

***Ltl Acorn***<sup>®</sup>

Solar Charger

Ltl-SUN Series



USER'S MANUAL

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# GENERAL INFORMATION

## Introduction

The Ltl Acorn Solar Charger Ltl-SUN series is a charging device designed especially for Ltl Acorn scouting cameras. Ltl-SUN provides a supplementary power source for the Ltl Acorn scouting cameras, as the solar panel charges the built-in Lithium-Polymer batteries during the day. Under normal usage (when the camera is not used most frequently), Ltl-SUN enables a Ltl Acorn camera to last as long as over a year in the wild.

## Features:

- When connected, Ltl Acorn scouting cameras will use the solar charger as the priority power source, resorting to camera's own power source only after the power from the solar charger is fully exhausted.
- Built-in Lithium-Polymer battery in Ltl-SUN is safe, resilient to extreme temperatures, and its capacity is as large as 1500mAh.
- Designed with a sophisticated safeguard circuit: In the case of overload and overdischarge, the power will automatically be cut off, protecting the battery and ensuring its long-term use and reliability.
- Output short circuit protection. (Note: a long time of output short-circuit is not recommended, due to the risk of damaging the device.)
- Output current of the charger as high as 800mA.
- Output voltage set at 7V, fully compatible with Ltl Acorn scouting cameras.
- Can be charged through the USB port of a computer or a 5V-output power adapter.
- Waterproof design suitable for outdoor use.
- Comes with adjustable easy-to-use mount, giving the panel an all-angle access to direct sunlight.
- Comes with corresponding Ltl Acorn scouting camera power cable.

## 1.1 Compatible Devices

- Ltl Acorn Trail Cameras
- Electronic Devices using voltage of 7V and current under 800mA

## 1.2 Illustration



- Figure 1.1 Main Body of Solar Charger



- Figure 1.2 Solar Charger Holder and Pivoting/Swivel Mount



- Figure 1.3 Hold Solar Charger



- Figure 1.4 Solar Charger and Camera in use

# QUICK START

## 2.1 Mounting the Ltl-SUN Solar Charger

First, slip the solar charger into the holder, linking the lower hook of the holder with the gap at the bottom of the device.

Connect the swivel mount with the holder using the built-in screw. Then, adjust the angle of the mount so that the solar panel is directly facing the sun. Generally in the northern hemisphere, this means the panel is facing south, angled 10 to 20 degree up towards the sky. However, please note that the ideal orientation depends on the specific situation of the set-up site.

Wrap the strap around the disk of the swivel mount once, and then fasten it to the tree. Or, simply position the device using any alternate methods that works best for you.

**Note:** *The side that connects with the power cable must face down, so as to prevent water damage in case of rain.*

## 2.2 Connecting Ltl-SUN with a Ltl Acorn

Plug the power cable (the bigger end) into the socket at the right side of Ltl-SUN, and then plug the other end into the output power socket of the Ltl Acorn camera. If Ltl-SUN is charged, the camera will be immediately powered.

### Attention:

**a. It is strongly recommended that eight batteries be installed inside the Ltl Acorn camera (even when connected with the solar charger), otherwise, the camera may stop operating due to power shortage (during intensive use of the camera, the solar charger may not be charged fast enough, and therefore is not ideal to be used alone without the batteries).**

**b. Since Ltl-SUN is designed specifically for Ltl Acorn sounting cameras, it may not be compatible with other electronic devices and may cause them to malfunction.**

**c. The Ltl-SUN is NEVER to be used in *parallel* connection with any other power sources, any damages resulted from this incorrect usage will not be covered by the warranties.**

## 2.3 Pre-Charging the Ltl-SUN Solar Charger

Since the solar charger is only charged to about the half of its capacity when it leaves the factory, it is recommended that it is fully charged before usage.

Ltl-SUN can be charged using a 5V output power adapter or by connecting to a USB port of a computer. The socket is the usual mini-USB portal, at the bottom left of the solar charger.

When using the power adapter provided in the original package, the green light will turn off when the charging process is complete.

**Note:** *Do NOT plug the two ends of a USB cable into the two ports of Ltl-SUN at the same time, or the device will be broken.*



**CAUTION:**

- **The solar panel of Ltl-SUN solar charger is a glass product, please handle with care and keep away from young children.**
- **Any damages of the device caused by attempts to take it apart will not be covered under the warranties.**
- **Please remember to put the silicone-rubber case on Ltl-SUN when used in the wild to prevent water damages.**

## Appendix I: TECHNICAL SPECIFICATION

<b>Model</b>	<b>Parameters</b>
<b>Built-in Lithium Polymer Battery</b>	3.7V, 1500mAH
<b>Solar Pan Max Output Power</b>	0.4W
<b>Output Voltage</b>	7V $\pm$ 5%
<b>Max Output Current</b>	800mA
<b>Output Plug</b>	4.0X1.7 mm
<b>Power adapter</b>	Input AC 110~220V;Output 5V,300mA
<b>Mounting</b>	Strap; Tripod
<b>Waterproof</b>	IP54
<b>Operation Temperature</b>	-22~+158F/-30 ~+70°C
<b>Operation Humidity</b>	5% ~ 95%
<b>Certificate</b>	FCC & CE & ROHS

## Appendix II: PACKAGE CONTENTS

Part Name	LTL-SUN
Solar Charger	1
Supporting bracket	1
omni-directional fixed bracket	1
USB Cable	1
Strap	1
External DC Cable	1
Power adapter	Optional
Use Manual	1
Warranty Card	1

### LIMITED WARRANTY

We take great pride in our products. We always stand behind our promises. We provide a leading warranty term and service. Buying a Ltl Acorn product, you are covered under one year warranty.

We guarantee our products to be free of defects in materials and workmanship under normal use and service for a period after registered date of purchase. This warranty does not cover damages caused by consumers' misuse, abuse, or improper handling or installation, by user installed batteries, or by repairs attempted by someone other than our authorized technicians.

In the event of a defect under this warranty, we will, at our option, repair your camera or replace it with the same or comparable model free of charge, provided the product is returned postage paid. This warranty only extends to the original retail buyer from our authorized dealer. Purchase receipt or other proof of the date of the original purchase is required to receive warranty benefits. The warranty on any replacement product provided under the original warranty shall be for the remaining portion of the warranty period applicable to the original product.

This warranty extends solely to failures due to defects in materials or workmanship under normal use. It does not cover normal wear of the product.

Please contact our tech support department to determine the nature of the problem before you return a Ltl Acorn product under this warranty for repair or exchange.