

Owner's Manual

CRAFTSMAN^{MD}

2 HP (Max. Developed)

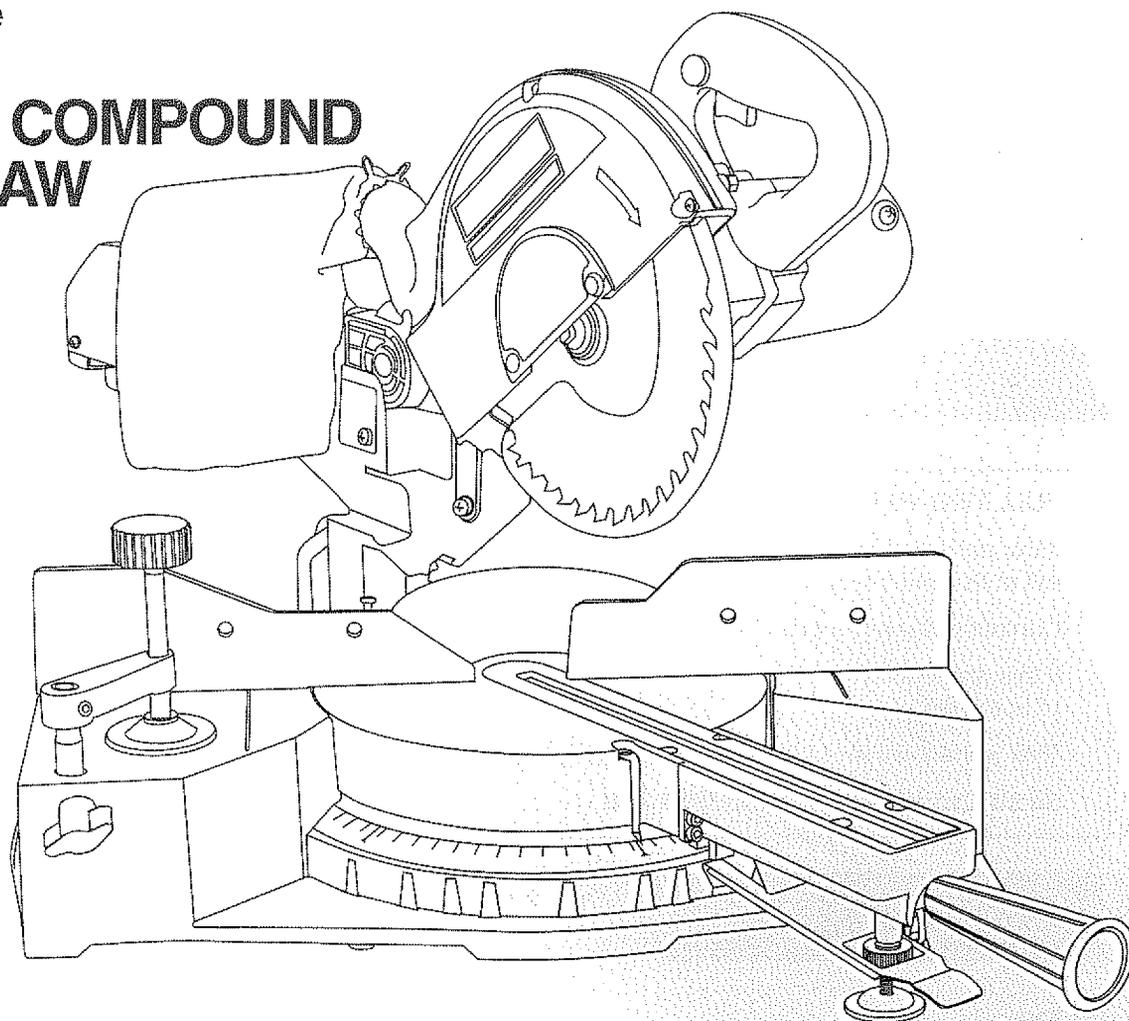
8-1/2" Blade

5000 R.P.M.

SLIDING COMPOUND MITRE SAW

137.285941

137.212940 (US)



CAUTION:

Before using this mitre saw, read this manual and follow all its Safety Rules and Operating Instructions.

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

Customer Help Line
1-800-843-1682

Sears Canada Inc., Toronto M5B 2B8
Part No. 137285941001

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WARRANTY

FULL TWO YEAR WARRANTY

If this product fails due to a defect in material or workmanship within two years from the date of purchase. Sears will at its option repair or replace it free of charge.

Contact a Sears Service Center for repair.

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

This warranty is in addition to any statutory warranty.

Sears Canada Inc., Toronto M5B 2B8

PRODUCT SPECIFICATIONS

MOTOR

Power source	120 V AC, 60 HZ, 10 AMPS
Horsepower	2 HP (Max. Developed)
Speed	5000 R.P.M.
Brake	Electric
Double insulated	Yes

CUTTING CAPACITY

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

MITRE DETENT STOPS 0, 15, 22.5, 31.6,
45° R & L, 60° R

BEVEL POSITIVE STOPS 0°, & 45° L

CARRIAGE SYSTEM 3 Rail, ball bearing slide

BLADE SIZE 8-1/2"

ARBOR SIZE 5/8"

TABLE DIAMETER 10-1/2"

BASE SIZE 20-3/4" x 12"

DUST COLLECTION Yes

WISE CLAMP Yes

⚠ 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.

SAFETY

GENERAL SAFETY INSTRUCTIONS

BEFORE USING THE SLIDING MITRE SAW

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

⚠ WARNING

To avoid mistakes that could cause serious injury, do not plug the mitre 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 lighted.
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.



ALWAYS WEAR EYE PROTECTION. Any mitre 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 blade or cutter against the direction of the 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. Dust generated from certain materials can be hazardous to your health. Always operate the mitre saw in a well-ventilated area and provide for proper dust removal. Use dust collection systems whenever possible.

SPECIFIC SAFETY INSTRUCTIONS FOR SLIDING MITRE SAWS

1. **READ AND UNDERSTAND** all safety instructions and operating procedures throughout the manual.
2. **DO NOT** operate the mitre saw until it is completely assembled and installed according to the instructions.
3. **SHOULD** any part of your mitre 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 mitre 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 mitre, bevel, and cutting head positions.
9. **CHOOSE** the right 8-1/2" 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 Centre. 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 5000 RPM or greater.
18. **ALWAYS** keep the blade guards in place.
19. **TO KEEP** the 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 mitre 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 mitre 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. **TO AVOID POSSIBLE PERSONAL INJURY** or damage to the miter saw due to tipping, do not operate the saw without the support bracket securely in position.
32. **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.
33. **ALLOW** the motor to come up to full speed before starting cut.
34. **KEEP** the motor air slots clean and free of chips.
35. **NEVER** apply lubricants to the blade when it is running.
36. **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.
37. **NEVER** use the mitre saw in an area with flammable liquids or gases.
38. **NEVER** use solvents to clean plastic parts. Solvents could possibly dissolve or otherwise damage the material.
39. **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. The clamp can be used in a left or right configuration. Make sure that your blade, saw guard or motor does not interfere with the clamp. Correct any interference before use.
40. **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.

BEFORE EACH USE

41. **INSPECT YOUR MITRE SAW.**
42. **DISCONNECT THE MITRE 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 stop screw.
43. **CHECK FOR DAMAGED PARTS.** Check for:
 - **PROPER** alignment of moving parts
 - **DAMAGED** electric cords
 - **BINDING** of moving parts
 - **BROKEN** parts
 - **STABLE** mounting

SAVE THESE INSTRUCTIONS

- **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**.
 - **SMOOTH**, solid movement of sliding assembly.
 - **OTHER** conditions that may affect the way the mitre saw works. If any part of the mitre 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.
44. **KEEP GUARDS IN PLACE**, in working order, and in proper adjustment. Maintain tools with care. Keep the mitre saw clean for best and safest performance. Follow instructions for lubricating. **DON'T** put lubricants on the blade while it's spinning.
 45. **REMOVE** adjusting keys and wrenches from the tool before turning it on.
 46. **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 Centre.
 47. **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 mitre saw on.
 - **SECURE WORK.** Use clamps or a vise to help hold the work when it is practical.
48. **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 mitre 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

49. **BEFORE STARTING** your cut, watch the mitre 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.
50. **KEEP CHILDREN AWAY.** Keep all visitors a safe distance from the mitre saw. Make sure bystanders are clear of the mitre saw and workpiece.
51. **LET THE BLADE** reach full speed before cutting. This will help avoid thrown workpieces.
52. **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.
53. **BEFORE FREEING JAMMED MATERIAL:**
- **TURN** mitre saw OFF by releasing trigger switch.
 - **WAIT** for all moving parts to stop.
 - **UNPLUG** the mitre saw.
54. **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.
55. **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.
56. **NEVER** unplug the saw with the switch in the ON position.
57. **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

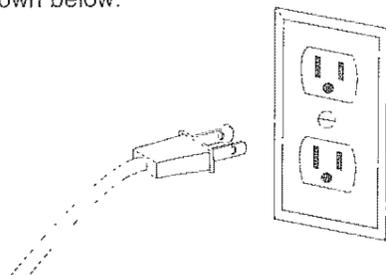
To avoid electrical hazards, fire hazards, or damage to the tool, use proper circuit protection. Your saw is wired at the factory for 120V operation. Connect to a 120V, 15 Amp circuit and use a 15 Amp time delay fuse or circuit breaker. To avoid shock or fire, if power cord is worn or cut, or damaged in any way, have it replaced immediately.

DOUBLE INSULATED

The mitre 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

Double insulation does not take the place of normal safety precautions when operating this tool.

WARNING

To avoid electrocution:

1. Use only identical replacement parts when servicing a tool with double insulation. Servicing should be performed by a qualified technician.
2. Do not use power tools in wet or damp areas or expose them to rain. This tool is intended for indoor use only.

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.

WARNING

This sliding mitre saw is for indoor use only. Do not expose to rain or use in damp locations.

SAVE THESE INSTRUCTIONS

ACCESSORIES AND ATTACHMENTS

PROHIBITED ACCESSORIES

▲ WARNING

Use only accessories recommended for this sliding mitre saw. Follow instructions that accompany accessories. Use of improper accessories may cause hazards.

The use of any cutting tool except 8-1/2 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.

▲ WARNING

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.

RECOMMENDED ACCESSORIES

Visit your Sears Hardware Department or see the Sears Power and Hand Tool Catalogue for the following accessories:

ITEM

Blades: 8-1/2" Diameter, 5000 RPM, 5/8" Arbor

Dust bag

Safety goggles, hearing protection, dust respirators

Power tool manuals

BASIC BLADES RECOMMENDED FOR MITRE SAWS

8-1/2" Carbide tipped combination blade

8-1/2" Steel combination blade

8-1/2" Trim/fine finish blade

8-1/2" Crosscut blade

▲ 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 from unexpected starting or electrical shock, 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.

Carefully unpack the sliding mitre 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 mitre saw by the cutting head handle. Remove the saw from the carton by lifting with the hand-holds at the base of the saw body. Damage to the insulation or wire connections could cause fire.
3. Place the saw on a secure, stationary work surface and look the saw over carefully.

