



POWERPATH™

Description

POWERPATH Series PS-12/24-8 is a power limited 8 ampere power supply/charger used to expand the supervised power capability of a Fire Alarm Control Panel (FACP) for Notification Appliance Circuits (NAC) as well as providing auxiliary power to support system accessories. Power Limited refers to the ratings of the output circuits per UL 864 and NFPA 70 (NEC), Article 760. Two (2) Class "A" or Class "B" inputs from an FACP and two (2) dry trigger inputs are provided to direct and deliver regulated and filtered 12 or 24 VDC via four (4) Class "B", two (2) Class "A" or two (2) Class "B" and one (1) Class "A" NAC Circuits. Each Class "A" or Class "B" output has a maximum rating of two (2) amperes. A single output of four (4) amperes can be achieved by paralleling two (2) Class "B" outputs.

POWERPATH Series PS-12/24-8 is compatible with all Wheelock's conventional 12 or 24 VDC Life Safety Notification Appliances and with its Patented **BUILT-IN SYNCHRONIZED MODE** feature, it can control and operate all of Wheelock's Synchronized Notification Appliances. Additionally, the horn may be silenced while maintaining strobe activation.

Features

- **Approvals (PS-12/24-8): UL 864, MEA, CSFM**
- NFPA-72 COMPLIANT
- Compatible with 12 or 24 VDC FACP
- 115 VAC @ 60Hz and 3.2 amps input voltage
- 8 amperes rated supply current @ 12 or 24 VDC
- Filtered and regulated power supply outputs
- Field selectable 12 or 24 VDC outputs
- **Each Class "A" or Class "B" output has a maximum rating of two (2) amperes.**
- 50 mA of resettable (internal or remote) auxiliary power
- Accepts 2 Class "A" or 2 Class "B" NAC circuit inputs
- Additional activation options are: NC contacts or open collector of a transistor
- Programmable EOL Resistor Supervised NAC Circuit Outputs (4 Class "B" or 2 Class "A" or 1 Class "A" and 2 Class "B") with a maximum 2 amperes per circuit
- Class 2 rated power limited outputs
- 2 Class "B" Outputs may be paralleled for more power on a circuit (Total 4 Amperes on the circuit)
- 2 Outputs may be paralleled for more power on a circuit (total of 4 amperes on the circuit)
- Dip switch selectable options
- Code 3 (Temporal) option
- Steady output option
- **Built-in Synchronization Mode**



Series PS-12/24-8 Power Supply

Series PS-12/24-8 (Batteries Not Included)



- Input and output synchronization (including pass through)
- 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
- Thermal and short circuit protection with auto reset
- Built-in battery charger for sealed lead acid or gel type batteries
- Automatic switch over to stand-by batteries when AC fails
- Zero voltage drop when switching to battery stand-by
- Circuit breaker battery protection
- Unit includes power supply, red enclosure, cam lock, open frame transformer and battery leads
- Size: 15.5" H x 12.5" W x 4.5" D

