

Instruction Manual

12" Compound Miter Saw



3802 Type 2

To learn more about Porter-Cable
visit our website at:

<http://www.porter-cable.com>

PORTER-CABLE
PROFESSIONAL POWER TOOLS

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IMPORTANT

Please make certain that the person who is to use this equipment carefully reads and understands these instructions before starting operations.

The Model and Serial No. plate is located on the main housing of the tool. Record these numbers in the spaces below and retain for future reference.

Model No. _____

Type _____

Serial No. _____

Part No. 900988 - 11-30-00

IMPORTANT SAFETY INSTRUCTIONS

SAVE THESE INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS.

This tool was designed for certain applications. DO NOT modify or use it for any application other than for which it was designed. If you have any questions relative to its application do not use the tool until you have written Porter-Cable and we have advised you.

**Technical Service Manager
Porter-Cable Corporation
4825 Highway 45 North
Jackson, TN 38305**

WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY.

- 1. FOR YOUR OWN SAFETY, READ INSTRUCTION MANUAL BEFORE OPERATING THE TOOL.** Learn the tool's application and limitations as well as the specific hazards peculiar to it.
- 2. KEEP GUARDS IN PLACE** and in working order.
- 3. GROUND ALL TOOLS.** If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If an adapter is used to accommodate a two-prong receptacle, the adapter lug must be attached to a known ground. Never remove the third prong.
- 4. REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from the tool before turning it on.
- 5. KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
- 6. DON'T USE IN DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well-lighted.
- 7. KEEP CHILDREN AND VISITORS AWAY.** All children and visitors should be kept a safe distance from work area.
- 8. MAKE WORKSHOP CHILDPROOF** – with padlocks, master switches, or by removing starter keys.
- 9. DON'T FORCE TOOL.** It will do the job better and be safer at the rate for which it was designed.
- 10. USE RIGHT TOOL.** Don't force tool or attachment to do a job for which it was not designed.
- 11. WEAR PROPER APPAREL.** No loose clothing, gloves, neckties, rings, bracelets, or other jewelry to get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
- 12. ALWAYS USE SAFETY GLASSES.** Wear safety glasses (must comply with ANSI Z87.1). Everyday eyeglasses only have impact resistant lenses; they are not safety glasses. Also use face or dust mask if cutting operation is dusty.
- 13. SECURE WORK.** Use clamps or a vise to hold work when practical.
- 14. DON'T OVERREACH.** Keep proper footing and balance at all times.
- 15. MAINTAIN TOOLS IN TOP CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
- 16. DISCONNECT TOOLS** before servicing and when changing accessories such as blades, bits, cutters, etc.
- 17. USE RECOMMENDED ACCESSORIES.** The use of improper accessories may cause hazards or risk of injury to persons.
- 18. REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in "OFF" position before plugging in power cord.
- 19. NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is accidentally contacted.
- 20. CHECK DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced by an authorized service center unless otherwise indicated elsewhere in this instruction manual. Have defective switches replaced by authorized service center. Do not use tool if switch does not turn it on and off.
- 21. DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.
- 22. NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.
- 23. DRUGS, ALCOHOL, MEDICATION.** Do not operate tool while under the influence of drugs, alcohol or any medication.
- 24. MAKE SURE TOOL IS DISCONNECTED FROM POWER SUPPLY** while motor is being mounted, connected or reconnected.

25. WARNING: SOME DUST CREATED BY POWER SANDING, SAWING, GRINDING, DRILLING, AND OTHER CONSTRUCTION ACTIVITIES contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- lead from lead-based paints,
- crystalline silica from bricks and cement and other masonry products, and
- arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

SAVE THESE INSTRUCTIONS. Refer to them often and use them to instruct others.

ADDITIONAL SAFETY RULES FOR COMPOUND MITER SAWS

- 1. WARNING: USE ONLY CROSS-CUTTING SAW BLADES. DO NOT USE BLADES WITH DEEP GULLETS AS THEY CAN DEFLECT AND CONTACT THE GUARD.**
- 2. WARNING:** Do not operate the miter saw until it is completely assembled and installed according to the instructions.
- 3. IF YOU ARE NOT** thoroughly familiar with the operation of compound miter saws, obtain advice from your supervisor, instructor or other qualified person.
- 4. BE SURE** blade is sharp, runs freely and is free of vibration.
- 5. ALLOW** the motor to come up to full speed before starting cut.
- 6. KEEP** motor air slots clean and free of chips.
- 7. ALWAYS MAKE SURE** rotating table is tight before cutting, even if the table is positioned in one of the positive stops.
- 8. BE SURE** blade and flanges are clean and that arbor screw is tightened securely.
- 9. USE ONLY** blade flanges specified for your saw.
- 10. NEVER** apply lubricants to the blade when it is running.
- 11. ALWAYS CHECK** the blade for cracks or damage before operation. Replace cracked or damaged blade immediately.
- 12. ALWAYS KEEP** the lower blade guard in place and operating properly.
- 13. MAKE SURE** blade is not contacting workpiece before switch is turned on.
- 14. NEVER LOCK** the switch in the "ON" position.
- 15. IMPORTANT:** After completing cut, release power switch and wait for coasting blade to stop before returning saw to raised position.
- 16. DO NOT** remove jammed or cut-off pieces until blade has stopped.
- 17. NEVER** cut ferrous metals or masonry.
- 18. NEVER** recut small pieces.
- 19. PROVIDE ADEQUATE SUPPORT** to the sides of the saw table for long workpieces.
- 20. NEVER** use the miter saw in an area with flammable liquids or gases.
- 21. NEVER USE SOLVENTS TO CLEAN PLASTIC PARTS.** Solvents could possibly dissolve or otherwise damage the material. Only a soft, damp cloth should be used to clean plastic parts.
- 22. DISCONNECT SAW** from power source and clean the machine before leaving it.
- 23. MAKE SURE** the work area is cleaned before leaving the machine.
- 24. ADDITIONAL INFORMATION** regarding the safe and proper operation of this product is available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201, in the Accident Prevention Manual for Industrial Operation and also in the Safety Data Sheets provided by the NSC. Please also refer to the American National Standard Institute ANSI O1.1 Safety Requirements for the Woodworking Machinery and the U.S. Department of Labor OSHA 1910.213 Regulations.
- 25. SOME WOOD CONTAINS PRESERVATIVES WHICH CAN BE TOXIC.** Take extra care to prevent inhalation and skin contact when working with these materials. Request, and follow, any safety information available from your material supplier.
- 26. DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges. Have damaged or worn power cord and strain reliever replaced immediately. **DO NOT ATTEMPT TO REPAIR POWER CORD.**
- 27. WEAR EAR PROTECTION** to safeguard against possible hearing loss.
- 28. AVOID CUTTING NAILS AND KNOTS.** Inspect for and remove all nails from lumber before cutting. Try to do layout cuts between knots.
- 29. NEVER USE LIQUID COOLANT.** To do so could present electrical shock hazard.
- 30. KEEP CLEAR OF SAWDUST EJECTION CHUTE.** Sawdust and chips are expelled out the ejection chute at rear of saw. Do not allow anyone in this area while saw is in operation.
- 31. WHEN THE MITER SAW IS NOT IN USE,** the switch should be locked in the OFF position to prevent unauthorized use of the saw.

REPLACEMENT PARTS

When servicing, use only identical replacement parts.

POLARIZED PLUGS: To reduce the risk of electric shock, this equipment has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

MOTOR

Many Porter-Cable tools will operate on either D.C., or single phase 25 to 60 cycle A.C. current and voltage within plus or minus 5 percent of that shown on the specification plate of the tool. Several models, however, are designed for A.C. current only. Refer to the specification plate on your tool for proper voltage and current rating.

CAUTION: Do not operate your tool on a current where the voltage is not within correct limits. Do not operate tools rated A.C. on a D.C. current. To do so may seriously damage the tool.

RECOMMENDED EXTENSION CORD SIZES FOR USE WITH STATIONARY ELECTRIC TOOLS

EXTENSION CORD SELECTION

Use proper extension cords. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current of the saw. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. Fig. 1, shows the correct gauge to use depending on the cord length. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

MINIMUM GAUGE EXTENSION CORD			
RECOMMENDED SIZES FOR USE WITH STATIONARY ELECTRIC TOOLS			
Ampere Rating	Volts	Total Length of Cord in Feet	Gauge of Extension Cord
0-6	120	up to 25	18 AWG
0-6	120	25-50	16 AWG
0-6	120	50-100	16 AWG
0-6	120	100-150	14 AWG
6-10	120	up to 25	18 AWG
6-10	120	25-50	16 AWG
6-10	120	50-100	14 AWG
6-10	120	100-150	12 AWG
10-12	120	up to 25	16 AWG
10-12	120	25-50	16 AWG
10-12	120	50-100	14 AWG
10-12	120	100-150	12 AWG
12-16	120	up to 25	14 AWG
12-16	120	25-50	12 AWG
12-16	120	GREATER THAN 50 FEET NOT RECOMMENDED	

Fig. 1

OPERATING INSTRUCTIONS

FOREWORD

Porter-Cable Model 3802 Type 2 is a high capacity 12" compound miter saw designed to cut wood and non-ferrous metals. It can crosscut 8" x 2¼" and 7" x 3¼", miter at 45 both left and right 5¼" x 2¼", bevel at 45 left 6¼" x 2¼" and 8" x 1¼", and compound 45 x 45, 5¼" x 2 1/2" and 4¼" x 2¼". It has positive miter stops at 0, 15, 22.5, 31.62, and 45 degrees both left and right, and bevel stops at 0 and 45 degrees left.

POWER CONNECTIONS

A separate electrical circuit should be used for your tools. If an extension cord is used, make sure the conductor size is large enough to prevent excessive voltage drop which will cause loss of power and possible motor damage. For distances up to 100 feet, use #12 wire. For distances up to 150 feet, use #10 wire. If an extension cord is to be used outdoors, it must be marked with the suffix W-A following the cord type designation. For example - SJTW-A indicates that it is acceptable for outdoor use. Replace damaged or worn cords immediately. Before connecting the motor to the power line, make sure the switch is in the "OFF" position and be sure that the electric current is of the same characteristics as stamped on motor nameplate.