▲ WARNING

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

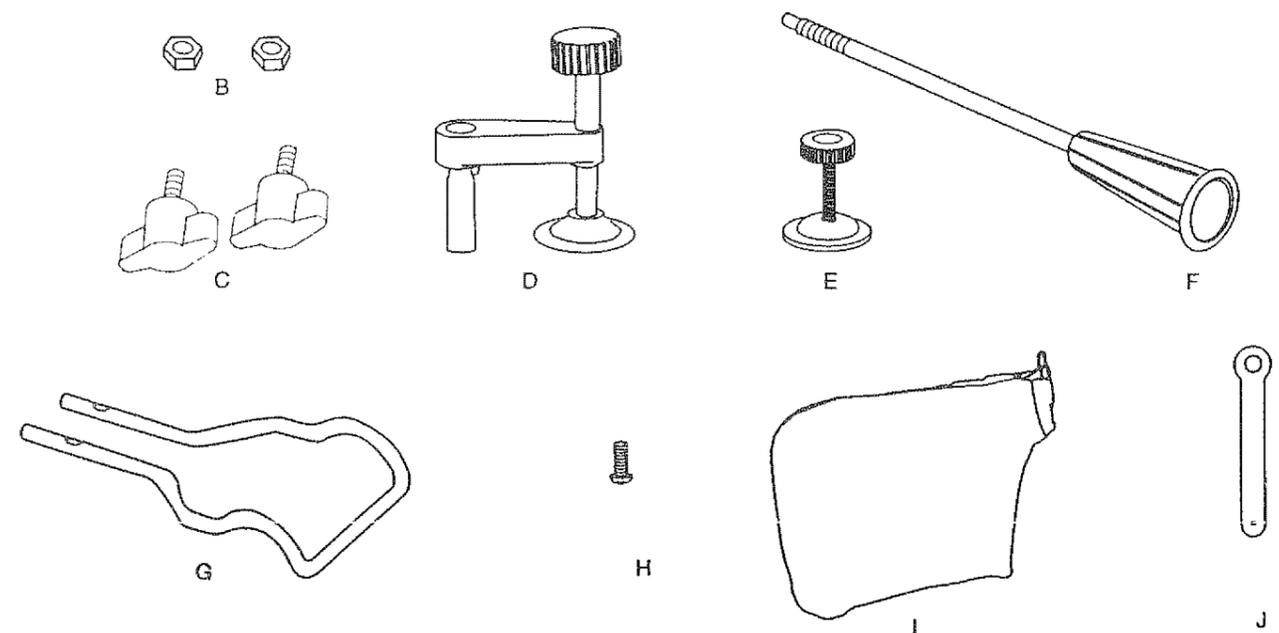
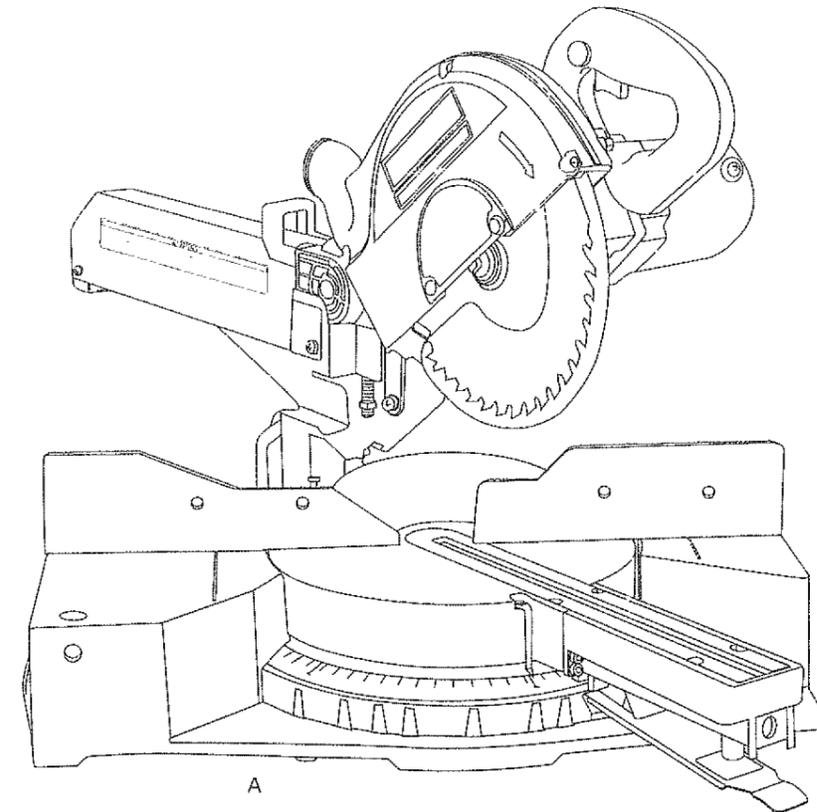
▲ WARNING

If any part is missing or damaged, do not plug the sliding mitre 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.

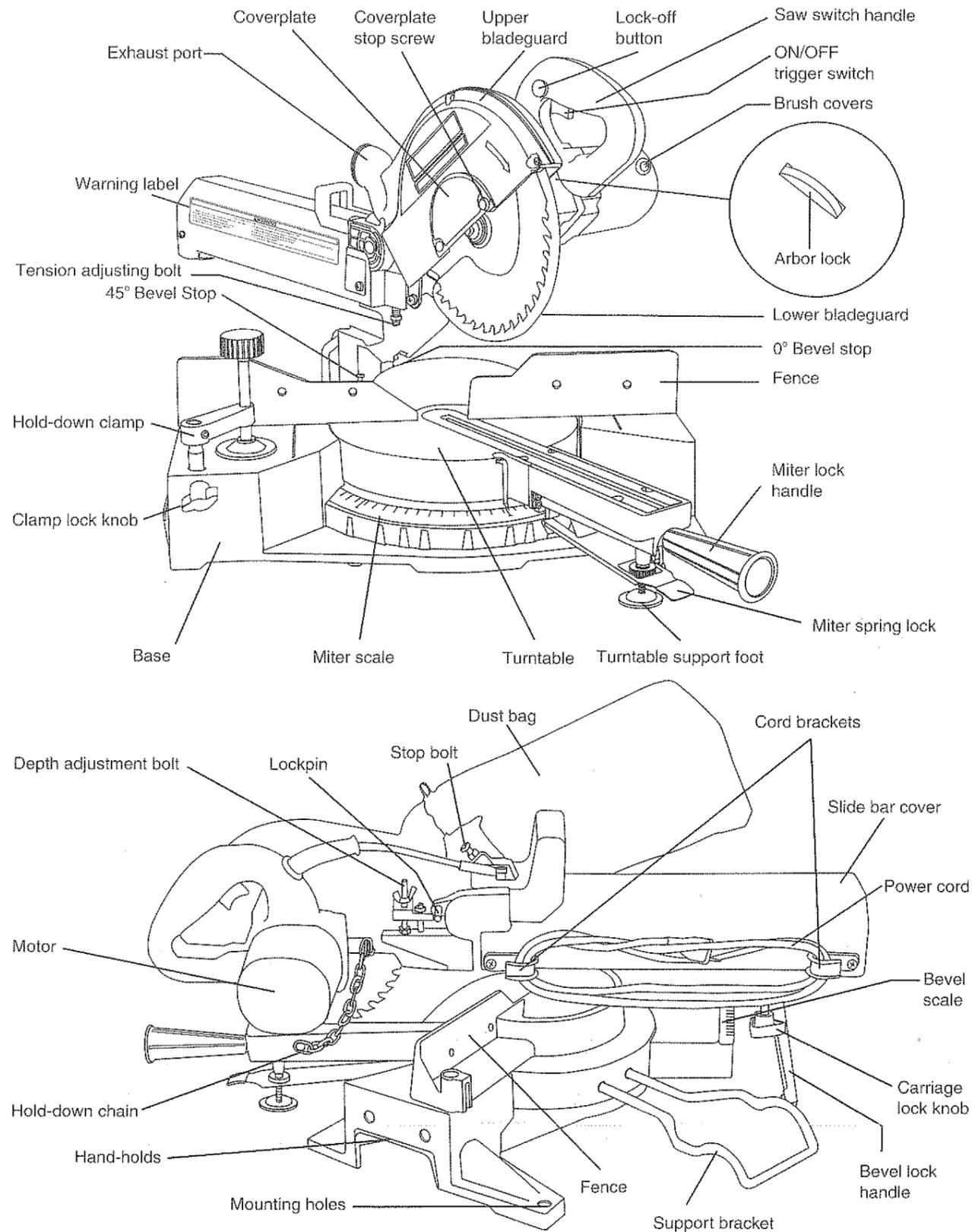
TABLE OF LOOSE PARTS

ITEM	DESCRIPTION	QUANTITY
A.	Sliding miter saw	1
B.	Hex nuts	2
C.	Triangle knobs	2
D.	Hold-down clamp	1
E.	Turntable support foot	1
F.	Miter lock handle	1
G.	Support bracket	1
H.	Screws	1
I.	Dust bag	1
J.	Blade wrench	1

UNPACKING YOUR COMPOUND SLIDING MITRE SAW



KNOW YOUR SLIDING MITRE SAW



GLOSSARY OF TERMS

CRAFTSMAN SLIDING COMPOUND MITRE 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 LOCK HANDLE – Locks the mitre 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 KNOB – 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 when properly attached with the cover plate stop screw.

COVER PLATE STOP SCREW – Allows the cover plate to be rotated to the rear for blade removal and replacement.

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

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

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.

HOLD-DOWN CHAIN – Holds the product down during shipment to avoid damage to handle and motor. Remove completely prior to completing assembly, adjustments and turning on saw.

HOLD-DOWN CLAMP – Helps secure the workpiece to the table for precise cutting.

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

LOCK PIN – Locks the mitre 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.

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

MITRE SCALE – Measures the mitre angle of the saw blade. Positive stop index points have been provided at 0, 15, 22.5, 31.6, and 45° right and left, and 60° right.

MITRE SPRING LOCK – With the mitre lock handle, locks the turn table at the desired angle.

MOUNTING HOLES – Provides a means of mounting the sliding mitre 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 depressed to activate the trigger and turn the saw ON. Release the trigger to turn the saw OFF. This switch can accommodate a padlock (not provided) with a shackle of up to 1/4" in diameter to prevent unauthorized use.

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.

TABLE – Sits in the base, supports the workpiece, and allows rotation for mitre cutting.

TURNTABLE SUPPORT FOOT – Supports table arm when wide, heavy boards are placed on the table, to help keep the workpiece from moving away from the fence.

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

WARNING LABEL – 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 mitre cut.

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

FREEHAND – To perform a cut without using a fence or other proper device.

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.

MITRE 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.

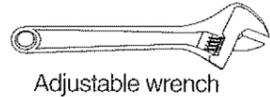
WORKPIECE – The item being cut. The surfaces of a workpiece are commonly referred to as faces, ends, edges.

ASSEMBLY AND ADJUSTMENTS

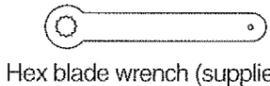
ASSEMBLY INSTRUCTIONS

TOOLS NEEDED

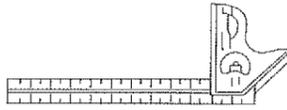
Tools required for adjustments:



Adjustable wrench



Hex blade wrench (supplied)



Combination square



Phillips screwdriver

WARNING

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

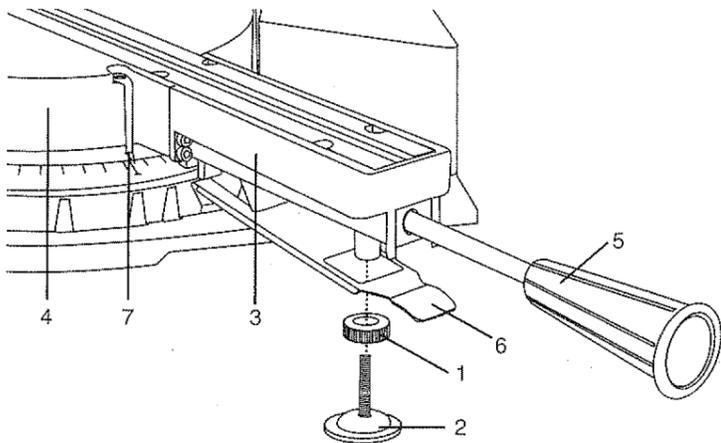
WARNING

To avoid injury, saw misalignment, and electrical problems when moving tool from one location to another location lock the carriage lock knob and lift saw by the carry handle, or by the hand-hold openings on both ends of the base, using both hands.

