

# **Operator's Manual** 8-1/4" Miter Saw Item #70705



09/10

#### **IMPORTANT:**



Your new WEN® tool/equipment has been engineered and manufactured to high standards for dependability, ease of operation, and operator safety. Properly cared for, it will give you years of rugged, trouble-free performance.

Pay close attention to the Rules for Safe Operation and Warnings. If you use your tool /equipment properly and only for what it is intended, you will enjoy years of safe, reliable service.



It's not how, it's WEN the project get's done!
Contact us for product questions or technical support.



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800-232-1195 M-F 8-5 (CST)



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For information and questions contact customer service at 1-800-232-1195. Please fill out the information below and have it accessible prior to calling. For the Serial Number refer to the specifications sticker on your Miter Saw.

DATE OF PURCHASE:	
PURCHASED FROM:	
FUNCHASED FROM.	
ITEM #:	
SERIAL NUMBER:	



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## **SPECIFICATIONS**

# 8-1/4" Compound Miter Saw

Item:	70705
Motor:	8.5 Amps
Speed:	5000 rpm (no load)
Blade Diameter:	8-1/4"
Blade Type:	General Purpose with Carbide Tips
Arbor Size:	5/8"
Cutting Capacity:	
Crosscut at 0° Miter, 0° Bevel:	2-3/8" x 4-3/4"
Miter at 45° Miter, 0° Bevel:	2-3/8" x 3-1/8"
Bevel at 0° Miter, 45° Bevel:	1-9/16" x 4-3/4"
Compound at 45° Miter, 45° Bevel:	1-9/16" x 3-1/8"
Positive Table Stops:	0°, 5°, 10°, 15°, 20°, 25°, 30°, 35°, 40° and 45° Left & Right
Positive Bevel Stops:	0°–45° Left Only
Scale:	1º per Scale Mark
Weight:	18 lbs.

# **Package Contents**

Compound Miter Saw, Carbide Tipped Blade, 2 Piece Table Extensions, Dust Collection Bag, 1-Miter Lock Handle, 1 Hold Down Clamp, Operation's Manual and Wrench.



#### **IMPORTANT SAFETY INSTRUCTIONS**

1. The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and the explanations with them, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.



**WARNING:** This is a safety alert symbol. It is used to alert you to potential bodily injury hazards. Obey all safety instructions that follow this symbol to avoid possible bodily injury or death.

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

- 2. Servicing requires extreme care and knowledge and should be performed only by a qualified service technician. For service we suggest you return the tool/equipment to WEN PRODUCTS for repair. When servicing, use only identical WEN replacement parts.
- 3. READ ALL INSTRUCTIONS BEFORE USING YOUR TOOL/EQUIPMENT.
- 4. Failure to follow all instructions listed below may result in electrical shock, fire and/or serious bodily injury.



**WARNING:** Do not attempt to operate this tool/equipment until you have read thoroughly and understand completely all instructions, safety rules, contained in this manual. Failure to comply can result in accidents involving fire, electric shock, or serious bodily injury. Save this Operator's Manual and review frequently for continuing safe operation and instructing others who may use this tool/equipment.

5. Safe operation of this tool/equipment requires that you read and understand this Operator's Manual and all labels affixed to the tool/equipment. Safety is a combination of common sense, staying alert and knowing how your tool/equipment works.

#### **GENERAL SAFETY INSTRUCTIONS**



**WARNING**: Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious bodily injury.

SAVE ALL WARNINGS AND INSTRUCTIONS FOR FUTURE REFERENCE.



- 1. Keep your work area clean and well lit. Cluttered or dark areas invite accidents.
- 2. Do not operate your tool/equipment in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. The motors produce sparks which may ignite the dust or fumes.
- 3. Keep children and bystanders a safe distance from the work area.
- 4. Make the work area childproof with padlocks, master switches and or by removing the starter keys.

#### **Electrical Safety**

- 1. Tool/Equipment plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with grounded tools/equipment. Standard plugs and matching outlets will reduce the risk of electric shock.
- 2. Do not expose your tool/equipment to rain or wet conditions. Water entering your tool/equipment will increase the risk of electric shock.
- 3. Guard against electrical shock by preventing body contact with grounded surfaces such as pipes, radiators, ranges, refrigerator enclosures to name a few.
- 4. Do not abuse the cord. Never use the cord for unplugging your tool/equipment. Keep the cord away from heat, oil, sharp edges or moving parts. Damaged or entangled cords increase the risk of electric shock.
- 5. Inspect your tool/equipment's cord periodically, and if damaged, replace or repair them. Stay constantly aware of the cords' location and keep them away from the rotating wheel.
- 6. Do not use your tool/equipment if the switch does not turn ON and Off. Have defective switches replaced by an authorized service center.

# **Personal Safety**

- Stay alert, watch what you are doing and use common sense when operating your tool/equipment.
  Do not use your tool/equipment while you are tired or under the influence of drugs, alcohol or medication. A moment of inattentiveness while operating your tool/equipment may result in serious bodily injury.
- 2. Stay alert and exercise control. Use protective safety equipment. Always wear ANSI-approved eye protection during setup and use. Everyday eye glasses have impact-resistence lenses; they are NOT safety glasses.
- 3. Protect your hearing. Wear hearing protection during extended periods of operation.



