READ THIS FIRST

Model W1888
IMPORTANT UPDATE
Applies to Models Mfd. Since 10/20
and Owner's Manual Revised 10/20

Phone #: (360) 734-3482 • Tech Support: techsupport@woodstockint.com • Web: www.woodstockint.com

We made the following changes to this machine since the manual was printed:

- Added push stick hangar.
- Revised inventory on **Page 17** and added steps to assembly on **Page 28**.

Aside from the information contained in this update, all other content in the owner's manual is applicable and MUST be read and understood for your own safety.

IMPORTANT: Keep this update with the owner's manual for future reference. If you have any further questions, contact our Technical Support.

Revised Inventory

Box Contents (see Figure 1)	Qty
Z. Flat Washers 5mm	2
AA. Hex Nuts 1/4"-20	2
AB. Push Stick Hangar	1

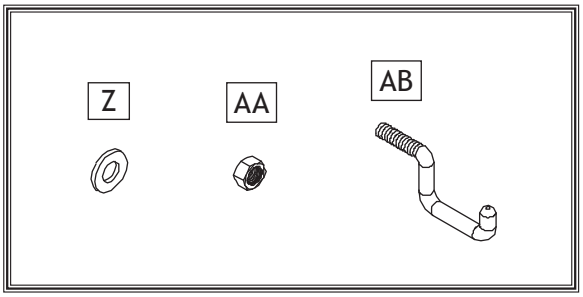


Figure 1. Additional component inventory.

Added Assembly Steps (Follows Step 33, Page 28)

34. Locate hole in cabinet near bottom left corner of cabinet access door, then open door (see **Figure 35**).

35. Thread (1) 1/4"-20 hex nut with (2) 5mm flat washers onto push stick hangar, secure with (1) 1/4"-20 hex nut (see **Figure 35**), then close door.

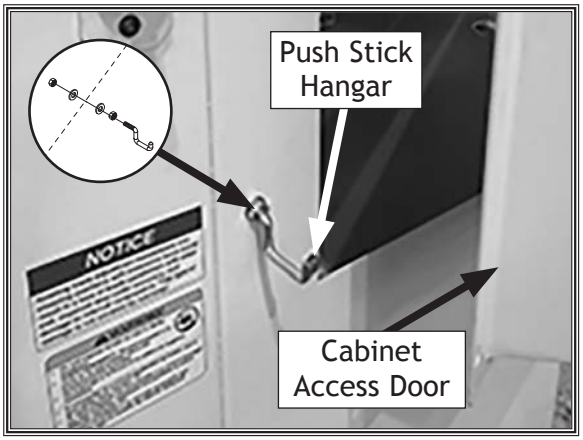


Figure 35. Push stick hangar installed.

#21524BL Printed in Taiwan

WOODSTOCK

SHOP FOX®

INTERNATIONAL

MODEL W1888

10" HYBRID TABLE SAW W/RIVING KNIFE

C SA US
601745

OWNER'S MANUAL

(FOR MODELS MANUFACTURED SINCE 10/20)

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

V2.10.20 **#20868AI Printed in Taiwan**

⚠ WARNING!

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

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

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

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

⚠ WARNING!

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

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

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

Contents

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

INTRODUCTION

Woodstock Technical Support

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

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

We stand behind our machines! In the event that questions arise about your machine, please contact Woodstock International Technical Support at (360) 734-3482 Ext. 2 or send e-mail to: **techsupport@woodstockint.com**. Our knowledgeable staff will help you troubleshoot problems and process warranty claims.

If you need the latest edition of this manual, you can download it from: **http://www.woodstockint.com/manuals**.

If you have comments about this manual, please contact us at:

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

⚠WARNING

Like all machinery there is potential danger when operating this machine. Accidents are frequently caused by lack of familiarity or failure to pay attention. Use this machine with respect and caution to decrease the risk of operator injury. If normal safety precautions are overlooked or ignored, serious personal injury may occur.

⚠CAUTION

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

MACHINE SPECIFICATIONS

MODEL W1888
10" HYBRID TABLE SAW WITH RIVING KNIFE

Product Dimensions

Weight..... 403 lbs.
Width (side-to-side) x Depth (front-to-back) x Height..... 66 x 40 x 48 in.
Footprint (Length x Width)..... 19-1/2 x 20-1/2 in.

Shipping Dimensions

Carton #1

Type..... Cardboard Box on Wood Skids
Content..... Machine
Weight..... 382 lbs.
Length x Width x Height..... 30 x 25 x 42 in.
Must Ship Upright..... Yes

Carton #2

Type..... Cardboard Box
Content..... Fence & Rails
Weight..... 67 lbs.
Length x Width x Height..... 69 x 20 x 8 in.
Must Ship Upright..... No

Electrical

Power Requirement..... 115V or 230V, Single-Phase, 60 Hz
Prewired Voltage..... 115V
Full-Load Current Rating..... 16A at 115V, 8A at 230V
Minimum Circuit Size..... 20A at 115V, 15A at 230V
Connection Type..... Cord & Plug
Power Cord Included..... Yes
Power Cord Length..... 6 ft.
Power Cord Gauge..... 14 AWG
Plug Included..... Yes
Included Plug Type..... 5-20 for 115V
Recommended Plug Type..... 6-15 for 230V
Switch Type..... Push Button w/Large Shut-Off Paddle & Removable Key
Voltage Conversion Kit..... X1888224X

Motors

Main

Horsepower..... 2 HP
Phase..... Single-Phase
Amps..... 16A/8A
Speed..... 3450 RPM
Type..... TEFC Capacitor-Start/Run Induction
Power Transfer ..... Belt
Bearings..... Shielded & Permanently Lubricated
Centrifugal Switch/Contacts Type..... External

Main Specifications

Main Information

Table Saw Type	Hybrid
Maximum Blade Diameter	10 in.
Arbor Size	5/8 in.
Arbor Speed	4000 RPM
Maximum Width of Dado	13/16 in.
Blade Tilt Direction	Left
Max Blade Tilt	45 deg.
Maximum Depth of Cut At 90 Degrees	3-1/8 in.
Maximum Depth of Cut At 45 Degrees	2-1/8 in.
Max Rip Right of Blade w/Included Fence & Rails	31-1/2 in.
Max Rip Left of Blade w/Included Fence & Rails	11-3/8 in.

Additional Blade Information

Included Blade Information	10 in. x 40T
Riving Knife/Spreader Thickness	0.100 in.
Required Blade Body Thickness	0.063 - 0.094 in.
Required Blade Kerf Thickness	0.102 - 0.126 in.
Rim Speed at Max Blade Diameter	10,500 FPM

Table Information

Floor to Table Height	34-1/4 in.
Table Size with Extension Wings Width	40-1/8 in.
Table Size with Extension Wings Depth	27 in.
Distance Front of Table to Center of Blade	16-1/4 in.
Distance Front of Table to Blade At Maximum Cut	11-1/2 in.
Main Table Size Thickness	1-1/2 in.

Fence Information

Fence Type	Camlock T-Shape w/High-Low Profile Face
Fence Size Length	34-5/8 in.
Fence Size Width	4-5/8 in.
Fence Size Height	3 in.
Fence Rail Type	Square Steel Tubing/Angle Iron
Fence Rail Length	63 in.
Fence Rail Width	3 in.
Fence Rail Height	1-3/4 in.

Miter Gauge Information

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

Construction

Table	Precision-Ground Cast Iron
Wings	Precision-Ground Cast Iron
Cabinet	Pre-Formed Steel
Trunnions	Cast Iron
Fence Assembly	Steel w/Aluminum Fence
Rails	Steel
Miter Gauge Construction	Cast Iron
Guard	Clear Plastic
Body/Cabinet Paint Type/Finish	Powder Coat
Arbor Bearings	Sealed & Permanently Lubricated

Other Related Information

Number of Dust Ports..... 2
Dust Port Size..... 1-1/2, 4 in.
Compatible Mobile Base..... D4666

Other

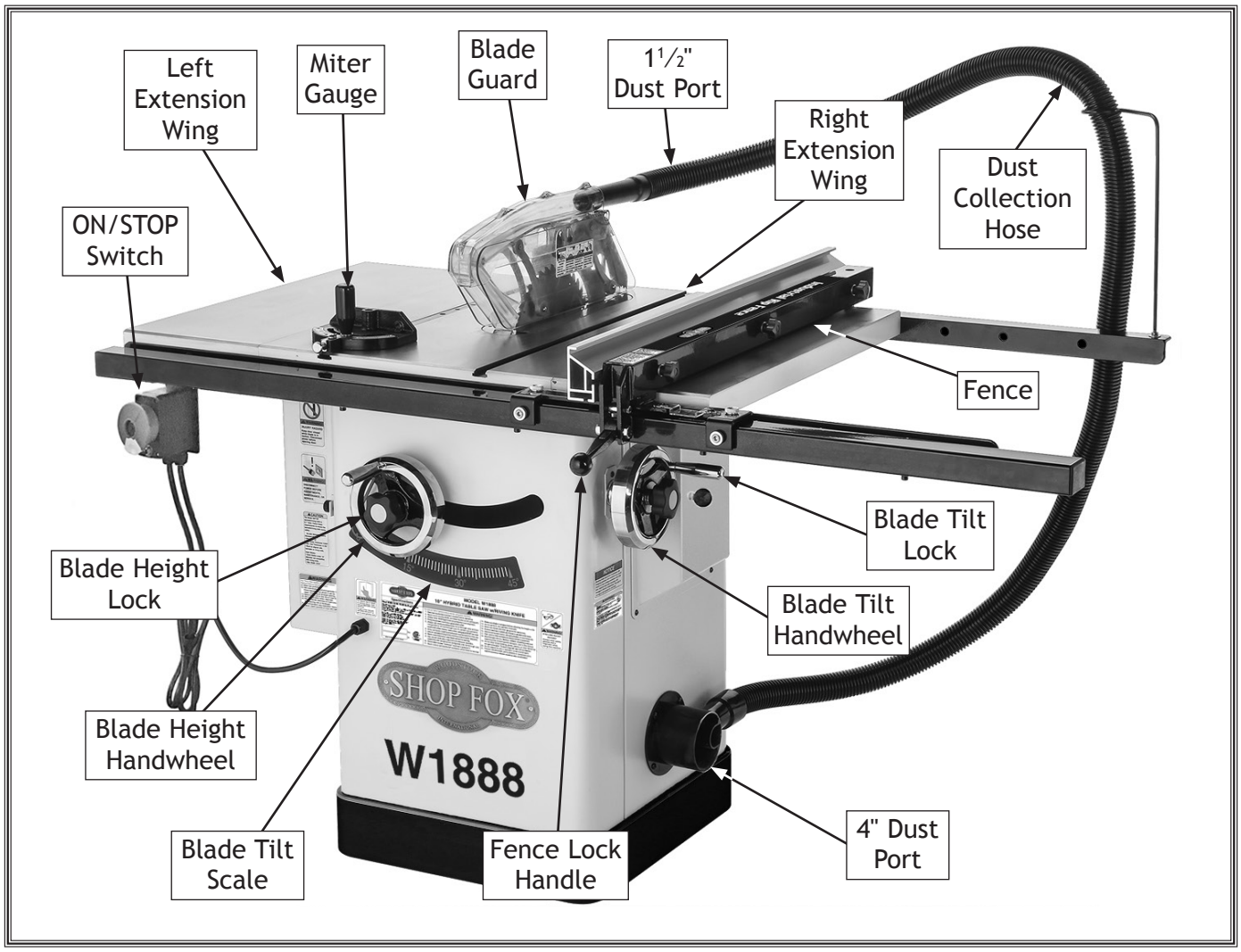
Country of Origin ..... Taiwan
Warranty ..... 2 Years
Approximate Assembly & Setup Time ..... 1 Hour
Serial Number Location ..... Machine ID Label
Sound Rating ..... 87 dB
Certified by a Nationally Recognized Testing Laboratory (NRTL) ..... Yes

Features

Fully Enclosed Quick-Release Blade Guard and Spreader
Quick-Release Riving Knife
Hinged Motor Cover
4" Dust Port
Heavy Cast Handwheels
T-Slot Miter Gauge
Poly-V Drive Belt for Reduced Noise/Vibration
Precision-Ground Cast-Iron Table
Cabinet-Mounted Cast-Iron Trunnions
Durable Powder-Coated Finish
Deluxe 2-Position Aluminum Rip Fence
Easy-Glide Fence System with Micro-Adjustment
Standard & Dado Table Inserts
Built-In Dust Port on Blade Guard
Included 10" x 40T Carbide-Tipped Blade

Identification

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



⚠ CAUTION

For Your Own Safety Read Instruction Manual Before Operating Saw

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

Controls & Components

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 safely operate this machine.

⚠WARNING

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

A. ON/STOP Switch: Turns motor ***ON*** when pulled out; turns motor ***OFF*** when pressed in. Switch is disabled when yellow key is removed.

Figure 1. Location of ON/STOP Switch.

B. Handwheel Locks: Lock blade height and angle when tightened (one on each handwheel).

C. Blade Tilt Handwheel: Adjusts angle of blade tilt from 90°-45°.

D. Blade Height Handwheel: Adjusts blade height from 0"-3 1/8".

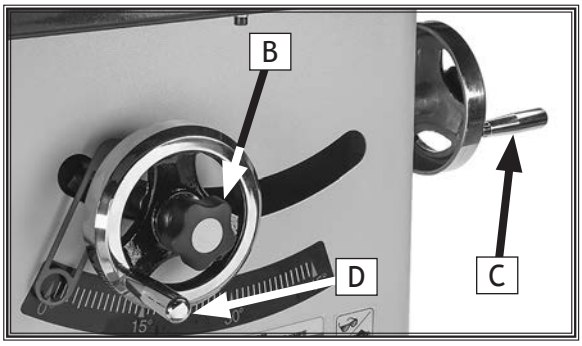


Figure 2. Blade adjustment handwheels and locks.

E. Fence: Guides workpiece as it moves into blade and determines angle of cut. Fence face can be positioned for standard cutting operations, or placed in lower position for blade guard clearance during narrow ripping operations.

F. Fence Lock Knobs: Secure fence when tightened; allow fence to be repositioned along fence tube when loosened.

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

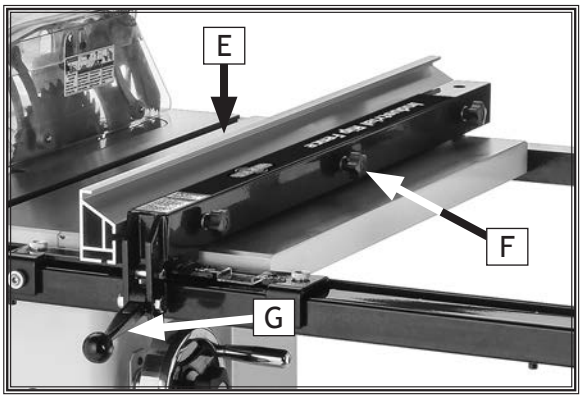


Figure 3. Location of fence controls.

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!

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

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

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

NOTICE **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, or under blade guard when blade is spinning.

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

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

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

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

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

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

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

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.

⚠CAUTION

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

Glossary of Terms

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

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

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

Blade Guard Assembly: Metal or plastic safety device that mounts over the saw blade. Its function is to prevent the operator from coming into contact with the saw blade. Refer to **Page 38** for more details.

Crosscut: Cutting operation in which the crosscut fence is used to cut across the shortest width of the workpiece. Refer to **Page 43** for more details.

Dado Blade: Blade or set of blades that are used to cut grooves and rabbets. Refer to **Page 45** for more details. The saw and arbor are not intended to safely use a larger dado blade.

Dado Cut: Cutting operation that uses a dado blade to cut a flat bottomed groove into the face of the workpiece. Refer to **Page 45** for more details.

Featherboard: Safety device used to keep the workpiece against the rip fence and against the table surface. Refer to **Page 55** for more details.

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

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

Non-Through Cut: A cut in which the blade does not cut through the top of the workpiece. Refer to **Page 33** for more details.

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

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

Push Stick: Safety device used to push the workpiece through a cutting operation. Used most often when rip cutting thin workpieces. Refer to **Page 58** for more details.

Rabbet: Cutting operation that creates an L-shaped channel along the edge of the workpiece. Refer to **Page 48** for more details.

Rip Cut: Cutting operation in which the rip fence is used to cut across the widest width of the workpiece. Refer to **Page 42** for more details.

Riving Knife: Metal plate located behind the blade. It maintains the kerf opening in the wood when performing a cutting operation. Refer to **Page 41** for more details.

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

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

Through Cut: A cut in which the blade cuts completely through the workpiece. Refer to **Page 33** for more details.

ELECTRICAL

Circuit Requirements

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

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

Full-Load Current Rating

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

Full-Load Current Rating at 115V ..... 16 Amps
Full-Load Current Rating at 230V .....8 Amps

Circuit Requirements for 115V (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/115V/120V, 60 Hz, Single-Phase
Circuit Size ..... 20 Amps
Plug/Receptacle ..... NEMA 5-20

Circuit Requirements for 230V

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 Type ..... 220V/230V/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 instructed to do so later in this manual.

⚠WARNING

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 equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

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

For 115V Connection (Prewired)

This machine is equipped with a power cord that has an equipment-grounding wire and NEMA 5-20 grounding plug. The plug must only be inserted into a matching receptacle (see **Figure**) that is properly installed and grounded in accordance with local codes and ordinances.

For 230V Connection

A NEMA 6-15 plug (see figure) 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 that is properly installed and grounded in accordance with all local codes and ordinances.

⚠WARNING

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

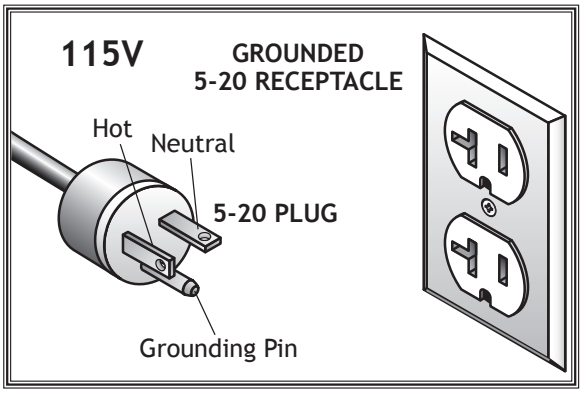
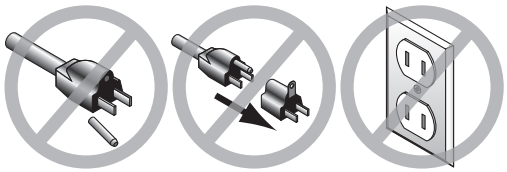


Figure 4. NEMA 5-20 plug & receptacle.

⚠CAUTION



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.

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 ..... 12 AWG
Maximum Length (Shorter is Better) ..... 50 ft.

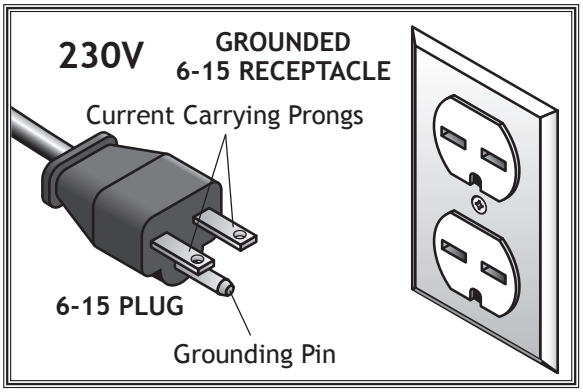


Figure 5. NEMA 6-15 plug & receptacle.

Converting Voltage to 230V

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 83** for your reference.

IMPORTANT: If the diagram included on the motor conflicts with the one on **Page 83**, the motor may have changed since the manual was printed. Use the diagram included on the motor instead.

Items Needed **Qty**
- Phillips Head Screwdriver #2 1
- Electrical Tape ..... As Needed
- Wire Cutters/Stripper.....1
- NEMA 6-15 Plug 1
- Circuit Breaker 10A (X1888224X).....1

To convert Model W1888 to 230V, do these steps:

1. DISCONNECT MACHINE FROM POWER!

2. Cut off existing 5-20 plug.

3. Open motor junction box, then loosen wire nuts indicated in **Figure 6.**

4. Use wire nuts to connect wires as indicated in **Figure 7**. Twist wire nuts onto their respective wires and wrap them with electrical tape to help ensure they will not come loose during operation.

5. Close and secure motor junction box.

6. Remove ON/STOP switch cover from switch box.

7. Replace pre-installed 20A circuit breaker (see **Figure 8**) with 10A circuit breaker (part #X1888224X), then re-install switch cover.

8. Install a 6-15 plug on 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 83**.

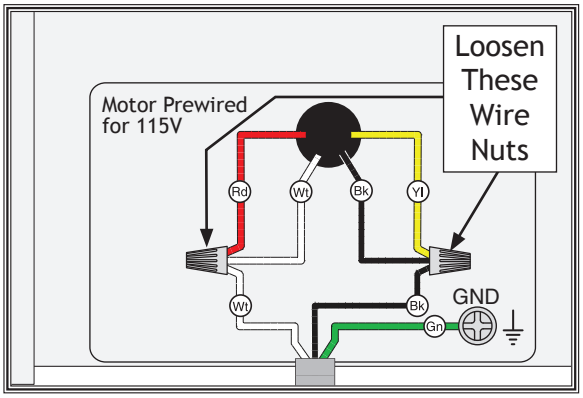


Figure 6. Motor prewired for 115V.

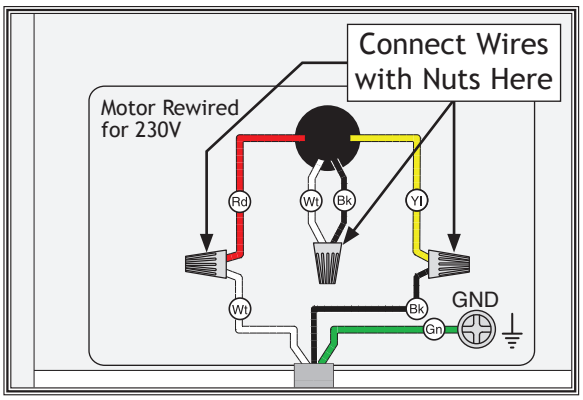


Figure 7. Motor rewired for 230V.

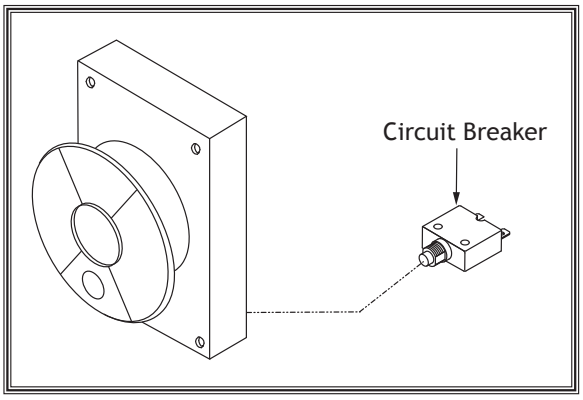


Figure 8. Location of circuit breaker.

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.

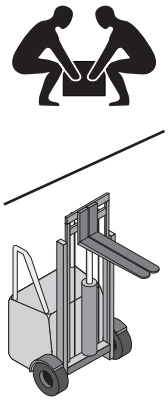
Description	Qty
• Additional Person	1
• Safety Glasses (for each person)	1 Pr.
• Degreaser or Solvent for Cleaning	As Needed
• Disposable Shop Rags	As Needed
• Straightedge 4'	1
• Wrench or Socket 10mm	1
• Wrench or Socket 13mm	1
• Wrench or Socket 14mm	1
• Phillips Head Screwdriver #2	1
• Dust Collection System	1
• Dust Hose 4"	1
• Hose Clamps 4"	2
• Masking Tape	As Needed

⚠WARNING

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

⚠WARNING

Wear safety glasses during entire setup process!



⚠WARNING

HEAVY LIFT!

Straining or crushing injury may occur from improperly lifting the machine or some of its parts. To reduce this risk, get help from other people and use a forklift (or other lifting equipment) rated for weight of machine.

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 Contents (Figures 9-11)	Qty
A. Main Table Saw Unit	1
B. Extension Wings	2
C. Saw Blade 10" x 40T	1
D. Motor Door	1
E. Arbor Wrench 13/27mm	1
F. Dado Table Insert	1
G. Blade Guard Dust Port	1
H. Blade Guard Assembly	1
I. Hex Wrench 6-Piece Set 2.5-8mm	1
J. Riving Knife	1
K. Miter Gauge	1
L. Dust Hose Adapters	2
M. Push Stick	1
N. Dado Blade Arbor Flange	1
O. Dust Port 4"	1
P. Handwheels	2
Q. Handwheel Lock Knobs	2
R. Handwheel Handles	2
S. Dust Hose 94" x 1 1/2"	1
T. Hose Support Arm	1
U. Dust Hose 3" x 26"	1
V. Hose Clamp 3 1/4"	1
W. Cabinet Access Door	1
X. Door Latch	1
—Phillips Head Screws 8/32" x 3/8"	2
—Hex Nuts 8/32"	2
Y. Hinge Pins	2

Figure 9. Main table saw unit.

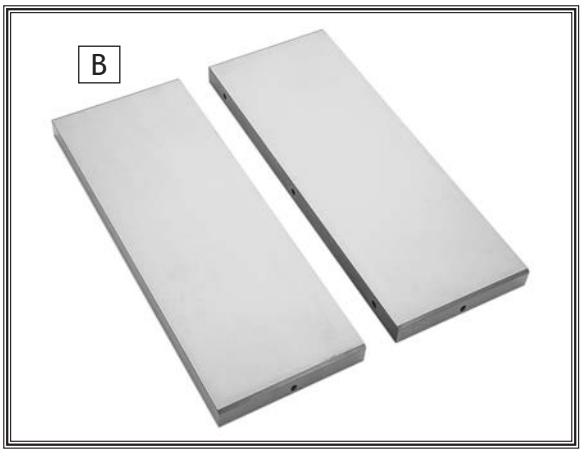


Figure 10. Extension wings.

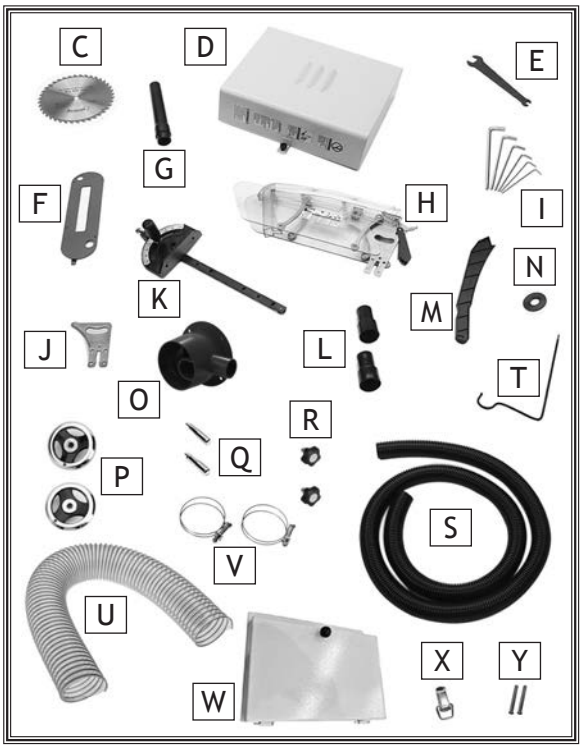


Figure 11. Component inventory.

