

10" Dual Bevel Compound Miter Saw (Model 36-585)



U. S. Patent #5,347,902

PART NO. 910638 - 01-30-04
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To learn more about DELTA MACHINERY
visit our website at: www.deltamachinery.com.

For Parts, Service, Warranty or other Assistance,

please call **1-800-223-7278** (In Canada call **1-800-463-3582**).

ESPAÑOL: PÁGINA 21

SAFETY GUIDELINES - DEFINITIONS

This manual contains information that is important for you to know and understand. This information relates to protecting YOUR SAFETY and PREVENTING EQUIPMENT PROBLEMS. To help you recognize this information, we use the symbols to the right. Please read the manual and pay attention to these sections.

- ▲ DANGER** Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.
- ▲ WARNING** Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
- ▲ CAUTION** Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.
- CAUTION** Used without the safety alert symbol indicates potentially hazardous situation which, if not avoided, may result in property damage.

▲ 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, always wear **MSHA/NIOSH** approved, properly fitting face mask or respirator when using such tools.

GENERAL SAFETY RULES



▲ WARNING **READ AND UNDERSTAND ALL WARNINGS AND OPERATING INSTRUCTIONS BEFORE USING THIS EQUIPMENT.** Failure to follow all instructions listed below, may result in electric shock, fire, and/or serious personal injury or property damage.

IMPORTANT SAFETY INSTRUCTIONS

Woodworking can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result. Safety equipment such as guards, push sticks, hold-downs, featherboards, goggles, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. Always use common sense and exercise caution in the workshop. If a procedure feels dangerous, don't try it. Figure out an alternative procedure that feels safer. **REMEMBER:** Your personal safety is your responsibility. For additional information please visit our website www.deltamachinery.com.

▲ WARNING This machine was designed for certain applications only. Delta Machinery strongly recommends that this machine not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, **DO NOT** use the machine until you have first contacted Delta to determine if it can or should be performed on the product.

Technical Service Manager
Delta Machinery
4825 Highway 45 North
Jackson, TN 38305
(IN CANADA: 505 SOUTHGATE DRIVE, GUELPH, ONTARIO N1H 6M7)

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

- 1. FOR YOUR OWN SAFETY, READ THE INSTRUCTION MANUAL BEFORE OPERATING THE MACHINE.** Learning the machine's application, limitations, and specific hazards will greatly minimize the possibility of accidents and injury.
- 2. USE CERTIFIED SAFETY EQUIPMENT.** Eye protection equipment should comply with ANSI Z87.1 standards, hearing equipment should comply with ANSI S3.19 standards, and dust mask protection should comply with MSHA/NIOSH certified respirator standards. Splinters, air-borne debris, and dust can cause irritation, injury, and/or illness.
- 3. DRESS PROPERLY.** Do not wear tie, gloves, or loose clothing. Remove watch, rings, and other jewelry. Roll up your sleeves. Clothing or jewelry caught in moving parts can cause injury.
- 4. DO NOT USE THE MACHINE IN A DANGEROUS ENVIRONMENT.** The use of power tools in damp or wet locations or in rain can cause shock or electrocution. Keep your work area well-lit to prevent tripping or placing arms, hands, and fingers in danger.
- 5. MAINTAIN ALL TOOLS AND MACHINES IN PEAK CONDITION.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Poorly maintained tools and machines can further damage the tool or machine and/or cause injury.
- 6. CHECK FOR DAMAGED PARTS.** Before using the machine, check for any damaged parts. Check for alignment of moving parts, binding of moving parts, breakage of parts, and any other conditions that may affect its operation. A guard or any other part that is damaged **should be properly repaired or replaced.** Damaged parts can cause further damage to the machine and/or injury.
- 7. KEEP THE WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
- 8. KEEP CHILDREN AND VISITORS AWAY.** Your shop is a potentially dangerous environment. Children and visitors can be injured.
- 9. REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure that the switch is in the "OFF" position before plugging in the power cord. In the event of a power failure, move the switch to the "OFF" position. An accidental start-up can cause injury.
- 10. USE THE GUARDS.** Check to see that all guards are in place, secured, and working correctly to prevent injury.
- 11. REMOVE ADJUSTING KEYS AND WRENCHES BEFORE STARTING THE MACHINE.** Tools, scrap pieces, and other debris can be thrown at high speed, causing injury.
- 12. USE THE RIGHT MACHINE.** Don't force a machine or an attachment to do a job for which it was not designed. Damage to the machine and/or injury may result.
- 13. USE RECOMMENDED ACCESSORIES.** The use of accessories and attachments not recommended by Delta may cause damage to the machine or injury to the user.
- 14. USE THE PROPER EXTENSION CORD.** 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 your product will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. See the Extension Cord Chart for the correct size depending on the cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
- 15. SECURE THE WORKPIECE.** Use clamps or a vise to hold the workpiece when practical. Loss of control of a workpiece can cause injury.
- 16. FEED THE WORKPIECE AGAINST THE DIRECTION OF THE ROTATION OF THE BLADE, CUTTER, OR ABRASIVE SURFACE.** Feeding it from the other direction will cause the workpiece to be thrown out at a high speed.
- 17. DON'T FORCE THE WORKPIECE ON THE MACHINE.** Damage to the machine and/or injury may result.
- 18. DON'T OVERREACH.** Loss of balance can make you fall into a working machine, causing injury.
- 19. NEVER STAND ON THE MACHINE.** Injury could occur if the tool tips, or if you accidentally contact the cutting tool.
- 20. NEVER LEAVE THE MACHINE RUNNING UNATTENDED. TURN THE POWER OFF.** Don't leave the machine until it comes to a complete stop. A child or visitor could be injured.
- 21. TURN THE MACHINE "OFF", AND DISCONNECT THE MACHINE FROM THE POWER SOURCE** before installing or removing accessories, before adjusting or changing set-ups, or when making repairs. An accidental start-up can cause injury.
- 22. MAKE YOUR WORKSHOP CHILDPROOF WITH PADLOCKS, MASTER SWITCHES, OR BY REMOVING STARTER KEYS.** The accidental start-up of a machine by a child or visitor could cause injury.
- 23. STAY ALERT, WATCH WHAT YOU ARE DOING, AND USE COMMON SENSE. DO NOT USE THE MACHINE WHEN YOU ARE TIRED OR UNDER THE INFLUENCE OF DRUGS, ALCOHOL, OR MEDICATION.** A moment of inattention while operating power tools may result in injury.
- 24. THE DUST GENERATED** by certain woods and wood products can be injurious to your health. Always operate machinery in well-ventilated areas, and provide for proper dust removal. Use wood dust collection systems whenever possible.

ADDITIONAL SAFETY RULES FOR MITER SAWS

▲WARNING

FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS INJURY.