UNPACKING

1. Carefully remove the machine from the carton. Retain all packing materials until you have inspected and satisfactorily operated the machine.

WARNING: Do not connect the machine to the power source until you have read and understood this entire instruction manual.

2. Place the machine on a firm, level surface with extra room for handling and proper support of the workpiece.
3. Familiarize yourself with all features and controls as explained in this manual.

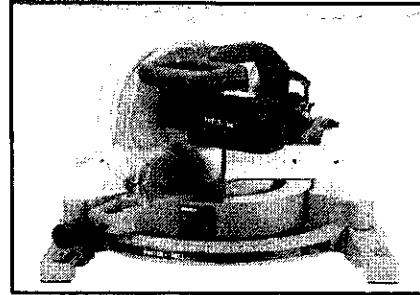


Fig. 2

4. The machine is shipped with the cuttinghead locked in the down position and the table rotated to 45 degrees left, Fig. 2. To release the head and move it to the operating position, see "MOVING CUTTINGHEAD TO THE UP POSITION" and "MOVING THE TABLE TO THE 90 DEGREE CUT-OFF POSITION" in this section.

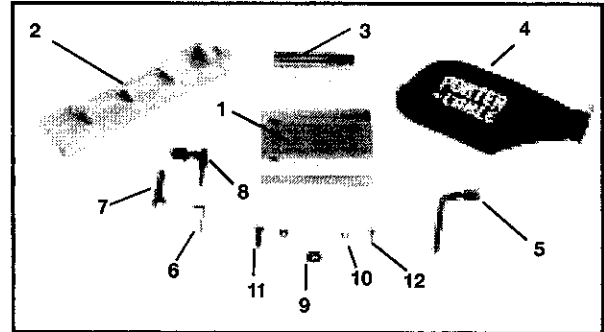


Fig. 3

5. Unassembled items are shown in Fig. 3 for identification and use in assembling the saw.

- 1 Extension table
- 2 Fence slide
- 3 Fence slide support
- 4 Dust bag
- 5 Arbor and fence wrench
- 6 1/4" wrench
- 7 Open end wrench
- 8 Lock handle for slide fence
- 9 1/4" flat washer
- 10 1/4" lock washer
- 11 1/4 - 18 x 1 1/4" long hex head screw (2)
- 12 1/4 - 18 x 3/4" long hex head screws (2)

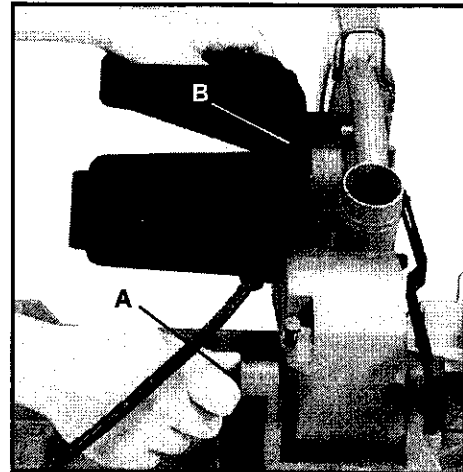


Fig. 4

ASSEMBLY

WARNING: FOR YOUR OWN SAFETY, DO NOT CONNECT THE MITER SAW TO THE POWER SOURCE UNTIL THE MACHINE IS COMPLETELY ASSEMBLED AND YOU HAVE READ AND UNDERSTOOD THE ENTIRE OWNER'S MANUAL.

MOVING CUTTINGHEAD TO THE UP POSITION

1. Pull out cuttinghead lockpin (A) Fig. 4, and move the cuttinghead (B) to the up position.
2. Fig. 5, illustrates the lockpin (A) pulled out and the cuttinghead (B) in the up position.

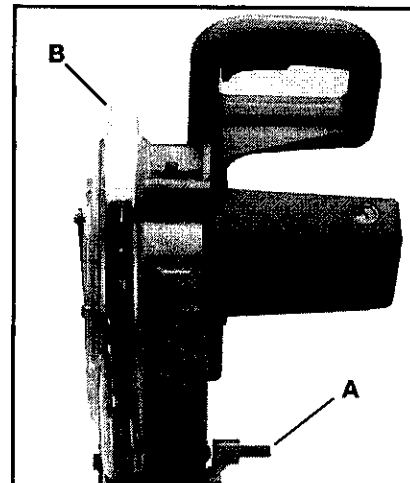


Fig. 5

MOVING TABLE TO THE 0 DEGREE CUT-OFF POSITION

1. Rotate locking knob (A) Fig. 6, counter-clockwise as far as it will go to unlock. Depress lever (B) and rotate table (C) to the 0 degree straight cut-off position, release lever (B) and tighten locking knob (A).
2. Fig. 7, illustrates the table (C) in the 0 degree straight cut-off position.
3. For proper operation and adjustment of the table, refer to sections, "ROTATING TABLE FOR MITER CUTTING", "ADJUSTING CLAMPING ACTION OF TABLE LOCKING MECHANISM" and "ADJUSTING SLIDING FIT BETWEEN MOVABLE TABLE AND BASE."

ATTACHING EXTENSION TABLE AND FENCE SLIDE

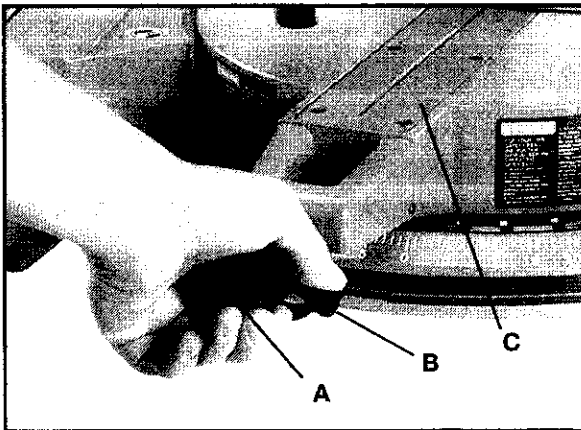


Fig. 6

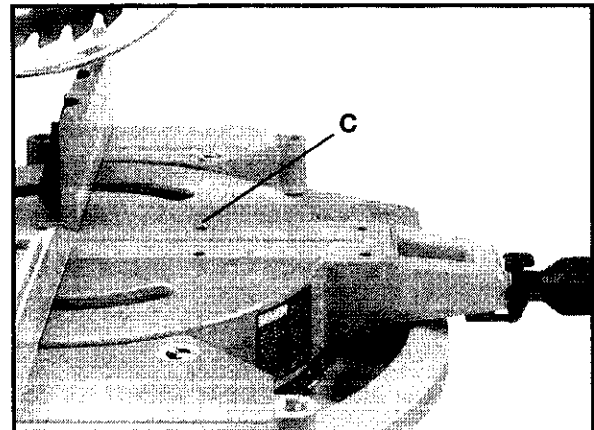


Fig. 7

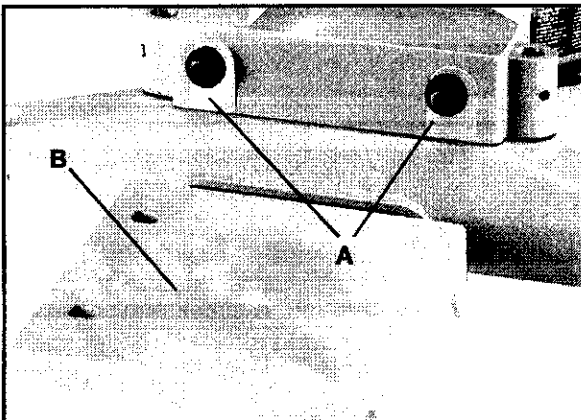


Fig. 7A

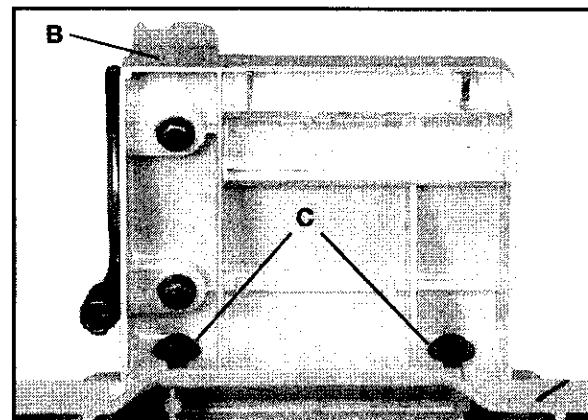


Fig. 7B

1. Attach flat washers to the two 3/4" screw assemblies (A) Fig. 7A, and thread into the threaded holes on left side of the saw.

NOTE: Turn the screws only a few threads into the holes at this time.

2. Attach the table extension (B) Figs. 7A and 7B, to left side of saw table, making sure groove of table extension (B) is inside flat washers (C) as shown in Fig. 7B.

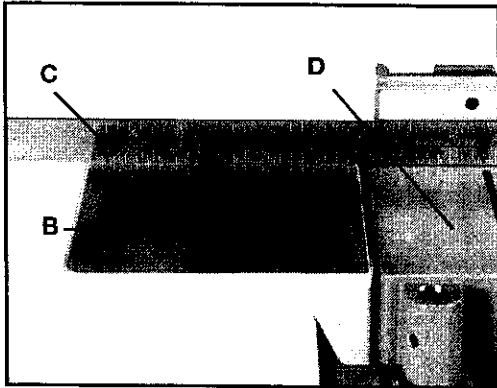


Fig. 7C

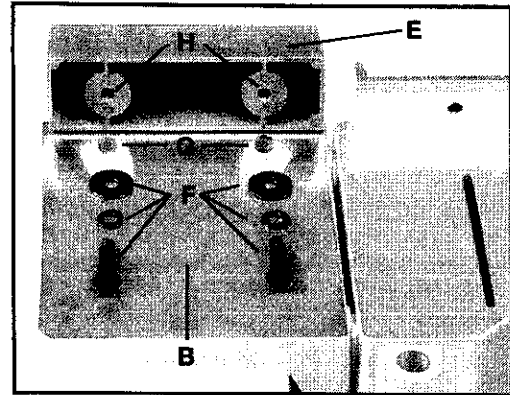


Fig. 7D

3. Use a straight edge (C) Fig. 7C, to make the extension table (B) even with saw table (D), and tighten the two screws (A) Fig. 7B.

