

# 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.

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**CHICAGO  ELECTRIC**  
POWER TOOLS

**56824**

## 10" COMPOUND MITER SAW



**Note: Blade sold separately.**

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

Email our technical support at: [productsupport@harborfreight.com](mailto: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.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. 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.**

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# CHICAGO ELECTRIC<sup>®</sup> 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.
	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
	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

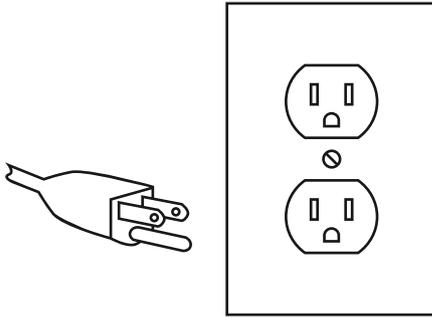
## ⚠️ WARNING



**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

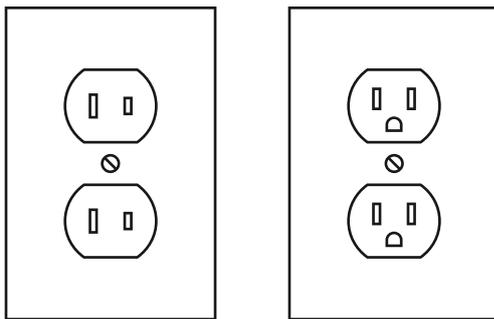


**3-Prong Plug and Outlet**

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.)

## Double Insulated Tools: Tools with Two Prong Plugs



**Outlets for 2-Prong Plug**

1. Tools marked "Double Insulated" do not require grounding. They have a special double insulation system which satisfies OSHA requirements and complies with the applicable standards of Underwriters Laboratories, Inc., the Canadian Standard Association, and the National Electrical Code.
2. Double insulated tools may be used in either of the 120 volt outlets shown in the preceding illustration. (See Outlets for 2-Prong Plug.)

# 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
<b>V</b>	Volts
~	Alternating Current
<b>A</b>	Amperes
n <sub>0</sub> 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.

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## Specifications

Electrical Rating	120VAC / 60Hz / 15A	
Motor No Load Speed	4,800 RPM	
Max. Accessory Diameter	10"	
Arbor	5/8" Round	
Cutting Capacities	90° Straight	2-3/4" x 5-7/8"
	45° Miter	2-3/4" x 4-1/4"
	45° Straight Bevel	1-9/16" x 5-7/8"
	45° Compound	1-9/16" x 4-1/4"



SAFETY

SETUP

OPERATION

MAINTENANCE

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**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 off and unplug the tool from its electrical outlet before performing any procedure in this section.

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

## Assembly

1. Insert the ends of the Table Extensions 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 Knob into the end of the table above the Miter Lock until securely in place.
3. Slip the Dust Collection Bag over the Dust Outlet behind the saw.

## Mounting

Use the four bolt holes provided in the Base to mount the Miter Saw to a stable support before use. Mounting hardware not included.