INSTALLING THE TURNTABLE SUPPORT FOOT (FIG. A)

1. Locate the adjusting nut (1) and turntable support foot (2).
2. Carefully thread the adjusting nut onto support foot and screw the assembly into the hole under the control arm (3) of the turntable (4).

Fig. A



INSTALLING THE MITRE LOCK HANDLE (FIG. A)

1. Carefully screw the mitre lock handle (5) clockwise into hole of the control arm (3) located at the front of the turntable, and tighten.
2. To unlock the turntable from its set position, loosen the mitre lock handle by turning 1/4 turn or more counterclockwise. Squeeze the mitre spring lock lever (6), move the control arm (3), and set the indicator (7) to 0°.
3. To lock, tighten mitre lock handle (5) by turning clockwise.

INSTALLING THE HOLD-DOWN CLAMP ASSEMBLY TO SAW (FIG. B and C)

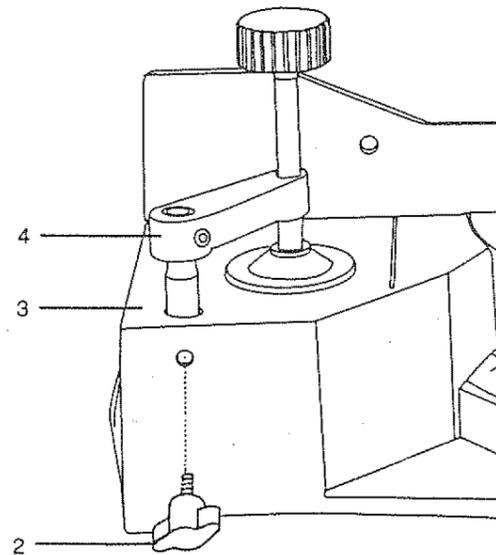
A hold-down clamp assembly is commonly used on the left side of the saw base to support the workpiece. The assembly location is determined by the thickness and width of the workpiece. A clamp is usually positioned on the table for narrow and thin woodstock and in the mounting hole on the left side of the fence for thicker and wider boards.

NOTE: An additional hold-down clamp accessory may be purchased to secure the workpiece on the right side for long pieces of wood. This reduces the possibility of the workpiece lifting near the blade during a cutting operation.

Hold-down clamp on table (FIG. B)

1. Tighten the lock knob bolt (2) and screw the lock knob bolt partially into the hole in the front side of the saw base (3).
2. Insert the rod of the hold-down clamp assembly (4) into the hole on the top of the saw base, and tighten the lock knob bolt securely.
3. Tighten the hex nut securely against the saw base.

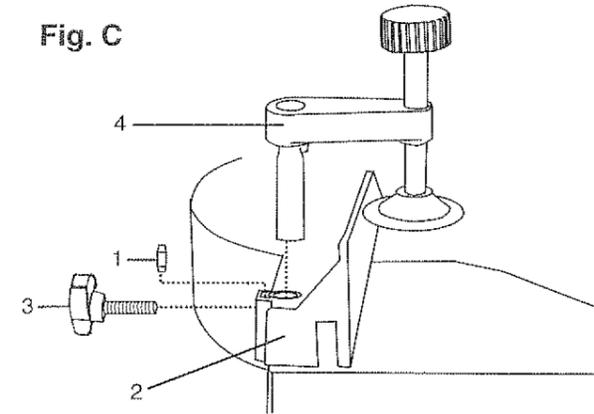
Fig. B



Hold-down clamp on fence (FIG. C)

1. Position the hex nut (1) into the rectangular hole on the backside of the fence (2).
2. Insert the lock knob bolt (3) through the slotted hole and thread it through the hex nut, as shown.
3. Insert the rod of the hold-down clamp assembly (4) into the round hole and tighten the lock knob bolt (3).
4. These lock knob bolts and hex nuts can be screwed into the fence post hole or stored for later use.

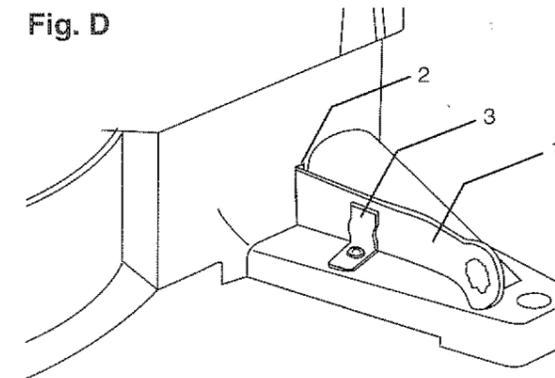
Fig. C



SAW BLADE WRENCH (FIG. D)

Store the blade wrench (1) by sliding the small end of the wrench into the saw housing slot (2), and position behind the storage clip (3) to prevent loss.

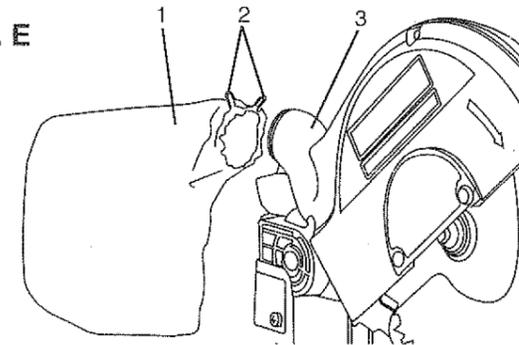
Fig. D



INSTALLING THE DUST BAG (FIG. E)

1. To install the dust bag (1), squeeze the metal collar wings (2).
2. Place the dust bag neck opening around the exhaust port (3), and release the metal collar wings.

Fig. E



REMOVING OR INSTALLING THE BLADE (FIG. F, G, H)

WARNING

To avoid injury, only use blades recommended for this saw, with the proper diameter of 8 1/2 inches and designed for blade speeds not less than 5000 RPM.

WARNING

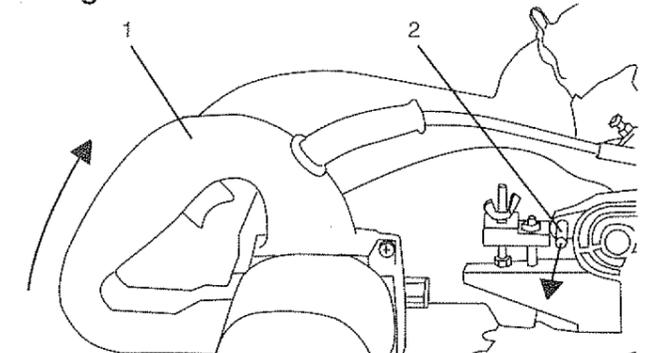
To avoid injury from an accidental start, make sure the switch is in the OFF position and the plug is not connected to the power source receptacle.

CAUTION: To avoid cuts from extremely sharp teeth on blades, wear gloves when installing or removing blades.

Removing blade

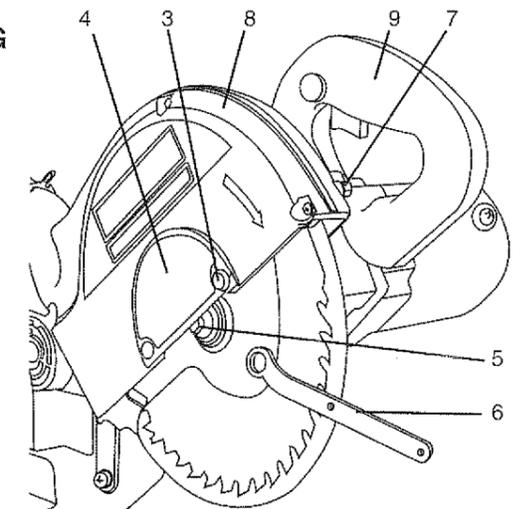
1. Unplug the saw from the power source receptacle.
2. Allow the cutting head assembly (1) to rise to the upright position by pulling the lock pin (2), outward. (FIG. F)

Fig. F



3. Loosen the cover plate screw (3) with a screwdriver.
4. Rotate the cover plate (4), upward to expose the arbor screw nut (5).
5. Place the hex end of the blade wrench (6) (provided) over the arbor screw (5).
6. Locate the arbor lock (7) between the upper blade guard (8) and the mitre saw switch handle (9). (FIG. G)

Fig. G



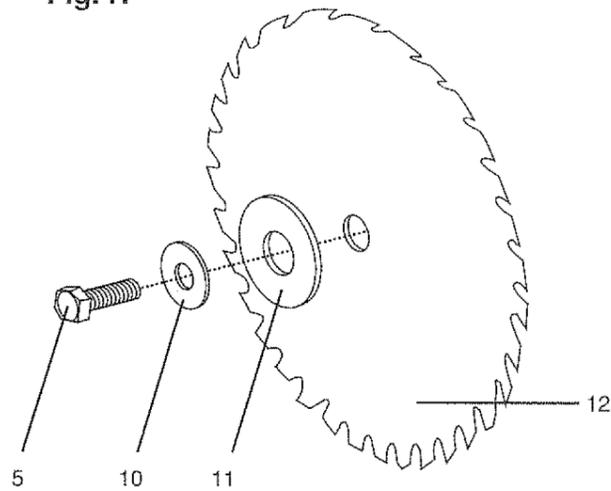
- Press the arbor lock (7), holding it in firmly while turning the blade wrench clockwise. The arbor lock will engage after turning the wrench. Continue to hold the arbor lock in to keep it engaged, while turning the wrench clockwise to loosen the arbor screw (5).

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.

- Raise the lower blade guard. Remove the arbor screw (5), arbor washer (10), outer blade collar (11), and remove the blade (12). Do not remove the inner blade collar. (FIG. H)

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 blades.

Fig. H



Installing blades (FIG. F, G, H)

- Raise the lower blade guard.
- Install the 8 1/2" blade (12), making sure the rotation arrow on the blade matches the clockwise rotation arrow on the upper blade guard.
- Place the arbor washer (10) on the arbor screw (5). Install the outer blade collar (11), the arbor washer, and arbor screw.

CAUTION: Make sure the recessed side of the blade collar is facing the blade.

- Place the blade wrench on the arbor screw.
- Press the arbor lock (7), holding it in firmly while turning the blade wrench counterclockwise. When it engages continue to press the arbor lock in, while tightening the arbor screw securely.
- Rotate the cover plate (4) back until the slot in the cover plate engages with the cover plate screw (3). Tighten the screw with a screwdriver.
- Be sure the arbor lock is released so the blade turns freely.

▲ WARNING

To avoid serious injury or death, do not use the saw without the cover plate securely in place. It keeps the arbor screw from falling out if it accidentally loosens, and helps prevent the spinning blade from coming off the saw.

