4-Head Solid-State UV Spot Light

Output Power and Time Adjustable (Manual and USB Remote)

DATASHEET

BUY NOW

4-Head Solid-State UV Light uses high-power UV LEDs as light sources for curing UV adhesives. Compared to traditional lamp-based systems, the SUV offers the advantages of long life, low power consumption, and compact size. Our superior optical design achieves high light coupling efficiency exceeding 85% and uniform light spot intensity.

Each head can be switched on/off individually by 1) front panel buttons, 2) USB remote, or 3) simultaneously by an optional foot switch. The cure time and UV output power of 4 heads can be adjusted together by the front panel buttons or a computer via the USB interface.

Each LED head features an integrated cooling fan.

Applications

- UV Adhesive Curing
- UV Irradiation Experiments

Features

- Up to 18 hrs. continuous operation
- Compact
- High Power
- Low Operating Cost
- Long Operation Life

Specifications

Parameter	Description	Unit
Wavelength	235, 255, 280, 365±5, 405, 440	nm
Optical Power Density (4mm spot)	2.5 – 5.5 [1]	W/cm^2
Optical Power Density (25mm spot)	100-150 [1]	mW/cm^2
LED Electrical Power	14	W
Cure Time Range	10 seconds to 18 hrs	
UV Spot Size [2]	Ø 4 to 50	mm
Working Distance	20 to 150	mm
Cooling Method	air blowing	
Operation Life	> 25 000	hours

Notes:

[1]. For wavelength above 365nm.
For wavelengths shorter than 365nm, we use the best LED available.
For wavelengths 255nm, we use a LED with 60mW optical power output.

[2]. The spot size is about 4mm at the focus point, by moving away from the focus point, it becomes larger

Electrical Specifications

Component	Parameter	Unit
Power supply	AC 100 ~ 240	V
Fuse	1	A

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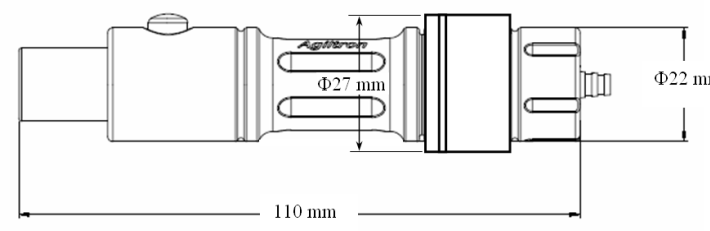
Recommended UV Epoxy

Supplier	Part Number
Loctite	3972
Epoxy Technology	OG603, OG198
Fiber Optic Center	AB9047, DSM956-105

Mechanical Footprint Dimensions

Component	Dimensions	Unit
UV LED head	Ø22 x 110	mm
Controller	120 x 85 x 200	mm



Standard hardwired cable is 1.5 m long.

*Product dimensions may change without notice. This is sometimes required for non-standard specifications.

Ordering Information

	☐☐	☐	☐	☐	☐	☐	☐	☐
Prefix	**Type**	**Head 1**	**Head 2**	**Head 3**	**Head 4**	**Head Holder**	**Cooling Fan**	**Foot Switch**
SUVA-	4-Head = 03 Special = 00	Non = 0 365 nm = 1 385 nm = 2 405 nm = 3 440 nm = 4 275 nm = 5	Non = 0 365 nm = 1 385 nm = 2 405 nm = 3 440 nm = 4 275 nm = 5	Non = 0 365 nm = 1 385 nm = 2 405 nm = 3 440 nm = 4 275 nm = 5	Non = 0 365 nm = 1 385 nm = 2 405 nm = 3 440 nm = 4 275 nm = 5	Non = 0 1 = 1 2 = 2 3 = 3 4 = 4	Standard = 1 Special = 0	Yes = 1 No = 0