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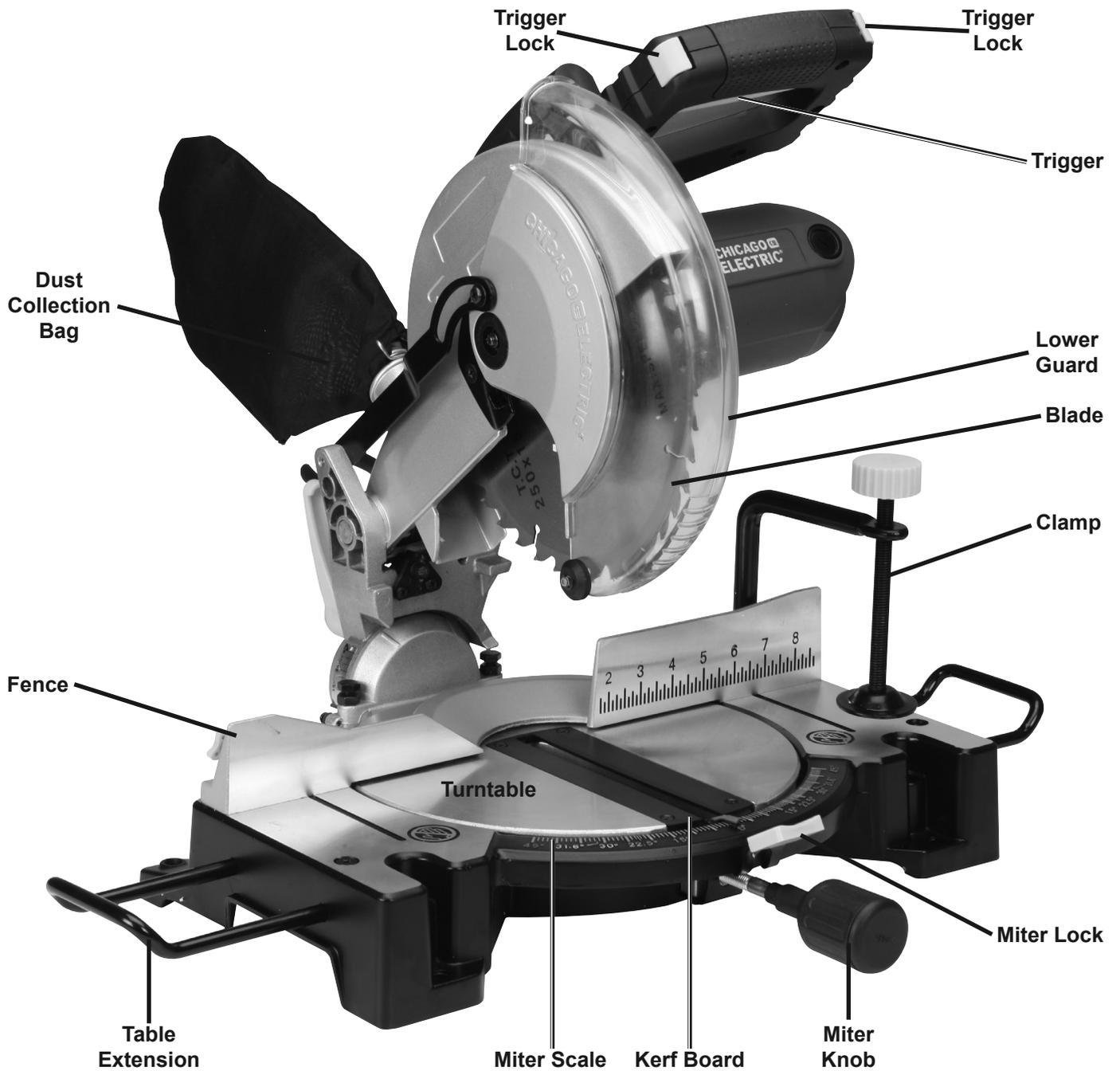
# Functions

