

Owner's Manual

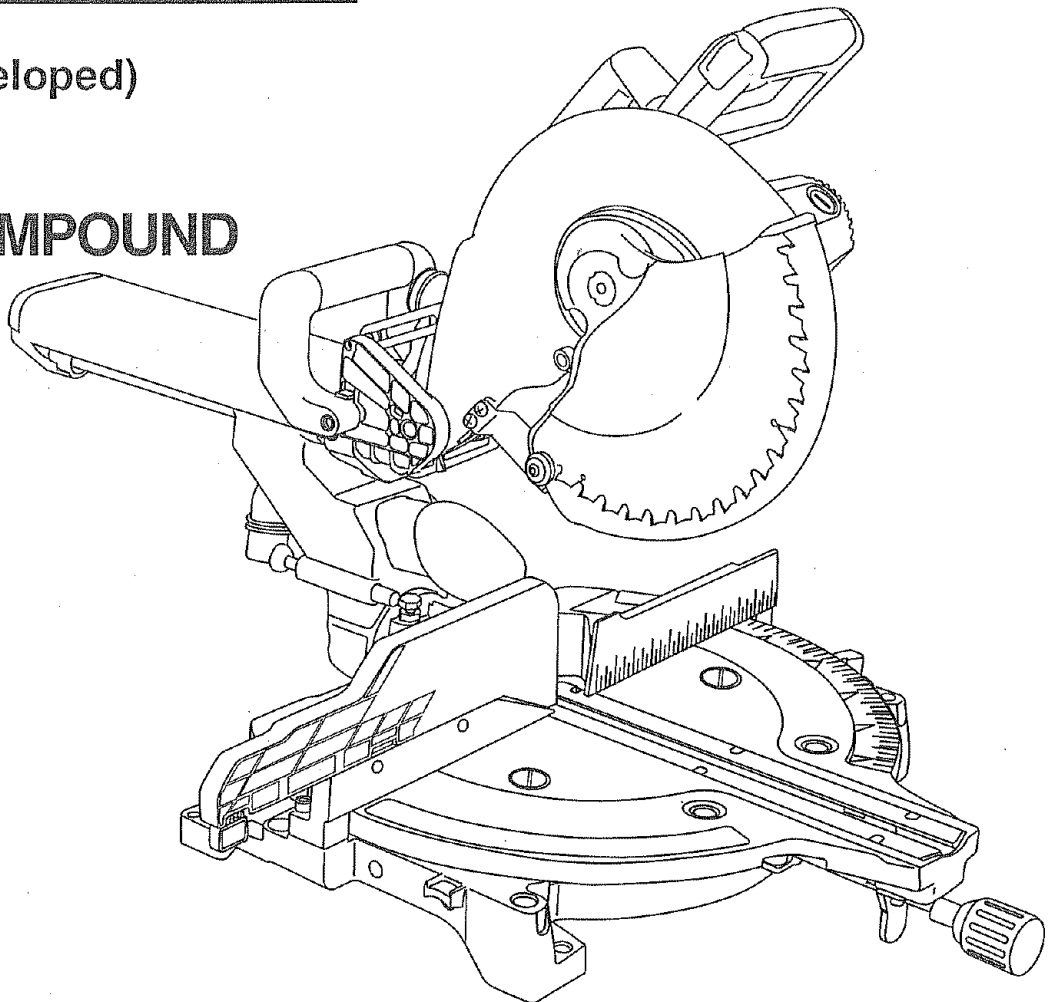
CRAFTSMAN®

P R O F E S S I O N A L

3 HP (Max. Developed)
12" Blade
4300 R.P.M.

SLIDING COMPOUND MITER SAW

Model No.
137.212920



E82443



CAUTION:

Before using this Sliding Miter Saw, read this manual and follow all its Safety Rules and Operating Instructions.

- Safety Instructions
- Installation
- Operation
- Maintenance
- Parts List
- Español

Customer Help Line
1-800-843-1682

Sears, Roebuck and Co., Hoffman Estates, IL 60179 USA
Part No. 137212920002

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PRODUCT SPECIFICATIONS

MOTOR

Power source	120 V AC, 60 HZ, 15 AMPS
Horsepower	3 HP (Max. Developed)
Speed	4300 R.P.M.
Brake	Electric
Double insulated	Yes

ARBOR SIZE 5/8"

TABLE DIAMETER 20-5/8"

DUST COLLECTION Yes

AUXILIARY FENCE EXTENSION ... Yes

NET WEIGHT 61.6 Lb.

CUTTING CAPACITY

0° Mitre - 0° Bevel	4" x 12-5/8"
45° Mitre - 0° Bevel	4" x 8-3/4"
0° Mitre - 45° Bevel	2-1/2" x 12-5/8"
45° Mitre - 45° Bevel ...	2-1/2" x 8-3/4"

▲ WARNING

To avoid electrical hazards, fire hazards, or damage to the tool, use proper circuit protection.

Your sliding mitre saw is wired at the factory for 120V operation. Connect to a 120V, 15 AMP time delay fuse or circuit breaker. To avoid shock or fire, replace power cord immediately if it is worn, cut or damaged in any way.

MITRE DETENT STOPS ... 0, 15, 22.5, 31.6, 45° R & L

BEVEL POSITIVE STOPS .. 0, 33.9 & 45° L

CARRIAGE SYSTEM
 3 Rail, ball bearing slide |

BLADE SIZE
 12" |

WARNING

▲ WARNING

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- Lead from lead-based paints.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically-treated lumber.

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


SAFETY

GENERAL SAFETY INSTRUCTIONS BEFORE USING THE SLIDING MITER SAW

Safety is a combination of common sense, staying alert and knowing how to use your sliding miter saw.

⚠ WARNING

To avoid mistakes that could cause serious injury, do not plug the miter saw in until you have read and understood the following:

1. **READ** and become familiar with this entire instruction manual. **LEARN** the tool's applications, limitations, and possible hazards.
2. **KEEP GUARDS IN PLACE** and in working order.
3. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form the habit of checking to see that keys and adjusting wrenches are removed from the tool before turning ON.
4. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
5. **DON'T USE IN A DANGEROUS ENVIRONMENT.** Don't use power tools in damp or wet locations, or expose them to rain. Keep work area well lit.
6. **KEEP CHILDREN AWAY.** All visitors should be kept at a safe distance from the work area.
7. **MAKE WORKSHOP KID PROOF** with padlocks, master switches, or by removing starter keys.
8. **DON'T FORCE THE TOOL.** It will do the job better and safer at the rate for which it was designed.
9. **USE THE RIGHT TOOL.** Don't force tool or the attachment to do a job for which it was not designed.
10. **USE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage resulting in loss of power and overheating. The table on page 7 shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.
11. **WEAR PROPER APPAREL.** DO NOT wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Nonslip footwear is recommended. Wear protective hair covering to contain long hair.
12. **WEAR YOUR SAFETY GOGGLES.**  **ALWAYS WEAR EYE PROTECTION.** Any miter saw can throw foreign objects into the eyes which could cause permanent eye damage. ALWAYS wear Safety Goggles (not glasses) that comply with ANSI safety standard Z87.1. Everyday eyeglasses have only impact-resistant lenses. They ARE NOT safety glasses. Safety Goggles are available at Sears. **NOTE:** Glasses or goggles not in compliance with ANSI Z87.1 could seriously hurt you when they break.
13. **WEAR A FACE MASK OR DUST MASK.** Sawing operation produces dust.
14. **SECURE WORK.** Use clamps or a vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
15. **DISCONNECT TOOLS** before servicing, and when changing accessories, such as blades, bits, cutters, and the like.
16. **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure the switch is in OFF position before plugging in.
17. **USE RECOMMENDED ACCESSORIES.** Consult the owner's manual for the recommended accessories. The use of improper accessories may cause risk of injury to persons.
18. **NEVER STAND ON TOOL.** Serious injury could occur if the tool is tipped or if the cutting tool is unintentionally contacted.
19. **CHECK FOR DAMAGED PARTS.** Before further use of the tool, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
20. **NEVER LEAVE TOOL RUNNING UNATTENDED. TURN THE POWER OFF.** Don't leave the tool until it comes to a complete stop.
21. **DON'T OVERREACH.** Keep proper footing and balance at all times.
22. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
23. **DIRECTION OF FEED.** Feed work into a blade or cutter against the direction of rotation of the blade or cutter only.

SAVE THESE INSTRUCTIONS

24. **DO NOT** operate the tool if you are under the influence of any drugs, alcohol or medication that could affect your ability to use the tool properly.
25. **WARNING:** Dust generated from certain materials can be injurious to your health. Always operate miter saw in well ventilated areas and provide for proper dust removal.

SPECIFIC SAFETY INSTRUCTIONS FOR SLIDING MITER SAWS

1. **READ AND UNDERSTAND** all safety instructions and operating procedures throughout the manual.
2. **DO NOT** operate the miter saw until it is completely assembled and installed according to the instructions.
3. **SHOULD** any part of your miter saw be missing, damaged, or fail in any way, or any electrical component fail to perform properly, shut off the switch and remove the plug from the power supply outlet. Replace missing, damaged, or failed parts before resuming operation.
4. **IF YOU ARE NOT** thoroughly familiar with the operation of miter saws, obtain advice from your supervisor, instructor, or other qualified person.
5. **NEVER CARRY** the tool by the cord or the cutting head handle. Damage to the insulation could cause electric shock. Damage to the wire connections could cause a fire.
6. **SERIOUS INJURY** could occur if the tool tips over or you accidentally hit the cutting tool. Do not store anything above or near the tool.
7. **AVOID INJURY** from unexpected saw movement. Place the saw on a firm level surface where the saw does not rock, and bolt or clamp the saw to its support.
8. **BEFORE MOVING** the saw, lock the miter, bevel, and cutting head positions.
9. **CHOOSE** the right 12" diameter blade for the material and the type of cutting you plan to do. Never use blades larger or smaller in diameter than recommended.
10. **USE ONLY CROSSCUTTING SAW BLADES.** Do not use blades with deep gullets as they can deflect to the side and contact the guard.
11. **USE** only blade collars specified for your saw. The recessed sides must face the blade.
12. **USING THE HEX BLADE WRENCH** supplied, make sure the arbor screw is firmly tightened.
13. **NEVER USE** the saw without the cover 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.
14. **KEEP HANDS** out of the path of the saw blade. If the workpiece you are cutting would cause your hand to be within 6-1/2 inches of the saw blade, the workpiece should be clamped in place before making the cut.
15. **MAKE SURE** the blade and 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 the blade contacts the table, see the **TROUBLESHOOTING GUIDE** for "depth stop adjustment" or contact the Sears Service Center. Broken saw parts could injure you or others.
16. **ALWAYS** check the blade for cracks or damage before operation. Replace a cracked or damaged blade immediately.
17. **USE** blades recommended at 4300 RPM or greater.
18. **ALWAYS** keep the blade guards in place.
19. **TO KEEP** the pivot nut from working its way off as you use the saw, at least one thread of the pivot bolt must always stick out past the nut. Always keep the nut at least that tight.
20. **FAILURE TO TIGHTEN** the jam nut could let the depth stop slip and let the blade strike the saw table. Broken saw parts could injure you or others.
21. **CLEAR EVERYTHING** except the workpiece and related support devices off the table before turning the miter saw on.
22. **MAKE SURE** all clamps and locks are tight and there is no excessive play in any part.
23. **ALWAYS MAKE SURE** all handles are tight before cutting, even if the table is positioned in one of the positive stops.
24. **MAKE SURE** there are no nails or foreign objects in the part of the workpiece to be cut.
25. **MAKE SURE** the blade is not contacting the workpiece before the switch is turned on.
26. **ALWAYS** hold the work firmly against the fence and table. **DO NOT** perform any operation freehand.
27. **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.
28. **ALWAYS TIGHTEN THE CLAMP** so that the workpiece is secured between the clamp and fence or base. No visible gap should be present between saw and wood.
29. **NEVER** cut metals or masonry. Because of the sliding action of the saw, this machine is not designed for cutting metals. Use this miter saw to cut only wood and woodlike products. Other materials may shatter, bind on the blade, start fires or create other dangers.
30. **NEVER** reach around the saw blade.

SAVE THESE INSTRUCTIONS

31. **NEVER PULL THE SAW** toward you during a cut. The blade can suddenly climb up on top of the workpiece and force itself toward you.
32. **ALLOW** the motor to come up to full speed before starting cut.
33. **KEEP** the motor air slots clean and free of chips.
34. **NEVER** apply lubricants to the blade when it is running.
35. **MAKE SURE** the blade has come to a complete stop before removing or securing the workpiece, changing the workpiece angle, or changing the angle of the blade.
36. **NEVER** use the miter saw in an area with flammable liquids or gases.
37. **NEVER** use solvents to clean plastic parts. Solvents could possibly dissolve or otherwise damage the material.
38. **ALWAYS PERFORM DRY RUNS.** Make sure the saw is unplugged. Completely set up your saw. Pull the blade and cutting head through the full range of motion to check for interference. When using a clamp make sure that your blade, saw guard or motor does not interfere with the clamp. Correct any interference before use.
39. **PLAN HOW YOU WILL MAKE THE CUT:**
 - **MAKE SURE** the blade is not spinning.
 - **RAISE** the blade.
 - **SLIDE** the saw out above the front edge of the workpiece before starting the saw.
 - **PUSH** the saw blade down on top of the wood and back toward the rear of the saw to make the cut.
40. **SMOOTH**, solid movement of sliding assembly.
41. **OTHER** conditions that may affect the way the miter saw works. If any part of the miter 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.
42. **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.
43. **REMOVE** adjusting keys and wrenches from the tool before turning it on.
44. **TO AVOID INJURY FROM JAMS, SLIPS, OR THROWN PIECES:**
 - **USE ONLY RECOMMENDED ACCESSORIES.** 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.
 - **MAKE SURE** the blade is sharp, undamaged, properly aligned and free of vibration. With the saw unplugged, push the cutting head all the way down. Hand spin the blade and check for clearance. Tilt the cutting head to a 45 degree bevel and repeat the check. If the blade hits anything, see the **TROUBLESHOOTING GUIDE** for "depth stop adjustment", or contact your Sears Service Center.
45. **PLAN HOW** 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 the saw blade, out of line with a possible throwback.
 - **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 is 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.
 - **CUT** only one workpiece at a time.
 - **KEEP** the cut off piece free to move sideways after it is cut off. Otherwise it could get wedged against the blade and be thrown violently.
 - **CLEAR** everything except the workpiece and related support devices off the worktable before turning the miter saw on.
 - **SECURE WORK.** Use clamps or a vise to help hold the work when it is practical.

BEFORE EACH USE

40. **INSPECT YOUR MITER SAW.**
41. **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 the 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 screw.
42. **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 **TROUBLESHOOTING GUIDE**.

SAVE THESE INSTRUCTIONS

47. **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.
 - **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.

WHEN THE SAW IS RUNNING

48. **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.
49. **KEEP CHILDREN AWAY.** Keep all visitors a safe distance from the miter saw. Make sure bystanders are clear of the miter saw and workpiece.
50. **LET THE BLADE** reach full speed before cutting. This will help avoid thrown workpieces.
51. **DON'T FORCE THE 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.
52. **BEFORE FREEING JAMMED MATERIAL:**
- **TURN** miter saw OFF by releasing trigger switch.
 - **WAIT** for all moving parts to stop.
 - **UNPLUG** the miter saw.
53. **AFTER FINISHING A CUT:**
- **KEEP** holding the cutting head down.
 - **RELEASE** the switch, keeping the cutting head down, and wait for all moving parts to stop before moving your hands.
 - **IF BLADE** doesn't stop within 6 seconds, unplug the saw and follow the instructions in the **TROUBLESHOOTING GUIDE** for fixing the blade brake before using the saw again.

54. BEFORE LEAVING THE SAW:

- **NEVER LEAVE** the tool running unattended. Turn the power OFF. Wait for all moving parts to stop.
- **MAKE WORKSHOP** child proof. Lock the shop. Disconnect master switches. Store the tool away from children and others not qualified to use the tool.

55. **NEVER** unplug the saw with the switch in the ON position.

56. **DISCONNECT** the saw from the power source and clean the machine before leaving it. **MAKE SURE** the work area is clean before leaving the machine.

ELECTRICAL REQUIREMENTS

POWER SUPPLY AND MOTOR SPECIFICATIONS

The AC motor used in this saw is a universal, nonreversible type. See "MOTOR" in the **PRODUCT SPECIFICATIONS** section on page 2.

⚠ WARNING

To avoid electrical hazards, fire hazards, or damage to the tool, use proper circuit protection. Your saw is wired at the factory for 120V operation. Connect to a 120V, 15 Amp circuit and use a 15 Amp time delay 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.

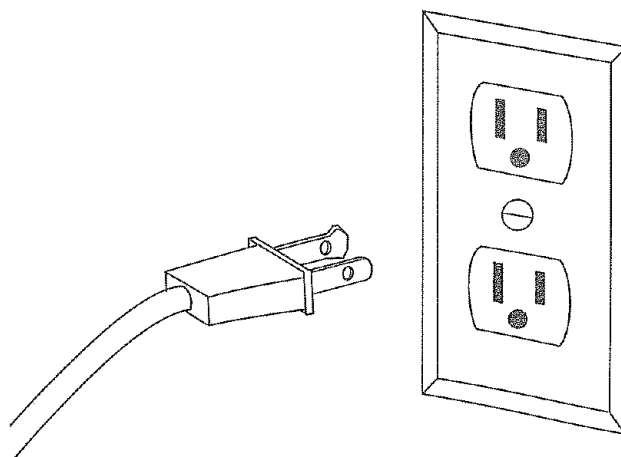
DOUBLE INSULATED



The miter saw is double insulated to provide a double thickness of insulation between you and the tool's electrical system. All exposed metal parts are isolated from the internal metal motor components with protecting insulation.

Replacement parts - When servicing use only identical replacement parts.

Polarized plugs - This saw has a plug that looks like the one shown below:



SAVE THESE INSTRUCTIONS

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

⚠ WARNING

To avoid electrocution:

- Use only identical replacement parts when servicing a tool with double insulation. Servicing should be performed by a qualified technician.
- Do not use power tools in wet or damp areas or expose them to rain.
- This tool is intended for indoor use only.
- Double insulation does not take the place of normal safety precautions when operating this tool.

