

## Genmitsu 4040-PRO MAX

# Genmitsu 4040-PRO MAX CNC Router Machine Instruction Manual

Model: 4040-PRO MAX

Brand: Genmitsu

## 1. SAFETY INFORMATION

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Always prioritize safety when operating the Genmitsu 4040-PRO MAX CNC Router Machine. Failure to follow safety guidelines can result in injury or damage to the equipment.

### 1.1 General Safety

- Read and understand the entire manual before operation.
- Keep the work area clean and well-lit. Cluttered or dark areas invite accidents.
- Do not operate the machine in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.
- Keep children and bystanders away while operating the machine. Distractions can cause you to lose control.
- Wear appropriate personal protective equipment (PPE), including safety glasses, hearing protection, and dust masks.

### 1.2 Electrical Safety

- Ensure the power source matches the machine's voltage requirements (230 Volts).
- Do not abuse the power cord. Never use the cord for carrying, pulling, or unplugging the machine.
- Keep the power cord away from heat, oil, sharp edges, or moving parts.
- Always unplug the machine before performing any maintenance, adjustments, or when changing accessories.

## 1.3 Operational Safety

- Securely clamp all workpieces to prevent movement during operation.
- Ensure the cutting tool is correctly installed and tightened before starting.
- Never leave the machine unattended while it is running.
- Avoid reaching into the machine's working area while it is in operation.
- Use the emergency stop button immediately if any abnormal operation or hazard occurs.

## 2. PACKAGE CONTENTS

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Verify that all components are present and undamaged upon opening the package. If any items are missing or damaged, contact customer support.

- Genmitsu 4040-PRO MAX CNC Router Machine (1 unit)
- 710W Trimmer/Spindle
- Control Board
- Power Supply (Corded Electric)
- Data Cable
- Auxiliary Tools (e.g., wrenches, screwdrivers)
- Spindle Line
- Emergency Stop Switch
- Limit Switches
- User Manual

