



Busy Bee Tools

10" 2HP Hybrid Table Saw BBTS10



User's Manual



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Warnings



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.



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

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

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

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Introduction

These machines have been specially designed to provide many years of trouble-free service. Our thorough quality control program ensures a reliable safe machine that will provide years of safe operation. Our intention is to provide you with this manual to describe the basic information for safety, setup, operation, and maintenance of your new machine. We at Busy Bee Tools are committed and pride ourselves in customer satisfaction.

We stand behind our products! In the event that questions arise about your machine, please contact Busy Bee Tools Customer Service at (905) 738-5115 or 1-800-461-2879 or send an e-mail to: cs@busybeetools.com.

Our knowledgeable staff will help you to troubleshoot problems and process warranty claims when required.

We cannot stress enough how important your health and safety is. This manual has been designed with the assembly, proper use and care as the focal point. Therefore, we have introduced many warning signs throughout the manual to emphasize your safety. So please read and adhere to these simple and important warnings.

We welcome you to the Busy Bee Tools family of quality woodworking machinery.

Contact Information

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

Busy Bee Tools
130 Great Gulf Drive
Concord, ON L4K 5W1
1-800-461-2879
Busybeetools.com

Manual Accuracy

We made every effort to produce a manual with accurate specification, drawing and photographs sometimes we make a mistake, but in the spirit of continuing improvement and evolving you may receive the machine slightly different than shown in the photos.

Machine Specifications

Model Number: BBTS10
10" 2HP Hybrid Table Saw (Open Stand)

Product

Dimensions

Weight	243 lbs.
Width (side x to x side) x Depth (front x to x back) x Height	64 x 40-1/4 x 36 in.
Footprint (Length x Width)	21 x 19-1/2 in.
Space Required for Full Range of Movement (Width x Depth)	64 x 37-1/2 in.

Shipping Dimensions

Carton #1

Type	Cardboard Box on wooden pallet
Content	Machine
Weight	259 lbs.
Length x Width x Height	39 x 28 x 25 in.
Ship upright	Yes

Carton #2

Type. Cardboard Box

Content..... Fence, Rails, and Hardware
Weight 38 lbs.
Length x Width x Height 66 x 16 x 6 in.
Ship upright No

Electrical

Power Requirement..... 120V or 240V, Single Phase, 60 Hz
Prewired Voltage V
Full-Load Current Rating A at 120V, 7.5A at 240V
Minimum Circuit Size A at 120V, 15A at 240V
Connection Type Cord & Plug
Power Cord Included Yes
Power Cord Length..... 6 ft.
Power Cord Gauge..... 14 AWG
Plug Included..... Yes 15A at 120V, 7.5A at 240V

Speed..... 3450 RPM
Type..... Capacitor-Start Induction
Power Transfer Belt Drive
Bearings..... Sealed & Permanently Lubricated

Main Specifications

Table Saw Type Hybrid Maximum
Blade Diameter 10 in.
Arbor Size..... 5/8 in.
Arbor Speed 3450 RPM
Maximum Width of Dado..... 13/16 in.
Blade Tilt Direction Left
Max Blade Tilt 0-45 deg.
Maximum Depth of Cut At 90 Degrees 3-1/4 in.
Maximum Depth of Cut At 45 Degrees 2-1/4 in.
Max Rip Right of Blade w/Included Fence & Rails 30 in.
Max Rip Left of Blade w/Included Fence & Rails 15 in.

Additional Blade Information

Included Blade Information 10" x 40T.
Riving Knife/Spreader Thickness 0.090 in.
Required Blade Body Thickness 0.060 - 0.086 in.
Required Blade Kerf Thickness 0.094 - 0.126 in.
Rim Speed at Max Blade Diameter 9,025 FPM

Table Information

Floor to Table Height 35-3/4 in.
Table Size with Extension Wings Width 40-1/4 in.
Table Size with Extension Wings Depth 27 in.
Distance Front of Table to Center of Blade 15-1/2 in.
Distance Front of Table to Blade at Maximum Cut..... 11-1/2 in.
Main Table Size Thickness 1-5/8 in.

Fence Information

Fence Type	Camlock T-Shape w/ Aluminum Face
Fence Size Length	35-3/4 in.
Fence Size Width.....	3-1/8 in.
Fence Size Height.....	2-7/16 in.
Fence Rail Type.....	Extruded Aluminum
Fence Rail Length	64 in.
Fence Rail Width.....	3-1/8 in.
Fence Rail Height.....	2-1/4 in.

Miter Gauge Information

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

Construction

Table	Cast Iron
Wings	Stamped
Cabinet.....	Pre-Formed Steel
Trunnions.....	Cast Iron
Fence Assembly	Aluminum

Rails	Aluminum
Miter Gauge Construction.....	Aluminum
Guard.....	Aluminum & Plastic
Body/Cabinet Paint Type/Finish	Powder Coated
Arbor Bearings.....	Sealed & Permanently Lubricated

Other Related Information

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

Features

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

Accessories

- Push Stick
- Standard Table Insert
- Dado Table Insert
- Miter Gauge

Identification

Control & Components

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

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

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

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

C- **Blade Height Handwheel:** Adjusts blade height from 0"–3-1/4".

D- **Blade Tilt Handwheel:** Adjusts angle of blade tilt from 90°–45°.

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

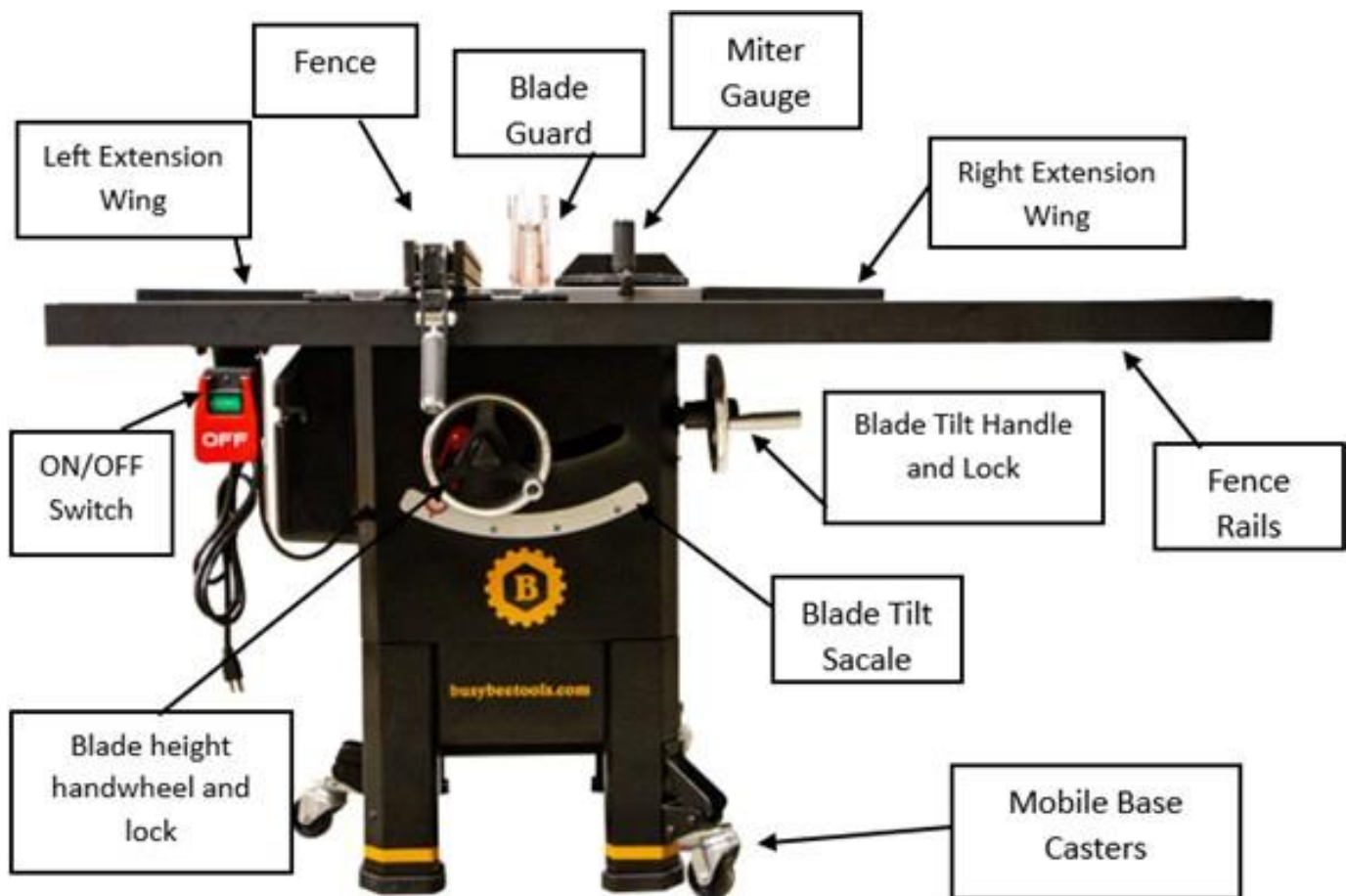


Figure 1: Machine Identification.

SAFETY

For your own safety, please read the instruction manual before operating this machine.

The purpose of safety symbols is to attract your attention to possible hazards. In this manual we use a series of symbols and signs to convey the level of importance of the safety messages. Please read below to understand the level of importance for each of the signs. Remember that the messages themselves do not eliminate the danger and are not a substitute for proper accident prevention measures. Always use common sense and your good judgment.



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

Warning: Indicates a potential hazardous situation which if not avoided COULD result in death or serious injury.

Caution: Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against Insafe practices.

Notice: Alerts the user to useful information about proper operation of the machine to avoid machine damage. Safety

Instructions for Machinery

OWNER'S MANUAL. Read and understand this owner's manual BEFORE using the 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 a machine is not being used, disconnect power, remove switch keys, or lockout machine to prevent unauthorized use—especially around children. Make your workshop kid proof!

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact our Technical.

Added Safety Measures 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's Know-how to reduce risk of kickback and learn how to protect yourself if it does occur.

FEEDING WORKPIECE: Feeding workpiece incorrectly increases risk of kickback. Always allow blade to reach full

speed before cutting, feed workpiece from front of saw, making sure workpiece is flat against table and a fence, miter gauge, or other guide is used to feed workpiece in a straight line. Feed cuts through to completion. Never start saw with workpiece touching blade or pull workpiece from behind blade. Never back workpiece out of cut, move it sideways, or perform a “freehand” operation. Never plunge cut.

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

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

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

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

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

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

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

CUTTING CORRECT MATERIAL: Cutting metal, glass, stone, tile, etc., increases risk of operator injury due to kickback or flying particles. Only cut natural and man-made

wood products, laminate covered wood products, and some plastics. Never cut materials not intended for this saw.

Preventing Kickback

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

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

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. (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 120V15 Amps
Full-Load Current Rating at 240V7.5 Amps

Circuit Requirements for 120V (Prewired):

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

Circuit Type.....10V/120V, 60 Hz,
Single-Phase
Circuit Size20 Amps
Plug/Receptacle.....NEMA 5-15

Circuit Requirements for 240V

This machine can be converted to operate on a power supply circuit that has a verified ground and meets the requirements listed below. (Refer to Voltage Conversion instructions for details on page 18 and 19).

Circuit Type.....220V/240V, 60 Hz,
Single-Phase
Circuit Size15 Amps
Plug/Receptacle.....NEMA 6-15



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.

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



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—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 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.



The machine must be properly setup prior to operation. DO NOT connect this machine

to the power source until instructed to do so later in the manual.

For 120V Connection (Prewired)

The plug must only be inserted into a matching receptacle that is properly installed and grounded in accordance with local codes and ordinances.

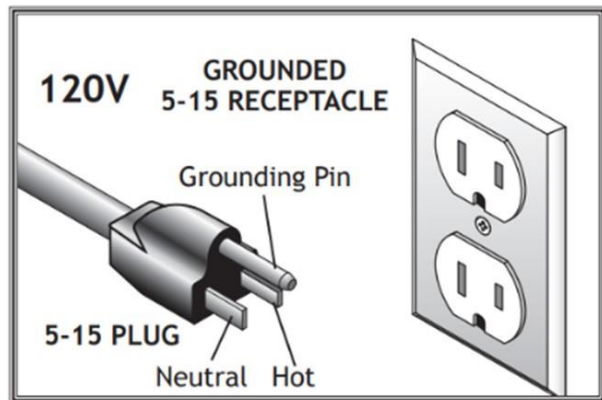


Figure 2: 110V 5-15 Plug.

For 240V Connection

A NEMA 6-15 plug has a grounding prong that must be attached to the equipment-grounding wire inside the included power cord. The plug must only be inserted into a matching receptacle (see Figure 3) that is properly installed and grounded in accordance with all local codes and ordinances.

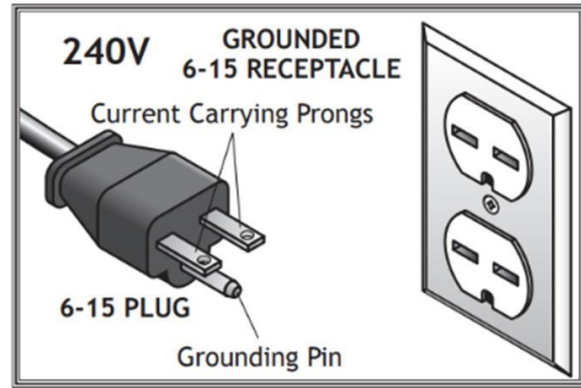


Figure 3: 220V 6-15 Plug.



CAUTION DO NOT modify the provided plug or use an adapter if the



plug will not fit the receptacle. You must have an electrician install the correct receptacle to meet the machine's requirements.

Extension Cords

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

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

Minimum Gauge Size at 120V..... 14 AWG
Maximum Length (Shorter is Better) 50 ft.

Converting Voltage to 240V

*The voltage conversion **MUST** be performed by 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 14 for your reference.

IMPORTANT: If the diagram included on the motor conflicts with the one on Page 46, the motor may have changed since the manual was printed. Use the diagram included on the motor instead.

Tools and Items Needed.....	Qty.
Phillips Head Screwdriver #2.....	1
Electrical Tape	As Needed
Wire Nut (14 AWG x 3)	1
Plug 6-15.....	1
Wire Cutters/Stripper.....	1

To convert the Model BBTS10 to 240V, do these steps:

- 1 - DICONNECT THE MACHINE FROM POWER!
- 2 - Cut off existing NEMA 5-15 plug.
- 3 - Open the motor connection box, remove the two wire nuts, see figure 4, then disconnect the wires.

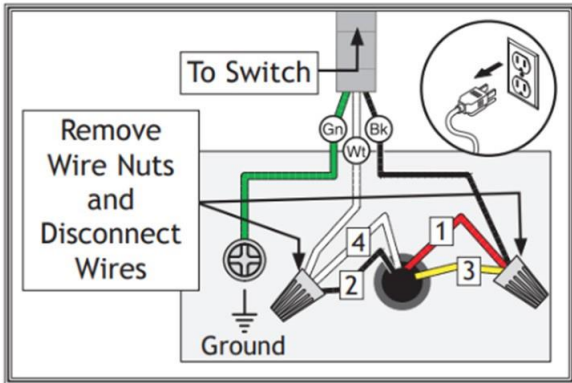


Figure 4: diagram of the motor's connection box.

- 4 - Use the wire nuts to connect the wire back as in dedicated in figure 5. Twist the wire nuts onto their respective wires and wrap them with electrical tape so they will not come loose.
- 5 - Close and secure motor connection box well.
- 6 - Install a NEMA 6-15 plug on the power cord, according to the plug's manufacturer's instructions. If the wiring instructions aren't available please refer to out wiring diagram provided on page67.

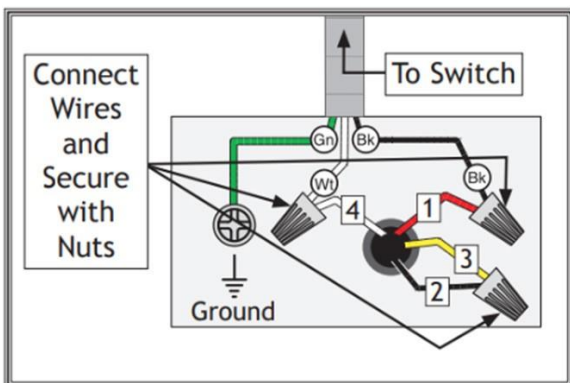


Figure 5: motor rewired to 240V.

Setup

Unpacking

This machine has been carefully packaged for safe transportation. If you notice the machine has been damaged during shipping, please contact your Busy Bee Tools branch immediately.



This machine presents serious injury hazards to untrained users.

Read the entire manual to become familiar with the operation and control of this machine!

Items Needed for Setup

Description.....	Qty.
• Additional People	1
• Safety Glasses for Each Person	1
• Cleaner/Degreaser	As Needed
• Disposable Rags.....	As Needed
• Disposable Gloves.....	As Needed
• Protective Gloves.....	1 Pr.
• Wire Brush/File.....	1
• Straightedge 4'	1
• Masking Tape	As Needed
• Razor Blade	1
• Measuring Tape.....	1
• Wrenches or Sockets 13mm	2
• Phillips Head Screwdriver #2	1
• Flat Head Screwdriver 1/4"	1
• Dust Collection System	1
• Dust Hose 4"	1
• Hose Clamps 4"	2



Inventory

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

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



Box 1 & 2 Inventory

Box 1 Contents (Figure 6)	Qty
A. Extension Wings	2
B. Spreader/Riving Knife.....	1
C. Dado Insert.....	1
D. Table Inset	1
E. Saw Blade 10" x 40T.....	1
F. Blade Guard Assembly.....	1
G. Push Stick.....	1
H. Miter Gauge.....	1
I. Miter Handle.....	1
J. Wrench 23mm Closed, 22mm Open	1 Ea.
K. Hex Wrenches 2.5, 3, 4, 5, 6, 8mm.....	1 Ea.
L. Star Knobs.....	2
M. Handwheels	2
N. Motor Cover	1
O. Rear Access Panel.....	1
P. Foot Lever and Bracket Assemblies	2
Q. Casters.....	3
R. Leg Brace w/Caster Mount.....	1
Box 2 Contents (Figure 7)	Qty
S. Fence Rail Brace	1
T. Front Fence Rail	1
U. Rear Fence Rail.....	1
V. Fence Assembly	1
Hardware (See Hardware Recognition Chart)	Qty
Hex Bolts M8-1.25 X 65 (Casters)	3
Lock Nuts M8-1.25 (Casters)	3
Cap Screws M10-1.5 X 25 (Extension Wing/Table)	6
Flat Washers 10mm (Extension Wing/Table).....	6
Lock Washers 10mm (Extension Wing/Table).....	6
Hex Bolts M8-1.25 X 16 (Switch & Fence Rail Brace).....	3
Lock Washers 8mm (Switch)	2
Hex Nuts M8-1.25 (Switch, Rails, and Table).....	14
Hex Bolts M8-1.25 X 30 (Front Fence Rail/Table).....	8
Cap Screws M8-1.25 X 25 (Rear Fence Rail/Table).....	8
Cap Screw M8-1.25 x 16 (Fence Rail Brace).....	1
Hex Nuts M8-1.25 (Fence Rail Brace)	2
Button Head Cap Screws M5-.8 X 12 (Panel/Cover)....	12
Flat Washer 6 x 20mm (Miter Handle).....	1

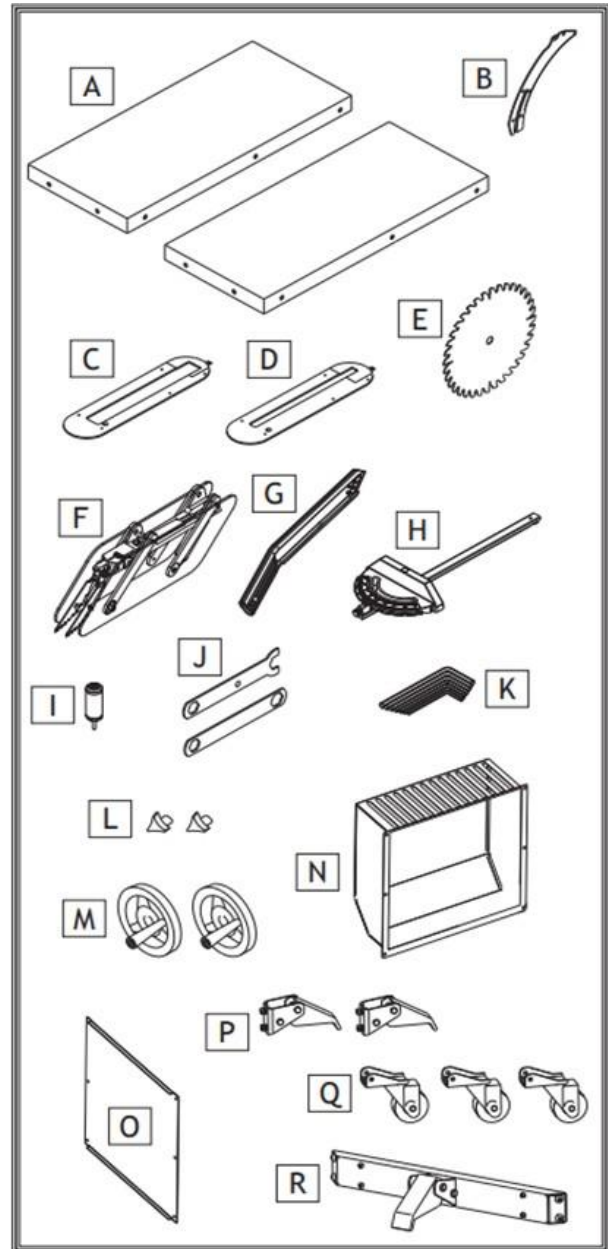


Figure 6: Box #1 Inventory

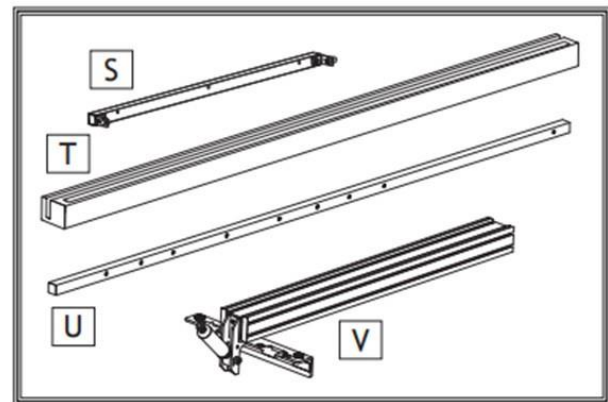


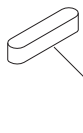
Figure 7: Box #2 Inventory

Hardware Recognition Chart

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

MEASURE BOLT DIAMETER BY PLACING INSIDE CIRCLE

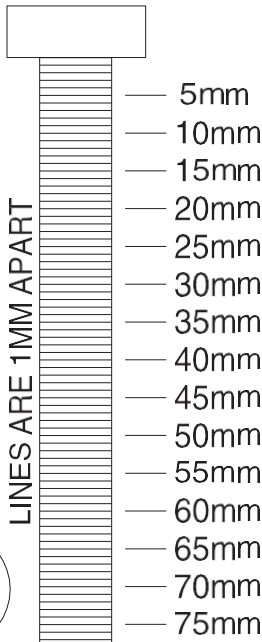
- #10
- 1/4"
- 5/16"
- 3/8"
- 7/16"
- 1/2"



