

LASER TREE K40

LASER TREE K40 40W Optical Power Laser Module User Manual

INTRODUCTION

Welcome to the user manual for your LASER TREE K40 40W Optical Power Laser Module. This manual provides essential information for the safe and efficient operation, setup, maintenance, and troubleshooting of your laser module. Please read this manual thoroughly before use to ensure proper handling and to maximize the lifespan and performance of your device.

SAFETY INFORMATION

General Safety Precautions

- This is a **Class 4 laser product**. Direct exposure to the laser beam can cause severe eye and skin damage.
- Always wear appropriate laser safety goggles (OD6+) when operating the laser module.
- Ensure the work area is well-ventilated to dissipate fumes generated during cutting or engraving.
- Never leave the laser module unattended during operation.
- Keep children and pets away from the operating area.
- Do not operate the laser near flammable materials.
- The module is equipped with an orange protective glass cover for eye protection.

Temperature Alarm

The laser module features a temperature display and alarm function. If the working temperature exceeds 55°C, an audible alarm will sound. This indicates an elevated temperature that could affect the module's lifespan and performance. Press the reset button to silence the alarm. Allow the module to cool down if the alarm persists.

Temperature Display & Alarm Function

- ① Excessive working temperatures can reduce the life time of the laser head at an accelerated rate.
- ② When the working temperature of laser module over 55°C, it will sound an alarm through the buzzer.



Image: The laser module displaying its working temperature and the location of the alarm reset button. An alarm sounds if the temperature exceeds 55°C.

PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- LASER TREE K40 40W Optical Power Laser Module
- Driver Adapter & 30cm Input Cable
- Spare Protective Lens
- Sliding Plate
- Adjusting Screws M4*20 (2 pcs)
- Air Tube (Φ8*5mm)
- 24V8A Power Adapter
- Power Cable

- 60cm Adapter Cable
- 2.5mm Flat Screwdriver
- 2mm L-wrench

LT-K40-EU Plug:



Driver Adapter & 30cm Input Cable



Spare Protective Lens



Sliding Plate



Adjusting screw
M4*20



Air Tube



24V8A Power Adapter



Power Cable



60cm Adapter Cable



2.5mm Flat Screwdriver



2mm L-wrench

Image: A visual representation of all components included in the LT-K40-EU package.

SETUP

Installation

The laser module features an integrated dovetail guide rail, 115mm in length, allowing for smooth movement and easy adjustment of height and focus position. To ensure compatibility with various laser engraving machines, the K40 provides a sliding plate solution with multiple holes for installation flexibility.

K40 Capacité de coupe maximale

8 diodes laser à compression de faisceau de 5.5W intégrées



55mm/min 1 passage
coupe de bois de pin de 30mm



200mm/min 1 passage
découpe de contreplaqué de 15mm



150mm/min 1 passage
découpe de MDF 9mm



15mm/min 1 passage
découpe de l'acrylique de 30mm

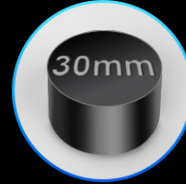


Image: Illustration of the laser module's easy installation mechanism, highlighting the sliding plate and height adjustment.

Connecting the Module

1. Connect the driver adapter and 30cm input cable to your laser machine's control board.
2. Attach the 60cm adapter cable to the laser module.
3. Connect the 24V8A power adapter and power cable to the module.
4. Ensure all connections are secure before powering on.

OPERATING INSTRUCTIONS

Powering On and Indicator Lights

The LASER TREE K40+ laser engraving module has two indicator lights: a red light for power and a green light for the PWM signal. When both lights are illuminated simultaneously, it indicates that the module is functioning correctly. The red cross positioning light at the bottom will also be active.

