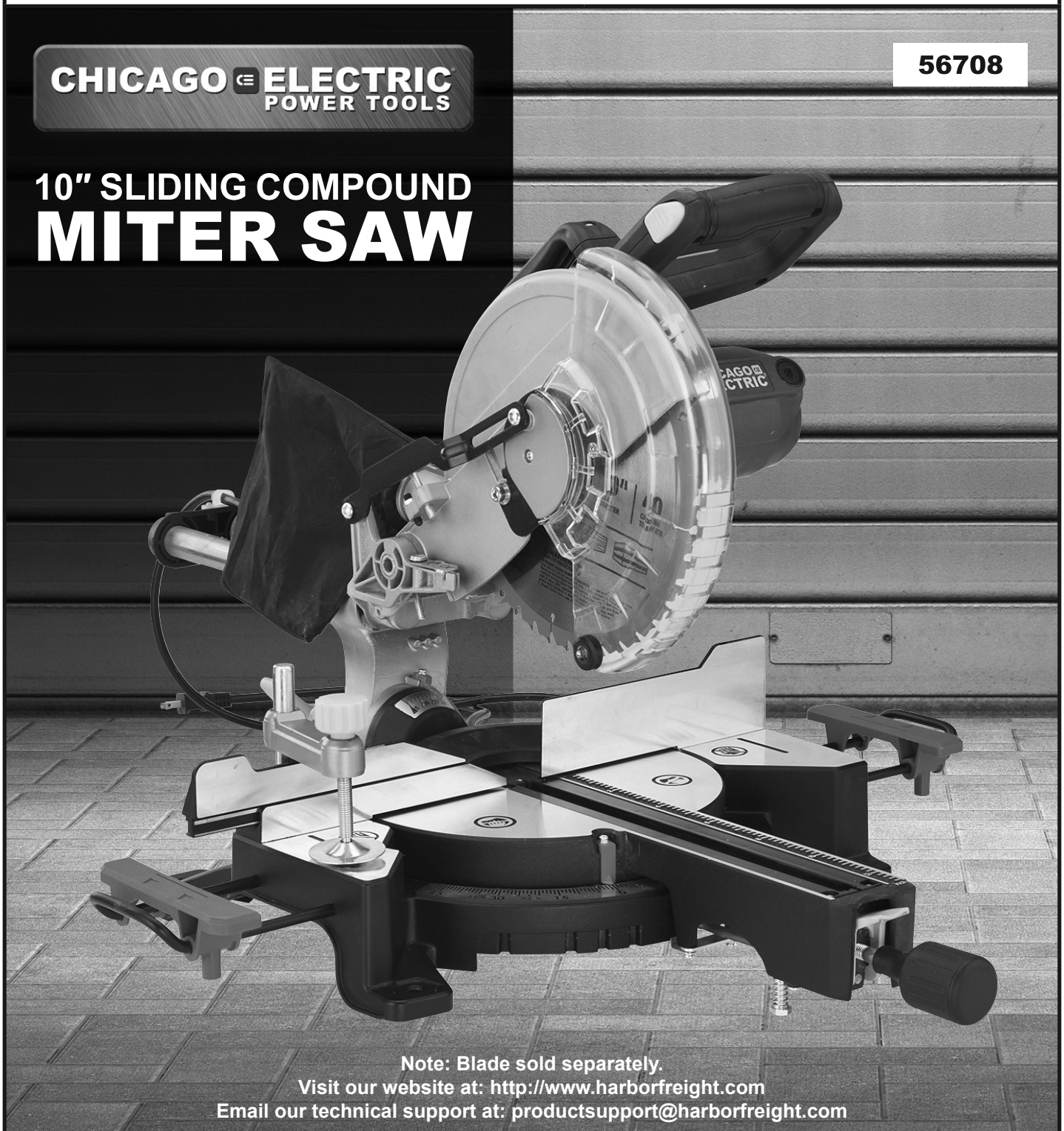
Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference. 19i

CHICAGO ELECTRIC POWER TOOLS

56708

10" SLIDING COMPOUND MITER SAW



Note: Blade sold separately.
Visit our website at: http://www.harborfreight.com
Email our technical support at: productsupport@harborfreight.com

When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

⚠WARNING

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

Table of Contents

CHICAGO ELECTRIC® POWER TOOLS

WARNING SYMBOLS AND DEFINITIONS	
⚠	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
⚠ DANGER	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
⚠ WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
⚠ CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
NOTICE CAUTION	Addresses practices not related to personal injury.

IMPORTANT SAFETY INFORMATION

General Power Tool Safety Warnings

⚠ WARNING

Read all safety warnings, instructions, illustrations and specifications provided with this power tool.
Failure to follow all instructions listed below may result in electric shock, fire and/or serious injury.

Save all warnings and instructions for future reference.

The term "power tool" in the warnings refers to your mains-operated (corded) power tool or battery-operated (cordless) power tool.