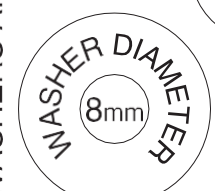
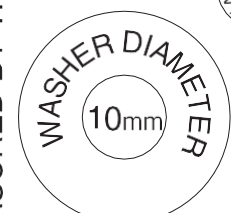
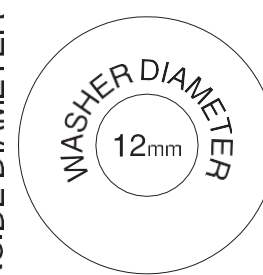
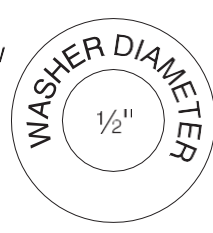
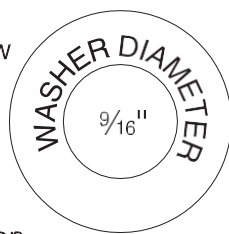
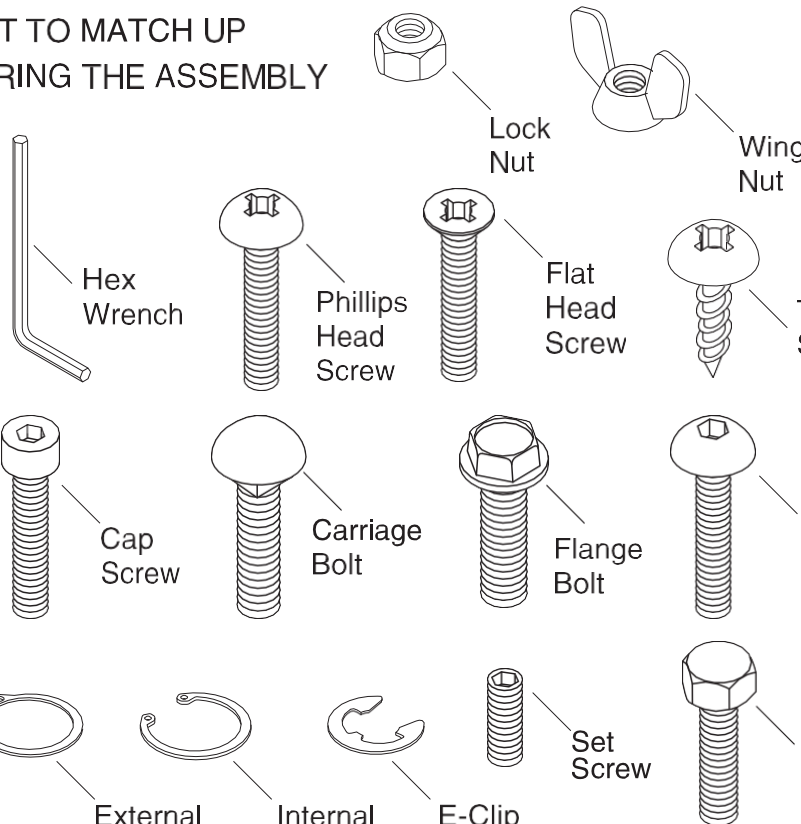
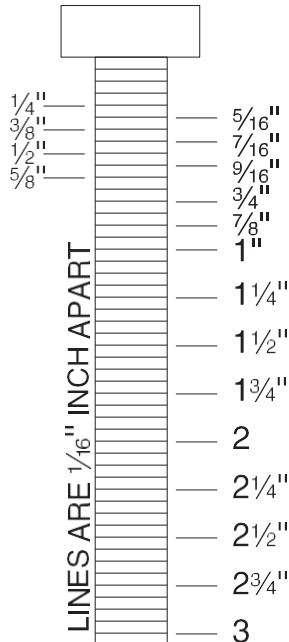
Key

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

LINES ARE 1MM APART



LINES ARE 1/16" APART



WASHERS ARE MEASURED BY THE INSIDE DIAMETER

Initial Cleaning of the 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 the rust preventing coat, follow these steps:

- 1 - DICONNET THE MACHINE FROM POWER SUPPLY!
- 2 - Put on safety glasses and disposable gloves.
- 3 - Coat the rust preventing compound with a generous amount of cleaner/ degreaser, and let it sit for 10 minutes or so.
- 4 - Wipe off all surfaces. If the degreaser/ cleaner is effective, the coating will wipe off easily.

TIP: a very effective and fast way to remove rust preventing coat from machines is by using a plastic scraper (paint scraper). Scrape all what you can before applying the degreaser/ cleaner, then proceed with step 3 and 4. **DO NOT USE A METAL SCRAPER.**

- 5 - Repeat cleaning steps as many times as necessary until the compound is completely off the machine.
- 6 - To prevent rust on the newly cleaned surfaces use a metal protectant compound immediately.



Gasoline and petroleum products have low flash points and can explode or

cause fire if used to clean machinery. Avoid using these products. Many cleaning solvents are toxic if inhaled. Minimize the risk by keeping the area well ventilated.



When necessary, you can use automotive degrease, mineral spirits or WD-40 to remove the rust prevention coat. Before

using these compounds test them on an invisible part of the machine to ensure they'll not damage or remove the paint off the machine.

Machine Placement

Weight Load

Refer to the Machine Specifications section for the weight of your machine. Make sure that the surface where the machine will be installed is adequate to 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 the figure 9 below for required space allocation.

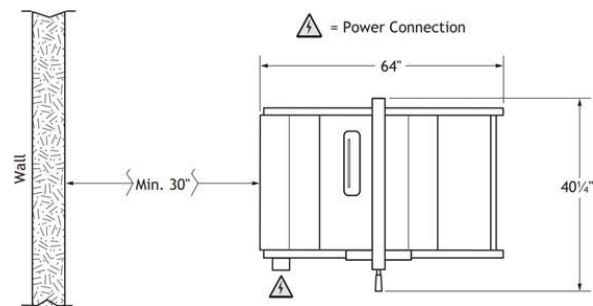


Figure 9: Space Allocation Clearances.

Physical Surroundings

The surroundings of the location where your machine is are very important for safe operations and the longevity of the machine and its components. For optimal results operate this machine in a dry environment that is free of excessive moisture, hazardous chemicals, airborne abrasive, or extreme conditions. Extreme conditions for such a machine are generally where temperature exceeds 41°C or 104°F; the relative humidity range exceeds 20-95% (non-condensing); or the location 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 must be adequate in the area where the machine is setup to perform all operations safely. Any shadows, glare, or flashing effect that may distract or prevent the operator from performing his work must be mitigated.

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 the table saw, follow these steps:

1 - Install the (2) foot lever and bracket assemblies (figure 10) on the right and back of the stand legs using the pre-installed (2) M8-1.25X16mm button head cap screws 8mm flat washers, 8mm lock washers, and M8-1.25 Hex nuts.

2 - Install the casters on each of the leaver and bracket assembly with M8-1.25X65mm hex bolt and M8-1.25 lock nut.



Figure 10: Installing the castors.

3 - Install leg brace (see figure 11) with pre-installed (4) M8-1.25X16mm button head cap screws and (4) M6-1X12mm button head carp screws.

4 - Install caster on leg brace mounting bracket with M8-1.25X65mm hex bolt and M8-1.25 lock nut (see figure 11).

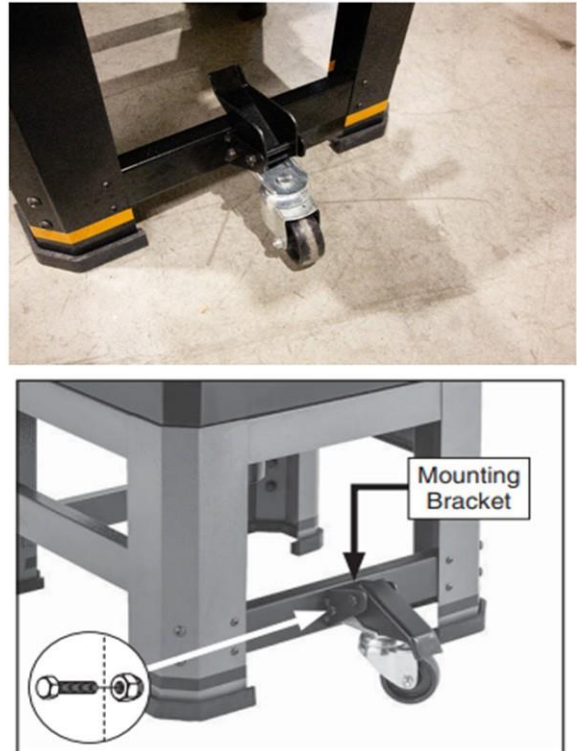


Figure 11: Installing brace and caster.

5 - Install the handwheels on their respective shafts, make sure the notch in each handwheel fits over the pin of each shaft (see figure 12), once this is complete, secure them with the star



Figure 12: Handwheel Assembly

6 - Turn the blade tilt hand wheel until the tilt indicator is pointing at the 15° angle (see figure 12).

7 - Inspect the joining surfaces of the cast iron table for burrs or foreign material that may inhibit the installation of the extension wings.

The mating edges of the table and wings must be clean, smooth, and flat. If necessary use a wire brush or a file to smooth the surfaces and remove any dings, high spots, or flashing. This step will guarantee that the wings will mount correctly to the table.

8 - With another person to hold the wings in place, attach each extension wing to the main table using M10-1.5X25mm cap screws, 10mm lock and flat washers (see figure 13), P.S. use the side with the large holes.

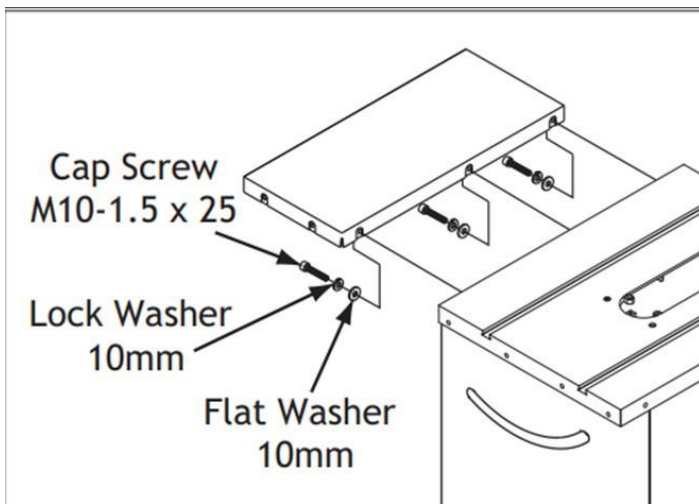


Figure 13: extension wing installation

9 - To ensure a perfectly combined flat surface of the table and the extension place a straight edge across the table:

- If the combined table surface is flat skip to next step.
- If the outside end of the extension wing is pointing down, uninstall the wing and place a strip of masking tape along the bottom of the edge of the main table to create a shim the wing will point up (see figure 14).

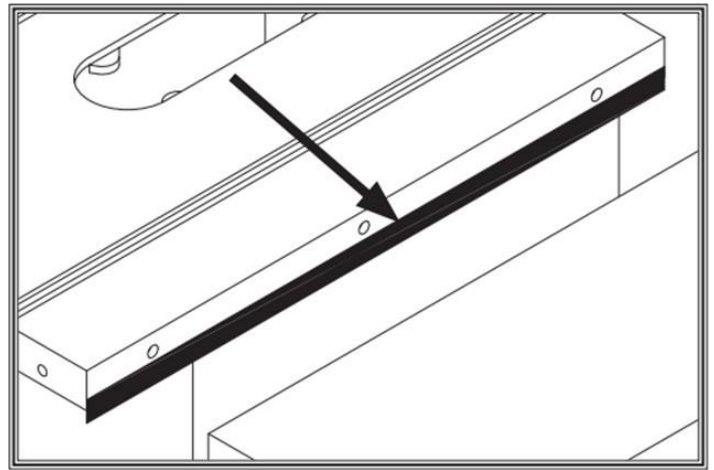


Figure 14: shim location for lifting the wing up.

- If the wing's end is pointing up, remove the wing and place a strip of masking tape along the top edge of the main table to create a shim, reinstall the wing (see figure 15).

Note: After completing the installation make sure to remove all excess masking tap with a razor blade.

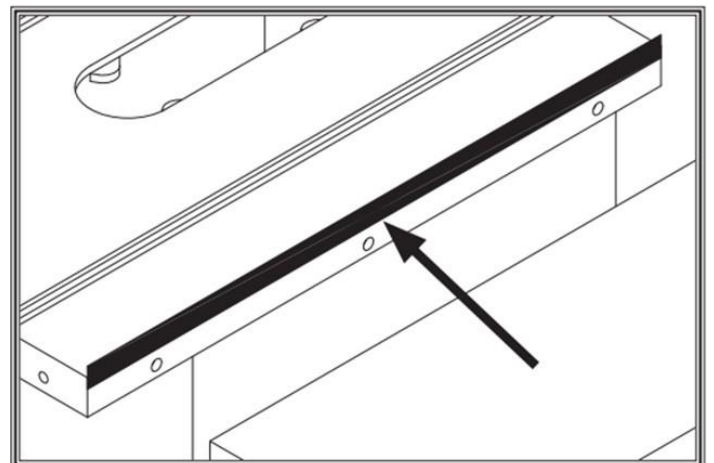


Figure 15: Shim location for lowering the wing down.

10 - Remove (2) M8-1.25X26mm hex bolts from switch, remove the screw fastening the left endcap of the fence's front rail. Insert the hex bolts into the rail's bottom slot. We'll use these bolts later to mount the switch (see figures 16, 17, next page).

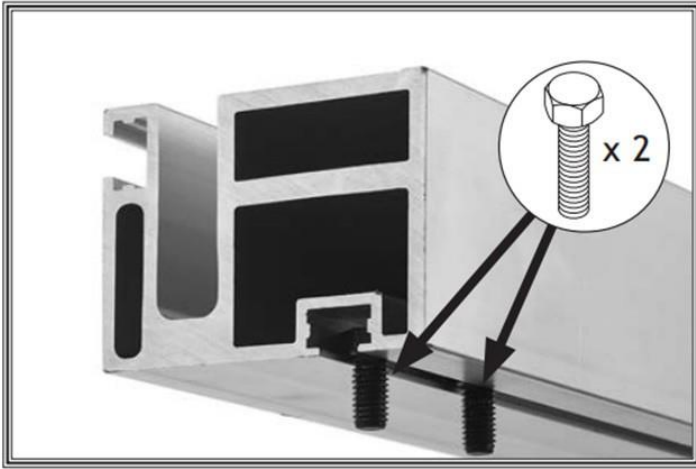


Figure 16: Blots for switch box.

12 - Reinstall the endcap and screw it with the tap screw on the fence's rail (see figure 19).

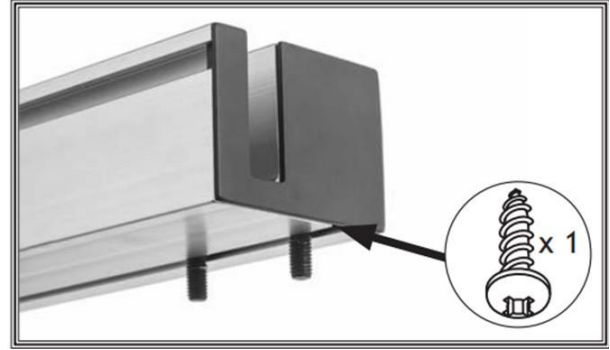


Figure 19: Endcaps reinstalled.

13 - Align all the (8) bolts you previously installed on the rail with the holes in the table then insert all the slots into the table making sure that the scale is facing up. Tighten (hand tight) all the (8) M8-1.25 nuts onto the hex bolts. Do not fully tighten yet.

14 - Now it is time to install the switch on the bolts from step #10 use (2) M8-1.25 hex nuts. And (2) 8mm lock washers.

15 - To install the rear fence rail use (8) M8-1.25X25mm cap screws (see figure 19). Secure the outer four cap screw with M8-1.25 hex nuts.

16 - Install the saw blade as instructed in blade installation section page 38.

17 - Install table insert in the table opening (see figure 20). Check that the insert is flush with the table, adjust if necessary for further assistance see Table/dado insert adjustment section on pages 44-45.

11 - Position the rail so in such way that its scale is facing you. Slide (8) M8-1.25X30mm hex bolts into the open slot (see figure 18).

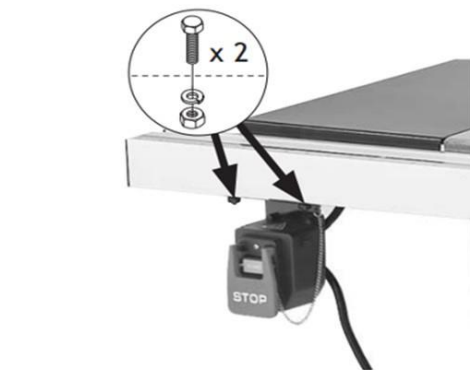


Figure 17: Positioning the switch on the front rail.

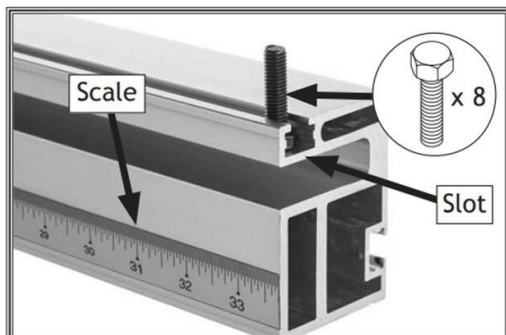


Figure 18: Position of the hex bolts on the front rail.

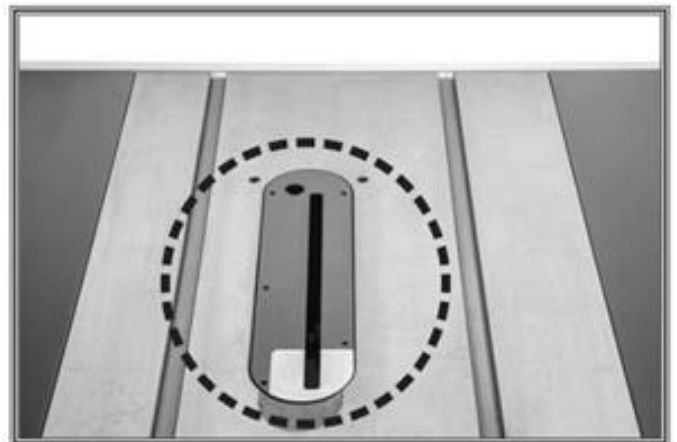


Figure 20: The standard insert installed.

18 - Place the fence on the front rail, as shown in figure 21. Press the locking handle down to lock the fence in position.

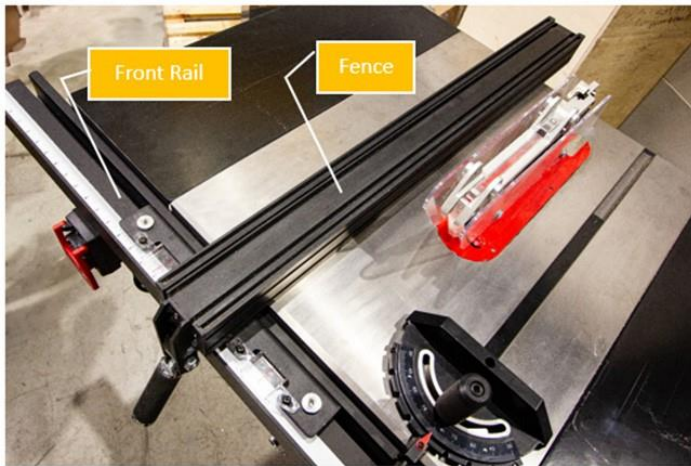


Figure 21: Fence Installed.

19 - Use the blade height hand wheel, raise the blade between 1" and 2".

20 - Turn the blade tilt handwheel until the tilt indicator is at 0° on the scale.

21 - Release the fence locking handle and slide the fence so it lightly touches the right-side blade (see figure 22). Do not lock the fence.

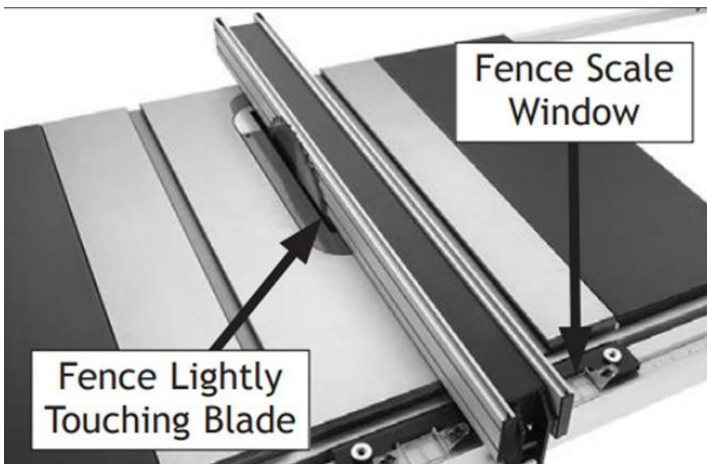


Figure 22: Scale calibration.

22 - Tap lightly on the fence rail so the zero lines up with the crosshair in the fence's scale.

23 - Now it is time to tighten the hex nuts from step 13 to secure the front fence's rail.

