

Artilume T1

Artilume T1 Laser Engraver 7000mW Instruction Manual

Model: T1-7W

1. INTRODUCTION

This manual provides essential information for the safe and effective operation of your Artilume T1 Laser Engraver 7000mW. The Artilume T1 is a foldable and portable laser engraving and cutting machine designed for high-precision work on various materials. Please read this manual thoroughly before use and retain it for future reference.

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Video: Artilume T1 Laser Engraver Overview. This video provides a general overview of the Artilume T1 Laser Engraver's features and capabilities.

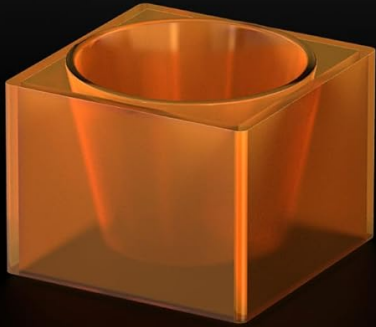
2. SAFETY INFORMATION

Operating a laser engraver requires adherence to strict safety protocols to prevent injury. The Artilume T1 includes safety features such as emergency shutdown and motion protection. It also detects and prevents overheating. Always use the provided protective covers and goggles.

- **Eye Protection:** Always wear the provided laser safety goggles during operation.
- **Ventilation:** The machine produces fumes during engraving. Operate in a well-ventilated area or use an appropriate fume extraction system.
- **Emergency Stop:** Familiarize yourself with the emergency shutdown button location.
- **Supervision:** Never leave the machine unattended during operation.
- **Material Safety:** Ensure materials are suitable for laser engraving/cutting. Avoid highly reflective or flammable materials without proper precautions.

Multiple protections

1. Anti-Laser Protective Cover



2. Premium Laser Filter Glasses



3. Tilt Protection

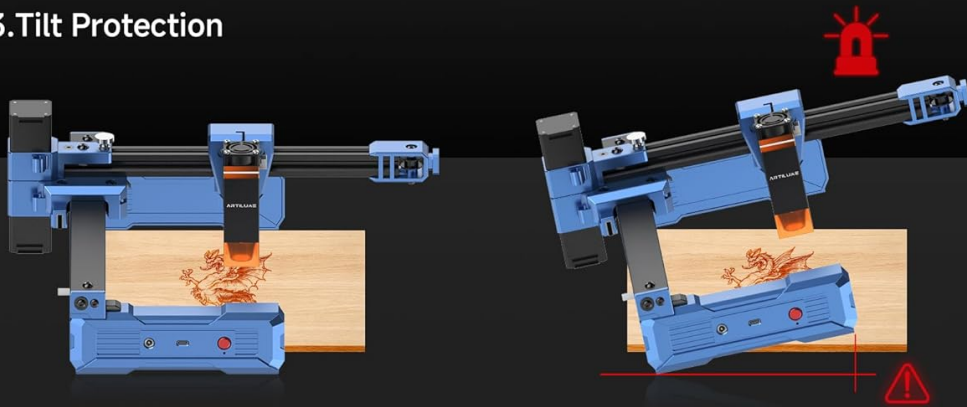


Image: Multiple safety protections including an anti-laser protective cover and premium laser filter glasses.

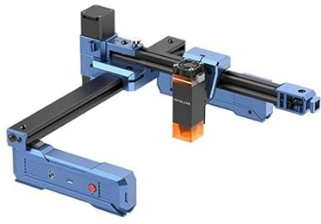
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Video: T1 Blue Laser Light Engraving. This video demonstrates the laser in action, emphasizing the importance of safety measures like protective covers.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

Everything Included



ARTILUME T1*1



Laser head*1



Instruction manual*1



Toolkit*1



Safety goggles, glasses cleaning cloth*1



Focus block*1



Aluminum sheet*2



Basswood block*1



A5 Kraft paper*1



Power adapter*1



Data cable*1

Image: All included components for the Artilume T1 Laser Engraver.

- Artilume T1 Engraver (x1)
- Laser Head (x1)
- Instruction Manual (x1)
- Toolkit (x1)
- Safety Goggles (x1)
- Glasses Cleaning Cloth (x1)
- Focus Block (x1)
- Aluminum Sheet (x2)
- Basswood Block (x1)
- A5 Kraft Paper (x1)
- Power Adapter (x1)
- Data Cable (x1)

4. SETUP

The Artilume T1 is designed for quick setup, arriving almost fully assembled and calibrated. Follow these steps to prepare your engraver for use:

1. **Unfold the Engraver:** Gently unfold the main arms of the engraver until they lock into place.
2. **Attach Laser Module:** Securely attach the laser module to the designated slot on the gantry.
3. **Connect Cables:** Connect the power adapter and data cable to the engraver and your computer.
4. **Software Installation:** Install the compatible engraving software (LaserGRBL for Windows or LightBurn for Windows/Mac) on your computer. Refer to the software's documentation for detailed installation instructions.
5. **Focus Adjustment:** Place the focus block on your material. Loosen the thumbscrew on the laser module, adjust the laser lens until it touches the focus block, then re-tighten the thumbscrew. Remove the focus block.

