

LASER TREE LT-80W-F45 Laser Engraving Module with Air



LASER TREE LT-80W-F45 Laser Engraving Module with Air Assist User Manual

[Home](#) » [LASER TREE](#) » LASER TREE LT-80W-F45 Laser Engraving Module with Air Assist User Manual 

Contents

- [1 LASER TREE LT-80W-F45 Laser Engraving Module with Air Assist](#)
- [2 PRODUCT INTRODUCTION](#)
- [3 PRODUCT DESCRIPTION](#)
- [4 CONNECTION DESCRIPTION](#)
- [5 REFERENCE SETTINGS](#)
- [6 MAINTENANCE](#)
- [7 Documents / Resources](#)
 - [7.1 References](#)



LASER TREE LT-80W-F45 Laser Engraving Module with Air Assist

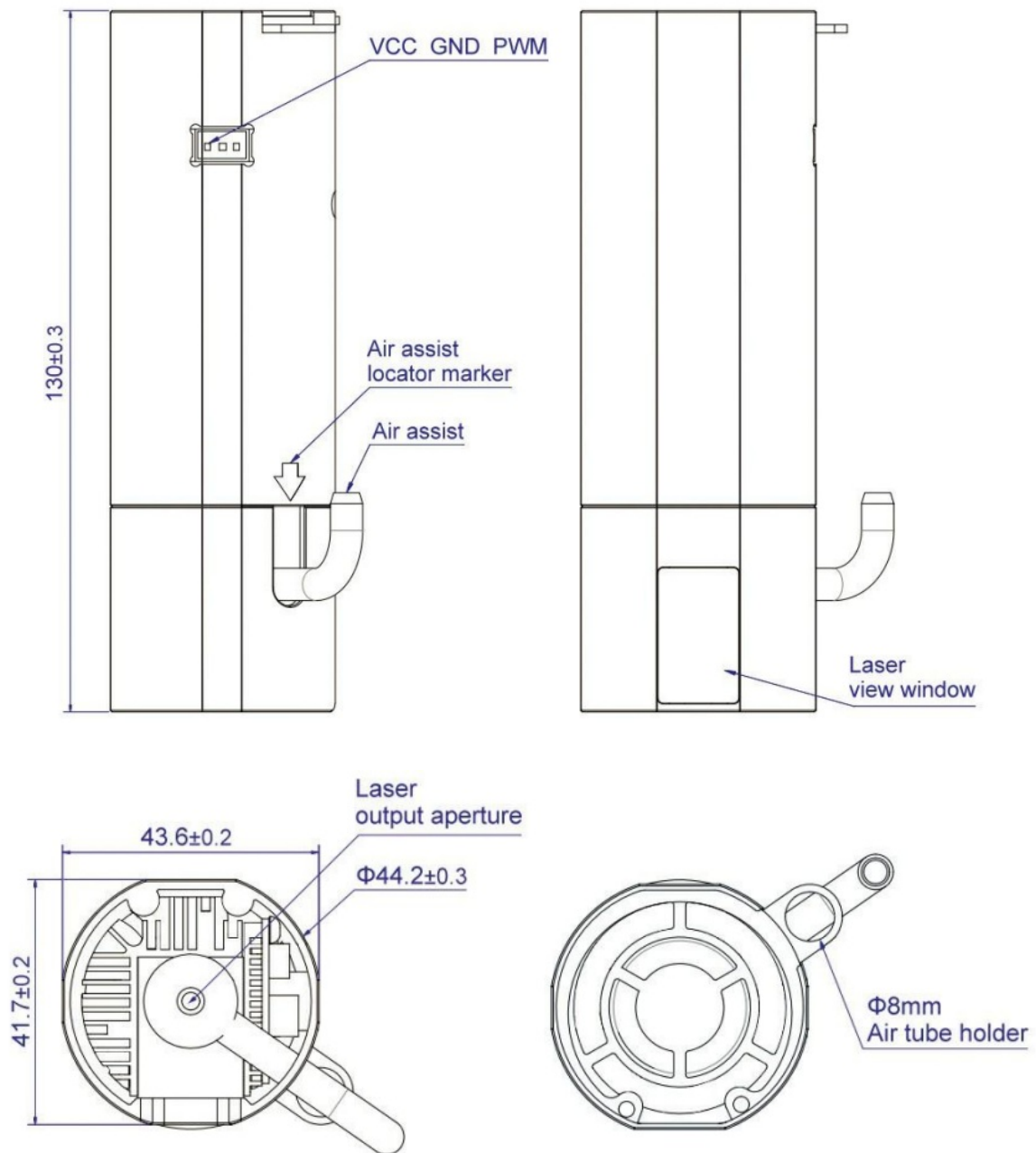


PRODUCT INTRODUCTION

Parameters

Optical power:	10W (+1W)
Input:	DC 12V 3A
Wavelength:	450nm (+10nm)
Focus length:	45mm
PWM modulation:	0/3-12V, 0-5kHz
Fan speed:	10000rpm
Operating temperature:	0-60°C
Interface:	XH2.54-3P Socket
Cable:	3PIN, 80cm
Module size:	43*130mm
Module weight:	250g
Application:	Engraving or Cutting

Outline dimension (Unit: mm)



Standard configuration

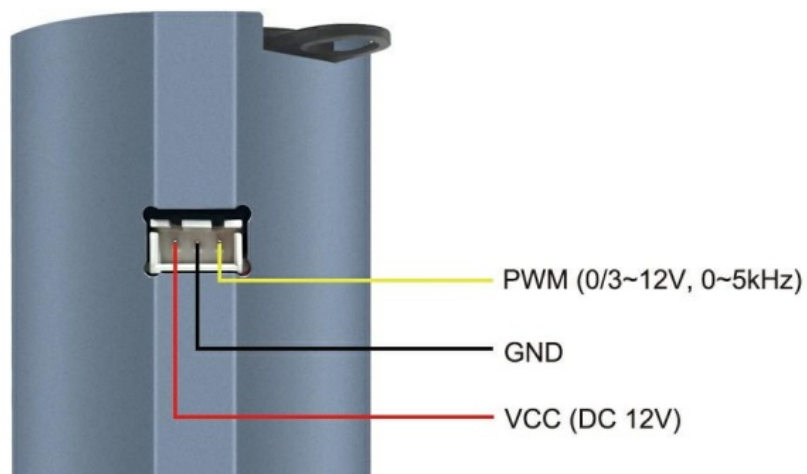


Air pump suggestion:

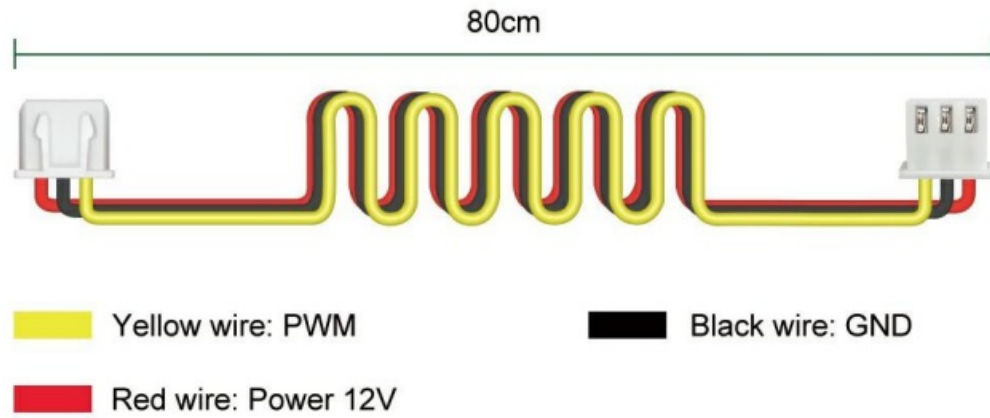
- Air pressure and capacity: 0.027kPa, 27L/min

