

# Specification/ Data Sheet

## TRITON™ RPA EXT SLCNet NAC Extender

### FEATURES

Provides additional notification appliance circuit (NAC) capacity with flexible operation modes and power-limited design

Four, class B (Style Y) NACs are standard:

- Rated 2 A @ 24 VDC, compatible with standard 24 VDC notification appliances

Input control can be from either:

- SLCNet addressable communications from a RPA Control Panel
- Or from one or two conventional 24 VDC NACs with multiple output control options

SLCNet communications control benefits:

- Provides status monitoring and individual NAC control using a single address per SLCNet NAC Extender
- Supports SLCNet "Device Level" earth fault location

WALKTest™ operation is available with either input choice

Internal 8 A power supply/battery charger:

- Charges internal batteries up to 12.7 Ah or up to 17 Ah batteries in external cabinet
- Provides status monitoring of battery, input power, and earth faults

Optional SLCNet NAC Extender modules:

- Four additional Class B NACs, rated 1.5 A @ 24 VDC
- Class A (Style Z), Two Circuit Adaptor Module

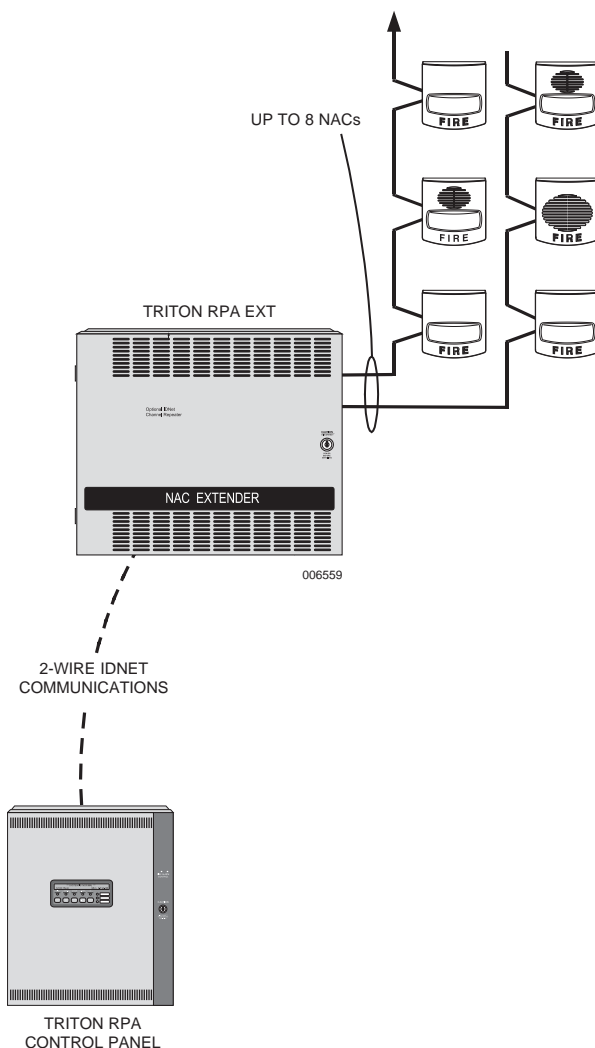
### EXTERNAL ACCESSORIES

External battery cabinet for 17 Ah batteries

### INTRODUCTION

**ADA Compliance.** Complying with the notification requirements of ADA (Americans with Disabilities Act) may require more notification appliance power than is available within the control panel. When additional power is required, a SLCNet NAC Extender can provide up to 8 A of NAC power with up to eight, supervised reverse polarity NACs.

**Location Flexibility.** The RPA EXT can be mounted close to a compatible dedicated host panel or can be located remotely for convenient power distribution. Multiple operation modes and multiple connection options further increase location flexibility.



TRITON RPA EXT Connection Reference Drawing

### LISTINGS AND APPROVALS

- UL Listed
- ULC Listed
- MEA (NYC) (Pending)
- FM Approved
- CSFM (Pending)



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PC2002227

## APPLICATION AND OPERATION INFORMATION

**SLCNet Addressable Communications Compatible.** Up to five RPA EXTs can be controlled on a single SLCNet communications channel. Each output NAC can be individually controlled for general alarm or selective area notification requiring only one point address per Extender. Individual Extender NACs can also be manually controlled from the panel. SLCNet controlled extenders will inform the panel of troubles via SLCNet communications.

