



# **SOLAR 12 VOLT BATTERY TRICKLE CHARGER**



**User's Manual**

## **Solar 12 Volt Battery Trickle Charger**

Solar Power Panel

5 Watt/ 350 mA

Read this manual BEFORE and DURING the use of this product.

Specifications and Included Items:

Power Rating: Up to 5 Watts

Current: 350mAmps @ 15V

Includes: 12 Volt DC Plug, Alligator Battery Clamps, 9.5ft Wire, Solar Panel, 4 Stainless Steel Mounting Screws

### **Installation**

Securely place the solar panel in the sun. Included mounting screws can be used if necessary for permanent installation.

#### *Installation Through 12 Volt DC Plug:*

Plug the 12VDC Plug into the 12 Volt DC socket in vehicle. Make sure both ends are secure and aligned correctly. For optimal power, ensure the panel (solar cell up) is directly facing the sun.

#### *Installation to Battery by Alligator Clamps:*

Connect the alligator clamps correctly by matching the red clamp which is Positive (+) to the Positive (+) terminal on your battery. Connect the black Clamp which is Negative (-) to the Negative (-) Terminal on your battery.

**WARNING** Follow this carefully to not cause any bodily harm. Wrong connections may cause sparking or explosion.

For optimal power, ensure the panel (solar cell up) is directly facing the sun.

### **NOTE:**

This solar panel has a built in blocking diode to prevent reverse discharge. The use of this panel is not recommended while vehicle is in use. When operating your vehicle it is best to secure the solar panel in the glove box or under the seat.

## **FAQ**

### **What type of batteries does this panel maintain?**

All rechargeable 12V batteries like those used in Cars, Boats, RV's, Motorcycles and PWC's.

### **Can I use this solar panel outdoors?**

Yes, this solar panel is weatherproof. The weatherproofing includes UV protection and protects from weather effects of -35°F to 175°F (-37°C to 79°C).

### **How long does it take to charge a battery?**

This solar panel can generate 5 Watts of power per hour, which is equal to 350mA of current under ideal conditions. For example, under ideal conditions, the panel will generate 5 Watts x 7 hours x 7 days per week for a total of 245 Watts of power.

### **Do I need a Sunforce charge controller?**

No, a solar battery charge controller is only needed for panels of 15 Watts or greater.

### **Can I extend the wire?**

Without loss of power or voltage the 9.5' wire may be extended to a maximum length of 25' with 16 gauge wire. Ensure proper connections.

### **Can I start/drive my vehicle while the unit is connected to the battery?**

No, for safety reasons please make sure the panel is not in use while you are using your vehicle.

### **How do I know if the panel is working?**

To measure the voltage of the panel use a voltmeter. The voltage reading should be between 16 and 25 Volts in full sun.

## **TROUBLESHOOTING**

Problem:

My panel is not functioning.

- Ensure battery is operational
- Ensure that the distance of the wires is not longer than 25' and all connections are secure.

## **Warranty**

This product is covered by a five year limited warranty. Sunforce Products Inc warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of one year from date of purchase. Power output is warranted for five years from date of purchase.

To obtain warranty service please contact Sunforce Products for further instruction, at 1-888-478-6435 or email [info@sunforceproducts.com](mailto:info@sunforceproducts.com). Proof of purchase including date, and an explanation of complaint is required for warranty service.

**For more information or technical support  
Pour plus d'information ou support technique**

**1-888-478-6435**

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