READ THIS FIRST

Model G1023RL Series

******IMPORTANT UPDATE******

For Machines Mfd. Since 06/23 and Owner's Manual Revised 01/22

For questions or help with this product contact Tech Support at (570) 546-9663 or techsupport@grizzly.com

The following changes were recently made since the owner's manual was printed:

- Parts have changed.
- **Inventory** and **Assembly** have been updated.

Aside from this information, all other content in the owner's manual applies and MUST be read and understood for your own safety. **IMPORTANT: Keep this update with the owner's manual for future reference.**

For questions or help, contact our Tech Support at (570) 546-9663 or techsupport@grizzly.com.

Revised Table Saw Unit Inventory (All Models)

Hardware and Tools (Not Shown) Qty
Hex Bolts ⅜"-16 x 1¼" (Left Extension Wing)... 3

Revised Router Table & Guard Inventory (G1023RLW, G1023RLWX, G1023RLA40 Only)

Hardware (Not Shown):
Hex Bolts ⅜"-16 x 1½" (Rtr Table/Rail)..... 2

Revised Assembly

4. Secure front of extension wing to main table with (1) ⅜"-16 x 1¼" hex bolt, ⅜" lock washer, and ⅜" flat washer (see **Figure 16**).

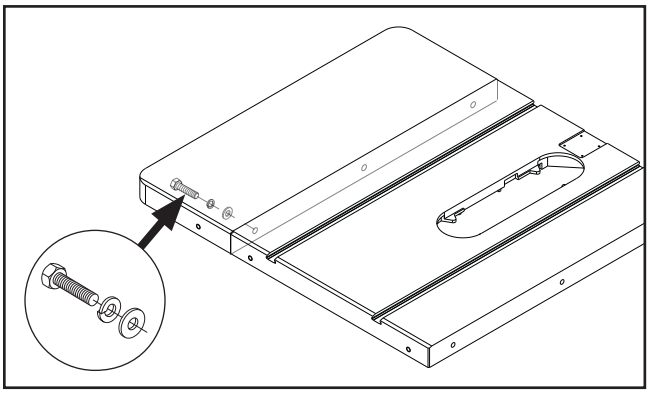
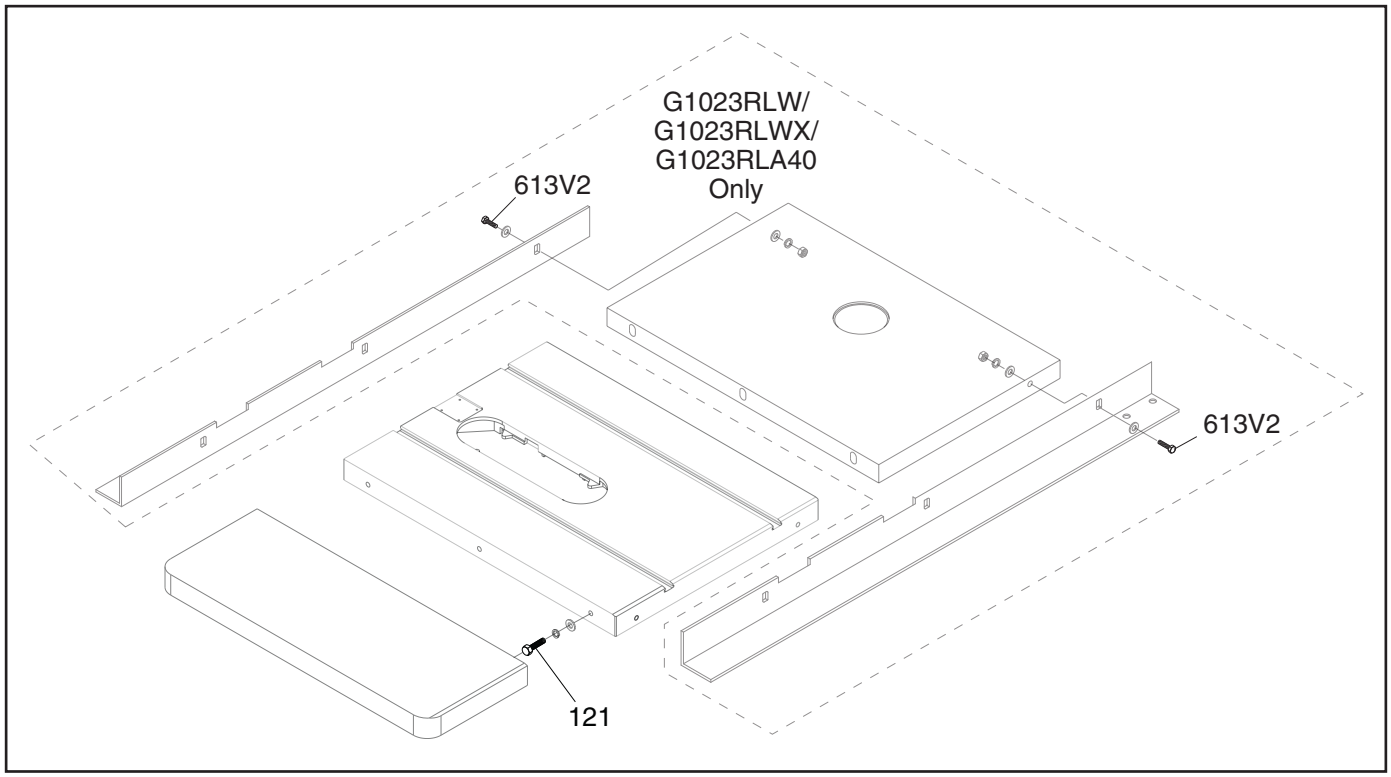


Figure 16. Securing front of extension wing.

Revised Parts



REF	PART #	DESCRIPTION
121	P1023RL121	HEX BOLT 3/8-16 X 1-1/4

REF	PART #	DESCRIPTION
613V2	P1023RLW613V2	HEX BOLT 3/8-16 X 1-1/2 V2.06.23

MODEL G1023RL SERIES
10" TABLE SAW
WITH RIVING KNIFE

OWNER'S MANUAL

(For RL/RLW/RLX/RLWX/RLX5 models manufactured since 12/21)

G1023RLX/RLX5

G1023RL

G1023RLW/RLWX

C US
177335

#BL12898 PRINTED IN TAIWAN
V6.01.22

⚠ WARNING!

This manual provides critical safety instructions on the proper setup, operation, maintenance, and service of this machine/tool. Save this document, refer to it often, and use it to instruct other operators.

Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine/tool is solely responsible for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training and usage authorization, proper inspection and maintenance, manual availability and comprehension, application of safety devices, cutting/sanding/grinding tool integrity, and the usage of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.

⚠ WARNING!

Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

- **Lead from lead-based paints.**
- **Crystalline silica from bricks, cement and other masonry products.**
- **Arsenic and chromium from chemically-treated lumber.**

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: Work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles.

Table of Contents

INTRODUCTION

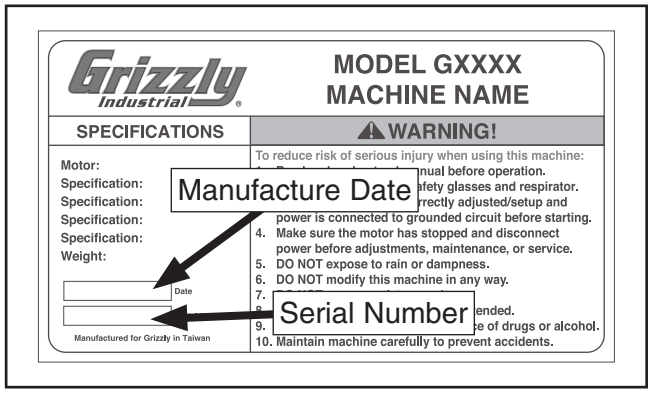
Manual Accuracy

We are proud to provide a high-quality owner's manual with your new machine!

We made every effort to be exact with the instructions, specifications, drawings, and photographs in this manual. Sometimes we make mistakes, but our policy of continuous improvement also means that **sometimes the machine you receive is slightly different than shown in the manual**.

If you find this to be the case, and the difference between the manual and machine leaves you confused or unsure about something, check our website for an updated version. We post current manuals and manual updates for free on our website at **www.grizzly.com**.

Alternatively, you can call our Technical Support for help. Before calling, make sure you write down the **manufacture date** and **serial number** from the machine ID label (see below). This information is required for us to provide proper tech support, and it helps us determine if updated documentation is available for your machine.



Contact Info

We stand behind our machines! If you have questions or need help, contact us with the information below. Before contacting, make sure you get the **serial number** and **manufacture date** from the machine ID label. This will help us help you faster.

Grizzly Technical Support
1815 W. Battlefield
Springfield, MO 65807
Phone: (570) 546-9663
Email: techsupport@grizzly.com

We want your feedback on this manual. What did you like about it? Where could it be improved? Please take a few minutes to give us feedback.

Grizzly Documentation Manager
P.O. Box 2069
Bellingham, WA 98227-2069
Email: manuals@grizzly.com

Machine Description

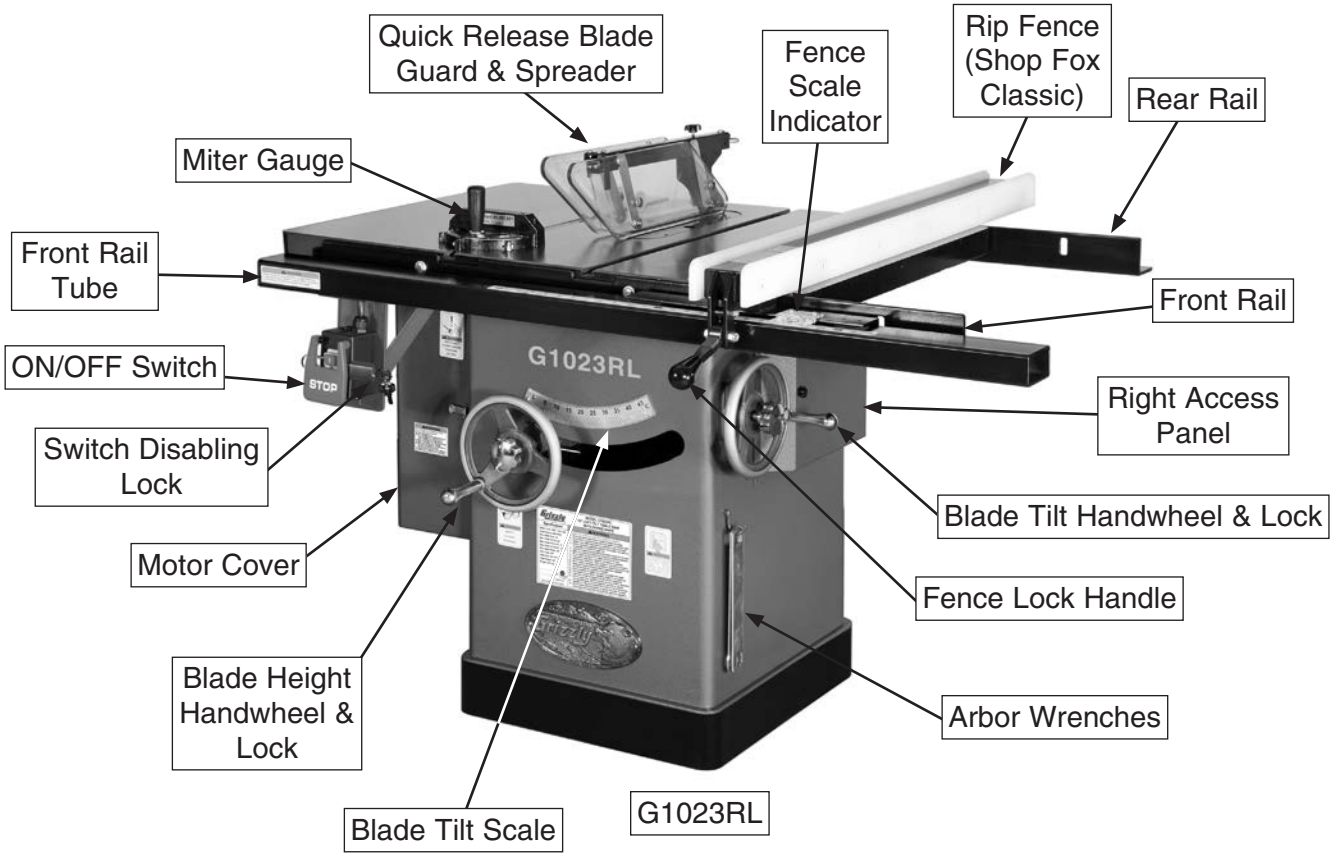
This table saw features a one-piece steel cabinet-type stand and a precision-ground, cast iron table that is milled perfectly flat and ground to a mirror-like finish. Depending upon the model, the motor is 3 HP or 5 HP.

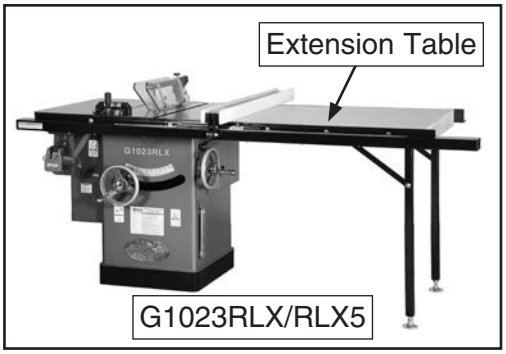
Dust collection under the blade provides highly effective dust removal, and a poly-V serpentine belt system efficiently transfers power.

Includes a Shop Fox Classic fence, miter gauge, quick-release spreader/blade guard, riving knife, and table inserts for standard and dado blades.

The G1023RL features two cast iron wings; the G1023RLW and G1023RLWX feature cast-iron router table extensions; the G1023RLX and G1023RLX5 feature heavy-duty extension tables with 60" rip capacity.

Identification



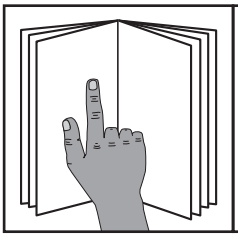


⚠CAUTION

For Your Own Safety Read Instruction Manual Before Operating Saw

a) Wear eye protection.
b) Use saw-blade guard and spreader for every operation for which it can be used, including all through sawing.
c) Keep hands out of the line of saw blade.
d) Use a push-stick when required.
e) Pay particular attention to instructions on reducing risk of kickback.
f) Do not perform any operation freehand.
g) Never reach around or over saw blade.

Controls & Components



⚠WARNING

To reduce your risk of serious injury, read this entire manual BEFORE using machine.

Refer to **Figures 1–3** and the following descriptions to become familiar with the basic controls of this machine.

A. ON/OFF Switch: Starts and stops motor.

B. Switch Disabling Lock: When installed, disables switch to prevent accidental startup.

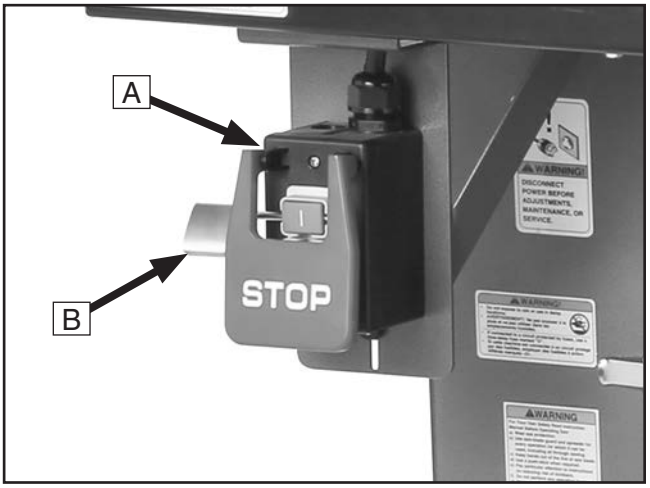


Figure 1. ON/OFF switch with disabling lock.

C. Blade Height Handwheel: Adjusts blade height from 0"–3".

D. Blade Tilt Handwheel: Adjusts blade angle from 0°–45°.

E. Blade Height Lock: Locks blade height when tightened.

F. Fence Lock Handle: Locks fence when pushed down, unlocks fence when pulled up.

G. Blade Tilt Lock: Locks blade tilt when tightened.

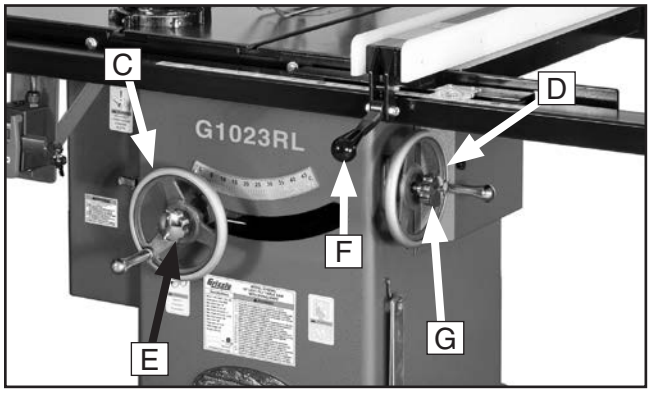


Figure 2. Adjustment controls.

H. Miter Gauge: Supports workpiece during crosscut or angle cutting operations.

I. Blade Guard: Covers blade to reduce risk of operator contact with blade.

J. Spreader: Keeps cut portion of workpiece from pinching blade to reduce risk of binding or kickback.

K. Fence: Guides workpiece as it moves into blade and determines angle of cut.

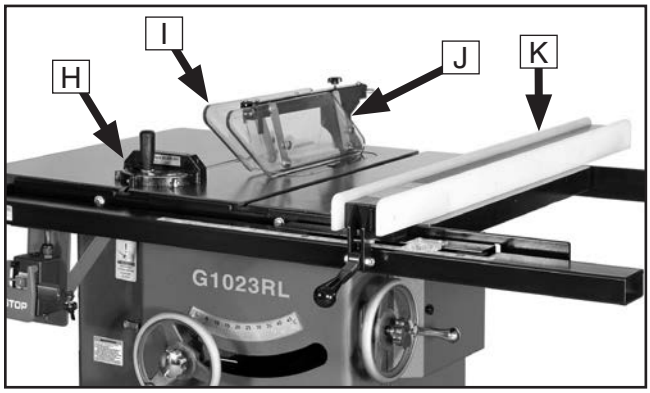


Figure 3. Table components.

Glossary of Terms

The following is a list of common definitions, terms and phrases used throughout this manual as they relate to this table saw and woodworking in general. Become familiar with these terms for assembling, adjusting or operating this machine. Your safety is **VERY** important to us at Grizzly!

Arbor: A metal shaft extending from the drive mechanism that is the mounting location for the saw blade.

Bevel Edge Cut: A cut made with the blade tilted to an angle between 0˚ and 45˚ to cut a beveled edge onto a workpiece. Refer to **Page 40** for more details.

Blade Guard Assembly: Metal or plastic safety device that mounts over the saw blade. Its function is to prevent the operator from coming into contact with the saw blade. Refer to **Page 34** for more details.

Crosscut: Cutting operation in which the crosscut fence is used to cut across the shortest width of the workpiece. Refer to **Page 39** for more details.

Dado Blade: Blade or set of blades that are used to cut grooves and rabbets. Refer to **Page 40** for more details. The saw and arbor are not intended to safely use a larger dado blade.

Dado Cut: Cutting operation that uses a dado blade to cut a flat bottomed groove into the face of the workpiece. Refer to **Page 40** for more details.

Featherboard: Safety device used to keep the workpiece against the rip fence and against the table surface. Refer to **Page 48** for more details.

Kerf: The resulting cut or gap in the workpiece after the saw blade passes through during a cutting operation.

Kickback: An event in which the workpiece is propelled back towards the operator at a high rate of speed.

Non-Through Cut: A cut in which the blade does not cut through the top of the workpiece. Refer to **Page 31** for more details.

Parallel: Being an equal distance apart at every point along two given lines or planes (i.e. the rip fence face is parallel to the face of the saw blade).

Perpendicular: Lines or planes that intersect and form right angles (i.e. the blade is perpendicular to the table surface).

Push Stick: Safety device used to push the workpiece through a cutting operation. Used most often when rip cutting thin workpieces. Refer to **Page 51** for more details.

Rabbet: Cutting operation that creates an L-shaped channel along the edge of the workpiece. Refer to **Page 43** for more details.

Rip Cut: Cutting operation in which the rip fence is used to cut across the widest width of the workpiece. Refer to **Page 38** for more details.

Riving Knife: Metal plate located behind the blade. It maintains the kerf opening in the wood when performing a cutting operation. Refer to **Page 37** for more details.

Straightedge: A tool used to check the flatness, parallelism, or consistency of a surface(s).

Thin Kerf Blade: A blade with a kerf or thickness that is thinner than a standard blade cannot be used on this saw without using a thin-kerf riving knife.

Through Cut: A cut in which the blade cuts completely through the workpiece. Refer to **Page 31** for more details.

MACHINE DATA SHEET

Customer Service #: (570) 546-9663 · To Order Call: (800) 523-4777 · Fax #: (800) 438-5901

MODEL G1023RL SERIES 10" TABLE SAWS

Model Number	G1023RL	G1023RLW	G1023RLWX	G1023RLX	G1023RLX5
Product Dimensions					
Weight	471 lbs.	509 lbs.		522 lbs.	
Width (side-to-side)/Depth (front-to-back)/Height	66" x 47" x 40"			84" x 47" x 40"	
Foot Print (Width/Depth)	20½" x 20½"				
Shipping Dimensions					
Carton #1 Type	Cardboard Box				
Content	Machine				
Weight	453 lbs.	499 lbs.		412 lbs.	
Width (side-to-side)/Depth (front-to-back)/Height	95" x 92" x 73"				
Carton #2 Type	Cardboard Box				
Content	Fence & Rails			Fence	
Weight	76 lbs.			28 lbs.	
Width (side-to-side)/Depth (front-to-back)/Height	58" x 20" x 7"	57" x 20" x 7"		47" x 20" x 8"	
Carton #3 Type	N/A			Cardboard Box	
Content	N/A			Rails	
Weight	N/A			88 lbs.	
Width (side-to-side)/Depth (front-to-back)/Height	N/A			99" x 5" x 4"	
Carton #4 Type	N/A			Cardboard Box	
Content	N/A			Extension Table	
Weight	N/A			28 lbs.	
Width (side-to-side)/Depth (front-to-back)/Height	N/A			49" x 30" x 6"	
Carton #5 Type	N/A			Cardboard Box	
Content	N/A			Legs	
Weight	N/A			10 lbs.	
Width (side-to-side)/Depth (front-to-back)/Height	N/A			35" x 5" x 4"	

Model Number	G1023RL	G1023RLW	G1023RLWX	G1023RLX	G1023RLX5
Electrical					
Power Requirement	240V, Single-Phase, 60 Hz				
Full-Load Current Rating	14A		23A	14A	23A
Minimum Circuit Size	15A		30A	15A	30A
Connection Type	Cord & Plug				
Power Cord Included	Yes				
Power Cord Length	120 in.		72 in.	120 in.	
Power Cord Gauge	14 AWG		12 AWG	14 AWG	12 AWG
Plug Included	Yes				
Included Plug Type	6-15		L6-30	6-15	L6-30
Switch Type	ON/OFF Push Button Switch w/Large Shut-Off Paddle & Padlock				
Main Motor					
Horsepower	3 HP		5 HP	3 HP	5 HP
Phase	Single-Phase				
Type	TEFC Capacitor-Start Induction				
Amps	14A		23A	14A	23A
Speed	3450 RPM				
Power Transfer	Belt				
Bearings	Sealed & Permanently Lubricated				
Centrifugal Switch/Contacts Type	External				
Main Information					
Table Saw Type	Cabinet				
Maximum Blade Diameter	10"				
Arbor Size	5/8"				
Arbor Speed	4200 RPM				
Maximum Width of Dado	13/16"				
Blade Tilt Direction	Left				
Max Blade Tilt	45°				
Maximum Depth of Cut at 90°	3"				
Maximum Depth of Cut at 45°	2⅛"				
Maximum Rip Right of Blade with Included Fence & Rails	32"			60"	
Maximum Rip Left of Blade with Included Fence & Rails	14"				
Additional Blade Information					
Included Blade Information	10" x 40T				
Riving Knife/Spreader Thickness	0.098"–0.102"				
Required Blade Body Thickness	0.086"–0.094"				
Required Blade Kerf Thickness	0.122"–0.129"				
Rim Speed at Maximum Blade Diameter	11,000 FPM				

Model Number	G1023RL	G1023RLW	G1023RLWX	G1023RLX	G1023RLX5
Table Information					
Floor to Table Height	34"				
Table Size w/Extension Wings Width	40"	48"		74"	
Table Size w/Extension Wings Depth	27"				
Distance Front of Table to Center of Blade	17"				
Distance Front of Table to Blade at Maximum Cut	12"				
Main Table Size Thickness	1¾"				
Fence Information					
Fence Type	Camlock T-Shape with HDPE Face				
Fence Size Length	41¾" (without Handle)				
Fence Size Width	5"				
Fence Size Height	2½"				
Fence Rail Type	Square Steel Tubing/Angle Iron				
Fence Rail Length	66"			84"	
Fence Rail Width	2⅝"				
Fence Rail Height	2⅝"				
Miter Gauge Information					
Miter Gauge Slot Type	T-Slot				
Miter Gauge Slot Size Width	¾"				
Miter Gauge Slot Size Height	⅜"				
Construction					
Table	Precision-Ground Cast Iron				
Wings	Precision-Ground Cast Iron				
Cabinet	Pre-Formed Steel				
Trunnions	Cast Iron				
Fence Assembly	HDPE Plastic Side Panels. Heavy Walled Rectangular Steel Tubing				
Rails	Steel				
Miter Gauge Construction	Cast Iron with Steel Bar				
Guard	Steel and Clear Plastic				
Body/Cabinet Paint Type/Finish	Powder Coated				
Arbor Bearings	Sealed & Permanently Lubricated				
Other Related Information					
Number of Dust Ports	1				
Dust Port Size	4"				
Optional Long Rails	W2007			N/A	
Max Rip Right of Blade with Optional Long Rails	53"			N/A	
Compatible Mobile Base	T28922			T28922 & T28347	
Other Specifications					
Country of Origin	Taiwan				
Warranty	1 Year				
Approximate Assembly & Setup Time	2 Hours				
Certified by a Nationally Recognized Testing Laboratory (NRTL)	Yes				

SECTION 1: SAFETY

For Your Own Safety, Read Instruction Manual Before Operating This Machine

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures. Always use common sense and good judgment.

⚠DANGER **Indicates an imminently hazardous situation which, if not avoided, WILL result in death or serious injury.**

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

⚠CAUTION **Indicates a potentially hazardous situation which, if not avoided, MAY result in minor or moderate injury. It may also be used to alert against unsafe practices.**

NOTICE **Alerts the user to useful information about proper operation of the machine to avoid machine damage.**

Safety Instructions for Machinery

⚠WARNING

OWNER'S MANUAL. Read and understand this owner's manual BEFORE using machine.

TRAINED OPERATORS ONLY. Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make your workshop kid proof!

DANGEROUS ENVIRONMENTS. Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increases the risk of accidents and injury.

MENTAL ALERTNESS REQUIRED. Full mental alertness is required for safe operation of machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

ELECTRICAL EQUIPMENT INJURY RISKS. You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.

DISCONNECT POWER FIRST. Always disconnect machine from power supply BEFORE making adjustments, changing tooling, or servicing machine. This prevents an injury risk from unintended startup or contact with live electrical components.

EYE PROTECTION. Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are NOT approved safety glasses.

⚠WARNING

WEARING PROPER APPAREL. Do not wear clothing, apparel or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to reduce risk of slipping and losing control or accidentally contacting cutting tool or moving parts.

HAZARDOUS DUST. Dust created by machinery operations may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material. Always wear a NIOSH-approved respirator to reduce your risk.

HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.

REMOVE ADJUSTING TOOLS. Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!

USE CORRECT TOOL FOR THE JOB. Only use this tool for its intended purpose—do not force it or an attachment to do a job for which it was not designed. Never make unapproved modifications—modifying tool or using it differently than intended may result in malfunction or mechanical failure that can lead to personal injury or death!

AWKWARD POSITIONS. Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.

CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.

GUARDS & COVERS. Guards and covers reduce accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly BEFORE operating machine.

FORCING MACHINERY. Do not force machine. It will do the job safer and better at the rate for which it was designed.

NEVER STAND ON MACHINE. Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.

STABLE MACHINE. Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.

USE RECOMMENDED ACCESSORIES. Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase the risk of serious injury.

UNATTENDED OPERATION. To reduce the risk of accidental injury, turn machine ***OFF*** and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.

MAINTAIN WITH CARE. Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.

DAMAGED PARTS. Regularly inspect machine for damaged, loose, or mis-adjusted parts—or any condition that could affect safe operation. Immediately repair/replace BEFORE operating machine. For your own safety, DO NOT operate machine with damaged parts!

MAINTAIN POWER CORDS. When disconnecting cord-connected machines from power, grab and pull the plug—NOT the cord. Pulling the cord may damage the wires inside. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical Support at (570) 546-9663.

Additional Safety for Table Saws

⚠WARNING

Serious cuts, amputation, or death can occur from contact with rotating saw blade during operation. Workpieces, broken blades, or flying particles thrown by blade can blind or strike operators or bystanders with deadly force. To reduce the risk of these hazards, operator and bystanders MUST completely heed the hazards and warnings below.

HAND & BODY POSITIONING. Keep hands away from saw blade and out of blade path during operation, so they cannot accidentally slip into blade. Only operate at front of machine and always stand to side of blade path. Never reach behind or over blade, or under blade guard when blade is spinning.

BLADE GUARD. The blade guard protects operator from rotating saw blade. Make sure blade guard is installed, adjusted correctly, and used for all possible "through cuts." Promptly repair or replace if damaged. Re-install immediately after operations that require its removal.

RIVING KNIFE. Use riving knife for all "non-through cuts." Make sure it is aligned and positioned correctly. Promptly repair or replace it if damaged.

KICKBACK. Kickback occurs when saw blade ejects workpiece back toward operator. Know how to reduce risk of kickback, and learn how to protect yourself if it does occur.

FEEDING WORKPIECE. Feeding workpiece incorrectly increases risk of kickback. Always allow blade to reach full speed before cutting, feed workpiece from front of saw, making sure workpiece is flat against table and a fence, miter gauge, or other guide is used to feed workpiece in a straight line. Feed cuts through to completion. Never start saw with workpiece touching blade or pull workpiece from behind blade. Never back workpiece out of cut, move it sideways, or perform a "freehand" operation. Never plunge cut.

DADO AND RABBET OPERATIONS. Dado and rabbeting operations require special attention since they must be performed with blade guard removed, which increases risk of blade contact. DO NOT attempt dado or rabbeting operations without first reading these sections in this manual.

PUSH STICKS/PUSH BLOCKS. To reduce risk of accidental blade contact, use push sticks/push blocks whenever possible. In event of an accident, these will often take damage that would have occurred to hands/fingers.

FENCE. To reduce risk of kickback, make sure fence remains properly adjusted and parallel with blade. Always lock fence before using. Do not use fence while using miter gauge. Make sure fence is not touching the blade when the saw is started.

CUT-OFF PIECES. To avoid risk of injury due to blade contact, turn saw ***OFF*** and allow blade to completely stop before removing cut-off pieces near blade or trapped between blade and table insert. Never use your hands to move cut-off pieces away from blade while saw is running.

BLADE ADJUSTMENTS. Adjusting blade height or tilt during operation increases risk of crashing blade and sending metal fragments flying with deadly force at operator or bystanders. Only adjust blade height and tilt when blade is completely stopped and saw is ***OFF***. Make sure blade is not touching the guard, riving knife, or workpiece before the saw is started.

CHANGING BLADES. Accidental startup while changing saw blade can result in serious injury. To reduce risk of accidental blade contact, always disconnect power before changing blades.

DAMAGED SAW BLADES. Damaged saw blade teeth can become deadly projectiles. Never use blades that have been dropped or damaged.

CUTTING CORRECT MATERIAL. Cutting metal, glass, stone, tile, etc., increases risk of operator injury due to kickback or flying particles. Only cut natural and man-made wood products, laminate-covered wood products, and some plastics. Never cut materials not intended for this saw.

Preventing Kickback

Take the precautions below to avoid the most common causes of kickback:

- Only cut workpieces with at least one smooth and straight edge. DO NOT cut warped, cupped or twisted wood.
- Keep the blade guard installed and working correctly for all through cuts.
- Never attempt freehand cuts. If the workpiece is not fed parallel with the blade, kickback will likely occur. Always use the rip fence or miter gauge to guide the workpiece.
- Make sure the spreader or riving knife is aligned with the blade and secured tightly. A misaligned spreader or riving knife can cause the workpiece to catch or bind, increasing the chance of kickback.
- Take the time to check and adjust the rip fence parallel with the blade; otherwise, the chances of kickback are extreme.
- The spreader or riving knife maintains the kerf in the workpiece, reducing the chance of kickback. Always use the riving knife for all non-through operations, unless a dado blade is installed. Always use the spreader with the blade guard for all through cuts.
- Feed cuts through to completion. Anytime you stop feeding a workpiece in the middle of a cut, the chance of kickback is greatly increased.
- Keep the blade guard installed and in good working order. Only remove it when performing non-through cuts and immediately re-install the blade guard when finished. Remember, always use the riving knife for all non-through operations, unless a dado blade is installed.
- Make multiple, shallow passes when performing a non-through cut. Making a deep non-through cut will greatly increase the chance of kickback.
- Never move the workpiece backwards or try to back it out of a cut while the blade is moving. If you cannot complete a cut for some reason, stop the saw motor and allow the blade to completely stop before backing the workpiece out. Promptly fix the condition that prevented you from completing the cut before starting the saw again.

⚠CAUTION

Statistics show that most common accidents among table saw users can be linked to kickback. Kickback is typically defined as the high-speed expulsion of stock from the table saw toward its operator. In addition to the danger of the operator or others in the area being struck by the flying stock, it is often the case that the operator's hands are pulled into the blade during kickback.

Protecting Yourself from Kickback

Even if you know how to prevent kickback, it may still happen. Here are some ways to protect yourself if kickback DOES occur:

- Stand to the side of the blade during every cut. If kickback does occur, the thrown workpiece usually travels directly in front of the blade.
- Wear safety glasses or a face shield. In the event of kickback, your eyes and face are the most vulnerable part of your body.
- Never, for any reason, place your hand behind the blade or under blade guard. Should kickback occur, your hand could be pulled into the blade, which could cause amputation.
- Use a push stick to keep your hands farther away from the moving blade. If kickback occurs, the push stick will most likely take the damage your hand would have received.
- Use featherboards or anti-kickback devices to assist with feeding and prevent or slow down kickback.

SECTION 2: POWER SUPPLY

Availability

Before installing the machine, consider the availability and proximity of the required power supply circuit. If an existing circuit does not meet the requirements for this machine, a new circuit must be installed. To minimize the risk of electrocution, fire, or equipment damage, installation work and electrical wiring must be done by an electrician or qualified service personnel in accordance with all applicable codes and standards.

⚠WARNING

Electrocution, fire, shock, or equipment damage may occur if machine is not properly grounded and connected to power supply.

Full-Load Current Rating

The full-load current rating is the amperage a machine draws at 100% of the rated output power. On machines with multiple motors, this is the amperage drawn by the largest motor or sum of all motors and electrical devices that might operate at one time during normal operations.

G1023RL/RLW/RLX
Full-Load Current at 240V ..... 14 Amps
G1023RLWX/RLX5
Full-Load Current at 240V ..... 23 Amps

The full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating.

If the machine is overloaded for a sufficient length of time, damage, overheating, or fire may result—especially if connected to an undersized circuit. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the specified circuit requirements.

Circuit Information

A power supply circuit includes all electrical equipment between the breaker box or fuse panel in the building and the machine. The power supply circuit used for this machine must be sized to safely handle the full-load current drawn from the machine for an extended period of time. (If this machine is connected to a circuit protected by fuses, use a time delay fuse marked D.)

⚠CAUTION

For your own safety and protection of property, consult an electrician if you are unsure about wiring practices or electrical codes in your area.

Note: *Circuit requirements in this manual apply to a dedicated circuit—where only one machine will be running on the circuit at a time. If machine will be connected to a shared circuit where multiple machines may be running at the same time, consult an electrician or qualified service personnel to ensure circuit is properly sized for safe operation.*

Circuit Requirements for G1023RL/ RLW/RLX

This machine is prewired to operate on a power supply circuit that has a verified ground and meets the following requirements:

Nominal Voltage 208V, 220V, 230V, 240V
Cycle ..... 60 Hz
Phase ..... Single Phase
Circuit Rating ..... 15 Amps
Plug/Receptacle ..... NEMA 6-15

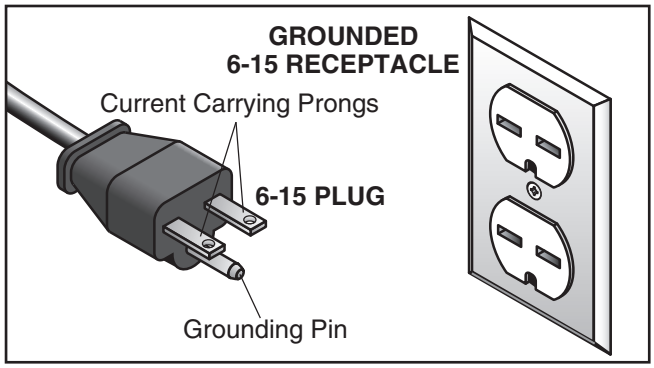


Figure 4. Typical 6-15 plug and receptacle.

Circuit Requirements for G1023RLWX/RLX5

This machine is prewired to operate on a power supply circuit that has a verified ground and meets the following requirements:

Nominal Voltage 208V, 220V, 230V, 240V
Cycle .....60 Hz
Phase .....Single Phase
Circuit Rating .....30 Amps
Plug/Receptacle .....NEMA L6-30

Grounding Requirements

This machine MUST be grounded. In the event of certain malfunctions or breakdowns, grounding reduces the risk of electric shock by providing a path of least resistance for electric current.

This machine is equipped with a power cord that has an equipment-grounding wire and a grounding plug. Only insert plug into a matching receptacle (outlet) that is properly installed and grounded in accordance with all local codes and ordinances. DO NOT modify the provided plug!

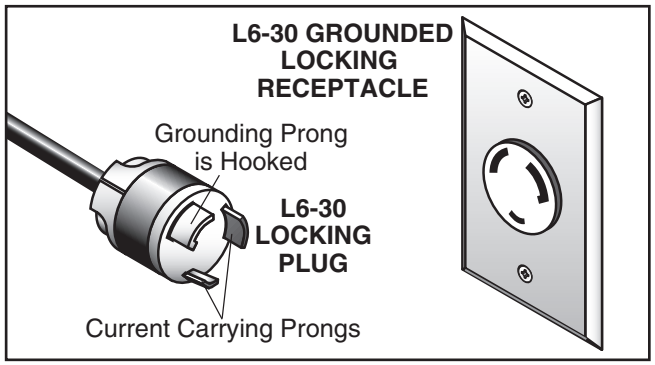
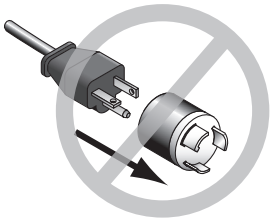


Figure 5. Typical L6-30 plug and receptacle.

Improper connection of the equipment-grounding wire can result in a risk of electric shock. The wire with green insulation (with or without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

Check with a qualified electrician or service personnel if you do not understand these grounding requirements, or if you are in doubt about whether the tool is properly grounded. If you ever notice that a cord or plug is damaged or worn, disconnect it from power, and immediately replace it with a new one.

⚠CAUTION



No adapter should be used with plug. If plug does not fit available receptacle, or if machine must be reconnected for use on a different type of circuit, reconnection must be performed by an electrician or qualified service personnel, and it must comply with all local codes and ordinances.

Extension Cords

We do not recommend using an extension cord with this machine. If you must use an extension cord, only use it if absolutely necessary and only on a temporary basis.

Extension cords cause voltage drop, which can damage electrical components and shorten motor life. Voltage drop increases as the extension cord size gets longer and the gauge size gets smaller (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must be in good condition and contain a ground wire and matching plug/receptacle. Additionally, it must meet the following size requirements:

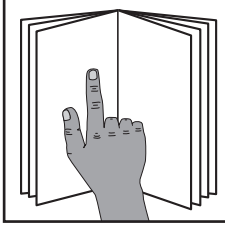
Min. Gauge (G1023RL/RLW/RLX).....14 AWG
Maximum Length (Shorter is Better).....50 ft.

Min. Gauge (G1023RLWX/RLX5) .....10 AWG
Maximum Length (Shorter is Better).....50 ft.

⚠WARNING

Serious injury could occur if you connect machine to power before completing setup process. DO NOT connect to power until instructed later in this manual.

SECTION 3: SETUP



⚠WARNING

To reduce your risk of serious injury, read this entire manual BEFORE using machine.

⚠WARNING

Eye injury hazard! Always wear safety glasses when using this machine.

⚠WARNING

Lifting heavy machinery or parts without proper assistance or equipment may result in strains, back injuries, crushing injuries, or property damage.

Unpacking

Your machine was carefully packaged for safe transportation. Remove the packaging materials from around your machine and inspect it. If you discover the machine is damaged, *please immediately call Customer Service at (570) 546-9663 for advice.*

Save the containers and all packing materials for possible inspection by the carrier or its agent. *Otherwise, filing a freight claim can be difficult.*

Needed for Setup

The following are needed to complete the setup process, but are not included with your machine.

Description (All Models)	Qty
• Safety Glasses	1
• Cleaner/Degreaser (**Page 20**)	As Needed
• Disposable Shop Rags	As Needed
• Disposable Gloves	As Needed
• Additional People	1
• Forklift	1
• Lifting Straps (min. 1000 lb. capacity)	2
• Wire Brush or File	1
• Straightedge 12" (or longer)	1
• Straightedge 36" (or longer)	1
• Wrench/Socket 15mm	1
• Utility Knife or Razor Blade	1
• Masking Tape	Varies
• Hammer	1
• Screwdriver Phillips #2	1
• Protective Gloves	1 Pr.
• Pencil	1
• Dust Collection System	1
• Dust Hose 4"	1
• Hose Clamps 4"	2

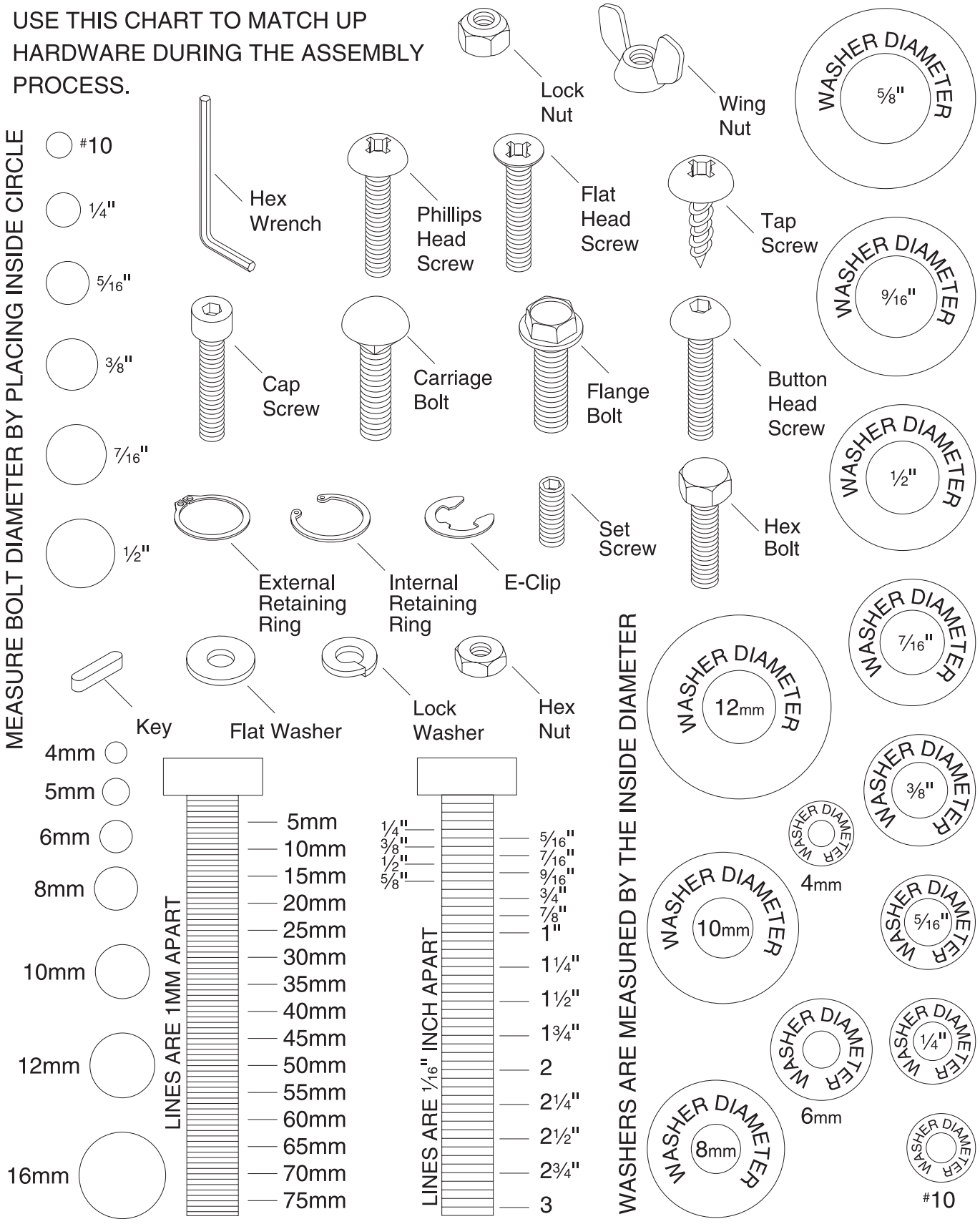
G1023RL Only	Qty
• Wrenches/Sockets ¼", 17mm	1 Ea.

