

Save This Manual
For Future Reference

SEARS

owner's
manual

MODEL NO.
113.235140

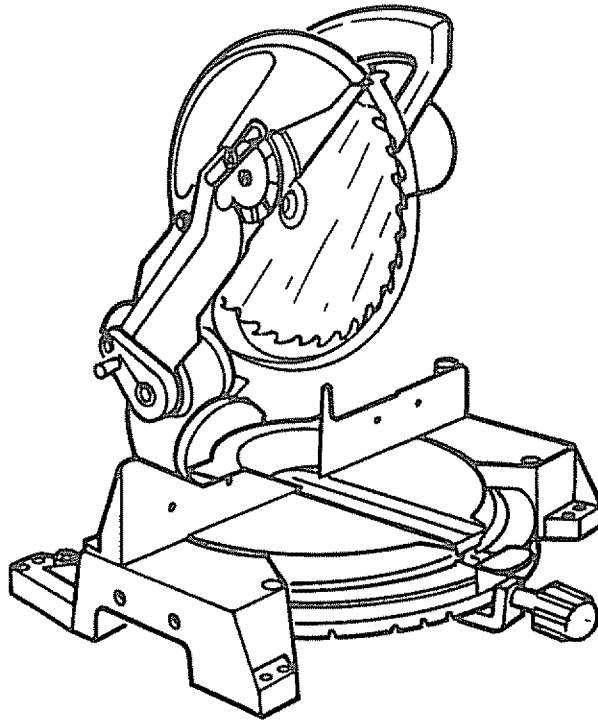
Serial
Number _____

Model and serial numbers
may be found on a plate
attached to your saw, at the
side of the Miter Saw arm.

You should record both model
and serial number in a safe
place for future use.

**FOR YOUR
SAFETY**

**READ ALL
INSTRUCTIONS
CAREFULLY**



SEARS / CRAFTSMAN

12 INCH COMPOUND MITER SAW

- assembly
- operating
- repair parts

Sears, Roebuck and Co., Hoffman Estates, IL. 60179 U.S.A.

FULL ONE YEAR WARRANTY ON CRAFTSMAN BENCHTOP TOOLS

If this miter saw fails due to a defect in material or workmanship within one year from the date of purchase, RETURN IT TO THE NEAREST SEARS SERVICE CENTER IN THE UNITED STATES, and Sears will repair it, free of charge.

If this miter saw is used for commercial or rental purposes, this warranty will apply for ninety days from the date of purchase.

This warranty applies only while this product is in the United States.

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

Sears, Roebuck and Co., D/817 Wa Hoffman Estates, IL. 60179

Safety Instructions For Miter Saw

Safety is a combination of common sense, staying alert and knowing how your miter saw works. Read this manual to understand this miter saw.

Safety Signal Words

DANGER: means if the safety information is not followed someone **will** be seriously injured or killed.

WARNING: means if the safety information is not followed someone **could** be seriously injured or killed.

CAUTION: means if the safety information is not followed someone **might** be injured.

Before Using The Saw

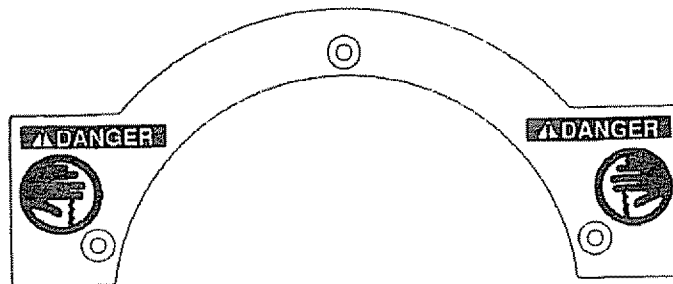
WARNING: To avoid mistakes that could cause serious, permanent injury, do not plug the miter saw in until the following steps have been satisfactorily completed.

- Completely assemble and align saw. (See "Assembly" and "Alignment" sections within.)
- Learn the use and function of the ON-OFF switch,

upper and lower blade guards, handle latch, bevel clamp, cover plate stop screw, and fence clamps. (See "Getting to Know Your Miter Saw" section within.)

- Review and understand all safety instructions and operating procedures in this manual.
- Review the maintenance methods for this miter saw. (See "Maintenance" section within).

Find and read the following labels on the miter saw:



WARNING


For Safe Operation:

Look for a plastic bag with these loose parts:

- Rubber bumper with shoulder screw
- 10-32 x 1/2" long Phillips head screw

Assemble these parts before operating saw. Follow instructions in the owners manual.

Electrical: 120 volts
60 Hz AC only
15 amps
4000 RPM



E85575

WARNING

1. Read the Manual before using this saw.
2. Wear safety goggles that meet ANSI Z87.1 Standards.
3. Tighten arbor screw and all clamps before sawing.
4. Do not operate this saw without guards in place.
5. Keep hands away from the moving blades.
6. Do not perform any operation freband.
7. Do not reach around or behind saw blade.
8. Unplug saw before changing blade or servicing.
9. Release trigger and wait for blade to stop before moving workplace or changing set-up.
10. To avoid electric shock, do not expose to rain.

When Installing Or Moving The Miter Saw

Before moving the saw, lock the miter, bevel and power head positions. Unplug the power cord.

To avoid back injury, get help when you need to lift the saw.

Never carry the tool by the cord or power head trigger handle. Damage to insulation could cause an electric shock. Damage to wire connections could cause a fire.

Avoid Dangerous Environment. Use the miter saw in a

dry, indoor place protected from rain. Keep work area well lighted.

Place the saw so neither the user nor bystanders are forced to stand in line with the blade. Thrown debris could injure people in its path.

To avoid injury from unexpected saw movement:

- Place the miter saw on a firm level surface where there is plenty of room for handling and properly supporting the workpiece.

- Support the miter saw so the table is level and the saw does not rock.
- Bolt or clamp the saw to its support.
- **Never Stand On Tool.** Serious injury could occur if the tool tips or you accidentally hit the cutting tool. Do not

store anything above or near the tool where anyone might stand on the tool to reach them.

To avoid injury or death from electrical shock:

- Make sure your fingers do not touch the plug's metal prongs when plugging or unplugging the miter saw.

Before Each Use

Inspect your miter saw.

Disconnect The Miter Saw. To avoid injury from accidental starting, unplug the saw, before changing the setup, changing the blade or adjusting anything.

Compare the direction of rotation arrow on the guard to the direction arrow on the blade. The blade teeth should always point downward at the front of the saw.

Tighten the arbor screw.

Tighten the cover plate stop screw.

Check For Damaged Parts. Check for:

- Proper Alignment of moving parts,
- Damaged electric cords,
- Binding of moving parts,
- Broken parts,
- Stable mounting,
- Function of arm return spring and lower guard: Push

the arm all the way down, then let it rise up until it stops by itself. Check the lower guard to see if it closed fully. If it did not, follow the instructions in the Trouble Shooting section.

- Other conditions that may affect the way the miter saw works.

If any part of this miter saw is missing, bent, or broken in any way, or any electrical parts don't work, turn the saw off and unplug it. Replace damaged, missing, or failed parts before using the saw again.

Keep Guards In Place, in working order, and in proper adjustment.

Maintain Tools With Care. Keep the miter saw clean for best and safest performance. Follow instructions for lubricating. **DON'T** put lubricants on the blade while it's spinning.

Remove Adjusting Keys And Wrenches from tool before turning it on.

To Avoid Injury From Jams, Slips Or Thrown Pieces

- **Use Only Recommended Accessories.** (See "Accessory" section within.) Consult this Owner's manual for recommended accessories. Follow the instructions that come with the accessories. The use of improper accessories may cause risk of injury to persons.
- Choose the right 12-inch diameter blade for the material and the type of cutting you plan to do.
- Make sure the blade is sharp, undamaged and properly aligned. With the saw unplugged, push the power-head all the way down. Hand spin the blade and check for clearance. Tilt the power-head to 45 degree bevel and repeat the check. If the blade hits anything, make

the adjustments shown in the Maintaining Maximum Cutting Capacity section.

- Make sure the blade and arbor collars are clean.
- Make sure the collars' recessed sides are facing the blade.
- Using the 1/4" hex end of combination wrench (supplied) or a 1/2-inch box end wrench, make sure the arbor cap screw is firmly hand tightened.
- Make sure all clamps and locks are tight and there is no excessive play in any parts.
- **Keep Work Area Clean.** Cluttered areas and benches invite accidents. Floor must not be slippery.

To avoid burns or other fire damage, never use the saw near flammable liquids, vapors or gases.

Plan Ahead To Protect Your Eyes, Hands, Face, Ears.

Know Your Miter Saw. Read and understand the owner's manual and labels affixed to the tool. Learn its applications and limitations as well as the specific potential hazards peculiar to this tool.

To avoid injury from accidental contact with moving parts, don't do layout, assembly, or setup work on the miter saw while any parts are moving.

Avoid Accidental Starting. Make sure switch is "OFF" before plugging miter saw into a power outlet.

Plan your work.

Use The Right Tool. Don't force tool or attachment to do a job it was not designed to do. Use a different tool for any workpiece that can't be held in a solidly braced, fixed position.

CAUTION: This machine is not designed for cutting ferrous metals (steel, iron and iron based metals). Use this miter saw to cut only wood, wood like products or soft metals like aluminum. Other material may shatter, bind on the blade, or create other dangers.

CAUTION: When cutting any metals, sparks or hot fragments could cause a fire. To avoid this, disconnect any dust collecting bag or hose from the miter saw, and remove all traces of wood dust from inside dust traps in the miter saw.

Safety Instructions for Miter Saws (continued)

Dress For Safety



Any power miter saw can throw foreign objects into the eyes. This can result in permanent eye damage. Wear safety goggles (not glasses) that comply with ANSI Z87.1 (shown on package). Everyday eyeglasses have only impact resistant lenses. They are not safety glasses. Safety goggles are available at Sears retail stores. Glasses or goggles not in compliance with ANSI Z87.1 could seriously hurt you when they break.

- Do not wear loose clothing, gloves, neckties or jewelry (rings, wrist watches) They can get caught and draw you into moving parts.
- Wear nonslip footwear.
- Tie back long hair.
- Roll long sleeves above the elbow.
- Noise levels vary widely. To avoid possible hearing damage, wear ear plugs or muffs when using miter saw for hours at a time.
- For dusty operations, wear a dust mask along with safety goggles.

Inspect Your Workpiece

- Make sure there are no nails or foreign objects in the part of the workpiece to be cut.

Plan your work to avoid thrown pieces caused when the workpiece binds on the blade and is torn from your hands.

Plan the way you will hold the workpiece from start to finish.

Avoid awkward operations and hand positions where a sudden slip could cause fingers or hand to move into the blade.

Don't Overreach. Keep good footing and balance.

Keep your face and body to one side of sawblade, out of line with a possible thrown piece.

- Cut only one workpiece at a time.

Never cut **Freehand**:

- Brace your workpiece solidly against the fence and table top so it will not rock or twist during the cut.
- Make sure there's no debris between the workpiece and its supports.
- Make sure no gaps between the workpiece, fence and table will let the workpiece shift after it is cut in two.
- Keep the cut off piece free to move sideways after it's cut off. Otherwise, it could get wedged against the blade and thrown violently.
- Clear everything except the workpiece and related support devices off the table before turning the miter saw on.
- **Secure Work.** Use clamps or a vise to help hold the work when it's practical.

Use extra caution with large, very small or awkward workpieces:

- Use extra supports (tables, saw horses, blocks, etc.) for any workpieces large enough to tip when not held down to the table top.
- **Never** use another person as a substitute for a table extension, or as additional support for a workpiece that is longer or wider than the basic miter saw table or to help feed, support or pull the workpiece.
- Do not use this saw to cut pieces too small to let you easily hold the work while you keep the thumb side of your index (pointer) finger against the outside edge of the fence.
- When cutting irregularly shaped workpieces, plan your work so it will not slip and pinch the blade and be torn from your hands. A piece of molding, for example, must lie flat or be held by a fixture or jig that will not let it twist, rock or slip while being cut.
- Properly support round material such as dowel rods, or tubing. They have a tendency to roll while being cut, causing the blade to "bite." To avoid this, always use a fixture designed to properly hold your workpiece.

WARNING: If planning to cut aluminum or other non-ferrous metals: Under adverse conditions, the blade can grab and throw the workpiece suddenly and unexpectedly. To avoid injury, follow all applicable safety instructions, as you normally would, and:

- Use only sawblades specifically recommended for non-ferrous metal cutting.
- Do not cut metal workpieces that must be hand held. Use auxiliary clamps or other equipment as needed.
- Cut non-ferrous metals only if you are experienced or under the supervision of an experienced person.

Whenever Saw Is Running

WARNING: Don't allow familiarity (gained from frequent use of your miter saw) cause a careless mistake. A careless fraction of a second is enough to cause a severe injury.

Before starting your cut, watch the miter saw while it runs. If it makes an unfamiliar noise or vibrates a lot, stop immediately. Turn the saw off. Unplug the saw. Do not restart until finding and correcting the problem.

Keep Children Away. Keep all visitors a safe distance from the miter saw. Make sure bystanders are clear of the miter saw and workpiece.

Never confine the piece being cut off. Never hold it, clamp it, touch it, or use length stops against it while the blade is spinning. It must be free to move sideways on its own. If confined, it could get wedged against the blade and be thrown violently.

Before Leaving The Saw

Never Leave Tool Running Unattended. Turn power off. Wait for all moving parts to stop.

Make Workshop Child Proof. Install a padlock through

Glossary of Terms for Woodworking

Arbor

The shaft on which a cutting tool is mounted.

Bevel Cut

An angle cutting operation made through the face of the workpiece.

Compound Cut

A simultaneous bevel and miter cutting operation.

Crosscut

A cutting operation made across the width of the workpiece.

Freehand

Doing a cut without holding the workpiece against both the table and fence. Most workpieces can be held down with your hand. Large or wide pieces should be clamped to the fence or table.

Gum

A sticky, sap based residue from wood products.

Heel

Misalignment of the blade

Kerf

The amount of material removed by the blade in a through cut or the slot produced by the blade in a non-through or partial cut.

Miter Cut

An angle cutting operation made across the width of the workpiece.

Let the blade reach full speed before cutting. This will help avoid thrown workpieces.

Don't Force Tool. It will do the job better and safer at its designed rate. Feed the saw into the workpiece only fast enough to let the blade cut without bogging down or binding.

Before freeing jammed material:

- Turn miter saw "OFF" by releasing trigger switch.
- Wait for all moving parts to stop.
- Unplug the miter saw.

After finishing a cut:

- Keep holding the power head down.
- Release the switch, and wait for all moving parts to stop before moving your hands or raising power head.
- If blade doesn't stop within 6 seconds, unplug the saw and follow the instructions in the Trouble Shooting section for fixing the blade brake before using the saw again.

the hole provided in the trigger to prevent unauthorized usage. Lock the shop. Disconnect master switches. Store tool away from children and others not qualified to use the tool.

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.

Sawblade Path

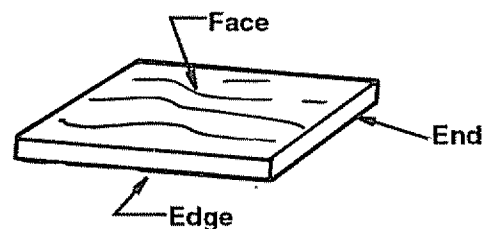
The area of the workpiece or table top directly in line with either the travel of the blade or the part of the workpiece which will be, or has been, cut by the blade.

Set

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

Workpiece

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



Motor Specifications and Electrical Requirements

Power Supply and Motor Specifications

WARNING: To avoid electrical hazards, fire hazards or damage to the tool, use proper circuit protection. Your tool is wired at the factory for operation using the voltage shown. Connect tool to a power line with the appropriate voltage and a 15-amp branch circuit. Use a 15-amp time delay type fuse or circuit breaker. To avoid shock or fire, if power cord is worn or cut, or damaged in any way, have it replaced immediately.

