

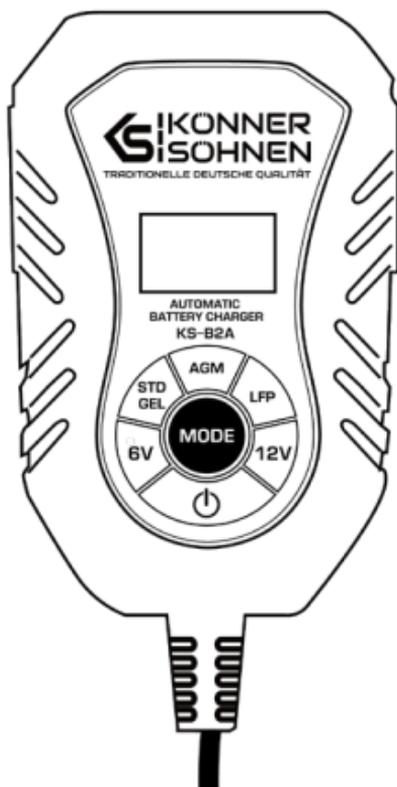
Please, read this manual  
carefully before use!

Owner's Manual



## 6V/12V INTELLIGENT LEAD-ACID AND LiFeP04 BATTERY CHARGER

KS-B2A





Thank you for your purchase of **Könner & Söhnen®** products.



*Please, read this manual carefully before use!*

Manufacturer reserves the right to make alterations into the generators, which may not be reflected in this manual. Pictures and photos of the product may vary from its actual appearance. At the end of this manual, You may find contact information which you are free to use in case of any issues occurrence.

All data, specified in this operation manual is the most up to date for the moment of its publishing. The current list of service centers you can find at the website of official importer: **[www.konner-sohnen.com](http://www.konner-sohnen.com)**



**ATTENTION - DANGER!** Failure to follow the recommendations marked with this sign may lead to serious injury or death of the operator or third parties.

## IMPORTANT SAFETY INSTRUCTIONS

1



**ATTENTION - DANGER!** To reduce the risk of a battery explosion, follow these instructions and those published by the manufacturer of the battery and any equipment you intend to use in the vicinity of the battery.



**IMPORTANT!** Useful information while operating the machine.

To reduce the risk of a battery explosion, follow the instructions provided by the battery manufacturer and the instructions of all battery powered equipment manufacturers.

- Keep out of reach of children.
- Use the battery charger on LEAD-ACID, GEL, AGM and LiFePo4-type as used in automobiles, light trucks, tractors, generators, vans, RVs, trolling motors, etc. This charger is not intended to supply power to low-voltage electrical systems, other than in a motor-starting application.
- Use only attachments recommended or sold by the battery charger's manufacturer. Use of non-recommended attachments may result in a fire, electric shock or injury.
- Make sure cables are routed so that they will not be walked on, tripped over, or otherwise damaged or stressed.
- Do not operate the charger if it has received a sharp blow, been dropped, or otherwise damaged in any way. Take it to a qualified professional for inspection and repair.

- Do not disassemble the charger. Take it to a qualified professional when service or repair is required.
- To reduce the risk of electric shock, unplug the charger from the outlet before attempting any maintenance or cleaning.
- Always charge the battery in a well-ventilated area.
- Do not set the charger on flammable materials, such as carpeting, upholstery, paper, cardboard, etc.
- NEVER smoke or allow sparks or flames in the vicinity of the battery or engine.



**WARNING! Risk of explosive gas.**

- Operate the charger as far away from the battery as DC charger cables permit.
- Do not expose the charger to rain or snow.
- NEVER charge a frozen battery.
- NEVER set a battery on top of the charger.
- NEVER place the charger directly above a battery being charged. Gases from the battery will corrode and damage the charger.
- NEVER touch the battery clamps together when the charger is energized.
- NEVER overcharge a battery.
- Always use the appropriate charging mode for the battery. NEVER charge the 6V batteries in 12V mode.



**ATTENTION - DANGER! Do not use the charger to charge dry cell batteries commonly used in household appliances. Charging dry cell batteries could cause them to explode, causing personal injury and property damage.**

- Do not operate the charger with a damaged cord or plug.
- NEVER allow battery acid to drip onto the charger.

