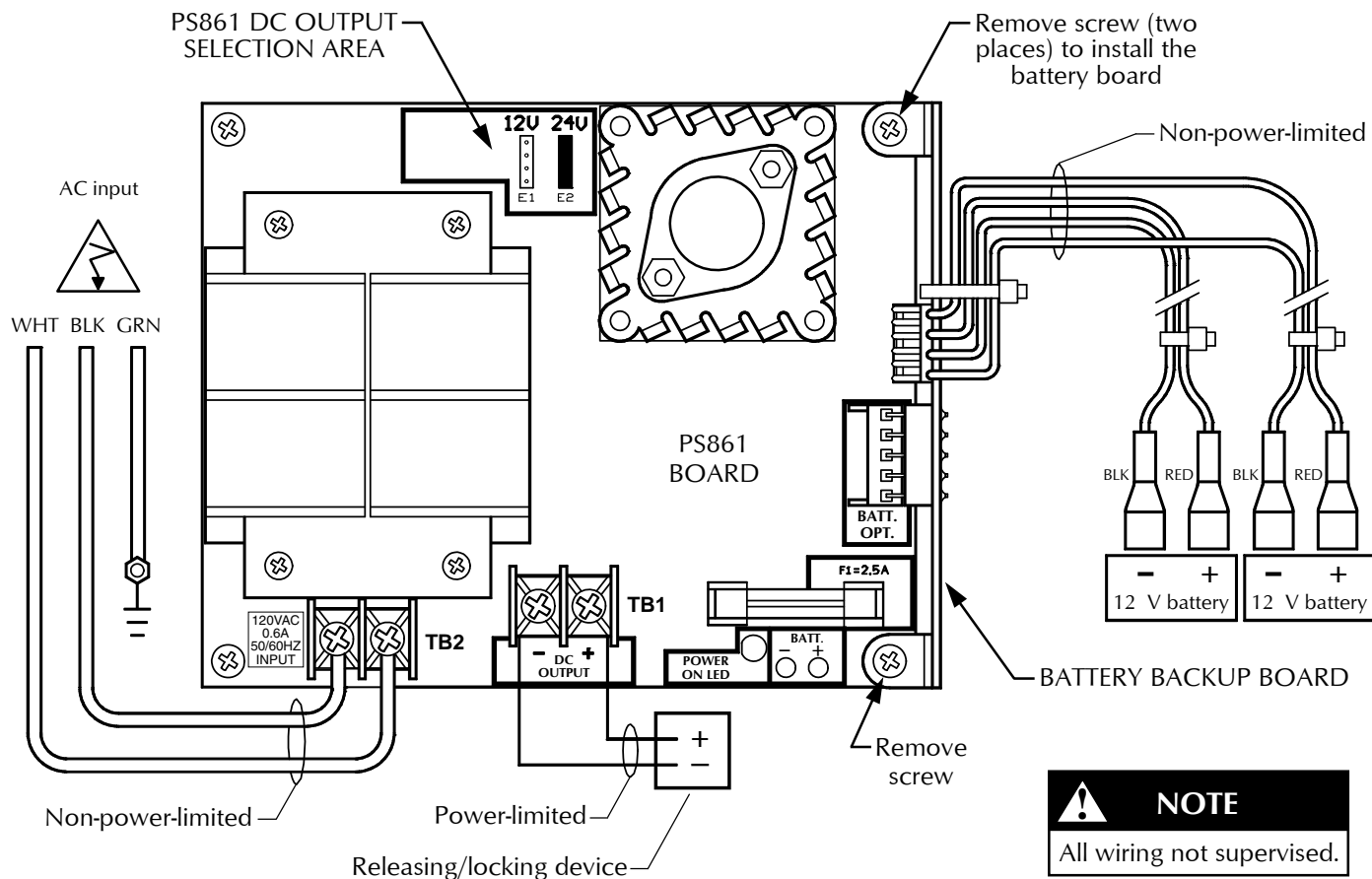
- 3.6. Connect AC input wires to AC input terminals through the knockouts indicated in Figure 1.
- 3.7. Secure field ground conductor under chassis ground nut.
- 3.8. Close breaker to turn on the power supply; the red **POWER ON LED** should be illuminated.



**Figure 1**

### 4.0 Battery Backup Option

- 4.1. Select 12 or 24 VDC in the **DC OUTPUT SELECTION** area of the battery backup board by moving the six (6) position jumper to **12V** or **24V** (Figure 2, opposite page).
- 4.2. Remove the two (2) right hand PS861 board mounting screws located in the enclosure. Install the battery option board by plugging it into the **BATT. OPT.** connector then reinstall the mounting screws.
- 4.2. Route red and black wire pairs from battery backup board to batteries. Be careful to connect red to + (positive) and black to – (negative) battery terminals. Place batteries in bottom of enclosure in an **upright position only**.



**Figure 2.** Installing and Wiring the Battery Backup Board

## 5.0 Battery Maintenance and Replacement

- 5.1. Perform maintenance every six months.
- 5.2. Disconnect AC input.
- 5.3. Configure field devices to draw maximum amount of current.
- 5.4. If voltage falls below 20.4 V during the next three (3) hours, replace batteries.
- 5.5. Discard old batteries per local hazardous waste regulations. Install new Von Duprin part number 010869-00 batteries (see Step 4.2).

