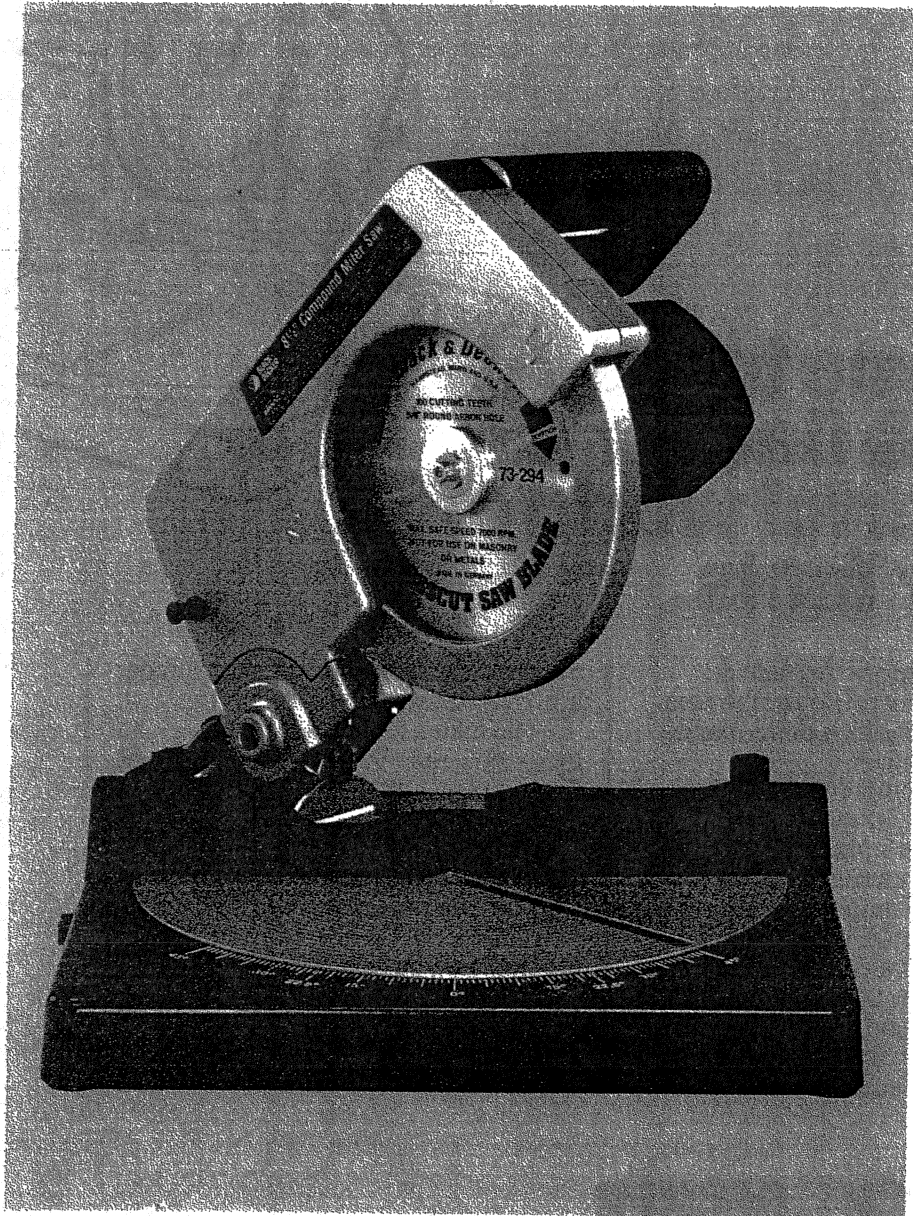




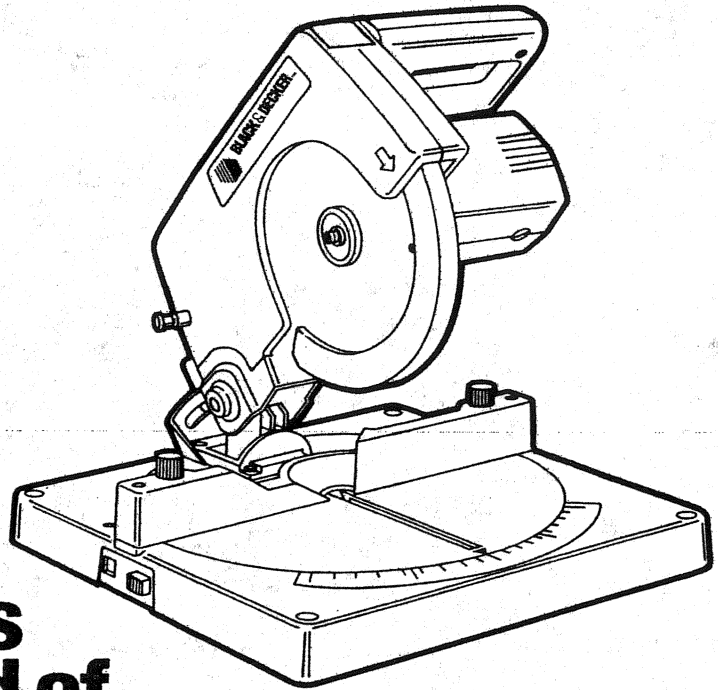
BLACK & DECKER®



Instruction Manual

**8 1/4" Compound Miter Saw
9425**

Welcome to Black & Decker's wonderful world of Power Tools.