The A-C motor used on this tool is an universal non-reversible type, having the following specifications:

Max. Developed H.P.	3-1/2
Voltage	120
Amperes	15
Hertz (Cycles)	60
Phase	Single
RPM	4000
Shaft Rotation	Clockwise
Brake	Automatic

General Electrical Connections

DANGER: To avoid electrocution:

1. Use only identical replacement parts when servicing. Servicing should be performed by a qualified service technician.
 2. Do not use in rain or where floor is wet.
- This tool is intended for indoor residential use only.

WARNING Do not permit fingers to touch the terminals of plug when installing or removing the plug to or from the outlet.

If power cord is worn or cut, or damaged in any way, have it replaced immediately.

110-120 Volt, 60 Hz. Tool Information

NOTE: The plug supplied on your tool may not fit into the outlet you are planning to use. Your local electrical code may require slightly different power cord plug connections. If these differences exist refer to and make the proper adjustments per your local code before your tool is plugged in and turned on

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

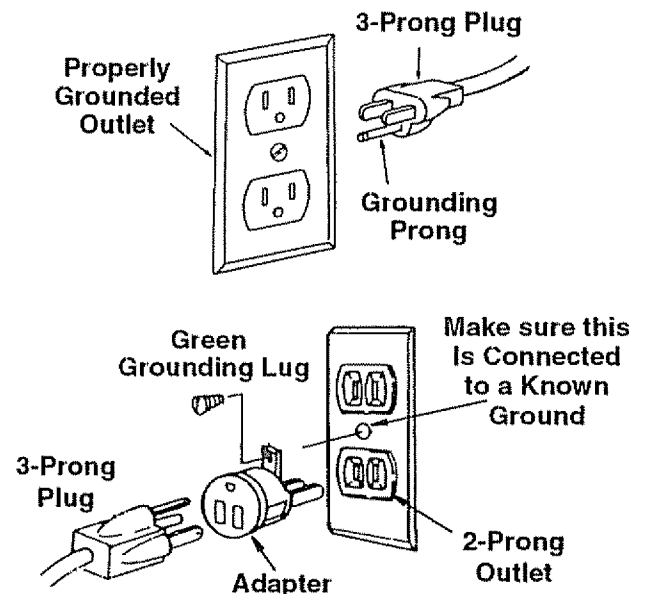
Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.

A temporary adapter may be used to connect this plug to a 2-pole outlet, as shown, if a properly grounded outlet is not available. This temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green colored rigid ear, lug and the like, extension from the adapter must be connected to a permanent ground such as a properly grounded outlet box.

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

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

WARNING: If not properly grounded, this tool can cause an electrical shock, particularly when used in damp locations, in proximity to plumbing, or out of doors. If an electrical shock occurs there is the potential of a secondary hazard, such as your hands contacting the sawblade.



NOTE: The adapter illustrated is for use only if you already have a properly grounded 2-prong outlet.

Motor Safety Protection

1. Connect this tool to a 120v, 15-amp branch circuit with a 15-amp time delay fuse or circuit breaker. Using the wrong size fuse can damage the motor.
2. If the motor won't start, release the trigger switch immediately. **Unplug The Tool.** Check the saw blade to make sure it turns freely. If the blade is free, try to start the motor again. If the motor still does not start, refer to the "Motor Trouble-Shooting Chart."
3. If the motor suddenly stalls while cutting wood, release the trigger switch, unplug the tool, and free the blade from the wood. The motor may now be restarted and the cut finished.
4. Fuses may "blow" or circuit breakers may trip frequently if:

- a. **Motor Is Overloaded**-Overloading can occur if you feed too rapidly or make too many start/stops in a short time.
 - b. Line voltages are more than 10% above or below the nameplate voltage. For heavy loads, however, the voltage at motor terminals must equal the voltage specified on nameplate.
 - c. Improper or dull saw blades are used.
5. Most motor troubles may be traced to loose or incorrect connections, overload, low voltage (such as small size wire in the supply circuit) or to overly long supply circuit wire. Always check the connections, the load and the supply circuit whenever motor doesn't work well. Check wire sizes and length with the Wire Size Chart below.

Wire Sizes

NOTE: Make sure the proper extension cord is used and is in good condition. The use of any extension cord will cause some loss of power. To keep this to a minimum and to prevent overheating and motor burn-out, use the table below to determine the minimum wire size (A.W.G.) extension cord.

For circuits that are farther than 100 feet away from electrical service box, the wire size must be increased proportionately in order to deliver ample voltage to the saw motor.

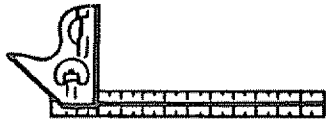
Extension Cord Length	Wire Sizes Required for 120V (A.W.G.)
110-120V	
0-25 Ft.	14
26-50 Ft.	12

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Unpacking and Checking Contents

Tools Needed



Combination Square



Combination Wrench,
1/4" Hex "L" Wrench
with #2 Phillips tip
(supplied)



3/4" Socket & Socket Wrench

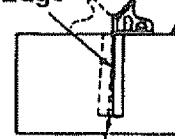


1/2" Wrench

Combination Square Must be True

Draw Light
Line on Board
Along this Edge

Straight Edge of
Board 3/4" Thick
This Edge Must be
Perfectly Straight



Should be no Gap or Overlap when Square
is Flipped Over in Dotted Position

Unpacking

WARNING: To avoid injury from unexpected starting or electrical shock, do not plug the power cord into a power source outlet during unpacking and assembly. This cord must remain unplugged whenever you are working on the saw.

This Miter Saw is shipped complete in one box.

WARNING: Although compact, this saw is heavy. To avoid back injury, get help whenever you have to lift the saw.

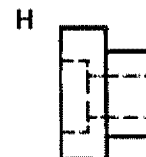
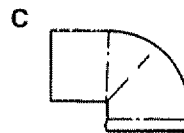
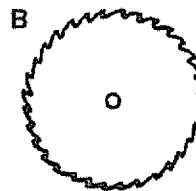
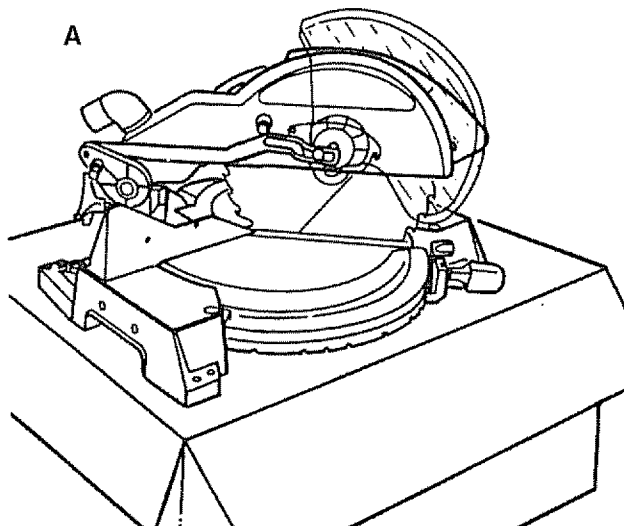
1. Remove the miter saw from the carton by lifting the saw with the carrying handle.
2. Place the saw on a secure, stationary work surface and look the saw over carefully.

List of Loose Parts

The following parts are included:

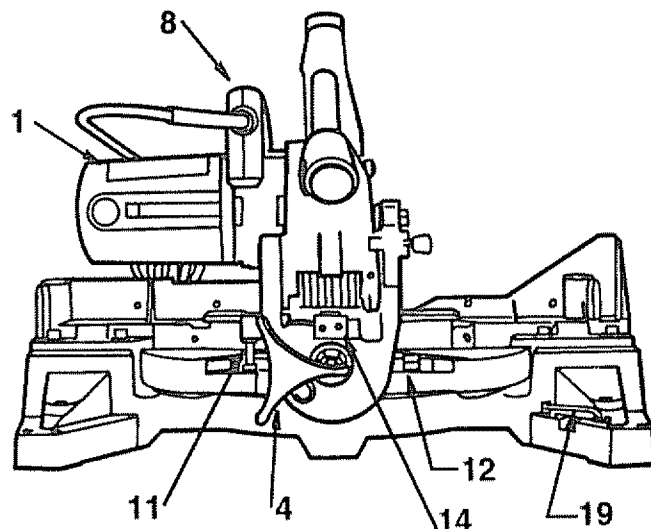
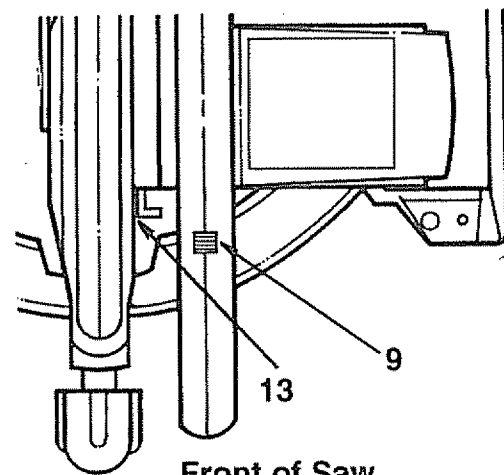
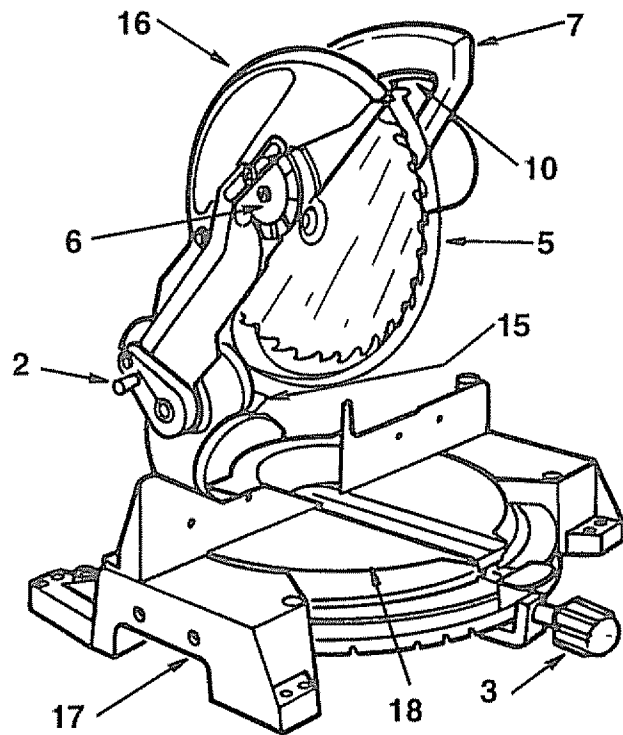
NOTE: Before beginning assembly, check that all parts are included. If you are missing any part, do not assemble the saw. Contact your Sears Service Center to get the missing part. Sometimes small parts can get lost in packaging material. Do not throw away any packaging until saw is put together. Check packaging for missing parts before contacting Sears. A complete parts list (Repair Parts) is at the end of the manual. Use the list to identify the number of the missing part.

Part or Assembly	Qty.
A. Basic Saw Assembly	1
B. Sawblade 12"	1
C. Dust Elbow	1
D. Owners Manual	1
E. Loose Parts Bag (Not Shown) (Includes the following items)	
F. Cover Plate Stop Screw; 10-32 x 1/2"	1
G. Shoulder Screw, 10-32	1
H. Sleeve-Rubber	1



Getting to Know Your Miter Saw

1. **Warning Label.**
 2. **Lock Pin** - The miter saw can be locked in the lowered position for compact storage.
 3. **Miter Lock Knob** - The miter lock handle securely locks the miter saw at a desired miter angle. Index points have been provided on right and left for 0°, 15°, 22.5°, 30° and 45°.
 4. **Bevel Lock Knob** - The bevel lock handle locks the miter saw at a desired bevel angle.
 5. **Lower Blade Guard** - The blade guard helps protect your hands from the blade in the raised position. To avoid binding on the workpiece, it retracts as the blade is lowered.
 6. **Cover Plate** - Holds the lower guard and is attached to upper guard. Prevents the arbor screw from backing out when properly attached with the 10-32 x 1/2" screw (supplied in loose parts bag)
 7. **Miter Saw Handle** - The saw handle contains the trigger switch with a padlock, locking hole to prevent unauthorized use. The blade is lowered into the workpiece by pushing down on the handle. The saw will return to its upright position when the handle is released, unless the handle lock pin (#2) is engaged.
 8. **Carrying Handle** - This handle is built into the unit to move it from one location to another. Before attempting to pick up the unit by the carrying handle always lock the miter saw power head in the down position using the handle lock pin. Make sure the miter lock and bevel lock knobs are tight.
 9. **Switch Interlock Button.**
 10. **On/Off Trigger Switch** - To start the tool, depress switch interlock button and then squeeze the trigger. Release the trigger to stop the miter saw.
 11. **0° Bevel Stop** - Adjustable stop for a quick and accurate 0° bevel index. A jam nut locks this in place.
 12. **45° Bevel Stop** - Adjustable stop for a quick and accurate 45° bevel index. A jam nut locks this in place.
 13. **Arbor lock** - Allows the user to keep blade from rotating while tightening or loosening arbor screw during blade replacement or removal.
 14. **Upstop** - In the full up position of the power head, this stop prevents over rotation of the power head.
- NOTE:** This stop should only be removed by a qualified service technician.
15. **Downstop** - In the down (full cut) position, the guard hits a diecast stop on the pivot. No adjustment is needed.
 16. **Upper Blade Guard** - Supports the motor, handle, switch, blade and lower guard.
 17. **Base** - Supports table, holds accessories and allows for work bench or leg set mounting.
 18. **Table** - Sits in base, supports pivot and allows for approximately 49° miter left and right.
 19. **Combination Wrench** - Used for 1/4" hex and Phillips head screw adjustments.



Assembly

WARNING: For your own safety, never connect plug to power source outlet until all assembly steps are complete, and you have read and understood the safety and operational instructions.

