




SYSTEM SENSOR PDRP-1001-PDRP-1001A-PDRP-1001E Deluge Preaction Control Panel Instruction Manual

[Home](#) » [SYSTEM SENSOR](#) » SYSTEM SENSOR PDRP-1001-PDRP-1001A-PDRP-1001E Deluge Preaction Control Panel Instruction Manual 

Contents

- 1 SYSTEM SENSOR PDRP-1001-PDRP-1001A-PDRP-1001E Deluge Preaction Control Panel
- 2 Specifications
- 3 AC Power
- 4 Battery Power
- 5 Voltmeter/Ammeter
- 6 Optional Modules
- 7 Appendix C: NFPA Standard-Specific Requirements
- 8 Limited Warranty
- 9 Documents / Resources
 - 9.1 References
- 10 Related Posts

**SYSTEM
SENSOR®**

SYSTEM SENSOR PDRP-1001-PDRP-1001A-PDRP-1001E Deluge Preaction Control Panel



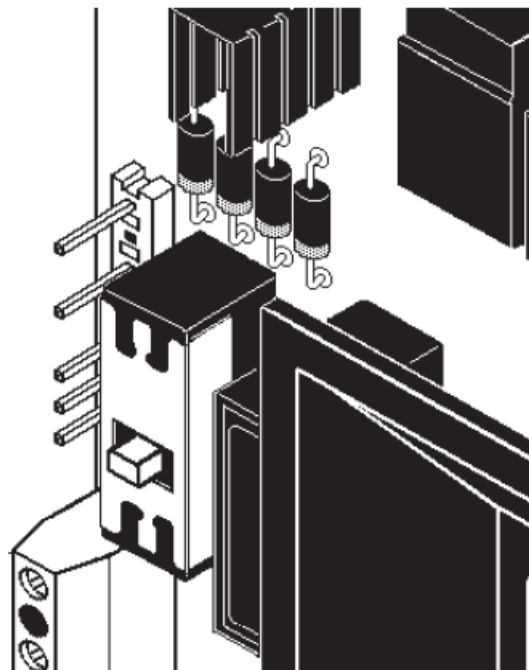
Specifications

AC Power

For PDRP-1001/PDRP-1001A: 120 VAC, 50/60 Hz, 1.2 amps For PDRP-1001E: 220/240 VAC, 50 Hz, 0.6 amps

- Wire size: minimum #14 AWG with 600V insulation

*AC Circuit
Breaker*



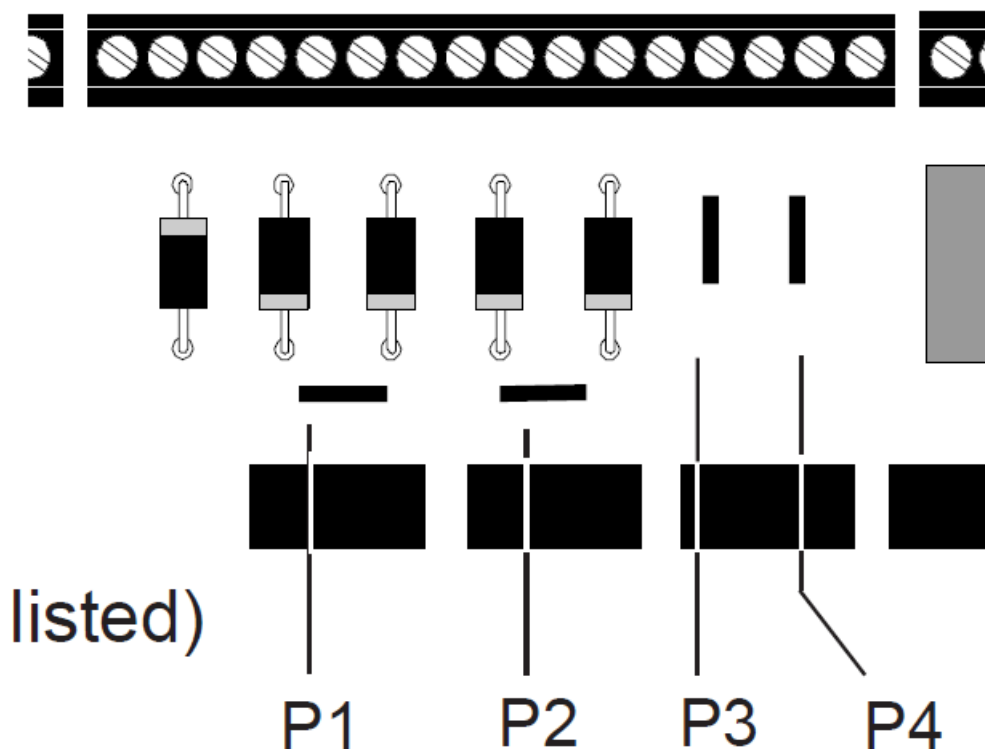
Battery (lead acid only)