SAFETY

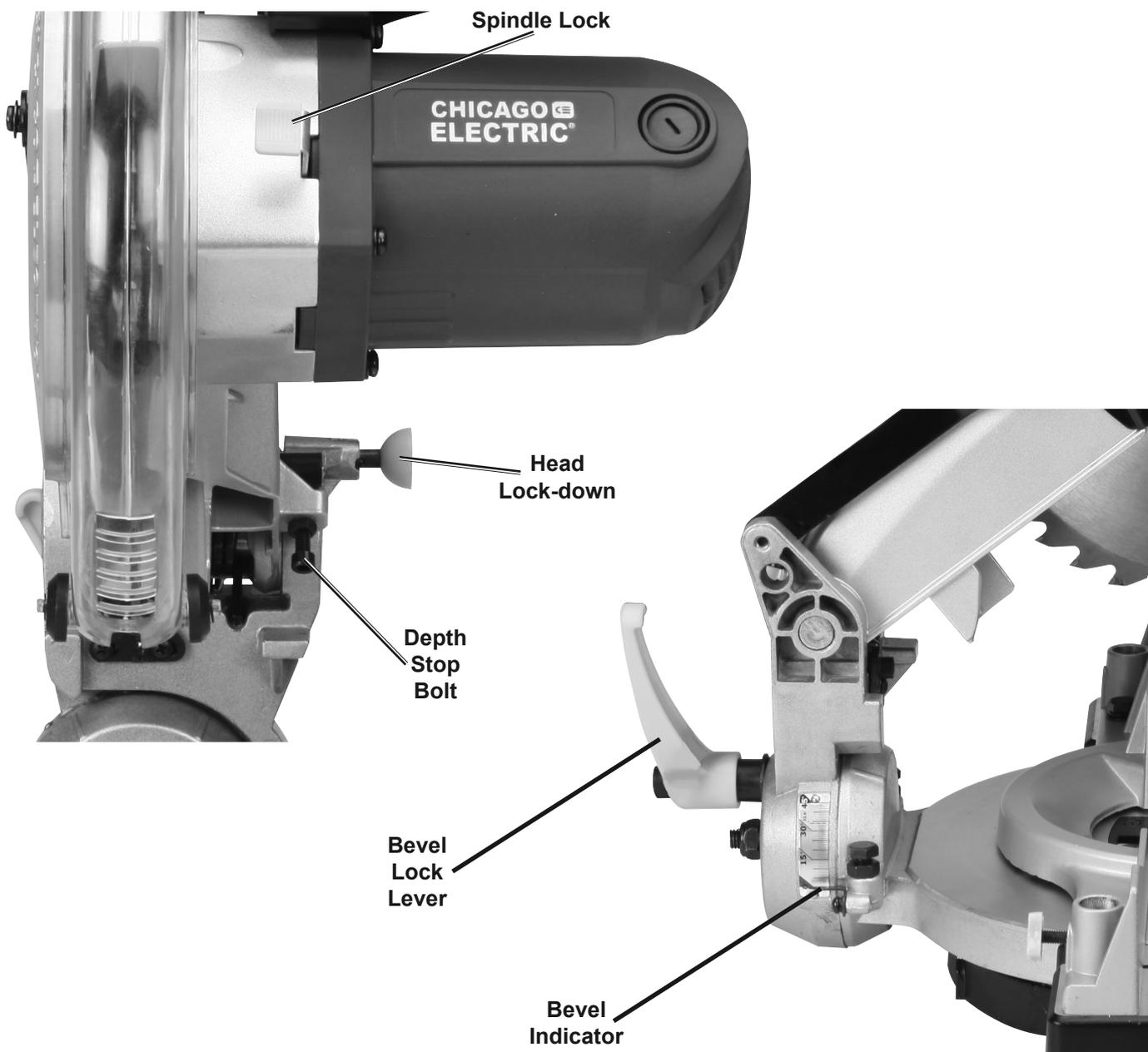
SETUP

OPERATION

MAINTENANCE

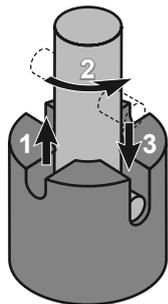


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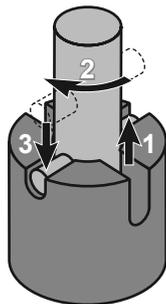


## Description of Selected Functions

### Head Lock-down:



Align pin with **deep groove** to lock cutting head.



Align pin with **shallow groove** to unlock cutting head.

### Guard operation:

When the Handle is lowered, the Lower Guard raises automatically. When the Handle is raised the Lower Guard returns to its safety position. Keep hands clear of the Blade when the Handle is lowered. Do not interfere with the proper movement of the Lower Guard.

**Note:** Additional functions are explained elsewhere in the manual.

## Operating Instructions



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.

SAFETY

## TOOL SET UP

### **WARNING**

**TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:**

Turn the Power Switch of the tool off and unplug the tool from its electrical outlet before performing any procedure in this section.

**TO PREVENT SERIOUS INJURY: DO NOT OPERATE WITH ANY GUARD DISABLED, DAMAGED, OR REMOVED.** Moving guards must move freely and close instantly.

SETUP

## Replacing the Blade

**Note:** Blade sold separately.

1. Unplug the tool from its power source.
2. Raise the Lower Guard (56) out of the way and hold it up.
3. Loosen the Guard Pivot Bolt (63) until it disengages the Guard Pivot Plate (61).
4. Swing the Guard Pivot Plate up and out of the way.
5. Press in the Spindle Lock (90) on the back of the saw's head and hold it in.