Box Contents Cont'd (Figure 12) **Qty**
Z. Front Rail Tube 63" 1
AA. Front Rail Tape Scale 1
AB. Front Rail 55" 1
AC. Rear Rail 57" 1
AD. Fence Assembly 1

Fasteners (Not Shown) **Qty**
AE. Cap Screws M10-1.5 x 30 (Wing/Table) 6
AF. Lock Washers 10mm (Wing/Table) 6
AG. Flat Washers 10mm (Wing/Table) 6
AH. Hex Bolts M10-1.5 x 25 (Front Rail/Table) 2
AI. Hex Bolts M10-1.5 x 35 (Front Rail/Wings) 2
AJ. Lock Washers 10mm (Front Rail/Table) 4
AK. Flat Washers 10mm (Front Rail/Table/Wings) 6
AL. Hex Nuts M10-1.5 (Front Rail/Table/Wings) 2
AM. Hex Bolts 1/4"-20 x 5/8" (Front Rail/Tube) 5
AN. Lock Washers 6mm (Front Rail/Tube) 5
AO. Flat Washers 6mm (Front Rail/Tube) 5
AP. Hex Bolts M10-1.5 x 25 (Rear Rail/Table) 2
AQ. Flat Washers 10mm (Rear Rail/Table) 2
AR. Lock Washers 10mm (Rear Rail/Table) 2
AS. Hex Bolts M10-1.5 x 35 (Rear Rail/Wings) 2
AT. Flat Washers 10mm (Rear Rail/Wings) 4
AU. Lock Washers 10mm (Rear Rail/Wings) 2
AV. Hex Nuts M10-1.5 (Rear Rail/Wings) 2
AW. Flat Hd Screws M6-1 x 15 (Switch) 2
AX. Lock Washers 6mm (Switch) 2
AY. Flat Washers 6mm (Switch) 2
AZ. Hex Nuts M6-1 (Switch) 2
BA. Wing Nut M6-1 (Dust Hose Support) 1
BB. Flat Washer 6mm (Dust Hose Support) 1
BC. Hex Nut M6-1 (Dust Hose Support) 1
BD. Button Head Cap Screws M5-.8 x 12 (Dust Port) 4
BE. Flat Washers 6mm (Dust Port) 4
BF. Lock Washer 6mm (Dust Hose Support) 1

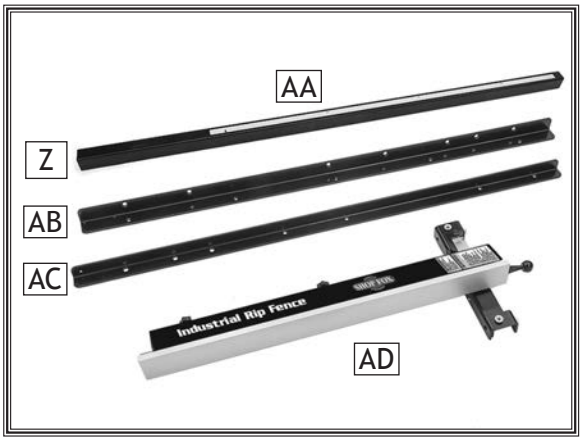
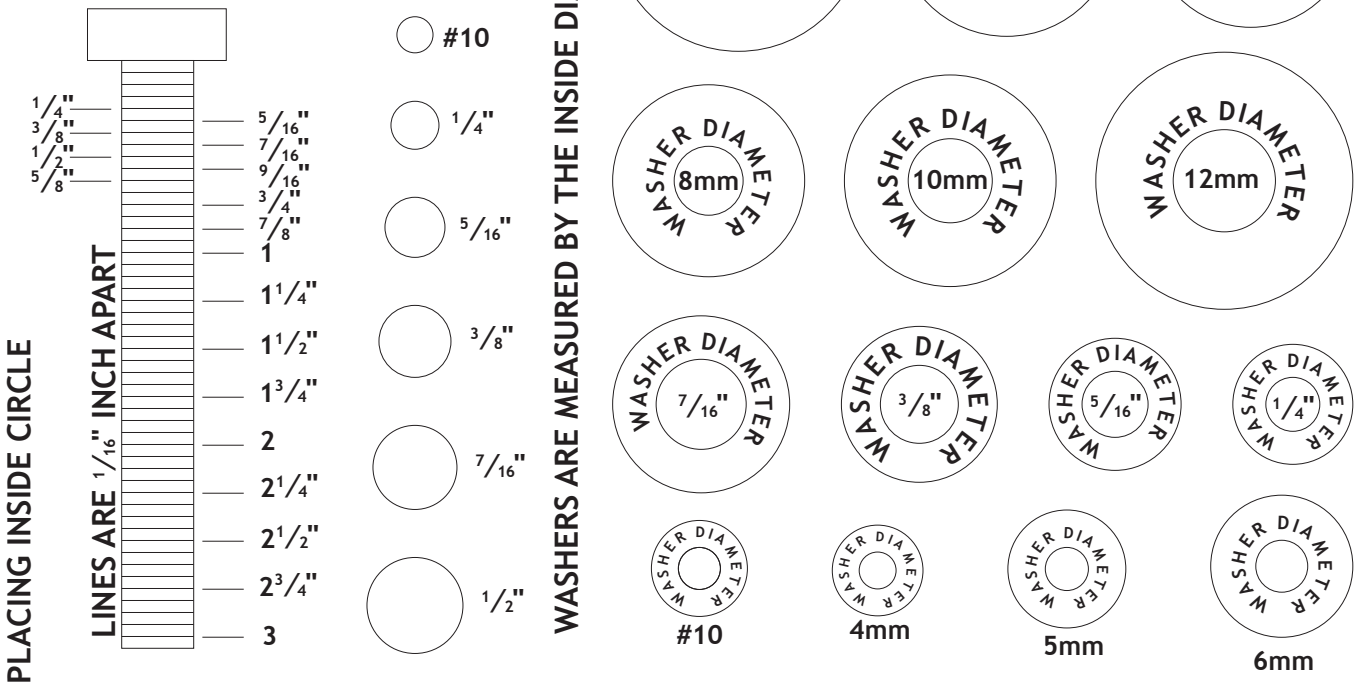
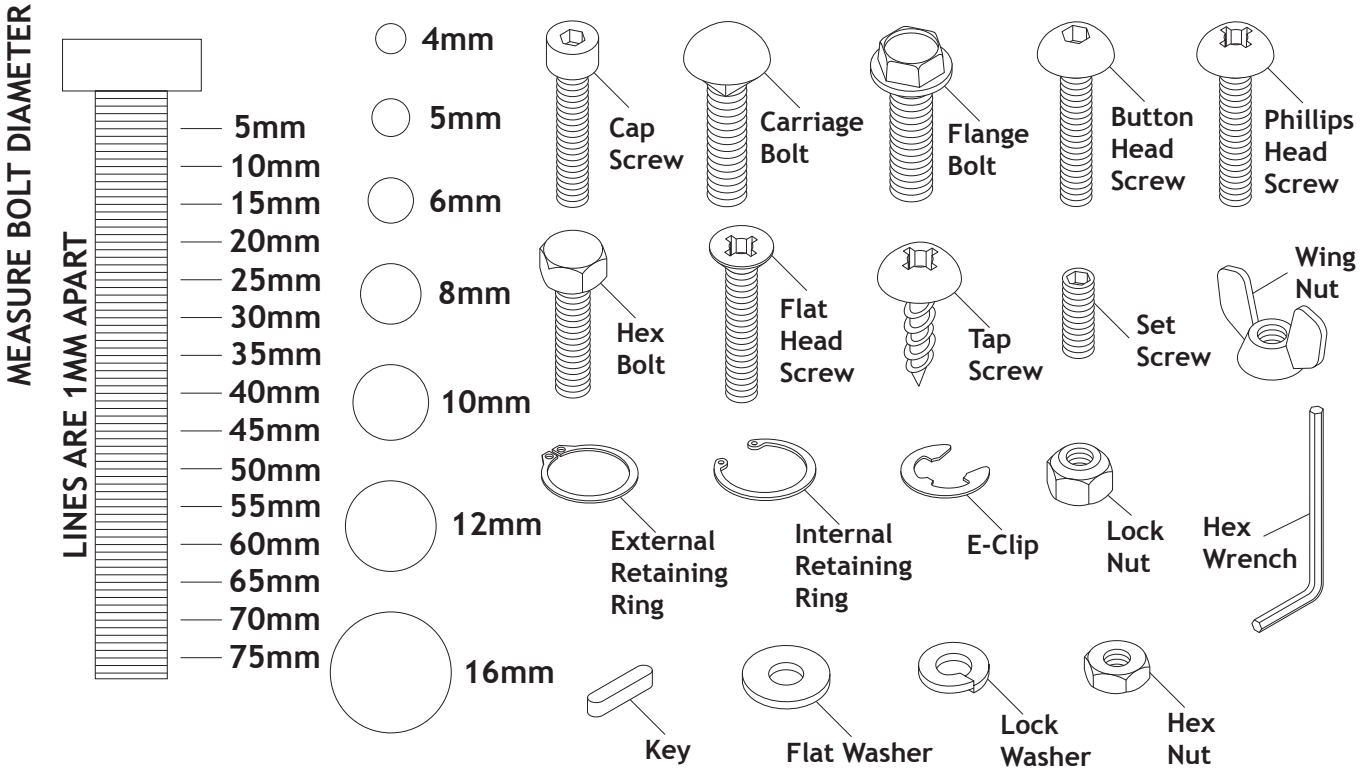


Figure 12. Rails and fence components.

Hardware Recognition Chart

USE THIS CHART TO IDENTIFY HARDWARE DURING THE INVENTORY/ASSEMBLY PROCESS.





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.

⚠WARNING

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

NOTICE

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.**

⚠CAUTION

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

Physical Environment

The physical environment where 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.

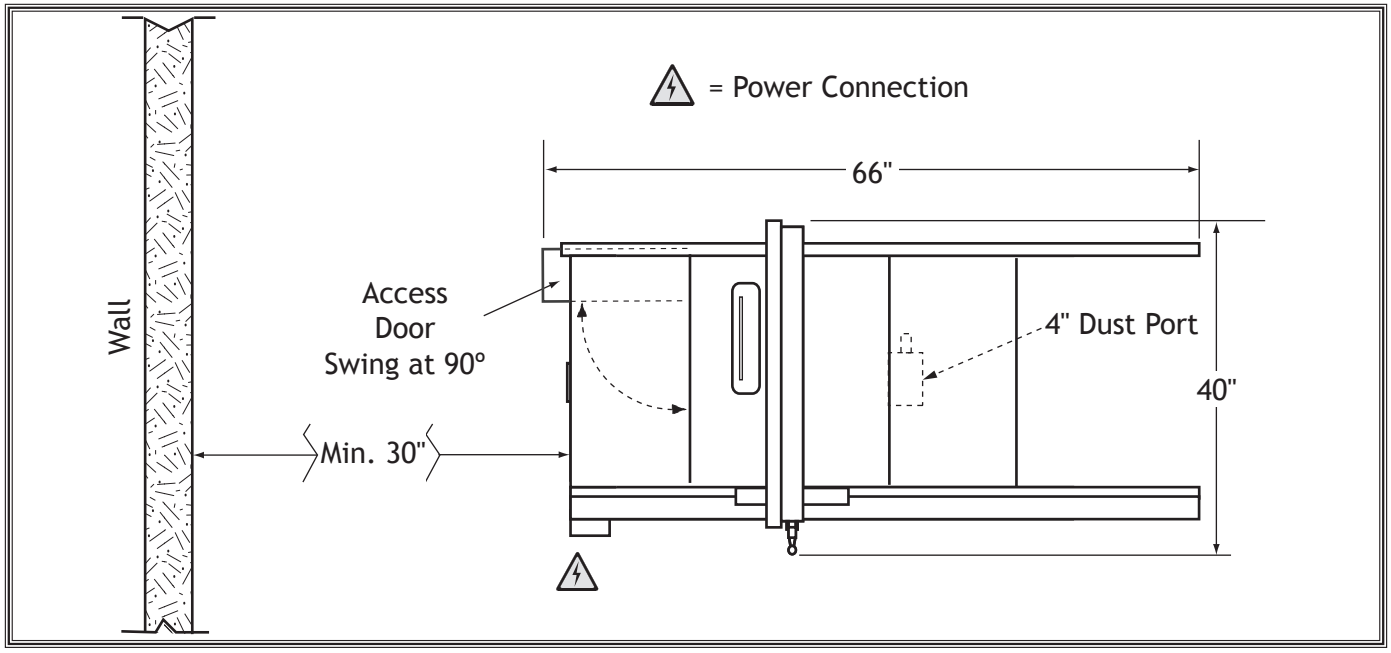


Figure 13. Working clearances.

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** or connecting the machine to power.

To assemble machine, do these steps:

1. Thoroughly clean heavy-duty rust preventative off of gearing inside the saw and coat these with appropriate metal protectant (refer to **Lubrication** on **Page 65** for location of gears).

2. Slide groove on back of each handwheel over handwheel shaft pin (see **Figure 14**).

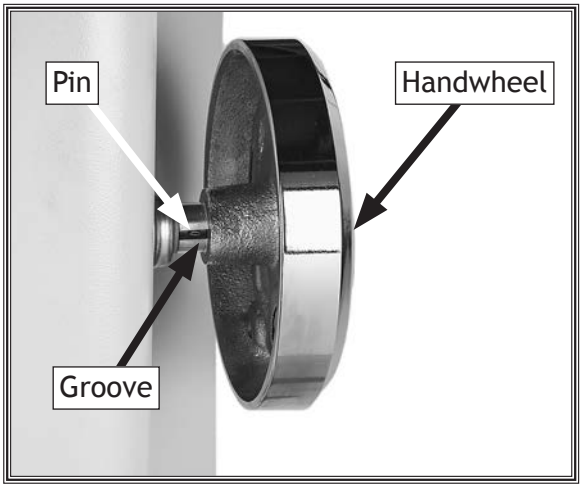


Figure 14. Handwheel installed on shaft pin.

3. Thread handwheel lock knob into center of each handwheel and tighten, then thread handle onto each handwheel and tighten (see **Figure 15**).

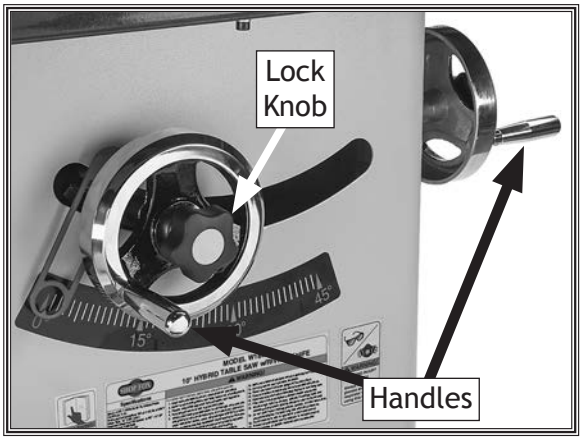


Figure 15. Handwheels installed.

4. Raise motor with blade height handwheel and remove foam shipping block (see **Figure 16**). Save block for later machine transport (if necessary).

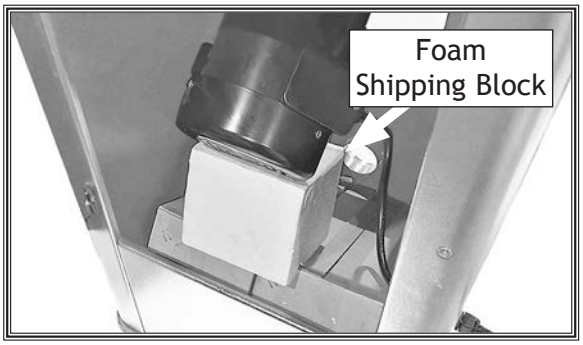


Figure 16. Foam shipping block location.

5. Remove switch from inside saw cabinet, and install motor door by inserting door pins into hinge sockets on cabinet (see **Figure 17**).

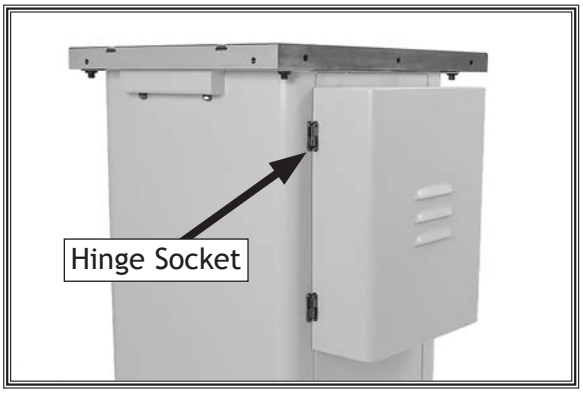


Figure 17. Motor door installed.

6. Inspect extension wings and main table (see **Figure 18**) mating surfaces for burrs or foreign materials that may inhibit assembly.

Note: *For a correct fit, 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.*

7. While an assistant holds wings in place, attach each extension wing to main table with (3) M10-1.5 x 30 cap screws, 10mm lock washers, and 10mm flat washers (see **Figure 18**).

Figure 18. Extension wings installed.

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

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

— If outside end of extension wing tilts down, place a strip of masking tape along bottom edge of main table to shim end of extension wing up (see **Figure 19**).

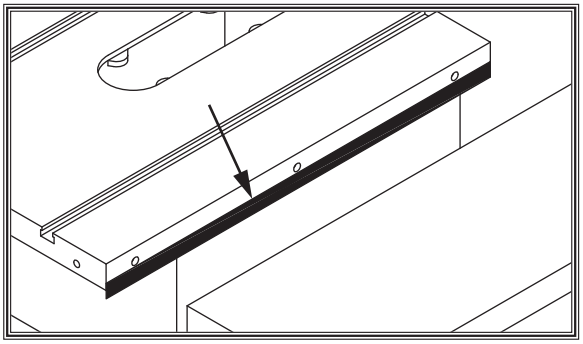


Figure 19. Masking tape location for tilting extension wing up.

— If outside end of extension wing tilts up, place strip of masking tape along top edge of main table to shim end of extension wing down (see **Figure 20**).

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

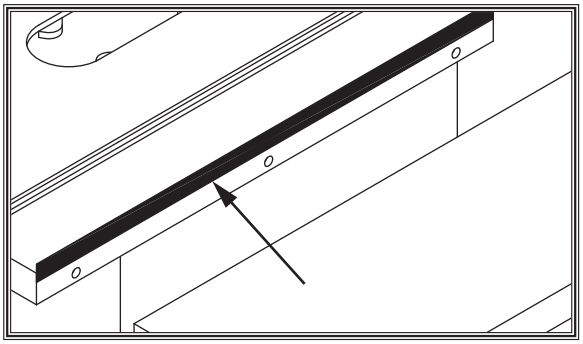


Figure 20. Masking tape location for tilting extension wing down.

9. Attach front rail to table with (2) M10-1.5 x 25 hex bolts, (2) 10mm flat washers, and (2) 10mm lock washers, as shown in **Figure 21**. Finger tighten fasteners for now.

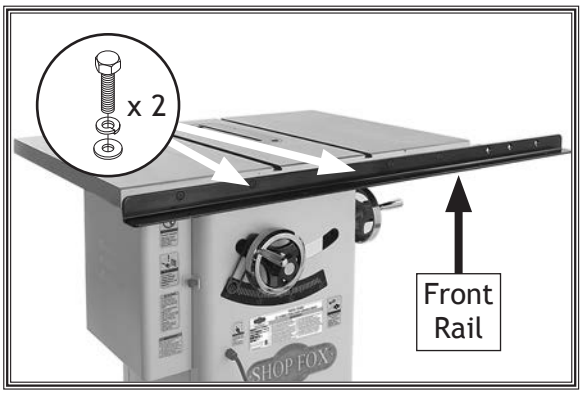


Figure 21. Front rail attached to table.

10. Attach front rail to extension wings with (2) M10-1.5 x 35 hex bolts, (4) 10mm flat washers, (2) 10mm lock washers, and (2) M10-1.5 hex nuts, as shown in **Figure 22**. Finger tighten fasteners for now.

11. Make sure top of rail is parallel with table top, then tighten fasteners installed in **Steps 9–10**.

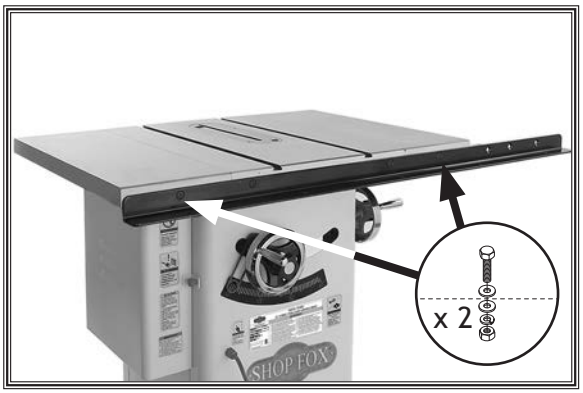


Figure 22. Front rail attached to extension wings.

12. Install front rail tube to front rail with (5) 1/4"-20 x 5/8" hex bolts, 6mm flat washers, and 6mm lock washers, as shown in **Figure 23**. Finger-tighten fasteners for now.

13. While standing at front of table, pull rail tube toward you as far as possible, then tighten fasteners installed in **Step 12**. This will help make sure there is enough room for fence to slide.

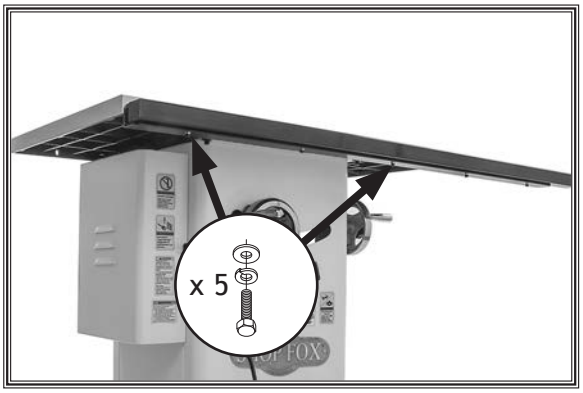


Figure 23. Front rail tube attached to front rail.

14. Attach rear rail to main table using (2) M10-1.5 x 25 hex bolts, 10mm lock washers, and 10mm flat washers, as shown in **Figure 24**. Check to make sure rear rail is parallel to table and below miter slots before completely tightening hex bolts.

15. Secure rear rail to extension wings with (2) M10-1.5 x 35 hex bolts, (4) 10mm flat washers, (2) 10mm lock washers, and (2) M10-1.5 hex nuts (see **Figure 24**).

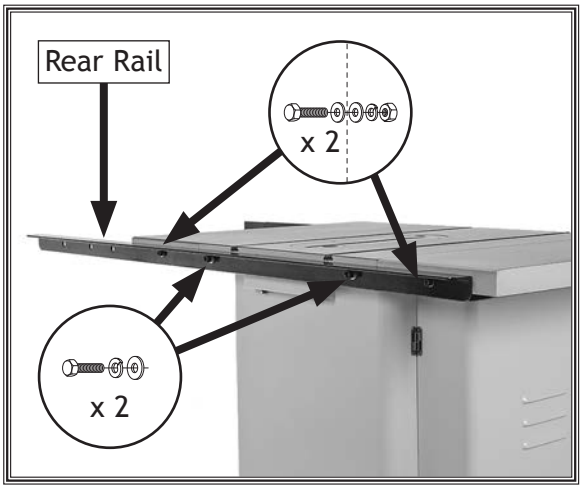


Figure 24. Rear rail installed.

16. Attach switch to bottom left-hand side of front rail using (2) M6-1 x 15 flat head screws, 6mm lock washers, 6mm flat washers, and M6-1 hex nuts (see **Figure 25**).

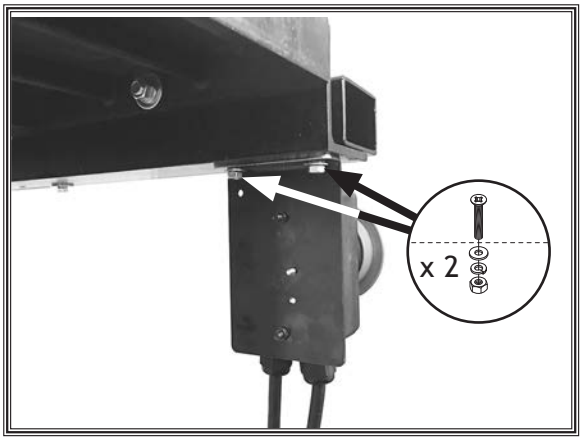


Figure 25. Switch box installed.

17. Attach dust hose support arm to rear rail with M6-1 hex nut, 6mm flat washer, 6mm lock washer, and M6-1 wing nut. Orient arm so open end of hook faces outward (see **Figure 26**).

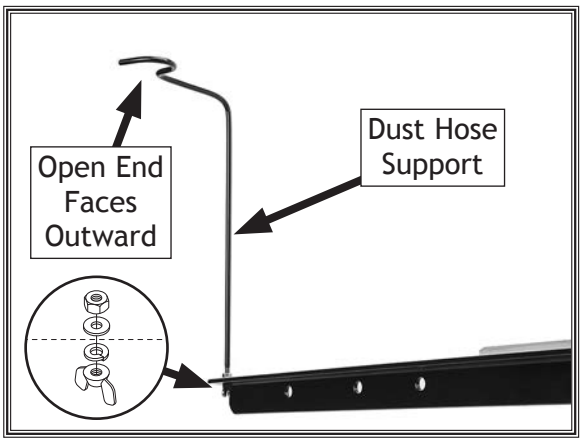


Figure 26. Dust hose support installed.

18. Install saw blade as outlined in **Blade Installation** on **Page 36**.

19. Place fence on rails on right-hand side of blade.

Note: *Make sure cam foot contacts cam on fence lock handle before you place fence on rail; otherwise, fence will not lock onto rail tube (see **Figure 27**).*

20. Adjust foot at rear of fence so that gap between fence and table top is even from front to back.

21. Slide fence up against right hand edge of miter slot, and lock it in place. Examine how fence lines up with miter slot (see **Figure 28**).

Note: *It is permissible for back of fence to pivot outward not more than 1/64" from being parallel with miter slot. This creates a slightly larger opening between fence and blade, at rear of blade, to reduce risk of workpiece binding or burning as it is fed through cut. Many woodworkers intentionally set up their fence in this manner. Keep this in mind before adjusting your fence. For more details refer to **Optional Offset Fence Adjustment** on **Page 74**.*

- If fence *is* still parallel with miter slot, proceed to **Step 22**.
- If fence *is not* parallel with miter slot, then you MUST adjust fence so that it is parallel, as described in **Fence Adjustments** on **Page 72**.
- If miter slot *is not* parallel with blade, you must follow procedures described in **Miter Slot to Blade Parallelism** on **Page 68**.

22. Carefully slide fence so it barely touches saw blade and lock it in place.

23. Lightly mark "0" location on fence tube (under indicator line on pointer window) with a pencil, then remove fence.

24. Peel tape from fence scale label and carefully align "0" mark on scale with pencil mark on fence tube, then make sure tape is parallel to fence tube along its length before placing label.

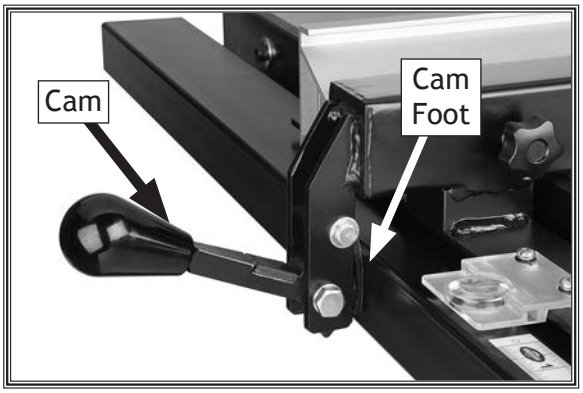


Figure 27. Fence installed on rails.

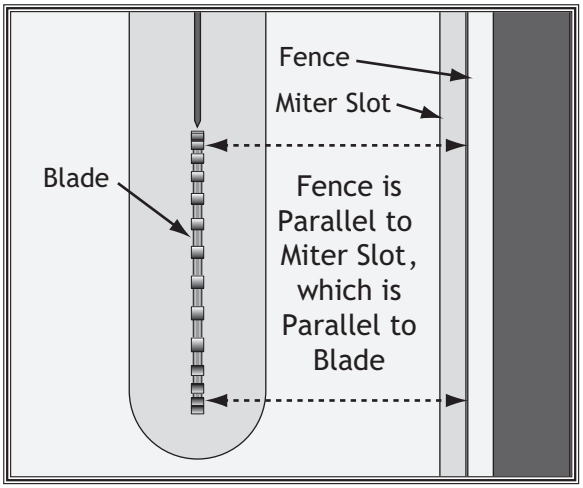


Figure 28. Checking fence parallelism with blade.

SETUP

25. Install fence, move it over to just touch blade, and verify that indicator line is directly over "0" mark.

— If you need to correct position of indicator line, loosen Phillips head screws on pointer window, adjust pointer window so line is over "0" mark on tape (see **Figure 29**), then tighten screws.

26. Install blade guard as described in **Blade Guard Assembly** on **Page 38**.

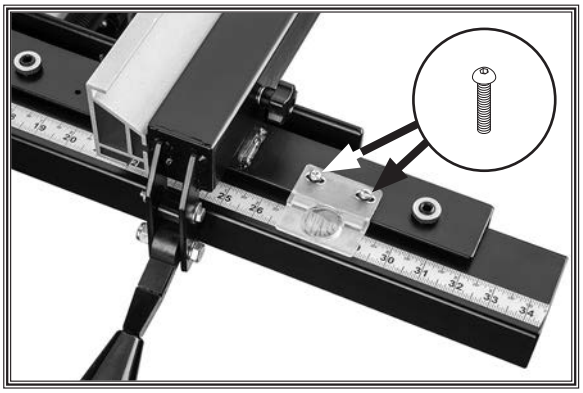


Figure 29. Ruler aligned with pointer.

27. Attach cabinet access door to hinges (see **Figure 30**) and secure with hinge pins.

28. Remove (2) hex bolts and flat washers (see **Figure 30**) from right-hand side of cabinet. Close access door and secure with hex bolts and flat washers.

Figure 30. Cabinet access door installed.

29. Attach dust port to cabinet using (4) M5-.8 x 12 button head cap screws and (4) 6mm flat washers (see **Figure 31**).

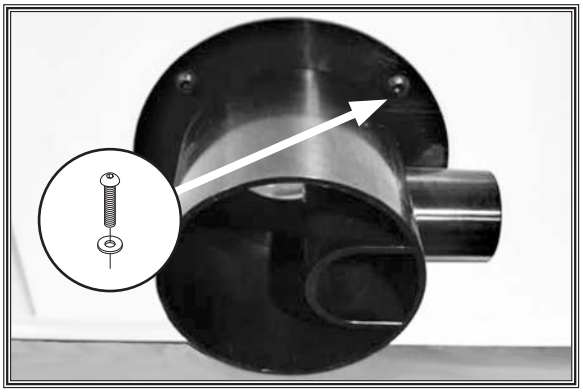


Figure 31. Dust port installed.

30. Place 3¼" hose clamps over each end of 3" dust hose, then attach 3" dust hose to dust chute and dust port inside cabinet (see **Figure 32**).

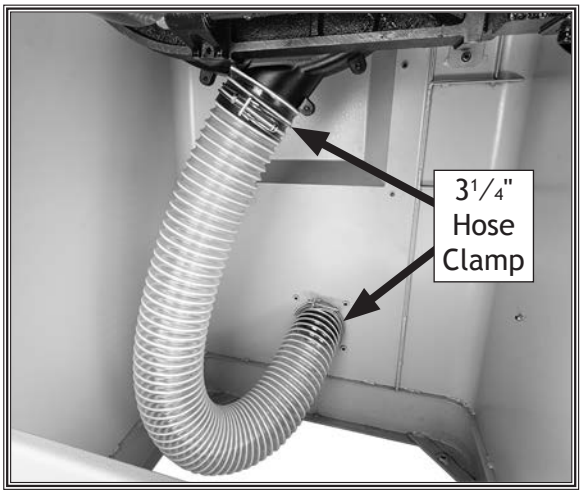


Figure 32. Dust hose connected inside cabinet.

