

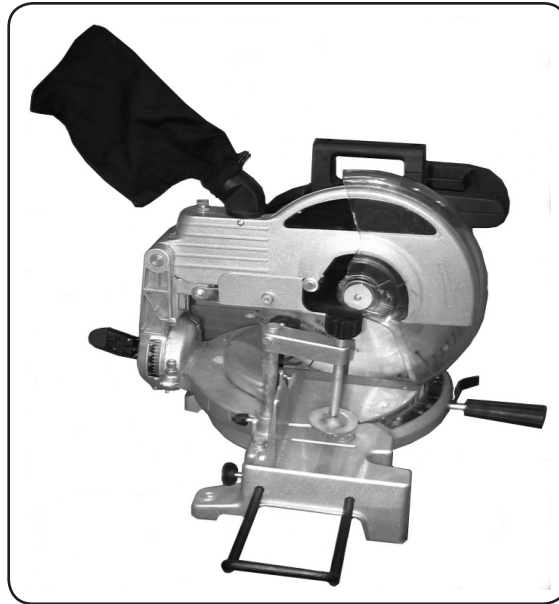
CHICAGO

Electric[®]Power Tools

10" COMPOUND MITER SAW

Model 91995

SET UP AND OPERATING INSTRUCTIONS



Diagrams within this manual may not be drawn proportionally.

Due to continuing improvements, actual product may differ slightly from the product described herein.

Distributed exclusively by Harbor Freight Tools[®].

3491 Mission Oaks Blvd., Camarillo, CA 93011

Visit our website at: <http://www.harborfreight.com>



**Read this material before using this product.
Failure to do so can result in serious injury.
SAVE THIS MANUAL.**

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For technical questions or replacement parts, please call 1-800-444-3353.

Revised 07k

SPECIFICATIONS

Electrical Requirements	120 V / 60 Hz / 1800 Input Watts. 15.0 AMPs Start Up / 5300 RPM No Load. Three Prong, Grounded, Power Cord Plug. Power Switch Type: Squeeze Type.
Saw Blade (Included) Diameter/Type	10" Diameter / 60 Teeth. 7,000 Maximum RPM.
Arbor Size	5/8" Diameter.
Crosscut Capacity	4-11/16" x 2-15/16" @ 90°. 4-11/16" x 1-9/16" @ 45°.
Blade Tilt Capacity	0° - 45° Left and Right.
Positive Stops	0°, 15°, 22.5°, 30°, 45° Left and Right.
Overall Table Size	18-1/8" W x 5-3/8" L x 3-1/8" H.
Accessories Included	Dust Bag / Extension Holders (Qty. 2).



UNPACKING

When unpacking, check to make sure all the parts shown on the **Parts List on page 23** are included. If any parts are missing or broken, please call Harbor Freight Tools at the number shown on the cover of this manual as soon as possible.

SAVE THIS MANUAL

You will need this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures, parts list and assembly diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep this manual and invoice in a safe and dry place for future reference.

GENERAL SAFETY RULES



WARNING! Read all instructions

Failure to follow all instructions listed below may result in electric shock, fire, and/or serious injury. The term "power tool" in all of the warnings listed below refers to your line-operated (corded) power tool or battery-operated (cordless) power tool.

SAVE THESE INSTRUCTIONS

WORK AREA

1. **Keep your work area clean and well lit.** Cluttered benches and dark areas invite accidents.
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.** Power tools create sparks which may ignite flammables.

3. **Keep bystanders, children, and visitors away while operating a power tool.** Distractions can cause you to lose control. Protect others in the work area from debris such as chips and sparks. Provide barriers or shields as needed.

ELECTRICAL SAFETY

1. **Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded.** If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.
2. **Double insulated tools are equipped with a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install a polarized outlet. Do not change the plug in any way.** Double insulation eliminates the need for the three wire grounded power cord and grounded power supply system.
3. **Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators.** There is an increased risk of electric shock if your body is grounded.
4. **Do not expose power tools to rain or wet conditions.** Water entering a power tool will increase the risk of electric shock.
5. **Do not abuse the Power Cord. Never use Power Cord to carry the tools or pull Plug from an outlet. Keep the Power Cord away from heat, oil, sharp edges, or moving parts. Replace damaged Power Cords immediately.** Damaged Power Cords increase the risk of electric shock.
6. **When operating a power tool outside, use an outdoor extension cord marked “W-A” or “W”.** These extension cords are rated for outdoor use, and reduce the risk of electric shock.

PERSONAL SAFETY

1. **Stay alert. Watch what you are doing, and use common sense when operating a power tool. Do not use a power tool while tired or under the influence of drugs, alcohol, or medication.** A moment of inattention while operating power tools may result in serious personal injury.
2. **Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts.** Loose clothes, jewelry, or long hair can be caught in moving parts.

3. **Avoid accidental starting. Be sure the Power Switch is off before plugging in.** Carrying power tools with your finger on the Power Switch, or plugging in power tools with the Power Switch on, invites accidents.
4. **Remove adjusting keys or wrenches before turning the power tool on.** A wrench or a key that is left attached to a rotating part of the power tool may result in personal injury.
5. **Do not overreach. Keep proper footing and balance at all times.** Proper footing and balance enables better control of the power tool in unexpected situations.
6. **Use safety equipment. Always wear ANSI approved safety glasses underneath a full face shield, a dust mask or respirator, and hearing protection.**

TOOL USE AND CARE

1. **Use clamps or other practical ways to secure and support the workpiece to a stable platform.** Holding the work by hand is unstable and may lead to loss of control. Only work on a workpiece that is properly secured.
2. **Do not force the tool. Use the correct tool for your application.** The correct tool will do the job better and safer at the rate for which it is designed.
3. **Do not use the power tool if the Power Switch does not turn it on or off.** Any tool that cannot be controlled with the Power Switch is dangerous and must be replaced.
4. **Disconnect the Power Cord Plug from the power source before making any adjustments, changing accessories, or storing the tool.** Such preventive safety measures reduce the risk of starting the tool accidentally.
5. **Store idle tools out of reach of children and other untrained persons.** Tools are dangerous in the hands of untrained users.
6. **Maintain tools with care.** Do not use a damaged tool. Tag damaged tools "Do not use" until repaired.
7. **Check for misalignment or binding of moving parts, breakage of parts, cracking or breakage of the Saw Blade, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using.** Many accidents are caused by poorly maintained tools.
8. **Use only accessories that are recommended by the manufacturer for your model.** Accessories that may be suitable for one tool may become hazardous when used on another tool.

SERVICE

1. **Tool service must be performed only by qualified repair personnel.** Service or maintenance performed by unqualified personnel could result in a risk of injury.
2. **When servicing a tool, use only identical replacement parts. Follow instructions in the “*Inspection, Maintenance, And Cleaning*” section of this manual.** Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.

SPECIFIC SAFETY RULES

1. **Maintain a safe working environment.** Keep the work area well lit. Make sure there is adequate surrounding workspace. Always keep the work area free of obstructions, grease, oil, trash, and other debris. Do not use the Miter Saw in areas near flammable chemicals, dusts, and vapors. Do not use this product in a damp or wet location.
2. **Maintain labels and nameplates on the Miter Saw.** These carry important information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
3. **Do not force the equipment.** This Miter Saw will do the work better and safer at the speed and capacity for which it was designed.
4. **Keep all guards in place and in working order.** Never remove or disable guards.
5. **Remove all adjusting wrenches from the Miter Saw before turning it on.**
6. **Do not abuse the Power Cord.** Do not use the Power Cord to pull its Plug from an electrical outlet. Keep the Power Cord away from heat, oil, sharp edges, and moving parts. Route the Power Cord safely. Protect the Power Cord from being damaged by other equipment in the work area. Do not route the Power Cord where it can be walked on or tripped over. Replace a damaged Power Cord immediately.
7. **Do not use this Miter Saw for cutting metals or brittle materials.** Do not cut dangerous materials, such as asbestos which can cause harmful dust or vapors.
8. **When replacing the Saw Blade, make sure the new Saw Blade has a diameter of 10”, an RPM rating of at least 7000, and has an arbor hole of 5/8” diameter.**
9. **To avoid accidental injury, always wear heavy duty work gloves when changing a Saw Blade.**