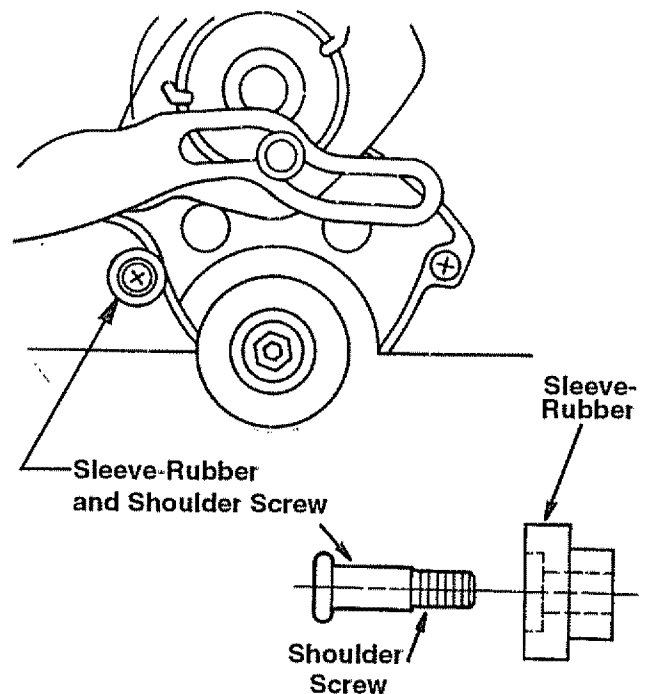
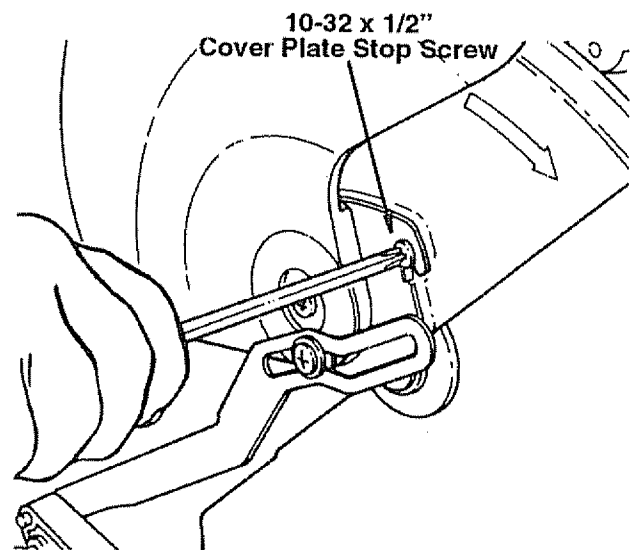
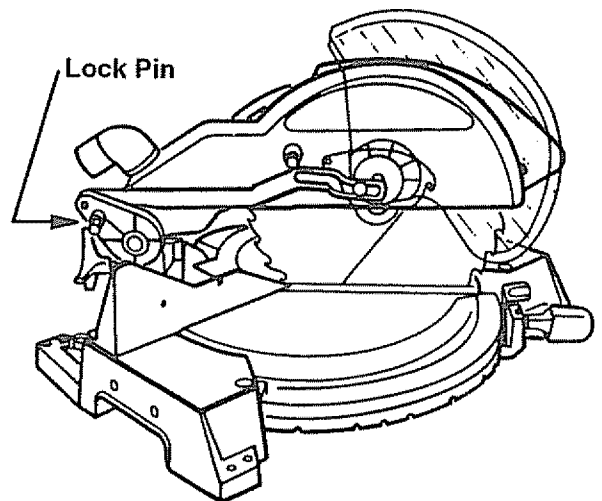
Assembling the Lower Blade Guard

NOTE: For compact shipment the lower blade guard has been partially disconnected.

1. The miter saw is equipped with a lock pin used to lock the miter saw in the lower position. To release, push the handle down slightly and pull the lock pin to its full out position.
2. Raise the power head to the upper position.
3. Locate the 10-32 x 1/2" long screw from the loose parts bag.
4. Slide the lower guard assembly down until the groove in the cover plate lines up with the threaded hole for the cover plate stop screw.
5. Install and tighten the 10-32 x 1/2" cover plate stop screw with the Phillips end of the combination wrench.
6. Locate the sleeve-rubber and 10-32 shoulder screw.
7. Insert the 10-32 shoulder screw into the sleeve-rubber as shown. Make sure the screw head nests into the larger end of the rubber bumper.
8. Use the Phillips end of the combination wrench to install and tighten the shoulder screw rubber bumper subassembly onto the upper guard as shown. The rubber may slightly overlap the sheet metal of the coverplate.

NOTE: The guard should raise as the blade is lowered towards the work table and drop to cover the blade as the power head is raised. This link helps prevent guard hang-ups and binding while you are cutting.

The large end of the sleeve-rubber helps limit rotation of the plastic guard.



Installing or Removing the Blade

WARNING: To avoid injury from a thrown workpiece or thrown pieces of blade, do not use a blade larger or smaller than 12" diameter.

WARNING: To avoid injury from unexpected starting, unplug the saw whenever you are removing or installing the blade.

1. Unplug the saw from the outlet.
2. Rotate the lower plastic guard by hand. Loosen, but do not remove, the cover plate stop screw using the Phillips end of combination wrench.
3. Lift the lower guard up and tilt the lower guard assembly back so the arbor screw is exposed.

- Find the arbor lock between the upper guard and the miter saw handle. Fit 1/4" hex end of combination tool in arbor screw or use 1/2" box end wrench.
- Press the arbor lock and hold it firmly while turning the wrench clockwise. The arbor lock will engage after some turning of the wrench.

NOTE: The arbor screw has a left hand thread. This helps prevent unwanted loosening of the arbor screw during normal operation.

- Remove the arbor screw, arbor washer, outer blade collar, and the blade.

NOTE: Pay attention to pieces removed, noting their position and direction they face (see illustration). Wipe the blade collars clean of any sawdust before installing the new blades.

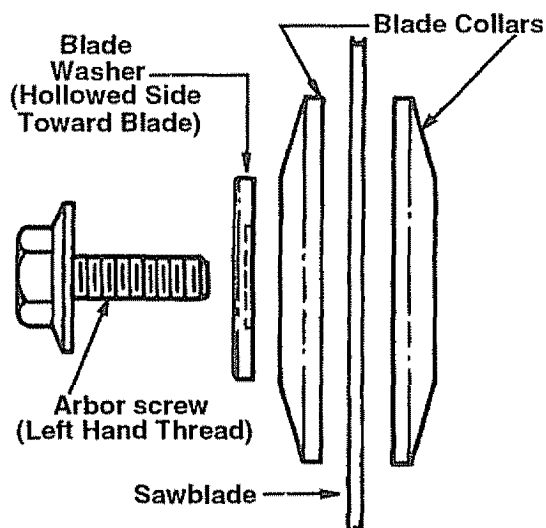
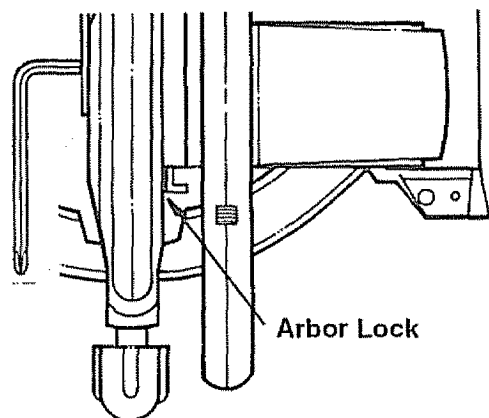
CAUTION: To avoid cuts from extremely sharp teeth: Wear gloves when installing or removing sawblade.

See cautions in "Safety" section concerning inspection, use, and selection of carbide tipped and other sawblades.

- Install the new 12" blade (see recommended accessory list). Make sure the rotation arrow on the blade matches the clockwise rotation arrow on the upper guard.
- Install the outer blade collar, blade washer and arbor screw. Press the arbor lock and turn the combination wrench or the 1/2" wrench counter clockwise to secure the blade. Tighten arbor screw using moderate force, but do not overtighten.
- Lower the lower blade guard until the slot in cover plate rests all the way down on the cover plate stop screw. Tighten the screw with the Phillips end of the combination wrench.

DANGER: Never use saw without mounting plate securely in place. It keeps the arbor screw from falling out if it accidentally loosens, and prevents the spinning blade from coming off the machine.

- Be sure the arbor lock is released so the blade turns freely.



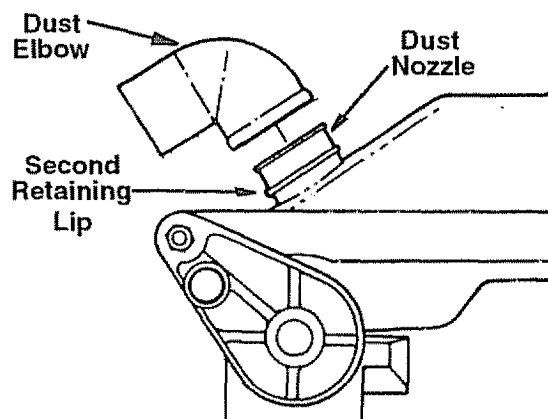
NOTE: The arbor lock can be damaged by improper use. If the arbor lock will not hold, lower the blade down on to a scrap piece of wood positioned against the fence. This will serve as an alternate locking means.

WARNING: Make sure the collars are clean and properly arranged. After installing a new blade, make sure the blade clears the table slot at the 0° and 45° bevel positions. Lower the blade into the table slot and check for any contact with the base or turn table structure. If blade contacts table, seek authorized Sears service.

Assembling Dust Elbow

- Locate the dust elbow.
- Unplug power cord.
- With the miter arm locked in the down position, start the dust elbow onto the dust nozzle at an angle to retaining lip.
- Firmly press the dust elbow the rest of the way onto the second retaining lip.

NOTE: At first time installation, or if assembled in a cool or cold climate, the rubber is not as flexible and will be more difficult to assemble.



Alignment (Adjustments)

WARNING: Cut material can be thrown. Eyes can be permanently damaged. Wear your safety goggles.

NOTE: Before this saw is aligned or used, a kerf must be cut into the table insert at 0° bevel. Our Quality Control Audit Procedure requires us to cut through some inserts before they leave our factory. If this applies to your unit, proceed with your alignment or cutting procedures as specified

1. Plug in the power cord
2. Turn the saw on by actuating the trigger switch.
3. Lower the blade to full depth while cutting through the table insert.
4. Release the trigger switch and allow the blade to come to a complete stop.
5. Repeat this procedure at 45° bevel.
6. Unplug the power cord before starting alignment procedure.

WARNING: To avoid injury from unexpected starting or electrical shock, do not plug the saw in. The power cord must remain unplugged whenever you are working on the saw.

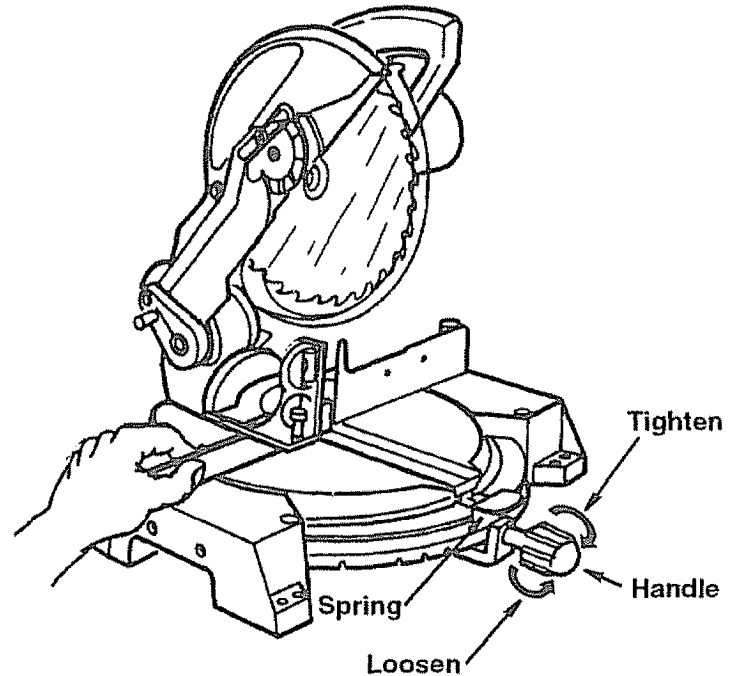
Step One: Blade Square to Table (Bevel Alignment)

NOTE: The miter saw was assembled, aligned, and inspected before shipment. Alignment should be checked and any adjustments made to insure accurate cuts.

1. Check miter lock knob setting. The miter lock knob should be at the 0° position. To reset the miter angle, turn the miter lock knob counter clockwise and press down the index spring, move to 0° miter and retighten knob.
2. Lower the blade and engage the lock pin. Use a combination square to check blade squareness to table. If the blade does not contact the full length of the square, (see illustration) follow the alignment procedure.
 - a. Loosen bevel lock knob.
 - b. Grasping carrying handle, move the cutting head left or right until blade makes contact with the full length of the square.

NOTE: If you cannot get to 0° bevel, the stop screw may be in your way. Adjust it down (Ref.: Step d below) so you may achieve 0° bevel.

- c. Tighten the bevel lock knob.
- d. Loosen the 0° bevel stop screw jam nut using a 1/2" wrench. Adjust 0° bevel stop screw up so that the hex screw head hits the 0° stop at the same time the blade makes contact with the full length of square. After adjustment is final. Retighten the 0° bevel stop screw jam nut.



- e. With the blade square to the table and the 0° bevel stop screw adjusted, if necessary loosen the bevel indicator screw, using the Phillips end of the combination wrench. Slide the indicator under the Phillips head screw to line up exactly with the 0° bevel mark on the bevel scale. Retighten the indicator screw.
3. Loosen bevel lock knob and tilt the power head to 45° bevel and check the 45° bevel stop. The bevel indicator should be on the 45° mark, the 45° bevel stop should be in full contact with the 45° bevel stop screw, and the blade should contact the full length of the square.
 4. If adjustment is necessary, repeat steps 2a - 2d for the 45° bevel stop screw.

Step Two: Blade Square to Fence (Miter Alignment)

WARNING: To avoid injury from unexpected starting or electrical shock, do not plug the saw in. The power cord must remain unplugged whenever you are working on the saw.

1. To check blade squareness to fence, lock power head guard in lower position with the lock pin. Use a combination square. Place the square against the fence and next to the blade as illustrated. Locate the square properly so it does not contact the set in the teeth of sawblade, giving an inaccurate reading. The sawblade should contact the full length of the square.
2. If blade contacts full length of square, no alignment is necessary, skip a-f below. If blade is not square to the fence, follow the alignment procedure.
 - a. Loosen miter lock handle a half turn. The power head should still be secured with blade in lowered position by the lock pin.

NOTE: You must take the saw off its stand, bench or plywood base if readjustment is necessary

CAUTION: To keep from losing control of the unit, steady the base with one hand while loosening the two bolts with the other hand.

- b. With the unit securely resting on a large stable surface, tilt the unit by lifting up on one side or the other of the base. Loosen the two miter arm bolts on the underside of the table with the 1/4" hex end of the combination wrench (supplied).
- c. Return the saw to its normal resting position. Make sure the miter lock handle is loose but do not release the index spring.
- d. Use the miter saw handle to turn the table and powerhead so that the blade contacts the full length of the square. Turn the miter lock handle clockwise to lock saw square to fence.
- e. Tilt saw as in Step b and tighten bolts.
- f. Recheck blade squareness to fence and readjust if necessary.

Adjust Miter Scale Indicator

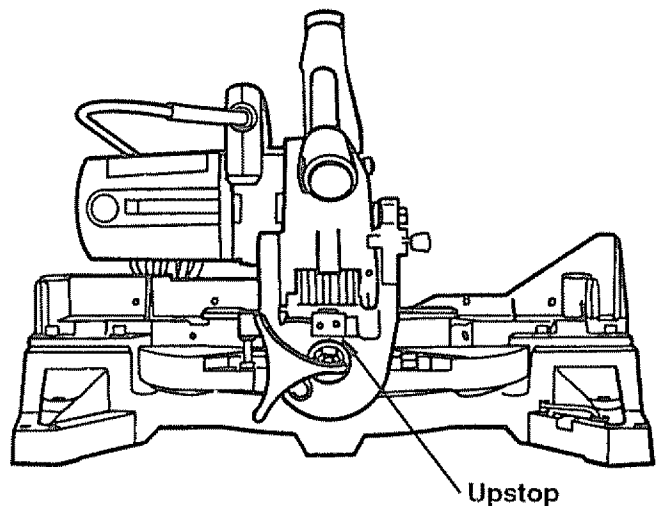
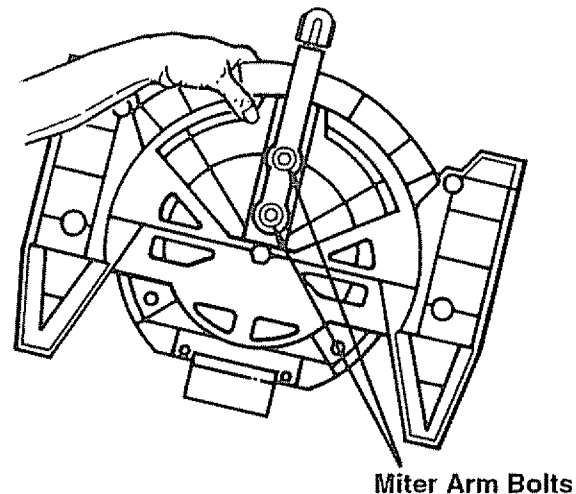
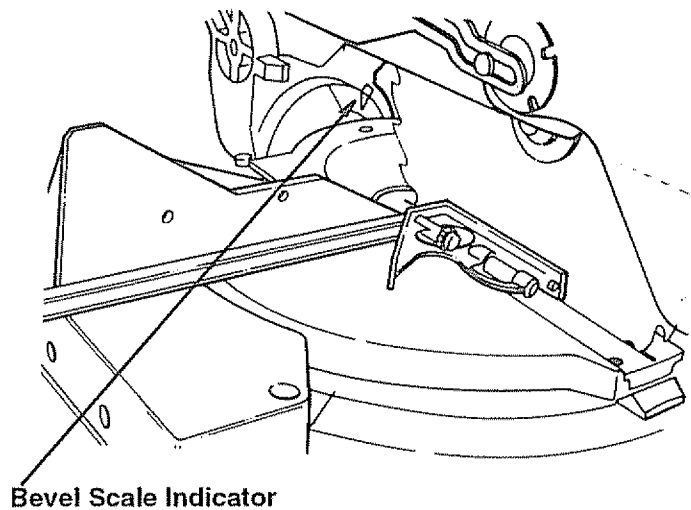
1. Through the hole in the front of the table insert, loosen the Phillips screw that holds the indicator in place.
2. Reposition the indicator to align it with 0° mark, and retighten screw

Step Three: Pivot Adjustment

NOTE: This adjustment was made at the factory and normally does not require readjustment.

