APA 16617 Microprocessor Battery Charger Instruction Manual

Art. No. 16617
Microprocessor battery charger, 6 V / 12 V, 4 A
Operating instructions

WARNING

Read the operating instructions carefully prior to initial use and observe all of the safety notes! Not observing such may lead to personal injury, damages to the device, or your property! Store the original packaging, the receipt, and these instructions so that they may be consulted at a later date! Prior to initial use check the contents of the packaging to ensure that they are in perfect condition and complete!

Contents

PROPER USE OF THE PRODUCT

The charger is suitable for charging open and a variety of closed, maintenance-free lead-acid batteries, for example:

- Wet batteries (WET), lead-acid batteries (fluid electrolyte)
- Gel batteries (gel electrolyte)
- AGM batteries (electrolyte in fi fiberglass fleece)
- Maintenance-free lead-acid batteries (MF)

Other batteries may not be charged with this device.

The charger may not be used as a starter aid. First, charge the battery of your vehicle fully and remove the charger before starting the vehicle.
The charger may not be used as a source of direct current or for other purposes.
The battery charger is designed for use in dry and protected environments at temperatures of -5 °C to +40°C.
This device is not designed to be used by children and people with limited mental capacities or those without experience and/or knowledge. Keep children away from the device.
The device is not designated for commercial use.
Any other use or modification to the device is considered improper usage and may be dangerous. EAL GmbH accepts no liability for damages caused as a result of improper use.

SCOPE OF DELIVERY

- 1x Charger
- 1 x Operating instructions
- 1 x Adapter charging cable with pole calipers
- 1 x Adapter charging cable with eyes

SPECIFICATIONS

Dimensions: 180 x 80 x 45 [mm]
Weight: 0.465 kg
Long mains cable: 1.50 m
Length of charging cable: 1.00 m + 0.50 m adapter charging cable
Input: 220-240 V AC 50/60 Hz
Output: 6 V mode: 6 V DC 2.0 A
Motorbike: 12 V DC 2.0 A Auto: 12 V DC 4.0 A
Battery capacity: 6 V min 1.2 Ah max. 14 Ah 12 V min 1.2 Ah max. 120 Ah
Protection class: IP65 (only device housing, not connection and charging cable)
Ambient temperature: -5 °C to +40 °C

⚠SAFETY NOTES

- The warning triangle labels all instructions important to safety. Always follow these otherwise you could injure yourself or damage the device.
- Only connect the device to a correctly installed socket. The voltage must correspond to the specification on the type plate of the device.
- Do not trap the power cable and protect it from sharp edges, dampness, heat, or oil. The power cable of the unit cannot be replaced. In the event that the cable is damaged, the unit must be disposed of.
- Do not operate the device or immediately pull the plug if it is damaged or you suspect it may be defective. In this case, contact our technicians.
- Pull the plug when the device is not in use.
- Keep packaging materials, especially plastic and plastic bags, away from children. Risk of suffocation!
- Remove all plastic from the device before use.
- Lay the mains cable in such a way that you are not hindered by it, and no one is able to accidentally pull it.
- Disconnect the battery charger from the power supply after charging.
- Keep the charger in a place that cannot be accessed by children or unauthorized persons.
- Never operate the device in the vicinity of flammable materials or in an environment prone to explosion.
- Always wear suitable working clothes, protective gloves, and goggles. Battery acid is corrosive! Immediately and thoroughly wash off any splashed acid and consult a doctor if necessary. If battery acid gets into the eyes, immediately rinse under running water for at least 10 minutes and consult a doctor.
- Do not cover the charger, this may lead to overheating and result in damage. Never set the charger up for operation on a surface that is insulating (e.g. polystyrene). There is a risk of heat build-up!
- If you wish to charge a vehicle battery in the installed state, first park the vehicle safely, put on the parking brake, and switch off the ignition. Cut the battery off from the onboard network of your vehicle. To do this, consult the manual for your vehicle, or ask your specialist workshop.
- This charger enables you to charge a battery without needing to disconnect it from the onboard network. If you wish to make use of this option, make sure that your vehicle will not be damaged by this process. For this purpose, read the manual of your vehicle or ask your specialist workshop.

