

Quick Installation Guide

Battery Lithium Series Slim 48V 2.4 kWh + Inverter Turbo



+



1. Inverter configuration

1.1. Connect Inverter to Wifi

To be able to upload the SunBox to the cloud and be able to see the monitoring of the system, it is essential to connect the equipment to the internet. To do this, the following steps must be followed:

Step 0: Locate the serial number of the logger.

At the bottom of the inverter there is a label with a QR code, the serial number of your logger and the password to access the Wi-Fi of the logger.



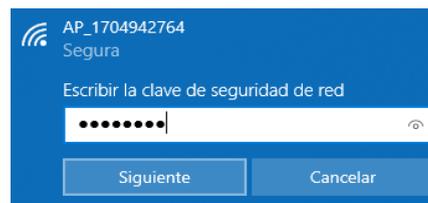
The logger creates a Wi-Fi network whose name is "AP_" followed by the serial number of the logger.

Step 1: Connect to the Wi-Fi network.

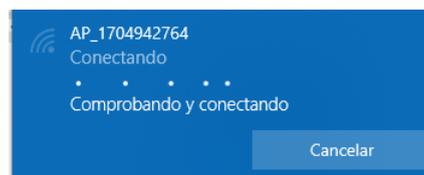
With an electronic device that has Wi-Fi (PC, Tablet, Smartphone ...) the connection with the Wi-Fi of the recorder is established:

Open the wireless network connection of your PC, tablet, or smartphone.
Click View Available Wireless Networks

Select the corresponding one with the device which you want to connect with (identified by "AP_" and the serial number of logger)



Enter the key that appears on the logger along with the serial number.



Step 2: Connect to the web portal.

Once connected to the Wi-Fi network with your PC, tablet, or smartphone you must access the web portal of the register.

To do this, a web browser on the PC, tablet or smartphone that has been connected to the wi-Fi of the logger.

Type in the address bar of the web browser the text "10.10.100.254"

A login pop-up window will appear asking for username and password. The default user is "admin" and the password is "admin" and pulsar the button "Login".

Iniciar sesión

http://10.10.100.254 necesita un nombre de usuario y una contraseña. Tu conexión con este sitio web no es privada

Nombre de usuario

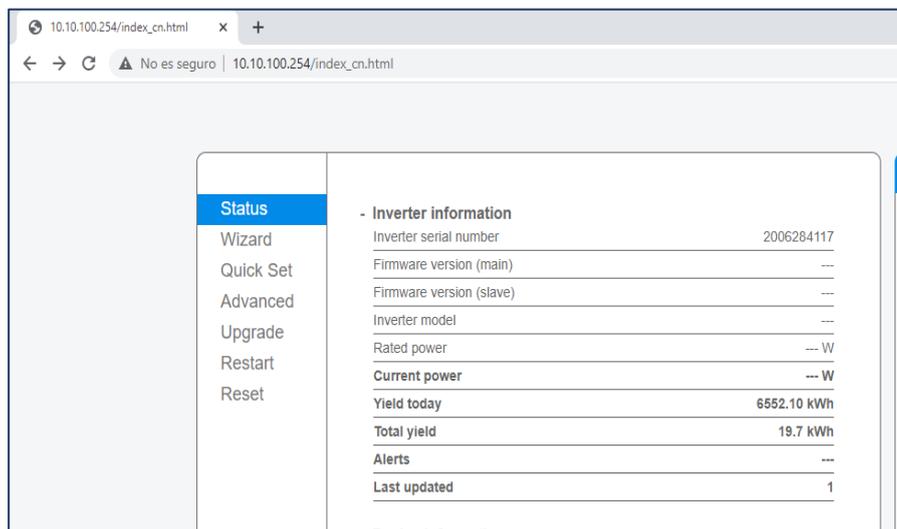
admin

Contraseña

.....

[Cancelar](#) [Iniciar sesión](#)

Once you have accessed the web portal of the registrar you will be able to see the "Status" page with general information of the registrar.



Click on the "Wizard" link under the "Status" link to run the connection wizard from the logger to the wi-fi of the installation (the Wi-Fi of your house or your plant).

Step3: Configure the LOGGER's access to the wi-fi of the plant.

Select the wi-fi of the plant.

