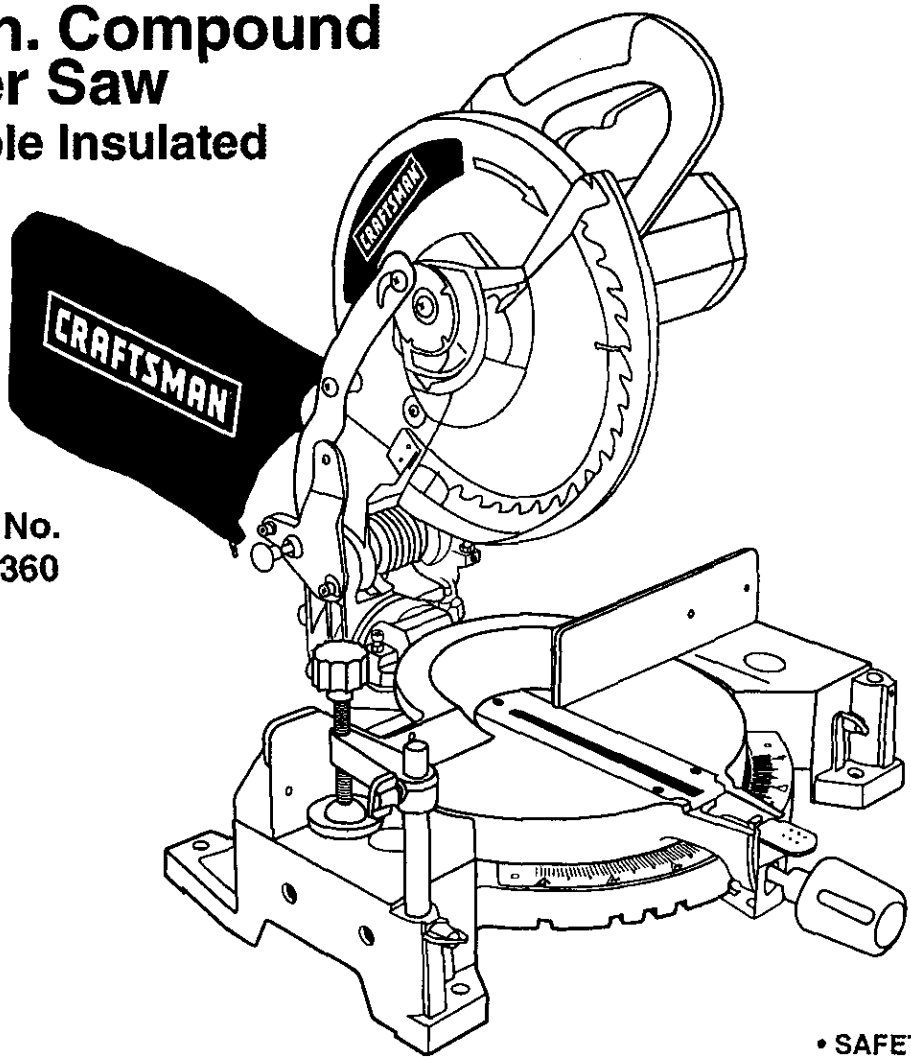
Owner's Manual

CRAFTSMAN

10-in. Compound Miter Saw

Double Insulated



Model No.
172.24360

- SAFETY
- FEATURES
- ADJUSTMENT
- OPERATION
- MAINTENANCE
- PARTS LIST
- ESPAÑOL

Save this manual for future reference.

CAUTION: Read, understand and follow all Safety Rules and Operating Instructions in this manual before using this product.

Sears, Roebuck and Co., Hoffman Estates, IL 60179 U.S.A.
Visit the Craftsman web page: www.sears.com/craftsman

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FULL ONE-YEAR WARRANTY

If this product fails due to a defect in materials or workmanship within one year from the date of purchase, Sears will repair it free of charge.

Warranty service is available by returning this product to the nearest Sears Service Center in the United States.

If this product is used for commercial or rental purposes, this warranty applies only for 90 days from the date of purchase.

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

Sears, Roebuck and Co., Dept. 817WA, Hoffman Estates, IL 60179

SAVE THESE INSTRUCTIONS!
READ ALL INSTRUCTIONS!

SAFETY INSTRUCTIONS

⚠WARNING: BE SURE to read and understand all safety instructions in this manual, including all safety alert symbols such as DANGER, WARNING and CAUTION, **BEFORE** using this saw.
Failure to follow all instructions listed below may result in electric shock, fire and/or serious personal injury.

SAFETY SYMBOLS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and the explanations with them, deserve your careful attention and understanding. The safety warnings **DO NOT** by themselves eliminate any danger. The instructions and warnings they give are no substitutes for proper accident prevention measures.

SYMBOL MEANING

⚠ **SAFETY ALERT SYMBOL:** Indicates danger, warning or caution. May be used in conjunction with other symbols or pictographs.

⚠ **DANGER:** Failure to obey a safety warning will result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.

⚠ **WARNING:** Failure to obey a safety warning can result in serious injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.

⚠ **CAUTION:** Failure to obey a safety warning may result in property damage or personal injury to yourself or to others. Always follow the safety precautions to reduce the risk of fire, electric shock and personal injury.

NOTE: Advises you of information or instructions vital to the operation or maintenance of the equipment.

⚠WARNING: The operation of any saw can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, **ALWAYS** wear safety goggles or safety glasses with side shield and a full face shield when needed. We recommend A Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shield, both available at Sears Retail Stores. **ALWAYS** wear eye protection which is marked to comply with ANSI Z87.1.

SAFETY INSTRUCTIONS cont.

ELECTRICAL SAFETY

1. **Double insulated tools are equipped with 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 into the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. DO NOT change or alter the plug in any way.**
2. Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system. Applicable only to Class II (double insulated) tools.
3. Before plugging in the tool, **BE SURE** that the outlet voltage supplied is within the voltage marked on the tool's data plate. **DO NOT** use "AC only" rated tools with a DC power supply.
4. **ALWAYS avoid body contact with grounded surfaces, such as pipes, radiators, ranges and refrigerators.** There is an increased risk of electric shock if your body is grounded.
5. **If operating the power tool in damp locations is unavoidable, ALWAYS use a Ground Fault Circuit Interrupter to supply power to your tool. ALWAYS wear electrician's rubber gloves and footwear in damp conditions.**
6. **DO NOT expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
7. **ALWAYS periodically inspect tool cords and extension cords for damage.** Have damaged cords repaired at a Sears Service Center. **BE SURE** to stay constantly aware of the cord location and keep it well away from the moving blade.
8. **ALWAYS use the proper extension cord. and MAKE SURE the cord is in good condition. ONLY USE a cord that is heavy enough to carry the current your tool will draw.** An undersized cord will cause a current drop in line voltage resulting in a loss of power and overheating. A wire gauge size AWG (American Wire Gauge) **of at least** 14 is recommended for an extension cord 25 feet or less in length. If in doubt, use the next heavier size. Smaller gauge wires, have greater capacity (14 gauge wire has more capacity than 16 gauge wire).
9. **DO NOT abuse the cord. NEVER use the cord to pull the plug from the outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately.** Damaged cords increase the risk of electric shock.
10. When operating a power tool outside, **ALWAYS** use an outdoor extension cord marked "W-A" or "W". These cords are rated for outdoor use and reduce the risk of electric shock.

SAFETY INSTRUCTIONS cont.

WORK AREA SAFETY

1. **ALWAYS keep your work area clean and well lit. DO NOT** leave tools or pieces of wood on the saw while it is in operation. Cluttered benches and dark areas invite accidents.
2. **DO NOT operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite the dust or fumes.
3. **ALWAYS keep bystanders, children and visitors away while operating a power tool.** Distractions can cause you to lose control.
4. **ALWAYS make your workshop childproof** with padlocks and master switches or by removing starter keys.
5. **ALWAYS make sure the work area has ample lighting** so you can see the work and that there are no obstructions that will interfere with safe operation **BEFORE** using your saw.

PERSONAL SAFETY

1. **ALWAYS know your power tool.** Read the operator's manual carefully, learn the saw's applications and limitations, as well as, the specific potential hazards related to this tool.
2. **ALWAYS stay alert, watch what you are doing and use common sense when operating a power tool. DO NOT use tool while tired or under the influence of drugs, alcohol or medication.** A moment of inattention while operating power tools may result in serious personal injury.
3. **ALWAYS dress properly. DO NOT wear loose clothing, gloves, neckties, rings, bracelets or other jewelry that can get caught and draw you into moving parts. Non-slip footwear is also recommended. Pull back long hair. Keep your hair, clothing and gloves away from moving parts.** Loose clothing, jewelry or long hair can be caught in moving parts.
4. **ALWAYS remove adjusting keys or wrenches before turning the tool on.** A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.
5. **ALWAYS wear safety glasses with side shields.** Everyday eyeglasses have only impact resistant lenses, they are **NOT** safety glasses.
6. **ALWAYS wear a dust mask** to keep you from inhaling fine particles.
7. **ALWAYS protect your hearing.** Wear hearing protection during extended periods of operation.
8. **ALWAYS secure your work.** Use clamps or a vise to hold work when practical. It is safer than using your hand and frees both hands to operate tool.
9. **DO NOT overreach. ALWAYS keep proper footing and balance at all times.** Proper footing and balance enables better control of the tool in unexpected situations.

SAFETY INSTRUCTIONS cont.

PERSONAL SAFETY cont.

10. **ALWAYS avoid accidental starting.**
    BE SURE switch is in the "Off" position before plugging in.
11. **NEVER stand on tool.** Serious injury could occur if the tool is tipped or if the blade is accidentally contacted.

TOOL USE AND CARE SAFETY

1. **NEVER leave the tool running unattended. ALWAYS turn it off.** **DO NOT** leave the tool until it comes to a complete stop.
2. **DO NOT use the tool if the switch does not turn it "On" or "Off".** Any tool that cannot be controlled with the switch is dangerous. **ALWAYS** have defective switches replaced at a Sears Service Center.
3. **ALWAYS disconnect the plug from the power source before making any adjustments, changing accessories or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
4. **ALWAYS store idle tools out of the reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
5. **ALWAYS maintain tools with care. Keep cutting tools sharp and clean.** Properly maintained tools with sharp cutting edges are less likely to bind and are easier to control. Follow instructions for lubricating and changing accessories.
6. **DO NOT force the tool,** it will do the job better and more safely at the rate for which it was designed.
7. **ALWAYS** use the right tool for the job. **DO NOT** force the tool or attachment to do a job it was not designed for. Use it only the way it was intended.
8. **Before using this saw, ALWAYS check for damaged parts, including guards for proper operation and performance. Also ALWAYS check the alignment of moving parts, binding of moving parts, breakage of parts, saw stability, mounting and any other condition that may affect the tool's operation. If damaged, have the tool serviced at a Sears Service Center before using.** Many accidents are caused by poorly maintained tools.

> ⚠**WARNING:** USE OF ACCESSORIES THAT ARE NOT RECOMMENDED FOR USE WITH THIS TOOL MAY CREATE A HAZARDOUS CONDITION.

9. **ALWAYS use only accessories that are recommended for this tool.** Using improper accessories may cause the risk of serious injury. See accessories section of this manual for proper accessories.

SAFETY INSTRUCTIONS cont.

ADDITIONAL SPECIFIC SAFETY RULES FOR MITER SAWS

1. **Know your power tool. Read operator's manual carefully. Learn the applications and limitations, as well as the specific potential hazards related to this tool.** Following this rule will reduce the risk of electric shock, fire or serious injury.
2. **ALWAYS firmly clamp or bolt your miter saw to a workbench or table at approximately hip height.**
3. **ALWAYS be sure that all adjustments are secure BEFORE making a cut.**
4. **ALWAYS make sure that the miter table and saw (bevel function) are locked in position BEFORE operating your saw.** Lock the motor table by securely tightening the miter lock handle. Lock the saw arm (bevel function) by securely tightening the bevel lock knob.
5. **ALWAYS use a clamp to secure the workpiece, when possible.**
6. **ALWAYS be sure the blade path is free of nails. ALWAYS** carefully inspect lumber and remove all nails **BEFORE** cutting.
7. **ALWAYS be sure that the blade clears the workpiece. NEVER** start the saw with the blade touching the workpiece. **ALWAYS** allow the motor to come up to full speed **BEFORE** starting a cut.
8. **ALWAYS support long workpieces when cutting to minimize the risk of the blade pinching or kickback.** The saw may slip, walk or slide while cutting long or heavy boards.
9. **NEVER use a length stop on the free (scrap end) of a clamped workpiece. NEVER** hold onto or bind the free scrap end of the workpiece in any operation. If a work clamp and length stop are used together, **THEY MUST BOTH BE INSTALLED** on the same side of the saw table to prevent the saw from catching the loose end and kicking up.
10. **NEVER cut more than one piece at a time. DO NOT STACK** more than one workpiece on the saw table at a time.
11. **ALWAYS avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the blade. ALWAYS** make sure that you have good balance. **NEVER** operate your saw on the floor or in a crouched position.
12. **NEVER** stand or have any part of your body in line with the path of the blade.
13. **ALWAYS only use the correct blades.** Use the right blade size, style and cutting speed for the material and the type of cut. **DO NOT** use blades with incorrect size holes. **NEVER** use blade washers or blade bolts that are defective or incorrect. **The maximum blade capacity for this saw is 10 inches.**

SAFETY INSTRUCTIONS cont.

ADDITIONAL SPECIFIC SAFETY RULES FOR MITER SAWS cont.

