



www.firelite.com

July 13, 2004

DF-52202 • D-110

FCPS-2404

24 Volt, 4 Amp NAC Power Expander

Section: Power Supplies/Accessories

GENERAL

The **Fire-Lite FCPS-2404** is a compact, cost-effective, NAC power expander. Its filtered 24 VDC output can provide up to 4.0 amps of current to drive one Style Y (Class B) NAC (Notification Appliance Circuit). The FACP's (Fire Alarm Control Panel) NAC is connected to the power expander's input circuit. When the control input circuit activates due to reverse polarity of the FACP's NAC, the power expander will activate its NAC circuit. The FCPS-2404 is compatible with 12 VDC and 24 VDC control panels.

FEATURES

- 4 amps total of continuous current available.
- One 24 VDC Style Y (Class B) NAC.
- One optically-isolated input/control circuit, compatible with 12 VDC and 24 VDC control panel.
- External Strobe Synchronization could be added with UL listed synch module, which can be housed in the FCPS-2404.
- Can be wired daisy-chain style.
- Self-contained in compact, lockable cabinet (15" [381 mm] H x 14.5" [368 mm] W x 3.050" [775 mm] D).
- Output is filtered and completely power limited.
- Integrated supervised battery charger for lead acid or gel type batteries.
- Uses only 7 AH (Amp Hour) batteries — can be accommodated in the power supply cabinet.
- NAC supervised by host FACP.
- Earth fault detection by host FACP.
- Fixed terminal blocks for field wiring capable of accepting 12 – 22 AWG wire.
- AC fail Form-C relay contacts (fail-safe).
- Battery/Charger trouble Form-C relay contacts (fail safe).
- Optional hardware kit #90273 to be used when installing addressable or synchronization modules.

LED INDICATORS

- AC power on (green) LED.
- Battery/Charger trouble (yellow) LED.

SPECIFICATIONS

Primary (AC) Power – TB1

- 120 VAC 50/60 Hz, 1.45 amps maximum.
- Wire size: minimum #14 AWG (2 mm²) with 600V insulation.

Control Input Circuit – TB3, Terminals 1 (+) & 2 (–) alarm polarity

- Trigger Input Voltage: 9 to 32 VDC.
- Input Current Draw in Alarm Polarity:
 - 16 - 32 volts, 10 mA maximum.
 - 9 -16 volts, 4 mA maximum.



MEA
141-01-E



California
State Fire
Marshal
7315-0075:197



FCPS-2404

Important: Do not use shielded wire for Control Input Circuit.

NAC Output Circuit – TB3, Terminals 3 (+) & 4 (–) alarm polarity

- Voltage Rating: 24 VDC.
- Current: 4 amps maximum total continuous current.
- Style Y (Class B) – requires End-of-Line Resistor from circuit connected to input.
- Refer to *Fire-Lite Device Compatibility Document* for listed compatible devices.

Important: Do not use shielded wire for NAC Output Circuit.

AC Fail Relay Contact Rating – TB6

- Fail-safe relay (normally energized, transfers with loss of power).
- 1 amp @ 30 VDC.

Fire-Lite® Alarms is a Honeywell company.

This document is not intended to be used for installation purposes. We try to keep our product information up-to-date and accurate. We cannot cover all specific applications or anticipate all requirements. All specifications are subject to change without notice.

For more information, contact **Fire-Lite Alarms**, One Fire-Lite Place, Northford, Connecticut 06472. Phone: (800) 627-3473, Toll-Free FAX: (877) 699-4105.

ISO 9001
CERTIFIED
ENGINEERING & MANUFACTURING
QUALITY SYSTEMS

Battery/Charger Trouble Contact Rating – TB5

- Fail-safe relay (normally energized, transfers with loss of power).
- 1 amp @ 30 VDC.

Secondary Power (Battery) Charging Circuit

- Supports lead acid and gel type batteries only.
- Float Charge Voltage: 27.6 VDC.
- Maximum Charge Current: 750 mA.