Figure A

6. Remove the Spindle Bolt\* (64) and Flange (65), see **Figure B**.  
**\*IMPORTANT: The Spindle Bolt has a left-handed thread and removes by turning CLOCKWISE.**

**Note:** Make sure the other Flange (65) stays in place on the Spindle.

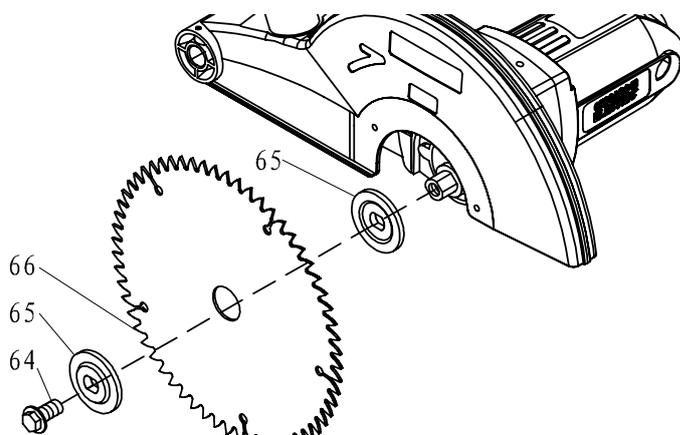


Figure B

7. Remove the Blade (66) and install the new Blade. Make sure that the Blade's rotation arrow points in the same direction as the rotation arrow on the Upper Guard (43).
8. Replace the Flange and Spindle Bolt. Position the cupped side of the Flange against the blade. Hold in the Spindle Lock (90) and wrench tighten the Spindle Bolt by turning it **COUNTERCLOCKWISE**. Release the Spindle Lock.
9. Rotate the Guard Pivot Plate (61) back into place, and secure it with the Guard Pivot Bolt (63).
10. **WARNING! Make sure the Lower Guard (56) operates smoothly and properly protects from the Blade before using the saw.**

OPERATION

MAINTENANCE

## Using the Workpiece Extension Supports

1. The Table Extensions 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 Table Extensions are level with the Table, and provide a wider support surface for the workpiece.
3. Support the workpiece to be level with the table, and so that after the cut is made the cut off pieces will not fall. Use sawhorses or other supports (not included) to support longer workpieces.
4. If the workpiece is not level, you will make an unintentional bevel cut in the material. If the workpiece is not supported, it will bind the blade and may cause the material to kick back, potentially causing injury.

## Adjusting the Miter Angle

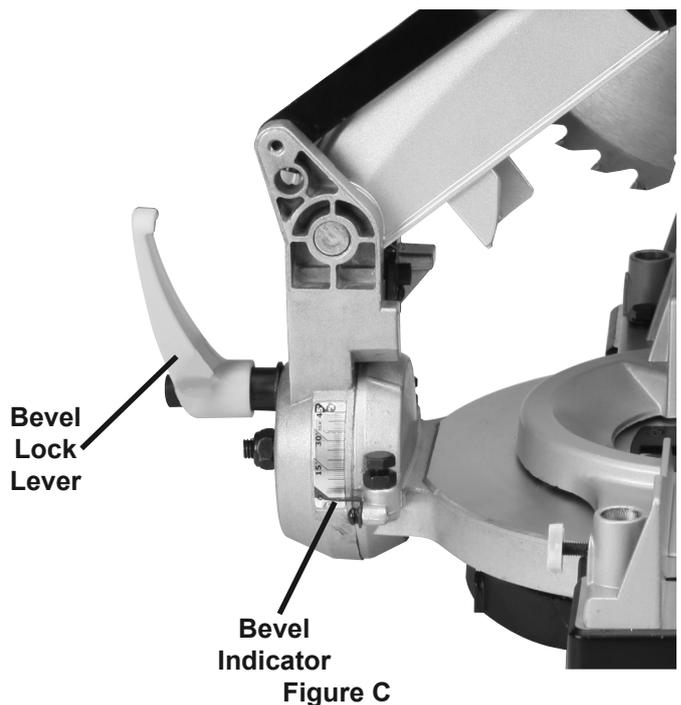
A miter cut is one that is at an angle across the horizontal surface of the material. 45° miter cuts to join two pieces in a right angle corner are common. A 30° cut is often used for a scarf joint or to make a chamfered end.

