



# Xpedition - Portable Solar Power Panel

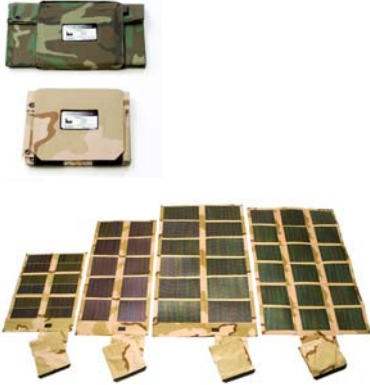
## Instructions

**CAUTION: Please read the following instructions before operating your Xpedition Folding Solar Power Panel**

Xpedition Portable Solar Power Panels convert sunlight directly into 12 V electricity—ideal for recharging consumer electronics and maintaining vehicle batteries.

The Xpedition Portable Solar Power Panel is an unregulated solar panel intended for battery charging. Open circuit voltage (unconnected) can be as high as 55 volts (for 48W 24V P3 panel). Always consult manufacturer's specification before use. Contact your Xpedition dealer for more information.

### PRODUCT DESCRIPTION AND SPECIFICATIONS



Model	Xpedition 15	Xpedition 30
Max Power:	15 W	30 W
Nominal System Voltage:	12 V – 16V	12 V – 16V
Open Circuit Voltage	36	28
Rated Current:	.78 Amps	1.5 Amps
Weight:	1.42 lbs	1.84 lbs
Open Size:	28 1/2 x 21 1/2 in 72.39 x 54.61(cm)	44 1/2 x 21 1/2 in 113.03 x 54.61(cm)
Folded Size:	10 1/2 x 8 1/2 in 26.67 x 21.59(cm)	10 1/2 x 8 1/2 in 26.67 x 21.59 (cm)

Model	Xpedition 48	Xpedition 55
Max Power:	48 W	55 W
Nominal System Voltage:	12 V – 16V/24 V	12 V – 16V
Open Circuit Voltage	28/55	30
Rated Current:	2.5/1.2 Amps	2.8 Amps
Weight:	3.2 lbs	3.5 lbs
Open Size:	52 1/2 x 30 in 133.35 x 76.2(cm)	55 x 32 in 139.7 x 81.28(cm)
Folded Size:	14 1/2 x 8 1/5 in 36.83 x 21.59(cm)	11 x 9 in 27.94 x 22.86(cm)

For additional specifications see the Mobile Energy<sup>2</sup>Solar website at [www.mobile-energy2.com](http://www.mobile-energy2.com)

Product Application Chart	
Application	Charge Time – C
Laptop*	C 4 - 10 hrs.
Car Battery	C 7 – 24 hrs.
Portable Powerpack (150W)	C 4 - 7 hrs.
Portable Powerpack (300W)	C 4 - 7 hrs.
Portable Powerpack (600W)	C 9 - 17 hrs.
Portable Powerpack (1500)	C 20 - 37 hrs.

\*Requires an auxiliary battery for consistent stream of current.

NOTE: Charge times are estimates only, and depend on several factors including device, weather and season.

The overall performance of the Xpedition Solar Power Panel is dependent on a variety of conditions including season, orientation with direct sunlight, cloudy conditions, temperature, and shadowing. As a result, 'typical' performance parameters are dependent on the placement of the Xpedition Solar Power Panel.

### IMPORTANT SYSTEM CARE INSTRUCTIONS:

- Although the Xpedition Solar Power Panel is flexible, ONLY FOLD the natural creases in the all-cloth portions of the panel.
- DO NOT FOLD with the solar cells facing outward.
- DO NOT FOLD or crease the solar panel on sharp edges or objects.
- DO NOT CRUMPLE OR IMPROPERLY BEND PANELS.
- DO NOT excessively flex or bend the panel as this could cause the plastic layers to crease or bubble.
- DO NOT machine wash, machine dry, or dry clean the panel.
- ALWAYS charge vehicle lead-acid batteries in a well-ventilated area.
- DO NOT attempt to charge non-rechargeable batteries.
- ALWAYS ensure correct polarity of the connections before attaching. DO NOT connect vehicle power plug cable to vehicle power outlet cable.
- Use extension cord (PN 28007) to attach any of the cable accessories together.
- The Xpedition Solar Power Panel is designed for portable outdoor use. Fold and store when not in use.

### FOLDING SOLAR POWER PANEL APPLICATIONS/HOW TO USE

CAUTION: Ensure that you completely understand this instruction manual before using your Xpedition Folding Solar Power Panel.

#### 1. Vehicle Batteries

Application: Trickle charges and maintains car/RV/marine batteries.

Recommended use: Connect 12 V vehicle power plug to the 8' extension accessory cable and then to the Folding Solar Panel. Insert the 12 V vehicle power plug directly into your car's cigarette lighter outlet. Place the solar charger so that it receives direct sunlight.

