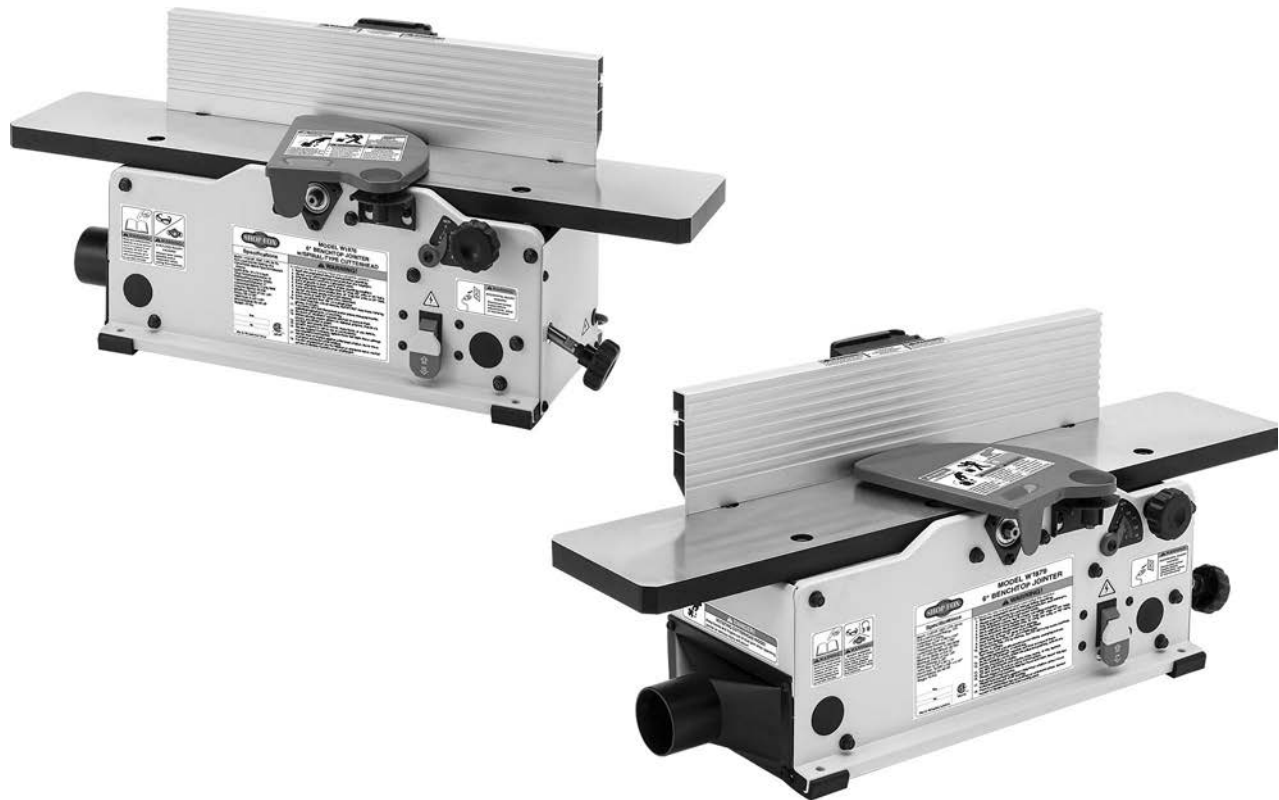


MODEL W1876/W1879 6" BENCHTOP JOINTERS



OWNER'S MANUAL

(FOR MODELS MANUFACTURED Since 06/21)

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

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WARNING: NO PORTION OF THIS MANUAL MAY BE REPRODUCED IN ANY SHAPE OR FORM WITHOUT

THE WRITTEN APPROVAL OF WOODSTOCK INTERNATIONAL, INC.



WARNING!

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

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

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

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



WARNING!

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

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

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

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INTRODUCTION

Woodstock Technical Support

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

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

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

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

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



MACHINE SPECIFICATIONS



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MODEL W1876 6" BENCHTOP JOINTER WITH SPIRAL-TYPE CUTTERHEAD

Product Dimensions

Weight..... 43 lbs.
 Width (side-to-side) x Depth (front-to-back) x Height..... 30 x 17-1/2 x 13-1/2 in.
 Footprint (Length x Width)..... 19 x 9-1/2 in.

Shipping Dimensions

Type..... Cardboard Box
 Content..... Machine
 Weight..... 44 lbs.
 Length x Width x Height..... 33 x 13 x 12 in.

Electrical

Power Requirement..... 120V, Single-Phase, 60 Hz
 Full-Load Current Rating..... 10A
 Minimum Circuit Size..... 15A
 Connection Type..... Cord & Plug
 Power Cord Included..... Yes
 Power Cord Length..... 72 in.
 Power Cord Gauge..... 18 AWG
 Plug Included..... Yes
 Included Plug Type..... 5-15
 Switch Type..... Paddle Safety Switch w/Removable Key

Motors

Main

Horsepower..... 1-1/2 HP
 Phase..... Single-Phase
 Amps..... 10A
 Speed..... 19,000 RPM
 Type..... Universal
 Power Transfer Belt
 Bearings..... Shielded & Permanently Lubricated

Main Specifications

Main Specifications

Jointer Size..... 6 in.
 Bevel Jointing..... 0 - 45 deg.
 Maximum Width of Cut..... 6 in.
 Maximum Depth of Cut..... 1/8 in.
 Minimum Workpiece Length..... 10 in.
 Minimum Workpiece Thickness..... 1/2 in.
 Number of Cuts Per Minute..... 66,000



Fence Information

Fence Length..... 19-3/4 in.
 Fence Width..... 7/8 in.
 Fence Height..... 4-1/4 in.

Cutterhead Information

Cutterhead Type..... Spiral
 Cutterhead Diameter..... 2 in.
 Number of Cutter Rows..... 6
 Number of Indexable Cutters..... 12
 Cutterhead Speed..... 11,000 RPM

Cutter Insert Information

Cutter Insert Type..... Indexable HSS
 Cutter Insert Length..... 14mm
 Cutter Insert Width..... 14mm
 Cutter Insert Thickness..... 2mm

Table Information

Table Length..... 30 in.
 Table Width..... 6-1/4 in.
 Table Thickness..... 1 in.
 Floor to Table Height..... 8-5/16 in.
 Table Adjustment Type..... Thread Adjustment
 Table Movement Type..... Knob

Construction

Body Assembly..... Pre-Formed Steel
 Fence Assembly..... Extruded Aluminum
 Guard..... Stamped Steel
 Table..... Cast Aluminum
 Paint Type/Finish..... Enamel

Other Information

Number of Dust Ports..... 1
 Dust Port Size..... 2-1/2 in.

Other

Country of Origin Taiwan
 Warranty 2 Years
 Approximate Assembly & Setup Time 20 Minutes
 Serial Number Location Machine ID Label
 Sound Rating 92 - 94 dB
 ISO 9001 Factory Yes
 Certified by a Nationally Recognized Testing Laboratory (NRTL) Yes

Features

- Spiral Cutterhead with 12 Indexable HSS Inserts
- 2-1/2" Dust Port
- Cast Aluminum Infeed and Outfeed Tables
- Infeed Table Height Adjustment Lock
- Two Safety Push Blocks
- Torx T-25 T-Handle Driver
- Hex Wrenches 2.5, 4mm



MACHINE SPECIFICATIONS



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MODEL W1879 6" BENCHTOP JOINTER

Product Dimensions

Weight..... 43 lbs.
 Width (side-to-side) x Depth (front-to-back) x Height..... 30 x 17-1/2 x 13 in.
 Footprint (Length x Width)..... 19 x 9-1/2 in.

Shipping Dimensions

Type..... Cardboard Box
 Content..... Machine
 Weight..... 44 lbs.
 Length x Width x Height..... 33 x 13 x 12 in.

Electrical

Power Requirement..... 120V, Single-Phase, 60 Hz
 Full-Load Current Rating..... 10A
 Minimum Circuit Size..... 15A
 Connection Type..... Cord & Plug
 Power Cord Included..... Yes
 Power Cord Length..... 72 in.
 Power Cord Gauge..... 18 AWG
 Plug Included..... Yes
 Included Plug Type..... 5-15
 Switch Type..... Paddle Safety Switch w/Removable Key

Motors

Main

Horsepower..... 1-1/2 HP
 Phase..... Single-Phase
 Amps..... 10A
 Speed..... 19,000 RPM
 Type..... Universal
 Power Transfer Belt
 Bearings..... Shielded & Permanently Lubricated

Main Specifications

Main Specifications

Jointer Size..... 6 in.
 Bevel Jointing..... 0 - 45 deg.
 Maximum Width of Cut..... 6 in.
 Maximum Depth of Cut..... 1/8 in.
 Minimum Workpiece Length..... 10 in.
 Minimum Workpiece Thickness..... 1/2 in.
 Number of Cuts Per Minute..... 22,000



Fence Information

Fence Length..... 19-3/4 in.
 Fence Width..... 7/8 in.
 Fence Height..... 4-5/16 in.

Cutterhead Information

Cutterhead Type..... Straight Knife
 Cutterhead Diameter..... 1-7/8 in.
 Cutterhead Speed..... 11,000 RPM

Knife Information

Number of Knives..... 2
 Knife Type..... SK5 Steel, Single-Sided
 Knife Length..... 6-1/4 in.
 Knife Width..... 7/8 in.
 Knife Thickness..... 1/16 in.
 Knife Adjustment..... Cap Screws

Table Information

Table Length..... 30 in.
 Table Width..... 6-1/4 in.
 Table Thickness..... 1 in.
 Floor to Table Height..... 8-5/16 in.
 Table Adjustment Type..... Knob
 Table Movement Type..... Swing

Construction

Body Assembly..... Pre-Formed Steel
 Fence Assembly..... Extruded Aluminum
 Guard..... Stamped Steel
 Table..... Cast Aluminum
 Paint Type/Finish..... Enamel

Other Information

Number of Dust Ports..... 1
 Dust Port Size..... 2-1/2 in.

Other

Country of Origin Taiwan
 Warranty 2 Years
 Approximate Assembly & Setup Time 20 Minutes
 Serial Number Location Machine ID Label
 Sound Rating 90 - 92 dB
 ISO 9001 Factory Yes
 Certified by a Nationally Recognized Testing Laboratory (NRTL) Yes

Features

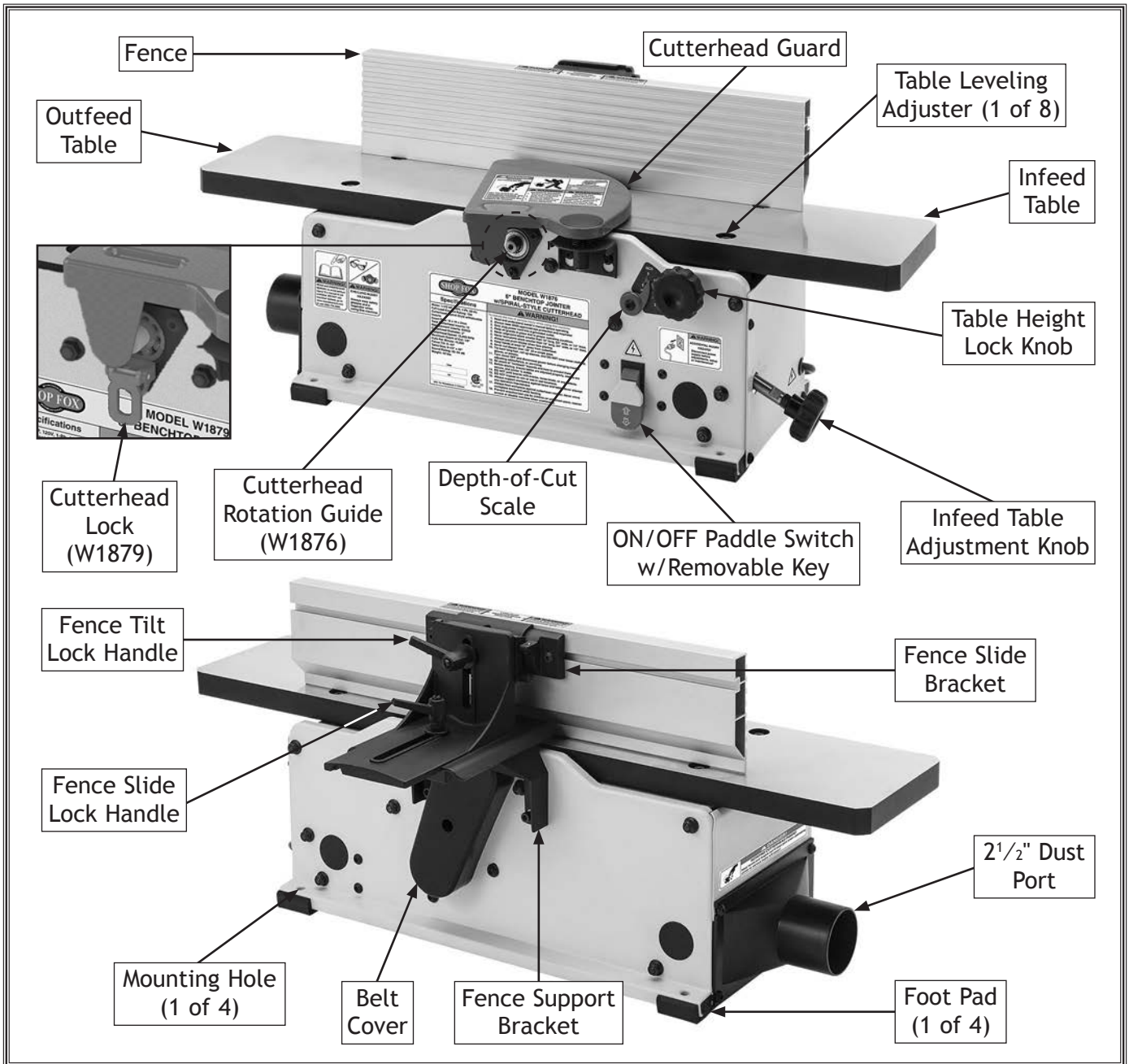
Straight-Knife Cutterhead with Two SK5 Steel Knives
 Cast Aluminum Infeed and Outfeed Tables
 Infeed Table Height Adjustment Lock

Accessories

Two Safety Push Blocks
 Torx T-25 T-Handle Driver
 Hex Wrenches 2.5, 4mm

Identification

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



⚠️ WARNING

For Your Own Safety, Read Instruction Manual Before Operating Jointer

- a) Wear eye protection.
- b) Always keep cutterhead and drive guards in place and in proper operating condition.
- c) Always use hold down/push blocks for jointing material narrower than 3 inches, or planing material thinner than 3 inches.
- d) Never perform jointing or planing on pieces shorter than 10 inches.

