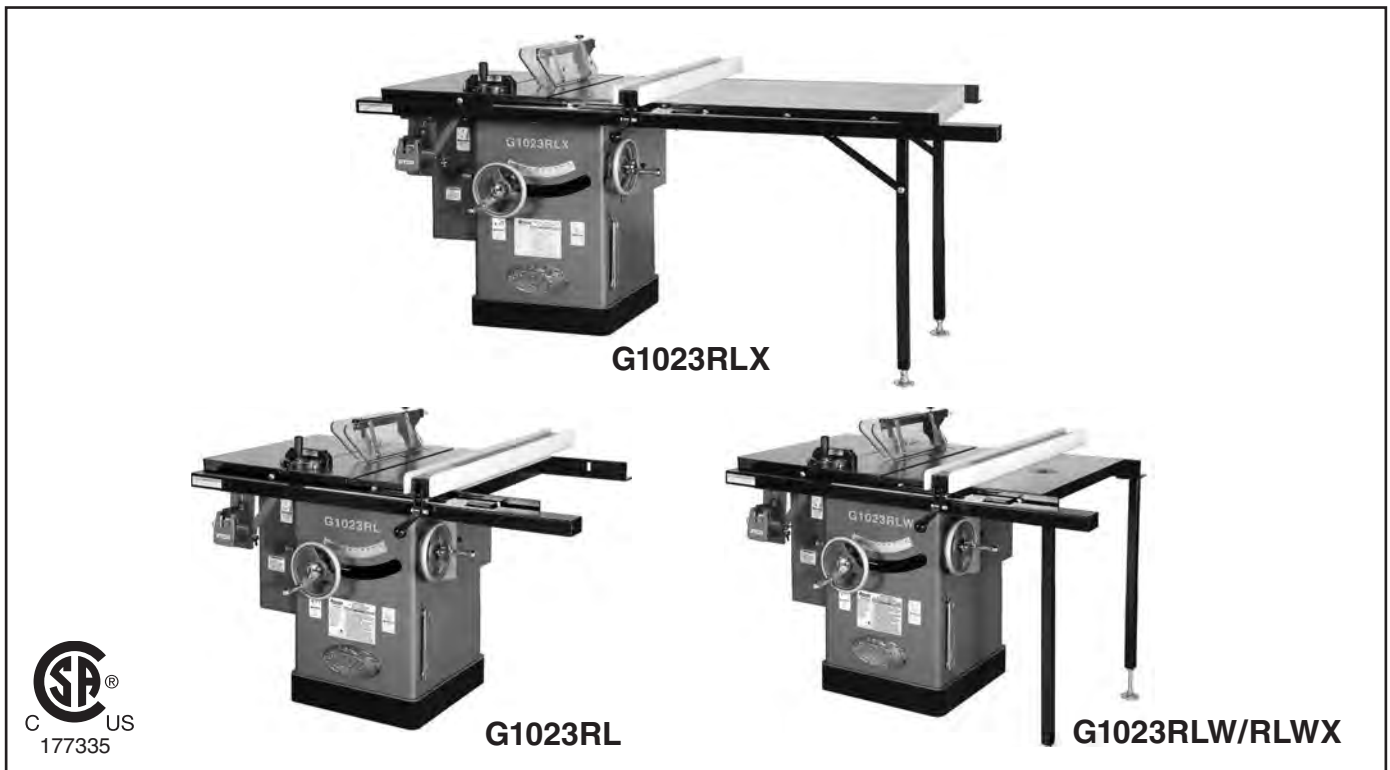


Grizzly **Industrial, Inc.**®

MODEL G1023RL SERIES 10" LEFT-TILT TABLE SAW WITH RIVING KNIFE

OWNER'S MANUAL

(For RL/RLW/RLX/RLWX models manufactured since 09/17)




C US
177335

COPYRIGHT © MAY, 2010 BY GRIZZLY INDUSTRIAL, INC. REVISED FEBRUARY, 2018 (AB)
**WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE
OR FORM WITHOUT THE WRITTEN APPROVAL OF GRIZZLY INDUSTRIAL, INC.**

#BL12898 PRINTED IN TAIWAN

V4.02.18



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	2	Blade Tilt/Bevel Cuts	37
Manual Accuracy	2	Dado Cutting.....	37
Contact Info.....	2	Rabbet Cutting.....	40
Machine Description	2	Resawing	42
Identification.....	3		
Machine Data Sheet	4		
SECTION 1: SAFETY	5	SECTION 5: SHOP MADE SAFETY	
Safety Instructions for Machinery	5	ACCESSORIES	45
Additional Safety for Table Saws.....	7	Featherboards.....	45
Preventing Kickback	8	Push Sticks	48
Protecting Yourself from Kickback.....	8	Push Blocks	49
Glossary of Terms	9	Narrow-Rip Auxiliary Fence & Push Block ..	50
		Outfeed & Support Tables	52
SECTION 2: POWER SUPPLY	10	Crosscut Sled.....	52
SECTION 3: SETUP	12	SECTION 6: ACCESSORIES	53
Needed for Setup.....	12	SECTION 7: MAINTENANCE	55
Unpacking	12	Schedule	55
Hardware Recognition Chart	13	Cleaning.....	55
Inventory	14	Unpainted Cast Iron.....	55
Cleanup.....	17	Lubrication	56
Site Considerations.....	18	SECTION 8: SERVICE	57
Assembly	19	Troubleshooting	57
Rails & Fence	22	Blade Tilt Stops.....	59
Router Table & Legs.....	22	Miter Slot to Blade Parallelism.....	61
Extension Table & Legs.....	22	Blade Alignment.....	63
Saw Blade.....	23	Spreader or Riving Knife Alignment	64
Table Insert.....	23	Fence Adjustments	66
Checking Fence Parallelism	23	Fence Scale Calibration.....	69
Blade Guard.....	23	Miter Gauge Adjustments	69
Scale & Cursor.....	24	Belt Tension & Replacement	71
Mounting Router Guard & Router.....	24	Gib Adjustment	75
Dust Collection.....	24	SECTION 9: WIRING	76
Power Connection.....	24	Wiring Safety Instructions	76
Test Run	25	G1023RL/RLX/RLW Electrical Components	77
Recommended Adjustments.....	25	G1023RL/RLX/RLW Wiring	78
SECTION 4: OPERATIONS	26	G1023RLWX Electrical Components.....	79
Basic Controls.....	26	G1023RLWX Wiring.....	80
Operation Overview	27	SECTION 10: PARTS	81
Disabling & Locking Switch.....	27	G1023RL (All) Main	81
Non-Through & Through Cuts	28	G1023RL (All) Arbor & Motor	83
Stock Inspection.....	28	G1023RL (All) Blade Guard & Miter Gauge	85
Blade Requirements	29	G1023RL (All) Fence	86
Blade Selection.....	29	G1023RL, W, WX Fence Rails	87
Blade Installation.....	30	G1023RLX Fence Rails	88
Blade Guard Assembly	31	G1023RLW, WX, Router Table & Guard....	89
Riving Knife.....	34	Machine Labels.....	90
Ripping.....	35	WARRANTY AND RETURNS	93
Crosscutting	36		
Miter Cuts.....	36		

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.

Grizzly Industrial MODEL GXXXX
MACHINE NAME

SPECIFICATIONS	WARNING!
Motor: _____ Specification: _____ Specification: _____ Specification: _____ Weight: _____	To reduce risk of serious injury when using this machine: 1. Read manual before operation. 2. Wear safety glasses and respirator. 3. Make sure blade is properly adjusted/setup and power is connected to grounded circuit before starting. 4. Make sure the motor has stopped and disconnect power before adjustments, maintenance, or service. 5. DO NOT expose to rain or dampness. 6. DO NOT modify this machine in any way. 7. _____ 8. _____ 9. _____ 10. Maintain machine carefully to prevent accidents.

Manufacture Date: _____
Serial Number: _____

Manufactured for Grizzly in Taiwan

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.

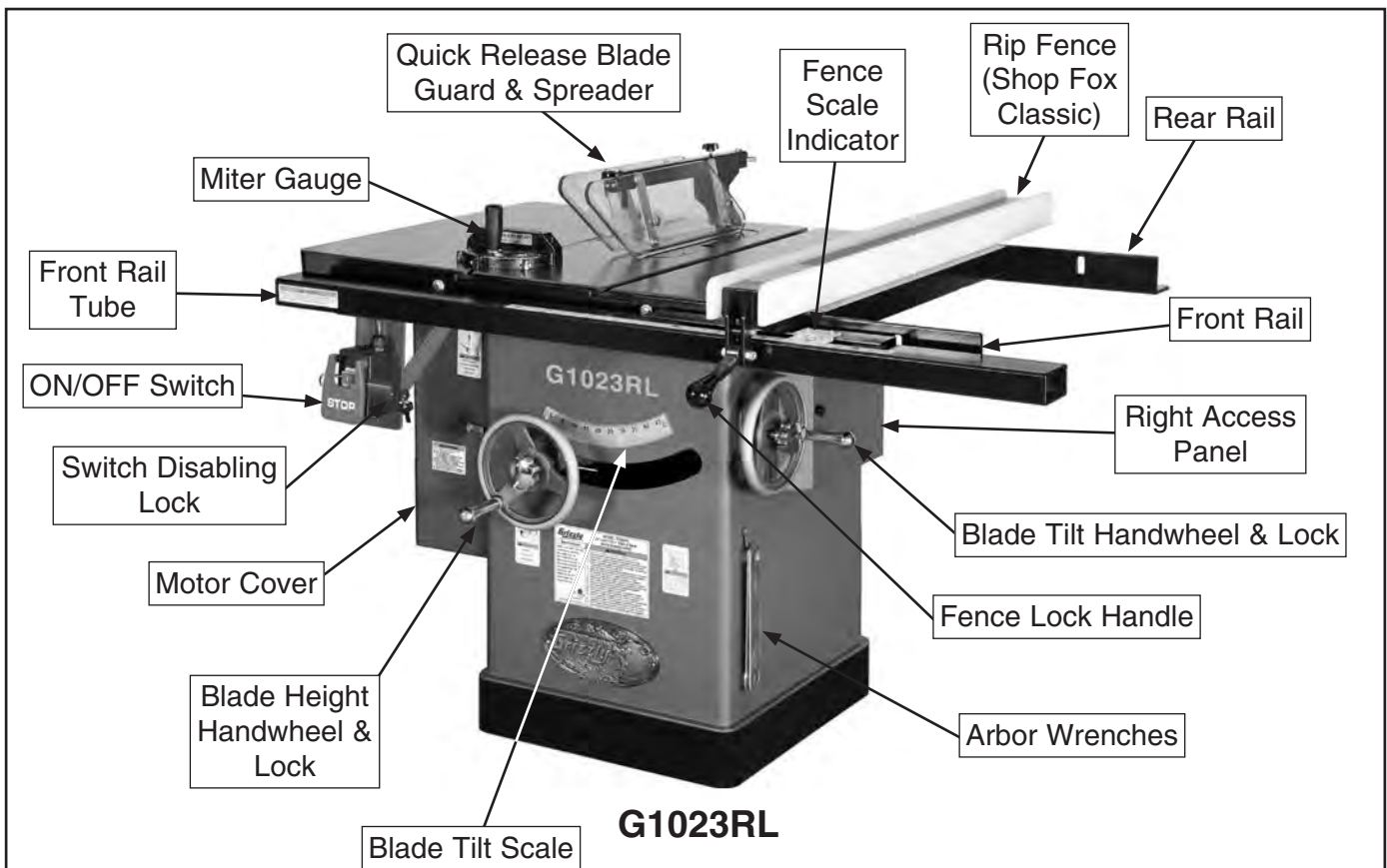
Dust collection under the blade provides highly effective dust removal, and a poly-V serpentine belt system efficiently transfers power.

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 2 cast iron wings; the G1023RLW and G1023RLWX feature a cast-iron router table extension; the G1023RLX features a heavy-duty extension table with 53" rip capacity.



Identification



⚠ WARNING

For Your Own Safety Read Instruction Manual Before Operating Saw

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





MACHINE DATA SHEET

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

MODEL G1023RL Series 10" LEFT-TILTING TABLE SAWS

Model Number	G1023RL	G1023RLX	G1023RLW	G1023RLWX
Motor	3 HP, 240V, 1-Ph	3 HP, 240V, 1-Ph	3 HP, 240V, 1-Ph	5 HP, 240V, 1-Ph
Required Power Supply Circuit	15 Amps	15 Amps	15 Amps	30 Amps
Speed	3450 RPM	3450 RPM	3450 RPM	3450 RPM
Power Requirement	240V, 1-Ph, 60 Hz	240V, 1-Ph, 60 Hz	240V, 1-Ph, 60 Hz	240V, 1-Ph, 60 Hz
Full Load Current Rating	14A	14A	14A	23A
Power Connection Device	NEMA 6-15 (Included)	NEMA 6-15 (Included)	NEMA 6-15 (Included)	NEMA L6-30 (Included)
Table Size (full assembly)	40" x 27"	74" x 27"	48" x 27"	48" x 27"
Table Height Above Floor	34"	34"	34"	34"
Overall Machine Size	56"L x 47"W	84"L x 47"W	56"L x 47"W	56"L x 47"W
Footprint Size	20½"L x 20½"W	20½"L x 20½"W	20½"L x 20½"W	20½"L x 20½"W
Weight	471 lbs.	522 lbs.	509 lbs.	509 lbs.
Fence Type	Shop Fox Classic	Shop Fox Classic	Shop Fox Classic	Shop Fox Classic
Router Table Ext Wing	No	No	Yes	Yes
Maximum Rip Right of Blade	32"	60"	32"	32"
Maximum Rip Left of Blade	14"	14"	14"	14"
Maximum Depth of Cut at 90°	3"	3"	3"	3"
Maximum Depth of Cut at 45°	2⅛"	2⅛"	2⅛"	2⅛"
Maximum Blade Diameter	10"	10"	10"	10"
Arbor Size	⅝"	⅝"	⅝"	⅝"
Arbor Speed	4200 RPM	4200 RPM	4200 RPM	4200 RPM
Rim Speed	11,000 FPM	11,000 FPM	11,000 FPM	11,000 FPM
Blade Tilt (Left)	0° – 45°	0° – 45°	0° – 45°	0° – 45°
Maximum Dado Width	1⅜"	1⅜"	1⅜"	1⅜"
Spreader/Riving Knife Thickness	0.098"–0.102" (2.5mm–2.6mm)	0.098"–0.102" (2.5mm–2.6mm)	0.098"–0.102" (2.5mm–2.6mm)	0.098"–0.102" (2.5mm–2.6mm)
Required Blade Body Thickness	0.086"–0.094" (2.2mm–2.4mm)	0.086"–0.094" (2.2mm–2.4mm)	0.086"–0.094" (2.2mm–2.4mm)	0.086"–0.094" (2.2mm–2.4mm)
Required Blade Kerf Thickness	0.122"–0.129" (3.1mm–3.3mm)	0.122"–0.129" (3.1mm–3.3mm)	0.122"–0.129" (3.1mm–3.3mm)	0.122"–0.129" (3.1mm–3.3mm)
Country of Origin	Taiwan	Taiwan	Taiwan	Taiwan
Warranty	1 Year	1 Year	1 Year	1 Year




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 This symbol is used to alert the user to useful information about proper operation of the machine.

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.

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.

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.

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**.

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.

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.

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.
- 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 support the workpiece.
- Make sure the spreader or riving knife is aligned with the blade. A misaligned spreader or riving knife can cause the workpiece to catch or bind, increasing the chance of kickback. If you think that your spreader or riving knife is not aligned with the blade, check it immediately!
- 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.

WARNING

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 the kickback.

Protecting Yourself from Kickback

Even if you know how to prevent kickback, it may still happen. Take these precautions 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. Should kickback occur, your hand will be pulled into the blade.
- 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 that your hand would have received.
- Use featherboards or anti-kickback devices to prevent or slow down kickback.



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: Tilting the arbor and saw blade to an angle between 0° and 45° to cut a beveled edge onto a workpiece. Refer to **Page 37** 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 31** for more details.

Crosscut: Cutting operation in which the miter gauge is used to hold the workpiece while it is cut across its shortest width. Refer to **Page 36** for more details.

Dado Blade: Blade or set of blades that are used to cut grooves and rabbets.

Dado Cut: Cutting operation that uses a dado blade to cut a flat bottomed groove into the face of the workpiece. Refer to **Page 37** for more details.

Featherboard: Safety device used to keep the workpiece against the rip fence and against the table surface. Refer to **Page 45** 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 28** 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 49** for more details.

Rabbet: Cutting operation that creates an L-shaped channel along the edge of the workpiece. Refer to **Page 40** 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 35** for more details.

Riving Knife: Curving metal plate located behind the blade. It maintains the kerf opening in the wood when performing a cutting operation. Refer to **Page 34** for more details.

Spreader: Straight metal plate located behind the blade. Maintains kerf opening in wood when performing a cutting operation. Acts as a barrier behind blade to shield hands from being pulled into the blade if a kickback occurs.

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.

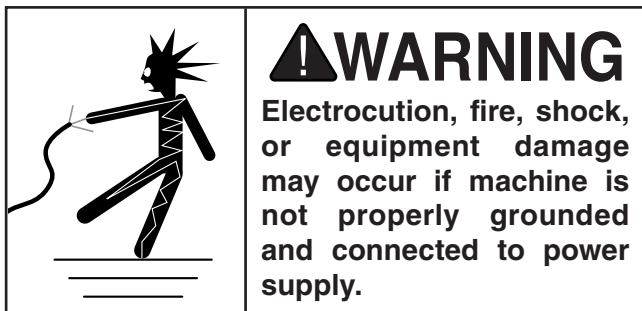
Through Cut: A cut in which the blade cuts completely through the workpiece (refer to **Page 28**).



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.



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

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.)



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

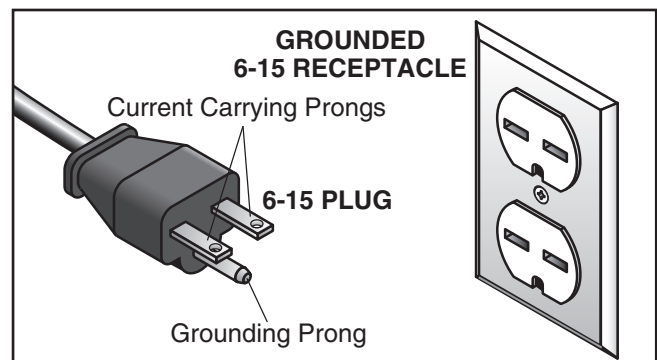


Figure 1. Typical 6-15 plug and receptacle.



Circuit Requirements for G1023RLWX

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

Nominal Voltage208V, 220V, 230V, 240V
Cycle60 Hz
PhaseSingle Phase
Circuit Rating30 Amps
Plug/ReceptacleNEMA 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!

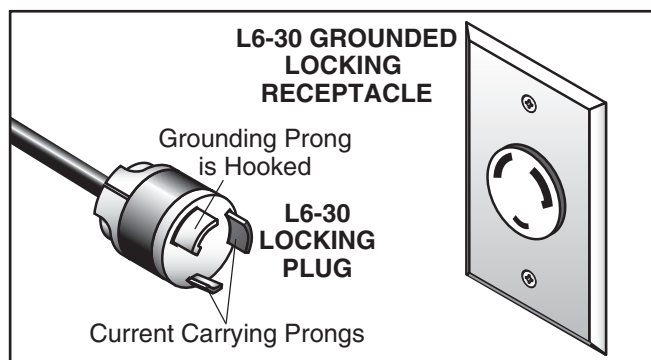


Figure 2. Typical L6-30 plug and receptacle.

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.

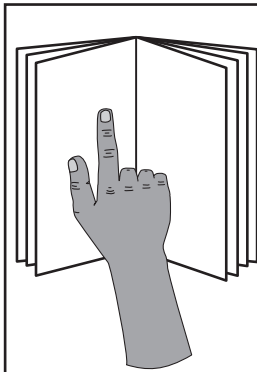
Min. Gauge (G1023RLWX)10 AWG
Maximum Length (Shorter is Better).....50 ft.

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.

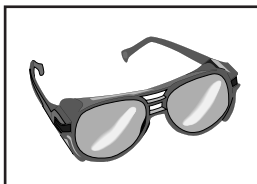


SECTION 3: SETUP



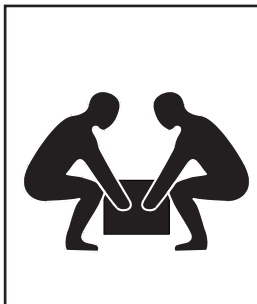
!WARNING

This machine presents serious injury hazards to untrained users. Read through this entire manual to become familiar with the controls and operations before starting the machine!



!WARNING

Wear safety glasses during the entire setup process!



!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.

Needed for Setup

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

Description	Qty
• Safety Glasses	1
• Cleaner/Degreaser (Page 17)	As Needed
• Disposable Shop Rags.....	As Needed
• Additional People	1
• Forklift.....	1
• Lifting Straps (min. 1000 lb. capacity)	2
• Straightedge 12" (or longer)	1
• Straightedge 36" (or longer)	1
• Wrench/Socket 8, 10, 12, 14mm	1 Each
• Wrench/Socket $\frac{9}{16}$ ", $\frac{3}{4}$ "	1 Each
• Utility Knife or Razor Blade	1
• Masking Tape	Varies
• Hammer.....	1
• Screwdriver Phillips #2	1
• Dust Collection System	1
• Dust Hose 4"	1
• Hose Clamps 4"	2
• Hex Wrench 3mm.....	1
• Open-End Wrench 14mm.....	1

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.*

!WARNING







SUFFOCATION HAZARD!
Keep children and pets away from plastic bags or packing materials shipped with this machine. Discard immediately.










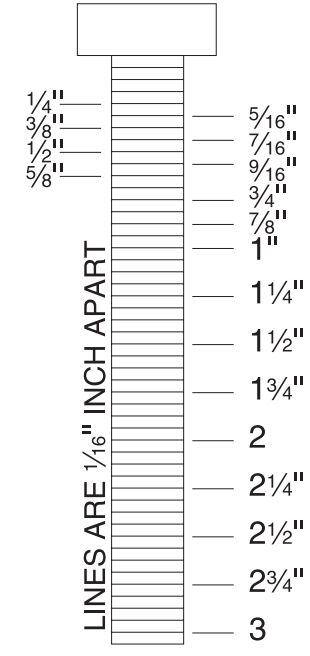
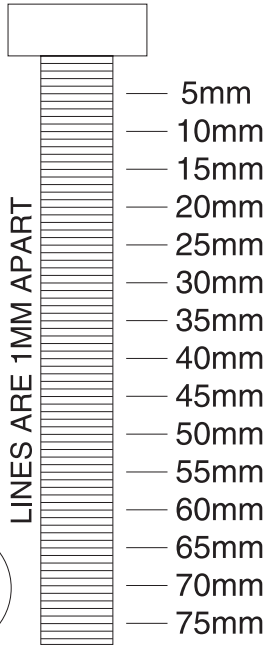
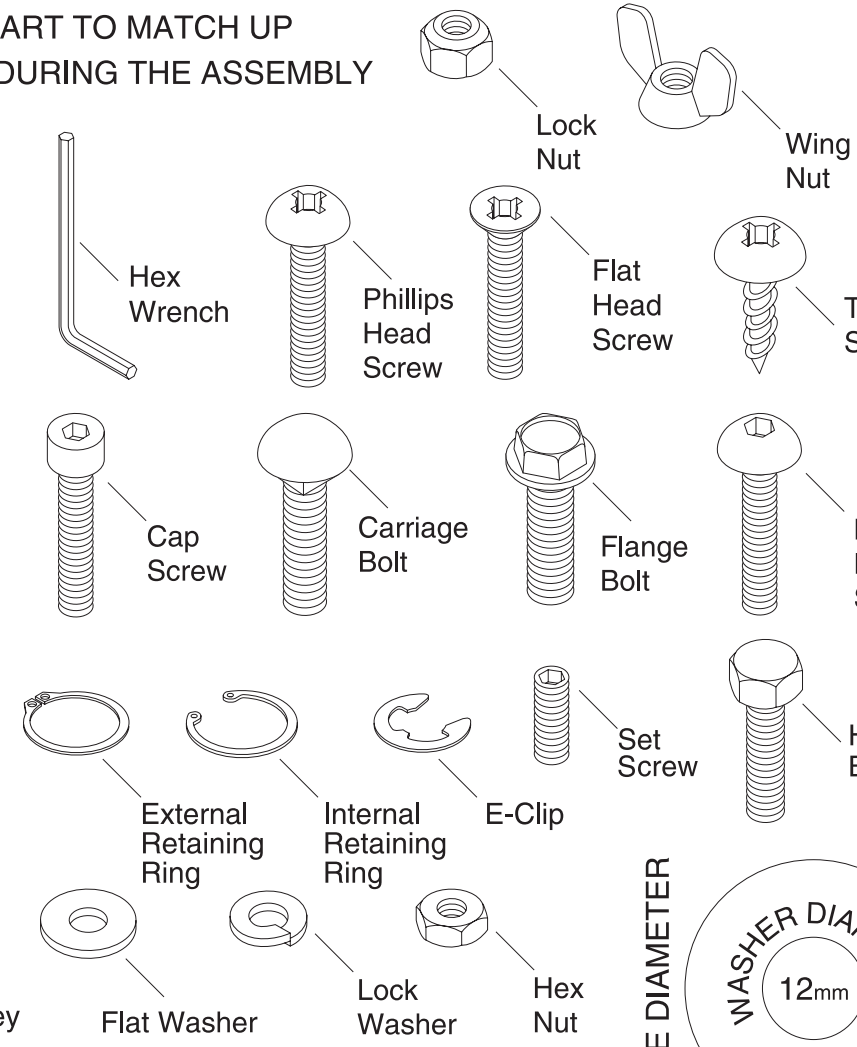
Hardware Recognition Chart

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

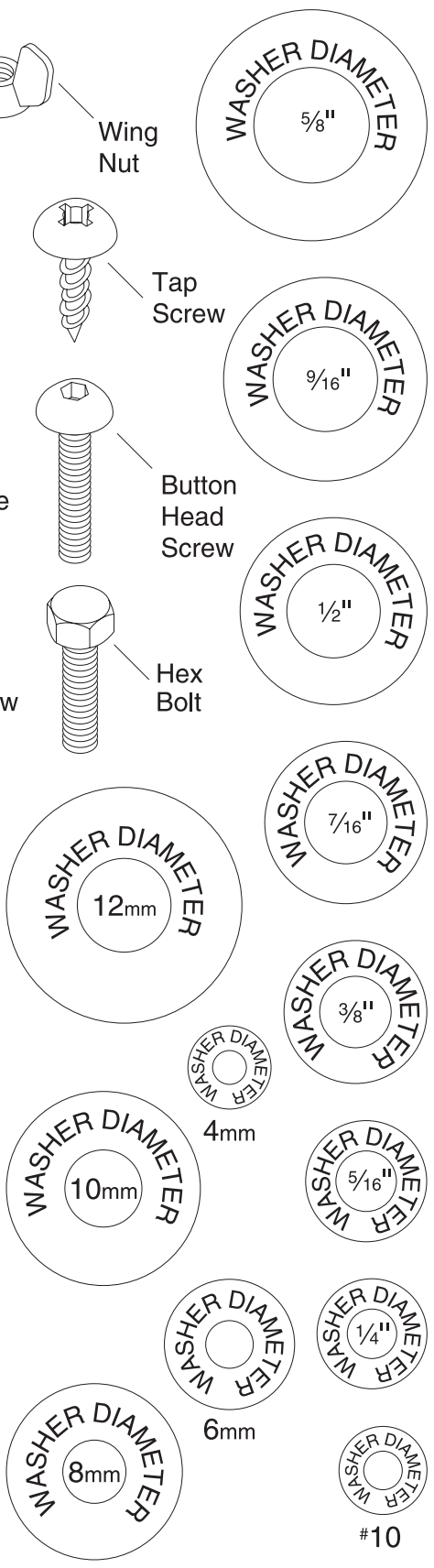
MEASURE BOLT DIAMETER BY PLACING INSIDE CIRCLE

-  #10
-  1/4"
-  5/16"
-  3/8"
-  7/16"
-  1/2"

-  4mm
-  5mm
-  6mm
-  8mm
-  10mm
-  12mm
-  16mm



WASHERS ARE MEASURED BY THE INSIDE DIAMETER



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 3–5):	Qty
A. Table Saw Unit	1
B. Motor Cover.....	1
C. Arbor Wrenches	2
D. Dust Port	1
E. Switch Brace	1
F. Fence Resting Brackets	2
G. Handwheel Handle	1
H. Miter Gauge.....	1
I. Extension Wing	1*
J. Push Stick	1
K. Blade Guard	1
L. Spreader.....	1
M. Switch Disabling Lock	1
N. Riving Knife	1
O. Dado Blade Table Insert.....	1
P. Blade 10"	1
Q. Latch (not shown)	1
R. Lock Knobs.....	2
S. Handwheels.....	2
T. Shaft Keys 5 x 5 x 35.....	2

* G1023RL supplied with two extension wings.

Hardware and Tools (Not Shown):	Qty
Flat Head Screw $\frac{5}{16}$ "-18 x $\frac{3}{4}$ " (Switch)	1
Flat Washer $\frac{5}{16}$ " (Switch).....	1
Hex Nut $\frac{5}{16}$ "-18 (Switch)	1
Phillips Head Screws #8-32 x $\frac{3}{8}$ " (Latch).....	2
Hex Nuts #8-32 (Latch)	2
Hinge Pins (Motor Cover)	2
Hex Wrenches 3, 5.....	1 Each
Open-End Wrench 12 x 14mm	1
Button Hd Cap Screw M5-.8 x 8 (Bracket).....	4



Figure 3. G1023RL basic table saw unit.

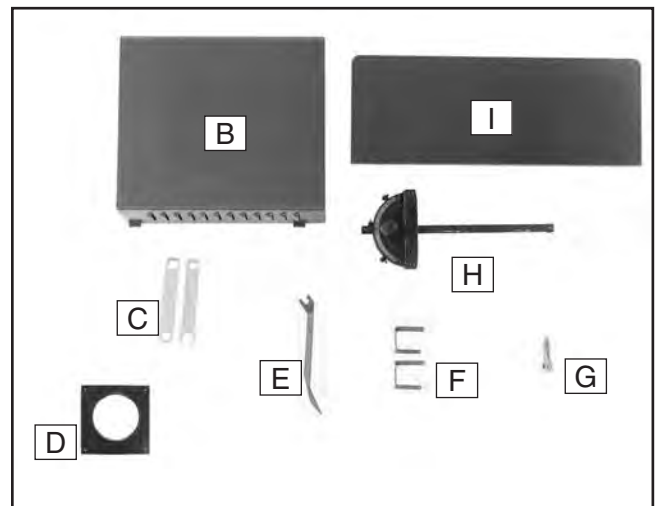


Figure 4. G1023RL main components.

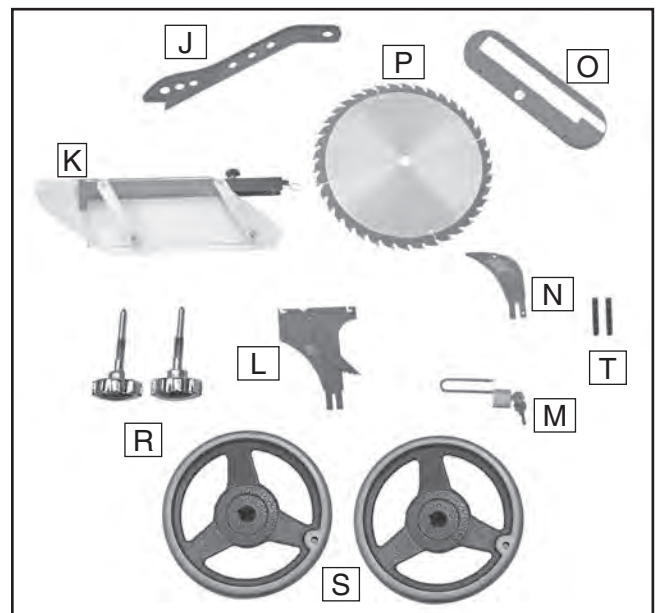


Figure 5. G1023RL main components.



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 6**. To avoid confusion, we suggest removing any items not listed here from your immediate work area.

Box Contents (Figure 6):	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

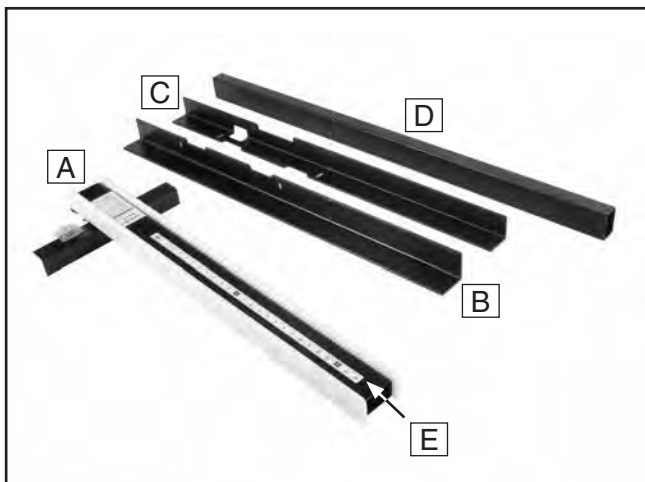


Figure 6. Inventory needed to install the fence on the Model G1023RL/W/WX.