10. **Before using the Miter Saw, make sure the Saw Blade is properly mounted on the Saw Spindle.** Make sure the Saw Blade is balanced, and is not cracked or bent.
11. **The Saw Blade will become hot while cutting.** Allow the Saw Blade to completely cool before touching.
12. **Make sure the workpiece is free from nails and any other foreign objects which can damage the Saw Blade.**
13. **Keep your body positioned to either side of the Saw Blade, but not in line with the Saw Blade. “Kickback” can cause the Saw to jump backwards.**
14. **Causes and operator prevention of “kickback”:** Kickback is a sudden reaction to a pinched, bound, or misaligned Saw Blade, causing an uncontrolled Saw to lift up and out of the workpiece toward the operator. When the Saw Blade is pinched or bound tightly by the kerf closing down, the Saw Blade stalls and the Motor reaction drives the tool rapidly toward the operator. If the Saw Blade becomes twisted or misaligned in the cut, the teeth at the back edge of the Saw Blade can dig into the top surface of the workpiece, causing the Saw Blade to climb out of the kerf and jump toward the operator. **Kickback is a result of tool misuse and/or incorrect operating procedures or conditions and can be minimized by taking proper precautions as given below:**
 - a. **Maintain a firm grip with both hands on the Saw, and position your body and arm to allow you to resist kickback forces.**
 - b. **When the Saw Blade is binding, or when interrupting a cut for any reason, release the Power Switch and hold the Saw motionless in the workpiece until the Saw Blade comes to a complete stop.** Never attempt to remove the Saw Blade from the workpiece or pull the Saw backward while the Saw Blade is in motion or kickback can occur.
 - c. **When restarting the Saw in the workpiece, center the Saw Blade in the kerf and check that the saw teeth are not engaged into the workpiece.** If the Saw Blade is binding, it may walk up or kickback from the workpiece as the Saw is restarted.
 - d. **Support large panels to minimize the risk of Saw Blade pinching and kickback.** Large panels tend to sag under their own weight. Supports must be placed under the panel on both sides, near the line of cut and near the edge of the panel.
 - e. **Do not use a dull or damaged Saw Blade.** Unsharpened or improperly set Saw Blades produce a narrow kerf causing excessive friction, Saw Blade binding and kickback.
 - f. **Make sure all Saw adjustments are tight and secure before making a cut.** If Saw adjustments shift while cutting, it may cause binding and kickback.

15. **The Cross Pin (28) should always be in the “locked down” position when the Saw is not being used and when the Saw is being transported. The Cross Pin should be activated in the “locked up” position when changing Saw Blades. NEVER use the Cross Pin in any cutting operation.** The Cross Pin allows the operator to lock the Saw Blade in position, preventing the Saw Blade from being raised or lowered.
16. **Allow the Saw Blade to spin up to full speed before feeding it into the workpiece.** Do not force the Saw Blade into the workpiece when cutting. Apply moderate pressure, allowing the Saw Blade to cut without being forced. When turning off the Saw, allow the Saw Blade to spin down and stop on its own. Do not press against the Saw Blade to stop it.
17. **Turn off the Saw and allow the Saw Blade to stop on its own if the Saw Blade is to be backed out of an uncompleted cut.**
18. **Industrial applications must follow OSHA requirements.**
19. **Proper Miter Saw location:** Make sure the Miter Saw is located on a flat, level, sturdy surface capable of supporting the weight of the Miter Saw, workpieces, and all other tools and accessories.
20. **Do not abuse the Power Cord.** Do not use the Power Cord to pull the Power Plug from an electrical outlet. Keep the Power Cord away from heat, oil, sharp edges, and moving parts. Route the Power Cord safely. Do not route the Power Cord where it can be walked on or tripped over. Replace a damaged Power Cord immediately.
21. **Keep all safety guards in place, in proper adjustment, and in proper alignment.**
22. **Never attempt to remove material stuck in the moving parts of the Miter Saw while the machine is plugged in and running.**
23. **Whenever possible, use clamps or other safe, practical ways to hold and support the workpiece.** Do not attempt to cut material that does not have a flat surface, unless a suitable support is used.
24. **Always keep hands and fingers away from the spinning Saw Blade.**
25. **Use eye, hearing, and breathing protection.** Always wear ANSI-approved safety impact eye goggles, hearing protectors, and dust masks or respirator when working with the Miter Saw.
26. **Do not use this product if under the influence of alcohol or drugs.** Read warning labels on prescriptions to determine if your judgement or reflexes are impaired while taking drugs. If there is any doubt, do not attempt to use this product.

27. **Maintain this product with care.** Keep the Miter Saw clean and dry for better and safer performance. For your safety, service and maintenance should be performed regularly by a qualified technician.
28. **Use the right tool or attachment for the right job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool or attachment. There are certain applications for which this product was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this product, and do not use this product for a purpose for which it was not intended.
29. **Always turn off the Miter Saw and unplug the Power Cord (102) from its electrical outlet before changing accessories or performing inspection, maintenance, or cleaning procedures.**
30. **Keep children out of the work area.** Never allow children to play with tools. Always lock and secure the work area.
31. **People with pacemakers should consult their physician(s) before use.** Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
32. **WARNING!** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contain 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 and cement or 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. (*California Health & Safety Code 25249.5, et seq.*)
33. The warnings, precautions, and instructions discussed in this manual cannot cover all possible conditions and situations that may occur. The operator must understand that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

SAVE THESE INSTRUCTIONS

GROUNDING

⚠️ WARNING

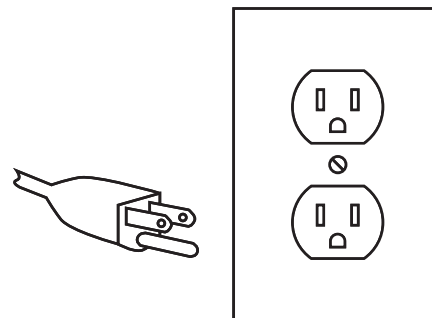
Improperly connecting the grounding wire can result in electric shock.



Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. Do not modify the power cord plug provided with the tool. Never remove the grounding prong from the plug. Do not use the tool if the power cord or plug is damaged. If damaged, have it repaired by a service facility before use. If the plug will not fit the outlet, have a proper outlet installed by a qualified electrician.

Grounded Tools: Tools with Three Prong Plugs

1. Tools marked with “Grounding Required” have a three wire cord and three prong grounding plug. The plug must be connected to a properly grounded outlet. If the tool should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user, reducing the risk of electric shock. **(See 3-Prong Plug and Outlet.)**
2. The grounding prong in the plug is connected through the green wire inside the cord to the grounding system in the tool. The green wire in the cord must be the only wire connected to the tool’s grounding system and must never be attached to an electrically “live” terminal. **(See 3-Prong Plug and Outlet.)**
3. The tool must be plugged into an appropriate outlet, properly installed and grounded in accordance with all codes and ordinances. The plug and outlet should look like those in the following illustration. **(See 3-Prong Plug and Outlet.)**



3-Prong Plug and Outlet

Extension Cords







1. **Grounded** tools require a three wire extension cord. **Double Insulated** tools can use either a two or three wire extension cord.
2. As the distance from the supply outlet increases, you must use a heavier gauge extension cord. Using extension cords with inadequately sized wire causes a serious drop in voltage, resulting in loss of power and possible tool damage. **(See Table A.)**

3. The smaller the gauge number of the wire, the greater the capacity of the cord. For example, a 14 gauge cord can carry a higher current than a 16 gauge cord. **(See Table A.)**
4. When using more than one extension cord to make up the total length, make sure each cord contains at least the minimum wire size required. **(See Table A.)**
5. If you are using one extension cord for more than one tool, add the nameplate amperes and use the sum to determine the required minimum cord size. **(See Table A.)**
6. If you are using an extension cord outdoors, make sure it is marked with the suffix "W-A" ("W" in Canada) to indicate it is acceptable for outdoor use.
7. Make sure the extension cord is properly wired and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified electrician before using it.
8. Protect the extension cords from sharp objects, excessive heat, and damp or wet areas.

RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS* (120/240 VOLT)					
NAMEPLATE AMPERES (at full load)	EXTENSION CORD LENGTH				
	25 Feet	50 Feet	75 Feet	100 Feet	150 Feet
0 – 2.0	18	18	18	18	16
2.1 – 3.4	18	18	18	16	14
3.5 – 5.0	18	18	16	14	12
5.1 – 7.0	18	16	14	12	12
7.1 – 12.0	18	14	12	10	-
12.1 – 16.0	14	12	10	-	-
16.1 – 20.0	12	10	-	-	-

TABLE A * Based on limiting the line voltage drop to five volts at 150% of the rated amperes.

Symbology

	Double Insulated		Volts Alternating Current
	Canadian Standards Association		Amperes
	Underwriters Laboratories, Inc.		No Load Revolutions per Minute (RPM)

ASSEMBLY AND OPERATING INSTRUCTIONS

Note: For additional references to the parts listed in the following pages, refer to the **Assembly Diagram on page 24.**

To Replace And Install A Saw Blade:

1. **⚠WARNING!** Prior to performing any assembly and/or adjustment procedures, make sure the Power Cord (102) of the Miter Saw is unplugged from its electrical outlet. Make sure the unit has completely cooled, and wear heavy-duty work gloves.
2. When replacing the Saw Blade (56), make sure the new Saw Blade has a diameter of 10", an RPM rating of at least 7000, and an arbor hole of 5/8" diameter.

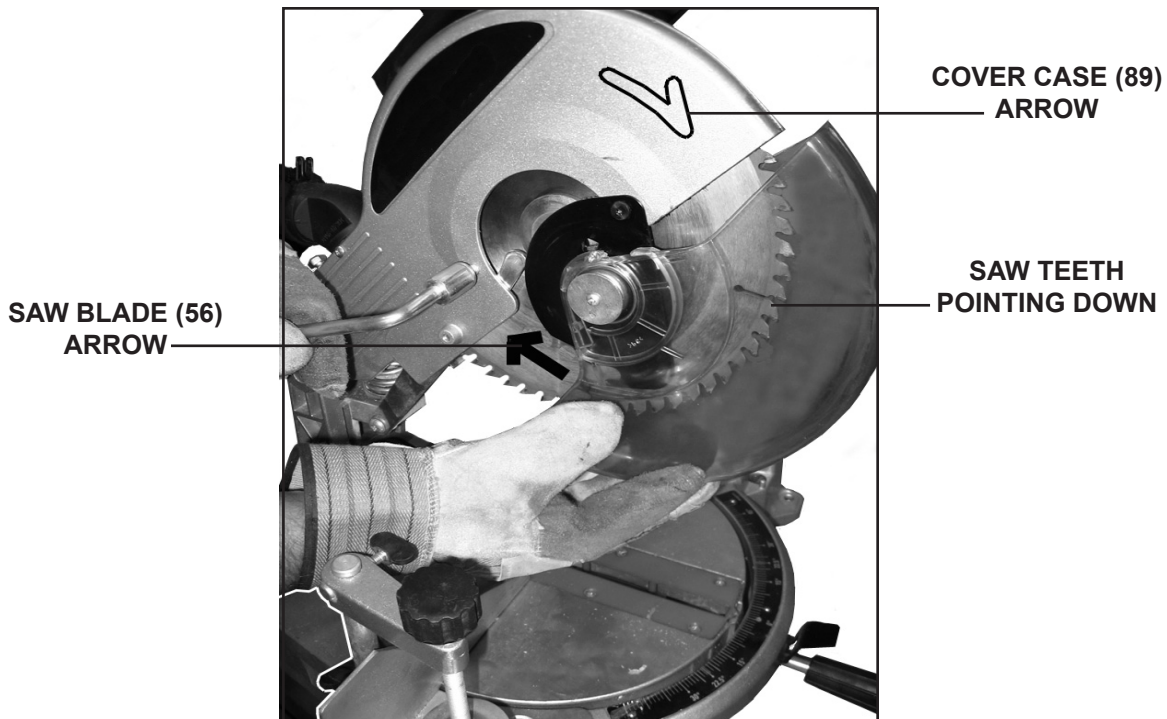


FIGURE D

3. When installing a Saw Blade (56), make sure the teeth of the Saw Blade point *downward*, and that the direction of the *arrow* shown on the Saw Blade matches the direction of the *arrow* shown on the Cover Case (89). (**See Figure D.**)
4. Lock the Saw Blade (56) in its *upward* position. To do so, pull out on the Cross Pin (28). Raise and hold the Cover Case (89) of the Miter Saw fully upward. Turn the Cross Pin 90 degrees. Then, insert the Cross Pin into the *deep* slot in its locked position. (**See Figures E and F, next page.**)

5. **CAUTION!** The Cross Pin (28) should always be activated in the “locked down” position when the Saw is not being used and when the Saw is being transported. The Cross Pin should be activated in the “locked up” position only when changing Saw Blades. **NEVER** use the Cross Pin in any cutting operation. The Cross Pin allows the operator to lock the Saw Blade in position, preventing the Saw Blade from being raised or lowered. (See Figures E and F.)