Controls & Components

Refer to Figures 1 & 2 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. **Outfeed Table:** Supports workpiece after it passes over cutterhead.
- B. **Cutterhead Guard:** Covers cutterhead until pushed aside by workpiece during operation. When workpiece leaves cutterhead, guard springs back to its starting position. DO NOT operate jointer if guard is not functioning properly.
- C. **Infeed Table:** Supports workpiece before it reaches cutterhead. Height of infeed table relative to cutterhead determines depth of cut.
- D. **Infeed Table Adjustment Knob:** Adjusts height of infeed table to control depth of cut.
- E. **Table Height Lock Knob:** Tighten to secure infeed table position; loosen for table adjustment.
- F. **ON/OFF Paddle Switch w/Removable Key:** Turns motor **ON** when moved up; turns motor **OFF** when pressed down. Removal of yellow key disables switch, preventing motor operation.
- G. **Depth-of-Cut Scale:** Shows depth of cut (per pass).
- H. **Fence:** Supports workpiece laterally as it moves across cutterhead; determines angle of cut when edge or bevel joining.
- I. **Fence Bracket Assembly:** Changes position of fence relative to tables and secures it in position during operation.
- J. **Dust Port:** Connects machine to dust collection system. ALWAYS remove dust port if operating machine without a dust collection system.
- K. **Fence Slide Lock Handle:** Adjusts position of fence over tables. ALWAYS tighten lock before beginning operations.
- L. **Fence Tilt Lock Handle:** Secures fence tilt angle. Fence tilt can be adjusted between 90°-135°. ALWAYS tighten lock before beginning operations.

! WARNING



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

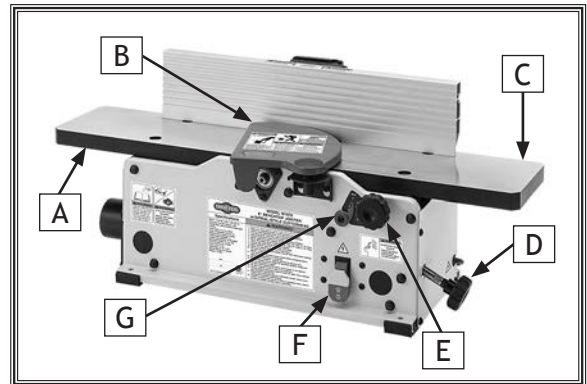


Figure 1. Main components.

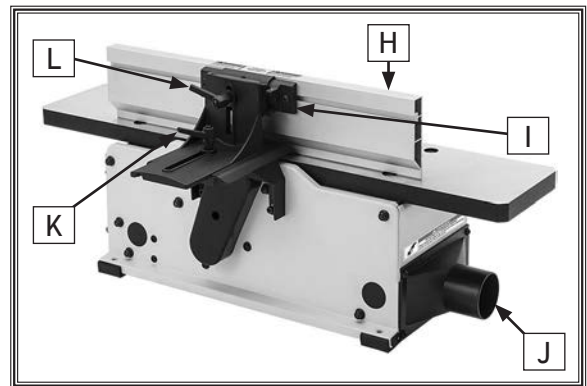


Figure 2. Fence components.

NOTICE

To help prevent material build-up from obstructing dust chute and negatively impacting cutterhead operation, always remove dust port if operating machine without a dust collection system.

SAFETY

For Your Own Safety, Read Manual Before Operating Machine

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



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



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



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

NOTICE

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

Standard Machinery Safety Instructions

OWNER'S MANUAL. Read and understand this owner's manual **BEFORE** using machine.

TRAINED OPERATORS ONLY. Untrained operators have a higher risk of being hurt or killed. Only allow trained/supervised people to use this machine. When machine is not being used, disconnect power, remove switch keys, or lock-out machine to prevent unauthorized use—especially around children. Make workshop kid proof!

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

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

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

DISCONNECT POWER FIRST. Always disconnect machine from power supply **BEFORE** making adjustments, changing tooling, or servicing machine. This eliminates the risk of injury from unintended startup or contact with live electrical components.

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

WEARING PROPER APPAREL. Do not wear clothing, apparel, or jewelry that can become entangled in moving parts. Always tie back or cover long hair. Wear non-slip footwear to avoid accidental slips, which could cause loss of workpiece control.

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

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

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

INTENDED USAGE. Only use machine for its intended purpose—never make modifications without prior approval from Woodstock International. Modifying machine or using it differently than intended will void the warranty and may result in malfunction or mechanical failure that leads to serious personal injury or death!

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

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

GUARDS & COVERS. Guards and covers reduce accidental contact with moving parts or flying debris—make sure they are properly installed, undamaged, and working correctly.

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

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

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

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

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

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

CHECK DAMAGED PARTS. Regularly inspect machine for any condition that may affect safe operation. Immediately repair or replace damaged or mis-adjusted parts before operating machine.

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

EXPERIENCING DIFFICULTIES. If at any time you experience difficulties performing the intended operation, stop using the machine! Contact Technical Support at (360) 734-3482.

Additional Safety for Jointers

Serious cuts, amputation, entanglement, or death can occur from contact with rotating cutterhead or other moving components! Flying chips from cutting operations can cause eye injuries or blindness. Workpieces or inserts/knives thrown by cutterhead (kickback) can strike nearby operator or bystanders with deadly force. To reduce the risk of serious personal injury from these hazards, operator and bystanders **MUST** completely heed the hazards and warnings below.

KICKBACK. Occurs when workpiece is ejected from machine at high rate of speed. Kickback injuries occur from getting struck by workpiece or hands being pulled into cutterhead. To reduce risk of kickback, only use proper workpieces, safe feeding techniques, and proper machine setup.

GUARD REMOVAL. Operating jointer without guards exposes operator to knives/inserts and other hazardous moving parts. Except when rabbeting, never operate jointer or allow it to be connected to power if any guards are removed. Turn jointer **OFF** and disconnect power before clearing any shavings or sawdust from around cutterhead. After rabbeting or maintenance is complete, immediately replace all guards and ensure they are properly installed/adjusted before resuming regular operations.

DULL/DAMAGED KNIVES/INSERTS. Dull or damaged knives/inserts increase risk of kickback and cause poor workpiece finish. Only use sharp, undamaged knives/inserts.

OUTFEED TABLE ALIGNMENT. Setting outfeed table too high can cause workpiece to hit table or get stuck while feeding. Setting outfeed table too low may cause workpiece to rock or shift while feeding. Both results will increase risk of kickback. Always keep outfeed table even with knives/inserts at highest point during rotation.

INSPECTING STOCK. Impact injuries or kickback may result from using improper workpieces. Thoroughly inspect and prepare workpiece before cutting. Verify workpiece is free of nails, staples, loose knots or other foreign material.

MAXIMUM CUTTING DEPTH. To reduce risk of kickback, never cut deeper than $\frac{1}{8}$ ".

GRAIN DIRECTION. Jointing against the grain or end grain can increase the risk of kickback. It also requires more cutting force, which produces chatter or excessive chip out. Always joint or surface plane with the grain.

CUTTING LIMITATIONS. Cutting workpieces that do not meet minimum dimension requirements can result in kickback or accidental contact with cutterhead. Never perform jointing, planing, or rabbeting cuts on pieces smaller than specified in data sheet.

PUSH BLOCKS. Push blocks reduce risk of accidental cutterhead contact with hands. Always use push blocks when planing materials less than 3" high or wide. Never pass your hands directly over cutterhead without a push block.

WORKPIECE SUPPORT. Poor workpiece support or loss of workpiece control while feeding will increase risk of kickback or accidental contact with cutterhead. Support workpiece with fence continuously during operation. Support long stock with auxiliary table if necessary.

FEED WORKPIECE PROPERLY. Kickback or accidental cutterhead contact may result if workpiece is fed into cutterhead the wrong way. Allow cutterhead to reach full speed before feeding. Never start jointer with workpiece touching cutterhead. Always feed workpiece from infeed side to outfeed side without stopping until cut is complete. Never move workpiece backwards while feeding.

SECURE KNIVES/INSERTS. Loose knives or improperly set inserts can be thrown from cutterhead with dangerous force. Always verify knives/inserts are secure and properly adjusted before operation. Straight knives should never project more than $\frac{1}{8}$ " (0.125") from cutterhead body.

ELECTRICAL

Circuit Requirements

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

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

Full-Load Current Rating

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

Full-Load Current Rating at 120V 10 Amps

Circuit Requirements for 120V

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

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

ELECTRICAL

⚠ WARNING

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

⚠ WARNING



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

NOTICE

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

Grounding Requirements

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

Improper connection of the equipment-grounding wire will increase the risk of electric shock. The wire with green insulation (with/without yellow stripes) is the equipment-grounding wire. If repair or replacement of the power cord or plug is necessary, do not connect the equipment-grounding wire to a live (current carrying) terminal.

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

For 120V Connection

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

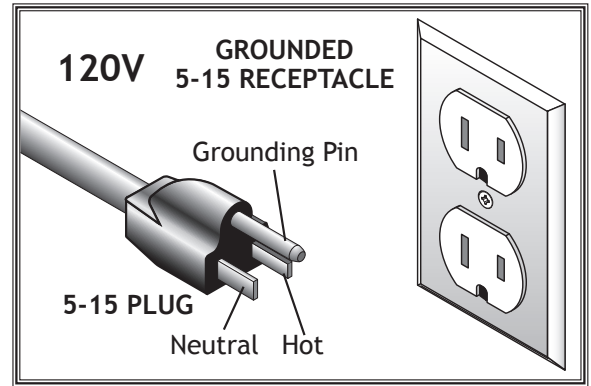
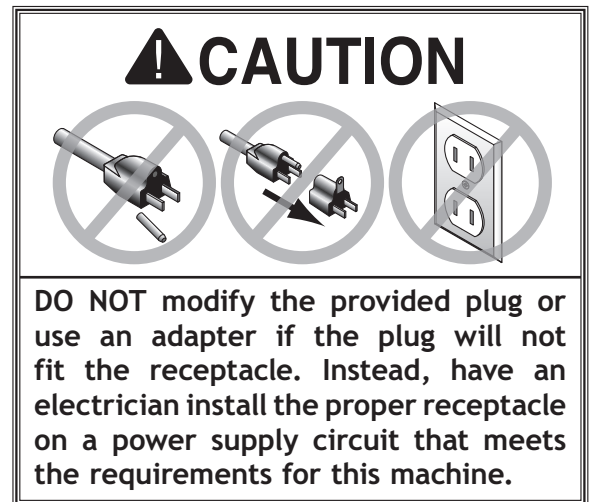


Figure 3. NEMA 5-15 plug & receptacle.



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.

ELECTRICAL

SETUP


Unpacking

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

Items Needed for Setup

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

Description	Qty
• Additional Person for Lifting.....	1
• Safety Glasses (for each person).....	1
• Degreaser or Solvent for Cleaning	As Needed
• Disposable Rags for Cleaning	As Needed
• Straightedge 24"	1
• Level.....	1
• Hex Wrench 5mm.....	1
• Dust Collection System	1
• 2 1/2" Dust Hose.....	1
• 2 1/2" Hose Clamp.....	1
• Flat Head Screwdriver 1/4"	1



!WARNING

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



!WARNING

Wear safety glasses during entire setup process!



!WARNING

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

SETUP

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 Inventory (Figure 4)	Qty
A. Joints w/Cutterhead Guard	1
B. Fence	1
C. Fence Support Bracket	1
D. Fence Slide Bracket	1
E. Dust Port	1

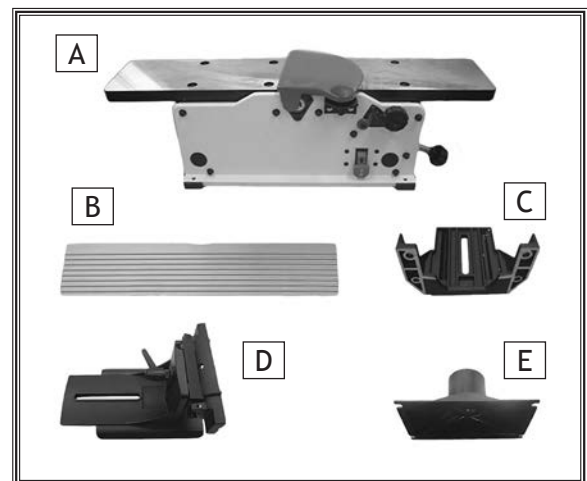
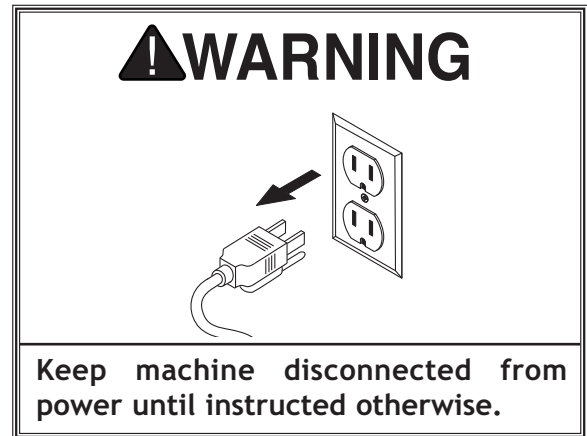


Figure 4. Box inventory.