Hardware and Tools (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 7 –8)	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

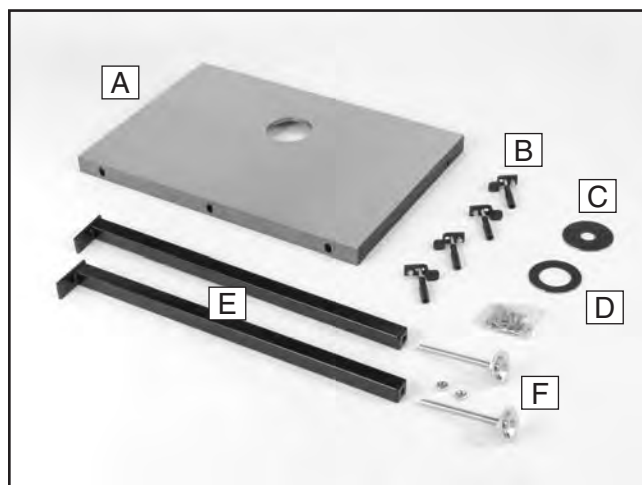


Figure 7. Router table extension wing inventory.

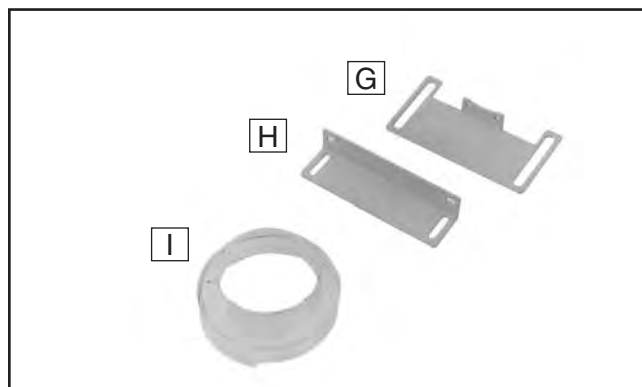


Figure 8. Router table guard inventory.



Hardware and Tools (Not Shown):

Router Table

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

Guard

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

**Fence & Rail Inventory
G1023RLX**

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 9**. To avoid confusion, we suggest removing any items not listed here from your immediate work area.

Box Contents (Figure 9)

	Qty
A. Front Rail Rectangular Tube (94 $\frac{1}{2}$ " 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 $\frac{1}{4}$ " Long).....	1
G. Fence Assembly.....	1
H. Leg Braces	2
I. Scale	1

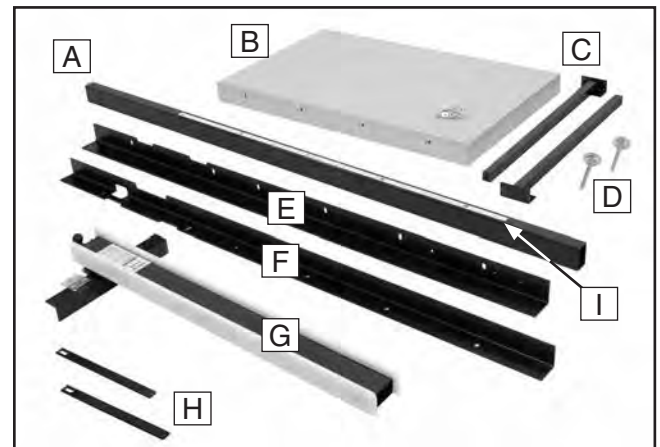


Figure 9. Inventory needed to install the fence on the Model G1023RLX.

Hardware and Tools (Not Shown):

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

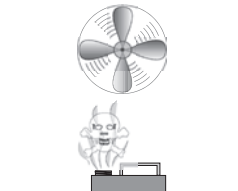
Before cleaning, gather the following:

- 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 chlorine-based solvents, such as acetone or brake parts cleaner, that may damage painted surfaces.

T23692—Orange Power

A great product for removing the waxy shipping grease from your machine during clean up.

<p>Call 1-800-523-4777 To Order</p>	
--	---

Figure 10. T23692 Orange Power Degreaser.



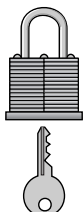
Site Considerations

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.**

	<h3>CAUTION</h3> <p>Children or untrained people may be seriously injured by this machine. Only install in an access restricted location.</p>
---	---

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.

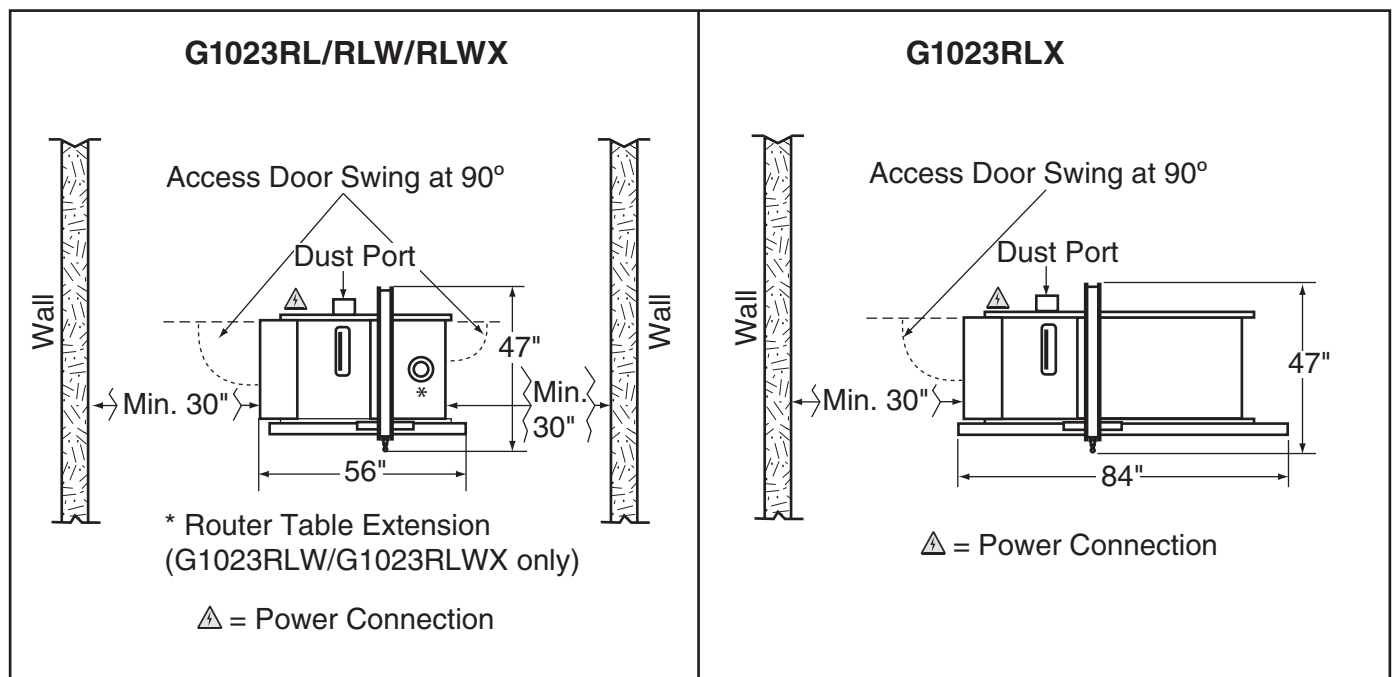


Figure 11. Minimum working clearances.



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 Only: Mount the router table extension (RLW/RLWX) or extension table (RLX) to the table *after* the fence rails are installed. Refer to the instructions on **Page 24** for mounting the router guard and a router.

To assemble your machine:

1. Remove the shipping crate, the bolts that secure the cabinet to the shipping pallet, and the shipping brackets from the cabinet. Then move the cabinet off of the pallet.

—If you plan to mount your saw on a mobile base, we recommend doing so now. Assemble the mobile base as detailed in the instructions that came with your base. With the help of another person, walk the cabinet off of the pallet and place it in the mobile base. Or, if you have a forklift, place a lifting strap around each side of the main table, as shown in **Figure 12**. (You must use lifting straps, each with a minimum capacity of 1000 lbs.) Lift the cabinet enough to clear the mobile base, then place it in the mobile base.

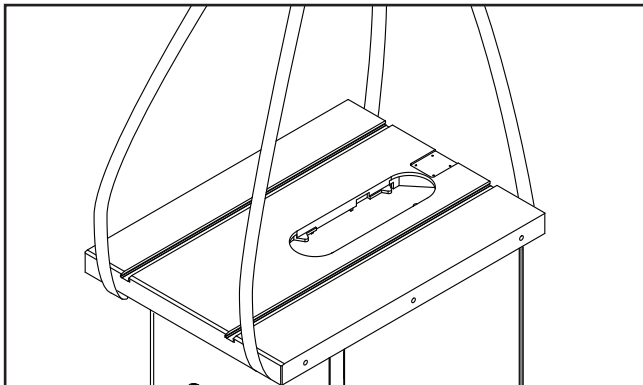


Figure 12. Lifting straps supporting main table.

2. Remove the motor brace shown in **Figure 13** then. The brace is installed to prevent shipping damage.

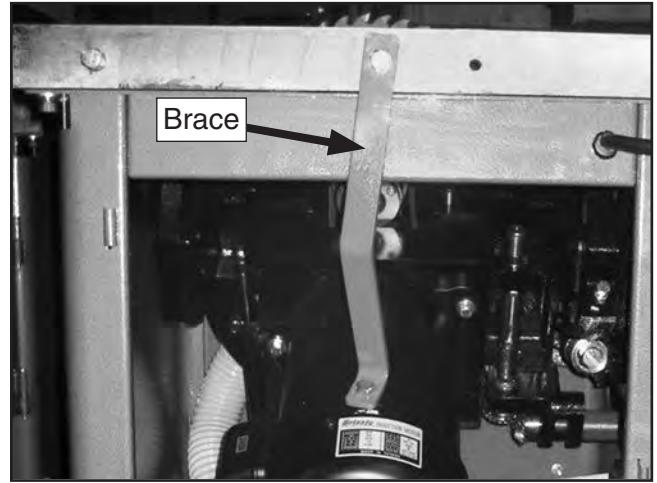
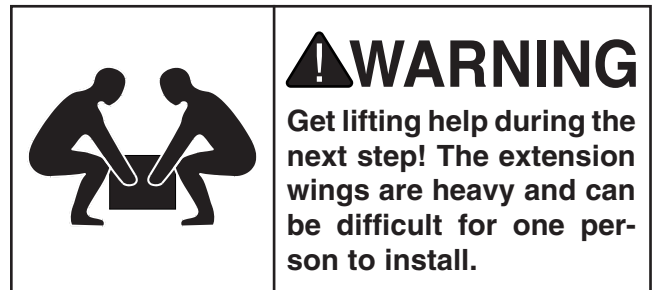


Figure 13. Motor shipping brace.

3. Inspect the left extension wing and main table mating surfaces for burrs or foreign materials that may inhibit assembly. The mating edges of the wing and table must be clean, smooth, and flat. Use a wire brush or file to prepare the edges so the wing mounts properly to the main table.
4. Remove the three bolts and washers from the end of the main table.



5. Have another person hold the left extension wing in place, then mount it to the main table with the three bolts and washers you removed in **Step 4**.
6. Use a straightedge as a gauge and adjust the extension wing up/down until it is flush with the main table above each bolt, then completely tighten all of the bolts.



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

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

— If the outside end of the extension wing tilts down, use a strip of masking tape along the bottom edge of the main table to shim the extension wing up (see **Figure 14**).

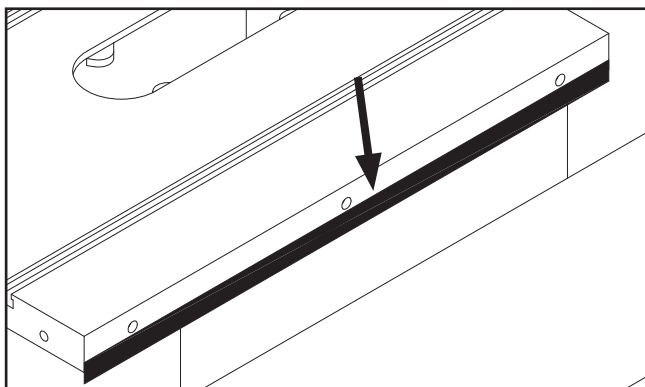


Figure 14. Masking tape location for tilting the extension table up.

— If the outside end of the extension wing tilts up, use a strip of masking tape along the top edge of the main table to shim the extension wing down (see **Figure 15**).

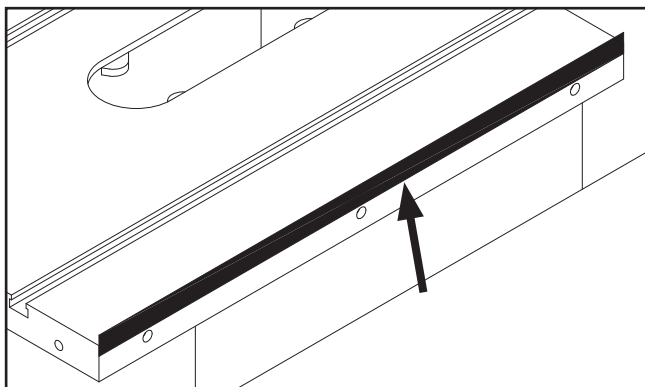


Figure 15. Masking tape location for adjusting the extension wing down.

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

8. **Model G1023RL:** Continue repeating **Steps 3–7** in a similar manner to install the right extension wing.

Model G1023RLW or G1023RLWX: Do not mount the router table extension wing yet. Mount it to the right side of the table *after* the fence rails and rail tube are installed. Refer to **Router Table & Legs on Page 22**.

Model G1023RLX: Do not mount the extension table yet. Mount it to the right side of the table *after* the fence rails and rail tube are installed. Refer to **Extension Table & Legs on Page 22**.

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

10. Attach the switch to the extension wing with (1) $\frac{5}{16}$ "-18 x $\frac{3}{4}$ " flat head screw in front, as shown in **Figure 16**, and (1) $\frac{5}{16}$ " flat washer and (1) $\frac{5}{16}$ " hex nut in back.

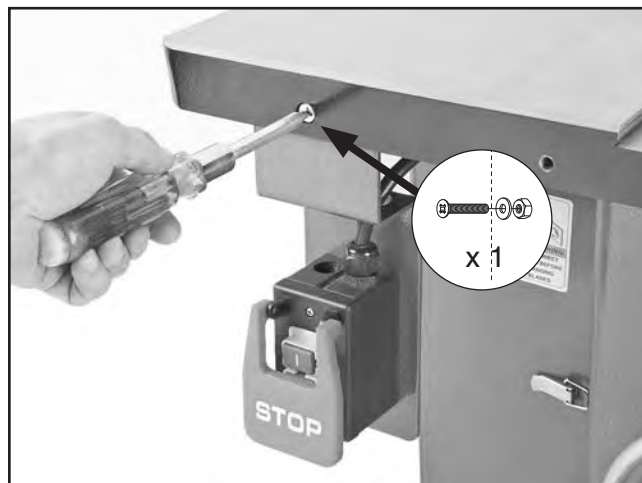


Figure 16. Installing switch.



11. Mount the switch brace, as shown in **Figure 17**, using the pre-installed table mounting fasteners on the top end and the switch mounting fasteners on the bottom end.

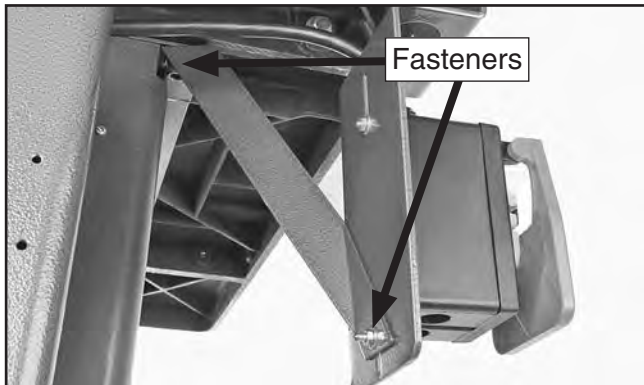


Figure 17. Switch bracket installed.

12. Attach the latch to the motor cover with (2) #8-32 x 3/8" Phillips head screws and (2) #8-32 hex nuts, as shown in **Figure 18**.



Figure 18. Latch installed.

13. Place the motor cover on the cabinet, line up the hinges, and tap the hinge pins into place with a hammer, as shown in **Figure 19**.



Figure 19. Motor cover installed.

14. Mount the fence resting brackets with (4) M5-8 x 8 button head cap screws, as shown in **Figure 20**.



Figure 20. Fence resting brackets installed.

15. Mount the dust port onto the cabinet with the (4) pre-installed tap screws, as shown in **Figure 21**.

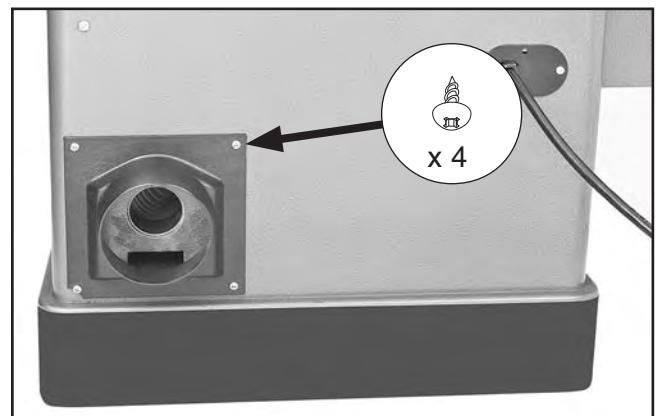


Figure 21. Dust port installed.

16. Place included shaft key into keyway on handwheel shaft, slide handwheel onto shaft, then tighten set screw on side of handwheel (see **Figure 22**).

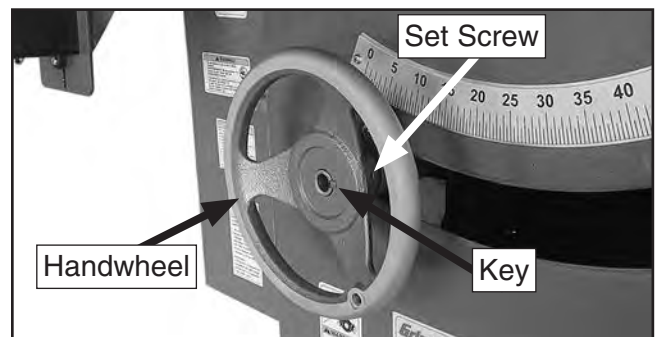


Figure 22. Blade height handwheel installed.



17. Thread lock knob into center of handwheel and tighten, then install handwheel handle (see **Figure 23**).

18. Install remaining handwheel, lock knob, and handwheel handle (see **Figure 23**) in the same manner.

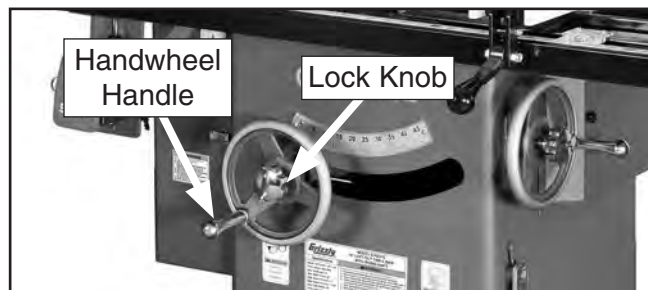


Figure 23. Lock Knobs and handles installed

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 $\frac{1}{16}$ " 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 the Model G1023RLX extension table and legs:

1. With the help of another person to hold the extension table, use the (8) $\frac{3}{8}$ "-16 x $1\frac{3}{4}$ " hex bolts, (16) $\frac{3}{8}$ " flat washers, and (8) $\frac{3}{8}$ " hex nuts to secure the extension table to the rails, as shown in **Figure 24**.

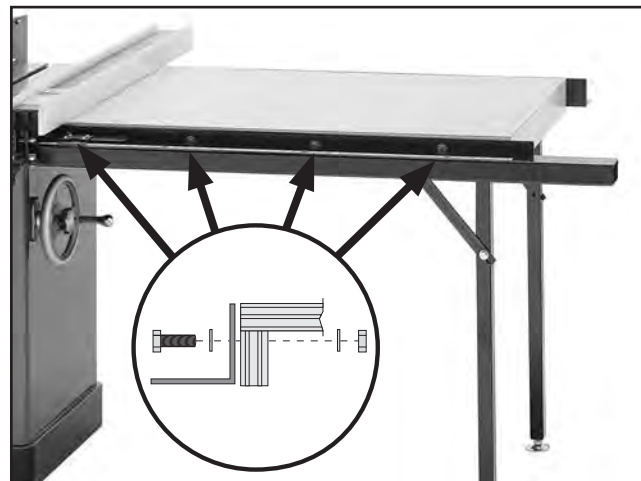


Figure 24. Extension table installed.

2. Thread the feet into the legs, place the legs under the table, and thread the feet out until the top of each leg is against the underside corner of the table.
3. Use (12) #8 x $\frac{5}{8}$ " wood screws to fasten the legs to the underside corners of the extension table, as shown in **Figure 25**.
4. Use (2) $\frac{3}{8}$ "-16 x $\frac{3}{4}$ " hex bolts and $\frac{3}{8}$ " flat washers to loosely attach the braces to the legs (see **Figure 25**). These will be adjusted and fully tightened later.
5. Use the (2) $\frac{1}{4}$ " x $\frac{3}{4}$ " wood screws and $\frac{1}{4}$ " flat washers to attach the braces to the extension table (see **Figure 25**).

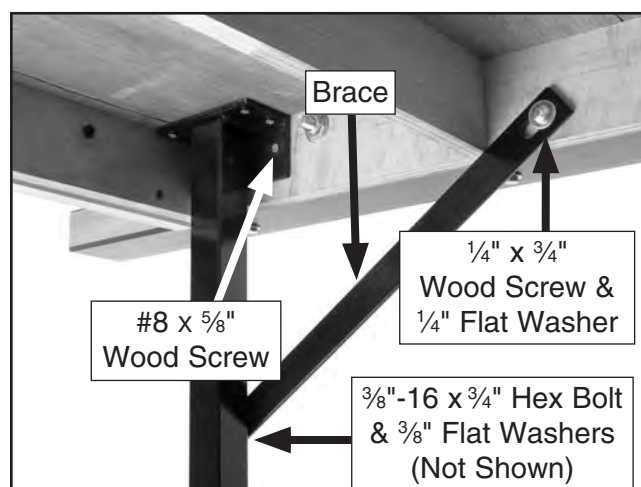


Figure 25. Leg and brace mounted.



6. Tighten the bolts that hold the braces.
7. Adjust the extension table so it is flat (both flush and parallel) with the main table. This can be done by loosening the mounting bolts and adjusting the feet up/down as needed. **Figure 26** shows the extension table installed on the saw.



Figure 26. Extension table installed.

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

Saw Blade

Install the saw blade as outlined in **Blade Installation** on **Page 30**.

Table Insert

To install the table insert:

1. Install the table insert into the opening of the table saw over the blade.
2. Adjust the table insert set screws to make sure the insert is flush with the table, using a straightedge as a guide, (see **Figure 27**).

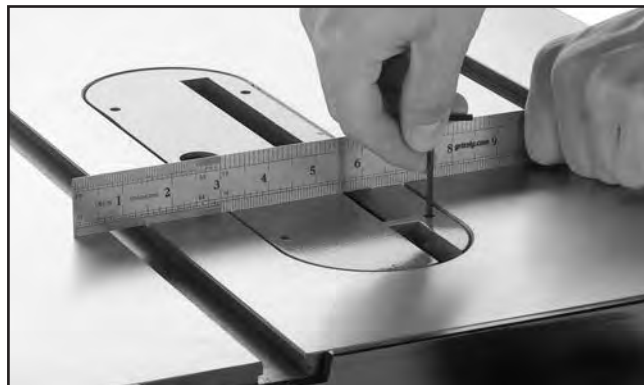


Figure 27. Adjusting insert flush with table.

3. Follow instructions in **Checking Fence Parallelism**, then proceed to **Blade Guard** to complete the 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 67**). 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 31**.



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

DO NOT operate the table saw without an adequate dust collection system. This saw creates substantial amounts of wood dust while operating. Failure to use a dust collection system can result in short and long-term respiratory illness.

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

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

To connect a dust collection hose:

1. Fit a 4" dust hose over the dust port, as shown in **Figure 28**, and tightly secure in place with a hose clamp.



Figure 28. Dust hose attached to dust port.

2. Tug the 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 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

Test run your machine to make sure it runs properly and is ready for regular operation.

The test run consists of verifying the following:

- 1) The motor powers up and runs correctly, and
- 2) the safety disabling mechanism on the switch works correctly when the padlock is installed.

If, during the test run, you cannot easily locate the source of an unusual noise or vibration, stop using the machine immediately, then review **Troubleshooting** on **Page 57**.

If you still cannot remedy a problem, contact our Tech Support at (570) 546-9663 for assistance.

To test run the machine:

1. Make sure you have read the safety instructions at the beginning of the manual and that the machine is setup properly.
2. Make sure all tools and objects used during setup are cleared away from the machine.
3. Connect the machine to the power source (refer to **Power Connection** on **Page 24** for instructions).
4. Remove the switch disabling lock if it is installed.
5. Verify that the machine is operating correctly by turning it **ON**.

—When operating correctly, the machine runs smoothly with little or no vibration or rubbing noises.

—If the machine makes strange or unusual noises or vibrations, investigate and correct before operating further. Always disconnect the machine from power when investigating or correcting potential problems.

6. Turn the machine **OFF**.

7. Insert the padlock shaft through the ON button, as shown in **Figure 29**.

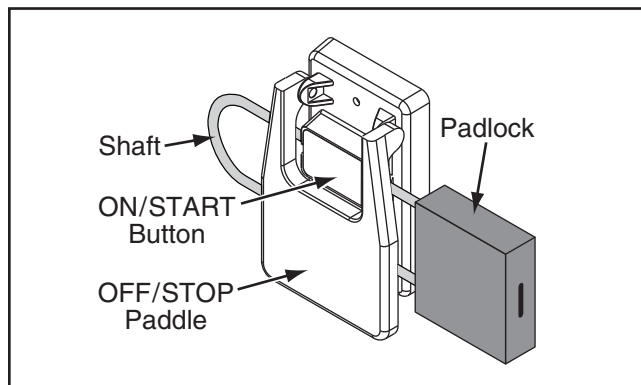


Figure 29. Padlock inserted through ON button.

8. Press the ON button to test the switch lock. The motor should not start when the padlock is installed in the switch.

—If the machine does not start, the switch disabling feature is working as designed and the saw is ready to operate.

—If the machine starts, immediately stop the machine. The switch disabling feature is not working correctly. This safety feature must work 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.

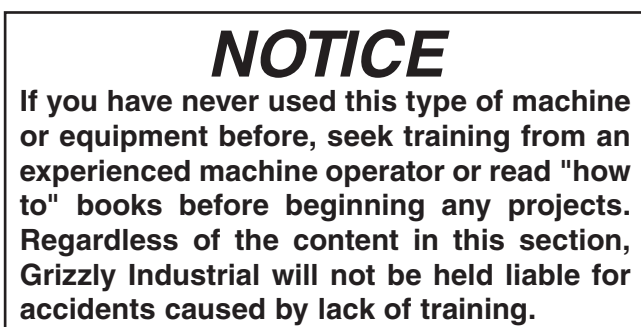
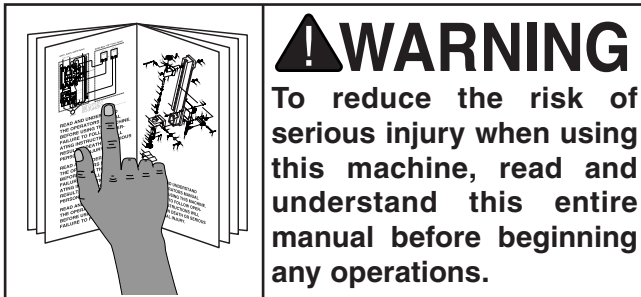
Step-by-step instructions for these adjustments can be found in **SECTION 7: SERVICE**.

Adjustments that should be verified:

1. Blade Tilt Stop Accuracy (**Page 59**).
2. Miter Slot Parallel to Blade (**Page 61**).
3. Spreader/Riving Knife Alignment (**Page 64**).



SECTION 4: OPERATIONS



Basic Controls

ON/OFF Switch: Starts and stops the motor.

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

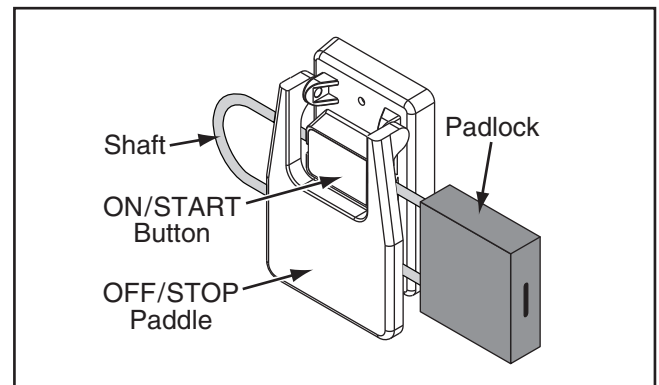


Figure 30. ON/OFF switch with disabling lock.

Blade Height Handwheel: Adjusts blade height.

Blade Height Lock: Locks the blade height.

Fence Lock: Locks and unlocks fence position.

Blade Tilt Handwheel: Adjusts the blade angle.

Blade Tilt Lock: Locks blade tilt handwheel so it does not move during operations.

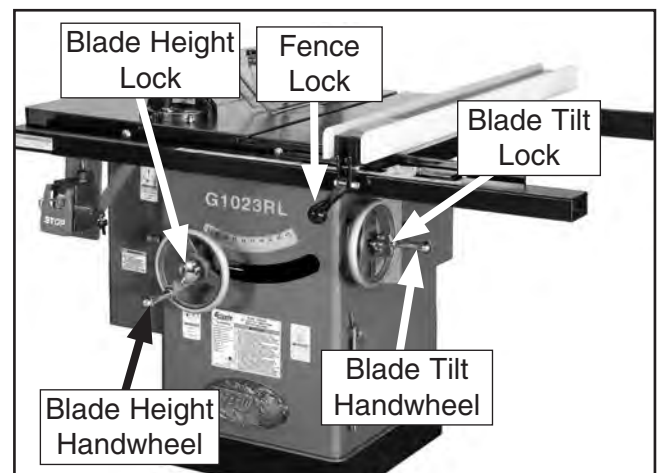


Figure 31. Basic table saw controls.



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 a typical operation, so the 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, read "how to" books, and seek additional training from experienced machine operators.

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

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

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

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.

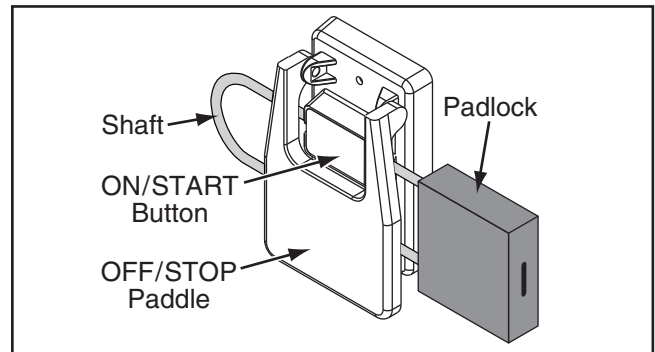


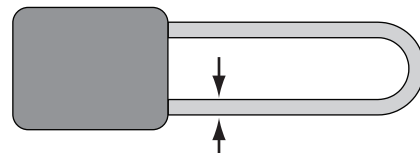
Figure 32. Switch disabled by padlock.

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.



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.

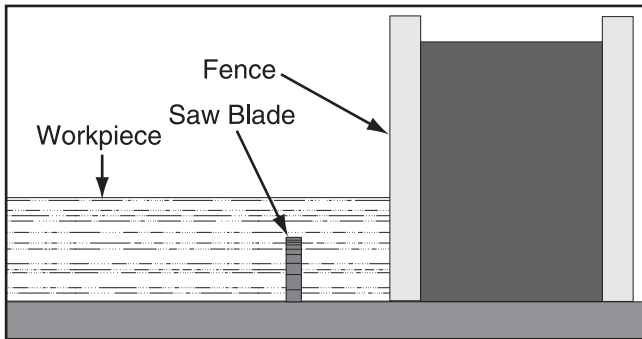


Figure 33. Example of a non-through cut.

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. 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.

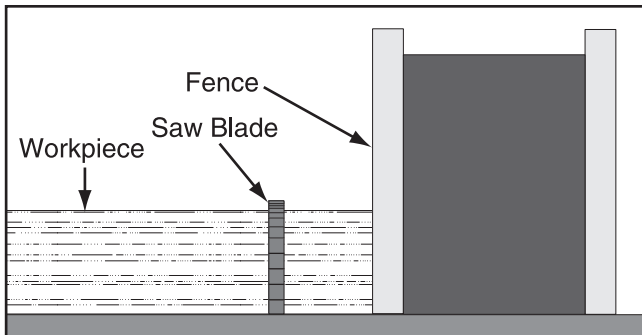


Figure 34. Example of a through cut (blade guard not shown for illustrative clarity).

Stock Inspection

Some workpieces are not safe to cut or may require modification before they are safe to 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.



Blade Requirements

To ensure that the spreader or riving knife works safely, the following requirements **MUST** be met when installing new blades:

- Blade Diameter: 10"
- Spreader/Riving Knife Thickness: 0.98"–0.102" (2.5–2.6mm)
- Required Blade Body Thickness (excluding teeth): 0.086"–0.094" (2.2–2.4mm)
- Required Blade Kerf Thickness: 0.122"– 0.129" (3.1mm–3.3mm)

The spreader or riving knife **MUST** be aligned/adjusted to blade. These requirements do not apply to dado blades.

