Assembly and operating instructions
LiON Box Max charging station for e-bikes and e-scooters

LiON Box Max with two plugged charging cables (LiON Splitter)

Note

Read the operating instructions carefully before use and keep them in a safe place!

Failure to observe the safety information and instructions may result in electric shock, fire and/or serious injury.

Pass the operating instructions to the next user!

1. Manufacturer

ONgineer GmbH · Hindenburgring 9a · 32339 Espelkamp, Germany · www.ONgineer.de

2. Introduction

These assembly instructions are part of the delivery. Read these instructions carefully before installation and keep them in a safe place. This document contains important information on correct installation, connection, operation and maintenance.
If you have any questions, please contact the manufacturer. These installation instructions are also available at www.ONgineer.de.

The manufacturer is not liable for damage caused by:

- Incorrect assembly or incorrect operation
- Modifications to the product
- Damage to the product
- Use outside these installation instructions

Observe the safety instructions!

3. Safety instructions

The safety instructions attached to the LiON Box Max must be observed.

The operator is responsible for correct installation, operation and maintenance.

In the event of visible damage, the charging station must be taken out of operation and repaired by the manufacturer.

A disconnecting device must be provided in the electrical installation.

The LiON Box Max may only be operated in electrical installations with an RCD that complies with national and international regulations.

4. Proper use and installation

The LiON Box Max is suitable for connecting and charging various e-bike and e-scooter systems.
Compatibility varies depending on the equipment variant.

The LiON Box Max should be installed away from direct precipitation.
Caution: Only connect one battery per splitter!
Caution: Risk of injury!
Damaged or incorrectly installed components can pose a risk to users.

The following must be observed when selecting the installation location:

- Only mount the LiON Box Max vertically (e.g. walls).
- The mounting surface must be level and sufficiently stable
- The LiON Box Max should be sufficiently illuminated during operation.
- Ensure that there is at least 25 cm of free space around your LiON Box Max.
  This also applies to any vegetation.

The LiON Box Max should **not** be installed here:

- In a permanently wet environment
- In the vicinity of flammable materials
- In potentially explosive atmospheres
- In the vicinity of aggressive vapours
- In places with permanent vibration
- In places with permanent exposure to sunlight

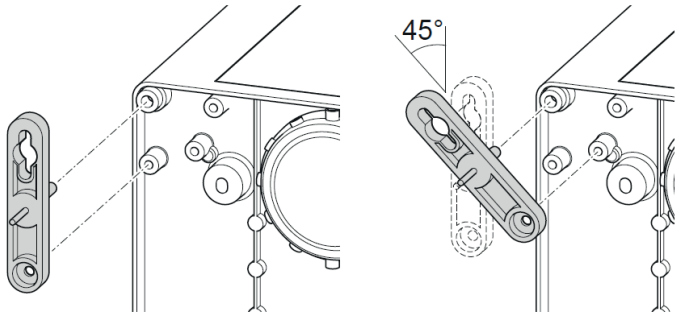
Preferably install the LiON Box Max indoors or in a protected outdoor area!

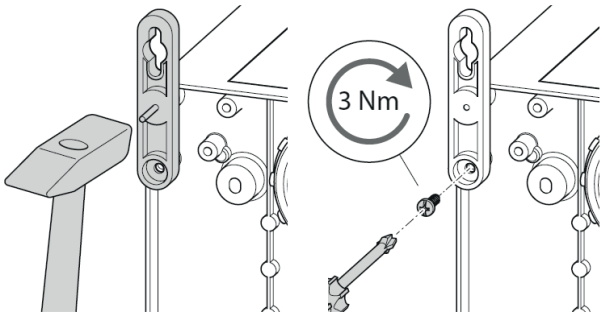
The function and service life of the LiON Box Max can be impaired by an incorrect choice of location.

To attach the charging station, you will need

- The 4 external mounting brackets supplied with the corresponding screws (included in the scope of delivery)
- 4 suitable screws (max. diameter 6mm, max. screw head 12mm)
- 4 suitable dowels

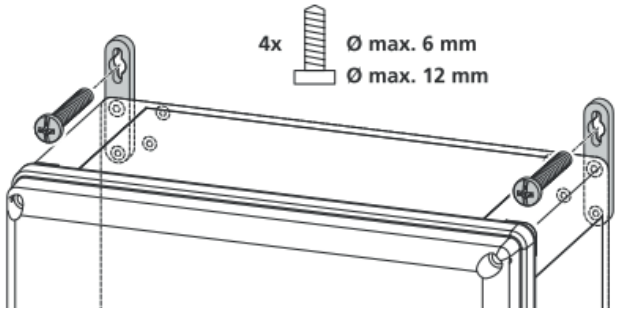
Firstly, attach the 4 external mounting brackets to the housing of your LiON Box Max in accordance with the following pictograms.





- Mark the positions of the fixing points on the mounting surface.
- Drill the holes for the fixing points to match your wall plugs. Take care not to damage any cables, pipes, etc. when drilling.
- Insert the 4 plugs into the holes.
  Screw your LiON Box Max in place by screwing one screw through each of the holes in the external mounting brackets.

(See pictogram opposite)



5. Electrical connection

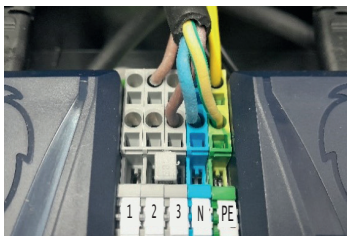
Connect your LiON Box Max to an earthed socket using the pre-installed mains connection cable. The mains connection cable should be laid in such a way that there is no risk of tripping. Your LiON Box Max is now ready for operation.

