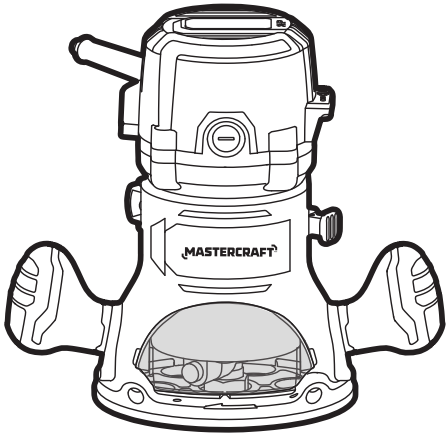
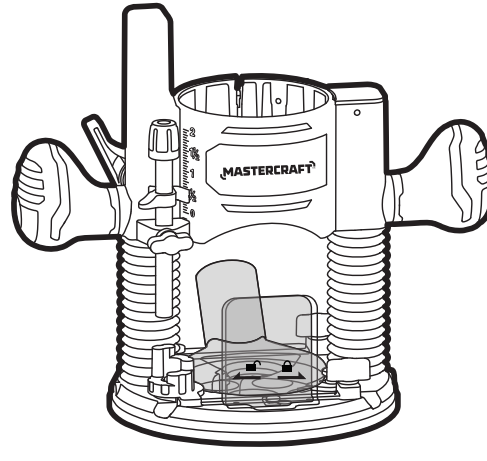
MASTERCRAFT™/MC

PLUNGE/FIXED-BASE ROUTER

054-6821-2





IMPORTANT:
Read and understand this instruction manual thoroughly before using the product.

INSTRUCTION MANUAL

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NOTE:
If any parts are missing or damaged, or if you have any questions, please call our toll-free helpline at 1-800-689-9928.



SAVE THESE INSTRUCTIONS

- This manual contains important safety and operating instructions. Read all instructions and follow them with use of this product.

TECHNICAL SPECIFICATIONS

Rated Voltage	120 V~ 60 Hz
Rated Power Input	11A
No-load Speed	25,000 RPM
Collet Capacity	1/4 & 1/2” (6.4 & 12.7 mm)

SAFETY GUIDELINES:



WARNING!

Safety symbols in this Instruction Manual are used to flag possible dangers. The safety symbols and their explanations require your full understanding. The safety warnings do not, by themselves, eliminate any danger, nor are they substitutes for proper accident prevention measures.



WARNING!

This Safety Alert Symbol indicates caution, warning, or danger. Failure to obey a safety warning can result in serious injury to yourself or others. To reduce the risk of injury, fire, or electric shock, always follow the safety precautions.

KNOW YOUR TOOL

To operate this tool, carefully read this Instruction Manual and all labels affixed to the router before using. Keep this instruction manual available for future reference.

IMPORTANT

This tool should only be serviced by a qualified service technician. For more information, call the toll free helpline at 1-800-689-9928.

READ ALL INSTRUCTIONS THOROUGHLY.

SAVE THESE INSTRUCTIONS.

GENERAL POWER TOOL SAFETY WARNINGS



WARNING!

Read all safety warnings, instructions, illustrations and specifications provided with this power tool. Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE.

The term “power tool” in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

WORK AREA SAFETY

- **Keep work area clean and well lit.** Cluttered or dark areas invite accidents.
- **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** Power tools create sparks which may ignite the dust or fumes.

- **Keep children and bystanders away while operating a power tool.** Distractions can cause you to lose control.

ELECTRICAL SAFETY

- **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adaptor plugs with earthed (grounded) power tools.** Unmodified plugs and matching outlets will reduce risk of electric shock.
- **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is earthed or grounded.
- **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
- **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** Damaged or entangled cords increase the risk of electric shock.
- **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** Use of a cord suitable for outdoor use reduces the risk of electric shock.
- **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** Use of an GFCI reduces the risk of electric shock.

PERSONAL SAFETY

- **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
- **Use personal protective equipment. Always wear eye protection.** Protective equipment such as a dust mask, non-skid safety shoes, hard hat or hearing protection used for appropriate conditions will reduce personal injuries.
- **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** Carrying power tools with your finger on the switch or energising power tools that have the switch on invites accidents.
- **Remove any adjusting key or wrench before turning the power tool on.** A wrench or a key left attached to a rotating part of the power tool may result in personal injury.
- **Do not overreach. Keep proper footing and balance at all times.** This enables better control of the power tool in unexpected situations.
- **Dress properly. Do not wear loose clothing or jewellery. Keep your hair and clothing away from moving parts.** Loose clothes, jewellery or long hair can be caught in moving parts.
- **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** Use of dust collection can reduce dust-related hazards.

- **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

POWER TOOL USE AND CARE

- **Do not force the power tool. Use the correct power tool for your application.** The correct power tool will do the job better and safer at the rate for which it was designed.
- **Do not use the power tool if the switch does not turn it on and off.** Any power tool that cannot be controlled with the switch is dangerous and must be repaired.
- **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** Such preventive safety measures reduce the risk of starting the power tool accidentally.
- **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** Power tools are dangerous in the hands of untrained users.
- **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** Many accidents are caused by poorly maintained power tools.
- **Keep cutting tools sharp and clean.** Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.
- **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** Use of the power tool for operations different from those intended could result in a hazardous situation.
- **Keep handles and grasping surfaces dry, clean and free from oil and grease.** Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.

SERVICE

- **Have your power tool serviced by a qualified repair person using only identical replacement parts.** This will ensure that the safety of the power tool is maintained.

