

# MODEL W1824 10" HYBRID TABLE SAW w/EXTENSION TABLE



## OWNER'S MANUAL (FOR MODELS MANUFACTURED SINCE 3/11)

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#13886JBTS

Printed in China

## **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.

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**CAUTION**

For Your Own Safety Read Owner's Manual  
Before Operating Saw

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

USE THE QUICK GUIDE PAGE LABELS TO SEARCH OUT INFORMATION FAST!

# INTRODUCTION

## Woodstock Technical Support

This machine has been specially designed to provide many years of trouble-free service. Close attention to detail, ruggedly built parts and a rigid quality control program assure safe and reliable operation.

Woodstock International, Inc. is committed to customer satisfaction. Our intent with this manual is to include the basic information for safety, setup, operation, maintenance, and service of this product.

We stand behind our machines! In the event that questions arise about your machine, please contact Woodstock International Technical Support at (360) 734-3482 or send e-mail to: [tech-support@shopfox.biz](mailto:tech-support@shopfox.biz). Our knowledgeable staff will help you troubleshoot problems and process warranty claims.

If you need the latest edition of this manual, you can download it from <http://www.shopfox.biz>. If you have comments about this manual, please contact us at:

Woodstock International, Inc.  
 Attn: Technical Documentation Manager  
 P.O. Box 2309  
 Bellingham, WA 98227  
 Email: [manuals@woodstockint.com](mailto:manuals@woodstockint.com)

## Controls and Features

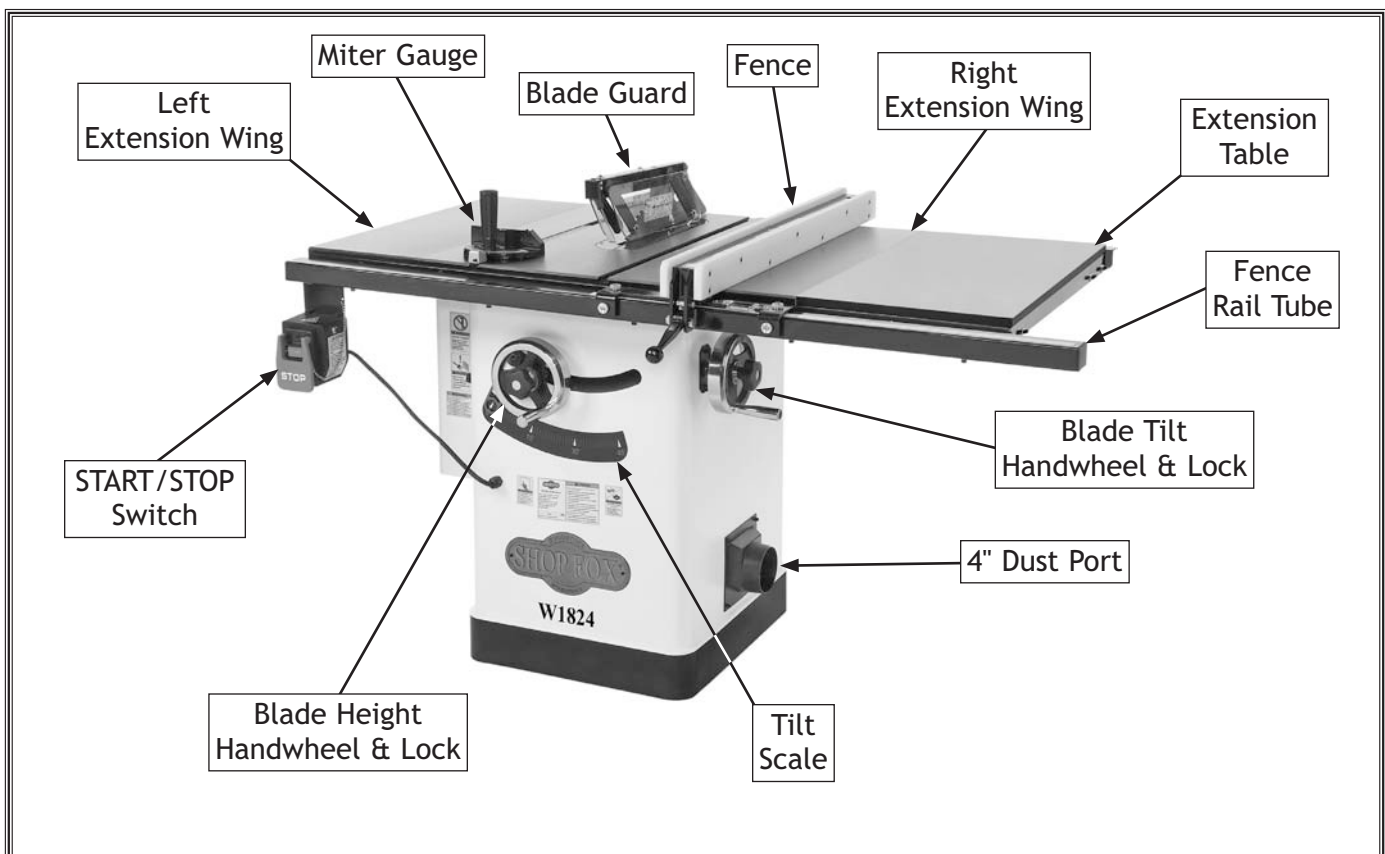


Figure 1. Model W1824 identification.

# MACHINE SPECIFICATIONS



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## MODEL W1824 HYBRID TABLE SAW WITH EXTENSION TABLE

### Motors

#### Main

Type.....	TEFC Capacitor Start Induction
Horsepower.....	2 HP
Voltage.....	110V/220V
Prewired.....	220V
Phase.....	Single-Phase
Amps.....	16A at 110V, 8A at 220V
Speed.....	3450 RPM
Cycle.....	60 Hz
Number of Speeds.....	1
Power Transfer .....	Poly-V Serpentine Belt Drive
Bearings.....	Lubricated and Permanently Sealed

### Main Specifications

#### Blade Information

Maximum Blade Diameter.....	10 in.
Riving Knife/Spreader Thickness.....	0.1 in. (2.5mm)
Required Blade Body Thickness.....	0.070 - 0.094 in. (1.8mm - 2.4mm)
Required Blade Kerf Thickness.....	0.102 - 0.126 (2.6 - 3.2mm)
Maximum Width of Dado.....	13/16 in.
Blade Tilt.....	Left 0-45 deg.
Arbor Size.....	5/8 in.
Arbor Speed.....	3850 RPM
Arbor Bearings.....	Sealed and Permanently Lubricated

#### Cutting Capacities

Maximum Depth of Cut At 90 Degrees.....	3-1/8 in.
Maximum Depth of Cut At 45 Degrees.....	2-3/16 in.
Maximum Rip To Right of Blade-Standard.....	30 in.
Maximum Rip To Left of Blade.....	12 in.

#### Table Information

Floor To Table Height.....	34 in.
Table Size Width.....	55 in.
Table Size Depth.....	27 in.
Table Size Thickness.....	1-1/2 in.
Distance Front of Table To Center Of Blade.....	16 in.
Distance Front of Table To Blade At Maximum Cut.....	11-1/2 in.



**Fence Information**

Fence Type.....	Camlock T-Shaped Fence w/HDPE Side Plates
Fence Size Length.....	34-1/4 in.
Fence Size Width.....	3-1/8 in.
Fence Size Height.....	2-1/2 in.
Fence Rail Type.....	Square Steel Tubing
Fence Rail Length.....	59-5/8 in.
Fence Rail Width.....	2 in.
Fence Rail Height.....	1-5/8 in.

**Miter Gauge Information**

Miter Gauge Slot Type.....	T-Slot
Miter Gauge Slot Size Width.....	3/4 in.
Miter Gauge Slot Size Height.....	3/8 in.

**Construction**

Table.....	Precision-Ground Cast Iron
Wings.....	Cast Iron; Composite Wood w/Low Friction Surface
Cabinet.....	Pre-Formed Steel
Trunnions.....	Cast Iron
Fence Assembly.....	Steel with HDPE Side Plates
Rails.....	Steel
Miter Gauge.....	Aluminum
Guard.....	Steel and Clear Plastic

**Other Related Information**

Paint.....	Powder Coated
Number of Dust Ports.....	1
Dust Port Size.....	4 in.
Mobile Base.....	D2057A

**Product Dimensions**

Weight.....	404 lbs.
Width (side-to-side) x Depth (front-to-back) x Height.....	58 x 36 x 40 in.
Footprint (Length x Width).....	20 x 21-1/2 in.

**Shipping Dimensions**

**Carton #1**

Type.....	Cardboard/Wood Skids
Content.....	Machine
Weight.....	368 lbs.
Length x Width x Height.....	30 x 26 x 42 in.

**Carton #2**

Type.....	Cardboard
Content.....	Fence
Weight.....	18 lbs.
Length x Width x Height.....	37 x 17 x 7 in.

**Carton #3**

Type.....	Cardboard
Content.....	Rails
Weight.....	32 lbs.
Length x Width x Height.....	63 x 5 x 4 in.

**Electrical**

Power Requirement.....	110V/220V, Single Phase, 60 Hz
Prewired Voltage.....	220V
Full-Load Current Rating.....	16A at 110V, 8A at 220V
Minimum Circuit Size.....	20A at 110V, 20A at 220V
Switch Voltage.....	220V
Cord Length.....	6 ft.
Cord Gauge.....	14 gauge
Plug Included.....	Yes
Included Plug Type.....	NEMA 6-20 for 220V
Recommended Plug/Outlet Type.....	NEMA 5-20 for 110V

**Other**

ISO Factory .....	ISO 9001
Country Of Origin .....	China
Warranty .....	2 Year
Serial Number Location .....	ID Label on Cabinet
Assembly Time .....	Approximately 1 Hour

**Features**

- Precision-ground cast iron table
- Cast iron trunnions
- 4" dust port
- T-slot miter gauge
- Camlock T-shaped fence with HDPE face
- Easy glide fence system
- Powder coated paint
- Quick-release riving knife and blade guard assembly
- Knurled knobs for adjusting fence
- Includes regular & dado blade table inserts
- Device on blade guard allows enabling/disabling anti-kickback pawls



# SAFETY

## For Your Own Safety, Read Manual Before Operating Machine

SAFETY

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—this responsibility is ultimately up to the operator!



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



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



Indicates a potentially hazardous situation which, if not avoided, **MAY** result in minor or moderate injury.

### **NOTICE**

This symbol is used to alert the user to useful information about proper operation of the equipment, and/or a situation that may cause damage to the machinery.

## Standard Machinery Safety Instructions

**OWNER'S MANUAL.** Read and understand this owner's manual **BEFORE** using machine. Untrained users can be seriously hurt.

**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.

**HAZARDOUS DUST.** Dust created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with workpiece materials, and always wear a NIOSH-approved respirator to reduce your risk.

**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 avoid accidental slips which could cause a loss of workpiece control.

**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.

**MENTAL ALERTNESS.** Be mentally alert when running machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

**DISCONNECTING POWER SUPPLY.** Always disconnect machine from power supply before servicing, adjusting, or changing cutting tools (bits, blades, cutters, etc.). Make sure switch is in **OFF** position before reconnecting to avoid an unexpected or unintentional start.

**DANGEROUS ENVIRONMENTS.** Do not use machinery in wet or rainy locations, cluttered areas, around flammables, or in poorly-lit areas. Keep work area clean, dry, and well-lit to minimize risk of injury.



**APPROVED OPERATION.** Untrained operators can be seriously hurt by machinery. Only allow trained or properly supervised people to use machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make workshop kid proof!

**ONLY USE AS INTENDED.** Only use machine for its intended purpose. Never modify or alter machine for a purpose not intended by the manufacturer or serious injury may result!

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

**CHILDREN & BYSTANDERS.** Keep children and bystanders a safe distance away from work area. Stop using machine if children or bystanders become a distraction.

**REMOVE ADJUSTING TOOLS.** Never leave adjustment tools, chuck keys, wrenches, etc. in or on machine—especially near moving parts. Verify removal before starting!

**SECURING WORKPIECE.** When required, use clamps or vises to secure workpiece. A secured workpiece protects hands and frees both of them to operate the machine.

**FEED DIRECTION.** Unless otherwise noted, feed work against the rotation of blades or cutters. Feeding in the same direction of rotation may pull your hand into the cut.

**GUARDS & COVERS.** Guards and covers can protect you from accidental contact with moving parts or flying debris. Make sure they are properly installed, undamaged, and working correctly before using machine.

**NEVER STAND ON MACHINE.** Serious injury or accidental contact with cutting tool may occur if machine is tipped. Machine may be damaged.

**STABLE MACHINE.** Unexpected movement during operations greatly increases the risk of injury and loss of control. Verify machines are stable/secure and mobile bases (if used) are locked before starting.

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

**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.

**UNATTENDED OPERATION.** Never leave machine running while unattended. Turn machine off and ensure all moving parts completely stop before walking away.

**MAINTAIN WITH CARE.** Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. An improperly maintained machine may increase the risk of serious injury.

**CHECK DAMAGED PARTS.** Regularly inspect machine for damaged parts, loose bolts, mis-adjusted or mis-aligned parts, binding, or any other conditions that may affect safe operation. Always repair or replace damaged parts, wires, cords, or plugs before operating machine.

**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 the cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet or damp locations.

**EXPERIENCING DIFFICULTIES.** If at any time you are experiencing difficulties performing the intended operation, stop using the machine! Contact our Technical Support for help at (360) 734-3482.

# Additional Safety for Table Saws

**HAND POSITIONING.** Touching a spinning saw blade will cause serious laceration or amputation injuries. Never purposely touch a saw blade during operation. Always keep hands/fingers out of the blade path; place them where they cannot slip into the blade accidentally. Never reach around, behind, or over the blade.

**BLADE GUARD.** Operating the saw with the blade guard removed greatly increases the risk of severe laceration or amputation injuries from accidental blade contact. Use the blade guard for all "through cuts". A through cut is an operation where the blade cuts completely through the top of the workpiece. Make sure the blade guard is installed and adjusted correctly; promptly repair or replace it if damaged. Always re-install blade guard immediately after operations that require its removal.

**RIVING KNIFE.** The riving knife keeps the kerf open behind the blade, which reduces the risk of kickback. Use the riving knife for all "non-through cuts". A non-through cut is an operation where the blade does not cut through the top of the workpiece. Make sure the riving knife is aligned and positioned correctly; and promptly repair or replace it if damaged. Using the riving knife incorrectly will increase the risk of kickback or accidental blade contact.

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

**FENCE.** Using or adjusting the fence incorrectly will increase risk of kickback. Make sure the fence remains properly adjusted and parallel with the blade. Always lock the fence in place before operation.

**FEEDING WORKPIECE.** Feeding the workpiece incorrectly will increase risk of kickback. Never start the saw with a workpiece touching the blade; allow the blade to reach full speed before cutting. Only feed the workpiece against the direction of blade rotation. Always use some type of guide (fence, miter gauge, sliding table or sled, etc.) to feed the workpiece in a straight line. Never back a workpiece out of a cut or try to move it backwards or sideways after starting a cut. Feed cuts all the way through to completion. Never perform any operation "freehand" (making a cut without using a fence, miter gauge, or other guide).

**PUSH STICKS/BLOCKS.** Use push sticks or push blocks whenever possible to keep your hands farther away from the blade while cutting. In the event of an accident, these devices will often take damage that would have happened to hands/fingers.

**CUT-OFF PIECES.** Never use your hands to move cut-offs away from the blade while the saw is running. If a cut-off becomes trapped between the blade and table insert, turn the saw OFF and allow the blade to completely stop before removing it.

**BLADE ADJUSTMENTS.** Adjusting the blade height or tilt during operation increases the risk of crashing the blade and sending metal fragments flying with deadly force at the operator or bystanders. Only adjust the blade height and tilt when the saw is turned **OFF** and the blade is completely stopped.

**DAMAGED SAW BLADES.** Never use blades that have been dropped or otherwise damaged. Damaged blades can fly apart and strike the operator with shards of metal.

**DADO AND RABBET OPERATIONS.** DO NOT attempt dado or rabbeting operations without first reading those sections in this manual. Dado and rabbeting operations require special attention because they must be performed with the blade guard removed.

# Kickback

Kickback is a high speed expulsion of the workpiece from the saw blade, which occurs when the saw blade grabs the workpiece instead of cuts it.

The danger of kickback is that it happens faster than the operator can react, so if the operator's hands are in a bad position, they could get pulled into the blade. Also, kickback can cause serious impact injuries if the operator is struck by the ejected workpiece.

The lack of warning and high risk of injury from kickback makes it extremely important to: (1) avoid doing anything that will increase the risk of occurrence, and (2) work carefully to protect yourself in case it does occur.

## Avoiding Kickback

- DO NOT cut a workpiece that is excessively warped or twisted. The workpiece must be able to slide across the table and fence in a stable manner without any rocking, rotating, or shifting—if any of these movements occur during the cut, kickback will likely occur. Workpieces that have minor warping must be cut with the cupped-side down against the table; the edge of the workpiece that is placed against the fence must be straight or straightened with a jointer.
- Never attempt freehand cuts. Always use the rip fence or miter gauge to support the workpiece. If the workpiece is not fed parallel with the blade, kickback will likely occur.
- Make sure the splitter or riving knife is aligned with the blade. A misaligned splitter or riving knife can cause the workpiece to catch or bind, increasing the chance of kickback. If you think that your splitter or riving knife is not aligned with the blade, check it immediately!
- Ensure that the rip fence locks parallel with the blade; otherwise, the chances of kickback are extreme.

- The splitter 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 splitter 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.

## Protecting Yourself from Kickback

- 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.

# ELECTRICAL

## Circuit Requirements

This machine must be connected to the correct size and type of power supply circuit, or fire or electrical damage may occur. Read through this section to determine if an adequate power supply circuit is available. If a correct circuit is not available, a qualified electrician **MUST** install one before you can connect the machine to power.

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.)

### 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.

Full-Load Current Rating at 220V .....8 Amps  
 Full-Load Current Rating at 110V ..... 16 Amps

### Circuit Requirements for 220V (Prewired)

This machine is prewired to operate on a 220V power supply circuit that has a verified ground and meets the following requirements:

Circuit Type .....220V/240V, 60 Hz, Single-Phase  
 Circuit Size ..... 20 Amps  
 Plug/Receptacle ..... NEMA 6-20

### Circuit Requirements for 110V

This machine can be converted to operate on a 110V power supply (details about voltage conversion can be found later in this manual). The 110V power supply circuit must have a verified ground and meet the requirements that follow:

Circuit Type ..... 110V/120V, 60 Hz, Single-Phase  
 Circuit Size ..... 20 Amps  
 Plug/Receptacle ..... NEMA 5-20

## ⚠ WARNING

The machine must be properly set up before it is safe to operate. **DO NOT** connect this machine to the power source until instructed to do later in this manual.

## ⚠ WARNING



Incorrectly wiring or grounding this machine can cause electrocution, fire, or machine damage. To reduce this risk, only a qualified electrician or service personnel should do any required electrical work for this machine.

## NOTICE

The circuit requirements listed in this manual apply to a dedicated circuit—where only one machine will be running at a time. If this machine will be connected to a shared circuit where multiple machines will be running at the same time, consult a qualified electrician to ensure that the circuit is properly sized for safe operation.

ELECTRICAL

# Grounding Requirements

This machine **MUST** be grounded. In the event of certain types of malfunctions or breakdowns, grounding provides a path of least resistance for electric current to travel—in order to reduce the risk of electric shock.

Improper connection of the equipment-grounding wire will increase the risk of electric shock. The wire with green insulation (with/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.

## For 220V Connection (Prewired)

This machine is equipped with a power cord that has an equipment-grounding wire and NEMA 6-20 grounding plug. The plug must only be inserted into a matching receptacle (see Figure) that is properly installed and grounded in accordance with local codes and ordinances.

## For 110V Connection (Must be Rewired)

A NEMA 5-20 plug has a grounding prong that must be attached to the equipment-grounding wire inside the included power cord. The plug must only be inserted into a matching receptacle (see Figure) that is properly installed and grounded in accordance with all local codes and ordinances.

# Extension Cords

We do not recommend using an extension cord with this machine. Extension cords cause voltage drop, which may damage electrical components and shorten motor life. Voltage drop increases with longer extension cords and the gauge smaller gauge sizes (higher gauge numbers indicate smaller sizes).

Any extension cord used with this machine must contain a ground wire, match the required plug and receptacle, and meet the following requirements:

- Minimum Gauge Size at 220V ..... 12 AWG
- Maximum Length (Shorter is Better)..... 50 ft.

**⚠ WARNING**

The machine must be properly set up before it is safe to operate. **DO NOT** connect this machine to the power source until instructed to do later in this manual.

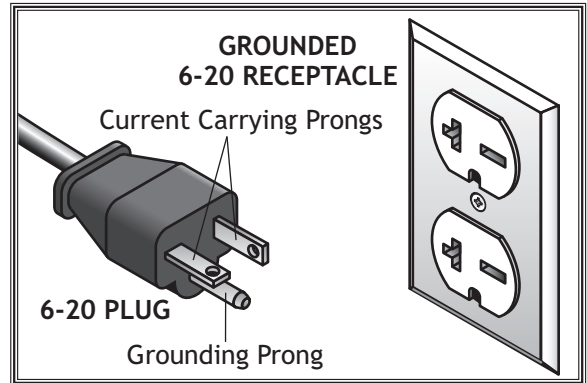


Figure 2. NEMA 6-20 plug & receptacle.

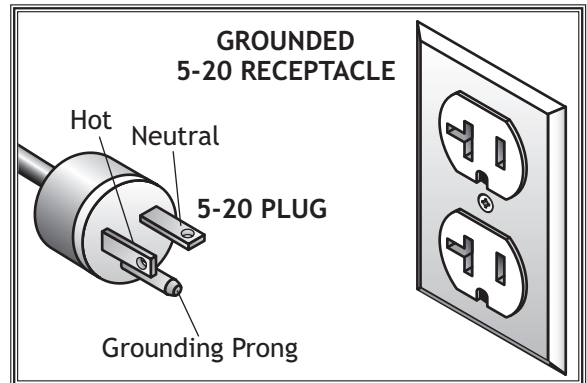


Figure 3. NEMA 5-20 plug & receptacle.

**⚠ CAUTION**

**DO NOT** modify the provided plug or use an adapter if the plug will not fit your receptacle. This is an indication that your power supply circuit does **NOT** meet the requirements for the machine; have an electrician install the correct power supply circuit. If the machine must be reconnected for use on a different type of electric circuit, the reconnection should be made by a qualified electrician or service personnel; after reconnection, the machine must comply with all local codes and ordinances.

**ELECTRICAL**



# Voltage Conversion

The Model 1824 is prewired for a 220V power supply, but it can be rewired to operate on a 110V power supply. To reduce the risk of electrocution, machine damage, or an electrical fire, this procedure must be performed by an electrician or qualified service personnel. The procedure involves moving terminal jumpers inside the motor junction box, replacing the machine circuit breaker, and replacing the plug on the power cord.

The required machine circuit breaker can be purchased from an authorized Shop Fox dealer. The required plug and receptacle can be purchased from your local hardware store or it may be provided by your electrician.

ELECTRICAL

Items Needed	Qty
Phillips Screwdriver #2.....	1
NEMA 5-20 Plug.....	1
Circuit Breaker 20A (Part No. X1824204-1) .....	1

To convert the table saw to 110V, do these steps:

1. DISCONNECT TABLE SAW FROM POWER!
2. Open the motor junction box, then loosen the four screws indicated in **Figure 4**.
3. Remove the two center jumpers (they are stacked together), reposition them as shown in **Figure 5**, then re-tighten the four screws loosened in **Step 2**.
4. Close and secure the motor junction box.
5. Remove the START/STOP switch box from the switch mounting plate.
6. Replace the pre-installed 10A circuit breaker (see **Figure 6**) with the 20A circuit breaker, then re-install the switch box.
7. Replace the existing power cord plug with a NEMA 5-20 plug, according to the instructions and wiring diagram provided by the plug manufacturer.

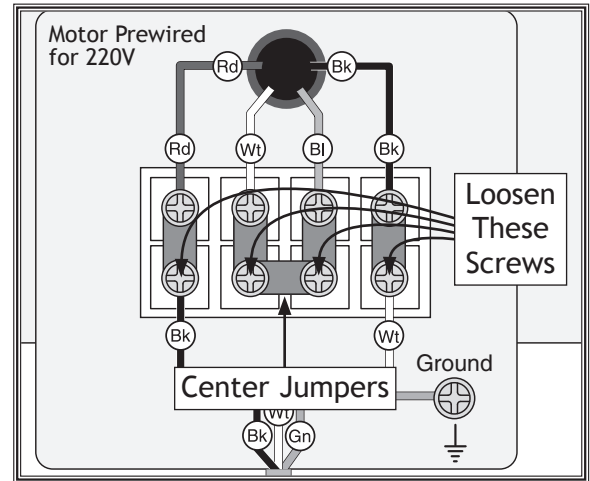


Figure 4. Locations of screws to be loosened.

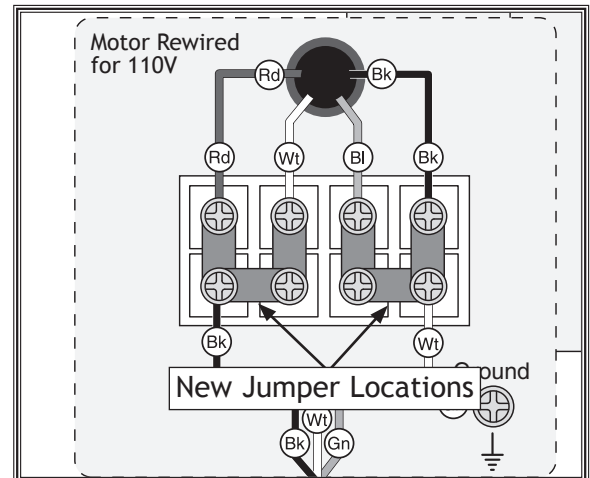


Figure 5. Relocated jumpers.

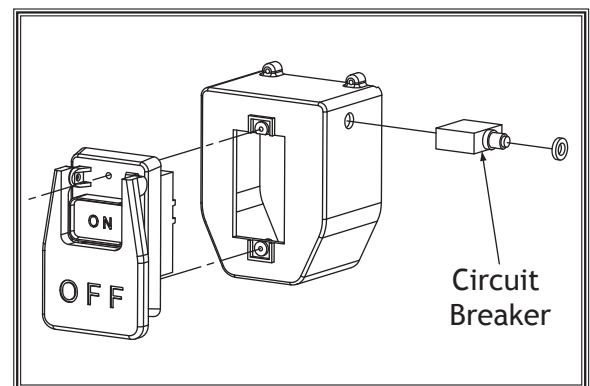


Figure 6. Location of switch circuit breaker.

## NOTICE

This manual was current at the time of printing. However, if the motor wiring diagram provided on the inside of the junction box cover differs from this manual, always use the junction box cover wiring diagram. This should reflect any changes that may have occurred after printing.

# SETUP

## Unpacking

This machine has been carefully packaged for safe transportation. If you notice the machine has been damaged during shipping, please contact your authorized Shop Fox dealer immediately.

