

# MODEL W1837 10" OPEN-STAND HYBRID TABLE SAW





# OWNER'S MANUFACTURED SINCE 8/18)

Phone: (360) 734-3482 · Online Technical Support: techsupport@woodstockint.com

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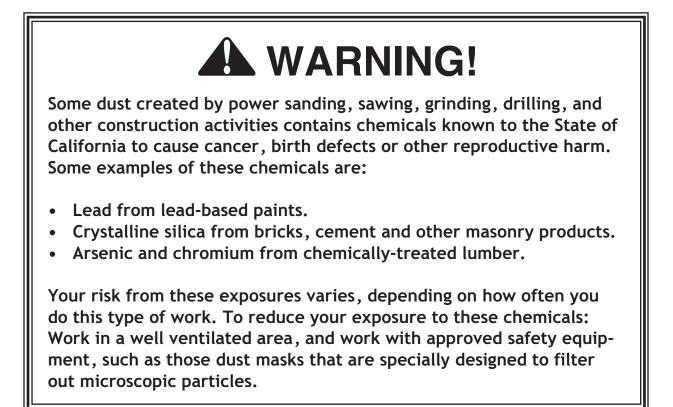
# WARNING!

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.





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SAFETY





## INTRODUCTION

## Contact Info

We are committed to customer satisfaction. If you have any questions or need help, use the information below to contact us.

IMPORTANT: Before contacting, please get the original purchase receipt, serial number, and manufacture date of your machine. This information is required for all Technical Support calls and it will help us help you faster.

Woodstock International Technical Support Phone: (360) 734-3482 Email: techsupport@woodstockint.com

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

> Technical Documentation Manager P.O. Box 2309 Bellingham, WA 98227 Email: manuals@woodstockint.com

## Manual Accuracy

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

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

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

Alternatively, you can call our Technical Support for help. Before calling, make sure you write down the **Manufacture Date** and **Serial Number** from the machine ID label (see below). Also, if available, have a copy of your **original purchase receipt** on hand. This information is required for all Tech Support calls.

SHOP	FOX		MODEL XXXX MACHINE NAME
Specific	ations		A WARNING!
Motor: Specification: Specification: Specification: Specification: Weight:	Manuf Da	acture ate	s, biohazards, burning material/ashes, etc. onnect power before servicing or cleaning. se to rain or wet areas.
Manufactured for Woodstock	Date	inlet. 8. Never leav 9. Do not us repair and 10. Do not us 11. Always we	Serial Number





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#### MODEL W1837 10" 2 HP OPEN-STAND HYBRID TABLE SAW

#### **Product Dimensions**

Weight	
Width (side-to-side) x Depth (front-to-back) x Height	
Footprint (Length x Width)	21 x 19-1/2 in.
Space Required for Full Range of Movement (Width x Depth)	57-1/4 x 37-1/2 in.

#### **Shipping Dimensions**

#### Carton #1

Type Content	
Weight	
Length x Width x Height	
Carton #2	
Туре	Cardboard Box
Content	Fence, Rails, and Hardware
Weight	
Length x Width x Height	

#### Electrical

Power Requirement	· · · · · · · · · · · · · · · · · · ·
Prewired Voltage	120V
Full-Load Current Rating	15A at 120V, 7.5A at 240V
Minimum Circuit Size	20A at 120V, 15A at 240V
Connection Type	Cord & Plug
Power Cord Included	Yes
Power Cord Length	6 ft.
Power Cord Gauge	
Plug Included	Yes
Included Plug Type	
Recommended Plug Type	
Switch Type	

#### Motors

#### Main

Horsepower	
Phase	Single-Phase
Amps	15A at 120V, 7.5A at 240V
Туре	Capacitor-Start Induction
Power Transfer	Belt Drive
	Sealed & Permanently Lubricated



#### Main Specifications

#### Main Information

Table Saw Type	Hybrid
Maximum Blade Diameter	
Arbor Size	5/8 in.
Arbor Speed	3450 RPM
Maximum Width of Dado	13/16 in.
Blade Tilt Direction	Left
Max Blade Tilt	0-45 deg.
Maximum Depth of Cut At 90 Degrees	3-1/4 in.
Maximum Depth of Cut At 45 Degrees	2-1/4 in.
Max Rip Right of Blade w/Included Fence & Rails	30 in.
Max Rip Left of Blade w/Included Fence & Rails	15 in.

#### Additional Blade Information

Included Blade Information Riving Knife/Spreader Thickness	
Required Blade Body Thickness	
Required Blade Kerf Thickness	0.094 - 0.126 in.
Rim Speed at Max Blade Diameter	9,025 FPM

#### Table Information

Floor to Table Height	. 35-3/4 in.
Table Size with Extension Wings Width	. 40-1/4 in.
Table Size with Extension Wings Depth	27 in.
Distance Front of Table to Center of Blade	
Distance Front of Table to Blade At Maximum Cut	. 11-1/2 in.
Main Table Size Thickness	1-5/8 in.

#### Fence Information

Fence Type	Camlock T-Shape w/ Aluminum Face
Fence Size Length	
Fence Size Width	3-1/8 in.
Fence Size Height	2-7/16 in.
Fence Rail Type	Extruded Aluminum
Fence Rail Length	64 in.
Fence Rail Width	3-1/8 in.
Fence Rail Height	2-1/4 in.

#### Miter Gauge Information

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

#### Construction

Table	
Wings	Stamped
Cabinet	Pre-Formed Steel
Trunnions	Cast Iron
Fence Assembly	Aluminum
Rails	Aluminum
Miter Guage Construction	Aluminum
Guard	Aluminum & Plastic
Body/Cabinet Paint Type/Finish	Powder Coated
Arbor Bearings	



#### Other Related Information

Number of Dust Ports	1
Dust Port Size 4 in	۱.

#### Other

Country of Origin Warranty	
Approximate Assembly & Setup Time	
Serial Number Location	
Sound Rating	81 - 83 dB
ISO 9001 Factory	Yes
Certified by a Nationally Recognized Testing Laboratory (NRTL)	Yes

#### Features

Precision-Ground Cast-Iron Table Powder-Coated Steel Extension Wings Cast-Iron Trunnions Easy-Glide Fence System Quick-Release Blade Guard Assembly 4" Dust Port T-Slot Miter Gauge Included 10" x 40T Blade Built-In Mobile Base

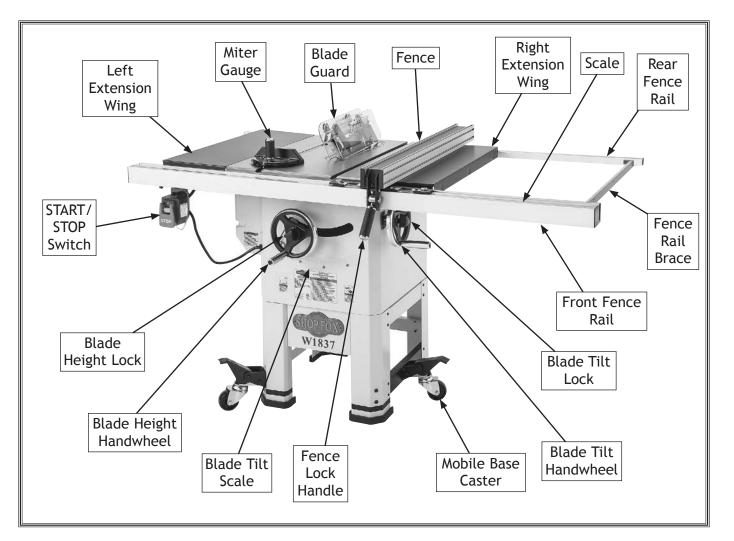
#### Accessories

Push Stick Standard Table Insert Dado Table Insert Miter Gauge



## Identification

Become familiar with the names and locations of the controls and features shown below to better understand the instructions in this manual.



## 

For Your Own Safety Read Instruction Manual Before Operating Saw

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

## **Controls & Components**

Refer to **Figures 1-3** and the following descriptions to become familiar with the basic controls and components of this machine. Understanding these items and how they work will help you understand the rest of the manual and stay safe when operating this machine.

A. START/STOP Switch: Starts and stops the motor. The switch can be disabled for safety by inserting the disabling pin or a padlock (not included) through the START button.

**Note:** Paddle cover must be lifted to access **ON** switch.

- **B.** Handwheel Locks: Lock blade height and angle when tightened (one on each handwheel).
- C. Blade Height Handwheel: Adjusts blade height from  $0"-3^{1}/_{4}"$ .
- **D.** Blade Tilt Handwheel: Adjusts angle of blade tilt from 90°-45°.

E. Fence Lock: Locks fence when pushed down, and unlocks fence when pulled up.



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



Figure 1. Location of START/STOP switch.

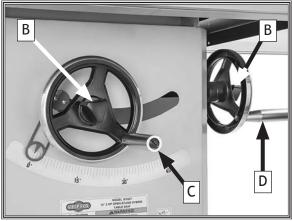


Figure 2. Blade adjustment handwheels and locks.



Figure 3. Fence lock handle.



## SAFETY

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

The purpose of safety symbols is to attract your attention to possible hazardous conditions. This manual uses a series of symbols and signal words intended to convey the level of importance of the safety messages. The progression of symbols is described below. Remember that safety messages by themselves do not eliminate danger and are not a substitute for proper accident prevention measures—this responsibility is ultimately up to the operator!



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

**AWARNING** 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.

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

- TRAINED OPERATORS ONLY. Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make workshop kid proof!
- DANGEROUS ENVIRONMENTS. Do not use machinery in areas that are wet, cluttered, or have poor lighting. Operating machinery in these areas greatly increases the risk of accidents and injury.
- MENTAL ALERTNESS REQUIRED. Full mental alertness is required for safe operation of machinery. Never operate under the influence of drugs or alcohol, when tired, or when distracted.

- ELECTRICAL EQUIPMENT INJURY RISKS. You can be shocked, burned, or killed by touching live electrical components or improperly grounded machinery. To reduce this risk, only allow an electrician or qualified service personnel to do electrical installation or repair work, and always disconnect power before accessing or exposing electrical equipment.
- **DISCONNECT POWER FIRST.** Always disconnect machine from power supply BEFORE making adjustments, changing tooling, or servicing machine. This eliminates the risk of injury from unintended startup or contact with live electrical components.
- **EYE PROTECTION.** Always wear ANSI-approved safety glasses or a face shield when operating or observing machinery to reduce the risk of eye injury or blindness from flying particles. Everyday eyeglasses are not approved safety glasses.



- 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 loss of workpiece control.
- HAZARDOUS DUST. Dust created while using machinery may cause cancer, birth defects, or long-term respiratory damage. Be aware of dust hazards associated with each workpiece material, and always wear a NIOSH-approved respirator to reduce your risk.
- HEARING PROTECTION. Always wear hearing protection when operating or observing loud machinery. Extended exposure to this noise without hearing protection can cause permanent hearing loss.
- **REMOVE ADJUSTING TOOLS.** Tools left on machinery can become dangerous projectiles upon startup. Never leave chuck keys, wrenches, or any other tools on machine. Always verify removal before starting!
- INTENDED USAGE. Only use machine for its intended purpose—never make modifications without prior approval from Woodstock International. Modifying machine or using it differently than intended will void the warranty and may result in malfunction or mechanical failure that leads to serious personal injury or death!
- AWKWARD POSITIONS. Keep proper footing and balance at all times when operating machine. Do not overreach! Avoid awkward hand positions that make workpiece control difficult or increase the risk of accidental injury.
- CHILDREN & BYSTANDERS. Keep children and bystanders at a safe distance from the work area. Stop using machine if they become a distraction.
- GUARDS & COVERS. Guards and covers reduce accidental contact with moving parts or flying debris—make sure they are properly installed, undamaged, and working correctly.

- FORCING MACHINERY. Do not force machine. It will do the job safer and better at the rate for which it was designed.
- **NEVER STAND ON MACHINE.** Serious injury may occur if machine is tipped or if the cutting tool is unintentionally contacted.
- **STABLE MACHINE.** Unexpected movement during operation greatly increases risk of injury or loss of control. Before starting, verify machine is stable and mobile base (if used) is locked.
- USE RECOMMENDED ACCESSORIES. Consult this owner's manual or the manufacturer for recommended accessories. Using improper accessories will increase risk of serious injury.
- **UNATTENDED OPERATION.** To reduce the risk of accidental injury, turn machine *OFF* and ensure all moving parts completely stop before walking away. Never leave machine running while unattended.
- MAINTAIN WITH CARE. Follow all maintenance instructions and lubrication schedules to keep machine in good working condition. A machine that is improperly maintained could malfunction, leading to serious personal injury or death.
- CHECK DAMAGED PARTS. Regularly inspect machine for any condition that may affect safe operation. Immediately repair or replace damaged or mis-adjusted parts 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, resulting in a short. Do not handle cord/plug with wet hands. Avoid cord damage by keeping it away from heated surfaces, high traffic areas, harsh chemicals, and wet/damp locations.
- EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact Technical Support at (360) 734-3482.



## Additional Safety for Table Saws

## 

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

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

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

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

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

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

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

**FENCE.** To reduce risk of kickback, make sure fence remains properly adjusted and parallel with blade. Always lock fence before using.

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

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

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

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

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

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



## **Preventing Kickback**

Below are ways to avoid the most common causes of kickback:

- Only cut workpieces with at least one smooth and straight edge. DO NOT cut warped, cupped or twisted wood.
- Keep the blade guard installed and working correctly for all through-cuts.
- Never attempt freehand cuts. If the workpiece is not fed parallel with the blade, kickback will likely occur. Always use the rip fence or miter gauge to support the workpiece.
- Make sure the spreader or riving knife is aligned with the blade. A misaligned spreader or riving knife can cause the workpiece to catch or bind, increasing the chance of kickback.
- Take the time to check and adjust the rip fence parallel with the blade; otherwise, the chances of kickback are extreme.
- The spreader or riving knife maintains the kerf in the workpiece, reducing the chance of kickback. Always use the riving knife for all non-through operations, unless using with dado blade smaller than 10" in diameter. Always use the spreader with the blade guard for all through cuts.
- Feed cuts through to completion. Anytime you stop feeding a workpiece in the middle of a cut, the chance of kickback is greatly increased.
- Keep the blade guard installed and in good working order. Only remove it when performing non-through cuts and immediately re-install the blade guard when finished. Remember, always use the riving knife for all non-through operations, unless a dado blade is installed.
- Make multiple, shallow passes when performing a non-through cut. Making a deep nonthrough cut will greatly increase the chance of kickback.

Never move the workpiece backwards or try to back it out of a cut while the blade is moving. If you cannot complete a cut for some reason, stop the saw motor and allow the blade to completely stop before backing the workpiece out. Promptly fix the condition that prevented you from completing the cut before starting the saw again.

## Protecting Yourself From Kickback

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

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

## 

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



## 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 fullload 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 120V ...... 15 Amps Full-Load Current Rating at 240V ...... 7.5 Amps

#### Circuit Requirements for 120V (Prewired)

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

Circuit Type	110V/120V, 60 Hz, Single-Phase
Circuit Size	
Plug/Receptacle	NEMA 5-15

#### **Circuit Requirements for 240V**

This machine can be converted to operate on a power supply circuit that has a verified ground and meets the requirements listed below. (Refer to **Voltage Conversion** instructions for details.)

Circuit Type2	20V/240V, 60 Hz, Single-Phase
Circuit Size	15 Amps
Plug/Receptacle	NEMA 6-15

## WARNING

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



Incorrectly wiring or grounding this machine can cause electrocution, fire, or machine damage. To reduce this risk, only an electrician or qualified service personnel should do any required electrical work on 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 with an electrician to ensure that the circuit is properly sized for safe operation.



## **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 equipmentgrounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipmentgrounding 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 120V Connection (Prewired)

This machine is equipped with a power cord with an equipment-grounding wire and NEMA 5-15 grounding plug (see figure). The plug must only be inserted into a matching receptacle that is properly installed and grounded in accordance with local codes and ordinances.

#### For 240V Connection

A NEMA 6-15 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 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 120V ......14 AWG Maximum Length (Shorter is Better) ......50 ft.

## **A**WARNING

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

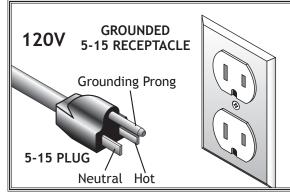


Figure 4. NEMA 5-15 plug & receptacle.



DO NOT modify the provided plug or use an adapter if the plug will not fit the receptacle. Instead, have an electrician install the proper receptacle on a power supply circuit that meets the requirements for this machine.

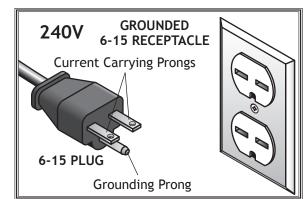


Figure 5. NEMA 6-15 plug & receptacle.



# Converting Voltage to 240V

The voltage conversion MUST be performed by an electrician or qualified service personnel.

The voltage conversion procedure consists of rewiring the motor and installing the correct plug. A wiring diagram is provided on **Page 81** for your reference.

**IMPORTANT:** If the diagram included on the motor conflicts with the one on **Page 81**, the motor may have changed since the manual was printed. Use the diagram included on the motor instead.

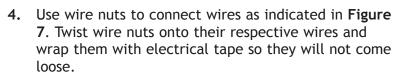
#### **Items Needed**

•	Phillips Head Screwdriver #2	1
•	Electrical Tape As No	eeded

- Wire Nut (14 AWG x 3).....1
- Plug 6-15......1
- Wire Cutters/Stripper.....1

To convert the Model W1837 to 240V, do these steps:

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Cut off existing 5-15 plug.
- 3. Open motor junction box, remove two wire nuts indicated in Figure 6, and then disconnect wires.