LT-K40 Liste de colis:



Adaptateur et câble
d'entrée de 30cm



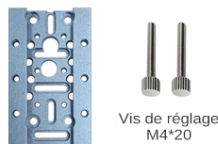
Lentille protectrice
de rechange



Câble électrique



24V8A Adaptateur
électrique



Plaque coulissante

Vis de réglage
M4*20



Tube d'air



Câble d'adaptation
de 60cm



2mm L-clé anglaise



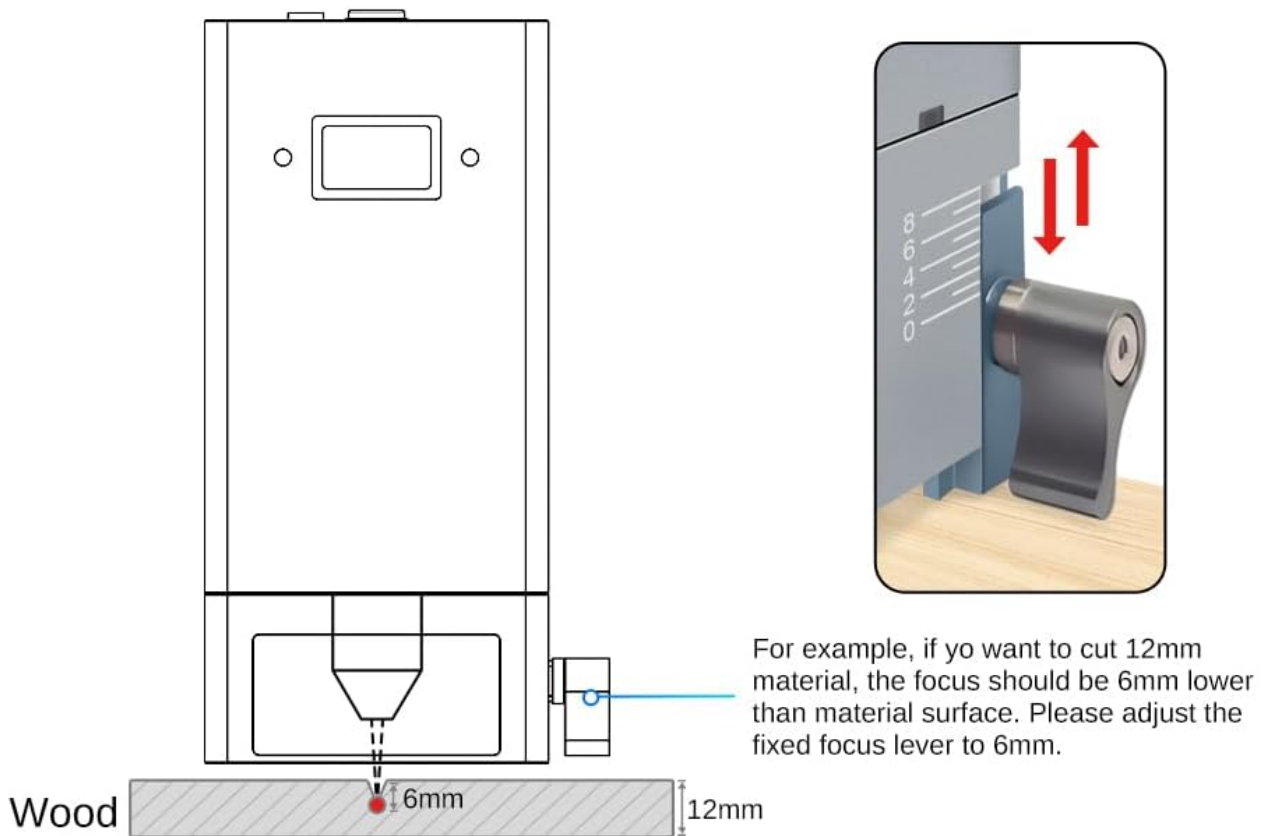
2.5mm Tournevis plat

Image: A detailed view of the laser module, pointing out the power indicator, signal indicator, air assist port, and fixed focus lever.

