

Note - This Quick Installation Guide is only intended to give the basic information needed to install and configure a PS2/3/5 power supply board. For full instructions and specifications, please consult the full PS2/3/5 Installation Instructions, Document Number 52-133, which can be downloaded at www.alarmsaf.com

Models Covered

Order Number	Model Number	Output Voltage	Output Current	Maximum Battery	AC Input	AS Txfrm Part#
00804	PS2-BD	12V	2A	14AH	17.5V	16V50
		24V			28.2V	T24V4A
00805	PS3-BD	12V	3A	20AH	17.5V	T12V5A
		24V			28.2V	T24V5A
00806	PS5-BD	12V	4A	38AH	17.5V	T12V5A
		24V			28.2V	T24V5A
01301	PS5-UL-12-BD	12V	4A	38AH	17.5V	T12V5A
01302	PS5-UL-24-BD	24V	4A	38AH	28.2V	T24V5A
01326	PS5-12025-UL-BD	12V	2.5A	38AH	17.5V	T12V5A
01327	PS5-24025-UL-BD	24V	2.5A	38AH	28.2V	T24V5A
01311	PS5-12040-UL-BD	12V	4A	38AH	17.5V	T12V5A
01312	PS5-24040-UL-BD	24V	4A	38AH	28.2V	T24V5A

Indicates Product Discontinued

Mounting and Wiring

Board-level, supplies can be mounted either with the provided double-sided tape or by using nylon standoffs and hardware (not included). Replacement boards for a listed supply must reuse the existing hardware to maintain the listing.

AC Input - Locate the LVAC Input terminals. These terminals are non-removable and accept wire sizes between #12 and #22 AWG. Phasing of the LVAC input is not important on the PS2/3/5. See "Models Covered" for Transformer requirements.

DC Output - Locate the output terminals. These terminals are non-removable and accept wire sizes between #12 and #22 AWG. Polarity is marked on the PCB, and on the supporting documentation.

Battery Output - Locate the battery terminals. These terminals are non-removable and accept wire sizes between #12 and #22 AWG. Polarity is marked on the PCB. If the PS2/3/5 is set for 12VDC, connect a single 12V battery to the terminals. If the PS2/3/5 is set for 24VDC, connect two 12V batteries in series to the terminals. **CAUTION** - A lead-acid battery has the capability of producing extremely high current. Personal or property damage can occur if the batteries are shorted or improperly connected.

Fault Output -

Supplies with Integral Relay - Locate the Fault Output relay terminals. These terminals are non-removable and accept wire sizes between #12 and #22 AWG. The relay terminals are marked in the non-powered (fault) state (In a normal (non-fault) condition, there is a connection between C and NO).

Supplies with a Voltage Fault Output - See "Wiring an AlarmSaf RBKS module to a PS2/3/5 Voltage Fault Output" on Page 2 for details on wiring the voltage Fault Output.

Terminal Connections

Terminal / Connector	Description	Rating
TB1 - Low Voltage AC Input and Battery Output		
LOW VOLT AC CONNECT	Low voltage AC input	17.5VAC or 28.2VAC - See "Models Covered" for Ratings
LOW VOLT AC CONNECT		
BATTERY CONNECT +	Positive Battery Connection	12VDC or 24VDC at 14AH - 38AH - See "Models Covered" for Ratings
BATTERY CONNECT -	Negative Battery Connection	
TB2 - DC Output and Fault Output		
DC OUTPUT +	DC Positive Output	12VDC or 24VDC at full output current of supply - See "Models Covered" for ratings.
DC OUTPUT -	DC Common Output	
Units with Relay Fault Output		
FAULT OUTPUT NC	Fault Relay Output Normally Closed	1 Amp at 24VDC (Resistive) - Contacts are labeled in the non-powered (Fault) condition
FAULT OUTPUT C	Fault Relay Output Common	
FAULT OUTPUT NO	Fault Relay Output Normally Open	
Units with Voltage Fault Output		
FAULT OUTPUT +	Low-Current Fault Output +	For connection to AlarmSaf RBKS module <i>ONLY</i> - See "Wiring an AlarmSaf RBKS module to a PS2/3/5 Voltage Fault Output" on Page 2 for more information
FAULT OUTPUT -	Low-Current Fault Output -	

Visual Indicators

The PS2/3/5 contains two visual status indicators. **NOTE** - The RED LED is **not** a visual indicator. It serves no user function and can be disregarded.