SAFETY INSTRUCTIONS FOR ROUTERS

- **Hold the power tool by insulated gripping surfaces only, because the cutter may contact its own cord.** Cutting a "live" wire may make exposed metal parts of the power tool "live" and could give the operator an electric shock.
- **Use clamps or another practical way to secure and support the workpiece to a stable platform.** Holding the work by your hand or against the body leaves it unstable and may lead to loss of control.

ADDITIONAL SAFETY GUIDELINES FOR THE ROUTER

- **The label on your tool may include the following symbols. The symbols and their definitions are as follows:**

  V ..... Volts

  A ..... Amperes

  Hz ..... Hertz

  W ..... Watts

  min ..... Minutes

  ~ ..... Alternating current

  n_0 ..... No-load speed

  ⧈ ..... Class II Construction

  …/min or …min^{-1} ..... Revolutions or reciprocations per minute

   ..... WARNING–To reduce the risk of injury, user must read instruction manual.

   ..... WARNING–To reduce the risk of injury, always wear eye protection.

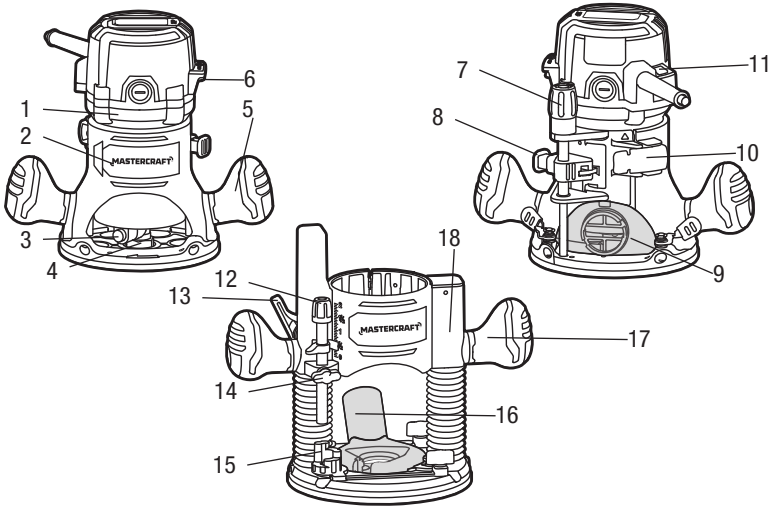
   ..... WARNING–To reduce the risk of injury, always wear ear protection.

- Always make sure the work surface is free from nails and other foreign objects. Cutting into a nail can cause the bit and the tool to jump and damage the bit.
- Never hold the workpiece in one hand and hold the tool in the other hand when in use. Never place hands near or below the cutting surface. Clamping the material and guiding the tool with both hands is safer.
- Always wear safety goggles and dust mask. Use only in well ventilated area. Using personal safety devices and working in safe environment reduces risk of injury.
- Keep handles dry, clean and free from oil and grease. Slippery hands cannot safely control the power tool.
- Never start the tool when the bit is engaged in the material. The bit cutting edge may grab the material causing loss of control of the cutter.
- The router may make a big noise during routing; it is better to wear ear protection during the operation.

PACKAGE CONTENTS:

Motor, plunge base, fixed base, 1/2" (12.7 mm) collet and 1/4" (6.4 mm) collet sleeve, straight-edge guide, dust-extraction adaptor (fixed base), dust-extraction adaptor (plunge base), 2 chip shields, collet wrench, nylon tote, and instruction manual.

KEY PARTS DIAGRAM



No.	Description
1	Motor housing
2	Fixed base
3	Spindle-lock button
4	Self-releasing collet
5	Handle
6	ON/OFF switch
7	Fine-adjustment dial with depth-indicator ring
8	Coarse-adjustment knob
9	Vacuum port

No.	Description
10	Motor clamp
11	Live-tool indicator light
12	Micro-adjustment knob
13	Plunge-depth locking lever
14	Depth-rod locking knob
15	Depth-stop turret
16	Dust-extraction adaptor
17	Handle
18	Plunge base

NOTICE: Before attempting to use this tool, become familiar with all of its operating features and safety requirements. For optimum performance and safety, read the following operating instructions carefully before using this product.

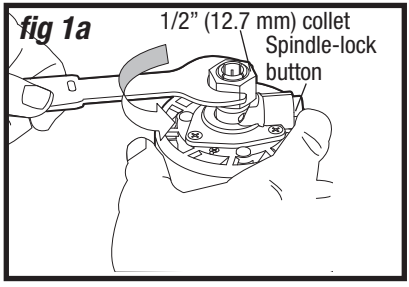
OPERATING INSTRUCTIONS

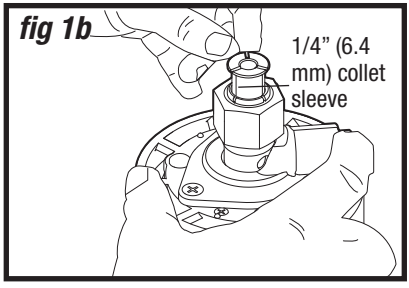
SELECT THE CUTTER BIT

This router comes with a 1/2" (12.7 mm) collet and 1/4" (6.4 mm) collet sleeve that accept cutter bits with 1/2" (12.7 mm) and 1/4" (6.4 mm) shanks, respectively. The 1/2" (12.7 mm) collet is installed on the tool, and the 1/4" (6.4 mm) collet sleeve can be installed inside the 1/2" (12.7 mm) collet.

