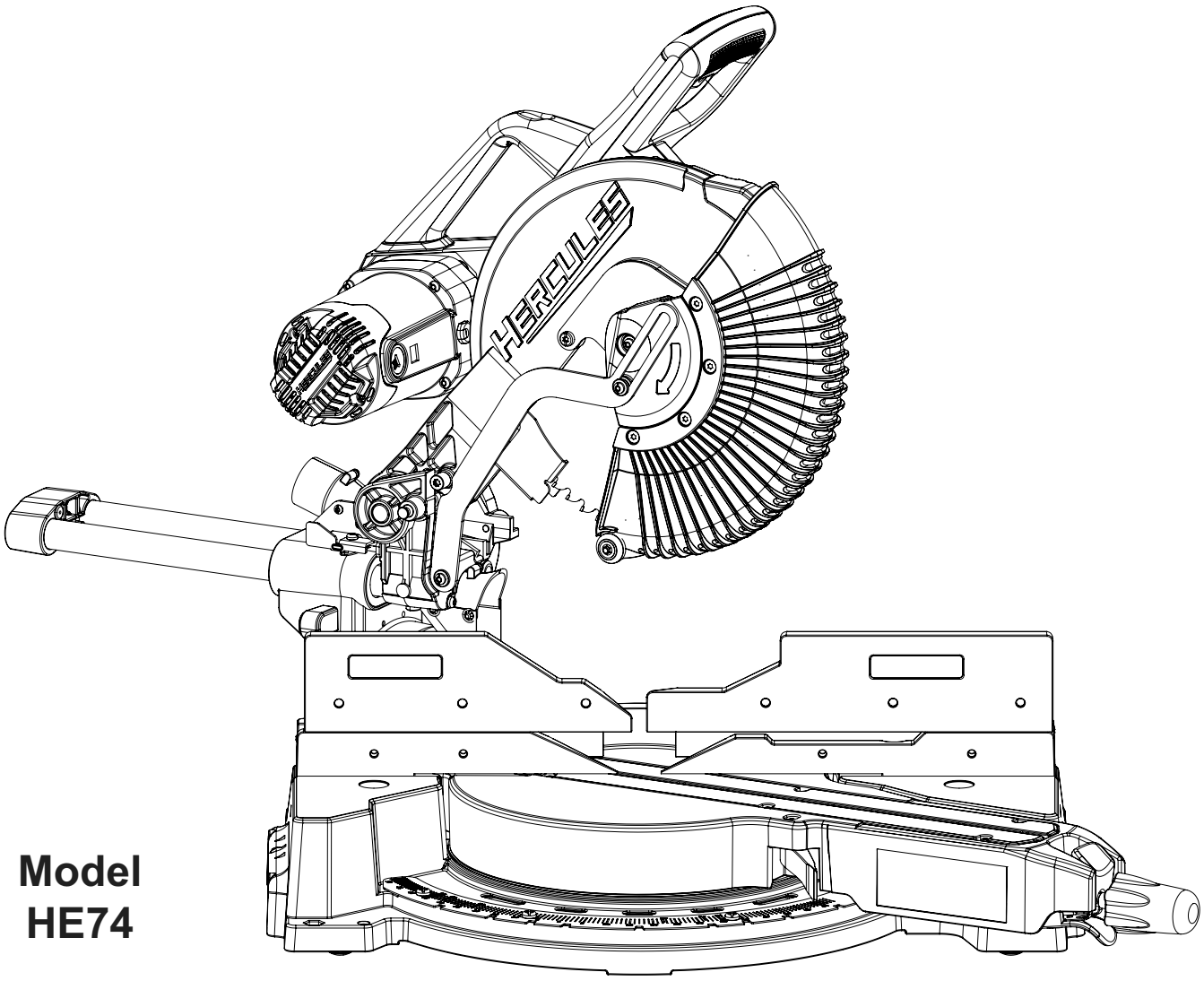
HERCULES®

Owner's Manual & Safety Instructions

23e



Model HE74

12" Double-Bevel Sliding Compound Miter Saw

⚠WARNING: To prevent serious injury, User must read and understand Owner's Manual. SAVE THIS MANUAL.

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. Reference 56682.

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.

Work area safety

1. **Keep work area clean and well lit.** *Cluttered or dark areas invite accidents.*
2. **Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases or dust.** *Power tools create sparks which may ignite the dust or fumes.*
3. **Keep children and bystanders away while operating a power tool.** *Distractions can cause you to lose control.*

Electrical safety

1. **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.*
2. **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.*
3. **Do not expose power tools to rain or wet conditions.** *Water entering a power tool will increase the risk of electric shock.*
4. **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.*
5. **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.*
6. **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.*

Personal safety

1. **Stay alert, watch what you are doing and use common sense when operating a power tool.** *Do not use a power tool while 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.*
2. **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.*
3. **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.*
4. **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.*
5. **Do not overreach.** *Keep proper footing and balance at all times. This enables better control of the power tool in unexpected situations.*
6. **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.*
7. **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.*
8. **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.*
9. **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.*
10. **Avoid unintentional starting.** *Prepare to begin work before turning on the tool.*
11. **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.*
12. **This product is not a toy.** *Keep it out of reach of children.*

13. **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.
14. **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.*

Power tool use and care

1. **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.*
2. **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.*
3. **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.*
4. **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.*
5. **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.*
6. **Keep cutting tools sharp and clean.** *Properly maintained cutting tools with sharp cutting edges are less likely to bind and are easier to control.*
7. **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.*
8. **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.*

Service

1. **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.*
2. Maintain labels and nameplates on the tool. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.