If you already own a Black & Decker Power Tool you know the pleasures a high quality, high performance power tool can deliver.

Your new Compound Miter Saw has been carefully engineered and built to Black & Decker's high standards for quality and dependability. It's built to last for many years of tough, trouble-free service and high quality performance.

It can cut wood, plastics and composites. Use it for straight cuts, miters, bevels or compound miters. Its tough, die cast aluminum rotating table locks firmly in place for accurate cutting of

molding, trim work, construction lumber and even plastic pipe.

So take a few minutes and thoroughly read this instruction manual. Pay particular attention to the Safety Rules we've provided for your protection.

We want you to enjoy your Compound Miter Saw, and the more you know about it, and its capabilities, the happier you'll be with it.

Thank you for selecting Black & Decker.

And don't forget to send in your owner's registration card.



BLACK & DECKER.

SAFETY INSTRUCTIONS

WARNING: When using Electric Tools, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and personal injury, including the following:

READ ALL INSTRUCTIONS

1. **KEEP GUARDS IN PLACE** and in working order.
2. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
3. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite injuries.
4. **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.
5. **KEEP CHILDREN AWAY.** All visitors should be kept a safe distance from work area.
6. **MAKE WORKSHOP KID PROOF** with padlocks, master switches, or by removing start keys.
7. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
8. **USE RIGHT TOOL.** Don't force tool or attachment to do the job for which it was not designed.
9. **WEAR PROPER APPAREL.** Don't wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that could get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
10. **ALWAYS WEAR SAFETY GLASSES.** Also use face or dustmask if cutting operation is dusty. Everyday eyeglasses have only impact resistant lenses, they are NOT safety glasses.
11. **SECURE WORK.** Use clamps or vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
12. **DON'T OVERREACH.** Keep proper footing and balance at all times.
13. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
14. **DISCONNECT TOOLS** before servicing, and when changing accessories such as blades, bits, cutters, or when clearing away sawdust.
15. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in OFF position before plugging in.
16. **USE RECOMMENDED ACCESSORIES.** Consult the instruction manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.
17. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
18. **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.
19. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN POWER OFF.** Don't leave tool until it comes to a complete stop.
20. **DO NOT OPERATE ELECTRIC TOOLS NEAR FLAMMABLE LIQUIDS OR IN GASEOUS OR EXPLOSIVE ATMOSPHERES.** Motors in these tools may spark and ignite fumes.
21. For your own safety, **READ INSTRUCTION MANUAL** before operating your miter saw.
22. **KEEP HANDS OUT OF PATH OF SAW BLADE.**
23. **DO NOT ATTEMPT ANY FREE HAND CUTTING** with this saw.
24. **NEVER REACH** around or behind saw blades.
25. **SHUT OFF POWER AND WAIT FOR SAW BLADE TO STOP** before servicing or adjusting the saw.

**SAVE THESE INSTRUCTIONS FOR FUTURE USE.
REFER TO PAGE 4 FOR ADDITIONAL SAFETY NOTES.**

Additional Safety Rules For The Compound Miter Saw

1. **DO** — Protect line with at least a 15 ampere time delay fuse.
2. **DO** — Make certain the blade rotates in the correct direction.
3. **DO** — Be sure all clamp handles are tight before starting any operation.
4. **DO** — Be sure blade and arbor collars are clean and recessed side of collars are against blade. Tighten arbor screw securely.
5. **DO** — Keep saw blade sharp and properly set.
6. **DO** — Keep motor air slots clean and free of chips.
7. **DO** — Use both upper and lower blade guards at all times.
8. **DO** — Operate only on designated voltage and frequency.
9. **DO** — Tighten all clamps before operating.
10. **DO** — Use blades of recommended size only.
11. **DO** — Hold motor shaft/saw blade only as instructed in this manual.
12. **DO** — Operate in dry environment only.
13. **DO** — Allow motor to reach full speed before cutting.
14. **DO** — Keep visitors clear.
15. **DO** — Keep hands clear of blade area when saw is plugged in.
16. **DO** — Use blades recommended for operation at greater than 3600 RPM only.

NOTE: This saw should NOT be used to cut ferrous metals or masonry.

NOTE: This saw should NEVER be used to recut small pieces.

Electrical Connection

Your Miter Saw is powered by a Black & Decker built motor. Be sure your power supply agrees with the nameplate marking. 120 Volts, 60 Hz or "AC only" means your tool must be operated only with alternating current and **NEVER** with direct current. A voltage decrease of more than 10% will cause loss of power and overheating. All B&D tools are factory tested; if this tool does not operate, check the power supply.