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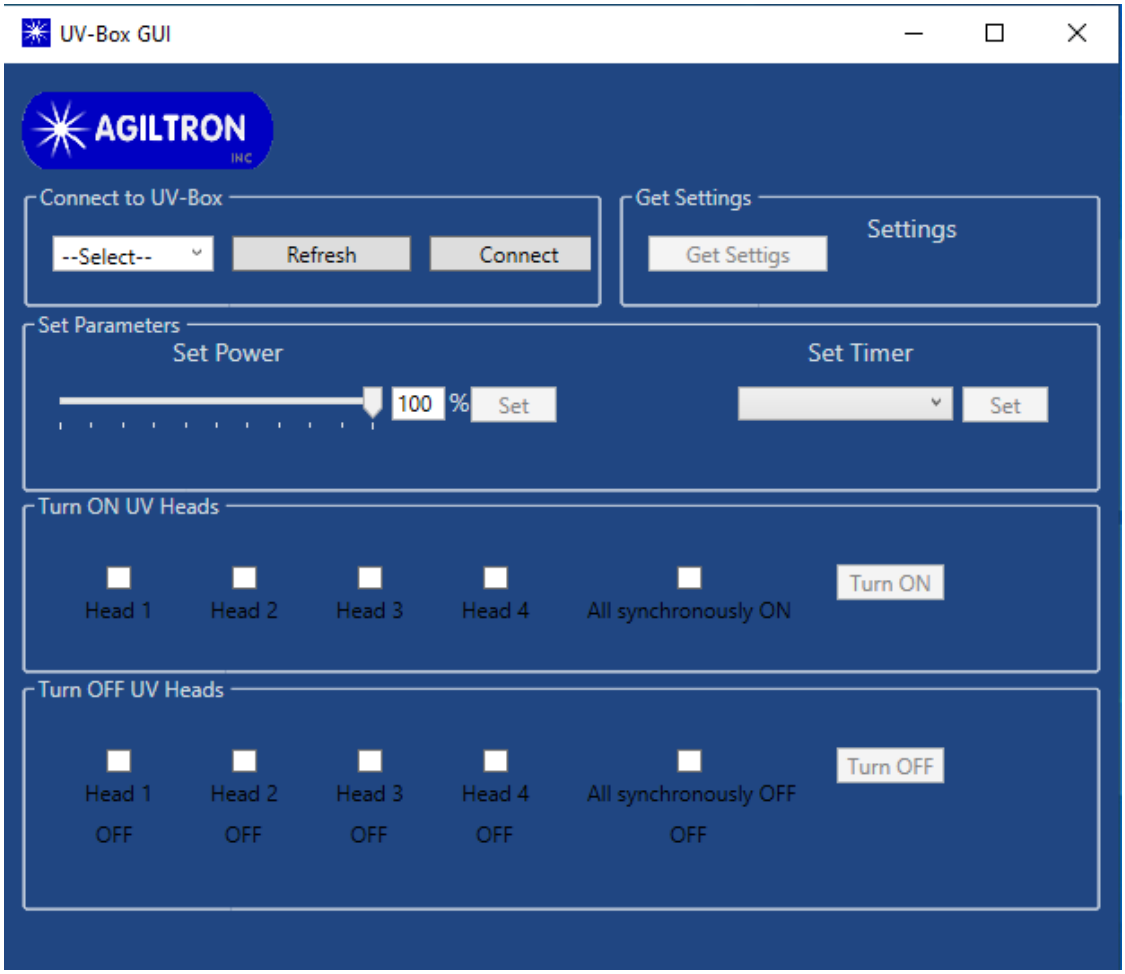
UV-Box Control (via Windows GUI)



Control via Windows GUI:

1. For setting the desired power, enter the desired value in the provided text box or use the slider to adjust the power level. Once the desired power is selected, click on the "Set" button to apply the settings.
2. To set the timer, click on the dropdown list and select the desired time. Then, click on the "Set" button to apply the settings.
3. To activate the UV heads, select the appropriate checkboxes. Once the desired settings have been selected, click on the "Turn ON" button to activate the UV heads.
4. To deactivate the UV heads, select the desired checkboxes. Once the desired settings have been selected, click on the "Turn OFF" button to deactivate the UV heads.
5. To review the current settings, click on the "Get Settings" button to check the current values

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Questions and Answers

Q: What is the best wavelength I should choose if my epoxies have a wide range of curing wavelengths?

A: All epoxies can be cured at a shorter wavelength since these UV lights are more energetic and provide better and deeper curing. However, not all epoxies can be cured at a longer wavelength that requires a special formulation to be cured thoroughly.

Q: If I want to cure a UV epoxy through a piece of transparent plastic, what wavelength head should I choose?

A: Transparent plastic blocks 365nm UV light. Therefore one needs to choose an epoxy that can be cured at 450nm and choose the matching head.

Q: Is the UV head output power calibrated?

A: The output power of each UV head is tested to meet the range stated on the datasheet. Since the output power of each UV head is highly sensitive to the actual sample position, we recommend customer to calibrate the power density using a power meter in place of the sample. The power can be changed by adjusting the UV head position using our holder or by setting it in the four-head control box.

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