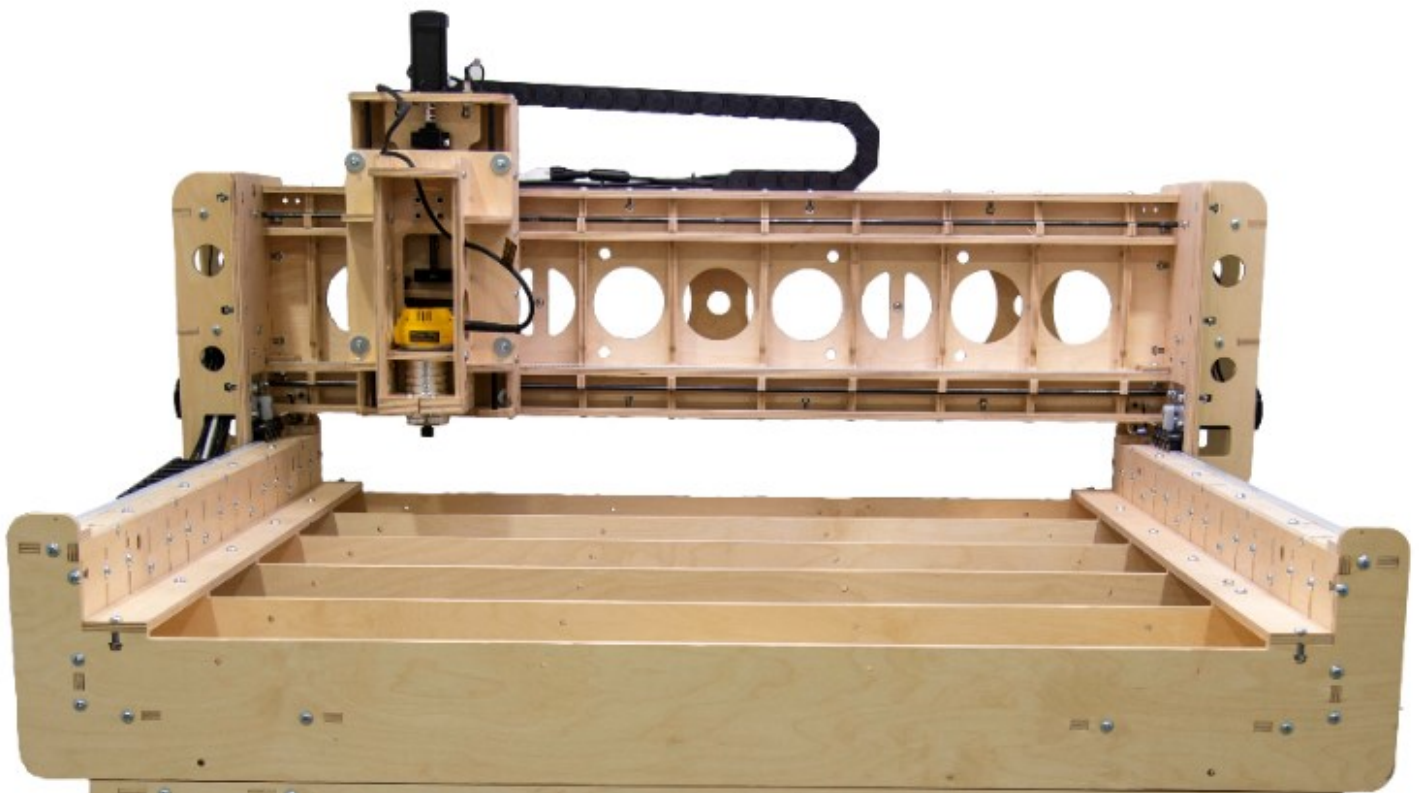


BobsCNC
Unleash Your Creativity

KLT44

Getting Started

MANUAL 1 of 8



Version 2.5

KL744 Warranty and Return Policy

PLEASE READ CAREFULLY

30 Day Return Policy. A return may only be requested during the first 30 (thirty) days after the delivery date of your KL744. Please email your request for a Return Authorization Code to warranty@BobsCNC.com. A refund cannot be processed without an authorization code.