4. Protect your lungs; wear a face or dust mask.



**WARNING:** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are: a) Lead from lead-based paints, b) crystalline silica from bricks and cement and other masonry products, c) 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, including dust masks that are specially designed to filter out microscopic particles.

- 5. Wear proper apparel. Do not wear loose clothing, neckties, or jewelry that can get caught in the tool/equipment's moving parts and cause bodily injury. Wear protective hair covering to contain long hair. Non-slip shoes are recommended when working outdoors.
- 6. Prevent unintentional starting. Ensure the switch is in the OFF position before connecting to a power source or moving your tool/equipment.

#### **Service**

All repairs, whether electrical or mechanical, should be made by a qualified professional repair technician at an authorized service center using only identical replacement parts. This will ensure that the safety of your Electrical Tool is maintained.

#### MITER SAW SAFETY INSTRUCTIONS

#### Miter Saw Use and Care

- Check for damaged parts. 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 condition that
  may affect its operation. A guard or other part that is damaged must be properly repaired or replaced by an authorized service center to avoid risk of bodily injury.
- 2. Secure your work and all adjustments before making a cut. Use clamps or a vise to hold work when practical. It is safer than using your hands and it frees both hands to operate your Miter Saw.
- 3. Keep away from the cutting area. Do not hand hold pieces so small that your fingers go under the blade guard. Do not reach underneath work or in blade cutting path with your hands and fingers for any reason.
- 4. Avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the blade. ALWAYS make sure you have good balance and do not overreach.
- 5. Do not use your Miter Saw if the switch does not turn ON and OFF. A Miter Saw that cannot be controlled with the switch is dangerous and must be repaired.



- 6. Allow the motor to come up to full speed before starting a cut to avoid binding or stalling.
- 7. Never leave your Miter Saw unattended. Release the ON/OFF trigger and don't leave until the blade has come to a complete stop.
- 8. Disconnect the plug from the power source before making any adjustments, changing accessories, or storing your Miter Saw. This preventive safety measure reduces the risk of starting your Miter Saw accidentally.
- 9. Use the recommended accessories listed in this Operator's Manual. The use of improper accessories may cause an injury.
- 10. Keep guards in place and in working order. Never operate your Miter Saw with any guard or cover removed. Make sure all guards are operating properly before each use.
- 11. Form a habit of checking to see that keys and adjusting wrenches are removed from Miter Saw before turning it ON.
- 12. Don't force your Miter Saw. It will do the job safer and better at the rate for which it was designed.
- 13. Always support large work pieces while cutting to minimize the risk of blade pinching and kickback. Your Miter Saw may slip, walk or slide while cutting large or heavy boards.
- 14. Do not remove jammed, cutoff pieces until the blade has stopped.
- 15. Never start your Miter Saw when the blade is in contact with the work piece.
- 16. Never touch the blade or other moving parts during use.
- 17. Before changing the setup, remove the covers, guards or blades and unplug your Miter Saw.
- 18. Always turn OFF your Miter Saw before disconnecting it.
- 19. Store your Miter Saw out of the reach of children and do not allow people unfamiliar with your Miter Saw or these instructions to operate it. A Miter Saw is dangerous in the hands of untrained users.



**WARNING:** Maintain your Miter Saw. Keep your Miter Saw clean for maximum performance. Follow the instructions for lubricating and changing accessories. Keep your Miter Saw dry, clean and free from oil and grease. Always use a clean cloth when cleaning. Never use brake fluids, gasoline, petroleum-based products, or any solvents to clean your Miter Saw.

20. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect your Miter Saw's operation. If damaged, have your Miter Saw repaired professionally before use. Many accidents are caused by a poorly maintained Miter Saw.



21. Use your Miter Saw in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of your Miter Saw for operations different from those intended could result in a hazardous situation.



**WARNING**: Do not operate your saw until it is assembled, and you have read and understood the following instructions as well as the warning labels on the saw.

#### **Miter Saw Preparation**

- 1. Check for proper assembly and alignment of moving parts. (See Assembly Instructions, page 14.)
- 2. Read, understand, and follow all operating instructions and safety warnings in this Operator's Manual.
- 3. Know the condition of your Miter Saw. If any parts are missing, bent or do not operate properly, replace the component(s) before you continue to use your saw.
- 4. Determine the type of work you are going to do prior to operating your saw.
- 5. Arching Parts Keep your Miter Saw at least 20 feet away from explosive vapors, such as when spraying with a spray gun.
- 6. Do not leave your Miter Saw unattended for an extended period while plugged in. Unplug your Miter Saw after use.
- 7. This product is not a toy. Keep it out of reach from children.
- 8. The warnings, precautions, and instructions discussed in this Operator's Manual cannot cover all the possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are the responsibility of the operator.

#### MOTOR SAFETY PROTECTION

# **Power Cord Connection to Electrical Outlet**

- 1. Verify the voltage supplied to the saw and the saw's required voltage is the same. If the supplied voltage is greater than the required voltage, serious bodily injury could result. If the supplied voltage is lower than required voltage, damage to the motor could result.
- 2. Use proper circuit protection. Connect your saw to a branch circuit that uses a 20 Amp time delay fuse or circuit breaker. Using the wrong size fuse could damage the motor.
- 3. Replace a worn, cut or damaged power cord.