MOTOR SAFETY PROTECTION

IMPORTANT: To avoid motor damage, this motor should be blown out or vacuumed frequently to keep sawdust from interfering with normal motor ventilation.

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 **TROUBLESHOOTING GUIDE.**
3. **IF** the motor suddenly stalls while cutting wood, release the trigger switch, unplug the tool, and free the blade from the wood. The saw 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 VOLTAGE** is more than 10% above or below the nameplate voltage. For heavy loads, however, the voltage at motor terminals must equal the voltage specified on the 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 if the motor doesn't work well. Check wire sizes and length with the Extension Cord Chart below.

GUIDELINES FOR EXTENSION CORDS

USE PROPER EXTENSION CORD. Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized cord will cause a drop in line voltage, resulting in loss of power and cause overheating. The table below shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Be sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it. Protect your extension cords from sharp objects, excessive heat and damp or wet areas.

Use a separate electrical circuit for your tools. This circuit must not be less than #12 wire and should be protected with a 15 Amp time lag fuse. Before connecting the motor to the power line, make sure the switch is in the OFF position and the electric current is rated the same as the current stamped on the motor nameplate. Running at a lower voltage will damage the motor.

MINIMUM GAUGE FOR EXTENSION CORDS (AWG)					
(when using 120 volts only)					
Ampere Rating		Total length of cord in feet			
more than	not more than	25'	50'	100'	150'
0	6	18	16	16	14
6	10	18	16	14	12
10	12	16	16	14	12
12	16	14	12	Not recommended	

CAUTION: In all cases, make certain the receptacle in question is properly grounded. If you are not sure have a certified electrician check the receptacle.

SAVE THESE INSTRUCTIONS

ACCESSORIES AND ATTACHMENTS

PROHIBITED ACCESSORIES

▲ WARNING

To avoid injury:

- Use only accessories recommended for this sliding miter saw. Follow instructions that accompany accessories. Use of improper accessories may cause hazards.
- The use of any cutting tool except 12 inch saw blades which meet the requirements under recommended accessories is prohibited. Do not use accessories such as shaper cutters or dado sets. Ferrous metal cutting and the use of abrasive wheels is prohibited.
- Do not attempt to modify this tool or create accessories not recommended for use with this tool. Any such alteration or modification is misuse and could result in a hazardous condition leading to possible serious injury.

▲ WARNING

Read warnings and conditions on your **CARBIDE TIPPED SAW BLADE**. Do not operate the saw without the proper saw blade 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 the tip while 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. Before using, always visually examine the blade and tips for bent blade, cracks, breakage, missing or loose tips, or other damage. Do not use if damage is suspected. Failure to heed safety instructions and warnings can result in serious bodily injury.

CARTON CONTENTS

UNPACKING AND CHECKING CONTENTS

▲ WARNING

To avoid injury:

- Do not plug the power cord into a power source receptacle during unpacking and assembly. This cord must remain unplugged whenever you are working on the saw.
- Get help whenever you have to lift the saw. This saw is heavy.
- If any part is missing or damaged, do not plug the sliding miter saw in until the missing or damaged part is replaced, and assembly is complete. To avoid electric shock, use only identical replacement parts when servicing double insulated tools.

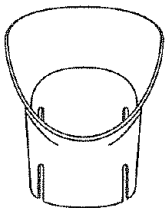
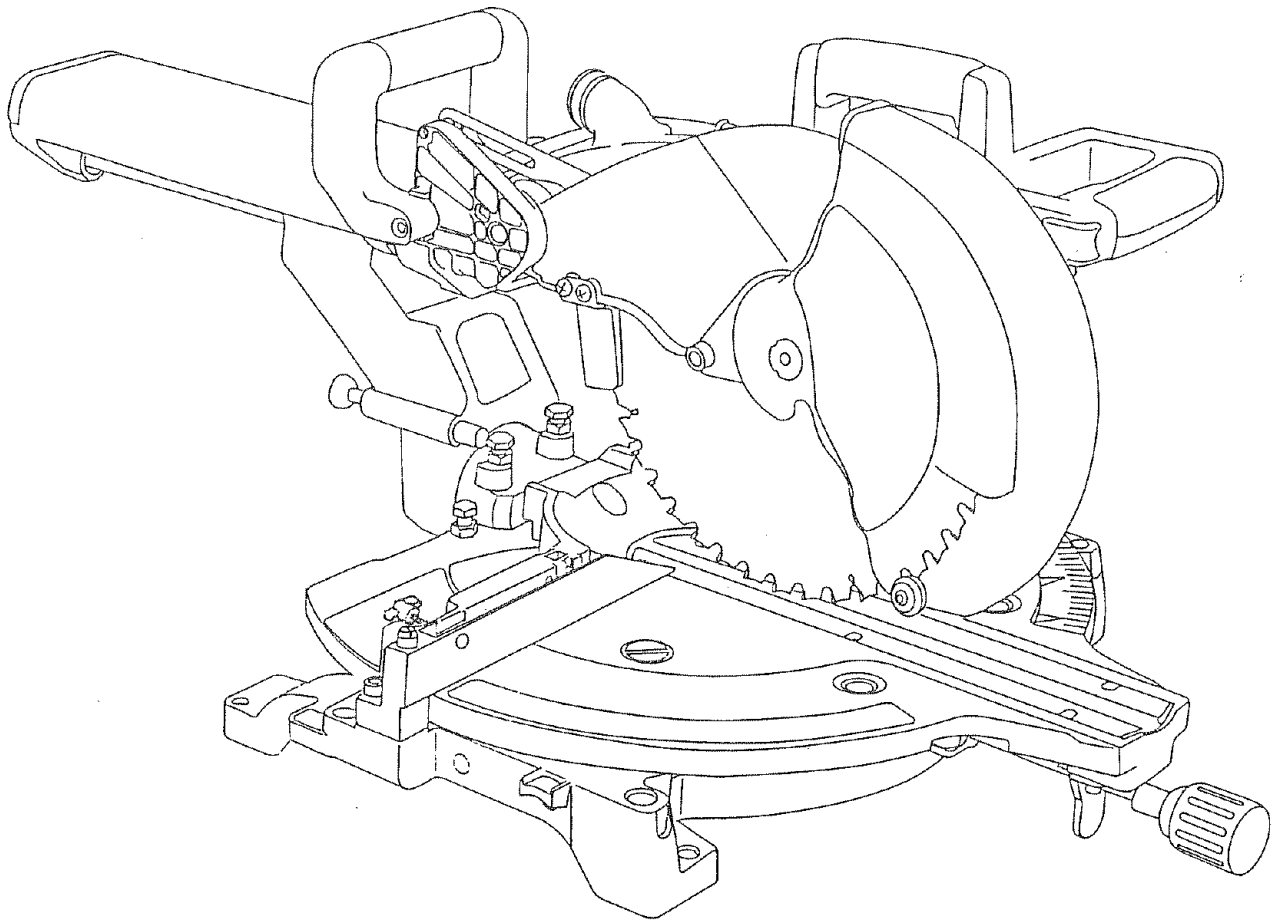
Carefully unpack the sliding miter saw and all its parts, and compare against the illustration on page 9.

1. Before removing the saw from the shipping carton, tighten the carriage lock knob to guard against sudden movement.
2. DO NOT LIFT the sliding miter saw by the cutting head handle. Damage to the insulation or wire connections could cause fire. Remove the saw from the carton by lifting with the hand-holds at the base of the saw body, or use the carry handle.
3. Place the saw on a secure, stationary work surface and look the saw over carefully.

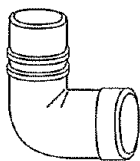
TABLE OF LOOSE PARTS

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
A.	Sliding miter saw	1
B.	Dust collection chute	1
C.	Dust collection elbow	1
D.	Auxiliary fence	1
E.	Dust bag	1
F.	Blade wrench	1

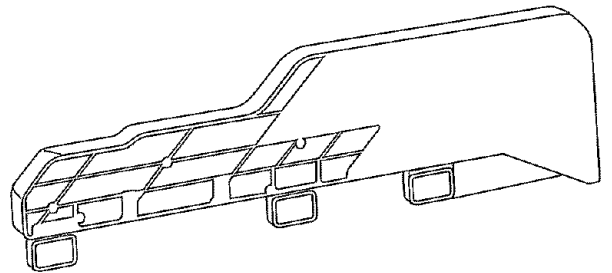
UNPACKING YOUR COMPOUND SLIDING MITER SAW



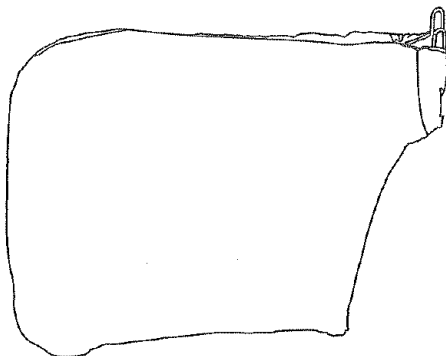
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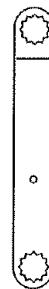
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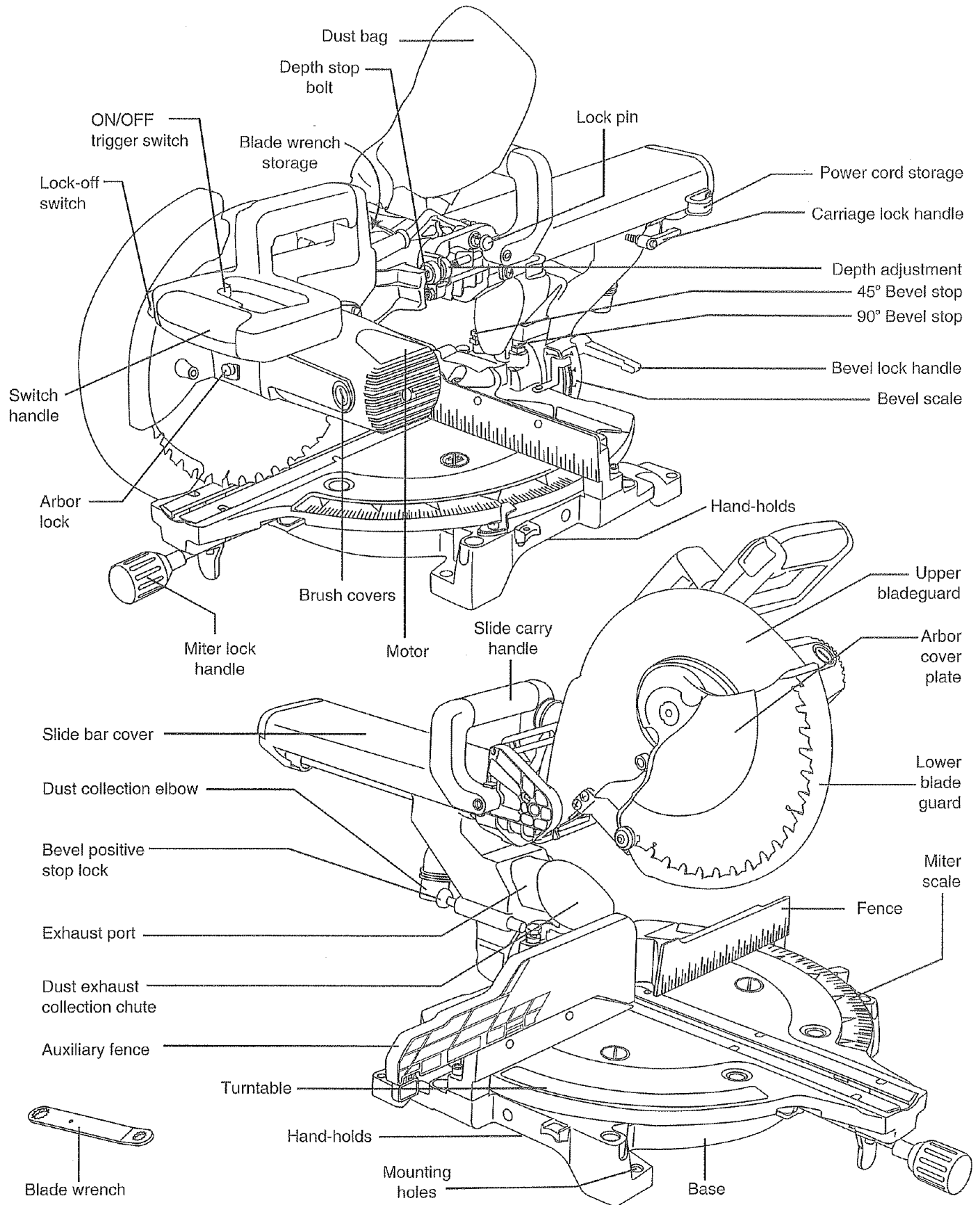


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KNOW YOUR SLIDING MITER SAW



GLOSSARY OF TERMS

CRAFTSMAN SLIDING COMPOUND MITER SAW TERMS

ARBOR LOCK – Allows the user to keep the blade from rotating while tightening or loosening the arbor screw during blade replacement or removal.

BASE – Supports the table, holds accessories and allows for workbench mounting.

BEVEL ADJUSTMENT STOPS – Bolts that are adjusted to stop the saw blade at 0° and 45° bevel.

BEVEL POSITIVE STOP LOCK – Locks the miter saw at the 33.9° bevel angle positive stop.

BEVEL LOCK HANDLE – Locks the miter saw at a desired bevel angle.

BEVEL SCALE – Measures the bevel angle of the saw blade.

BLADE WRENCH – Fits the arbor screw for removing and replacing the blade.

CARRIAGE LOCK HANDLE – Prevents the saw's sliding motion by locking the carriage in place.

COVER PLATE – Holds the lower guard and is attached to the upper guard. It prevents the arbor screw from backing out.

CUTTING HEAD ASSEMBLY – Consists of pivot arm, blade, upper and lower blade guards, motor, arbor and pin locks, and switch on handle. Components work together to perform cutting operation.

DEPTH ADJUSTMENT – Allows setting of desired cutting depth.

DEPTH STOP BOLT – Limits the saw blade travel to approximately 1/4" below the table.

DUST BAG – Provides a means of collecting sawdust.

DUST COLLECTION ELBOW – Provides a means of attaching a vacuum or dust collection bag.

DUST COLLECTION CHUTE – Fits into the exhaust port for efficient sawdust exhaust.

EXHAUST PORT – Exhausts debris away from the operator.

FENCE – Helps to keep the workpiece from moving when sawing.

HAND-HOLD – Provides a means of safely carrying the saw.

LOCK-OFF SWITCH – Activates the ON / OFF switch when pushed. This prevents the trigger switch from being accidentally turned ON.

LOCK PIN – Locks the miter saw in the lowered position for compact storage. Use this only for carrying and storage applications.

LOWER BLADE GUARD – Protects the user's hands from the blade in the raised position. It retracts as the blade is lowered to avoid binding on the workpiece.

MITER LOCK HANDLE – Rotates the saw to a right or left cutting position and locks the miter saw table at the desired miter angle.

MITER SCALE – Measures the miter angle of the saw blade. Positive stop index points have been provided at 0, 15, 22.5, 31.6, and 45° right and left.

MOUNTING HOLES – Provides a means of mounting the sliding miter saw to a stable work surface.

ON / OFF TRIGGER SWITCH – Starts the saw when squeezed. As a safety feature, the lock-off button must be pushed to activate the trigger and turn the saw ON. Release the trigger to turn the saw OFF.

SLIDE BAR COVER – Covers and protects the 3 slide carriage rails.

SWITCH HANDLE – Contains the trigger switch with a lock-off button. The blade is lowered by pushing down on the handle, and returns to the upright position when the handle is released.

TURNTABLE – Sits in the base, supports the workpiece, and allows rotation for miter cutting.

UPPER BLADE GUARD – Protects the user from the saw blade teeth.

WARNING LABELS – Informs the user of dangers and necessary precautions in the use of this saw. Read carefully before using.

WOODWORKING TERMS

ARBOR – The shaft on which the blade is mounted.

BEVEL CUT – An angle cut made through the face of a workpiece.

COMPOUND CUT – A simultaneous bevel and miter cut.

CROSSCUT – A cut made across the width of the workpiece.

FREEHAND – Performing a cut without using a fence (guide), hold-down or other proper device to prevent the workpiece from twisting during the cutting operation.

GUM – A sticky sap based residue from wood products.

HEEL – Misalignment of the blade.

KERF – The amount of material removed by a blade in a through cut, or the slot produced by the blade in a partial cut.

MITER CUT – An angle cut made across the width of a workpiece.

RESIN – A sticky sap that has hardened.

REVOLUTIONS PER MINUTE (RPM) – The number of turns completed by a spinning object in one minute.

SAW BLADE PATH – The area of the workpiece or table top directly in line with the travel of the blade or the part of the workpiece which will be cut.

SET – The distance between two tips of the saw blade teeth, bent outward in opposite directions to each other.

WORKPIECE – The item being cut. The surfaces of a workpiece are commonly referred to as faces, ends, edges.

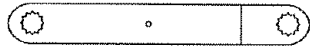
ASSEMBLY AND ADJUSTMENTS

ASSEMBLY INSTRUCTIONS

TOOLS NEEDED



Adjustable wrench



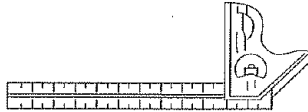
Hex blade wrench (supplied)



Hex key



Phillips screwdriver



Combination square

⚠ WARNING

To avoid injury:

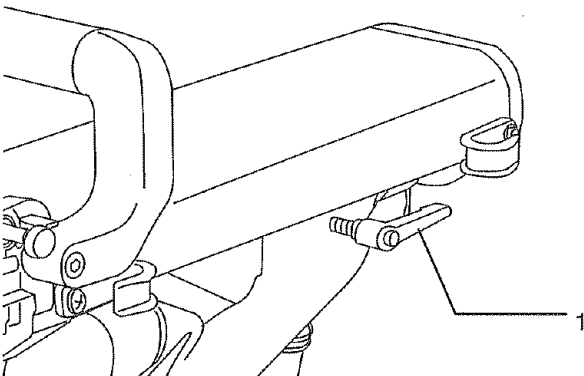
- When moving tool from one location to another location, lock the sliding carriage, lock the cutting head, and lift saw only by the hand hold openings on both ends of the base, using both hands.
- This saw is heavy, get help whenever you have to lift the saw or move the saw from one location to another.
- Never connect the plug to the power source receptacle until all assembly and adjustment steps are completed, and you have read and understood the safety and operating instructions.

