

LAPP Battery Charger Mode 2 Basic and Mode 2 Universal **Instruction Manual**

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LAPP Battery Charger Mode 2 Basic and Mode 2 Universal



Product Information

- The product is a battery charger with two modes: Mode 2 Basic and Mode 2 Universal.
- The package includes a grid plug and grid cable, vehicle connector and vehicle cable, sectioning point (only Mode 2 Universal), and ICCB (In-cable control box).
- The product has important safety instructions that must be followed to ensure proper usage.
- The product has different plug variants for different countries.
- The product has a maximum charging current for both network and industrial plugs.

Product Usage Instructions

- 1. Read all the instructions before using the product. Save the instructions for future reference.
- 2. Choose the appropriate plug variant for your country.
- 3. Connect the grid cable to a socket using the grid plug.
- 4. Remove the protective cap from the vehicle connector and connect it to your vehicle.
- 5. Check if the self-test has passed. The product is ready to charge if it has passed.
- 6. Follow the charging instructions in your vehicle manual.
- 7. Once charging is complete, disconnect the vehicle cable and grid plug.

ICCB (In-cable control box)

- The ICCB is a control and protection device.
- Follow all safety instructions when using the ICCB.

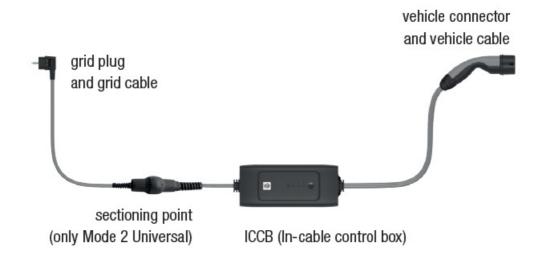
Warnings and Safety Instructions

- Read all instructions before using the product. Save instructions for future reference.
- Do not use just any type of extension cord or travel adapter.
- · Do not use multiple sockets.
- Avoid direct sunlight exposure.
- · Do not touch live parts.
- · Do not immerse in water.
- Do not use in temperatures below the minimum ambient temperature.
- Dispose of properly according to local regulations.

Technical Specifications

- Ladeleistung Nennspannung Bereich: Varies by model
- Nennstrom Frequenz: Varies by model
- Fehlerstromschutzschalter (RCD): Varies by model
- Max. Ladestrom Netzstecker: Varies by model
- Max. Ladestrom Industriestecker: Varies by model

OVERVIEW



IMPORTANT SAFETY INSTRUCTIONS

Read all the instructions before using this product! Save instructions for future reference.

WARNING

RISK OF FIRE OR ELECTRIC SHOCK

Inadequate sockets or improperly installed socket outlets may cause electric shock or fire when charging.

- The charging cable must only be operated on a suitable socket that has been installed in accordance with specifications from national laws and standards.
- The charging cable must only be operated in properly grounded power networks. A special "IT" version of the charging cable is available for non-grounded networks.
- Unsupervised charging is only permitted at an industrial or household socket outlet that has been checked by an electrician.
- Unsupervised charging at a household socket outlet that has not been checked by an electrician may lead to a fire inside the house.
- Only use socket-outlet outdoors that are protected against splashes of water.
- Unauthorized people, particularly children, must not be able to access the charging cable or vehicle during unsupervised charging.

WARNING

RISK OF EXPLOSION

The charging cable may produce sparks and ignite flammable or explosive vapors as a result.

• Do not use charging cables in areas with risks of explosion.

WARNING

RISK OF ELECTRIC SHOCK, SHORT CIRCUIT, FIRE, EXPLOSION

Use of a damaged charging cable, a damaged or faulty socket/coupling of a damaged or faulted ICCB (control), or improper use of the charging cable, or non-observance of the safety information may cause short circuits, electric shocks, explosions, fires, or burns.

- Visually check all components for damage. Do not use damaged components!
- Only connect charging cables to properly installed and undamaged sockets, and to fault-free electrical installations that have been checked by an electrician.
- Check the connectors and ICCB housing for damage (breakages, cracks) and dirt before use. Do not use charging cables that have damaged or dirty connectors, or a dirty housing.
- Do not open the ICCB. Dangerous electrical voltages may be present inside the housing, which can lead to electric shock or death.
- Do not carry out any alterations or repairs to the charging cable (e.g. replacement of plug).
- Never immerse the charging cable, plug, or connector in water.
- Always use the correct country version of the grid cable (Mode 2 Universal) or of the charging cable (Mode 2 Basic).
- The vehicle connector will not fit vehicles marked with a letter other than a white 'C' in a black hexagon.

