

Ortur Laser Master 2 S2 LU2-10A

ORTUR Laser Master 2 S2 LU2-10A Laser Engraver User Manual

Model: Laser Master 2 S2 LU2-10A

1. INTRODUCTION

The ORTUR Laser Master 2 S2 LU2-10A is a high-performance laser engraving and cutting machine designed for precision work. This manual provides essential information for the safe and effective operation, setup, maintenance, and troubleshooting of your device. Featuring a 10000mW laser module, this machine is capable of engraving intricate designs and cutting various materials with high accuracy.

2. SAFETY INFORMATION

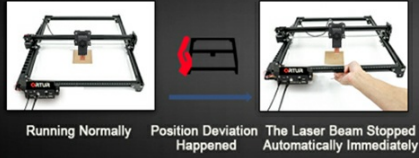
Operating a Class 4 laser product requires strict adherence to safety protocols to prevent injury. Always wear the provided laser protective goggles during operation. The machine incorporates several safety features:

- **G-sensor Protection:** If the engraving machine is displaced or tilted during operation, the laser will automatically stop.
- **Laser Beam Safety Guard:** In the event of a computer system halt or USB cable disconnection, causing the laser engraver to stop moving, the laser beam will automatically cease to prevent fire hazards.
- **Exposure Duration Detection:** If the machine is turned on but remains stationary for an extended period, the laser will automatically turn off.
- **Eye Protection Design:** The newly designed laser protective cover filters out 98% of UV light, offering enhanced eye protection.

WARNING: Never look directly into the laser beam. Ensure proper ventilation in the work area. Keep children and pets away from the operating machine.

Safety Protection System

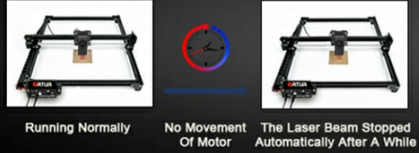
01 Active Position Protection



02 Laser Beam Safety Guard



03 Exposure Duration Detection and Limitation



04 Power Control System



Image: Overview of the four integrated safety protection systems, including active position protection, laser beam safety guard, exposure duration detection, and power control system.

3. PRODUCT OVERVIEW

The ORTUR Laser Master 2 S2 LU2-10A features a robust industrial-grade full metal structure, ensuring reliability and engraving accuracy. Its modular design facilitates easy assembly and maintenance.

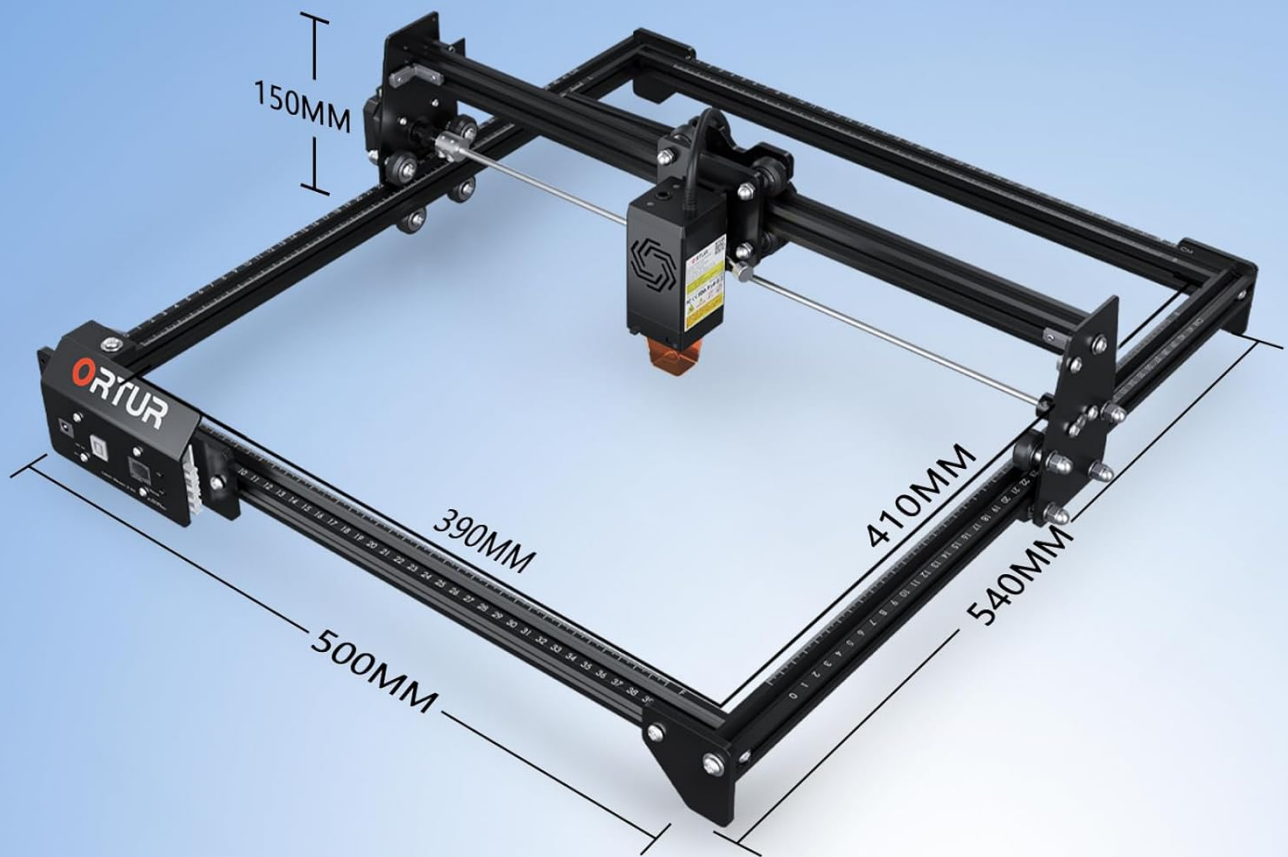
Key Features:

- **Laser Module:** 10000mW (10W optical power) with a compressed spot size of 0.05mm x 0.1mm.
- **Engraving Area:** 390mm x 410mm.
- **Air-Assist Interface:** Built-in for enhanced cutting performance.
- **Weight:** Laser module weighs 235g for faster operation.



Image: The ORTUR Laser Master 2 S2 LU2-10A laser engraver, showcasing its design and engraving capabilities.

LM2S2-LU2-10A



4 Safety Protections



Exposure Duration
Detection



Laser Beam
Safety Guard



Power Control
System



Position Movement
Protection

Image: Dimensional drawing of the ORTUR Laser Master 2 S2 LU2-10A, indicating its overall size and engraving area.

Stable Light 10W Laser Module

Integrated Air Assist , Dual Fans , Foldable Focal
Gauge All in 235g Weight



Image: Exploded view of the 10W laser module, illustrating its internal components and design for stable light output and cooling.

4. SETUP

4.1 Assembly

The assembly process for the ORTUR Laser Master 2 S2 LU2-10A is designed to be straightforward, typically taking 10-15 minutes. Follow the detailed instructions provided in the separate assembly guide included with your product. The modular design simplifies component installation and future replacements.

4.2 Software and System Compatibility

The laser engraver is compatible with widely used engraving software:

- **Software:** LaserGRBL, LightBurn.
- **Operating Systems:** Windows 7 / 8 / XP / 10 / 11, and macOS (LightBurn).
- **File Formats:** Supports SVG, DXF, JPG, JPEG, PNG, BMP, TIF, CR2, and more.

Ensure your computer meets the minimum system requirements for the chosen software.

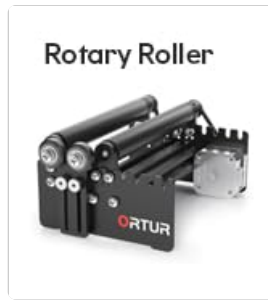


Image: The laser engraver connected to various operating systems, highlighting its broad software compatibility.

4.3 Ground Wire Note

Please disregard the ground wire included in the package. This wire was intended for 2.1W or 5W laser modules. For the 10W laser module equipped with this machine, the ground wire has already been integrated into the module.

5. OPERATING INSTRUCTIONS

The ORTUR Laser Master 2 S2 LU2-10A is capable of both precise engraving and efficient cutting across a variety of materials.