INSTALL THE 1/4" (6.4 mm) COLLET SLEEVE *(fig 1)*

1. Disconnect the plug from the power supply.
2. Remove the router motor housing from the fixed or plunge base.
3. Set the router motor upside down on its top cap with the collet pointing up.
4. Press the spindle-lock button to engage and lock the spindle shaft and the 1/2" (12.7 mm) collet. Place the wrench (included) on the 1/2" (12.7 mm) collet and turn it counter-clockwise to loosen the collet slightly to accept the 1/4" (6.4 mm) collet sleeve (fig 1a).
5. Insert the 1/4" (6.4 mm) collet sleeve into the 1/2" (12.7 mm) collet assembly as far as it will go (fig 1b).
6. With the 1/4" (6.4 mm) collet sleeve inserted and the spindle-lock button pressed in to engage the shaft, place the wrench on the 1/2" (12.7 mm) collet and turn it clockwise until the 1/4" (6.4 mm) collet sleeve is tightened in it.





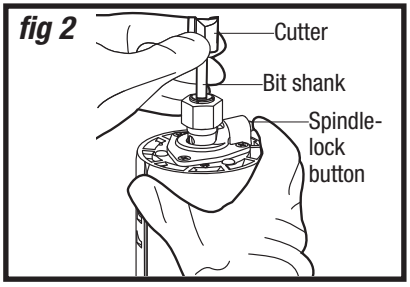
REMOVE THE 1/4" (6.4 mm) COLLET SLEEVE *(fig 1)*

1. Disconnect the plug from the power supply.
2. With the spindle-lock button pressed in to engage the shaft, place the wrench on the 1/2" (12.7 mm) collet and turn it counter-clockwise to loosen the collet slightly to remove the 1/4" (6.4 mm) collet sleeve.

WARNING!

- Always turn the motor off and unplug the router before making any adjustments or installing accessories. Failure to unplug the router could result in accidental starting which can cause serious personal injury.

INSTALL THE CUTTER BIT *(fig 2)*



1. Turn the motor off and unplug the router from the power source.
2. Remove the motor housing from the fixed or plunge base.
3. Set the motor upside down on its top cap, with the collet pointing up.
4. Press the spindle-lock button to engage and lock the spindle shaft and the collet. Place the wrench on the collet and turn it counter-clockwise to slightly loosen the collet to accept the cutter-bit shank.
5. Insert the cutter-bit shank into the collet assembly as far as it will go, then back the shank out until the cutter is approximately 1/8 to 1/4" (3.2 to 6.4 mm) away from the face of the collet.
6. With the cutter bit inserted and the spindle-lock button pressed in to engage the shaft, place the wrench on the collet and turn it clockwise until the collet is firmly tightened on the cutter bit.

REMOVE THE CUTTER BIT

1. Turn the motor off and unplug the router from the power source.
2. Remove the motor from the fixed or plunge base.
3. Set the motor upside down on its top cap, with the collet pointing up.
4. Press the spindle-lock button to engage and lock the spindle shaft and the collet. Place the wrench on the collet and turn it counter-clockwise to loosen the collet slightly.
5. Remove the cutter-bit shank.

NOTICE:

• If the cutter bit cannot be removed, you can remove the collet and bit together and then knock the bit out from the collet.
• To ensure proper gripping of the cutter-bit shank and minimize run-out, the shank of the cutter bit must be inserted into the collet at least 5/8" (15.9 mm).

WARNING!

- Tighten the collet securely to prevent the cutter bit from slipping. If the collet is not securely tightened, the cutter bit may detach during use, causing serious personal injury.
- Do not use a cutter bit that has a diameter larger than the two sub-base openings [1 7/32" (31 mm)]. A larger cutter bit will not fit through the sub-base opening, will cause damage to the sub-base and the motor, and could cause serious personal injury to the operator.

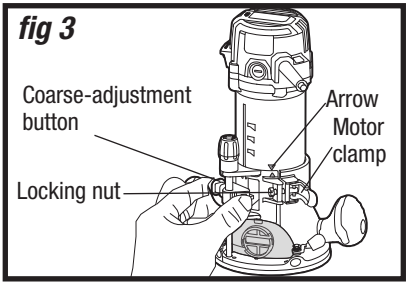
INSTALL THE MOTOR IN THE FIXED BASE *(fig 3)*

1. Disconnect the plug from the power supply.
2. Place the fixed base on a flat surface.
3. With the back of the fixed base facing you, open the motor clamp.
4. Press the coarse-adjustment button while you align the motor to the fixed base so that the arrows align.
5. Slide the motor down into the fixed base.
6. The router motor will now slide up or down when the coarse-adjustment button is pressed in.
7. After all adjustments are made, close the motor clamp securely.

REMOVE THE MOTOR FROM THE FIXED BASE *(fig 3)*

1. Disconnect the plug from the power supply.
2. Place the router on a flat surface.
3. With the back of the router facing you, open the motor clamp.
4. Push in the coarse-adjustment button while you lift the router motor out of the fixed base.