Focus Adjustment

A focus lever is designed on the lower side of the laser module to adjust the focal distance based on the material thickness. For example, to cut 12mm material, the focus should be 6mm lower than the material surface. Adjust the fixed focus lever to 6mm.

Reference settings for cutting



Fixed focus lever usage reference						
Material thickness	< 5mm	5mm	8mm	10mm	12mm	≥15mm
Fixed focus lever	0mm	2mm	4mm	5mm	6mm	7mm

Image: A guide showing the fixed focus lever and a reference table for adjusting focus based on material thickness.

Fixed Focus Lever Usage Reference

Material Thickness	Fixed Focus Lever Setting
< 5mm	0mm
5mm	2mm
8mm	4mm
10mm	5mm
12mm	6mm
≥15mm	7mm

Red Cross Line Positioning

The red cross positioning light located at the bottom of the laser head helps to accurately position the laser module, ensuring precise alignment for your engraving or cutting tasks.

Red Cross Line Locating

Help you to place the material to the position correctly



VS



Image: A visual comparison demonstrating the accuracy gained by using the red cross line for material positioning.

Cutting and Engraving Capabilities

The LASER TREE 40W optical power laser module offers powerful cutting capabilities. It can cut 20mm plywood in a single pass at 150mm/min with 100% power. At the same settings, it can cut 15mm acrylic in a single pass. This 40W laser head is suitable for cutting plywood, pine, acrylic, basswood, 0.5mm stainless steel, and other materials.

Powerful Cutting Ability

Maximum thickness of one-pass cutting



Pine plywood

55mm/min 1pass



bass plywood

100mm/min 1pass



MDF

150mm/min 1pass



Black Acrylic

15mm/min 1pass



Image: Visual examples demonstrating the maximum thickness of various materials that can be cut in a single pass, including pine plywood, bass plywood, MDF, and black acrylic.

The module also offers super fast engraving speeds, reaching up to 20000mm/min.

Super Fast Engraving Speed



Image: A comparison highlighting the superior engraving speed of the LASER TREE K40 module.

MAINTENANCE

Cooling System

The LASER TREE 40W module features a dual-fan cooling system, providing excellent cooling performance. Two fans work simultaneously to enhance the laser module's lifespan and prevent power degradation. It also includes a built-in air assist airway to achieve clean-cut edges and improve cutting performance.

Built-in Air Assist Airway & Dual Fan Cooling Design

- ① Built-in air assist airway to get clean-cut edges, improve cutting performance.
- ② Excellent heat dissipation performance allows the laser module to maintain optimal cooling while reducing noise, thereby achieving stable cutting and engraving performance.

