

Operating instructions for



Hydrauliksystem

Genius²⁰

Li-Ion rechargeable battery charger
230V / 18V



Inhaltsverzeichnis

1 Safety symbols

2 Special safety information

2.1 Safety information for the charger

2.2 Safety information for batteries

3 Description and technical data

3.1 Description

3.2 Technical data

3.3 Symbols

4 Monitoring and preparing the charger

5 Charging process/operating information

6 Cleaning information

7 Accessories

8 Storage

9 Battery transport

10 Maintenance and repair

11 Disposal of batteries

12 Disposal

13 LED diagnosis

14 General safety regulations

14.1 Safety in the workplace

14.2 Electrical safety


14.3 Personal safety


14.4 Use and care of electrical appliances

14.5 Maintenance


1 Safety symbols


Important safety information is marked in these operating instructions and on the product with particular safety symbols and warnings. This section explains these warning notices and symbols. Not all the safety symbols listed apply to this product.

 **WARNING** indicates a dangerous situation, which without the appropriate safety precautions could endanger life or cause serious injury.

 **TAKE CARE** indicates a dangerous situation that without the appropriate safety precautions could lead to a lesser to medium degree of injury.


 **NOTE** identifies information referring to the protection of property.

 This symbol means that the operating instructions should be carefully read before the appliance is operated. The operating instructions contain important information for the safe and correct use of the appliance.

 This symbol means that when working with this appliance safety glasses with side protection or an eye shield should always be worn to avoid injury to the eyes.

 This symbol draws attention to the risk of electric shock.

2 Special safety information

 This section contains important safety information that applies especially to this appliance. Before using the charger, read this information carefully, in order to avoid the danger of electric shock or serious injury.

KEEP THESE OPERATING INSTRUCTIONS FOR REFERENCE!

If you have any questions about this CIMCO product:

- Contact your local CIMCO dealer or CIMCO sales staff.

2.1 Safety information for the charger

- **With the CIMCO charger, use only the rechargeable CIMCO batteries listed in the accessories section.** Other types of battery may explode and cause injuries and damage to property.
- **Do not test the charger with conductive objects.** Short-circuiting of battery terminals can lead to the formation of sparks, burns or electric shock.
- **Do not place a battery in the charger that has been damaged by a fall or some other cause.** A damaged battery increases the risk of electric shock.

- **Battery charging must take place at temperatures between 5 °C and 35 °C. Store the charger and batteries at temperatures between -20 °C and +40 °C.** Proper care will prevent damage to the batteries. Improper handling may lead to leakage of battery fluid, electric shock and burns.
- **Take care to ensure the correct power supply. Do not attempt to use a step-up transformer, generator or direct current socket.** This could damage the charger and might lead to electric shock, fire or burns.
- **Take care to ensure that the charger is not covered while in operation.** Problem-free operation of the charger requires sufficient ventilation. Covering the ventilation openings may cause fire. There should be at least 10 cm of free space on all sides of the charger.
- **Pull out the plug of the charger when it is not in use.** This reduces the danger of injury to children and inexperienced persons.
- **Do not charge the battery in damp or wet environments, or in environments where there is danger of explosion. Protect the charger from rain, snow and dirt.** Contamination and wet increase the danger of electric shock.
- **Do not open the charger housing.** Repairs can only be carried out in approved places.
- **Do not carry the charger by the mains cable.** This will reduce the danger of electric shock.

2.2 Safety information on batteries

- **Batteries must be disposed of in the proper manner.** If subjected to great heat, batteries may explode, so they must not be incinerated. Stick adhesive tape over the poles to avoid direct contact with other objects. In some countries there are special regulations for the disposal of used batteries. Please observe the regulations that apply locally. You can find further information in the section on disposal.
- **Do not place any batteries with damaged housing in the charger.** Damaged batteries increase the risk of electric shock.
- **Never dismantle batteries.** There are no parts inside a battery that the user can maintain him/herself. Dismantling batteries can lead to electric shock or injuries.
- **Avoid contact with fluids leaking from a damaged battery.** These fluids can cause chemical burns or skin irritations. In the event of accidental contact with such fluids, rinse the affected areas of skin thoroughly with water. If such fluids come in contact with the eyes, medical advice should be sought.