1. **Work area safety**
   a. **Keep work area clean and well lit.** *Cluttered or dark areas invite accidents.*
   b. **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 the dust or fumes.*
   c. **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*

2. **Electrical safety**
   a. **Power tool plugs must match the outlet. Never modify the plug in any way. Do not use any adapter plugs with earthed (grounded) power tools.** *Unmodified plugs and matching outlets will reduce risk of electric shock.*
   b. **Avoid body contact with earthed or grounded surfaces, such as pipes, radiators, ranges and refrigerators.** *There is an increased risk of electric shock if your body is earthed or grounded.*
   c. **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*

d. **Do not abuse the cord. Never use the cord for carrying, pulling or unplugging the power tool. Keep cord away from heat, oil, sharp edges or moving parts.** *Damaged or entangled cords increase the risk of electric shock.*

e. **When operating a power tool outdoors, use an extension cord suitable for outdoor use.** *Use of a cord suitable for outdoor use reduces the risk of electric shock.*

f. **If operating a power tool in a damp location is unavoidable, use a ground fault circuit interrupter (GFCI) protected supply.** *Use of a GFCI reduces the risk of electric shock.*

3. **Personal safety**

a. **Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use a power tool while you are tired or under the influence of drugs, alcohol or medication.** *A moment of inattention while operating power tools may result in serious personal injury.*

b. **Use personal protective equipment. Always wear eye protection.** *Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.*

c. **Prevent unintentional starting. Ensure the switch is in the off-position before connecting to power source and/or battery pack, picking up or carrying the tool.** *Carrying power tools with your finger on the switch or energizing power tools that have the switch on invites accidents.*

d. **Remove any adjusting key or wrench before turning the power tool on.** *A wrench or a key left attached to a rotating part of the power tool may result in personal injury.*

e. **Do not overreach. Keep proper footing and balance at all times.** *This enables better control of the power tool in unexpected situations.*

f. **Dress properly. Do not wear loose clothing or jewelry. Keep your hair, clothing and gloves away from moving parts.** *Loose clothes, jewelry or long hair can be caught in moving parts.*

g. **If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used.** *Use of dust collection can reduce dust-related hazards.*

h. **Do not let familiarity gained from frequent use of tools allow you to become complacent and ignore tool safety principles.** *A careless action can cause severe injury within a fraction of a second.*

i. Only use safety equipment that has been approved by an appropriate standards agency. Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.

j. Avoid unintentional starting. Prepare to begin work before turning on the tool.

k. Do not leave the tool unattended when it is plugged into an electrical outlet. Turn off the tool, and unplug it from its electrical outlet before leaving.

l. This product is not a toy. Keep it out of reach of children.

m. 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. In addition, people with pacemakers should:
• Avoid operating alone.
• Do not use with Trigger locked on.
• Properly maintain and inspect to avoid electrical shock.
• Properly ground power cord.
Ground Fault Circuit Interrupter (GFCI) should also be implemented – it prevents sustained electrical shock.

n. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

4. **Power tool use and care**

a. **Do not force the power tool. Use the correct power tool for your application.** *The correct power tool will do the job better and safer at the rate for which it was designed.*

b. **Do not use the power tool if the switch does not turn it on and off.** *Any power tool that cannot be controlled with the switch is dangerous and must be repaired.*

c. **Disconnect the plug from the power source and/or remove the battery pack, if detachable, from the power tool before making any adjustments, changing accessories, or storing power tools.** *Such preventive safety measures reduce the risk of starting the power tool accidentally.*

d. **Store idle power tools out of the reach of children and do not allow persons unfamiliar with the power tool or these instructions to operate the power tool.** *Power tools are dangerous in the hands of untrained users.*

e. **Maintain power tools and accessories. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the power tool's operation. If damaged, have the power tool repaired before use.** *Many accidents are caused by poorly maintained power tools.*

f. **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*

g. **Use the power tool, accessories and tool bits etc. in accordance with these instructions, taking into account the working conditions and the work to be performed.** *Use of the power tool for operations different from those intended could result in a hazardous situation.*

h. **Keep handles and grasping surfaces dry, clean and free from oil and grease.** *Slippery handles and grasping surfaces do not allow for safe handling and control of the tool in unexpected situations.*

5. **Service**

a. **Have your power tool serviced by a qualified repair person using only identical replacement parts.** *This will ensure that the safety of the power tool is maintained.*

b. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

6. **Safety instructions for mitre saws**

a. **Mitre saws are intended to cut wood or wood-like products, they cannot be used with abrasive cut-off wheels for cutting ferrous material such as bars, rods, studs, etc.** *Abrasive dust causes moving parts such as the lower guard to jam. Sparks from abrasive cutting will burn the lower guard, the kerf insert and other plastic parts.*

b. **Use clamps to support the workpiece whenever possible. If supporting the workpiece by hand, you must always keep your hand at least 100 mm from either side of the saw blade. Do not use this saw to cut pieces that are too small to be securely clamped or held by hand.** *If your hand is placed too close to the saw blade, there is an increased risk of injury from blade contact.*

c. **The workpiece must be stationary and clamped or held against both the fence and the table. Do not feed the workpiece into the blade or cut "freehand" in any way.** *Unrestrained or moving workpieces could be thrown at high speeds, causing injury.*

d. **Push the saw through the workpiece. Do not pull the saw through the workpiece. To make a cut, raise the saw head and pull it out over the workpiece without cutting, start the motor, press the saw head down and push the saw through the workpiece.** *Cutting on the pull stroke is likely to cause the saw blade to climb on top of the workpiece and violently throw the blade assembly towards the operator.*

e. **Never cross your hand over the intended line of cutting either in front or behind the saw blade.** *Supporting the workpiece "cross handed" i.e. holding the workpiece to the right of the saw blade with your left hand or vice versa is very dangerous.*