**PERSONAL SAFETY PRECAUTIONS**

**2**

- Wear complete eye protection and protective clothing when working near lead-acid batteries. Always have someone nearby for help.
- Have plenty of fresh water, soap and baking soda nearby for use, in case battery acid contacts your eyes, skin, or clothing. Wash immediately with soap and water and seek medical attention.
- If battery acid comes in contact with eyes, flush eyes immediately for a minimum 10 minutes and get medical attention.
- Neutralize any acid spills thoroughly with baking soda before attempting to clean up.

- Remove all personal metal items from your body, such as rings, bracelets, necklaces and watches. A battery can produce a short circuit current high enough to weld a ring to metal, causing a severe burn.
- Do not drop a metal tool onto the battery.
- If it is necessary to remove the battery from the vehicle to charge it, always remove the grounded terminal first.

## INSTALLATION

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The charger comes with different cables and adapters.

Before using the charger, remove all cable ties and unwrap the cables.

This charger is designed for use on a 230V mains supply. The plug must be plugged into an appropriate outlet that is properly installed and in accordance with all local codes and ordinances. The socket must match the plug.

The red cable must be connected to the positive pole of the battery. The black cable must be connected to the negative pole of the battery. Depending on the battery, different connection cables and adapters must be used.

## CONTROL PANEL/DISPLAY

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| Button  | Description   |
|---|---|
|     | Operating mode selection button (MODE). Short press to switch between battery types. Long press to switch between 6V and 12V. |
| <b>6V</b>   | Mode 6 V.   |
| <b>12V</b>  | Mode 12 V.  |
| <b>STD<br/>GEL</b>  | Lead acid and gel battery charge mode.  |
| <b>AGM</b>  | AGM battery charge mode.  |
| <b>LFP</b>  | LiFePo4 battery charge mode.  |
|  | Positive pole and negative pole reversed.   |
|  | Error occurred or the battery is damaged.   |
|  | Charging status indicator.  |
|  | Battery is charged.   |

1. Connect the charger to the battery. Observe polarity!
  2. The charger turns on STD GEL 6V mode first to prevent overcharging. Choose between 6V and 12V mode by long pressing the MODE button. Select the appropriate battery type by briefly pressing the MODE button. Battery type LFP can only be selected in 12V mode.
  3. Connect the charger to an AC power source (~210-240V/50-60Hz). The charging process starts automatically according to the selected mode.
  4. The charger charges the battery with current up to 2A until the upper charge voltage for each battery type is reached. After that, the battery is charged with the constant voltage and the current drops.  
Upper charge voltage for STD/GEL mode: 7.2V (in 6V mode) or 14.4V (in 12V mode)  
Upper charge voltage for AGM mode: 7.4V (in 6V mode) or 14.7V (in 12V mode)  
Upper charge voltage for LFP mode: 14.4V (active only in 12V mode)  
The charger switches to float mode (STD/GEL and AGM modes) or stops charging (LFP mode) as soon as the charging current drops to around 0.3A.
- NOTE:** The minimum allowable voltage of the battery must be 5V for 6V mode and 10V for 12V mode. If the voltage does not increase within 2 hours during the charging process, the battery is defective and an error message appears.
5. If the 230V supply voltage fails, the settings are retained as long as the battery is connected and the charging process continues when the 230V supply voltage is restored.
  6. The battery charge level indicator will show the charging progress until completion and the charger will automatically switch to float mode (STD/GEL, AGM only) until the charger is turned off.
  7. Disconnect the charger from the AC power source if the battery no longer needs to be charged. Then disconnect the battery from the charger.

Lead-acid and gel batteries need a slightly higher charging voltage in winter to be fully charged. It is therefore recommended to charge lead-acid and gel batteries in AGM mode when the outside temperature is low.

Automatically activated at the end of charging in STD/GEL and AGM modes, this mode is designed to prevent battery self-discharge and maintain battery charge during long-term storage, preventing sulfation and battery failure.

If there is a possible error, the LED  flashes red and the display shows the corresponding error code.

Eliminate the possible cause of the error in order to be able to continue working with the charger.

