

## xTool F1

# xTool F1 2-in-1 Dual Laser Engraver Instruction Manual

Model: F1 | Brand: xTool

## INTRODUCTION TO THE xTOOL F1

The xTool F1 is a versatile 2-in-1 dual laser engraver designed for high-speed and high-precision engraving and cutting across a wide range of materials. It integrates both a 2W infrared laser and a 10W diode laser, offering compatibility with over 300 material types including metal, wood, leather, glass, and acrylic. Its portable and enclosed design ensures safety and ease of use, making it suitable for various applications from personal crafting to professional customization.



Figure 1: The xTool F1 Dual Laser Engraver with examples of engraved items like jewelry, dog tags, and tumblers.

## SETUP

### Unboxing and Initial Inspection

The xTool F1 comes largely pre-assembled, simplifying the setup process. Upon unboxing, carefully remove all packaging materials, including any foam inserts protecting internal components. Ensure all accessories are present as listed in the packing contents. The device includes a base plate and a lens cap for protection during shipping.

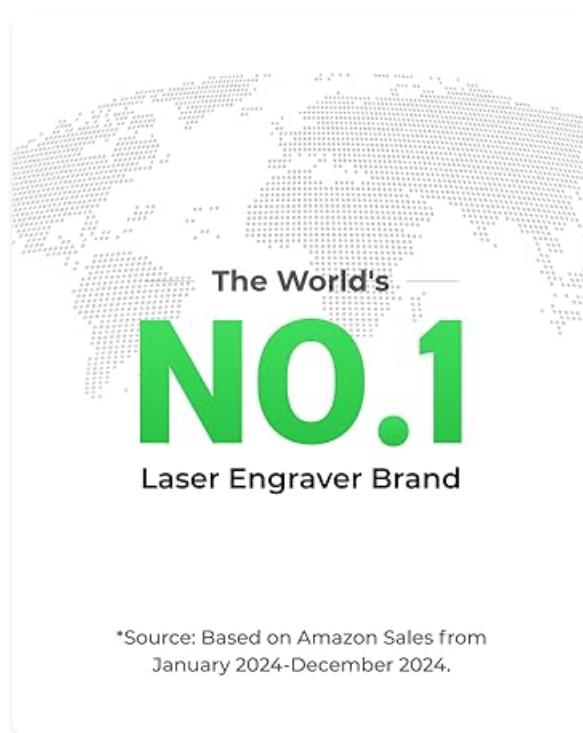


Figure 2: Unboxing the xTool F1, showing the compact packaging and protective foam.

## Component Identification and Connection

Identify the main components: the xTool F1 unit, power adapter, USB-C cable, and any included sample materials. Connect the power adapter to the device and a power outlet. For initial software setup and Wi-Fi connection, it is recommended to connect the device to a computer via USB-C for the first use.

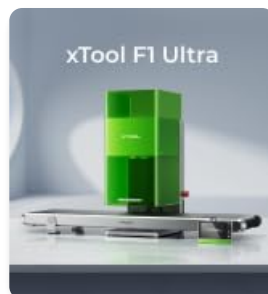


Figure 3: Rear view of the xTool F1, highlighting connection ports for power and data.

## Software Installation

Download and install the xTool Creative Space (XCS) software from the official xTool website. The software is compatible with Windows, macOS, iOS (iPadOS), and Android devices. For optimal performance and initial Wi-Fi setup, it is recommended to connect the device to a computer via USB-C for the first use.