4. Attach the fence slide support (E) Fig. 7D, to the extension table (B) by using the two 1 1/4" long hex head screws, 5/16" lockwashers and 5/16" flat washers (F). Bring screws up through the two holes (G) in table extension and thread them into the two threaded holes (H) on bottom of fence slide support.

NOTE: Do not completely tighten screws at this time.

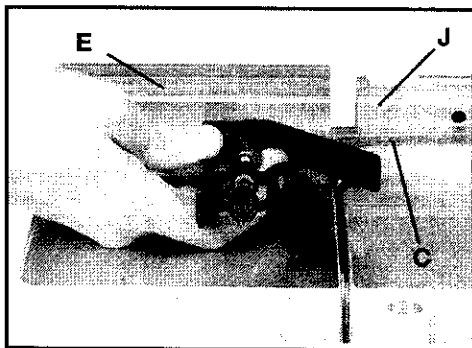


Fig. 7E

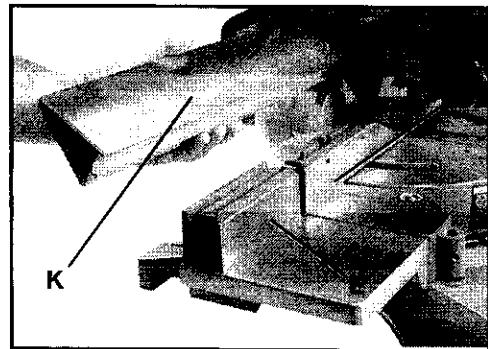


Fig. 7F

5. Use a straight edge (C) Fig. 7E, to level the fence slide support (E) with saw fence (J), and tighten the two

6. Position the fence slide (K) Fig. 7F, in position on top of saw fence (J) and fence slide support (E). Slide fence slide (K) back and forth several times to check alignment of fence slide support (E). Make any necessary final adjustments to fence slide support.

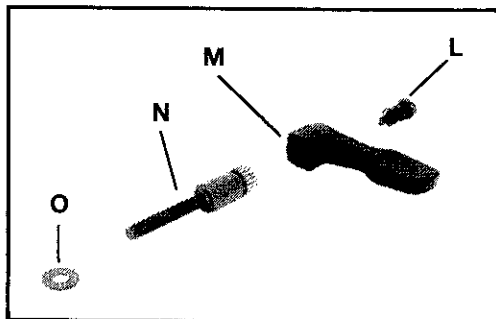


Fig. 7G

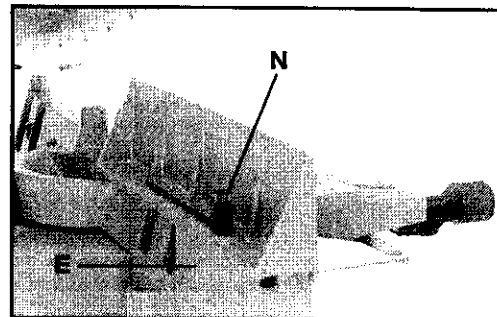


Fig. 7H

7. Remove screw and spring (L) Fig. 7G, and lock handle (M) from locking stud (N).

8. Place 1/4" flat washer (O) Fig. 7G, onto locking stud (N) and insert locking stud (N) Fig. 7H, through slot in fence slide. Thread locking stud into threaded hole in fence slide support (E).

9. Position lock handle (M) Fig. 7J, on stud and replace screw and spring (L) that were removed in **STEP 7**. **NOTE:** Lock handle (M) is spring-loaded and can be repositioned by lifting up on handle.

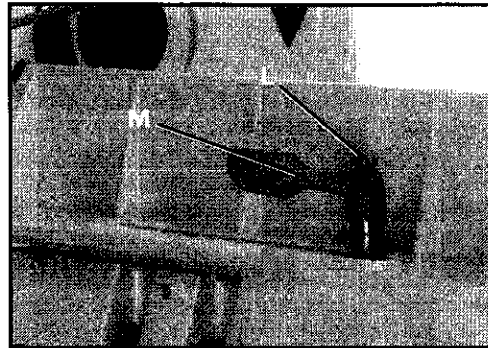


Fig. 7J

ATTACHING DUST BAG

Depress spring clips (A) Fig. 8, of dust bag (B) and clip dust bag (B) onto end of dust chute.

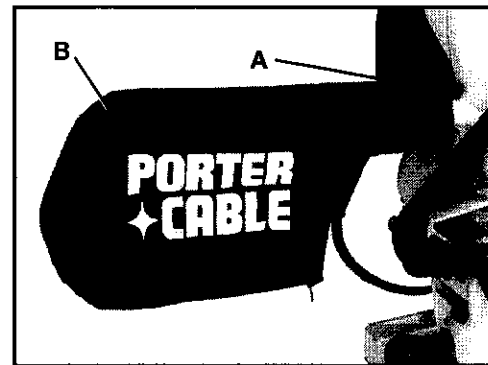


Fig. 8

FASTENING MACHINE TO SUPPORTING SURFACE

Before operating your compound miter saw, firmly mount it to a workbench or other supporting surface. Four holes, (A) Fig. 9, are provided for fastening the saw to a supporting surface.

When frequently moving the saw from place to place, mount the saw to a 3/4" piece of plywood. The saw can then be easily moved from place to place and the plywood can be clamped to the supporting surface using "C" clamps.

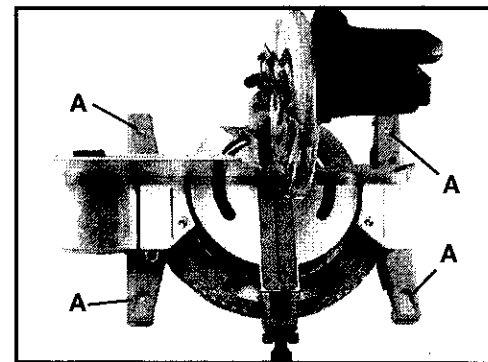


Fig. 9

STARTING AND STOPPING MACHINE

To start the machine, depress switch trigger (A) Fig. 10. To stop the machine, release the switch trigger.

This saw is equipped with an automatic electric blade brake. As soon as the switch trigger (A) Fig. 10, is released, the electric brake is activated and stops the blade in seconds.

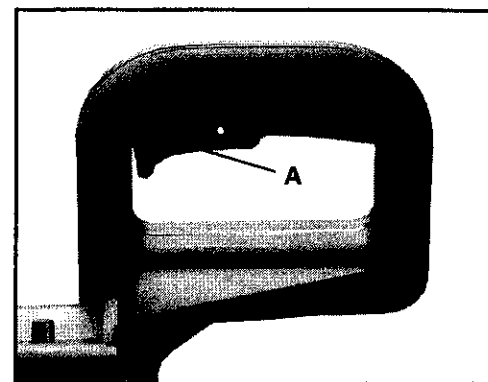


Fig. 10

DANGER: A TURNING SAW BLADE CAN BE DANGEROUS. AFTER COMPLETING CUT, RELEASE SWITCH TRIGGER (A) FIG. 12, TO ACTIVATE BLADE BRAKE. KEEP CUTTINGHEAD DOWN UNTIL BLADE HAS COME TO A COMPLETE STOP.

WARNING: THE TORQUE DEVELOPED DURING BRAKING MAY LOOSEN THE ARBOR SCREW. THE ARBOR SCREW SHOULD BE CHECKED PERIODICALLY AND TIGHTENED IF NECESSARY.

LOCKING SWITCH IN THE "OFF" POSITION

IMPORTANT: When the miter saw is not in use, the switch should be locked in the OFF position using a padlock (B) Fig. 11, with a 3/16" diameter shackle to prevent unauthorized use of the saw.

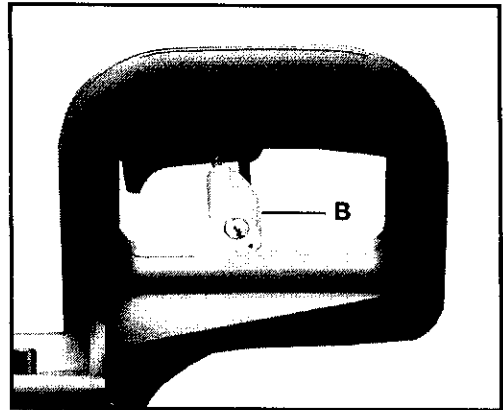


Fig. 11

ROTATING TABLE FOR MITER CUTTING

1. Your compound miter saw will cut any angle from a straight 0 degree cut to 47 degrees right and left. Rotate locking knob (A) Fig. 12, depress lock lever (B), and rotate table to desired position.

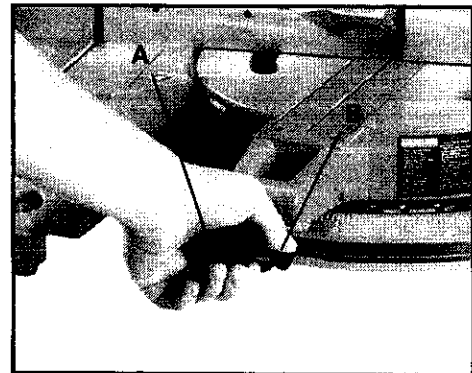


Fig. 12

2. The compound miter saw is equipped with positive stops at the 0 degree cut-off position and at the 15, 22.5, 31.62, and 45 degree left and right positions.

3. The center line, (C) Fig. 13, on the cursor indicates the actual angle of cut. Each scale line (B) represents one degree. In effect, when the center line (C) is moved from one line to the next on the scale, the angle of the cut is changed by one degree.

4. The pointer is provided with two additional lines (D) and (E), Fig. 15. This allows movement of the control arm exactly 1/2 degree. For example, assume the center line (C) is pointing to the 10 degree mark on the scale, as indicated, and the angle of cut is 1/2 degree to the right. Move the control arm until the right line (E) lines up with the next line on the scale. The angle of cut will then be changed 1/2 degree to the right. If you change the angle of cut 1/2 degree to the left, use the left line (D) in the same manner.