G1023RLW/RLWX Only	Qty
• Wrenches/Sockets ¼", 5/16", 12mm	1 Ea.
• Open-End Wrenches 7/16", ¾"	1 Ea.
• Hex Wrench 5/16"	1
• Router	1
• Stock 1½" x 28 x 2½"	1
• Clamps	2
• Center Punch or Long Nail	1
• Drill/Drill Press	1
• Drill Bits 3/16", 3/8"	1 Ea.
• Wooden Fence 2¾" x 28"	1
• Wood Screws for Wooden Fence	4+
• Dust Hose 3"	1
• Hose Clamps 3"	2
• Hose Adapter 3" x 4"	1

G1023RLX/RLX5 Only	Qty
• Wrench/Socket 5/16", 14mm	1 Ea.
• Hex Wrench 5/16"	1
• Open-End Wrench ¾"	1
• Level	1

Hardware Recognition Chart

USE THIS CHART TO MATCH UP HARDWARE DURING THE ASSEMBLY PROCESS.



Inventory

The following is a list of items shipped with your machine. Before beginning setup, lay these items out and inventory them.

If any non-proprietary parts are missing (e.g. a nut or a washer), we will gladly replace them; or for the sake of expediency, replacements can be obtained at your local hardware store.

NOTICE

If you cannot find an item on this list, carefully check around/inside the machine and packaging materials. Often, these items get lost in packaging materials while unpacking or they are pre-installed at the factory.

Table Saw Unit

Box Contents (Figures 6–7)	Qty
A. Motor Cover	1
B. Arbor Wrenches	2
C. Dust Port	1
D. Switch Brace	1
E. Fence Resting Brackets	2
F. Handwheel Handles	2
G. Miter Gauge	1
H. Left Extension Wing	1*
I. Push Stick	1
J. Blade Guard	1
K. Spreader	1
L. Switch Disabling Lock	1
M. Riving Knife	1
N. Dado Blade Table Insert	1
O. Blade 10"	1
P. Latch (not shown)	1
Q. Lock Knobs	2
R. Handwheels	2
S. Shaft Keys 5 x 5 x 35	2

Hardware and Tools (Not Shown)	Qty
Flat Head Screw 5/16"-18 x 3/4" (Switch)	1
Flat Washer 5/16" (Switch)	1
Hex Nut 5/16"-18 (Switch)	1
Phillips Head Screws #8-32 x 3/8" (Latch)	2
Hex Nuts #8-32 (Latch)	2
Hinge Pins (Motor Cover)	2
Button Hd Cap Screw M5-.8 x 8 (Brackets)	4
Lock Washers 3/8" (Left Extension Wing)	3
Hex Bolts 3/8"-16 x 1 1/4" (Left Extension Wing)	2
Hex Bolt 3/8"-16 x 1" (Left Extension Wing)	1
Flat Washers 3/8" (Left Extension Wing)	4
Hex Wrenches 3, 5mm	1 Each
Open-End Wrench 12 x 14mm	1

*G1023RL supplied with an additional right extension wing, (3) 3/8" lock washers, (3) 3/8"-16 x 1 1/4" hex bolts, and (3) 3/8" flat washers.

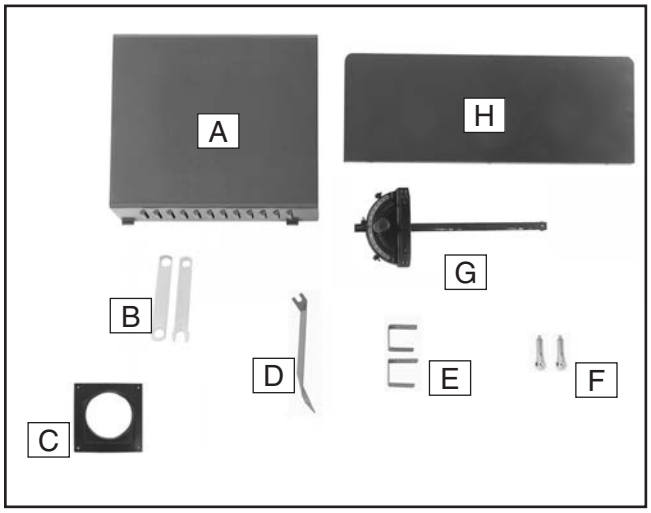


Figure 6. G1023RL main components.

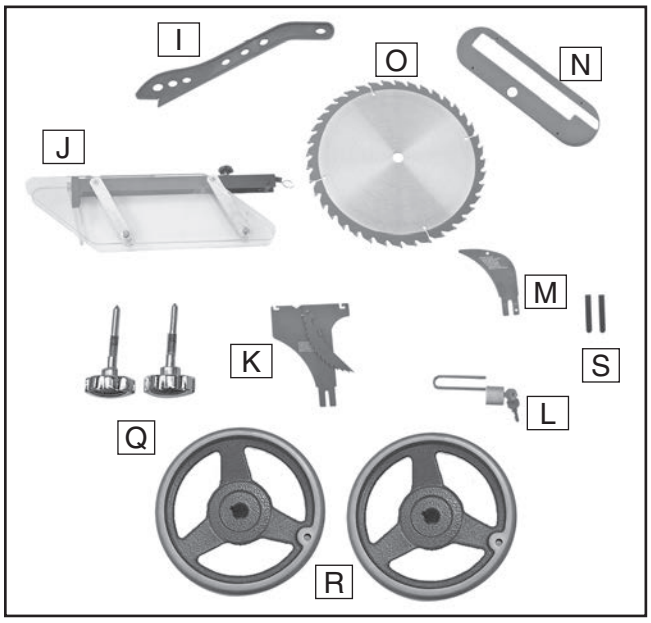


Figure 7. G1023RL main components.

Fence & Rail Inventory G1023RL, G1023RLW, G1023RLWX

The Shop Fox Classic fence includes extra hardware for mounting it to other brands of table saws. Only the hardware needed to mount the fence to your Grizzly saw is listed in this inventory and shown in **Figure 8**. To avoid confusion, we suggest removing any items not listed here from your immediate work area.

Box Contents (Figure 8)	Qty
A. Fence Assembly	1
B. Front Rail (46½" Long)	1
C. Rear Rail (54½" Long)	1
D. Front Rail Rectangular Tube (66" Long)	1
E. Scale	1

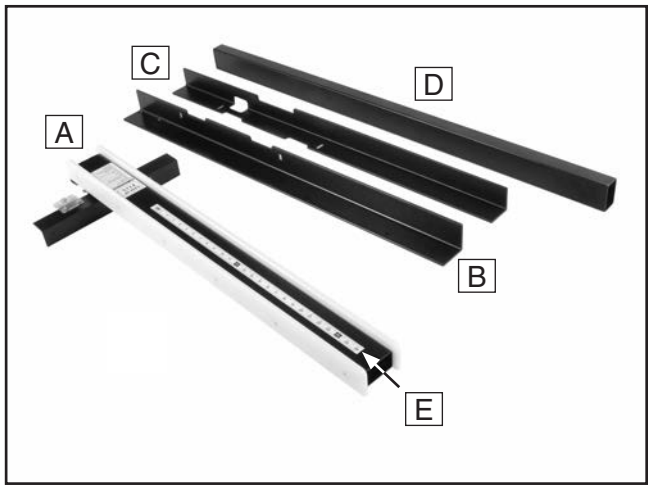


Figure 8. Inventory needed to install the fence on the Model G1023RL/W/WX.

Hardware (Not Shown)

Hex Bolts ⅜"-16 x 1" (Rail/Table)	4
Flat Washers ⅜" (Rail/Table)	4
Hex Bolts ¼"-20 x ¾" (Rail/Tube)	4
Flat Washers ¼" (Rail/Tube)	4

Router Table & Guard Inventory G1023RLW, G1023RLWX

Box Contents (Figures 9 –10)	Qty
A. Router Table Extension Wing	1
B. Clamp Assemblies	4
C. Table Insert 29mm	1
D. Table Insert 60mm	1
E. Extension Legs	2
F. Adjustable Feet with Hex Nuts	2
G. Vertical Bracket	1
H. Horizontal Bracket	1
I. Guard	1

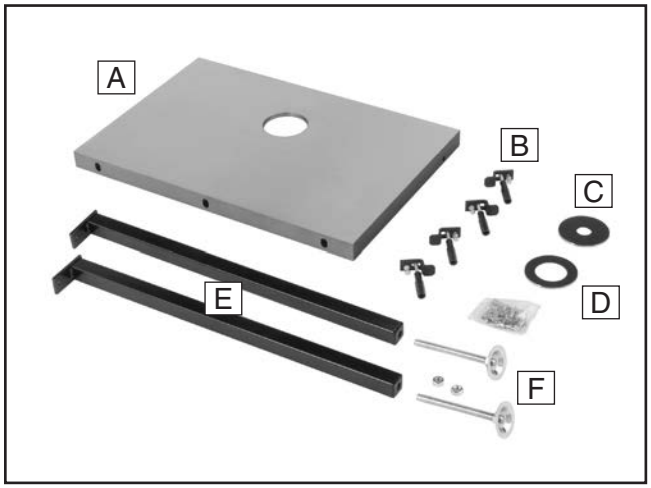


Figure 9. Router table extension wing inventory.

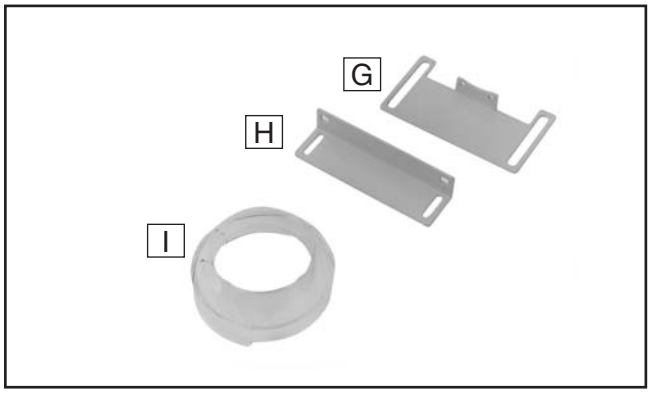


Figure 10. Router table guard inventory.

Hardware (Not Shown):

Router Table

Hex Bolts 3/8"-16 x 1 1/4" (Rtr/Main Table) 3
Lock Washers 3/8" (Rtr/Main Table) 3
Flat Washers 3/8" (Rtr/Main Table) 3
Hex Bolts 3/8"-16 x 1 1/4" (Rtr Table/Rail)..... 2
Lock Washers 3/8" (Rtr Table/Rail)..... 2
Flat Washers 3/8" (Rtr Table/Rail)..... 4
Hex Nuts 3/8"-16 (Rtr Table/Rail) 2
Flat Head Screws 1/4"-20 x 3/4" (Rail/Leg)..... 4
Flat Washers 1/4" (Rail/Leg)..... 2
Hex Nuts 1/4"-20 (Rail/Leg)..... 2

Guard

Phillips Head Screws #8-32 x 5/8"..... 2
Flat Washers #8 6
Lock Washers #8..... 2
Hex Nuts #8-32 2
Wood Screws #8 x 3/4" 2
Phillips Head Screws #10-24 x 2 1/2" 4
Carriage Bolts 1/4"-20 x 1/2"..... 2
Flat Washers 1/4" 2
Wing Nuts 1/4"-20 2

Fence & Rail Inventory G1023RLX, G1023RLX5

The Shop Fox Classic fence with 7' long rails includes extra hardware and two extra legs. Only the hardware needed to mount the fence to your Grizzly saw is listed in this inventory and shown in **Figure 11**. To avoid confusion, we suggest removing any items not listed here from your immediate work area.

Box Contents (Figure 11)		Qty
A.	Front Rail Rectangular Tube (94 1/2" Long)	1
B.	Extension Table	1
C.	Extension Legs	2
D.	Adjustable Feet with Hex Nuts	2
E.	Front Rail (72" Long)	1
F.	Rear Rail (82 1/4" Long)	1
G.	Fence Assembly	1
H.	Leg Braces	2
I.	Scale	1

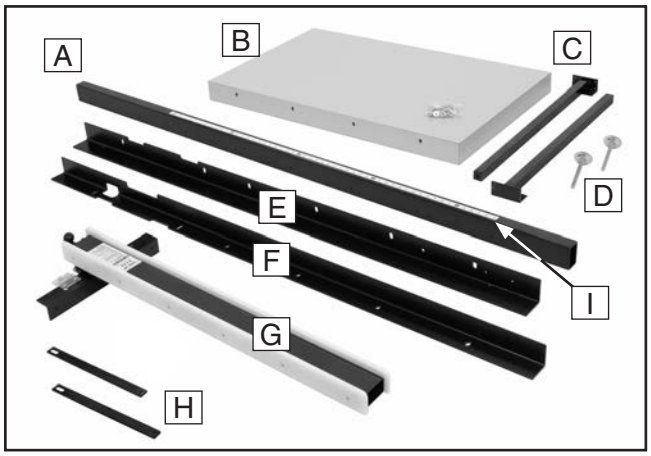


Figure 11. Inventory needed to install the fence on the Model G1023RLX/RLX5.

Hardware (Not Shown)

Hex Bolts 3/8"-16 x 1" (Rail/Main Table) 4
Flat Washers 3/8" (Rail/Main Table)..... 8
Hex Bolts 1/4"-20 x 3/4" (Rail/Tube)..... 7
Flat Washers 1/4" (Rail/Tube)..... 7
Hex Bolts 3/8"-16 x 1 3/4" (Rail/Ext Table)..... 8
Flat Washers 3/8" (Rail/Ext Table) 16
Hex Nuts 3/8"-16 (Rail/Ext Table)..... 8
Hex Bolts 3/8"-16 x 3/4" (Brace/Leg)..... 2
Flat Washers 3/8" (Brace/Leg) 6
Wood Screws 1/4" x 3/4" (Brace/Ext Table)..... 2
Flat Washers 1/4" (Brace/Ext Table) 2
Wood Screws #8 x 5/8" (Ext Table/Leg) 12

Cleanup

The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage. This rust preventative works extremely well, but it will take a little time to clean.

Be patient and do a thorough job cleaning your machine. The time you spend doing this now will give you a better appreciation for the proper care of your machine's unpainted surfaces.

There are many ways to remove this rust preventative, but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

Before cleaning, gather the following:
- Disposable rags
- Cleaner/degreaser (WD•40 works well)
- Safety glasses & disposable gloves
- Plastic paint scraper (optional)

Basic steps for removing rust preventative:

1. Put on safety glasses.

2. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5–10 minutes.

3. Wipe off the surfaces. If your cleaner/degreaser is effective, the rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with the rag.

4. Repeat **Steps 2–3** as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.

⚠WARNING

Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. Avoid using these products to clean machinery.

⚠CAUTION

Many cleaning solvents are toxic if inhaled. Only work in a well-ventilated area.

NOTICE

Avoid harsh solvents like acetone or brake parts cleaner that may damage painted surfaces. Always test on a small, inconspicuous location first.

T23692—Orange Power Degreaser
A great product for removing the waxy shipping grease from the ***non-painted*** parts of the machine during clean up.

Figure 12. T23692 Orange Power Degreaser.

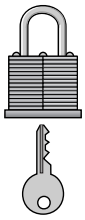
Site Considerations

Weight Load

Refer to the **Machine Data Sheet** for the weight of your machine. Make sure that the surface upon which the machine is placed will bear the weight of the machine, additional equipment that may be installed on the machine, and the heaviest workpiece that will be used. Additionally, consider the weight of the operator and any dynamic loading that may occur when operating the machine.

Space Allocation

Consider the largest size of workpiece that will be processed through this machine and provide enough space around the machine for adequate operator material handling or the installation of auxiliary equipment. With permanent installations, leave enough space around the machine to open or remove doors/covers as required by the maintenance and service described in this manual. **See below for required space allocation.**



⚠CAUTION

Children or untrained people may be seriously injured by this machine. Only install in an access restricted location.

Physical Environment

The physical environment where the machine is operated is important for safe operation and longevity of machine components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions for this type of machinery are generally those where the ambient temperature range exceeds 41°–104°F; the relative humidity range exceeds 20%–95% (non-condensing); or the environment is subject to vibration, shocks, or bumps.

Electrical Installation

Place this machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure to leave enough space around machine to disconnect power supply or apply a lockout/tagout device, if required.

Lighting

Lighting around the machine must be adequate enough that operations can be performed safely. Shadows, glare, or strobe effects that may distract or impede the operator must be eliminated.

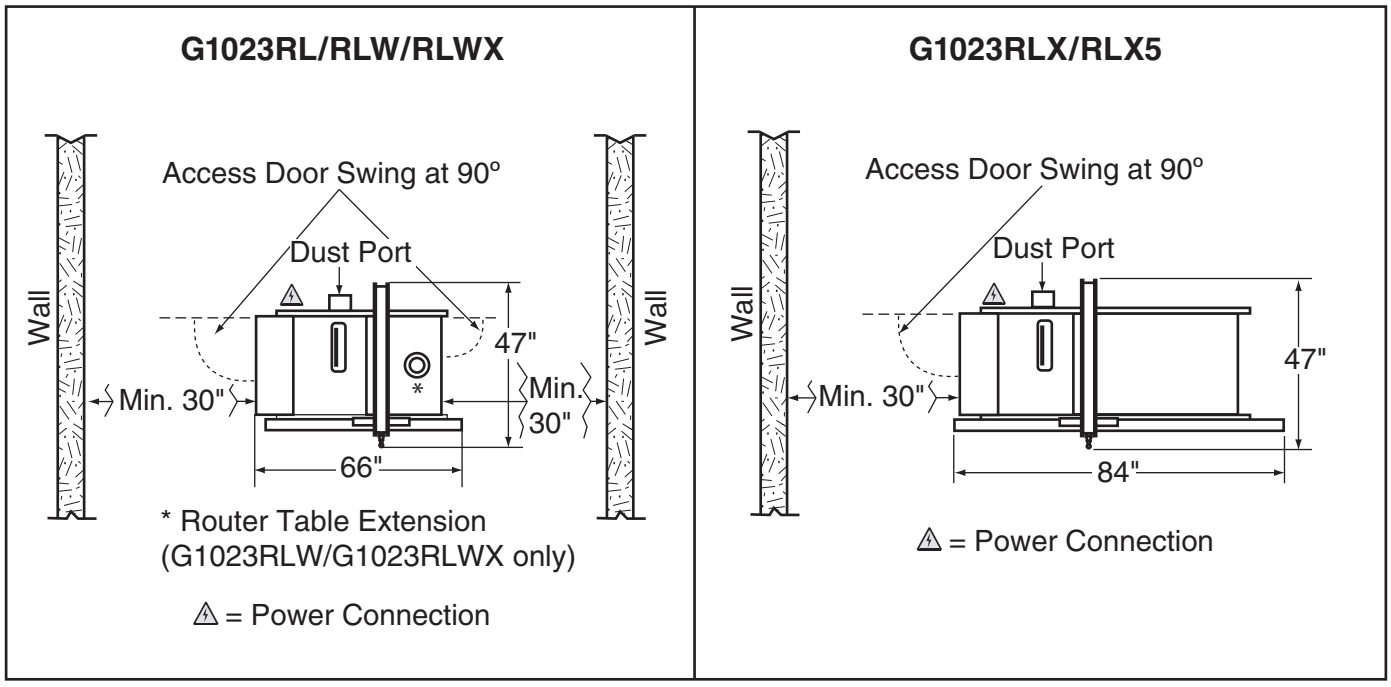


Figure 13. Minimum working clearances.

Assembly

Assembly steps are the same for all models except where noted. Assembly consists of installing the left extension wing, ON/OFF switch, motor cover, dust port, rails, saw blade, table insert, blade guard, fence scale, and cursor.

Model G1023RL Only: Mount the right cast iron wing *after* installing the left wing.

Model G1023RLW/RLWX/RLX/RLX5 Only: Mount the router table extension (RLW/RLWX) or extension table (RLX/RLX5) to the table *after* the fence rails are installed. Refer to the instructions on **Page 27** for mounting the router guard and a router.

To assemble machine:

1. Remove box top and sides, remove cardboard packing, then move cabinet off of pallet.

   — If you plan to mount saw on mobile base, we recommend doing so now. Assemble mobile base as detailed in instructions that came with base. With help of another person, lift cabinet upright, walk cabinet off of pallet and place it in mobile base. Or, if you have a forklift, place lifting strap around each side of main table, as shown in **Figure 14**. (You must use lifting straps, each with a minimum capacity of 1000 lbs.) Lift cabinet enough to clear mobile base, then place it in mobile base.

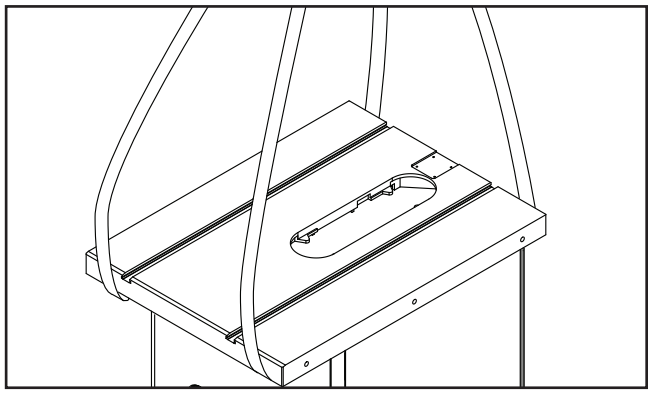


Figure 14. Lifting straps supporting main table.

2. Inspect left extension wing and main table mating surfaces for burrs or foreign materials. Mating edges of wing and table must be clean, smooth, and flat. Use wire brush or file to smooth edges so wing mounts properly.

⚠WARNING

This machine and its components are very heavy. Get lifting help or use power lifting equipment such as a forklift to move heavy items.

3. Have another person hold left extension wing in place, then mount it to main table with (2) ⅜"-16 x 1¼" hex bolts, (2) ⅜" lock washers, and (3) ⅜" flat washers (see **Figure 15**).

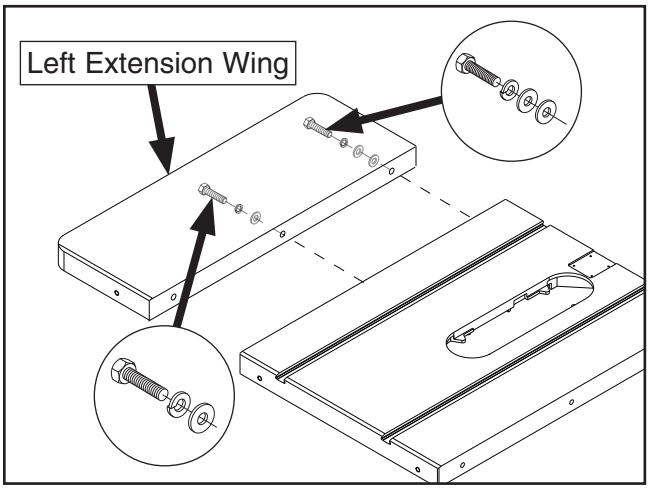


Figure 15. Mounting left extension wing to main table.

4. Secure front of extension wing to main table with (1) ⅜"-16 x 1" hex bolt, ⅜" lock washer, and ⅜" flat washer (see **Figure 16**).

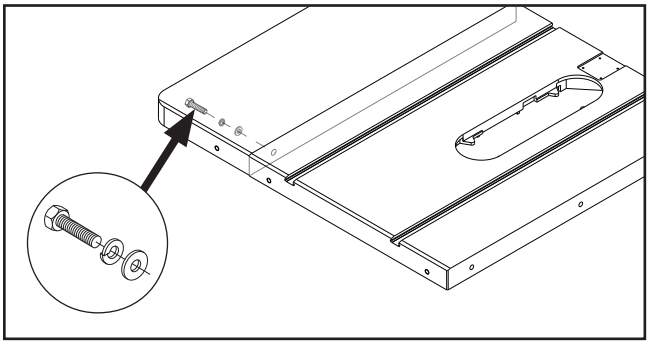


Figure 16. Securing front of extension wing.

5. Use a straightedge as a gauge and adjust extension wing up/down until it is flush with main table above each bolt, then completely tighten all bolts.

6. Place straightedge across extension wing and main table to make sure combined table surface is flat.

— If combined table surface is flat, skip to next step.

— If outside end of extension wing tilts down, use strip of masking tape along bottom edge of main table to shim extension wing up (see **Figure 17**).

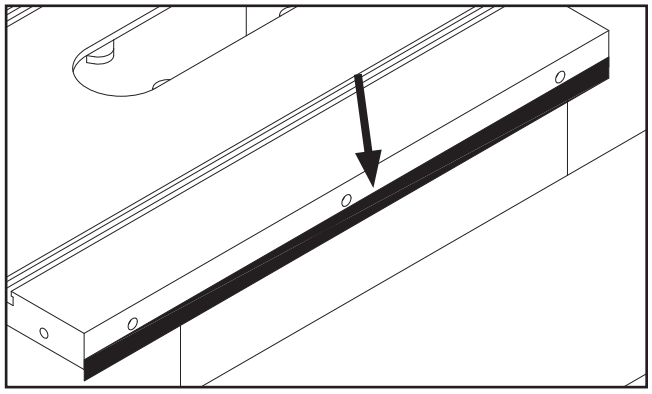


Figure 17. Masking tape location for tilting the extension table up.

— If outside end of extension wing tilts up, use strip of masking tape along top edge of main table to shim extension wing down (see **Figure 18**).

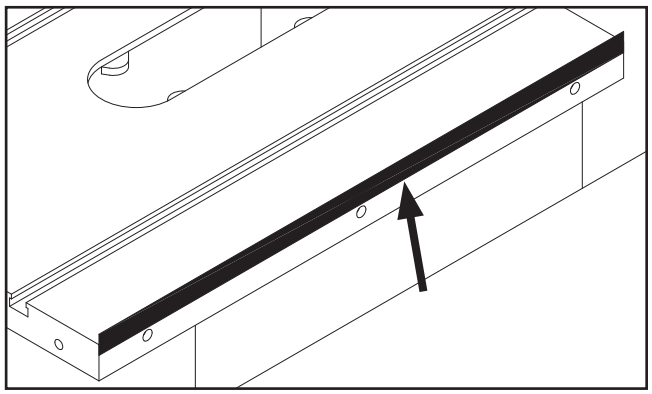


Figure 18. Masking tape location for adjusting the extension wing down.

Note: *After reinstalling wings, remove all excess masking tape with a razor blade.*

7. **Model G1023RL:** Repeat **Step 2** with right extension wing and have someone hold it in place while you mount it to main table with (3) ⅜"-16 x 1¼" hex bolts, (3) ⅜" lock washers, and (3) ⅜" flat washers (see **Figure 19**).

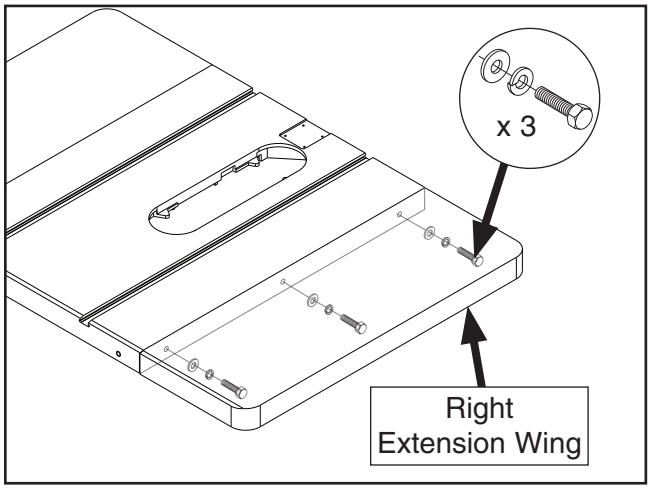


Figure 19. Mounting right extension wing to main table.

Repeat **Steps 5**–**6** to adjust right wing flush and parallel with main table.

Model G1023RLW or G1023RLWX: Do not mount router table extension wing yet. Mount it to right side of table *after* fence rails and rail tube are installed. Refer to **Router Table & Legs** on **Page 25**.

Model G1023RLX or G1023RLX5: Do not mount extension table yet. Mount it to right side of table *after* fence rails and rail tube are installed. Refer to **Extension Table & Legs** on **Page 25**.

8. Remove ON/OFF switch from cabinet and remove cardboard box used to protect it during shipping.

9. Attach switch to extension wing with (1) 5⁄16"-18 x 3⁄4" flat head screw in front, as shown in **Figure 20**, and (1) 5⁄16" flat washer and (1) 5⁄16"-18 hex nut in back.

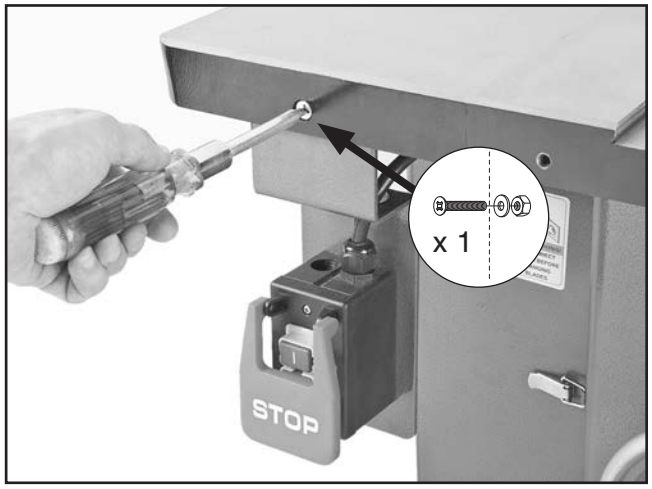


Figure 20. Installing switch.

10. Mount switch brace, as shown in **Figure 21**, using pre-installed table mounting fasteners on top end and switch mounting fasteners on bottom end.

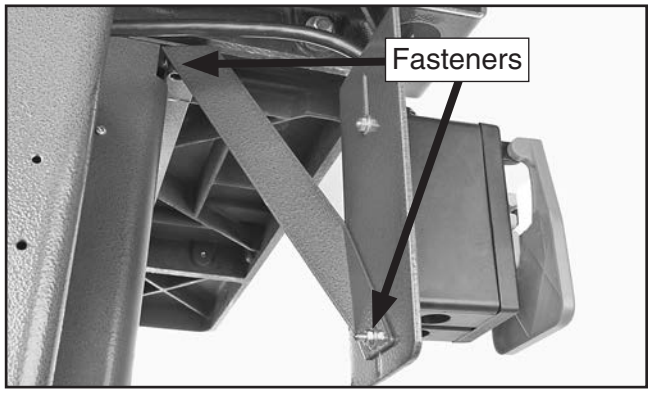


Figure 21. Switch bracket installed.

11. Attach latch to motor cover with (2) #8-32 x 3⁄8" Phillips head screws and (2) #8-32 hex nuts, as shown in **Figure 22**.

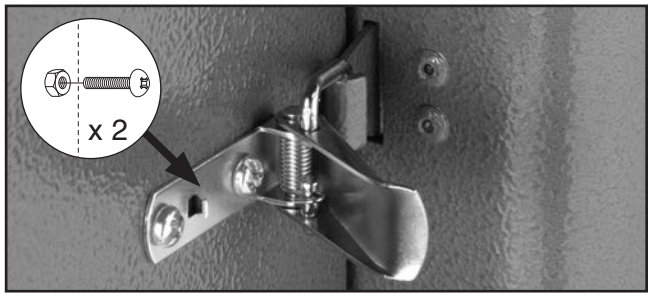


Figure 22. Latch installed.

12. Place motor cover on cabinet, line up hinges, and tap hinge pins into place with a hammer, as shown in **Figure 23**.

Figure 23. Motor cover installed.

13. Mount (2) fence resting brackets with (4) M5-.8 x 8 button head cap screws, as shown in **Figure 24**.

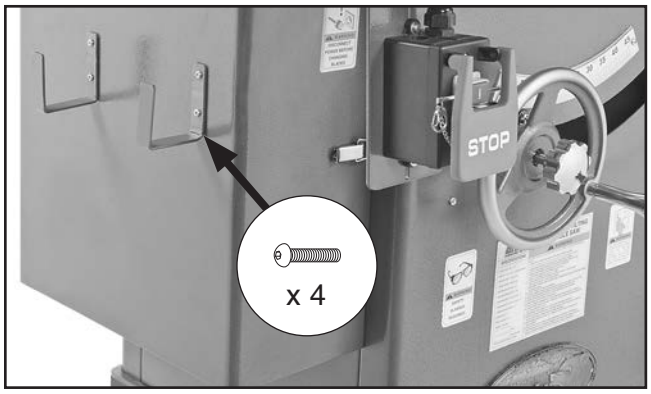


Figure 24. Fence resting brackets installed.

14. Mount dust port onto cabinet with (4) pre-installed tap screws, as shown in **Figure 25**.

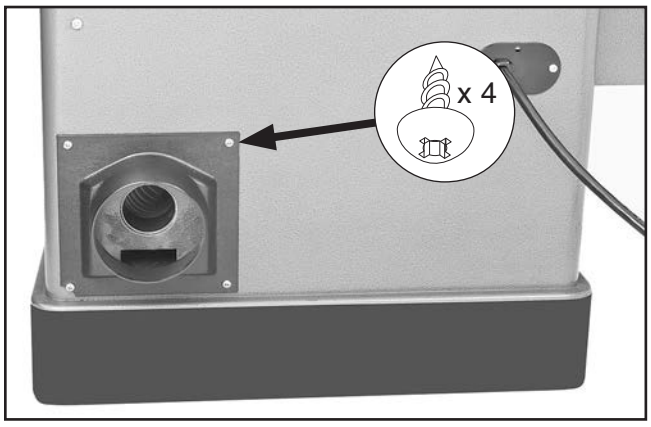


Figure 25. Dust port installed.

15. Place included shaft key into keyway on handwheel shaft, slide handwheel onto shaft, then tighten set screw on side of handwheel (see **Figure 26**).

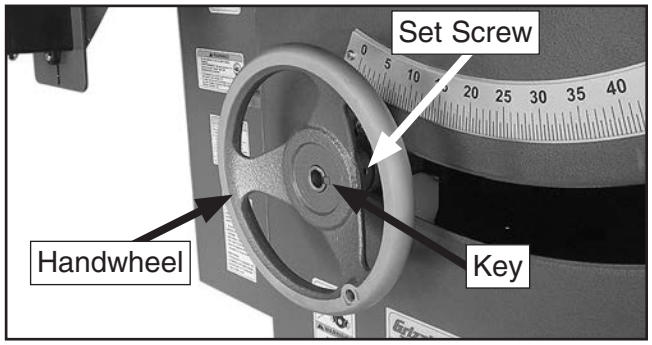


Figure 26. Blade height handwheel installed.

16. Thread lock knob into center of handwheel and tighten, then install handwheel handle (see **Figure 27**).

17. Install remaining handwheel, lock knob, and handwheel handle (see **Figure 27**) in same manner.

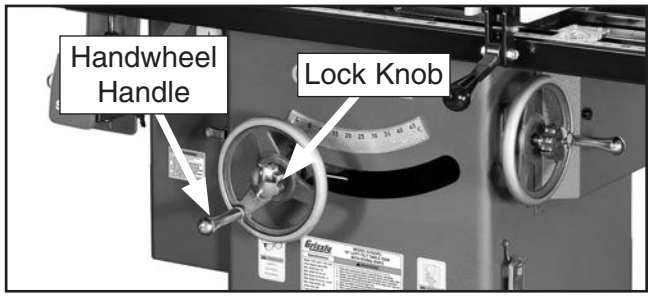


Figure 27. Lock knobs and handles installed.

Rails & Fence

Install the rear rail, front rail, rail tube, and Shop Fox Classic Fence now, using the instructions provided with the fence. Make sure the fence slides smoothly along the fence rails and that there is a 1/16" gap between the bottom of the fence and the top of the table from front to back. After tightening the rail mounting bolts, remove the fence for now.

Router Table & Legs

Install the router table and legs now on the Model G1023RLW or G1023RLWX using the instructions provided for the router table extension.

Extension Table & Legs

To install Model G1023RLX/RLX5 extension table and legs:

1. With help of another person to hold extension table, use (8) 3/8"-16 x 1¾" hex bolts, (16) 3/8" flat washers, and (8) 3/8"-16 hex nuts to secure extension table to rails, as shown in **Figure 28**.

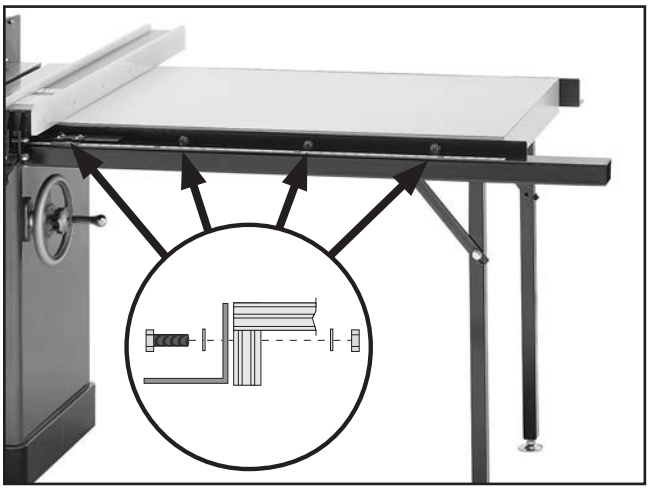


Figure 28. Extension table installed.

2. Thread feet into legs, place legs under table, and thread feet out until top of each leg is against underside corner of table.

3. Use (12) #8 x 5/8" wood screws to fasten legs to underside corners of extension table, as shown in **Figure 29**.

4. Use (2) 3/8"-16 x 3/4" hex bolts and 3/8" flat washers to loosely attach braces to legs (see **Figure 29)**. These will be adjusted and fully tightened later.

5. Use (2) 1/4" x 3/4" wood screws and 1/4" flat washers to attach braces to extension table (see **Figure 29)**.

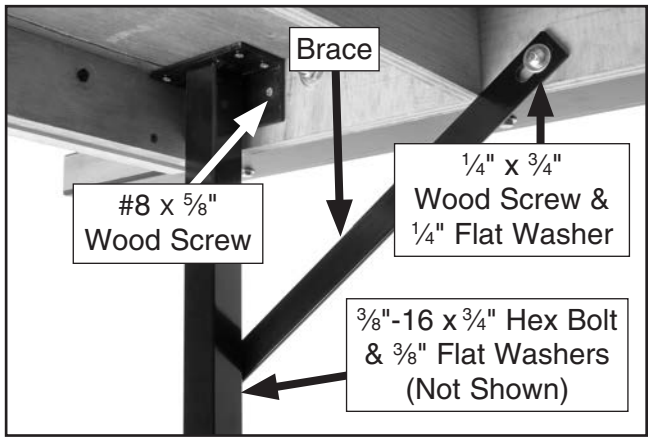


Figure 29. Leg and brace mounted.

6. Tighten bolts that hold braces.

7. Adjust extension table so it is flat (both flush and parallel) with main table. Loosen mounting bolts and adjust feet up/down as needed. **Figure 30** shows extension table installed.

Figure 30. Extension table installed.

8. Tighten extension table mounting bolts. Tighten hex nuts on feet against legs so they will not move.

Saw Blade

Install saw blade as outlined in **Blade Installation** on **Page 33.**

Table Insert

To install table insert:

1. Install table insert into opening of table saw over blade.

2. Adjust table insert set screws to make sure insert is flush with table, using a straightedge as a guide (see **Figure 31**).

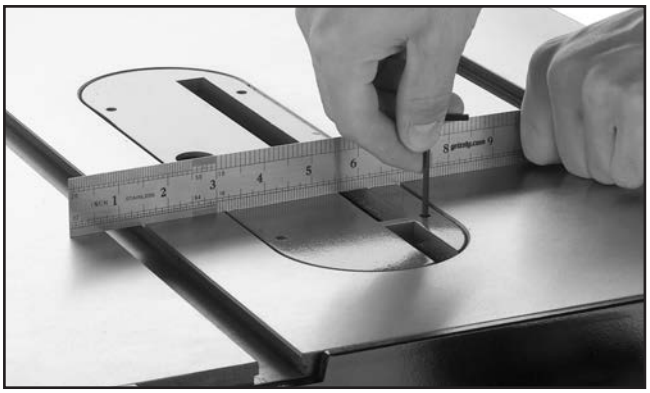


Figure 31. Adjusting insert flush with table.

3. Follow instructions in **Checking Fence Parallelism**, then proceed to **Blade Guard** to complete remaining assembly steps.

Checking Fence Parallelism

Verify that the fence is parallel to the blade/miter slot and that this setting did not change during shipping (refer to "Clamping Pressure and Parallelism" on **Page 72**). The blade was set parallel with the miter slot at the factory—this affects whether the fence is parallel when mounted to the table.

Blade Guard

Install the blade guard as instructed in "Installing Blade Guard & Spreader" on **Page 34**.

Scale & Cursor

Install the scale and cursor now on the Shop Fox Classic Fence, using the instructions provided with the fence.

Mounting Router Guard & Router

Install the included router guard and a router (not included) on the Model G1023RLW or Model G1023RLWX now, using the instructions provided with the router table extension. You MUST install the router guard on a shop-made fence for all router extension table operations to reduce the risk of serious personal injury.

Dust Collection

⚠CAUTION

Machine creates wood chips/dust during operation. Breathing airborne dust can result in permanent respiratory illness. Reduce risk by wearing respirator and capturing dust with dust-collection system.

Recommended CFM at Dust Port: 400 CFM
Do not confuse CFM recommendation with dust collector rating. To determine CFM at dust port, consider these variables: (1) CFM rating of dust collector, (2) hose type and length between dust collector and machine, (3) number of branches/wyes, and (4) amount of other open lines throughout system. Calculating these variables is beyond scope of this manual. Consult expert or refer to dust collection "how-to" book.

Components and Hardware Needed: **Qty**
Dust Hose 4" (not included) 1
Hose Clamps 4" (not included) 2

To connect a dust collection hose:

1. Fit 4" dust hose over dust port, as shown in **Figure 32**, and tightly secure in place with a hose clamp.

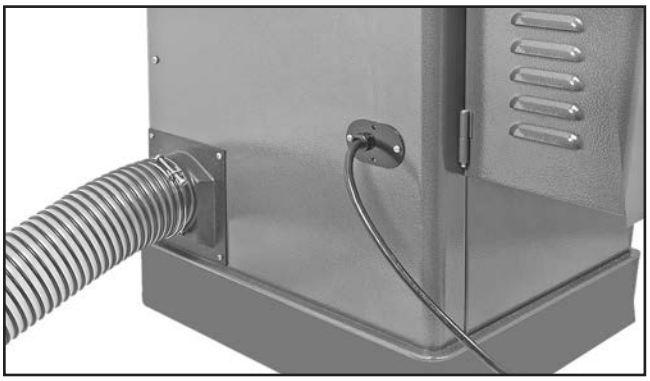


Figure 32. Example of dust hose attached to dust port.