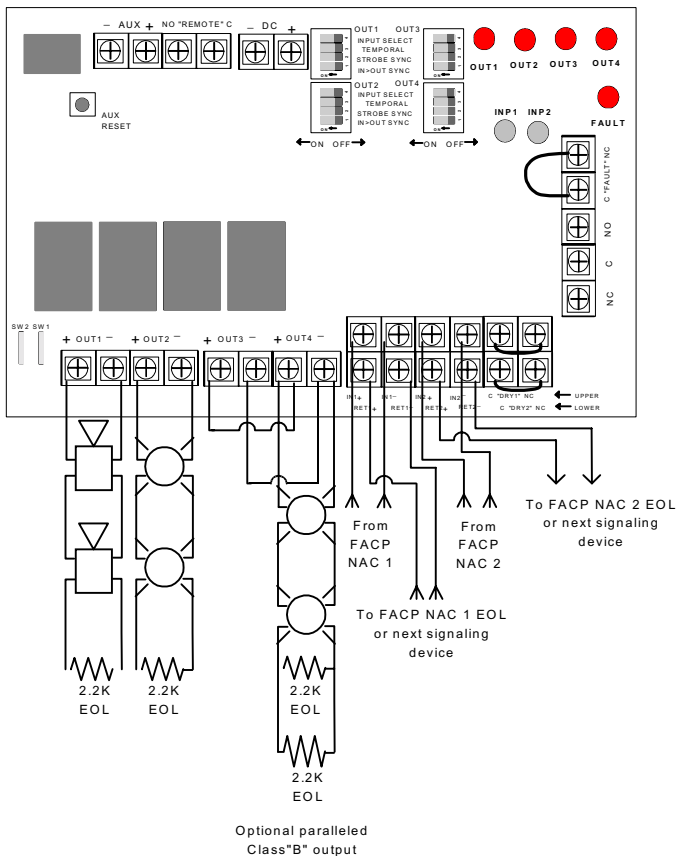


Figure 1
Class "B" Connections

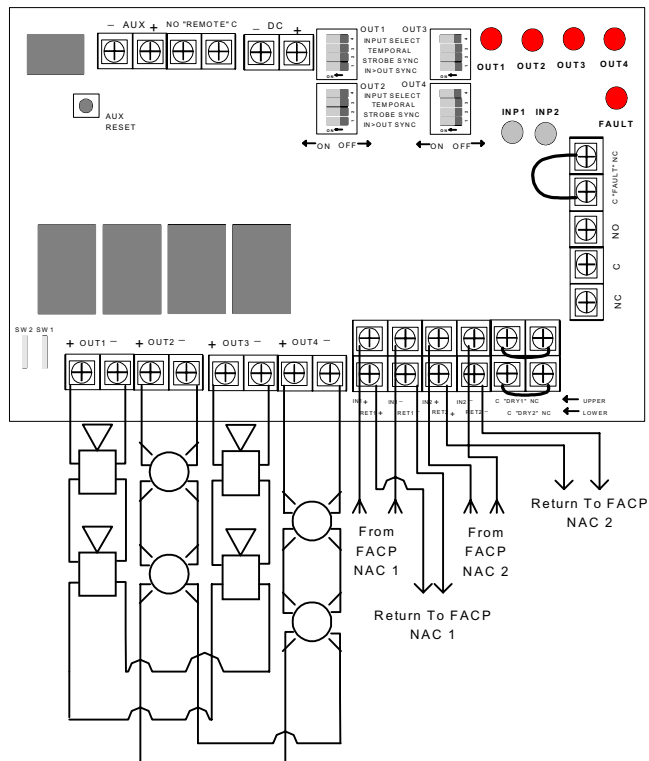
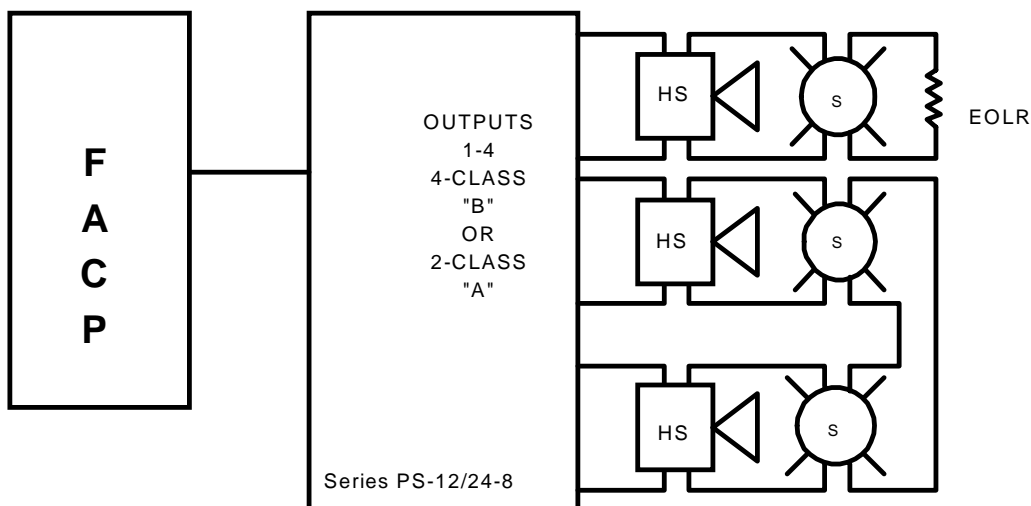