AC ON (Green) - This LED lights when Low Voltage AC is present AND the AC fuse on the PS2/3/5 is intact. **CAUTION** - Always check for AC presence with an AC volt meter before servicing

FAULT / FLT (Green / Yellow) - The color and operation of this LED varies depending on the type of Fault output present on the supply.

Supplies with an Integral Relay Fault Output - The Fault LED on supplies with an integral fault relay is Green in color and is lit in a normal (no fault) condition. This LED extinguishes when a fault condition is detected.

Supplies with a Voltage Fault Output - The FLT output on supplies with a voltage fault output is yellow in color and is extinguished in a normal (no fault) condition. This LED will flash when a fault condition is detected.



Setting the DIP Switches (Non-Listed supplies only)

Before powering a system containing a PS2/3/5, the DIP Switches should be set for proper operation. The PS2/3/5 board may have either 4 switches or 8 switches, depending on the age of the supply.

Note - Due to inconsistencies by the manufacturers of DIP switches in the labeling of switch numbers and ON and OFF positions, AlarmSaf indicates switch settings visually and descriptively.

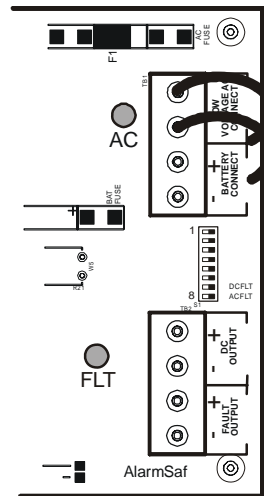
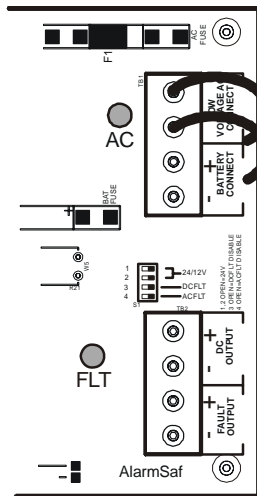
Note - All switch settings shown below are indicated with the board positioned so that the terminal strips are to the right and the large heatsink is to the left as seen below.

Supplies with Four Switches

	12V Output	24V Output	DC Faults Enable	AC Faults Enable
Top Switch	Right (On / Closed)	Left (Off / Open)	N/A	N/A
Second Switch	Right (On / Closed)	Left (Off / Open)	N/A	N/A
Third Switch	N/A	N/A	Right (On / Closed)	N/A
Bottom Switch	N/A	N/A	N/A	Right (On / Closed)

Supplies with Eight Switches

	12V Output	24V Output	DC Faults Enable	AC Faults Enable
Top Switch	Right (Off / Open)	Right (Off / Open)	N/A	N/A
Second Switch	Left (On / Closed)	Right (Off / Open)	N/A	N/A
Third Switch	Left (On / Closed)	Right (Off / Open)	N/A	N/A
Fourth Switch	Right (Off / Open)	Right (Off / Open)	N/A	N/A
Fifth Switch	Left (On / Closed)	Right (Off / Open)	N/A	N/A
Sixth Switch	Left (On / Closed)	Right (Off / Open)	N/A	N/A
Seventh Switch	N/A	N/A	N/A	Left (On / Closed)
Bottom Switch	N/A	N/A	Left (On / Closed)	N/A



Wiring an AlarmSaf RBKS module to a PS2/3/5 Voltage Fault Output

In order to get a usable signal from the voltage fault output on a PS2/3/5, it must be connected to an AlarmSaf RBKS module in the proper configuration. The following RBKS modules may be used with the voltage fault output:

- RBKS-124P *NOT* Fail Safe
- RBKS-124N Fail Safe
- RBKS-10 Fail Safe when using the Negative Trip Input only

Note - The RBKS-124P does not provide a fail safe indication - the relay will only indicate a fault condition if a source of power (Battery / AC power) is present. If a total loss of battery and AC power occurs, the relay *will not* indicate a fault.

Note - The voltage fault output will only supply a very low current. It *will not* power a relay coil - even a low-current relay coil. This output *must* be used with a sensitive trip relay.

Note - When wiring a fail safe relay configuration, the resistor shown is essential to the operation of the relay and cannot be omitted. The resistor value can be between 1K and 100K 1/4W.

