



111 Highland Drive - Putnam, CT 06260  
Phone 860-928-5834 - Fax 860-928-2676

[www.spectralproducts.com](http://www.spectralproducts.com)

# Deep UV Deuterium Light Source

- ASBN-D130 / ASBN-D230 -

## Operation Manual





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## Important Safety Notices

1. Never look directly into the UV light, as this can cause eye damage.
2. Do not remove or modify any installed safety device on this equipment. Doing so will void your warranty and create an unsafe operating environment.
3. Do not use the unit if it is damaged in any way. Contact your dealer for repair or replacement information.

## Warranty and Liability

This SP's product is warranted against defects in material and workmanship for a period of one year from the date of shipment. During the warranty period, Spectral Products will, without charge, repair or replace, at its discretion, the defective product or component parts.

For warranty service or repair, this product must be returned to a service facility designated by Spectral Products (SP). For products returned under warranty, the Buyer shall prepay shipping charges (including shipping charges, duties, and taxes for products returned to SP from another country), and SP will pay for shipping charges to return the product to the Buyer.

This warranty does not apply in the event of misuse or abuse of the product or as a result of unauthorized alterations, modifications or repairs, if the serial number is altered, defaced or removed, the improper or inadequate maintenance by the Buyer, Buyer-supplied software or interfacing, or improper site preparation or maintenance. No other warranty is expressed or implied. SP shall not be liable for any consequential damages, including without limitation, damages resulting from loss of use, as permitted by law.



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# Specification

The following tables provide information on our high power Deuterium light sources.

## Overview

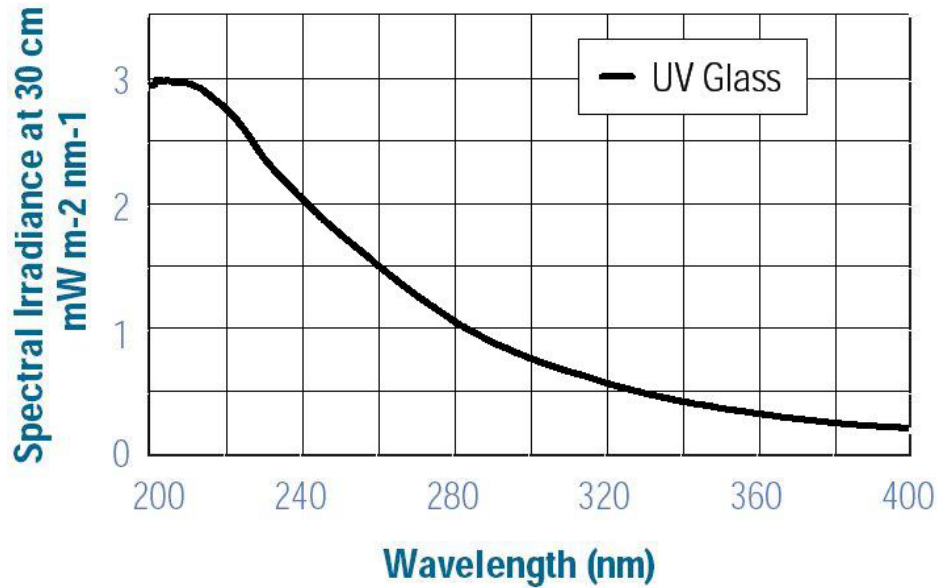
<b>Mount</b>	Tapered flange, adjustable, Post mounting for standalone operation
<b>Housing</b>	Air cooled w/ two focusable fused silica doublet collection lens sets, 1" size Dimension: 11.0" X 11.5" X 5.
<b>Output type</b>	<b>Monochromator Matching (M)</b> : CM110, DK240, or DK480
	<b>Fiber coupling (F)</b> : SMA905 or FC

