



ZIS256
EDIZ. 29/05/2023

ECO-LOGIC

I
KIT ALIMENTAZIONE SOLARE

P
KIT ALIMENTAÇÃO SOLAR

GB
SOLAR POWER KIT

D
KIT SOLARSTROMVERSORGUNG

F
KIT ALIMENTATION SOLAIRE

NL
KIT STROOMVOORZIENING
DOOR ZONNECELLEN

E
KIT DE ALIMENTACIÓN SOLAR

IMPORTANT INFORMATION

For any installation problem please contact our Customer Service at the number +39-0172.812411 operating Monday to Friday from 8:30 to 12:30 and from 14:00 to 18:00

V2 reserves the right to make modifications to the product without any prior warning; furthermore, the company declines all responsibility for damages to people or property resulting from improper use or incorrect installation.



Read the following instruction manual thoroughly prior to proceeding with installation and programming of the system.

- This instruction manual is intended solely for use by technical staff, qualified in the field of installation of automation devices.
- None of the information contained in the manual is of interest or use to end users.
- All maintenance or programming operations should be conducted exclusively by qualified staff.

The installation, testing and commissioning of door and gate automation devices should be performed by qualified and skilled personnel, who must assume responsibility for setting up the tests envisaged depending on the risks present; and verify compliance in accordance with legal and regulatory requirements.

- V2 accepts no responsibility for injuries and damage resulting from improper use of the product; other than that described in this manual.
- Packing materials must be disposed of in full compliance with local regulations.
- Ensure that the back-up battery cannot become immersed in water or other liquids. Should any liquids penetrate inside the device, disconnect it immediately from the automation device and contact the V2 assistance service; use of the device under such conditions may be hazardous.
- Do not store the back-up battery close to strong sources of heat or expose it to naked flames; such actions can damage it and be the cause of malfunctions, fire or other hazards.
- In order to avoid the risk of leakage of hazardous substances from the back-up battery in the case where the device is not used for long periods of time, it is preferable to disconnect it from the automated device and store it in a dry place.

EU DECLARATION OF CONFORMITY

The manufacturer V2 S.p.A., headquarters in Corso Principi di Piemonte 65, 12035, Racconigi (CN), Italy

Under its sole responsibility hereby declares that the products: **ECO-LOGIC**

conform to the essential requirements established in the following

- 2014/30/UE (EMC directive)
- RoHS-3 2015/863/EU

Racconigi, 01/03/2023
V2 S.p.A. legal representative

Roberto Rossi



DISPOSAL

As for the installation operations, even at the end of this product's life span, the dismantling operations must be carried out by qualified experts.

This product is made up of various types of materials: some can be recycled while others need to be disposed of.

Find out about the recycling or disposal systems envisaged by your local regulations for this product category.

Important! – Parts of the product could contain pollutants or hazardous substances which, if released into the environment, could cause harmful effects to the environment itself as well as to human health.

As indicated by the symbol opposite, throwing away this product as domestic waste is strictly forbidden. So dispose of it as differentiated waste, in accordance with your local regulations, or return the product to the retailer when you purchase a new equivalent product.

Important! – the local applicable regulations may envisage heavy sanctions in the event of illegal disposal of this product.

PRELIMINARY CHECKS AND LIMITS OF USE

Perform the checks described in this chapter to ensure that the product is suited to the characteristics of the automation device to be supplied.

Nearby the automation device to be supplied, identify the most suitable point for installing the solar panel and the most suitable point for installing the accumulator unit, taking the following points into consideration.

Solar panel

- The maximum length of the solar panel cable should not exceed 10 m.
Use a 2x1 mm² cable (maximum outer diameter 6.5 mm)
- The surface selected for fixing both devices should be of solid material and should guarantee stable fixing
- The location selected for installation of the panel should guarantee 100% direct sunlight throughout the year
- The location selected for installation of the panel should be away from plants, walls or anything else that might cast shadows, even partial, over the sensitive surface.
Partial shadows significantly reduce the energy capacity of the panel.