f. **Do not reach behind the fence with either hand closer than 100 mm from either side of the saw blade, to remove wood scraps, or for any other reason while the blade is spinning.** *The proximity of the spinning saw blade to your hand may not be obvious and you may be seriously injured.*

g. **Inspect your workpiece before cutting. If the workpiece is bowed or warped, clamp it with the outside bowed face toward the fence. Always make certain that there is no gap between the workpiece, fence and table along the line of the cut.** *Bent or warped workpieces can twist or shift and may cause binding on the spinning saw blade while cutting. There should be no nails or foreign objects in the workpiece.*

h. **Do not use the saw until the table is clear of all tools, wood scraps, etc., except for the workpiece.** *Small debris or loose pieces of wood or other objects that contact the revolving blade can be thrown with high speed.*

i. **Cut only one workpiece at a time.** *Stacked multiple workpieces cannot be adequately clamped or braced and may bind on the blade or shift during cutting.*

j. **Ensure the mitre saw is mounted or placed on a level, firm work surface before use.** *A level and firm work surface reduces the risk of the mitre saw becoming unstable.*

k. **Plan your work. Every time you change the bevel or mitre angle setting, make sure the adjustable fence is set correctly to support the workpiece and will not interfere with the blade or the guarding system.** *Without turning the tool "ON" and with no workpiece on the table, move the saw blade through a complete simulated cut to assure there will be no interference or danger of cutting the fence.*

l. **Provide adequate support such as table extensions, saw horses, etc. for a workpiece that is wider or longer than the table top.** *Workpieces longer or wider than the mitre saw table can tip if not securely supported. If the cut-off piece or workpiece tips, it can lift the lower guard or be thrown by the spinning blade.*

m. **Do not use another person as a substitute for a table extension or as additional support.** *Unstable support for the workpiece can cause the blade to bind or the workpiece to shift during the cutting operation pulling you and the helper into the spinning blade.*

n. **The cut-off piece must not be jammed or pressed by any means against the spinning saw blade.** *If confined, i.e. using length stops, the cut-off piece could get wedged against them blade and thrown violently.*

o. **Always use a clamp or a fixture designed to properly support round material such as rods or tubing.** *Rods have a tendency to roll while being cut, causing the blade to "bite" and pull the work with your hand into the blade.*

p. **Let the blade reach full speed before contacting the workpiece.** *This will reduce the risk of the workpiece being thrown.*

q. **If the workpiece or blade becomes jammed, turn the mitre saw off. Wait for all moving parts to stop and disconnect the plug from the power source and/or remove the battery pack. Then work to free the jammed material.** *Continued sawing with a jammed workpiece could cause loss of control or damage to the .mitre saw.*

r. **After finishing the cut, release the switch, hold the saw head down and wait for the blade to stop before removing the cut-off piece.** *Reaching with your hand near the coasting blade is dangerous.*

s. **Hold the handle firmly when making an incomplete cut or when releasing the switch before the saw head is completely in the down position.** *The braking action of the saw may cause the saw head to be suddenly pulled downward, causing a risk of injury.*

7. **Vibration Safety**

This tool vibrates during use.
Repeated or long-term exposure to vibration may cause temporary or permanent physical injury, particularly to the hands, arms and shoulders.
To reduce the risk of vibration-related injury:

a. Anyone using vibrating tools regularly or for an extended period should first be examined by a doctor and then have regular medical check-ups to ensure medical problems are not being caused or worsened from use. Pregnant women or people who have impaired blood circulation to the hand, past hand injuries, nervous system disorders, diabetes, or Raynaud's Disease should not use this tool. If you feel any symptoms related to vibration (such as tingling, numbness, and white or blue fingers), seek medical advice as soon as possible.

b. Do not smoke during use. Nicotine reduces the blood supply to the hands and fingers, increasing the risk of vibration-related injury.

c. Wear suitable gloves to reduce the vibration effects on the user.

d. Use tools with the lowest vibration when there is a choice.

e. Include vibration-free periods each day of work.

f. Grip tool as lightly as possible (while still keeping safe control of it). Let the tool do the work.

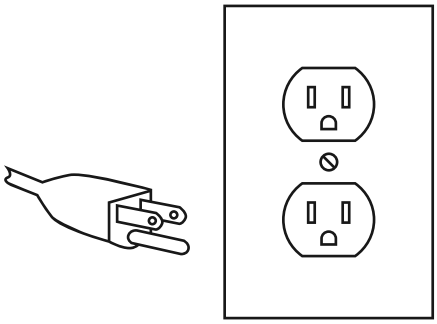
g. To reduce vibration, maintain the tool as explained in this manual. If any abnormal vibration occurs, stop use immediately.

Grounding

⚠WARNING

TO PREVENT ELECTRIC SHOCK AND DEATH FROM INCORRECT GROUNDING WIRE CONNECTION:
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



3-Prong Plug and Outlet

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 preceding illustration. **(See 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.

TABLE A: RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS* (120/240 VOLT)

NAMEPLATE AMPERES (at full load)	EXTENSION CORD LENGTH				
	25´	50´	75´	100´	150´
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	-	-	-

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

Symbology

	Double Insulated
V	Volts
~	Alternating Current
A	Amperes
n_0 xxxx/min.	No Load Revolutions per Minute (RPM)

	WARNING marking concerning Risk of Eye Injury. Wear ANSI-approved safety goggles with side shields.
	Read the manual before set-up and/or use.
	WARNING marking concerning Risk of Fire. Do not cover ventilation ducts. Keep flammable objects away.
	WARNING marking concerning Risk of Electric Shock. Properly connect power cord to appropriate outlet.