5.1 Engraving

The 10W laser module with its fine compressed spot (0.05mm x 0.1mm) allows for high-detail engraving. Prepare your design using compatible software like LaserGRBL or LightBurn, set the appropriate power and speed settings for your material, and initiate the engraving process. Experimentation with settings on scrap material is recommended to achieve optimal results.

Higher Precision

Enhanced 10W Laser Module

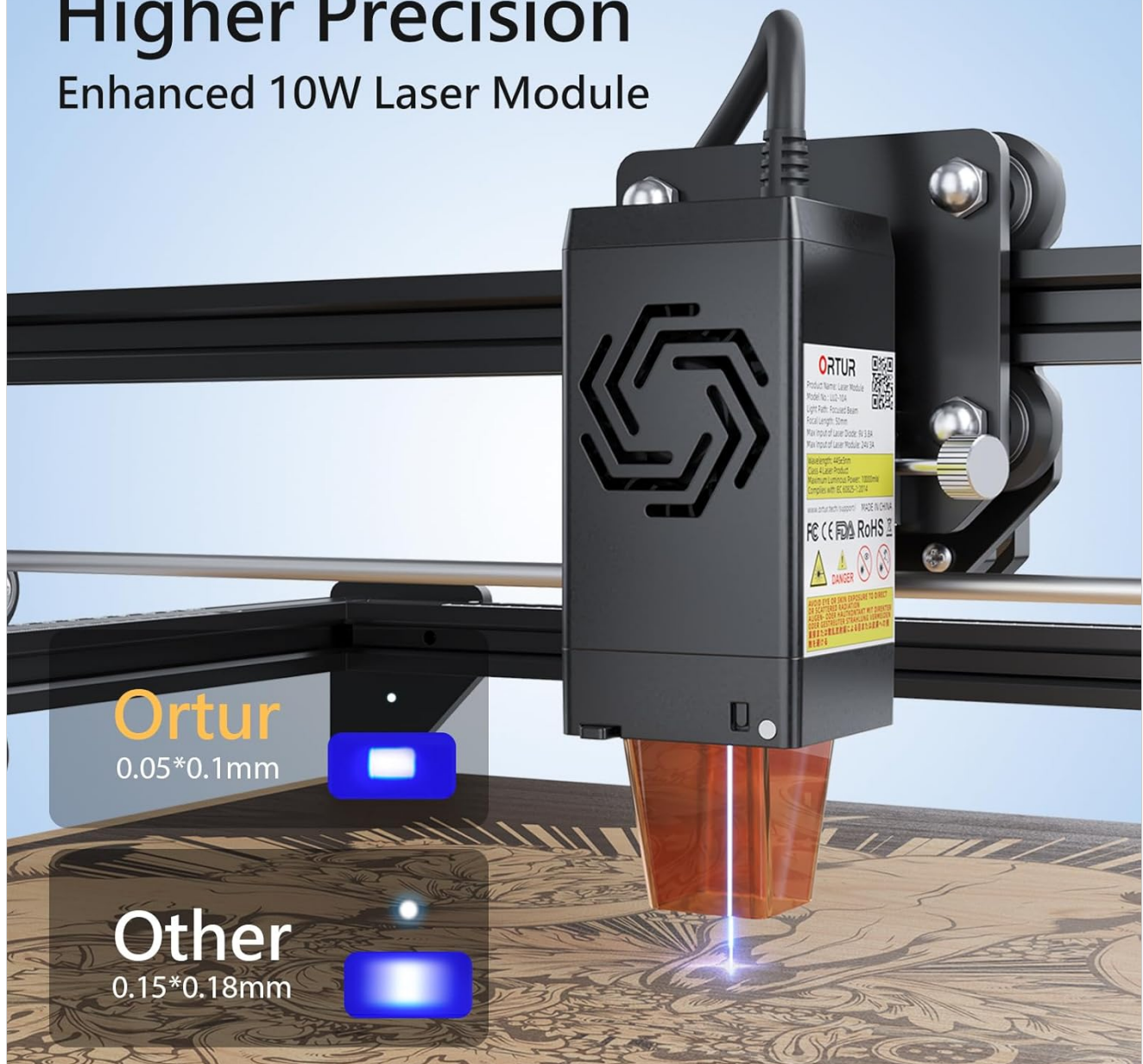


Image: Visual comparison demonstrating the enhanced precision of the ORTUR laser module's smaller focal spot for finer engraving details.