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

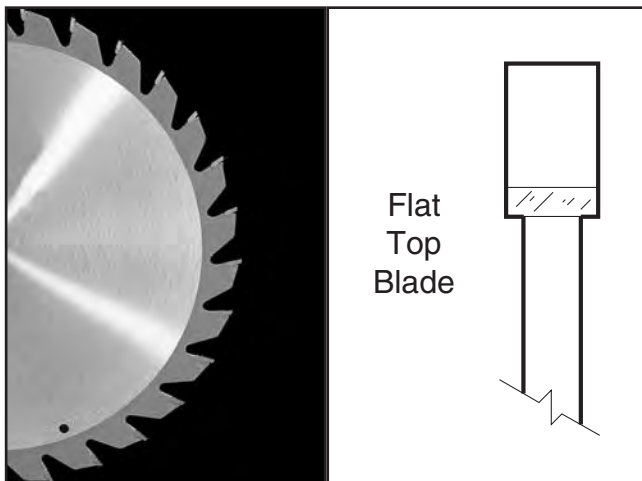


Figure 35. Ripping blade.

Crosscut blade features:

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

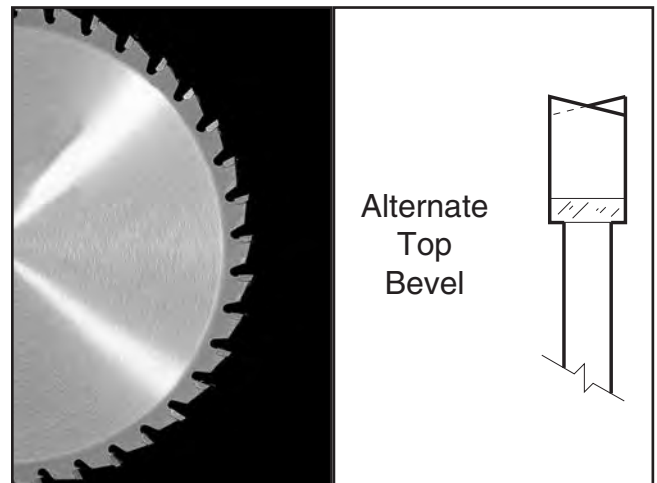


Figure 36. Crosscutting blade.

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)

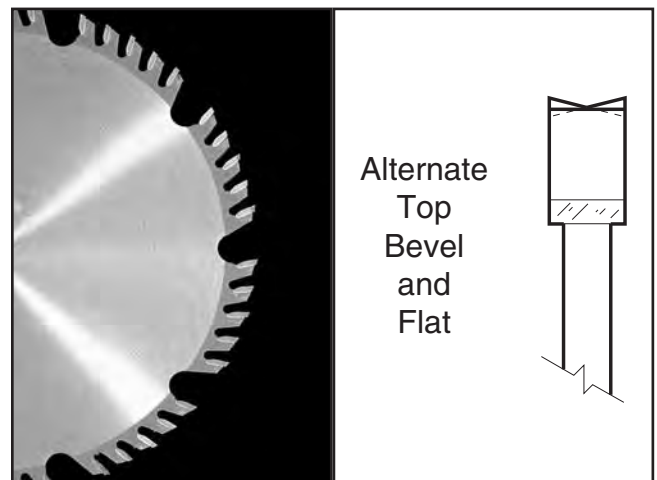


Figure 37. Combination blade.



Laminate blade features:

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

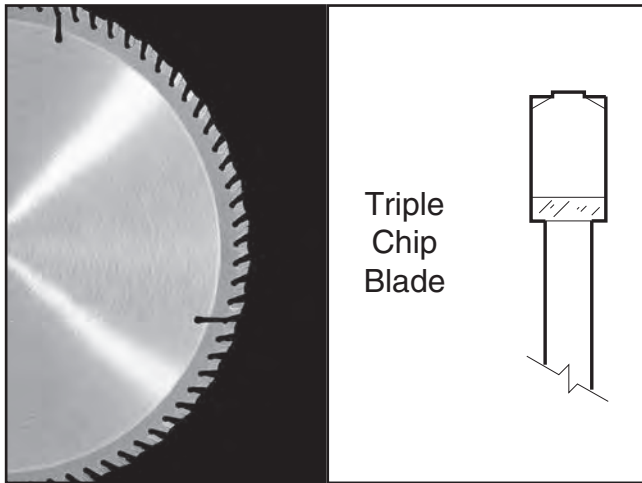


Figure 38. Laminate blade.

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; otherwise, they will increase the risk of kickback.

Dado Blades

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.

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.

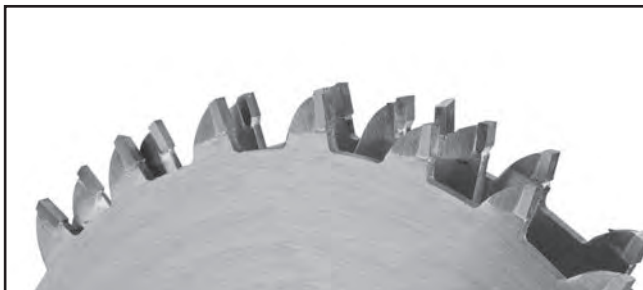


Figure 39. Stacked dado blade.

Blade Installation

CAUTION

The saw blade is sharp. Use extra care and wear gloves when installing the blade.

To install a new blade:

1. DISCONNECT SAW FROM POWER!
2. Raise the arbor all the way up, and remove the table insert and blade guard/riving knife, depending on what is installed.
3. Use the arbor wrenches to loosen and remove the arbor nut, flange, and blade. The arbor nut has right hand threads; turn it counter-clockwise to loosen.
4. Install the new blade and flange on the arbor, as shown in **Figure 40**, with teeth facing the front of the saw. Securely tighten the arbor nut.

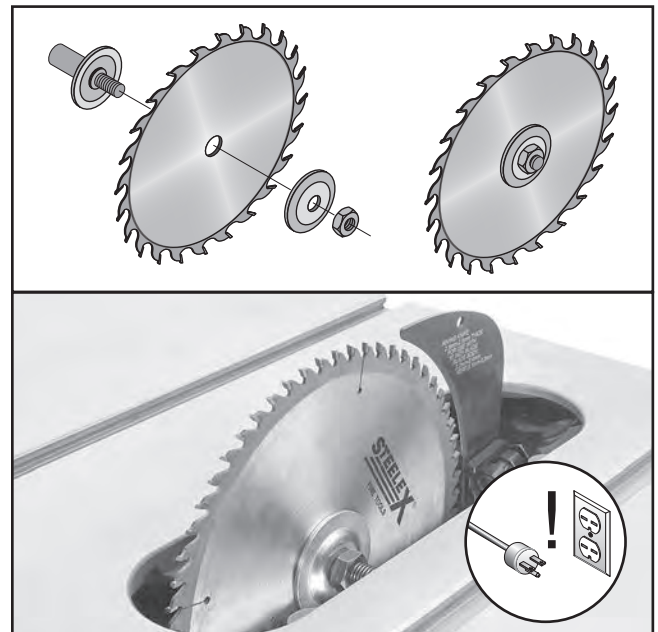


Figure 40. Blade order of installation and teeth facing the correct direction.

5. Re-install the blade guard and table insert.



6. Re-install the arbor flange and the arbor nut, and tighten them against the blade with the wrenches included with the saw. DO NOT overtighten.
7. Reinstall the blade guard/riving knife and the table insert.

Blade Guard Assembly

The term "blade guard" refers to the assembly that consists of the clear polycarbonate shield, the spreader, and the anti-kickback pawls on each side of the spreader (see **Figure 41**). Each of these components have important safety functions during the operation of the saw.

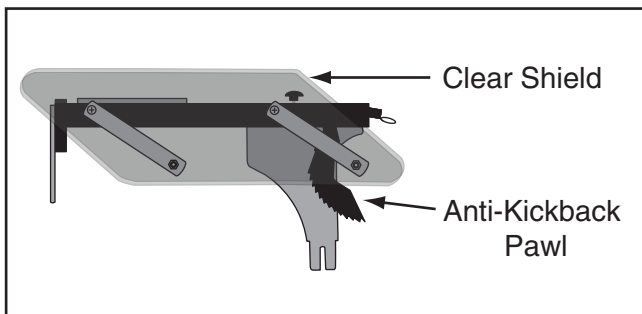


Figure 41. Blade guard assembly components.

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, it must always be in the downward position against the table during idle operation, and the hinge mechanisms 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, 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.

⚠️ WARNING

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 64 to check or adjust alignment if necessary.

Installing Blade Guard & Spreader

1. DISCONNECT POWER TO THE SAW!
2. Raise the blade up all the way, then open the right access door and locate the quick release lever (see **Figure 42**).

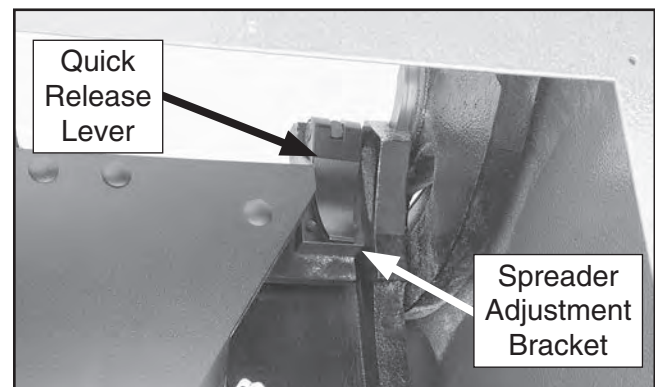


Figure 42. Quick release lever location (viewed from inside cabinet).



- Loosen the top knob on the blade guard, slide the pins on the guard into the spreader slots, move the guard back, then tighten the top knob (see **Figure 43**).

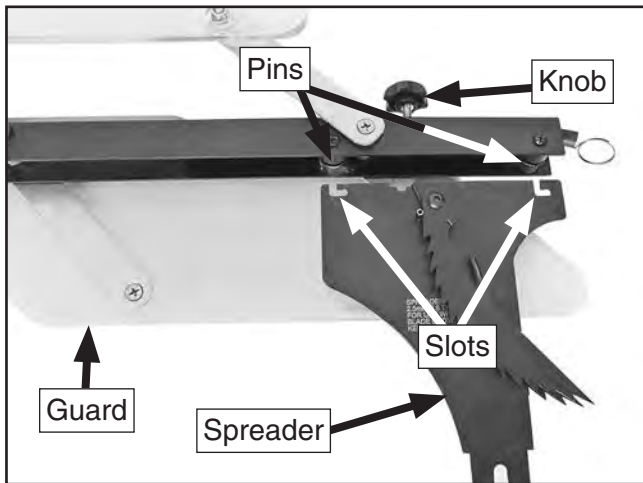


Figure 43. Assembling blade guard and spreader.

- Flip the quick release lever up, insert the spreader into the spreader adjustment bracket, then push the lever down completely to secure the spreader (see **Figure 44**).

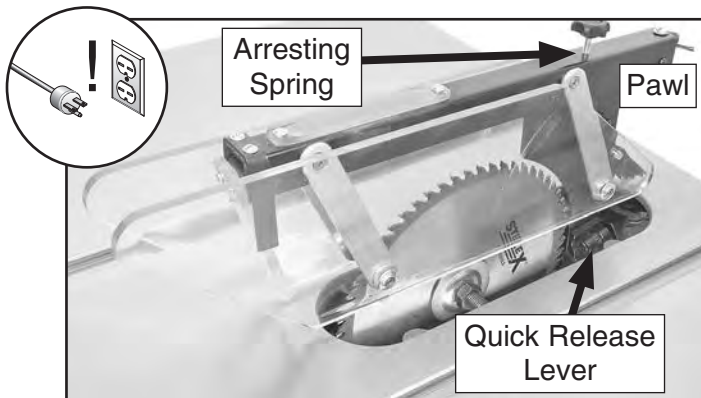


Figure 44. Spreader installed (*insert removed for clarity*).

- Tug the spreader up to verify it is locked.
- Close the right access door.
- Check to make sure the blade is 90° to the table. Follow "Setting 90° Stop Bolt" instructions on **Page 59**.
- Swing one side of the blade guard up and out of the way.

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

When properly aligned, the spreader/riving knife will be in the "Alignment Zone," shown in **Figure 45**, and will be parallel with the blade.

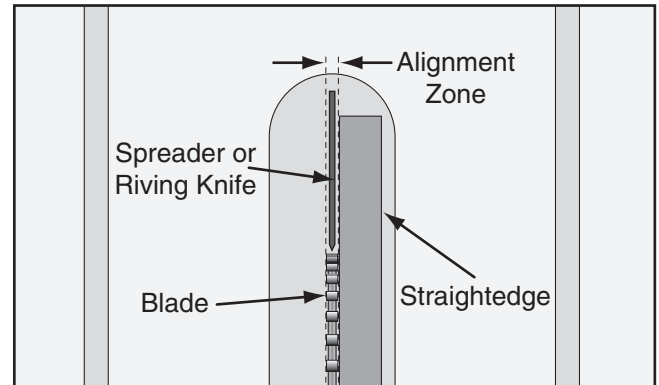


Figure 45. Spreader/riving knife alignment zone.

—If the spreader/riving knife is not inside the alignment zone and not parallel with the blade, then it needs to be adjusted. Proceed to "Adjusting Alignment" on **Page 64**.

- Remove the right pawl from the arresting spring and lower it back onto the 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 46**, and they must not be engaged in the arresting spring.

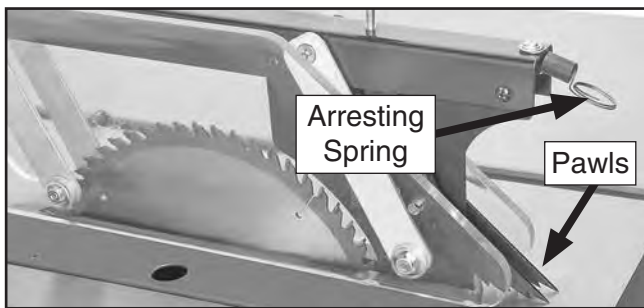


Figure 46. Pawls in resting position.

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.

⚠ WARNING

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

⚠ CAUTION

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

To disable the pawls:

1. DISCONNECT SAW FROM POWER!

2. Rotate one or both of the pawls upward, then place the arresting hook(s) in the arresting spring, as shown in **Figure 47**.

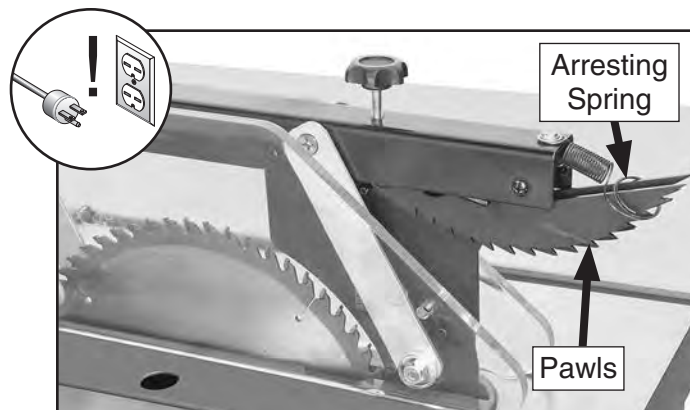


Figure 47. Pawls disabled.

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 46**).

When to Use the Blade Guard

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

We strongly recommend that you keep the blade guard attached to the spreader for all through cuts. The blade guard and spreader offer far more injury protection and risk reduction than the spreader alone. Although the blade guard can be removed from the spreader, the pawls cannot be disabled when the guard is removed. If you need to disable one or both pawls, follow instructions **on this page**.

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 48**.

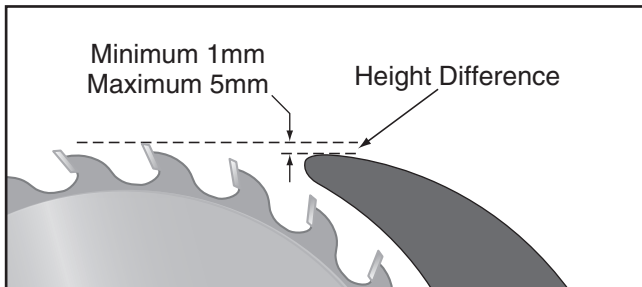


Figure 48. Height difference between riving knife and blade.

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 49**. For that reason, we only recommend using a 10" blade for operations that require use of the riving knife.

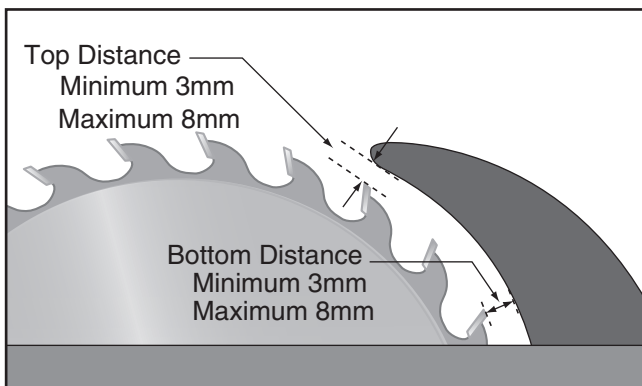


Figure 49. Allowable top and bottom distances between riving knife and blade.

!WARNING

To ensure that the riving knife works safely, it **MUST** be aligned with and correctly adjusted to the blade. Refer to Page 64 to check or adjust the 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., dados or rabbet cuts in which a dado blade is NOT used, and when using a tenoning jig).

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". 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 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** on Page 31 for installation instructions.



Ripping

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

!WARNING

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

To make a rip cut:

1. Review **Preventing Kickback** on **Page 8** and take the necessary precautions to prevent kickback.
2. If using natural wood, joint one long edge of the workpiece on a jointer.
3. **DISCONNECT THE SAW FROM POWER!**
4. Ensure that the blade guard and spreader is installed.
5. Set the fence to the desired width of cut on the scale.
6. Adjust the blade height so the highest saw tooth protrudes no more than $\frac{1}{4}$ " above the workpiece.
7. Set up safety devices such as featherboards or other anti-kickback devices.
8. Rotate the blade to make sure it does not come into contact with any of the safety devices.
9. Connect the saw to the power source, turn it **ON**, and allow it to reach full speed.

Note: *The jointed edge of the workpiece must slide against the fence during the cutting operation.*

10. Use a push stick to feed the workpiece through the saw blade, as shown in **Figure 49** until the workpiece is completely beyond the saw blade.

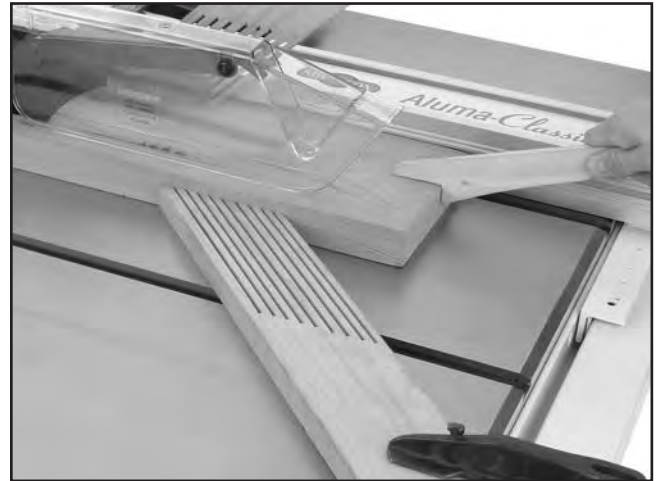
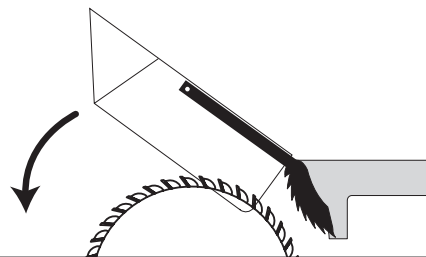


Figure 50. Typical ripping operation.

!WARNING

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

!WARNING



Keep the blade guard installed and in the 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. In other man-made materials, such as MDF or plywood, crosscutting means cutting across the width of the workpiece.

To make a crosscut using the miter gauge:

1. DISCONNECT SAW FROM POWER!
2. Ensure that the blade guard/spreader is installed.
3. Move the rip fence aside and position the miter gauge, adjusted to 90°, in a miter slot.
4. Adjust the blade height so the teeth protrude no more than ¼" above the workpiece.
5. Slide the miter gauge near the blade and adjust the workpiece so the blade will cut on the waste side of the line.
6. Plug in the table saw, turn it **ON**, and allow it to reach full speed.
7. Hold the workpiece firmly against the face of the miter gauge (**Figure 51**), and ease it through the blade until the workpiece is completely past the saw blade.

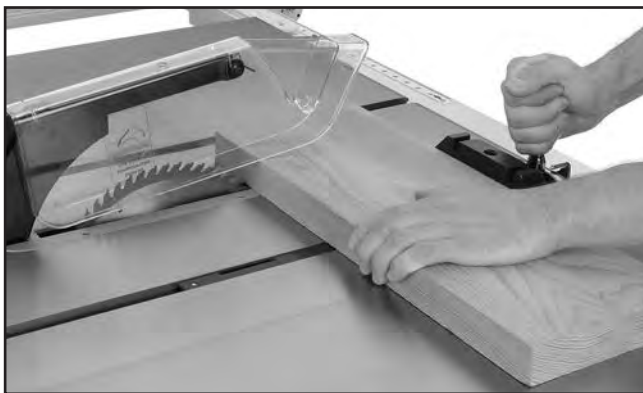


Figure 51. Typical crosscutting operation.

!WARNING

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

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 SAW FROM POWER!
2. Ensure that the blade guard/spreader is installed.
3. Determine the angle of your cut. If the angle needs to be very precise, use a protractor to set the miter gauge to the blade.
4. Place the face of the miter gauge against the edge of the workpiece and place the bar across the face of the workpiece. Use the bar as a guide to mark your cut as shown in **Figure 52**.

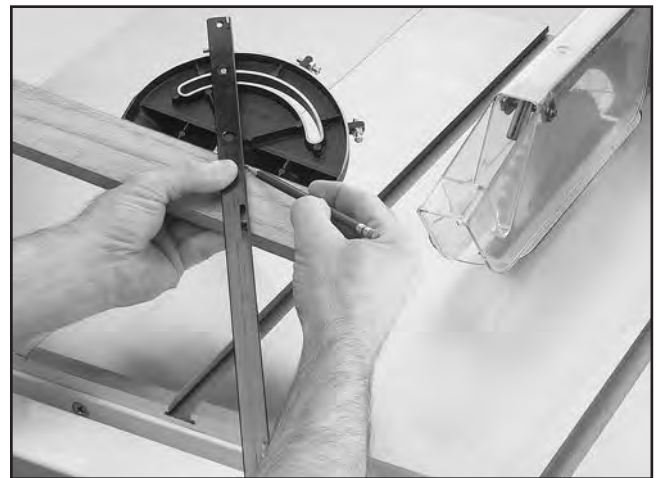


Figure 52. Example of marking miter line.

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



Blade Tilt/Bevel Cuts

When the blade tilt stop bolts are properly adjusted (**Page 59**), 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 53** shows an example of the blade when tilted to 45°.



Figure 53. Blade tilted to 45° for bevel cutting on a typical table saw.

Dado Cutting

Commonly used in furniture joinery, a dado is a straight channel cut in the face of the workpiece. Dados can be cut using either a dedicated dado blade or a standard saw blade. **Figure 54** shows a cutaway view of a dado cut being made with a dado blade.

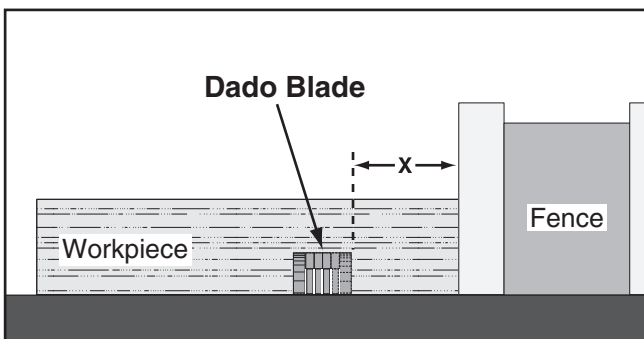


Figure 54. Example of a dado cut with a dado blade.

The included dado table insert or optional zero clearance table insert, Model H4231 see **Page 53**, 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 SAW FROM POWER!
2. Remove the table insert, the blade guard assembly or riving knife, and the saw blade.
3. Attach and adjust the dado blade system according to the dado blade manufacturer's instructions
4. Install the 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

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.

!WARNING

DO NOT make through cuts with a dado blade. Dado blades are only intended for non-through cuts. Failure to heed this warning could result in serious injury.

!WARNING

Never try to dado a warped board by holding it down against the table. If kickback occurs, your hand will likely be pulled into the blade, resulting in serious personal injury.



Cutting Dados with a Dado Blade

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.

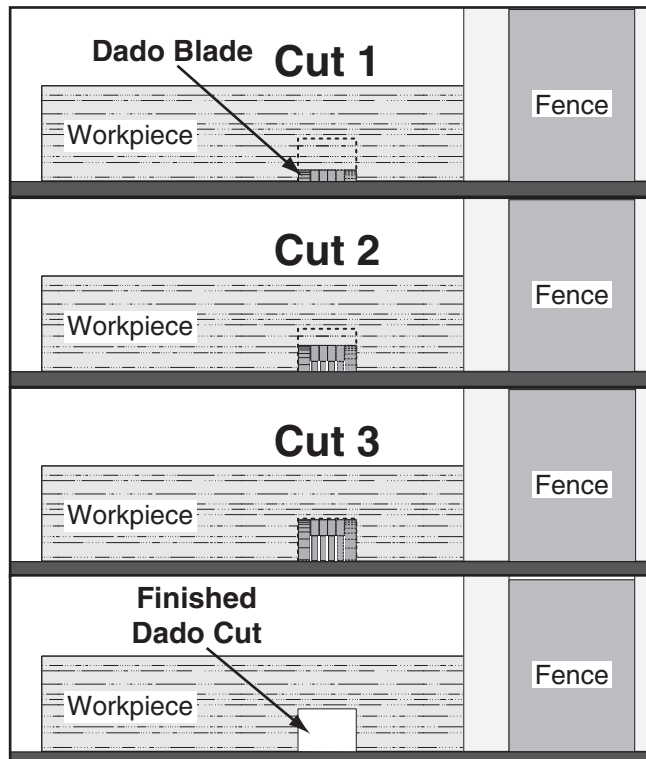


Figure 55. Example of dado being cut with multiple light cuts, instead of one deep cut.

To cut a dado with a dado blade:

1. Adjust the dado blade to the desired depth of cut.
2. Adjust the distance between the fence and the inside edge of the blade, as shown in **Figure 54**, to dado the length of a workpiece.
 - If dadoing across the workpiece, use the miter gauge and carefully line up the desired cut with the dado blade. **DO NOT** use the fence in combination with the miter gauge.
3. Reconnect the saw to the power source.
4. Turn the saw **ON**. The blade should run smooth, with no vibrations.
5. When the blade has reached full speed, perform a test cut with a scrap piece of wood.
6. If the cut is satisfactory, repeat the cut with the actual workpiece.



Cutting Dadoses with a Standard Blade

A ripping blade (described on **Page 29**) is typically the best blade to use for cutting dadoses when using a standard blade, because it removes sawdust very efficiently.

To use a standard saw blade to cut dadoses:

1. DISCONNECT SAW FROM POWER!
2. Ensure that the riving knife and standard table insert are installed and properly adjusted. Optionally, install the Model H4231 zero clearance insert, making sure the center section of the insert has already been removed.
3. Mark the width of the dado cut on the workpiece. Include marks on the edge of the workpiece so the cut path can be aligned when the workpiece is lying on the table.
4. Raise the blade up to the desired depth of cut (depth of dado channel desired).
5. Set up the saw for the type of cut you need to make, depending on if it is a rip cut (**Page 35**) or crosscut (**Page 36**).
6. Align the blade to cut one of the dado sides, as shown in **Figure 56**.

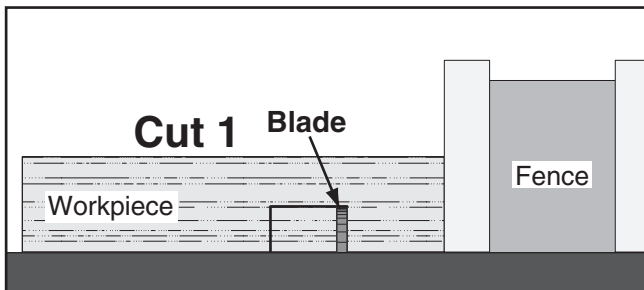


Figure 56. First cut for a single-blade dado.

7. Reconnect the saw to the power source and turn the saw **ON**. Allow the blade to reach full speed, then perform the cutting operation.
8. Repeat the cutting operation on the other side of the dado channel, as shown in **Figure 57**.

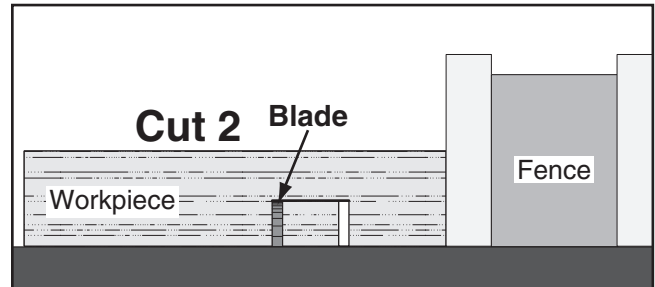


Figure 57. Second cut for a single blade dado.

9. Make additional cuts (see **Figure 58**) in the center of the dado to clear out the necessary material. The dado is complete when the channel is completely cleared out.

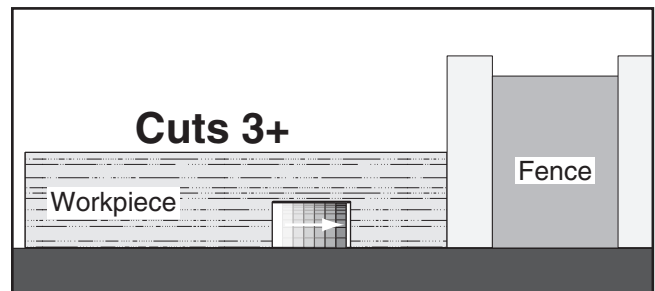


Figure 58. Additional single blade dado cuts.



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 (**Figure 59**). Make the sacrificial fence the same length as the fence and $\frac{3}{4}$ " 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.

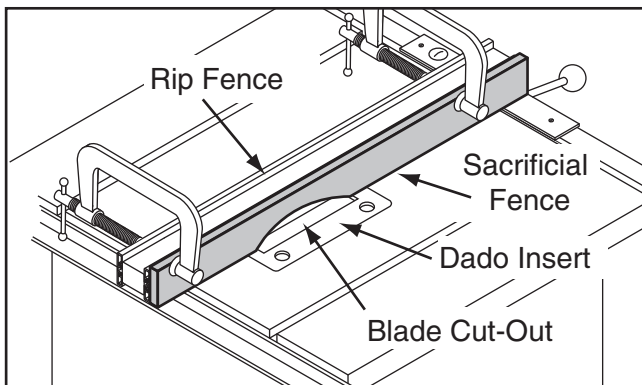


Figure 59. Sacrificial fence.

When using a dado blade, either the included dado insert or the optional zero clearance table insert, Model H4231 (see **Page 53**), 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 the blade guard be removed from the saw. ALWAYS replace the blade guard after dadoing is complete.

Cutting Rabbets with a Dado Blade

1. DISCONNECT SAW FROM POWER!
2. Adjust the dado blade to the height needed for the rabbeting operation. When cutting deep rabbets, take more than one pass to reduce the risk of kickback.
3. Adjust the fence and align the workpiece to perform the cutting operation, as shown in **Figure 60**.

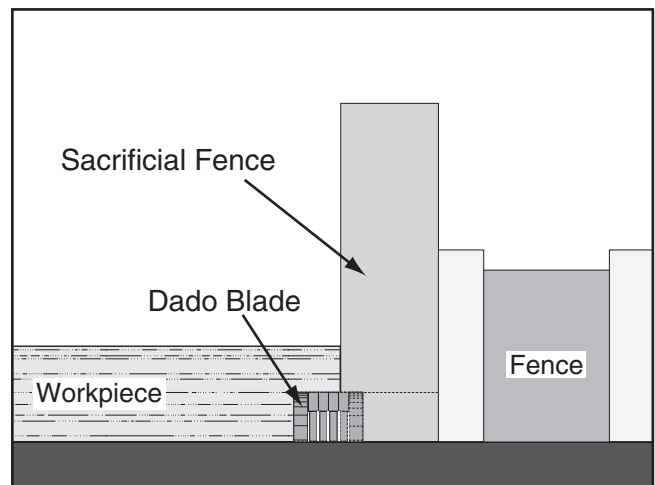


Figure 60. Rabbet cutting.

4. Reconnect the saw to the power source and turn the saw **ON**. When the blade has reached full speed, perform a test cut with a scrap piece of wood.
—If the cut is satisfactory, repeat the cut with the final 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 29** for blade details.) Also, a sacrificial fence is not required when cutting rabbets with a standard blade.

To cut rabbets with the standard blade:

1. DISCONNECT SAW FROM POWER!
2. Ensure that the riving knife and standard table insert are installed. Or install the optional Model H4231 zero clearance insert, making sure the center section of the insert has already been removed—so the blade can be raised correctly in the following steps.
3. Mark the width of the rabbet cut on the edge of the workpiece, so you can clearly identify the intended cut while it is laying flat on the saw table.
4. Raise the blade up to the desired depth of cut (depth of rabbet channel desired).
5. Stand the workpiece on edge, as shown in **Figure 61**, then adjust the fence so the blade is aligned with the inside of your rabbet channel.