Figure 2
Class "A" Connections

POWERPATH™ Applications

The following applications illustrate the use of synchronized appliances powered by **POWERPATH**. **POWERPATH** can only be used on NAC's with continuously applied voltage. Do not use **POWERPATH** on coded or interrupted NAC's in which the applied voltage is cycled on and off. **POWERPATH** can synchronize the Series RSS, RSSP Strobes, the Series NS/NS4/NH and AS/AH horn strobes and the Series SL strobes. Note: The Series RSS and SL strobes are also part of other products (e.g. speakers, chimes, multitone, etc.). Each output of **POWERPATH** can be a Sync Circuit to drive audible/visual, visual, audible or synchronized appliances. Refer to audible and visual notification appliance Data Sheets or Installation Instruction Sheets for additional information.

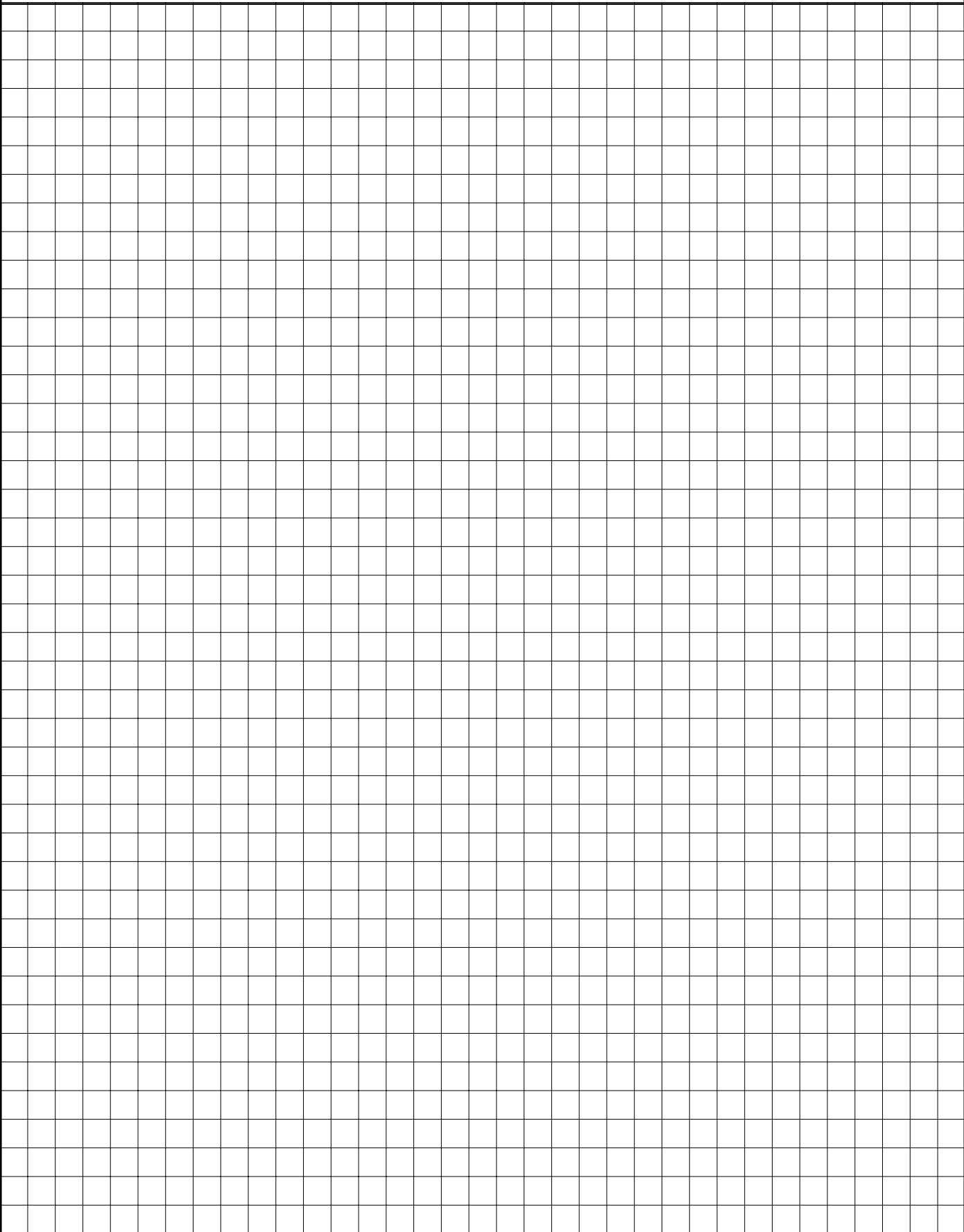


Basic Line Diagram

**Notification Appliance Circuit
Layout and Design**

Project	
No.	
By	Date

Subject



Architects and Engineers Specifications

The power supply shall be Wheelock POWERPATH Series PS-2/24-8, or equivalent. The unit shall be a stand alone power supply intended for powering fire alarm notification appliances via its own Notification Appliance Circuit(s) (NAC). The unit shall be UL 864 approved for power limited operation of its outputs and comply with NFPA 70 (NEC), article 760. The power supply shall be listed under UL Standard 864, and have MEA and CSFM approvals.

The power supply shall be activated by a standard Notification Appliance Circuit (NAC) from any Fire Alarm Control Panel (FACP) or a "Dry contact" closure. The unit shall be an 8 ampere, 12 or 24 VDC, regulated and filtered, supervised remote power supply/charger. It shall operate over the voltage range of 9 to 30 VDC. The primary application of the unit shall be to expand a fire alarm system capabilities for additional NAC circuits to support ADA requirements and to provide auxiliary power to support system accessories. The power supply shall provide four Class "B", two Class "A", or two Class "B" and