5.2 Cutting

This machine can cut materials such as 30mm acrylic and 20mm wood. The integrated air-assist interface is crucial for clean cuts, especially on thicker materials, by blowing away debris and preventing charring. Adjust laser power, speed, and number of passes according to the material type and thickness.

Cleaner Cut

Enhanced 10W Laser Module

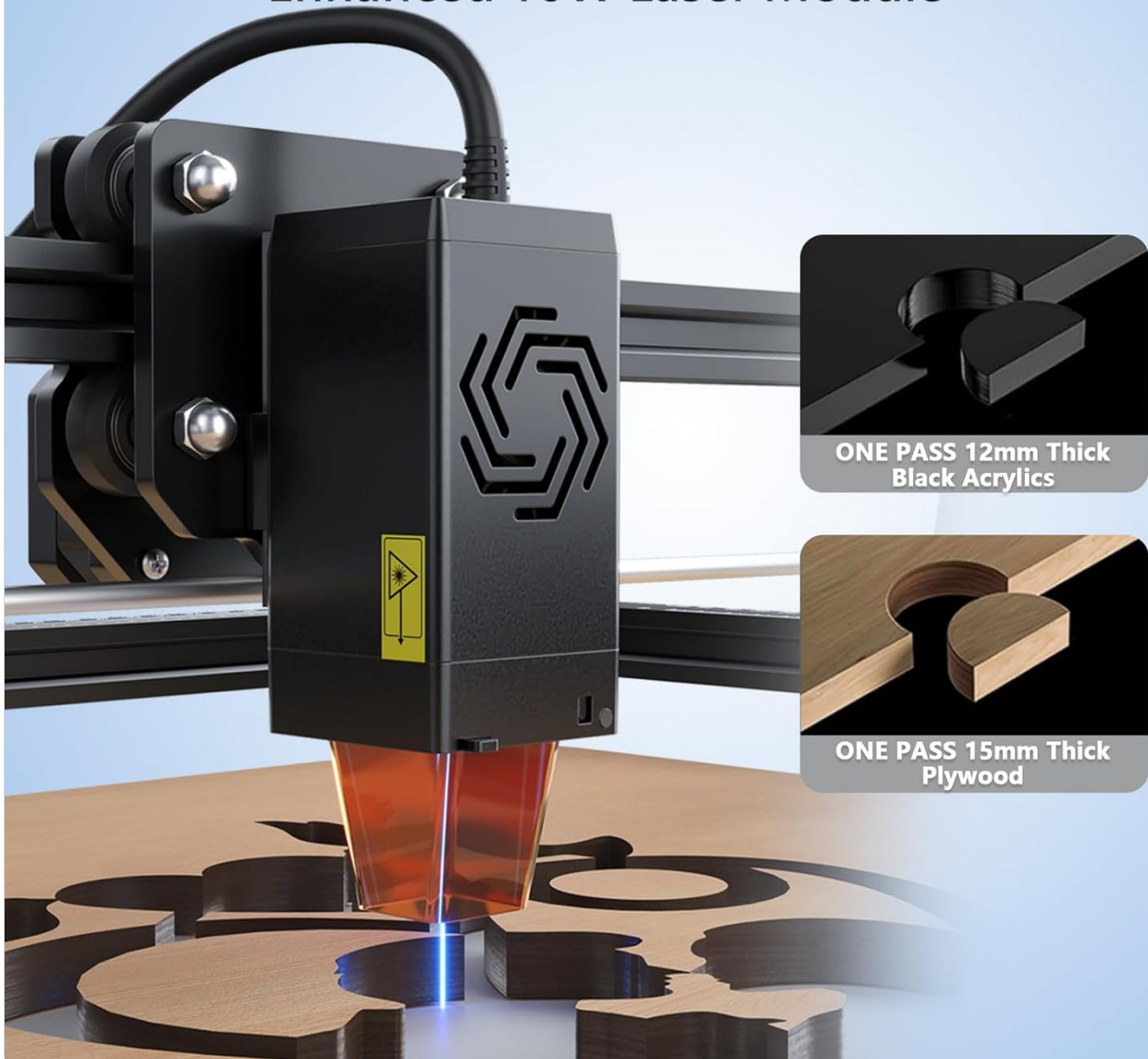


Image: Examples of materials cut by the 10W laser module, including 12mm acrylic and 15mm plywood, highlighting its cutting efficiency.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your laser engraver.

