

Ortur R2

Ortur R2 10W Laser Engraver and Cutter User Manual

Model: R2 (10W)

1. INTRODUCTION

This manual provides essential information for the safe and effective operation of your Ortur R2 10W Laser Engraver and Cutter. Please read all instructions carefully before use to ensure proper functionality and to prevent injury or damage.

The Ortur R2 is a fully enclosed Class 1 laser engraver and cutter designed for precision work on various materials such as wood, metal, and acrylic. It features APP control, a viewable window, and a working area of 300 x 210mm.

2. SAFETY INFORMATION

WARNING: This is a Class 1 laser product. Always follow safety guidelines to prevent exposure to laser radiation.

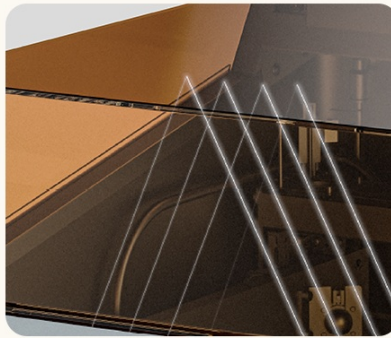
- **Eye Protection:** Although the device is Class 1 enclosed, avoid direct eye exposure to the laser beam. Never look directly into the laser aperture.
- **Ventilation:** Ensure adequate ventilation in the work area to dissipate fumes and smoke generated during engraving or cutting.
- **Material Safety:** Only engrave or cut materials approved for laser processing. Certain materials can produce toxic fumes or catch fire.
- **Supervision:** Do not leave the machine unattended during operation.
- **Emergency Stop:** Familiarize yourself with the emergency stop button location and function.
- **Flame Detection:** The Ortur R2 includes a built-in flame detection system. Ensure it is active during operation.

Military-grade Safety Protection System



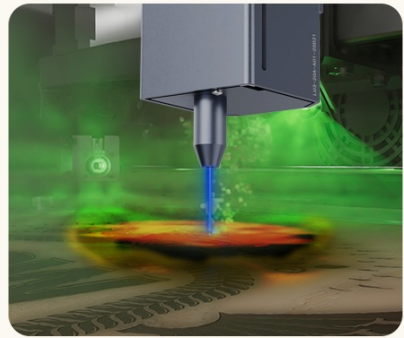
Safe and Secure Class 1 Laser

Class 1 lasers are designed for safe environments offering maximum safety protection.



Light Filter Cover Protects Your Eyes

Work Safely with Clear Vision - No Eye Strain
Just Precision



5-Point Flame Detection System

Enhanced Smoke Extraction & Multi-Sensor Safety-
Work Confidently with Industrial-Grade Protection

Image: Overview of the Ortur R2's safety features, including Class 1 certification, light filter cover, and 5-point flame detection system.

3. SETUP

The Ortur R2 is designed for a plug-and-play experience, requiring minimal installation.

3.1 Unboxing and Placement

Carefully remove the engraver from its packaging. Place the unit on a stable, level surface in a well-ventilated area, away from flammable materials.

3.2 Power Connection

Connect the power adapter to the engraver and then to a suitable power outlet. Press the power button to turn on the device.

3.3 App Installation and Connection

Download the Ortur app (Inspiraseth) on your smartphone or tablet. Follow the on-screen instructions to connect your device to the engraver via Wi-Fi.

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Video: Tutorial on connecting the Ortur R2 to the app and performing visual positioning.

4. OPERATING INSTRUCTIONS

4.1 Material Preparation

Ensure your material is clean and properly secured within the working area (300x210mm). For optimal results, use materials suitable for laser engraving and cutting.

Bring Life to Accurate Laser Engraving

With 0.08*0.18mm compressed spot and 0.01mm precision, Ortur R2 10W laser engraver engraves much more vividly.



Image: The Ortur R2 performing fine engraving on a wooden surface, demonstrating its precision with a 0.08*0.18mm compressed laser spot.

10W Powerful Clean Laser Cutting

Laser cutting made effortless.