Accumulator

- The maximum length of the cable carrying power to the control unit should not exceed 3 m.
Use a 2x1,5 mm² cable (maximum outer diameter 10 mm)
- The device should be installed in a location protected from direct sunlight and possibly also at low temperature.
Such extreme conditions compromise battery yield and lifespan.
- Never allow the battery to discharge to the point where the red LED remains on, since this risks irreparable damage to the battery.

TECHNICAL INFORMATION

Accumulator unit

Voltage output toward the control unit	24-28Vdc*
Maximum current	16A
Battery capacity	18Ah
Protection level	IP44
Operating temperature	0 ÷ +40°C charging -20 ÷ +50°C in use
Mains recharge time	~ 15 h
Dimensions	267x188,2x198 mm
Weight	12 Kg

*** NOTE: when no load is connected or drains are very low, the accumulator output voltage can reach the value of the voltage generated by the solar panel.**

Solar panel

Maximum voltage without load	42Vdc
Voltage at maximum power point	33,6Vdc
Peak nominal power	20W
Operating temperature	-20 ÷ +80°C
Dimensions	308x28x604 mm
Weight	2,2 Kg

Mains power supply

Power supply	230Vac - 50Hz
Max. nominal power	36W
Operating temperature	0 ÷ +30°C
Dimensions	99x78x153 mm
Weight	1,7 Kg

DESCRIPTION AND INTENDED USE

ECO-LOGIC can only be installed on gate automation systems with V2 control units.

⚠ ATTENTION: the control unit supplied by the ECO-LOGIC must have the mode of operation ENERGY SAVING active.

To ensure proper operation of the system, all the added accessories must be connected to the accessory output of the control unit and, during the stand-by, they will not be supplied.

The system consists of an accumulator unit, a solar panel and an external power supply.

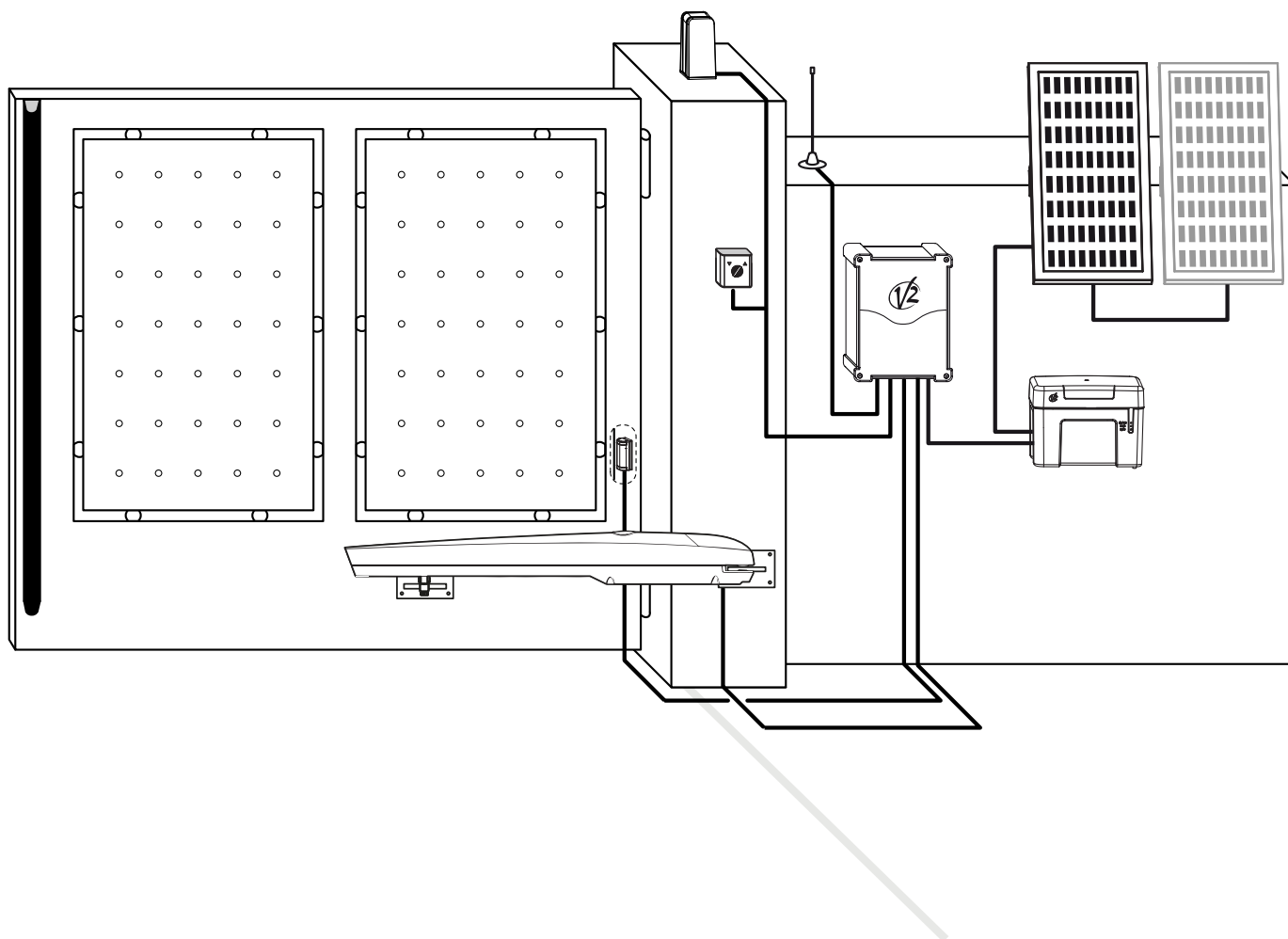
The automation device is powered by the accumulator unit, which is recharged during daylight hours.