- 5. Close and secure motor junction box.
- 6. Install a 6-15 plug on the power cord, according to plug manufacturer's instructions. If plug manufacturer's instructions are not available, NEMA standard 6-15 plug wiring is provided on Page 81.



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

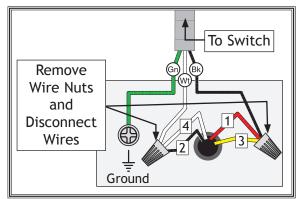


Figure 6. Inside motor junction box (motor pre-wired to 120V).

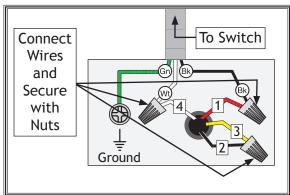


Figure 7. Motor rewired to 240V.

ELECTRICAL

Otv



## 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.

## **Items Needed for Setup**

The following items are needed, but not included, to set up your machine.

# DescriptionQtyAdditional People.1Safety Glasses for Each Person1Cleaner/DegreaserAs NeededDisposable Shop RagsAs NeededStraightedge 4'1Wrenches or Sockets 13mm2Phillips Head Screwdriver #21Flat Head Screwdriver #21Hex Wrench 8mm1Dust Collection System1Dust Hose 4"1Hose Clamps 4"2



## WARNING

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



#### WARNING Wear safety glasses dur-

Wear safety glasses during entire setup process!



## WARNING

USE helpers or power lifting equipment to lift this machine. Otherwise, serious personal injury may occur.



## 

SUFFOCATION HAZARD! Immediately discard all plastic bags and packing materials to eliminate choking/suffocation hazards for children and animals.



## Inventory

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

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

Box	1 Contents (Figure 8)	Qty
Α.	Saw Body (Not Shown)	
	Extension Wings	
С.	Saw Blade 10" x 40T	1
D.	Dado Insert	1
	Table Insert	
F.	Front Fence Rail	1
G.	Rear Fence Rail	1 Ea.
Box	2 Contents (Figure 9)	Otv

DUX	2 Contents (Figure 9) Qty
Η.	Fence Assembly1
Ι.	Blade Guard Assembly1
J.	Push Stick1
Κ.	Miter Gauge1
L.	Spreader/Riving Knife1
Μ.	Fence Rail Brace1
N.	Wrench 23mm Closed, 22mm Open1 Ea
0.	Fence Rail End Caps4
Ρ.	Miter Gauge Handle w/Washer1
Q.	Star Knobs
R.	Motor Cover1
S.	Access Panel1
т.	Hex Wrenches 3, 4, 5, 6, 8mm1 Ea
U.	Handwheels

Вох	c 3 Contents (Figure 10)	Qty
۷.	Caster Foot Levers	
W.	Caster Support Brackets	2
Χ.	Casters	

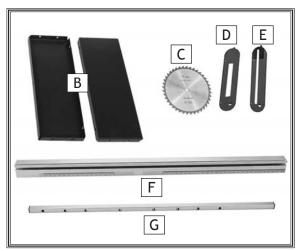


Figure 8. Box 1 contents.

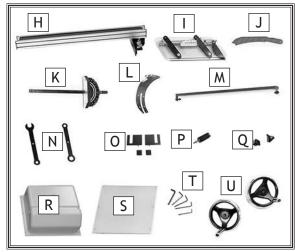


Figure 9. Box 2 contents.

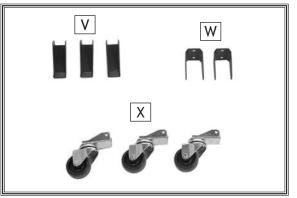


Figure 10. Box 3 contents.

Hardware (See Hardware Recognition Chart) Button Head Cap Screws M8-1.25 X 16	Qty
(Legs/Caster Brackets) Flat Washers 8mm (Legs/Caster Brackets) Lock Washers 8mm (Legs/Caster Brackets) Hex Nuts M8-1.25 (Legs/Caster Brackets)	4 4
Hex Bolts M8-1.25 X 65 (Casters) Lock Nuts M8-1.25 (Casters)	
Hex Bolts M8-1.25 X 65 (Caster Foot Levers) Spacers 8mm (Caster Foot Levers) Lock Nuts M8-1.25 (Caster Foot Levers)	6
Cap Screws M10-1.5 X 25 (Extension Wing/Table) Flat Washers 10mm (Extension Wing/Table) Lock Washers 10mm (Extension Wing/Table)	6
Hex Bolts M8-1.25 X 16 (Switch) Lock Washers 8mm (Switch) Hex Nuts M8-1.25 (Switch)	2
Hex Bolts M8-1.25 X 30 (Front Fence Rail/Table) Hex Nuts M8-1.25 (Front Fence Rail/Table)	
Cap Screws M8-1.25 X 25 (Rear Fence Rail/Table) Hex Nuts M8-1.25 (Rear Fence Rail/Table)	
Cap Screw M8-1.25 x 16 (Fence Rail Brace) Hex Bolt M8-1.25 x 16 (Fence Rail Brace) Hex Nuts M8-1.25 (Fence Rail Brace)	1

Button Head Cap Screws M5-.8 X 12 (Rear Panel)......6



#### Hardware Recognition Chart **USE THIS CHART TO IDENTIFY** SHER DIAMENTER ST 1/2" TED SPM 9/16" PM HARDWARE DURING THE **INVENTORY/ASSEMBLY** WASHERS ARE MEASURED BY THE INSIDE DIAMETER PROCESS. #10 R DIA 44 10mm A DIA HE I ST 12mm <sup>1</sup>/4" 16 8" 5/16" **INCH APART** 44 DIA 45 3/8" 1<sup>1</sup>/4" HS S/1 " SER D/4 3ET E HS I I <sup>3</sup>/8" **1**<sup>1</sup>/<sub>2</sub>" MEASURE BOLT DIAMETER BY PLACING INSIDE CIRCLE 1<sup>3</sup>/4" **ARE** <sup>1</sup>/<sub>16</sub>" 2 7/16 2<sup>1</sup>/<sub>4</sub>" DIAR A DIA SE SHE **2**<sup>1</sup>/<sub>2</sub>" D **INES 2**<sup>3</sup>/<sub>4</sub>" 83 <sup>1</sup>/<sub>2</sub>" 3 4mm #10 5mm 6mm 4mm 1 A 5mm **Button Phillips** Carriage 5mm Cap Flange Head Head Bolt Screw 10mm Bolt Screw Screw 15mm 6mm 20mm 10 LINES ARE 1MM APART Wing D 25mm Nut 8mm Flat 30mm U Set Hex Head Tàp 35mm Screw Bolt Screw Screw 40mm 10mm 45mm 50mm 55mm 12mm Hex Intèrnal Lock External 60mm E-Clip Wrench Nut Retaining Retaining 65mm Ring Ring 70mm 75mm 6 16mm Hex Lock Key Flat Washer Washer Nut



## **Cleaning Machine**

To prevent corrosion during shipment and storage of your machine, the factory has coated the bare metal surfaces of your machine with a heavy-duty rust prevention compound.

If you are unprepared or impatient, this compound can be difficult to remove. To ensure that the removal of this coating is as easy as possible, please gather the correct cleaner, lubricant, and tools listed below:

- Cleaner/degreaser designed to remove storage wax and grease
- Safety glasses & disposable gloves
- Solvent brush or paint brush
- Disposable Rags

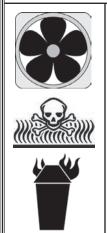
To remove rust preventative coating, do these steps:

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Put on safety glasses and disposable gloves.
- 3. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5-10 minutes.
- 4. Wipe off surfaces. If your cleaner/degreaser is effective, the coating will wipe off easily.

**Tip:** An easier way to clean off thick coats of rust preventative from flat surfaces is to use a PLASTIC paint scraper to scrape off the majority of the coating before wiping it off with your rag. (Do not use a metal scraper or you may scratch your machine.)

- 5. Repeat cleaning steps as necessary until all of the compound is removed.
- 6. To prevent rust on freshly cleaned surfaces, immediately coat with a quality metal protectant.

## 



Gasoline and petroleum products have low flash points and can explode or cause fire if used to clean machinery. Avoid using these products to clean machinery. Many cleaning solvents are toxic if inhaled. Minimize your risk by only using these products in a well ventilated area.



In a pinch, automotive degreasers, mineral spirits or WD•40 can be used to remove rust preventative coating. Before using these products, though, test them on an inconspicuous area of your paint to make sure they will not damage it.



## **Machine Placement**

#### Weight Load

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

#### Space Allocation

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



#### 

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

#### Physical Environment

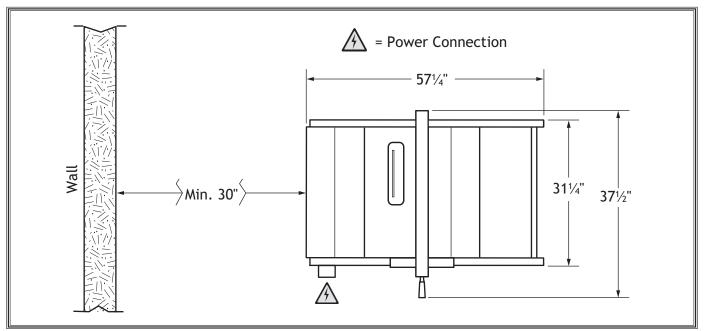
The physical environment where your machine is operated is important for safe operation and the longevity of its components. For best results, operate this machine in a dry environment that is free from excessive moisture, hazardous chemicals, airborne abrasives, or extreme conditions. Extreme conditions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

#### **Electrical Installation**

Place this machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure to leave access to a means of disconnecting the power source or engaging a lockout/tagout device.

#### Lighting

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





## Assembly

Before beginning the assembly process, refer to **Items Needed for Setup** and gather everything you need. Ensure all parts have been properly cleaned of any heavy-duty rust-preventative applied at the factory (if applicable). Be sure to complete all steps in the assembly procedure prior to performing the **Test Run**.

#### To assemble table saw, do these steps:

- 1. With help from another person, lift table saw unit off of shipping pallet and onto floor.
- Install each of the two caster support brackets onto right front and rear stand legs using (2) M8-1.25 X 16 button head cap screws, (2) 8mm flat washers, (2) 8mm lock washers, and (2) M8-1.25 hex nuts (see Figure 12).
- 3. Install casters onto caster support brackets and mounting bracket using (3) M8-1.25 X 65 hex bolts and (3) M8-1.25 lock nuts (see Figure 13).

4. Install caster foot levers onto support brackets and mounting bracket, each using (1) M8-1.25 X 65 hex bolt, (2) spacers, and (1) M8-1.25 lock nut (see Figure 14).

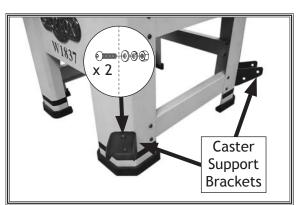


Figure 12. Caster support brackets installed on stand legs.

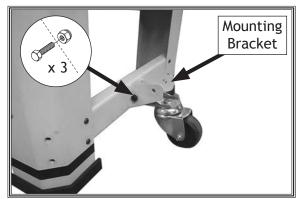


Figure 13. Caster installed onto mounting bracket.

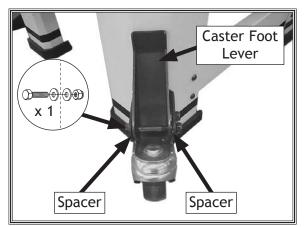


Figure 14. Caster foot lever (1 of 3) installed on front right support bracket.



 Install handwheels on shafts, making sure notch in each handwheel fits over pin on each shaft, as shown in Figure 15, and then secure with star knobs.

6. Turn blade tilt handwheel until blade tilt indicator points to 15° on blade angle scale (see Figure 16).

**7.** Inspect mating surfaces of cast iron table for burrs or foreign material that may inhibit installation of extension wings.

Mating edges of 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. This step will ensure that wings will mount properly to main table.

With another person to hold wings in place, attach each extension wing to main table using (3) M10-1.5 x 25 cap screws, (3) 10mm lock washers, and (3) 10mm flat washers (see Figure 17).

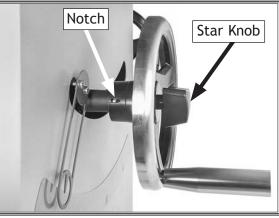


Figure 15. Handwheel properly installed.

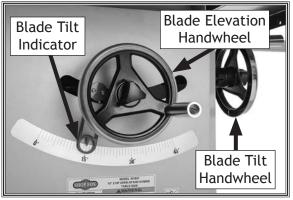


Figure 16. Blade tilt indicator and angle scale.

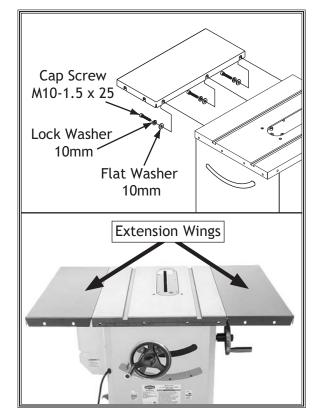


Figure 17. Extension wings installed.



- **9.** Place straightedge across extension wings and main table to ensure combined table surface is flat.
  - If combined table surface is flat, skip to next step.
  - If outside end of extension wing tilts down, remove wing and place a strip of masking tape along bottom edge of main table to shim end of wing up (see Figure 18).
  - If outside end of extension wing tilts up, remove wing and place a strip of masking tape along top edge of main table to shim end of extension wing down (see Figure 19).

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

 Remove (2) M8-1.25 x 16 hex bolts from switch and insert into bottom slot on left end of fence rail (see Figure 20). These will be used later for mounting

the switch.

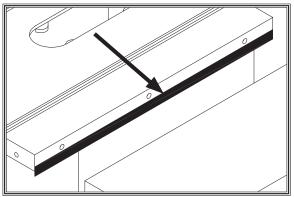


Figure 18. Masking tape location for tilting the extension wing up.

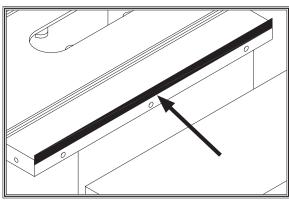


Figure 19. Masking tape location for tilting the extension wing down.

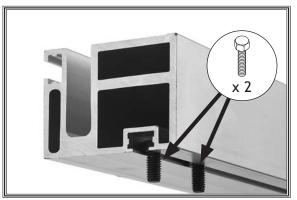


Figure 20. Location of hex bolts for mounting switch.



11. Install end cap with (1) pre-installed tap screw on left end of front fence rail (see Figure 21).

Orient fence rail so scale faces you. Slide (8) M8-1.25 x 30 hex bolts into open slot (see Figure 22).

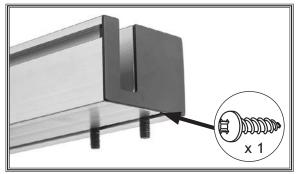


Figure 21. Left end cap of front fence rail.

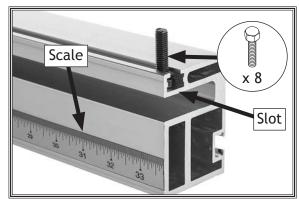


Figure 22. Hex bolt positioned in front fence rail slot.



Figure 23. Mounting front fence rail.

- SETUP
- Align hex bolts in fence rail with holes in table, then insert bolts into table. Be sure scale on fence rail is facing up. Hand tighten (8) M8-1.25 hex nuts onto hex bolts. Do not fully tighten yet (see Figure 23).



14. Install switch on hex bolts from **Step 10** using (2) M8-1.25 hex nuts and (2) 8mm lock washers (see **Figure 24**).

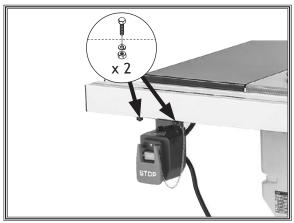


Figure 24. Switch installed.

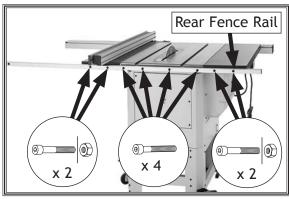


Figure 25. Mounting rear fence rail.

15. Install rear fence rail on rear of table using (8) M8-1.25 x 25 cap screws, as shown in Figure 25. Secure outer four cap screws with M8-1.25 hex nuts.

- 16. Install saw blade as instructed in **Blade Installation** on **Page 34**.
- Install table insert in table opening (see Figure 26). Check to make sure it is flush and adjust if necessary (see Table/Dado Insert Adjustment on Page 75 for more information).

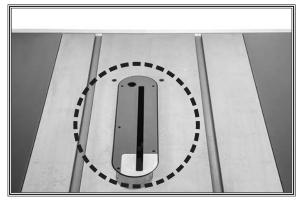


Figure 26. Standard table insert installed.



- **18.** Place fence on front fence rail, as shown in **Figure 27**. Press handle down to lock fence in position.
- **19.** Using blade height handwheel, raise blade 1-2 inches.
- 20. Turn blade tilt handwheel until blade tilt indicator on front of machine points to 0° on blade angle scale.
- 21. Slide fence so it lightly touches right side of blade (see Figure 28). Do not yet lock fence.
- 22. Nudge fence rail so zero mark of scale (on right) lines up with cross-hair in fence scale window (see Figure 28).
- 23. Tighten hex nuts to secure both fence rails.
- 24. Check fence scale calibration by moving fence to 1" mark on scale and measuring distance between blade tooth (see Figure 29) and fence.
  - -If crosshair aligns exactly with 1" mark, no adjustments need to be made.
  - -If crosshair does not align with 1" mark, loosen fence scale window screws, move crosshair over 1" mark, then tighten screws.
- **25.** Lift fence off of table and re-install to left of blade, then slide fence so it lightly touches left side of blade.
- **26**. Check left fence scale window.
  - If crosshair aligns with zero mark on left fence scale, no adjustments need to be made.
  - -If crosshair *does not* align with zero mark on scale, loosen fence scale window screws, move crosshair over zero mark, then tighten screws.

