

Creality Falcon 2 Pro 40W Engraver Machine & Rotary Kit

Creality Falcon 2 Pro 40W Engraver Machine & Rotary Kit User Manual

Model: Falcon 2 Pro 40W

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1. INTRODUCTION

This manual provides essential instructions for the safe and efficient operation of your Creality Falcon 2 Pro 40W Engraver Machine and Rotary Kit. Please read this manual thoroughly before initial use to ensure proper setup, operation, and maintenance. Retain this manual for future reference.

2. SAFETY INFORMATION

WARNING: Laser radiation can cause eye damage and skin burns. Always wear appropriate laser safety goggles during operation. Never look directly into the laser beam.

- Operate the machine in a well-ventilated area to dissipate fumes and smoke generated during engraving.
- Keep a fire extinguisher nearby. Engraving certain materials can produce flammable debris or ignite.
- Ensure the work area is clear of flammable materials.
- Do not leave the machine unattended during operation.
- Keep children and pets away from the operating machine.
- Ensure the machine is properly grounded.
- Do not engrave reflective materials without proper precautions, as the laser beam can reflect and cause damage.
- Always disconnect power before performing maintenance or adjustments.

3. PACKAGE CONTENTS

Upon unpacking, verify that all components are present and undamaged. If any items are missing or damaged, contact customer support.

- Creality Falcon 2 Pro 40W Laser Engraver Machine
- Rotary Kit for Cylindrical Objects
- Power Adapter and Cable
- USB Cable
- Safety Goggles
- User Manual (this document)
- Material Samples (may vary)

4. SETUP

4.1 Machine Assembly

Follow the detailed assembly instructions provided in the separate assembly guide or quick start poster included with your machine. Ensure all screws are tightened securely and components are correctly aligned.

4.2 Rotary Kit Installation

The rotary kit is designed for engraving cylindrical and irregularly shaped objects. To install:

1. Place the rotary kit on the engraving bed of the Falcon 2 Pro.
2. Connect the rotary kit cable to the designated port on the engraver machine.
3. Adjust the support module to securely hold the cylindrical object. The adjustable support module allows engraving on irregular cylinders such as yeti cups, wine glasses, and wine bottles.



Image: The Creality Rotary Kit designed for engraving various cylindrical objects, including irregular shapes like cups and bottles.

4.3 Software Installation

The Creality Falcon 2 Pro is compatible with popular carving software such as LaserGRBL and LightBurn. Download and install the latest version of your preferred software from the official websites.

- **LaserGRBL:** A free, open-source software for laser engravers.
- **LightBurn:** A paid, feature-rich software offering advanced control and design capabilities.

Follow the software's installation guide and connect your engraver via USB. Configure the machine settings within the software according to the provided parameters (usually found in the software's documentation or Creality's support resources).

5. OPERATING INSTRUCTIONS

5.1 Basic Engraving Process

1. **Prepare Material:** Place the material to be engraved on the work bed. Ensure it is flat and secured.
2. **Design in Software:** Create or import your design in LaserGRBL or LightBurn.
3. **Positioning:** Use the built-in 16MP camera for precise positioning of your design on the material. The camera provides a visual representation of the work area, making operations more accurate.



Image: The Creality Falcon 2 Pro features a built-in 16MP camera to assist with precise material positioning and visualized operations.

4. **Set Parameters:** Adjust laser power, speed, and passes based on the material type and desired engraving

effect. Refer to material settings guides for recommendations.

5. **Start Engraving:** Initiate the engraving process from the software. Monitor the machine closely during operation.

5.2 Using the Rotary Roller

The rotary roller enables engraving on cylindrical objects. It supports a wide range of diameters and shapes.

1. **Place Object:** Secure the cylindrical object (e.g., cup, bottle, pen) onto the rotary roller.
2. **Adjust Width:** The rotary roller features 7-level gear adjustments, allowing engraving on cylinders with diameters ranging from 5mm to 120mm. Select the appropriate gear level to match your object's diameter.



Image: The rotary roller offers 7 adjustable width settings to accommodate cylindrical objects with diameters from 5mm to 120mm, including cans, baseball bats, and pens.



Image: The rotary roller is designed to meet diverse engraving needs, including delicate items like glass cups.

3. **Software Configuration:** In your engraving software (LaserGRBL or LightBurn), enable the rotary axis function and input the correct parameters for your object's diameter and circumference.
4. **Engrave:** Proceed with the engraving process as usual, ensuring the laser path is correctly aligned with the rotating object.

5.3 High-Efficiency Batch Engraving

The Falcon 2 Pro supports high-efficiency batch engraving, allowing multiple items to be processed in a single job. This is particularly useful for small items like coins, tags, or phone cases.



Image: The Creality Falcon 2 Pro facilitates high-efficiency batch engraving, making it easier to process multiple small items simultaneously.

To perform batch engraving:

1. Arrange multiple identical items on the engraving bed.
2. Use the software's array or duplicate functions to replicate your design across all items.
3. Verify positioning with the camera and initiate the engraving job.



Image: A collage showcasing diverse engraving applications, including pens, rolling pins, and tumblers, demonstrating the versatility of the engraver.

6. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your engraver.

- **Cleaning the Lens:** Periodically clean the laser lens with a specialized lens cleaning solution and a lint-free cloth. A dirty lens can reduce laser power and engraving quality.
- **Cleaning the Work Bed:** Remove debris and residue from the work bed after each use. A clean bed helps maintain consistent focus and prevents fire hazards.
- **Lubrication:** Apply a small amount of lubricant to the guide rails and lead screws every few months to ensure smooth movement.

- **Firmware Updates:** Check the Creality official website for any available firmware updates for your machine. Updates can improve performance and add new features.

7. TROUBLESHOOTING

Refer to the following table for common issues and their solutions.

Problem	Possible Cause	Solution
Laser not firing	Power cable loose; Emergency stop engaged; Software issue; Laser module fault	Check power connections; Release emergency stop button; Restart software/computer; Contact support if module is faulty
Poor engraving quality	Incorrect focus; Dirty lens; Incorrect power/speed settings; Material unsuitable	Adjust focus; Clean laser lens; Optimize power/speed settings for material; Use recommended materials
Machine not connecting to computer	USB cable faulty; Driver not installed; Incorrect COM port selected	Try a different USB cable; Install necessary drivers; Select correct COM port in software
Rotary kit not rotating	Cable loose; Rotary function not enabled in software; Object too heavy/misaligned	Check cable connection; Enable rotary axis in software; Ensure object is balanced and within weight limits

For issues not listed here, consult the Creality support website or contact technical assistance.

8. SPECIFICATIONS

- **Product Name:** Creality Falcon 2 Pro 40W Engraver Machine & Rotary Kit
- **Laser Output Power:** 40000mW (40W)
- **Laser Class:** Class 1
- **Rotary Roller Engraving Diameter:** 5mm to 120mm (7-level adjustable gear)
- **Camera:** Built-in 16MP for precise positioning
- **Software Compatibility:** LaserGRBL, LightBurn
- **ASIN:** B0DG86C15W
- **Date First Available:** September 6, 2024

9. WARRANTY & SUPPORT

Creality products typically come with a limited warranty. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official Creality website.

For technical support, troubleshooting assistance, or spare parts, please contact Creality customer service through their official website or the contact information provided in your product packaging. When contacting support, please have your product model and ASIN (B0DG86C15W) ready.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question