When we run the connection wizard, we see the list of Wi-Fi networks to which the registrar has access. Among them must appear the Wi-Fi of our plant. We must select that Wi-Fi and press the "Next" button at the bottom of the screen:

<ul style="list-style-type: none"> Status Wizard Quick Set Advanced Upgrade Restart Reset 	<p style="color: blue; font-weight: bold;">Please select your current wireless network:</p> <p>Site Survey</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>SSID</th> <th>BSSID</th> <th>RSSI</th> <th>Channel</th> </tr> </thead> <tbody> <tr> <td><input type="radio"/> AP_1704942764</td> <td>9C:D8:E3:71:9C:50</td> <td>100</td> <td>12</td> </tr> <tr> <td><input type="radio"/> Solar-WiFi19600055</td> <td>98:D8:63:8B:55:CC</td> <td>100</td> <td>1</td> </tr> <tr> <td><input type="radio"/> vodafone7A38</td> <td>74:DA:88:B:1F:5E</td> <td>45</td> <td>1</td> </tr> <tr> <td><input type="radio"/> TP-LINK_8D10</td> <td>7C:8B:CA:B9:8D:10</td> <td>37</td> <td>11</td> </tr> <tr> <td><input type="radio"/> RMNTRNS</td> <td>90:3A:72:32:C5:50</td> <td>30</td> <td>8</td> </tr> <tr> <td><input type="radio"/> RMNTRNS</td> <td>34:FA:9F:2C:CA:E8</td> <td>25</td> <td>3</td> </tr> <tr> <td><input type="radio"/> DIRECT-35-HP</td> <td>E6:E7:49:26:F6:35</td> <td>23</td> <td>6</td> </tr> <tr> <td><input type="radio"/> PageWide MFP P57750</td> <td>F0:E4:A2:3E:53:9A</td> <td>16</td> <td>1</td> </tr> <tr> <td><input type="radio"/> TURBO-E</td> <td>F0:E4:A2:3E:53:9A</td> <td>16</td> <td>1</td> </tr> <tr> <td><input type="radio"/> TURBO</td> <td>D8:47:32:3D:83:6</td> <td>6</td> <td>11</td> </tr> </tbody> </table> <p style="font-size: small; margin-top: 10px;">*Note: When RSSI of the selected WiFi network is lower than 15%, the connection may be unstable, please select other available network or shorten the distance between the device and router.</p> <p style="text-align: right; margin-top: 5px;">Refresh</p> <hr/> <p style="color: blue; font-weight: bold;">Add wireless network manually:</p> <p>Network name (SSID) (Note: case sensitive) <input style="width: 100%;" type="text"/></p> <p>Encryption method Disable</p> <p style="text-align: right; margin-top: 5px;">Next</p>	SSID	BSSID	RSSI	Channel	<input type="radio"/> AP_1704942764	9C:D8:E3:71:9C:50	100	12	<input type="radio"/> Solar-WiFi19600055	98:D8:63:8B:55:CC	100	1	<input type="radio"/> vodafone7A38	74:DA:88:B:1F:5E	45	1	<input type="radio"/> TP-LINK_8D10	7C:8B:CA:B9:8D:10	37	11	<input type="radio"/> RMNTRNS	90:3A:72:32:C5:50	30	8	<input type="radio"/> RMNTRNS	34:FA:9F:2C:CA:E8	25	3	<input type="radio"/> DIRECT-35-HP	E6:E7:49:26:F6:35	23	6	<input type="radio"/> PageWide MFP P57750	F0:E4:A2:3E:53:9A	16	1	<input type="radio"/> TURBO-E	F0:E4:A2:3E:53:9A	16	1	<input type="radio"/> TURBO	D8:47:32:3D:83:6	6	11	<p style="text-align: center; color: white; background-color: #0070C0; padding: 5px; border-radius: 5px;">Help</p> <p style="font-size: x-small; margin-top: 5px;">The setup wizard will assist you to complete the device setting within one minute.</p>
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Step 3.2: Enter the password of the Wi-Fi of the plant: in the field "Password" enter the password of the Wi-Fi of your plant and press the button "Next."