## Electric

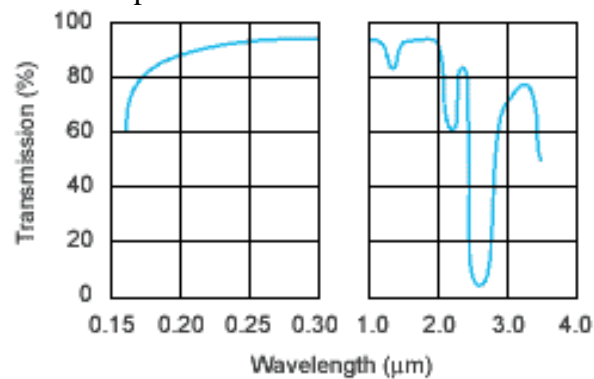
<b>Deuterium</b>	<b>Electric Power Input</b>	<b>Input Voltage:</b> 24 Vdc regulated (<45W), 5Vdc (TTL) disable input <b>Input Current:</b> 2A
	<b>Electric Power Output</b>	<b>Anode:</b> 60-100Vdc / 30 W max <b>Trigger pulse:</b> 600±50 Vpk continuous (Anode Vdc included) <b>Heater Warm up:</b> ~20-30 seconds <b>Regulation:</b> +/-0.5% typically
	<b>Others</b>	<b>Temperature:</b> 0-40 °C <b>Humidity:</b> ≤95% <b>Cooling:</b> 20 CFM of forced air across the component side

# Spectrum

The deuterium (D2) lamp is designed for use in spectroscopic applications where high intensity and stability in the 190 to 400nm band is needed. Above 400nm, some spiky spectra will be detected also.



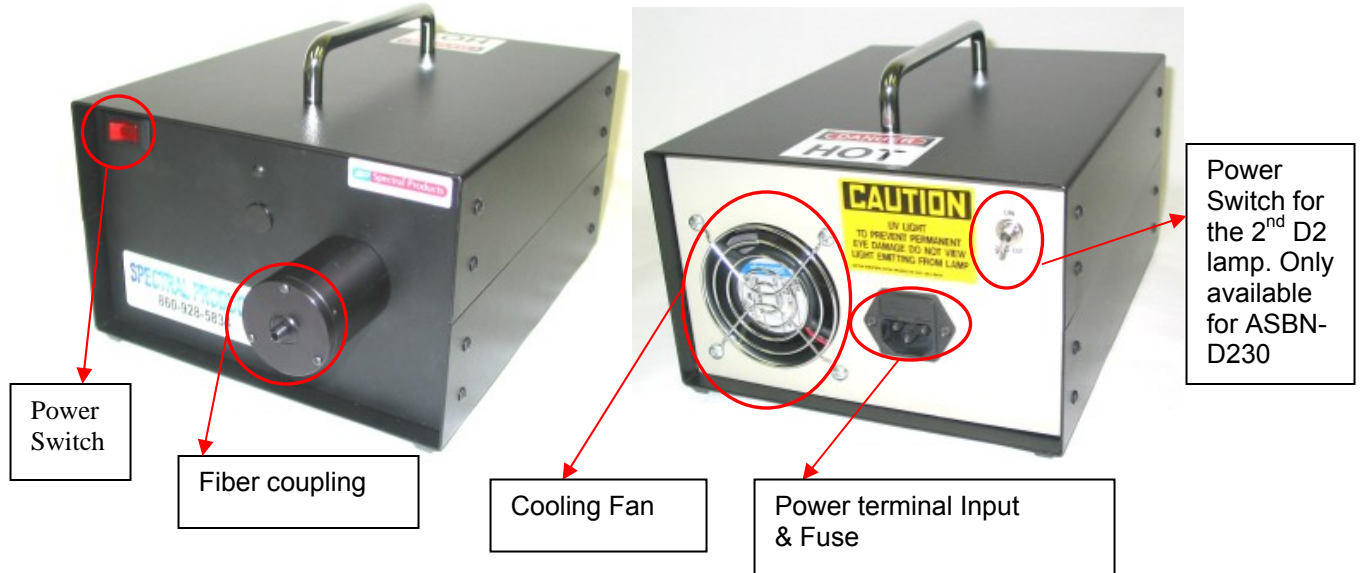
The envelope of D2 lamp is made of fused silica. Its transmittance is as follows.



