SOLAR SPOT
YOUR ONLINE SOLAR SUPPLY STORE
a Division of 5D Innovations cc
Cape Town | Pretoria | RSA Nationwide
www.solarspot.co.za

C: +27 78 012 9105
T: +27 12 942 5773
sales@solarspot.co.za
technical@solarspot.co.za

REVOV

STAR ASSEMBLY INSTRUCTIONS

FREEDOM FROM DEPENDENCE

WWW.REVOV.CO.ZA

Skilled personnel required for the installation of electrical supply devices.

This manual and the tasks and procedure described herein are intended for use by skilled workers only.

A skilled worker is defined as a trained and qualified electrician or installer who has all of the following skills and experience:

- Knowledge of the functional principles and operation of on-grid systems.
- Knowledge of the dangers and risks associated with installing and using electrical devices and acceptable mitigation methods.
- Knowledge of the installation of electrical devices.
- Knowledge of and adherence to this manual and all safety precautions and best practices.

1. SAFETY

⚠ CAUTION

WARNING !!! HIGH LIFE RISK DUE TO FIRE OR ELECTROCUTION.

The unit can only be installed by a qualified licensed electrical contractor. This is not a DIY product.

- Be sure to read this manual thoroughly before installation.

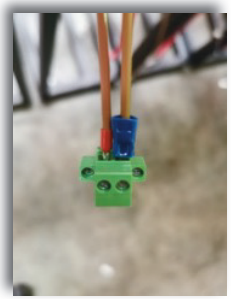
  Do not attempt to install the inverter by yourself. Installation work must be performed following national wiring standards by authorized personnel only. Do not turn on the power until all installation work is complete.

- Always use an individual power supply line protected by a circuit breaker and operating on all wires with a distance between contacts of at least 3mm for this unit.

- The unit is not explosion-proof, so it should not be installed in an explosive atmosphere.

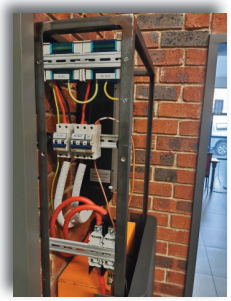
- Never touch electrical components immediately after the power supply has been turned off since the system can still have residual energy, so electric shock may occur. Therefore, after turning off the power, always wait 5 minutes before touching electrical components.

- This unit contains no user-serviceable parts. Always consult an authorized contractor for repairs.



Step 13:

Connect Cable D1 and D2 to the green BMS power plug. When plugging the BMS power plug into the BMS make sure that the DC breaker is turned off. This is to ensure the above steps have been implemented correctly.

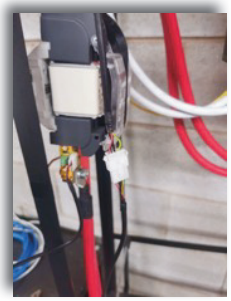


Step 14:

Connect the AC cables to the AC busbars, labelled AC IN & AC OUT. Make sure all breakers are switched off, in the down position.

Step 15:

Refer to the axPi manual to set-up the raspberry Pi supplied. One will require a HDMI screen, a keyboard and mouse, to control the axPi. This is necessary when you want to connect the axPi to a Wi-Fi network. Once complete continue with Step 16.



Step 16:

Connect Battery monitor display to the cable that's connected to the shunt. The display unit has already been fitted to the STAR cover.

Step 17:

Secure the plastic enclosure to the STAR frame using the TEK screws supplied.

Step 7:

Insert BMS parallel to battery 1. There are flanges to tighten the BMS with 5mm nut and screw that was supplied. Then connect power cable B1 from battery 1 to battery-negative on the BMS.

Step 8:

Connect power cable A1 to the negative terminal on battery 2.

Step 9:

Connect DB serial port BAT2 into Com port on battery 2 and tighten. Make sure not to bend pins on DB cable..

Step 10:

Connect the ACB's to the BMS as labelled i.e. ACB 1 cable gets plugged into ACB 1 on the BMS. ACB 2 cable gets plugged into ACB 2 on the BMS and so on.

Step 11:

Connect power cable B2 to the BMS (Inverter-Negative).

Step 12:

Connect power cable C1 and BMS power cable C2 to the positive terminal on battery 2.

1. INSTALLATION

2.1. Selecting the Mounting Area

- Areas with high salt content, such as the marine environment. It will deteriorate metal parts, causing the parts to fail or the unit to leak water.
- Areas filled with mineral oil or containing a large amount of splashed oil or steam, such as a kitchen. It will deteriorate plastic parts, causing the parts to fail or the unit to leak water.
- Areas that generates substances that adversely affect the equipment, such as sulfuric gas, chlorine gas, acid, or alkali. It will cause the copper pipes and brazed joints to corrode, which can cause refrigerant leakage.
- Areas that can cause combustible gas to leak, which contains suspended carbon-fibre or flammable dust, or volatile inflammable such as paint thinner or gasoline.
- Areas where there may be gas leaks and settles around the unit. It can cause fires.
- Areas where animals may urinate on the unit or ammonia may be generated.
- High altitude areas above 2000 meters above sea level.
- Environments where precipitation or humidity are above 95% .
- Areas where the air circulation is too low.