The external power supply (accessory - code 172802) may be used for recharging the batteries in the case of prolonged periods of lack of sunlight.

NOTE: If the panel fails to provide sufficient charge to the accumulator group, it is possible to install a second panel in parallel to the first one.

- **CAUTION:** Before you connect the two panels, disconnect the grey connector from the accumulator
- Exclusively use the panel with code 172801 provided by V2
- To connect the two panels in parallel, use a 2x1mm² cable
- If the cable between the accumulator and the first panel is longer than 3m, use a 2x1, 5mm² cable.

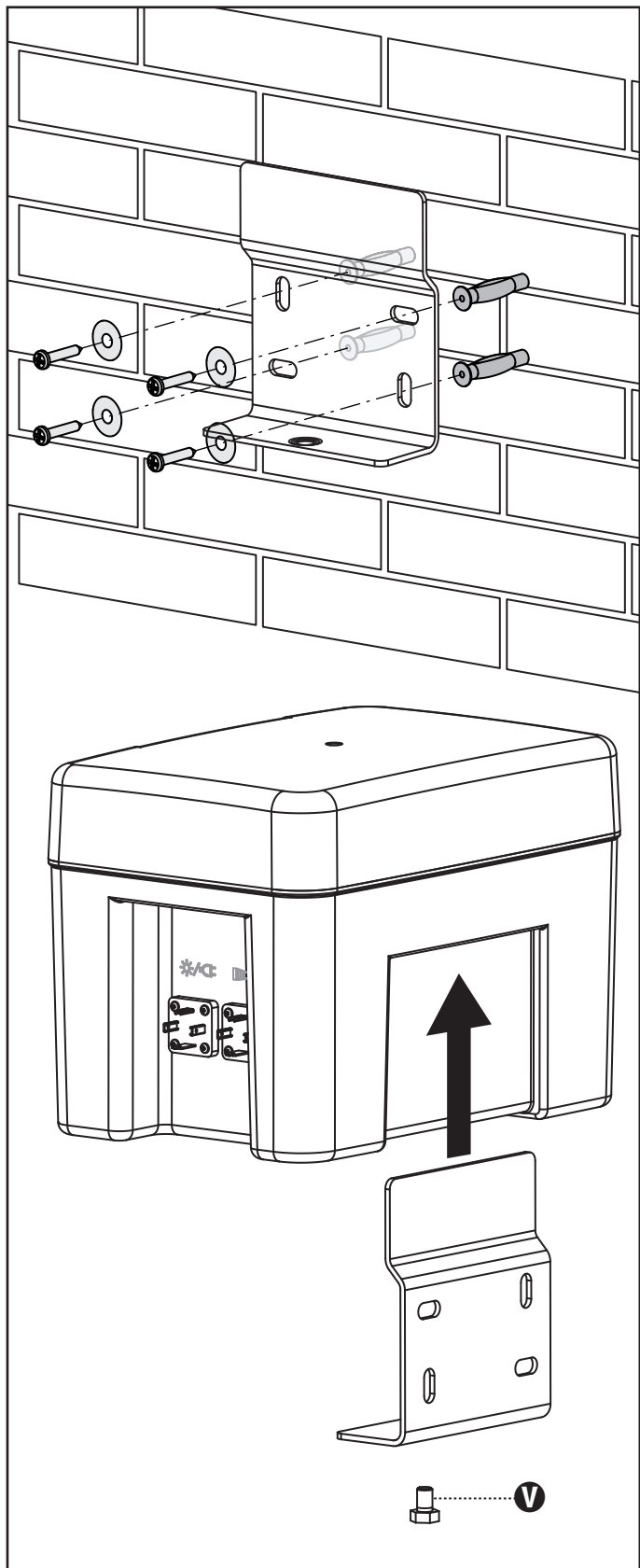
ATTENTION: the connections must be insulated inside a waterproof container



