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## AlgoLaser DIY KIT MK2 10W

# AlgoLaser DIY KIT MK2 10W Laser Engraver

## INSTRUCTION MANUAL

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### 1. Product Overview

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The AlgoLaser DIY KIT MK2 10W is a versatile laser engraver designed for precision engraving and cutting. It features a 10W laser output power with a total power of 96W, enabling high-speed operation up to 12,000mm/min and a fine 0.05mm laser spot. The device includes a smart touchscreen with AlgoOS 2.0, allowing for PC-free operation, access to preset designs, and online updates. It supports various connection methods and is compatible with popular engraving software like LightBurn and LaserGRBL. The large 15.7" x 17.1" workspace accommodates diverse project sizes.



Image 1.1: AlgoLaser DIY KIT MK2 10W Laser Engraver with examples of engraved materials.

## 2. Package Contents

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

- Rear Assembly
- X-Axis Assembly
- Control Box
- ALM-10BD Laser Module
- Laser Goggle
- Power Cable
- Power Adapter
- Left Y-Axis Assembly
- Front Assembly
- Right Y-Axis Assembly

# Package Contents

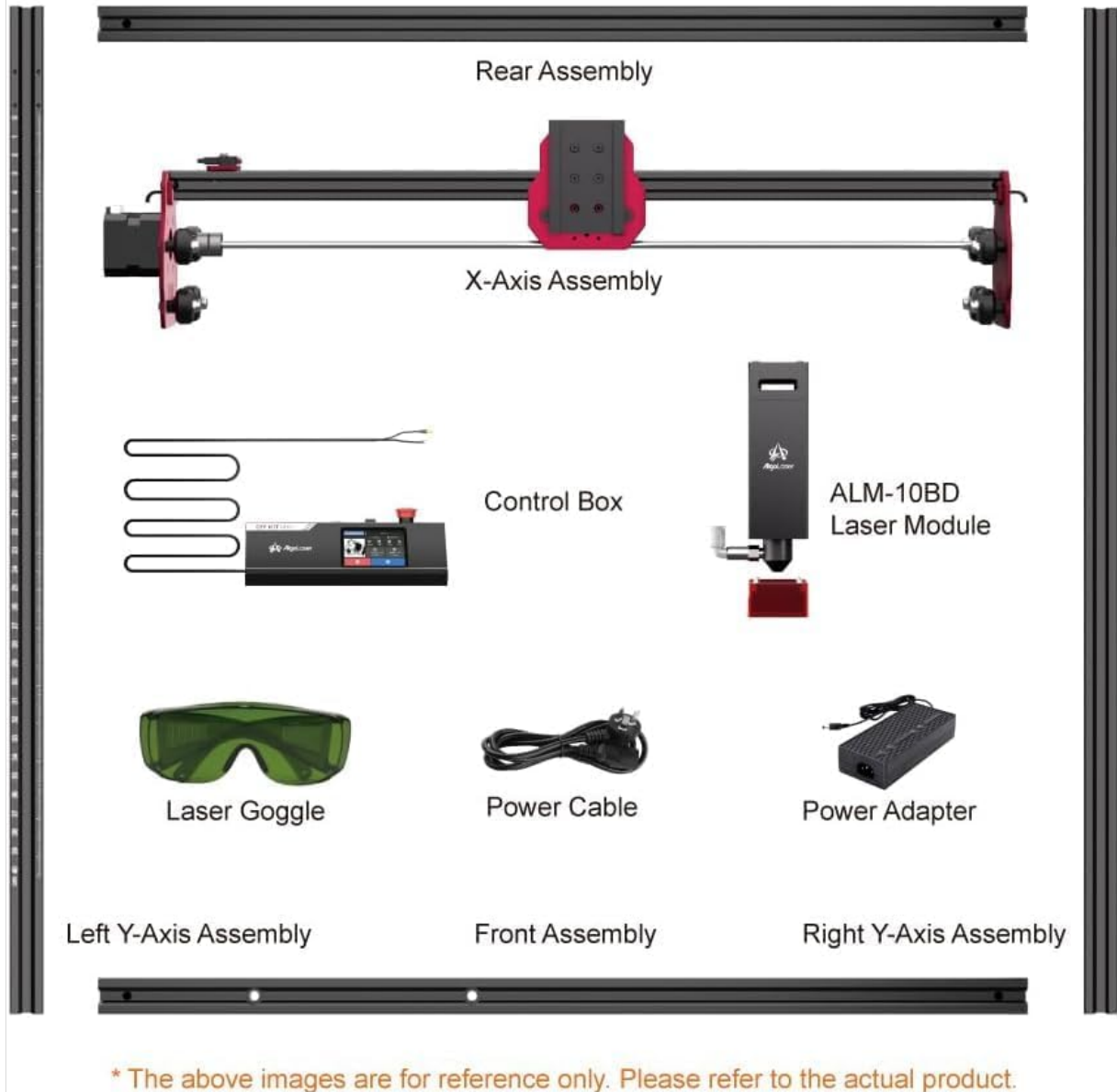


Image 2.1: Exploded view of AlgoLaser DIY KIT MK2 components.

