xTool MXF-K001-LG4

xTool F1 2-in-1 Dual Laser Engraver User Manual

Model: MXF-K001-LG4 | Brand: xTool

1. INTRODUCTION TO THE XTOOL F1

The xTool F1 is a versatile and portable 2-in-1 dual laser engraver, designed for high-speed engraving and cutting across a wide range of materials. This deluxe bundle includes essential accessories such as a smoke purifier, slide extension, and rotary extension, enhancing its capabilities for various creative and business applications.

Key features include:

- **Dual Laser System:** Equipped with a 2W (2000mW) infrared laser for all metal materials and a 10W (10000mW) diode laser for wood, acrylic, leather, and more.
- **Lightning Speed:** Achieves an impressive engraving speed of up to 4000mm/s, significantly boosting productivity.
- **High Accuracy:** Features 0.00199mm motion accuracy and 0.000248 repetition accuracy for precise and detailed engravings.
- **Portable Design:** Weighing only 4.6kg, the F1 is ideal for craft shows, markets, and on-site personalization.
- **Integrated Safety:** Comes with a fully enclosed cover, built-in fan, and air purifier for smoke and odor extraction, ensuring a safe working environment.

Figure 1: xTool F1 Deluxe Bundle components.

Figure 2: High-speed engraving capability of the xTool F1.

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Video 1: Overview of xTool F1's features, including speed, dual lasers, and material compatibility. (Source: xTool Official)

2. SETUP AND INITIAL USE

2.1 Unboxing and Component Identification

Upon unboxing, ensure all components of your xTool F1 Deluxe Bundle are present. This typically includes the xTool F1 main unit, power adapter, USB cable, exhaust hose, material samples, a cutting plate, and the included accessories: smoke purifier, slide extension, and RA2 Pro rotary attachment.

2.2 Connecting the Device

1. Place the xTool F1 on a stable, flat surface.
2. Connect the power adapter to the F1 unit and plug it into a power outlet.
3. Connect the F1 to your computer via the provided USB cable.
4. For smoke extraction, attach the exhaust hose to the designated port on the F1 and direct it to a well-ventilated area or connect it to the xTool Smoke Purifier.

2.3 Software Installation

Download and install the xTool Creative Space software from the official xTool website. This software is essential for designing, controlling, and operating your xTool F1. Follow the on-screen instructions for installation and initial setup.

2.4 Accessory Setup

- **Smoke Purifier:** Connect the smoke purifier to the xTool F1 using the provided hose. Ensure the purifier is powered on and its filter is properly installed.
- **Slide Extension:** For larger projects or batch processing, attach the slide extension to the base of the xTool F1. This expands the working area up to 4 times.
- **RA2 Pro Rotary Attachment:** For engraving cylindrical or irregular objects like tumblers and rings, connect the RA2 Pro rotary attachment. Refer to the RA2 Pro manual for specific setup and calibration instructions.

Unlock the Full Potential

Rotary Attachment
RA2 Pro

Smoke Purifier

Slide Extension

Figure 3: Overview of xTool F1 accessories for expanded functionality.

3. OPERATING THE XTOOL F1

3.1 Basic Engraving Process

1. **Material Placement:** Place your material securely on the working platform. For cutting, use the provided cutting plate.

2. **Focus Adjustment:** Use the knob on the side of the F1 to adjust the laser focus. The red light indicator will help you achieve optimal focus.

3. **Design and Settings:** In xTool Creative Space, import or create your design. Select the appropriate laser mode (IR or Diode) and adjust power, speed, and pass settings based on your material.

4. **Preview:** Utilize the framing function to preview the exact engraving area on your material, ensuring precise placement.

5. **Start Engraving:** Close the protective cover and press the start button on the F1 unit or within the software to begin the engraving process.

3.2 Dual Laser Functionality

The xTool F1 features two distinct lasers for optimal performance on different materials:

- **2W Infrared Laser (1064nm):** Ideal for engraving all metal materials, including gold, silver, copper, stainless steel, and aluminum, as well as some plastics.

- **10W Diode Laser (455nm):** Best suited for engraving and cutting organic materials such as wood, leather, acrylic, paper, and cork. It can cut up to 10mm wood and 6mm acrylic.

Figure 4: The xTool F1's integrated dual laser system.

3.3 Advanced Operations with Accessories

- **Slide Extension:** When attached, the slide extension allows for continuous engraving of longer materials or batch processing of multiple smaller items, significantly increasing efficiency.
- **RA2 Pro Rotary:** This attachment enables 360-degree engraving on cylindrical objects. Ensure the object is securely mounted and calibrated within the software for accurate results.