INSTALLATION

CAUTION: do not connect the grey terminal until installation of the panel is complete.

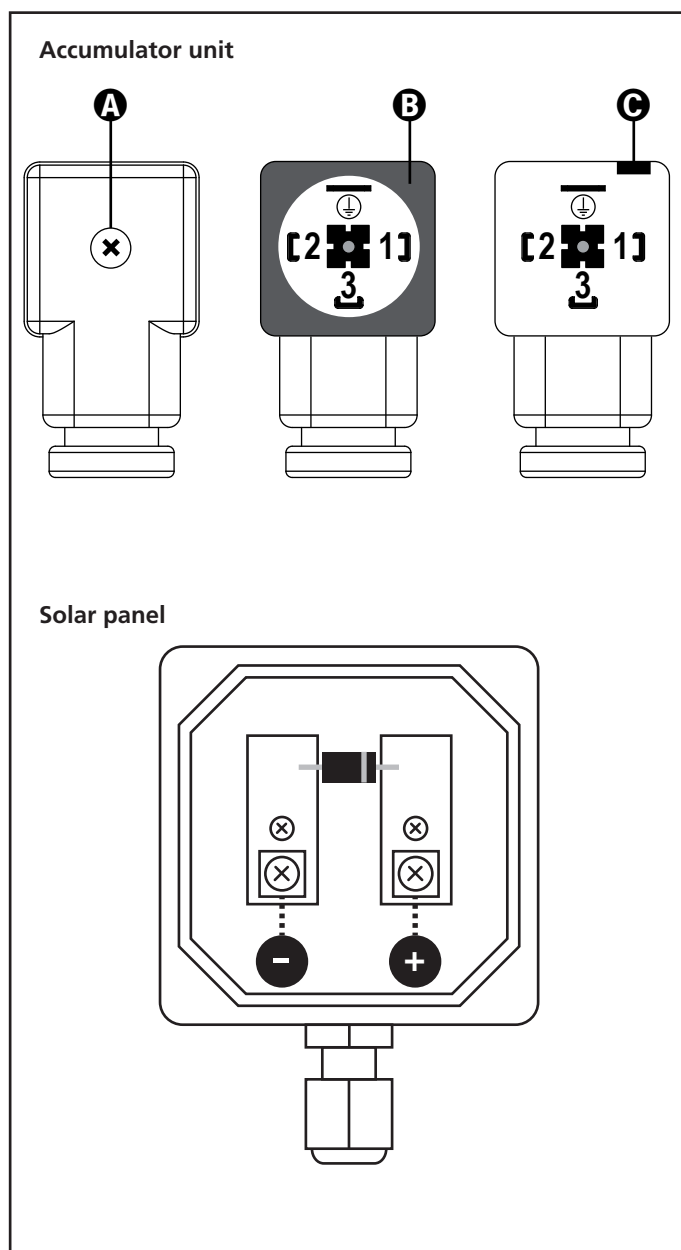
1. Fix the bracket to the wall using appropriate rawplugs
2. Position the accumulator unit on the bracket and tighten the V-screws on the base
3. Fix the solar panel using the adjustable brackets
4. Position the panel (see the section on POSITIONING THE PANEL)