- Maximum Charging Circuit: 27.6V, 1.5 amps

- Maximum Battery Capacity: 15 AH. (Batteries larger than 12 AH require Notifier #BB-17 or other UL listed battery cabinet.)
- Initiating Device Circuits
- Power-limited circuitry
- Operation: Style B (Class B)/ Style D (Class A)
- Normal Operating Voltage: 24 VDC (ripple = 1.0V peak-to-peak)
- Alarm current: 15 mA minimum
- Short circuit current: 40 mA maximum
- Maximum detector current in standby: 2 mA (max) per zone
- Maximum loop resistance: 200 ohms
- End-of-line resistor: 4.7K, 1/2-Watt (NOTIFIER part # 71252 UL listed)
- Detector loop current is sufficient to ensure operation of one alarmed detector per zone. Supervisory current: 5 mA (including end-of-line resistor)

Notification Appliance and Releasing Circuits

- Power-limited circuitry
- Maximum allowable voltage drop due to wiring: 2 VDC
- Normal Operating Voltage: 24 VDC
- Total current available to all external devices: 2.25 amps.
- Maximum signaling current per circuit: 1.5 amps
- End-of-line resistor: 4.7K, 1/2-Watt (NOTIFIER part # 71252 UL listed)



Output Circuit PTCs

Alarm and Trouble Relays

Dry Form-C contacts rated: 2.0 amps @ 30 VDC (resistive), 0.5 amps @ 30 VAC (resistive). All relays must be connected to a power-limited power supply.

Four-wire Smoke Detector Power

Up to 200 mA is available for powering 4-wire smoke detectors. Maximum ripple voltage: 1.0 V p/p

Non-resettable Power

Total DC current available from this output is up to 200 mA (subtracted from four-wire smoke power). Maximum ripple voltage: 1.0 V p/p

RMS Regulated Power

Total DC current available for powering external devices is 0.5 amp (subtracted from 2.25 amps available to notification appliance circuits).

Maximum ripple voltage: 100 mV p/p

Note: For device compatibility data, refer to the Device Compatibility Chart, Appendix B.