MOVING THE MITER SAW

LOCKING THE SLIDING CARRIAGE (FIG. A)

When transporting or storing the miter saw, the sliding carriage should always be locked in position. The carriage lock handle (1) is located on the side of the sliding carriage. Turn the handle clockwise to lock, counterclockwise to unlock.

Fig. A



LOCKING THE CUTTING HEAD (FIG. B)

When transporting or storing the miter saw, the cutting head should always be locked in the down position:

1. Push the cutting head (2) down to its lowest position.
2. Push the lock pin (3) into the locking hole (4).

After transporting, raise the cutting head before use:

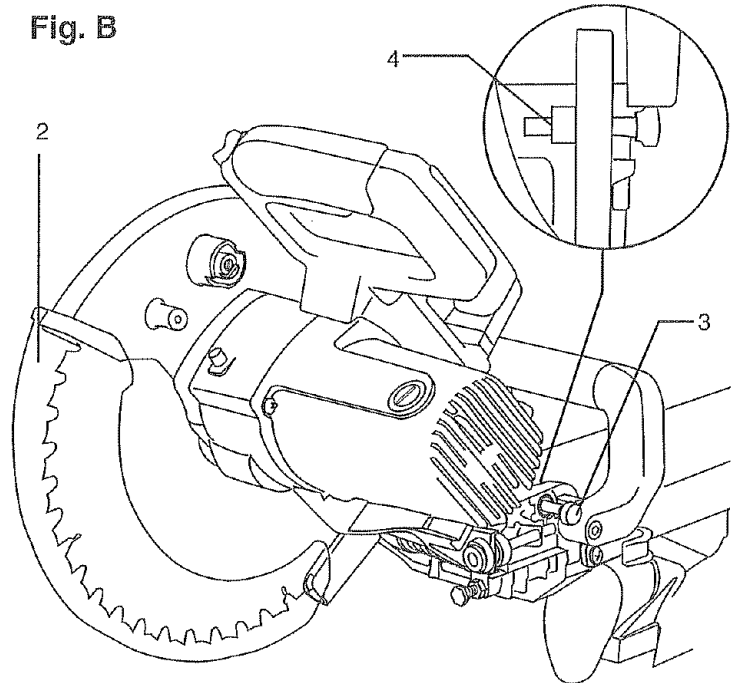
1. Push down slightly on the cutting head (2).
2. Pull out the lock pin knob (3).
3. Allow the cutting head to raise to the up position.

IMPORTANT: To avoid damage, never carry the miter saw by the switch handle, the cutting arm, or the miter table handle. ALWAYS use the hand holds in the base or the slide carriage carry handle.

⚠ WARNING

To avoid injury and damage to the saw, transport or store the miter saw with the cutting head in the down position. NEVER use the lock pin to hold the cutting head in a down position for cutting operations.

Fig. B



ASSEMBLING THE MITER SAW

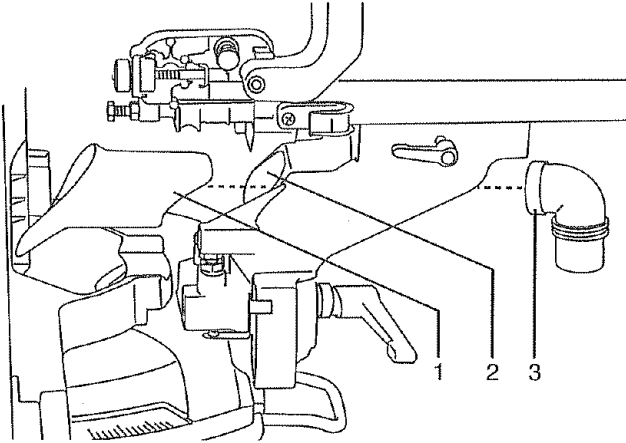
THE DUST COLLECTION SYSTEM (FIG. C, D)

Installing The Dust Collection Chute And Elbow (FIG. C)

1. Place the dust chute (1) into the exhaust port (2) below the cutting arm.
2. Install the larger end of the elbow (3) onto the exhaust port from the rear of the miter saw. Aim the elbow to the side or down.

NOTE: The elbow can be used to attach either the dust bag or a vacuum hose to remove sawdust from the work area.

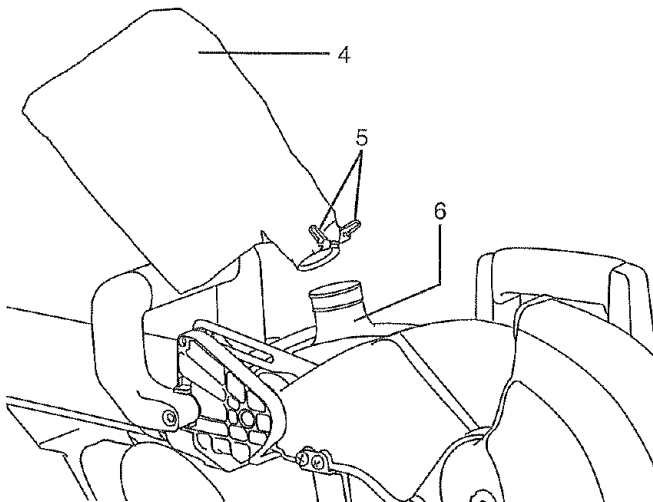
Fig. C



Installing The Dust Bag (FIG. D)

1. To install the dust bag (4), squeeze the metal collar wings (5).
2. Place the dust bag neck opening around the dust chute elbow (3) or the motor area exhaust port (6), and release the metal collar wings.

Fig. D



THE AUXILIARY FENCE (FIG. E)

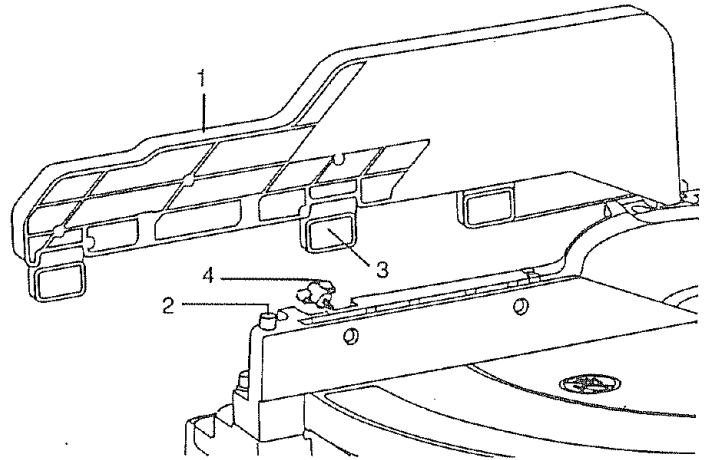
WARNING

For your safety, never connect the plug to the power source outlet until all assembly and adjustment steps are completed, and you have read and understood the safety and operating instructions.

The auxiliary fence (1) may be installed three different ways to provide the position appropriate to the job. See **ADJUSTMENTS AND ALIGNMENTS** Section. Install the auxiliary fence when needed by:

1. Aligning the table fence set pin (2) to the auxiliary fence (1).
2. Align the auxiliary fence insert tabs (3) to the table fence.
3. Press into position and tighten the fence lock knob (4).

Fig. E

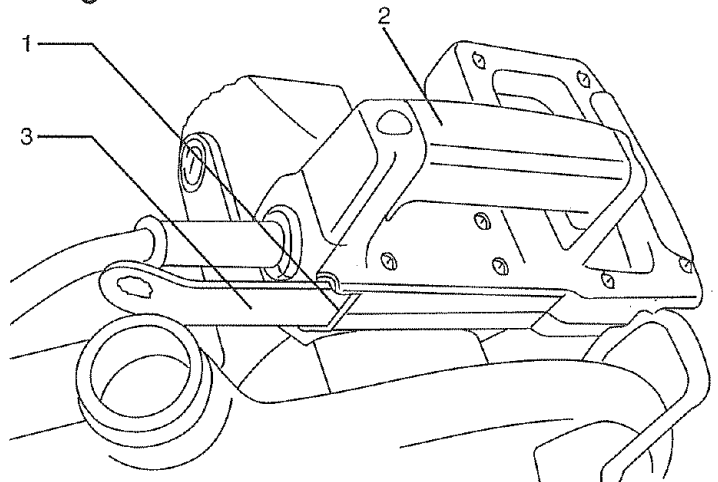


STORAGE (FIG. F, G)

Wrench (FIG. F)

For convenient storage and prevention of loss, there is a slot (1) in the rear of the cutting head handle (2) for storing the blade wrench (3) when not in use.

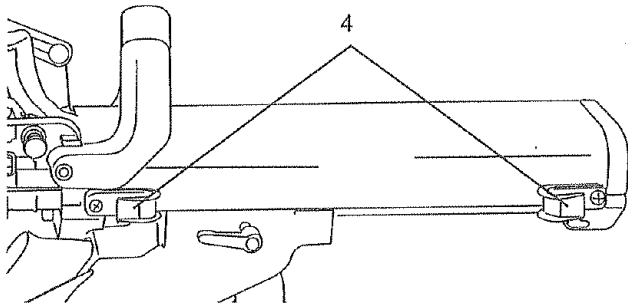
Fig. F



Power Cord (FIG. G)

For convenience and to prevent damage to the power cord when the miter saw is not in use or is being transported, the sliding carriage cover has two brackets (4) on the side for cord storage.

Fig. G



MOUNTING THE MITER SAW (FIG. H, H1)

Before moving the saw

⚠ WARNING

To avoid injury from unexpected saw movement:

- Disconnect the power cord from the outlet, and lock the cutting head in the lower position using the lock pin.

NOTE: The lock pin is for carrying and storage use only. It is NOT to be used for holding the saw while cutting.

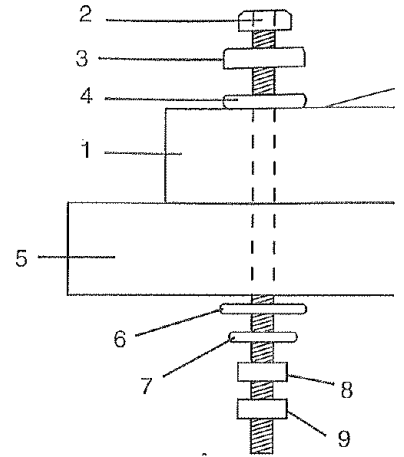
- Lock the slide carriage in place by tightening the carriage lock knob.
- To avoid back injury, lift by using the hand-hold access at the bottom of the base, or use the carry handle. Bend with your knees, not your back.
- Never carry the miter saw by the power cord or by the switch handle. Carrying the tool by the power cord could cause damage to the insulation or the wire connections resulting in electric shock or fire.
- To avoid injury from flying debris, do not allow visitors to stand behind the saw.

Mounting instructions

1. Place the saw on a firm, level workbench or other work surface. The base of the saw has four mounting holes.
2. **For stationary use**, place the saw in the desired location, directly on a workbench, where there is room for handling and properly supporting the workpieces. Bolt the base of the miter saw (1) to the worksurface (5), using the fastening method as shown in Fig. H.

Fig. H

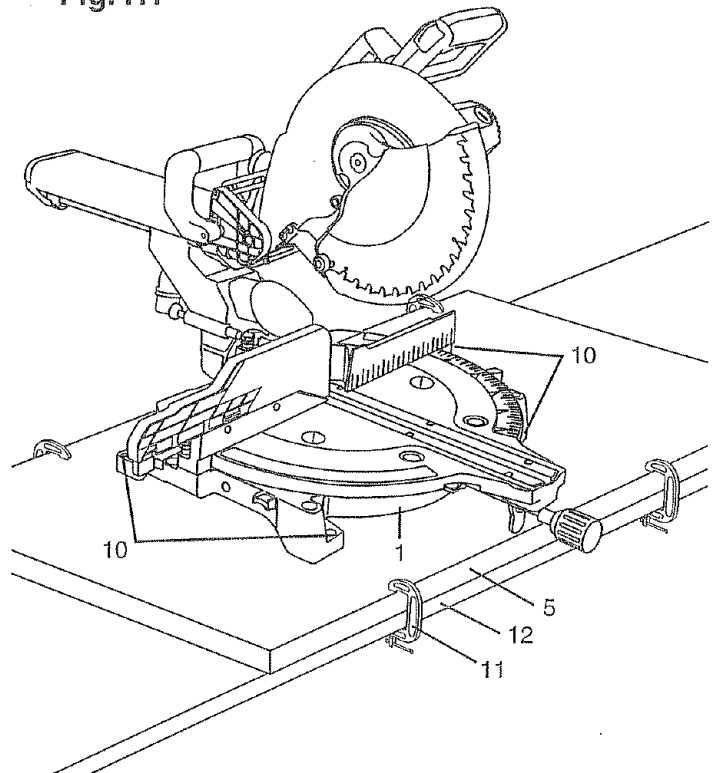
1. Sliding miter saw
2. Hex head bolt
3. Rubber washer
4. Flatwasher
5. Workbench
6. Flatwasher
7. Lockwasher
8. Hex nut
9. Jamb nut



NOTE: Mounting hardware not included with this tool. Bolts, nuts, washers, screws, and clamps must be purchased separately.

3. **For portable use**, place the saw on 3/4" thick plywood (5). Bolt the base (1) of the miter saw securely to the plywood using the mounting holes (10) on the base. Use C-clamps (11) to clamp this mounting board to a secure surface (12) at the worksite. (FIG. H1)

Fig. H1



REMOVING OR INSTALLING THE BLADE (FIG. I, J, K)

⚠ WARNING

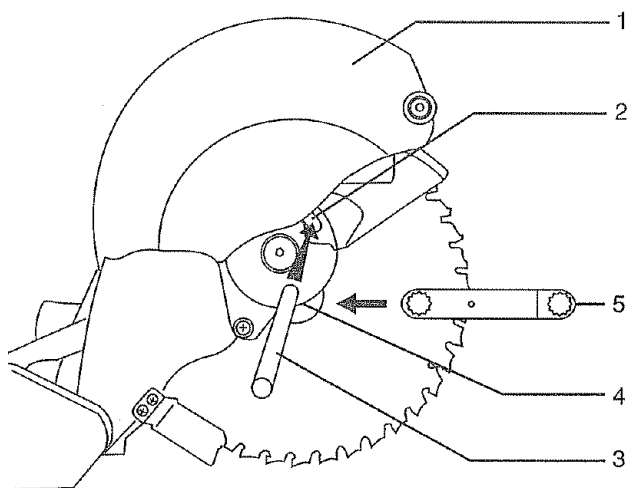
To avoid injury:

- Only use blades recommended for this saw, with the proper diameter of 12 inches and designed for blade speeds not less than 4300 RPM.
- Make sure the switch is in the OFF position and the plug is not connected to the power source receptacle.

Removing The Blade

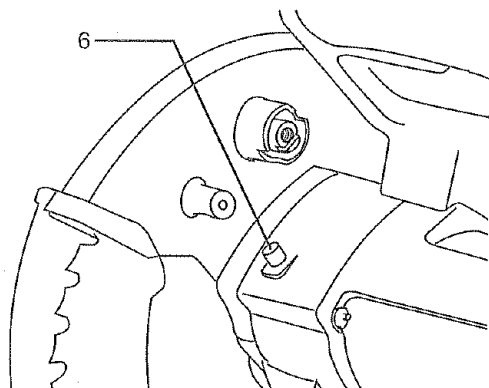
1. Unplug the saw from the outlet.
2. Allow the miter saw cutting head to rise to the upright position.
3. Rotate lower blade guard (1) up until the slot (2) in the arbor cover plate is exposed.
4. Wedge a rod or dowel (3) into the slot to hold the blade guard up, exposing the arbor bolt (4).
5. Place the blade wrench (5) over the arbor bolt.

Fig. I



6. Locate the arbor lock (6) on the motor, below the miter saw switch handle.
7. Press the arbor lock, holding it in firmly while turning the blade wrench **clockwise**. The arbor lock will engage after the wrench is turned.
8. Continue to hold the arbor lock in to keep it engaged while turning the wrench clockwise to loosen the arbor bolt.

Fig. J

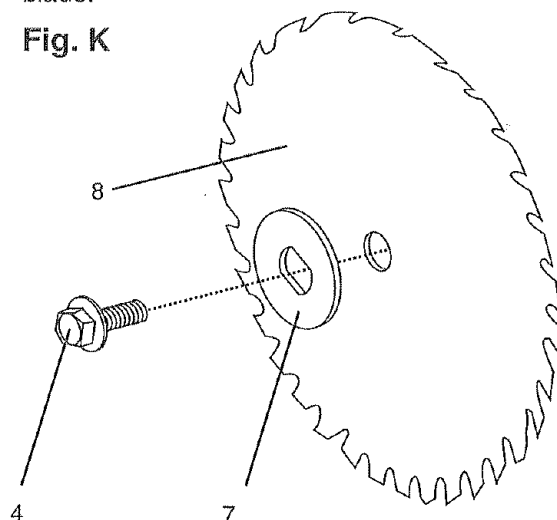


NOTE: The arbor lock can be damaged by improper use. If the arbor lock will not hold, lower the blade down on to a scrap of wood positioned against the fence. This will serve as an alternative locking method.

9. Remove the arbor bolt (4), outer blade collar (7) and the blade (8). Do not remove the inner blade collar.

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

Fig. K



Installing The Blade

10. Install a 12" blade (8), making sure the rotation arrow on the blade matches the clockwise rotation arrow on the upper blade guard.
11. Install the outer blade collar (7) and the arbor bolt (4). (FIG. K)

IMPORTANT: Make sure the flats of the blade collar are engaged with the flats of the arbor shaft.