## Needed for Setup

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

Description	Qty
• Safety Glasses for Each Person .....	1
• Degreaser or Solvent for Cleaning .....	Varies
• Rags for Cleaning .....	Varies
• Straightedge .....	1
• Level .....	1
• Dust Collection System .....	1
• 4" Dust Hose .....	1
• 4" Hose Clamp .....	1
• Another Person for Lifting .....	1
• Needle Nose Pliers .....	1
• Wrench or Socket 17mm .....	1
• Wrench or Socket 14mm .....	1
• Wrench or Socket 10mm .....	1
• Adjustable Wrench .....	1

**⚠ WARNING**

**Keep machine disconnected from power until instructed otherwise.**

**⚠ WARNING**

**The Model W1824 is a heavy machine. Serious personal injury may occur if safe moving methods are not used. To be safe, get assistance and use power equipment to move the shipping crate and machine.**

**SETUP**



# Inventory

The following is a description of the main components shipped with the Model W1824. Lay the components out to inventory them.

**Note:** *If you can't find an item on this list, check the mounting location on the machine or examine the packaging materials carefully. Occasionally we pre-install certain components for safer shipping.*

Shipping Inventory: (Figures 7-10)	Qty
A. Cabinet Assembly.....	1
B. Extension Wings.....	2
C. Saw Blade 10" x 40T.....	1
D. Wrench 7/16" x 13mm.....	1
E. Arbor Wrench 24mm.....	1
F. Access Door.....	1
G. Blade Guard Assembly & Riving Knife.....	1 Each
H. Push Stick.....	1
I. Handwheel Handles.....	2
J. Miter Gauge.....	1
K. Hex Wrench 6-Piece Set 2.5-8mm.....	1
L. Dado Table Insert.....	1
M. Fence Rail Tube 58" w/Scale.....	1
N. Rear Rail 53" (6-Holes).....	1
O. Front Rail 53" (6-Holes).....	1
P. Fence Assembly.....	1
Q. Extension Table.....	1

Hardware (Not Shown)	Qty
• Cap Screws M5-.8 x 12 (Mag Switch).....	2
• Lock Washers 5mm (Mag Switch).....	2
• Flat Washers 5mm (Mag Switch).....	2
• Flat Head Screws M8-1.25 x 35 (Front Rail/Tables)..	6
• Flat Washers 8mm (Front Rail/Tables).....	8
• Lock Washers 8mm (Front Rail/Tables).....	6
• Hex Nuts M8-1.25 (Front Rail/Tables).....	6
• Cap Screws M6-1 x 16 (Front Rail/Tube).....	5
• Flat Washers 6mm (Front Rail/Tube).....	5
• Lock Washers (Front Rail/Tube).....	5
• Hex Bolts M10-1.5 x 25 (Rear Rail/Table).....	2
• Flat Washers 10mm (Rear Rail/Table).....	2
• Lock Washers 10mm (Rear Rail/Table).....	2
• Hex Bolts M8-1.25 x 35 (Rear Rail/Wing/Ext Table) .	4
• Hex Nuts M8-1.25 (Rear Rail/Wing/Ext Table).....	4
• Flat Washers 8mm (Rear Rail/Wing/Ext Table).....	8
• Lock Washers 8mm (Rear Rail/Wing/Ext Table).....	4

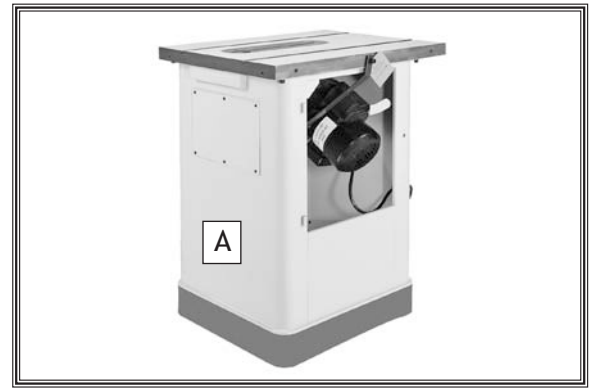


Figure 7. Cabinet assembly.

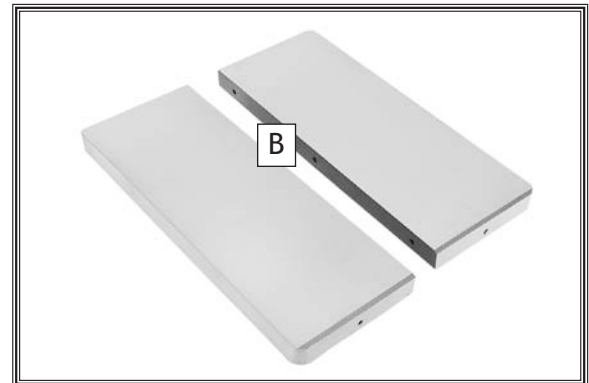


Figure 8. Extension wings.

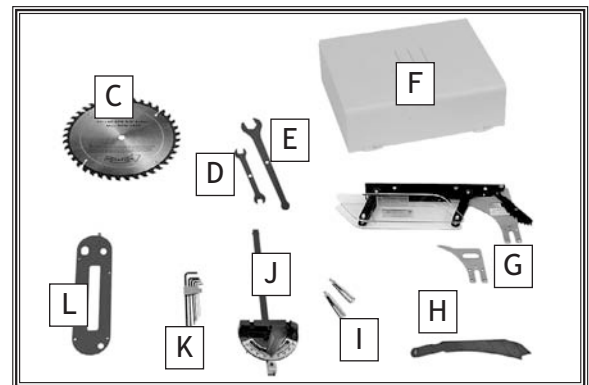


Figure 9. Small components.

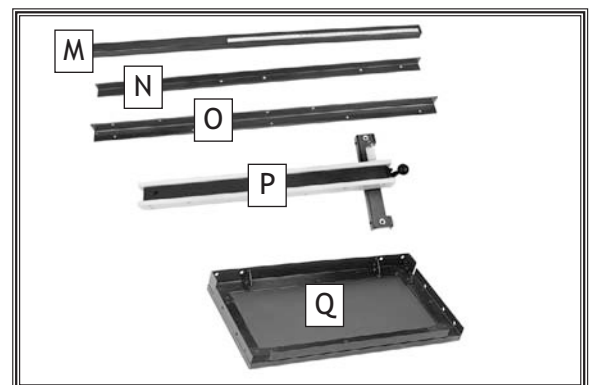


Figure 10. Fence components.

SETUP

# Machine Placement

- **Floor Load:** This machine distributes a heavy load in a small footprint. Some residential floors may require additional bracing to support both machine and operator.
- **Working Clearances:** Consider existing and anticipated needs, size of material to be processed through the machine, and space for auxiliary stands, work tables or other machinery when establishing a location for your table saw.
- **Lighting:** Lighting should be bright enough to eliminate shadow and prevent eye strain.
- **Electrical:** Electrical circuits must be dedicated or large enough to handle amperage requirements. Outlets must be located near each machine, so power or extension cords are clear of high-traffic areas. Follow local electrical codes for proper installation of new lighting, outlets, or circuits.

# Cleaning Machine

The table and other unpainted parts of your table saw are coated with a waxy grease that protects them from corrosion during shipment. Clean this grease off with a solvent cleaner or citrus-based degreaser. DO NOT use chlorine-based solvents such as brake parts cleaner or acetone—if you happen to splash some onto a painted surface, you will ruin the finish.

	<p><b>! WARNING</b>  <b>NEVER</b> clean with gasoline or other petroleum-based solvents. Most have low flash points, which make them extremely flammable. A risk of explosion and burning exists if these products are used. Serious personal injury may occur if this warning is ignored!</p>
--	--

	<p><b>! WARNING</b>  <b>USE</b> helpers or power lifting equipment to lift this machine. Otherwise, serious personal injury may occur.</p>
--	--

	<p><b>! CAUTION</b>  <b>MAKE</b> your shop "child safe." Ensure that your workplace is inaccessible to children by closing and locking all entrances when you are away. <b>NEVER</b> allow untrained visitors in your shop when assembling, adjusting or operating equipment.</p>
--	---

	<p><b>! CAUTION</b>  <b>ALWAYS</b> work in well-ventilated areas far from possible ignition sources when using solvents to clean machinery. Many solvents are toxic when inhaled or ingested. Use care when disposing of waste rags and towels to be sure they <b>DO NOT</b> create fire or environmental hazards.</p>

SETUP

# Assembly

Assembly consists of installing minor components, the extension wings and table, fence rails, fence, and blade guard.

To assemble the table saw, do these steps:

1. Remove the shipping brace shown in **Figure 11**, then re-install the fasteners. Save the shipping brace for later machine transport.
2. Thoroughly clean the heavy-duty rust preventative off the gears inside the cabinet and coat them with an appropriate metal protectant (refer to **Lubrication on Page 55** for the location of gears).
3. Pull the switch out of the cabinet cavity, then attach the access door by inserting the hinge pins into the hinge sockets shown in **Figure 12**.



Figure 11. Location of the shipping brace.

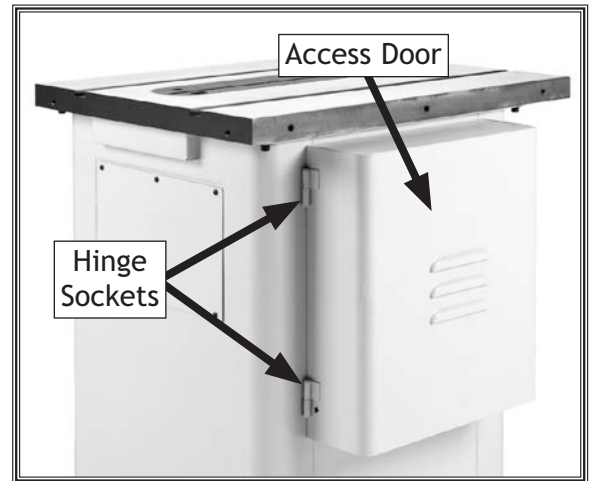


Figure 12. Access door attached.

4. Install the handles on the handwheels (see **Figure 13**).



Figure 13. Handwheel handle installed.

5. Remove the (6) cap screws, flat washers, and lock washers from both sides of the main table.
6. Inspect the extension wings and main table mating surfaces for burrs or foreign materials that may inhibit assembly.

For a correct fit, the mating edges of the table and wings must be clean, smooth, and flat. If necessary, use a wire brush or file to remove any flashing, dings, or high spots.

7. While a helper holds the extension wings in place, attach them to the main table with the (6) M10-1.5 x 25 cap screws, 10mm lock washers, and 10mm flat washers removed in **Step 5**, as shown in **Figure 14**.

8. Place a straightedge across the extension wings and main table to make sure that the combined table surface is flat.

- If the combined table surface is flat, skip to **Step 9**.
- If the outside end of the extension wing tilts down, place one or more strips of masking tape along the bottom edge of the main table to shim the end of the extension wing up (see **Figure 15**).
- If the outside end of the extension wing tilts up, place one or more strips of masking tape along the top edge of the main table to shim the end of the extension wing down (see **Figure 16**).

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

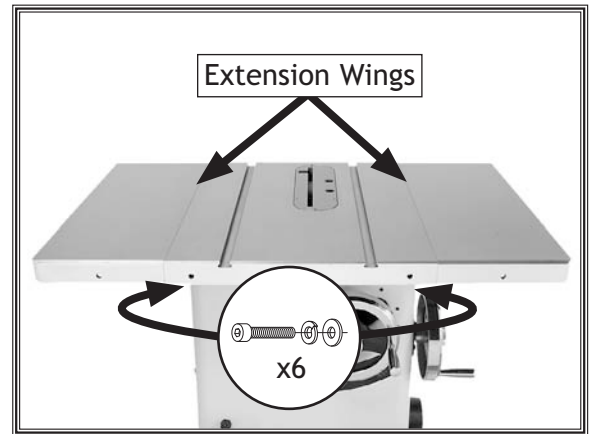


Figure 14. Extension wings attached.

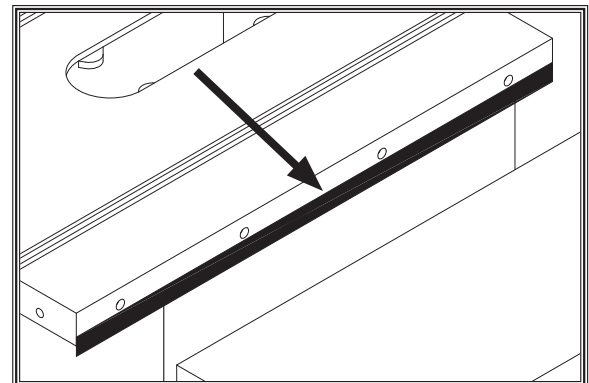


Figure 15. Masking tape location for shimming the wing up.

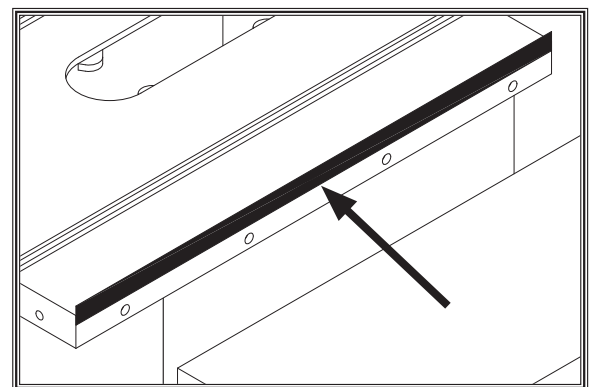


Figure 16. Masking tape location for shimming the wing down.

SETUP

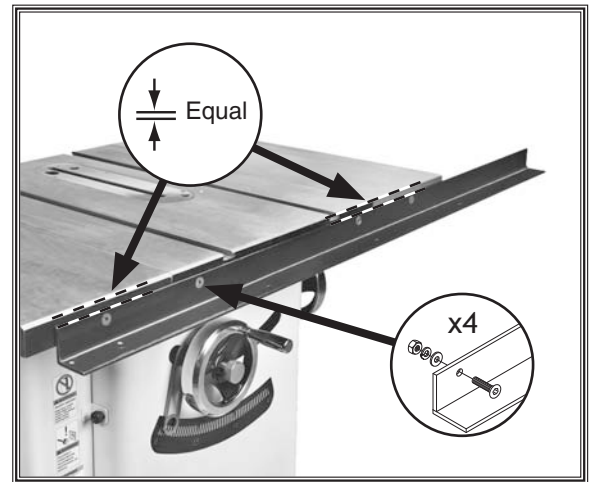
- Attach the front rail to the table and extension wings with (4) M8-1.25 x 35 flat head screws, 8mm flat washers, 8mm lock washers, and M8-1.25 hex nuts, as shown in **Figure 17**.

**Note:** Make sure the top of the rail is parallel with the table top surface along its entire length and below the miter slots before fully tightening the fasteners. This will ensure that the fence will ride evenly across the table top.

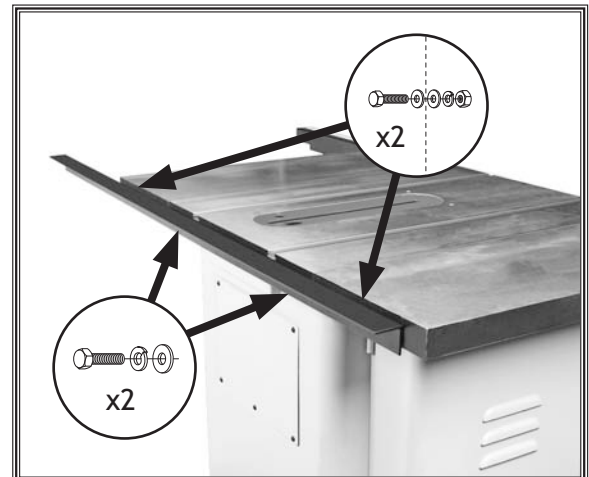
- Attach the rear rail to the table with (2) M10-1.5 x 25 hex bolts, 10mm lock washers, and 10mm flat washers, as shown in **Figure 18**.

**Note:** As with the front rail, make sure the rear rail is parallel with the table top and below the miter slots before fully tightening the fasteners.

- Secure the rear rail to the extension wings with (2) M8-1.25 x 35 hex bolts, (4) 8mm flat washers, (2) 8mm lock washers, and (2) M8-1.25 hex nuts, as shown in **Figure 18**.



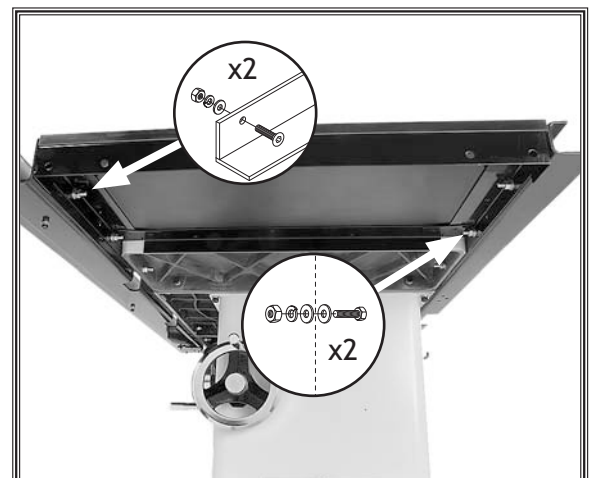
**Figure 17.** Front rail attached parallel with the table top.



**Figure 18.** Rear rail attached parallel with the table top.

- Install the extension table between the front and rear rails with (2) M8-1.25 x 35 hex bolts, (2) M8-1.25 x 35 flat head screws, (8) 8mm flat washers, (4) 8mm lock washers, and (4) M8-1.25 hex nuts, as shown in **Figure 19**. Finger tighten the fasteners for now.

- Place the straightedge across the main table, right wing, and extension table, make sure the extension table is even with other top surfaces, then fully tighten the fasteners.



**Figure 19.** Extension table installed.



14. Attach the fence rail tube to the front rail with (5) M6-1 x 16 cap screws, 6mm flat washers, and 6mm lock washers, as shown in **Figure 20**. Finger tighten the fasteners for now.
15. While standing in front of the fence rail tube, pull it toward you as far as possible, then fully tighten the fasteners installed in **Step 14**. This will help make sure there is enough room for the fence to slide.
16. Install the blade as instructed in the **Blade Installation** procedure on **Page 27**.
17. Place the fence assembly onto the fence rail tube, as shown in **Figure 21**.
18. Perform the **Miter Slot to Blade Parallelism** procedure as instructed on **Page 60**.
19. Perform the **Fence Adjustments** procedure as instructed on **Page 65**.



Figure 20. Fence rail tube attached.



Figure 21. Fence assembly installed.

**! WARNING**

If the table or fence is not properly aligned with the blade, the workpiece could bind during a cutting operation, which could result in kickback injuries. The miter slot and fence **MUST** be correctly aligned with the blade before continuing to **Step 20**.

20. Move the fence over so that it just touches the blade, and verify that the indicator line is directly over the zero line.
  - If you need to correct the position of the indicator line, loosen the screws on the pointer window, adjust it so that the line is over the zero line on the scale (see **Figure 22**), then re-tighten the screws.
21. Install the blade guard as instructed in the **Blade Guard Assembly** procedure on **Page 28**.

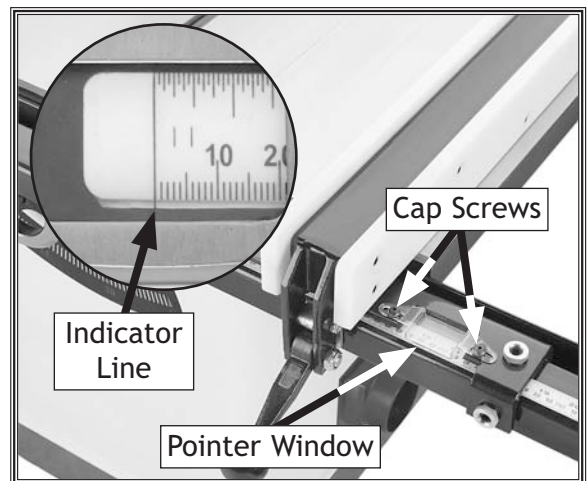


Figure 22. Fence pointer window alignment.

SETUP

- Attach the switch to the bottom left-hand side of the front rail using (2) M5-.8 x 12 cap screws, (2) 5mm lock washers, and (2) 5mm flat washers (see Figure 23).

## Dust Collection

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 take into account many variables, including the CFM rating of the dust collector, the length of hose between the dust collector and the machine, the amount of branches or Y's, and the amount of other open lines throughout the system. Due to the numerous variables involved, we do not cover this calculation in this manual. If you are unsure of your system, consult an expert or purchase a good dust collection "how-to" book.

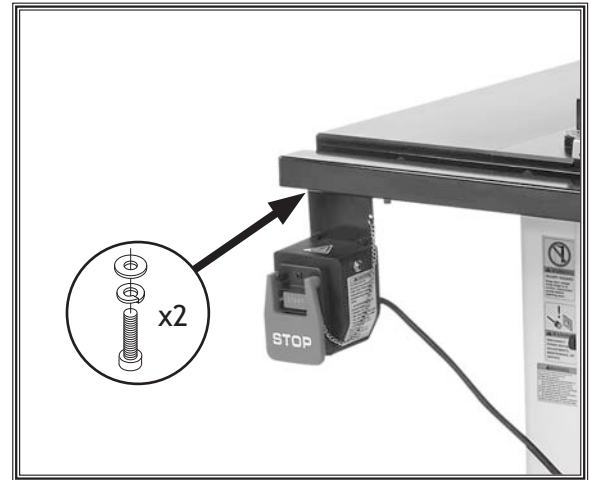


Figure 23. Switch installed.

### CAUTION

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

Tools Needed	Qty
Dust Collection System .....	1
Dust Hose 4" .....	1
Hose Clamps 4" .....	2

To connect a dust hose to the table saw, do these steps:

- Fit a 4" dust hose over the dust port, as shown in Figure 24, and secure it tightly in place with a hose clamp.
- Tug the hose to make sure it does not come off.

**Note:** A tight fit is necessary for proper performance.

**Tip:** To make the job of attaching the dust hose easier, we recommend using the Model W1038 Quick Disconnect (see Figure 25). This will be especially helpful if the table saw is mounted on a mobile base.



Figure 24. Dust hose secured to the table saw.



Figure 25. Model W1038 Quick Disconnect.



## Test Run

Once the assembly is complete, test run the machine to make sure it runs properly for regular operations.

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.

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 72**. If you still cannot remedy a problem, contact our Tech Support at (360) 734-3482 for assistance.

To test run the machine, do these steps:

1. Make sure you understand the safety instructions at the beginning of the manual, and verify that the machine is set up properly.
2. Ensure all tools and objects used during setup are cleared away from the machine.
3. Connect the machine to the required power source (see **Page 10**).
4. Verify that the machine is operating correctly by turning the machine **ON**.
  - When operating correctly, the machine runs smoothly with little or no vibration or rubbing noises.
  - Investigate and correct strange noises or vibrations before operating the machine further. Always disconnect the machine from power when investigating or correcting potential problems.
5. Turn the machine **OFF**.
6. Insert the switch disabling pin through the green ON button, as shown in **Figure 26**.
7. Press the ON button to test the disabling feature on the switch.
  - If the machine does not start, the switch disabling feature is working as designed.
  - If the machine starts, immediately stop it. The switch disabling feature is not working correctly. Call Tech Support for help.

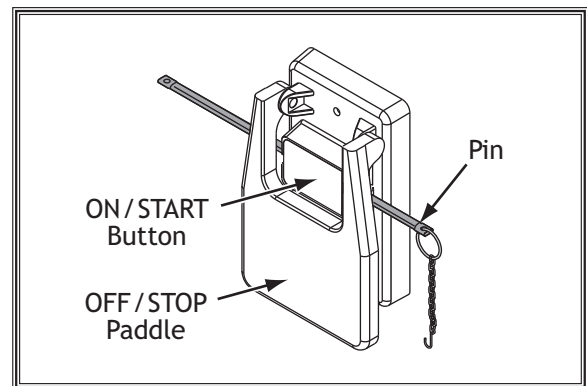
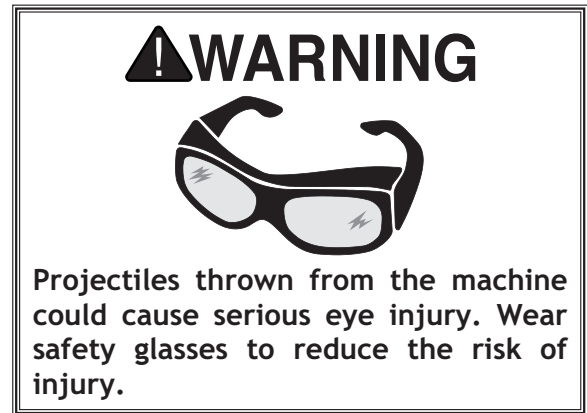


Figure 26. Switch disabling pin inserted into ON button.

SETUP

## 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 this saw cuts safely and accurately. Step-by-step instructions for these adjustments can be found in the **SERVICE** section.

Adjustments that should be verified:

- Blade tilt stop accuracy (**Page 58**).
- Spreader/riving knife alignment (**Page 63**).

# OPERATIONS

## General

This machine will perform many types of operations that are beyond the scope of this manual. Many of these operations can be dangerous or deadly if performed incorrectly.

The instructions in this section are written with the understanding that the operator has the necessary knowledge and skills to operate this machine. **If at any time you are experiencing difficulties performing any operation, stop using the machine!**

If you are an inexperienced operator, we strongly recommend that you read books or trade articles, or seek training from an experienced table saw operator before performing any unfamiliar operations. **Above all, your safety should come first!**

## Basic Controls

Use the following descriptions and refer to **Figure 27** to gain an understanding of the basic controls of this table saw.

- A. **Blade Height Handwheel & Lock.** Adjusts the blade height. To set the blade height, loosen the lock knob in the center of the handwheel, turn the handwheel to set the blade height approximately  $\frac{1}{4}$ " higher than the workpiece (for through cuts only), then re-tighten the lock knob.
- B. **START/STOP Switch.** Starts and stops the motor. The START button has a hole through it that accommodates a pin to disable the switch against unauthorized usage.
- C. **Fence Lock.** Secures the fence in place. After adjusting the fence to the desired width of cut, lock it in place by firmly pushing the fence lock down until it stops.
- D. **Blade Tilt Handwheel & Lock.** Adjusts the blade tilt. Loosen the lock knob in the center of the handwheel, turn the handwheel to position the blade at the desired angle, then re-tighten the lock knob.

### CAUTION

USE this and other machinery with caution and respect. Always consider safety first, as it applies to your individual working conditions. No list of safety guidelines can be complete—every shop environment is different. Failure to follow guidelines could result in serious personal injury, damage to equipment or poor work results.

### WARNING



**READ** and understand this entire manual before using this machine. Serious personal injury may occur if safety and operational information is not understood and followed. **DO NOT** risk your safety by not reading!

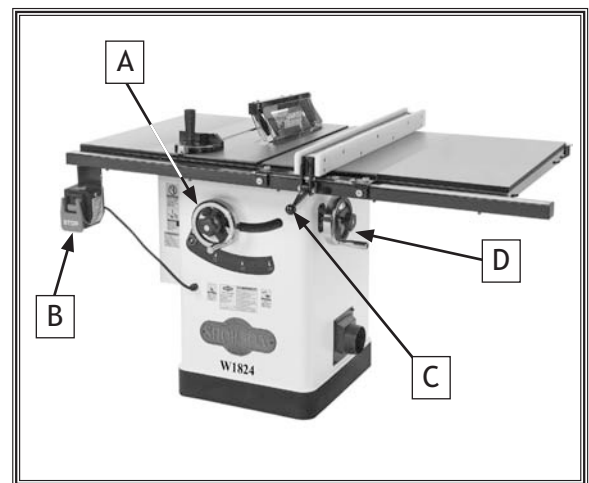


Figure 27. Model W1824 basic controls.

## 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.

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 for the desired cut.
3. For "Through Cuts," adjusts the blade height no more than  $\frac{1}{4}$ " 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.