1. **DO NOT OPERATE THIS MACHINE** until it is completely assembled and installed according to the instructions. A machine incorrectly assembled can cause serious injury.
2. **OBTAIN ADVICE** from your supervisor, instructor, or another qualified person if you are not thoroughly familiar with the operation of this machine. Knowledge is safety.
3. **FOLLOW ALL WIRING CODES** and recommended electrical connections to prevent shock or electrocution.
4. **SECURE THE MACHINE TO A SUPPORTING SURFACE.** Vibration can possibly cause the machine to slide, walk, or tip over, causing serious injury.
5. **USE ONLY CROSSCUT SAW BLADES.** Use only zero-degree or negative hook angles when using carbide-tipped blades. Do not use blades with deep gullets. These can deflect and contact the guard, and can cause damage to the machine and/or serious injury.
6. **USE ONLY BLADES OF THE CORRECT SIZE AND TYPE** specified for this tool to prevent damage to the machine and/or serious injury.
7. **USE A SHARP BLADE.** Check the blade to see if it runs true and is free from vibration. A dull blade or a vibrating blade can cause damage to the machine and/or serious injury.
8. **INSPECT BLADE FOR CRACKS** or other damage prior to operation. A cracked or damaged blade can come apart and pieces can be thrown at high speeds, causing serious injury. Replace cracked or damaged blades immediately.
9. **CLEAN THE BLADE AND BLADE FLANGES** prior to operation. Cleaning the blade and flanges allows you to check for any damage to the blade or flanges. A cracked or damaged blade or flange can come apart and pieces can be thrown at high speeds, causing serious injury.
10. **USE ONLY BLADE FLANGES** specified for this tool to prevent damage to the machine and/or serious injury.
11. **CLEAR THE AREA OF FLAMMABLE LIQUIDS** and/or gas prior to operation. Sparks can occur that would ignite the liquids and cause a fire or an explosion.
12. **CLEAN THE MOTOR AIR SLOTS** of chips and sawdust. Clogged motor air slots can cause the machine to overheat, damaging the machine and possibly causing a short which could cause serious injury.
13. **TIGHTEN THE TABLE CLAMP HANDLE** and any other clamps prior to operation. Loose clamps can cause parts or the workpiece to be thrown at high speeds.
14. **NEVER START THE TOOL** with the blade against the workpiece. The workpiece can be thrown, causing serious injury.
15. **KEEP ARMS, HANDS, AND FINGERS** away from the blade to prevent severe cuts. Clamp all workpieces that would cause your hand to be in the "Table Hazard Zone" (within the red lines).
16. **WHEN CUTTING WITH A COMPOUND SLIDING MITER SAW, PUSH THE SAW FORWARD (AWAY FROM YOU)** and toward the fence. Pulling the saw toward you can cause the saw to kick upward and toward you.
17. **WHEN USING A SLIDING MITER SAW AS A REGULAR MITER SAW, LOCK THE SLIDE MECHANISM IN PLACE.** If the slide mechanism is not locked, the saw can kick back toward you.
18. **ALLOW THE MOTOR TO COME TO FULL SPEED** prior to starting cut. Starting the cut too soon can cause damage to the machine or blade and/or serious injury.
19. **NEVER REACH AROUND** or behind the saw blade. A moving blade can cause serious injury.
20. **NEVER CUT FERROUS METALS** or masonry. Either of these can cause the carbide tips to fly off the blade at high speeds causing serious injury.
21. **NEVER CUT SMALL PIECES.** Cutting small pieces can cause your hand to move into the blade, resulting in serious injury.
22. **NEVER LOCK THE SWITCH** in the "ON" position. Setting up the next cut could cause your hand to move into the blade, resulting in severe injury.
23. **NEVER APPLY LUBRICANT** to a running blade. Applying lubricant could cause your hand to move into the blade, resulting in serious injury.
24. **DO NOT PERFORM FREE-HAND OPERATIONS.** Hold the work firmly against the fence and table. Free-hand operations on a miter saw could cause the workpiece to be thrown at high speeds, causing serious injury. Use clamps to hold the work when possible.
25. **PROPERLY SUPPORT LONG OR WIDE WORKPIECES.** Loss of control of the workpiece can cause serious injury.
26. **AFTER COMPLETING CUT,** release power switch and wait for coasting blade to come to a complete stop before returning saw to raised position. A moving blade can cause serious injury.
27. **TURN OFF THE MACHINE** and allow the blade to come to a complete stop prior to cleaning the blade area or removing debris in the path of the blade. A moving blade can cause serious injury.
28. **TURN OFF MACHINE** and allow the blade to come to a complete stop before removing or securing workpiece, changing workpiece angle, or changing the angle of the blade. A moving blade can cause serious injury.
29. **PROPERLY SUPPORT LONG OR WIDE WORKPIECES.** Loss of control of the workpiece can cause injury.
30. **NEVER PERFORM LAYOUT, ASSEMBLY, OR SET-UP WORK** on the table/work area when the machine is running. A sudden slip could cause a hand to move into the blade. Severe injury can result.
31. **TURN THE MACHINE "OFF",** disconnect the machine from the power source, and clean the table/work area before leaving the machine. **LOCK THE SWITCH IN THE "OFF" POSITION** to prevent unauthorized use. Someone else might accidentally start the machine and cause injury to themselves.
32. **BEFORE OPERATING THE SAW,** check and securely lock the bevel, miter, and sliding fence adjustments.
33. **ADDITIONAL INFORMATION** regarding the safe and proper operation of power tools (i.e. a safety video) is available from the Power Tool Institute, 1300 Sumner Avenue, Cleveland, OH 44115-2851 (www.powertoolinstitute.com). Information is also available from the National Safety Council, 1121 Spring Lake Drive, Itasca, IL 60143-3201. Please refer to the American National Standards Institute ANSI O1.1 Safety Requirements for Woodworking Machines and the U.S. Department of Labor regulations.

SAVE THESE INSTRUCTIONS.

**Refer to them often
and use them to instruct others.**

04-24-03

POWER CONNECTIONS

A separate electrical circuit should be used for your machines. This circuit should not be less than #12 wire and should be protected with a 20 Amp time lag fuse. If an extension cord is used, use only 3-wire extension cords which have 3-prong grounding type plugs and matching receptacle which will accept the machine's plug. Before connecting the machine 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 indicated on the machine. All line connections should make good contact. Running on low voltage will damage the machine.

⚠ DANGER DO NOT EXPOSE THE MACHINE TO RAIN OR OPERATE THE MACHINE IN DAMP LOCATIONS.

MOTOR SPECIFICATIONS

Your machine is wired for 120 volt, 60 HZ alternating current. Before connecting the machine to the power source, make sure the switch is in the "OFF" position.

GROUNDING INSTRUCTIONS

⚠ DANGER THIS MACHINE MUST BE GROUNDED WHILE IN USE TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK.

1. All grounded, cord-connected machines:

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This machine is equipped with an electric cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Do not modify the plug provided - if it will not fit the outlet, have the proper outlet installed by a qualified electrician.

Improper connection of the equipment-grounding conductor can result in risk of electric shock. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the machine is properly grounded.

Use only 3-wire extension cords that have 3-prong grounding type plugs and matching 3-conductor receptacles that accept the machine's plug, as shown in Fig. A.

Repair or replace damaged or worn cord immediately.

2. Grounded, cord-connected machines intended for use on a supply circuit having a nominal rating less than 150 volts:

If the machine is intended for use on a circuit that has an outlet that looks like the one illustrated in Fig. A, the machine will have a grounding plug that looks like the plug illustrated in Fig. A. A temporary adapter, which looks like the adapter illustrated in Fig. B, may be used to connect this plug to a matching 2-conductor receptacle as shown in Fig. B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green-colored rigid ear, lug, and the like, extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box. Whenever the adapter is used, it must be held in place with a metal screw.

NOTE: In Canada, the use of a temporary adapter is not permitted by the Canadian Electric Code.

⚠ DANGER IN ALL CASES, MAKE CERTAIN THAT THE RECEPTACLE IN QUESTION IS PROPERLY GROUNDED. IF YOU ARE NOT SURE, HAVE A QUALIFIED ELECTRICIAN CHECK THE RECEPTACLE.

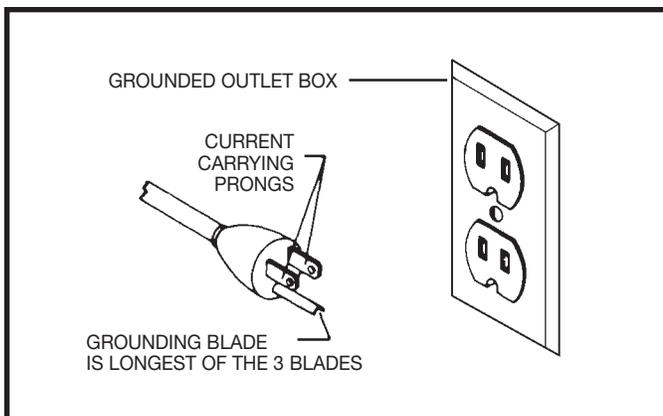


Fig. A

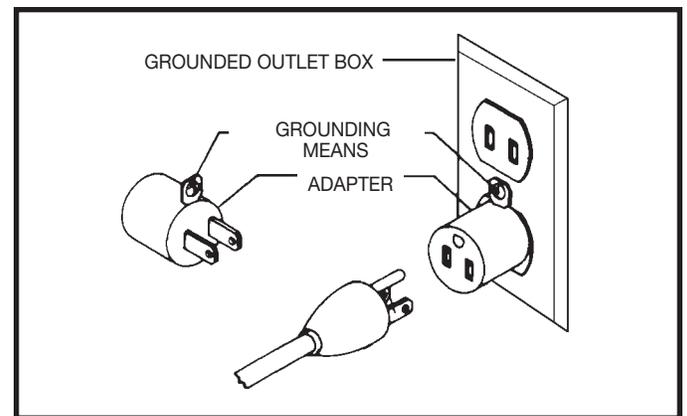


Fig. B

EXTENSION CORDS

CAUTION Use proper extension cords. Make sure your extension cord is in good condition and is a 3-wire extension cord which has a 3-prong grounding type plug and matching receptacle which will accept the machine's plug. When using an extension cord, be sure to use one heavy enough to carry the current of the machine. An undersized cord will cause a drop in line voltage, resulting in loss of power and overheating. Fig. D, 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			
<small>RECOMMENDED SIZES FOR USE WITH STATIONARY ELECTRIC MACHINES</small>			
Ampere Rating	Volts	Total Length of Cord in Feet	Gauge of Extension Cord
0-6	120	up to 25	18 AWG
		25-50	16 AWG
		50-100	16 AWG
		100-150	14 AWG
6-10	120	up to 25	18 AWG
		25-50	16 AWG
		50-100	14 AWG
		100-150	12 AWG
10-12	120	up to 25	16 AWG
		25-50	16 AWG
		50-100	14 AWG
		100-150	12 AWG
12-16	120	up to 25	14 AWG
		25-50	12 AWG
		GREATER THAN 50 FEET NOT RECOMMENDED	

Fig. D

FUNCTIONAL DESCRIPTION

FOREWORD

Delta Model 36-585 is a 10" Dual Bevel Compound Miter Saw designed to cut wood, plastic, and aluminum. Bevel and miter angle cutting is easy and accurate. It can crosscut up to 5-5/8" x 2-9/16" at the 90° position, miter at 45°, both left and right 4-1/8" x 2-3/8", bevel at 45° left 5-7/8" x 1-9/16", bevel at 45° right 5-1/2" x 3/4", and compound 45° x 45° 4-2/16" x 3/4". It has positive miter stops at 0°, 22.5°, 31.62°, and 45° degrees both left and right, and adjustable bevel stops at 0° and 45° left and right.

