LINOVISION

4 Ports MPPT Solar PoE Switch

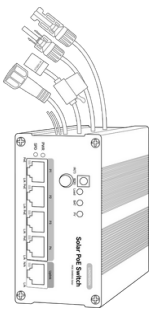
Quick Guide POE-SW804G-Solar

For More Information

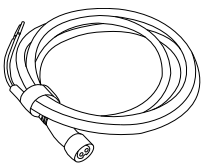
Overview

POE-SW804G-SOLAR is a Solar PoE Switch integrates a MPPT controller. It can work directly and efficiently in 12V/24V solar power systems. While providing 4 PoE outputs that support the IEEE 802.3 af/at standard, the integrated MPPT controller can keep the PV panels working at their best, effectively improving the conversion efficiency of the PV system. When used in conjunction with IOT gateway like LINOVISION IOT-C101 or IOT-R51W, users can remotely view charging status and change charging settings via LINOVISION RemoteMonit Cloud or third-party platforms.

Package Contents



POE-804G-Solar

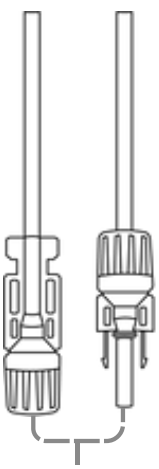


DC Extension Cable

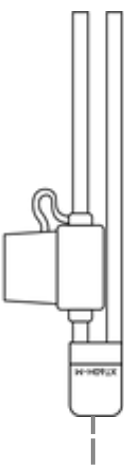
Battery Connection Extension Cable

Quick Guide

Solar Interface



Solar Pannel Connector (MC4)



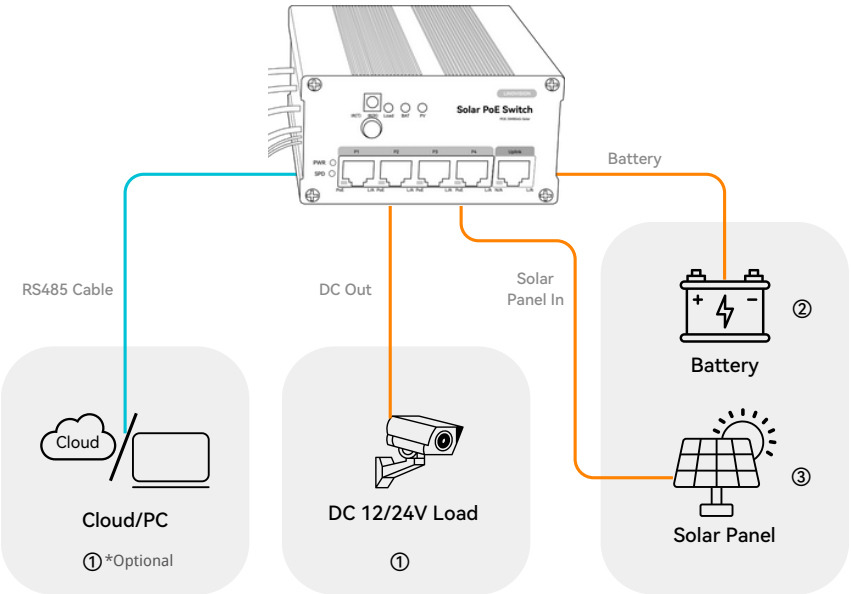
Battery Connector (XT60)

DC 12V output

RS485 Connector

Solar Installation

POE-804G-Solar



For safety, please follow the installation order shown above:
①Load (optional RS485) > ②Battery > ③Solar Panel
*If your battery type is not a 12V $LiFePO_4$ battery, please complete step ② and then refer to the instructions below under "Battery Type Set Up" before step ③ connecting the solar panel.

Battery Type Set Up

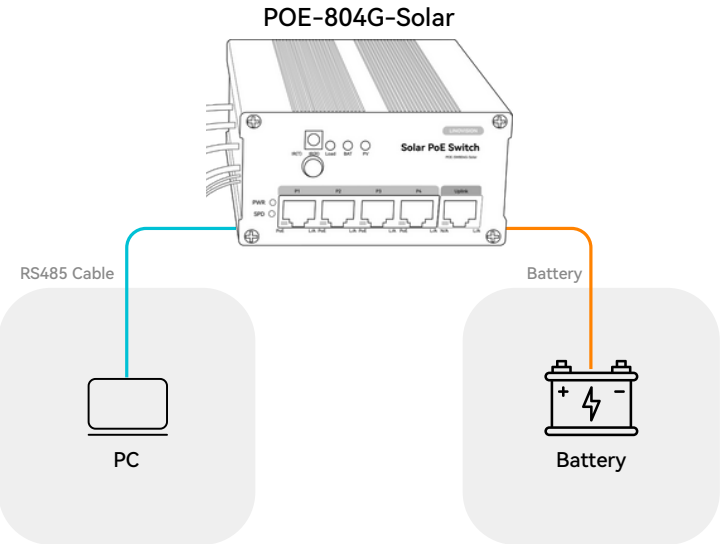
If you are using a battery other than a 12V $LiFePO_4$, configuration is required via a RS485 to USB cable (sold separately) and software on your PC. Please follow the steps below:

A. Download and install the Linovision PC configuration software "LINOVISION Tool Box" from the link provided.
https://github.com/LINOVISION-CLOUD/Serial-port-application/releases

