

General

Product contents

- Energy unit including rechargeable battery with integrated protection circuit (pre-charged, ready for use)
- 2 wall holders and 4 plugs for slotted holes
- 1 connector for connecting cable of drive
- 4 screws and wall plugs (in assembly kit)
- Assembly instructions 13 829.4401

Intended use

The **elero** energy unit (hereafter referred to as the “device”) consists of a solar panel for transforming sunlight into electrical energy and a built-in rechargeable battery that stores this energy. The energy unit may only be used to operate a single **elero** 12 Volt DC drive for sun shading systems.

- Do not combine RoSolar type drives to the energy unit, as these contain their own charging control on the circuit board
- Only combine a single unidirectional radio drive and a unidirectional radio transmitter from **elero** to form the energy unit

Exclusion of liability

elero accepts no liability whatsoever for personal injury or damage caused by uses other than those listed above, modifications to the device, incorrect use and/or failure to observe the instructions. Liability for material defects is excluded in such cases.

Safety instructions

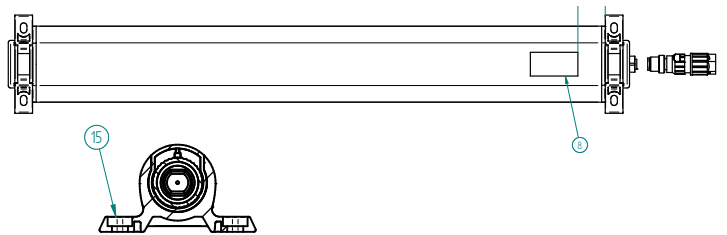


General safety instructions for use, including installation of sun protection systems and accessories, can be found in the “Safety instructions” leaflet supplied with each drive. Please read these assembly instructions carefully as the procedure in this manual is a prerequisite for correct use of the product. Some components of electrical/electronic systems or devices carry dangerous voltages during operation. Any intervention by unqualified personnel or failure to comply with warnings may lead to personal injury or material damage. Figures included are for illustration purposes only. The illustrations may differ from your product with respect to minor details and are provided for general information only. **elero** GmbH is continually striving to improve all products. As a result, the specifications, features and technology of this product may be changed at any time. The information provided is based on current information at the time of publication. No claims can be derived from the technical data, images and information in this manual.

Assembly



- The solar panel is intended exclusively for outdoor installation. Never install it behind glass. Position the device so that it receives as much direct sunlight as possible. Avoid installing the solar panel where it can be exposed to shade.
 - Ideally, the energy unit should be installed close to the drive. Do not exceed the maximum length of the connecting cable of the drive or radio receiver Combio-868 JA DC. Install the unit horizontally only.
 - Before mounting, make sure that the end cover with snap-in function and the cover flap are securely positioned on the aluminium profile.
 - Before mounting, make sure that the end cover with snap-in function and the cover cap are securely positioned on the aluminium profile.
- A.** Mount the two holders as shown in the following diagram at a distance of 497 mm from each other, if possible on a smooth surface. For wall mounting, align the holders vertically. Before final installation, check the drill hole location for suitability (installation surface) and structural stability. If necessary, use longer screws and wall plugs than those provided. Close the fixing holes of the two wall holders with the cover caps (item ③).

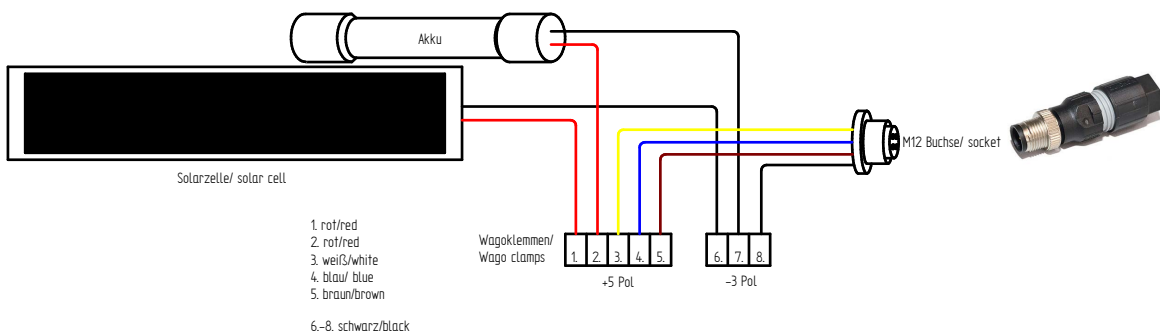


- B.** Insert the aluminium profile of the energy unit into the wall holders.
- C.** Adjust the length of the connecting cable of the drive as necessary. Remove the connector from the supplied assembly kit and install it on the connecting cable as shown in “Socket pin assignment” (see reverse side).
- D.** Insert the connector of the connecting cable of the drive (or the **elero Combio-868 JA DC**) into the socket of the energy unit and screw it on.