UNPACKING AND CLEANING

Carefully unpack the machine and all loose items from the shipping container. Remove the protective coating from all unpainted surfaces. This coating may be removed with a soft cloth moistened with kerosene (do not use acetone, gasoline or lacquer thinner for this purpose). After cleaning, cover the unpainted surfaces with a good quality household floor paste wax.

NOTICE: The manual cover photo illustrates the current production model. All other illustrations are representative only and may not depict the actual color, labeling, or accessories and are intended to illustrate technique only.

CARTON CONTENTS

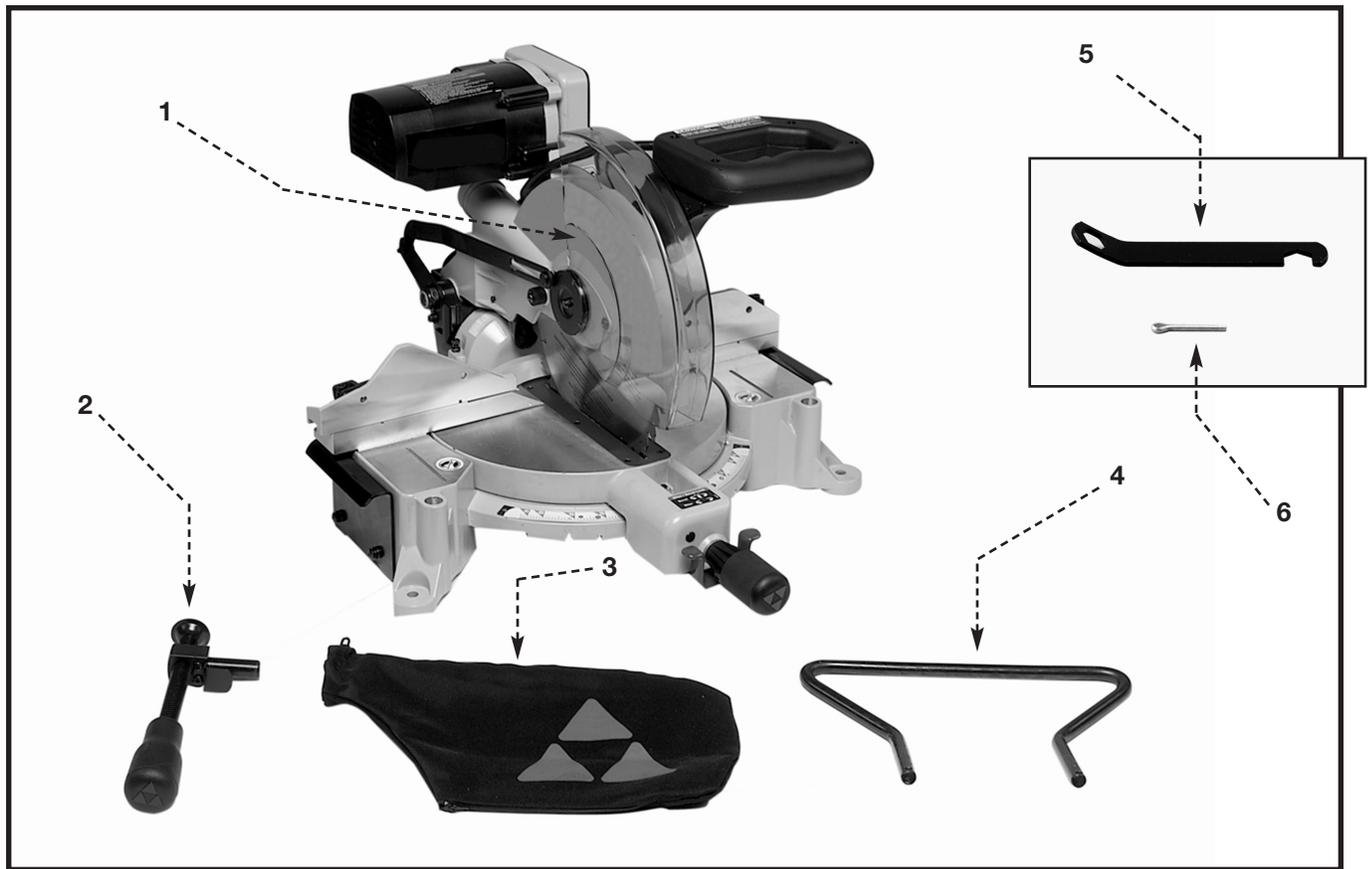


Fig. 2

Remove the miter saw and all loose items from the carton.

CAUTION

Lifting the miter saw by the switch handle can cause misalignment. Always lift the machine by the base or the carrying handle (4) Fig. 2).

- | | |
|---------------|----------------------------------------------|
| 1. Miter Saw | 4. Rear Support/Stabilizer & Carrying Handle |
| 2. Work Clamp | 5. 1/2" Arbor Nut Wrench |
| 3. Dust Bag | 6. Cotter Pin (2) |

ASSEMBLY

WARNING

For your own safety, do not connect the machine to the power source until the machine is completely assembled and you read and understand the entire instruction manual.

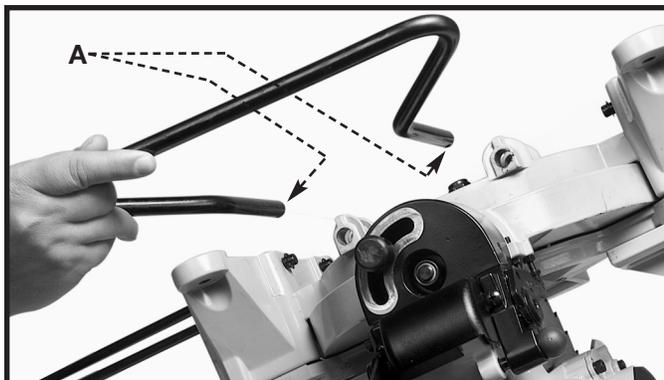


Fig. 3

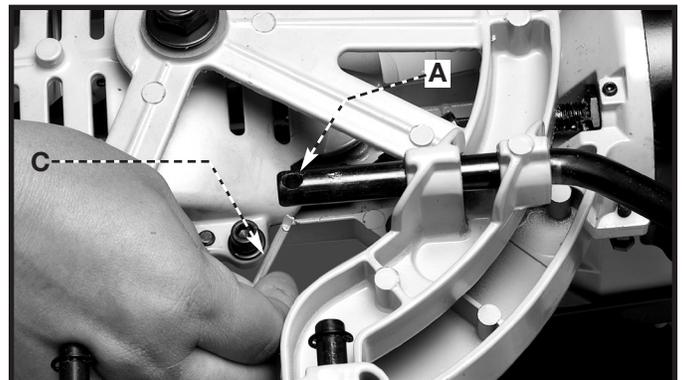


Fig. 4

REAR SUPPORT/STABILIZER & CARRYING HANDLE

1. Insert the two ends (A) Fig. 3 of the rear support/stabilizer and carrying handle through the two holes (B) in the back of the base.
2. Insert the cotter pin (C) Fig. 4 through the bottom of the hole in the rear support/stabilizer and carrying handle (A) and bend the two pins (B) on the back. (Fig. 5). Repeat this process for the remaining hole in the rear support/carrying handle.

⚠ WARNING Leave the rear support **FULLY** extended during all cutting operations. Push the rear support in only when storing the machine.

DUST BAG

Depress the **dust bag** spring clips (A) Fig. 6, and secure the dust bag (B) between the ridges of the spout (C).



Fig. 5

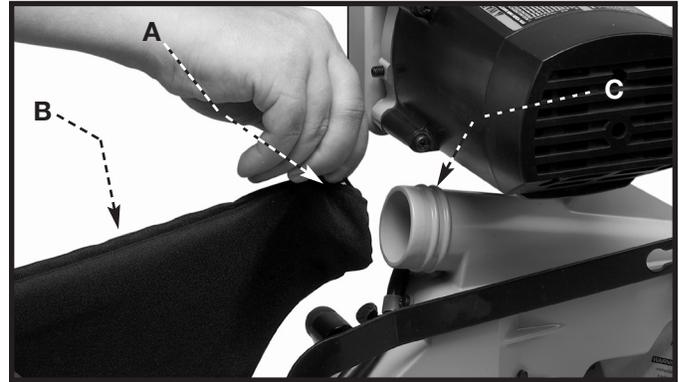


Fig. 6

WORK CLAMP

Two holes (A) and (B) Fig. 7 are provided in the base of the miter saw for attaching the work clamp. Place the shaft of the work clamp in either hole (A) or (B) with the clamp cup (C) facing toward the fence (D).

⚠ WARNING If the position or size of the workpiece causes your hand to be in the “Hazard Zone” of the saw blade (See the section “HAZARD ZONE”), use the work clamp to secure the workpiece. **KEEP YOUR HANDS OUT OF THE HAZARD ZONE.**

FASTENING MACHINE TO SUPPORTING SURFACE

Before operating your miter saw, firmly mount it to a sturdy workbench or other supporting surface. Four holes are provided, two of which are shown at (A) Fig. 8.