5. Connect the panel to the grey connector fixed to the accumulator unit:
 - Loosen screw **A** and extract the connector
 - Remove gasket **B** and open the connector, by using a screwdriver as a lever in slot **C**.
 - Connect the **+** terminal of the panel to the terminal **2** of the accumulator connector
 - Connect the **-** terminal of the panel to the terminal **1** of the accumulator connector
 - Replace gasket **B**, insert the connector and tighten screw **A**

PLEASE NOTE: Do not remove the pre-wired jumper inside the connector

6. Connect the control unit power supply to the black connector: positive to terminal 3 and negative to the earth terminal
7. Insert the black connector first followed by the grey connector. Check that all LEDs come on for a few seconds and then the green LED continues to flash; if the panel is lit by sunlight then the yellow LED should also flash.

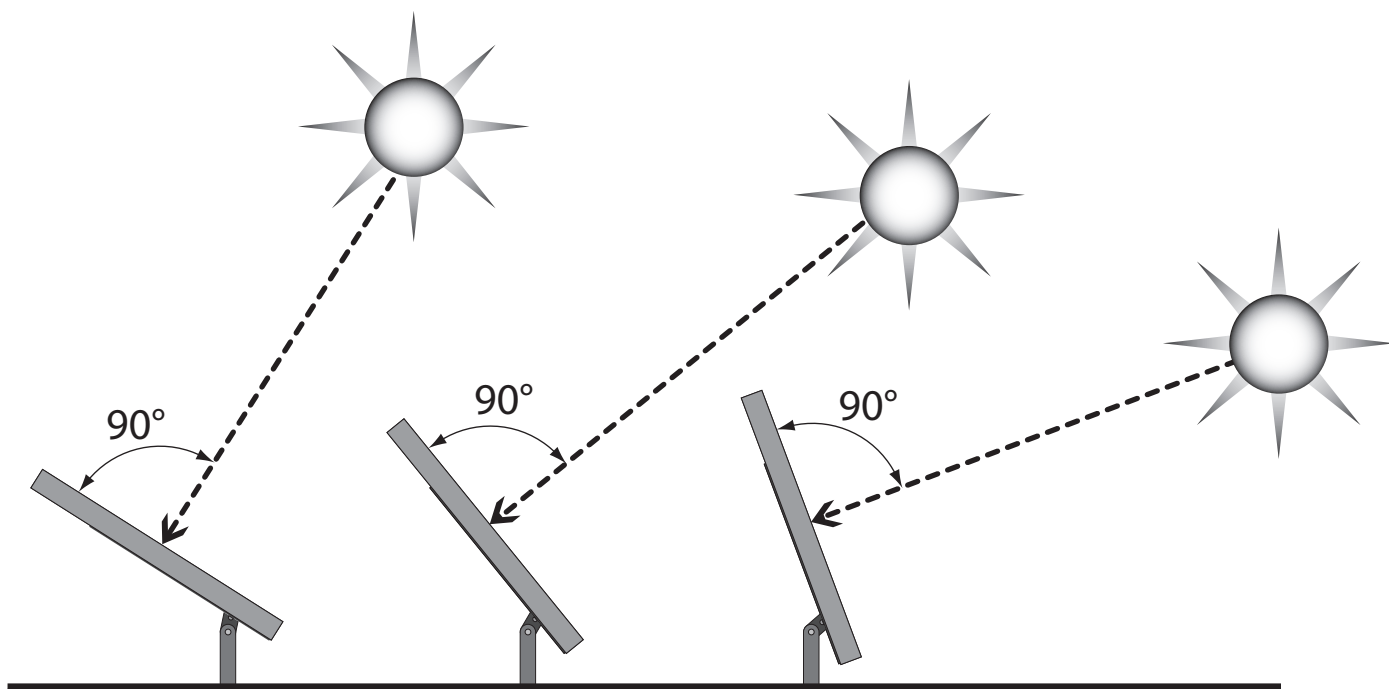
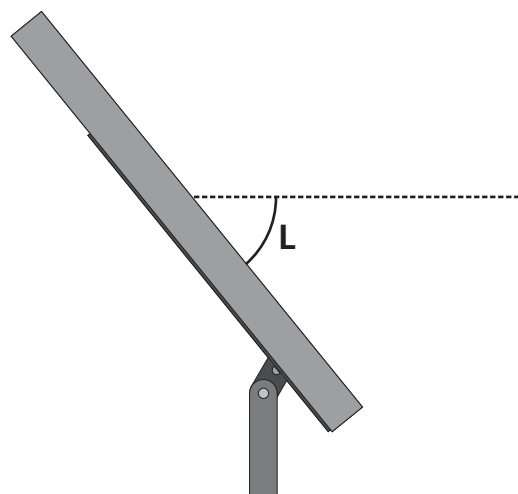