<ul style="list-style-type: none"> Status Wizard Quick Set Advanced Upgrade Restart Reset 	<p style="color: blue; font-weight: bold;">Please fill in the following information:</p> <p> Password (8-64 bytes) (Note: case sensitive) <input style="width: 100%;" type="password"/> </p> <p style="margin-left: 100px;"><input type="checkbox"/> Show Password</p> <p> Obtain an IP address automatically Enable </p> <p>IP address <input style="width: 100%;" type="text"/></p> <p>Subnet mask <input style="width: 100%;" type="text"/></p> <p>Gateway address <input style="width: 100%;" type="text"/></p> <p>DNS server address <input style="width: 100%;" type="text"/></p> <p style="text-align: right; margin-top: 5px;">Back Next</p>	<p style="text-align: center; color: white; background-color: #0070C0; padding: 5px; border-radius: 5px;">Help</p> <p style="font-size: x-small; margin-top: 5px;">Most systems support the function of DHCP to obtain IP address automatically. Please select disable and add it manually if your router does not support such function.</p>
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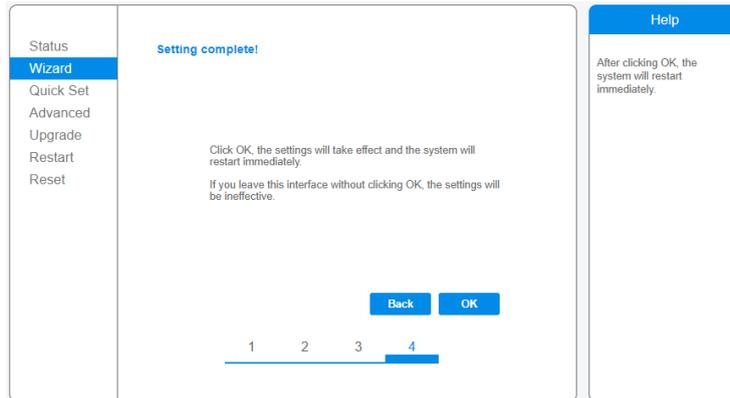
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Step 3.3: In this step it is **NOT** necessary to select any option and then press the "Next" button. Used to configure the security of the connection a la Wi-Fi. Selecting Hide AP, the Wi-Fi network will appear as hidden.

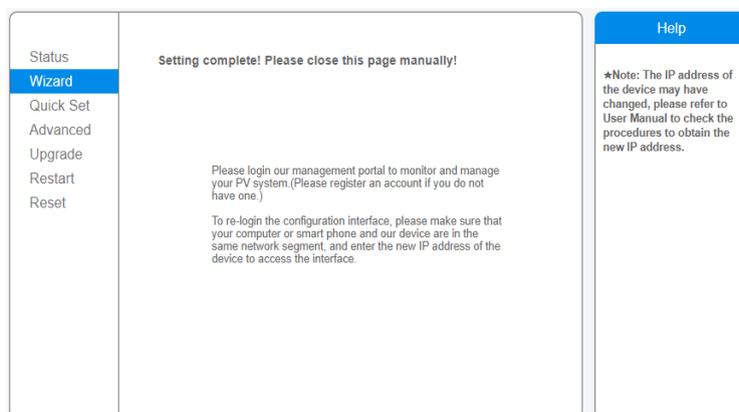
Step 3.4 If the adjustment has been made successfully press the "OK" button to restart the connection.