▲ 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. I)

▲ WARNING

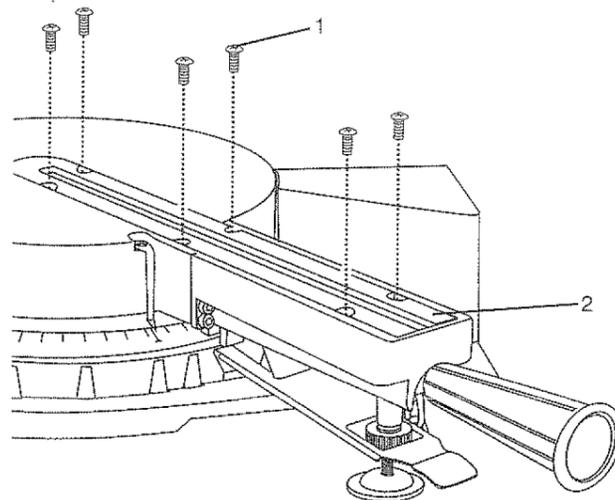
To avoid injury, do not start the sliding compound mitre saw without checking for interference between the blade and table insert. Damage could result to the blade, table insert or turntable if blade strike occurs during the cutting operation.

▲ WARNING

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

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

Fig. I



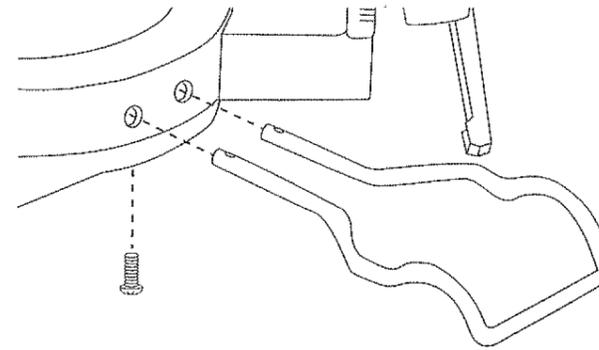
▲ WARNING

To avoid possible personal injury or damage to the miter saw due to tipping, do not operate the saw without the support bracket securely in position.

INSTALLING THE ANTI-TIP SUPPORT (FIG. K)

- Insert each foot of the anti-tip support in the holes on the rear of the base.
- Tighten the anti-tip support with two screws supplied.

Fig. K



ADJUSTMENTS INSTRUCTIONS

▲ WARNING

To avoid injury from an accidental start, make sure the switch is in the OFF position and the plug is not connected to the power source receptacle.

CONTROL ARM OR MITRE ADJUSTMENT (FIG. L)

The sliding compound mitre saw scale can be easily read showing mitre angles from 0 to 45° to the left and right, and 0 to 60° 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:

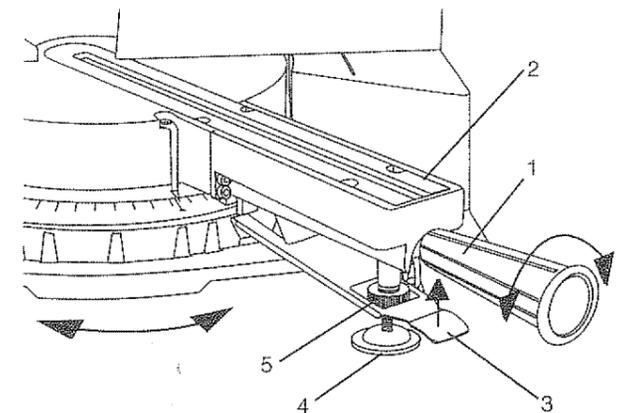
- Release the turntable mitre lock handle (1) at the front of the control arm (2) by turning the knob counterclockwise 1/4 turn.

- While holding the lock handle (1), lift and squeeze the mitre spring lock (3). Move the turntable control arm to the desired position.
- To lock the turntable into position, release the mitre spring lock (3), and turn the mitre lock handle (1) clockwise until tight.

NOTE: The control arm should be supported, using the turntable support foot, for the safest and most accurate cuts of thicker and wider boards.

- Turn the support foot (4) clockwise until the foot seats against the surface of the bench.
- Tighten the adjusting nut (5) counterclockwise and lock the support foot securely.

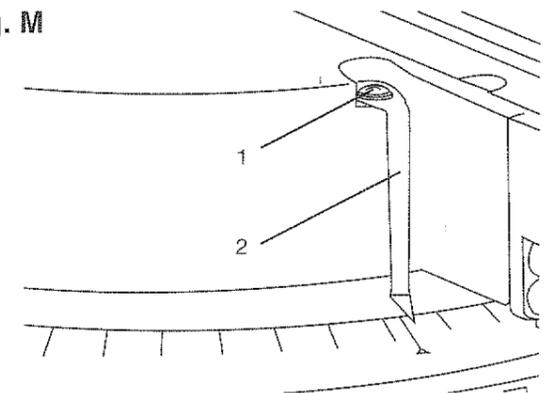
Fig. L



ADJUSTMENT OF MITRE SCALE INDICATOR (FIG. M)

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

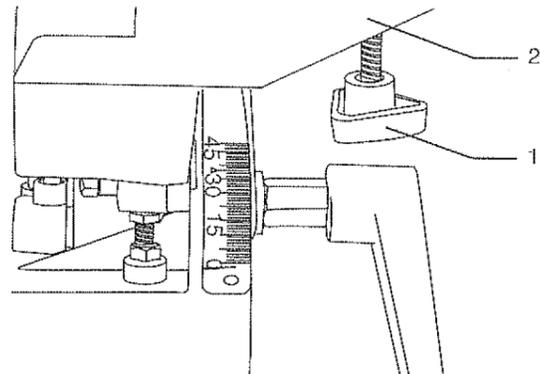
Fig. M



LOCKING AND UNLOCKING THE SLIDING CARRIAGE SYSTEM (FIG. N)

1. Loosen, clockwise, the sliding carriage lock knob (1) located under 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 knob counterclockwise.
3. To cut wide boards up to 11-1/2", the carriage lock knob may be loose to permit the cutting head to slide freely.

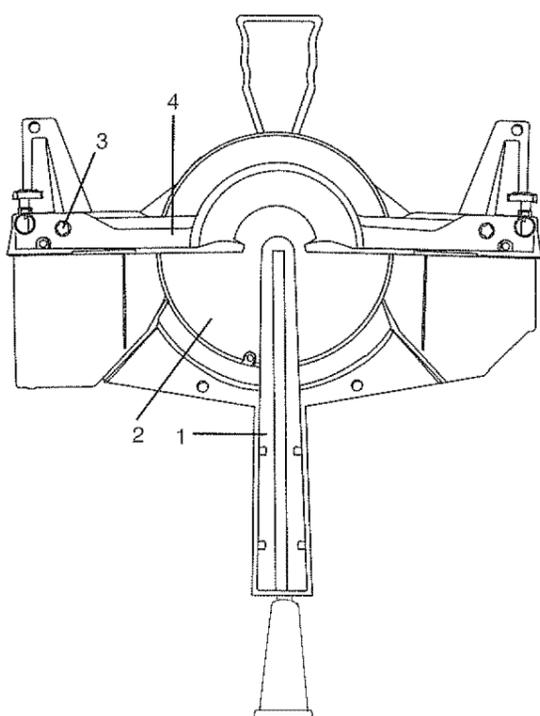
Fig. N



CHECKING AND ADJUSTING BLADE SQUARENESS TO FENCE (MITRE ALIGNMENT) (FIG. O, P, Q)

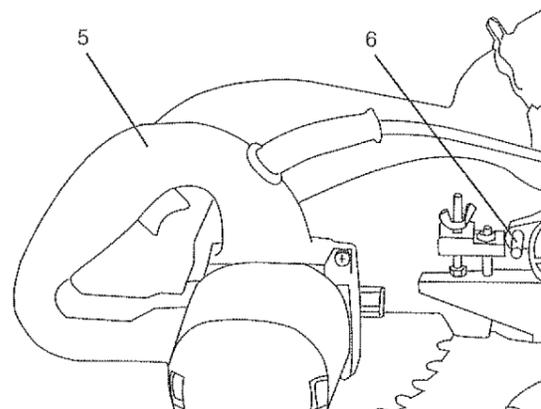
1. Position the control arm (1) to the 0° mitre position, perpendicular to the saw base (2).
2. Loosen the two fence locking screws (3) one full turn until the fence (4) is loose. (FIG. O)

Fig. O



3. Lower the saw blade and lock the cutting head assembly (5) in the down position with the stop pin (6), as shown. (FIG. P)

Fig. P



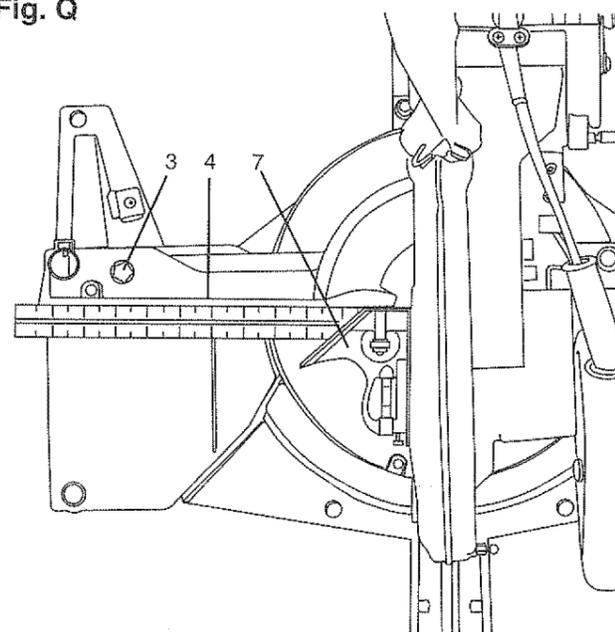
4. Using a combination square (7), lay the heel of the square against the blade, and the rule against the fence (4) as shown. Check to see if the fence is 90° to the blade.
5. If an adjustment is necessary, shift the fence forward or backward until the fence is square to the blade. Tighten the two fence locking screws (3). (FIG. Q)

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



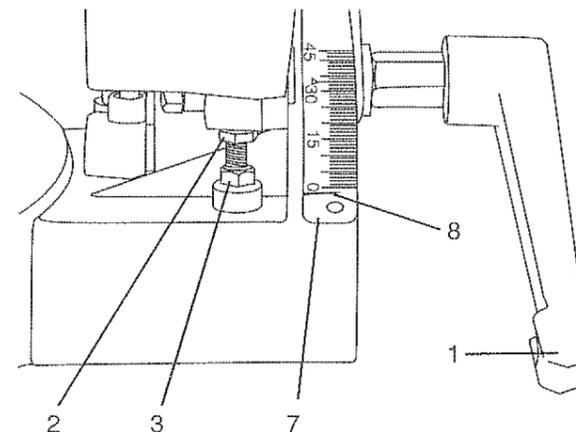
BEVEL STOP ADJUSTMENTS

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

90° Adjustment (FIG. R, S)

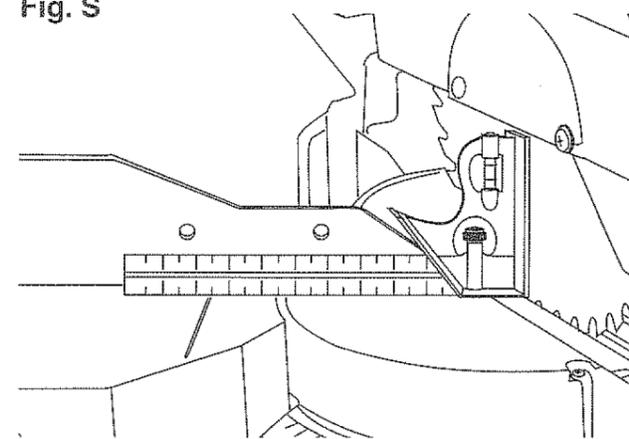
1. Loosen the bevel lock handle (1) and tilt the cutting arm completely to the right. Tighten the bevel lock handle. (FIG. R)

