AKYPACH
Wood Router
Instruction Manual

WARNING: Please read this manual fully and be sure you understand its instructions prior to assembling and operating this tool. Inspect for damage and missing parts upon receipt. Please contact AKYPACH with any problems or questions.

Read through carefully and understand these instructions before use.

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TECHNICAL DATA

Item number/name	AKYPACH Wood Router CCC
Motor	110 Volts, 50 - 60HZ, 800W
No load speed	10,000 - 33,000 RPM
Bit shank diameter	1/4″ or 3/8″
requirement as shown in the chart below. Use only UL listed extension cord.	

General Instructions for 110V Routers

WARNING!!
KEEP TOOLS AND EQUIPMENT OUT OF THE REACH OF YOUNG CHILDREN!!

Good Working Practices/Safety

The following suggestions will enable you to observe good working practices, keep yourself and fellow workers safe and maintain your tools and equipment in good working order.

Elec trical Safety instructions

- Keep the workplace clean and well it. Do not use plugs in miscellaneous power tools must match the socket. Never modify the plug.

- Do not use power tools with grounding wires with any transformer plugs. Use unmodified plugs and matching sockets to reduce the risk of electric shock .

- Use power tools in messy , dark workplaces and workbenches, other wise accidents are likely to occur.

- Do not use power tools in places where explosive gases, such as combustible liquids or gas , or dust are present. The sparks generated by power tools can ignite these dusts or gases.

- When working, the body must not touch the grounded metal body, such as iron pipe, radiator, freezer,etc. If the body is grounded , it will increase the risk of elect rics hock.

- Do not allow children to approach and prohibitidle people from entering the workplace. Distracted attention will cause the machine to lose control.

- Power tools should not be exposed to rain or placed in a humid environment. Water flowing into the power tool will increase the risk of electric shock.

- Do not step on the wire or pull the wire to pull out the plug, etc .Do not drag the wire to move the tool. Also avoid touching the wire to high heat objects, sharp metal edges and moving parts or sticky wet grease.Damaged or tangled wires will increase the risk of electric shock.

- Personal Safety：Stay alert , pay attention to what you are doing when operating power tools and stay awake. Do not operate power tools when tired, under the influence of drugs , alcoholic treatment.

- Use safety devices. Always wear goggles .Wear earmuffs when operating for long periods of time.

- Avoid sudden start-ups. Make sure the switch is in the OFF position when the plug is inserted.

- Remove any adjusting keys or wrenches before the power tool is turned on.

- Do not extend your hand too far. Keep your hands away from rotating parts. Always be sure to balance your feet and body.

- Be careful not to cut intonails. Check and remove all nails from the workplece prior to operation.

- Dress appropriately.Do not wear loose clothing or accessories.Keep your hair, clothing and sleeves away from moving parts. Loose clothing, accessories, or long hair can get caught in moving parts.

CAUTION: Make sure the tool is powered off before plugging it in.

Additional Safety instructions for use of Routers

① Make sure you have read and fully understood the General instructions and safety precautions that are printed in the preceding pages of this manual.

② Before connecting the router to the power supply, check the tool for obvious signs of damage, paying particular attention to the plug and the power cord. Correct any damage you discover. Be sure the router bit you are about to fit is the correct tool for the job. Check the bit for damage, make sure it is sharp and clean, check that you have the correct collet for the tool shank size you are about to fit, and ensure that a sufficient length of the shank is inserted in the collet to guarantee a secure hold of the bit. Make sure the tools you use to fit the router bit, or the accessories, are the correct ones. DO NOT risk damaging the tool by using the wrong size collet wrenches, allen keys, etc. Make sure the 'chip screens' (if available) are fitted securely. If dust extraction is available, connect it.

③ Check that there are no foreign objects, e.g. old nails, screws, small stones etc., embedded in the work-piece.

④ Set the depth of cut, either as a single depth or incrementally (for deep cuts). Install and set the guide fence if required.

