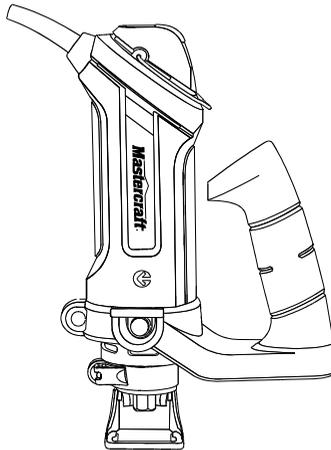




SPIN SAW

054-1251-8

Owner's Manual



PRODUCT SPECIFICATIONS	
Rating:	120 V, 60 Hz AC
Amperes:	5.8 A
Speed:	10,000 – 30,000 RPM (no load)
Router base diameter:	6 27/32" (174 mm)
Weight:	3 lb 3 oz (1.46 kg)
Need Assistance? Call us on our toll free customer support line: 1-800-689-9928 <ul style="list-style-type: none">• Technical questions• Replacement parts• Parts missing from package	

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GENERAL SAFETY WARNINGS



CAUTION: Before using this tool or any of its accessories, read this manual and follow all Safety Rules and Operating Instructions.

This instruction manual includes the following:

- General Safety Rules
- Specific Safety Rules and Symbols
- Functional Description
- Assembly
- Operation
- Maintenance
- Accessories

EYE, EAR & LUNG PROTECTION



ALWAYS WEAR EYE PROTECTION THAT CONFORMS WITH CSA REQUIREMENTS or ANSI SAFETY STANDARD Z87.1

FLYING DEBRIS can cause permanent eye damage. Prescription eyeglasses ARE NOT a replacement for proper eye protection.



WARNING: Non-compliant eyewear can cause serious injury if broken during the operation of a power tool.



WARNING: Use hearing protection, particularly during extended periods of operation of the tool, or if the operation is noisy.

SAVE THESE INSTRUCTIONS FOR REFERENCE

GENERAL SAFETY WARNINGS



WEAR A DUST MASK THAT IS DESIGNED TO BE USED WHEN OPERATING A POWER TOOL IN A DUSTY ENVIRONMENT.



WARNING: Dust that is created by power sanding, sawing, grinding, drilling, and other construction activities may contain chemicals that are known to cause cancer, birth defects, or other genetic abnormalities. These chemicals include:

Lead from lead-based paints

Crystalline silica from bricks, cement, and other masonry products

Arsenic and chromium from chemically treated lumber

The level of risk from exposure to these chemicals varies, according to how often this type of work is performed. In order to reduce exposure to these chemicals, work in a well-ventilated area, and use approved safety equipment, such as a dust mask that is specifically designed to filter out microscopic particles.

ELECTRICAL SAFETY



WARNING: To avoid electrical hazards, fire hazards or damage to the tool, use proper circuit protection.

This tool is wired at the factory for 120 V operation. It must be connected to a 120 V, 15 A circuit that is protected by a time-delayed fuse or circuit breaker. To avoid shock or fire, replace power cord immediately if it is worn, cut or damaged in any way.

POWER TOOL SAFETY

GENERAL SAFETY RULES

⚠ WARNING: Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

WORK AREA

Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.

Do not operate power tools in potentially explosive environments, such as in the presence of flammable liquids, gas or dust. Power tools create sparks that may ignite dust or fumes.

Keep bystanders, children and visitors away while operating the tool. Distractions can cause the operator to lose control.

ELECTRICAL SAFETY

Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will only fit into a polarized plug one way.

If the plug does not fit into the outlet properly, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not alter the plug in any way. Double insulation eliminates the need for the three-pronged grounded power cord and grounded power supply system.

Avoid contact between the operator's body and grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if the operator's body is grounded.

Do not expose power tools to rain or wet conditions. Water entering the power tool will increase the risk of electric shock.

Do not abuse the cord. Do not use the power cord to carry the tool or to pull the plug out of the outlet. Keep the power cord away from heat, oil, sharp edges, and moving parts. Replace a damaged power cord immediately. A damaged power cord increases the risk of electric shock.

When operating a power tool outdoors, use an outdoor-rated extension cord type "W-A" or "W". These cords are rated for outdoor use and they reduce the risk of electric shock.

PERSONAL SAFETY

Stay alert, be aware of the surroundings, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating a power tool may result in serious personal injury.

Dress properly. Do not wear loose clothing or jewellery.

Contain long hair. Keep hair, clothing, and gloves away from moving parts. Loose clothing, jewellery, or long hair can get caught in moving parts.

POWER TOOL SAFETY

PERSONAL SAFETY – cont'd

Avoid accidental start-ups. Verify that the switch is in the OFF position before plugging in the tool. Carrying a power tool with a finger on the switch or plugging in a tool that has the switch in the ON position invites accidents.

Remove adjusting keys and wrenches before turning the tool ON. A wrench or key that is left attached to a rotating part of the tool may result in personal injury.

Do not overreach. Keep proper footing and balance at all times. Proper footing and balance allows the operator to maintain better control of the tool in unexpected situations.

Use safety equipment. Always wear eye protection.

Use a dust mask, non-skid safety shoes, a hardhat, or hearing protection when appropriate.

USE AND CARE OF POWER TOOLS

Use clamps or another practical means to secure and support the workpiece to a stable platform. Holding the work in a hand or against the body is not stable, and may lead to loss of control.

Do not force the tool. Use the correct tool for the application. The correct tool will do the job better and safer when used at the rate that it was designed to work at.

Do not use a power tool if it cannot be turned ON or OFF using the power switch. A tool that cannot be controlled using the switch is dangerous, and must be repaired.

Disconnect the plug from the outlet before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of accidental start-ups.

When power tools are not in use, store them out of the reach of children or untrained persons. Tools are dangerous in the hands of untrained users.

Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained cutting tools with sharp cutting edges are less likely to bind, and are easier to control.

Inspect the tool for misalignment or binding of moving parts, broken parts, and any other condition that may affect the operation of the tool. If it is damaged, have the tool serviced before using it. Many accidents are caused by poorly maintained tools.

Use only accessories that are recommended by the manufacturer for this model. Accessories that are suitable for one tool may become hazardous when used with another tool.

SERVICE

Tool servicing must be performed by qualified personnel. Service or maintenance performed by non-qualified personnel could result in a risk of injury.

When servicing a tool, use only identical replacement parts. Follow the instructions in the Maintenance section of this Manual. The use of unauthorized parts or failure to follow the instructions in the Maintenance section of this Manual may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES

⚠ WARNING: Know your spin saw. Read the Owner's Manual carefully. Learn the tool's applications and limitations, as well as the specific potential hazards related to this tool.

Following this rule will reduce the risk of electric shock, fire or serious injury.



Always wear eye protection. Any power tool can throw foreign objects into your eyes and cause permanent eye damage. ALWAYS wear safety goggles (not glasses) that comply with ANSI safety standard Z87.1. Everyday glasses have only impact resistant lenses. They ARE NOT safety glasses.

⚠ WARNING: Wearing glasses or goggles that do not comply with ANSI Z87.1 could cause serious injury if they break.

Always wear hearing protection and a dust mask when sanding. Use only in a well-ventilated area. Using personal safety devices and working in a safe environment reduces the risk of injury.

⚠ WARNING: Always unplug the tool from the power source before changing the bit or an accessory and when cleaning the tool.

Do not wear gloves, neckties or loose clothing.

Hold tool by the insulated gripping surfaces when performing an operation where the cutting tool may contact hidden wiring or its own cord. Contact with a "live" wire will make exposed metal parts of the tool "live" and shock the operator.

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.

Always use a safe method to secure the workpiece, and use both hands to guide the tool. Never place your hands near or below the cutting surface.

Never lay the workpiece on hard surfaces like concrete, stone, etc. The protruding cutting bit may cause the tool to jump.

After changing the bits, accessories and making adjustments, make sure the collet nut and any other adjustment devices are securely tightened. Loose adjustment devices will be violently thrown.

Never use dull or damaged bits. Sharp bits must be handled with care. Damaged bits can snap during use. Dull bits require more force to push the tool, possibly causing the bit to break.

Never touch the bit during or immediately after use. After use the bit is too hot to be touched by bare hands.

EXTENSION CORD SAFETY

⚠ WARNING: Keep the extension cord clear of the working area. Position the cord so it will not get caught on the workpiece, tools or any other obstructions while you are working with the power tool.

Make sure any extension cord used with this tool is in good condition. When using an extension cord, be sure to use one of heavy enough gauge to carry the current the tool will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating.

The table at right shows the correct size to use according to cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number the heavier the cord.

Be sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it. Protect your extension cord from sharp objects, excessive heat and damp or wet areas.

Use a separate electrical circuit for your power tools. This circuit must not be less than 14 gauge wire and should be protected with either a 15 A time delayed fuse or circuit breaker. Before connecting the power tool to the power source, make sure the switch is in the OFF position and the power source is the same as indicated on the nameplate. Running at lower voltage will damage the motor.