WARNING

RISK OF FIRE OR ELECTRIC SHOCK

Improper use of the charging cable can cause electric shock.

- Do not touch the contacts of the vehicle connector.
- Do not insert any objects into the vehicle connector or the separation point.
- Protect all contacts against moisture.
- Mount the ICCB close to the socket outlet to prevent tensile stress on it.

SYMBOLS



Not suitable for IT-net



Minimum ambient temperature



• Do not use just any type of extension cord!



Do not use travel adapters!



• Do not use multiple sockets!



• Do not use charging cables with damage to the casing, connectors, or connection cables

- Do not expose to direct sunlight
- Follow the operating instructions
- Type 2 vehicle connector

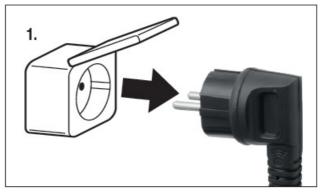
WARNING

WARNING indicates a danger with a moderate risk of causing death or serious injury if it is not avoided.

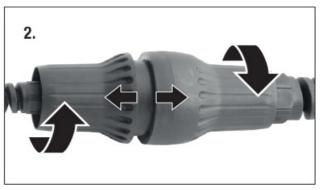
CHANGING THE POWER CABLE

CHANGING THE POWER CABLE (ONLY MODE 2 UNIVERSAL)

1. Finish the charging process following the user manual of the vehicle and disconnect the grid plug and vehicle connector.



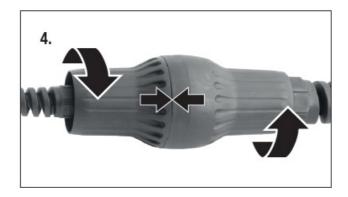
2. Unscrew the power cable separation point anticlockwise. Choose a suitable mains plug type (see below).



3. Insert the power cable separation point into each other so that the bar on one side slides into the recess on the other.



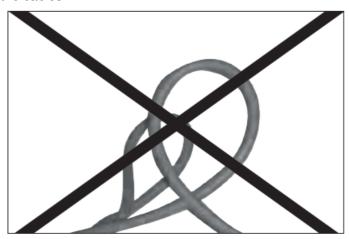
4. Tighten the power cable separation point clockwise until it audibly clicks into place and the gap between the two parts is completely closed.



USE

Major stress may cause damage to the cable or ICCB.

- Do not pull cables over sharp edges
- · Avoid driving over the charging cable
- · Avoid kinks or torsion on the cable
- · Avoid excessive loads on the cables



WARNING

RISK OF FIRE OR ELECTRIC SHOCK

Risk of serious or deadly injuries due to electric shock or fire.

- Only replace the power cable if the charging cable has been unplugged from the main and the vehicle.
- · Always keep connections away from moisture and dirt.
- Only use the original power cable.

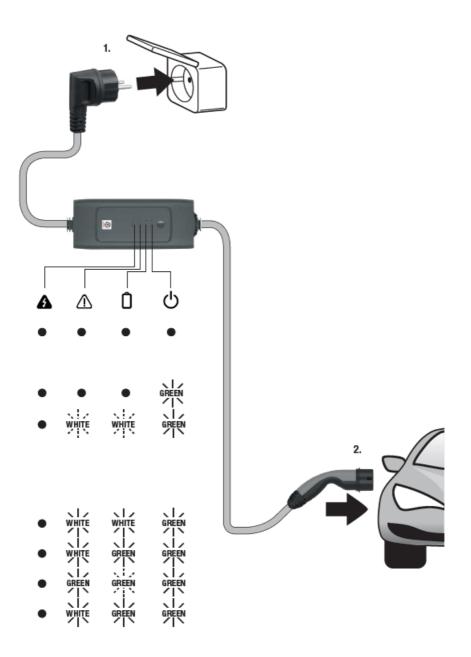
PLUG VARIANTS

When ordering Mode 2 Basic or Universal, specify the country and plug type (e.g. 'Ger-many EF 10 A'). Further countries on request.