PRODUCT DESCRIPTION

Built-in driver board



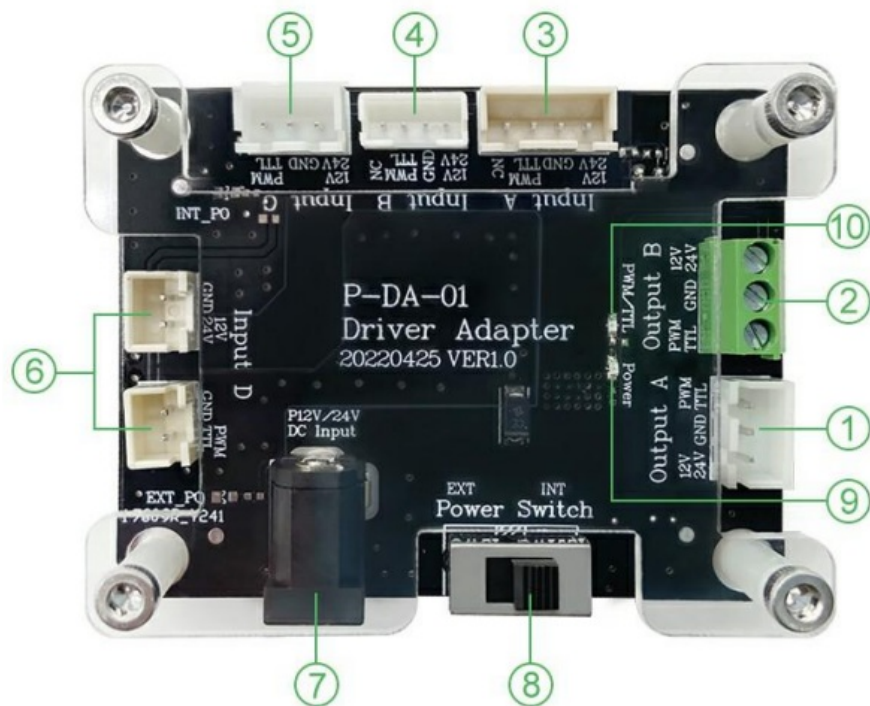
PIN definition



Driver adapter

Note: This driver adapter DOES NOT come with the laser module. For more details, please refer to section 3 connection description.

Model: P-DA-01



1 Output A: 3PIN connector	2 Output B: 3PIN connector
3 Input A: 4PIN connector	4 Input B: 4PIN connector
5 Input C: 3PIN connector	6 Input D: 2PIN connector
7 DC Input: 12V or 24V power adapter	
8 Power Switch: • EXT-External power supply supply • INT-internal power s	
9 Power indicator: It is red when the power cable is connected correctly.	
10 TTL/PWM indicator: It is green when the TTL/PWM cable is connected correctly.	

CONNECTION DESCRIPTION

Please check whether the laser module is compatible with your engraving machine before connection.

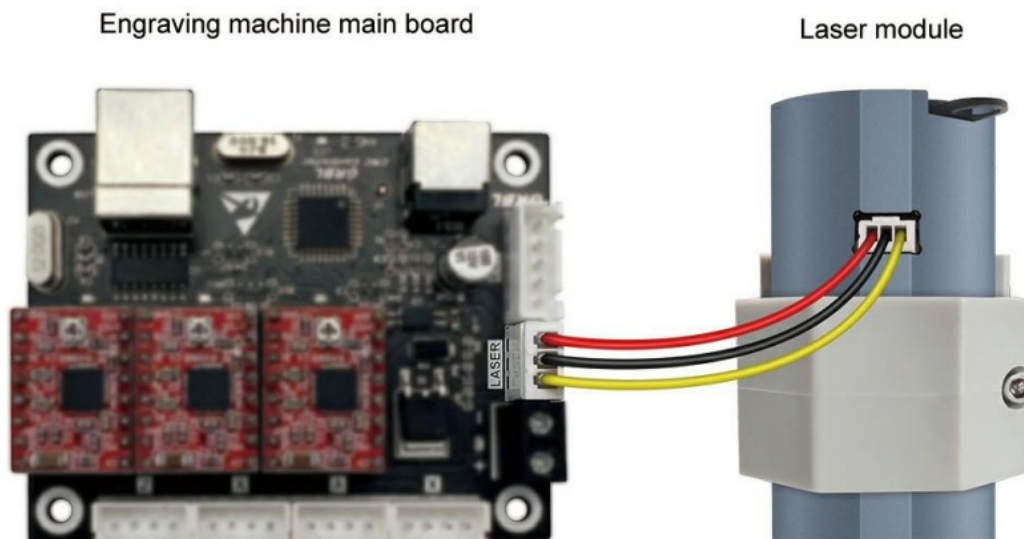
A. Check the voltage parameter of your engraving machine.