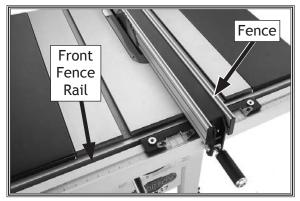


Figure 27. Fence installed on front rail.



Figure 28. Fence scale calibration.

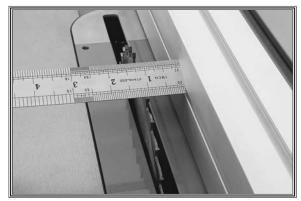


Figure 29. Checking calibration of fence scale.



- 27. Install blade guard as instructed on Page 35.
- **28.** Using a helper, mount fence rail brace to rear fence rail with (1) M8-1.25 x 16 cap screw and (1) M8-1.25 hex nut (see **Figure 30**).

Note: Do not tighten cap screw yet.

29. Insert (1) M8-1.25 x 16 hex bolt into front

end of fence rail brace, then slide hex head

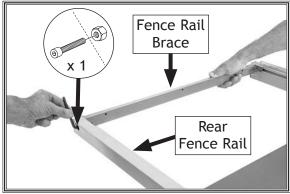


Figure 30. Attaching rear end of fence rail brace.

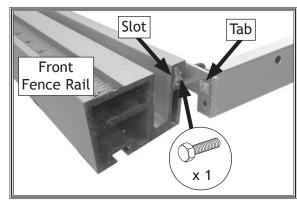
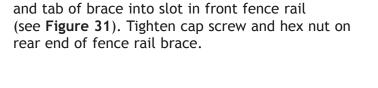


Figure 31. Attaching front end of fence rail brace.



- **30.** Measure distance (A) from table edge to rear end of fence rail brace, then adjust front end of fence rail brace so it is the same distance (B) from table edge (see Figure 32).
- Secure hex bolt on front of rail brace with (1) M8-1.25 hex nut.

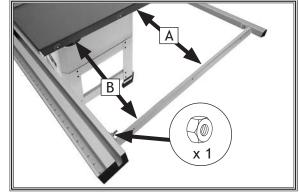


Figure 32. Fence rail brace installed.



- 32. Install blade guard as instructed on Page 35.
- Install end cap on right end of front fence rail in same manner as you did on the left end (Step 11 on Page 24).
- 34. Press end caps into rear fence rail.
- **35.** Secure rear access panel and motor cover each with (6) M5-.8 x 12 button head cap screws (see Figure 33).

## **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 consider these variables: (1) CFM rating of the dust collector, (2) hose type and length between the dust collector and the machine, (3) number of branches or wyes, and (4) amount of other open lines throughout the system. Explaining how to calculate these variables is beyond the scope of this manual. Consult an expert or purchase a good dust collection "how-to" book.

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

#### To connect a dust collection hose, do these steps:

- Fit 4" dust hose over dust port, as shown in Figure 34, and secure it in place with hose clamp.
- 2. Tug hose to make sure it does not come off.

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

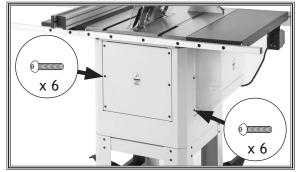


Figure 33. Rear access panel installed.

## **A**CAUTION

This machine creates substantial amounts of dust during operation. Breathing airborne dust on a regular basis can result in permanent respiratory illness. Reduce your risk by wearing a respirator and capturing the dust with a dust collection system.

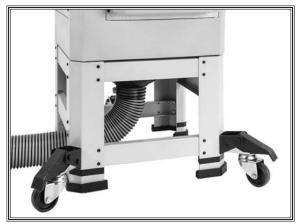


Figure 34. Dust port connected to dust collection system.



## Test Run

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

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

#### To test run machine, do these steps:

- 1. Lower blade all the way down, and make sure all tools and objects used during setup are cleared away from machine.
- 2. Connect machine to power supply.
- 3. Turn machine *ON*, verify motor operation, then turn machine *OFF*.

The motor should run smoothly and without unusual noises.

- 4. Insert switch disabling pin through green ON/START button (see example).
- 5. Press green ON/START button to test disabling feature on switch. The machine should not start.
  - If machine *does not* start, the switch disabling feature is working as designed.
  - If machine *does* start, immediately stop the machine. The switch disabling feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.

#### Recommended Adjustments

For your convenience, the following adjustments 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 these adjustments to ensure that this saw cuts safely and accurately.

## 

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

## **A**WARNING

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

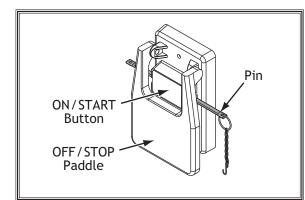


Figure 35. Removing switch key to disable paddle switch.

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

Adjustments that should be verified:

- 1. Blade Tilt Stop Accuracy (Page 65).
- 2. Miter Slot Parallel to Blade (Page 67).
- 3. Table/Dado Insert Adjustment (Page 75).



## **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!

The overview below provides the novice machine operator with a basic understanding of how the machine is used during operation, so the machine controls/components discussed later in this manual are easier to understand. Due to its generic nature, this overview is **NOT** intended to be an instructional guide.



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



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

## 

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



#### **Operation Overview**

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

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

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

- 1. Examines workpiece to make sure it is suitable for cutting.
- 2. Adjusts blade tilt, if necessary, to correct angle of desired cut.
- **3.** Adjusts blade height approximately <sup>1</sup>/<sub>4</sub>" higher than thickness of workpiece.
- 4. Adjusts fence to desired width of cut, then locks it in place.
- 5. Checks outfeed side of machine for proper support and to make sure workpiece can safely pass all the way through blade without interference.
- 6. Puts on safety glasses, respirator, hearing protection, and locates push sticks if needed.
- 7. Starts saw.
- 8. Feeds workpiece all the way through blade while maintaining firm pressure on workpiece against table and fence, and keeping hands and fingers out of blade path and away from blade.
- 9. Stops machine promptly after 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 may lead to injury.
- 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 or severe injury.



#### 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 36**.

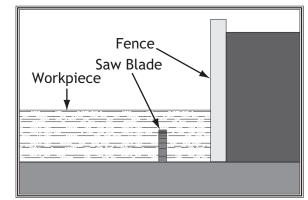
Examples of non-through cuts include dadoes and rabbets. Non-through cuts have a higher risk of injury from kickback because the blade guard must be removed. However, the riving knife MUST be installed because it still provides some protection. When making non-through cuts with a dado blade, do not attempt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

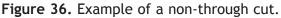
#### **Through Cuts**

A through cut is a sawing operation in which the workpiece is completely sawn through, as shown in **Figure 37.** 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.

## 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.





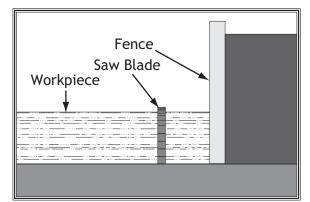


Figure 37. Example of a through cut (blade guard not shown for illustrative purposes).

**OPERATIONS** 



## **Blade Size Requirements**

The spreader/riving knife included with this machine is 0.090" (2.3mm) thick and is only designed for 10" diameter blades.

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

#### Blade Size Requirements:

- Body Thickness: 0.060"-0.086" (1.5-2.1mm)
- Kerf (Tooth) Thickness: 0.094"-0.126" (2.4-3.2mm)

## **A**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 38):

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

#### Crosscut Blade Features (Figure 39):

- 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 40):

- 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

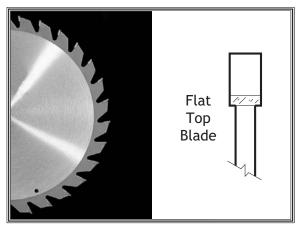


Figure 38. Example of a ripping blade.

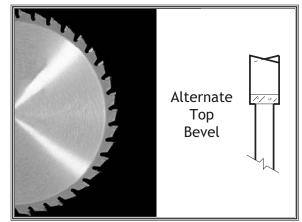


Figure 39. Example of a crosscut blade.

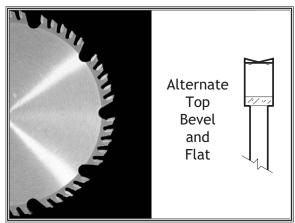


Figure 40. Example of a combination blade.



#### Laminate Blade Features (Figure 41):

- 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.

#### **Dado Blades**

**Stacked Dado Blade (see Figure 42):** 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.

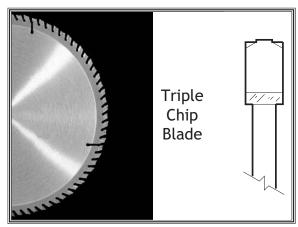


Figure 41. Example of a laminate blade.



Figure 42. 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 blade, do these steps:
- **DISCONNECT MACHINE FROM POWER!** 1.
- 2. Raise blade arbor all the way up, remove blade guard, table insert (leave Phillips head screws mounted in table throat), and spreader/riving knife.

**Note:** Table insert is held in place by a magnet.

3. Use included arbor wrenches to loosen and remove arbor nut, flange, and blade (see Figure 43). Arbor nut has right-hand threads; turn counterclockwise to loosen.



To reduce risk of injury, always disconnect power to saw before changing blades. Since the blade is sharp, use extra care and wear gloves when installing it.

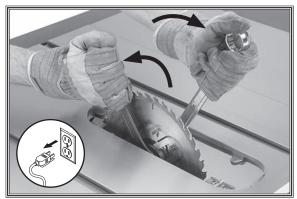


Figure 43. Example of removing table saw blade.

- 4. Install new blade, flange, and arbor nut on arbor (as shown in Figure 44) with teeth facing front of saw.
- 5. Re-install spreader/riving knife, table insert (see Page 75), and blade guard.

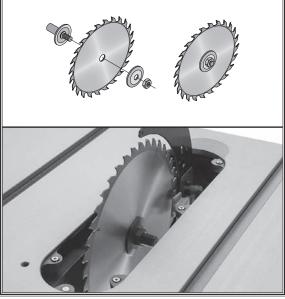


Figure 44. Correct order of installation with teeth facing the correct direction.



## **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 45**). Each of these components has important safety functions during the operation of the saw.

### Guard

The clear polycarbonate guard allows the operator to watch 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/Riving Knife

The spreader/riving knife is a metal plate that prevents the newly cut kerf of the workpiece from pinching the back side of the blade, causing kickback.

The spreader/riving knife also acts as a barrier behind the blade, which can help prevent hand from being pulled into the blade in certain situations if a kickback occurs.

### Installing Blade Guard & Spreader/Riving Knife

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Remove table insert, but leave Phillips head screws mounted in table throat.
- 3. Raise blade all the way up.
- 4. Insert lower set of holes on spreader/riving knife into bracket slot, and tighten lock lever to secure spreader (see **Figure 46**).

**Note:** Do not insert upper set of holes on spreader into bracket slot. Doing so will result in improper installation of blade guard.

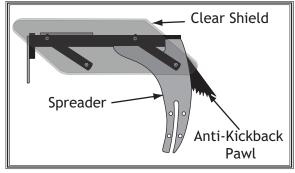


Figure 45. Blade guard assembly components.



In order to work properly, the spreader cannot be bent or misaligned with the blade. If the spreader accidentally gets bent, take the time to straighten it or just replace it. Using a bent or misaligned spreader will increase the risk of kickback! Refer to Page 69 to check or adjust alignment if necessary.

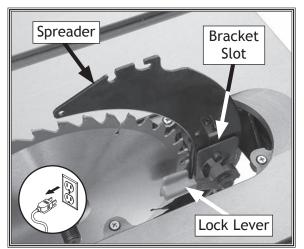


Figure 46. Lock lever used to secure spreader/riving knife.



- 5. Re-install table insert (refer to Table/Dado Insert Adjustment on Page 75).
- 6. Tug spreader upward to verify it is locked.
- 7. Push guard lever toward front of saw.
- 8. Insert rear pin on blade guard into rear slot of spreader (see Figure 47), then push down on blade guard assembly so forward pin slides into forward slot of spreader.
- 9. Push guard lever toward rear of saw, locking blade guard.
- **10.** Tug upward on blade guard assembly to verify that it is locked into spreader.

When properly installed, the blade guard should be set up similarly to **Figure 48.** It should pivot freely up and down and return to table in resting position. It should also swing up high enough to accommodate workpiece.

- 11. Swing one side of blade guard up and out of the way.
- **12.** While lifting up on right spreader pawl, place a straightedge against blade and spreader, making sure straightedge does not touch a blade tooth.

When properly aligned, spreader/riving knife will be in "Alignment Zone," shown in **Figure 49**, and will be parallel with blade.

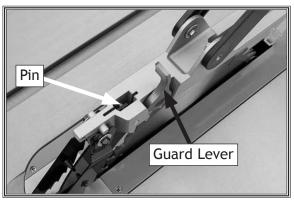


Figure 47. Blade guard installation.

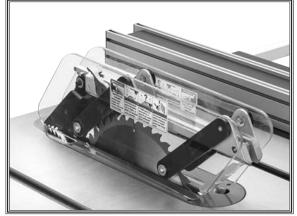


Figure 48. Blade guard installed.

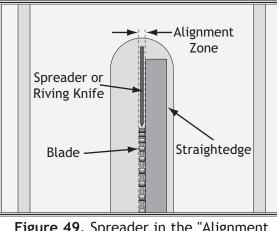


Figure 49. Spreader in the "Alignment Zone."

### 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, shown in **Figure 50**.

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.

#### **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 pawls, do these steps:

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Remove cap screw, locking hex nut, washers, pawls, and retaining spring from blade guard assembly (see Figure 51).

#### Enabling Pawls

To enable the pawls, re-install retaining spring, pawls, washers, cap screw, and locking hex nut onto blade guard assembly. Do not overtighten.

### When to Use 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 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!

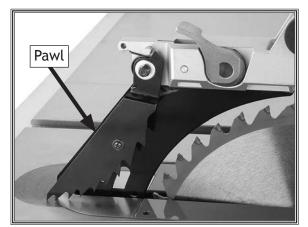


Figure 50. Pawls in resting position.

# 

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

## 

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

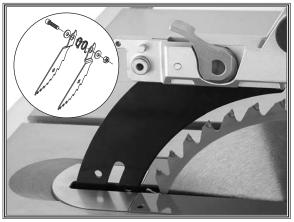


Figure 51. Pawls Removed.

**NOTICE** Whenever blade guard cannot be used, spreader/riving knife must be installed.



## **Riving Knife**

The spreader also functions as a riving knife, which works in the same manner as the spreader, but is used for nonthrough cuts. 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 a spreader and a riving knife is that a riving knife mounts below the blade's highest point of rotation, as shown in **Figure 52**.

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

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

When used as a riving knife, the spreader/riving knife must be kept within the range shown in **Figure 53**. For that reason, a 10" blade is required for operations that use a riving knife.

#### To install riving knife, do these steps:

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Remove table insert, but leave Phillips head screws mounted in table throat.

Note: Table insert is held in place by magnet.

- 3. Raise blade all the way up.
- 4. Insert *upper* set of holes on spreader/riving knife into bracket slot and tighten lock lever to secure spreader/riving knife (see **Figure 54**).
- 5. Re-install table insert (refer to Page 75).
- 6. Tug upward on top of spreader/riving knife to verify it is locked.

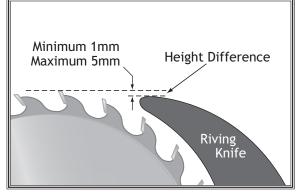


Figure 52. Example of height difference between riving knife and blade.

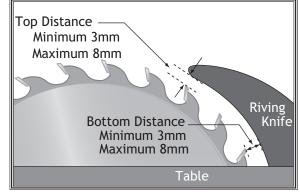


Figure 53. Example of allowable top and bottom distances between riving knife and blade.

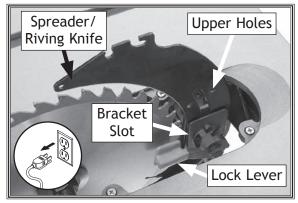


Figure 54. Lock lever used to secure spreader.



### When to Use the Riving Knife

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

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

### When Not to Use the Riving Knife

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

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

### 

To ensure riving knife works safely, it MUST be aligned with and correctly adjusted to blade. Refer to Page 69 to check or adjust riving knife alignment.



## 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 11** and take necessary precautions to reduce likelihood of kickback.
- 2. If using natural wood, joint one long edge of workpiece on a jointer.
- 3. DISCONNECT MACHINE FROM POWER!
- 4. Ensure that blade guard/spreader is installed.
- 5. Set fence to desired width of cut on scale.
- 6. Adjust blade height so highest saw tooth protrudes no more than 1/4" above workpiece.
- 7. Set up safety devices such as featherboards or other anti-kickback devices, making sure no safety devices are contacting blade.
- 8. Plug saw into power source, turn it *ON*, and allow it to reach full speed.

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

9. Use a push stick to feed workpiece through saw blade, as shown in Figure 55, until workpiece is completely beyond saw blade.

## 

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

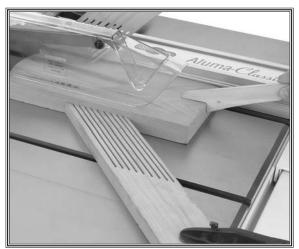


Figure 55. Typical ripping operation.

## 

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





## Crosscutting

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

To make a crosscut using miter gauge, do these steps:

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Ensure that blade guard/spreader is installed.
- Move rip fence aside and position miter gauge, adjusted to 90°, in a miter slot.
- 4. Adjust blade height so teeth protrude no more than 1/4" above workpiece.
- 5. Slide miter gauge near blade and adjust workpiece so blade will cut on waste side of line.
- 6. Plug in table saw, turn it *ON*, and allow it to reach full speed.
- 7. Hold workpiece firmly against face of miter gauge (as shown in Figure 56), and ease it through blade until workpiece is completely past saw blade.