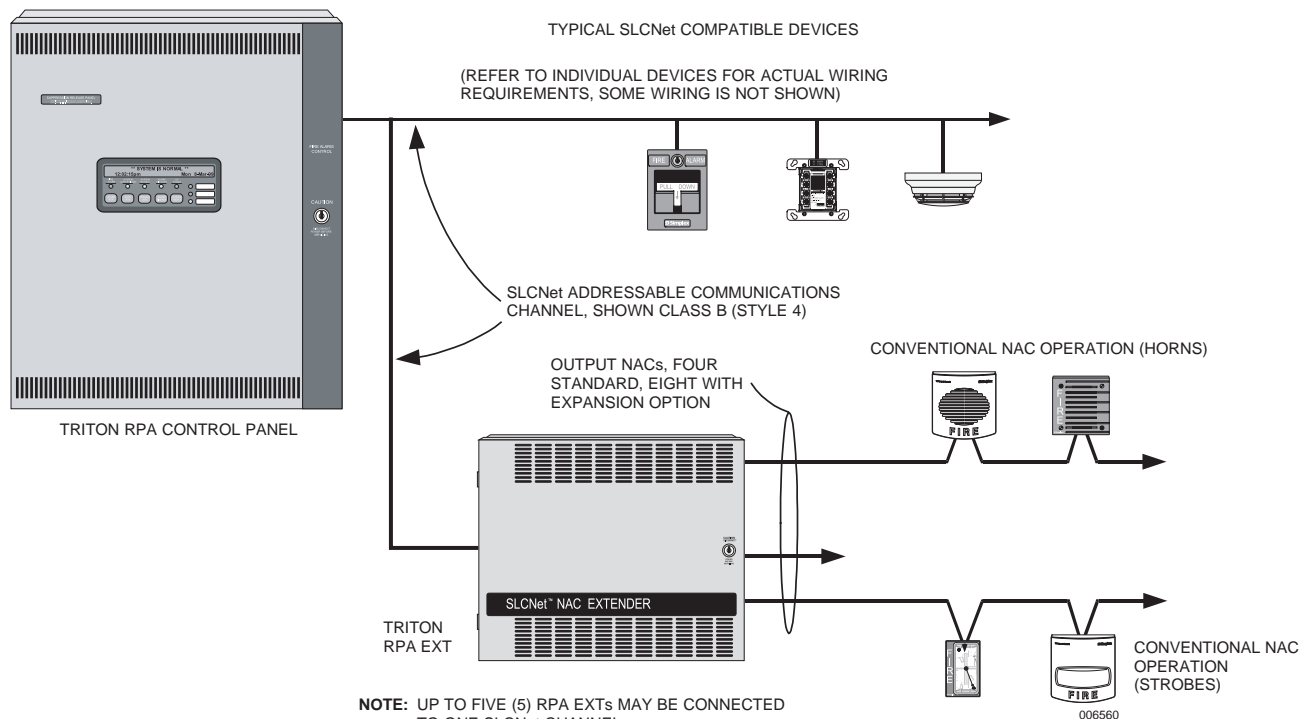
**Hardware Control Applications.** For applications where an existing (or new) conventional NAC needs additional power, the RPA EXT can be controlled directly from the NAC. Either one or two NACs, from either the same, or from different control panels, can be connected to control the Extender output NACs. Multiple control selections provide flexible operation. Alarms from the panel will activate the four, RPA EXTs (or optionally, eight NACs) to extend the alarm.

The SLCNet Extender monitors itself and each of its output NACs for trouble conditions, including earth faults. Extenders wired to conventional NACs will indicate a trouble by opening the path to the NAC's end-of-line resistor, but retaining the ability to respond to alarms. Individual troubles are also annunciated by LEDs located on the NAC Extender main circuit board.