NOTICE:

Once the plug is plugged in, the drive or Combio-868 JA DC is live and ready for use.

- E.** To program the drive resp. radio receiver Combio-868 JA DC, see the manual of drive resp. radio receiver manual.



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Assembly instructions

Socket pin assignment



Pin	Function	Wire colour inside device
1	+ 12 V (positive terminal)	brown
2	+ 12 V (positive terminal)	white
3	+ 12 V (positive terminal)	blue
4	- 0 V (negative terminal)	black

The brown, white and blue wires are connected to one terminal inside the device (consolidated as a positive terminal in one connection terminal).

Wiring is now completed.

Important:

After completing the wiring or replacing the rechargeable battery, always check that the drive direction (extension or retraction) is correctly assigned to the [UP ▲] and [DOWN ▼] buttons.

The correct assignment is determined by whether the drive is installed on the right or left side.

- If the direction is incorrectly assigned, do not swap the positive and negative terminals inside the device. Instead, re-program the radio drive or the elero Combio-868 JA DC or adjust the [UP ▲] and [DOWN ▼] assignment in the switching unit (venetian blind button/switch).

Replacing the rechargeable battery



1. Unscrew the connecting cable with Quickon connector of the drive from the energy unit and pull it out.
2. Remove the energy unit from the wall holders.
3. Open the power unit: On the side with the connection socket, pull out the black cover cap together with the connection socket forcefully but carefully.
4. Slide the accumulator including cables and terminals out through the opening downwards.

CAUTION

Danger of short circuit.

Take the necessary precautions in the presence of electrical low voltages.

5. Disconnect the connection terminals Wago single on the rechargeable battery and correctly reconnect them after replacing the battery.
 - Remove the connection terminal of the red positive terminal of the new battery.
 - Connect the free red wire of the new battery to the positive terminal of the 5-pin connection terminal.
 - Remove the connection terminal of the black negative terminal of the new battery.
 - Connect the black wire of the new battery to the negative terminal of the connection terminal (black wire) ("black to black").
 - Use the other two terminals of the new battery as short circuit protection on the old battery.
6. Carefully push the battery along with the cables and connection terminals back into the housing.
7. Carefully place the end plug on the housing without pinching the cables and snap it into place.
8. Insert the energy unit back into the holders.
9. For optimum efficiency, align the energy unit with the panel surface as perpendicular as possible to the direction of the incident solar rays.
10. Re-insert the connector of the connecting cable of the drive (or the **elero Combio-868 JA DC**) into the socket of the energy unit and screw it on.

The drive is now ready for use again.

Maximum storage time of the rechargeable battery before first charging: 6 months at 20 °C. The built-in rechargeable battery will be discharged after that.

Cleaning

Clean the device regularly with water and a soft cloth to ensure good efficiency.
Clear away ice and snow in the winter.

Disposal / Notes on environmental protection



Electrical and electronic devices may not be disposed of with household waste. The consumer is legally obliged to return electrical and electronic equipment as well as batteries / rechargeable batteries to the designated public collection points or to the retailer at the end of their service life. The applicable regulations are governed by the relevant local laws. The symbol on the product, the instruction manual or the package indicates the applicable regulations.

After using the unit for the final time, disconnect the battery from the housing and protect it against short circuits. By recycling or reusing old units/batteries, you are making an important contribution to protecting our environment.

Technical data

Rechargeable battery type	LiFePo ₄
Rated voltage [V]	13.2
Max. charge voltage [V]	14.4
Output [W] (peak)	4.2 ± 10%
Rechargeable battery capacity [mAh]	2,400
Energy [Wh]	33
Protection against excessive discharge, overloading, overcharging	Built-in rechargeable battery management system
Dimensions [mm]	523 x 50 x 83
Weight (including battery) [g]	1,100
Protection class	IP 44
Ambient operating temperature [°C]	-20 to +60
Item No.	22 150.0001

EU Conformity



elero hereby declares that this product is in compliance with the essential requirements and other relevant provisions of European directives that are applicable in Europe. A declaration of conformity is available at the website www.elero.com/downloads. All illustrations are non-binding.