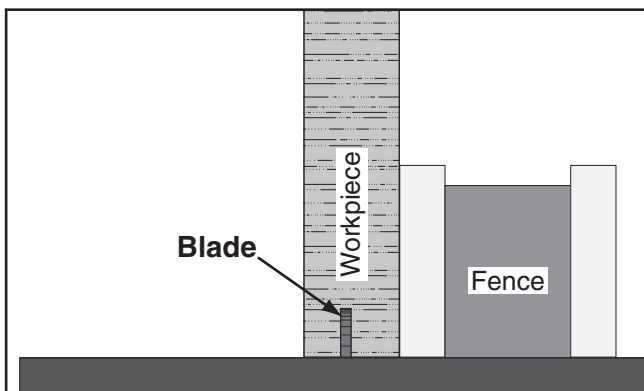
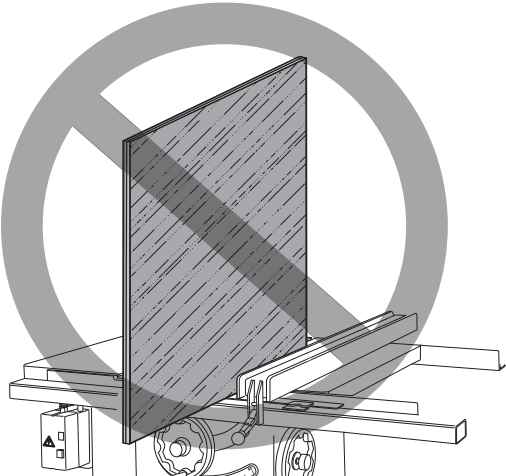


Figure 61. Rabbet cutting with a standard blade.

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

! WARNING



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 the fence can easily shift during operation and cause kickback. Instead, place the stock flat on the saw and perform the rabbet cut with a dado blade, as instructed on **Page 40**.

6. Reconnect the saw to the power source, then perform the cut.
7. Lay the workpiece flat on the table, as shown in **Figure 62**, adjust the saw blade height to intersect with the first cut, then perform the second cut to complete the rabbet.

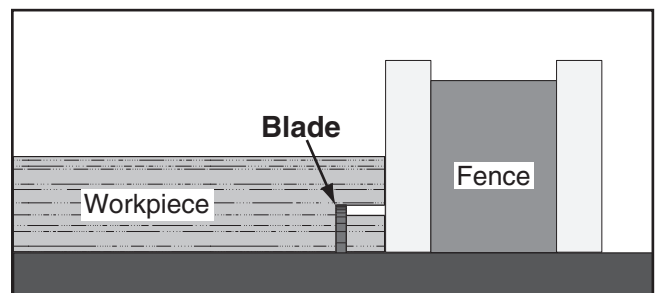


Figure 62. Second cut to create a rabbet.



Resawing

!WARNING

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

!WARNING

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: This table saw can only resaw wood that is less than 6" tall.

Making Resaw Barrier

The resaw barrier acts in tandem with the rip fence when resawing to provide tall support for the workpiece to minimize the probability of it binding against the blade and causing kickback.

Tools Needed for the Resaw Barrier:

Table Saw 1
Jointer and Planer Recommended
Clamps 2 Minimum
Drill and Drill Bits 1

Components Needed for the Resaw Barrier:

Wood* $\frac{3}{4}$ " x $5\frac{1}{2}$ " x (Length of Fence) 1
Wood* $\frac{3}{4}$ " x 3" x (Length of Fence) 1
Wood Screws #8 x 2" 8
Wood Glue As Needed

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

To build the resaw barrier:

1. Cut your wood pieces to the size specified above. If you are using hardwood, cut the pieces oversize, then joint and plane them to the correct size to make sure they are square and flat.
2. Pre-drill and countersink four holes approximately $\frac{3}{8}$ " from the bottom of the $5\frac{1}{2}$ " tall board.
3. Glue the end of the 3" board, then clamp the boards at a 90° angle with the larger board in the vertical position, as shown in **Figure 63**, then fasten together with the wood screws.

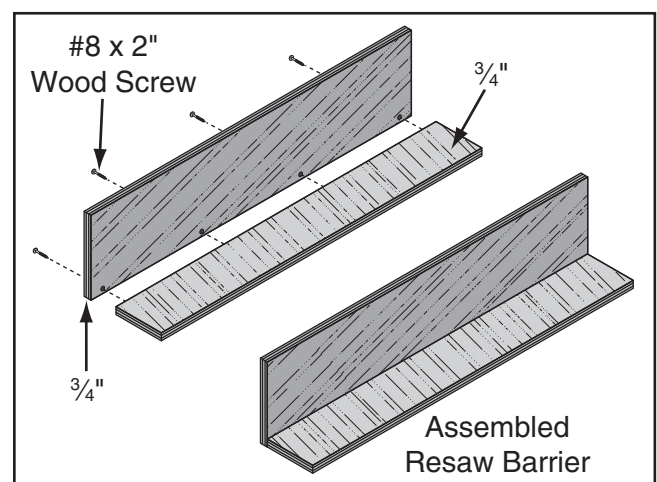


Figure 63. Resaw barrier.



Auxiliary Fence

The auxiliary fence is necessary if you are resawing a workpiece that is more than 3" tall. It should be no less than 1/2" shorter than the board to be resawn.

Components Needed for the Auxiliary Fence:
Wood* 3/4" x (Height) x (Length of Fence) 1

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

Tools Needed for the Resaw Barrier:

Table Saw 1
Jointer and Planer Recommended
Clamps 2 Minimum
Drill and Drill Bits 1
Wood Screws #8 x 2" 6

To build the auxiliary fence:

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

Note: Only use furniture grade plywood or kiln dried hardwood to prevent warping.

2. Unthread the fence face mounting screws, then remove the fence face from the fence assembly.
3. Place the auxiliary fence next to the fence face you removed in **Step 2**, mark the location of the six mounting holes on the auxiliary fence, then drill and countersink the holes in the auxiliary fence.

4. Attach the fence face (removed in **Step 2**) and the auxiliary fence to the fence body with (6) #8 x 2" wood screws. The end result should be similar to **Figure 64**.

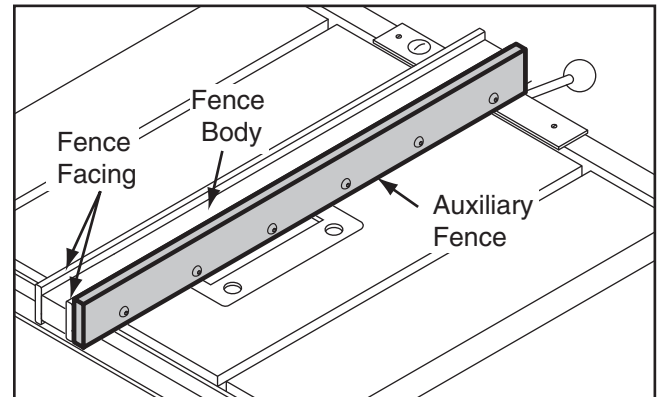


Figure 64. Auxiliary fence.

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 a full face shield to prevent injury when resawing.

To perform resawing operations:

1. DISCONNECT SAW FROM POWER!
2. Remove the standard table insert and the blade guard/spreader assembly.



3. Install a ripping blade, install the riving knife, lower the blade below the table surface, then install the optional Model H4231. Make sure the center section of the insert has already been removed—so the blade can be raised correctly in the following steps.
4. Set the auxiliary fence to the desired width.

Note: Account for blade kerf, the rough cut made by the blade, and the inaccuracy of the fence scale when the auxiliary fence is installed when figuring out the correct width.

5. Place the workpiece against the auxiliary fence and slide the resaw barrier against the workpiece, as shown in **Figure 65**. Now clamp the resaw barrier to the top of the table saw at both ends.

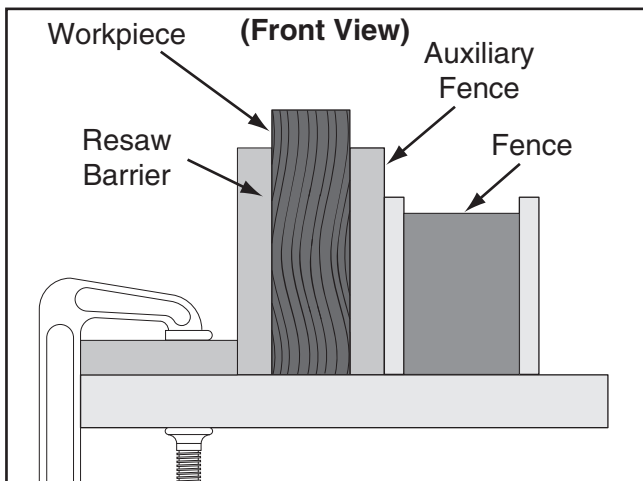


Figure 65. Ideal resaw workpiece setup.

6. Slide the workpiece over the blade to make sure it moves smoothly, then remove the workpiece.
7. Raise the blade approximately an inch, or close to half the height of the workpiece (**Figure 66**), 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.

!CAUTION

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 the blade guard after resawing is complete.

8. Plug in the table saw, turn it **ON**, and use a push stick to feed the workpiece through the blade using a slow, steady feed rate.
9. Flip the workpiece end for end, keeping the same side against the fence, and run the workpiece through the blade.
10. Repeat **Steps 7–9** until the blade is close to half of the height of the board to be resawn. The ideal completed resaw cut will leave an $\frac{1}{8}$ " connection when the resawing is complete, as shown in **Figure 66**. Leaving an $\frac{1}{8}$ " connection will reduce the risk of kickback.

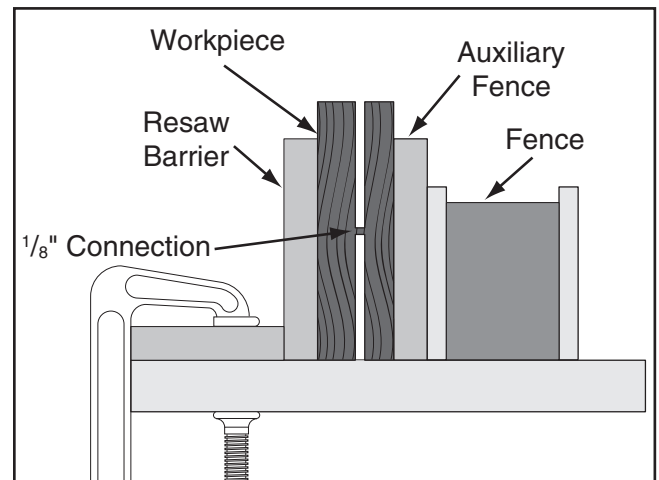


Figure 66. Ideal completed resaw cut.

11. Turn **OFF** the table saw, then separate the parts of the workpiece and hand plane the remaining ridge to remove it.
12. When finished resawing, remove the resaw barrier and auxiliary fence, then re-install the 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 to the table or fence, or 2) those secured by a wood runner that mounts in the table saw miter slot.

Material Needed for Featherboard Mounted with Clamps

Hardwood $\frac{3}{4}$ " x 3"-6" x 10" x 28" 1

Material Needed for Featherboard Mounted in Miter Slot

Hardwood $\frac{3}{4}$ " x 3"-6" x 10"-28" 1

Hardwood $\frac{3}{8}$ " x (Miter Slot Width) x 5"L 1

Wing Nut $\frac{1}{4}$ "-20 1

Flat Head Screw $\frac{1}{4}$ "-20 x 2" 1

Flat Washer $\frac{1}{4}$ "-20 1

To make a featherboard:

1. Cut a hardwood board approximately $\frac{3}{4}$ " thick to size. The length and width of the board can vary according to your design. Most featherboards are 10"-28" long and 3"-6" wide. Make sure the wood grain runs parallel with the length of the featherboard, so the fingers you will create in **Step 3** will bend without breaking.
2. Cut a 30° angle at one end of the 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 a series of end cuts with the grain $\frac{3}{8}$ "- $\frac{1}{4}$ " apart and 2"-3" long, as shown in **Figure 67** (A). Alternatively, start cuts at 2"-3" deep, then make them progressively deeper, as shown in **Figure 67** (B).

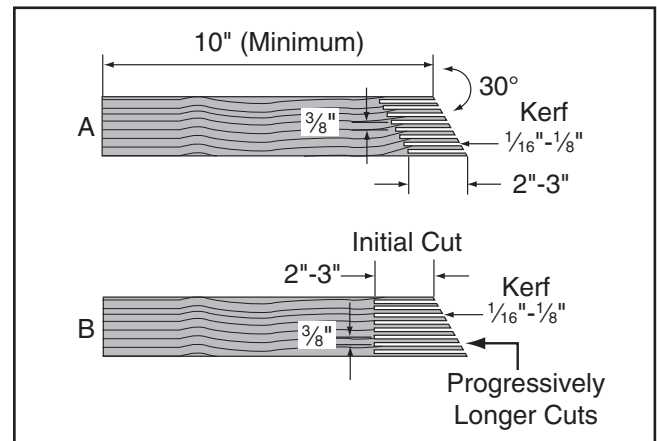


Figure 67. Patterns for featherboards (top view shown).

IMPORTANT: Cuts made across the grain will 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

Now, proceed to **Mounting Featherboard w/ Clamps** on **Page 47**.



4. Rout a $\frac{1}{4}$ "– $\frac{3}{8}$ " wide slot 4"–5" long in the workpiece and 1"–2" from the short end of the featherboard (see **Figure 68**).

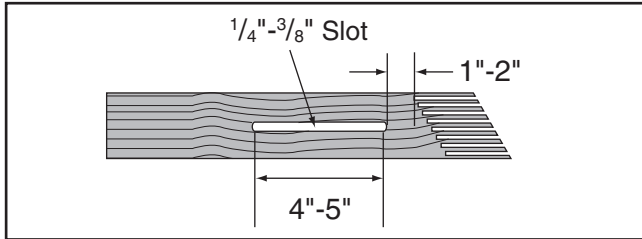


Figure 68. Slot routed in featherboard.

5. Cut a miter bar that will fit in the table miter slot approximately 5" long, as shown in **Figure 69**.

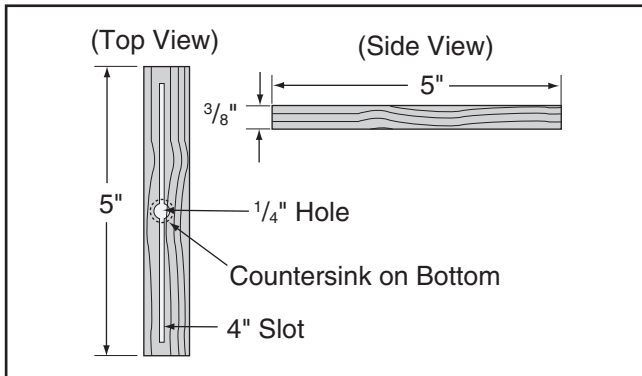


Figure 69. Miter bar pattern.

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

6. Drill a $\frac{1}{4}$ " hole in the center of the bar, then countersink the bottom to fit a $\frac{1}{4}$ "-20 flat head screw.
7. Mark a 4" line through the center of the countersunk hole, then use a jig saw with a narrow blade to cut it out.
8. Assemble the miter bar and featherboard with a $\frac{1}{4}$ "-20 x flat head screw, flat washer, and a wing nut or a star knob (see **Figure 70**). Congratulations! Your featherboard is complete.

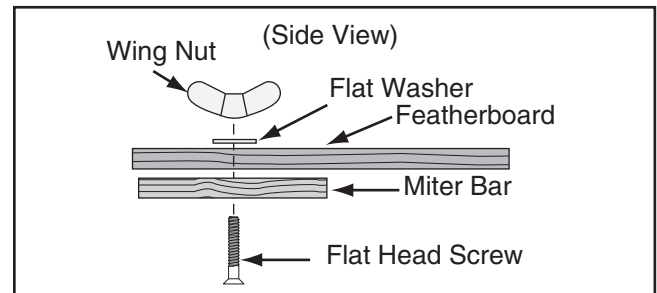


Figure 70. Assembling miter slot featherboard components.

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

Tip: The length of the flat head screw depends on the thickness of the featherboard—though $1\frac{1}{2}$ " to 2" lengths usually work.

Now, proceed to **Mounting Featherboard in Miter Slot** on **Page 47**.



Mounting Featherboards w/Clamps

1. Lower the saw blade, then adjust the fence to the desired width and secure it.
2. Place the workpiece against the fence, making sure it is 1" in front of the blade.
3. Place a featherboard on the table away from the blade so all fingers point forward and contact the workpiece (see **Figure 71**).

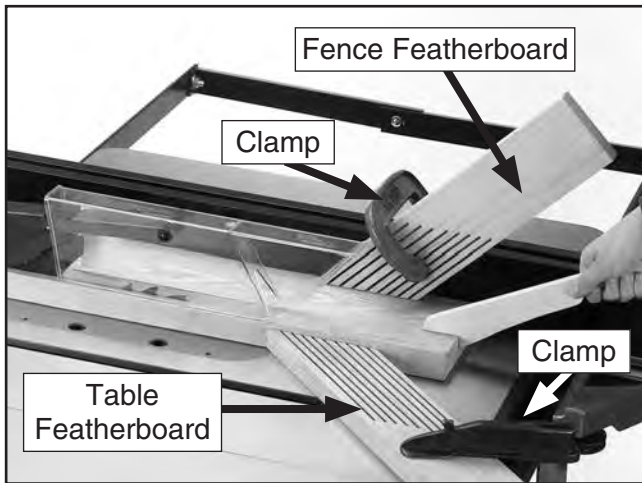


Figure 71. Example of featherboards secured with clamps.

4. Secure the featherboard to the table with a clamp.
5. Check the featherboard by pushing it with your thumb to ensure it is secure.
—If the featherboard moves, tighten the clamp more.
6. Mount a second featherboard to the fence with another clamp (see **Figure 70**), then repeat **Step 5** to ensure it is secure.

Mounting Featherboard in Miter Slot

1. Lower the saw blade, then adjust the fence to the desired width and secure it.
2. Place the workpiece evenly against the fence, making sure it is 1" in front of the blade.
3. Slide the featherboard miter bar into the miter slot, making sure the fingers point toward the blade, as shown in **Figure 72**.

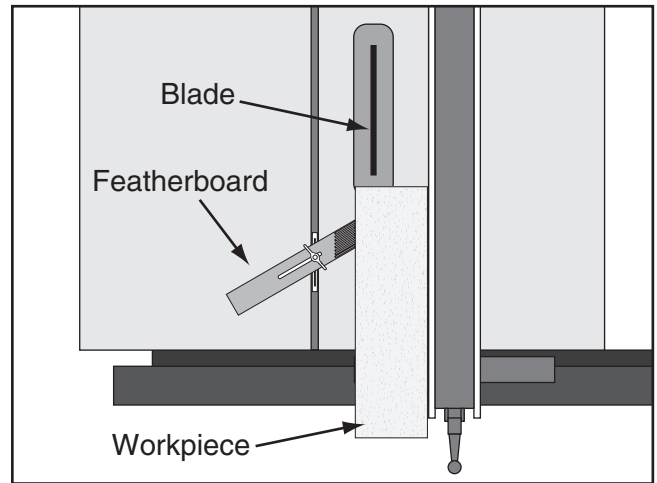


Figure 72. Featherboard installed in miter slot and supporting workpiece for ripping cut.

4. Position the fingered edge of the featherboard against the edge of the workpiece, so that all of the fingers contact the workpiece. Slide the featherboard toward the blade until the first finger is nearly even with the end of the workpiece, which should be 1" away from the blade.
5. Double check the workpiece and the featherboard to ensure they are properly positioned as described in **Step 4**. Then secure the featherboard to the table. Check the featherboard by hand to make sure it is tight.

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

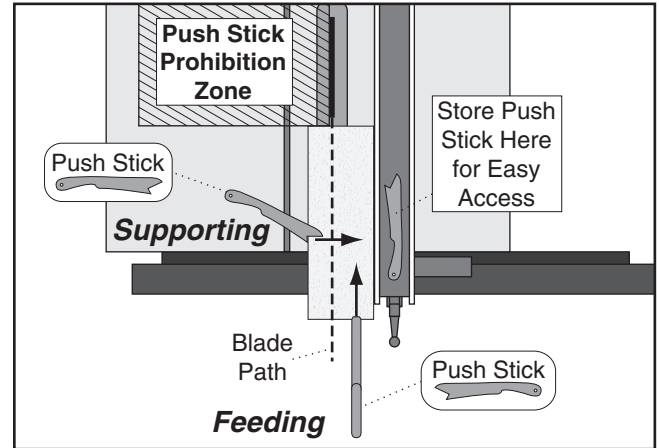


Figure 73. Using push sticks to rip narrow stock.

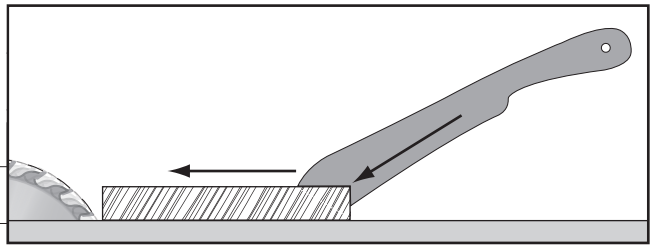
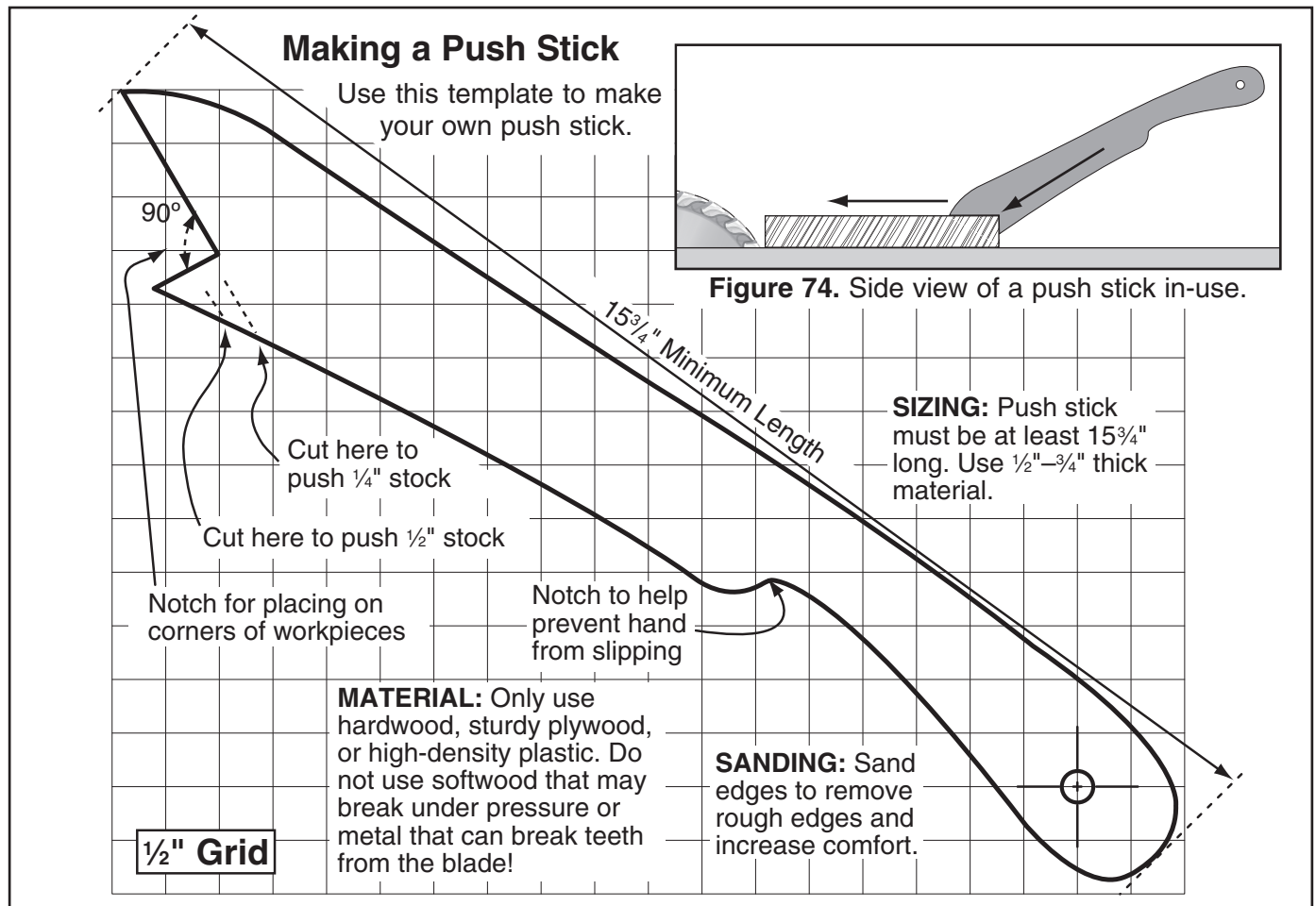


Figure 74. Side view of a push stick in-use.

Figure 75. 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 inset **Figure** 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).

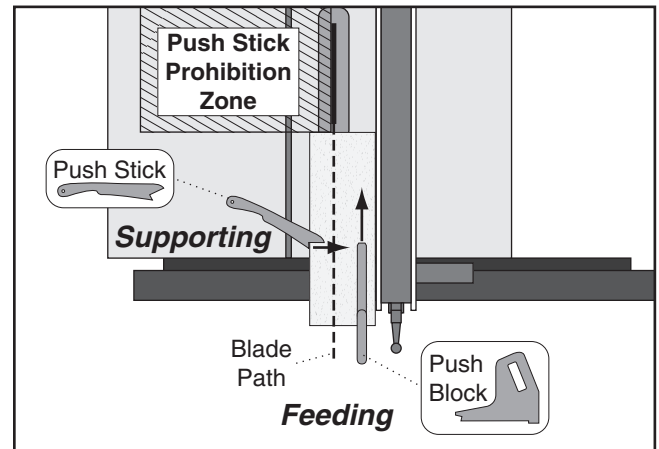


Figure 77. Using a push block and push stick to make a rip cut.

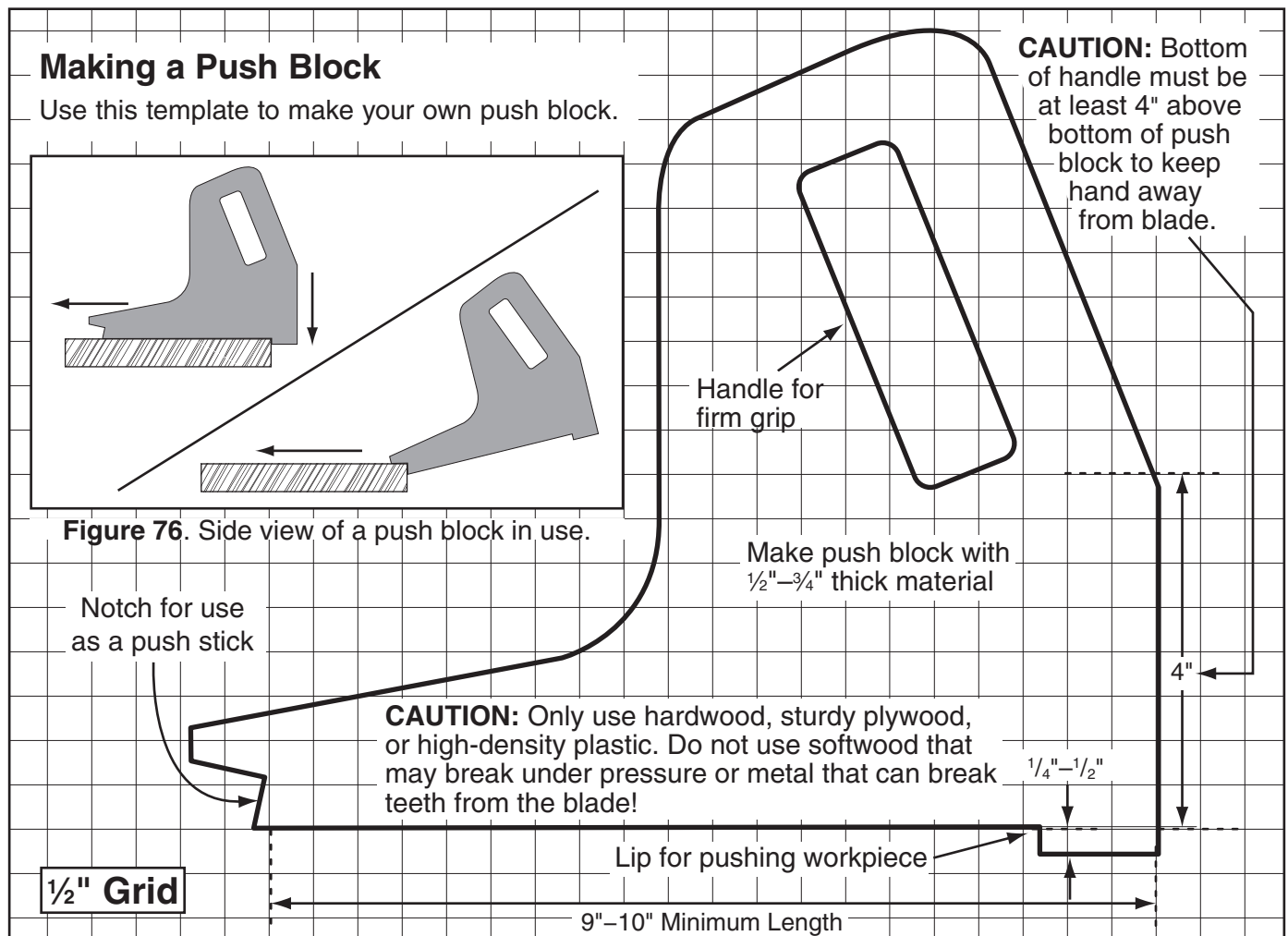


Figure 78. Template for a shop-made push block (shown at 50% of full size).



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.

Making a Narrow-Rip Push Block for an Auxiliary Fence

1. Cut a piece of $\frac{3}{4}$ " thick plywood $5\frac{1}{4}$ " wide and as long as your table saw fence; cut a piece of $\frac{3}{4}$ " thick hardwood 3" wide and as long as your table saw fence, as shown in **Figure 79**.

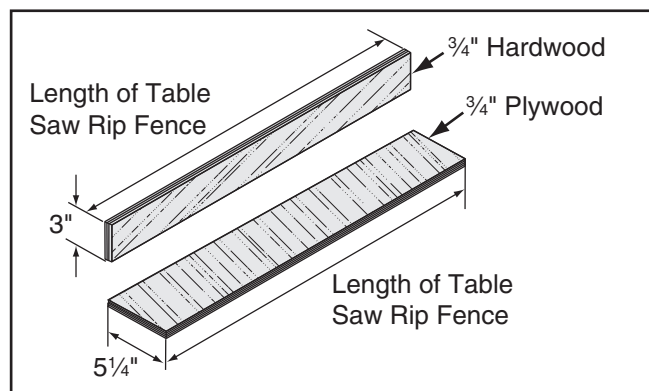


Figure 79. Auxiliary fence dimensions.

Note: We recommend cutting the hardwood board oversize, then jointing and planing it to the correct size to make sure the 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 $\frac{3}{8}$ " from the bottom of the 3" wide board, then secure the boards together with eight #8 x $1\frac{1}{2}$ " wood screws, as shown in **Figure 80**.

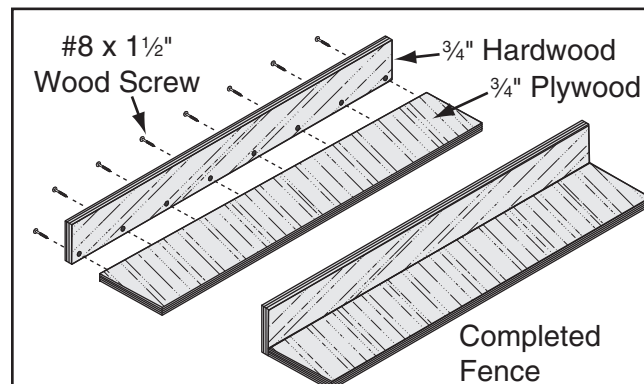


Figure 80. Location of pilot holes.

3. Using the $\frac{3}{4}$ " material you used in the previous steps, cut out pieces for the push block per the dimensions shown in **Figure 81**; for the handle, cut a piece 10" long by 5"–9" high and shape it as desired to fit your hand.

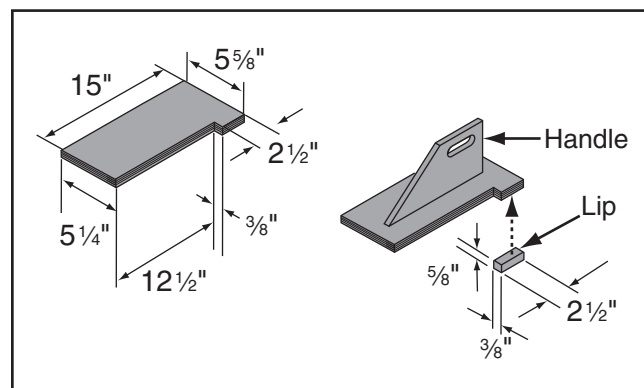


Figure 81. Push block dimensions and construction.

4. Attach the handle to the base with #8 x $1\frac{1}{2}$ " wood screws, and attach the lip to the base with cyanoacrylate type wood glue.



Using the Auxiliary Fence and Push Block

1. Place the auxiliary fence on the table and clamp it to the fence at both ends, then adjust the distance between the auxiliary fence and the blade—this determines how wide the workpiece will be ripped (see **Figure 82**).