MINIMUM GAUGE (AWG) EXTENSION CORDS (120 V use only)					
Amperage rating		Total length			
More than	Not more than	25' (7.5 m)	50' (15 m)	100' (30 m)	150' (45 m)
0	6	18	16	16	14
6	10	18	16	14	12
10	12	16	16	14	12
12	16	14	12	Not Applicable	

SYMBOLS

⚠ WARNING: Some of the following symbols may appear on the palm belt sander. Study these symbols and learn their meanings. Proper interpretation of these symbols will allow for more efficient and safer operation of this tool.

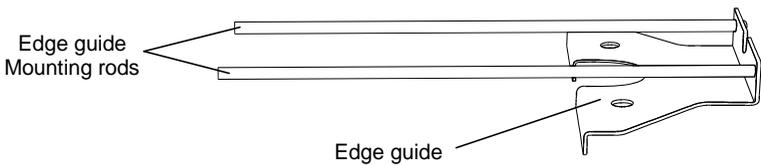
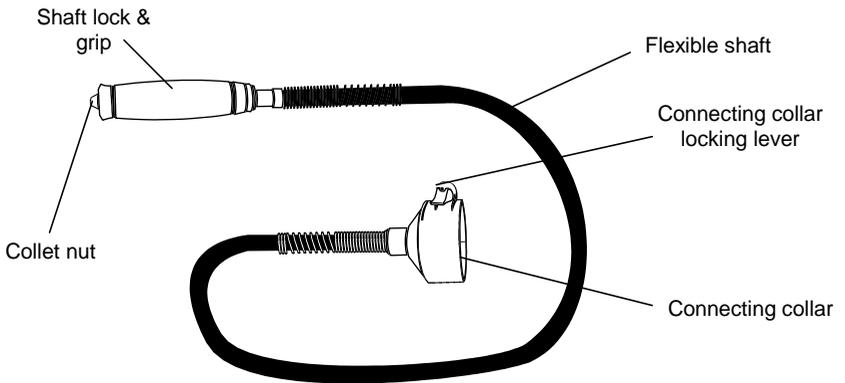
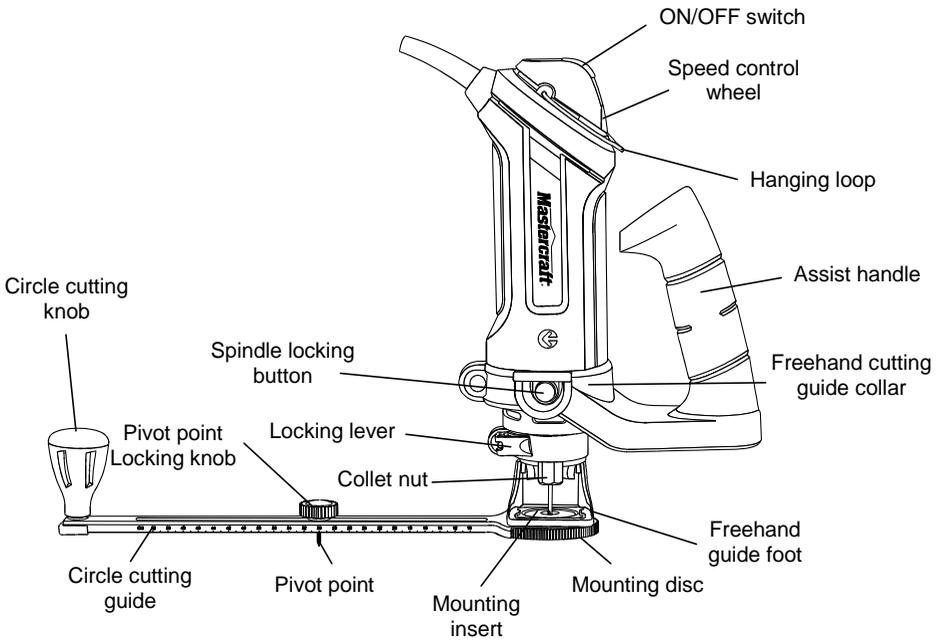
V	Volts
A	Amperes
Hz	Hertz
W	Watts
kW	Kilowatts
μF	Microfarads
L	Litres
kg	Kilograms
H	Hours
N/cm²	Newtons per square centimetre
Pa	Pascals
Min	Minutes
S	Seconds
	Alternating current
	Three-phase alternating current
	Three-phase alternating current with neutral

	Direct current
n₀	No load speed
	Alternating or direct current
	Class II construction
	Splash-proof construction
	Watertight construction
	Protective grounding at grounding terminal, Class I tools
.../min	Revolutions or reciprocations per minute
∅	Diameter
0	Off position
	Arrow
	Warning symbol

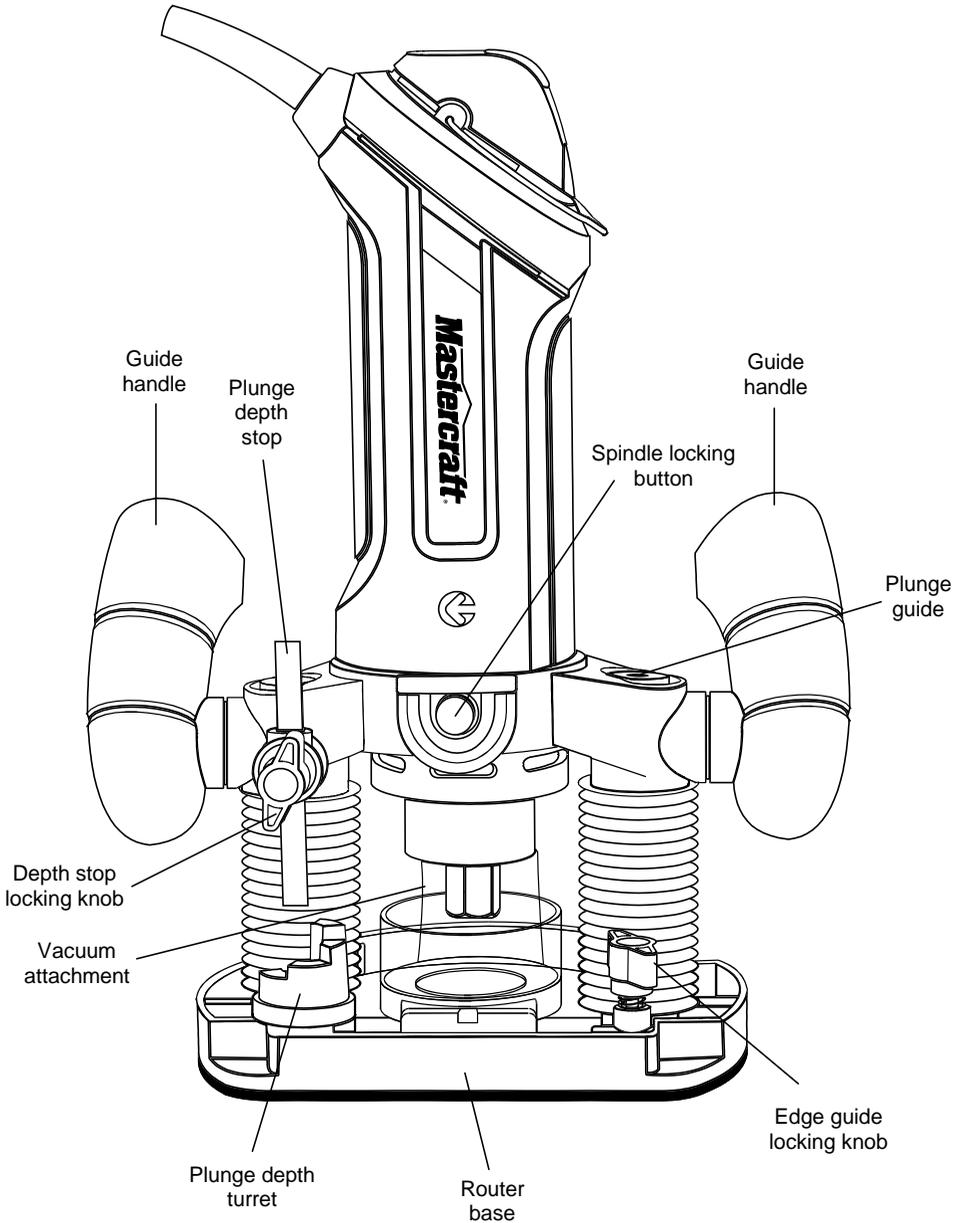


This symbol designates that this tool is listed with Canadian requirements by ETL Testing Laboratories, Inc. Conforms to UL Std. 745-1, 745-2-17. Certified to CAN/CSA Std. C22.2 No. 745-1, 745-2-17.

KNOW YOUR SPIN SAW



KNOW YOUR SPIN SAW



ACCESSORIES AND CONTENTS

AVAILABLE ACCESSORIES

⚠ WARNING: Use only accessories that are recommended for this spin saw. Follow the instructions that accompany the accessories. The use of improper accessories may result in injury to the operator or damage to the spin saw.

Before using any accessory, carefully read the instructions or the owner's manual for the accessory.

- 1/8" Cutting bits
- 1/8" Hobby rotary tool accessories
 - Cutters
 - Polishers
 - Sanders
 - Grinders
- Small 1/4" shank router bits

⚠ WARNING: If any part is missing or damaged, do not plug the tool into the power source until the missing or damaged part is replaced.