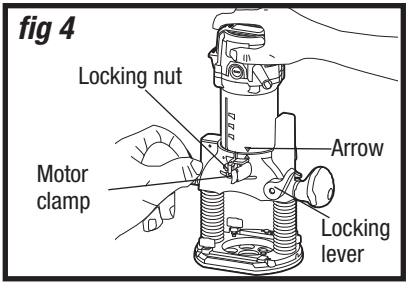
fig 3



INSTALL THE MOTOR IN THE PLUNGE BASE *(fig 4)*

1. Disconnect the plug from the power supply.
2. Place the plunge base on a flat surface.
3. With the back of the plunge base facing you, open the motor clamp and make sure that the plunge action is in the "DOWN" position with the plunge-depth locking lever locked.
4. Align the arrow on the motor housing with the arrow on the plunge base, and then lower the motor housing into the plunge base.
5. Slide the motor into the base as far as it will go.
6. Close the motor clamp securely.

fig 4



REMOVE THE MOTOR FROM THE PLUNGE BASE *(fig 4)*

1. Disconnect the plug from the power supply.
2. Place the router on a flat surface.
3. With the back of the plunge base facing you, open the motor clamp and make sure that the plunge action is in the "DOWN" position, with the plunge-depth locking lever locked.
4. Lift the motor straight up out of the base.

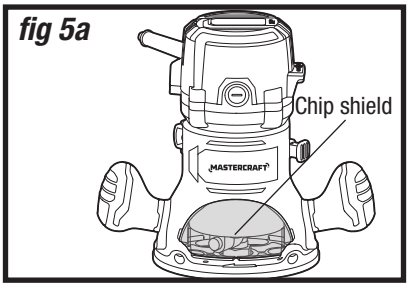
CHIP SHIELDS *(fig 5)*

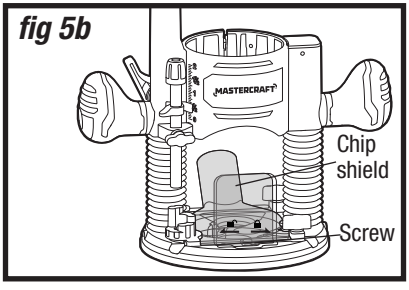
For fixed base:

1. To attach, place the chip shield in position and flex the sides while pushing the shield in until it snaps into place (fig 5a).
2. To remove the chip shield from the fixed base, press inward on the tabs until the chip shield releases from the base, and then remove the chip shield.

For plunge base:

1. Insert the chip shield into the screw on the plunge base (fig 5b).
2. Slide the chip shield to the right side to lock it.
3. To remove the chip shield, just slide it to the left side and then remove it from the plunge base.

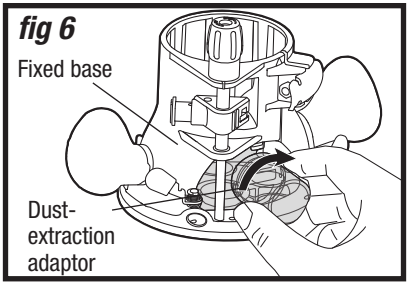




DUST-EXTRACTION ADAPTOR FOR THE FIXED BASE (*fig 6*)

To attach the dust-extraction adaptor onto the fixed base, align the two raised ribs on the dust-extraction adaptor with the slots on the vacuum port, and then insert the dust-extraction adaptor into the vacuum port on the back of the fixed base. Rotate the adaptor until it is secured on the base.

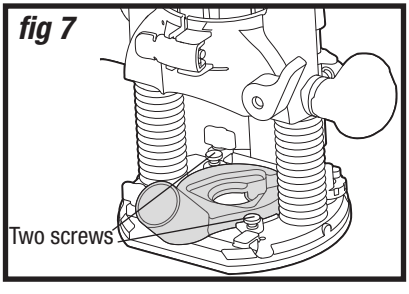
A 1 1/4"(3.2 cm) vacuum hose can be connected directly to the dust-extraction adaptor.



DUST-EXTRACTION ADAPTOR FOR THE PLUNGE BASE *(fig 7)*

To attach the dust-extraction adaptor onto the plunge base, position and secure it to the back of the base with the two screws included.

A 1 1/4" (3.2 cm) vacuum hose can be connected directly to the dust-extraction adaptor.



EDGE GUIDE (*fig 8*)

The router combo kit comes with an edge guide. This edge guide can be used as an aid in routing applications such as decorative edging, straight-edge planing and trimming, grooving, dadoing, and slotting.

To assemble the edge guide, insert two edge-guide rods into the holes on the edge guide, and then use two screws (included) to lock the edge-guide rods in place.

To attach the edge guide to the fixed or plunge base, simply insert the edge-guide rods into the edge-guide mounting slots either from the left or the right. Adjust the edge guide to the desired position. For fixed base, secure the edge guide by turning the quick-release levers toward two handles; for plunge base, secure the edge guide by turning two locking nuts clockwise.

fig 8a

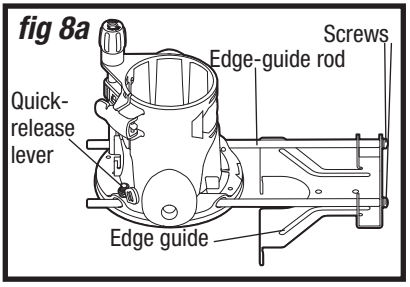
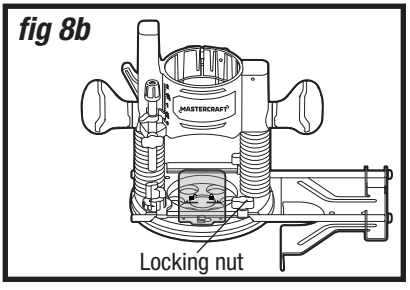