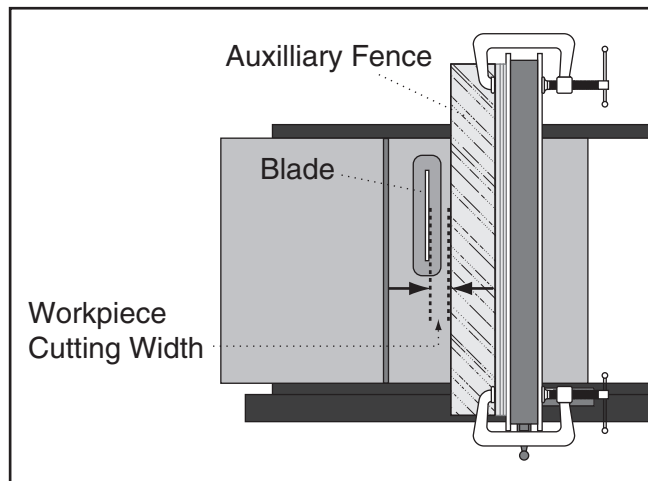
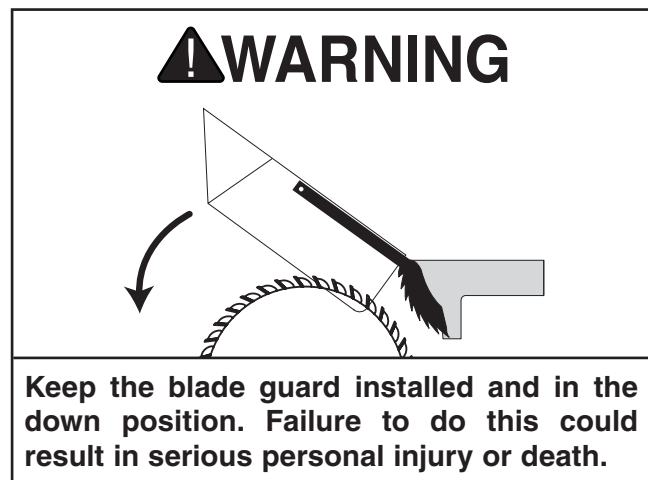


Figure 82. Adjusting ripping distance between blade and auxiliary fence.

2. Install the blade guard, then disable the right spreader pawl, as explained on **Page 33**, so it does not interfere with the push block lip.



3. Place the workpiece 1" behind the blade and evenly against the table and the auxiliary fence (see **Figure 83**).

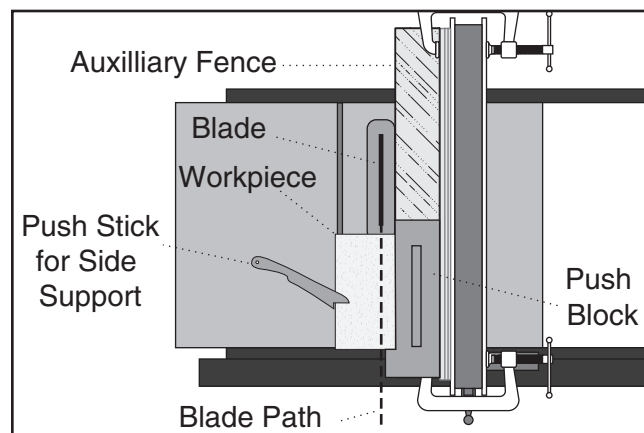


Figure 83. Push block in position to push workpiece through blade.

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

As the workpiece nears the end of the cut, place the push block on the auxiliary fence with the lip directly behind the workpiece, then release the push stick just before it is even with the blade (see **Figure 84**).

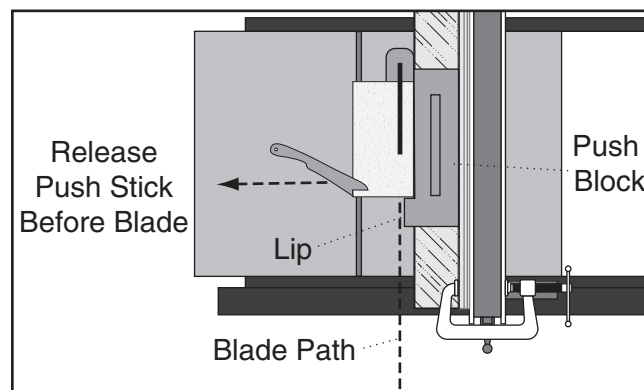
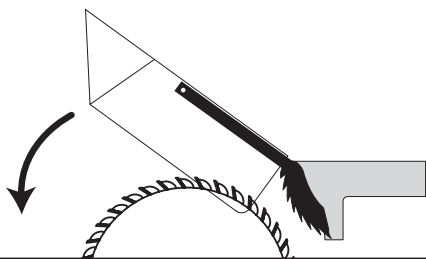


Figure 84. Ripping with push block.

Guide the workpiece the rest of the way through the cut with the push block. Enable the right pawl on the spreader when cutting operations are finished.

! WARNING



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

! WARNING

Turn the saw **OFF** and allow the blade to come to a complete stop before removing the 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 85**). 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 85. Example of outfeed & support tables.

Crosscut Sled

A crosscut sled (see **Figure 86**) 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 86. Example of crosscut sled.



SECTION 6: ACCESSORIES

!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.

H4231—Zero Clearance Insert for G1023RL/RLX/RLW/RLWX

Helps reduce kickback risk. Easily adjustable. Special phenolic material.

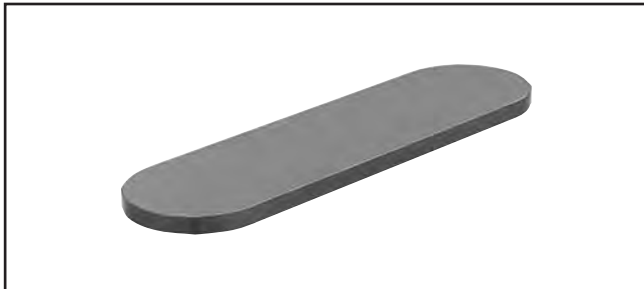


Figure 87. H4231 Zero-Clearance Table Insert.

H7583—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. A top seller!

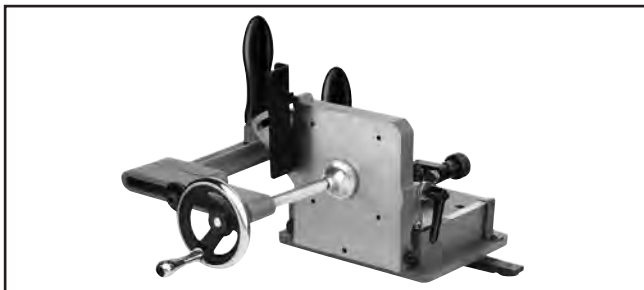


Figure 88. H7583 Tenoning Jig.

D2259A—Table Saw Extension Kit

This kit easily bolts on to Models D2057A and D2260A to provide support for an extension table or similar device. Allows the whole machine and extension to move as one unit. Adjustable for length (up to 44") as well as front to back. Very versatile!

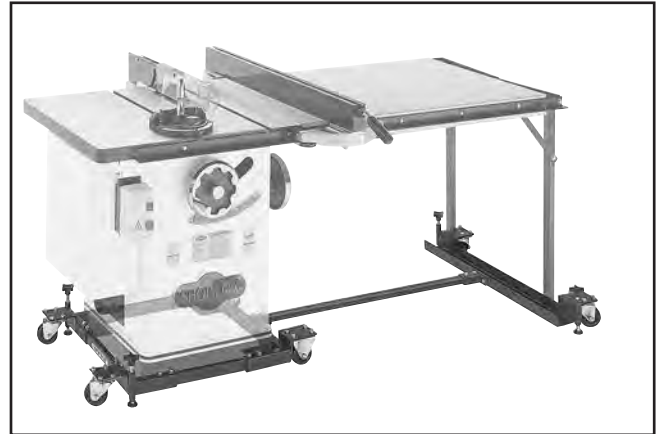


Figure 89. D2259A Table Saw Extension Kit.

D2057A—Shop Fox® Heavy-Duty Mobile Base

These mobile bases are designed to provide a stable platform for mounting machinery and other equipment. The heavy-duty casters are arranged on outriggers allowing them to sit as low as possible and still be extremely stable. The base can be assembled in any of eight configurations to provide maximum flexibility. It can be adjusted from 20" x 20" to 29½" x 29½" and has a carrying capacity of up to 700 lbs.

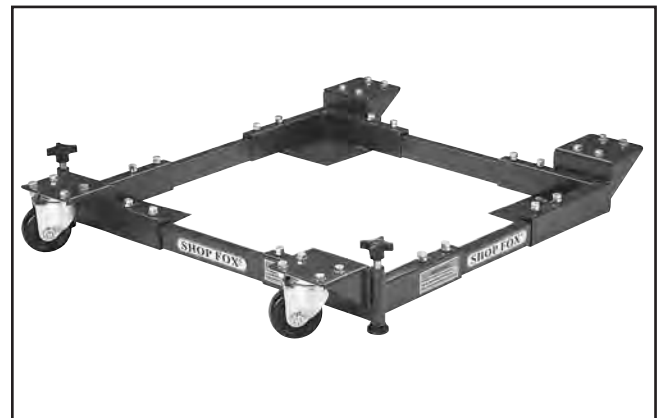


Figure 90. D2057A Heavy-Duty Shop Fox® Mobile Base.

order online at www.grizzly.com or call 1-800-523-4777



- G4173—Baby Power Feeder 110V**
- G4176—1/4 HP Power Feeder 110V**
- G4179—1/2 HP Power Feeder 220V**
- G4181—1 HP Power Feeder 220V**

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 91. G4179 Power Feeder.

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: 75 lbs.



Figure 92. Universal overarm blade guard.

T10222—Router Table Attachment

T10223—Sliding Table Attachment

Accessorize your table saw with either of these attachments for the ultimate in table saw functionality. Will fit any table saw with a 27" deep table (some modification to table saw required). The cast iron Router Table Attachment with its universal router mount includes an anodized fence for straight routing and a starting pin for contour shaping.

For unmatched cross cutting accuracy, the Sliding Table Attachment with anodized extruded aluminum miter fence offers silky-smooth control. The miter fence even has a built-in workstop for cutting exact multiples.

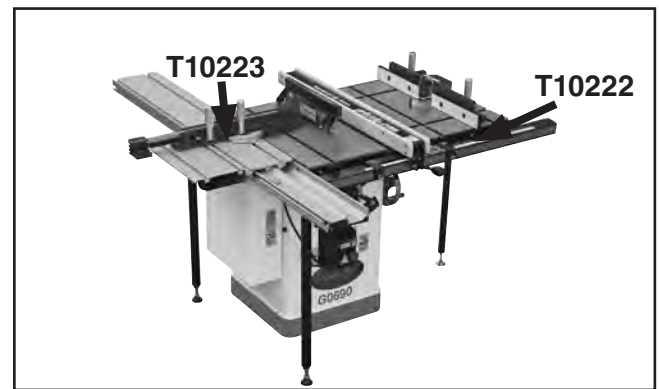


Figure 93. T10222-23 Sliding Table & Router Table Attachments.

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 94. Superbar™ and Master Plate.

order online at www.grizzly.com or call 1-800-523-4777



SECTION 7: MAINTENANCE



Schedule

For optimum performance from your machine, follow this maintenance schedule and refer to any specific instructions given in this section.

Ongoing

- Inspect blades for damage or wear.
- Check for loose mounting bolts/arbor nut.
- Check cords, plugs, and switch for damage.
- Any other condition that could hamper the safe operation of this machine.
- Wipe the table clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces.
- Verify that the anti-kickback pawls return to their bottom-most position after pivoting.
- Verify that the spreader/riving knife are aligned with the blade (refer to **Page 64** to perform a quick check.)

Weekly

- Wipe down the table surface and grooves with a lubricant and rust preventive such as SLIPIT® or Boeshield.
- Clean the pitch and resin from the saw blade with a cleaner like OxiSolv® Blade & Bit Cleaner.

Monthly

- Check/tighten the belt tension (**Page 71**).

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. Treat all unpainted cast iron and steel with a non-staining lubricant after cleaning.

Occasionally it will become necessary to clean the internal parts with more than a vacuum. To do this, remove the table top and clean the internal parts with resin/pitch dissolver or mineral spirits and a stiff wire brush or steel wool. **DO NOT USE WATER—WATER WILL CAUSE CAST IRON TO RUST.**

Make sure the internal workings are dry before using the saw again, so that wood dust will not accumulate. If any essential lubrication is removed during cleaning, re-lubricate those areas.

Unpainted Cast Iron

Protect the unpainted cast iron surfaces on the table by wiping the table clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces.

Keep tables rust-free with regular applications of products like G96® Gun Treatment, SLIPIT®, or Boeshield® T-9 (see **Section 5: Accessories** on **Page 53** for more details).



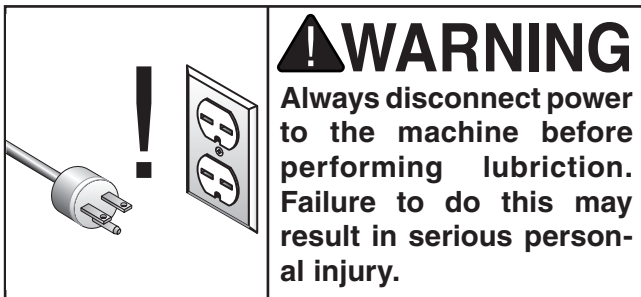
Lubrication

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, such as shown on **Page 17** of this manual.

The following are the main components that need to be lubricated:

- Trunnion Slides
- Worm Gear, Bevel Gears, and Blade Angle Teeth
- Elevation Leadscrew and Rails



Trunnion Slides

Check ever month. Clean the slides with a rag, then place a dab of lithium grease into each groove. Move the blade tilt back and forth to spread the grease (see **Figure 95**).

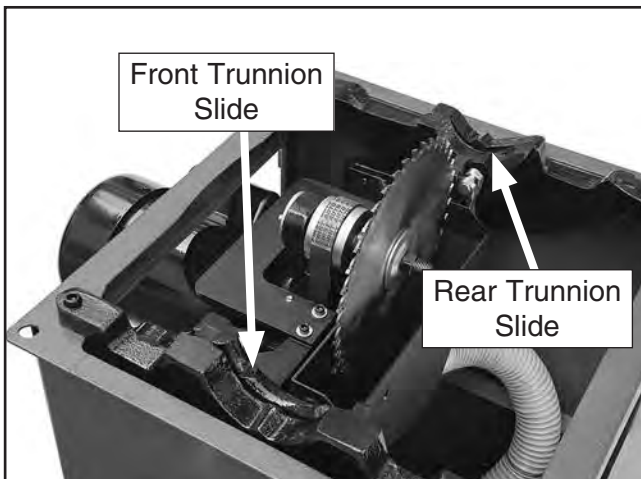


Figure 95. Example of trunnion slides.

Worm Gear, Bevel Gears, and Blade Angle Teeth

Check every month. Use a stiff bristle brush and mineral spirits to clean away any built up grime and debris from the worm gear, bevel gear, and blade angle trunnion teeth (see **Figure 96**).

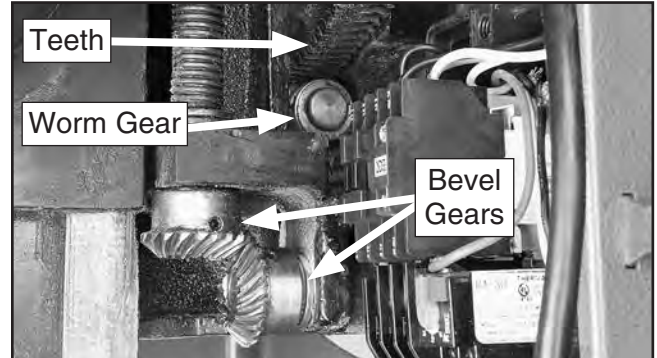


Figure 96. Worm gear, bevel gears, and blade angle trunnion teeth.

Use a brush to apply a thin coat of lithium grease to the worm gear, bevel gears, and blade angle trunnion teeth.

Elevation Slides and Leadscrew

Check every month. Clean built up grime and debris with a bristle brush and mineral spirits from the elevation slides and leadscrew (see **Figure 97**).

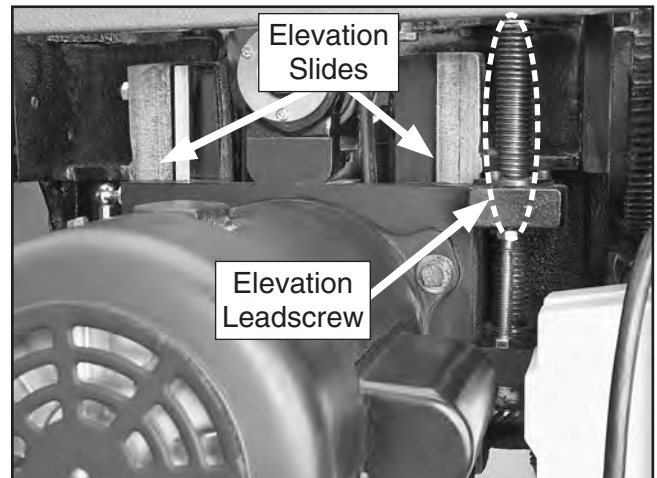


Figure 97. Elevation leadscrew and elevation slides.

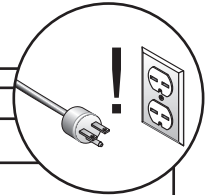
Use a brush to apply lithium grease to the elevation leadscrew. Brush a small amount of grease (or oil) onto the elevation slides and wipe them down with a rag so there is a thin film of grease, but not so much that sawdust clogs will build up.



SECTION 8: SERVICE

Review the troubleshooting and procedures in this section to fix or adjust your machine if a problem develops. If you need replacement parts or you are unsure of your repair skills, then feel free to call our Technical Support at (570) 546-9663.

Troubleshooting



Symptom	Possible Cause	Possible Solution
Motor does not start.	<ol style="list-style-type: none"> 1. Anti-start safety pin installed. 2. Stop button not reset. 3. Motor connection wired incorrectly. 4. Contactor not energized/has poor contacts. 5. Break or short in wiring; or loose connections. 6. Power supply switched off/has incorrect voltage. 7. Thermal overload relay in mag switch tripped. 8. Start capacitor has blown. 9. Centrifugal switch at fault 	<ol style="list-style-type: none"> 1. Remove anti-start safety pin. 2. Lift stop paddle and fully depress stop button with your finger. 3. Wire motor correctly (refer to inside junction box cover or manual). 4. Test all legs for power, test field coil and replace if at fault. 5. Trace/replace broken or corroded wires; fix loose connections. 6. Switch power supply on/verify voltage. 7. Allow relay/motor to cool. If necessary, press reset button inside switch. 8. Test/replace if at fault. 9. Adjust/replace centrifugal switch.
Machine has excessive vibration or noise.	<ol style="list-style-type: none"> 1. Slight blade wobble. 2. Arbor nut is loose/obstructed by debris. 3. Arbor pulley loose. 4. Loose tilt handwheel. 5. Casting at fault. 6. Motor fan rubbing on fan cover. 7. Motor mounting loose. 8. Flat belt worn or damaged. 9. Belt(s) slapping cover. 10. Pulley loose or not in alignment; shaft bent. 11. Machine incorrectly mounted on floor. 12. Arbor bearings at fault. 13. Motor bearings worn or damaged. 	<ol style="list-style-type: none"> 1. Use a blade stabilizer. 2. Remove and clean, then tighten arbor nut. 3. Retighten/replace arbor pulley with shaft and thread locking liquid. 4. Tighten the tilt handwheel lock knob. 5. Trunnion/geared bearing housing is loose or cracked; tighten or replace. 6. Fix/replace fan cover; replace loose or damaged fan. 7. Tighten mounting bolts/nuts; use thread locking fluid. 8. Replace flat-belt (refer to Page 72). 9. Tighten belt(s). 10. Replace worn pulley, key, and shaft, and realign. 11. Level/shim base; tighten/adjust mounting hardware or feet. 12. Replace arbor housing bearings; replace arbor. 13. Replace motor bearings or replace motor.



Symptom	Possible Cause	Possible Solution
Handwheel binds or is difficult to move.	<ol style="list-style-type: none"> 1. Lock knob is engaged. 2. Handwheel shaft pins are wedged. 3. Handwheel is inserted too far. 4. Too much engagement between the worm gear & trunnion. 	<ol style="list-style-type: none"> 1. Loosen lock knob. 2. Remove handwheel and adjust shaft pins. 3. Remove handwheel and adjust key. 4. Adjust worm gear engagement.
Blade does not reach 90 degrees.	<ol style="list-style-type: none"> 1. Pointer or scale calibrated incorrectly. 2. 90 degree stop bolt is out of adjustment. 	<ol style="list-style-type: none"> 1. Calibrate pointer/scale at true 90 degrees (see Page 59). 2. Adjust 90 degree stop bolt (see Page 59).
Blade does not reach 45 degrees.	<ol style="list-style-type: none"> 1. Pointer or scale calibrated incorrectly. 2. 45 degree stop bolt is out of adjustment. 3. Sawdust is built up in front trunnion. 	<ol style="list-style-type: none"> 1. Calibrate pointer/scale at true 45 degrees (see Page 59). 2. Adjust 45 degree stop bolt (see Page 60). 3. Check for sawdust in trunnions, clean and re-lubricate as necessary.
Blade too close to insert.	<ol style="list-style-type: none"> 1. Blade position on arbor is incorrect. 2. Table mounting position is not centered. 	<ol style="list-style-type: none"> 1. Verify that blade arbor washers are correct and in the required position. 2. Loosen table mounting bolts, adjust table position, then realign the blade.
Blade will not go beneath table surface.	<ol style="list-style-type: none"> 1. Handwheel shaft pins are wedged. 2. Roll pin/setscrew in worm gear contacting geared trunnion. 3. Handwheel key is inserted too far. 	<ol style="list-style-type: none"> 1. Remove handwheel and adjust shaft pins. 2. Tighten roll pins and set screws in the worm gear. 3. Remove handwheel and adjust key.
Blade will not move up or down.	<ol style="list-style-type: none"> 1. Set screw on worm gear is loose/missing. 2. Handwheel shaft key is missing. 	<ol style="list-style-type: none"> 1. Tighten or replace set screw. 2. Replace key.
Workpiece burns or binds when feeding.	<ol style="list-style-type: none"> 1. Riving knife not correctly aligned with blade. 2. Spreader not correctly aligned with blade. 3. Fence not parallel with blade (pressure at blade backside). 4. Blade is warped or damaged. 5. Too many teeth on blade for cutting type. 	<ol style="list-style-type: none"> 1. Adjust riving knife into alignment with blade (see Page 65). 2. Adjust spreader into alignment with blade (see Page 65). 3. Adjust fence parallel with blade (see Page 67). 4. Replace blade (see Page 30). 5. Change blade to one with fewer teeth.
Too much sawdust blown back toward operator.	<ol style="list-style-type: none"> 1. Blade guard has been removed. 2. Too many air leaks in cabinet for proper dust collection. 3. Dust collection system clogged; too weak. 4. Fence not parallel with blade (pressure at blade backside). 5. Miter slot/fence not parallel with blade at 90° and 45°. 	<ol style="list-style-type: none"> 1. Re-install blade guard for maximum safety and dust control. 2. Seal leaks in cabinet or around dust chute. 3. Remove clog; revise ducting layout for improved suction. 4. Adjust fence parallel with blade (see Page 67). 5. Adjust table/trunnions so miter slot is parallel with blade at 90° and 45° (see Page 61).
Arbor movement is sloppy, inconsistent from top to bottom, difficult to move, or it binds.	<ol style="list-style-type: none"> 1. Elevation slide gib too tight or too loose. 2. Gas strut worn out. 	<ol style="list-style-type: none"> 1. Adjust elevation slide gib (see Page 75). 2. Replace gas strut.



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 SAW FROM POWER!
2. Raise the blade as high as it will go, then tilt it toward 0° until it stops and cannot be tilted any more.
3. Place a 90° square against the table and blade so it contacts the blade evenly from bottom to top, as shown in **Figure 98**. Make sure a blade tooth does not obstruct the placement of the square.

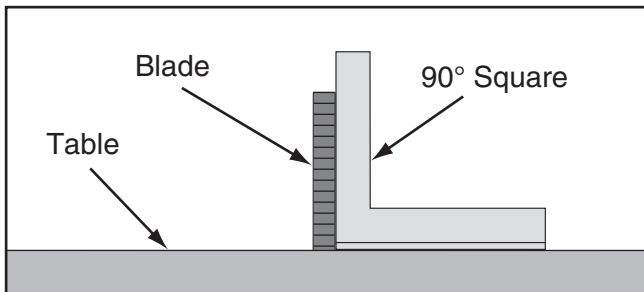


Figure 98. Checking blade at 90°.

—If the blade is 90° to the table, then adjustments do not need to be made. Make sure the tilt indicator arrow shown in **Figure 99** points to the 0° mark on the scale. If it does not, remove the blade height lock knob, loosen the blade height handwheel set screw and remove the handwheel.

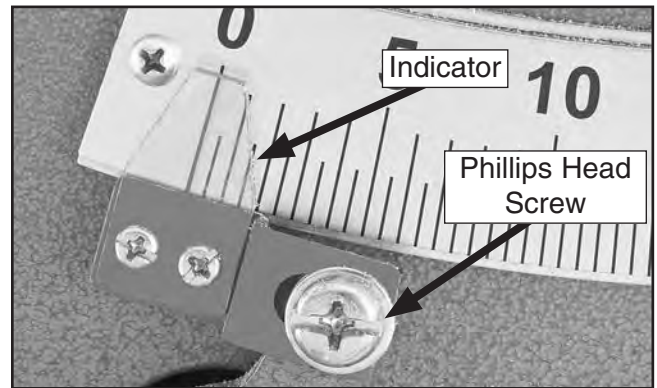


Figure 99. Tilt indicator arrow.

Adjust the indicator position by loosening the Phillips head screw, moving the indicator, then tightening the screw and reinstalling the handwheel. Proceed to **Setting 45° Stop Bolt** on **Page 60**.

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

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



5. Open the motor cover, loosen the jam nut shown in **Figures 100–101**, adjust the stop bolt up or down according to how far off the blade was from 90°, then repeat **Steps 2-3** until the blade stops at 90°.

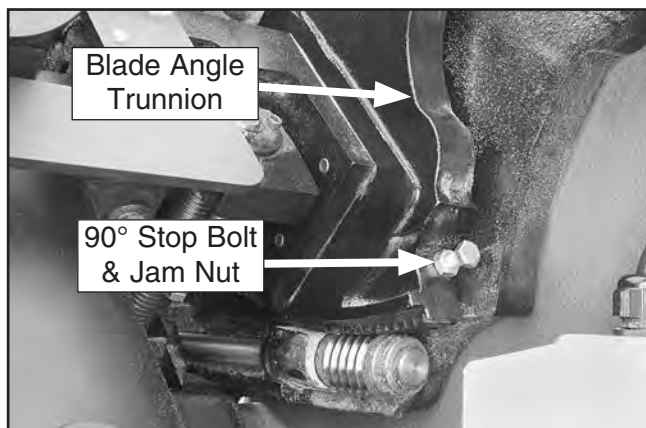


Figure 100. 90° stop bolt and jam nut.

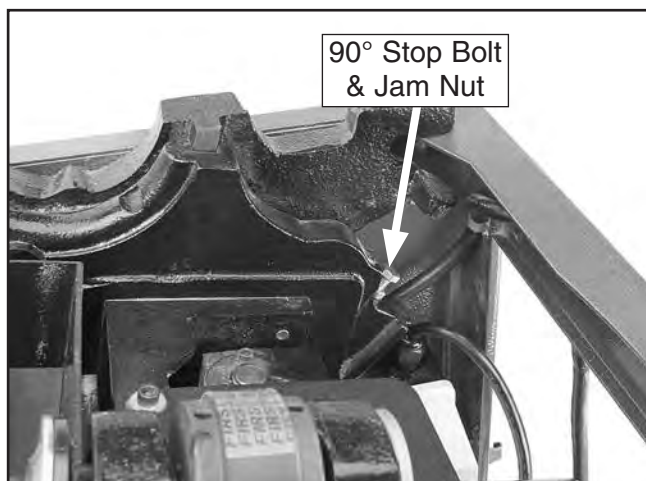


Figure 101. 90° stop bolt and jam nut (table removed for clarity).

6. Tighten the jam nut, then close the motor cover.

Setting 45° Stop Bolt

1. DISCONNECT SAW FROM POWER!
2. Raise the 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 the table and blade so it contacts the blade evenly from bottom to top, as shown in **Figure 102**. Make sure a blade tooth does not obstruct the placement of the square.

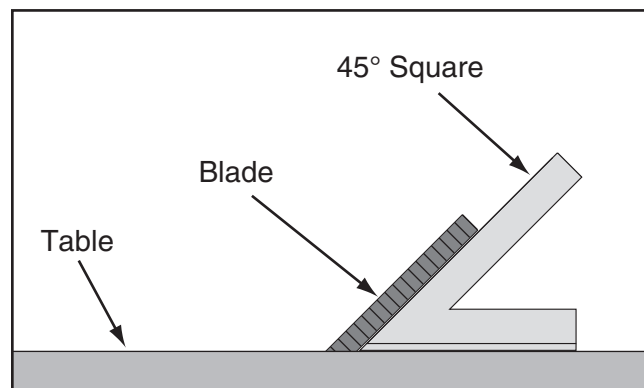


Figure 102. Checking blade at 45°.

- If the blade is 45° to the table, then adjustments do not need to be made.
- If the blade is not 45° to the table, you will need to adjust the 45° stop screw. Proceed to the next step.



4. Open the right access door.
5. Tilt the blade as needed so there is enough room to adjust the stop bolt.
6. Loosen the jam nut on the 45° stop bolt (see **Figure 103**) then adjust the stop bolt in or out according to how far off the blade was from 45°.

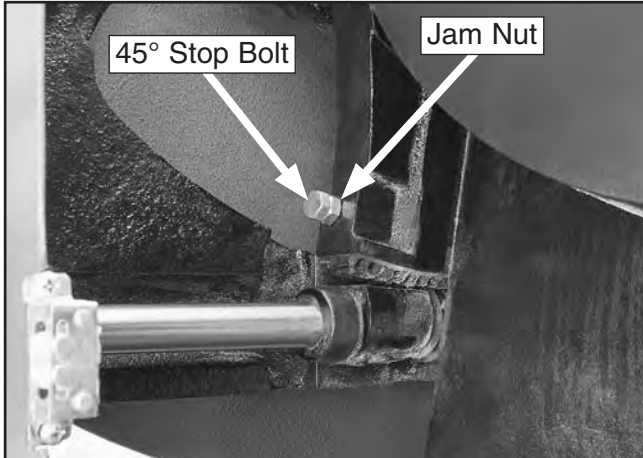


Figure 103. 45° stop bolt and jam nut.

7. Continue adjusting the stop bolt until it contacts the cabinet when the blade is at 45°, then tighten the jam nut.
8. Close the right access door.

Arbor Height Stop Bolt

The arbor height stop bolt shown in **Figure 104** 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.

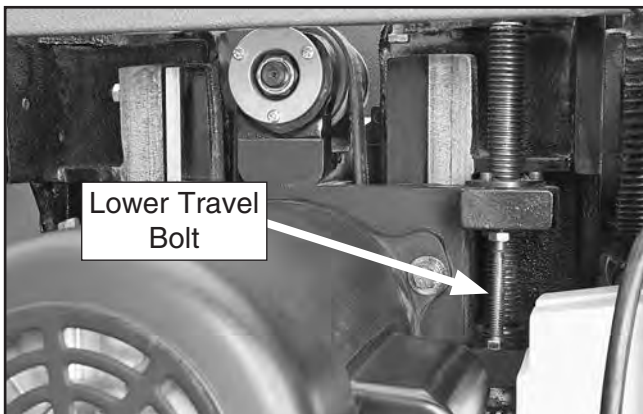


Figure 104. Arbor height limit stops.

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 the blade parallel to the miter slot:

1. DISCONNECT SAW FROM POWER!
2. Raise the blade to the maximum height and tilt it to 90°.
3. Measure from the miter slot to a carbide tip on the blade, as shown in **Figure 105**.

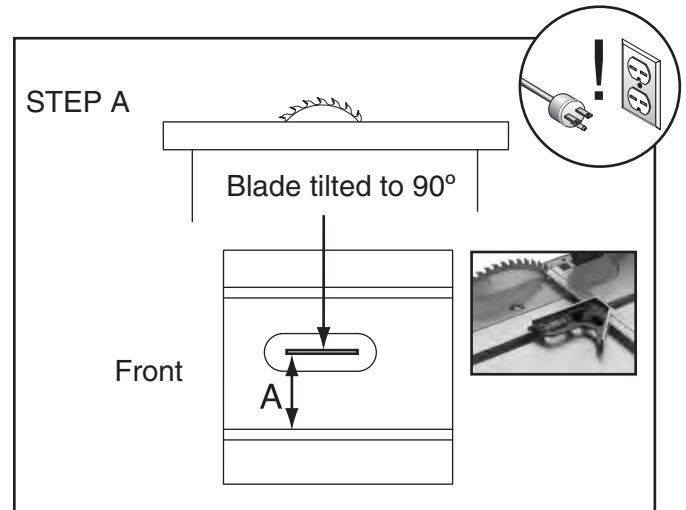


Figure 105. Measuring distance from miter slot to carbide tip of blade.

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

CAUTION

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



5. Rotate the marked blade tip to the other end of the table insert.
6. Compare the distance from the marked blade tip to the miter slot, as shown in **Figure 106**.