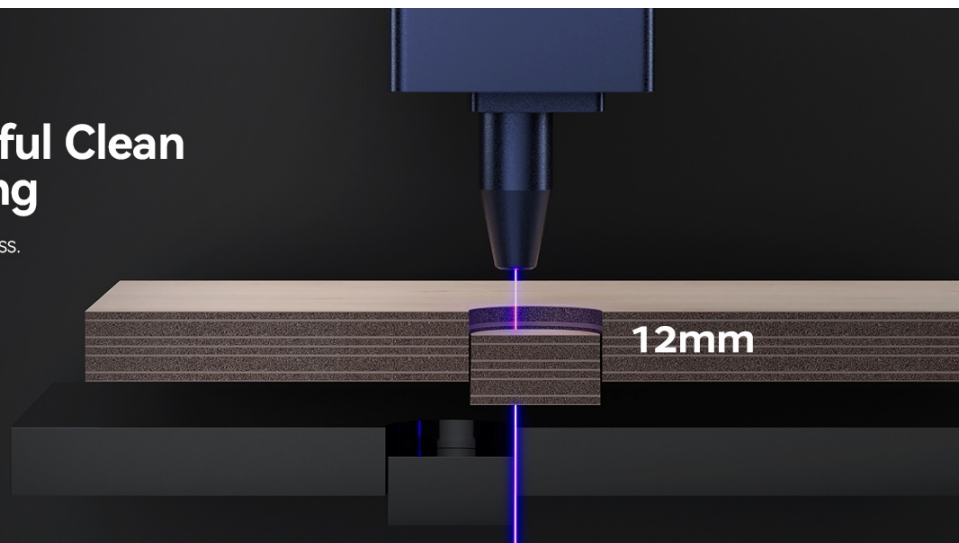


Image: The Ortur R2 demonstrating its cutting capability on a 12mm thick black acrylic board in a single pass.

4.2 Using the App for Engraving/Cutting

The Ortur app provides various functions for creating and executing designs:

- **AI Assist Function:** Utilize AI algorithms to generate images optimized for engraving.
- **Hand-Drawn Engraving:** Sketch directly on your screen and engrave the design.
- **Puzzle Mode:** Customize designs with Lego-style freedom for unique creations.
- **QR Code Engraving:** Generate and engrave QR codes from text, photos, or videos.
- **Live Camera Preview:** Use the smart HD full-frame camera to drag and drop designs onto the material for precise positioning.

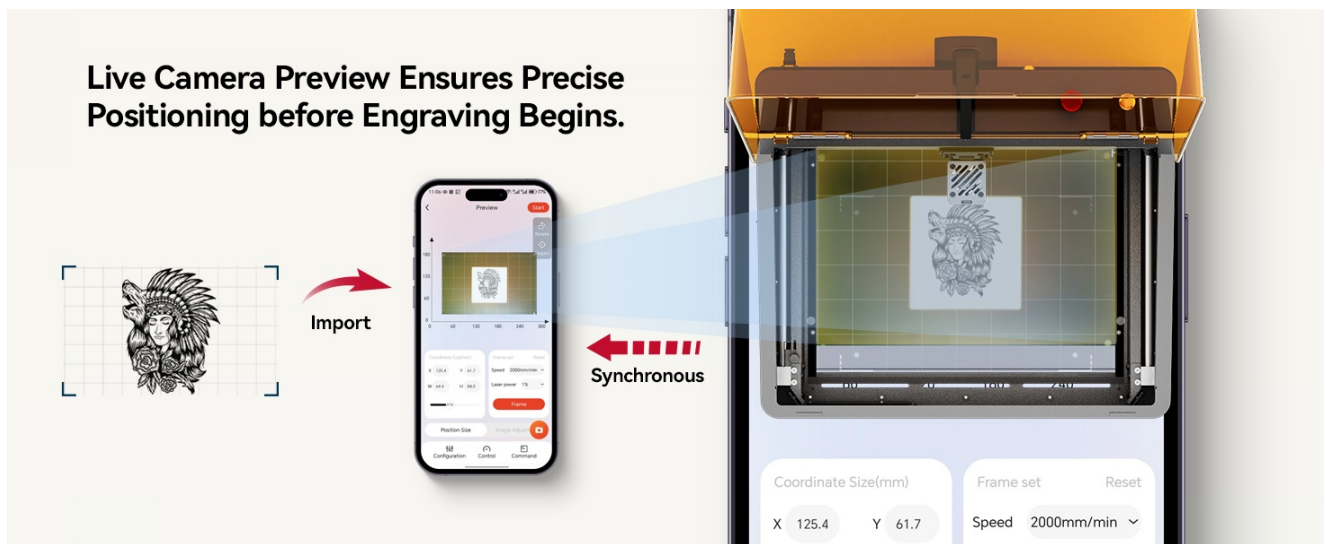


Image: The Ortur R2 app interface showing live camera preview for precise positioning of designs before engraving.