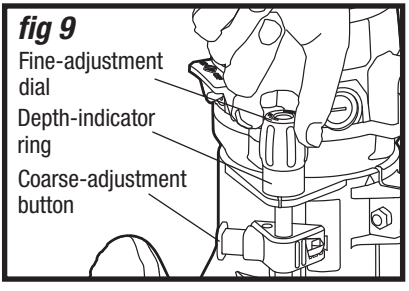
fig 8b



DEPTH ADJUSTMENT WITH THE FIXED BASE *(fig 9)*

The fixed base is designed with a fine-adjustment system. When the bit is lowered to the approximate position desired (coarse setting), the system can then be micro-adjusted to the precise depth.

fig 9



Coarse Adjustment:

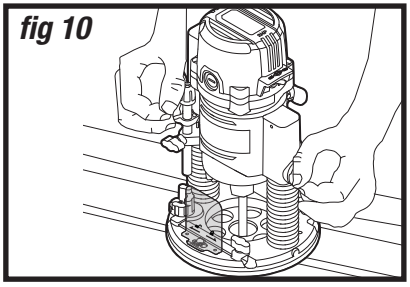
Depress the coarse-adjustment button to quickly lower or raise the cutter bit to an approximate depth setting.

Fine Adjustments:

The depth-indicator ring located on the fine adjustment dial is marked in 1/256" (0.1 mm) increments. Turn the fine adjustment dial counter-clockwise 180º (1/2 turn) to lower the cutter bit 1/32" (0.8 mm). One full turn counter-clockwise 360° (zero "0" to zero "0") lowers the bit 1/16" (1.6 mm).

The depth-indicator ring may be reset to zero "0" without moving the fine-adjustment dial. This allows the user to begin adjustments from any reference point desired.

DEPTH ADJUSTMENT WITH THE PLUNGE BASE



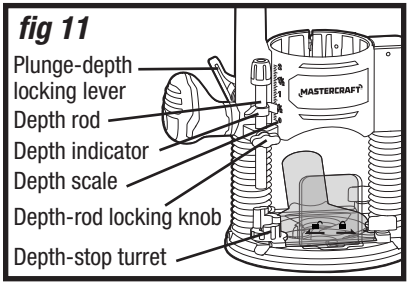
PLUNGING ACTION *(fig 10)*

The plunge base feature simplifies the depth adjustments and will allow the cutter bit to easily and accurately enter the workpiece.

To lower the cutter bit, release the plunge-depth locking lever by moving it "Up" to the unlocked position. Use both hands to apply an even downward pressure on the plunge action until the cutter bit reaches the desired depth, then move the plunge-depth locking lever "Down" to the locked position.

To raise the bit and the plunge action, unlock the plunge-depth locking lever and the cutter bit and the plunge action will automatically retract from the workpiece and return to the raised position.

PLUNGE ACTION WITH DEPTH ROD AND DEPTH-STOP TURRET *(fig 11)*



The depth rod and the depth-stop turret are used to control the plunge-action cutting depth as follows:

1. With the bit installed, gently lower the motor until the tip of the router bit just contacts the level surface the router is sitting on. This is the "zero" position, from which further depth adjustments can be accurately made.
2. To set a desired depth of cut, rotate the depth-stop turret until the lowest step is aligned with the depth rod. Loosen the depth-rod locking knob and lower the depth rod until it contacts the lowest step of the turret. Slide the depth indicator until the red line indicates zero on the depth scale; this indicates the point at which the bit just contacts the work.
3. To set a desired cutting depth, slide the depth rod up until the red depth-indicator line indicates the desired cutting depth, and then secure the rod in position by firmly tightening the depth-rod locking knob.
4. The desired depth of cut may now be achieved by plunging the router until the depth rod contacts the selected stop on the turret.

USE THE DEPTH-STOP TURRET TO SET UP DEEP CUTS *(fig 11)*

To produce deep cuts, always make several progressively deeper cuts by starting with the highest step on the depth-stop turret, and, after each cut, rotate the turret to the next lower step until the lowest step is reached.

Each of the steps progresses by 1/4" (6.4 mm) increments. The 4 steps represent a total of "0" inch to 3/4" (19 mm) with a full 360º rotation of the turret. Repeat this process if necessary.

NOTICE: Do not exceed 1/8" (3.2 mm) depth of cut in a single pass.

MICRO-ADJUSTMENT WITH THE DEPTH ROD AND DEPTH-STOP TURRET

The depth rod has a micro-adjustment knob that turns a screw (inside the rod) either clockwise or counter-clockwise to lower or raise the depth rod on the turret for micro-adjustment of the plunge depth.

Each complete revolution of the micro-adjustment knob adjusts the plunging depth by approximately 1/32" (0.8 mm). A reference indicator line is marked into the depth rod under the micro-adjustment knob to set a reference point of "0".

When adjusting the plunge depth, always make sure that the micro-adjustment knob has been turned down (clockwise) several revolutions from the top before setting the depth rod and depth-stop turret.

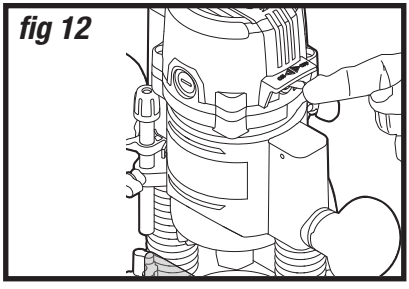
To use the micro-adjustment knob after the depth rod and turret have been set, check the final depth setting and micro-adjust as follows:

- To micro-increase the plunge depth, raise the micro-adjustment screw by turning the knob counter-clockwise to the desired amount.
- To micro-reduce the plunge depth, lower the micro-adjustment screw by turning the knob clockwise to the desired amount.