31. Attach dust hose adapter to each end of dust hose (see **Figure 33**).

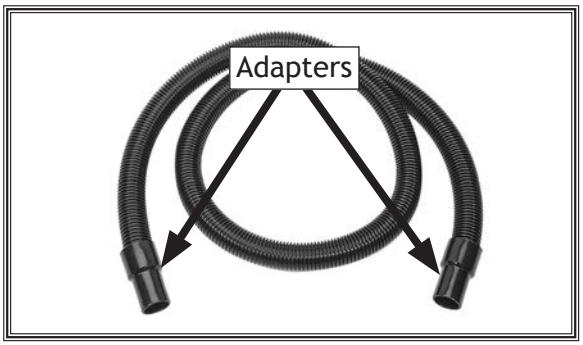


Figure 33. Adapters attached to dust hose.

32. Slide one adapter onto 1½" dust port until it fits snugly (see **Figure 34**).

33. Attach dust hose to dust hose support then insert dust port into rear of blade guard assembly (see **Figure 34**).

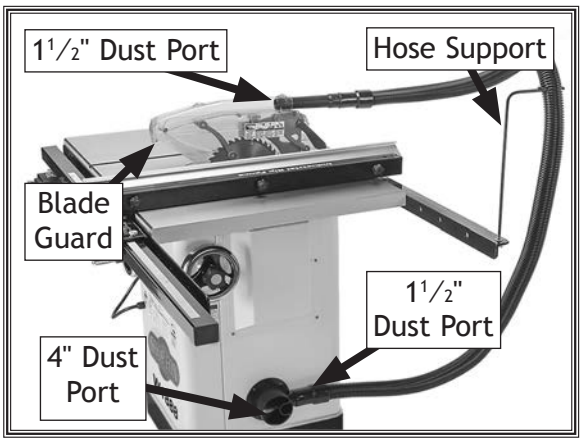


Figure 34. Dust hose attached to saw, hose support, and blade guard dust port.

Dust Collection

Recommended CFM at Dust Port: ..... 500 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.

⚠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.

Tools Needed	Qty
Dust Hose Adapters 1½"	2
Dust Hose 94" x 1½"	1
Dust Hose 4" (not included)	1
Hose Clamps 4" (not included)	2
Dust Collection System (not included)	1

To connect a dust collection hose, do these steps:

1. Fit a 4" dust hose over the dust port and secure it in place with a hose clamp (see **Figure 35**).

2. Tug the hose to make sure it does not come off.

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

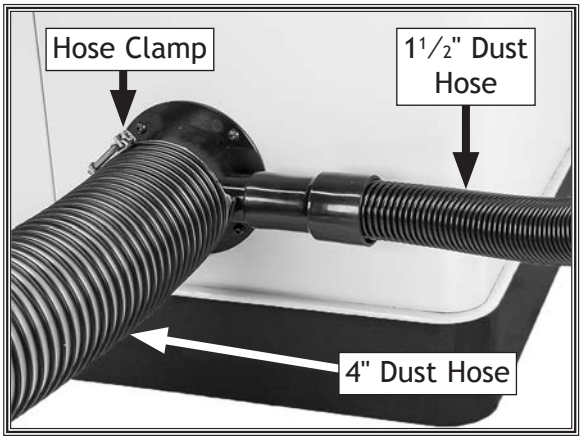


Figure 35. Dust hoses attached to port.

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.

The Test Run consists of verifying the following: 1) The motor powers up and runs correctly, and 2) the safety disabling mechanism on the switch works correctly.

To test run machine, do these steps:

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

2. Connect machine to power source.

3. Turn machine ***ON*** by pulling paddle switch out. Verify motor operation, then turn machine ***OFF*** by pressing paddle switch in.

   The motor should run smoothly and without unusual problems or noises.

4. Remove switch disabling key, as shown in **Figure 36**.

5. Try to start machine.

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

   — If machine *does start*, immediately stop 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.

⚠WARNING

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

⚠WARNING

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

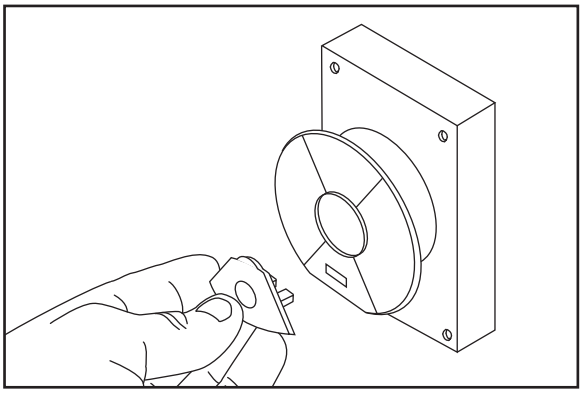


Figure 36. Example of removing disabling key from paddle switch.

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.

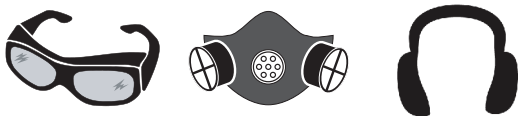
To complete a typical operation, the operator does the following:

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

WARNING

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

WARNING



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

NOTICE

If you are an inexperienced operator, we strongly recommend that you read books or trade articles, or seek training from an experienced operator of this type of machinery before performing unfamiliar operations. Above all, safety must come first!

Workpiece Inspection

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

Before cutting, get in the habit of inspecting 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 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.

⚠WARNING

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

- ***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, yields poor results.
- ***Excessive Warping:*** Workpieces with excessive cupping, bowing, or twisting are dangerous to cut because they are unstable and often unpredictable when being cut. DO NOT use workpieces with these characteristics!
- ***Minor Warping:*** Workpieces with slight cupping can be safely supported if the cupped side is facing the table or the fence. On the contrary, a workpiece supported on the bowed side will rock during a cut and could cause kickback or severe injury.

⚠WARNING

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

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 37**.

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

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

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

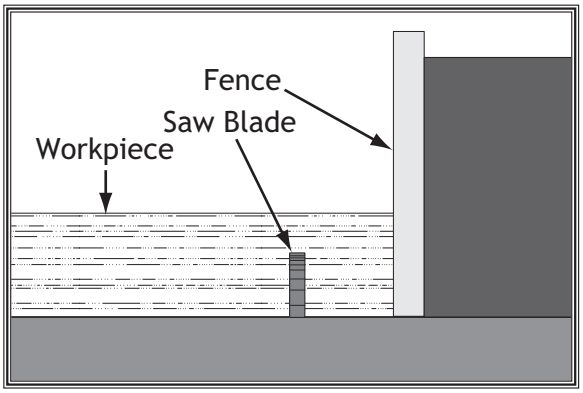


Figure 37. Example of a non-through cut.

Through Cuts

A through cut is a sawing operation in which the workpiece is completely sawn through, as shown in **Figure 38**. Examples of through cuts are rip cuts, cross cuts, miter cuts, and beveled cuts. The blade guard assembly MUST be used when performing through cuts.

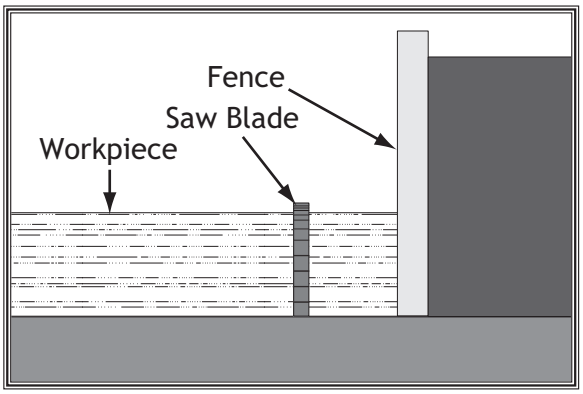


Figure 38. Example of a through cut (blade guard not shown for illustrative purposes).

NOTICE

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

Blade Size Requirements

When choosing a 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: 0.063"–0.094" (1.8–2.4mm)
- Kerf (Tooth) Thickness: 0.102"–0.126" (2.6–3.2mm)
- Riving Knife Thickness: 0.1" (2.5mm)
- Blade Size Required for Riving Knife: 10"

⚠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.

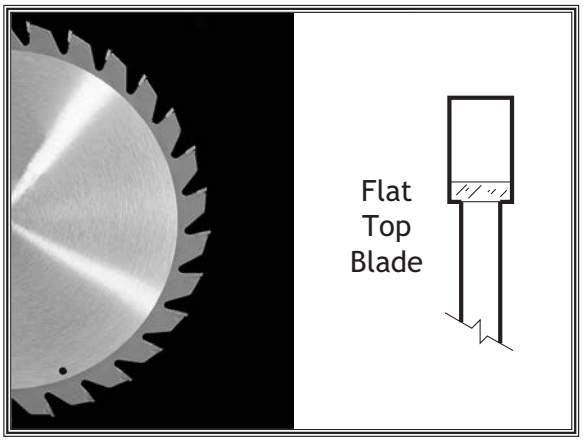


Figure 39. Example of a ripping blade.

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 39):

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

Crosscut Blade Features (Figure 40):

- 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 41):

- 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

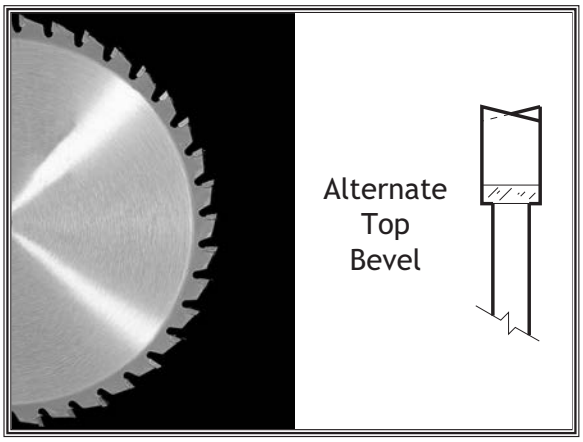


Figure 40. Example of a crosscut blade.

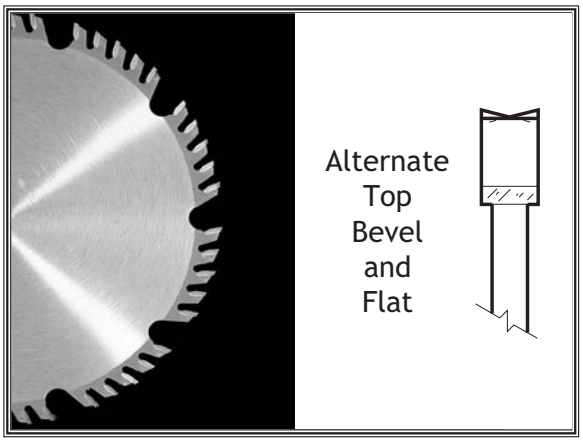


Figure 41. Example of a combination blade.

Laminate Blade Features (Figure 42):
- Best for cutting plywood or veneer
- 40-80 teeth
- Triple chip tooth profile
- Very shallow gullet

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

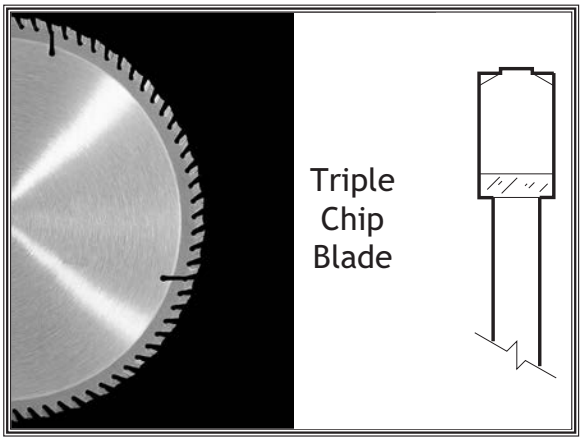


Figure 42. Example of a laminate blade.

Dado Blades

Stacked Dado Blade (see **Figure 43):** 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.

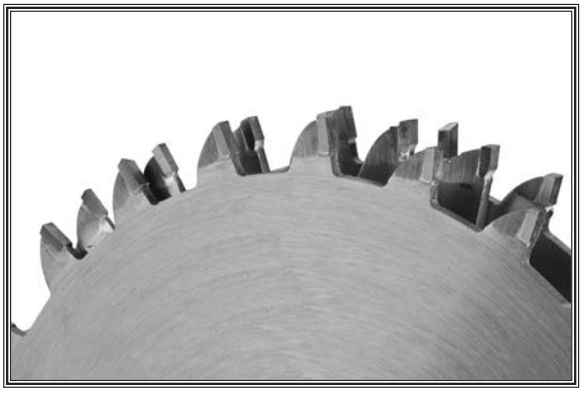
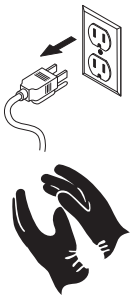


Figure 43. Stacked dado blade.

Blade Installation

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

Items Needed	Qty
Leather Work Gloves	1 Pair
Arbor Wrench	1



⚠CAUTION

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

To install blade, do these steps:

1. DISCONNECT MACHINE FROM POWER!

2. Raise arbor all the way up, then remove blade guard, spreader/riving knife (see **Pages 38** & **41**), and table insert.

3. Push arbor lock (see **Figure 44**) in and turn blade until it locks in place.

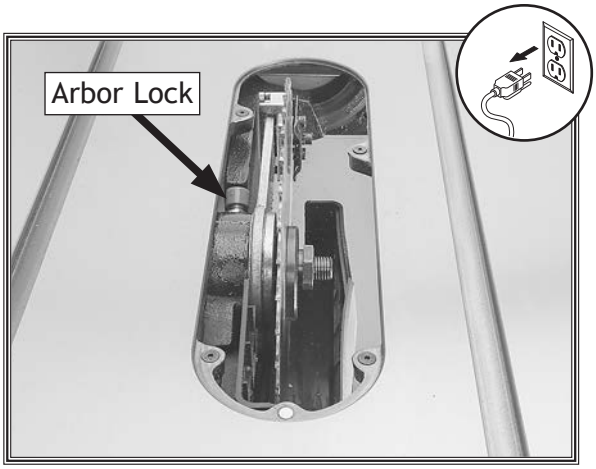


Figure 44. Location of arbor lock.

4. While pressing arbor lock, use included arbor wrench to loosen and remove arbor nut, flange, and blade (see **Figure 45**).

   Note: *Arbor nut has right-hand threads; rotate counterclockwise to loosen.*

Figure 45. Example of removing table saw blade.

5. Install new blade, flange, and arbor nut on arbor (see **Figure 46**), with upper teeth facing front of saw. Ensure the tapered edge of the flange faces the arbor nut and the recess faces away from the arbor nut (see **Figure 47**). The arbor nut should be flush with the outer surface of the flange.

IMPORTANT: Make sure you install the components in the correct orientation or the saw blade will not be properly secured!

6. Secure blade with arbor lock, then tighten flange and arbor nut against blade with arbor wrench. DO NOT overtighten.

7. Install table insert (see **Page 76**) and blade guard (see **Page 38**) or riving knife (see **Page 41**).

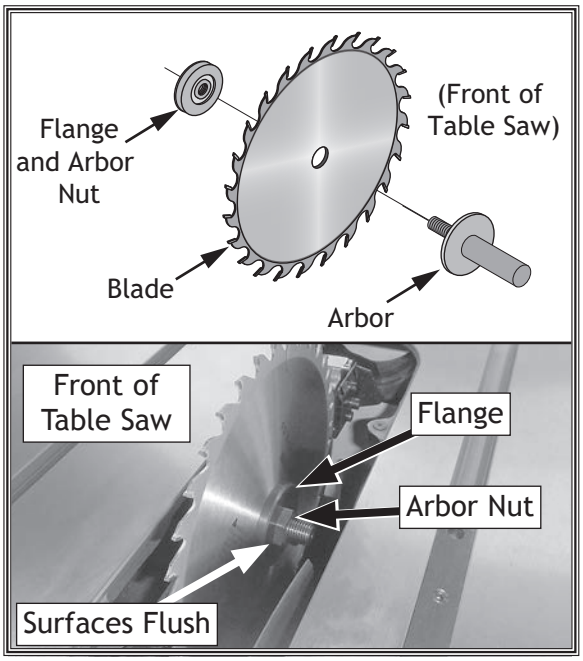


Figure 46. Blade order of installation and teeth facing correct direction.

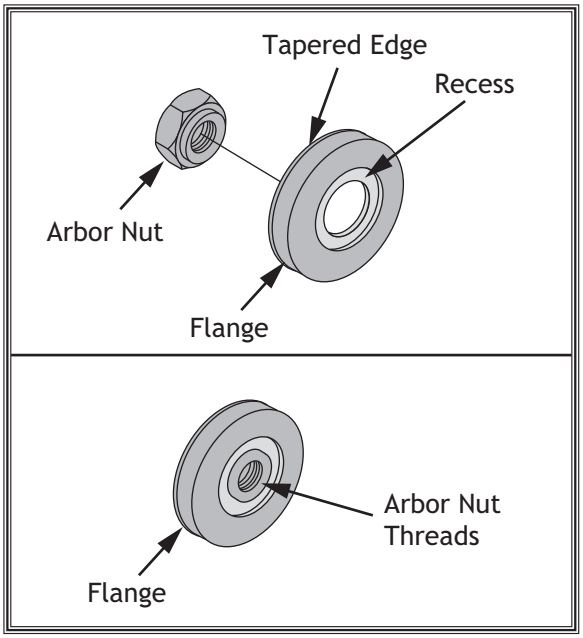


Figure 47. Flange and arbor nut joined.

Blade Guard Assembly

The term "blade guard" refers to the assembly that consists of the clear polycarbonate shield and dust enclosure, the spreader, and the anti-kickback pawls on each side of the spreader (see **Figure 48**). Each of these components have important safety functions during the operation of the saw.

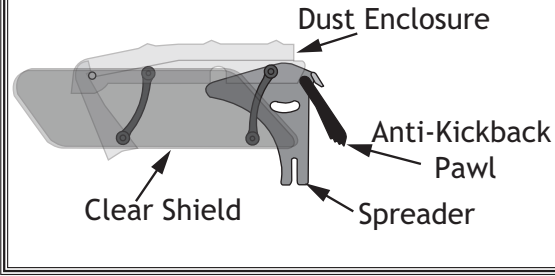


Figure 48. Blade guard assembly components.

Guard

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

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

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

Spreader

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

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

⚠CAUTION

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

Installing Blade Guard & Spreader

Tools Needed	**Qty**
Hex Wrench 3mm	1
Straightedge	1

To install blade guard and spreader, do these steps:

1. DISCONNECT MACHINE FROM POWER!

2. Slide end of spreader between adjustment block and clamping plate. Press firmly until spreader snaps into place (see **Figure 49**).

   Note: *To remove spreader, pull firmly and wiggle spreader forward and backward slightly.*

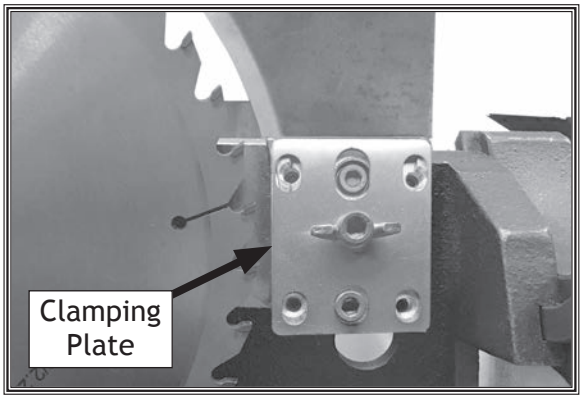


Figure 49. Spreader held between clamping plate and adjustment block.

3. Adjust flat head cap screws (see **Figure 50**) to make sure table insert is flush with table (use a straightedge as a guide).

Note: *The blade guard, when properly installed, should be set up similarly to* ***Figure 50****. It should pivot freely up and down and return to the table in the resting position. It should also swing up high enough to accommodate the workpiece.*

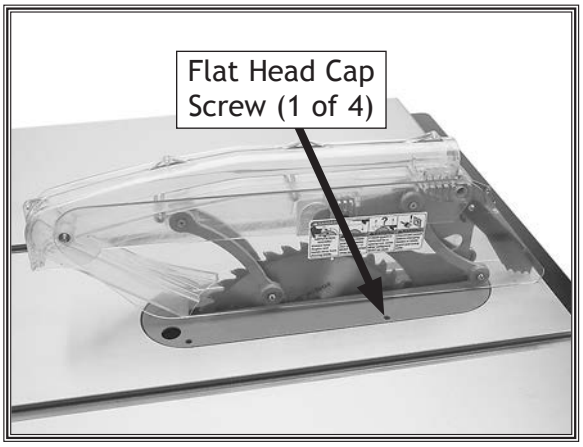


Figure 50. Blade guard installed.

4. While lifting up on one side of blade guard and right spreader pawl, place 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," as shown in **Figure 51**, and will be parallel with blade.

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

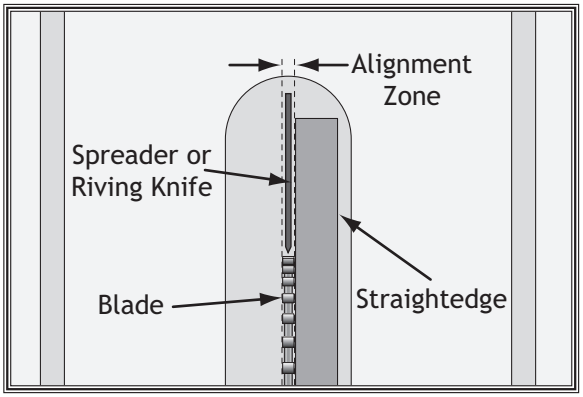


Figure 51. Spreader/riving knife alignment zone.

5. Connect dust collection hose to blade guard as shown in **Figure 52**. For more information, see **Dust Collection** on **Page 29**.

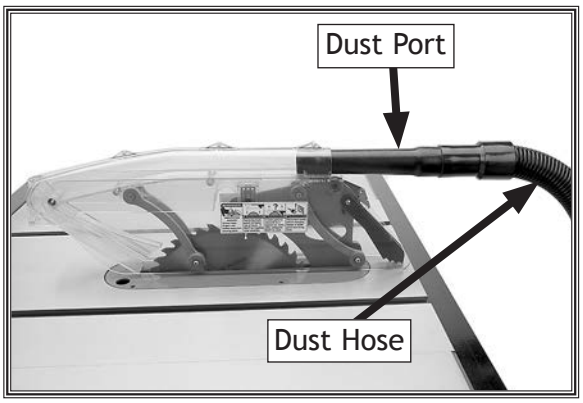


Figure 52. Dust port and dust collection hose installed on blade guard.

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 (see **Figure 53**), and they must NOT be engaged in the arresting hooks.

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

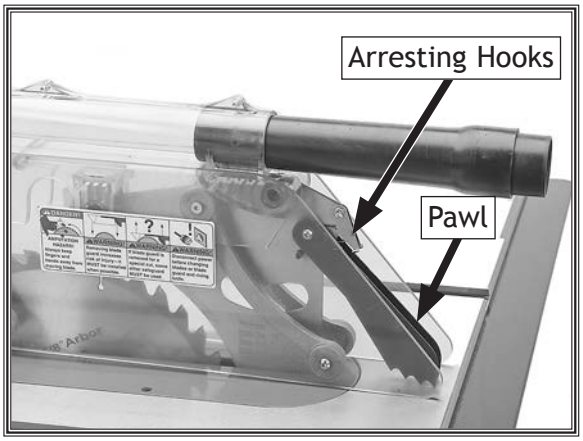


Figure 53. Pawls in resting position.

Disabling Pawls

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

To disable pawls, do these steps:

1. DISCONNECT MACHINE FROM POWER!

2. Rotate one or both arresting hooks downward, then place pawls on each of the hooks (see **Figure 54**).

Enabling Pawls

To enable the pawls, lift up on each pawl and move them outward and down until they both touch the table surface, as shown in **Figure 53**.

⚠CAUTION

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

⚠CAUTION

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

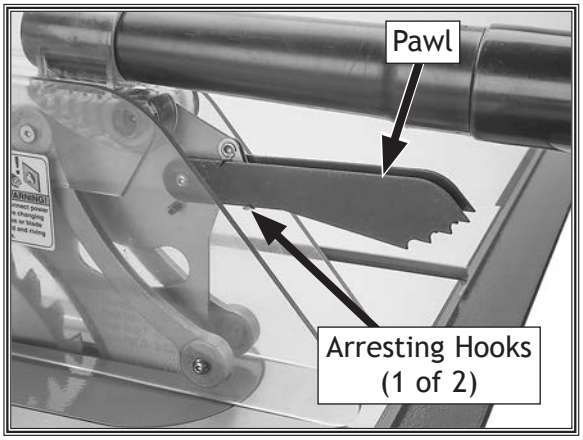


Figure 54. Pawls disabled.

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!

NOTICE

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

Riving Knife

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

The key difference between the spreader and the riving knife is that the riving knife mounts below the blade's highest point of rotation, as shown in **Figure 55**.

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

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

The riving knife must be kept within the range shown in **Figure 56**. Therefore, we only recommend using a 10" blade for operations that require use of the riving knife.

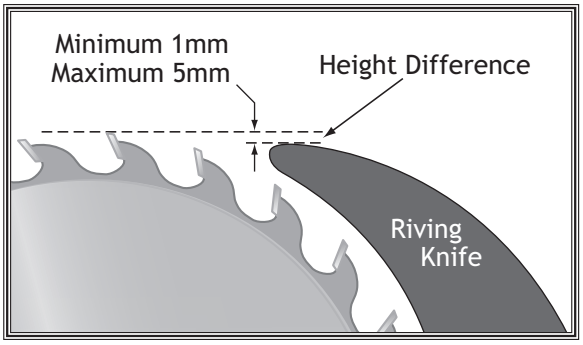


Figure 55. Example of height difference between riving knife and blade.

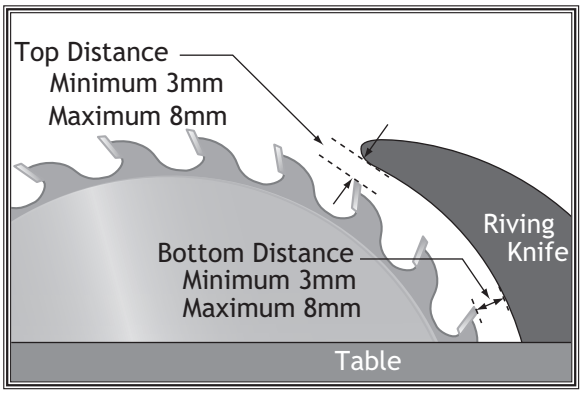


Figure 56. Example of allowable top and bottom distances between riving knife and blade.

How to Install Riving Knife

The riving knife is installed in a similar manner to the blade guard and spreader. Refer to **Blade Guard Assembly** on **Page 38** for installation instructions.

When to Use 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 Riving Knife

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

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

⚠WARNING

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

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. Loosen fence knobs (see **Figure 57**), remove rip fence, then re-install in vertical position for thicker workpieces, or in horizontal position for thinner workpieces and angled cuts where blade is tilted over fence. Lift fence up and tighten each fence knob.
6. Set fence to desired width of cut on scale.
7. Adjust blade height so highest saw tooth protrudes no more than 1/4" above workpiece.
8. Set up safety devices such as featherboards (see **Figure 58**) or other anti-kickback devices, making sure no safety devices are contacting blade.
9. 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.*
10. Use push stick to feed workpiece through saw blade, as shown in **Figure 57**, until workpiece is completely beyond saw blade.

⚠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.

⚠CAUTION

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

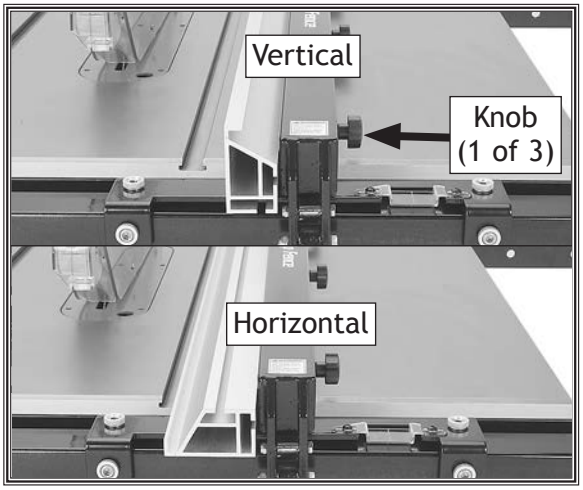


Figure 57. Rip fence positions.

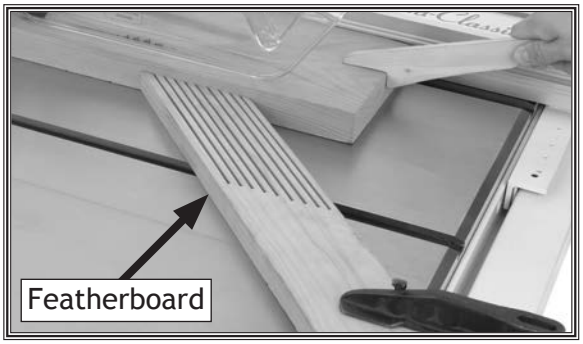
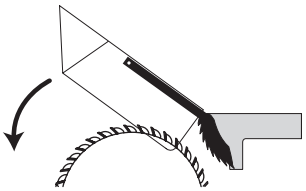


Figure 58. Typical ripping operation.

⚠WARNING



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

Crosscutting

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

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

1. DISCONNECT MACHINE FROM POWER!
2. Ensure that blade guard/spreader is installed.
3. To avoid kickback, move rip fence aside and position miter gauge, adjusted to 90°, in a miter slot.
4. Adjust blade height so teeth protrude no more than 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 59**), and ease it through blade until workpiece is completely past saw blade.

⚠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.