12. Place the blade wrench on the arbor bolt.
13. Press the arbor lock (6), holding it in firmly while turning the blade wrench **counterclockwise**. When it engages, continue to press the arbor lock in while tightening the arbor bolt securely.
14. Remove dowel from the blade guard and allow the blade guard to lower.
15. Be sure the arbor lock is released so the blade turns freely.

⚠ WARNING

To avoid injury, 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 and check for any contact with the metal base or the turntable.

REMOVING AND INSTALLING TABLE INSERT (FIG. L)

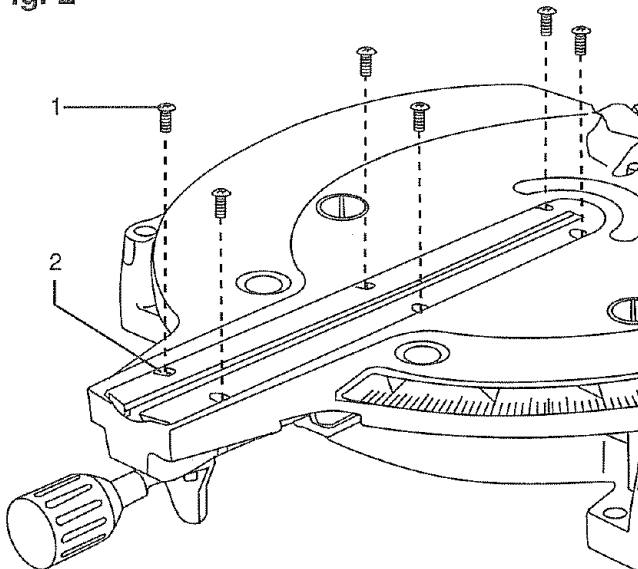
⚠ WARNING

To avoid injury:

- and materials being thrown, always unplug the saw to avoid accidental starting. Remove small pieces of material from the table control arm cavity. The table insert may be removed for this purpose, but always reattach the table insert prior to performing a cutting operation.
- Do not start the sliding compound miter saw without checking for interference between the blade and table insert. Damage could result to the blade, table insert or turntable if blade strike occurs during the cutting operation.

1. To remove, loosen and remove the six screws (1) on the table insert (2) with a screwdriver and lift the insert.
2. To install, reposition the table insert, install the six screws and tighten.
3. Check for blade clearance by moving the carriage through the full motion of the blade in the slot.

Fig. L



ADJUSTMENTS AND ALIGNMENTS

⚠ WARNING

To avoid injury disconnect the plug from the power source before performing any adjustments or repair.

NOTE: Your compound saw was adjusted at the factory. However during shipment slight misalignment may have occurred. Check the following settings and adjust if necessary prior to using this miter saw.

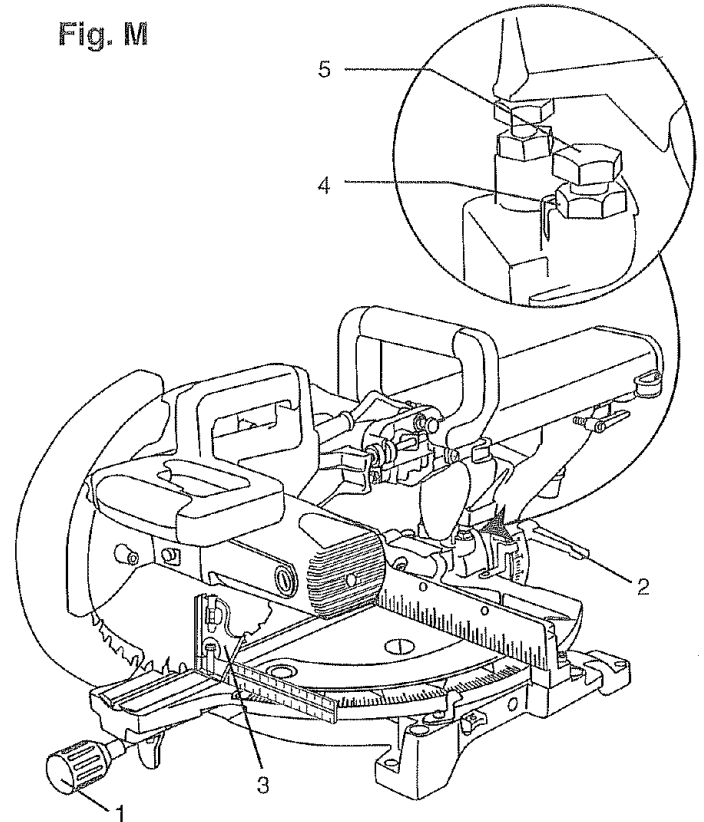
BEVEL STOP ADJUSTMENTS (FIG. M, N, O)

NOTE: To ensure accurate cuts, alignment should be checked and adjustments made prior to use.

0° Adjustment (FIG. M)

1. Rotate the table to the 0° position and lock into place. Tighten the miter handle (1).
2. Loosen the bevel lock handle (2) and tilt the cutting arm completely to the right. Tighten the bevel lock handle.
3. Using a combination square (3), place the square rule on the turntable and the heel against the blade. Check that the blade is 90° to the table.
4. To adjust, loosen the locknut (4) and turn the bolt (5) in or out until the blade is set at 90° to the table. Tighten the locknut.

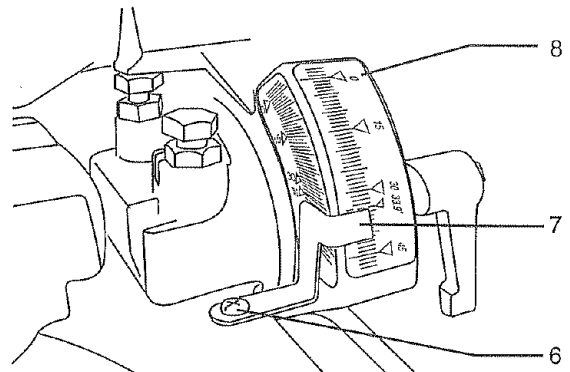
Fig. M



Bevel Scale Indicator (FIG. N)

1. When the 0° bevel adjustment is complete, readjust the bevel indicator screw (6) using a screwdriver.
2. Adjust the indicator so the tip of the pointer (7) aligns with the 0° line (8) on the scale. Retighten the screw.

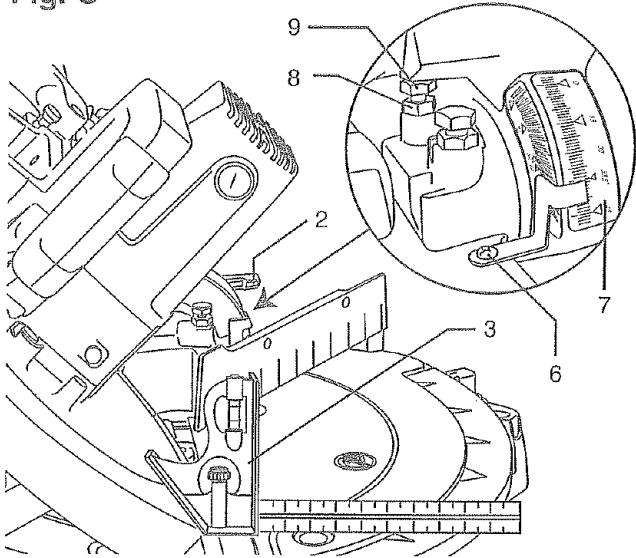
Fig. N



45° Bevel Adjustment (FIG. O)

1. Loosen the bevel lock handle (2) and tilt the cutting arm completely to the left position. Tighten the bevel lock handle.
2. Using a combination square (3), check to see if the blade is at a 45° angle to the table.
3. To adjust, loosen the locknut (8) and turn the bolt (9) in or out until the blade is at 45° to the table. Tighten the locknut.
4. Readjust the bevel indicator (6) if necessary, using a screwdriver. Adjust the indicator so the pointer (7) aligns with the 45° line on the scale.

Fig. O



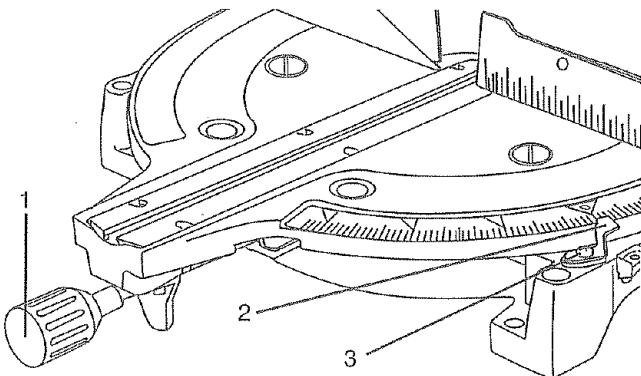
MITER ADJUSTMENTS (FIG. P)

Miter Turntable (FIG. P)

The sliding compound miter saw scale can be easily read showing miter angles from 0 to 45° to the left, and 0 to 45° to the right. The most common angle cut setting slots have positive stops, permitting fast adjustments to the desired position. Follow the process below for quickest and most accurate adjustments:

1. Turn the turntable miter lock handle (1) counterclockwise to unlock the table.
2. Move the turntable to align the indicator (2) to the desired degree measurement.
3. Lock the table into position by turning the miter lock handle clockwise.

Fig. P



Miter Scale Indicator (FIG. P)

1. Move the control arm to the 0° positive stop, perpendicular to the saw base.
2. Loosen the screw (3) that holds the indicator with a screwdriver.
3. Adjust the indicator (2) to the 0° mark and retighten screw.

To Square Blade to Fence (FIG. Q):

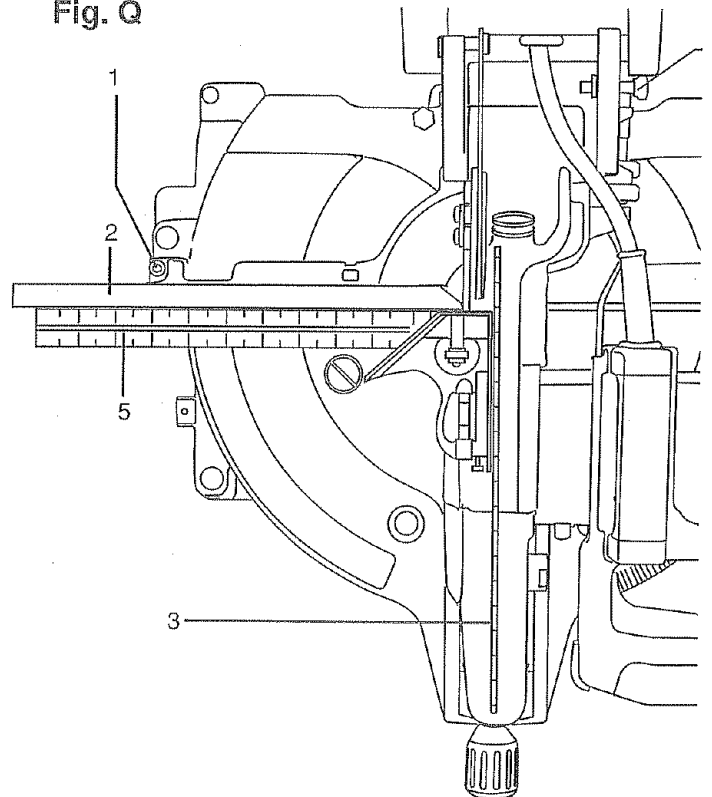
1. Turn the table to the 0° miter position, perpendicular to the saw base, and lock in position.
2. Using a hex key wrench, loosen the three fence locking hex socket bolts (1) one full turn, until the fence (2) is loose.
3. Lower the cutting head assembly (3) and lock it in the down position with the stop pin (4), as shown.
4. Using a combination square (5), lay the heel of the square against the blade, and the rule against the fence (2) as shown. Check to see if the fence is 90° to the blade.
5. If an adjustment is necessary, shift the fence forward or backward until the fence is square to the blade. Tighten the three fence locking bolts (1).

CAUTION: If the saw has not been used recently, recheck blade squareness to the fence and readjust if needed.

⚠ WARNING

To avoid injury:
From unexpected starting or electrical shock, do not plug the saw in. The power cord MUST remain unplugged when you are working on the saw.

Fig. Q



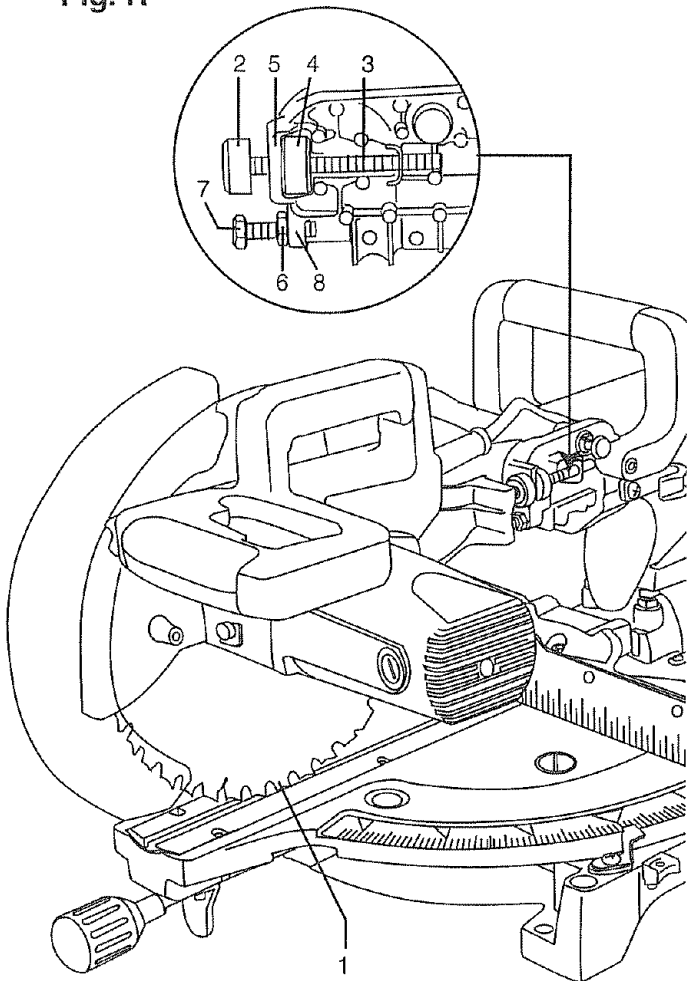
CUTTING DEPTH ADJUSTMENT (FIG. R)

Setting Cutting Depth (FIG. R)

The depth of cut can be preset for even and repetitive shallow cuts.

1. Adjust the cutting head down until the teeth (1) of the blade are at the desired depth of cut.
2. Turn the stop nut (2), moving it toward the end of the depth adjustment bolt (3).
3. Tighten or loosen the other stop nut (4) against the depth stop block (5), moving the adjustment bolt in or out until the blade is stopped at the desired position when it is lowered.
4. Retighten **both** stop nuts against the depth stop block when the desired blade depth is achieved.
5. Recheck the blade depth by moving the cutting head front to back through the full motion of a typical cut along the control arm.

Fig. R



Maximum Cutting Depth (FIG. R)

The maximum depth travel of the cutting head was set at the factory. Check to see that the cutting head does not extend more than 1/4" below the table insert, and does not touch the control arm throat.

If the maximum depth needs readjusting:

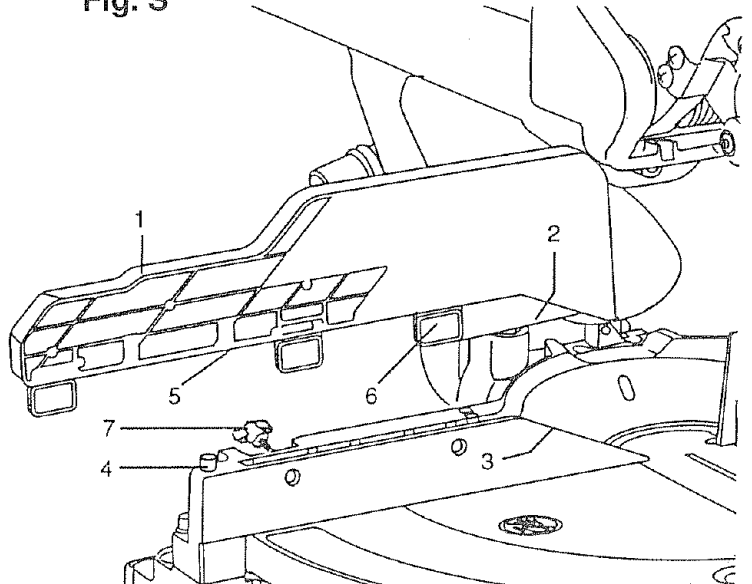
1. Readjust the depth adjustment bolt and stop nuts (2, 3, 4) to allow full travel of the cutting head.
2. Move the cutting head down until the blade extends just 1/4" below the table insert.
3. Turn the stop nut (6) to loosen.
4. Tighten or loosen the depth stop bolt (7), moving it in or out, until the blade is stopped at 1/4" below the insert.
5. Retighten the stop nut (6) against the stop block (8) to lock the depth stop bolt in place.
6. Recheck the blade depth by moving the cutting head front to back through the full motion of a cut along the control arm. If the blade touches the inside of the control arm, readjust the setting.

AUXILIARY FENCE POSITIONS (FIG. S, T, U)

MITER CUTS (FIG. S)

1. When making a miter cut operation, position the auxiliary fence (1) as shown, matching the angled side (2) to the permanent table fence angled side (3).
2. Align the table fence set pin (4) to the hole (5) on the auxiliary fence. Press the pin into the auxiliary fence and the square insert blocks (6) into the table fence.
3. Tighten the lock knob (7).

Fig. S



BEVEL AND COMPOUND CUTS (FIG. T, U)

⚠ WARNING

When performing bevel or compound cuts, the auxiliary fence position **MUST** be changed to avoid injury and to prevent interference with the blade, blade guard, and auxiliary fence.