TOGGLE "ON/OFF" SWITCH *(fig 12)*

Your router motor is turned "ON" and "OFF" with the toggle switch located on the top cap of the motor housing. The left side of the toggle switch hood (as you face it) is marked "I" and "ON" and the right side (as you face it) is marked "O" and "OFF."

1. To turn the motor "ON", push the toggle switch to the left side marked "I" and "ON."
2. To turn the motor "OFF" push the toggle switch to the right side marked "O" and "OFF."



Always hold the router and the cutter bit away from the workpiece when turning the toggle switch "ON". Only contact the workpiece with the router and cutter bit after the router has reached the full selected speed. Only remove the router and cutter bit from the workpiece after turning the router motor "OFF" and after the cutter bit comes to a complete stop.

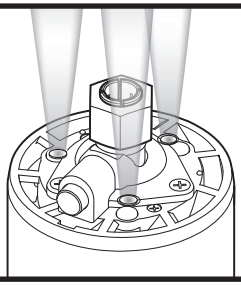
SOFT START

The soft start-control minimizes torque twist, customary in larger router motors, by limiting the speed at which the motor starts. This increases the motor's life.

LED WORKLIGHTS *(fig 13)*

Your router motor has 3 built-in worklights located around the collet to provide high visibility of the workpiece when cutting. These lights are always on when the toggle switch is in the “ON” position.

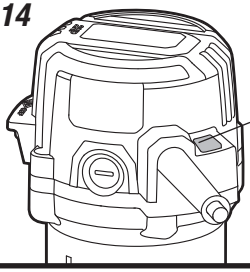
fig 13



LIVE-TOOL INDICATOR LIGHT *(fig 14)*

Your router also has a live-tool indicator light, located on the motor housing top cap where the power cord enters the motor housing. This green light is always on when the router motor is plugged into a power source.

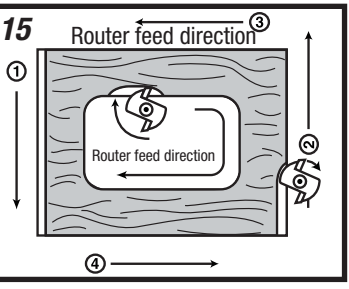
fig 14



FEEDING THE ROUTER *(fig 15)*

The secrets to professional routing are a careful set-up for the cut, selecting the proper depth of cut, knowing how the cutter bit reacts in your workpiece, and the rate and direction of feed of the router.

fig 15



DIRECTION OF FEED - EXTERNAL CUTS *(fig 15)*

The cutter bit rotates clockwise (when installed on a router table, the rotation is counter-clockwise). Feeding the bit from left to right will cause the bit to pull the router towards the workpiece. If the router is fed in the opposite direction (right to left), the rotating force of the cutter bit will tend to throw the bit away from the workpiece. This is called “Climb-Cutting”.

“Climb-Cutting” may cause loss of control, possibly resulting in personal injury. When “Climb-Cutting” is required (e.g., backing around a corner), exercise extreme caution to maintain control of the router. The high speed of the cutter bit during a proper feeding operation (left to right), results in very little kickback under normal conditions. However, if the cutter bit strikes a knot, an area of hard grain, or a foreign object, “kickback” may result. Kickback may damage your workpiece and could cause you to lose control of the router, possibly causing personal injury.

Kickback is always in the opposite direction of the clockwise cutter bit rotation, or counter-clockwise. To guard against and help prevent kickback, plan your set-up and direction of feed so that you’re always keeping the sharp edges of the cutter bit biting straight into uncut wood. Always inspect your workpiece for knots, hard grain, and foreign objects.

WARNING!

- Kickback causes the power tool to jerk back toward the user, causing possible loss of control and serious injury. Always take precautions against kickback as described in the operator’s manual.

RATE OF FEED

The proper rate of feed depends on several factors: the hardness and moisture content of the workpiece, the depth of cut, and the cutting diameter of the bit.

When cutting shallow grooves in soft woods, such as pine, you may use a faster rate of feed. When making deep cuts in hardwoods, such as oak, you should use a slower rate of feed.

FEEDING TOO RAPIDLY

Forcing the feed of the cutting bit forward too rapidly slows the revolution of the cutting bit, and the bit takes larger bites as it rotates. Larger bites mean larger chips and a rough finish. This forcing action can also cause the router motor to overheat.

FEEDING TOO SLOWLY

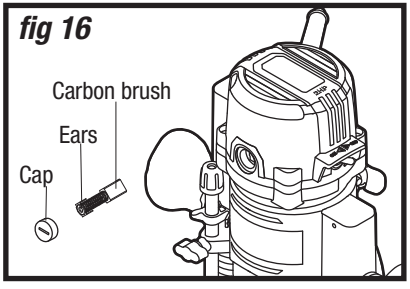
When you feed the cutting bit too slowly, the rotating cutting bit does not cut into new wood rapidly enough to take a bite. Instead, it scrapes away sawdust-like particles. This scraping produces heat, which can glaze, burn, and mar the cut in the workpiece and, in extreme cases, overheat the cutting bit.

MAINTENANCE

Before cleaning or performing any maintenance, verify that the router has been disconnected from the power supply. Keep all ventilation openings clean. Avoid using solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents. Use a clean cloth to remove dirt, oil, and grease.

After using the router for a period of time, some wood dust may enter into the base or collet; it is best to use compressed air or a brush to clean the dust.