⑤ Ensure the machine is switched off. ('0' showing) (Never turn on the power unless you are actually holding the machine). Plug the power cord into a correctly rated switched outlet. If you are working outside, check that any extension cords in use are rated for outside work.

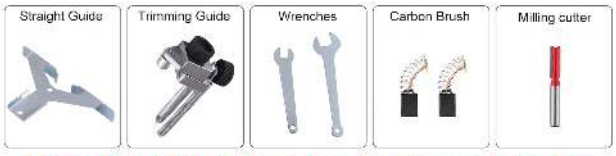
⑥ Make sure you are holding the machine in a safe position, the cutter bit is not in contact with anything, and the 'cutting depth' is locked. Give the machine a quick "burst", to ensure that everything is working correctly, checking especially for vibration that might indicate that the cutter is incorrectly installed. If a vibration is present, disconnect the machine, re-install the cutter, and test again.

⑦ Make sure that the power cord is safely routed away from the operating area, and that the router movement during the operation will not drag it within range of the cutter.

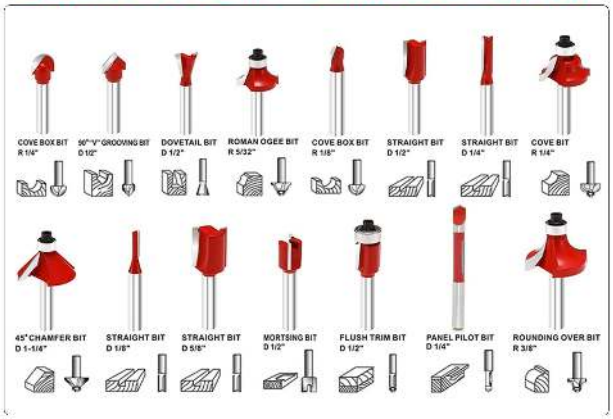
Unpacking and Checking Contents

1. To avoid injury from unexpected starting or electrical shock, do not plug the power cord into a source of power. This cord must remain unplugged whenever you are servicing and assembling this router.

2. When unpacking and checking contents, separate all loose parts from packaging material and check each item to make sure all items are accounted for before discarding any packing material.
If any parts are missing, do not attempt to use this router, plug in the power cord, or turn the switch on until missing parts are obtained and are installed correctly.



Upgaded 15PCS 1/4'' Shank Router Bits Set



1 X Electric Trimmer
1 X Straight line auxiliary gauge
1 X Trimming guide wheel
2 X Small wrench
2 X Carbon brush
2 X Screw and Nut
1 X User Manual
15 X Router Bits

Assembly and Adjustments

This tool is designed to be used strictly as a router/edge trimmer.

Caution! Do not use this tool for drilling holes. It is not intended to be used as a drill.

This tool is equipped with the following electronic functions:

Constant Speed Control: Electronic circuit allows the motor to maintain a constant speed, even under full load conditions.

Soft Start: This feature minimizes start up "torque twisting" by allowing the motor to gradually come up to speed.

ON/OFF SWITCH:

The power switch is located on the side of the top cover of the motor housing. Pushing the rocker switch to the "I" position turns on the power. Pushing the rocker switch to the "0" position interrupts the power and turns the tool off.