When frequently moving the saw from place to place, mount the machine to a 3/4" piece of plywood. Clamp the plywood to a supporting surface using “C” clamps.

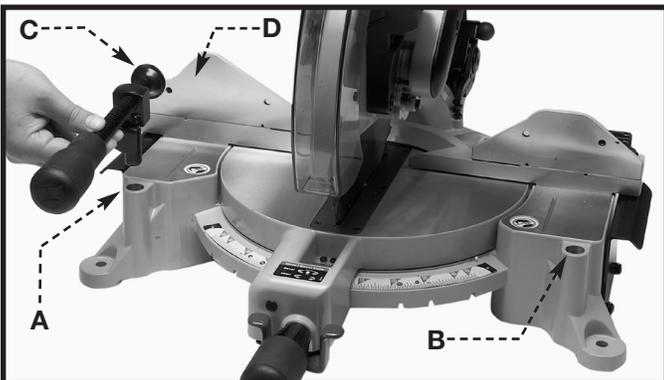


Fig. 7

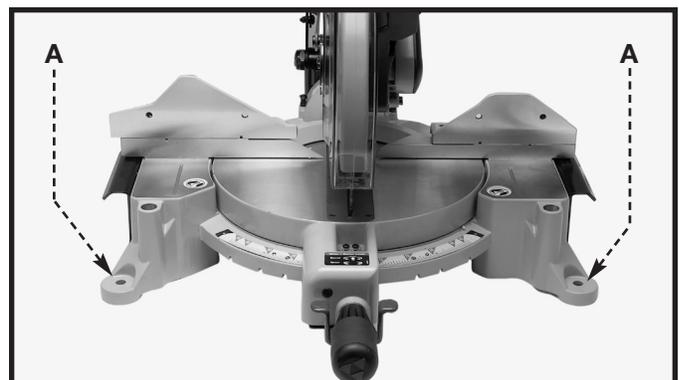


Fig. 8

OPERATING CONTROLS AND ADJUSTMENTS

HAZARD ZONE

⚠ WARNING The area inside the two red lines (A) Fig. 9 on the table is designated as a “Hazard Zone”. NEVER place your hands inside this area while the machine is running.

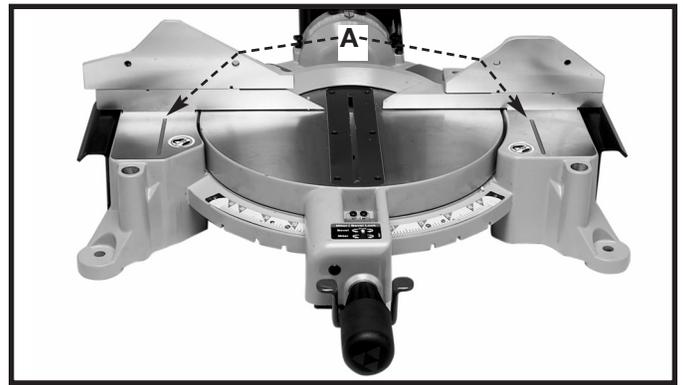


Fig. 9

STARTING AND STOPPING MITER SAW



Fig. 10

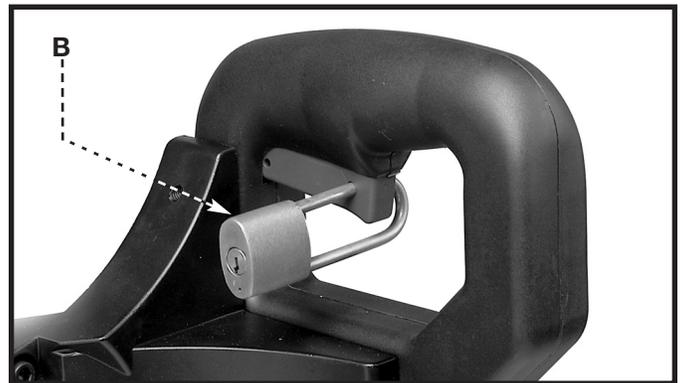


Fig. 11

To start the miter saw, depress the switch trigger (A) Fig. 10. To stop the miter saw, 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 activates and stops the blade in seconds.

⚠ WARNING A turning saw blade can be dangerous. After completing the cut, release the switch trigger (A) Fig. 10 to activate the blade brake. Keep the cuttinghead down until the blade has come to a complete stop.

⚠ WARNING The torque developed during braking may loosen the arbor screw. Check the arbor screw periodically and tighten 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.

MOVING CUTTINGHEAD TO THE UP POSITION

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Push the switch handle (A) Fig. 12 down, and pull out the cuttinghead lock knob (B).
2. Move the cuttinghead (C) Fig. 13 to the up position.



Fig. 12

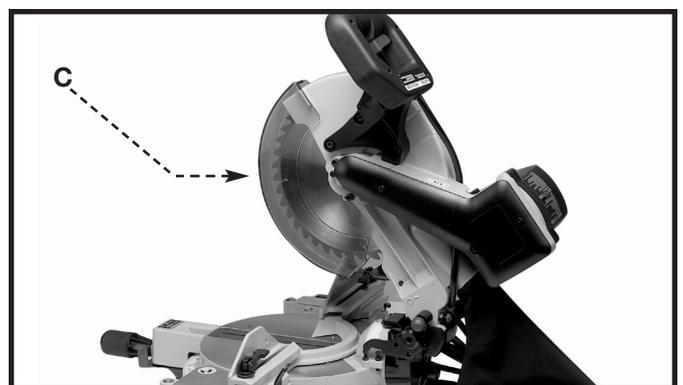


Fig. 13

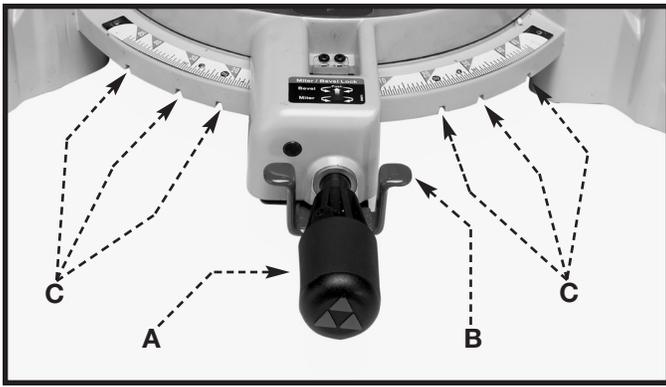


Fig. 14

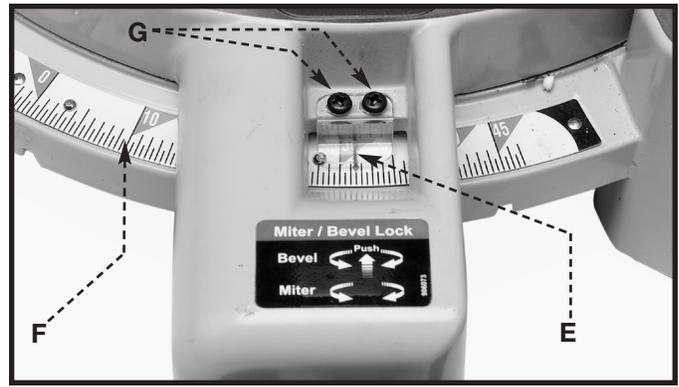


Fig. 15

ROTATING TABLE FOR MITER CUTTING

Your miter saw will cut any angle from 90° to 47°, right and left. Pull out on the lock handle (A) Fig. 14. Turn the lock handle one or two turns counter-clockwise, depress the index lever (B), and move the table to the desired angle. Turn the lock handle (A) Fig. 14 clockwise to tighten.

The miter saw is equipped with positive stops at the 0°, 22.5°, 31.62°, and 45° right and left positions. Loosen the lock handle (A) Fig. 14, and move the table until the bottom of the index lever (B) engages into one of the positive stops (six are shown at (C) Fig. 14). Tighten the lock handle.(A). To disengage the positive stop, loosen the lock handle and depress the index lever (B).

Additionally, a triangle indicator and positive stop are provided on the miter scale at the 31.62° right and left miter positions for cutting crown moulding. (Refer to the “**CUTTING CROWN MOULDING**” section of this manual).

POINTER AND SCALE

An indicator (E) Fig. 15 shows the angle of cut. Each line on the scale (F) represents 1/2 degree. When you move the indicator from one line to the next on the scale, you change the angle of cut by 1/2 degree.

ADJUSTING POINTER

To adjust the indicator (E) Fig. 15, loosen the screws (G), adjust the indicator (E), and tighten the screws.

TILTING CUTTINGHEAD FOR BEVEL CUTTING

The cuttinghead of your saw can be tilted to cut any bevel angle from 90° to 45°, left or right. Push in and turn the lock handle (A) Fig. 16 counter-clockwise. Tilt the cuttinghead to the desired angle and tighten the lock handle (A) Fig. 16 clockwise.

NOTE: To tilt the cuttinghead to the right, move the stop arm (B) Fig. 17 down.

Positive stops can rapidly position the saw blade at 90° and 45° to the table. Refer to the section of this manual entitled “**ADJUSTING 90° AND 45° BEVEL STOPS**”. Use the pointer (C) Fig. 17 on the scale (D) to determine the angle.

