SCULPFUN SCULPFUN G9

SCULPFUN G9 Dual Laser Engraver Instruction Manual

Model: SCULPFUN G9

1. PRODUCT OVERVIEW

The SCULPFUN G9 is a versatile 2-in-1 dual laser engraver designed for high-speed and high-accuracy engraving and cutting across a wide range of materials. It integrates both an infrared laser and a blue diode laser, offering broad compatibility for various crafting and industrial applications. This enclosed machine prioritizes user safety and provides an efficient, user-friendly experience.

Figure 1.1: SCULPFUN G9 Dual Laser Engraver

2. KEY FEATURES

- **Dual Laser Sources:** Equipped with a 1064nm 2W infrared laser for plastics and all metal materials, and a 455nm 10W blue diode laser for wood, acrylic, and other materials. Capable of cutting 10mm wood and 6mm acrylic.

- **High Speed & Accuracy:** Utilizes an industrial-grade Galvo system for ultra-high speed engraving at 5000 mm/s and preview speeds of 10000 mm/s. Features 0.0001mm repetition accuracy and a 0.01mm beam spot for precise, detailed engraving.

- **Multi-Security Safeguards:** Adheres to Class I laser safety standards, includes a USB security key, emergency stop button, and a full-range laser protective cover. The enclosed workspace enhances safety by preventing laser leaks.

- **Effective Smoke Blocking:** Comes pre-assembled with a fully enclosed cover that blocks smoke and filters the laser. Includes a built-in fan and is compatible with an air purifier (sold separately) for effective smoke and odor removal.

- **User-Friendly Application:** Supports free powerful smartphone and PC software (SGD Laser) with

an intuitive interface for easy engraving. Features multi-layer editing, variable engraving settings, and multi-format image import. Also compatible with Lightburn software.

Figure 2.1: Dual-Wavelength Laser System
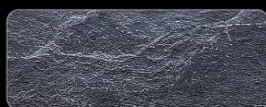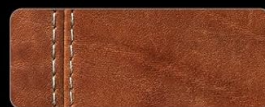
Figure 2.2: Compatible Materials for Dual Lasers

3. SAFETY INFORMATION

Operating laser equipment requires adherence to strict safety protocols to prevent injury and damage. The SCULPFUN G9 is designed with multiple safety features, but user vigilance is paramount.

3.1 General Safety Guidelines

- Always wear appropriate laser safety goggles when the laser is in operation, even with the protective cover.
- Ensure adequate ventilation in the work area to dissipate fumes and smoke generated during engraving/cutting.
- Never look directly into the laser beam or at reflections.
- Keep flammable materials away from the engraving area.
- Do not leave the machine unattended during operation.
- Familiarize yourself with the emergency stop button location and function.
- Use the provided USB security key to enable operation.

Figure 3.1: Integrated Safety Features of SCULPFUN G9

4. SETUP GUIDE

The SCULPFUN G9 comes largely pre-assembled for quick setup. Follow these steps to get started:

4.1 Unpacking and Placement

- Carefully remove all components from the packaging.
- Place the engraver on a stable, level, and non-flammable surface. Ensure there is sufficient space around the machine for ventilation and operation.