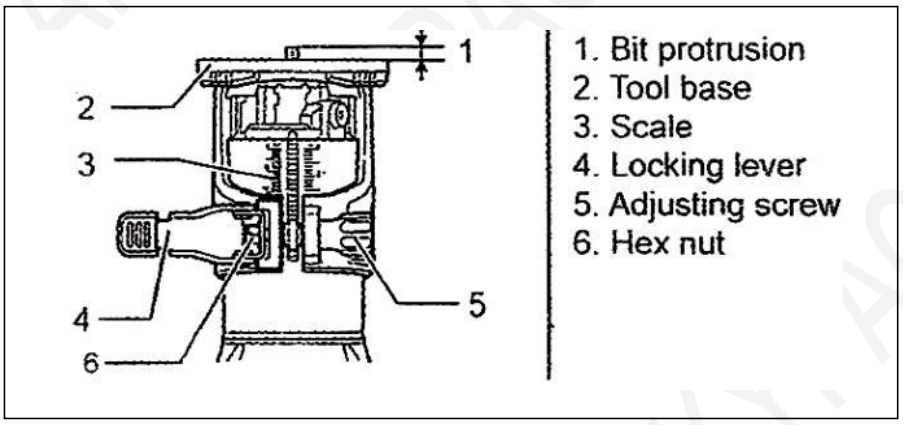
WARNING! Never use the tool if its switch cannot turn it on or off smoothly.

WARNING! Never use tool without the motor installed in the router base.

Adjusting the Router Motor Height:

The AKYPACH Wood Router uses a rack and pinion gear on the router base to adjust the motor height. The gear on the base engages the teeth that are machined in the face of the router motor.
Make sure that you do not attempt to adjust the motor height while the router is running. The motor must be turned off and the power cord should be unplugged from the power source to prevent the router motor from inadvertently being turned on.
Start by loosening the locking flip lever to loosen the motor in the base. Turn the height adjustment knob in the direction you need to raise or lower the motor to the desired height for the cut depth you would like.
When you are satisfied with the motor position, re-engage the locking mechanism by flipping the locking lever to the locked position. The router has a convenient scale to assist when making your height adjustments.

If you are unable to keep the motor secured with the locking lever in the locked position, tighten the hex nut (6) behind the locking lever to apply more tension on the lever. Test and readjust as needed until the router motor stays securely locked in position.



Hanging Collet Inserts:

The AKYPACH Wood Router is supplied with both 1/4″ and 3/8″ collet inserts. To change the collet insert, loosen and remove the collet nut and insert the desired collet for the bit you intend to install in the router.
Replace the collet nut but do not tighten it fully unless there is a router bit inserted into the collet as it is possible to permanently distort the collet insert doing this. This could make inserting bits into the collet difficult or cause you to need to replace the collet insert.

Inserting A Router Bit into the Collet:

With the collet nut loose, slide the router bit into the collet insert. Make sure that you have at least 3/4″ of the router bit shank inserted into the collet.
Do not bottom out the bit in the collet. If you insert the shank to the bottom of the collet bore, make sure to pull it out at least 1/16″ to 1/8″ to allow the collet insert to properly secure the router bit in the collet.
There is a button on the motor housing that will lock the spindle to allow you to tighten and loosen the collet nut using the supplied wrench.
It will be necessary for the spindle to rotate until the spindle lock pinengages the locking hole on the spindle. Before tightening the bit, make sure the flutes of the bit are completely visible outside the collet.
Otherwise, it can result in broken bits and possible injury. The power cord should be unplugged from the power source when making bit changes to prevent the router from being turned on by accident.

WARNING! Never use dull or damaged bits. Damaged bits can break without warning.Dull bits may overload the motor, cut slowly and are difficult to control. They will also overheat and possibly break.

Operations

1. Before operation:

a. Before turning the tool ON, check to make sure the router bit and any fasteners used to attach accessories are properly tightened.
b. Avoid cutting your fingers. Make sure all of your fingers are far back from the workpiece before operation. Keep your hand far away from moving parts.
c. Before starting the tool, make sure that the bit does not touch the work piece.
d. Before cutting the work-piece, let the tool turn for a while without load.

2. During operation:

a. Always hold the tool with two hands during start-up and operation.
b. Always make sure the work- piece is free of nails and other foreign objects. If the bit strikes a nail it will jump sideways and possibly break.

