

Description

POWERPATH™ Series PS-12/24-8CP and PS-12/24-8MP are power limited 8 amp power supply/chargers used to expand the supervised power capability of a fire alarm control panel (FACP) for notification appliance circuits (NAC).

The PS-12/24-8CP provides up to 200 milliamps of continuous auxiliary output that can be used for control functions during alarm (or up to 60 milliamps for 60 hour battery requirements). The PS-12/24-8MP provides up to 3.5 amps of auxiliary output that is available only during nonalarm condition for such applications as door holder systems.

Both models provide regulated and filtered 12 or 24 VDC output to four (4) Class "B" or two (2) Class "A" circuits. Each Class "B" circuit has a rating of three (3) amps with a total output of up to eight (8) amps. Each Class "A" circuit is rated at three (3) amps. Two (2) Class "A" or Class "B" inputs from an FACP and two (2) dry contact inputs are provided to trigger the outputs. The units accept either 12 or 24 VDC inputs and provide 12 or 24 VDC outputs. Both units support a full 8 amps of notification power even if the battery is in a degraded mode and only AC power is connected.

POWERPATH™ Series PS-12/24-8CP and PS-12/24-8MP are compatible with all Wheelock 12 or 24 VDC Life Safety Notification Appliances and with their Patented **BUILT-IN SYNCHRONIZED MODE** feature, they can control and operate all of Wheelock's Synchronized Notification Appliances, including silencing audibles while maintaining strobe activation.

Features

Approvals

- Approvals Include: UL Standard 864, California State Fire Marshal (CSFM), (New York City (MEA), Factory Mutual (FM), Chicago (BFP) See Approvals by model in Specification and Ordering Information
- Compliant with NFPA 72

Inputs

- **Compatible with 12 or 24 VDC FACP**
- **115 VAC @ 50/60 Hz or 240 VAC @ 50/60 Hz**
- Two 12 or 24VDC NAC Initiating Circuits from host panel
- Two "Dry" contact input circuits
- Accepts 2 Class "A" or 2 Class "B" NAC circuit inputs
- Additional activation options are: NC contacts or open collector of a transistor

Outputs

- 8 amperes rated supply current @ 12 or 24 VDC
- Filtered and regulated power supply outputs
- Class 2 rated power limited outputs
- Dip switch selectable options
- **Field selectable 12 or 24 VDC outputs**
- **4 Class "B" or 2 Class "A" or 1 Class "A" and 2 Class "B" Notification Appliance Circuits)**
- **Each Class "B" output has a maximum rating of three (3) amperes**
- **Each Class "A" output has a maximum rating of three (3) amperes**
- Code 3 (Temporal) option
- Steady output option

POWERPATH™ NAC POWER SUPPLIES



Series PS-12/24-8CP
Series PS-12/24-8MP



(Batteries Not Included)

Outputs Cont.

- Built-In Wheelock Synchronization Protocol
- Input and output synchronization (including pass through)

Supervision

- FACP NAC supervision steered to either input #1 or #2
- Common input and output trouble circuit
- Input and output LED indicators
- AC fail supervision (Form "C" contacts rated @ 1 amp @ 24 VDC or 115 VAC)
- Battery presence and low battery supervision (Form "C" contacts rated @ 1 amp @ 24 VDC or 115 VAC)
- Ground fault detection
- 4 latching LED's for NAC trouble annunciation