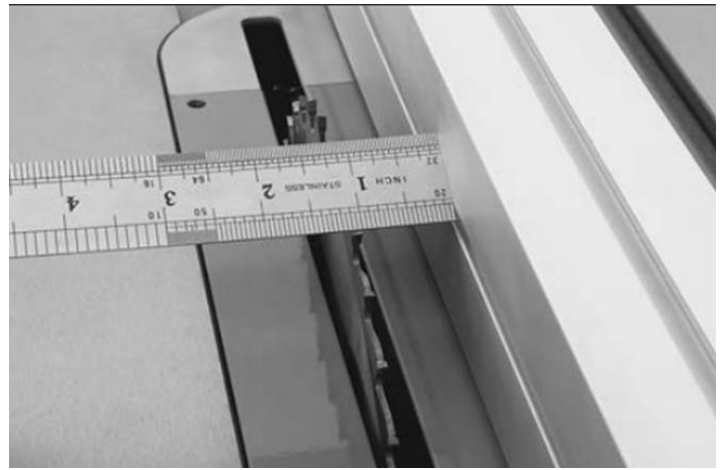


Figure 23: Checking fence calibration.

24 - Perform a check by moving the fence to the 1" mark on the scale and measure the distance between the blade tooth and the fence.

- If the crosshair aligns exactly with the 1" mark, no adjustment is necessary.

- If the crosshair does not align with the 1" mark, loosen the fence scale window screws, move the crosshair to align it with the 1" mark then tighten the screws back.

25 - Lift the fence off the table and re-install the left side of the blade and move it to touch the blade lightly.

26 - Check the left fence scale window.

- If the crosshair aligns with the zero mark on the left side no adjustment is necessary.

- If the crosshair doesn't align with the zero mark then loosen the screws holding the crosshair and move it to line it up with the zero on the scale, then tighten the screws.

27 - Install the blade guard and the riving knife as instructed on page 39-40.

28 - With the aid of an assistant install the fence rail brace with M8-1.25X16mm cap screw and M8-1.25 hex nut (see figure 24). NOTE DO NOT TIGHTEN THE CAP SCREWS YET.

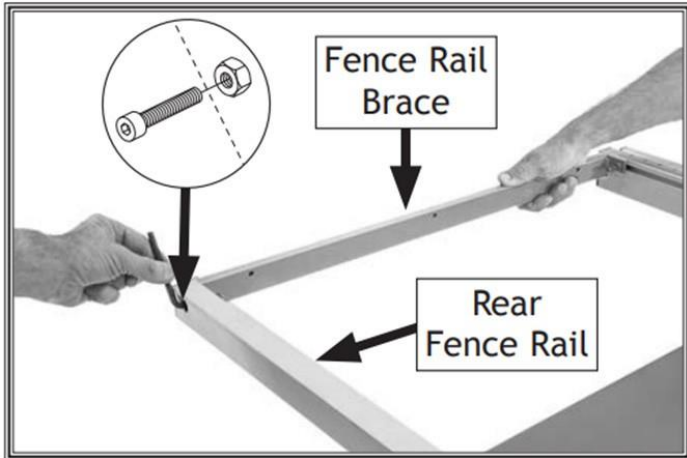


Figure 24: Attaching rear end brace.

29 - Remove the tap screw and the endcap from the right side of the front fence rail.

30 - Insert M8-1.25 x 16 hex bolt into front end of fence rail brace, then slide hex head and tab of brace into slot in front fence rail (see Figure 25). Tighten cap screw and hex nut on rear end of fence rail brace.

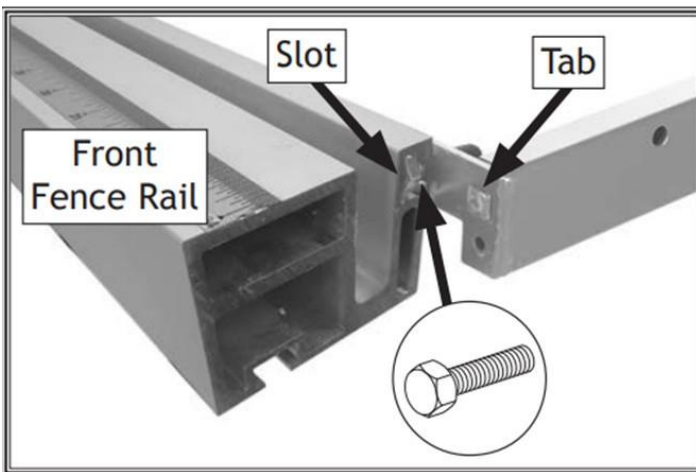


Figure 25: Attaching front rail brace.

31 - Re-install end cap and tap screw on right end of fence rail.

32 - Measure distance (A) from table edge to rear end of fence rail brace, then adjust front end of fence rail brace so it is the same distance (B) from table edge (see Figure 26).

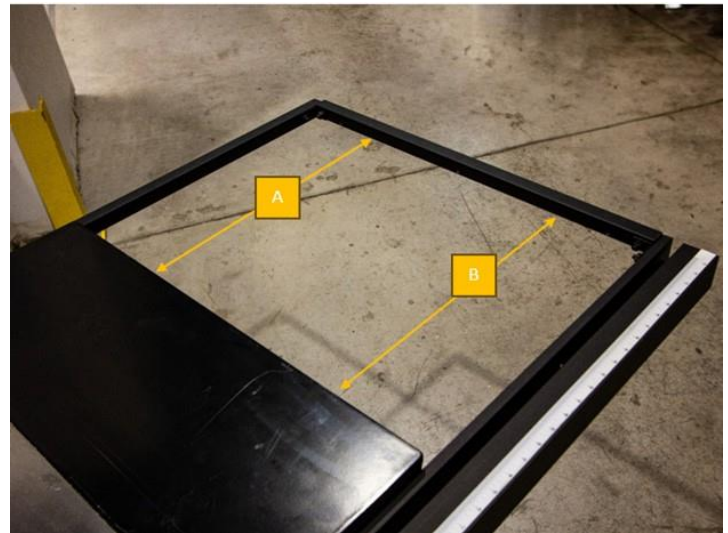


Figure 26: Fence back brace installed.

33 - Secure hex bolt on front of rail brace from Step 30 with M8-1.25 hex nut from figures 24 and 25.

34- Secure rear access panel and motor cover each with (6) M5-.8 x 12 button head cap screws (see Figure 27).



Figure 27: Installing the motor and rear access panels..

35 - Install miter gauge handle and 6 x 20mm flat washer into miter gauge (see Figure 28).

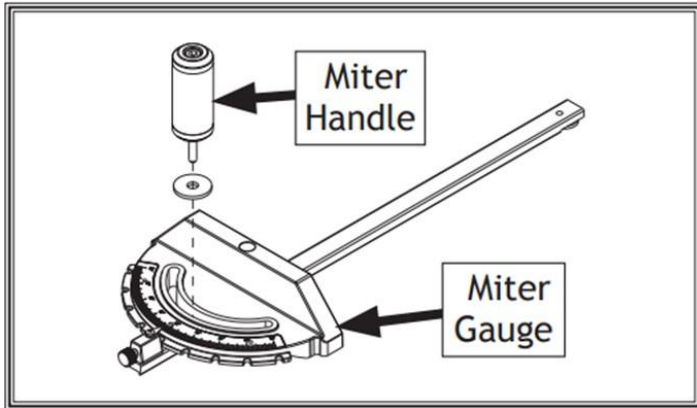


Figure 28: Miter gauge installed.

Dust Collection

Recommended CFM at dust port.....400CFM.

There are many variables to consider in the determination of the CFM rating at dust port:

- 1 - CFM rating of the dust collector.
- 2 - Hose type and the distance between the machine and the dust collector.
- 3 - The number of branches.
- 4 - How many open lined are there?

This manual's scope is not to calculate the variables. Consult an expert or invest in a good dust collection "how-to" book.

Items needed.....	Qty.
Dust collection system	1
Dust Hose 4"	1
Hose clamps 4"	2

To Connect a dust collector hose, follow these steps:

- 1 - Fit the 4" dust hose on the dust port, please refer to figure29, and fasten in place with the hose clamp.
- 2 - Pull the hose to make sure it is fastened securely.
Note: it is necessary to ensure that the fit is tight for adequate performance.
Note: it is necessary to ensure that the fit is tight for adequate performance.

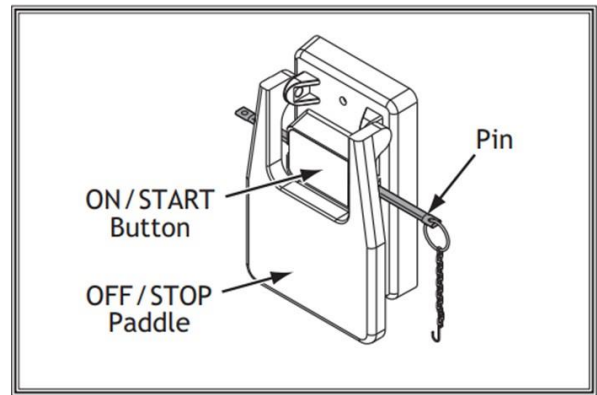


Figure 29: Lock-out function and pin.

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.



Serious injury or death can result from using this machine BEFORE learning and understanding its controls and safety measure. DO NOT operate or allow others to operate this machine until the instructions and information are understood.



DO NOT start this machine unless all preceding setup process have been performed. Operating an improperly setup machine will result in malfunction or unexpected outcome that may result in injury, death, or machine and property damage.

To test run the machine, follow these steps:

- 1 - Lower blade all the way down, and make sure all tools and objects used during setup are cleared away from machine.
- 2 - Connect the table saw to the power supply.
- 3 - Turn the machine ON, verify motor operation, then turn the machine OFF. The motor should run smoothly without any unusual noises.
- 4 - Insert the lock-out pin (disabling the machine) through the green ON/START button (see figure29).
- 5 - Press the green button ON/START button to test the lock-out function.
 - If the machine does not start, the lock-out safety is working as designed.

- If the machine starts, stop the machine immediately. The lock-out pin isn't working correctly. This safety feature must function properly before proceeding with regular operations. Call customer service immediately for help.

Recommended Adjustments

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

Step-by-step instructions can be found in **section 7 SERVICE**.

Adjustments that are explained in this manual:

- 1 - Blade tilt accuracy
- 2 - Miter slot parallel to blade.
- 3 - Table/Dado insert adjustment.

Operations

General

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

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

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



To reduce the risk of injury or damage to the machine, please READ the entire manual BEFORE using the machine.



There's a high risk of eye injury, respiratory issues, or hearing loss can occur while operating this machine. It is imperative

to wear your personal protective equipment to reduce the probability of hurting yourself.

Operation Overview

The objective of this overview is to prepare the beginner machine operator with an essential understanding of how this machine is used during operation, so the machine controls/components discussed later in this manual are easier to comprehend.

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

To perform a typical operation, the operator must follow these steps:

- 1 - The workpiece must be examined to make sure it is suitable for cutting.
- 2 - Adjust the blade tilt if it is necessary to achieve a desired angle.
- 3 - When setting up the blade height it must be around 1/4" higher than the top surface of the workpiece.
- 4 - Adjust the fence to the desired width of cut.
- 5 - Examine the outfeed area of the machine to make sure the workpiece can go through the machine without obstruction.
- 6 - Put on your PPE (Personal Protective Equipment) eye protection, respirator, hearing protection, and make sure you keep your hands away from the push stick and the push pedal close in case you need them.
- 7 - Start the saw by pushing the green ON/START button.
- 8 - Now carefully, feed the workpiece all the way through the blade while keeping a firm pressure on the workpiece against both the fence and the table, and keeping your hands and fingers away from the saw blade.
- 9 - After completing the cut, you must stop the saw immediately.

Workpiece Inspection

Please understand that not all workpieces are safe to cut with this machine.

Before beginning the cutting operation, workpiece inspection is a MUST, follow these steps to ensure that the right workpiece is being selected:

- Material Type: Only natural material, man-made wood products, laminate covered wood products, some plastics as well. DO NOT cut any drywall or cement base material these will create extremely fine dust which will reduce the life of the machine significantly



by entering inside the motor and clog the bearings and other parts resulting in sudden motor burn-out. This machine is NOT designed to cut metals, glass, tile, or other hard material; cutting such material will result in injury or death.

- Foreign Objects: While inspecting the workpiece, make sure there are no nails, staples, dirt, rocks, and other material that don't belong and embedded in the wood. These objects can cause kickback or can fly and hit the operator causing injury or even death. **IF YOU CANNOT REMOVE THE OBJECTS DO NOT CUT THE WOOD.**

- Large or Loose knots: the loose knots can be dislodged while cutting. Large knots can cause kickback that may cause injury or damage the machine. Choose workpieces that are knot-free or that don't have loose or large knots, please avoid cutting through them.

- Wet "GREEN" Stock: when cutting wood with a moisture content over %20 will cause blade damage and unnecessary wear and tear on the blade shortening its life significantly. The cutting result will be of very poor quality, also there's a high risk of kickback as well.

- Minor Warp: these workpieces can be cut when the warp is cupped side is facing down; however, if the bowed side is facing up the rocking movement will render it very dangerous and unstable, this will cause kickback and injury to the operator. Avoid this type of wood as much as possible.

Non-Through & Through Cuts

Non-Through Cut

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 30.

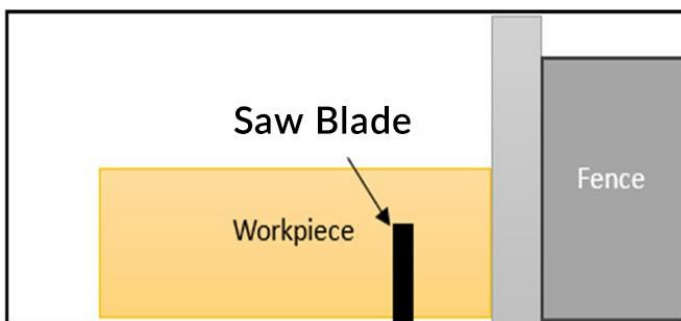


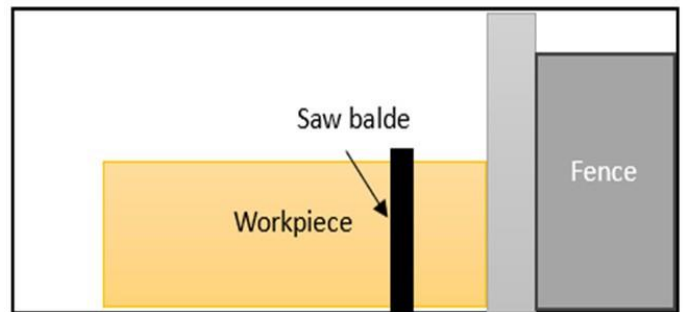
Figure 30: non-through cut.

Examples of non-through cuts include dadoes and rabbets. Non-through cuts have a higher risk of injury from kickback because the blade guard must be removed. However, the

iving knife **MUST** be installed because it still provides some protection. When making non-through cuts with a dado blade, do not attempt to cut the full depth in one pass. Instead, take multiple light passes to reduce the load on the blade. A dado blade smaller than 10" will require removal of the riving knife, because the riving knife will be higher than the blade.

Through Cut

A through cut is a sawing operation in which the workpiece is completely sawn through, as shown in Figure 31. 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.



If you have never utilized any similar machine or equipment before, it is important to seek an experienced operator

or read "how-to" books before starting any projects. Regardless of this section, Busy Bee Tools cannot and will not be liable for accidents caused by lack of training or experience.

Blade Size Requirements

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

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

Blade size requirements:

- Body Thickness: 0.060" to 0.086" or 1.5 to 2.1 mm.
- Kerf (tooth) thickness: 0.094" to 0.126" or 1.4 to 3.2 mm.

WARNING

Using any blade that doesn't meet the specifications above will present a hazardous and dangerous condition that will cause kickback, operator injuries, or property and machine damage. ALWAYS use a blade that meet the given size requirements.

Blade Selection

In this section we'll talk about the common types of blades; keep in mind that this section is not comprehensive. You must follow the saw blade manufacturer's recommendations to ensure a safe and affective operation of your table saw.

Ripping Blade

- Best for cutting with the grain.
- 20- 40 teeth.
- Flat top bevel tooth profile.
- Large gullet for large chip removal.

Cross Blade

- Best for cutting across the grain.
- 60- 80 teeth.
- The bevel top alternates.
- Small hook angle and shallow gullet.

Combination Blade

- Designed to cut both with and cross 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 (same as crosscut) then large and deep (same as ripping blade).

Laminate Blade

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

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

Dado Blades

- **Stacked Dado Blade:** 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.

Blade Installation

The proper installation of the blade is crucial for the safety of the operator also it'll produce optimal cutting results. Please review this section and understand it well even if the saw came with the blade pre-installed.

CAUTION

Make sure you disconnect the machine from power before any maintenance work is done.

To install the blade please understand and follow these steps:

- 1 - DISCONNECT THE MACHINE FROM THE POWER!
- 2 - Raise the blade all the way up, remove the blade guard and insert (leave the Philips head screws mounted in the table throat), then remove the spreader as well.

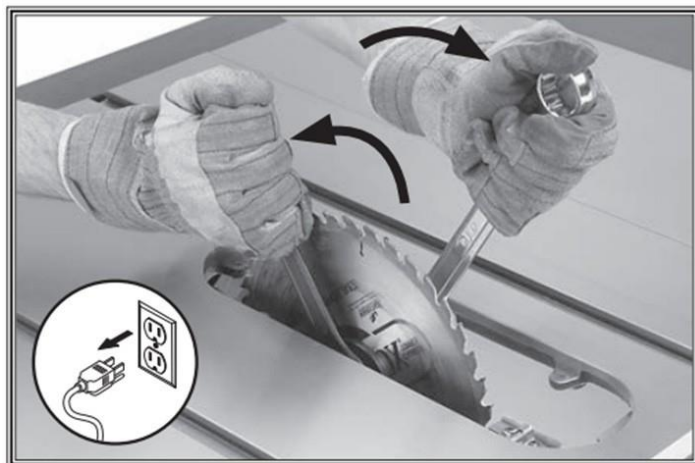


Figure 32: Removing the blade.

Note: the table insert is held by a magnet.

- 3 - Use the wrenches included in your tool kit for the saw to loosen and remove the arbor nut, flange, and blade (see figure 32). The arbor nut has right-hand threads; turn counterclockwise to loosen.
- 4 - Install the new blade, flange, and arbor nut (as shown in figure 33). Make sure the teeth are facing the front of the saw.
- 5 - Re-install spreader, table insert and the blade guard.

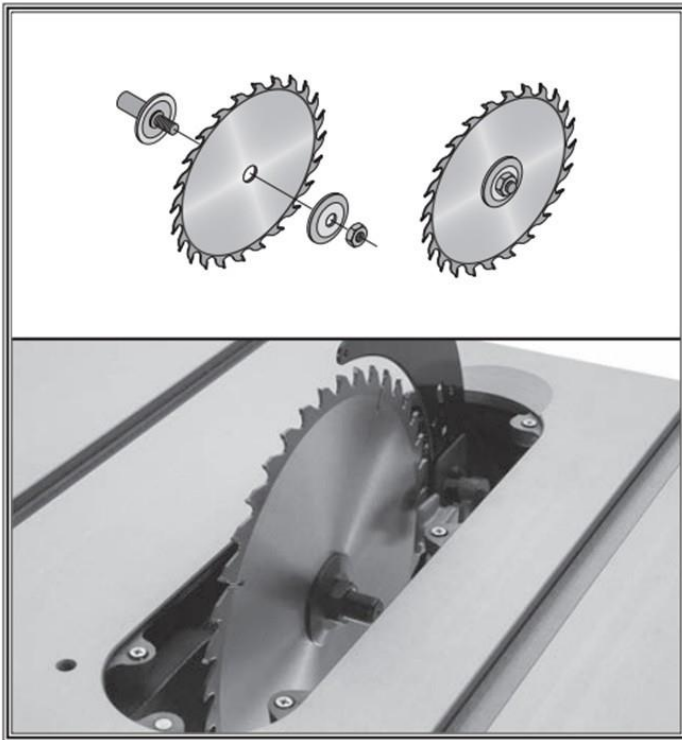


Figure 33: The correct order of installation.

Blade Guard Assembly

The name “blade guard” refers to the assembly that consists of the clear polycarbonate shield, the spreader, and the anti-kickback pawls on each side of the spreader (see Figure 34). Each of these components has important safety functions during the operation of the saw.

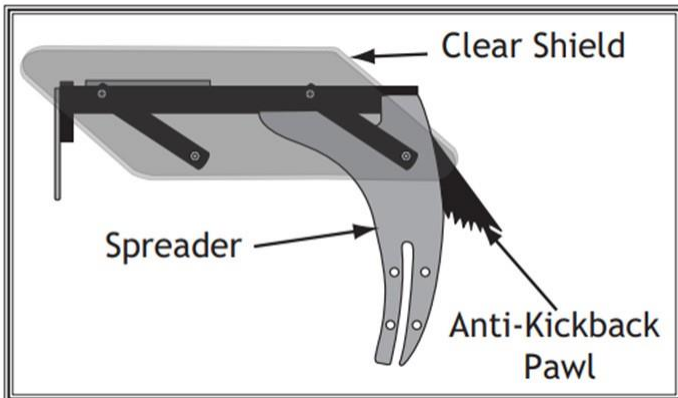


Figure 34: Blade guard Assembly.

Guard

The clear polycarbonate guard allows the operator to watch the blade cut the workpiece during operation. This guard is designed to lift as the workpiece is pushed into the blade and remain in contact with the workpiece throughout the entire cut the guard reduces injury risk by providing a barrier around the blade that prevents accidental contact and contains flying wood chips to ensure that the guard does its job effectively, the guard must always be in the

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

Riving Knife/ Spreader

The spreader is a metal plate that prevents the newly cut kerf of the workpiece from pinching the back side of the blade, causing kickback. The spreader/riving knife also acts as a barrier behind the blade, which can help prevent hands from being pulled into the blade in certain situations if a kickback occurs.



CAUTION

IN the case of damaging the riving knife or bending it, try to straighten it if not a new riving knife must be installed.

To install Blade Guard & the spreader please follow these steps:

- 1 - DISCONNECT THE MACHINE FROM POWER SOURCE.
- 2 - Remove table insert, DO NOT remove the Philips head screws mounted on the throat.
- 3 - Raise the blade all the way.
- 4 - Insert the spreader lower set of holes into the bracket slot as shown in figure 35. Tighten the lock lever to secure the knife in place. Note: DO NOT insert upper set of holes into the bracket slot. This is an incorrect installation of the spreader that will result in improper installation of the guard.

