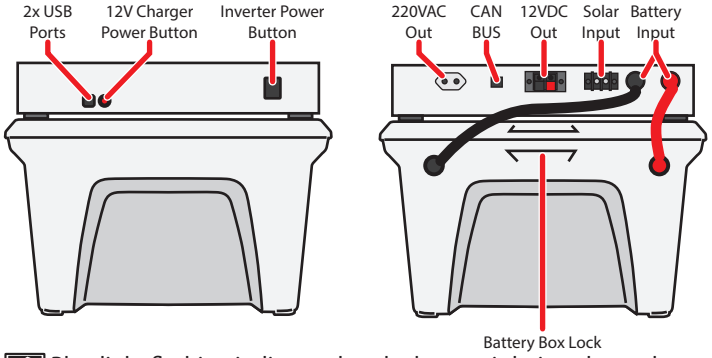
System Operation:

The following diagrams illustrate all cable connection points, switches and mounting points.



Blue light flashing indicates that the battery is being charged.

Green light indicates that the battery is fully charged.

Yellow light indicates that the battery is three quarters charged.

Amber light indicates that the battery is at half charge.

Red light indicates that the battery is almost flat/ empty.

• To turn the 12V output and solar charger **ON/OFF** press the red button labeled 12VDC/ Charger Power once.

• To turn the 220VAC inverter **ON/OFF** toggle the switch labeled 220VAC Inverter On/ Off.

• **DUAL MODE LED LAMPS** Switch on the light once via the corresponding switch connected to the distribution module for **FULL BRIGHTNESS**, flick the switch off and on again to enter **DIM** mode. Flick the switch off and on again to return to **FULL BRIGHTNESS.**

You can plug an appliance directly into the 220VAC output or use an extension plug. **The inverter is only rated for a total of 800W, do not exceed the load capacity. Using appliances that exceed 800W will damage the inverter and battery and will void the warranty.**

Warranty:

12 Month Warranty: This Limited Warranty applies to physical goods, and only for physical goods in the Insele product range.

This Limited Warranty cover any defects in material or workmanship under normal use during the Warranty Period.

During the Warranty Period, Microtronix Manufacturing will repair, at no charge, products or part of a product that prove defective because of improper material or workmanship, under normal use and maintenance.

This Limited Warranty does not cover any problem where: physical goods are not kept in the recommended conditions; malfunctions or damage caused does not result from defects in material or workmanship; malfunctions or damage is caused by unapproved tampering or modifications; the Warranty Void seal is broken.

Warnings:

Do not allow any liquids to spill on the battery charger.

Note that this unit contains no user serviceable parts and disassembly will void your warranty.

Do not connect any other power source to the input except for the provided solar panels (input DC ONLY!).

Keep the battery control unit away from direct heat e.g. stove, candles or open flames.

Do not use battery pack outside where it is exposed to direct sunlight, wind, or rain.

The light source of this luminaire is not replaceable, when the light source reaches its end of life the whole luminaire shall be replaced.

Troubleshooting and Maintenance:

Should you be experiencing any problems please follow these steps:

Check all connections to ensure that they are secure and free from debris.

If none of the indicating lights are lit, the system may have gone into battery protection mode and has shut down. Please wait for solar power to be available to recharge the system and restore full functionality.

If all instructions are done as per this manual and the unit is still not functioning, please contact your installer.

The system is low maintenance; however, the following should be done to ensure the systems life:

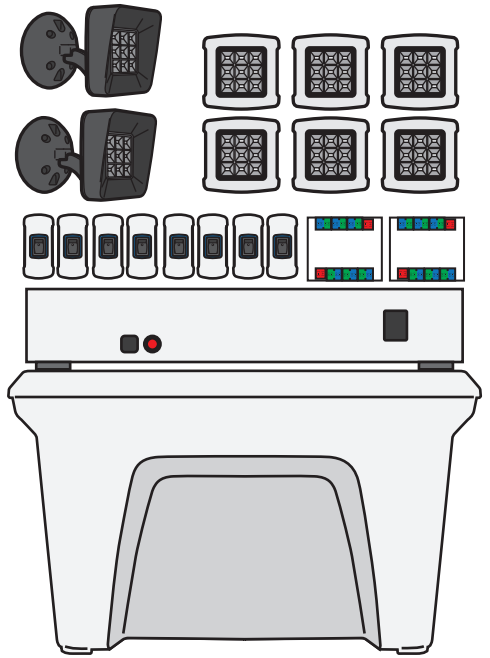
Clean the Solar Panel monthly to prevent dirt build up.