- For vehicles with a start/stop system, pay attention to the instructions in the vehicle manual regarding charging batteries. Only use the connection points specified in the manual. Ask your specialist workshop or the vehicle manufacturer. (If this instruction is not maintained, damages may be caused to the electrical systems of the vehicle).
- When pulling the mains cable out of the socket, only hold the plug.
- Never expose the charger to the vicinity of fi re, heat, and extensive temperatures over +40°C.
- Store these instructions carefully and, if necessary, pass them on to other users.

EXPLANATION OF SYMBOLS

CE	Corresponds to EC directives		Labeled electrical pro ducts may not be disposed of in the household waste		Devices with this sym bol may only be operated in the house (dry environme nt)
	Insulated housing (protection class II).		Fuse, here: Slow-burning, 1.6A		Recommended batter y capacity
	Read the operating instructions		Corresponds to the re quirements of § 21 of t he German Product Safet y Law (Produktsicherh eitsgesetz)	**IP65**	Protection class Spray water protected

OPERATING INSTRUCTIONS

 Before using the device make sure that you have read the operating instructions for the battery and the vehicle and that you have understood all of the safety precautions.

OVERVIEW

Figure 1: Overview

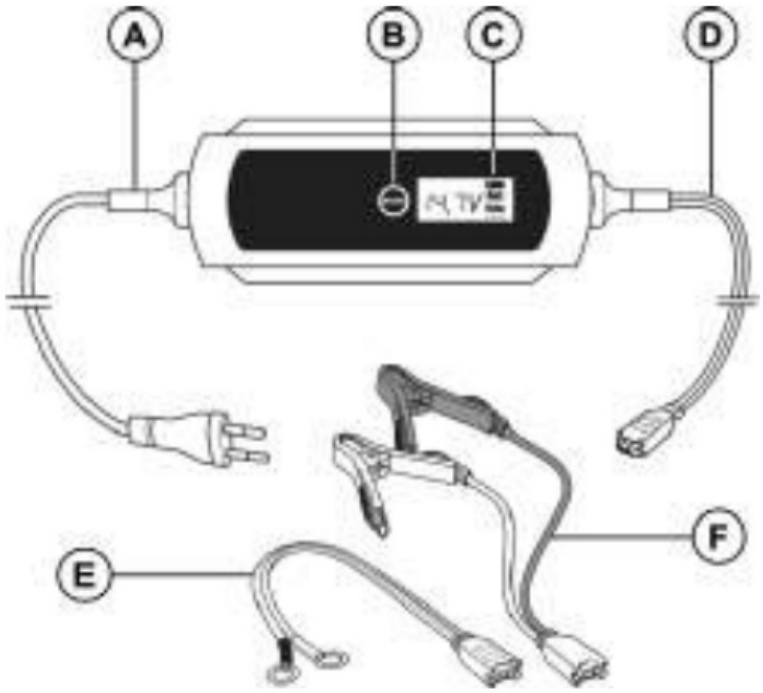
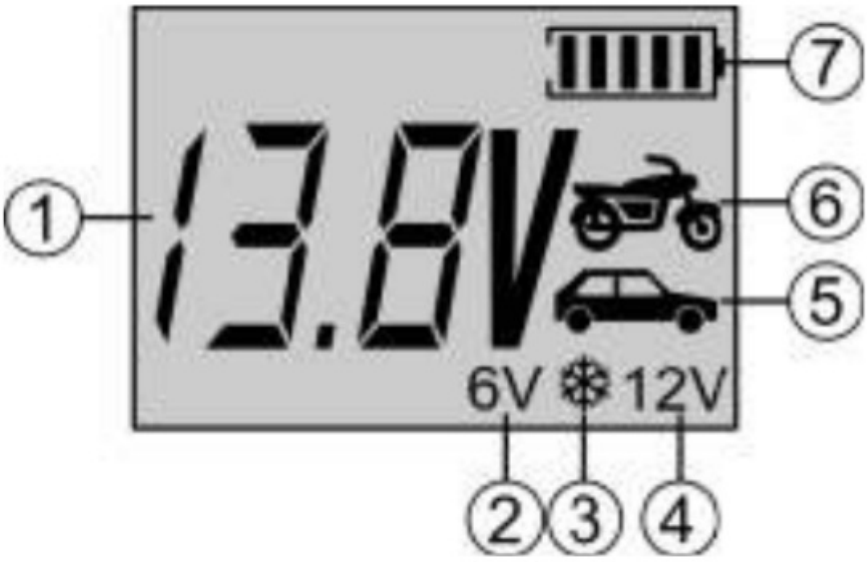


Figure 2: Display



USING THE ADAPTER CHARGING CABLE

The adapter charging cable with pole calipers (Position F in the overview) is used if you wish to connect the charger in a classic way to the poles of the battery. The adapter charging cable with eyes (Position E in the overview) is designed to remain firmly attached to a battery which is difficult to access. The charger can be conveniently connected
using the adapter.