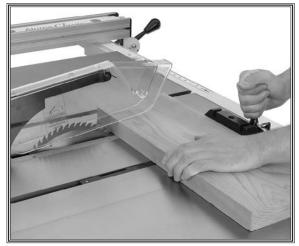


Figure 56. Typical crosscutting operation.

## **A**WARNING

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



### **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:

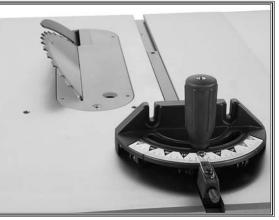
- 1. DISCONNECT MACHINE FROM POWER!
- 2. Ensure that blade guard/spreader is installed.
- 3. Determine angle of cut. If angle needs to be very precise, use a protractor to set miter gauge to blade.
- 4. Place face of miter gauge against edge of workpiece and place bar across face of workpiece. Use bar as a guide to mark your cut, as shown in **Figure 57**.
- 5. Place miter gauge back into slot and hold workpiece firmly against miter gauge body. Slide miter gauge near blade and adjust workpiece so blade will cut on waste side of line.
- 6. Proceed to make cut in same manner as described in **Crosscutting** instructions.

## Blade Tilt/Bevel Cuts

When the blade tilt adjustment bolts are properly adjusted (as described on **Page 65**), the blade tilt handwheel allows the operator to tilt the blade to the left, between  $0^{\circ}$  and  $45^{\circ}$ . This is used most often when cutting bevels, compound miters, or chamfers. **Figure 58** shows an example of the blade when tilted to  $45^{\circ}$ .



Figure 57. Example of marking miter line.



**Figure 58**. Example of blade tilted to 45° for bevel cutting (blade guard only removed for clarity.



## **Dado Cutting**

Commonly used in furniture joinery, a dado is a straight channel cut in the face of the workpiece. Dadoes are "non-through" cuts that can be made with a dado blade or a standard saw blade. **Figure 59** shows a cutaway view of a dado cut being made with a dado blade.

The Model W1837 can accommodate dado blades up to 10" in diameter. However, you MUST install the included riving knife while using a 10" diameter dado blade, as it provides a barrier behind the blade and reduces the risk of hands being pulled into the blade if kickback occurs.

DO NOT use the riving knife if you install a dado blade 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 and trying to turn the saw **OFF** with the workpiece stuck halfway through the cut.

### **Installing Dado Blade**

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Remove table insert, blade guard assembly, spreader/riving knife, and saw blade.
- 3. Attach and adjust dado blade system according to dado blade manufacturer's instructions.
- 4. Install included dado table insert.

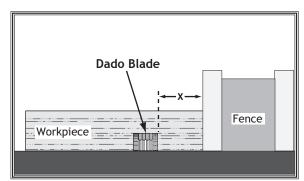


Figure 59. Example of a dado being cut with a dado blade.

## 

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



### Cutting Dadoes with a Dado Blade

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



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 depth and width of 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 desired cutting depth.

**Figure 60** demonstrates the sequential process of making multiple, light cuts that get progressively deeper. The actual number of cuts used should be determined by workpiece hardness, total dado depth, and feed rate. In general, if you hear the motor slow down during the cut, you are cutting too deep or feeding too fast. Slow down!

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

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Adjust dado blade to desired depth of cut.
- 3. Adjust distance between fence and inside edge of blade, as shown in Figure 59 on Page 43, to dado length of a workpiece.
  - If dadoing across workpiece, use miter gauge and carefully line up desired cut with dado blade. DO NOT use fence in combination with miter gauge.
- 4. Reconnect saw to power source.
- 5. Turn saw *ON*. Blade should run smoothly, with no vibrations.
- 6. When blade has reached full speed, perform test cut with scrap piece of wood.
  - If cut is satisfactory, repeat cut with actual workpiece.

## 

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

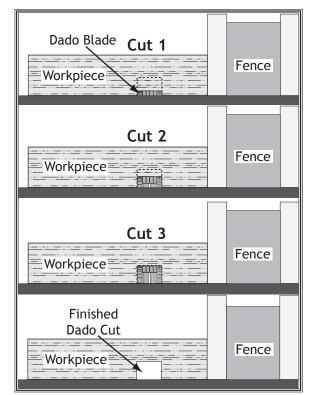


Figure 60. Example of dado being cut with multiple light cuts, instead of one deep cut.



### Cutting Dadoes with a Standard Blade

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

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

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Mark width of dado cut on workpiece. Include marks on edge of workpiece so cut path can be aligned when workpiece is lying on table.
- **3.** Raise blade up to desired depth of cut (depth of dado channel desired).
- 4. Set saw up for type of cut you need to make, depending on whether it is a rip cut (Page 40) or crosscut (Page 41).
- 5. Align blade to cut one side of dado, as shown in Figure 61.
- 6. Reconnect saw to power source and turn saw *ON*. Allow blade to reach full speed, then perform cutting operation.
- 7. Repeat cutting operation on other side of dado, as shown in **Figure 62**.
- 8. Make additional cuts (see Figure 63) in center of dado to clear out necessary material. Dado is complete when channel is completely cleared out.

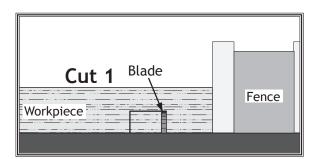


Figure 61. First cut for a single-blade dado.

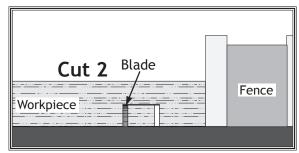


Figure 62. Second cut for a single-blade dado.

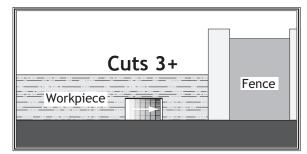


Figure 63. Additional single-blade dado cuts.



## 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 along the edge of a workpiece with a dado blade requires a sacrificial fence (see **Figure 64**). Make the sacrificial fence the same length as the fence and  $^{3}/_{4}$ " 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.

When using a dado blade, the included dado table insert must be installed and used during rabbeting operations.

### Cutting Rabbets with a Dado Blade

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Adjust dado blade to height needed for rabbeting operation. When cutting deep rabbets, take more than one pass to reduce risk of kickback.
- 3. Adjust fence and align workpiece to perform cutting operation, as shown in Figure 65.
- 4. Reconnect saw to power source and turn saw *ON*. When blade has reached full speed, perform a test cut with a scrap piece of wood.

-If cut is satisfactory, repeat cut with workpiece.

## **A**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.

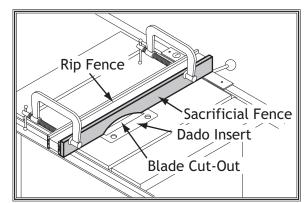


Figure 64. Example of sacrificial fence.

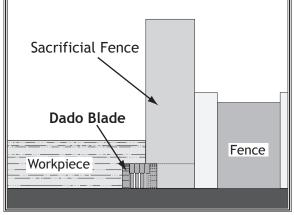


Figure 65. Rabbet cutting.

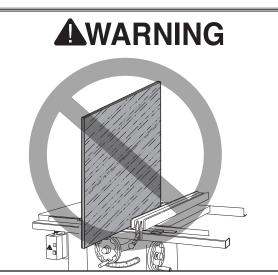


### Cutting Rabbets with a Standard Blade

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

To cut rabbets with standard blade, do these steps:

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Ensure that riving knife and standard table insert are installed.
- 3. Mark width of rabbet cut on edge of workpiece, so you can clearly identify intended cut while it is laying flat on saw table.
- 4. Raise blade up to desired depth of cut (depth of rabbet channel desired).
- 5. Stand workpiece on edge, as shown in Figure 66, then adjust fence so blade is aligned with inside of your rabbet channel.
  - If workpiece is very tall, or is unstable when placed against fence, lay it flat on table and use a dado blade to perform rabbet cut.
- 6. Reconnect saw to power source, then perform cut.
- 7. Lay workpiece flat on table, as shown in **Figure 67**, adjust saw blade height to intersect with first cut, then perform second cut to complete rabbet.



DO NOT place a tall board on edge to perform a rabbet cut with a standard blade. Workpieces that are too tall to properly support with fence can easily shift during operation and cause kickback. Instead, place stock flat on saw and perform rabbet cut with a dado blade, as instructed on Page 46.

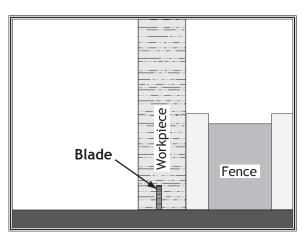


Figure 66. Example of rabbet cutting with a standard blade.

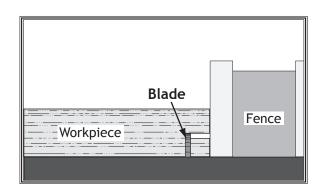


Figure 67. Example of second cut to create a rabbet.



### 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 1/8".

### Making a Resaw Barrier

When resawing, the resaw barrier (see **Figure 68**) acts in tandem with the rip fence to provide tall support for the workpiece. This minimizes the probability of it binding against the blade and causing kickback.

#### **Tools Needed:**

Table Saw	
Jointer and Planer	Recommended
Clamps	2 Minimum
Drill	
Drill Bits <sup>1</sup> /8", <sup>9</sup> /64"	1 Each
Countersink Bit	

#### Components Needed for Resaw Barrier:

Wood* <sup>3</sup> / <sub>4</sub> " x 5 <sup>1</sup> / <sub>2</sub> " x Length of Fence1
Wood* <sup>3</sup> / <sub>4</sub> " x 3" x Length of Fence1
Wood Screws #8 x 2"
Wood Glue As Needed

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

## **A**CAUTION

Resawing operations require proper procedures to avoid serious injury and prevent kickback. Any tilting or movement of workpiece away from fence will likely cause kickback. Be certain that stock is flat and straight. Failure to follow these warnings could result in serious personal injury or amputation.

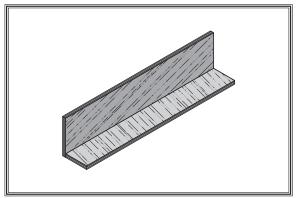


Figure 68. Example of resaw barrier.

Qty



#### To build a resaw barrier, do these steps:

- 1. Cut your wood pieces to specified size. If you are using hardwood, cut pieces oversize, then joint and plane them to correct size to make sure they are square and flat.
- 2. Pre-drill and countersink four holes approximately  $\frac{3}{8}$ " from bottom of  $5^{1}/2$ " 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 69, and fasten them together with the wood screws.

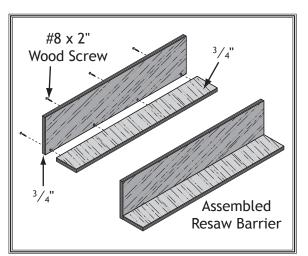


Figure 69. Resaw barrier.

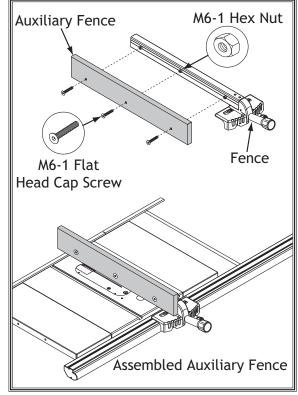


Figure 70. Example illustration of an auxiliary fence installed.

### Making Auxiliary Fence

An auxiliary fence is necessary if you are resawing a workpiece that is taller than it is wide. The fence should be no less than 1/2" shorter than the board to be resawn.

The fence should be similar to the one in **Figure 70** when installed.

#### **Tools Needed:**

Clamps2	
Drill	
Drill Bit <sup>1</sup> / <sub>4</sub> "1	
Countersink Drill Bit1	
Hex Wrench 5mm1	
Ruler1	

#### **Components Needed for Auxiliary Fence:**

Hex Nuts M6-1
Flat Head Cap Screws M6-1 (length varies)3-6
Wood* <sup>3</sup> / <sub>4</sub> " x 4" x Length of Fence 1

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

**OPERATIONS** 

-50-

Qty

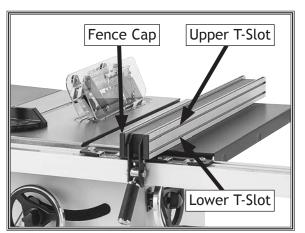


#### To build an auxiliary fence, do these steps:

- 1. Remove fence cap from fence face on which you will mount auxiliary fence (see Figure 71).
- 2. Slide (3) M6-1 hex nuts into either the upper or lower T-slot.

**Note:** For additional mounting strength, attach auxiliary board with (6) hex nuts and flat head cap screws using upper and lower T-slots.

- 3. Place auxiliary fence board against fence face. Place a thin metal shim (such as a ruler) between table and bottom of auxiliary fence board to ensure adequate clearance between fence board and table. Clamp in position.
- 4. Measure depth of board plus depth of T-slot, to determine maximum length of M6-1 flat head cap screws needed to mount auxiliary fence board to fence face.
- 5. Measure centerline of fence T-slot and transfer to auxiliary fence board to determine where to drill holes in board for flat head cap screws.
- Set auxiliary fence board aside, and using <sup>1</sup>/<sub>4</sub>" drill bit, drill mounting holes in auxiliary fence board. Countersink holes <sup>1</sup>/<sub>16</sub>" deep so head of cap screw sits slightly beneath face of auxiliary fence board.
- 7. Insert cap screws through holes in auxiliary fence board (see Figure 72).
- 8. Align cap screw threads with hex nuts and tighten (see Figure 72).
- 9. Replace fence cap.



**Figure 71.** Auxiliary fence mounts on upper or lower T-slots of fence face.

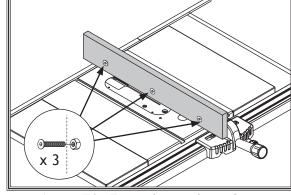


Figure 72. Example auxiliary fence attached to included fence.



### **Resawing Operations**

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

#### **Components Needed for Resawing:**

Zero-clearance 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 MACHINE FROM POWER!
- 2. Remove standard table insert and blade guard assembly.
- **3.** Install ripping blade, install riving knife, lower blade below table surface, then install zero-clearance table insert.
- 4. Attach auxiliary fence and set it to desired width.

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

- Place workpiece against auxiliary fence and slide resaw barrier against workpiece, as shown in Figure 73. Now clamp resaw barrier to top of table saw at both ends, making sure it is parallel to fence.
- 6. Lower blade completely below table-top, and slide workpiece over blade to make sure it moves smoothly and fits between resaw barrier and fence.
- 7. Raise blade approximately an inch, or close to half the height of workpiece, whichever is less.

## 

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

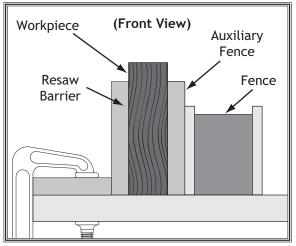


Figure 73. Example illustration of a resaw setup.



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

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

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

## **A**WARNING

The danger of kickback increases relative to the depth of a cut. Reduce 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.

## **A**WARNING

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

- Repeat Steps 7-9 until blade is close to half the height of board to be resawn. The ideal completed resaw cut will leave an <sup>1</sup>/<sup>8</sup> connection when resawing is complete, as shown in Figure 74. Leaving an <sup>1</sup>/<sup>8</sup> connection will reduce risk of kickback.
- 11. Turn *OFF* table saw, then separate parts of workpiece and hand plane remaining ridge to remove it.
- **12.** When finished resawing, remove resaw barrier and auxiliary fence, then re-install blade guard/spreader or riving knife and standard table insert.

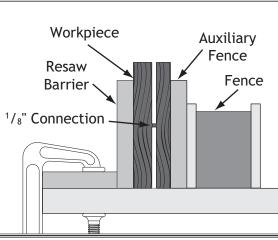


Figure 74. Ideal completed resaw operation.



# 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, and 2) those secured with the miter slot.

#### Material Needed for Featherboard:

Hardwood <sup>3</sup> / <sub>4</sub> " x 3" x 10"	(Minimum)1
Hardwood <sup>3</sup> / <sub>4</sub> " x 6" x 28"	(Maximum)1

#### Additional Material Needed for Mounting Featherboard:

Hardwood <sup>3</sup> / <sub>8</sub> " x (Miter Slot Width) x 5"L1
Wing Nut <sup>1</sup> / <sub>4</sub> "-201
Flat Head Screw 1/4"-20 x 2"1
Flat Washer 1/4"-201

#### To make a featherboard, do these steps:

- Cut a hardwood board that is approximately <sup>3</sup>/<sub>4</sub>" 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 wood grain runs parallel with length of featherboard, so fingers you will create in Step 3 will bend without breaking.
- 2. Cut 30° angle at one end of board.
- Make a series of end cuts with the grain <sup>3</sup>/<sub>8</sub>"-<sup>1</sup>/<sub>4</sub>" apart and 2"-3" long, as shown in Figure 75 (A). Alternatively, start cuts at 2"-3" deep, then make them progressively deeper, as shown in Figure 75 (B).

## **A**CAUTION

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

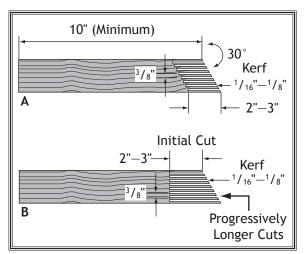


Figure 75. Patterns for making featherboards.

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

## NOTICE

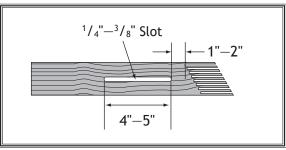
Only *Steps 1-3* are required to make a clamp-mounted featherboard. Refer to *Page 55* for instructions on clamping.