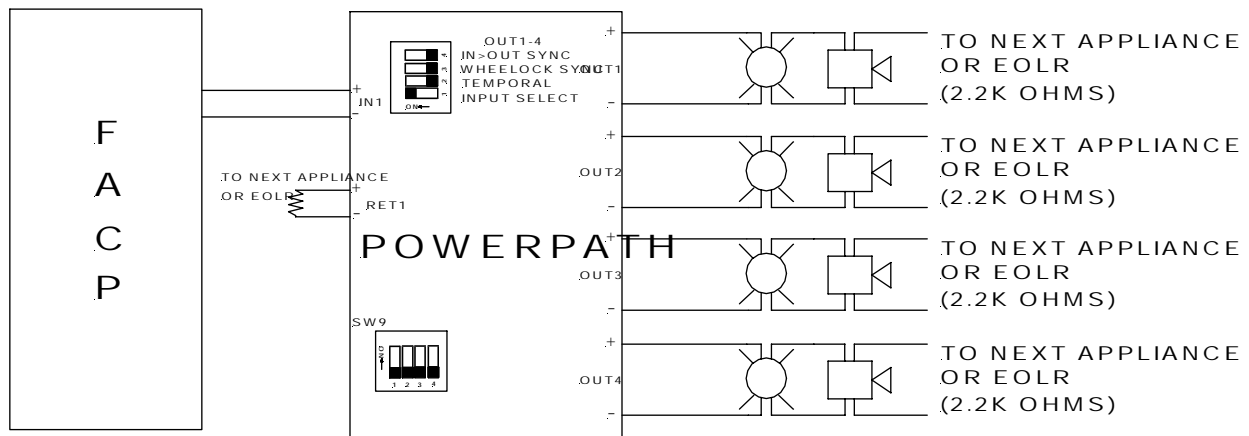
Power

- **Not Battery Dependent - Full 8A even if battery is degraded**
- Automatic switch over to standby batteries when AC fails
- **Supports sealed lead acid or gel type batteries**
- Fused battery protection
- Thermal and short circuit protection with auto reset
- **Supports both 7AH or 12AH batteries in the same cabinet** (Cabinet Size: 16" H x 12.25" W x 5" D)

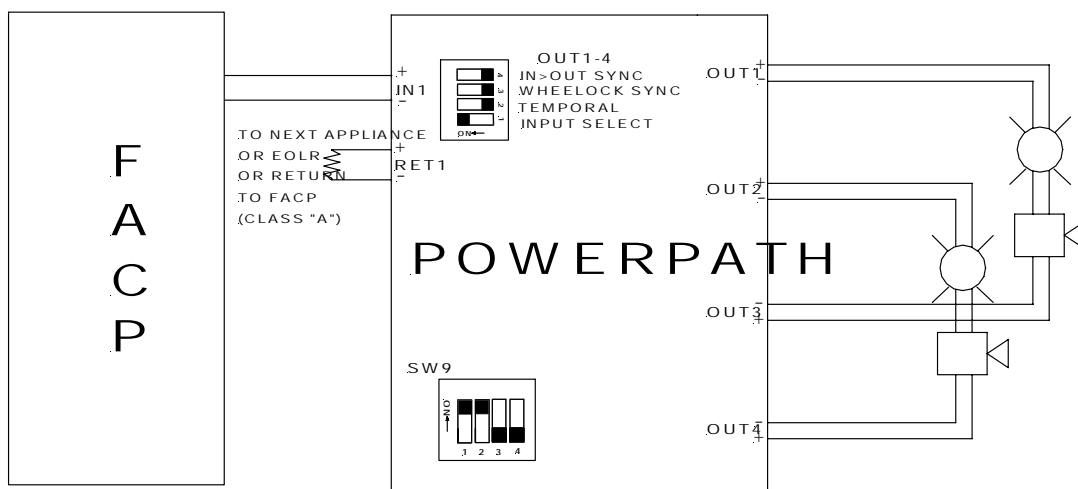
Auxiliary Power

- Up to 200 mA continuous with PS-12/24-8CP
- Up to 3.5 amps nonalarm with PS-12/24-8MP

Normal Mode (Class B)



Normal Mode (Class A)



POWERPATH™ Operating Modes (refer to Installation Manual):

Normal Mode: Provides constant 12 VDC or 24 VDC output upon initiation by a voltage to input IN1 or IN2 or by a contact opening on DRY1 or DRY2. The unit returns to standby mode when the input is deactivated.

Wheelock Sync Mode: Provides signals for synchronization of patented Wheelock audible and strobe notification appliances. Audibles can also be silenced in this mode while the strobes continue to flash.

In>Out Sync Mode: Accepts a coded signal or synchronization signal on the input to provide a coded output or synchronized output. This signal may come from a FACP, another POWERPATH or a Wheelock SM or DSM synchronization module. Caution: Do not use strobes on coded output circuits.

Temporal Mode: Codes the output voltage in a code-3 temporal pattern to drive audible appliances such as horns, bells or chimes. Caution: Do not use strobes on coded output circuits.