3. After operation:

a. When the cut is complete, turn the tool OFF, wait until it comes to a complete stop and remove it from the work-piece.
b. Never lay the tool down until the tool comes to a complete stop. A spinning bit can come in contact with the ground surface and the workbench and pull it out of your control.
c. Never touch the bit immediately after use. The bit may be too hot to be handled with your hand and may burn your fingers.

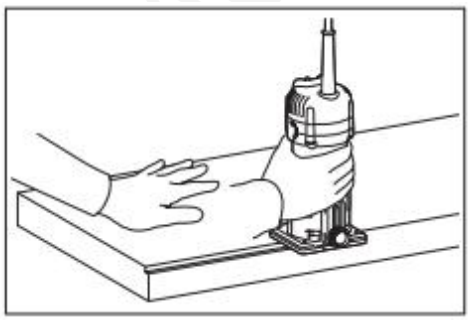
4. Working procedure:

Before attempting to work on an actual project, make a few practice cuts on some scraps of material. Use the same type of material you will be using in your actual project to see how the cutters will work. After making the test cut, make any necessary adjustments to the cutting depth, motor speed or feed rate to achieve the best results.

Freehand Routing:

Use the router base with small router bits to perform various freehand routing projects. Insert the appropriate size collet (1/4 or 3/8) for the router bit you will be using. Install the router bit and securely tighten it.
Adjust the router base height to the correct routing depth. Before turning the switch ON, make sure the router bit is not in contact with anything.
Holding the two height adjusting knobs with both hands, carefully lower the bit onto the work-piece and guide the bit around the stock in a clockwise direction.

Cutting a Straight Line with a Straight Edge Guide:



1.Place the base on the workpiece to be cut and do not allow any contact between the woodworking trimmer head and the workpiece.
2.Start the tool and wait until the woodworking trimmer head reaches full speed before operating.
3.Move the tool forward on the surface of the workpiece, keeping the base level and pushing it forward smoothly until the cutting operation is complete.

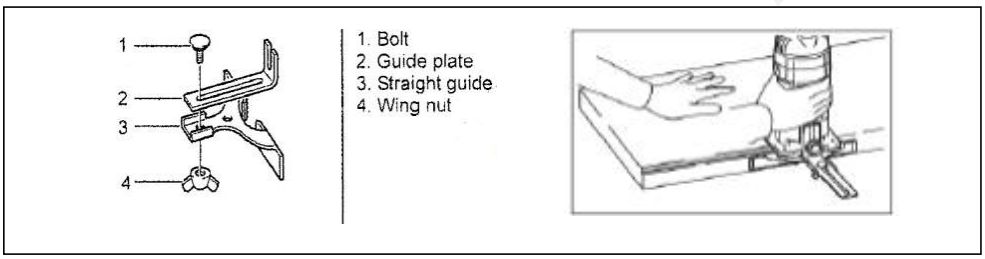
To cut a straight line, you can use a straight edge template to guide the router base. Draw a straight line on the work-piece where you wish to make the cut. Draw a second straight line parallel to the cut line back into the work-piece at the distance between the router base and the router bit.
Clamp the straight edge guide onto the stock at the secondary line. Place the router base against the straight edge with the bit near the start of the cutting line.
Turn the switch ON while firmly holding the tool.
Slide the router plate against the straight edge while making the cut.

Cutting Curved Line with a Template:

To cut a curved line, you can use a curved template to guide the router base. Make a template from hard board or other similar material to the shape you required. Note: Radius of curve must be greater than 2 1/2" for router base to properly follow the curved template. Mark the location of the cut to be made.
Mark the work-piece approximately 2 1/16" back into the work-piece (away from the cutting line).
Clamp or use double sided tape to secure the template onto the work-piece that is to be cut. Place the router base against the template with the bit near the start of the cutting line.