14. **ALWAYS keep blades clean, sharp and with the sufficient set.** Sharp blades minimize stalling and kickback.
15. **DO NOT use dull or damaged blades.** Bent blades can break easily, or cause kickback.
16. **DO NOT remove the saw's blade guards. NEVER** operate the saw with any guard or cover removed. **MAKE SURE** that all guards are operating properly **BEFORE** each use.
17. **NEVER hand hold a workpiece that is too small to be clamped. ALWAYS** keep your hands clear of the "no hands' zone.
18. **NEVER perform any operation freehand. ALWAYS** place the workpiece to be cut on the miter table and position it firmly against the fence as a backstop. **ALWAYS** use the fence.
19. **ALWAYS keep your hands away from cutting area. DO NOT** reach under the material being cut or in the blade's cutting path with your fingers or hand for any reason. **ALWAYS** turn the power off.

> ⚠**WARNING:** Blade continues to turn after power to saw cuts off. To avoid possible serious injury, after releasing trigger switch to cut power, allow the saw blade to stop rotating **BEFORE** raising the blade out of the workpiece.

20. **NEVER reach behind, under or within three inches of the blade and its cutting path with your hands or fingers for any reason.**
21. **NEVER reach to pick up a workpiece, a piece of scrap, or anything else that is in or near the cutting path of the blade.**
22. **NEVER, for any reason, touch the blade or other moving parts during use.**
23. **ALWAYS** release the power switch and allow the saw blade to stop rotating **BEFORE** raising it out of the workpiece.
24. **DO NOT turn the motor switch on and off rapidly.** This could cause the blade to loosen which could create a hazard. Should this ever occur, stand clear and allow the saw blade to come to a complete stop. Disconnect the saw from the power source and securely tighten the blade bolt.
25. **ALWAYS turn off the saw** before disconnecting it to avoid accidental starting when reconnecting the saw to a power supply. **NEVER** leave the saw unattended while connected to a power supply.
26. **NEVER** lift this tool by gripping the sliding miter fence.
27. **SAVE THESE INSTRUCTIONS. Refer to them frequently and use them to instruct others who may use this tool. If someone borrows this tool, make sure they have these instructions also.**

SAFETY INSTRUCTIONS cont.

ADDITIONAL SPECIFIC SAFETY RULES FOR MITER SAWS cont.

⚠ **WARNING: Some dust particles created by power sanding, sawing, grinding, drilling and other construction jobs contain 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.
- Arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending upon how often you do this type of work. To reduce your exposure to these chemicals:

- Work in a well-ventilated area.
- Work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

⚠ **WARNING:** The operation of any saw can result in foreign objects being thrown into your eyes, which can result in severe eye damage. Before beginning power tool operation, **ALWAYS** wear safety goggles or safety glasses with side shield and a full face shield when needed. We recommend a Wide Vision Safety Mask for use over eyeglasses or standard safety glasses with side shield, both available at Sears Retail Stores.

SERVICE SAFETY

1. **If any part of this miter saw is missing or should break, bend, or fail in any way; or should any electrical component fail to perform properly: ALWAYS** shut off the power switch and remove the miter saw plug from the power source and have the missing, damaged or failed parts replaced **BEFORE** resuming operation.
2. **Tool service must be performed only at a Sears Service Center.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
3. **When servicing a tool, ALWAYS use only identical replacement parts. Follow instructions in the Maintenance Section of this manual.** Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electric shock or injury.

SAFETY INSTRUCTIONS cont.

SERVICE SAFETY cont.

The label on your tool may include the following symbols.

V	Volts
A	Amperes
Hz	Hertz
W	Watts
min	Minutes
~	Alternating current
⎓	Direct current
no	No-load speed
⧈	Class II construction
.../min	Revolutions or reciprocation per minute
⚠	Indicates danger, warning caution. It means attention!!! Your safety is involved.

IMPORTANT! READ ALL INSTRUCTIONS

GLOSSARY OF TERMS FOR WOODWORKING

Arbor
The shaft on which a blade or cutting tool is mounted.

Bevel Cut
A cutting operation made with the blade at any angle other than 90° to the miter table.

Cross Cut
A cutting or shaping operation made against the grain of the workpiece.

Compound Miter Cut
A compound miter cut is a cut made using a miter angle and bevel angle at the same time.

Freehand
Performing a cut without using a fence, miter gauge, fixture, work clamp, or other proper device to keep the workpiece from twisting or moving during the cut.

Gum
A sticky, sap-based residue from wood products.

Miter Cut
A cutting operation made with the blade at any angle other than 90° to the fence.

Resin
A sticky, sap-based substance that has hardened.

Revolutions per Minute (RPM)
The number of turns completed by a spinning object in one minute.

Saw Blade Path
The area over, under, behind, or in front of the blade, as it applies to the workpiece. That area which will be or has been cut by the blade.

SAFETY INSTRUCTIONS cont.

GLOSSARY OF TERMS FOR WOODWORKING cont.

Set
The distance that the saw blade tooth is bent (or set) outward from the face of the blade.

Throw-Back
Throwing of a workpiece in a manner similar to a kickback. Usually associated with a cause other than the kerf closing, such as a workpiece not being against the fence, being dropped into the blade, or being placed inadvertently in contact with the blade.

Through Sawing
Any cutting operation where the blade extends completely through the thickness of the workpiece.

Workpiece
The item on which the cutting operation is being done. The surfaces of a workpiece are commonly referred to as faces, ends and edges.

Throat Plate
A plastic throat plate inserted in the miter table that allows for blade clearance.

No Hands Zone
The area between the marked lines on the left and right side of the miter table base. This zone is identified by no hands zone labels placed inside the marked lines on the miter table base.

UNPACKING

Your Compound Miter Saw has been shipped fully assembled, except for the blade, miter lock handle, dust guide and dust bag.

1. Remove all packing materials from around your saw.
2. Carefully lift the saw from carton and place it on a level work surface. The saw is heavy, so get help, if you need it, to help avoid injuring your back.
3. Do not discard the packing materials until you have carefully inspected the saw for loose or damaged parts and successfully operated the saw.
4. This saw has been shipped with the saw arm secured in the down position. To release the saw arm, push down on the top of the saw arm and cut the tie wrap. Lift the saw arm by the handle.

IMPORTANT: Keep hand pressure on the saw arm while cutting the tie wrap to prevent it from suddenly raising the wrapping if fully cut.

5. Carefully inspect all parts of the saw to make sure that no breakage or damage has occurred during shipping.

⚠WARNING: If any parts are missing, **DO NOT** operate this tool until the missing parts are replaced. Failure to do so could result in possible serious injury.

LABELS

The following labels appear on your miter saw. These labels are there to warn you of possible dangerous situations. Failure to follow the warnings could result in serious injury.

Label # 1 (see fig. 1)

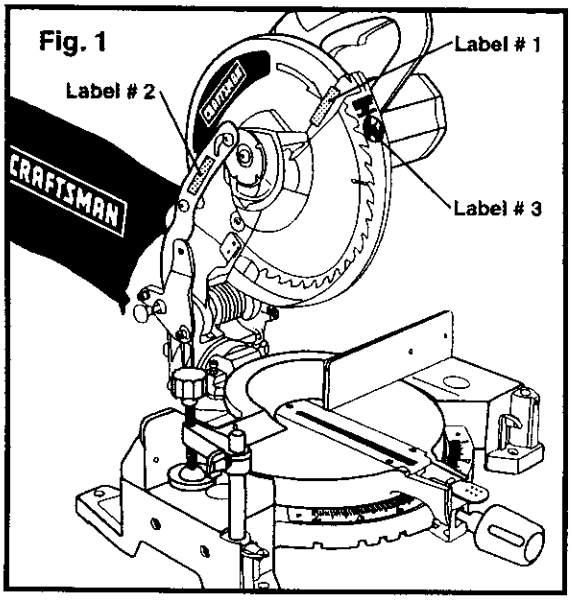
⚠WARNING FAILURE TO RESTORE LOWER GUARD AND TIGHTEN SCREW MAY RESULT IN SERIOUS INJURY.

Label # 2 (see fig. 1)

LIFT FOR BLADE CHANGE. SEE OWNER'S MANUAL

Label # 3 (see fig. 1)

Fig. 1



LABELS cont.

Label # 4 (see fig. 2)

⚠WARNING / ADVERTENCIA

- For your safety, read owner's manual before operating miter saw.
- Para su seguridad, lea el manual del usuario antes de usar la sierra ingletadora.
- Wear eye protection.
- Keep hands out of path of saw blade.
- Do not operate saw without guards in place.
- Do not perform any operation freehand.
- Never reach around the saw blade.
- Turn off tool and wait for saw blade to stop before moving workpiece or changing settings.
- Disconnect the saw from the power source before changing blades or servicing.
- Do not expose to rain or use in damp places.

Label # 5 (see fig. 2)

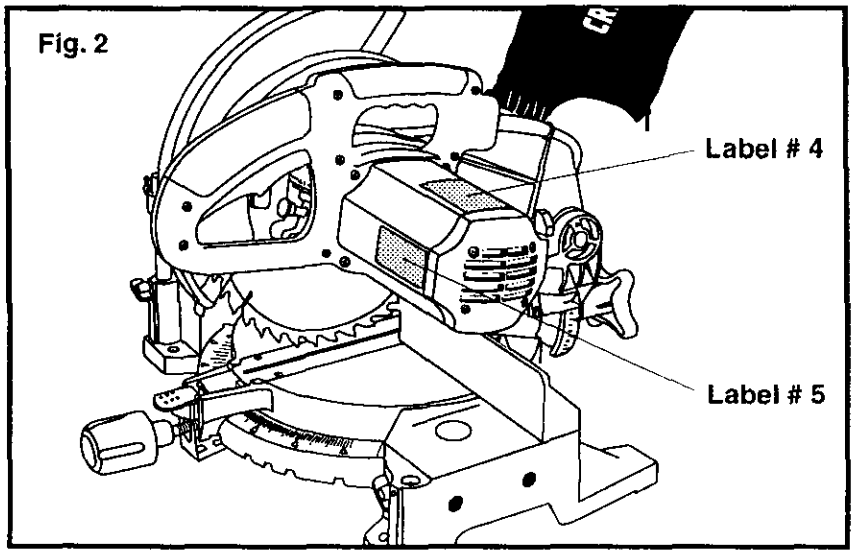
10-inch Compound Miter Saw

Double Insulated 5000 RPM 120 VOLTS 60 HZ AC ONLY 14 A

⚠WARNING WHEN SERVICING, USE ONLY IDENTICAL CRAFTSMAN REPLACEMENT PARTS.

MODEL 172.24360

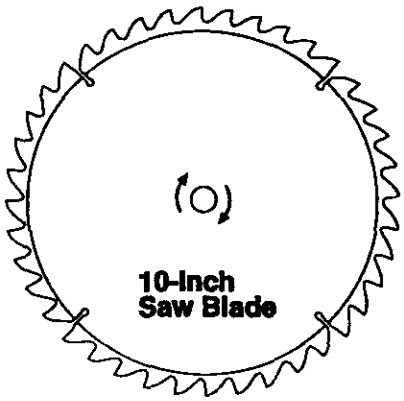
MADE IN CHINA SEARS, ROEBUCK AND CO.

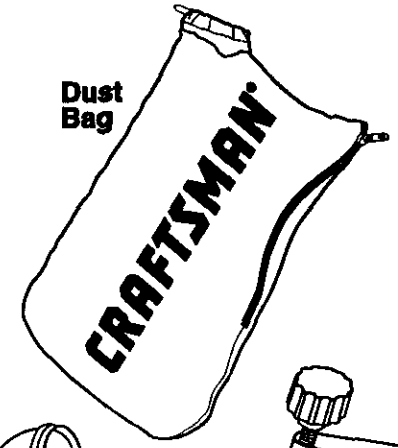


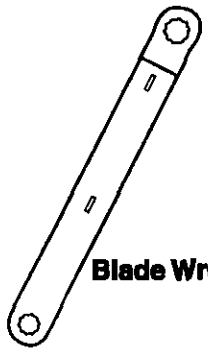
LOOSE PARTS LIST fig.3

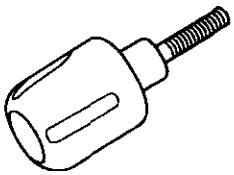
The follows items are included with your compound miter saw.

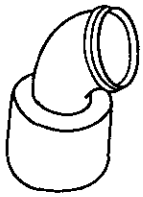
- 10-Inch Saw Blade
- Miter Lock Handle
- Dust Bag
- Vac Adapter
- Hold-Down Clamp
- Blade Wrench
- Hex Key
- Owner's Manual

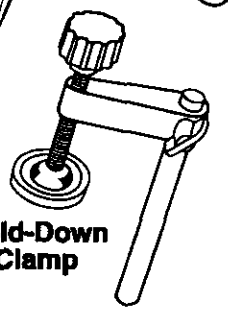








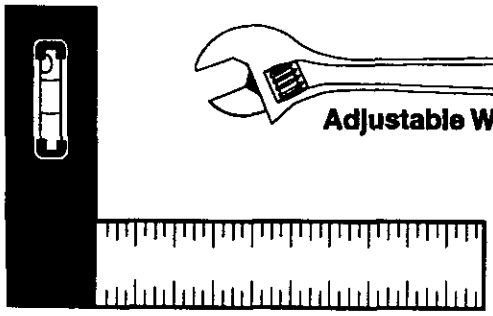


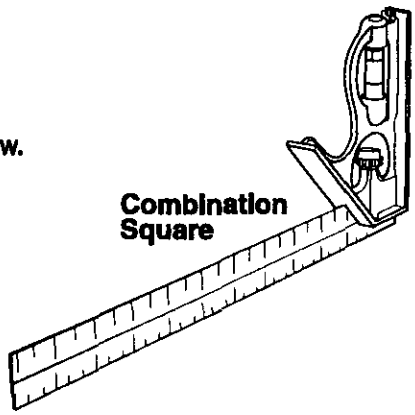


⚠ **WARNING:** The use of attachments or accessories that are not recommended might be dangerous and could cause serious personal injury.

