**Saved from manuals.plus.**
**Open the live page for links to other documents and user manuals.**



**OMTech SH-G570**

# OMTech Maker 60W CO2 Laser Engraver & Cutter Instruction Manual

Model: SH-G570

## 1. Introduction

This manual provides essential information for the safe and efficient operation of your OMTech Maker 60W CO2 Laser Engraver & Cutter, model SH-G570. Please read this manual thoroughly before operating the machine to ensure proper usage and to prevent damage or injury. This device is designed for precision engraving and cutting a variety of materials.




*Image 1.1: Overview of the OMTech Maker 60W CO2 Laser Engraver highlighting its features including 60W laser power, 20"x28" working area, software compatibility, autofocus, 600mm/s engraving speed, 4-way pass-through, and honeycomb/blade workbeds.*

## 2. Setup

Proper setup is crucial for the performance and safety of your laser engraver. Follow these steps carefully.

### 2.1 Unpacking and Placement

- Carefully remove all packaging materials. Inspect the machine for any signs of damage during transit.
- Place the laser engraver on a stable, level surface capable of supporting its weight. Ensure adequate clearance around the machine for ventilation and access.
- Ensure the operating environment is clean, well-ventilated, and free from flammable materials.

## 2.2 Connecting the Water Chiller

The included water chiller is essential for cooling the CO2 laser tube. Connect it as follows:

- Fill the water chiller with distilled water or a recommended coolant solution.
- Connect the chiller's inlet and outlet hoses to the corresponding ports on the laser tube. Ensure connections are secure to prevent leaks.
- Power on the chiller and verify that water is circulating properly through the laser tube before operating the laser.




*Image 2.1: Illustration of a water chiller, crucial for maintaining the optimal temperature of the laser tube during operation.*

## 2.3 Exhaust System Installation

An efficient exhaust system is vital for removing smoke, fumes, and debris generated during laser processing.

- Connect the exhaust hose from the machine to an external ventilation system or a dedicated fume extractor.
- Ensure the exhaust path is clear and unobstructed to maintain optimal airflow.




*Image 2.2: Depiction of an efficient exhaust system with a blue illuminated fan and metal ducting, designed to remove hazardous debris and fumes.*

## 2.4 Software Installation and Compatibility

The OMTech Maker 60W is compatible with various design and control software:

- Install the necessary drivers and software (e.g., RDWorks, LightBurn) on your computer.
- The machine also supports CorelDRAW and AutoCAD for design creation.




*Image 2.3: The digital control panel of the laser engraver, alongside icons for compatible software: RDWorks, LightBurn, CorelDRAW, and AutoCAD.*

## 3. Operating Instructions

Familiarize yourself with the operational procedures to achieve optimal results and ensure safety.

### 3.1 Powering On and Initial Checks

- Ensure all connections (power, water chiller, exhaust) are secure.
- Turn on the water chiller first, then the laser engraver.
- Verify that the laser head moves freely and the workbed is clear.

### 3.2 Material Placement and Work Area

The machine features a 28" x 20" work area and includes both honeycomb and blade workbeds for versatile material

support.

- Place your material securely on the appropriate workbed.
- Utilize the 4-way pass-through doors for processing larger materials that exceed the workbed dimensions.




*Image 3.1: The laser engraver demonstrating its 4-way pass-through capability, allowing for the processing of materials larger than the internal work area.*

## 3.3 Autofocus Function

The integrated autofocus system simplifies setup and ensures precise laser focus.

- Position the laser head over the material.
- Activate the autofocus function via the control panel or software. The laser head will automatically adjust to the correct focal distance.




*Image 3.2: A close-up view of the laser head's nozzle, illustrating the built-in autofocus and air assist features for sharper and cleaner results.*

## 3.4 Engraving and Cutting Operations

The 60W CO2 laser can engrave and cut various materials at speeds up to 600 mm/s, with cutting depths up to 0.4 inches in materials like wood and acrylic.

- Load your design into the laser software.
- Adjust power and speed settings according to the material type and desired outcome. Refer to the material compatibility table for guidance.
- Initiate the engraving or cutting process. Monitor the operation through the flame-resistant observation window.