#### **ELECTRICAL INSTRUCTIONS**

#### **Grounding Instructions**

- IN THE EVENT OF A MALFUNCTION OR BREAKDOWN, grounding provides the path of least resistance for electric current and reduces the risk of electric shock. This tool/equipment is equipped with an electric cord that has an equipment grounding conductor and a grounding plug. The plug MUST be plugged into a matching outlet that is properly installed and grounded in accordance with ALL local codes and ordinances.
- 2. DO NOT MODIFY THE PLUG PROVIDED. If it will not fit the outlet, have the proper outlet installed by an electrician.
- 3. IMPROPER CONNECTION of the equipment grounding conductor can result in electric shock. The conductor with the green insulation (with or without yellow stripes) is the equipment grounding conductor. If repair or replacement of the electric cord or plug is necessary, DO NOT connect the equipment grounding conductor to a live terminal. CHECK with a licensed electrician or service personnel if you do not completely understand the grounding instructions, or if you are not sure if the tool/equipment is properly grounded.
- 4. USE ONLY THREE WIRE EXTENSION CORDS with have 3-prong plugs and 3-prong outlets that accept the tool/equipment's plug. Repair or replace damaged or worn cords immediately.



**WARNING**: In all cases, make certain the outlet is properly grounded. If you are not sure if it is, have a licensed electrician check the outlet.



**WARNING:** This tool/equipment is for indoor use only. Do not expose to rain or use in damp locations.



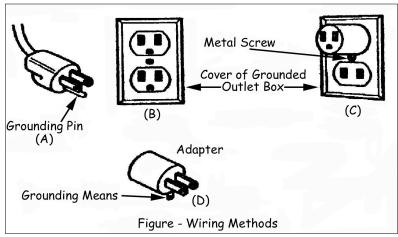


Fig. 1

- 1. Tools/equipment with three wire grounding plugs (Fig. 1, A) are intended for use on a circuit that has an outlet that looks like the one illustrated (Fig. 1, B).
- 2. A temporary adapter (Fig. 1, D) may be used to connect this plug to a 2-pole receptacle (Fig. 1, C) if a properly grounded outlet is not available.
- 3. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician.
- 4. The green colored rigid ear, lug, etc. extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box (Fig. 1, C).

## **Extension Cord Guidelines**

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 below shows the correct size to be used according to cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

Minimum Gauge for Extension Cords (AWG) (When using 120V only)									
Ampere	Rating	Total Length of Cord in Feet							
More Than	Not More Than	1 25		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 Reco	mmended				



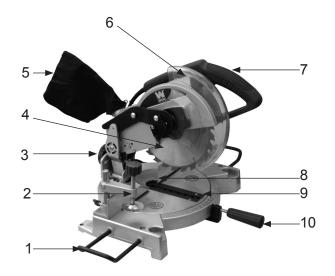
- 1. Be sure your extension cord is properly wired and in good condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.
- 2. Protect your extension cords from sharp objects, excessive heat and damp or wet areas.
- 3. Use a separate electrical circuit for your tools. This circuit must not be less than a #12 wire and should be protected with a 20 Amp time delayed fuse.
- 4. 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.



**WARNING:** This tool/equipment must be grounded while in use to protect the operator from electrical shock.



# COMPONENTS



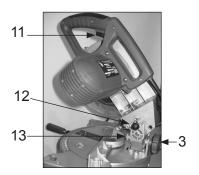


Fig. 2

1 – Extens	sion Support	
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3 – Bevel Lock Knob

5 – Dust Collection Bag

7 – Handle

9 - Kerf Board

11 – Switch

13 – Depth Stop Screw

2 - Hold Down Clamp

4 – Blade

6 - Blade Guard

8 – Guide Fence

10 - Miter Lock Handle

12 – Lock Pin



#### **ASSEMBLY INSTRUCTIONS**

#### **Extension Supports and Miter Lock Handle Attachment**

- 1. Insert the ends of the Extension Supports into the holes in the sides of the base. Tighten the Screws to hold the Extensions in place. The upper edge of the Extensions will be level with the surface of the saw. This provides a wider base for the work piece to rest on.
- 2. Thread the Miter Lock Handle into the opening of the Miter Handle until securely in place.

#### **Attach the Dust Collection Bag**

The Dust Collection Bag slips over the Dust Outlet behind the Blade Housing Assembly. Sawdust created by cutting is captured in the bag.

## **Saw Mounting**

The Miter Saw must be mounted on a support before use. This may be a commercially available support or homemade saw table. There are bolt holes provided in each of the four legs of the base. These legs should be firmly mounted using bolts (not included) to your saw stand or saw table (not included). This will help prevent tipping or movement of the saw, preventing injury. Also, the use of a saw table will make it easier to efficiently handle work pieces and make more accurate cuts.