- **Laser Module Cooling:** The 10000mW laser module is equipped with a dual-fan cooling system. Ensure the fans are free from dust and obstructions to maintain effective heat dissipation.
- **Lens Cleaning:** Periodically inspect and gently clean the laser lens with a suitable lens cleaning solution and cloth to maintain beam quality.
- **Rail and Belt Maintenance:** Keep the guide rails and belts clean and free of debris. Lubricate moving parts as recommended in the detailed maintenance guide.
- **General Cleaning:** Keep the entire machine clean from dust and material residue.

7. TROUBLESHOOTING

If you encounter issues with your ORTUR Laser Master 2 S2 LU2-10A, refer to the following common troubleshooting points:

- **Laser Stops Unexpectedly:** Check if the machine was moved or tilted (G-sensor activated). Ensure the USB connection is stable and your computer system is not halted. The laser will automatically stop if no movement is detected for a prolonged period.
- **Poor Engraving/Cutting Quality:** Verify that the laser lens is clean and properly focused. Adjust power and speed settings in your software according to the material. Ensure the material is flat and securely placed.
- **Machine Not Responding:** Check all power connections and USB cables. Ensure the machine is properly powered on. Restart the engraving software and the machine if necessary.
- **Software Connection Issues:** Confirm that the correct COM port is selected in your engraving software. Reinstall drivers if communication problems persist.

For more complex issues, consult the online support resources or contact customer service.

8. SPECIFICATIONS

Feature	Detail
Product Dimensions	22.44 x 21.65 x 6.9 inches
Item Model Number	Laser Master 2
ASIN	B08CBV9FQ2
Item Weight	8.93 pounds
Manufacturer	ORTUR
Date First Available	August 12, 2020

9. SUPPORT

For further assistance, technical support, or inquiries, please utilize the following support channels provided by Ortur:






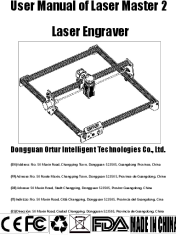
- Email Support
- Live Chat
- Facebook Community

Ortur is committed to providing round-the-clock support to assist users with their creative projects and any product-related questions.



Image: Ortur's customer support options, including email, live chat, and Facebook.

Related Documents - Laser Master 2 S2 LU2-10A

	<p>Ortur LU2-2 Laser Module User Manual: Focusing Guide</p> <p>Comprehensive guide on how to adjust the focus of the Ortur LU2-2 laser module using the laser shield, focal gauge, and aluminum plate. Includes technical specifications and safety information for Ortur laser engravers.</p>
	<p>Aufero Laser 1 Assembly Manual and Features Guide</p> <p>Comprehensive assembly instructions and key features for the Aufero Laser 1 desktop laser engraving machine. Includes safety tips and installation guides for LU2-2, LU2-4-SF, and LU2-4-LF laser modules.</p>
	<p>ORTUR LU2-4-LF Laser Module User Manual: Focus Adjustment and Air-Assist Installation</p> <p>User manual for the ORTUR LU2-4-LF Laser Module, detailing laser shield usage, focus adjustment methods (focal gauge, aluminum plate), and step-by-step air-assist installation. Includes safety information and a video tutorial link.</p>
	<p>Ortur Laser Master 2 Pro S2: Assembly Manual and Safety Guide</p> <p>Comprehensive guide to assembling and safely operating the Ortur Laser Master 2 Pro S2 desktop laser engraver, including features, parts list, safety instructions, assembly steps, optional parts, and software settings.</p>
	<p>Ortur Laser Master 2 Laser Engraver User Manual</p> <p>Comprehensive user manual for the Ortur Laser Master 2 Laser Engraver, covering assembly, installation, safety instructions, and software setup with LaserGRBL and LightBurn.</p>
	<p>Ortur Laser Master 2 Laser Engraver User Manual and Installation Guide</p> <p>Comprehensive user manual for the Ortur Laser Master 2 laser engraver, covering assembly, safety, software installation (LaserGrbl, LaserBurn), and operation. Details models 7W, 15W, and 20W.</p>