**Notification Appliance Circuit
Layout and Design**

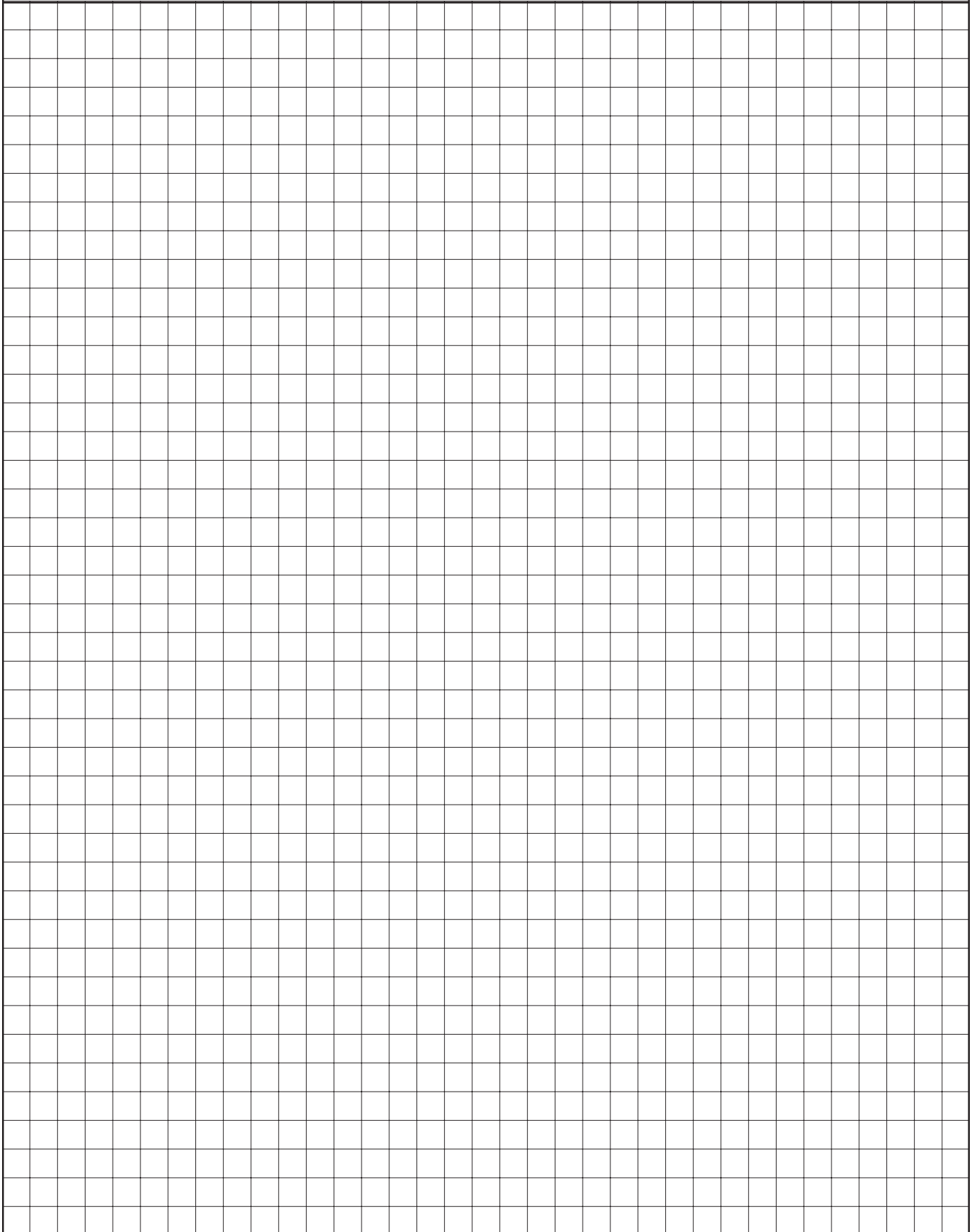
Project

No.

By

Date

Subject



Architects and Engineers Specifications

The power supplies shall be Wheelock **POWERPATH™** Series PS-12/24-8CP or PS-12/24-8MP, or equivalent. The units shall be stand alone power supplies intended for powering fire alarm notification appliances via their own Notification Appliance Circuit(s) (NAC). The units shall be UL 864 Listed for power limited operation of their outputs and comply with NFPA 70 (NEC), article 760.

The power supplies shall support a full 8A of notification power even if the battery is in a degraded mode and only AC power is connected.