TOOLS NEEDED fig.4

The following tools are not included, but are needed for installing the blade and for making adjustments on your saw.





DESCRIPTION

KNOW YOUR SAW (see fig. 5)

Your miter saw has many built-in convenience features for fast, efficient cutting. Before attempting to use your saw, familiarize yourself with all of the operating features and safety requirements.

> ⚠ **WARNING: DO NOT** allow familiarity with your saw to make you careless. Remember that a careless fraction of a second is sufficient to inflict serious injury.

14-Amp Motor

This powerful motor provides sufficient power to handle a wide variety of heavy-duty cutting jobs. It has permanently lubricated ball bearings for long life and smooth operation.

10-inch Blade

The blade included with your compound miter saw will cut a variety of materials up to 5 1/2 in. wide and 3 1/2 in. thick, depending upon the angle at which the cut is made.

CUTTING CAPACITIES

When the miter angle (miter table) is set at 0° and the bevel angle is set at 0°:
Your saw will cut materials up to a maximum of 5½ in. wide x 3½ in. thick.

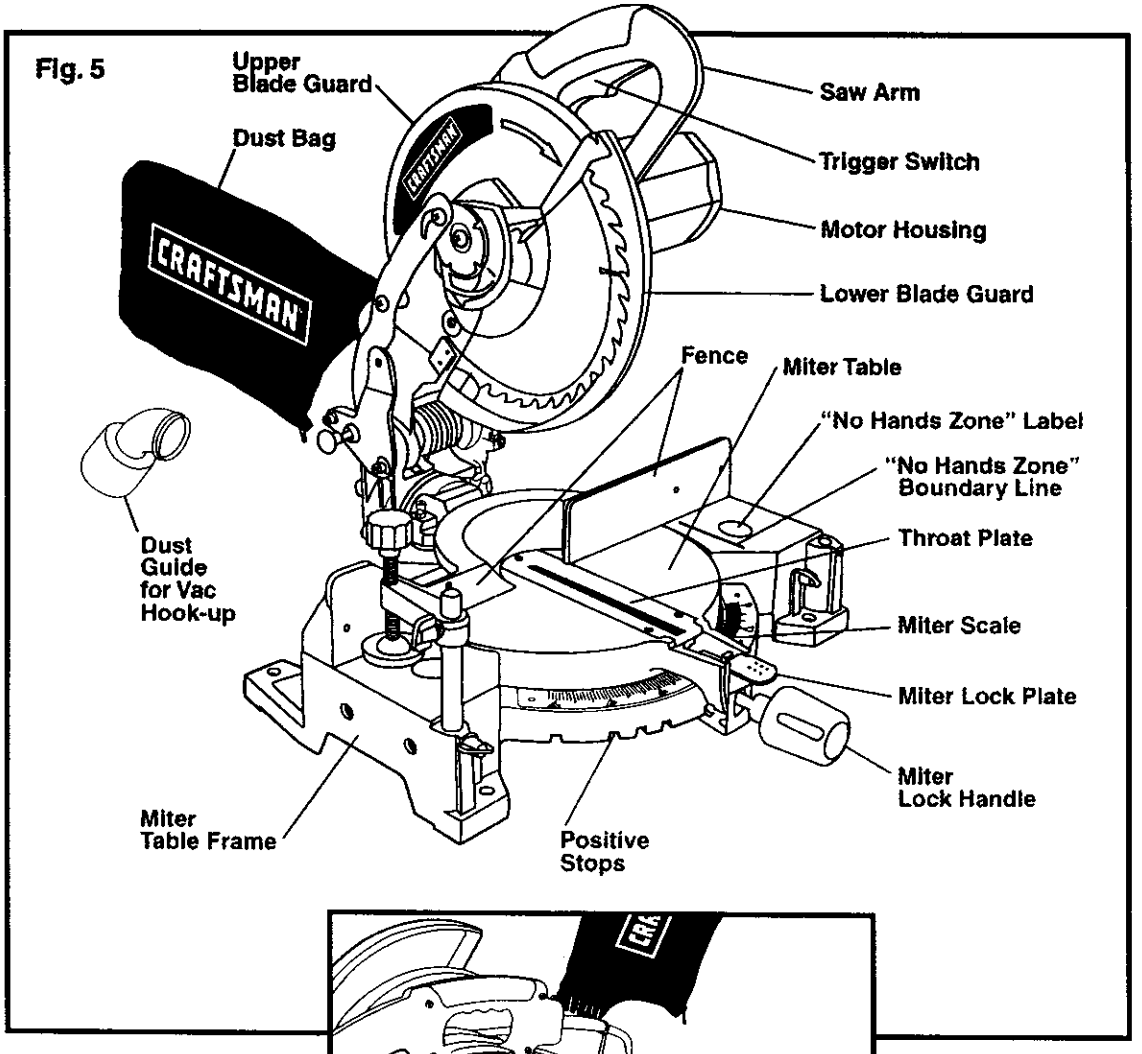
When the miter angle (miter table) is set at 45° and the bevel angle is set at 0°:
Your saw will cut materials up to a maximum of 4⅛ in. wide x 3½ in. thick.

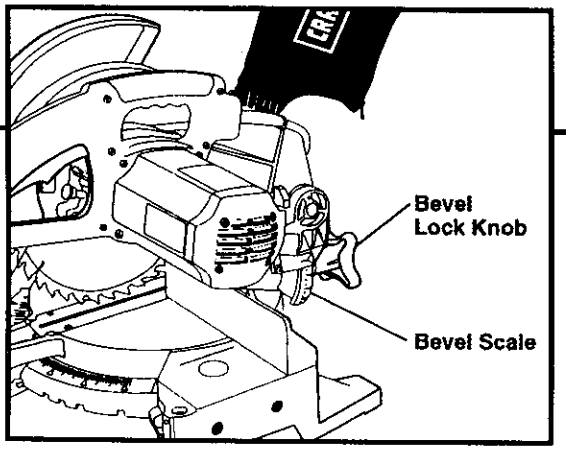
When the miter angle (miter table) is set at 0° and the bevel angle is set at 45°:
Your saw will cut materials up to a maximum of 5½ in. wide x 1 9/16 in. thick.

When the miter angle (miter table) is set at 45° and the bevel angle is set at 45°:
Your saw will cut materials up to a maximum of 4⅛ in. wide x 1 9/16 in. thick.

DESCRIPTION cont.

KNOW YOUR SAW cont. (see fig. 5)





DESCRIPTION cont.

KNOW YOUR SAW cont.

Carrying Handle (see fig. 6)
Your miter saw has a built-in carrying handle on the top of the saw arm for easy, convenient transporting from one job site to another. Before carrying the saw:

1. Shut off the power and pull out the plug.
2. Lower the saw arm and lock it in the down position.
3. To lock saw arm, push the lock pin.

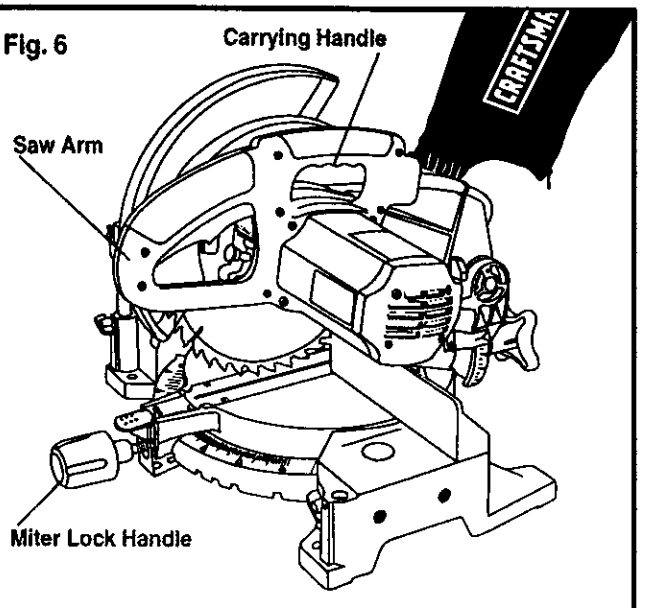
Miter Lock Handle (see fig. 6)
The miter lock handle securely locks your saw at the desired miter angle.

Spindle Lock Button (see fig. 7)
The spindle lock button on your saw allows you to lock the spindle that keeps the blade in your saw from rotating. Only depress and hold the lock button when installing, changing or removing the blade.

Trigger Switch (see fig. 7)
To turn on the saw, squeeze the trigger switch. Release switch to shut off.

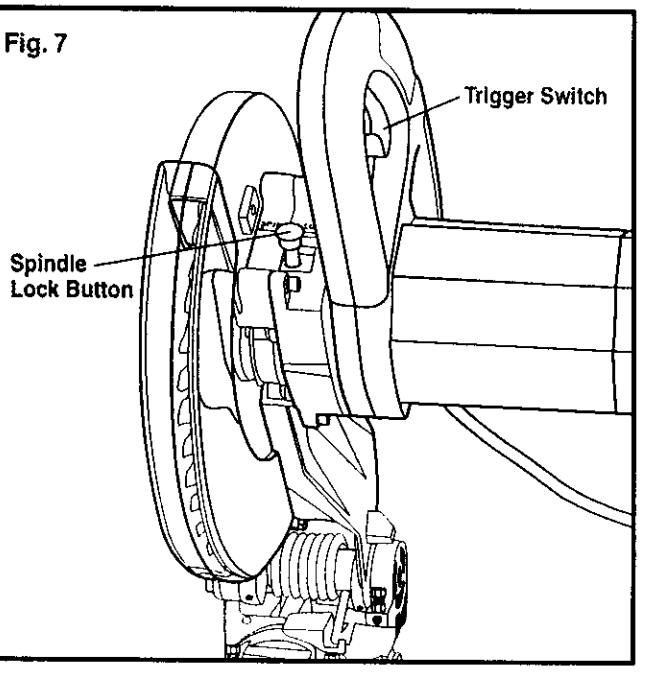
Positive Stops on Miter Table
The miter table has a miter scale that is color coded for easy reading. It has miter indexes at 0°, 15°, 22.5°, 30° and 45° left and right with positive stops at 0°, 15°, 22.5°, 30° and 45° for exact miter cuts.

Fig. 6



Saw Arm Locked in Down Position

Fig. 7



DESCRIPTION cont.

KNOW YOUR SAW cont.

Bevel Lock Knob

The bevel lock knob securely locks your compound miter saw at the desired bevel angles. Positive stop adjustment screws have been provided on each side of the saw arm. These adjustment screws are for making fine adjustments at 0° and 45°. See pages 29 to 31.

Miter Fence

Hold the workpiece securely against the miter fence when making all cuts. The left side is larger to provide additional support.

Self-Retracting Lower Blade Guard

The lower blade guard is made of shock-resistant, see-through plastic and it provides protection from each side of blade. It retracts over the upper blade guard as blade is lowered into the workpiece.

PRODUCT SPECIFICATIONS	
Blade Diameter	**10 in.**
Blade Arbor	**5/8 in.**
No-Load Speed	**5000 RPM**
Rating	**14 Amperes**
Input	**120 Volts, 60 Hz AC Only**

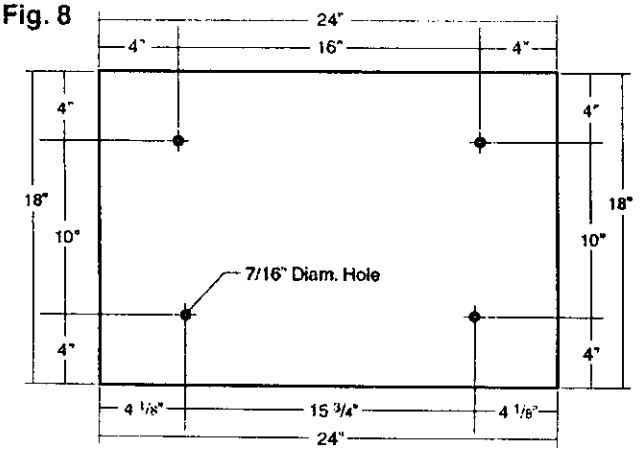
Mounting Holes (see fig. 8)

Your compound miter saw should be permanently mounted to a firm, stable supporting surface, such as a workbench. Four bolt holes have been provided in the saw base for this purpose. Each of these four mounting holes should be securely bolted using 3/8-in. machine bolts, lock washers and hex nuts (not included). Bolts should be long enough to fit through the saw base, lock washers, hex nuts and the thickness of the workbench.

Tighten all four bolts securely.

The hole pattern for an 18 x 24-in. workbench is shown in Figure 8. Carefully check the workbench after mounting the saw to make sure that no movement can occur during use. If any tipping, sliding or walking is noted, secure the workbench to the floor before operating.

Fig. 8



⚠WARNING:
ALWAYS make sure your compound miter saw is securely mounted to a workbench or an approved workstand. Failure to do so could result in an accident, resulting in possible serious personal injury.

DESCRIPTION cont.

KNOW YOUR SAW cont.

Electrical Connection

Your saw has a precision-built electric motor. It should be connected to a **power supply that is 120 volts, 60 Hz AC only (normal household current). DO NOT** operate this tool on direct current (DC). A substantial voltage drop will cause a loss of power and the motor will overheat. If your tool does not operate when plugged into an outlet, double-check the power supply.

⚠**WARNING: DO NOT** attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is a misuse and could result in a hazardous condition leading to possible serious personal injury.

ADJUSTMENTS

⚠**WARNING:** To prevent accidental starting that could cause possible serious personal injury, **ALWAYS** assemble all parts to your saw **BEFORE** connecting it to the power supply. The saw should **NEVER** be connected to a power supply when you are assembling parts, making adjustments, installing or removing blades, or when not in use.