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Video 2: Demonstration of xTool F1's high-speed engraving on various materials. (Source: xTool Official)

Video 3: xTool F1's application in in-store personalization for businesses. (Source: xTool Official)

4. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your xTool F1. Always power off and unplug the device before performing any maintenance.

4.1 Cleaning

- **Lens Cleaning:** Gently clean the laser lens with a soft, lint-free cloth and lens cleaning solution specifically designed for optics.
- **Interior Cleaning:** Use a soft brush or compressed air to remove dust and debris from the interior of the engraving chamber and fan vents.
- **Platform Cleaning:** Wipe down the working platform and cutting plate after each use to remove residue.

4.2 Smoke Purifier and Filter

The integrated smoke purifier and external smoke purifier (if included in your bundle) are crucial for maintaining air quality. The built-in fan effectively extracts smoke and odors, which are then filtered. The purifier's filter will need periodic replacement. Refer to the smoke purifier's specific manual for filter replacement instructions. Filter life varies depending on usage and materials engraved.

Efficient Smoke Extraction and Purification

Before
Air quality: Unhealthy

After
Air quality: Good

*The detecting results may vary based on the material and the environment.

Figure 5: Efficient smoke extraction and purification system of the xTool F1.

5. TROUBLESHOOTING

For common issues and solutions, please refer to the official xTool F1 Troubleshooting Guide. This guide provides detailed steps for diagnosing and resolving various operational problems.

- **Inconsistent Engraving:** Check material settings (power, speed, passes), ensure proper focus, and verify material cleanliness.

- **Software Connectivity Issues:** Ensure USB cable is securely connected, restart the software and device, and check for firmware updates.
- **Smoke/Odor Issues:** Verify exhaust hose is properly connected and unobstructed. Check the smoke purifier filter for clogging and replace if necessary.

For a comprehensive list of troubleshooting steps, download the official guide:

[Download Troubleshooting Guide (PDF)](#)

6. PRODUCT SPECIFICATIONS

Specification	Detail
Model Number	MXF-K001-LG4
Item Weight	48 pounds
Product Dimensions	23 x 17 x 0.1 inches
Country of Origin	China
Size	xTool F1 Deluxe Bundle
Color	Green
Style	Laser
Material Compatibility	Wood, Plastic, Metal, Acrylic
Batteries Required?	No
First Available Date	October 20, 2023

7. WARRANTY AND SUPPORT

7.1 Warranty Information

The xTool F1 comes with a 1-year limited warranty. For detailed terms and conditions, please refer to the official warranty documentation provided with your product or contact xTool customer support.
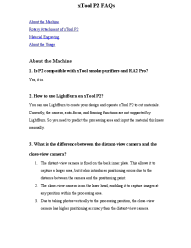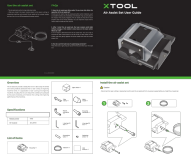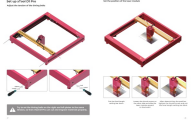
7.2 Customer Support

xTool offers multi-channel support to assist with any inquiries or issues:

- **Email Support:** Available for detailed inquiries.
- **Live Chat:** For immediate assistance on the xTool website.
- **Phone Support:** Contact xTool directly for technical assistance.
- **Facebook Group:** Join the official xTool community for peer support and updates.

For additional guidance, you can also download the comprehensive User Manual:

[Download User Manual (PDF)](#)

Related Documents - MXF-K001-LG4

	[xTool P2 FAQs: Your Guide to the Smart Desktop Laser Cutter](#) Frequently Asked Questions about the xTool P2 laser cutter and engraver, covering compatibility, operation, features, materials, and maintenance.
	[xTool F1 User Manual: Dual Laser Engraver and Cutter Guide](#) Comprehensive user manual for the xTool F1, a 2-in-1 dual laser engraver and cutter. Learn about its features, operation, safety guidelines, and maintenance.
	[xTool P2 Laser Cutter Quick Start Guide](#) A quick start guide for the xTool P2 laser cutter, covering unboxing, setup, component identification, and initial use instructions.
	[xTool M1 User Guide: Operate Laser Engraver with xTool Creative Space (XCS)](#) Learn to use the xTool M1 10W laser engraver and cutter with this comprehensive guide. Covers XCS software setup, device connection, material preparation, design import, and project processing for wood, metal, and acrylic.
	[XTOOL Air Assist Set User Guide: Installation and Operation](#) Comprehensive user guide for the XTOOL Air Assist Set, detailing installation, specifications, and FAQs for enhanced laser cutting and engraving performance with machines like the XTOOL D1.
	[xTool D1 Pro Setup and Operation Guide](#) Comprehensive guide to setting up, operating, and maintaining the xTool D1 Pro laser engraver and cutter, including software installation and accessory usage.