If you want to convert your LiON Box Max for switchable single-channel operation, proceed as follows:

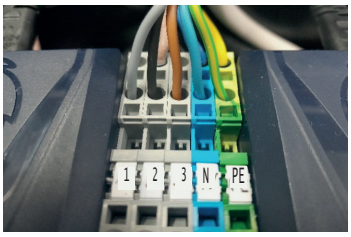
⚠ The work steps described below may only be carried out by a trained electrician in accordance with national and local electrical installation regulations. Carry out all work on the LiON Box Max in compliance with the 5 general electrical safety rules. Modifications or conversions to the LiON Box Max may only be carried out by a person qualified by ONgineer!

For information: The left charging point is combined with the blue socket outlet with earthing contact to form one channel at the factory.
The right charging point forms its own channel.

- Ensure that the LiON Box Max is de-energised before starting work.
- Remove the weather protection cover from the LiON Box Max.
- Remove the housing cover from the LiON Box Max.
- Disconnect the cable ends of the pre-installed 3-core mains connection cable from terminals 3, N and PE. Then remove the jumper between terminals 2 and 3 (see adjacent picture).



- Loosen the cable gland of the mains connection cable .
- Remove the cable ties that hold the pre-installed mains connection cable in place.
- You can now remove the mains connection cable (copper 1 mm² - 4 mm²) that is no longer required from the housing.
- Now pull the new 5-core mains cable through the cable gland into the housing.
- Connect the previously prepared cable ends as shown in the adjacent picture.



For information:
The switched phase at terminal 3 supplies the right channel. The switched phase at terminal 2 supplies the left channel.
Terminal 1 is only used to fix the unused cable core.

- Secure the new mains connection cable again with cable ties.
- Screw the union nut of the cable gland tight again:

Your LiON Box Max is now ready for switchable single-channel operation.

⚠ In accordance with national and local regulations, appropriate functional and safety tests may be required after repair, maintenance, etc. and safety tests may be required after repair, maintenance, etc., which must then also be documented.

6. Connecting and disconnecting the splitter

To connect the LiON splitter, plug the splitter into the corresponding socket on the ONgineer charging station. When plugging it in, make sure that the black locking pin engages in the recess provided in the socket. The clearly audible „click“ confirms that the plug is correctly locked. The LiON Splitter is now secured against unauthorised removal and is therefore ready for use.

Removal is not possible without tools. You will need a release tool, e.g. a screwdriver. Use the screwdriver to press into the opening on the side of the plug. The plug can now be released by pulling gently on the plug housing. Once the plug has been pulled out correctly, the black locking pin remains in the socket housing of the ONgineer charging station and ensures that it locks again when the plug is reinserted.
If another plug with a locking pin is to be plugged in, it must first be removed using a screwdriver.

LED display on the LiON splitter

LED codes	Green	Red	Red and green
Information	Ready to charge / battery is charged	Battery is charging	Error indication

7. Technical Data

Mains voltage	[V]	220 ... 240
Mains frequency	[Hz]	50-60
Max. Input current	[A]	5,56
Number of charging points	[PCS]	3
Max. charging current	[A]	4
Max. Output current Schuko charging point	[A]	4 (not internally fused)
System charging voltage	[V DC]	36
End-of-charge voltage	[V DC]	42
Rated impulse withstand voltage	[Uimp]	2,5 kV
Rated insulation voltage	[Ui]	250 V
Efficiency	[%]	94
Ambient temperature	[°C]	-25 ... +40
Operating temperature	[°C]	-5 ... +40
Standby power (per DC charging point)	[W]	< 1

Height*	[mm]	435
Width*	[mm]	315
Depth*	[mm]	190
Weight*	[kg]	6,5
Service life	[h]	20.000
Protection class Housing		IP54
Impact resistance		IK09
Application		AEVCS (Assembly for electric vehicles charging station)
Type of installation		Outdoor installation, protected outdoor area
External design		Switchgear combination for wall mounting

* Excl. cable holder and plug connections

8. Cleaning

Caution!
Incorrect cleaning agents can damage the LiON Box Max.
The plug and charging box may only be cleaned with a soft, dry cloth.

9. Maintenance

Before each start-up, check that all cables and plugs are undamaged. The plugs must be kept free of coarse dirt and persistent moisture. Only use soft, dry cloths for this purpose. Do not use cleaning agents of any kind, as these can impair the function of the LiON Splitter. To maintain the function, the plugs must be treated regularly with a contact care product.

10. Troubleshooting

The battery is not charging.	→→→	Disconnect the ONgineer charging station from the mains for at least 10 seconds.
The battery is not charging.	→→→	Check that the charging plug is firmly seated.
The battery is not charging.	→→→	Check compatibility.

11. Scope of delivery

1. LiON Box Max
2. Fixing brackets for wall mounting
3. Plug-in charging cable with LiON splitter
4. Assembly and operating instructions

12. Guarantee and Warranty

Private customers: The legal warranty applies to this product.
Commercial customers: The LiON Box Max (Box without LiON Splitter) is covered by a 2-year guarantee (optional: guarantee extension to 5 years) and a 6-month warranty on the related LiON Splitter.
The guarantee and warranty apply throughout the EU.
The legal warranty applies to this product. In the event of a defect, please contact the manufacturer (ONgineer GmbH) directly. To make a warranty claim, please submit a copy of the invoice and provide a brief description of the fault.

13. Disposal

The packaging material should be disposed of in accordance with local regulations.
If the product is to be decommissioned permanently, please contact your local recycling centre for information on disposal regulations.

For EU countries only: In accordance with the European Directive 2012/19 EU on waste electrical and electronic equipment and its transposition into national law, chargers that are no longer fit for use must be collected separately and recycled in an environmentally sound manner.

14. Declaration of Conformity

CE Information on the EU Declaration of Conformity can be found in our download area at www.ONgineer.de