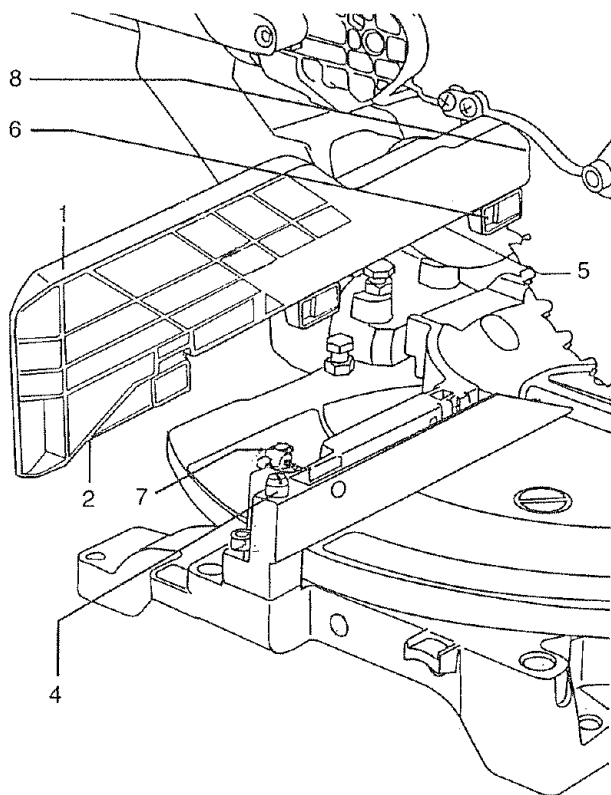
Crown Molding Cuts (FIG. T)

NOTE: Crown molding cuts are made at the positive stop positions of 33.9° bevel, and 31.6° miter.

Bevel and compound cuts of crown molding angles or less can be made with the auxiliary fence as shown:

1. Place the narrow edge (8) of the auxiliary fence (1) toward the blade, and the angled edge (2) toward the outside of the table, away from the cutting head.
2. Align the table fence set pin (4) to the hole (5) on the auxiliary fence. Press the pin into the auxiliary fence and the insert blocks (6) into the table fence.
3. Tighten the lock knob (7).

Fig. T



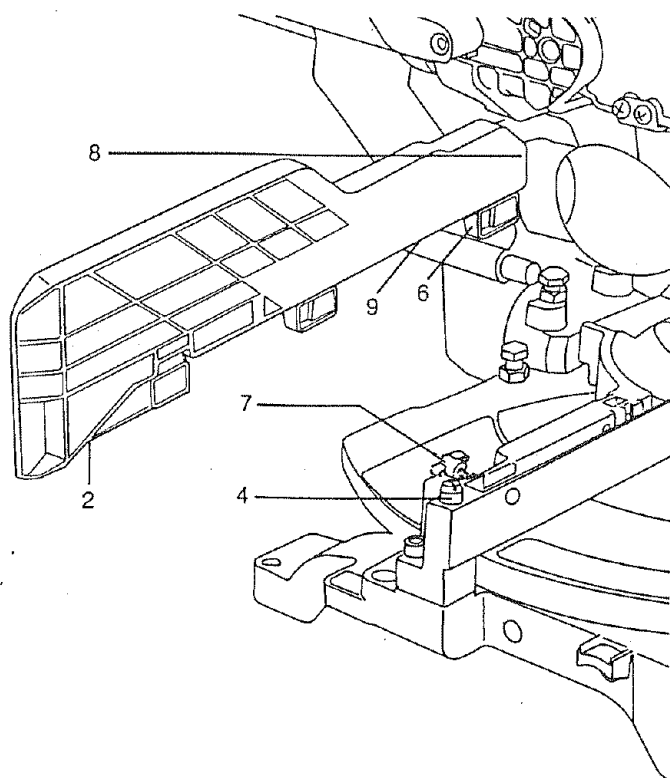
Other Bevel and Compound Cuts (FIG. U)

⚠ WARNING

For bevel and compound cuts using a greater angle than the crown molding position, the auxiliary fence position **MUST** be changed, and the dust collection chute removed, to prevent injury or damage.

1. Position the auxiliary fence as shown, placing the narrow edge (8) toward the blade and the angled edge (2) toward the outside of the table.
2. Align and insert the table fence set pin (4) into the hole (9) of the auxiliary fence. Press the pin into the auxiliary fence and the insert block (6) into the table fence.
3. Tighten the lock knob (7).

Fig. U



OPERATION

⚠ WARNING

To avoid injury:

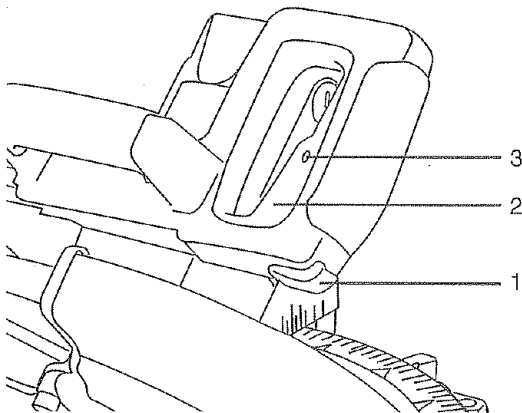
- Always wear safety glasses and proper hearing protection such as ear plugs or other ear protection devices when performing cutting operations. Cut materials can be thrown and extensive exposure to noise can cause hearing problems.
- Don't allow familiarity, gained from frequent use of your miter saw, to result in a careless mistake. A careless fraction of a second is enough to cause a severe injury. Before cutting, if the saw makes an unfamiliar noise or vibrates, stop immediately. Turn the saw OFF. Unplug the saw. To avoid injury, do not restart until finding and correcting the problem.
- Your saw has a blade brake. The brake is not a safety device. Never rely on it to replace the proper use of the guard on your saw. To prevent injury, if the blade does not stop within 6 seconds, unplug the saw and follow the instructions in the TROUBLESHOOTING GUIDE for adjusting the brake before continued use.

TO TURN SAW ON (FIG. V)

To reduce the likelihood of accidental starting, a thumb activated lock-OFF switch is located on top of the switch handle. The lock-OFF switch must be pushed forward before the trigger switch (2) can be activated and the miter saw started.

NOTE: Make the switch child-proof. Insert a padlock, or a chain with a padlock, through the holes (3) in the trigger switch, and lock it. This will prevent children and other unauthorized users from turning the machine on.

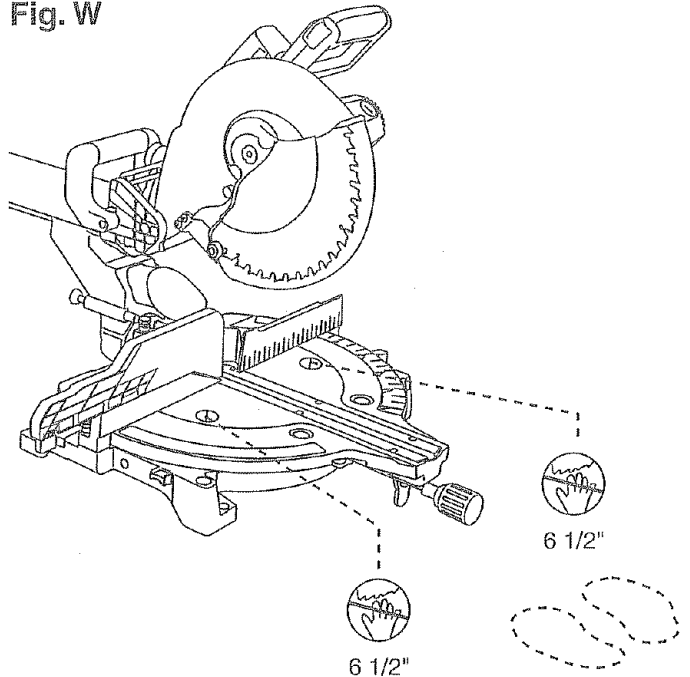
Fig. V



BODY AND HAND POSITIONS (FIG. W)

Proper positioning of your body and hands when operating the sliding miter saw will make cutting easier and safer. Use a hold down clamp assembly (sold separately) whenever possible. Never place hands near the cutting area. Place your hand at least 6 1/2" away from the path of the blade. Hold the workpiece firmly against the fence to prevent movement toward the blade. Keep your hands in position until the trigger has been released and the blade has completely stopped. Stand in a position so the body is to the left side of the blade but never stand directly behind the blade when performing a cutting operation. Before making a cut, make a "dry run" with the power off so you can see the path of the blade.

Fig. W



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

Don't force the tool. It will do the job better and safer at its designed rate. Feed the saw into the workpiece slowly with a firm downward motion.

Before freeing jammed material:

- a. Turn switch OFF.
- b. Unplug the miter saw.
- c. Wait for all moving parts to stop.

After finishing a cut:

- a. Keep holding the cutting head down.
- b. Release the switch, and wait for all moving parts to stop before moving your hands.
- c. If the blade doesn't stop within 6 seconds, unplug the saw and follow the instructions in the TROUBLESHOOTING GUIDE for adjusting the blade brake before using the saw again.

BEFORE LEAVING THE SAW

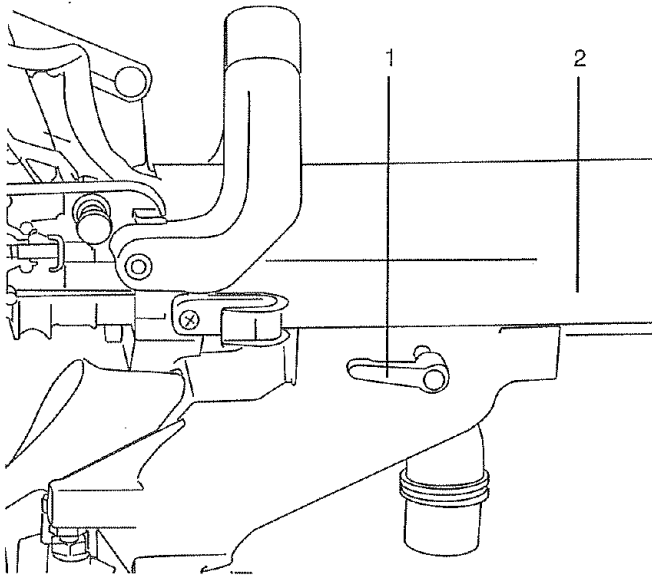
Never leave the tool running unattended. Turn the power OFF. Wait for all moving parts to stop and unplug the power cord from the outlet. Make the workshop child-proof. Lock the shop. Disconnect master switches. Store the tool away from children and other unqualified users.

BASIC SAW OPERATIONS

SLIDING CARRIAGE SYSTEM (FIG. X)

1. Loosen the slide carriage lock handle (1) clockwise, located on the side of the slide bar cover (2).
2. For a chop cutting operation on narrow workpieces, slide the cutting head assembly to the desired position and tighten the carriage lock handle counterclockwise.
3. To cut wide boards up to 12-1/8", the carriage lock handle should be loosened to permit the cutting head to slide freely.

Fig. X



⚠ WARNING

To avoid injury from materials being thrown, always unplug the saw to avoid accidental starting, and remove small pieces of material from the control arm cavity. The table insert may be removed for this purpose, but always reattach the table insert prior to performing a cutting operation.

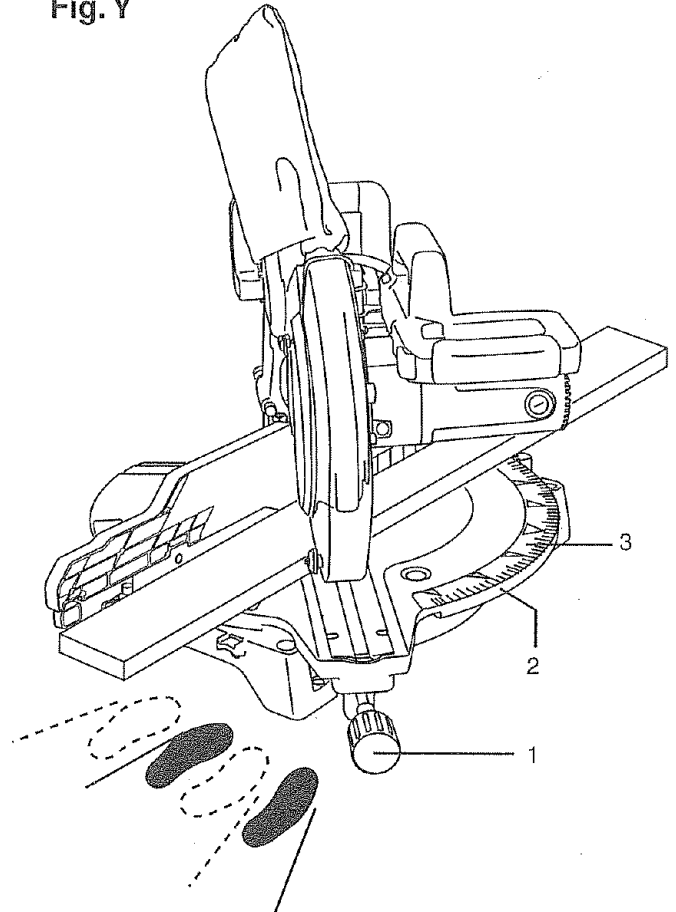
MITER CUTS (FIG. Y)

The sliding compound miter saw is equipped with positive miter stops on the saw base below the scale and control arm of the turntable. The locations are at 0, 15, 22.5, 31.6 and 45 degrees left and right. These locations represent the most common angles for cutting operations.

1. To make a miter cut, move the cutting head to the desired position by turning the miter lock handle (1) counterclockwise. This unlocks the miter lock and table.
2. Rotate the turntable (2) to the desired miter angle on the scale (3), right or left. When the table is in the desired position, tighten the miter lock handle (1). The table is now locked at this position.

NOTE: If using the auxiliary fence, position the fence as shown on page 18, matching the angled side of the auxiliary fence to the angled side of the permanent table fence.

Fig. Y



Move feet with miter angle

BEVEL CUTS (FIG. Z)

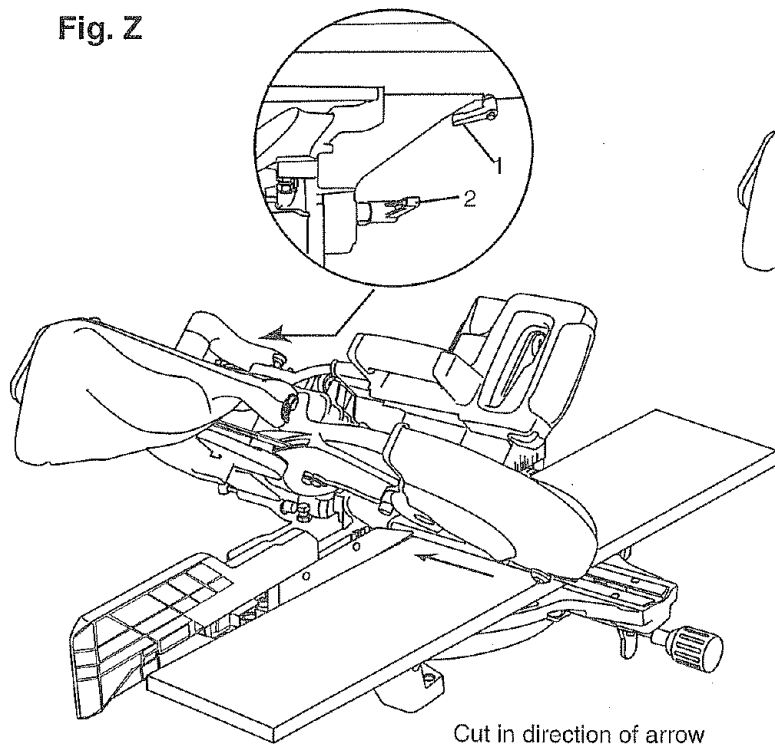
⚠ WARNING

To avoid personal injury or damage to the tool or workpiece when performing a bevel or compound cut, the position of the auxiliary fence must be changed to accommodate the amount of bevel angle. See page 19 for the proper position adjustment.

TO MAKE BEVEL CUTS

1. Reposition the auxiliary fence.
2. Position the carriage to the rear and tighten the carriage lock knob (1).
3. Loosen the bevel lock handle (2).
4. Tilt the blade to the desired bevel angle, 0 to 45 degrees.
5. Tighten the bevel lock handle.
6. Tighten the turntable lock handle (3).
7. Position the workpiece on the table and tighten a hold down clamp to secure the wood.
8. Stand to the left side of the handle to make the cut.
9. Unlock the carriage lock knob and slide the cutting head forward, beyond the front of the workpiece.
10. Push the lock-OFF button on the handle forward, and press the trigger switch to start the saw.
11. Push the handle down to start the cut, and slowly cut from front towards the rear of the workpiece.
12. When the cut is complete, release the switch and allow the blade to stop before raising the cutting head assembly.

Fig. Z



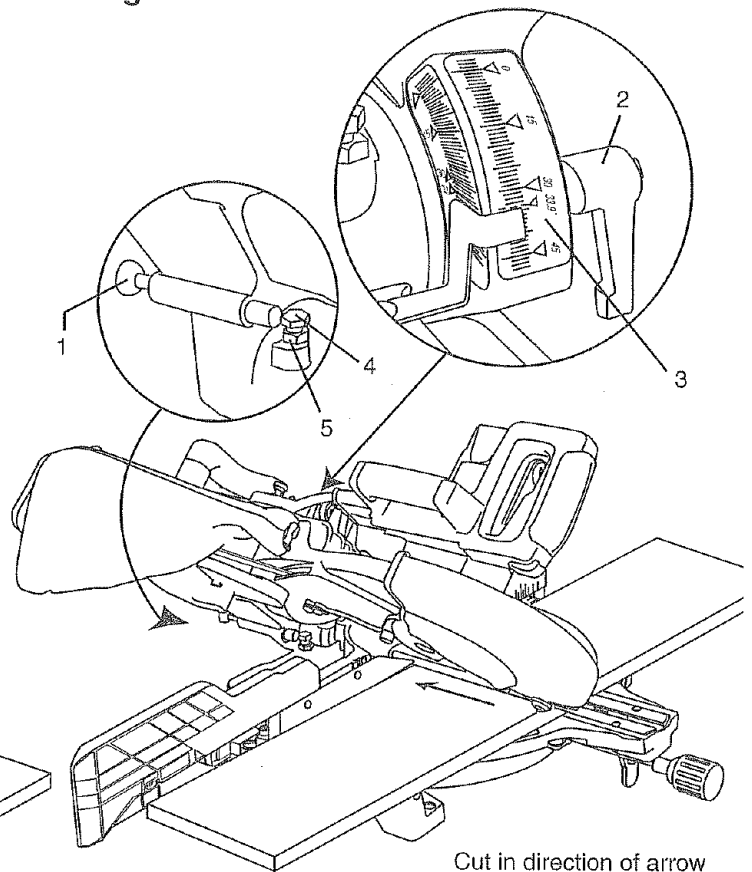
The 33.9° Bevel Lock (FIG. AA)

NOTE: Positive stops enable you to position the blade at exact bevel angles to the table.