CONTENTS

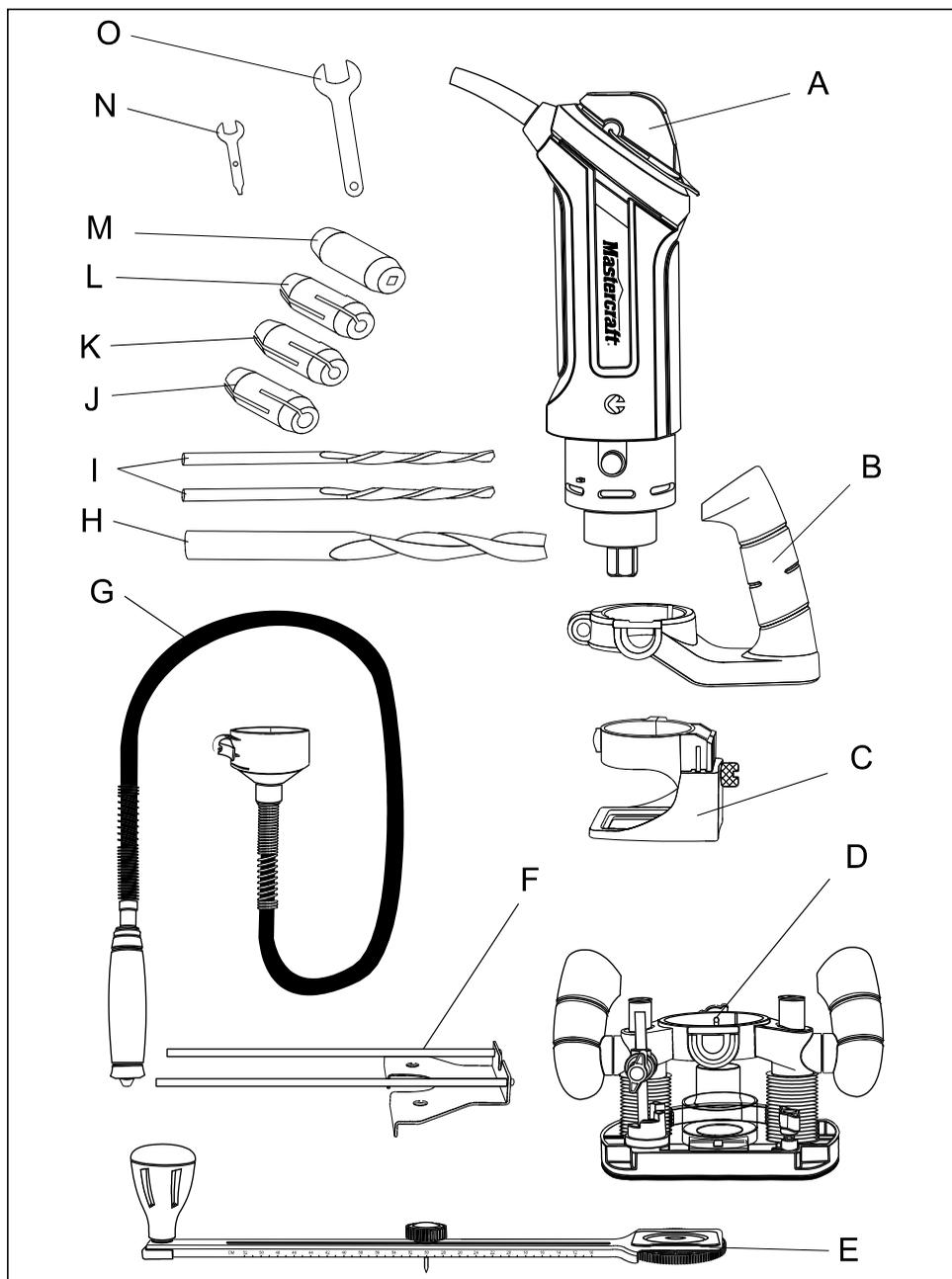
Carefully unpack the sander. Compare the contents against the "SPIN SAW COMPONENTS" chart below.

See illustration of contents on Page 12.

⚠ WARNING: To avoid fire or toxic reaction, never use gasoline, naphtha, acetone, lacquer thinner or similar highly volatile solvents to clean the tool.

SPIN SAW COMPONENTS		
KEY	DESCRIPTION	QTY
A	Spin saw	1
B	Side assist handle	1
C	Freehand cutting guide	1
D	Plunge router attachment	1
E	Circle cutting guide with installation adapter	1
F	Straight edge guide	1
G	Flexible shaft	1
H	1/4" general purpose cutting bit	1
I	1/8" general purpose cutting bit	2
J	1/4" collet	1
K	5/32" collet	1
L	1/8" collet	1
M	5/32" square collet	1
N	Flexible shaft collet wrench 3/8" (9.5 mm)	1
O	Tool collet wrench 5/8" (16 mm)	1
	Tote case (not illustrated)	1
	Owner's manual	1

ACCESSORIES AND CONTENTS



ASSEMBLY AND OPERATING

⚠ WARNING: Remove the plug from the power source before assembly, changing accessories or cutters and making adjustments. This will prevent accidental starting of the tool which could result in serious injury.

INSTALLING THE ASSIST HANDLE

The removable assist handle is designed for use when precision control over the tool movement is desired. Use the assist handle when operating the tool with either the freehand cutting guide or the circle cutting guide.

1. Open the mounting collar (1) by pulling the quick release lever (2) outward (Fig. 1).
2. Slide the mounting collar onto the bottom of motor housing (2). Make sure the key (3) on the motor housing is aligned with the matching keyway in the mounting collar.
3. When the key and keyway are aligned, slide the mounting collar fully onto the motor housing and then rotate the collar clockwise approximately 10° to lock the key and keyway.

NOTE: The mounting bracket must be pushed onto the motor housing as far as it will go.

4. Press the quick release lever inward toward the mounting collar to finish locking the mounting collar onto the motor housing.

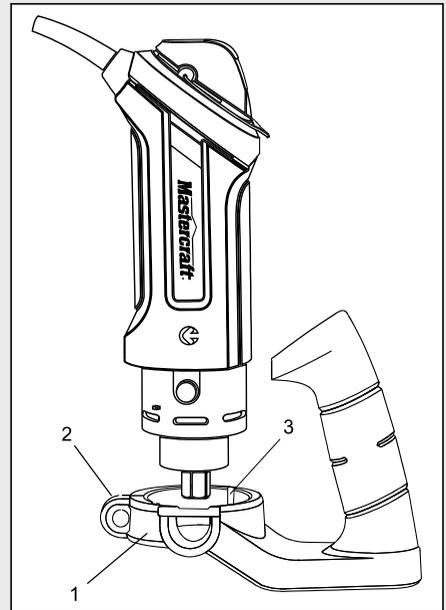


Fig. 1

ASSEMBLY AND OPERATING

INSTALLING THE FREEHAND CUTTING GUIDE

The freehand cutting guide is designed for basic freehand cutting with the cutting bit. It is ideally suited for cutting electrical outlet holes in drywall.

⚠ WARNING: Do NOT use the freehand cutting guide with router bits. The amount of control this accessory provides is insufficient and could cause you to lose control and cause serious injury.

1. Open the freehand cutting guide mounting collar (1) by pulling the quick release lever (2) outward (Fig. 2).
2. Slide the mounting collar onto the bottom of the motor housing (3).

NOTES:

- a) The mounting collar must be pushed onto the motor housing as far as it will go.
 - b) Rotate the mounting collar to position it to provide the best visibility to the bit.
3. Lock the freehand cutting guide onto the motor housing by pushing the quick release lever inward toward the mounting collar until it snaps into the locked position.

INSTALLING CUTTING BITS

⚠ WARNING: Cutting bit and router bit cutting surfaces are extremely sharp. Handle with caution.

To loosen and tighten the collet use the collet wrench supplied with the tool.

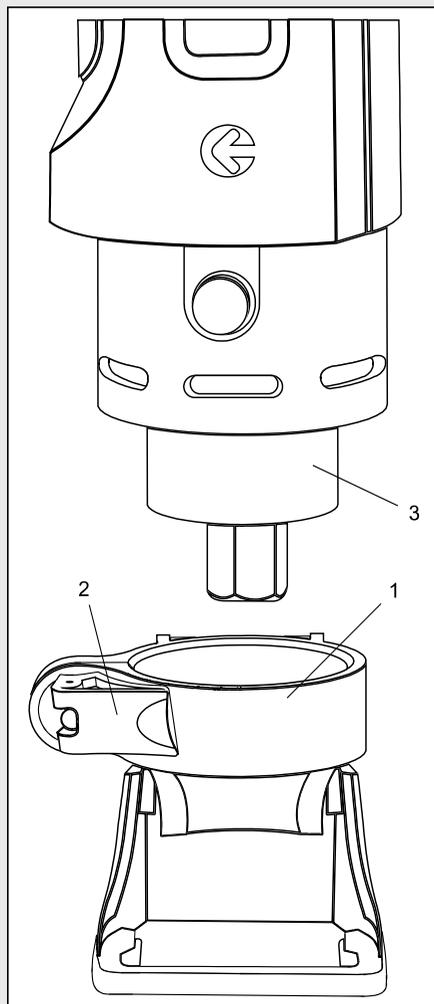


Fig. 2

ASSEMBLY AND OPERATING

INSTALLING CUTTING BITS – cont'd

1. Depress the shaft locking button (1) and rotate the collet lock nut (2) with the other hand until the locking button drops into place, preventing the shaft from turning (Fig. 3).
2. While continuing to hold the shaft locking button IN, use the collet wrench (3) to turn the collet nut counter-clockwise. Loosen the collet nut two or three turns.
3. Remove the bit if one is already installed in the tool.
4. Insert the new cutting bit (4) into the collet.