| Error code | Possible cause  | Reason/solution  |
|------------|---|--|
| <b>F01</b> | The charger cannot desulfate the battery  | Turn off the power and restart the desulfurization or replace the battery  |
| <b>F02</b> | The connections to the battery are reversed   | Pls connect red clip to the positive terminal of the battery (+), the black clip to the negative terminal of the battery (-) |
| <b>F03</b> | Charging interruption, recharging times more than 20 times  | Turn off the power and restart, pls do not restart frequently. (This issue rarely occurs)                                    |
| <b>F04</b> | The battery cannot be Float charging successfully (float charging current exceeds 1A, and operate the float charging exceeds 3 times) | Turn off the power and restart, pls do not start float charging frequently. (This issue rarely occurs)                       |
| <b>F05</b> | Short circuit   | Pls don't connect the red and black clip together  |

|            |   |   |
|------------|---|---|
| <b>F06</b> | The battery cannot be charged normally. During the charging process, take off the clip from battery and then connected to the clip to the battery immediately | Turn off the power and restart or replace the battery               |
| <b>F07</b> | MOS transistors does not working properly   | Turn off the power and restart charging. (This issue rarely occurs) |
| <b>F08</b> | The current of the internal controller is too large, exceeding 3A   | Turn off the power and restart charging. (This issue rarely occurs) |
| <b>F09</b> | The battery voltage is too high(over than 15.6V)  | Turn off the power and restart charging. (This issue rarely occurs) |
| <b>F10</b> | The program is running abnormally   | Turn off the power and restart charging. (This issue rarely occurs) |

## TECHNICAL SPECIFICATION

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| Parameter                               | Value                      |
|---|----------------------------|
| <b>Charge current, max, A</b>           | 2                          |
| <b>Recommended battery capacity, Ah</b> | 1-14 (6 V), 1-40 (12 V)    |
| <b>AC supply voltage,V</b>              | 210-240 V ~ 50/60 Hz       |
| <b>Charging power, max, W</b>           | 30                         |
| <b>Battery nominal voltage, V</b>       | 6/12/12,8                  |
| <b>Battery type</b>                     | Lead acid/GEL/AGM /LiFePo4 |
| <b>Protection class</b>                 | IP40                       |
| <b>Outside temperature</b>              | (-10°) - (+40°)            |
| <b>Length of charger cable, cm</b>      | 180                        |
| <b>Dimensions (LxWxH), mm</b>           | 92.5x65x35                 |
| <b>Weight, kg</b>                       | 0,3                        |

The international manufacturer warranty is 1 year. The warranty period starts from the date of purchase. In cases where a warranty period is longer than 1 year according to local legislation, please contact your local dealer. The Seller of the product is responsible for granting the warranty. Please contact the Seller for warranty. If the product fails within the warranty period because of defects in workmanship, it will be exchanged for the same product or repaired.

The warranty card should be kept throughout the warranty period. In case of warranty card loss, a second one will not be provided. The Customer must provide the warranty card and proof of purchase when requesting any repair or exchange. Otherwise, the warranty service will not be provided. The warranty card attached to the product during sale should be correctly and fully completed by the retailer and customer, signed and stamped. In other cases, the warranty shall be deemed invalid.

Provide clean product to the service center. Parts that must be replaced are the property of the service center.



## EC Declaration of Conformity

Nr. 151

The following products have been tested by us with the listed standards and found in compliance with the with the European Community Electromagnetic compatibility Directive (EMC) 2014/30/EC, Low Voltage Directive (LVD) 2014/35/EC.

Manufacturer: DIMAX INTERNATIONAL GmbH  
Address: Flinger Broich 203, 40235 Duesseldorf, Germany  
Product: Battery charger "Könner & Söhnen"  
Type / Model: KS-B2A

The statement is based on a single evaluation of above mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab. logo. The manufacturer should ensure that all product in series production are in conformity with the product sample detailed in this report. The applicant should hold the whole technical report at disposal of the competent all the right.

Applied EC Directives: 2014/30/EC Electromagnetic compatibility Directive  
2014/35/EU Low Voltage Directive

Applied Standards: EN IEC 55014-1:2021  
EN IEC 55014-2:2021  
EN IEC 61000-3-2:2019+A1:1021  
EN 61000-3-3:2013+A2:2021  
EN IEC 60335-2-29:2021+A1:2021  
EN 60335-1:2012+A15:2021  
EN 62233:2008



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**Issued Date:** 2023-05-10  
**Place of issue:** Duesseldorf  
**General director:** Fomin P.

*P. Fomin*

DIMAX  
International  
GmbH  
Steuer-Nr.: 103 9702 0495  
USt-Id-Nr.: DE296171274

We DIMAX INTERNATIONAL GmbH hereby declare that specified above conforms covering European Parliament and Council Directives, Electromagnetic compatibility Directive (EMC) 2014/30/EC of 26 February 2014, Low Voltage Directive (LVD) 2014/35/EC of 26 February 2014. The CE mark above can be used under the responsibility of manufacturer. After completion of an EC declaration of Conformity and compliance with all relevant EC directives.

## CONTACTS

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