The miter saw is equipped with a positive stop and lock at 33.9° bevel. It may be locked at that position for fast repetitive cutting.

1. Reposition the auxiliary fence.
2. Push the bevel stop rod (1) completely forward.
3. Loosen the bevel lock handle (2) and tilt the cutting arm to the left until stopped by the rod.
4. Check the bevel scale (3) to see that the indicator reads 33.9°.
5. If not, loosen the locknut (4) and raise or lower bolt (5) until 33.9° is achieved. Tighten the bevel handle to lock.
6. To unlock the cutting arm position from the 33.9° position, loosen the bevel lock handle. Pull the pin back away from the bolt.

Fig. AA



COMPOUND CUTS (FIG. BB)

⚠ WARNING

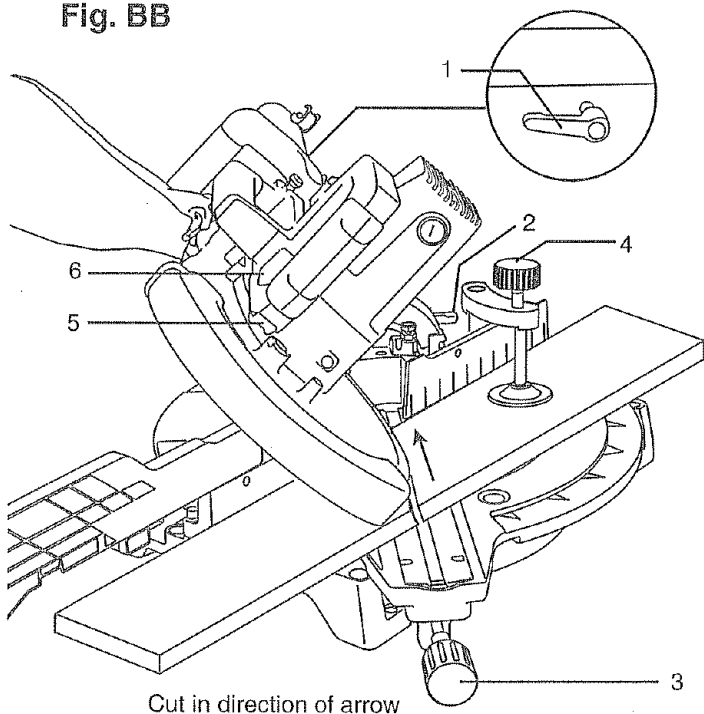
To avoid injury:

- From materials being thrown, always unplug saw to avoid accidental starting. Remove small pieces of material from the control arm cavity. The table insert may be removed for this purpose, but always reattach table insert prior to performing a cutting operation.
- The position of the auxiliary fence must be changed to accommodate the amount of bevel angle. See page 19 for the proper position adjustment.

TO MAKE COMPOUND CUTS

1. Reposition the auxiliary fence if it is being used.
2. Position the carriage to the rear position and tighten the carriage lock (1).
3. Select the correct bevel and miter position (follow the procedure of MITER CUT and BEVEL CUT).
4. Lock the bevel lock handle (2).
5. Lock the miter lock handle (3).
6. Position the workpiece and secure to the table with a clamp (4).
7. Unlock the carriage lock and pull the cutting head as far forward as necessary.
8. Push the lock-OFF button (5) on the handle forward, and press the trigger switch (6).
9. Push the handle down, slowly, to complete the cut.
10. Slowly cut from the front towards the rear of the workpiece.
11. Release the switch and allow the blade to stop before raising the cutting head.

Fig. BB

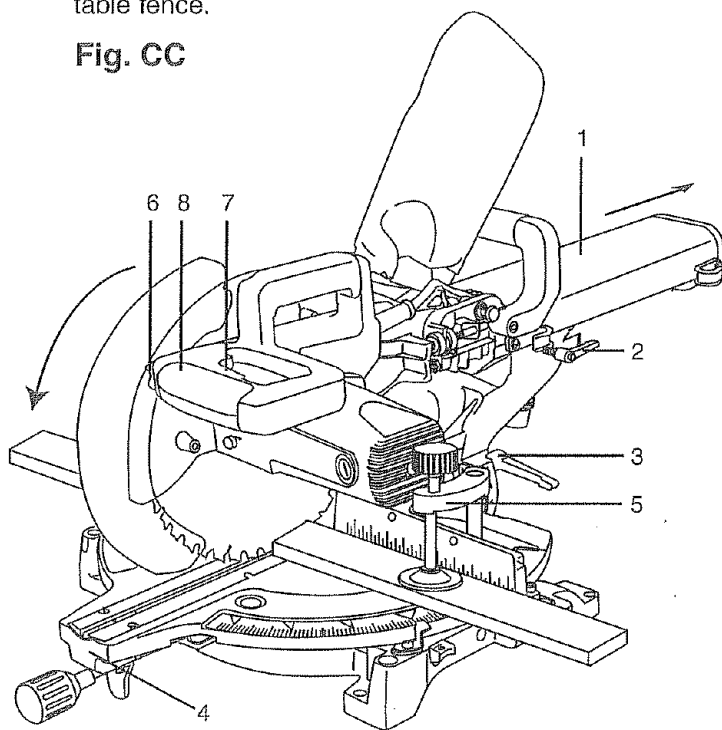


CHOP CUTTING NARROW BOARDS - 90° CROSSCUT (FIG. CC)

1. Slide the carriage (1) to the rear position as far as it will go.
2. Lock the carriage lock knob (2).
3. Position the cutting head to the 0° bevel position and lock the bevel lock handle (3) at the rear of the saw.
4. Position the control arm (4) to the 0° miter angle and lock the miter lock handle.
5. Position the workpiece on the table and against the fence. Use a hold down clamp (5) attached to the base or fence, whenever possible.
6. Press the lock (6) on top of the handle and pull the trigger (7), turning on the saw. Lower the blade by pushing the handle (8) down into the workpiece with slow and even pressure.
7. When the cut is complete, release the switch and allow the blade to stop before raising the cutting head assembly.

NOTE: If using the auxiliary fence, position the fence as shown on page 19, matching the angled side of the auxiliary fence to the angled side of the permanent table fence.

Fig. CC



Cut in direction of arrow

SLIDE CUTTING WIDE BOARDS - ANY ANGLE - 12-5/8" MAXIMUM CUT (FIG. DD)

⚠ WARNING

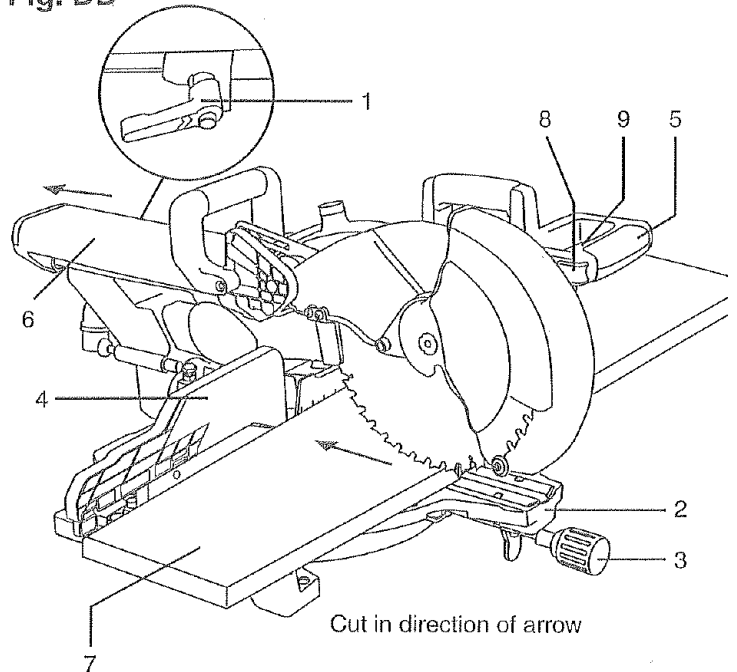
To avoid injury:

- **Never pull the cutting head assembly and spinning blade toward you during the cut.** The blade may try to climb up on the top of the workpiece, causing the cutting head assembly and spinning blade to kick back, forcefully. The cutting head assembly should be positioned before starting.
- **Never lower spinning saw blade down in front of the workpiece prior to pushing the cutting head assembly forward.** The upward motion of the spinning blade could raise or twist the workpiece causing a kickback, which may cause injury.
- If using the auxiliary fence, the position of the fence should be determined by the angle of bevel, if any. See page 19 for adjustment instructions.

TO SLIDE CUT WIDE BOARDS

1. Unlock the carriage lock knob (1) and allow the cutting head assembly to move freely.
2. Move the control arm (2) to the desired miter angle and lock the miter lock handle (3).
3. If using the auxiliary fence (4), position the fence.
4. Use a hold down clamp assembly attached to the fence to secure the workpiece.
5. Grasp the saw handle (5) and pull the carriage (6) forward until the center of the saw blade is over the front of the workpiece (7).
6. Push in on the switch lock (8) and press the trigger (9) to turn the saw on.
7. When the saw reaches full speed, push the saw handle down, slowly, cutting through the leading edge of the workpiece.
8. Slowly move the saw handle toward the fence, completing the cut.
9. Release the trigger and allow the blade to stop spinning before allowing the cutting head to raise.

Fig. DD



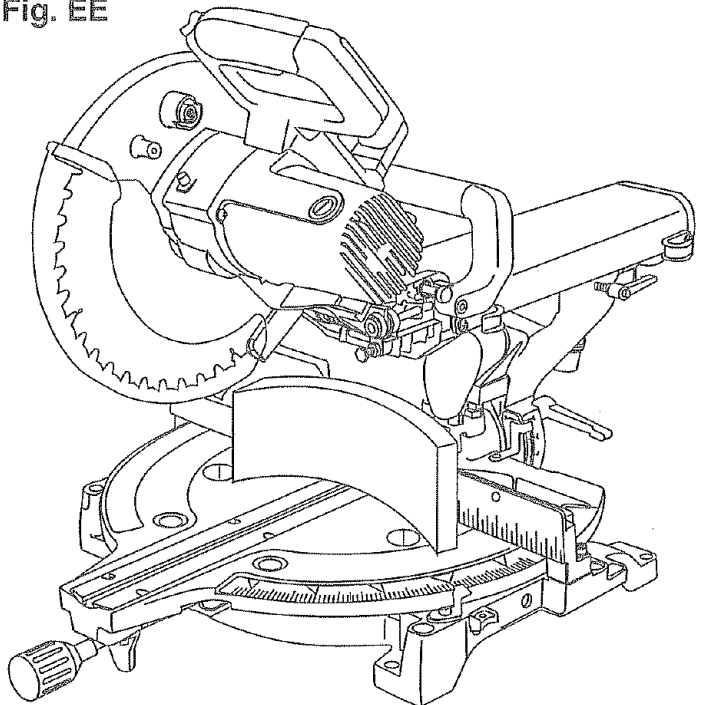
CUTTING BOWED MATERIAL (FIG. EE)

⚠ WARNING

To avoid injury from materials being thrown, always unplug the saw to avoid accidental starting and remove small pieces of material from the control arm cavity. The table insert may be removed for this purpose, but always reattach table insert prior to performing a cutting operation.

A bowed workpiece must be positioned and cut as illustrated. Do not position the workpiece incorrectly or try to cut the workpiece without the support of the fence. This will cause the blade to bind and could result in personal injury.

Fig. EE



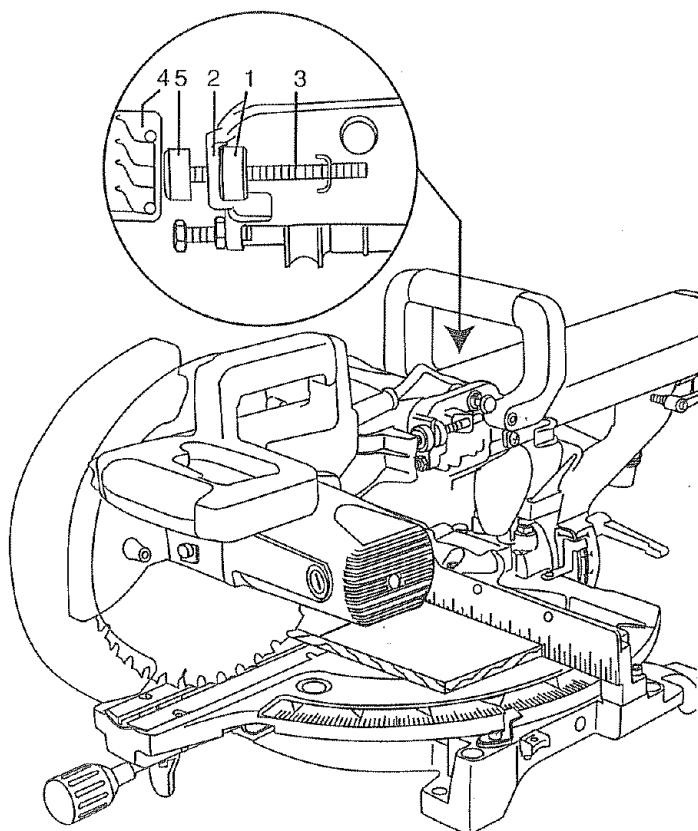
ROUGH CUTTING A DADO (FIG. FF)

⚠ WARNING

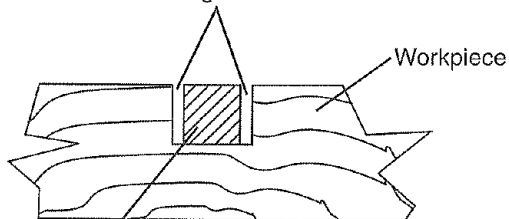
To avoid injury from materials being thrown, always unplug the saw to avoid accidental starting. Remove small pieces of material from the control arm cavity. The table insert may be removed for this purpose, but always reattach table insert prior to performing a cutting operation.

1. Mark lines identifying the width and depth of the desired cut on the workpiece and position on the table so the inside tip of the blade is positioned on the line. Use a hold down clamp to secure the workpiece.
2. Lower the cutting head so the tip of the blade touches the top surface workpiece at the marked line.
3. Turn the stop nut (1) to the depth stop block (2) to move the adjustment bolt (3) in or out, until the end of the adjustment bolt is against the positioning wall (4) of the cutting head, to set the depth of cut.
4. Tighten both lock nut (5) and (1) to block (2).
5. Cut two parallel grooves as shown below.

Fig. FF



Cut these grooves with saw



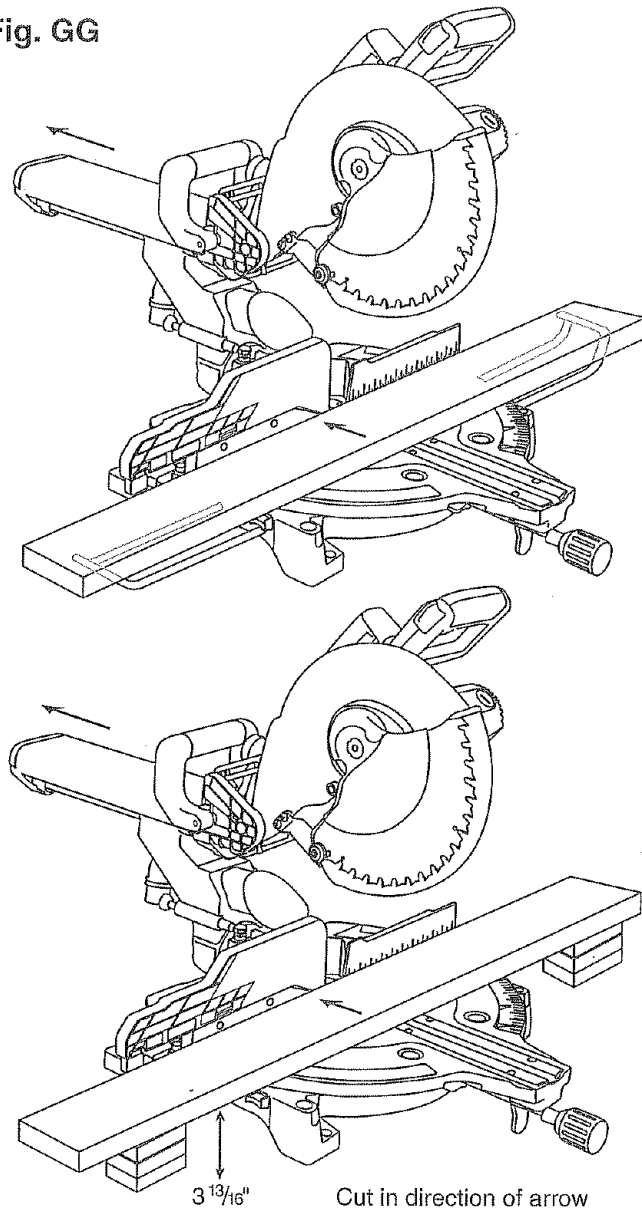
Use a chisel to cut out the middle

WORKPIECE SUPPORT (FIG. GG)

Long pieces need extra support. The support should be placed under the workpiece. Keep your hand holding the workpiece position 6 1/2" or more away from the blade. The support must let the workpiece lay flat on the work table during the cutting operation. If possible, use extension wing accessories (SOLD SEPARATELY) to provide the proper support.

NOTE: When mounted on a flat surface, the miter saw table is 3 13/16" high.

Fig. GG



AUXILIARY WOOD FENCE (FIG. HH)

⚠ WARNING

To avoid injury from materials being thrown, always unplug saw to avoid accidental starting and remove small pieces of material from the control arm cavity. The table insert may be removed for this purpose, but always reattach table insert prior to performing a cutting operation.