Please ensure that your engraving machine voltage and laser module are matched.

B. Check the port of the main control board on your engraving machine. Please find the PWM port, GND port and VCC port on the main board of your engraving machine. Then connect this laser module to the main board accordingly.

“A”&”B”are both compatible.

Connect the laser module to the main board of your engraving machine directly.



Only voltage is not matched

The voltage parameter of your machine are not matched to the module.

Laser Module	Machine	Solutions
12V	12V	Plug and play
	24V	Driver Adapter + 12V Power Supply

STEP 1

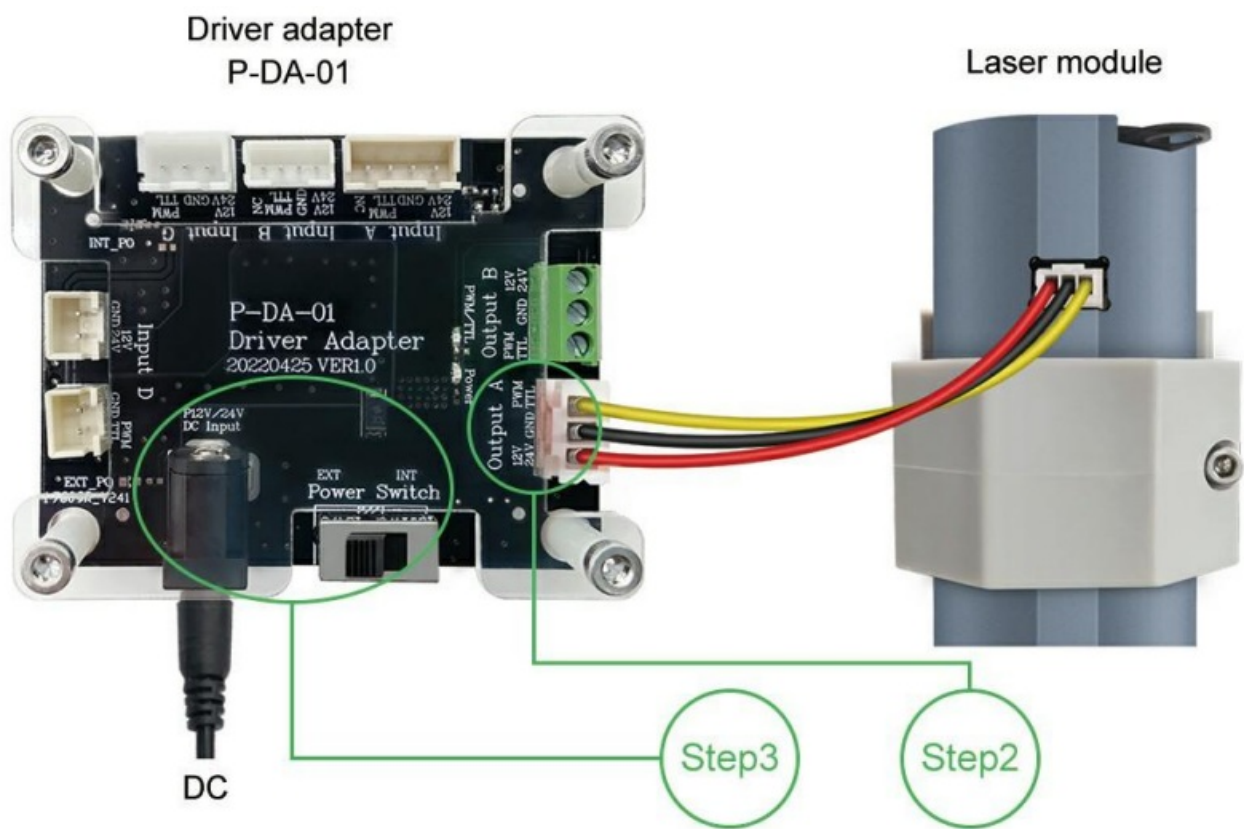
Connect the cable of your engraving machine to the corresponding input connector on P-DA-01.