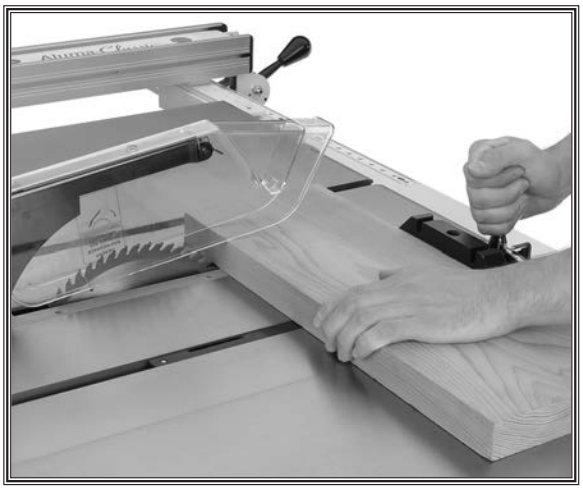


Figure 59. Typical crosscutting operation.

Miter Cuts

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

To perform a miter cut, do these steps:

1. Ensure that blade guard/spreader is installed.

2. Determine angle of cut. If angle needs to be very precise, use a protractor to set miter gauge to blade.

3. 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 60**.

4. 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.

5. Proceed to make cut in same manner as described in **Crosscutting** instructions.

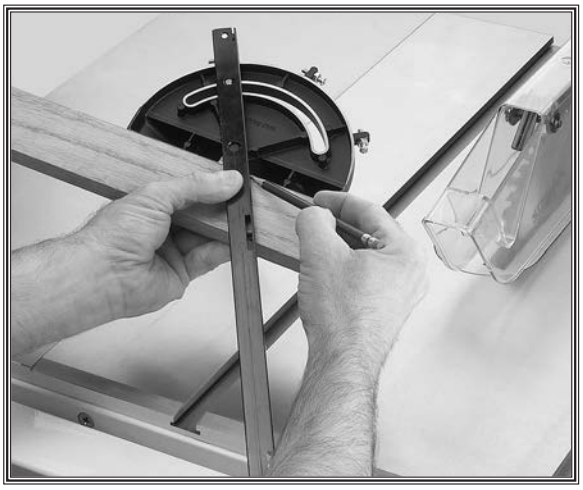


Figure 60. Example of marking miter line.

Blade Tilt/Bevel Cuts

When the blade tilt collar bolts are properly adjusted (as described starting on **Page 66**), the blade tilt handwheel allows the operator to tilt the blade to the left, between 0° and 45°. This is used most often when cutting bevels, compound miters, or chamfers. **Figure 61** shows an example of the blade when tilted to 45°.

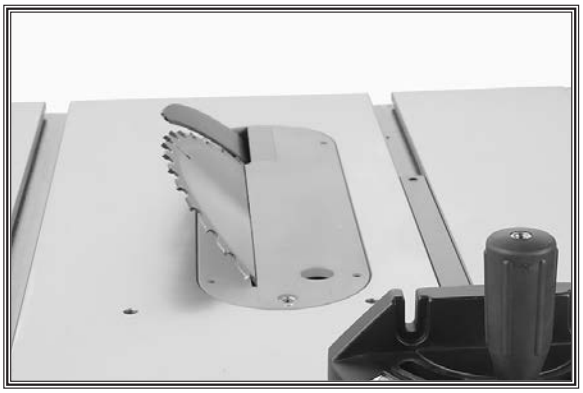


Figure 61. Blade tilted to 45° for bevel cutting on a typical table saw.

Dado Cutting

Commonly used in furniture joinery, a dado is a straight channel cut in the face of the workpiece. Dadoes are "non-through" cuts that can be made with a dado blade or a standard saw blade. **Figure 62** shows a cutaway view of a dado cut being made with a dado blade.

The Model W1888 can accommodate dado blades up to 8" in diameter. However, you MUST install the included riving knife while using the 8" 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 8" 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.

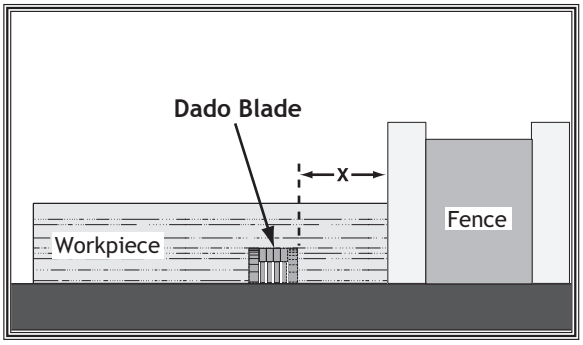


Figure 62. Example of a dado being cut with a dado blade.

Installing Dado Blade

1. DISCONNECT MACHINE FROM POWER!

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

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

   Note: *The dado blade flange is thinner than the main saw blade flange. Make sure you use the correct flange when installing the dado blade.*

4. Install dado table insert.

⚠WARNING

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.

⚠WARNING

Never try to cut a warped board by pushing it flat against the table. If kickback occurs, your hand could be pulled into blade, resulting in severe cuts or amputation.

Cutting Dadoes with a Dado Blade

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

Figure 63 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 62** on **Page 45**, 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.

⚠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 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.

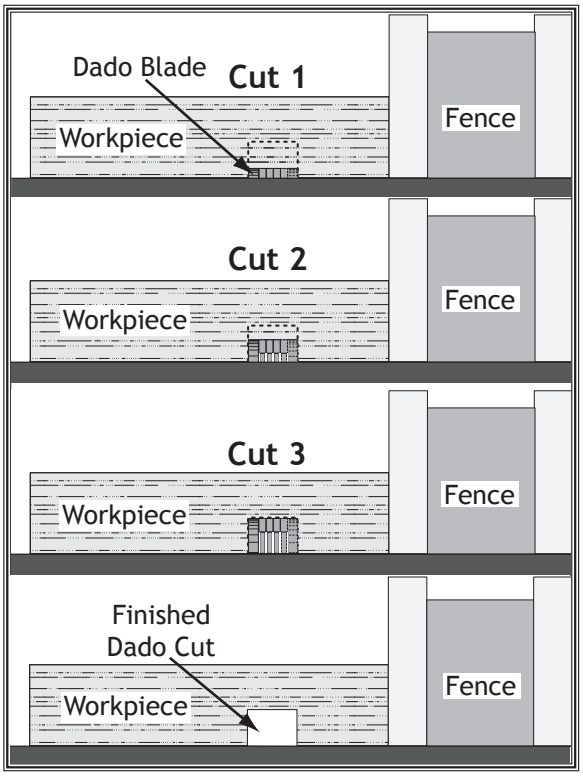


Figure 63. Example of dado being cut with multiple light cuts, instead of one deep cut.

Cutting Dadoes with a Standard Blade

A ripping blade (described on **Page 34**) 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 42**) or crosscut (**Page 43**).
5. Align blade to cut one side of dado, as shown in **Figure 64**.
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 65**.
8. Make additional cuts (see **Figure 66**) in center of dado to clear out necessary material. Dado is complete when channel is completely cleared out.

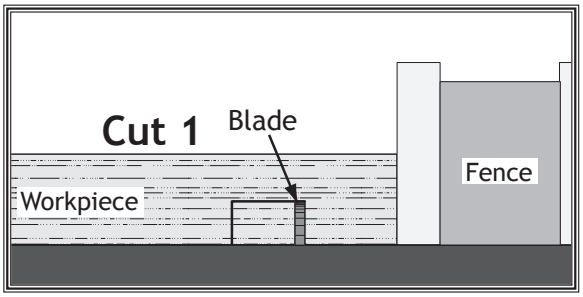


Figure 64. First cut for a single-blade dado.

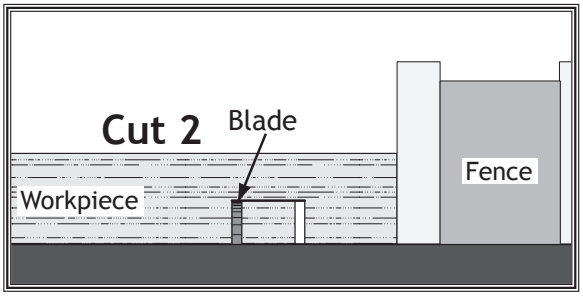


Figure 65. Second cut for a single-blade dado.

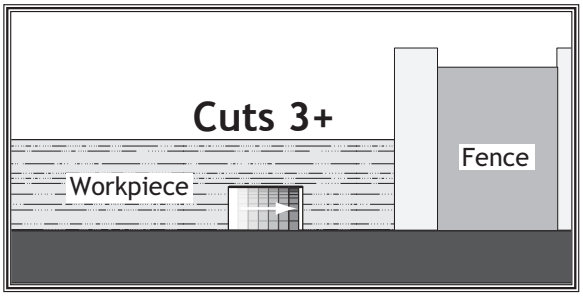


Figure 66. Additional single-blade dado cuts.

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 67**). 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 and rabbet width needed.

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

WARNING

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

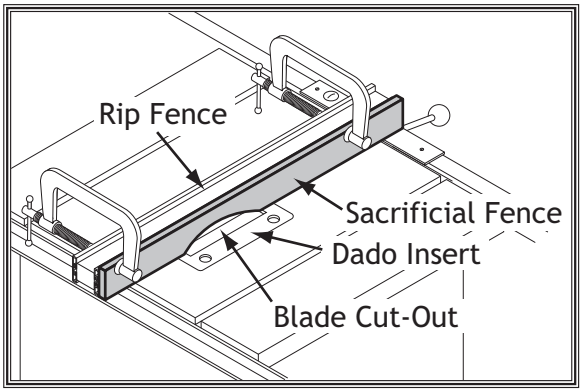


Figure 67. Example of sacrificial fence.

Cutting Rabbets with a Dado Blade

1. DISCONNECT MACHINE FROM POWER!
2. Lower dado blade all the way down.
3. Secure sacrificial fence with clamps to fence.

   Note: *Be sure to allow adequate clearance below clamps for workpiece to travel freely.*
4. Position fence so dado blade protrudes beyond fence the same amount as desired width of rabbet (see **Figure 68**).
5. Mark a reference line on the face of the sacrificial fence indicating approximate rabbet depth.
6. Secure fence, reconnect machine to power, and turn machine ***ON***.
7. Slowly raise dado blade into sacrificial fence slowly until it reaches line marked previously on sacrificial fence.
8. Perform test cut on a scrap piece of wood to verify rabbet height and width.

   — If cut is satisfactory, repeat cut with workpiece.

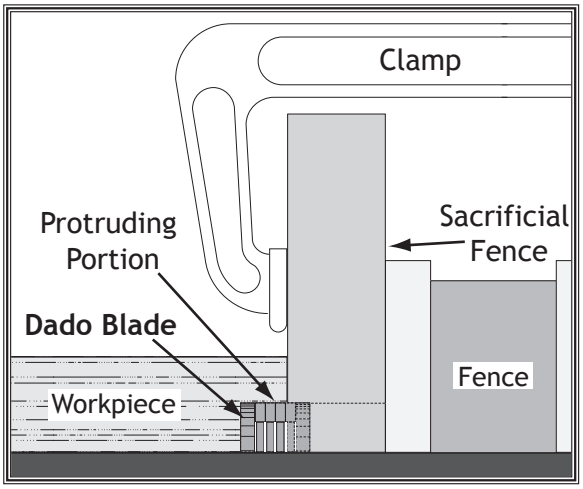


Figure 68. Rabbet cutting.

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 34** 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).

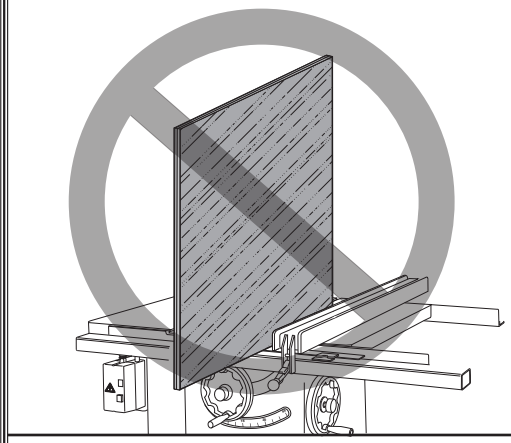
5. Stand workpiece on edge, as shown in **Figure 69**, then adjust fence so blade is aligned with inside of your rabbet channel.

   — 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 70**, adjust saw blade height to intersect with first cut, then perform second cut to complete rabbet.

⚠WARNING



DO NOT place a tall board on edge to perform a rabbet cut with a standard blade. Workpieces that are too tall to properly support with 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 48.

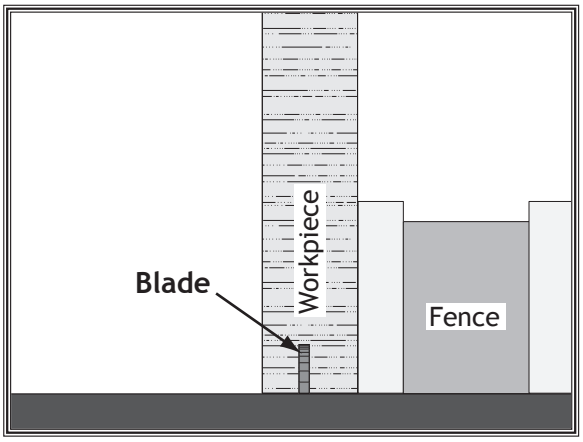


Figure 69. Example of rabbet cutting with a standard blade.

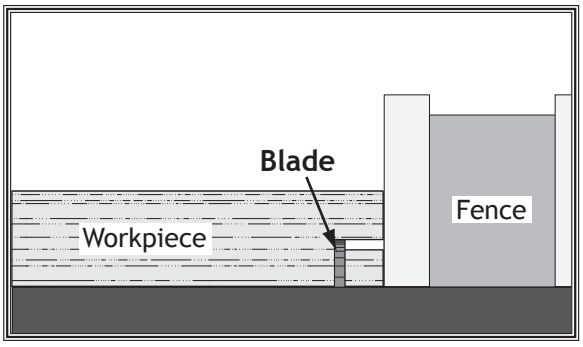


Figure 70. Example of second cut to create a rabbet.

Resawing

Resawing is the process of cutting a thick piece of stock into one or more thinner pieces.

IMPORTANT: 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".*

⚠ 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.

Making a Resaw Barrier

When resawing, the resaw barrier (see **Figure 71**) acts in tandem with the rip fence to provide tall support for the workpiece. This minimizes the probability of it binding against the blade and causing kickback.

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

Components Needed for Resaw Barrier:

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

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

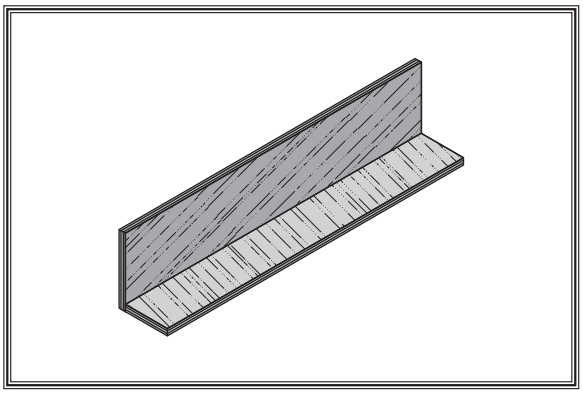


Figure 71. Example of resaw barrier.

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 3/8" from bottom of 5 1/2" tall wood piece.

3. Glue end of 3" board, then clamp boards at a 90° angle with larger board in vertical position, as shown in **Figure 72**, and fasten them together with wood screws.

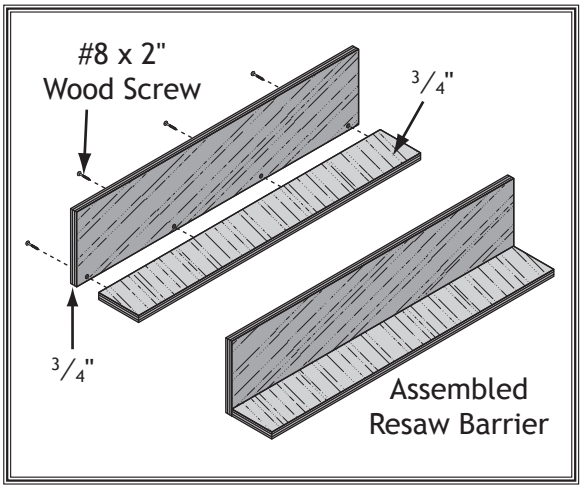


Figure 72. Resaw barrier.

Making Auxiliary Fence

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

The fence should be similar to the one in **Figure 73** when installed.

Tools Needed: **Qty**
Clamps.....2
Drill 1
Drill Bit 7/32" 1
Countersink Drill Bit.....1
Hex Wrench 5mm 1
Ruler 1

Components Needed:
Flat Head Cap Screws M6-1 x (Auxiliary Fence Width + Fence Tube Width).....3
Wood* 3/4" x 4" x Length of Fence.....1

**Only use furniture-grade plywood, kiln-dried hardwood, or HDPE plastic to prevent warping. Ensure the flat head cap screw heads do not project beyond the auxiliary fence. Countersink holes in fence to install screws properly.*

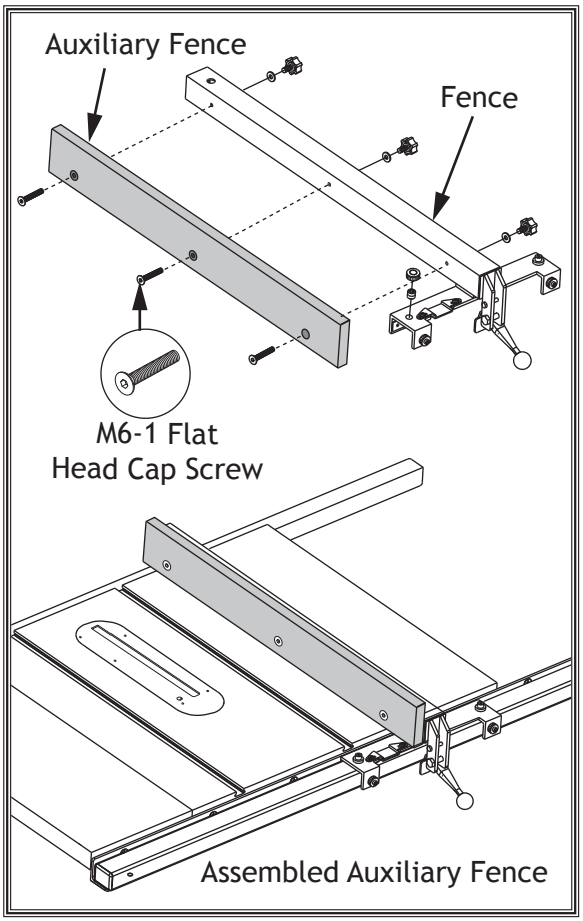


Figure 73. Example of auxiliary fence attached to Model W1888 fence face.

To build an auxiliary fence, do these steps:

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

2. Unthread (3) knobs and (3) flat washers securing fence face to fence tube shown in **Figure 74**, then remove fence.

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

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

5. Using $^{7}/_{32}$" drill bit, drill mounting holes in auxiliary fence board. Countersink holes $^{1}/_{16}$" deep so head of flat head cap screws sits slightly beneath face of auxiliary fence board.

6. Insert (3) flat head cap screws through holes in auxiliary fence board (see **Figure 73** on **Page 51**) and secure with knobs and flat washers removed earlier. The end result should be similar to **Figure 75**.

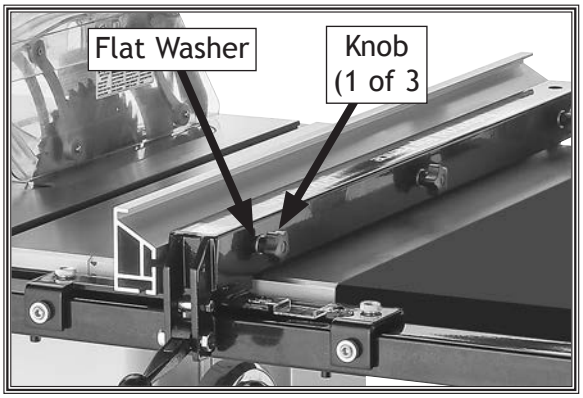


Figure 74. Location of knobs and flat washers securing fence to fence tube.

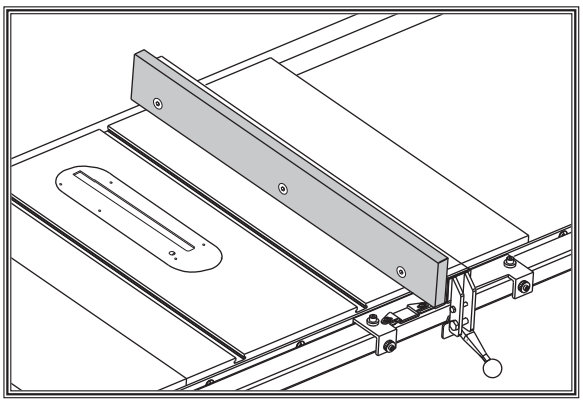


Figure 75. Example auxiliary fence attached to included fence.

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.*

5. Place workpiece against auxiliary fence and slide resaw barrier against workpiece, as shown in **Figure 76**. 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 1", or close to half the height of workpiece, whichever is less.

WARNING

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

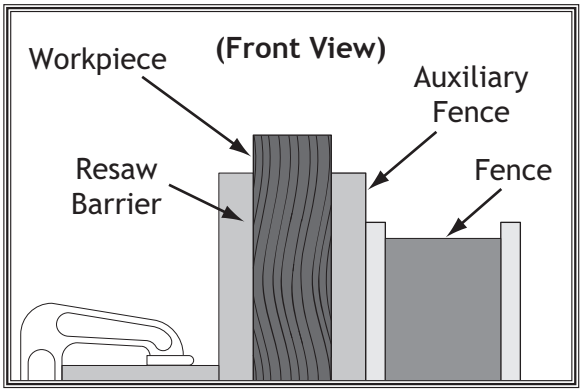


Figure 76. Example illustration of a resaw setup.

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.

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.

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.

10. 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 1/8" connection when resawing is complete, as shown in **Figure 77**. Leaving an 1/8" 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.

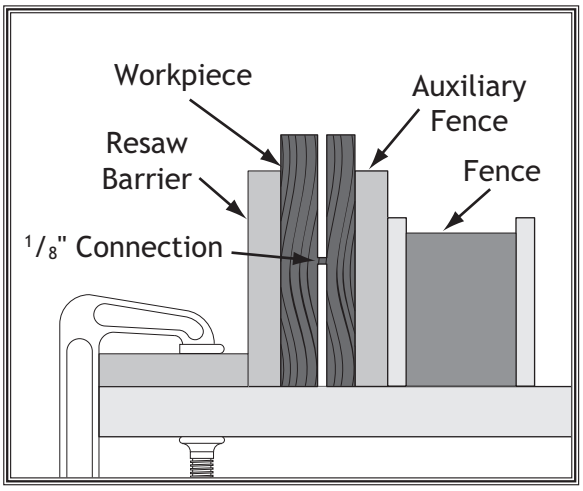


Figure 77. Ideal completed resaw operation.

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 3/4" x 3" x 10" (Minimum) 1
Hardwood 3/4" x 6" x 28" (Maximum).....1

Additional Material Needed for Mounting Featherboard:

Hardwood 3/8" x (Miter Slot Width) x 5"L.....1
Wing Nut 1/4"-20.....1
Flat Head Screw 1/4"-20 x 2" 1
Flat Washer 1/4"-20 1

To make a featherboard, do these steps:

1. Cut a hardwood board that is approximately 3/4" thick to size. The length and width of the board can vary according to your design. Most featherboards are 10"–28" long and 3"–6" wide. Make sure 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.

3. Make a series of end cuts with the grain 3/8"–1/4" apart and 2"–3" long, as shown in **Figure 78** (A). Alternatively, start cuts at 2"–3" deep, then make them progressively deeper, as shown in **Figure 78** (B).

⚠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.

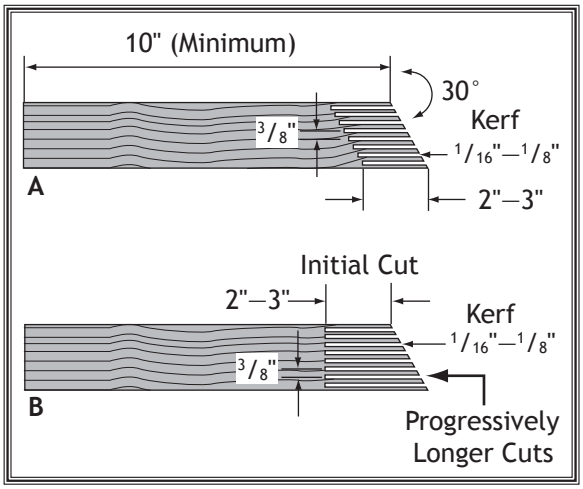


Figure 78. Patterns for making featherboards.

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 57* 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 79**).

5. Cut a miter bar approximately 5" long that will fit in table miter slot, as shown in **Figure 80**.

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.

8. Assemble miter bar and featherboard with a 1/4"-20 flat head screw, flat washer, and a wing nut or a star knob (see **Figure 81**). 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 57**.

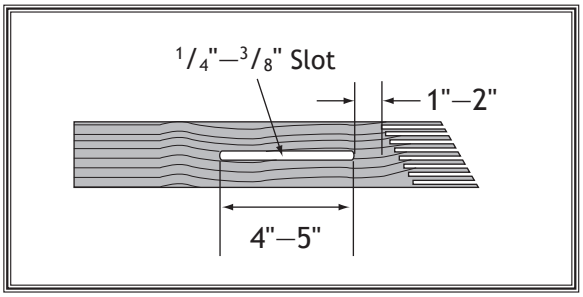


Figure 79. Slot routed in featherboard.

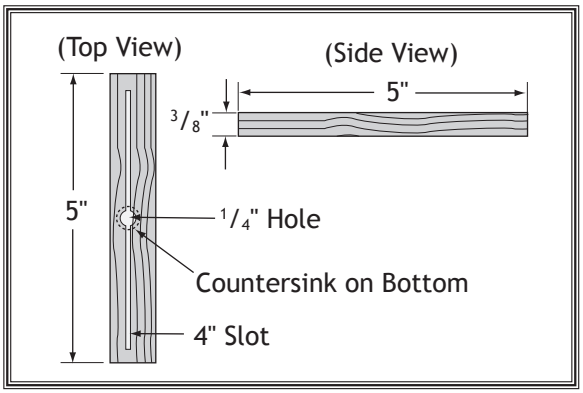


Figure 80. Miter bar pattern.

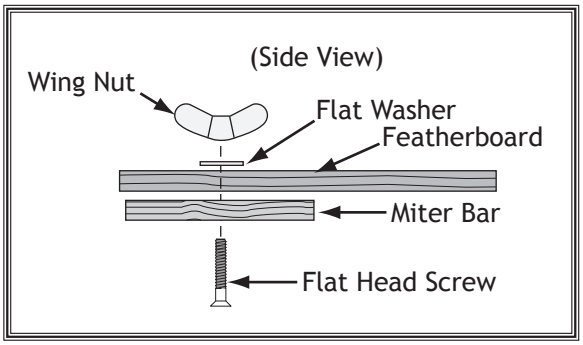


Figure 81. Assembling miter slot featherboard components.

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 82**).

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 83**.

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

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

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

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.

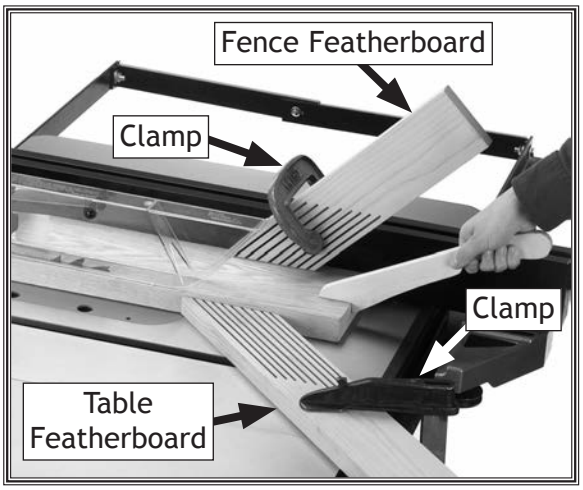


Figure 82. Example of featherboards secured with clamps.

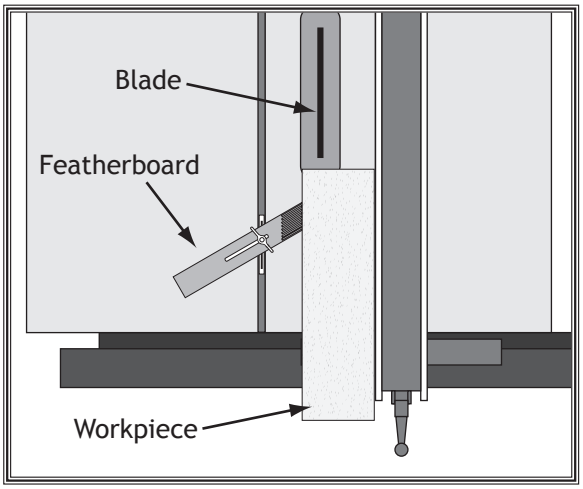


Figure 83. Featherboard installed in miter slot and supporting workpiece for ripping cut.

Push Sticks

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

Using a Push Stick

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

Feeding: Place the notched end of the push stick against the end of the workpiece (see **Figure 85** below), and move the workpiece into the blade with steady downward and forward pressure.

Supporting: A second push stick can be used to keep the workpiece firmly against the fence while cutting. When using a push stick in this manner, only apply pressure before the blade; otherwise, pushing the workpiece against or behind the blade will increase the risk of kickback (see **Push Stick Prohibition Zone** in **Figure 84** below).

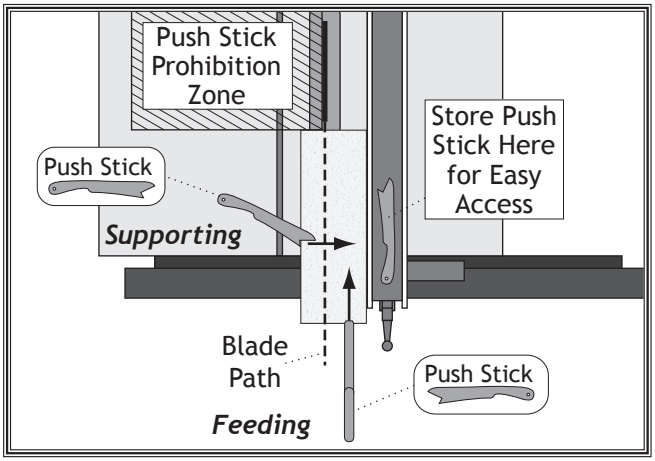


Figure 84. Using push sticks to rip narrow stock.

