



Laserlyte Flex Development Kit Userguide

1. Product Overview

Thank you for purchasing the Laserlyte Flex Development Kit. The module in this kit emits a red spot or projection.

The Laserlyte Flex Development Kit is a unique, interchangeable, low cost, plug and play laser system. Designed primarily for aligning and positioning of garments, cloth, paper, wood and metal. The Laserlyte Flex Development Kit has a user adjustable focus making it easy to focus over a wide range of distances and includes five interchangeable pattern optics. A heavy duty mounting clamp and a power supply is included in a rugged and attractive plastic carrying case designed to securely store all the kits components.

If you have any queries or require help when using the please call us on +44 (0)1495 212213 or contact your local representative.



2. Production Operation

Operating with a PS1

Your Laserlyte Flex Development Kit is supplied as standard with a 110V/240V to 3.5Volt PS1. You will have the following items:

- Laserlyte Flex Laser
- 5 Meter Extension Lead
- Heavy Duty Mounting Clamp
- 110V/240V to 3.5Volt PS1
- IEC to Euro mains power lead
- Euro to US Adaptor
- Euro to UK Adaptor (fitted to the IEC lead as standard)

1. Using the 5 meter extension lead, plug the male DC jack end of the extension lead into the DC socket on the PS1, then plug the male DC jack on the Laserlyte Flex laser cable into the DC socket on the extension lead. If you using a Laserlyte Flex laser without the extension lead simply plug the male DC jack into the DC socket on the PS1.
2. If you wish to use the power lead in a Euro socket simply unscrews the two screws in the front of the adaptor and open the lid and removes the adaptor from the power lead.
3. If you wish to use the power lead in a US socket simply unscrews the two screws in the front of the adaptor and open the lid and removes the adaptor from the power lead. Fit the plug in to the US adaptor, close the lid and tighten the screws.
4. Connect IEC plug to PS-1 power adaptor.
5. Plug the mains plug/adaptor into a mains socket.
6. Switch on at the mains socket.

3. Focus Adjustment

The focus of the laser can be adjusted by using the supplied focus key (as shown in diagram C). Should you need to adjust the focus please follow the instructions below:

1. Remove any interchangeable pattern optics, where fitted (see diagram D).
2. Insert focus key into laser barrel and align with focus control grooves.
3. Turn the focus key until desired focus is achieved.
4. Replace the interchangeable pattern optics if fitted and rotate to achieve the desired projection.

S4. Fan Angle & Working Distance

The size of the fan angle (or spread of the beam) will determine how long the line is. When viewed from the same distance and at 90 degrees to the surface a line with a fan angle of 60 degrees will be longer than a line with a fan angle of 30 degrees. The Laser Lyte Flex can be fitted as standard with line optics with a fan angle of 60 & 90 degrees, Cross optics with a fan angle of 8 degrees and 60 degrees and a line+dot optic with a fan angle of 100 degrees.

Fan Angle (Degrees)	Distance to Object (mm)	Line Length (mm)
30	100	54
60	100	115

As a guide to relationship between working distance, line length and fan angle please see the table below.

		Fan Angle (Degrees)				
		8	60	90		
Distance From Object (mm)	250	35	289	500	Line Length (mm)	
	500	70	577	1000		
	750	105	866	1500		
	1000	140	1155	2000		
	1250	175	1443	2500		
	1500	210	1732	3000		
	1750	245	2021	3500		
	2000	280	2309	4000		
	2250	315	2598	4500		
	2500	350	2887	5000		
	2750	385	3175	5500		
	3000	420	3464	6000		
	3250	455	3753	6500		
	3500	489	4041	7000		
	3750	524	4330	7500		
	4000	559	4619	8000		
	4250	594	4907	8500		
	4500	629	5169	9000		
	4750	664	5485	9500		
	5000	699	5774	10000		
5250	734	6062	10500			
5500	769	6351	11000			

5. Changing The Optics

A set of 5 interchangeable pattern optics have been supplied with your LaserLyte Flex Development Kit including:

Small Cross – 9° fan angle

Big Cross – 60° fan angle

Short Line – 60° fan angle

Long Line – 90° fan angle

Long Line + Dot – 100° fan angle

To change the pattern please follow the instructions below:

1. Remove any interchangeable pattern optics if fitted (see drawing D).
2. Replace the interchangeable pattern optics and rotate to achieve the desired projection.
3. Please ensure that any optics not fitted to the laser module is kept away from sources of dust etc.