*Image 3.3: The laser engraver actively cutting into a piece of wood, demonstrating its capability to cut up to 0.4 inches deep.*

## 3.5 Material Compatibility

The OMTech Maker 60W supports a wide range of materials for both engraving and cutting:

| Material | Engraving | Cutting | Material | Engraving | Cutting |
|---|---|---|---|---|---|
| Wood | ✓ | ✓ | Mylar | ✓ | ✓ |
| Acrylic | ✓ | ✓ | Cork | ✓ | ✓ |
| Leather | ✓ | ✓ | Glass | ✓ | |
| Plastic | ✓ | ✓ | Fiberglass | ✓ | |
| Cardboard | ✓ | ✓ | Ceramic | ✓ | |
| Pressboard | ✓ | ✓ | Brick | ✓ | |
| Fabric | ✓ | ✓ | Stone | ✓ | |
| MDF | ✓ | ✓ | Jade | ✓ | |
| Rubber | ✓ | ✓ | Marble | ✓ | |
| PVC | ✓ | ✓ | Shale | ✓ | |
| Bamboo | ✓ | ✓ | Cement | ✓ | |
| Kraft Paper | ✓ | ✓ | Corian | ✓ | |
| Corrugated Paper | ✓ | ✓ | Coated Metal | ✓ | |
| Felt | ✓ | ✓ | Electroplated Metal | ✓ | |
| Delrin | ✓ | ✓ | Painted Metal | ✓ | |
| Melamine | ✓ | ✓ | Anodized Metal | ✓ | |

*Table 3.1: Material compatibility for engraving and cutting with the OMTech Maker 60W CO2 Laser Engraver.*



*Image 3.4: A collage of various items showcasing the engraving and cutting capabilities of the laser machine on different materials like wood, leather, and acrylic.*

## 4. Maintenance

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

### 4.1 Laser Tube Care

The high-performance Yongli H2 tube offers a long lifespan, up to 12,000 hours, with proper care.

- Ensure the water chiller is always operational during laser use to prevent overheating.
- Periodically check the coolant level and quality in the chiller. Replace or replenish as needed.
- Avoid physical shocks or impacts to the laser tube.




*Image 4.1: A detailed view of the high-performance Yongli H2 laser tube, highlighting its internal structure and the laser beam path.*

### 4.2 Cleaning Optics and Mirrors

- Regularly inspect and clean the laser lens and mirrors using appropriate optical cleaning solutions and lint-free wipes.
- Contaminated optics can reduce laser power and affect engraving/cutting quality.

### 4.3 Workbed and Interior Cleaning

- After each use, remove debris and dust from the work area and workbeds.
- Periodically clean the interior of the machine to prevent accumulation of dust and residue.

## 5. Troubleshooting

This section addresses common issues you might encounter. For problems not listed here, please contact OMTech support.

### 5.1 Laser Not Firing

- Check if the water chiller is running and circulating water.
- Verify all power connections to the machine and laser power supply.
- Ensure the emergency stop button is not engaged.
- Confirm that the laser tube is properly connected and not damaged.

### 5.2 Poor Engraving/Cutting Quality

- Check the focus of the laser. Re-run the autofocus function.
- Inspect and clean the laser lens and mirrors for any dust or residue.
- Adjust power and speed settings in your software for the specific material being used.
- Ensure the material is flat and securely placed on the workbed.

### 5.3 Machine Not Responding

- Restart the machine and your computer.
- Check the USB or network connection between the machine and your computer.
- Verify that the correct drivers are installed and the software is properly configured.

## 6. Specifications

Key technical specifications for the OMTech Maker 60W CO2 Laser Engraver & Cutter (Model SH-G570).

- **Model Number:** SH-G570
- **Laser Power:** 60W CO2
- **Laser Class:** 2
- **Output Power:** 0.874 mW
- **Work Area:** 28 inches x 20 inches (711 mm x 508 mm)
- **Max. Engraving Speed:** 600 mm/s
- **Max. Cutting Depth:** 0.4 inches (10 mm) in wood, acrylic, and similar materials
- **Laser Tube Life:** Up to 12,000 hours (Yongli H2 tube)
- **Focus System:** Autolift Autofocus
- **Pass-Through:** 4-way
- **Workbeds:** Honeycomb and Blade
- **Software Compatibility:** RDWorks, LightBurn, CorelDRAW, AutoCAD

## 7. Warranty and Support

OMTech is committed to providing reliable products and customer service.

### 7.1 Warranty Information

Your OMTech Maker 60W CO2 Laser Engraver & Cutter comes with a**12-month warranty** from the date of purchase. This warranty covers manufacturing defects and ensures your product functions as intended under normal use. Please retain your proof of purchase for warranty claims.

### 7.2 Customer Support

For technical assistance, troubleshooting, or warranty inquiries, please contact OMTech customer support. We offer U.S.-based support to assist you with any questions or issues.

- Visit the OMTech Store on Amazon for product information and support resources.
- Join the Official OMTech Community to connect with other users and find helpful tips and advice.




*Image 7.1: OMTech customer support representatives ready to assist with product inquiries.*

© 2025 OMTech. All rights reserved.

## 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**

---

**Open the live page**

**https://manuals.plus/asin/B0F384NDB3**

More documents and user manuals: **https://manuals.plus/**