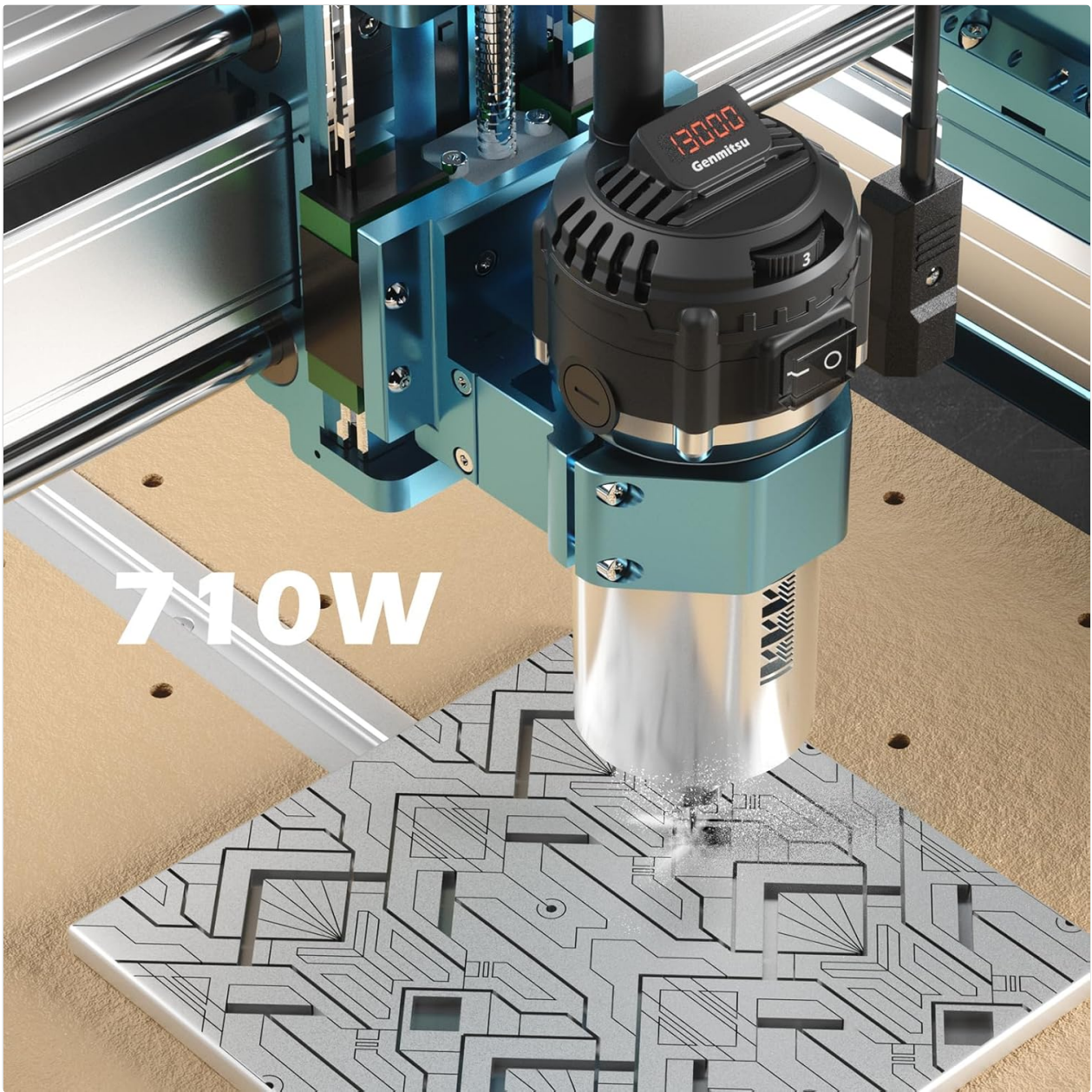
## 3. SETUP AND ASSEMBLY

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Follow these steps carefully to assemble and set up your CNC router machine.

### 3.1 Unboxing and Component Identification

Carefully remove all components from the packaging. Refer to the package contents list to ensure all parts are present.



*Image: Overview of the Genmitsu 4040-PRO MAX CNC Router Machine.*

### **3.2 Machine Assembly**

The 4040-PRO MAX features an easy assembly design. Align the X&Y-axis with support blocks as shown in the diagram.