# Operation

## Front

## Back



Power Switch

Fiber coupling

Cooling Fan

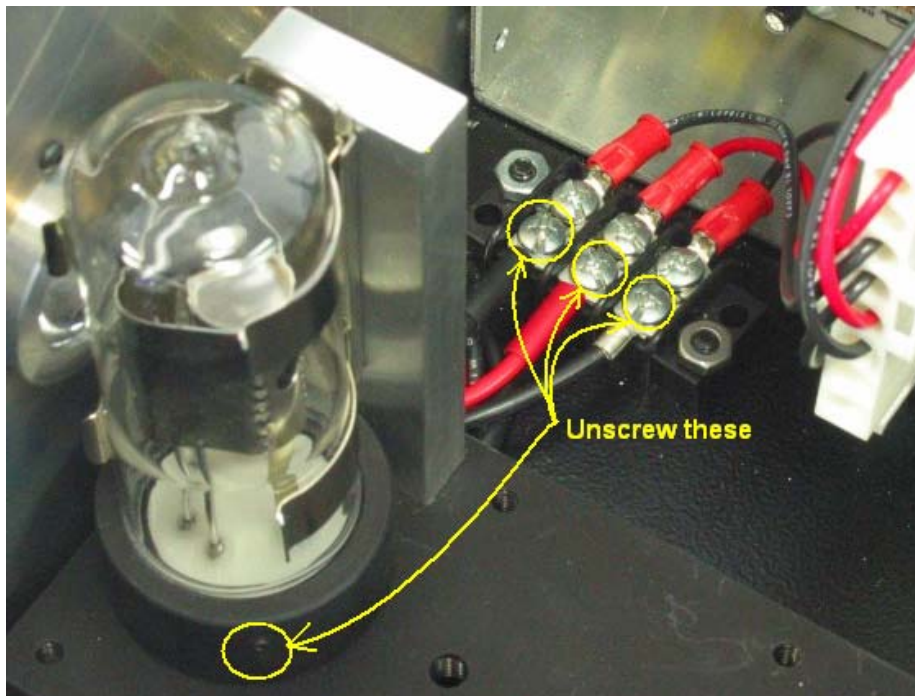
Power terminal Input & Fuse

Power Switch for the 2<sup>nd</sup> D2 lamp. Only available for ASBN-D230

Component	Description
Power terminal input	Connect power cable to provide voltage to our high power Deuterium light source.
Power switch	Turn on to supply power to the D2n lamp. The RED light illuminates when this switch is in the On position.
Fuse	Contains the fuse to protect the unit against overload: Fuse type: 5A/250V
Cooling fan	Cools the interior of the light source housing. <b>Note:</b> Although block with heat shield system, do not look into the light beam through this fan.
Power switch for the 2 <sup>nd</sup> D2 lamp	For ASBN-D230 only: Turn on/off switch for the 2 <sup>nd</sup> lamp.

## Bulb Replacement

1. Turn off all power.
2. Wait until the lamp cools down.
3. Remove housing.
4. Remove heat shield.
5. Take off the three deuterium lamp leads on the bottom.
6. Unscrew the set-screw for the deuterium bulb.



7. Take out the old bulb and replace the new one.
8. Adjust the bulb to be centered properly looking through the focusing lens set. If there is a fiber coupling plug attached, please take it off first.



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**NOTE:** When adjusting the new deuterium lamp, please be careful not to touch it with a bare hand.

## Technical Support

Toll Free: (877) 928-5834, ext 15

Tel: (860) 928-5834, ext 15

Fax: (860) 928-2676

Website: <http://www.spectralproducts.com>

Email: [support@spectralproducts.com](mailto:support@spectralproducts.com) / [mdrugan@spectralproducts.com](mailto:mdrugan@spectralproducts.com)