Fig. R



2. Using a combination square, place the square rule on the turntable and the heel against the blade. Check that the blade is 90° to the table. (FIG. S)

Fig. S

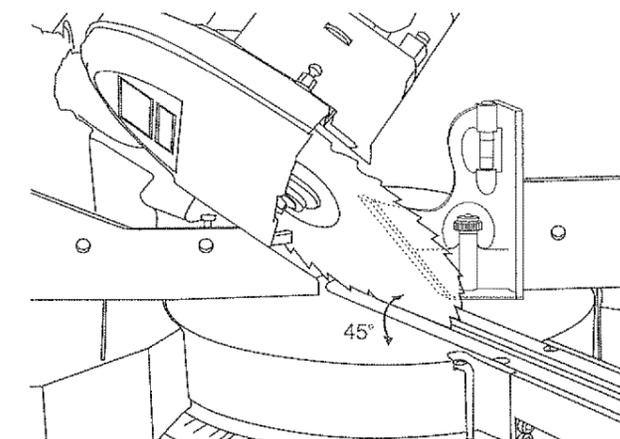


3. To adjust, loosen the locknut (2), and turn the screw (3) until the top of the screw contacts the housing when the blade is 90° to the table. Tighten the lock nut. (FIG. R)

45° Bevel adjustment (FIG. T, U, R)

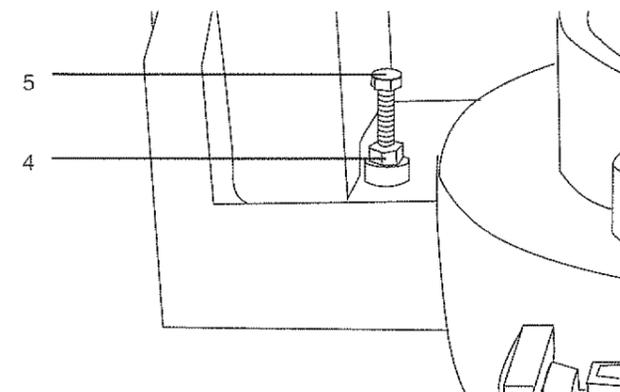
1. Loosen the bevel lock handle and tilt the cutting head completely to the left position. Tighten the bevel lock handle.
2. Using the combination square, check if the blade is at a 45° angle to the table. (FIG. T)

Fig. T



3. To adjust, loosen the locknut (4) and turn the screw (5) until the top of the screw contacts the housing when the blade is at 45° to the table. Tighten the lock nut. (FIG. U)
4. Positive stops enable you to position the blade at exact angles to the table.
5. Readjust the bevel indicator (7) using a screwdriver. Adjust the indicator so the hairline (8) aligns with the 45° line on the scale. (FIG. R)

Fig. U

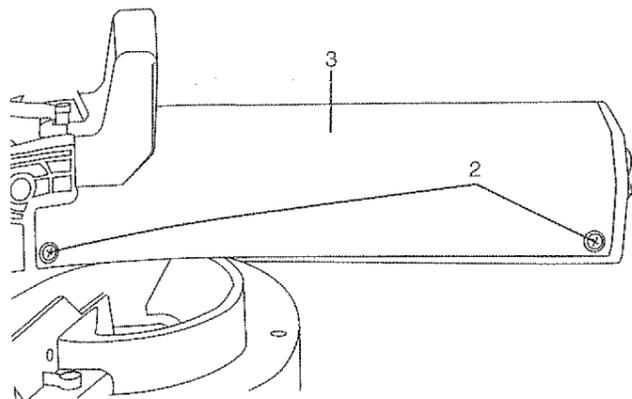


CARRIAGE SLIDING BAR ADJUSTMENT (FIG. V, W)

Extended use may require periodic adjustment to the slide bar (1) if loosened through vibration. Never operate the tool if any components are loose.

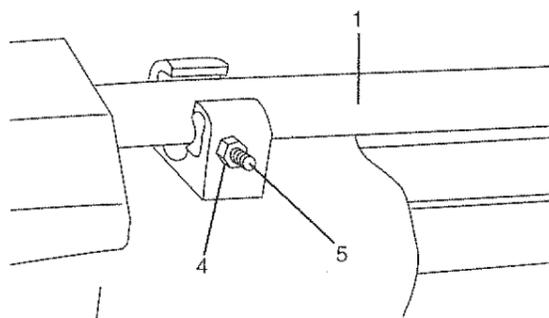
1. Remove the four screws (2) on both sides of slide bar cover (3). (FIG. V)

Fig. V



2. Loosen the two nuts (4), and tighten two hex. socket set screws (5) until the carriage operates smoothly without looseness.
3. Properly tighten two hex nuts (4) after completing adjustments. (FIG. W)
4. Replace the slide cover (3) and tighten the four screws (2).

Fig. W

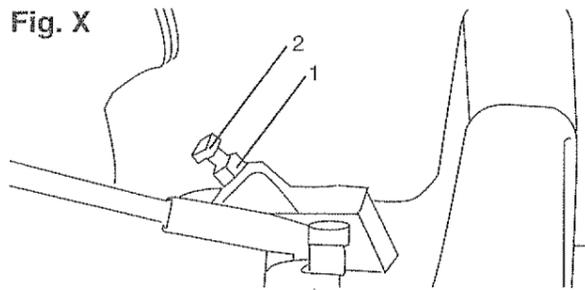


CUTTING HEAD ASSEMBLY TRAVEL ADJUSTMENT (FIG. X)

The distance the cutting head will travel upward when released after a cut can be adjusted.

1. Loosen the lock nut (1) behind the exhaust port.
2. Turn the hex bolt (2) counterclockwise to reduce the height the cutting head will travel.
3. Turn the hex bolt clockwise to increase the height of travel.
4. Tighten lock nut. When adjusting the height, make sure the cutting head housing contacts the stop bolt (2) when raised, to provide a positive stop.

Fig. X

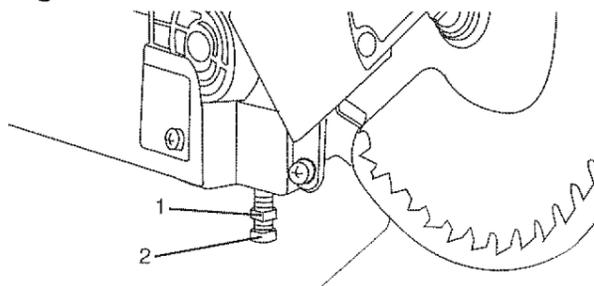


CUTTING HEAD ASSEMBLY PIVOT ADJUSTMENT (FIG. Y)

The cutting head should rise completely to the highest position by itself when the locking pin is pulled out. To check this, hold the cutting head down, make sure the lock pin is not engaged and see if the saw will rise by itself. If not:

1. Loosen the lock nut (1) and tighten the hex head bolt (2), clockwise to apply more pressure on the spring. Retighten lock nut when desired pressure is achieved.
2. Recheck the cutting head travel. The cutting head should rise freely to its highest position.

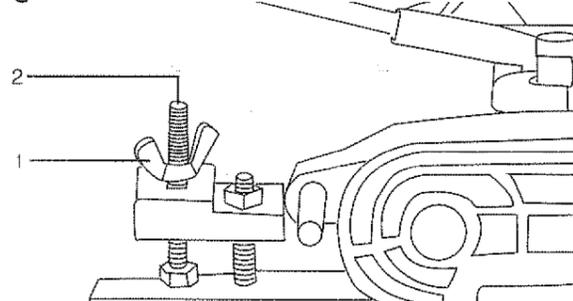
Fig. Y



CUTTING DEPTH ADJUSTMENT (FIG. Z)

1. Check the depth of cut by moving the cutting head down until the teeth of the blade extend below the throat plate 1/4".
2. Loosen the wing nut (1) and tighten or loosen the hex bolt (2). Retighten the wing nut when the desired blade depth is achieved.
3. Recheck the blade depth by moving the cutting head front to back through the full motion of a typical cut along the control arm. If the blade touches the inside of the control arm throat, readjust the setting.

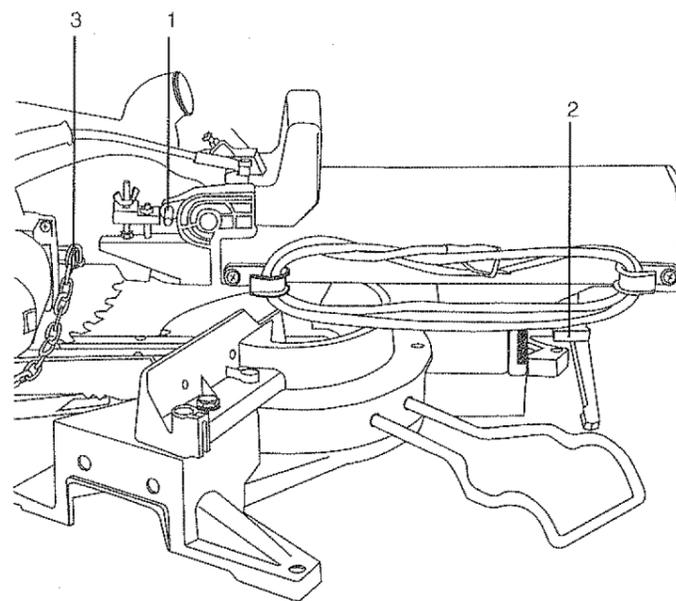
Fig. Z



MOVING AND STORING SLIDING COMPOUND MITRE SAW (FIG. AA)

When transporting this saw, the cutting head assembly should always be locked in the down position by pushing in on the lock pin (1), tightening the carriage lock knob (2), and placing the hold-down chain (3).

Fig. AA



MOUNTING THE MITRE SAW (FIG. BB)

⚠ WARNING

To avoid injury from unexpected saw movement:

- a. Before moving the saw, 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.

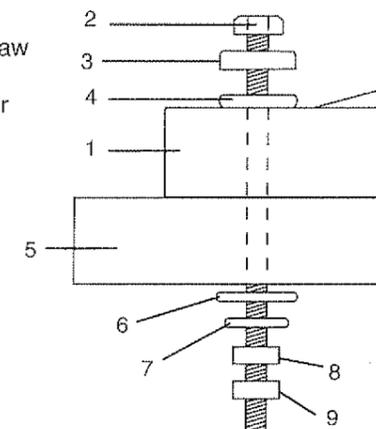
- b. Lock the slide carriage in place by tightening the carriage lock knob.
- c. To avoid back injury, lift by using the hand-hold access at the bottom of the base, or use the carry handle. Bend with your knees, not your back.
- d. Never carry the mitre saw by the power cord or by the switch handle. Carrying the tool by the power cord could cause damage to the insulation or the wire connections resulting in electric shock or fire.
- e. 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 mitre saw (1) to the worksurface (5), using the fastening method as shown in Fig. BB.