Safety instructions for mitre saws

1. **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.*
2. **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.*
3. **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.*
4. **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.*
5. **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.*
6. **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.*

7. **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.*
8. **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.*
9. **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.*
10. **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.*
11. **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.*
12. **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.*
13. **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.*
14. **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.*
15. **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.*
16. **Let the blade reach full speed before contacting the workpiece.** *This will reduce the risk of the workpiece being thrown.*
17. **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.*
18. **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.*
19. **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.*

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 medical or physical 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. Use tools with the lowest vibration when there is a choice between different processes.

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

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

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

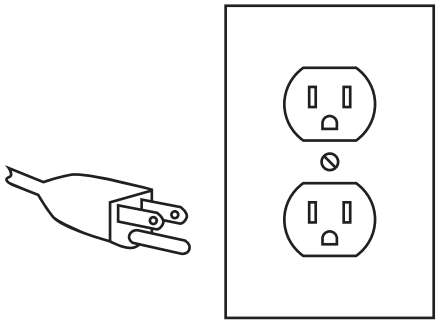
Grounding

⚠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.

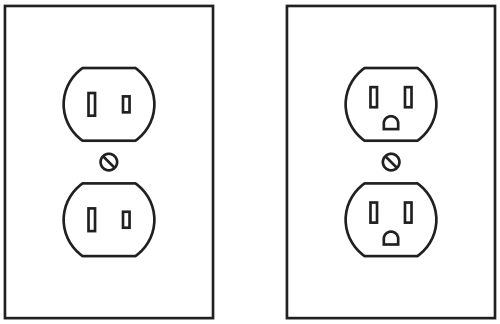
Grounded Tools: Tools with Three Prong Plugs



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 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.
	Keep hands clear of fence area.
	DANGER marking concerning Risk of Amputation. Keep hands well clear of cutting area.
	Bright Light. To prevent eye injury, do not stare into light.

SPECIFICATIONS

Electrical Rating	120VAC/60Hz/15A
Spindle No Load Speed	4,100 RPM
Max. Accessory Diameter	Blade Diameter–12"
Arbor	1" Round
Maximum Blade Kerf	0.11″
Capacity of Cut	50° Miter Left 60° Miter Right 49° Bevel Left and Right

Cutting Capacities

ANGLE	MAXIMUM CAPACITY OF CUT		RESULT	
0° Miter	Height	4-1/2"	Width	12-1/2"
	Width	14"	Height	3-1/2"
45° Miter	Height	4-1/2"	Width	8-1/4"
	Width	9-3/4"	Height	3-5/16"
45° Bevel Left	Height	2-7/8"	Width	9-7/8"
	Width	14"	Height	1-3/4"
45° Bevel Right	Height	1-15/16"	Width	12-1/8"
	Width	14"	Height	1-5/16"

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.

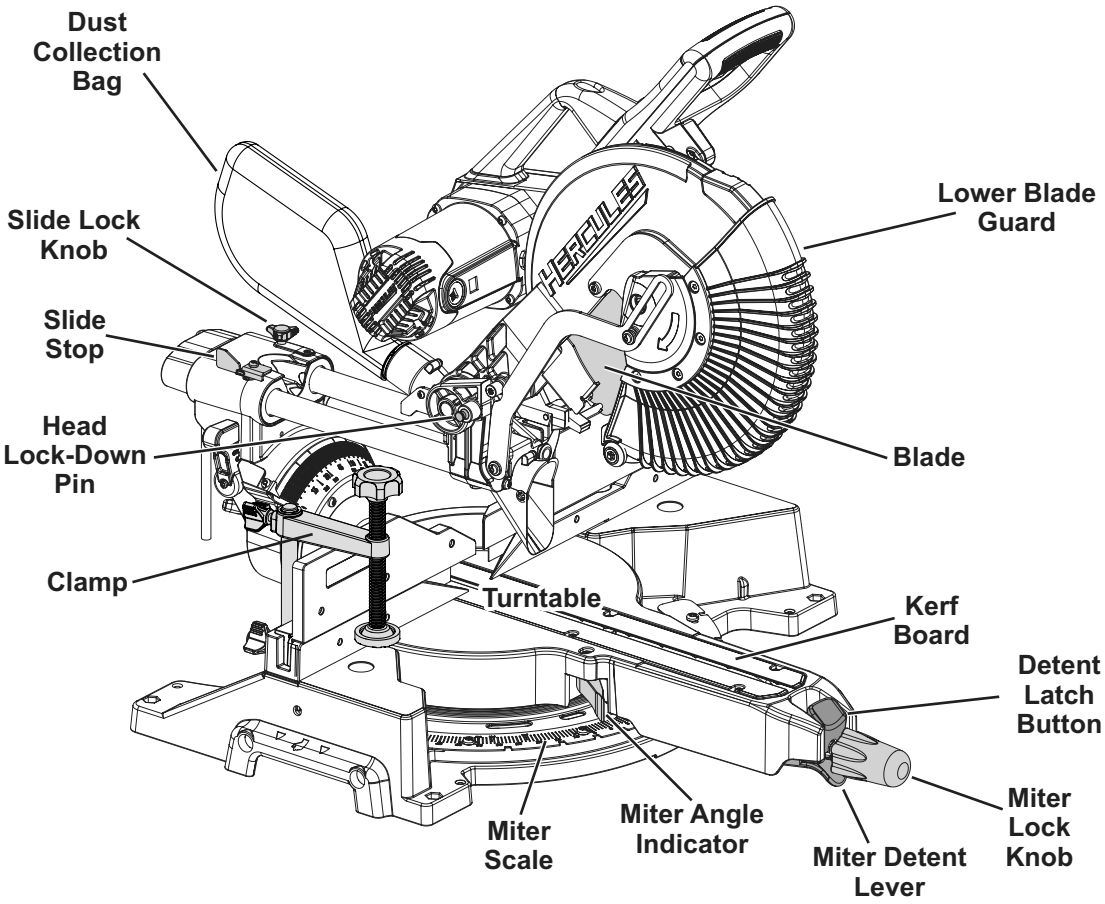
⚠DANGER **Indicates a hazardous situation which, if not avoided, will result in death or serious injury.**