Specifications

Motor	120 VAC / 60 Hz / 15 A 5,000 RPM
Arbor Diameter	5/8″
Recommended Blade Type	General Purpose with Carbide Tips
Blade Diameter	10″
Cutting Capacity	At 90°: 2-3/4″ Deep x 12″ Wide. At 45°: 1-9/16″ Deep x 8-1/4″ Wide.
Positive Table Stops	0°, 15°, 22.5°, 30° and 45° Right and Left
Positive Bevel Stops	0° and 45° Left only
Blade Tilt Range	0° – 45° Right and Left Miter 0° – 45° left
Scale	1° per scale mark

List of Contents

Description	Qty
Compound Sliding Miter Saw	1
Table Extensions	2
Dust Collection Bag	1
Wrench	1

CHICAGO ELECTRIC® POWER TOOLS

Setup - Before Use:

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

⚠WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:
Turn the Power Switch of the tool to its "OFF" position and unplug the tool from its electrical outlet before assembling or making any adjustments to the tool.

Note: For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

Assembly

Attaching the Extension Supports and Miter Lock Handle

1. Insert the ends of the Extension Supports into the holes in the sides of the Base. Tighten the Wing 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 material to rest on.
2. Thread the Miter Lock Handle into the Plate until securely in place.

Attaching the Dust Collection Bag

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

Mounting the Saw

1. The Miter Saw must be mounted on a support before use. This may be a commercially available support or home made saw table.
2. There are bolt holes provided in each of the four legs of the base. These should be firmly mounted using bolts (not included) to your saw stand or saw table (not included).
3. 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 materials and make more accurate cuts.

CHICAGO ELECTRIC® POWER TOOLS

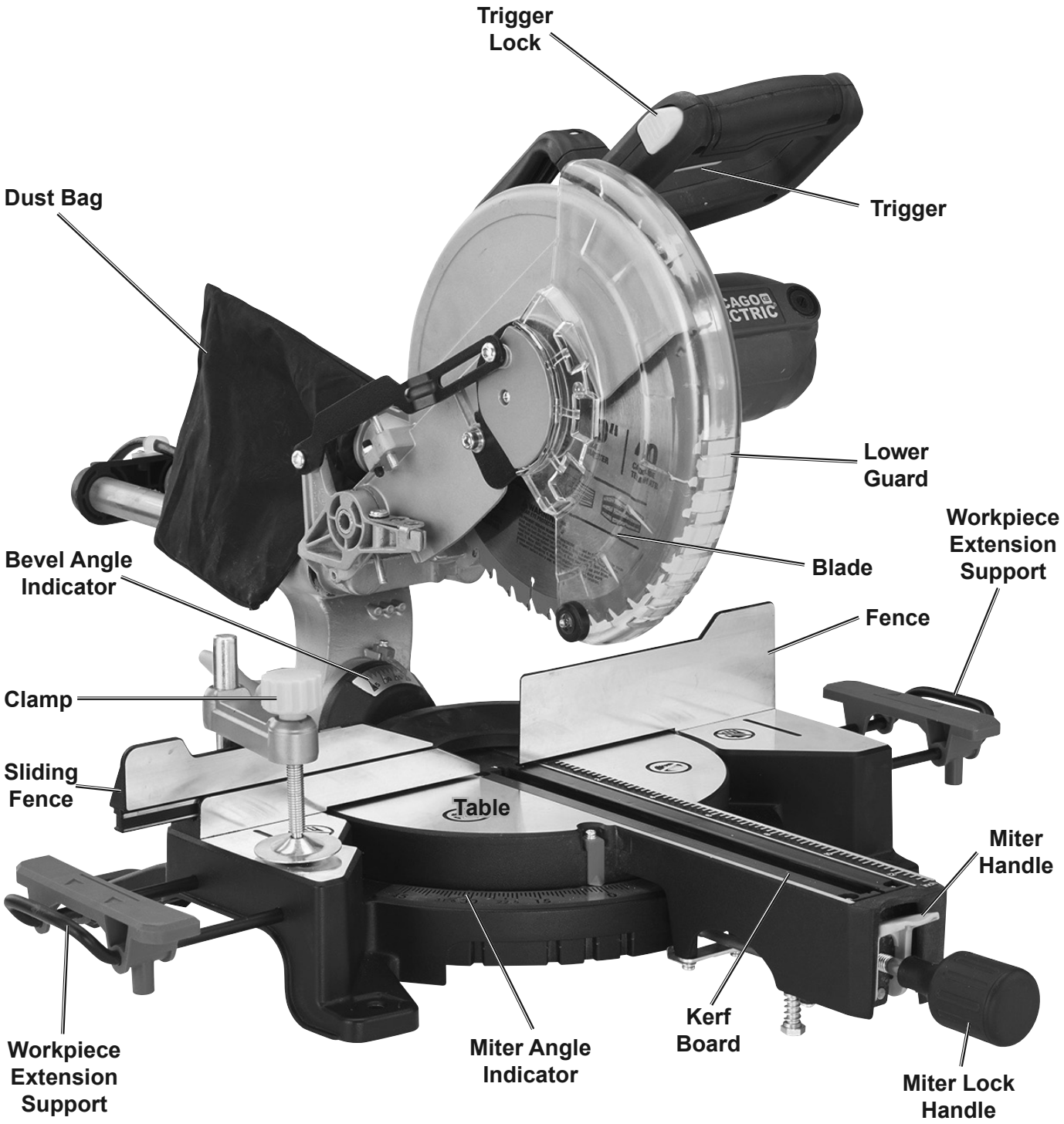


Figure A: Components

CHICAGO ELECTRIC® POWER TOOLS

Read the ENTIRE IMPORTANT SAFETY INFORMATION section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

⚠WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:
Unplug power cord from power source before making any adjustments to this tool.