Figure 85. Side view of a push stick in-use.

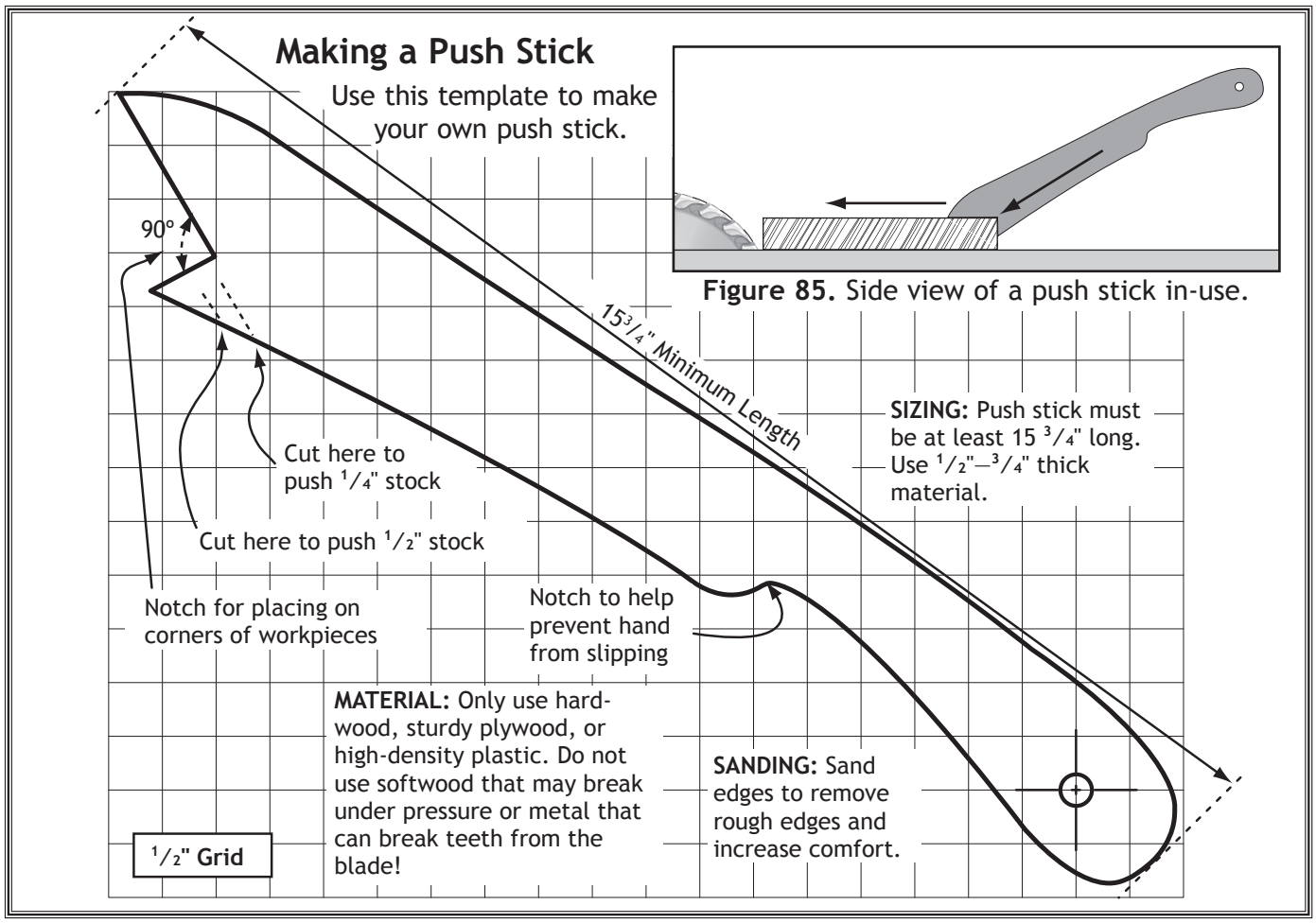


Figure 86. Template for a basic shop-made push stick (not shown at actual size).

Push Blocks

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

Using a Push Block

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

The push block design on this page can be used in two different ways (see inset **Figure 87** below). Typically, the bottom of the push block is used until the end of the workpiece reaches the blade.

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

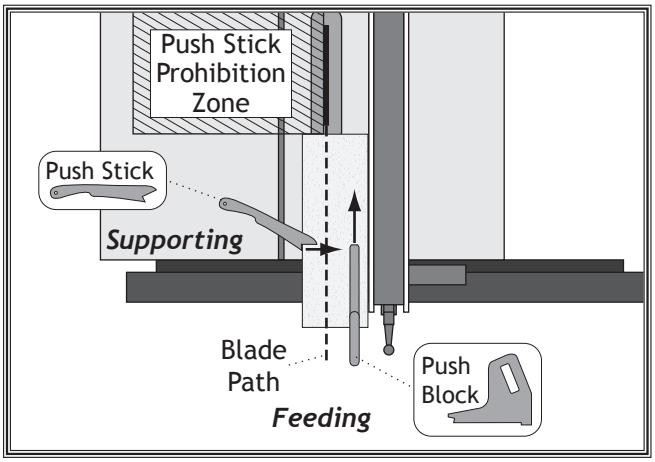


Figure 88. Using a push block and push stick to make a rip cut.

Making a Push Block

Use this template to make your own push block.

Figure 87. Side view of a push block in use.

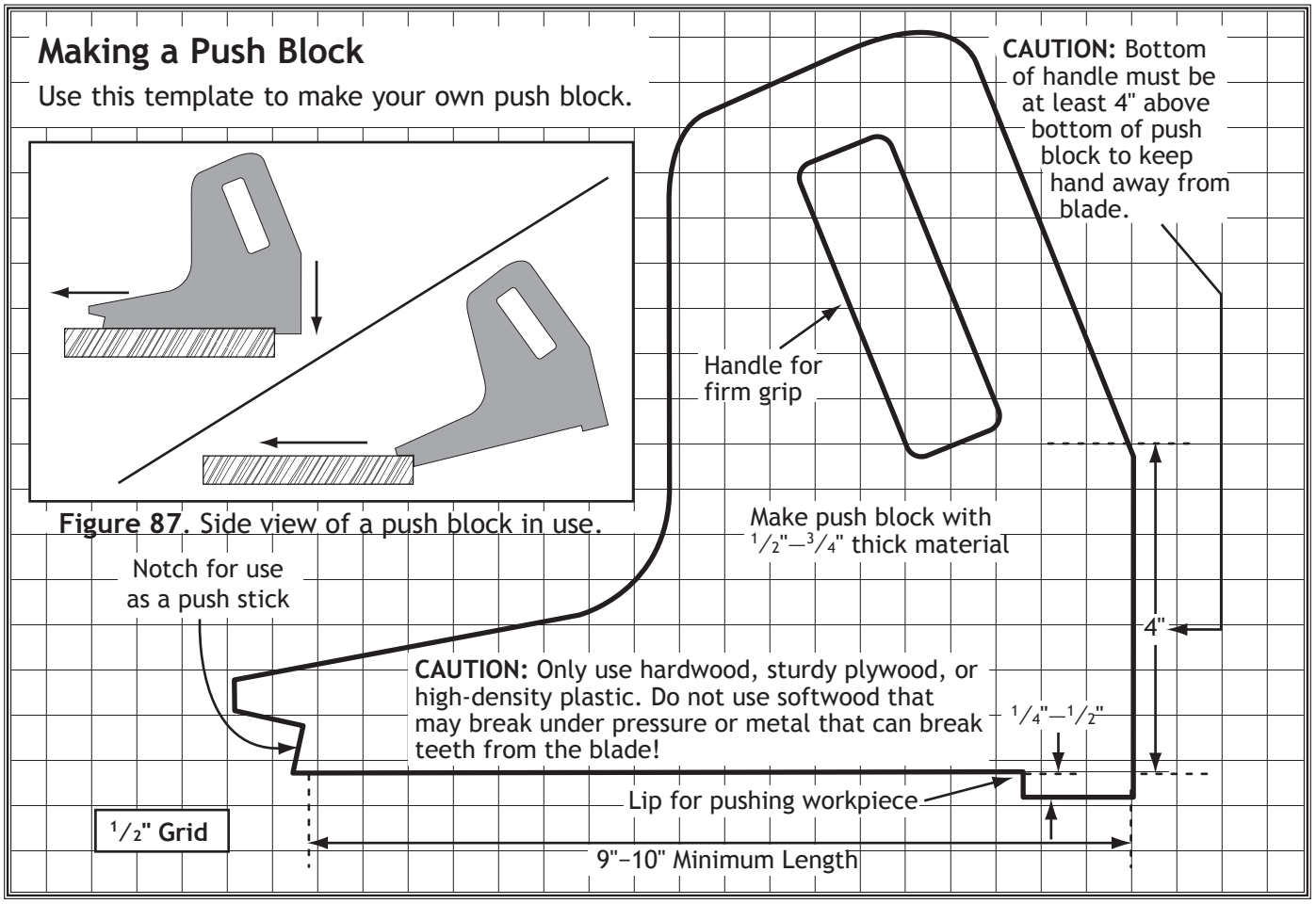


Figure 89. Template for a shop-made push block (shown at 50% of full size).

Narrow-Rip Auxiliary Fence & Push Block

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

Material Needed for Narrow Rip Auxiliary Fence & Push Block

Hardwood 3/4" x 3" x Length of Fence 1
Plywood 3/4" x 5 1/4" x Length of Fence 1
Wood Screws #8 x 1 1/2" 8

Material Needed for Push Block

Hardwood or Plywood 3/4" x 15" x 5 5/8" 1
Hardwood or Plywood 3/4" x 10" x 5"-9" 1
Cyanoacrylate Wood Glue .....Varies
Wood Screws #8 x 1 1/2" ..... As Needed

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 90**.

   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 91**.

3. Using 3/4" material you used in previous steps, cut out pieces for push block per the dimensions shown in **Figure 92**; 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 x 1 1/2" wood screws, and attach lip to base with cyanoacrylate-type wood glue.

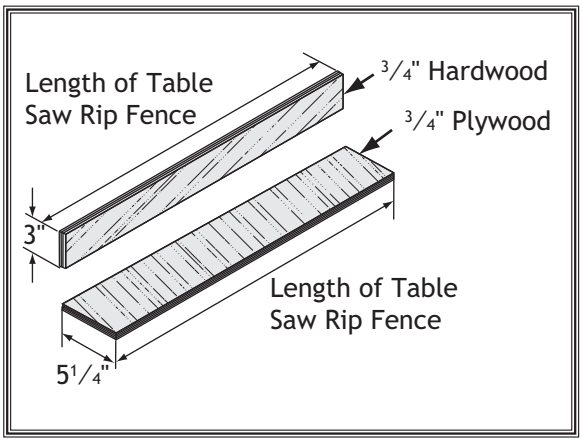


Figure 90. Auxiliary fence dimension.

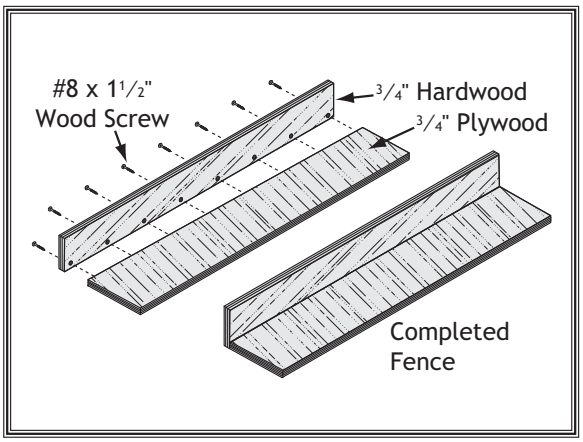


Figure 91. Location of pilot holes.

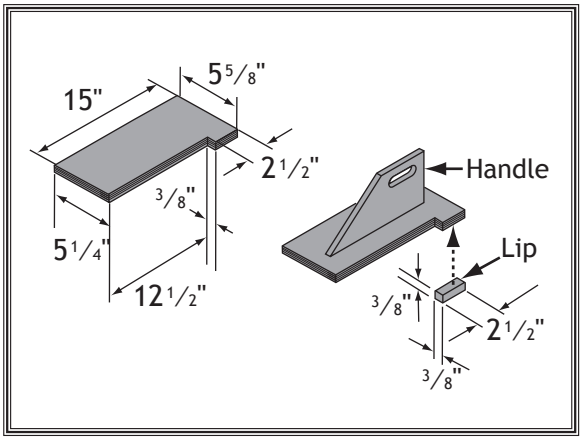


Figure 92. Push block dimensions and construction.

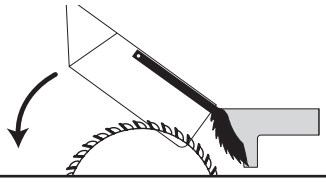
Using Auxiliary Fence and Push Block

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 93**).

2. Install blade guard, then secure spreader pawls in upright position, as shown in **Figure 54** on **Page 40**, so they do not interfere with push block lip.

3. Place workpiece 1" behind blade and evenly against table and auxiliary fence (see **Figure 94**).

⚠WARNING



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 95**.

⚠WARNING

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.

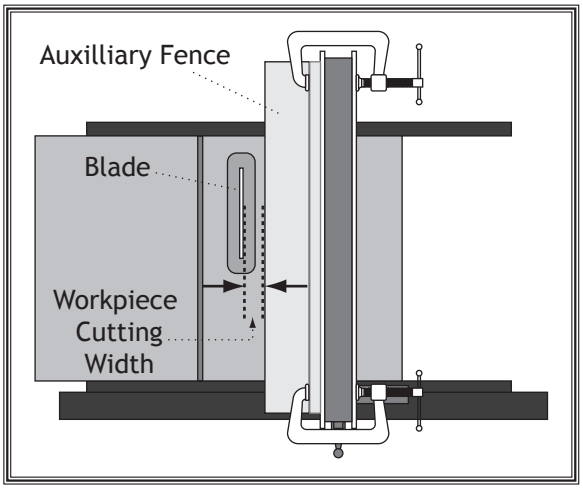


Figure 93. Adjusting ripping distance between blade and auxiliary fence.

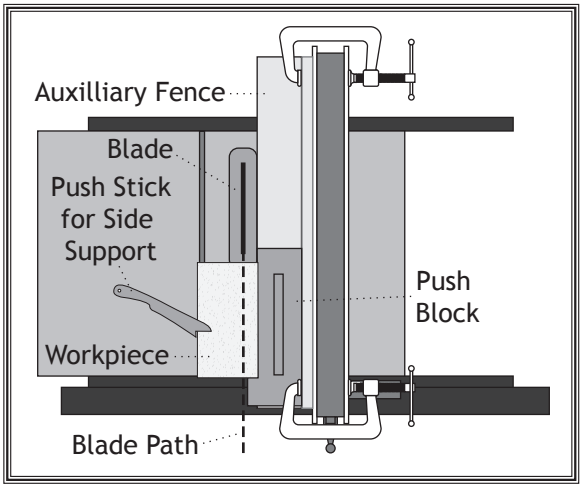


Figure 94. Push block in position to push workpiece through blade.

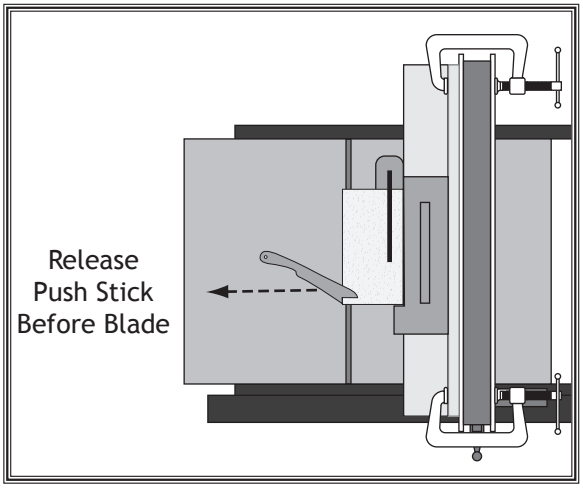


Figure 95. Ripping with push block.

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 96**). 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 96. Example of support and outfeed tables.

Crosscut Sled

A crosscut sled (see **Figure 97**) 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.

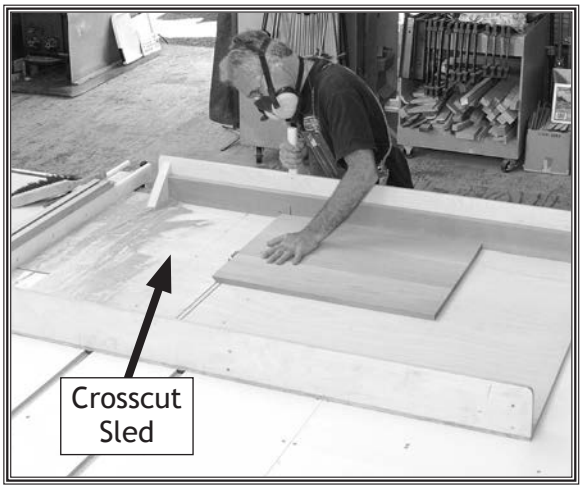


Figure 97. Example of a crosscut sled.

ACCESSORIES

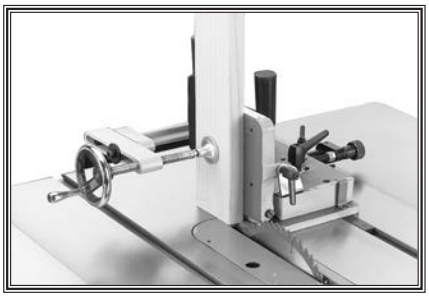
Table Saw Accessories

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

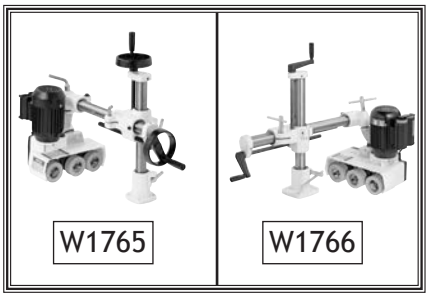
W1727—1 HP Dust Collector
Specifications: • 1 HP, 120V/240V, single-phase motor • 800 CFM air suction capacity • 5.67" static pressure • One 4" intake hole • 9" balanced steel, radial fin impeller • 2.1 cubic feet of bag capacity • 15 3/4" x 39 3/4" base on casters for portability • 2.5-micron bag filtration • 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.

D4902—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.



W1765—1/4 HP Power Feeder
W1766—1/2 HP Power Feeder
These feeders will make light work out of those big jobs with greater accuracy and safety. The **Model W1765** features a 1/4 HP, 110V, 1.8 Amp motor. The **Model W1766** features a 1/2 HP, 220V, 4 Amp motor. Both models feature forward/reverse, X/Y/Z adjustment, multiple feed speeds, and synthetic rubber wheels.



MAINTENANCE

General

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

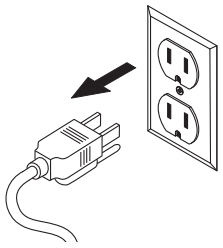
Daily Check
- Inspect blades for damage or wear.
- Check for loose mounting bolts/arbor nut.
- Check cords, plugs, and switch for damage.
- Check for the proper function of the blade guard (see **Blade Guard Assembly** on **Page 38**).
- Check for any other condition that could hamper the safe operation of this machine.
- Wipe the table clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces.

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

Monthly Maintenance
- Clean/vacuum dust buildup from inside cabinet and off motors.
- Check/tighten the belt tension (**Page 78**).

Every 6-12 Months
- Lubricate trunnion slides (**Page 65**).
- Lubricate worm gear and bull gear (**Page 65**).
- Lubricate leadscrew (**Page 65**).

⚠WARNING



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

Cleaning & Protecting

Cleaning the Model W1888 is relatively easy. Vacuum excess wood chips and sawdust, and wipe off the remaining dust with a dry cloth. If any resin has built up, use a resin-dissolving cleaner to remove it.

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

Lubrication

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

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

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

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

- Trunnion Slides
- Worm Gear, Bull Gear, and Leadscrew

Trunnion Slides

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

Clean out the front and rear trunnion slides with mineral spirits and a rag, then apply grease into each groove. Move the blade tilt back and forth to spread the grease (see **Figure 98**).

Worm Gear, Bull Gear, Leadscrew

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

Clean away any built up grime and debris from the worm gear, bull gear, and leadscrew (see **Figures 98-100**) with a wire brush, rags, and mineral spirits. Allow the components to dry, then apply a thin coat of grease to them.

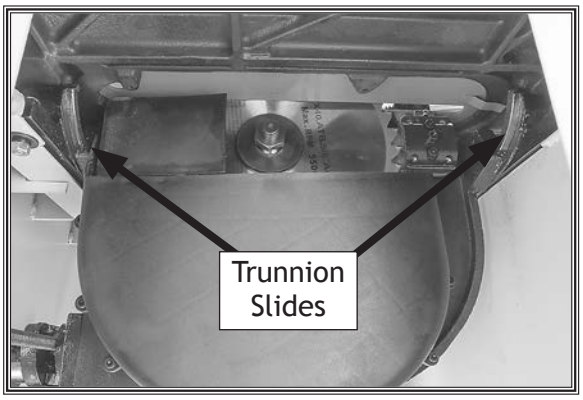


Figure 98. Trunnion slide locations.

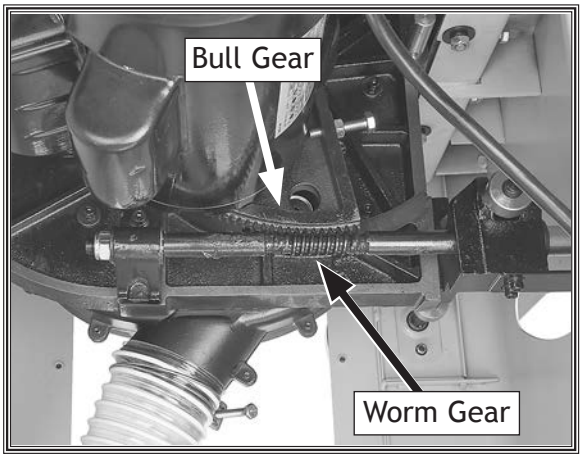


Figure 99. Worm and bull gear location.

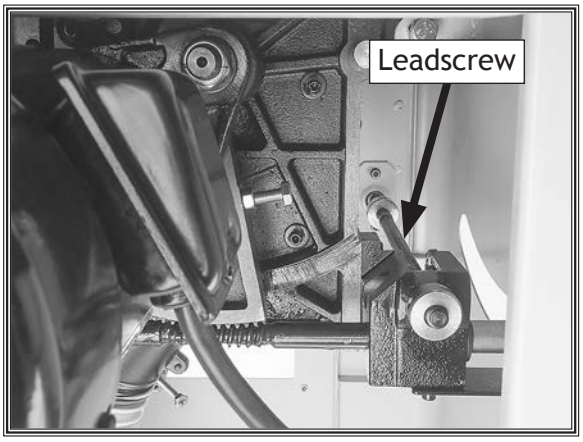


Figure 100. Leadscrew location.

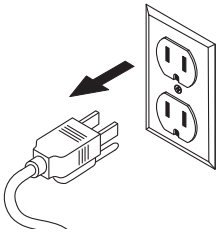
SERVICE

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**.

⚠WARNING



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

Blade Tilt Stops

The table saw features stop collars that stop the blade exactly at 45° and 90° when tilting it with the handwheel. The stops have been set at the factory and should require no adjustments, unless you notice that your cuts are not accurate.

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

Tools Needed	Qty
90° Square	1
45° Square	1
Hex Wrench 2.5mm	1
Hex Wrench 3mm	1

Setting 90° Stop Collar

1. DISCONNECT MACHINE FROM POWER!

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

3. Place 90° square against table and blade so it contacts blade evenly from bottom to top, as shown in **Figure 101**. Make sure blade tooth does not obstruct placement of square.

   — If blade *is* 90° to table, then adjustments do not need to be made. Make sure tilt indicator arrow shown in **Figure 102** points to 0° mark on scale. Adjust position by loosening button head screw, moving indicator with your fingers, then tightening screw.

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

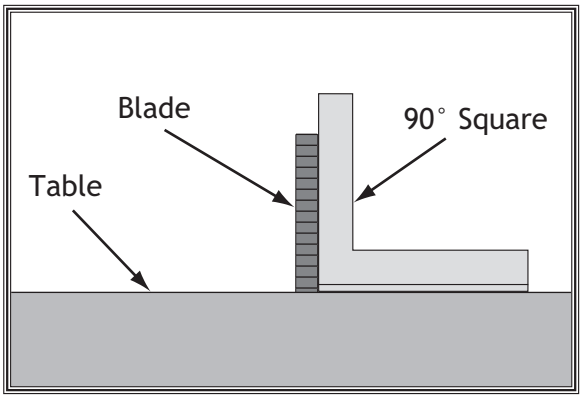


Figure 101. Checking blade at 90°.

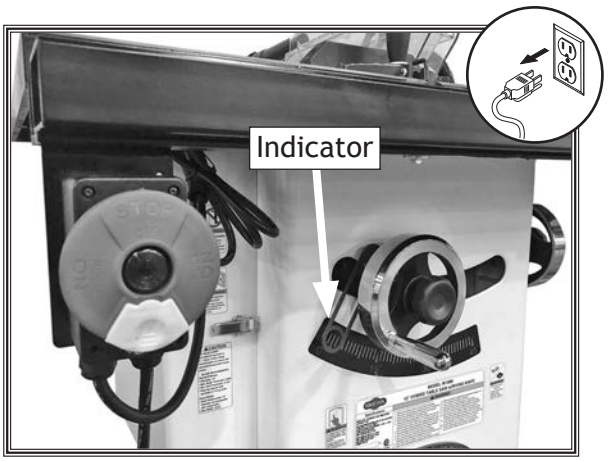


Figure 102. Tilt indicator arrow.

4. Tilt blade away from 0° by about 5°, so there is room for 90° stop collar to move.

5. Open motor door, loosen set screws shown in **Figure 103**, then thread 90° stop collar one turn away from trunnion bracket. This will allow you to square blade in next step.

6. Place square against blade, as shown in **Figure 101** on **Page 66**, then adjust blade until it is perfectly square to table.

7. Without turning blade tilt leadscrew, finger-tighten 90° collar against trunnion bracket, then tighten two set screws to secure collar position.

8. Repeat **Steps 2**–**3** to verify that collar adjustment you made was correct. When adjustment is satisfactory, close motor door.

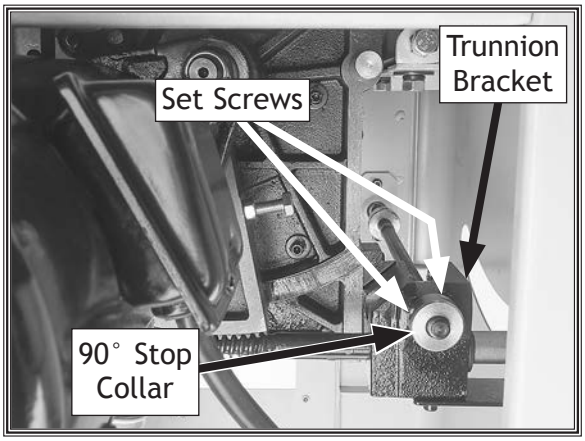


Figure 103. 90° stop collar and set screws.

Setting 45° Stop Collar

1. DISCONNECT MACHINE FROM POWER!

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

3. Place a 45° square against table and blade so it contacts blade evenly from bottom to top, as shown in **Figure 104**. Make sure a blade tooth does not obstruct placement of square.

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

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

4. Tilt blade to 30°, so there is room for stop collar to move.

5. Open right access cover, loosen set screws on 45° stop collar (see **Figure 105**), then turn collar one turn away from trunnion bracket. This will allow you to adjust blade to exactly 45° in next step.

6. Place a 45° square against blade, as shown in **Figure 104**, then adjust blade until it is exactly 45° to table.

7. Without turning blade tilt leadscrew, finger-tighten 45° stop collar against trunnion bracket, then tighten two set screws to secure collar position.

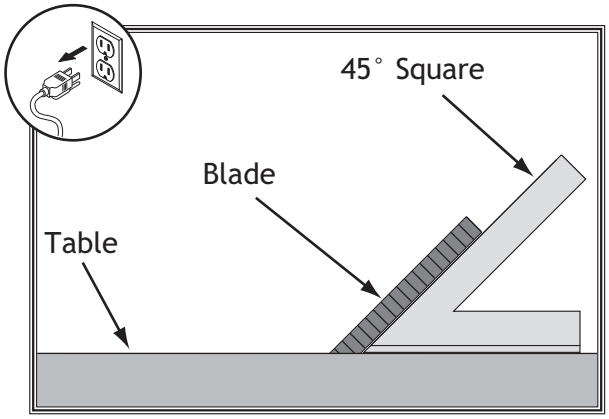


Figure 104. Checking blade at 45°.

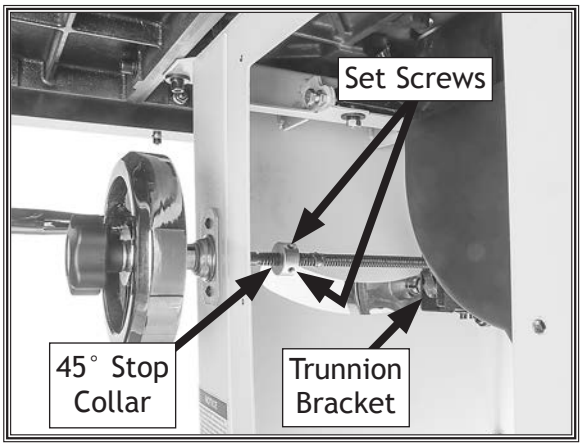


Figure 105. Location of 45° stop collar (right access cover removed).