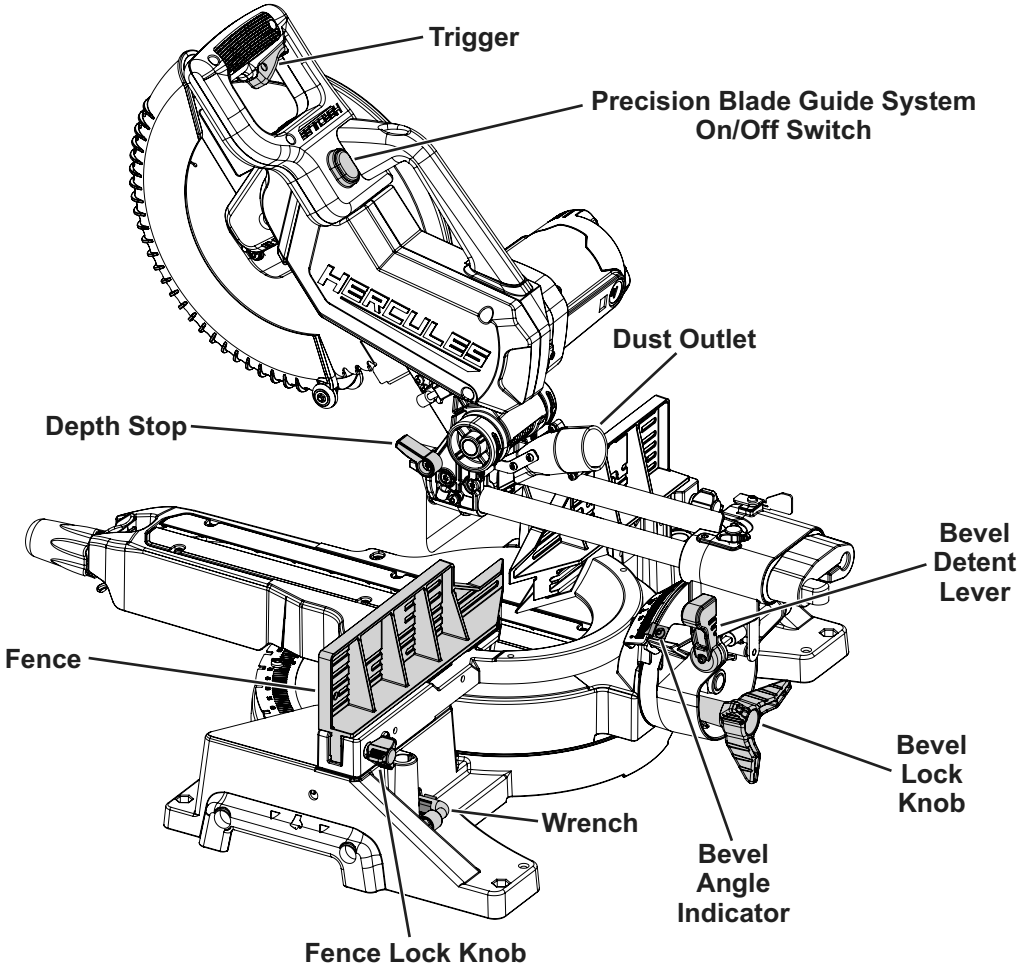
⚠WARNING **Indicates a hazardous situation which, if not avoided, could result in death or serious injury.**

⚠CAUTION **Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.**

NOTICE **Addresses practices not related to personal injury.**

Functions


Dust Collection Bag
Slide Lock Knob
Slide Stop
Head Lock-Down Pin
Clamp
Lower Blade Guard
Blade
Turntable
Kerf Board
Detent Latch Button
Miter Lock Knob
Miter Detent Lever
Miter Angle Indicator
Miter Scale


Trigger
Precision Blade Guide System On/Off Switch
Dust Outlet
Depth Stop
Bevel Detent Lever
Fence
Bevel Lock Knob
Wrench
Bevel Angle Indicator
Fence Lock Knob

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.

Note: For additional information regarding the parts listed in the following pages, refer to *Parts List and Diagram* on page 13.

Assembly

1. Insert the four Feet into the holes on the bottom of the Base and tap into place.
2. Thread the Miter Lock Knob into the end of the table above the Miter Detent Lever until securely in place.
3. Slip the Dust Collection Bag over the Dust Outlet behind the saw.
4. If adjustable and/or removable workpiece support extension(s) are provided, always fix and use these extension(s) during operation.

Mounting

1. Use the bolt holes in the Base to mount the Miter Saw to a stable support before use.

Note: Mounting holes are provided in two sizes to accommodate different sizes of hardware. Mounting hardware not included.