Hardware and Tools (Figure 5)	Qty
F. Fender Washer 8mm	1
G. Button Head Cap Screws M6-1 x 16	2
H. T-Slot Nuts 7, M6-1	2
I. Square Nut M8-1.25	1
J. Fence Slide Lock Handle	1
K. Hex Wrenches 2.5, 4mm	1 Ea.
L. T-Handle Torx Wrench T-25 (W1876)	1
M. Push Blocks	2
N. Cutterhead Lock (W1879)	1

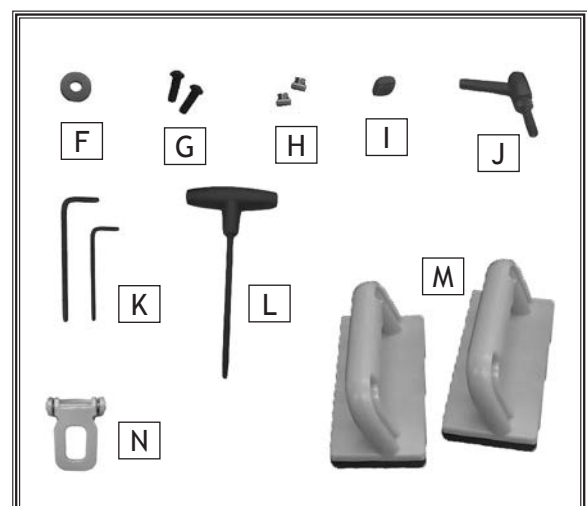


Figure 5. Hardware and tools inventory.

SETUP

Machine Placement

Workbench Load

Refer to the **Machine Specifications** for the weight and footprint specifications of your machine. Some workbenches may require additional reinforcement to support the weight of the machine and workpiece materials.

Placement Location

Consider anticipated workpiece sizes and additional space needed for auxiliary stands, work tables, or other machinery when establishing a location for this machine in the shop. Below is the minimum amount of space needed for the machine.

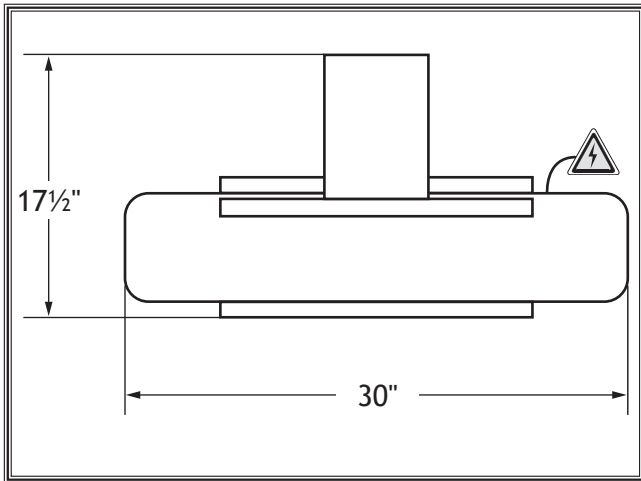


Figure 6. Machine dimensions.

	<p>CAUTION INJURY HAZARD! Untrained users can injure themselves with this machine. Restrict access to machine when you are away, especially if it is installed where children are present.</p>
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Cleaning Machine

The unpainted surfaces of your machine are coated with a heavy-duty rust preventative that prevents corrosion during shipment and storage. This rust preventative works extremely well, but it will take a little time to clean.

Be patient and do a thorough job cleaning your machine. The time you spend doing this now will give you a better appreciation for the proper care of your machine's unpainted surfaces.

There are many ways to remove this rust preventative, but the following steps work well in a wide variety of situations. Always follow the manufacturer's instructions with any cleaning product you use and make sure you work in a well-ventilated area to minimize exposure to toxic fumes.

Before cleaning, gather the following:

- Disposable rags
- Cleaner/degreaser (WD•40 works well)
- Safety glasses & disposable gloves
- Plastic paint scraper (optional)

Basic steps for removing rust preventative:

1. Put on safety glasses.
2. Coat the rust preventative with a liberal amount of cleaner/degreaser, then let it soak for 5-10 minutes.
3. Wipe off the surfaces. If your cleaner/degreaser is effective, the rust preventative will wipe off easily. If you have a plastic paint scraper, scrape off as much as you can first, then wipe off the rest with the rag.
4. Repeat **Steps 2-3** as necessary until clean, then coat all unpainted surfaces with a quality metal protectant to prevent rust.

<p>NOTICE</p> <p>Avoid chlorine-based solvents, such as acetone or brake parts cleaner, that may damage painted surfaces.</p>
--

Bench Mounting

Number of Mounting Holes..... 4
 Diameter of Mounting Hardware Needed.....³/₈"

The base of this machine has mounting holes that allow it to be fastened to a workbench or other mounting surface to prevent it from moving during operation and causing accidental injury or damage.

The strongest mounting option is a "Through Mount" (see example) where holes are drilled all the way through the workbench—and hex bolts, washers, and hex nuts are used to secure the machine in place.

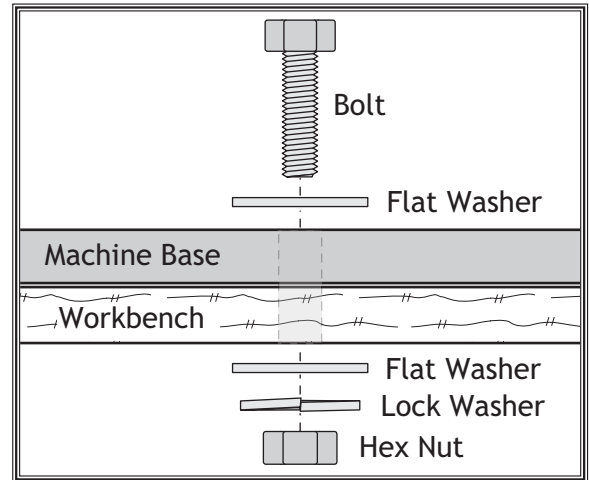


Figure 7. Typical "Through Mount" setup.

Another option is a "Direct Mount" (see example) where the machine is secured directly to the workbench with lag screws and washers.

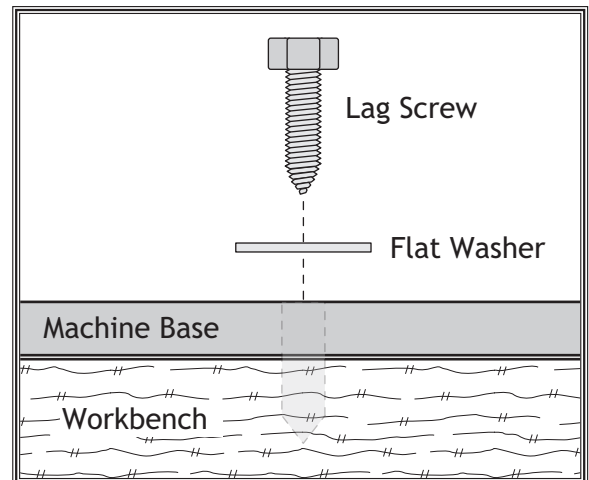


Figure 8. Typical "Direct Mount" setup.

SETUP

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 jointer, do these steps:

1. Remove (4) button head cap screws from jointer base and use to install fence support bracket (see **Figure 9**).
2. Install (2) M6-1 X 16 button head cap screws and (2) 7mm T-slot nuts on fence slide bracket (see **Figure 10**). **DO NOT** tighten at this time.
3. Install fence on fence slide bracket by inserting (2) 7mm T-slot nuts installed in **Step 2** into T-slot on rear side of fence (see **Figure 11**).

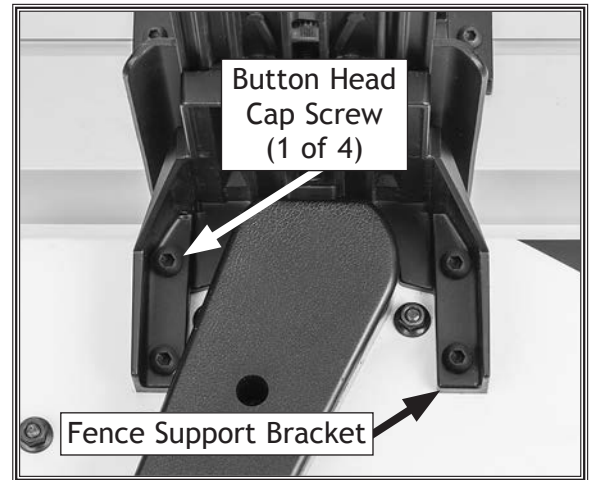


Figure 9. Button head cap screws used to install fence support bracket.

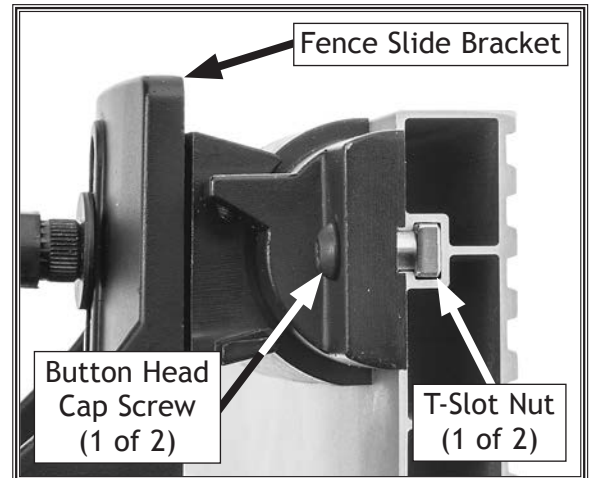


Figure 10. Button head cap screws and T-slot nuts installation.

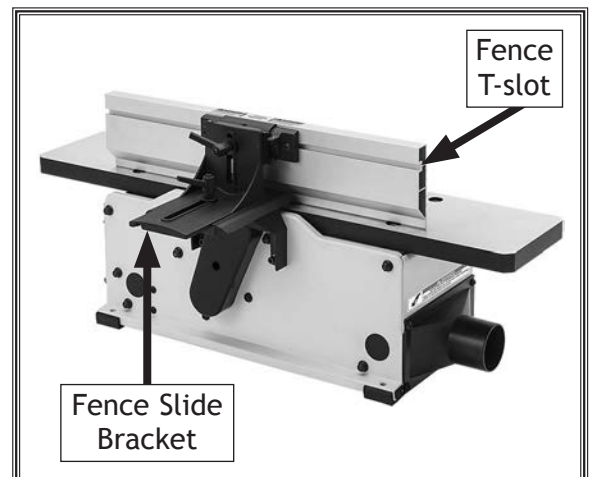


Figure 11. T-slot on rear side of fence.

SETUP

- Align fence cutout with center of fence slide bracket, and tighten (2) button head cap screws installed in Step 2 (see Figure 12).

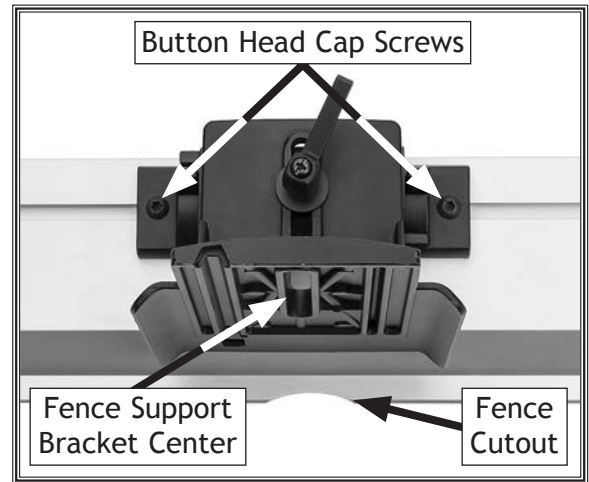


Figure 12. Fence cutout aligned with center of fence slide bracket.

- Place fence slide bracket on fence support bracket and insert fence slide lock handle and 8mm fender washer through center of brackets (see Figure 13).

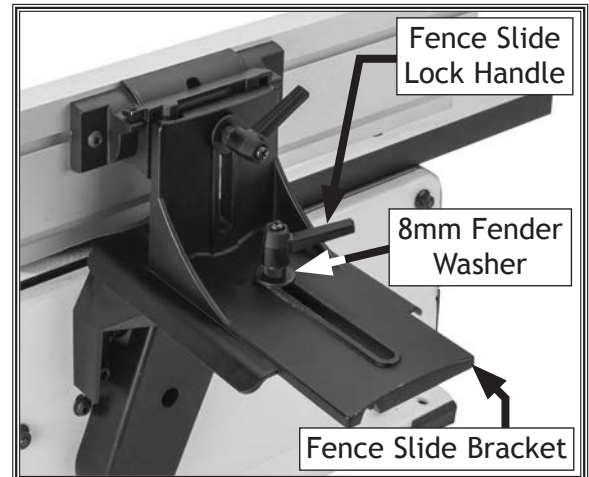


Figure 13. Fence slide lock handle and flat washer inserted in center of brackets.

- Install 8mm square nut on fence slide lock handle and tighten handle to lock in place (see Figure 14).