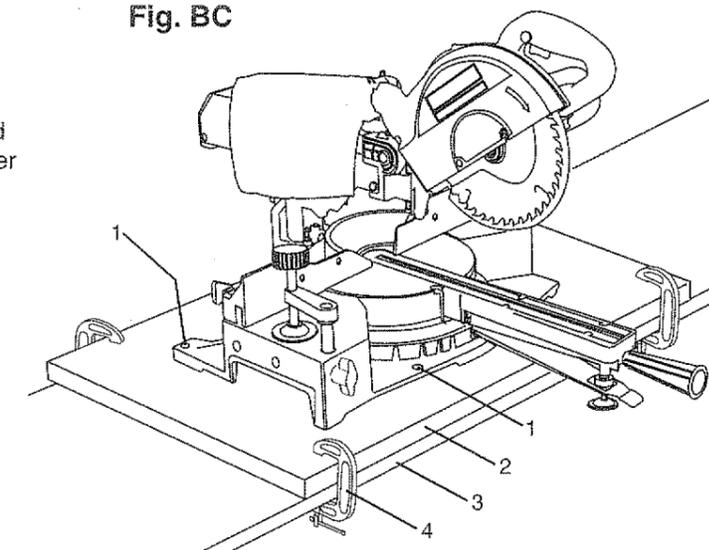
Fig. BB

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



3. For portable use, place the saw on 3/4" thick plywood (2). Bolt the base of the mitre saw securely to the plywood using the mounting holes on the base (1). Use C-clamps (4) to clamp this mounting board to a secure surface (3) at the worksite. (FIG. BC)

Fig. BC



OPERATION

▲ WARNING

Cut materials can be thrown and extensive exposure to noise can cause hearing problems; always wear safety glasses and proper hearing protection such as ear plugs when performing cutting operations.

▲ WARNING

Don't allow familiarity, gained from frequent use of your mitre saw, to result in a careless mistake. A careless fraction of a second is enough to cause a severe injury.

▲ WARNING

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.

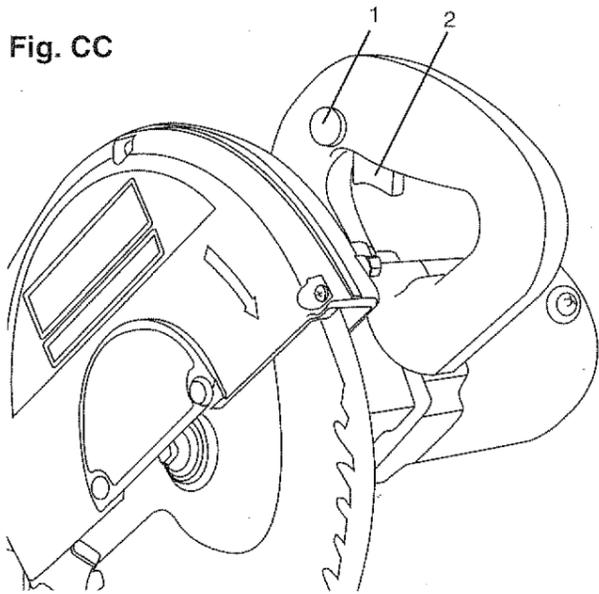
▲ WARNING

For your convenient use, 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. CC)

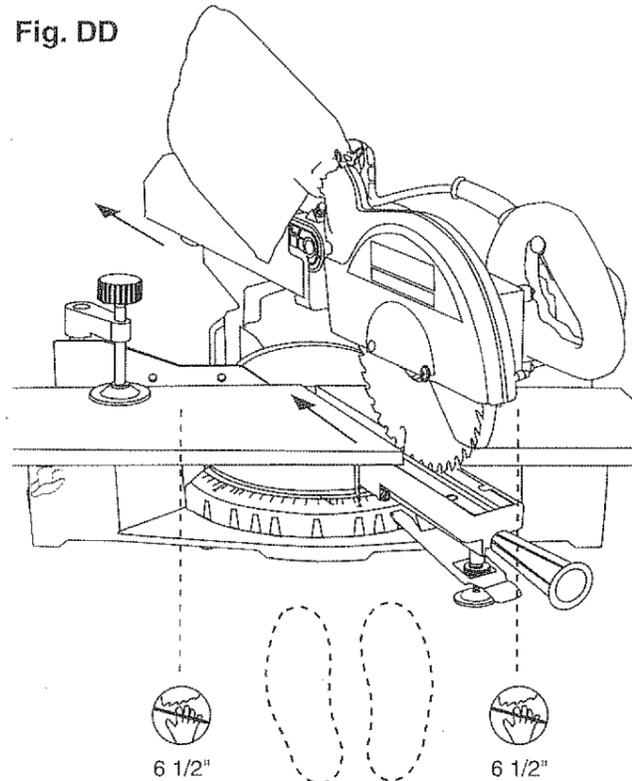
Directly below and on the switch handle is the thumb activated lock-off switch (1). It must be depressed to unlock the trigger switch (2) and start the sliding compound mitre saw.

Fig. CC



BODY AND HAND POSITIONS (FIG. DD)

Fig. DD



Proper positioning of your body and hands when operating the mitre saw will make cutting easier and safer. Use a hold-down clamp assembly, whenever possible. Never place hands near the cutting area. Place hand at least 6-1/2" away from the path of the blade. Hold workpiece firmly against the fence to prevent movement toward the blade. Keep 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.

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

Don't force 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:

- Turn switch OFF.
- Unplug the mitre saw.
- Wait for all moving parts to stop.

After finishing a cut:

- Keep holding the cutting head down.
- Release the switch, and wait for all moving parts to stop before moving your hands.
- 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 tool running unattended. Turn power OFF. Wait for all moving parts to stop and unplug the power cord from outlet. Make workshop child-proof. Lock the shop. Disconnect master switches. Store tool away from children and other unqualified users.

▲ WARNING

To avoid possible personal injury or damage to the mitre saw due to tipping, do not operate the saw without the support bracket securely in position.

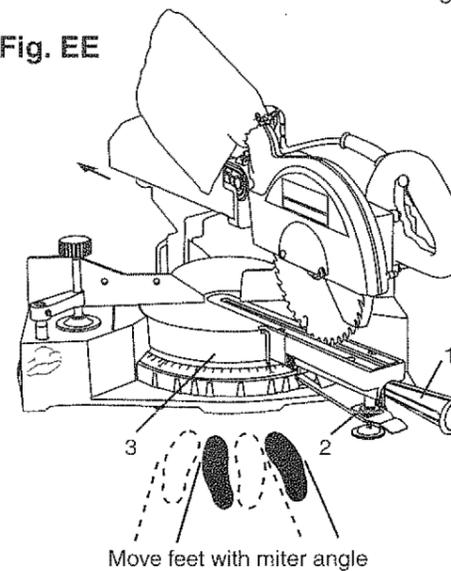
BASIC SAW OPERATIONS

MITRE CUT (FIG. EE)

The sliding compound mitre saw is equipped with positive mitre stops on the saw base below the scale and control arm of turntable. The locations are at 0, 15, 22.5, 31.6 and 45 degrees left and 15, 22.5, 31.6, 45, and 60 degrees to the right. These locations represent the most common angles for cutting operations.

- When a mitre cut is required, move the cutting head assembly to the desired mitre angle by turning the mitre lock handle (1) counterclockwise. This unlocks the mitre spring lock and table. Lift up and hold the mitre spring lock handle (2).
- Using the mitre lock handle, holding the spring lock handle up, rotate the turntable (3) to the desired mitre angle on the scale, right or left. When the table is in the desired position, release the mitre spring lock (2) and tighten the mitre lock handle (1). The table is now locked at the desired angle.

Fig. EE



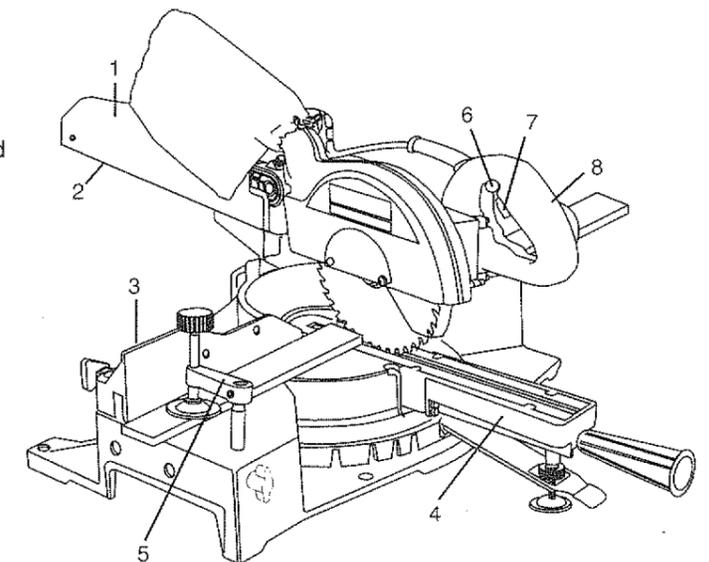
▲ WARNING

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

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

- Slide the carriage (1) to the rear position as far as it will go.
- Lock the carriage lock knob (2).
- Lock turntable lock knob (3) on fence.
- Position the cutting head to the 0° bevel position, and lock the bevel lock handle.
- Position the control arm (4) to the 0° mitre angle and lock the mitre lock handle. (Refer to mitre cut operation).
- Position the workpiece on the table and against the fence. Use a hold-down clamp (5) attached to the base or fence, whenever possible.
- Press the lock (6) on side of 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.
- When the cut is complete, release the switch and allow the blade to stop before raising the cutting head assembly.

Fig. FF



SLIDE CUTTING WIDE BOARDS - ANY ANGLE - 12" MAXIMUM CUT (FIG. GG)

⚠ 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.

⚠ WARNING

To avoid injury, pull the cutting head all the way forward, in front of the workpiece, before lowering the spinning blade. If the back of the spinning blade hits the workpiece prematurely, the upward motion of the blade could raise or twist the workpiece, causing a kickback, which may cause injury.

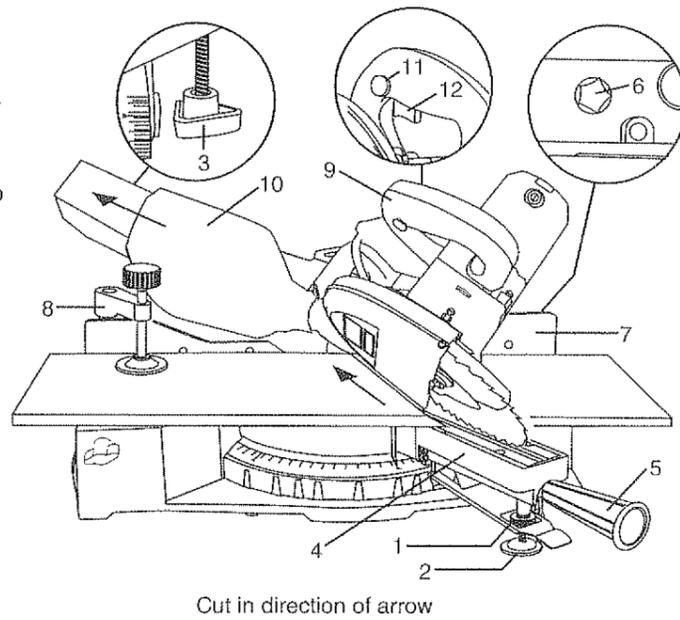
NOTE: Use the turntable support foot to help stabilize saw when cutting thick and wide boards. Loosen the adjustment nut (1) and support foot (2) until the bottom surface of the foot rests against the bench surface. Tighten the adjusting nut.

