

# Accesorios guide



meshLium



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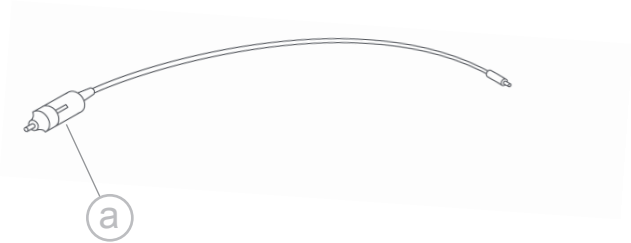


# CAR CONNECTION KIT

## POE adaptor - car lighter (12V)

### a. Car lighter adaptor

Average power	300W
Maximum power	600W
Input voltage	12 VDC
Output voltage	12 VDC
Dimensions	170x105x55 mm
Weight	125 g

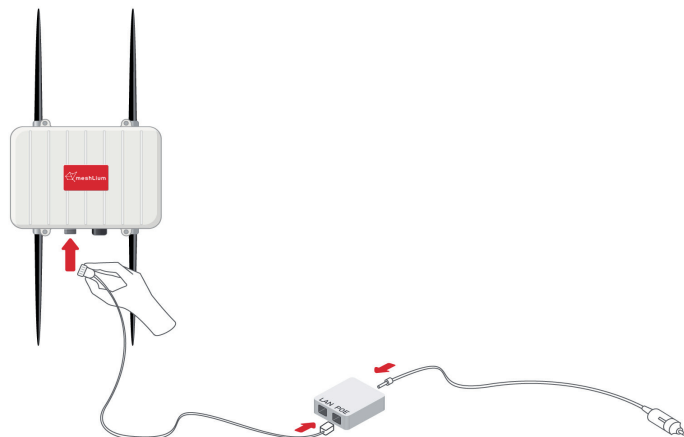


## How to connect the POE adaptor - car lighter (12V)

In this case, you must purchase the required components from Libelium. We do not advise using third party components as they have not been tested by Libelium and could cause failures in the device or the car.

*IMPORTANT: Bear in mind that not all car lighters supply the same voltage. The adaptor offered by Libelium works at 12VDC input voltage.*

- 1 Connect the end with the IP65 protection of the IP65 Ethernet cable to the Meshlium connector without the cap.
- 2 Connect the other end of the cable to the POE input marked "POE". Make sure that the POE is indoors.
- 3 Take the car lighter socket and plug it into the corresponding POE input.
- 4 Plug the other end of the car lighter socket to the car lighter input. Meshlium is ready to use.



# CAR-BATTERY CONNECTION KIT

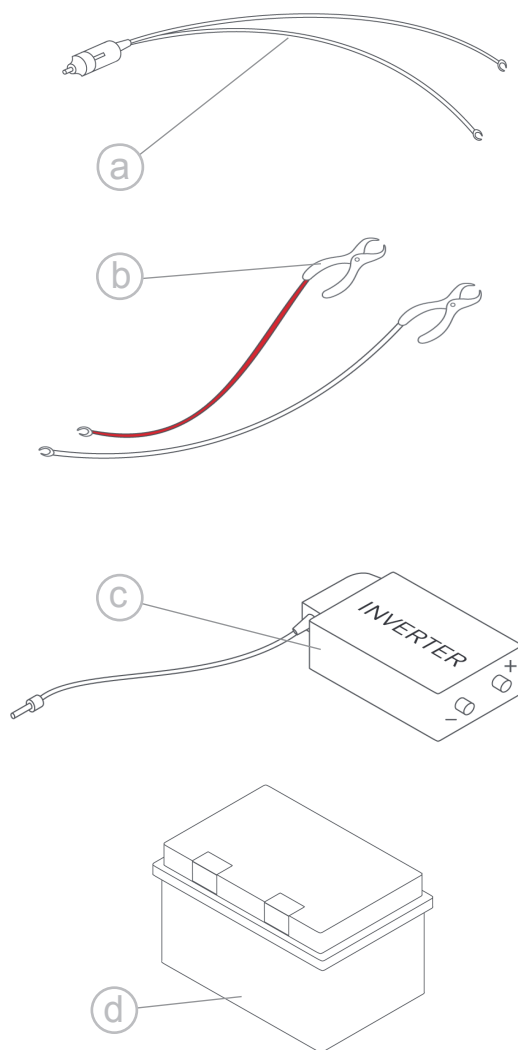
## 220AC Adaptor - car lighter/battery (12V – 300W)

