



Atik 383L+ User Manual

Version 1.3 – July 2015

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1. Introduction

Congratulations on your purchase of an Atik 383L+ Camera. This manual will help you get the most out of your Atik camera so please take the time to read it thoroughly and you'll soon be ready to discover new worlds.

Atik Cameras provide exceptional value for money, superior performance and unparalleled ease of use. They are the result of extensive research and development, each one having been designed and built with the requirements of the most demanding astro-imager in mind. Your Atik camera incorporates state-of-the-art design and materials, and will be your trusted astro- photography companion for a long time to come.

1.1 Further information

For installation instructions and other useful information please refer to the Quickstart guide which was shipped with the camera. Information on the software is given in the ArtemisCapture guide, a PDF file of which is copied to your computer hard drive by the software installer. Further information, including a number of 'Getting Started' tutorial videos, is available on our website at <http://www.atik-cameras.com>.

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. Getting to know your Camera

3.1 Camera Parts



1. 2.1mm centre-positive 12V DC input
2. USB port
3. Desiccant port

3.2 Sensor

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

3.3 Optical Window

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.

3.4 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.

3.5 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.

3.6 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.

3.7 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.

3.8 Cooling

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 $\Delta T = -x$ where x is the cooling capacity. This means that the CCD's temperature will drop approximately $x^\circ\text{C}$ 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. This fact also depends on the outside temperature so, higher environment temperatures will demand more time for the CCD to stabilize.

3.9 Replacing the desiccant

Your camera includes a high-performance molecular sieve desiccant tablet which is used to avoid condensation in the CCD chamber. Although this desiccant will last a long time it may eventually need replacement or recharging, in which case please follow the instructions below:

- To replace the desiccant, open the desiccant port with the supplied plastic tool and a screwdriver and take out the used tablet.
- To recharge the desiccant, place the tablet in an electric oven at 200°C for 90 minutes. Take the tablet out the oven (CAUTION: tablet will be very hot) and allow it to cool down.
- Place the recharged tablet back in the camera, replace the port cover and tighten (no need to over- tighten). Wait 24 hours before connecting the camera again.

Some versions of the 383L+ have a filter inside the desiccant chamber. The purpose of this is to avoid contamination of the chamber when the desiccant is being replaced. The filter is very fragile and should not be touched.

4. Technical Information

	383L+
Image sensor	Kodak KAF-8300
Resolution	3362x2504
Pixel size (um)	5,4x5,4
ADC	16 bit
Readout noise (Typ.)	7e
Cooling Delta	-40
Regulated cooler	Yes
Water assist	No
Maximum exposure	Unlimited
Minimum exposure	0,2s
Maximum Frame Rate	N/A
PC Interface	USB2
Power requirements	12VDC, 2A
Backfocus distance	17mm ±0.5
Thread on front	M42x0,75
Weight	700g
Mono or OSC	Either

5. Declaration of Conformity

EU Declaration of Conformity



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.

5.1 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.





6. Servicing and Repairs

Repairs, servicing and upgrades are available through your local dealer or by emailing support@atik-cameras.com

Please note that modifications to the camera and/or accessories which are undertaken without the manufacturer's written permission will void the warranty.

7. 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.