Remove any structure or trees casting shade onto the Solar Panel.

The batteries expected life span is 3 years, with proper care is can last up to 7 years. Should the battery stop functioning correctly please contact the unit supplier to find out where to buy a replacement battery at www.insele-solar.co.za. Be aware that abuse of the system will shorten the battery life span.

Insele Solar Charger

12VDC 8x Light, 2x USB, Intelligent Solar and Battery Management System and 1KVA Inverter



AC/DC Homegrow

Installation Instructions and Operations Manual

Made in South Africa

Thank you for your purchase of the Insele Solar Charger System. Our solar products are manufactured and assembled in Johannesburg, South Africa providing a uniquely African product that can withstand the African environment.

This high-quality power system will give you many hours of enjoyment and light. Please read the manual carefully to understand your system and get the maximum benefits from your system.

Contents of Kit:

Our kit consists of the following:
1x AC/DC Homegrow Solar Charger and 1KVA Inverter
1x Battery Box with 12V 100Ah Lithium Battery
6x 3W Insele surface mount internal lights
2x 3W Insele Flood Light for outdoor use
8x Insele Light Switches
1x 12VDC Light Distribution Module
2x 150W Solar Panels
1x Solar Installation Kit, includes brackets, nut bolts and washers
1x Unit Installation Kit, includes cables, screws and various cable securing items
1x Installation Instructions and Operations Manual
2x 150W Solar Panels

Solar Panel Installation:

The Solar Panels should be placed facing the unobstructed midday sun, where it appears in the winter months (when the sun is the weakest). This is the North facing side of a structure. For optimal charging the sun light must not be obscured by any trees or other structures.

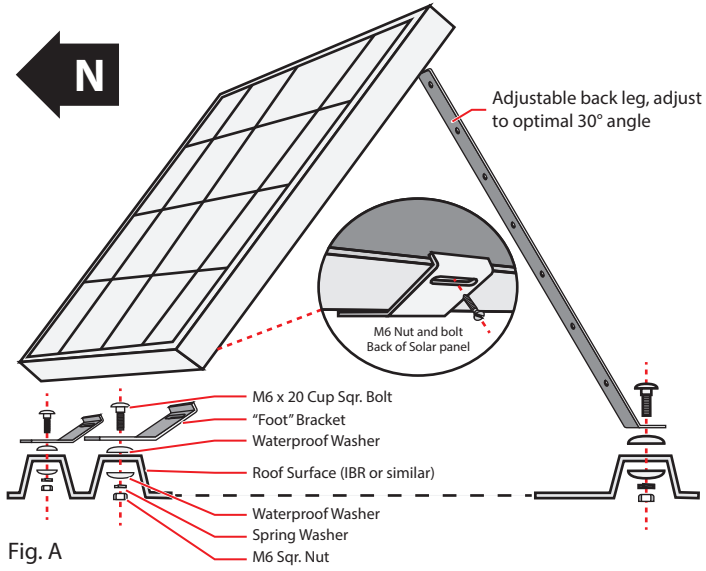


Fig. A

The Solar Panels can be mounted to any steady structure and must be firmly secured. The Solar Panels are weather resistant and can be left outdoors permanently if required.

Locate an area on the roof structure where the solar cable can be easily run to the intended position of the Insele Solar Charger. Mount the back leg of the panel to the roofing structure first, using the supplied nuts, bolts, and washers as per the Fig A.

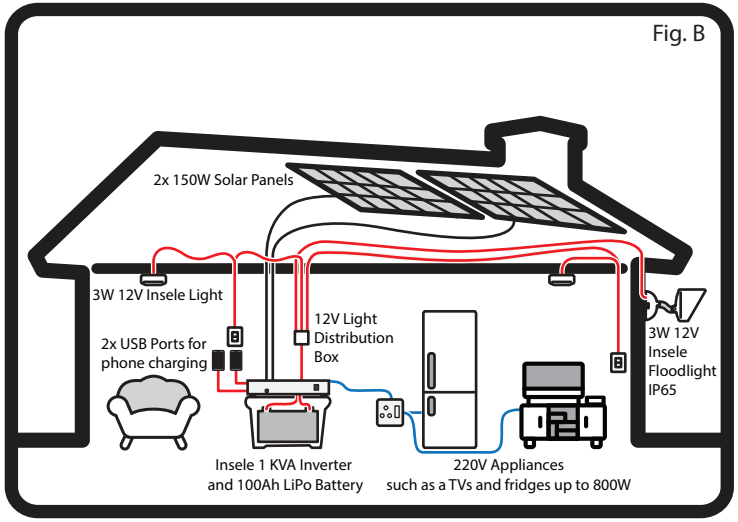
Prepare the solar panel by mounting the foot brackets to the bottom edge of the panel using provided nut and bolt to the existing holes in the panel frame, as shown in Fig A.

