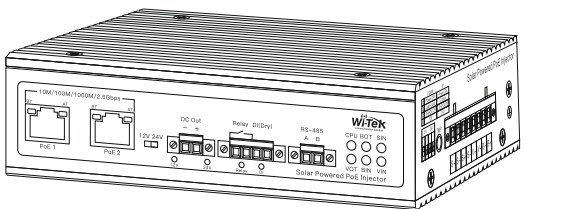


Quick Installation Guide

Solar Powered PoE Injector



WI-PS402-UPS-I

1. Packing Content



1 x Solar Powered PoE Injector



1 x Screwdriver

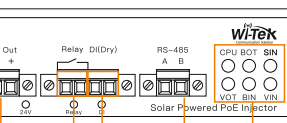


1 x Quick Installation Guide

2. Appearance

WI-PS402-UPS-I

• Front Panel



- 1*2.5Gbps PoE++ RJ45
- 1*2.5Gbps PoE+ RJ45@12V Battery
- 1*2.5Gbps PoE++ RJ45@24V Battery

12V/24V DC Out DIP Switch

Relay

DI(Dry)

RS-485

LED Indicators

*Do not connect active devices to DI(Dry)!

• DIP Switch

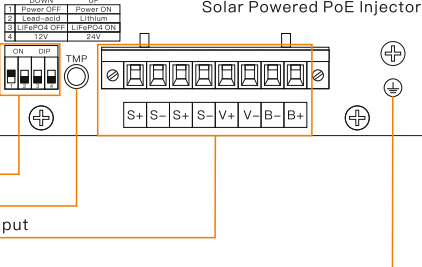
DIP Switch	Status	Description
12V/24V DC Out	12V(Left)	The DC output works at 12V.
DIP Switch	24V(Right)	The DC output works at 24V.

3. Hardware Installation

• LED Indicator

LED Indicator	LED Name	Color	Status	Description
BT	BT PoE Indicator	Orange	Steady on Off	The port is providing power at IEEE 802.3bt mode. The port is not providing power.
AT	AT PoE Indicator	Green	Steady on Blinking Off	The port is providing power at IEEE 802.3af mode. The port is providing power at IEEE 802.3af mode. The port is not providing power.
CPU	System Indicator	Green	Steady on 1/2s Blinking 1/4s Blinking Off	An error has occurred that affects the system. The system is running properly. Failed to identify the battery. The system software is not running.
VOT	Power output indicator	Green	Steady on Off	The MPPT module is providing power properly. The MPPT module is providing power abnormally.
BOT	Battery discharging status indicator	Green	Steady on Blinking Off	The battery is discharging and battery capacity is >15%. The battery capacity is <15%. The battery is end of discharge or not discharge.
BIN	Battery charging status indicator	Green	Steady on Blinking Off	The battery is charging and battery capacity is <98%. The battery is charging and battery capacity is >98%. The battery is full capacity or not charge.
SIN	Solar power input indicator	Green	Steady on 1/2s Blinking 1/4s Blinking Off	The solar power input is normal. The solar power input is in delayed charging. The solar power input is abnormal. There is no solar power input.
VIN	DC power input indicator	Green	Steady on Blinking Off	The DC power input is normal. The DC power input is in delayed charging. There is no DC power input.
12V	DC out status indicator	Green	Steady On	The DC output works at 12V.
24V	DC out status indicator	Green	Steady On	The DC output works at 24V.
Relay	Relay status indicator	Green	Steady on Blinking Off	The Relay is normal close status. The Relay is pulse status. The Relay is normal open status.
DI	DI(Dry) status indicator	Green	Steady On Off	The DI input is closed status(with input). The DI input is open status(without input).

• Side Panel



• Interface and DIP Switch

Power Input	Description
S+, S-	Solar power input. Two of solar panel input in parallel to obtain greater current input.
V+, V-	DC Power input.
B+, B-	Battery charging & discharging.