## PRODUCT SELECTION

STANDARD MODELS		
Part No.	Description	Comments
551472 (431191 ULC)	120 VAC Input	TRITON RPA EXT with 4, Class B (Style Y) NACs and 8 A power supply
551473	240 VAC Input	
OPTIONAL MODULES (for on-site installation)		
Part No.	Description	Comments
430676	Additional four point NAC module, rated 1-1/2 A, Class B (Style Y)	One maximum
430677	Dual Class A (Style Z) adaptor (for two NAC outputs)	Select as required (4 maximum)
430693	Semi-Flush Trim Kit, Red trim	1-7/16 in. wide (78 mm), use if required for semi-flush installations
BATTERIES (select battery size per system requirements)		
Part No.	Description	Comments
417692	7.0 AH Battery Pack, 24 VDC	Select one battery shipping assembly per system standby requirements; two batteries are included
417693	12 AH Battery Pack, 24 VDC	
417694	17 AH Battery Pack, 24 VDC	Requires external battery cabinet. Select one battery shipping assembly per system standby requirements; two batteries are included.
EXTERNAL ACCESSORIES (select per system requirements)		
Part No.	Description	Comments
430684	External battery cabinet for 17 Ah batteries, Red	16-1/4 in. W x 13-1/2 in. H x 4-1/8 in. D (413 mm x 343 mm x 105 mm)

## TYPICAL SLCNet CONNECTION EXAMPLE



## HARDWARE CONTROL CONNECTION INFORMATION

### NAC Input Selections.

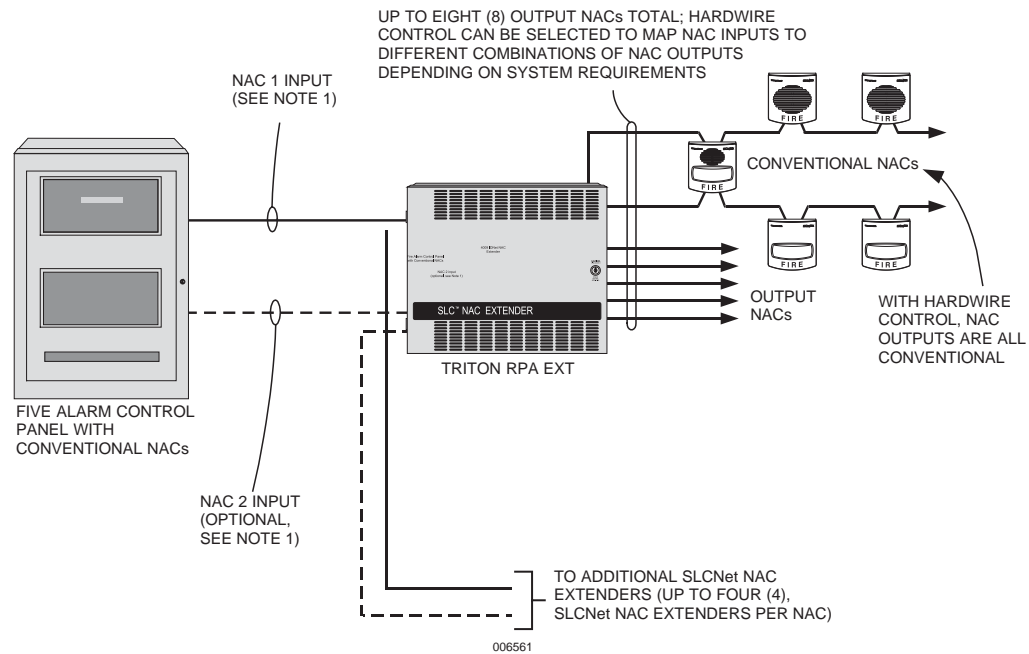
#### The RPA EXT can be selected to:

- Track input NAC operation or to provide a locally generated code, selectable per NAC input
- If selected for local coding, NAC outputs can be either **Temporal Coded** or **60 Beats/min March Time Coded**, one code selection per extender (input NACs must be on continuous with Alarm)

NAC input to NAC output control can be selected for standard and optional NACs per the following table:

Input	A	B	C
NAC1	NACs 1&2, 5&6	NACs 1-4	NACs 1-8
NAC2	NACs 3&4, 7&8	NACs 5-8	None