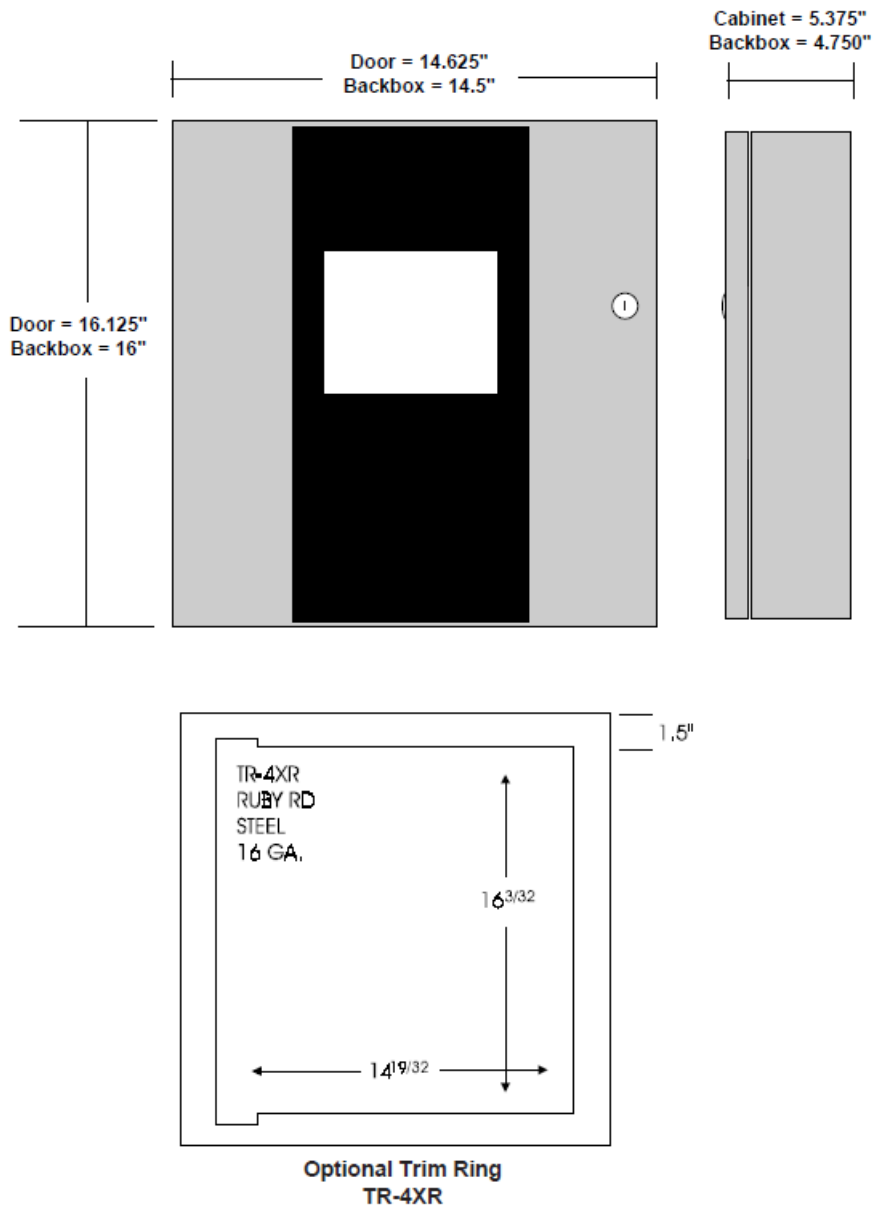


Figure 1.6-1: Cabinet Dimensions

AC Power

Primary power required for the PDRP-1001/PDRP-1001A panel is 120 VAC, 50/60 Hz, 1.2 amps and primary power required for the PDRP-1001E is 220/240 VAC, 50Hz, 0.6 amps. Overcurrent protection for this circuit must comply with Article 760 of the National Electrical Code (NEC) and/or local codes. Use #14 AWG or larger wire with 600 volt rating.