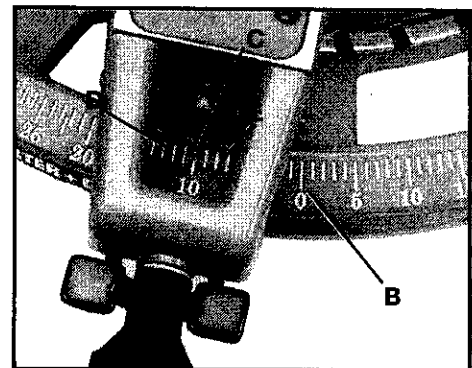


Fig. 13

ADJUSTING SLIDING FIT BETWEEN MOVABLE TABLE AND BASE

CAUTION: DISCONNECT THE MACHINE FROM THE POWER SOURCE.

To adjust the sliding fit between the movable table and the base, turn nut (A) Fig. 14, clockwise to increase the sliding fit (opposite to decrease the fit). This adjustment should not be so tight that it restricts the rotating movement of the table, or so loose that it affects the accuracy of the saw.

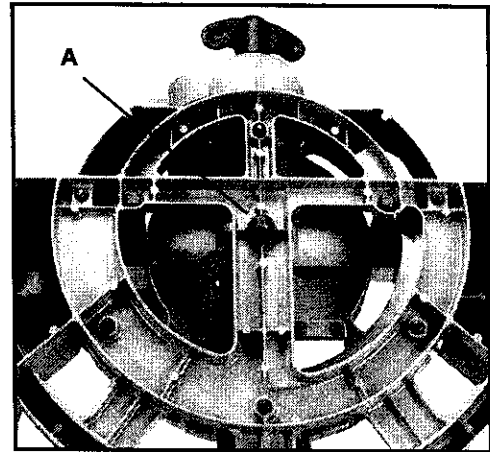


Fig. 14

ADJUSTING FENCE 90 DEGREES TO BLADE

IMPORTANT: BEFORE MAKING THIS ADJUSTMENT, SET THE BLADE AT 0 DEGREES TO THE TABLE. SEE SECTION "ADJUSTING 0 AND 45 DEGREE BEVEL POSITIVE STOPS."

1. **CAUTION: DISCONNECT THE MACHINE FROM THE POWER SOURCE.**

2. Rotate the movable table so that the blade is 90 degrees to the fence and the positive stop is set for 0 degrees.

3. Place one end of a framing square (A) against the front of the fence (B) and the other end against the blade (C), with the blade locked in the down position. The fence should be 90 degrees to the blade.

4. If an adjustment is necessary, the fence, (B) Fig. 15, can be adjusted by loosening four screws, two of which are shown at (D), that attach the fence to the base. Use the wrench supplied. Adjust the fence (B), and tighten the four screws (D).

5. When the fence is 90 degrees to the blade, adjust the cursor (F) Fig. 16, so the pointer is aligned with the 0 degree mark on the scale by loosening two screws, (G), adjusting cursor (F) and tightening screws (G).

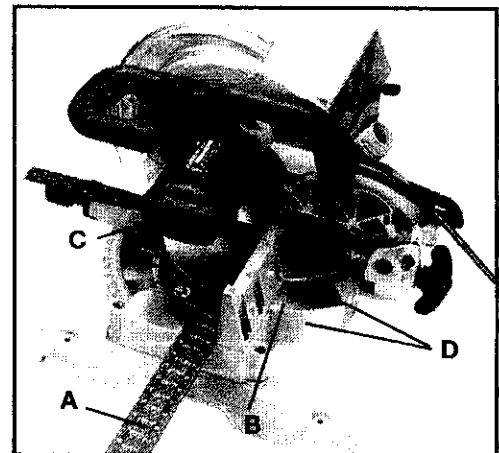


Fig. 15

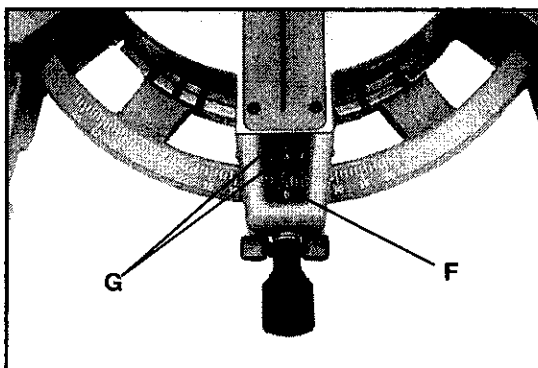


Fig. 16

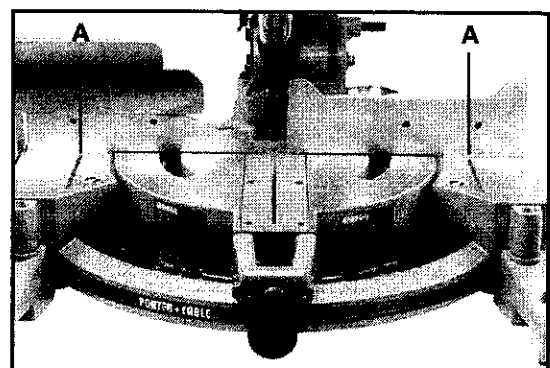


Fig. 17

TABLE HAZARD AREA

WARNING: THE AREA INSIDE THE TWO RED LINES (A) FIG. 17 ON THE TABLE IS DESIGNATED AS A HAZARD ZONE. NEVER PLACE YOUR HANDS INSIDE THIS AREA WHILE THE TOOL IS BEING OPERATED.

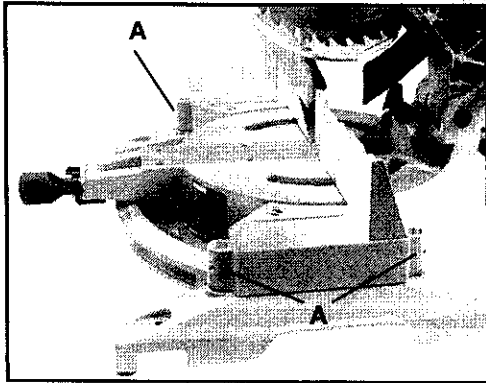


Fig. 18

ATTACHING OPTIONAL WORK CLAMP

The work clamp is an important accessory. After purchase, the work clamp can be attached to any one of the four holes (A) Fig. 18, provided on the base of the machine, (three of which are shown).

1. Thread lock knob (B) Fig. 19, into threaded hole where the clamp will be inserted. Place post (C) of work clamp down through hole as far as possible. Tighten lock knob (B). An additional lock knob (B) is supplied and can be threaded into one of the other three holes. (TIP: Thread the two lock knobs into the two holes where the work clamp will be used most frequently.)

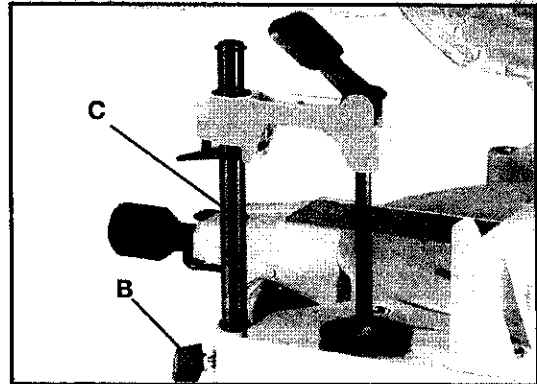


Fig. 19

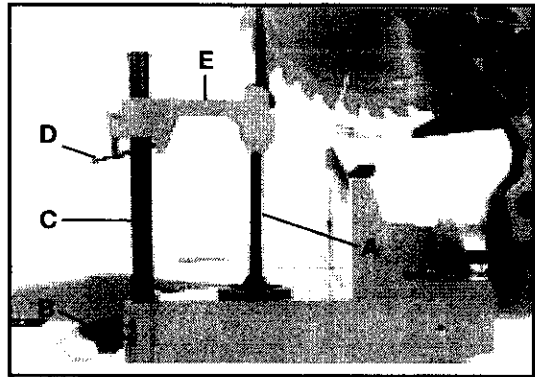


Fig. 20

USING THE OPTIONAL WORK CLAMP

1. The height of the work clamp (A) Fig. 20, can be adjusted by loosening lock knob (B) and moving post (C) up or down, or depressing lock lever (D) and sliding clamp body (E) up or down. After height of clamp (A) is adjusted, tighten lock knob (B) and/or release lock lever (D).
2. During operation, lower clamp (A) Fig. 21, by depressing lock lever (D), until the bottom of the clamp (A) lightly contacts the top of the workpiece (F). **IMPORTANT: Cam lever (G) should be in "UP" position when the clamp is lowered on the workpiece.**
3. To clamp the workpiece (F), Fig. 22, tightly against the table, lower cam lever (G). After cut is complete, lift lever (G) to release the clamp.

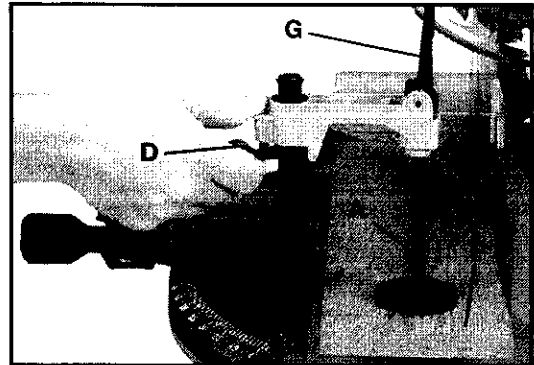


Fig. 21

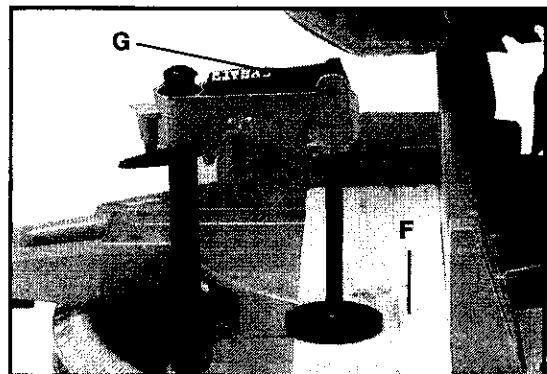


Fig. 22

TILTING CUTTINGHEAD FOR BEVEL CUTTING

CAUTION: DISCONNECT THE MACHINE FROM THE POWER SOURCE.