REPLACEMENT OF CARBON BRUSHES *(fig 16)*



1. Disconnect the plug from the power supply.
2. Replace both carbon brushes when either has less than 1/4" (6.4 mm) length of carbon remaining, or if the spring or wire is damaged or burned.
3. Using a slotted screwdriver, remove the black plastic cap on each side of the router motor and carefully withdraw the spring-loaded brush assemblies.
4. Keep brushes clean and sliding freely in their guide channels.
5. Insert new brush assemblies into the guide channels with the carbon part going in first, being certain to fit the two metal "ears" into their slots in the channel. Remember to replace both end caps after inspecting or servicing the brushes.
6. Tighten the caps snugly, but do not overtighten. The router should be allowed to "run in" (run at no load without a cutter bit) for 5 minutes before use, to seat the new brushes properly.

NOTICE: To reinstall the same brushes, make sure that the brushes go back in the same way they came out. This will avoid the need for a break-in period.

WARNING!

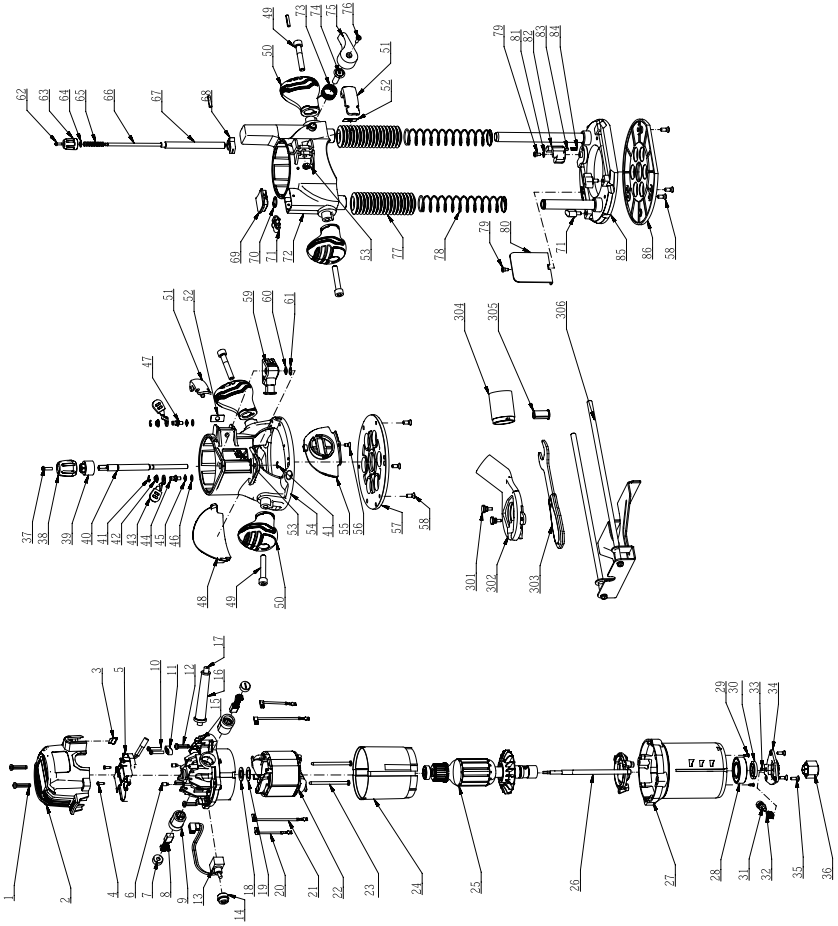
- Do not let brake fluids, gasoline, petroleum-based products, penetrating oil, etc., come into contact with plastic parts. They contain chemicals that can damage, weaken, or destroy plastic.
- To ensure safety and reliability, all repairs should be performed by a qualified service technician.
- For your safety, always turn off the switch and unplug the router motor from the power source before performing any maintenance or cleaning.

TROUBLESHOOTING

Problem	Possible Causes	Solution
The router does not work.	Plug is not plugged into the power source.	Plug the cord into the power source.
	Switch is in “OFF” position.	Move the switch to “ON” position.
	The carbon brushes are worn.	Remove the brush caps and replace the old brushes with new ones.
The results of the router cuts are not smooth.	The bit is dull.	Change to a sharp bit.
Bit cannot be installed.	Bit size is inappropriate for the collet.	Use only 1/4” (6.4 mm) diameter bits with the 1/4” (6.4 mm) collet; use only 1/2” (12.7 mm) diameter bits with the 1/2” (12.7 mm) collet.
Bit cannot be removed.	Bit sticks together with the collet.	Remove the collet and bit together and then knock the bit out from the collet.
The motor cannot be clamped tightly.	The locking nut of the fixed or plunge base is loose.	Rotate the locking nut clockwise to adjust the degree of the tightness.
	Wood dust has entered the base or the motor clamp.	Use compressed air or brush to clean the dust.
The motor cannot be installed into the base smoothly.	Wood dust has accumulated on the base or the motor housing.	Use compressed air or brush to clean the dust.

If the problem remains unsolved after performing the checks described above, call the toll-free helpline at 1-800-689-9928.