Arm Pivot Movement

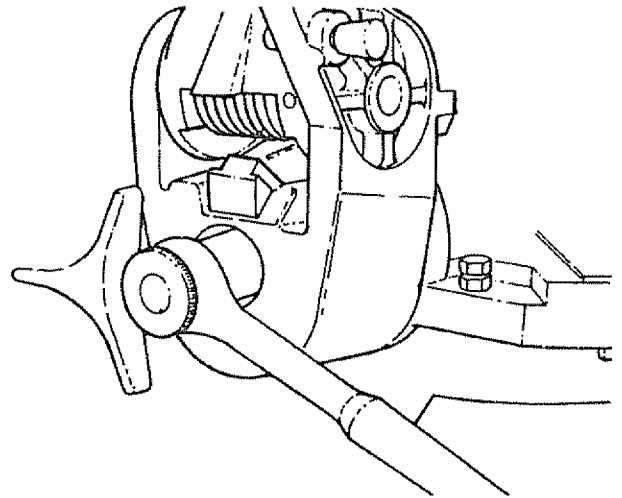
1. Verify that cutting head rises, without help, to full "up" position and guard rests on upstop screwed onto pivot.
2. Make sure the see through lower guard is rotated closed and is resting against, or very close to, the rubber stops. If not, see "Lubrication" section.



Alignment (Adjustments) (continued)

Bevel Pivot Movement/Adjustment

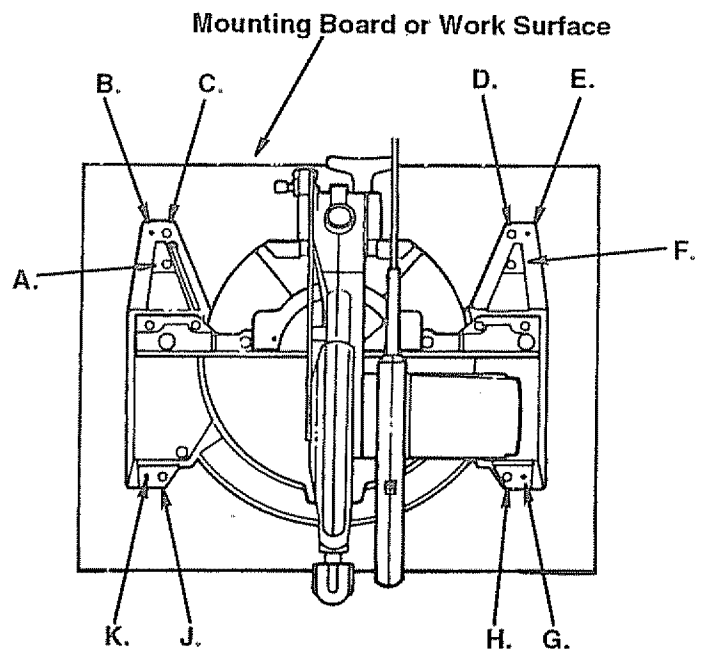
1. Check that miter saw bevels easily by loosening the bevel lock handle and tilting the power head to the left.
NOTE: At least one thread of the pivot bolt should stick out past the hex lock nut.
2. If movement is tight or there is looseness in the pivot, do the following adjustment procedure:
 - a. Loosen the bevel lock handle.
 - b. Turn the hex lock nut with a 3/4" socket and socket wrench.
 - c. Recheck bevel movement of the miter saw. Readjust if necessary.



Mounting The Miter Saw

WARNING: To avoid injury from unexpected saw movement:

- a. Before moving the saw, lock the miter and bevel knobs and lock the power head in the lower position. Unplug electric cord.
- b. To avoid back injury, hold the tool close to your body when lifting. Bend your knees so you can lift with your legs, not your back. Lift by using the hand-hold areas at each side of the bottom of the base or by the carrying handle.
- c. Never carry the miter saw by the power cord or the trigger grip of the plastic handle. Carrying the tool by the power cord could cause damage to the insulation or the wire connections resulting in electric shock or fire.
- d. Place the saw so other people cannot stand behind it. Thrown debris could injure people in its path.
- e. Place the saw on a firm, level surface where there is plenty of room for handling and properly supporting the workpiece.
- f. Support the saw so the table is level and the saw does not rock.
- g. Bolt or clamp the saw to its support.



Place the saw in the desired location either on a work bench or the recommended leg set. The base of the saw has ten holes to mount the miter saw labeled A thru K. Four smaller holes for "drywall" screws are labeled B, E, G and K. Six holes for 5/16" bolts are labeled A, C, D, F, H and J (see illustration). If the saw is to be used in one location, permanently fasten it to the work bench or leg set.

NOTE: When mounted on a large flat surface, the miter saw table is 3 1/2" high. A finished 4x4 or a supported 2x4 on edge can be used as work support extension.

Portable Applications

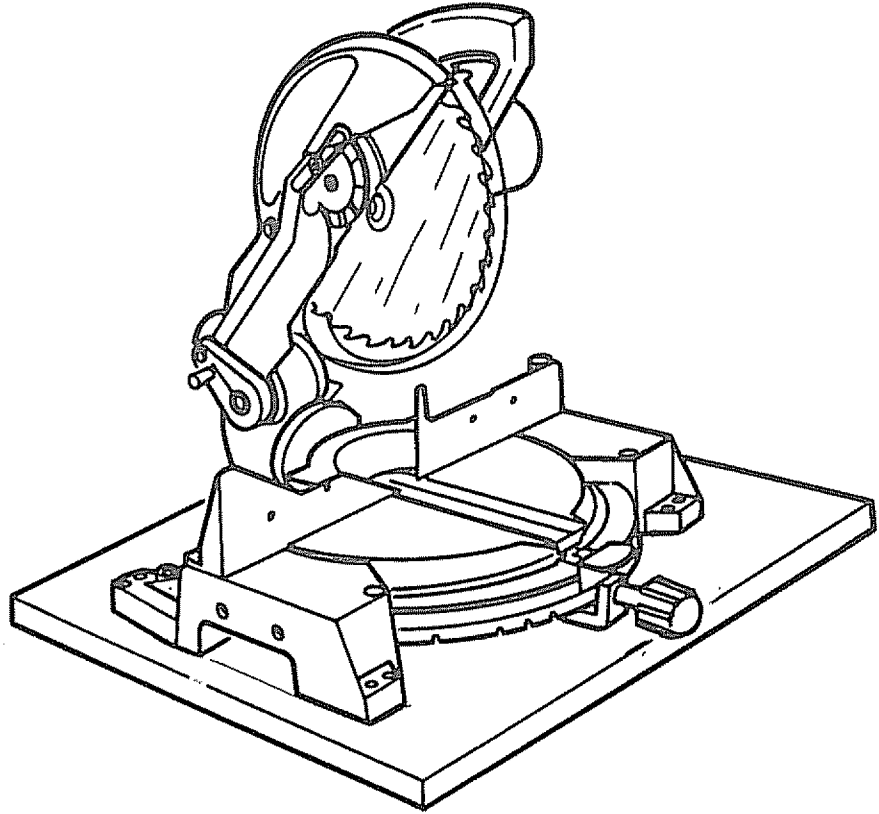
To mount the saw to a 3/4" piece of plywood, use, 4 of the 6, 5/16 bolt holes or the 4 drywall screw holes. The mounting board can then be clamped down to prevent it from tipping. Plywood mount also helps protect saw from damage during the rough handling associated with portable miter saw usage.

Work Bench Applications

Mount as specified in portable applications. Check for workpiece clearances to left and right of saw.

Leg Set Applications

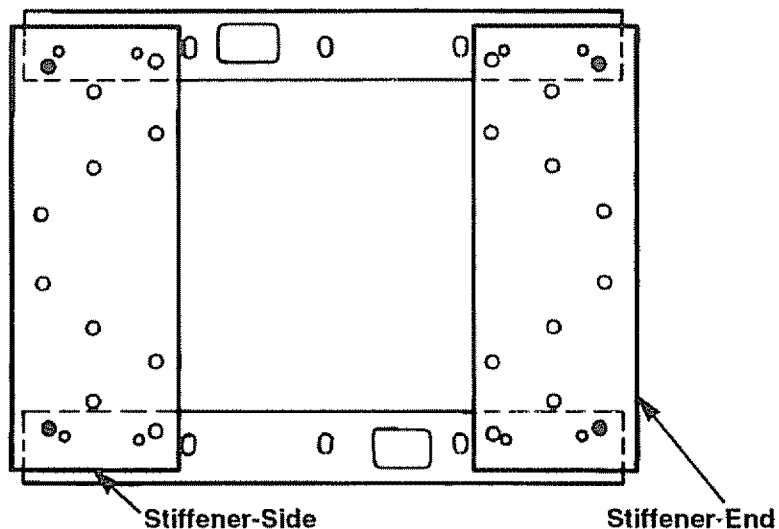
To mount saw to below mentioned leg set, use holes marked A, F, H and J. Attach with hardware shown, through legset holes indicated by "*" (below).



Catalog No. 9-22246 Leg Set Legset Mounting Holes for Model 113.235140 Miter Saw

Recommended mounting hardware (not included)

	Qty
5/16-18x2" hex head bolts (front)	2
5/16-18x2 1/2" hex head bolts (rear)	2
5/16 lockwashers	4
5/16 hex nuts	4



Safety Instructions for Basic Saw Operations

Before Each Use

Inspect your saw.

Disconnect The Miter Saw. To avoid injury from accidental starting, unplug the saw, before changing the setup, changing the blade or adjusting anything.

Compare the direction of rotation arrow on the guard to the direction arrow on blade. The blade teeth should always point downward at the front of the saw.

Tighten the arbor screw.

Tighten the cover plate stop screw.

Check Damaged Parts. Check for:

- Alignment of moving parts,
- Damaged electric cords,
- Binding of moving parts,
- Broken parts,
- Stable mounting
- Function of arm return spring and lower guard: Push the arm all the way down, then let it rise up until it

stops by itself. Check the lower guard to see if it closed fully. If it did not, follow the instructions in the Trouble Shooting section.

- Other conditions that may affect the way the miter saw works.

Keep Guards In Place, in working order, and in proper adjustment.

If any part of this miter saw is missing, bent, or broken in any way, or any electrical parts don't work, turn the saw off and unplug it. **Replace** damaged, missing, or failed parts before using the saw again.

Maintain Tools With Care. Keep the miter saw clean for best and safest performance. Follow instructions for lubricating. **DON'T** put lubricants on the blade while it's spinning.

Remove Adjusting Keys And Wrenches from tool before turning it on.

To Avoid Injury From Jams, Slips Or Thrown Pieces

- Use Only Recommended Accessories. (See "Accessory" section within.) Consult this Owner's manual for recommended accessories. Follow the instructions that come with the accessories. The use of improper accessories may cause risk of injury to persons.
- Choose the right 12-inch diameter blade for the material and the type of cutting you plan to do.
- Make sure the blade is sharp, undamaged and properly aligned. With the saw unplugged, push the power-head all the way down. Hand spin the blade and check for clearance. Tilt the power-head to 45 degree bevel and repeat the check. If the blade hits anything, make the adjustments shown in the Maintaining Maximum Cutting Capacity section.

- Make sure the blade and arbor collars are clean.
- Make sure the collars' recessed sides are facing the blade.
- Using 1/4" hex end of combination wrench (supplied) or 1/2-inch box end wrench, make sure the arbor screw is firmly hand tightened.
- Make sure all clamps and locks are tight and there is no excessive play in any parts.
- **Keep work area clean.** Cluttered areas and benches invite accidents. Floor must not be slippery.

To avoid burns or other fire damage, never use the miter saw near flammable liquids, vapors or gases.

Plan Ahead To Protect Your Eyes, Hands, Face, Ears

Know your miter saw. Read and understand the owner's manual and labels affixed to the tool. Learn its application and limitations as well as the specific potential hazards peculiar to this tool.

To avoid injury from accidental contact with moving parts, don't do layout, assembly, or setup work on the miter saw while any parts are moving.

Avoid Accidental Starting. Make sure switch is "OFF" before plugging miter saw into a power outlet.

Plan your work.

Use The Right Tool. Don't force tool or attachment to do a job it was not designed to do. Use a different tool for any workpiece that can't be held in a solidly braced, fixed position.

CAUTION: This machine is not designed for cutting ferrous metals (steel, iron and iron based metals). Use this miter saw to cut only wood, wood like products or soft metals like aluminum. Other material may shatter, bind on the blade, or create other dangers.

CAUTION: When cutting any metals, sparks or hot fragments could cause a fire. To avoid this, disconnect any dust collecting bag or hose from the miter saw, and remove all traces of wood dust from inside dust traps in the miter saw.

Dress For Safety



Any power miter saw can throw foreign objects into the eyes. This can result in permanent eye damage. Wear safety goggles (not glasses) that comply with ANSI Z87.1 (shown on package). Everyday eyeglasses have only impact resistant lenses. They are not safety glasses. Safety goggles are available at Sears retail stores.

Inspect Your Workpiece

- Make sure there are no nails or foreign objects in the part of the workpiece to be cut.

Plan your work to avoid thrown pieces caused when the workpiece binds on the blade and is torn from your hands.

Plan the way you will hold the workpiece from start to finish. Avoid awkward operations and hand positions where a sudden slip could cause fingers or hand to move into the blade.

Don't Overreach. Keep good footing and balance.

Keep your face and body to one side of sawblade, out of line with a possible throwback.

Cut only one workpiece at a time.

Never cut **Freehand**:

- Brace your workpiece solidly against the fence and table top so it will not rock or twist during the cut.
- Make sure there's no debris between the workpiece and its supports.
- Make sure no gaps between the workpiece, fence and table will let the workpiece shift after it is cut in two.
- Keep the cut off piece free to move sideways after it's cut off. Otherwise, it could get wedged against the blade and could be thrown violently.
- Clear everything except the workpiece and related support devices off the table before turning the miter saw on.
- **Secure Work.** Use clamps or a vise to help hold the work when it's practical.

Use extra caution with large, very small or awkward workpieces:

- Use extra supports (tables, saw horses, blocks, etc.)

Whenever Saw Is Running

WARNING: Don't allow familiarity (gained from frequent use of your miter saw) cause a careless mistake. A careless fraction of a second is enough to cause a severe injury.

Before starting your cut, watch the miter saw while it runs. If it makes an unfamiliar noise or vibrates a lot, stop immediately. Turn the saw off. Unplug the saw. Do not restart until finding and correcting the problem.