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- a. Car lighter adaptor
- b. Battery clamps
- c. DC 12 VDC - 220 VAC converter
- d. 12 VDC Battery\*

\*Libelium does not supply this component;  
you can purchase it from battery sales points

Average power	300W
Maximum power	600W
Input voltage	12 VDC
Output voltage	220 VAC
Dimensions	170x105x55 mm
Weight	1 Kg



### Connection ways

In this case, you must purchase the required components from Libelium. We do not advise using third party components as they have not been tested by Libelium and could cause failures in the device or the car.

*IMPORTANT: Bear in mind that not all car lighters supply the same voltage.*

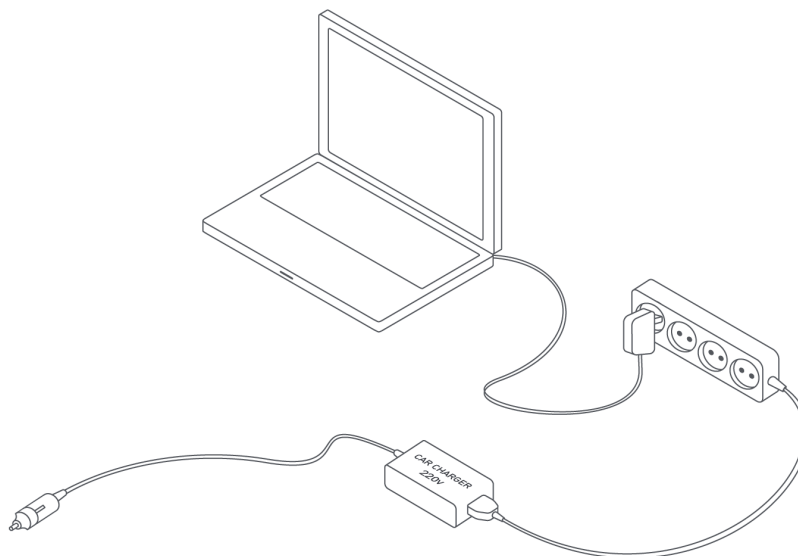
Check polarity at all times before making the connections.

# CAR-BATTERY CONNECTION KIT

## Connection to the car lighter

- 1 Plug the car lighter adaptor to the converter.
- 2 Plug the car lighter adaptor to the car lighter socket.
- 3 You can use the car connection kit with a multi-socket adaptor and connect any other devices you wish on condition that you do not exceed the maximum rating that appears in the regulator's specifications.

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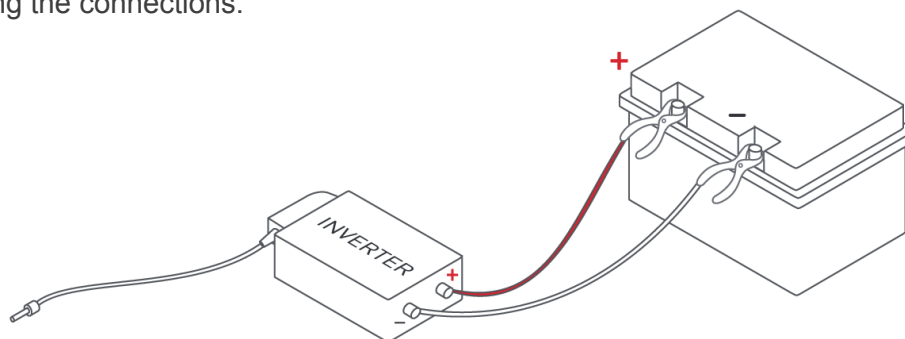


## Connection to the battery

Additional required components: 12V battery, with exposed terminals for placing the clamps.