The power supplies shall be activated by a standard Notification Appliance Circuit (NAC) from any Fire Alarm Control Panel (FACP) or a "Dry contact" closure. The units shall be 8 ampere, 12 or 24 VDC, regulated and filtered, supervised remote power supply/chargers. The power supplies shall provide a full 8 amperes of current and shall not be battery dependent. They shall operate over the voltage range of 8 to 33 VDC or FWR. The primary application of the units shall be to expand fire alarm system capabilities for additional NAC circuits to support ADA requirements and to provide auxiliary power to support system accessories or functions. The power supplies shall provide four Class "B", two Class "A", or two Class "B" and one Class "A" NAC circuit(s). The PS-12/24-8CP units shall also supply up to 200 mA of auxiliary power that is available during both nonalarm and alarm. The PS-12/24-8MP units shall also supply auxiliary power of not less than 3.5A at 24 VDC during nonalarm. The power supplies shall be capable of charging batteries of up to 12 ampere hours per NFPA 72 (1999). Input activation options shall be from not less than two NAC circuits or Dry Contact closures. These inputs shall have the capability of being directed to any combination of the four NAC circuit outputs. Each NAC circuit output shall be rated at 3 amperes for Class "B" applications or 3 amperes each for Class "A". The outputs shall be programmable to generate a steady or Temporal (Code 3) output and or a synchronized strobe or horn output. The power supplies shall provide independent loop supervision for either Class "A" or Class "B" FACP NAC circuits and shall have the capability to "steer" all alarm or trouble conditions to either incoming NAC circuit. The units shall have common output terminals. The power supplies shall be powered from a 120 VAC or 240 VAC source with a current consumption of 5 amperes max. The unit shall incorporate short circuit protection with auto reset. The power supply shall incorporate a built in battery charger for lead acid or gel type batteries with automatic switchover to battery back up in the event of AC power failure. The charger shall incorporate fused protection for the batteries and have the ability to report low battery and/or no battery condition(s). Standby current for battery back up shall be 100 mA max. The cabinet dimensions shall be 16" H x 12.25" W x 5" D.

▲ WARNING: PLEASE READ THESE SPECIFICATIONS AND INSTALLATION INSTRUCTIONS CAREFULLY BEFORE USING, SPECIFYING OR APPLYING THIS PRODUCT. FAILURE TO COMPLY WITH ANY OF THESE INSTRUCTIONS, CAUTIONS AND WARNINGS COULD RESULT IN IMPROPER APPLICATION, INSTALLATION AND/OR OPERATION OF THESE PRODUCTS IN AN EMERGENCY SITUATION, WHICH COULD RESULT IN PROPERTY DAMAGE, AND SERIOUS INJURY OR DEATH TO YOU AND/OR OTHERS.

Specifications and Ordering Information

Model Number	Order Code	Input Voltage/Current	Approvals			
			UL	MEA	CSFM	FM
PS-12/24-8CP	3047	120/220 VAC @ 50/60 Hz; 5.0 amps max.	X	*	X	*
PS-12/24-8MP	3046	120/220 VAC @ 50/60 Hz; 5.0 amps max.	X	X	X	X
Output NAC Circuits		Output Voltage/Current		X= Approved *= Pending		
Four (4) Class "B"		12/24 VDC @ 3 amps per Circuit				
Two (2) Class "A" or		12/24 VDC @ 3 amps per Circuit				
One (1) Class "A" and Two (2) Class "B"		12/24 VDC @ 3 amps per Circuit (Class "A") 12/24 VDC @ 3 amps per Circuit (Class "B")				
Standby Current		0.060 Amps				
Alarm Current		0.100 Amps				
Total NAC Current		8 Amps Max.				
Standby Batteries	Standby Time	Alarm Output Total Amps/Minutes	Aux Output PS-12/24-8MP	Aux Output PS-12/24-8CP		
24 VDC/12 AH (uses two (2) 12 VDC batteries in series)	24 Hours	8 Amps/15 Minutes	3.5A during nonalarm	200 mA		
	60 Hours	8 Amps/15 Minutes		60 mA		
12 VDC/12 AH	24 Hours	8 Amps/15 Minutes		200 mA		
	60 Hours	8 Amps/15 Minutes		60 mA		

NOTE: Due to continuous development of our products, specifications and offerings are subject to change without notice in accordance with Wheelock Inc. standard terms and conditions.

WE ENCOURAGE AND SUPPORT NICET CERTIFICATION

**3 YEAR WARRANTY
Made in USA**



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