## Workpiece Inspection

Some workpieces are not safe to cut on this machine or may need to be modified before they can be safely cut.

Before beginning the cutting operation, 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 the cupped side facing the table or fence; however, workpieces supported on the bowed side will rock during the cut, which could cause kickback.

# Non-Through & Through Cuts

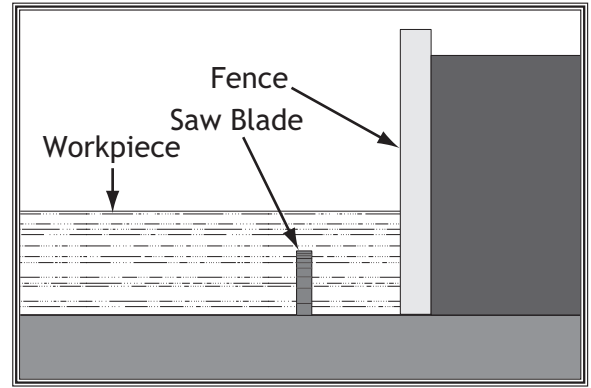
## Non-Through Cuts

A non-through cut is a sawing operation where the blade does not protrude above the top face of the wood stock, as shown in **Figure 28**.

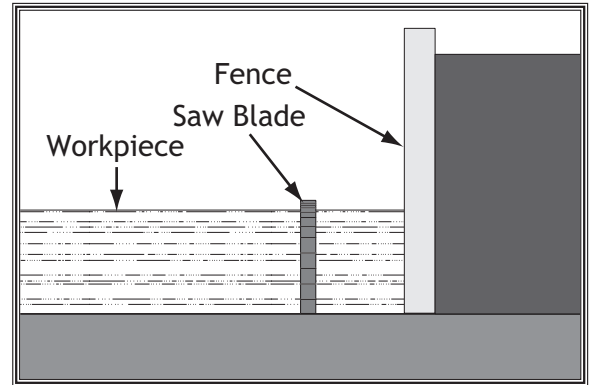
Examples of non-through cuts include dadoes and rabbets. Non-through cuts have a higher risk of injury from kickback because the blade guard must be removed. However, the riving knife **MUST** be installed because it still provides some protection. When making non-through cuts with a dado blade, do not 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 **Figure 29**. 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 28.** Example of a non-through cut.



**Figure 29.** Example of a through cut.

## **NOTICE**

If you have never used this type of machine or equipment before, seek training from an experienced machine operator or read "how to" books before beginning any projects. Regardless of the content in this section, Shop Fox will not be held liable for accidents caused by lack of training.

# Blade Size Requirements

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

**Blade Size Requirements:**

- Blade Diameter ..... 10"
- Body Thickness.....0.071"-0.094" (1.8-2.4mm)
- Kerf (Tooth) Thickness.....0.102"-0.126" (2.6-3.2mm)

**⚠ WARNING**

Using a blade that does not meet the specified blade size requirements presents a hazardous condition that could cause kickback, operator injuries, or property damage. ALWAYS use a blade that meets the given blade size requirements.

## 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 (Figure 30):**

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

**Crosscut Blade Features (Figure 31):**

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

**Combination Blade Features (Figure 32):**

- 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)

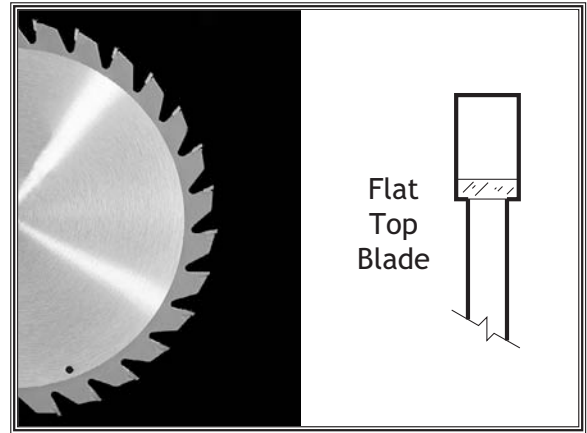


Figure 30. Example of a ripping blade.

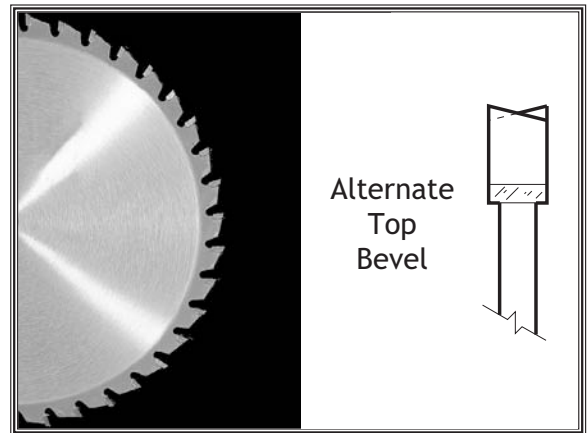


Figure 31. Example of a crosscut blade.

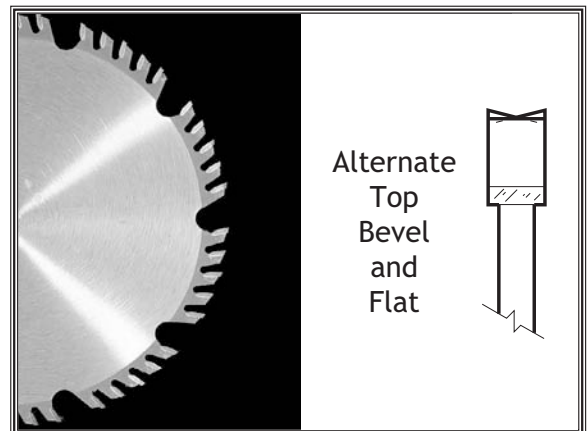


Figure 32. Example of a combination blade.

OPERATIONS

**Laminate Blade Features (Figure 33):**

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

**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.

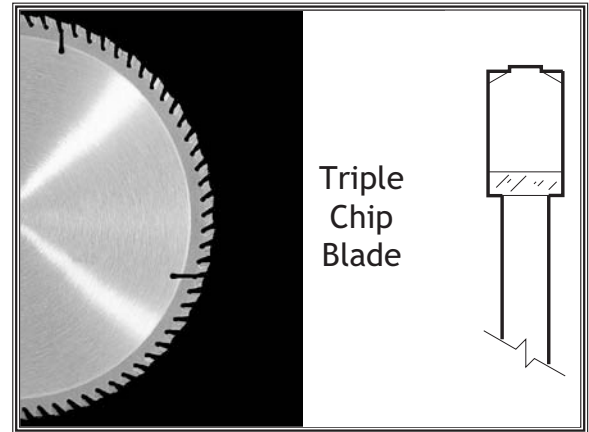


Figure 33. Example of a laminate blade.

**Dado Blades**

**Stacked Dado Blade (see Figure 34):** 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.

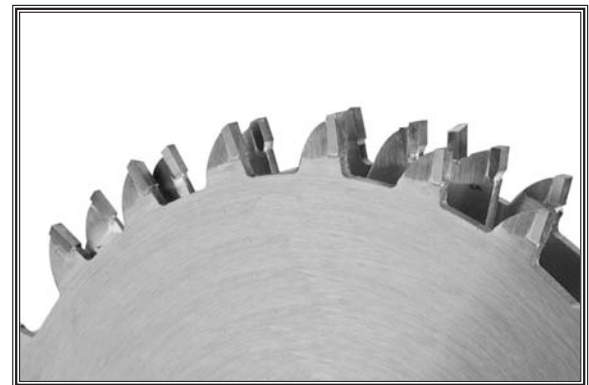


Figure 34. Stacked dado blade.



# Blade Installation

Properly installing the blade is critical to safe cutting operations that produce good results. Review this section, even if your blade came pre-installed.

To install the blade, do these steps:

1. DISCONNECT SAW FROM POWER!
2. Remove the table insert and blade guard/riving knife, depending on what is installed.

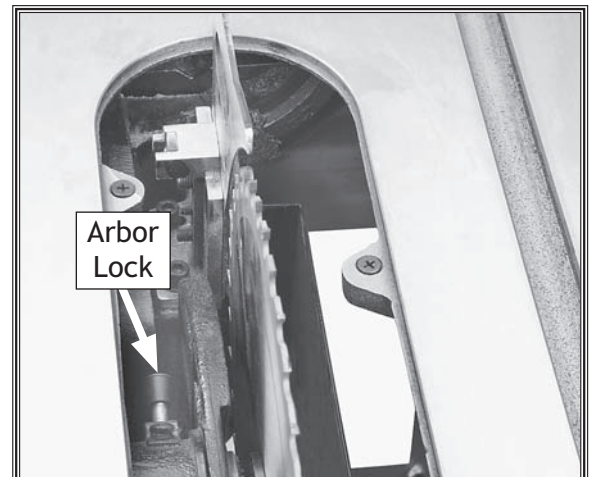
**⚠ CAUTION**

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

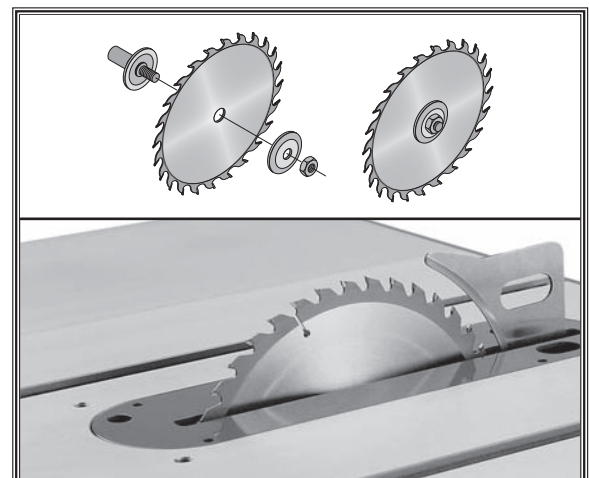
3. Push the arbor lock in (see **Figure 35**) and turn the blade until it locks in place, then use the arbor wrench to loosen and remove the arbor nut, flange, and blade.
4. Slide the blade over the arbor with the teeth facing the front of the saw, as shown in **Figure 36**.
5. Re-install the arbor flange and the arbor nut, then tighten them against the blade with the wrenches included with the saw. **DO NOT** overtighten.
6. Re-install the table insert and blade guard/riving knife.

**⚠ CAUTION**

The arbor nut is self-tightening by design when a cut is made. When installing the blade, only tighten the arbor nut so that it firmly holds the blade in place. Overtightening the arbor nut may lead to nut and arbor failure which could cause metal debris to be thrown from the saw.



**Figure 35.** Arbor lock location.



**Figure 36.** Order of blade component installation and teeth facing to the front.

**OPERATIONS**



# 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 37**). Each of these components have important safety functions during the operation of the saw.

## Guard

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

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

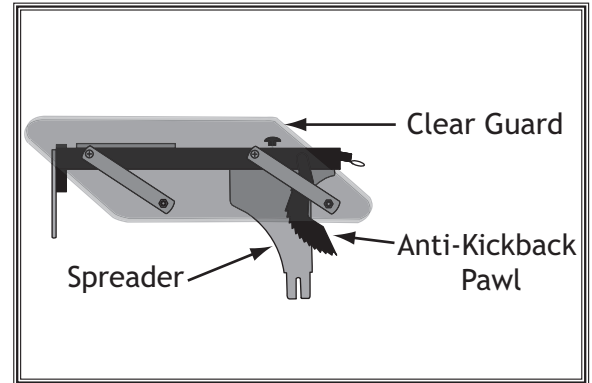
To ensure that the guard does its job effectively, the guard must always be in the downward position against the table during idle operation, and the hinge mechanism must be maintained in good working condition so the guard can freely pivot up and down to accommodate the height of the workpiece and return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

## Spreader

The spreader is a metal plate that prevents the freshly cut pieces of the workpiece from pinching the backside of the blade and causing a kickback. It also acts as a barrier behind the blade to shield hands from being pulled into the blade if a kickback occurs.

## Blade Guard & Spreader Installation

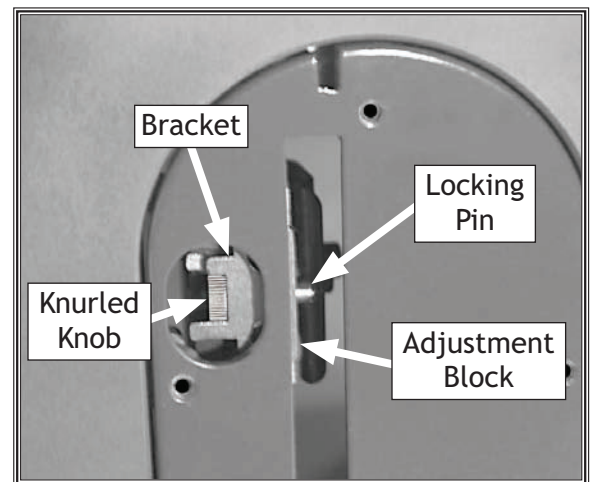
1. DISCONNECT SAW FROM POWER!
2. Install the standard table insert.
3. Slide the knurled knob out (see **Figure 38**), then rotate it so it engages the upper bracket.
4. Slide the blade guard spreader all the way down into the adjustment block, then rotate the knurled knob so it disengages the bracket and the locking pin engages the hole in the center of the spreader.
5. Tug the spreader upward to verify that it is locked and does not come out when pulled.



**Figure 37.** Blade guard assembly components.

**⚠ CAUTION**

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



**Figure 38.** Knurled knob used to secure the spreader.

The blade guard, when properly installed, should be set up, as shown in **Figure 39**. It should pivot freely up and down, then return to the table in the resting position and completely cover the blade. It should also swing up high enough to accommodate the workpiece.

6. Adjust the flat head screws around the perimeter of the insert to make sure it is flush with the table (use a straightedge as a guide).
7. Swing one side of the blade guard up and out of the way.
8. Lift up on the right spreader pawl, and place a straightedge against the blade and the spreader, making sure the straightedge does not touch a blade tooth.

When properly aligned, the spreader will be in the "Alignment Zone," shown in **Figure 40**, and will be parallel with the blade.

- If the spreader is not inside the alignment zone and not parallel with the blade, then it needs to be adjusted. Perform the **Spreader or Riving Knife Alignment** procedure on **Page 63**.

### Anti-Kickback Pawls

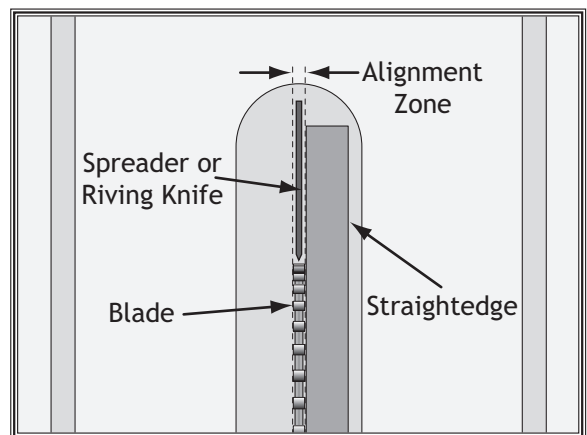
The anti-kickback pawls allow the workpiece to travel in only one direction. If the workpiece moves backwards, such as during a kickback, the pawls will dig into the workpiece to slow or stop it.

To work properly, the pawls must return to their resting position after pivoting up, as shown in **Figure 41**, and they must not be engaged in the arresting hooks.

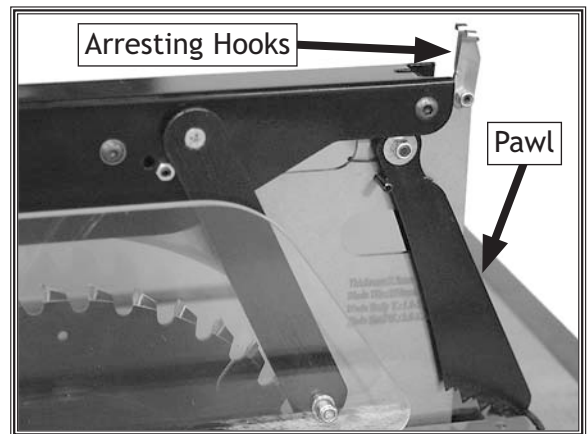
If the pawls fail to return to the resting position, the pivot area may need to be cleaned or the spring may have been dislodged or broken and will need to be fixed/replaced.



**Figure 39.** Blade guard and spreader properly installed.



**Figure 40.** Spreader in the "Alignment Zone."



**Figure 41.** Pawls in the resting position.

**Disabling Pawls**

You might disable 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 retracting the pawls, as they are provided for your safety.

To disable the pawls, do these steps:

1. DISCONNECT SAW FROM POWER!
2. Rotate one or both arresting hooks downward, then place the pawls on each of the hooks (see Figure 42).

**Enabling Pawls**

To enable the pawls, lift up on each pawl and move them outward and down until they both touch the table surface in the resting position, as shown in Figure 41 on the previous page.

**When to Use the Blade Guard**

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

**When Not to Use the Blade Guard**

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

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!

**⚠ CAUTION**  
 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 quickly cut fingers and hands. Use caution, and wear leather gloves when handling the pawls to reduce the risk of injury.

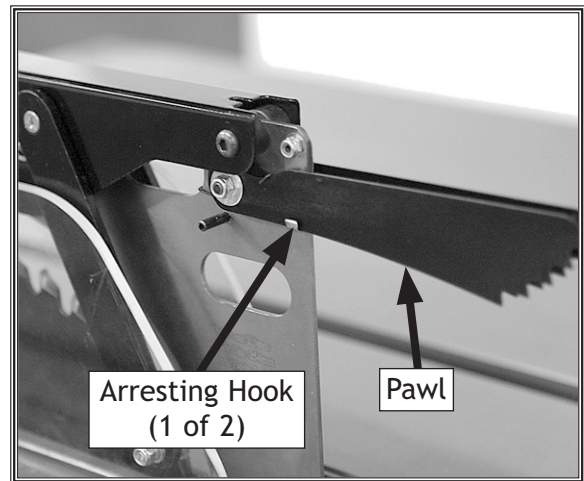


Figure 42. Pawl disabled.

**⚠ CAUTION**  
 Whenever the blade guard and spreader cannot be used, the riving knife must be used to avoid the risk of the kerf binding on the blade and causing kickback.

OPERATIONS

## 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 43**.

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 a kickback occurs.

The riving knife must be spaced away from the blade, as shown in **Figure 44**.

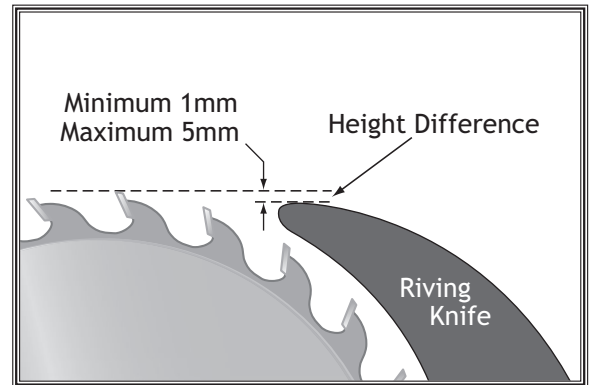
### Riving Knife Installation

The riving knife is installed in a similar manner to the blade guard and spreader. Refer to **Blade Guard Assembly** on **Page 28** for installation instructions.

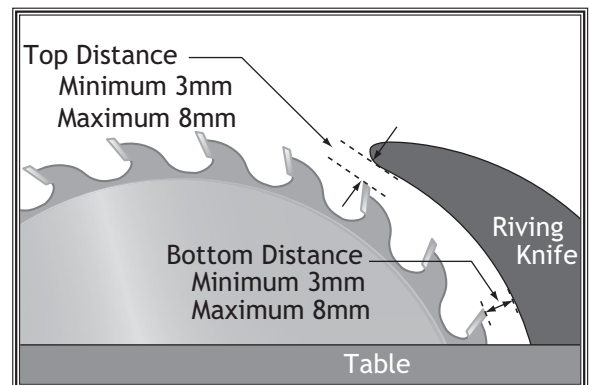
### When to Use the Riving Knife

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

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



**Figure 43.** Height difference between the riving knife and blade.



**Figure 44.** Allowable distance ranges between the riving knife and blade.

### When Not to Use the Riving Knife

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

In addition, although it is possible to use the riving knife for through-cutting operations, the blade guard assembly offers much 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 when making through cuts.

# Ripping

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

To make a rip cut, do these steps:

1. Review **Preventing Kickback** on **Page 9** and take the necessary precautions to reduce the likelihood of kickback.
  2. Inspect the board for soundness. You will need one straight edge of the workpiece to place against the fence when ripping. Also, if the workpiece is slightly cupped, always place the cupped side down on the table for stability.
  3. **DISCONNECT SAW FROM POWER!**
  4. Ensure that the blade guard/spreader is properly 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. Re-connect the saw to power, then turn it **ON** and allow the blade 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 45**, until it is completely beyond the saw blade.

OPERATIONS

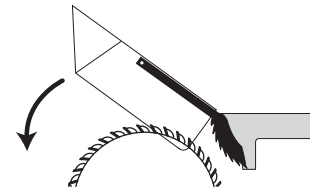
## WARNING

Never attempt to rip a workpiece that does not have one perfectly straight edge on it. Always place the straight edge against the rip fence. Failure to do this could result in kickback and serious personal injury.



Figure 45. Example photo of a ripping operation.

## CAUTION



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

## CAUTION

Turn **OFF** the saw and **ALWAYS** 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.



# 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, do these steps:

1. DISCONNECT SAW FROM POWER!
2. Ensure that the blade guard/spreader is properly installed.
3. Move the rip fence aside and position the miter gauge in a miter slot, then adjust it to 90° from the blade.
4. Adjust the blade height so the teeth protrude no more than 1/4" above the workpiece.
5. Inspect the workpiece for soundness. If the workpiece is slightly cupped, place the cupped face down on the table.
6. Slide the miter gauge near the blade and adjust the workpiece so the blade will cut on the waste side of the line.
7. Re-connect the saw to power, then turn it **ON** and allow the blade to reach full speed.
8. Hold the workpiece firmly against the face of the miter gauge (as shown in **Figure 46**), then ease the workpiece through the blade until it is completely past the saw blade.



**Figure 46.** Example photo of a crosscutting operation.

## Miter Cuts

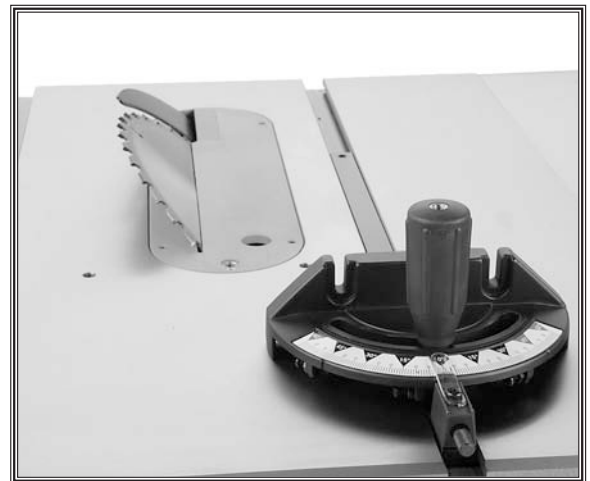
A miter cut is an angled crosscut. Miters are usually cut in the same manner as crosscuts, using the miter gauge and a predetermined mark on the workpiece.

To perform a miter cut, do these steps:

1. DISCONNECT SAW FROM POWER!
2. Ensure that the blade guard/spreader is properly 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 T-slot bar across the face of the workpiece. Use the bar as a guide to mark your cut onto the workpiece, as shown in **Figure 47**.
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** procedure.



**Figure 47.** Example photo of making a miter mark.



**Figure 48.** Blade tilted 45° to the table.

## Blade Tilt Cuts

The blade can be tilted between 0° (perpendicular to the table) and 45°. This feature is used most often when cutting bevels, compound miters, or chamfers. **Figure 48** shows an example of the blade when tilted 45° to the table.



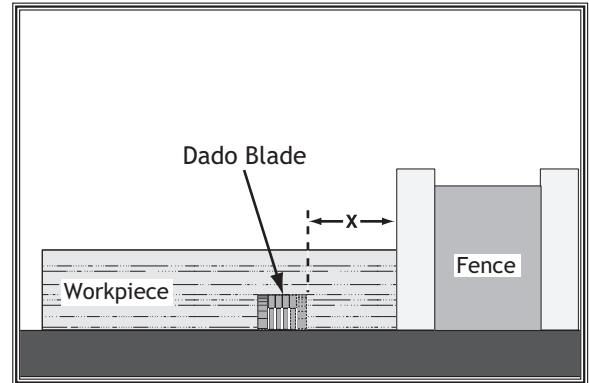
# Dado Cutting

Commonly used in furniture joinery, a dado is a straight channel cut in the face of the workpiece. Dadoes are "non-through" cuts that can be made with a dado blade or a standard saw blade. **Figure 49** shows a cutaway view of a dado cut being made with a dado blade.

The included dado table insert must be installed and used when a dado blade is installed—unless a zero clearance table insert is used instead.

## Dado Blade Installation

1. DISCONNECT SAW FROM POWER!
2. Remove the standard 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.



**Figure 49.** Illustration of a dado cut.

**!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.

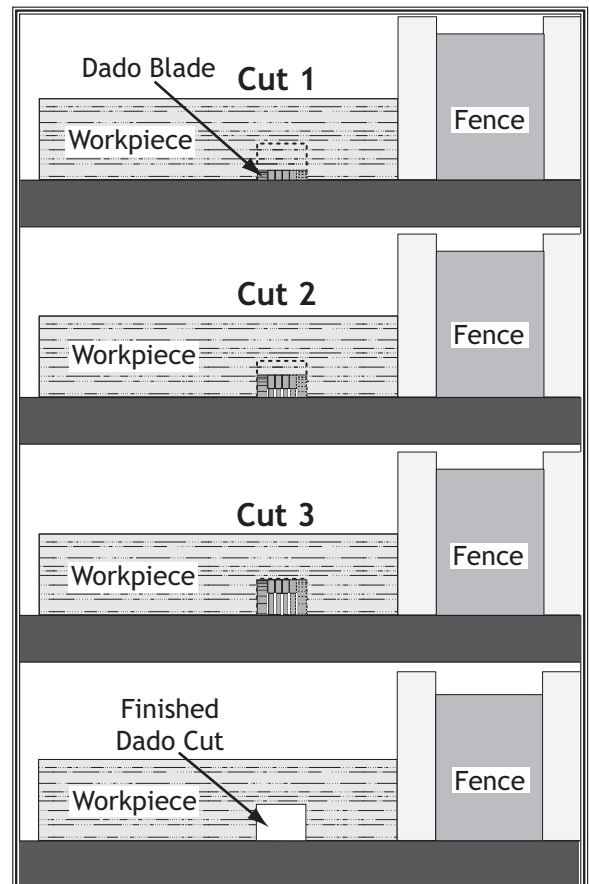
**!WARNING**

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.

## Cutting Dados with a Dado Blade

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

**Figure 50** 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 50.** Example of cutting a dado with multiple light cuts, instead of one deep cut.

OPERATIONS

To cut a dado with a dado blade, do these steps:

1. DISCONNECT SAW FROM POWER!
2. Adjust the dado blade to the desired depth of cut.
3. Adjust the distance between the fence and the inside edge of the blade, as shown in **Figure 51** on the previous page, 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, which could result in the workpiece binding and kicking back.
4. Re-connect the saw to the power source.
5. Turn the saw **ON**. The blade should run smooth, with no vibrations.
6. When the blade has reached full speed, perform a test cut with a scrap piece of wood.
7. If the cut is satisfactory, repeat the cut with the actual workpiece.