1. Unlock the carriage lock knob (3) and allow the cutting head assembly to move freely.
2. Move the control arm (4) to the desired mitre angle and lock the mitre lock handle (5).
3. Lock turntable lock knob (6) on the fence (7).
4. Use a hold-down clamp assembly (8) attached to fence to secure workpiece.
5. Grasp the saw handle (9) and pull the carriage (10) forward until the centre of the saw blade is over the front of the work piece.
6. Push in on the switch lock (11) and press the trigger (12) to turn 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 fence, completing the cut.
9. Release the trigger and allow the blade to stop spinning before allowing the cutting head to raise.

⚠ WARNING

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

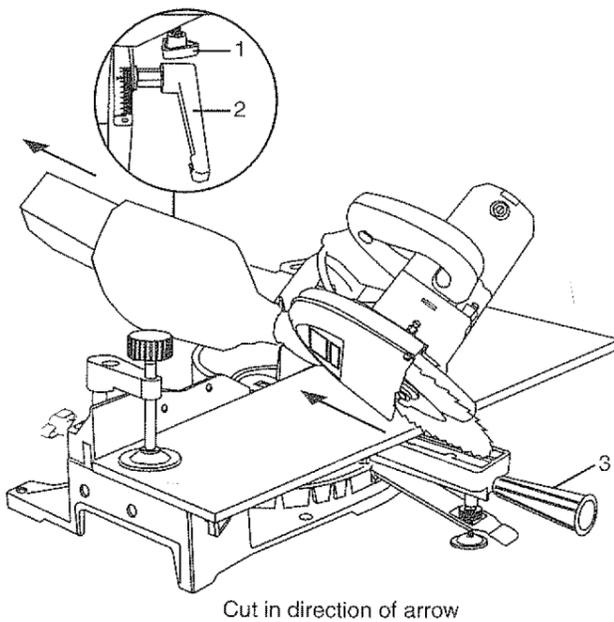
Fig. GG



BEVEL CUT (FIG. HH)

1. Position the carriage to the rear and tighten the carriage lock knob (1).
2. Loosen the bevel lock handle (2).
3. Tilt the blade to the desired bevel angle, 0 to 45 degrees.
4. Tighten the bevel lock handle.
5. Tighten the mitre lock handle (3).
6. Position the workpiece on table and tighten the hold-down clamp to secure the wood.
7. Stand to the left side of the handle to make the cut.

Fig. HH



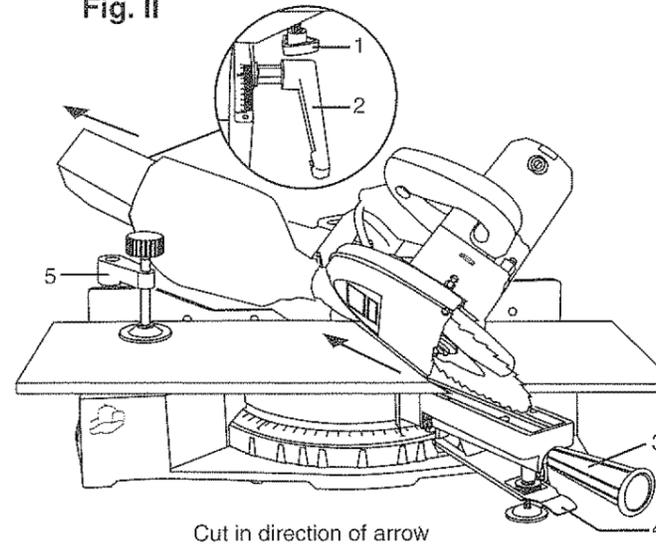
COMPOUND CUT (FIG. II)

⚠ WARNING

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

1. Position the carriage to the rear position and tighten the carriage lock (1).
2. Select the correct bevel and mitre position (follow procedure of MITRE CUT and BEVEL CUT).
3. Lock the bevel lock handle (2).
4. Lock the mitre spring lock (4) and tighten the mitre lock handle (3).
5. Position the workpiece and secure to the table by tightening the hold-down clamp (5).
6. Press the lock-off button on the handle and press the trigger switch.
7. Push the handle down, slowly, to complete the cut.
8. Release switch and allow the blade to stop before raising the cutting head.

Fig. II



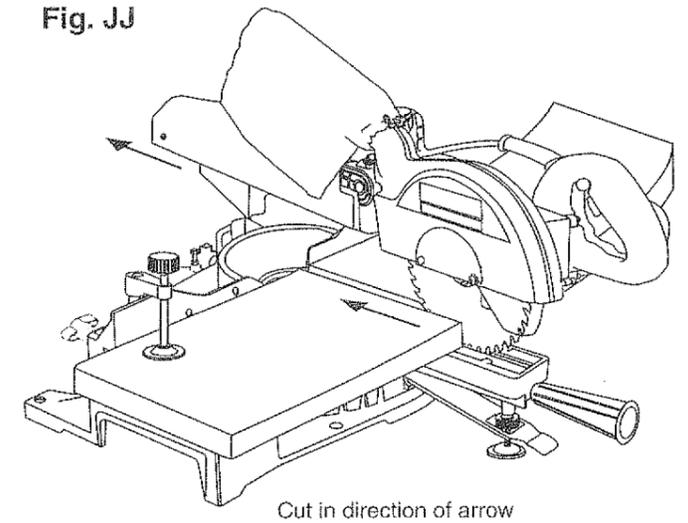
CUTTING BOWED MATERIAL (FIG. JJ)

⚠ WARNING

To avoid injury from materials being thrown, unplug saw to avoid accidental starting; and then remove small materials from the control arm cavity prior to the next cutting operation. 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. JJ



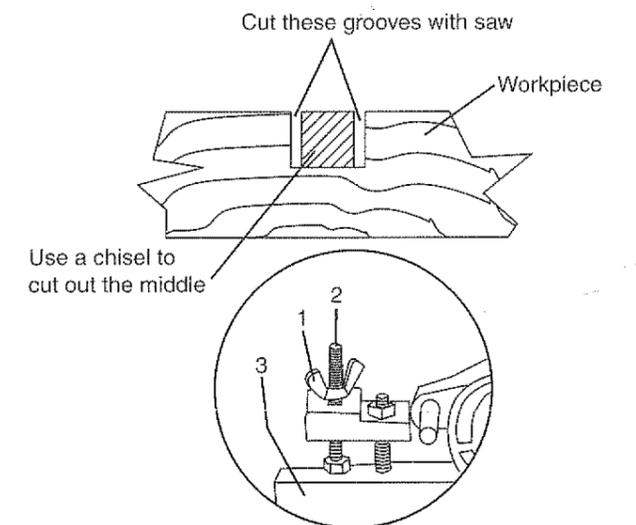
ROUGH CUTTING A DADO (FIG. KK)

⚠ WARNING

To avoid injury from materials being thrown, unplug saw to avoid accidental starting; and then remove small materials from the control arm cavity prior to the next cutting operation. 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 desired cut on workpiece and position on table so inside tip of blade is positioned on the line as shown. Use a hold-down clamp to secure.
2. Lower the cutting head so the tip of the blade touches the top surface of the workpiece.
3. Loosen the wing nut (1) and rotate the adjustment bolt (2) until bolt is against the positioning block (3).
4. Tighten the wing nut (1).

Fig. KK

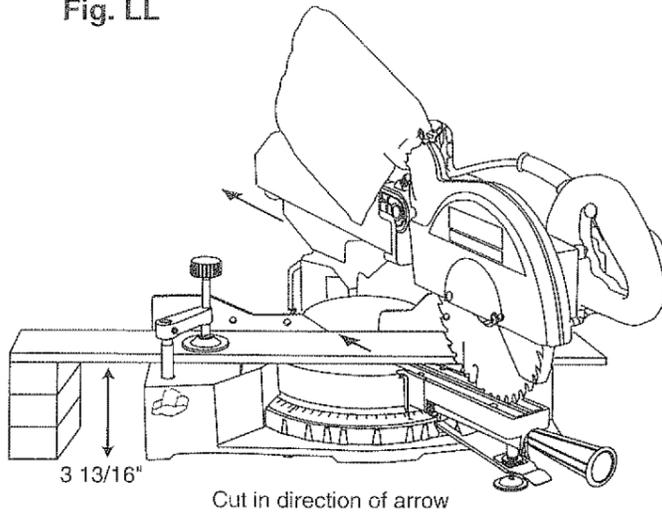


WORKPIECE SUPPORT (FIG. LL)

Long pieces need extra support. The support should be placed under the workpiece. Keep your hand holding the workpiece positioned 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.

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

Fig. LL



AUXILIARY WOOD FENCE (FIG. MM)

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.

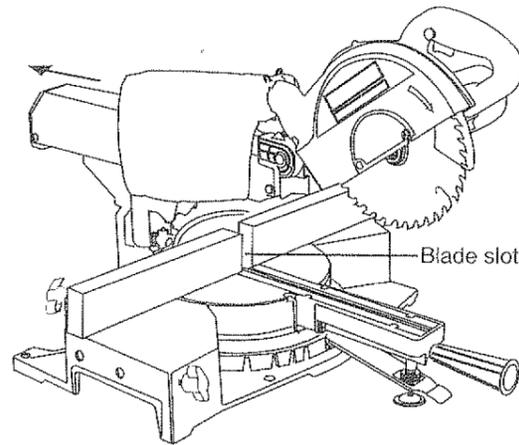
⚠ WARNING

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

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

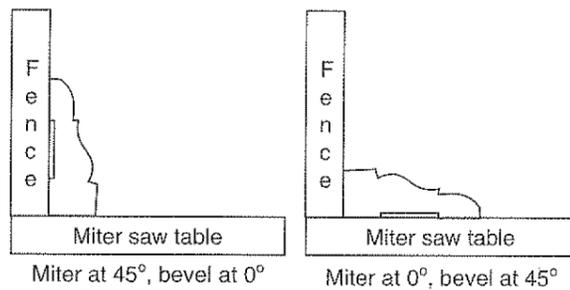


CUTTING BASE MOLDING (FIG. NN)

Base moldings and many other moldings can be cut on a sliding compound mitre 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:

- 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 to avoid marks.
- Reduce splintering by taping the cut area prior to making cut. Mark cutline directly on the tape.
- Splintering typically happens due to wrong blade application and thickness of the material.

Fig. NN



NOTE: The slide mechanism and the blade diameter of the 8-1/2" sliding compound mitre 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.

CUTTING CROWN MOLDING (FIG. NO, OO)

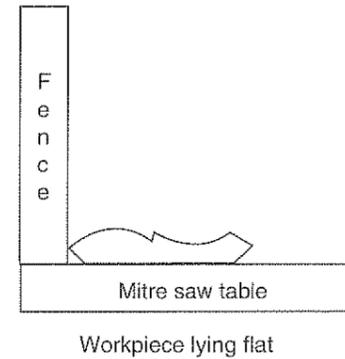
Your compound mitre saw is suited to the difficult task of cutting crown molding. To fit properly, crown molding must be compound-mitred with extreme accuracy. The two surfaces on a piece of crown molding that fit flat against the ceiling and wall are at angles that, when added together equal exactly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

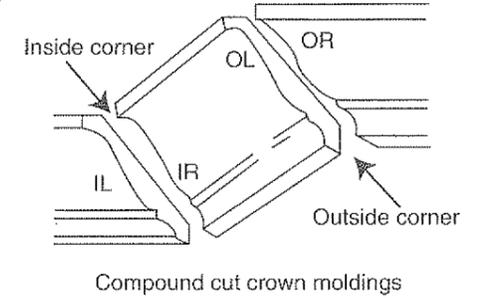
When setting the bevel and mitre angles for compound mitres, remember that the settings are interdependent; changing one changes the other, as well. Also keep in mind that the angles from crown molding are very precise and difficult to set exactly. Since it is very easy for these angles to shift slightly,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

Fig. NO



Settings for standard crown molding lying flat on compound mitre saw table (Fig. OO)

Fig. OO



Bevel / Mitre Settings

KEY	BEVEL SETTING	MITRE SETTING	TYPE OF CUT
Inside corner - Left side			
IL	33.9°	31.6° Right	1. Position top of molding against fence. 2. Mitre 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. Mitre 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. Mitre 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. Mitre table set at RIGHT 31.6°. 3. RIGHT side is finished piece.

