



# JAZ-ALP

## Adjustable Laser Pointer

### Operation Manual

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**Offices:** **Ocean Optics, Inc. World Headquarters**  
830 Douglas Ave., Dunedin, FL, USA 34698  
Phone 727.733.2447  
Fax 727.733.3962  
8 a.m.– 8 p.m. (Mon-Thu), 8 a.m.– 6 p.m. (Fri) EST

---

**E-mail:** **Info@OceanOptics.com** (General sales inquiries)  
**Orders@OceanOptics.com** (Questions about orders)  
**TechSupport@OceanOptics.com** (Technical support)



**WARNING**

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Protective Eye Wear Must Be Worn When  
Using This Instrument -  
Intense Ultraviolet Radiation Present  
See Important Safety Notices inside.

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—A—  
**HALMA**  
**GROUP**  
**COMPANY**

**Additional  
Offices:**

**Ocean Optics Germany GmbH**

**Maybachstraße 11, D-73760**

**Ostfildern, Germany**

**Phone +49 (0)711 341696-0**

**Fax +49 (0)711 341696-85**

**E-Mail [Info@OceanOptics.eu](mailto:Info@OceanOptics.eu)**

**Ocean Optics Asia**

**666 Gubei Road, Kirin Tower, Suite 601B, Changning District,  
Shanghai, PRC. 200336**

**Phone 86.21.5206.8686**

**Fax 86.21.5206.8686**

**E-Mail [Sun.Ling@OceanOptics.com](mailto:Sun.Ling@OceanOptics.com)**

**Ocean Optics EMEA**

**Sales and Support Center**

**Geograaf 24, 6921 EW DUIVEN, The Netherlands**

**Phone 31-26-3190500**

**Fax 31-26-3190505**

**E-Mail [Info@OceanOptics.eu](mailto:Info@OceanOptics.eu)**

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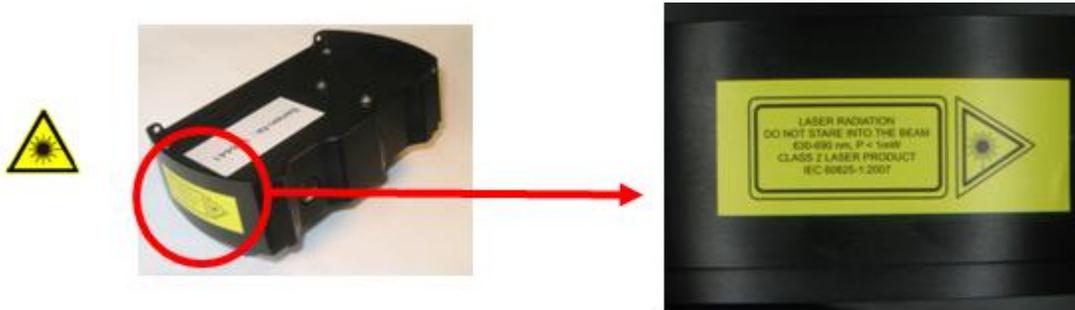
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# Important Safety Notices

1. Read this manual before you attempt to use this instrument.
2. This product contains a Class 2 laser. The laser safety warning label is posted to the side of the Jaz AP module.



3. The laser described here is safe to operate, provided the user pays attention to all safety warnings:
  - a. Post warnings in the area of the laser beam to alert those present.
  - b. Keep all unauthorized personnel out of the area where the laser is operated.
  - c. Whenever the laser is running and the beam is not in use, it is good operating practice to mechanically block the path.
  - d. Never look directly into the laser source or scattering laser light from any reflective surface. Never sight down the beam into the source.
  - e. Maintain experimental setup at low heights to prevent inadvertent beam-eye contact.
  - f. As a precaution against accidental exposures to the output beam or its reflection, operators should wear laser safety glasses attenuated to the wavelength being generated.
4. Do not remove or modify any installed safety device on this equipment. Doing so will void your warranty and create an unsafe operating environment.
5. Only allow qualified personnel to service this unit.
6. Before using the optical tool for the first time check for transport damage. Do not use the unit if it is damaged in any way. Contact your dealer for repair or replacement information.
7. Take care that no objects or liquids enter into the device and that there are no grease residues on the glass window.



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# About This Manual

## Document Purpose and Intended Audience

This document provides you with an installation section to get your Jaz ALP up and running.

## Document Summary

Chapter	Description
Chapter 1: <a href="#">Setup</a>	Provides contents unpacking instructions. Also contains general set-up and battery changing instructions.
Chapter 2: <a href="#">Operation</a>	Contains instructions for adjusting the laser beam.

## Product-Related Documentation

You can access documentation for Ocean Optics products by visiting our website at <http://www.oceanoptics.com>. Select *Technical* → *Operating Instructions*, then choose the appropriate document from the available drop-down lists. Or, use the **Search by Model Number** field at the bottom of the web page.

- [Jaz Installation and Operation Manual](#)

You can also access operating instructions for Ocean Optics products on the Software and Technical Resources CD included with the system.