Glasses or goggles not in compliance with ANSI Z87.1 could seriously hurt you when they break.

- Do not wear loose clothing, gloves, neckties or jewelry (rings, wrist watches) They can get caught and draw you into moving parts.
- Wear nonslip footwear.
- Tie back long hair.
- Roll long sleeves above the elbow.
- Noise levels vary widely. To avoid possible hearing damage, wear ear plugs or muffs when using miter saw for hours at a time.
- For dusty operations, wear a dust mask along with safety goggles.

for any workpieces large enough to tip when not held down to the table top.

- **Never** use another person as a substitute for a table extension, or as additional support for a workpiece that is longer or wider than the basic miter saw table or to help feed, support or pull the workpiece.
- Do not use this saw to cut pieces too small to let you easily hold the work while you keep the thumb side of your index (pointer) finger against the outside edge of the fence.
- When cutting irregularly shaped workpieces, plan your work so it will not slip and pinch the blade and be torn from your hands. A piece of molding, for example, must lie flat or be held by a fixture or jig that will not let it twist, rock or slip while being cut.
- Properly support round material such as dowel rods, or tubing. They have a tendency to roll while being cut, causing the blade to "bite." To avoid this, always use a fixture designed to properly hold your workpiece.

WARNING: If planning to cut aluminum or other non-ferrous metals: Under adverse conditions, the blade can grab and throw the workpiece suddenly and unexpectedly. To avoid injury, follow all applicable safety instructions, as you normally would, and:

- Use only sawblades specifically recommended for non-ferrous metal cutting.
- Do not cut metal workpieces that must be hand held. Use auxiliary clamps or other equipment as needed.
- Cut non-ferrous metals only if you are experienced or under the supervision of an experienced person.

Keep Children Away. Keep all visitors a safe distance from the miter saw. Make sure bystanders are clear of the miter saw and workpiece.

Never confine the piece being cut off. Never hold it, clamp it, touch it, or use length stops against it while the blade is spinning. It must be free to move sideways on its own. If confined, it could get wedged against the blade and thrown violently.

Safety Instructions for Basic Saw Operations (continued) —

Let the blade reach full speed before cutting. This will help avoid a thrown workpiece.

Don't Force Tool. It will do the job better and safer at its designed rate. Feed the saw into the workpiece only fast enough to let the blade cut without bogging down or binding.

Before freeing jammed material:

- Turn miter saw "OFF" by releasing trigger switch.
- Wait for all moving parts to stop.
- Unplug the miter saw.

After finishing a cut:

- Keep holding the power head down.

- Release the switch, and wait for all moving parts to stop before moving your hands or raising power head.
- If blade doesn't stop within 6 seconds, unplug the saw and follow the instructions in the Trouble Shooting section for fixing the blade brake before using the saw again.

Before Leaving The Saw:

Never Leave Tool Running Unattended. Turn power off. Wait for all moving parts to stop.

Make workshop child-proof. Install a padlock through the hole provided in the trigger to prevent unauthorized, usage. Lock the shop. Disconnect master switches. Store tool away from children and others not qualified to use the tool.

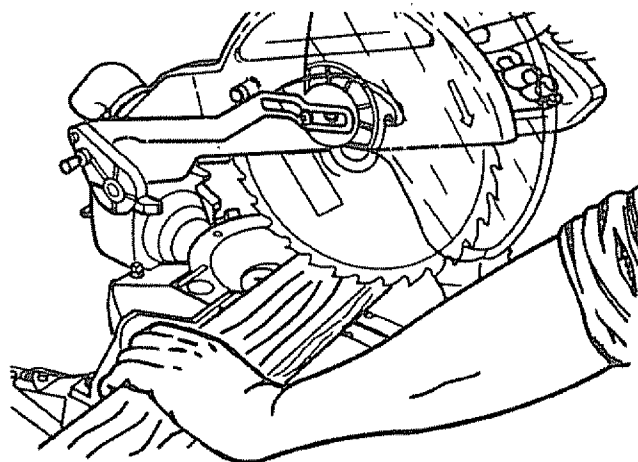
Basic Saw Operations

WARNING: For your convenient use, your saw has a blade brake. The brake is not a safety device. Never rely on it to replace proper use of the guard on your saw. If the blade does not stop within 6 seconds, unplug the saw and follow the instructions in the Trouble Shooting section for fixing the brake before using saw again.

Body and Hand Position

Proper positioning of your body and hands when operating the miter saw will make cutting easier and safer. Never place hands near cutting area. Place hand at least 4" from path of blade. Hold workpiece firmly to the fence to prevent movement toward the blade. Keep hands in position until trigger has been released and the blade has completely stopped. Before making a cut, make a "dry run" with the power off so you can see the path of the blade.

WARNING: Do not try to cut short pieces, you cannot properly support the workpiece and keep your hold down hand the required distance from the blade.



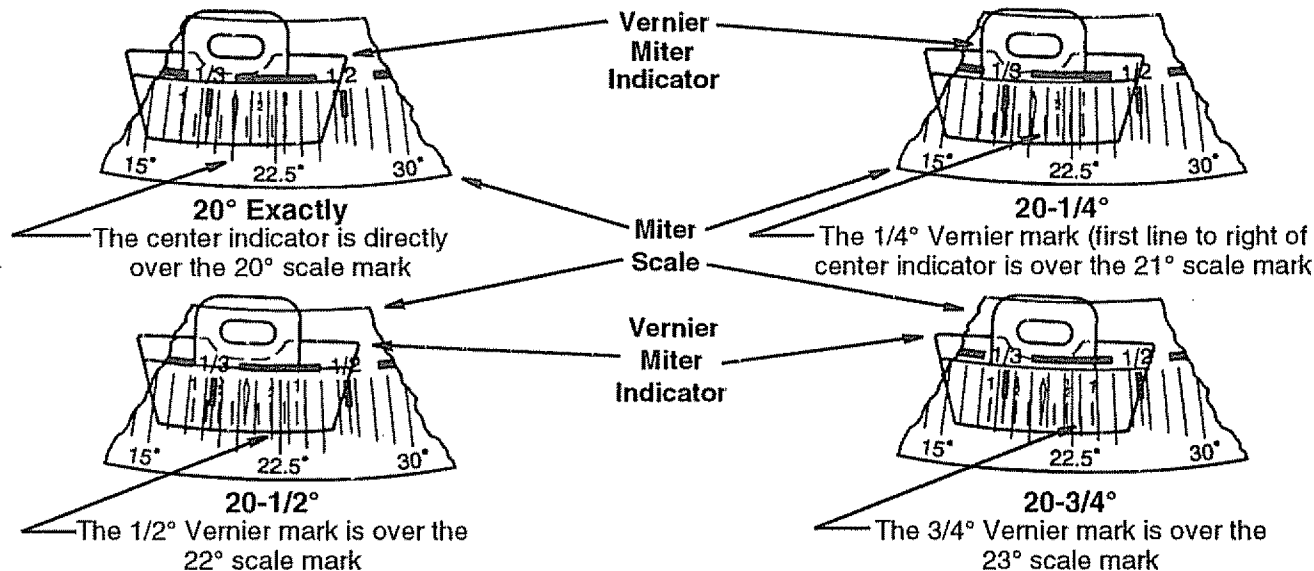
Miter Scale Usage

Vernier Miter Scale Operation:

The Vernier miter scale can quickly and accurately help the user to adjust the saw to any 1/4° increment as illustrated below.

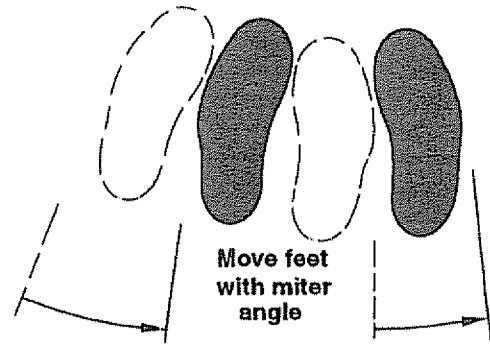
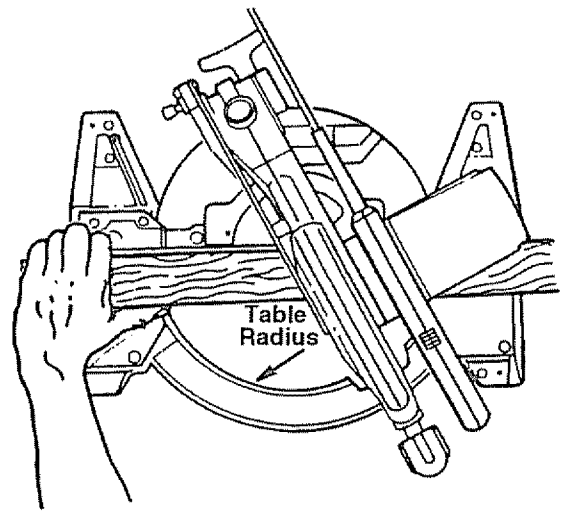
Crown Moldings and Rafter Slope Scales

Common increments for crown molding (cm) and for rafter slopes (rs) are conveniently marked on the miter scale (see "Cutting Crown Moldings", page 22).



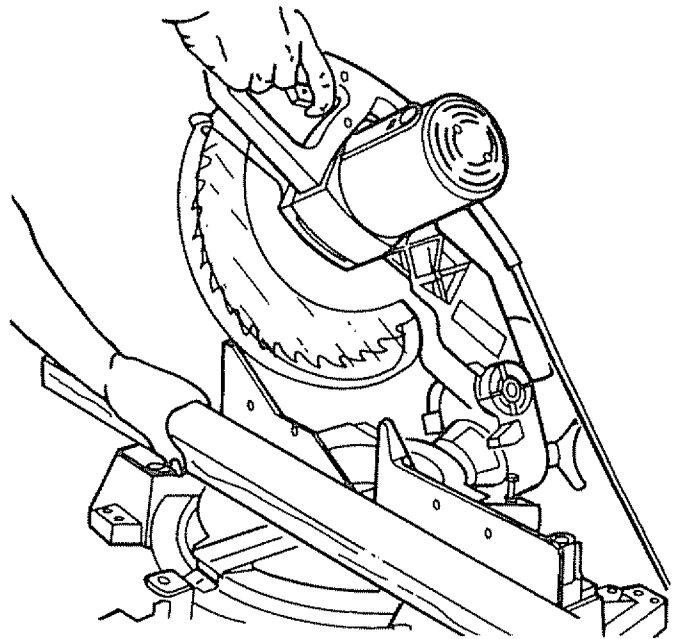
Miter Cut

When a miter cut is required, loosen miter lock knob, depress the index spring and move the saw to the desired angle. Retighten miter lock knob. Move with the handle to the miter angle to make the cut.



Bevel Cut

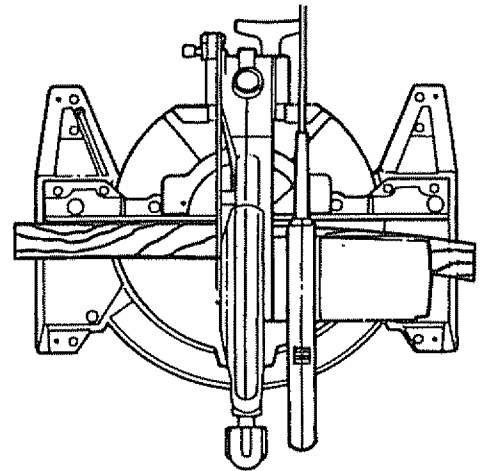
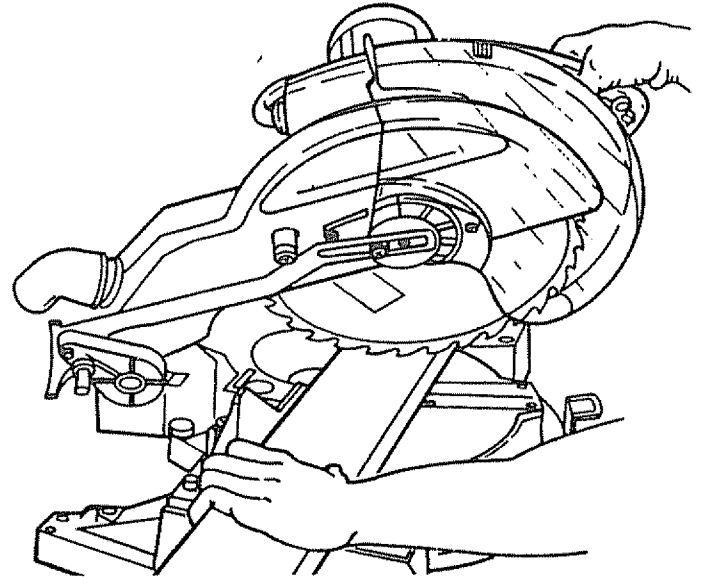
When a bevel cut is required, loosen bevel lock knob. Tilt the blade to desired bevel angle. Retighten bevel lock knob. Stand to the left side of the handle to make the cut.



Basic Saw Operations (continued)

Compound Cut

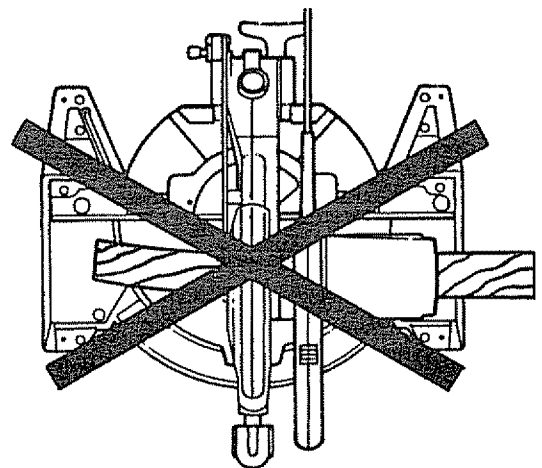
When a compound cut is required, select the desired bevel and miter positions. Move with the handle to the miter angle to make the cut.



Correct

Cutting Bowed Material

Before cutting a workpiece, check to make sure it is not bowed. If it is bowed the workpiece must be positioned and cut as illustrated. Do not position workpiece incorrectly or try to cut the workpiece without the support of the fence. This will cause pinching of the workpiece on the blade. The workpiece could suddenly jump or move and your hand could hit the blade.