## 3. Setup Instructions

Assembling the AlgoLaser DIY KIT MK2 requires careful attention to detail. Follow the included assembly guide for step-by-step instructions. Ensure all connections are secure before powering on the device. The modular design allows for straightforward construction.

### 3.1 Initial Power-On and Connection

1. Connect the power adapter to the control box and plug it into a power outlet.
2. Press the power button on the control box. The power indicator should illuminate.
3. The device supports Wi-Fi, USB, APP, and TF card connections. For initial setup, Wi-Fi or USB connection is recommended to ensure firmware updates and software compatibility.

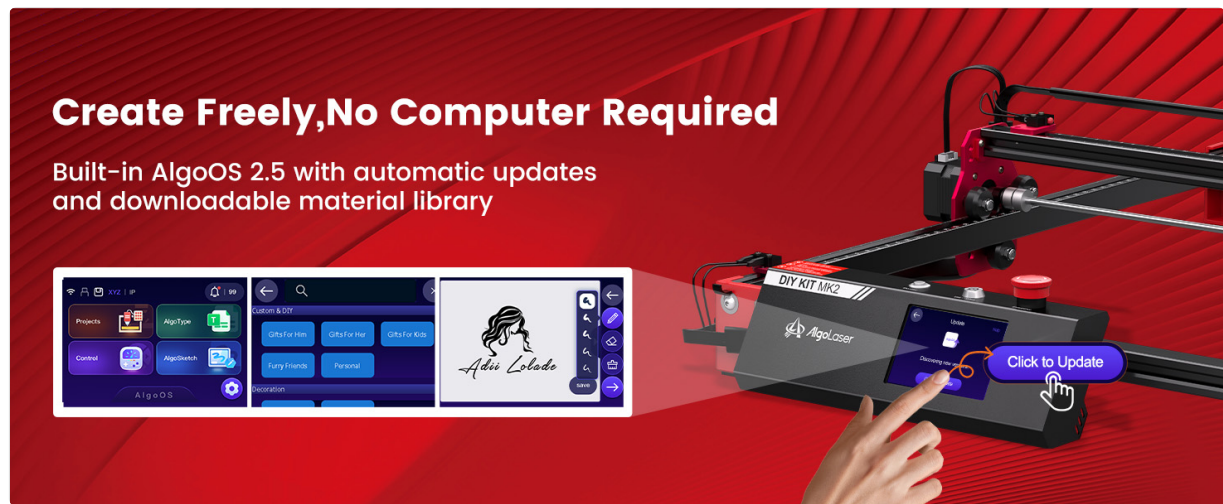


Image 3.1: AlgoLaser DIY KIT MK2 operating without a computer, showing the Algos OS interface.

## 4. Operating Instructions

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### 4.1 PC-Free Smart Control with Algos 2.0

The built-in Algos 2.0 allows direct operation via the smart touchscreen. You can access hundreds of preset designs, save custom projects, and receive online updates without needing a computer. The interface provides intuitive control over the laser module's position, material selection, and engraving parameters.



Image 4.1: Wireless operation of the AlgoLaser engraver.

## 4.2 Software Compatibility

For advanced control and design flexibility, the AlgoLaser DIY KIT MK2 is fully compatible with LightBurn and LaserGRBL. The AlgoLaser APP is also available for quick and easy logo and photo engraving, especially for beginners.