The kit must be returned to BobsCNC in its original packaging, in unassembled condition. The customer is responsible for return shipping

We will be unable to honor requests for returns after the 30 (thirty) day period has expired.

Return Shipping Damage

Bobs CNC will not be held liable for any damage(s) incurred in return shipping. We recommend that you purchase shipping insurance to cover the original purchase price for the product returned to BobsCNC.

90 Day Warranty Period

BobsCNC guarantees all supplied parts and components for 90 (ninety) days after the delivery date. If any parts are missing or defective, please contact BobsCNC within the 90 (ninety) day warranty period by email to warranty@bobsCNC.com. After 90 (ninety) days no warranty is expressed, given or extended nor can any refund be offered.

Technical Assembly

The assembly, setup, and a basic understanding of the machine's parameters requires technical knowledge, mechanical proficiency, and operating experience.


We cannot guarantee a customer's ability to assemble, setup or use our product(s). Since the quality of any products or projects created using the KL744 is dependent upon its proper setup and a basic understanding its operating parameters, BobsCNC does not guarantee the quality of the parts manufactured using the KL744.





Specifications


KL744	
Material	12 mm 9 ply Baltic Birch
Machine Size	68.5" x 60.25" X 37"
Cutting Area	48" x 48"
Router Spindle	DeWalt 611 Makita (RT0701C)
Spindle RPMs	16k to 27k (10K to 30k)
Processor Firmware	GRBL v. 1.1
Controller	Uno Controller
Recommended Gcode Sender	UGS Platform
X,Y Axis	T5 x 15 mm Bell-Everman Servo Drive
Z Axis	SFU 1204 Ball Screw
Rail System	Supported Rails, 3/8" Stress Proof Steel
Power Supply AC	Dual 48 VDC 7 Amps
Input	110 v
Drive Motors	NEMA 23 Servo Closed Loop Quadrature Encoder
Holding Torque	Nm 3 (425 oz. in.)
Servo Resolution X and Y axes	0.001" (0.025 mm)
Servo Resolution Z axis	0.00007" (0.002 mm)
Repeatability	0.002" to 0.004" (0.05 mm to 0.1 mm)
Wire Management	Drag Chain
Hardware Controls	Hold, Resume, and Emergency Stop
Home Switches	Hall Effect with Self-Squaring Gantry
Shipping weight	202 lbs (5 boxes)

Look Safety Information and Hints.

	<p>DANGER Indicates a serious risk of bodily harm, possible injury and death. This warning box is to be taken seriously. Any work must be carried out with extreme caution.</p>
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	<p>CAUTION Indicates a possible risk of injury that can result from failure to follow this Instruction.</p>
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	<p>WARNING Indicates the possible damage to the machine, it's components, or the work piece that can result from the failure to follow this warning.</p>
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 <p>HINT</p>	<p>Hints will provide needed information, shortcuts, and insights that will make assembly and machine operation easier and safer.</p>
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Please review each assembly manual before beginning to assemble the KL7 SERIES CNC Router.



DANGER

Possibility of electrical shock, burn(s), damage to the electrical components, or fire.

Wiring connections should be performed by a licensed electrician.

Do not remove power supply cover. Turn off and disconnect all electrical power when servicing power supply, controller, or drivers.

Your KL7 Series CNC Router is a system of components specifically engineered and designed to perform precise and accurate 2.5D cutting and 3D relief carving. The assembly steps in the manuals are to be considered best practices. Avoid the temptation to skip or modify any of the outlined steps or ignore any included *Warnings* or *Hints*. **Failure to follow the directions included will void the BobsCNC Warranty and may result in the machine malfunction.**

Your kit includes 110 vac electrical components. Because of the possibility of electrical shock, burn(s), or damage to the electrical components and fire, wiring connections should be performed by a licensed electrician. Do not remove power supply cover. Turn off and disconnect all electrical power before servicing power supply, controller, drivers, or router.

The KL744 components include: Frame, Gantry, Y Carriage, and Z (Spindle) Mount, Controller Box with a Uno controller, dual 48 vdc power supplies, and drivers for all four axes. The greatest benefit of assembling the kit yourself is gaining an appreciation for how each component interacts with the others.