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Video: Unboxing and How to Start. This video guides you through the initial unboxing and setup process of the Artilume T1.

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Video: Portable Laser Engraving. This video demonstrates the compact, foldable design of the Artilume T1, highlighting its portability and ease of setup.

5. OPERATING INSTRUCTIONS

The Artilume T1 offers a large working area of 150x200mm and a high engraving precision of up to 0.01mm, with speeds up to 10000mm/min. It is compatible with popular software like LaserGRBL (Windows) and LightBurn (Windows, Mac), supporting NC, DXF, BMP, JPG, and PNG file formats.

5.1 Material Compatibility and Power Settings

The T1 can engrave various materials including wood, leather, acrylic, ceramics, and stone. The 7W laser module is suitable for both engraving and cutting, offering faster engraving and deeper cuts compared to lower wattage options.

Engraving or Cutting? Find Your Ultimate Solution Here



Engraving Precision
0.01mm

	3W	7W
Engraved	✓	✓
Cut	✓	✓
Maximum cutting depth		
Solid Wood	2mm	8mm
Plywood	2mm	5mm
Black Acrylic	2mm	5mm
Kraft Paper	2mm	2mm

Image: Engraving and cutting capabilities with different laser power options.

Variety of Materials Can be Engraved



Wood



Bamboo



Paper



Blackened Acrylic



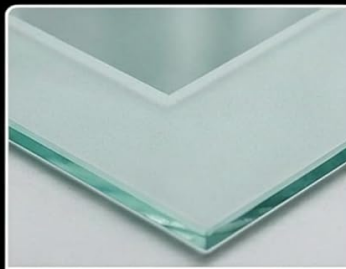
Leather



Stone



Ceramic



Glass



Cardboard

Image: Variety of materials compatible with the Artilume T1 Laser Engraver.

5.2 Software and File Formats

Utilize LaserGRBL or LightBurn to design and prepare your engraving projects. These software options allow for precise control over the engraving process and support common image and vector file types.



Image: Software compatibility and supported file formats.

5.3 Engraving Process

1. **Prepare Material:** Place your material on the engraving bed.
2. **Set Focus:** Adjust the laser focus as described in the Setup section.
3. **Load Design:** Open your design file in the chosen software.
4. **Adjust Settings:** Configure laser power, speed, and passes according to your material and desired effect. A basic material settings table is provided in the included manual as a starting point.
5. **Start Engraving:** Initiate the engraving process from the software. Monitor the machine during operation.

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Video: Crafting a Wooden Key Rack. This video demonstrates the Artilume T1 in action, showing the process of cutting and assembling a wooden key rack.

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Video: T1 Laser Engraver for Fabric Engraving. This video showcases the versatility of the T1 by demonstrating its ability to engrave on fabric.

6. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your Artilume T1 Laser Engraver.

- **Clean Laser Lens:** After each use, clean the laser lens to maintain engraving precision. Use the provided cleaning cloth or a soft, lint-free cloth.
- **Keep Area Clean:** Regularly clean the engraving bed and surrounding area to prevent dust and debris buildup, which can affect performance and safety.
- **Check Connections:** Periodically inspect all cable connections to ensure they are secure.
- **Lubrication:** Refer to the detailed instruction manual for any specific lubrication requirements for moving parts.

7. TROUBLESHOOTING

If you encounter issues with your Artilume T1, refer to the following common troubleshooting tips:

- **Blurry Engraving:** Ensure the laser focus is correctly set for the material thickness. Even a 1mm deviation can result in blurry results.
- **Incomplete Engraving/Cutting:** Check laser power and speed settings in your software. Ensure the material is flat and securely placed.
- **Machine Not Responding:** Verify all cables (power, data) are securely connected. Restart the software and the engraver. Check if the correct COM port is selected in your software.
- **Engraving Distortion:** Ensure the machine is placed on a stable, level surface to prevent vibrations. If the laser head hits the support bar, adjust the laser positioning within the software to prevent this.
- **Power Button Issue:** If the power button does not turn off the machine, unplug the power cord directly. Contact support if this issue persists.

For more complex issues, consult the full instruction manual or contact Artilume customer support.

8. SPECIFICATIONS

Feature	Specification
Model	T1-7W
Laser Power	7000mW (7W) Diode Laser
Engraving Precision	0.01mm
Spot Size	0.04mm x 0.04mm
Max Engraving Speed	10000mm/min
Working Area	150mm x 200mm (6 x 8 inches)
Product Dimensions	14 x 14 x 6 inches
Item Weight	4.64 pounds
Laser Module Lifespan	> 10,000 hours
Compatible Software	LaserGRBL (Windows), LightBurn (Windows, Mac)
Supported File Formats	NC, DXF, BMP, JPG, PNG
Safety Features	Emergency Shutdown, Motion Protection, Overheating Detection, Protective Covers, Goggles

9. WARRANTY & SUPPORT

Artilume provides a return policy allowing for refunds or replacements within 30 days of purchase. For any product-related inquiries, technical assistance, or warranty claims, please contact Artilume Official customer support. Ensure you have your purchase details and model number (T1-7W) ready when contacting support.
Manufacturer: Artilume