2. Tug hose to make sure it does not come off. **Note:** *A tight fit is necessary for proper performance.*

Power Connection

Before the machine can be connected to the power source, an electrical circuit and connection device must be prepared per the **POWER SUPPLY** section in this manual, and all previous setup instructions in this manual must be complete to ensure that the machine has been assembled and installed properly.

G1023RL/RLW/RLX/RLWX/RLX5 Power Connection

Insert the plug attached to the machine power cord into a matching power supply receptacle. The machine is now connected to the power source.

If you need to disconnect the machine from power later, pull the plug completely out of the receptacle.

Test Run

Once assembly is complete, test run the machine to ensure it is properly connected to power and safety components are functioning correctly.

If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem BEFORE operating the machine again. The **Troubleshooting** table in the **SERVICE** section of this manual can help.

The Test Run consists of verifying the following: 1) The motor powers up and runs correctly, and 2) the switch disabling pin disables the switch properly.

⚠WARNING

Serious injury or death can result from using this machine BEFORE understanding its controls and related safety information. DO NOT operate, or allow others to operate, machine until the information is understood.

⚠WARNING

DO NOT start machine until all preceding setup instructions have been performed. Operating an improperly set up machine may result in malfunction or unexpected results that can lead to serious injury, death, or machine/property damage.

To test run machine:

1. Lower blade all the way down with handwheel, and make sure all tools and objects used during setup are cleared away from machine.

2. Connect machine to power source.

3. Remove switch disabling lock if it is installed.

4. Turn machine ***ON***, verify motor operation, and then turn machine ***OFF***.

   Motor should run smoothly and without unusual problems or noises.

5. Turn machine ***OFF***.

6. Insert padlock shaft through ON button, as shown in **Figure 33**.

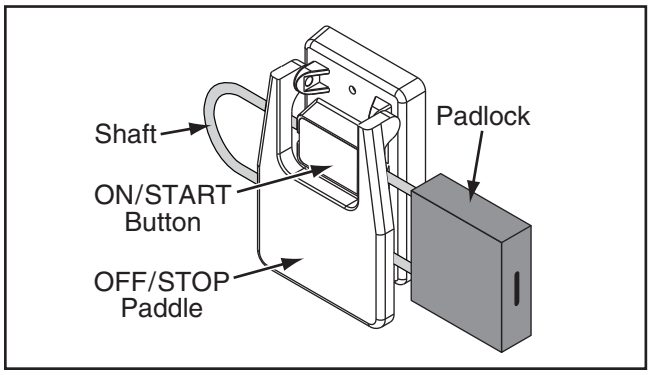


Figure 33. Padlock inserted through ON button.

7. Press ON button to test switch lock. Motor should not start when padlock is installed.

   — If machine *does not* start, switch disabling feature is working as designed.

   — If machine *does* start, immediately stop machine. Switch disabling feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

Recommended Adjustments

For your convenience, the adjustments listed below have been performed at the factory and no further setup is required to operate this machine. However, because of the many variables involved with shipping, we recommend that you verify the following adjustments to ensure that your new saw cuts safely and accurately.

Step-by-step instructions for these adjustments can be found in **SECTION 8: SERVICE**.

Adjustments that should be verified:

1. Blade Tilt Stop Accuracy (**Page 65**).

2. Miter Slot Parallel to Blade (**Page 67**).

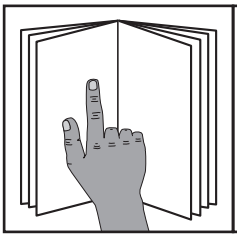
3. Spreader/Riving Knife Alignment (**Page 70**).

SECTION 4: OPERATIONS

Operation Overview

The purpose of this overview is to provide the novice machine operator with a basic understanding of how the machine is used during operation, so the machine controls/components discussed later in this manual are easier to understand.

Due to the generic nature of this overview, it is **not** intended to be an instructional guide. To learn more about specific operations, read this entire manual, seek additional training from experienced machine operators, and do additional research outside of this manual by reading "how-to" books, trade magazines, or websites.



⚠WARNING

To reduce your risk of serious injury, read this entire manual BEFORE using machine.

⚠WARNING

Eye injuries, respiratory problems, or hearing loss can occur while operating this tool. Wear personal protective equipment to reduce your risk from these hazards.

NOTICE

If you are not experienced with this type of machine, WE STRONGLY RECOMMEND that you seek additional training outside of this manual. Read books/magazines or get formal training before beginning any projects. Regardless of the content in this section, Grizzly Industrial will not be held liable for accidents caused by lack of training.

To complete a typical operation, the operator does the following:

1. Examines workpiece to make sure it is suitable for cutting.
2. Adjusts blade tilt, if necessary, to correct angle for desired cut.
3. Adjusts blade height no more than ¼" higher than thickness of workpiece.
4. Adjusts fence to desired width of cut, then locks it in place.
5. Checks outfeed side of machine for proper support and to make sure workpiece can safely pass all the way through blade without interference.
6. Puts on safety glasses, respirator, and hearing protection, and locates push sticks/blocks if needed.
7. Starts saw.
8. Feeds workpiece all the way through blade while maintaining firm pressure on workpiece against table and fence, and keeping hands and fingers out of blade path and away from blade.
9. Stops machine immediately after cut is complete.

Refer to the instructions included with the Model G1023RLW/RLWX router table for an overview of router table operations.

Disabling & Locking Switch

The switch can be disabled and locked by inserting a padlock through the ON/START button, as shown. Locking the switch in this manner can prevent unauthorized operation of the machine, which is especially important if the machine is not stored inside an access-restricted building.

IMPORTANT: Locking the switch with a padlock only restricts its function. It is not a substitute for disconnecting power from the machine when adjusting or servicing.

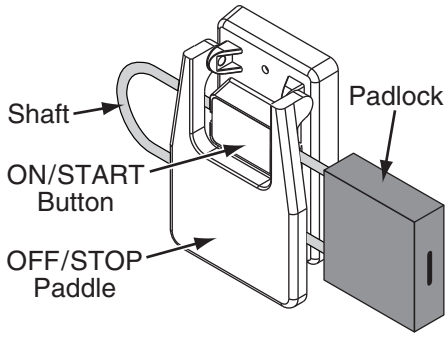


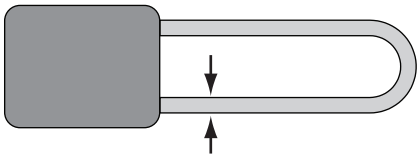
Figure 34. Switch disabled by padlock.

⚠WARNING

Children or untrained people can be seriously injured by this machine. This risk increases with unsupervised operation. To help prevent unsupervised operation, disable and lock the switch before leaving machine unattended! Place key in a well-hidden or secure location.

NOTICE

The padlock shaft diameter is important to the disabling function of the switch. With any padlock used to lock the switch, test the switch after installation to ensure that it is properly disabled.



Workpiece Inspection

Some workpieces are not safe to cut on this machine or may need to be modified before they can be safely cut. **Before cutting, inspect all workpieces for the following:**

- ***Material Type:*** This machine is intended for cutting natural and man-made wood products, laminate-covered wood products, and some plastics. Cutting drywall or cementitious backer board creates extremely fine dust and may reduce the life of the motor bearings. This machine is NOT designed to cut metal, glass, stone, tile, etc.; cutting these materials with a table saw greatly increases the risk of injury and damage to the saw or blade.

- ***Foreign Objects:*** Nails, staples, dirt, rocks and other foreign objects are often embedded in wood. While cutting, these objects can become dislodged and hit the operator, cause kickback, or break the blade, which might then fly apart. Always visually inspect your workpiece for these items. If they can't be removed, DO NOT cut the workpiece.

- ***Large/Loose Knots:*** Loose knots can become dislodged during the cutting operation. Large knots can cause kickback and machine damage. Choose workpieces that do not have large/loose knots or plan ahead to avoid cutting through them.

- ***Wet or "Green" Stock:*** Cutting wood with a moisture content over 20% causes unnecessary wear on the blades, increases the risk of kickback, and yields poor results.

- ***Excessive Warping:*** Workpieces with excessive cupping, bowing, or twisting are dangerous to cut because they are unstable and may move unpredictably when being cut.

- ***Minor Warping:*** Slightly cupped workpieces can be safely supported with cupped side facing the table or fence; however, workpieces supported on the bowed side will rock during the cut, which could cause kickback.

Non-Through & Through Cuts

Non-Through Cuts

A non-through cut is a sawing operation where the blade does not protrude above the top face of the wood stock, as shown in the **Figure** below.

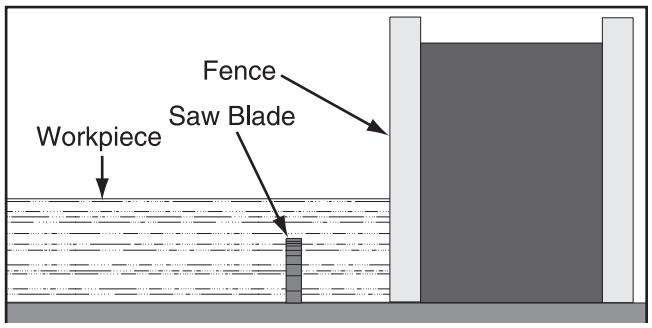


Figure 35. Example of a non-through cut.

Examples of non-through cuts include dadoes and rabbets. Non-through cuts have a higher risk of injury from kickback because the blade guard must be removed. However, the riving knife MUST be installed because it still provides some protection.

IMPORTANT: When making non-through cuts with a dado blade, do not attempt to cut the full depth in one pass. Instead, take multiple light passes to reduce the load on the blade.

A dado blade smaller than 10" will require removal of the riving knife, because the riving knife will be higher than the blade.

Through Cuts

A through cut is a sawing operation in which the workpiece is completely sawn through, as shown in the **Figure** below. Examples of through cuts are rip cuts, cross cuts, miter cuts, and beveled cuts. The blade guard assembly MUST be used when performing through cuts.

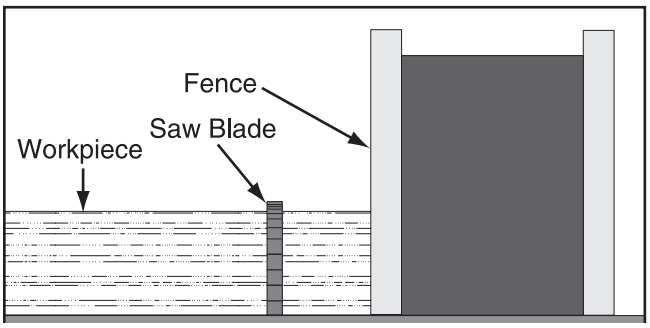


Figure 36. Example of a through cut (blade guard not shown for illustrative clarity).

Blade Requirements

When choosing a main blade, make sure the blade size meets the requirements listed below. The thickness of the blade body and teeth can be measured with calipers or any precision measuring device.

Blade Size Requirements:

- Body Thickness: 0.086"–0.094" (2.2–2.4mm)
- Kerf (Tooth) Thickness: 0.122"–0.129" (3.1mm–3.3mm)
- Riving Knife Thickness: 0.98"–0.102" (2.5–2.6mm)
- Blade Size Required for Riving Knife: 10"

Blade Selection

This section on blade selection is by no means comprehensive. Always follow the saw blade manufacturer's recommendations to ensure safe and efficient operation of your table saw.

Ripping Blade Features:
- Best for cutting with the grain
- 20-40 teeth
- Flat-top ground tooth profile
- Large gullets for large chip removal

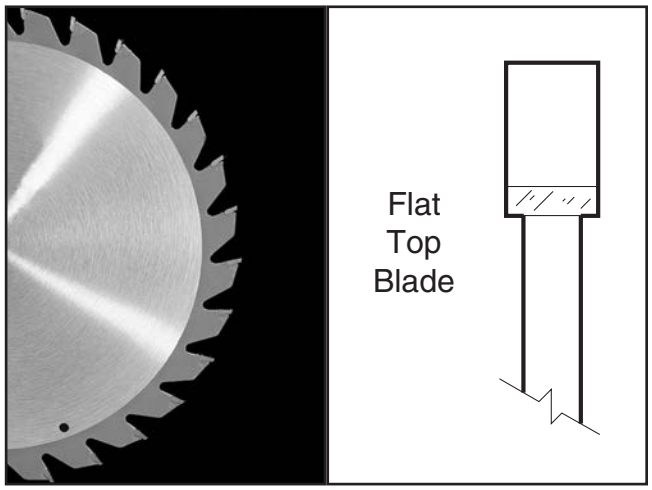


Figure 37. Ripping blade.

Crosscut Blade Features:
- Best for cutting across the grain
- 60-80 teeth
- Alternate top bevel tooth profile
- Small hook angle and a shallow gullet

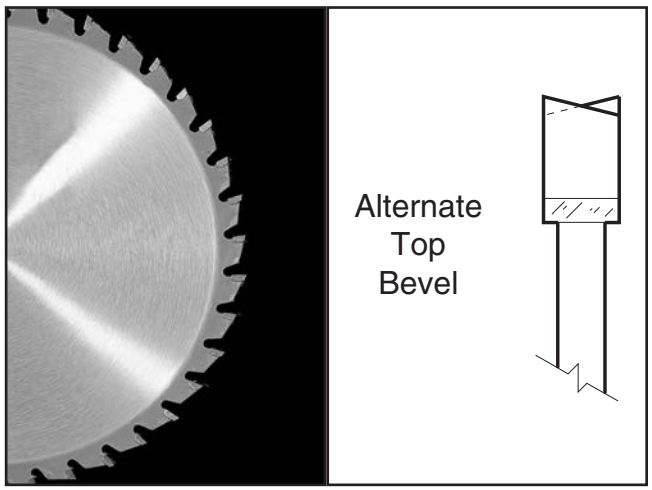


Figure 38. Crosscutting blade.

Combination Blade Features:
- Designed to cut both with and across grain
- 40-50 teeth
- Alternate top bevel and flat, or alternate top bevel and raker tooth profile
- Teeth are arranged in groups
- Gullets are small and shallow (similar to a cross-cut blade), then large and deep (similar to a ripping blade

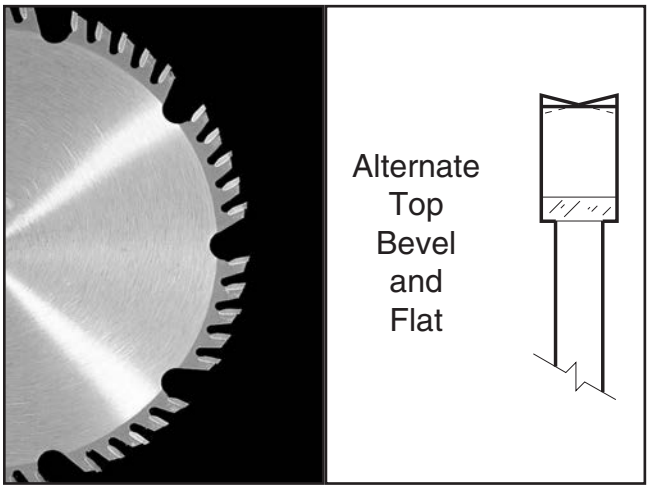


Figure 39. Combination blade.

Laminate Blade Features:
- Best for cutting plywood or veneer
- 40-80 teeth
- Triple chip tooth profile
- Very shallow gullet

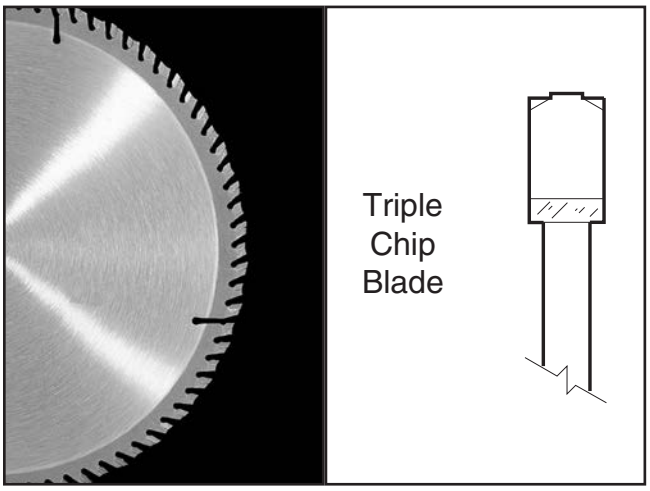


Figure 40. Laminate blade.

Thin Kerf Blade: A blade with thinner kerf than a standard blade. Since the spreader/riving knife included with this table saw is sized for standard blades, thin kerf blades cannot be used on this saw unless they meet the **Blade Requirements** specified in this manual, or unless a thin-kerf riving knife is installed in place of a standard riving knife; otherwise, they will increase the risk of kickback.

Dado Blades

Wobble Dado Blade: A single blade mounted at a slight angle on an arbor hub. The blade angle is adjustable on the hub, and the width of the dado cut is controlled by the angle setting of the blade.

Stacked Dado Blade (see below): Multiple blades are stacked together to control the cutting width. Stacked dado blades are more expensive than wobble blades, but typically produce higher quality results.

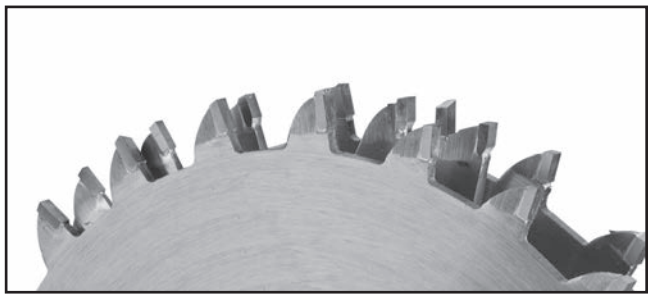


Figure 41. Stacked dado blade.

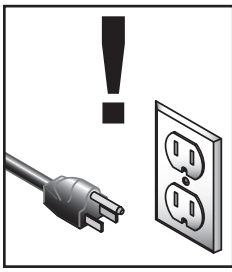
Blade Installation

Review this section, even if your saw blade came pre-installed.

To install blade:

1. DISCONNECT MACHINE FROM POWER!

2. Raise arbor all the way up, and remove table insert and blade guard/riving knife, depending on what is installed.



⚠WARNING

To reduce risk of shock or accidental startup, always disconnect machine from power before adjustments, maintenance, or service.

⚠CAUTION

Before proceeding with the next step, wear gloves to protect your hands while handling and installing the blade.

3. Use arbor wrenches to loosen and remove arbor nut, flange, and blade. Arbor nut has right hand threads; turn it counterclockwise to loosen.

4. Install new blade and flange on arbor, as shown in **Figure 42,** with teeth facing toward front of saw. Securely tighten arbor nut.

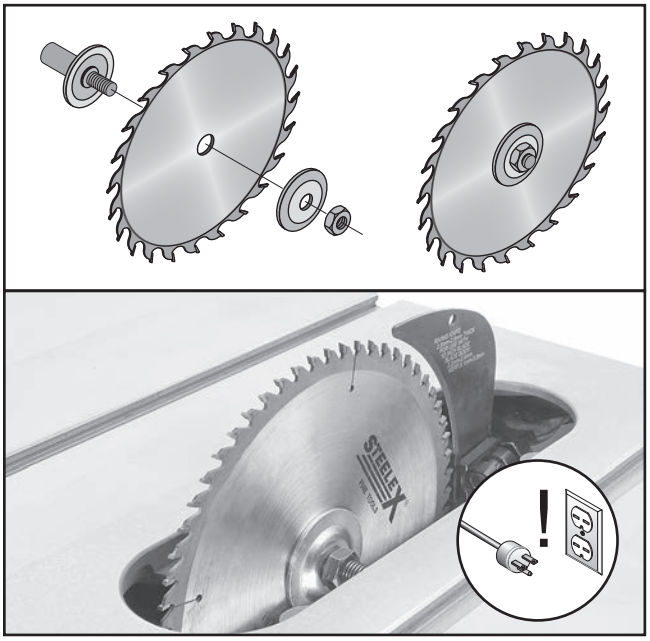


Figure 42. Blade order of installation and teeth facing the correct direction.

5. Install blade guard/riving knife and table insert.

Blade Guard Assembly

The term "blade guard" refers to the assembly that consists of the clear polycarbonate shield and dust enclosure, the spreader, and the anti-kickback pawls on each side of the spreader (see **Figure 43**). Each of these components have important safety functions during the operation of the saw.

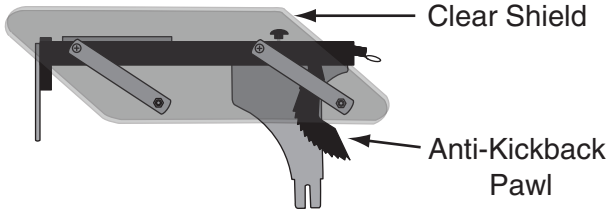


Figure 43. Blade guard assembly components.

Guard

The clear polycarbonate guard allows the operator to see the blade cut the workpiece during operation. This guard is designed to lift as the workpiece is pushed into the blade and remain in contact with the workpiece throughout the entire cut.

The guard reduces injury risk by providing a barrier around the blade that prevents accidental contact and contains flying wood chips.

To ensure that the guard does its job effectively, the guard must always be in the downward position against the table during idle operation, and the hinge mechanism must be maintained in good working condition so the guard can freely pivot up and down to accommodate the height of the workpiece and return to the table surface.

Spreader

The spreader is a metal plate that prevents the newly cut kerf of the workpiece from pinching the backside of the blade and causing kickback.

The spreader also acts as a barrier behind the blade to shield hands from being pulled into the blade if a kickback occurs.

⚠CAUTION

In order to work properly, the spreader cannot be bent or misaligned with the blade. If the spreader gets accidentally bent, take the time to straighten it or just replace it. Using a bent or misaligned spreader will increase the risk of kickback! Refer to Page 70 to check or adjust alignment if necessary.

Installing Blade Guard & Spreader

1. DISCONNECT MACHINE FROM POWER!

2. Raise blade up all the way, then open right access door and locate quick release lever (see **Figure 44**).

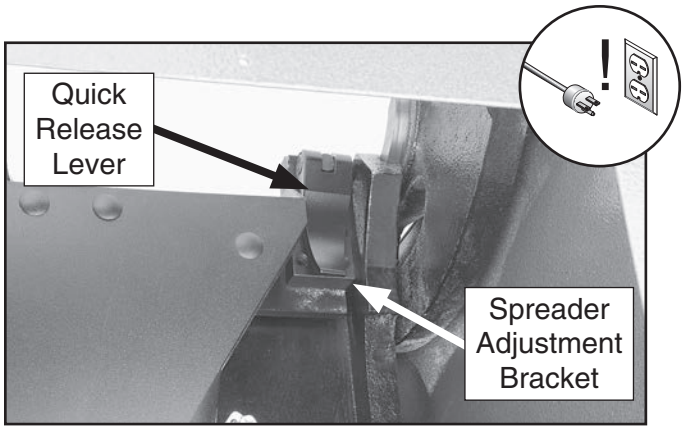


Figure 44. Quick release lever location (viewed from inside cabinet).

3. Loosen top knob on blade guard, slide pins on guard into spreader slots, move guard back, then tighten top knob (see **Figure 45**).

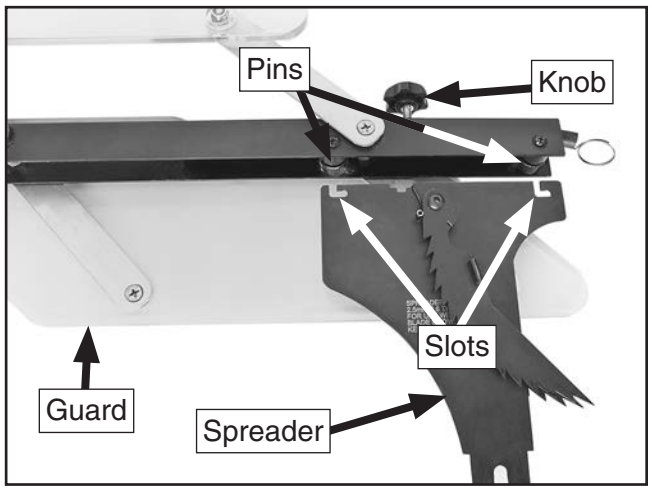


Figure 45. Assembling blade guard and spreader.

4. Flip quick release lever up, insert spreader into spreader adjustment bracket, then push lever down completely to secure spreader (see **Figure 46**).

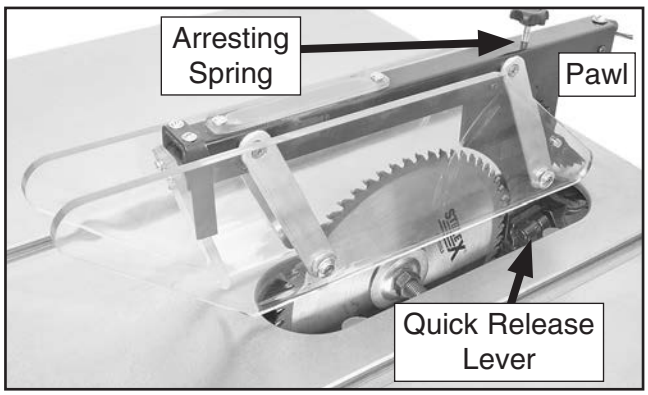


Figure 46. Spreader installed (*insert removed for clarity*).

5. Tug spreader up to verify it is locked.

6. Close right access door.

7. Check to make sure blade is 90° to table. Follow "Setting 90° Stop Bolt" instructions on **Page 65**.

8. Swing one side of blade guard up and out of the way.

9. Place right spreader pawl in arresting spring, then place a straightedge against blade and spreader.

   When properly aligned, spreader/riving knife will be in "Alignment Zone," shown in **Figure 47**, and will be parallel with blade.

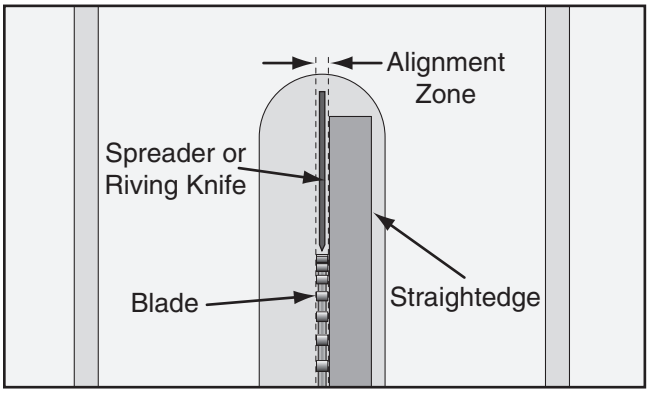


Figure 47. Spreader/riving knife alignment zone.

   — If spreader/riving knife is not inside alignment zone and not parallel with blade, then it needs to be adjusted. Proceed to "Adjusting Alignment" on **Page 70**.

10. Remove right pawl from arresting spring and lower it back onto table.

Removing Blade Guard & Spreader

Repeat **Step 1** on the previous page, flip the quick release lever up, remove the spreader, then close the right access door.

Anti-Kickback Pawls

The anti-kickback pawls allow the workpiece to travel in only one direction. If the workpiece moves backwards, such as during a kickback, the pawls will dig into the workpiece to slow or stop it.

To work properly, the pawls must retract to their resting position after pivoting, as shown in **Figure 48**, and they must not be engaged in the arresting spring.

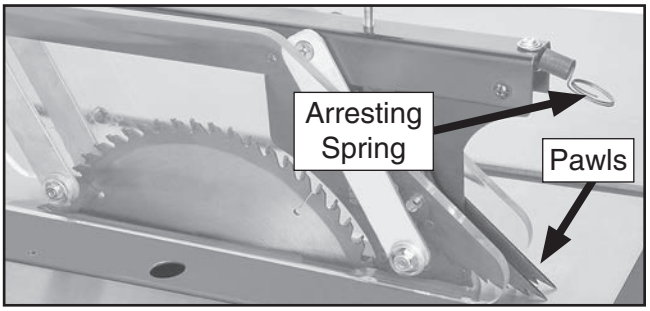


Figure 48. Pawls in resting position.

If the pawls fail to retract to the resting position, the pivot spring may have been dislodged or broken and will need to be fixed/replaced.

Disabling Pawls

You might disable one or both of the pawls if you are concerned about them scratching a delicate workpiece, or if you believe that they will obstruct a narrow workpiece and cause feeding difficulty or loss of control. Use your best judgment before disabling the pawls; they are for your safety.

⚠CAUTION

We do not recommend disabling pawls during normal operations unless absolutely necessary. In most situations, disabling pawls will increase your risk of serious personal injury in event of a kickback. Do not remove pawls from spreader.

⚠CAUTION

The pawls are sharp and can lacerate fingers or hands. Use caution, and wear leather gloves when handling the pawls to reduce risk of injury.

To disable pawls:

1. DISCONNECT MACHINE FROM POWER!

2. Rotate one or both of pawls upward, then place arresting hook(s) in arresting spring, as shown in **Figure 49**.

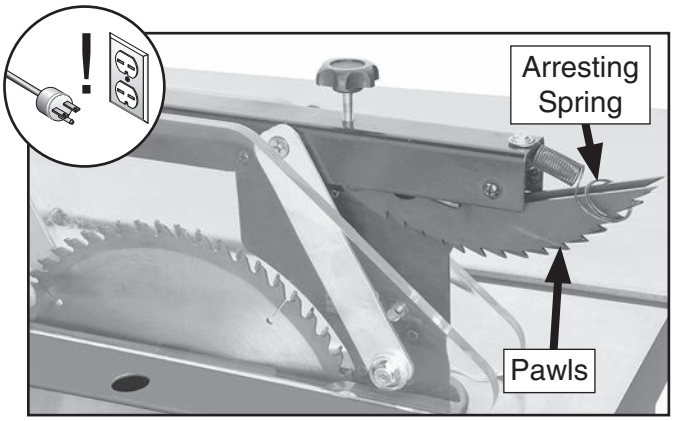


Figure 49. Pawls disabled.

Enabling Pawls

While holding the pawls in place, remove the arresting spring, then slowly lower them to their resting position on the table (see **Figure 48**).

When to Use the Blade Guard

The blade guard assembly MUST always be installed on the saw for all normal through cuts (those where the blade cuts all the way through the thickness of the workpiece). If the blade guard is removed for specific operations, always immediately replace it after those operations are complete.

When Not to Use the Blade Guard

The blade guard cannot be used on any non-through cuts (those in which the blade does not cut all the way through the thickness of the workpiece).

IMPORTANT: Whenever the blade guard cannot be used, the riving knife must be installed.

Sometimes the blade guard or its components can get in the way when cutting very narrow workpieces or other specialized cuts. Because the blade guard is provided to decrease your risk of injury, it should not be used if it gets in the way of making a safe cut. Use good judgment!

Riving Knife

The riving knife works in the same manner as the spreader on the blade guard assembly. It is a metal plate that prevents the newly cut workpiece from pinching the backside of the blade and causing kickback.

The key difference between the spreader and the riving knife is that the riving knife mounts below the blade's highest point of rotation, as shown in **Figure 50**.

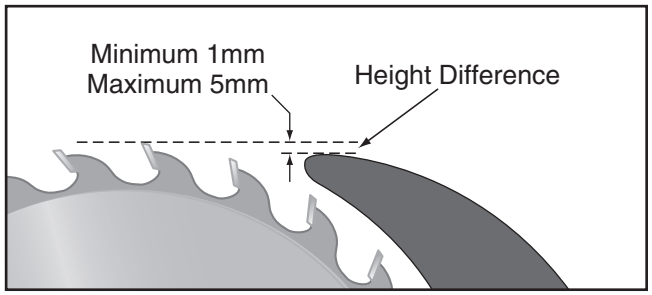


Figure 50. Height difference between riving knife and blade.

The height difference between the riving knife and the blade allows the workpiece to pass over the blade during non-through cuts (those in which the blade does not cut all the way through the thickness of the workpiece).

The riving knife acts as a barrier behind the blade to reduce the risk of hands being pulled into the blade if kickback occurs.

The riving knife must be kept within the range shown in **Figure 51**. For that reason, we only recommend using a 10" blade for operations that require use of the riving knife.

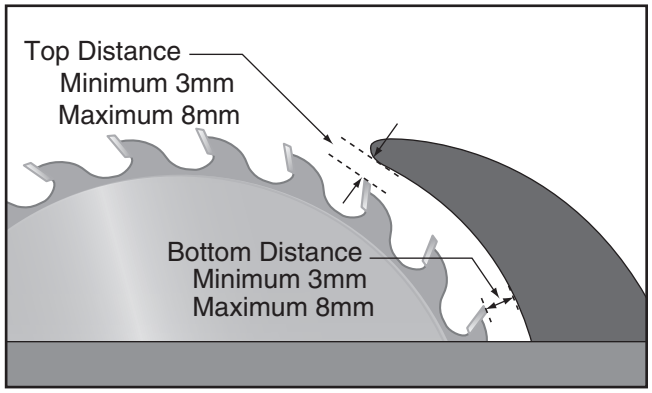


Figure 51. Allowable top and bottom distances between riving knife and blade.

⚠CAUTION

To ensure that riving knife works safely, it MUST be aligned with and correctly adjusted to blade. Refer to Page 70 to check or adjust riving knife alignment.

When to Use the Riving Knife

Use the riving knife for all non-through cuts made with a standard table saw blade (i.e., dadoes or rabbet cuts, and when using a tenoning jig), or when using a 10" diameter dado blade.

Also, use the riving knife for those special operations where the blade guard or its components get in the way of safe operation, such as with very narrow cuts.

When Not to Use the Riving Knife

DO NOT use the riving knife with a dado blade that has a diameter smaller than 10" in diameter. Otherwise, the riving knife height will exceed the blade height and the workpiece will hit the riving knife during the cut, forcing the operator into a dangerous situation of trying to turn the saw off with the workpiece stuck halfway through the cut.

In addition, although it is possible to use the riving knife for through cutting operations, the blade guard assembly offers far more injury protection and risk reduction than the riving knife. Therefore, **we strongly recommend** that you use the blade guard assembly with spreader instead of the riving knife for through cuts.

How to Install the Riving Knife

The riving knife is installed in a similar manner to the blade guard and spreader. Refer **to Blade Guard Assembly** on **Page 34** for installation instructions.

Ripping

"Ripping" means cutting with the grain of a natural wood workpiece. In man-made materials such as MDF or plywood, ripping means cutting lengthwise.

⚠CAUTION

Serious injury can be caused by kickback. Kickback is a high-speed ejection of stock from table saw toward an operator. The operator or bystanders may be struck by flying stock, or operator's hands can be pulled into blade during kickback.

To make a rip cut:

1. Review **Preventing Kickback** on **Page 12** and take necessary precautions to reduce likelihood of kickback.

2. If using natural wood, joint one long edge of workpiece on a jointer.

3. DISCONNECT MACHINE FROM POWER!

4. Ensure that blade guard/spreader is installed.

5. Set fence to desired width of cut on scale.

6. Adjust blade height so highest saw tooth protrudes no more than ¼" above workpiece.

7. Set up safety devices such as featherboards or other anti-kickback devices, making sure no safety devices are contacting blade.

8. Plug saw into power source, turn it ***ON***, and allow it to reach full speed.

   Note: *Jointed edge of workpiece must slide against fence during cutting operation.*

9. Use push stick to feed workpiece through saw blade, as shown in **Figure 52**, until workpiece is completely beyond saw blade.

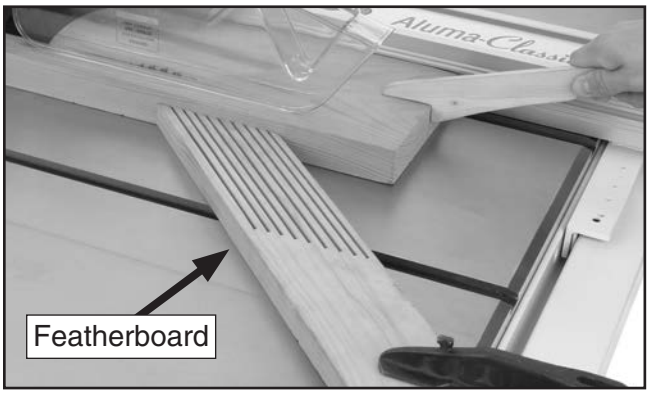
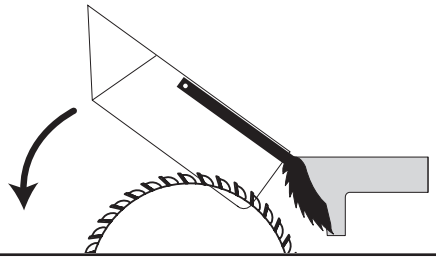


Figure 52. Typical ripping operation.

⚠WARNING

Turn saw *OFF* and allow blade to come to a complete stop before removing cutoff piece. Failure to follow this warning could result in severe lacerations or amputation.

⚠WARNING



Keep blade guard installed and in down position. Failure to do this could result in serious personal injury or death.

Crosscutting

"Crosscutting" means cutting across the grain of a natural wood workpiece, usually with a miter saw. In other man-made materials, such as MDF or plywood, crosscutting means cutting across the width of the workpiece.

To make a crosscut using miter gauge:

1. DISCONNECT MACHINE FROM POWER!
2. Ensure that blade guard/spreader is installed.
3. To avoid kickback, move rip fence aside and position miter gauge, adjusted to 90°, in a miter slot.
4. Adjust blade height so teeth protrude no more than ¼" above workpiece.
5. Slide miter gauge near blade and adjust workpiece so blade will cut on waste side of line.
6. Plug in table saw, turn it ***ON,*** and allow it to reach full speed.
7. Hold workpiece firmly against face of miter gauge (as shown in **Figure 53**), and ease it through blade until workpiece is completely past saw blade.

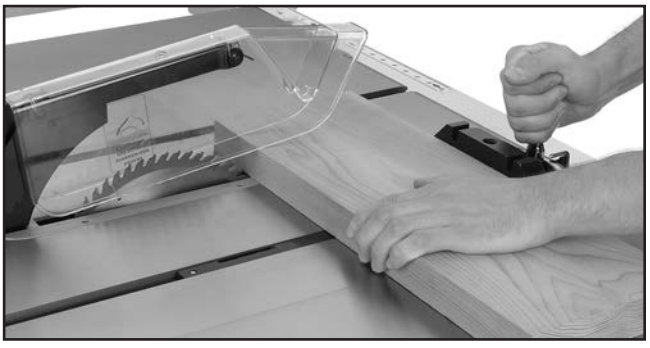


Figure 53. Typical crosscutting operation.

⚠WARNING

Turn saw *OFF* and allow blade to come to a complete stop before removing cutoff piece. Failure to follow this warning could result in severe lacerations or amputation.

Miter Cuts

A miter is an angled crosscut. Miters are usually cut in the same manner as crosscuts, using the miter gauge and a predetermined mark on the workpiece.

To perform a miter cut:

1. DISCONNECT MACHINE FROM POWER!
2. Ensure that blade guard/spreader is installed.
3. Determine angle of cut. If angle needs to be very precise, use a protractor to set miter gauge to blade.
4. Place face of miter gauge against edge of workpiece and place bar across face of workpiece. Use bar as a guide to mark your cut, as shown in **Figure 54**.

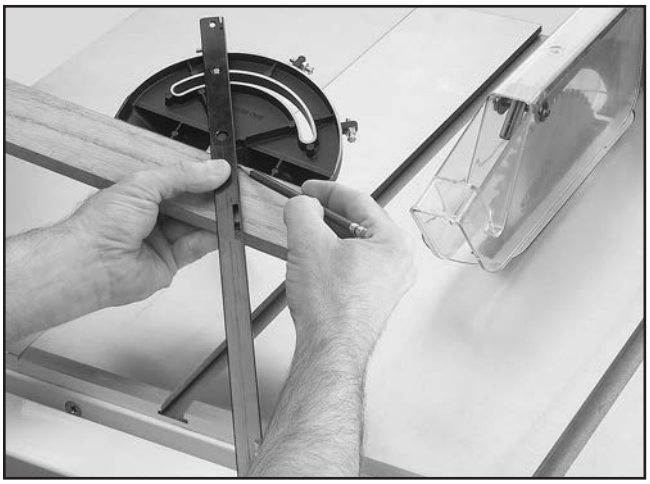


Figure 54. Example of marking miter line.

5. Place miter gauge back into slot and hold workpiece firmly against miter gauge body. Slide miter gauge near blade and adjust workpiece so blade will cut on waste side of line.
6. Proceed to make cut in same manner as described in **Crosscutting** instructions.

Blade Tilt/Bevel Cuts

When the blade tilt collar bolts are properly adjusted (as described starting on **Page 65**), the blade tilt handwheel allows the operator to tilt the blade to the left, between 0° and 45°. This is used most often when cutting bevels, compound miters, or chamfers. **Figure 55** shows an example of the blade when tilted to 45°.

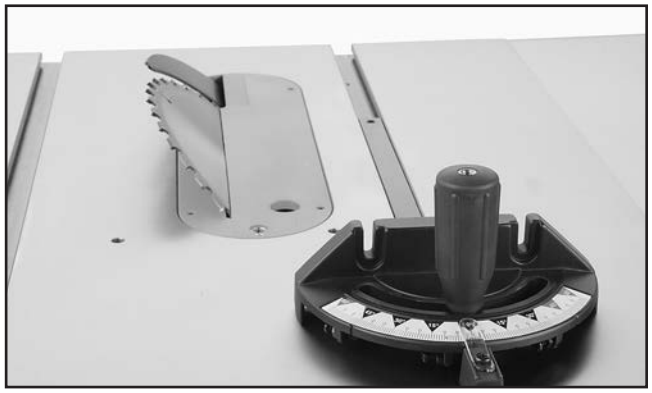


Figure 55. Example of blade tilted to 45° for bevel cutting (blade guard only removed for clarity).

Dado Cutting

Commonly used in furniture joinery, a dado is a straight channel cut in the face of the workpiece. Dadoes are "non-through" cuts that can be made with a dado blade or a standard saw blade. The **Figure** below shows a cutaway view of a dado cut being made with a dado blade.

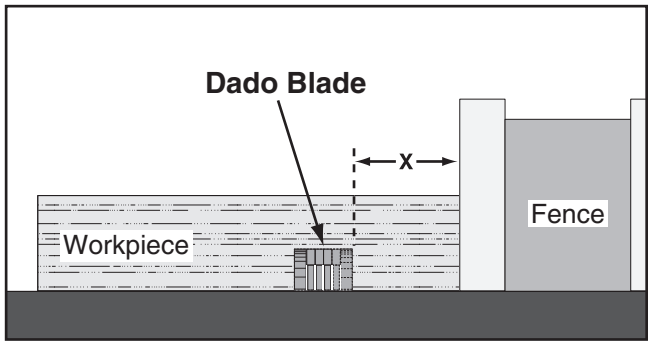


Figure 56. Example of a dado being cut with a dado blade.

The included dado table insert or optional zero clearance table insert, Model H4231 see **Page 57**, must be installed when using a dado blade. The standard insert included with the saw or the Model H4231 must be installed when using a standard saw blade.

Installing a Dado Blade

1. DISCONNECT MACHINE FROM POWER!

2. Remove table insert, blade guard assembly or riving knife, arbor nut, flange, and saw blade.

3. Attach and adjust dado blade system according to dado blade manufacturer's instructions, and secure with included dado blade flange and arbor nut.

4. Install dado table insert. Optionally, if installing the optional Model H4231 zero clearance insert, make sure the center section of the insert has already been removed so the blade can be raised correctly.

⚠WARNING

DO NOT make through cuts with a dado blade. The extra width of a dado blade will increase the risk of kickback during a through cut. Dado blades are only intended for non-through cuts. Failure to heed this warning could result in serious injury.

⚠WARNING

Never try to cut a warped board by holding it down against the table. If kickback occurs, your hand could be pulled into the blade, resulting in accidental contact with the rotating blade, causing severe lacerations or amputation.

Cutting Dadoes with a Dado Blade

Because dado blades are much wider than standard blades, they place a greater amount of force against the workpiece when cutting. This additional force increases the risk of kickback, requiring the operator to take additional steps when cutting to keep their injury risk at an acceptable level.