Work Piece and Work Area Set Up

1. Designate a work area that is clean and well-lit. The work area must not allow access by children or pets to prevent injury and 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 materials 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 kick back and by removing 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 left and right of saw for extended work pieces.

TOOL SET UP

Using the Work Piece Extension Supports

1. The Work Piece Extension Supports are inserted into each side of the Table, and locked in place using the Wing 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 kick back, potentially causing injury.

Adjusting the Miter Angle

1. A miter cut is one that is at an angle across the horizontal surface of the material. You will commonly make 45º miter cuts to join two pieces in a right angle corner. A 30º cut is often used for a scarf joint or to make a chamfered end.
2. To make a miter cut, loosen the Miter Lock Knob by turning it approximately 1/4 turn counterclockwise. Press down the Thumb Lever to unlock the Table. While holding the Thumb Lever down, 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 22.5º, 30º, 45º, and 90º on both left and right sides.
3. With the Table adjusted to the desired angle, place the work piece flush against the Fence, secure it with the Hold Down Clamp and make the cut.

Adjusting the Bevel Angle

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.
4. Move the blade assembly left to the desired angle. You can read the angle on the Bevel Angle Indicator.
5. 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.
6. Adjust the Sliding Fence to be close to the Blade without touching it at any time during operation.
7. 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 material.

Using the Depth Stop

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.

General Operating Instructions

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 and the Slides. Unlock the Table to set the miter angle, then re-lock it before making the cut. Unlock the Slide using the Slide Lock Wing Screw before making a cut if the work material is too wide to “chop”.
3. To rotate the Table, press down the Miter Thumb Lever, rotate the Table to the desired angle, then release the Miter Lock Lever. Notches are machined into the Base of the tool which will lock the Table into several often used miter angles. These angles are 0º (centered), 15º, 22.5º, 30º and 45º both left and right cut.
4. On wider pieces, you will have to slide the blade while making the cut. To unlock the Slide, loosen the Slide Lock Wing Screw at the back of the saw.
5. 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. Making bevel cuts is discussed in more detail later in this manual.
6. This saw is provided with a Kerf Board. The Kerf Board helps to prevent tear-out on the bottom side of the work material. 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 discussed later in this manual.
7. Before starting work, check the accuracy of the Guide Fence, miter angle and bevel angle. Instructions for checking and adjusting these angles are discussed later in this manual.
8. It is very important that the work material 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 on page 11.
9. Use this saw only for its intended purpose of cutting flat rectangular or round wood stock, or finished molding. Do not use it for cutting firewood, brush, or anything that does not lie flat on the table. Doing so may cause binding or violent kick-back that may result in damage or personal injury.

Making a Cut

⚠ DANGER

MITER SAWS CAN QUICKLY AMPUTATE FINGERS IF MISUSED.
Keep hands well clear of cutting area.

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 Saw Head 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 Fence. Place the work material against the Fence.
4. Make any necessary miter or bevel adjustments.
5. Align the marked location of the cut on the work material 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”.

Note: 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 material in place using the Hold Down Vise. Ensure that the work material is level and supported securely. Use saw horses or supports if necessary.
7. Grip the Saw Handle and squeeze the Trigger to start the Blade turning.
8. With narrow material, press down lightly to cut the workpiece. Press straight down, “chopping” the material. Do not bear down on the material—use light downward pressure. If the material binds the blade, release the Trigger.
9. With wide material, move the Blade across the workpiece while cutting as follows:
   a. Loosen Slide Lock and pull Saw Head Assembly forward.
   b. Press down on the Saw Handle.
   c. Push the Saw Head toward the rear to make the cut. Refer to Figure B.

   Do not bear down on the material—use light downward and lateral pressure. If the material binds the blade, release the Trigger.

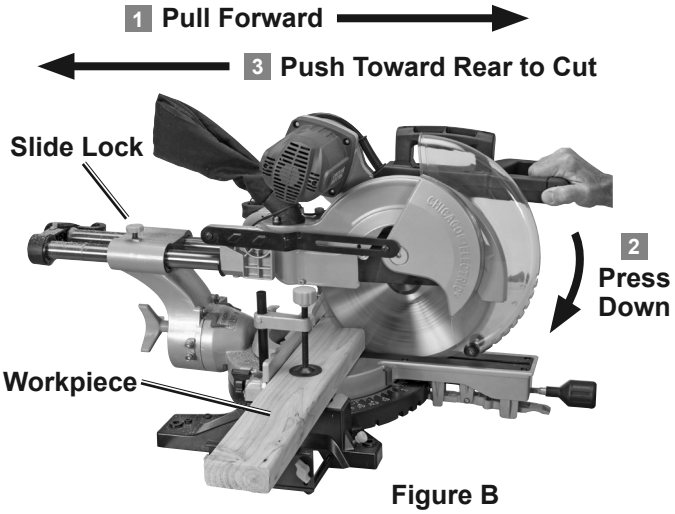


Figure B

10. When the cut is completed, raise the Saw Head, release the Trigger, wait for the Blade to stop turning, release the Hold Down Vise and remove the workpiece from the Saw.
11. 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.