## HARDWARE CONTROL NAC CONNECTION ONE-LINE REFERENCE DIAGRAM



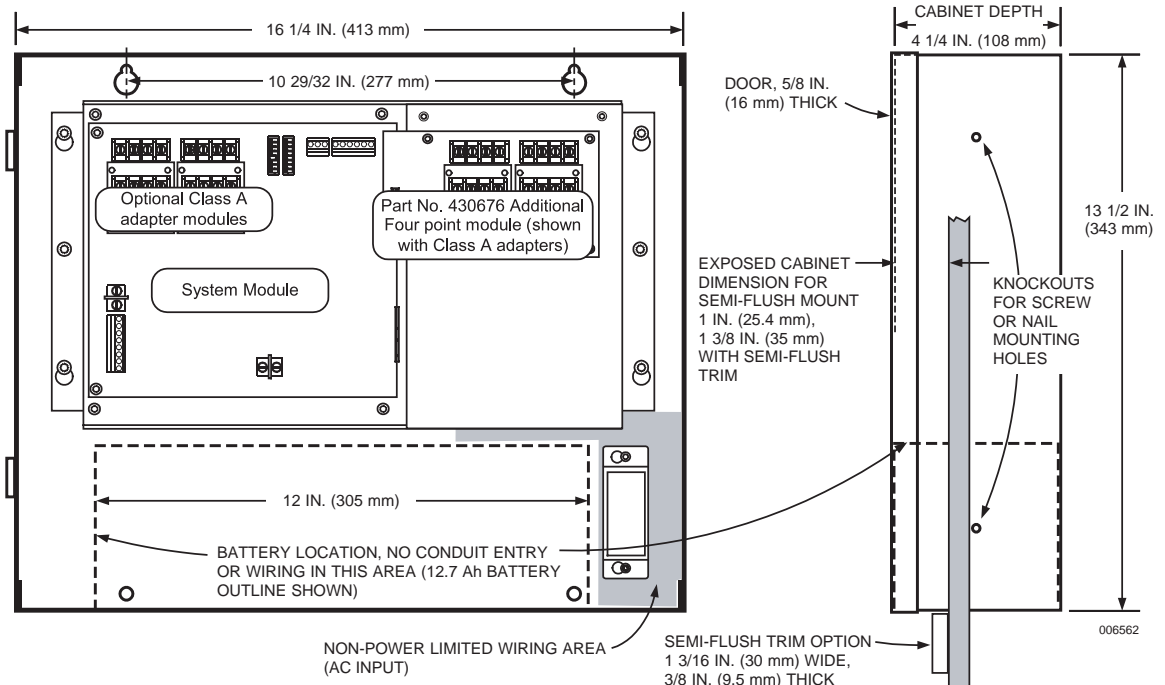
**NOTE:** FOR SEPARATE AUDIBLE AND VISIBLE OUTPUT NAC CONTROL, TWO (2) INPUT NACs ARE REQUIRED. NAC 1 IS "ON-UNTIL-RESET" AND NAC 2 IS "ON-UNTIL-SILENCED."

## TRITON RPA EXT SPECIFICATIONS

INPUT VOLTAGE	
120 VAC Input, Part No. 551472	3A @ 102-132 VAC, 60 Hz
240 VAC Input, Part No. 551473	1.5A @ 204-264 VAC, 50/60 Hz
Hardware Control from External NACs, Input Requirements	Conventional reverse polarity operation
	3 mA @ 24 VDC in Alarm (rated 4.5 mA maximum 21.1 to 29.1 VDC)
	Maximum operating voltage is 18 to 32 VDC, filtered or unfiltered
OUTPUT RATINGS	
Auxiliary Output	500 mA @ 24 VDC nominal
Standard NACs	2 A each @ VDC nominal
Optional NACs (requires P/N 430676)	1.5 A each @ 24 VDC nominal
Total current must not exceed 8A	
Operating Temperature	32° to 120° F (0° to 49° C)
Operating Humidity Range	10% to 90% RH from 32° F to 104° F (0° to 40° C)
Wiring Connections*	Terminal blocks for 18 AWG (stranded) to 12 AWG (solid)

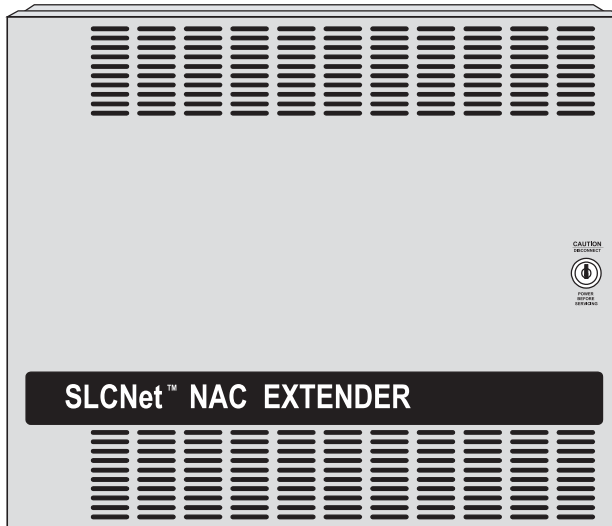
\* Metric wire equivalents: 18 AWG=0.82 mm<sup>2</sup>, 12 AWG = 3.31 mm<sup>2</sup>