1. Loosen the Miter Knob by turning it approximately 1/4 turn counterclockwise.
2. Press down the Miter Lock to unlock the Table. While holding the Miter Lock down, move the Table to the desired angle.
3. The Miter Angle Indicator will indicate the selected angle. While the Miter Lock is released, the table will lock into place at often used miter angles, including 22.5°, 30°, 45°, and 90° on both left and right sides.
4. Tighten the Miter Knob after adjusting the miter angle.
5. With the Table adjusted to the desired angle, place the workpiece flush against the Fence, secure it with the Clamp and make the cut.

## Adjusting the Bevel Angle

A bevel cut is one that is at an angle vertically. 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.

1. Loosen the Bevel Lock Lever at the rear of the saw.
2. Move the blade assembly to the desired angle. Read the angle on the Bevel Indicator.
3. Lock the blade assembly into position by rotating the Bevel Lock Lever clockwise. Tighten firmly but do not over-tighten.
4. Make a sample cut in a piece of scrap to confirm that the bevel angle is correct. If it is not, correct the angle before cutting.



## Using the Depth Stop

If a kerfing or rabbet cut which does not cut through the workpiece is desired, use the Depth Stop Bolt to control the depth of the cut.

1. Unlock the Head Lock-down, see page 11.
2. Raise the saw head assembly.
3. Pull down on the saw head to check the current setting.
4. Loosen the Depth Stop Nut on the Depth Stop Bolt.
5. Turn the Depth Stop Bolt clockwise to decrease depth and counterclockwise to increase depth.
6. Tighten the Depth Stop Nut after adjustment.

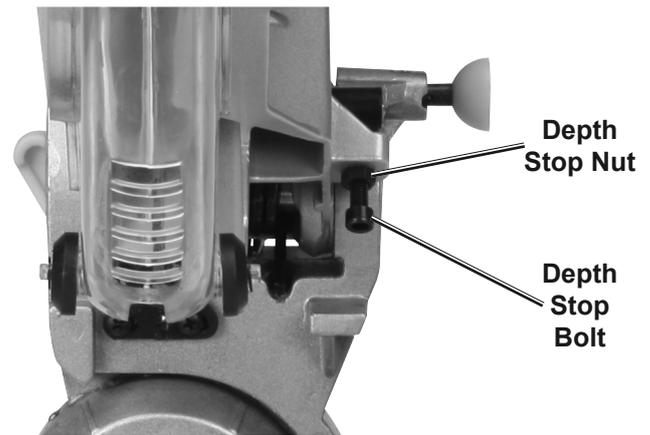


Figure D

## Workpiece 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. Allow room on both left and right of saw for extended workpieces.
4. Use a saw table, saw stand or other means to support the workpiece. Mount the Miter Saw so that the surface is level to the ground, and additional supports provide a surface on the same level as the saw table. If the work surface and any workpiece supports are not level, and on the same level, unwanted bevel angles will appear in the cuts resulting in poor joinery.
5. Secure workpieces to the saw table using the Clamp or other clamping devices (not included). Securing the workpiece will provide safety by preventing kick back and by removing the need to hold workpieces near the blade by hand. Clamping the workpiece will also improve cutting accuracy by preventing the workpiece from moving during the cutting operation.

# General Operating Instructions



## **DANGER!**

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

1. Unlock the Head Lock-down, see page 11.
  2. Make sure all adjustment knobs are tight (Miter Knob, Bevel Lock Lever, Table Extension Knobs).
  3. Blow any sawdust or debris away from the Fence. Place the work material against the Fence.
  4. Align the marked location of the cut on the work material with the saw blade.
- Note:** To prevent your workpiece from being cut too short, align the edge of the blade with your measured mark, keeping the rest of the blade on the waste side of the cut.
5. Hold the work material in place using the Clamp. Ensure that the work material is level and supported securely, use saw horses or supports if necessary.
  6. Grip the Saw Handle, press one of the Trigger Locks with your thumb, and squeeze the Trigger to start the Saw.
  7. Press down lightly to cut the material. Do not bear down on the material, use light downward pressure. If the material binds the blade, release the trigger.
  8. When the cut is completed, raise the blade assembly, release the trigger, wait for the Blade to stop turning, release the Clamp and remove the work material from the saw.
  9. 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.