Double-Insulation

Your tool is double insulated to give you added safety. This means that it is constructed throughout with **TWO** separate "layers" of electrical insulation or one **DOUBLE** thickness of insulation between you and the tool's electrical system.

Tools built with this improved insulation system are not intended to be grounded. As a result, your tool is equipped with a two-prong plug which permits you to use any conventional 120 volt electrical outlet without concern for maintaining a ground connection.

NOTE: Double-Insulation does not take the place of normal safety precautions when operating this tool. The improved insulation system is for added protection against injury resulting from a possible electrical insulation failure within the tool.

CAUTION: When servicing Double-Insulated Tools, **USE ONLY IDENTICAL REPLACEMENT PARTS.** Replace or repair damaged cords.

This tool is intended for residential use only.

Extension Cords

When using the tool at a considerable distance from the power source, an extension cord of adequate size must be used for safety, and to prevent loss of power and overheating. Use the table below to determine minimum wire size required.

Before using cords, inspect them for loose or exposed wires and damaged insulation. Make any needed repairs or replacement before using your power tool.

Chart For Minimum Wire Size (AWG) of Extension Cords

	Total Extension Cord Length - Feet			
	25	50	75	100
120 Volt Tools	16	14	12	10

NOTE: The lower the wire size number, the heavier the wire, and the farther it will carry current without a significant voltage drop.

Unpacking Your Saw

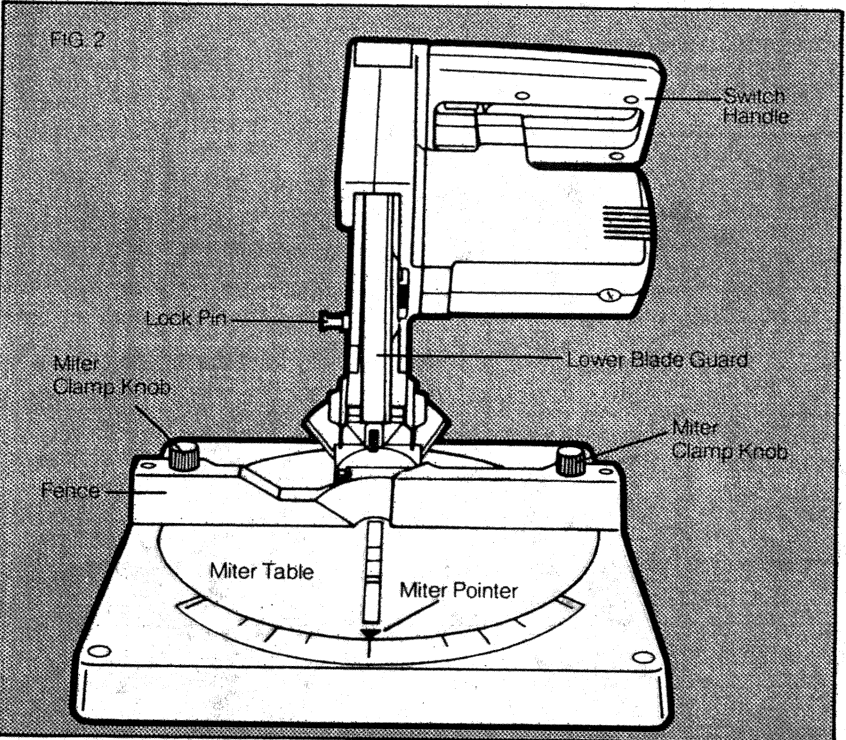
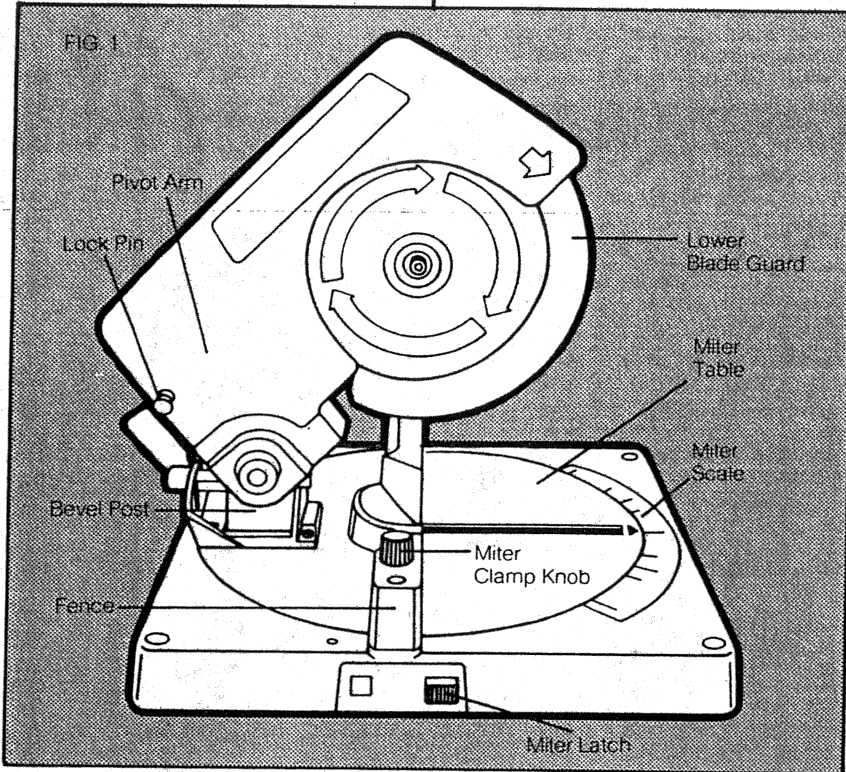
Inspect the contents of your saw carton. In addition to this Instruction Manual, you should find the following:

1. One #9425 Compound Miter Saw
2. One plastic wing knob, packed inside cardboard filler block next to blade

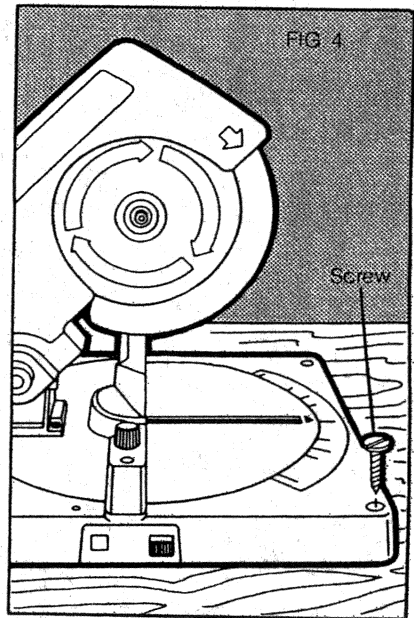
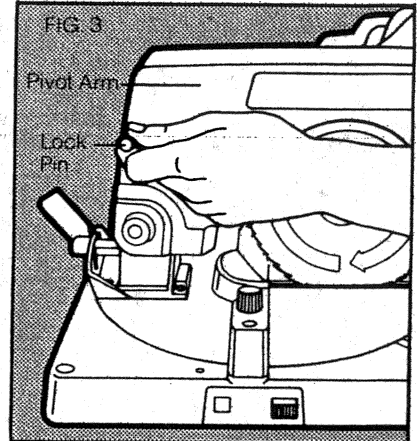
Set Up

FAMILIARIZATION: Place the Miter Saw on a flat, strong and level surface, and examine it to become familiar with the terminology used to describe its various parts. (See Figures 1 and 2.)

UNLOCKING THE PIVOT ARM: Your saw was shipped from the factory with the pivot arm in the locked down position. This position is used to facilitate packaging and for storage.



To release the pivot arm, remove the cardboard filler block from the saw table, grasp the switch handle with one hand and the end of the lock pin with the other, as shown in Figure 3. Push down on the switch handle lightly and pull out on the lock pin. When the pin is out as far as it will go, raise the pivot arm to its full height. (The saw will look like the picture in Figure 4.)



Bench Mounting

Before using your miter saw, it must be firmly mounted to your workbench or other rigid frame. Four holes are provided in the base of the saw for this purpose.

To mount the saw, position it as desired (don't forget about the availability of an electrical outlet), and mark the positions of the four holes in the saw. Remove the saw and drill four pilot holes in the places you marked. Reposition the saw over the holes and secure it to the workbench using 1/4" x 1-3/4" wood screws, as shown in Figure 5. (Do not overtighten.)

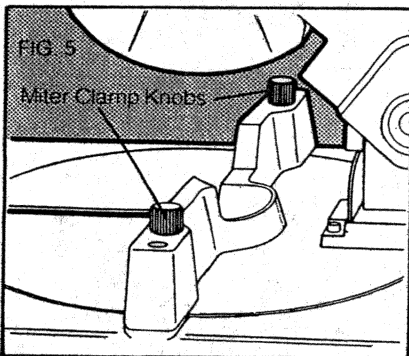
An alternate mounting method that will enhance the saw's portability is to mount the saw on a piece of 1/2" or thicker plywood. The saw can then be taken to remote locations and the plywood clamped in place with a couple of large "C" clamps.

Miter Table and Miter Scale

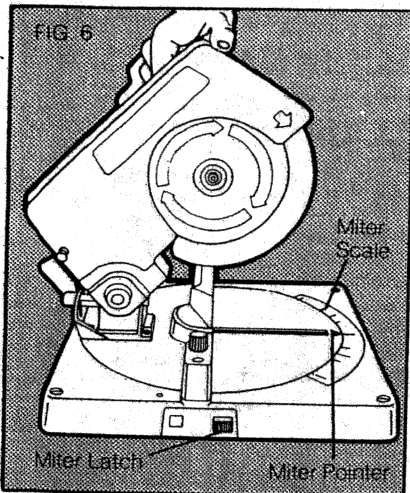
The miter table and miter scale permit you to set accurate miters up to 45° left or right.

SETTING THE MITER TABLE: Follow the steps below to set any miter angle.