NOTE: If the shank of the bit being installed is a different size than the bit being removed, install the correct collet as outlined in Fig. 4.

⚠ WARNING: Insert the bit all the way into the collet and then pull it back between 1/16" and 1/8". This creates an air space between the motor shaft and the bit to help protect the bit from overheating.

Before tightening the collet on the bit, make sure the flutes (spiral portion) of the bit are completely visible outside the collet. Clamping the collet on the bit flutes will result in broken bits and possible injury.

5. When the bit is properly placed in the collet, depress the shaft locking button and turn the collet nut clockwise by hand as far as possible.
6. Securely tighten the collet nut using the wrench.

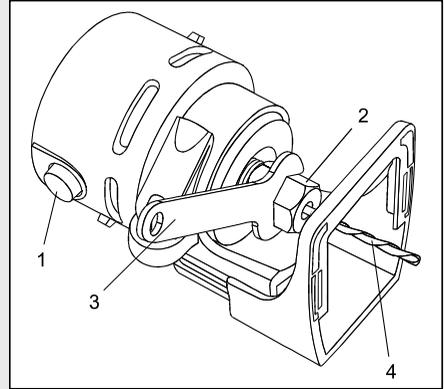


Fig. 3

ASSEMBLY AND OPERATING

CHANGING THE COLLET

The cutting bits for this tool are locked into place with a collet nut (1) and collet (2) (Fig. 4). 1/8" and 5/32" collets are used for holding 1/8" and 5/32" cutting bits and hobby tool accessory bits. The 5/32" square collet is used to connect the flexible shaft to the tool. The 1/4" collet is supplied for holding 1/4" drywall and small router bits.

To change from one collet size to the other:

1. Remove bit from the tool.
2. Turn the collet nut counter clockwise until it can be removed from the motor shaft (3) (Fig. 4).
3. Pull the collet out of the motor shaft and insert the new collet.

NOTE: Each collet is the same on both ends, so either end can be inserted into the motor shaft.

Re-install the collet nut and slightly tighten it by hand.

NOTE: Tightening the collet nut without a bit in the collet will cause the collet hole to become smaller and make installing bits difficult. When storing the tool with no bit installed, leave the collet nut loose.

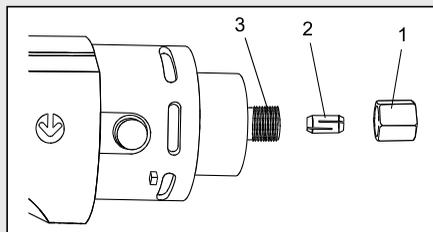


Fig. 4

ASSEMBLY AND OPERATING

ON/OFF SWITCH

This spin saw is equipped with a convenient ON/OFF switch (1) located on the top of the tool handle (Fig. 5). To turn the switch ON, slide the switch outward. To turn the switch OFF, slide the switch inward.

SPEED CONTROL SWITCH

The spin saw is equipped with a variable speed control located below the ON/OFF switch. To run the tool at its slowest speed, rotate the speed control wheel (2) to number "1" (Fig. 6). To increase the tool speed, rotate the speed control wheel in the opposite direction. Maximum speed will be achieved at "6".

ADJUSTING THE FREEHAND CUTTING GUIDE

1. Adjust the freehand cutting guide depth by loosening the depth gauge locking screw (1) and moving the cutting guide foot (2) up or down as required (Fig. 7).

NOTE: Set the foot so the cutting bit protrudes beyond the bottom of the cutting guide 1/8" more than the thickness of the material being cut. For example, if you are cutting 5/8" drywall, the bit should protrude 3/4" beyond the bottom of the cutting guide.

2. Securely tighten depth gauge locking screw.

NOTE: Hand tightening is normally adequate. If you use a screwdriver (3), do not over tighten the locking screw.

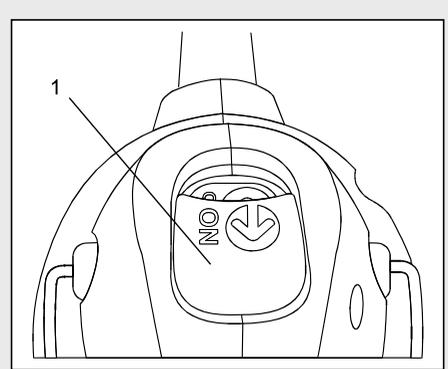


Fig. 5

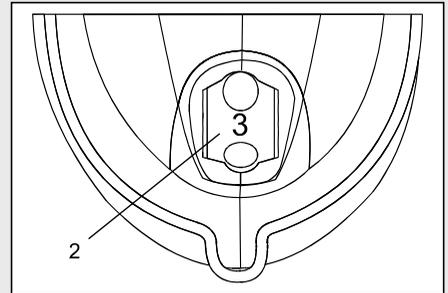


Fig. 6

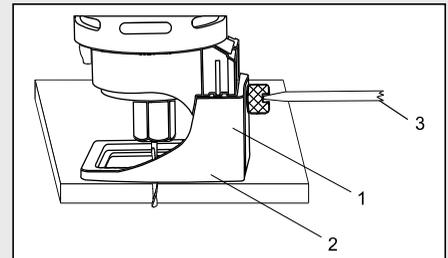


Fig. 7

ASSEMBLY AND OPERATING

ADJUSTING THE FREEHAND CUTTING GUIDE – cont'd

3. Before starting to cut, double check the bit depth. Make sure the cutting guide is at a right angle to the bit and securely tightened. Double check the collet to make sure the bit is securely fastened.

WARNING

For safety reasons, the operator must read the sections of this Owner's Manual entitled "GENERAL SAFETY WARNINGS", "POWER TOOL SAFETY", "SPECIFIC SAFETY RULES", "EXTENSION CORD SAFETY" and "SYMBOLS" before using this spin saw.

Verify the following every time the spin saw is used:

1. The cord is not damaged.
2. The bit is securely fastened in the collet.
3. The bit is sharp and in good condition.
4. Safety glasses, hearing protection and dust mask are being worn.

Failure to adhere to these safety rules can greatly increase the chances of serious injury.

ASSEMBLY AND OPERATING

CUTTING BIT APPLICATIONS

Cutting Bit Type	Material and Thickness	Speed control wheel setting	Recommended Cut Feet per Minute
1/4" (soft wood*, fibreglass and laminate)	Fibreglass and laminate up to 1/4" and soft wood* up to 1"	3-6	1 ft./min
1/4" (windows and doors)	Drywall, gypsum board up to 5/8"	3-6	1.5 ft./min
1/8" (soft wood*, fibreglass and laminate)	Fibreglass and laminate up to 1/8", soft wood* up to 1"	3-6	1 ft./min.
5/32" All purpose (not included)	All materials and thicknesses listed in this chart plus sheet metal up to 1/32" thick	3-6	0.5 to 1.5 ft./min. depending upon the material
1/8" Ceramic tile (not included)	"Porous" ceramic wall tiles up to 3/8"	3-6	0.5 ft./min.

Soft wood* refers to spruce, pine and fir (SPF)

NOTE: Refer to the above chart for materials, material thickness, speed of the tool and recommended cut feet per minute to be used with the various cutting bits. The speeds referenced chart are intended as a guide only and must be adjusted according to hardness, density and characteristics of the material being cut. Material thickness must never exceed the length of the cutting flutes. Making practice cuts on a scrap workpiece that is the same material as the good workpiece will assist you in selecting the speeds that will produce the smoothest cut.

ROUTER BIT APPLICATIONS

ROUTER BIT SPEED REFERENCE CHART		
Material	Router bit diameter	Speed control wheel setting
Hardwood	1/2"	3-6
	1/2 to 1-1/8"	3
	1-1/8 to 1-1/4"	2-3
Softwood	1/2"	3-6
	1/2 to 1-1/8"	3-6
	1-1/8 to 1-1/4"	2-3
Chipboard/ laminates	1/2"	3-6
	1/2 to 1-1/8"	3-6
	1-1/8 to 1-1/4"	2-3
Solid plastics	1/2"	3-6
	1/2 to 1-1/8"	3-6
	1-1/8 to 1-1/4"	2-3

ASSEMBLY AND OPERATING

PRACTICE CUTS USING THE FREEHAND CUTTING GUIDE

Before attempting to work on an actual project, take the time to make a few practice cuts with your spin saw. Use some scraps of material that are the same material as will be used in your actual project.

1. Draw a pattern similar to your first project on a scrap piece of material.
2. Install the assist handle and the freehand cutting guide as shown in Fig. 1 & 2.
3. Install cutting bit in the collet as shown in Fig. 3.
4. Adjust depth of freehand cutting guide as shown in Fig. 7.
5. Set the speed control switch to the appropriate speed.
6. Rest the edge of the cutting guide on the workpiece with the bit at an angle of about 45° (Fig. 8).

NOTE: DO NOT let the bit come into contact with the workpiece until the power switch is turned ON and the tool is up to full speed.