Place the panel onto the roof surface with top edge against the already mounted back leg. Adjust angle as needed by bending brackets and secure back leg to existing mounting hole on the solar panel frame. Then secure the front feet to the roof surface as shown.

Unit and 12VDC Light Installation:

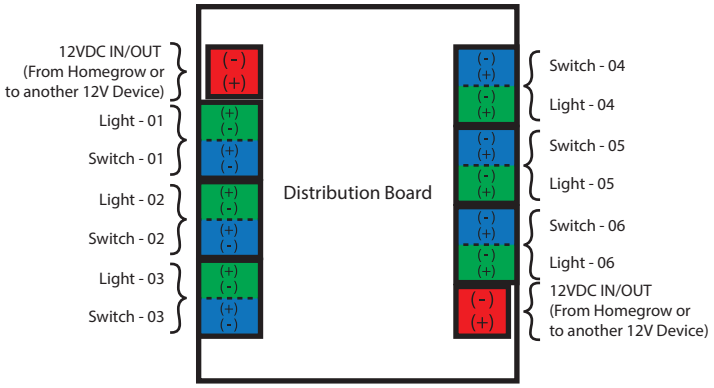
The AC/DC Homegrow should be placed in an easily accessible area where the cables from both the Solar Panel and lights can be reached and where Inverter output is needed. The area should be cool, not in direct sunlight or be exposed to water (rain, steam, damp etc.)

The unit is free standing and can sit on the floor or a stable surface.



8 Lights are provided with the system in total, 6 of the surface mount internal lights and 2 flood light outdoor lights. Cable is provide in rolls so that lights can be join and installed with switches via the 2x 12VDC Light Distribution Modules.

The 12VDC Light Distribution Module is a central wiring point for the 12VDC Lights. Use the 8m of 2.5mm ripcord supplied to run from the 12DC output on the unit to the 12VDC IN/OUT on the Distribution Module. You can install the lights and switches with the 0.5mm ripcord supplied by wiring them to the module and mounting them where needed.



To bypass unused outputs, connect the positive and negative outputs to each other on both the light and switch output.

To mount the surface mount lights the white cover must first be removed to expose mounting holes. The flood light is mounted with 4 screws points - see Fig C & Fig D.

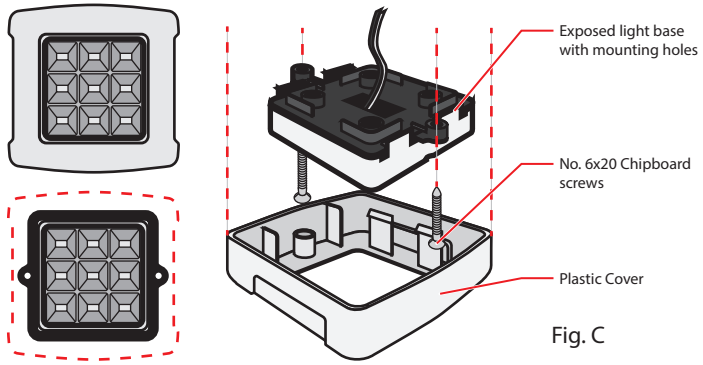


Fig. C

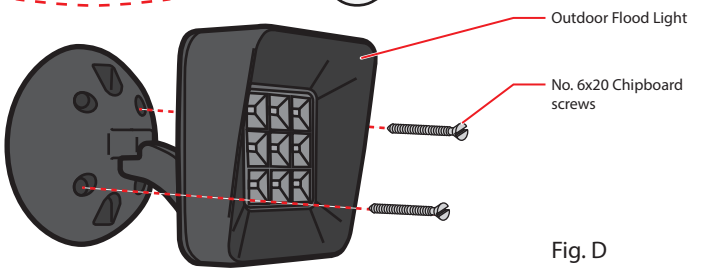


Fig. D

Other devices such as cellphones and tablets can be plugged directly into the unit for charging.
Be careful not to break or bundle the cables as this can lead to electricity loss and shorts causing a system failure.