3 Description and technical data

3.1 Description



The CIMCO battery charger is designed for charging CIMCO 18-V lithium-ion batteries, as listed in the section on accessories. This charger requires no adjustments.

3.2 Technical data


Input	Available for 230 V AC
Output	18 V DC
Type of battery	Lithium-ion
Input current/wattage	0.6 A – 1.2 A; 55 W
Weight	0.470 kg
Dimensions (LxWxH)	(153 x 142 x 94 mm)
Charging time	18 V 1.6 Ah = 50 to 55 minutes
Cooling	Passive convection cooling (without ventilator)

 The charger and batteries are not compatible with other CIMCO Li-Ion batteries and chargers.

Symbole

-  Double insulated
-  Only to be used in closed rooms.

4 Monitoring and preparing the charger

 **Monitor the charger and the batteries daily before use and correct any faults. Follow these instructions in preparing the charger to avoid the risk of injury due to electric shock, fire or other causes, and also to avoid damage to the appliance and system.**

1. Ensure that the charger's mains plug is disconnected. Check the mains cable, the charger and the batteries for damage or changes, as well as for worn, missing, wrongly positioned or jamming parts. In the event of faults, do not use the charger or the battery until the parts concerned have been properly repaired or exchanged.
2. Remove oil, grease and dirt from the appliance, as described in the section on cleaning. This will prevent the appliance slipping out of your hand and also ensure good ventilation. In addition, it helps to make any cracks or damage visible.
3. Check whether the type plates on the charger and the batteries are intact and clearly legible. Figure 2 shows the type plate on the underside of the charger. Figure 3 shows the plates on the underside of a battery.



Figure 1 – CIMCO charger and battery



Figure 2 – Position of the type plate on the charger


4. Select a suitable site for the charger. Check the workspace for:


- Flammable liquids, vapours or dust that could ignite. If there are any such sources of danger, do not work in these places until you have discovered and had them removed. The charger is not explosion protected and may form sparks.
- A free, level, stable and dry site for the charger. Do not use the appliance in damp or wet environments. Do not use the charger in the open air: it is designed only for use in closed rooms.
- Suitable operating temperatures. In order for the charging process to start, the charger and the battery must be at a temperature between 5° C and 35° C. If the temperature of the charger or the battery lies outside this range during charging, the charging process will be interrupted until the appropriate temperature is reached once more.
- Suitable power supply. Check whether the plug fits into the intended mains socket.
- Sufficient ventilation. The charger requires a minimum of 10 cm of free space on all sides in order to maintain the prescribed operating temperature.


5. With dry hands, connect the appliance to the mains.

6. If a wall fixing is desired, this charger is equipped with keyhole slits for convenient hanging. The screws should be attached with a centre to centre distance of 102 mm.

5 Charging process/operating information


 **Follow the operating instructions to avoid danger of injury by electric shock.**

 New batteries will achieve their maximum performance after about 5 charging and discharging processes.

 It is not necessary to fully discharge the batteries before recharging them.

1. Prepare this charger as described in the section on monitoring and preparation of the charger.
2. While the charger is in standby mode (ready to charge), the yellow LED will flash repeatedly.
3. Using dry hands, place the battery on the charger. The charging process will begin automatically.
 - The yellow LED may display a continuous light for up to 2 seconds while the condition of the battery is checked.
 - If the battery cannot make a proper contact, either the battery or the charger is damaged, or the red LED will light up. Check the battery contacts by taking the battery out and replacing it in the charger.
 - During charging, the green LED will flash (on 50 % of the time, off 50 % of the time).
 - The battery will feel slightly warm during charging. This is normal and does not indicate a problem.
 - Once the battery is 85 % charged, the green LED pattern of flashing will change (on 95 % of the time, off 5 % of the time). The battery may if required be used in this condition. However, leave the battery plugged in order to achieve 100 % charged status.
 - If the battery or the charger is too hot or too cold, the red LED will display a continuous light. As soon as the battery and charger have once more reached the correct temperature between 5° C and 35° C, the red LED will go out. The charging process will commence automatically and the green LED will flash until the battery is fully charged.
4. Once the battery is fully charged, the green LED will display a continuous light. The battery can then be taken out and is ready for use. You can find a detailed description of LED displays in the LED diagnostic section.
 - The charged battery can remain in the charger until needed. There is no danger of overcharging the battery. Once the battery is fully charged, the charger will automatically switch to trickle charging.
5. Once the charging process has been completed, use dry hands to pull the charger mains supply cable out of the mains socket.