#### **OPERATION INSTRUCTIONS**

- 1. Designate a work area that is clean and well lit. The work area must not allow children or pets access to prevent injury and operator distraction.
- 2. Route the power cord along a safe route to reach the work area without creating a tripping hazard or exposing the power cord to possible damage. The power cord must reach the work area with enough extra length to allow free movement while working.
- 3. Use a saw table, saw stand or other means to support the work piece. The Miter Saw must be mounted in such a way that the surface is level to the ground, and supports used must provide a surface on the same level as the saw table. If the work surface and any work pieces supports are not level, and on the same level, unwanted bevel angles will appear in the cuts resulting in poor joinery.
- 4. Work pieces may be secured to the saw table using the Hold Down Clamp or other clamping devices (not included). Securing the work piece will provide safety by preventing kickback and by eliminating the need to hold work pieces near the blade by hand. Clamping the work piece will also improve cutting accuracy by preventing the work piece from moving during the cutting operation.
- 5. When using this saw, work pieces are often quite long. Allow room on both the left and right sides of saw for extended work pieces.



- 1. When the Handle is lowered, the Blade Guard raises automatically. When the Handle is raised the Blade Guard returns to its safety position. Keep hands clear of the Blade when the Handle is lowered. Never interfere with the proper movement of the Blade Guard.
- 2. There are locking mechanisms for the miter angle. Unlock the Table to set the miter angle, then re-lock it before making the cut.
- 3. To rotate the Table, loosen the Miter Lock Handle, rotate the Table to the desired angle, then tighten the Miter Lock Handle. Notches are machined into the Base of the tool which will lock the Table into several often used miter angles. These angles are 0° (centered), 5°, 10°, 15°, 20°, 25°, 30°, 35°, 40° and 45° left and right.
- 4. To make a bevel cut, release the Bevel Lock Lever, rotate the Blade Assembly to the desired bevel angle, then lock the Blade Assembly in place using the Bevel Lock Lever. For making bevel cuts see page 16.
- 5. This saw is provided with a Kerf Board. The Kerf Board helps to prevent tear-out on the bottom side of the work piece. The Kerf Board is factory adjusted prior to shipment of this tool so the blade does not contact the Kerf Board during normal operation, including bevel cuts. Adjustment of the Kerf Board and techniques to prevent tear-out are on page 16.
- 6. Before starting work, check the accuracy of the Guide Fence, miter angle and bevel angle. See pages 16 and 17 for checking and adjusting these angles.
- 7. It is very important that the work piece be properly supported before making a cut. The material must be level on the Table. The material must be supported on both ends. Using the Work Piece Extension Supports is discussed below.

## **Work Piece Extension Supports Use**

- 1. The Work Piece Extension Supports are inserted into each side of the Table, and locked in place using the screws.
- 2. When properly installed, the upper face of the work piece extension supports are level with the Table, and provide a wider support surface for the work piece.
- 3. Always support the work piece to be level with the Table, and so that after the cut is made the cut off pieces will not fall. You may need to use saw horses or other supports (not included) to support the work piece.
- 4. If the work piece is not level, you will make an unintentional bevel cut in the material. If the work piece is not supported, it will bind the blade and may cause the material to kickback, potentially causing injury.



## Miter Angle Adjustment

- 1. A miter cut is one that is at an angle across the horizontal surface of the material. You will commonly make 45° miter cuts to join two pieces in a right angle corner. A 30° cut is often used for a scarf joint or to make a chamfered end.
- 2. To make a miter cut, loosen the Miter Lock Handle by turning it approximately 1/4 turn counterclockwise. Move the Table to the desired angle. The Miter Angle Indicator will indicate the selected angle. The Table will lock into place at often used miter angles, including 0°, 5°, 10°, 15°, 20°, 25°, 30°, 35°, 40° and 45° both left and right sides.
- 3. Tighten the Lock Handle to the lock the Table.
- 4. With the Table adjusted to the desired angle, place the work piece flush against the Guide Fence, secure it with the Hold Down Clamp and make the cut.

#### **Bevel Angle Adjustment**

- 1. A bevel cut is one that is at an angle to the vertical plane of the material.
- 2. Bevel cuts can be used to miter relatively wide and thin material. Bevel cuts can be used in combination with a miter cut to form a compound angle. Compound angle cuts are often used in crown moldings, picture frames and similar trim materials.
- 3. To set the bevel angle, loosen the Bevel Lock Handle at the rear of the saw. To do this, press in the Lock Button and rotate the Handle 1/2 turn counterclockwise. Move the Blade Assembly left to the desired angle. You can read the angle on the Bevel Angle Indicator. Lock the Blade Assembly into position by pressing in the Lock Button and rotating the Bevel Lock Handle clockwise. Tighten firmly but not over-tight.
- 4. Make a sample cut in a piece of scrap and check to be sure the bevel angle is correct. If it is not, correct the angle before cutting your work piece.

# **Depth Stop Use**

- 1. If you want to make a Kerfing or rabbet cut which does not cut through the work piece, you can use the Depth Stop Screw to control the depth of the cut.
- 2. To limit Blade Assembly travel, turn the Depth Stop Screw clockwise. The further you screw down the Depth Stop Screw, the shallower the cut will be.
- 3. After the desired cut has been made, return the Depth Stop Screw to its open position by turning it counterclockwise.



## Squaring the Saw Blade to the Guide Fence



**WARNING:** Be sure that the Miter Saw is switched OFF and unplugged from the power source before performing any work on the tool. Failure to unplug the saw may result in accidental start-up, causing possible serious bodily injury.