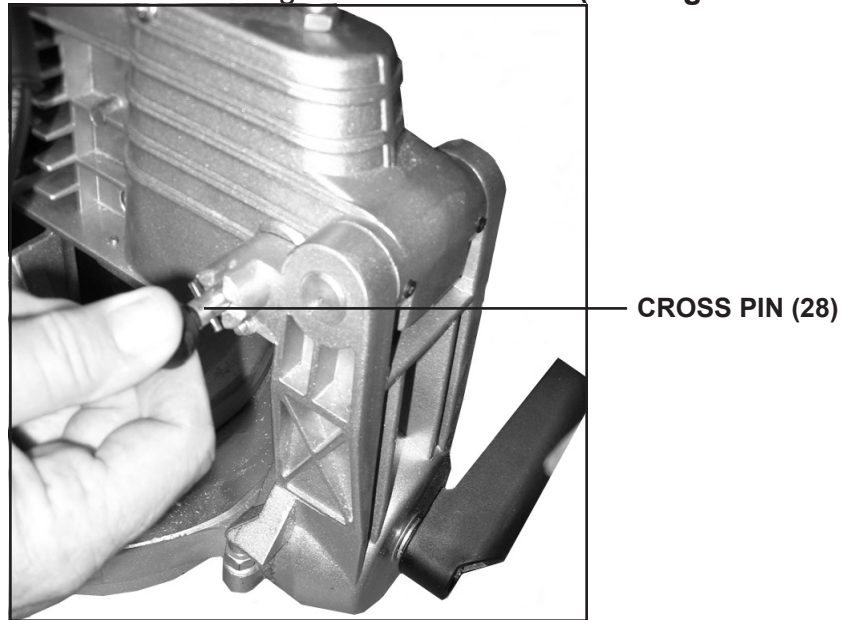


FIGURE E

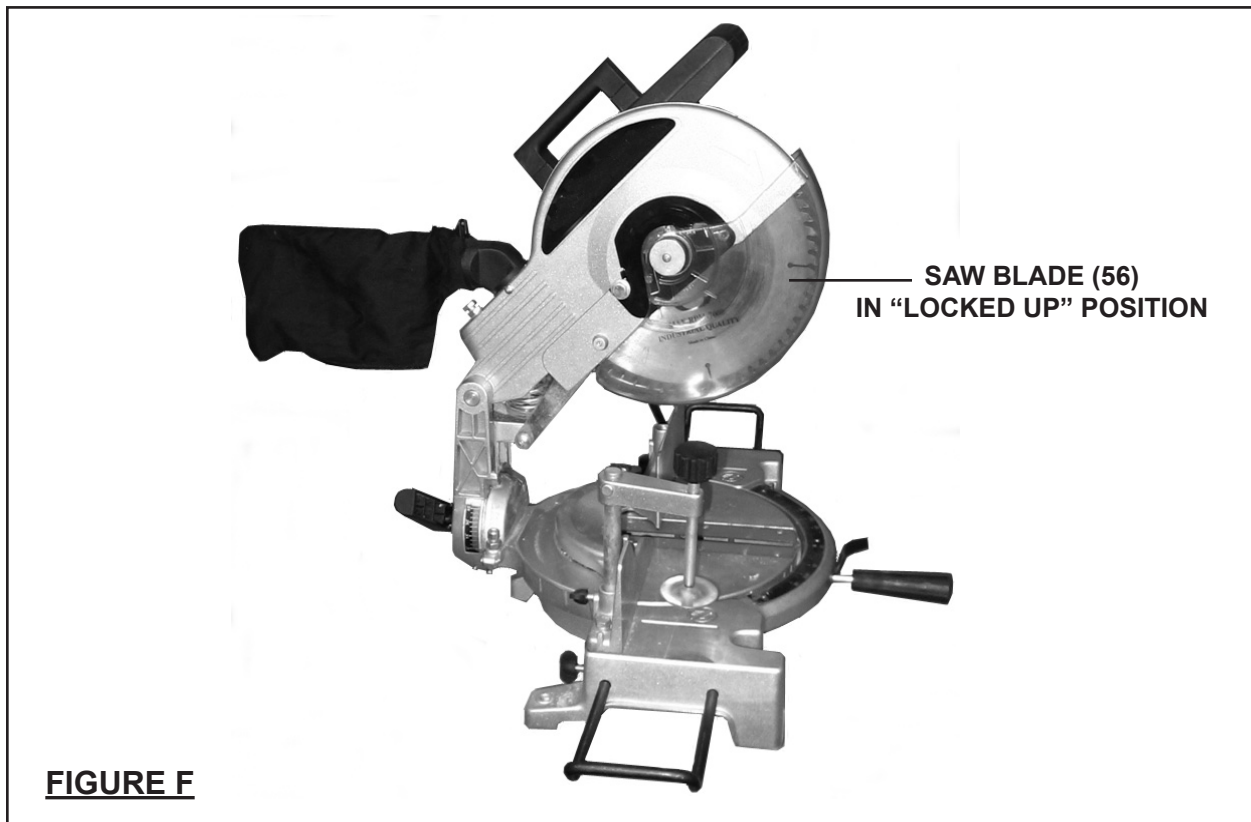


FIGURE F

6. Loosen the Screw (48) that holds the Large Cover (47) in place. Then, use the Wrench (110) to remove the Bolt (50). (See Figure G.)
7. Rotate the Large Cover (47) and Safety Cover (53) up and out of the way. (See Figure G.)

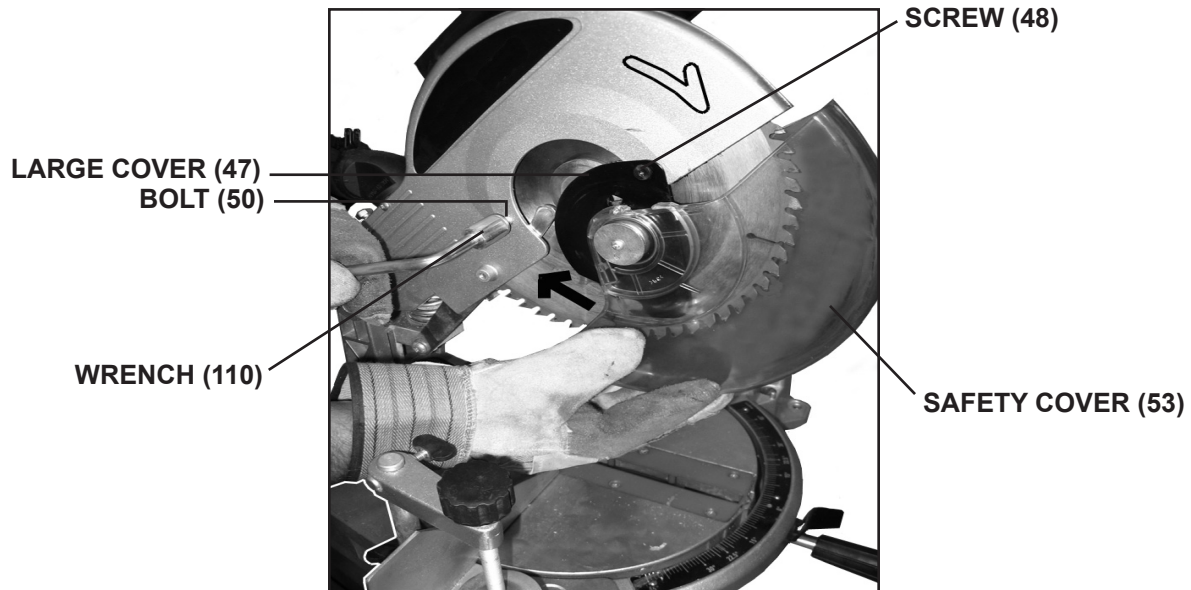


FIGURE G

8. Depress the Spindle Lock (84) to keep the Saw Blade (56) from turning. (See Figure H.)

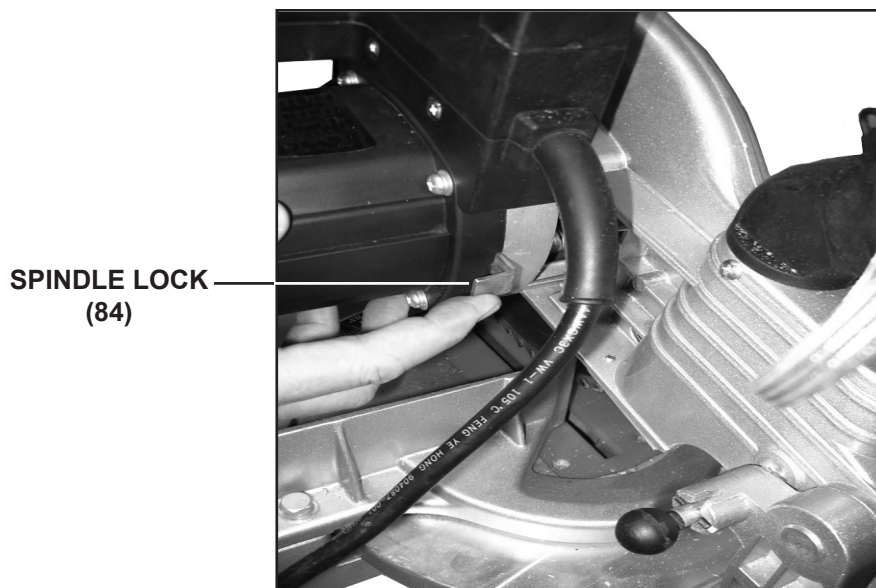
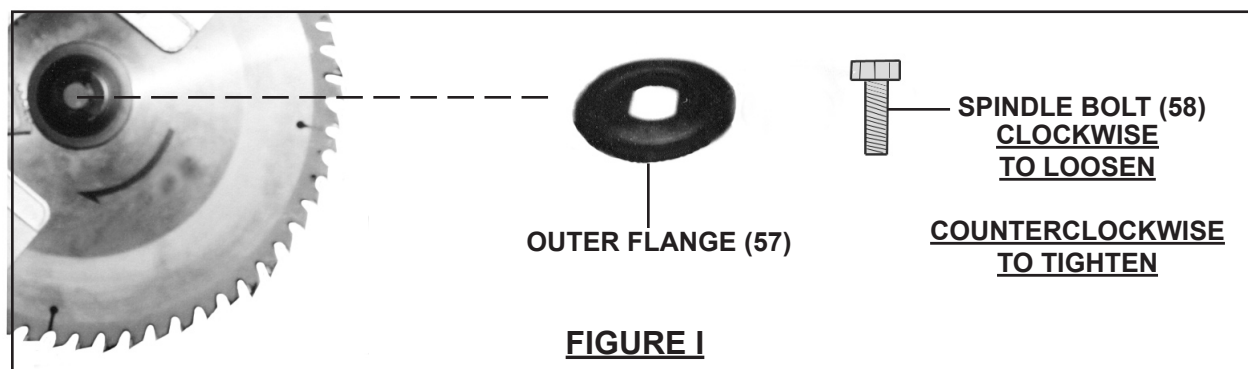
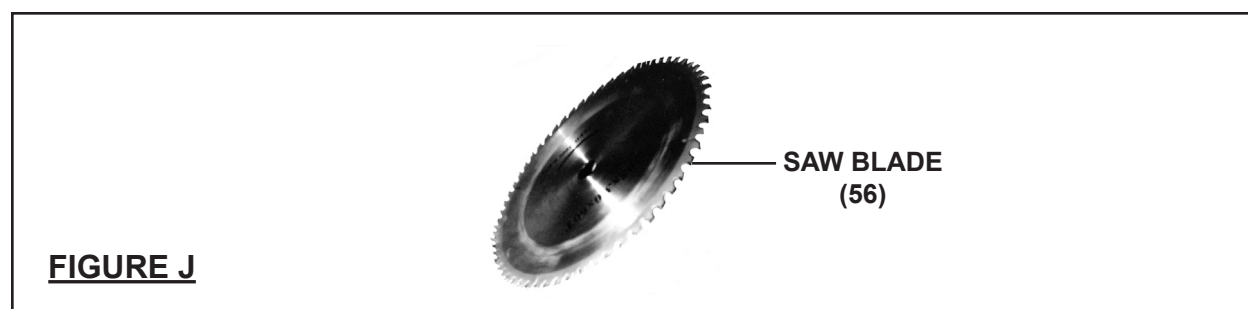


