

NEMTEK
Electric Fencing Products



Perimeter Light Power Supply

Installer Manual



INTRODUCTION

The NEMTEK Perimeter Lights system provides the user with extended security, by illuminating the area in close proximity to the electric fence, in case of an energizer alarm. The system can also be activated by other auxiliary inputs for example an alarm system, day/night switch or a remote-control button.

The system consists of the LED Light modules and Power Supply module. The Power Supply module can be configured to activate the lights during an event.

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Company profile

The NEMTEK Group of Companies manufacture and distribute intelligent electronic agricultural fencing systems, security and perimeter control systems and have been involved in the security industry since 1990.

We have our own research and development team, designing and manufacturing a full range of globally competitive electric fence energizers and related products.

NEMTEK is continually updating its products according to South African and international standards in order to ensure the highest quality products and continuous customer satisfaction.

Nemtek contact details

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Technical specifications

LED light module

Parameter	Value
Input Voltage	10 to 40 Vdc
Wattage	3.9 W
Operating Temperature	-20 to 55°C
Luminous Intensity	380 Lumens
Illumination Coverage	12m x 2.5m at 2.8m height
IP Rating	IP65
Mounting*	2 x 5mm holes

Power supply module

Parameter	Value
Input Voltage	100 to 240 Vac
Maximum Input Current Consumption	1.5 A
Output Voltage	23.6 to 29 Vdc*
MaxOutput Current	4 A** (at 25°C)
Max Number of Connected Light Modules	20
Backup Battery (Optional)	24V 4Ah LiFePO4
Trigger Input Voltage	10 to 30 Vdc***
Max Trigger Input Current Consumption	1.5 mA***
Number of Trigger Inputs	3 (Configurable as Wet or Dry Contacts)
Operating Temperature	-20 to 55°C

*Dependent on battery charge state

**Over-current protected

***Jumpers configured for dry contact

System setup

The Power Supply module should only be powered from mains power using the included mains power supply. Depending on the configuration, the module may include a 24V LiFePO4 battery for backup power during mains power failure

Trigger inputs

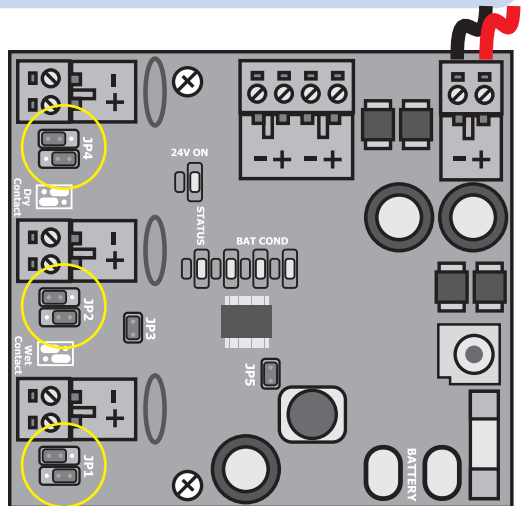
The Power Supply module has three different input triggers to activate the 24V output supply and can be configured for different functions as shown here.

Wet/Dry contact jumper settings

All three inputs can be configured to be either a wet or dry contact, by setting jumpers **JP1** for the Energizer Trigger Input, **JP4** for the Auxiliary Trigger Input and **JP2** for the Day/Night Switch Input, as shown on the right.

When the input is configured to be wet, the positive (+) side of the contact is internally supplied with 29 V by the module. The external trigger source (energizer, alarm panel, remote switch, day/night switch etc.) should therefore be a potential free (dry) contact, for example, a dry relay contact.

When the input is configured to be dry or potential free, no voltage is applied to the contact. The external trigger source (energizer, alarm panel, remote switch, day/night switch etc.) should apply a 10 - 30 Vdc (wet contact) signal to the contact, for example, a wet relay contact.



System setup

Energizer trigger input

When a 10 - 30 Vdc (dry contact setting) or closed contact (wet contact setting) signal is applied to this input, the output will be activated, given that either the Day/Night Switch Input is also activated, or the Day/Night Switch Input is bypassed.

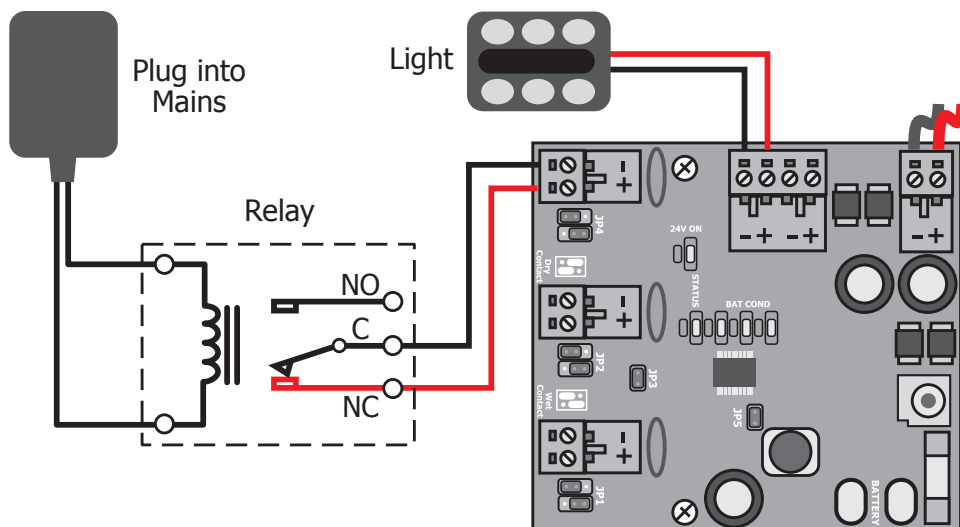
This input should be wired to a NEMTEK energizer strobe output relay to illuminate the electric fence perimeter, in case of an energizer alarm.

