

## OVERVIEW

The nLight nPP16 family of power packs is the workhorse of an nLight system, delivering robust system performance and design versatility for commercial and industrial lighting control applications. The nPP16 family is capable of switching loads up to 16 Amps via an internal latching relay designed with robust protection from the harsh switching requirements of T5 fluorescent and LED loads. These power packs also provide nLight system bus power - up to 40mA from each of its two RJ-45 ports - by transforming Class 1 line voltage (120/277 VAC or 347 VAC) to Class 2 low voltage (15 VDC). This power is typically utilized by other nLight devices within the power pack's local control zone; however, remaining power is also made available over the network for Bridges and devices in other zones to utilize.

## FEATURES

- Communicates w/ nLight Network
- Self-Contained Relay Switches Line Voltage Load
- Supplies 40mA of Bus Power / RJ-45 port
- Remotely Configurable/Upgradeable
- Push-Button Programmable
- Configurable Relay Logic
- Extended Chase Nipple

## SPECIFICATIONS

Size:	(not including 1/2" chase nipple) 3.38" H x 2.53" W x 1.83" D (8.59 cm x 6.43 cm x 4.65 cm)
Weight:	6 oz
Mounting:	1/2" Knockout
Color:	White (standard), Red (ER)
nLight Network Ports:	2 RJ-45
Operating Voltage:	120/240/277VAC, 347VAC (with 347 option)
Max Load:	16A @ 120VAC/277VAC, 347VAC
Motor Load:	1 HP
Relay type:	Latching
Frequency:	50/60Hz
Bus Output Current/Voltage:	15 VDC, 40 mA / port (non-ER units only), 40 mA total at 240VAC
Max Dimming Load:	Sinks 100mA; 0-10VDC dimmable ballasts or LED drivers

\*If power pack is enclosed within a junction box, max ambient temperature is 45° C

RoHS Compliant, Title 24 System Component, Class 1 Listed, Plenum Rated

## Warranty

Three-year limited warranty. Complete warranty terms located at:

[www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

**Note:** Actual performance may differ as a result of end-user environment and application.

Specifications subject to change without notice.

**AcuityControls™**

nLight®

## nPP16 Power/Relay Pack



Model #: nPP16 (D)



Model #: nPP16 (D) ER

## ORDERING INFORMATION

Example: nPP16 D ER LT					
Series	Dimming	Emergency	Default Mode	Voltage	Temp/humidity
nPP16 Power/Relay Pack	[blank] None D 0-10VDC Dimming output (via chase nipple) DS 0-10VDC Dimming output (via side slot)	[blank] None ER UL924 Emergency Operation	[blank] Auto On (Switch Ch. 1) SW2 Auto On (Switch Ch. 2) SA Manual On (Switch Ch. 1) SA2 Manual On (Switch Ch. 2) PA Auto On to 50% (Partial On) <sup>1</sup>	[blank] 120/277VAC 347 347VAC	[blank] Standard LT Low temp