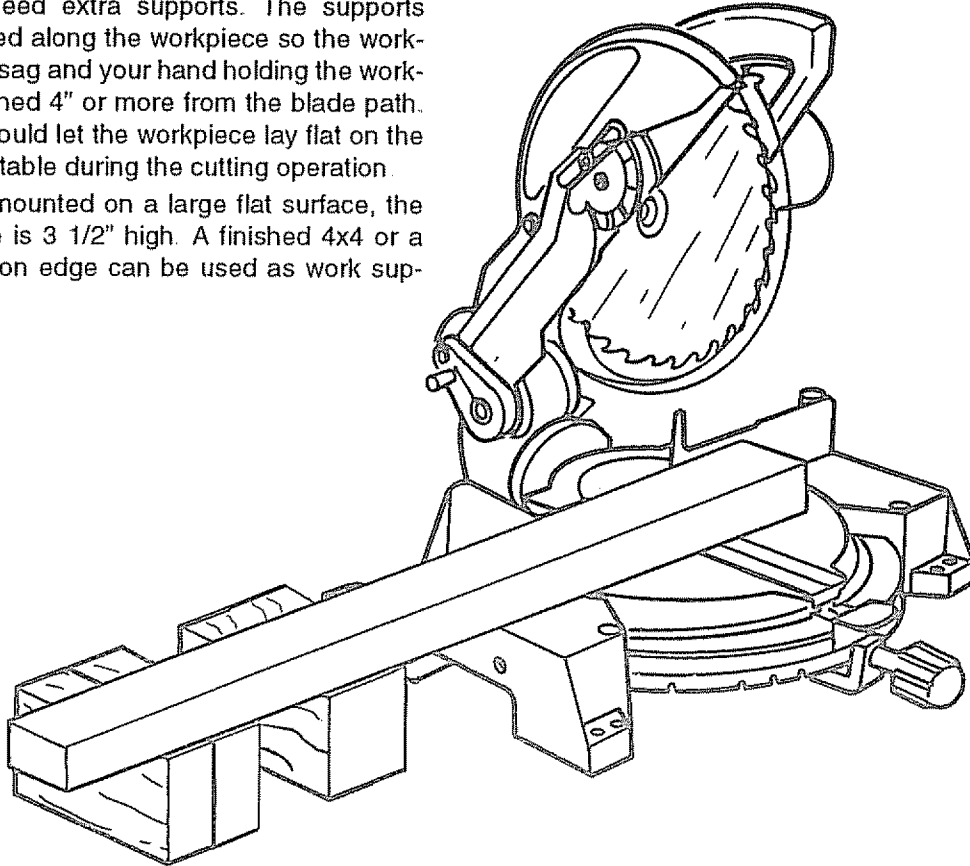


Incorrect

Workpiece Support

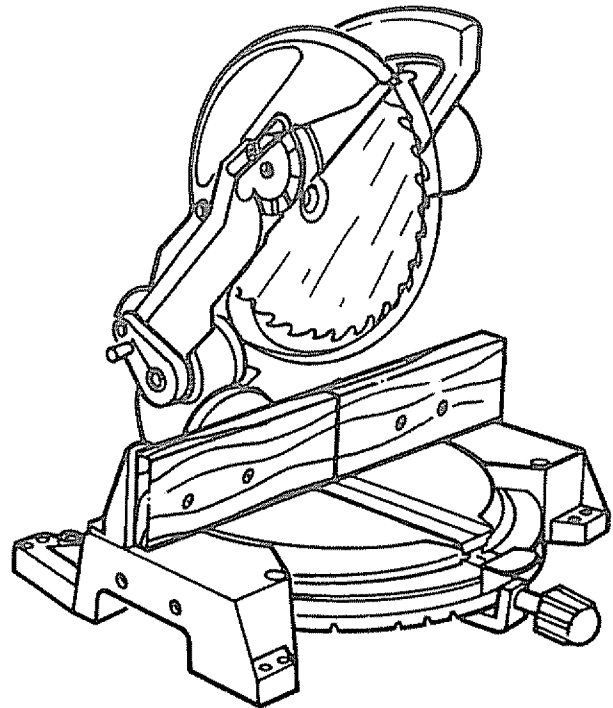
Long pieces need extra supports. The supports should be placed along the workpiece so the workpiece does not sag and your hand holding the workpiece is positioned 4" or more from the blade path. The support should let the workpiece lay flat on the base and work table during the cutting operation.

NOTE: When mounted on a large flat surface, the miter saw table is 3 1/2" high. A finished 4x4 or a supported 2x4 on edge can be used as work support extension.



Auxiliary Fence

Certain types of molding need a fence face extension due to the size and position of the workpiece. Holes are provided in the fence to attach an auxiliary fence. Get a straight piece of wood typically 1/2 inch thick by 4 1/4 inches high by 21 3/4 inches long. To attach auxiliary fence, place the piece of wood on the miter saw fence. Mark the locations from the backside of the miter saw fence. Drill .200"-.250" holes, then countersink the holes on front of wood to receive #10 flat head screws. Attach the auxiliary fence securely and make a full depth cut. This will create the blade slot. Check for interference between the auxiliary fence and lower blade guard. Correct any interference before proceeding. The auxiliary fence is used with the saw in the 0° bevel position. If a bevel cut is desired, the auxiliary fence will have to be removed.



Basic Saw Operations (continued)

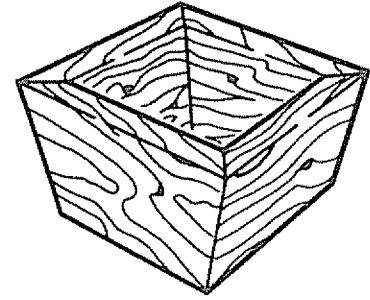
Helpful Hints When Cutting Compound Miters

Tips for Cutting Compound Miters on Picture Frames and Boxes

A compound miter is a cut usually requiring both a miter setting and bevel setting. A compound miter is used for making frames or boxes that have sloping sides and are wide at one end and narrow at the opposite end. Compound miters are "tricky" to make because the miter setting and bevel setting are directly related to each other. Every time the miter setting is changed the bevel setting must also be adjusted; likewise every adjustment to bevel requires a corresponding adjustment to miter. Because it may take several tries to obtain the desired angle it is as advisable to make test cuts in a scrap piece of material.

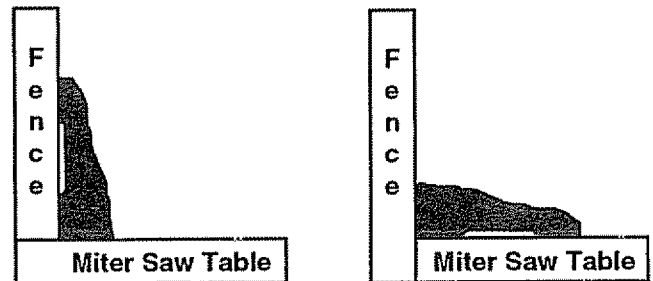
Tips for Cutting Moldings

A compound miter saw is also excellent for cutting molding. Molding is sometimes difficult because in order to fit correctly it must be precisely cut.



Cutting Base Moldings

Base moldings and many other moldings can be cut on a miter saw. The set up of the saw depends on your molding and your application as shown. Always make sure moldings rest firmly against fence and table.



Cutting Base Molding

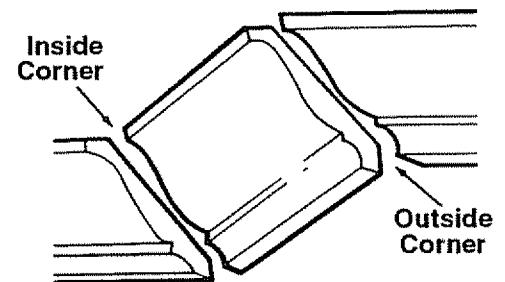
(Miter at 45°, Bevel at 0°) (Miter at 0°, Bevel at 45°)

Cutting Crown Moldings

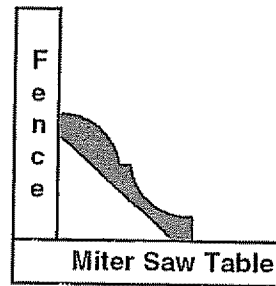
Plan Ahead so that you are not tempted to reach across saw blade to steady newly severed workpiece.

Crown Moldings can be cut using two methods, workpiece standing up (as it would be mounted on wall) and workpiece lying flat on table (see chart and illustration).

Most Standard (U.S.) crown molding has a top rear angle (angle that fits next to ceiling) of 52° and a bottom rear angle (angle that fits against wall) of 38°.



1. **Workpiece standing up**, usually cut inverted from ceiling mounted orientation. Fixturing: Optional fence mounted crown molding jigs which locate workpiece. See recommended accessories. (Table clamp is helpful). Hand is holding workpiece to fence when the cuts are made. All cuts are made at 0° bevel setting and 45° miter (see illustration).



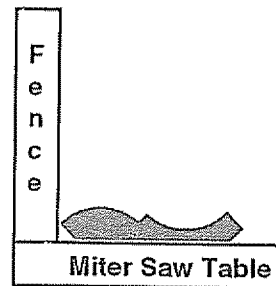
1. Workpiece Standing Up
(Saw at 0° Bevel, 45° Miter)

NOTE: The motor mechanism and the blade diameter of the compound miter saw limit the capacity of cutting a particular application. Always perform a dry run cut so you can determine if the operation being attempted is possible before power is applied to the saw. Larger pieces may be cut using method 2.

2. **Workpiece lying flat** for compound cut (see chart and illustration)

Miter and Bevel Settings for Standard Crown Molding Lying Flat on Miter Saw Table.

Bevel Setting	Miter Setting	Type Of Cut
33.8°	31.6° Right	Left Side, Inside Corner 1. Position top molding against fence. 2. Left side is finished piece.
33.8°	31.6° Left	Right Side, Inside Corner 1. Position bottom of molding against fence. 2. Left side is finished piece.
33.8°	31.6° Left	Left Side, Outside Corner 1. Position bottom of molding against fence. 2. Right side is finished piece.
33.8°	31.6° Right	Right Side, Outside Corner 1. Position top of molding against fence 2. Right side is finished piece.



2. Workpiece Lying Flat
(See Chart for Bevel and Miter Settings)

NOTE: On all above cuts lay molding with broad back surface flat on table

Pretesting Compound Settings On Scrap Material Is Extremely Important!

NOTE: The above instructions assume that the constructed wall corner is exactly 90°. In typical construction, this is not always the case. Measure wall and make necessary adjustments to cutting angles.

Maintenance and Lubrication

Maintenance

DANGER: Never put lubricants on the blade while it is spinning.

WARNING: To avoid injury from unexpected starting or electrical shock, unplug the power cord before working on the saw.

Replacing Carbon Brushes

The carbon brushes furnished will last approximately 50 hours of running time or 10,000 on/off cycles. Replace both carbon brushes when either has less than 1/4" length of carbon remaining. To inspect or replace brushes, first unplug the saw. Then remove the black plastic cap on the side of the motor (caution, this cap is spring loaded by the brush assembly). Then pull out the brush. Repeat for the other side. To reassemble reverse the procedure. The ears on the metal end of the brush assembly go in the same hole the carbon part fits into. Tighten the cap snugly but do not overtighten.

NOTE: To reinstall the same brushes, first make sure the brushes go back in the way they came out. Otherwise a break-in period will occur that will reduce motor performance and increase brush wear.

Lubrication

All the motor bearings in this tool are lubricated with a sufficient amount of high grade lubricant for the life of the unit under normal operating conditions, therefore, no further lubrication is required (see below).

Infrequent Lubrication as Required:

1. Lubrication of arm pivot and bevel pivot for free movement. Two arm pivot methods are recommended below.

NOTE: This is minor maintenance that may be done by the customer.

- a. By applying a light oil or a pressurized light spray oil to the threads of the bevel knob, the arm pivot oil holes, to the pivot shaft ends and especially across the torsion spring front and back. Remove excess oil.
- b. By applying oil to the entire pivot shaft.

NOTE: This is a major arm pivot disassembly procedure which should be performed by an authorized Sears Technician.

1. Remove upstop.
2. Relieve arm spring tension by rotating power head to the rear.
3. Loosen set screws in both sides of pivot.
4. Tap pivot shaft halfway out of pivot. Always use a brass or soft material "drift" to tap the shaft out of pivot.
5. Apply oil.
6. Repeat step four in other direction for other half of shaft.
7. Move shaft back to center.
8. Retighten set screws.
9. Rotate power head and lock in lower position.
10. Reinstall upstop.

Lower Blade Guard

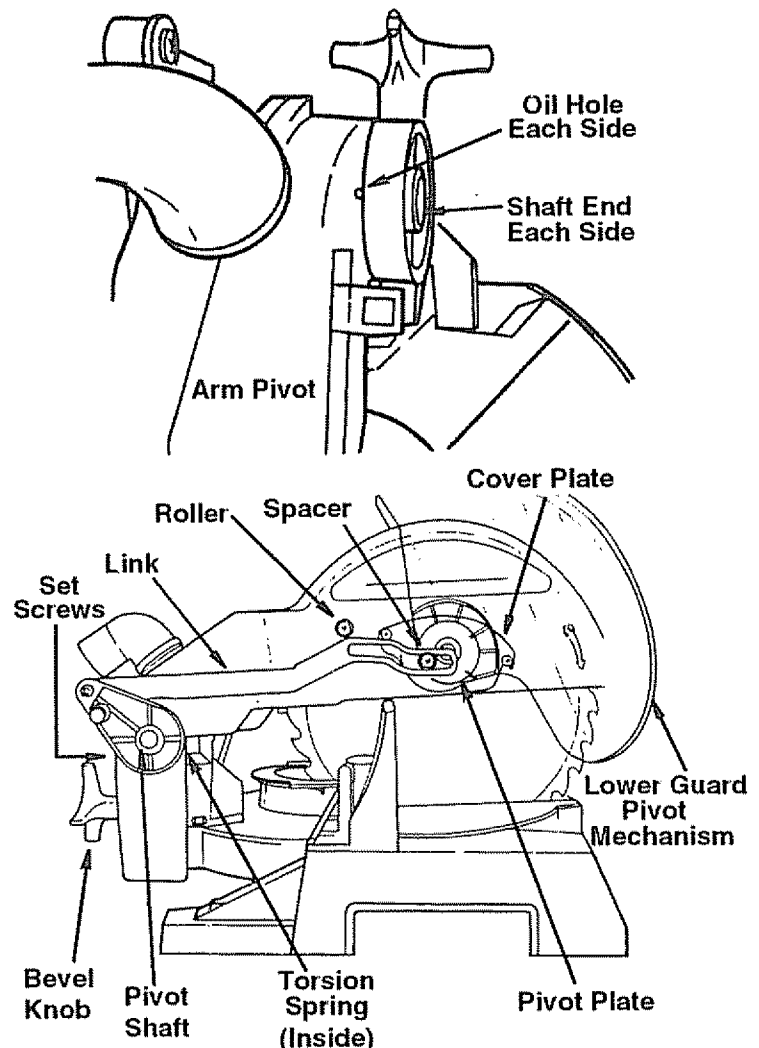
Do not use the saw without the lower guard. The lower blade guard is attached to the saw for your protection. Should the lower guard become damaged, do not use the saw until damaged guard has been replaced. Develop a regular check to make sure the lower guard is working properly. Clean the lower guard of any dust or build up with a damp cloth.

CAUTION: Do not use solvents on the guard. They could make the plastic "cloudy" and brittle.

WARNING: When cleaning lower guard unplug the saw from the outlet to avoid unexpected start-up.

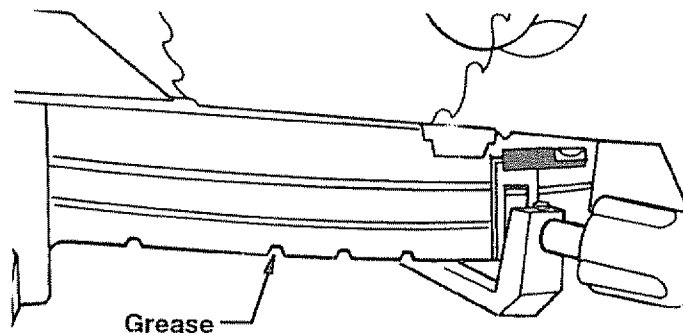
Periodically, sawdust will accumulate under the work table and base. This could cause difficulty in the movement of the work table when setting up a miter cut. Frequently blow out or vacuum up the sawdust. Check up stop, down stop and bevel stops for sawdust accumulation, which can affect capacity or accuracy.

WARNING: If blowing sawdust, wear proper eye protection to keep debris from blowing into eyes.



Maintenance and Lubrication (continued)

- Lubrication of mechanism which pivots lower guard: (see picture on previous page) Use light household oil (sewing machine oil) or a pressurized light spray oil on metal-to-metal or metal-to-plastic guard contact areas as required for smooth, quiet operation. Avoid excess oil, to which sawdust will cling. **Lubricate the lower guard spacer, roller, pivot plate and link pivot.**
- Lubrication of miter index indents: use a small amount of grease on the miter index indents that are located below the miter scale on the front of the unit.



Sears Recommends the Following Accessories

Recommended Accessories

WARNING: To avoid injury from unsafe accessories, use only accessories shown on the recommended accessories list in this manual.