POSITIONING THE PANEL

Position the panel facing south, with inclination L with respect to the horizontal axis equal to the latitude of the installation location.

PLEASE NOTE: If the installation is in the southern hemisphere, the panel should be facing north.

Considering it is preferable to obtain maximum yield during the winter (when there are less hours of sunlight), we recommend the inclination L be increased by several degrees, for better panel illumination when the sun is lower.



NOTIFICATIONS

The battery charge status is displayed by means of LEDs located on the front of the box.

Checking must be performed with the gate resting.

The yellow LED flashes to indicate the batteries are charging; if the LED is fixed, it means the charge current is very low, or there is very little sun or the batteries are already fully charged.

The green LED flashes to indicate the batteries are charged. The rate of flashing increases as the charge level decreases.

The red LED flashes when the batteries have lost their charge. The red LED remains on if the charge level is dangerously low.

⚠ PLEASE NOTE: Never allow the battery to discharge to the point where the red LED remains on, since this risks irreparable damage to the battery.

RECHARGING THE BATTERIES FROM THE MAINS SUPPLY

In the case of prolonged absence of charging from the sun, the batteries may be recharged using the mains power supply (accessory code 172802). This operation may also be recommended prior to installation in order to be certain of maximum battery life.

Disconnect both connectors and optionally remove the fixing bolt and remove the module from the bracket.

Move the accumulator unit close to a power socket in a protected environment.

⚠ PLEASE NOTE: The mains charger is not built to operate outdoors.

Connect the power supply to the grey connector; insert the plug into a power socket: the yellow LED starts to flash. When the LED remains on, charging is complete and the unit may be disconnected.

⚠ PLEASE NOTE: both before and after charging, when the accumulator unit is inactive, do not connect anything to the grey terminal; this way, the batteries remain disconnected and there is no unnecessary power consumption.

REPLACING THE BATTERIES

⚠ PLEASE NOTE: the batteries should only be replaced by qualified technical staff

Replacement of the accumulators becomes necessary when battery life is significantly reduced due to ageing. In any case, it is recommended they should be replaced after five years of use.

⚠ PLEASE NOTE: always replace both batteries with new batteries of the same model (12 V – 18 Ah). NEVER mix new and old batteries at the same time.

⚠ PLEASE NOTE: accumulators contain lead and other pollutants; certain electronic components may contain pollutants: do not dispose of them with normal waste, but use the methods prescribed in local regulations.

To replace the batteries, proceed as follows:

1. Disconnect both connectors
2. Open the casing by unscrewing the 4 screws under the handles
3. Disconnect the batteries by unscrewing the screws on the terminals
4. Remove the old batteries and insert new ones in the same positions
5. Reconnect the cables, ensuring the polarities are correct, and tighten the screws properly
6. Close the casing and reconnect the grey and black connectors