PREPARATION

Clean the battery poles to remove dust and corrosion residue.

Only for open batteries: Remove the plugs of the battery cells. Check the liquid level in the cells, and consult the operating instructions of your battery for more information. Replenish only sufficient distilled water to ensure that the minimum filling level is achieved. The liquid will expand during the charging process and the battery may overflow. Leave the cells of the battery open until the end of the charging process. In the event of closed and maintenance-free batteries, please follow the instructions of the battery manufacturer to the letter.

CONNECTING THE BATTERY CHARGER

6.4.1 CONNECTING THE ADAPTER CHARGING CABLE WITH POLE CALLIPERS

⚠ CAUTION

Make sure that the charger is not connected to the power socket and that the adapter charging cable is not connected to the battery charger.

Always connect the red plus cable (+) to the positive pole of the battery first. Subsequently, connect the black minus cable (-) to the negative pole of the battery. If you charge the battery in situ, connect the black negative cable (-) to the car body (exposed part), far away from the battery, the carburetor, and fuel lines. Always maintain this sequence.

6.4.2 CONNECTING THE ADAPTER CHARGING CABLE WITH EYES

⚠ CAUTION

Make sure that the charger is not connected to the power socket and that the adapter charging cable is not connected to the battery charger.

Attach the eye of the red plus cable to the plus connection cable of your vehicle battery, e.g. the screws of the pole terminal. Attach the eye of the black minus cable to the earth connection cable (minus cable) of your battery. Lay the cable so that it is free from bends and tensions. It may not be attached in the vicinity of hot or rotating parts of the
motor. The connection plug may not get wet.

⚠When using the adapter charging cable with the ring eyes, switch all consumers in the vehicle off before starting the charging process. Never leave the charging process unattended.

CHARGING THE BATTERY

Connect the adapter charging cable to the charging cable (Position D in the overview) of the battery charger. Now connect the mains connection cable (Position A in the overview) of the battery charger to the power socket. The background illumination of the display is activated. If the battery has been connected incorrectly (wrong poles) or the
charger has no contact, the following error message appears on the display ˝Er1˝. If the error message ˝Er2˝ is shown, a defective 6 V battery has been connected, this cannot be charged using the battery charger. If the battery has been correctly connected, the display shows the current battery voltage and the symbol for the set charging program.

⚠ CAUTION

After plugging the mains cable in select the desired charging program by operating the MODE button multiple times. If the MODE button is not pressed, the charging process is not started. When charging has started it is no longer possible to switch to another charging program, If you wish to work with a program other than the set charging program, pull the plug out of the socket and wait until the display has gone dark. Then insert the plug again and proceed as described above.

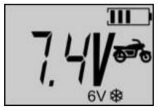
6.5.1 SELECTING THE CHARGING PROGRAMME

By pressing the MODE button (multiple times), you can select the appropriate charging program for your needs. The charging programs appear in the following order and may be selected by pressing the MODE button:

Motorbike 6 V	Motorbike 6 V winter
Motorbike 12 V	Motorbike 12 V winter
Car 12 V	Car 12 V winter

Depending on the charging state of the battery, the device adapts the charging current in order to best charge the connected battery. The specified maximum charging current is only used during the main charging phase. Shortly before the full charging capacity is achieved, the device switches to a lower charging current. This ensures that the battery is gently and optimally charged to full capacity. The battery symbol (Position 7 in the overview) shown on the display indicates the current filling level of the battery.