IMPORTANT: MOVE THE SLIDING FENCE TO THE LEFT TO PROVIDE CLEARANCE FOR THE BLADE AND GUARD. THE DEGREE OF TILT DETERMINES HOW FAR TO MOVE THE SLIDING FENCE. REFER TO THE SECTION "ADJUSTING SLIDING FENCE."

1. The cuttinghead of your compound miter saw can be tilted to cut any bevel angle from a 90 degree straight cut-off to a 45 degree left bevel angle by loosening bevel lock handle (A) Fig. 23, tilting cuttinghead (B) to the desired angle, and tightening lock handle (A).
2. Positive stops are provided to rapidly position the saw blade at 90 and 45 degrees to the table. Refer to the section of this manual titled **“Adjusting 90 and 45 degree bevel positive stops.”** The bevel angle of the cutting arm is determined by the position of the pointer (C) Fig. 24, on scale (D).
3. In addition, a marked indicator is provided on the bevel scale (33.9 degrees) for cutting crown moulding. Refer to the **“CUTTING CROWN MOULDING”** section of this manual.

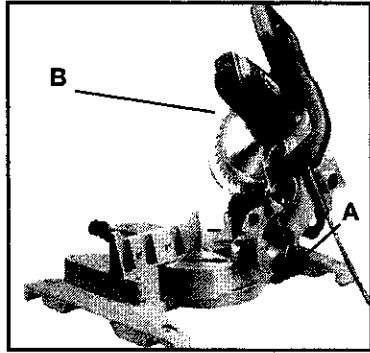


Fig. 23

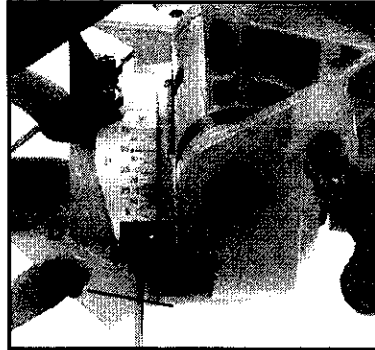


Fig. 24

ADJUSTING SLIDING FENCE

The high sliding fence (A) Fig. 25A, provides support for extra large workpieces used with your saw and should always be set as close as possible to the saw blade. When miter cutting (blade set 90 degrees to the table and at an angle to the right or left), the fence should be set all the way toward the blade, (Fig. 25A). When bevel cutting, however (blade tilted at an angle to the table), the fence (A) Fig. 25B, should be moved away from the blade to allow for proper clearance for the saw blade and guard, (Fig. 25B). To accomplish this movement, loosen the lock handle (B), and slide the fence (A) to the desired location. Tighten the lock handle (B).

NOTE: Lock handle (B) is spring-loaded and can be repositioned. Pull up on handle to reposition it on the serrated nut located underneath handle.

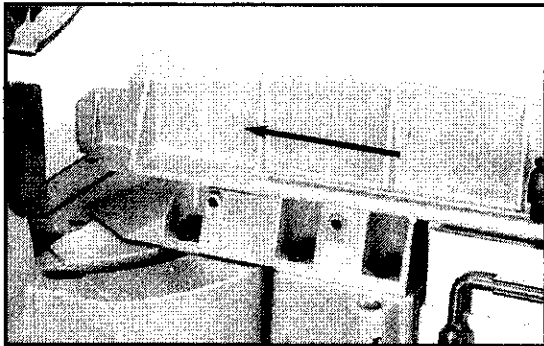


Fig. 25A

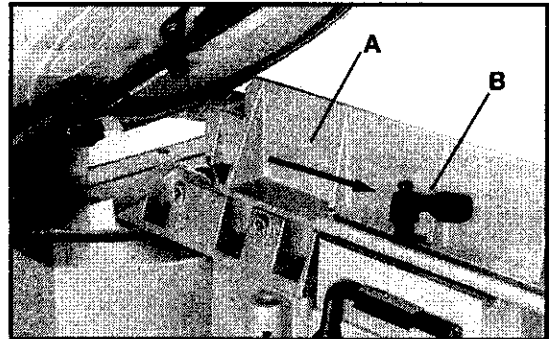


Fig. 25B

ADJUSTING CHIP DEFLECTOR

1. **DISCONNECT THE SAW FROM THE POWER SOURCE.**
2. A chip deflector (A) Fig. 26, is supplied to help prevent scrap or cut-off pieces from entering the upper blade guard. The chip deflector (A) should be adjusted so that it is almost touching the side of the blade by loosening screw (B), adjusting chip deflector (A) and tightening screw (B).

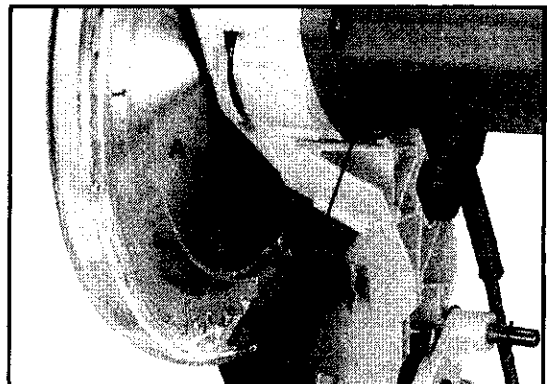


Fig. 26

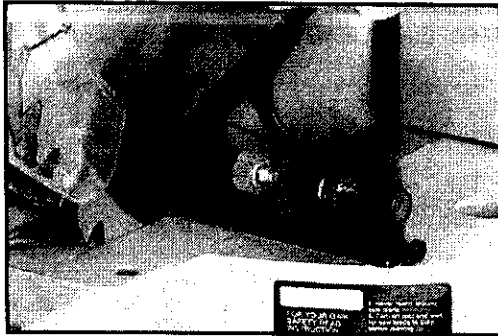


Fig. 27

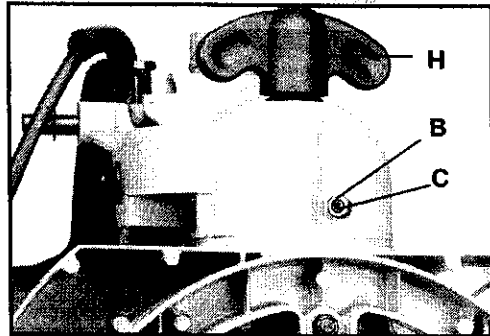


Fig. 28

ADJUSTING 0 AND 45 DEGREE BEVEL POSITIVE STOPS

1. DISCONNECT THE SAW FROM THE POWER SOURCE.

2. Adjust saw so that both bevel and miter pointers are set at 0 degrees. Tighten bevel lock handle and lock cuttinghead in down position.

3. Place one end of a square (A) Fig. 27 on the table and the other end against the blade. The blade should be set at 90 degrees to the table.

4. If an adjustment is necessary, loosen bevel lock handle (H) Fig. 28. Loosen locknut (B) and turn adjusting screw (C), with wrenches provided, until blade is 90 degrees to the table. Tighten locknut (B) and bevel lock handle (H).

5. When the blade is 90 degrees to the table, adjust the pointer to line up with the 0 degree mark on the bevel scale.

6. Loosen bevel lock handle (H) Fig. 28, and move cuttinghead all the way to the left bevel position and tighten bevel lock handle.

7. Use a square (A) Fig. 29, to see if the blade is at 45 degrees to the table.

8. If an adjustment is necessary, loosen the bevel lock handle. Loosen the locknut (E) Fig. 30, and turn the adjusting screw (F), with wrenches provided, until the blade is 45 degrees to the table. Tighten locknut (E) and bevel lock handle.

9. These positive stops enable you to rapidly position the blade at the most common bevel angles to the table, 90 and 45 degrees.

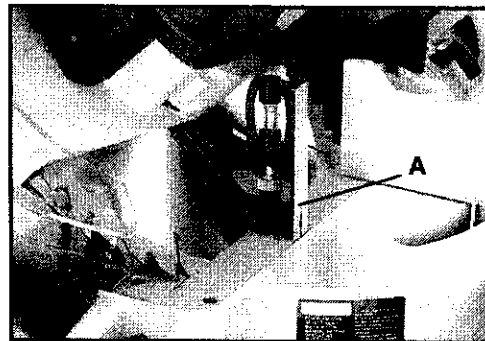


Fig. 29

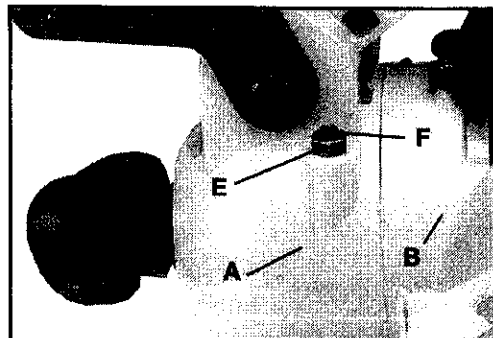


Fig. 30

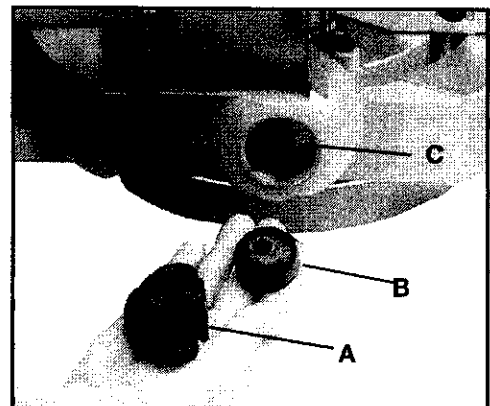


Fig. 31

ADJUSTING SLIDING FIT BETWEEN TRUNNION AND BEVEL BRACKET

After a long period of time, it may become necessary to adjust the sliding fit between the trunnion (A) Fig. 30, and the bevel bracket (B) by tightening adjusting nut (C), Fig. 31, located underneath the bevel lock (A), Fig. 31, and collar (B) Fig. 31.

Correct adjustment provides for a good snug sliding fit between these two parts. This adjustment should not be so tight that it restricts the tilting movement of the trunnion (A) when bevel cutting, or so loose that it affects the accuracy of the saw cut.