• EF 10 A_Austria, Belgium, Bulgaria, Croatia, Estonia, France, Germany, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Portugal, Romania, Slovenia, Sweden, Ukraine, Turkey

EF 8 ACzech Republic, Finland, Greek, Hungary, Italy, Poland, Slovakia, Spain
G 8 A_United Kingdom, Ireland
⊕ J 8 A_Swiss
⊙ • K 8 ADenmark
⊙ • CEE blue 16 AAll countries
• CEE blue 32 AAll countries
• CEE red 16 A All countries
CEE red 32 A All countries
CHARGING
WARNING
RISK OF FIRE OR ELECTRIC SHOCK Risk of serious or deadly injuries due to electric shock and fire.
Adhere to the specified sequence during the charging process
Do not disconnect the vehicle cable during the charging process
• If the LED lights up red and the LED flashes yellow, there is a fault in the building's installation. The installation
must be checked by a specialized electrician.
No connection to mains / switched off
Connect the power plug to the power outlet
Connection to grid
Self-test ICCB in progress
2. Remove the protective cap and connect the vehicle coupler to the vehicle inlet
Self-test passed
Ready for charging
Battery charging
Charging completed / Ready for charging

- 3. Finish the charging process following the vehicle user manual.
- 4. Disconnect vehicle connector and fit the protective cap
- 5. Disconnect grid plug



ERROR MESSAGES

The power cord is not plugged in, the socket outlet is without power, or the separation point is not fully connected (Mode

• 2 Universal only) _____ • • • •

Derating

(Automatic current and temperature regulation)

- Overtemperature of ICCB _______
- Overtemperature of grid plug _______



No restart of the charging process is required (check the plug-in connectors)

Error vehicle side				
Error ICCB				
Error infrastructure				
	•	RED	RED	GREEN () / J

Restart of charging process/service required

(the first time this occurs, disconnect the vehicle coupling, remove the mains plug and then restart the charging process)

•	Error in the vehicle	(contact a workshop should this occur repeatedly)	
•	Error in the ICCB (contact a workshop should this occur repeatedly)	_

•	RED	RED	GREEN
•	BLUE	RED	GREEN
•	YELLÓW	RED	GREEN

TRANSPORT AND STORAGE

WARNING

An unsecured, incorrectly secured, or incorrectly positioned charging cable may slip when braking, when changing direction, or in the event of an accident, and may endanger occupants.

- Never transport charging cables unsecured.
- Always stow charging cables securely and protect them from damage.
- Never transport charging cables in the passenger compartment (e.g. on or in front of the seats).

DISPOSAL

The crossed-out wheeled bin logo requires a separate collection of waste electric and electronic equipment (WEEE). Such equipment may contain dangerous and hazardous substances. These tools must be returned to a designated collection point for the recycling of WEEE and must not be disposed of as unsorted municipal waste. By doing so, you will help to conserve resources and protect the environment. Contact your local authorities for more information.

Children must not play with plastic bags and packaging material, due to possible injury or danger of suffocation. Store such material safely or dispose of environmentally friendly.

TECHNICAL DATA

ELECTRICAL DATA

Charging power 1/3-phasing 1,2 kW – 22 kW

- Nominal voltage range 110 400 V
- Nominal current 6 32 A
- Frequency 50 60 Hz
- Residual current circuit breaker (RCD) ≤ 30 mA AC, ≤ 6 mA DC
- Max. charging current grid plug 6 A/8 A/10 A (country-specific)
- Max. charging current industrial plug 16 A/32 A (only Mode 2 Universal)

SAFETY FUNCTIONS

Self-test, residual current detection, monitoring of CP communication, monitoring of the protective conductor (not with the IT variant), monitoring of the relays, overcurrent detection, detection of overvoltage and undervoltage, temperature monitoring for the ICCB, temperature monitoring of the mains plug (country-specific), derating.

PROPERTIES

- Ambient temperature -25 °C to +50 °C
- Protection class ICCB IP67
- Weight ICCB ca. 5 kg
- Max. overall length IC-CPD 7 m

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Documents / Resources



<u>LAPP Battery Charger Mode 2 Basic and Mode 2 Universal</u> [pdf] Instruction Manual Battery Charger Mode 2 Basic and Mode 2 Universal, Battery Charger, Mode 2 Basic and Mode 2 Universal

References

• ⊕ E-MOBILITY FÜR ALLE | Lapp Mobility GmbH

Manuals+.