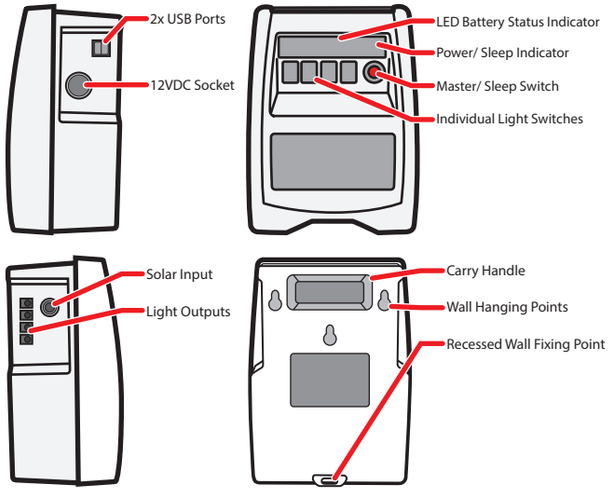
System Operation:

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.

Note: It is normal for the system to fluctuate between different charge levels indication, due to fluctuations in the output power from the solar panel.

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 220V AC appliances to the charger (e.g. kettles, stove, iron, fridge)

Do not connect any other power source to the input except for the solar panel or compatible AC/DC (18-20V 2A) adapter (input DC ONLY!).

12VDC System ONLY, no other voltages allowed.

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:

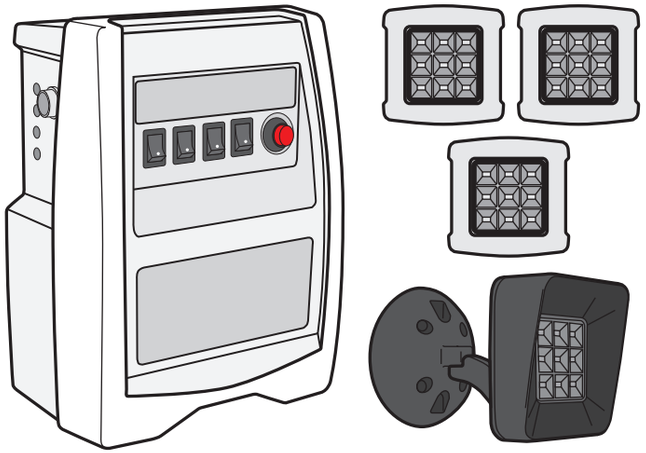
Clean the Solar Panel monthly to prevent dirt build up.

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

4 Light, 2 USB, Intelligent Solar and Battery Management System



Insele i150

Solar Battery with Charger and 12V Lighting

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 i150 Solar Charger Unit (battery built in)

1x 40W Solar Panel

3x 3W Insele surface mount internal lights

1x 3W Insele Flood Light for outdoor use

1x Solar Installation Kit, includes brackets, nut bolts and washers

1x Unit Installation Kit, includes mounting bracket, screws and various cable securing items

1x Installation Instructions and Operations Manual

Solar Panel Installation:

The Solar Panel 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.

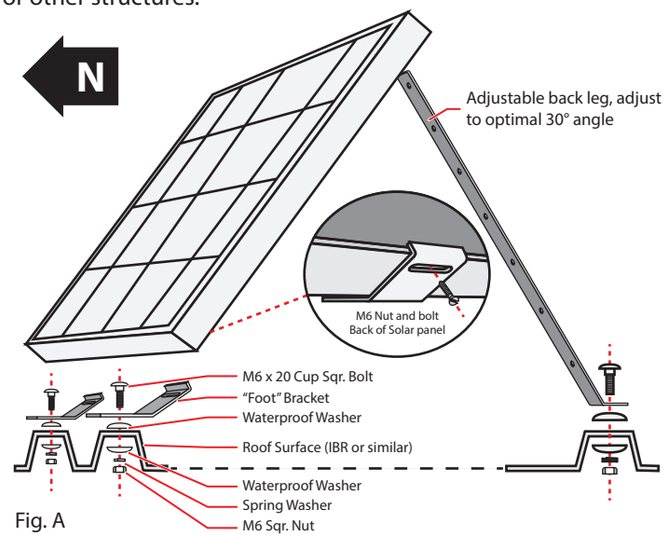


Fig. A

The Solar Panel can be mounted to any steady structure and must be firmly secured. The Solar Panel is 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 mounting 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 Light Installation:

The Insele Solar Charger Unit should be placed in an easily accessible area where the cables from both the Solar Panel and lights can be reached. The area should be cool, not in direct sunlight or be exposed to water (rain, steam, damp etc.)