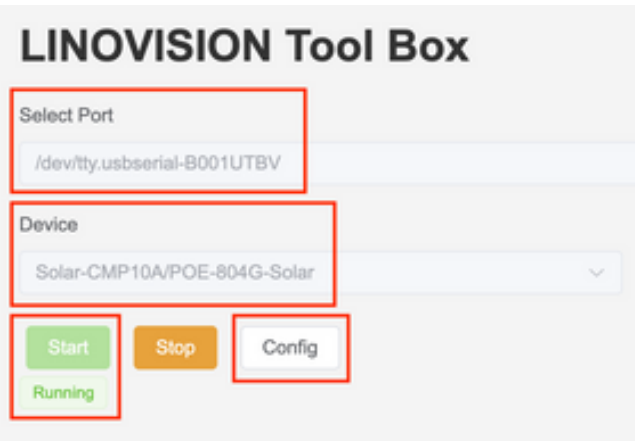
LINOVISION Tool Box

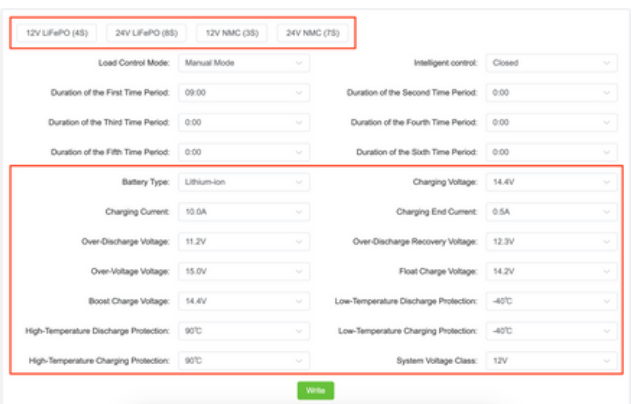
Github Link QR Code

B. Connect the RS485 to USB cable, Red wire to terminal A, Blue wire to terminal B. Plug the USB end into your PC, then connect the XT60 interface to the battery.



C. Run the "LINOVISION Tool Box". Select the corresponding port. Set the device model to Solar-CMP10A/POE-804G-Solar, then click "Start" and "Config" to enter the configuration interface.
*If you need to manually configure a 24V battery, please fill in each parameter as if for a 12V system and set the system voltage level to 24V — the system will automatically double the values during actual operation.





Battery Type Set Up Reference

- For gel and lead-acid batteries, the POE-SW804G-Solar controller comes with built-in charge curves and 12V/24V auto-detection so only battery type selection is needed.
- For $LiFePO_4$ and NMC batteries, configuration must be done according to the actual battery specifications. The 24V information is for reference only. When filling in the parameters, you should still enter values based on a 12V system and only change the system voltage level to 24V.

	12V $LiFePO_4$ (4S)	24V $LiFePO_4$ (8S)	12V NMC (3S)	24V NMC (7S)
Charging Voltage	**14.4V**	**28.8V**	**12.6V**	**29.4V**
Charging Current	**10.0A**	**10.0A**	**10.0A**	**10.0A**
Charging End Current	**0.5A**	**0.5A**	**0.5A**	**0.5A**
Over-Discharge Voltage	**11.2V**	**22.4V**	**9.0V**	**21.0V**
Over-Discharge Recovery Voltage	**12.3V**	**23.6V**	**9.9V**	**22.2V**
Over-Voltage Voltage	**15.0V**	**30.0V**	**13.0V**	**30.8V**
Float Charge Voltage	**14.2V**	**28.4V**	**12.3 V**	**28.7V**
Boost Charge Voltage	**14.4V**	**28.8V**	**12.6V**	**29.4V**
High-Temperature Charge Protection	**55°C**	**55°C**	**50°C**	**50°C**
High-Temperature Discharge Protection	**60°C**	**60°C**	**60°C**	**60°C**
Low-Temperature Charge Protection	**0°C**	**0°C**	**0°C**	**0°C**
Low-Temperature Discharge Protection	**-20°C**	**-20°C**	**-20°C**	**-20°C**

Troubleshooting

Symptom	Possible Cause	Corrective Action
PV status indicator LED is off in daylight; load lamp switches on in daylight; load lamp operates for only one night	**Photovoltaic module wiring incorrect**	**Verify and correct the photovoltaic module wiring**
Load status indicator LED flashes rapidly; load lamp does not illuminate	**Load lamp wiring short-circuited or open-circuited; load lamp defective**	**Inspect and repair the load lamp wiring; replace the lamp if necessary**
Load status indicator LED flashes rapidly; load lamp flickers	**The load lamp turns off immediately after lighting, and the load status indicator LED flashes rapidly.**	**Adjust the consumption of load lamp to the range specified in the controller datasheet**
Load status indicator LED flashes slowly	**Load power exceeds the controller's rated capacity**	**Reduce the output current to within the controller's rating**
BAT status indicator LED is red; lighting duration is insufficient	**Battery deeply discharged; excessive cable resistance; battery damaged**	**Confirm proper charging conditions and remove any shading of the photovoltaic module; shorten or tighten battery cables; replace the battery if required**

Cloud Connection

The POE-SW804G-Solar can be used with a gateway to enable data monitoring on the cloud platform. For details, please refer to the link below.

POE-SW804G-Solar Guide QR Code