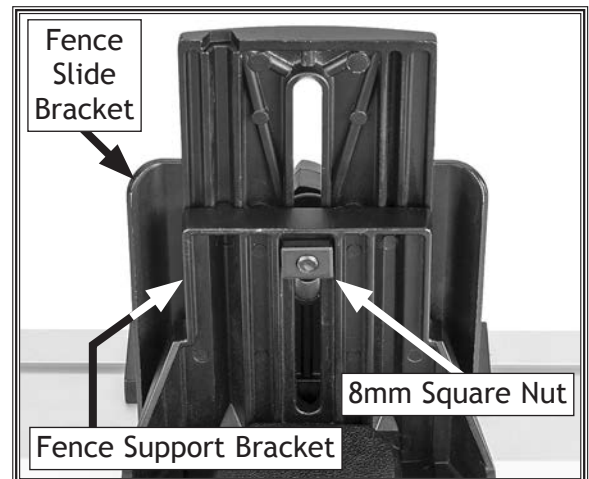


Figure 14. Square nut installed on fence slide lock handle.

SETUP

7. **W1879 Only:** Remove (1) M6-1 x 12 button head cap screw from bottom of cutterhead front bearing retainer (see **Figure 15**).

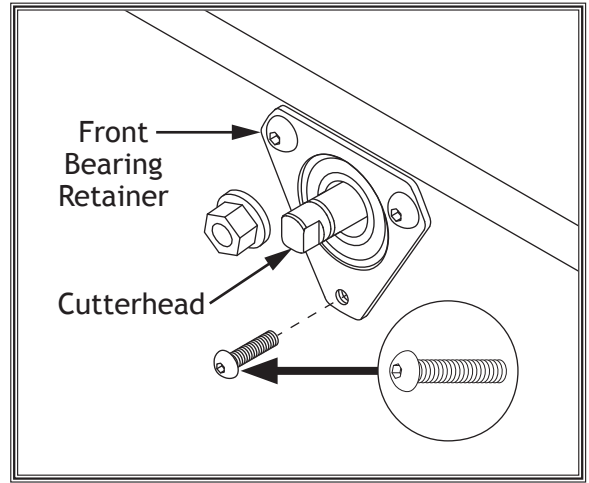


Figure 15. Removing button head cap screw below cutterhead.

8. **W1879 Only:** Insert button head cap screw removed in **Step 7** through mounting hole on cutterhead lock, then re-install screw and secure (see **Figure 16**).



Figure 16. Installing cutterhead lock on Model W1879.

SETUP

Dust Collection

Recommended CFM at Dust Port: 150 CFM

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

NOTICE

To help prevent material build-up from obstructing dust chute and negatively impacting cutterhead operation, always remove dust port if operating machine without a dust collection system.

CAUTION

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

Tools Needed	Qty
Dust Collection System	1
Dust Hose 2 ¹ / ₂ "	1
Hose Clamps 2 ¹ / ₂ "	2
Hex Wrench 5mm	1

To install dust port on jointer, do these steps:

1. Remove (4) button head cap screws from dust chute on left side of jointer base.
2. Place dust port over dust chute and install (4) button head cap screws removed in **Step 1** to secure dust port in place (see **Figure 17**).

Note: To help prevent material build-up from obstructing dust chute and negatively impacting cutterhead operation, **DO NOT** install dust port if operating machine without a dust collection system.

To connect a dust collection hose, do these steps:

1. Fit a 2¹/₂" dust hose over the dust port, as shown in **Figure 18**, and secure in place with a hose clamp.
2. Tug the hose to make sure it does not come off.

Note: A tight fit is necessary for proper performance.

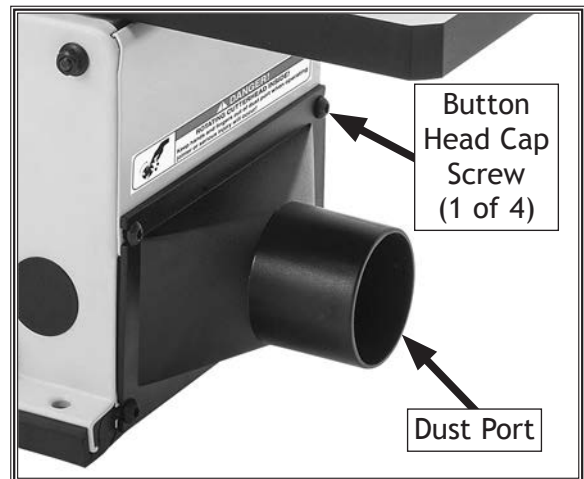


Figure 17. Dust port installed on jointer.



Figure 18. Dust port connected to dust collection system.

SETUP

Test Run

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

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

The Test Run consists of verifying the following: 1) The motor powers up and runs correctly, and 2) the switch disabling key disables the switch properly.

To test run the machine, do these steps:

1. Clear all setup tools away from machine.
2. **W1879 Only:** Disengage cutterhead lock.
3. Insert removable key into paddle switch (see **Figure 19**) and connect machine to power supply.
4. Turn machine **ON**, verify motor operation, then turn machine **OFF**.

The motor should run smoothly and without unusual noises.

5. Remove paddle switch key.
6. Try to start machine with paddle switch. The machine should not start.
 - If machine *does not* start, the switch disabling feature is working as designed.
 - If machine *does* start, immediately stop the machine. The switch disabling feature is not working correctly. This safety feature must work properly before proceeding with regular operations. Call Tech Support for help.
7. After approximately 16 hours of operation, adjust drive belt tension as instructed in **Replacing/ Tensioning Belt** on **Page 43**.

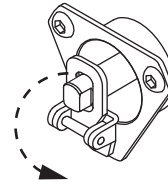
IMPORTANT: During this first 16 hours, the belt will stretch and seat into the pulley groove. After this time, you must re-tension the belt to avoid slippage and burn out.

⚠ WARNING

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

⚠ WARNING

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



NOTICE

W1879 Only: Disengage cutterhead lock on front of jointer before operating or damage to machine may occur!

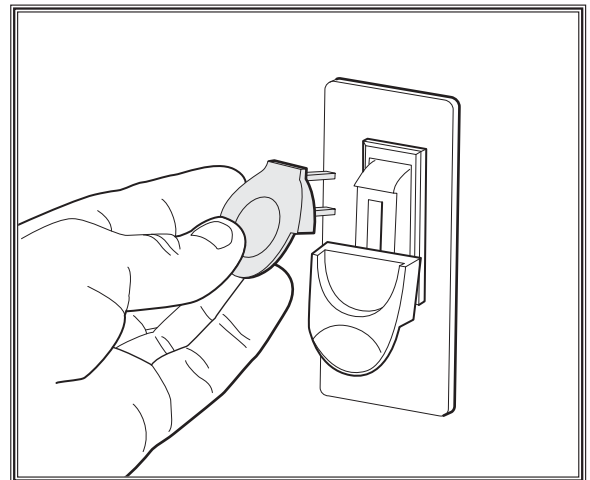


Figure 19. Inserting removable key into ON/OFF paddle switch.

OPERATIONS

General

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

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

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

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

1. Examines workpiece to verify it is safe and suitable for jointing.
2. Adjusts fence for width of workpiece and locks it in place.
3. Adjusts fence tilt, if necessary.
4. Adjusts infeed table height to set depth of cut per pass.
5. Ensures cutterhead guard position and operation are functioning properly.
6. **W1879 Only:** Disengages cutterhead lock on front of jointer.
7. Puts on safety glasses, respirator, and any other required protective equipment.
8. Starts jointer.
9. Using push blocks as needed, holds workpiece firmly against infeed table and fence, and feeds workpiece into cutterhead at a steady and controlled rate until entire length of workpiece has been cut and it clears the cutterhead on the outfeed table side.

! WARNING

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

! WARNING

To reduce the risk of eye injury and long-term respiratory damage, always wear safety glasses and a respirator while operating this machine.

NOTICE

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

10. Repeats cutting process described above until desired results are achieved.
11. Stops jointer.

OPERATIONS

Stock Inspection

Follow these rules when choosing and jointing stock:

- **DO NOT joint or surface plane stock that contains large or loose knots.** Injury to the operator or damage to the workpiece can occur if a knot becomes dislodged during the cutting operation.
- **DO NOT joint or surface plane against the grain direction.** Cutting against the grain increases the likelihood of kickback, as well as tear-out on the workpiece.
- **Jointing and surface planing with the grain produces a better finish and is safer for the operator.** Cutting with the grain is described as feeding the stock on the jointer so the grain points down and toward you as viewed on the edge of the stock (see Figure 20).

Note: *If the grain changes direction along the edge of the board, decrease the cutting depth and make additional passes.*

- **Only cut natural wood.** This jointer is only designed for cutting natural wood stock. Never use it to cut MDF, particle board, plywood, laminates, drywall, backer board, metals, glass, stone, tile, products with lead-based paint, or products that contain asbestos. Cutting these may lead to injury or machine damage.
- **Scrape all glue off the workpiece before jointing.** Glue deposits on the workpiece, hard or soft, will gum up the cutterhead and produce poor results.
- **Remove foreign objects from the workpiece.** Make sure that any stock you process with the jointer is clean and free of dirt, nails, staples, tiny rocks or any other foreign objects that could damage the cutterhead. These particles could also cause a spark as they strike the cutterhead and create a fire hazard.

IMPORTANT: Wood stacked on a concrete or dirt surface can have small pieces of concrete or stone pressed into the surface.

- **Make sure all stock is sufficiently dried before jointing.** Wood with a moisture content over 20% will cause unnecessary wear on the cutters and poor cutting results. Excess moisture can also hasten rust and corrosion.

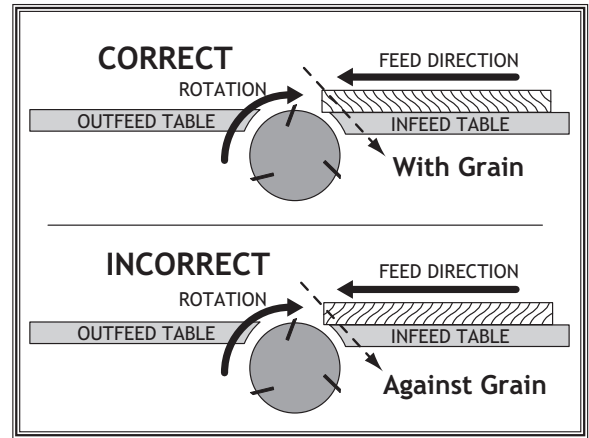


Figure 20. Proper grain alignment with cutterhead.

⚠ WARNING

Make sure your workpiece exceeds the minimum dimension requirement shown below before processing it through the jointer, or the workpiece may break or kick back during the operation.

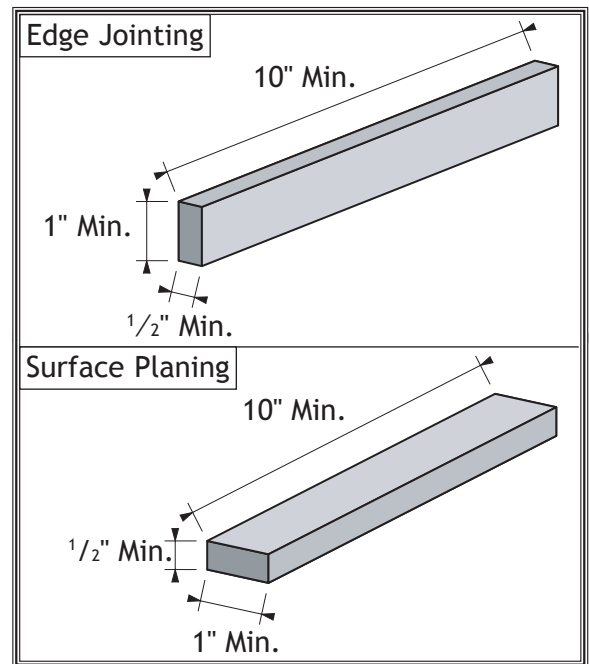


Figure 21. Minimum stock dimensions for jointer.

Setting Depth of Cut

The depth of cut on a jointer affects the amount of material removed from the bottom of the workpiece as it passes over the cutterhead.

Depth of cut is set by adjusting the height of the infeed table relative to the outfeed table, and cutterhead knives/inserts at top dead center (TDC).

Adjusting Infeed Table Height

To adjust infeed table height, loosen table height lock knob, rotate infeed table adjustment knob counterclockwise to raise table, or clockwise to lower table, and then tighten table height lock knob to secure setting (see Figure 22).

⚠ CAUTION
DO NOT exceed 1/8" depth of cut per pass on this machine or kickback and serious injury may occur!

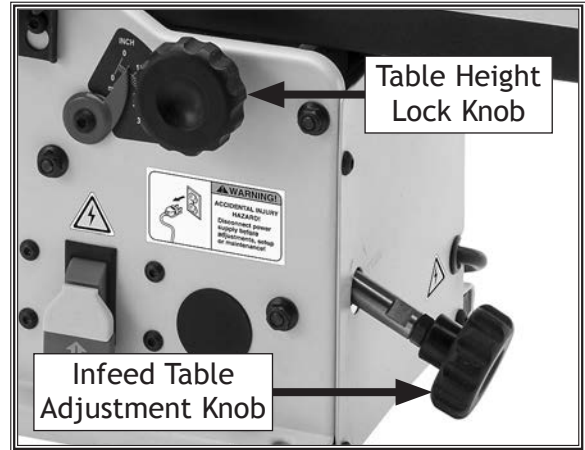


Figure 22. Location of depth-of-cut controls.

Depth-of-Cut Scale

Depth of cut can be referenced directly from the scale located on front of jointer (see Figure 23).

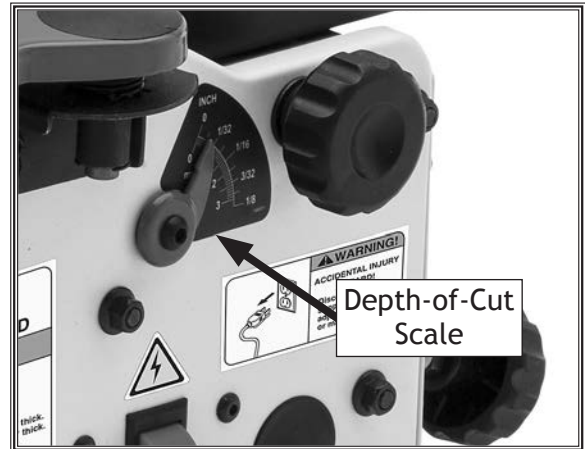


Figure 23. Location of depth-of-cut scale.