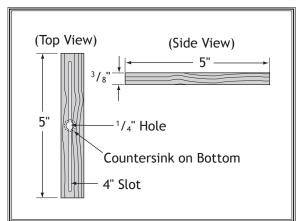
- 4. Rout a 1/4"-3/8" wide slot 4"-5" long in workpiece and 1"-2" from short end of featherboard (see Figure 76).
- 5. Cut a miter bar approximately 5" long that will fit in table miter slot, as shown in Figure 77.

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

- 6. Drill a 1/4" hole in center of bar, then countersink bottom to fit a 1/4"-20 flat head screw.
- 7. Mark a 4" line through center of countersunk hole in center, then use a jig saw with a narrow blade to cut it out.









Assemble miter bar and featherboard with a <sup>1</sup>/<sub>4</sub>"-20 x flat head screw, flat washer, and a wing nut or a star knob (see Figure 78). Congratulations! Your featherboard is complete.

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

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

9. Now, proceed to Mounting Featherboard in Miter Slot on Page 55.

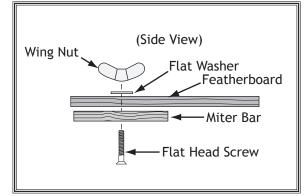


Figure 78. Assembling miter slot featherboard components.



### Mounting Featherboard w/Clamps

- 1. Lower saw blade, then adjust fence to desired width and secure it.
- 2. Place workpiece against fence, making sure it is 1" in front of the blade.
- 3. Place a featherboard on table away from blade so all fingers point forward and contact workpiece (see Figure 79).
- 4. Secure featherboard to table with a clamp.
- 5. Check featherboard by pushing it with your thumb to ensure it is secure.
  - If featherboard moves, tighten clamp more.
- 6. Optional: If cutting long workpieces, it may be beneficial to use another featherboard to keep board firmly against table while feeding.

### Mounting Featherboard in Miter Slot

- 1. Lower saw blade, then adjust fence to desired width and secure it.
- 2. Place workpiece evenly against fence, making sure it is 1" in front of blade.
- 3. Slide featherboard miter bar into miter slot, making sure fingers slant toward blade, as shown in Figure 80.
- Position fingered edge of featherboard against edge of workpiece, so that all fingers contact workpiece. Slide featherboard toward blade until first finger is nearly even with end of workpiece, which should be 1" away from blade.
- Double check workpiece and featherboard to ensure they are properly positioned, as described in Step 4. Then secure featherboard to table. Check featherboard by hand to make sure it is tight.

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

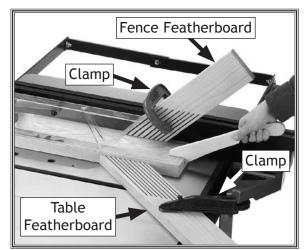


Figure 79. Example of featherboards secured with clamps.

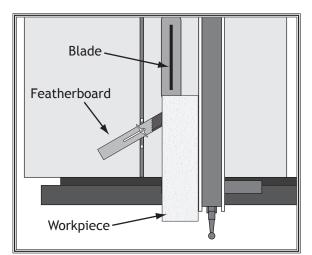


Figure 80. Featherboard installed in miter slot and supporting workpiece for ripping cut.

### 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.

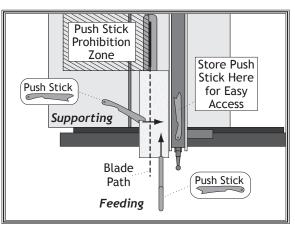


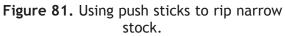
## Push Sticks

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 81**), and move the workpiece into the blade with steady downward and forward pressure.

**Supporting:** A second push stick can be used to keep the workpiece firmly against the fence while cutting. When using a push stick in this manner, only apply pressure before the blade; otherwise, pushing the workpiece against or behind the blade will increase the risk of kickback (see "Push Stick Prohibition Zone" in **Figure 81**).





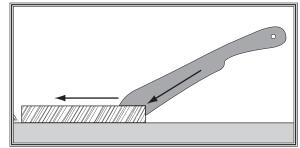


Figure 82. Side view of push stick in use.

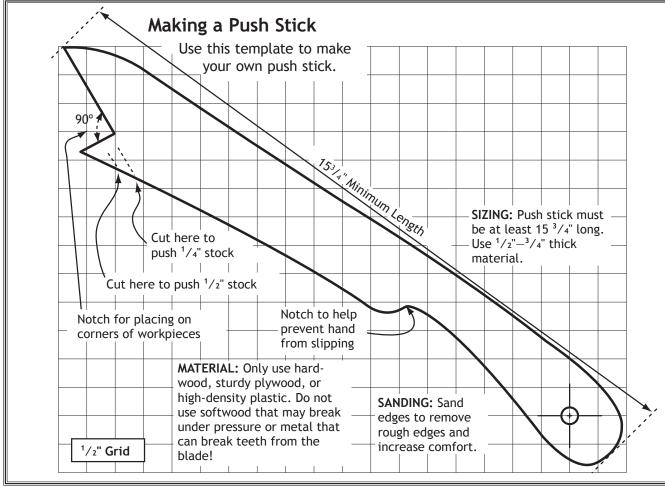


Figure 83. Template for a basic shop-made push stick (not shown at actual size).



## **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 86**) can be used in two different ways (see **Figure 85**). 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.

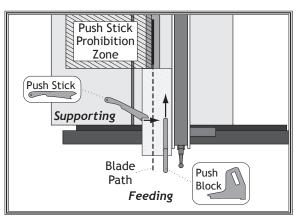


Figure 84. Using a push block and push stick to make a rip cut.

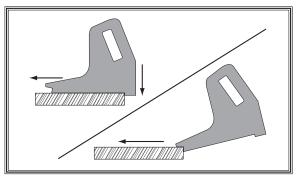


Figure 85. Side view of push block in use.

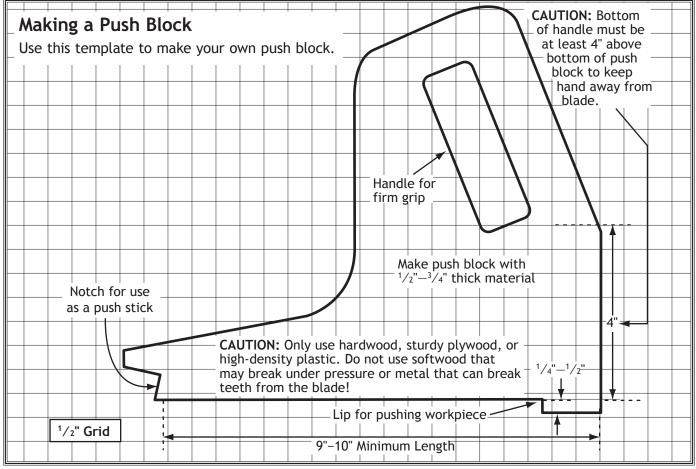


Figure 86. Template for a basic shop-made push block (shown at 50% full size).



### Narrow-Rip Auxiliary Fence & Push Block

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

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

Hardwood <sup>3</sup> / <sub>4</sub> " x 3" x Length of Fence1
Plywood <sup>3</sup> / <sub>4</sub> " x 5 <sup>1</sup> / <sub>4</sub> " x Length of Fence1
Wood Screws #8 x 1 <sup>1</sup> /2"

#### Material Needed for Push Block

## Making a Narrow-Rip Push Block for an Auxiliary Fence

1. Cut a piece of 3/4" thick plywood  $5^{1}/4$ " wide and as long as your table saw fence; cut a piece of 3/4" thick hardwood 3" wide and as long as your table saw fence, as shown in **Figure 87**.

**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 3/8"from bottom of 3" wide board, then secure boards together with (8) #8 x  $1^{1}/{2}"$  wood screws, as shown in Figure 88.
- Using <sup>3</sup>/<sub>4</sub>" material you used in previous steps, cut out pieces for push block per the dimensions shown in Figure 89; for handle, cut a piece 10" long by 5"-9" high and shape it as desired to fit your hand.
- 4. Attach handle to base with  $#8 \ge 1^{1/2}$  wood screws, and attach lip to base with cyanoacrylate-type wood glue.

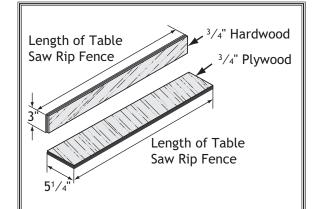


Figure 87. Auxiliary fence dimension.

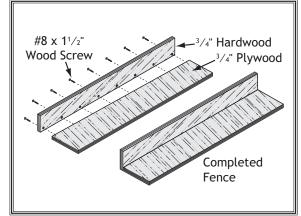


Figure 88. Location of pilot holes.

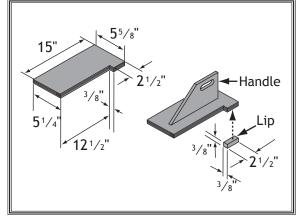


Figure 89. Push block dimensions and construction.



### Using Auxiliary Fence and Push Block

- 1. Place auxiliary fence on table and clamp it to fence at both ends, then adjust distance between auxiliary fence and blade—this determines how wide workpiece will be ripped (see Figure 90).
- 2. Install blade guard, then remove right spreader pawl, as explained on Page 37, so it does not interfere with push block lip.
- 3. Place workpiece 1" behind blade and evenly against table and auxiliary fence (see Figure 91).



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

- 4. Turn saw *ON*, then begin ripping workpiece using a push stick for side support.
- 5. As workpiece nears end of cut, place push block on auxiliary fence with lip directly behind workpiece, then release push stick just before blade.
- 6. Guide workpiece rest of the way through cut with push block, as shown in **Figure 92**.
- 7. Re-install right spreader pawl when finished using auxiliary fence and push block.

## 

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

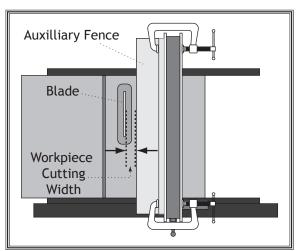


Figure 90. Adjusting ripping distance between blade and auxiliary fence.

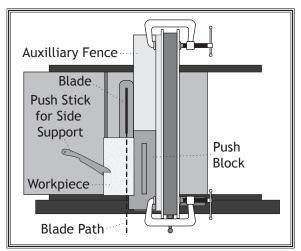


Figure 91. Push block in position to push workpiece through blade.

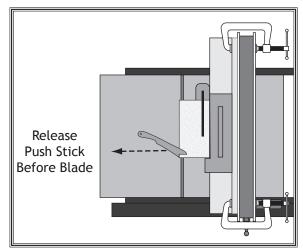


Figure 92. Ripping with push block.



## 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 93**). 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 93. Example of support and outfeed tables.

## **Crosscut Sled**

A crosscut sled (see **Figure 94**) 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.

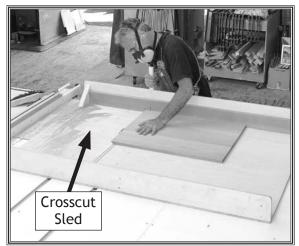


Figure 94. Example of a crosscut sled.

# 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 <u>sales@woodstockint.com</u>.

### 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  $6^3/_8$ " to  $4^1/_8$ ". 1,000 lb. capacity!

### W1727–1 HP Dust Collector

Specifications: • 1 HP, 120V/240V, 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 •  $15^{3}/_{4}$ " x  $39^{3}/_{4}$ " base on casters for portability • 2.5 micron bag filtration • Power-coated finish for durability •  $54^{1}/_{2}$ " height with bag inflated.

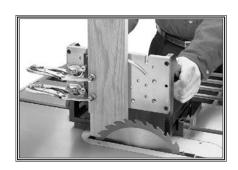
### W1500-Right Angle Jig

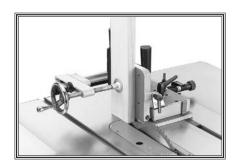
This jig is constructed using top quality aluminum castings and plates which are machined to exacting tolerances. It has the perfect weight-use ratio to dampen vibration, yet is still light enough to easily slide the workpiece through the machining process. Its quality and precision are evident from the first cut. Cut tenons, dadoes, rail ends, and finger joints safely and with complete accuracy.

### D3246—Tenoning Jig

This jig can help you produce perfect tenons for mortise and tenon joinery. This tenoning jig also adjusts for angled tenon cutting set-ups. Standard 3/8" x 3/4" miter bar fits all miter gauge slots including T-slots.











# MAINTENANCE

## General

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 35**).
- 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<sup>®</sup>.
- 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 77).

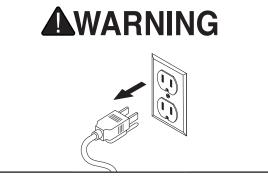
#### Every 6-12 Months:

- Lubricate trunnion slides (Page 64).
- Lubricate worm gear (Page 64).
- Lubricate leadscrew (Page 64).

## Cleaning & Protecting

Cleaning the Model W1837 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 resindissolving cleaner to remove it.

Protect the unpainted cast iron table by wiping it clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces. Keep your table rustfree with regular applications of quality lubricants.



MAKE SURE that your machine is unplugged during all maintenance procedures! If this warning is ignored, serious personal injury may occur.



## Lubrication

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

Clean the components in this section with mineral spirits or other oil/grease solvent cleaner and shop rags.

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

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

- Trunnion Slides and Orientation Gears
- Worm Gears, Trunnion, and Bearing Housing Teeth

### **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 95**).

### Worm Gear, Bull Gear, Leadscrew

Clean away any built up grime and debris from the worm gear, bull gear, and leadscrew (see **Figures 96-97**) with a wire brush, rags, and mineral spirits. Allow the components to dry, then apply a thin coat of white lithium grease.

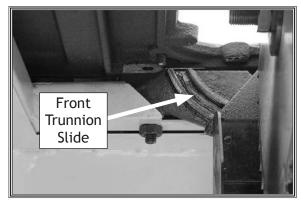


Figure 95. Trunnion slide (only front slide shown).

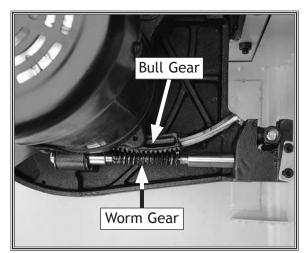


Figure 96. Location of the bull and worm gears.

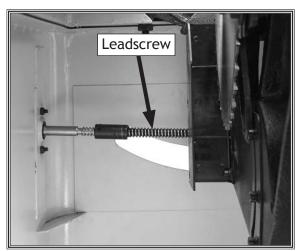


Figure 97. Location of the leadscrew.



# 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: techsupport@woodstockint.com.

## **Blade Tilt Calibration**

The blade tilt settings for this saw have been set at the factory and should not require adjustment during assembly. However, after prolonged use, or if the saw does not cut accurate bevels, the settings should be checked and adjusted accordingly.

**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

- 1. DISCONNECT MACHINE FROM POWER!
- Raise blade as high as it will go, then tilt it toward 90° until it stops and cannot be tilted any more.
- 3. Place a 90° square against table and blade so it contacts blade evenly from bottom to top, as shown in Figure 98. Make sure a blade tooth does not obstruct placement of square.
  - If blade is 90° to table, then no adjustments are necessary. Make sure tilt indicator arrow shown in Figure 99 points to 0° mark on scale. Adjust position by loosening Phillips head screws, moving indicator with your fingers, then tightening screws.
  - If blade *is not* 90° to table, you will need to adjust 90° stop nuts. Proceed to Step 4.



MAKE SURE that your machine is unplugged during all service procedures! If this warning is ignored, serious personal injury may occur.

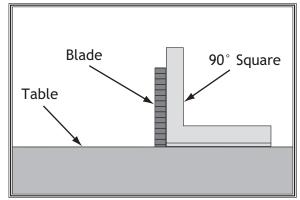


Figure 98. Checking blade at 90°.



Figure 99. Tilt indicator arrow location.



- 4. Remove motor cover.
- 5. Loosen (2) M8-1.25 hex nuts on leadscrew (see Figure 100).
- 6. Tilt blade to about 5° so there is room for stop nuts to move.
- 7. Loosen stop nuts and adjust according to how far off blade was from 90°. Recheck blade and repeat adjustment as necessary until blade stops at 90°, then tighten stop nuts against each other and replace motor cover.

**Note:** Turning stop nuts clockwise adjusts blade further to right; turning them counterclockwise adjusts blade to left.

### Setting 45° Stop

- 1. DISCONNECT MACHINE FROM POWER!
- Raise blade as high as it will go, then tilt it towards 45° until it stops and cannot be tilted any more.
- Place a 45° square against table and blade so it contacts blade evenly from bottom to top, as shown in Figure 101. Make sure a blade tooth does not obstruct placement of square.
  - If blade *is* 45° to table, then no adjustments need to be made. Proceed to Step 8.
  - If blade is not  $45^{\circ}$  to table, you will need to adjust  $45^{\circ}$  limiting block. Proceed to Step 4.
- 4. Remove rear access panel.
- 5. Loosen (2) M5-.8 x 10 cap screws in 45° limiting block (see Figure 102).
- 6. Tilt blade away from 45° by about 5°, so there is room for limiting block to move.
- 7. Adjust 45° limiting block according to how far off blade was from 45°, then recheck blade and repeat adjustment as necessary until blade stops at 45°, then tighten cap screws and replace rear access panel.
- Make sure tilt indicator arrow points to 45° mark on scale. If it doesn't, adjust indicator arrow as described on Page 65.

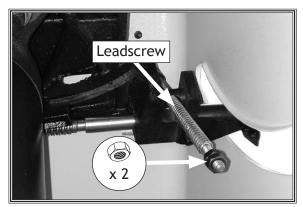


Figure 100. Location of 90° stop nuts.

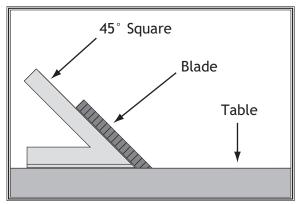


Figure 101. Checking blade at 45°.