MAINTENANCE

MAINTENANCE

DANGER

Never put lubricants on the blade while it is spinning.

▲ WARNING

To avoid fire or toxic reaction, never use gasoline, naphtha, acetone, lacquer thinner or similar highly volatile solvents to clean the sliding mitre saw.

▲ WARNING

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

▲ WARNING

For your safety, 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

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 (**Remove the cap cautiously, because it is springloaded.**) Then 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. This will avoid a break-in period that reduces motor performance and increases wear.

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

When cleaning the lower guard, unplug the saw from the power source receptacle to avoid 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 mitre cut. Frequently blow out or vacuum up the sawdust.

▲ WARNING

If blowing sawdust, wear proper eye protection to keep debris from blowing into 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).

Infrequent lubrication 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 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.

Bevel lock handle: Unscrew the handle assembly and grease the threads.

Link: (which actuates the lower guard movement) may be oiled at the rear pivot, greased at ball bearing contact, and oiled where the link actuates the acetyl roller of the lower guard, if the down chop motion is hard to start.

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 Centre 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"> 1. Brushes not seated or lightly sticking. 2. Motor brake winding overheated from use of prohibited blade/accessory or rapid on/off cycling. 3. Arbor screw loose. 4. Other. 	<ol style="list-style-type: none"> 1. Inspect/clean/replace brushes. See MAINTENANCE section. 2. Use only recommended blades/accessories. Let motor cool down. 3. Retighten. 4. Contact Sears Service Centre.
Motor does not start.	<ol style="list-style-type: none"> 1. Brushes worn. 2. Other. 	<ol style="list-style-type: none"> 1. See "MAINTENANCE" section. 2. Contact Sears Service Centre.
Brush sparking when switch is released.	<ol style="list-style-type: none"> 1. Normal-automatic brake working properly. 	<ol style="list-style-type: none"> 1. None.

GENERAL

PROBLEM	PROBABLE CAUSE	SUGGESTED CORRECTIVE ACTION
Blade hits table.	<ol style="list-style-type: none"> 1. Adjustment of depth stop. 	<ol style="list-style-type: none"> 1. See "ADJUSTMENT" section.
Angle of cut not accurate.	<ol style="list-style-type: none"> 1. Misalignment. 	<ol style="list-style-type: none"> 1. See "ADJUSTMENT" section.
Can't adjust mitre angles.	<ol style="list-style-type: none"> 1. Centre bolt too tight. 2. Lubrication dried up. 	<ol style="list-style-type: none"> 1. Adjust. 2. Clean and relubricate between table and base, see "MAINTENANCE" section. 3. Wear eye protection.
Powerhead wobbles.	<ol style="list-style-type: none"> 1. Loose pivot points. 	<ol style="list-style-type: none"> 1. See bevel pivot adjustment in "ADJUSTMENTS" section.
Powerhead 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 replaced properly after service. 4. Sawdust sticking to stops. 	<ol style="list-style-type: none"> 1. See "LUBRICATION" section. 2. Contact Sears Service Centre. 3. Contact Sears Service Centre. 4. 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. Warped blade. 	<ol style="list-style-type: none"> 1. See "BASIC SAW OPERATION" section. 2. Replace or sharpen blade. 3. Replace with 8-1/2" diameter blade designed for the material being cut. 4. Replace blade.
Tool vibrates or shakes.	<ol style="list-style-type: none"> 1. Saw blade not round. 2. Saw blade damaged. 3. Saw blade loose. 4. Other. 	<ol style="list-style-type: none"> 1. Replace blade. 2. Replace blade. 3. Tighten arbor screw. 4. Contact Sears service Centre.
Powerhead hard to pull/push down.	<ol style="list-style-type: none"> 1. Lubrication needed. 	<ol style="list-style-type: none"> 1. See "LUBRICATION" section.

PARTS

CRAFTSMAN 8 1/2" SLIDING COMPOUND MITER SAW

MODEL NO. 137.285491

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.

Always order by I.D. NO.

I.D. NO.	DESCRIPTION	SIZE	QTY	I.D. NO.	DESCRIPTION	SIZE	QTY
0CP0	CLAMP BOLT		2	0J4R	FLAT WASHER	φ10X20-3	1
0CP5	FENCE		1	0JB0	WAVE WASHER		1
0CPL	FOOT		1	0JEL	C-RING		1
0CPM	ADJUSTABLE NUT		1	0JMM	O-RING ROD		1
0CPQ	EXTENSION STAY		1	0JNR	O-RING ROD		2
0CPT	HANDLE		1	0JPD	HEX. HD. BOLT	M6X1.0-16	1
0CPV	FOLLOWER PLATE		1	0JPF	HEX. HD. BOLT	M6X1.0-25	2
0CPW	TABLE INSERT		1	0JPM	HEX. HD. BOLT	M6X1.0-70	1
0CQA	PLATE SPRING ASSY		1	0JPZ	HEX. HD. BOLT	M10X1.5-35	1
0CQH	LOCKING HANDLE ASSY		1	0JQ2	HEX. HD. BOLT	M10X1.5-55	1
0CR0	REAR EXTENSION STAY		1	0JQ3	HEX. HD. BOLT	M10X1.5-65	1
0CR1	AXLE SEAT		1	0JU2	HEX. SOC. HD. CAP BOLT	M4X0.7-6	1
0CR2	PLATE COVER		1	0JUB	HEX. SOC. HD. CAP BOLT	M5X0.8-12	6
0CR6	SLIDE-BAR SEAT (FRONT)		1	0JUQ	HEX. SOC. HD. CAP BOLT	M6X1.0-45	1
0CR8	SHAFT		1	0JVQ	HEX. SOC. HD. CAP BOLT	M8X1.25-50	2
0CR9	BEARING COVER		2	0JX7	HEX. SOC. SET SCREW	M6X1.0-6	3
0CRA	ARM-MITER		1	0JX7	HEX. SOC. SET SCREW	M6X1.0-6	5
0CRF	SET BOLT		1	0JXA	HEX. SOC. SET SCREW	M6X1.0-12	1
0CRG	COMPRESSION SPRING		1	0JXG	HEX. SOC. SET SCREW	M8X1.25-16	2
0CRH	SLIDE-BAR GUIDE CLAMP		2	0JZ7	HEX. SOC. SET SCREW	M6X1.0-30	1
0CRM	COLUVERCLE		1	0JZN	HEX WASHER HD BOLT	M8X1.25-20	1
0CRR	NEEDLE POINTER		1	0K7J	CR. RE. ROUND WASHER HD. SCREW	M6X1.0-8	2
0CRT	MITER BAR		2	0K7J	CR. RE. ROUND WASHER HD. SCREW	M6X1.0-8	1
0CRW	SLIDE-BAR SEAT (REAR)		1	0K7M	CR. RE. ROUND WASHER HD. SCREW	M6X1.0-18	2
0CRZ	MITER BAR		1	0KB4	CR. RE. PAN HD. TAPPING SCREW	M4X18-12	2
0CS6	CLEVIS PIN		1	0KB8	CR. RE. PAN HD. TAPPING SCREW	M4X18-20	4
0CSD	SEGMENT HADELE		1	0KB9	CR. RE. PAN HD. TAPPING SCREW	M5X16-10	1
0CSE	POWER CORD CLAMP		2	0KD6	CR. RE. PAN HD. SCREW	M4X0.7-8	7
0CSK	BLADE		1	0KD9	CR. RE. PAN HD. SCREW	M4X0.7-16	2
0CSN	PC-GUARD		1	0KDA	CR. RE. PAN HD. SCREW	M4X0.7-18	2
0CSQ	SPRING GUARD		1	0KDC	CR. RE. PAN HD. SCREW	M4X0.7-25	2
0CSU	HOUSING		1	0KDD	CR. RE. PAN HD. SCREW	M4X0.7-30	4
0CT0	TORSION SPRING		1	0KDH	CR. RE. PAN HD. SCREW	M5X0.8-8	1
0CT2	SHAFT SLEEVE		1	0KDJ	CR. RE. PAN HD. SCREW	M5X0.8-12	2
0CT7	SPECIAL BOLT		1	0KDT	CR. RE. PAN HD. SCREW	M6X1.0-8	5
0CTE	CUTTER SHAFT GUARD		1	0KKL	CR. RE. PAN HD. ROUND NECK SCREW	M6X1.0-16	1
0CUH	TRADE-MARK LABEL		1	0KKQ	CR. RE. PAN HD. ROUND NECK SCREW	M6X1.0-16	1
0CUT	PLATE		1	0KLR	BLIND RIVET	3/16-17/32	1
0CUV	BOLT		1	0KMQ	HEX. NUT	M4X0.7 T=3.2	6
0CUY	COLLAR		1	0KMR	HEX. NUT	M5X0.8 T=4	2
0CUZ	RIVET		1	0KMS	HEX. NUT	M6X1.0 T=5	2
0CV0	LEVER		1	0KMS	HEX. NUT	M6X1.0 T=5	1
0CV5	BAG-DUST ASSY		1	0KMS	HEX. NUT	M6X1.0 T=5	2
0CVD	BUTTON SWITCH		1	0KMY	HEX. NUT	M6X1.25 T=6.5	2
0CVH	HANDLE COVER		1	0KQ5	WING NUT	M6X1.0	1
0CVN	COLLAR		1	0KQY	NUT CHUCK	M6X1.25 T=8	1
0CW5	COMPRESSION SPRING		1	0KSM	STRAIN RELIEF		2
0DHY	ARBOR COLLAR		2	0KUX	TERMINAL		2
0DJW	WISE ASSY		1	0KX7	LEAD WIRE ASSY		2
0DTH	CENTER SHAFT		1	0L9C	POWER CABLE ASSY		1
0DTJ	WASHER BLADE		1	0LTK	TRIGGER SWITCH		1
0DU1	ROTATION SLIDE PLATE		3	0LYU	STEEL BALL		1
0DUS	LOCATION SEAT		1	0Q8P	MOTOR		1
0DV1	TILT POINTER		1	0QQ0	CLAMP-CORD		1
0DVJ	WRENCH HEX.		1	0QQ0	CLAMP-CORD		2
0DVK	SHAFT-PIVOT		1	0QQ1	GUARD-CORD		1
0F67	CHAIN		1	0SH9	WARNING LABEL		1
0HW5	BALL BEARING		1	0SHA	LABEL		1
0HXV	LINEAR MOTION BEARING	φ8X16-2.5	3	26BT	TABLE ASSY		1
0J4F	FLAT WASHER	φ10X19-1.8	1	26BU	BASE ASSY		1
0J4K	FLAT WASHER		2				

CRAFTSMAN 8 1/2" SLIDING COMPOUND MITER SAW

MODEL NO. 137.285491