Squaring Stock

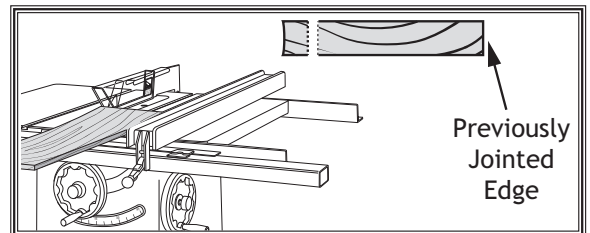
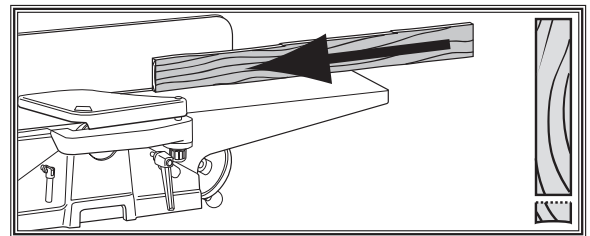
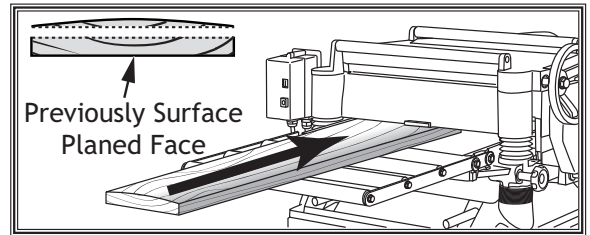
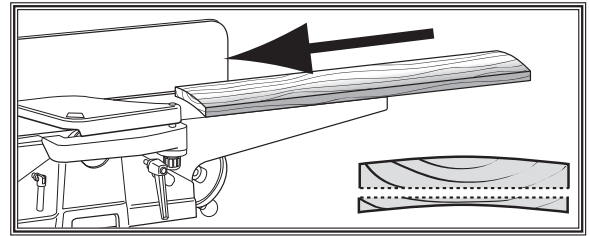
Squaring stock means making it flat and parallel along both length and width, and making the length and width perpendicular to one another. The purpose of squaring stock is to prepare it for accurate cuts and construction later on.

A properly "squared up" workpiece is essential for tasks such as accurate table saw cuts, glue-ups/laminations, cutting accurate bevels on a bandsaw, and many other applications where one surface of a workpiece is used to reference another.

Items Needed	Qty
Jointer	1
Planer	1
Table Saw	1

Squaring stock involves four steps performed in the order below:

1. **Surface Plane on the Jointer:** Concave face of workpiece is surface planed flat with jointer.
2. **Surface Plane on a Thickness Planer:** Opposite face of workpiece is surface planed flat with a thickness planer.
3. **Edge Joint on the Jointer:** Concave edge of workpiece is jointed flat with jointer.
4. **Rip Cut on a Table Saw:** Jointed edge of workpiece is placed against a table saw fence and opposite edge cut off.



Surface Planing

The purpose of surface planing (see **Figure 24**) on the jointer is to make one flat face on a piece of stock to prepare it for thickness planing on a planer.

To surface plane on jointer, do these steps:

1. Inspect stock to ensure it is safe and suitable for the operation (refer to **Stock Inspection** on **Page 24**).
2. Set infeed table height to desired cutting depth for each pass.
 - ▲ **CAUTION:** To minimize risk of kickback, do not exceed a cutting depth of $\frac{1}{16}$ " per pass when surface planing.
3. Set fence to 90° .
4. Start jointer.
5. Place workpiece firmly against fence and infeed table with concave side facing down, as shown in **Figure 24**.

▲ **CAUTION:** To ensure workpiece remains stable during cut, concave sides of workpiece must face toward table and fence.

6. Feed workpiece completely across cutterhead while keeping it firmly against fence and tables during the entire cut.

▲ **CAUTION:** Keep hands at least 4" away from cutterhead during the entire cut. Instead of allowing a hand to pass directly over cutterhead, lift it up and over cutterhead, and safely reposition it on the outfeed side to continue supporting workpiece. Use push blocks whenever practical to further reduce risk of accidental hand contact with cutterhead.

7. Repeat **Step 6** until entire surface is flat.

Tip: When squaring up stock, cut opposite side of workpiece with a planer instead of the jointer to ensure both sides are parallel.

⚠ WARNING

Failure to use push blocks when surface planing may result in cutterhead contact, which will cause serious personal injury. Always use push blocks to protect your hands when surface planing on the jointer.

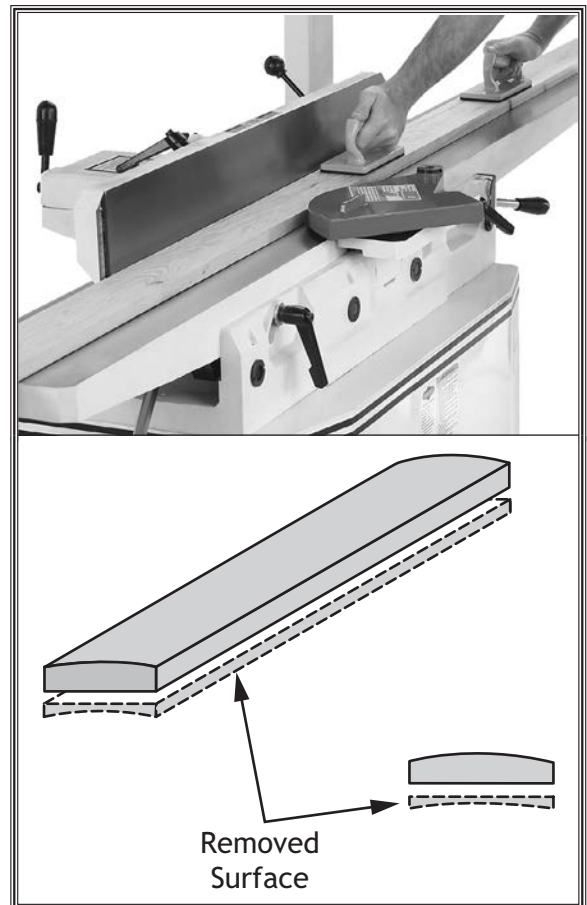


Figure 24. Example of a typical surface planing operation.

Edge Jointing

Edge jointing (see **Figure 25**) produces a flat and true surface along the side of a workpiece by removing uneven areas. It is an essential step for squaring up warped or rough stock and when preparing a workpiece for joinery or finishing.

To edge joint on jointer, do these steps:

1. Inspect stock to ensure it is safe and suitable for the operation (refer to **Stock Inspection** on **Page 24**).
2. Surface plane workpiece (refer to **Surface Planing** on **Page 27**).
3. Set infeed table height to desired cutting depth for each pass.

⚠ CAUTION: To minimize risk of kickback, do not exceed a cutting depth of $\frac{1}{8}$ " per pass.

4. Set fence to 90°.
5. Start jointer.
6. Place workpiece firmly against fence and infeed table with concave side facing down, as shown in **Figure 25**.

⚠ CAUTION: To ensure workpiece remains stable during cut, concave sides of workpiece must face toward table and fence.

7. Feed workpiece completely across cutterhead while keeping it firmly against fence and tables during the entire cut.

⚠ CAUTION: Keep hands at least 4" away from cutterhead during the entire cut. Instead of allowing a hand to pass directly over cutterhead, lift it up and over cutterhead, and safely reposition it on the outfeed side to continue supporting workpiece. Use push blocks whenever practical to further reduce risk of accidental hand contact with cutterhead.

8. Repeat **Step 6** until the entire edge is flat.

Tip: When squaring up stock, cut opposite edge of workpiece with a table saw instead of the jointer—otherwise, both edges of workpiece will not be parallel with each other.

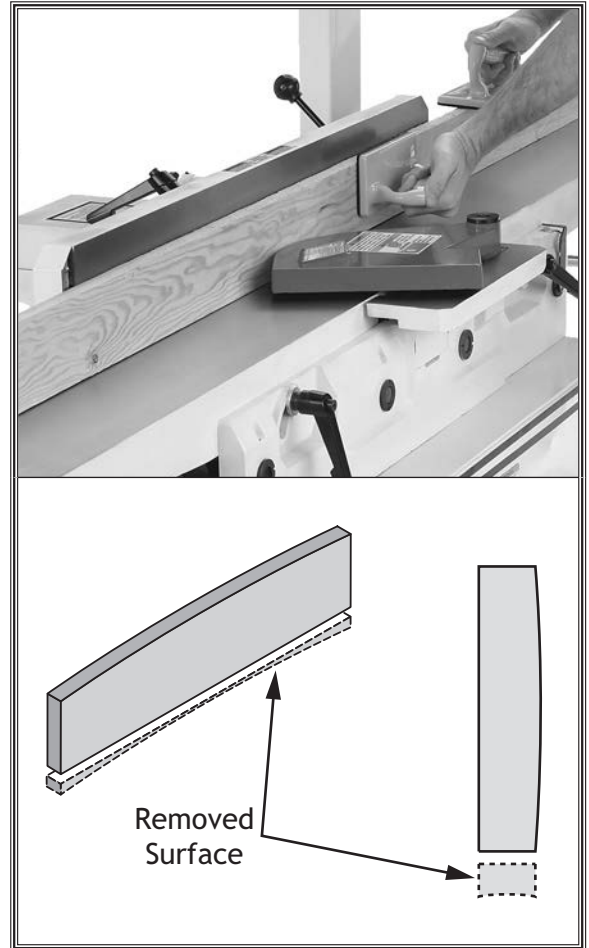


Figure 25. Example of a typical edge jointing operation.

Bevel Cutting

Bevel cuts (see **Figure 26**) can be made by setting the fence at the desired angle and feeding the workpiece firmly along the fence face, with the bottom inside corner firmly against the table. The cutting process typically requires multiple passes or cuts to bevel the entire edge of a workpiece.

To bevel cut on jointer, do these steps:

1. Inspect stock to ensure it is safe and suitable for the operation (refer to **Stock Inspection** on **Page 24**).
2. Surface plane workpiece (refer to **Surface Planing** on **Page 27**).
3. Edge joint workpiece (refer to **Edge Jointing** on **Page 28**).
4. Set infeed table height to cutting depth desired for each pass.

▲ CAUTION: Cutting depth for bevel cuts is typically between $\frac{1}{16}$ " and $\frac{1}{8}$ ", depending on hardness and width of stock.

5. Set fence tilt to desired angle of cut.
6. Place workpiece against fence and infeed table.
7. Start jointer.
8. With a push block in your leading hand, press workpiece against table and fence with firm pressure, and feed workpiece over cutterhead with a push block in your trailing hand.

▲ CAUTION: When your leading hand gets within 4" of the cutterhead, lift it up and over cutterhead, and place push block on portion of the workpiece once it is 4" past cutterhead. Now, focus your pressure on outfeed end of the workpiece while feeding, and repeat same action with your trailing hand when it gets within 4" of cutterhead. To help keep your hands safe, **DO NOT** let them get closer than 4" from moving cutterhead at any time during operation!

9. Repeat cutting process, as necessary, until you are satisfied with the results.

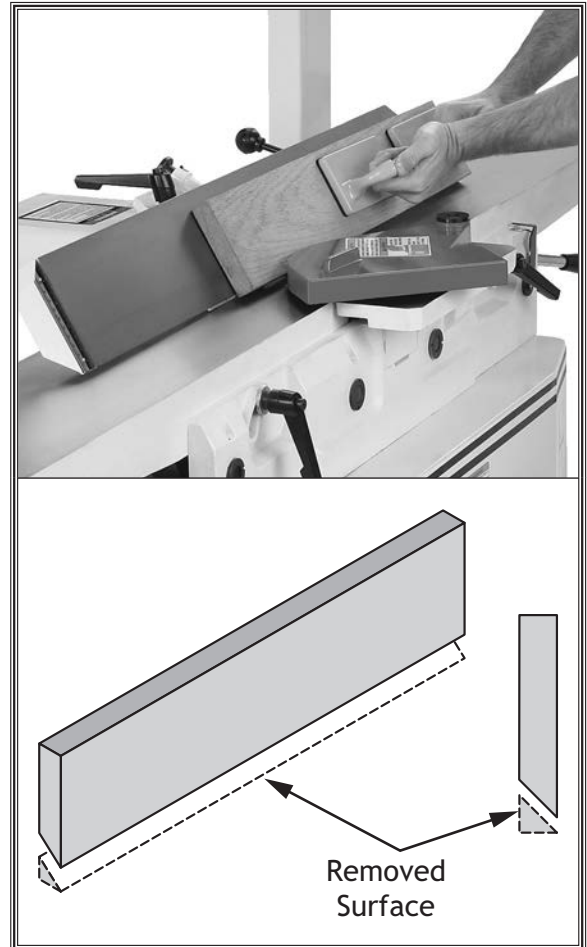


Figure 26. Example of a typical bevel cutting operation.

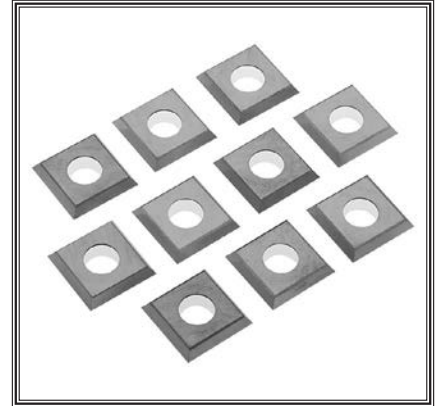
ACCESSORIES

Jointer Accessories

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

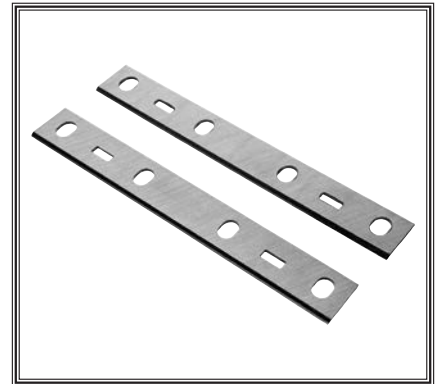
D4933—Indexable Carbide Inserts (Set of 10)

Replacement inserts for the W1876 Jointer. These indexable carbide inserts measure 14mm x 14mm x 2mm and are sold in a 10 pack.