6. Mounting

To ensure the lifetime and the stability of the laser it is recommended that it is mounted in a suitable heat sink/mount. The case temperature should be kept within the specified range at all times, failure to do this could result in shortened lifetime or catastrophic failure. As a guide, laser diode lifetime decreases by a factor of two (approx) for every ten degree increase in operating temperature.

Global Laser's Heavy Duty Mounting Clamp is supplied as standard for the Laserlyte Flex development kit.

Global Laser's Heavy Duty Mounting Clamp has parallel and vertical adjustment which allows the user to aim the laser in any required direction or angle. The robust aluminium construction also assists in conducting heat away from the laser body as well as prevents movement due to shock and vibration. The base plate of the Heavy Duty Mounting Clamp has a series of threaded holes to allow the Heavy duty clamp to be securely fastened to stable surface.

5A Mounting the Laserlyte Flex in the Heavy Duty Mounting Clamp

1. Un-tighten allen screw A (see drawing B) with the supplied allen key.
2. Slide the laser into the mounting hole (see drawing B) and tighten allen key A.
3. For vertical adjustment of the laser un-tighten grub screw A (see drawing B). This will allow the section mounting the laser to be adjusted. When the vertical posting is complete re-tighten grub screw A.
4. For horizontal adjustment of the laser un-tighten grub screw B (see drawing B). This will allow the main body of the mount to be moved. When the horizontal positing is complete re-tighten grub screw B.
5. To secure the Heavy duty clamp to a surface machine screw or studs can be used in conjunction with the base section (see drawing B for thread details).

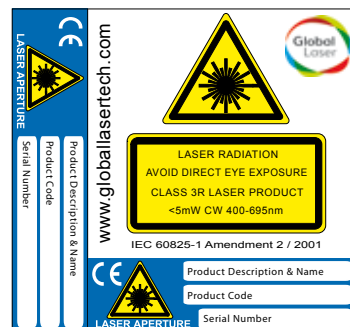
7. Warranty & Repair

If your product develops a fault within 24 months from the date of purchase Global Laser will repair / replace the product. If you wish to return a faulty product contact your local representative or Global Laser to obtain a RMA (Return Material Authorisation code) and return to the address below:

Global Laser Ltd
Cwmtillery Industrial Estate
Abertillery
Gwent, NP13 1LZ
United Kingdom

8. Safety & Classification

These modules are intended for incorporation into customer equipment. They are classified in accordance with IEC60825-1 Amendment 2/2001, which should be consulted prior to designing or using any laser product. The following labels are supplied for attachment to the customer's equipment, but responsibility for compliance with the standard remains with the user.