# Easy Assembly

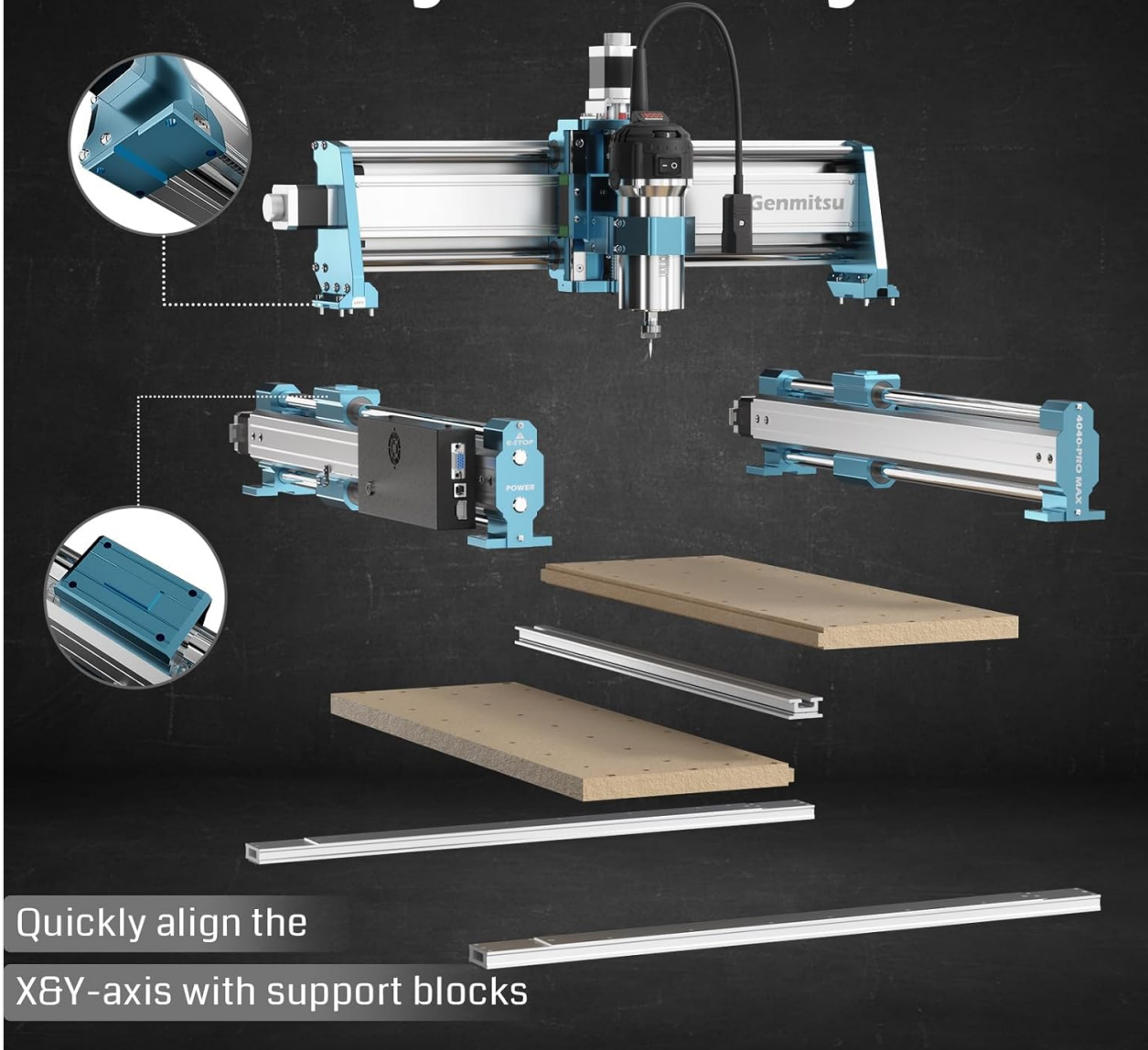


Image: Diagram illustrating the easy assembly process, showing how to align the X and Y axes with support blocks.

The X-axis is composed of SBR16 linear rails and a lead screw, designed for high precision and stability. The Z-axis also utilizes a lead screw and linear rail structure for stable vertical movement.



Image: Detailed view of the X and Z axes, highlighting the linear rails and lead screws.

### 3.3 Spoilboard Installation

The machine includes an upgraded spoilboard with a rigid aluminum spine, secure T-track grip, and lasting flatness. Ensure it is properly installed for stable workpiece mounting.



*Image: The upgraded spoilboard featuring a rigid aluminum spine and T-track grip.*

### 3.4 Wiring and Connections

Connect the stepper motors, limit switches, spindle, and power supply to the control board. Ensure all connections are secure and follow the wiring diagrams provided in the full manual.

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*Video: Installation tutorial for a similar Genmitsu Pro Max CNC machine, demonstrating unboxing, assembly, and wiring steps. This video provides a visual guide for the assembly process.*

## 4. OPERATING INSTRUCTIONS

The Genmitsu 4040-PRO MAX is controlled via GRBL. It supports wireless control through an upgraded motherboard and an optional Wi-Fi module (ASIN: B0D1BZW5LY) for seamless integration with the official

Genmitsu app.

## 4.1 Basic Operation

- Power on the machine and connect it to your computer or use the optional offline controller.
- Load your G-code file using compatible software (e.g., Candle, UGS) or the Genmitsu app.
- Set the workpiece origin (X, Y, Z zero points).
- Start the carving or cutting process. Monitor the machine during operation.

## 4.2 Material Compatibility

The 710W compact router provides powerful performance for carving and cutting various materials, including wood, metal, and acrylic.