⚠WARNING

Dado blades have a higher risk of kickback than normal blades because their larger size applies stronger forces to the workpiece. This risk increases relative to the depth and width of the cut. To minimize your risk of serious personal injury, ensure that stock is flat and straight, and make multiple light cuts (rather than one deep cut) to achieve the desired cutting depth.

The **Figure** below demonstrates the sequential process of making multiple, light cuts that get progressively deeper. The actual number of cuts used should be determined by workpiece hardness, total dado depth, and feed rate. In general, if you hear the motor slow down during the cut, you are cutting too deep or feeding too fast. Slow down!

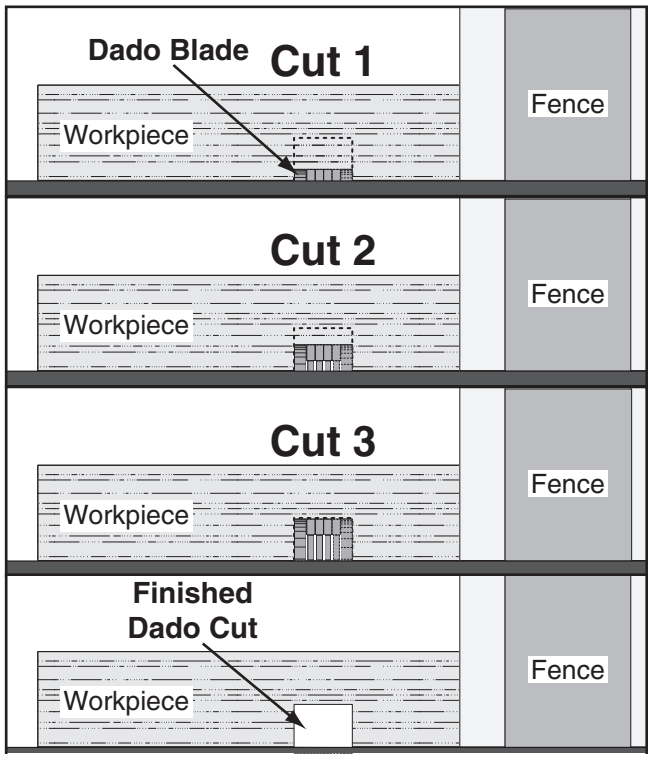


Figure 57. Example of dado being cut with multiple light cuts, instead of one deep cut.

To cut a dado with a dado blade:

1. DISCONNECT MACHINE FROM POWER!
2. Adjust dado blade to desired depth of cut.
3. Adjust distance between fence and inside edge of blade, as shown in **Figure 56** on **Page 40,** to dado length of a workpiece.
   - If dadoing across workpiece, use miter gauge and carefully line up desired cut with dado blade. To reduce kickback, DO NOT use fence in combination with miter gauge.
4. Reconnect saw to power source.
5. Turn saw ***ON***. Blade should run smoothly, with no vibrations.
6. When blade has reached full speed, perform test cut with scrap piece of wood.
7. If cut is satisfactory, repeat cut with actual workpiece.

Cutting Dadoes with a Standard Blade

A ripping blade (described on **Page 32**) is typically the best blade to use for cutting dadoes when using a standard blade, because it removes sawdust very efficiently.

To use a standard saw blade to cut dadoes:

1. DISCONNECT MACHINE FROM POWER!

2. Ensure that riving knife and standard table insert are installed and properly adjusted. Optionally, install Model H4231 zero clearance insert, making sure center section of insert has already been removed.

3. Mark width of dado cut on workpiece. Include marks on edge of workpiece so cut path can be aligned when workpiece is lying on table.

4. Raise blade up to desired depth of cut (depth of dado channel desired).

5. Set up saw for type of cut you need to make, depending on if it is a rip cut (**Page 38**) or crosscut (**Page 39**).

6. Align blade to cut one side of dado, as shown in **Figure 58**.

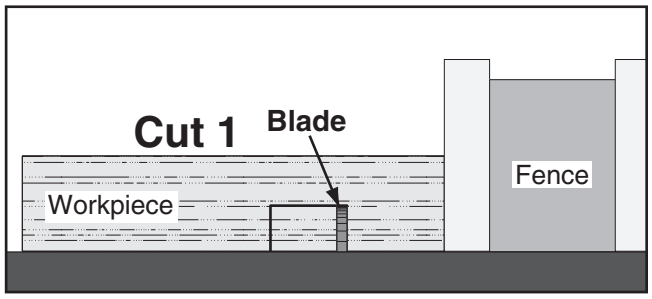


Figure 58. First cut for a single-blade dado.

7. Reconnect saw to power source and turn saw ***ON***. Allow blade to reach full speed, then perform cutting operation.

8. Repeat cutting operation on other side of dado channel, as shown in **Figure 59.**

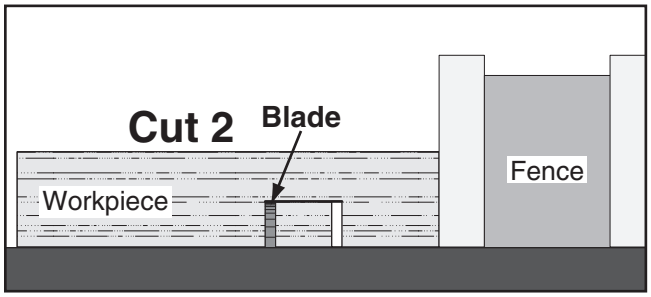


Figure 59. Second cut for a single blade dado.

9. Make additional cuts (see **Figure 60**) in center of dado to clear out necessary material. Dado is complete when channel is completely cleared out.

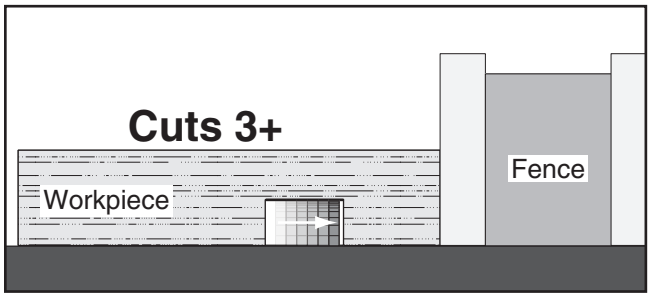


Figure 60. Additional single blade dado cuts.

Rabbet Cutting

Commonly used in furniture joinery, a rabbet is an L-shaped groove cut in the edge of the workpiece. Rabbets can be cut with either a dado blade or a standard saw blade.

Rabbet cutting on the edge of the workpiece with a dado blade requires a sacrificial fence (see **Figure 61**). Make the sacrificial fence the same length as the fence and ¾" thick. Attach it to the fence with screws or clamps, making sure they are all secure and tight. Raise the blade into the sacrificial fence to the height needed.

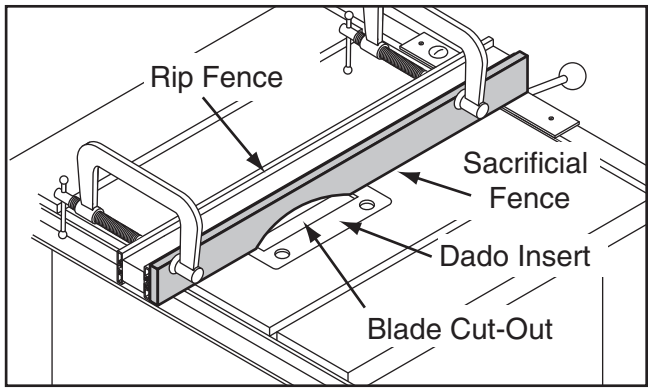


Figure 61. Example of sacrificial fence.

When using a dado blade, either the included dado insert or the optional zero clearance table insert, Model H4231 (see **Page 57**), must be installed and used during rabbeting operations.

⚠WARNING

Dado blades have a higher risk of kickback than normal blades because their larger size applies stronger forces to the workpiece. This risk increases relative to the depth and width of the cut. To minimize your risk of serious personal injury, ensure that stock is flat and straight, and make multiple light cuts (rather than one deep cut) to achieve the desired cutting depth.

⚠CAUTION

Always use push sticks, featherboards, push paddles and other safety accessories whenever possible to increase safety and control during operations which require that blade guard be removed from saw. ALWAYS replace blade guard after dadoing is complete.

Cutting Rabbets with a Dado Blade

1. DISCONNECT MACHINE FROM POWER!

2. Adjust dado blade to height needed for rabbeting operation. When cutting deep rabbets, take more than one pass to reduce risk of kickback.

3. Adjust fence and align workpiece to perform cutting operation, as shown in **Figure 62**.

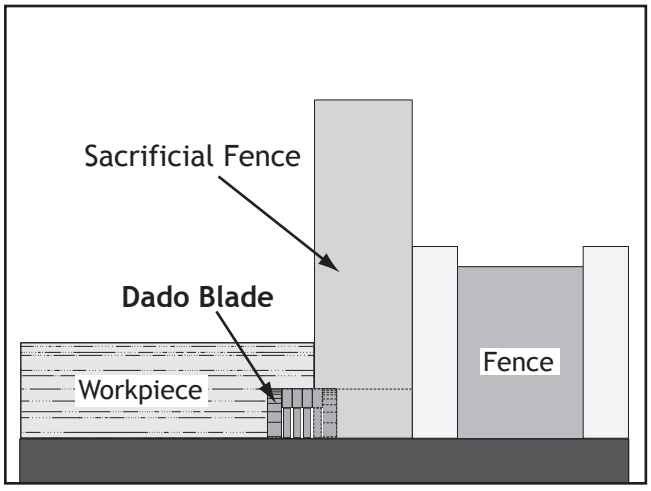


Figure 62. Rabbet cutting.

4. Reconnect saw to power source and turn saw ***ON***. When blade has reached full speed, perform a test cut with a scrap piece of wood.

   — If cut is satisfactory, repeat cut with workpiece.

Cutting Rabbets with a Standard Blade

A ripping blade is typically the best blade to use for cutting rabbets when using a standard blade because it removes sawdust very efficiently. (See **Page 32** for blade details.) Also, a sacrificial fence is not required when cutting rabbets with a standard blade.

To cut rabbets with a standard blade:

1. DISCONNECT MACHINE FROM POWER!

2. Ensure riving knife and standard table insert are installed, or install optional Model H4231 zero clearance insert, making sure center section of insert has already been removed—so blade can be raised correctly.

3. Mark width of rabbet cut on edge of workpiece, so you can clearly identify intended cut while it is laying flat on saw table.

4. Raise blade up to desired depth of cut (depth of rabbet channel desired).

5. Stand workpiece on edge, as shown in **Figure 63,** then adjust fence so blade is aligned with inside of your rabbet channel.

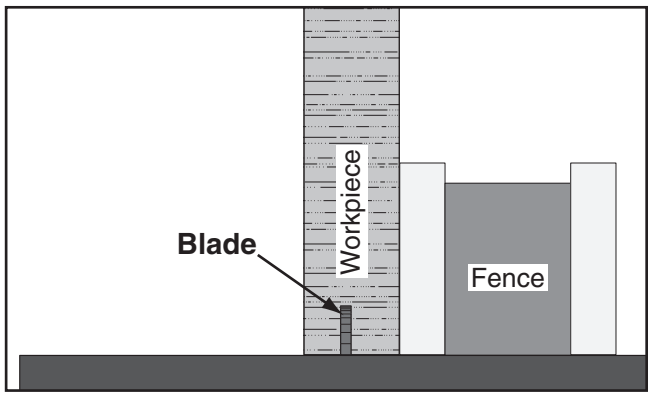
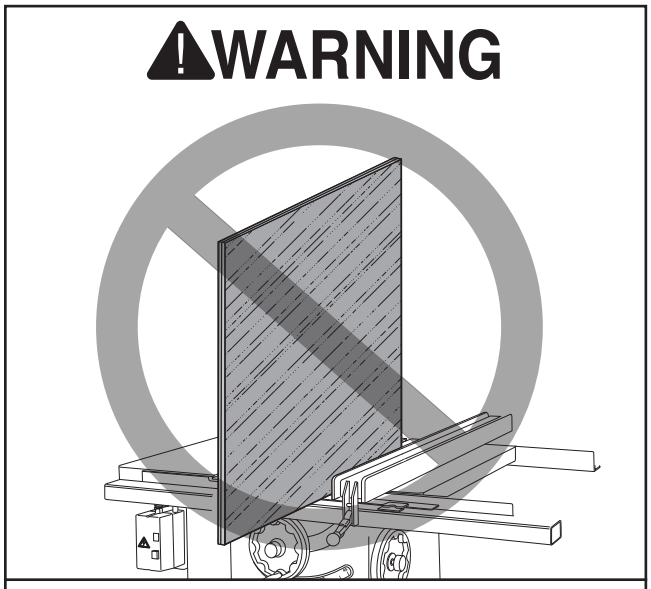


Figure 63. Example of rabbet cutting with a standard blade.

— If workpiece is very tall, or is unstable when placed against fence, lay it flat on table and use a dado blade to perform rabbet cut.



DO NOT place a tall board on edge to perform a rabbet cut with a standard blade. Workpieces that are too tall to properly support with fence can easily shift during operation and cause kickback. Instead, place stock flat on saw and perform rabbet cut with a dado blade, as instructed on Page 43.

6. Reconnect saw to power source, then perform cut.

7. Lay workpiece flat on table, as shown in **Figure 64**, adjust saw blade height to intersect with first cut, then perform second cut to complete rabbet.

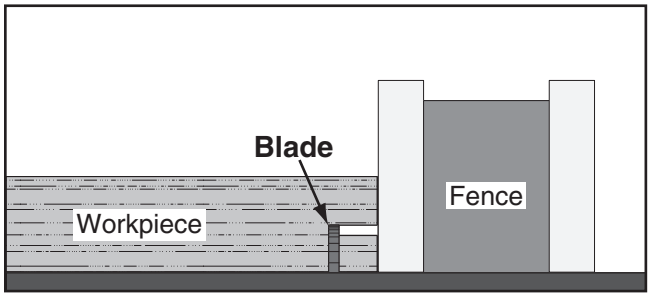


Figure 64. Example of second cut to create a rabbet.

Resawing

⚠CAUTION

Resawing operations require proper procedures to avoid serious injury. Extra care must be taken to prevent kickback when resawing. Any tilting or movement of the workpiece away from the fence will cause kickback. Be certain that stock is flat and straight. Failure to follow these warnings could result in serious personal injury.

Resawing is the process of cutting a thick piece of stock into one or more thinner pieces. Although resawing can be done with a table saw, we strongly recommend that you use a bandsaw instead.

A bandsaw is the ideal machine for resawing, and resawing with one is fairly easy and safe. A table saw is not intended for resawing, and resawing with one is difficult and dangerous due to the increased risk of kickback from binding and deep cuts, and the increased risk of injury from having to remove the guard.

If you insist on resawing with a table saw, DO NOT do so without using a resaw barrier and wearing a full face shield. The following instructions describe how to build a resaw barrier and add an auxiliary fence to your standard fence, to reduce the risk injury from resawing on a table saw.

Note: *To determine the maximum resawing height for this table saw, find the maximum blade height, then double it and subtract 1/8".*

Making Resaw Barrier

When resawing, the resaw barrier acts in tandem with the rip fence to provide tall support for the workpiece. This minimizes the probability of it binding against the blade and causing kickback.

Tools Needed:	**Qty**
Table Saw	1
Jointer and Planer	Recommended
Clamps	2 Minimum
Drill	1
Drill Bits 1/8", 9/64"	1 Each
Countersink Bit	1

Components Needed for Resaw Barrier:

Wood* 3/4" x 5 1/2" x Length of Fence	1
Wood* 3/4" x 3" x Length of Fence	1
Wood Screws #8 x 2"	4
Wood Glue	As Needed

**Only use furniture-grade plywood, kiln-dried hardwood, or HDPE plastic to prevent warping.*

To build a resaw barrier:

1. Cut your wood pieces to size specified above. If you are using hardwood, cut pieces oversize, then joint and plane them to correct size to make sure they are square and flat.

2. Pre-drill and countersink four holes approximately 3/8" from bottom of 5 1/2" tall wood piece.

3. Glue end of 3" board, clamp boards at a 90° angle with larger board in vertical position, as shown in **Figure 65**, then fasten together with wood screws.

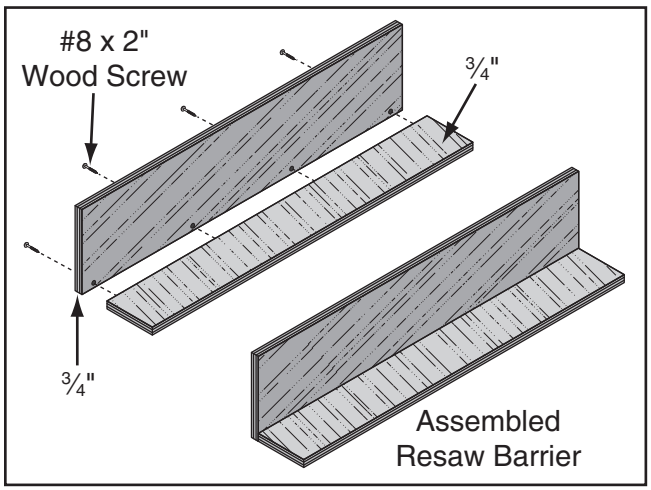


Figure 65. Resaw barrier.

Making Auxiliary Fence

An auxiliary fence is necessary if you are resawing a workpiece that is taller than it is wide. The fence should be no less than ½" shorter than the board to be resawn.

Tools Needed: **Qty**
Clamps 2
Drill 1
Drill Bit 3/32" 1
Countersink Drill Bit.....1
Hex Wrench 5mm.....1
Ruler.....1

Components Needed:
Wood Screws #8 x 2".....6
Wood* ¾" x (Height) x (Length of Fence) 1

**Only use furniture-grade plywood, kiln-dried hardwood, or HDPE plastic to prevent warping.*

To make auxiliary fence:

1. Cut auxiliary fence board to size. If you are using hardwood, cut board oversize, then joint and plane board to correct size to make sure board is square and flat.

2. Unthread fence face mounting screws, then remove fence face from fence assembly.

3. Place auxiliary fence board against fence tube. Place a thin metal shim (such as a ruler) between table and bottom of auxiliary fence board to ensure adequate clearance between fence board and table. Clamp in position.

4. Mark location of six mounting holes on auxiliary fence and remove auxiliary fence board from fence tube.

5. Using 3/32" drill bit, drill mounting holes in auxiliary fence board. Countersink holes 1/16" deep so head of flat head cap screws sits slightly beneath face of auxiliary fence board.

6. Attach fence face (removed in **Step 2)** and auxiliary fence to fence body with (6) #8 x 2" wood screws. The end result should be similar to **Figure 66**.

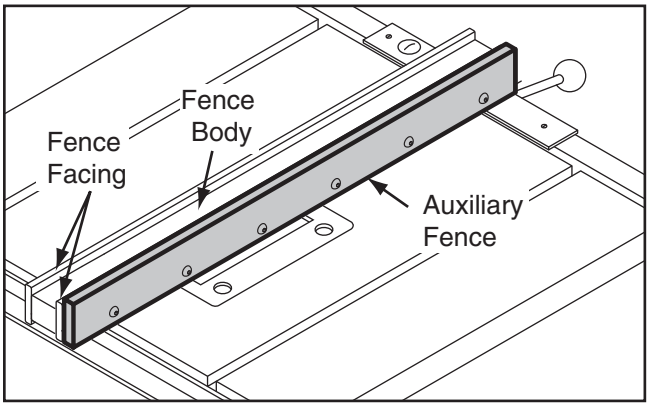


Figure 66. Auxiliary fence.

Resawing Operations

The table saw motor is pushed to its limits when resawing. If the motor starts to bog down, slow down your feed rate. Motor overloading and blade wear can be reduced by using a ripping blade. Ripping blades are designed to clear the sawdust quickly.

Components Needed for Resawing:
Zero Clearance Insert.....1
Ripping Blade 10".....1
Clamps 2
Shop Made Auxiliary Fence 1
Shop Made Resaw Barrier.....1

⚠WARNING

You may experience kickback during this procedure. Stand to the side of the blade and wear safety glasses and a full face shield to prevent injury when resawing.

To perform resawing operations:

1. DISCONNECT MACHINE FROM POWER!

2. Remove standard table insert and blade guard assembly.

3. Install ripping blade and riving knife, lower blade below table surface, then install Model H4231 zero-clearance insert. Make sure center section of insert has already been removed—so blade can be raised correctly in following steps.

4. Attach auxiliary fence and set it to desired width.

   Note: *When determining correct width, don't forget to account for blade kerf and inaccuracy of fence scale while auxiliary fence is installed.*

5. Place workpiece against auxiliary fence and slide resaw barrier against workpiece, as shown in **Figure 67**. Now clamp resaw barrier to top of table saw at both ends.

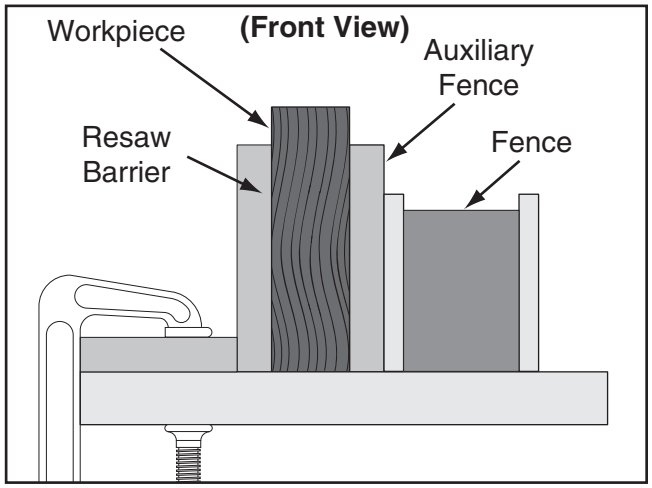


Figure 67. Ideal resaw workpiece setup.

6. Lower blade completely below table-top, and slide workpiece over blade to make sure it moves smoothly and fits between resaw barrier and fence.

7. Raise blade approximately 1", or close to half height of workpiece, whichever is less.

⚠WARNING

The danger of kickback increases relative to the depth of a cut. Reduce the risk of kickback by making multiple passes to achieve the desired depth of cut. Failure to follow these warnings could result in serious personal injury.

⚠WARNING

Always use push sticks or push paddles to increase safety and control during operations which require that the blade guard and spreader must be removed from the saw. ALWAYS replace blade guard after resawing is complete.

8. Plug in table saw, turn it ***ON***, and use a push stick or push block to feed workpiece through blade, using a slow and steady feed rate.

   Note: *We recommend making a series of light cuts that get progressively deeper, to reduce the chance of stalling the motor.*

9. Flip workpiece end-for-end, keeping same side against fence, and run workpiece through blade.

10. Repeat **Steps 7–9** until blade is close to half height of board to be resawn. Ideal completed resaw cut will leave a ⅛" connection when resawing is complete, as shown in **Figure 68**. Leaving a ⅛" connection will reduce risk of kickback.

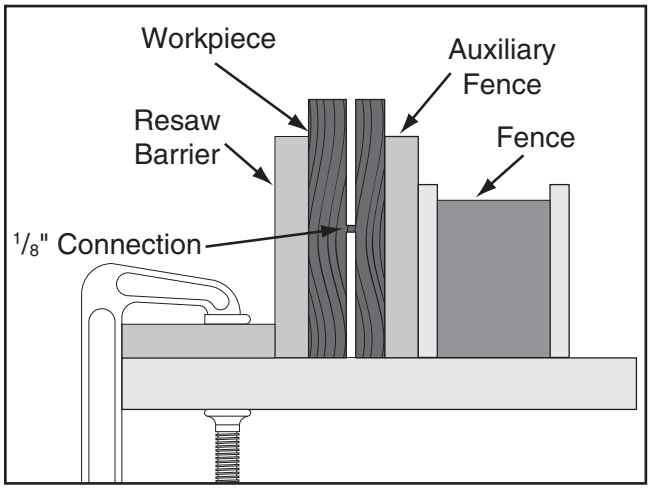


Figure 68. Ideal completed resaw cut.

11. Turn ***OFF*** table saw, then separate parts of workpiece and hand plane remaining ridge to remove it.

12. When finished resawing, remove resaw barrier and auxiliary fence, then re-install blade guard/spreader or riving knife and standard table insert.

SECTION 5: SHOP MADE SAFETY ACCESSORIES

Featherboards

Easily made from scrap stock, featherboards provide an added degree of protection against kickback, especially when used together with push sticks. They also maintain pressure on the workpiece to keep it against the fence or table while cutting, which makes the operation easier and safer because the cut can be completed without the operator's hands getting near the blade. The angled ends and flexibility of the fingers allow the workpiece to move in only one direction.

Making a Featherboard

This sub-section covers the two basic types of featherboards: 1) Those secured by clamps, or 2) those secured with the miter slot.

Material Needed for Featherboard
Hardwood ¾" x 3" x 10" (Minimum)
Hardwood ¾" x 6" x 28" (Maximum) 1

Additional Material Needed for Mounting Featherboard in Miter Slot
Hardwood ⅜" x (Miter Slot Width) x 5"L 1
Wing Nut ¼"-20.....1
Flat Head Screw ¼"-20 x 2".....1
Flat Washer ¼"-20.....1

To make a featherboard:

1. Cut hardwood board approximately ¾" thick to size. Length and width of board can vary according to your design. Most featherboards are 10"–28" long and 3"–6" wide. Make sure wood grain runs parallel with length of featherboard, so fingers you will create in **Step 3** will bend without breaking.

2. Cut 30º angle at one end of board.

⚠CAUTION

We recommend using a bandsaw for making fingers in the next step because it tends to be safer. A table saw can be used, but it will over-cut the underside of the ends, produce a thicker kerf, and require you to stop the blade half-way through the cut, which can be dangerous.

3. Make series of end cuts with the grain ⅜"–¼" apart and 2"–3" long, as shown in **Figure 69** (A). Alternatively, start cuts at 2"-3" deep, then make them progressively deeper, as shown in **Figure 69** (B).

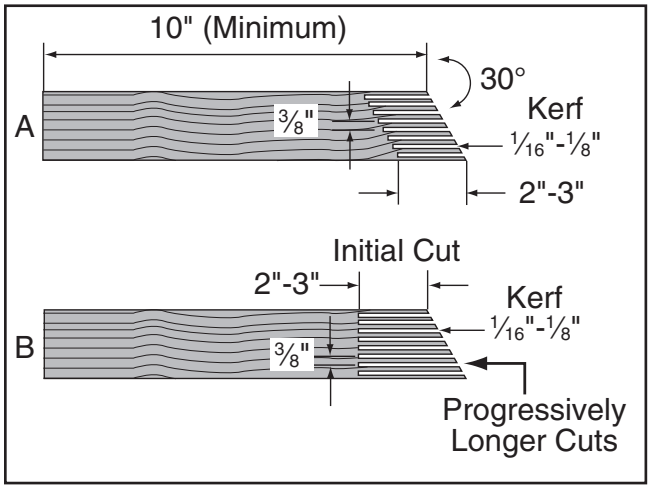


Figure 69. Patterns for featherboards (top view).

IMPORTANT: Cuts made across the grain result in weak fingers that easily break when flexed. When made correctly, the fingers should withstand flexing from moderate pressure. To test the finger flexibility, push firmly on the ends with your thumb. If the fingers do not flex, they are likely too thick (the cuts are too far apart).

NOTICE

Only Steps 1–3 are required to make a clamp-mounted featherboard. Refer to Page 50 for instructions on clamping.

4. Rout ¼"–⅜" wide slot 4"–5" long in workpiece and 1"–2" from short end of featherboard (see **Figure 70**).

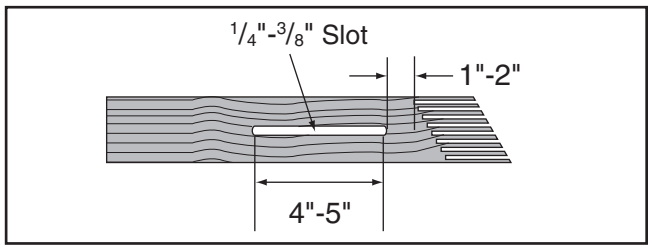


Figure 70. Slot routed in featherboard.

5. Cut a miter bar approximately 5" long that will fit in table miter slot, as shown in **Figure 71**.

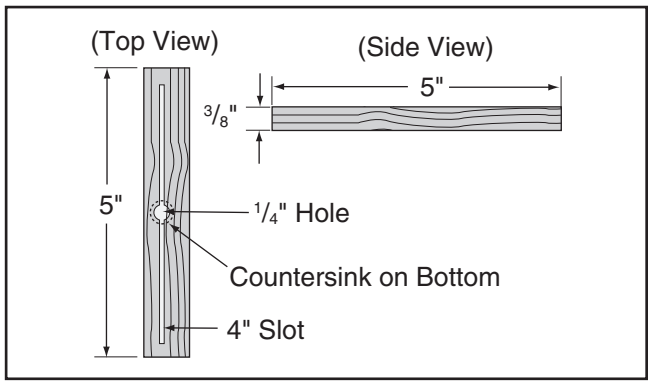


Figure 71. Miter bar pattern.

Tip: *Consider making miter bar longer for larger featherboards—approximately half the length of total featherboard—to support force applied to the featherboard during use.*

6. Drill ¼" hole in center of bar, then countersink bottom to fit ¼"-20 flat head screw.

7. Mark 4" line through center of countersunk hole in center, then use jig saw with narrow blade to cut it out.

8. Assemble miter bar and featherboard with ¼"-20 x flat head screw, flat washer, and wing nut or star knob (see **Figure 72**). Congratulations! Your featherboard is complete.

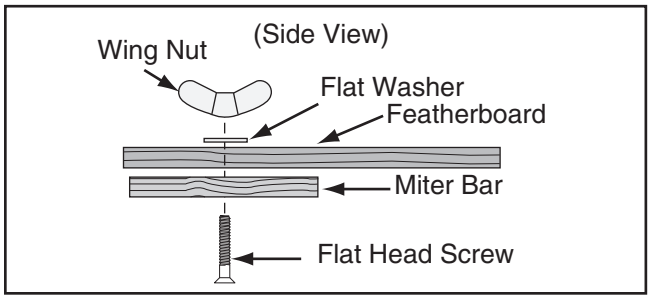


Figure 72. Assembling miter slot featherboard components.

Note: *The routed slot, countersink hole, and flat head screw are essential for miter bar to clamp into miter slot. When wing nut is tightened, it will draw flat head screw upward into countersunk hole. This will spread sides of miter bar and force them into walls of miter slot, locking featherboard in place.*

Tip: *The length of the flat head screw depends on thickness of featherboard—though 1½" to 2" lengths usually work.*

Now, proceed to **Mounting Featherboard in Miter Slot** on **Page 50**.

Mounting Featherboards w/Clamps

1. Lower saw blade, then adjust fence to desired width and secure it.

2. Place workpiece against fence, making sure it is 1" in front of blade.

3. Place a featherboard on table away from blade so all fingers point forward and contact workpiece (see **Figure 73**).

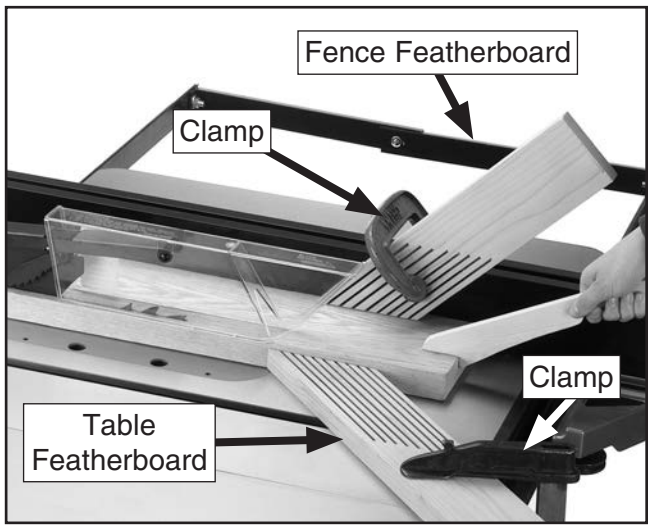


Figure 73. Example of featherboards secured with clamps.

4. Secure featherboard to table with a clamp.

5. Check featherboard by pushing it with your thumb to ensure it is secure.

   — If featherboard moves, tighten clamp more.

6. Optional: If cutting long workpieces, it may be beneficial to use a second featherboard attached to fence to keep board firmly against table while feeding.

Mounting Featherboard in Miter Slot

1. Lower saw blade, then adjust fence to desired width and secure it.

2. Place workpiece evenly against fence, making sure it is 1" in front of blade.

3. Slide featherboard miter bar into miter slot, making sure fingers slant toward blade, as shown in **Figure 74**.

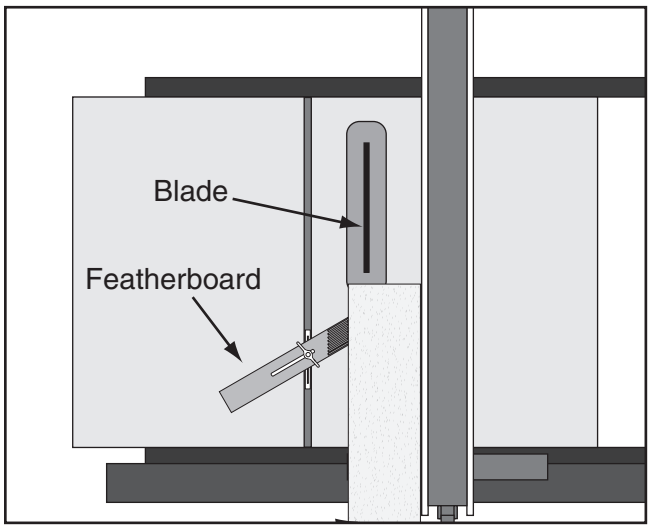


Figure 74. Featherboard installed in miter slot and supporting workpiece for ripping cut.

4. Position fingered edge of featherboard against edge of workpiece, so that all fingers contact workpiece. Slide featherboard toward blade until first finger is nearly even with end of workpiece, which should be 1" away from blade.

5. Double-check workpiece and featherboard to ensure they are properly positioned, as described in **Step 4**. Then secure featherboard to table. Check featherboard by hand to make sure it is tight.

   Note: *The featherboard should be placed firmly enough against workpiece to keep it against fence but not so tight that it is difficult to feed workpiece.*

Push Sticks

When used correctly, push sticks reduce the risk of injury by keeping hands away from the blade while cutting. In the event of an accident, a push stick can also absorb damage that would have otherwise happened to hands or fingers.

Using a Push Stick

Use push sticks whenever your hands will get within 12" of the blade. To maintain control when cutting large workpieces, start the cut by feeding with your hands then use push sticks to finish the cut, so your hands are not on the end of the workpiece as it passes through the blade.

Feeding: Place the notched end of the push stick against the end of the workpiece (see **Figure 76** below), and move the workpiece into the blade with steady downward and forward pressure.

Supporting: A second push stick can be used to keep the workpiece firmly against the fence while cutting. When using a push stick in this manner, only apply pressure before the blade; otherwise, pushing the workpiece against or behind the blade will increase the risk of kickback (see "Push Stick Prohibition Zone" in the **Figure** below).

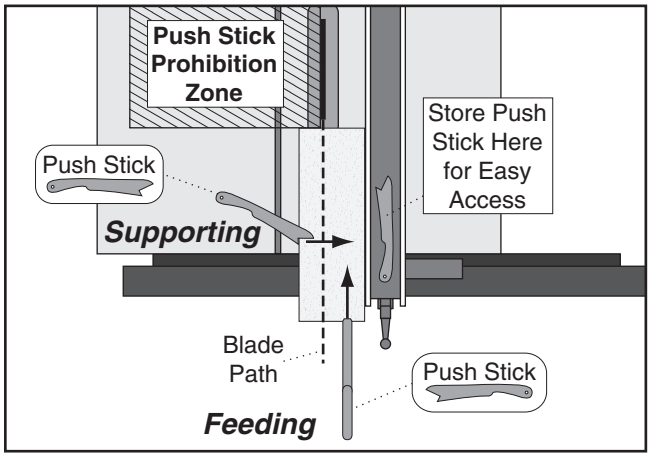


Figure 75. Using push sticks to rip narrow stock.

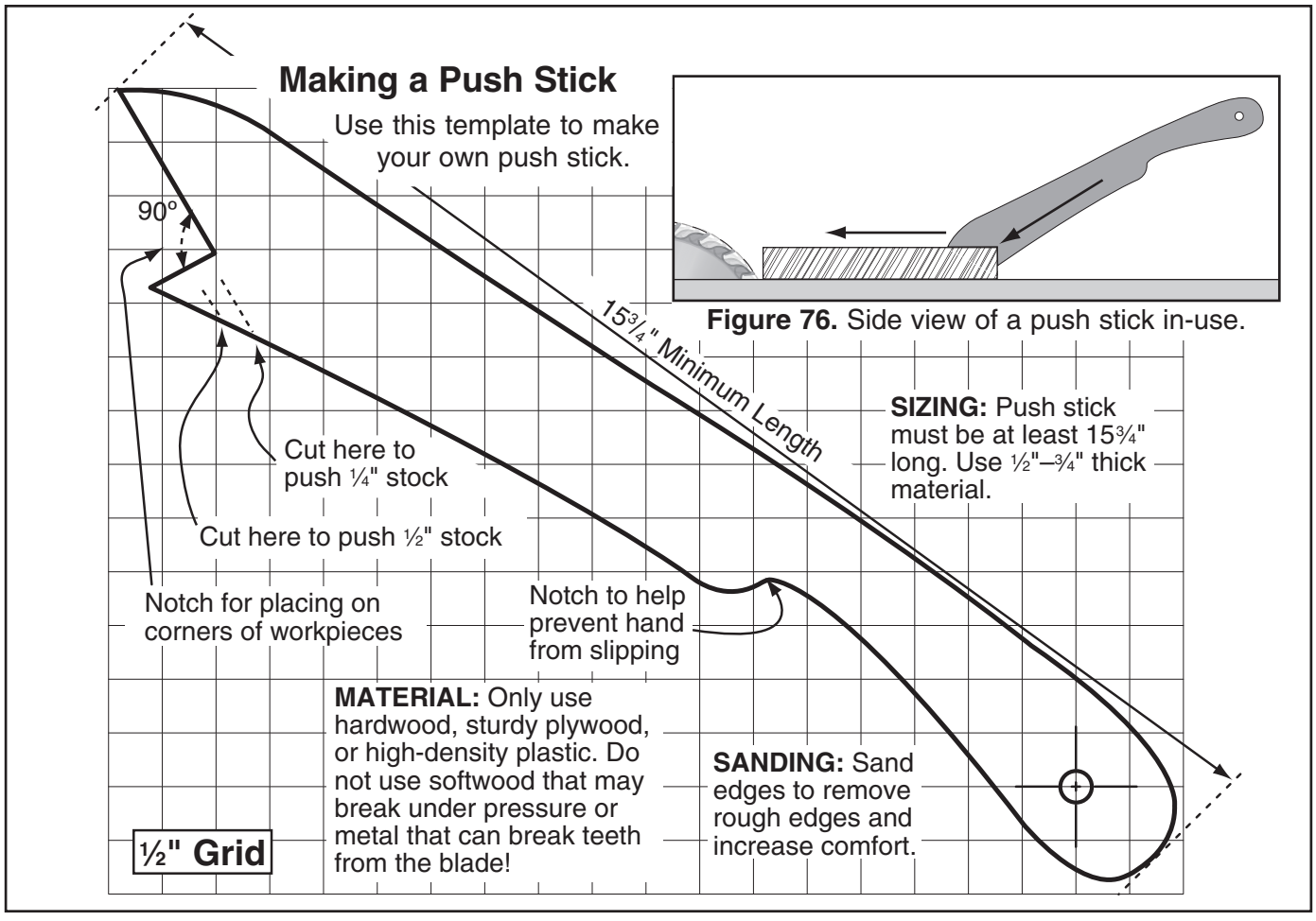


Figure 76. Side view of a push stick in-use.

Figure 77. Template for a basic shop-made push stick (not shown at actual size).

Push Blocks

When used correctly, a push block reduces the risk of injury by keeping hands away from the blade while cutting. In the event of an accident, a push block often takes the damage that would have otherwise happened to hands or fingers.

Using a Push Block

A push block can be used in place of or in addition to a push stick for feeding workpieces into the blade. Due to their design, push blocks allow the operator to apply firm downward pressure on the workpiece that could not otherwise be achieved with a push stick.

The push block design on this page can be used in two different ways (see **Figure 78** below). Typically, the bottom of the push block is used until the end of the workpiece reaches the blade.

The notched end of the push block is then used to push the workpiece the rest of the way through the cut, keeping the operator's hands at a safe distance from the blade. A push stick is often used at the same time in the other hand to support the workpiece during the cut (see **Using a Push Stick** on previous page).

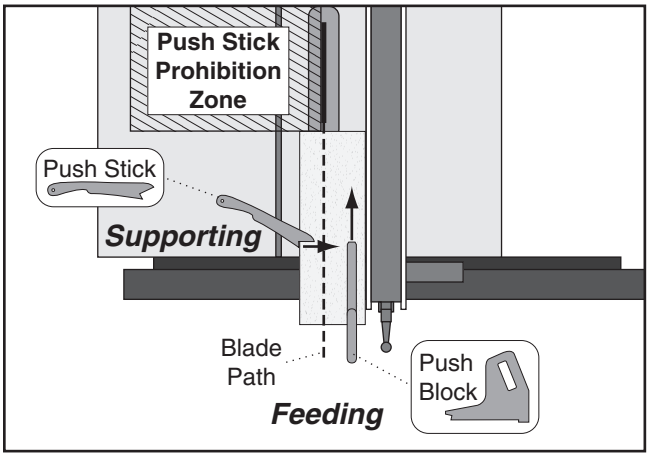


Figure 79. Using a push block and push stick to make a rip cut.

Figure 78. Side view of a push block in use.

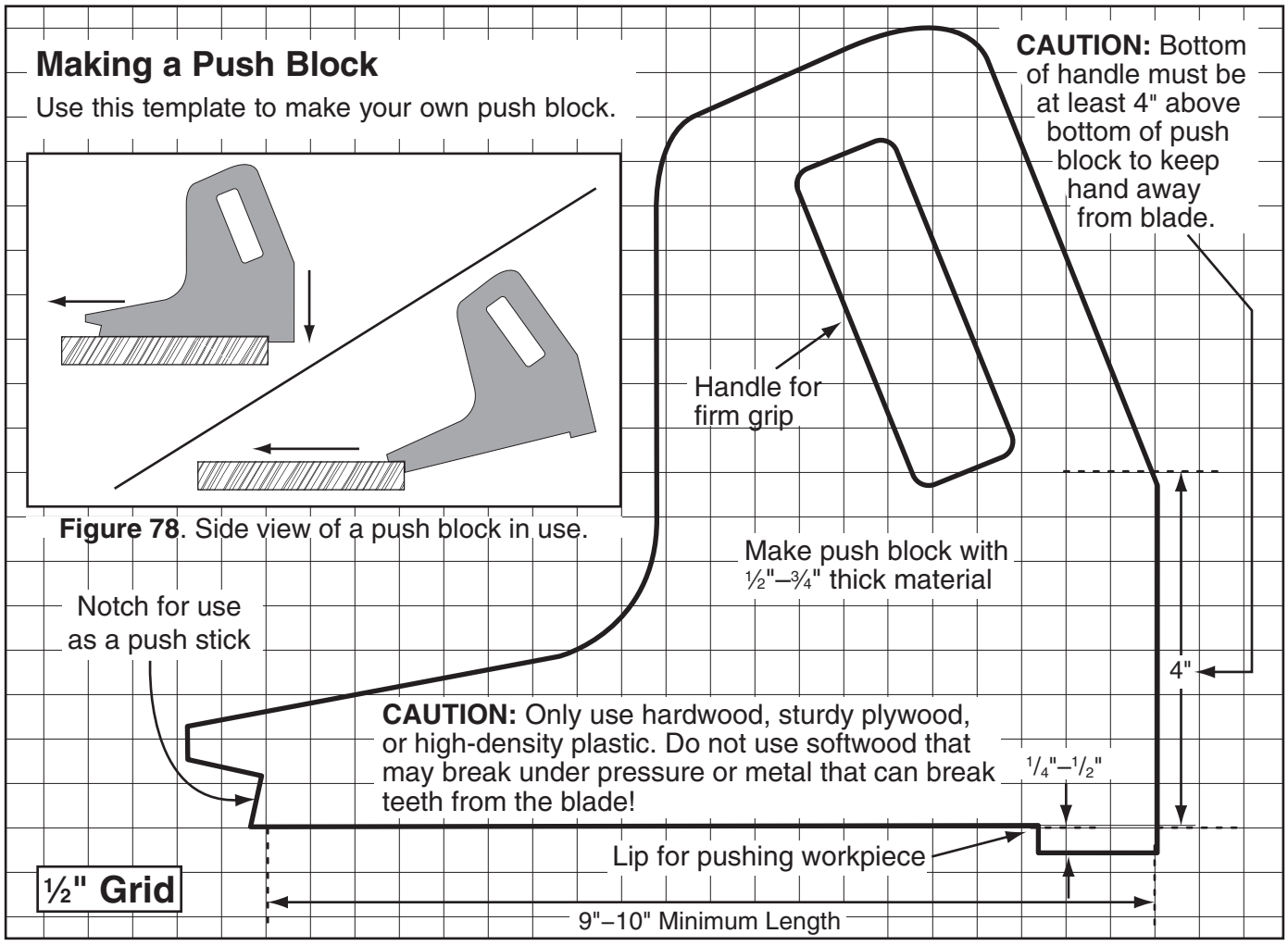


Figure 80. Template for a shop-made push block (shown at 50% of full size).