STEP 2

Connect the cable of the laser module to the Output A connector on P-DA-01.

STEP 3

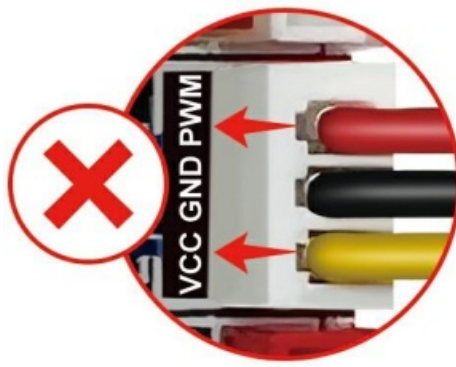
Connect the corresponding power adapter to the DC Input connector on P-DA-01. Push the switch to EXT position and the power is provided by external power adapter.



Only control board pin definition is not matched.

Situation 1: The definition of connector on the engraving machine main board is not pin-to-pin.

Please rearrange the wire sequence of the cable to make each wire is well matched with the pin definition on the engraving machine main board.



Red wire and yellow wire connection error



Red wire and yellow wire connection correctly

Situation 2: Please use P-DA-01 if the main board of your engraving machine is not 3pin, such as 2pin.

Laser Module	Machine	Solutions
3PIN	2PIN	Driver Adapter
	Other pins	Driver Adapter

STEP 1

Connect the cable of the your engraving machine to the corresponding input connector on P-DA-01.

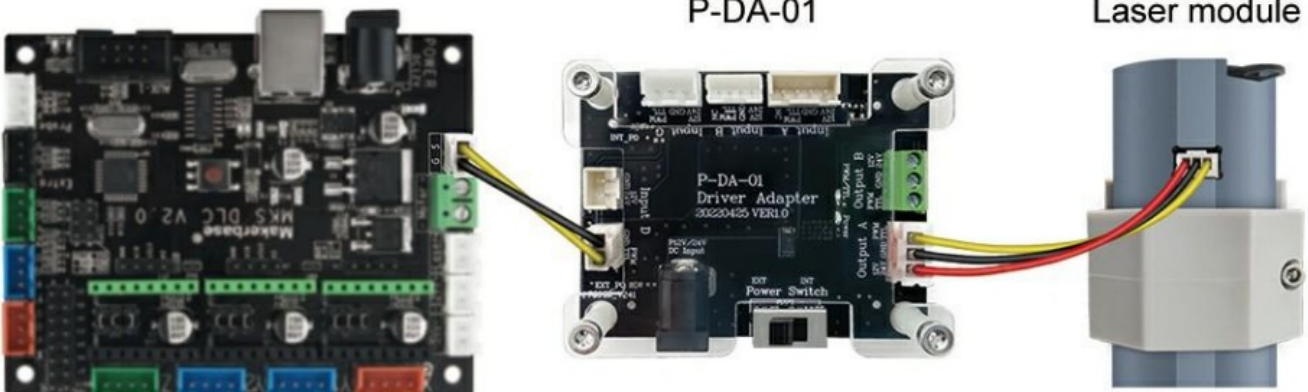
STEP 2

Connect the cable of the laser module to the Output A connector on P-DA-01.