- 1. Unplug the Miter Saw.
- 2. Loosen the Miter Lock Knob. Rotate the Miter Table and move pointer to the 0° position.
- 3. Tighten the Miter Lock Knob securely.
- 4. Pull the saw head down completely and lock the saw head into the transport position.
- 5. Lay a small framing square or tri-square on the Miter Table. Place one leg of the square against the Guide Fence and slide the other leg of the square against a flat part of the Saw Blade. (Be sure the square contacts the flat part of the Saw Blade and not the blade teeth.)
- 6. Check that the edge of the square and the Saw Blade are parallel along the entire length of the square's edge.
- 7. If the front or back portion of the blade angles away from the squarer's edge, adjusting the Guide Fence is necessary.
- 8. Using the Allen wrench, loosen the two hex bolts (Fig. 3) that secure the Guide Fence to the saw's stationary table.
- 9. While holding one leg of the square against the Guide Fence, slowly move the Guide Fence to the left or right until the Saw Blade is parallel with square's other leg.



Fig. 3

10. Carefully tighten the two hex bolts and recheck the blade alignment as in steps 5 and 6.

## 0° and 45° Bevel Stop Adjustments

**NOTE:** This is factory set and usually does not require adjusting. (This saw may not come with the necessary tools for the following procedure.)



**WARNING:** Be sure that the tool is switched OFF and unplugged from the power source before performing any work on the tool. Failure to unplug the saw may result in accidental start-up, causing possible serious bodily injury.

- 1. Unplug the Miter Saw.
- 2. Align the Miter Table to 0° and lock the saw head down in the transport position.



- 3. Loosen the Bevel Lock Knob (Fig. 4) at the rear of the saw by turning it counter-clockwise and set the Saw Arm at 0° bevel (blade 90° to the Miter Table).
- 4. Place a combination square on the Miter Table and the flat part of the Saw Blade (making sure the square is not touching any blade teeth).
- 5. Slowly rotate the blade by hand, checking the square's alignment with the blade at several points. The edge of the square and blade should be parallel; however, if the top or bottom of the blade angles away from the square's edge, an adjustment is needed.
- 6. Using a 10mm wrench, loosen the Lock Nut (securing the positive bevel stop adjustment bolt in place). The 0° bevel adjustment bolt (Fig. 5) is located on the rear right side of the Miter Table.
- 7. Use an Allen wrench to turn the adjustment screw and so that the blade is in alignment with the square.
- 8. Retighten the bevel adjustment lock nut. Retighten the Bevel Lock Handle. Recheck the blade to table alignment as in steps 4 and 5.

Bevel Lock Knob



Fig. 4



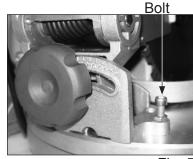


Fig. 5

## Making a Cut

- 1. Observe all safety and planning items discussed in this manual. Detailed instructions on each of the following steps are discussed in this manual. Do not make any cuts until you have read this entire manual and are familiar with the operation of this tool.
- 2. Release the Locking Pin to allow the Blade Assembly to come up. Check to be sure the Table is fixed in place at the desired miter angle.
- 3. Blow any sawdust or debris away from the Guide Fence. Place the work piece against the Guide Fence.
- 4. Make any necessary miter or bevel adjustments.
- 5. Align the marked location of the cut on the work piece with the Saw Blade. Be aware that the Saw Blade will remove material from the cut equal to the width of the blade. This is the "Kerf". To prevent your work piece from being cut too short, align the edge of the blade with your measured mark, keeping the Kerf on the waste side of the cut.
- 6. Hold the work piece in place using the Hold Down Clamp. Ensure that the work piece is level and supported securely, using saw horses or supports if necessary.
- 7. Grip the Saw Handle and squeeze the Trigger to start the Blade turning.



- 8. Pressing down lightly, move the Blade smoothly across the work piece to cut it. With narrow material, you can press straight down "chopping" the material. With wider material you must move the blade across the material to cut it. Do not bear down on the material, use light downward pressure. If the material binds the blade, release the trigger. Keep your hands and fingers away from the blade.
- 9. When the cut is completed, raise the Blade Assembly, wait for the blade to stop turning, release the Hold Down Clamp and remove the work piece from the saw.

## **Avoid Injury From Jams, Sips or Thrown Pieces**

- 1. Use the correct 8-14" blade for the material and type of cut. Do not cut materials that may shatter, grab the blade or cause other danger.
- 2. Only use a blade that is sharp and in good condition. Check alignment of the blade after it is installed. Unplug the saw and carefully spin the blade using your hand. The blade should not contact any components of the saw. If so, correct the problem before operating the saw.
- 3. Be sure the blade and blade flanges are clean.
- 4. Make sure the blade flanges are properly installed.
- 5. Be sure the arbor bolt and washer are properly installed and tightened.
- 6. Ensure all clamps and locks are tight. Verify there is no excessive play in any parts.
- 7. Allow the blade to reach full speed before cutting.