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**CHICAGO  ELECTRIC®  
POWER TOOLS**

## Maintenance and Servicing



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 off and unplug the tool from its electrical outlet before performing any procedure in this section.

**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.

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## Cleaning, Maintenance, and Lubrication

1. **BEFORE EACH USE**, inspect the general condition of the tool. Check for:
  - loose hardware,
  - 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**, wipe external surfaces of the tool with clean cloth.
3. **WARNING!** If the supply cord of this power tool is damaged, it must be replaced only by a qualified service technician.

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## Checking and Calibrating the Fence

The Fence holds the workpiece 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 90° angle) to the Saw Blade.

1. Before beginning work, make a test cut on scrap material with the Table set at 90°.
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 90° angle, 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.

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## Calibrating the Miter Table Indicator

After checking or adjusting the fence to confirm that it is at 90° to the Blade, check the accuracy of the Miter Table Angle Indicator.

1. Loosen the screw holding the Angle Indicator in place.
2. Rotate it until the pointer is exactly on 90°.
3. Retighten the screw.

## Calibrating 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 90°.
3. Angle can also be checked by rotating one cut-off piece 180° and holding 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.

## Adjusting or Replacing the Kerf Board

If the Kerf Board becomes damaged it must be replaced.

### To adjust the Kerf Board:

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.
1. Lower the Saw Blade and lock it down with the Locking Pin.
2. Adjust the Kerf Board so the right side of the Blade slightly clears the edge of the Kerf Board.
3. Loosen the Bevel Lock and set the Bevel Angle at 45° left.
4. Ensure that the left side of the Blade clears the Kerf Board.
5. Tighten the four screws holding the Kerf Board in place.

# Troubleshooting

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Problem	Possible Causes	Likely Solutions
Tool will not start.	<ol style="list-style-type: none"> <li>1. No power at outlet.</li> <li>2. Cord not connected.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check power at outlet.</li> <li>2. Check that cord is plugged in.</li> </ol>
Tool operates sporadically or at low power.	<ol style="list-style-type: none"> <li>1. Low power supply or improper extension cords.</li> <li>2. Worn or cracked Carbon Brushes.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check power supply and power cords.</li> <li>2. Check Carbon Brushes. Replace if damaged or worn.</li> </ol>
Wood burns at ends when cut.	<ol style="list-style-type: none"> <li>1. Dirty Blade.</li> <li>2. Material is binding.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean Blade using blade cleaner or mineral spirits.</li> <li>2. Check position of work material on Table. Material must be flat, flush against Fence and supported on ends.</li> </ol>
Material frays or chips out.	<ol style="list-style-type: none"> <li>1. Finished side is down.</li> <li>2. Blade chipped or dull.</li> <li>3. Blade inappropriate for material.</li> <li>4. Material is unsupported.</li> </ol>	<ol style="list-style-type: none"> <li>1. Keep finished side of material up or facing operator. Bottom and back side are prone to chip out.</li> <li>2. Check for damaged teeth. Sharpen or replace blade.</li> <li>3. Check blade manufacturer's recommendations for material being cut. For cross cutting hard wood and for precision cuts use a thin kerf blade with 60 or more teeth.</li> <li>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.</li> </ol>
Blade binds, slowing or stopping saw.	<ol style="list-style-type: none"> <li>1. Material is misaligned on the saw or ends are not supported.</li> <li>2. Material is wet, contaminated or inappropriate blade is being used.</li> </ol>	<ol style="list-style-type: none"> <li>1. Material must be flat on table, flush against the fence and supported on both ends.</li> <li>2. Check condition of material and check compatibility of blade to material.</li> </ol>
Blade does not cut completely through workpiece.	Depth Stop set too shallow.	Adjust Depth Stop Bolt for desired depth of cut.
 <p><b>Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.</b></p>		