*IMPORTANT: Check polarity to make sure that the positive (+) and negative (-) poles are connected to the right socket.*

- 1 Connect the ends of the cables from the battery clamps to the converter as shown in the diagram.
- 2 Connect the clamps to the battery terminals as the last step. Check polarity at all times before making the connections.



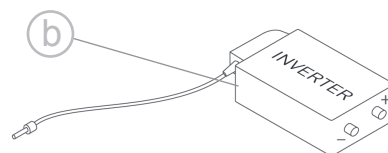
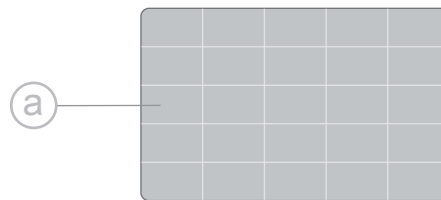
# SOLAR PANEL CONNECTION KIT

## Solar connection kit (12V – 20W)

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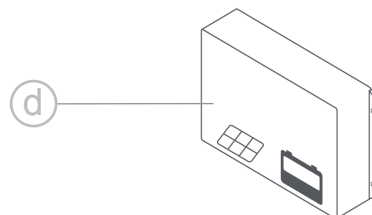
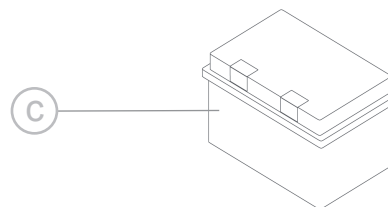
### a. Solar panel

Power	20 Watt
Maximum voltage	17 V
Maximum current	1,15 A
Dimensions	540 x 425 x 25 mm
Weight	2.50 Kg



### b. 12 VDC - 220 VAC converter

Average power	300W
Maximum power	600W
Input voltage	12 VDC
Output voltage	220 VAC
Dimensions	170x105x55 mm
Weight	1 Kg

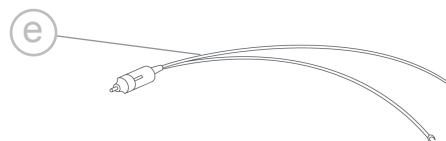


### c. 12 VDC Battery\*

\*Libelium does not supply this component;  
you can purchase it from battery sales points

### d. Charge regulator

Charge voltage range	11.10V-21.20V
Maximum input current	5A
Dimensions	130x70x25 mm
Weight	200 g



### e. Car lighter adaptor

### f. Battery clamps

# SOLAR PANEL CONNECTION KIT

## Battery life expectancy (using the 12V solar kit)

The following chart explains the number of working days that can be obtained depending on the number of daily sun hours. When the energy given by the solar panel is greater than the energy consumed, Meshlium can work indefinitely.

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Sun Hours/Day	Voltage (V)	Current (A)	Power (W)	Energy consumption (Wh)	Added energy (Wh)	Working days*
3h (Winter)	12	0,33	3,96	95	3hx20w=60	15 days
4h (Autumn)	12	0,33	3,96	95	4hx20w=80	36 days
5h (Spring)	12	0,33	3,96	95	5hx20w=100	Indefinite
6h (Summer)	12	0,33	3,96	95	6hx20w=120	Indefinite

(\*Using 20w solar panel and 45 Ah battery)

# SOLAR PANEL CONNECTION KIT

## How to connect the solar kit

Additional required components: solar panel 12V-220V regulator and 12V battery, with exposed terminals for placing the clamps.

*IMPORTANT: Check polarity to make sure that the positive (+) and negative (-) poles are connected to the right socket.*

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- 1 Connect a cable to each battery terminal and the other end into the socket of the 220V regulator marked with the battery icon.
- 2 Connect the cables (positive and negative) to the regulator input marked with the solar panel icon as shown in the drawing.

*IMPORTANT: Check polarity to make sure that the positive (+) and negative (-) poles are connected to the right socket.*

- 3 Connect the ends of these cables to the corresponding solar panel inputs.
- 4 Connect the ends of the cables from the battery clamps to the Inverter as shown in the drawing, and finally the clamps to the battery terminals.

*Check polarity at all times before making the connections.*