FIGURE H

9. Use the Wrench (109) to unscrew and remove the Spindle Bolt (58).
NOTE: The Spindle Bolt *unscrews* in a *clockwise* direction. Then, remove the Outer Flange (57). (See Figure I.)



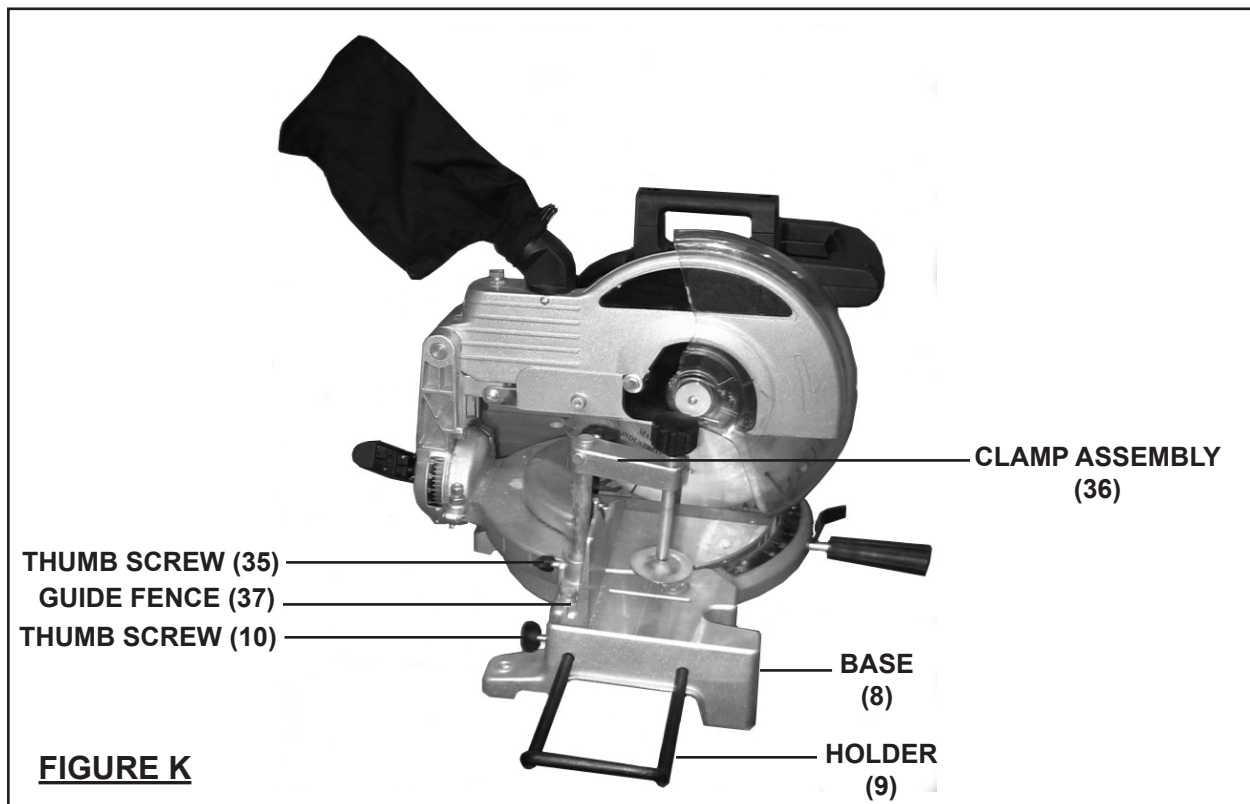
10. Release pressure on the Spindle Lock (84). (See Figure H.)
11. Wearing heavy duty work gloves to avoid accidental cuts, remove the old Saw Blade (56). (See Figure J.)



12. Install the new Saw Blade (56), making sure the teeth of the Saw Blade are pointing *downward*. (See Figure D.)
13. Reassemble the Outer Flange (57), and Spindle Bolt (58) *firmly*. (See Figure I.)
14. Swing the Large Cover (47) and Safety Cover (53) back in place, making sure the Safety Cover covers the Saw Blade (56). (See Figure G.)
15. Reinstall the Bolt (50), and retighten the Screw (48). (See Figure G.)
16. Make sure the Safety Cover (53) returns to its original position prior to operating the Miter Saw.
17. **CAUTION!** Make sure to pull out on the Cross Pin (28). Turn the Cross Pin 90 degrees. Then, insert the Cross Pin into the *shallow* slot in its unlocked position. NEVER use the Cross Pin in any cutting operation. (See Figure E.)

To Assemble Additional Accessories:

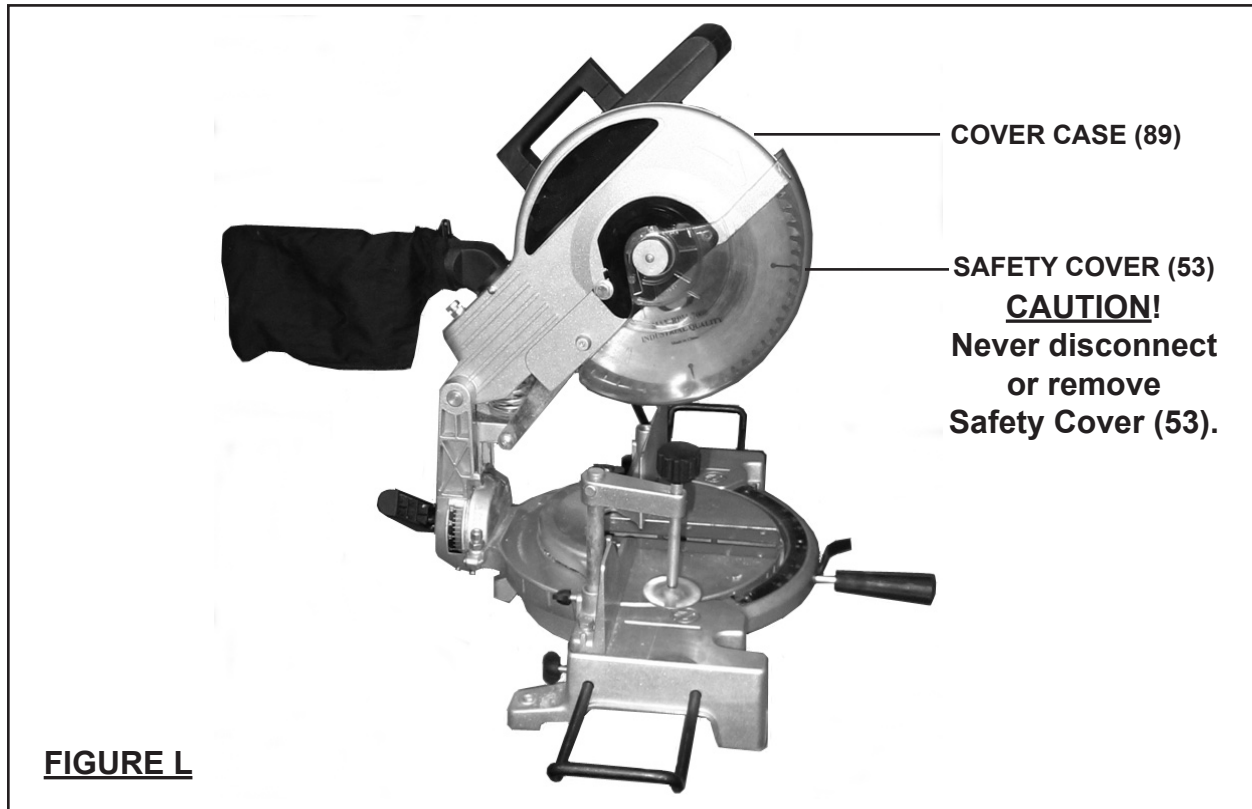
1. A workpiece Clamp Assembly (36) can be installed by inserting the Assembly into the hole located in the Guide Fence (37). Once inserted, lock the Assembly in place with the Thumb Screw (35). To clamp the workpiece to the Base (8) of the Miter Saw, turn the Adjusting Knob on the Clamp Assembly clockwise. **(See Figure K.)**
2. A workpiece Holder (9) can be inserted into each side of the Base (8), adjusted for the desired length, and locked in place with the Thumb Screw (10). The Holders should be used as supports when cutting longer length workpieces. **(See Figure K.)**



The Safety Cover:

1. The transparent Safety Cover (53) automatically rotates to cover the Saw Blade (56) when the Cover Case (89) is lifted. When the Cover Case is lowered, the Safety Cover rotates back out of the way. **(See Figure L, next page.)**
2. **Do not disconnect or remove the Safety Cover (53). Do not operate the Miter Saw if the Safety Cover is damaged or missing. (See Figure L.)**
3. If the transparent Safety Cover (53) becomes so dirty that the Saw Blade (56)

cannot be seen clearly, disconnect the electrical Power Cord from its electrical outlet and clean the Safety Cover with a soft, damp, cloth. A mild detergent may be used, but do not use solvents which may damage the Safety Cover.
(See Figure L.)



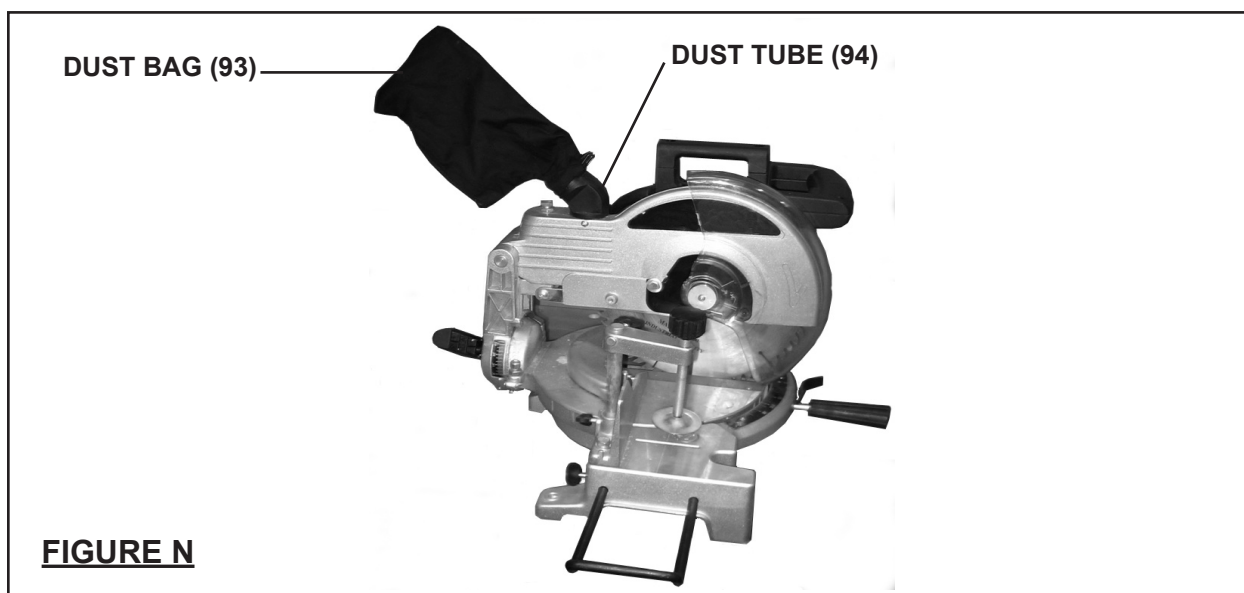
The Power Switch:

1. Before plugging in the Miter Saw, check the operation of the Power Switch (98). Do not operate the Miter Saw if the Power Switch is not operating properly. To turn on the Miter Saw, simply squeeze the Power Switch. To turn off the tool, release pressure on the Power Switch. (See Figure M.)



The Dust Bag:

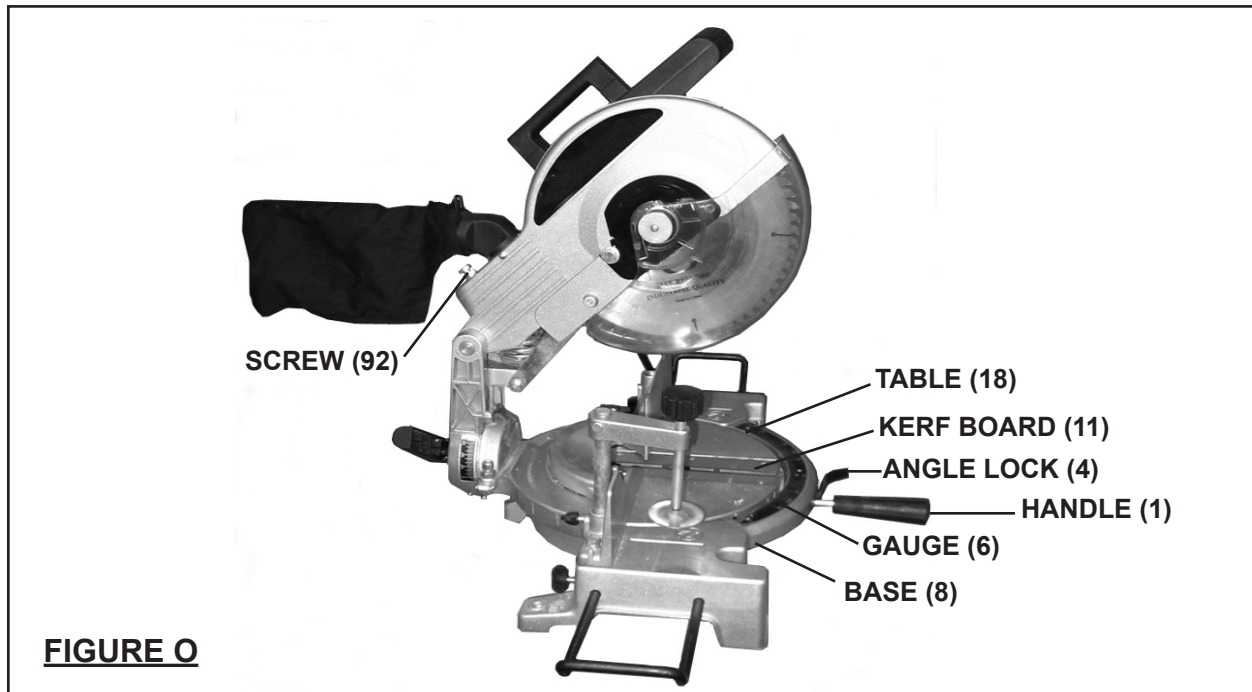
1. The Dust Bag (93) catches and holds the wood chips and saw dust when the Miter Saw is in operation. **(See Figure N.)**
2. The *outside* diameter of the Dust Tube (94) is **1-3/4"** to which the Dust Bag (93) or a vacuum hose (not included) may be attached. It is recommended that *only* a qualified technician perform this procedure. **(See Figure N.)**