OR

Applied with care, battery clamps accessory cable may also be used and attached directly to the battery from the solar panel and a Charge Controller (see Fig. 2). It is the user's responsibility to consult battery manufacturer for recommended charging method.

#### 2. Laptop Computers

Application: Additional run time for Laptop Computers

Recommended use: Plug laptop computer wall plug charger into the 120 AC Socket on the Xantrex unit and into your laptop. Connect one end of 8' extension cable to solar panel and other end to 4" barrel plug cable. Plug 4" barrel plug cable into the jack on the end of the Xantrex unit.

#### 3. Consumer Electronics

##### Xantrex Portable Powerpacks

Application: Charges Xantrex Portable Powerpacks 150 - 600 product line.

How to use: Connect the 4" barrel plug to the Folding Solar Power Panel. Insert the 4" barrel plug directly into the jack on the end of the Xantrex Powerpack. Place the panel in direct sunlight. AC or DC power outlets on Xantrex Powerpack can be used to plug in laptop computers or other electronic devices while solar panel is charging.

##### Handheld Devices, Rechargeable Batteries, 12 V Accessories

Application: Care MUST be taken by the user connecting a solar panel to small electronic devices. The user must consult with the device manufacturer prior to connecting electronic devices to a solar module directly or through a car charger adapter to ensure that the device can be connected to a solar module with an open circuit voltage as high as 55 volts.

### RECOMMENDED ACCESSORIES (see Fig. 1 & 2):

5 Piece Kit Includes (Sold Separately):

- 12 V vehicle power plug
- 12 V vehicle power receptacle
- Battery clamps
- 4 in. barrel connector
- 8 ft. extension cable

Sold Separately:

- 7Amp Charge Controller (Fig. 2)
- 8 ft. extension cable

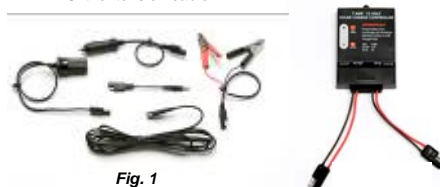


Fig. 1

### TROUBLESHOOTING

- Inspect the connections between Xpedition Solar Power Panel and the device you are attempting to charge.
- Inspect all plugs, outlets, clamps, connectors and cables to ensure they are not damaged or cut.
- If the connections are all secure, use a volt meter or 12 V test light to check voltage between the positive and negative electrodes. This check should be done using the 12 V vehicle power plug.
- For vehicle and AA/AAA battery charging, check to make sure that the battery is in good condition. Over time, battery performance decreases. If the battery performance is weakened, the battery may need to be replaced.
- Note: Some portable electronics such as computers require more power (current) than the solar power panel produces. If problems persist you may require a larger solar power panel.

### FAQs

**How do I know that my Xpedition Solar Power Panel is working?**

Check the charge indicator light or bar on the handheld electronics or accessory. For battery charging, the product can be tested with a volt meter.

**Will this product drain my battery at night?**

No. The Xpedition Solar Power Panel has a built-in blocking diode that prevents the solar array from discharging your battery at night.

**What happens if the solar power panel gets wet?**

The Xpedition Solar Power Panel is made from water-resistant material. Wipe the product with a clean, dry cloth and allow the product to dry before folding for storage. DO NOT keep the product in or under water.

**Can I leave the solar power panel outside for continual use?**

Yes the Xpedition Folding Solar Power Panels are designed for portable outdoor use. To prolong the life of the Folding Solar Power Panels we recommend once your application is finished charging (see charge times from chart), wipe the product with a clean, dry cloth, allow the product to dry, fold and store.

**Should the solar power panel be disconnected from the car battery when starting the engine?**

No, the solar power panel can remain connected and will not affect operation of the vehicle or any of the vehicle's electronic components

### 2-YEAR LIMITED WARRANTY

The Xpedition product carries a **two (2) year** limited warranty against defects in workmanship and materials affecting performance. Mobile Energy<sup>2</sup>Solar agrees to replace the defective product free of charge, within the stated warranty period, when returned by the original purchaser with **proof of purchase**. This product is not guaranteed against wear or breakage due to misuse and/or abuse. In addition, any units that show signs of creasing or folding on the active photovoltaic areas are not covered under this warranty.

**NOTE:** Since the conditions or methods of operation, use and maintenance of PV modules are beyond its control, the Manufacturer does not assume responsibility and expressly disclaims liability for loss, damage or expense arising out of or in any way connected with such operation, use or maintenance.

**WARNING – Folding Solar Power Panel generates electricity when exposed to light, even when not connected in a circuit. Shocks and burns can result from contact with module output wiring, misuse or improper connections. Contact battery manufacturer for questions on battery specifications before charging.**