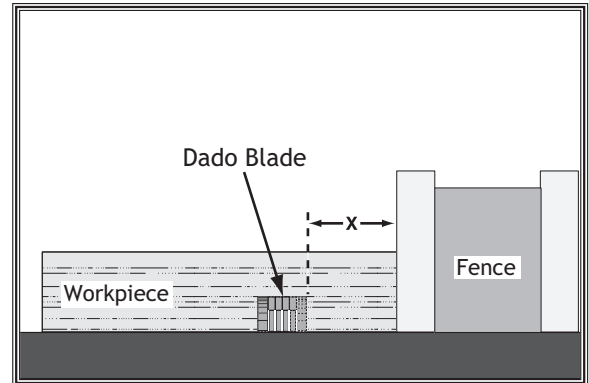


Figure 51. Illustration of a dado cut.

## Cutting Dados with a Standard Blade

A ripping blade (described on Page 25) is typically the best blade to use for cutting dados when using a standard blade, because it removes sawdust very efficiently.

To use a standard saw blade to cut dados, do these steps:

1. DISCONNECT SAW FROM POWER!
2. 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.
3. Raise the blade up to the desired depth of cut (depth of the dado channel desired).
4. Set up the saw for the type of cut you need to make, depending on if it is a rip cut (see Page 32) or crosscut (see Page 33).
5. Align the blade to cut one of the dado sides, as shown in Figure 52.
6. Re-connect the saw to the power source and turn the saw **ON**. Allow the blade to reach full speed, then perform the cutting operation.
7. Repeat the cutting operation on the other side of the dado channel, as shown in Figure 53.
8. Make additional cuts (see Figure 54) in the center of the dado to clear out the necessary material. The dado is complete when the channel is completely cleared out.

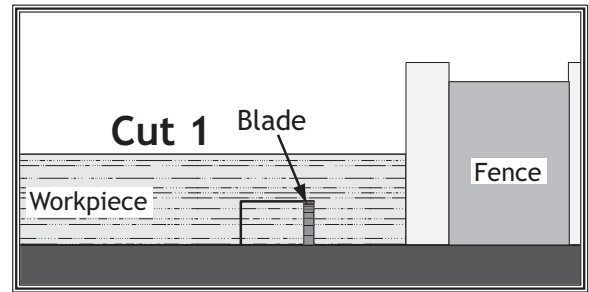


Figure 52. First cut when using a single blade for making a dado.

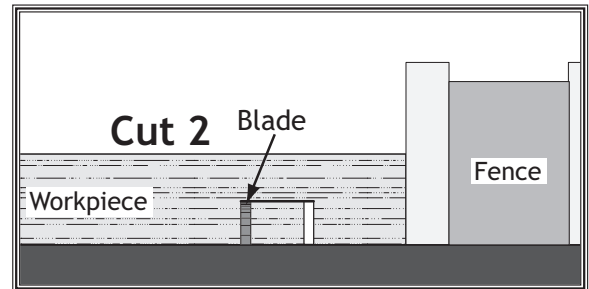


Figure 53. Second cut for a single dado cut.

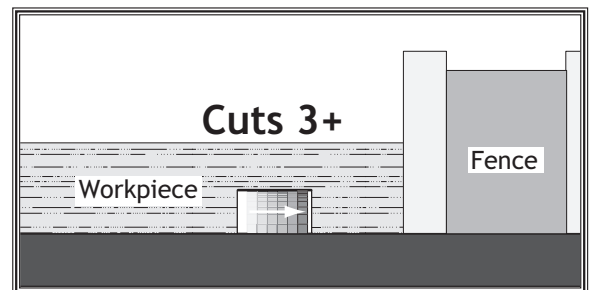


Figure 54. Additional single blade dado cuts.

### 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.

# Rabbet Cutting

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

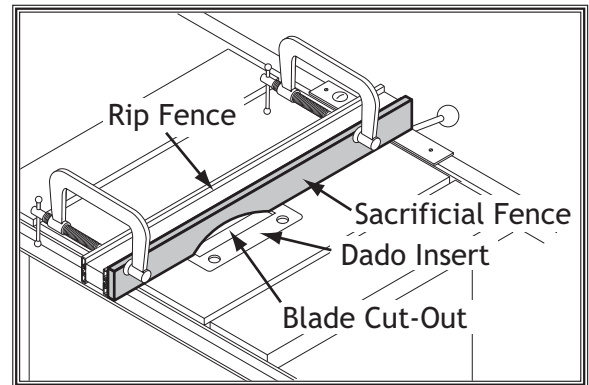
Rabbet cutting on the edge of the workpiece with a dado blade requires a sacrificial fence (see **Figure 55**). Make the sacrificial fence the same length as the fence and  $\frac{3}{4}$ " thick. Attach it to the fence with screws or clamps, making sure they are all secure and tight. Raise the blade into the sacrificial fence to the height needed.

## Cutting Rabbets with a Dado Blade

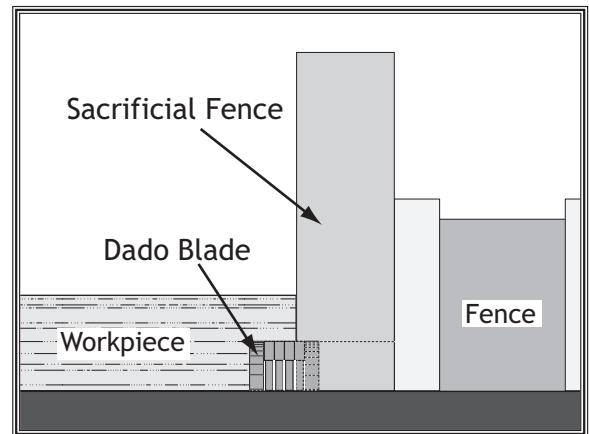
1. DISCONNECT SAW FROM POWER!
2. Adjust the dado blade to the height needed for the rabbeting operation. When cutting deep rabbets, take multiple light passes to reduce the risk of kickback.
3. Adjust the fence and align the workpiece to perform the cutting operation, as shown in **Figure 56**.
4. Re-connect 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.

**⚠ 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.



**Figure 55.** Sacrificial fence installed.



**Figure 56.** Rabbet cutting with a sacrificial fence.

OPERATIONS

## 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 25** for blade details.) Also, a sacrificial fence is not required when cutting rabbets with a standard blade.

To cut rabbets with the standard blade, do these steps:

1. DISCONNECT SAW FROM POWER!
2. Ensure that the riving knife and standard table insert are properly installed.
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 the rabbet channel desired).
5. Stand the workpiece on edge, as shown in **Figure 57**, then adjust the fence so the blade is aligned with the inside of your rabbet channel.
  - If the workpiece is very tall, or is unstable when placed against the fence, lay it flat on the table and use a dado blade to perform the rabbet cut.
6. Reconnect the saw to the power source, then perform the cut.
7. Lay the workpiece flat on the table, as shown in **Figure 58**, adjust the saw blade height to intersect with the first cut, then perform the second cut to complete the rabbet.

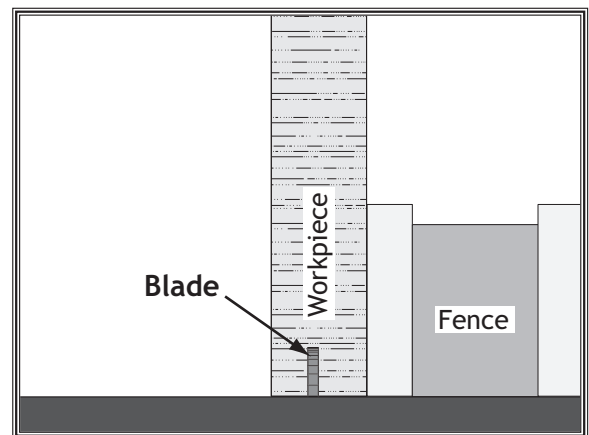
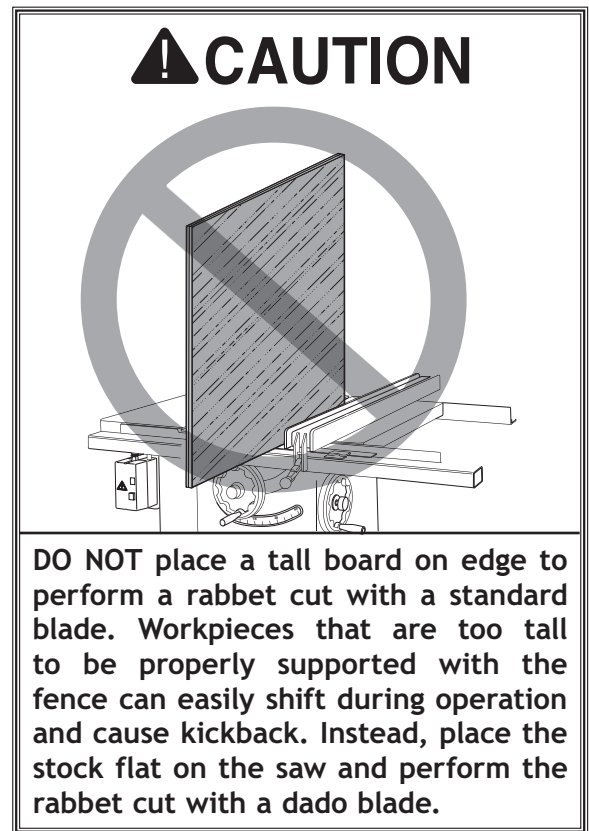


Figure 57. First rabbet cut with a single blade.

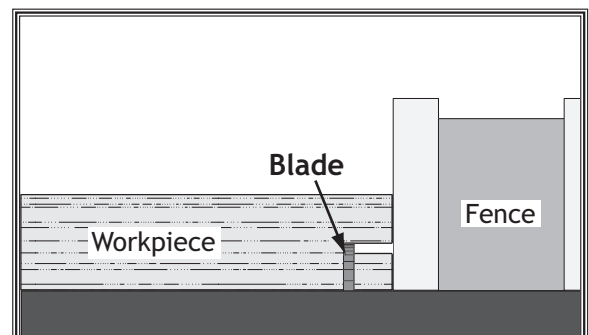


Figure 58. Second rabbet cut with a single blade.

OPERATIONS

# Resawing

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

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

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

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

## Making a 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:	Qty
Table Saw .....	1
Jointer and Planer .....	Recommended
Clamps .....	2 Minimum
Drill and Drill Bits.....	As Needed

### Components Needed for 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 #10 x 2" .....	4
Wood Glue .....	As Needed

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

**! CAUTION**

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



To build the resaw barrier, do these steps:

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 wood piece.
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 59**, and fasten them together with the wood screws.

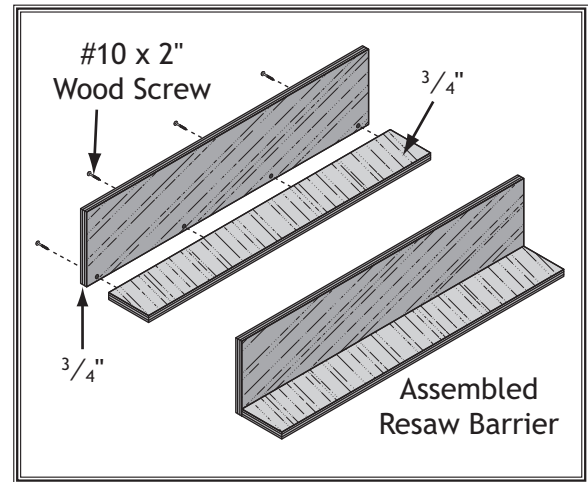


Figure 59. Shop-made resaw barrier.

### Auxiliary Fence

The auxiliary fence is necessary if you are resawing a workpiece that is taller than it is wide. It should be no less than  $\frac{1}{2}$ " shorter than the board to be resawn.

#### Components Needed for the Auxiliary Fence:

Wood\*  $\frac{3}{4}$ " x (Height) x Length of Fence .....1

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

#### Tools Needed for the Auxiliary Fence:

Table Saw .....1  
 Jointer and Planer ..... Recommended  
 Clamps ..... 2 Minimum

To build the auxiliary fence, do these steps:

1. Cut the auxiliary fence board to size. 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.
2. Unthread the fence face mounting hardware and remove the fence face from the fence assembly.
3. Place the auxiliary fence next to the fence face you removed in **Step 1**, mark the location of the nine mounting holes on the auxiliary fence, then drill the holes.
4. Use the mounting hardware you removed in **Step 2** to attach the auxiliary fence. The end result should be similar to **Figure 60**.

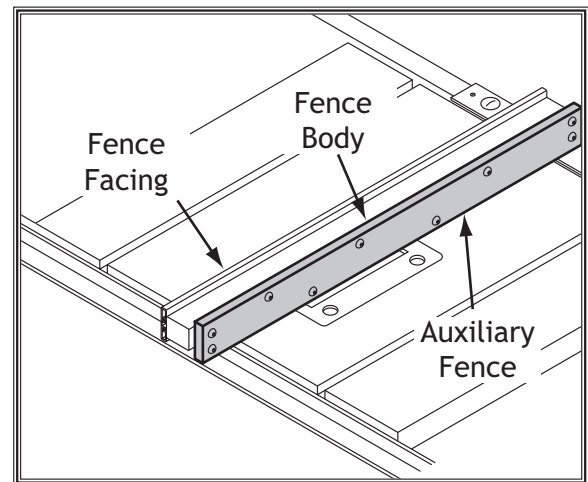


Figure 60. Example illustration of an auxiliary fence installed.

OPERATIONS

## Resawing Operation

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 Table Insert .....	1
Ripping Blade 10" .....	1
Clamps .....	2
Shop Made Auxiliary Fence .....	1
Shop Made Resaw Barrier .....	1

To perform resawing operations, do these steps:

1. DISCONNECT SAW FROM POWER!
2. Remove the standard table insert and the blade guard assembly.
3. Install a ripping blade, install the riving knife, lower the blade below the table, then install a zero clearance table insert.

4. Attach the auxiliary fence and set it to the desired width from the blade.

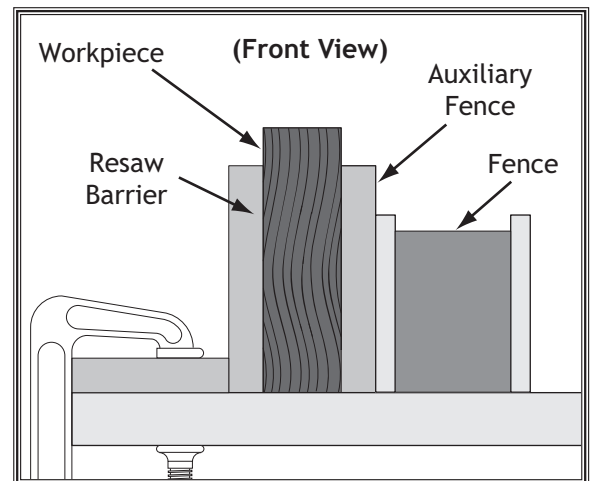
**Note:** *When setting the correct width, don't forget to account for blade kerf and the inaccuracy of the fence scale while the auxiliary fence is installed.*

5. Place the workpiece against the auxiliary fence and slide the resaw barrier against the workpiece, as shown in **Figure 61**. Now clamp the resaw barrier to the top of the table saw at both ends.
6. Lower the blade completely below the table, slide the workpiece over the blade to make sure it moves smoothly and fits between the resaw barrier and fence, then remove the workpiece.
7. Raise the blade approximately an inch, or close to half the height of the workpiece, whichever is less.

**⚠ WARNING**

The risk of kickback when resawing is high. Always stand to the side of the cutting path and wear a full face shield to prevent kickback injuries when resawing.

OPERATIONS



**Figure 61.** Example illustration of a resaw setup.

8. Plug in the table saw, turn it **ON**, and use a push stick or push block to feed the workpiece through the blade, using a slow and steady feed rate.
9. Flip the workpiece end for end, keeping the same side against the fence, and run the workpiece through the blade again.
10. If necessary to complete the operation, 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 62**. Leaving an  $\frac{1}{8}$ " connection will reduce the risk of kickback.
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.

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

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

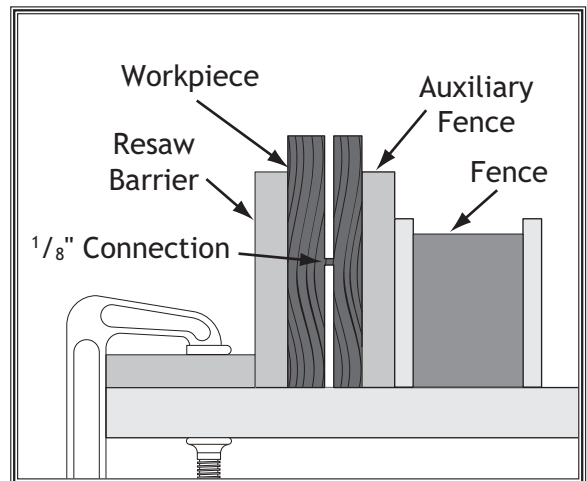


Figure 62. Completed resaw operation.

# SHOP-MADE SAFETY ACCESSORIES

## Featherboards

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

### Making a Featherboard

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

#### Material Needed for Featherboard:

- Hardwood  $\frac{3}{4}$ " x 3" x 10" (Minimum) .....1
- Hardwood  $\frac{3}{4}$ " x 6" x 28" (Maximum).....1

#### Additional Material Needed for Mounting Featherboard:

- 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, do these steps:

1. Cut a hardwood board that is 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.
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 63 (A). Alternatively, start cuts at 2"-3" deep, then make them progressively deeper, as shown in Figure 63 (B).

**NOTICE**

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

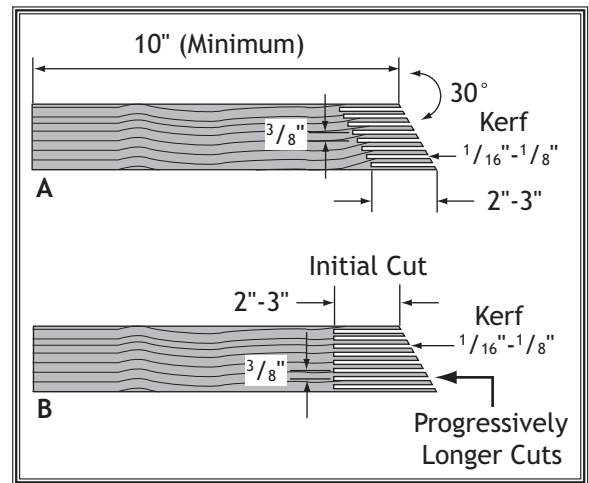


Figure 63. Patterns for making featherboards.

**NOTICE**

Only Steps 1-3 are required to make a clamp-mounted featherboard. Refer to Page 46 for instructions on clamping the featherboard to the table.

OPERATIONS

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, as illustrated in **Figure 64**.
5. Cut a miter bar that will fit in the table miter slot approximately 5" long (see **Figure 65**).

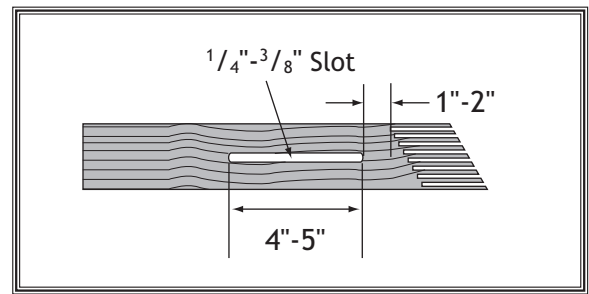
**Tip:** Consider making the miter bar longer for larger featherboards—approximately half the length of the total featherboard—to support the force applied to the featherboard during use.

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 in the center, 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 66**). Congratulations! Your featherboard is complete.

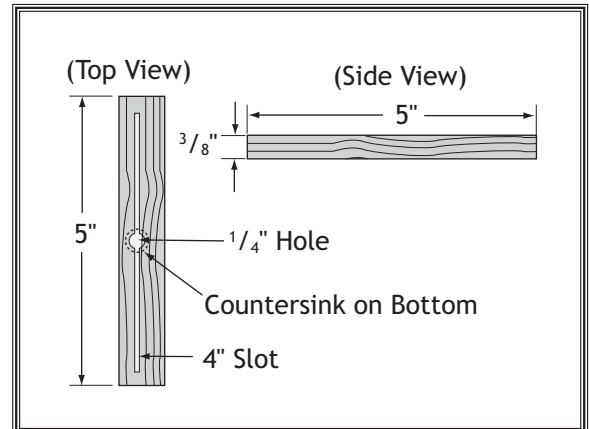
**Note:** The routed slot, countersunk hole, and the flat head screw are essential for the miter bar to clamp into the miter slot. When the wing nut is tightened, it will draw the flat head screw upward into the countersunk hole. This will spread the sides of the miter bar and force them into the walls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

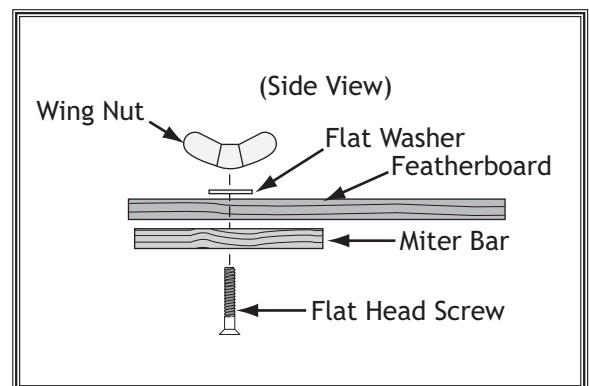
9. Proceed to **Mounting Featherboard in Miter Slot** on the next page.



**Figure 64.** Slot cut into the featherboard for use with a miter slot.



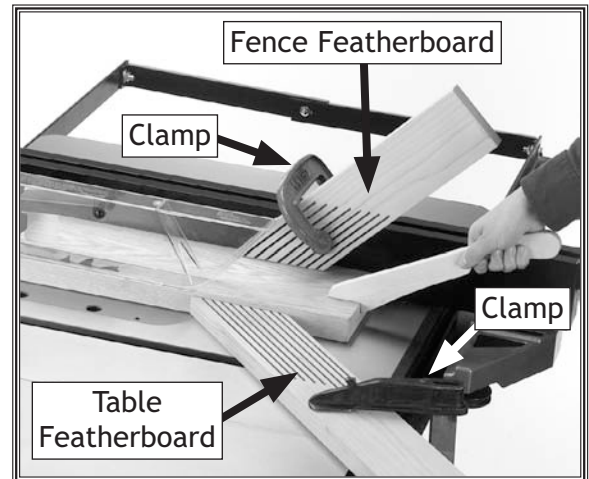
**Figure 65.** Patterns for featherboard miter bar.



**Figure 66.** Assembly order of featherboard components for use with a miter slot.

## Mounting Featherboard with Clamps

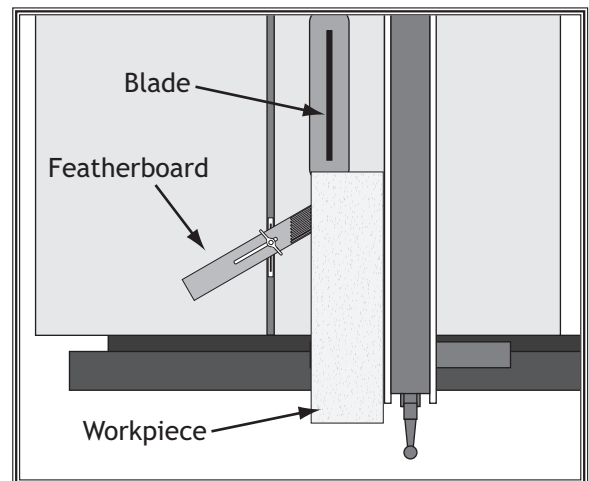
1. DISCONNECT SAW FROM POWER!
2. Lower the saw blade, then adjust the fence to the desired width and secure it.
3. Place the workpiece against the fence, making sure it is 1" in front of the blade.
4. Place a featherboard on the table so all fingers point forward and contact the workpiece evenly (see **Figure 67** for an example).
5. Secure the featherboard to the table with a clamp.
6. Check the featherboard by pushing it with your thumb to ensure it is secure.
  - If the featherboard moves, tighten the clamp some more.
7. Mount a second featherboard to the fence with another clamp, then repeat **Step 6** to ensure it is secure (see **Figure 67**).



**Figure 67.** Example photo of featherboards mounted with clamps.

## Mounting Featherboard in Miter Slot

1. DISCONNECT SAW FROM POWER!
2. Lower the saw blade, then adjust the fence to the desired width and secure it.
3. Place the workpiece evenly against the fence, making sure it is 1" in front of the blade.
4. Slide the featherboard miter bar into the miter slot, making sure the fingers slant toward the blade, as illustrated in **Figure 68**.
5. Position the fingered edge of the featherboard against the edge of the workpiece, so that all of the fingers contact the workpiece evenly. 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.
6. Double check the workpiece and the featherboard to ensure they are properly positioned, as described in **Step 5**. Then secure the featherboard to the table. Check the featherboard by hand to make sure it is tight.



**Figure 68.** Example illustration of the featherboard mounted in the miter slot.

## **NOTICE**

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.

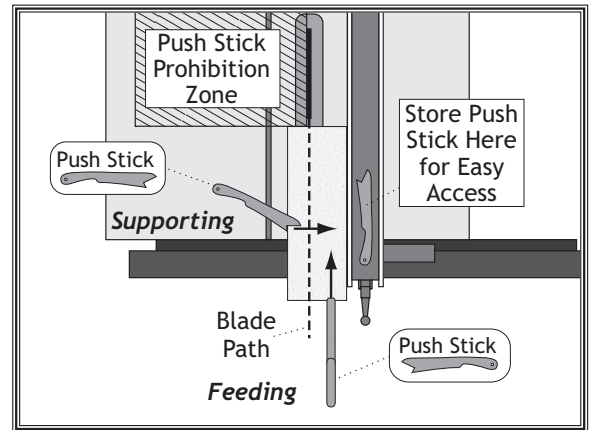


# Push Sticks

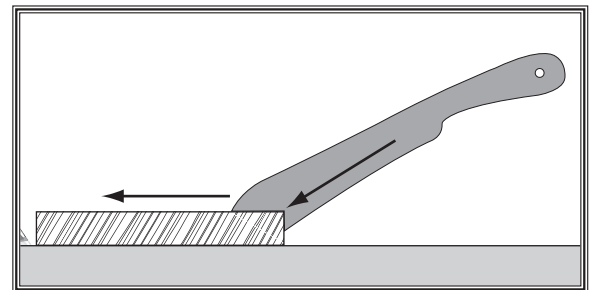
When used correctly, push sticks reduce the risk of injury by keeping hands away from the blade while cutting. In the event of an accident, a push stick can absorb damage that would have otherwise happened to hands or fingers. Use push sticks whenever your hands will get within 12" of the blade. To maintain 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 69**), and move the workpiece into the blade with steady downward and forward pressure.