Additionally, a triangle indicator is provided on the bevel scale at the 33.85° bevel angle for cutting crown moulding. Refer to the “**CUTTING CROWN MOULDING**” section of this manual.



Fig. 16

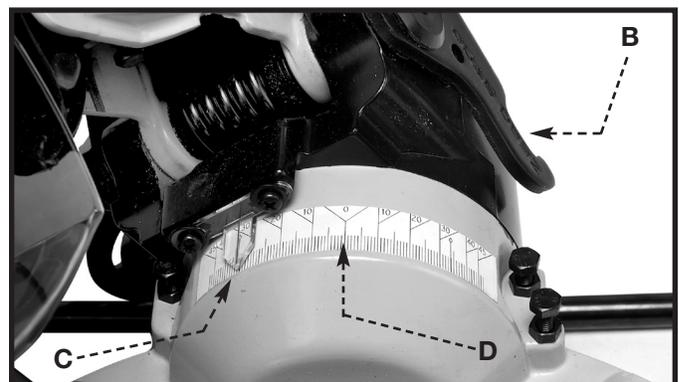


Fig. 17

⚠ WARNING ALWAYS tighten the bevel lock handle (A) FIG. 16 securely before operating the saw.

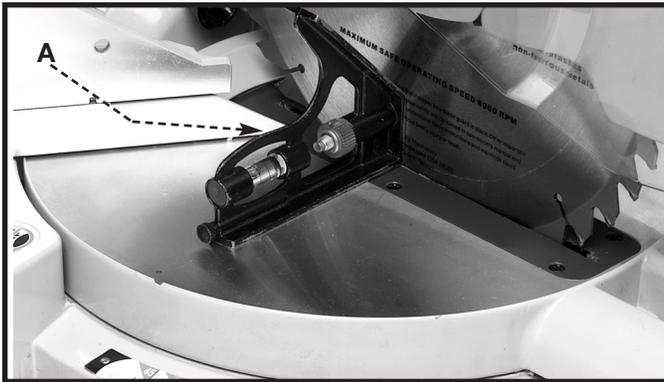


Fig. 18



Fig. 19



Fig. 20

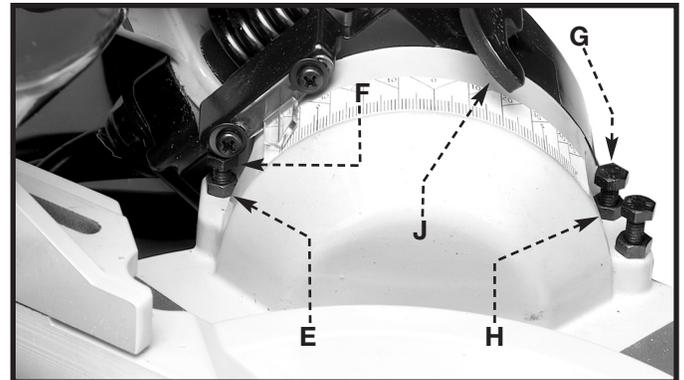


Fig. 21

ADJUSTING 90° AND 45° DEGREE BEVEL STOPS

⚠ WARNING DISCONNECT MACHINE FROM POWER SOURCE.

1. Lock the machine in the “down” position.
2. Place one end of a square (A) Fig. 18 on the table and the other end against the blade. Verify that the blade is 90° to the table (Fig. 18).
3. To adjust, push in and turn the lock handle (A) Fig 16 counter-clockwise. Loosen the nut (C) Fig. 19 and turn the screw (D) until the blade is 90° to the table. Tighten the nut (C).
4. Raise the cuttinghead. Push in and turn the lock handle (J) Fig. 21 counter-clockwise to loosen.
5. Move the cuttinghead all the way to the left bevel position and tighten the lock handle.
6. Use a combination square (A) Fig. 20 to verify that the blade is 45° to the table.
7. To adjust, push in and turn the lock handle (A) Fig 16 counter-clockwise. Loosen the nut (E) Fig. 21, and turn the screw (F) until the blade is 45° to the table. Tighten the nut (E). Tighten the lock handle.
8. Adjust the right 45° bevel stop in the same manner with screw (G) and nut (H) Fig. 21.

NOTE: Move the stop arm (B) Fig. 17 down when changing the bevel angle to the right.

SLIDING FENCE

The sliding fence (A) Fig. 22 provides support of large workpieces. Set it as close as possible to the saw blade. When miter cutting at 0° bevel (blade 90° to the table), the fence (A) should be all the way toward the blade (Fig. 22).

⚠ WARNING Verify that the fence is clear of the blade and blade guard, and that it is locked in place before operating the saw.

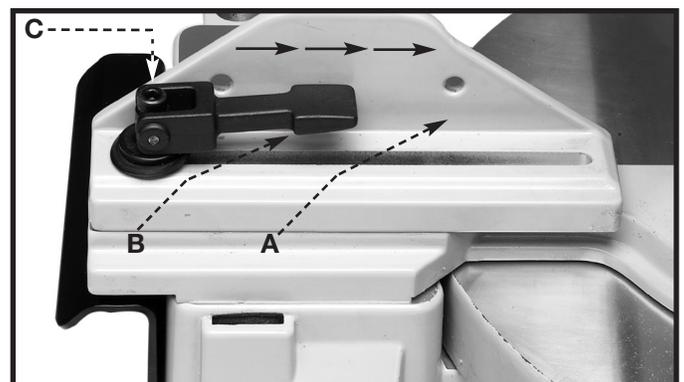


Fig. 22

When bevel cutting, move the fence (A) Fig. 23 away from the blade to allow for clearance for the saw blade and guard. To accomplish this, lift up on the fence tension knob (B) Fig. 22, slide the fence to the desired location, and push down on the fence tension knob to lock the fence.

NOTE: Adjust the pressure on the tension knob by turning the hex-head cap screw (C) Fig. 22 on top of the tension knob counter-clockwise to decrease clamping tension, and clockwise to increase clamping tension.



Fig. 23

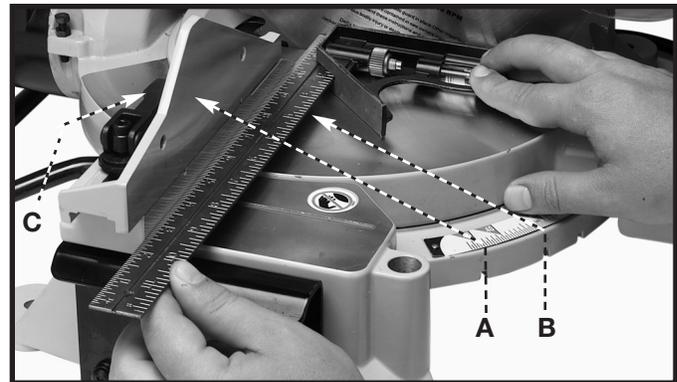
ADJUSTING FENCE 90 DEGREES TO THE TABLE

If the fence (A) Fig. 24 is removed from the saw, You must adjust it when it is replaced. To adjust:

⚠ WARNING **DISCONNECT MACHINE FROM POWER SOURCE.**

1. Place one end of the square (B) Fig. 24 against the fence (A) and the other end against the blade.
2. To adjust, pull up on the two fence tension knobs (one of which is shown at (C) Fig. 24), and move both fences outward. Loosen the four screws (two of which are shown at (D) Fig. 25), and adjust the fence 90° to the blade.
3. Tighten the four screws (D) Fig. 25 (Two are shown.)
4. Move the fences to the desired location and push down on the fence tension knobs to lock the fences.

⚠ WARNING **Verify that the fence is clear of the blade and blade guard before operating the saw.**



43

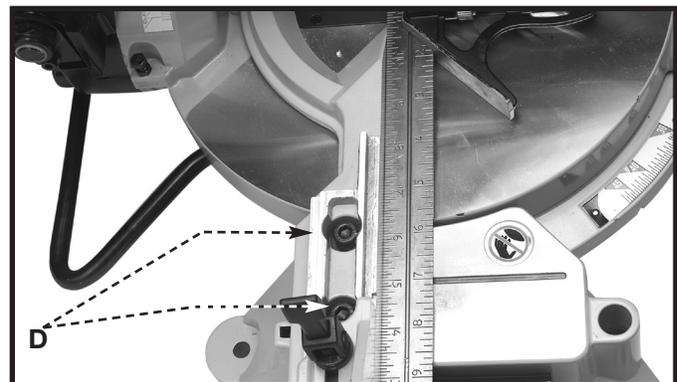


Fig. 25

ADJUSTING DOWNWARD TRAVEL OF SAW BLADE

⚠ WARNING **DISCONNECT MACHINE FROM POWER SOURCE.**

1. Limit the downward travel of the saw blade to prevent contact with any metal surface of the machine. Make this adjustment by loosening nut (A) Fig. 26, and turning adjusting screw (B) in or out.
2. Lower the blade as far as possible. Rotate the blade by hand to verify that the teeth do not contact any metal surface.
3. After all adjustments, tighten the nut (A) Fig. 26.