# Phone, iPad, Laptop Supported

Support xTool Creative Space for FREE, and Lightburn

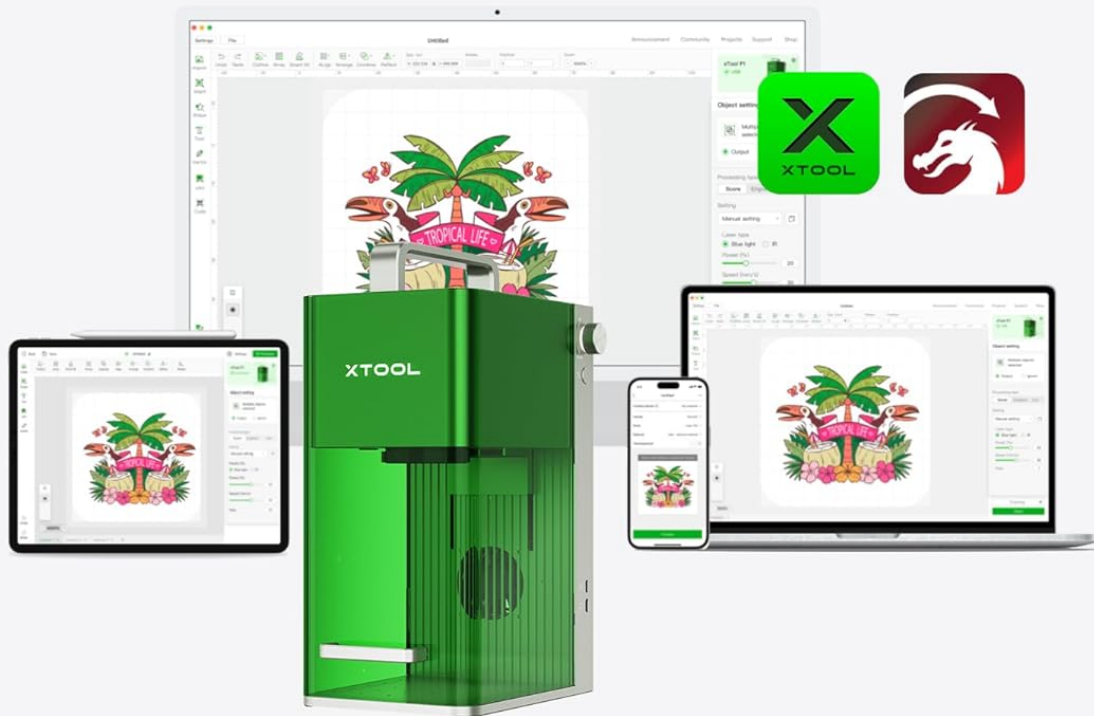


Photo Printing



Complex Design



Sign Signature

Figure 4: The xTool Creative Space software interface across desktop, tablet, and mobile platforms.

## OPERATING THE xTOOL F1

### Powering On and Emergency Stop

To power on the device, ensure the emergency stop button (red button on the side) is released by twisting it. The xTool logo will illuminate, indicating the device is ready. In case of an emergency, press the red button to immediately stop all operations.

## Focusing the Laser

The xTool F1 offers both auto and manual focus modes. For manual focus, turn the knob on the side to adjust the laser head's height until the two red laser dots converge into a single point on your material. The device also features an autofocus function for quick and precise focusing.

Your browser does not support the video tag.

Video 1: How to Set Up and Engrave with xTool F1. This video demonstrates the unboxing, setup, and basic operation of the xTool F1, including focusing the laser and preparing a design for engraving.

## Material Compatibility and Laser Types

The xTool F1 is equipped with two distinct lasers: a 2W 1064nm infrared laser for all metal materials and a 10W 455nm diode laser for wood, acrylic, leather, glass, rubber, and more. This dual-laser system allows for engraving and cutting on over 300 different materials. The device can cut 10mm wood and 6mm acrylic.

# Dual Laser in One Machine



For all-metals and plastic, etc  
**2W 1064nm**  
Infrared laser

For wood, acrylic, leather, etc  
**10W 455nm**  
Blue Diode Laser

Figure 5: Illustration of the xTool F1's dual laser system, detailing the infrared and blue diode lasers.



# Fast Engrave on All Common Materials

# 300+

materials



\*Notice that common materials include wood, acrylic, leather, glass, rubber, stainless steel, aluminum, copper, plastic, etc.

Figure 6: Examples of over 300 materials compatible with the xTool F1, including wood, acrylic, metal, and leather.

## Engraving and Cutting Process

The xTool F1 boasts a lightning-fast engraving speed of up to 4000mm/s, making it highly efficient for batch processing. Its Ultra Galvo systems provide exceptional accuracy (0.00199mm motion accuracy and 0.000248 repetition accuracy), ensuring high-definition results even on intricate details. The high-speed preview function allows for accurate positioning of designs in approximately 5 seconds.