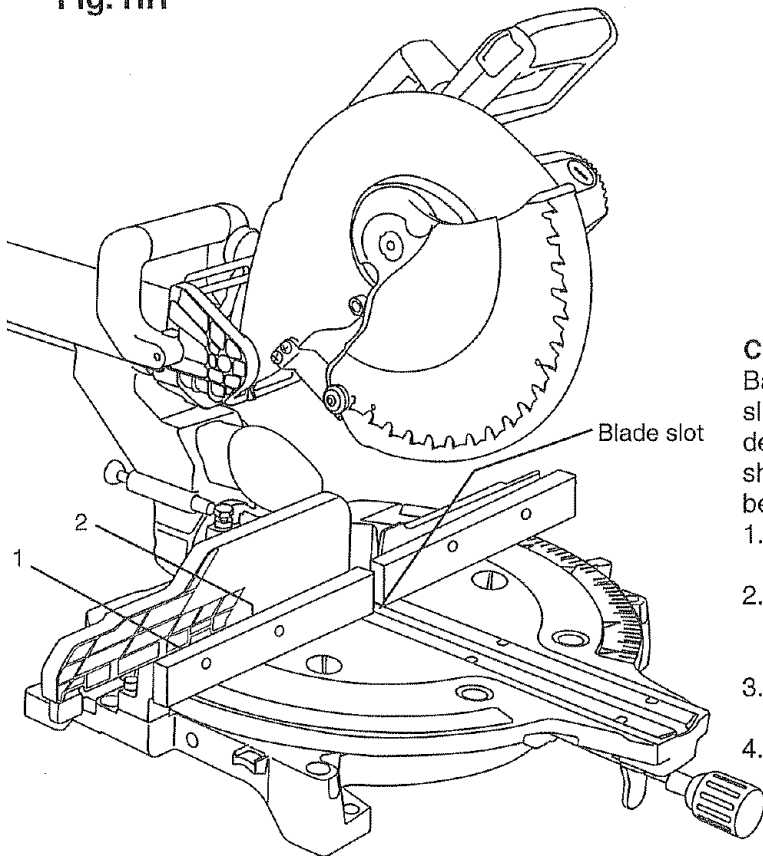
TO MAKE REPETITIVE CUTS

When making multiple or repetitive cuts that result in cut-off pieces of one inch or less, it is possible for the saw blade to catch the cut-off piece and throw it out of the saw or into the blade guard and housing, possibly causing damage or injury. To minimize this an auxiliary wood fence can be mounted to your saw.

1. Holes (1) are provided in the saw fence to attach an auxiliary wood fence (2). This fence is constructed of straight wood approximately 1/2" thick by 2-1/2" high by 20-1/2" long.
2. Attach the wood fence securely and make a full depth cut to make a blade slot.
3. Check for interference between the wood fence and the lower blade guard. Adjust if necessary.

NOTE: This auxiliary fence is used only with the saw blade in the 0° bevel position (90° to the table). The auxiliary wood fence must be removed when bevel cutting.

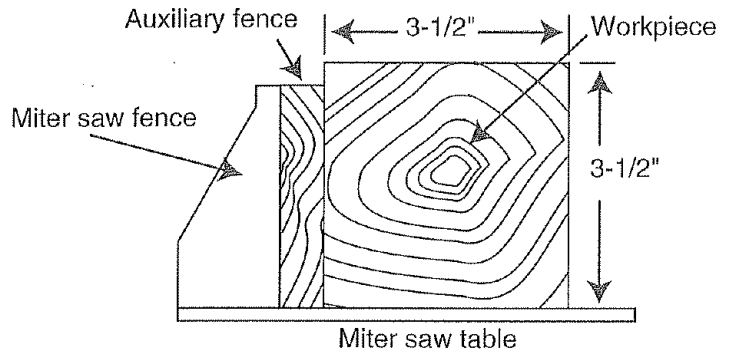
Fig. HH



CUTTING A DIMENSIONAL 4 X 4 (3-1/2" X 3-1/2") WITH ONE CUT (FIG. II)

A dimensional 4 x 4 may be cut in half with one cut by attaching an auxiliary wood fence of 7/8" thick. See AUXILIARY WOOD FENCE Section.

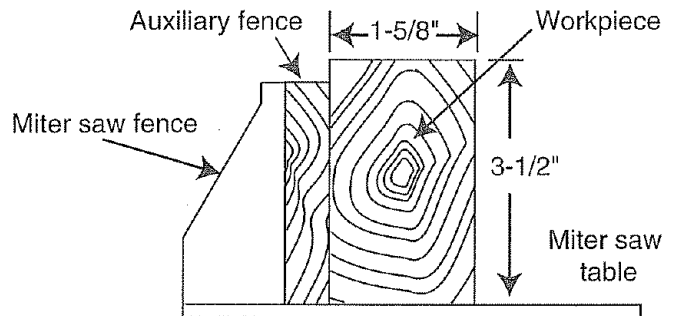
Fig. II



VERTICAL MITER CUTTING (FIG. JJ)

To make a miter cut in a 2 x 4 workpiece (1-5/8" x 3-1/2") in the vertical position (on edge), a spacer, such as the auxiliary wood fence described in the AUXILIARY WOOD FENCE Section is required.

Fig. JJ

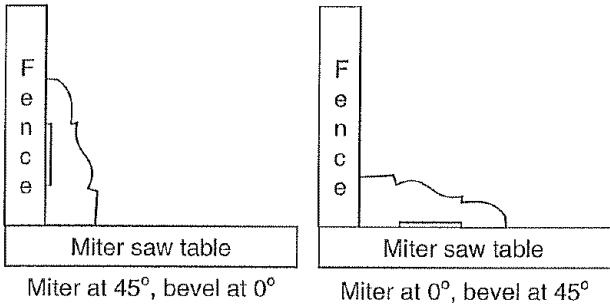


CUTTING BASE MOLDING (FIG. KK)

Base moldings and many other moldings can be cut on a sliding compound miter saw. The set up of the saw depends on molding characteristics and application, as shown. Perform practice cuts on scrap material to achieve best results:

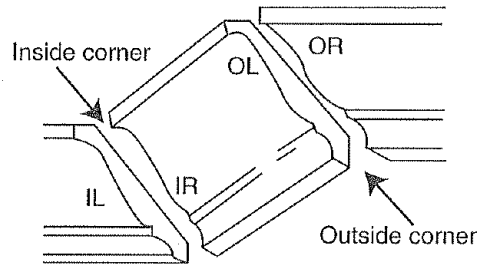
1. Adjust the auxiliary fence, if necessary, according to the angle being cut.
2. Always make sure moldings rest firmly against fence and table. Use hold down or C-clamps, whenever possible, and place tape on the area being clamped.
3. Reduce splintering by taping the cut area prior to making a cut. Mark the cutline directly on the tape.
4. Splintering typically happens due to wrong blade application and the thinness of the material.

Fig. KK



Bevel / Miter Settings for standard crown molding lying flat on compound miter saw table (Fig. MM)

Fig. MM



Compound cut crown moldings

NOTE: The slide mechanism and the blade diameter of the 12" sliding compound miter saw limit the capability of cutting a particular application. Always perform a dry run cut so you can determine if the procedure being attempted is possible before power is applied to the saw.

CUTTING CROWN MOLDING (FIG. LL)

Your sliding compound miter saw is suited to the difficult task of cutting crown molding. To fit properly, crown molding must be compound-mitered with extreme accuracy. The two surfaces on a piece of crown molding that fit flat against the ceiling and wall are at angles that, when added together equal exactly 90°.

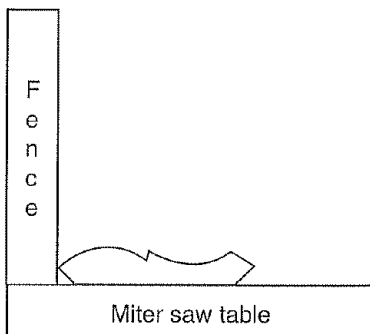
Most crown molding has a top rear angle (the section that fits flat against the ceiling) of 52° and a bottom rear angle (the section that fits flat against the wall) of 38°.

In order to accurately cut crown molding for a 90° inside or outside corner, lay the molding with its broad back surface flat on the saw table. Adjust the auxiliary fence for the crown molding compound angles.

When setting the bevel and miter angles for compound miters, remember that the settings are interdependent; changing one changes the other. Also, keep in mind that the angles for crown molding are very precise and difficult to set exactly. Since it is very easy for these angles to shift slightly, all settings should first be tested on scrap molding.

KEY	BEVEL SETTING	MITER SETTING	TYPE OF CUT
Inside corner - Left side			
IL	33.9°	31.6° Right	1. Position top of molding against fence. 2. Miter table set at RIGHT 31.6°. 3. LEFT side is finished piece.
Inside corner - Right side			
IR	33.9°	31.6° Left	1. Position bottom of molding against fence. 2. Miter table set at LEFT 31.6°. 3. LEFT side is finished piece.
Outside corner - Left side			
OL	33.9°	31.6° Left	1. Position bottom of molding against fence. 2. Miter table set at LEFT 31.6°. 3. RIGHT side is finished piece.
Outside corner - Right side			
OR	33.9°	31.6° Right	1. Position top of molding against fence. 2. Miter table set at RIGHT 31.6°. 3. RIGHT side is finished piece.

Fig. LL



Workpiece lying flat



MAINTENANCE

⚠ WARNING

To avoid personal injury:

- Never put lubricants on the blade while it is spinning.
- Never use gasoline, naphtha, acetone, lacquer thinner or similar highly volatile solvents to clean the sliding miter saw. They can cause fire or toxic reaction.
- Unplug the power cord before working on the saw, to avoid injury from unexpected starting or electrical shock.
- This saw is double-insulated. To avoid electrical shock, fire or injury, use only parts identical to those identified in the parts list. Reassemble exactly as the original assembly to avoid electrical shock.

REPLACING CARBON BRUSHES (FIG. NN)

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 (1) on the side of the motor (**Remove the cap cautiously, because it is springloaded.**) Pull out the brush. Repeat for the other side. To reassemble reverse the procedure. The ears on the metal end of the 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 to avoid reduced motor performance.

LOWER BLADE GUARD

Do not use the saw without the lower blade 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 the 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 buildup with a damp cloth.

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

⚠ WARNING

To avoid injury when cleaning the lower guard, unplug the saw from the power source receptacle preventing unexpected startup.

SAWDUST

Periodically, sawdust will accumulate under the work table and base. This could cause difficulty in the movement of the worktable when setting up a miter cut. Frequently blow out or vacuum up the sawdust. Remove table insert if necessary, to clean under table.

⚠ WARNING

If blowing sawdust, wear proper eye protection to keep debris from blowing into and injuring eyes.

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).

LUBRICATE THE FOLLOWING AS REQUIRED:

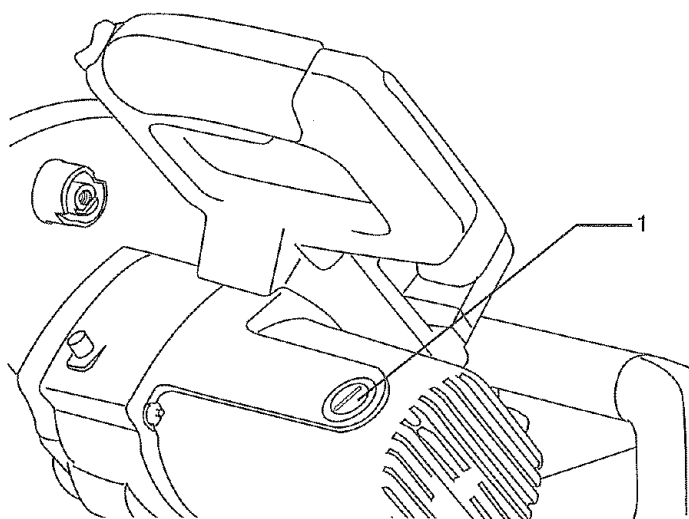
Chop pivot: Light machine oil or aerosol will penetrate from the ends and junction points. A qualified service technician can remove the pivot upstop to relieve tension, and the 2 metric set screws holding the shaft, in order to drive the shaft about 3/4" right. Exposed surfaces are lubricated with automotive type oil.

Central pivot of plastic guard: Use light household oil (sewing machine oil) on metal-to-metal or metal-to-plastic guard contact areas as required for smooth, quiet operation. Avoid excessive oil, to which sawdust will cling.

Lock handles: Unscrew the handle assembly and grease the threads.

Link: (Which actuates the lower guard movement) if the down chop motion is hard to start, then oil the rear pivot, grease the ball bearing contact, and oil where the link actuates the acetyl roller of the lower guard.

Fig. NN



TROUBLESHOOTING

TROUBLESHOOTING GUIDE

▲ WARNING

To avoid injury from an accidental start, turn the switch OFF and always remove the plug from the power source before making any adjustments.

Consult your Sears Service Center if for any reason the motor will not run.

MOTOR

PROBLEM	PROBABLE CAUSE	SUGGESTED CORRECTIVE ACTION
Brake does not stop blade within 6 seconds.	<ol style="list-style-type: none"> Brushes not seated or lightly sticking. Motor brake winding overheated from use of prohibited blade/accessory or rapid on/off cycling. Arbor screw loose. Other. 	<ol style="list-style-type: none"> Inspect/clean/replace brushes. See "Replacing Carbon Brushes" in MAINTENANCE section. Use only recommended blades/accessories. Let motor cool down. Retighten. Contact Sears Service Center.
Motor does not start.	<ol style="list-style-type: none"> Brushes worn. Other. 	<ol style="list-style-type: none"> See "Replacing Carbon Brushes" MAINTENANCE section. Contact Sears Service Center.
Brush sparking when switch is released.	<ol style="list-style-type: none"> Normal—automatic brake working properly. 	<ol style="list-style-type: none"> None.

GENERAL

PROBLEM	PROBABLE CAUSE	SUGGESTED CORRECTIVE ACTION
Blade hits table.	<ol style="list-style-type: none"> Adjustment of depth stop. 	<ol style="list-style-type: none"> See "Maximum Cutting Depth" in ADJUSTMENT section.
Angle of cut not accurate.	<ol style="list-style-type: none"> Misalignment. 	<ol style="list-style-type: none"> See "Bevel Stop Adjustments" in ADJUSTMENT section.
Can't adjust miter angles.	<ol style="list-style-type: none"> Center bolt too tight. Lubrication dried up. 	<ol style="list-style-type: none"> Adjust. Clean and relubricate between table and base, see "Lubrication" in MAINTENANCE section.
Powerhead won't fully rise or blade guard won't fully close.	<ol style="list-style-type: none"> Lubrication needed. Part failure. Pivot spring or guard spring not replaced properly after service. Sawdust sticking to stops or pivots. 	<ol style="list-style-type: none"> See "Lubrication" in MAINTENANCE section. Contact Sears Service Center. Contact Sears Service Center. Inspect/clean stops and pivots.
Blade binds, jams, burns wood. Rough cuts.	<ol style="list-style-type: none"> Improper operation. Dull blade. Improper blade. Warped blade. 	<ol style="list-style-type: none"> See 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"> Saw blade not round. Saw blade damaged. Saw blade loose. Other. 	<ol style="list-style-type: none"> Replace blade. Replace blade. Tighten arbor screw. Contact Sears Service Center.
Powerhead hard to pull/push down.	<ol style="list-style-type: none"> Lubrication needed. 	<ol style="list-style-type: none"> See "Lubrication" in MAINTENANCE section.

PARTS

CRAFTSMAN 12" SLIDING COMPOUND MITER SAW

137.212920

▲ WARNING

When servicing use only CRAFTSMAN replacement parts. Use of any other parts may create a HAZARD or cause product damage. Any attempt to repair or replace electrical parts on this miter saw may create a HAZARD unless repair is done by a qualified service technician. Repair service is available at your nearest Sears Service Center.