Your compound miter saw has been factory assembled and adjusted. The blade, miter lock handle, dust guide and dust bag are the only parts that have to be installed.

TO INSTALL MITER LOCK HANDLE (See Fig. 9)

1. Place the threaded stud on the end of the miter lock handle into the threaded hole in the control arm.
2. Turn clockwise to tighten.

TO INSTALL DUST BAG OR VAC ADAPTER (See Fig. 10))

This miter saw comes with a dust bag and a vac adapter to help you keep the work area clean. The dust bag is ideal for smaller jobs. Use the vac adapter to hook up your saw to a wet/dry vac (sold separately).

Attaching the Dust Bag

1. Place the open end of the dust bag over the exhaust port in the upper blade guard.

Attaching the Vac Adapter

The vac adapter can be used with most wet/dry vacs.

1. Place the end of the vac adapter marked **INSERT** over the exhaust port in the upper blade guard.
2. Turn the adapter so the open end is facing down or toward the rear of the saw.

Fig. 9

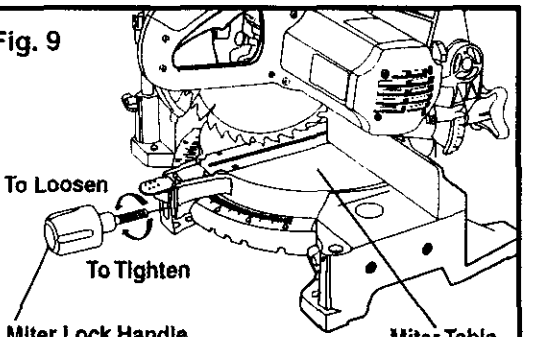
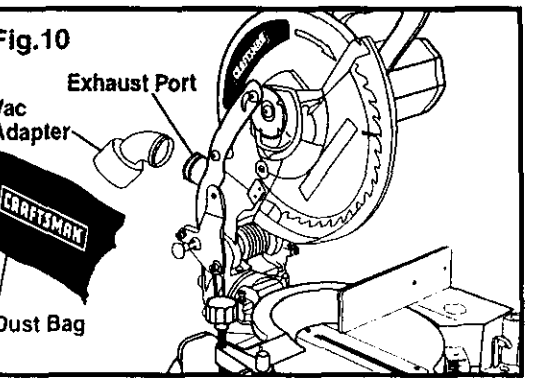


Fig.10



ADJUSTMENTS cont.

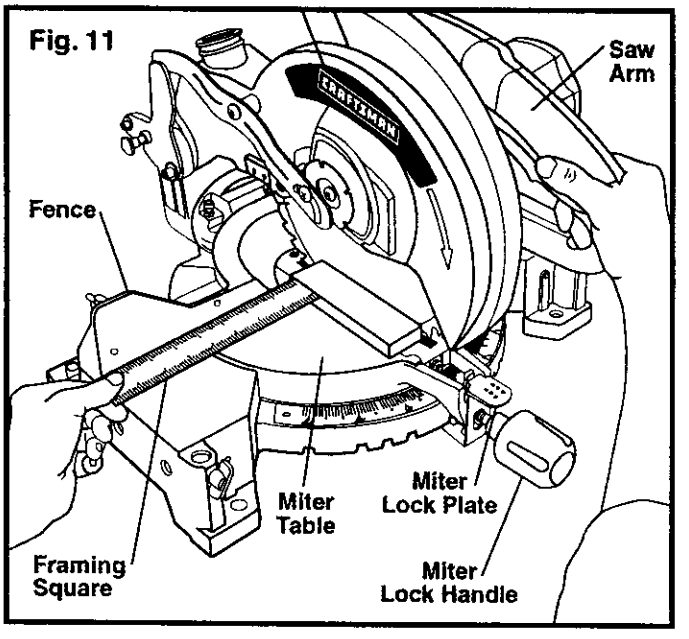
SQUARING THE SAW BLADE TO THE FENCE (See Figs. 11 - 14)

1. Unplug the saw.

⚠WARNING: Failure to unplug your saw could result in accidental starting causing possible serious personal injury!

2. Loosen (unscrew) the Miter Lock Handle approximately one-half turn.
3. Depress the Miter Lock Plate and rotate the Miter Table until the pointer is at 0°.
4. Release the Miter Lock Plate and securely tighten the Miter Lock Handle.
5. Loosen the Bevel Lock Handle.
6. Rotate the Bevel Rotating Housing so the pointer is at 0°. Tighten Bevel Lock Handle.
7. Pull the saw arm "down" and engage the lock pin. Saw arm should now be in the transport or storing position.
8. Now lay a framing square flat on the miter table, placing one leg of square flat up against the Fence and the other leg flat up against the saw blade (See Fig. 11).

Fig. 11



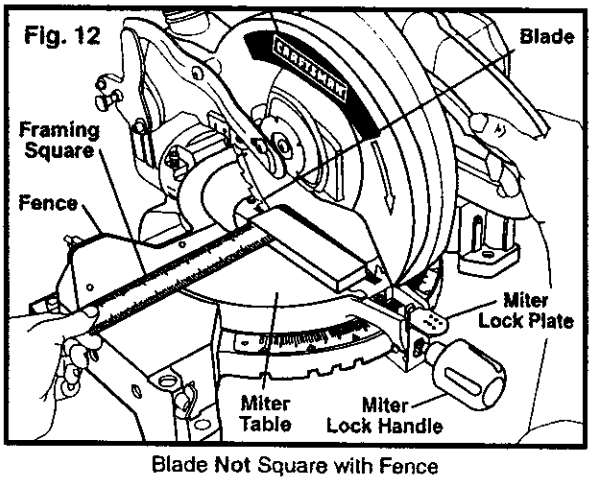
NOTE: Be sure that the square contacts the flat side of the blade, not the carbide teeth. This can be easily done by easing the saw arm down with the blade in the throat plate until the carbide teeth are below the table.

9. If the edge of the framing square is not parallel to the saw blade when it is flat up against the fence, then some simple adjustments can be made. (See Fig. 12).
10. Rotate one side of the entire miter saw up about 45° off of the surface you are working on to expose the underside of the saw (See Fig. 13).

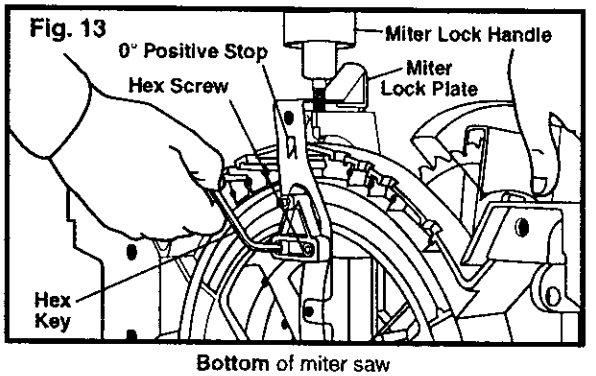
ADJUSTMENTS cont.

SQUARING THE SAW BLADE TO THE FENCE (See Figs. 11 - 14) cont.

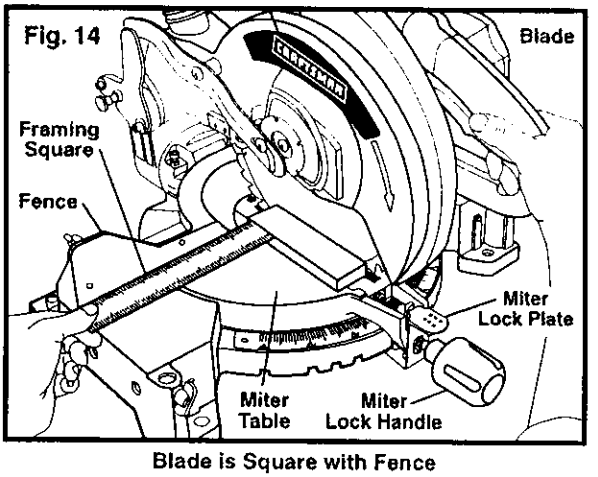
11. Locate the two hex screws on the bottom of the miter table (near the front). These two screws are on the bracket that secures the Miter Lock Plate. Loosen these two screws two complete turns with the Hex Key provided with your saw. (See Fig. 13).
12. Lower the entire miter saw back onto the surface you are working on.
13. With the Framing Square flat against the Fence and the Blade, loosen the Miter Lock Handle one complete turn.
14. Now use the Miter Lock Handle to move the Miter Table slightly, left or right, until the blade is flat up against the Framing Square.
15. Securely tighten the Miter Lock Handle.
16. Rotate the entire miter saw up so that the two hex screws can be tightened. When you are re-tightening these two screws, make sure that the Miter Lock Plate is located in the 0° Positive Stop under the Miter Lock Handle (See Fig. 14).
17. Lower the miter saw back down onto your work surface and check the 0° Scale Pointer. If it is not on 0°, loosen the screw and adjust the pointer to 0°.



Blade **Not** Square with Fence



Bottom of miter saw



Blade is Square with Fence

ADJUSTMENTS cont.

SQUARING THE SAW BLADE TO THE MITER TABLE (See Figs. 15 - 17)

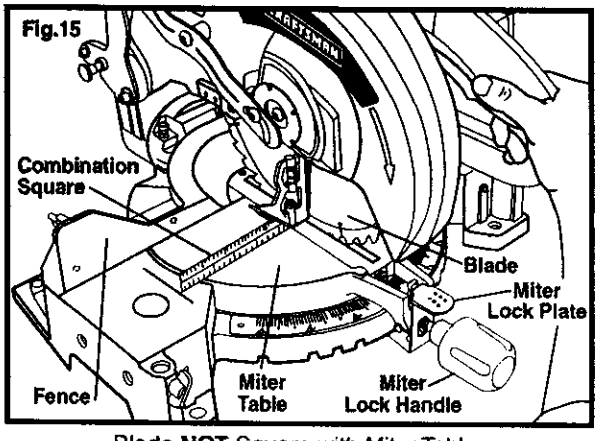
1. Unplug the saw.

⚠WARNING: Failure to unplug your saw could result in accidental starting causing possible serious personal injury!

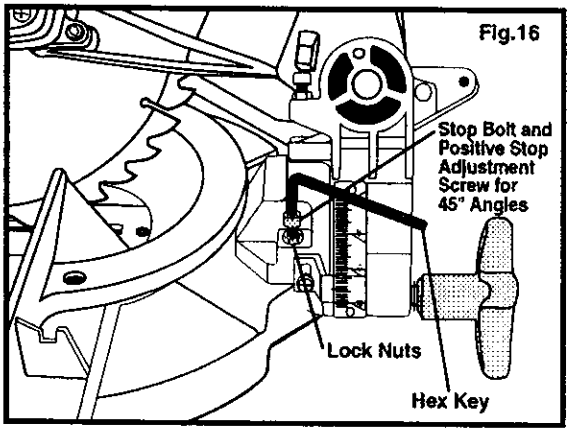
2. Loosen (unscrew) the Miter Lock Handle approximately one-half turn.
3. Depress the Miter Lock Plate and rotate the Miter Table until the pointer is at 0°.
4. Release the Miter Lock Plate and securely tighten the Miter Lock Handle.
5. Loosen the Bevel Lock Handle.
6. Rotate the Bevel Rotating Housing so the pointer is at 0°. Lock Bevel Lock Handle.
7. Pull the saw arm "down" and engage the lock pin. Saw arm should now be in the transport or storing position.
8. Now place a combination square on the miter table and against the flat part of the saw blade. (See Fig.15.)

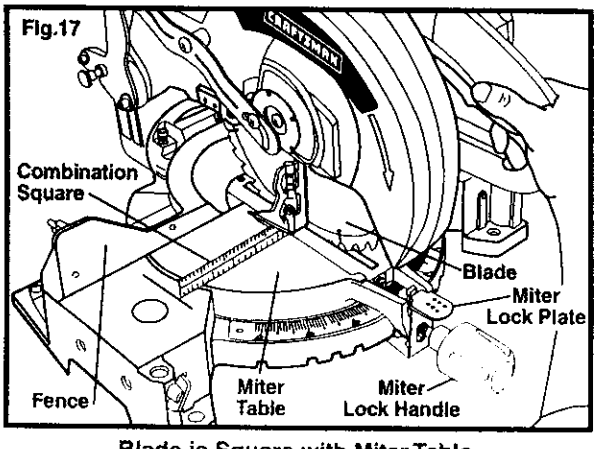
NOTE: Be sure that the square contacts the flat side of the blade, not the carbide teeth. This can be easily done by easing the saw arm down with the blade in the throat plate until the carbide teeth are below the table.

9. Rotate the blade by hand and check the Blade-to-Table squareness at several points. If the square is not flat up against the blade when squared to the table, perform steps 10 through 12. (See Figs. 16-17.)
10. First locate the Stop Bolt and Positive Stop Adjustment Screw for 0° angles. It is located on the right side of the bevel rotating housing sleeve (See Fig. 17).
11. Loosen the Bevel Lock Handle, then rotate the saw blade arm to the left so it clears the Positive Stop Adjustment Screw.
12. Adjust the Positive Stop Adjustment Screw up or down to bring the saw blade into alignment with the combination square.



Blade **NOT** Square with Miter Table





Blade is Square with Miter Table

ADJUSTMENTS cont.

SQUARING THE SAW BLADE TO THE MITER TABLE (See Figs. 15 - 17) cont.

NOTE: MAKE ONLY SLIGHT ADJUSTMENTS TO THE SCREW, THEN ROTATE THE SAW ARM BACK TO 0°. CHECK BLADE WITH SQUARE. REPEAT THIS PROCESS UNTIL THE BLADE IS SQUARED TO THE FENCE.