⚠ WARNING: Before turning the power switch ON, make sure you are holding the tool firmly with both hands. Starting torque will cause the tool to twist.

7. Turn the switch ON.

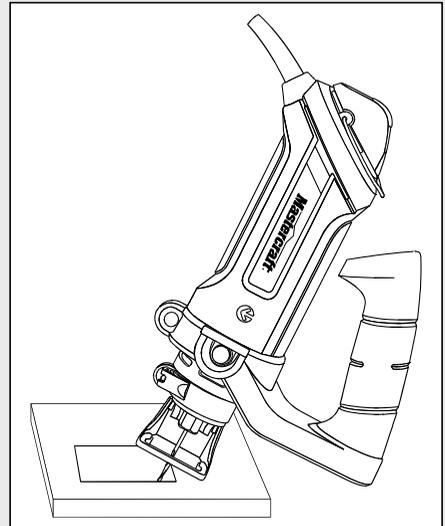


Fig. 8

ASSEMBLY AND OPERATING

PRACTICE CUTS USING THE FREEHAND CUTTING GUIDE – cont'd

- When the motor is up to full speed, slowly tip the tool to an upright position, letting the bit cut into the workpiece (Fig. 9). Once the tool has reached the upright position and the bit has cut through the workpiece, slowly move the tool in a **clockwise** direction using slow steady pressure to make the cut.

NOTE: Except for cutting around outlet boxes in drywall, always cut in a **clockwise** direction.

- When the cut is complete, turn the tool OFF, wait until it comes to a complete stop and remove it from the workpiece.

⚠ DANGER: Do not attempt cutting around outlet boxes in drywall until:

- All electricity in the vicinity of electric wires has been disconnected by either turning the breaker OFF or removing the fuses.
- You have read the instructions on the following page entitled “CUTTING OUTLET OPENINGS IN DRYWALL”.

CUTTING TIPS

The rotating cutting action of the bit will cause a slight pull to the left when cutting. Natural variations in the structure of wood will cause the bit to “wander”. This tendency will be magnified when applying too much pressure to the bit.

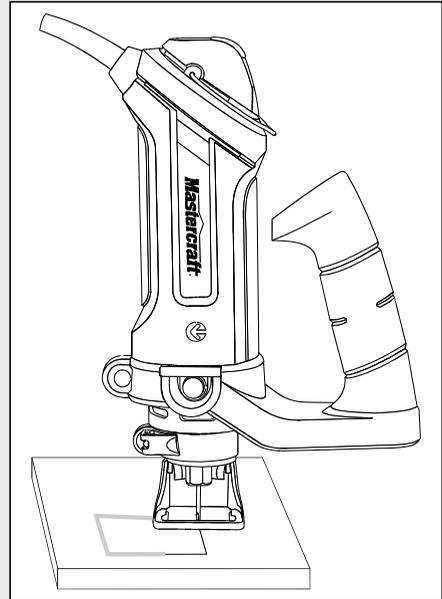


Fig. 9

ASSEMBLY AND OPERATING

CUTTING TIPS – cont'd

Slower cutting gives you better control. Excessive pressure or fast cutting will increase the bit temperature and shorten the life of the bit.

When cutting a hole in a vertical surface, avoid ending the cut at the bottom of the hole. Always start and end the cut at the “top” so the cut out part will not drop onto the rotating bit. Always turn the tool OFF before removing it from the workpiece.

CUTTING OUTLET OPENINGS IN DRYWALL

⚠ DANGER: Do not attempt to use this tool to make cut outs around any fixture or opening which has live electrical wires or on any wall which may have electrical wiring behind it. If a live wire is contacted, the bit could conduct the electric current to the tool, creating an electrocution hazard for the operator. Turn OFF breakers or remove fuses to disconnect the electric circuit in the area of work. Always hold the tool by its insulated housing when working in areas where there is a possibility of contacting electric wires. Always wear eye, ear and dust protection when operating this tool.

1. Before installing drywall, push the electrical wires to the back of the outlet box as far as possible so they will not be cut by the bit when cutting the opening.
2. Before fastening the drywall sheet over the electrical box, mark the sheet as close as possible to the centre of the box opening. Mark should be on the side of the drywall facing you.

ASSEMBLY AND OPERATING

CUTTING OUTLET OPENINGS IN DRYWALL – cont'd

- When fastening the drywall in place, do not place nails or screws closer than 12" from the box. This will prevent the drywall from becoming deformed under pressure.
- Install the cutting bit, assist handle and freehand cutting guide as outlined in Fig. 1, 2 & 3. Adjust depth of cut so the bit will protrude 1/8" beyond the thickness of the drywall (Fig. 7).
- Hold the tool firmly with both hands and turn it ON. Plunge the bit through the drywall at the mark indicating the centre of the box. See Fig. 10 for cutting pattern.
- Move the bit **slowly** to the right until you feel and hear the bit contacting the inside of the box.
- Pull the bit out far enough to slip it over the edge of the box. Once the bit is outside the box, push it back to full depth beside the outside edge of the box.
- Move the tool upward while applying **slight** pressure toward the centre of the box. When you feel the bit reach the top right corner of the box, move the tool to the left while applying slight pressure downward toward the centre of the box.
- Continue moving the tool around the box in a counter-clockwise direction while maintaining slight pressure toward the centre of the box. When the box cut out is complete, turn the tool OFF and remove it from the cut out.

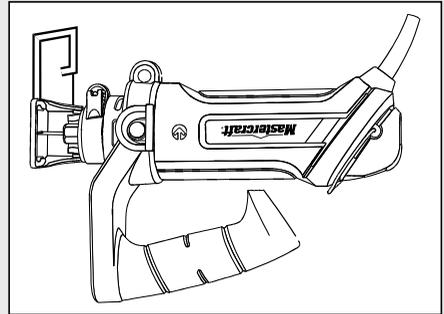


Fig. 10

ASSEMBLY AND OPERATING

INSTALLING THE CIRCLE CUTTING GUIDE – cont'd

4. Screw the internally threaded circle cutting guide mounting disc (6) onto the externally threaded circle cutting guide mounting insert and hand tighten.

NOTES:

- a) Make sure the boss (7) on the cutting guide mounting disc goes through the hole in the circle guide.
 - b) Do not over tighten the circle cutting guide mounting plastic parts. Hand tighten only.
5. Adjust the circle cutting guide radius by loosening the pivot point knob (8), sliding it to the correct circle radius and re-tightening in the desired location.

NOTE: Check circle cutting guide radius setting by measuring from the pivot point to the **outside** of the cutting bit.

CIRCLE CUTTING GUIDE OPERATION

⚠ WARNING: Unplug the tool from the power source before changing accessories, changing bits and making adjustments.

Before turning the tool ON, check to make sure bit and all accessory fasteners are securely tightened.

1. Mark the centre of the circle you wish to cut on the workpiece and drill a 6 mm or 15/64" pilot hole.
2. Adjust cutting bit depth to 1/8" longer than the thickness of the material to be cut (Fig. 7).

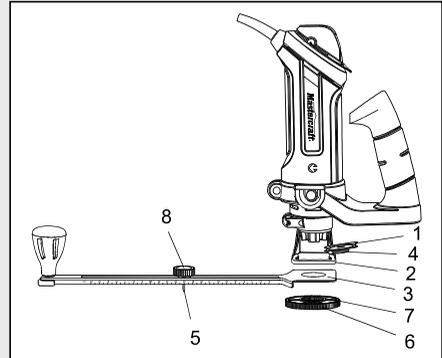


Fig. 12

ASSEMBLY AND OPERATING

CIRCLE CUTTING GUIDE OPERATION – cont'd

- Adjust the circle cutting guide radius by loosening the pivot point knob, sliding it to the correct circle radius and re-tightening in the desired location.

NOTE: Check the circle cutting guide radius setting by measuring from the pivot point to the **outside** of the spiral bit.

- Rest the edge of the freehand cutting guide on the workpiece with the bit at an angle of about 45° (Fig. 13). Insert the circle cutting guide pivot point into the pilot hole drilled at the centre of the circle.

NOTE: DO NOT let the bit touch the workpiece before switch is turned ON and the tool is up to full speed.

- Turn the switch ON.
- When the motor is up to full speed, slowly tip the tool and circle cutting guide assembly to an upright position, letting the bit cut into the workpiece (Fig. 14). Be careful to keep the pivot point located at the centre of the circle to be cut. Once the tool has reached the upright position and the bit has cut through the workpiece, slowly move the tool in a **clockwise** direction using slow steady pressure to make the cut. Continue to cut the circle, keeping the tool upright and rotating around the circle cutting guide pivot point.
- When cut is complete, turn the tool OFF, wait until it comes to a complete stop and remove it from the workpiece.