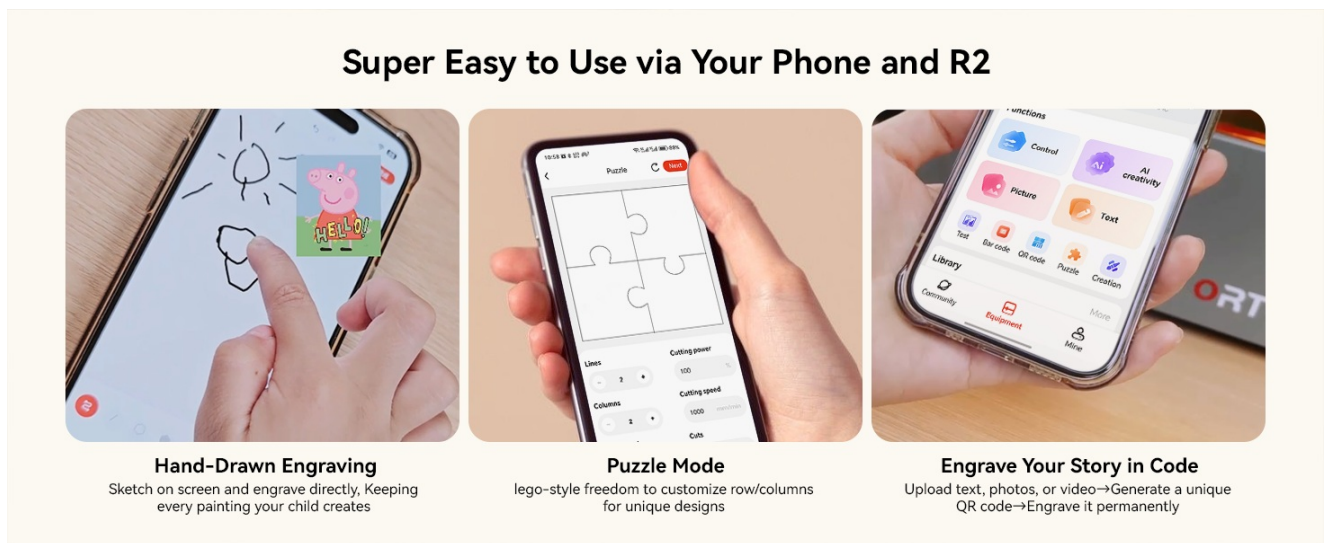


Image: The Ortur R2 app showcasing features like hand-drawn engraving, puzzle mode, and QR code engraving.

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Video: Demonstration of fine engraving capabilities of the Ortur R2.

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Video: Demonstration of photo printing (engraving) using the Ortur R2.

4.3 Offline Processing

The Ortur R2 supports offline processing modes, allowing you to engrave without a continuous connection to your device once the design is loaded.

Flip-UP Screen

R2's flip-angle display adjusts like a laptop screen – easily find your perfect viewing angle for effortless operation!



Image: The Ortur R2 features a flip-up touch screen for ergonomic comfort and viewing flexibility, enabling real-time monitoring and offline processing.

5. MAINTENANCE

5.1 Cleaning

Regularly clean the working area and laser lens to maintain optimal performance. Use a soft, lint-free cloth and appropriate cleaning solutions as recommended by Ortur.

5.2 Calibration

Periodically calibrate the laser module for precise engraving and cutting. Refer to the app's calibration guide for detailed steps.

5.3 Self-Diagnosis

The Ortur R2 includes a self-diagnosis function to check the status of various components.

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Video: Guide on using the R2's self-diagnosis feature to ensure the machine stays in peak condition.

6. TROUBLESHOOTING

If you encounter issues with your Ortur R2, refer to the following common problems and solutions:

- **Machine Not Powering On:** Check power connections and ensure the power button is pressed correctly.
- **App Connection Issues:** Verify Wi-Fi settings and ensure the machine is in pairing mode. Restart both the app and the engraver if necessary.
- **Poor Engraving Quality:** Check laser focus, material parameters (speed, power), and ensure the material surface is clean and flat.
- **Laser Not Firing:** Confirm the laser module is correctly installed and selected in the app. Check for any error messages on the display screen.
- **Material Not Cutting Through:** Adjust laser power and speed settings. Ensure the material thickness is correctly entered in the app.

For further assistance, consult the Ortur support website or contact customer service.

7. SPECIFICATIONS

Feature	Specification
Model Number	R2
Laser Power	10W (10000mW)
Working Area	300 x 210mm (11.81" x 8.27")
Item Weight	27.5 pounds
Product Dimensions	15.75 x 8.43 x 18.5 inches
Connectivity	APP Control (2.4G Wi-Fi)
Safety Class	Class 1 Fully Enclosed
Features	Viewable Window, AI Assist, Live Camera Preview, Offline Mode, TF Card Support, Flip-UP Touch Screen, Flame Detection System

8. WARRANTY

The Ortur R2 Laser Engraver and Cutter comes with a **1 Year Worry-Free Warranty**. Please retain your proof of purchase for warranty claims. For detailed terms and conditions, refer to the official Ortur website or contact customer support.

9. SUPPORT

For technical support, product inquiries, or warranty service, please visit the official Ortur website or contact their customer service team. You can also find additional resources, FAQs, and community forums online.

Ortur Store: [Visit the Ortur Store on Amazon](#)