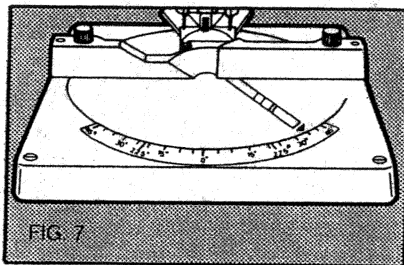
1. **TURN OFF AND UNPLUG THE SAW.**
2. Loosen the two miter clamp knobs shown in Figure 5. (About 1/4 turn counter-clockwise.)



3. Push in the miter latch, shown in Figure 6 and, using the switch handle as a grip, rotate the saw around until the miter pointer (Figure 6) aligns with the desired setting on the miter scale, also shown in Figure 6.



4. The miter scale is graduated in increments of one degree (1°). The example shown in Figure 7 is 35°.



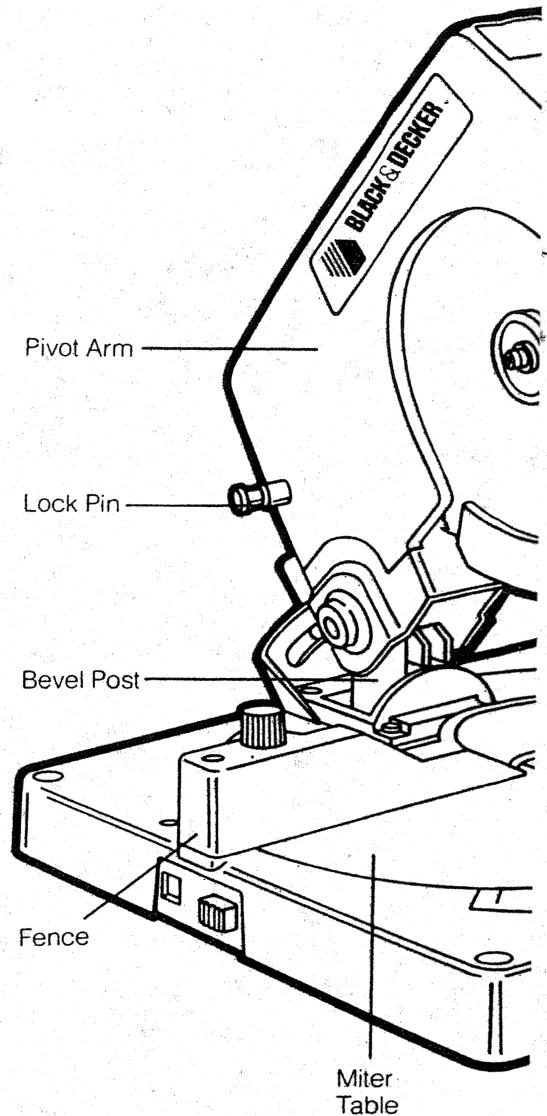
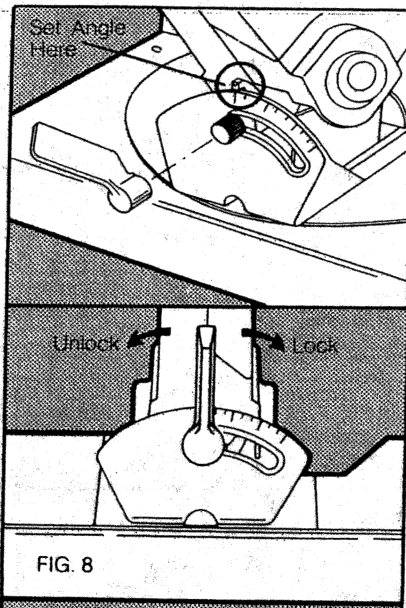
5. When you have set the desired angle, lock it in place by tightening the two miter clamp knobs that you loosened in Step 2 above.

NOTE: The miter latch will automatically lock the miter table at 0°, 22-1/2° left and right and 45° left and right. Even in these locked miter positions, you should tighten the two miter clamp knobs.

Setting the Bevel Post

Follow the steps below to set any bevel angle.

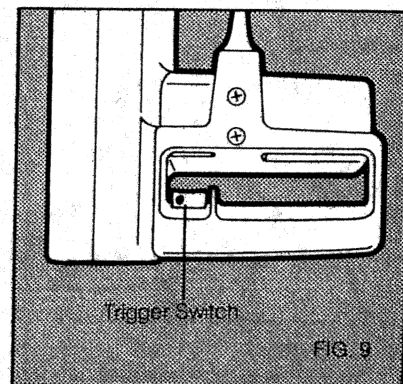
1. **TURN OFF AND UNPLUG THE SAW.**
2. Install the plastic wing knob (packed inside cardboard filler block next to blade) on the splined shaft, as shown in Figure 8. (Make sure it is straight up, as shown.)