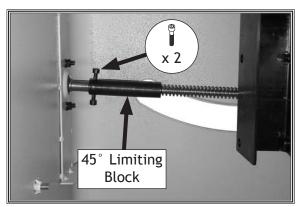


Figure 102. Location of 45° limiting block.



### 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
Metal Shim Stock As	s Needed
Open-End Wrench 12mm	1

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

- 1. DISCONNECT MACHINE FROM POWER!
- Tilt blade to 0°, then use an adjustable square to measure distance from miter slot to a carbide tip on blade, as shown in Figure 103. Make sure that face of adjustable square is even along miter slot.
- 3. With end of adjustable square just touching tip, lock square in place. Now, mark carbide tip with a marker where you made this measurement.
- 4. Rotate marked blade tip to other end of table insert.
- 5. Slide adjustable square down to other end of table insert and compare distance from marked blade tip to end of adjustable square, as shown in Figure 104.
  - -If blade tip measurement *is* same on both sides, go to **Step 8**.
  - If blade tip *does not* touch end of adjustable square similar to first measurement, table will need to be adjusted. Proceed to Step 6.

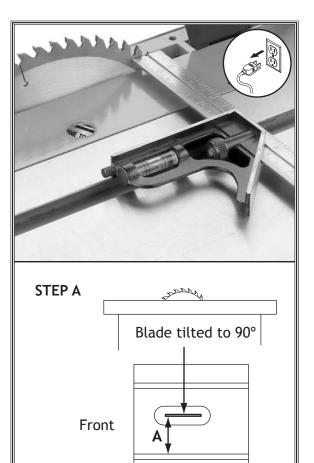


Figure 103. Making first slot-to-blade measurement at 90°.

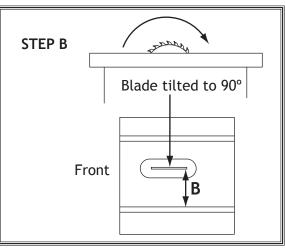


Figure 104. Making second slot-to-blade measurement at 90°.



- 6. Loosen (4) table mounting bolts securing table top to base (see Figure 105), and lightly tap table in direction needed to square table to blade.
- 7. Repeat Steps 2-6 until blade and miter slot are parallel, then retighten table mounting bolts.
- **8.** Tilt blade to 45° and recheck miter slot-to-blade parallelism.
  - If blade is still parallel with miter slot, no additional adjustments need to be made.
  - If blade was parallel with miter slot at 0° but not at 45°, one end of table will need to be shimmed higher with metal shim stock. Continue to Step 9.
- 9. Loosen (4) table mounting bolts from Step 6.
- 10. Refer to Figures 106-107 for shim placement. If distance A is shorter than B, shim(s) will need to be placed under corners #1 and #2. If the distance of B is shorter than A, shim(s) will need to be placed under corner #3. Very thin shim stock works well.
- 11. Tighten one table mounting bolt a small amount and then repeat with the others, tightening each down the same amount. Continue this process with all the bolts, tightening them a little each time until they are all secure.
- 12. Now recheck blade to miter slot at 0° and 45° by repeating Steps 2-5.
  - -If distance of A and B are equal, continue to **Step** 13.
  - -If distances are still off, repeat Steps 9-12.
- **13.** Once miter slot is adjusted to blade, recheck all measurements and be sure table mounting bolts are secure.

**Note:** If you remove the table in the future, note the shim placements and reassemble them exactly how they came apart.

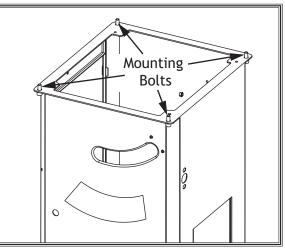


Figure 105. Location of table mounting bolts (table omitted for clarity).

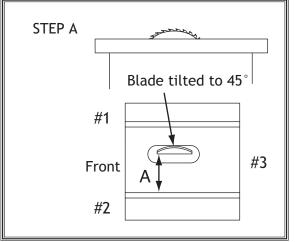


Figure 106. Shim procedure diagram A.

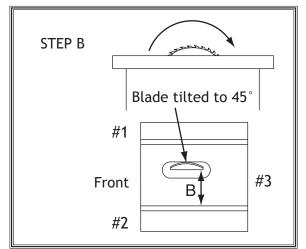


Figure 107. Shim procedure diagram B.



### Spreader or Riving Knife Alignment

### **Checking Alignment**

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

#### **Tools Needed**

Qty Straightedge (min. 12")..... ..........1

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

- 1. **DISCONNECT MACHINE FROM POWER!**
- 2. Raise saw blade to maximum height so you have easy working access.
- 3. Place straightedge against top and bottom of blade and spreader/riving knife, as shown in Figure 108. Spreader/riving knife should be parallel with blade at both positions and in the "Alignment Zone," as shown in Figure 109.
  - -If spreader is in alignment zone no adjustments need to be made.
  - -If spreader/riving knife is not parallel with blade and inside alignment zone, then it needs to be adjusted. Proceed to Adjusting Alignment instructions.
  - -If spreader/riving knife is not parallel with blade at either top or bottom, it may be bent. Remove spreader/riving knife, place it on a flat surface and check to see if spreader/riving knife lies evenly along its length.
  - -If spreader/riving knife does not lie evenly, proceed to Adjusting Bent Spreader/Riving Knife procedure.

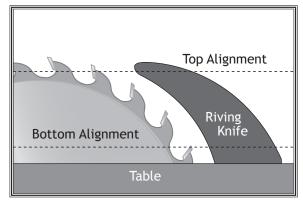
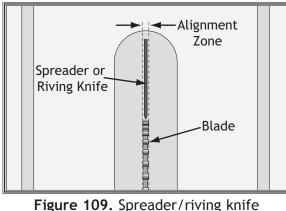


Figure 108. Example of checking top and bottom riving knife parallelism with blade.



alignment zone.



### Adjusting Alignment

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

## Possible Tools NeededQtyHex Wrench 4mm1

#### To adjust spreader/riving knife position, do these steps:

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Remove table insert, but leave Phillips head screws mounted in table throat.

Note: Table insert is held in place by a magnet.

- 3. Loosen two cap screws on the "L" bracket (see Figure 110), then slide spreader/riving knife as needed to move it into alignment with blade.
- 4. Follow Checking Alignment, Steps 1-3 on Page 69.
  - If spreader/riving knife *is* in alignment zone, no additional steps are necessary.
  - If spreader/riving knife is still not in alignment zone, continue adjusting position of "L" bracket as necessary to correctly align spreader/riving knife.
- 5. Tighten two cap screws on mounting block to secure spreader/riving knife adjustment.
- 6. Replace table insert (refer to Page 75).

### Adjusting Bent Spreader/Riving Knife

- 1. DISCONNECT MACHINE FROM POWER!
- Bend spreader/riving knife by hand while installed, then follow Steps 1-3 in Checking Alignment to determine if it is parallel with blade and inside "Alignment Zone" (refer to Checking Alignment on Page 69).
  - If this does not work, remove spreader/riving knife to straighten.
  - If you cannot straighten spreader/riving knife properly, replace it.

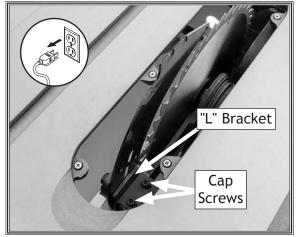


Figure 110. Cap screws for adjusting spreader/riving knife position.



### **Adjusting Fence**

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

Tools Needed	Qty
Wrench 19mm	1
Hex Wrench 6mm	1
Machinist's Square	1

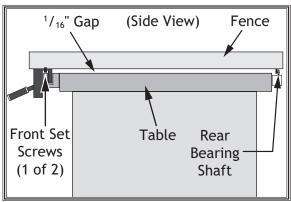
#### Fence Squareness and Height

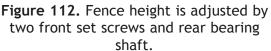
The fence face must be square to the table in order to produce accurate cuts. The fence is adjustable with two set screws where the fence slot sits in the front rail (see Figure 111).

Also, the fence should be adjusted evenly above the table to ensure it does not drag across the surface, as shown in **Figure 112**.



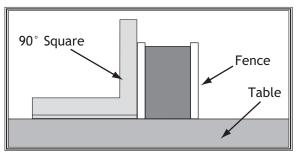
Figure 111. Location of lock nuts and set screws for adjusting fence squareness and height.

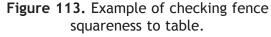




To check/adjust fence squareness and height to table, do these steps:

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Place square on table against face of fence (see Figure 113) to check if fence is square to table.
  - If fence *is not* square to table, proceed to **Step 3**.
  - If fence *is* square to table, skip to Step 4.
- Loosen knurled lock nuts and adjust set screws (see Figure 111) on top of fence bracket to ensure fence face is 90° to table. Tighten lock nuts when fence is square to table.







- 4. Measure gap between fence and table top at front and rear of fence.
  - If gap is approximately <sup>1</sup>/<sub>16</sub>" and even from front of table to back (see Figure 114), then no additional adjustments are necessary. Proceed to Fence Handle Clamping Pressure below.
  - If gap is uneven, or if fence height is not approximately  $1/_{16}$ " above table, then continue with Step 5.
- 5. Remove fence assembly and lay it upside down.
- 6. Remove fence assembly cap as shown in Figure 115, then loosen inner and outer jam nuts that secure bearing shaft.

**Note:** Wrench clearance for inner jam nut is tight inside fence assembly. If necessary, hold inner jam nut with wrench and twist bearing shaft to loosen.

- 7. Re-install fence assembly.
- 8. Reach inside fence and adjust height of bearing shaft. Turn shaft clockwise to decrease shaft height; turn shaft counterclockwise to raise shaft height.
- 9. When satisfied with position of bearing shaft, remove fence and tighten inner and outer jam nuts. Keep roller bearing parallel with rear fence rail.
- 10. Re-install fence. Repeat Steps 4-9 until gap between table and fence is approximately  $1/_{16}$ " and even from front to back of table.

#### Fence Handle Clamping Pressure

- 1. Remove fence and lay it upside down.
- 2. Loosen knurled lock nut (see Figure 116).
- **3.** Adjust set screw clockwise to increase clamping pressure of lock handle or counterclockwise to decrease clamping pressure.
- 4. Tighten knurled lock nut.
- 5. Re-install fence and check clamping pressure of lock handle.
- 6. Repeat Steps 1-5 as necessary until satisfied.

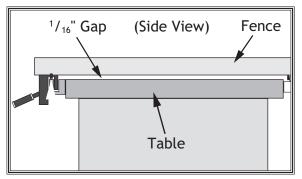


Figure 114. Example of even gap between fence and table approximately <sup>1</sup>/<sub>16</sub>" front to back.

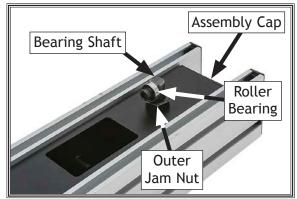


Figure 115. Rear adjustment area for leveling fence.



Figure 116. Set screw for adjusting fence handle clamping pressure.



#### Calibrating Fence to Blade

Two set screws at the front of the fence position it parallel with the blade (see **Figure 117**). Follow the procedures below to check the fence/blade parallelism and adjust the fence if necessary. Perform this step *only* after **Adjusting Fence** on **Page 66**.

# Tools NeededQtyHex Wrench 4mm1Framing Square 24"1

To check and adjust fence parallelism, do these steps:

- 1. DISCONNECT MACHINE FROM POWER!
- Slide fence against right edge of miter slot, lock it in place, then raise blade fully. Using a ruler, examine how fence lines up with miter slot and blade (see Figure 118).
  - If fence *is* parallel with blade, no further adjustments need to be made.
  - If fence *is not* parallel with blade, proceed to Step 3.
- 3. Remove fence assembly from front rail.
- 4. Adjust two set screws on front of fence, as shown in **Figure 117**. Each set screw adjustment affects opposite side of fence.
- 5. Re-install fence assembly and measure parellism with blade. Repeat **Step 4** as needed.

#### **Offsetting Fence**

Some woodworkers prefer to offset the rear of the fence 1/64" from the blade, as shown in **Figure 119**.

The reason for this wider gap at the back side of the blade is to help prevent the chance of kickback and the blade burning the workpiece because a workpiece may be inconsistent. However, the trade-off is less accurate cuts, and if the fence is placed on the other side of the blade for other table saw operations, the potential of workpiece burning and kickback can be increased. Whenever using a fence, make sure that if an offset has been adjusted in the fence alignment, you use the fence on the side of the blade where the offset creates the wide gap.

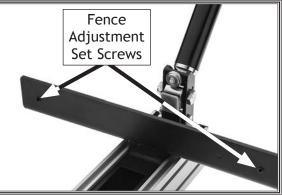


Figure 117. Location of set screws to adjust fence parallelism (shown upside down).

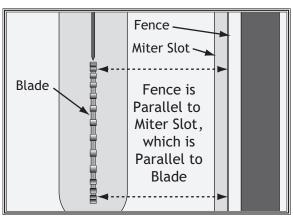
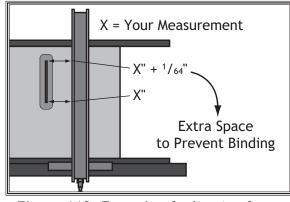
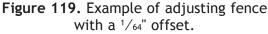


Figure 118. Checking fence parallelism with blade.





SERVICE



### **Fence Scale Calibration**

The fence scale windows, shown in **Figure 120**, can be calibrated with the fence scale by loosening the mounting screws and sliding them in the desired direction.

The indicator window on the right side is used when the fence is positioned to the right side of the blade. The indicator window on the left is used when the fence is positioned on the left side of the blade.

**IMPORTANT:** Do not use the fence on the left side of the blade if it has been purposely offset, and is not adjusted parallel with the blade.

Tools Needed	Qty
Phillips Head Screwdriver #2	1
Scrap Piece of Wood	

To calibrate fence scale indicator windows, do these steps:

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

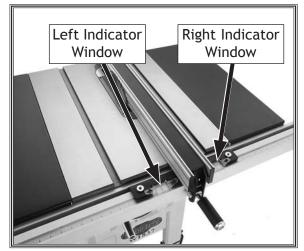
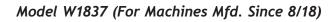


Figure 120. Fence indicator windows.





#### Table/Dado Insert Adjustment

The table/dado insert must sit perfectly flush with the table to provide a smooth, continuous surface for the workpiece to slide over. The insert is held in place by a magnet and sits on top of five adjustment screws (see **Figure 121**). The insert should be checked and adjusted any time it is removed and replaced, after prolonged use, or any time you notice the workpiece does not slide smoothly across the insert.

#### **Tools Needed**

Phillips Head Screwdriver #2	1
Straight Edge	

To check and adjust insert, do these steps:

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Place straightedge across insert and check to make sure insert is flush with table at front and back of throat.
  - If insert is flush with table, no adjustments are necessary.
  - If insert is not flush with table, proceed to **Step 3**.
- 3. Insert screwdriver through holes shown in Figure 121 and either loosen screws to raise insert, or tighten screws to lower it. Repeat Steps 2-3 until insert is perfectly flush with surface of table.

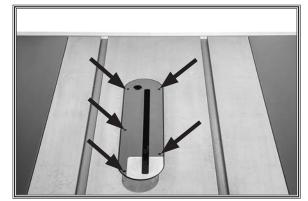


Figure 121. Location of table/dado insert holes with adjustment screws.

Qty



### Miter Gauge Adjustments

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

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

#### Checking/Setting 90° Stops

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Slide miter gauge into T-slot on table.
- 3. Place square evenly against face of miter gauge and blade, as shown in Figure 122.
  - If square touches miter body and body of blade evenly at same time, then it is square to blade. No adjustments are necessary.
  - -If square does *not* touch miter body and blade evenly, then proceed to **Step 5**.
- 4. Remove miter gauge from miter slot.
- 5. Loosen two Phillips head screws that secure 90° stop plate (see Figure 123).
- 6. Using a square, position miter shaft at 90° to miter gauge body.
- 7. Tighten stop plate screws, then repeat Step 3.

#### Checking/Setting 45° Stops

Follow the same process with the  $45^{\circ}$  and  $30^{\circ}$  stops that you followed with the 90°, except using a  $45^{\circ}$  square or adjustable square to verify that the miter body is  $45^{\circ}$  to the blade.

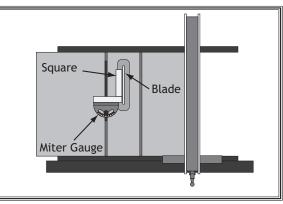


Figure 122. Checking 90° stop on miter gauge.

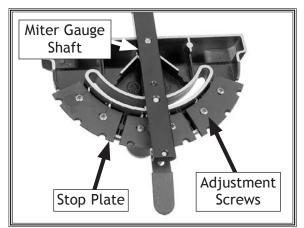


Figure 123. Checking 45° stop on miter gauge.

#### Belt Tension & Replacement

The drive belt stretches slightly as the saw is used. Most stretching will happen during the first 16 hours of use, but it may slightly continue with further use. If you notice that the saw is losing power in the middle of a cut, the belt may be slipping and will need to be tensioned. If, upon inspection, you find that the belt is cracked, frayed, or shows other signs of excessive wear or other damage, replace it immediately to ensure proper power transmission from the motor to the blade.

#### **Tools Needed**

	~ 7
Open-End or Socket Wrench	n 13mm1

#### **Tensioning Belt**

- 1. DISCONNECT SAW FROM POWER!
- 2. Remove motor cover from side of machine.
- Set blade to 0° on tilt scale, then raise or lower blade to approximately 2" above table.
- 4. Loosen blade tension hex bolt shown in Figure 124.
- 5. Use blade height handwheel to lower motor. When motor starts to pull blade down with it, belt is tensioned.
- 6. Retighten blade tension hex bolt, then re-install motor cover.