CHICAGO ELECTRIC® POWER TOOLS

Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:
Turn the Power Switch of the tool to its "OFF" position and unplug the tool from its electrical outlet before performing any inspection, maintenance, or cleaning procedures.

TO PREVENT SERIOUS INJURY FROM TOOL FAILURE:
Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

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 more easily, and will more 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.
6. Observe the Dust Bag while using the saw. Empty the sawdust into an appropriate container when the bag is full.
7. Occasionally wipe or blow off sawdust that accumulates on the saw. Saw dust on the Fence can cause you to make inaccurate cuts.
8. 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.
9. Occasionally lubricate the pivot point of the Table as well as other moving parts with a dry lubricant.
10. **⚠WARNING! If the supply cord of this power tool is damaged, it must be replaced only by a qualified service technician.**

Replacing the Blade

⚠WARNING

TO REDUCE RISK OF SERIOUS INJURY:
Return guard to original position and secure in place after replacing blade.

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 the supplied Wrench to remove the Center Cover Fixing Bolt holding the Center Cover in place by turning it counterclockwise. **(See Figure C.)**

Figure C: Removing Bolt

4. Remove the Safety Screw. **(See Figure D.)**

Figure D: Removing Safety Screw

5. Raise the Blade Guard and Center Cover. **(See Figure E.)**

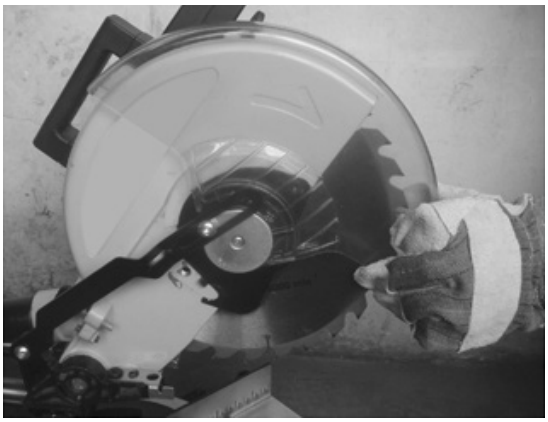


Figure E: Raise Blade Guard

6. While holding in the Arbor Lock Button, use the Wrench to loosen the Arbor Bolt by turning it clockwise. **(See Figure F.)**

Figure F: Arbor Bolt

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

7. Remove the Arbor Bolt, Outer Flange and Saw Blade by pulling them straight off the Arbor.
8. Install a new Blade (sold separately) on the Arbor. **(See Figure G.)** Be sure to match the direction marked on the new blade with the direction marked on the saw Blade Housing.

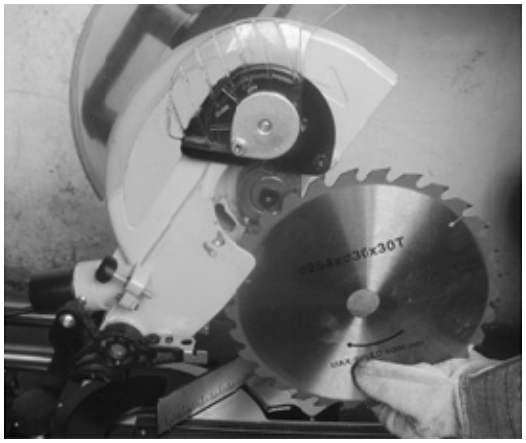


Figure G: Removing Blade

9. Replace the Outer Flange and Arbor Bolt. Tighten the Arbor Bolt securely using the Wrench by turning it counterclockwise.
10. Rotate the Center Cover back into place and tighten the Center Cover Fixing Bolt using the Wrench by turning it clockwise.
11. Release the Locking Pin.

Adjusting the Fence

The Fence holds the work piece in a fixed position while the Table and or the blade assembly are adjusted in a miter or bevel angle.

To make accurate cuts, the Fence must be perpendicular (at a 90º angle) to the Saw Blade.

1. Before beginning work, make a test cut on scrap material with the Table set at 90º.
2. 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.
3. If either test reveals that the cut is not a true 90º angle, you must adjust the Fence before beginning work.

If Fence needs adjustment:

1. First unplug the tool.
2. Lower the blade assembly and lock it in place using the Locking Pin.
3. Lay a carpenter's square on the table with one edge along the blade and the other along the Fence. Any inaccuracy should be visible. NOTE: The square must contact the surface of the blade, not the teeth, for an accurate reading.
4. The Fence is held in place with bolts at each end. Loosen the bolts slightly, and gently tap the Fence into position using a soft mallet. Retighten the bolts and make another test cut. Repeat the process until the Fence is adjusted accurately.
5. Once the Fence is accurately adjusted, tighten the bolts firmly in place. Recheck one last time, then proceed to work.

Adjusting the Miter Table Indicator

1. After you have checked or adjusted the fence to be sure it is at 90º to the Blade, check the accuracy of the Miter Table Angle Indicator.
2. Loosen the screw holding the Angle Indicator in place.
3. Rotate it until the pointer is exactly on 90º.
4. Retighten the screw.

Adjusting the Bevel Angle

For making accurate cuts, the Saw Blade must be adjusted to be exactly vertical to the Table.