The unit can either stand on a surface or be mounted to a wall using the bracket and wall plugs and screws provided - see Fig B

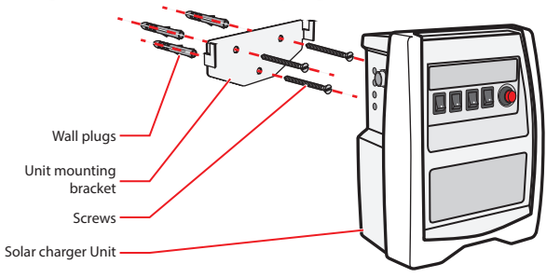
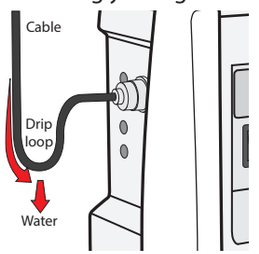


Fig. B

4 Lights are provided with the system in total, 2 of the surface mount internal lights are provided with 5m lengths of cables, 1 internal surface mount light is provided with a 10m cable length, and the 1 flood light is also provided with a 10m length. Please ensure cables will reach your unit before mounting your lights.

Route the main cable from the Solar Panel and lights to the Solar Charger Unit.

Cables must have a drip loop before connecting to the unit to avoid condensation entering the unit along the cable.



Solar Charger Unit

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.

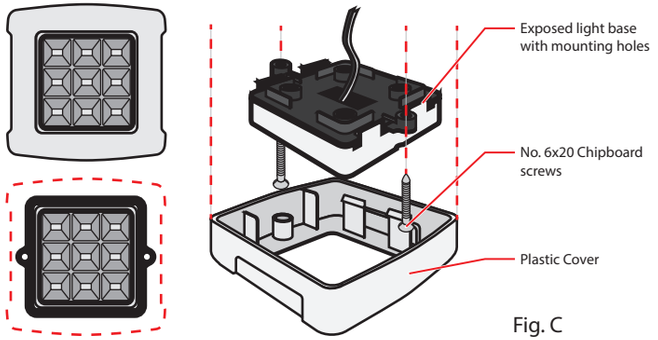


Fig. C

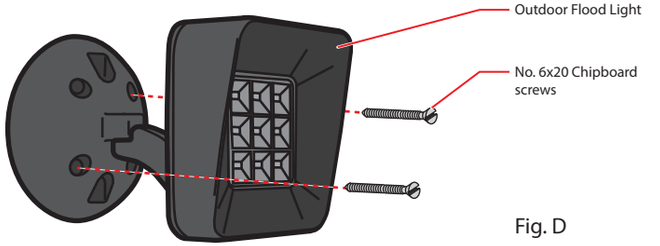


Fig. D

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.

System Operation (Functionality):

- To turn **ON** the unit press the red power button once.
- To turn **OFF** the unit press the red power button once.
- To turn off the unit completely and enable **SLEEP MODE**, hold down the power button for 4 seconds the white LED with start flashing, after 2 minutes the unit will turn off completely. To exit **SLEEP MODE**, hold down the power button for 4 seconds.
- **DUAL MODE LED LAMPS** Switch on the light once 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.**

USB ports have a 2A max output (2x 1A or 1x 2A) and are compatible with most major cellphone and tablet brands that charge via a USB cable. Output on the "car" charger socket is 12V 2A 24W.

Each light switch has its own indication light, if the white light is on it means the lamp output for the corresponding switch is live. Lamp switches and outputs are marked 1 to 4.