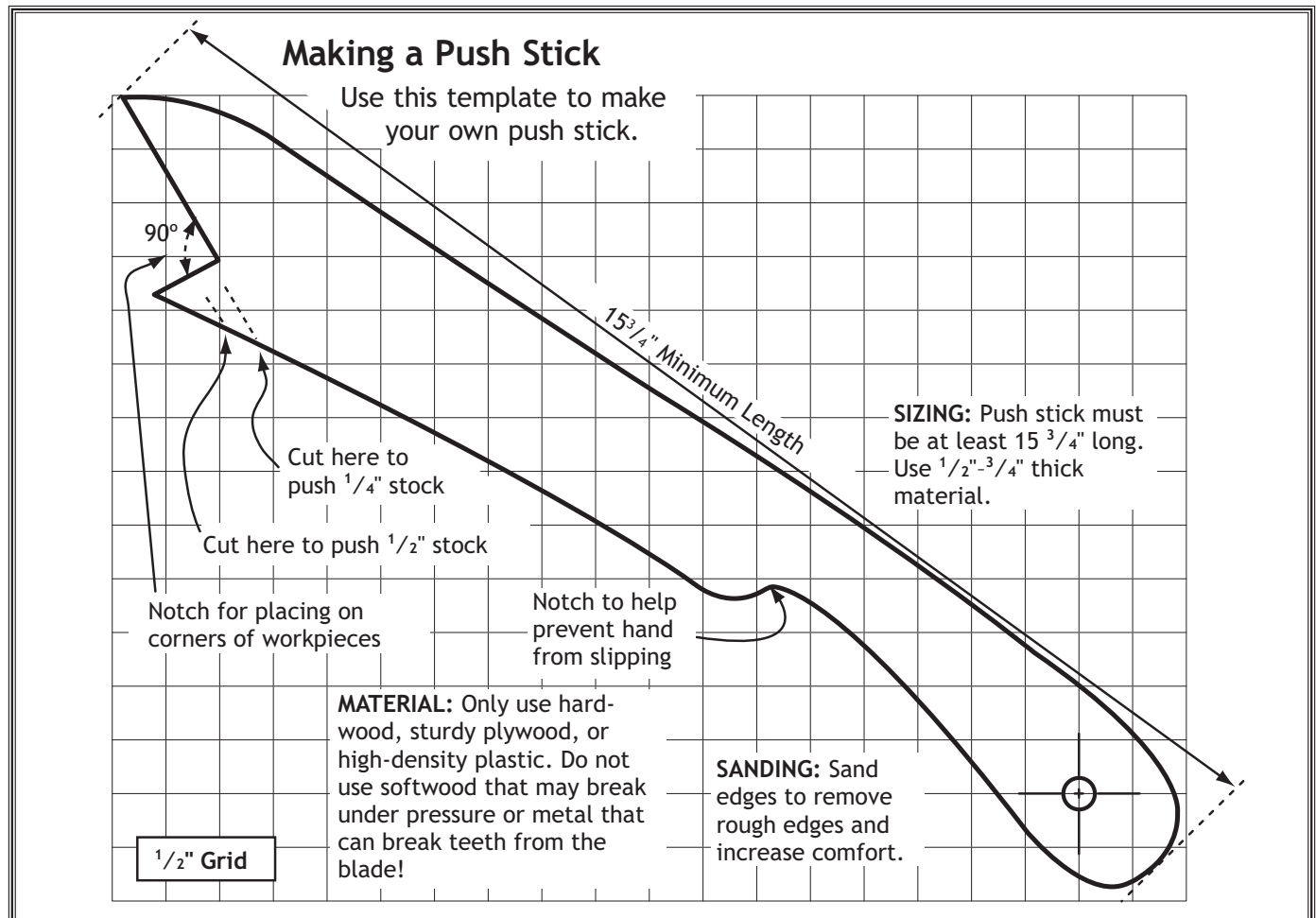
**Supporting:** A second push stick can be used to keep the workpiece firmly against the fence while cutting. When using a push stick in this manner, only apply pressure before the blade; otherwise, pushing the workpiece against or behind the blade will increase the risk of kickback (see **Figure 69**).



**Figure 69.** Using push sticks to rip narrow stock.



**Figure 70.** Side view of push stick in-use.



**Figure 71.** Template for a basic shop-made push stick (not shown at actual size).

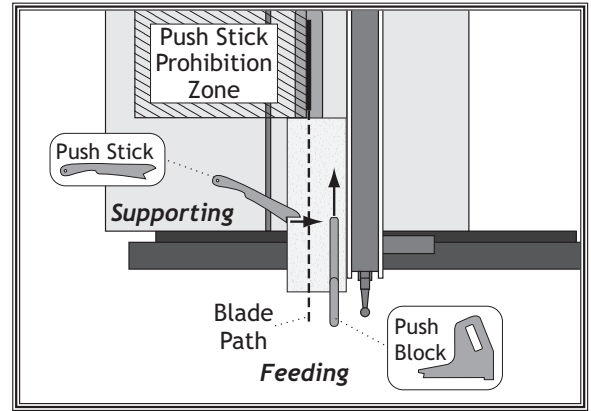
# Push Blocks

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.

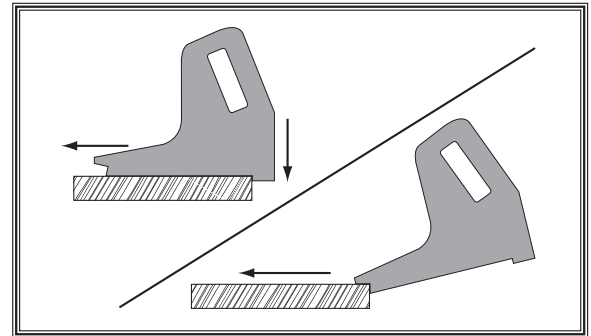
A push block can be used in place of or in addition to a push stick for feeding workpieces into the blade. Due to their design, push blocks allow the operator to apply firm downward pressure on the workpiece that could not otherwise be achieved with a push stick.

The push block design on this page (see **Figure 74**) can be used in two different ways (see **Figure 73**). 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.



**Figure 72.** Using a push block and push stick to make a rip cut.



**Figure 73.** Side view of push block in use.

### Making a Push Block

Use this template to make your own push block.

Notch for use as a push stick

Handle for firm grip

Make push block with  $\frac{1}{2}$ "- $\frac{3}{4}$ " thick material

**CAUTION:** Only use hardwood, sturdy plywood, or high-density plastic. Do not use softwood that may break under pressure or metal that can break teeth from the blade!

Lip for pushing workpiece

$\frac{1}{4}$ "- $\frac{1}{2}$ "

$\frac{1}{2}$ " Grid

**CAUTION:** Bottom of handle must be at least 4" above bottom of push block to keep hand away from blade.

4"

9"-10" Minimum Length

**Figure 74.** Template for a basic shop-made push stick (not shown at actual size).

# Narrow-Rip Auxiliary Fence & Push Block

There are hundreds of designs for specialty jigs that can be found in books, trade magazines, and on the internet. These types of jigs can greatly improve the safety and consistency of cuts. They are particularly useful during production runs when dozens or hundreds of the same type of cut need to be made. The narrow-rip auxiliary fence and push block system shown in this section is an example of a specialty jig that can be made to increase the safety of very narrow rip cuts.

## Material Needed for Narrow Rip Auxiliary Fence & Push Block

Hardwood $\frac{3}{4}$ " x 3" x Length of Fence .....	1
Plywood $\frac{3}{4}$ " x $5\frac{1}{4}$ " x Length of Fence .....	1
Wood Screws #8 x $1\frac{1}{2}$ " .....	8

## Material Needed for Push Block

Hardwood or Plywood $\frac{3}{4}$ " x 15" x $5\frac{5}{8}$ " .....	1
Hardwood or Plywood $\frac{3}{4}$ " x 10" x 5"-9" .....	1
Wood Glue .....	Varies
Wood Screws #8 x $1\frac{1}{2}$ " .....	As Needed

## 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 75**.

**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 (8) #8 x  $1\frac{1}{2}$ " wood screws, as shown in **Figure 76**.
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 77**; for the handle, cut a piece 10" long by 5"-9" high and shape it as desired to fit your hand.
4. Attach the handle to the base with #8 x  $1\frac{1}{2}$ " wood screws, and attach the lip to the base with wood glue.

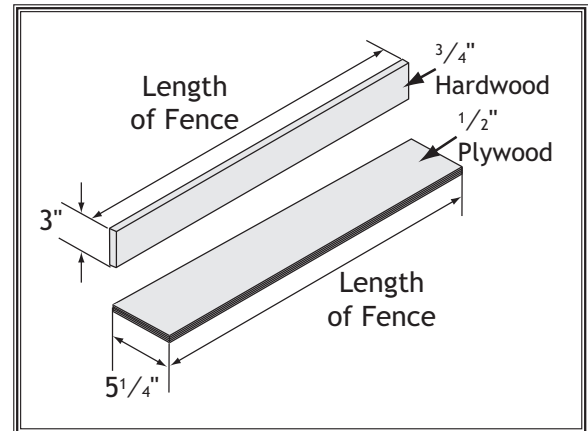


Figure 75. Auxiliary fence dimension.

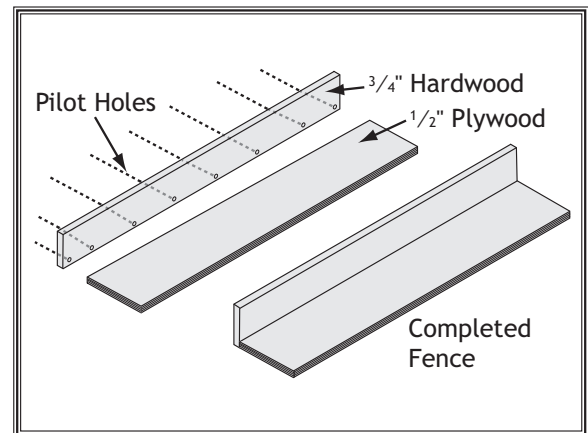


Figure 76. Location of pilot holes.

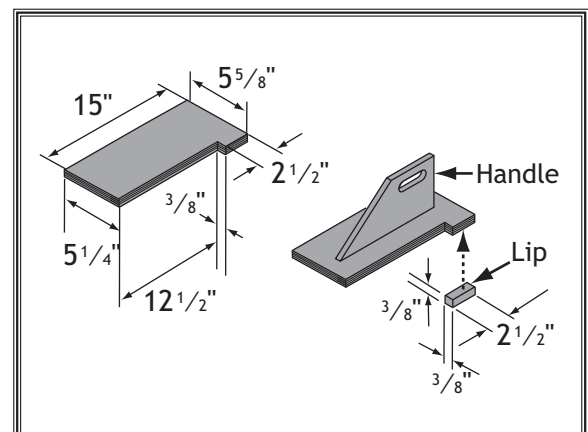
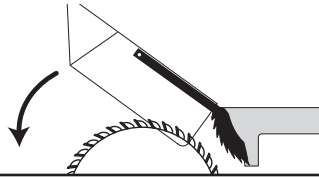


Figure 77. Push block dimensions and construction.

OPERATIONS

**! WARNING**



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

**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 78).
2. Install the blade guard, then secure the spreader pawls in the upright position, as shown in Figure 41 on Page 29, so they do not interfere with the push block lip.
3. Place the workpiece 1" behind the blade and evenly against the table and the auxiliary fence, as shown in Figure 79.
4. Turn the saw **ON**, then begin ripping the workpiece using a push stick for side support.
5. 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 the blade.
6. Guide the workpiece the rest of the way through the cut with the push block, as shown in Figure 80.

**! CAUTION**

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.

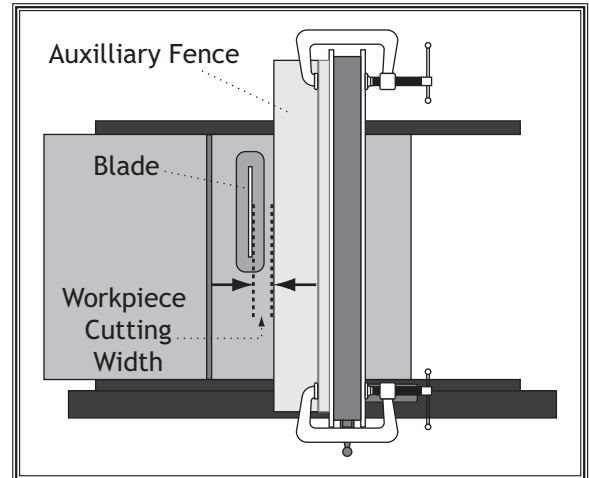


Figure 78. Adjusted distance between the blade and auxiliary fence.

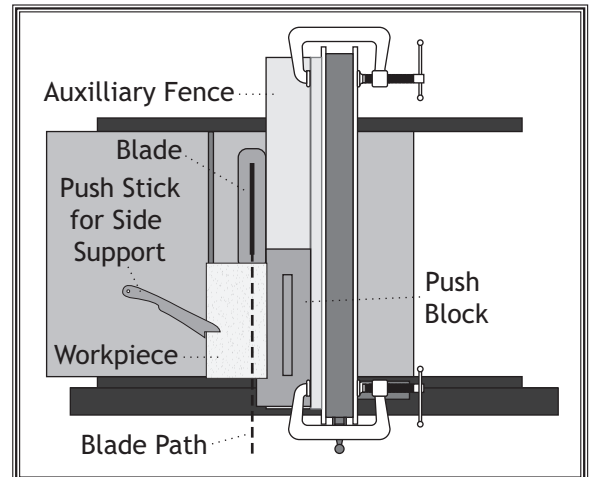


Figure 79. Setup in preparation for ripping.

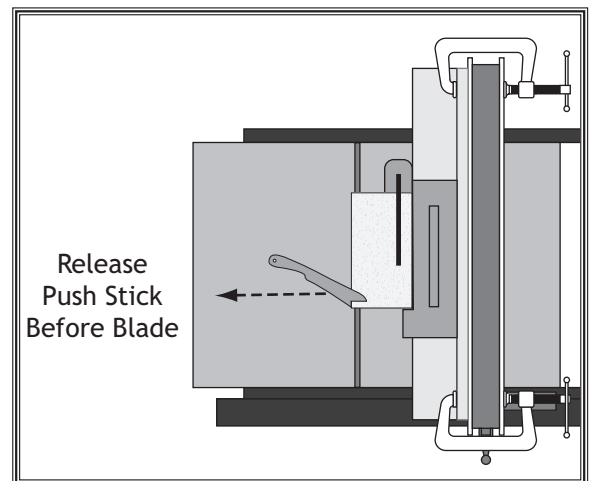


Figure 80. Performing the rip cut.

## Outfeed & Support Tables

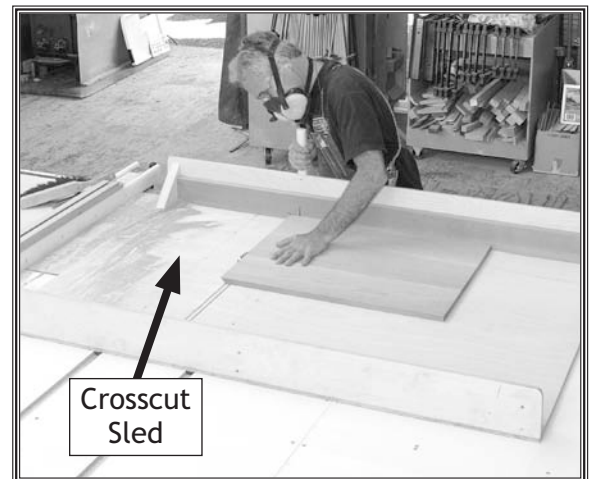
One of the best accessories for improving the safety and ease of using a table saw is simply placing a large table (outfeed table) behind the saw to catch the workpiece (see **Figure 81**). Additionally, another table to the left of the saw (support table) can also help support large workpieces so they can be cut safely and accurately.



**Figure 81.** Example of support and outfeed tables.

## Crosscut Sled

A crosscut sled (see **Figure 82**) 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 82.** Example of a crosscut sled.

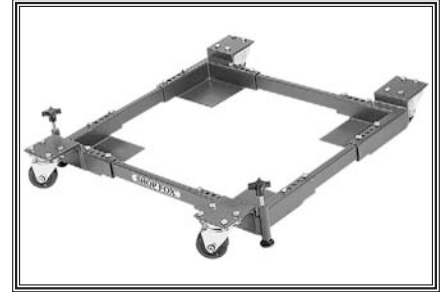
# ACCESSORIES

## Table Saw Accessories

The following table saw accessories may be available through your local Woodstock International Inc. Dealer. If you do not have a dealer in your area, these products are also available through online dealers. Please call or e-mail Woodstock International Inc. Customer Service to get a current listing of dealers at: 1-800-840-8420 or at [sales@woodstockint.com](mailto:sales@woodstockint.com).

### D2057—Heavy-Duty Mobile Base

Shop Fox® Heavy-Duty Mobile Bases are designed to give users a stable and mobile platform upon which to mount machinery and equipment having a variety of base sizes and weights. The heavy-duty casters are arranged on outriggers allowing the machine to sit as low as possible and yet be extremely stable. Swivel casters on two corners provide excellent maneuverability. The unique two-piece retractable feet use rare earth magnets to allow the adjustment knob to turn while the foot pad is tight to the floor.



### W1727—1 HP Dust Collector

Specifications: • 1 HP, 110V/220V, single-phase motor • 800 CFM air suction capacity • 5.67" static pressure • One 4" intake hole • 9" balanced steel, radial fin impeller • 2.1 cubic feet bag capacity • 15<sup>3</sup>/<sub>4</sub>" x 39<sup>3</sup>/<sub>4</sub>" base on casters for portability • 2.5 micron bag filtration • Power coated paint for durability • 54<sup>1</sup>/<sub>2</sub>" height with bag inflated.



### D2271—Shop Fox Roller Table

Use this versatile roller table wherever you need extra workpiece support. Features all-steel welded construction and measures 19" x 65". Comes with 9 ball bearing rollers and has four independently adjustable legs for any leveling requirement. Adjustable in height from 6<sup>3</sup>/<sub>8</sub>" to 4<sup>1</sup>/<sub>8</sub>". 1,000 lb. capacity!





**W1104—Yellow Board Buddy® Pair**

Feature clockwise turning wheels to maintain constant, even feeding pressure. If a kickback occurs, the wheels lock up and function as anti-kickback devices.

**W1105—Green Board Buddy® Pair**

Feature wheels that turn in both directions to function as bidirectional hold-downs.

**W1104—Orange Board Buddy® Pair**

Feature counterclockwise turning wheels to maintain constant, even feeding pressure. If a kickback occurs, the wheels lock up and function as anti-kickback devices.

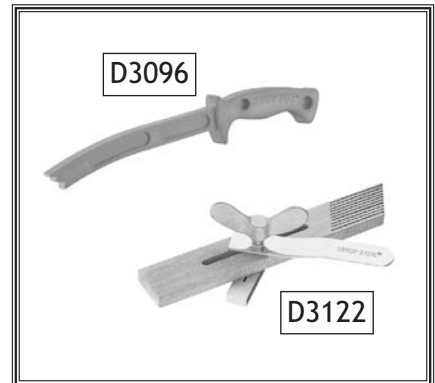


**D3096—Shop Fox Featherboard**

Reduce the risk of kickback and achieve consistent feeding results with these Shop Fox featherboards. Fits standard  $\frac{3}{8}$ " x  $\frac{3}{4}$ " miter gauge slots.

**D3122—Shop Fox Push Stick**

This essential safety item keeps hands at a safe distance from blades and cutters while still maintaining control of the workpiece against machine fences. A true necessity when running narrow stock. The durable handle is designed for maximum control. Measures  $13\frac{1}{2}$ " overall. Super ergonomic design!



**D3119—Board Straighteners™**

These Board Straighteners™ allow a board with a curved or crooked edge to attach to a board with a known straight edge. This stable arrangement can then be used against a table saw fence, which in turn transfers a straight-line cut to the crooked board. Board Straighteners™ allow cutting a straight edge on boards that would otherwise be too dangerous to rip unaided.



# MAINTENANCE

## Schedule

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

### Daily Check:

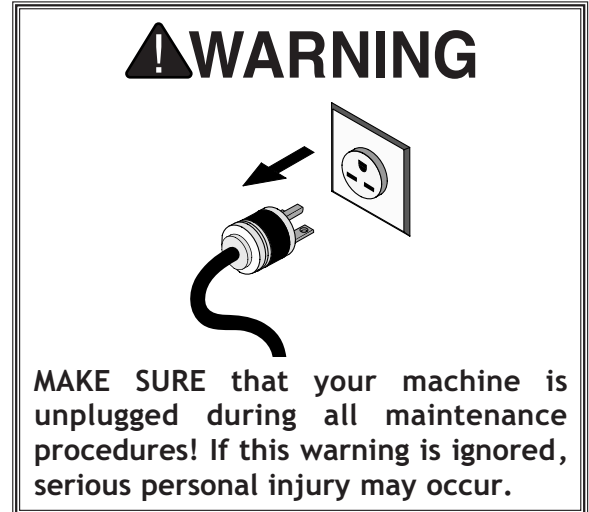
- Inspect blades for damage or wear.
- Check for loose mounting bolts/arbor nut.
- Check cords, plugs, and switch for damage.
- Check for the proper function of the blade guard (see **Blade Guard Assembly** on **Page 28**).
- Check for any other condition that could hamper the safe operation of this machine.
- Wipe the table clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces.

### Weekly Maintenance:

- Wipe down the table surface and grooves with a lubricant and rust preventive such as SLIPIT®.
- Vacuum dust buildup from the motor housing and trunnions.
- Clean the pitch and resin from the saw blade with a cleaner like OxiSolv® Blade & Bit Cleaner.

### Monthly Maintenance:

- Check/tighten the belt tension (**Page 56**).



## Cleaning

Cleaning the Model W1824 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. After cleaning, treat all unpainted cast iron and steel with a non-staining lubricant.

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.

# Lubrication

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

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

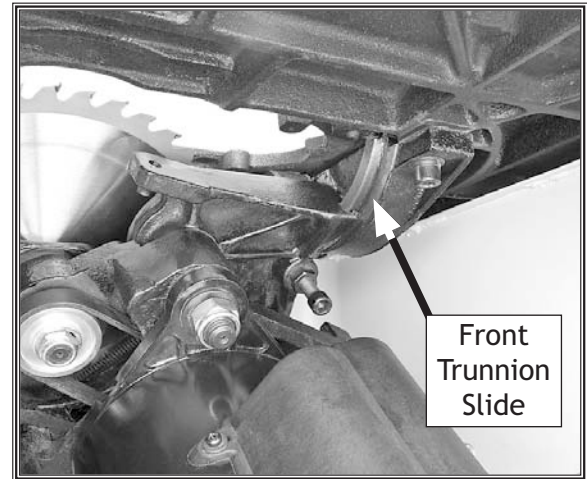
Use mineral spirits, shop rags, and a stiff brush when cleaning these components, then let them thoroughly dry before applying the lubrication.

## Trunnion Slides

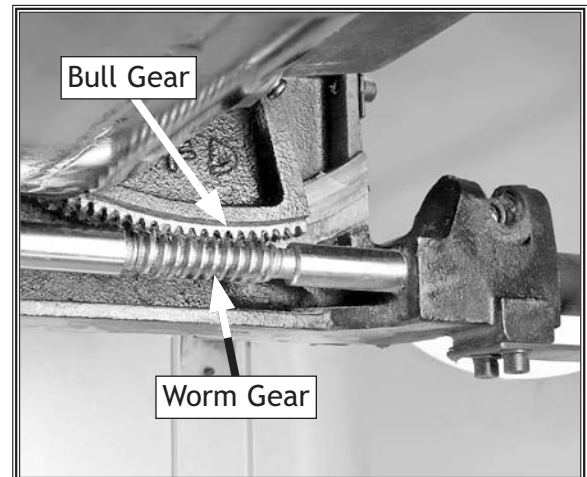
Clean out the front and rear trunnion slides with mineral spirits and a rag, then apply lithium grease into each groove. Move the blade tilt back-and-forth to spread the grease (see **Figure 83**).

## Worm Gear, Bull Gear & Leadscrew

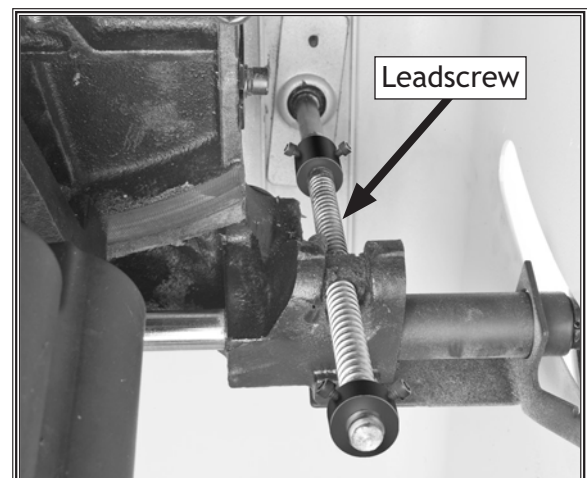
Clean away any built up grime and debris from the worm gear, bull gear, and leadscrew (see **Figures 84-85**) with a wire brush, rags, and mineral spirits. Allow the components to dry, then apply a thin coat of white lithium grease to them.



**Figure 83.** Trunnion slide (front slide shown)



**Figure 84.** Location of the bull and worm gears.



**Figure 85.** Location of the leadscrew.

# SERVICE

## General

This section covers the most common service adjustments or procedures that may need to be made during the life of your machine.

If you require additional machine service not included in this section, please contact Woodstock International Technical Support at (360) 734-3482 or send e-mail to: [tech-support@shopfox.biz](mailto:tech-support@shopfox.biz).

## Belt Service

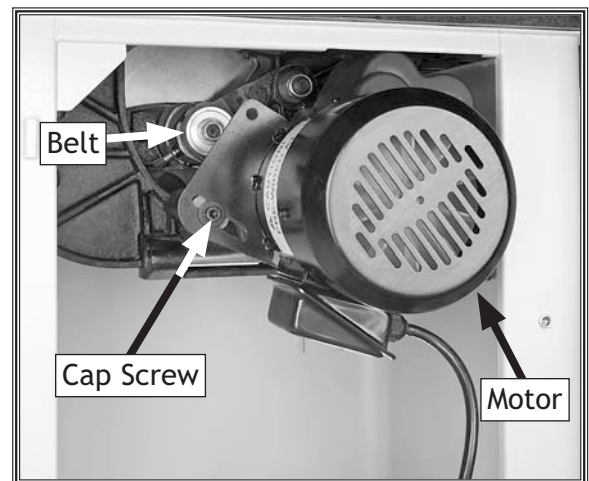
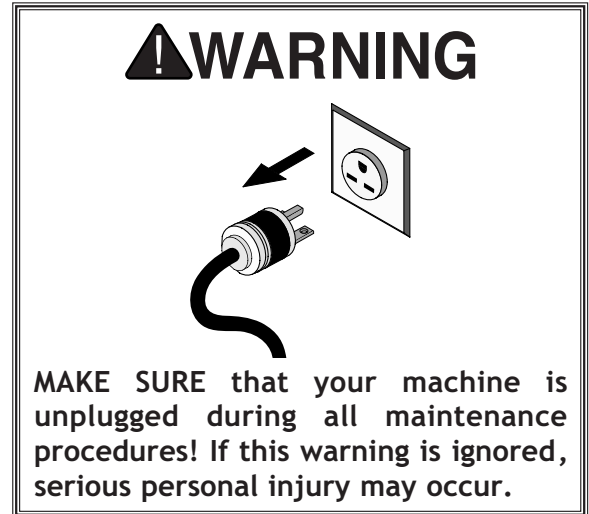
The drive belt stretches slightly with normal use of the saw. Most of the stretching will happen during the first 16 hours of use, but it continues with time. If you notice that the belt is slipping, it will need to be tensioned. If the belt is cracked, frayed, or shows other signs of excessive wear, it will need to be replaced.