## PLEASE READ THE FOLLOWING CAREFULLY

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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 and Diagram

### Parts List

Part	Description	Qty	Part	Description	Qty	Part	Description	Qty
1	Base	1	45	Lower Guard Roller	2	83	Motor Housing	1
2	M8×30 Bolt	4	46	Ø5 Retaining Ring	2	84	Stator	1
3	Table Extension	2	47	Lower Guard Washer	1	85	ST4.8×65 Screw	2
4	Fence	1	48	M6 Nut	1	86	6000 Bearing	1
5	M6×15 Clamp Knob	1	49	M6×12 Bolt	1	87	Rotor	1
6	Ø8 Flat Washer	3	50	Ø6 Fender Washer	3	88	Seal	1
7	Ø8 Spring Washer	3	51	Connecting Rod Bushing	1	89	Spindle Lock Spring	1
8	Turntable Disc	3	52	Connecting Rod	1	90	Spindle Lock	1
9	Support	1	53	M6×10 Bolt	1	91	Dust Bag	1
10	M6×18 Bolt	3	54	Lower Guard Plate	1	92	M6×8 Set Screw	1
11	M5×12 Bolt	2	55	M5×6 Bolt	4	93	Rubber Stop	1
12	Ø5 Spring Washer	4	56	Lower Guard	1	94	6202 Bearing	1
13	Miter Lock	1	57	Lower Guard Spring	1	95	Spindle Lock Cover	1
14	Miter Lock Cover	1	58	Large Lower Guard Washer	1	96	Terminal	1
15	Miter Knob	1	59	Rubber Stop Block	1	97	Ø4 Toothed Washer	1
16	Kerf Board	1	60	M6×7 Bolt	1	98	M4×10 Bolt	1
17	M4×8 Bolt	4	61	Guard Pivot Plate	1	99	ST6×18 Screw	2
18	Miter Indicator	1	62	M6×14 Bolt	1	100	Handle	1
19	Locating Screw	1	63	M6×10 Guard Pivot Bolt	1	101	M5×40 Bolt	2
20	Ø8 Fender Washer	1	64	M8×20 Left-handed Spindle Bolt	1	102	ST3.9×14 Screw	9
21	M8 Nut	1	65	Flange	2	103	Upper Handle	1
22	M8 Nut	1	66	Blade (sold separately)	0	104	Locking Pin	2
23	M8×20 Bolt	2	67	Spindle	1	105	Trigger Lock Connector	1
24	Turntable	1	68	Woodruff Key 4	1	106	Right Trigger Lock	1
25	Bevel Pointer	1	69	M5×16 Bolt	2	107	Left Trigger Lock	1
26	Ø4 Flat Washer	2	70	Bearing Bracket	1	108	Switch Spring	1
27	Ø4 Spring Washer	3	71	6023 Bearing	1	109	Trigger	1
28	M4×10 Bolt	2	72	Bearing Housing	1	110	Switch (Fa2-10/1W)	1
29	M10×50 Stud	1	73	Large Gear	1	111	ST3.9×10 Screw	1
30	M10×55 Stud	1	74	Ø17 Retaining Ring	1	112	Lower Handle	1
31	Support	1	75	Roller Bearing Hk121610	1	113	Cord Clamp	1
32	Bevel Scale	1	76	Housing Label	1	114	Cord Protector	1
33	Ø2×4 Rivet	2	77	Brush Holder	2	115	Power Cord	1
34	Torsion Spring	1	78	Carbon Brush	2	116	M6×25 Depth Bolt	1
35	Hinge Pin	1	79	Brush Holder Cap	2	117	M6 Depth Nut	1
36	Ø10 Flat Washer	2	80	M6×35 Bolt	4	118	Bushing	1
37	M10 Nut	1	81	Ø6 Spring Washer	4	119	M5×8 Bolt	1
38	Bevel Lock Lever	1	82	Ø6 Flat Washer	4	120	M5×12 Bolt	1
39	Lock-down Pin	1				121	Ø5 Spring Washer	1
40	Lock-down Spring	1				122	Ø6 Flat Washer	1
41	Head Lock-down	1				123	Clamp Pressure Plate	1
42	Ø3×16 Roll Pin	1				124	Clamp Bar	1
43	Upper Guard	1				125	Clamp	1
44	Guard Label	1						