#### **Replacing Belt**

- 1. DISCONNECT MACHINE FROM POWER!
- 2. Remove motor cover from side of machine.
- Set blade to 0° on tilt scale, then raise or lower blade to approximately 2" above table.
- 4. Loosen blade tension hex bolt, shown in Figure 124.
- 5. Use blade height handwheel to raise motor and loosen belt, then remove belt.
- 6. Install new belt onto pulleys. Lower motor until it begins to pull blade down with it, then retighten blade tension hex bolt.

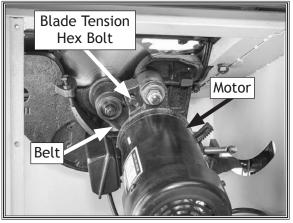


Figure 124. Components used to tension or remove belt.

7. Re-install motor cover.

Otv



### Troubleshooting

The following troubleshooting tables cover common problems that may occur with this machine. If you need replacement parts or additional troubleshooting help, contact our Technical Support.

**Note:** Before contacting Tech Support, find the machine serial number and manufacture date, and if available, your original purchase receipt. This information is required to properly assist you.

#### Motor & Electrical

PROBLEM	POSSIBLE CAUSE	
	1. Switch disabling key not installed.	1. Insert switch disabling key into ON/OFF switch.
start or a breaker	2. Wall circuit breaker tripped or fuse blown.	2. Ensure circuit size is correct; replace weak breaker
trips.		or blown fuse.
	3. Power supply switched OFF or at fault.	3. Ensure power supply is on/has correct voltage.
	4. Plug/receptacle at fault/wired wrong.	4. Test for good contacts; correct the wiring.
	5. Motor wired incorrectly.	5. Correct motor wiring connections.
	6. Wiring open/has high resistance.	6. Check/fix broken, disconnected, or corroded wires.
	7. Motor ON/OFF switch at fault.	7. Replace switch.
	8. Start capacitor at fault.	8. Test/replace if faulty.
	9. Motor at fault.	9. Test/repair/replace.
Machine stalls or	1. Feed rate/cutting speed too fast.	1. Decrease feed rate/cutting speed.
is underpowered.	2. Workpiece material unsuitable for machine.	2. Only cut wood; ensure moisture is below 20%.
	3. Workpiece crooked; fence mis-adjusted.	3. Straighten or replace workpiece; adjust fence.
	4. Machine undersized for task; wrong blade.	4. Use correct blade; reduce feed rate or depth of
		cut.
	5. Run capacitor at fault.	5. Test/repair/replace.
	6. Belt slipping.	6. Tension/replace belt (Page 77).
	7. Motor wired incorrectly for voltage.	7. Wire motor correctly for power supply voltage.
	8. Plug/receptacle at fault.	8. Test for good contacts/correct wiring.
	9. Pulley slipping on shaft.	9. Secure loose pulley; replace if damaged.
	10. Motor bearings at fault.	10. Test/repair/replace.
	11. Motor overheated.	11. Clean motor, let cool, and reduce workload.
	12. Motor at fault.	12. Test/repair/replace.
Machine has	1. Blade at fault.	1. Replace warped/bent blade; resharpen dull blade.
vibration or noisy	2. Belt worn or loose.	2. Tension/replace belt ( <b>Page 77</b> ).
operation.	3. Pulley loose.	3. Realign/replace shaft, pulley, set screw, and key.
	4. Motor mount loose/broken.	4. Tighten/replace.
	5. Motor fan cover dented.	5. Fix dent; re-adjust position of fan cover.
	6. Arbor bearings at fault.	6. Replace arbor housing bearings; replace arbor.
	7. Motor bearings at fault.	7. Test by rotating shaft; grinding/loose shaft requires
		bearing replacement.



PROBLEM		POSSIBLE CAUSE		CORRECTIVE ACTION
Rip fence	1.	Rip fence or rails mounted incorrectly.	1.	Remount rip fence or rails.
does not move		Rails dirty or sticky.	· ·	Clean rails.
smoothly.	<u> </u>	Clamp screw is out of adjustment.	<u> </u>	Adjust clamp screw.
Material moves	1.	Rip fence misaligned.	1.	Check and adjust rip fence.
away from fence				
when ripping.				
Blade is not	1.	Blade is warped.	1.	Replace blade (Page 34).
aligned with		Table top is not parallel with blade.		Adjust table parallel with blade (Page 67).
miter slot or	3.	Fence is not parallel with blade.	3.	Adjust fence parallel with blade (Page 73).
fence.				
Blade does not		$90^{\circ}$ stop nuts are out of adjustment.		Adjust 90° stop nuts ( <b>Page 65</b> ).
reach 90°.	2.	Sawdust or debris stuck in trunnion slides or	2.	Clean sawdust or debris out of trunnion slides or off
		on stop nuts.		stop nuts.
Blade hits insert		45° limiting block is out of adjustment.		Adjust 45° limiting block ( <b>Page 66</b> ).
at 45°, or blade	2.	Slot in table insert is too small.	2.	File/mill slot in table insert; use dedicated zero clearance for 45° cuts.
too close to insert.	2	Table out of alignment/adjustment with	2	Align table to the blade (Page 67).
insert.	3.	blade.	3.	Alight table to the blade (Fage 67).
	4	Blade position on arbor is incorrect.	4	Verify that blade arbor washers are correct and in
	''	blade position on a bor is medirect.	''	the required position.
Board binds or	1.	Dull blade.	1.	Replace blade (Page 34).
burns when feed-		Blade is warped.	2.	
ing through saw.		Fence is not parallel with blade.	3.	Adjust fence parallel with blade (Page 73).
	4.	Table top is not parallel with blade.	4.	Adjust table parallel with blade (Page 67).
Handwheel binds	1.	Lock knob is engaged.	1.	Loosen lock knob.
or is difficult to	2.	Handwheel shaft pins are wedged.	2.	Remove handwheel and adjust shaft pins.
move.				
Blade will not go	1.	Roll pin/set screw in worm gear contacting	1.	Tighten roll pins and set screws in the worm gear.
beneath table		geared trunnion.		
surface.		Debris lodged between trunnion castings.	<u> </u>	Remove debris.
	1.	Set screw on worm gear is loose or missing.	1.	Tighten or replace set screw.
move up or down.				
Too much saw-	1.	Blade guard has been removed.	1.	Re-install blade guard for maximum safety and dust
dust blown back				control.
toward operator.	2.	Too many air leaks in cabinet for proper dust	2.	Seal leaks in cabinet or around dust chute.
		collection.		Demons clear review dusting levent for impressed
	3.	Dust collection system clogged or airflow CFM is insufficient; too weak.	3.	Remove clog; revise ducting layout for improved suction; use a stronger dust collector.
	4	Fence not parallel with blade (pressure at	4	Adjust fence parallel with blade (Page 73).
		blade backside).	''	
	5.	Miter slot/fence not parallel with blade at	5.	Adjust table so miter slot is parallel with blade at
		90°.		90° (Page 67).
Workpiece catch-	1.	Table/dado insert out of adjustment.	1.	Adjust table/dado insert so it is perfectly flush with
es on table insert		-		table surface (Page 75).
when cutting.				

BLUE

BLUE

TUR-QUOISE

(Pk

WHITE

YFLLOW

PURPLE

PINK

Br

(Gy)

(Or)



### **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. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

If there are differences between your machine and what is shown in this section, call Technical Support at (360) 734-3482 for assistance BEFORE making any changes to the wiring on your machine. An updated wiring diagram may be available. **Note:** *Please gather the serial number and manufacture date of your machine before calling. This information can be found on the main machine label.* 

#### AWARNING SHOCK HAZARD. Working on wiring that is **MODIFICATIONS.** Using aftermarket parts or connected to a power source is extremely modifying the wiring beyond what is shown dangerous. Touching electrified parts will in the diagram may lead to unpredictable result in personal injury including but not results, including serious injury or fire. limited to severe burns, electrocution, or death. Disconnect the power from **MOTOR WIRING.** The motor wiring shown the machine before servicing electrical in these diagrams is current at the time components! of printing, but it may not match your machine. Always use the wiring diagram **QUALIFIED ELECTRICIAN.** Due to the inherent inside the motor junction box. hazards of electricity, only a gualified electrician should perform wiring tasks on **CAPACITORS/INVERTERS.** Some capacitors this machine. If you are not a gualified and power inverters store an electrical charge for up to 10 minutes after being electrician, get help from one before attempting any kind of wiring job. disconnected from the power source. To reduce the risk of being shocked, WIRE CONNECTIONS. All connections must wait at least this long before working on be tight to prevent wires from loosening capacitors. during machine operation. Double-check all CIRCUIT REQUIREMENTS. You MUST follow wires disconnected or connected during any wiring task to ensure tight connections. the requirements at the beginning of this manual when connecting your machine to a WIRE/COMPONENT DAMAGE. Damaged wires power source. or components increase the risk of serious personal injury, fire, or machine damage. If **EXPERIENCING DIFFICULTIES.** If you are you notice that any wires or components are experiencing difficulties understanding damaged while performing a wiring task, the information included in this section, replace those wires or components before contact our Technical Support at completing the task. (360) 734-3482. NOTICE WIRING DIAGRAM COLOR KEY BLACK • BLUE YELLOW Ŕ Rk` (BI) The photos and diagrams LIGHT

best viewed in color. You	GREEN •
can view these pages in color at www.shopfox.biz.	

WHITE =

(Wt)

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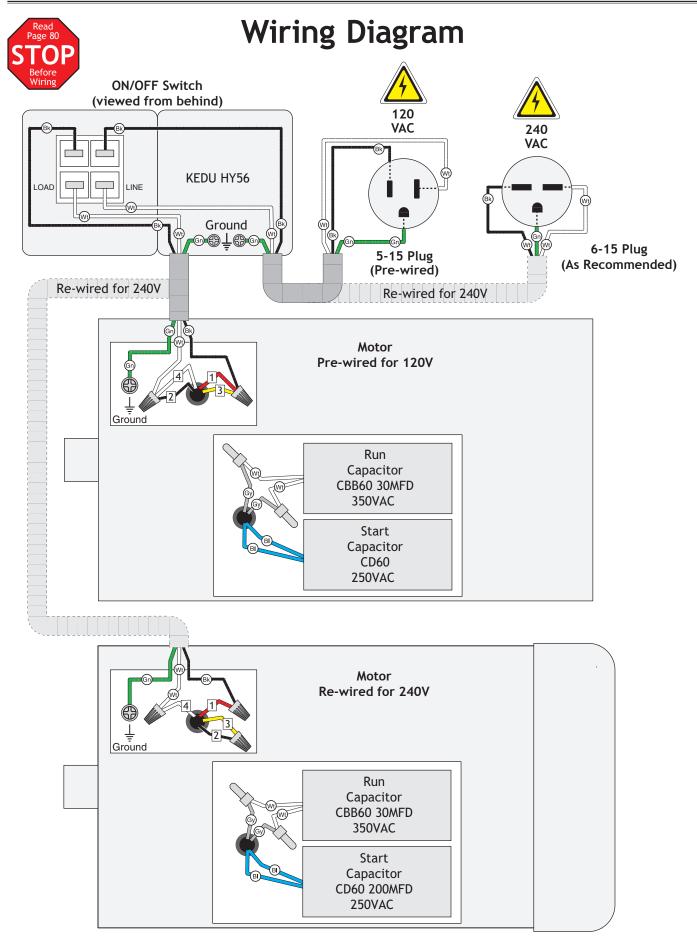
-80-

BROWN

**ORANGE** 

GRAY







#### **Electrical Components**



Figure 125. Switch wiring.



Figure 126. Capacitors.

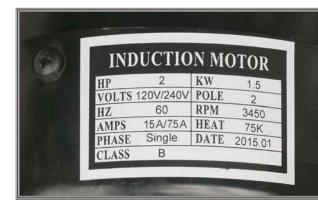


Figure 127. Motor label.



Figure 128. Motor wiring at 120V.

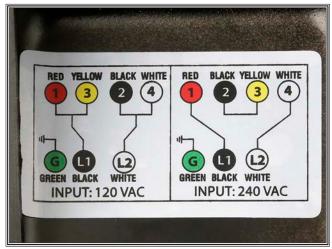
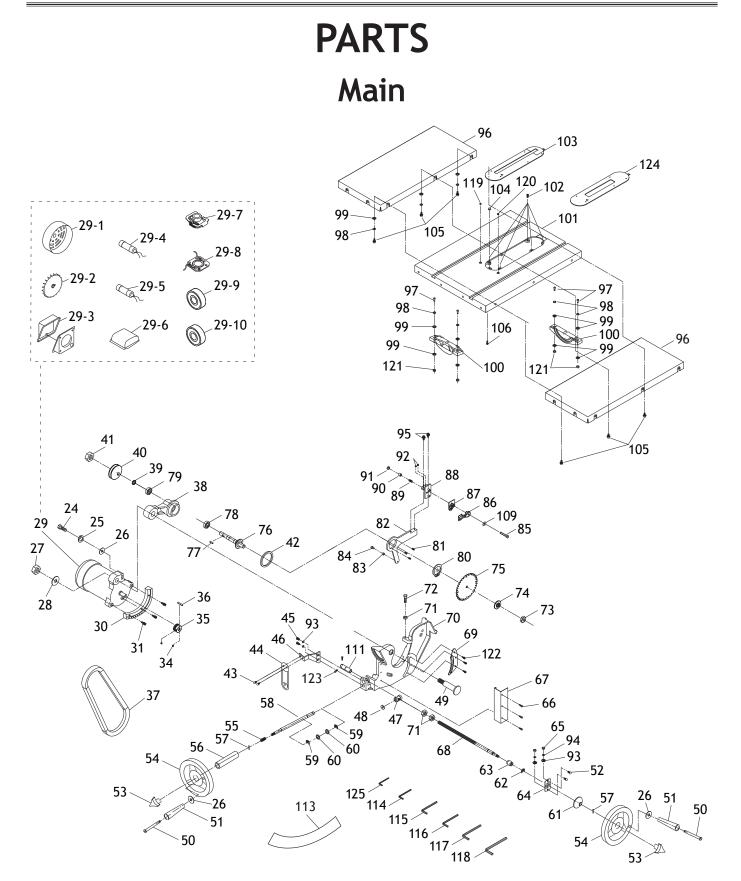


Figure 129. Motor wiring label inside junction box.

### NOTICE

The motor wiring diagram is current at the time of printing; however, always use the diagram on the inside of the junction box cover when rewiring your motor!





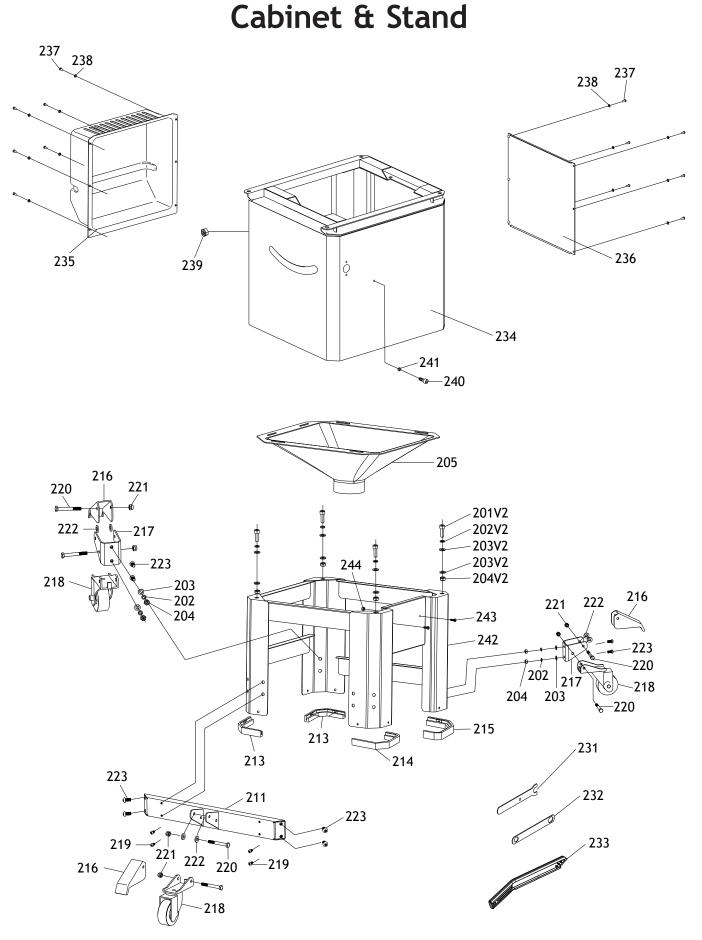


### Main Parts List

REF	PART #	DESCRIPTION
24	X1837024	HEX BOLT M8-1.25 X 30
25	X1837025	LOCK WASHER 8MM
26	X1837026	FLAT WASHER 8MM
27	X1837027	LOCK NUT M16-2
28	X1837028	FLAT WASHER 16MM
29	X1837029	MOTOR 2HP 110V/220V 1-PH
29-1	X1837029-1	MOTOR FAN COVER
29-2	X1837029-2	MOTOR FAN
29-3	X1837029-3	MOTOR JUNCTION BOX
	X1837029-4	R CAPACITOR 30M 350V 1-5/8 X 3-1/8
	X1837029-5	S CAPACITOR 200M 150V 1-3/8 X 2-11/16
	X1837029-6	CAPACITOR COVER
	X1837029-7	CENTRIFUGAL SWITCH L19-15 4S
	X1837029-8	CONTACT PLATE
	X1837029-9	BALL BEARING 6203-2RS
		BALL BEARING 6202ZZ
	X1837030	BULL GEAR
31	X1837031	CAP SCREW W/WASHER M6-1 X 25
34	X1837031	SET SCREW M58 X 8
35	X1837034	MOTOR PULLEY J6 X 5/8" BORE
36	X1837035	KEY 5 X 5 X 30
30	X1837030	V-BELT 355J6 POLYFLEX
37	X1837037	BLADE BRACKET
30 39	X1837038	ARBOR BUSHING
39 40	X1837039 X1837040	ARBOR PULLEY J6
40		LOCK NUT M12-1.5
41 42	X1837041	
4 <u>7</u> 43	X1837042 X1837043	
43 44	X1837043 X1837044	PHLP HD SCR M47 X 6 BEVEL INDICATOR
44	X1837044 X1837045	CAP SCREW M58 X 8
45 46	X1837045 X1837046	POINTER SEAT
40 47	X1837040 X1837047	BEVEL NUT
47	X1837047 X1837048	SHIM WASHER
40 49		
49 50	X1837049 X1837050	MAIN TRUNNION SHAFT
		SHOULDER SCREW M8-1.25 X 14, 9 X 100 HANDWHEEL HANDLE 106MM SS
51	X1837051	
52 53	X1837052	
	X1837053	LOCK HANDLE KNOB M8-1.25 3 LOBE HANDWHEEL TYPE-01 180D X 11K X M8-1.25
54	X1837054	
55	X1837055	
56	X1837056	ELEVATION BUSHING
57	X1837057	ROLL PIN 3 X 20
58	X1837058	ELEVATION SHAFT
59	X1837059	E-CLIP 14MM
60	X1837060	SPACER
61	X1837061	BEVEL PLATE
62	X1837062	E-CLIP 9MM
63	X1837063	BALL BEARING 6201ZZ
64	X1837064	BEARING SEAT
65	X1837065	HEX NUT M58
66	X1837066	CAP SCREW M58 X 10
67	X1837067	BLADE GUARD
68	X1837068	TILT SHAFT