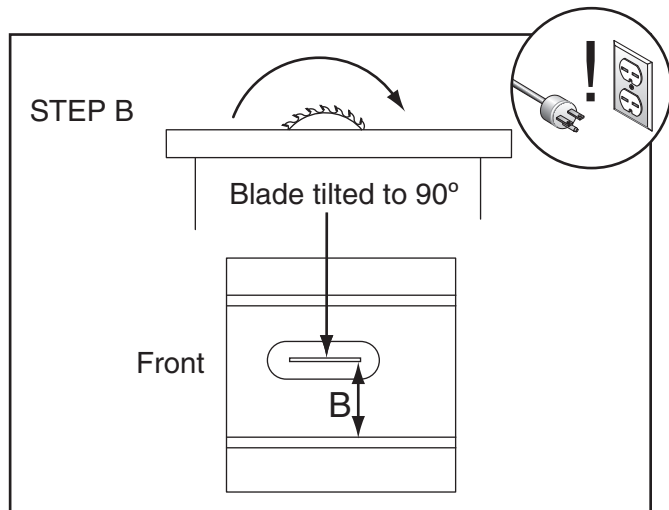


Figure 106. Measuring distance from miter slot to carbide tip on opposite side of table insert.

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

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

7. To adjust the table, loosen the four bolts in the table mounting locations (see **Figure 107**) and lightly tap the table in the direction needed to square the table to the blade. Repeat **Steps 3-6** until the blade and miter slot are parallel. Do not forget to tighten the table mounting bolts when finished.

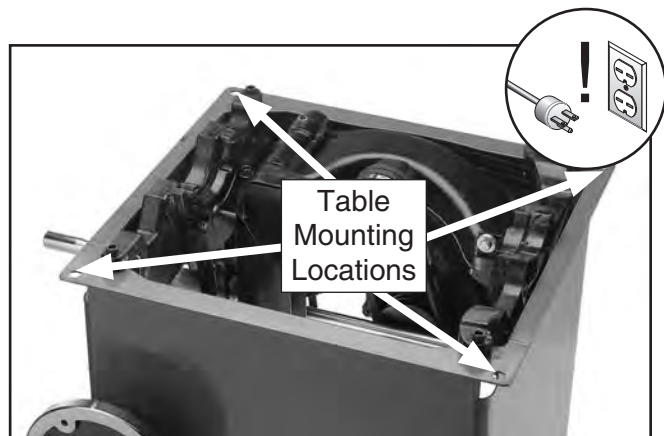


Figure 107. Table mounting bolt holes (table top removed for clarity).

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

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

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

9. Loosen the four table mounting bolts.
10. Refer to **Figures 108–109** for shim placement. If the distance of A is shorter than B, shim(s) will need to be placed under corners #1 and #2. If the 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.

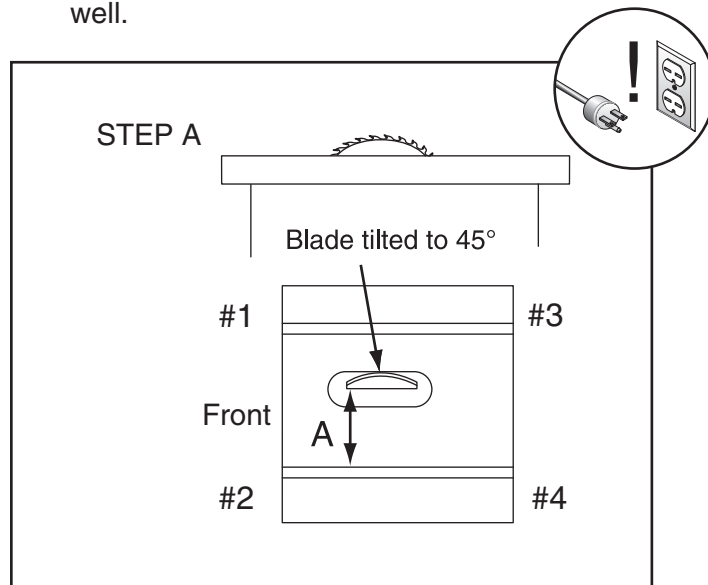


Figure 108. Shim procedure diagram A.

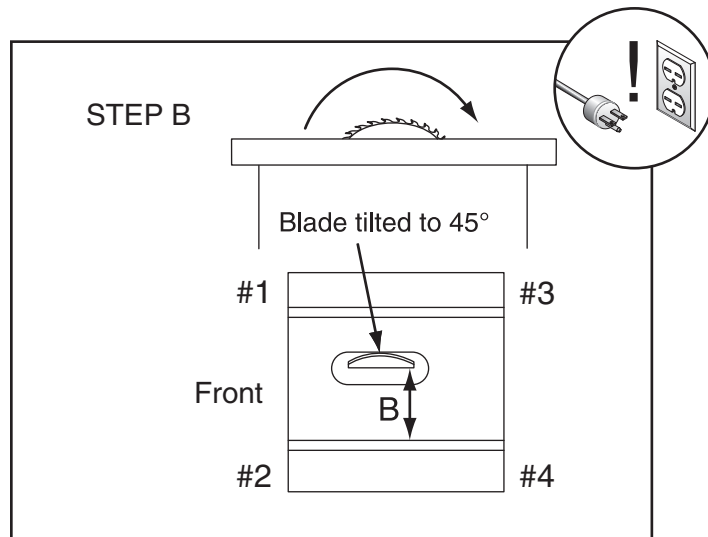


Figure 109. Shim procedure diagram B.



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 the bolts, tightening them a little each time until they are all secure.

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

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

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

13. Once the miter slot is adjusted to the blade, recheck all measurements and be sure the table mounting bolts are secure. Also, if you remove the table in the future, note the 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 SAW FROM POWER!
2. Loosen the four table mounting bolts (**Page 62, Figure 107**) and adjust the table until the blade does not contact the insert. Tighten all the mounting bolts.
3. Make sure the blade does not contact the table insert when raised or tilted. Recheck parallelism of the blade to the miter slot (refer to **Page 61**). Adjust as necessary until the blade does not touch the insert.



Adjusting Blade Position by Moving Trunnion

1. DISCONNECT SAW FROM POWER!
2. Remove the table and wings and set them to one side.



3. Loosen the five trunnion mounting bolts as shown in **Figure 110**, and nudge the trunnion to either the left or the right depending on where the blade is hitting the saw.

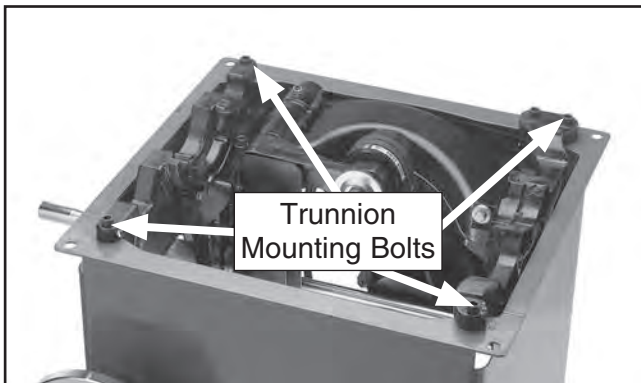


Figure 110. Trunnion mounting bolts.

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

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

5. Once the blade is aligned, recheck the miter slot to blade parallelism and adjust as necessary (refer to **Page 61**).

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 the spreader/riving knife alignment:

1. DISCONNECT SAW FROM POWER!
2. Raise the saw blade to the maximum height so you have easy working access.
3. Check to make sure the blade is 90° to the table. Follow "Setting 90° Stop Bolt" instructions on **Page 59**.
4. Place the straightedge against the top and bottom of the blade and spreader/riving knife, as shown in **Figure 111**.

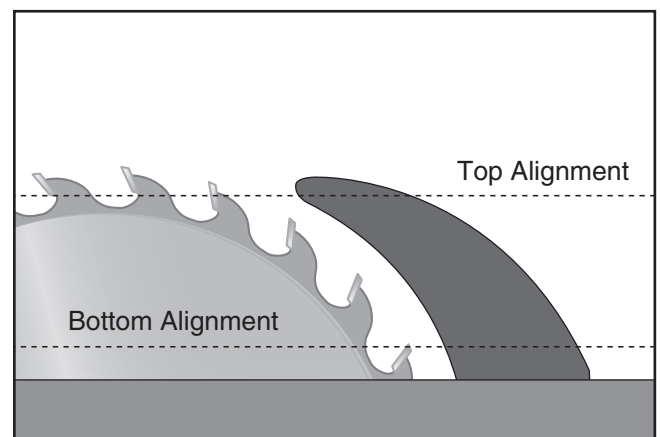


Figure 111. Checking top and bottom riving knife parallelism with blade.



- The spreader/ripping knife should be parallel with the blade along its length at both positions and should be in the "Alignment Zone," as shown in **Figure 112**.

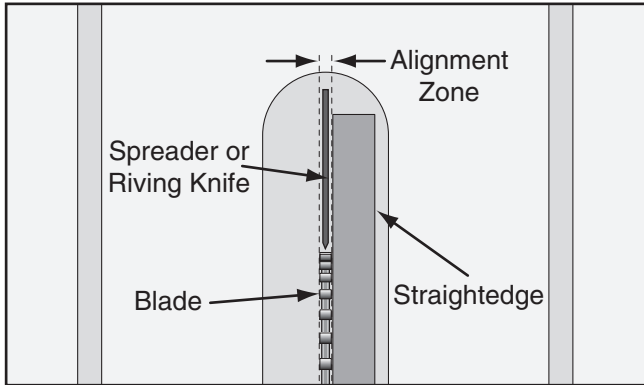


Figure 112. Spreader/ripping knife alignment zone.

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

—If the spreader/ripping knife is not parallel with the blade at either the top or bottom, it may be bent. Remove the spreader/ripping knife and place it on a flat surface and check to see if the spreader/ripping knife lays evenly along its length. If the spreader/ripping knife does not lay evenly, proceed to **Adjusting Bent Spreader/Riving Knife** on **Page 66**.

Adjusting Alignment

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

Figure 113 shows the set screws associated with controlling the mounting block position.

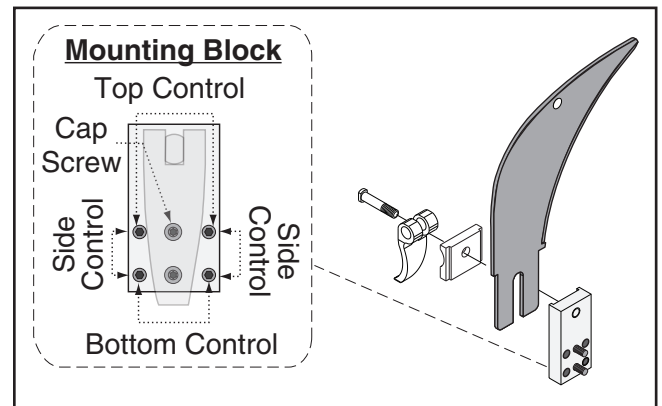


Figure 113. Set screws for adjusting spreader/ripping knife position.

Possible Tools Needed

	Qty
Hex Wrench 4mm.....	1
Hex Wrench 5mm.....	1

To adjust the spreader/ripping knife position:

- DISCONNECT SAW FROM POWER!
- Remove the table insert.
- Loosen the quick release lever shown in **Figure 114**.

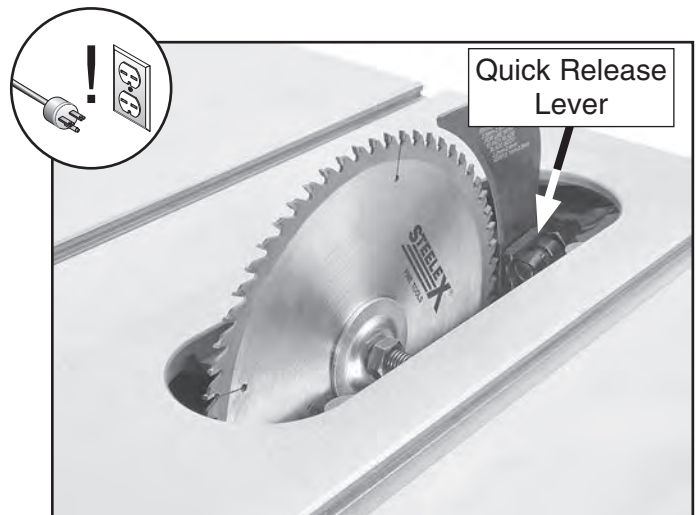


Figure 114. Quick release lever.



4. Loosen the two cap screws on the mounting block, then adjust the set screws on the block to move it in the necessary direction (see "Mounting Block" inset in **Figure 113**).
5. Re-install the table insert and spreader/riving knife, then tighten the quick release lever.
6. Follow **Checking Alignment, Steps 1–4**, on **Page 64**.

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

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

7. Tighten the two cap screws on the mounting block to secure the spreader/riving knife adjustment.

Adjusting Bent Spreader/Riving Knife

1. DISCONNECT SAW FROM POWER!
2. Bend the spreader or riving knife by hand while installed, then follow **Steps 1–4** in **Checking Alignment** on **Page 64** to determine if it is parallel with the blade and inside the "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 the fence height to the table:

1. DISCONNECT SAW FROM POWER!
2. Look at the gap between the fence and the table top.

—If the gap is approximately $\frac{1}{16}$ " and even from the front of the table to the back (see **Figure 115**), then no additional adjustments are necessary. Proceed to **Clamping Pressure and Parallelism**.

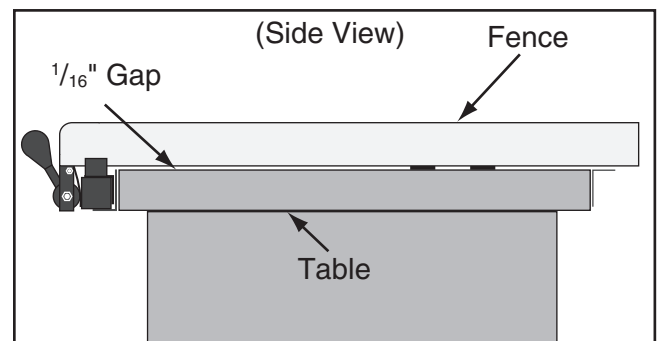


Figure 115. Gap between fence and table approximately $\frac{1}{16}$ " from to back.

—If the gap is uneven, if the fence height is more than $\frac{1}{8}$ ", or if the fence touches the table, then continue with **Step 3**.



3. Check the fence support pads. Over time the pads illustrated in **Figure 116** will wear. Replace them if they appear worn.

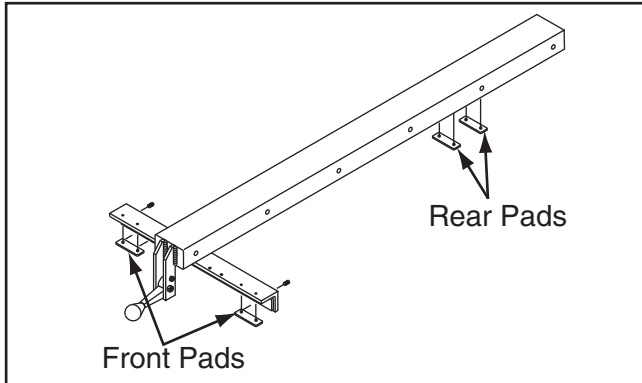


Figure 116. Fence pad locations.

4. Loosen the rail mounting bolts and adjust the rails as needed until the fence rides smoothly, the gap is approximately $\frac{1}{16}$ " , and is even from front to back (see **Figure 115**).

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 the fence along the rail.
 - If the fence drags across the table, then loosen the rail mounting bolts and adjust the rails just enough so the gap between the fence and the table is even from front to back (see **Figure 115** on **Page 66**). Tighten the rail mounting bolts.

2. Slide the fence up against the right hand edge of the miter slot, lock it in place, then raise the blade to its maximum height. Examine how the fence lines up with the miter slot and the blade, as shown in **Figure 117**.

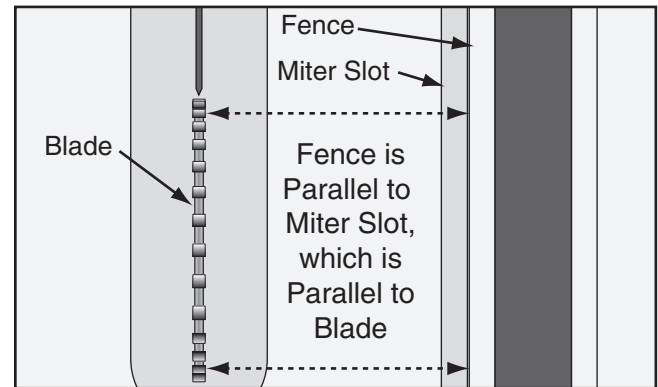


Figure 117. Checking fence parallelism with blade.

Note: *It is permissible for the back of the fence to pivot outward $\frac{1}{64}$ " from being parallel with the blade (see **Figure 120** on **Page 68**). Many woodworkers intentionally set 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 the fence/miter slot are parallel with the blade, as shown in **Figure 117**, no further adjustments need to be made.
- If the fence is not parallel with the blade/miter slot, then you must adjust the fence parallel with the blade.
- If the miter slot is not parallel with the blade, you must follow the procedures described in **Miter Slot to Blade Parallelism** on **Page 61**.



To adjust the fence clamping pressure and parallelism to the blade:

1. DISCONNECT SAW FROM POWER!
2. Remove the fence and equally adjust the set screws shown in **Figure 118** as necessary, then re-install the fence, lock it in place, and check the clamping pressure. Re-adjust as necessary until the fence will not move as pressure is applied against it.

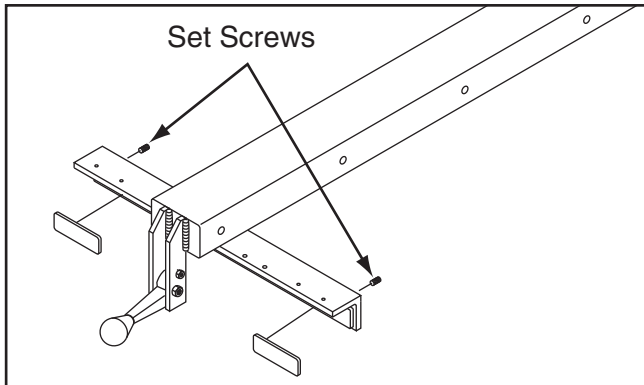


Figure 118. Location of set screws used to adjust fence parallelism and clamping pressure.

3. Mount the fence on the rail again, move it approximately 4" away from the blade, and lock it in place.
4. Measure the distance between the fence and front of the blade, then mark the tooth you measured from with a felt-tipped marker.
5. Rotate the blade 180° (**Figure 119**), and recheck the distance between the fence and the blade tooth you marked in **Step 4** to ensure they are parallel.

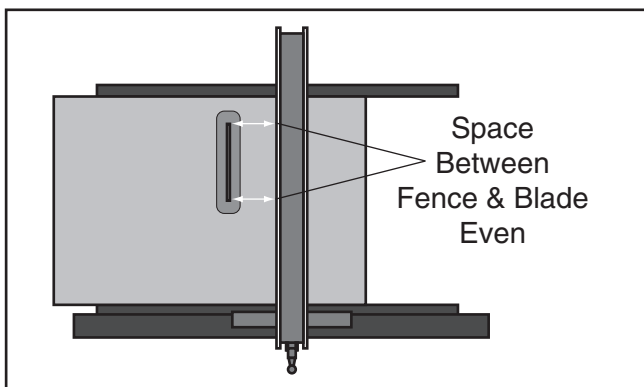


Figure 119. Example of fence aligned parallel with miter slot.

6. Use trial-and-error to adjust the set screws (see **Figure 118**) so the fence is parallel with the blade and the clamping pressure is sufficient.

Optional: Some woodworkers prefer to offset the rear of the fence $\frac{1}{64}$ " from the blade, as shown in **Figure 120**. 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.

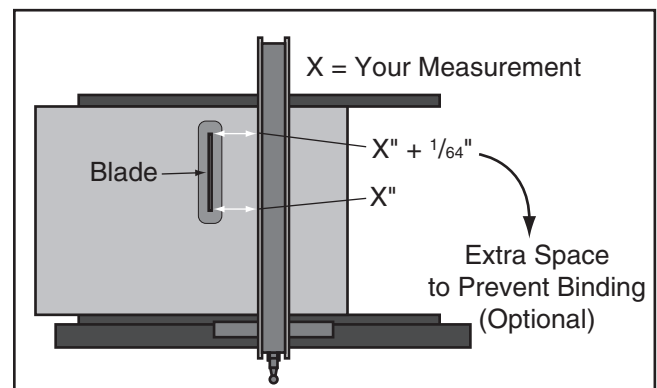


Figure 120. Adjusting fence with a $\frac{1}{64}$ " offset.



Fence Scale Calibration

The fence scale indicator window, shown in **Figure 121**, can be calibrated with the fence scale if you notice that your cuts do not accurately match what is shown on the fence scale.

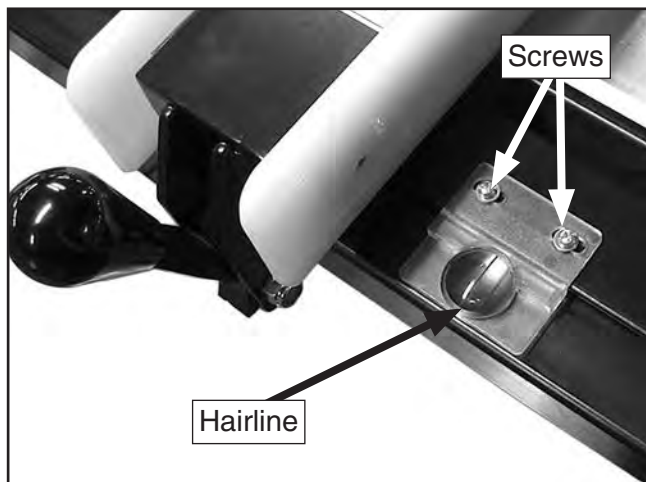


Figure 121. Fence indicator window.

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 the fence scale indicator window:

1. Position and lock the fence at 13", as indicated by the scale, cut your scrap piece of wood.
2. Reposition and lock the fence at 12", as indicated by the scale.
3. Flip your scrap piece of wood over, placing the side that was cut in **Step 2** against the fence, and cut your scrap piece of wood.
4. Measure the width of the freshly cut workpiece with a tape measure. The workpiece width should be exactly 12". If it is not, then adjust the indicator window hairline to match the width of the workpiece.

Miter Gauge Adjustments

The miter gauge (see **Figure 122**) 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.

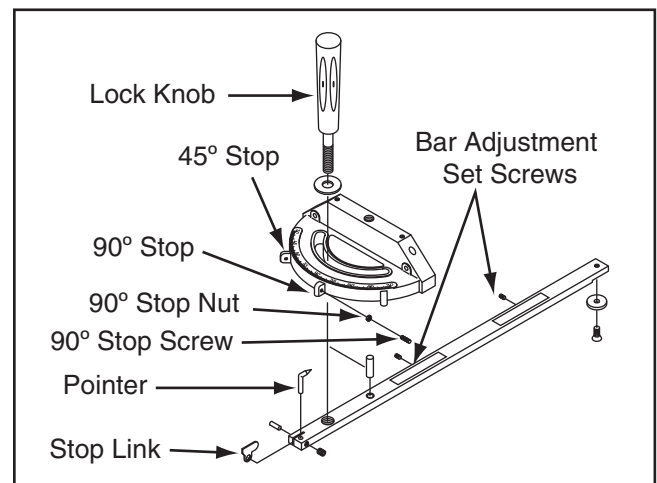


Figure 122. Miter gauge features.

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

Checking/Setting 90° Stops

1. DISCONNECT SAW FROM POWER!
2. Slide the miter gauge into the T-slot on the table.
3. Loosen the miter gauge lock knob, raise the stop link (see **Figure 122 above**) all the way up.



4. Pivot the miter gauge body so the 90° stop screw rests against the stop link, then tighten the lock knob.
5. Place the square evenly against the face of the miter gauge and the blade, as shown in **Figure 123**.

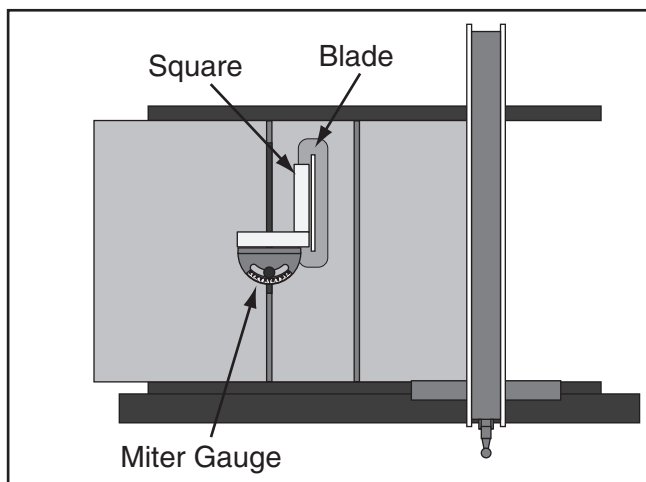


Figure 123. Checking 90° stop on miter gauge.

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

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

6. Loosen the hex nut (jam nut) that secures the 90° stop screw and adjust the stop screw until it is seated against the stop link while the square is evenly touching the miter body and the blade body, then tighten the hex nut.
7. Loosen the set screw on the right front side of the miter bar, adjust the pointer to 0°, then tighten the 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 124**.

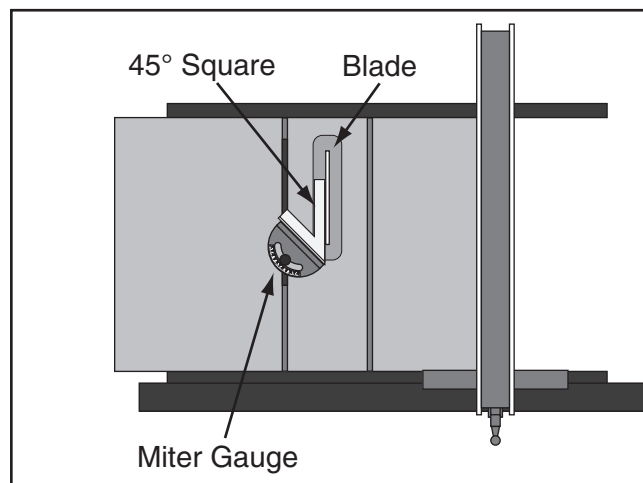


Figure 124. Checking 45° stop on miter gauge.

Adjusting Miter Bar Tightness

1. Adjust the set screws shown in **Figure 125**.

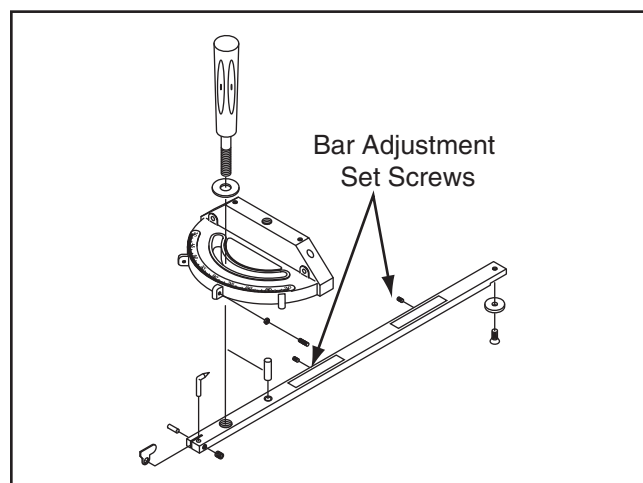


Figure 125. Screws for adjusting miter bar in miter slot.

2. Test fit the miter bar in the 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 Bearings 6203-2RS.....	2

Tensioning Belt

1. DISCONNECT SAW FROM POWER!
2. Lower the blade completely, then open the motor cover.

3. Loosen the two hex bolts on the motor (see **Figure 126**), and pivot the motor up and down to make sure that it is movable.

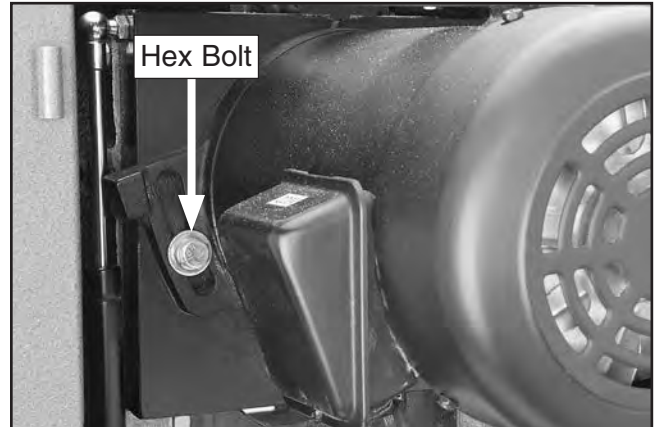


Figure 126. Belt tension adjustment bolt (one of two shown).

4. Press down on the motor with one hand to keep the belt tension tight and tighten the hex bolt.
5. Press the flat belt in the center to check the belt tension.

The belt is correctly tensioned when there is approximately 1/2" deflection when it is pushed with moderate pressure, as shown in **Figure 127**.

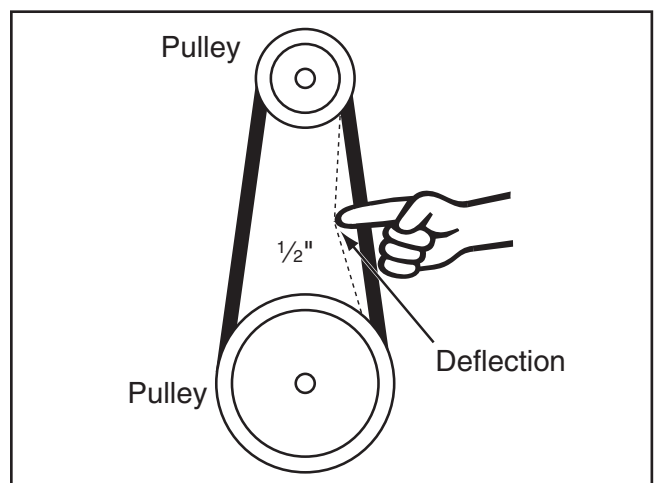


Figure 127. Checking belt tension.

—If there is more than 1/2" deflection when the flat belt is pushed with moderate pressure, loosen the hex bolt, adjust the motor downward, then tighten the two hex bolts.

6. Close the motor cover.



Replacing Belt

1. DISCONNECT SAW FROM POWER!
2. Remove the table insert.
3. Remove the ON/OFF switch from the table.
4. Remove the four table mounting bolts.
5. With the help of another person, lift the table off of the cabinet and set it aside.
6. Note the location and quantity of any shims on the cabinet top, then set them aside.
7. Remove the cap screws that secure the dust collection chute, shown in **Figure 128**, then remove the chute.

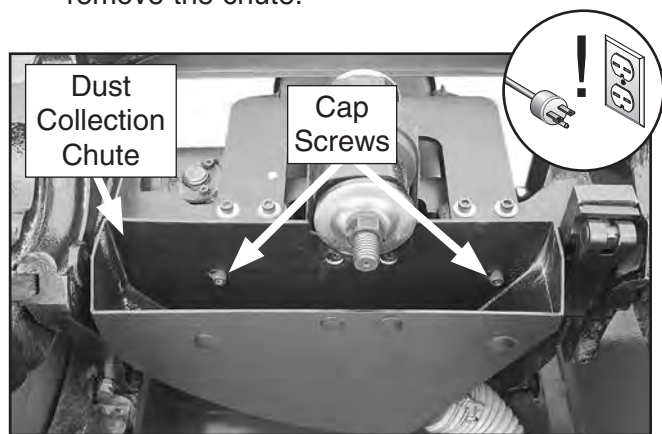


Figure 128. Dust chute mounting screws.

8. Remove the cap screws that secure the mounting plate shown in **Figure 129**, then remove the plate.

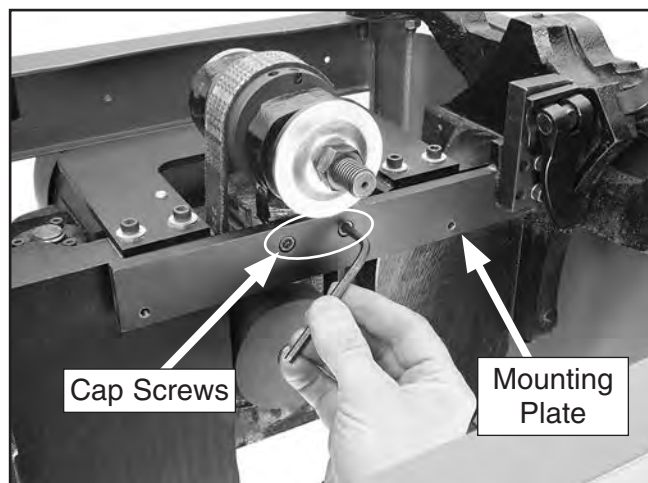


Figure 129. Removing mounting plate.

9. Loosen the motor adjustment bolt (see **Figure 126** on **Page 71**).
10. Remove the three Phillips head screws on the bearing retainer, shown in **Figure 130**, then remove the retainer.