8. Repeat **Steps 2**–**3** to verify that collar adjustment you made was correct. When adjustment is satisfactory, close right access cover.

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 Needed
Hex Wrench 6mm	1

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

1. DISCONNECT MACHINE FROM POWER!

2. 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 106**. 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.

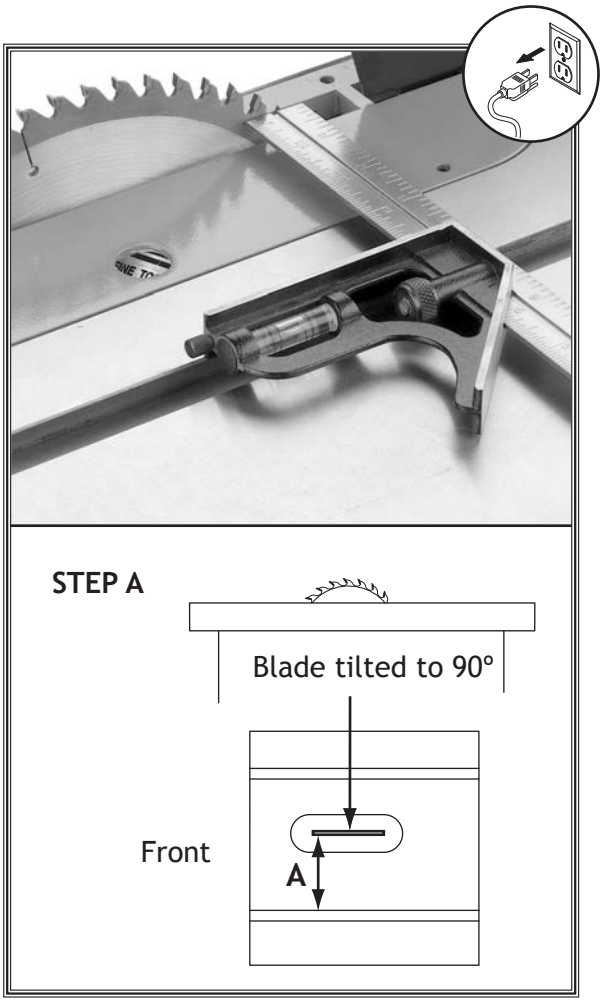


Figure 106. Making first slot-to-blade measurement at 90°.

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 107**.

   — If blade tip measurement *is* equal 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**.

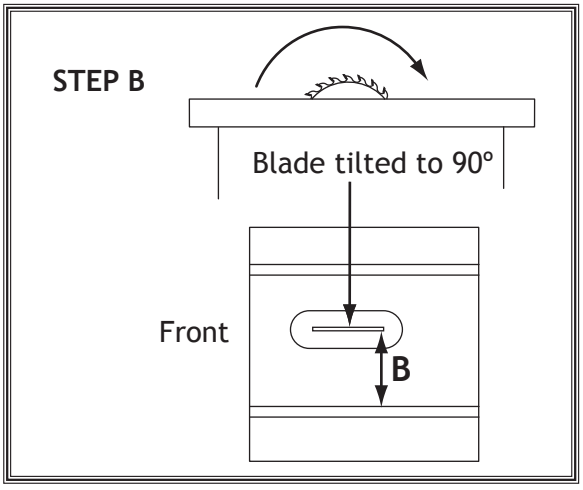


Figure 107. Making second slot-to-blade measurement at 90°.

6. Loosen (4) table mounting bolts securing table top to base (see **Figure 108**), 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 109-110** 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 not* equal, 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.*

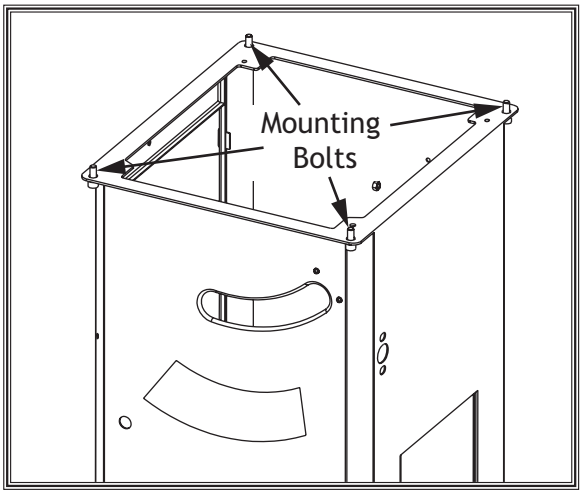


Figure 108. Location of table mounting bolts (table omitted for clarity).

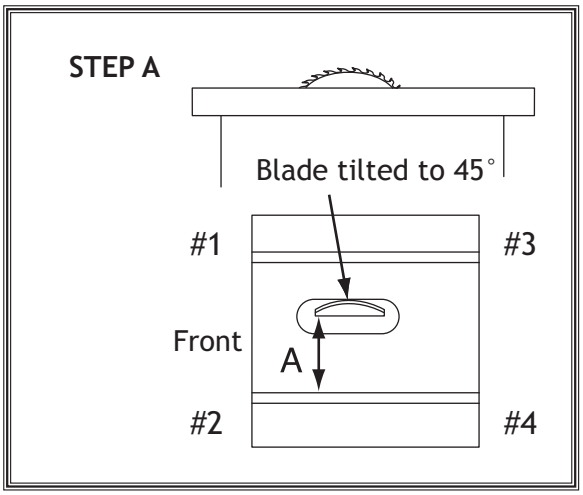


Figure 109. Shim procedure diagram A.

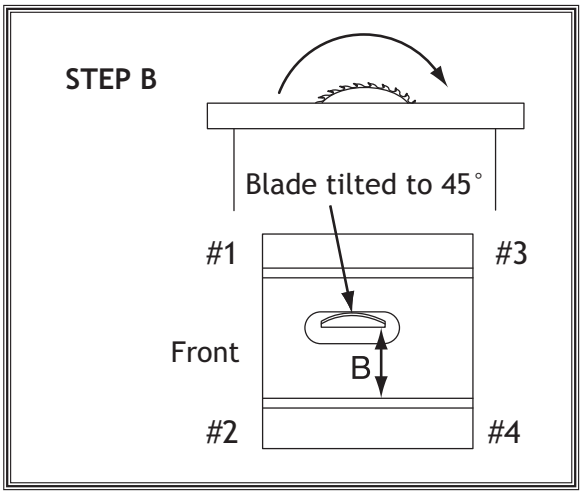


Figure 110. Shim procedure diagram B.

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 side of blade and spreader/riving knife at top and bottom, as shown in **Figure 111**. Spreader/riving knife should be parallel with blade along its length at both positions, and in "Alignment Zone," as shown in **Figure 112**.

   — 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 the blade at either the top or bottom, it may be bent.

4. Remove spreader/riving knife and place it on flat surface and check to see if spreader/riving knife lays evenly along its length.

   — If spreader/riving knife does not lay evenly, proceed to **Adjusting Bent Spreader/Riving Knife** on **Page 71**.

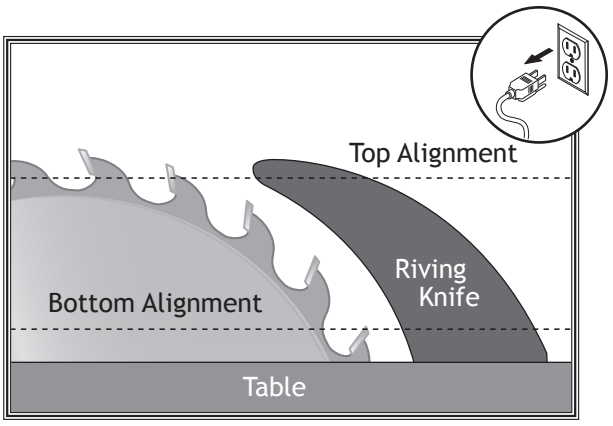


Figure 111. Example of checking top and bottom riving knife parallelism with blade.

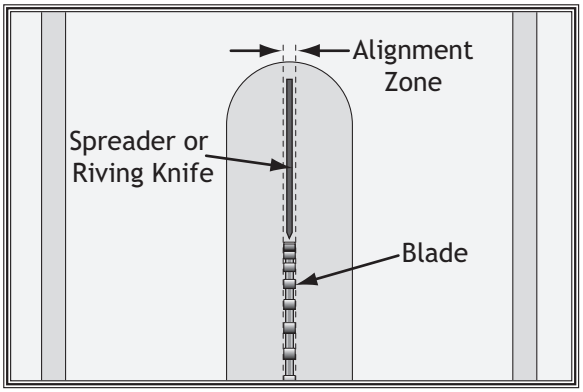


Figure 112. Spreader/riving knife alignment zone.

SERVICE

Adjusting Alignment

The spreader/riving knife mounting position can be adjusted into alignment with the blade using the set screws on the spreader/riving knife mounting block.

Tools Needed	**Qty**
Hex Wrench 3mm	1

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

1. DISCONNECT MACHINE FROM POWER!

2. Loosen (2) cap screws and wing nut on mounting block, then adjust either top or bottom control set screws or side control set screws (see **Figure 113**) to move it the needed direction.

   Note: *Set screws are accessible through clamping plate. Clamping plate does not need to be removed to make adjustment.*

   Top and Bottom Control: To move the top of the spreader/riving knife right or left (and the bottom of the spreader/riving knife in the opposite direction), adjust the top and bottom pair of set screws on the adjustment block an equal amount in the opposite direction.

   Side Control: To move the front of the spreader/riving knife left or right (and the rear of the spreader/riving knife in the opposite direction), adjust each pair of side control set screws an equal amount in the opposite direction.

   Note: *To adjust how tightly the mounting block holds the spreader/riving knife, adjust the center screw.*

3. Follow **Checking Alignment**, **Steps 1-3**.

   — 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 set screws on mounting block as necessary to correctly position spreader/riving knife.

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

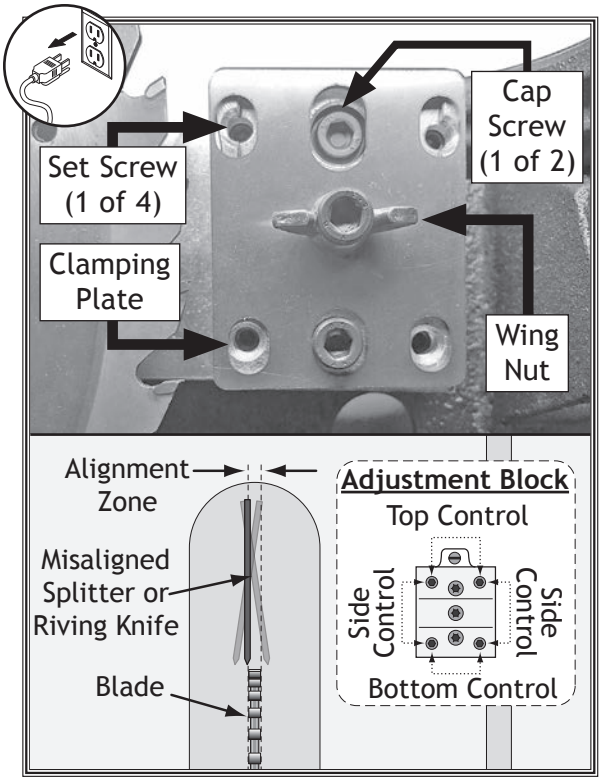


Figure 113. Set screws for adjusting spreader/riving knife position.

Adjusting Bent Spreader/Riving Knife

1. DISCONNECT MACHINE FROM POWER!

2. Bend spreader or riving knife by hand while installed, then follow **Steps 1-3** in **Checking Alignment** on **Page 70** to determine if it is parallel with blade and inside "Alignment Zone" (see **Figure 111** on **Page 70**).

   — If this doesn't work, remove it to straighten.

   — If you cannot straighten it properly, replace it.

Fence Adjustments

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

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

Height and Square

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

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

1. DISCONNECT MACHINE FROM POWER!

2. Remove fence from saw and place on a flat surface.

3. Back out rear set screws until they are just threaded into fence flange (see **Figure 114**).

4. Install fence onto table, then loosen fence knobs (see **Figure 115**), pull fence up from center, and tighten each knob.

5. Loosen top lock nuts on fence flange and lock nut on rear rail foot, shown in **Figure 115**.

6. Turn top adjustment screws and rear foot screw so there is approximately $^{1}/_{16}$" clearance between bottom of fence and table, front-to-back and side-to-side, then tighten lock nuts.

7. Place square on table and against face of fence, as shown in **Figure 116**, to check if fence is square to table.

   — If fence *is* square to table, proceed to **Parallelism & Clamping Pressure**.

   — If fence *is not* square to table, proceed to **Step 8**.

8. Loosen top lock nuts and adjust top screws (see **Figure 115**) to make fence face 90° to table, then tighten lock nuts.

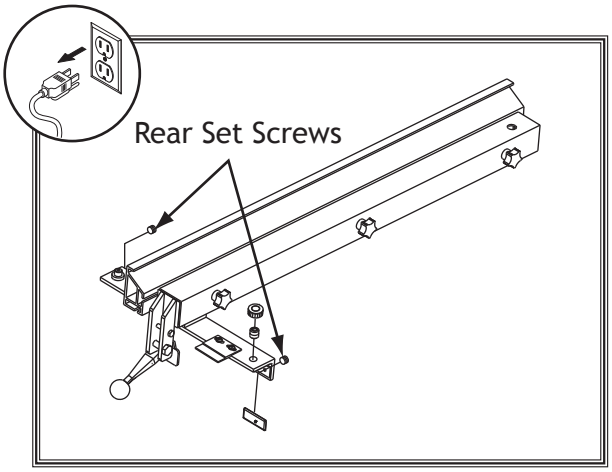


Figure 114. Location of screws used to adjust fence parallelism and clamping pressure.

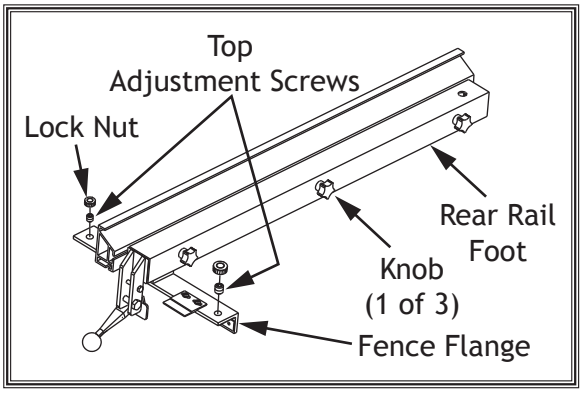


Figure 115. Fence components used to adjust fence height and squareness to table.

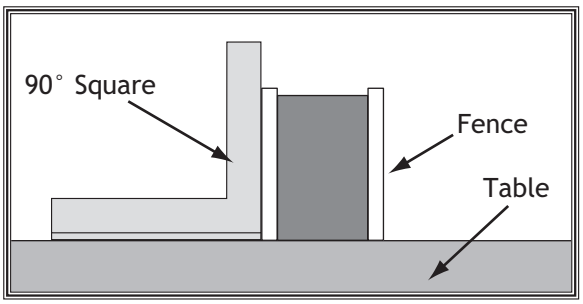


Figure 116. Checking if fence is square to table.

SERVICE

Parallelism & Clamping Pressure

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

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

1. DISCONNECT MACHINE FROM POWER!

2. Lock fence, tap front side with your fist, and check to see if it moved sideways over table.

   — If fence *did not* move, proceed to **Step 5**.

   — If fence moved, remove it from table and proceed to **Step 3**.

3. Turn each rear set screw (see **Figure 114** on **Page 72**) in 1/6 of a turn. Glide pads on fence should just touch fence tube.

4. Install fence and repeat **Step 2**.

5. Slide fence up against right-hand edge of miter slot, as shown in **Figure 117**, and lock it in place.

6. Examine how fence lines up with miter slot along its length.

   — If fence and miter slot are flush from front to rear, as shown in **Figure 117** (Side View A), fence is parallel and no further steps are required.

   — If rear of fence overlaps miter slot, as shown in **Figure 117** (Side View B), fence is misaligned. Proceed to **Step 7**.

7. Remove fence, then alternately loosen and tighten rear fence set screws in equal amounts to adjust rear of fence until it is parallel with miter slot.

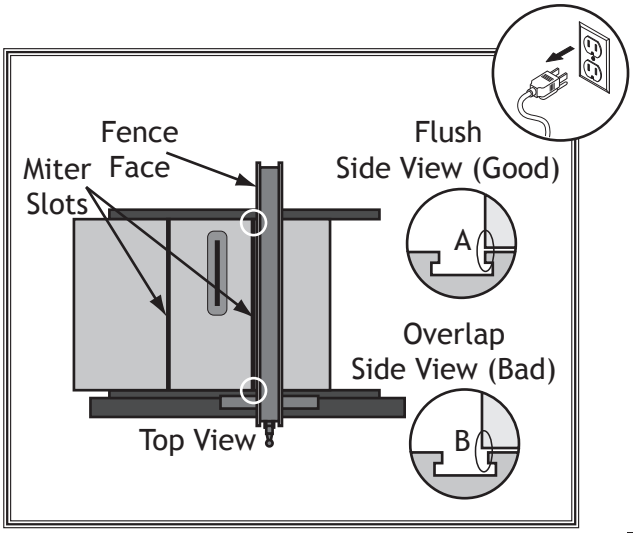


Figure 117. Example of aligning fence to miter slot.

Optional Offset Fence Adjustment

Some woodworkers prefer to offset the rear of the fence 1/64" from the blade, as shown in **Figure 118**, to help prevent the workpiece from binding and burning.

This offset adjustment can reduce the chance of kickback by alleviating binding that may occur between the blade and fence. The trade off is slightly less accurate cuts.

To offset fence, do these steps:

1. DISCONNECT MACHINE FROM POWER!

2. With a felt tip pen, mark one saw tooth and rotate blade so this tooth is positioned at back of table insert.

3. Place fence on table, and clamp fence to table.

4. Measure distance between tooth and fence face, as shown in **Figure 118**.

5. Remove fence, and adjust rear set screws as previously discussed to achieve an offset of 1/64" between marked tooth and fence face.

6. Install fence and measure distance again between marked tooth and fence face. The rear measurement should be 1/64" greater than previously measured in **Step 4**.

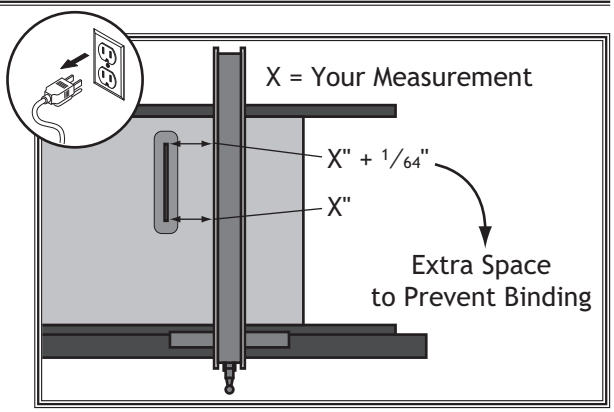


Figure 118. Adjusting fence with a 1/64" offset.

SERVICE

Fence Scale Calibration

The fence scale indicator window, shown in **Figure 119**, can be calibrated with the fence scale if you notice that your cuts do not accurately match what is shown on the fence scale.

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

Tools Needed	**Qty**
Hex Wrench 3mm	1
Scrap Piece of Wood	1
Tape Measure	1

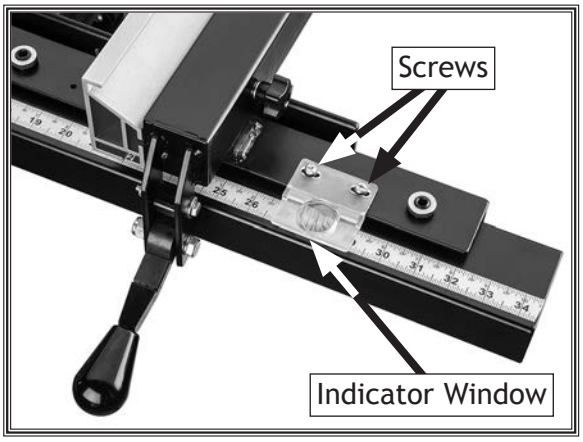


Figure 119. Fence indicator window.

To calibrate fence scale indicator windows, do these steps:

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

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

3. Flip your scrap piece of wood over, placing side that was cut in **Step 1** against fence, and cut your scrap piece of wood.

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

Table/Dado Insert Adjustment

The table/dado insert must sit perfectly flush with the table to provide a smooth, continuous surface for the workpiece to slide over. The insert is held in place by a magnet and sits on top of four adjustment screws (see **Figure 120**).

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

Tools Needed	**Qty**
Hex Wrench 3mm	1
Straight Edge	1

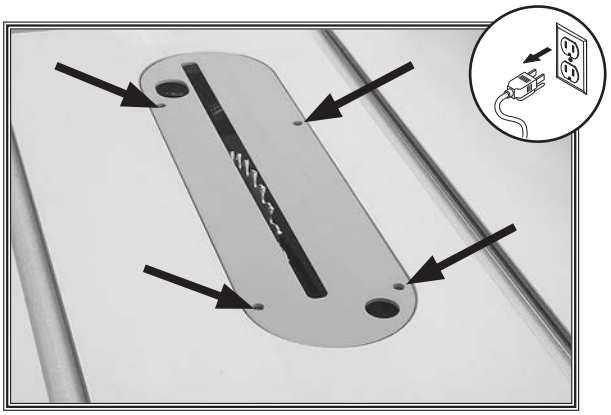


Figure 120. Location of table/dado insert holes with adjustment screws.

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 hex wrench through holes shown in **Figure 120**. Loosen screws to raise insert, or tighten screws to lower it.

4. Repeat **Steps 2-3** until insert is perfectly flush with surface of table.

   Note: *Table insert should be firmly installed (should not rock) in the table. Each screw should support insert evenly.*

Miter Gauge Adjustments

The miter gauge can be adjusted so it is perpendicular to the blade and snug in the T-slot.

Tools Needed	Qty
90° Square	1
45° Square	1
Hex Wrench 2mm	1
Hex Wrench 2.5mm	1
Hex Wrench 4mm	1

Checking/Setting 90° Stops

1. DISCONNECT MACHINE FROM POWER!

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

3. Loosen miter gauge lock knob, pull out positive stop knob, then pivot miter gauge body to 90° so stop knob springs into position (see **Figure 121**).

4. Place square evenly against face of miter gauge and blade, as shown in **Figure 122**.

   — If square touches miter body and body of blade (not the teeth) evenly at same time, then it is square to blade and 90° stop is set correctly. No further adjustments are necessary.

   — If square *does not* touch miter body and blade body evenly at same time, then proceed to **Step 5**.

5. Loosen lock nut on 90° set screw (see **Figure 123**), then adjust set screw until miter body is flush with square. Tighten lock nut.

6. Loosen indicator screw on top of miter bar, adjust pointer to 0°, then tighten screw.

Adjusting Miter Bar Tightness

The miter bar can be adjusted so it fits more tightly in the miter slot. To adjust the miter bar tightness, adjust the set screws shown in **Figure 121** as needed. Bar should slide with little resistance.

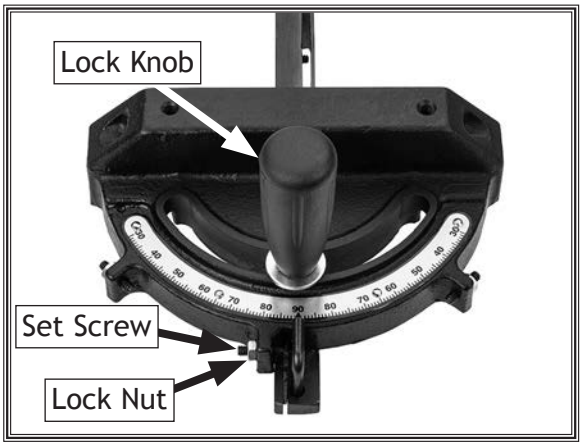


Figure 121. Screws for adjusting miter stops.

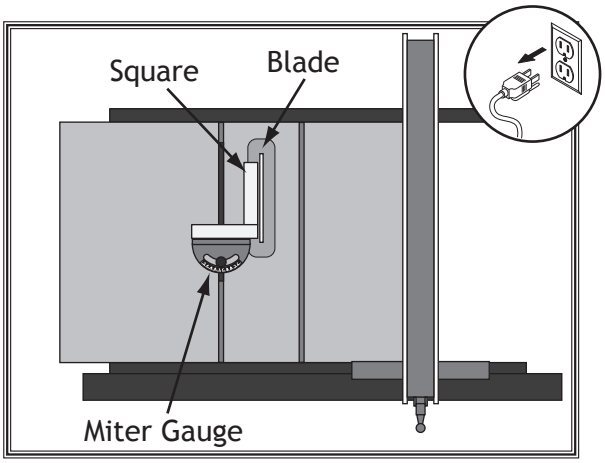


Figure 122. Checking 90° stop on miter gauge.

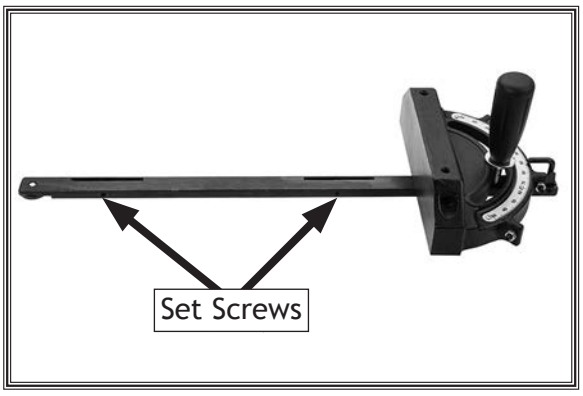


Figure 123. Set screws for adjusting miter bar tightness in miter slot.

Belt Tension & Replacement

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

Tools Needed	**Qty**
Hex Wrench 6mm	1

Tensioning Belt

1. DISCONNECT MACHINE FROM POWER!
2. Raise blade completely, then open the motor door.
3. Loosen cap screw on motor (see **Figure 124**), and pivot motor up and down to verify it is movable.
4. Press down on motor with one hand to keep belt tension tight, then tighten cap screw.
5. Press belt in center to check belt tension. The belt is correctly tensioned when there is approximately 1/4" deflection when it is pushed with moderate pressure, as shown in **Figure 125**.

   — If there is more than 1/4" deflection, loosen cap screw, push motor down, then tighten cap screw.
6. Close motor door.

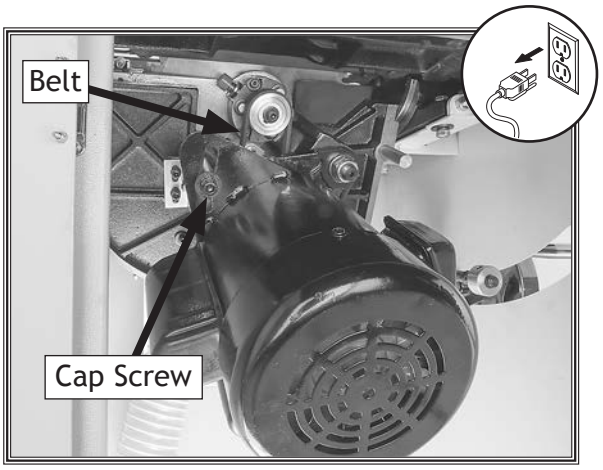


Figure 124. Location of cap screw for adjusting belt tension.

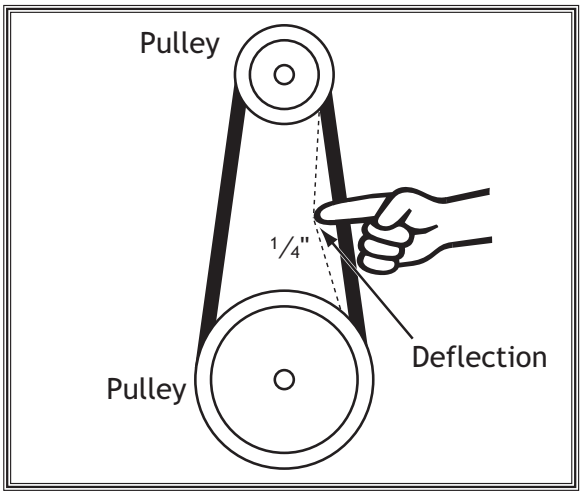


Figure 125. Checking belt tension.

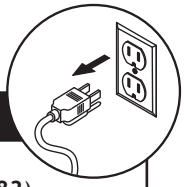
Replacing Belt

1. DISCONNECT MACHINE FROM POWER!
2. Raise blade completely, then open motor door.
3. Loosen cap screw shown in **Figure 124** and lift motor fully to remove tension on belt. Tighten cap screw, then roll belt off arbor and motor pulleys.
4. Install new belt, loosen cap screw, then lower motor.
5. Press down on motor with one hand to keep belt tension tight and tighten cap screw.
6. Follow **Step 5** in the **Tensioning Belt** subsection on this page to check V-belt tension.
7. Close motor door.