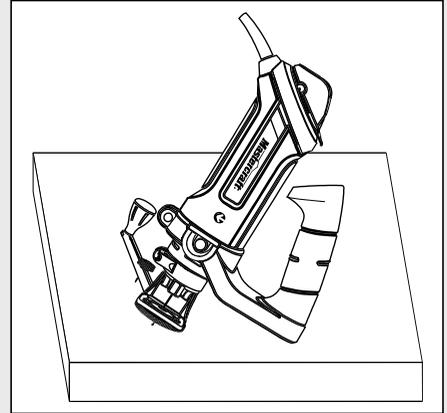


Fig. 13

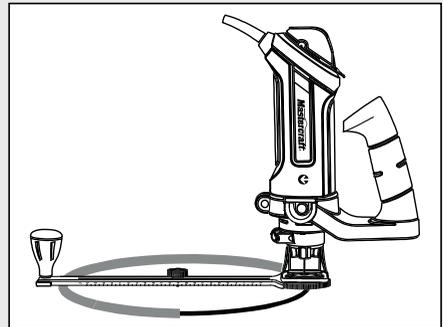


Fig. 14

ASSEMBLY AND OPERATING

The router accessory converts your spin saw into a small hobby plunge router that is capable of handling small 1/4" shank router bits as well as the spiral cutting bits. The plunge feature allows you to pre-set up to six different cutting depths.

⚠ WARNING: Unplug the tool from the power source before changing accessories, changing bits and making adjustments.

⚠ WARNING: Before turning the tool ON, check to make sure the bit and all accessory fasteners are securely tightened.

ROUTER ACCESSORY INSTALLATION

1. Remove any accessory already installed on the tool.
2. Turn the router base locking knob (1) counter clockwise until it no longer protrudes inside the mounting collar (2) (Fig. 15).
3. Slide the router base mounting collar (3) onto the bottom of motor housing (3). Align the spindle locking button (4) with the spindle locking button opening (5). Align the key (6) on the motor housing with the matching key way in the mounting collar.

NOTE: The raised hole in the mounting collar will slide over the spindle locking button.

4. Slide the motor housing into the mounting collar as far as it will go, then twist the motor housing clockwise approximately 10° to lock the motor housing key and key way.

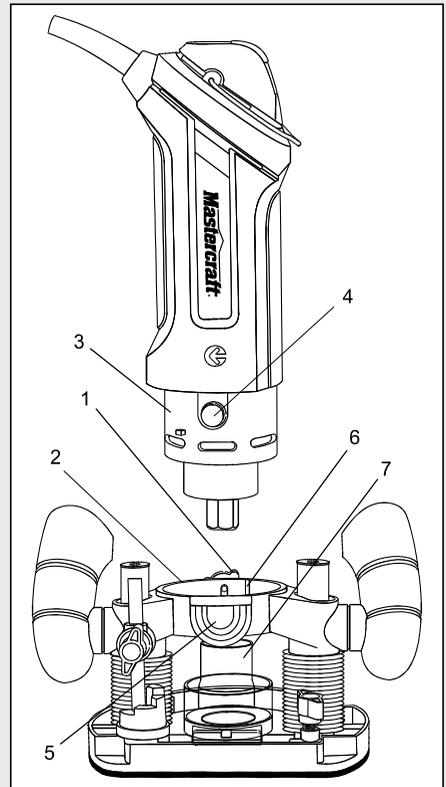


Fig. 15

ASSEMBLY AND OPERATING

ROUTER ACCESSORY INSTALLATION - cont'd

5. Turn the router base locking knob clockwise until it locks into the locking knob hole in the motor housing.

NOTE: Hand tighten only.

6. If required, attach a vacuum to the vacuum adaptor (7).

SETTING THE ROUTER DEPTH FOR SINGLE DEPTH ONLY

Depth of cutting is controlled by sliding the router base up and down on the guide rods and locking it in place.

1. Loosen the depth stop locking knob (Fig. 15 on Page 27) (1) counter clockwise and raise the depth stop rod (2) to its maximum height and then retighten the locking knob to hold the depth rod in position (Fig. 16).
2. Rotate the plunge action turret (3) until the shortest stop (4) is under the depth stop rod.
3. Lift the height adjusting lever (5) upward to allow the upper section of the router base to slide on the plunge rods (6) (Fig. 17).
4. Slide the upper section of the router base downward to obtain the desired depth of cut.
5. Push the height adjusting lever downward to lock the cutting depth.
6. Install the cutting bit or router bit (Fig. 3).

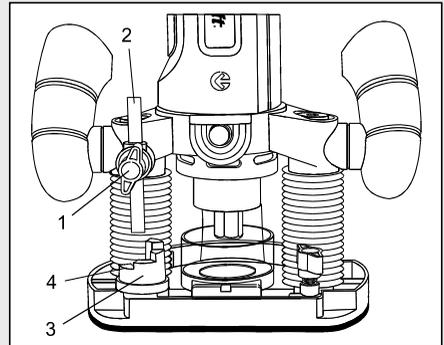


Fig. 16

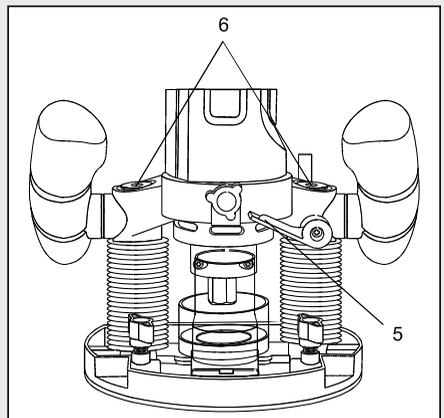


Fig. 17

ASSEMBLY AND OPERATING

SETTING THE PLUNGE DEPTH

Up to six different plunge depths can be pre-set by using the depth stop rod and the plunge action turret. This provides for quick changes between depth settings.

1. Loosen the depth stop locking knob (1) counter clockwise and raise the depth stop rod (2) to its maximum height and then retighten the locking knob to hold the depth rod in position (Fig. 18).
2. Lift the height adjusting lever upward to allow the upper section of the router base to slide on the plunge rods (3).
3. Rotate the plunge action turret (4) until the one of the stops (5) is under the depth stop rod.
4. Slide the upper section of the router base downward to obtain the desired plunge depth. Push the height adjusting lever downward to lock the cutting depth.
5. With the plunge depth locked, loosen the depth stop locking knob and lower the depth stop rod until it contacts the turret, then tighten the depth stop locking knob.
6. Lift the height adjusting lever upward to allow the upper section of the router base to return to its original position.

NOTE: Up to six different plunge depths can be achieved by simply rotating the depth stop.

7. Install the router bit (Fig. 3).

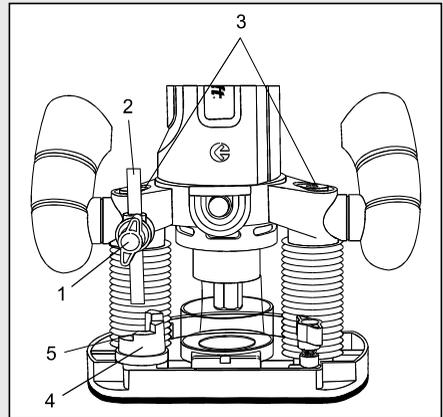


Fig. 18

ASSEMBLY AND OPERATING

FREEHAND CUTTING AND ROUTING

When the router base accessory is installed on the spin saw, it will function as a small router to be used for freehand cutting of irregular shaped patterns. You can cut patterns out of the workpiece with the cutting bit or route patterns into the workpiece with small router bits.

FREEHAND CUTTING

1. Adjust the cutting bit depth to 1/8" deeper than the thickness of the material being cut.
2. Turn the switch ON while firmly holding the tool.
3. When starting the cut inside the workpiece, place the bit at an angle to allow the bit to cut its way into the workpiece (Fig. 8).
4. Use the two router base handles to guide the bit through the workpiece.

FREEHAND ROUTING

Use the router base with small router bits to perform various freehand routing projects (Fig. 19).

1. Remove 1/8" collet and insert 1/4" collet (Fig. 4 on Page 17).
2. Install the router bit and securely tighten (Fig. 3 on Page 16).
3. Adjust router base height to the correct routing depth (Fig. 17 on Page 28).
4. Turn the switch ON making sure the router bit is not touching the workpiece.

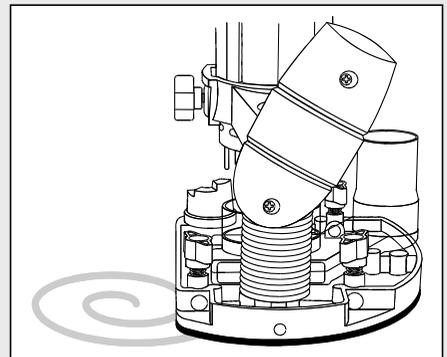


Fig. 19

ASSEMBLY AND OPERATING

FREEHAND ROUTING – cont'd

5. Use the two router base handles to guide the bit through the workpiece.

CUTTING A STRAIGHT LINE WITH A STRAIGHT EDGE

To cut a straight line, you can use a straight edge template to guide the router base.

1. Draw a line on the workpiece where you wish to make the cut (Fig. 20).
2. Draw a parallel second line approximately 2 1/8" back into the workpiece (away from the cutting line).
3. Clamp the straight edge onto the larger portion of the workpiece that is to be clamped while cutting.
4. Place the flat side of the router base against the straight edge with the bit near the start of the cutting line.

NOTE: Check the bit location to ensure the cut will be made in the correct location.

5. Turn the switch ON while firmly holding the tool.
6. Slide the router plate against the straight edge while making the cut.

CUTTING A CURVED LINE WITH A TEMPLATE

To cut a curved line, you can use a curved template to guide the router base.