Items Needed	Qty
Hex Wrench 6mm .....	1
Replacement Ribbed V-Belt (Part No. X1824112).....	1

**Note:** *The replacement ribbed V-belt can be purchased from your authorized Shop Fox dealer.*

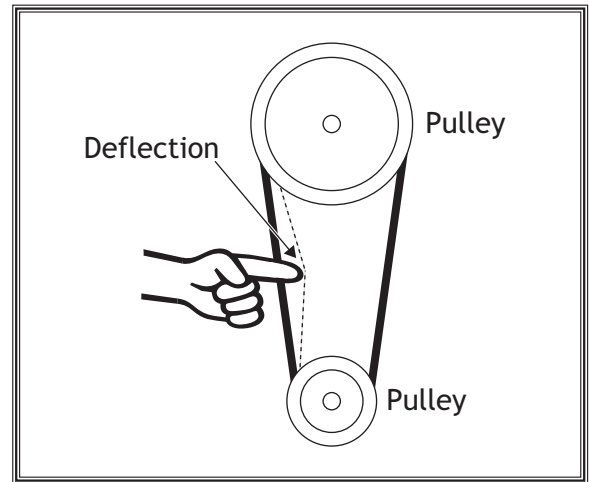
### Tensioning Belt

1. DISCONNECT SAW FROM POWER!
2. Raise the blade completely, then open the motor access cover.
3. Loosen the motor mount cap screw shown in **Figure 86**, then pivot the motor up and down to make sure that it is loose.
4. Press down on the motor with one hand to keep the belt tension tight, then re-tighten the cap screw.



**Figure 86.** Motor mount cap screw.

5. Press the belt in the center to check belt tension. The belt is correctly tensioned when there is approximately  $\frac{1}{4}$ " deflection as it is pushed with moderate pressure, as shown in **Figure 87**.
  - If there is more than  $\frac{1}{4}$ " deflection when the belt is pushed with moderate pressure, loosen the cap screw, push the motor downward, then re-tighten the cap screw.
6. Close the motor access cover.



**Figure 87.** Check for proper belt tension.

## Replacing Belt

1. DISCONNECT SAW FROM POWER!
2. Lower the blade completely, then open the motor access cover.
3. Loosen the motor mount cap screw that secures the motor (see **Figure 86** on the previous page) and lift the motor fully to remove tension on the belt. Re-tighten the cap screw to hold the motor in this position, then roll the belt off of the arbor and motor pulleys.
4. Install a new belt onto the pulleys, loosen the cap screw, then lower the motor. Use the blade elevation handwheel to raise the blade completely.
5. Press down on the motor with one hand to keep the belt tension tight, then tighten the cap screw.
6. Follow **Step 5** in the previous **Tensioning Belt** procedure to check the V-belt tension.
7. Close the motor access cover.



# Tilt Stop Collars

The table saw features stop collars that halt the blade tilt exactly at 45° and 90°. The stop collars 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
45° Square .....	1
Hex Wrench 4mm .....	1

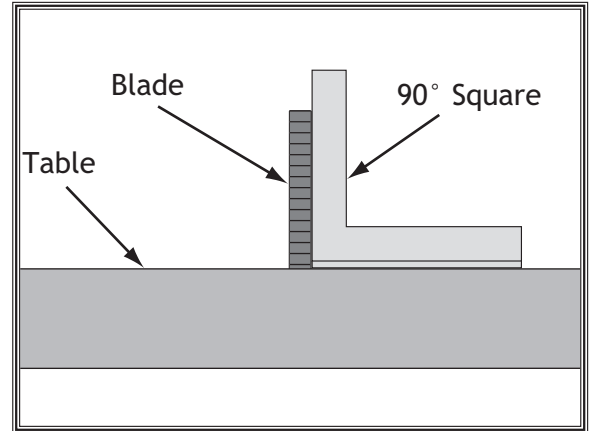
## Setting 90° Stop Collar

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 88**. Make sure the square is not contacting a blade tooth.

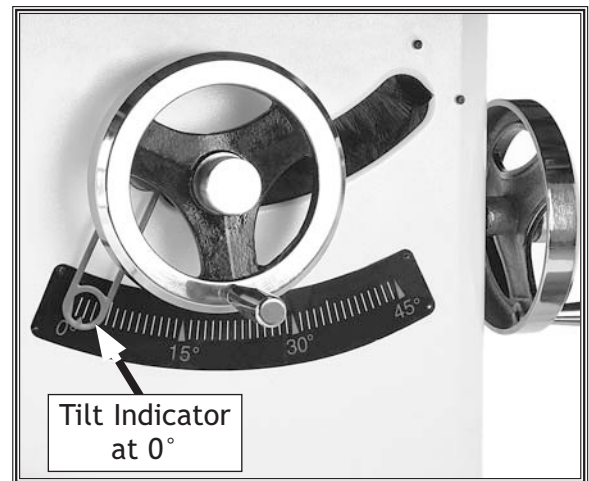
**Note:** If adjustments are made to the 90° stop collar in the following steps, make sure the tilt indicator arrow shown in **Figure 89** points to the 0° mark on the scale when the table is at 90° with the blade. If it is not, loosen the button head screw that secures the indicator, then adjust it and re-tighten the screw.

- If the blade is 90° to the table, then adjustments do not need to be made.
- If the blade is not 90° to the table, adjust the 90° stop collar and proceed to the next step.

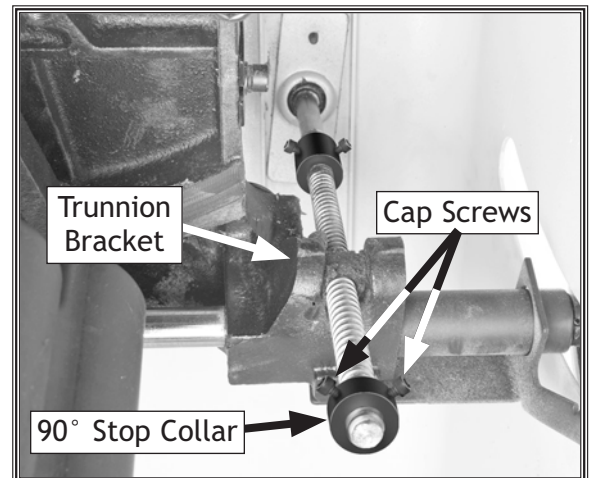
4. Tilt the blade away from 0° by about 5°, so there is room for the 90° stop collar to move.
5. Open the motor access cover, loosen the cap screws shown in **Figure 90**, then thread the 90° stop collar one turn away from the trunnion bracket. This will allow you to square the blade in the next step.



**Figure 88.** Checking the blade at 90°.



**Figure 89.** Tilt indicator and scale.



**Figure 90.** 90° stop collar and cap screws.



6. Place a square against the blade, as illustrated in **Figure 88** on the previous page, then adjust the blade until it is perfectly square to the table.
7. Without turning the blade tilt leadscrew, finger-tighten the 90° collar against the trunnion bracket, then re-tighten the two cap screws to secure the collar position.
8. Repeat **Steps 2-3** to verify that the collar adjustment you made was correct. When the adjustment is satisfactory, close the motor access cover.

### Setting 45° Stop Collar

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 91**. Make sure the square does not contact a blade tooth.
  - 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, adjust the 45° stop collar and proceed to the next step.
4. Tilt the blade to 35° so the stop collar can move.
5. Open the motor access cover, loosen the cap screws on the 45° stop collar (see **Figure 92**), then turn the collar one turn away from the trunnion bracket. This will allow you to adjust the blade to exactly 45° in the next step.
6. Place a 45° square against the blade, as shown in **Figure 91**, then adjust the blade until it is exactly 45° to the table.
7. Without turning the blade tilt leadscrew, finger-tighten the 45° stop collar against the trunnion bracket, then tighten the two cap screws to secure the collar position.
8. Repeat **Steps 2-3** to verify that the collar adjustment you made was correct. When the adjustment is satisfactory, close the motor access cover.

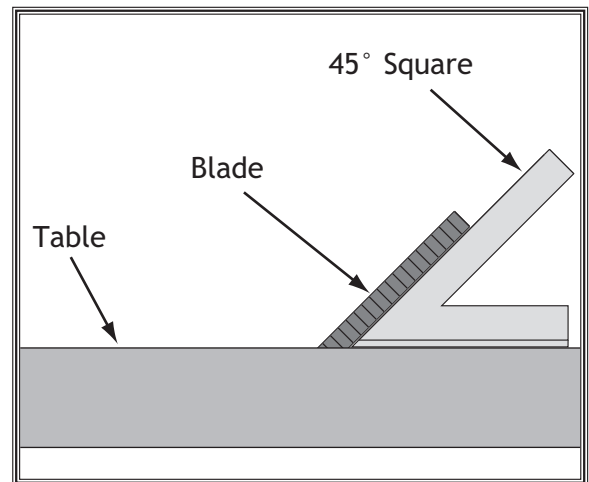


Figure 91. Checking the blade at 45°.

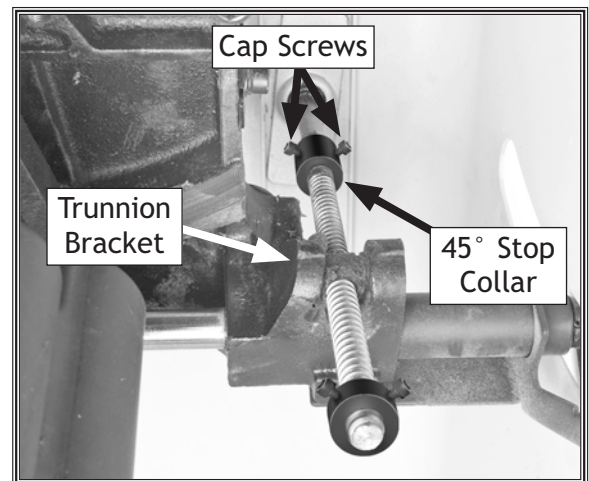


Figure 92. 45° stop collar and cap screws.

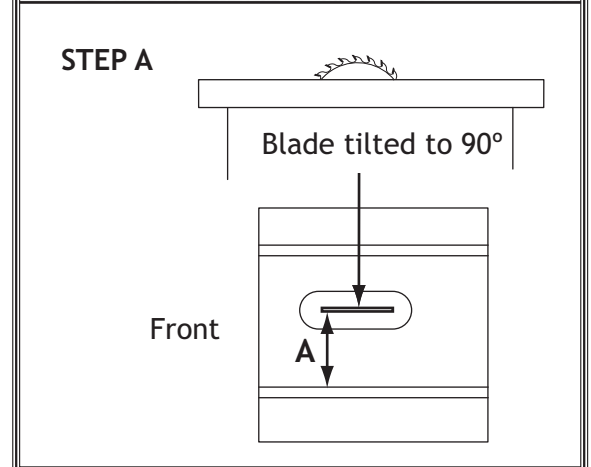
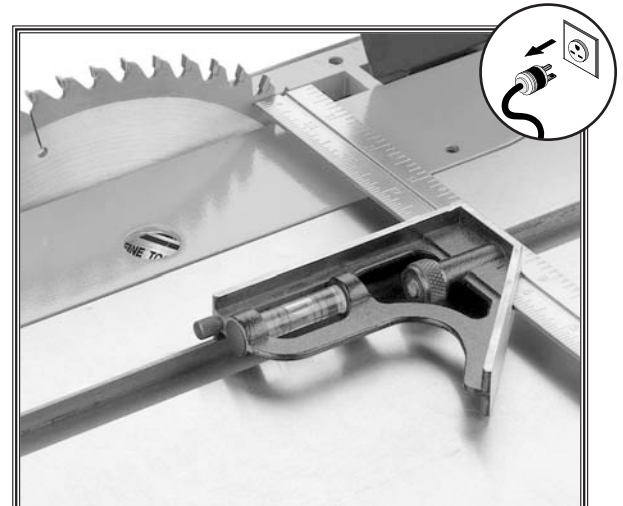
# Miter Slot to Blade Parallelism

Your table saw will give the best results if the miter slot and the rip fence are adjusted parallel to the blade. If either of these are not exactly parallel, your cuts and your finished work will be lower in quality, but more importantly, the risk of kickback will be increased.

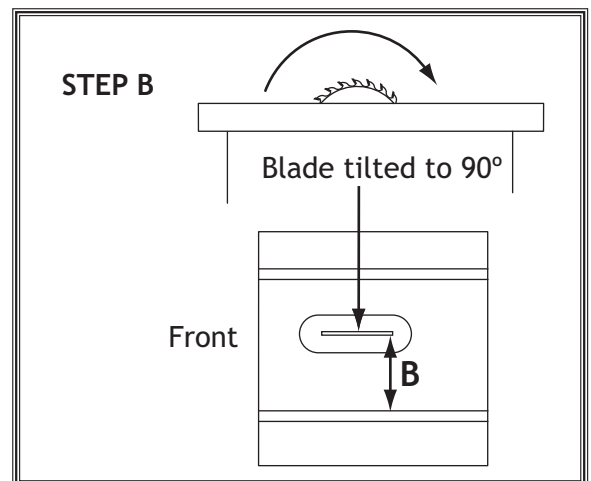
Tools Needed	Qty
Adjustable Square .....	1
Marker .....	1
Dead Blow Hammer.....	1
Hex Wrenches 3, 8 mm .....	1 Each

To adjust the blade parallel to the miter slot, do these steps:

1. DISCONNECT SAW FROM POWER!
2. Use the adjustable square to measure the distance from the miter slot to a carbide tip on the blade, as shown in **Figure 93**. Make sure that the face of the adjustable square is even along the miter slot.
3. With the end of the adjustable square just touching the carbide tip, lock the measurement bar of the square in place. Now, mark the tip of the carbide tip with a marker where you made this measurement.
4. Rotate the marked blade tip to the other end of the table insert.
5. Slide the adjustable square down to the other end of the table insert, and compare the distance from the marked blade tip to the end of the adjustable square, as shown in **Figure 94**.
  - If the blade tip measurement is the same on both sides, go to **Step 11**.
  - If the blade tip does not touch the end of the adjustable square in the same manner as in the first measurement, the table will need to be adjusted. Proceed to **Step 6**.



**Figure 93.** Making the first slot-to-blade measurement at 90°.



**Figure 94.** Making the second slot-to-blade measurement at 90°.

6. Remove the six button head cap screws that secure the rear trunnion access panel (see **Figure 95**), then remove the panel and open the motor access cover to reach the trunnions.

**⚠ CAUTION**

The trunnion and motor assembly could fall and crush your hands or arms if the trunnion mounting cap screws are loosened too much during the following steps. **DO NOT** remove the cap screws that secure the trunnions to the table or loosen them more than 1½ turns!



**Figure 95.** Location of the rear trunnion access panel.

7. To adjust the table, loosen the two cap screws that secure the rear trunnion to the underside of the table 1-1½ turns (see **Figure 96**), and slightly tap the trunnion with the dead blow hammer in the needed direction.

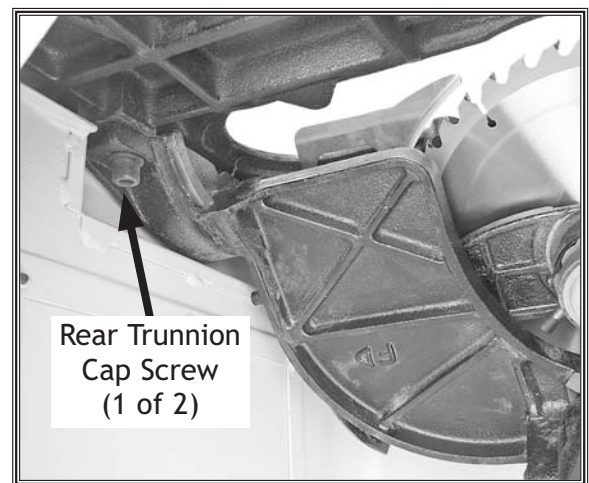
8. Tighten the two cap screws, then repeat **Steps 2-5** to re-check the slot-to-blade parallelism.

- If the measurement is the same from front-to-back, skip ahead to **Step 11**.
- If the adjustments you made in **Step 7** were not enough to adjust the miter slot parallel to the blade, continue to **Step 9**.

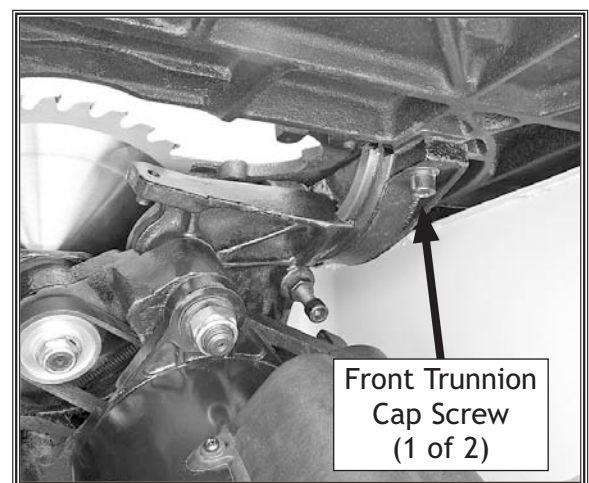
9. Loosen the two cap screws that secure the front trunnion to the underside of the table (see **Figure 97**) and tap the trunnion in a similar manner as you did in **Step 7**.

10. Tighten the two cap screws and recheck the miter slot-to-blade parallelism.

- If the blade tip measurement is the same on both sides, continue to **Step 11**.
- If the adjustments you made in **Step 9** were not enough to adjust the miter slot parallel with the blade, continue adjusting the front and rear trunnions as needed until the miter slot and blade are parallel.



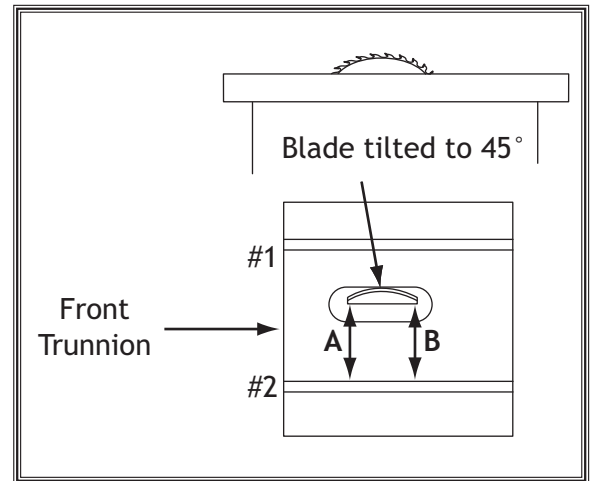
**Figure 96.** Location of the rear trunnion cap screw (1 of 2).



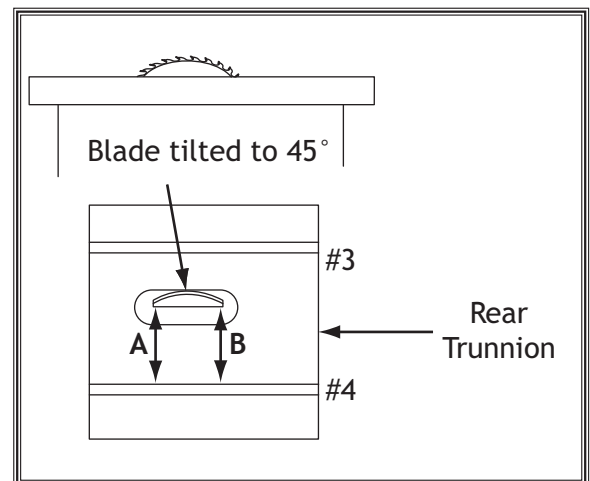
**Figure 97.** Location of the front trunnion cap screw (1 of 2).

**SERVICE**

11. Tilt the blade to 45° and recheck the miter slot-to-blade parallelism.
  - If the blade is still parallel with the miter slot, no additional adjustments need to be made. Skip ahead to **Step 15**.
  - If the blade was parallel with the miter slot at 90° but not at 45°, continue to **Step 12**.
12. Depending on the result of **Step 11**, loosen the front or rear trunnion cap screws 1½ turns and remove one shim from each side of that trunnion.
  - If the distance of **A** is greater than **B**, remove one shim from each side of the front trunnion (locations #1 and #2 in **Figure 98**).
  - If the distance of **B** is greater than **A**, remove one shim from each side of the rear trunnion (locations #3 and #4 on **Figure 99**).
13. Re-tighten the cap screws and re-check the blade-to-miter slot parallelism at 90° and 45°.
  - If the distance of **A** and **B** are equal, no further adjustments need to be made.
  - If the distances of **A** and **B** are not equal, repeat this entire procedure until they are.
14. Once the miter slot is adjusted parallel to the blade, make sure that mounting fasteners are secure.
15. Re-install the rear trunnion access panel and close the motor access cover.



**Figure 98.** Locations of the front trunnion shims.



**Figure 99.** Locations of the rear trunnion shims.

# Spreader or Riving Knife Alignment

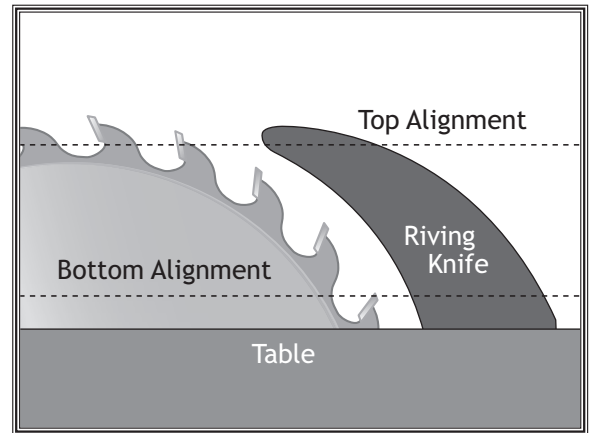
## Checking Alignment with Blade

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.

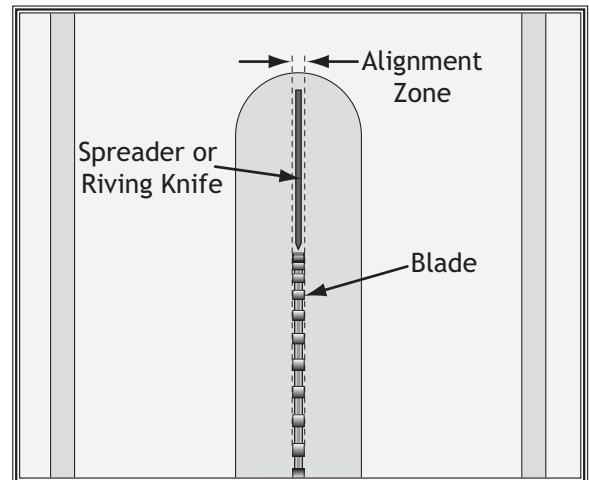
Tool Needed	Qty
Straightedge .....	1

To check the spreader/riving knife alignment, do these steps:

1. DISCONNECT SAW FROM POWER!
2. Raise the saw blade to the maximum height so you have easy working access.
3. Place the straightedge against the side of the blade and spreader/riving knife at the top and bottom, as illustrated in **Figure 100**. The spreader/riving knife should be parallel with the blade along its length at both positions, and in the "Alignment Zone," as shown in **Figure 101**.
  - If the spreader/riving knife is not parallel with the blade and inside the alignment zone, then it needs to be adjusted. Proceed to the **Adjusting Alignment** instructions on the next page.
4. Remove the spreader/riving knife and place it on a flat surface and check to see if the spreader/riving knife lays evenly along its length.
  - If the spreader/riving knife does not lay evenly, proceed to **Adjusting Bent Spreader/Riving Knife** on the next page.



**Figure 100.** Checking riving knife-to-blade alignment.



**Figure 101.** The "Alignment Zone".

## Adjusting Alignment

The spreader/ripping knife mounting position can be adjusted into alignment with the blade using the cap screws on the spreader/ripping knife "L" bracket.

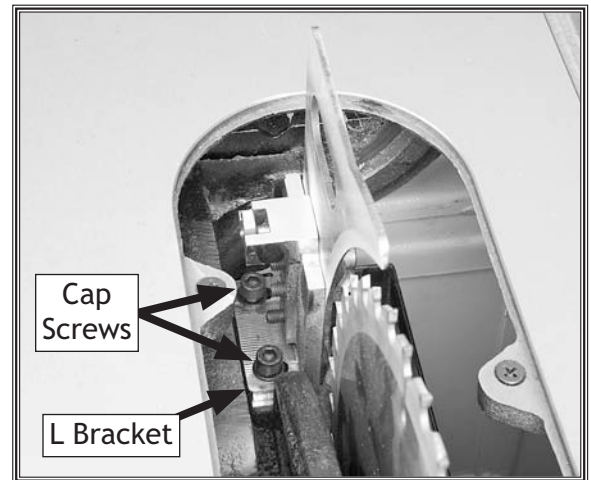
Tools Needed	Qty
Hex Wrench 5mm .....	1
Straightedge .....	1

To adjust the spreader/ripping knife position, do these steps:

1. DISCONNECT SAW FROM POWER!
2. Remove the table insert.
3. Loosen the two cap screws on the "L" bracket (see **Figure 102**), then adjust the position of the "L" bracket as necessary to correctly align the spreader/ripping knife with the blade and into the "Alignment Zone".
4. Re-tighten the two cap screws on the "L" bracket to secure the spreader/ripping knife adjustment.

## Adjusting Bent Spreader/Ripping Knife

1. DISCONNECT SAW FROM POWER!
2. Remove the spreader/ripping knife from the machine to straighten it. Check it to make sure it sits evenly on a flat surface.
  - If you cannot straighten it properly, replace it.



**Figure 102.** Location of the L-bracket.



# Fence Adjustments

There are four main adjustments for the fence: 1) Height off the table, 2) squareness, 3) parallelism with the miter slot, and 4) clamping pressure. These adjustments are interconnected and some repetition may be needed when adjusting.

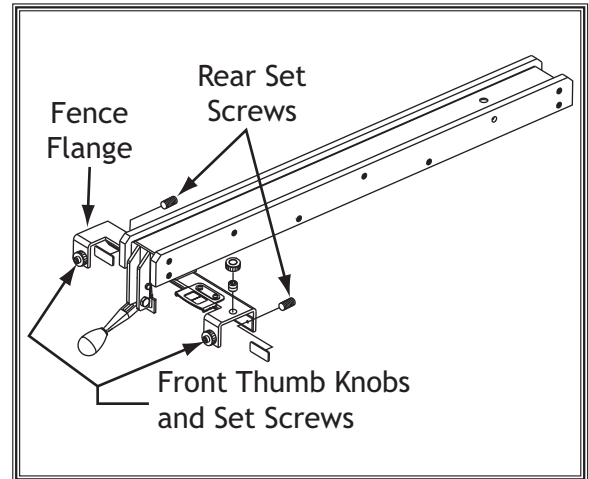
Tools Needed	Qty
Hex Wrench 6mm .....	1
Square .....	1
Felt-Tipped Marker .....	1

## Height and Squareness

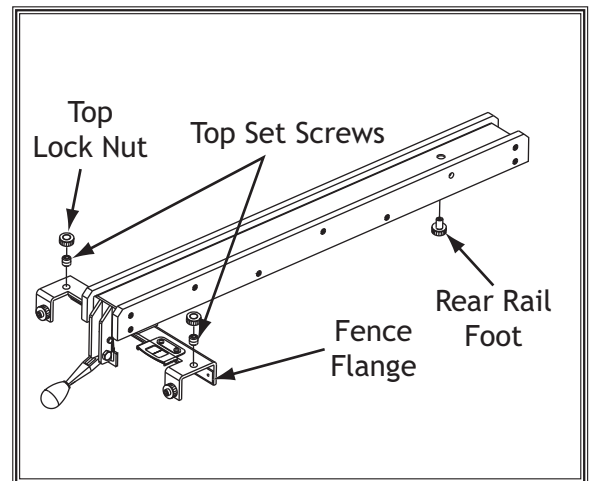
The fence should be adjusted high enough off the table so that it does not drag across the surface or allow wood chips to get caught between the fence and table. Also, the fence face must be square to the table in order to produce accurate cuts.