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	CORRECTIVE ACTION
Machine does not start, or power supply breaker trips immediately after startup.	1. Switch disabling key removed. 2. Machine circuit breaker tripped. 3. Power supply circuit breaker tripped or fuse blown. 4. Plug/receptacle at fault/wired incorrectly. 5. Motor wired incorrectly. 6. Wiring broken, disconnected, or corroded. 7. START/STOP switch or circuit breaker at fault. 8. Start capacitor at fault. 9. Motor at fault.	1. Install switch disabling key. 2. Reset circuit breaker on switch (**Page 83**). 3. Ensure circuit is sized correctly and free of shorts. Reset circuit breaker or replace fuse. 4. Test for good contacts; correct wiring. 5. Correct motor wiring connections (**Page 83**). 6. Fix broken wires or disconnected/corroded connections. 7. Replace switch/circuit breaker. 8. Test/replace if at fault. 9. Test/repair/replace.
Machine stalls or is underpowered.	1. Feed rate/cutting speed too fast. 2. Blade dull or incorrect for type of cut. 3. Workpiece unsuitable for machine. 4. Motor overheated; tripping machine circuit breaker. 5. Belt slipping. 6. Pulleys slipping on shaft or misaligned. 7. Motor wired incorrectly. 8. Run capacitor at fault. 9. Motor bearings at fault. 10. Contactor not energized/has poor contacts. 11. Centrifugal switch at fault. 12. Motor at fault.	1. Decrease feed rate/cutting speed. 2. Use correct, sharp blade (**Page 34**). 3. Only cut wood; replace crooked workpiece/ensure moisture is below 20%. 4. Clean motor/let cool and reduce workload; Reset breaker. 5. Tension/replace belt (**Page 78**). 6. Tighten/replace loose pulley; ensure pulleys are aligned (**Page 78**). 7. Wire motor correctly (**Page 83**). 8. Test/repair/replace. 9. Test/repair/replace. 10. Test all legs for power; replace if faulty. 11. Adjust/replace centrifugal switch if available. 12. Test/repair/replace.
Machine has vibration or noisy operation.	1. Motor or component loose. 2. Blade at fault. 3. Belt/pulley(s) worn, loose, or misaligned. 4. Motor mount loose/broken. 5. Arbor pulley loose. 6. Motor fan rubbing on fan cover. 7. Arbor bearings at fault. 8. Motor bearings at fault.	1. Inspect/replace damaged bolts/nuts, and re-tighten with thread-locking fluid. 2. Replace warped/bent blade; resharpen dull blade. 3. Inspect/replace belt. Realign/replace shaft, pulley, set screw, and key (**Page 78**). 4. Tighten/replace. 5. Retighten/replace arbor pulley. 6. Fix/replace fan cover; replace loose/damaged fan. 7. Replace arbor housing bearings; replace arbor. 8. Test by rotating shaft; grinding/loose shaft requires bearing replacement.

Operation

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Rip fence does not move smoothly.	1. Rip fence mounted/adjusted incorrectly. 2. Rails dirty or sticky.	1. Remount rip fence. Adjust fence to ensure adjustment screws are not too tight (**Page 72**). 2. Clean and wax rails.
Material moves away from fence when ripping.	1. Improper feeding technique. 2. Fence not parallel with blade.	1. Review proper feeding technique (**Page 31**). 2. Adjust fence parallel with blade (**Page 73**).
Blade not aligned with miter slot or fence.	1. Blade warped/damaged/dull. 2. Fence not parallel with blade. 3. Miter slot not parallel with blade.	1. Replace blade (**Page 36**). 2. Adjust fence parallel with blade (**Page 73**). 3. Adjust miter slot parallel with blade (**Page 68**).
Blade tilt does not stop at 45°/90°.	1. Sawdust built up in/on trunnions. 2. 45°/90° stops out of adjustment.	1. Remove sawdust from trunnions. Clean and relubricate as necessary (**Page 65**). 2. Adjust 45°/90° stops (**Page 66**).
Blade hits table insert when tilting to 45°.	1. Sawdust/debris stuck in trunnion slides. 2. 45° stop out of adjustment. 3. Table/trunnion assembly out of alignment. 4. Miter slot not parallel with blade. 5. Blade incorrectly installed.	1. Clean sawdust/debris out of trunnion slides. 2. Adjust 45° stop (**Page 66**). 3. Adjust table/trunnion mounting position (**Page 68**). 4. Adjust miter slot parallel with blade; shim table (**Page 68**). 5. Re-install blade (**Page 36**).
Board binds or burns when feeding through table saw.	1. Blade warped/damaged/dull. 2. Too many teeth on blade for cutting type. 3. Fence not parallel to blade. 4. Miter slot not parallel with blade. 5. Riving knife or spreader not correctly aligned with blade.	1. Replace blade (**Page 36**). 2. Use correct, sharp blade (**Page 34**). 3. Adjust fence parallel with blade (**Page 73**). 4. Adjust miter slot parallel with blade (**Page 68**). 5. Adjust riving knife or spreader into alignment with blade (**Page 70**).
Handwheel binds or is difficult to move.	1. Lock knob is tightened. 2. Handwheel shaft pins are wedged.	1. Loosen lock knob. 2. Remove handwheel and adjust shaft pins (**Page 22**).
Blade too close to insert.	1. Blade or arbor washers incorrectly installed on arbor. 2. Table/trunnion assembly out of alignment.	1. Verify blade and arbor washers are correctly installed in the required positions (**Page 37**). 2. Adjust table/trunnion mounting position (**Page 68**).
Blade will not go beneath table surface.	1. Roll pin/set screw in worm gear contacting geared trunnion.	1. Tighten roll pins and set screws in the worm gear (**Page 85**).
Blade will not move up or down.	1. Set screw on worm gear is loose or missing.	1. Tighten or replace set screw (**Page 85**).
Too much sawdust blown back toward operator.	1. Blade guard removed. 2. Too many air leaks in cabinet for proper dust collection. 3. Dust collection system clogged. 4. Dust collection system lacks required CFM at machine. 5. Fence not parallel with blade (pressure at blade backside). 6. Miter slot not parallel with blade.	1. Re-install blade guard for maximum safety and dust control (**Page 38**). 2. Seal leaks in cabinet or around blade guard dust port. 3. Remove clog. 4. Revise ducting layout for improved suction; use a different dust collector. 5. Adjust fence parallel with blade (**Page 73**). 6. Adjust miter slot parallel with blade (**Page 68**).
Workpiece catches on table/dado insert or table throat during cutting operation.	1. Table/dado insert out of adjustment.	1. Adjust table/dado insert so it is perfectly flush with table surface (**Page 76**).

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.*

⚠WARNING

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

QUALIFIED ELECTRICIAN. Due to the inherent hazards of electricity, only a qualified electrician should perform wiring tasks on this machine. If you are not a qualified electrician, get help from one before attempting any kind of wiring job.

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

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

MODIFICATIONS. Using aftermarket parts or modifying the wiring beyond what is shown in the diagram may lead to unpredictable results, including serious injury or fire.

MOTOR WIRING. The motor wiring shown in these diagrams is current at the time of printing, but it may not match your machine. Always use the wiring diagram inside the motor junction box.

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

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

EXPERIENCING DIFFICULTIES. If you are experiencing difficulties understanding the information included in this section, contact our Technical Support at (360) 734-3482.

NOTICE

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

WIRING DIAGRAM COLOR KEY

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

SERVICE

Electrical Components

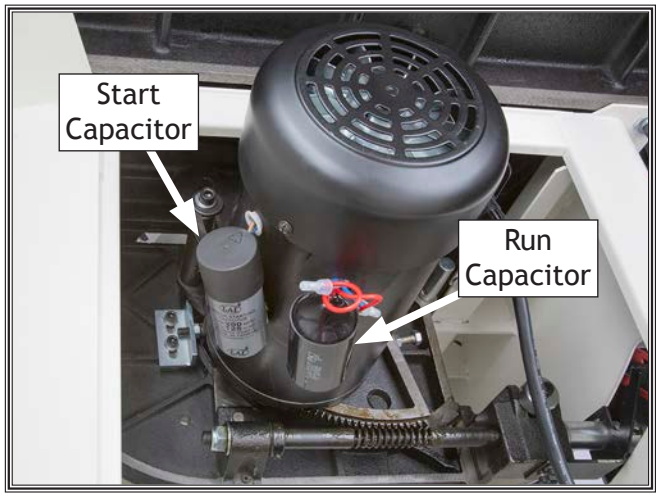


Figure 126. Motor capacitors.

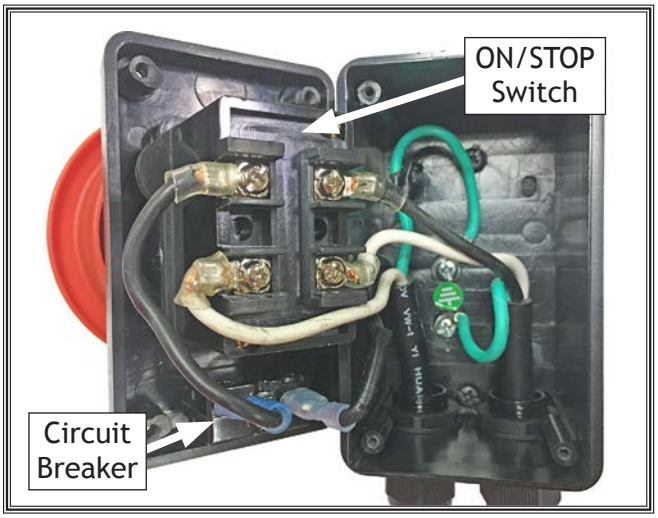


Figure 128. Switch box components.

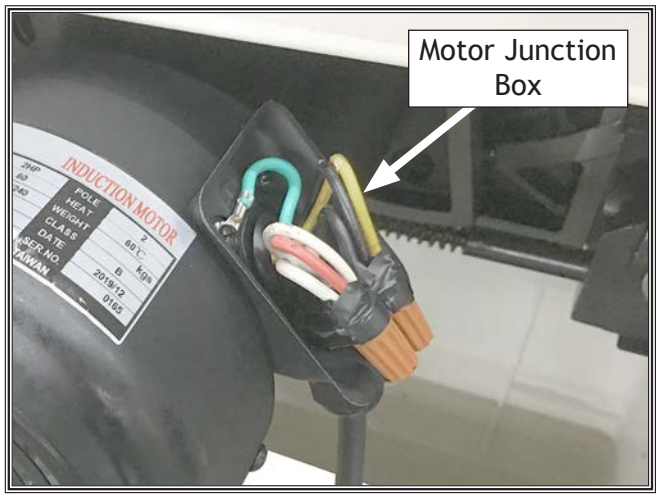
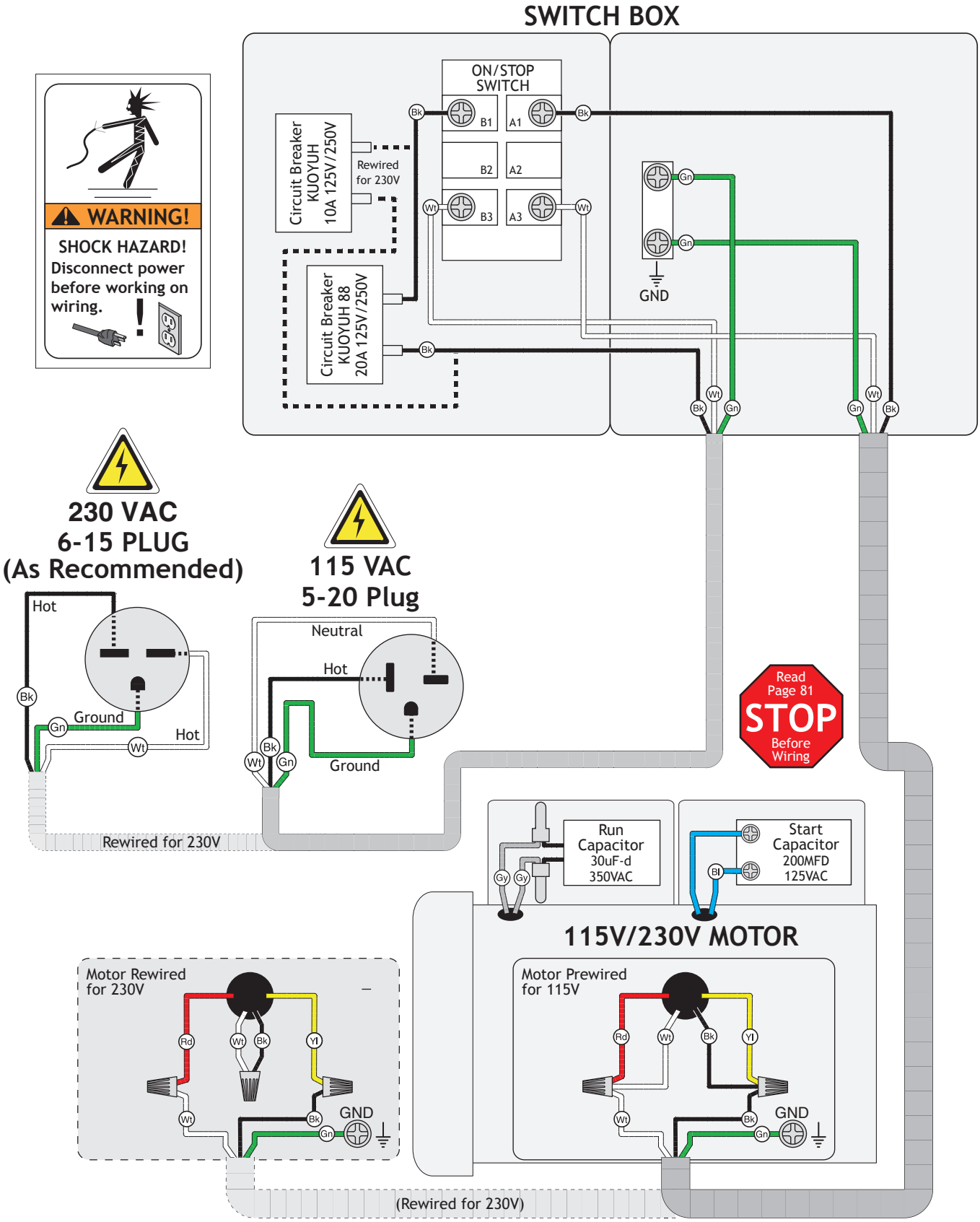


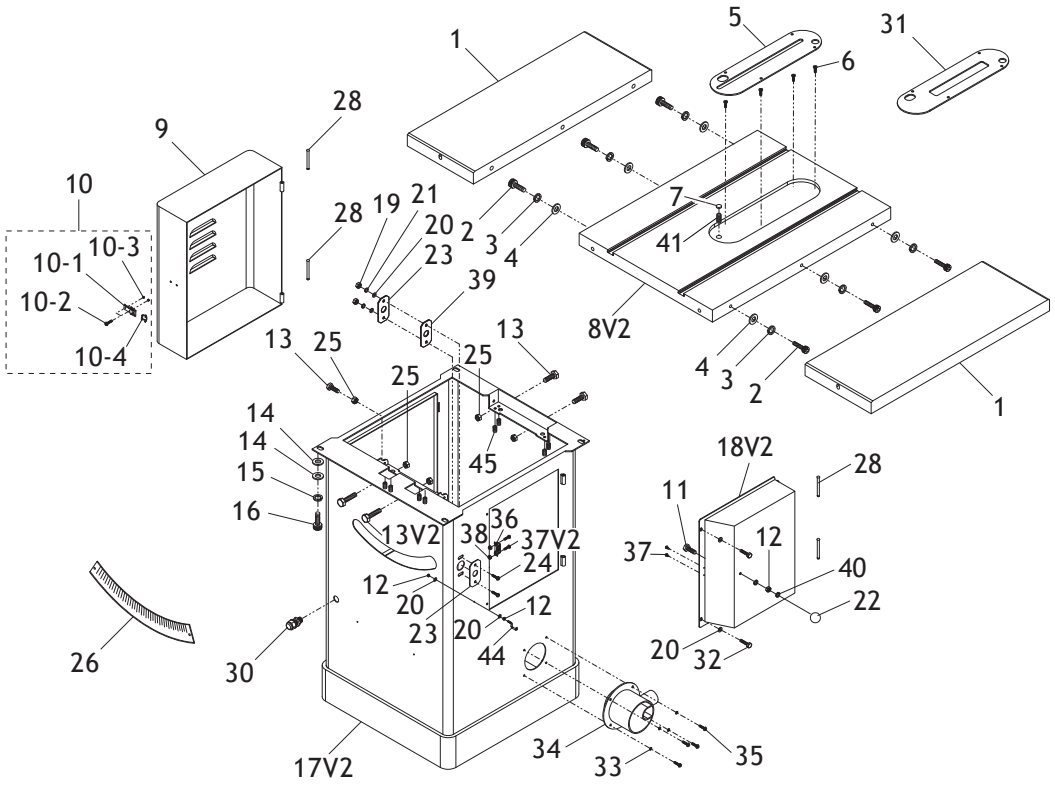
Figure 127. Motor junction box.

Wiring Diagram



PARTS

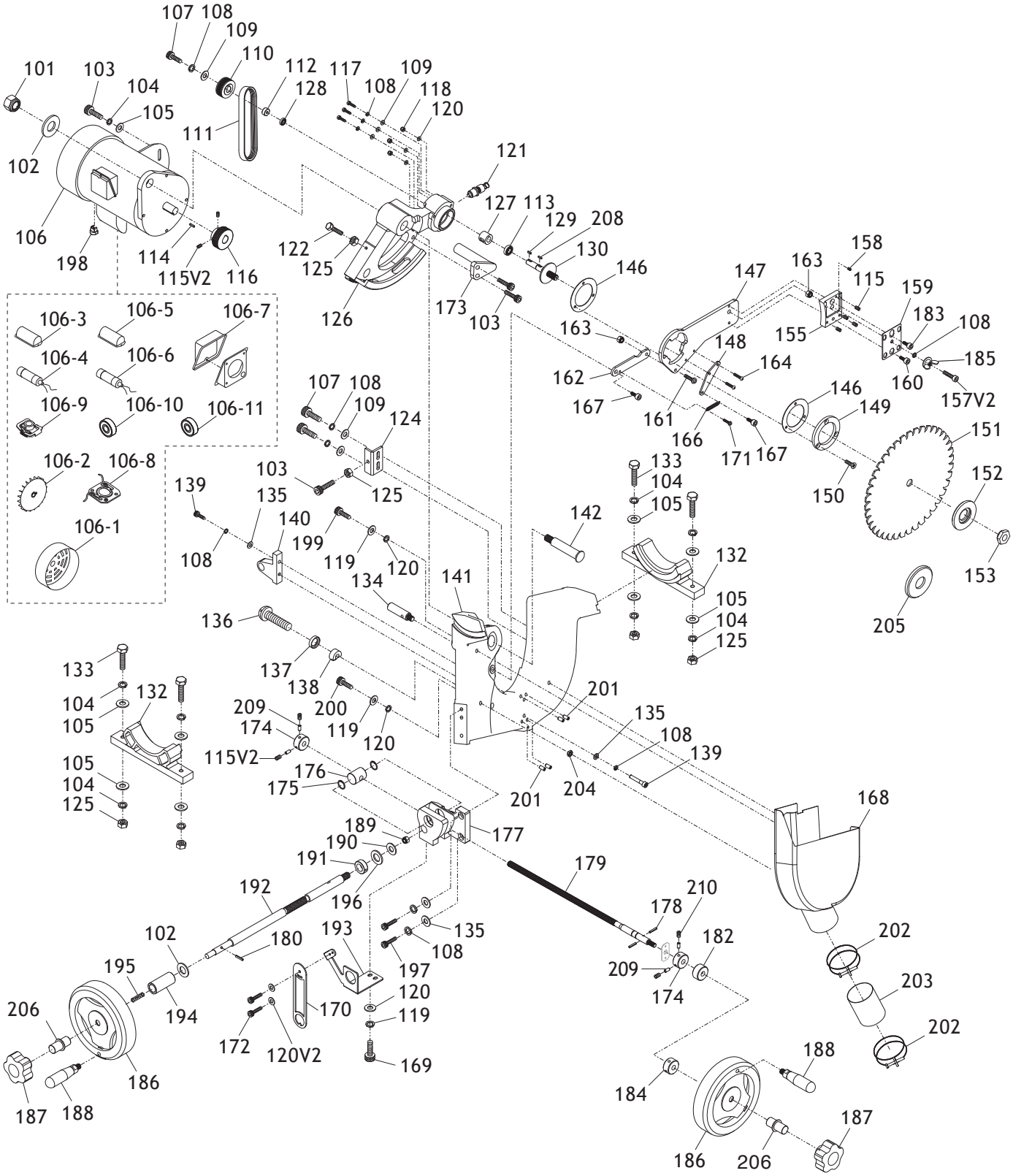
Body



REF	PART #	DESCRIPTION
1	X1888001	EXTENSION WING
2	X1888002	CAP SCREW M10-1.5 X 30
3	X1888003	LOCK WASHER 10MM
4	X1888004	FLAT WASHER 10MM
5	X1888005	TABLE INSERT (STANDARD)
6	X1888006	FLAT HD CAP SCR M5-.8 X 10
7	X1888007	TABLE INSERT MAGNET
8V2	X1888008V2	MAIN TABLE V2.10.20
9	X1888009	MOTOR ACCESS COVER
10	X1888010	DRAW LATCH ASSEMBLY
10-1	X1888010-1	DRAW LATCH STRIKE
10-2	X1888010-2	PHLP HD SCR 8-32 X 3/8
10-3	X1888010-3	HEX NUT 8-32
10-4	X1888010-4	DRAW LATCH HOOK
11	X1888011	HEX BOLT 1/4-20 X 3/4
12	X1888012	HEX NUT 1/4-20
13	X1888013	HEX BOLT M8-1.25 X 25
13V2	X1888013V2	HEX BOLT M8-1.25 X 45 V2.10.20
14	X1888014	FLAT WASHER 8MM
15	X1888015	LOCK WASHER 8MM
16	X1888016	CAP SCREW M8-1.25 X 25
17V2	X1888017V2	CABINET V2.10.20
18V2	X1888018V2	CABINET ACCESS COVER V2.10.20
19	X1888019	HEX NUT M5-.8

REF	PART #	DESCRIPTION
20	X1888020	FLAT WASHER 5MM
21	X1888021	LOCK WASHER 5MM
22	X1888022	KNOB 1/4-20, D1-1/16, BALL
23	X1888023	LEADSCREW BRACKET 18MM ID
24	X1888024	BUTTON HD CAP SCR M5-.8 X 20
25	X1888025	LOCK NUT M8-1.25
26	X1888026	TILT SCALE
28	X1888028	HINGE PIN
30	X1888030	STRAIN RELIEF TYPE-3 M16-1.5
31	X1888031	TABLE INSERT (DADO)
32	X1888032	HEX BOLT M5-.8 X 10
33	X1888033	FLAT WASHER 6MM
34	X1888034	DUST PORT 4" X 1-1/2"
35	X1888035	BUTTON HD CAP SCR M5-.8 X 12
36	X1888036	GRAB CATCH
37	X1888037	TAP SCREW #5 X 1/4
37V2	X1888037V2	PHLP HD SCR 5-40 X 1/4 V2.10.20
38	X1888038	HEX NUT 5-40
39	X1888039	LEADSCREW BRACKET 23MM ID
40	X1888040	LOCK WASHER 1/4
41	X1888041	SET SCREW M5-.8 X 10
44	X1888044	PUSH LOCK BRACKET
45	X1888045	SET SCREW M6-1 X 10

Trunnion

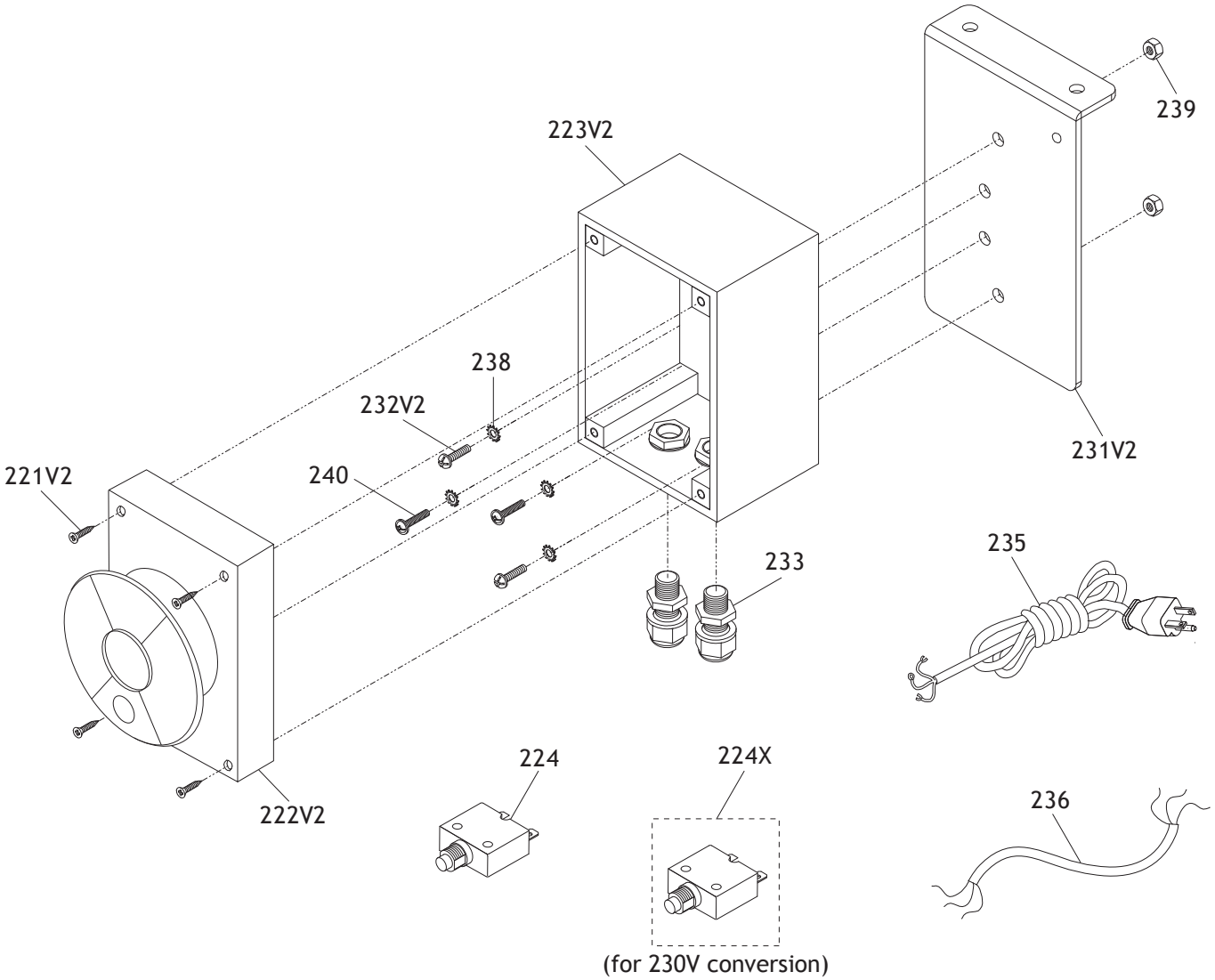

107 108 109 110 112 128 117 108 109 118 120
101 103 104 105 102 111 106 198 114 115V2 116
121 127 113 129 208 130 146 122 125 126 173 103
147 163 158 115 159 183 108 155 185 160 157V2
106-3 106-5 106-7 106-4 106-6 106-9 106-10 106-11 106-2 106-8 106-1
107 108 109 124 103 125 139 135 140 108 199 119 120 134
142 133 104 105 132 105 104 125 150 151 152 153 205
136 137 138 200 119 120 141 201 135 108 139 204
133 104 105 132 105 104 125 209 174 115V2 176 175
168 189 190 191 196 177 179 192 180 193 197 135 108
102 195 194 206 186 187 188 170 172 120V2 120 119 169
210 178 182 209 174 202 203 202 188 184 186 206 187

Trunnion Parts List

REF	PART #	DESCRIPTION
101	X1888101	LOCK NUT M16-2
102	X1888102	FLAT WASHER 5/8
103	X1888103	CAP SCREW M8-1.25 X 20
104	X1888104	LOCK WASHER 8MM
105	X1888105	FLAT WASHER 8MM
106	X1888106	MOTOR 2HP 110/220V 1-PH
106-1	X1888106-1	MOTOR FAN COVER
106-2	X1888106-2	MOTOR FAN
106-3	X1888106-3	S CAPACITOR COVER
106-4	X1888106-4	S CAPACITOR 200M 125V 1-1/2 X 2-3/4
106-5	X1888106-5	R CAPACITOR COVER
106-6	X1888106-6	R CAPACITOR 30M 350V 1-1/2 X 2-3/8
106-7	X1888106-7	MOTOR JUNCTION BOX
106-8	X1888106-8	CONTACT PLATE 63 X 63MM
106-9	X1888106-9	CENTRIFUGAL SWITCH M14-2
106-10	X1888106-10	BALL BEARING 6204ZZ (FRONT)
106-11	X1888106-11	BALL BEARING 6202ZZ (REAR)
107	X1888107	CAP SCREW M6-1 X 16
108	X1888108	LOCK WASHER 6MM
109	X1888109	FLAT WASHER 6MM
110	X1888110	ARBOR PULLEY
111	X1888111	POLY V-BELT 150PJ6
112	X1888112	BUSHING
113	X1888113	BALL BEARING 6203-2RS
114	X1888114	KEY 6 X 6 X 20
115	X1888115	SET SCREW M6-1 X 10
115V2	X1888115V2	SET SCREW M6-1 X 6 V2.10.20
116	X1888116	MOTOR PULLEY
117	X1888117	HEX BOLT M6-1 X 16
118	X1888118	LOCK NUT M5-.8
119	X1888119	LOCK WASHER 5MM
120	X1888120	FLAT WASHER 5MM
120V2	X1888120V2	FLAT WASHER 4MM V2.10.20
121	X1888121	ARBOR LOCK
122	X1888122	HEX BOLT M8-1.25 X 40
124	X1888124	BLADE HEIGHT LIMIT BLOCK
125	X1888125	HEX NUT M8-1.25
126	X1888126	MOTOR MOUNT
127	X1888127	ARBOR BUSHING
128	X1888128	BALL BEARING 6202-2RS
129	X1888129	KEY 5 X 5 X 15
130	X1888130	ARBOR
132	X1888132	TRUNNION
133	X1888133	HEX BOLT M8-1.25 X 45
134	X1888134	LIMIT BLOCK
135	X1888135	FLAT WASHER 6MM
136	X1888136	FLAT HD CAP SCR M10-1.5 X 45
137	X1888137	SPACER 16.5 X 24.5 X 5.5MM
138	X1888138	SPACER 10 X 33 X 11MM (NYLON)
139	X1888139	CAP SCREW M6-1 X 35
140	X1888140	SHAFT BRACKET
141	X1888141	MAIN TRUNNION
142	X1888142	MOTOR SHAFT M16-2 X 120
146	X1888146	GASKET
147	X1888147	SPREADER BRACKET
148	X1888148	SPRING BRACKET
149	X1888149	FLANGE RING

