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Focus & Output Power Adjustable Laser Module

VLM-520-95 LPT-D20





The laser module is designed for individuals who require precision control testing. It features an adjustable function for both focus and output power, allowing for optimal customization. The fast and precise focus adjustment mechanism can easily adjust the focus distance from 10 mm to infinite in just two turns, ensuring accuracy and efficiency. The laser output power can be adjusted using a built-in precision trimmer, which ranges from 0 to 3.5mW, and remains compliant with class 2 safety regulations. This versatile tool is a must-have for medical and laboratory research, as well as physical-optic experiments, providing exceptional control and reliability.

FEATURES:

- The fast and precise focus adjustment mechanism can easily adjust the focus distance from 10 mm to infinite in just two turns.
- The laser output power can be adjusted using a built-in precision trimmer, which ranges from 0 to 3.5mW, and remains compliant with class 2 safety regulations.
- Dimensions : Ø16.5 x 72.8 mm (Ø0.649" x 2.866")
- Wavelength : 510~530 nm
- 3~6 VDC operation.
- Connection type : Lead wire

APPLICATIONS:

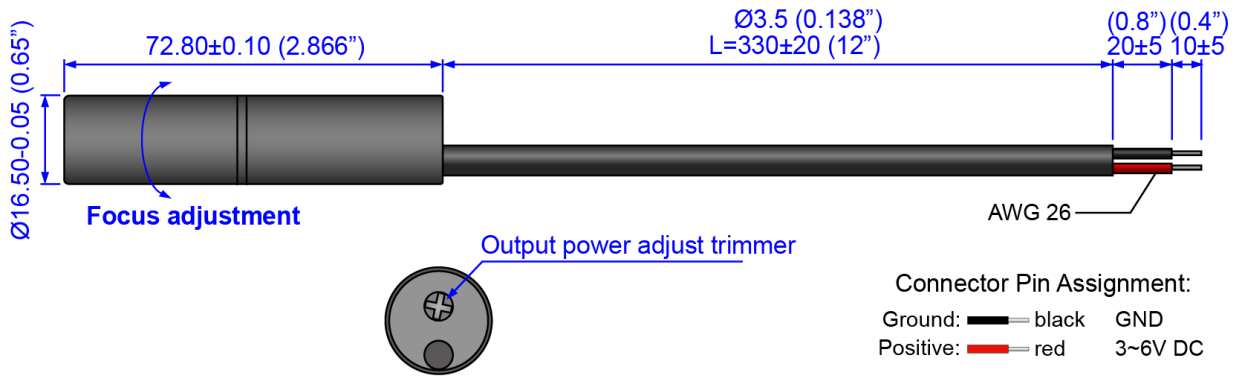
- Laboratory research.
- Medical research.
- Physical-optic experiments.

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VLM-520-95 LPT-D20

OUTLINE DIMENSIONS (UNITS: mm)

Outline (Lead Wire type)



SPECIFICATIONS

SPECIFICATIONS		**VLM-520-95 LPT-D20**
1	Fan angle	20°
2	Dimensions	Ø16.5 x 72.8 mm (Ø0.649" x 2.866")
3	Weight	<30g
4	Operating voltage (Vop)	3~6 VDC
5	Operating current (Iop)	Less than 120mA
6	Continuous wave output power (Po)	0-3.5mW (adjustable)
7	Wavelength at peak emission (λp)	510~530nm
8	Collimating Lens	Aspherical Glass lens
9	Output Aperture	5mm
10	Beam Shape	Line
11	Focusable Distance	10mm to Infinite (adjustable)
12	Laser line width	Less than 2mm@100cm (adjustable)
13	Operating temp. range	-20°C ~ +60°C
14	Storage temp. range	-20°C ~ +85°C
15	Housing Material	Aluminum
16	Housing Color	Anodized Black
17	Potential of Housing	Isolated
18	Electrostatic discharge (ESD)	30KV