# Fastest Portable Dual Laser

# 4000

**mm/s**



## 28 Seconds Engraving Comparison



**xTool F1**



**Others**

Figure 7: Speed comparison highlighting the xTool F1's 4000mm/s engraving capability.



# 100% Reprint in HD Resolution



0.00199mm Motion  
Accuracy



Advance Rasterization  
Algorithm



Figure 8: Demonstration of the xTool F1's HD resolution and accuracy in engraving fine details.

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Video 2: Photo Engraving - Using The xTool F1. This video provides a detailed guide on how to engrave photos using the xTool F1, covering file types, settings, and masking techniques.

## MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your xTool F1. The device features a fully

enclosed cover that blocks smoke and filters the laser, and includes a built-in fan. An optional air purifier (sold separately) can be connected to effectively manage smoke and odors.



Figure 9: The xTool F1's fully enclosed design, emphasizing smoke-free operation and laser safety.

### Cleaning and Lubrication

Periodically clean the interior of the engraving area to remove debris and dust. Refer to the user manual for specific cleaning instructions and recommended lubricants for moving parts to ensure smooth operation.

## TROUBLESHOOTING

For common issues, refer to the official xTool F1 User Manual (PDF) and Troubleshooting Guide (PDF) available on the product's Amazon page or xTool's support website. These documents provide detailed solutions for connectivity, engraving quality, and operational problems.

- **Connectivity Issues:** Ensure the USB-C cable is securely connected and Wi-Fi is configured correctly through the XCS software.
- **Engraving Quality:** Verify laser focus, material settings, and design parameters in the XCS software.
- **Device Not Powering On:** Check the emergency stop button is released and the power adapter is properly connected.

## SPECIFICATIONS

Feature	Detail
Brand	xTool
Model	F1
Product Dimensions	16.73 x 12.99 x 17.32 inches
Item Weight	4.6 pounds
Laser Types	2W Infrared (1064nm), 10W Diode (455nm)
Engraving Speed	Up to 4000mm/s
Motion Accuracy	0.00199mm
Repetition Accuracy	0.000248
Supported Materials	Wood, Glass, Plastic, Metal, Acrylic, Leather, Rubber, etc.
Software Compatibility	XCS, Lightburn
Country of Origin	China

## WARRANTY AND SUPPORT

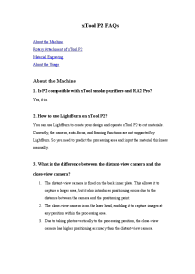

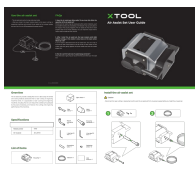


The xTool F1 comes with a 1-year manufacturer's warranty. For any support inquiries, please refer to the official xTool website or contact their customer service directly. Additional resources, including user guides and troubleshooting tips, are available online.

**User Guide (PDF):** [Download User Guide](#)

**Troubleshooting Guide (PDF):** [Download Troubleshooting Guide](#)



## Related Documents - F1

	<p><a href="#">xTool P2 FAQs: Your Guide to the Smart Desktop Laser Cutter</a></p> <p>Frequently Asked Questions about the xTool P2 laser cutter and engraver, covering compatibility, operation, features, materials, and maintenance.</p>
	<p><a href="#">xTool P2 Laser Cutter Quick Start Guide</a></p> <p>A quick start guide for the xTool P2 laser cutter, covering unboxing, setup, component identification, and initial use instructions.</p>
	<p><a href="#">XTOOL Air Assist Set User Guide: Installation and Operation</a></p> <p>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.</p>
	<p><a href="#">Guide to Operating xTool F1 with xTool Creative Space (XCS)</a></p> <p>Learn how to use xTool Creative Space (XCS) software to operate the xTool F1 dual laser engraver. This guide covers installation, connection, material setup, design, parameter settings, preview, and processing.</p>
	<p><a href="#">xTool M1 User Guide: Operate Laser Engraver with xTool Creative Space (XCS)</a></p> <p>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.</p>
	<p><a href="#">xTool M2 User Manual: Setup, Operation, and Safety Guide</a></p> <p>Comprehensive guide for the xTool M2 laser cutter and engraver, covering setup, operation, safety precautions, maintenance, and troubleshooting. Includes detailed instructions and specifications.</p>