Leg Set	9-22246
Dust bag	9-23467
Workpiece Clamp	9-29000
Table Extensions with Stop Block	9-29001
Crown molding jigs	9-29002
1-1/4 Sawdust Collection Hose	9-17866

CAUTION: Use only blades labeled thin-kerf and recommended for use on miter saws. Standard kerf 12" blades may cause blown fuses, and increased mechanical/electrical wear on the saw. Standard kerf 12" blades take a longer time to start and stop, which could have an effect upon your safe operation.

Basic Blade Requirements

12" Diameter
Blades marked for 4,000 RPM or higher.
1" Diameter Arbor Hole
Labeled "Thin kerf"

Carbide Tipped Sawblades

WARNING: Read warnings and conditions on your carbide sawblade.

Do not operate saw machine without proper sawblade guard in place. Carbide is a very hard but brittle material. Care should be taken while mounting, using and storing carbide blades to prevent accidental damage. Slight shocks, such as striking tip during handling, can seriously damage the blade. Foreign objects in the workpiece, such as wire or nails, can also cause tips to crack or break off. Never use blade on saw machine that will exceed maximum recommended blade R.P.M. Always wear proper eye protection which complies with current ANSI standard Z87.1 when using any power tool. Before using, always: visually examine blade and tips for bent blade, cracks, breakage, missing or loose tips; or other damage. Do not use if damage is suspected. Mount blade securely in proper rotation direction. Failure to heed all safety instructions and warnings regarding use of this product can result in serious bodily injury.

Prohibited Accessories

WARNING: The use of any cutting tool except 12" saw blades which meet the requirement under recommended accessories is prohibited. Do not use accessories such as shaper cutters or dado sets. Ferrous metal (metal with iron in it) cutting and the use of abrasive wheels are prohibited. See WARNING and CAUTION notes in the "Safety Instructions for Basic Saw Operations" section. If planning to saw non-ferrous metal, see WARNING and CAUTION notes in the "Safety Instructions for Basic Saw Operations" section.

Troubleshooting Guide

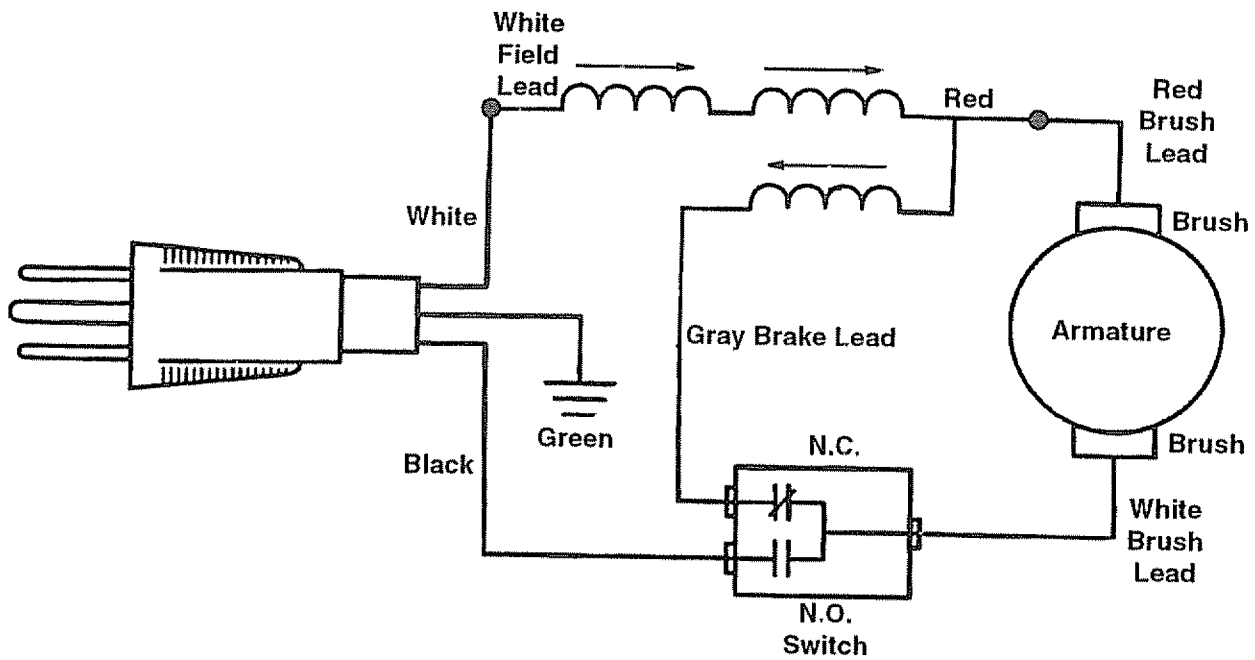
Motor

Problem	Probable Cause	Suggested Corrective Action
Brake does not stop blade within 6 seconds.	<ol style="list-style-type: none"> 1. Brushes not seated or lightly sticking. 2. Motor brake winding overheated from use of prohibited accessory or rapid on/off cycling. 3. Arbor screw loose. 4. Other 	<ul style="list-style-type: none"> - Inspect/clean/replace brushes. See "Maintenance" section. - Use only recommended blades/accessories. - Let motor cool down. - Retighten - Get authorized Sears service. See "Troubleshooting of brake" section.
Motor does not start.	<ol style="list-style-type: none"> 1. Fuse. 2. Brushes worn. 3. Other. 	<ul style="list-style-type: none"> - 15 amp time delay fuse, or circuit breaker. - See "Maintenance" section. - Get authorized Sears service.
Brush sparking when switch released.	<ol style="list-style-type: none"> 1. Normal automatic brake working properly. 	<ul style="list-style-type: none"> - None

General

Problem	Probable Cause	Suggested Corrective Action
Blade hits table.	<ol style="list-style-type: none"> 1. Misalignment 	<ul style="list-style-type: none"> - Get authorized Sears Service.
Angle of cut not accurate.	<ol style="list-style-type: none"> 1. Misalignment 	<ul style="list-style-type: none"> - See "Alignment" section.
Can't move miter adjustment	<ol style="list-style-type: none"> 1. Sawdust under table 	<ul style="list-style-type: none"> - Vacuum or blow out dust. - Wear Eye Protection.
Power head wobbles.	<ol style="list-style-type: none"> 1. Loose pivot points 	<ul style="list-style-type: none"> - See Bevel Pivot Adjustment in "Alignment" section.
Power head won't fully rise or blade guard won't fully close	<ol style="list-style-type: none"> 1. Lubrication needed 2. Part failure 3. Pivot spring or guard spring not replaces properly after service 4. Sawdust sticking to stops 	<ul style="list-style-type: none"> - See "Lubrication" section. - Get authorized Sears Service. - Get authorized Sears Service. - Inspect/clean stops.
Blade binds, jams, burns wood. Rough cuts	<ol style="list-style-type: none"> 1. Improper operation 2. Dull blade 3. Improper blade 4. Bent blade - check across expansion slots 	<ul style="list-style-type: none"> - See "Basic Saw Operation" section. - Replace or sharpen blade. - Replace with 12" diameter blade designed for the material being cut. - Replace blade.
Tool vibrates or shakes	<ol style="list-style-type: none"> 1. Sawblade not round 2. Sawblade damaged 3. Sawblade loose 4. Other 	<ul style="list-style-type: none"> - Replace blade. - Replace blade. - Tighten arbor screw. - Get authorized Sears Service.
Power head hard to pull/push down	<ol style="list-style-type: none"> 1. Lube needed 	<ul style="list-style-type: none"> - See - "Lubrication" section.

Wiring Diagram

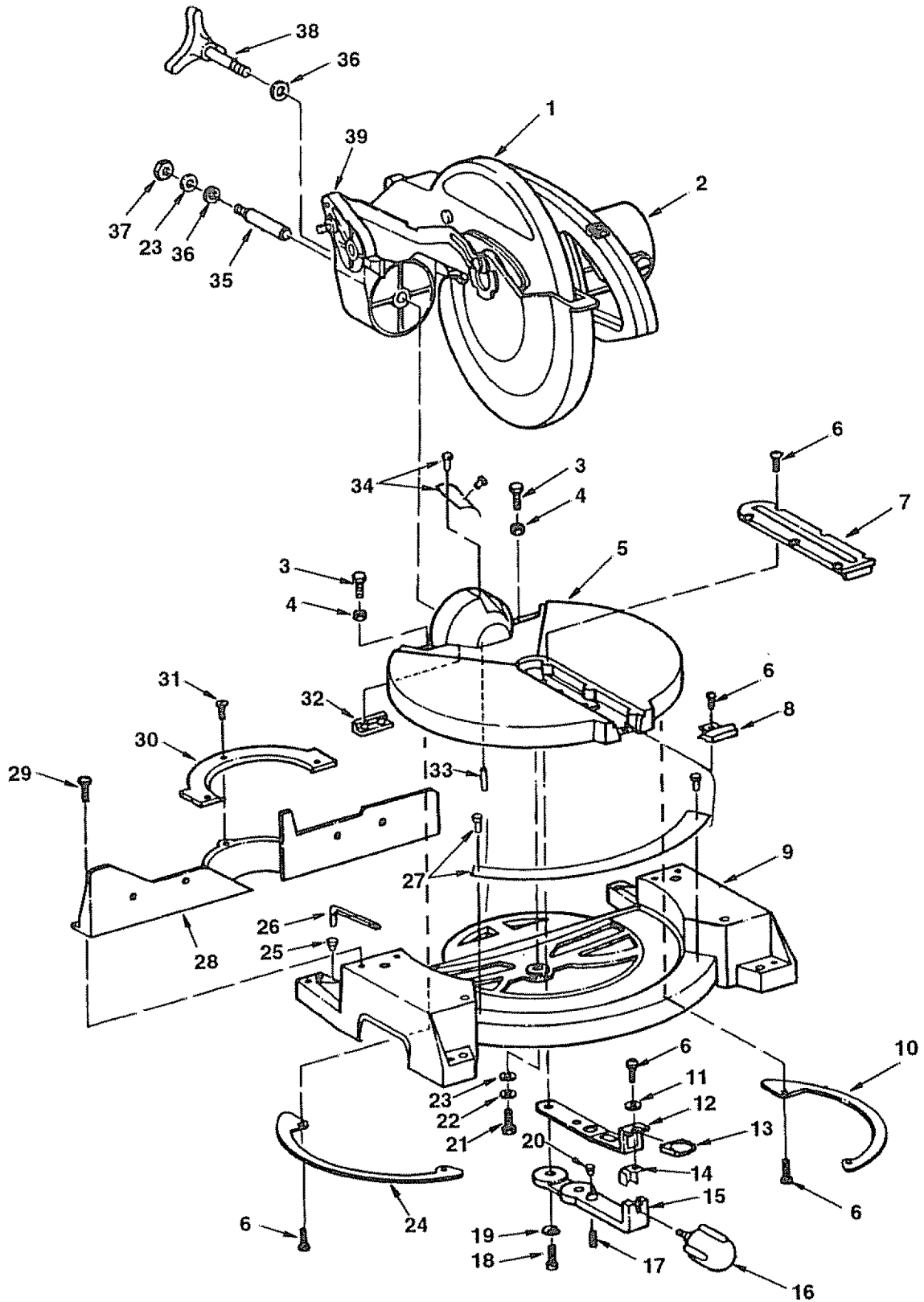


Trouble Shooting of brake by qualified service person only.

1. Check commutation at no load. If there is a heavy sparking which follows the curvature of the commutator: replace the armature.
2. To continue trouble shooting, now unplug the power cord.
3. Install service brushes, especially if delayed come-in of brake has been noticed before failure.
4. Check brake circuit for continuity: remove brush caps and brushes. Use ohmmeter to check continuity from brass brush holder to brush holder. If open, locate exact place using ohmmeter. As indicated by test, tighten connection or replace field assembly or replace switch.
5. After repair, check direction of blade rotation vs. guard arrow.

Repair Parts


Parts List For Craftsman 12" Compound Miter Saw Model No. 113.235140 Figure 1




Repair Parts


Parts List For Craftsman 12" Compound Miter Saw Model No. 113.235140 Figure 1

Always order by part number - not by key number

Key No.	Part No.	Description
1	See Fig. 4	Blade Guard Asm.
2	See Fig. 2	Motor Asm.
3	820381-5	Scr. Hex Hd. M8 x 1.25-45
4	STD840812	* Nut Hex M8 x 1.25
5	823671	Table (Includes Key Nos. 35 & 36)
6	816755-4	Scr. Pan Cr. M5 x 0.8-8
7	823274	Plate Throat
8	823336	Indicator Miter
9	823258	Base (Includes Key No. 27)
10	823332	Shoe (Right)
11	46-58494-3	* Lockwasher 5mm
12	823338	Spring Miter Index
13	823334	Grip Miter Index
14	823357	Plate Clamp Miter
15	823337	Arm Miter
16	823299	Knob Miter
17	818471-4	Scr. Set M6 x 1.0 x 10
18	141594-48	 Screw Hex Cap 5/16-18 x 18mm
19	STD852008	* Lockwasher 8mm
20	823356	Shoe Base Front

Key No.	Part No.	Description
21	823355	Bolt Table Pivot
22	805561-4	Washer 505 x 13/16 x 1/32
23	819179	Washer Spring 12.7 x 0.3
24	823331	Shoe (Left)
25	823335	Grommet Wrench
26	823492	Wrench Hex "L" 25
27	823341	Scale Miter
28	823263	Fence
29	141594-17	Scr. Soc. Cap 5/16-18 x 1
30	823319	Guard Fence Danger
31	820235-2	Screw Flat Cr. M5 x 0.8-10
32	823361	Shoe Base Rear
33	813249-155	Pin Roll M6 x 25
34	823663	Scale Bevel
35	823345	Shaft Bevel Pivot
36	823400	Washer
37	818656	 Nut Lock M12 x 1.75
38	823270	Knob Bevel
39	See Fig. 3	Pivot Asm
—	SP6008	Owners Manual (Not Illustrated)

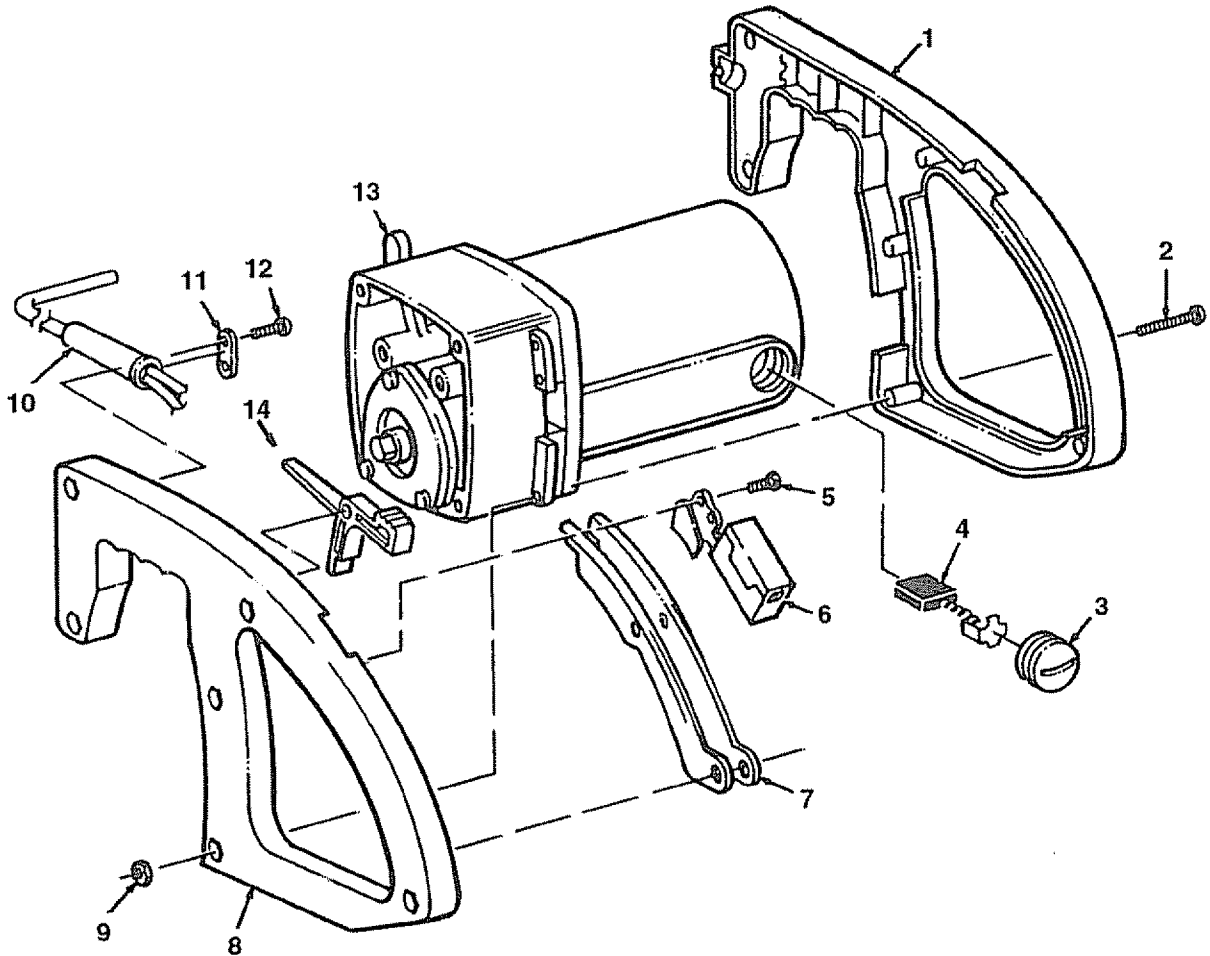
* Standard Hardware Item - May be purchased locally.