2. Ensure that the mitre saw is always stable and secure (e.g. fixed to a bench).

Saw Blade Selection

1. Any saw blade that will be used must be marked as suitable for the material to be cut.
2. Use only a saw blade diameter in accordance with the markings on the saw. See specification table for the bore diameter and the maximum kerf of the saw blade.
3. Use only saw blades that are marked with a speed equal or higher than the speed marked on the tool.

Guard Setup

Check that the Lower Blade Guard is in place, moves freely, and closes instantly.

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.

⚠WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:
Make sure that the Trigger is in the off-position and unplug the tool from its electrical outlet before performing any procedure in this section.

Tool Changing

1. Unplug the tool from its power source.
2. Pull out the Head Lock-Down Pin, raise the Saw Head to the upper position, then raise the Lower Blade Guard out of the way and hold it up.
3. Loosen the Guard Plate Screw until it disengages the Guard Plate.
4. Swing the Guard Plate up and out of the way. Refer to Figure A.

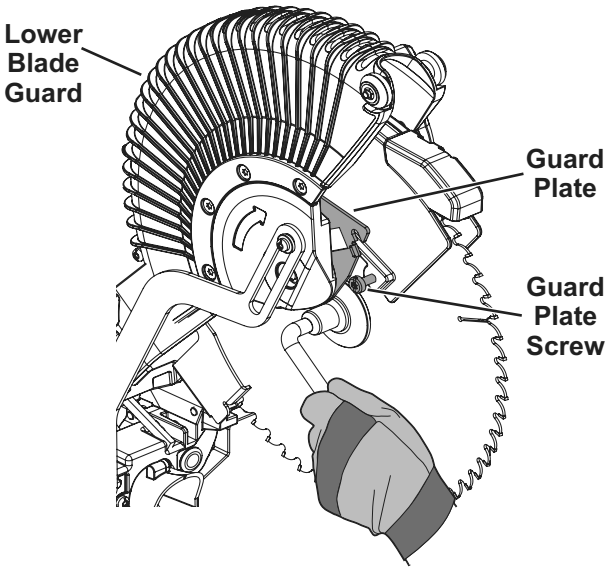


Figure A

5. Press in the Spindle Lock on the back of the saw's head and hold it in.

6. Remove the Arbor Bolt and Outer Flange. Refer to Figure B.
   IMPORTANT: The Arbor Bolt has a left-handed thread and removes by turning <u>CLOCKWISE</u>.

<u>Note:</u> Make sure the Inner Flange stays in place on the Spindle.

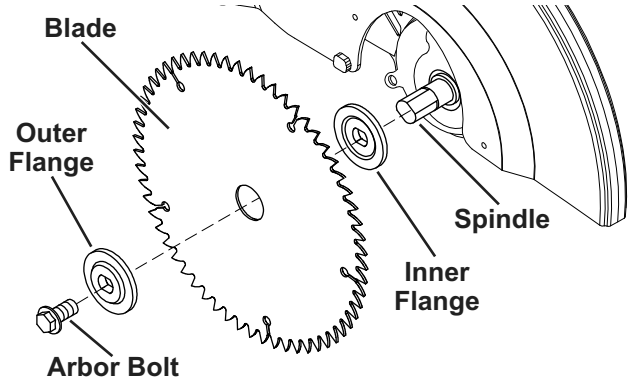


Figure B

7. If replacing a used blade, remove the blade. Install the new Blade. Make sure that the Blade's rotation arrow points in the same direction as the rotation arrow on the Lower Blade Guard.
8. Replace the Outer Flange and Arbor Bolt. Position the cupped side of the Flange against the blade. Hold in the Spindle Lock and wrench tighten the Arbor Bolt by turning it **<u>COUNTERCLOCKWISE</u>**. Release the Spindle Lock.
9. Rotate the Guard Plate back into place and secure it with the Guard Plate Bolt.
10. **WARNING! TO PREVENT SERIOUS INJURY: Make sure the Lower Blade Guard operates smoothly and properly protects from the Blade before using the saw.**

Adjusting the Miter Angle

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

1. Loosen the Miter Lock Knob by turning it approximately 1/4 turn counterclockwise.
2. Pull up on the Miter Detent Lever to unlock the Table. While holding the Miter Detent Lever up, move the Table to the desired angle.
3. The Miter Angle Indicator will indicate the selected angle. While the Miter Detent Lever is released, the Table will lock into place at often used miter angles, including 15º, 22.5º, 30º, and 45º on both left and right sides.

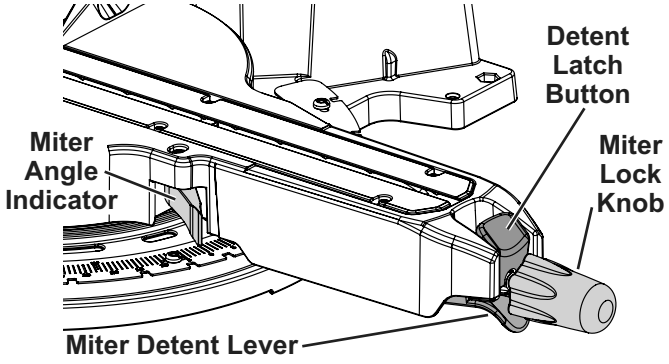


Figure C

4. To override the pre-set detents (stops) for micro adjustments at any angle, pull up on the Miter Detent Lever and push the Detent Latch Button forward and latch in place. Release the Miter Detent Lever and adjust Table to any position on the miter scale. To disengage pull up on the Miter Detent Lever to release the Detent Latch Button.
5. Tighten the Miter Lock Knob after adjusting the miter angle.
6. 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 Knob at the rear of the saw.
2. For micro adjustments at any bevel angle, push the Bevel Detent Lever back until it snaps into place and move the Saw Head Assembly to the desired angle. Read the angle on the Bevel Angle Indicator.