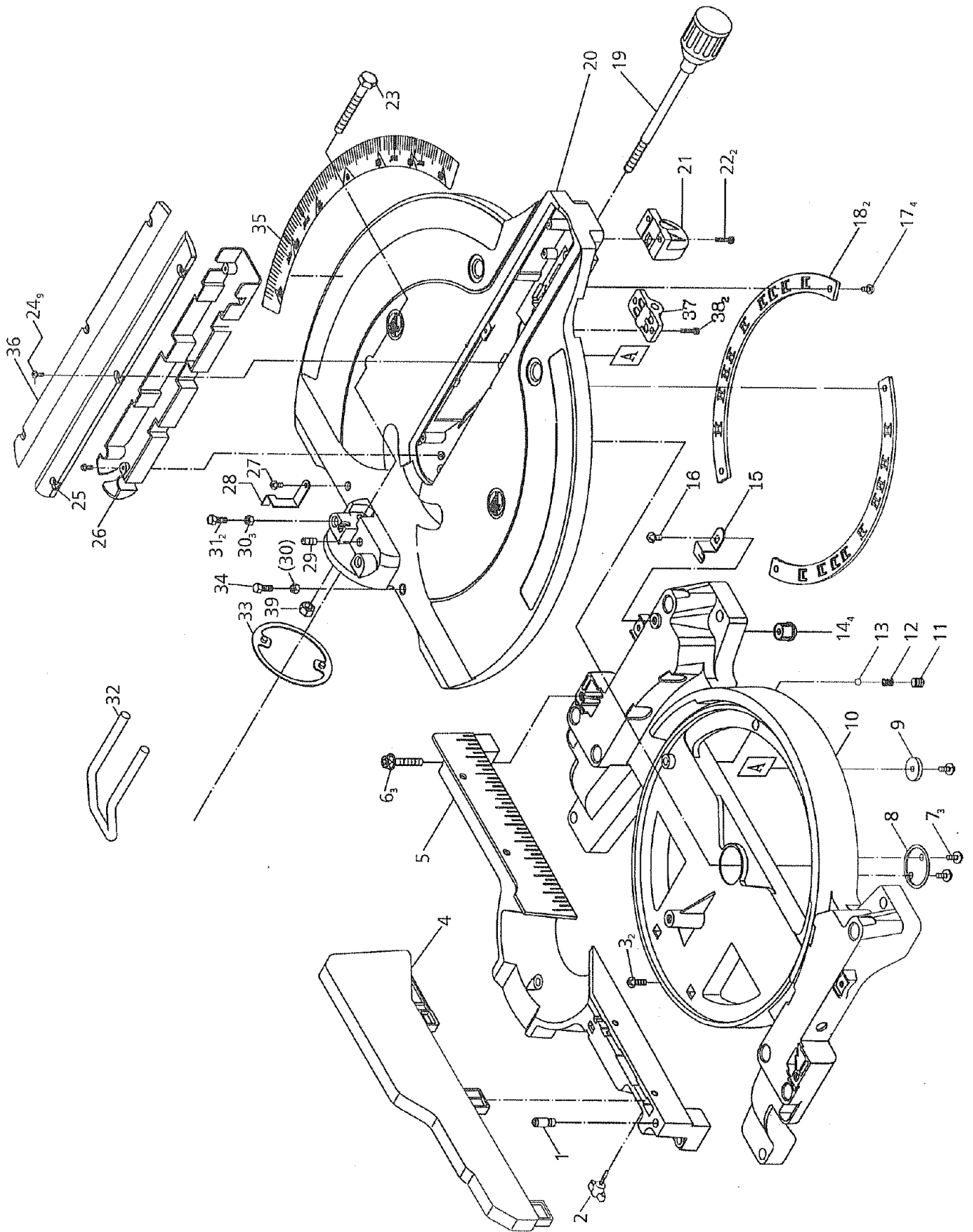
Order by PART NUMBER, not by key number

PARTS LIST FOR SCHEMATIC A

Key	Part No.	Description	Size	Qty
1	19500101	Support rod		1
2	19500202	Lock knob		1
3	2668BBDA40	Pan hd. screw	M6X1.0-16	2
4	19500401	Auxiliary fence		1
5	16205506	Fence		1
6	2617BBLD33	Hex. soc. cap screw	M8X1.25-40	3
7	2621BDDD19	Pan hd. screw & washer	M6X1.0-12	3
8	16200502	Washer		1
9	2501MZDN27	Flat washer	6X25-4	1
10	16200202	Base		1
11	2603BBLA66	Hex. soc. set screw	M10X1.5-12	1
12	16931303	Spring		1
13	29835L5003	Steel ball		1
14	16200301	Foot		4
15	19501501	Needle pointer		1
16	2668BBDA49	Pan hd. screw	M6X1.0-10	1
17	2668BBDA39	Pan hd. screw	M6X1.0-12	4
18	16201001	Set plate		2
19	19502201A1	Miter lock handle		1
20	16201605	Table		1
21	19502502	Support stay		1
22	2602BBLA40	Hex. soc. hd. cap bolt	M6X1.0-10	2
23	2601BBDBB5	Hex. hd. bolt	M10X1.5-105	1
24	2660MBCK10	Pan hd. tapping screw	M4X0.7-8	9
25	19502902	Table insert		1
26	19503001	Insert floor plate		1
27	2660MBCK16	Pan hd. tapping screw	M5X0.8-10	1
28	19503201	Needle pointer		1
29	2603BBLA54	Hex. soc. set screw	M8X1.25-16	1
30	2701FBD109	Hex. nut	M10X1.5 T=8	3
31	2601BBDA69	Hex. hd. bolt	M10X1.5-20	2
32	19503701	Rear extension stay		1
33	19503801	Set plate		1
34	2601BBDA77	Hex. hd. bolt	M10X1.25-16	1
35	16208601	Scale label		1
36	19504502	Table insert		1
37	16203301	Saddle		1
38	2602BBLA40	Hex. soc. hd. cap bolt		2
39	2701FBD110	Hex. nut	M10X1.5 T=8	1
*	137212920002	Owner's manual		1

* Not shown

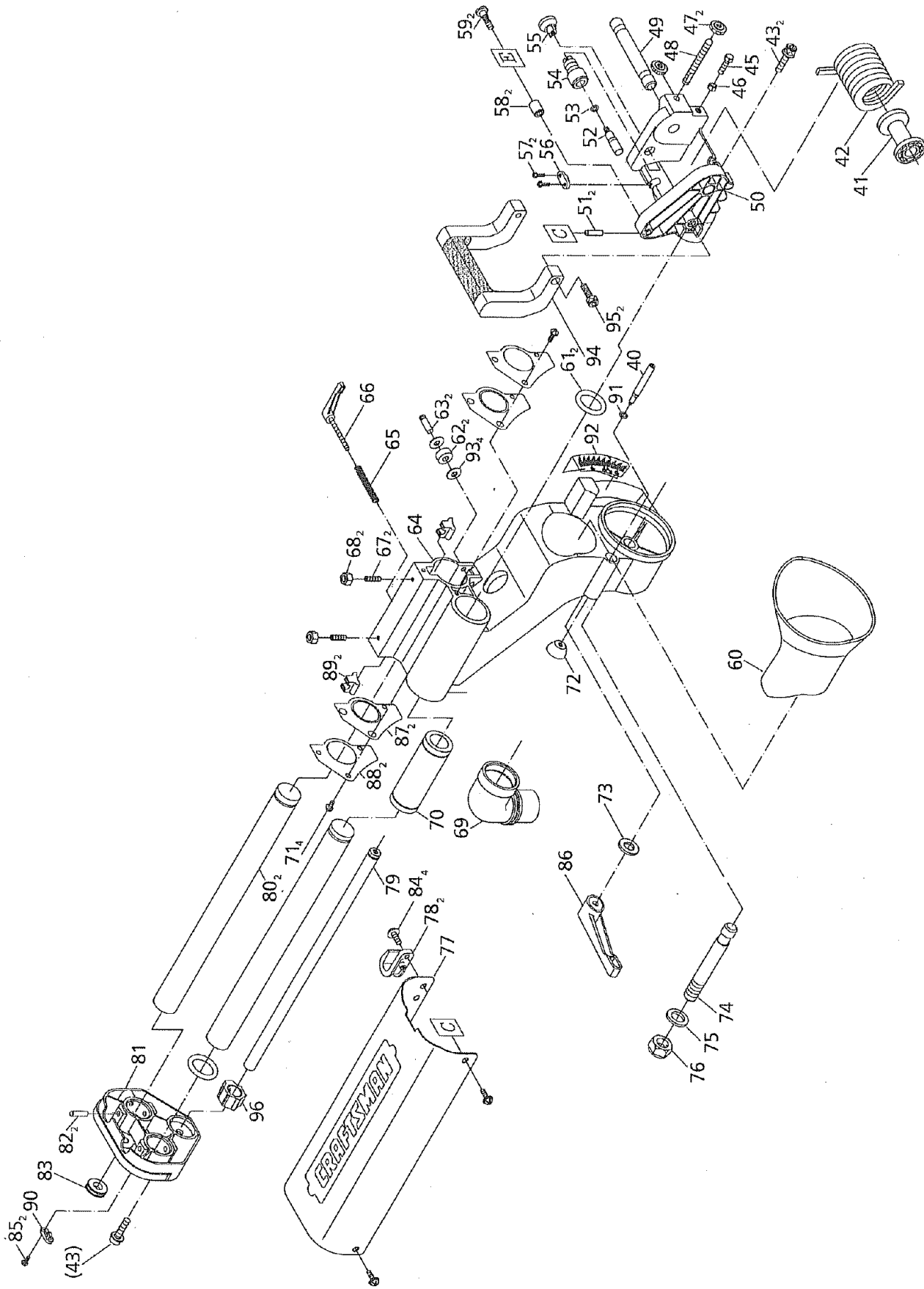
SCHEMATIC A



PARTS LIST FOR SCHEMATIC B

Key	Part No.	Description	Size	Qty
40	19504001	Locating pin		1
41	12710401	Shaft sleeve		1
42	19510201	Torsion spring		1
43	2617BBLD27	Hex. soc. hd. cap bolt	M10X1.5-10	2
44	N/A			
45	2601BBDA58	Hex. hd. bolt	M8X1.25-35	1
46	2701FBD107	Hex. nut	M8X1.25 T=5	1
47	19510701	Adjustable nut		2
48	19510801	Set bolt		1
49	19510901	Shaft-pivot		1
50	19511001	Slide-bar set		1
51	2536MBE615	Spring pin	5-50	2
52	19511202	Bracket stop		1
53	2574B55R07	O-ring rod		1
54	19511402	Screw stop		1
55	16203701	Plunger handle		1
56	16937501	Clamp-cord		1
57	2668BBDA10	Pan hd. screw	M4X0.7-16	2
58	18504101	Spacer		2
59	19512001	Bolt		2
60	19512101	Dust collector		1
61	2574B55R30	O-ring rod		2
62	2001ZZ0608	Ball bearing		4
63	19512401	Center shaft		2
64	19512501	Arm-miter		1
65	14910301	Spring		1
66	19512701A1	Locking handle ass'y		1
67	2606BBLA41	Hex. soc. set screw	M6X1.0-20	2
68	2701FBD106	Hex. nut	M6X1.0 T=5	2
69	19548001	Elbow		1
70	2007BLM30U	Linear motion bearing		1
71	2641BBDA37	Round washer hd. screw	M6X1.0-8	4
72	16600801	Plunger stop bolt		1
73	2501NBDN32	Flat washer	3/8x29/32-5/64	1
74	16204801	Shaft-pivot		1
75	2501MBDN19	Flat washer	16X30-3	1
76	2705FBD116	Nut chuck	M16X2 T=16	1
77	19513903	Slide-bar guard		1
78	16314301	Power cord clamp		2
79	19514102	Miter bar		1
80	19514202	Miter bar	M6X1.0-20	2
81	19514301	Slide-bar seat		1
82	2536MBE615	Spring pin	5-50	2
83	2801ABRF03	Strain relief		1
84	2641BBDA40	Round washer hd. screw	M6X1.0-16	4
85	2668BBDA10	Pan hd. screw	M4X0.7-16	2
86	16304201A1	Bevel lock handle ass'y		1
87	19515101	Dust shield		2
88	19515201	Plate cover		2
89	19515301	Slide-bar seat		2
90	16937501	Cord clamp		1
91	2574B55R03	O-ring	P10	1
92	19515702	Bevel tilt scale		1
93	2501NBDN23	Flat washer	5/16x1/2-1/32	4
94	19516001	Segment carry handle		1
95	2602BBLA58	Hex. soc. hd. cap bolt	M8X1.25-35	2
96	19516301	Guide holder		1

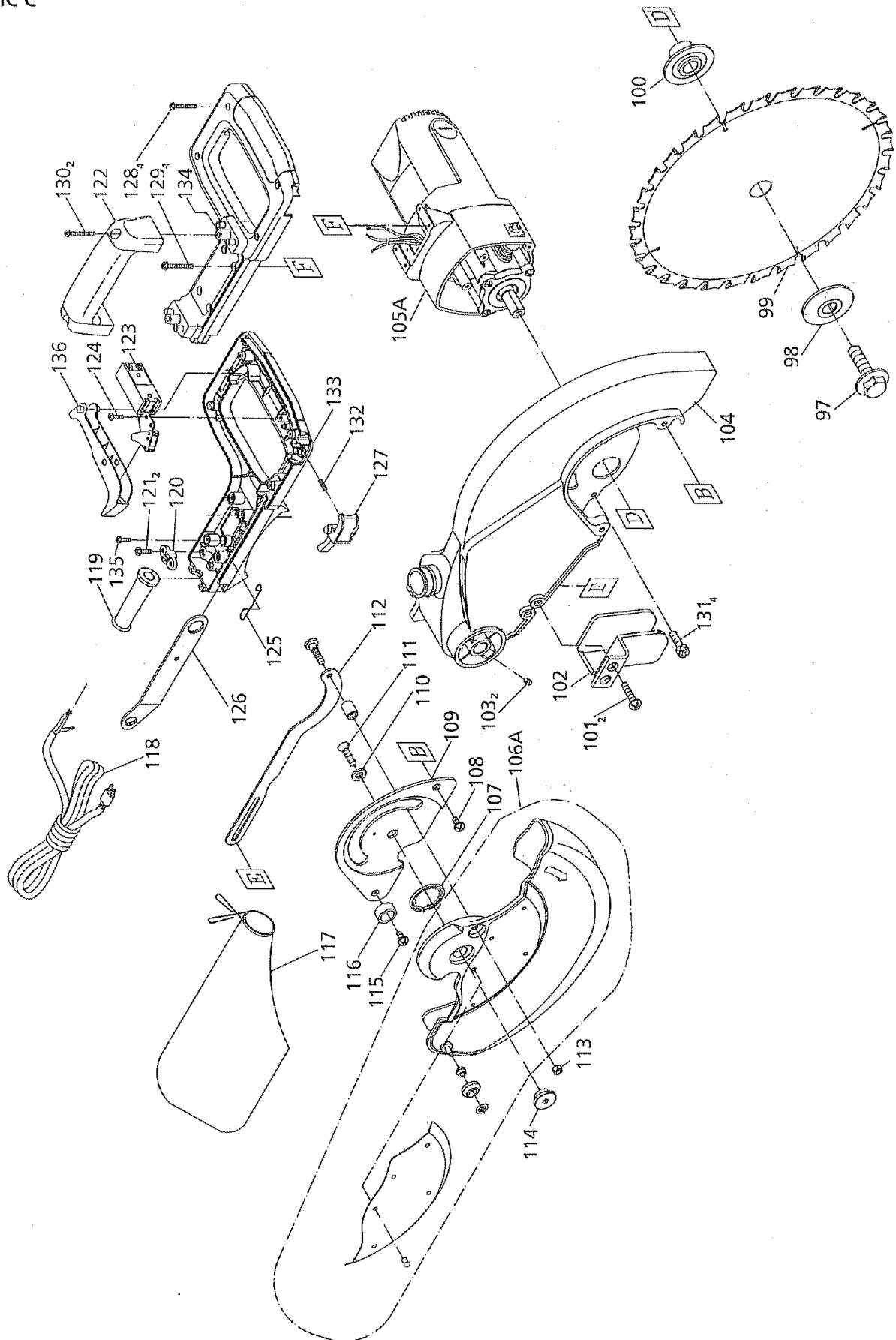
SCHEMATIC B



PARTS LIST FOR SCHEMATIC C

Key	Part No.	Description	Size	Qty
97	2607BBLW55	Hex. washer hd. bolt	M8X1.25-20	1
98	16213201	Arbor collar		1
99	19520304	Blade		1
100	16213401	Arbor collar		1
101	2668BBDA49	Pan hd. screw	M6X1.0-10	2
102	19520601	Plate		1
103	2606BDLA32	Hex. soc. set screw	M5X0.8-10	2
104	19520802	Arm upper blade guard		1
105A	8377029125	Motor		1
106A	19523602A1	Pc-lower blade guard ass'y		1
107	16931402	Spring guard		1
108	2668BBDA40	Pan hd. round neck screw	M6X1.0-16	1
109	19524002	Blade shaft guard		1
110	2501MBDN34	Flat washer	8.2X18-1.5	1
111	2636BBDA39	Count hd. screw	M6X1.0-12	1
112	19524302	Lever		1
113	2705FBD106	Nut chuck		1
114	16210101	Shaft-pivot		1
115	2668BBDA40	Pan hd. screw	M6X1.0-16	1
116	16512301	Anchor block		1
117A	16323204A1	Dust bag ass'y		1
118	2807CT54Z4A1	Power cord ass'y		1
119	83990141	Cord-guard		1
120	12714101	Power cord clamp		1
121	2660PBCK15	Pan hd. tapping screw	M4X18-20	2
122	16220806	Segment handle		1
123	2855D55514	Trigger switch		1
124	2661MBDE11	Truss hd. tapping screw	M4X16-12	1
125A	16221901	Spring wire		1
126	16221801	Blade shaft wrench		1
127	16220102	Button switch		1
128	2660PBCK23	Pan hd. tapping screw	M4X18-25	4
129	2668BBDA29	Pan hd. screw	M5X0.8-30	4
130	2660PBCK33	Pan hd. tapping screw	M5X0.8-20	2
131	2617BDLC14	Hex. soc. hd. cap screw	M5X0.8-30	4
132	16220201	Spring		1
133	19529301	Switch handle-lower		1
134	19529401	Switch handle-upper		1
135	2668BBDA32	Pan hd. screw	M5X0.8-10	1
136	16221003	Trigger		1

SCHEMATIC C



PARTS LIST FOR SCHEMATIC D - MOTOR

Key	Part No.	Description	Size	Qty
1	2668BBDA24	Pan hd. screw	M5X0.8-12	3
2	83770021	Bearing retainer		1
3	2001ZZ6203	Ball bearing	6203ZZ	1
4	2570ABN140	C-ring	B-40	1
5	83770051	Cutter shaft		1
6	2571MNC327	Parallel key	6X6-12	1
7	83770071	Helix-gear		1
8	2570BBN118	C-ring	A-18	1
9	2001ZZ6000	Ball bearing	6000ZZ	1
10	83770101	Gear housing		1
11	87900082	Wire protector		1
12	83920172	Compression spring		1
13	2536MBE610	Spring pin		1
14A	83770141	Stop pin		1
15A	2001ZZ6201	Ball bearing	6201ZZ	1
16A	83770161A1	Armature ass'y		1
17	2001ZZ6200	Ball bearing	6200ZZ	1
18	83770181	Flow guide		1
19	87840081	Bearing bushing		1
20	2668BBDB31	Pan hd. screw	M5X0.8-65	2
21	2502ABC408	Spring washer	ø5	2
22	2504MBC005	Ext. tooth lock washer	ø5	2
23A	83770231A1	Field ass'y		1
24	280655541J	Lead wire ass'y		1
25	280655549H	Lead wire ass'y		1
26	83775251	Motor housing	M5X0.8-50	1
27	2621BBDB39	Pan hd. screw & washer	M5X0.8-12	2
28	2603BBLA24	Hex. soc. set screw	M5X0.8-25	2
29	2821BBDB12	Pan hd. screw & washer		2
30A	83962491A1	Brush holder ass'y		2
31A	83990291A1	Brush ass'y		2
32	83990301	Brush cover		2
33	83770331	Motor nameplate		1
34	2506MBN663	Wave washer	BWW6203	1
35	2502ABC408	Spring washer	ø5	3