#### Do Not Cut Freehand

- 1. The work piece should be tight against the Guide Fence. Verify the work piece will not rock or twist when it's being cut. The area between the work piece and the saw must be free from debris.
- 2. Make sure there is no gap between the work piece, Guide Fence and base of the saw. A gap could allow the work piece to move when it's being cut.
- 3. Use clamps, fixtures or other devices to hold an unstable work piece.
- 4. Do not cut more than one work piece at a time.
- 5. Allow room so the cut-off work piece can move after it's cut. It could create a hazard by becoming wedged against the blade.



#### **Cutting Odd Shapes, Oversize or Small Pieces**

- 1. Plan your work so an odd shaped work piece cannot slip or pinch the blade. When cutting material like molding, it must lie flat or be held by a fixture. Do not allow the material to rock, twist or slip.
- 2. Secure sagging work pieces with sawhorses, tables or other additional supports.
- 3. Do not cut small work pieces that you must hold closer than 4 inches from the blade.
- 4. Properly support round material when cutting. Dowel rods and tubing have a tendency to roll while being cut. This could allow the blade to "bite" into the material causing a hazardous condition. Hold round material in place using clamps or other fixtures.
- 5. Inspect the work piece for nails or other foreign objects before it is cut.
- 6. Do not allow anyone to stand behind the saw or close to the work piece where debris can be thrown.
- 7. Operate your saw in a clear, safe environment.
- 8. Avoid contact with the rotating blade. Do not wear gloves, loose clothing or jewelry. Tie back long hair and roll long sleeves above the elbow.
- 9. Unplug the power cord from the electrical outlet to avoid injury from accidental starting of your Miter Saw. Make sure the power cord is unplugged during blade installation, performing maintenance or making adjustments.
- 10. Avoid electrical shock. Do not touch the metal blades on the power cord plug when removing or installing the plug into an electrical outlet.
- 11. Prevent fire hazards. Do not operate the saw near flammable liquids, vapors or gases.
- 12. To avoid injury from unexpected saw movement when operating your Miter Saw, use the saw on a firm level surface with adequate space for handling and supporting the work piece. Be sure the saw cannot move when operated. Secure the saw to a workbench or table with wood screws, or bolts, washers and nuts.
- 13. To move your Miter Saw, unplug the power cord from the electrical outlet. Lock the Handle in the down position using the Handle Latch.
- 14. Avoid back injuries. Obtain help when it is necessary to raise the saw more than 10 inches. Bend your knees when lifting the saw.
- 15. Carry your saw by the carrying Handle or base. Do not carry your saw by the power cord or the trigger handle. Carrying the saw by the power cord could cause damage to the insulation or the wire connections resulting in electric shock or fire.



- 16. Do not make a careless error. Just because you operate the saw frequently, a neglectful moment can cause a severe injury.
- 17. Do not lubricate the blade while your Miter Saw is running.
- 18. Test the operation of your saw prior to cutting a work piece. If you feel excessive vibration or hear an unusual noise, immediately stop operating the saw. Correct the problem before continued use.
- 19. Allow movement of the waste portion of the work piece. Do not hold it, clamp it, touch it or use a length stop against it. The cut-off waste portion must be free to move. It could become wedged against the blade causing a hazard.
- 20. Avoid awkward hand positions. It is important to position your hand no closer than four (4) inches from the blade.
- 21. Do not cross your arms in front of the blade while operating the saw.
- 22. Do not force the blade through the work piece. Lower the blade through the work piece fast enough to allow the blade to cut without binding or bogging down.
- 23. Before removing obstructed material, release the trigger switch/start button, wait for the blade to stop moving and unplug the power cord from the electrical outlet.
- 24. After completing a cut, keep the Handle in the down position. Release the trigger switch/start button and wait for the blade to stop moving.

#### MAINTENANCE AND SERVICE

## Cleaning, Maintenance and Lubrication

- 1. Before each use inspect the general condition of the tool. Check for loose screws, misalignment or binding of moving parts, cracked or broken parts, damaged electrical wiring, and any other condition that may affect its safe operation.
- 2. After use clean external surfaces of the tool with clean, moist cloth. To prevent accidents, turn OFF the tool and disconnect its power supply after use. Clean, then store the tool indoors out of children's reach.
- 3. If the blade has become dirty, use a blade cleaner (not included) to clean it. Dirty blades will bind easily, and will often overheat and burn the wood as it cuts. Overheated blades dull more easily.
- 4. If the blade has become dull, replace it. Dull blades will cause increased tear-out and ragged edges on the cuts.
- 5. Occasionally clean the Slides, rotating Table components and other moving parts. Use a good quality dry lubricant (not included) which will not attract dust.





**WARNING:** If the supply cord of this power tool is damaged, it must be replaced only by a qualified service technician.

#### **Blade Replacement**

1. Unplug the tool from its power source.

2. Lock the Blade Assembly in the raised position by pushing in the Locking Pin.

3. Use a screw driver remove the Center Cover Fixing Bolt holding the Center Cover in place by turning it counterclockwise (Fig. 6).