Narrow-Rip Auxiliary Fence & Push Block

There are designs for hundreds of specialty jigs that can be found in books, trade magazines, and on the internet. These types of jigs can greatly improve the safety and consistency of cuts. They are particularly useful during production runs when dozens or hundreds of the same type of cut need to be made.

The narrow-rip auxiliary fence and push block system shown in this section is an example of a specialty jig that can be made to increase the safety of very narrow rip cuts.

Material Needed for Narrow Rip Auxiliary Fence & Push Block

Hardwood ¾" x 3" x Length of Fence 1
Plywood ¾" x 5¼" x Length of Fence 1
Wood Screws #8 x 1½" 8

Material Needed for Push Block

Hardwood or Plywood ¾" x 15" x 5⅝" 1
Hardwood or Plywood ¾" x 10" x 5"–9" 1
Cyanoacrylate Wood Glue .....Varies
Wood Screws #8 x 1½" .....As Needed

Making a Narrow-Rip Push Block for an Auxiliary Fence

1. Cut a piece of ¾" thick plywood 5¼" wide and as long as your table saw fence; cut a piece of ¾" thick hardwood 3" wide and as long as your table saw fence, as shown in **Figure 81.**

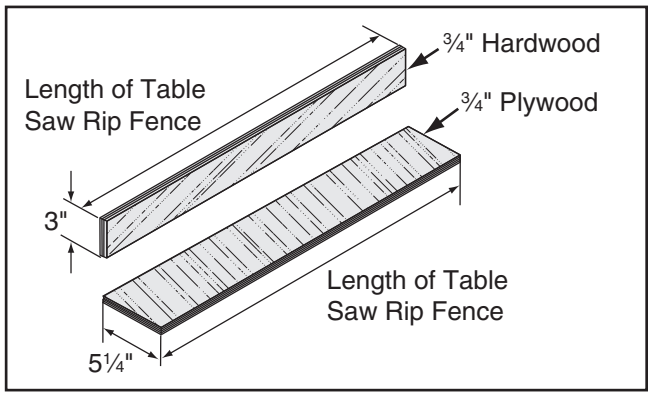


Figure 81. Auxiliary fence dimensions.

Note: *We recommend cutting hardwood board oversize, then jointing and planing it to correct size to make sure board is square and flat. Only use furniture-grade plywood or kiln-dried hardwood to prevent warping.*

2. Pre-drill and countersink eight pilot holes ⅜" from bottom of 3" wide board, then secure boards together with eight #8 x 1½" wood screws, as shown in **Figure 82**.

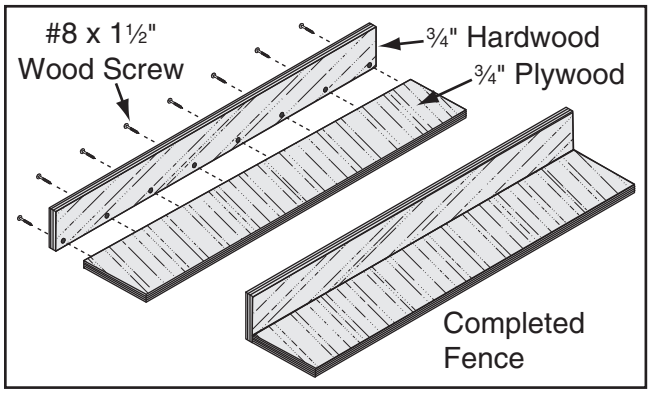


Figure 82. Location of pilot holes.

3. Using ¾" material you used in previous steps, cut out pieces for push block per dimensions shown in **Figure 83**; for handle, cut a piece 10" long by 5"–9" high and shape it as desired to fit your hand.

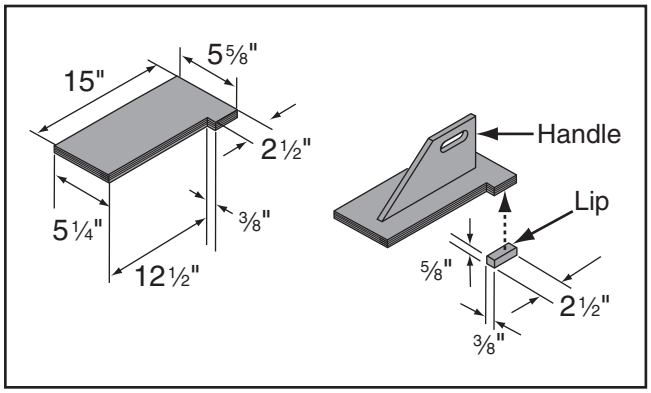


Figure 83. Push block dimensions and construction.

4. Attach handle to base with #8 x 1½" wood screws, and attach lip to base with cyanoacrylate-type wood glue.

Using Auxiliary Fence & Push Block

1. Place auxiliary fence on table and clamp it to fence at both ends, then adjust distance between auxiliary fence and blade—this determines how wide workpiece will be ripped (see **Figure 84**).

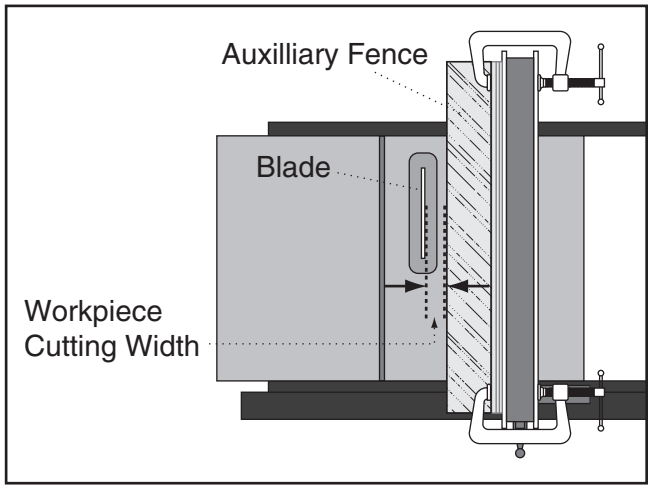
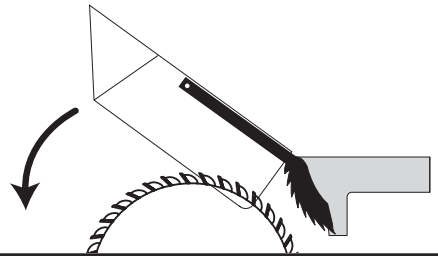


Figure 84. Adjusting ripping distance between blade and auxiliary fence.

2. Install blade guard, then secure spreader pawls in upright position, as shown in **Figure 49** on **Page 36**, so they do not interfere with push block lip.

⚠CAUTION



Keep the blade guard installed and in the down position. Failure to do this could result in serious personal injury or death.

3. Place workpiece 1" behind blade and evenly against table and auxiliary fence (see **Figure 85**).

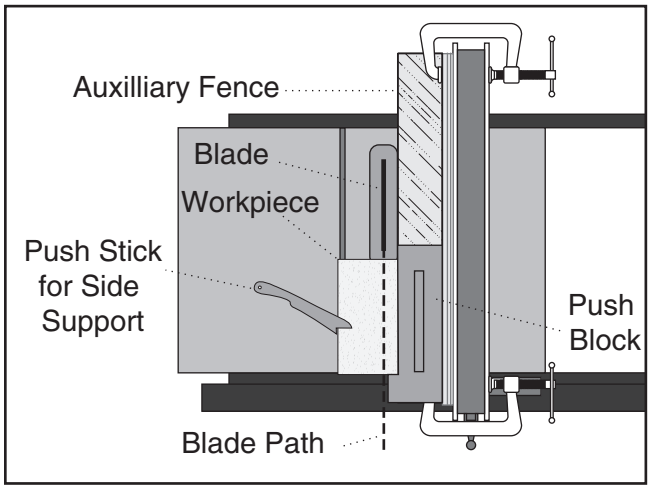


Figure 85. Push block in position to push workpiece through blade.

4. Turn saw ***ON***, then begin ripping workpiece using a push stick for side support.

5. As workpiece nears end of cut, place push block on auxiliary fence with lip directly behind workpiece, then release push stick just before blade.

6. Guide workpiece rest of way through cut with push block, as shown in **Figure 86**.

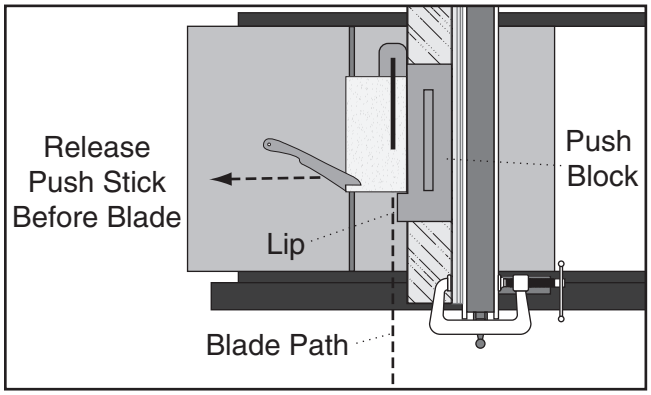


Figure 86. Ripping with push block.

⚠WARNING

Turn *OFF* the saw and allow blade to come to a complete stop before removing cut-off piece. Failure to follow this warning could result in serious personal injury.

Outfeed & Support Tables

One of the best accessories for improving the safety and ease of using a table saw is simply placing a large table (outfeed table) behind the saw to catch the workpiece (see **Figure 87**). Additionally, another table to the left of the saw (support table) can also help support large workpieces so they can be cut safely and accurately.

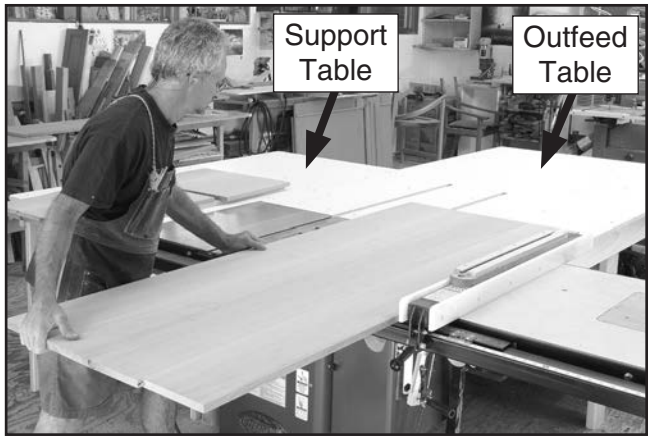


Figure 87. Example of outfeed & support tables.

Crosscut Sled

A crosscut sled (see **Figure 88**) is a fantastic way to improve the safety and accuracy of crosscutting on the table saw. Most expert table saw operators use a crosscut sled when they have to crosscut a large volume of work, because the sled offers substantial protection against kickback when crosscutting.

Figure 88. Example of crosscut sled.

SECTION 6: AFTERMARKET ACCESSORIES FROM GRIZZLY

⚠WARNING

Installing unapproved accessories may cause machine to malfunction, resulting in serious personal injury or machine damage. To reduce this risk, only install accessories recommended for this machine by Grizzly.

NOTICE

Refer to our website or latest catalog for additional recommended accessories.

T28922—Bear Crawl "Cub" Mobile Base

The Cub version of the Bear Crawl was designed for small-footprint machines weighing up to 900 lbs. It features wide inline fixed casters and outrigger swivel casters to keep your equipment moving effortlessly on almost any surface. This is a high-quality mobile base that will make your shop more convenient and efficient and will keep your equipment stable and rolling for years to come. Adjusts from 14" x 14" to 22½" x 22½"!

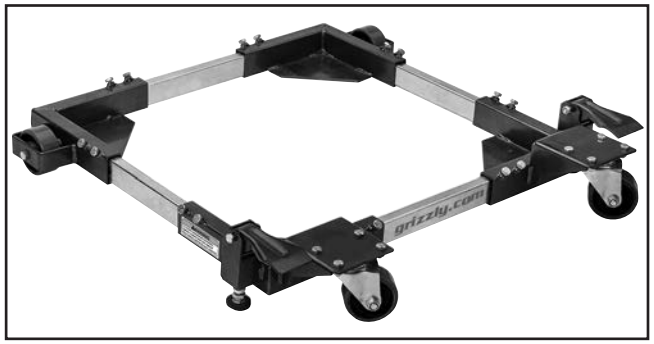


Figure 89. T28922 Bear Crawl "Cub" Mobile Base.

T30491—Grizzly Tenoning Jig

Our fully adjustable tenoning jig handles stock up to 3¼" thick and features an adjustable bevel angle with a 90° to 75° range. The two large grip handles, adjustable guide bar, multi-position control levers, and extra large clamping handwheel will ensure accurate and repeatable results.

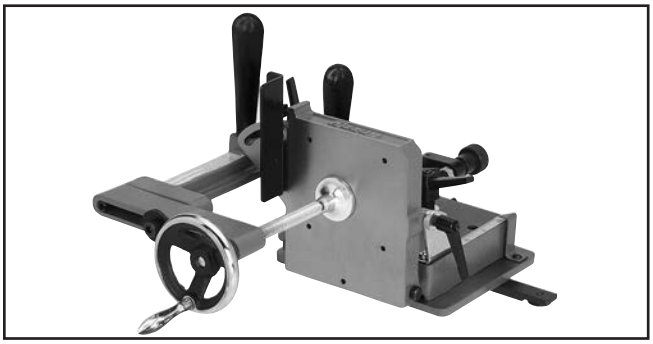


Figure 90. T30491 Tenoning Jig.

T10113—Universal Overarm Blade Guard

Capture the dust that's thrown above the saw by the higher escape velocity of the spinning blade. This Universal Overarm Blade Guard is totally self supporting, so there's no complicated installation process. Just bolt it to your saw base for total stability. It also extends for saws with wide rip capacities and pivots out of the way for complete versatility. Approximate shipping weight: 70 lbs.

Figure 91. T10113 Universal Overarm Blade Guard.

G4173—Baby Power Feeder 120V
G4176—¼ HP Power Feeder 120V
G4179—½ HP Power Feeder 220V
G4181—1 HP Power Feeder 240V
Installing a power feeder on your table saw can help make repetitive cuts much easier and safer. Easy to adjust wherever needed, including out of the way when not needed! A must for any production shop.

Figure 92. G4179 Power Feeder.

G0862—3 HP Portable Cyclone Dust Collector
The capstone of our new line of affordable, high-quality cyclones, the G0862 features a 3 HP motor, a whopping 1941 CFM of airflow capacity, and a 45-gallon collection capacity. It's packed with features like a quick-release collection drum, latching system, high-efficiency, two-stage separation driven by a 15" welded steel impeller, durable powder coated finish, and a heavy-duty steel frame and housing.

Figure 93. G0862 3 HP Portable Cyclone Dust Collector.

H4231—Zero Clearance Insert for G1023RL/RLX/RLW/RLWX/RLX5
Helps reduce kickback risk. Easily adjustable. Special phenolic material.

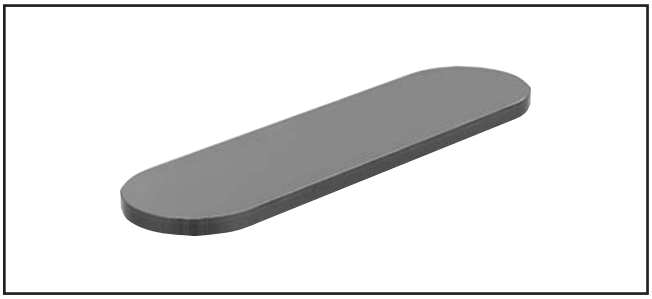


Figure 94. H4231 Zero-Clearance Table Insert.

G1163P—1 HP Floor Model Dust Collector
G0710—1 HP Wall-Mount Dust Collector
H4340—3.0 Micron Upgrade Bag
Excellent point-of-use dust collectors that can be used next to the machine with only a small amount of ducting.

G7581—Superbar
G7582—Master Plate
The miter slot mounted Superbar can help you align, tune, and calibrate your table saw to within ±.001 in just minutes. Replace your table saw blade when calibrating the double disk ground Master Plate for a precision measurement, with no runout!

Figure 95. Superbar and Master Plate.

Forrest Woodworker II 10" Blades
T20778—10", 20 Teeth
T20779—10", 40 Teeth
T23527—10" 48 Teeth
Hailed as the Cadillac of all blades, Forrest saw blades have become legendary for their ability to leave highly polished, finish ready surfaces on nearly everything they cut. Made in USA.

With these all purpose blades for table saws you can rip and crosscut 1" – 2" rockhards and softwoods resulting in a smooth as sanded surface. With 20° face hook, ply veneers will crosscut with no bottom splinter at moderate feed rates. Double hard and 40% stronger C4 carbide will give up to 300% longer life between sharpenings. Ends blade changing (one blade does rip, combo and crosscut), second-step finishing and cutting 1/16" oversize to allow for resurfacing. Buy and sharpen one blade instead of three! 5/8" arbor, 1/8" kerf.

Figure 96. T20779 Forrest Woodworker II Blade.

Forrest Dado Blade Sets
H4756— 8" x 5/8", 24 Teeth, 1/4"–29/32" Groove
T23267—8" x 5/8", 24 Teeth, 3/16"–1/4" Groove
The world's finest dado head clean cuts all your grooves! No splintering when cross-cutting oak, ply veneers and melamine. Perfect for flat-bottomed grooves. No staggered steps or round bottoms like a wobble-dado leaves! Cuts in all directions - rip, cross-cut, miter, any depth.

Figure 97. Forrest Dado Blades.

Basic Eye Protection

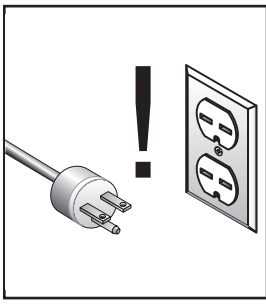
T20501—Face Shield Crown Protector 4"
T20502—Face Shield Crown Protector 7"
T20503—Face Shield Window
T20451—"Kirova" Clear Safety Glasses
T20456—DAKURA Safety Glasses, Black/Clear

Figure 98. Assortment of basic eye protection.

H4978—Deluxe Earmuffs - 27dB
H4979—Twin Cup Hearing Protector - 29dB
T31617—Foam Earplugs, 7-pairs - 32dB
Protect yourself comfortably with hearing protection. Especially important if you or employees operate for hours at a time.

Figure 99. Hearing protection.

SECTION 7: MAINTENANCE



⚠WARNING
Always disconnect power to the machine before performing maintenance. Failure to do this may result in serious personal injury.

Schedule

For optimum performance from this machine, this maintenance schedule must be strictly followed.

Ongoing
To minimize your risk of injury and maintain proper machine operation, shut down the machine immediately if you ever observe any of the items below, and fix the problem before continuing operations:

- Loose mounting bolts/arbor nut.
- Damaged saw blade.
- Worn or damaged wires.
- Any other unsafe condition.

Weekly Maintenance:
- Clean table surface and miter slot grooves.
- Clean and protect cast-iron table.
- Clean rip fence.

Monthly Maintenance:
- Clean/vacuum dust buildup from inside cabinet and off motors.
- Check/replace belt for proper tension, damage or wear (**Page 77**).

Every 6–12 Months:
- Lubricate trunnion slides, worm gear, bull gear, and leadscrew (**Page 60**).

Cleaning

Cleaning the Model G1023RL series table saw is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin-dissolving cleaner to remove it.

Protect the unpainted cast-iron table by wiping it clean after every use—this ensures moisture from wood dust does not remain on the bare metal surface. Keep the table rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9.

G5562—SLIPIT® 1 Qt. Gel
G5563—SLIPIT® 12 Oz. Spray
G2871—Boeshield® T-9 12 Oz. Spray
G2870—Boeshield® T-9 4 Oz. Spray
H3788—G96® Gun Treatment 12 Oz. Spray
H3789—G96® Gun Treatment 4.5 Oz. Spray

Figure 100. Recommended products for protecting unpainted cast iron/steel parts on machinery.

Lubrication

It is essential to clean components before lubricating them because dust and chips build up on lubricated components and make them hard to move. Simply adding more grease to them will not yield smooth moving components.

Clean the components in this section with an oil/grease solvent cleaner and shop rags.

If you thoroughly clean the components in this section before lubricating them, the result will be silky smooth movement when turning the handwheels, which will result in much higher enjoyment on your part!

Items Needed	Qty
NLGI#2 Grease or Equivalent	As Needed
Mineral Spirits	As Needed
Clean Shop Rags	As Needed

Trunnion Slides

Lubrication Type ... T26419 or NLGI#2 Equivalent
Amount .....1-2 Dabs
Lubrication Frequency .....6–12 Months

Clean the slides with mineral spirits and a rag, then apply grease into each groove. Move the blade tilt back and forth to spread the grease (see **Figure 101**).

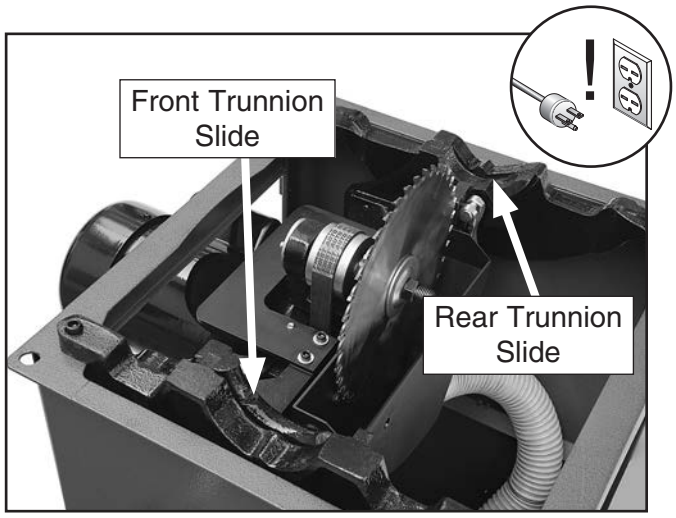


Figure 101. Example of trunnion slides.

Worm Gear, Bevel Gears, and Blade Angle Teeth

Lubrication Type ... T26419 or NLGI#2 Equivalent
Amount .....Dab
Lubrication Frequency .....6–12 Months

Clean away any built up grime and debris from the worm gear, blade angle teeth, and bevel gears (see **Figure 102**) with a wire brush, rags, and mineral spirits. Allow the components to dry, then apply a thin coat of grease to them.

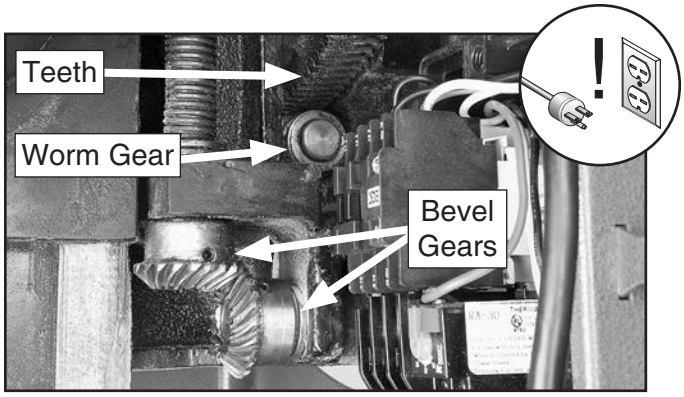


Figure 102. Worm gear, bevel gears, and blade angle trunnion teeth.

Elevation Slides and Leadscrew

Lubrication Type ... T26419 or NLGI#2 Equivalent
Amount .....Dab
Lubrication Frequency .....6–12 Months

Clean away any built up grime and debris from the elevation slides and leadscrew (see **Figure 103**) with a bristle brush, rags, and mineral spirits. Use a brush to apply grease onto the elevation slides and wipe them down with a rag so there is a thin film of grease.

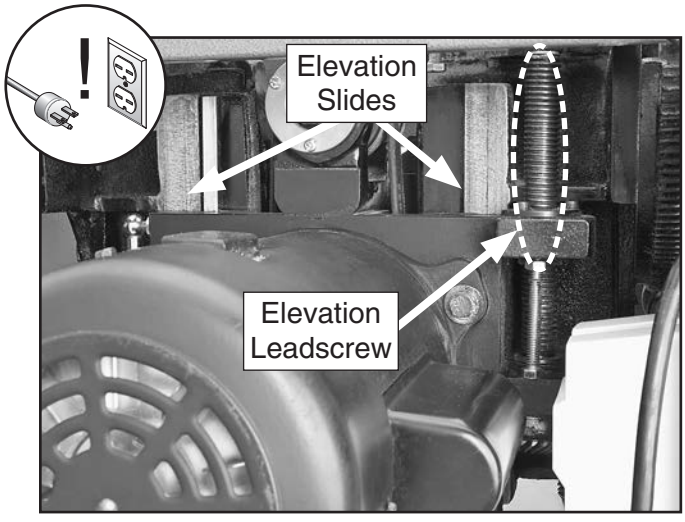
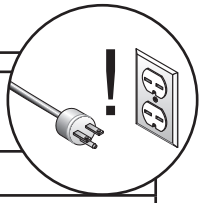


Figure 103. Elevation leadscrew and elevation slides.

SECTION 8: SERVICE

Review the troubleshooting procedures in this section if a problem develops with your machine. If you need replacement parts or additional help with a procedure, call our Technical Support. **Note:** *Please gather the serial number and manufacture date of your machine before calling.*

Troubleshooting



Motor & Electrical

Symptom	Possible Cause	Possible Solution
Machine does not start, or power-supply fuse/breaker trips immediately after startup.	1. Anti-start padlock installed. 2. OFF button not reset. 3. Incorrect power supply voltage or circuit size. 4. Power supply circuit breaker tripped or fuse blown. 5. Motor wires connected incorrectly. 6. Thermal overload relay has tripped/at fault. 7. Start capacitor at fault. 8. Centrifugal switch adjustment/contact points at fault. 9. Contactor not energized/at fault. 10. Wiring broken, disconnected, or corroded. 11. ON/OFF switch at fault. 12. Motor or motor bearings at fault.	1. Remove anti-start padlock. 2. Press OFF button completely until it clicks. 3. Ensure correct power supply voltage and circuit size. 4. Ensure circuit is free of shorts. Reset circuit breaker or replace fuse. 5. Correct motor wiring connections (**Page 82**). 6. Reset. Adjust or replace if at fault. 7. Test/replace if at fault. 8. Adjust centrifugal switch/clean contact points. Replace either if at fault. 9. Test all legs for power; replace if necessary. 10. Fix broken wires or disconnected/corroded connections. 11. Replace switch. 12. Replace motor.
Machine stalls or is underpowered.	1. Workpiece material unsuitable for machine. 2. Feed rate too aggressive for motor blade. 3. Workpiece crooked; fence not parallel with blade. 4. Blade dull or wrong blade for task. 5. Belt(s) slipping/pulleys misaligned. 6. Motor wired incorrectly. 7. Pulley/sprocket slipping on shaft. 8. Motor overheated. 9. Run capacitor at fault (G1023RLWX/RLX5 only). 10. Extension cord too long. 11. Contactor not energized/at fault. 12. Centrifugal switch/contact points at fault. 13. Motor or motor bearings at fault.	1. Only cut wood/ensure moisture is below 20%. 2. Reduce feed pressure and speed. 3. Use jointer to straighten edge of workpiece that slides up against fence; adjust fence parallel with blade. 4. Use correct blade for type of cut (**Page 32**). Use sharp blade. 5. Clean/tension/replace belt(s); ensure pulleys are aligned. 6. Wire motor correctly (**Page 82**). 7. Tighten/replace loose pulley/shaft. 8. Clean motor, let cool, and reduce workload. 9. Test/repair/replace. 10. Move machine closer to power supply; use shorter extension cord. 11. Test all legs for power; repair/replace if at fault. 12. Adjust centrifugal switch/clean contact points. Replace either if at fault. 13. Replace motor.

Motor & Electrical (Cont.)

Symptom	Possible Cause	Possible Solution
Machine has vibration or noisy operation.	1. Motor or component loose.	1. Replace damaged or missing bolts/nuts or tighten if loose.
	2. Blade at fault.	2. Replace warped/bent blade; resharpen dull blade.
	3. Flat belt worn, loose, pulleys misaligned or belt slapping cover.	3. Inspect/replace belt. Realign pulleys if necessary (**Page 78**).
	4. Motor mount loose/broken.	4. Tighten/replace.
	5. Arbor pulley loose.	5. Retighten/replace arbor pulley with shaft and thread locking liquid.
	6. Motor fan rubbing on fan cover.	6. Fix/replace fan cover; replace loose/damaged fan.
	7. Arbor bearings at fault.	7. Replace arbor housing bearings; replace arbor.
	8. Centrifugal switch.	8. Replace.
	9. Motor bearings at fault.	9. Test by rotating shaft; grinding/loose shaft requires bearing replacement.

Machine Operation

Symptom	Possible Cause	Possible Solution
Fence does not move smoothly.	1. Fence not mounted/adjusted correctly.	1. Remount fence and adjust correctly (**Page 72**).
	2. Rails dirty or sticky.	2. Clean and lubricate/wax rails..
Material moves away from fence when ripping.	1. Improper feeding technique.	1. Learn/use proper feeding technique (**Page 29**).
	2. Fence not parallel with blade.	2. Adjust fence parallel with blade (**Page 72**).
	3. Workpiece crooked or bowed.	3. Use jointer to straighten edge of workpiece that slides against fence.
Blade not parallel with miter slot.	1. Blade is damaged or warped.	1. Replace blade (**Page 33**).
	2. Table misadjusted.	2. Adjust miter slot parallel with blade (**Page 67**).
Blade hits table insert when tilting to 45°.	1. Sawdust/debris stuck in trunnion slides.	1. Clean sawdust or debris out of trunnion slides.
	2. 45° stop out of adjustment.	2. Adjust 45° stop (**Page 66**).
	3. Miter slot not parallel with blade.	3. Adjust miter slot parallel with blade (**Page 67**).
	4. Blade incorrectly installed.	4. Correctly install blade (**Page 33**).
	5. Table/trunnion assembly mount position not correct.	5. Adjust table or trunnion mounting position (**Page 67**).
Blade too close to insert.	1. Blade position on arbor is incorrect.	1. Verify that blade arbor washers are correct and in the required position (**Page 33**).
	2. Table/trunnion assembly mount position not correct.	2. Adjust table mounting position (**Page 67**).
Board binds or burns when feeding through table saw.	1. Board warped.	1. Always cut bowed workpiece with cupped side against table; use a different board or use jointer to straighten edge of workpiece that slides against fence.
	2. Feed rate too slow or inconsistent.	2. Reduce feed rate and apply consistent pressure through entire cut.
	3. Blade warped/damaged/dull.	3. Replace blade (**Page 33**).
	4. Too many teeth on blade for cutting type.	4. Change blade to one with fewer teeth (**Page 32**).
	5. Fence not parallel with blade.	5. Adjust fence parallel with blade (**Page 72**).
	6. Miter slot not parallel with blade.	6. Adjust miter slot parallel with blade (**Page 67**).
	7. Spreader/riving knife not correctly aligned with blade.	7. Adjust spreader/riving knife or spreader into alignment with blade (**Page 70**).

Machine Operation (Cont.)

Symptom	Possible Cause	Possible Solution
Handwheel binds or is difficult to move.	1. Lock knob is engaged. 2. Sawdust/debris stuck in trunnion slides. 3. Handwheel shaft pins are wedged. 4. Handwheel is inserted too far. 5. Too much engagement between the worm gear & trunnion.	1. Loosen lock knob. 2. Clean sawdust/debris out of trunnion slides. 3. Remove handwheel and adjust shaft pins. 4. Remove handwheel and adjust key. 5. Adjust worm gear engagement.
Too much sawdust blown back toward operator.	1. Dust collector not turned on or connected. 2. Blade guard removed. 3. Dust collection system clogged or lacks required CFM at machine. 4. Too many air leaks in cabinet for proper dust collection.	1. Connect and turn on dust collector. 2. Re-install blade guard for maximum safety and dust control (**Page 34**). 3. Remove clog; revise ducting layout for improved suction; use a stronger dust collector. 4. Seal leaks in cabinet or around dust chute.
Tooth marks on cut edge.	1. Blade is warped/damaged/dull. 2. Fence not parallel with blade. 3. Miter slot not parallel with blade.	1. Replace blade (**Page 33**). 2. Adjust fence parallel with blade (**Page 72**). 3. Adjust miter slot parallel with blade (**Page 67**).
Finished board narrower than expected.	1. Fence scale pointer not adjusted correctly or fence scale label misapplied.	1. Adjust fence scale pointer or re-apply fence scale label in correct position (**Page 74**).
Kickback occurs.	1. Fence not parallel with blade. 2. Feeding boards freehand without fence or miter gauge. 3. Spreader/riving knife not correctly aligned with blade. 4. Blade guard not installed/not working correctly. 5. Letting go of board before it is past blade. 6. Board not held firmly against table and fence. 7. Using miter gauge and fence at the same time. 8. Board is warped or edge that slides against fence is bowed/curved. 9. Taking too deep of a cut.	1. Adjust fence parallel with blade (**Page 72**). 2. Always use fence or miter gauge as a guide when feeding workpiece. 3. Adjust spreader/riving knife into alignment with blade (**Page 70**). 4. Install blade guard (**Page 34**). Replace blade guard before using saw if damaged. 5. Move board completely past blade before releasing. 6. Hold board firmly against table and fence; use push stick(s) whenever possible to keep fingers away from blade. 7. Never use miter gauge and fence together. Always use one or the other. 8. Always cut bowed workpiece with cupped side against table; use a jointer to straighten edge of board that slides against fence. 9. Always take multiple shallow passes for non-through cuts.
Miter gauge does not move smoothly.	1. Bent miter gauge bar; burs on bar/slot; dirty slot.	1. Straighten/replace bar; debur bar or slot; clean debris from slot.
Will not make accurate cuts.	1. Pointer calibrated incorrectly to scale. 2. Miter slot not parallel with blade. 3. Fence not parallel with blade. 4. Stop bolts/nuts out of adjustment.	1. Adjust blade 90° to table using a square, then calibrate pointer to scale (**Page 65**). 2. Adjust miter slot parallel with blade (**Page 67**). 3. Adjust fence parallel with blade (**Page 72**). 4. Adjust stop bolts/nuts (**Page 65**).
Arbor movement is sloppy, inconsistent from top to bottom, difficult to move, or it binds.	1. Elevation slide gib out of adjustment. 2. Gas strut worn out.	1. Adjust elevation slide gib (**Page 81**). 2. Replace gas strut.

Machine Operation (Cont.)

Symptom	Possible Cause	Possible Solution
Blade tilt does not stop at 45°/90°.	1. 45°/90° stop out of adjustment. Sawdust built up in/on trunnions.	1. Adjust 45° stop as described in manual (**Page 65**). Remove sawdust from trunnions. Clean and re-lubricate as necessary.
Blade will not go beneath table surface.	1. Roll pin/set screw in worm gear contacting geared trunnion. 2. Handwheel shaft pins are wedged. 3. Handwheel key inserted too far.	1. Tighten roll pins and set screws in the worm gear. 2. Remove handwheel and adjust shaft pins. 3. Remove handwheel, adjust key, re-install handwheel.
Blade will not move up or down.	1. Set screw on worm gear loose or missing. 2. Handwheel shaft key is missing.	1. Tighten or replace set screw. 2. Replace key.
Fence contacts wings as it slides over.	1. Wing not flush with table.	1. Make wing flush with table.
Tilt scale shows inaccurate reading.	1. Pointer not calibrated correctly to scale.	1. Adjust blade 90° to table using a square, then calibrate pointer to scale (**Page 65**).
Workpiece catches on table/dado insert or table opening during cutting operation.	1. Table insert not adjusted properly.	1. Adjust table/dado insert so it is perfectly flush with table surface (**Page 75**).

Blade Tilt Stops

The table saw features stop bolts that stop the blade exactly at 45° and 90° during blade tilt adjustments. The stops have been set at the factory and should require no adjustments, unless you notice that your cuts are not accurate.

Note: *The tilt scale reads "0" when the blade is 90° to the table.*

Tools Needed	**Qty**
90° Square	1
Combo Square	1
Wrench 12mm	1
Hex Wrench 3mm	1

Setting 90° Stop Bolt

1. DISCONNECT MACHINE FROM POWER!

2. Raise blade as high as it will go, then tilt it toward 0° until it stops and cannot be tilted any more.

3. Place 90° square against table and blade so it contacts blade evenly from bottom to top, as shown in **Figure 104**. Make sure a blade tooth does not obstruct placement of square.

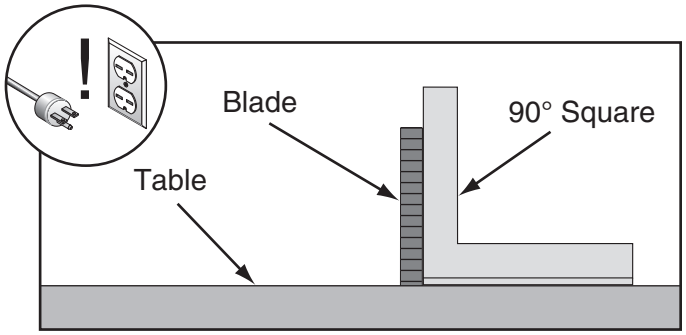


Figure 104. Checking blade at 90°.

— If blade *is* 90° to table, then adjustments do not need to be made. Make sure tilt indicator arrow shown in **Figure 105** points to 0° mark on scale. If it does not, remove blade height lock knob, loosen blade height handwheel set screw and remove handwheel.

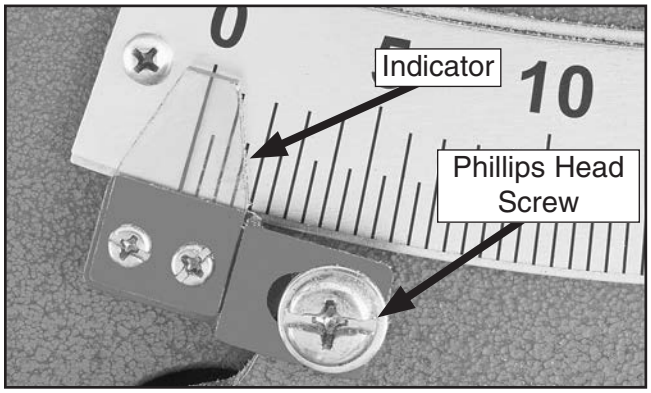


Figure 105. Tilt indicator arrow.

Adjust indicator position by loosening Phillips head screw, moving indicator, then tightening screw and reinstalling handwheel. Proceed to **Setting 45° Stop Bolt** on **Page 66**.

— If blade *is not* 90° to table, you will need to adjust 90° stop screw. Proceed to next step.

4. Tilt blade to about 20°, so there is room for stop bolt to move.

5. Open motor cover, loosen jam nut shown in **Figures 106–107**, adjust stop bolt up or down according to how far off blade was from 90°, then repeat **Steps 2–3** until blade stops at 90°.

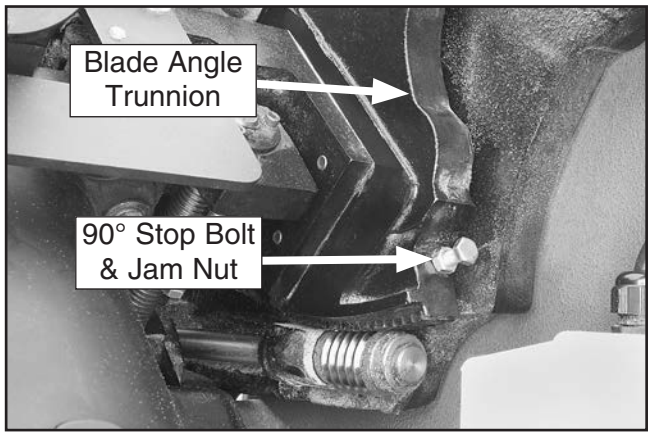


Figure 106. 90° stop bolt and jam nut.

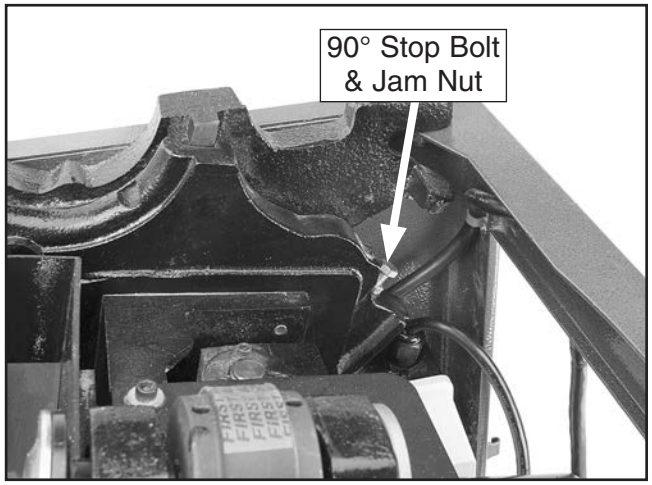


Figure 107. 90° stop bolt and jam nut (table removed for clarity).

6. Tighten jam nut, then close motor cover.

Setting 45° Stop Bolt

1. DISCONNECT MACHINE FROM POWER!

2. Raise blade as high as it will go, then tilt it towards 45° until it stops and cannot be tilted any more.

3. Place a 45° square against table and blade so it contacts blade evenly from bottom to top, as shown in **Figure 108**. Make sure a blade tooth does not obstruct placement of square.

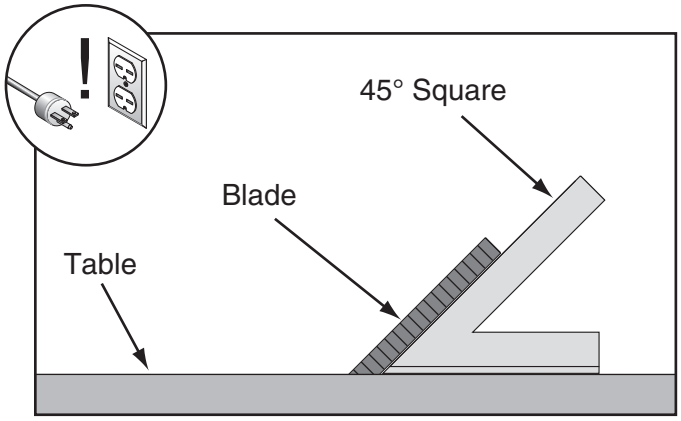


Figure 108. Checking blade at 45°.

— If blade is 45° to table, then adjustments do not need to be made.

— If blade is not 45° to table, you will need to adjust 45° stop screw. Proceed to next step.

4. Open right access door.

5. Tilt blade as needed so there is enough room to adjust stop bolt.

6. Loosen jam nut on 45° stop bolt (see **Figure 109**) then adjust stop bolt in or out according to how far off blade was from 45°.