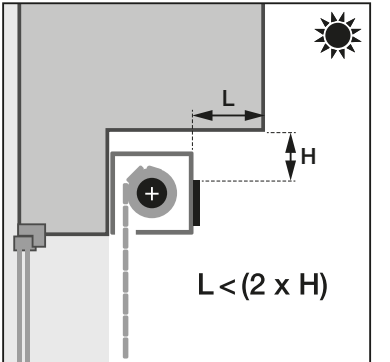
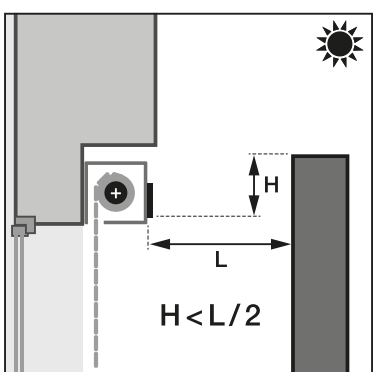
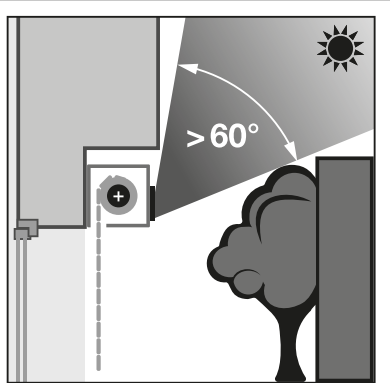
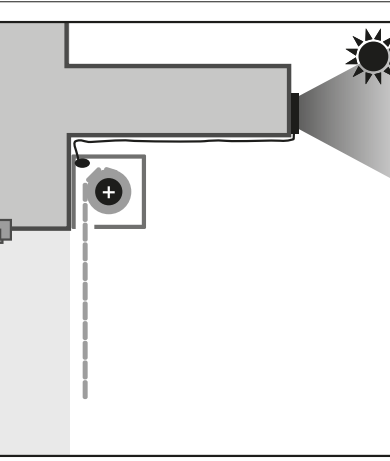
Manufacturer's address

elero GmbH
73278 Schlierbach
GERMANY
www.elero.com

Service

If malfunctions have occurred or the device has been damaged despite proper handling, contact your contractor or dealer.

Installation instructions and improvement of the solar yield

<p>1. Roof overhangs or similar structures</p> <p>Ensure that the solar panel has an unobstructed orientation to the sky. We recommend an overhang less than the double of the distance towards the roof overhang.</p>	 <p>$L < (2 \times H)$</p>
<p>2. Obstacles opposite the solar panel</p> <p>Obstacles directly opposite the solar panel do reduce the solar efficiency of the system. For sufficient charging performance, we recommend a minimum distance according to the picture shown beside.</p>	 <p>$H < L/2$</p>
<p>3. Limited view of the sky</p> <p>Obstacles and overhangs often occur in combination. In such a case, make sure that the unobstructed visibility angle to the sky is at least 60°.</p>	 <p>$> 60^\circ$</p>
<p>4. Move the solar panel to the front of the building</p> <p>If there is too much overhang, e.g. due to a balcony, you can move the panel to the front edge of the balcony. elero offers extension cables in various lengths for this purpose. Ask your elero partner for support..</p>	

Battery pack



Warning of hazards due to battery charging. Failure to observe the following instructions may result in fire or explosion of the battery pack.

- Use the battery pack only for its intended application.
- Protect battery pack from heat.
- Protect the battery pack from water.
- Do not charge or use dropped or damaged battery packs.
- Do not connect the positive and negative terminals of the battery pack to metallic objects.
- Do not open the battery pack casing or make any modifications to the battery pack.

The battery pack loses its performance after prolonged operation or frequent discharging.

Disposal

Old appliances must not be disposed of with household waste!

- Dispose of packaging material in the collection containers for cardboard and paper.
- Dispose of the rechargeable battery in an environmentally friendly manner via a specialist dealer or recycling centre.
- Dispose of old appliances at a collection point for electronic waste or at a specialist dealer.