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19	Moisture sensitivity level (MSL)	Level 1 - acc to JEDEC J-STD-020E.
20	Protection circuit	Reversed supply circuit protection, over-current protection, surge protection, Short circuit protection
21	Vibration resistance	10 to 55Hz,1.5mm amplitude for 2 hours each in X, Y and Z direction
22	Standard	IEC60825:2014
23	Wire Type	2464 2-WIRE CABLE 26 AWG
24	Cable length	330±30mm (12 inches)
25	Mean time to failure(MTTF) 25°C	10000hrs
26	International Protection Marking	IP54
27	Application	Laboratory research, physical-optic experiments and Medical research.
28	Suggestion work distance	Above 10mm

SAFETY LABEL

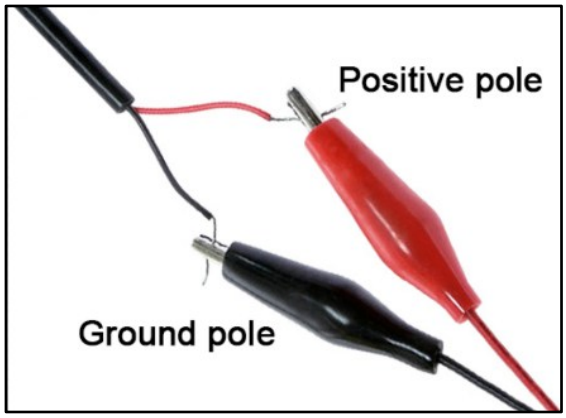


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Operation Procedure

1. Apply 3-6 Volts to the Laser module.
   a. When using a Battery Pack as a power source:
      a-1. Please use 2, 3, or 4 pieces of 1.5 Volt AA or AAA battery pack. Connect the red wire to the positive pole and the black wire to the ground pole.
   b. When using a Power Supplier as a power source:
      b-1. Connect the positive pole with the red wire and the negative pole with the black wire.
      b-2. Set the voltage between 3-6 volts.
      b-3. Set the output current to 0.5 A (500mA).

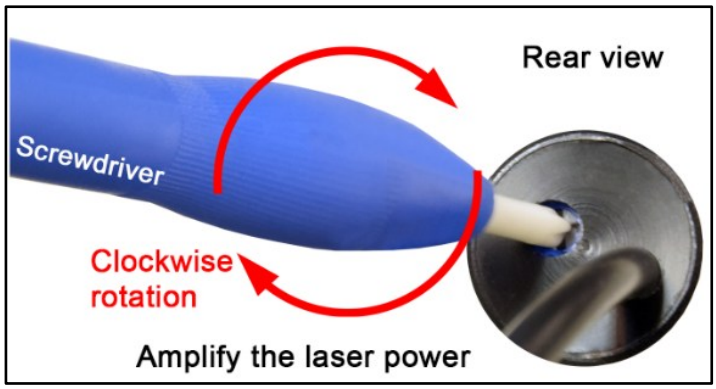


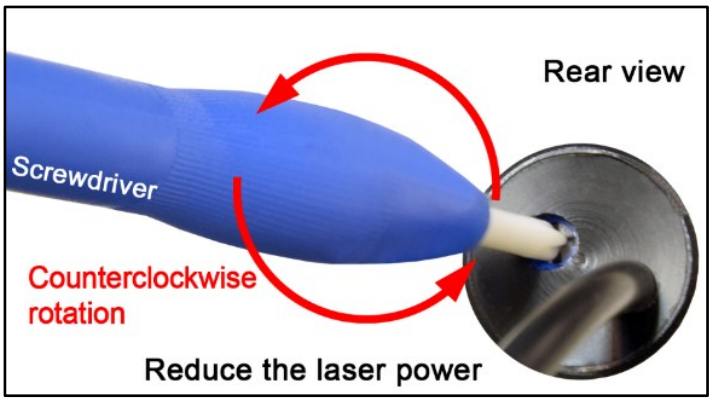
2. Adjust Laser module output power:
   2-1. Please use the screwdriver provided in the box.
   2-2. Apply the screwdriver to the trimmer located at the back of the laser module.
   2-3. Rotating the trimmer in a clockwise direction will amplify the laser power, while rotating it counterclockwise will reduce the laser power.