Engraving machine main board

Driver adapter
P-DA-01

Laser module



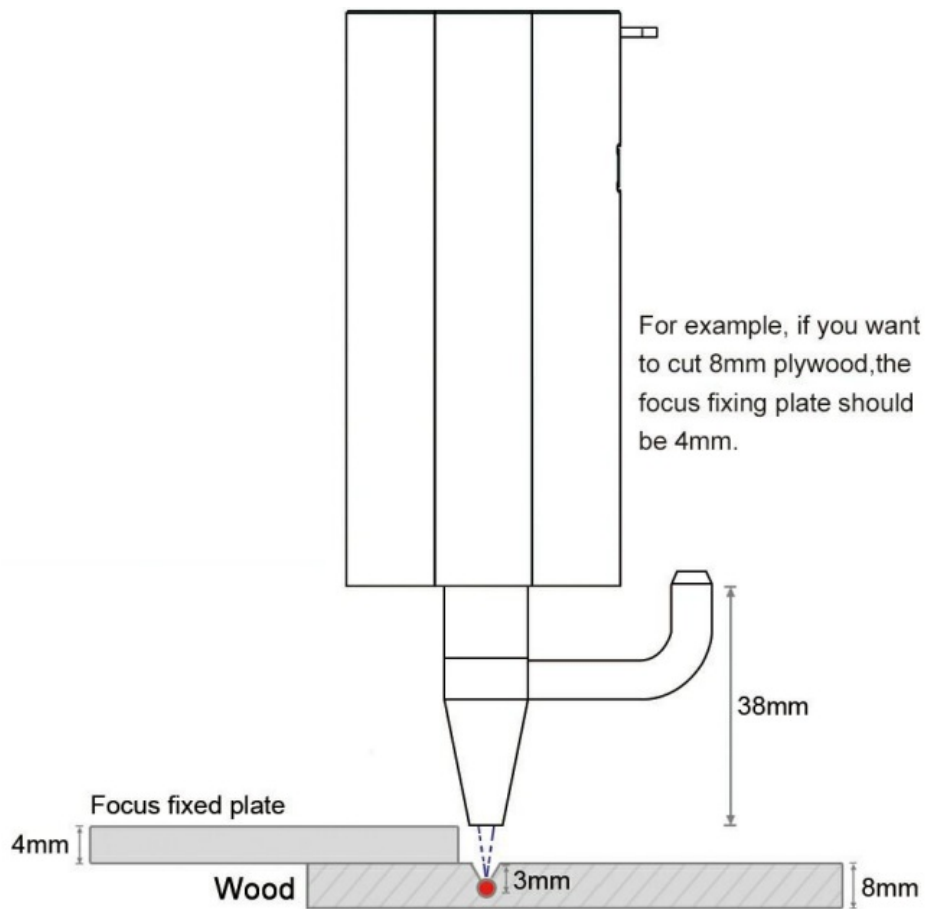
REFERENCE SETTINGS

For cutting

The focal length of the L T-80W-F45 laser module is 45mm.

When cutting, you only need to make the focus located a bit lower than the surface of materials.