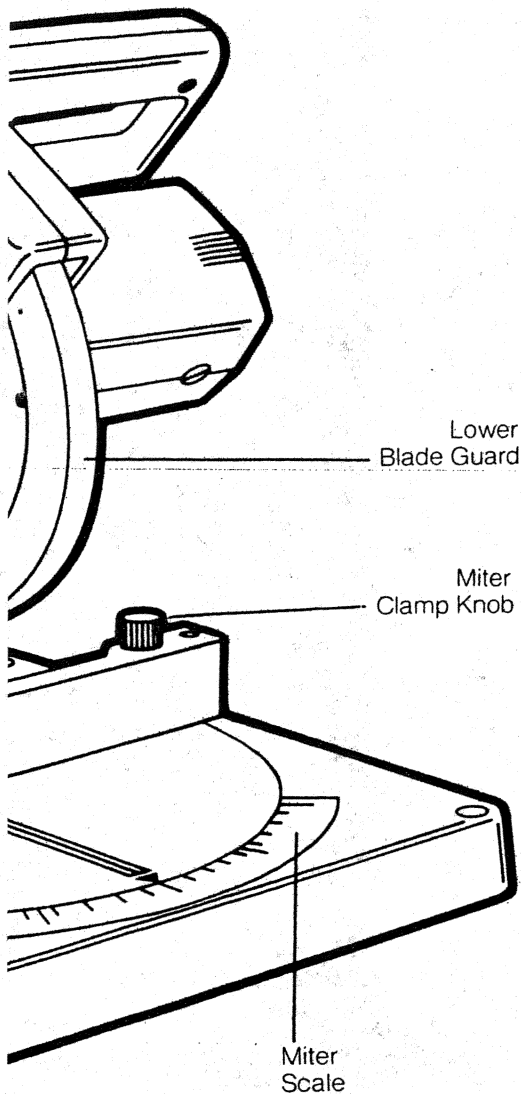


Switch

To turn the tool ON, squeeze and hold the trigger switch shown in Figure 9.

To turn the saw OFF, release the trigger switch.





Cutting Tips

WEAR EYE PROTECTION.

The smoothness of any cut depends on a number of variables. Things like material being cut, blade type, blade sharpness and rate of cut all combine to affect the quality of the cut.

When cutting framing lumber or other types of lumber where cut smoothness is not a point of concern, high cutting rate coupled with a sharp general purpose blade will produce satisfactory results.

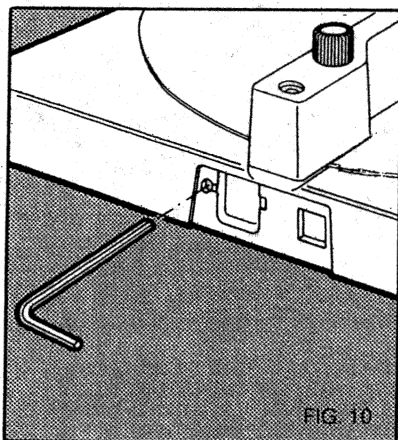
When smoother cuts are desired, a sharp blade designed for smooth cuts and a slow even cutting rate will produce the desired quality of cut.

For varied cutting applications, refer to the list of recommended accessories for your saw and select the blade that best fits your needs.

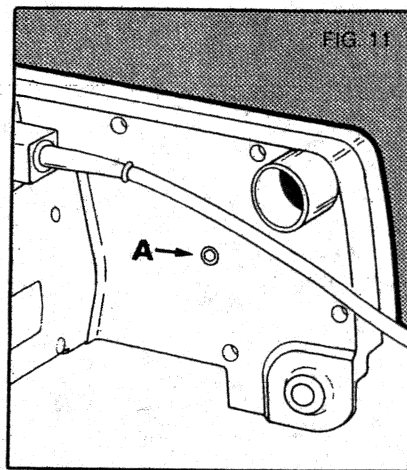
Replacing Saw Blades

Follow the steps below to replace a saw blade.

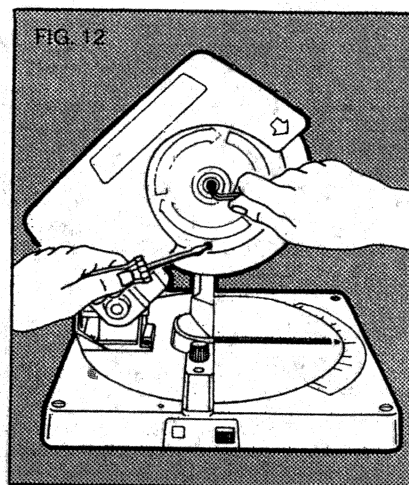
1. **TURN OFF AND UNPLUG THE SAW.**
2. Allow the saw arm to raise to its full height.



3. Using the hex wrench located in the saw table, shown in Figure 10, loosen hex screw "A" in Figure 11 four full turns counter-clockwise.