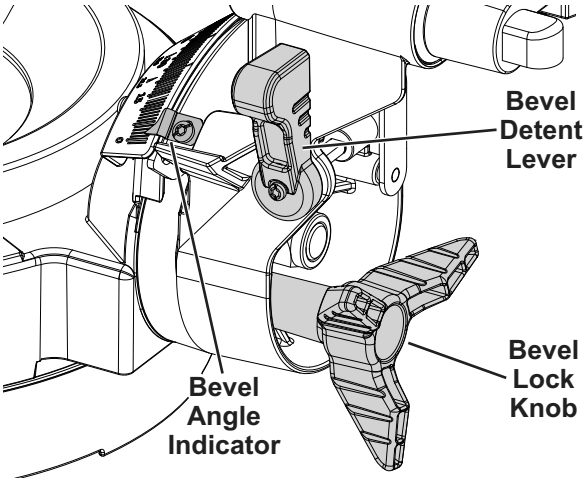


Figure D

3. To use the pre-set detents (stops), push the Bevel Detent Lever back until the Saw Head Assembly can be moved and then release the Lever. The Saw Head Assembly will lock into place at often used bevel angles, including 22.5º, 33.9º, and 45º on both left and right sides.

4. Lock the Saw Head Assembly into position by rotating the Bevel Lock Knob clockwise. Tighten firmly but do not over-tighten.
5. 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.

WARNING! TO PREVENT SERIOUS INJURY: Adjust both sides of the Fence clear of the Blade's cutting path after making any adjustment to the cutting angle. Move the Blade through its full range of motion to ensure the Fences are clear.

Using the Depth Stop

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

1. Pull out the Head Lock-Down Pin and raise the Saw Head Assembly.
2. Rotate the Depth Stop down to a horizontal position to use the Depth Adjustment Bolt setting.
3. Pull down on the Saw Head to check the current setting.

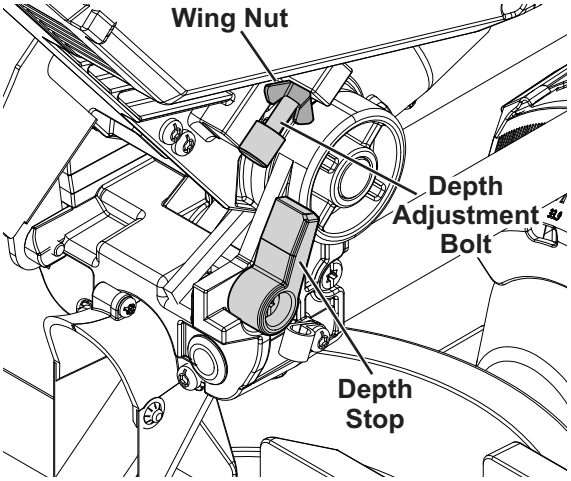


Figure E

4. To change the setting, first loosen the Wing Nut on the Depth Adjustment Bolt. Turn the Depth Adjustment Bolt clockwise to increase depth and counterclockwise to decrease depth. Tighten the Wing Nut after adjustment.
5. To disengage, rotate the Depth Stop up to its vertical position.

Aligning the Fence

1. After adjusting the miter, bevel, or depth setting, check and adjust both sides of the fence.
2. Loosen one of the Fence Knobs, and move its Sliding Fence to be within 1/8" of the blade.
3. Tighten the Fence Knob. Make sure that the Sliding Fence still does not contact the Blade.
4. Repeat the process for the other Fence Knob and Sliding Fence.

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 distraction and injury.
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. Secure loose workpieces using a vise or clamps (not included) to prevent movement while working.
4. There must not be objects, such as utility lines, nearby that will present a hazard while working.
5. Cut only the following materials:

   dimensional lumber, plywood, particle board, plastic.

Note: Use caution to avoid overheating the cutting tips. If cutting plastic, cut at an even pace to avoid melting it.

6. Allow room on both left and right sides of saw for extended workpieces.
7. Use additional supports if needed to ensure the stability of the workpiece. Mount the Saw so that the surface is level to the ground, and additional supports to 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.
8. 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.

Using the Workpiece Extension Supports

1. The Table Extensions are inserted into each side of the Table, and locked in place using the Table Extension Knobs.
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. Each Extension has a stop lever which can be raised to make repetitive cuts.
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.

General Instructions for Use

1. Make sure that the Trigger is in the off-position, then plug in the tool.

WARNING! TO PREVENT SERIOUS INJURY:
The tool will restart automatically if stalled.

Sliding Miter Saw Cutting Procedure:

2. Unlock the Head Lock-Down Pin.
3. Check that all adjustment knobs are tight (Miter Lock Knob, Bevel Lock Lever, Fence and Table Extension Knobs).
4. Blow any sawdust or debris away from the Fence. Place the work material against the Fence.
5. Align the marked location of the cut on the work material with the saw blade.
6. Note: To prevent your workpiece from being cut too short, align the edge of the blade with the measured mark, keeping the rest of the blade on the waste side of the cut.
7. 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.

DANGER! TO PREVENT SERIOUS INJURY AND DEATH: Saws can quickly amputate fingers if misused. Keep hands well clear of cutting area.