To Adjust The Cutting Depth:

1. **⚠ WARNING!** Prior to performing this procedure, make sure the Power Cord (102) of the Miter Saw is unplugged from its electrical outlet.
2. The depth of cut may be adjusted to a maximum of 4-11/16" at 90° and 4-11/16" at 45°.
3. Slightly loosen the Screw (92) and pull the Miter Saw's Cover Case (89) downward as far as it will go. Observe whether the edge of the Saw Blade (56) passes completely through the Kerf Board (11). **(See Figure O, next page.)**
4. If the Saw Blade (56) does not pass completely through the Kerf Board (11), lower the Saw Blade further by loosening the Screw (92). **(See Figure O.)**
5. After adjusting the Screw (92), press down on the Miter Saw and make sure the Saw Blade (56) does not contact the bottom of the Table (18) or any other part of the Saw Base (8). **(See Figure O.)**

6. If the Saw Blade (56) touches the Table (18) or any other part of the Saw Base (8), tighten the Screw (92) to raise the Saw Blade slightly until it clears. (See Figure O.)



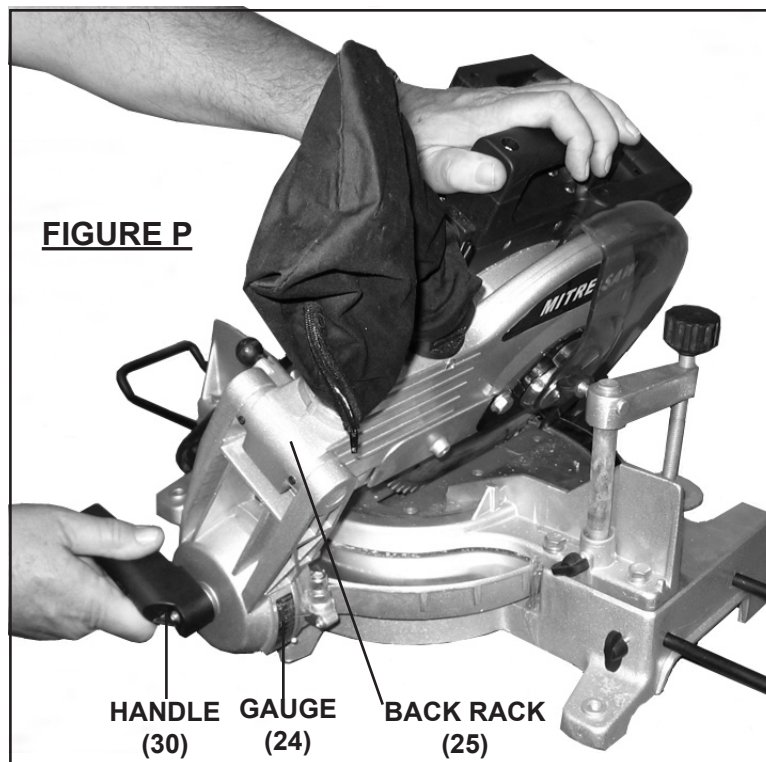
To Adjust The Miter Angle:

1. **⚠ WARNING!** Prior to performing this procedure, make sure the Power Cord (102) of the Miter Saw is unplugged from its electrical outlet.
2. The miter angle of a cut may be adjusted 0 - 45 degrees to the right or left. To do so, depress the Angle Lock (4) located at the front of the Table (18). (See Figure O.)
3. While the Angle Lock (4) is depressed, move the Handle (1) to the right or left until the desired miter angle of cut is indicated by the Gauge (6) located on the Base (8). Then, release pressure on the Angle Lock to lock the Miter Saw in place. (See Figure O.)

To Adjust The Bevel Of Cut:

1. **⚠ WARNING!** Prior to performing this procedure, make sure the Power Cord (102) of the Miter Saw is unplugged from its electrical outlet.

2. The bevel angle (or Saw Blade *tilt* capacity) may be adjusted from 0 - 45° to the left. To do so, loosen the Handle (30) located at the rear of the Miter Saw. **(See Figure P.)**
3. Tilt the Back Rack (25) until the desired bevel angle of cut is achieved as indicated on the Gauge (24). Then, re-tighten the Handle (30) to lock the Back Rack in place. **(See Figure P.)**




Basic Operation:

1. **Make sure the Power Cord (102) of the Miter Saw is unplugged from its electrical outlet.** Then, if necessary, make adjustments to the workpiece Holder (9), cutting depth, miter angle, and bevel angle.
2. Raise the Saw Blade (56) up to allow positioning of the workpiece.
3. Check to make sure the Power Switch (98) is operating properly.
4. Place the workpiece on the Table (18) and against the Guide Fence (37).
5. Use the Clamp Assembly (36) to hold the workpiece in place.

6. **Plug the Power Cord (102) into the nearest 120 volt, grounded, electrical outlet.**
7. Squeeze the Power Switch (98) to turn on the Miter Saw.
8. When the Saw Blade (56) is turning at full speed, slowly bring down the Motor Housing (75) to complete the cut. **NOTE:** Feed the Saw Blade into the workpiece **gradually**. Do not force the machine to remove material faster than it was designed to cut.
9. When cutting a large workpiece, make sure its entire length is properly supported. If necessary, use a roller stand (not included) with a larger workpiece.
10. Never attempt to remove material stuck in the moving parts of the Miter Saw while it is plugged in and running.
11. Turn off the Miter Saw if the workpiece is to be backed out of an uncompleted cut.
12. When the cut is complete, release the Power Switch (98) to turn off the Miter Saw.
13. Wait until the Saw Blade (56) comes to a complete stop. Raise the Motor Housing (75). **Then, unplug the Power Cord (102) from its electrical outlet.**
14. Loosen the Clamp Assembly (36), and remove the workpiece and scrap material from the Table (18).

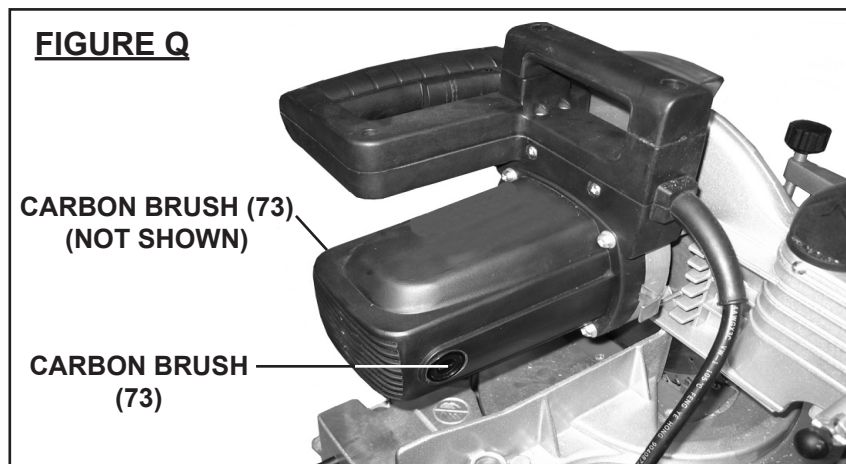
INSPECTION, MAINTENANCE, AND CLEANING

1.  **WARNING!** Always make sure the Power Switch (98) is in its “OFF” position, and unplug the Power Cord (102) from its 120 volt electrical outlet before performing any inspection, adjustments, maintenance, or cleaning. Make sure the power tool is cool to the touch before inspection, maintenance, and cleaning begin. Always protect your hands by wearing work gloves.
2. **Before each use**, inspect the general condition of the Miter Saw. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, loose, cracked, or bent Saw Blade (56), and any other condition that may affect its safe operation. If abnormal noise or vibration occurs, have the problem corrected before further use.
Do not use damaged equipment. Never work with a dull saw blade.