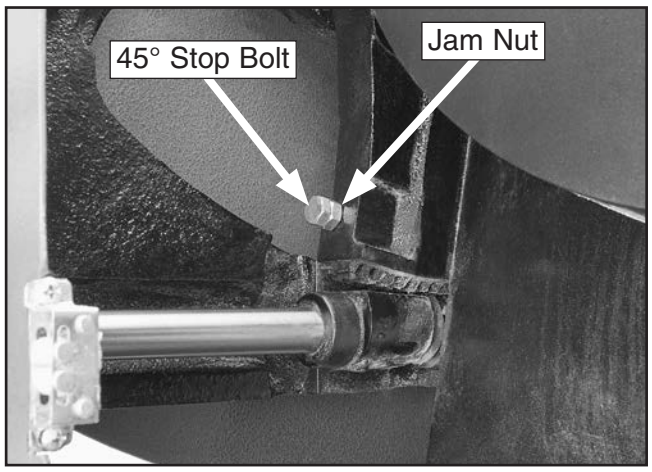


Figure 109. 45° stop bolt and jam nut.

7. Continue adjusting stop bolt until it contacts cabinet when blade is at 45°, then tighten jam nut.

8. Close right access door.

Arbor Height Stop Bolt

The arbor height stop bolt shown in **Figure 110** controls the upper and lower limits of arbor travel. The position of this bolt is factory set, so it does not need to be adjusted.

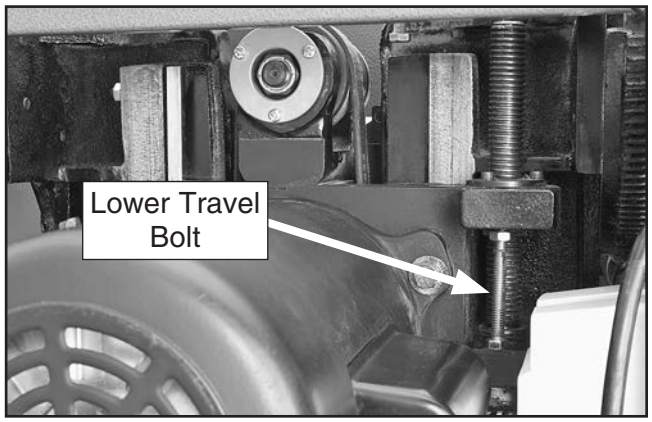


Figure 110. Arbor height limit stops.

Miter Slot to Blade Parallelism

Your table saw will give the best results if the miter slot is parallel with the blade. If these components are not exactly parallel with each other, your cuts and your finished work will be lower in quality, but more importantly, the risk of kickback will be increased.

Tools Needed	**Qty**
Adjustable Square	1
Metal Shim Stock	As Needed
Marker	1
Hex Wrench 8mm	1

To adjust blade parallel to miter slot:

1. DISCONNECT MACHINE FROM POWER!

2. Raise blade to maximum height and tilt it to 90°.

3. Measure from miter slot to a carbide tip on blade, as shown in **Figure 111.**

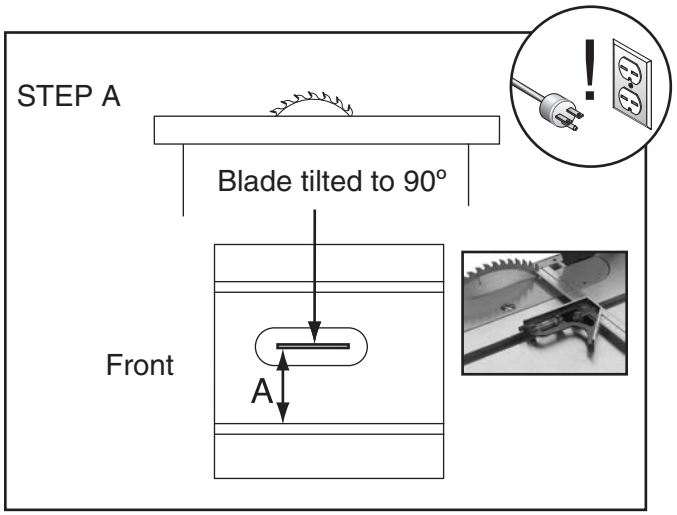


Figure 111. Measuring distance from miter slot to carbide tip of blade.

4. Mark carbide tip with a marker where you made this measurement.

⚠CAUTION

The saw blade is sharp. Use extra care or wear gloves when handling the blade or working near it.

5. Rotate marked blade tip to other end of table insert.

6. Compare distance from marked blade tip to miter slot, as shown in **Figure 112**.

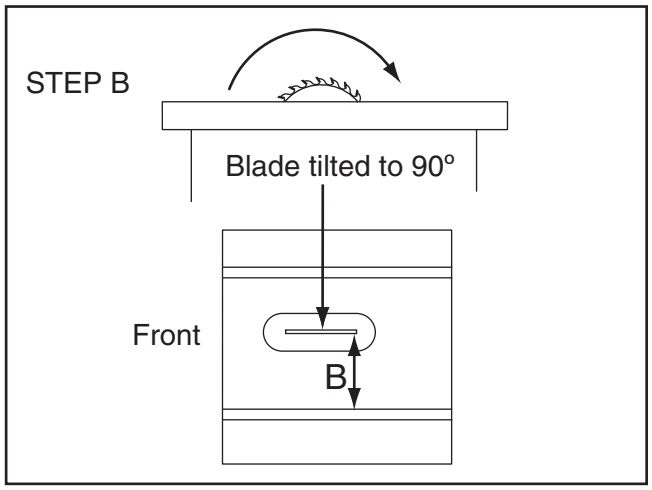


Figure 112. Measuring distance from miter slot to carbide tip on opposite side of table insert.

— If distance between blade tip and miter slot *is not* the same on both sides of table insert, table will need to be adjusted. Proceed to **Step 7**.

— If blade tip measurement *is* the same on both sides, go to **Step 8**.

7. To adjust table, loosen (4) bolts in table mounting locations (see **Figure 113**) and lightly tap table in direction needed to square table to blade. Repeat **Steps 3–6** until blade and miter slot are parallel. Do not forget to tighten table mounting bolts when finished.

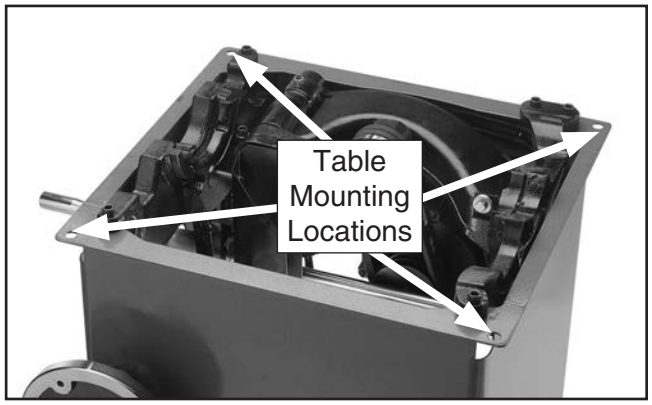


Figure 113. Table mounting bolt holes (table top removed for clarity).

8. Tilt blade to 45° and repeat **Steps 3–6**.

— If blade is still parallel with miter slot no further adjustments need to be made. Go to **Blade Alignment** on **Page 69**.

— If blade was parallel with miter slot at 90° but not at 45°, one end of table will need to be shimmed higher with metal shim stock.

9. Loosen four table mounting bolts.

10. Refer to **Figures 114–115** for shim placement. If distance of A is shorter than B, shim(s) will need to be placed under corners #1 and #2. If distance of B is shorter than A, shim(s) will need to be placed under corners #3 and #4. Very thin shim stock works well.

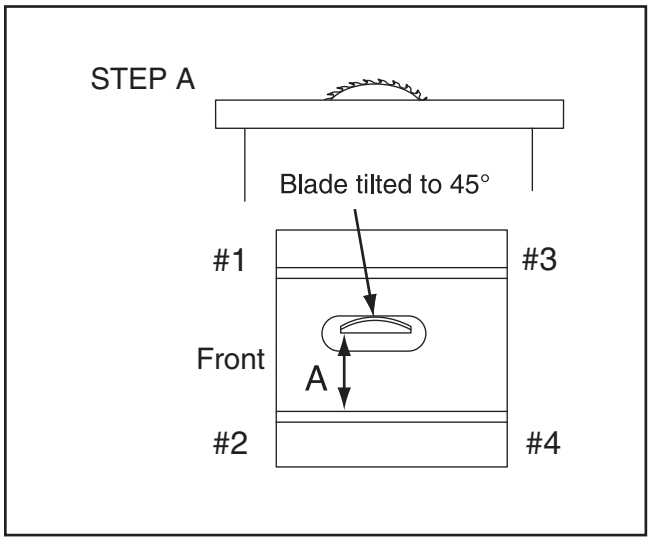


Figure 114. Shim procedure diagram A.

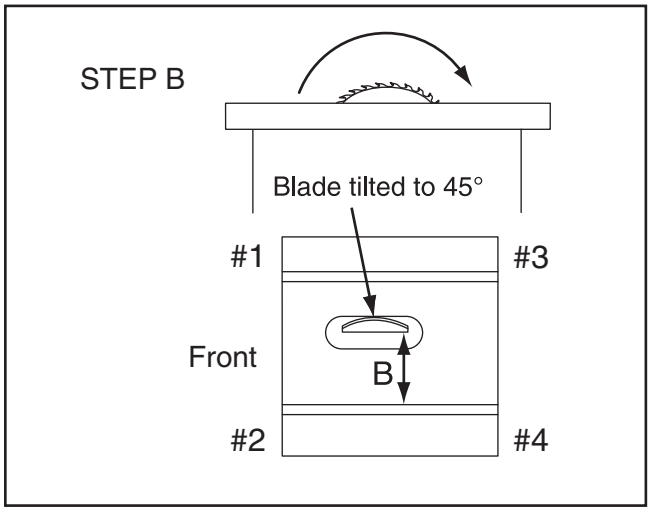


Figure 115. Shim procedure diagram B.

11. Tighten one bolt a small amount and then move on to each of the others, tightening each down the same amount. Continue to rotate through bolts, tightening them a little each time until they are all secure.

12. Now recheck blade to miter slot at 90° and 45° by repeating **Steps 3–6**.

— If distance of A and B are equal, continue to **Step 13**, then go to **Blade Alignment**.

— If distances are still off, repeat this procedure until distances are equal.

13. Once miter slot is adjusted to blade, recheck all measurements and be sure table mounting bolts are secure. Also, if you remove table in the future, note shim placements and reassemble them exactly how they came apart.

Blade Alignment

If the blade contacts the table insert when raised or tilted, the blade must be aligned. The blade can be adjusted by moving the table or trunnion assembly. Try moving the table first, then, if additional adjustment is needed, move the trunnion assembly.

Tools Needed	Qty
Hex Wrench 8mm	1
Wrench 14mm	1

Adjusting Blade Alignment by Moving Table

1. DISCONNECT MACHINE FROM POWER!

2. Loosen four table mounting bolts (**Page 68, Figure 113**) and adjust table until blade does not contact insert. Tighten all mounting bolts.

3. Make sure blade does not contact table insert when raised or tilted. Recheck parallelism of blade to miter slot (refer to **Page 67**). Adjust as necessary until blade does not touch insert.

Adjusting Blade Position by Moving Trunnion

1. DISCONNECT MACHINE FROM POWER!

2. Remove table and wings and set them to one side.

WARNING

This machine and its components are very heavy. Get lifting help or use power lifting equipment such as a forklift to move heavy items.

3. Loosen five trunnion mounting bolts shown in **Figure 116**, and nudge trunnion to either left or right depending on where blade is hitting saw.

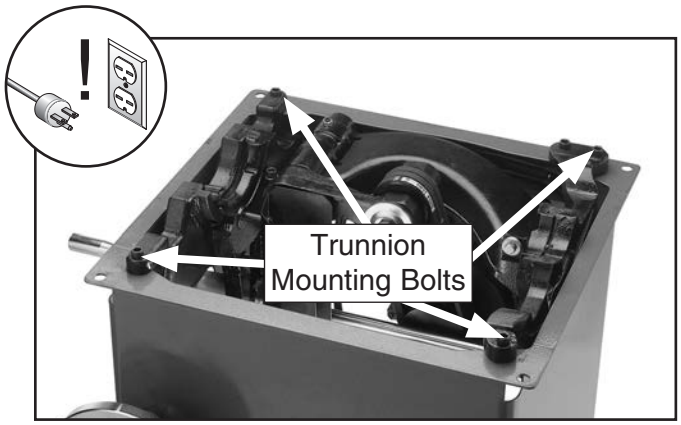


Figure 116. Trunnion mounting bolts.

4. Reattach table, making sure there is adequate blade clearance through all blade adjustments. Adjust as necessary and tighten all bolts.

— If blade still contacts insert, repeat **Steps 2–4**.

5. Once blade is aligned, recheck miter slot to blade parallelism and adjust as necessary (refer to **Page 67**).

Spreader or Riving Knife Alignment

Checking Alignment

The blade guard spreader and riving knife must be aligned with the blade when installed. If the spreader/riving knife is not aligned with the blade, then the workpiece will be forced sideways during the cut, which will increase the risk of kickback.

Tools Needed	Qty
Straightedge	1

To check spreader/riving knife alignment:

1. DISCONNECT MACHINE FROM POWER!

2. Raise saw blade to maximum height so you have easy working access.

3. Check to make sure blade is 90° to table. Follow **Setting 90° Stop Bolt** instructions on **Page 65**.

4. Place straightedge against top and bottom of blade and spreader/riving knife, as shown in **Figure 117**.

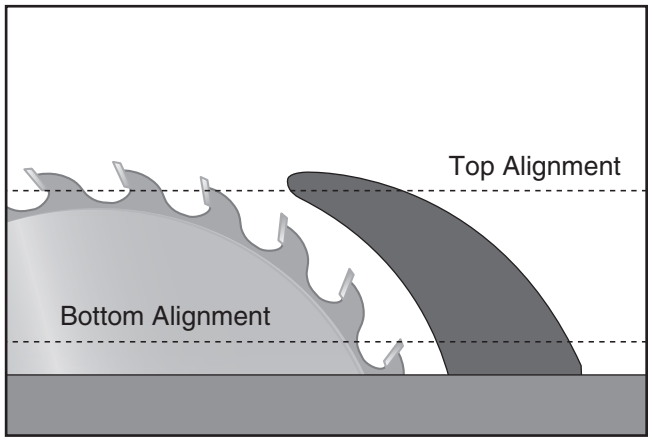


Figure 117. Checking top and bottom riving knife parallelism with blade.

5. Spreader/riving knife should be parallel with blade along its length at both positions and should be in "Alignment Zone," as shown in **Figure 118**.

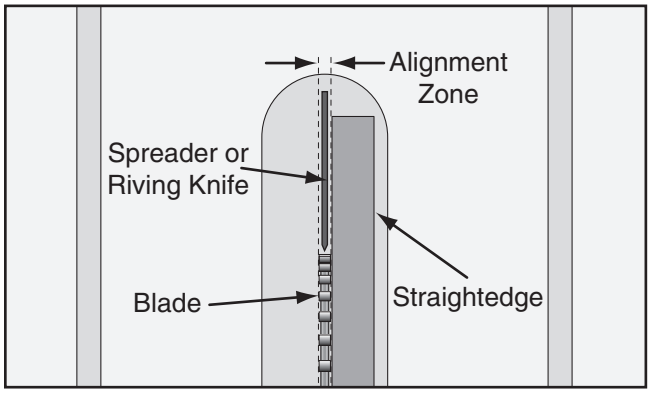


Figure 118. Spreader/riving knife alignment zone.

— If spreader/riving knife is not parallel with blade or is not inside alignment zone, then it needs to be adjusted. Proceed to **Adjusting Alignment** instructions on **Page 71**.

— If spreader/riving knife is not parallel with blade at either top or bottom, it may be bent. Remove spreader/riving knife and place it on a flat surface and check to see if spreader/riving knife lays evenly along its length. If spreader/riving knife does not lay evenly, proceed to **Adjusting Bent Spreader/Riving Knife** on **Page 71**.

Adjusting Alignment

The spreader/riving knife mounts to a block that can be repositioned to correctly align the spreader/riving knife to the blade. The mounting block adjusts by turning the set screws in each corner of the block.

Figure 119 shows the set screws associated with controlling the mounting block position.

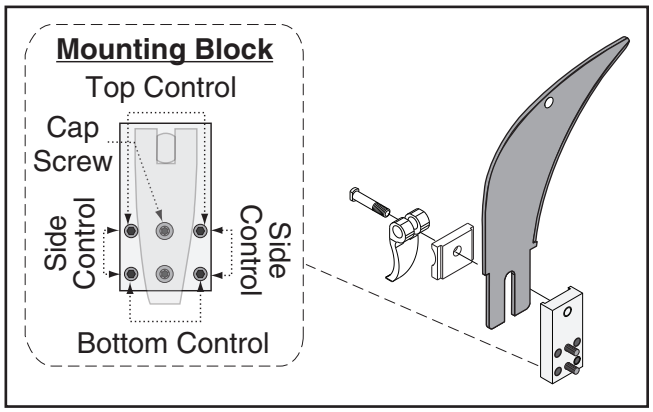


Figure 119. Set screws for adjusting spreader/riving knife position.

Possible Tools Needed	Qty
Hex Wrench 4mm	1
Hex Wrench 5mm	1

To adjust spreader/riving knife position:

1. DISCONNECT MACHINE FROM POWER!

2. Remove table insert.

3. Loosen quick release lever shown in **Figure 120**.

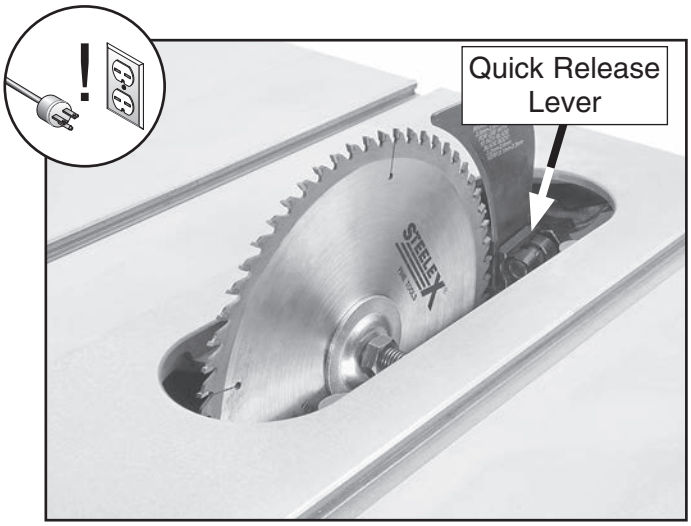


Figure 120. Quick release lever.

4. Loosen (2) cap screws on mounting block, then adjust set screws on block to move it in necessary direction (see "Mounting Block" inset in **Figure 119**).

5. Re-install table insert and spreader/riving knife, then tighten quick release lever.

6. Follow **Checking Alignment**, **Steps 1–4**, on **Page 70**.

   — If spreader/riving knife *is* in alignment zone, no additional steps are necessary.

   — If spreader/riving knife *is not* in alignment zone, continue adjusting set screws on mounting block as necessary to correctly position spreader/riving knife.

7. Tighten (2) cap screws on mounting block to secure spreader/riving knife adjustment.

Adjusting Bent Spreader/Riving Knife

1. DISCONNECT MACHINE FROM POWER!

2. Bend spreader/riving knife by hand while installed, then follow **Steps 1–4** in **Checking Alignment** on **Page 70** to determine if it is parallel with blade and inside "Alignment Zone."

   — If this does not work, remove it to straighten.

   — If you cannot straighten it properly, replace it.

Fence Adjustments

There are three main adjustments for the Shop Fox Classic fence: (1) height, (2) parallelism, and (3) clamping pressure. Keep in mind that these adjustments are interconnected and some trial-and-error may be needed to achieve satisfactory results.

Tools Needed	Qty
Hex Wrench 4mm	1
Hex Wrench 6mm	1
Felt-Tipped Marker	1

Height

The fence should be adjusted high enough off the table that it does not drag across the surface.

To check/adjust fence height to table:

1. DISCONNECT MACHINE FROM POWER!

2. Look at gap between fence and table top.

   — If gap is approximately 1/16" and even from front of table to back (see **Figure 121**), then no additional adjustments are necessary. Proceed to **Clamping Pressure and Parallelism**.

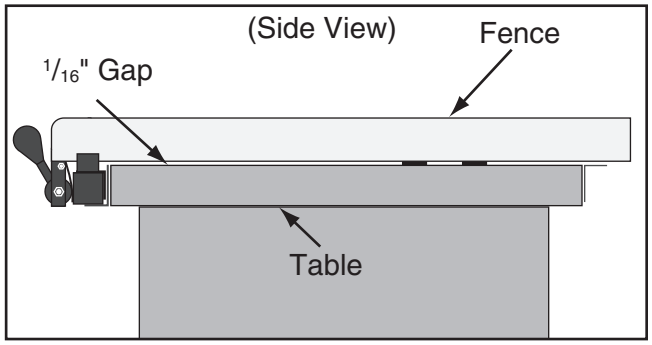


Figure 121. Gap between fence and table approximately 1/16" from to back.

   — If gap is uneven, if fence height is more than 1/8", or if fence touches table, then continue with **Step 3**.

3. Check fence support pads. Over time, pads illustrated in **Figure 122** will wear. Replace if they appear worn.

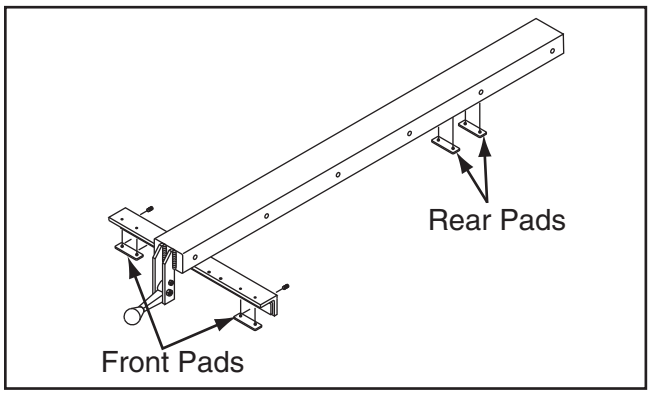


Figure 122. Fence pad locations.

4. Loosen rail mounting bolts and adjust rails as needed until fence rides smoothly, gap is approximately 1/16", and is even from front to back (see **Figure 121**).

Clamping Pressure and Parallelism

The fence clamping mechanism adjusts the clamping pressure to hold your fence securely and to position the fence parallel with the blade.

To verify fence parallelism:

1. Slide fence along rail.

   — If fence drags across table, then loosen rail mounting bolts and adjust rails just enough so gap between fence and table is even from front to back (see **Figure 121**). Tighten rail mounting bolts.

2. Slide fence up against right hand edge of miter slot, lock it in place, then raise blade to its maximum height. Examine how fence lines up with miter slot and blade, as shown in **Figure 123**.

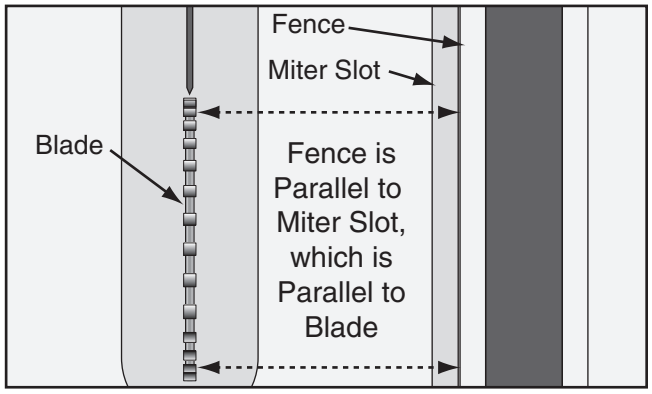


Figure 123. Checking fence parallelism with blade.

Note: *It is permissible for the back of the fence to pivot outward 1/64" from being parallel with the blade (see **Figure 126** on **Page 74**). Many woodworkers intentionally set up their fence in this manner. This creates a slightly larger opening between the fence and the rear of the blade to reduce the risk of workpiece binding or burning as it is fed through the cut. Keep this in mind before adjusting your fence.*

— If fence/miter slot *are* parallel with blade, as shown in **Figure 123**, no further adjustments need to be made.

— If fence *is not* parallel with blade/miter slot, then you must adjust fence parallel with blade.

— If miter slot *is not* parallel with blade, you must follow procedures described in **Miter Slot to Blade Parallelism** on **Page 67**.

To adjust fence clamping pressure and parallelism to blade:

1. DISCONNECT MACHINE FROM POWER!

2. Remove fence and equally adjust set screws shown in **Figure 124** as necessary, then re-install fence, lock it in place, and check clamping pressure. Re-adjust as necessary until fence will not move as pressure is applied against it.

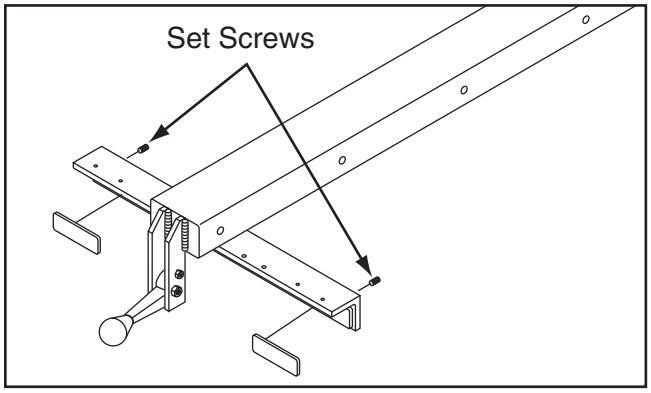


Figure 124. Location of set screws used to adjust fence parallelism and clamping pressure.

3. Mount fence on rail again, move it approximately 4" away from blade, and lock it in place.

4. Measure distance between fence and front of blade, then mark tooth you measured from with a felt-tipped marker.

5. Rotate blade 180° (see **Figure 125**), and recheck distance between fence and blade tooth you marked in **Step 4** to ensure they are parallel.

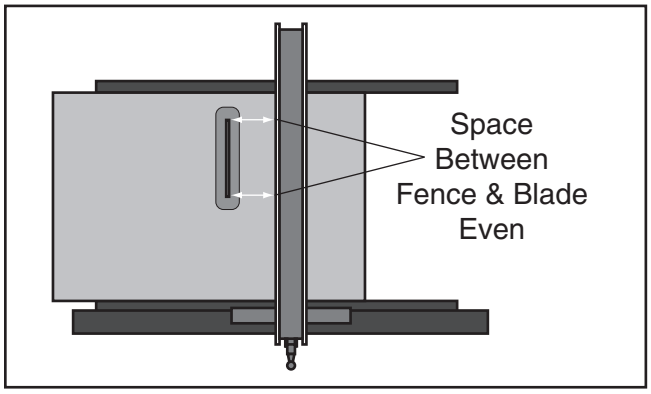


Figure 125. Example of fence aligned parallel with miter slot.

6. Use trial-and-error to adjust set screws (see **Figure 124** on **Page 73**) so fence is parallel with blade and clamping pressure is sufficient.

   Optional: Some woodworkers prefer to offset the rear of the fence 1/64" from the blade, as shown in **Figure 126**. The reason for this wider gap at the back side of the blade is to help prevent the chance of kickback and the blade burning the workpiece because a workpiece may be inconsistent. However, the trade-off is less accurate cuts, and if the fence is placed on the other side of blade for other table saw operations, the potential of workpiece burning and kickback can be increased. Whenever using a fence, make sure that if an offset has been adjusted in the fence alignment, you use the fence on the side of the blade where the offset creates the wide gap.

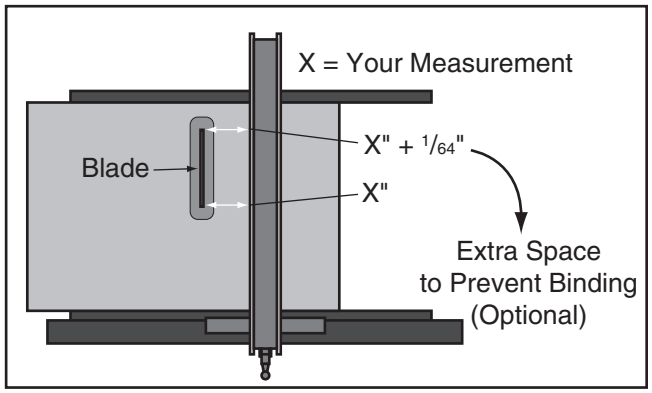


Figure 126. Adjusting fence with a 1/64" offset.

Fence Scale Calibration

The fence scale indicator window, shown in **Figure 127**, can be calibrated with the fence scale if you notice that your cuts do not accurately match what is shown on the fence scale.

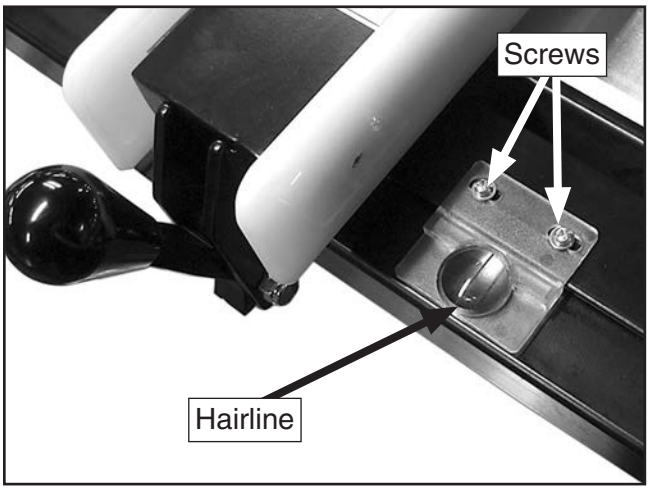


Figure 127. Fence indicator window.

The indicator adjusts by loosening the two mounting screws and sliding it in the desired direction.

Tools Needed	**Qty**
Phillips Screwdriver	1
Scrap Piece of Wood	1

To calibrate fence scale indicator window:

1. Position and lock fence at 13", as indicated by scale, cut your scrap piece of wood.

2. Reposition and lock fence at 12", as indicated by scale.

3. Flip your scrap piece of wood over, placing side that was cut in **Step 2** against fence, and cut your scrap piece of wood.

4. Measure width of freshly cut workpiece with a tape measure. Workpiece width should be exactly 12". If it is not, then adjust indicator window hairline to match width of workpiece.

Table/Dado Insert Adjustment

The table/dado insert must sit perfectly flush with the table to provide a smooth, continuous surface for the workpiece to slide over. The insert is held in place by a magnet and sits on top of four adjustment screws (see **Figure 128**).

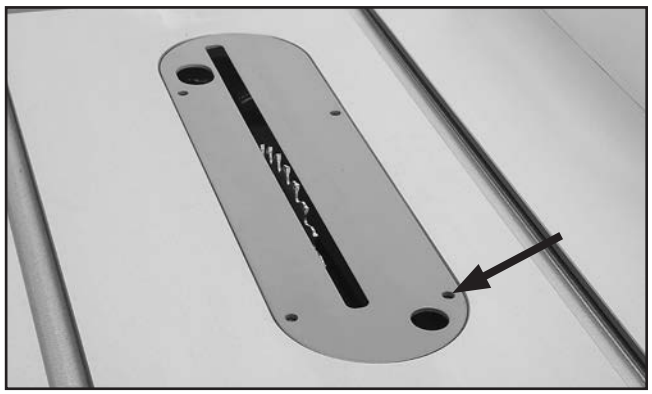


Figure 128. Location of table/dado insert holes with adjustment screws.

The insert should be checked and adjusted any time it is removed and replaced, after prolonged use, or any time you notice the workpiece or fence does not slide smoothly over the insert.

Tools Needed	Qty
Hex Wrench 3mm	1
Straightedge	1

To check and adjust insert:

1. DISCONNECT MACHINE FROM POWER!

2. Place straightedge across insert and check to make sure insert is flush with table at front and back of throat.

   — If insert is flush with table, no adjustments are necessary.

   — If insert is not flush with table, proceed to **Step 3**.

3. Insert hex wrench through holes shown in **Figure 128**. Loosen screws to raise insert, or tighten screws to lower it.

4. Repeat **Steps 2–3** until insert is flush.

Miter Gauge Adjustments

The miter gauge (see **Figure 129**) is equipped with stop screws that allow you to easily adjust the miter gauge from 45° to the left, 90°, and 45° to the right. The stop screws contact a stop link, which moves in or out of the way for adjustments. Also, a pair of set screws can be adjusted so the miter bar is snug in the T-slot.

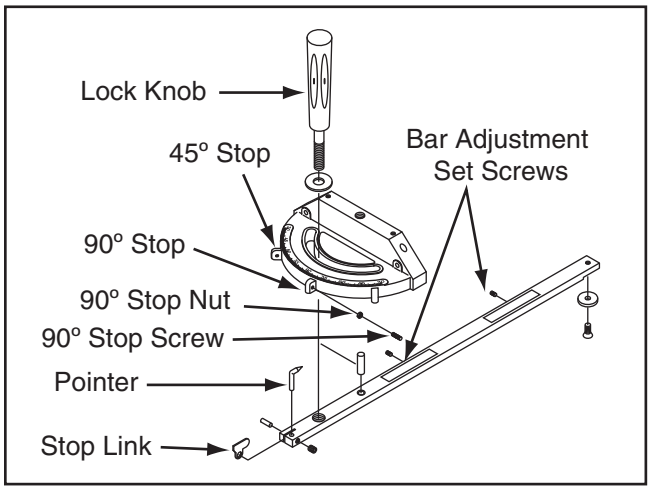


Figure 129. Miter gauge features.

Tools Needed	Qty
90° Square	1
45° Square	1
Hex Wrench 2.5mm	1
Hex Wrench 2mm	1

Checking/Setting 90° Stops

1. DISCONNECT MACHINE FROM POWER!

2. Slide miter gauge into T-slot on table.

3. Loosen miter gauge lock knob, raise stop link (see **Figure 129**) all the way up.

4. Pivot miter gauge body so 90° stop screw rests against stop link, then tighten lock knob.

5. Place square evenly against face of miter gauge and blade, as shown in **Figure 130**.

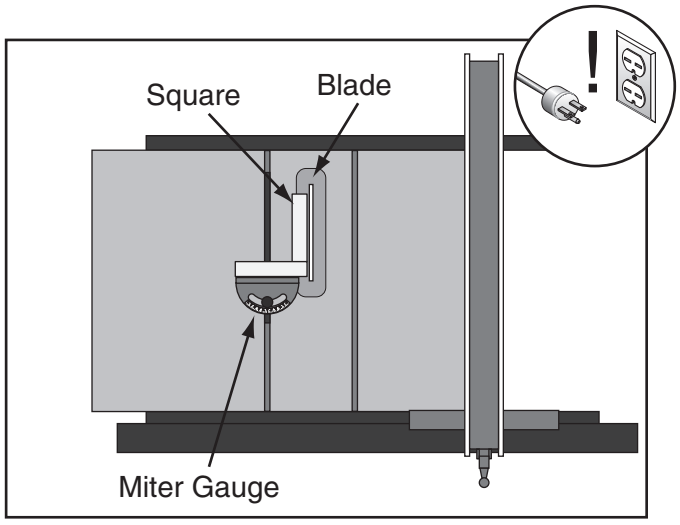


Figure 130. Checking 90° stop on miter gauge.

— If square touches miter body and body of blade (not teeth) evenly at the same time, then miter gauge is square to blade and 90° stop is set correctly. No further adjustments are necessary. Go to **Checking/ Setting 45° Stops**.

— If square *does not* touch miter body and blade body evenly at the same time, then proceed to **Step 6**.

6. Loosen hex nut (jam nut) that secures 90° stop screw and adjust stop screw until it is seated against stop link while square is evenly touching miter body and blade body, then tighten hex nut.

7. Loosen set screw on right front side of miter bar, adjust pointer to 0°, then tighten screw.

Checking/Setting 45° Stops

Follow the same process with the 45° stops that you followed with the 90°, except using a 45° square or adjustable square to verify that the miter body is 45° to the blade, as shown in **Figure 131**.

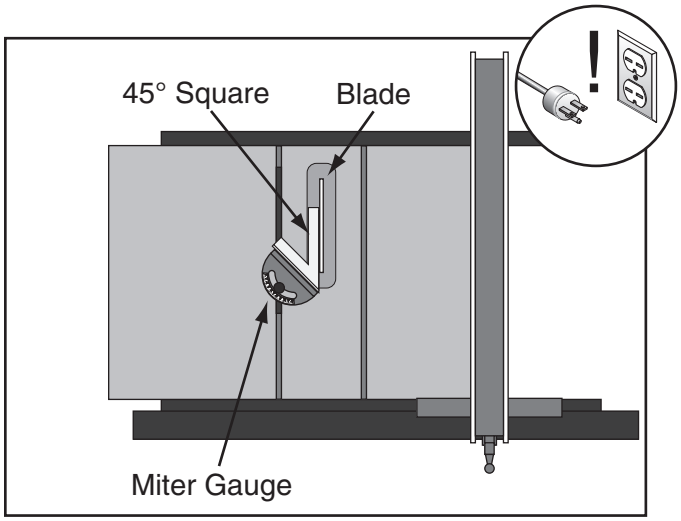


Figure 131. Checking 45° stop on miter gauge.

Adjusting Miter Bar Tightness

1. Adjust set screws shown in **Figure 132**.

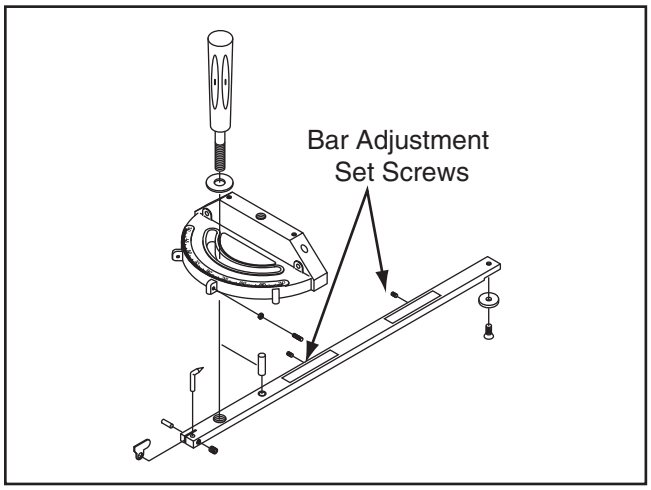


Figure 132. Screws for adjusting miter bar in miter slot.

2. Test fit miter bar in T-slot until it is snug.

Belt Tension & Replacement

The belt stretches slightly as the saw is used. Most of the belt stretching will happen during the first 16 hours of use, but it may continue in small increments through continued use.

To ensure optimum power transmission from the motor to the blade, the belt must be in good condition. Replace the belt if it becomes cracked, frayed, or glazed.

The belt should perform well for years. Since this is an infrequent procedure, and the arbor bearings have to be removed to take the belt off, we recommend replacing the bearings and belt simultaneously. It will take approximately one hour to replace these components.

Tools Needed	Qty
Arbor Wrench	1
Phillips Head Screwdriver	1
Wood Block 9" Long 4x4 or 2x4	1
Wrench or Socket 13mm	1
Wrench or Socket 14mm	1
Wrench or Socket 18mm	1
Wrench or Socket 25mm	1
Hex Wrench 3mm	1
Hex Wrench 8mm	1
Punch	1
Hammer	1
Rubber Hammer	1
Vise	1
Replacement Ball Bearings 6203-2RS	2

Tensioning Belt

1. DISCONNECT MACHINE FROM POWER!

2. Lower blade completely, then open motor cover.

3. Loosen two hex bolts on motor (see **Figure 133**), and pivot motor up and down to make sure that it is movable.

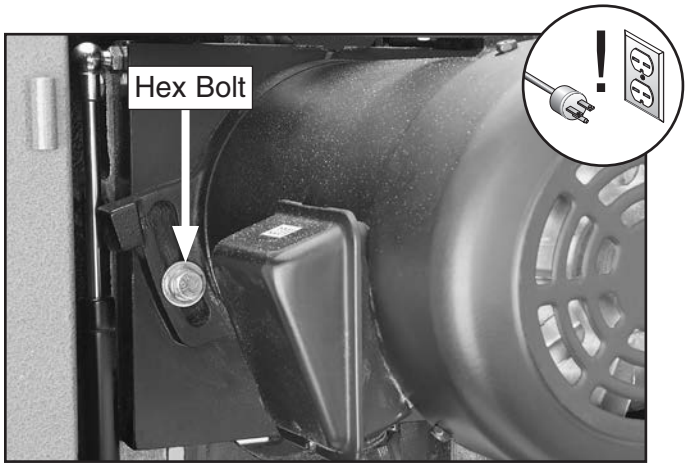


Figure 133. Belt tension adjustment bolt (one of two shown).

4. Press down on motor with one hand to keep belt tension tight and tighten hex bolt.

5. Press flat belt in center to check belt tension.

   Belt is correctly tensioned when there is approximately ½" deflection when it is pushed with moderate pressure, as shown in **Figure 134**.

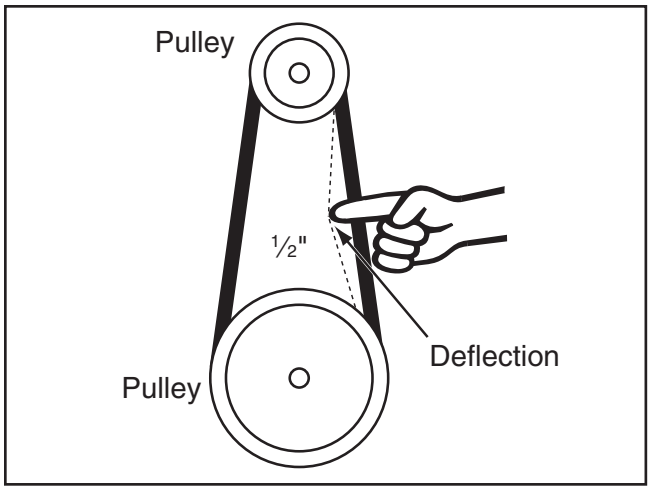


Figure 134. Checking belt tension.

   — If there is more than ½" deflection when flat belt is pushed with moderate pressure, loosen hex bolt, adjust motor downward, then tighten two hex bolts.

6. Close motor cover.

Replacing Belt

1. DISCONNECT MACHINE FROM POWER!
2. Remove table insert.
3. Remove ON/OFF switch from table.
4. Remove four table mounting bolts.
5. With help of an another person, lift table off of cabinet and set it aside.
6. Note location and quantity of any shims on cabinet top, then set them aside.
7. Remove cap screws that secure dust collection chute, shown in **Figure 135**, then remove chute.

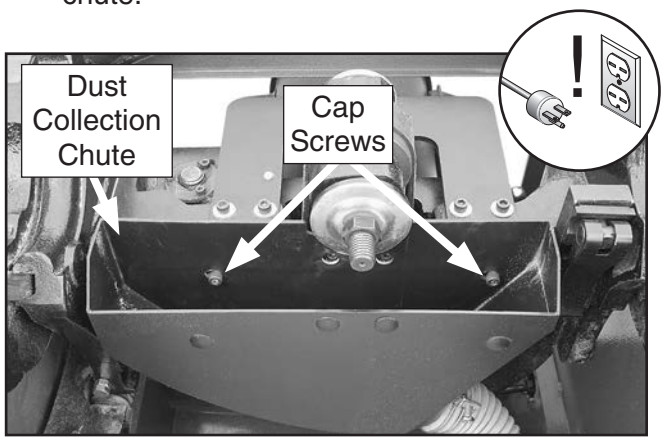


Figure 135. Dust chute mounting screws.

8. Remove cap screws that secure mounting plate shown in **Figure 136**, then remove plate.

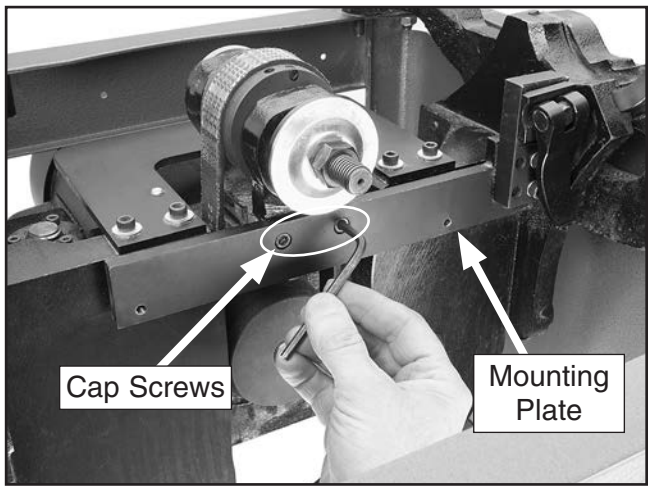


Figure 136. Removing mounting plate.