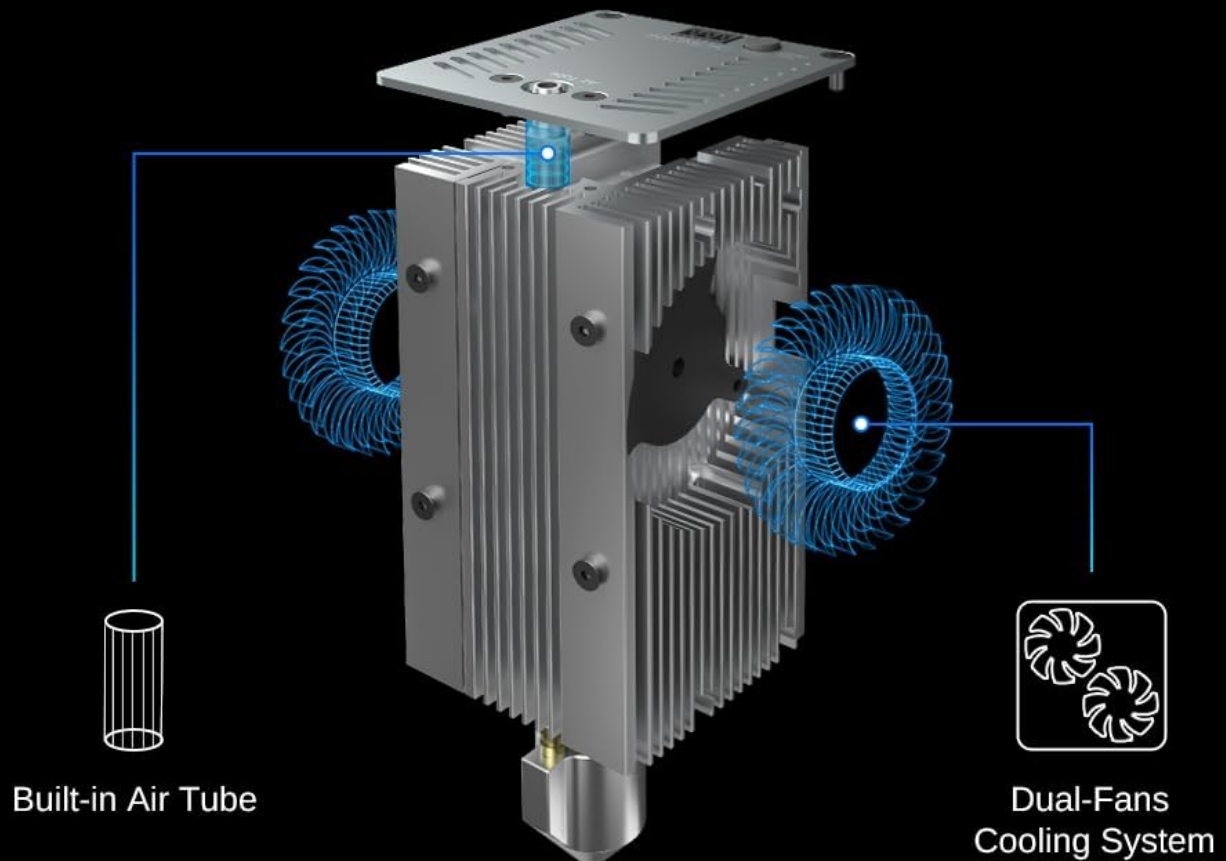


Image: An exploded view illustrating the dual-fan cooling system and the integrated air assist airway within the laser module.

Protective Lens Replacement

The module features an easy-to-change window design, making it simple to clean and replace the protective lens if it becomes contaminated or dusty. Regular cleaning ensures optimal laser performance and longevity.



Verre optique



Fenêtre d'affichage laser

Fenêtre anti-lumière bleue en verre optique, protégeant vos yeux de la lumière bleue, sans crainte des flammes.

Image: Illustration demonstrating the process of changing the protective lens, highlighting the focus lens and protective lens core.

TROUBLESHOOTING

Temperature Alarm

If the temperature alarm sounds (module temperature exceeds 55°C), press the reset button to silence it. Allow the module to cool down. Ensure adequate ventilation and check for any obstructions to the cooling fans.

Laser Not Firing or Weak Output

- Check if both the red power indicator and green PWM signal indicator lights are on.
- Verify all cables are securely connected.
- Ensure the power adapter is correctly plugged in and receiving power.
- Clean the protective lens if it appears dirty or dusty.
- Adjust the focus according to the material thickness using the focus lever.

Inaccurate Positioning

- Ensure the red cross positioning light is active and properly aligned with your material.
- Check the stability of your laser machine and the module's mounting.

General Issues

If you encounter issues not covered here, please refer to the support section for contact information.

SPECIFICATIONS

Feature	Detail
Brand	LASER TREE
Model	K40
Optical Power Output	40W+ (Built-in 8pcs 5.5W beam compressed laser diodes)
Laser Class	Class 4

Feature	Detail
Input Voltage	24V
Cooling System	Dual Fan Cooling
Air Assist	Built-in Air Assist Airway
Temperature Monitoring	Digital Display with Over-temperature Alarm (>55°C)
Positioning Aid	Red Cross Line Locating Light
Eye Protection	Orange Protective Glass Cover
Package Dimensions	27.6 x 21.5 x 11 cm
Weight	2.29 kg
ASIN	B0CL6QB1YD

WARRANTY AND SUPPORT

Warranty Information

Information regarding specific warranty terms is not available in the provided product details. Please refer to your purchase documentation or contact the seller for warranty details.