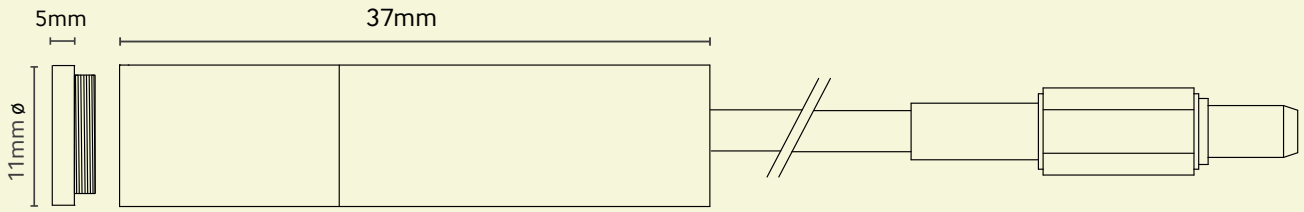


Class 3R Laser Label

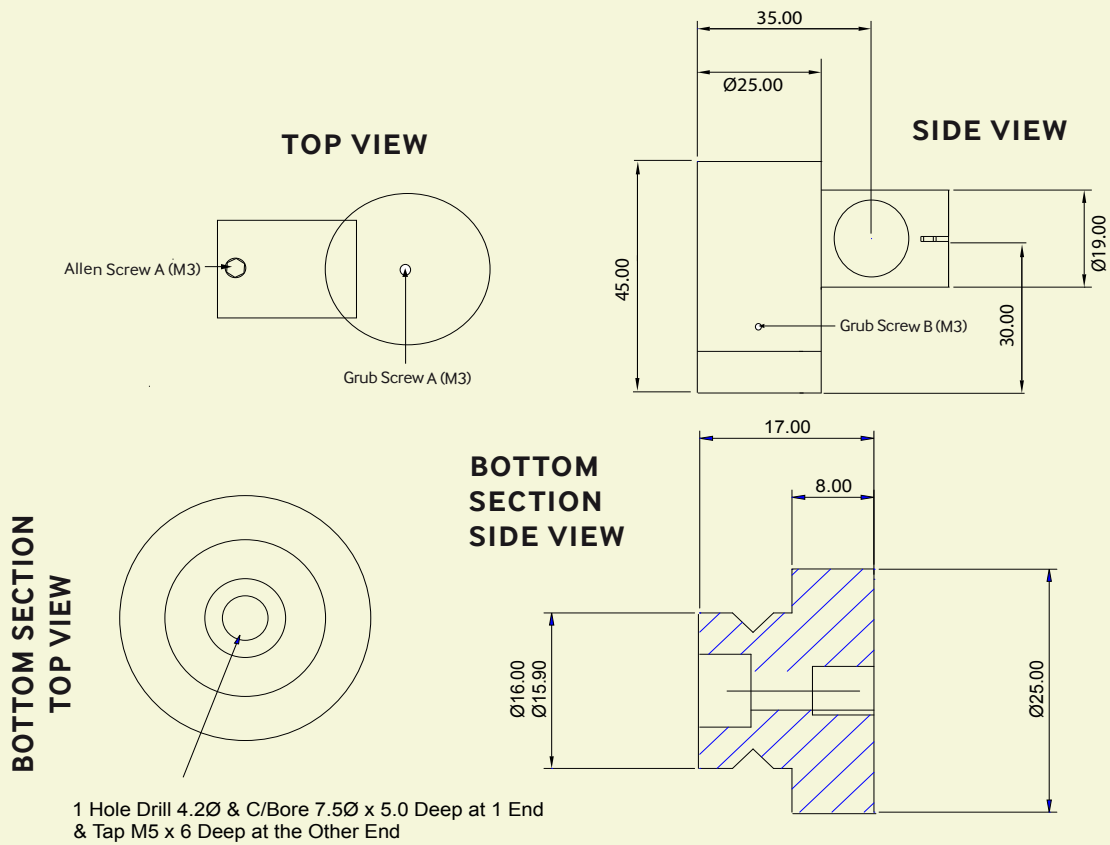
IEC 60825 Warning Labels (examples)

9. Diagrams

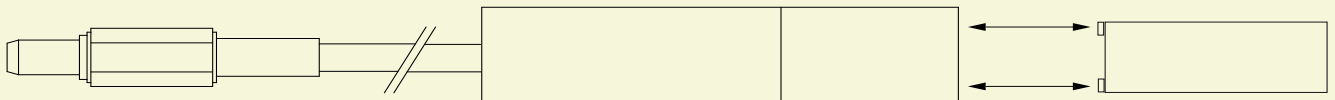
A) Laserlyte Flex With Line/Cross Optics



