

OtO Photonics Maintenance Guide

LS-DH-4 Lamp Replacement & Alignment Guide



OtO Photonics

Maintenance Guide



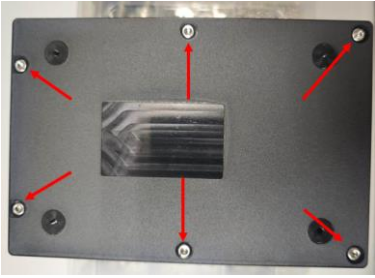


Table of Contents

- | | | |
|-----------|--|-------------|
| 1. | Lamp Replacement | P. 3 |
| 2. | Halogen Lamp Adjustment(Step15) | P. 5 |

OtO Photonics

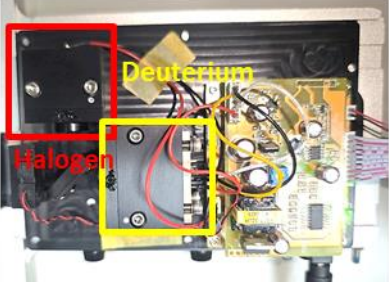
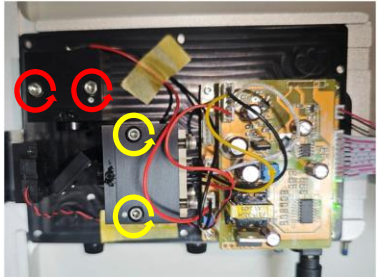
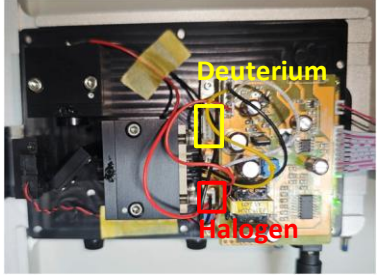
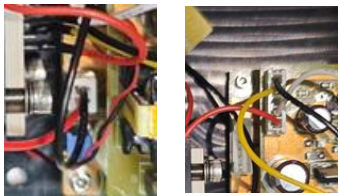
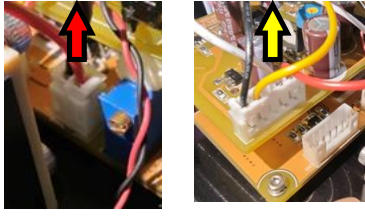
Maintenance Guide

1. Lamp Replacement

Step	Picture	Description
1.	 <p>The image shows two tools: a 2.5 mm hex wrench (labeled 1) and a flathead screwdriver (labeled 2).</p>	<p>The following tools are required for lamp replacement:</p> <ul style="list-style-type: none">① 2.5 mm hex wrench② Flathead screwdriver (SL=1)
2.	 <p>The image shows two lamp modules. The smaller one on the left has a 2-wire connection, and the larger one on the right has a 4-wire connection.</p>	<p>As shown in the left diagram, the smaller module on the left with a 2-wire connection is the halogen lamp module. The larger module on the right with a 4-wire connection is the deuterium lamp module.</p>
3.	 <p>The image shows the back of the LS-DH-4 housing with six screws. Red arrows point to the screw positions.</p>	<p>Turn the LS-DH-4 upside down with the light output port facing right. Use a hex wrench to unscrew the six screws and remove the housing. The screw positions are indicated by the arrows in the left diagram.</p>
4.	 <p>The image shows a hand lifting the top cover of the LS-DH-4 unit.</p>	<p>After unscrewing the screws, keep the light output port facing right and turn the LS-DH-4 upright with both hands. Lift the top cover from the fan side, as shown in the left diagram.</p>
5.	 <p>The image shows the LS-DH-4 unit with the top cover removed and placed vertically at the rear.</p>	<p>After lifting the top cover, it is not necessary to disconnect the ribbon cable. Simply place the cover vertically at the rear, as shown in the left diagram.</p>