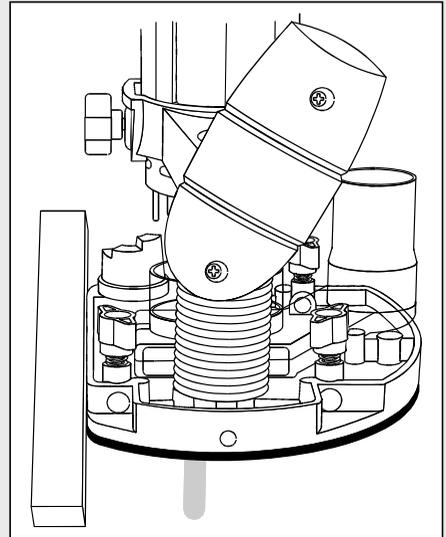


Fig. 20

ASSEMBLY AND OPERATING

CUTTING A CURVED LINE WITH A TEMPLATE – cont'd

1. Make a template from hardboard or other similar material to the shape you require (Fig. 21).

NOTE: The radius of curve must be greater than 2 1/2" for the router base to properly follow the curved template.

2. Mark the location of the cut to be made.
3. Mark the workpiece approximately 2 7/16" back into the workpiece (away from the cutting line).
4. Clamp the template onto the larger portion of the workpiece that is to be clamped while cutting.
5. Place the curved portion of the router base against the template with the bit near the start of the cutting line.

NOTE: Check bit location to ensure cut will be made in the correct location.

6. Turn the switch ON while firmly holding the tool.
7. Slide the router plate against the template while making the cut.

INSTALLING THE STRAIGHT EDGE GUIDE ON THE ROUTER BASE

1. Loosen all three edge guide screws (1) in the router base (Fig. 22). Two edge guide screws are located toward the rear of the router base.

NOTE: Loosen the screws so they do not extend into the straight edge guide mounting holes.

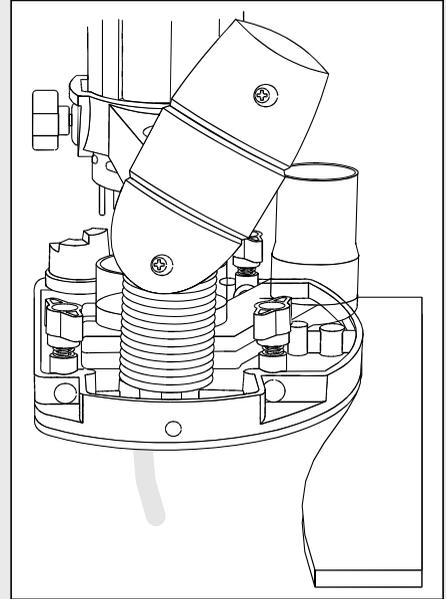


Fig. 21

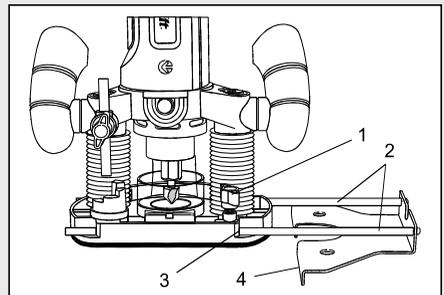


Fig. 22

ASSEMBLY AND OPERATING

INSTALLING THE STRAIGHT EDGE GUIDE ON THE ROUTER BASE – cont'd

2. Insert the edge guide rods (2) into the mounting holes (3).
3. Set the inner edge of the edge guide (4) at the desired distance from the edge of the cutter.
4. Tighten all three screws to lock the straight edge guide in the desired position.

CUTTING WHILE USING THE STRAIGHT EDGE GUIDE

NOTE: After setting the edge guide to the desired position, make a test cut on a scrap piece of material to verify you have the correct setting.

1. Clamp the workpiece to hold it securely while cutting.

NOTE: Make sure there is adequate clearance under the workpiece for the bit to travel and the edge is clear for the straight edge guide to move freely.

2. Place the router base on the workpiece with the straight edge guide against the edge to be ripped (Fig. 23).

NOTE: Make sure the bit does NOT touch the workpiece until the motor is up to full speed.

3. Turn the switch ON while firmly holding the tool.
4. Slide the router base along the workpiece while making sure the straight edge guide is firmly contacting the workpiece at all times.

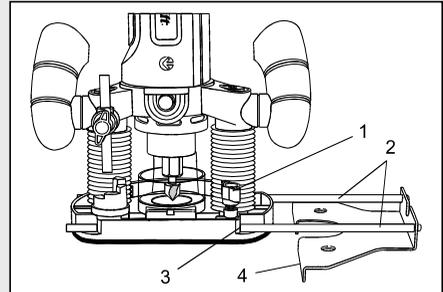


Fig. 22

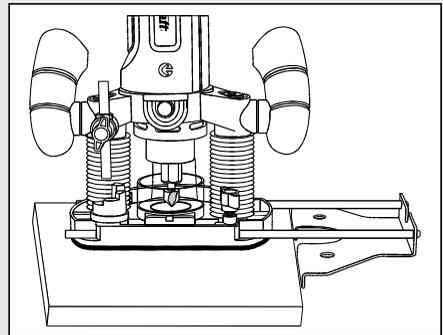


Fig. 23

ASSEMBLY AND OPERATING

INSTALLING THE FLEXIBLE SHAFT

⚠ WARNING: Never bend the flexible shaft with a radius of less than 6" when operating (Fig. 24). Always store the flexible shaft without bends wherever possible.

NOTE: The head of the flexible shaft should not be excessively bent. If excessive heating is observed, stop using the flexible shaft immediately. Remove the cable from the flexible shaft body and inspect it for a permanent bend or other damage. Replace damaged cable.

1. Turn the spin saw motor switch OFF and remove plug from the power source.
2. Change the spin saw collet to the square 5/32" collet for driving the flex shaft (Fig. 4).
3. Open the flexible shaft mounting collar (1) by pulling the quick release lever (2) outward (Fig. 25).
4. Align the flexible shaft mounting collar with the motor housing (3).

NOTES:

- a) Carefully align the square flexible shaft centre core so it will engage into the square hole in the collet.
 - b) Make sure the key (4) on the motor housing aligns with the matching key way in the mounting collar.
5. When shaft centre core and mounting collar are properly aligned, slide the connector cap fully onto the motor housing.
 6. Lock the flexible shaft mounting collar by pushing the quick release lever inward toward the mounting collar.

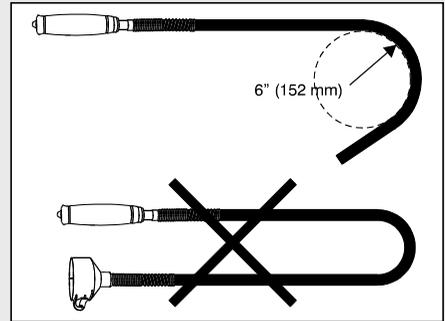


Fig. 24

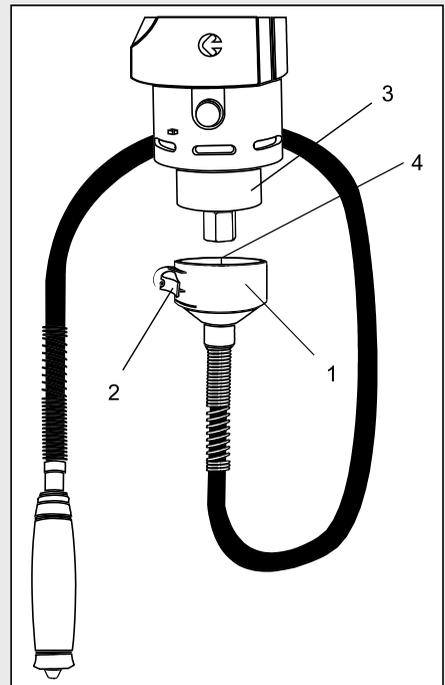


Fig. 25

ASSEMBLY AND OPERATING

INSTALLING A CUTTING BIT INTO THE FLEXIBLE SHAFT

1. To insert a cutting bit into the flexible shaft collet, pull the shaft locking collar (1) back (Fig. 26). While holding the shaft locking collar back, rotate collet nut (2) until the shaft locking collar engages the shaft. Loosen the collet nut by using the 3/8" collet wrench (3) to turn the collet nut counter clockwise.
 2. When collet is loose, insert accessory (4) and turn collet clockwise to tighten, making sure the accessory is centred in the collet. Use the flat wrench to tighten the collet nut.
- NOTE:** The flexible shaft uses a 1/8" collet that will accept all cutting accessories with a 1/8" shank.
3. Rotate the collet by hand to ensure cutting bit does not wobble.

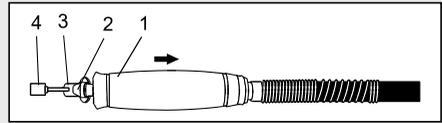


Fig. 26

MAINTENANCE

GENERAL

⚠ WARNING: When servicing, use only identical replacement parts. The use of any other part may create a hazard or cause damage to the product.

DO NOT use solvents when cleaning plastic parts. Plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use a clean cloth to remove dirt, dust, oil, grease etc.