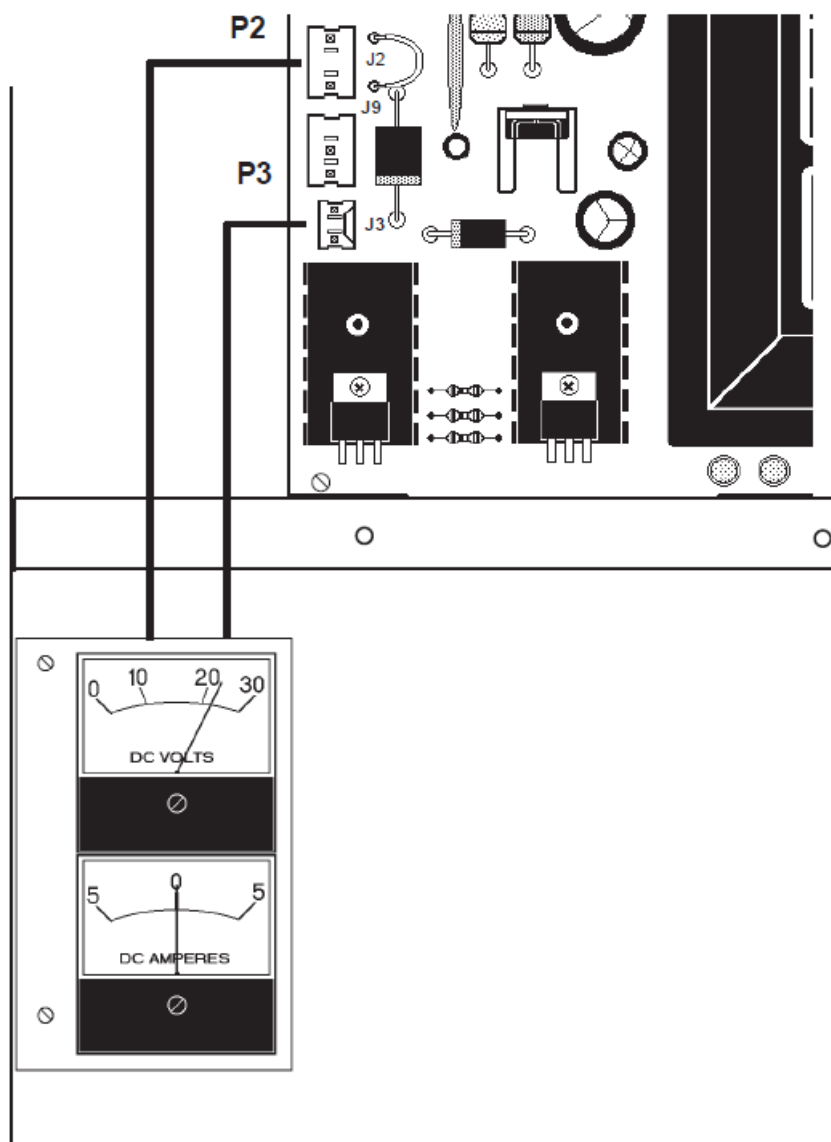
Battery Power

Observe polarity when connecting battery. Connect battery cable to J9 on the main board using the plug-in connector provided. See Appendix A for calculation of correct battery rating.

CAUTION: Batteries contain sulfuric acid which can cause severe burns to the skin and eyes, and can destroy fabrics. If contact is made with sulfuric acid, immediately flush skin or eyes with water for 15 minutes and seek immediate medical attention.