Reference settings for cutting

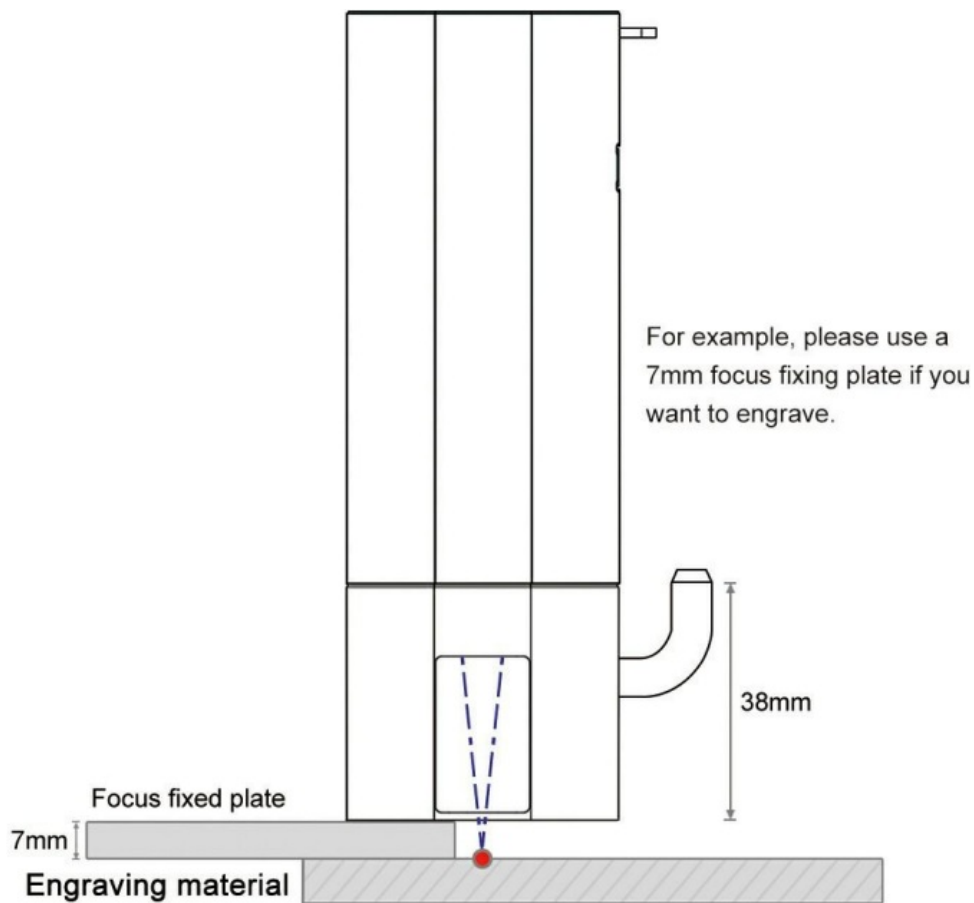


Focus fixing plate using reference	
Material Thinkness	Plate thickness
2mm	7mm
3mm	7mm
4mm	5mm
5mm	5mm
6mm	5mm
8mm	4mm

For engraving

When engraving, please ensure that the focus is located on the material surface.