9. Loosen motor adjustment bolt (see **Figure 133** on **Page 77**).
10. Remove (3) Phillips head screws on bearing retainer, shown in **Figure 137**, then remove retainer.

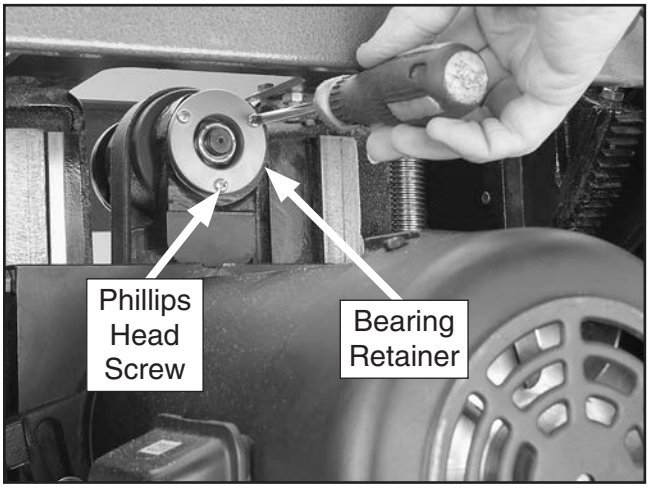


Figure 137. Removing bearing shield.

11. Place open end of arbor wrench on arbor, and while keeping arbor stationary, use a 25mm wrench to loosen and remove lock nut at other end of arbor, as shown in **Figure 138**.

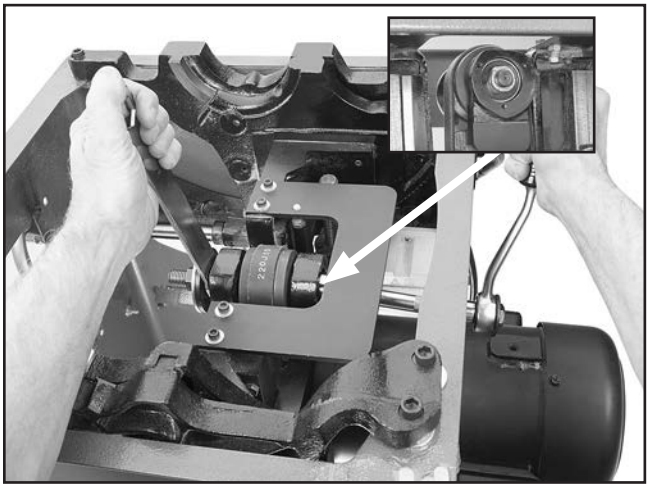


Figure 138. Removing arbor lock nut. (Inset: arbor lock nut.)

12. Loosen set screws shown in **Figure 139**.

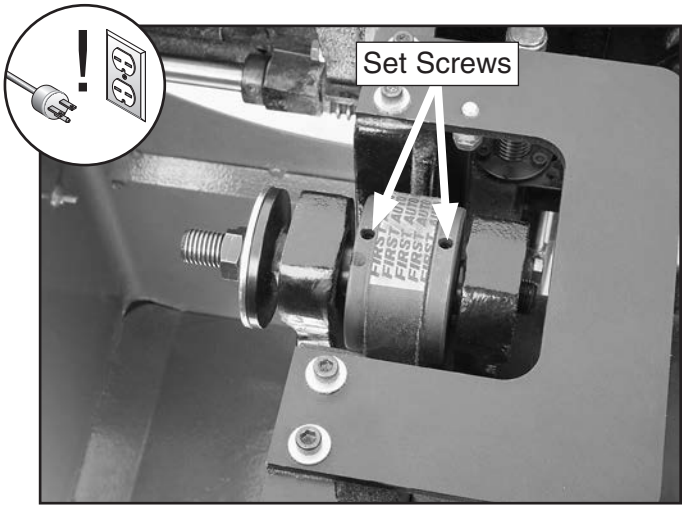


Figure 139. Location of arbor set screws.

13. Use punch and hammer to drive arbor out, as shown in **Figure 140**. Have another person catch arbor so it does not drop and become damaged.

Figure 140. Removing arbor.

14. Pivot motor up, tighten motor bolt, then remove belt from top and bottom pulleys.

15. Remove rear spacer from bearing housing (see **Figure 141**).

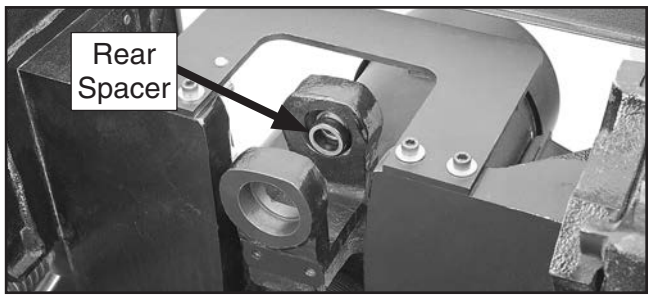


Figure 141. Location of rear spacer.

16. Tap rear arbor bearing out; make sure another person catches bearing.

17. Remove key and larger front spacer from arbor and set these aside.

18. Place arbor in a vise, as shown in **Figure 142**, with vise teeth clamping bearing, then use a soft rubber hammer to force arbor out of bearing.

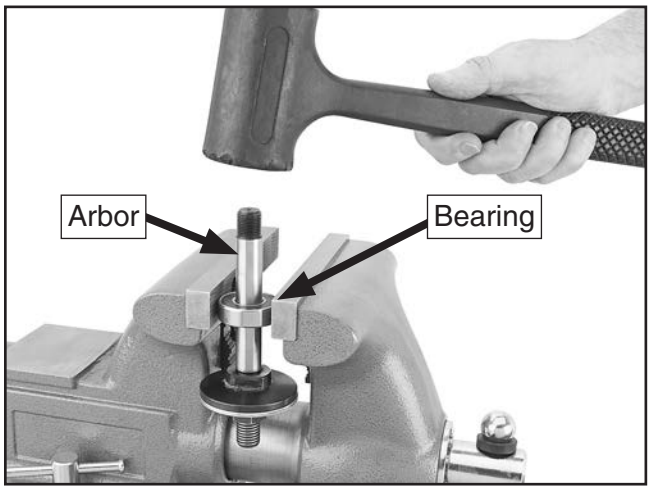


Figure 142. Removing arbor bearing.

19. Slide new 6203-2RS ball bearing (PN# P1023RL100), onto arbor shaft, then place arbor between vise teeth, as shown in **Figure 143**.

20. Using rubber hammer, seat arbor onto bearing (see **Figure 143**), then remove it from vise.

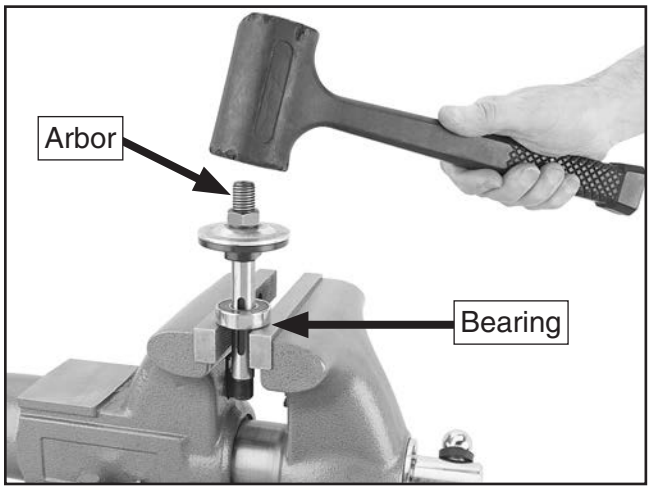


Figure 143. Seating arbor into new bearing.

21. Re-install larger front spacer and key onto arbor. Arbor should look like arbor shown in **Figure 144**.

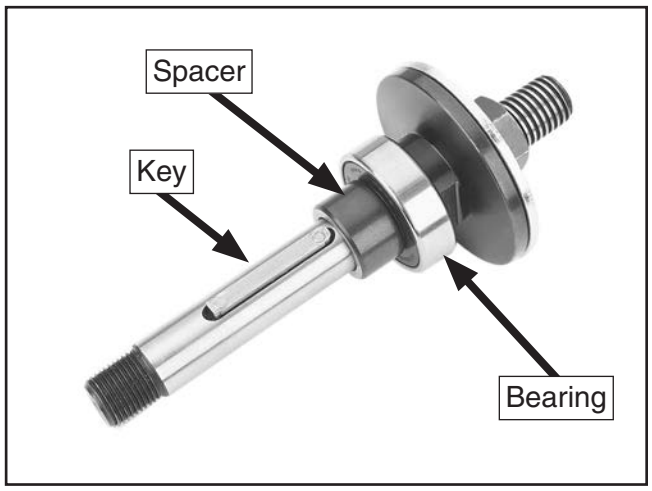


Figure 144. Components re-installed on arbor.

22. Lift motor to its maximum elevation, then secure motor adjustment bolt.

23. Place belt onto bottom motor pulley, then wrap belt around arbor housing bracket above it.

24. Place arbor pulley between arbor housing brackets, slide belt over pulley, then insert arbor into pulley, as shown in **Figure 145**.

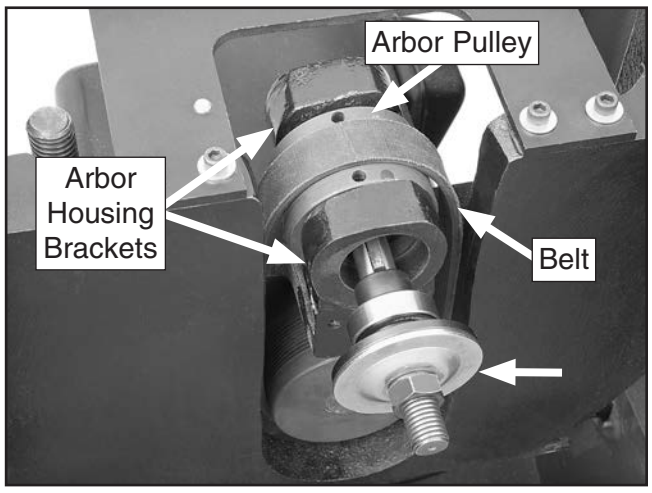


Figure 145. Re-installing arbor and belt.

25. Tap arbor shaft into pulley, making sure shaft is straight.

26. Install rear spacer onto end of arbor.

27. Use block of wood to seat new 6203-2RS bearing (PN# P1023RL100) into end of arbor.

28. Thread lock nut onto arbor shaft, place open end of arbor wrench on arbor, and use 25mm wrench to tighten nut so it is snug, but not too tight.

29. Re-install bearing retainer with (3) Phillips head screws removed earlier.

30. Tighten pulley set screws shown in **Figure 139** on **Page 79**.

31. Check position of belt on pulley sheaths; adjust if necessary so it is centered.

32. Tension belt (refer to **Tensioning Belt** on **Page 77**).

33. Re-install mounting plate and dust chute with cap screws removed in **Step 7**.

34. Replace shims at locations from which they came.

35. With help from an assistant, lift table and place it on top of cabinet. Align mounting holes in table and cabinet, then secure table with mounting bolts.

36. Re-install table insert and close motor cover.

37. Verify that blade and miter slot are parallel at 90° and 45° (refer to instructions on **Page 67**).

38. Raise blade all the way up, then tilt blade to 45°.

— If blade *does not* touch insert, no further adjustments need to be made.

— If blade *does* touch insert, loosen table mounting bolts, adjust table until blade does not touch insert, then tighten mounting bolts. Re-check miter slot to blade parallelism and adjust as needed.

Gib Adjustment

The Model G1023RL series has an elevation slide gib that can be adjusted to ensure smooth, consistent movement of the arbor.

When adjusting the elevation slide gib, the goal is to remove unnecessary sloppiness from the movement of the sliding surfaces without causing them to bind. If the elevation slide gib is loose, you will notice sloppy, inconsistent movement of the arbor as you move the blade height handwheel. If the gib is too tight, it will be difficult to move the arbor up and down.

Tension is applied to the gib by the four adjustment set screws shown in **Figure 146**.

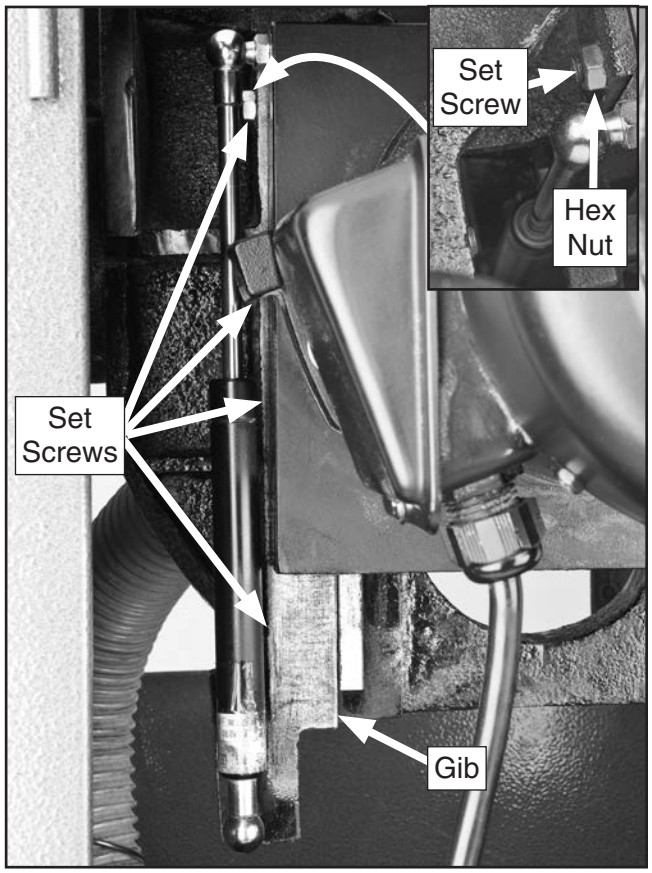


Figure 146. Elevation slide gib components.

Tools Needed	**Qty**
Wrench or Socket 12mm	1
Hex Wrench 4mm	1

To adjust elevation slide gib:

1. DISCONNECT MACHINE FROM POWER!

2. Loosen hex nuts securing (4) adjustment set screws shown in **Figure 146**, then back off each set screw one full turn to release pressure on gib.

   Note: *Exercise patience, as some of the nuts and screws may be difficult to reach due to tight space constraints.*

3. Using elevation height handwheel, move arbor up and down along its full range of movement to fully release gib.

4. Tighten each set screw ¼ turn, then move arbor up and down to test results.

5. Repeat **Step 4** until you are satisfied with results, then re-tighten hex nuts without moving set screws.

SECTION 9: WIRING

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

If there are differences between your machine and what is shown in this section, call Technical Support at (570) 546-9663 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** *Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.*

⚠WARNING
Wiring Safety Instructions

SHOCK HAZARD. Working on wiring that is connected to a power source is extremely dangerous. Touching electrified parts will result in personal injury including but not limited to severe burns, electrocution, or death. Disconnect the power from the machine before servicing electrical components!

MODIFICATIONS. Modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire. This includes the installation of unapproved aftermarket parts.

WIRE CONNECTIONS. All connections must be tight to prevent wires from loosening during machine operation. Double-check all wires disconnected or connected during any wiring task to ensure tight connections.

CIRCUIT REQUIREMENTS. You MUST follow the requirements at the beginning of this manual when connecting your machine to a power source.

WIRE/COMPONENT DAMAGE. Damaged wires or components increase the risk of serious personal injury, fire, or machine damage. If you notice that any wires or components are damaged while performing a wiring task, replace those wires or components.

MOTOR WIRING. The motor wiring shown in these diagrams is current at the time of printing but may not match your machine. If you find this to be the case, use the wiring diagram inside the motor junction box.

CAPACITORS/INVERTERS. Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

EXPERIENCING DIFFICULTIES. If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (570) 546-9663.

NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at www.grizzly.com.

COLOR KEY

BLACK	Bk	BLUE	Bl	YELLOW	Yl	LIGHT BLUE	Lb
WHITE	Wt	BROWN	Br	YELLOW GREEN	Yg	BLUE WHITE	Bw
GREEN	Gn	GRAY	Gy	PURPLE	Pu	TURQUOISE	Tu
RED	Rd	ORANGE	Or	PINK	Pk		

READ ELECTRICAL SAFETY ON PAGE 82!

G1023RL/RLX/RLW Electrical Components
3HP, 240V, 1-Ph

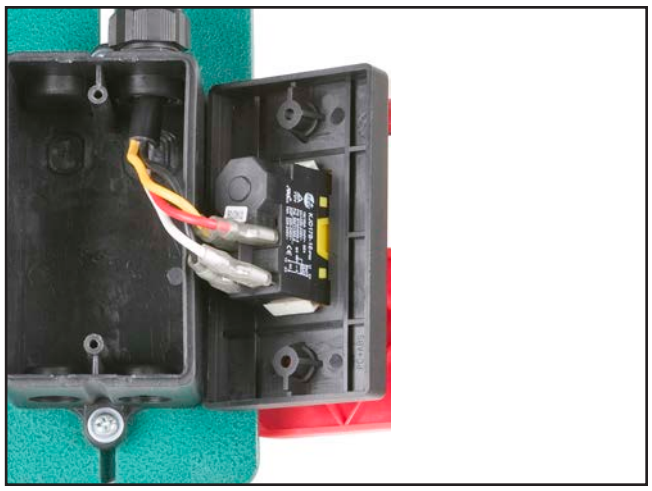


Figure 147. ON/OFF switch.

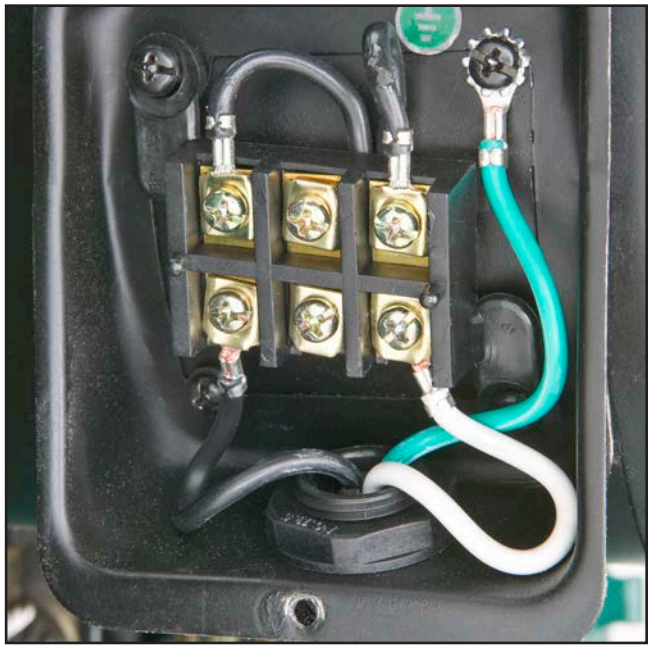


Figure 148. Motor junction box.

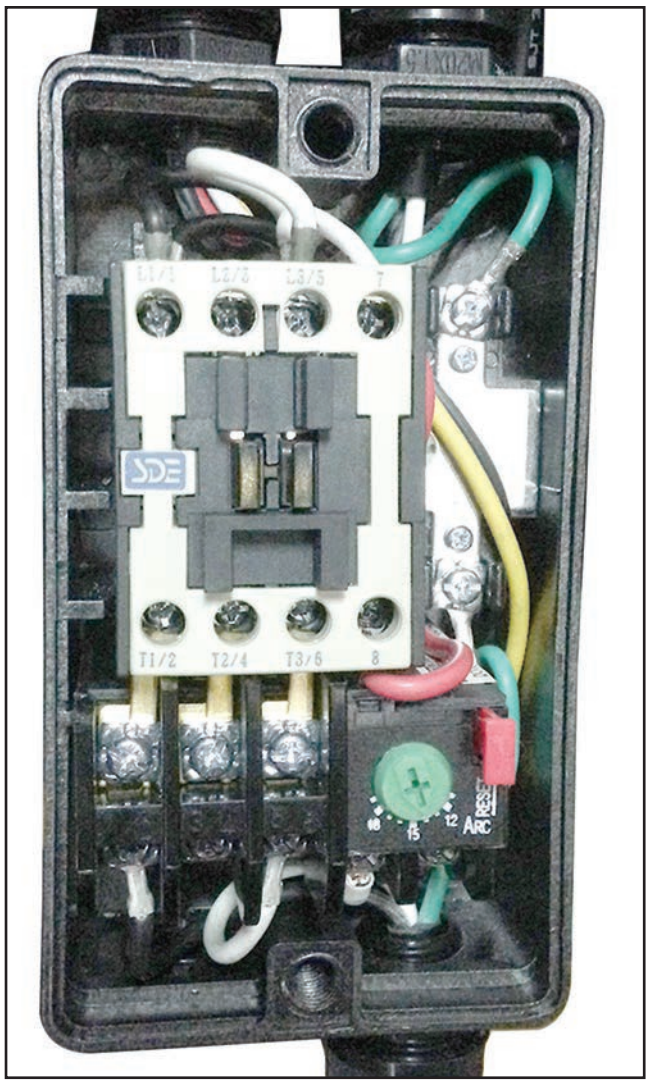
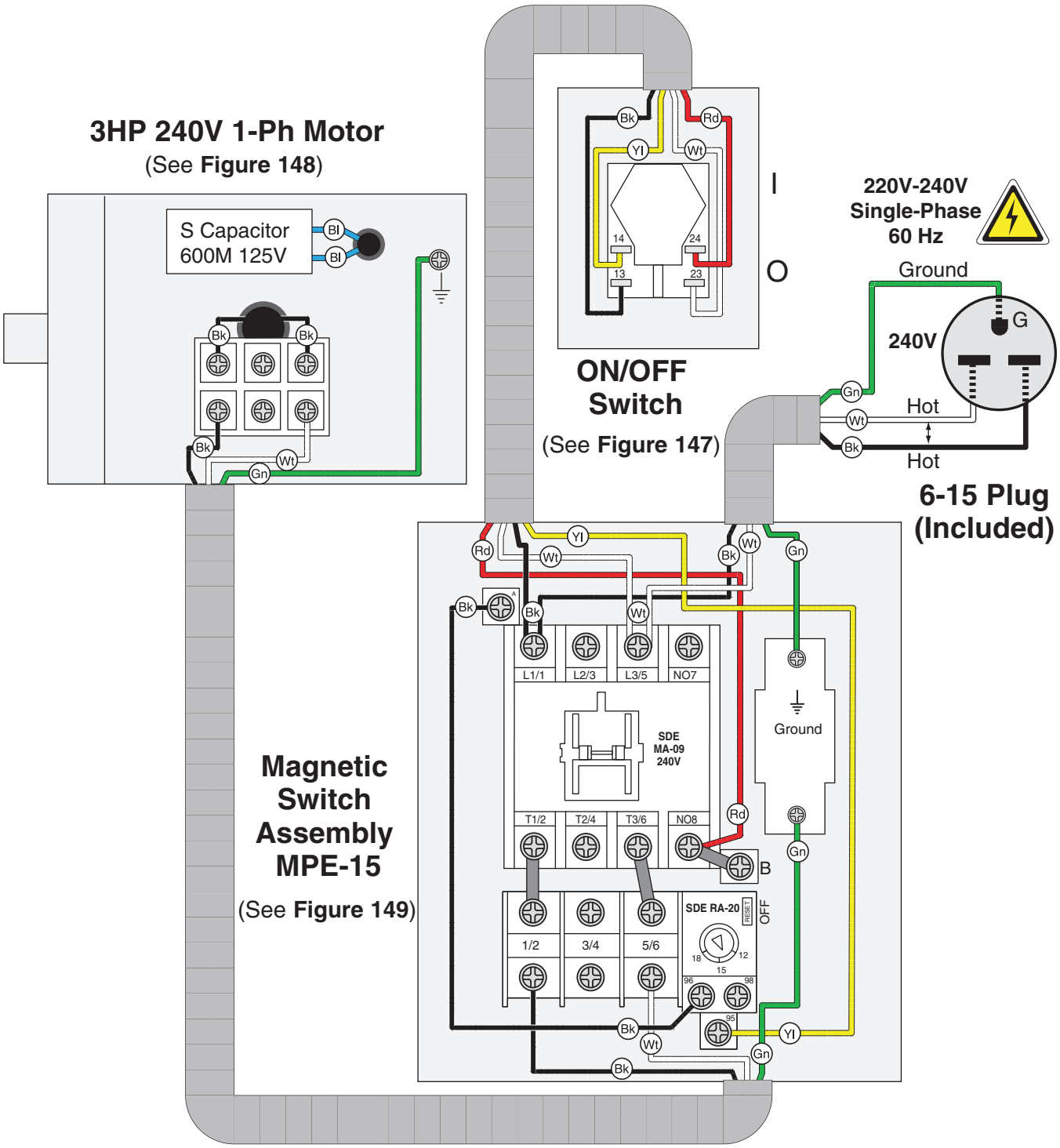


Figure 149. Magnetic switch.

Figure 150. Start capacitor.

G1023RL/RLX/RLW Wiring 3HP, 240V, 1-Ph



STOP *READ ELECTRICAL SAFETY ON PAGE 82!*

G1023RLWX/RLX5 Electrical Components
5HP, 240V, 1-Ph

Figure 151. Run capacitor.

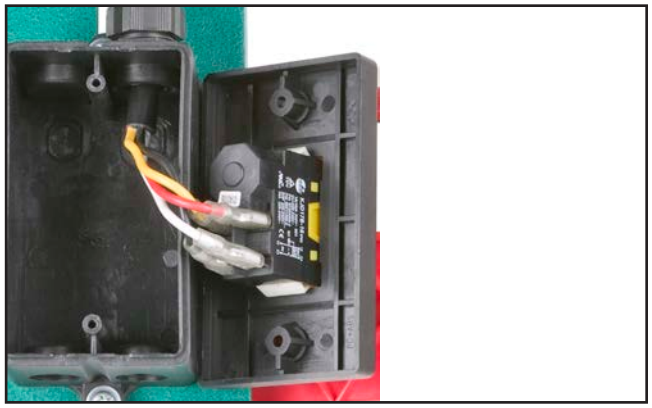


Figure 152. ON/OFF switch.

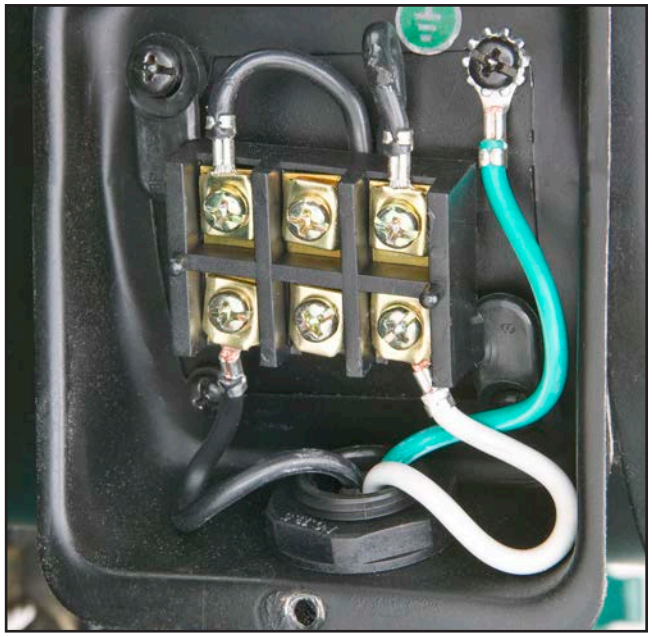


Figure 153. Motor junction box.

Figure 154. Start capacitor.

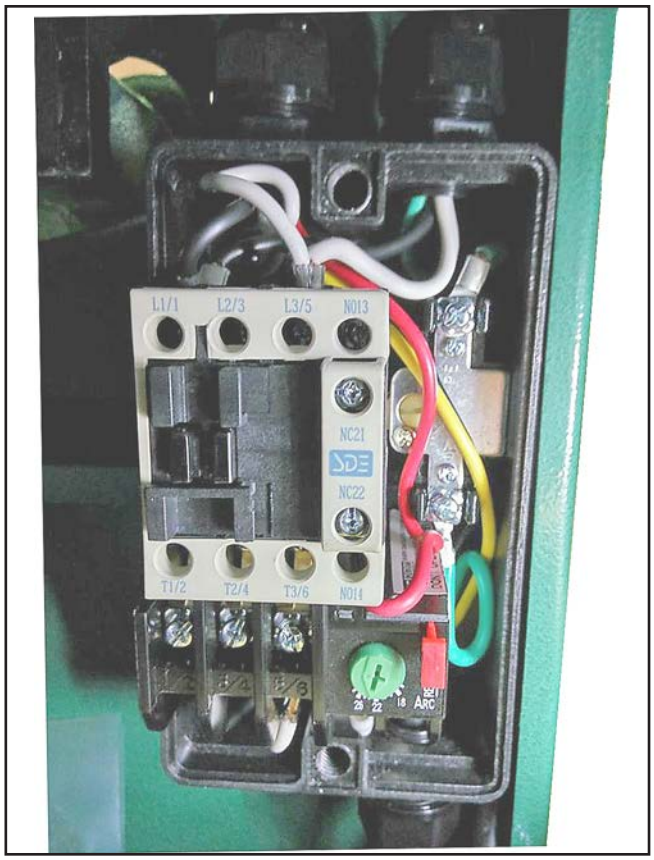
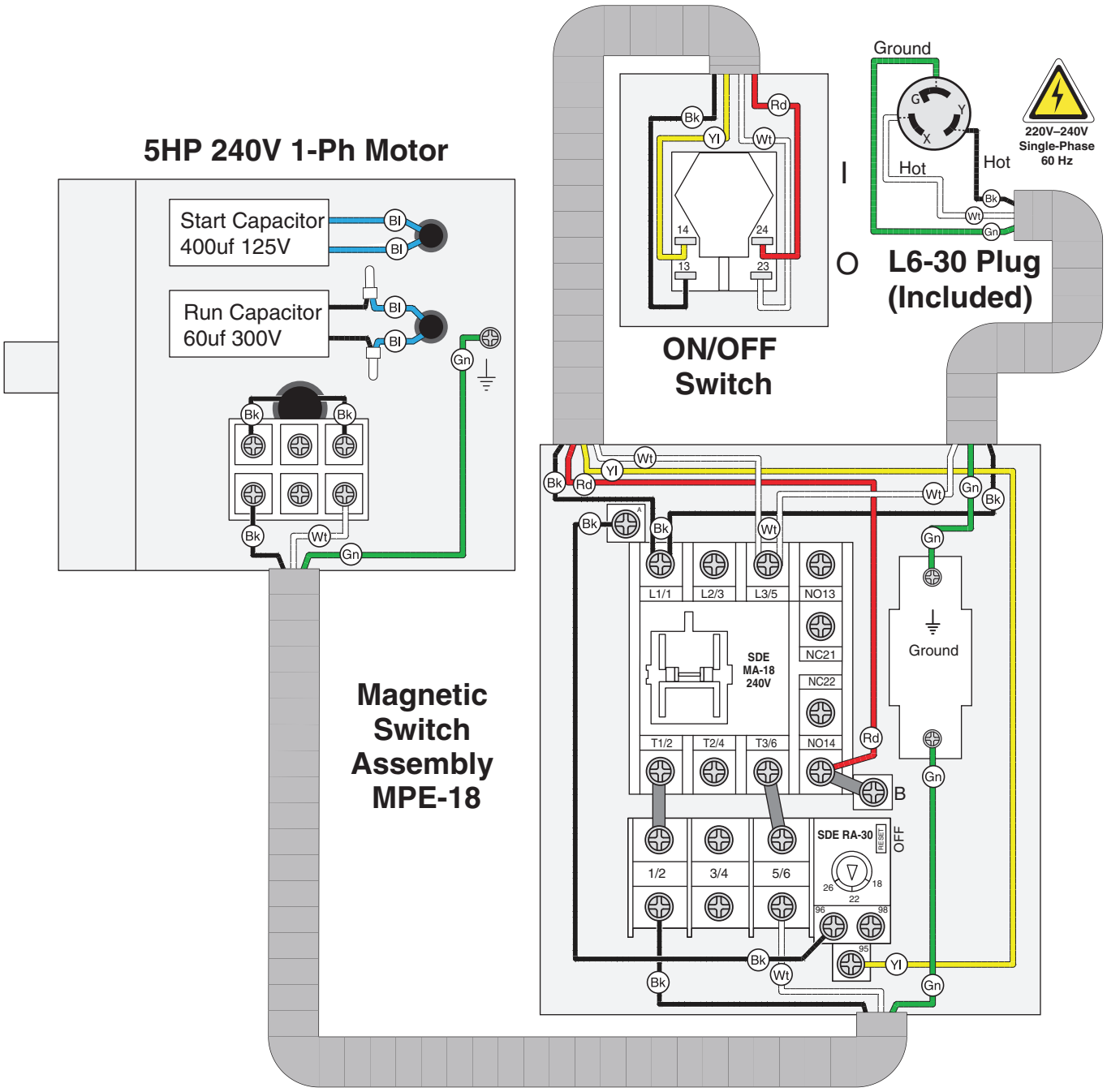


Figure 155. Magnetic switch.

STOP *READ ELECTRICAL SAFETY ON PAGE 82!*

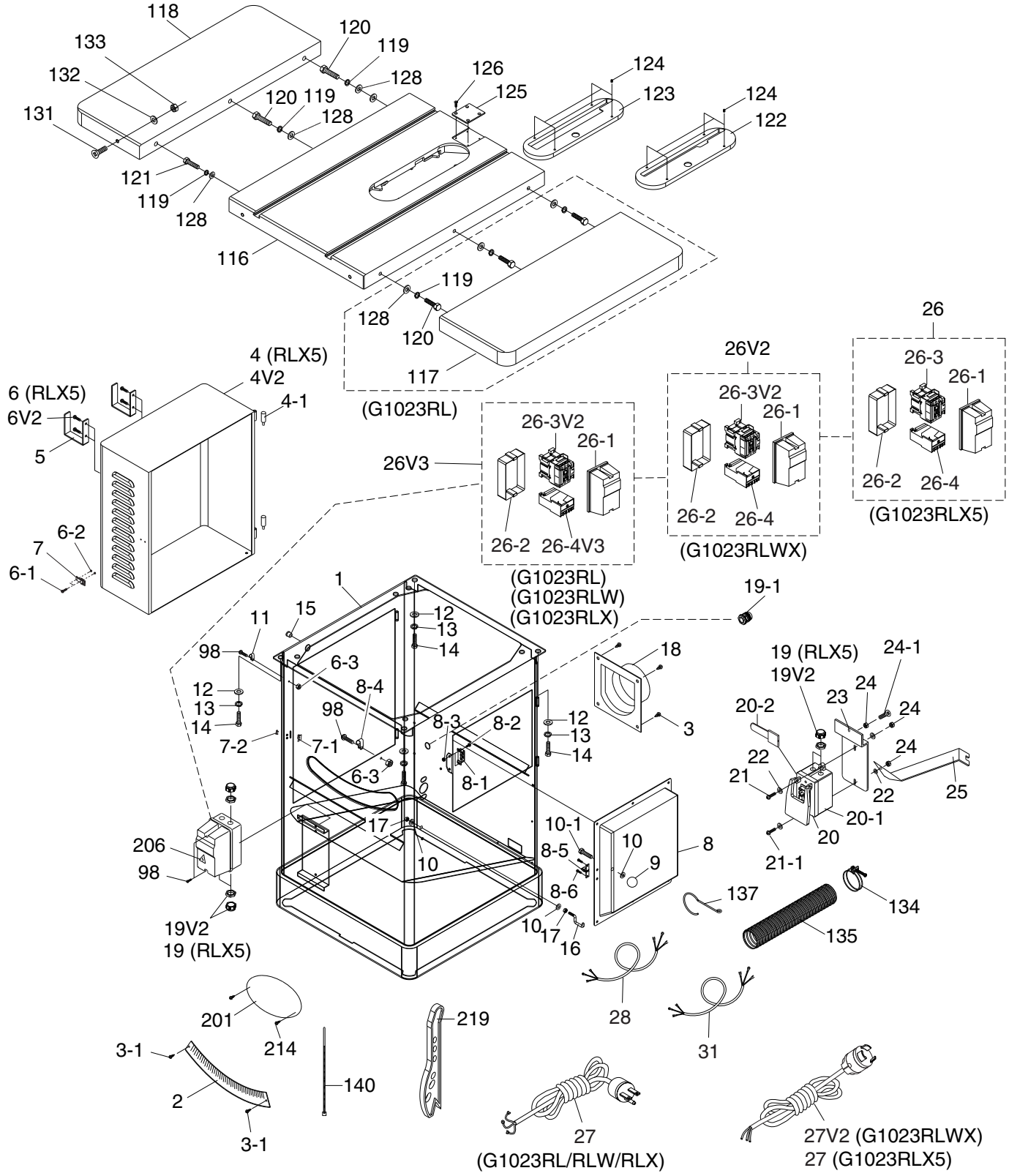
G1023RLWX/RLX5 Wiring 5HP, 240V, 1-Ph



STOP *READ ELECTRICAL SAFETY ON PAGE 82!*

SECTION 10: PARTS

G1023RL (All) Main



G1023RL (All) Main Parts

REF	PART #	DESCRIPTION
1	P1023RL001	CABINET
2	P1023RL002	SCALE
3	P1023RL003	TAP SCREW #10 X 3/8
3-1	P1023RL003-1	TAP SCREW #10 X 1/2
4	P1023RLX5004	MOTOR ACCESS DOOR
4V2	P1023RL004V2	MOTOR ACCESS DOOR V2.07.10
4-1	P1023RL004-1	HINGE PIN
5	P1023RL005	FENCE RESTING BRACKET
6	P1023RLX5006	PHLP HD SCR 10-24 X 3/8
6V2	P1023RL006V2	BUTTON HD CAP SCR M5-.8 X 8
6-1	P1023RL006-1	PHLP HD SCR 8-32 X 3/8
6-2	P1023RL006-2	HEX NUT 8-32
6-3	P1023RL006-3	HEX NUT 10-24
7	P1023RL007	TOGGLE LATCH
7-1	P1023RL007-1	LATCH HOOK
7-2	P1023RL007-2	RIVET BLIND FLUSH
8	P1023RL008	RIGHT ACCESS DOOR
8-1	P1023RL008-1	LATCH
8-2	P1023RL008-2	PHLP HD SCR 5-40 X 1/4
8-3	P1023RL008-3	HEX NUT 5-40
8-4	P1023RL008-4	CABLE CLAMP
8-5	P1023RL008-5	STRIKE LATCH
8-6	P1023RL008-6	PHLP HD SCR 2-56 X 3/32
9	P1023RL009	KNOB 1/4-20
10	P1023RL010	FLAT WASHER 1/4
10-1	P1023RL010-1	HEX BOLT 1/4-20 X 5/8
11	P1023RL011	CABLE CLAMP ACC-3
12	P1023RL012	FLAT WASHER 3/8
13	P1023RL013	LOCK WASHER 3/8
14	P1023RL014	CAP SCREW 3/8-16 X 3/4
15	P1023RL015	STRAIN RELIEF SB8R-1
16	P1023RL016	PUSH STICK BRACKET
17	P1023RL017	HEX NUT 1/4-20
18	P1023RL018	DUST PORT
19	P1023RLX5019	STRAIN RELIEF MG20A-14ST
19V2	P1023RL019V2	STRAIN RELIEF MG20A-14ST V2.07.14
19-1	P1023RLWX019-1	CORD CLAMP
20	P1023RL020	PADDLE SWITCH
20-1	P1023RL020-1	SWITCH BOX
20-2	P1023RL020-2	SWITCH DISABLING LOCK

REF	PART #	DESCRIPTION
21	P1023RL021	PHLP HD SCR 10-24 X 3/4
21-1	P1023RL021-1	PHLP HD SCR 10-24 X 1
22	P1023RL022	FLAT WASHER #10
23	P1023RL023	SWITCH MOUNT BRACKET
24	P1023RL024	HEX NUT 10-24
24-1	P1023RL024-1	PHLP HD SCR 10-24 X 5/8
25	P1023RL025	SWITCH BRACE
27	P1023RL027	POWER CORD 14AWG 6-15 PLUG
27	P1023RLX5027	POWER CORD 12AWG L6-30 PLUG
27V2	P1023RLWX027V2	POWER CORD 12AWG L6-30 PLUG V2.07.14
28	P1023RL028	CONTROL CABLE 16AWG X 4C X 1070MM
30	P1023RL030	MOTOR 3HP 220V 1-PH
31	P1023RL031	MOTOR CORD 14AWG X 3C
31	P1023RLWX031	MOTOR CORD 12AWG X 3C X 940MM
34	P1023RL034	FLAT WASHER 5/16
98	P1023RL098	PHLP HD SCR 10-24 X 5/8
116	P1023RL116	TABLE
117	P1023RL117	RIGHT EXTENSION WING (G1023RL)
118	P1023RL118	LEFT EXTENSION WING
119	P1023RL119	LOCK WASHER 3/8
120	P1023RL120	HEX BOLT 3/8-16 X 1-1/4
121	P1023RL121	HEX BOLT 3/8-16 X 1
122	P1023RL122	STANDARD TABLE INSERT
123	P1023RL123	DADO TABLE INSERT
124	P1023RL124	SET SCREW 1/4-20 X 1/2
125	P1023RL125	TABLE PLATE
126	P1023RL126	FLAT HD SCR 10-24 X 3/8
128	P1023RL128	FLAT WASHER 3/8
131	P1023RL131	FLAT HD SCR 5/16-18 X 3/4
132	P1023RL132	FLAT WASHER 5/16
133	P1023RL133	HEX NUT 5/16-18
134	P1023RL134	EXPANSION CLAMP
135	P1023RL135	PLASTIC EXPANSION TUBE
137	P1023RL137	DUST HOSE HOOK
140	P1023RL140	CABLE TIE
201	P1023RL201	GRIZZLY LOGO PLATE SMALL
206	P1023RL206	ELECTRICITY LABEL 1.4W X 1.2H
214	P1023RL214	TAP SCREW #4 X 3/8
219	P1023RL219	PUSH STICK

G1023RL/RLX/RLW 3HP, 240V, 1-PH SWITCH

REF	PART #	DESCRIPTION
26V3	P1023RL026V3	MAG SWITCH ASSY MPE-15 V3.12.11
26-1	P1023RL026-1	MAG SWITCH FRONT COVER
26-2	P1023RL026-2	MAG SWITCH BACK COVER
26-3V2	P1023RL026-3V2	CONTACTOR SDE MA-09 240V V2.12.11
26-4V3	P1023RL026-4V3	OL RELAY SDE RA-20 12-18A V3.12.11