ADJUSTING THE TENSION OF CUTTINGHEAD RETURN SPRING

The tension of the cuttinghead return spring has been adjusted at the factory in order that the cuttinghead returns to the up position after a cut has been made. To re-adjust the spring tension, turn adjusting screw (A) Fig. 32, clockwise to increase or counterclockwise to decrease the spring tension.

ADJUSTING SLIDING FIT BETWEEN CUTTINGHEAD ARM AND TRUNNION

After a long period of time it may become necessary to adjust the sliding fit between the cuttinghead arm (B) Fig. 32, and the trunnion (C) by tightening nut (D). Correct adjustment is a good snug sliding fit between these two parts. This adjustment should not be so tight that it restricts the sliding movement of the cuttinghead arm (B) or so loose that it affects the accuracy of the saw cut.

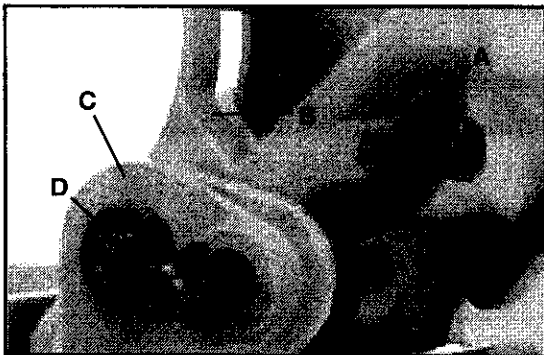


Fig. 32

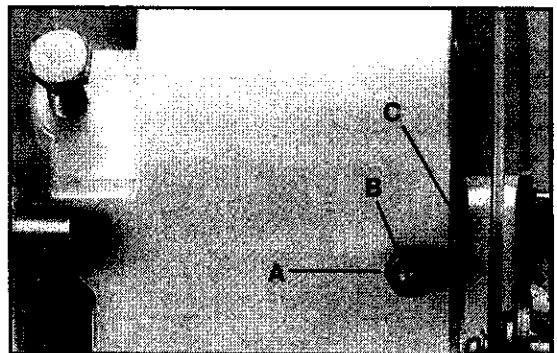


Fig. 33

ADJUSTING DOWNWARD TRAVEL OF SAW BLADE

1. **DISCONNECT THE SAW FROM THE POWER SOURCE.**
2. The downward travel of the saw blade can be limited to prevent the saw blade from contacting any metal surfaces of the machine. This adjustment is made by loosening locknut (A) Fig. 33, and turning adjusting screw (B) in or out until other end of screw (B) contacts stop (C) at the full downward travel of the saw blade.
3. When making this adjustment, **MAKE SURE THE MACHINE IS DISCONNECTED FROM THE POWER SOURCE** and lower the blade as far as possible. Rotate the blade by hand to make certain the teeth do not contact any metal surfaces and adjust if necessary. After adjustment is completed, tighten locknut (A) Fig. 33.

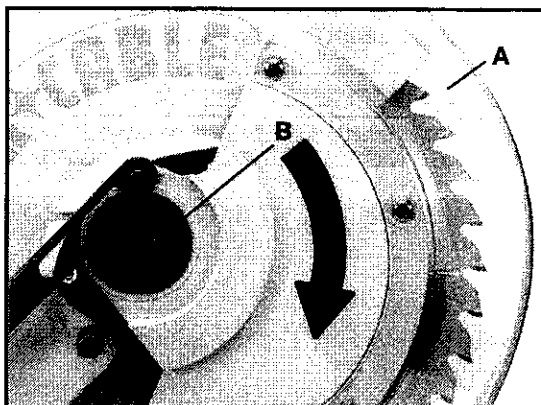


Fig. 34

ADJUSTING BLADE GUARD

After an extended period of time the movable blade guard (A) Fig. 34, might become sloppy and move erratically when the cuttinghead is lowered. This can be easily corrected by slightly tightening nut (B) until the lower blade guard (A) moves smoothly.

TYPICAL OPERATIONS AND HELPFUL HINTS

1. Before cutting, make certain the cutting arm and table area are at their correct settings and firmly locked in place.
2. Before cutting, determine that the workpiece is the right size for the saw.
3. Place the workpiece on the table and hold or clamp it firmly against the fence. Fig. 35 illustrates the optional work clamp (A) being used to clamp a workpiece to the fence and table.
4. **WARNING:** If the workpiece causes your hand to be inside the table hazard area (see section "TABLE HAZARD AREA"), clamp the workpiece in place before making the cut, as shown in Fig. 35.
5. For best results cut at a slow, even cutting rate.
6. Never attempt any freehand cutting (wood that is not held firmly against the fence and table).

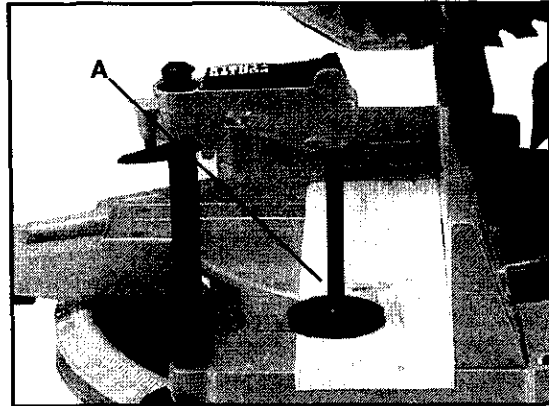


Fig. 35

AUXILIARY WOOD FENCE

When performing multiple or repetitive cut-off operations that result in small cut-off pieces (one inch or less), the saw blade can catch the cut-off pieces and project them out of the machine or into the blade guard and housing, possibly causing damage and/or injury. In order to limit the possibility of personal injury or blade guard damage, an auxiliary wood fence can be mounted to your saw as follows:

Holes are provided in the fence to attach an auxiliary fence (A) and (B) Fig. 36. This auxiliary fence is constructed of straight wood approximately 1/4" thick by 3/4" high by 16 inches long as shown at (B); and 1/2" thick by 5" high by 17" long (A) Fig. 36.

NOTE: The auxiliary fence (A) is used **only** with the saw blade in the 0 degree bevel position (90 degrees) to the table. The auxiliary fence must be removed for all bevel cuts (blade tilted).

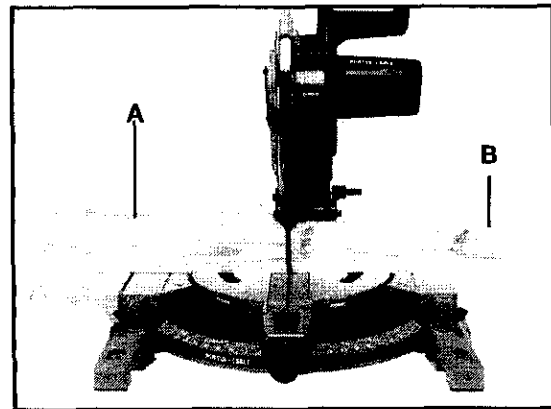


Fig. 36

CUTTING ALUMINUM

Aluminum extrusions (aluminum screens and storm windows) can easily be cut with your miter saw. When cutting aluminum extrusions, or other sections that can be cut with a saw blade and are within the capacity of the machine, position the material so the blade is cutting through the smallest cross-section, as shown in Fig. 37. The wrong way to cut aluminum angles is illustrated in Fig. 38. Be sure to apply a stick wax (similar to Johnson's stick wax #140) to the blade before cutting any aluminum stock. This stick wax is available at most industrial mill supply houses. The stick wax provides proper lubrication and keeps chips from adhering to the blade. **NEVER APPLY LUBRICANT TO THE BLADE WHILE THE MACHINE IS RUNNING.**

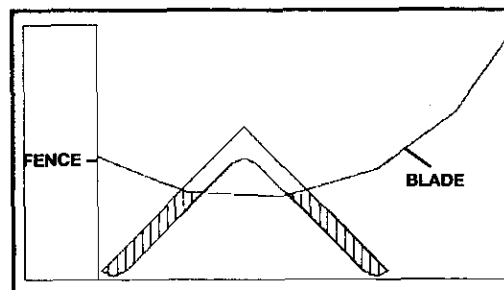


Fig. 37

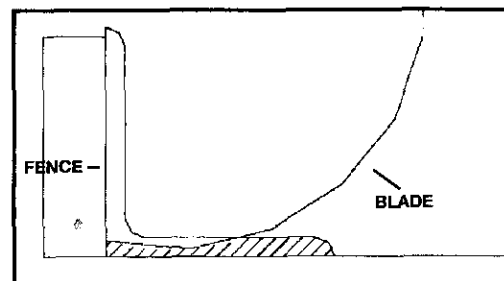


Fig. 38

CUTTING BOWED MATERIAL

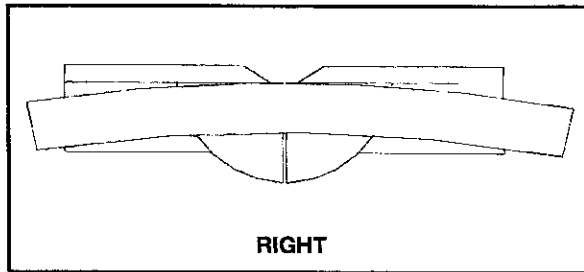


Fig. 39

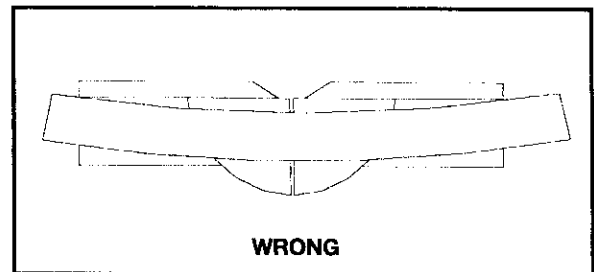


Fig. 40

1. When cutting flat pieces, first check to see if the material is bowed. If it is, make sure the material is positioned on the table as shown in Fig. 39.
2. If the material is positioned the wrong way, as shown in Fig. 40, the workpiece will pinch the blade near the completion of the cut.