4. Raise the Blade Guard and Center Cover (Fig. 7).

5. Use the wrenches to loosen the Arbor Bolt by turning it clockwise. (Fig. 8)

**NOTE**: The Arbor Bolt has a left hand thread, so it loosens by turning clockwise.

- 6. Remove the Arbor Bolt, Outer Flange and Saw Blade by pulling them straight off the Arbor.
- 7. Reinstall a new blade on the Arbor. Be sure to match the direction marked on the new blade with the direction marked on the Saw Blade Housing.
- 8. Replace the Outer Flange and Arbor Bolt. Tighten the Arbor Bolt securely using the Wrench by turning it counterclockwise.
- 9. Rotate the Center Cover back into place and tighten the Center Cover Fixing Bolt using the Wrench by turning it clockwise.
- 10. Release the Locking Pin.

## **Guide Fence Adjustment**

- 1. The Guide holds the work piece in a fixed position while the Table and or the Blade Assembly are adjusted in a miter or bevel angle.
- 2. To make accurate cuts, the Guide Fence must be perpendicular (at a 90° angle) to the Saw Blade.





Fig. 6



Fig. 7



Fig. 8



- 3. Before beginning work, make a test cut on scrap material with the Table set at 90°.
- 4. Check the cut with an accurate square. You can also reverse the two pieces, hold the cut ends together, and hold a good straight edge along the side of the pieces.
- 5. If either test reveals that the cut is not a true 90° angle, you must adjust the Guide Fence before beginning work.
- 6. To adjust the Guide Fence, first unplug the tool.
- 7. Lower the Blade Assembly and lock it in place using the Locking Pin.
- 8. Lay a reliable carpenter's square on the Table with one edge along the blade and the other along the Guide Fence. Any inaccuracy should be visible.

NOTE: The square must contact the surface of the blade, not the teeth, for an accurate reading.

- 9. The Guide Fence is held in place with bolts at each end. Loosen the bolts slightly, and gently tap the Guide Fence into position using a soft mallet. Retighten the bolts and make another test cut. Repeat the process until the Guide Fence is adjusted accurately.
- 10. Once the Guide Fence is accurately adjusted, tighten the bolts firmly in place. Recheck one last time, then proceed to work.

## **Bevel Angle Adjustment**

- 1. For making accurate cuts, the saw blade must be adjusted to be exactly vertical to the Table.
- 2. To check the angle, have the Blade Assembly in its normal upright position. Make a cut on a piece of flat sided, fairly thick scrap material.
- 3. Check the cut with an accurate square. The cut should be at exactly 90°. You can also check by rotating one cut-off piece 180° and hold the cut ends together. If the cut is not exactly vertical, the two pieces will form a slight angle.
- 4. If necessary, the bevel angle can be corrected by adjusting the Bevel Adjustment Screw on the right side under the Bevel Locking Lever.
- 5. Once the bevel angle is adjusted, adjust the Bevel Angle Indicator to read 0° when the saw blade is in the vertical position. Loosen the screw holding the Indicator in place, adjust it to be exactly over the 0° mark, then retighten the screw.

# **Kerf Board Adjustment or Replacement**

- 1. If the Kerf Board becomes damaged it must be replaced.
- 2. Remove the four screws holding the Kerf Board in place.



- 3. Install a new Kerf Board. Replace the four screws and tighten them slightly.
- 4. To adjust the Kerf Board, lower the Saw Blade and lock it down with the Locking Pin. Adjust the Kerf Board so the right side of the blade slightly clears the edge of the Kerf Board. Loosen the Bevel Lock and set the Bevel Angle at 45° left. Ensure that the left side of the blade clears the Kerf Board. Tighten the four screws holding the Kerf Board in place.

## **Miter Saw Cleaning and Lubricating**

- 1. Observe the Dust Bag while using the saw. Empty the sawdust into an appropriate container when the bag is full.
- 2. Occasionally wipe or blow off sawdust that accumulates on the saw. Saw dust on the Guide Fence can cause you to make inaccurate cuts.
- 3. Keep the Slides free of sawdust. Wipe or blow them off as required. Use a dry lubricant or wax on the slides. Do not use an oil or grease lubricant, as this will attract dust.
- 4. Occasionally lubricate the pivot point of the Table as well as other moving parts with a dry lubricant.