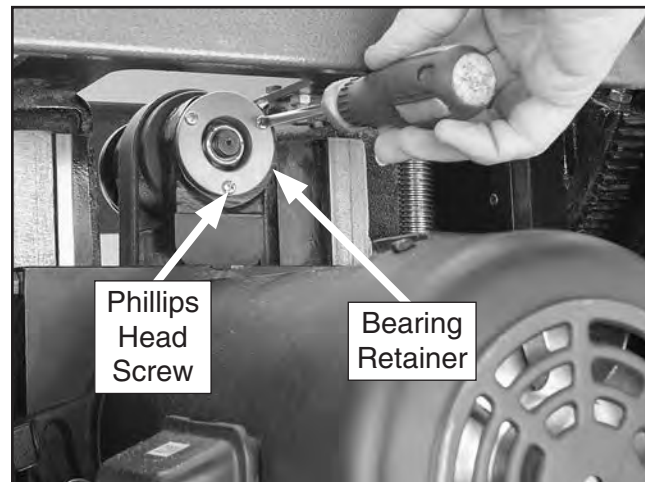


Figure 130. Removing bearing shield.

11. Place the open end of the arbor wrench on the arbor, and while keeping the arbor stationary, use a 25mm wrench to loosen and remove the lock nut at the other end of the arbor, as shown in **Figure 131**.

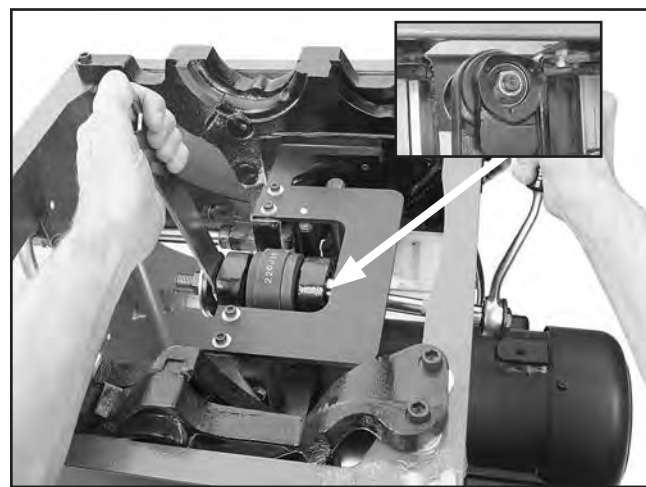


Figure 131. Removing arbor lock nut. (Inset: arbor lock nut.)



12. Loosen the set screws shown in **Figure 132**.

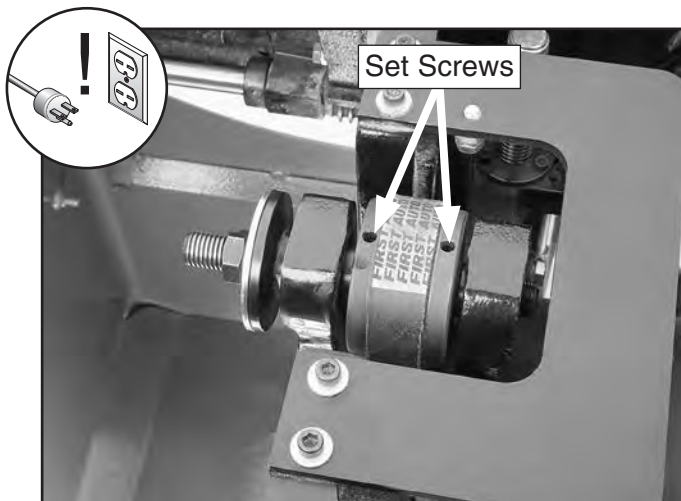


Figure 132. Location of arbor set screws.

13. Use a punch and hammer to drive the arbor out, as shown in **Figure 133**. Have another person catch the arbor so it does not drop and become damaged.



Figure 133. Removing arbor.

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

15. Remove the rear spacer from the bearing housing (see **Figure 134**).

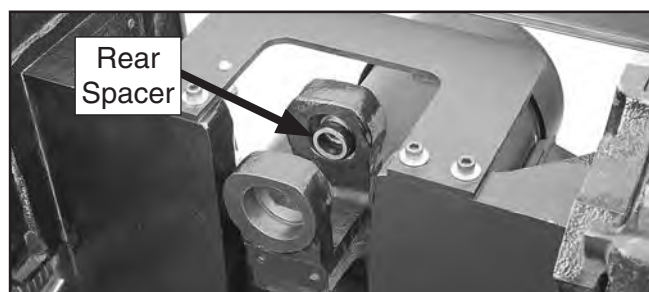


Figure 134. Location of rear spacer.

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

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

18. Place the arbor in a vise, as shown in **Figure 135**, with the vise teeth clamping the bearing, then use a soft rubber hammer to force the arbor out of the bearing.

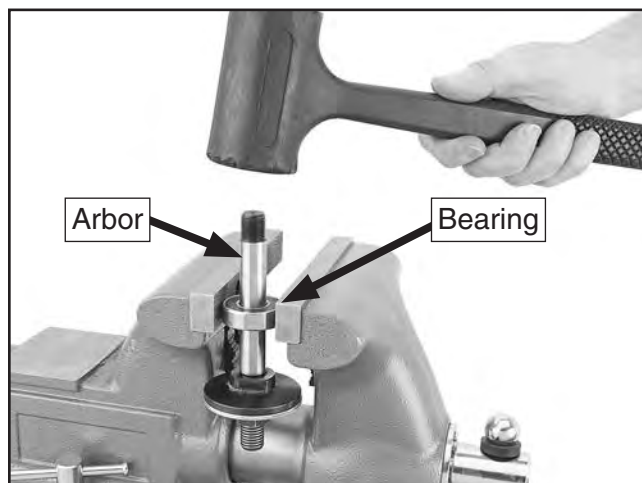


Figure 135. Removing arbor bearing.

19. Slide a new 6203-2RS ball bearing, part P1023RL100, onto the arbor shaft, then place the arbor between the vise teeth, as shown in **Figure 136**.

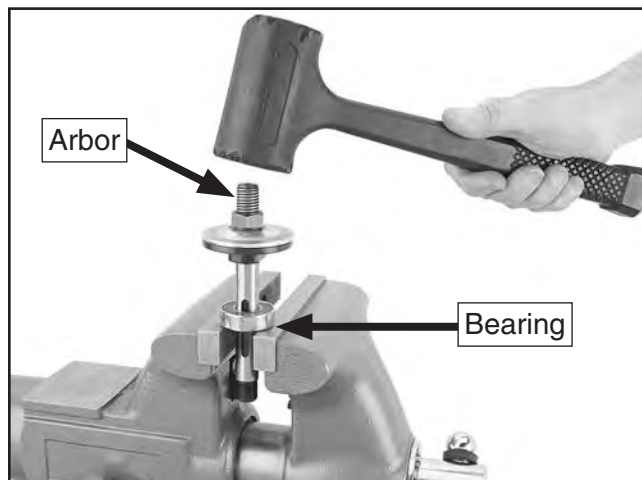


Figure 136. Seating arbor into new bearing.

20. Using the rubber hammer, seat the arbor onto the bearing (see **Figure 136**), then remove it from the vise.



21. Re-install the larger front spacer and key onto the arbor. The arbor should look like the one shown in **Figure 137**.

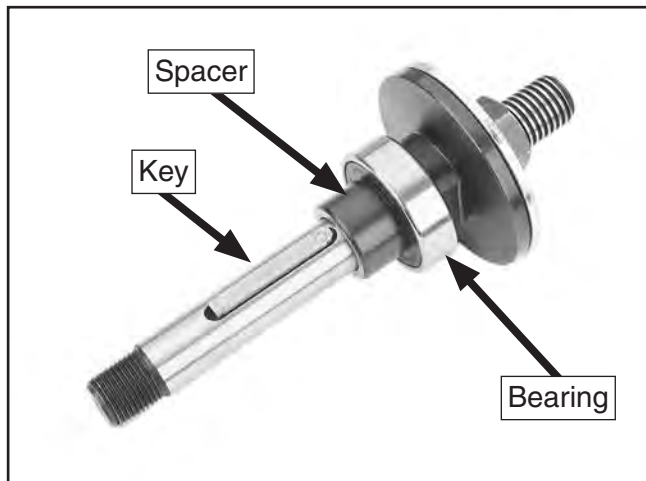


Figure 137. Components re-installed on arbor.

22. Lift the motor to its maximum elevation, then secure the motor adjustment bolt.
23. Place the belt onto the bottom motor pulley, then wrap the belt around the arbor housing bracket above it.
24. Place the arbor pulley between the arbor housing brackets, slide the belt over the pulley, then insert the arbor into the pulley, as shown in **Figure 138**.

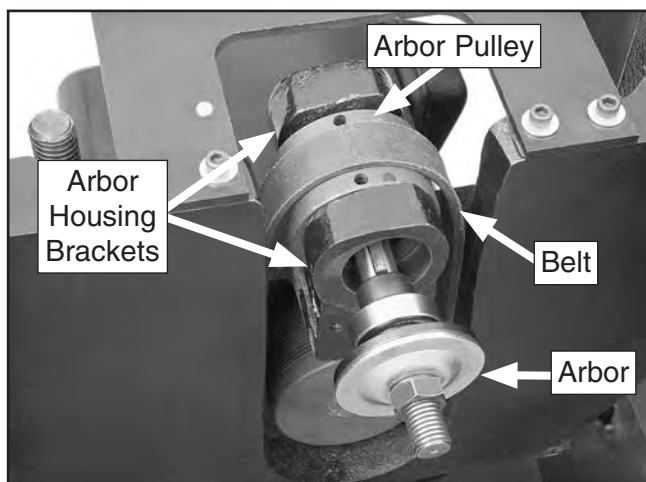


Figure 138. Re-installing arbor and belt.

25. Tap the arbor shaft into the pulley, making sure the shaft is straight.
26. Install the rear spacer onto the end of the arbor.

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

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

29. Re-install the bearing retainer with the three Phillips head screws removed earlier.

30. Tighten the pulley set screws shown in **Figure 132** on **Page 73**.

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

32. Tension the belt (refer to the instructions on **Page 71**).

33. Re-install the mounting plate and dust chute with the cap screws you removed earlier.

34. Replace the shims at the locations from which they came.

35. With the help of another person, lift the table and place it on top of the cabinet. Align the mounting holes in the table and cabinet, then secure the table with the mounting bolts.

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

37. Verify that the blade and miter slot are parallel at 90° and 45° (refer to instructions on **Page 61**).

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

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

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



Gib Adjustment

The Model G1023RL 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 139**.

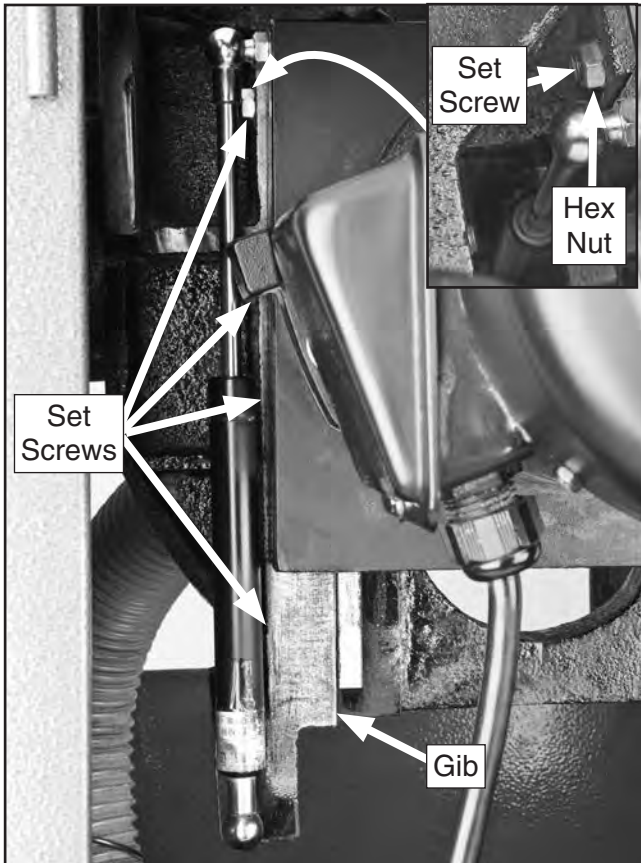


Figure 139. Elevation slide gib components.

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

To adjust the elevation slide gib:

1. DISCONNECT SAW FROM POWER!
2. Loosen the hex nuts securing the four adjustment set screws shown in **Figure 139**, then back off each set screw one full turn to release the pressure on the gib.

Note: *Exercise patience, as some of the nuts and screws may be difficult to reach due to tight space constraints.*
3. Using the elevation height handwheel, move the arbor up and down along its full range of movement to fully release the gib.
4. Tighten each set screw $\frac{1}{4}$ turn, then move the arbor up and down to test the results.
5. Repeat **Step 4** until you are satisfied with the results, then re-tighten the hex nuts without moving the 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 after-market 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.











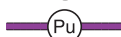



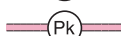
CAPACITORS/INVERTERS. Some capacitors and power inverters store an electrical charge for up to 10 minutes after being disconnected from the power source. To reduce the risk of being shocked, wait at least this long before working on capacitors.

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		BLUE		YELLOW		LIGHT BLUE	
WHITE		BROWN		YELLOW GREEN		BLUE WHITE	
GREEN		GRAY		PURPLE		TURQUOISE	
RED		ORANGE		PINK			



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

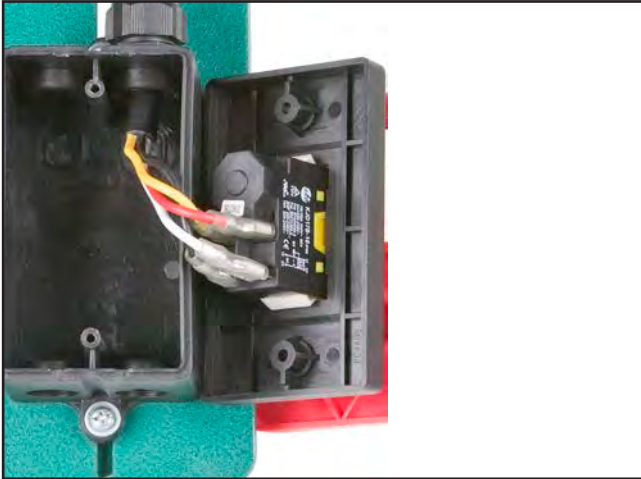


Figure 140. On/Off Switch.

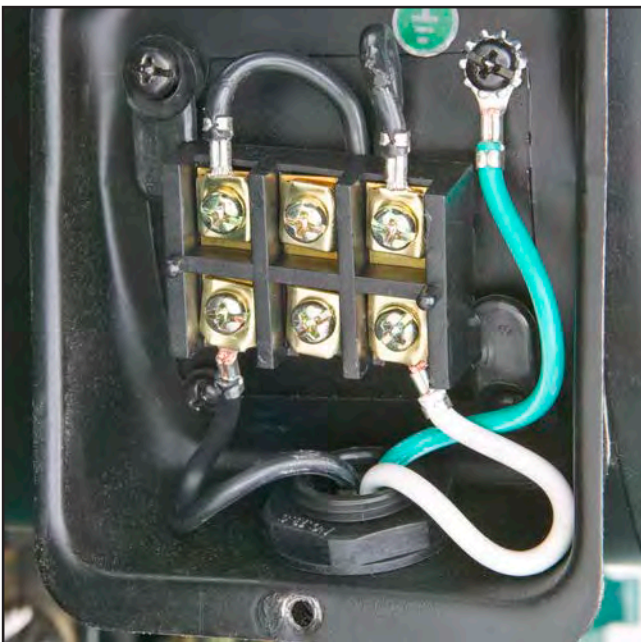


Figure 141. Motor junction box.

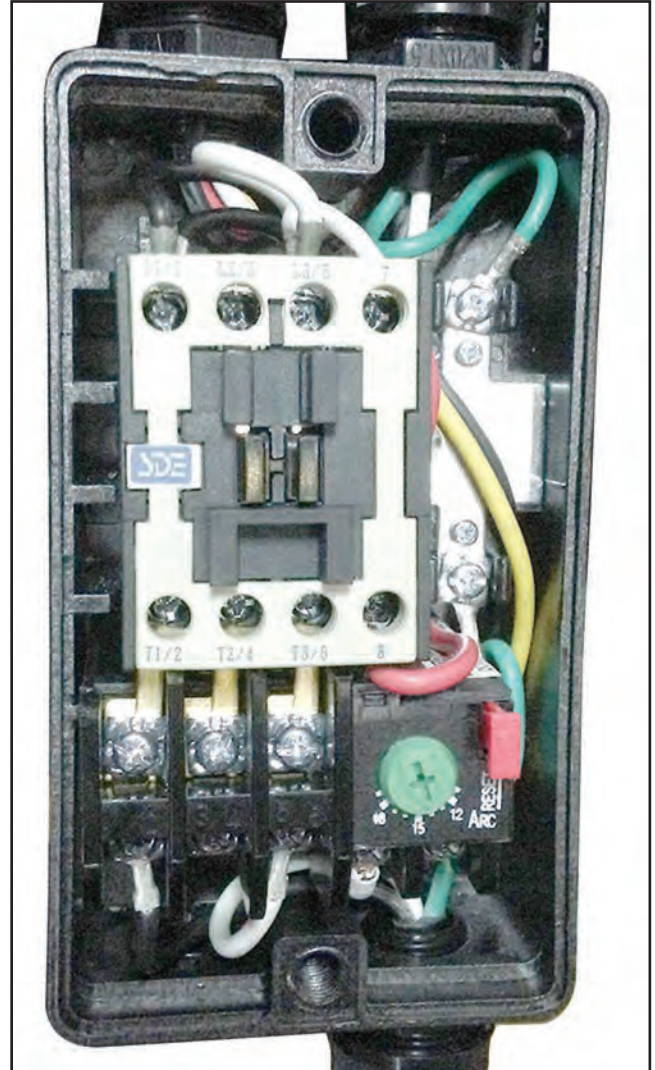
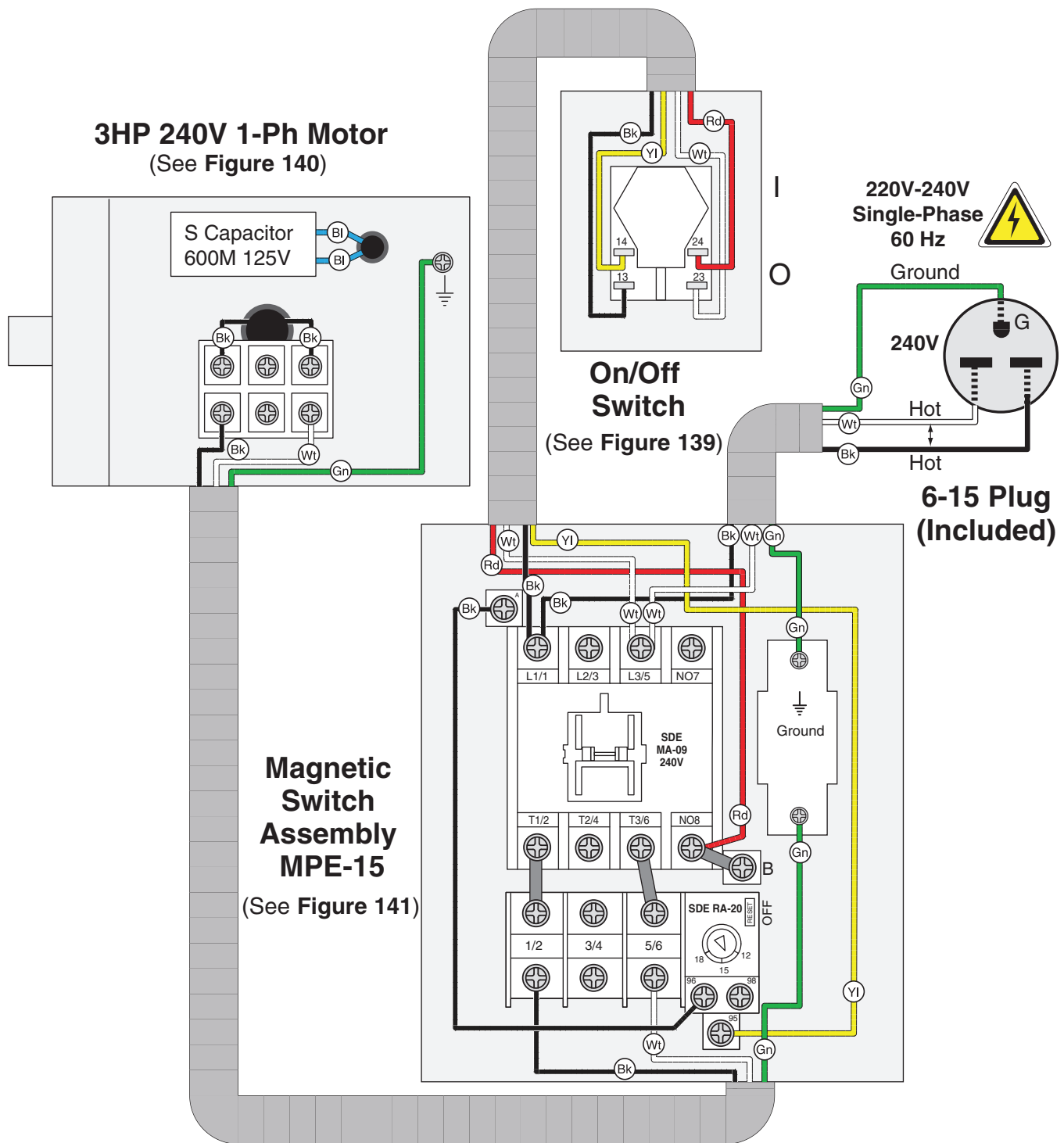


Figure 142. Magnetic switch.

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



G1023RLWX Electrical Components

5HP, 240V, 1-Ph



Figure 143. Run capacitor.



Figure 146. Start capacitor.

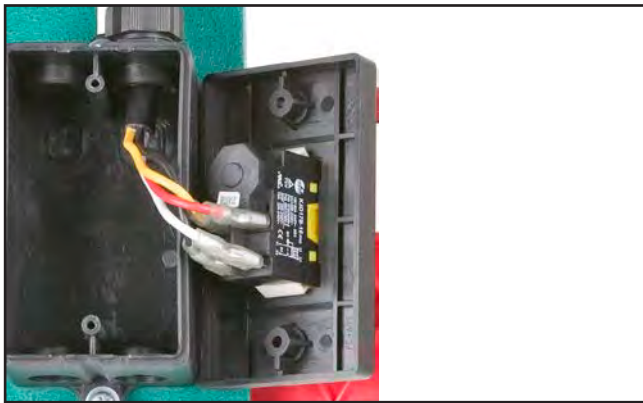


Figure 144. On/Off Switch.

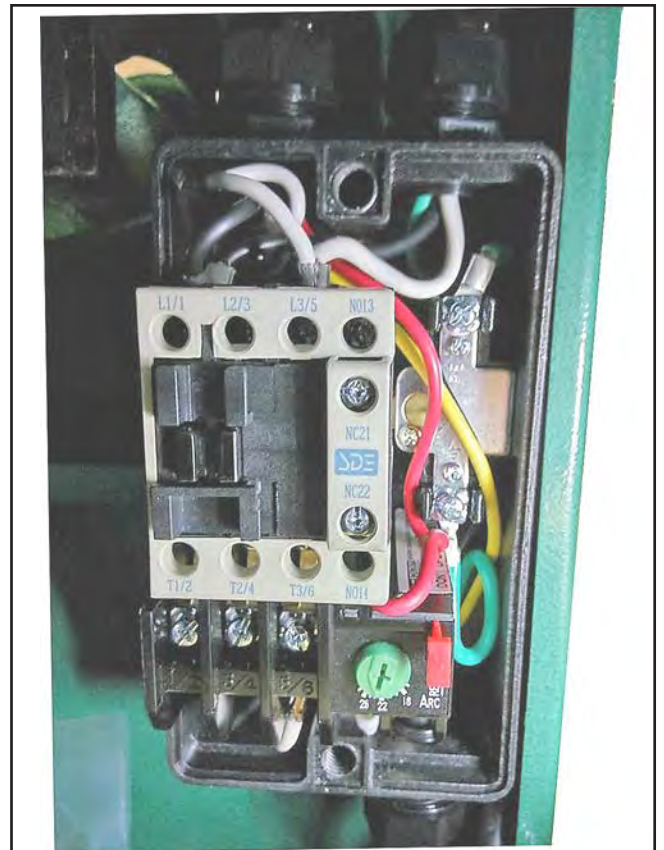


Figure 147. Magnetic switch.

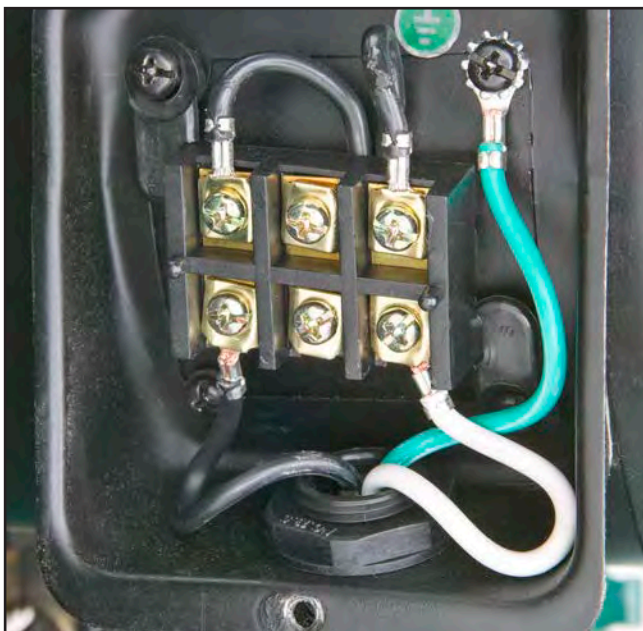
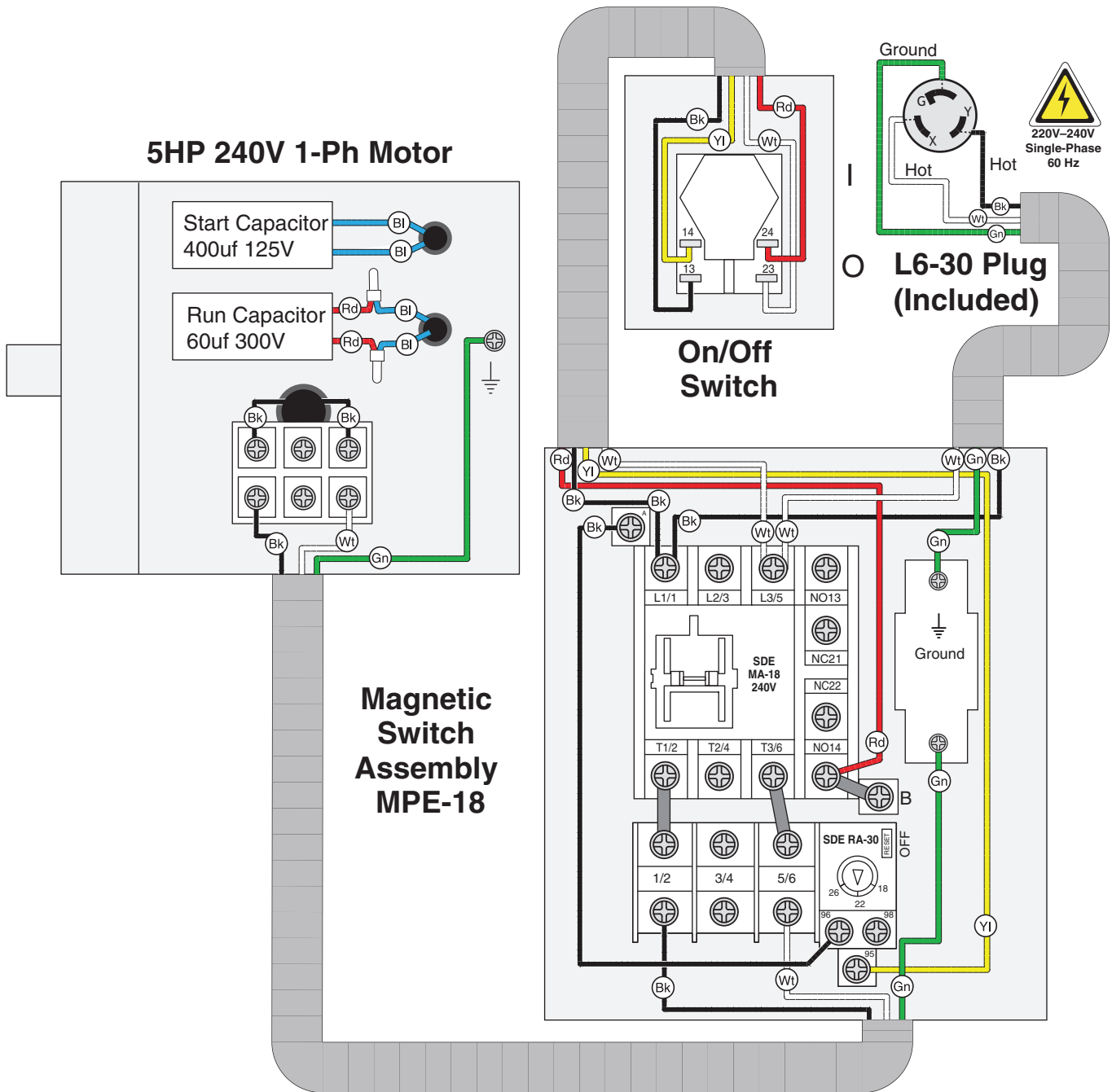


Figure 145. Motor junction box.