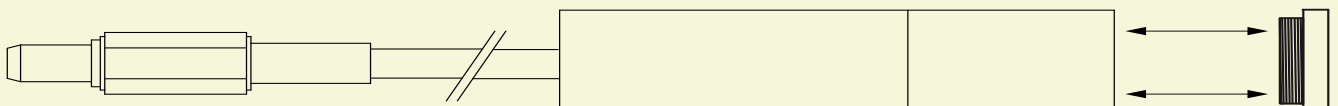
B) Heavy Duty Mounting Clamp



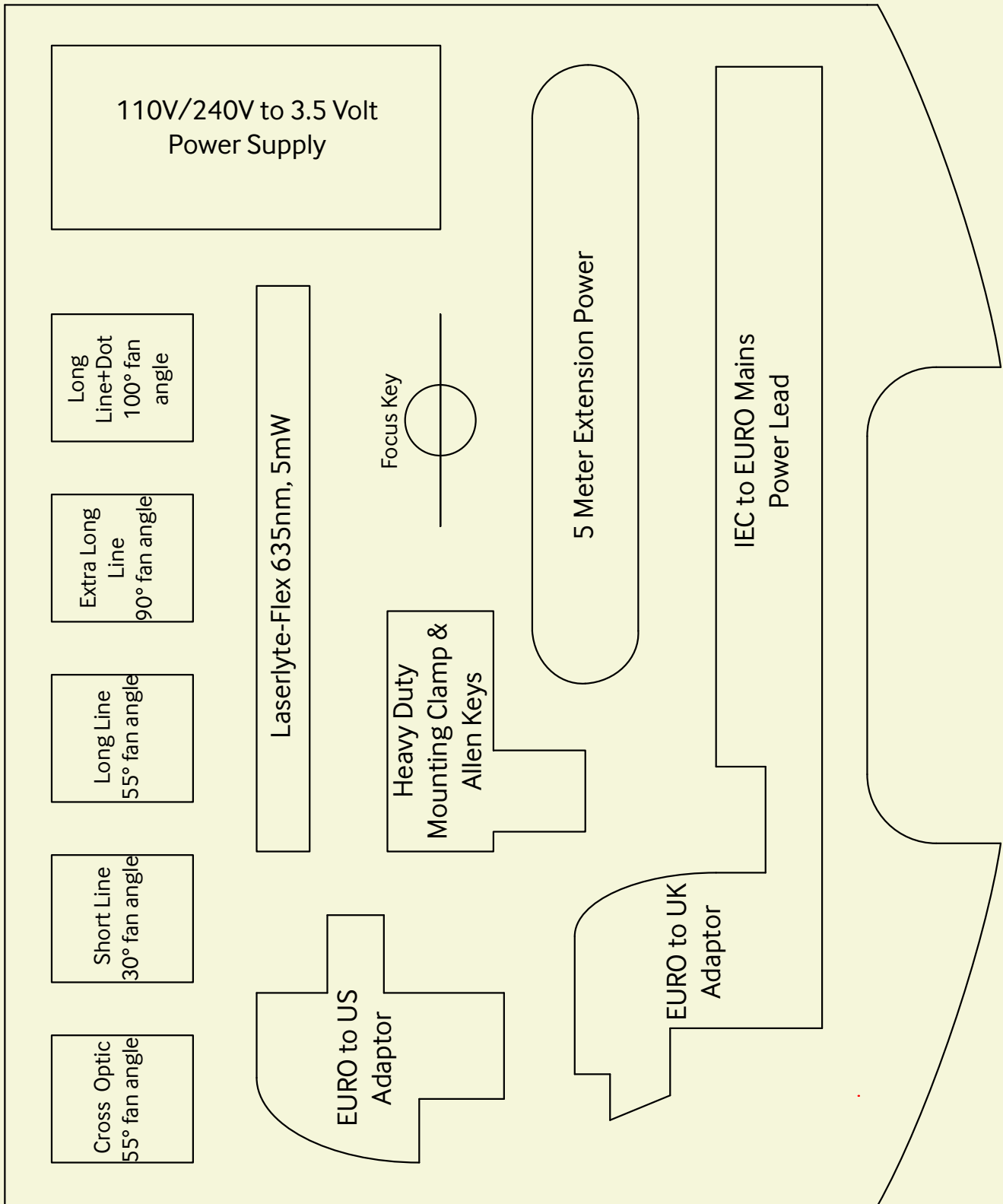
C) Laser Focus Adjustment



D) Projection Optics Adjustment



9. Diagrams



Notes.

Please Note: Global Laser reserve the right to change descriptions and specifications without notice.



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