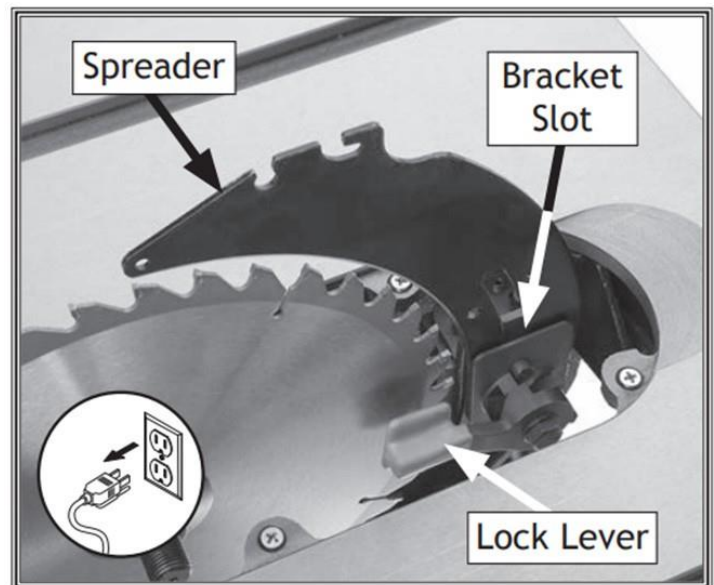


Figure 35: The spreader lock lever.

- 5 - Reinstall the table insert.
- 6 - Push the guard lever toward the front of the saw. 8
- 7 - Insert the rear pin on the guard into the rear slot of the spreader (see figure 36), then push down on the blade guard assembly until the forward pin is in the forward slot of the riving knife.

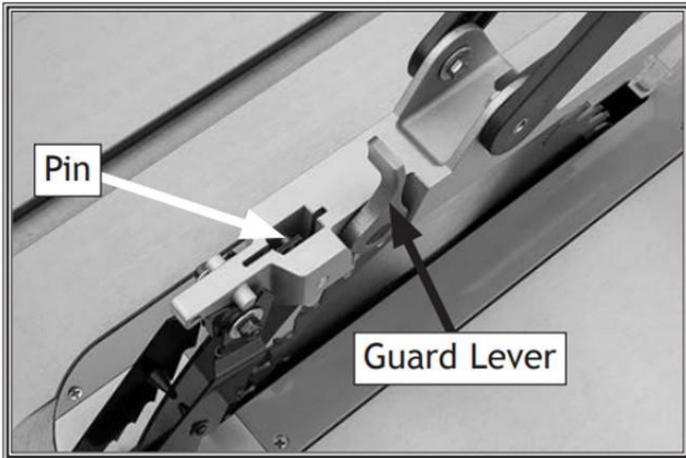


Figure 36: Blade guard installation.

- 9 - Push the guard's lever toward the rear of the saw, this will lock the guard in place.
 - 10 - Pull upward on the guard assembly to ensure it is secured in place.
- When properly installed, the blade guard should look like figure 37. Its movement up and down should be unrestricted, and it should pivot easily and high enough to accommodate the thickness of the workpiece.

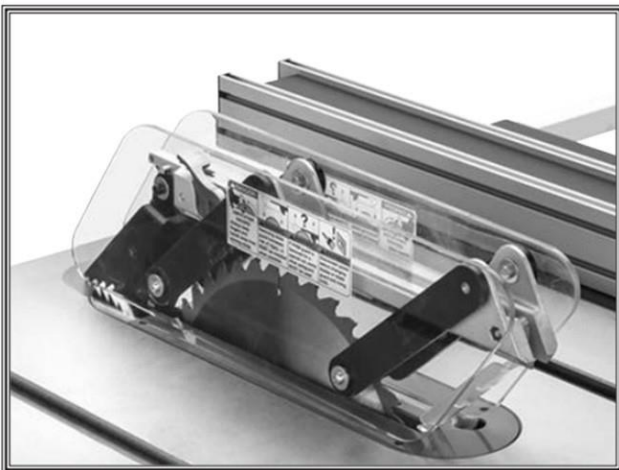


Figure 37: Blade guard fully installed.

- 11 - Swing one side of the guard up and out of the way.
 - 12 - While lifting on right spreader pawl, place a straightedge against blade and spreader, making sure straightedge does not touch a blade tooth.
- When properly aligned, spreader/riving knife will be in "Alignment Zone," shown in Figure 38, and will be parallel with blade.

Anti-Kickback Pawls

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

To work properly, the pawls must return to their resting position after pivoting, shown in Figure 39.

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



Figure 39: Anti-Kickback pawls.

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.



CAUTION

We DO NOT recommend disabling the pawls during normal operations unless necessary. In most

situations, disabling the pawls will result in increased risk of injury. Pawls are sharp and can cut fingers. Use caution when handling them.

To disable the pawls, follow these steps:

- 1 - DISCONNECT THE MACHINE FROM POWER SOURCE.
- 2 - Remove the cap screw, lock nut, washers, pawls, and retaining spring from the blade guard assembly (see figure 40).

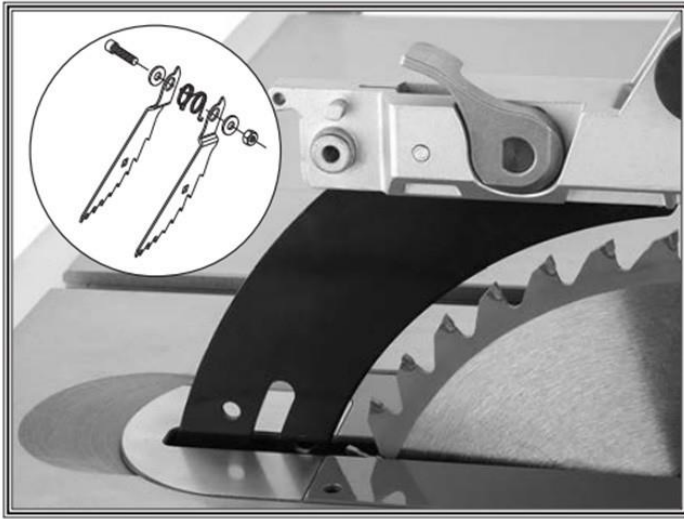


Figure 40: Pawl's removal.

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!

Spreader/Riving Knife

The riving knife, which works in the same manner as the spreader, but is used for non-through cuts. It is a metal plate that prevents the newly cut workpiece from pinching the backside of the blade and causing kickback. The key difference between a spreader and a riving knife is that a spreader supports the blade guard. Figure 41.

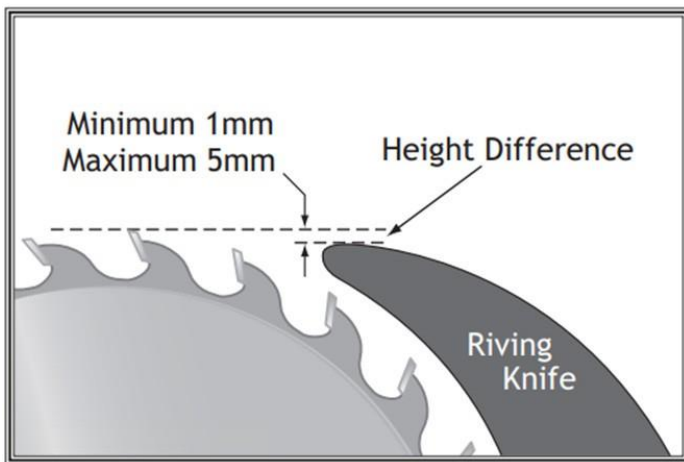


Figure 41: Height difference between riving knife and the blade.

The height difference between a riving knife and a 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).

Like the spreader, the riving knife acts as a barrier to keep the workpiece from pinching the blade causing kickback. When using as a riving knife, the spreader/riving knife must be kept within the range shown in Figure 42. For that reason, a 10" blade is required for operations that use a riving knife

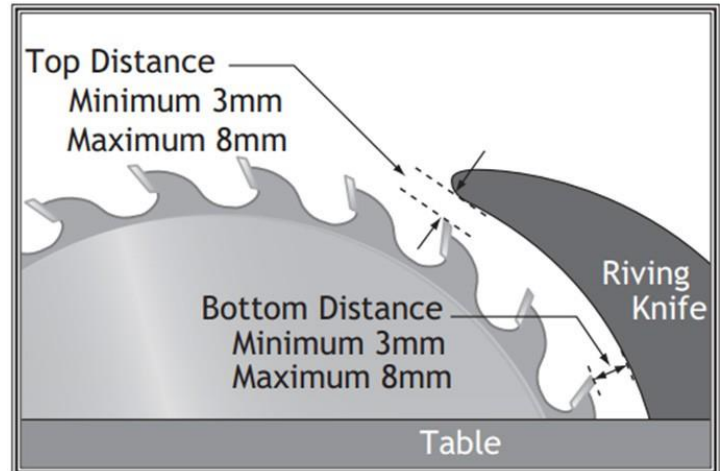


Figure 42: the allowable distance between the blade and the riving knife/spreader .

The steps to install the riving knife:

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Remove the table insert, DO NOT remove the Philips head screws from the table's throat. The table insert is retained in place by a magnet.
- 3 - Lift the blade all the way by turning the elevation hand wheel.
- 4 - Insert the upper holes on the riving knife into the bracket's slot and secure it in place by tightening the lock lever, see figure 43.
- 5 - Place the table insert back in place.
- 6 - Pull on the riving knife to ensure it is tightly locked in place.

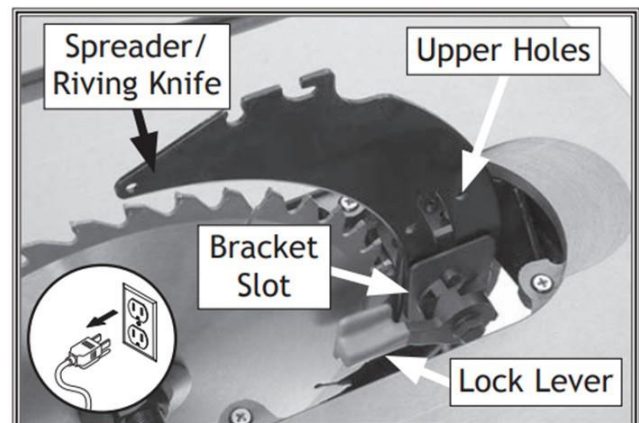


Figure 43: Position of the lock lever to secure the spreader.

When to Use the Riving Knife:

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

Also, use the riving knife for those occasions where the blade guard or its various parts get in the way of the safe operation of the saw, narrow cuts is an example of these occasions.



The riving knife must be aligned perfectly with the blade to ensure that it is safe to operate

When Not to Use the Riving Knife:

Do not use the riving knife with a dado blade that has a diameter lesser than 10" in diameter. Or else, the riving knife height will surpass the blade height and the workpiece will hit the riving knife through the cut, placing the operator in a dangerous situation of trying to shut the saw off with the workpiece stuck and the cut isn't finished.

Moreover, while it is likely to use the riving knife for through cutting operations, the blade guard assembly is a far better injury protection and risk reduction tool than the riving knife. Thus, we recommend that you always use the blade guard assembly for through cuts.

Ripping

Ripping is a term used in woodworking to describe cutting a piece of wood with the grain. As for man-made material such as plywood, and MDF it just means cutting along the length of the material.

Steps to perform a rip cut:

- 1 - Caution: Make sure you understand kickback and how to prevent it if you do not please review the kickback section of this manual.
- 2 - In the case of using natural wood, use a jointer to joint one of the long edges (make it straight and flat by jointing it) to prepare it for cutting.
- 3 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 4 - Inspect the blade, riving knife and the guard making sure that they're securely installed.
- 5 - Set your desired cut size on the scale of fence's front rail.
- 6 - Adjust the height of the blade according to the thickness of the workpiece (add 1/4" to the thickness of the wood for a through-cut).
- 7 - Set up all the safety equipment needed for the cut you are performing, and use your eye, hearing, and

respiratory protection before starting the cut.

- 8 - Re-connect the saw to the power line or remove the lock-out pin and turn the saw ON.
- 9 - Please make sure you are using a push stick or a push block to feed the wood through the saw.

Crosscutting

Crosscutting means performing a cut across the grain of natural wood, as for man-made materials it just means cutting across the width of the material.

Steps to perform a crosscut:

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE OR USE THE LOCK-OUT PIN.
- 2 - Inspect the blade, spreader and the guard making sure that they're securely installed.
- 3 - Use the miter gauge with the 90° angle position. Slide it in the miter gauge slot.
- 4 - Adjust the height of the blade according to the thickness of the workpiece (add 1/4" to the thickness of the wood for a through-cut).
- 5 - Adjust the workpiece so when the cut is made it is on the waste side of the cut line.
- 6 - Remove the lock-out or plug back the saw and turn it on.
- 7 - Carefully, hold the workpiece securely and perform the cut.

Miter Cuts

In woodworking terms, a miter cut is a crosscut made with an angle, normally using the miter gauge to mark the desired angled line on the workpiece.

To execute a miter cut please follow these steps:

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Inspect the blade, spreader and the guard making sure that they're securely installed.
- 3 - Using the miter gauge or any other precise angle indicator or protractor mark the desired angle line on the workpiece.
- 4 - Return the miter gauge back into its slot on the table (remember to keep the angle that you've marked on the workpiece).
- 5 - Use the same instructions as the crosscut and perform this cut.

Blade Tilt/ Bevel Cuts

Before starting this cut, please make sure that the tilt mechanism is properly adjusted and functioning within the parameters 0° to 45°. This function is used mostly to cut bevels, chamfers, and compound miters.



Dado Cutting

In woodworking terminology, a dado is a straight non-through channel cut in the workpiece. Dadoes are commonly used in furniture making. A dado can be made with a specialized blade or with a standard saw blade.

A dado blade with a diameter up to 10" can be used with the BBTS10 table saw. The riving knife must be installed when using the dado blade to prevent injury from a kickback. DO NOT use the dado blade to perform through cut, it is very risky, and it'll cause serious injury to the operator. Do not use the riving knife in case you are using a blade smaller than 10" in diameter.

Steps to installing a dado blade:

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Remove the guard assembly, the table inset, and the spreader.
- 3 - Follow the dado blade's manufacturer's instruction and install the blade.
- 4 - Once the blade is installed install the dado insert included with this machine.

The table saw is ready for dado cuts.

How to Cut a Dado with a dado blade

A dado blade is much wider than a standard blade, it'll put a lot of force on the motor and the workpiece while cutting. An increased risk of kickback is the result of this great force, additional safety steps must be put in place to reduce the risk of injury to the operator. A multiple cuts approach is recommended, DO NOT cut to desired depth in one pass, make few passes with an increased depth each pass until you achieve the required depth of cut see figures 44-45 for demonstration.

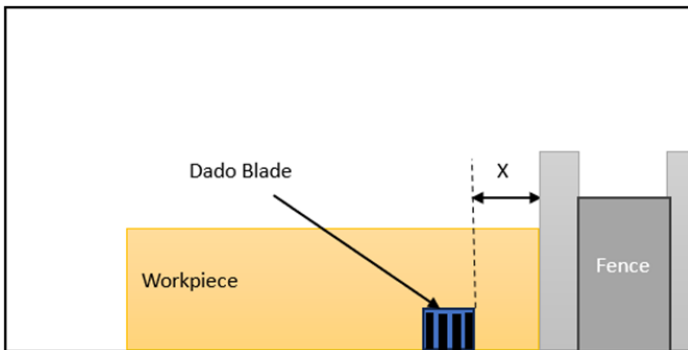


Figure 44: Dado Blade Cutting.

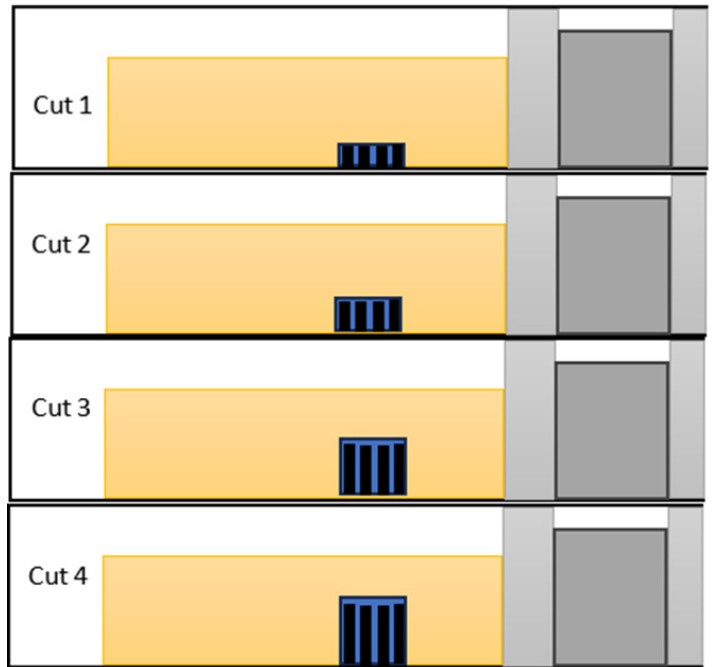


Figure 45: Dado Cutting Steps.

Please follow these steps for cutting with a dado blade:

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE OR USE THE LOCK-OUT PIN.
- 2 - Lift the dado blade to adjust to the desired height.
- 3 - Set the fence distance from the blade. It is advisable to use a miter gauge while cutting a dado.
- 4 - Remove the lock-out pin or reconnect the power and turn the saw ON, wait for the blade to reach its max. speed.
- 5 - Before cutting the actual workpiece use a test piece to verify the cut is correct.
- 6 - Start cutting the workpiece with the help of the miter gauge (use multiple passes while cutting a dado until you reach the desired depth of cut).

Cutting a Dado with a standard blade

When using a standard blade to cut a dado, the best blade for the job is a ripping blade, refer to page 35 for more information.

Follow the below steps to perform a dado cut with a standard blade:

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Clearly mark the cut on the workpiece including on its edge, this will help later when we're trying to align the blade and fence for the cut.
- 3 - In this situation there's no need for multiple depth passes, we can set the blade to the correct depth immediately.
- 4 - Remember that the direction of the grain dictated

what type of cut it'll be i.e., rip cut or crosscut. We need to set up the saw accordingly see pages 42- 43 for more information.

- 5 - Start by cutting to one side of the dado..
- 6 - Remove the lock-out or reconnect the saw and turn it on, then cut your first outside cut.
- 7 - Duplicate the same steps to cut the other end of the dado.
- 8 - Now make multiple cuts in between the two initial cuts until all the material in the middle is removed.

Rabbet Cuts

In woodworking terminology, A rabbet is an L-shaped cut or groove on the edge of a workpiece largely used in furniture and cabinet making joinery. This cut can be made with either a dado or a standard blade. If you are using a dado blade a sacrificial fence is required.

The steps to cut a rabbet with a dado blade:

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Set the blade to the right height needed for the rabbet. P.S. if the rabbet is deep we need to make multiple passes until the depth of cut is at the desired depth.
- 3 - Set your fence distance
- 4 - Reconnect the saw and turn it on, when the blade reaches the max speed start the cut (try it on a piece of scrap wood before the actual cut.
- 5 - Start cutting if the test is acceptable.

The steps cut a rabbet with a standard blade:

In case you are using a standard blade for the rabbet cut, a ripping blade is the best blade for this job see page 42 for more information. It is worth mentioning that a sacrificial fence is not required in this case.

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Set up the blade and the riving knife properly.
- 3 - Set the fence distance to the width of the rabbet cut.
- 4 - Raise the blade to the desired height (this will be the depth of the rabbet groove).
- 5 - Turn the workpiece on its edge see figure?? To adjust the fence such that the blade is aligned with the outside of the rabbet (for very tall pieces you must use a dado blade to perform the rabbet cut, it is too dangerous to do it with a standard blade).
- 6 - Reconnect the saw and turn it on then perform the cut.

- 7 - Next lay the workpiece on the table and perform the second cut after readjusting the fence.

Resawing

In woodworking terms, resawing is a process in which a thick piece of wood is re-sawn into multiple thinner pieces. Even though resawing can be done with a table saw but is strongly recommended to use a band saw. The band saw is the right machine for such job, it is safer and easier to perform the job with a band saw. Resawing can be helpful in producing your own veneers (producing a better, and thicker veneers can set your work quality apart).



CAUTION

Resawing is dangerous and may cause injury due to kickback. The movement while cutting the workpiece must be straight and slow to avoid any kickback from occurring.

However, if you must resaw on a table saw, you must use a special resaw fence, wear a full-face mask and follow very strict safety measures to prevent kickbacks. Resawing with a table saw is determined by the maximum thickness the table saw can perform and multiply by 2 then subtract 1/8" from that result (the 1/8" will retain a small connection in the middle of each re-sawn board to prevent any sudden kickback while cutting).

Steps for resawing:

Please understand that the motor is pushed to the limit when performing resawing on a table saw. In such case that the motor starts to sound like it is labouring hard or if it stops in the middle of the cut, this is a sign that the cut is too much for the motor and the motor will overload eventually, you must slow the feeding rate. Ripping blades will perform better in this situation because they are able to clear the dust faster.

Accessories needed for resawing:

Zero clearance insert	1
10" Ripping Blade	1
Clamps.....	2
Auxiliary Fence.....	1
Resaw Barrier	1

Once all the accessories are ready follow these steps:

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Remove the blade guard, table insert and the standard blade.



- 3 - Install a ripping blade, and the riving knife, then lower the blade below the table's height and install the zero-clearance table insert.
- 4 - Attach the auxiliary fence to the standard fence and set the desired width.