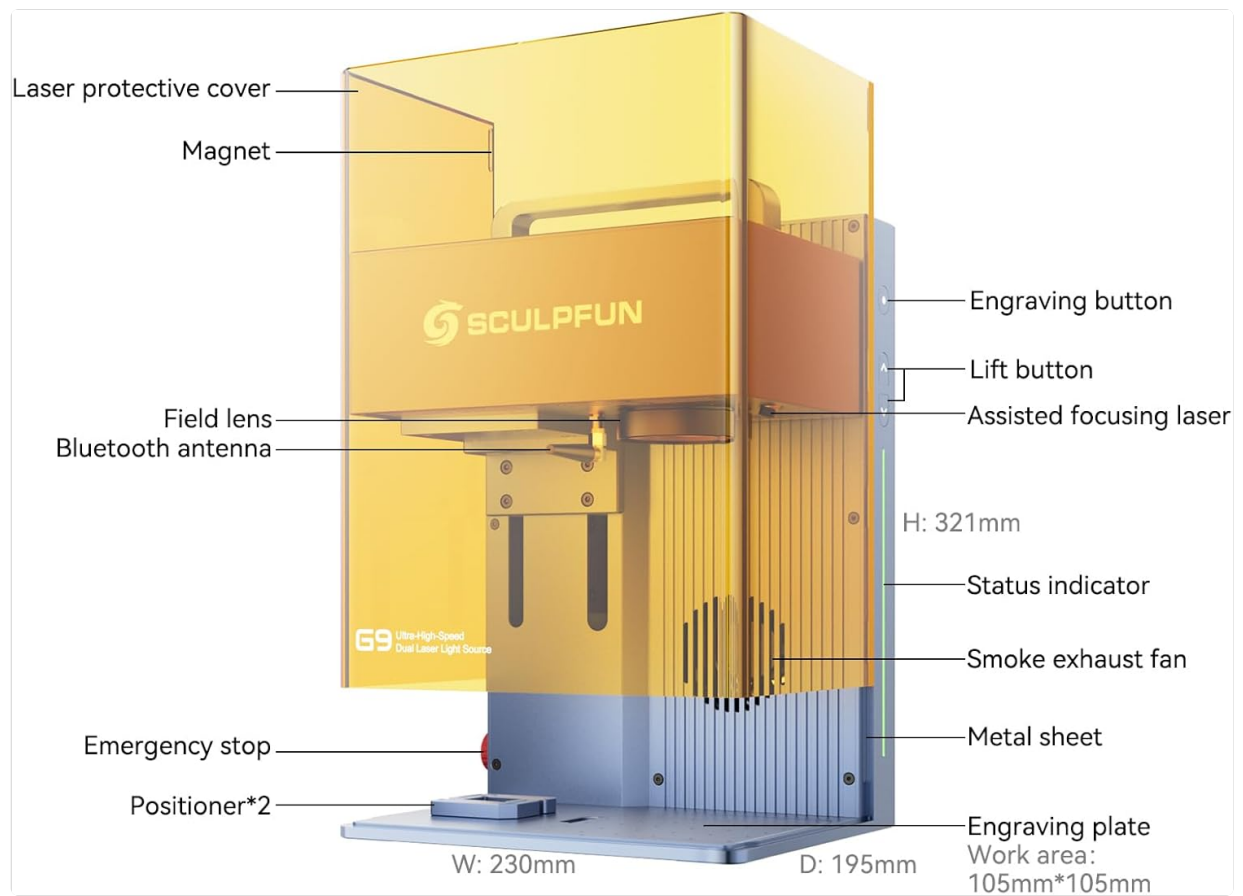## 4.2 Component Identification

Figure 4.1: Labeled Components of the SCULPFUN G9

Figure 4.2: SCULPFUN G9 Package Contents

4.3 Power and Connection

- Connect the power adapter to the engraver and then to a suitable power outlet.
- Connect the engraver to your computer or smartphone using the provided USB data cable or via Wi-Fi/Bluetooth as per software instructions.

5. OPERATING INSTRUCTIONS

The SCULPFUN G9 offers intuitive operation through its dedicated software. This section outlines the general engraving process.

5.1 Software Installation and Connection

- Download and install the SGD Laser software on your smartphone or PC. The machine is also compatible with Lightburn software.
- Follow the on-screen prompts within the software to establish a connection with your SCULPFUN G9 engraver.

5.2 Material Preparation and Placement

- Ensure your chosen material is clean and free of debris.

- Place the material securely on the engraving plate inside the machine.

5.3 Focusing the Laser

- The G9 features an assisted focusing laser. Use the lift buttons on the side of the machine or the software controls to adjust the laser head until the focus is optimal for your material.

5.4 Engraving Process

- **Design Import:** Import your desired image or vector design into the SGD Laser or Lightburn software. The software supports various formats including JPEG, PNG, SVG, AI, DXF, BMP.

- **Settings Adjustment:** Adjust engraving parameters such as laser power, speed, and passes based on the material type and desired effect. The software can recommend settings for different materials.

- **Preview:** Utilize the accurate outline preview function to ensure correct positioning of your design on the material.

- **Start Engraving:** Once all settings are confirmed and the material is in place, initiate the engraving process through the software.

Figure 5.1: Example of Fine Spot Engraving Detail

Figure 5.2: High Speed Galvanometer System

Video 5.1: Demonstration of SCULPFUN G9 Laser Engraving Machine in action, showcasing various engraving and cutting tasks on different materials.

6. MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your SCULPFUN G9 engraver.

- **Cleaning:** Periodically clean the interior of the machine, especially the engraving plate and the laser lens, to remove dust and debris. Use a soft, lint-free cloth and appropriate cleaning solutions if necessary.
- **Fan Maintenance:** Ensure the built-in fan and any external air purification systems are clear of obstructions to maintain effective smoke extraction.
- **Lens Care:** Handle the laser lens with extreme care. Avoid touching it directly with bare hands. Refer to the detailed lens cleaning instructions in the full user manual for specific methods and recommended cleaning agents.

7. TROUBLESHOOTING

If you encounter issues with your SCULPFUN G9, refer to the following common troubleshooting tips:

- **Laser Not Firing:** Check if the power cable is securely connected, the USB security key is inserted, and the emergency stop button is not engaged. Verify software settings for laser power.

- **Poor Engraving Quality:** Ensure the material is properly focused. Check if the laser lens is clean. Adjust engraving speed and power settings in the software. Verify the material is suitable for the selected laser type.

- **Connection Issues:** Restart both the engraver and your computer/smartphone. Check USB cable connections or Wi-Fi/Bluetooth pairing. Ensure software drivers are up to date.

- **Excessive Smoke/Odor:** Verify the enclosed cover is properly sealed. Ensure the built-in fan is operating. Consider using an external air purifier if smoke is still an issue.
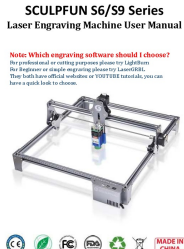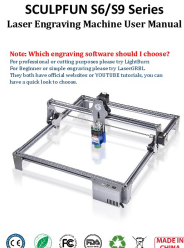
For more detailed troubleshooting, consult the comprehensive user manual provided with your product or visit the SCULPFUN support website.

8. SPECIFICATIONS

Specification	Value
Product Dimensions	12.6 x 10.24 x 19.69 inches
Item Model Number	SCULPFUN G9
ASIN	B0DG2XVMVV
Item Weight	22.7 pounds
Manufacturer	SCULPFUN
Date First Available	September 4, 2024
Laser Class	I
Laser Output	2000mW (Infrared) & 10000mW (Blue Diode)

9. WARRANTY AND SUPPORT

The SCULPFUN G9 comes with a manufacturer's warranty. For detailed information regarding warranty terms, technical support, or service inquiries, please refer to the warranty card included with your product or visit the official SCULPFUN website. You may also contact the seller, Evevean, for assistance.
For additional resources and community support, consider visiting the SCULPFUN Store on Amazon.

Related Documents - SCULPFUN G9

	[SCULPFUN S30 Laser Engraver Assembly Instructions and Guide](#) Comprehensive assembly instructions for the SCULPFUN S30 Laser Engraver. Learn how to build your laser engraver step-by-step, including belt tensioning and focusing tips. Includes software and support information.
	[SCULPFUN S6/S9 Series Laser Engraving Machine User Manual](#) A comprehensive user manual for the SCULPFUN S6 and S9 series laser engraving machines, covering software installation (LaserGRBL and LightBurn), connection, preparation, engraving settings, material recommendations, troubleshooting, and maintenance.
	[SCULPFUN S10 Laser Engraver Assembly Instructions](#) A comprehensive guide detailing the assembly process for the SCULPFUN S10 Laser Engraver, including parts identification, step-by-step instructions, and essential usage tips for optimal performance.
	[SCULPFUN S6/S9 Series Laser Engraving Machine User Manual](#) User manual for the SCULPFUN S6/S9 Series Laser Engraving Machine, covering software installation (LaserGRBL, LightBurn), connection, engraving preparation, operation, material suggestions, troubleshooting, and maintenance.
	[Sculpfun iCube Laser Engraving Machine User Manual](#) User manual for the Sculpfun iCube series of desktop laser engraving machines, covering product structure, focusing, software installation and connection, app interface, PC software, filter replacement, and FAQs.
	[SCULPFUN V5 UV Laser Engraver User Manual](#) Comprehensive user manual for the SCULPFUN V5 UV Laser Engraver, detailing safety, setup, operation, software (SGD Laser, LightBurn), maintenance, and troubleshooting for precision engraving.