ALSO CONSIDER

- Install this indoor unit, power supply cable and transmission cable at least 1m away from a television or radio receivers. This will prevent TV reception interference or radio noise. Even if they are installed more than 1m apart, it is still possible to receive noise under some signal conditions.
- An appropriate ambient temperature is between 0 ~ 45°C to ensure optimal operation.
- For proper air circulation to dissipate heat, allow a clearance of approximately 50cm to the side.
- Ensure that there is no flood or heat risk and that it is close to the main distribution board (DB).Ensure the floor is clear and flat.

⚠ CAUTION

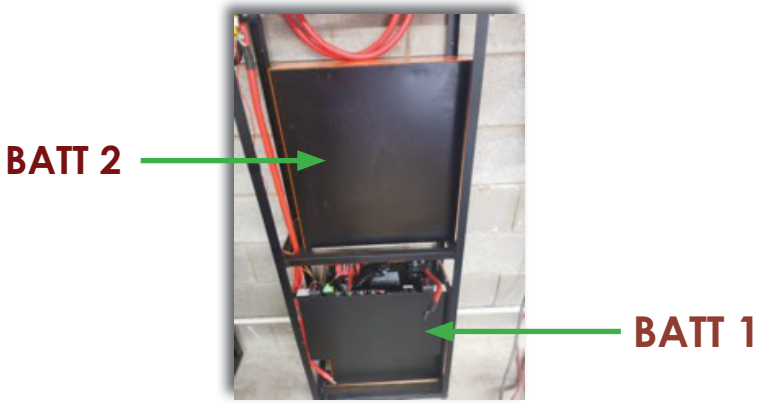
Risk of injury when lifting and from falling Battery

Remember that this Battery is heavy. Please be careful when working with the battery, removing it from the packaging and mounting it onto the frame.

NOTE

- The energy storage inverter is designed according to the grid-connected operation.
- The inverters meets the safety and electromagnetic compatibility requirements as established in the main standards.

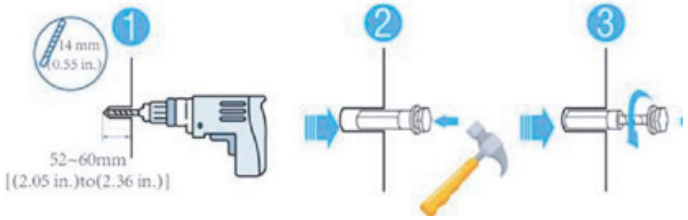
BATTERY LABELS



Step 1:

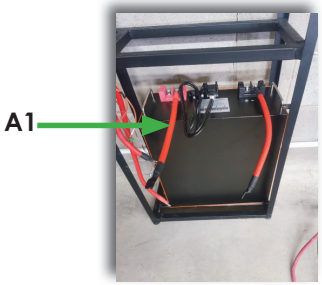
Select a suitable area against a wall to install the STAR. Ensure the frame is horizontal and level using the frame feet. Press the frame to the wall for a snug fit.

Mount STAR frame to the wall using the 8mm Rawl bolts. There are 2 8mm holes in the rear of the frame already pre-drilled.



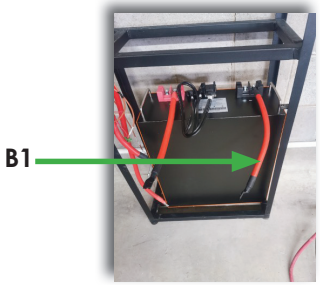
Step 2:

Put battery 1 in bottom rack of frame and secure with threaded rod with the butterfly nut as supplied. Fit battery 1 into the positive terminal on the fuse side of frame



Step 3:

Connect power cable A1 to positive terminal on battery 1 (Red – Non-Insulated). Do not over-tighten. Do ensure tight snug fit.



Step 4:

Connect power cable B1 to negative terminal on battery 1 (Black – Non-Insulated). Make sure the larger lug is fitted to the battery and not the thinner lug for the BMS that has been modified.

Step 5:

Connect DB serial port BAT 1 to Com port on battery 1 and tighten. Make sure not to bend pins on DB cable.

Step 6:

Insert battery 2 into frame on the second base plate. Battery needs to go upside down with positive terminal (Red) at the back right of the frame.

Please note that this second battery is inverted as compared to the first. The two terminal faces will face each other when completed correctly. Please watch fingers and body parts from the heavy Battery falling during installation.