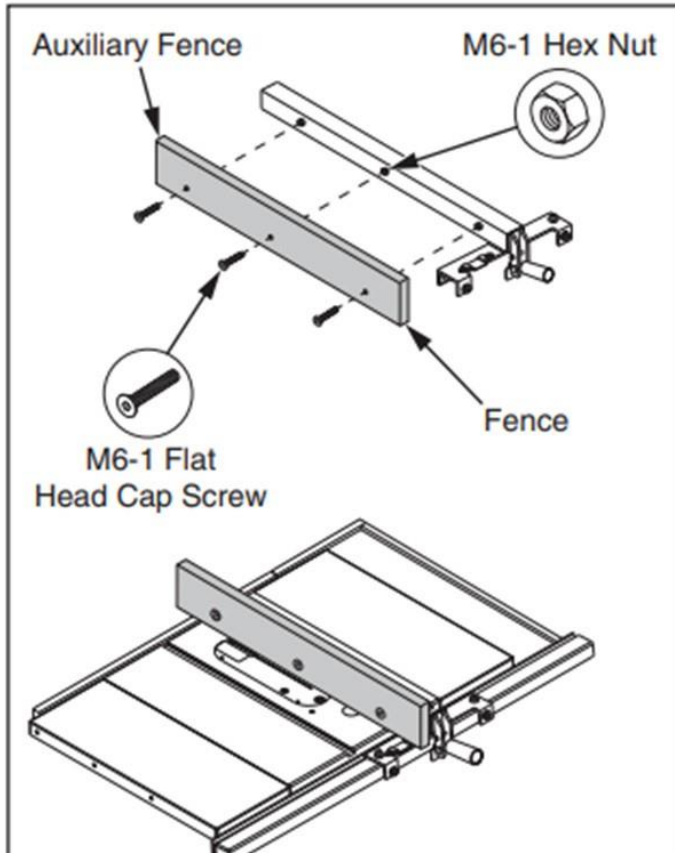


Figure 46: Auxiliary Fence Location.

- 5 - Place the workpiece between the fence and the resaw barrier. Clamp the resaw barrier to the table from both ends after setting it up parallel to the fence.
- 6 - Make sure that the workpiece is moving smoothly between the fence and the barrier before starting the first cut.

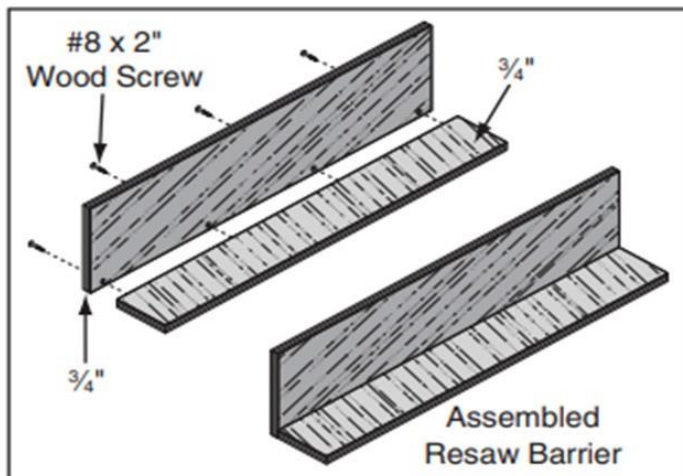


Figure 47: Resaw Barrier Example.

- 7 - Now raise the blade to 1" or half the height of the workpiece (whichever is less).
- 8 - Re-connect the saw and turn it on, feed the workpiece through the machine in multiple passes while raising the blade with each pass until you reach the middle of the workpiece height.
- 9 - Reverse the workpiece top to bottom while maintaining the same side against the fence.
- 10 - Repeat the same process as before until you reach the middle from the other side do not cut all the way through the workpiece leave 1/8" uncut to prevent kickback.
- 11 - Move the barrier closer to the fence every time you resaw a piece until you finish the workpiece.
- 12 - With every slice done you must detach it and plane the remaining ridge off.
- 13 - When the process is complete, make sure that you reinstall the machine to its original setup, remove the auxiliary fence, and the barrier re-install the standard blade, spreader, and the blade guard back.

Safety Accessories

Below you'll find some suggestion for safety gear that can be used with this table saw just to name few:

- IsoTunes air defender Bluetooth earmuffs T46
- Hearing protection Interlagos
- Honeywell N95 Masks AC6603
- Trend Air Stealth Lite respirator B4122
- N100 Trend Air Stealth Respirator B3951
- General Safety Face Shield B3183
- Safety goggles B4114
- Feather Duo Stackable featherboard Bow B3680
- Featherboard Safety 5pcs Set B3276

Please visit a Busy Bee Branch close to you and find a wide range of safety gear.

Table saw Accessories:

Blades

There is a wide range of blades of many brands and sizes. Our expert staff will help you choosing the right blade for your application.

Table saw attachments:

- 8" stacked dado set for all saws SD208
- Overarm blade guard system CXARM
- Align A Rip fence 30" B231830N

Maintenance

General

This machine like any other machine, needs scheduled maintenance so it can perform as intended and to extend its service life.

Please follow the maintenance schedules as instructed below.

Daily Check

- Once a day do a walk around the machine to inspect any unexpected damage or wear.
- Examine for any loose bolts, Arbor nut, electrical cord, plug and switch damage.
- Inspect the blade guard making sure it is functioning normally, and that it has no damage.
- Check all safety measures to ensure a safe operation.
- Clean the machine after every use, remove all moisture if necessary. Apply a very light coat of machine oil (only if the machine is sitting in a humid environment, otherwise once weekly is sufficient).

Weekly Maintenance

- Lubricate all the surfaces of the machine very lightly use a lubricant and rust remover such as Boeshield rust free spray (item number: B3708) if needed.
- Vacuum all the dust from the motor housing and surrounding areas blow the motor with compressed air. Wood dust mustn't accumulate inside the motor, it'll damage it.
- Clean the blade with a specialized cleaner such as Boeshield blade and bit cleaner (item number: B3709) to remove the wood resin and pitch so the blade can glide easier and operate smoothly.

Monthly Maintenance

- Inspect and tighten the motor belt tension.
- Inspect all bolts and nuts and tighten if needed.
- Clean the dust from the trunnion slides and the worm gears see cleaning and protecting section.

Every 6- 12 Months

- Lubricate the trunnion slides, worm gears and lead screws see cleaning and protecting and lubrication sections.
- A thorough cleaning remove all trace of resin, pitch, and glue from the machine and the blade surfaces.

Cleaning & Protection

The cleaning process is easy if it is done periodically by following the above plan. Always vacuum any wood chips and saw dust from the machine and the surrounding area. Wipe off all remaining dust with a dry cloth. Remove all resin and glue buildup using a blade and bit cleaner product. It will dissolve the resin and keep the blade cutting clean & not causing and burning. Use rust protection products to protect unpainted metal surfaces.

Always UNPLUG the machine from the power source before performing any regular cleaning or maintenance.



Lubricating

A periodic cleaning of all the moving parts of this machine is important for its operation. All wood chips, dust, glue residue, resin, and pitch since just adding lubrication isn't enough. The difference in the operation will be noticeable once you cleaned all the parts very well and then used the lubricant.

You can use mineral spirits or any other degreaser compound to clean all the components mentioned in this section. The main components that must be cleaned and lubricated are, the trunnion and the trunnion slides, the worm gears, bearing housing and the orientation gears.

Trunnion Slides

Make sure to clean both the front and the rear trunnion slides, use mineral spirits and a rag, once all the residue is removed and the slides are completely cleaned use lithium grease on the grooves of the slide. Move the trunnion tilt function back and forth few times to spread the grease around.

Worm Gears, Bull Gear, and Leadscrews

All the gunk buildup and debris must be completely removed, you can use a wire brush, rags, and mineral spirits. When they are cleaned use lithium grease for lubrication.

Service

General

In this section we'll cover the most popular tuning procedures that you may need to perform during the lifetime of your machine. Should you need assistance with issues or processes not mentioned in this manual, please contact our customer service department by email: cs@busybeetools.com or call us at 1-800-461-2879.





Always unplug the machine during service and maintenance. Electrocutation, and serious injuries will occur if this warning is ignored.

Tools:

- 90° Square 1
- 45° Square 1
- Hex wrench 4mm... 1

Blade Tilt Adjustment

In principle, the tilt of this saw blade has been pre-set in the factory, the saw shouldn't need to be square at the time of assembly. Nevertheless, after a long period of use the blade tends to go out of square, these are the steps that you need to take to bring it back to square.

Please Note, that the tilt scale will read 0° when the blade is perpendicular to the table.

Setup for the 90° Stop

- 1 - DISCONNECT THE MACHINE FROM POWER SOURCE.
- 2 - Raise the blade to its maximum height and tilt it all the way to 0° on the scale (90° blade to table angle).
- 3 - Using the square, place it on the table and against the blade. The square must be in contact with the blade from the top to the bottom (make sure that the blade's teeth aren't interfering with the square). if the blade is at the 90° angle no adjustment is needed.

Inspect the indicator on the tilt scale and adjust it to the 0° mark if it is out of alignment, to do this we need a Philips screwdriver to loosen the screw at the top of the indicator, then you move the indicator's point to the 0 mark and tighten the screw. - If the blade is off perpendicular, you are going to have to adjust the 90° stop nuts.

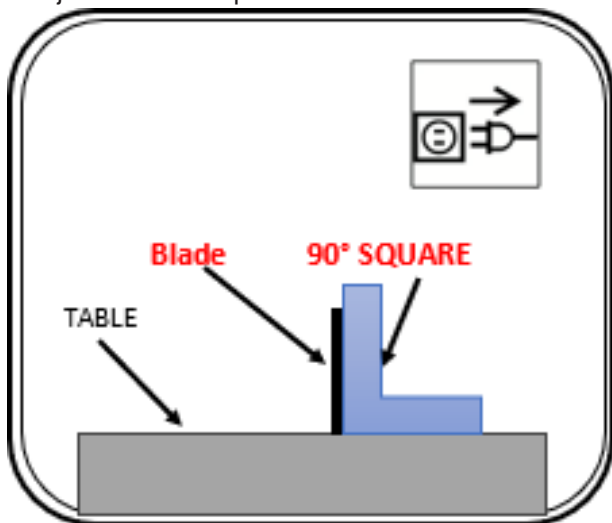


Figure 48: Blade 90° tilt adjustment.

- 4 - Unscrew the motor cover and remove it.
- 5 - Loosen the (2 M8-1.25)nuts on the leadscrew please refer to figure 44.
- 6 - You need to tilt the blade slightly until you have enough room to adjust the nuts.
- 7 - Start adjusting the nuts until the blade stops at 90° angle once it is set tighten the (2) nuts against each other and re-install the motor cover.

Setup for the 45° Stop

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Raise the blade to its maximum height and tilt it all the way to 45° on the scale. See figure 45.
- 3 - Using the square, place it on the table and against the blade. The square must be in contact with the blade from the top to the bottom (make sure that the blade's teeth aren't interfering with the square).

 - If the blade is at the 45° angle no adjustment is needed. Proceed to step 8.
 - If the blade is off 45°, proceed to step 4.

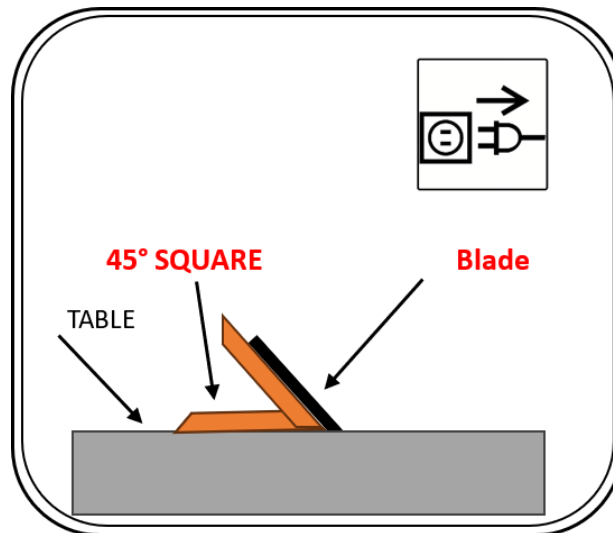


Figure 49: Blade 45° angle adjustment.

- 4 - Please remove the rear panel.
- 5 - Looking at the leadscrew of the tilt mechanism, there are (2M5-0.8X10mm) cap screws loosen them; these screws are what hold the 45° limiting block.
- 6 - Tilt the blade slightly off 45° to make room for you to adjust the block.
- 7 - Make the necessary adjustment according to how far off the blade is from 45°, check the angle as you adjust it until you reach the 45° angle, now you can tighten the cap screws to lock the position.
- 8 - Make sure the tilt indicator is pointing towards the 45° angle if not, loosen the Philips screw at the top of the pointer adjust the indicator to the right position then tighten the screw.



Miter Slot to Blade Parallelism

The best results can be obtained from this table saw only when it is setup correctly, and when the miter slot, the fence and the blade are all parallel. This is a step that must be done by the machine owner due to the fact that this machine isn't fully assembled it'll need a Little of your care and attention. Parallelism is one aspect that is essential for safety and accuracy when performing any cutting.

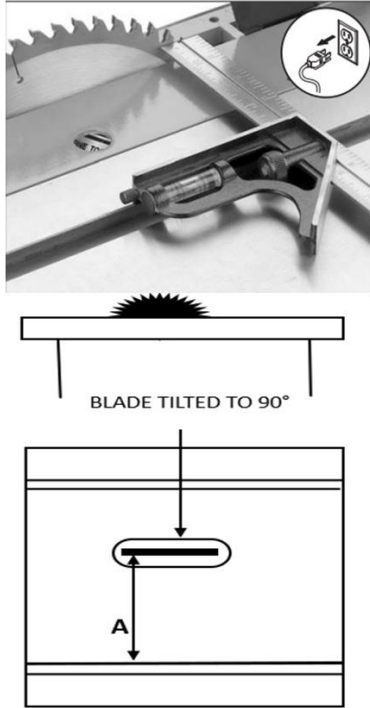


Figure 50: Miter slot parallelism adjustment.

Tools you need.....	Qty.
Adjustable Square	1
Marker Pen	1
Metal shim.....	As necessary.
12mm wrench.....	1

Follow these steps to adjust the miter slot parallel:

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Adjust the blade's tilt to the 0° (perpendicular to the table), use an adjustable square to measure the distance from the miter slot to the blade (use the tips of one of the carbide blade tips, mark it with your marker pen). See figure 40.
- 3 - Slide the square along allowing it to touch a carbide tip on one end then slide it to the opposite end and check if the square is touching the other carbide tip on the back end of the blade. See figure 41.
- 4 - Rotate the blade to position the mark at the other end of the table.

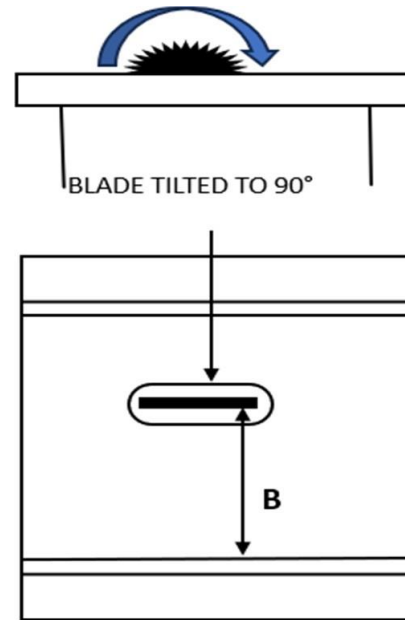


Figure 51: Miter slot adjustment.

- 5 - Slide the adjustable square to the other end.
 - If the measurement is identical move to step 8.
 - If the blade isn't touching the square in the same way as the other end, you'll need to adjust the table. Continue to step 6.
- 6 - Loosen the (4) table mounting bolts, and lightly tap the table with a mallet to move it in the desired direction until the blade touches the square.
- 7 - Repeat steps 2 through 6 until the blade is perfectly aligned front and back, then tighten the (4) bolts.
- 8 - Tilt the blade to 45° once more and recheck the miter slot to blade parallelism.
 - If the blade is parallel no further action is required.
 - If the blade is no longer parallel at 45° you'll need to use some stock metal shim. Continue to step 9.

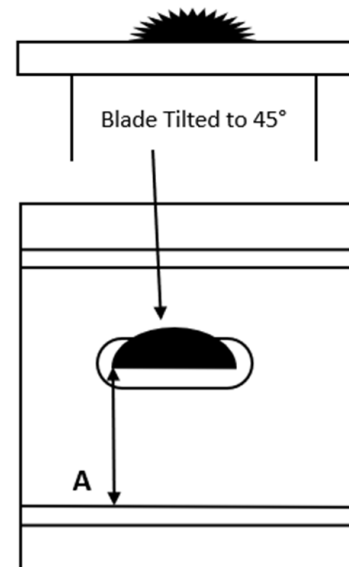


Figure 52: Miter slot adjustment for 45° angle.



9 - Loosen the (4) table mounting bolts the same way as in step 6.

10 - Refer to figures 42, and 43 for shim positioning. If the distance between position A and the blade is shorter than position B the shims must be placed under corners #1 and #2. If the distance between position B and the blade is shorter than position A the shims must be placed under corner #3. Normally a very thin shim will work very well.

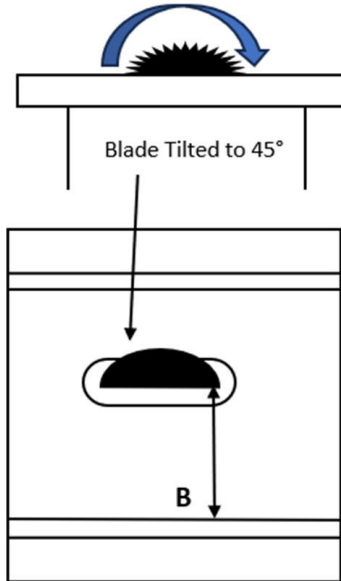


Figure 53: Miter slot adjustment for 45° angle.

11 - Tighten the bolts gradually one small amount and for each of the bolts and go around tightening each one the same amount. Repeat this process until all the bolts are tight and secured.

12 - Another recheck of parallelism for both 0° and 45° angles are necessary to do so repeat step 2 to step 5.

- If everything is aligned correctly, continue to step 13.
- If not repeat step 9 to step 12.

13 - A final check of proper alignment is necessary and finally, check the bolts are secured.

Note: if in the future you need to remove the table please note where the shims are located and place them back the same way when you re-assemble the table saw.

Spreader/Riving Knife Alignment

When you install the riving knife you must align it with the blade. If the riving knife isn't aligned properly, the workpiece will have the tendency to move sideways during the cutting. This presents a risk of kickback.

Tools Needed:

A 12" min. straightedge 1

Please follow these steps to check and align the riving knife with the blade:

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Raise the blade to the maximum height.

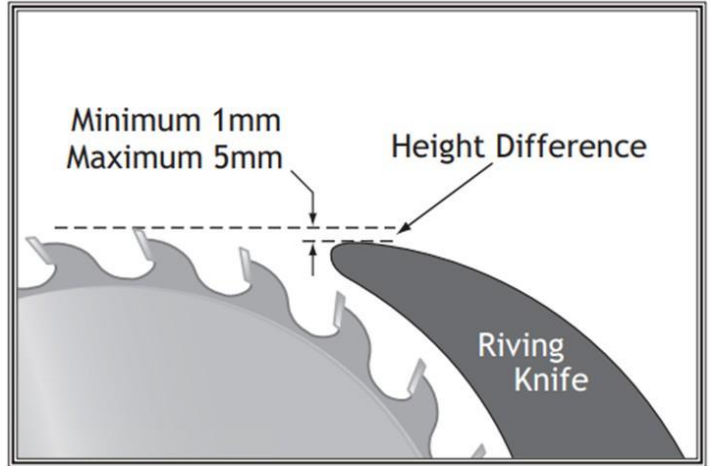


Figure 54: Spreader/riving knife adjustment.

3 - Place the straight edge against the top and the bottom of the riving knife, see figure 44 the knife should be parallel to the blade, and it should be within the alignment zone. See figure 45.

- If the riving knife is within the alignment zone and parallel to the blade no need for adjustment.
- If the riving knife isn't parallel to the blade, but inside the alignment zone, then it needs to be adjusted. Go to adjusting alignment.
- If the spreader is not parallel with the blade either at the top or the bottom. It may be bent during transportation. Remove the spreader and place it on a flat surface to check if it is bent.
- If the spreader isn't lying perfectly flat try to straighten it back to its original shape.

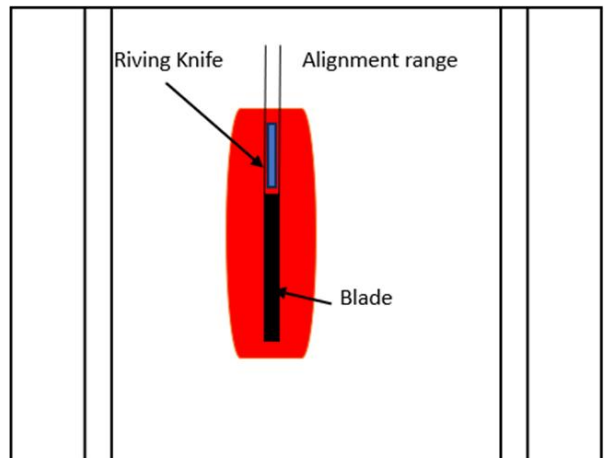


Figure 55: Spreader/riving knife adjustment range

Adjusting The Spreader Alignment

The mounting bracket for the spreader/ripping knife has (2) cap screws for adjustment, they are located on the (L) shaped ripping knife bracket.

Tools Needed

4mm Allen key 1

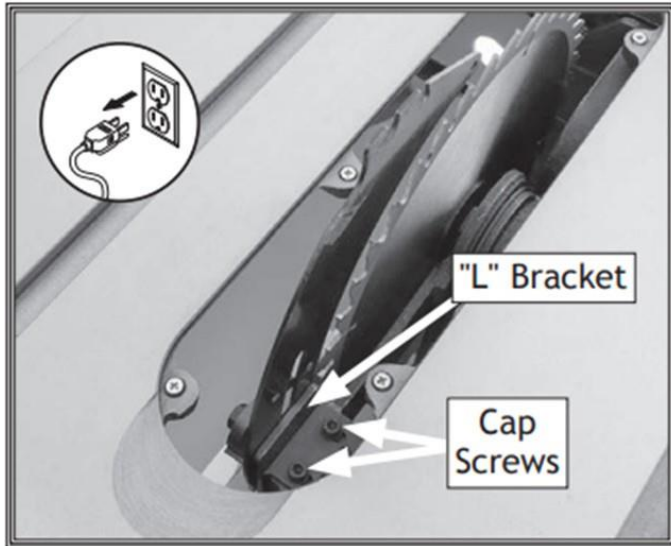


Figure 56: Riving knife bracket adjustment.