 **WARNING: These items are important to the safety of this tool. Do not substitute common parts.**

Repair Parts

Parts List For Craftsman 12" Compound Miter Saw Model No. 113.235140

Figure 2 - Arm and Motor Assembly



WARNING: For your safety, this miter saw is specially insulated. To avoid electrical shock, fire or injury, use only parts identical to those identified in the parts list. Reassemble exactly as originally assembled.

Always order by Part Number - Not by Key Number

Key No.	Part No.	Description
1	823272	Handle (Right)
2	813312-4	Scr. Pan Cr. M4 x .7-30
3	816770	▲ Cover Brush
4	816768	▲ Brush
5	817143	Scr Pan Cr. Ty "AB" M4.2 x 1.4 x 12
6	823493	▲ • Switch

Key No	Part No.	Description
7	823318	Actuator Switch
8	823273	Handle (Left)
9	56-100002	* Nut Hex m4 x 0.7
10	821122-1	▲ • Guard Cord
11	816725	Clamp Cord
12	816743	Scr. Pan Cr. M4 x 0.7-15
13	823662	▲ • Motor Assembly
14	823886	Button Lock

* Standard hardware item - May be purchased locally.

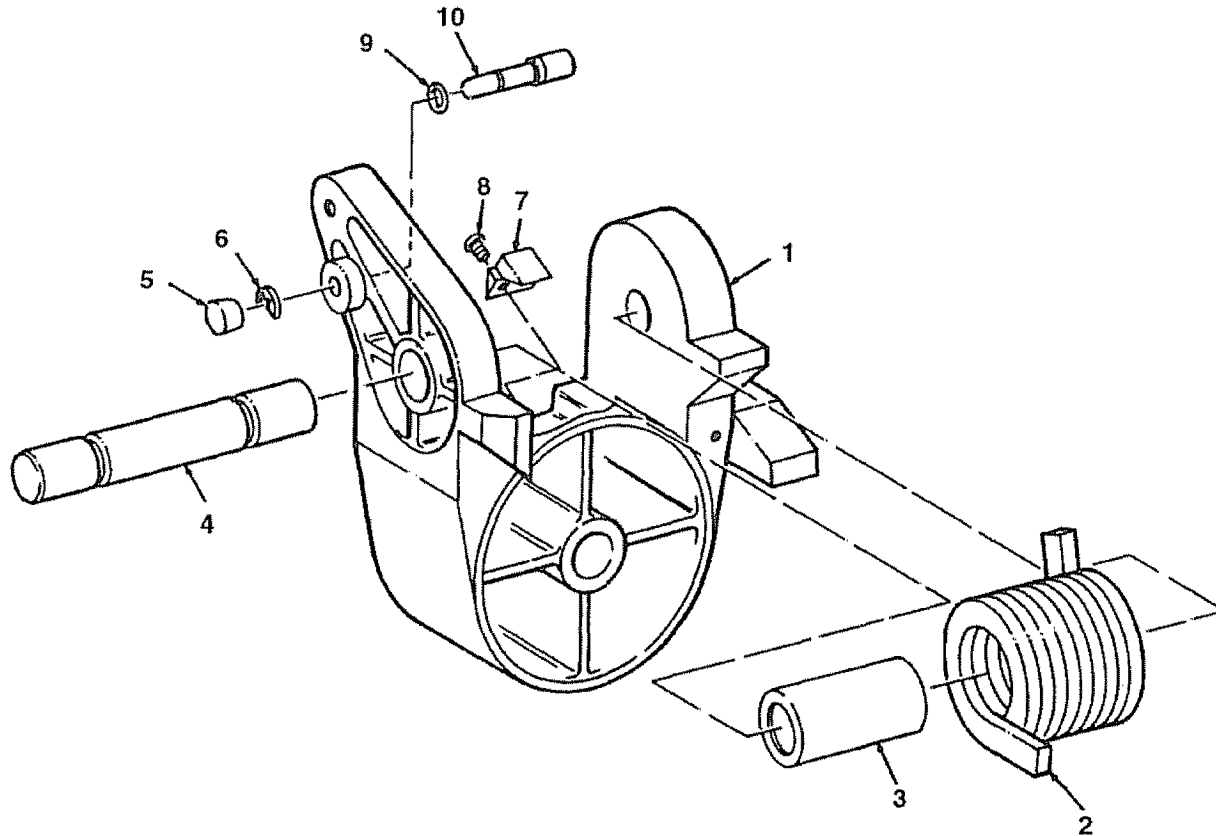
‡ **CAUTION: See Mechanical Assembly Caution on page 33.**

▲ **WARNING: These items are important to the safety of this tool. Do not substitute common parts.**

• **WARNING: Any attempt to repair or replace electrical parts on this unit may create a hazard unless repair is done by a qualified service technician. Repair service is available at your nearest Sears store.**

Repair Parts

Parts List For Craftsman 12" Compound Miter Saw Model No. 113.235140 Figure 3 - Pivot Assembly



Always order by Part Number - Not by Key Number

Key No.	Part No.	Description
1	823260	Pivot
2	823350	†Spring Torsion
3	823320	Spacer Torsion Spring
4	823344	Shaft Pivot
5	823395	Cap Rubber

Key No.	Part No.	Description
6	823401	Ring Retaining
7	823352	Bumper Upstop
8	816755-3	Scr. Pan Cr. M5 x 0.8 x 12
9	821421-4	Ring "O"
10	823347	Pin Locking

* Standard hardware item - May be purchased locally.

† CAUTION: See mechanical assembly caution on page 33.

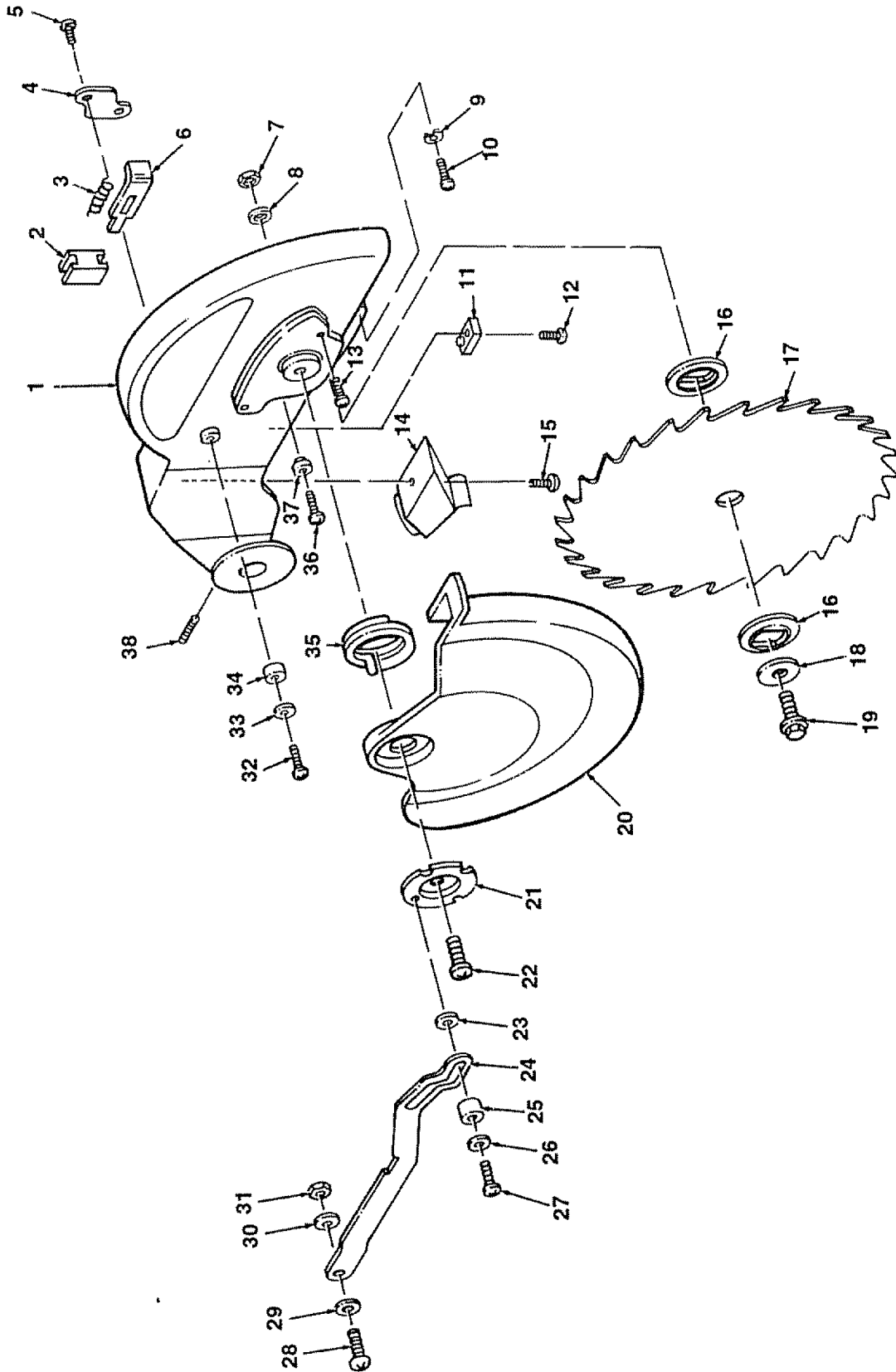
• WARNING: Any attempt to repair or replace electrical parts on this unit may create a hazard unless repair is done by a qualified service technician. Repair service is available at your nearest Sears store.

⚠ WARNING: These items are important to the safety of this tool. Do not substitute common parts.

Repair Parts

Parts List For Craftsman 12" Compound Miter Saw Model No. 113.235140

Figure 4



Repair Parts

Parts List For Craftsman 12" Compound Miter Saw

Model No. 113.235140

Figure 4 Blade & Blade Guard Asm. ‡

Always order by part number - Not by key number

Key No.	Part No.	Description
1	823664	Guard Upper (Includes Key Nos. 7, 8 & 22)
2	823359	Grommet Arbor Lock
3	823402	‡ Spring
4	823353	Plate Retainer Arbor Lock
5	823404	Scr. Cr. M6 x 1.0-10
6	823354	Lock Arbor
7	60012	▲ Nut Lock
8	STD551010	* Washer 13/64 x 20/64 x 1/32
9	STD852008	* Lockwasher 8mm
10	813315-3	Scr. Pan Cr. M8 x 1 25-30
11	823360	Bumper Lower Guard
12	820379-2	Scr. Hx. Soc. Cap M5 x 0.8-16
13	STD511105	* Scr. Pan Cr. 10-32 x 1/2
14	823363	Chute Sawdust
15	816755-1	Screw Pan Cr. M5 x 8
16	823348	▲ Collar Blade
17	825631	Blade 12" Saw
18	816720	Washer Blade

Key No.	Part No.	Description
19	823351	▲ Screw Arbor
20	823275	‡ Guard Lower
21	820726	Retainer Guard
22	821873	▲ Screw Shoulder
23	820732-2	Washer 5.5 x 16 x 0.8
24	823340	Link Actuator
25	820725-01	Spacer 7 x 10 x 4
26	820732-1	Washer 7.5 x 16 x 0.6
27	820724-01	Screw Shoulder M5 x 0.8
28	821875-3	Screw Shoulder 7.5 x 4
29	821063-1	Washer 8 x 16 x 0.5
30	820238-5	Washer M6.5 x 13 x 0.8
31	817449-1	Nut Hex Lock M6 x 1.0
32	821875-1	Screw Shoulder 7.5 x 8
33	820238-2	Washer M6 x 12 x 1.6
34	821862	Bearing
35	816677	‡ Spring Guard
36	821878	Screw Shoulder 217 x .44
37	821859	Sleeve Rubber
38	816785	Screw Soc. Set M5 x 0.8 x 10

* Standard Hardware Item - May Be Purchased Locally.

‡ CAUTION: See Mechanical Assembly Caution below.

▲ WARNING: These items are important to the safety of this tool. Do not substitute common parts.

• WARNING: Uncontrolled spring release of misinstallation of these parts may create a Hazard unless repair is done by a qualified service technician. Repair service is available at your nearest Sears store.

CAUTION: Mechanical Assembly, to qualified service technician.

1. Wear approved eye protection when working with coil springs including spring, arbor lock 823402.
2. Incorrect re-assembly of torsion spring 823350 can cause an unsafe condition because cutting head fails to rise fully to stop, or because spring fails through over-stress.
3. Improper reassembly of mechanisms controlling movement of lower guard 823275 can cause an unsafe condition because guard fails to operate freely as cutting head is moved up and down.

Notes

SEARS

owner's manual

MODEL NO.
113.235140

The model number of your 12 inch Compound Miter Saw will be found on a plate attached to your saw, at the side of the Miter Saw arm.

When requesting service or ordering parts, always provide the following information:

- Product Type
- Model Number
- Part Number
- Part Description

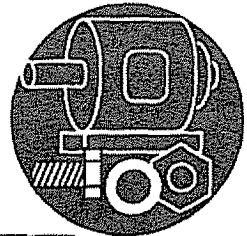
12 INCH COMPOUND MITER SAW

For the repair or replacement parts you need

Call 7 am - 7 pm, 7 days a week

1-800-366-PART

(1-800-366-7278)



For in-home major brand repair service

Call 24 hours a day, 7 days a week

1-800-4-REPAIR

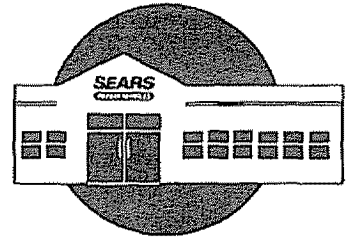
(1-800-473-7247)



For the location of a
Sears Repair Service Center in your area

Call 24 hours a day, 7 days a week

1-800-488-1222



For information on purchasing a Sears
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about an existing Agreement

Call 9 am - 5 pm, Monday-Saturday

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