
# Atik 383L+ user manual

Version 1.1 – December 2010

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# 1 Introduction

Thank you very much for your purchase of an Atik camera.

Atik cameras represent the most affordable way to capture high-quality astronomical images, whilst delivering superior performance and unparalleled ease-of-use. Your Atik camera is the result of extensive research and development, and it has been designed and built with the requirements of the most demanding astrophotographer in mind. A wide range of accessories is also available in order to answer the needs of even the most ambitious astro-imaging applications.

Your Atik camera incorporates state-of-the-art design and materials, and it will be your trusted astrophotography companion for a long time to come. However, modifcations to the camera and/or accessories which are undertaken without the manufacturer's written permission will void the warranty. Repairs, servicing and upgrades are available through your local dealer or at http://www.atik-cameras.com. Full details of the warranty are given at the end of this manual.

This manual will help you get the most out of your Atik camera: please take the time to read it thoroughly, and you will be ready to discover new worlds...

# 2 Pack Contents

The pack contains:


- 1- Atik Cameras 383L+
- 2- USB cable
- 3- Car lighter type power cable
- 4- CD-ROM with Software and manuals
- 5- Quick start guide

# 3 Atik Cameras 383L+

## *3.1 CCD*

The sensor inside your camera is a Kodak KAF-8300.

The optical window used in front of the CCD is quartz with BBAR coatings on both sides ensuring that no reflection will appear in your image.

## *3.2 Analog to Digital Converter (ADC)*

The Analog to Digital Converter (ADC) is a 16bit ADC. This means that your Atik camera will allow you to record subtle levels of gray providing you with enhanced dynamic range when capturing an image.

## *3.3 Shutter*

The 383L+ is fitted with a mechanical shutter but, as is inevitable with shuttered cameras, this imposes some constraints on the minimum advisable exposure length owing to the time it takes for the shutter to open and close. A minimum exposure time of at least 200ms is recommended in order to minimize the effects of vignetting.

## *3.4 Power Consumption*

Your Atik camera was electrically and electronically designed in order to have low power consumption so your autonomy is enhanced one step further. Versatility is a very important feature since the (centre-positive) DC input used by Atik cameras can be plugged into almost any 12V/2.5A supply.

**WARNING:** If you have purchased the optional mains power adaptor, please note that it is for indoor or observatory use only. There is a risk of electric shock if the adaptor is used in damp environments or outside. If in doubt do not use the adaptor and consult a trained electrician.

# 4 USB Port

The Atik 383L+ uses a USB 2.0 high-speed interface, allowing for a full-frame download in approximately 10 seconds. A higher speed “preview” mode is also available, providing roughly twice the speed.

# 5 Changing desiccant

The desiccant in your camera should last a long time, but in the event it needs replacement, you’ll need to open the desiccant port, using the provided plastic adapter and a screwdriver. Just take the old desiccant out, and put the new in, closing the port. After this procedure, you should wait at least 24h before connecting the camera again.

# 6 Thermal Stabilization

Atik cameras are thermally stabilized in a way that your CCD will output the best result that it can deliver. This information often appears with the indication ΔT = -x where x is the cooling capacity. This means that the CCD’s temperature will drop approximately xº C below outside temperature. This is a thermoelectric process and therefore in order to obtain the best results you should wait 2 to 5 minutes until thermal stabilization is achieved (depending on model). This fact also depends on the outside temperature so, higher environment temperatures will demand more time for the CCD to stabilize.

# 7 Additional Technical Information

| | |
|---|---|
| **Sensor Type** | Kodak KAF-8300 |
| **Horizontal Resolution** | 3362 pixels |
| **Vertical Resolution** | 2504 pixels |
| **Pixel Size** | 5.40µm x 5.40µm |
| **ADC** | 16 bit |
| **Readout Noise (Typ.)** | $7e^-$ |
| **Interface** | USB 2.0 |
| **Power** | 12v DC 2.5A |
| **Maximum Exposure Length** | Unlimited |
| **Minimum Exposure Length** | >200ms |
| **Cooling** | Setpoint thermoelectric, ΔT = -38°C max |
| **Weight** | Approx. 700g |

Distance from top of T-thread to focal plane: **Approx 17mm**
Optical window thickness: **2mm**

# 8 Software Development Kit

Due to the fact that our ever changing World is always finding new applications for Atik cameras, a software development kit is available at http://www.atik-cameras.com. This SDK is free of charge for now.

# 9 Declaration of Conformity

**EU Declaration of Conformity.** CE

This product carries the CE Mark in accordance with the related European Directive. CE Marking is the responsibility of:

Perseu, SA
R. Dr. Agostinho Neto, 1D
2690-576 Sta Iria da Azoia
Portugal

**Critical Applications.**

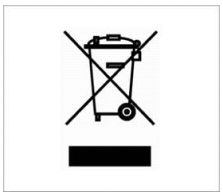
This product is not designed for any “critical applications”. “Critical applications” means life support systems, medical applications , connections to medical devices, commercial transportations, nuclear facilities or systems or any other applications where product failure could lead to injury to persons or loss of life or catastrophic property damage.

This product is not a toy.

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

### 9.1.1 Disposal of the camera

When no longer required do not dispose of this electronic device with general household waste. To minimise pollution and protect the environment the camera should be recycled. Local recycling drop off points available under the Waste from Electrical and Electronic Equipment (WEEE) regulations which will accept the camera. For further information contact Perseu SA at the above address, or the shop from which the camera was bought.



# 10 Warranty

The equipment is guaranteed against defective design, manufacture or materials for a period of one year from the date of purchase.

This means that Atik Cameras will repair or replace the equipment as its sole option, at no charge to the purchaser for parts or for labour, if the fault is reported within the guarantee period, provided however, that Atik Cameras is able to duplicate the defect or problem at its facilities. This warranty does not apply to damage that occurred as a result of abuse or misuse, abnormal service or handling, damage which may have been caused either directly or indirectly by another product, or if the equipment has been altered or modified in any way, or if the damage was caused by repairs or service provided or attempted by anyone other than Atik Cameras. This warranty does not include or provide for incidental or consequential damages.

To exercise your rights under this warranty, you must return the equipment to the dealer from whom it was purchased together with proof of purchase and a clear description of the fault. If it's not possible to return the equipment to your dealer, you should contact Atik Cameras. Equipment returned to Atik Cameras must be sent in appropriate packaging and at your expense (insurance is recommended), together with proof of purchase, a return address and a clear description of the fault.

This does not affect your statutory rights.