Engineering-level documentation is located on our website at *Technical* → *Engineering Docs*.

## Upgrades

Occasionally, you may find that you need Ocean Optics to make a change or an upgrade to your system. To facilitate these changes, you must first contact Customer Support and obtain a Return Merchandise Authorization (RMA) number. Please contact an Ocean Optics Application Scientist for specific instructions when returning a product.



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# Chapter 1

# Setup

## Overview

The Jaz Adjustable Laser Pointer (ALP) is a convenient tool for making accurate spot measurements of large-area projection screens, flat panel displays, media walls and other samples where precise focus within large areas of light emission are necessary.

We add the Jaz-ALP to the Jaz stack, directly below the spectrometer module. The low-power laser pointer operates from three AAA batteries, so no additional power is required. The laser is a Class II 650nm red laser, so proper safety precautions must be followed.



**Jaz ALP in a Jaz Stack**

## 1: Setup

We attach a Gershun Tube Kit (GER-KIT) to the SMA 905 entrance aperture of the spectrometer in the Jaz stack. The GER-KIT allows control the field of view of the spectrometer from  $1^\circ$  to  $28^\circ$ . The GER-KIT is a versatile tool that can be used with fibers or directly attached to the spectrometer. The GER-KIT is priced separately.



**Jaz Stack Spectrometer Module with Gershun Tube Attached**

## Unpacking Jaz ALP

See the *Jaz Installation and Operation Manual* (see [Product-Related Documentation](#)) for information about the Jaz shipment components.

Before using the Jaz ALP for the first time, check for transport damage. Be sure to adhere to all warnings on the unit and in this manual.

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### **WARNING**

**Do not stare directly into the light beam of the laser!**

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### **Caution**

**For optimal use, take care that no objects or liquids enter the device and that there is no grease residue on the glass window.**

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## General Set-up

The Jaz ALP is adjusted by Ocean Optics for operating in a Jaz stack (see the figure on the previous page). The Jaz ALP module is placed directly under the spectrometer module.

The laser was adjusted at a distance of 5 meters. While using a 3° aperture on a Gershun Tube and a stack setup, you can use this adjustment for distances from 2 to 14 meters between the spectrometer module and what you are aiming the laser pointer at.

Longer distances may work but to be sure you should readjust your system. Also, you should readjust your system if you have to use a Jaz stack where the spectrometer is not placed directly over your Jaz ALP device. For information on how to readjust your JAZ ALP device refer to 'How To – Adjust the JAZ-ALP module' at the end of this document.

## Changing Batteries

Before using the device, please insert the 3 AAA batteries (included).

### ► **Procedure**

1. Open the battery case with slight pressure on marked area in direction of the red arrow.



2. Insert batteries in the battery case as shown below.



**1: Setup**

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3. Close the lid of battery case with slight pressure in direction of red arrow.



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# Chapter 2

# Operation

## Overview

The Jaz-ALP device comes preset for operating in a Jaz stack at a distance of 2 to 14 meters from the object at which the laser is being aimed. Should you need to adjust the system for a longer distance, use the following instructions.

## Adjusting the Jaz ALP Module

On the rear side of the JAZ-ALP module close to the power switch there are four TORX socket screws. Compare with the figures below. By rotating the screws you can adjust the direction of the laser beam.

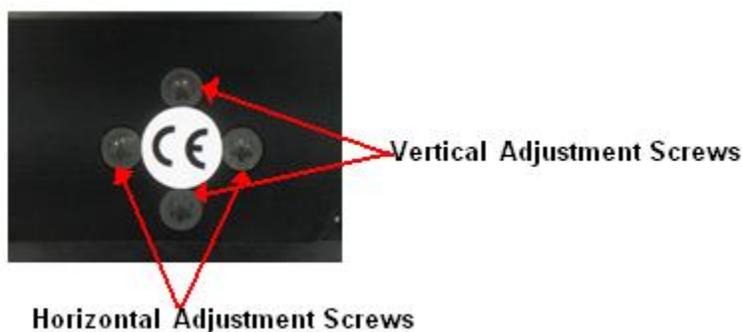


**Rear View of Jaz ALP Module with On/Off Switch and Adjustment Screws**

## 2: Operation

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For example, if you tighten the upper screw, you move the beam to the top. If you tighten the right screw, the beam will move to the right.



While adjusting the beam you should do the following:

- Try to change the direction of the beam by loosening the screws first.
- Tightening the screws too hard will deform the plastic, resulting in permanent damage and making a correct adjustment impossible.
- After adjusting the laser beam, slightly turn the screws without changing the beam.

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### Notes

Adjust the system in a dark room against a white wall and try to detect the light of the laser beam. Use a Gershun Tube (GER-KIT available from Ocean Optics) and start the adjustment with an aperture  $> 3^\circ$  to pre-adjust the system. Then it is easier to adjust the system with a  $3^\circ$  aperture. To achieve an optimal adjustment, use the  $1^\circ$  aperture as the last step of your alignment

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