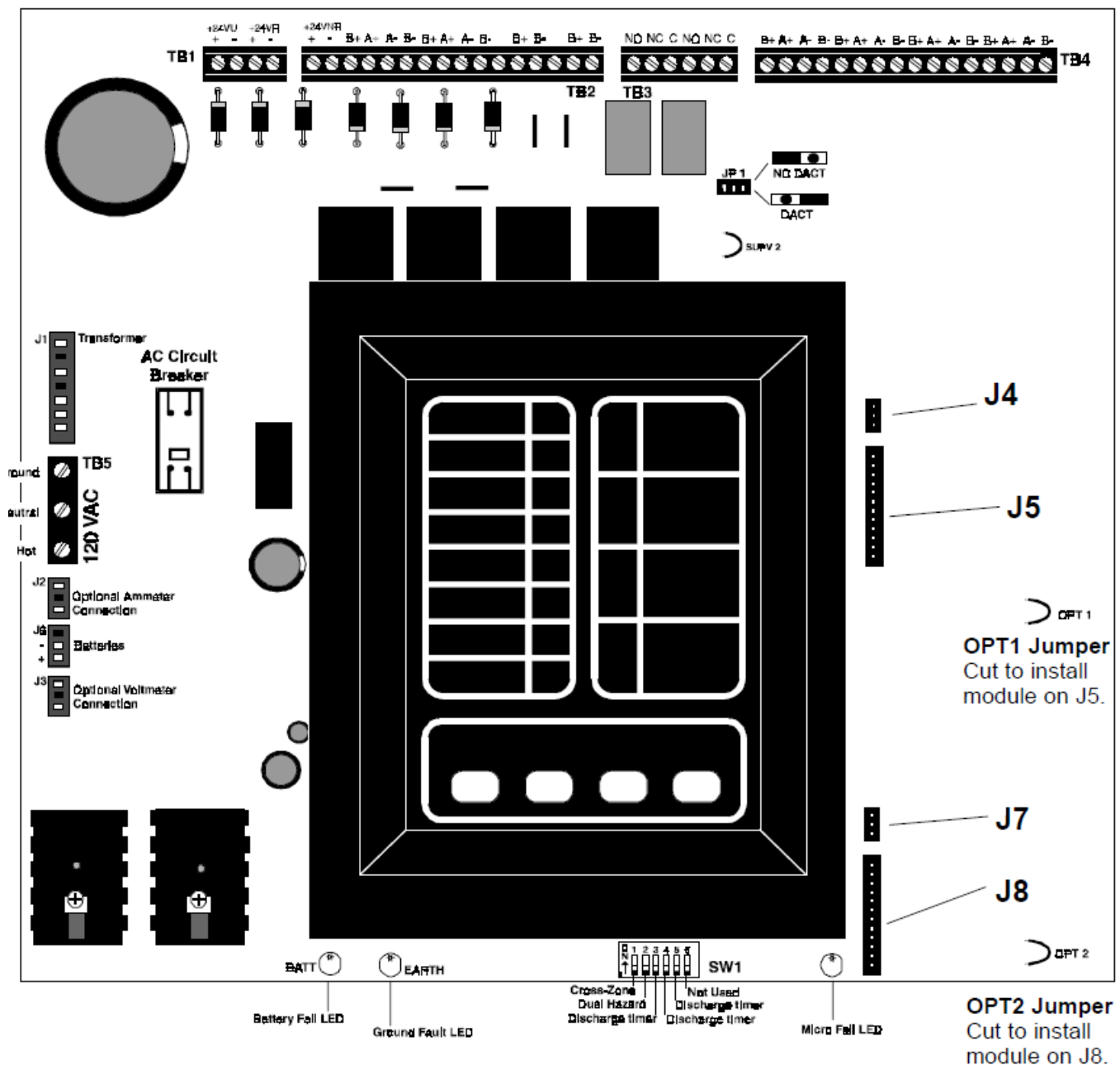
Voltmeter/Ammeter

To monitor battery voltage and battery charging current, a 4XMM (NOTIFIER) is required. To install the power meter module, remove the jumper labeled “AMP” and connect cable assembly P2 to pin connector J2 and cable assembly P3 to pin connector J3 on the main board. Secure the 4XMM to the backbox with the two screws provided. On some models, it will be necessary to install the meter bracket with the nuts and bolts provided.



Optional Modules

The fire control panel has two module connectors – J5 and J8. Three modules are available for the panel and they can be used in any combination, including duplicate modules. The corresponding option jumper must be cut before installation of an optional module, to enable module supervision.



Notes:

1. Optional 4XLM module for an RZA-4X Annunciator must be installed on J7 and J8 only.
2. 4XTM and 4XZM modules can be installed in either location.