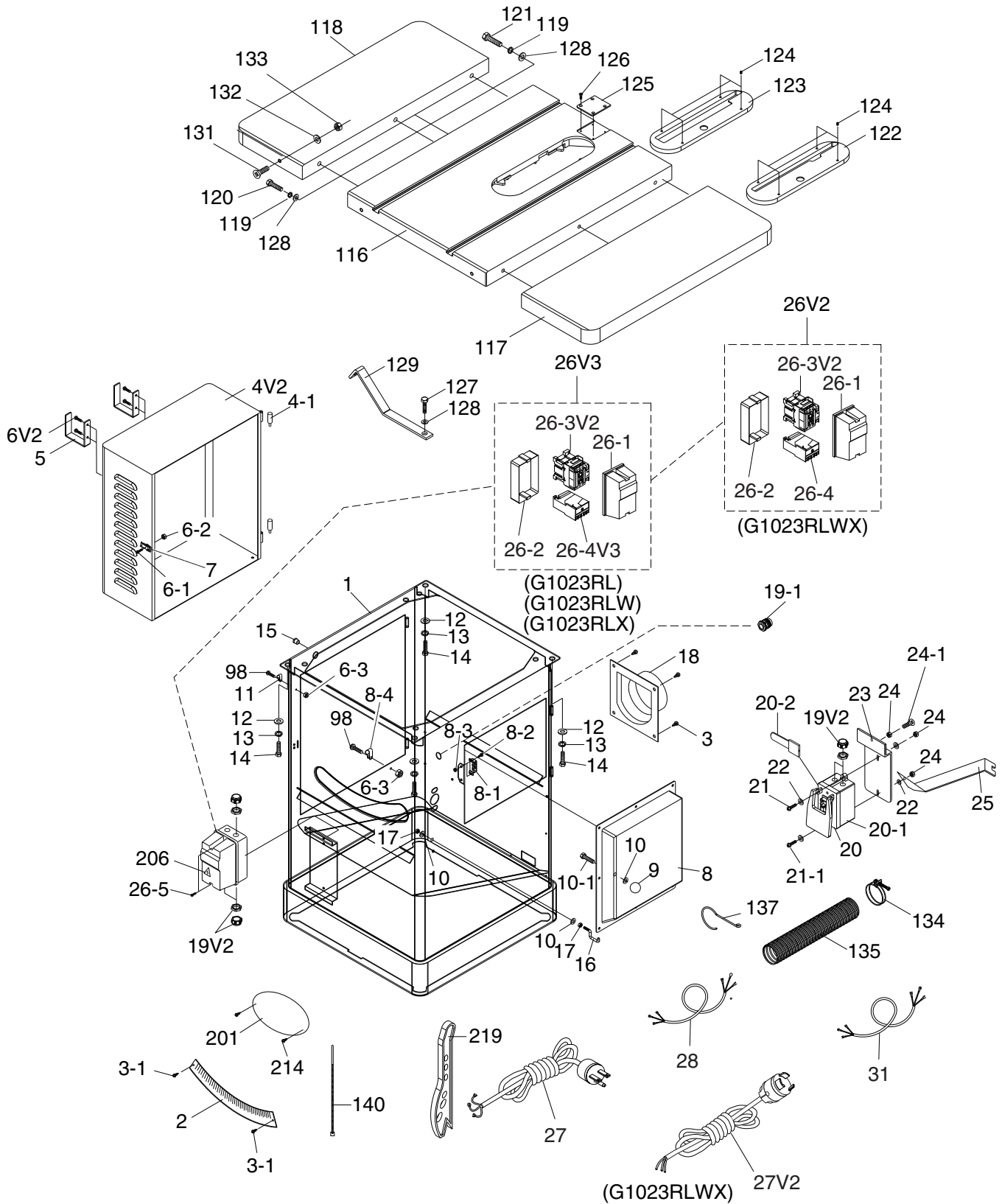


G1023RLWX Wiring 5HP, 240V, 1-Ph



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
4V2	P1023RL004V2	MOTOR ACCESS DOOR V2.07.10
4-1	P1023RL004-1	HINGE PIN
5	P1023RL005	FENCE RESTING BRACKET
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
8	P1023RL008	RIGHT ACCES 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
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
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
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

REF	PART #	DESCRIPTION
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
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
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
127	P1023RL127	HEX BOLT 3/8-16 X 1/2
128	P1023RL128	FLAT WASHER 3/8
129	P1023RL129	MOTOR BRACE
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

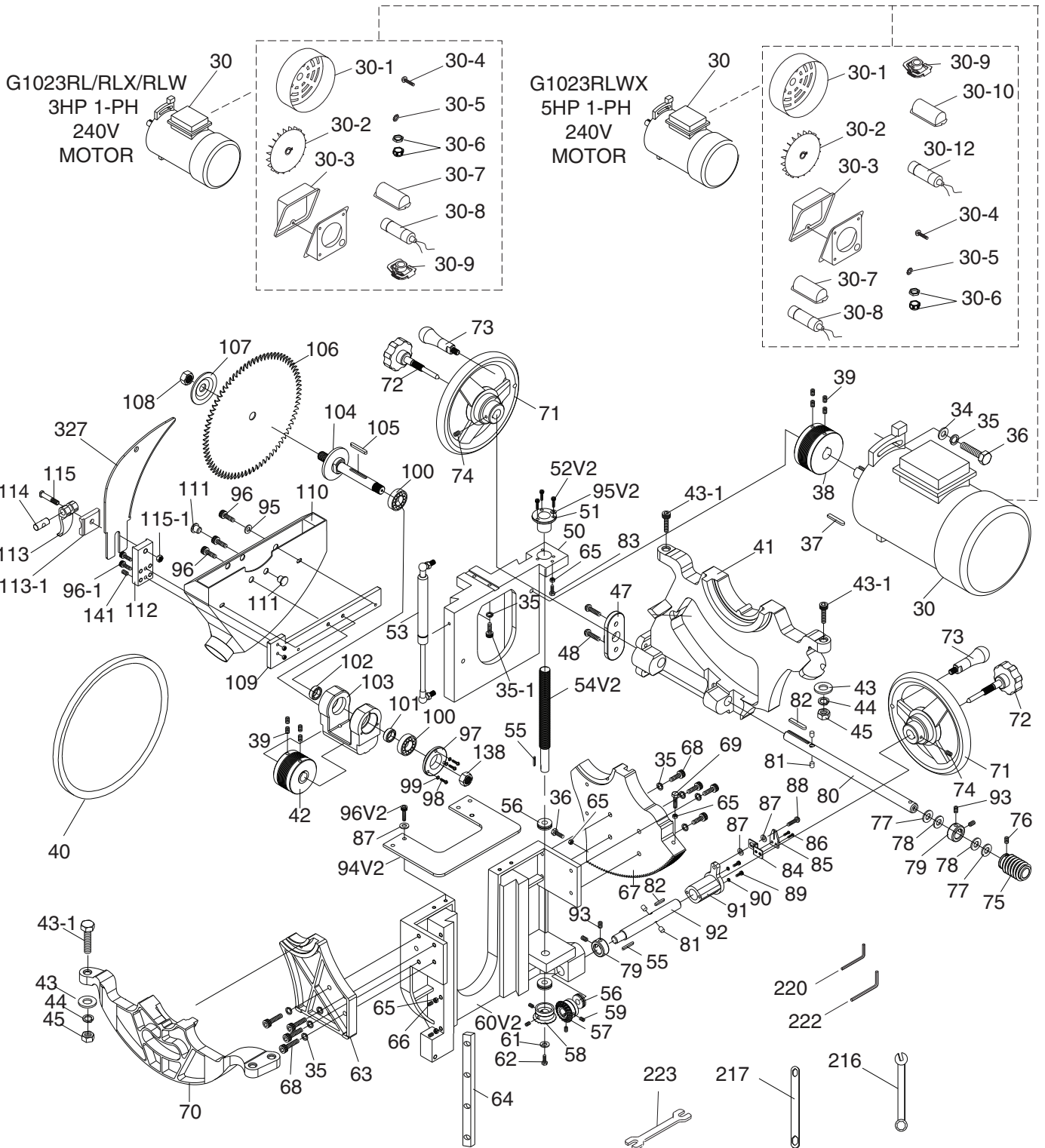
REF	PART #	DESCRIPTION
26V3	P1023RL026V3	MAG SWITCH ASSY MPE-15 V3.12.11
26-1	P1023RL026-1	MAG SWITCH FRONT COVER
26-2	P1023RL026-2	MAG SWITCH BACK COVER
26-3V2	P1023RL026-3V2	CONTACTOR SDE MA-09 240V V2.12.11
26-4V3	P1023RL026-4V3	OL RELAY SDE RA-20 12-18A V3.12.11
26-5	P1023RL026-5	MAG SWITCH COVER SCREW

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



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	P1023RL052	CAP SCREW 10-24 X 1/2
52V2	P1023RL052V2	HEX BOLT 5/16-18 X 1/2
53	P1023RL053	GAS STRUT
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
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
69	P1023RL069	HEX BOLT 5/16-18 X 3/4
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

REF	PART #	DESCRIPTION
80	P1023RL080	TILT SHAFT
81	P1023RL081	SHAFT PIN
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
94V2	P1023RL094V2	ANVIL BASE PLATE V2.08.10
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
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 5HP MOTOR

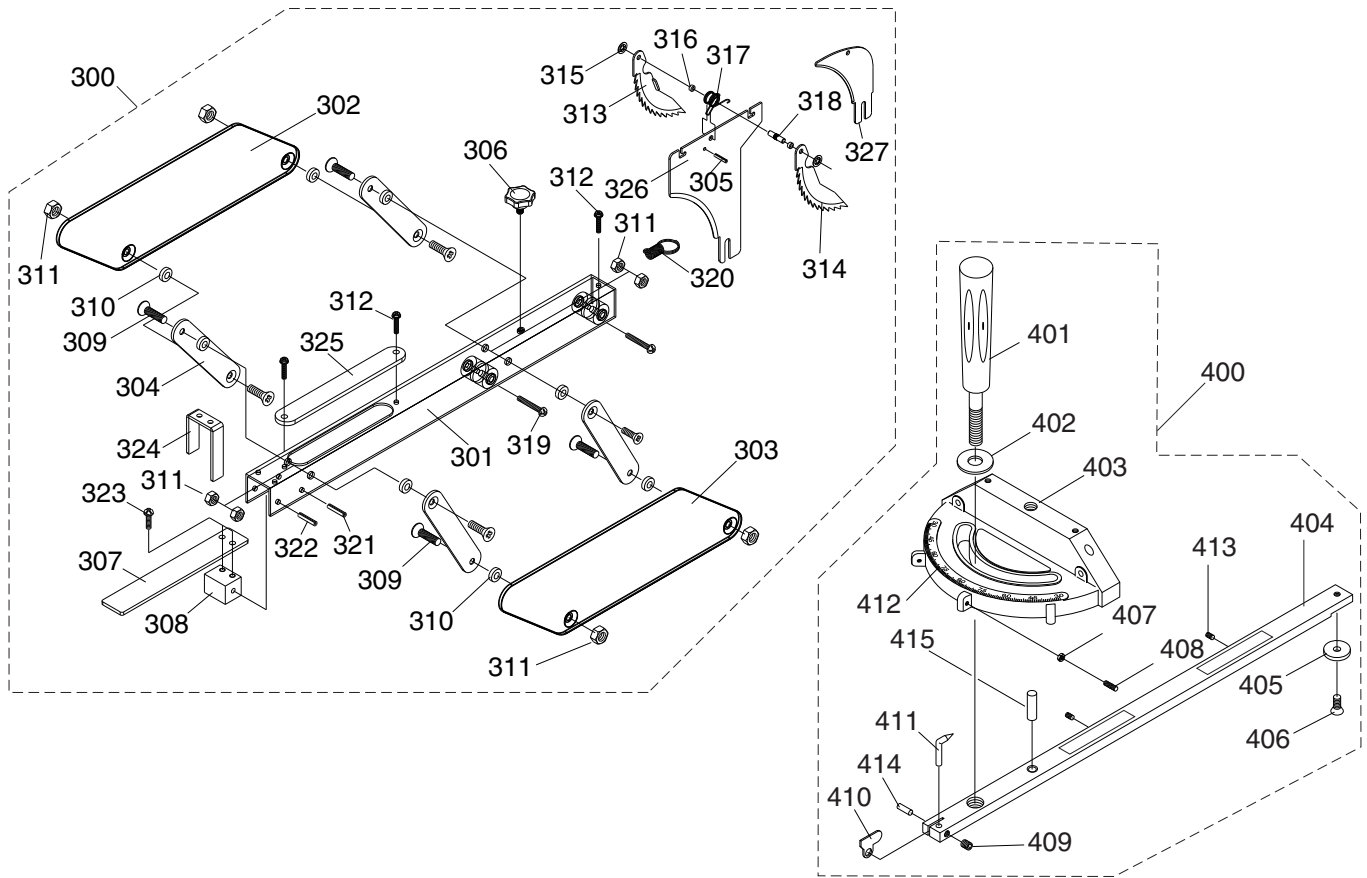
REF	PART #	DESCRIPTION
30	P1023RLWX030	MOTOR 5HP 220V 1-PH
30-1	P1023RLWX030-1	MOTOR FAN COVER
30-2	P1023RLWX030-2	MOTOR FAN
30-3	P1023RLWX030-3	WIRING JUNCTION BOX
30-4	P1023RLWX030-4	PHLP HD SCR 10-24 X 3/8
30-5	P1023RLWX030-5	EXT TOOTH WASHER #10
30-6	P1023RLWX030-6	STRAIN RELIEF MG20A-14ST V2.07.14
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

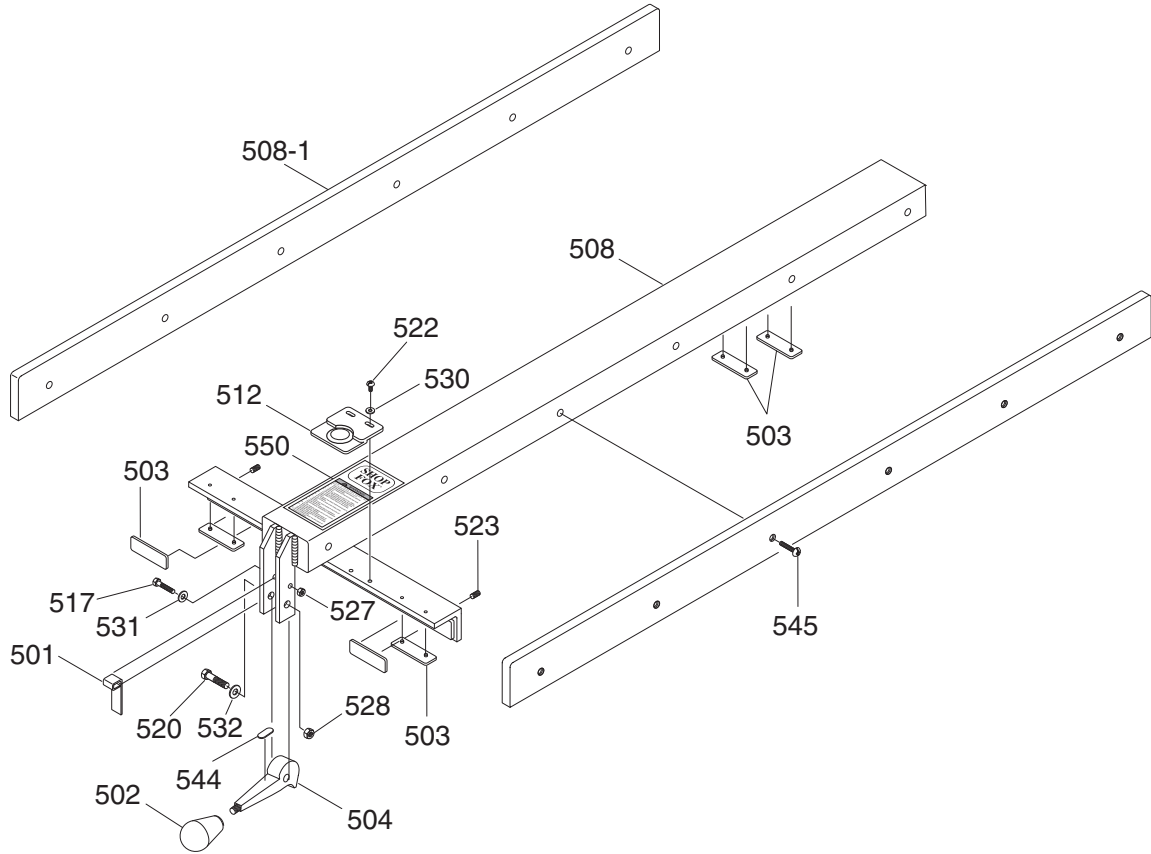


REF	PART #	DESCRIPTION
300	P1023RL300	BLADE GUARD ASSEMBLY
301	P1023RL301	SUPPORT ARM
302	P1023RL302	RIGHT GUARD
303	P1023RL303	LEFT GUARD
304	P1023RL304	SWING PLATE
305	P1023RL305	ROLL PIN 4 X 20
306	P1023RL306	KNOB M6-1 X 20
307	P1023RL307	CLEAR FRONT GUARD
308	P1023RL308	FRONT GUARD BLOCK
309	P1023RL309	FLAT HD SCR 1/4-20 X 5/8
310	P1023RL310	FLAT WASHER 1/4
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

REF	PART #	DESCRIPTION
322	P1023RL322	ROLL PIN 4 X 30
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
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

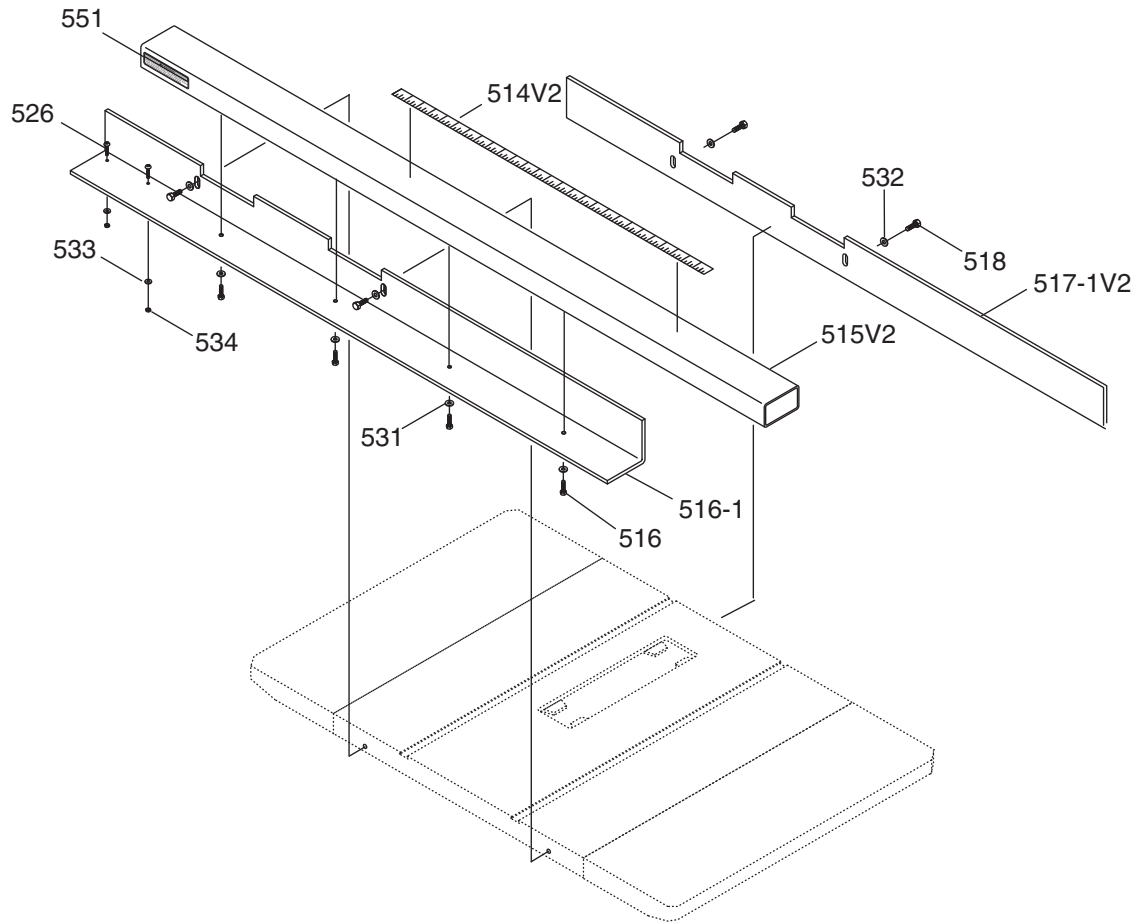


REF	PART #	DESCRIPTION
501	P1023RL501	FENCE LOCKING TAB
502	P1023RL502	FENCE LOCK KNOB
503	P1023RL503	BEARING PAD
504	P1023RL504	LOCKING LEVER
508	P1023RL508	FENCE BODY
508-1	P1023RL508-1	FENCE FACING
512	P1023RL512	MAGNIFIED CURSOR
517	P1023RL517	HEX BOLT 1/4-20 X 1-3/4
520	P1023RL520	HEX BOLT 3/8-16 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, G1023RLW, G1023RLWX Fence Rails

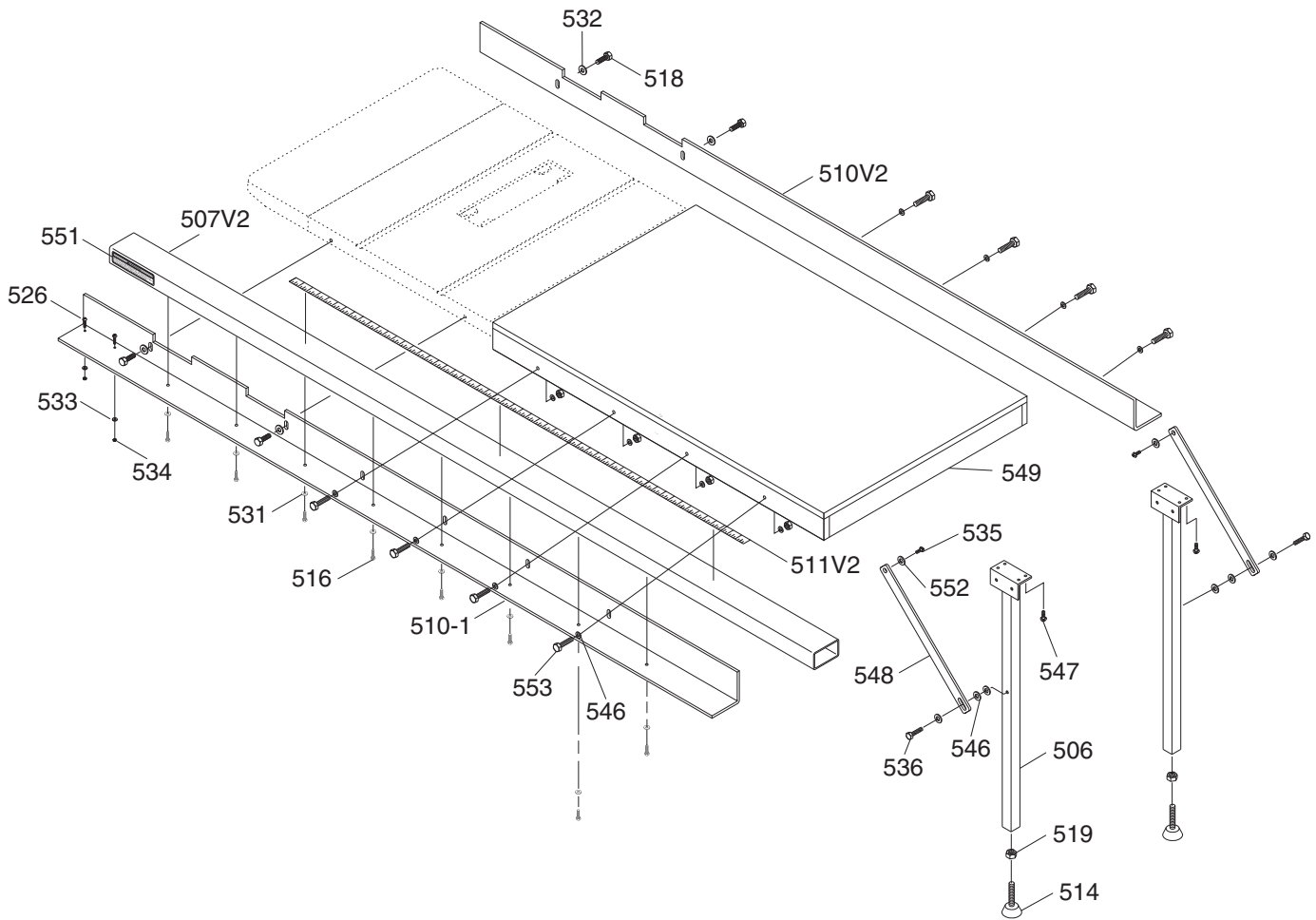


REF	PART #	DESCRIPTION
514	P1023RL514	SCALE 26"
514V2	P1023RL514V2	SCALE 32" V2.09.17
515	P1023RL515	FRONT RAIL TUBE 54"
515V2	P1023RL515V2	FRONT RAIL TUBE 66" V2.09.17
516	P1023RL516	HEX BOLT 1/4-20 X 3/4
516-1	P1023RL516-1	FRONT RAIL 46-1/2"
517-1V2	P1023RL517-1V2	REAR RAIL 54-1/2" V2.09.17

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 Fence Rails

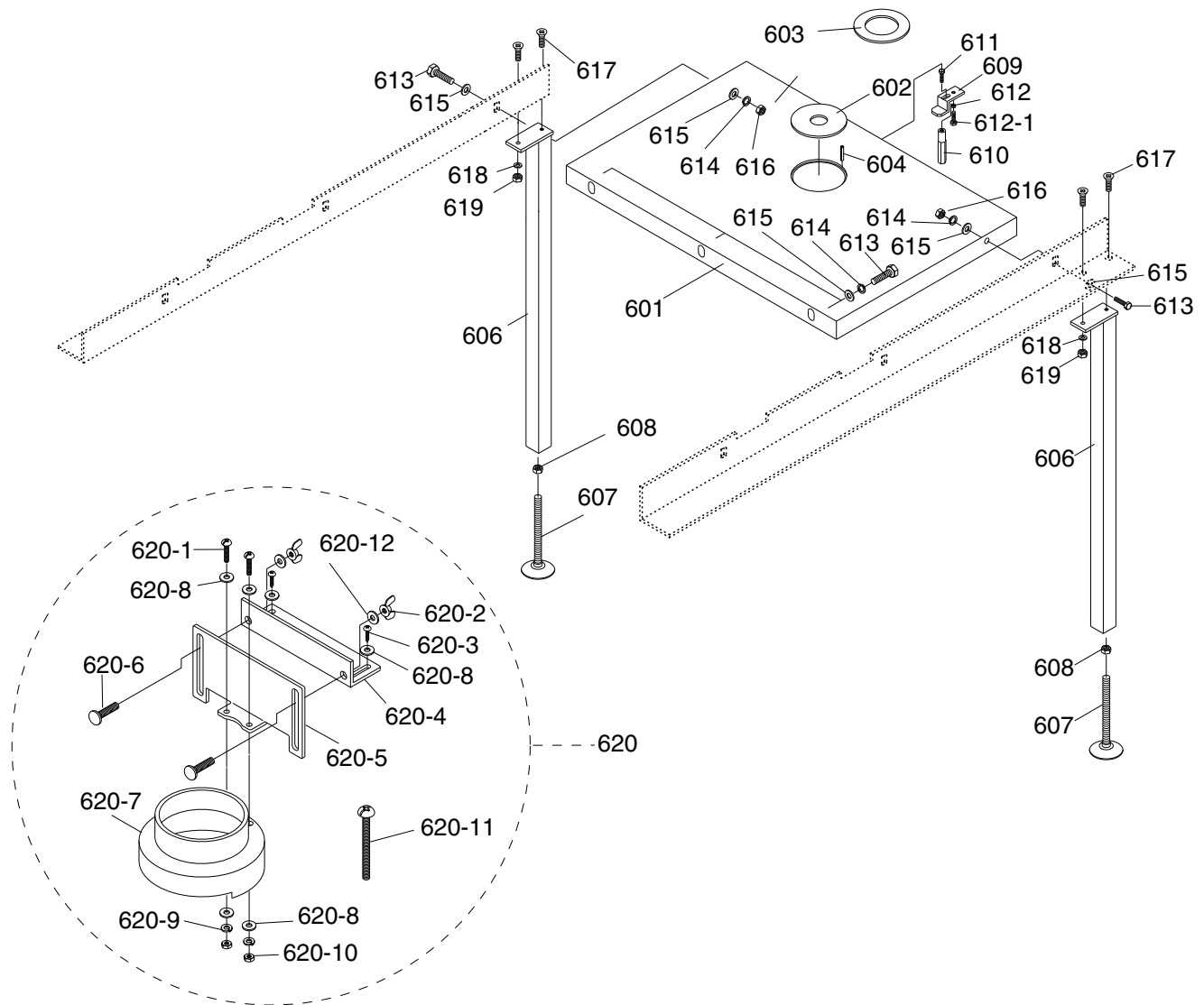


REF	PART #	DESCRIPTION
506	P1023RLX506	EXTENSION LEG
507	P1023RLX507	FRONT RAIL TUBE 84"
507V2	P1023RLX507V2	FRONT RAIL TUBE 94-1/2" V2.09.17
510V2	P1023RLX510V2	REAR RAIL 82-1/4" V2.09.17
510-1	P1023RLX510-1	FRONT RAIL 72"
511	P1023RLX511	SCALE 53"
511V2	P1023RLX511V2	SCALE 60" V2.09.17
514	P1023RL514	FOOT PAD
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

REF	PART #	DESCRIPTION
532	P1023RL532	FLAT WASHER 3/8
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, WX, Router Table & Guard

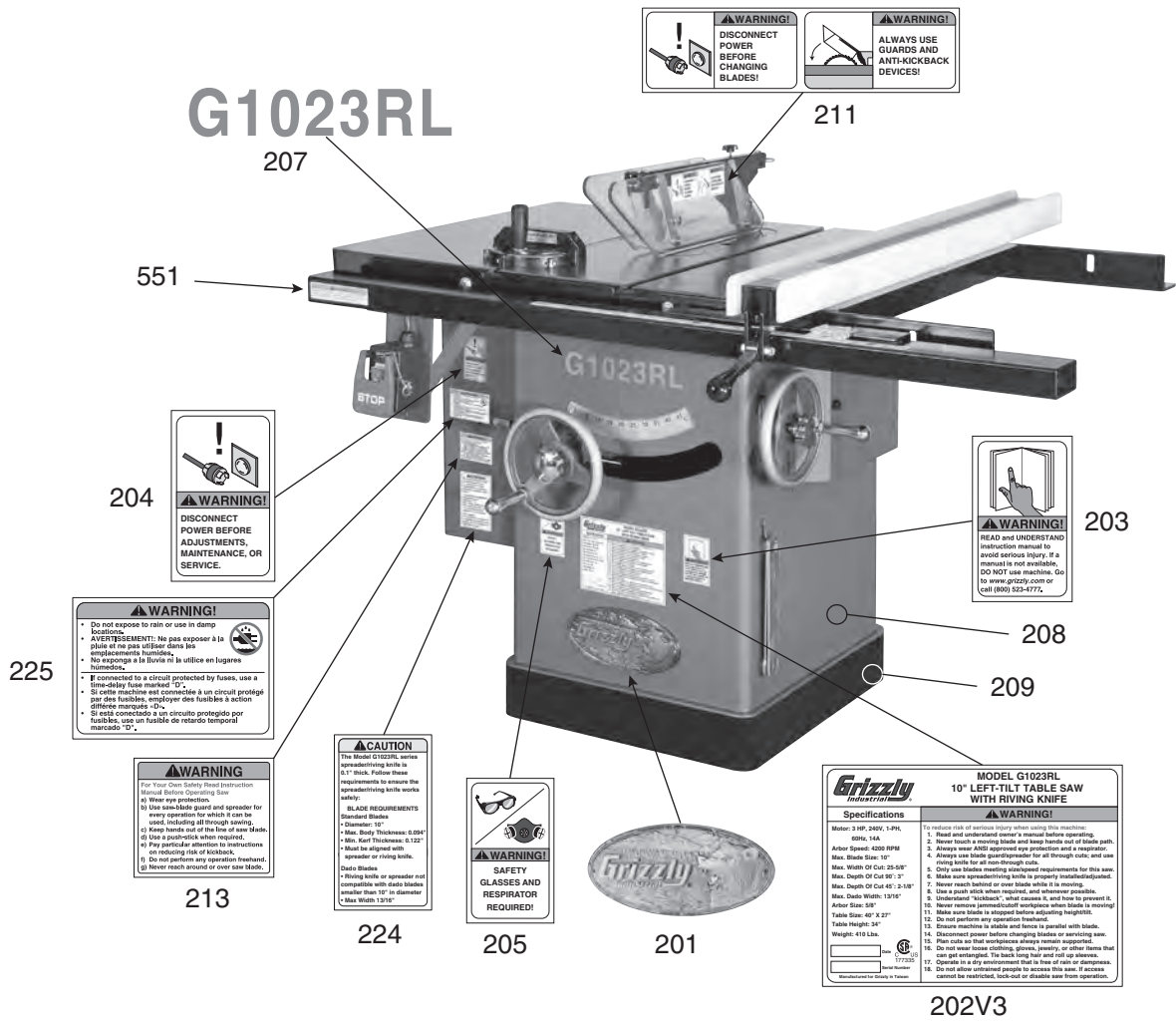


REF	PART #	DESCRIPTION
601	P1023RLW601	ROUTER TABLE EXT WING
602	P1023RLW602	TABLE INSERT 29MM
603	P1023RLW603	TABLE INSERT 60MM
604	P1023RLW604	ROLL PIN 3 X 9
606	P1023RLW606	EXTENSION LEG
607	P1023RLW607	ADJUSTABLE FOOT
608	P1023RLW608	HEX NUT 1/2-13
609	P1023RLW609	MOTOR CLAMP PIECE
610	P1023RLW610	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



Machine Labels



REF	PART #	DESCRIPTION
201	P1023RL201	GRIZZLY LOGO PLATE SMALL
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
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 CARD

Name _____
 Street _____
 City _____ State _____ Zip _____
 Phone # _____ Email _____
 Model # _____ Order # _____ Serial # _____

The following information is given on a voluntary basis. It will be used for marketing purposes to help us develop better products and services. **Of course, all information is strictly confidential.**

1. How did you learn about us?

Advertisement Friend Catalog
 Card Deck Website Other:

2. Which of the following magazines do you subscribe to?

<input type="checkbox"/> Cabinetmaker & FDM	<input type="checkbox"/> Popular Science	<input type="checkbox"/> Wooden Boat
<input type="checkbox"/> Family Handyman	<input type="checkbox"/> Popular Woodworking	<input type="checkbox"/> Woodshop News
<input type="checkbox"/> Hand Loader	<input type="checkbox"/> Precision Shooter	<input type="checkbox"/> Woodsmith
<input type="checkbox"/> Handy	<input type="checkbox"/> Projects in Metal	<input type="checkbox"/> Woodwork
<input type="checkbox"/> Home Shop Machinist	<input type="checkbox"/> RC Modeler	<input type="checkbox"/> Woodworker West
<input type="checkbox"/> Journal of Light Cont.	<input type="checkbox"/> Rifle	<input type="checkbox"/> Woodworker's Journal
<input type="checkbox"/> Live Steam	<input type="checkbox"/> Shop Notes	<input type="checkbox"/> Other:
<input type="checkbox"/> Model Airplane News	<input type="checkbox"/> Shotgun News	
<input type="checkbox"/> Old House Journal	<input type="checkbox"/> Today's Homeowner	
<input type="checkbox"/> Popular Mechanics	<input type="checkbox"/> Wood	

3. What is your annual household income?

\$20,000-\$29,000 \$30,000-\$39,000 \$40,000-\$49,000
 \$50,000-\$59,000 \$60,000-\$69,000 \$70,000+

4. What is your age group?

20-29 30-39 40-49
 50-59 60-69 70+

5. How long have you been a woodworker/metalworker?

0-2 Years 2-8 Years 8-20 Years 20+ Years

6. How many of your machines or tools are Grizzly?

0-2 3-5 6-9 10+

7. Do you think your machine represents a good value?

Yes No

8. Would you recommend Grizzly Industrial to a friend?

Yes No

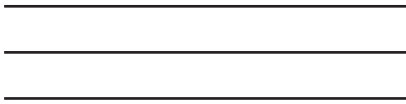
9. Would you allow us to use your name as a reference for Grizzly customers in your area?

Note: We never use names more than 3 times. Yes No

10. Comments: _____

CUT ALONG DOTTED LINE

FOLD ALONG DOTTED LINE



Place
Stamp
Here



GRIZZLY INDUSTRIAL, INC.
P.O. BOX 2069
BELLINGHAM, WA 98227-2069



FOLD ALONG DOTTED LINE

Send a Grizzly Catalog to a friend:

Name	_____
Street	_____
City	_____ State _____ Zip _____

TAPE ALONG EDGES--PLEASE DO NOT STAPLE

WARRANTY AND RETURNS

Grizzly Industrial, Inc. warrants every product it sells for a period of **1 year** to the original purchaser from the date of purchase. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence, accidents, repairs or alterations or lack of maintenance. This is Grizzly's sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant or represent that the merchandise complies with the provisions of any law or acts unless the manufacturer so warrants. In no event shall Grizzly's liability under this warranty exceed the purchase price paid for the product and 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, special, or consequential damages arising from the use of our products.

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

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

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.

grizzly.com[®]
TOOL WEBSITE

Buy Direct and Save with Grizzly[®] – Trusted, Proven and a Great Value!
~Since 1983~

*Visit Our Website Today For
Current Specials!*

**ORDER
24 HOURS A DAY!
1-800-523-4777**