⚠ WARNING: Do not allow brake fluids, gasoline, petroleum-based products, penetrating oils, etc. to come into contact with plastic parts. These substances contain chemicals that can damage, weaken or destroy plastic.

Remove accumulated dust and debris regularly using a soft DRY brush.

⚠ WARNING: Use safety goggles when using an air jet to blow dust out of the tool. Keep air vents clean and unobstructed to allow maximum airflow through the tool.

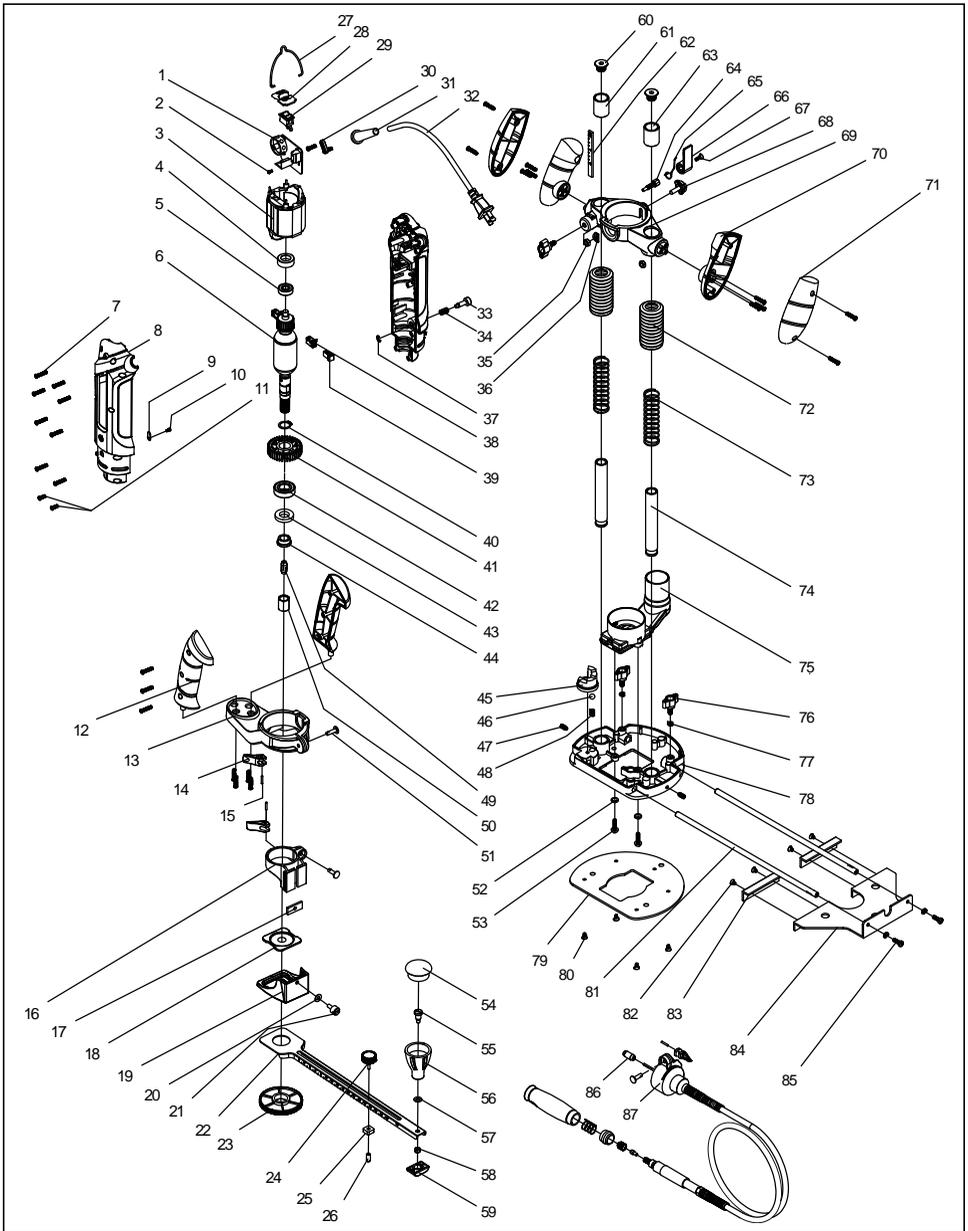
DO NOT abuse power tools. Abusive practices can damage the tool and the workpiece.

⚠ WARNING: DO NOT attempt to modify this spin saw or create accessories. Any such alteration, modification or unintended use is misuse and could result in a hazardous condition leading to possible serious injury. It will also void the warranty.

LUBRICATION

All of the bearings in this tool are lubricated with a sufficient amount of high-grade lubricant for the life of the unit under normal conditions. Therefore, no further lubrication is required.

EXPLODED VIEW



PARTS LIST

⚠ WARNING: When servicing, use only Mastercraft® replacement parts. The use of any other parts may create a safety hazard or cause damage to the spin saw.

Any attempt to repair or replace electrical parts on this spin saw may create a safety hazard unless repairs are performed by a qualified technician. For more information, call the Toll-free Helpline, at 1-800-689-9928.

Always order by PART NUMBER, not by key number.

Key #	Part #	Part Name	Quantity
1	162938	Variable speed PCB	1
2	500010	Tapping screw	1
3	110159	Stator	1
4	321018	Bearing sleeve	1
5	520017	Ball bearing 608-2Z	1
6	100159	Rotor	1
7	500200	Tapping screw	25
8	300187	Housing	1
9	221311	Pad	1
10	500003	Tapping screw	1
11	500201	Tapping screw	4
12	312560	Handle - left	1
13	311803	Handle support	1
14	312956	Locking lever	3
15	215078	Pin	3
16	311586	Base support	1
17	215077	Locking nut	1
18	311594	Circle cutter mounting insert	1
19	311593	Base plate	1
20	503002	Rivet	1
21	215076	Adjusting screw	1
22	224507	Circle cutter	1
23	315846	Circle cutter mounting disc	1
24	152546	Positioning knob	1
25	203034	Square nut	1
26	322308	Protection sleeve	1
27	242607	Hanger	1

PARTS LIST

Key #	Part #	Part Name	Quantity
28	311802	Switch button	2
29	163633	Switch	1
30	315001	Cord clamp	1
31	322006	Cord guard	1
32	160205	AC cord & plug	1
33	152578	Lock button	1
34	241599	Spring	1
35	502000	Hexagon nut	3
36	242608	Leaf spring	1
37	511011	Retaining ring	1
38	222841	Brush holder	2
39	162442	Carbon brush assembly	2
40	511018	Shoulder ring	1
41	314062	Fan	1
42	520039	Ball bearing 6002-2RS	1
43	340002	Felt seal	1
44	215084	Locking nut	1
45	237213	Depth stop turret	1
46	516006	Ball	1
47	501519	Set screw	2
48	241532	Spring	1
49	216509	Collet 1/4"	1
50	2040150013	Collet nut	1
51	215079	Pin	3
52	504002	Spring washer	2
53	500818	Button-headed screw	2
54	312211	Grip cover	1
55	237504	Set screw	1
56	312550	Grip	1
57	503009	Rivet	1

PARTS LIST

Key #	Part #	Part Name	Quantity
58	502008	Hexagon nut	1
59	311734	Nut	1
60	216539	Threaded plug	2
61	205605	Pipe sleeve - upper	1
62	224565	Depth stop gauge	1
63	205604	Pipe sleeve – lower	1
64	215172	Set screw	1
65	241530	Spring	1
66	312850	Locking lever	1
67	500831	Countersunk screw	1
68	155527	Knob	1
69	311804	Pipe support	1
70	312561	Handle – right	2
71	312280	Handle cover	2
72	315997	Pipe boot	2
73	241646	Pipe spring	2
74	216059	Pipe	2
75	152569	Vacuum adaptor	1
76	152579	Knob	4
77	241533	Spring	3
78	235018	Router base casting	1
79	318035	Base plate	1
80	500806	Countersunk screw	4
81	216014	Fence rod	2
82	500828	Countersunk screw	4
83	311571	Fence backing plate	2
84	221011	Fence	1
85	500818	Button-headed screw	2
86	205606	Flexible shaft collet	1
87	311805	Flexible shaft base	1

3-Year Limited Warranty

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 cases, 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 is 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 the purchase date must be provided;
- b) This warranty will not apply to any product or part thereof that is worn, broken or that 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 that 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 usable after a reasonable period of use;
- d) This warranty will not apply to routine maintenance and consumable items such as, including 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 specified otherwise in writing);

3-Year Limited Warranty – cont'd

These warranties are subject to the following conditions and limitations:

- 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, including but not limited to, scratches, dents, paint chips, or to any corrosion or discoloring by heat, abrasive and chemical cleaners; and
- i) This warranty will not apply to component parts sold by and identified as the product or company, which shall be covered under the product manufacturer's warranty, if any.

Additional Limitations

This warranty applies only to the original purchaser, and cannot be transferred. Neither the retailer nor the manufacturer shall be liable for any other expense, loss or damage, including, without limitation, but not limited to 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.

Mastercraft is a superior line of products selected for their workmanship and materials. These products are designed to meet rigorous quality and performance standards, and are approved by our Quality Assurance laboratory.

TOLL-FREE HELPLINE: 1-800-689-9928