Reference settings for engraving



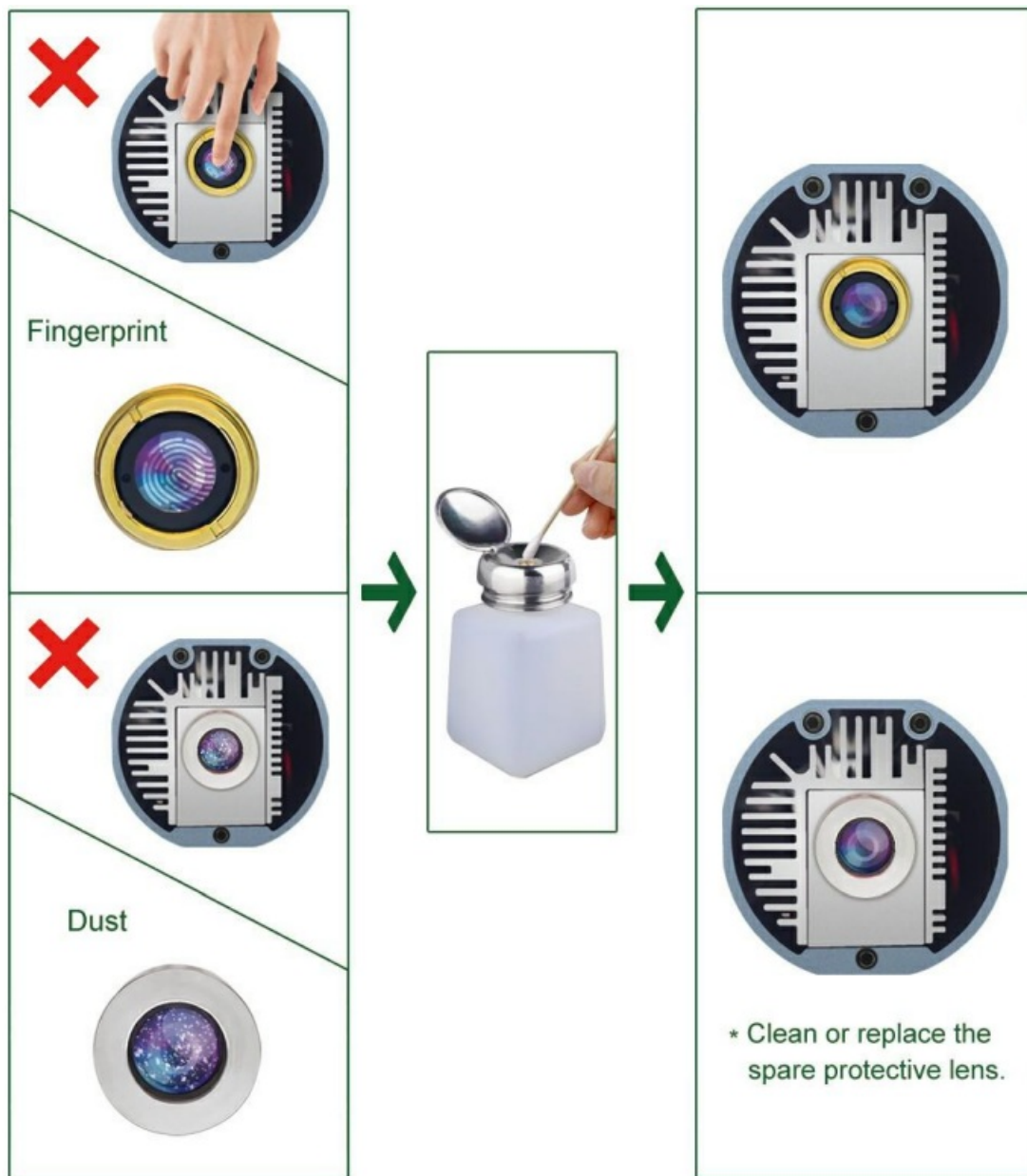
PRECAUTIONS

- Laser may cause damage to your skin. Please do not expose your skin directly to the laser.
- Please wear laser goggles to protect your eyes when you use this laser module.
- Please ensure that the air pump is turned on before you start cutting. If not, the smoke will contaminate the lens.
- This laser module doesn't support hot plug, hot plug may cause damage to the laser module.

MAINTENANCE


- When the laser module is not used for a long time, please ensure that the lens is not polluted by dust.
- When you replace the air nozzle, please ensure that your operation will not pollute the lens. Finger prints or dust on the lens will weaken the output power of the laser module, or even damage the lens.
- When you find the cutting ability decreases, the lens might be not clean. Please use a clean alcohol swab to clean it according to the following figure.

For more information about maintenance, please contact us at lasertree@micost-optotech.com.



Enjoy pleasure of DIV

Documents / Resources

 <p>LT-80W-F45 USER MANUAL</p>	<p>LASER TREE LT-80W-F45 Laser Engraving Module with Air Assist [pdf] User Manual LT-80W-F45 Laser Engraving Module with Air Assist, LT-80W-F45, Laser Engraving Module with Air Assist, Engraving Module with Air Assist, Air Assist</p>
-----------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

References

- [User Manual](#)

Manuals+, Privacy Policy

This website is an independent publication and is neither affiliated with nor endorsed by any of the trademark owners. The "Bluetooth®" word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The "Wi-Fi®" word mark and logos are registered trademarks owned by the Wi-Fi Alliance. Any use of these marks on this website does not imply any affiliation with or endorsement.