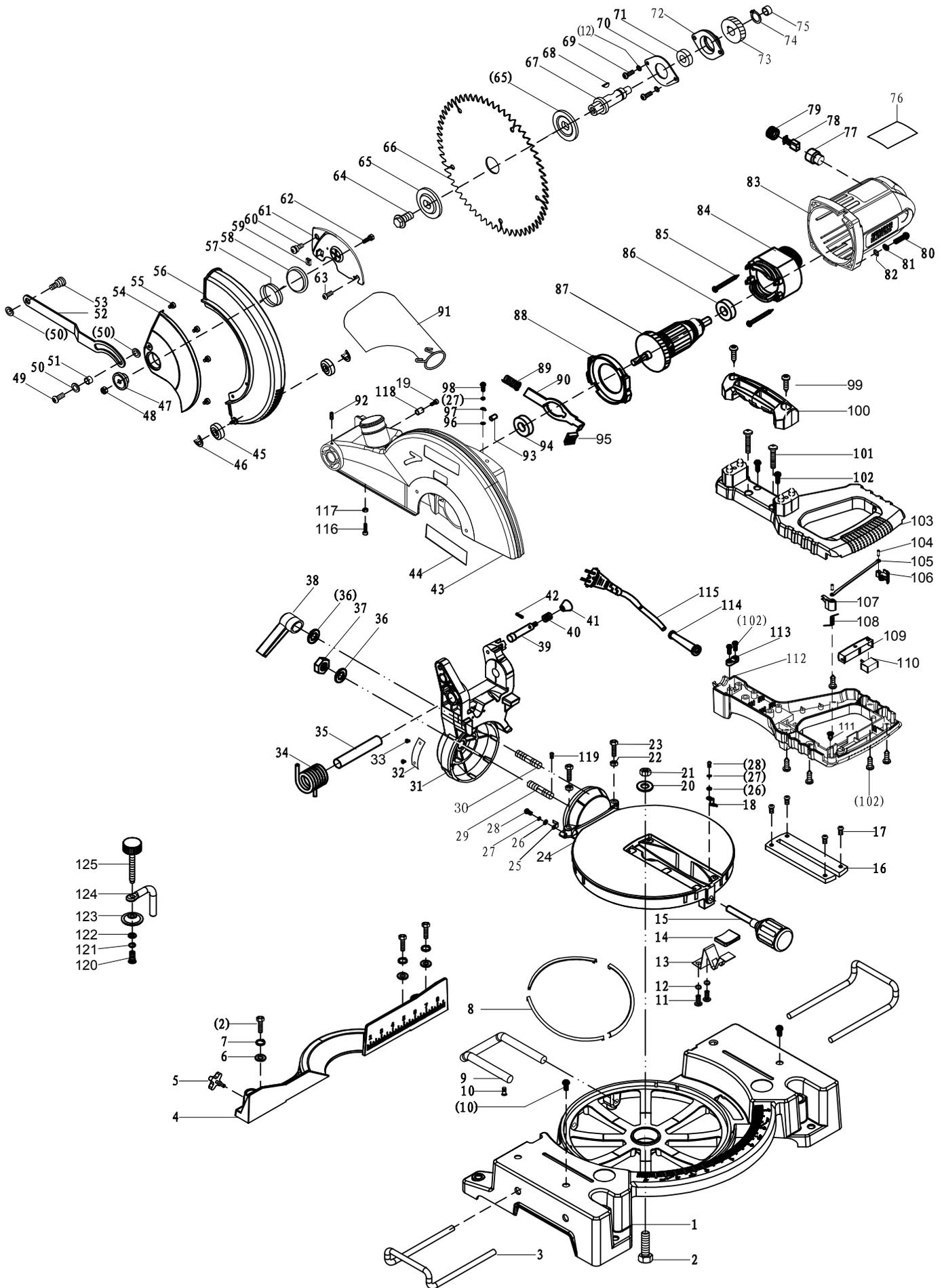
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# Assembly Diagram



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## 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.

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