The energizer strobe and power supply trigger input should always have the opposite wet/dry contact setting i.e. if the energizer is set for dry contact, the module should be set for wet contact and vice versa.

Day/Night switch input

This input is wired in series with the Energizer Trigger Input internally. This means the output will only be activated if both the Energizer Trigger and Day/Night Switch inputs are triggered. This is useful when the owner is away for an extended time and the energizer was in alarm, preventing the lights from shining throughout the day. The input can be triggered with a 10 - 30 Vdc (dry contact setting) or closed contact (wet contact setting) signal. When not used, the input should be bypassed by inserting jumper JP3.

System setup



Auxiliary trigger input

This input works in the same way as the Energizer Trigger Input, but is independent of the Day/Night Switch Input status. It can be used to connect another source that needs to switch on the perimeter alarm lights, for example, an alarm system output relay or remote control.

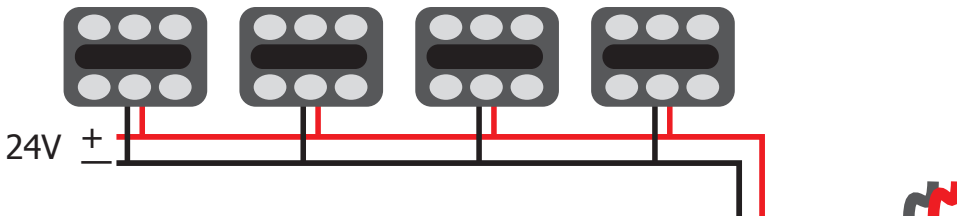
The input may also be wired, as in the figure above, to switch on the LED lights in the event of a mains power failure. The plug-in power supply is wired to the coil side of the relay, while the normally closed (NC) contact is connected to the Aux Trigger Input of the module.

Battery type setting

Jumper JP5 must be adjusted to set the charge voltage for different battery technology types. Insert the jumper if a Lead Acid type battery is installed and remove the jumper if a LiFePO4 type battery is installed. **Note: The wrong configuration can cause permanent damage to the battery.**

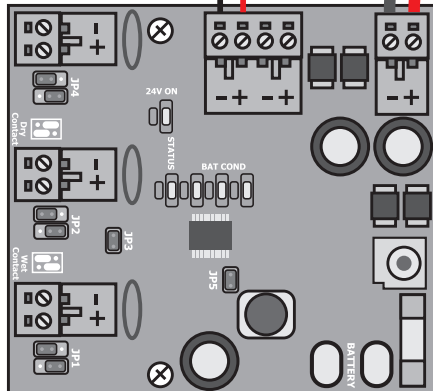
System setup

Light module wiring



The LED light modules must be connected in parallel, directly to the output of the Power Supply module as shown.

A maximum of 20 light modules can be connected to a single Power Supply module.



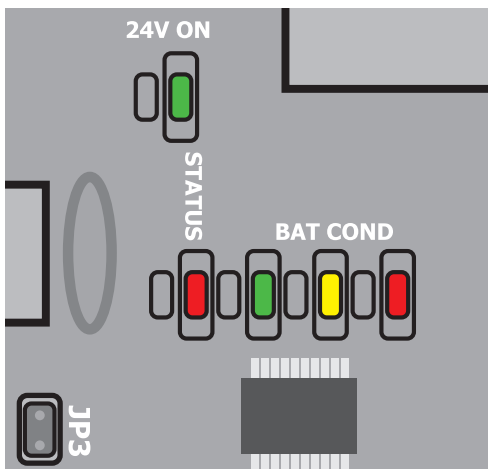
PCB LED indicators

BAT COND: The green LED indicates battery is GOOD, Yellow indicates CHECK and RED indicates BAD.

When the RED LED is illuminated, the 24V output will switch off until the battery is sufficiently charged.

STATUS: The red LED will illuminate when there is an Over-current situation.

24V ON: The green LED will illuminate when the 24V Output is active.



WARRANTY

Unless otherwise specified all Nemtek products have a 3 year warranty and all other fencing components have a 1 year warranty from date of sale against defects due to faulty workmanship or materials. Nemtek (Pty) Ltd will, at its discretion, either repair or replace a product that proves to be defective.

Nemtek (Pty) Ltd does not guarantee that the operation of the product will be uninterrupted and totally error free. Faulty products must be returned to one of the Nemtek Group outlets. The buyer shall pay all shipping and other charges for the return of the product to Nemtek (Pty) Ltd.

LIMITATION OF WARRANTY

The warranty does not apply to defects resulting from acts of God, modifications made by the buyer or any third party, misuse, neglect, abuse, accident or mishandling.

EXCLUSIVE REMEDIES

The remedies provided herein are Nemtek (Pty) Ltd's sole liability and the buyers sole and exclusive remedies for breach of warranty. Nemtek (Pty) Ltd shall not be liable for any special, incidental, consequential, direct or indirect damages, whether based on contract, tort, or any other legal theory. The foregoing warranty is in lieu of any and all other warranties, whether expressed, implied, or statutory, including but not limited to warranties of merchantability and suitability for a particular purpose.



Rev 1.0, 25 March 2019
First release

Rev 2.0, 16 July 2026
Product upgrades and modifications