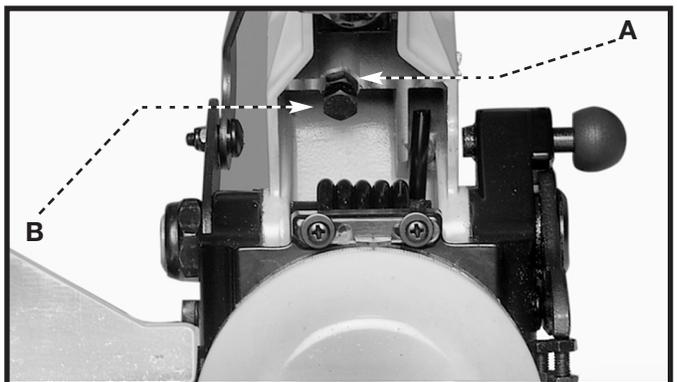


Fig. 26

ADJUSTING TENSION OF CUTTINGHEAD RETURN SPRING

The tension of the cuttinghead return spring was set at the factory to return to the “up” position. If necessary, to adjust:

⚠ WARNING **DISCONNECT MACHINE FROM POWER SOURCE.**

Loosen the nut (A) Fig. 27 and turn the screw (B) (clockwise to increase or counterclockwise to decrease the spring tension). After adjusting, tighten the nut (A).

⚠ WARNING **Confirm that the cuttinghead returns freely to the up position.**

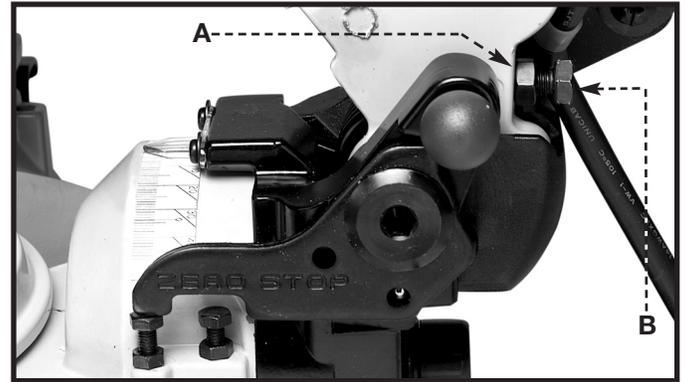


Fig. 27

OPERATIONS

HAZARD ZONE

⚠ WARNING The area inside the two red lines (A) Fig. 28 is designated as a “HAZARD ZONE”. Never place your hands inside this area while the machine is running.

HELPFUL HINTS

1. Before cutting, verify that the cuttinghead and table are at their correct settings and firmly locked in place.
2. Place the workpiece on the table and hold or clamp it firmly against the fence with the supplied work clamp (A) Fig. 29. This clamp can be used on either the left or right side of the machine (See Fig. 7).
3. Cut at a slow, even cutting rate.

⚠ WARNING If the position or size of the workpiece causes your hand to be in the “Hazard Zone”, use the work clamp to secure the workpiece. **Keep your hands out of the “Hazard Zone”.**

⚠ WARNING Never attempt freehand cutting (wood that is not held or clamped firmly against the fence and table).

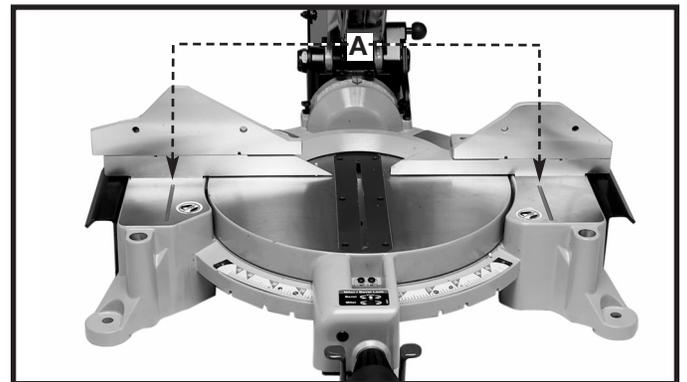


Fig. 28



Fig. 29

AUXILIARY WOOD FENCE

⚠ WARNING When performing multiple or repetitive 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, causing damage or injury. To limit the risk, an auxiliary wood fence can be mounted to your saw (Fig. 30).

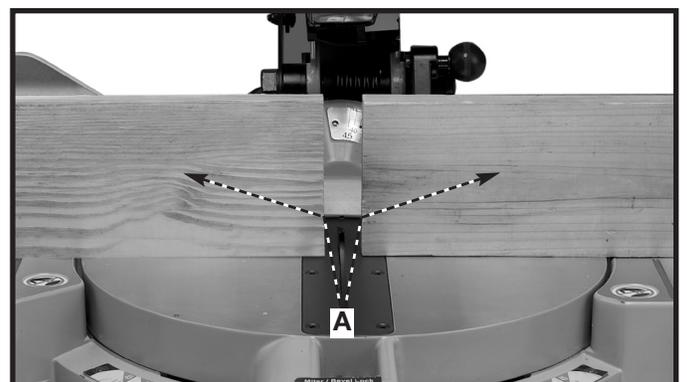


Fig. 30

Holes are provided in the fence to attach an auxiliary fence. This auxiliary fence is constructed of straight wood approximately 1/2" thick by 3" high by 20" long.

▲ CAUTION Use the auxiliary fence (A) **ONLY** with the saw blade in the 0° bevel position (90° to the table). Remove the auxiliary fence before you make bevel cuts.



Fig. 31

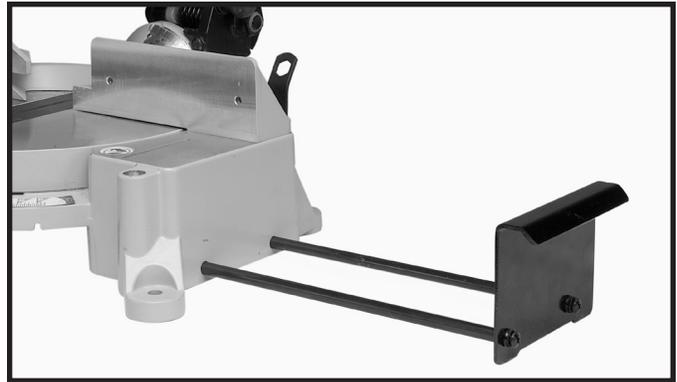


Fig. 32

SIDE SUPPORTS

This machine has two side supports to help stabilize the machine, and to help support long or wide workpieces.

The supports are located on either side of the table. The machine comes with the supports in the saw (Fig. 31). To utilize the supports, pull them out to their full length (Fig. 32).

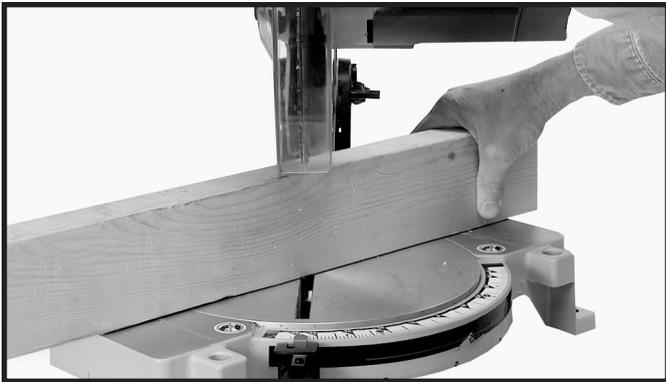


Fig. 33

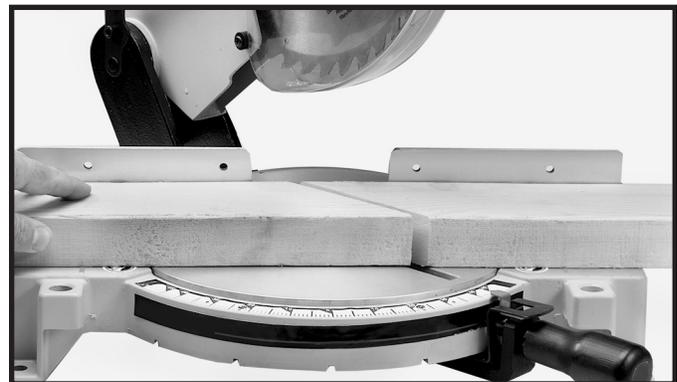


Fig. 34



Fig. 35



Fig. 36

GENERAL CUTTING OPERATIONS

Your machine can cut:

1. standard 2 x 4's lying flat or on edge at 45° right and left miter angles (Figs. 33 and 34).
2. standard 2 x 6's in the 90° straight cut-off position in one pass (Fig. 35).
3. standard 4 x 4's in one pass (Fig. 36).
4. crown molding and other bevel-type cuts (Fig. 37).
5. various sizes of plastic pipe (Fig. 38).