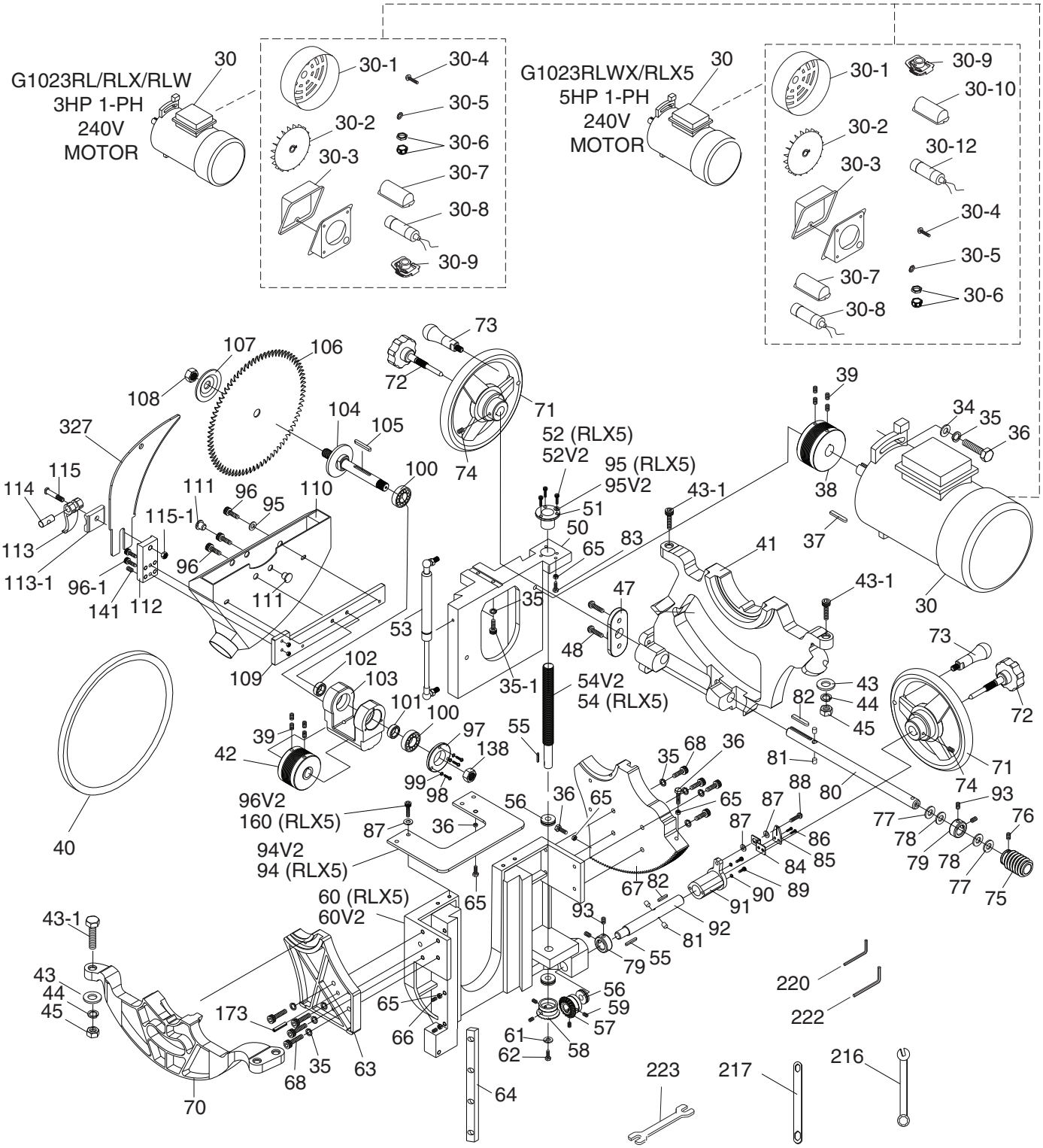
G1023RLWX 5HP, 240V, 1-PH SWITCH

REF	PART #	DESCRIPTION
26V2	P1023RLWX026V2	MAG SWITCH ASSY MPE-18V2.05.16
26-1	P1023RLWX026-1	MAG SWITCH FRONT COVER
26-2	P1023RLWX026-2	MAG SWITCH BACK COVER
26-3V2	P1023RLWX026-3V2	CONTACTOR SDE MA-18 240V V2.05.16
26-4	P1023RLWX026-4	OL RELAY SDE RA-30 18-26A

G1023RLX5 5HP, 240V, 1-PH SWITCH

REF	PART #	DESCRIPTION
26	P1023RLX5026	MAG SWITCH ASSY MPE-18
26-1	P1023RLWX026-1	MAG SWITCH FRONT COVER
26-2	P1023RLWX026-2	MAG SWITCH BACK COVER
26-3	P1023RLWX026-3	CONTACTOR SDE MA-18 240V
26-4	P1023RLWX026-4	OL RELAY SDE RA-30 18-26A

G1023RL (All) Arbor & Motor



G1023RL (All) Arbor & Motor Parts

REF	PART #	DESCRIPTION
34	P1023RL034	FLAT WASHER 5/16
35	P1023RL035	LOCK WASHER 5/16
35-1	P1023RL035-1	CAP SCREW 5/16-18 X 1-1/2
36	P1023RL036	HEX BOLT 5/16-18 X 1
37	P1023RL037	KEY 5 X 5 X 45
38	P1023RL038	MOTOR PULLEY
39	P1023RL039	SET SCREW 1/4-20 X 3/8
40	P1023RL040	RIBBED V-BELT 220J10
41	P1023RL041	FRONT TRUNNION BRACKET
42	P1023RL042	ARBOR PULLEY
43	P1023RL043	FLAT WASHER 3/8
43-1	P1023RL043-1	CAP SCREW 3/8-16 X 1-1/2
44	P1023RL044	LOCK WASHER 3/8
45	P1023RL045	HEX NUT 3/8-16
47	P1023RL047	SHIELD PLATE
48	P1023RL048	PHLP HD SCR 5/16-18 X 3/4
50	P1023RL050	ELEVATION HOUSING
51	P1023RL051	LEADSCREW NUT
52	P1023RLX5052	HEX BOLT 5/16-18 X 1/2
52V2	P1023RL052V2	HEX BOLT 5/16-18 X 1/2
53	P1023RL053	GAS STRUT
54	P1023RLX5054	LEADSCREW 1"-8
54V2	P1023RL054V2	LEADSCREW 1"-8 V2.08.10
55	P1023RL055	KEY 5 X 5 X 15
56	P1023RL056	THRUST BEARING 51102
57	P1023RL057	HORIZONTAL BEVEL GEAR
58	P1023RL058	VERTICAL BEVEL GEAR
59	P1023RL059	SET SCREW 1/4-20 X 1/4
60	P1023RLX060	ANVIL BASE
60V2	P1023RL060V2	ANVIL BASE V2.08.10
61	P1023RL061	FLAT WASHER 1/4
62	P1023RL062	HEX BOLT 1/4-20 X 1/2
63	P1023RL063	REAR TRUNNION
64	P1023RL064	GIB
65	P1023RL065	HEX NUT 5/16-18
66	P1023RL066	SET SCREW 5/16-18 X 1-1/2
67	P1023RL067	GEARED TRUNNION
68	P1023RL068	CAP SCREW 5/16-18 X 1
70	P1023RL070	REAR TRUNNION BRACKET
71	P1023RL071	HANDWHEEL V2.01.06
72	P1023RL072	LOCK KNOB
73	P1023RL073	HANDWHEEL HANDLE V2.01.06
74	P1023RL074	SET SCREW 1/4-20 X 5/16
75	P1023RL075	WORM GEAR
76	P1023RL076	SET SCREW 1/4-20 X 3/8
77	P1023RL077	THRUST WASHER #629
78	P1023RL078	BRASS WASHER 3/4
79	P1023RL079	COLLAR
80	P1023RL080	TILT SHAFT
81	P1023RL081	SHAFT PIN

REF	PART #	DESCRIPTION
82	P1023RL082	KEY 5 X 5 X 35
83	P1023RL083	HEX BOLT 5/16-18 X 3
84	P1023RL084	POINTER ADAPTER
85	P1023RL085	POINTER
86	P1023RL086	PHLP HD SCR 8-32 X 1/4
87	P1023RL087	FLAT WASHER 5/16
88	P1023RL088	PHLP HD SCR 5/16-18 X 3/8
89	P1023RL089	CAP SCREW 10-24 X 2
90	P1023RL090	LOCK WASHER #10
91	P1023RL091	POINTER BRACKET
92	P1023RL092	HORIZONTAL SHAFT
93	P1023RL093	SET SCREW 5/16-18 X 1/4
94	P1023RLX5094	ANVIL BASE PLATE
94V2	P1023RL094V2	ANVIL BASE PLATE V2.08.10
95	P1023RLX5095	FLAT WASHER 5/16
95V2	P1023RL095V2	FLAT WASHER 5/16 V2.08.10
96	P1023RL096	CAP SCREW 1/4-20 X 5/8
96V2	P1023RL096V2	CAP SCREW 1/4-20 X 3/4
97	P1023RL097	BEARING HOUSING CAP
98	P1023RL098	PHLP HD SCR 10-24 X 5/8
99	P1023RL099	LOCK WASHER #10
100	P1023RL100	BALL BEARING 6203-2RS
101	P1023RL101	SPACER A
102	P1023RL102	SPACER B
103	P1023RL103	BEARING HOUSING
104	P1023RL104	BLADE ARBOR
105	P1023RL105	KEY 5 X 5 X 40
106	P1023RL106	BLADE 10" X 1/8 X 5/8 X 40T
107	P1023RL107	ARBOR FLANGE
108	P1023RL108	ARBOR NUT 5/8-12 RH
109	P1023RL109	PLATE
110	P1023RL110	DUST PORT
111	P1023RL111	PLUG CA12-1
112	P1023RL112	ADJUSTMENT BLOCK
113	P1023RL113	QUICK RELEASE LEVER
113-1	P1023RL113-1	QUICK RELEASE BLOCK
114	P1023RL114	ECCENTRIC SHAFT
115	P1023RL115	ECCENTRIC SCREW
115-1	P1023RL115-1	LOCK NUT 5/16-18
138	P1023RL138	THIN LOCK NUT 5/8-18 LH
141	P1023RL141	SET SCREW 3/8-16 X 5/8
160	P1023RLX5160	CAP SCREW 1/4-20 X 3/4
173	P1023RL073	ROLL PIN 8 X 20
216	P1023RL216	OPEN-END ARBOR WRENCH 7/8" X 1"
217	P1023RL217	CLOSED-END ARBOR WRENCH 7/8"
220	P1023RL220	HEX WRENCH 3MM
222	P1023RL222	HEX WRENCH 5MM
223	P1023RL223	WRENCH 12 X 14
327	P1023RL327	RIVING KNIFE

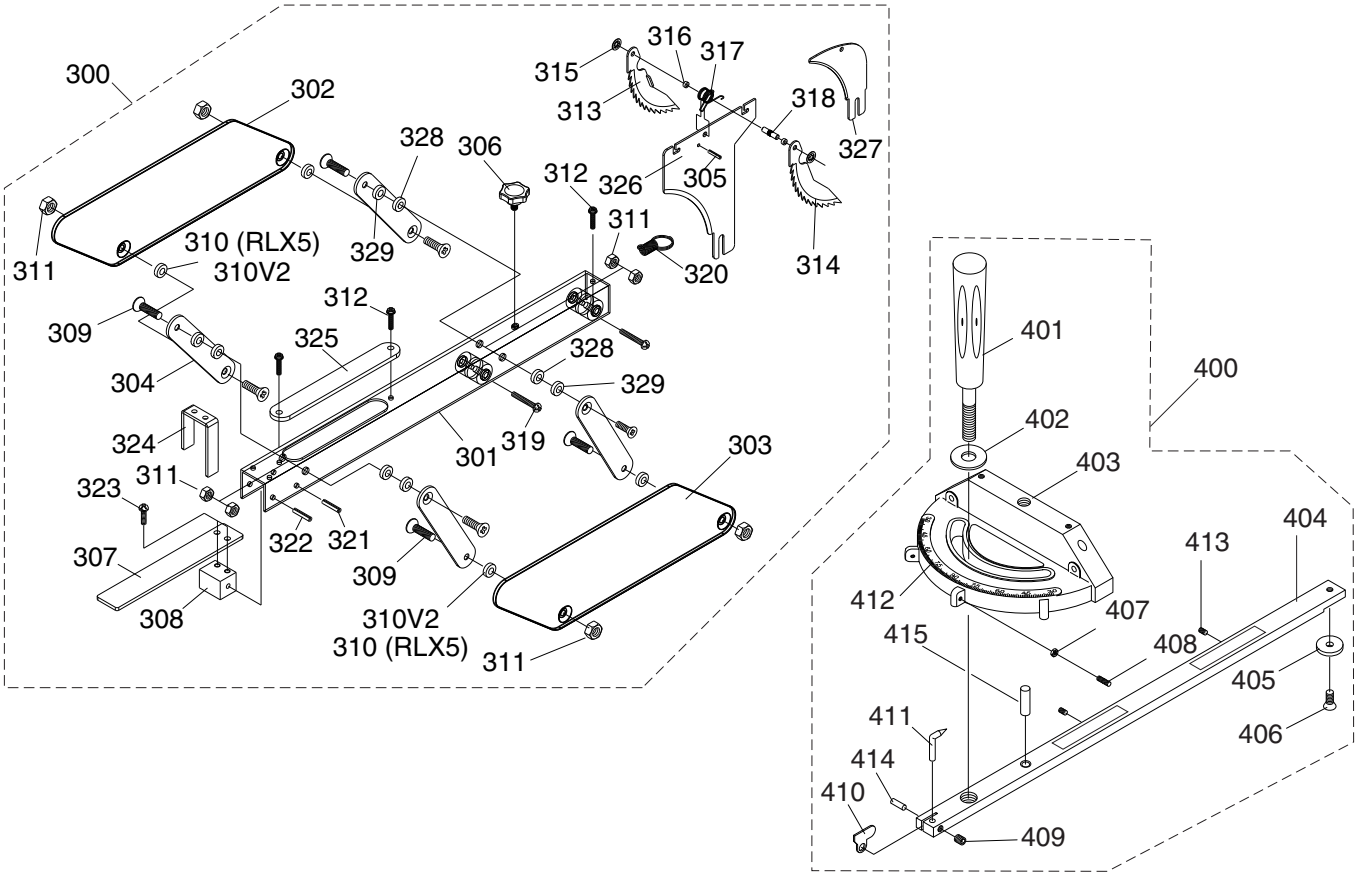
G1023RLWX/RLX5 5HP MOTOR

REF	PART #	DESCRIPTION
30	P1023RLWX030	MOTOR 5HP 220V 1-PH
30-1	P1023RLWX030-1	MOTOR FAN COVER
30-2	P1023RLWX030-2	MOTOR FAN
30-3	P1023RLWX030-3	WIRING JUNCTION BOX
30-4	P1023RLWX030-4	PHLP HD SCR 10-24 X 3/8
30-5	P1023RLWX030-5	EXT TOOTH WASHER #10
30-6	P1023RLWX030-6	STRAIN RELIEF MG20A-14ST V2.07.14
30-7	P1023RLWX030-7	S CAPACITOR COVER
30-8	P1023RLWX030-8	S CAPACITOR 400M 125V 1-3/4 X 3- 3/8
30-9	P1023RLWX030-9	CENTRIFUGAL SWITCH 3450RPM
30-10	P1023RLWX030-10	R CAPACITOR COVER
30-12	P1023RLWX030-12	R CAPACITOR 60M 300V 1-3/4 X 3-3/8 V2.06.14

G1023RL/RLX/RLW 3HP MOTOR

REF	PART #	DESCRIPTION
30	P1023RL030	MOTOR 3HP 220V 1-PH
30-1	P1023RL030-1	MOTOR FAN COVER
30-2	P1023RL030-2	MOTOR FAN
30-3	P1023RL030-3	WIRING JUNCTION BOX
30-4	P1023RL030-4	PHLP HD SCR 10-24 X 3/8
30-5	P1023RL030-5	EXT TOOTH WASHER #10
30-6V2	P1023RL019V2	STRAIN RELIEF MG20A-14ST V2.07.14
30-7	P1023RL030-7	S CAPACITOR COVER
30-8	P1023RL030-8	S CAPACITOR 600M 125V 1-3/4 X 3-3/8
30-9	P1023RL030-9	CENTRIFUGAL SWITCH 3450RPM

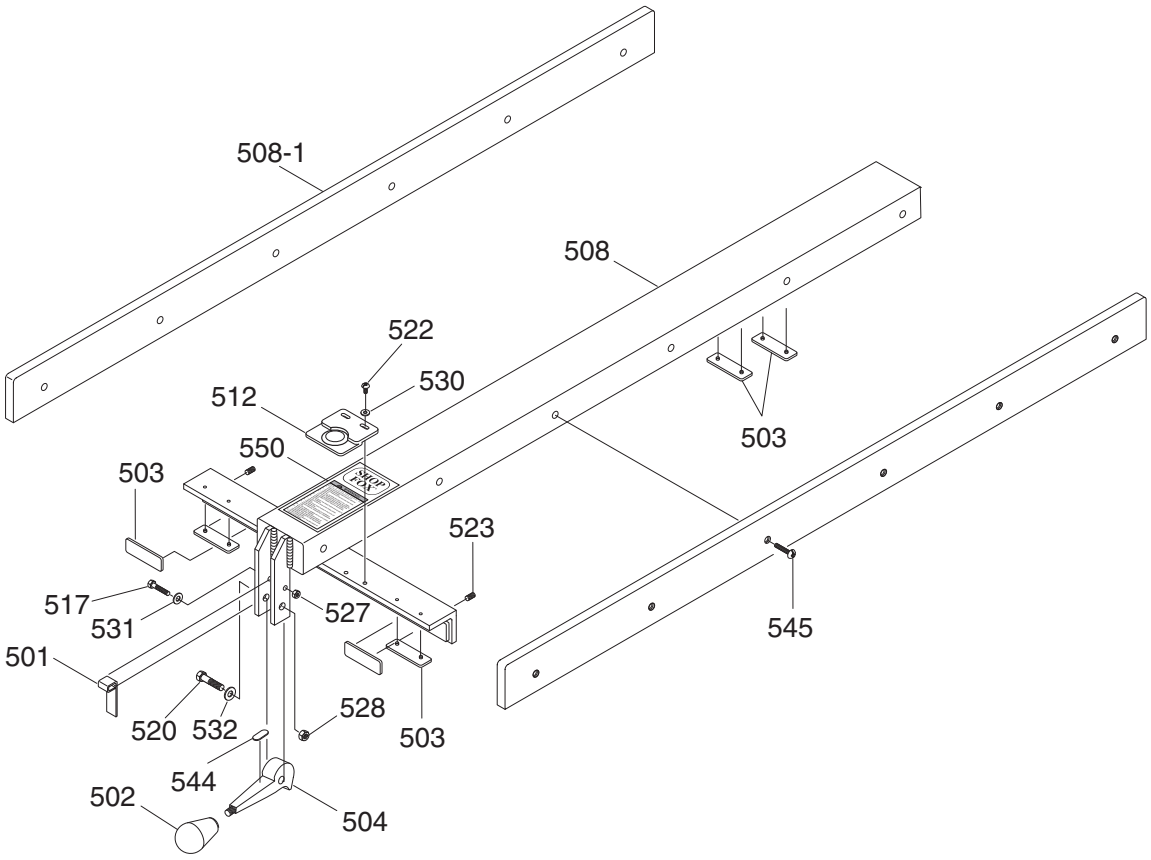
G1023RL (All) Blade Guard & Miter Gauge



REF	PART #	DESCRIPTION
300	P1023RL300	BLADE GUARD ASSEMBLY
301	P1023RL301	SUPPORT ARM
302	P1023RL302	RIGHT GUARD
303	P1023RL303	LEFT GUARD
304	P1023RL304	SWING PLATE
305	P1023RL305	ROLL PIN 4 X 20
306	P1023RL306	KNOB M6-1 X 20
307	P1023RL307	CLEAR FRONT GUARD
308	P1023RL308	FRONT GUARD BLOCK
309	P1023RL309	FLAT HD SCR 1/4-20 X 5/8
310	P1023RLX5310	FLAT WASHER 1/4 X 21MM X 3MM
310V2	P1023RL310V2	FLAT WASHER 1/4 X 21MM X 3MM
311	P1023RL311	LOCK NUT 1/4-20
312	P1023RL312	FLANGE SCREW 10-24 X 1/2
313	P1023RL313	LEFT PAWL
314	P1023RL314	RIGHT PAWL
315	P1023RL315	RETAINER
316	P1023RL316	SPACER
317	P1023RL317	TORSION SPRING
318	P1023RL318	PAWL PIN
319	P1023RL319	FLANGE SCREW 10-24 X 1-1/4
320	P1023RL320	ARRESTING SPRING
321	P1023RL321	ROLL PIN 4 X 45
322	P1023RL322	ROLL PIN 4 X 30

REF	PART #	DESCRIPTION
323	P1023RL323	PHLP HD SCR 10-24 X 1/2
324	P1023RL324	FRONT BRACKET
325	P1023RL325	CLEAR TOP WINDOW
326	P1023RL326	SPREADER
327	P1023RL327	RIVING KNIFE
328	P1023RL328	FLAT WASHER 1/4
329	P1023RL329	FLAT WASHER 1/4 X 21MM X 2MM
400	P1023RL400	MITER GAUGE ASSEMBLY
401	P1023RL401	HANDLE V2.10.01
402	P1023RL402	FLAT WASHER 5/16
403	P1023RL403	MITER GAUGE BODY V2.05.07
404	P1023RL404	MITER BAR ASSY V2.04.03
405	P1023RL405	T-SLOT WASHER 22
406	P1023RL406	FLAT HD SCR 1/4-20 X 5/16
407	P1023RL407	HEX NUT 10-24
408	P1023RL408	SET SCREW 10-24 X 3/4
409	P1023RL409	SET SCREW 10-24 X 1/2
410	P1023RL410	STOP LINK
411	P1023RL411	POINTER
412	P1023RL412	SCALE
413	P1023RL413	SET SCREW 10-24 X 5/8
414	P1023RL414	ROLL PIN 1.5 X 13
415	P1023RL415	MITER HINGE PIN

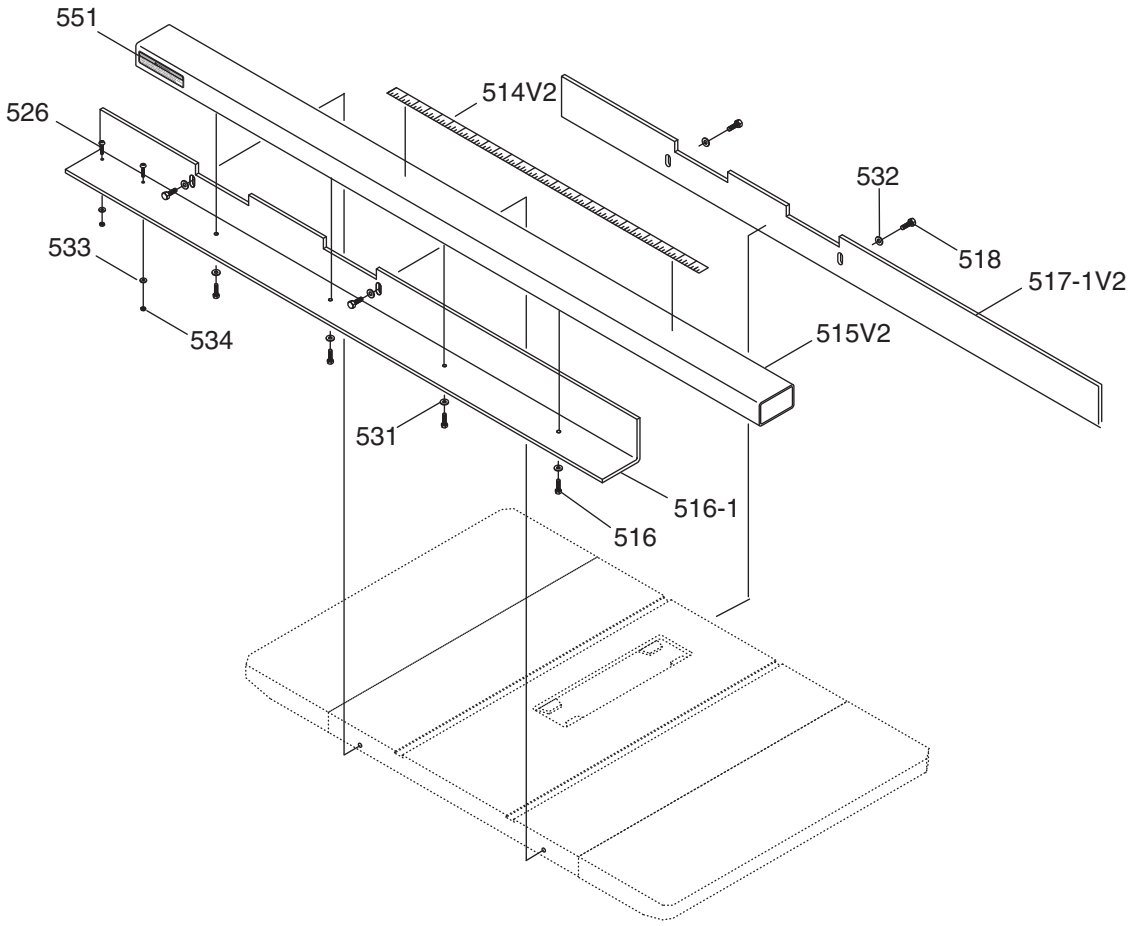
G1023RL (All) Fence



REF	PART #	DESCRIPTION
501	P1023RL501	FENCE LOCKING TAB
502	P1023RL502	FENCE LOCK KNOB
503	P1023RL503	BEARING PAD
504	P1023RL504	LOCKING LEVER
508	P1023RL508	FENCE BODY
508-1	P1023RL508-1	FENCE FACING
512	P1023RL512	MAGNIFIED CURSOR
517	P1023RL517	HEX BOLT 1/4-20 X 1-3/4
520	P1023RL520	HEX BOLT 3/8-16 X 1-3/4
522	P1023RL522	PHLP HD SCR 10-24 X 3/8

REF	PART #	DESCRIPTION
523	P1023RL523	SET SCREW 3/8-16 X 5/16
527	P1023RL527	LOCK NUT 1/4-20
528	P1023RL528	LOCK NUT 3/8-16
530	P1023RL530	FLAT WASHER #10
531	P1023RL531	FLAT WASHER 1/4
532	P1023RL532	FLAT WASHER 3/8
544	P1023RL544	MAGNET
545	P1023RL545	PHLP HD SCR 10-24 X 1/2
550	P1023RL550	FENCE WARNING LABEL

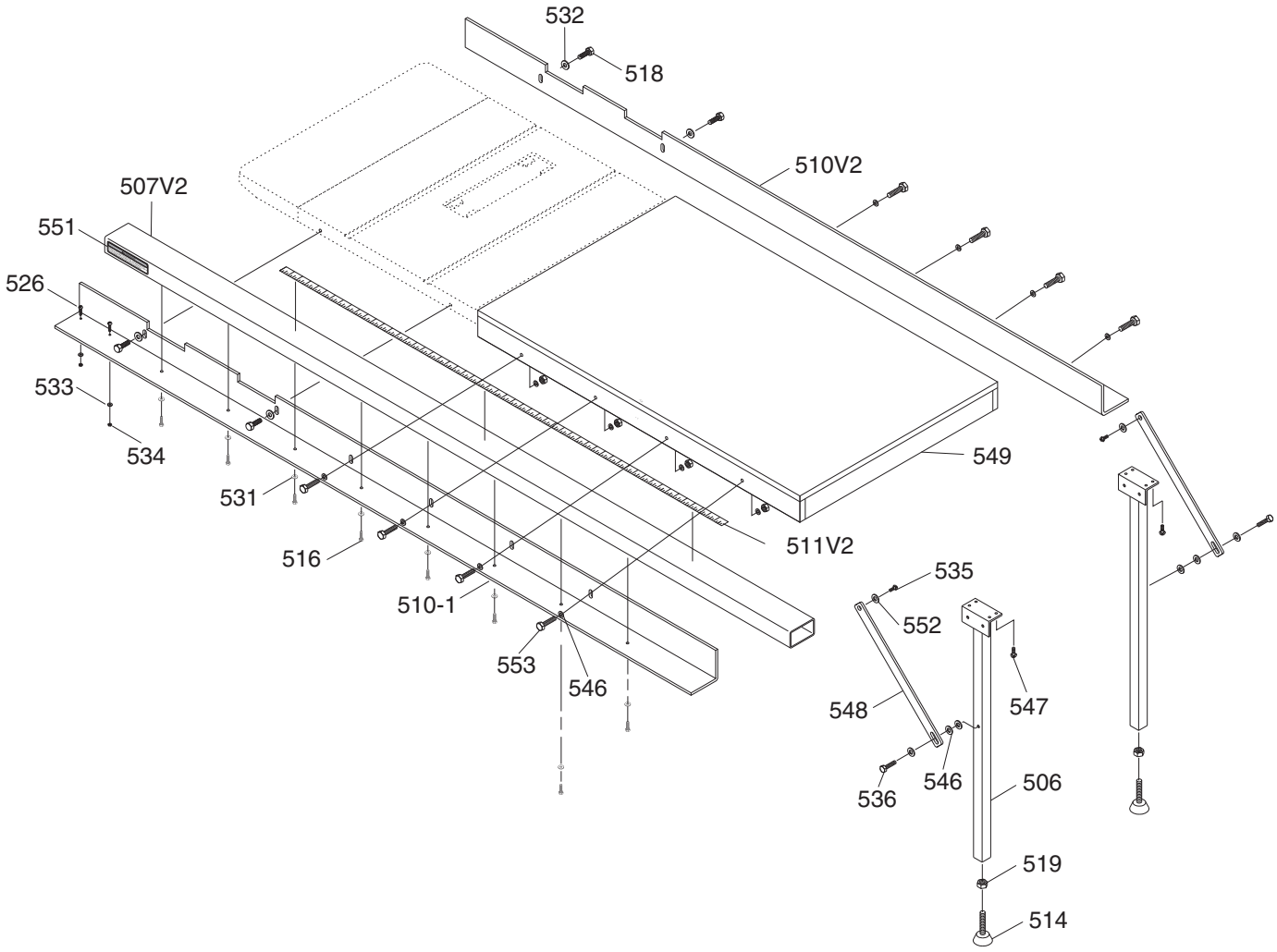
G1023RL/RLW/RLWX Fence Rails



REF	PART #	DESCRIPTION
514	P1023RL514	SCALE 26"
514V2	P1023RL514V2	SCALE 32" V2.09.17
515	P1023RL515	FRONT RAIL TUBE 54"
515V2	P1023RL515V2	FRONT RAIL TUBE 66" V2.09.17
516	P1023RL516	HEX BOLT 1/4-20 X 3/4
516-1	P1023RL516-1	FRONT RAIL 46-1/2"
517-1V2	P1023RL517-1V2	REAR RAIL 54-1/2" V2.09.17

REF	PART #	DESCRIPTION
518	P1023RL518	HEX BOLT 3/8-16 X 1
526	P1023RL526	FLAT HD SCR 1/4-20 X 3/4
531	P1023RL531	FLAT WASHER 1/4
532	P1023RL532	FLAT WASHER 3/8
533	P1023RL533	FLAT WASHER 1/4
534	P1023RL534	HEX NUT 1/4-20
551	P1023RL551	RAIL WARNING LABEL

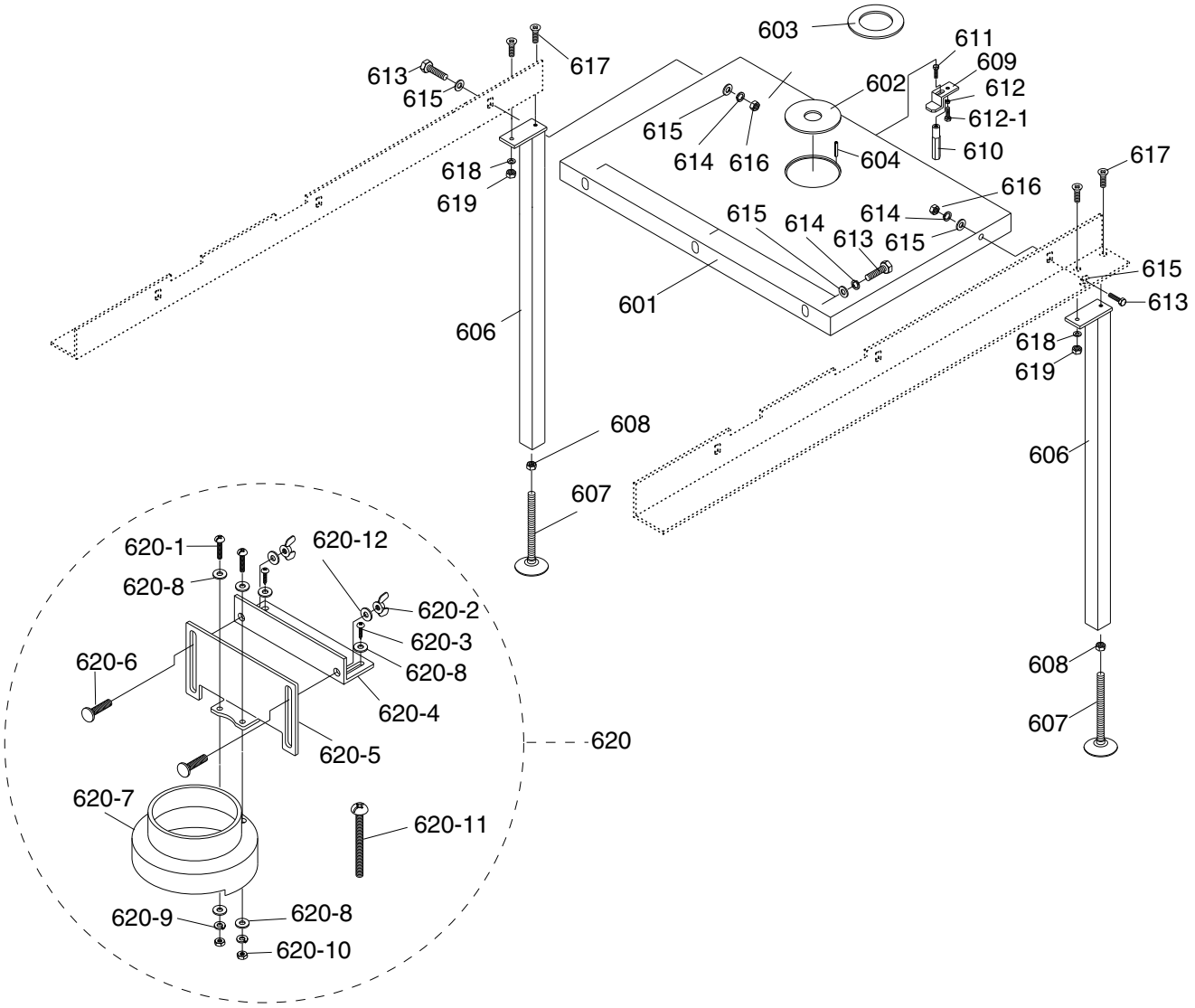
G1023RLX/RLX5 Fence Rails



REF	PART #	DESCRIPTION
506	P1023RLX506	EXTENSION LEG
507V2	P1023RLX507V2	FRONT RAIL TUBE 94-1/2" V2.09.17
510V2	P1023RLX510V2	REAR RAIL 82-1/4" V2.09.17
510-1	P1023RLX510-1	FRONT RAIL 72"
511V2	P1023RLX511V2	SCALE 60" V2.09.17
514	P1023RLX514	ADJUSTABLE FOOT
516	P1023RL516	HEX BOLT 1/4-20 X 3/4
518	P1023RL518	HEX BOLT 3/8-16 X 1
519	P1023RLX519	HEX NUT 1/2-12
526	P1023RL526	FLAT HD SCR 1/4-20 X 3/4
531	P1023RL531	FLAT WASHER 1/4
532	P1023RL532	FLAT WASHER 3/8

REF	PART #	DESCRIPTION
533	P1023RL533	FLAT WASHER 1/4
534	P1023RL534	HEX NUT 1/4-20
535	P1023RLX535	WOOD SCREW 1/4 X 3/4
536	P1023RLX536	HEX BOLT 3/8-16 X 3/4
546	P1023RLX546	FLAT WASHER 3/8
547	P1023RLX547	WOOD SCREW #8 X 5/8
548	P1023RLX548	BRACE
549	P1023RLX549	EXT. WOOD TABLE
551	P1023RLX551	RAIL WARNING LABEL
552	P1023RLX550	FLAT WASHER 1/4
553	P1023RLX552	HEX BOLT 3/8-16 X 1-3/4

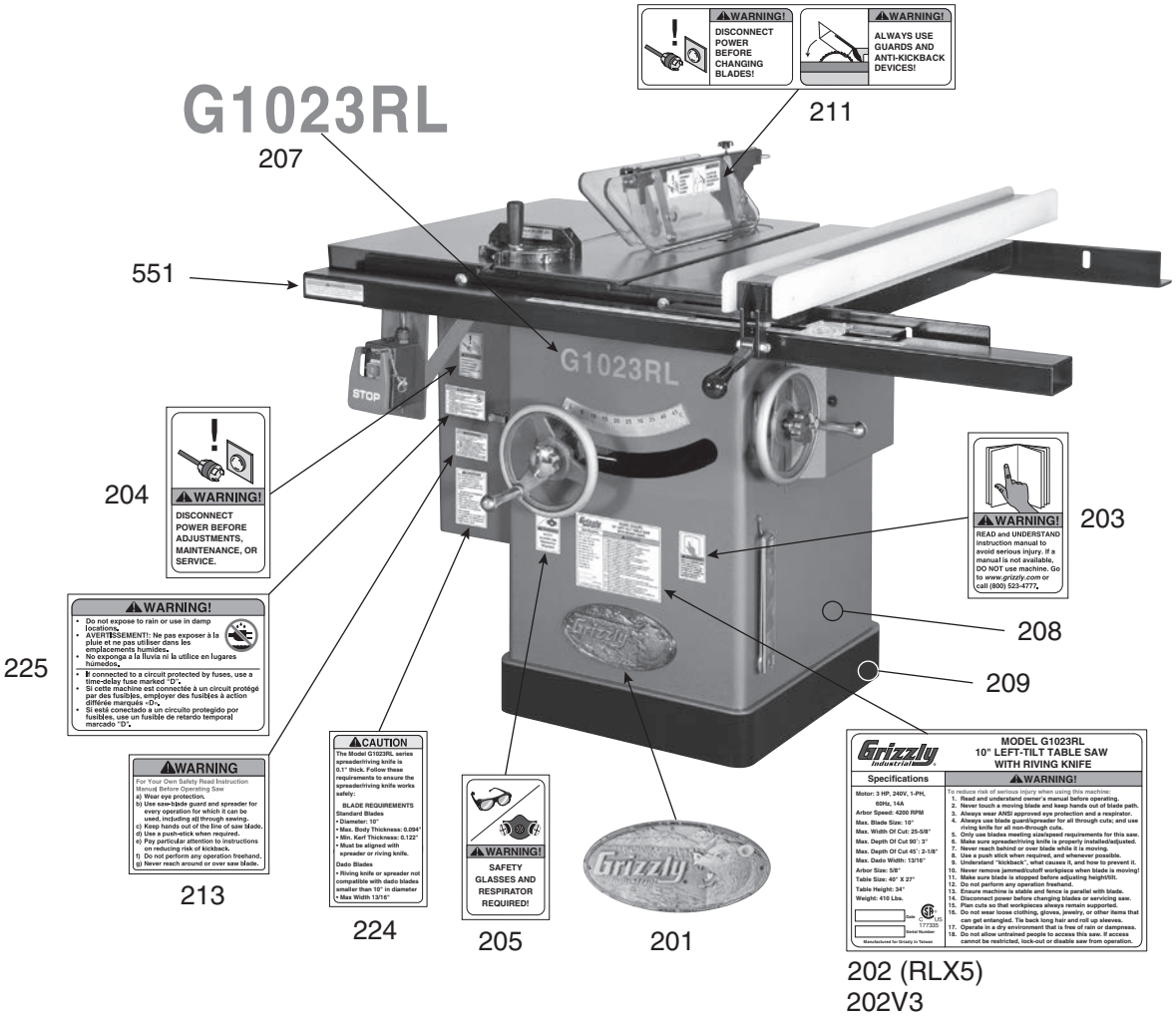
G1023RLW/RLWX, Router Table & Guard



REF	PART #	DESCRIPTION
601	P1023RLW601	ROUTER TABLE EXT WING
602	P1023RLW602	TABLE INSERT 29MM
603	P1023RLW603	TABLE INSERT 60MM
604	P1023RLW604	ROLL PIN 3 X 9
606	P1023RLW606	EXTENSION LEG
607	P1023RLW607	ADJUSTABLE FOOT
608	P1023RLW608	HEX NUT 1/2-13
609	P1023RLW609	MOTOR CLAMP PIECE
610	P1023RLW610	STUD
611	P1023RLW611	T-BOLT 1/4-20 X 2
612	P1023RLW612	HEX NUT 1/4-20
612-1	P1023RLW612-1	HEX BOLT 1/4-20 X 1
613	P1023RLW613	HEX BOLT 3/8-16 X 1-1/4
614	P1023RLW614	LOCK WASHER 3/8
615	P1023RLW615	FLAT WASHER 3/8
616	P1023RLW616	HEX NUT 3/8-16

REF	PART #	DESCRIPTION
617	P1023RLW617	FLAT HD SCR 1/4-20 X 3/4
618	P1023RLW618	FLAT WASHER 1/4
619	P1023RLW619	HEX NUT 1/4-20
620	P1023RLW620	ROUTER GUARD ASSEMBLY
620-1	P1023RLW620-1	PHLP HD SCR 8-32 X 5/8
620-2	P1023RLW620-2	WING NUT 1/4-20
620-3	P1023RLW620-3	WOOD SCREW #8 X 1/2
620-4	P1023RLW620-4	HORIZONTAL BRACKET
620-5	P1023RLW620-5	VERTICAL BRACKET
620-6	P1023RLW620-6	CARRIAGE BOLT 1/4-20 X 1/2
620-7	P1023RLW620-7	GUARD
620-8	P1023RLW620-8	FLAT WASHER #8
620-9	P1023RLW620-9	LOCK WASHER #8
620-10	P1023RLW620-10	HEX NUT 8-32
620-11	P1023RLW620-11	PHLP HD SCR 10-24 X 2-1/2
620-12	P1023RLW620-12	FLAT WASHER 1/4

Labels & Cosmetics



REF	PART #	DESCRIPTION
201	P1023RL201	GRIZZLY LOGO PLATE SMALL
202	P1023RLX5202	ID LABEL G1023RLX5
202V3	P1023RL202V3	ID LABEL G1023RL V3.12.17
202V3	P1023RLWX202V3	ID LABEL G1023RLWX V3.12.17
202V3	P1023RLW202V3	ID LABEL G1023RLW V3.12.17
202V3	P1023RLX202V3	ID LABEL G1023RLX V3.12.17
203	P1023RL203	READ MANUAL LABEL 2W X 3.3H
204	P1023RL204	DISCONNECT 220V 2W X 3.3H
205	P1023RL205	GLASSES/RESPIRATOR 2W X 3.3H
207	P1023RL207	MODEL NUMBER LABEL G1023RL
207	P1023RLX207	MODEL NUMBER LABEL G1023RLX

REF	PART #	DESCRIPTION
207	P1023RLW207	MODEL NUMBER LABEL G1023RLW
207	P1023RLWX207	MODEL NUMBER LABEL G1023RLWX
207	P1023RLX5207	MODEL NUMBER LABEL G1023RLX5
208	P1023RL208	TOUCH-UP PAINT GRIZZLY GREEN
209	P1023RL209	BLACK TAPE 90MMH
211	P1023RL211	BLADE GUARD WARNING LABEL
213	P1023RL213	UL 987 WARNING LABEL
224	P1023RL224	TABLE SAW CAUTION LABEL
225	P1023RL225	DAMPNESS HAZARD LABEL
551	P1023RL551	RAIL WARNING LABEL

⚠WARNING

Safety labels warn about machine hazards and ways to prevent injury. The owner of this machine MUST maintain the original location and readability of the labels on the machine. If any label is removed or becomes unreadable, REPLACE that label before using the machine again. Contact Grizzly at (800) 523-4777 or www.grizzly.com to order new labels.

WARRANTY & RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser fro the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abus negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warran and any and all warranties that may be implied by law, including any merchantability or fitness, for any pa ticular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represe that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrant In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product ar any legal actions brought against Grizzly shall be tried in the State of Washington, County of Whatcom.

We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, specia or consequential damages arising from the use of our products.

The manufacturers reserve the right to change specifications at any time because they constantly strive achieve better quality equipment. We make every effort to ensure that our products meet high quality ar durability standards and we hope you never need to use this warranty.

In the event you need to use this warranty, contact us by mail or phone and give us all the details. We w then issue you a "Return Number," which must be clearly posted on the outside as well as the inside the carton. We will not accept any item back without this number. Proof of purchase must accompany th merchandise.

Please feel free to write or call us if you have any questions about the machine or the manual.

Thank you again for your business and continued support. We hope to serve you again soon.

To take advantage of this warranty, you must register it at **https://www.grizzly.com/forms/warranty**, or you can scan the QR code below to be automatically directed to our warranty registration page. Enter all applicable information for the product.

WARRANTY

grizzly.com