REF	PART #	DESCRIPTION
150	X1888150	FLAT HD CAP SCR M5-.8 X 50
151	X1888151	SAW BLADE 10" X 40T
152	X1888152	ARBOR FLANGE
153	X1888153	ARBOR NUT 5/8-12
155	X1888155	SPREADER ADJUSTMENT BLOCK
157V2	X1888157V2	CAP SCREW M6-1 X 30 V2.10.20
158	X1888158	SET SCREW M8-1.25 X 12 BALL-PT
159	X1888159	SPREADER CLAMPING PLATE
160	X1888160	CAP SCREW M6-1 X 25
161	X1888161	BUTTON HD CAP SCR M6-1 X 20
162	X1888162	CONNECTING PLATE
163	X1888163	LOCK NUT M6-1
164	X1888164	BUTTON HD CAP SCR M5-.8 X 16
166	X1888166	EXTENSION SPRING 1 X 7.2 X 68MM
167	X1888167	SHOULDER SCREW M6-1 X 10.5, 8 X 5
168	X1888168	DUST COLLECTION CASE
169	X1888169	CAP SCREW M5-.8 X 12
170	X1888170	POINTER
171	X1888171	BUTTON HD CAP SCR M5-.8 X 12
172	X1888172	BUTTON HD CAP SCR M4-.7 X 8
173	X1888173	MOTOR LOCATING SHAFT
174	X1888174	STOP COLLAR
175	X1888175	INT RETAINING RING 24MM
176	X1888176	TILT LEADSCREW NUT
177	X1888177	TILT LEADSCREW BASE
178	X1888178	ROLL PIN 4 X 16
179	X1888179	TILT LEADSCREW
180	X1888180	ROLL PIN 4 X 20
182	X1888182	BEARING WASHER 22 X 12 X 10MM
183	X1888183	CAP SCREW M6-1 X 16
184	X1888184	BEVELED BUSHING
185	X1888185	WING NUT M6-1
186	X1888186	HANDWHEEL TYPE-7 160D X 12B-N X M10-1.5
187	X1888187	KNOB M8-1.25, D60, 6-LOBE
188	X1888188	REVOLVING HANDLE 21 X 90, M10-1.5 X 13
189	X1888189	LOCK NUT M12-1.75
190	X1888190	FLAT WASHER 12MM
191	X1888191	COLLAR
192	X1888192	ELEVATION SHAFT
193	X1888193	POINTER BASE
194	X1888194	HANDWHEEL BUSHING
195	X1888195	COMPRESSION SPRING 1.2 X 15 X 36MM
196	X1888196	ELEVATION SHAFT SPACER 17 X 30 X 1MM
197	X1888197	CAP SCREW M6-1 X 20
198	X1888198	STRAIN RELIEF TYPE-3 M16-1.5
199	X1888199	CAP SCREW M5-.8 X 30
200	X1888200	CAP SCREW M5-.8 X 20
201	X1888201	SET SCREW M6-1 X 20
202	X1888202	HOSE CLAMP 3-1/4"
203	X1888203	CLEAR HOSE 3" X 26"
204	X1888204	HEX NUT M10-1.5
205	X1888205	ARBOR FLANGE (DADO)
206	X1888206	KNOB BUSHING
208	X1888208	KEY 5 X 5 X 10
209	X1888209	SPACER 4 X 2MM
210	X1888210	SET SCREW M6-1 X 6

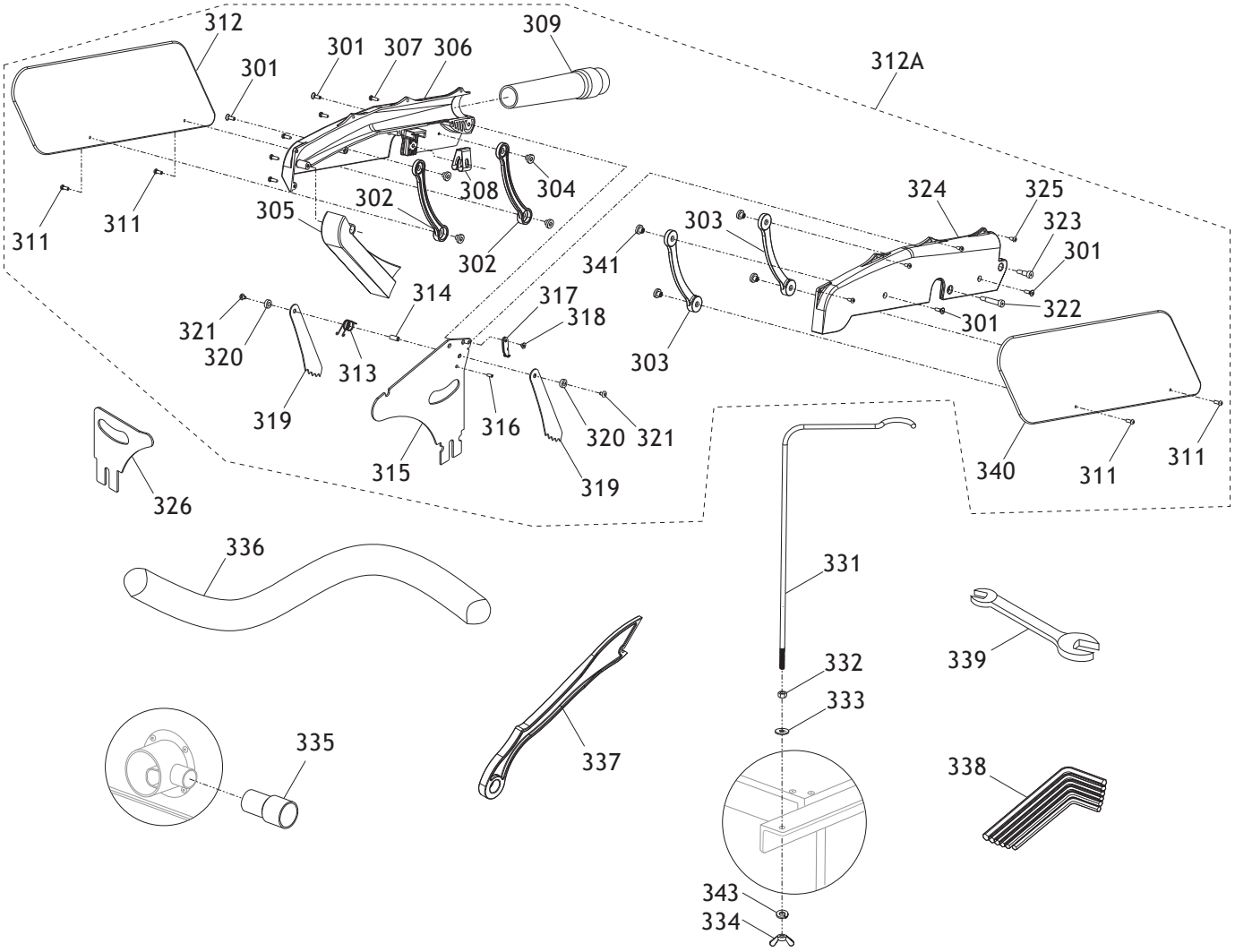
Power Switch



REF	PART #	DESCRIPTION
221V2	X1888221V2	TAP SCREW M3 X 20 V2.10.20
222V2	X1888222V2	PADDLE SWITCH UV03-006 V2.10.20
223V2	X1888223V2	SWITCH BOX AP-9501B-205 JP950B V2.10.20
224	X1888224	CIRCUIT BREAKER 20A
224X	X1888224X	CIRCUIT BREAKER 10A
231V2	X1888231V2	SWITCH BRACKET V2.10.20
232V2	X1888232V2	PHLP HD SCR M5-.8 X 10 V2.10.20

REF	PART #	DESCRIPTION
233	X1888233	STRAIN RELIEF TYPE-3 PG11
235	X1888235	POWER CORD 14G 3W 72" 5-20P
236	X1888236	MOTOR CORD 14G 3W 32"
238	X1888238	EXT TOOTH WASHER 5MM
239	X1888239	HEX NUT M5-.8
240	X1888240	FLANGE SCREW M5-.8 X 10

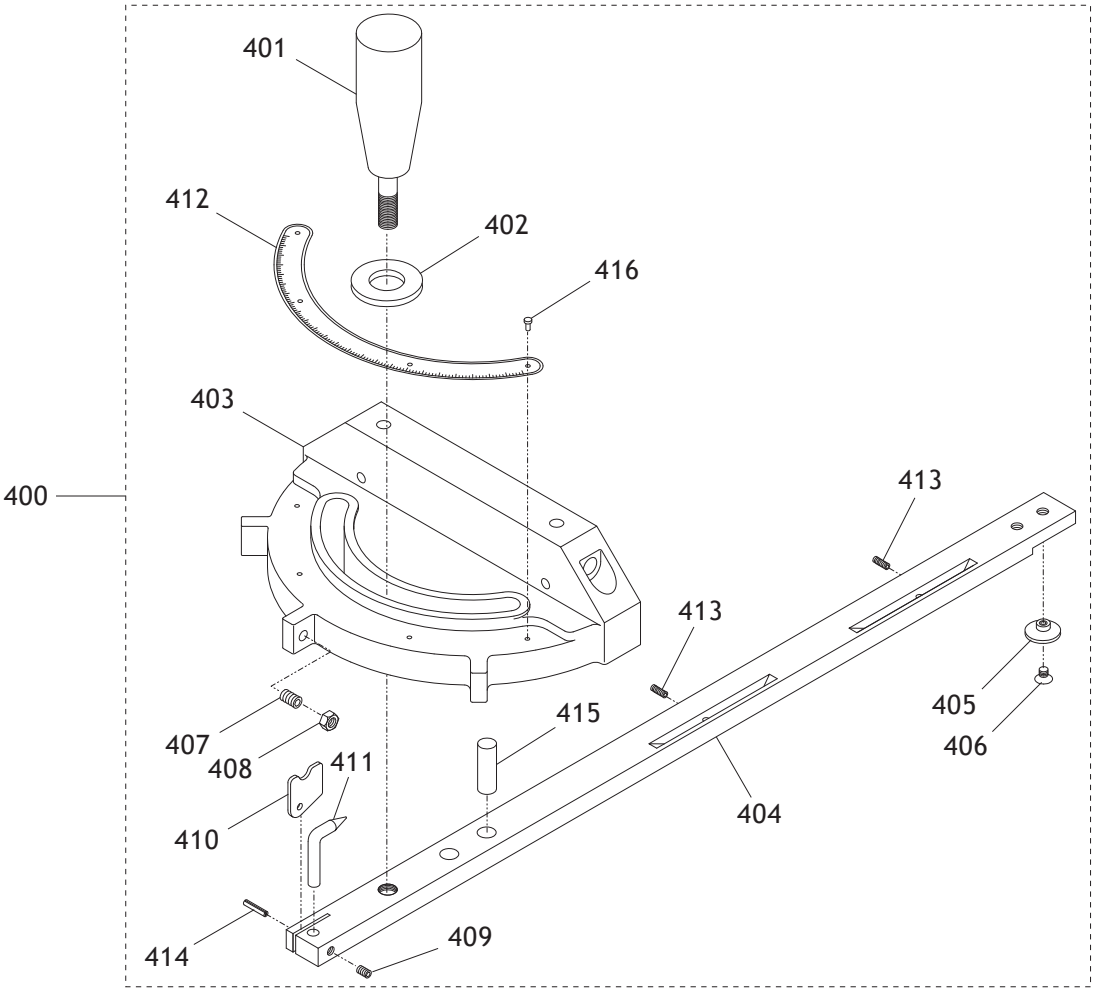
Blade Guard



REF	PART #	DESCRIPTION
301	X1888301	FLAT HD CAP SCR M5-.8 X 10
302	X1888302	GUARD SUPPORT (LEFT)
303	X1888303	GUARD SUPPORT (RIGHT)
304	X1888304	FLANGE NUT M5-.8 X 9
305	X1888305	DUST CHUTE
306	X1888306	GUARD (LEFT)
307	X1888307	TAP SCREW M3.5 X 16
308	X1888308	SPRING CLAMP
309	X1888309	BLADE GUARD DUST PORT
311	X1888311	BUTTON HD CAP SCR M5-.8 X 10
312	X1888312	SIDE GUARD (RIGHT)
312A	X1888312A	COMPLETE BLADE GUARD ASSY
313	X1888313	TORSION SPRING
314	X1888314	PAWL SHAFT
315	X1888315	SPREADER
316	X1888316	ROLL PIN 4 X 16
317	X1888317	PAWL RELEASE HOOK
318	X1888318	RIVET 4 X 6
319	X1888319	ANTI-KICKBACK PAWL

REF	PART #	DESCRIPTION
320	X1888320	SPACER 6 X 10 X 4MM
321	X1888321	BUTTON HD CAP SCR M4-.7 X 5
322	X1888322	SHOULDER SCREW M5-.8 X 10, 6 X 25
323	X1888323	SHOULDER SCREW M5-.8 X 10, 6 X 10
324	X1888324	GUARD (RIGHT)
325	X1888325	TAP SCREW M3 X 10
326	X1888326	RIVING KNIFE
331	X1888331	HOSE SUPPORT ARM
332	X1888332	HEX NUT M6-1
333	X1888333	FLAT WASHER 6MM
334	X1888334	WING NUT M6-1
335	X1888335	HOSE CONNECTOR 1-1/2"
336	X1888336	DUST HOSE 1-1/2" X 94"
337	X1888337	PUSH STICK
338	X1888338	HEX WRENCH SET 2.5-8MM 6-PC
339	X1888339	WRENCH 13 X 27MM OPEN-ENDS
340	X1888340	SIDE GUARD (LEFT)
341	X1888341	FLANGE NUT M5-.8 X 6
343	X1888343	LOCK WASHER 6MM

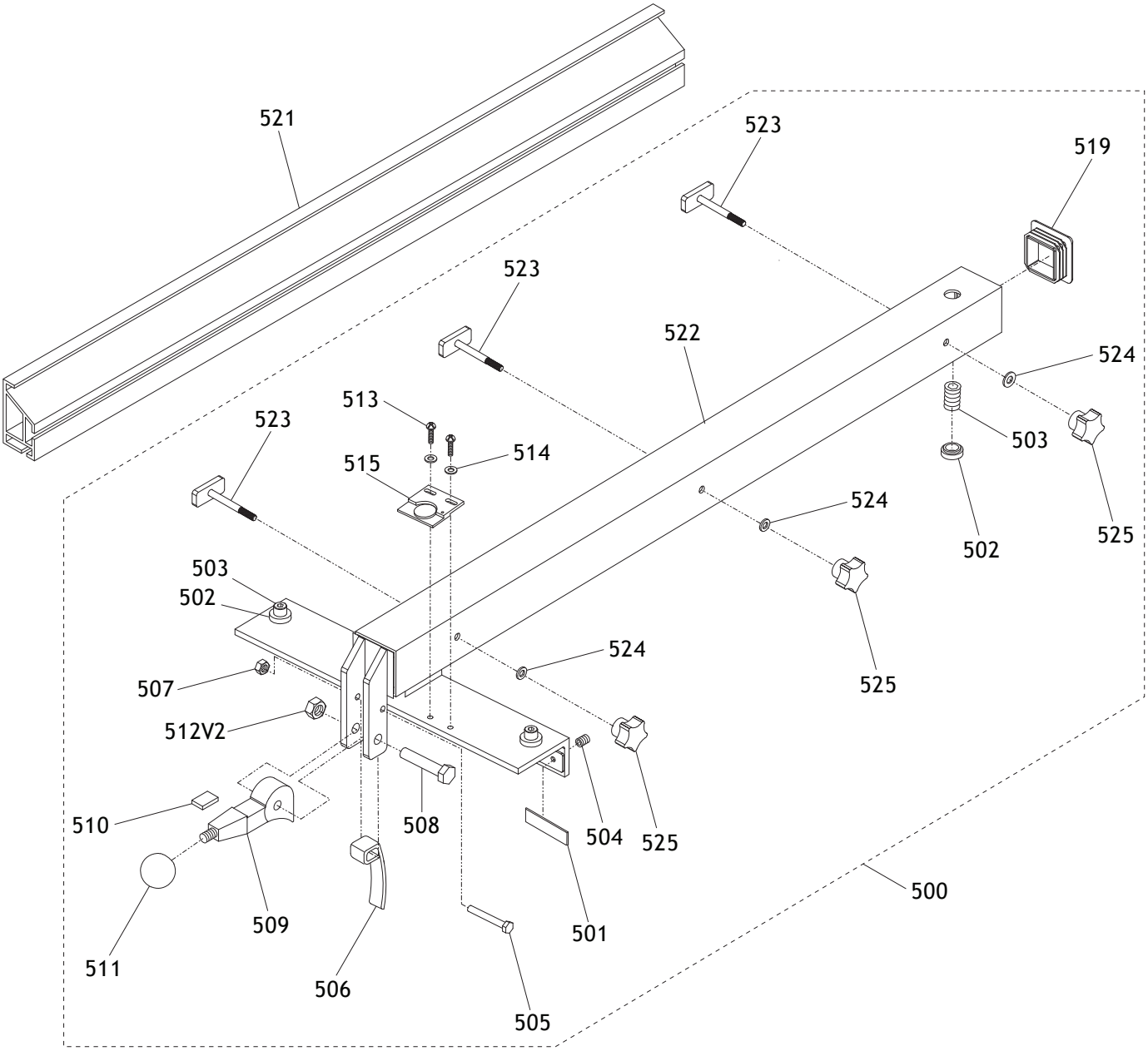
Miter Gauge



REF	PART #	DESCRIPTION
400	X1888400	MITER GAUGE ASSEMBLY
401	X1888401	MITER HANDLE 5/16-18 X 1
402	X1888402	FLAT WASHER 5/16
403	X1888403	MITER GAUGE BODY
404	X1888404	MITER BAR
405	X1888405	MITER BAR GUIDE WASHER
406	X1888406	FLAT HD SCR 1/4-20 X 5/16
407	X1888407	SET SCREW 10-24 X 3/4
408	X1888408	HEX NUT 10-24

REF	PART #	DESCRIPTION
409	X1888409	SET SCREW 10-24 X 1/4
410	X1888410	STOP LINK
411	X1888411	POINTER
412	X1888412	SCALE
413	X1888413	SET SCREW 10-24 X 3/8
414	X1888414	ROLL PIN 3 X 6
415	X1888415	MITER HINGE PIN
416	X1888416	RIVET 2 X 5

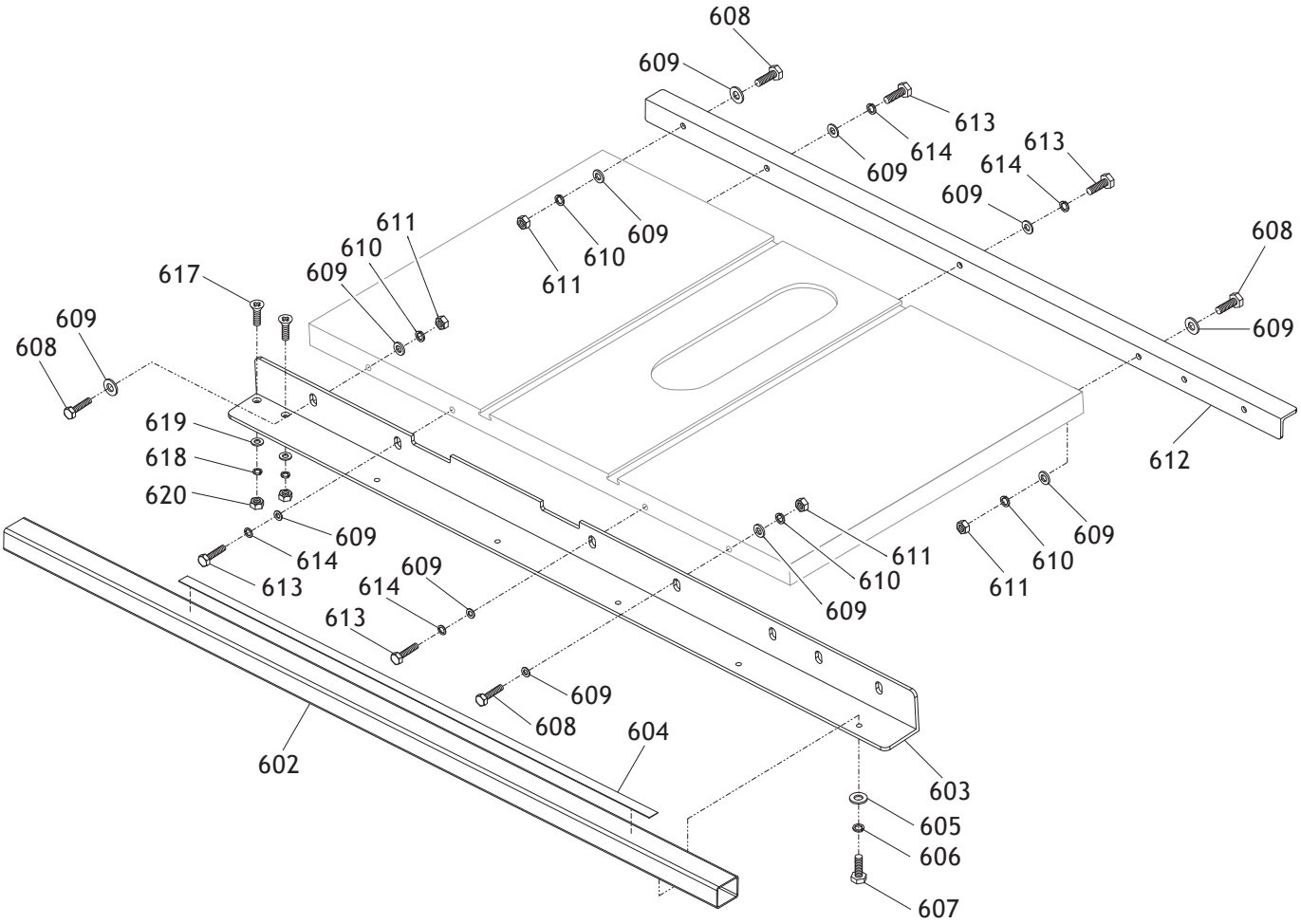
Fence



REF	PART #	DESCRIPTION
500	X1888500	FENCE ASSEMBLY
501	X1888501	GLIDE PAD
502	X1888502	KNURLED NUT M12-1.75
503	X1888503	SET SCREW M12-1.75 X 20 NYLON-TIPPED
504	X1888504	SET SCREW 3/8-16 X 5/16
505	X1888505	HEX BOLT 1/4-20 X 1-3/4
506	X1888506	CAM LOCK PLATE
507	X1888507	LOCK NUT 1/4-20
508	X1888508	HEX BOLT 3/8-16 X 1-3/4
509	X1888509	FENCE LOCK CAM LEVER
510	X1888510	MAGNET

REF	PART #	DESCRIPTION
511	X1888511	KNOB 3/8-16, D1-9/16, BALL
512V2	X1888512V2	LOCK NUT 3/8-16 V2.10.20
513	X1888513	PHLP HD SCR 10-24 X 3/8
514	X1888514	FLAT WASHER #10
515	X1888515	MAGNIFIED CURSOR
519	X1888519	FENCE BASE END CAP 50 X 50MM
521	X1888521	FENCE FACE
522	X1888522	FENCE BASE
523	X1888523	T-BOLT M6-1 X 20
524	X1888524	FLAT WASHER 6MM
525	X1888525	KNOB M6-1, D30, 5-LOBE

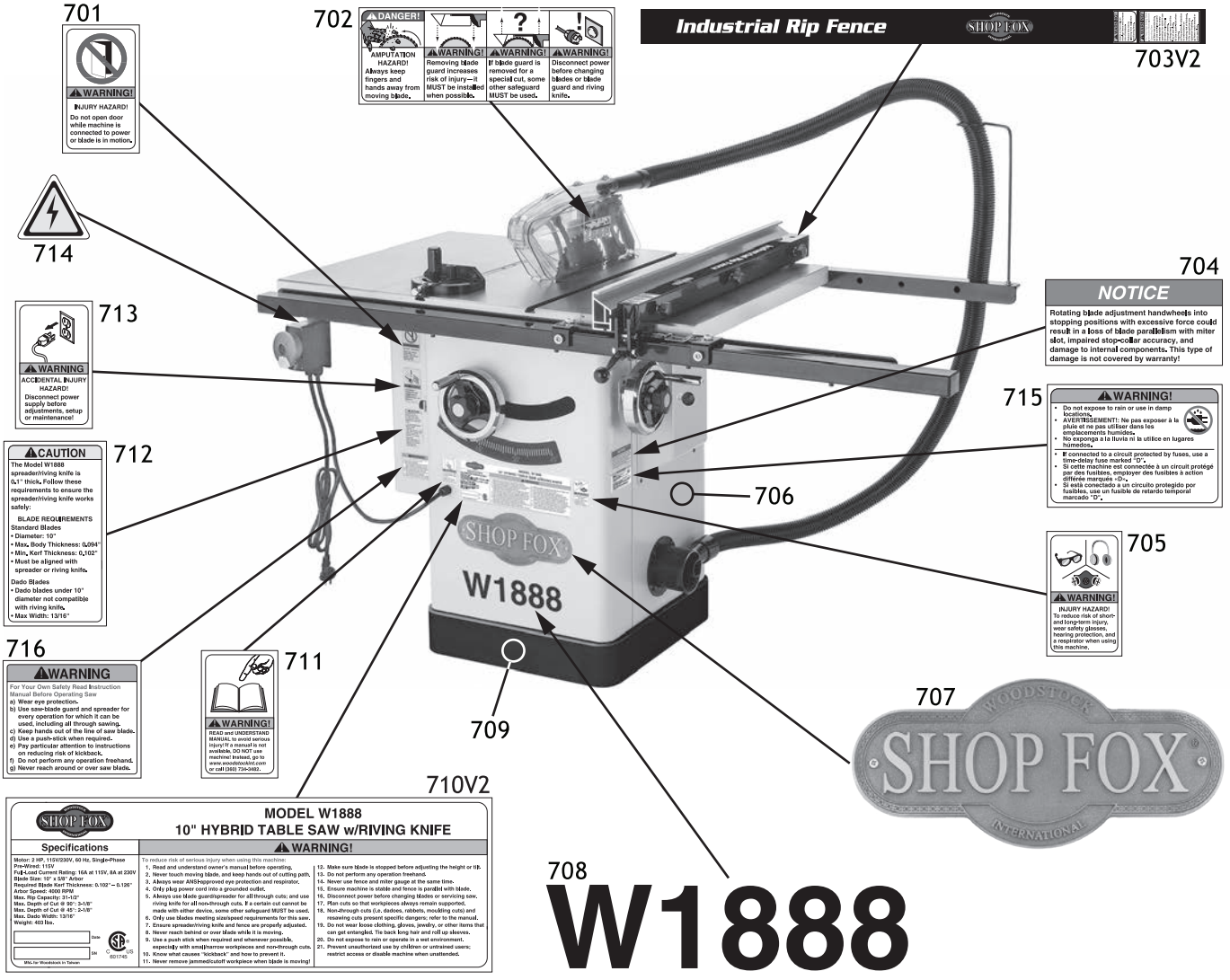
Rails



REF	PART #	DESCRIPTION
602	X1888602	FENCE GUIDE TUBE
603	X1888603	FENCE RAIL (FRONT)
604	X1888604	FENCE SCALE LABEL
605	X1888605	FLAT WASHER 6MM
606	X1888606	LOCK WASHER 6MM
607	X1888607	HEX BOLT 1/4-20 X 5/8
608	X1888608	HEX BOLT M10-1.5 X 35
609	X1888609	FLAT WASHER 10MM
610	X1888610	LOCK WASHER 10MM

REF	PART #	DESCRIPTION
611	X1888611	HEX NUT M10-1.5
612	X1888612	FENCE RAIL (REAR)
613	X1888613	HEX BOLT M10-1.5 X 25
614	X1888614	LOCK WASHER 10MM
617	X1888617	FLAT HD SCR M6-1 X 16
618	X1888618	LOCK WASHER 6MM
619	X1888619	FLAT WASHER 6MM
620	X1888620	HEX NUT M6-1

Labels & Cosmetics



REF	PART #	DESCRIPTION
701	X1888701	DO NOT OPEN DOOR WARNING LABEL
702	X1888702	BLADE GUARD LABEL
703V2	X1888703V2	FENCE LABEL V2.10.20
704	X1888704	HANDWHEEL NOTICE LABEL
705	X1888705	EYE/LUNG HAZARD LABEL - SMALL
706	X1888706	TOUCH-UP PAINT, SHOP FOX WHITE
707	X1888707	SHOP FOX NAMEPLATE-LARGE
708	X1888708	MODEL NUMBER LABEL

REF	PART #	DESCRIPTION
709	X1888709	SHOP FOX BLACK TAPE
710V2	X1888710V2	MACHINE ID LABEL V2.10.20
711	X1888711	READ MANUAL LABEL
712	X1888712	RIVING KNIFE CAUTION LABEL
713	X1888713	DISCONNECT POWER LABEL
714	X1888714	ELECTRICITY LABEL
715	X1888715	DO NOT EXPOSE TO RAIN LABEL
716	X1888716	TABLE SAW WARNINGS LABEL

⚠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.woodstockint.com to order new labels.

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 commited to continuously improving the quality of our products, and reserve the right to change specifications at any time.

To register the warranty, go to **https://www.woodstockint.com/warranty**, or scan the QR code below. You will be directed to the Warranty Registration page on www.woodstockint.com. Enter all applicable production information.

WARRANTY

WOODSTOCKINT.COM