13. After you have the blade squared to the fence, tighten the lock nut that holds the Positive Stop Adjustment Screw.
14. Rotate the saw blade arm back to 0° on the bevel scale, then tighten the Bevel Lock Handle. Repeat steps 9 through 12 for 45° stop.

Your saw has two scale pointers. One is on the Bevel scale and one is on the Miter scale. After any blade squaring adjustments are made, it may be necessary to loosen the screws that hold the clear red pointers and adjust them back to 0°.

THROAT PLATE SLOT

For your convenience the slot in the zero clearance throat plate has been pre-cut at the factory to allow complete blade clearance at any angle between 0° and 45°.

PIVOT ADJUSTMENTS

NOTE: These adjustments were made at the factory and under normal circumstances do not require readjustment.

Travel Pivot Adjustment

Your saw arm should rise completely to the up position by itself.

To avoid risk of personal injury, if your saw arm does not rise by itself or if there is play in the pivot joints, have your saw serviced at a Sears Service Center before using.

Bevel Pivot Adjustment

Your compound miter saw arm should bevel easily by loosening the bevel lock knob and tilting the saw arm to the left.

To avoid risk of personal injury, if movement is tight or if there is play in the pivot, have your saw serviced at a Sears Service Center before using

DEPTH STOP

The depth stop limits the downward travel of the blade. It allows the blade to go below the miter table enough to maintain full cutting capacities. The depth stop positions the blade 1/4-inch from the miter table support.

NOTE: The miter table support is located inside the miter table.

The depth stop is factory set to provide maximum cutting capacity for the 10-inch blade included with your saw. Therefore the blade included with your saw should never need adjustments.

However, when the diameter of the blade has been reduced due to sharpening, it may become necessary to adjust the depth stop in order to provide the maximum cutting capacity.

ADJUSTMENTS cont.

DEPTH STOP (cont.)

Also, when a new blade is installed, it is necessary to check the clearance of the blade to the miter table support before starting the saw. Make adjustments if necessary.

Depth Stop Adjustments (See Figure 18)

1. Unplug the saw.

> ⚠ **WARNING:** To prevent personal injury, **ALWAYS** disconnect the plug from power source **BEFORE** assembling parts, making adjustments or changing blades.

2. To adjust the depth stop use hex key (included) to loosen the hex nut at the rear of the miter saw arm.
3. Use the hex key (included) to adjust the depth stop adjustment screw.
4. To lower the blade, turn the screw counterclockwise.
5. To raise the blade, turn the screw clockwise.
6. Lower the blade into the throat plate of the miter table.
7. Check blade clearance and maximum cutting distance (distance from fence where blade enters) to front of miter table slot.
8. Readjust if necessary.

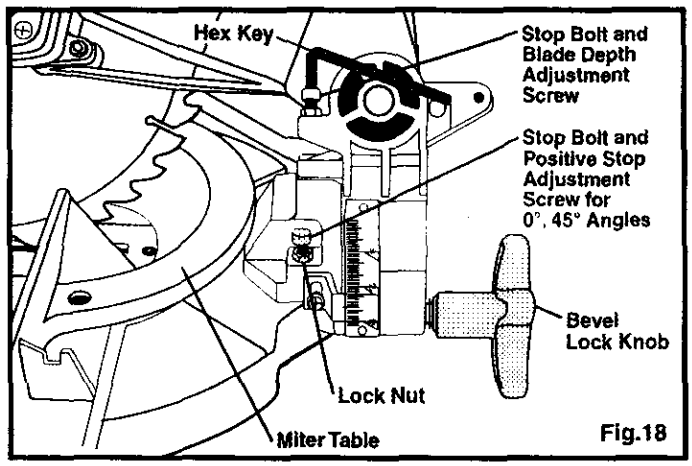


Fig.18

> ⚠ **WARNING: DO NOT** start your compound miter saw without checking for interference between the blade and the miter table support. The blade could be damaged if it strikes the miter table support during operation of the saw.

9. Tighten the screw with hex key (included).
10. To prevent the depth stop adjustment screw from turning while tightening the hex nut, carefully hold it with the hex key while tightening the hex nut with a wrench.

ADJUSTMENTS cont.

TO REPLACE BLADE (See Figs. 19 - 21)

⚠WARNING: A 10-inch blade is the maximum blade capacity of your saw. A larger than 10-inch blade will come in contact with the blade guards. Also, **NEVER** use a blade that is so thick that it prevents the outer blade washer from engaging with the flat side of the spindle. Blades that are too large or too thick can result in an accident causing serious personal injury.

1. Unplug the saw.

⚠WARNING: To prevent personal injury, **ALWAYS** disconnect the plug from power source **BEFORE** assembling parts, making adjustments or changing blades.

2. Push down on saw arm and pull out the lock pin to release saw arm.
3. Raise saw arm to its full raised position. Be cautious because saw arm is spring loaded to raise.
4. Loosen the Phillips screw on the blade bolt cover until blade bolt cover can be raised (see Figures 19 and 20).
5. Gently raise the lower blade guard bracket to release the lower blade guard from the notch. This will allow the lower blade guard and the blade bolt cover to be rotated up and back to expose the blade bolt (see Figures 19 and 20).
6. Rotate the lower blade guard and the blade bolt cover up and back to expose the blade bolt (see Figures 19 and 20).
7. Press the spindle lock button and rotate the blade bolt until the spindle locks (see Figure 21).

Fig. 19

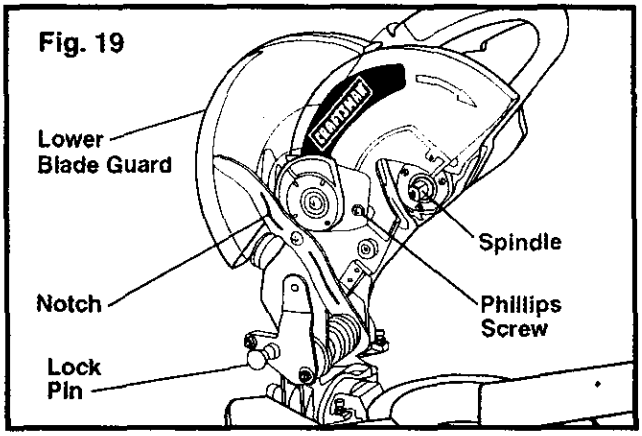
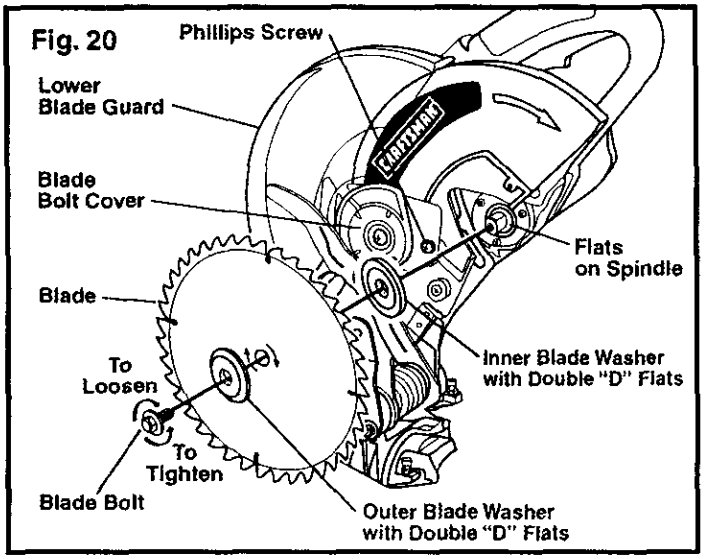


Fig. 20



ADJUSTMENTS cont.

TO REPLACE BLADE (See Figs. 19 - 21) cont.

8. Use the blade wrench (included) to loosen and remove the blade bolt. Turn the blade bolt clockwise to loosen.
9. Remove the outer blade washer. Then carefully remove old blade. **DO NOT** remove the inner blade washer.
10. Wipe a drop of oil onto the inner blade washer and the outer blade washer where they come in contact with the blade.

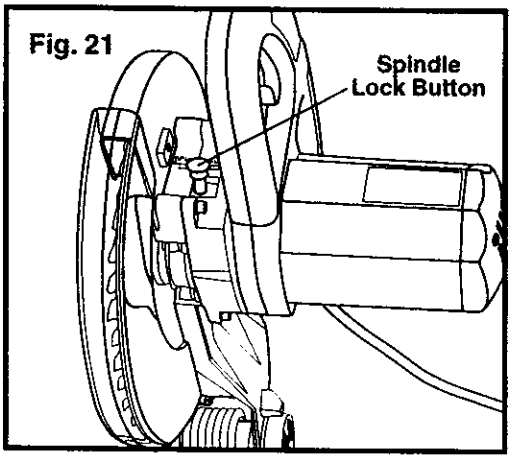
> ⚠**WARNING:** If the inner blade washer has been removed, replace it **BEFORE** placing blade on the spindle. Failure to do so could cause an accident because the blade will not tighten properly.

11. Fit the saw blade inside the lower blade guard and onto the inner blade washer. The blade teeth should point downward at the front of the saw as shown in Figure 20.

> ⚠**CAUTION: ALWAYS** install the blade with the blade teeth and the arrow printed on the side of the blade pointing down at the front of the saw. The direction of blade rotation is also stamped with an arrow on the upper blade guard.

12. Replace the outer blade washer. The Double "D" flats on the blade washers align with the flats on the spindle.
13. Press the spindle lock button and replace blade bolt.
14. Tighten the blade bolt securely by turning it counterclockwise with the blade wrench.
15. Replace the lower blade guard and the blade bolt cover.
16. Securely re-tighten the Phillips screw that secures the blade bolt cover (see Figure 21).

Fig. 21



> ⚠**WARNING:** To prevent damage to the spindle lock, **ALWAYS** allow the motor to come to a complete stop before engaging the spindle lock. **ALWAYS** make sure the spindle lock is disengaged before reconnecting saw to the power source.

ADJUSTMENTS cont.

TO REPLACE BLADE (See Figs. 19 - 21) cont.

Your compound miter saw has been adjusted at the factory for making very accurate cuts. However, some of the components may have been jarred out of alignment during shipping. Also over a period of time, some readjustment will probably become necessary due to wear. After unpacking your saw, check the following adjustments **BEFORE** using your saw. Make any adjustments that are necessary and periodically checks the parts alignment to be sure that your saw is cutting accurately.

> ⚠**WARNING:** Your saw should **NEVER** be connected to a power source when you are assembling parts, making adjustments, installing or removing blades, or when not in use. Disconnecting your saw will prevent accidental starting that could cause serious injury.

NOTE: Many of the drawings in this manual show only portions of your compound miter saw. This was intentional, so we can clearly illustrate the points being made. **NEVER** operate your saw without all the guards securely in place and in good operating condition.

OPERATION

APPLICATIONS

Only use your compound miter saw for the purposes listed below:

- Crosscutting wood and plastic
- Crosscutting miters, joints, etc., for picture frames, moldings, door casings, and fine joinery

NOTE: The blade included with this saw is ideal for a wide variety of wood cutting operations. However, for fine joinery cuts or cutting plastic, we recommend using one of the accessory blades sold separately at your local Sears Store.

⚠WARNING: BEFORE starting any cutting operation, clamp or bolt your compound miter saw to a work bench. NEVER operate your miter saw on the floor or in a crouched position. Failure to heed this warning could result in serious personal injury.

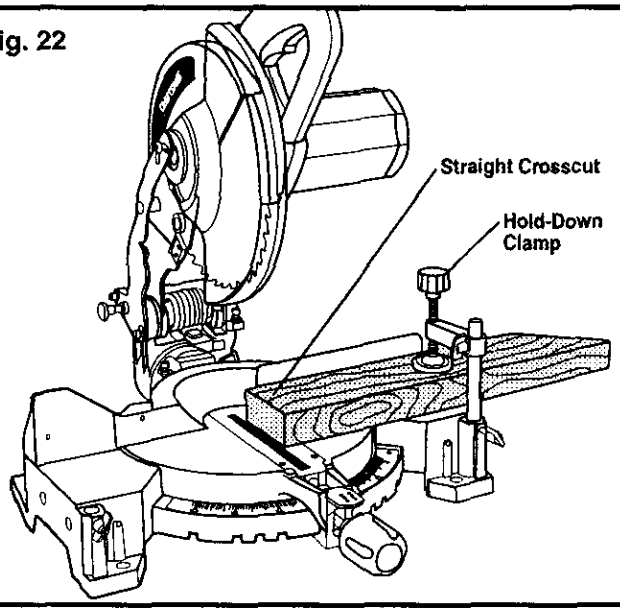
CUTTING WITH YOUR COMPOUND MITER SAW

⚠WARNING: When using a hold-down clamp or C-clamp to secure the workpiece, clamp workpiece on one side of the blade only. The workpiece MUST remain free on one side of the blade to prevent the blade from binding in the workpiece. The workpiece binding the blade will cause the motor to stall and cause kickback, resulting in possible serious personal injury.

CROSSCUTTING (See Figure 22)

A crosscut is a cut made across the grain of the workpiece. A straight crosscut is a cut made with the miter table set in the 0° position. Miter crosscuts are made with the miter table set at some angle other than zero.

Fig. 22



OPERATION cont.

To Crosscut With Your Miter Saw

1. Unplug the saw.

> ⚠**WARNING:** To prevent personal injury, **ALWAYS** disconnect the plug from power source **BEFORE** assembling parts, making adjustments or changing blades.

2. Pull out the lock pin and lift the saw arm to its full height.
3. Loosen (unscrew) the Miter Lock Handle approximately one-half turn.
4. Press miter lock plate down with your thumb and hold.
5. Rotate the control arm until the pointer aligns with the desired angle on the miter scale.
6. Release the miter lock plate.