Follow these steps to adjust the riving knife:

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Remove the table insert and leave the Philips head screw in-place (the table insert is held by a magnet).
- 3 - Loosen the cap screws on the L-shaped bracket see figure 46, then adjust the riving knife as needed to be aligned with the blade.
- 4 - Follow the alignment check steps 1 to 3 in the previous section.
- 5 - If the blade is aligned perfectly the process is complete.
- 6 - If the riving knife still needs alignment repeat steps 2 to 3 of this process until you have a perfectly aligned knife to the blade.

Adjusting a Bent Spreader/Riving Knife

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Try to bend the riving knife by hand while it is still installed then check by following the steps 1 to 3 from the beginning of this section. Determine whether the knife is back in parallel and in the alignment zone. If it is straight and in alignment you are done. If the knife isn't aligned a replacement is necessary.

Fence Adjustment

In principle a fence has three parameters: first, is it square to the table. Second, is the gap between the fence & table adequate. Third, is it parallel to the blade. It is important to understand that all parameters are interlinked, and some trial and error might be needed to reach the perfect adjustment of the fence.

Tools Needed:

Wrench 19mm 1
6mm Allen key 1
Machinist square 1

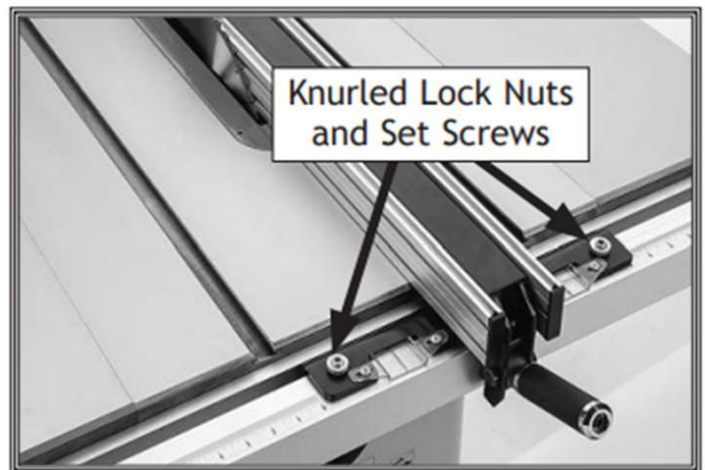


Figure 57: fence height adjustment.

Fence Squareness and height adjustment

A square fence-face to the table is a must to cut accurately. There are (2) set screws where the fence sits on the front rail see figure 47.

Another adjustment is the height of the fence when it is sitting over the table, it must sit parallel to the table with a 1/16" gap see figure 58. If the fence is dragging over the table's surface it'll be harder to operate and it'll cause scratches and it'll damage the table.

To check or adjust the fence follow these steps:

- 1 - DISCONNECT THE MACHINE FROM THE POWER SOURCE.
- 2 - Place a square on the table against the fence and check if the angle is 90°.
 - If the angle is correct and the fence is perpendicular no adjustment is necessary, go to step 4.
 - If the fence isn't square, proceed to step 3.



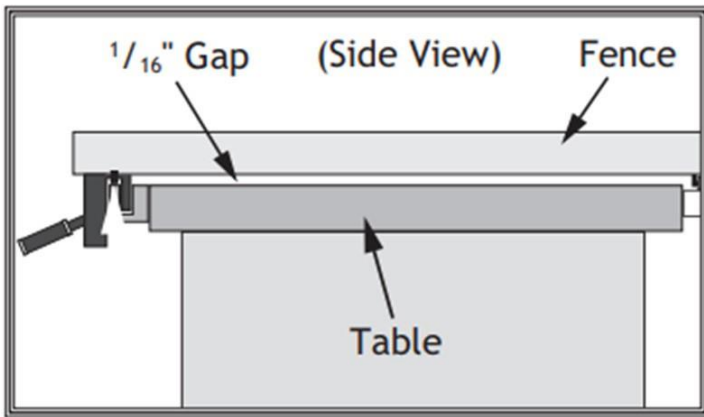


Figure 58: Fence height gap.

- 3 - Loosen the knurled lock nuts and adjust the set screw on the face of the fence bracket see figure 57 Until the angle is perfectly 90° to the table. Tighten the lock nuts the fence is square.
- 4 - Measure the gap between the fence and the table, it must be 1/16" and even from front to back.
 - If the gap is uneven, or if the fence's height from the table isn't 1/16" then go to step 5.

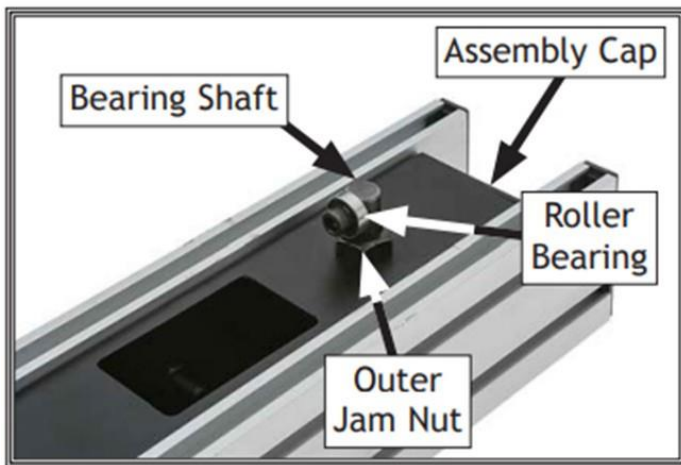


Figure 59: Fence bearing shaft adjustment.

- 5 - Remove the fence and lay upside down.
- 6 - Remove fence assembly cap see figure 59. Then loosen inner and outer jam nuts that secure the bearing shaft.
- 7 - Reinstall the fence on the table saw.
- 8 - The bearing shaft is located at the rear rail, reach inside to adjust the height. Turn the shaft counterclockwise to raise and clockwise to lower the fence's height.
- 9 - When the gap is around 1/16" and you are satisfied take the fence off the table saw and tighten the inner and outer nuts. Make sure that the bearing is parallel with the rear rail.
- 10 - Reinstall the fence. If the height isn't satisfactory remove the fence and repeat steps 4 through 9.

Fence Handle clamping Pressure adjustment

- 1 - Remove the fence and lay it upside down.
- 2 - Loosen the knurled nut see figure 50.



Figure 60: Fence lock handle adjustment.

- 3 - To increase the clamping pressure, adjust the set screw clockwise or counterclockwise to decrease the pressure.
- 4 - Tighten the knurled nut when you are done and check the pressure of the lock handle.
- 5 - Reinstall the handle and check the clamping pressure.
- 6 - If necessary repeat steps 1 to 5 again until the pressure is right.

Calibrating fence to blade parallelism

On the front of the fence there are (2) set screws. Adjusting the set screws will calibrate the parallelism of the fence to the blade. see figure 61. It is important to adjust the fence squareness and height prior to this calibration.

Tools Needed

- 4mm Allen Key 1
- Framing square 1

Please follow these steps to calibrate the fence to the blade:



Figure 61: Fence to blade parallel adjustment.

1- DISCONNECT THE MACHINE FROM THE POWER SOURCE.

2 - Slide the fence and place it against the edge of miter gauge slot. Lock the fence in securely, then raise the blade all the way up. Use a ruler to measure the distance between the blade and the fence at the front and at the back, examine how the fence is lining up to the blade see figure 62.

- If the fence is parallel you do not need to adjust anything.
- If the fence isn't parallel you'll need to do some adjusting; proceed to step 3.

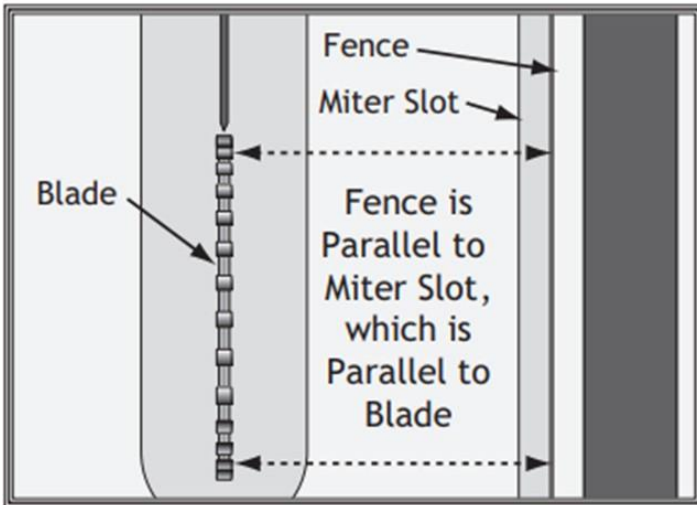


Figure 62: Fence, miter slot and blade parallel.

- 3 - Remove fence assembly from the table.
4 - On the front of the fence bracket there are (2) set screws, see figure 61. Each set screw adjustment will move the fence in the opposite direction. Adjust the screws according to the direction the fence is of i.e., if the fence is leaning towards the right you need to adjust the screw on the left and visa versa.
5 - Re-install the fence and evaluate the parallelism with the blade keep repeating the process until the fence is perfectly aligned with the blade. This adjustment is an important part of getting the perfect cut.

Offsetting the fence

Some woodworkers choose to offset the fence at the back by 1/64". The purpose behind this adjustment is to prevent kickbacks and minimize the wood burning by the blade. This has some negative effects on the outcome making the cuts slightly inaccurate and the other effect is when you move the fence to the other side of the blade it'll be tighter at the back this will increase the burning of the workpiece and it'll significantly increase the kickback at this side. This isn't recommended unless you are expert, and you know what these affects are.

Fence Scale Calibration

The fence has two indicators one on the left the other on the right. These indicators can be calibrated by loosening the mounting screws and sliding them so that the viewer is reading at the right measurement. The indicator on the right is used for when the fence is positioned at the right side of the blade, and the left side indicator is used of the fence when it is positioned on the left side of the blade.

Tools you'll need:

- Philips head screwdriver #2..... 1
- Scrap piece of wood..... 1

Please follow these steps to calibrate the indicators and the scale:

- 1 - First, lock the fence at 13" and cut a piece of scrap wood.
- 2 - Move the fence to the 12" position on the scale.
- 3 - Turn the scrap piece of wood around and make a cut from the other end.
- 4 - Measure the size of the newly cut piece of wood with a measuring tape, it should be 12" long exactly at both ends. If it is not, adjust the indicator with the front rail's measuring tape to match the size of the piece of wood.

Table/ Dado Insert tuning:

The table insert should be perfectly flush to the table, this will help with continuous feed and smooth surace when cutting., and smooth surface when you're sliding the workpiece over. A magnet holds the inset in place, and it sits on (5) adjustment screws, see figure 63. Every time the insert is moved you must check and adjust it, also it should be checked periodically to make sure that the adjustment is still as it supposed to be.

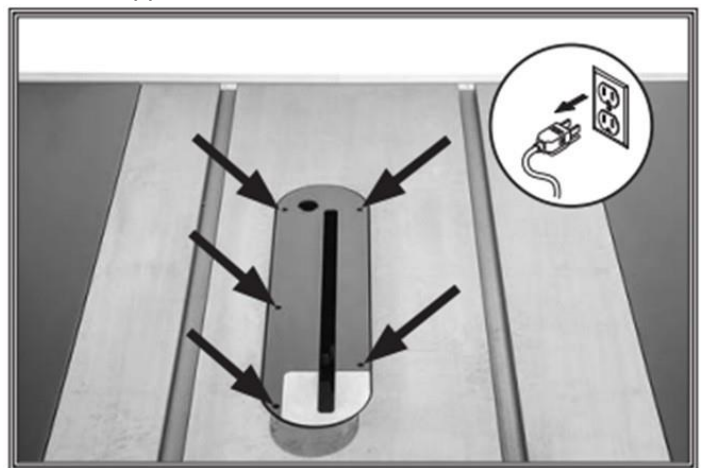


Figure 63: Table inset tuning screws

Tools you'll Need:

- Philips head screw #2..... 1
- Straight edge..... 1

Follow these steps to adjust the insert:

- 1 - Disconnect the table saw from power source.
- 2 - Lower the blade completely.
- 3 - Place the straight edge across the insert and the table.

Tighten or loosen the screws until the insert's surface and the table are completely flush.

Miter Gauge Fine-Tuning

The adjustment of the miter gauge goes between 60° left and 60° right. This angle reflects the angle of the miter gauge body angle in relation to the blade in case these values do not match the gauge can be calibrated.

Tools Needed:

- Philips screwdriver #2..... 1
- 90° square 1

- 1 - Disconnect the machine from the power supply.
- 2 - Insert the miter gauge in the T-slot on the table.
- 3 - Loosen the miter's handle pull the stop pin out, see figure 64.

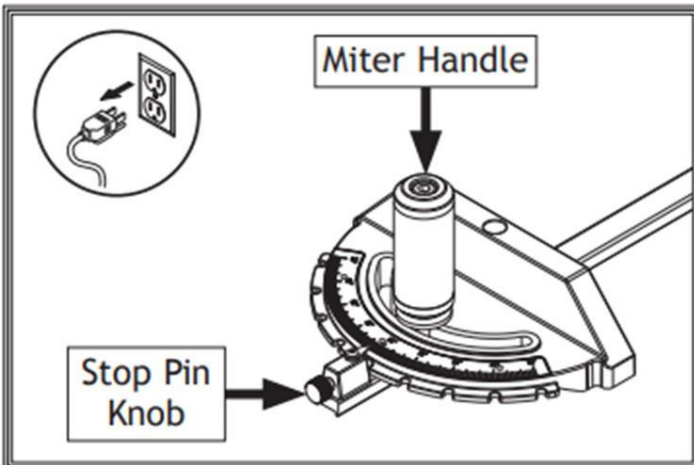


Figure 64: Miter handle adjustment.

- 4 - Place the square against the miter gauge as shown in figure 65.
 - If the miter body is pointing to the 90° no action is required.
 - When the miter gauge and the blade are square to one-another, and the miter body isn't pointing at the 90° angle move to step 5.

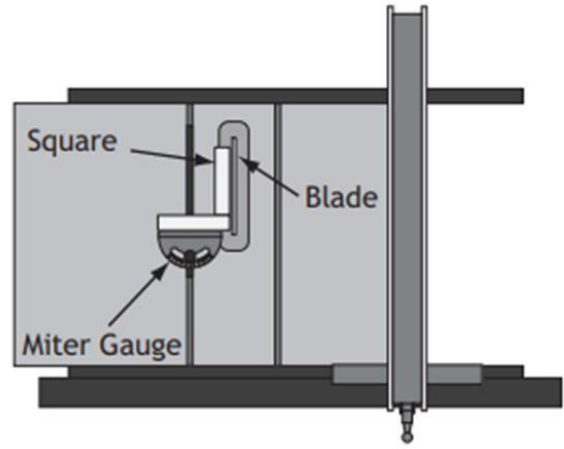


Figure 65: Miter body adjustment.

- 5 - Loosen the Philips screw shown in figure 66, adjust the indicator to point at 90°, then tighten the screw and secure it.

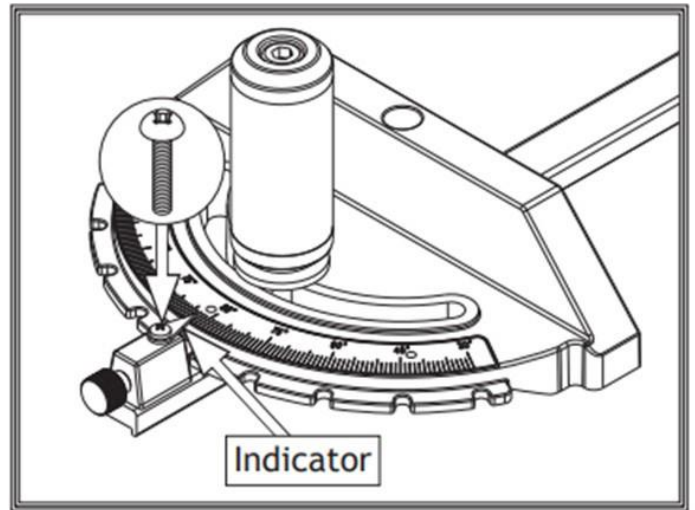


Figure 66: miter indicator adjustment.

Drive Belt Tensioning & Replacement

Over time, the drive belt stretches slightly as the machine is used; most of the stretching will occur during the first 16 hours of use, it may however continue beyond that with further use of the machine. When you notice that the saw is losing power slightly in the middle of a cut this may indicate that the belt is slipping, and it needs tensioning. When you inspect the belt, if you notice sign of cracks, wear and tear you must replace this belt immediately to ensure an adequate power transmission from the motor to the blade.

Tools Needed:

- Open- end wrench or socket 13mm..... 1
- Hex wrench 3m..... 1

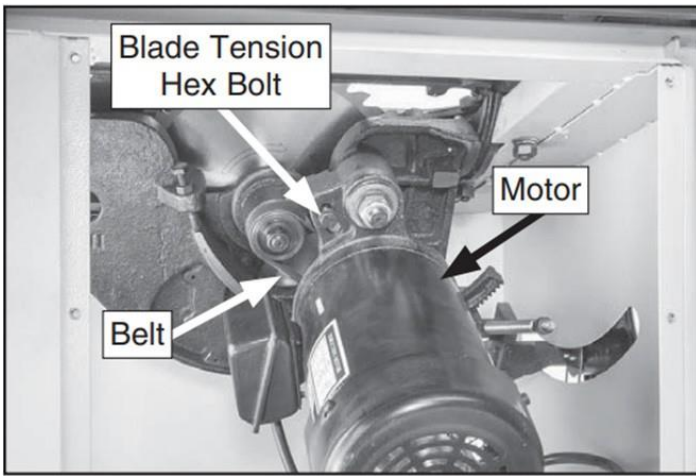


Figure 67: belt tensioning hex bolt.

Tensioning The Belt

Follow these steps:

- 1 - DISCONNECT THE TABLE SAW FROM THE POWER SUPPLY.
- 2 - Remove the motor cover (located on the side of the machine).
- 3 - Set the blade tilt at 0° on the scale and raise the blade to the 2" mark above the table.
- 4 - Loosen the hex bolt, see figure 67 to relieve the tension on the belt.
- 5 - Using the blade's height adjustment handwheel lower the motor. once the motor starts pulling the blade down with it. The belt is tensioned correctly.
- 6 - Tighten the tension hex bolt and reinstall the motor cover.

Replacing the Belt

- 1 - DISCONNECT THE TABLE SAW FROM THE POWER SUPPLY.
- 2 - Remove the motor cover (located on the side of the machine).
- 3 - Set the blade tilt at 0° on the scale and raise the blade to the 2" mark above the table.
- 4 - Loosen the hex bolt (the same way as tensioning) to relieve the tension on the belt.
- 5 - Use the handwheel to raise the motor and loosen the belt's tension, now remove the belt.
- 6 - Install the new belt on the pulleys. Loosen the motor until it starts pulling the blade down with it, at this point the tension is correct .
- 7 - Tighten the tension hex bolt and reinstall the motor cover.

Troubleshooting

Problem	Possible Cause	Solution
Machine doesn't start / trips the breaker	<ol style="list-style-type: none"> 1. Switch disabling key not installed. 2. Panel breaker is tripped. 3. Power supply OFF or at fault. 4. Plug wired wrong. 5. Motor incorrectly wired. 6. Motor ON/OFF switch faulty. 7. Wire connection interrupted. 8. Start capacitor damaged. 9. Motor damaged. 	<ol style="list-style-type: none"> 1. Install the disabling key in the ON/OFF switch. 2. Replace the breaker of damaged fuse. 3. Make sure power supply is ON. 4. Test wiring is not loose on terminals. 5. Fix motor wiring if incorrect. 6. Check for wiring issues and replace damaged wires. 7. Replace ON/OFF switch. 8. Test capacitor and replace. 9. Test/ repair/ replace.
Machine stalls or is underpower	<ol style="list-style-type: none"> 1. Feed speed is too fast. 2. Material isn't suitable for the machine. 3. Warped workpiece: fence misaligned. 4. Wrong blade for the task. 5. Run capacitor is faulty. 6. Belt tension is wrong. 7. Motor wiring is not correct for the voltage. 8. Plug/receptacle is faulty. 9. Pulley is slipping on the shaft. 10. Motor bearing damaged. 11. Motor overheating. 12. Motor damage. 	<ol style="list-style-type: none"> 1. Decrease the feed speed. 2. Use machine only for wood cutting, ensure moisture below 20%. 3. Adjust the fence or replace it. 4. Use the correct blade for the job. 5. Test/ repair/ replace. 6. Tension or replace the belt. 7. Wire the motor according to the power supply. 8. Test for good contact, replace the plug or receptacle if damaged. 9. Secure pulley, replace if damaged. 10. Test / repair/ replace. 11. Clean the motor, let it cool, reduce workload. 12. Test/ repair/ replace.
The machine has vibration or noise when operating.	<ol style="list-style-type: none"> 1. Blade is damaged or mis-installed. 2. The belt is worn or loose. 3. Pulley is loose. 4. Motor mount loose / broken. 5. The motor fan cover is dented. 6. Arbor bearing is damaged. 7. The motor bearing is damaged. 	<ol style="list-style-type: none"> 1. Replace damaged blade. 2. Tension or replace the belt. 3. Tighten/ replace the pulley. 4. Tighten or replace motor mount. 5. Repair the dent in the fan cover. 6. Replace arbor or arbor bearing. 7. Test by rotating the motor shaft, replace if damaged.
Rip fence isn't moving smoothly	<ol style="list-style-type: none"> 1. Fence or rail isn't mounted correctly. 2. Rails dirty or sticky. 3. Clamp screw is out of alignment. 	<ol style="list-style-type: none"> 1. Adjust the fence or rails. 2. Clean the rails. 3. Adjust the clamp screw.