To check/adjust the fence height and squareness to the table, do these steps:

1. DISCONNECT SAW FROM POWER!
2. Remove the fence from the saw and place it on a flat surface.
3. Unscrew the front thumb knobs and set screws shown in **Figure 103** until they are barely threaded into the fence flange.
4. Back out the rear set screws until they are just barely threaded into the fence flange (see **Figure 103**).
5. Install the fence onto the table.
6. Loosen the top lock nuts on the fence flange and the lock nut on the rear rail foot (see **Figure 104**).
7. Adjust the top set screws and rear foot set screw so there is approximately  $\frac{1}{16}$ " clearance between the bottom of the fence and the table, front-to-back and side-to-side, then re-tighten the lock nuts.

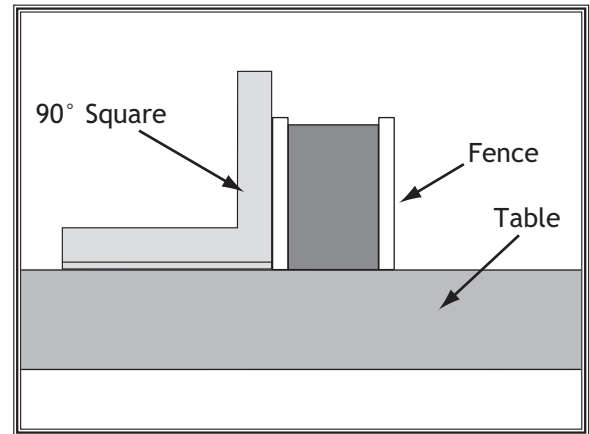


**Figure 103.** Locations of front thumb knobs and front and rear set screws.



**Figure 104.** Fence components used to adjust fence height and squareness.

8. Place a square on the table and against the face of the fence, as shown in **Figure 105**, to check if the fence is square to the table.
  - If the fence is square to the table, proceed to **Parallelism & Clamping Pressure** below.
  - If the fence is not square to the table, continue with **Step 8**.
9. Loosen the top lock nuts and adjust the top set screws (see **Figure 105**) to make the fence face 90° to the table, then re-tighten the lock nuts.



**Figure 105.** Check if the fence is square to the table.

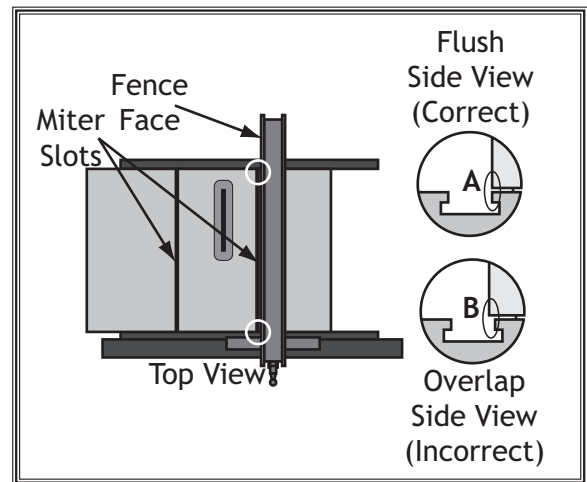
### Parallelism & Clamping Pressure

Set screws on the rear side of the fence flange position the fence parallel to the blade and adjust the clamping pressure to hold your fence securely. Before starting this procedure, make sure the blade is parallel with the miter slot.

To adjust the fence parallelism and clamping pressure, do these steps:

1. DISCONNECT SAW FROM POWER!
2. Lock the fence in place, then tap the front side with your hand and check to see if it moved sideways over the table.
  - If the fence did not move, proceed to **Step 6**.
  - If the fence moved, remove it from the table and continue with **Step 3**.
3. Turn each rear set screw in  $\frac{1}{6}$ <sup>th</sup> of a turn (see **Figure 103** on the previous page).
4. Re-install the fence and repeat **Step 3**.

5. Slide the fence up against the right-hand edge of the miter slot, as shown in **Figure 106**, then lock it in place.
6. Examine how the fence lines up with the miter slot along its length.
  - If the fence and miter slot are flush from front to rear, as shown in **Figure 106 (A)**, proceed to **Step 9**.
  - If the rear of the fence overlaps the miter slot, as shown in **Figure 106 (B)**, the fence is misaligned. Proceed to **Step 8**.
7. Remove the fence, then alternately loosen and tighten the rear fence set screws in equal amounts to adjust the rear of the fence until it is parallel with the miter slot.
8. Loosen both front thumb knobs (see **Figure 103** on **Page 65**). Tighten the set screws so they just touch the fence tube, back off the set screws  $\frac{1}{2}$  turn, then re-tighten the thumb knobs.

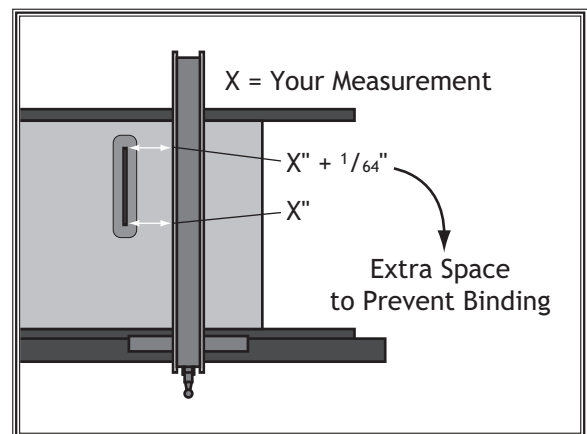


**Figure 106.** Aligning the fence to the miter slot.

### Optional Offset Fence Adjustment

Some woodworkers prefer to offset the rear of the fence  $\frac{1}{64}$ " from the blade, as shown in **Figure 107**.

The reason for this wider gap at the back side of the blade is to help prevent the chance of kickback or the blade burning the workpiece because it may be inconsistent in width. However, the trade-off is less accurate cuts, and if the fence is placed on the other side of the blade for other table saw operations, the potential of workpiece burning or 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 107.** Adjusting the fence with an  $\frac{1}{64}$ " offset.

# Miter Gauge Adjustments

The miter gauge is equipped with stop screws that allow you to easily adjust the miter gauge 0°- 30° left, 90°, and 0°-45° right. The stop screws contact the shaft, which moves in or out of the way for adjustments.

Tools Needed	Qty
Phillips Head Screwdriver .....	1
90° Square .....	1
45° Square .....	1
30° Square .....	1
Wrench 8mm.....	1

## Checking/Setting 90° Stops

1. DISCONNECT SAW FROM POWER!
2. Slide the miter gauge into the T-slot on the table, then adjust the gauge so the 90° stop screw rests against the sliding shaft.
3. Place the square evenly against the face of the miter gauge and the blade, as shown in **Figure 108**.
  - If the square touches the miter gauge and the blade (not the teeth) evenly at the same time, then it is square to the blade and the 90° stop is set correctly. No further adjustments are necessary.
  - If the square does not touch the miter gauge and blade evenly at the same time, then proceed to **Step 4**.
4. Loosen the hex nut (jam nut) that secures the 90° stop screw (see **Figure 109**), and adjust the stop screw until it is seated against the shaft while the square is evenly touching the miter body and the blade body, then tighten the hex nut.
5. Loosen the screw on the front of the miter bar, adjust the pointer to 0°, then tighten the screw.

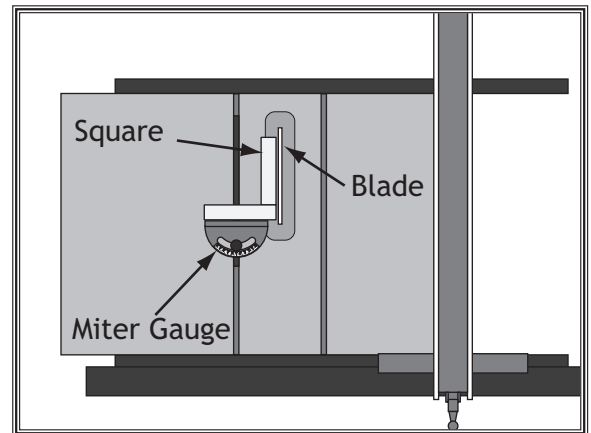


Figure 108. Checking the 90° miter gauge stop.

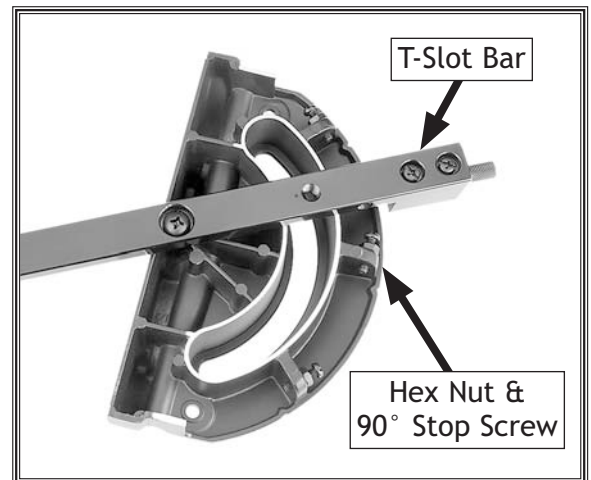


Figure 109. Miter gauge components.

## Checking/Setting 45° Stops

Follow the same process with the 45° and 30° stops that you followed with the 90°, except using a 45° and 30° square or adjustable square to verify that the miter body is 45° and 30° to the blade, as shown in **Figure 109**.

# Electrical Safety Instructions

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. Study this diagram carefully. If you notice differences between your machine and these wiring diagrams, call Woodstock International Technical Support at (360) 734-3482.

## WARNING

1. **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!
2. **QUALIFIED ELECTRICIAN.** Due to the inherent hazards of electricity, only a qualified electrician should perform wiring tasks on this machine. If you are not a qualified electrician, get help from one before attempting any kind of wiring job.
3. **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.
4. **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 before completing the task.
5. **MOTOR WIRING.** The motor wiring shown in these diagrams is current at the time of printing, but it may not match your machine. Always use the wiring diagram inside the motor junction box.
6. **MODIFICATIONS.** Using aftermarket parts or modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire.
7. **CAPACITORS/INVERTERS.** Some capacitors and power inverters store an electrical charge for up to five minutes after being disconnected from the power source. To avoid being shocked, wait at least this long before working on these components.
8. **ELECTRICAL REQUIREMENTS.** You **MUST** follow the electrical requirements at the beginning of this manual when connecting your machine to a power source.
9. **EXPERIENCING DIFFICULTIES.** If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (360) 734-3482.

### NOTICE

The photos and diagrams included in this section are best viewed in color. You can view these pages in color at [www.shopfox.biz](http://www.shopfox.biz).

### WIRING DIAGRAM COLOR KEY

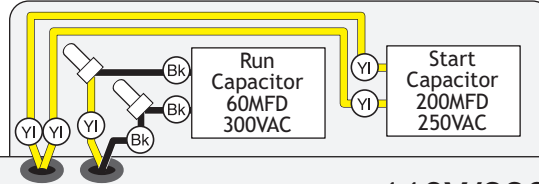
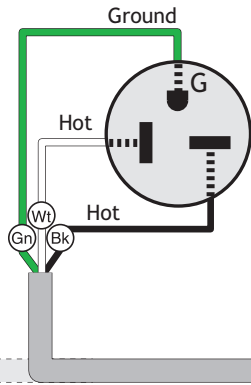
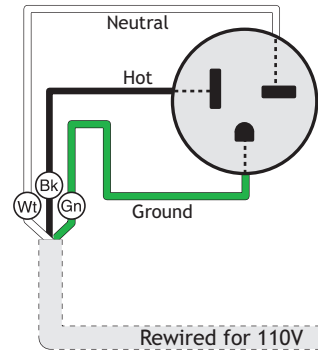
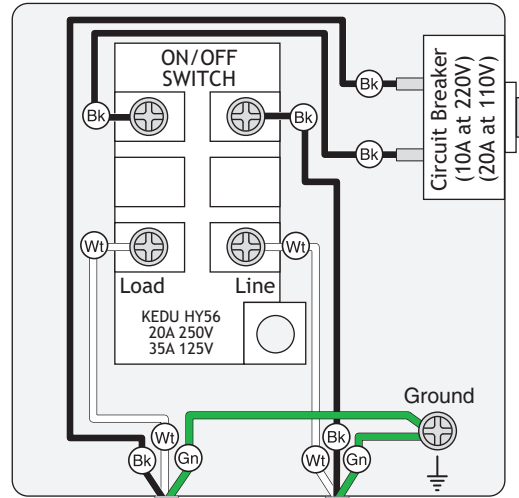
BLACK	BLUE	YELLOW	LIGHT BLUE
WHITE	BROWN	YELLOW GREEN	BLUE WHITE
GREEN	GRAY	PURPLE	TURQUOISE
RED	ORANGE	PINK	

SERVICE

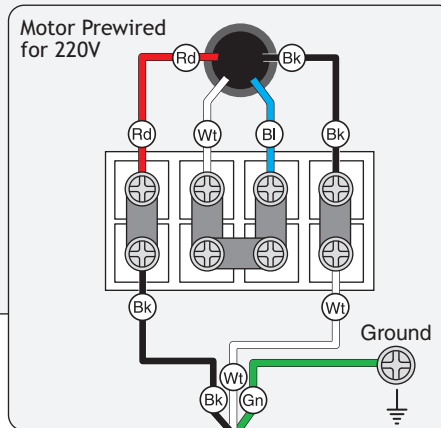
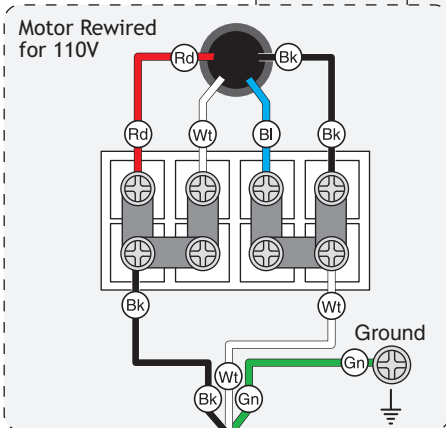
# Wiring Diagram



## SWITCH BOX



## 110V/220V MOTOR



**Rewired for 110V**



# Electrical Components



Figure 110. Motor capacitor location.



Figure 111. Motor junction box location.

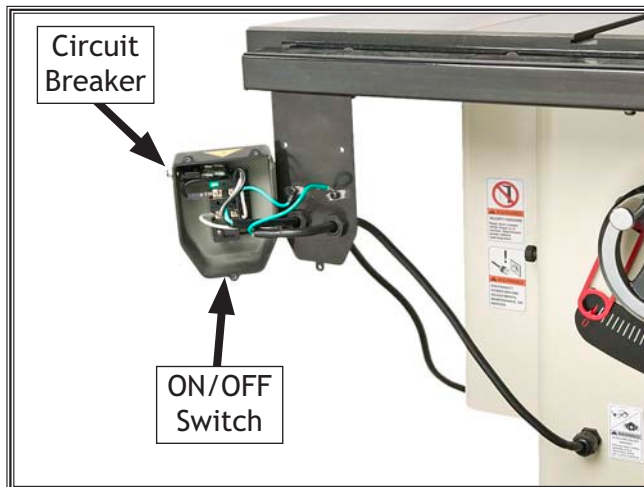


Figure 112. Switch location.

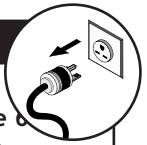
SERVICE

# Troubleshooting

This section covers the most common problems and corrections with this type of machine. **WARNING! DO NOT** make any adjustments until power is disconnected and moving parts have come to a complete stop!



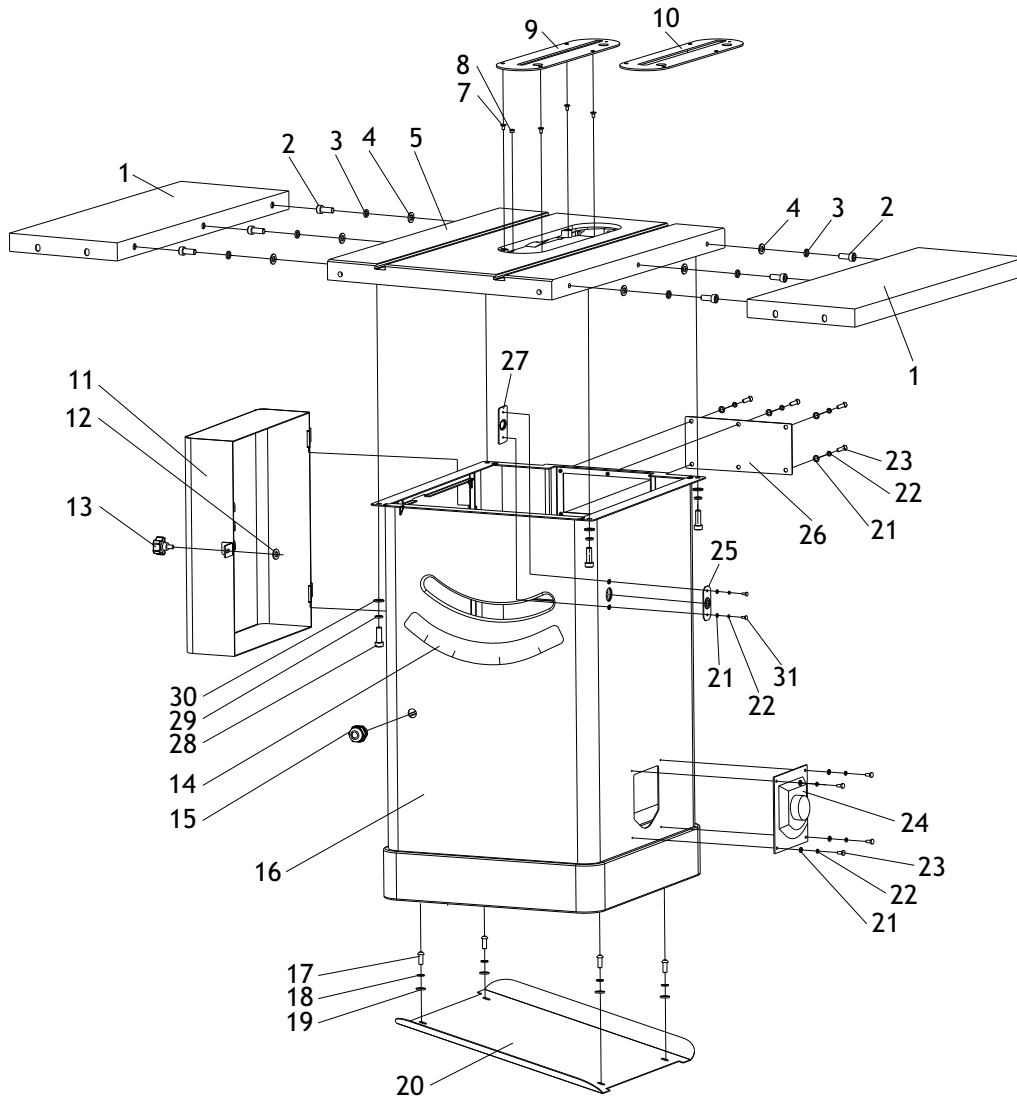
PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Machine does not start or a breaker trips.	<ol style="list-style-type: none"> <li>1. Locking pin installed.</li> <li>2. Blown fuse.</li> <li>3. Wall circuit breaker tripped.</li> <li>4. Power supply switched OFF or at fault.</li> <li>5. Plug/receptacle at fault/wired wrong.</li> <li>6. Motor connection wired wrong.</li> <li>7. Wiring open/has high resistance.</li> <li>8. Motor START/STOP switch at fault.</li> <li>9. Start capacitor at fault.</li> <li>10. Motor at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Remove locking pin from START button.</li> <li>2. Replace fuse/ensure no shorts.</li> <li>3. Ensure circuit size is correct/replace weak breaker.</li> <li>4. Ensure power supply is on/has correct voltage.</li> <li>5. Test for good contacts; correct the wiring.</li> <li>6. Correct motor wiring connections (see <b>Page 70</b>).</li> <li>7. Check/fix broken, disconnected, or corroded wires.</li> <li>8. Replace switch.</li> <li>9. Test/replace if faulty.</li> <li>10. Test/repair/replace.</li> </ol>
Machine stalls or is under-powered.	<ol style="list-style-type: none"> <li>1. Feed rate/cutting speed too fast.</li> <li>2. Workpiece material unsuitable for machine.</li> <li>3. Workpiece crooked; fence mis-adjusted.</li> <li>4. Machine undersized for task; wrong blade.</li> <li>5. Run capacitor at fault.</li> <li>6. Belt slipping.</li> <li>7. Motor wired incorrectly.</li> <li>8. Plug/receptacle at fault.</li> <li>9. Pulley/sprocket slipping on shaft.</li> <li>10. Motor bearings at fault.</li> <li>11. Contactor not energized/has poor contacts.</li> <li>12. Motor overheated.</li> <li>13. Motor at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Decrease feed rate/cutting speed.</li> <li>2. Only cut wood/ensure moisture is below 20%.</li> <li>3. Straighten or replace workpiece/adjust fence.</li> <li>4. Use correct blade/reduce feed rate or depth of cut.</li> <li>5. Test/repair/replace.</li> <li>6. Tension/replace belt (see <b>Page 56</b>).</li> <li>7. Wire motor correctly (see <b>Page 70</b>).</li> <li>8. Test for good contacts/correct wiring.</li> <li>9. Replace loose pulley/shaft.</li> <li>10. Test/repair/replace.</li> <li>11. Test all legs for power/replace if faulty.</li> <li>12. Clean motor, let cool, and reduce workload.</li> <li>13. Test/repair/replace.</li> </ol>
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> <li>1. Motor or component loose.</li> <li>2. Blade at fault.</li> <li>3. Belts worn or loose.</li> <li>4. Pulley loose.</li> <li>5. Motor mount loose/broken.</li> <li>6. Machine incorrectly mounted.</li> <li>7. Arbor pulley loose.</li> <li>8. Motor fan rubbing on fan cover.</li> <li>9. Arbor bearings at fault.</li> <li>10. Motor bearings at fault.</li> </ol>	<ol style="list-style-type: none"> <li>1. Inspect/replace damaged bolts/nuts, and re-tighten with thread locking fluid.</li> <li>2. Replace warped/bent blade; sharpen dull blade.</li> <li>3. Tension/replace belts (see <b>Page 56</b>).</li> <li>4. Realign/replace shaft, pulley, setscrew, and key.</li> <li>5. Tighten/replace.</li> <li>6. Tighten mounting bolts; relocate/shim machine.</li> <li>7. Retighten/replace arbor pulley.</li> <li>8. Fix/replace fan cover; replace loose/damaged fan.</li> <li>9. Replace arbor housing bearings; replace arbor.</li> <li>10. Test by rotating shaft; grinding/loose shaft requires bearing replacement.</li> </ol>



PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Blade is not aligned with miter slot or fence.	<ol style="list-style-type: none"> <li>1. Blade is warped.</li> <li>2. Table top is not parallel to blade.</li> <li>3. Fence is not parallel to blade.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace blade (see <b>Page 27</b>).</li> <li>2. Make miter slot parallel to blade (see <b>Page 60</b>).</li> <li>3. Make fence parallel to blade (see <b>Page 66</b>).</li> </ol>
Blade does not reach 90° .	<ol style="list-style-type: none"> <li>1. 90° stop collar is out of adjustment.</li> <li>2. Sawdust stuck on stop collar.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust 90° stop collar (see <b>Page 58</b>).</li> <li>2. Clean sawdust off stop collar.</li> </ol>
Blade hits insert at 45° .	<ol style="list-style-type: none"> <li>1. 45° stop collar is out of adjustment.</li> <li>2. Sawdust stuck on stop collar.</li> <li>3. Slot in insert is inadequate.</li> <li>4. Table out of alignment.</li> <li>5. Blade position is incorrect.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust 45° stop collar (see <b>Page 59</b>).</li> <li>2. Clean sawdust off stop collar.</li> <li>3. File or mill the slot in the insert.</li> <li>4. Align miter slot to the blade (see <b>Page 60</b>).</li> <li>5. Adjust blade position.</li> </ol>
Board binds or burns when feeding through table saw.	<ol style="list-style-type: none"> <li>1. Dull blade.</li> <li>2. Blade is warped.</li> <li>3. Fence is not parallel to blade.</li> <li>4. Table top is not parallel to blade.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace blade (see <b>Page 27</b>).</li> <li>2. Replace blade (see <b>Page 27</b>).</li> <li>3. Make fence parallel to blade (see <b>Page 65</b>).</li> <li>4. Make miter slot parallel to blade (see <b>Page 60</b>).</li> </ol>

# PARTS

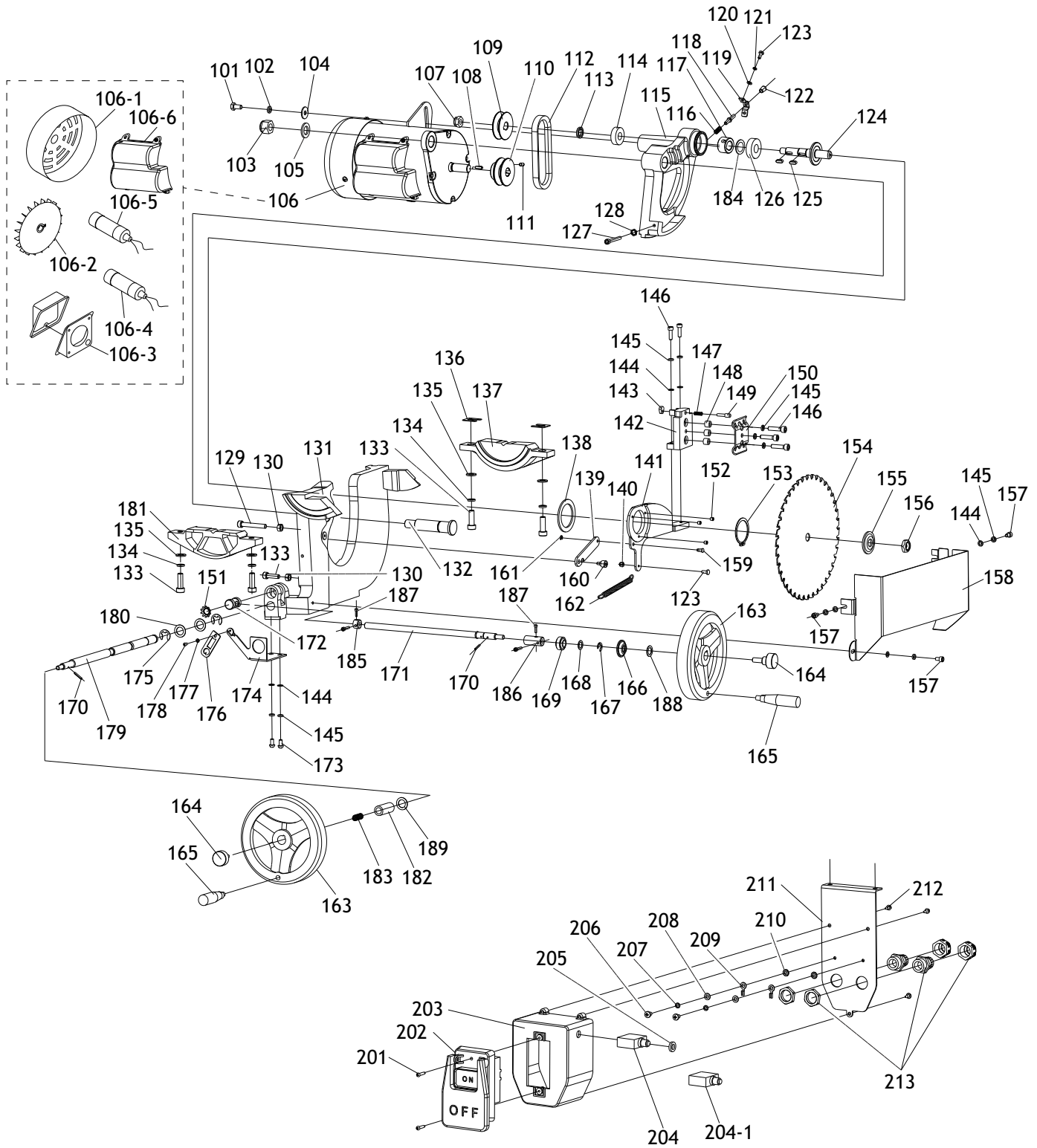
## Cabinet & Table



REF	PART #	DESCRIPTION
1	X1824001	EXTENSION WING
2	XPCAP64M	CAP SCREW M10-1.5 X 25
3	XPLW06M	LOCK WASHER 10MM
4	XPW04M	FLAT WASHER 10MM
5	X1824005	TABLE
7	XPFH07M	FLAT HD SCR M5-.8 X 10
8	X1824008	MAGNET
9	X1824009	STANDARD TABLE INSERT
10	X1824010	DADO TABLE INSERT
11	X1824011	MOTOR ACCESS DOOR
12	XPTLW13M	INT TOOTH WASHER 6MM
13	X1819115	KNOB M6-1 X 16
14	X1824014	ANGLE SCALE
15	X1824015	STRAIN RELIEF
16	X1824016	CABINET