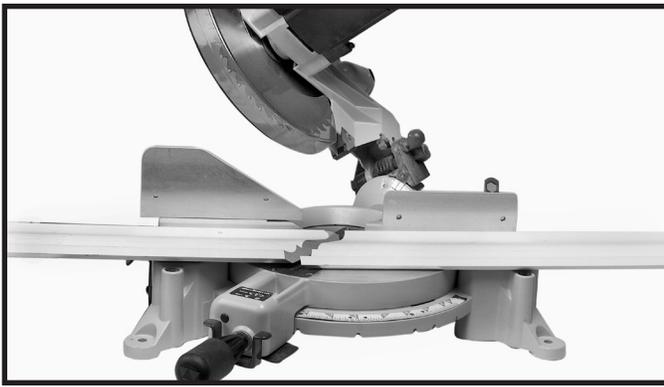


Fig. 37

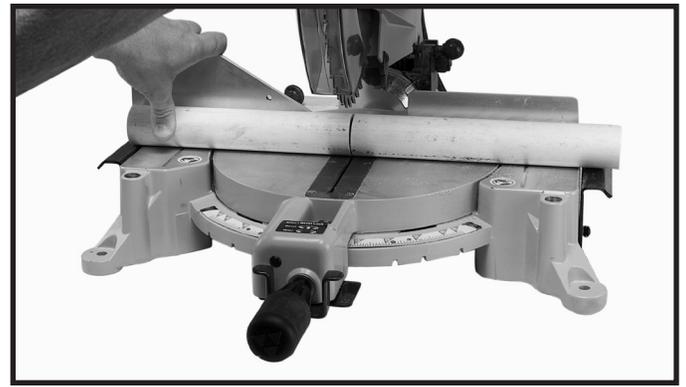


Fig. 38

CUTTING ALUMINUM

You can easily cut aluminum extrusions (for making aluminum screens and storm windows) with your compound miter saw. When cutting aluminum extrusions (or other sections that can be cut with a saw blade), position the material so that the blade is cutting through the smallest cross-section (Fig. 39). The wrong way to cut aluminum angles is illustrated in Fig. 40. Apply a stick wax (available at most mill supply houses) to the blade before cutting aluminum stock. The wax provides proper lubrication and keeps chips from adhering to the blade.

⚠ WARNING Never apply lubricant to the blade while the machine is running.

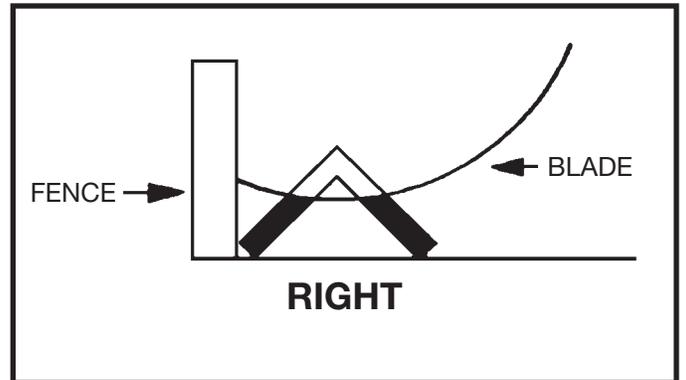


Fig. 39

CUTTING BOWED MATERIAL

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. 41.

If the material is positioned the wrong way as shown in Fig. 42, the workpiece will pinch the blade near the completion of the cut.

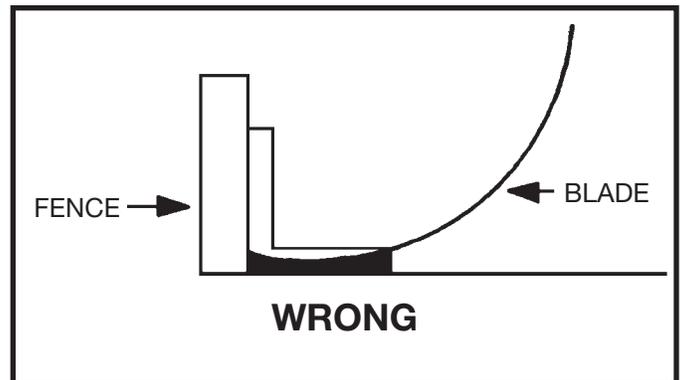


Fig. 40

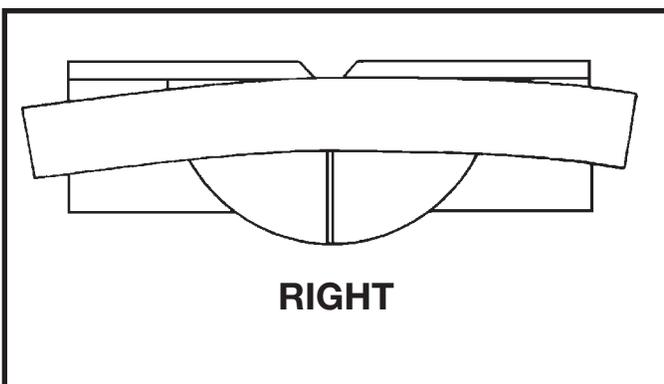


Fig. 41

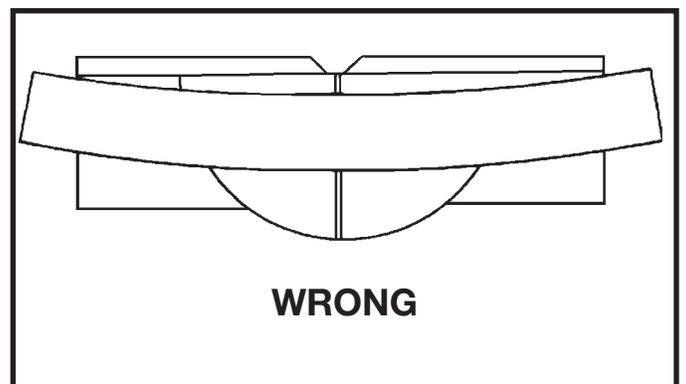


Fig. 42

CUTTING CROWN MOULDING

One of the many features of a compound miter saw is the ease of cutting crown molding.

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° and the miter position will be $35\text{-}1/4^\circ$ to the right or left.

1. Move the table to the 31.62° 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 33.85° 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 molding on the table with the **CEILING EDGE** of the molding against the fence, and make the cut (Fig. 43).

NOTE: The piece of crown molding used for the outside corner will always be on the right hand side of the blade (A) Fig. 43. The piece of crown molding used for the inside corner will always be on the left hand side of the blade, (B) Fig. 43.

4. To make the matching halves of the inside and outside corners, rotate the table to the 31.62° left miter position and tighten table lock handle.

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

5. Place the crown molding on the table with the **WALL EDGE** of the crown molding against the fence and make the cut. Again, the piece of crown molding used for the outside corner will always be on the right side of the blade, (C) Fig. 44. The piece of crown molding used for the inside corner will always be on the left side of the blade (D) Fig. 44