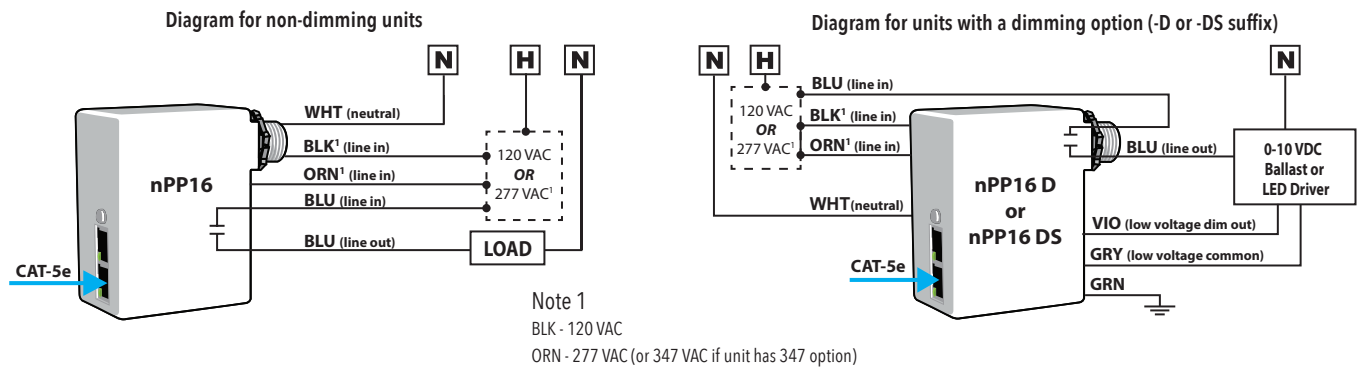
1. Requires D or DS option

2. Not available with D or DS option



## WIRING (Do not wire hot)

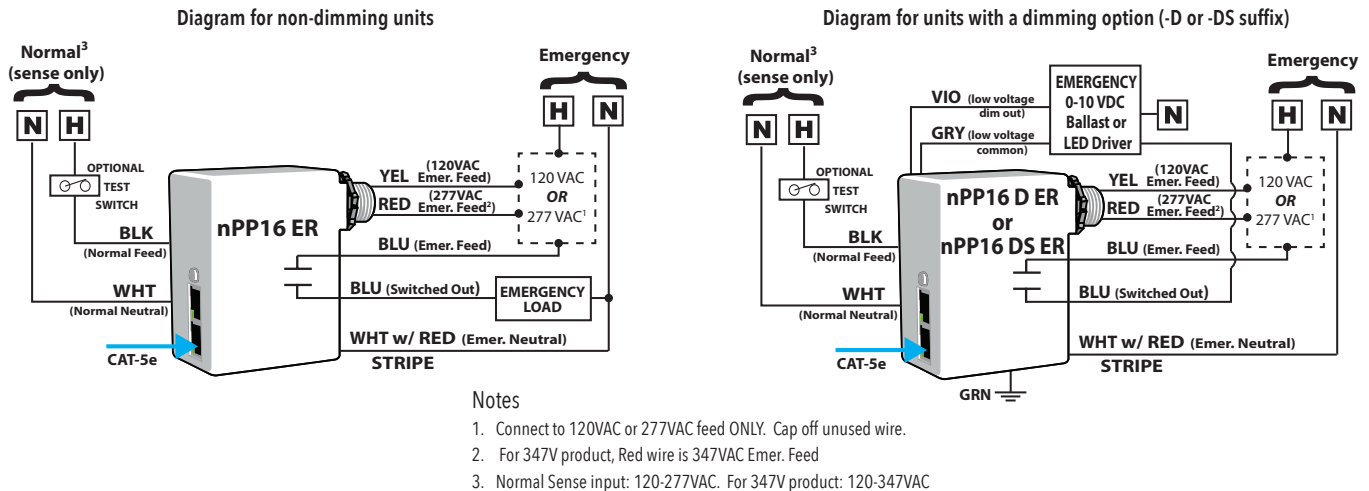
T568B pin/pair assignment is recommended for all CAT-5e cables. For Supply Connections, use 14 AWG/90°C, 12 AWG/75°C or larger.



## WIRING FOR EMERGENCY (-ER) UNITS

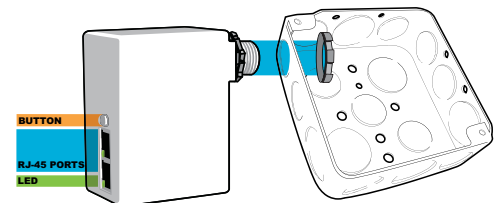
T568B pin/pair assignment is recommended for all CAT-5e cables. Unit powers itself but does not provide any bus power to other connected nLight devices.

For Supply Connections, use 14 AWG/90°C, 12 AWG/75°C or larger.



## GENERAL INSTALLATION INSTRUCTIONS

- Mount through a ½" knockout in any junction box or luminaire. Secure with lock nut.
- Following above wiring diagram, connect wires to line voltage feed(s), neutral(s), and load.
- If applicable, connect low voltage violet and gray dimming wires to 0-10 VDC ballast/driver and green wire to an approved ground connection. Note: wires have 600V rated insulation.
- Interconnect unit (via RJ-45 ports) with other nLight devices in lighting zone using CAT-5e cables.



## ADDITIONAL EMERGENCY (-ER) INSTRUCTIONS

### PUSH-BUTTON TESTING:

As long as the relay is in the open (lights off) position and normal power is present, you are able to simulate normal power being lost by pressing and releasing the unit's push-button one time. After a few seconds the relay will close for 4 seconds, then open back up and return to normal operation. A separate push-button test switch (not included) can also be wired in as shown in above diagrams.

### INTERFACING WITH A FIRE ALARM PANEL:

To interface unit to a fire alarm system such that the relay is overridden closed (lights on) upon activation of the fire alarm system, the fire alarm system must provide a normally closed relay which opens when the fire alarm system is activated. This relay must be put in series with the Black power sense line on the nPP16 ER. When the normally closed relay opens, the nPP16 ER will close its relay to provide egress lighting when the fire alarm system is activated.