NOTE: You can quickly locate 0°, 15°, 22½°, 30° left or right, and 45° left or right by releasing the lock plate as you rotate the control arm. The lock plate will seat itself in one of the positive stop notches, located in the miter table frame.

7. Tighten the miter lock handle securely.

> ⚠**WARNING:** To avoid serious personal injury, **ALWAYS** tighten the miter lock handle securely **BEFORE** making a cut. Failure to do so could result in movement of the control arm or miter table while making a cut.

8. Place workpiece flat on the miter table with one edge securely against the fence. If the board is warped, place the convex side against the fence. If the concave edge of the board is against the fence, the board could collapse on the blade at the end of the cut and jam the blade. (See Figures 29 and 30 on page 37.)
9. When cutting long pieces of lumber or molding, support the opposite end of the stock with a roller stand or with another work surface that is level with the saw table.
10. Align cutting line on the workpiece with the edge on the saw blade.
11. Hold the stock firmly with one hand and secure it against the fence. Use the hold-down clamp or a C-clamp to secure the workpiece when possible. (See Figure 26.)

> ⚠**WARNING:** To avoid serious personal injury, **ALWAYS** keep your hands outside the "no hands zone"(red lines); at least 3 inches from blade. Also, **NEVER** perform any cutting operation "freehand" (i.e. without holding workpiece against the fence); the blade could grab the workpiece, causing it to slip and twist.

OPERATION cont.

To Crosscut With Your Miter Saw cont.

12. **BEFORE** turning on the saw, perform a dry run of the cutting operation just to make sure that no problems will occur when the cut is made.
13. Hold the saw handle firmly, when squeezing the trigger switch. Allow several seconds for the blade to reach maximum speed.
14. Slowly lower the blade into and through the workpiece. (See Figure 22.)
15. Release the trigger switch and allow the saw blade to stop rotating **BEFORE** raising the blade out of the workpiece. Wait until the electric brake stops the blade from turning **BEFORE** removing the workpiece from the miter table.

BEVEL CUTTING
(See Figures 23 and 24)

A bevel cut is a cut made across the grain of the workpiece with the blade at an angle to the workpiece. A straight bevel cut is made with the miter table set in the 0° position and the blade set at an angle between 0° and 45°.

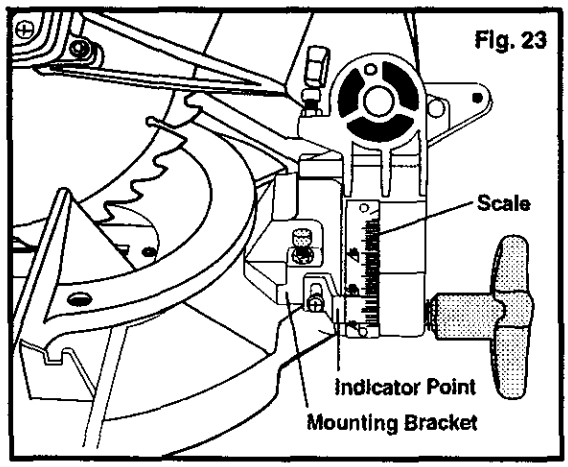


Fig. 23

To Bevel Cut With Your Miter Saw

1. Unplug the saw.

> ⚠ **WARNING:** To prevent personal injury, **ALWAYS** disconnect the plug from power source **BEFORE** assembling parts, making adjustments or changing blades.

2. Pull out the lock pin and lift the saw arm to its full height.
3. Loosen the miter lock handle. Rotate the miter lock handle approximately one-half turn to the left to loosen.
4. Press down on miter lock plate to disengage.
5. Rotate the control arm until the pointer aligns with zero on the miter scale.
6. Release the miter lock plate.

NOTE: You can quickly locate 0° by releasing the lock plate as you rotate the control arm. The lock plate will seat itself in one of the positive stop notches, located in the miter table frame.

7. Tighten the miter lock handle securely.

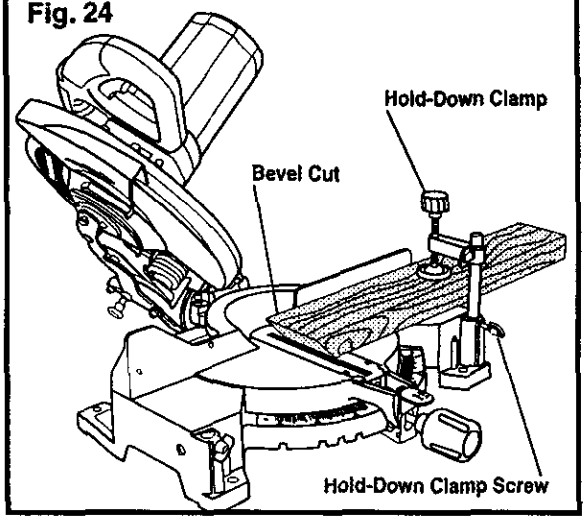
OPERATION cont.

To Bevel Cut With Your Miter Saw cont.

> ⚠**WARNING:** To avoid serious personal injury, **ALWAYS** tighten the miter lock handle securely **BEFORE** making a cut. Failure to do so could result in movement of the control arm or miter table while making a cut.

8. Loosen the bevel lock knob and move the saw arm to the left to the desired bevel angle. Bevel angles can be set from 0° to 45°.
   The 45° triangle on the miter fence provides for the maximum clearance required for adjusting the miter saw angle when making a bevel or compound cut.
9. Align the indicator point with the desired angle.
10. Once the saw arm has been set at the desired angle, securely tighten the bevel lock knob.
11. Place workpiece flat on the miter table with one edge securely against the fence. If the board is warped, place the convex side against the fence. If the concave edge of the board is against the fence, the board could collapse on the blade at the end of the cut and jam the blade. (See Figures 29 and 30 on page 37.)
12. When cutting long pieces of lumber or molding, support the workpiece with a roller stand or other support to bring the workpiece level with the saw table (see Fig. 27 on page 34).

Fig. 24



OPERATION cont.

To Bevel Cut With Your Miter Saw cont.

13. Align cutting line on the workpiece with the edge on the saw blade.
14. Hold the stock firmly with one hand and secure it against the fence. Use the hold-down clamp or a C-clamp to secure the workpiece when possible. (See Figure 24.)

> ⚠**WARNING:** To avoid serious personal injury, **ALWAYS** keep your hands outside the "no hands zone"(red lines); at least 3 inches from blade. Also, **NEVER** perform any cutting operation "freehand" (i.e. without holding workpiece against the fence); the blade could grab the workpiece, causing it to slip and twist.

15. **MAKE SURE** that there will be no obstructions to interfere with making the cut.
16. Hold the saw handle firmly when squeezing the trigger switch. Allow several seconds for the blade to reach maximum speed.
17. Slowly lower the blade into and through the workpiece. (See Figure 24.)
18. Release the trigger switch and allow the saw blade to stop rotating **BEFORE** raising the blade out of the workpiece. Wait until the electric brake stops the blade from turning **BEFORE** removing the workpiece from the miter table.

COMPOUND MITER CUTTING

A compound miter cut is a cut made using a miter angle and a bevel angle at the same time. This type of cut is used for moldings, picture frames, and boxes with sloping sides.

To make this type of cut the control arm on the miter table must be rotated to the correct angle and the saw arm must be tilted to the correct bevel angle.

ALWAYS take special care when making compound miter setups due to the interaction of the two angle settings.

Adjustments of miter and bevel settings are dependent on one another. Each time you adjust the miter setting, you change the effect of the bevel setting. Also, each time you adjust the bevel setting, you change the effect of the miter setting.

It may take several settings to obtain the desired cut. The first angle setting should be checked after setting the second angle, since adjusting the second angle affects the first.

Once the two correct settings for a particular cut have been obtained, **ALWAYS** make a test cut in scrap material **BEFORE** making a finish cut in good material.

OPERATION cont.

To Make a Compound Miter Cut With Your Miter Saw

1. Unplug the saw.

> ⚠ **WARNING:** To prevent personal injury, **ALWAYS** disconnect the plug from power source **BEFORE** assembling parts, making adjustments or changing blades.

2. Pull out the lock pin and lift the saw arm to its full height.
3. Loosen the miter lock handle. Rotate the miter lock handle approximately one-half turn to the left to loosen.
4. Lift miter lock plate to disengage.
5. Rotate the control arm until the pointer aligns with the desired angle on the miter scale.
6. Release the miter lock plate.

NOTE: You can quickly locate 0°, 15°, 22½°, 30° and 45° left or right by releasing the miter lock plate as you rotate the control arm. The miter lock plate will seat itself in one of the positive stop notches, located in the miter table frame.

7. Tighten the miter lock handle securely.

> ⚠ **WARNING:** To avoid serious personal injury, **ALWAYS** tighten the miter lock handle securely **BEFORE** making a cut. Failure to do so could result in movement of the control arm or miter table while making a cut.

The 45° triangle on the miter fence provides for the maximum clearance required for adjusting the miter saw angle when making a bevel or compound cut.

8. Loosen the bevel lock knob and move the saw arm to the left to the desired bevel angle.

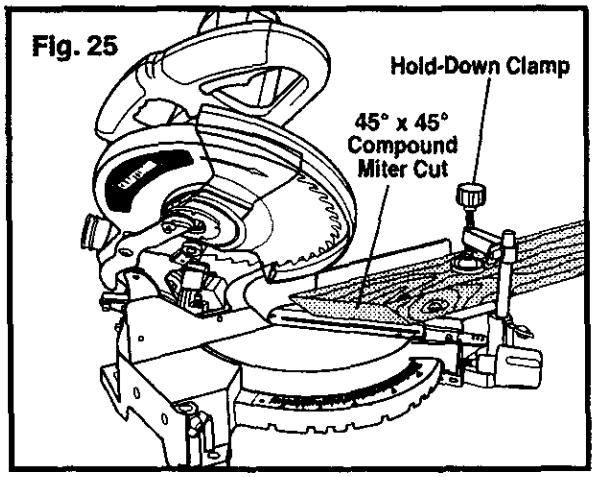
   Bevel angles can be set from 0° to 45°.
9. Align the indicator point with the desired angle.
10. Once the saw arm has been set at the desired angle, securely tighten the bevel lock knob.
11. Bevel angles can be set from 0° to 45°.

OPERATION cont.

To Make a Compound Miter Cut With Your Miter Saw cont.

12. Place workpiece flat on the miter table with one edge securely against the fence. If the board is warped, place the convex side against the fence. If the concave edge of the board is against the fence, the board could collapse on the blade at the end of the cut and jam the blade. (See Figures 29 and 30 on page 38.)
13. When cutting long pieces of lumber or molding, support the workpiece with a roller stand or other support to bring the workpiece level with the saw table (see Fig. 27 on page 35).

Fig. 25

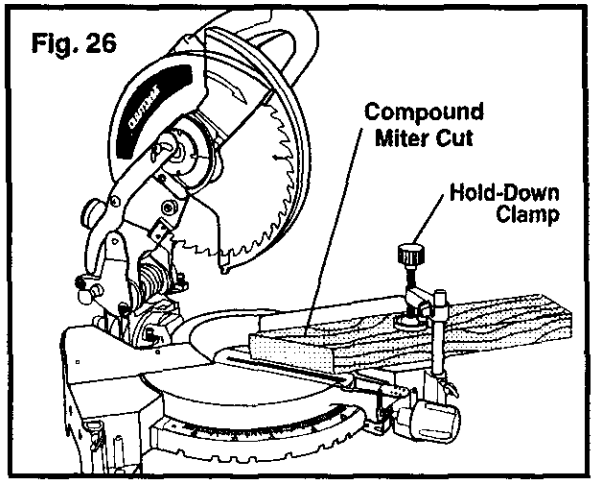


14. Align cutting line on the workpiece with the edge on the saw blade.
15. Hold the stock firmly with one hand and secure it against the fence. Use the hold-down clamp or a C-clamp to secure the workpiece when possible.

⚠**WARNING:** To avoid serious personal injury, ALWAYS keep your hands outside the "no hands zone"(red lines); at least 3 inches from blade. Also, NEVER perform any cutting operation "freehand" (i.e. without holding workpiece against the fence); the blade could grab the workpiece, causing it to slip and twist.

16. **MAKE SURE** that there will be no obstructions to interfere with making the cut.
17. Hold the saw handle firmly, when squeezing the trigger switch. Allow several seconds for the blade to reach maximum speed.
18. Slowly lower the blade into and through the workpiece. (See Figures 25 and 26.)
19. Release the trigger switch and allow the saw blade to stop rotating **BEFORE** raising the blade out of the workpiece.Wait until the electric brake stops the blade from turning **BEFORE** removing the workpiece from the miter table.

Fig. 26

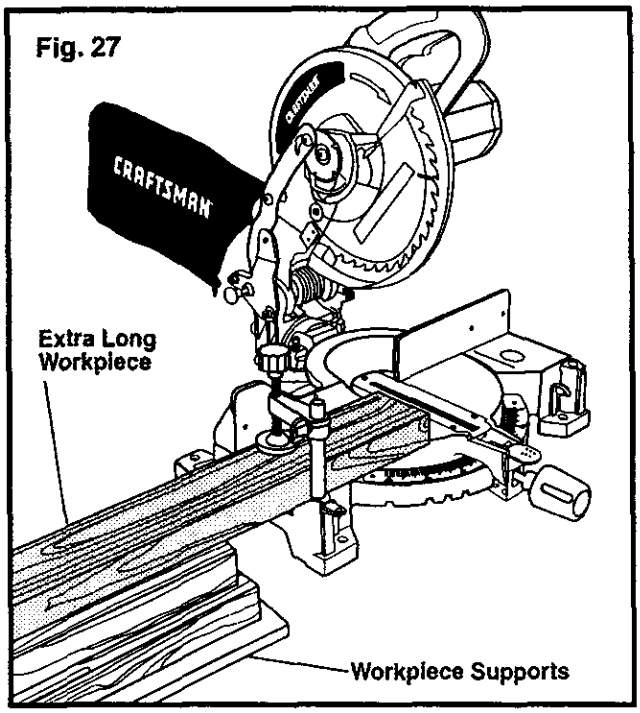


OPERATION cont.