6 Cleaning information

 **Before cleaning, disconnect the charger from the mains supply. To avoid the risk of electric shock, do not use water or chemicals to clean the charger.**

If it becomes necessary to clean the charger, proceed as described below:

1. Separate the charger from the mains supply.
2. Remove any battery in the charger.
3. Clean dirt and grease off the outside of the charger and the battery using a soft cloth or a soft, non-metallic brush.

7 Accessories

⚠ The following accessory parts are approved for use with the CIMCO Li-Ion battery charger. To avoid the risk of injury, use only the following accessory parts, which have been specially developed for and are recommended for the CIMCO Li-Ion battery charger.

8 Storage

⚠ Store the charger and the batteries in a dry, safe, locked place out of the reach of children and unauthorised persons.

The batteries and the charger must be protected from impact, wet and damp, dust and dirt, very high and very low temperatures, chemical solutions and vapours.

i If stored for a longer period of time in a discharged condition, or at temperatures above +40 °C, battery performance may be permanently reduced. If the machine is not required for a longer period of time, you must remove the battery (exhaustive discharge).

9 Battery transport

The battery has been tested in accordance with UN Document ST/SG/AC.10/11/Rev/3 Part III, Subsection 38.3. It has effective protection against internal excess pressure and short-circuiting plus mechanisms to prevent forced rupture and dangerous reverse current.

The lithium equivalent quantity contained in the battery is below the applicable limit value. For these reasons, the battery is not subject either as an individual part or when placed in an appliance to national or international regulations on dangerous goods. However, the regulations on dangerous goods may apply to the transport of several batteries. In such a case, it may be necessary to comply with special provisions (e. g. for packaging).

10 Maintenance and repair

⚠ Unprofessional maintenance or repair may have a detrimental effect on the operational safety of the appliance.

The charger and the batteries cannot be maintained by the user. Do not attempt to open the charger or the batteries, charge individual battery cells or clean internal components. If you require information on a Cimco customer service centre in your vicinity or have questions about service or repairs:

- Contact your local CIMCO dealer.

11 Disposal

Parts of the appliance contain valuable materials and can be recycled. There are specialised recycling enterprises which deal with these materials, and there may be some based locally. Dispose of the parts according to the regulations that apply locally. Further information is available from the local waste disposal authorities.



For EU countries: do not put electrical appliances in domestic waste!

According to the European Directive 2002/96/EC on used electrical and electronic appliances and its implementation in national legislation, electrical appliances which are no longer serviceable must be collected separately and sent for environmentally sound recycling.

12 Disposal of batteries



Both normal and rechargeable batteries contain materials that should not be directly disposed of in the natural environment, as well as valuable materials that can be recycled.

Contribute to protecting the environment and conserving natural resources by giving your used batteries to a local dealer or an authorised CIMCO customer centre for recycling. Your local recycling point can also tell you about other disposal sites.

RBRC™ is a registered trade mark of the Rechargeable Battery Recycling Corporation.



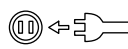
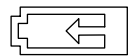

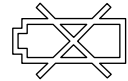
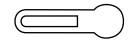
For EU countries:

According to the Directive 2006/66/EC, defective or used rechargeable and ordinary batteries must be recycled.




Figure 3 – Position of the type plate on the battery

13 LED diagnosis

Charger symbol	Continuous light 	Flashing light 	Meaning
		Yellow	The charger is plugged in without a battery in it – ready to charge
	Yellow (2 seconds)		The charger is checking the condition of the battery
		Green (slow)	The battery is charging. Charge status <35%
		Green (rapid)	The battery is charging. Charge status >85%
	Green		Battery is fully charged.
		Red	The battery is wrongly positioned in the charger. Take the battery out and replace it on the charger.
			The battery is damaged. You can find information on disposal in the section on recycling.
			The battery is damaged. You can find contact information in the section on maintenance and repair.
	Red		During charging, the temperature of the battery or the charger is outside the 5 °C to 35 °C temperature range. Keep the battery and the charger in an air-conditioned environment until the appropriate temperature is reached.
NO LEDs ON			There is no power supply to the charger. Make sure that it is properly connected to the mains socket.
			The charger is defective. You can find contact information in the section on maintenance and repair.