4. manually raise the lower blade guard.
5. Using the same hex wrench, remove the arbor screw in the center of the motor shaft. (Left hand thread; turn clockwise to loosen.) **NOTE:** Place a screwdriver or large nail through the hole in the saw blade (see Figure 12) to hold it while you tighten or loosen the screw. **BE SURE TO REMOVE IT WHEN YOU FINISH.**



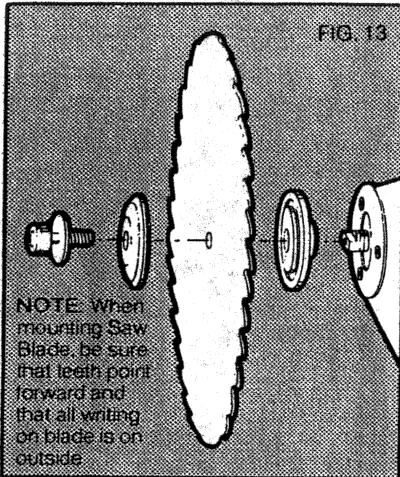
Operation

WEAR EYE PROTECTION.

To cut a piece of wood, first determine that it's the right size for the saw. Place the wood on the saw table and hold it firmly against the fence. If the piece you're working with is smaller than 6" long and would cause your hand to be within 6" of the saw blade, **TURN OFF AND UNPLUG THE SAW** and clamp the wood to the fence before cutting it.

Do not attempt to hold small pieces. **NEVER ATTEMPT ANY FREE HAND CUTTING WITH THIS SAW.** (Free hand cutting is cutting wood that is not held firmly against the fence and the saw table. Support long work with an outboard work rest.)

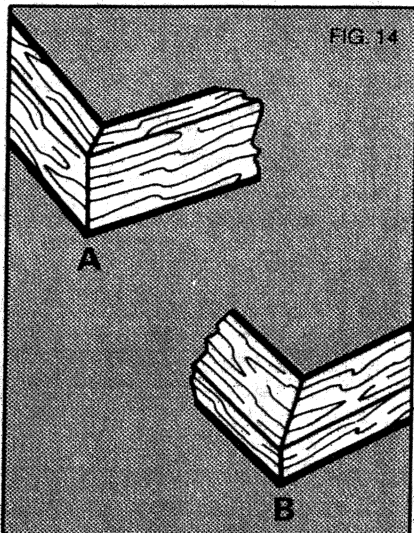
- Remove the old blade and install the new one taking care to orient the two blade washers carefully, as shown in Figure 13.



- Manually lower the blade guard as far as it will go.
- Tighten hex screw "A" clockwise until tight. (DO NOT OVER-TIGHTEN.) Replace the hex wrench in the saw table.

Picture Frames, Shadow Boxes & Similar Four-Sided Projects

For a more thorough understanding, we suggest that you perform these cuts using scrap wood. Your new saw is the perfect tool for making closed objects where it's necessary to join wood sides and construct corners. Figure 14 shows two typical types of mitered corners.



The example in Figure A is a joint made by using the bevel adjustment to bevel the edges of the boards (at 45° each) to form a 90° miter corner. For this operation, set the bevel post adjustment at 45° and the miter table adjustment at 0°. Position the wood with the broad flat side against the table and the narrow edge against the fence.

The example shown in Figure B is a joint made by using the miter table adjustment to miter the width of the board (at 45° each) to form a miter corner of 90°. For this operation, set the bevel post adjustment at 0° and the miter table adjustment at 45°. Position the wood with the broad flat surface against the table and the narrow edge against the fence.

NOTE: The examples shown and discussed above are for four-sided figures only. The chart in Figure 15 shows the setting for the miter table or bevel post for several different shapes. Observe that the angle of cut decreases as the number of sides increases. These angles are derived from the formula: $180^\circ \div \text{number of sides in desired object} = \text{miter angle for each joint}$.

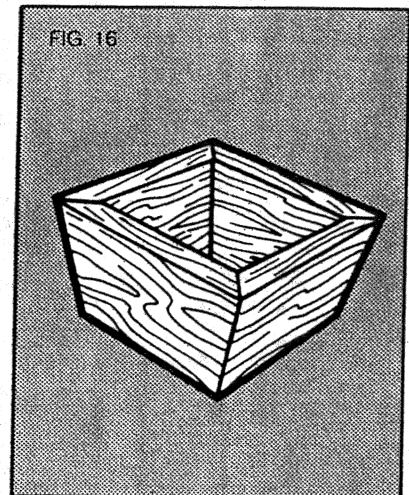
FIG. 15

— EXAMPLES —

NO. SIDES	ANGLE MITER OR BEVEL
4	45°
5	36°
6	30°
7	25.7°
8	22.5°
9	20°
10	18°

Cutting Compound Miters

A compound miter is a cut made using both a miter setting (made by adjusting the miter table) and a bevel setting (made by adjusting the bevel post). The resulting cut is a beveled (or compound) miter. These cuts are used for making frames or boxes with sloping sides like those shown in Figure 16. The important thing to remember when making compound miters is that the adjustments of miter and bevel are interdependent with one another. Each time you adjust the miter table you change the bevel setting; and every adjustment to bevel changes the miter setting. It may take several settings to obtain the desired cut. **ALWAYS MAKE TEST CUTS IN SCRAP MATERIAL BEFORE ATTEMPTING FINISHED WORK.**



Cutting Crown Molding

Your Compound Miter Saw is probably better suited to the difficult task of cutting crown molding than any other tool made. In order to fit properly, crown molding must be compound mitered with extreme accuracy (see Figure 17).