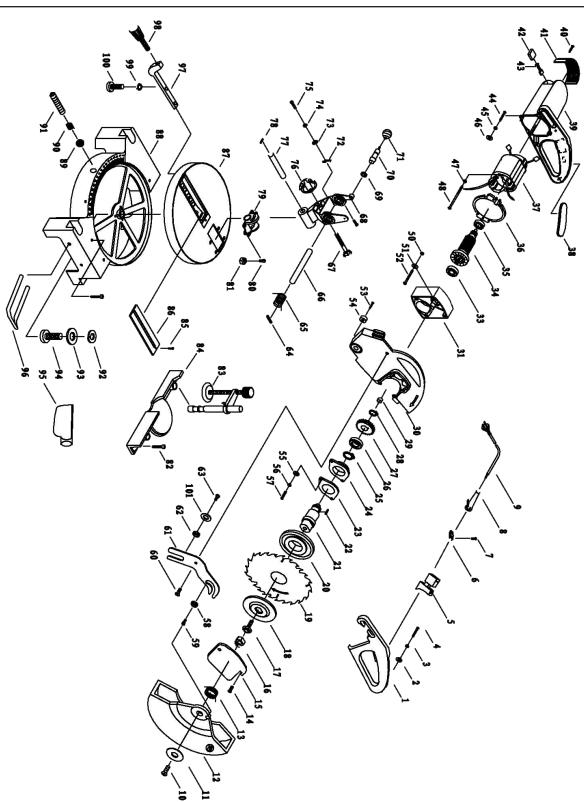
# TROUBLESHOOTING

Problem	Possible Causes	Likely Solutions
Miter Saw will not start	<ol> <li>No power at outlet.</li> <li>Cord not connected.</li> </ol>	<ol> <li>Check power at outlet.</li> <li>Check that cord is plugged into outlet.</li> </ol>
Miter Saw operates sporadically or at low power	<ol> <li>Low power supply or proper extension cord</li> <li>Worn or cracked carb brushes.</li> </ol>	ds. 2. Check Carbon Brushes. Replace if damaged
Wood burns at ends when cut	<ol> <li>Dirty blade.</li> <li>Material is binding.</li> </ol>	<ol> <li>Clean blade using blade cleaner or mineral spirits.</li> <li>Check position of work piece on Table.</li> <li>Material must be flat, flush against the Guide Fence and supported on ends.</li> </ol>
Material frays or chips out	<ol> <li>Finished side is down</li> <li>Blade is chopped or of the state of</li></ol>	Always have finished side of material up or facing you.      Bottom and back side are prone to chip out.      Check for damaged teeth. Sharpen or replace blade.
Blade binds, slowing or stopping saw	<ol> <li>Material is misaligned the saw or ends are r supported.</li> <li>Material is wet, conta nated or inappropriate blade is being used.</li> </ol>	Guide Fence and support on both ends.  2. Check condition of material and check compatibility of blade to material.

Follow all safety precautions whenever diagnosing or servicing your Miter Saw. Disconnect power supply before service.



# **EXPLODED VIEW**





# PARTS LIST

Part #	Stock #	Description	Part #	Stock #	Description
1	70705-001	Handle	26	70705-026	Bearing 6002
2	70705-002	Washer	27	70705-027	Gear
3	70705-003	Spring Washer	28	70705-028	Circle Clip 12
4	70705-004	Screw ST4x18	29	70705-029	Needle Bearing
5	70705-005	Switch	30	70705-030	Blade Housing
6	70705-006	Wire Holding Board	31	70705-031	Middle Cover
7	70705-007	Screw ST4.2x14	33	70705-033	Bearing 6200
8	70705-008	Cord Sleeve	34	70705-034	Armature
9	70705-009	Power Cord	35	70705-035	Bearing 608
10	70705-010	Screw M5x10	36	70705-036	Windshield Ring
11	70705-011	Washer	37	70705-037	Stator
12	70705-012	Blade Guard	38	70705-038	Handle Grip
13	70705-013	Spring	39	70705-039	Motor Housing
14	70705-014	Screw	40	70705-040	Screw
15	70705-015	Large Cover	41	70705-041	Motor Cover
16	70705-016	Nut M5	42	70705-042	Carbon Brush Cover
17	70705-017	Arbor Bolt	43	70705-043	Carbon Brush
18	70705-018	Outer Flange	44	70705-044	Screw M5x25
19	70705-019	Blade	45	70705-045	Spring Washer
20	70705-020	Inner Flange	46	70705-046	Washer
21	70705-021	Arbor	47	70705-047	Washer
22	70705-022	Key	48	70705-048	Bolt M5x75
23	70705-023	Cover	50	70705-050	Spring Washer
24	70705-024	Front Cover	51	70705-051	Washer
25	70705-025	Circle Clip 15	52	70705-052	Screw M5x18



# **PARTS LIST**

Part #	Stock #	Description	Part #	Stock #	Description
53	70705-053	Screw M6x16	77	70705-077	Pin
54	70705-054	Rubber Seal	78	70705-078	Screw M6x10
55	70705-055	Washer 5	79	70705-079	Bracket
56	70705-056	Spring Washer 5	80	70705-080	Screw M6x16
57	70705-057	Screw M5x18	81	70705-081	Nut M6
58	70705-058	Needle Bearing	82	70705-082	Screw M6x16
59	70705-059	Screw	83	70705-083	Hold Down Clamp
60	70705-060	Screw	84	70705-084	Guide Fence
61	70705-061	Connecting Bar	85	70705-085	Screw M4x10
62	70705-062	Roller	86	70705-086	Kerf Board
63	70705-063	Screw	87	70705-087	Table
64	70705-064	Set Screw	88	70705-088	Base
65	70705-065	Spring	89	70705-089	Ball
66	70705-066	Pin	90	70705-090	Spring
67	70705-067	Screw	91	70705-091	Screw M10
68	70705-068	Back Rack	92	70705-092	Spring Washer
69	70705-069	Spring	93	70705-093	Washer
70	70705-070	Lock Pin	94	70705-094	Screw M8x20
71	70705-071	Rubber Knob	95	70705-095	Dust Collection Bag
72	70705-072	Pointer	96	70705-096	Extension Support
73	70705-073	Washer	97	70705-097	Plate
74	70705-074	Spring Washer	98	70705-098	Miter Lock Handle
75	70705-075	Screw	99	70705-099	Spring Washer
76	70705-076	Wheel	100	70705-100	Screw M6x20



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