

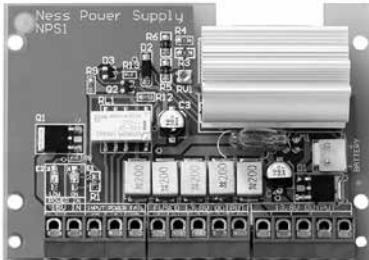
# INSTALLATION NOTES



## NPS1 POWER SUPPLY

Part No. 106-029  
NPS1 & MAINS ADAPTER

Part No. POW315  
NPS1 KIT COMPLETE IN HOUSING



NPS1 Module

The NPS1 is a versatile regulated 3A DC power supply and SLA battery charger.

Featuring five 13.8V outputs each with auto resetting electronic fuses, Sealed Lead Acid (SLA) battery charger, removable terminal blocks, LED status indication and a "Mains Fail" relay output. Supplied with a 240V to 15V DC mains adapter.

The NPS1 is ideal for access control applications, additional power for large security installations and anywhere that regulated DC power with battery backup is required.

- REGULATED 13.8V DC 3A POWER SUPPLY
- SEALED LEAD ACID BATTERY CHARGER
- 5 AUTO-RESETTING FUSED OUTPUTS
- LED STATUS INDICATION
- MAINS FAIL RELAY OUTPUT
- REMOVABLE TERMINAL STRIPS
- AVAILABLE AS A PCB ONLY OR INC HOUSING
- COMPLETE WITH MAINS ADAPTER
- SUITABLE FOR POWERING ALARM EQUIPMENT AND ACCESS CONTROL DEVICES



# INSTALLATION

## 106-029 NPS1 MODULE

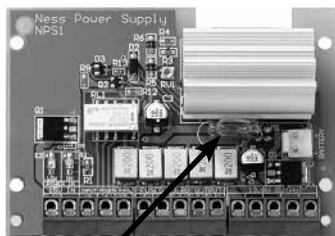
Supplied as a PCB with mains adapter. This model should be mounted in a suitable equipment housing to protect it from exposure to the elements or users.



Part No. 106-029  
Includes NPS1 Module & Mains Adapter.



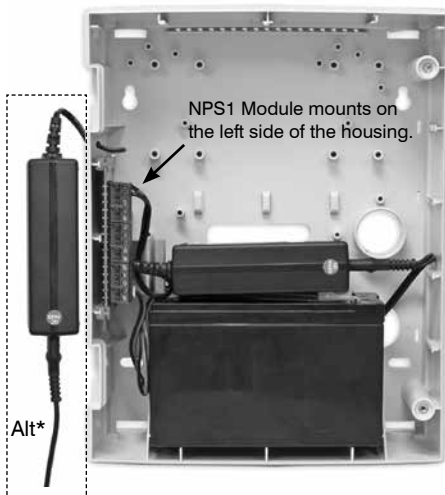
Do not touch the heatsink as it may be hot. Ensure there is adequate airflow in the enclosure and that wiring is routed away from the heatsink.



CL CURRENT LIMITING GLOBES	
Not glowing	Normal - battery is charged
Slight glow	When charging a new battery
Intensely bright	The battery is drawing excessive current and may be faulty, or the battery is connected in reverse. Check the connections or connect a charged battery.

## POW315 NPS1 POWER SUPPLY KIT

Supplied complete with a Ness X Series housing, 12V 7Ah battery and mains adapter. The NPS1 module is designed to install in the housing using the slide rails provided.



Part No. POW315  
Includes NPS1 Module, Mains Adapter, Ness X Series housing and 12V 7Ah battery.

Alt\* As an alternative, the Mains Adapter can be mounted on the outside of the housing and secured using the double sided tape supplied. Drill a 7mm hole just above the NPS1 module for entry of the low voltage cable.

### NOTE

The removable terminal strips must be fitted 'end on' as shown to provide lid clearance in the X Series housing.



## INPUT

- **POWER IN**

15V DC INPUT +/-

This is the main power input from the Mains Adapter supplied, (15VDC switch mode power supply). The positive lead from the Mains Adapter is marked with a red ring. **PLEASE OBSERVE CORRECT POLARITY.**

The lead between the Mains Adapter & the NPS1 module should be kept as short as possible to minimize its resistance. Any additional resistance should be less than 0.26 ohm.

## OUTPUTS

- **FUSED 13.8V OUTPUT**

5 TERMINALS EACH NEGATIVE & POSITIVE

5 separately fused 13.8V DC outputs are provided on removable terminals strips.

The total current from all five outputs should not exceed 3A continuous. (Eg, if you draw 2A from one output there is 1A available for the other four outputs.)

Each output has a 2A fuse. This limits any single load to 2A continuous, although short duration overloads should not activate the slow blow resettable fuse. Parallel connection of outputs will not increase this limit. Once a fuse is tripped the load must be removed to allow the fuse to cool down and reset.

- **RELAY**

MAINS FAIL RELAY OUTPUT

Under normal conditions the relay is powered on, and the outputs marked NC (Normally Closed) & C (Common) are connected. The RED LED is OFF.

Under fault conditions the relay turns off, connecting the NO (Normally Open) to C. The RED LED is ON. Fault conditions are if input voltage is removed or falls below 14.2v or if the regulator IC is overloaded.

- **BATTERY**

13.8V DC battery charging leads for float charging a 12V 7Ah Sealed Lead Acid battery. The battery is automatically switched to supply the load when the mains power is off.

## INDICATORS

- **GREEN LED**

INPUT VOLTAGE OK

The Green LED is normally on to indicate that the input voltage via the Mains Adapter is present and normal.

The Green LED is off if mains power is off.

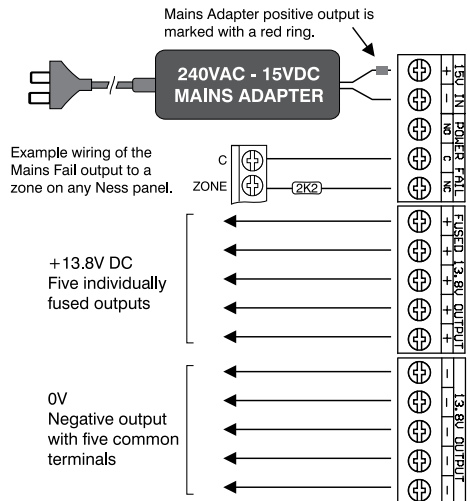
- **RED LED**

INPUT VOLTAGE FAULT

If the Red LED is on the input voltage is either low or off. When the Red LED is on the Relay Output will also be activated.

Note: The Red LED can only indicate a mains fail condition if a backup battery is connected to the NPS1.

## WIRING



## SPECIFICATIONS

<b>Input Voltage</b>	15V DC Mains Adapter supplied
<b>Minimum Input Voltage</b>	14.3V DC
<b>Output Voltage</b>	13.8V DC
<b>Output Current</b>	Max. 3A continuous across all outputs or 2A max. from one output plus 1A from the remaining outputs
<b>Battery Charge Current</b>	350mA max. current limited
<b>Fuses</b>	2A auto resetting fuse per output
<b>Relay Output</b>	Mains Fail indication / C.O. contacts rated 2A @ 30V DC
<b>Indicators</b>	Green LED - Mains OK Red LED - Mains Low or Fail
<b>Operating temperature</b>	0°C – 50°C
<b>Dimensions</b>	NPS1 Module 65(H) x 92.5(W) x 36(D)mm X Series Housing 300(H) x 235(W) x 90(D)mm (POW315 only)



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