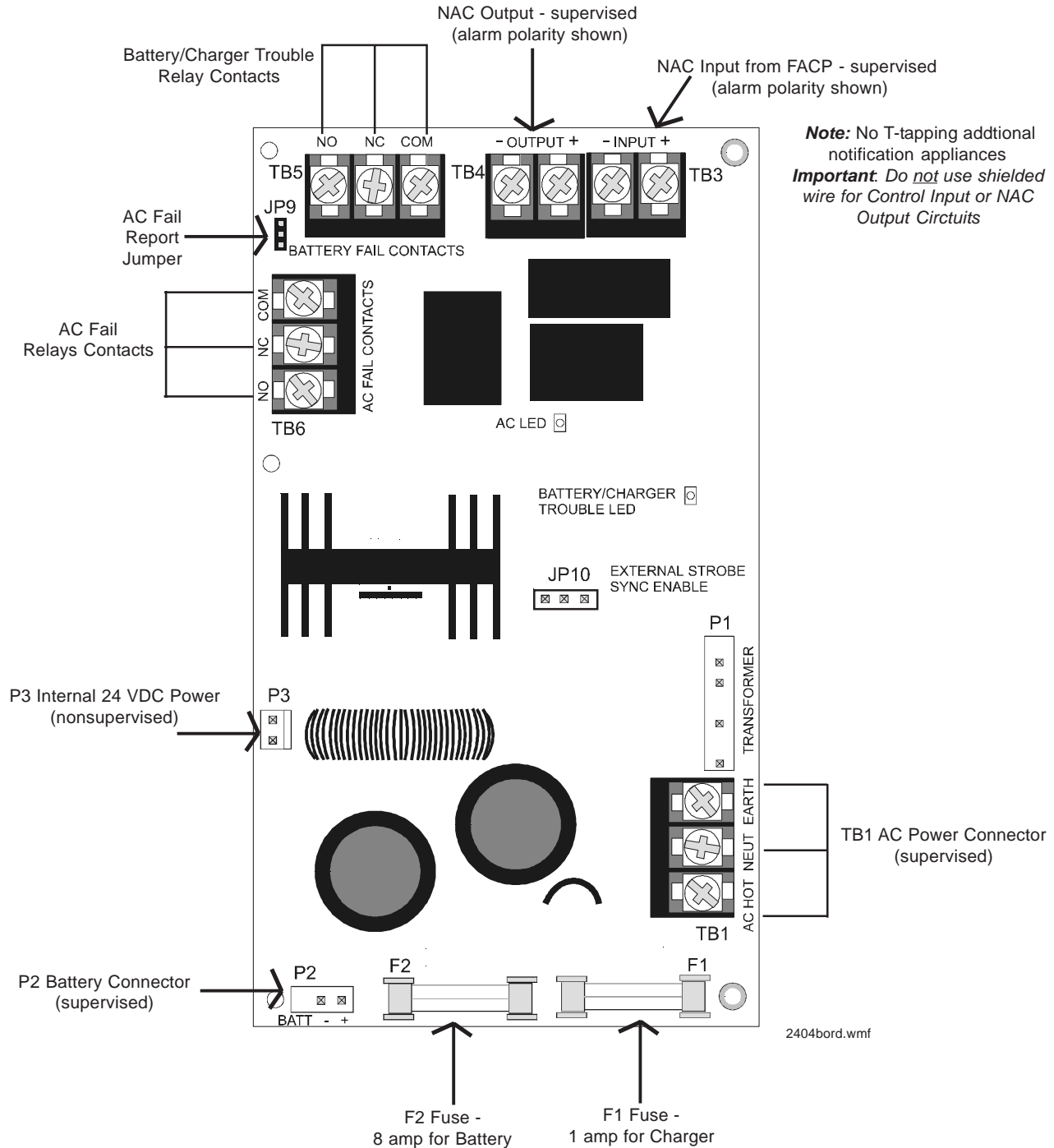
- Maximum Battery Capacity: use only 7.0 AH batteries.

- FCPS-2404 draws maximum standby current of 40 mA from batteries (includes End-of-Line Relay current if installed).