REF	PART #	DESCRIPTION
17	XPS14M	PHLP HD SCR M6-1 X 12
18	XPLW03M	LOCK WASHER 6MM
19	XPW03M	FLAT WASHER 6MM
20	X1824020	CABINET BOTTOM PLATE
21	XPW02M	FLAT WASHER 5MM
22	XPLW01M	LOCK WASHER 5MM
23	XPS05M	PHLP HD SCR M5-.8 X 8
24	X1819124	DUST HOOD 4" OD
25	X1824025	LEADSCREW EXTERNAL BRACKET
26	X1824026	REAR ACCESS PLATE
27	X1824027	LEADSCREW INTERNAL BRACKET
28	XPB07M	HEX BOLT M8-1.25 X 25
29	XPLW04M	LOCK WASHER 8MM
30	XPW01M	FLAT WASHER 8MM
31	XPS06M	PHLP HD SCR M5-.8 X 20

# Trunnion & Switch Breakdown



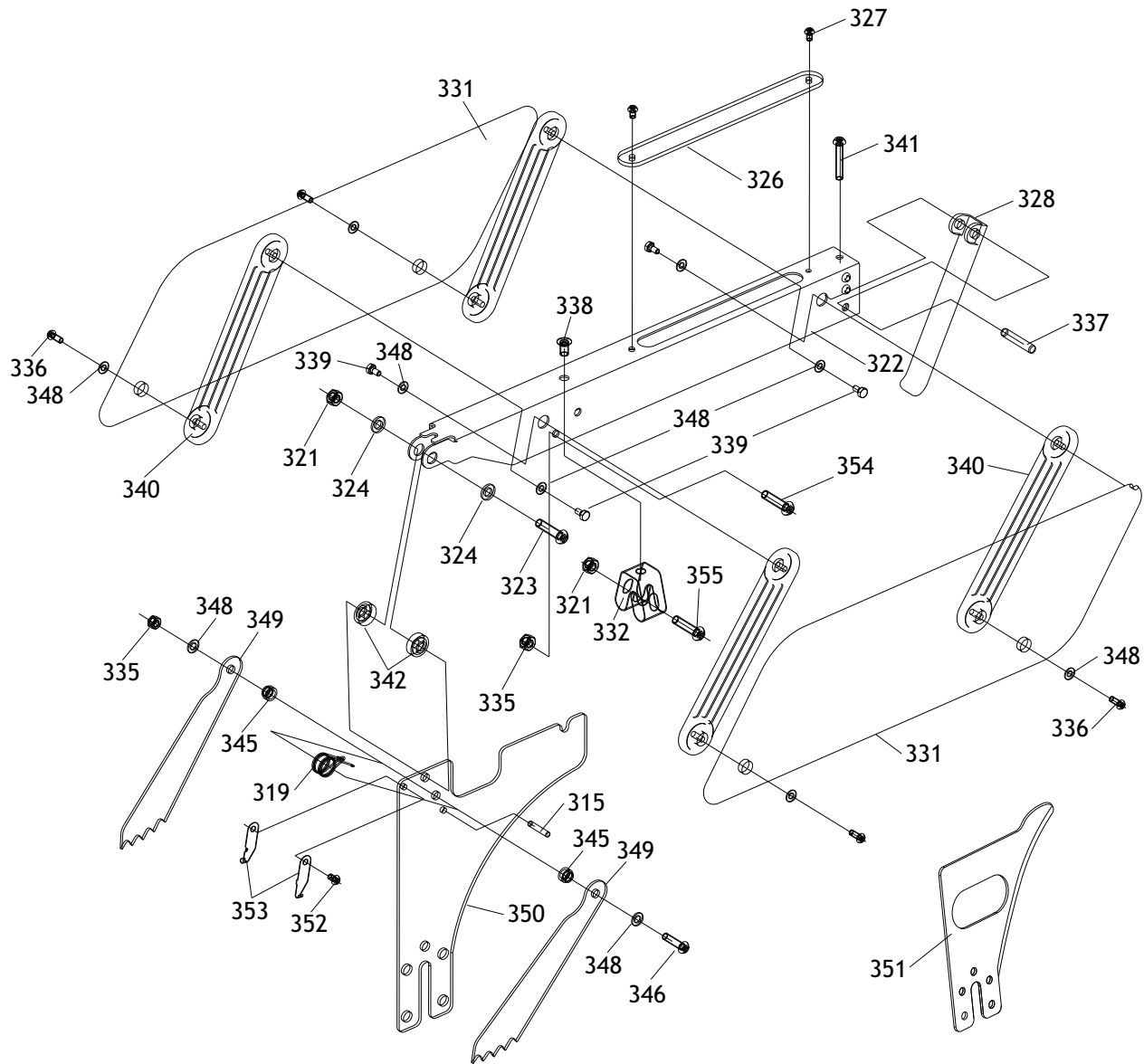
# Trunnion & Switch Parts List

REF	PART #	DESCRIPTION
101	XPB03M	HEX BOLT M8-1.25 X 16
102	XPLW04M	LOCK WASHER 8MM
103	XPLN07M	LOCK NUT M16-2
104	XPW01M	FLAT WASHER 8MM
105	XPW08M	FLAT WASHER 16MM
106	X1824106	MOTOR 2HP 110V/220V 1PH
106-1	X1824106-1	MOTOR FAN COVER
106-2	X1824106-2	MOTOR FAN
106-3	X1824106-3	MOTOR JUNCTION BOX
106-4	X1824106-4	R CAPACITOR 60M 300V 1-3/4 X 4
106-5	X1824106-5	S CAPACITOR 200M 250V 1-3/4 X 2-1/2
106-6	X1824106-6	CAPACITOR COVER
107	XPLN09	LOCK NUT M12-1.75
108	XPK07M	KEY 6 X 6 X 20
109	X1824109	ARBOR PULLEY
110	X1824110	MOTOR PULLEY
111	XPSS01M	SET SCREW M6-1 X 10
112	X1824112	RIBBED V-BELT 6PJ-365
113	X1824113	ARBOR SPACER
114	XP6202-2RS	BALL BEARING 6202-2RS
115	X1824115	MOTOR BRACKET
116	X1824116	COMPRESSION SPRING
117	X1824117	ARBOR LOCKING BUSHING
118	X1824118	LOCKING PIN W/KNOB
119	X1824119	BEVEL STOP SUPPORT
120	XPW02M	FLAT WASHER 5MM
121	XPLW01M	LOCK WASHER 5MM
122	X1824122	LOCKING PIN KNOB
123	XPBHS06M	BUTTON HD CAP SCR M5-.8 X 12
124	X1824124	ARBOR
125	XPK20M	KEY 5 X 5 X 15
126	XP6203-2RS	BALL BEARING 6203-2RS
127	XPCAP29M	CAP SCREW M6-1 X 40
128	XPNO1M	HEX NUT M6-1
129	XPCAP90M	CAP SCREW M10-1.5 X 55
130	XPNO2M	HEX NUT M10-1.5
131	X1824131	MAIN TRUNNION
132	X1824132	TRUNNION PIVOT SHAFT
133	XPB177M	HEX BOLT M10-1.25 X 30
134	XPLW06M	LOCK WASHER 10MM
135	XPW04M	FLAT WASHER 10MM
136	X1824136	SHIM
137	X1824137	REAR TRUNNION
138	X1824138	SPACER
139	X1824139	SPRING PLATE
140	XPLN02M	LOCK NUT M5-.8
141	X1824141	MOUNTING PLATE
142	X1824142	BRACKET
143	X1824143	KNURLED KNOB
144	XPW03M	FLAT WASHER 6MM
145	XPLW03M	LOCK WASHER 6MM
146	XPCAP02M	CAP SCREW M6-1 X 20
147	X1824147	COMPRESSION SPRING
148	X1824148	LOCKING PLATE SPACER
149	X1824149	LOCKING PIN

REF	PART #	DESCRIPTION
150	X1824150	LOCKING PLATE
151	X1824151	KEYED LOCK WASHER
152	XPSS26M	SET SCREW M5-.8 X 6
153	XPR32M	EXT RETAINING RING 48MM
154	X1824154	BLADE 10" X 40T
155	X1824155	BLADE FLANGE
156	X1824156	ARBOR NUT
157	XPCAP04M	CAP SCREW M6-1 X 10
158	X1824158	LOWER BLADE GUARD
159	X1824159	PIN
160	X1824160	SPRING RETAINING SCREW
161	XPEC02M	E-CLIP 4MM
162	X1824162	EXTENSION SPRING
163	X1824163	HANDWHEEL
164	X1824164	HANDWHEEL LOCK KNOB
165	X1824165	HANDWHEEL HANDLE
166	X1824166	BEVEL PLATE
167	XPEC10M	E-CLIP 9MM
168	X1824168	HANDWHEEL SPACER
169	X1824169	HANDWHEEL BUSHING
170	XPRP42M	ROLL PIN 3 X 20
171	X1824171	BLADE TILT SHAFT
172	X1824172	BLADE TILT SHAFT BASE
173	XPS14M	PHLP HD SCR M6-1 X 12
174	X1824174	POINTER BASE
175	XPEC12M	E-CLIP 12MM
176	X1824176	POINTER
177	XPW05M	FLAT WASHER 4MM
178	XPBHS27M	BUTTON HD CAP SCR M4-.7 X 8
179	X1824179	ELEVATION SHAFT
180	X1824180	ELEVATION SHAFT SPACER
181	X1824181	FRONT TRUNNION
182	X1824182	HANDWHEEL BUSHING
183	X1824183	COMPRESSION SPRING
184	X1824184	WAVY WASHER
185	X1824185	90 DEG LOCK COLLAR
186	X1824186	45 DEG LOCK COLLAR
187	XPCAP24M	CAP SCREW M5-.8 X 16
188	XPW06M	FLAT WASHER 12MM
189	XPW08M	FLAT WASHER 16MM
201	XPHTEK34M	TAP SCREW M3 X 16
202	X1824202	SWITCH ASSEMBLY
203	X1824203	SWITCH BOX
204	X1824204	PUSH BTN CIRCUIT BREAKER 10A
204-1	X1824204-1	PUSH BTN CIRCUIT BREAKER 20A
205	X1824205	CIRCUIT BREAKER RETAINING NUT
206	XPS05M	PHLP HD SCR M5-.8 X 8
207	XPLW01M	LOCK WASHER 5MM
208	XPW02M	FLAT WASHER 5MM
209	X1824209	RING CONNECTOR
210	XPTLW02M	EXT TOOTH WASHER 5MM
211	X1824211	SWITCH PLATE
212	XPHTEK15M	TAP SCREW M4 X 10
213	X1824213	STRAIN RELIEF



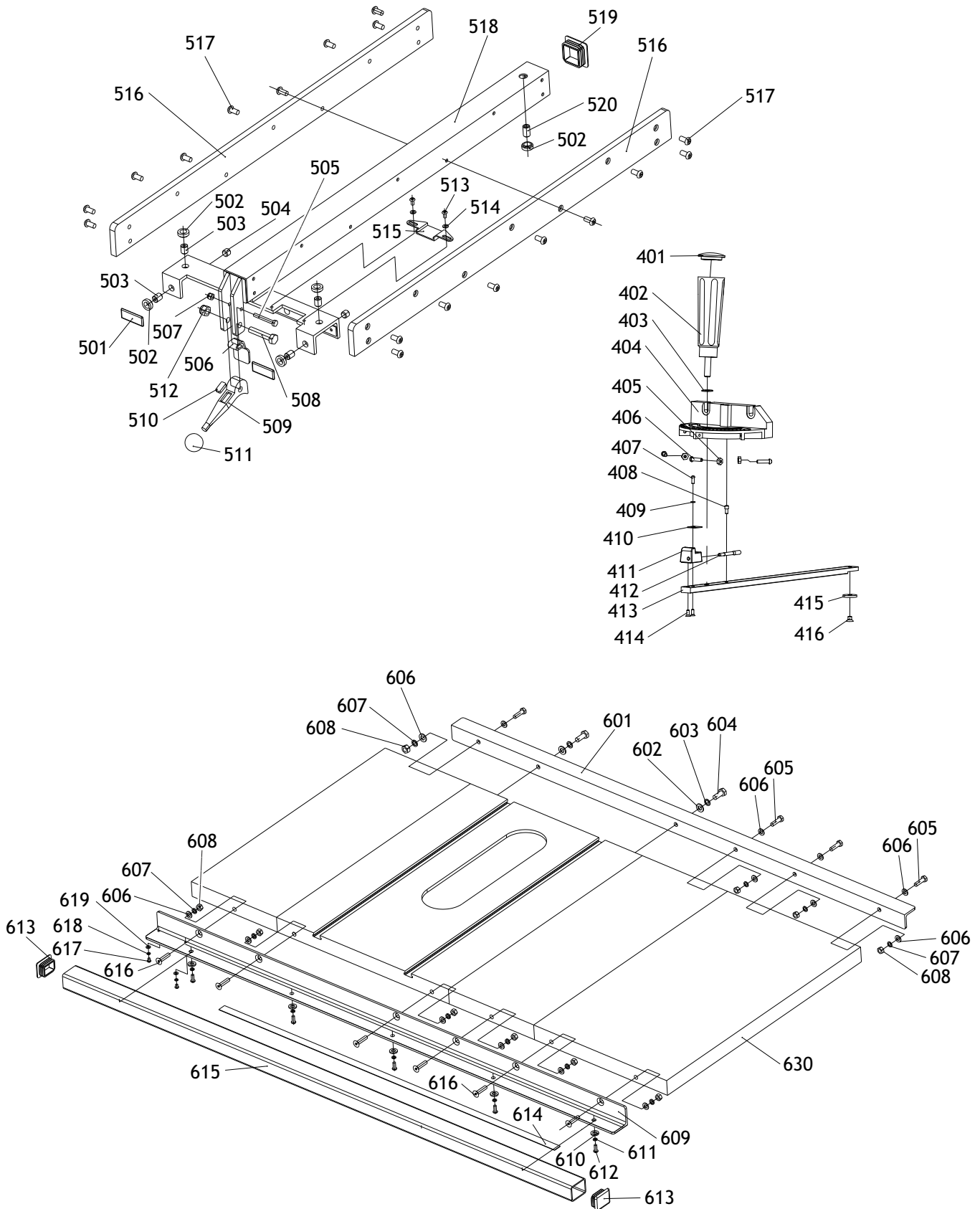
# Blade Guard



REF	PART #	DESCRIPTION
315	XPRP39M	ROLL PIN 4 X 20
319	X1819419	TORSION SPRING
321	XPLN03M	LOCK NUT M6-1
322	X1819422V2	BLADE GUARD BASE
323	XPS47M	PHLP HD SCR M6-1 X 25
324	XPW03M	FLAT WASHER 6MM
326	X1819426	TOP GUARD
327	XPS17M	PHLP HD SCR M4-.7 X 6
328	X1819428	FRONT GUARD
331	X1819431V2	SIDE GUARD
332	X1819456	GUARD CLAMP
335	XPLN02M	LOCK NUT M5-.8
336	XPS38M	PHLP HD SCR M4-.7 X 10
337	XPRP107M	ROLL PIN 6 X 32
338	X1819454V2	THREADED INSERT M5-.8 X 12

REF	PART #	DESCRIPTION
339	XPB122M	HEX BOLT M4-.7 X 8
340	X1819432V2	GUARD SUPPORT
341	XPS62M	PHLP HD SCR M6-1 X 30
342	X1819442V2	INNER PAWL SPACER
345	X1819445	OUTER PAWL SPACER
346	XPS06M	PHLP HD SCR M5-.8 X 20
348	XPW02M	FLAT WASHER 5MM
349	X1819449	PAWL
350	X1819450V2	SPLITTER
351	X1819451	RIVING KNIFE
352	X1819452V2	HOOK PLATE PIN
353	X1819453	RIVING KNIFE HOOK PLATE
354	XPB11M	HEX BOLT M5-.8 X 8
355	XPS531M	PHLP HD SCR M6-1 X 35

# Fence/Rails/Miter Gauge Breakdown

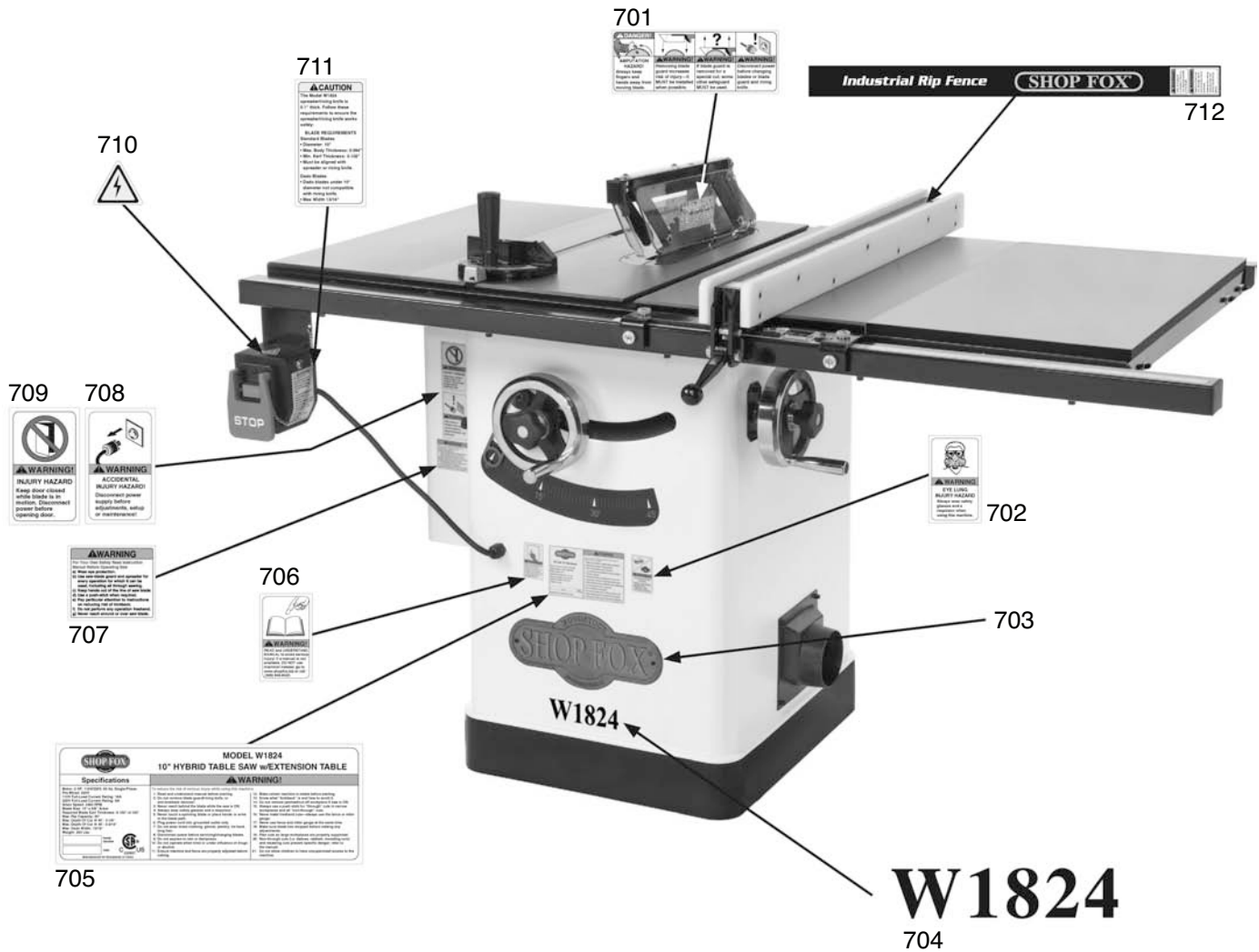


# Fence/Rails/Miter Gauge Parts List

REF	PART #	DESCRIPTION
401	X1824401	MITER GAUGE HANDLE CAP
402	X1824402	MITER GAUGE HANDLE
403	X1824403	SPACER
404	X1824404	MITER GAUGE
405	XPN06M	HEX NUT M5-.8
406	XPS06M	PHLP HD SCR M5-.8 X 20
407	XPS38M	PHLP HD SCR M4-.7 X 10
408	X1824408	MITER GAUGE PIVOT PIN
409	XPW05M	FLAT WASHER 4MM
410	X1824410	POINTER
411	X1824411	POINTER BLOCK
412	X1824412	STOP PIN
413	X1824413	MITER GAUGE BAR
414	XPFH19M	FLAT HD SCR M4-.7 X 10
415	X1824415	ROLLER WHEEL
416	XPFH04M	FLAT HD SCR M6-1.0 X 8
501	X1819604	FENCE GLIDE PAD
502	X1819621	KNURLED LOCK NUT M12-1.75
503	XPSS109M	NYLON INSERT SET SCR M12-1.75 X 15
504	X1819611	SET SCREW M12-1 X 10
505	XPB47M	HEX BOLT M6-1 X 40
506	X1819616	CAM FOOT
507	XPLN03M	LOCK NUT M6-1
508	XPB22M	HEX BOLT M8-1.25*50
509	X1819618	CAM LEVER
510	X1819617	MAGNET
511	X1824511	FENCE LOCK KNOB
512	XPLN10M	LOCK NUT M10-1.25

REF	PART #	DESCRIPTION
513	XPS22M	PHLP HD SCR M5-.8 X 25
514	XPLW01M	LOCK WASHER 5MM
515	X1824515	FENCE SCALE WINDOW
516	X1824516	FENCE FACE HDPE
517	XPS11M	PHLP HD SCR M6-1 X 16
518	X1824518	FENCE BASE
519	X1824519	FENCE CAP 50 X 50MM
520	XPSS32M	SET SCREW M12-1.75 X 30
601	X1824601	REAR RAIL
602	XPW04M	FLAT WASHER 10MM
603	XPLW06M	LOCK WASHER 10MM
604	XPCAP64M	CAP SCREW M10-1.5 X 25
605	XPCAP40M	CAP SCREW M8-1.25 X 35
606	XPW01M	FLAT WASHER 8MM
607	XPLW04M	LOCK WASHER 8MM
608	XPN03M	HEX NUT M8-1.25
609	X1824609	FRONT RAIL
610	XPW03M	FLAT WASHER 6MM
611	XPLW03M	LOCK WASHER 6MM
612	XPCAP115M	BUTTON HD CAP SCR M6-1 X 16
613	X1824613	RAIL CAP 40 X 50
614	X1819703	SCALE
615	X1824615	FENCE RAIL
616	XPFH36M	FLAT HD SCR M8-1.25 X 35
617	XPBHS06M	BUTTON HD CAP SCR M5-.8 X 12
618	XPW02M	FLAT WASHER 5MM
619	XPLW01M	LOCK WASHER 5MM
630	X1824630	EXTENSION TABLE

# Label Placement



REF	PART #	DESCRIPTION
701	X1824701	BLADE GUARD LABEL
702	XLABEL-06A	GLASSES/RESPIRATOR LABEL
703	D3377	SHOP FOX NAMEPLATE
704	X1824704	MODEL NUMBER
705	X1824705	MACHINE ID LABEL
706	XLABEL-12	READ MANUAL LABEL

REF	PART #	DESCRIPTION
707	X1824707	TABLE SAW WARNING LABEL
708	XLABEL-07	DISCONNECT POWER LABEL
709	XLABEL-05	KEEP DOOR CLOSED LABEL
710	XLABEL-04	ELECTRICITY LABEL
711	X1824711	RIVING KNIFE CAUTION LABEL
712	X1824712	FENCE LABEL

## WARNING

Safety labels warn about machine hazards and how to prevent machine damage or injury. The owner of this machine **MUST** maintain the original location and readability of all labels on this machine. If any label is removed or becomes unreadable, **REPLACE** that label before allowing the machine to enter service again. Contact Woodstock International, Inc. at (360) 734-3482 or [www.shopfoxtools.com](http://www.shopfoxtools.com) to order new labels.







# Warranty Registration

Name \_\_\_\_\_

Street \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone # \_\_\_\_\_ Email \_\_\_\_\_ Invoice # \_\_\_\_\_

Model # \_\_\_\_\_ Serial # \_\_\_\_\_ Dealer Name \_\_\_\_\_ Purchase Date \_\_\_\_\_

*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       Local Store  
 Mail Order Catalog       Website       Other:

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

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

3. How many of your machines or tools are Shop Fox?

0-2       3-5       6-9       10+

4. Do you think your machine represents a good value?       Yes       No

5. Would you recommend Shop Fox products to a friend?       Yes       No

6. What is your age group?

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

7. 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+

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

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

9. Comments: \_\_\_\_\_

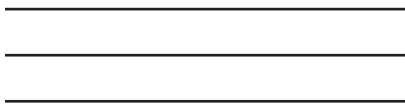
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FOLD ALONG DOTTED LINE



Place  
Stamp  
Here



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TAPE ALONG EDGES--PLEASE DO NOT STAPLE

# WARRANTY

Woodstock International, Inc. warrants all Shop Fox machinery to be free of defects from workmanship and materials for a period of two years from the date of original purchase by the original owner. This warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, lack of maintenance, or reimbursement of third party expenses incurred.

Woodstock International, Inc. will repair or replace, at its expense and at its option, the Shop Fox machine or machine part, which in normal use has proven to be defective, provided that the original owner returns the product prepaid to a Shop Fox factory service center with proof of their purchase of the product within two years, and provides Woodstock International, Inc. reasonable opportunity to verify the alleged defect through inspection. If it is determined there is no defect, or that the defect resulted from causes not within the scope of Woodstock International Inc.'s warranty, then the original owner must bear the cost of storing and returning the product.

This is Woodstock International, Inc.'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 that Shop Fox machinery complies with the provisions of any law or acts. In no event shall Woodstock International, Inc.'s liability under this warranty exceed the purchase price paid for the product, and any legal actions brought against Woodstock International, Inc. 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.

Every effort has been made to ensure that all Shop Fox machinery meets high quality and durability standards. We reserve the right to change specifications at any time because of our commitment to continuously improve the quality of our products.



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