



Installation of Solar Power box – BOX SOL PWR 2910

This unit is to be installed by authorized / professional installer.

KINGGATES mins power Motors, are convertible to be solar powered systems. You need to install and connect:

- The solar panel itself with the stand
- The power box and the batteries
- In the motor unit – the ADAPTOR unit

A. Install the solar PANEL:

1. Assemble the panel to the mounting brackets with the 4 bolts set
2. Install the post and tighten it to a fix wall, post, concrete etc.
3. Install the post at direct sunlight expose position. Make sure for no obstacles to the sun during the day. Make sure that the cable of the panel is long enough to reach the power box location
4. Direct the panel face (blue) to the north.

B. Installation of the solar POWER BOX:

4. Check the battery wires connections, and disconnect the batteries (see pictures below)
5. Take all packing materials out of the box.
6. Take the batteries out of the box.
7. Make 20mm holes at the bottom of the box, and fit the cable glands, use round shield cable to the motor.
8. Install the power box on a flat surface. Do not make holes inside the sealed area of the box
9. Insert the solar panel and the motor cable through the glands and leave enough length for the connection to the charger unit.
10. Peel -off the sticker and stick the white battery support (duct) at the bottom of the box – see photo below
11. Connect the solar panel's cable to the charger controller unit brown (+) blue (-)
12. Connect a cable to power the motor to the "to control unit" terminals of the charger **PAY ATTENTION TO THE POLARITY OF THE WIRES**
13. Put the batteries in the box and connect the terminals follow the photo below. **DO NOT CONNECT THE RED TERMINAL AND WIRE UNTIL YOU ALL CONNECTIONS IN THE MOTOR DONE**

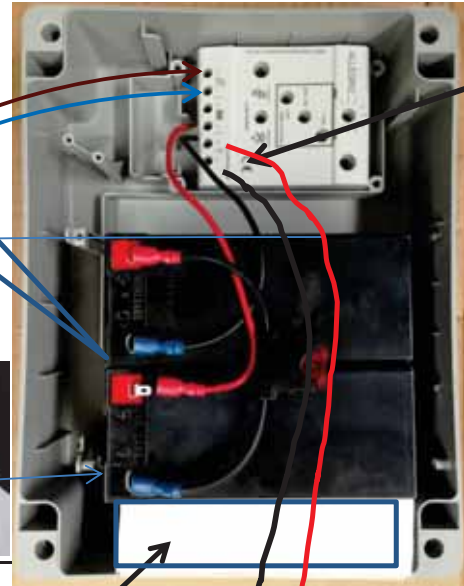
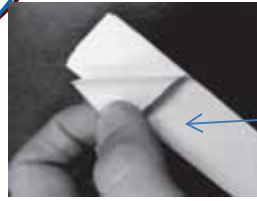
C. Connections in the motor:

14. Disconnect the mins power cord (if present)
15. With this set you will find the adaptor - SOL ADA 24>12 (see fig. 9). This adaptor is to be connect in the MOTOR
16. Take the ADAPTOR – SOL ADA 24 – 12 ; Connect the 3 pin terminal, to the white socket on the control unit, **important:** check the direction of this plug see fig.17 below
17. Connect a motor's power cable to terminal XX of the ADAPTOR
18. For systems with safety beam connection – connect the safety relay in the motor

(3) Install the panel in a clear place with no obstacles to the sun light during the day; face the panel to the north



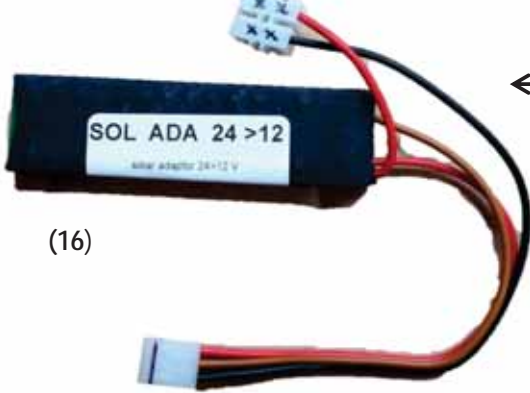
(6) Take the batteries out of the box



(11)