REF	PART #	DESCRIPTION
69	X1837069	RIVING GUIDE
70	X1837070	MAIN TRUNNION
71	X1837071	HEX NUT M8-1.25
72	X1837072	HEX BOLT M8-1.25 X 40
73	X1837073	ARBOR NUT 5/8-18
74	X1837074	BLADE FLANGE
75	X1837075	BLADE 10" X 5/8" X 40T
76	X1837076	ARBOR
77	X1837077	KEY 5 X 5 X 12
78	X1837078	BALL BEARING 6203ZZ
79	X1837079	BALL BEARING 6202ZZ
80	X1837080	EXT RETAINING RING 52MM
81	X1837081	CAP SCREW M58 X 6
82	X1837082	MOUNTING PLATE
83	X1837083	BUSHING
84	X1837084	SHAFT PIN
85	X1837085	CLAMP LOCK BOLT M8-1.25 X 54
86	X1837086	RIVING KNIFE LOCK LEVER
87	X1837087	RIVING KNIFE CLAMP PLATE
88	X1837088	RIVING KNIFE MOUNTING BLOCK
89	X1837089	COMPRESSION SPRING 8 X 18MM
90	X1837090	BUSHING 8 X 10 X 12MM
91	X1837091	LOCK NUT M8-1.25
92	X1837092	SET SCREW M58 X 10
93	X1837093	FLAT WASHER 5MM
94	X1837094	LOCK WASHER 5MM
95	X1837095	CAP SCREW W/WASHER M58 X 16
96	X1837096	EXTENSION WING
97	X1837097	CAP SCREW M10-1.5 X 40
98	X1837098	LOCK WASHER 10MM
99	X1837099	FLAT WASHER 10MM
100	X1837100	TRUNNION
100	X1837100	MAIN TABLE
101	X1837101	FLAT HD SCR 8-32 X 1/2
103	X1837103	
104	X1837104	TABLE INSERT MAGNET
105	X1837105	CAP SCREW M10-1.5 X 25
106	X1837106	FLANGE BOLT M8-1.25 X 16
109	X1837109	FLAT WASHER 8MM
111	X1837111	
113	X1837113	BEVEL LABEL
114	X1837114	HEX WRENCH 3MM
115	X1837115	HEX WRENCH 4MM
116	X1837116	HEX WRENCH 5MM
117	X1837117	HEX WRENCH 6MM
118	X1837118	HEX WRENCH 8MM
119	X1837119	SET SCR M8-1.25 X 20 CUP-PT NYLOCK
120	X1837120	SET SCR M8-1.25 X 25 CUP-PT NYLOCK
121	X1837121	HEX NUT M10-1.5
122	X1837122	CAP SCREW W/WASHER M58 X 10
123	X1837123	CAP SCREW M58 X 10
124	X1837124	DADO TABLE INSERT
125	X1837125	HEX WRENCH 2.5MM



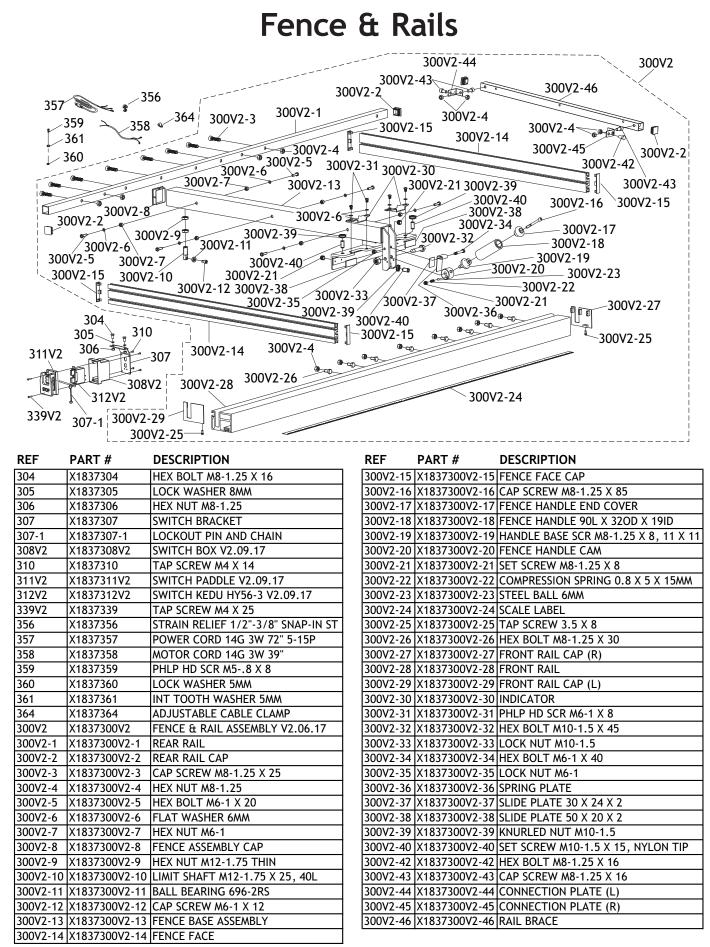




### Cabinet & Stand Parts List

REF	PART #	DESCRIPTION
201V2	X1837201V2	CAP SCREW M10-1.5 X 40 V2.08.18
202	X1837202	LOCK WASHER 8MM
202V2	X1837202V2	LOCK WASHER 10MM V2.08.18
203	X1837203	FLAT WASHER 8MM
203V2	X1837203V2	FLAT WASHER 10MM V2.08.18
204	X1837204	HEX NUT M8-1.25
204V2	X1837204V2	HEX NUT M10-1.5 V2.08.18
205	X1837205	DUST CHUTE
211	X1837211	LEG BRACE W/CASTER MOUNT
213	X1837213	RUBBER FOOT BACK LEFT/RIGHT
214	X1837214	RUBBER FOOT FRONT LEFT
215	X1837215	RUBBER FOOT FRONT RIGHT
216	X1837216	FOOT LEVER
217	X1837217	CASTER SUPPORT BRACKET
218	X1837218	CASTER
219	X1837219	CAP SCREW M6-1 X 12
220	X1837220	HEX BOLT M8-1.25 X 65

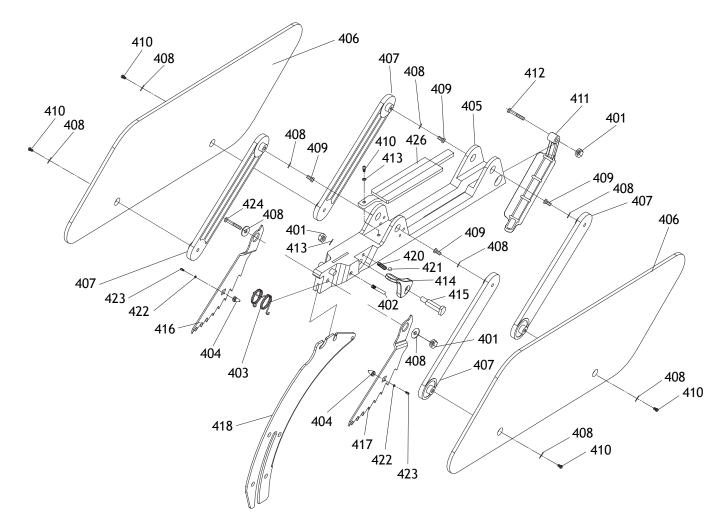
REF	PART #	DESCRIPTION
221	X1837221	LOCK NUT M8-1.25
222	X1837222	FLAT WASHER 8MM
223	X1837223	BUTTON HD CAP SCREW M8-1.25 X 16
231	X1837231	ARBOR WRENCH 16 X 23MM OPEN-END
232	X1837232	ARBOR WRENCH 13 X 22MM CLOSED-ENDS
233	X1837233	PUSH STICK
234	X1837234	CABINET
235	X1837235	MOTOR COVER
236	X1837236	REAR ACCESS PANEL
237	X1837237	BUTTON HD CAP SCREW M58 X 12
238	X1837238	FLAT WASHER 5MM
239	X1837239	STRAIN RELIEF 1/2"-3/8" SNAP-IN ST
240	X1837240	CAP SCREW M58 X 25
241	X1837241	HEX NUT M58
242	X1837242	STAND, 1-PIECE WELDED
243	X1837243	FLAT HD SCR M35 X 16
244	X1837244	HEX NUT M35



SHOP FOX



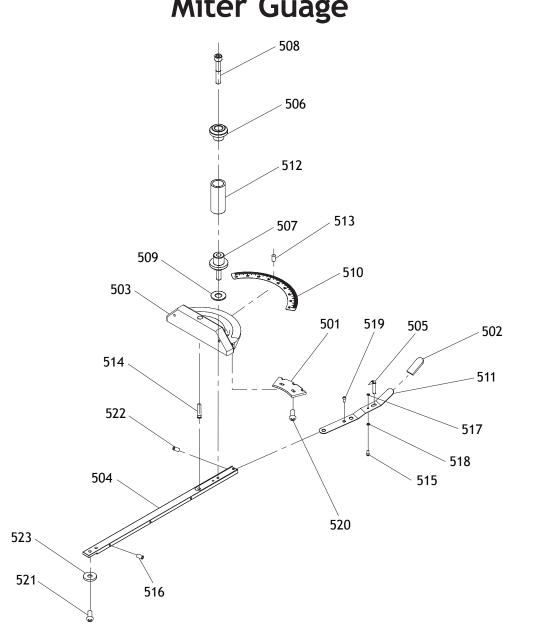
### **Blade Guard**



REF	PART #	DESCRIPTION
401	X1837401	LOCK NUT M58
402	X1837402	SET PIN
403	X1837403	TORSION SPRING
404	X1837404	SCREW CAP
405	X1837405	BLADE GUARD BODY
406	X1837406	BARRIER
407	X1837407	BARRIER CONNECTING BAR
408	X1837408	FLAT WASHER 5MM
409	X1837409	HEX BOLT M58 X 10
410	X1837410	PHLP HD SCR M58 X 10
411	X1837411	GUARD RAIL
412	X1837412	PHLP HD SCR M58 X 25

REF	PART #	DESCRIPTION
413	X1837413	FLAT WASHER 5MM
414	X1837414	BLADE GUARD LOCK LEVER
415	X1837415	BLADE GUARD LOCK LEVER SCREW
416	X1837416	ANTI-KICKBACK PAWL (L)
417	X1837417	ANTI-KICKBACK PAWL (R)
418	X1837418	SPREADER/RIVING KNIFE
420	X1837420	COMPRESSION SPRING
421	X1837421	STEEL BALL 4MM
422	X1837422	FLAT WASHER 3MM
423	X1837423	TAP SCREW M3 X 6
424	X1837424	CAP SCREW M58 X 30
426	X1837426	BLADE GUARD WINDOW COVER





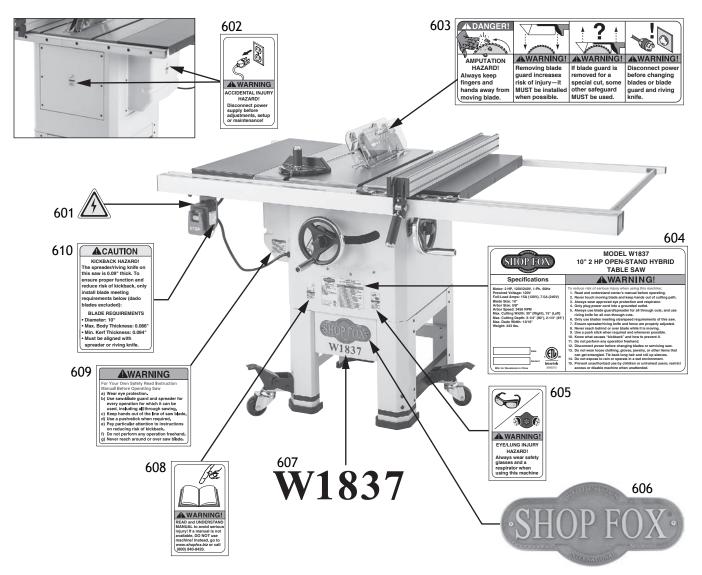
REF	PART #	DESCRIPTION
501	X1837501	FLAT PLATE
502	X1837502	SPRING PLATE COVER
503	X1837503	MITER GAUGE BODY
504	X1837504	MITER BAR
505	X1837505	ANGLE INDICATOR
506	X1837506	UPPER HANDLE CAP
507	X1837507	LOWER HANDLE CAP
508	X1837508	CAP SCREW M8-1.25 X 50
509	X1837509	HANDLE WASHER 6 X 20
510	X1837510	MITER SCALE
511	X1837511	SPRING PLATE
512	X1837512	MITER HANDLE

PART #	DESCRIPTION
X1837513	RIVET 2 X 5MM
X1837514	MITER PIN
X1837515	FLAT HD SCR 4-40 X 3/16
X1837516	SET SCREW 10-24 X 1/2
X1837517	THREADED STOP PIN
X1837518	FLAT WASHER 3MM
X1837519	PHLP HD SCR 10-32 X 1/4
X1837520	PHLP HD SCR 6-32 X 7/16
X1837521	FLAT HD SCR 1/4-28 X 5/16
X1837522	SET SCREW 10-32 X 1/4
X1837523	MITER BAR GUIDE WASHER
	X1837513 X1837514 X1837515 X1837516 X1837517 X1837517 X1837518 X1837519 X1837520 X1837521 X1837522

### Miter Guage



### Labels & Cosmetics



REF	PART #	DESCRIPTION
601	X1837601	ELECTRICITY LABEL
602	X1837602	DISCONNECT POWER LABEL
603	X1837603	BLADE GUARD LABEL
604	X1837604	MACHINE ID LABEL
605	X1837605	EYE/LUNG HAZARD LABEL

REF	PART #	DESCRIPTION
606	X1837606	SHOP FOX NAMEPLATE
607	X1837607	MODEL NUMBER LABEL
608	X1837608	READ MANUAL LABEL
609	X1837609	TABLE SAW WARNING LABEL
610	X1837610	KICKBACK HAZARD LABEL

### **A**WARNING

Safety labels warn about machine hazards and how to prevent serious personal 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 machine to be operated again. Contact us at (360) 734-3482 or www.shopfoxtools.com to order new labels.

CUT ALONG DOTTED LINE



### Warranty Registration

		Stata	Zip
			lnvoice #
			Purchase Date
The following inf	ormation is given on		for marketing purposes to help us
Adve	u learn about us? rtisement Order Catalog	Friend Website	Local Store Other:
-	1	odworker/metalworker? _2-8 Years8-20 Y	′ears20+ Years
	of your machines o 	r tools are Shop Fox? _3-5	10+
I. Do you thin	k your machine rep	presents a good value?	YesNo
i. Would you	recommend Shop F	ox products to a friend?	YesNo
6. What is you 20-20 50-50		30-39 60-69	40-49 70+
\$20,0	ır annual household 000-\$29,000 000-\$59,000	d income? \$30,000-\$39,000 \$60,000-\$69,000	\$40,000-\$49,000 \$70,000+
B. Which of th	e following magaz	ines do you subscribe to?	
Hand Lo Handy Home Sł Journal Live Ste Model A Modelte	landyman ader op Machinist of Light Cont. am irplane News	Popular MechanicsPopular SciencePopular WoodworkingPractical HomeownerPrecision ShooterProjects in MetalRC ModelerRifleShop NotesShotgun News	<ul> <li>Today's Homeowner</li> <li>Wood</li> <li>Wooden Boat</li> <li>Woodshop News</li> <li>Woodsmith</li> <li>Woodwork</li> <li>Woodworker West</li> <li>Woodworker's Journal</li> <li>Other:</li> </ul>
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#### Մեհանանենեն անդեսնեն անդեսնեն հետ

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# 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, replace, or arrange for a dealer refund, at its expense and option, the Shop Fox machine or machine part proven to be defective for its designed and intended use, provided that the original owner returns the product prepaid to an authorized warranty or repair facility as designated by our Bellingham, Washington office 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, acts or electrical codes. We do not reimburse for third party repairs. In no event shall Woodstock International, Inc.'s liability under this limited 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 are committed to continuously improving the quality of our products, and reserve the right to change specifications at any time.



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