

**IMPORTANT:  
PLEASE READ BEFORE FIRST USE**



# **User Manual**

Model: PC1005

***Thank you for selecting  
Freeloader Pico. It will give  
you many years useful service.***

*Freeloader Pico is an advanced portable power unit designed to charge most electrical devices up to 5V.*

*Freeloader Pico's internal battery can be powered by a connection to a PC or by its solar panel.*

*Freeloader Pico can deliver power to almost any electrical device using the adaptor tips in this pack (tips for additional devices can be purchased from your local retailer or [www.solartechnology.co.uk](http://www.solartechnology.co.uk)).*

*Pico can also deliver power to any device if it has been supplied with a USB sync/charge cable.*

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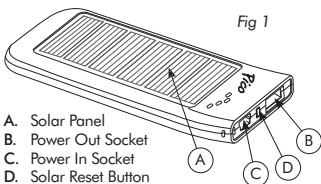
*We recommend that you charge Freeloader Pico via USB for its first charge. This will enable the internal lithium ion battery to be properly conditioned.*

*To achieve best performance we also recommend that you charge Freeloader Pico from USB once every 3 months.*

## Electrical Characteristics / Performance

1. Solar Panel (mono/multi crystalline):  
5V 75mA
2. Rechargeable Lithium -ion  
Battery: 3.7V 800mAh
3. USB input charging: 5V 300mA
4. DC Output: 3V to 5V
5. Time required to deliver power from  
Freeloader Pico when charging a  
device: 30 to 45 minutes
6. Time required to charge Freeloader  
Pico's internal battery using the master  
cable connected to a PC or lap top:  
3 to 4 hours
7. Time required to charge Freeloader  
Pico's internal battery in bright sunny  
conditions using the solar panels:  
10 hours

**Note** - light quality and time of year play a key role in determining the speed of charge. Cloudy days, the winter and Freeloader Pico being positioned behind a glass window will all dramatically increase the time needed to charge its battery.



## **Components Included:**

- 1 x Freeloader Pico Solar Charger
- 1 x Master Cable
- 1 x Adaptor for Nokia mobile phones
- 1 x Adaptor for Samsung mobile phones
- 1 x Adaptor for all Sony Ericsson phones
- 1 x Mini USB adaptor for Motorola phones, Blackberry and most smartphones, Garmin/Sat Map and most GPS, Bluetooth headsets, PDA's

**Note** - *The Master Cable is used for both charging Freeloader Pico's internal battery from a connection to a computer's USB (using the mini USB adaptor) and also for delivering power from Freeloader Pico to charge a device.*

## **Operation Instructions**

### **1. To charge Freeloader Pico's internal battery from a PC**

Insert the Mini USB Tip into the end of the Master Cable, then insert the USB plug on the other end of the cable into a PC, laptop or other suitable device (which is switched ON). Insert the mini USB tip into FreeLoader Pico Power In socket (C, fig 1). LED E (fig 2) will turn red. Freeloader Pico will be fully charged when the LED E goes out.

**Note** - *Please do not leave the USB charge cable plugged in overnight as damage to the battery may occur.*

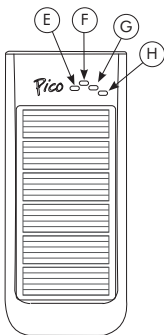
**IMPORTANT** - This method of charging is recommended for the first charge from new and may take up to 8 hours.

## 2. To charge from the solar panel

When Freeloader Pico is directed at daylight, LED H (fig 2) will illuminate. Charging will take place immediately and it will take as little as 10 hours in bright sunshine, with Pico positioned outdoors, to fully charge its battery.

**Note** - Be careful not to scratch the surface of the solar panels and do not clean them with any strong detergent.

Fig 2



### 3. Checking how much power is in Freeloader Pico's internal battery

To determine how much power is available in Freeloader Pico simply connect a device to Pico (using the Master Cable and tip or a device's sync cable). Upon connection, LED's E, F, G and H will illuminate (fig 2)

LED Illuminated	Power Available
No LED's	0% to < 35%
LED E	35% to < 60%
LED E and G	60% to < 85%
LED E, F and G	85% to < 100%
LED E, F, G and H	100%

### 4. To charge a device from Freeloader Pico

Insert the USB end of the Master Cable into the Power In socket (B, fig 1). Select the correct adaptor tip and insert into it the other end of the Master Cable.