Problem	Possible Cause	Solution
Material is moving away from the fence when ripping	Fence is misaligned	Check and adjust the rip fence.
The blade isn't aligned with the miter slot or the fence	<ol style="list-style-type: none"> 1. Blade is damaged. 2. Tabletop isn't parallel with the blade. 3. The fence and the blade aren't parallel. 	<ol style="list-style-type: none"> 1. Replace damaged blade. 2. Adjust the table/blade alignment. 3. Adjust the fence/blade alignment.
The blade isn't reaching 90° angle	<ol style="list-style-type: none"> 1. The 90° stop nut is out of alignment. 2. Sawdust and debris lodged in the trunnion sides. 	<ol style="list-style-type: none"> 1. Readjust the stop nut. 2. Clean up the sawdust and debris from the trunnion.
The blade is hitting the insert when tilted to 45° angle.	<ol style="list-style-type: none"> 1. The 45° limiting block is out of adjustment. 2. The slot in the table's insert is too small. 3. The table is out of alignment. 4. The blade isn't positioned correctly on the arbor. 	<ol style="list-style-type: none"> 1. Adjust the limiting block. 2. File/ mill the slot, use the correct insert for 45° angle. 3. Adjust the table to the blade. 4. Verify the blade is installed correctly on the arbor.
The wood is binding or burning while feeding	<ol style="list-style-type: none"> 1. The blade is dull. 2. The blade is warped. 3. The fence isn't parallel to the blade. 4. Tabletop isn't parallel to the blade. 	<ol style="list-style-type: none"> 1. Replace the blade. 2. Replace the blade. 3. Adjust the fence with the blade. 4. Adjust the table with the blade.
The handwheel is difficult to turn	<ol style="list-style-type: none"> 1. Replace the blade. 2. Replace the blade. 3. Adjust the fence with the blade. 4. Adjust the table with the blade. 	<ol style="list-style-type: none"> 1. Loosen the knob. 2. Remove the handwheel and adjust the pin.
The blade will not go beneath the table surface	<ol style="list-style-type: none"> 1. The roll pin/ set screw in worm gear is interfering with the geared trunnion. 2. Debris is lodged in between the trunnion and the casting. 	<ol style="list-style-type: none"> 1. Tighten the set screw in the worm gear. 2. Clean the debris.
The blade will not move up or down	<ol style="list-style-type: none"> 1. Loose/missing set screw on the worm gear 	<ol style="list-style-type: none"> 1. Tighten or replace set screw.



Problem	Possible Cause	Solution
Too much sawdust is blowing back	<ol style="list-style-type: none"> 1. The blade guard is removed. 2. Lack of dust collection due to air leaking into the cabinet. 3. Dust collection system is clogged. 4. The fence and the blade aren't parallel. 5. The miter slot isn't parallel to the blade. 	<ol style="list-style-type: none"> 1. Re-install the blade guard. 2. Seal the leaks in the cabinet. 3. Remove the clog and clean the dust collection system. 4. Adjust the fence correctly with the blade. 5. Adjust the table with the blade.
The workpiece catches on the table insert when cutting	<ol style="list-style-type: none"> 1. The table insert is out of alignment with the tabletop. 	<ol style="list-style-type: none"> 1. Adjust the table insert to make it perfectly flush with the tabletop.



Electrical

Electrical Safety

Shock Hazard

When working on this machine there's a high risk of touching exposed parts of wiring and connectors; this will result in injuries such as burns, electrocution, or death. ALWAYS DISCONNECT THE MACHINE FROM THE POWER OUTLET.

Qualified personnel

Working with electrical machinery has an inherent danger of electric shock, only a qualified electrician should perform all wiring jobs on this machine. IF YOU ARE NOT QUALIFIED, PLEASE SEEK THE HELP OF A PROFESSIONAL.

Wires and Connections

When connecting wires make sure that the connections are very tight. This will help prevent the loosening of the wires during the operation of this machine. ALWAYS DOUBLE CHECK THE CONNECTIONS when working on the electrical part of this machine.

Wire and electrical component damage

All wires and electrical components must be replaced immediately if any damage occurs. Damaged electrical components may cause electrocution, fire and injury to the personnel operating the machine. STOP WORK IMMEDIATELY AND REPAIR THE DAMAGES.

Alterations

Any alterations, modifications to the wiring of this machine other than what's shown in this manual will result in unpredictable outcomes, including serious injury.

The Motor

All the wiring shown in the next section is accurate and up to date at the time of printing this manual. On some occasions there might be a slight difference between the diagrams and your machine. ALWAYS USE THE DIAGRAM LOCATED IN THE MOTOR'S WIRING BOX.

Capacitors

All capacitors may store an electrical charge for an extended period after the machine is shut-off, DISCONNECT THE MACHINE FROM THE POWER SOURCE and wait for about 10 minutes before working on the capacitors.

Circuit Requirements

At the start of this manual there's a section regarding the electrical circuit requirements, please refer to that section and FOLLOW THE INSTRUCTIONS EXACTLY.

Difficulties and issues

In the event when you are experiencing any difficulties or issues understanding any part of this manual, please STOP what you are doing and contact our customer service and technical support department at the phone number mentioned at the start of this manual.

Electrical Diagrams



Figure 68: motor junction box.



Figure 69: motor junction box cover.





Figure 70: Start/Stop switch box.



Figure 71: Run and star capacitors.

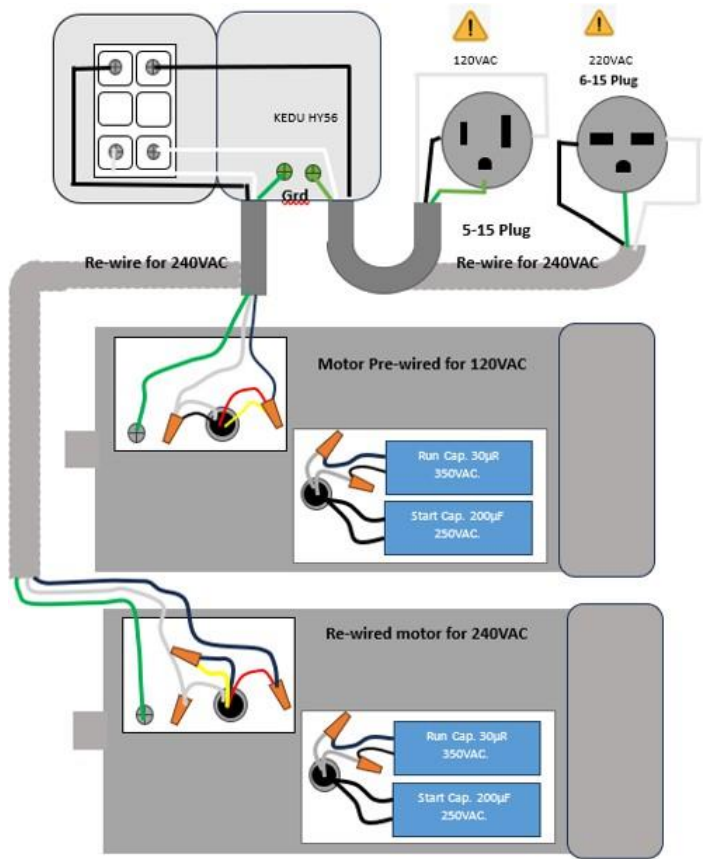


Figure 72: Electric Diagram.



Stop, READ, AND UNDERSTAND THE ELECTRICAL SAFETY SECTION ON PAGE 12 through 15.



Parts and Diagrams

Main

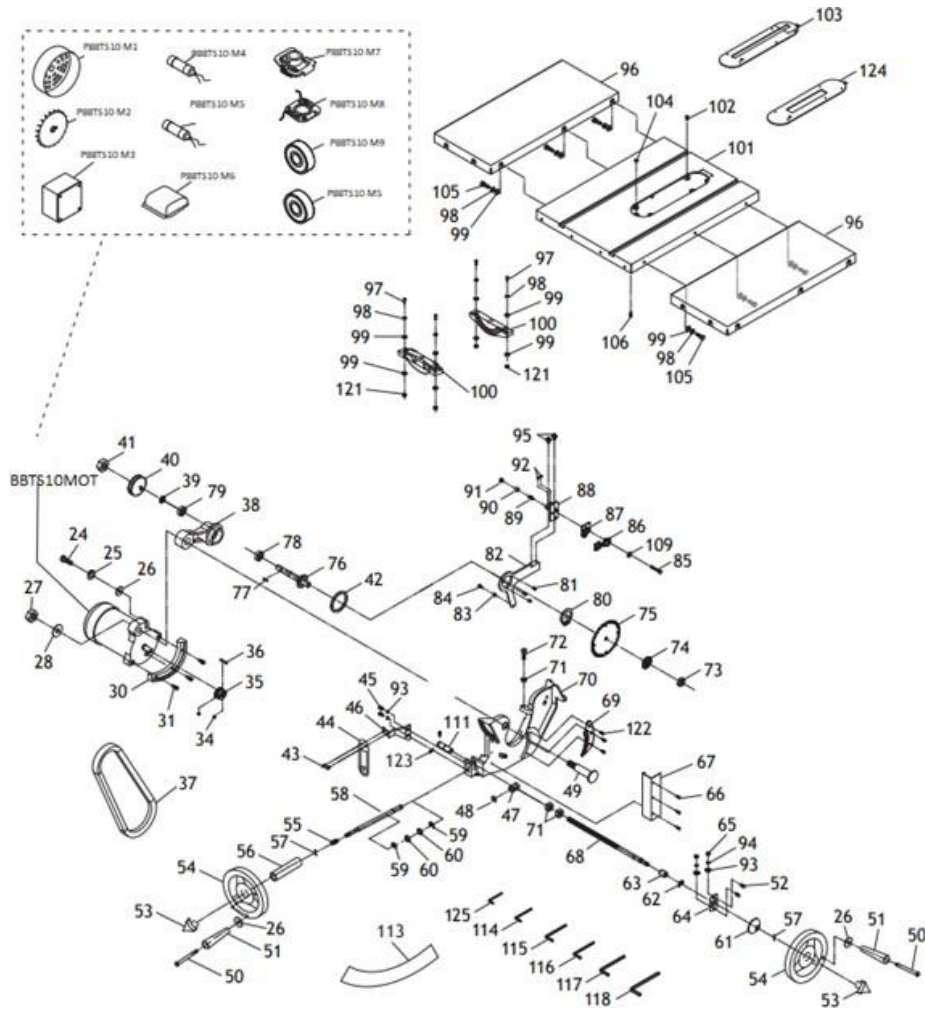


Figure 73: Main table & elevation mechanism

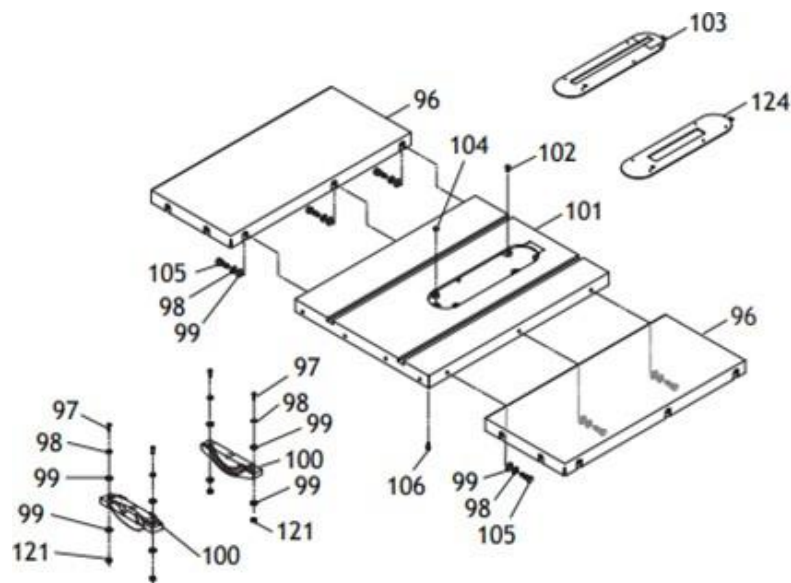


Figure 74: table diagram.

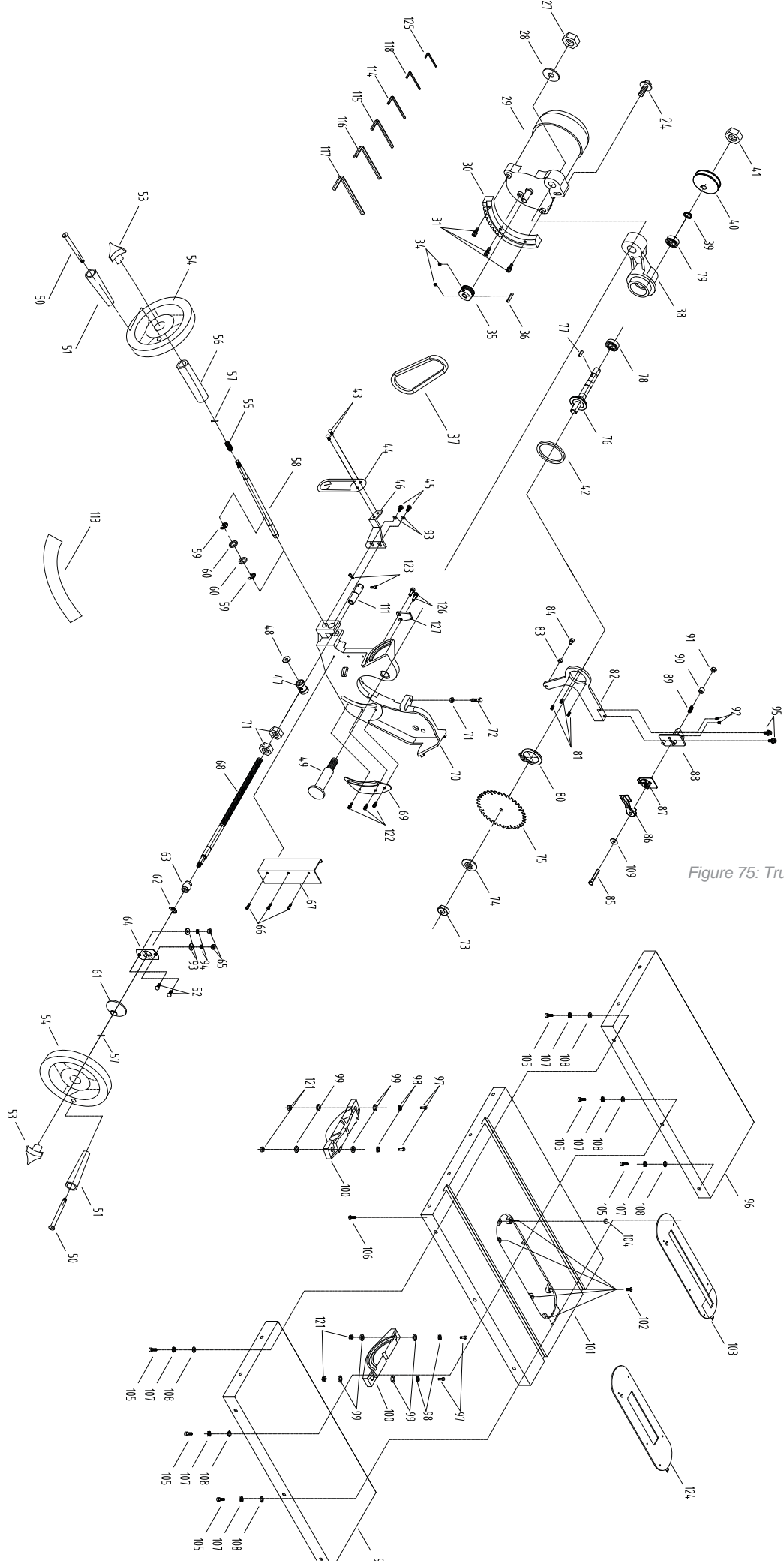


Figure 75: Trunnion and motor diagram.



Main Parts List

Reference #	Part Number	Description	Qty
24	PBBTS10024	Screw M8-1.25X30mm	1
27	PBBTS10027	Nut Lock M16	1
28	PBBTS10028	Washer Flat	1
29	BBTS10MOT	Motor	1
30	PBBTS10030	Worm Wheel	1
31	PBBTS10031	Screw Socket HD three Combination M6-1.0X25mm	3
34	PBBTS10034	Screw Set M5-0.8X8mm	2
35	PBBTS10035	Pulley Motor	1
36	PBBTS10036	Key	1
37	PBBTS10037	Drive Belt	1
38	PBBTS10038	Blade Bracket	1
39	PBBTS10039	Bushing	1
40	PBBTS10040	Pulley Arbor	1
41	PBBTS10041	Nut Lock M12	1
42	PBBTS10042	Washer Shim	1
43	PBBTS10043	Screw Pan HD M4-0.7X6mm	2
44	PBBTS10044	Pointer	1
45	PBBTS10045	Screw Socket HD M5-0.8X8mm	2
46	PBBTS10046	Pointer Seat	1
47	PBBTS10047	Nut Bevel	1
48	PBBTS10048	Washer Shim	1
49	PBBTS10049	Shaft	1
50	PBBTS10050	Handle Bolt	2
51	PBBTS10051	Handle	2
52	PBBTS10052	Screw Socket HD M5-0.8X16mm	2
53	PBBTS10053	Lock Handle	2
54	PBBTS10054	Hand Wheel	2
55	PBBTS10055	Spring	1
56	PBBTS10056	Bushing	1
57	PBBTS10057	Spring Pin	2
58	PBBTS10058	Elevation Shaft	1
59	PBBTS10059	Ring Retaining	2
60	PBBTS10060	Spacer	2
61	PBBTS10061	Bevel Plate	1
62	PBBTS10062	Ring retaining	1
63	PBBTS10063	Bearing	1
64	PBBTS10064	Bearing Seat	1
65	PBBTS10065	Nut Hex M5-0.8	2
66	PBBTS10066	Screw Socket HD M5-0.8X10mm	3
67	PBBTS10067	Blade Guard	1



Reference #	Part Number	Description	
68	PBBTS10068	Tilt Shaft	1
69	PBBTS10069	Riving Guide	1
70	PBBTS10070	Main Trunnion	1
71	PBBTS10071	Nut M8-1.25	3
72	PBBTS10072	Bolt Hex M8-1.25X40mm	1
73	PBBTS10073	Arbor nut	1
74	PBBTS10074	Blade flange	1
75	PBBTS10075	Blade 10"	1
76	PBBTS10076	Arbor nut	1
77	PBBTS10077	Key	1
78	PBBTS10078	Bearing 6203-ZZ	1
79	PBBTS10079	Bearing 6202-ZZ	1
80	PBBTS10080	Retaining Ring	1
81	PBBTS10081	Screw Socket HD M5-0.8X6mm	3
82	PBBTS10082	Mounting Plate	1
83	PBBTS10083	Bushing	1
84	PBBTS10084	Shaft Pin	1
85	PBBTS10085	Lock Bolt	1
86	PBBTS10086	Riving Lock level	1
87	PBBTS10087	Clamp	1
88	PBBTS10088	Riving Deck	1
89	PBBTS10089	Spring	1
90	PBBTS10090	Spring Seat	1
91	PBBTS10091	Nut Lock M8-1.25	1
92	PBBTS10092	Screw Socket M5-0.8X10mm	2
93	PBBTS10093	Washer Flat M5	4
94	PBBTS10094	Washer Spring	2
95	PBBTS10095	Screw Socket HD three combination M5-0.8X16mm	2
96	PBBTS10096	Extension Table	2
97	PBBTS10097	Screw Socket HD M10-1.5X40mm	4
98	PBBTS10098	Washer Spring	4
99	PBBTS10099	Washer Flat	8
100	PBBTS10100	Trunnion	2
101	PBBTS10101	Main Table	1
102	PBBTS10102	screw Countersunk HD	5
103	PBBTS10103	Table Insert	1
104	PBBTS10104	Magnet	1
105	PBBTS10105	Screw M10-1.5X25mm	6
106	PBBTS10106	Bolt Flange M8-1.25X16mm	4
107	PBBTS10107	Washer Flat	6
108	PBBTS10108	Washer Falt	6
109	PBBTS10109	Washer Flat	1
111	PBBTS10111	90° Angle Limiting Block	1



Reference #	Part Number	Description	
113	PBBTS10112	Bevel Label	1
114	PBBTS10113	Hex Wrench 4mm	1
115	PBBTS10114	Hex Wrench 5mm	1
116	PBBTS10115	Hex Wrench 6mm	1
117	PBBTS10116	Hex Wrench 8mm	1
118	PBBTS10117	Hex Wrench 3mm	1
121	PBBTS10121	Nut M10-1.5	4
122	PBBTS10122	Screw Socket HD Three Combination M5-0.8X10mm	3
123	PBBTS10123	Screw Socket HD M5-0.8X10mm	2
124	PBBTS10124	Dado Insert	1
125	PBBTS10125	Hex Wrench 2.5mm	1
126	PBBTS10126	Screw Socket HD Three Combination M5-0.8X16mm	2
127	PBBTS10127	Worm Wheel Plate	1



Cabinet Assembly

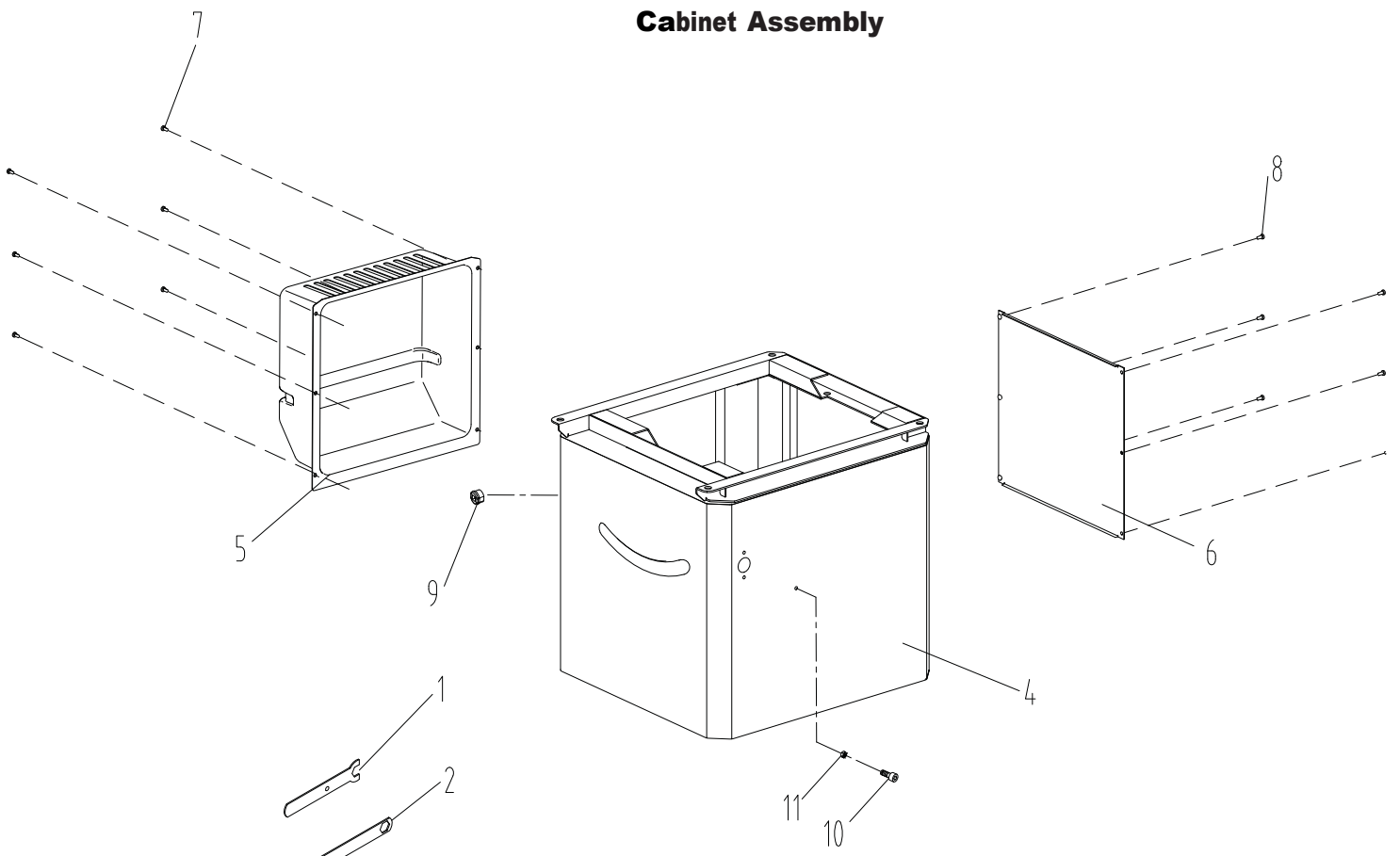


Figure 76: Cabinet assembly.