8. Grip the Saw Handle, press one of the Trigger Locks with your thumb, and squeeze the Trigger to start the Saw.
9. Note: If the laser guide line does not line up with the cut line, release Trigger and reposition workpiece before making the cut.
10. Use two hands and hold workpiece securely against table and fence at all times.
11. 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.
12. With wide material, move the Blade across the workpiece while cutting as follows:
13. Loosen Slide Lock Knob and pull Saw Head Assembly forward.
14. Press down on the Saw Handle.
15. Push the Saw Head toward the rear to make the cut. Refer to Figure F.
16. Do not bear down on the material—use light downward and lateral pressure. If the material binds the blade, release the Trigger.

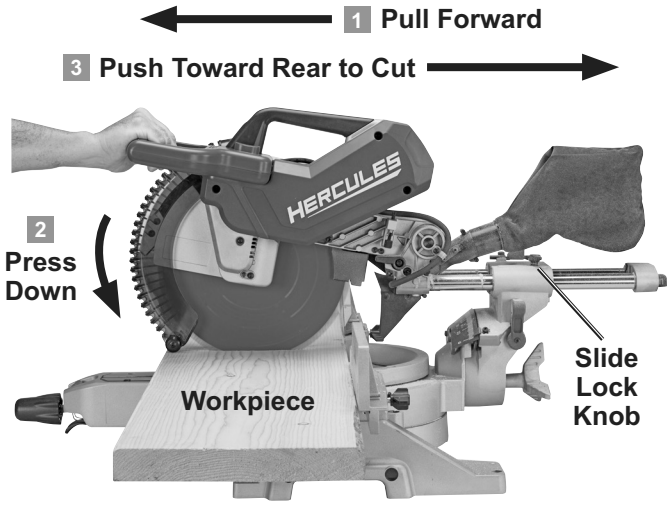


Figure F

17. When the cut is completed, raise the Saw Head, release the Trigger, wait for the Blade to stop turning, release the Clamp and remove the workpiece from the Saw.
18. To prevent accidents, turn off the tool and unplug it after use. Clean, then store the tool indoors out of children's reach.
19. Lock the head down and lock all other adjustments before moving the saw. Use the handle cut outs on each end of the base to lift and support the Saw while moving it.

MAINTENANCE AND SERVICING INSTRUCTIONS

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

⚠WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:
Make sure that the Trigger is in the off-position 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.

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,
   - damaged cord/electrical wiring,
   - cracked or broken parts, and
   - any other condition that may affect its safe operation.
2. **AFTER USE,** wipe external surfaces of the tool with clean cloth. Carefully clean the dust collection chute and the area around the Lower Blade Guard. Check that the Lower Blade Guard moves smoothly through its entire range of movement, without sticking.
3. **⚠WARNING! TO PREVENT SERIOUS INJURY: If the plug or the supply cord of this power tool is damaged, it must be replaced only by a qualified service technician.**

Troubleshooting

Problem	Possible Causes	Likely Solutions
Tool will not start.	1. Cord not connected. 2. No power at outlet. 3. Tool's thermal reset breaker tripped (if equipped). 4. Internal damage or wear. (Carbon brushes or Trigger, for example.)	1. Check that cord is plugged in. 2. Check power at outlet. If outlet is unpowered, turn off tool and check circuit breaker. If breaker is tripped, make sure circuit is right capacity for tool and circuit has no other loads. 3. Turn off tool and allow to cool. Press reset button on tool. 4. Have technician service tool.
Tool operates slowly.	1. Forcing tool to work too fast. 2. Extension cord too long or cord diameter too small.	1. Allow tool to work at its own rate. 2. Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load. See *Extension Cords* in *Grounding* section on page 5.
Performance decreases over time.	Carbon brushes worn or damaged.	Have qualified technician replace brushes.
Excessive noise or rattling.	Internal damage or wear. (Carbon brushes or bearings, for example.)	Have technician service tool.
Overheating.	1. Forcing tool to work too fast. 2. Blocked motor housing vents. 3. Motor being strained by long or small diameter extension cord.	1. Allow tool to work at its own rate. 2. Wear ANSI-approved safety goggles and NIOSH-approved dust mask/respirator while blowing dust out of motor using compressed air. 3. Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load. See *Extension Cords* in *Grounding* section on page 5.

Follow all safety precautions whenever diagnosing or servicing the tool.
Disconnect power supply before service.

PARTS LIST AND DIAGRAM

Parts List

Part	Description	Qty
1	Base	1
2	Foot	4
3	Miter Scale	1
4	M6x12 Screw	2
5	M6x13 Screw	2
6	Wrench Clamp	1
7	M5x10 Screw	1
8	Wrench	1
9	Table Pad	1
10	Table	1
11	Spring Sheet	1
12	M5x8 Screw	1
13	M5x10 Screw	2
14	M5x12 Screw	2
15	Rod	1
16	Retaining Sheet	1
17	M5x8 Screw	1
18	Miter Detent Lever Assembly.	1
19	Miter Detent Lever	1
20	Detent Latch Button	1
21	4.5x9 Rivet	2
22	Handle Support	1
23	5x45 Pin	1
24	Nut	2
25	Miter Retaining Sheet	1
26	M5x13 Screw	2
27	Bolt	1
28	M10x69 Bevel Lock Bolt	1
29	M8x10 Screw	1
30	Kerf Board	1
31	M4x16 Screw	6
32	Miter Angle Indicator	1
33	M4x20 Screw	1
34	M8x30 Screw	1
35	Washer	2
36	M8 Nut	1
37	Bevel Detent Plate	1
38	Washer	2
39	M5x18 Screw	2
40	M5x25 Screw	2
41	Wave Washer	2
42	Pivot Assembly.	1
43	Front Pivot	1
44	Left Sliding Bar	1
45	Right Sliding Bar	1
46	Pivot	1
47	Linear Bearing	1
48	Linear Bearing	1
49	Bevel Detent Plate	1
50	M5x10 Screw	2
51	Bevel Shaft	1
52	Bevel Clamp	1
53	Bevel Detent Lever	2
54	M4x12 Screw	2
55	Spring	1
56	Detent Shaft	1
57	Detent Shaft Drive Assembly.	1
58	C Ring	2
59	E Ring	1
60	Bearing Cover	2
61	Washer	1
62	Felt Washer	1
63	M5x10 Set Screw	2
64	Rear Pivot	1
65	Pad	2
66	M8x8 Screw	2
67	M6x20 Screw	6
68	Slide Lock Knob	1
69	Spring	1
70	Washer	1
71	Washer	2
72	M16 Lock Nut	1