D4956—SK5 Steel Knives (Set of 2)

Replacement knives for the W1879 Jointer. These SK5 steel knives measure 6¹/₄" x 7⁷/₈" x 1¹/₁₆" and are sold in a two pack.



W1041—3" x 2¹/₂" Reducer

W1044—4" x 2¹/₂" Reducer

These reducers will allow you to connect the 2¹/₂" dust port on the W1876 and W1879 Jointers to an existing dust collection system with standard 3" or 4" fittings.



MAINTENANCE

General

For optimum performance from this machine, this maintenance schedule must be strictly followed.

Ongoing

To minimize your risk of injury and maintain proper machine operation, shut down the machine immediately if you ever observe any of the items below, and fix the problem before continuing operations:

- Loose mounting bolts.
- Damaged cutterhead knives/inserts.
- Worn or damaged wires.
- Any other unsafe condition.

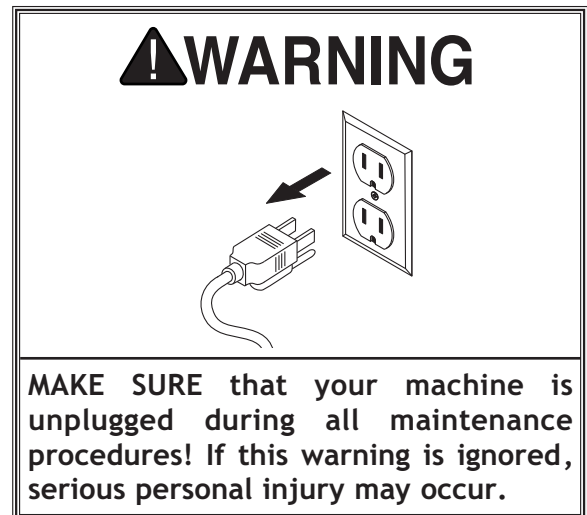
Monthly Check

- Fence positive stop accuracy.
- Belt tension, damage, or wear.
- Clean/vacuum dust buildup from inside base and off motor.

Cleaning & Protecting

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

Protect the unpainted cast aluminum table by wiping it clean after every use—this ensures moisture from wood dust does not remain on bare metal surfaces. Keep your table rust-free with regular applications of quality lubricants. Wax and buff table surface to help prevent improper feeding of workpiece.



Lubrication

Since all bearings are sealed and permanently lubricated, simply leave them alone until they need to be replaced. DO NOT lubricate them.

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

Items Needed	Qty
Pump-Type Oil Can	1
Mineral Spirits	As Needed
Clean Shop Rags.....	As Needed

Fence Slide Bracket

Oil Type.....	ISO 68 Equivalent
Oil Amount	1-2 Drops
Lubrication Frequency	Monthly, or As Needed

Clean fence slide bracket pivot points and guide ways (see **Figure 27**) with mineral spirits and shop rags, allow to dry, then lubricate with light machine oil.

Move components along their full range of motion several times, then wipe off any excess oil.

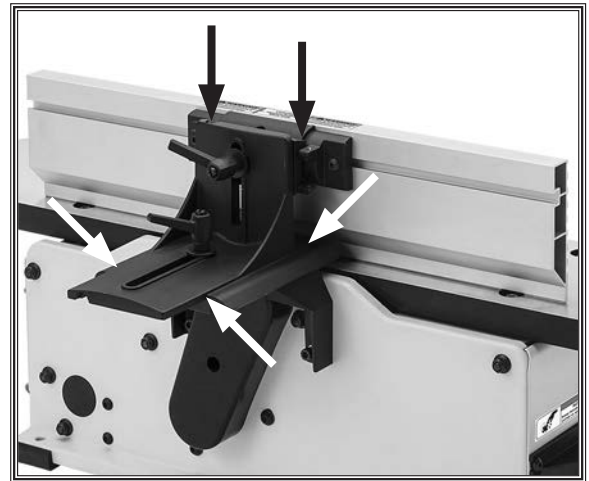


Figure 27. Fence slide bracket lubrication locations.

SERVICE

General

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

If you require additional machine service not included in this section, please contact Woodstock International Technical Support at (360) 734-3482 or send e-mail to: techsupport@woodstockint.com.

Rotating/Replacing Inserts (W1876)

The spiral-style cutterhead is equipped with 2-sided indexable inserts. Each insert can be removed, rotated, and re-installed to use either of its two cutting edges. If one cutting edge becomes dull or damaged, simply rotate it 90° (see **Figure 28**) to use an adjacent sharp cutting edge.

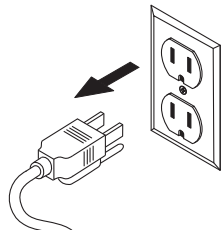
The inserts have a reference dot on one corner. The position of the reference dot on installed inserts can be used to track which edges are sharp/unused and which edges are dull or damaged. Replace inserts once the reference dot has been rotated back to its original position.

Items Needed	Qty
Heavy Leather Gloves	1 Pair
Indexable HSS Inserts 14 x 14 x 2mm	As Needed
Torx Head Screws T-25 #10-32 x 1/2"	As Needed
T-Handle Torx Driver T-25	1
Hex Wrench 4mm	1
Degreaser	As Needed
Light Machine Oil	As Needed
Clean Shop Rags.....	As Needed

To rotate or replace cutterhead insert, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Put on heavy leather gloves and move fence all the way back.
3. Loosen (2) button head cap screws securing cutterhead guard to jointer base, then remove cutterhead guard.

! WARNING



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

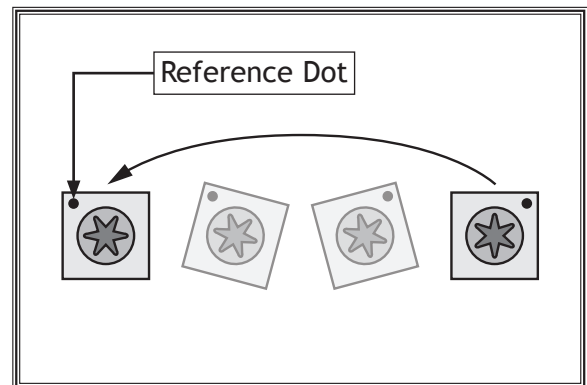


Figure 28. Insert rotating sequence.

! CAUTION

The indexable inserts are very sharp and can easily cut your hands. **ALWAYS** use caution when handling these parts to reduce risk of personal injury.

4. Insert included Torx driver in the cutterhead rotation guide on front of jointer, and rotate cutterhead as needed to make inserts accessible for rotation/removal.
5. Carefully clean away all sawdust or debris from top of insert, Torx screw, and surrounding area (see **Figure 29**).
6. Remove Torx screw and insert (see **Figure 30**), then carefully clean away all dust and debris from insert and insert surface on cutterhead.

IMPORTANT: This step is critical for achieving a smooth finish with cutting operations. Dirt or dust trapped under insert during installation will slightly raise insert in cutterhead, which will leave marks on workpiece after jointing.

Tip: Use low-pressure compressed air or a vacuum nozzle to clean cutterhead surface.

7. Install insert with a sharp cutting edge facing outward. Make sure insert is properly seated on cutterhead before securing.
 - If both insert cutting edges have been used, replace insert with a new one. Always position reference dot in same position when installing a new insert to aid in rotational sequencing.
8. Lubricate Torx screw threads with a small amount of light machine oil, wipe excess off, and torque screw to 48-50 inch/pounds.

IMPORTANT: If too much oil is applied to the threads, excess will attempt to squeeze out of threaded hole as you install insert and force it to raise slightly, making it out of alignment.

9. Install cutterhead guard removed in **Step 2**.

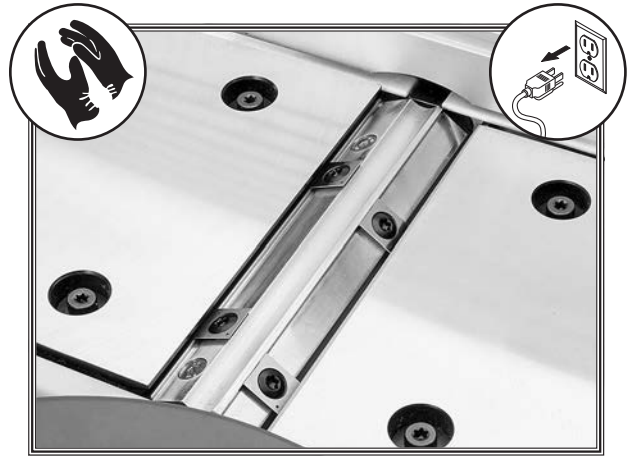


Figure 29. Cutterhead area cleaned.

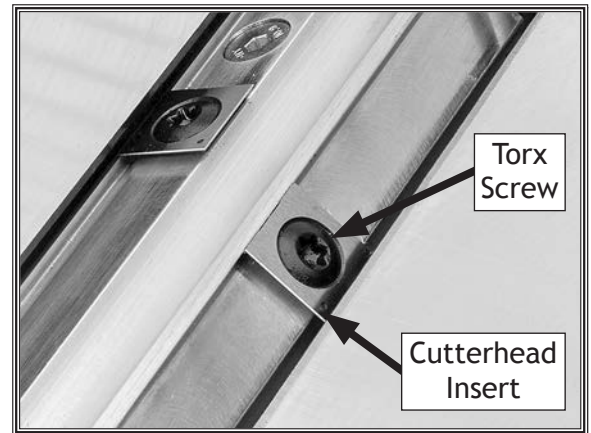


Figure 30. Cutterhead insert and Torx screw.

Checking/Setting Knives (W1879)

Setting the knives correctly is crucial to the proper operation of the jointer, and it plays an important role in keeping the knives sharp. If one knife is higher than the others, it will do the majority of the work, and thus, become dull much faster.

The cutterhead in this jointer is equipped with jack screws that allow for careful positioning of the knives. When replacing knives, clean the knife clamp and inside the cutterhead slot to remove all pitch or sawdust, then coat the knife and clamp with a metal protectant.

For best results, tables must be parallel with each other (see **Checking/Adjusting Table Parallelism on Page 37**)

Items Needed	Qty
Heavy Leather Gloves	1 Pair
Straightedge 24"	1
Hex Wrench 4mm	1
Scrap Wood	As Needed

Checking Knife Height

1. DISCONNECT MACHINE FROM POWER!
2. Loosen (2) button head cap screws securing cutterhead guard to jointer base, then remove cutterhead guard.
3. Using a straightedge on outfeed table, check height of each knife at positions shown in **Figure 31**.
 - Knives are set correctly when they just touch bottom of straightedge at top dead center (TDC) (see **Figure 32**) in each straightedge position.
 - If knives *do not* touch straightedge, or they lift up at any position, knives need to be adjusted. Proceed to **Step 2 of Setting/Replacing Knives**.

Setting/Replacing Knives

1. DISCONNECT MACHINE FROM POWER!
2. Put on heavy leather gloves, move fence all the way back, and remove cutterhead guard.
3. Lower infeed table to 1/2" on depth-of-cut scale to provide access to cutterhead knives.

⚠ CAUTION

Cutterhead knives are very sharp and can easily cut your hands. **ALWAYS** use caution when handling these parts to reduce risk of personal injury.

NOTICE

To maintain accurate and consistent jointing results, we do not recommend sharpening knives yourself. Instead, replace dull knives or have them professionally sharpened.

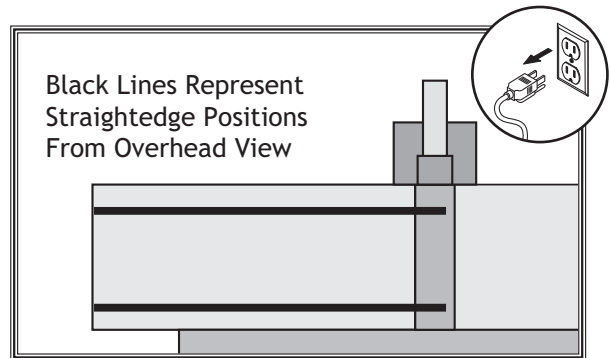


Figure 31. Checking knife height with a straightedge.

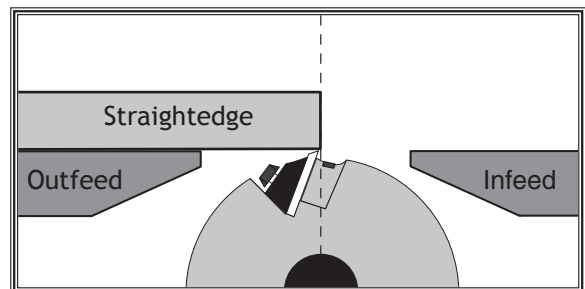


Figure 32. Knife height at top dead center.

SERVICE

4. Rotate cutterhead until knife clamp is on top, then engage cutterhead lock (see **Figure 33**) by moving lock up and over end of cutterhead.