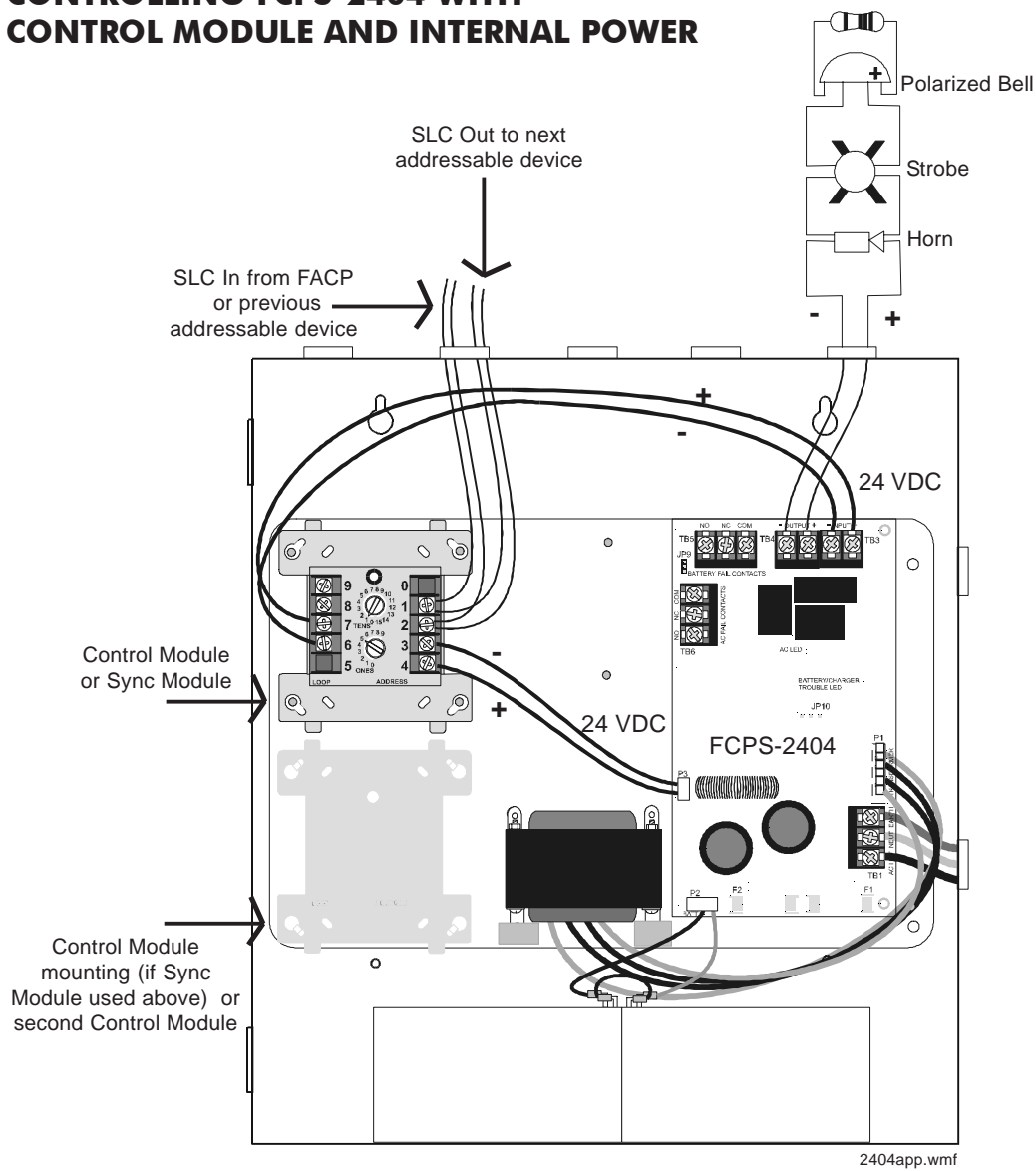
Auxiliary Power Connector – P3

- Used for powering modules inside cabinet, such as control modules.
- Voltage Rating: 24 VDC.
- Current: 30 mA maximum.

FCPS-2404 BOARD LAYOUT



CONTROLLING FCPS-2404 WITH CONTROL MODULE AND INTERNAL POWER



PRODUCT LINE INFORMATION

- FCPS-2404** NAC power expander (120 VAC). Includes main printed circuit board, transformers, red enclosure, and installation instructions.
- CMF-300** Intelligent addressable control module.
- MDL** Sync module for use with SpectrAlert Series, **red**.
- MDLW** Sync module for use with SpectrAlert Series, **white**.
- BAT-1270** Battery, 12 volt, 7.0 AH (*two required*).
- 90273** Hardware kit to be used when installing addressable or synch modules.
- FCPS-24RB** Replacement motherboard.