EXPLODED VIEW



PARTS LIST

No.	Part No.	Description
1	5610220000	Screw
2	3130287000	Rear Cover
3	3121518000	Transparent Cap
4	5610017000	Tapping Screw
5	4891830000	Speed Adjustor
6	5620017000	Hexagon Socket Screw
7	3120537000	Brush Cover
8	4960019000	Carbon Brush Assembly
9	2800005000	Brush Holder Assembly
10	5610106000	Tapping Screw
11	3122798000	Cord Anchorage
12	5610059000	Screw
13	2823115000	Switch Assembly
14	3122851000	Seal Ring
15	3125685000	Middle Housing
16	3121064000	Cord Guard
17	4810002000	Power Cord Assembly
18	3121049000	Rubber Spring
19	3700249000	Washer
20	2822038000	Inner Wire Assembly
21	2822039000	Inner Wire Assembly
22	2740118000	Stator
23	5610050000	Tapping Screw
24	3125687000	Fan Baffle
25	2823131000	Rotor Assembly
26	2823021000	LED Holder Assembly
27	3421186000	Motor Housing
28	5700056000	Ball Bearing
29	5610076000	Tapping Screw
30	5630179000	Nut
31	3551635000	Spindle Lock
32	3660174000	Stop Spring

No.	Part No.	Description
33	5620061000	Screw
34	3421190000	Spindle Lock Cover
35	5620069000	Screw
36	2823121000	Collet Assembly
37	5620041000	Screw
38	3320460000	Adjusting Knob
39	3123281000	Indicator
40	3550854000	Shaft
41	5660005000	"E" Ring
42	3660498000	Spring
43	3402540000	Lever
44	5620466000	Screw
45	5650407000	Wave Washer
46	5650013000	Washer
47	5620467000	Screw
48	3121637000	Chip Shield
49	5620024000	Screw
50	3322677000	Handle
51	2823122000	Lever Assembly
52	3703872000	Plate
53	5630015000	Nut
54	2826784000	Mounting Assembly
55	3123294000	Dust Bracket
56	5620067000	Screw
57	3125119000	Base Plate
58	5620074000	Screw
59	2822272000	Adjusting Assembly
60	5650337000	Washer
61	5650172000	Wave Washer
62	5620032000	Screw
63	3123435000	Adjusting Knob
64	5650014000	Washer

65	3660399000	Spring
66	3550083000	Depth Adjusting Bolt
67	3550913000	Depth Stop Bar
68	3121634000	Depth Indicator
69	3121639000	Cover
70	5660018000	Circlips
71	3400189000	Lock Bolt
72	2826744000	Plunge Frame Assembly
73	3660254000	Torsion Spring
74	5640045000	Bolt
75	3420398000	Plunge Lock Lever
76	5620040000	Screw
77	3123581000	Bellows Seal
78	3660166000	Spring
79	5620103000	Screw
80	3123344000	Chip Shield
81	3700078000	Wave Washer
82	3420387000	Turntable
83	5700046000	Steel Ball
84	3660030000	Spring
85	2826747000	Mounting Assembly
86	3122923000	Base Plate
301	5620353000	Screw
302	3130301000	Vacuum Adaptor
303	3402471000	Wrench
304	3123286000	Vacuum Adaptor
305	3550560000	Collet
306	2822286000	Parallel Guide

If any parts are missing or damaged, or if you have any questions, please call the toll-free helpline at 1-800-689-9928.

This Mastercraft product is guaranteed for a period of **3 years from the date of original retail purchase** against defects in workmanship and materials, except for the following components:

a) Component A: Batteries, chargers and carrying case, which are guaranteed for a period of 2 years from the date of original retail purchase against defects in workmanship and materials;

b) Component B: Accessories, which are guaranteed for a period of 1 year from the date of original retail purchase against defects in workmanship and materials.

Subject to the conditions and limitations described below, this product, if returned to us with proof of purchase within the stated warranty period and if covered under this warranty, will be repaired or replaced (with the same model, or one of equal value or specification), at our option. We will bear the cost of any repair or replacement and any costs of labour relating thereto.

These warranties are subject to the following conditions and limitations:

a) a bill of sale verifying the purchase and purchase date must be provided;

b) this warranty will not apply to any product or part thereof which is worn or broken or which has become inoperative due to abuse, misuse, accidental damage, neglect or lack of proper installation, operation or maintenance (as outlined in the applicable owner's manual or operating instructions) or which is being used for industrial, professional, commercial or rental purposes;

c) this warranty will not apply to normal wear and tear or to expendable parts or accessories that may be supplied with the product that are expected to become inoperative or unusable after a reasonable period of use;

d) this warranty will not apply to routine maintenance and consumable items such as, but not limited to, fuel, lubricants, vacuum bags, blades, belts, sandpaper, bits, fluids, tune-ups or adjustments;

e) this warranty will not apply where damage is caused by repairs made or attempted by others (i.e., persons not authorized by the manufacturer);

f) this warranty will not apply to any product that was sold to the original purchaser as a reconditioned or refurbished product (unless otherwise specified in writing);

g) this warranty will not apply to any product or part thereof if any part from another manufacturer is installed therein or any repairs or alterations have been made or attempted by unauthorized persons;

h) this warranty will not apply to normal deterioration of the exterior finish, such as, but not limited to, scratches, dents, paint chips, or to any corrosion or discolouring by heat, abrasive and chemical cleaners; and

i) this warranty will not apply to component parts sold by and identified as the product of another company, which shall be covered under the product manufacturer's warranty, if any.

Additional Limitations

This warranty applies only to the original purchaser and may not be transferred. Neither the retailer nor the manufacturer shall be liable for any other expense, loss or damage, including, without limitation, any indirect, incidental, consequential or exemplary damages arising in connection with the sale, use or inability to use this product.

Notice to Consumer

This warranty gives you specific legal rights, and you may have other rights, which may vary from

province to province. The provisions contained in this warranty are not intended to limit, modify, take away from, disclaim or exclude any statutory warranties set forth in any applicable provincial or federal legislation.

Made in China

Imported by

Mastercraft Canada Toronto, Canada M4S 2B8