CONSTRUCTING WORK SUPPORT EXTENSIONS

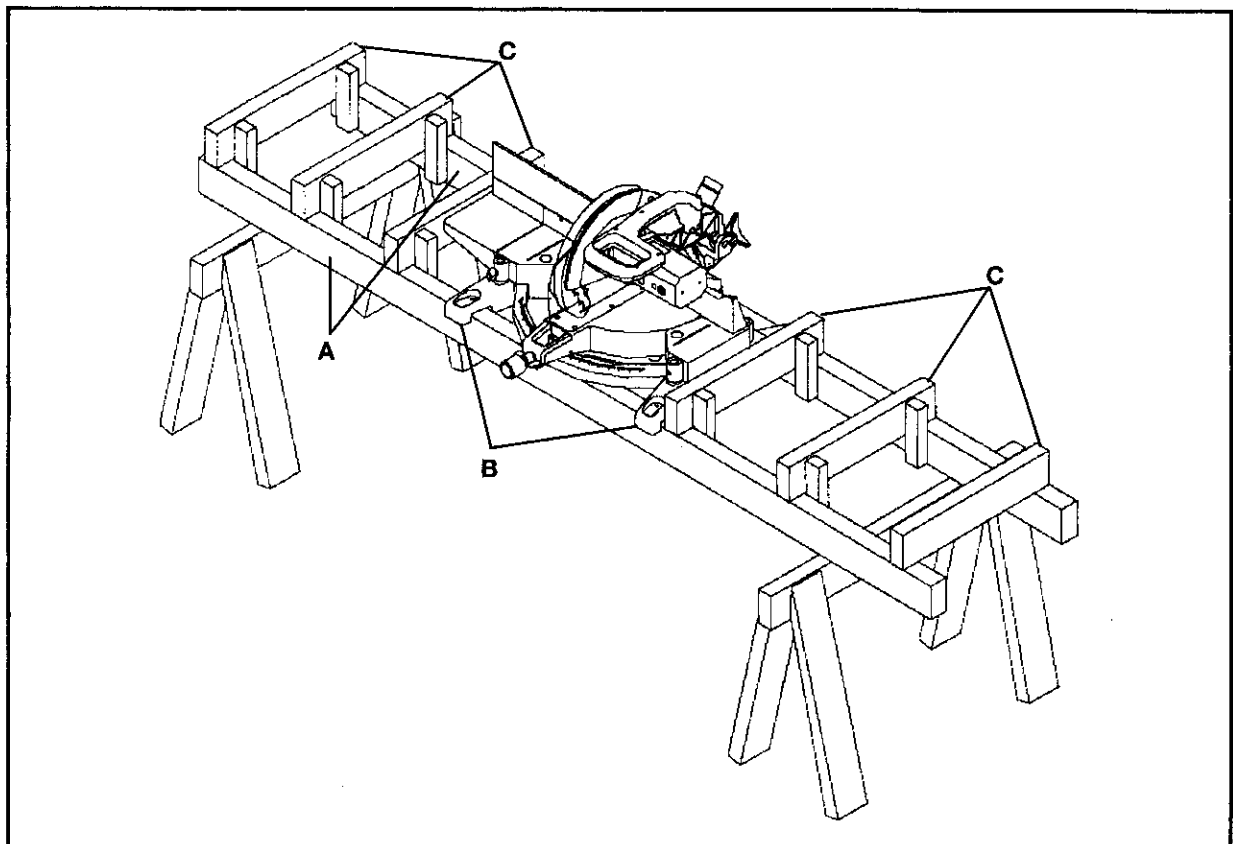


Fig. 41

One of the unique features of the miter saw is the ease of constructing work supports. Fig. 41 illustrates the miter saw mounted to two standard 2 x 4's (A). Fasten the grooves in the two mounting legs (B), to the 2 x 4's, using four screws through the four holes in the mounting legs. The length of the 2 x 4's (A) can vary, depending on preference. The distance from the top of the 2 x 4's (A) to the compound miter saw table $3 \frac{1}{4}$ ". Standard 2 x 4's (C) can then be fastened to the top of the 2 x 4's (A). The top of the 2 x 4's (C) will then be the same height as the miter saw table, or minor adjustments can easily be made depending on the height of the 2 x 4's. This method will provide support for long workpieces using standard 2 x 4's instead of constructing an expensive, complicated work support.

CUTTING CROWN MOULDING

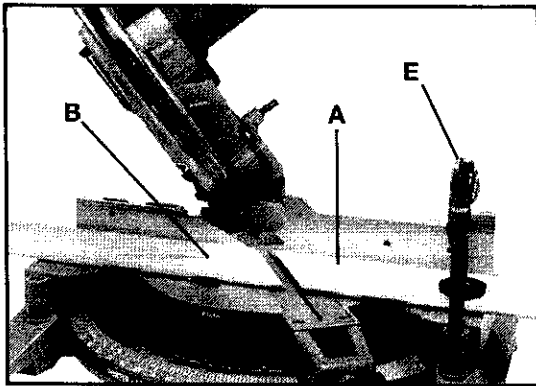


Fig. 42

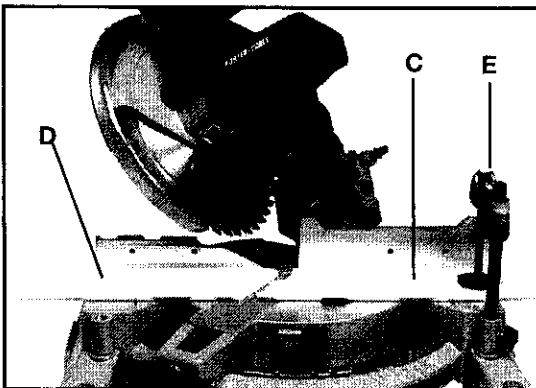


Fig. 43

One of the many features of the saw is the ease of cutting crown moulding. The following is an example of cutting both inside and outside corners on 52/38 degree wall angle crown moulding.

NOTE: The following procedure for inside or outside crown molding corners is the same with the exception that the bevel position will always be at 30 degrees and the miter position will be 35-1/4 degrees to the right or left.

1. Move the table to the 31-5/8th degree right miter position and lock the table in position.

NOTE: A positive stop is provided to find this angle quickly.

2. Tilt the saw blade to the 33-7/8 degree left bevel position and tighten bevel lock handle.

NOTE: A triangle indicator is provided on the bevel scale to find this angle quickly.

3. Place the crown moulding on the table with the **CEILING EDGE** of the moulding against the fence, and make the cut, as shown in Fig. 42.

NOTE: The piece of crown moulding used for the outside corner will always be on the right hand side of the blade, as shown at (A) Fig. 42. The piece of crown moulding used for the inside corner will always be on the left hand side of the blade, as shown at (B) Fig. 42. Note that the accessory work clamp (E) is being used to hold the workpiece in position.

4. To make the matching halves of the inside and outside corners, simply rotate the table to the 31-5/8 degree left miter position.

NOTE: A positive stop is provided to find this angle quickly. The saw blade is already tilted to the 33-7/8 degree bevel position from the previous cut.

5. Place the crown moulding on the table with the **WALL EDGE** of the crown moulding against the fence and make the cut. Again, the piece of crown moulding used for the outside corner will always be on the right side of the blade, as shown at (C) Fig. 43. The piece of crown moulding used for the inside corner will always be on the left side of the blade, as shown at (D) Fig. 43. Again, the accessory work clamp (E) is being used to hold the workpiece in position.

6. Fig. 44 illustrates the two outside corner pieces; (1) being the piece cut at (D) Fig. 43 and (2) being the piece cut at (C) Fig. 43.

7. Fig. 45 illustrates the two inside corner pieces; (1) being the piece cut at (B) Fig. 42, and (2) being the piece cut at (A) Fig. 42.