**Note** – if your device is not supported by one of the adaptor tip's in this pack you can connect the USB sync/charge cable that was originally supplied with your device into Freeloader Pico's Power In socket (B, fig 1). Finally insert the tip (from the Master Cable or a sync cable) into the device to be charged.

### 5. Solar Reset Button

If Freeloader Pico's battery has been fully drained, you can speed up the charging process (if charging by solar) by pressing the Solar Reset Button (D, fig 1) for 3 seconds.

**Note** - this Button only works if the solar panel is facing daylight when button is pressed.

## **Warning**

1. Keep Freeloader Pico from fire, water and any form of moisture to ensure damage and injury do not result.
2. Any severe shock or impact may result in damage and will invalidate the warranty.
3. It is forbidden to dismantle Freeloader Pico except by Solar Technology personnel or agents appointed by Solar Technology. Any sign of tampering will result in the warranty being invalidated.

## **Warranty**

Freeloader Pico is supplied with a 12 month warranty, excluding the battery. Should a failure occur during this time Solar Technology International Ltd will repair or replace any faulty part/s, at its discretion, upon a copy of the proof of purchase being provided. Solar Technology International Ltd does not accept liability for any 3rd party damage how so ever caused or any costs associated with the return of faulty products.

To make a warranty claim please telephone Solar Technology International Ltd on +44 (0) 1684 774000 or [support@solartechnology.co.uk](mailto:support@solartechnology.co.uk)

These warranty conditions in no way affect your statutory rights.

A full set of Solar Technology International Ltd Terms and Conditions are available on request.

## Optional Accessories

Solar Technology International Ltd provides a comprehensive range of accessories for Freeloder Pico, which are constantly being updated as new devices come onto the market.

Our accessory range covers the following:

- All weather Supercharger (a superfast way to charge Pico)
- AA/AAA Battery Charger
- In Car Charge Adaptor
- Mains Charge Adaptor
- Gel cases in various colours
- Over 20 additional adaptor tips.

Please contact your retailer for the full range or go to [www.solartechnology.co.uk](http://www.solartechnology.co.uk)

## Replacing Freeloder Pico's Battery

Freeloder Pico's battery has a life expectancy of 2 years. Once it has been exhausted please return Freeloder Pico to Solar Technology International Ltd who will replace the battery in its workshop – please see [www.solartechnology.co.uk](http://www.solartechnology.co.uk) for instructions and costs for this process.

**PLEASE NOTE – by removing Freeloder Pico's battery you will invalidate your warranty.**



## **Disposing of Freelader Pico**

If for any reason you need to dispose of Freelader Pico you will need to remove the battery first.

To remove the battery, make sure the battery has no power left in it. Once this is done, open the plastic casing using a sharp edged instrument (care must be taken during this operation and it is not recommended that minors undertake this operation). Once the two halves have been separated, the battery will be clearly visible. Cut the wires using side cutters or similar and remove the battery. Please then dispose of the remaining parts in accordance with your local authority's instructions.

The battery must then be disposed of separately. Please contact your local authority for advice on how to dispose of a lithium-ion battery correctly or return the battery to Solar Technology International Ltd in a plastic bag and padded envelope who will dispose of it in accordance with the correct regulations.

## Frequently Asked Questions

- 1. My Freeloader Pico has been outside, in the sun but when I connected it to my device, it only charged for a short time and did not deliver much power?*

  - Please ensure the first charge is given by the USB cable.
  - Please ensure Freeloader Pico is given exposure to sunny conditions for between 5 to 10 hours.
  - Ensure that Freeloader Pico is outside, facing south, in an un-shaded position and ideally tilted at a 45 degree angle.
  - If Freeloader Pico is connected to a device that has a near full battery (if for example you were testing Freeloader Pico from new), Freeloader Pico would, potentially, not deliver power because the power in the device could be greater than that in Pico. In such circumstances Freeloader Pico will not be able to deliver power. Wait until the device to be charged is 25% to 50% full.
  - Ensure Pico is facing daylight and press Solar Reset Button (D, fig 1) for 3 seconds.
- 2. How do I know when Freeloader Pico is fully charged and can I use the power from Freeloader Pico even if it's not fully charged?*

  - You can use power in Freeloader Pico whether Pico is fully charged or part charged. To assess the power available you will need to connect it to a device and observe LED's E, F, G, H (fig 2)