Part	Description	Qty
73	Stationary Fence	1
74	M8x25 Screw	4
75	Left Sliding Fence	1
76	Right Sliding Fence	1
77	Fence Knob	2
78	M6x13 Screw	1
79	M6x24 Screw	1
80	Washer	1
81	Bevel Lock Knob	1
82	Bevel Scale	1
83	M5x16 Screw	2
84	Left Bevel Angle Indicator	1
85	Right Bevel Angle Indicator	1
86	M5x8 Screw	2
87	Washer	2
88	Head Lock-Down Pin Assy.	1
89	Head Lock-Down Pin	1
90	O Ring	1
91	Wear Plate	2
92	Upper Guard	1
93	Linear Bearing	1
94	Shaft Assembly.	1
95	6302 Bearing	1
96	Shaft	1
97	C Ring	1
98	Pulley	1
99	M5x8 Screw	1
100	Spindle And Gear Assembly	1
101	Bearing Holder	1
102	Linear Bearing	1
103	Spindle	1
104	6003 Bearing	1
105	Cover	1
106	M4x6 Screw	2
107	Reduction Gear	1
108	Pad	1
109	M5x16 Screw	3
110	Spring	1
111	Spindle Lock Set	1
112	Spindle Lock	1
113	O Ring	1
114	Dowel Lock Plate	1
115	M5x12 Screw	1
116	Waver Washer	1
117	Shaft Set	1
118	6202 Bearing	1
119	Shaft	1
120	Cover	1
121	Pulley	1
122	629 Bearing	1
123	M5x16 Screw	3
124	Blade Guide Holder Assembly.	1
125	Blade Guide Holder	1
126	Blade Guide Light	1
127	Blade Guide Lens	1
128	Lock Cover	1
129	M5x16 Screw	2
130	Led Wire Cover	1
131	M4x15 Screw	2
132	Short Drive Belt	1
133	Dowel	1
134	Pulley	1
135	Washer	1
136	Washer	1
137	M6x16 Screw	1
138	Motor Assembly	1
139	Motor Front Cover	1
140	Armature Assembly.	1
141	M5x40 Screw	4
142	Rotor	1
143	Motor Housing	1
144	M5x5 Screw	2