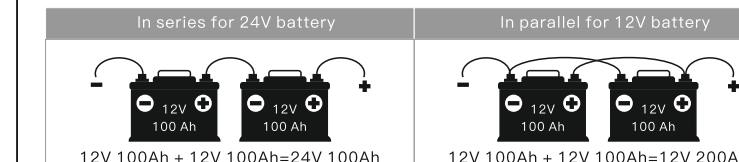
* The solar input cannot supply power to the switch independently without the battery connected.
* Default input priority: The input priority is determined based on the voltage, and the input with the highest voltage is preferred for the power supply.

DIP Switch	Status	Description	
Switch 1: Power	Up	Power on the device.	
	Down	Turn off the device.	
Switch 2,3,4: Battery type option			
Switch 2	Switch 3	Switch 4	Battery type
Down	Down	Down	12V lead acid battery
Down	Down	Up	24V lead acid battery
Up	Down	Down	11.1V(Working voltage: 9-12.6V) lithium battery
Up	Down	Up	22.2V(Working voltage: 18-25.2V) lithium battery
/	Up	Down	12.8V(Working voltage: 10-14.6V) LiFePO4 batte
/	Up	Up	25.6V(Working voltage: 20-29.2V) LiFePO4 batte

*Note: Power on the device after the settings are complete

• DC Input

Battery Type	Battery Nominal Voltage	Battery Working Voltage	Battery Max Charge Current
Lead-acid	12V 24V	/	15A
Lithium	11.1V 22.2V	9~12.6V 18~25.2V	
LiFePO4	12.8V 25.6V	10~14.6V 20~29.2V	



Step 1: How to get 12V or 24V battery?

Step 2: How to select a suitable solar panel?

WI-PS402-UPS-I	Recommend Maximum Power voltage(Vmp)	18~26V
12V Battery System	Open Circuit Voltage(Voc)	<32V
24V Battery System	Recommend Maximum Power voltage(Vmp)	30~52V
	Open Circuit Voltage(Voc)	<57V

Model: 200W Solar Power	(W): 200
Peak power (Pmax)	(%): 0~3
Product tolerance	(A): 10.8
Maximum power current (Imp)	(V): 18.8
Maximum power voltage (Vmp)	(A): 11.85
Short circuit current (Is)	(V): 27
Open circuit voltage (Voc)	(A): 27
Weight	(kg): 9.9
Dimensions	(mm): 14.8*6*7.3
Maximum system voltage	(VDC): 1000
Application class	(A): 1
Mechanical tested	(Pa): 2400

All technical data at standard test condition : AMe1.5 S=1000W/M² T=25°C

• DC Input

WI-PS402-UPS-I	Recommend DC Power Voltage	18V/24V
12V Battery System	Recommend DC Power	240W + Load Power
24V Battery System	Recommend DC Power Voltage	30V/36V/48V
	Recommend DC Power	480W + Load Power

*Ensure that the DC power input has over-current protection to protect the DC power supply.

Step 3: Calculate battery capacity and solar panel power

Recommended tools for reference:
UPS Wizard in Wi-Tek Cloud APP
Photovoltaic performance in PVGIS provided by the European Commission

Example: There is **20W** load in the solar system
If the system should continue working **1night and 2 days in the cloudy & raining days**, and **discharge capacity is 80%**(means remain 20% capacity after 2 days), the battery capacity is about

$$20W * (0.6+2) \text{ days} * 24\text{hours} * 1.2(\text{system loss coefficient}) / 80\% \\ (\text{remain } 20\% \text{ capacity}) = 1,872 \text{ Wh} = 24V@78Ah \text{ battery}$$