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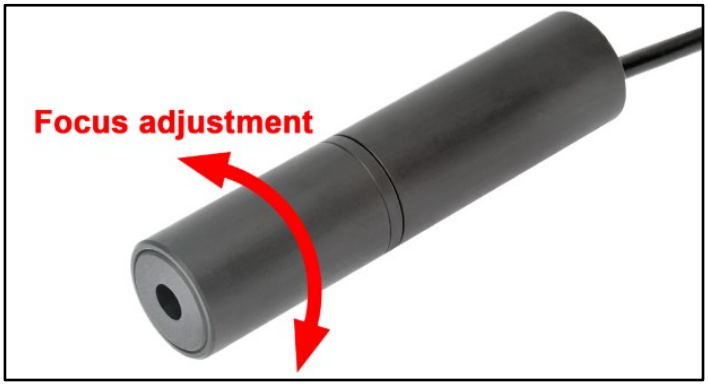
Operation Procedure





3. Adjust the focus distance:

- To adjust the laser focus distance, rotate the front part of the laser module until the desired Line thickness or focus distance is achieved.



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Mounting

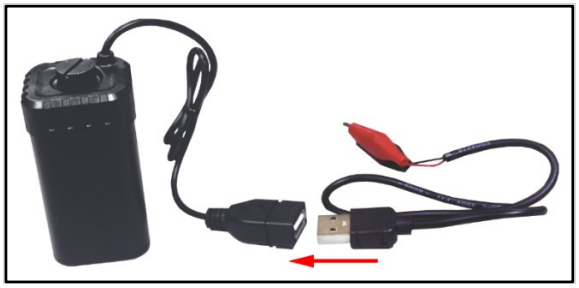
The presentation picture of the entire operation set:



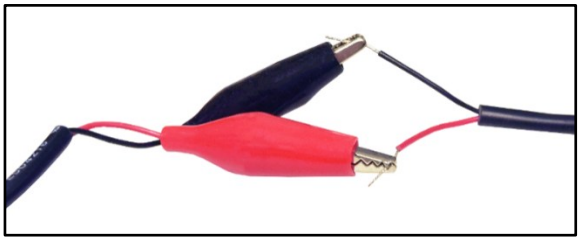
1. Insert the laser module into the holder and tighten the screws to securely fix the laser module onto the mount.



2. Connect the alligator clip cable to the battery pack.



3. Clip the red alligator clip to the red lead of the laser module and the black alligator clip to the black lead to power on the laser module.



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Accessory - QLM-1165

QLM-1165 Laser Mounts is included with VLM-520/635-96 series. It compatible with laser module / laser pointer / flashlight , it's an ideal choose for mounted onto optical tables.

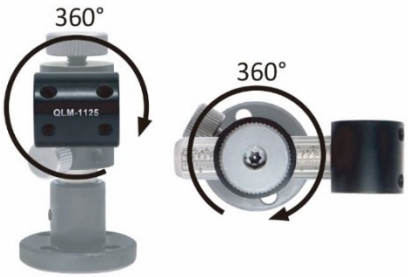


Features:





Can be mounted onto the optical table with screws. (Screws not included)

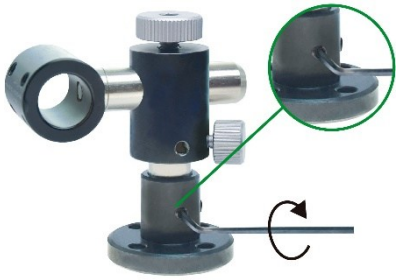


4 directions adjustable.