When operated within the manufacturer's design specifications, your KL Series Router will hold a tolerance between 0.002 to 0.004 inches and will provide you with years of dependable operation. The potential applications of your machine are only limited by your desire and imagination.

KL 7 SERIES Shop Safety Precautions & Warnings



Safety First

Read and follow all operating and safety instructions in the Assembly Instruction Manual before operating the machine.

- **Never leave the machine running unattended.**
- **Use only extension cords rated for 20 amps plugged into a dedicated outlet.**
- **Inspect the machine for maintenance issues: loose fasteners, damaged power cords, dull bits, etc.**
- **Do not operate machine with dull or damaged router bits.**
- **Always unplug machine after each use and when cleaning the router or changing router bits.**
- **Remove rings, bracelets, watches, necklaces before using machine.**
- **Wear snug fitting clothing and/or roll up long sleeves to prevent snagging.**
- **Use appropriate personal protective equipment (PPE) when operating machine including safety glasses and hearing protection.**
- **Keep hands, hair and clothing away from the moving parts of the machine.**
- **Do not operate the machine when under the influence of alcohol or drugs.**
- **Make certain workpiece is clamped securely in place before starting machine.**
- **Children must be supervised by adults when operating machine.**
- **Do not operate the machine in the presence of flammable materials.**
- **Keep floors clean, dry, and free of debris to eliminate slip and/or trip hazards.**
- **Have a suitably rated fire extinguisher on hand when the machine is in operation.**

Tools Required for Assembly:

- **#3, #2, and #1 Phillip Screw Drivers**
- **Small Standard Screw Driver**
- **Complete set of Metric and SAE sockets and wrenches with extensions.**
- **Extended Reach Metric and SAE Allen Wrenches.**
- **Side Cutter, Wire Stripper**
- **Tin Snips (to cut steel reinforced belts)**
- **Box Knife**
- **Small Crescent Wrench**
- **Non-Marring Rubber Mallet**
- **Loctite® 243 (50ml bottle)**
- **Denatured Alcohol**
- **Lint Free Cloth, Paper Towels**
- **Belt Tightening Tool (Included with Kit)**
- **Pulley Offset Gauge (Included with Kit)**

Tools Recommended for Assembly:

- **Cordless Drill or Drill Driver.**
- **Voltmeter or Multimeter.**

Tools Recommended for Use:

- **Dust Collection System**
- **Router Bits**

Assembly Area Requirements:

A large, clean, well lit bench top is needed. The Optional Table for the KL 744 was specifically designed to provide an adequate assembly surface area (69" x 61").

Two separate 110 vac 20 amp circuits for the Controller and 48 vdc Power Supplies, and the dust collection system.

Sealing the Wood Components:

The KL SERIES CNC Routers feature 12 mm Baltic Birch plywood. Baltic Birch is manufactured using exterior grade adhesives, however, as a best practice we recommend that customers seal the outer birch veneer surface and all edges with polyurethane. Seal every wood component with two coats of polyurethane applied according to the manufacturer's directions.

The double-sided tape used to affix the static drive belts of the Bell Everman Drive System to the Belt Supports has been specifically designed by 3M to adhere to a polyurethaned surface.

The tab and slots in the kit have been engineered for a tight fit. You will want to use thin coats using spray polyurethane. You may find it easier to assemble the wood components before sealing with polyurethane if using a brush.

Solvent (oil) based polyurethane should only be used in work areas with adequate ventilation. BobsCNC has tested water-based acrylic poly with acceptable results (water based poly has significantly lower VOCs and a faster drying/curing time).

One Step at a Time.

Successfully assembling and operating your new KL series CNC Router requires patience and attention to detail. Always refer to the appropriate Assembly Manual and Wiring Diagram.

Once you've completed your assembly and successfully *homed* and *jogged* your machine, you will have taken your first steps in learning how to operate your KL 744. Learning to create the projects you've dreamed of will require patience and practice.

Start with easy projects. As you gain experience you will be amazed at the things you will be able to make with your KL 744.

Welcome to the BobsCNC family.