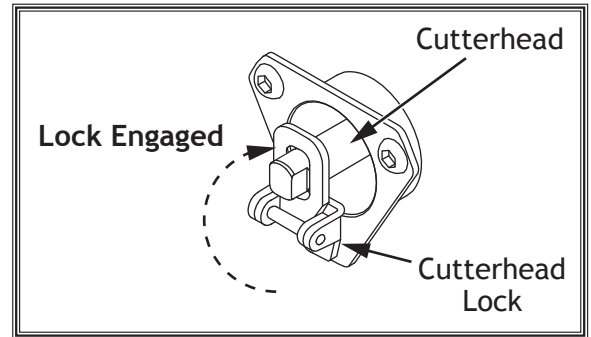


Figure 33. Cutterhead lock engaged.

5. Loosen (4) cutterhead knife clamp screws, as shown in **Figure 34**.
 - If setting knives, proceed to **Step 6**.
 - If replacing knives, carefully remove knife and clamp from cutterhead, then install new knife and re-install clamp. Proceed to **Step 6**.

Note: Clean cutterhead thoroughly before installing new or sharpened knives.

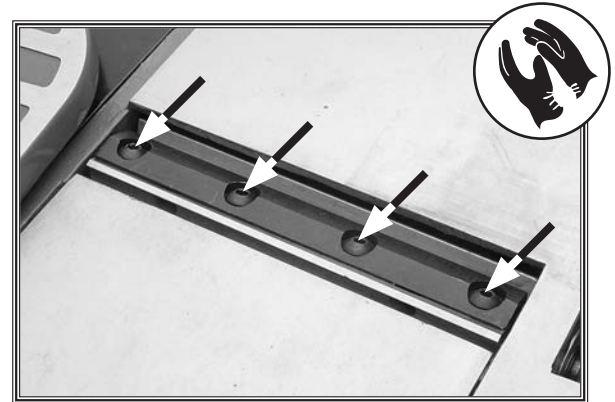


Figure 34. Cutterhead knife clamp screws.

6. Access (2) jack screws through holes in cutterhead (see **Figure 35**). Rotate jack screws to raise or lower knife. When knife is set correctly, it will barely touch bottom of straightedge in each of the straightedge positions. Snug clamp bolts just tight enough to hold knife in place, and repeat **Steps 5-6** with remaining knife.

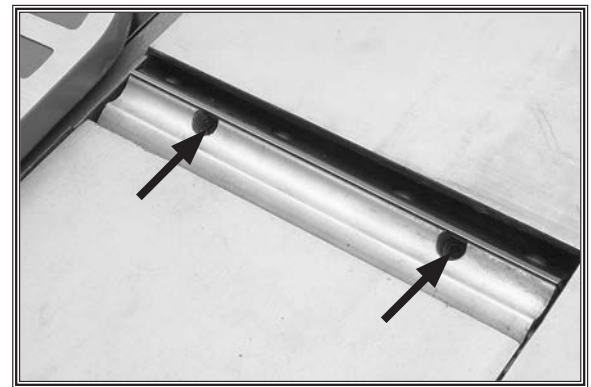


Figure 35. Knife adjustment jack screws.

8. When knife heights are set correctly, fully tighten each of the knives' clamp screws according to the tightening sequence shown in **Figure 36**.
9. Install cutterhead guard removed in **Step 2** on **Page 35** and verify proper operation.

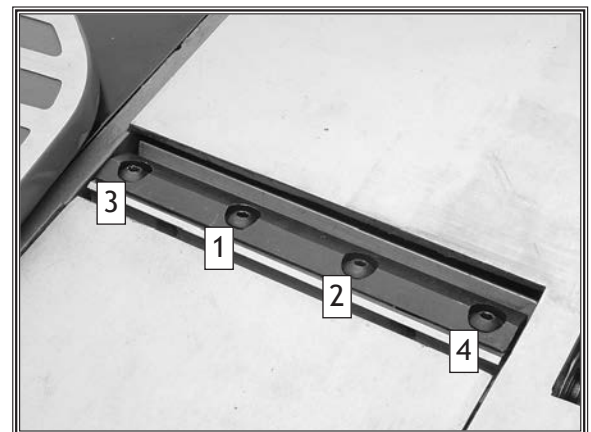


Figure 36. Knife clamp screw tightening sequence.

Checking/Adjusting Table Parallelism

If the infeed and outfeed tables are not parallel with the cutterhead and each other, then poor cutting results and kickback can occur.

Table parallelism is factory-set, and should not normally need to be adjusted when the machine is new. However, after prolonged use, or if machine has been jarred during lifting or transportation, it may become necessary to adjust the table parallelism.

Items Needed	Qty
Precision Straightedge 24"	1
T-Handle Torx Driver T-25	1
Hex Wrench 4mm	1
Flat Head Screwdriver $\frac{3}{8}$ "	1

Checking Outfeed Table

1. DISCONNECT MACHINE FROM POWER!
2. Remove cutterhead guard and fence.
3. Place straightedge on outfeed table so it hangs over cutterhead, then insert included Torx driver into cutterhead rotation guide and rotate cutterhead until straightedge just touches cutterhead body (see **Figure 37**).
4. Place straightedge in the positions shown in **Figure 38**. In each position, straightedge should touch cutterhead and sit flat on outfeed table.
 - If straightedge touches cutterhead body and sits flat across outfeed table in all positions, then outfeed table is already parallel with cutterhead. Follow the **Checking Infeed Table** instructions on **Page 38**.
 - If straightedge *does not* touch cutterhead body and sit flat across outfeed table in any of the positions, then outfeed table is not parallel with cutterhead. Perform **Adjusting Table Parallelism** procedure on **Page 39**.

⚠ CAUTION

The knives/indexable inserts are very sharp and can easily cut your hands. **ALWAYS** use caution when making adjustments near these parts to reduce risk of personal injury.

NOTICE

Although some figures might not exactly represent your machine, this process is the same on the W1876 and W1879.

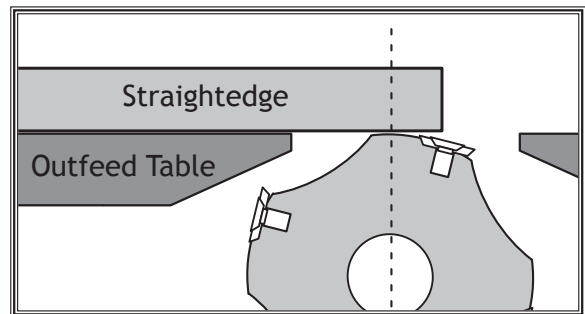


Figure 37. Example of straightedge just touching cutterhead body.

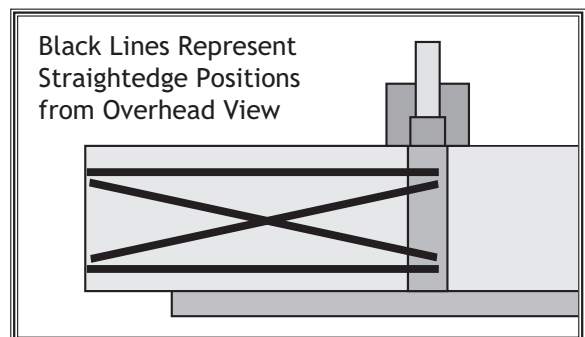


Figure 38. Straightedge positions for verifying outfeed table parallelism.

SERVICE

Checking Infeed Table

1. Follow all steps for checking outfeed table parallelism to first make sure that outfeed table is parallel with cutterhead.
2. Insert included Torx driver into cutterhead rotation guide and rotate cutterhead so knives/inserts will not interfere, then place straightedge on infeed and outfeed tables and adjust infeed table even with outfeed table, as shown in **Figure 39**.

Note: *Infeed table depth-of-cut scale should be set at "0".*

3. Place straightedge in the positions shown in **Figure 40**. In each position, straightedge should sit flat against both outfeed table and infeed table.
 - If straightedge sits flat against both infeed and outfeed tables in all positions, then tables are parallel. Install cutterhead guard and fence.
 - If straightedge *does not* sit flat against both infeed and outfeed tables in any of the positions, then perform **Adjusting Table Parallelism** on **Page 39**.

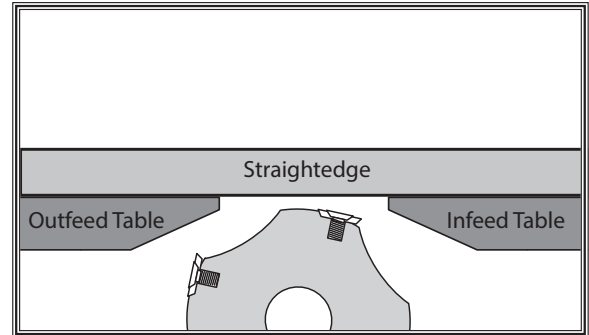


Figure 39. Example of infeed and outfeed table height set evenly.

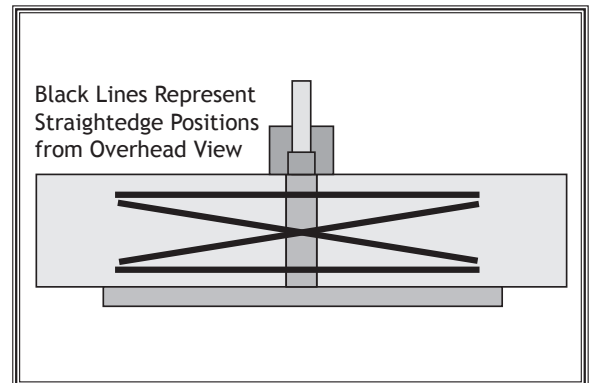


Figure 40. Straightedge positions for checking infeed/outfeed table parallelism.

Adjusting Table Parallelism

For safe and proper cutting results, the tables must be parallel to the cutterhead. Adjusting them to be parallel is a task of precision and patience, and may take up to one hour to complete. This is considered a permanent adjustment, and should not need to be repeated. Due to the complex nature of this task, we recommend that you double check the current table positions to make sure that they really need to be adjusted before starting.

Each table has four leveling adjusters that allow the table to be adjusted parallel. Each leveling adjuster is locked in place by a button head cap screw w/washer.

The correct order for adjusting table parallelism is to first adjust outfeed table parallel with cutterhead, then adjust infeed table parallel with outfeed table.

When setting outfeed table, all measurements **MUST** be made from the cutterhead body—not the knives/inserts, or the results may be skewed.

IMPORTANT: The following steps are intended to be performed directly after the steps involved in **Checking Outfeed Table** on Page 37. **DO NOT** continue until you have performed those steps.

To adjust table parallelism, do these steps:

1. Place straightedge on outfeed table so it hangs over cutterhead, then insert included Torx driver into cutterhead rotation guide and rotate cutterhead until cutterhead body is at the highest point of rotation (see Figure 41).
2. Access outfeed table leveling adjusters by removing (4) cap screws w/washers from table openings, as shown in Figure 42.

⚠ CAUTION

The knives/indexable inserts are very sharp and can easily cut your hands. **ALWAYS** use caution when making adjustments near these parts to reduce risk of personal injury.

NOTICE

Although some figures might not exactly represent your machine, this process is the same on the W1876 and W1879.

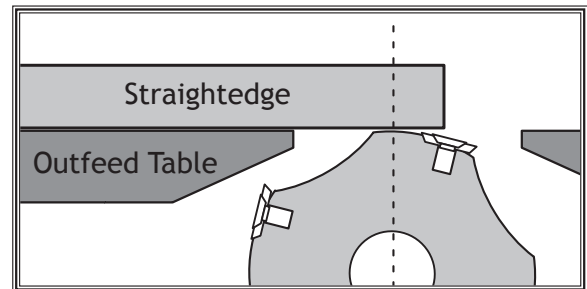


Figure 41. Example of cutterhead body at highest point of rotation.



Figure 42. Example of location of outfeed table leveling adjusters.

- Place straightedge in one of the positions shown in **Figure 43**.

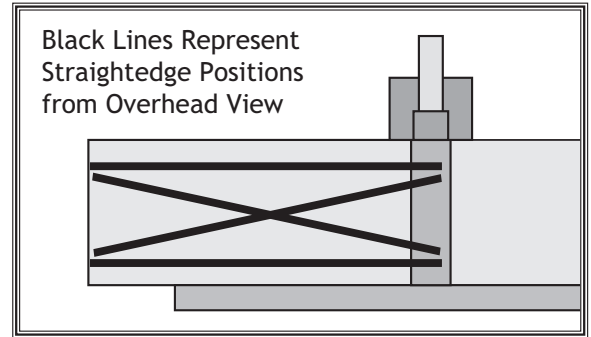


Figure 43. Straightedge positions for checking outfeed table parallelism.

- Use a flat head screwdriver to rotate leveling adjuster(s) (see **Figure 44**) under straightedge until straightedge touches cutterhead body while lying flat across outfeed table.

Note: Rotate leveling adjusters clockwise to lift table, and counterclockwise to lower table.

- Repeat **Step 4** with each remaining straightedge position as many times as necessary until outfeed table is parallel with cutterhead.

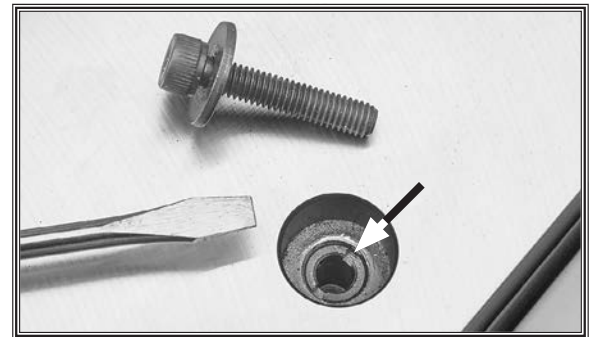


Figure 44. Leveling adjuster.

- Place straightedge halfway across infeed and outfeed tables, and adjust infeed table height even with outfeed table, as shown in **Figure 45**.

Note: Infeed table depth-of-cut scale should be set at "0".

- Access infeed table leveling adjusters by removing (4) cap screws w/washers from table openings.