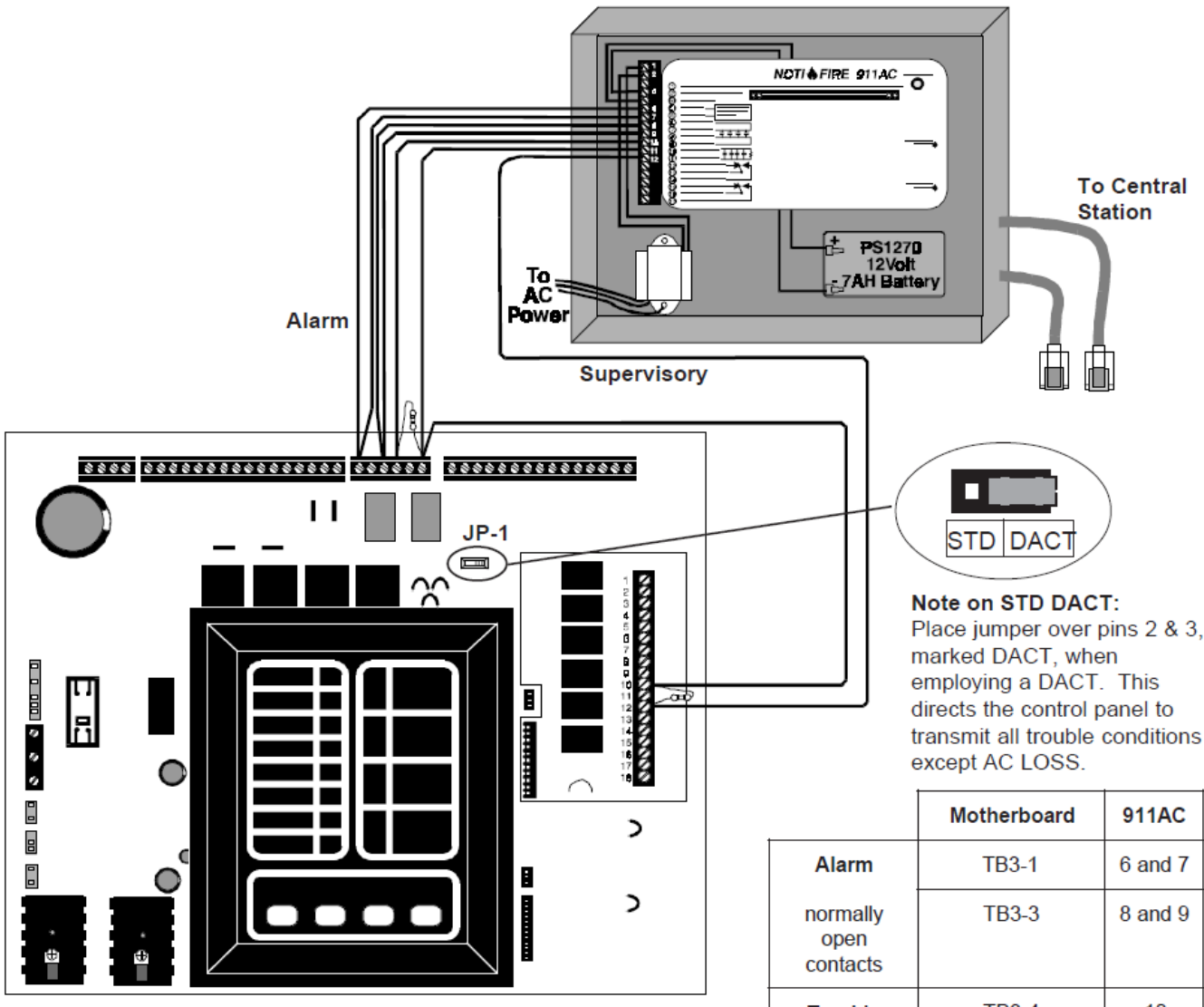
Appendix C: NFPA Standard-Specific Requirements

The PDRP-1001/PDRP-1001A has been designed for use in commercial, industrial, and institutional applications and meets the requirements for service under the National Fire Protection Association (NFPA) Standards outlined in this appendix. The minimum system components required for compliance with the appropriate NFPA standards are listed below. PDRP-1001/PDRP-1001A Control Panel containing the main control board, cabinet (backbox and door), main supply transformer and power supply. Batteries (refer to Appendix A for Standby Power Requirements). Initiating Devices – connected to one of the control panel's Initiating Device Circuits. Notification Appliances – connected to one of the control panel's Notification Appliance Circuits. Releasing Devices – connected to one of the control panel's Releasing Circuits. The following additional equipment is needed for compliance with the NFPA standards listed below: NFPA 72 Signaling Systems for Central Station Service (Protected Premises Unit) NOTI-FIRE 911AC DACT* – for connection to a compatible listed Central Station DACR or Protected Premises Receiving Unit. This unit must be installed as outlined in Figure C-1A.