# Multiple Connections

For beginners: AlgoLaser app is a priority for simple logo and photo engraving.  
For pro users: Use Lightburn and LaserGRBL for more delicate works.



**Algolaser APP**  
Get started quickly with a user-friendly App.



**Lightburn**  
The mature engraving software for common laser software



**LaserGRBL**  
The best Windows software for image Laser Engraving.

Image 4.2: Multiple software compatibility for AlgoLaser.

## 4.3 Material Selection and Parameter Setting

The AlgoOS interface allows you to select the material type and adjust engraving parameters such as speed, power, and passes. AutoParam functionality helps optimize settings for various materials. The device can engrave on over 300 materials including metal, acrylic, wood, glass, and leather.

# Engravable on 300+ materials

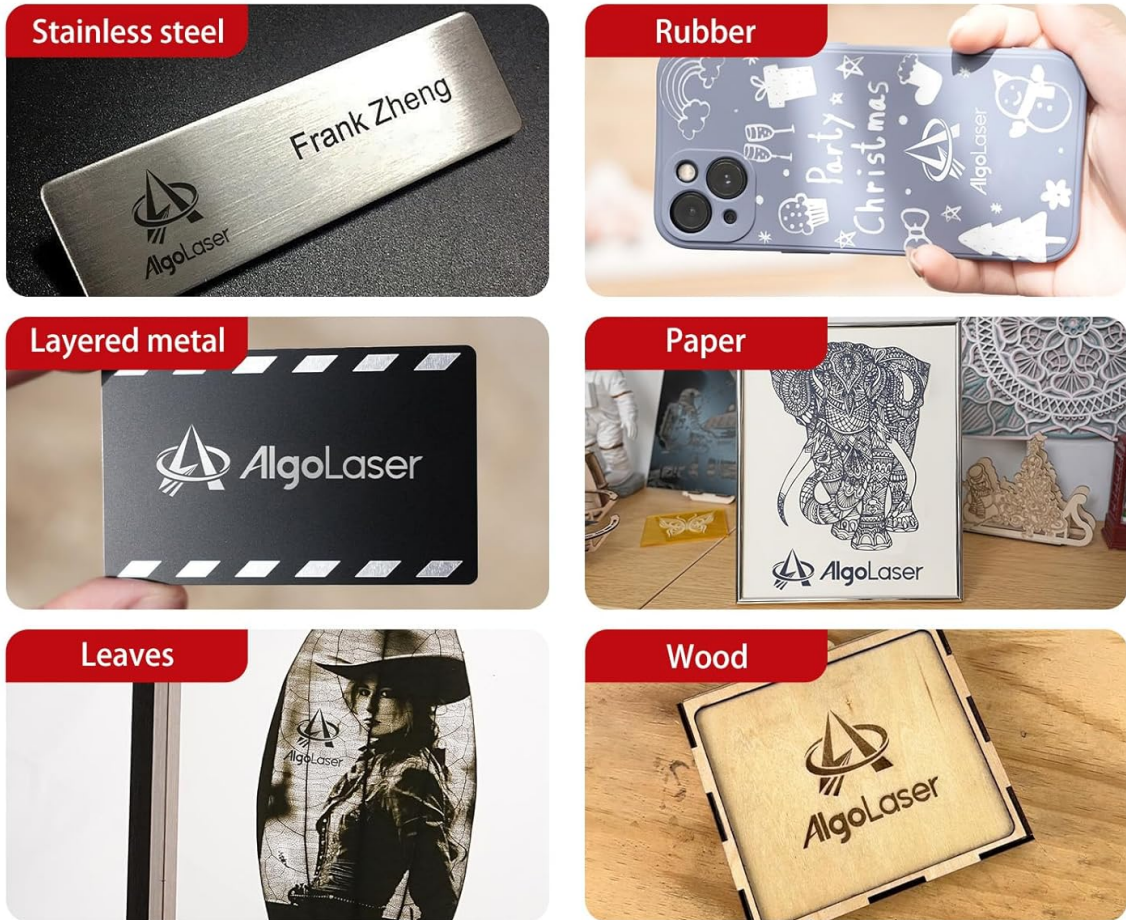


Image 4.3: Examples of materials engravable with AlgoLaser.

## 5. Expandability and Features

The AlgoLaser DIY KIT MK2 is designed to be expandable with multiple add-ons, enhancing its versatility for various engraving tasks.