<ul style="list-style-type: none"> Status Wizard Quick Set Advanced Upgrade Restart Reset 	<p style="color: blue; font-weight: bold;">Enhance Security</p> <p>You can enhance your system security by choosing the following methods</p> <p>Hide AP <input type="checkbox"/></p> <p>Change the encryption mode for AP <input type="checkbox"/></p> <p>Encryption mode WPA2-PSK</p> <p>Change the user name and password for Web server <input type="checkbox"/></p> <p>Current user name <input style="width: 100%;" type="text" value="admin"/></p> <p>New user name (Max.15 characters) <input style="width: 100%;" type="text"/></p> <p>Re-enter user name <input style="width: 100%;" type="text"/></p> <p>New password (Max. 15 characters) <input style="width: 100%;" type="password"/></p> <p>Re-enter password <input style="width: 100%;" type="password"/></p> <p style="text-align: right; margin-top: 5px;">Back Next</p>	<p style="text-align: center; color: white; background-color: #0070C0; padding: 5px; border-radius: 5px;">Help</p> <p style="font-size: x-small; margin-top: 5px;">Change the encryption mode for AP If you set password for the AP network, you will need to enter the password to connect to AP.</p> <p style="font-size: x-small; margin-top: 5px;">Change the user name and password for Web server If you change the username and password for the web server, you will need to enter the new username and password to get access to the setting page.</p>
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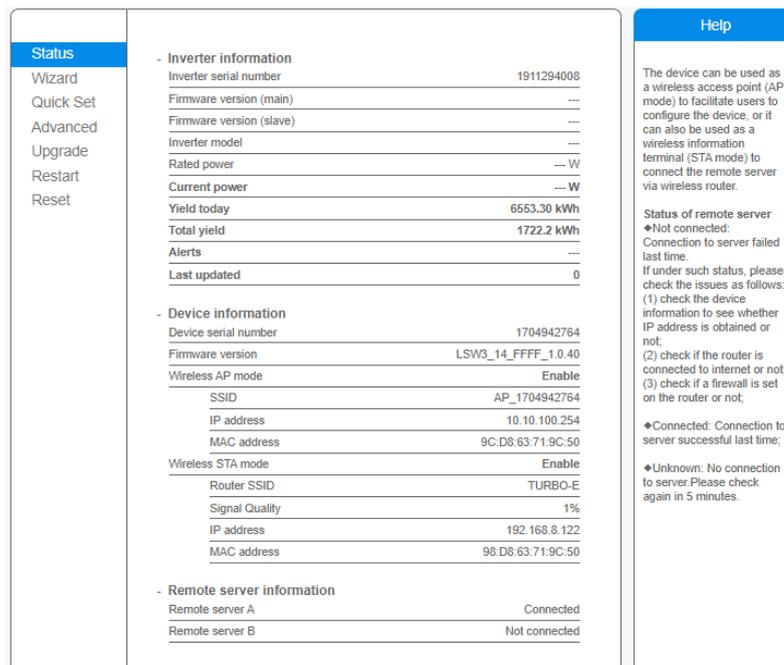
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If the restart occurs successfully a message will appear indicating that it has been done successfully, if it does not appear then refresh the browser page:



Step 4: Check the connection of the REGISTRAR to the wi-Fi of the plant. After restarting the web page log back in to the "Status" page and check the status of the registrar's network connection:



Once we have verified that the registrar is connected to the Wi-Fi of the plant and (which must have internet access) it is possible to add the plant to the cloud platform.

1.2. Inverter settings

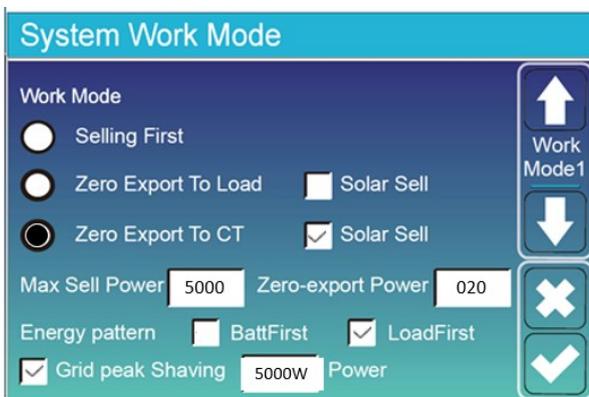
When programming the inverter, you can choose between several configuration options:

1. Selling first: the priority for excess energy is to deliver it to the grid.
2. Zero Export to Load: The output power feeds the Load.
3. Zero export to CT: Production feeds the sum of loads (Network and Load).

Select one of these three modes and enable or disable the option to pour power into the grid.

In addition, power can be prioritized to the charge or to the battery.

The recommended working mode is: Zero Export to CT / Solar Sell activated / Load First. In this way the energy generated will feed the load, the excess amount will go to the battery and finally, the excess energy will be poured into the grid.