(12)

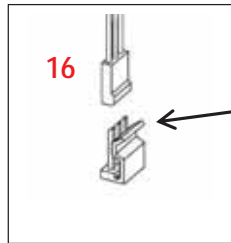
(17) Terminal XX



(16)

(10)

(17)



16



ALLEGRO SOLAR CHARGER CONTROLLER

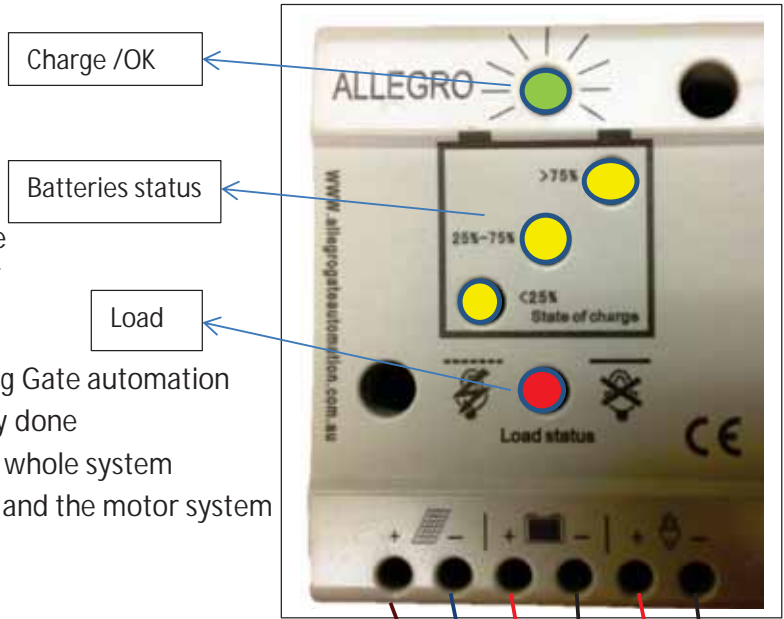
The unit based on micro controller to give the highest energy and keep the system healthy and protected,

The unit is controlling the following:

1. Controlling the energy from the sun
2. Protecting the solar panel
3. Protracting and controlling the battery life time
4. Protection of your electronic system and motor

Functions and features

1. Specially designed and configure for Allegro King Gate automation
2. Plug and play – nothing to do – all automatically done
3. Cut Off Over charge protection – to protect the whole system
4. Cut off under voltage – to protect the batteries and the motor system
5. Very little self, power-consumption
6. LED indicators to tell you what's going on



After powering up - wait one (1) minute for the system to automatically set up

| LED | What is | LED ON | LED OFF | WHAT To DO |
|------------------------------|-------------------------|--|---|---|
| GREEN | CHARGE /WORK SITUATION | GOOD: PANEL PROVIDE ENERGY/ POWER PROVIDED TO LEAD | 1)NO ENERGY FROM PANEL, 2) NO POWER TO LEAD 3) BATTERIES NOT GOOD | 1) CHECK PANEL AND WIRING FORM PANEL, 2) Check batteries voltage to be more than 23V |
| THREE YELLOW LED'S | BATTERY ENERGY CAPACITY | ALL 3 LED'S ON - FULLY CHARGED TWO OR ONE ONLY ON- BATTERIES ARE NOT IN FULL CAPACITY | NOT ALL LED'S ON - NO FULL CAPACITY ALL OFF – BATTERIES FLAT | WAIT FOR CHARGING WHILE SUNLIGHT N , IF NOT HELP , REPLACE BATTERIES |
| RED LED - LOAD STATUS | LOAD INDICATION | LOW OR NO BATTERIES CONNECTION | BATTERIES ARE OK | WAIT 1 MINUTES FOR AUTOMATIC RESETING AFTER CONNECTION OF BATTERIES |
| RED LED - LOAD STATUS | LOAD INDICATION | FLESHING | FLESHING | CHECK WIRING TO MOTOR / CONTROL UNIT |