one Class "A" NAC circuit(s). The unit shall also supply resettable auxiliary power of not less than 50 mA at 24 VDC. The power supply shall be capable of charging batteries of up to 12 ampere hours per NFPA 72 (1999). Input activation 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 2 amperes and shall be programmable to generate a steady or Temporal (Code 3) output and or a synchronized strobe or horn output. The unit shall have the capability of achieving a four ampere NAC circuit output simply by paralleling two of the NAC circuit outputs. The power supply 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 unit shall have common output terminals and common trouble input terminals. The power supply shall be powered from a 115 VAC, 60 Hz source with a current

consumption of 3.2 amperes. 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 circuit breaker protection for the batteries and have the ability to report low battery and/or no battery condition(s). Stand by current for battery back up shall be 75 mA.

The cabinet dimensions shall be 15.5" H x 12.5" W x 4.5" 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	
PS-12/24-8	8114	115 VAC, 60 Hz; 3.2 amps	
PS-12/24-8E <small>(Note: no agency approvals)</small>	8218	220 VAC	
Output NAC Circuits		Output Voltage/Current	
Four (4) Class "B"		12/24 VDC @ 2 amps per Circuit	
Two (2) Class "A" or		8 amps maximum available	
One (1) Class "A" and Two (2) Class "B"			
Standby Current		75 mA	
Maximum Loop Resistance		100 Ohms	
Standby Batteries	Standby Time	Alarm Output Total Amps / Minutes	Aux Output Current
24 VDC / 12 AH <small>(uses two (2) 12 VDC batteries in series)</small>	24 Hours	8 Amps / 15 Minutes	50 mA
	60 Hours	8 Amps / 15 Minutes	----
12 VDC / 12 AH	24 Hours	8 Amps / 15 Minutes	50 mA
	60 Hours	8 Amps / 15 Minutes	----
24 VDC / 7 AH <small>(uses two (2) 12 VDC batteries in series)</small>	24 Hours	8 Amps / 15 Minutes	----
	12 VDC / 7AH	24 Hours	8 Amps / 15 Minutes

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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