14 General safety regulations

 Please read all the safety information and instructions in these

operating instructions. Disregard of the warnings and instructions given below can lead to electric shock, fire and/or serious injury.

KEEP ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE!

14.1 Safety in the workplace

- **Keep your workplace clean and ensure that it is well-lit.** Untidy and insufficiently illuminated workplaces increase the risk of accidents.
- **Do not operate electrical appliances in environments with an increased danger of explosion, in which there are readily inflammable liquids, gases or large quantities of dust.** Electrical appliances create sparks during operation, which can easily ignite dust or vapours.

- **When operating an electric tool, ensure that there are no children or other uninvolved bystanders in the vicinity of the tool.** If distracted, you may lose control of the tool.

14.2 Electrical safety

- **The plugs of electrical appliances must fit into the existing mains socket. Never make changes to the plug. Do not use adapter plugs in combination with earthed appliances.** Unaltered plugs and appropriate sockets reduce the risk of electric shock.
- **Avoid physical contact with earthed surfaces, such as those of pipes, heaters, stoves and refrigerators.** There is an increased risk of electric shock if your body is earthed.
- **Keep electrical appliances away from rain and wet.** If water penetrates an electrical appliance, this will increase the danger of electric shock.

- **Do not use the mains connection cable for any other purpose. Never use it to carry or pull the appliance or to pull out the plug. Keep the cable away from heat, oil, sharp edges and moving parts.**

Damaged or tangled cables increase the risk of electric shock.

- **If you are working with an electrical appliance in the open air, only use extension cables approved for use outdoors.**

The use of an appropriate extension cable for working outdoors will reduce the risk of electric shock.

- **If you have to use an electrical appliance in a damp environment, use a power supply with a residual current circuit breaker (RCCB).** The use of a residual current circuit breaker (RCCB) reduces the risk of electric shock.

14.3 Personal safety

- **Always be observant when operating an electrical appliance and conscious of your responsibilities. Do not use an electrical appliance under the influence of drugs, alcohol or medication.** A brief moment of inattention may lead to your inflicting serious injury on yourself or others.

- **Always wear your personal protective clothing. Always wear eye protection.** Wearing protective equipment, such as a dust filter mask, non-slip safety shoes, safety helmet and ear protectors reduces the risk of injury and is therefore essential.

- **Do not over-estimate yourself. Ensure that you are standing securely at all times and keep your balance.** If you do so, you will be able to control the appliance better in unexpected situations.

14.4 Use and care of electrical appliances

- **Do not work with an unsuitable appliance. Always use the appropriate electrical appliance for the task.** With the right appliance, you can carry out your work more efficiently and safely.

- **Do not use the appliance if it cannot be SWITCHED ON and OFF by the on/off switch.** An electrical appliance that cannot be switched on and off is a source of risk and must be repaired.

- **Pull the plug out of the socket and/or take the battery out of the appliance before making adjustments, exchanging accessories or putting the appliance away.** Measures such as these help prevent unintended start-up of the appliance.

- **Keep electrical appliances not in use out of the reach of children and do not allow any person not familiar with the appliance, or who has not read these instructions, to use the appliance.** Electrical appliances are dangerous if used by inexperienced persons.

- **Take good care of your electrical appliances. In order to ensure problem-free operation of the appliance, check that all movable and fixed parts are in the correct position, that no parts are broken and that there are no other faults. If there is any damage, the appliance must first be repaired before it is used again.** Many accidents are caused by poorly maintained electrical appliances.

- **Use electrical appliances and accessories in accordance with these instructions and take working conditions and the task to be carried out into account.** If electrical appliances are not used according to regulations, this can lead to dangerous situations.

14.5 Maintenance

Only allow qualified experts to repair your electrical appliance, using only authentic replacement parts. This will continue to ensure the safety of the appliance.



cimco[®]
W E R K Z E U G F A B R I K

Carl Jul. Müller GmbH & Co. KG

Hohenhagener Str. 1-5 • D-42855 Remscheid
Postfach 10 02 63 • D-42802 Remscheid

Tel.: +49 (0) 21 91/37 18 01 • Fax: +49 (0) 21 91/37 18 86
E-Mail: info@cimco.de • Internet: www.cimco.de