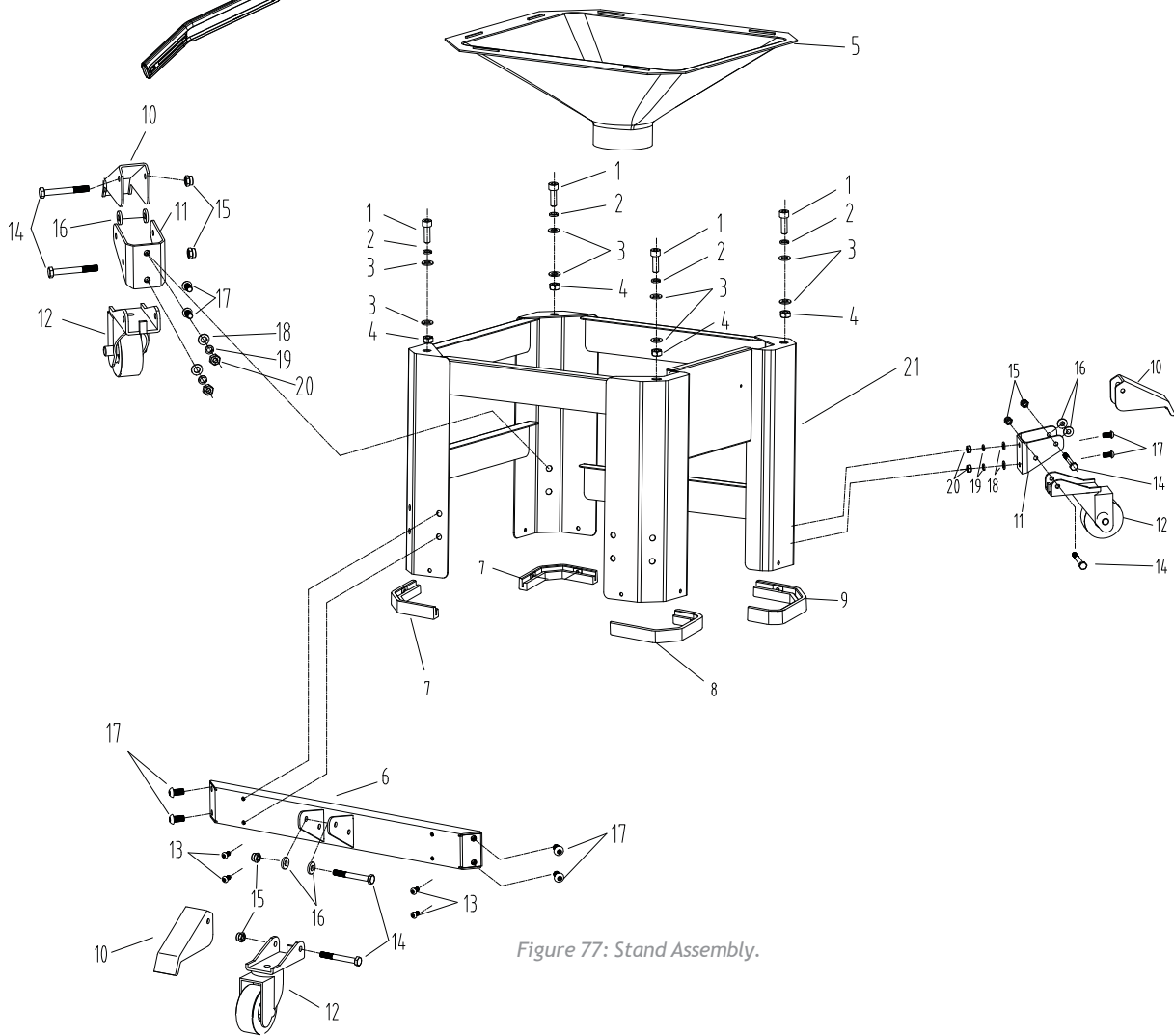


Figure 77: Stand Assembly.



Cabinet Assembly Parts

Reference #	Part Number	Description	Qty
1	PBBTS10401	Wrench 1	1
2	PBBTS10402	Wrench 2	1
3	PBBTS10403	Push Stick	1
4	PBBTS10404	Cabinet	1
5	PBBTS10405	Motor Cover	1
6	PBBTS10406	Rear cover	1
7	PBBTS10407	Screw socket HD M5-0.8X10mm	6
8	PBBTS10408	Screw Socket HD M5-0.8C16mm	6
9	PBBTS10409	Strain Relief	1
10	PBBTS10410	Screw Socket HD M5-0.8X25mm	1
11	PBBTS10411	Nut Hex M5-0.8	1

Stand Assembly Parts

Reference #	Part Number	Description	Qty
1	PBBTS10501	Screw Socket HD M10-1.5X30mm	4
2	PBBTS10502	Washer Spring	4
3	PBBTS10503	Washer Flat	8
4	PBBTS10504	Nut Hex M10-1.5	4
5	PBBTS10505	Dust Shute	1
6	PBBTS10506	Foot Fixed Plate	1
7	PBBTS10507	Rear Foot Pad (Right)	2
8	PBBTS10508	Front Foot Pad (Left)	1
9	PBBTS10509	Front Foot Pad (Right)	1
10	PBBTS10510	Foot Board	3
11	PBBTS10511	Foot Support Bracket	2
12	PBBTS10512	Wheels	3
13	PBBTS10513	Washer Flat	4
14	PBBTS10514	Screw Socket HD M8-1.25X16mm	6
15	PBBTS10515	Nut Lock M8-1.25	6
16	PBBTS10516	Washer flat	6
17	PBBTS10517	Screw Socket HD M8-0.8X16mm	8
18	PBBTS10518	Washer Flat	4
19	PBBTS10519	Washer Spring	4
20	PBBTS10520	Nut Hex M8-1.25	4
21	PBBTS10521	Stand Assembly	1



Reference #	Part number	Description	Qty
21	PBBTS10321	Screw M8-1.25X8mm	3
22	PBBTS10322	Compression Spring	1
23	PBBTS10323	Steel Ball	1
24	PBBTS10324	Scale	1
25	PBBTS10325	Screw tapping ST3.6X9.5mm	2
26	PBBTS10326	Bolt Hex HD M8-1.25X25mm	8
27	PBBTS10327	Front Rail Cover (Right)	1
28	PBBTS10328	Front Rail	1
29	PBBTS10329	Front rail cover (Left)	1
30	PBBTS10330	Pointer Plate	2
31	PBBTS10331	Screw Pan HD M6-1.0X8mm	4
32	PBBTS10332	Holt Hex M10-1.5X45mm	1
33	PBBTS10333	Nut Hex M10-1.5	1
34	PBBTS10334	Bolt Hex M6-1.0X40mm	1
35	PBBTS10335	Washer Spring	1
36	PBBTS10336	Washer Flat	1
37	PBBTS10337	Nut Hex M6-1.0	1
38	PBBTS10338	Spring Plate	2
39	PBBTS10339	Nut Thin M10-1.5	1
40	PBBTS10340	Screw M10-1.5	1
41	PBBTS10341	Nut M10-1.5	2
42	PBBTS10342	Screw M10-1.5X15mm	2
45	PBBTS10345	Bolt Hex M8-1.25X16mm	3
46	PBBTS10346	Washer Lock	2
47	PBBTS10347	Switch Fixed Plate	1
48	PBBTS10348	Switch Box	1
49	PBBTS10349	Switch Panel	4
50	PBBTS10350	Screw Tapping ST4.2X13mm	1
51	PBBTS10351	Switch	2
53	PBBTS10353	Screw Tapping ST4.2X25mm	1
54	PBBTS10354	Motor Pig Tail	1
55	PBBTS10355	Power Cord	2
56	PBBTS10356	Screw Tapping M5-0.8X8mm	2
57	PBBTS10357	Washer Spring	2
58	PBBTS10358	Lock Washer	1
59	PBBTS10359	Adjustable Cable Clamp	2
60	PBBTS10360	Strain Relief	3
61	PBBTS10361	Screw Socket HD M8-1.25X16mm	1
62	PBBTS10362	Fence Connection Plate (Left)	1
63	PBBTS10363	Fence Connection Plate (Right)	1
64	PBBTS10364	Connection Bar	1



Blade Guard

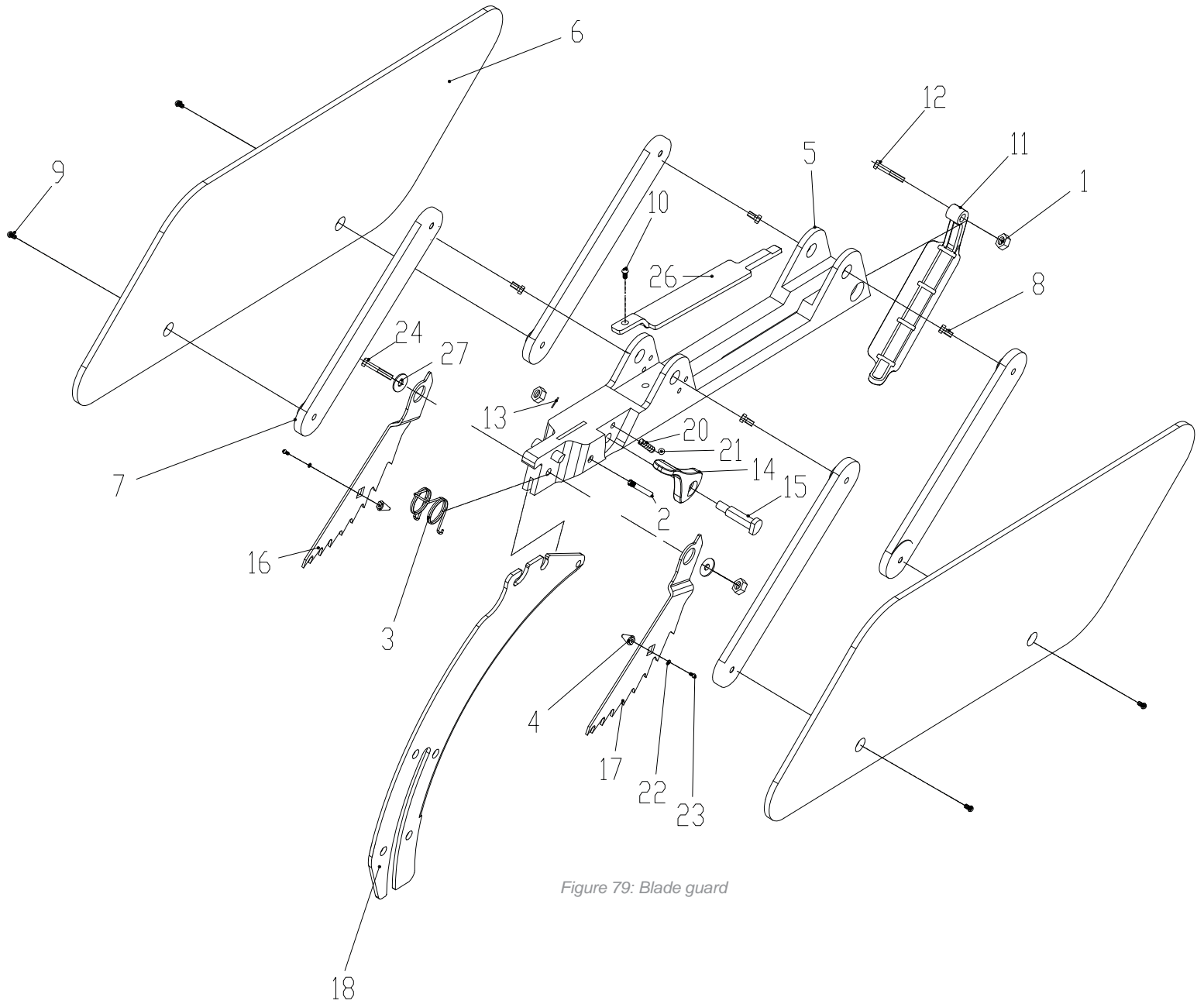


Figure 79: Blade guard



Blade Guard Parts List

Reference #	Part Number	Description	Quantity
1	PBBTS10401	Lock Nut M5-0.8	3
2	PBBTS10402	Set Pin	1
3	PBBTS10403	Spring	1
4	PBBTS10404	Cap	2
5	PBBTS10405	Top Barrier	1
6	PBBTS10406	Barrier	2
7	PBBTS10407	Connection Rod	4
8	PBBTS10408	Stepped Screw M5	4
9	PBBTS10409	Stepped Screw M6	4
10	PBBTS10410	Pan Head Screw M5-0.8x10mm	1
11	PBBTS10411	Front Rail	1
12	PBBTS10412	Pan Head Screw M5-0.8x25mm	1
13	PBBTS10413	Washer	1
14	PBBTS10414	Wrench	1
15	PBBTS10415	Wrench Screw	1
16	PBBTS10416	Left Anti-Kickback Pawls	1
17	PBBTS10417	Right Anti-Kickback Pawls	1
18	PBBTS10418	Riving Knife	1
20	PBBTS10419	Spring	1
21	PBBTS10420	Steel ball	1
22	PBBTS10421	Flat washer	2
23	PBBTS10422	Tapping Screw ST2.9x6	2
24	PBBTS10423	Socket Head Screw M5-0.8x27mm	1
26	PBBTS10424	Protection Cover	1
27	PBBTS10425	Washer	2



Mitre Gauge

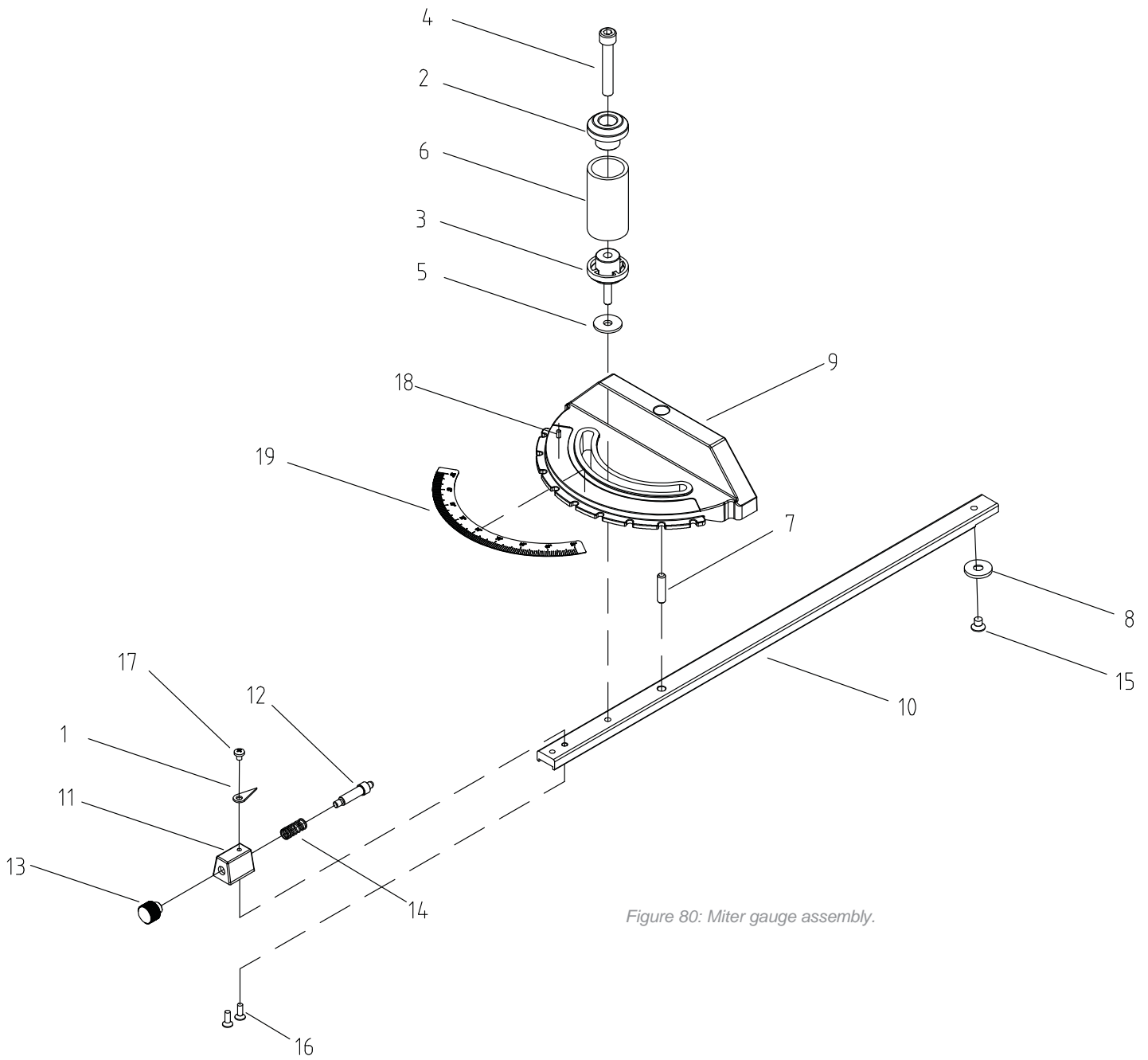


Figure 80: Miter gauge assembly.



Mitre Gauge Parts List

Reference #	Part Number	Description	Quantity
1	PBBTS10501	Angle Indicator	1
2	PBBTS10502	Upper Handle Cap	1
3	PBBTS10503	Lower Handle Cap	1
4	PBBTS10504	Cap Screw M8-1.25x55mm	1
5	PBBTS10505	Washer	1
6	PBBTS10506	Miter Handle	1
7	PBBTS10507	Miter Pin	1
8	PBBTS10508	Miter Bar Guide Washer	1
9	PBBTS10509	Miter Gauge Body	1
10	PBBTS10510	Miter Bar	1
11	PBBTS10511	Angle Indicator Seat	1
12	PBBTS10512	Stop Pin	1
13	PBBTS10513	Stop Pin Knob	1
14	PBBTS10514	Compression Spring	1
15	PBBTS10515	Pan Head Screw M6-1.0x8mm	1
16	PBBTS10516	Pan Head Screw M4-0.7x10mm	2
17	PBBTS10517	Pan Head Screw M4-0.7x6mm	1
18	PBBTS10518	Rivet $\Phi 2 \times 5$	3
19	PBBTS10519	Miter Scale	1





Busy Bee Tools

BUSY BEE TOOLS 2 YEARS LIMITED WARRANTY

Busy Bee Tools warrants every product to be free from defects in materials and agrees to correct such defects where applicable. This warranty covers **two years** for parts and 90 days for labor (unless specified otherwise), to the original purchaser from the date of purchase but does not apply to malfunctions arising directly or indirectly from misuse, abuse, improper installation or assembly, negligence, accidents, repairs or alterations or lack of maintenance.

Proof of purchase is necessary.

All warranty claims are subject to inspection of such products or part thereof and Busy Bee Tools reserves the right to inspect any returned item before a refund or replacement may be issued.

This warranty shall not apply to consumable products such as blades, bits, belts, cutters, chisels, punches etc.

Busy Bee Tools shall in no event be liable for injuries, accidental or otherwise, death to persons or damage to property or for incidental contingent, special or consequential damages arising from the use of our products.

RETURNS, REPAIRS AND REPLACEMENTS

To return, repair, or replace a Busy Bee Tools product, you must visit the appropriate Busy Bee Tools showroom or call 1-800-461-BUSY.

For replacement parts directly from Busy Bee Tools, for this machine, please call 1-800-461-BUSY (2879), and have your model number and part number & payment option ready.

- All returned merchandise will be subject to a minimum charge of 15% for re-stocking and handling with the following qualifications.
- Returns must be pre-authorized by us in writing.
- We do not accept collect shipments.
- Items returned for warranty purposes must be insured and shipped pre-paid to the nearest warehouse.
- Returns must be accompanied with a copy of your original invoice as proof of purchase. Returns must be in an un-used condition and shipped in their original packaging a letter explaining your reason for the return. Incurred shipping and handling charges are not refundable.
- Busy Bee will repair or replace the item at our discretion and subject to our inspection.
- Repaired or replaced items will be returned to you pre-paid by our choice of carriers.
- Busy Bee reserves the right to refuse reimbursement or repairs or replacement if a third party without our prior authorization has carried out repairs to the item.
- Repairs made by Busy Bee Tools are warranted for 30 days on parts and labour.
- Any unforeseen repair charges will be reported to you for acceptance prior to making the repairs.
- The Busy Bee Parts & Service Departments are fully equipped to do repairs on all products purchased from us with the exception of some products that require the return to their authorized repair depots. A Busy Bee representative will provide you with the necessary information to have this done.
- For faster service it is advisable to contact the nearest Busy Bee location for parts availability prior to bringing your product in for repairs.