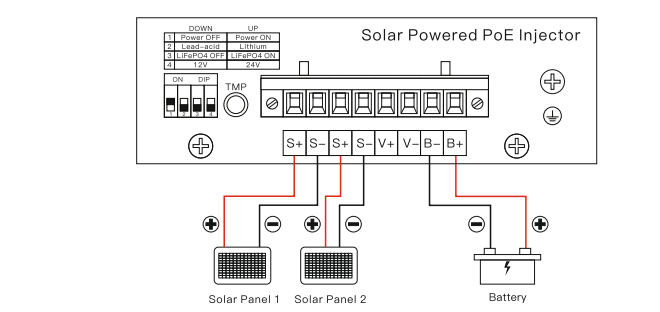
If the battery should be **charge full from empty in 3 sunny days**, the solar panel is about

$$20W * 24\text{hours} * 2.5\text{days} + 1872 \text{ Wh} / [(3 \text{ days} * 2.8(\text{solar panel efficient in days}) * 95(\text{conversion efficiency}) * 95(\text{system loss})] \\ = 405W = 38V@10.7A \text{ solar panels}$$

Note: the Charging days need to be planned according to local weather.
There is much different at system loss coefficient due to battery type, temperature, quality, cycles and so on, and there is much different at solar panel efficiency due to weather, latitude, month, temperature, install slope and azimuth, system loss, cleanliness, quality, degree of aging and so on.

Get some reference, you can visit recommend tools or contact with us for enhanced support.

Step 4: Power on device after completing all setting.



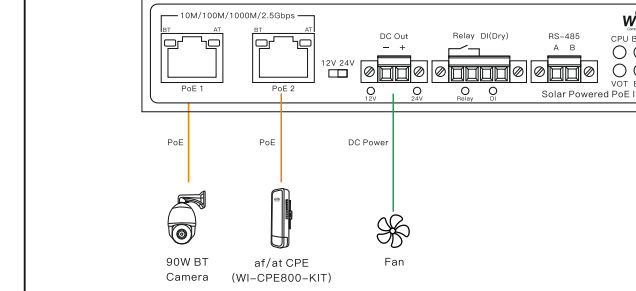
*Default input priority: The input priority is determined based on the voltage. The input with the highest voltage is preferred for power supply.
Example 1: There is no DC input requirement, using 18V working voltage solar panels and the 12V battery.
Example 2: Using 36V solar panels, 24V DC input and 12V battery, 36V Solar power during the day, 24V DC power at night, when there is no DC, battery as a backup power supply
Recommended tools for reference:

S+: Solar positive electrodes
S-: Solar negative electrodes
D+: DC input positive electrodes
D-: DC input negative electrodes
B+: Battery positive electrodes
B-: Battery negative electrodes

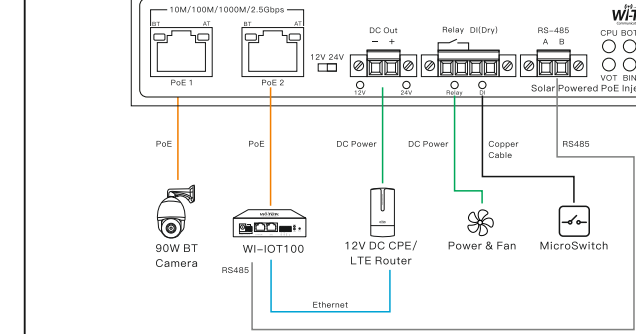
Note: Positive to positive, negative to negative.

Step 5: Connect PoE or DC Powered Devices.

Application 1: Typical CCTV solution without Wi-Tek cloud management.



Application 2: Typical CCTV solution with Wi-Tek cloud management.



Warranty Card

Username	
Address	
Telephone No.	
Purchase Shop	
Purchase Address	
Product Model No.	
Purchase Time	
Serial No.	
Dealer Signature	

- * If the product defects within the warranty period, we will provide professional maintenance service.
- * Proof of purchase and a complete product serial number are required to receive any services guaranteed as part of the limited warranty.
- * Any other defects that are not caused by workmanship or product quality, such as natural disasters, water damage, extreme thermal or environmental conditions, sticker damaged, warranty card loss will disqualify the product from limited warranty.



Technical Support



Company Website



Cloud Management

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