**⚠ DANGER**

CHARGE ONLY VON DUPRIN PART NUMBER 010869-00 BATTERIES. OTHER TYPES MAY BURST CAUSING PERSONAL INJURY AND DAMAGE. OBSERVE PROPER POLARITY WHEN CONNECTING BATTERIES.

## 6.0 Keylock Option

The keylock option consists of a one (1) piece lock with two (2) keys.

6.1. With a screwdriver, remove the keylock knockout located on the enclosure door.

6.2. Rotate the key fully clockwise in the lock then insert the lock through the knockout with the locking lever pointing toward the right hand side of the door. Snap into place.

## 7.0 Fire Release Option (24 V Operation Only)

7.1. Configure power supply and battery option (if applicable) for 24 VDC output (see Steps 3.3 and 4.1).

7.2. Install the fire release board as shown in Figure 3.

7.3. Connect the fire release board red wire to + (positive) and black wire to – (negative) **DC OUTPUT** on the PS861 board.

7.4. Connect the load to the **DC OUTPUT** terminals + (positive) and – (negative) on the fire release board.

7.5. Connect normally closed fire alarm contacts to the **FIRE ALARM CONTACTS** terminals on the fire release board.

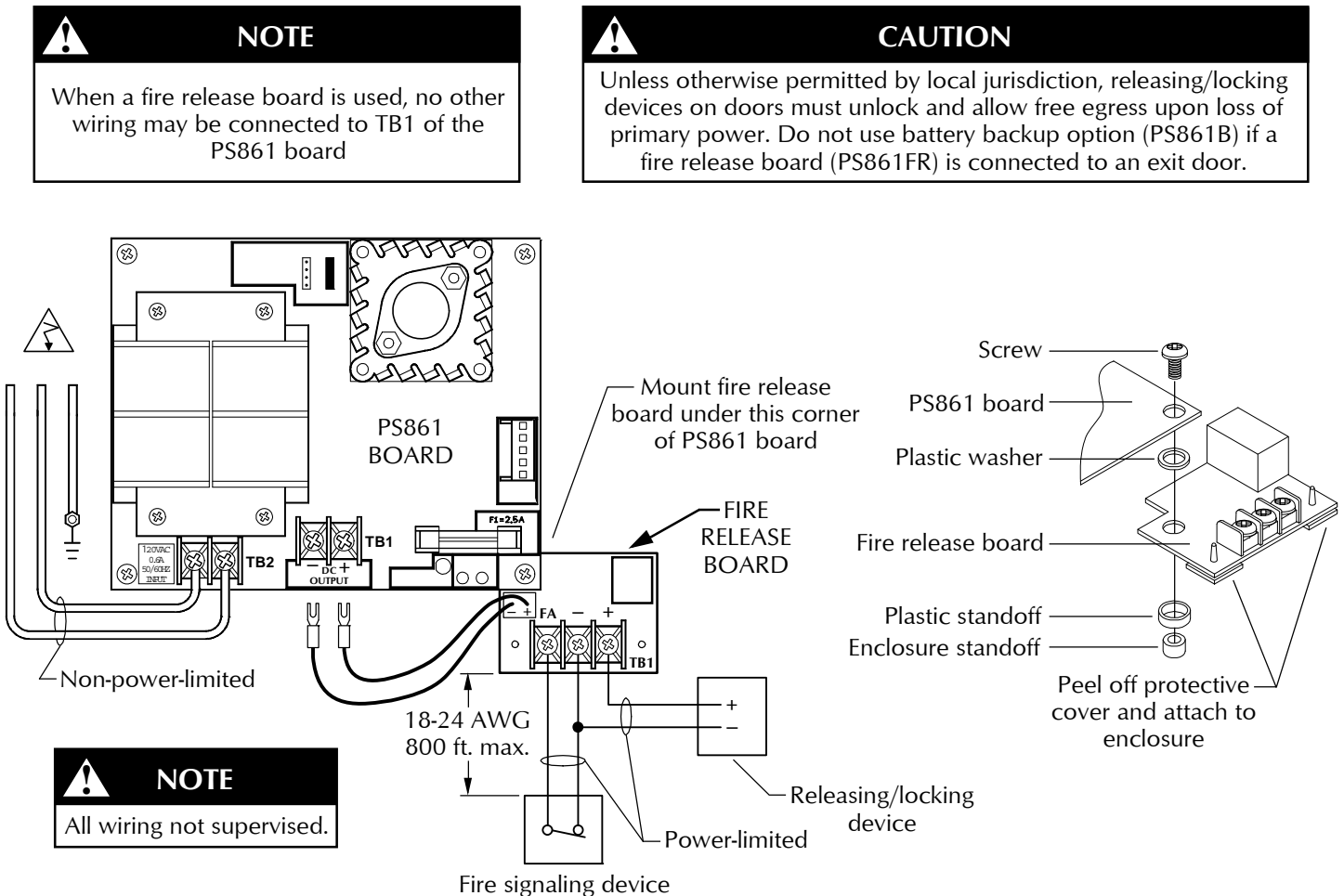


Figure 3. Installing and Wiring the Fire Release Board