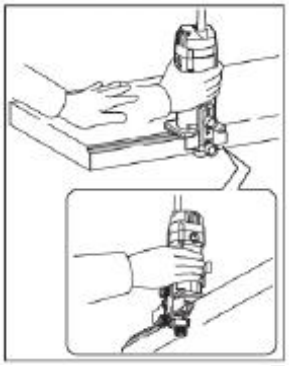
Installing and Using the Straight Edge Guide:

The edge guide is used for making straight cuts, grooves or following an edge with a bit that does not have a guide bearing.
Attach the guide plate to the straight guide with the bolt and wing nut. Make sure to position the straight guide with the guide fence positioned downward as shown in the diagram.
Secure the straight edge guide to the router base using the clamping screw on the router base.
Loosen the wing nut on the straight edge guide and adjust the distance between the router bit and the straight guide to the desired position.
Tighten the wing nut to secure the straight edge guide at the correct distance.
When making the cut, move the router with the straight guide firmly against the edge of your stock.
If the desired location of the cut is greater than the capacity of the straight edge guide, refer to the previous page for the instructions "Cutting a Straight Line using a Straight Edge Guide".



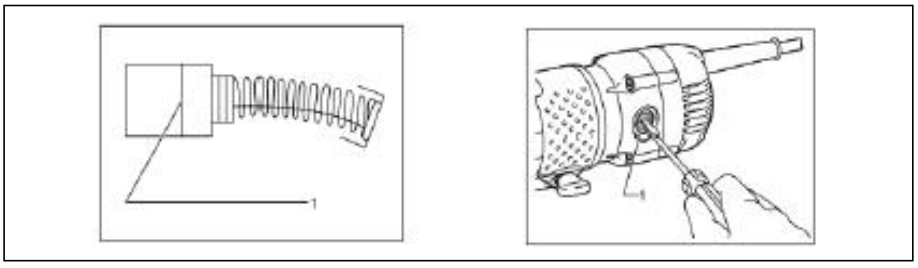
Using the Trimmer Guide:

Trimming thin stock or veneers can be accomplished with a 1/4″ straight bit and the trimming guide.
Install the bit into the collet and adjust the bit height to just slightly taller than the stock you will be trimming.
Using the clamping screw, secure the trimming guide to the router base so that the ball bearing guide is located just below the straight bit, but make sure the bit does not contact the roller bearing assembly.
To adjust the roller flush with the edge of the router bit, loosen clamping screw on the trimmer guide. Use the lower knob on the trimmer guide to adjust the position of the roller flush with the bit.
Once they are flush, secure the position of the roller by tightening clamping screw. When you make your cut, the roller will follow the substrate, which will act as your template while the router bit trims the thin stock or veneer flush to the substrate. The roller can also be offset to allow a slight overhang when working with veneer and you prefer to butt the vertical and horizontal veneer pieces and sand the edge to relieve the sharp corner.



Replace carbon brushes

Inspect carbon brushes regularly. Replace brushes when they are worn to the limit wear line. Keep the brushes clean and free to slide in the brush holder. Both brushes should be replaced at the same time. Use only the same brushes.
1.Use a screw driver to remove the brush holder cover.
2.Remove worn carbon brushes, insert new brushes, and tighten brush holder cover.



MAINTENANCE

WARNING! Unplug the tool before changing accessories or bits and making adjustments.

A. Do not clean the tool by using highly volatile liquids such as solvent, gasoline or petroleum product, etc, because the chemical substances contained in these liquids may damage the plastic.

B. Always keep the tool handle free from oil or grease.

C. Always re-tighten collet and all adjustments before starting the tool after a bit or accessory has been changed. Loose bits and adjustments can cause unexpected shifting of the tool, resulting in loss of control and injury from the bit or tool being thrown.

D. CAUTION! To avoid shock or fire, replace power cord immediately if it is worn or damaged in any way.

E. When the carbon brushes have been worn to their limitation, they should be replaced. Both carbon brushes should be replaced at the same time.

F. WARNING! Use only accessories recommended by AKYPACH to avoid injury to the operator or damage to the tool.