POSSIBLE CHARGING PROGRAMMES

6 Volt mode Charging program for 6 V batteries, 1.2 Ah to 14 Ah, temperatures above 0°C Charge current: 2 A maximum charge voltage: 7.2 V	
6 Volt winter mode Charging program for 6 V batteries, 1.2 Ah to 14 Ah, temperature below 0°C Charge current: 2 A maximum charge voltage: 7.4 V	
Motorbike mode Charging program for 12 V batteries from 1.2 Ah to 14 Ah, temperatures above 0°C Charge current: 2 A maximum charge voltage: 14.6 V	
Motorbike winter mode Charging program for 12 V batteries from 1.2 Ah to 14 Ah, temperatures below 0°C Charge current: 2 A maximum charge voltage: 14.8 V	

Car mode Charging program for 12 V batteries from 14 Ah to 120 Ah, temperatures above 0°C Charge current: 4 A maximum charge voltage: 14.6 V	
Car winter mode Charging program for 12 V batteries from 14 Ah to 120 Ah, temperatures below 0°C Charge current: 4 A maximum charge voltage: 14.8 V	
Battery maintenance charge mode (only when not installed) As soon as the battery is fully charged, the charger switches automatically over to battery mainte nance charge mode. This is indicated appropriately on the display. Do not leave the battery charger connected for more than 5 days.	

ERROR MESSAGES

Display of error after faulty connection (wrong poles), short-circuit (battery short-circuit), no conta ct, selection of an incorrect charging program or overheating.	
Error message in 6 V – mode, if a battery is connected with less than 5.5 V ± 0.2 or the voltage i s still lower than 6 V after 4 hours of charging time. In this case, the battery is defective and must be replaced.	

REMOVING THE CHARGER

CAUTION

First pull the plug out of the socket and observe the sequence for disconnection. This prevents sparks from forming. Since charging generates a detonating gas, this is particularly important for the sake of your safety.

Disconnect the charger from the main power supply. Separate the adapter connection of the charging cable.
Disconnect the pole calipers from the battery, first minus than plus.
Allow the battery to cool down.

Only for open batteries: Fill the cells with distilled water up to the level specified by the battery manufacturer.
Close the battery cells with the stoppers.

MAINTENANCE AND CARE

MAINTENANCE

If used correctly, the device is maintenance-free.

CARE

Clean the pole calipers every time the charging procedure is completed. Remove all splashed battery acid from the pole calipers to prevent corrosion. Clean the device carefully with a dry cloth. Do not use liquids or chemical cleaning agents. Never submerge the device in liquids. Never allow liquid to flow over the device.
Before storing the device, roll up the cables properly using the designated hook in order to prevent damage to the cables and device. Store the device in a clean and dry place.

NOTES REGARDING ENVIRONMENTAL PROTECTION

The packaging is made up of environmentally friendly materials which may be disposed of via your local recycling points. Do not put electrical devices into the household waste. Electronic and electrical devices must be collected separately and sent for environmentally friendly recycling. Contact your community or town administration for information regarding the disposal of electrics.

CONTACT INFORMATION

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CE

Declaration of Conformity

We herewith confirm that the appliance as detailed below complies with the mentioned directives.

Article description:
Article number: 16617
Type: SPC4DVL
Company address: EAL GmbH, Otto-Hausmann-Ring 107, D – 42115 Wuppertal

The sole responsibility for issuing this declaration carries the manufacturer.

governing EU-directives:

1. Electromagnetic Compatibility (EMC) 2014/30/EU
   Amtsblatt EU L96/79-106 (29.03.2014)

2. ⊗ Low Voltage Directive (LVD) 2014/35/EU
   Amtsblatt EU L96/357-374 (29.03.2014)
3. ✓ Radio Equipment Directive 2014/53/EU
4. ⊗ Restriction of the use of certain hazardous substances 2011/65/EC und delegate Richtlinie (EU) 2015/863

harmonized EN- Standards

The article complies with the standards as mentioned below which are necessary to obtain the CE symbol:

zu 1.
EN 55014-1:2017, EN 55014-2:2015
EN 61000-3-2:2014, EN IEC 61000-3-2:2019
EN 61000-3-3:2013
EN IEC 61000-3-3:2013/A 1 :2019

zu 2.
EN 60335-2-29:2004/A11 :2018
EN 60335-1 :2012/A2:2019
EN 62233:2008

ZU 3.

zu 4.
EN 50581:2012

Signature: 

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Documents / Resources

	**APA 16617 Microprocessor Battery Charger** [pdf] Instruction Manual 16617, Microprocessor Battery Charger, 16617 Microprocessor Battery Charger