## TRITON RPA EXT MOUNTING AND MODULE PLACEMENT INFORMATION



**NOTE:** RECOMMENDED CONDUIT ENTRANCE VARIES WITH MODULE SELECTION. REFER TO GENERAL INSTALLATION INSTRUCTIONS, PART NO. 552075, SPECIFIC MODULE INSTALLATION INSTRUCTIONS, AND TO FIELD WIRING DIAGRAMS, PART NO. 552078, BEFORE LOCATING CONDUIT ENTRANCE.

## TRITON RPA EXT CABINET WITH DOOR DETAIL



006563

## SERVICE DIAGNOSTIC FEATURES

**Power-up Self-Diagnostics.** Upon power-up, the RPA EXT tests each module and performs earth fault diagnostics. Trouble conditions are communicated to the control panel and are also displayed on diagnostics status LEDs in the RPA EXT. When connected via SLCNet communications, detailed status information is available at the control panel. When controlled with conventional NAC inputs, common troubles are signaled by providing a polarized open circuit that disconnects the NAC wiring from its end-of-line resistor but still allows a reversed polarity alarm to be received.

**Door Mounted Reference Label.** The RPA EXT has a detailed programming and diagnostic label inside the front door that provides a quick reference for both installation and checkout.

**LED Status Indicators** are provided for the following:

- **Each NAC** (standard and optional) has a dedicated yellow LED that:
  - During supervision provides a slow flash to indicate a short circuit condition and a fast flash to indicate an open circuit
  - During an alarm, the LED follows the NAC output (on steady or flashing with coded output)
- **Four, general status yellow LEDs** provide nine separate indications listed in priority of urgency. As a trouble is eliminated, any remaining trouble(s) will then be indicated until the SLCNet NAC Extender is returned to normal operation.
- **AC power status** is indicated by a green LED that is on when AC is normal. During low AC (brownout) conditions or with no AC, the LED is off. Additional power and battery status is indicated by the general status LEDs.

# TRITON RPA EXT CURRENT CHART

## Panel Module Selection

Part No.	Description	Supervisory Current	Actual Supervisory	Alarm Current	Actual Alarm	
551472 551473	120 VAC input 240 VAC input	85 mA	85 mA	185 mA	185 mA	
430676	Additional Four Point NAC	40 mA	+	+NAC loads (add below)	+ NAC loads (add below)	
430677	Dual Class A Adaptor (current included in basic panel value)	–	–	–	–	
<b>Auxiliary Power Output</b> , calculate per total device requirements (see note 5)		500 mA maximum	+	500 mA maximum	<b>(A2)</b>	+
Total Supervisory Current =			<b>(A) +</b>			
				Total RPA EXT Panel Alarm Current =	<b>(B1)</b>	

## NAC Loads

NAC Type	NAC Circuit #	NAC Alarm Current
<b>Standard Panel NACs</b> , 2 A maximum per NAC (see note 5)	Circuit 1	+
	Circuit 2	+
	Circuit 3	+
	Circuit 4	+
<b>Optional Four Point NAC Module</b> , 1.5 A maximum per NAC (see note 5)	Circuit 5	+
	Circuit 6	+
	Circuit 7	+
	Circuit 8	+
Total NAC Loads Alarm Current =		<b>(C)</b>
Total RPA EXT Panel Alarm Current (enter B1 from above) =		<b>(B2) +</b>
Total Alarm Current =		<b>(D)</b>

## PROCEDURE:

1. Calculate total panel supervisory current (A).
2. Calculate total panel alarm current (B1) (convert mA to A, example: 350 mA = 0.35 A). Copy (B1) into block (B2).
3. Calculate total NAC loads alarm current from notification appliance ratings (C).
4. Add (C) + (B2) to determine total alarm current (D).
5. Total of IDNet Current (A1) + Auxiliary Power Output Current (A2) + NAC Loads Alarm Current (C) is 8 A maximum.
6. Refer to Pyro-Chem battery selection document, Part No. 431437, for recommended battery size for specific standby requirements (ie. 24 hours supervisory, 5 minutes of alarm). Internal cabinet space is provided for batteries up to 12.7 Ah.