NFPA 72 Auxiliary Fire Alarm System 4XTM Transmitter Module for connection to a compatible listed Local Energy Municipal Box. This unit must be installed as outlined in Figure C-2. NFPA 72 Remote Station Fire Alarm System 4XTM Transmitter Module for connection to the Fire•Lite RS82-9 Remote Station Receiver. See Figure C-3 for installation instructions for this unit, OR NOTI-FIRE 911AC DACT * or Fire•Lite MS-5012- For connection to a compatible listed remote station DACR. This unit must be installed as outlined in Figures C-1A and C-1B. Applications which require the NOTI-FIRE 911AC are not FM approved.

Figure C-1A: NFPA 72 Signaling Systems for Central Station Service

(ProtectedPremises Unit) and Remote Station Protective Service NOTI-FIRE 911AC DACT* – for connection to a Central Station Receiver or Protected Premises Receiving Unit. This unit must be installed as illustrated below. For additional information on the 911AC, refer to document 74-06200-005. All connections between the FACP and 911AC must be in conduit, less than 20’ in length in the same room. * This application using the NOTI-FIRE 911AC is not FM approved.



	Motherboard	911AC
Alarm	TB3-1	6 and 7
normally	TB3-3	8 and 9
open		
contacts		
Trouble	TB3-4	10
normally	TB3-6	11
open		
contacts		
Supervisory	4XZM TB1-12	12
normally	jumper TB3-6 to	
open	4XZM TB1-10	
contacts		

Limited Warranty

SYSTEM SENSOR® warrants its products to be free from defects in materials and workmanship for eighteen (18) months from the date of manufacture, under normal use and service. Products are date stamped at time of manufacture. The sole and exclusive obligation of SYSTEM SENSOR® is to repair or replace, at its option, free of charge for parts and labor, any part which is defective in materials or workmanship under normal use and service. For products not under SYSTEM SENSOR® manufacturing date-stamp control, the warranty is eighteen (18) months from date of original purchase by SYSTEM SENSOR®'s distributor unless the installation instructions or catalog sets forth a shorter period, in which case the shorter period shall apply. This warranty is void if the product is altered, repaired or serviced by anyone other than SYSTEM SENSOR® or its authorized distributors or if there is a failure to maintain the products and systems in which they operate in a proper and workable manner. In case of defect, phone SYSTEM SENSOR® Repair Department, RA # 3825 Ohio Avenue, St. Charles, IL 60174. Please include a note describing the malfunction and suspected cause of failure. This writing constitutes the only warranty made by SYSTEM SENSOR® with respect to its products. SYSTEM SENSOR® does not represent that its products will prevent any loss by fire or otherwise, or that its products will in all cases provide the protection for which they are installed or intended. Buyer acknowledges that SYSTEM SENSOR® is not an insurer and assumes no risk for loss or damages or the cost of any inconvenience, transportation, damage, misuse, abuse, accident or similar incident. SYSTEM SENSOR® GIVES NO WARRANTY, EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR OTHERWISE WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. UNDER NO CIRCUMSTANCES SHALL SYSTEM SENSOR® BE LIABLE FOR ANY LOSS OF OR DAMAGE TO PROPERTY, DIRECT, INCIDENTAL OR CONSEQUENTIAL, ARISING OUT OF THE USE OF, OR INABILITY TO USE SYSTEM SENSOR® PRODUCTS. FURTHERMORE, SYSTEM SENSOR® SHALL NOT BE LIABLE FOR ANY PERSONAL INJURY OR DEATH WHICH MAY ARISE IN THE COURSE OF, OR AS A RESULT OF, PERSONAL, COMMERCIAL OR INDUSTRIAL USE OF ITS PRODUCTS. This warranty replaces all previous warranties and is the only warranty made by SYSTEM SENSOR®. No increase or alteration, written or verbal, of the obligation of this warranty is authorized.

A Division of Pittway

3825 Ohio Avenue, St. Charles, Illinois 60174 1-800-SENSOR2, FAX: 630-377-6495

Documents / Resources