3. **Daily:** With a soft brush, cloth, or vacuum, remove all dust and debris from the Miter Saw. Then, use a premium quality, lightweight machine oil to lubricate all moving parts except the Saw Blade (56).

4. **To replace the Motor Carbon Brushes:** It may become necessary at some-time to replace the *two* Carbon Brushes (73) when the Motor performance decreases, or stops working completely. **The Carbon Brushes are located on each side of the Motor Housing (75).** To do so, remove the two Brush Covers (72). Then, remove the two Carbon Brushes from the Brush Holders (74). If the Carbon Brushes are worn down more than 1/2, replace *both* Carbon Brushes. If, however, the Carbon Brushes are just dirty they may be cleaned by rubbing them with a pencil eraser. When installing the Carbon Brushes, make sure the carbon portion of the Carbon Brushes contact the Motor Armature, and that the springs face away from the Motor. Also, make sure the springs operate freely. After cleaning or replacement, replace the Brush Holders.
NOTE: New Carbon Brushes tend to arc or spark when first used until they wear and conform to the Motor's Armature. (See Figure Q.)

5. **NOTE: With the exceptions of Steps #1, #2, #3, and #4 all other maintenance and servicing should be performed only by a qualified service technician.**



PLEASE READ THE FOLLOWING CAREFULLY

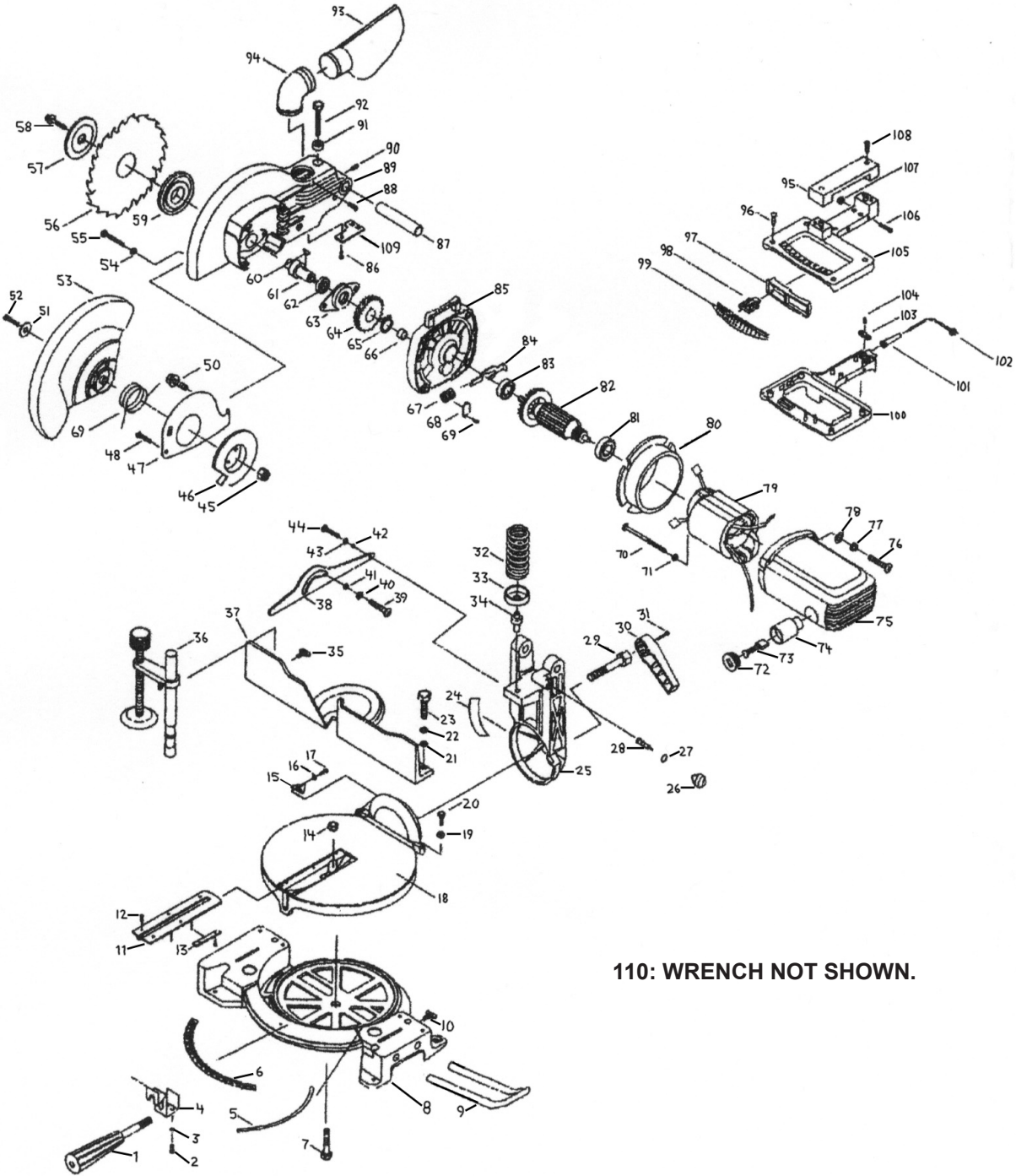
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PARTS LIST

Part #	Description	Part #	Description
1	Handle	56	Saw Blade
2	Screw	57	Outer Flange
3	Spring Gasket	58	Spindle Bolt
4	Angle Lock	59	Inner Flange
5	Slide Way	60	Pin
6	Gauge	61	Arbor
7	Screw	62	Bearing
8	Base	63	Bearing Box
9	Holder	64	Gear
10	Thumb Screw	65	Blind Ring
11	Kerf Board	66	Needle Bearing
12	Screw	67	Spring
13	Left Cut Lay	68	Spring Cover
14	Nut	69	Screw
15	Pointer	70	Screw
16	Spring	71	Spring Gasket
17	Screw	72	Carbon Brush Cover
18	Table	73	Carbon Brush
19	Nut	74	Carbon Brush Holder
20	Screw	75	Motor Housing
21	Gasket	76	Screw
22	Spring Gasket	77	Spring Gasket
23	Screw	78	Gasket
24	Gauge	79	Stator
25	Back Rack	80	Windshield Ring
26	Nut	81	Bearing
27	Rubber Ring	82	Armature
28	Cross Pin	83	Bearing
29	Screw	84	Spindle Lock
30	Handle	85	Middle Cover
31	Screw	86	Screw
32	Spring	87	Fixed Rod
33	Spring Base	88	Screw
34	Small Base	89	Cover Case
35	Thumb Screw	90	Screw
36	Clamp Assembly	91	Rubber Gasket
37	Guide Fence	92	Screw
38	Connecting Bar	93	Dust Bag
39	Screw	94	Dust Tube
40	Gasket	95	Hanging Ring
41	Gasket	96	Screw
42	Gasket	97	Switch Gasket
43	Gasket	98	Power Switch
44	Screw	99	Rubber Buff
45	Nut	100	Handle (Lower)
46	Small Cover	101	Sheathing
47	Large Cover	102	Power Cord
48	Screw	103	Wire Holding Board
49	Spring	104	Screw
50	Bolt	105	Handle (Upper)
51	Gasket	106	Screw
52	Screw	107	Nut
53	Safety Cover	108	Screw
54	Spring Gasket	109	Plate
55	Screw	110	Wrench (Not Shown)

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

ASSEMBLY DIAGRAM



110: WRENCH NOT SHOWN.

NOTE: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.