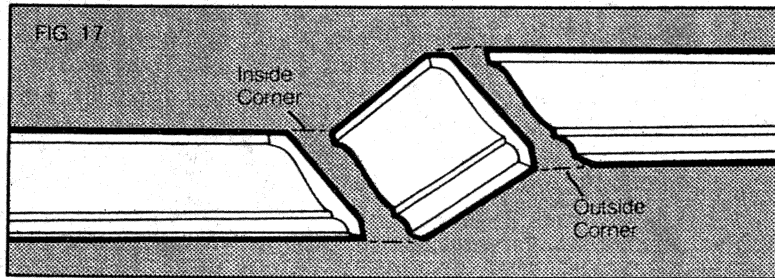
The two surfaces on a piece of crown molding that fit flat against the ceiling and the wall of a room are at angles that, when added together, equal exactly 90°. Most crown molding has a top rear angle (the section that fits flat against the ceiling) of 52° and a bottom rear angle that fits flat against the wall of 38°.

In order to accurately cut crown molding for a 90° inside or outside corner, refer to the chart that follows.

FOR ALL CUTS:

1. Molding laying with broad back surface down flat on saw table
2. The settings below are for All Standard (U.S.) crown molding with 52° and 38° angles.

BEVEL POST SETTING	TYPE OF CUT
33.85°	LEFT SIDE, INSIDE CORNER: 1. Top of molding against fence 2. Miter table set right 31.62° 3. Save left end of cut
33.85°	RIGHT SIDE, INSIDE CORNER: 1. Bottom of molding against fence 2. Miter table set left 31.62° 3. Save left end of cut
33.85°	LEFT SIDE, OUTSIDE CORNER: 1. Bottom of molding against fence 2. Miter table set left 31.62° 3. Save right side of cut
33.85°	RIGHT SIDE, OUTSIDE CORNER: 1. Top of molding against fence 2. Miter table set right 31.62° 3. Save right side of cut



When setting bevel post and miter table angles for all compound miters, remember that:

1. The settings are interdependent so that changing one changes the other as well, and
2. The angles presented for crown moldings are very precise and difficult to set exactly. Since they can easily shift slightly and very few rooms have exactly square corners, all settings should be tested on scrap molding.

PRETESTING WITH SCRAP MATERIAL IS EXTREMELY IMPORTANT!

Accessories

The accessories listed in this manual are available at extra cost from your local dealer or Black & Decker Service Center.

A complete listing of service centers is included on the owner's registration card packed with your tool.

If you need assistance in locating any accessory please contact:

Black & Decker (U.S.) Inc.
User Services Department
10 North Park Drive
P.O. Box 857
Hunt Valley, MD 21030-0857

Saw Blades

Cat. No.	Diameter	Arbor Size/Description
73-291	8-1/4"	5/8" General purpose combination
73-293	8-1/4"	5/8" Premium hollow ground planer
73-294	8-1/4"	5/8" Crosscut miter
73-390	8-1/4"	5/8" Carbide tipped carbide (20 tooth)
73-391	8-1/4"	5/8" Carbide tipped carbide (40 tooth)

Other Accessories

72-000 Safety Glasses

The accessories listed above are recommended for use with your #9425 8-1/4 in. Compound Miter Saw. **THE USE OF ANY OTHER ACCESSORY OR ATTACHMENT MAY BE HAZARDOUS.**

NOTE: A vacuum port on the blade guard is designed to accept a standard 1-1/2" diameter vacuum cleaner hose for dust collection.

Lubrication and Maintenance

Permanently lubricated bearings are used throughout your Miter Saw and periodic lubrication is not required. In the unlikely event that service is ever required, take your saw to your closest Black & Decker Service Center as listed on your Owner's Registration card. Do not attempt to repair the saw yourself, there are no user serviceable parts inside.

NOTES

Black & Decker's Full Two Year Home Use Warranty states that, in case of a defect, you may return the tool to the place of purchase for a free replacement (if it is a participating retailer) or you may take it to a Black & Decker Service Center.

Home Use Warranty (A Full Two Year Warranty)

Black & Decker (U.S.) Inc. warrants this product for two years against any defects that are due to faulty material or workmanship. Please return the complete unit, transportation prepaid, to the seller (if a participating retailer) for free replacement (proof of purchase may be required). The unit may also be returned to a Black & Decker Service Center or Authorized Service Station listed under "Tools Electric" in the Yellow Pages for free replacement or repair at our option. This warranty does not apply to accessories. This warranty gives you specific legal rights and you may have other rights which vary from state to state. Should you have any questions, contact your nearest Black & Decker Service Center Manager.

Like most Black & Decker tools, your Miter Saw is listed by Underwriters Laboratories to ensure that it meets stringent safety requirements.



This symbol on the nameplate means the product is Listed by Underwriters' Laboratories, Inc.



See 'Tools-Electric'
—Yellow Pages—
for Service & Sales



BLACK & DECKER®

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