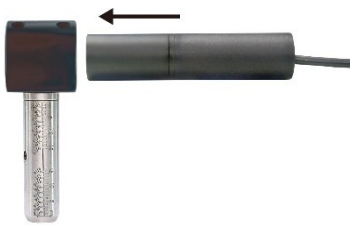


Engraved scale for precision adjustable.

Mounting:



1.Move to desired height and rotate to desired direction, then use wrench tight screws to fix pole firmed.



2. Place your laser module to suitable position.



3. Tight screws to fix laser module sturdy.



4. Loose the fixing ring. Rotate the adjustable laser holder to find the angle you want.



5. Tighten the fixing ring to fix the laser holder.

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Accessory – CLM-BP4N3



CLM-BP4N3 - Battery pack (4* AA batteries)
*** AA Batteries are **NOT** included in package.

Feature:

- USB Output Voltage: 5 VDC.
- Color: Black.

Accessory – CLM-ACLIP



CLM-ACLIP - Alligator clip with USB connector.

Feature:

- Length: 48cm.

Accessory – Screwdriver



Ceramic adjustment screwdriver with cross profiles. Anti-static handle. Fine ceramic non-conductive and anti-magnetic.

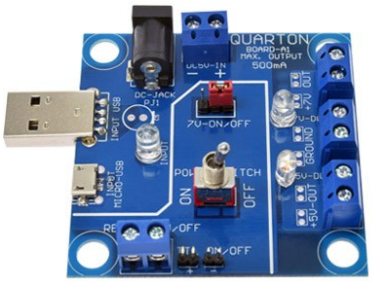
- Length: 10.5cm.

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Optional Accessories

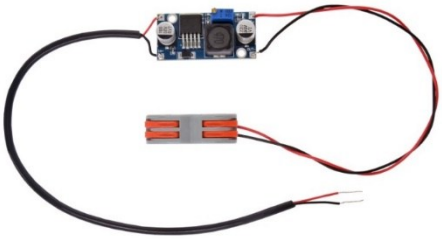
LMPS-MP1 - Multi-function Laser Module Power Supply Board. Four input : USB, micro USB, DC Power Jack(5.5 x 2.1), and terminal block. Two channel output : 7 VDC 500mA and 5 VDC 1A. Three switches-toggle switch, remote switch and TTL signal.



Feature:

- Allow four kinds of power input: USB, micro USB, DC Power Jack(5.5x2.1) and terminal block.
- Two Channel output: 7 VDC 500mA and 5 VDC 1A.
- Built-in three switches: toggle switch, terminal block remote switch and TTL signal switch by on-board connect point.
- 7 VDC output work for all Quarton Laser Modules with 7-12 V operation Voltage (Vop).
- 5 VDC output work for all Quarton Laser Modules with 3-6 V operation Voltage (Vop).
- Three LED indicators: Input power indicator, 7V output indicator and 5V output indicator.

LMPS-MP2 - DC converter, In: 9-36V, Out: 5V 1A.





LMPS-C - Laser Module Power Supply Board, Input: Type C, Output: 5 VDC 2A.

Feature:

- Type C connector power input.
- Output 5 VDC 2A with alligator clips.
- For all Quarton Laser Modules that require 3-6V operation Voltage.



LMPS-mUSB1 - Laser Module Power Supply Board, Input: micro USB, Output: 5 VDC 2A.

Feature:

- Micro USB connector power input.
- Output 5 VDC 2A with alligator clips.
- For all Quarton laser modules that require 3-6V operation Voltage.

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Optional Accessories



LMPS-DC1 - Laser Module Power Supply Board, Input: DC Power Jack(5.5 x 2.1), Output: 5 VDC 2A.

Feature:

- DC Power Jack(5.5 x 2.1) power input.
- Output 5 VDC 2A with alligator clips.
- For all Quarton Laser Modules that require 3-6V operation voltage.



CLM-USBSW - USB Cable Switch.

Feature:

- Length: 28cm.
- Color: Black.



CLM-UC3M - USB to Type C Cable.

Feature:

- Length: 3 meters.
- Color: Black.

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