**3. *What performance can I expect from Freeloader Pico?***

- After 1 day, outside in full sun (8am to 6pm) Freeloader Pico will be pretty much fully charged. When connected to your device it will deliver power for 20 to 45 minutes depending on the device.
- If Freeloader Pico is positioned behind a window in sunny conditions, the time needed to fully charge Freeloader Pico's battery will be up to 3 days. The reason for this increase in time is that most glass incorporates UV filters, which naturally reduce the amount of irradiation needed to enable the solar panels to operate effectively.
- In cloudy conditions, Freeloader Pico may take approximately 2 times longer to charge than the above mentioned times, but this is depending on the time of year, density of cloud etc.

**4. *Can I charge my Freeloader Pico from the sun whilst at the same time powering a device?***

- No. If Freeloader Pico is empty you will not be able to simultaneously charge and deliver power. The reason is that Freeloader Pico delivers power to a device approximately 10 times quicker than its solar cell can charge up its internal battery.

5. *Will charging Freeloader Pico from its solar cell behind glass cause me any problems?*

- Not really a problem but it will increase the time needed to charge, sometimes up to three times longer than if outside.

6. *I have Freeloader Pico positioned on a shady windowsill. Will Freeloader Pico still charge?*

- Yes Freeloader Pico will still be charged by its solar cell but it will take a lot longer compared to being outside in full sun – up to 4-5 days longer in fact.

7. *Can I leave Freeloader Pico out in the rain?*

- No, we do not recommend getting Freeloader Pico wet. However, should this happen accidentally, please dry in an airy position away from children and foodstuffs. The solar cell should be fine; however, the battery and circuit board may be damaged. A trial will soon tell, however, and we would recommend this trial be done outside by the solar cells only and **NOT** connected to a PC. Should the test prove that Freeloader Pico has been damaged, Solar Technology International Ltd may be able to repair the unit. Please contact [support@solartechnology.co.uk](mailto:support@solartechnology.co.uk) for more information.

**8. *How do I connect and charge a device not supported by the adaptor tips included in this pack?***

- Assuming Freeloader Pico is capable of charging the device:
  - 1) order the required tip at [www@solartechnology.co.uk](mailto:www@solartechnology.co.uk) or
  - 2) if the device was originally supplied with a USB charge cable (most devices are) connect this to your device and to Freeloader Pico via the Power Out socket (B, fig 1).

**9. *I have a device that can be charged via my computer's USB port – can Freeloader Pico charge it?***

- Yes the Freeloader Pico should be able to charge it.

**10. *I cannot see the LEDs on the unit when it's in bright sunlight – is it still charging?***

- Yes it is. The LEDs are of lower power consumption – you can see that they are on if you cup your hand over them.

**11. *Can I charge a laptop computer or notebook?***

- No, Freeloader Pico is not powerful enough to charge such devices. If a device has a voltage demand under 5V then Freeloader Pico should be able to charge it.

## **Solar Technology International Ltd**

We are manufacturers of some of the world's most advanced solar energy products, including solar panels, solar lighting kits, solar power stations, solar garden lights and solar toys. We additionally provide comprehensive solar training courses. To find out more, please visit [www.solartechnology.co.uk](http://www.solartechnology.co.uk)

If you have any questions about this product or regarding these instructions please contact the Solar Technology International Technical HelpLine on +44 (0) 1684 774000 or email us at [support@solartechnology.co.uk](mailto:support@solartechnology.co.uk) or alternatively please write to: **Support, Solar Technology International Ltd, Unit 4, Station Drive, Bredon, Nr. Tewkesbury, Glos. GL20 7HH, UK.**



**RoHS** ✓

### **Solar Technology International Ltd.**

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## **We Want Your Pictures!**

We are seeking images of you and your Freeloader Pico in action in the weirdest and most wonderful places around the world. For every picture we publish on our web site. You will receive a free Pico Gel carry case in a colour of your choice.

Please email your images to [sales@solartechnology.co.uk](mailto:sales@solartechnology.co.uk) and don't forget to include your mailing address.

**Note:** We cannot guarantee to publish every image received – the final decision to publish or not will be made by Solar Technology International Ltd. By sending the image/s the sender automatically grants Solar Technology International Ltd approval to use the image for any future use in marketing its Freeloader products.

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