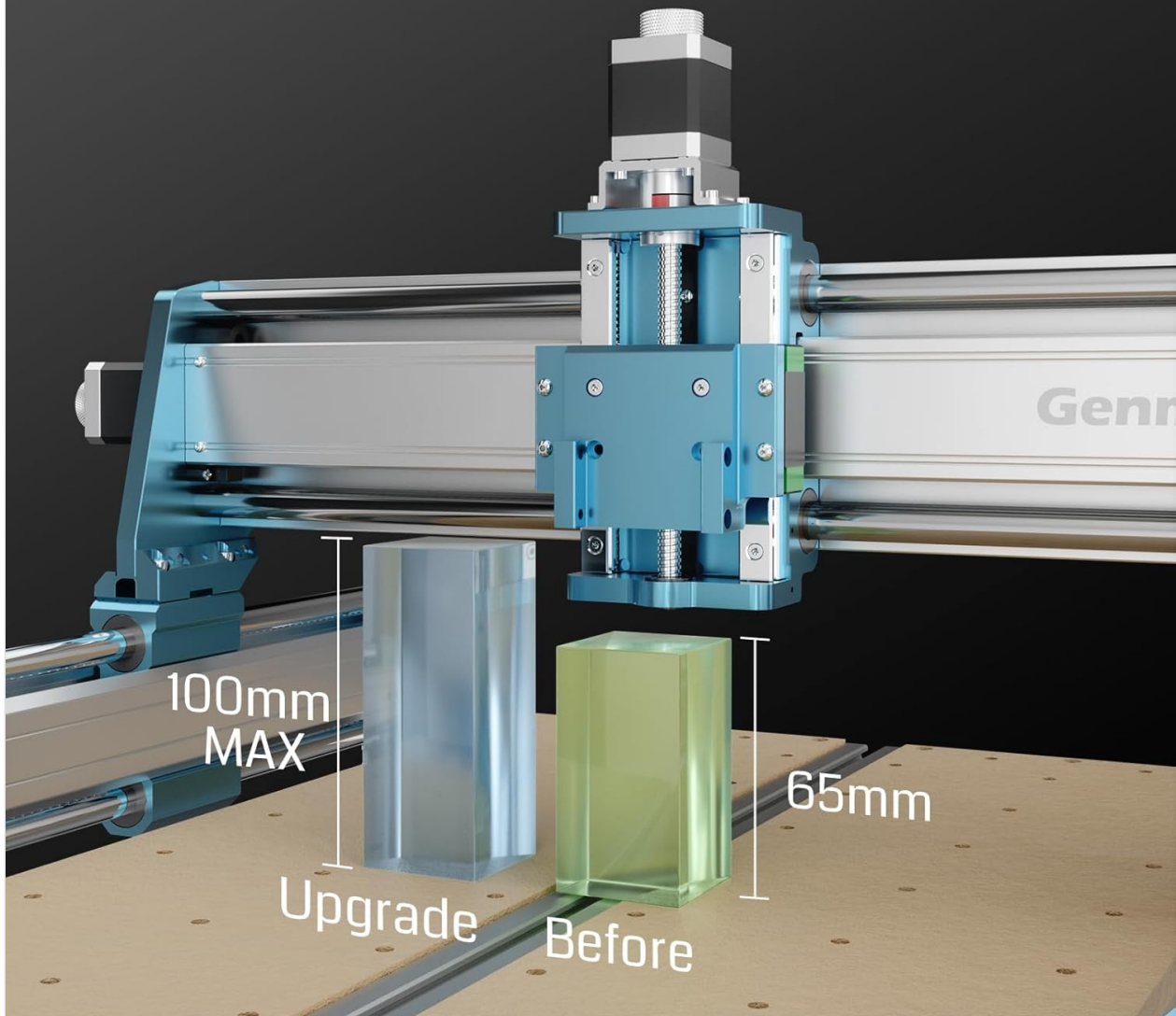


*Image: The 710W spindle carving intricate designs into a metal plate.*

## 4.3 Increased Pass Height

The machine features an increased step height of 100mm, allowing for the engraving of taller materials compared to previous PRO versions.

# Pass Height



*Image: Comparison showing the increased pass height of 100mm on the upgraded model.*

## **4.4 Accessories and Upgrades**

The 4040-PRO MAX is designed for expandability. It is compatible with various accessories such as the 4040-PRO Y-axis extension kit, 4th axis rotary module, and dust shoe.



Image: The Genmitsu CNC router shown with various compatible accessories like an extension kit, Wi-Fi module, dust shoe, relay module, Z-probe, and 4th axis.

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Video: Demonstration of Genmitsu end mills with 3.175mm shanks, showcasing their use in CNC carving.

## 5. MAINTENANCE

Regular maintenance ensures optimal performance and longevity of your machine.

- **Lubrication:** Regularly lubricate the lead screws and linear rails to ensure smooth movement and prevent wear.
- **Cleaning:** Keep the machine free from dust and debris, especially around the moving parts and electronics. Use a soft brush or compressed air.
- **Inspection:** Periodically check all screws and connections for tightness. Ensure the cutting tools are sharp and free from damage.

## 6. TROUBLESHOOTING

This section provides solutions to common issues. For more complex problems, refer to the full online manual or contact customer support.

## 6.1 Common Issues

- **Machine not powering on:** Check all power connections, ensure the power supply is correctly installed, and verify the voltage switch on the power supply is set correctly (110V or 220V).
- **Motors not moving:** Check motor wiring connections to the control board. Ensure the emergency stop button is disengaged.
- **Inaccurate carving:** Verify that the workpiece is securely clamped. Check for loose components or worn cutting tools. Ensure correct G-code and software settings.
- **Software connection issues:** Ensure correct drivers are installed and the USB cable is properly connected. If using wireless, verify Wi-Fi module installation and app connection.

## 7. SPECIFICATIONS

Feature	Specification
Brand	Genmitsu
Model Number	4040-PRO MAX
Material	Metal
Power Source	Corded Electric
Voltage	230 Volts
Horsepower	0.95 HP (approx. 710W)
Work Area (X, Y, Z)	15.75 x 15.75 x 3.15 inches (approx. 40 x 40 x 8 cm)
Item Weight	16.4 Kilograms
Control System	GRBL Control
X-axis	SBR16 Linear Rails, Lead Screw
Z-axis	Lead Screw, Linear Rail Structure
Pass Height	100mm Max
Wireless Functionality	Supported (with optional Wi-Fi module)

## 8. WARRANTY AND SUPPORT

For warranty information, technical support, or to purchase additional accessories, please visit the official Genmitsu website or contact their customer service directly.

You can find more information and support resources at the [Genmitsu Store on Amazon](#).