Customer Support

For any questions before or after your purchase, or if you are unsure about the compatibility of this laser module with your machine, please contact the seller directly through the Amazon messaging system. The seller aims to respond and resolve issues promptly.

Procedure to contact seller:

1. Log in to your Amazon account.
2. Navigate to your orders.
3. Click on the corresponding order number for this product.
4. Select the option to contact the seller.

ADDITIONAL INFORMATION

Example Projects

The LASER TREE K40 module is capable of a wide range of engraving and cutting projects on various materials, including wood, acrylic, and metal.

LT-K40 Liste de colis:

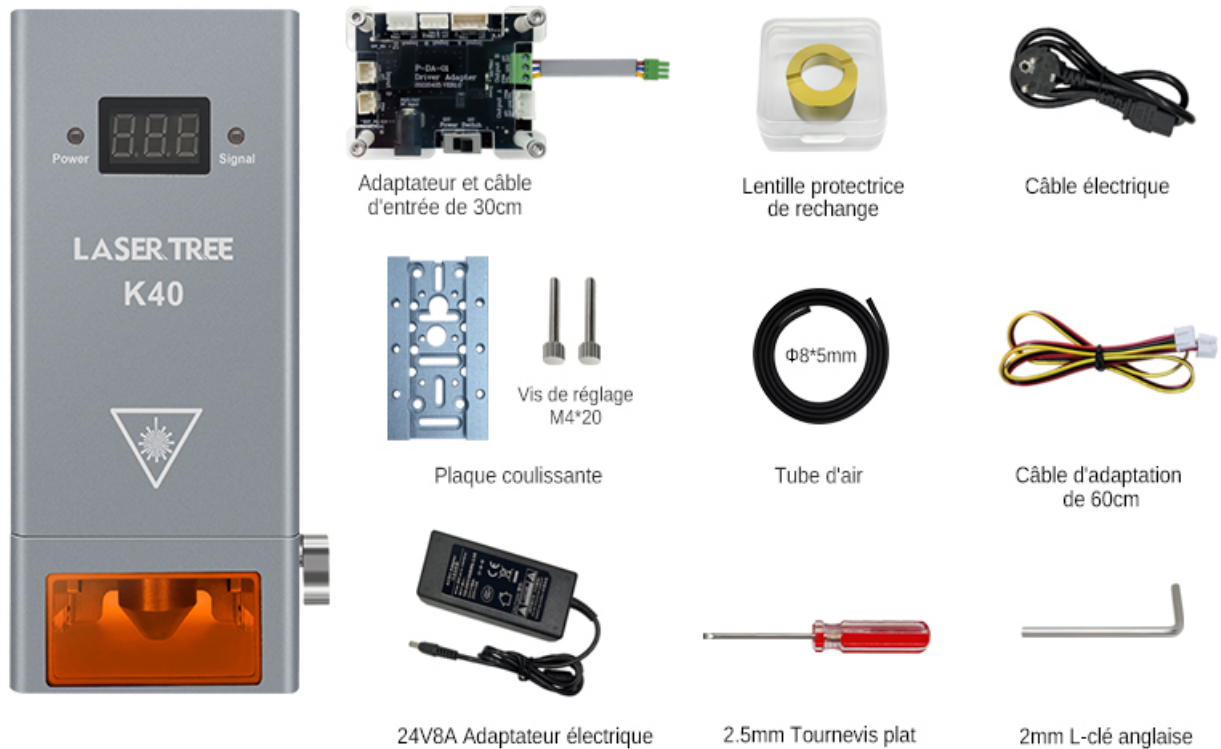


Image: Examples of intricate designs and patterns created using laser engraving technology on different materials.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question