6. Fig. 45 illustrates the two outside corner pieces.

7. Fig. 46 illustrates the two inside corner pieces.

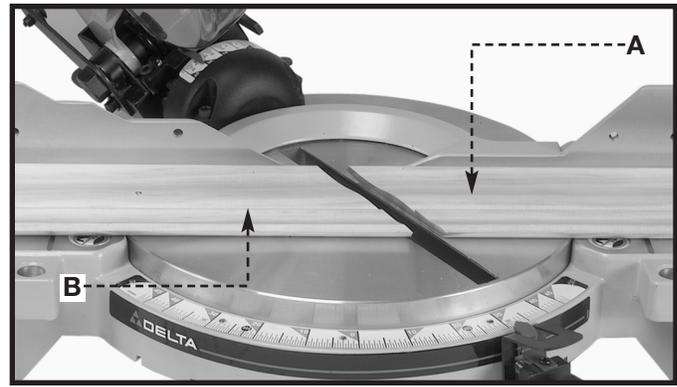


Fig. 43

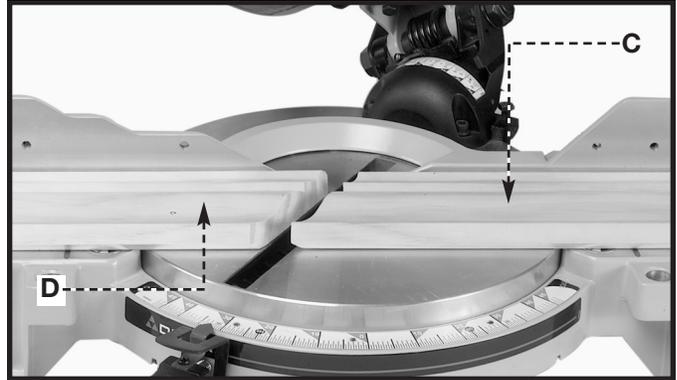


Fig. 44

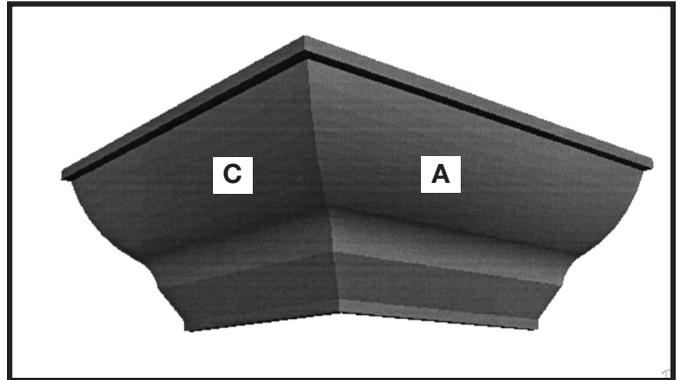


Fig. 45

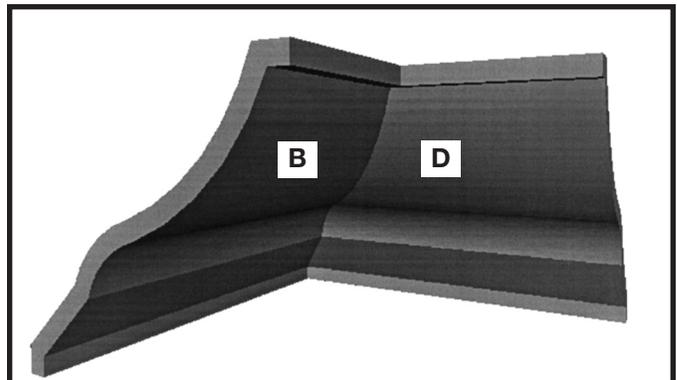


Fig. 46

STORAGE

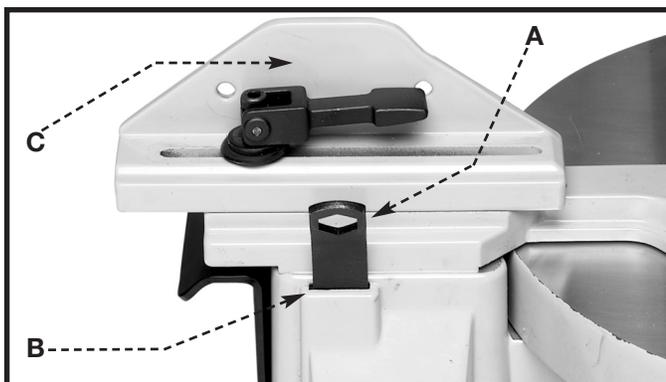


Fig. 47



Fig. 48

BLADE CHANGING WRENCH STORAGE

You can store the blade changing wrench (A) Fig. 47 in the slot (B) behind the fence (C).

LOCKING CUTTINGHEAD IN THE DOWN POSITION

When transporting the saw, lock the cuttinghead in the down position. Lower the cuttinghead (A) Fig. 48 and push in cuttinghead lock knob (B) until it engages with the hole in the cuttinghead.

REAR SUPPORT/STABILIZER & CARRYING HANDLE

Use the rear support/stabilizer and carrying handle to carry the machine.

CAUTION

Carrying the machine by the switch handle will cause misalignment. Always lift and carry the machine by the base or by the carrying handle (C) Fig. 49.

WARNING

Keep the rear support fully extended during all cutting operations. Push the rear support in only when storing the machine.

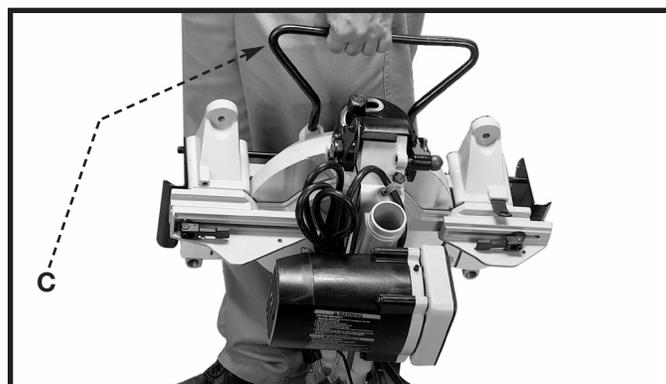


Fig. 49

MAINTENANCE

CHANGING THE BLADE

WARNING

Use only cross-cutting blades.

WARNING

Do not use carbide-tipped blades with deep gullets. They can deflect and contact the guard.

WARNING

Use only 10" diameter saw blades that are rated for 5200 RPM or higher and have 5/8" diameter arbor holes.

WARNING

Disconnect machine from power source.

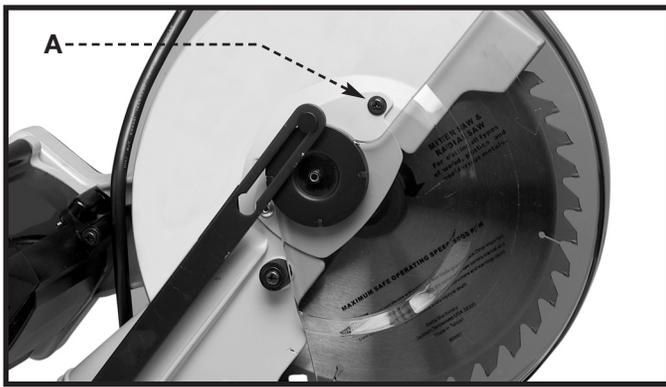


Fig. 50



Fig. 51



Fig. 52



Fig. 53

1. Remove the screw (A) Fig. 50 and rotate the cover (B) to the rear (Fig. 51).
2. Depress the arbor lock (A) Fig. 52 to lock the blade.
3. Use the supplied blade changing wrench (D) Fig. 53 to loosen (clockwise) the arbor screw (E).
4. Remove the arbor screw (E), the outside the blade flange (F), and the saw blade (G) from the saw arbor.
5. Place the new blade on the arbor.

⚠ WARNING Confirm that the teeth of the saw blade are pointing down at the front (See Fig. 51)

6. Place the outside blade flange (F) Fig. 53 on the arbor.
7. Thread the arbor screw into the arbor. Depress the arbor lock and tighten (counter-clockwise) the arbor screw securely.
8. Rotate the blade cover (B) Fig. 51 to the front, and replace the screw (A) Fig. 50 that was removed in **STEP 1**. Tighten the screw (A) Fig. 50 securely.

BRUSH INSPECTION AND REPLACEMENT

Brush life varies, depending on the load on the motor. Check the brushes after the first 50 hours of use for a new machine, or after a new set of brushes has been installed. After the first check, examine them after every 10 hours of use until replacement is necessary. To inspect the brushes:

⚠ WARNING **DISCONNECT MACHINE FROM POWER SOURCE.**

1. Remove the three screws (A) Fig. 54 and remove the motor cover (B).

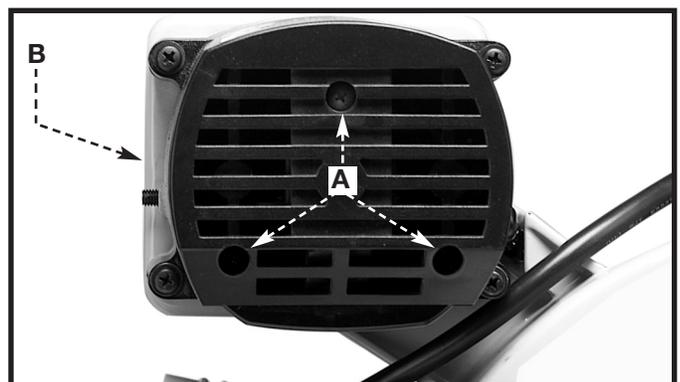


Fig. 54

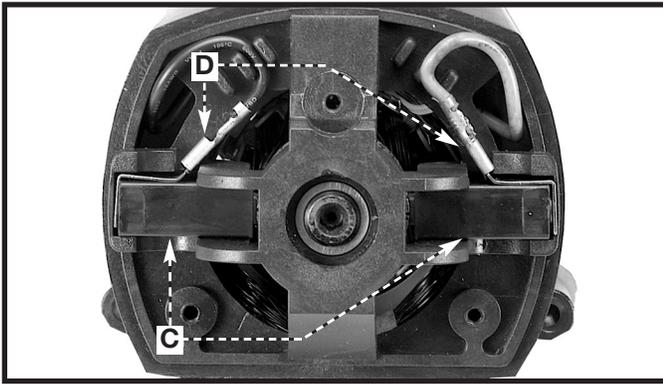


Fig. 55

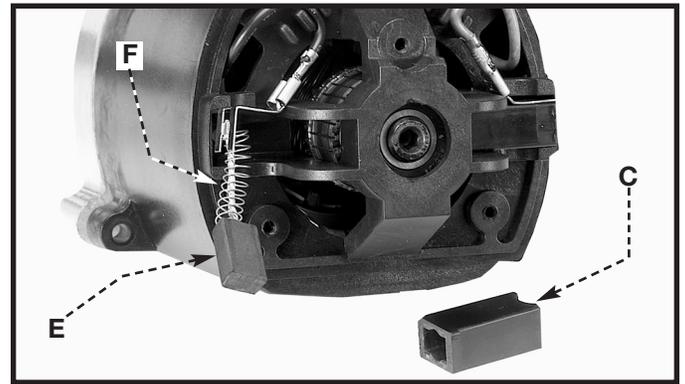


Fig. 56

2. The brushes are located in two holders (C) Fig. 55. Remove the spade type terminal connectors (D) and pull the brush holders (C) out.
3. Inspect the brush (E) Fig. 56 that was removed from the holder (C). When the carbon on either brush (E) is worn to 3/16" or if either spring (F) or shunt wire is burned or damaged in any way, replace both brushes. If the brushes are serviceable after removing, reinstall them in the same position.

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▲ WARNING

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