- Selling first: Entregar a la red primero
- Zero Export to Load: La potencia de salida se ajusta a la carga de BackUp
- Zero Export to CT: El sistema ajusta la producción a la suma de las cargas (Red y BackUp)
- Solar Sell: Vender el excedente de energía
- Max Sell Power: máxima Potencia de salida
- Zero-export Power: Potencia de salida de la red
- Batt First: La energía de las placas se utiliza para cargar las baterías primero.
- Load First: La energía de las placas se utiliza para la carga y después para las baterías.
- Grid Peak Shaving: Limite de potencia a tomar de red **8000W**.

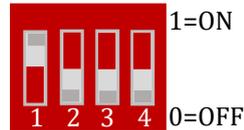
The inverter also incorporates the possibility of using the Grid Peak Shaving function, which allows to reduce the maximum power consumed from the network. With this function the user can have less power contract in the hours of the day that are more expensive and the surplus power that is consumed, will be supplied by the battery.

There are three different modes:

- GM (General Mode): Mode to supply the energy consumed with Battery and plates
- BU (BackUP): No battery discharge mode
- CH (Charge): Battery charging mode

2. Battery configuration

Each module has 4 DIP (Dual Inline Package) switches that will be configured differently depending on the number of batteries to be connected.



They are configured according to the binary code, starting with the master.

Address	Dial switch position				Explain
	#1	#2	#3	#4	
Dips					
1	ON	OFF	OFF	OFF	Pack1/Master
2	OFF	ON	OFF	OFF	Pack2
3	ON	ON	OFF	OFF	Pack3
4	OFF	OFF	ON	OFF	Pack4
5	ON	OFF	ON	OFF	Pack5
6	OFF	ON	ON	OFF	Pack6
7	ON	ON	ON	OFF	Pack7
8	OFF	OFF	OFF	ON	Pack8
9	ON	OFF	OFF	ON	Pack9
10	OFF	ON	OFF	ON	Pack10
11	ON	ON	OFF	ON	Pack11
12	OFF	OFF	ON	ON	Pack12
13	ON	OFF	ON	ON	Pack13
14	OFF	ON	ON	ON	Pack14
15	ON	ON	ON	ON	Pack15

Any changes to the DIPs must be made with the battery turned off.

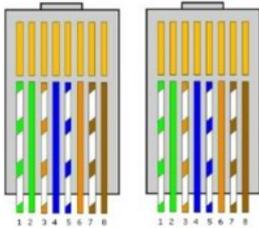
When the battery works by voltage, it is not necessary to communicate the batteries with each other or select a certain DIP configuration.

3. WIRING Configuration



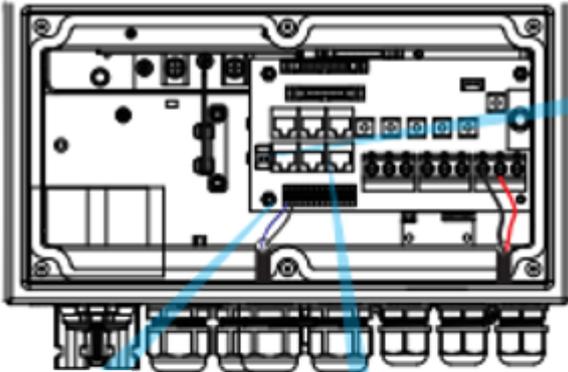
The cable needed to make the connection is the **RJ45**. It is a special cable that is composed of 8 smaller cables each with a different color configuration.

It's needed to use a standard pin-to-pin cable with RJ45 connector.

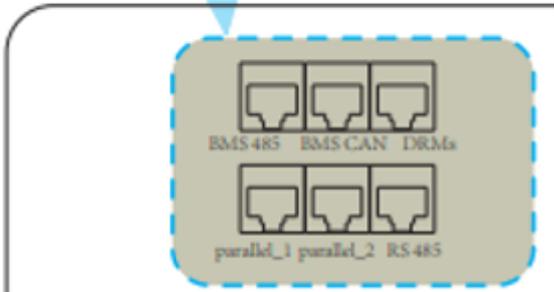


Inverter Battery

For the connection between the inverter and battery, the RJ45 cable will be connected to the CAN-1 port in the battery.



In the inverter, the RJ45 cable will be connected to the BMS CAN port.



CAUTION: READ THE INSTRUCTION AND INSTALLATION MANUAL BEFORE USING THE PRODUCT
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