SUPPORT LONG WORKPIECES (See Figure 27)

Long workpieces require extra supports. The supports should be placed along the workpiece so it does not sag. The support should allow the workpiece to lay flat on the base of the saw and work table during the cutting operation. Use the work clamp or a C-clamp to secure the workpiece.

Fig. 27



⚠**WARNING:** To avoid serious personal injury, **ALWAYS** keep your hands outside the "no hands zone"(red lines); at least 3 inches from blade. Also, **NEVER** perform any cutting operation "freehand" (i.e. without holding workpiece against the fence); the blade could grab the workpiece, causing it to slip and twist.

CUTTING COMPOUND MITERS

To help you to make the correct settings, use the compound angle setting chart below. Since compound cuts are the most difficult to accurately obtain, plan carefully and make trial cuts in scrap material prior to making your required cut.

PITCH OF SIDE	NUMBER OF SIDES						
0°	M-45.00° B- 0.00°	M-36.00° B- 0.00°	M-30.00° B- 0.00°	M-25.71° B- 0.00°	M-22.50° B- 0.00°	M-20.00° B- 0.00°	M-18.00° B- 0.00°
5°	M-44.89° B- 3.53°	M-35.90° B- 2.94°	M-29.91° B- 2.50°	M-25.63° B- 2.17°	M-22.42° B- 1.91°	M-19.93° B- 1.71°	M-17.94° B- 1.54°
10°	M-44.56° B- 7.05°	M-35.58° B- 5.86°	M-29.62° B- 4.98°	M-25.37° B- 4.32°	M-22.19° B- 3.81°	M-19.72° B- 3.40°	M-17.74° B- 3.08°
15°	M-44.01° B-10.55°	M-35.06° B- 8.75°	M-29.15° B- 7.44°	M-24.95° B- 6.45°	M-21.81° B- 5.68°	M-19.37° B- 5.08°	M-17.42° B- 4.59°
20°	M-43.22° B-14.00°	M-34.32° B-11.60°	M-28.48° B- 9.85°	M-24.35° B- 8.53°	M-21.27° B- 7.52°	M-18.88° B- 6.72°	M-16.98° B- 6.07°
25°	M-42.19° B-17.39°	M-33.36° B-14.38°	M-27.62° B-12.20°	M-23.35° B-10.57°	M-20.58° B- 9.31°	M-18.26° B- 6.72°	M-16.41° B- 7.50°
30°	M-40.89° B-20.70°	M-32.18° B-17.09°	M-26.57° B-14.48°	M-22.64° B-12.53°	M-19.73° B-11.03°	M-17.50° B- 9.85°	M-15.72° B- 8.89°
35°	M-39.32° B-23.93°	M-30.76° B-19.70°	M-25.31° B-16.67°	M-21.53° B-14.41°	M-18.74° B-12.68°	M-16.60° B-11.31°	M-14.90° B-10.21°
40°	M-37.45° B-27.03°	M-29.10° B-22.20°	M-23.86° B-18.75°	M-20.25° B-16.19°	M-17.60° B-14.24°	M-15.58° B-12.70°	M-13.98° B-11.46°
45°	M-35.26° B-30.00°	M-27.19° B-24.56°	M-22.21° B-20.70°	M-18.80° B-17.87°	M-16.32° B-15.70°	M-14.43° B-14.00°	M-12.94° B-12.62°
50°	M-32.73° B-32.80°	M-25.03° B-26.76°	M-20.36° B-22.52°	M-17.20° B-19.41°	M-14.91° B-17.05°	M-13.17° B-15.19°	M-11.80° B-13.69°
55°	M-29.84° B-35.40°	M-22.62° B-28.78°	M-18.32° B-24.18°	M-15.44° B-20.82°	M-13.36° B-18.27°	M-11.79° B-16.27°	M-10.56° B-14.66°
60°	M-26.57° B-37.76°	M-19.96° B-30.60°	M-16.10° B-25.66°	M-13.54° B-22.07°	M-11.70° B-19.35°	M-10.31° B-17.23°	M- 9.23° B-15.52°
65°	M-22.91° B-39.86°	M-17.07° B-32.19°	M-13.71° B-26.95°	M-11.50° B-23.16°	M- 9.93° B-20.29°	M- 8.74° B-18.06°	M- 7.82° B-16.26°
70°	M-18.88° B-41.64°	M-13.95° B-33.53°	M-11.17° B-28.02°	M- 9.35° B-24.06°	M- 8.06° B-21.08°	M- 7.10° B-18.75°	M- 6.34° B-16.88°
75°	M-14.51° B-43.08°	M-10.65° B-34.59°	M- 8.50° B-28.88°	M- 7.10° B-24.78°	M- 6.12° B-21.69°	M- 5.38° B-19.29°	M- 4.81° B-17.37°
80°	M- 9.85° B-44.14°	M- 7.19° B-35.37°	M- 5.73° B-29.50°	M- 4.78° B-25.30°	M- 4.11° B-22.14°	M- 3.62° B-19.68°	M- 3.23° B-17.72°
85°	M- 4.98° B-44.78°	M- 3.62° B-35.84°	M- 2.88° B-29.87°	M- 2.40° B-25.61°	M- 2.07° B-22.41°	M- 1.82° B-19.92°	M- 1.62° B-17.93°
90°	M- 0.00° B-45.00°	M- 0.00° B-36.00°	M- 0.00° B-30.00°	M- 0.00° B-25.71°	M- 0.00° B-22.50°	M- 0.00° B-20.00°	M- 0.00° B-18.00°

Each B (Bevel) and M (Miter) Setting is listed to the closest 0.005°

COMPOUND-ANGLE SETTINGS FOR POPULAR STRUCTURES

OPERATION cont.

CUTTING CROWN MOLDING

Your compound miter saw is excellent for cutting crown molding.

In order for it to fit properly, crown molding must be compound mitered with extreme accuracy.

To fit flat against the ceiling and wall, the sum of the angles of the crown molding's two connecting surfaces must equal 90°. Most crown molding has a high top rear angle (the section that fits flat against the ceiling) of 52° and a bottom rear angle (the section that fits flat against the wall) of 38°.

Laying Molding Flat on the Miter Table (See Figure 28)

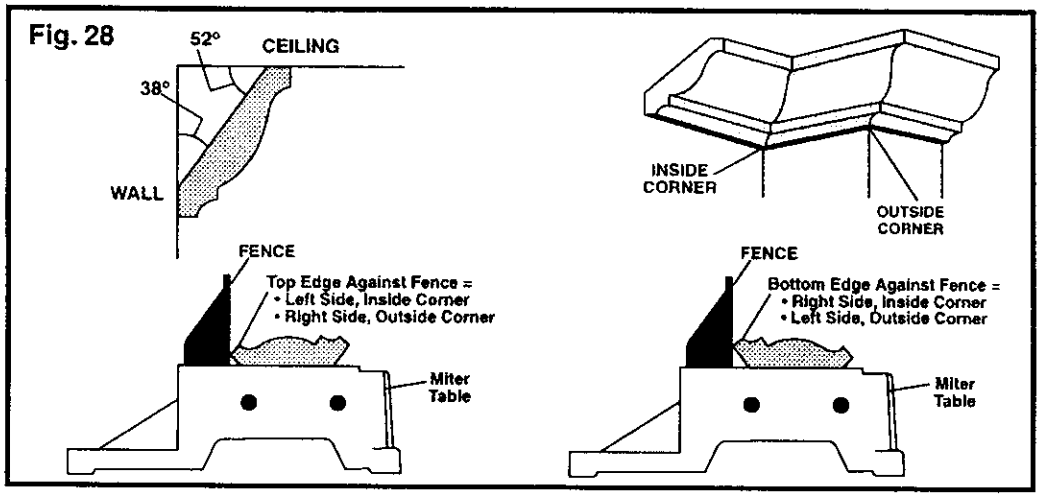
To use this method for accurately cutting crown molding for a 90° inside or outside corner, lay the molding with its broad back surface flat on the miter table and against the fence.

Remember that when you set the bevel and miter angles for compound miters, the settings are interdependent. When you change one angle, the other angle is changed as well.

Keep in mind that the angles for crown molding are very precise and difficult to set. Since it is very easy for these angles to shift, all settings should first be tested on scrap molding. Also, most walls do not have angles of precisely 90°, therefore, you will need to fine tune your settings.

When cutting crown molding using this method, the bevel angle should be set at 33.85°. The miter angle should be set at 31.62 either left or right, depending upon the desired cut for the application. See the following Cutting Crown Molding table for correct angle setting and correct positioning of the crown molding on the miter table.

The settings in the table below can be used for cutting all Standard (U.S.) crown molding with 52° and 38° angles. The crown molding is placed flat on the miter table, using the compound features of your miter saw.



Crown Molding Flat on Miter Table

OPERATION cont.

CUTTING CROWN MOLDING cont.

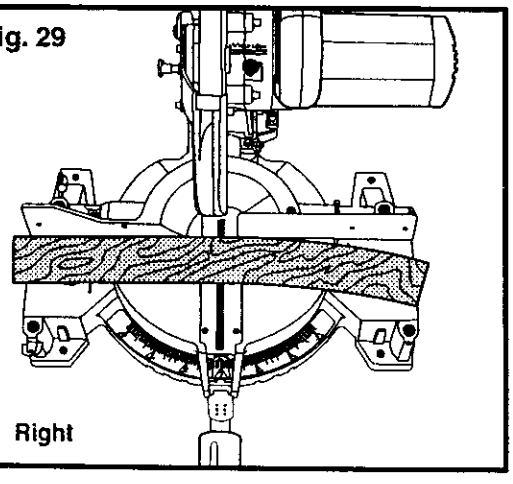
Bevel Angle Setting	Type of Cut
33.85°	**Left side, inside 90° corner** 1. Top edge of molding against fence 2. Miter table set right 31.62° 3. Save left end of cut
33.85°	**Right side, inside 90° corner** 1. Bottom edge of molding against fence 2. Miter table set left 31.62° 3. Save left end of cut
33.85°	**Left side, outside 90° corner** 1. Bottom edge of molding against fence 2. Miter table set left 31.62° 3. Save right end of cut
33.85°	**Right side, outside 90° corner** 1. Top edge of molding against fence 2. Miter table set right 31.62° 3. Save right end of cut

CUTTING WARPED MATERIAL (See Figures 29 - 30)

When cutting warped material, **ALWAYS** make sure that it is positioned on the miter table with the convex side against the fence, as shown in Figure 29.

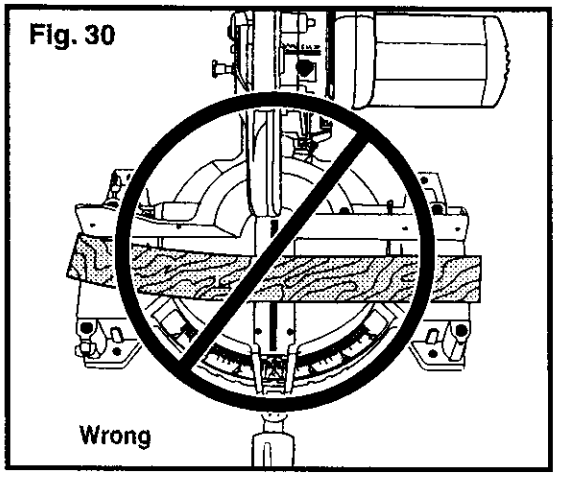
If the warped material is positioned the wrong way, as shown in Figure 30, it will pinch the blade near the end of the cut.

Fig. 29



Right

Fig. 30



Wrong

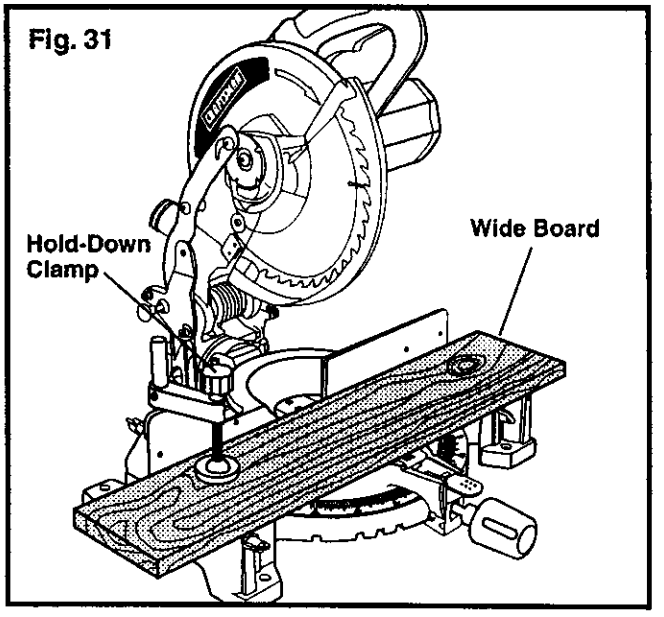
⚠**WARNING:** To avoid kickback and to avoid serious personal injury **NEVER** position the concave edge of bowed or warped material against the fence.

OPERATION cont.

CLAMPING WIDE WORKPIECES (See Figure 31)

When cutting wide workpieces (such as 2-in x 6-in. boards), the boards should **ALWAYS** be clamped with a hold-down clamp or C-clamp as shown in Figure 31.