1. 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.
2. Check the cut with an accurate square. The cut should be at exactly 90º. You can also check by rotating one cut-off piece 180º and hold the cut ends together. If the cut is not exactly vertical, the two pieces will form a slight angle.
3. If necessary, the bevel angle can be corrected by adjusting the Bevel Adjustment Screw on the right side under the Bevel Locking Lever.
4. Once the bevel angle is adjusted, adjust the Bevel Angle Indicator to read 0º when the Saw Blade is in the vertical position. Loosen the screw holding the Indicator in place, adjust it to be exactly over the 0º mark, then retighten the screw.

Adjusting or Replacing the Kerf Board

If the Kerf Board becomes damaged it must be replaced.

1. Remove the four screws holding the Kerf Board in place.
2. Install a new Kerf Board. Replace the four screws and tighten them slightly.
3. 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 45º left. Ensure that the left side of the Blade clears the Kerf Board. Tighten the four screws holding the Kerf Board in place.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Tool will not start	1. No power at outlet. 2. Cord not connected.	1. Check power at outlet. 2. Check that cord is plugged in.
Tool operates sporadically or at low power	1. Low power supply or improper extension cords. 2. Worn or cracked Carbon Brushes.	1. Check power supply and power cords. 2. Check Carbon Brushes. Replace if damaged or worn.
Wood burns at ends when cut	1. Dirty Blade. 2. Material is binding.	1. Clean Blade using blade cleaner or mineral spirits. 2. Check position of work material on Table. Material must be flat, flush against Fence and supported on ends.
Material frays or chips out.	1. Finished side is down 2. Blade chipped or dull. 3. Blade inappropriate for material. 4. Material is unsupported.	1. Keep finished side of material up or facing operator. Bottom and back side are prone to chip out. 2. Check for damaged teeth. Sharpen or replace blade. 3. Check blade manufacturer's recommendations for material being cut. For cross cutting hardwood and for precision cuts use a thin kerf blade with 60 or more teeth. 4. Use a thin piece of scrap material, such as 1/4″ plywood, underneath or behind the material to support the edges of the material as it is being cut.
Blade binds, slowing or stopping saw.	1. Material is misaligned on the saw or ends are not supported. 2. Material is wet, contaminated or inappropriate blade is being used.	1. Material must be flat on table, flush against the fence and supported on both ends. 2. Check condition of material and check compatibility of blade to material.
	Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.	

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Record Product's Serial Number Here:_____

Note: If product has no serial number, record month and year of purchase instead.

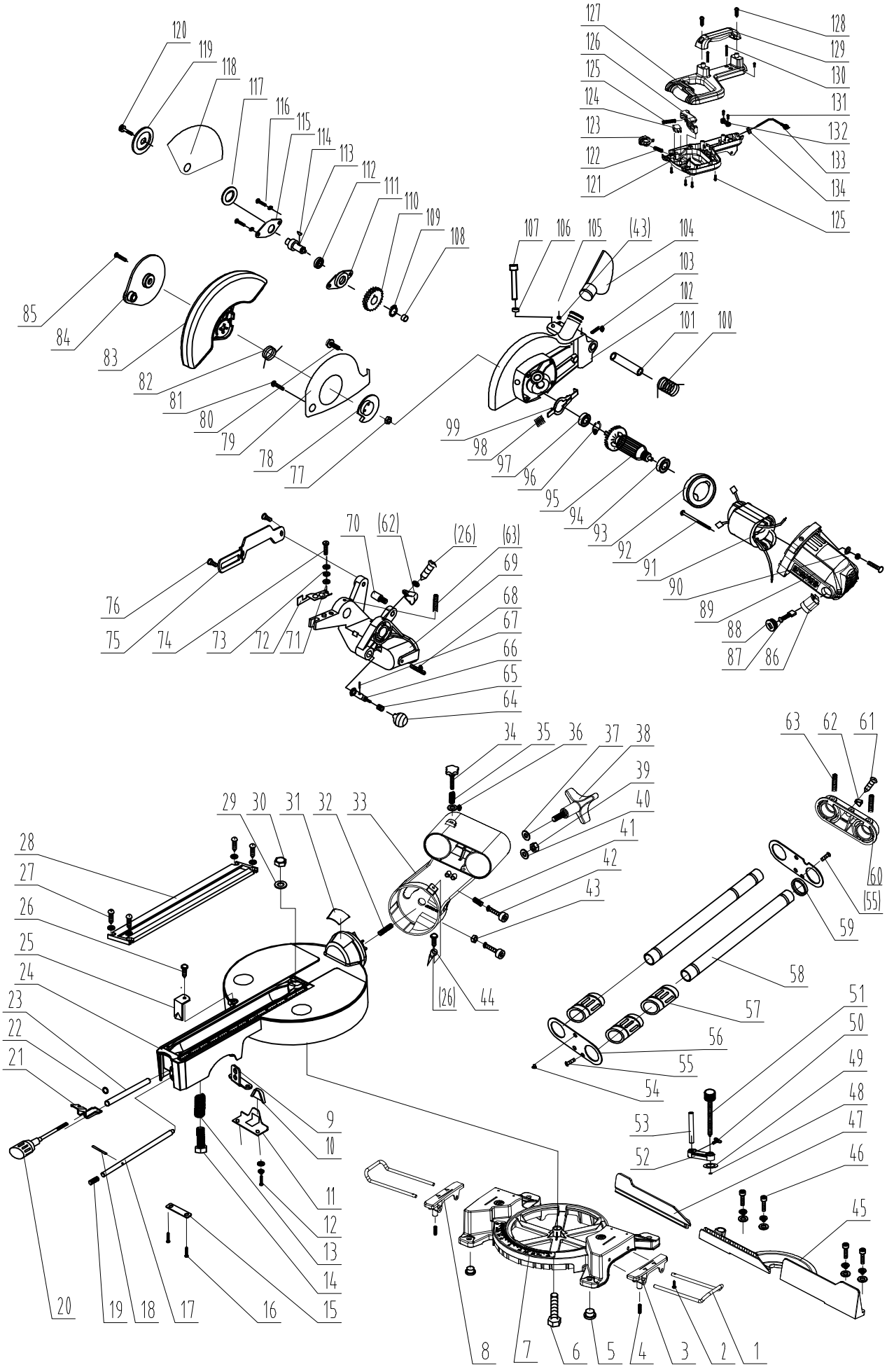
Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts.