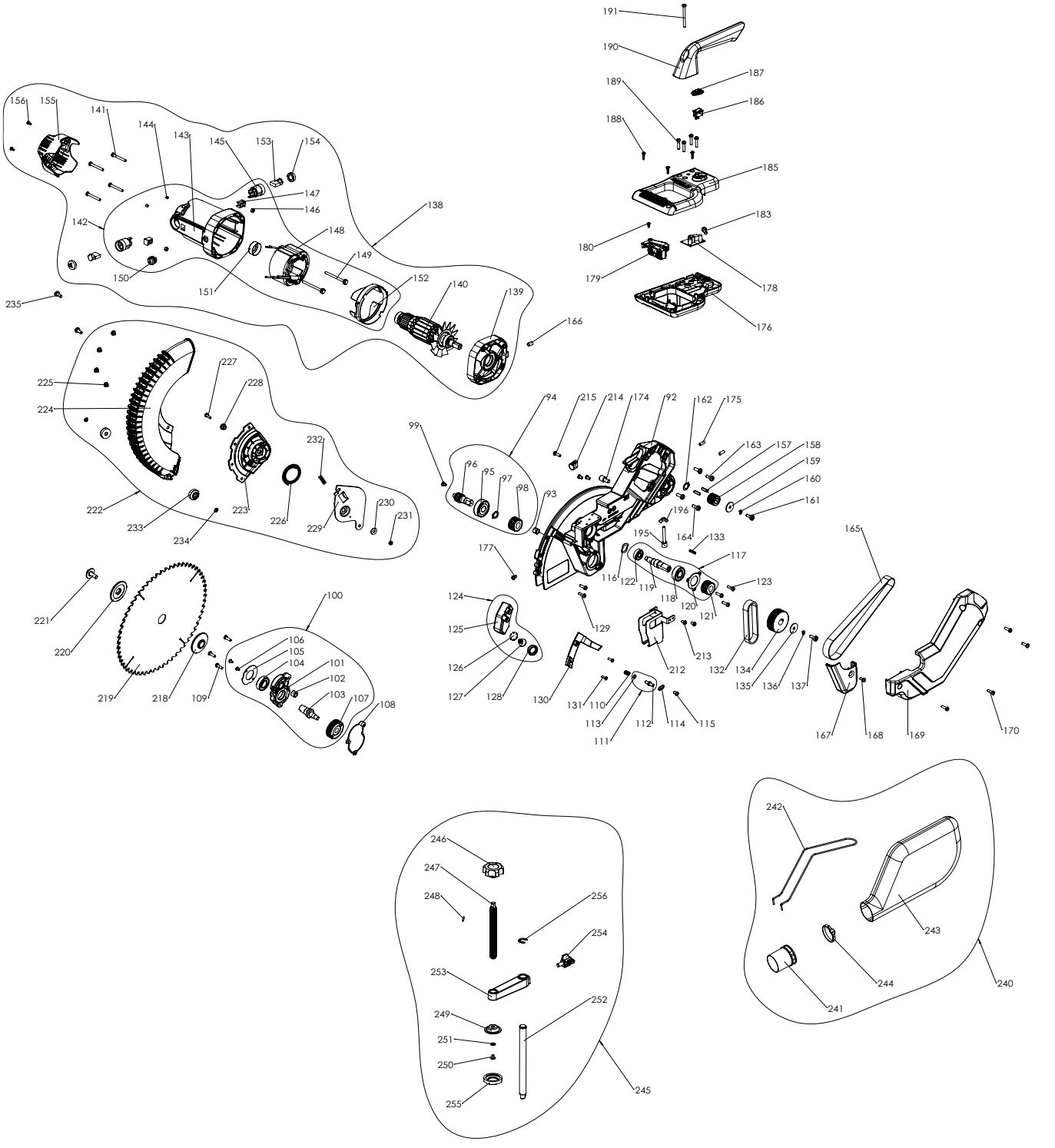
Part	Description	Qty
145	Brush Holder	2
146	Lock Nut	2
147	Nut Holder	2
148	Stator	1
149	Hex. Shaft	2
150	Power Cord Clip	1
151	Bearing Cover	1
152	Baffle	1
153	Brush	2
154	Brush Cover	2
155	End Cap	1
156	M4x16 Screw	2
157	Dowel	2
158	Pulley	1
159	Washer	1
160	Washer	1
161	M6x16 Screw	1
162	C Ring	1
163	M6x16 Screw	2
164	M6x16 Screw	2
165	Long Drive Belt	1
166	M8x16 Screw	1
167	Aluminum Belt Cover	1
168	M5x16 Screw	1
169	Belt Cover	1
170	M5x16 Screw	4
171	Bushing	1
172	Torsion Spring	1
173	Shaft	1
174	M8x15 Screw	1
175	M6x16 Screw	2
176	Bottom Handle	1
177	M5x16 Screw	1
178	Transformer	1
179	Trigger	1
180	M4x12 Screw	1
181	Power Cord	1
182	Bushing	1
183	Terminal	1
184	Cable Clip	1
185	Top Handle	1
186	Blade Guide Switch	1
187	Blade Guide Switch Cover	1
188	M4x16 Screw	3
189	M5x16 Screw	4
190	Carry Handle	1
191	M5x55 Screw	1
192	Depth Stop	1
193	M6x16 Screw	1
194	Washer	1
195	M6x44 Depth Adjustment Bolt	1
196	M6 Wing Nut	1
197	Dust Cover Assembly.	1
198	Left Dust Cover	1
199	Right Dust Cover	1
200	M4x12 Screw	4
201	Dust Cover	1
202	Nut	4
203	Left Retaining Sheet	1
204	Right Retaining Sheet	1
205	M4x8 Screw	4
206	M4x10 Screw	2
207	M4x10 Screw	1
208	Slide Stop	1
209	M5x13 Screw	1
210	Washer	1
211	Washer	1
212	Lower Guard Bracket	1
213	M5x8 Screw	4
214	Cable Clamp	1
215	M5x16 Screw	1
216	M5x12 Screw	1

Part	Description	Qty
217	Cable Clamp	1
218	Inner Flange	1
219	Blade	1
220	Outer Flange	1
221	Arbor Bolt	1
222	Lower Guard Set	1
223	Lower Guard Bracket	1
224	Lower Blade Guard	1
225	M5x10 Screw	4
226	Spring	1
227	M5x16 Screw	1
228	Bushing	1
229	Guard Plate	1
230	Washer	1
231	M5 Lock Nut	1

Part	Description	Qty
232	Stop Pad	1
233	Lower Guard Pad	2
234	Nut	2
235	M6x16 Screw	2
236	Bushing	2
237	Linkage	1
238	M5x16 Screw	2
239	Miter Lock Knob	1
240	Dust Collection Assembly	1
241	Port	1
242	Dust Collection Bag Bracket	1
243	Dust Collection Bag	1
244	Fastener	1
245	Clamp Assembly	1
246	Clamp Knob	1

Part	Description	Qty
247	M16x137 Bolt	1
248	Spring Dowel	1
249	Metal Pad	1
250	M5x8 Screw	1
251	Washer	1
252	Clamp Rod 15.87x200	1
253	Clamp Arm	1
254	Clamp Lock Knob	1
255	Bushing	1
256	E Ring	1
257	Right Extension Bar	1
258	Left Extension Bar	1
259	R Pin	2
260	M6x10 Screw	2

Assembly Diagram



Assembly Diagram

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. Reference UPC 193175512819.

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.

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.

Visit our website at: http://www.harborfreight.com
Email our technical support at: productsupport@harborfreight.com
For technical questions, please call 1-888-866-5797

HERCULES®

26677 Agoura Road • Calabasas, CA 91302 • 1-888-866-5797