Fig. 31



MAINTENANCE

GENERAL

⚠WARNING: To avoid accidents, **ALWAYS** disconnect the tool from the power source **BEFORE** cleaning or performing any maintenance.

⚠WARNING: Preventive maintenance performed by unauthorized personnel may result in misplacing of internal wires and components, which could cause a serious hazard.

- All service that requires opening the saw MUST only be performed by a Sears Service Center. All motor parts represent an important part of the double insulation system and MUST only be serviced by a Sears Service Center. Service performed by unqualified personnel could result in a risk of injury.
- When servicing this tool, ALWAYS use only identical replacement parts. Follow instructions in the Maintenance Section of this manual. Use of unauthorized parts or failure to follow Maintenance Instructions may create a risk of electrical shock or injury.
- Avoid solvents when cleaning plastic parts. Most plastics are susceptible to damage from various types of commercial solvents and may be damaged by their use. Use clean cloths to remove dirt, carbon dust, etc.

⚠WARNING: DO NOT at any time let brake fluids, gasoline, petroleum-based products, penetrating oils, etc., to come in contact with plastic parts. They contain chemicals that can damage, weaken or destroy plastic.

MAINTENANCE cont.

GENERAL cont.

It is a known fact that electric tools are subject to accelerated wear and possible premature failure when they are used to work on fiber glass boats and sports cars, wallboard, spackling compounds or plaster. The chips and grindings from these materials are highly abrasive to electrical tool parts, such as bearings, brushes, commutators, etc. Consequently, it is not recommended that this tool be used for extended work on any fiber glass material, wallboard, spackling compound, or plaster. During any use on these materials, it is extremely important that the tool is cleaned frequently by blowing with an air jet.

> ⚠ **WARNING: ALWAYS** wear safety goggles or safety glasses with side shields when using this tool or blowing dust. If operation is dusty, also wear a dust mask.

LUBRICATION

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

ACCESSORIES

Sears offers a large selection of blades, table extensions, roller tables, extension cords and more that are ideal for use with your 10-inch compound miter saw for a variety of cutting needs.

EXTENSION CORDS

The use of any extension cord will cause some loss of power. To keep the loss at a minimum and to prevent overheating, use an extension cord that is heavy enough to carry the current that the tool will draw.

A wire gauge (AWG) of at least 14 is recommended for an extension cord 25 feet or less in length. When working outdoors **ALWAYS** use an extension cord that is suitable for outdoor use. The cord's jacket will be marked WA.

> ⚠ **CAUTION:** Keep extension cords away from the cutting area, and position the cord so it will not get caught on lumber, tools, etc. during the cutting operation.

> ⚠ **WARNING:** Check extension cord before each use. If damaged, replace it immediately. **NEVER** use a tool with a damaged cord because touching the damaged area could cause electrical shock, resulting in serious injury.

> ⚠ **WARNING:** The use of attachments or accessories that are not recommended might be dangerous.

10-in. Compound Miter Saw Model No. 172.24360

The Model Number will be found on the Nameplate. Always mention the Model No. in all correspondence regarding your tool.

No.	Part No.	Description	Quantity
1	GB6170-86	Nut M6	1
2	GB77-85	Screw M6X16	1
3	GB70-88	Screw M6X16	3
4	M1S-250B.01-12	Bracing Head	1
5	M1S-250B.01-12	Bracing Block	1
6	M1S-250B.01-08	Orientation Push-Button	1
7	M1S-250B.01-09	Push-Button Jacket	1
8	M1S-250B.01-20	Warning Label	2
9	M1S-250A.03.01.02	Knob	2
10	M1S-250B.04.01	Lock Brace	1
11	M1S-250B.04-02	Clamp	1
12	M1S-250B.04-01	Bracing Piece	1
13	M1S-250A.03.01-03	Cleat	1
14	M1S-250A.03.01-04	Cleat Cushion	1
15	GB848-85	Washer	3
16	GB818-85	Bolt M4X6	2
17	GB827-86	Rivet	4
18	M1S-250C.01-04	Scale Label	1
19	M1S-250C-01	Warning Label	2
20	M1S-250C.01-01	Pressure Board	1
21	M1S-250C.01-07	Connecting Stud	1
22	GB955-87	Washer	1
23	GB95-85	Washer	5
24	GB889-86	Nut M8	1
25	M1S-250B.01-16	Knob	4
26	GB845-85	Bolt ST4.2X19-F	1
27	M1S-250B.03-07	Back Cover	1
28	M1S-250B.03-01	Brush Box Inner Tube	2
29	M1S-250C.03-01-01	Brush Assembly	2
30	M1S-250B.03-01-01	Brush Box housing	2
31	GB818-85	Bolt M5X40	4

No.	Part No.	Description	Quantity
32		Cable	1
33	GB859-87	Washer -5	3
34	GB848-85	Washer -5	3
35	M1Y-190(200)-02	Cable Holder	1
36	GB845-85	Bolt ST4.2X22-F	7
37		Motor Label	1
38	M1S-250B.03-01	Cover	1
39	M1Y-160-009	Cord Holder	1
40	GB845-85	Bolt ST4.2X13-F	2
41		Cooling Pipe	2
42		Carbon Brush Card	2
43	M1S-250C.03.02	Stator Assembly	1
44	GB818-85	Bolt M5X75	2
45	CB22	Switch	1
46	M1S-250B.03-06	Switch Handle	1
47	M1S-250B.03-03	Air Guard	1
48	M1S-250B.03-05	Handle	1
49	M1S-250B.01-04	Pad	2
50	GB818-85	Bolt M4X10	2
51	M1S-250B.01-03	Protector	1
52	M1S-250B.01-02	Workbench	1
53	GB818-85	Bolt M5X10	3
54	M1S-250B.01	Slant Pointer	3
55	GB70-88	Bolt M6X20	3
56	GB819-85	Bolt M4X10	3
57	M1S-250B.01-06	Chuck	1
58	M1S-250B.01.01	Handle	1
59	M1S-250C.01-02	Pointer	1
60	GB859-87	Washer -4	3
61	M1S-250B.01-10	Lock Washer	1
62	GB70-88	Bolt M8X30	1

To order parts call 1-800-4-MY-HOME® (1-800-469-4663)

10-in. Compound Miter Saw Model No. 172.24360

The Model Number will be found on the Nameplate. Always mention the Model No. in all correspondence regarding your tool.

No.	Part No.	Description	Quantity
63	M1S-250C.01-03	Positioner Board	1
64	GB889-86	Nut M5	1
65	M1S-250B.02-12	Large Cover Board	1
66	M1S-250B.02-11	Torsion Spring	1
67	M1S-250B.02-09	Guard Cover	1
68	M1S-250B.02-10	Small Cover Board	2
69	M1S-250B.02-13	Sheild Cover Bolt	2
70	M1S-250B.02-15	Connecting Rod Bolt	1
71	M1S-250B.02-03	Link	1
72	M1S-250B-03	Locking Bolt	1
73	M1S-250B.03-11	Blade Pressure Plate	1
74		Blade 250x15.875x2.8	1
75	GB889-85	Bolt M5X10	1
76	M1S-250B.03-10	Blade Seat	1
77	M1S-250C.02-02	Blade Guard Cover	1
78	M1S-250B.03-12	Rubber Check Ring	1
79	M1S-250B.02-08	Depth Torsion Spring	1
80	M1S-250B.02-07	Pivot casing	1
81	M1S-250B.02-06	Pivot	1
82	M1S-250B.02-16	Rivet	1
83	GB278-82	695 Ballbearing -5 -13 -5	1
84	M1S-250B.02-04	Link Support	1
85	GB70-88	Bolt M6X12	1
86	GB859-87	Washer -6	2
87	GB848-85	Washer -6	2
88	GB96-85	Washer -6	1
89	M1X-355E-21	Lockout handle	1
90	GB3452.1-82	O Type Joint Ring -5.6 -1.8	1
91	M1S-250B.02.02-01	Inserted Pin	1
92	M1S-250B.02-01	Support	1
93	GB73-85	Bolt M5X14	1
94	M1S-250B.02-13	Pivot Screw	1

No.	Part No.	Description	Quantity
95	GB77-85	Bolt M8X12	1
96	M1S-250B.02-17	Support Scale Label	1
97	M1S-250B.02-02	Buffer Stopper	1
98	GB818-85	Bolt M6X16	1
99	M1S-250B.02-01	Angle Lock Spanner	1
100	GB889-86	Nut M8	1
101	GB889-86	Washer -10	1
102	GB95-85	Washer -12	1
103	GB77-85	Bolt M6X20	1
104	GB955-87	Washer -12	1
105	GB6560-86	Bolt M4X10	3
106	M1S-250B.03.04-04	Cover Board	1
107	GB1096-79A	Flat key 5X5X10	1
108	M1S-250B.03.04-01	Transmission Shaft	1
109	GB278-82	80203 Ball Bearing	1
110	GB894-2-86	Circular -17	1
111	GB6560-86	Bolt M5X12	3
112	M1S-250B.03.04-03	Gear Box Hatch	1
113	M1S-250B.03.04-02	Large Gear	1
114	GB894-2-86	Circular -15	1
115	M1Y-109 (200)-26	Bearing -FZ2175	1
116	M1S-250B.03.05	Stop Pin	1
117	GB894-2-86	Circular -8	1
118	M1X-355E.02-04	Thumb Latch Spring	1
119	M1S-250B.03-04	Gear Box	1
120	GB70-88	Bolt M5x20	4
121	GB278-82	80102 Ball Bearing	1
122	M1S-250C.03.03	Rotor Assembly	1
123	GB278-82	80100 Ball Bearing	1
124	M1S-250B.03-02	Ball Bearing Check Ring	1
125	M1S-250C-02	Dust Bag/Adapter Pipe	1
126	M1S-250-04-03	Socket Wrench	1

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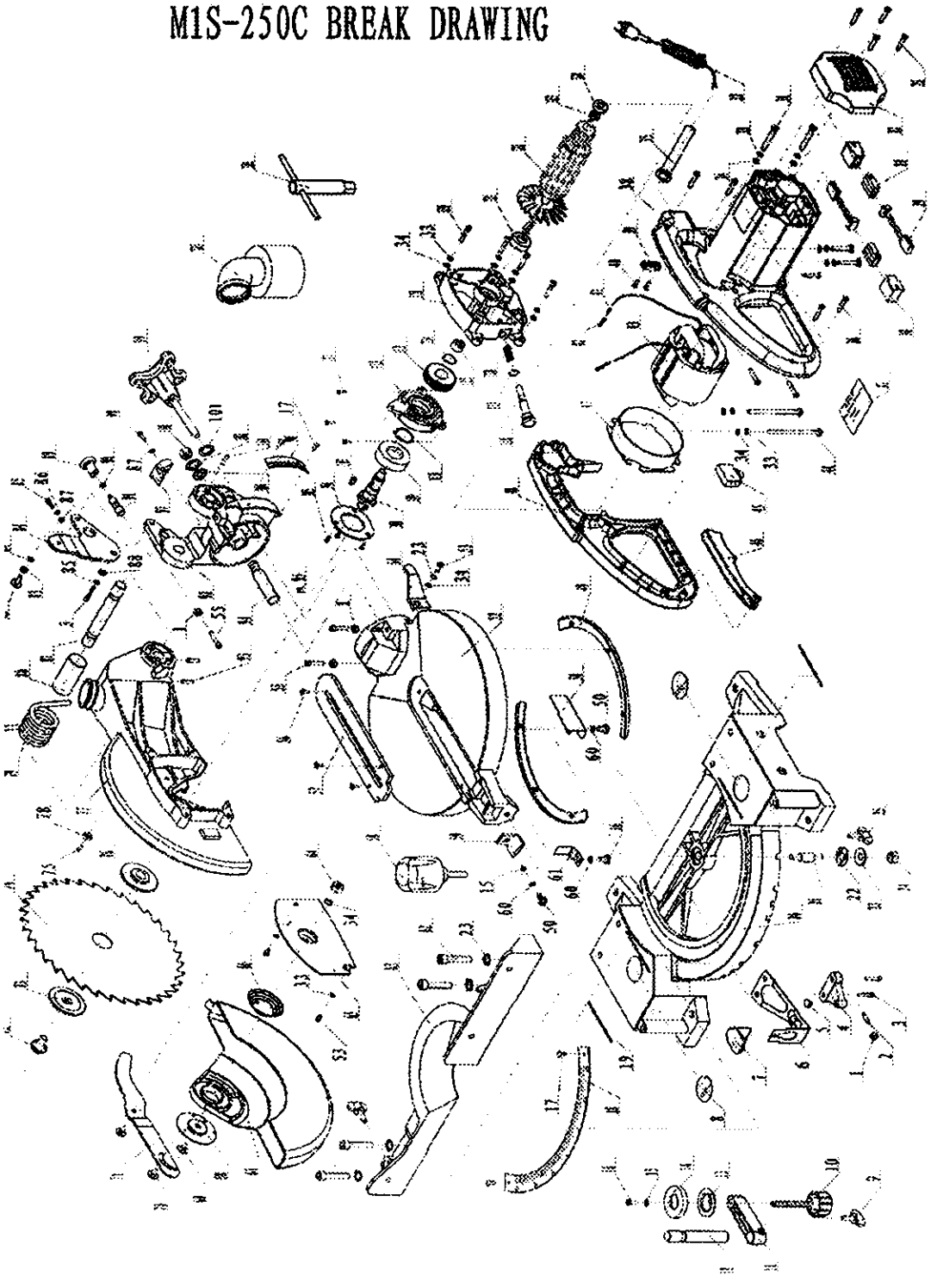
M1S-250C BREAK DRAWING



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