### 5.1 Compatible Accessories

The machine is compatible with accessories such as honeycomb beds, rotary rollers, and chuck accessories, enabling both flat and cylindrical engraving. Riser feet can be used for optimal height and stability during 360° engraving.

## New in AlgoOS: Material Library

Hundreds of templates,  
ready to inspire your  
next creation.



Image 5.1: Expandable system with multiple add-ons.

### 5.2 Air Assist System

An optional air assist system can be integrated to increase cutting strength and efficiency. It helps reduce burn marks and overheating, while also protecting the lens from smoke and residue, leading to cleaner cuts and prolonged lens life.



Image 5.2: Air assist system benefits for cutting.

### 5.3 Batch Engraving and Larger Projects

Visual positioning features facilitate easy batch engraving, ensuring consistent results across multiple items. The large workspace and potential for expansion allow for bigger projects and multi-part material processing.



Image 5.3: Batch engraving made easy with visual positioning.

## 6. Safety Guidelines

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The AlgoLaser DIY KIT MK2 is designed with Class 1 laser safety features. However, it is crucial to follow all safety precautions during operation:

- Always wear protective goggles when the laser is in operation.
- Ensure the work area is well-ventilated to dissipate fumes from engraved materials.
- Never leave the machine unattended during operation.
- Keep flammable materials away from the laser's path.
- Familiarize yourself with the emergency stop button location and function.

## 7. Maintenance

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Regular maintenance ensures optimal performance and longevity of your AlgoLaser DIY KIT MK2. Always power off and unplug the machine before performing any maintenance.

- **Clean the Laser Lens:** Periodically clean the laser lens with a soft, lint-free cloth and lens cleaning solution to maintain engraving precision.
- **Lubricate Guide Rails:** Apply a small amount of lubricant to the X and Y axis guide rails to ensure smooth movement of the laser module.
- **Clear Debris:** Regularly remove any debris or dust from the engraving area and honeycomb platform to prevent interference with laser operation and ensure proper ventilation.
- **Inspect Cables:** Check all cables for any signs of wear or damage. Replace any damaged cables immediately.

## 8. Troubleshooting

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This section provides solutions to common issues you might encounter with your AlgoLaser DIY KIT MK2.

- **Machine Not Powering On:** Ensure the power cable is securely connected to both the machine and the power outlet. Check if the power outlet is functional.
- **Laser Not Firing/Weak Output:** Verify that the laser module is correctly installed and connected. Check the power settings in your software (AlgoOS, LightBurn, LaserGRBL). Clean the laser lens as described in the Maintenance section.
- **Inaccurate Engraving/Cutting:** Ensure the material is securely fixed to the honeycomb platform to

prevent movement during operation. Check the focus of the laser. Calibrate the machine if necessary, following the instructions in the detailed user manual.

- **Connection Issues (Wi-Fi/USB):** For Wi-Fi, ensure the machine is within range of your router and the Wi-Fi credentials are correct. For USB, try a different USB port or cable. Restart both the machine and your computer/device.
- **Software Errors:** Ensure your software (LightBurn, LaserGRBL, AlgoLaser APP) is up to date. Refer to the software's documentation or online resources for specific error codes.

If you encounter issues not covered here, please refer to the detailed user manual or contact AlgoLaser technical support.

## 9. Technical Specifications

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Feature	Specification
Product Dimensions	25.39 x 9.45 x 5.51 inches
Item Model Number	DIY KIT MK2
Item Weight	11.97 pounds
Manufacturer	AlgoLaser
Laser Output Power	10W (10,000mW)
Total Power	96W
Engraving Speed	Up to 12,000mm/min
Laser Spot Size	0.05mm
Workspace Area	15.7" x 17.1"
Control System	AlgoOS 2.0
Connectivity	Wi-Fi, USB, APP, TF card

## 10. Warranty and Support

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AlgoLaser provides comprehensive support for your DIY KIT MK2 laser engraver:

- **Warranty:** The product includes a 1-year warranty from the date of purchase.
- **Technical Support:** 24/7 technical support is available. Our experienced engineering team is ready to assist with setup, operation, and troubleshooting.
- **Contact:** For reliable after-sales support, please contact us through Amazon email.