Parts List

Part	Description	Qty
1	Extension Arm	2
2	Screw M5*12	2
3	Right Extension Support Plate	1
4	Support Screw	2
5	Rubber Feet	4
6	Bolt M8*40	1
7	Base	1
8	Left Extension Support Plate	1
9	Foot	1
10	Rub Slice	1
11	Cord Restraint	1
12	Screw M5*16 Assy	2
13	Lock Spring	1
14	Bolt M8x30	1
15	Elastic Plate Clamp	1
16	Bolt M5x10	2
17	Miter Lock Pin Φ7x160	1
18	Straight Pin 3*20	1
19	Elastic Plate Spring	1
20	Operating Handle	1
21	Miter Locking Plate	1
22	O Seal Ring	1
23	Miter Locking Lever	1
24	Table	1
25	Table Pointer	1
26	Bolt M4*8	5
27	Screw M4*12 Assy	2
28	Kerf	1
29	Flat Washer 8	1
30	Nut M8	1
31	Support Arm Label	1
32	Screw M10*40	1
33	Support Arm	1
34	Knob	1
35	Compression Spring	1
36	Flat Washer 6	1
37	Flat Washer 10	1
38	Rear Locking Handwheel	1
39	Nut M10	1
40	Flat Washer 10	1
41	Lock Spring	1
42	Screw M6*30	2
43	Nut M6	2
44	Crank Arm Pointer	1
45	Fence	1
46	Screw M6*25	4
47	Sliding Fence	1
48	Split Washer	1
49	Clamping Piece	1
50	Butterfly Screws	1
51	Handwheel	1
52	Clamping Block	1
53	Clamping Lever	1
54	Crash Pad	1
55	Screw M5*12	2
56	Linear Bearing Platen	2
57	Linear Bearing	3
58	Sliding Rod	2
59	Rubber Washer	1
60	Rear Cover	1
61	Screw St4.2*12	1
62	Line Buckle	2
63	Screw M6*10	3
64	Knob	1
65	Self-Locking Pin Spring	1
66	Self-Locking Pin	1
67	Elastic Cylindrical Pin	1
68	Screw M6*8	2

Part	Description	Qty
69	Pivot	1
70	Limit Screw	1
71	Flat Washer 7	1
72	Limit Lock	1
73	Spring Washer	3
74	Screw M6*10	1
75	Connecting Rod	1
76	Screw	2
77	Nut M5	1
78	Small Cover	1
79	Big Cover	1
80	Screw M8*12	1
81	Plum Blossom Screws	1
82	Coil Spring	1
83	Blade Cover	1
84	Connection Piece	1
85	Screw M5*14	1
86	Brush Holder	2
87	Carbon Brush	2
88	Brush Holder Cover	2
89	Motor Housing	1
90	Screw M6*30 Assy	4
91	Stator	1
92	Screw 4.2*50	2
93	Windshield	1
94	Bearing	1
95	Rotor	1
96	External Retaining Ring 15	1
97	Rolling Bearing	1
98	Lock Buckle Flat Spring	1
99	Kock	1
100	Big Torsional Spring	1
101	Cross Pin	1
102	Upper Guard	1
103	Screw M6*20	1
104	Dust Collector Clamp	1
105	Screw M6*25	1
106	Lock Washer	1
107	Screw M6*40	1
108	Needle Bearing	1
109	External Retaining Ring 17	1
110	Big Gear	1
111	Front Cover	1
112	Rolling Bearing	1
113	Output Shaft	1
114	Woodruff Key	1
115	Bearing Cap	1
116	Screw M5*18 Assy	2
117	Inner Plate	1
118	Installation Instructions Card	1
119	Outer Plate	1
120	Screw M8*20 Assy	1
121	Lower Handle	1
122	Self-Locking Pin Spring	1
123	Anti-Lock Button	1
124	Switch	1
125	Switch Spring	1
126	Switch Button	1
127	Upper Handle	1
128	Screw St6.3*25	2
129	Carry Handle	1
130	Screw M5*50	2
131	Screw St4.2*14	3
132	Cable Pad	1
133	Cable	1
134	Cable Sheath	1
135	Screw St4.2*18	4

Assembly Diagram



Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

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

CHICAGO ELECTRIC® POWER TOOLS

26541 Agoura Road • Calabasas, CA 91302 • 1-888-866-5797