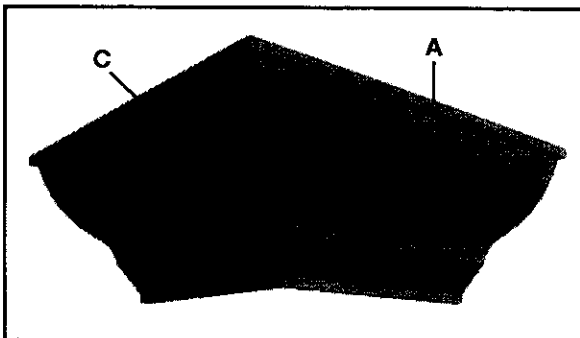


Fig. 44

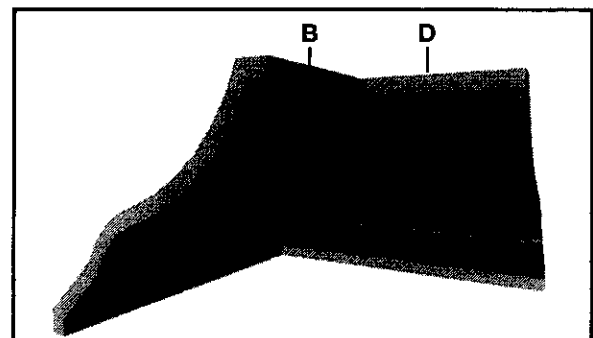


Fig. 45

MAINTENANCE

CHANGING THE BLADE

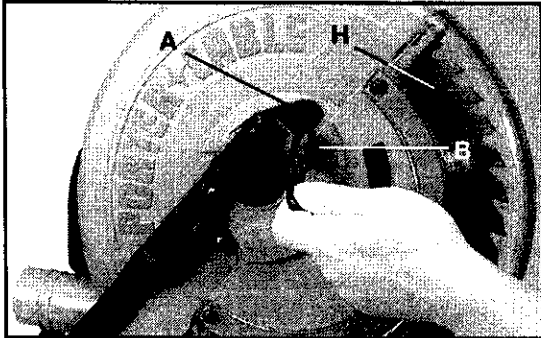


Fig. 46

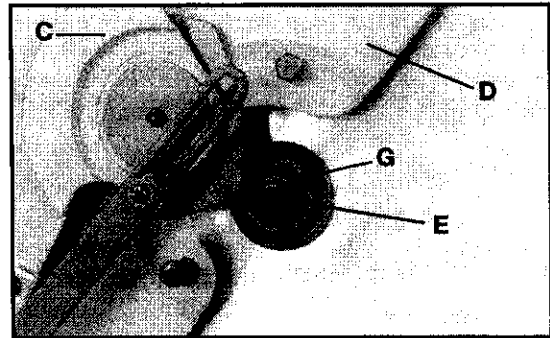


Fig. 47

WARNING: USE ONLY CROSS-CUTTING SAW BLADES. DO NOT USE BLADES WITH DEEP GULLETS AS THEY CAN DEFLECT AND CONTACT GUARD

1. Use only 12" diameter blades with 1" arbor holes that are rated for 4200 RPM or higher.
2. **DISCONNECT MACHINE FROM THE POWER SOURCE.**
3. Loosen screw (A) Fig. 46, with wrench (B) (provided).
4. Rotate arbor cover (C) Fig. 47, and lower guard (D) Fig. 47, to the rear, exposing arbor screw (E).
5. Remove arbor screw (E) Fig. 47, by turning screw clockwise with wrench (supplied), while at the same time, pressing in on arbor lock (F) Fig. 48, to keep the arbor from turning. Remove outside blade flange (G) Fig. 47, and saw blade (H) Fig. 46. **DO NOT REMOVE INSIDE BLADE FLANGE.**
6. Attach the new saw blade **MAKING CERTAIN TEETH OF SAW BLADE ARE POINTING DOWN AT THE FRONT**, and attach outside blade flange (G) Fig. 47. Check to see that the flats on outside blade flange are engaged with flats on arbor shaft.
7. Thread arbor screw (E) Fig. 47, into saw arbor by turning screw (E) counterclockwise as far as possible by hand. Then tighten arbor screw (E) with wrench supplied while at the same time pressing in on arbor lock (F) Fig. 48, to keep arbor from turning.
8. Rotate arbor cover (C) Fig. 47, and lower guard (D) to the front and tighten screw (A) that was loosened in **STEP 3.**

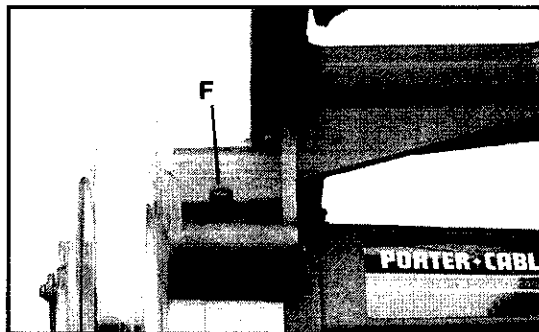


Fig. 48

BRUSH INSPECTION AND REPLACEMENT

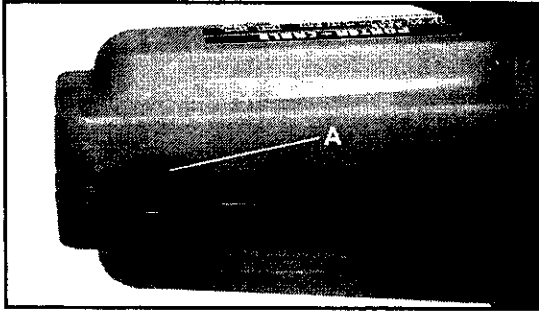


Fig. 49

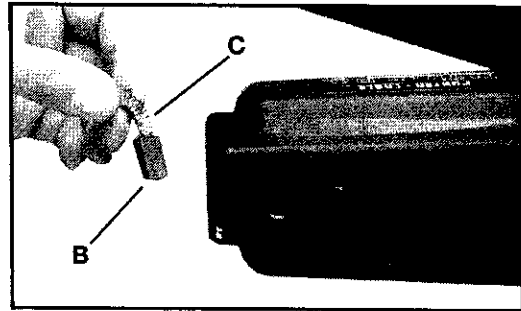


Fig. 50

CAUTION: BEFORE INSPECTING BRUSHES, DISCONNECT THE MACHINE FROM THE POWER SOURCE.

Brush life varies, depends on the load on the motor. Check the brushes after the first 50 hours of use of a new machine, or after a new set of brushes has been installed.

After the first check, examine them after about 10 hours of use, until replacement is necessary.

The brush holders (A) Fig. 49, are located on the motor housing opposite each other. Fig. 50, illustrates one of the brushes removed for inspection. When the carbon on either brush (B) is worn to 3/16" in length, or if either spring or shunt wire (C) is burned or damaged in any way, replace both brushes. If the brushes are found serviceable after removing, reinstall them in the same position.

KEEP TOOL CLEAN

Periodically blow out all air passages with dry compressed air. Clean all plastic parts with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material.

CAUTION: WEAR SAFETY GLASSES WHILE USING COMPRESSED AIR.

FAILURE TO START

Should your tool fail to start, check to make sure the prongs on the cord plug are making good contact with the outlet. Also, check for blown fuses or open circuit breakers in the line.

SERVICE AND REPAIRS

All quality tools will eventually require servicing or replacement of parts due to wear from normal use. These operations should ONLY be performed by either an AUTHORIZED PORTER-CABLE SERVICE STATION or a PORTER-CABLE SERVICE CENTER. All repairs made by these agencies are fully guaranteed against defective material and workmanship. We cannot guarantee repairs made or attempted by anyone other than these agencies.

Should you have any questions about your tool, feel free to write us at any time. In any communication, please give all information shown on the nameplate of your tool (model number, type, serial number, etc.).

PORTER-CABLE LIMITED ONE YEAR WARRANTY

Porter-Cable warrants its Professional Power Tools for a period of one year from the date of original purchase. We will repair or replace, at our option, any part or parts of the product and accessories covered under this warranty which, after examination, proves to be defective in workmanship or material during the warranty period. For repair or replacement, return the complete tool or accessory, transportation prepaid, to your nearest Porter-Cable Service Center or Authorized Service Station. Proof of purchase may be required. This warranty does not apply to repair or replacement required due to misuse, abuse, normal wear and tear or repairs attempted or made by other than our Service Centers or Authorized Service Stations.

ANY IMPLIED WARRANTY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WILL LAST ONLY FOR ONE (1) YEAR FROM THE DATE OF PURCHASE.

To obtain information on warranty performance please write to: PORTER-CABLE CORPORATION, 4825 Highway 45 North, P.O. Box 2468, Jackson, Tennessee 38302-2468; Attention: Product Service. THE FOREGOING OBLIGATION IS PORTER-CABLE'S SOLE LIABILITY UNDER THIS OR ANY IMPLIED WARRANTY AND UNDER NO CIRCUMSTANCES SHALL PORTER-CABLE BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

NOTES

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**Parts and Repair Service for Porter-Cable Power Tools are Available at These Locations
(Obtenga Refaccion de Partes o Servicio para su Herramienta en los Sigüientes Centros de Porter-Cable)
(Locations où vous trouverez les pièces de rechange nécessaires ainsi qu'un service d'entretien)**

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2400 West Southern Avenue
Suite 105
Phone: (602) 437-1200
Fax: (602) 437-2200

CALIFORNIA

Ontario 91761 (Los Angeles)
3949A East Guasti Road
Phone: (909) 390-5555
Fax: (909) 390-5554

San Leandro 94577 (Oakland)
3039 Teagarden Street
Phone: (510) 357-9762
Fax: (510) 357-7939

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Denver 80216
5855 Stapleton Drive North
Suite A-140
Phone: (303) 370-6909
Fax: (303) 370-6969

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Unit #107
Phone: (954) 321-6635
Fax: (954) 321-6638

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4538 W. Kennedy Boulevard
Phone: (813) 877-9585
Fax: (813) 289-7948

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Fax: (404) 608-1123

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Fax: (630) 628-0023

Woodridge 60517 (Chicago)
2033 West 75th Street
Phone: (630) 910-9200
Fax: (630) 910-0360

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Elkridge 21075 (Baltimore)
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Phone: (410) 799-9394
Fax: (410) 799-9398

MASSACHUSETTS

Braintree 02185 (Boston)
719 Granite Street
Phone: (781) 848-9810
Fax: (781) 848-6759

Franklin 02038 (Boston)
Franklin Industrial Park
101E Constitution Blvd.
Phone: (508) 520-8802
Fax: (508) 528-8089

MICHIGAN

Madison Heights 48071 (Detroit)
30475 Stephenson Highway
Phone: (248) 597-5000
Fax: (248) 597-5004

MINNESOTA

Minneapolis 55429
4315 68th Avenue North
Phone: (612) 561-9080
Fax: (612) 561-0653

MISSOURI

North Kansas City 64116
1141 Swift Avenue
P.O. Box 12393
Phone: (816) 221-2070
Fax: (816) 221-2897

St. Louis 63119

7574 Watson Road
Phone: (314) 968-8950
Fax: (314) 968-2790

NEW YORK

Flushing 11365-1595 (N.Y.C.)
175-25 Horace Harding Expwy.
Phone: (718) 225-2040
Fax: (718) 423-9619

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Charlotte 28270
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Phone: (704) 841-1176
Fax: (704) 708-4625

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Phone: (614) 263-0929
Fax: (614) 263-1238

Cleveland 44125
8001 Sweet Valley Drive
Unit #19
Phone: (216) 447-9030
Fax: (216) 447-3097

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Willow Grove 19090
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Phone: (215) 658-1430
Fax: (215) 658-1433

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Nashville 37214
2262 Lebanon Pike
Phone: (615) 882-0320
Fax: (615) 882-0051

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Carrollton 75006 (Dallas)
1300 Interstate 35 N. Suite 112
Phone: (972) 446-2996
Fax: (972) 446-8157

Houston 77055
West 10 Business Center
1008 Wirt Road, Suite 120
Phone: (713) 682-0334
Fax: (713) 682-4867

WASHINGTON

Renton 98055 (Seattle)
268 Southwest 43rd Street
Phone: (425) 251-6680
Fax: (425) 251-9337

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DELTA SERVICE CENTERS

ALBERTA

Bay 6, 2520-23rd St. N.E.
Calgary, Alberta
T2E 8L2
Phone: (403) 735-6166
Fax: (403) 735-6144

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8520 Baxter Place
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V5A 4T8
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Fax: (604) 420-3522

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Guelph, Ontario
N1H 6M7
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