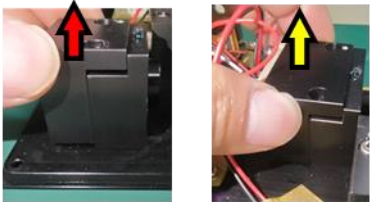
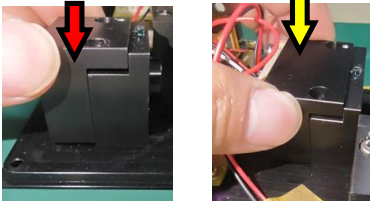
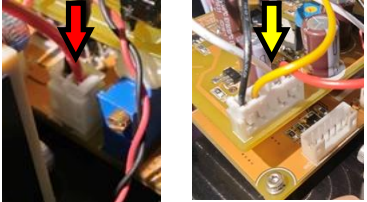
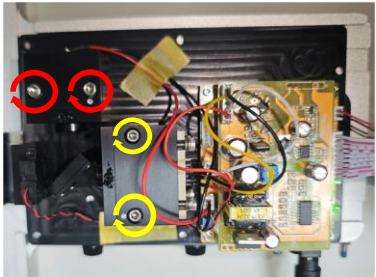
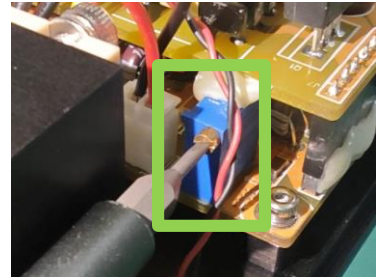
OtO Photonics

Maintenance Guide

Step	Picture	Description
6.		The positions of the deuterium lamp module (highlighted in yellow) and the halogen lamp module (highlighted in red) are shown in the left diagram.
7.		Use a 2.5 mm hex wrench to turn the screws counterclockwise to remove either the halogen or deuterium lamp module. The two screws for the halogen lamp are located in the red circles, and the two screws for the deuterium lamp are in the yellow circles, as shown in the left diagram.
8.		Disconnect the control cable for either the halogen lamp or the deuterium lamp. As shown in the left diagram, the deuterium lamp is highlighted in yellow and the halogen lamp in red.
9.	 Halogen Deuterium	As shown in the left diagram, the deuterium lamp control cable consists of four wires (black, yellow, white, and red) and uses a 5-pin connector. The halogen lamp control cable consists of two wires (black and red) and uses a 2-pin connector.
10.	 Halogen Deuterium	Pull upward to disconnect the halogen or deuterium lamp control cable.

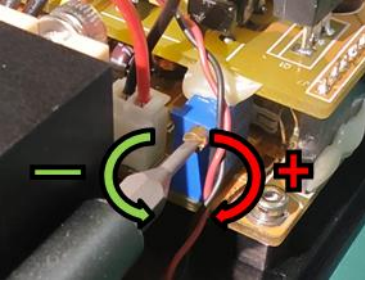


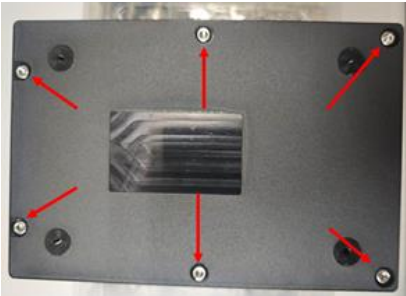
OtO Photonics

Maintenance Guide

Step	Picture	Description
11.	 <p data-bbox="244 546 339 576">Halogen</p> <p data-bbox="454 546 576 576">Deuterium</p>	Lift upward to remove the halogen or deuterium lamp module.
12.	 <p data-bbox="262 840 358 870">Halogen</p> <p data-bbox="472 840 595 870">Deuterium</p>	Insert the new halogen or deuterium lamp module.
13.	 <p data-bbox="262 1177 358 1207">Halogen</p> <p data-bbox="468 1177 591 1207">Deuterium</p>	Insert the control cable of the new halogen or deuterium lamp module into the corresponding connector. Follow the orientation shown in the diagram: the red wire of the halogen lamp should face outward, and the black wire of the deuterium lamp should face outward.
14.		Use a 2.5 mm hex wrench to tighten the screws on the halogen or deuterium lamp module by turning clockwise.
15.		Use a flathead screwdriver to turn the variable resistor in order to adjust the halogen lamp intensity. The position of the variable resistor is shown in the diagram.

OtO Photonics

Maintenance Guide

Step	Picture	Description
16.		Turning the variable resistor counterclockwise decreases the intensity, while turning it clockwise increases the intensity.
17.		Reattach the top cover.
18.		Ensure that the GPIO port, DC jack, and On-Off switch on the other side are properly exposed.
19.		Flip the device to the back side and use a 2.5 mm hex wrench to tighten the six screws.