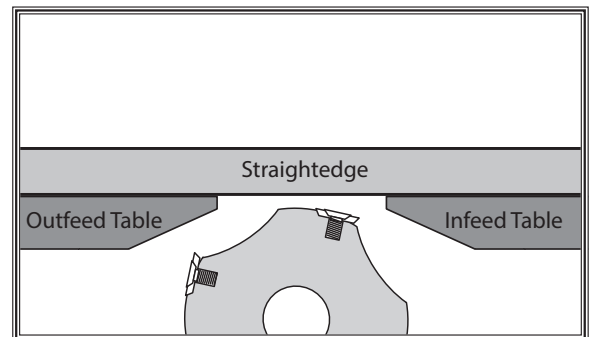


Figure 45. Example of infeed and outfeed table height set evenly.

- Place straightedge in one of the positions shown in **Figure 46**, and rotate leveling adjuster(s) under straightedge until straightedge lies flat across both tables.

- Repeat **Step 8** with each remaining straightedge position as many times as necessary until infeed table is parallel with outfeed table.

- Install cap screws w/washers removed in **Steps 2 & 7** in infeed and outfeed table openings.

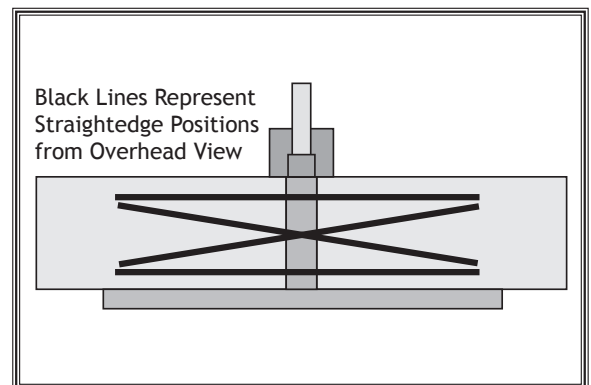


Figure 46. Straightedge positions for checking infeed/outfeed table parallelism.

Checking/Adjusting Fence Positive Stops

The fence has adjustable positive stops at the 90° and 45° outward (135°) positions for quickly and accurately setting the desired fence angle.

Note: To ensure accurate results when jointing, check the accuracy of these settings frequently (monthly at a minimum) and adjust them if necessary.

Items Needed	Qty
Hex Wrench 2.5mm.....	1
Combination Square	1

To check/adjust fence positive stops, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. Loosen fence slide lock handle and slide fence to desired position, then tighten handle.
3. Loosen fence tilt lock handle and adjust fence to 90° position, then tighten handle.

Note: Both lock handles can be repositioned by pulling up on the handle and sliding the square nut underneath to the desired position.

4. Place combination square on jointer table with 90° side against fence (see **Figure 47**).
 - If fence is flush against combination square, 90° fence positive stop is set correctly. Proceed to **Step 6**.
 - If fence is *not* flush against combination square, proceed to **Step 5**.
5. Adjust fence until it is flush against combination square, then tighten 90° set screw on fence slide bracket until it contacts stop block (see **Figure 48**).



Figure 47. Example of checking 90° fence angle with combination square.

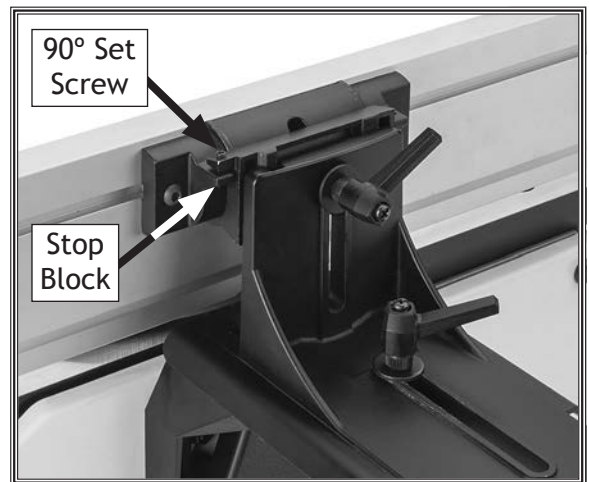


Figure 48. Adjusting 90° fence angle.

6. Loosen fence tilt lock handle and adjust fence to 45° outward position (see **Figure 49**), then tighten handle.
7. Place combination square on jointer table with 45° outward side against fence (see **Figure 49**).
 - If fence is flush against combination square, 45° outward fence positive stop is set correctly. Proceed to **Step 9**.
 - If fence *is not* flush against combination square, proceed to **Step 8**.
8. Adjust fence until it is flush against combination square, then tighten 45° set screw on fence slide bracket until it contacts stop block (see **Figure 50**).
9. Loosen fence tilt lock handle and adjust fence to 90° position, then tighten handle.
10. Place combination square on jointer table with 90° side against fence, and verify fence is flush against combination square.
 - If fence is flush against combination square, fence positive stops are set correctly.
 - If fence *is not* flush against combination square, perform **Steps 5-10** to set fence positive stops.



Figure 49. Example of checking 45° outward fence angle.

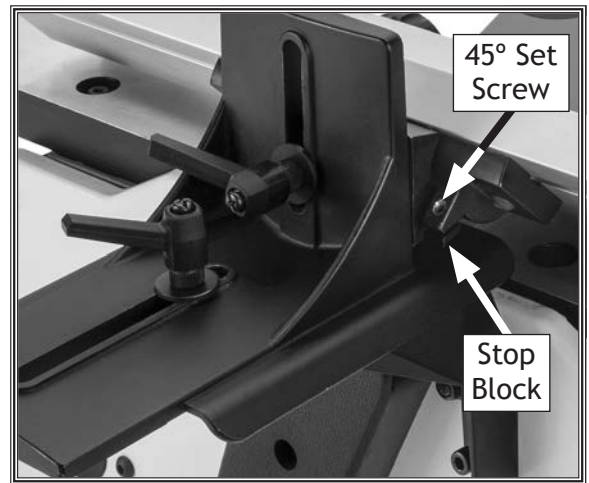


Figure 50. Adjusting 45° outward fence angle.

Replacing/Tensioning Belt

To ensure optimum power transmission from the motor to the cutterhead, the belt must be in good condition (free from cracks, fraying, and wear) and properly tensioned.

Items Needed	Qty
Replacement Belt (X1876040)	1
Hex Wrench 4mm	1

Replacing Belt

1. DISCONNECT MACHINE FROM POWER!
2. Loosen (1) button head cap screw securing belt cover, then remove cover.
3. Loosen (3) button head cap screws around motor pulley (see **Figure 51**). DO NOT remove screws!
4. Lift motor pulley and remove belt.
5. Install new belt over motor pulley first, then lift motor pulley and install remaining portion of belt over cutterhead pulley.
6. Proceed to **Step 3** in **Tensioning Belt** below.

Tensioning Belt

1. DISCONNECT MACHINE FROM POWER!
2. Perform **Steps 2-3** as instructed in **Replacing Belt**.
3. Press down on motor pulley to keep tension on belt, and tighten (3) button head cap screws loosened during **Step 3** of **Replacing Belt**.
4. Press belt with moderate pressure in center to check belt tension. Belt is correctly tensioned when there is approximately 1/4" deflection when pushed (see **Figure 52**).
 - If there is greater than 1/4" deflection when checking belt tension, loosen (3) button head cap screws around motor pulley, then repeat **Steps 3-4** until tension is correct.
5. Install belt cover using (1) button head cap screw removed in **Step 2** of **Replacing Belt**.

⚠ CAUTION

Belts and pulleys will be hot after operation. Allow them to cool before handling.

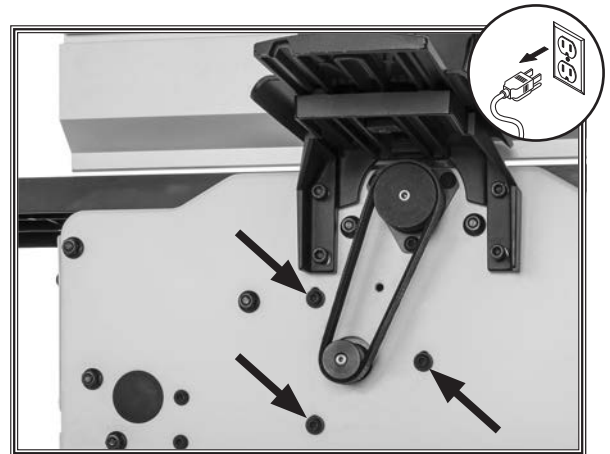


Figure 51. Location of screws around motor pulley.

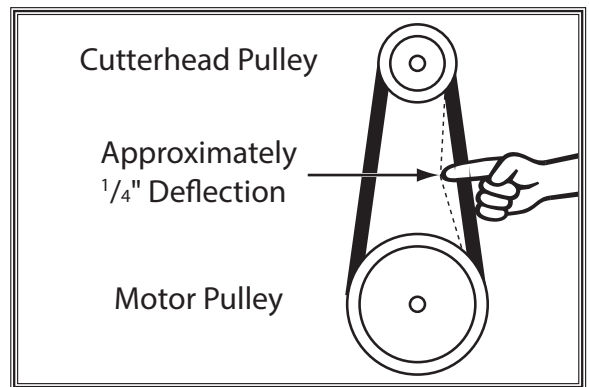


Figure 52. Checking belt deflection.

NOTICE

A small amount of black belt dust at the bottom of the belt cover is normal during the life of the machine, and does not indicate a problem with the machine or belt.

SERVICE

Replacing Motor Brushes

This jointer is equipped with a universal motor that uses two carbon brushes to transmit electrical current inside the motor. These brushes are considered to be regular "wear items" or "consumables" that will need to be replaced during the life of the motor. The frequency of required replacement is often related to how much the motor is used and how hard it is pushed.

Items Needed	Qty
Carbon Motor Brushes (X1876300-1)	2
Penny (or Dime)	1
Shop Vacuum	1
Clean Shop Rags.....	As Needed

NOTICE

Replace both carbon brushes (part number: X1876300-1) at the same time when the motor no longer reaches full power, or when the brushes measure less than 1/4" long (new brushes are 5/8" long).

To replace motor brushes, do these steps:

1. DISCONNECT MACHINE FROM POWER!
2. While facing rear of jointer, tip machine away from you until it rests on the cutterhead guard mounting bracket.

Note: Place clean shop rags under jointer to help prevent damaging machine finish.

3. Vacuum all dust and debris from motor area.
4. Unscrew brush covers (see **Figure 53**).

Note: When removing brush covers, a spring will pop out of the socket; the carbon brush is firmly attached to this spring.

5. Check brushes for wear. If a brush is worn to less than 1/4" in length, replace both brushes.
6. Insert brush assemblies (positioning them so they slide into the built-in slots) into brush sockets, then press brush cover against spring and tighten.
7. Perform **Test Run** procedure on **Page 22**.

- If jointer runs properly, motor brush replacement is complete.
- If motor *does not* start, brushes are not correctly aligned in sockets, or there is another problem with the motor or wiring. Refer to **Troubleshooting** on **Page 45** for assistance.

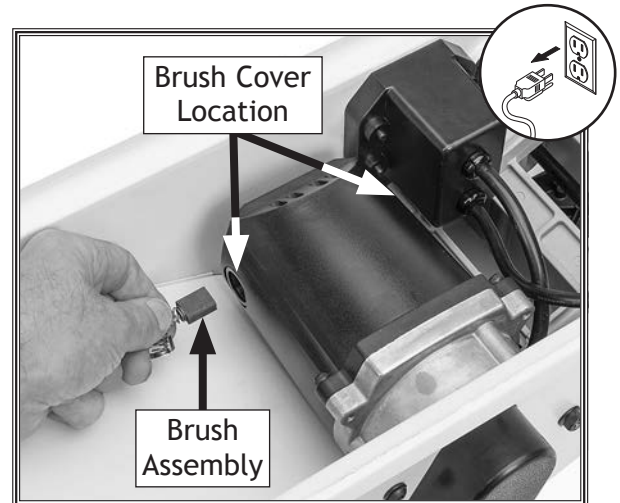


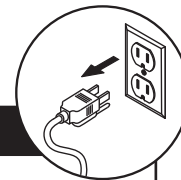
Figure 53. Removing motor brush.

Troubleshooting

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

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

Motor & Electrical



PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Machine does not start, or power supply breaker trips immediately after startup.	<ol style="list-style-type: none"> 1. Switch disabling key removed. 2. Incorrect power supply voltage or circuit size. 3. Power supply circuit breaker tripped or fuse blown. 4. Wiring broken, disconnected, or corroded. 5. Motor brushes worn out. 6. ON/OFF switch at fault. 7. Motor or motor bearings at fault. 	<ol style="list-style-type: none"> 1. Install switch disabling key. 2. Ensure correct power supply voltage and circuit size. 3. Ensure circuit is sized correctly and free of shorts. Reset circuit breaker or replace fuse. 4. Fix broken wires or disconnected/corroded connections. 5. Replace motor brushes (Page 44). 6. Replace switch. 7. Replace motor.
Machine stalls or is underpowered.	<ol style="list-style-type: none"> 1. Workpiece material unsuitable for machine. 2. Feed rate/cutting speed too fast. 3. Workpiece crooked; fence loose or misadjusted. 4. Belt slipping/pulleys misaligned. 5. Motor wired incorrectly. 6. Motor brushes worn out. 7. Pulley slipping on shaft. 8. Machine undersized for task. 9. Extension cord too long. 10. Motor or motor bearings at fault. 	<ol style="list-style-type: none"> 1. Only cut wood/ensure moisture is below 20%. 2. Decrease feed rate/cutting speed. 3. Straighten or replace workpiece/adjust fence. 4. Clean/tension/replace belt (Page 43); ensure pulleys are aligned. 5. Wire motor correctly. 6. Replace motor brushes (Page 44). 7. Tighten/replace loose pulley/shaft. 8. Use correct knives/inserts; reduce feed rate or depth of cut. 9. Move machine closer to power supply; use shorter extension cord. 10. Replace motor.
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> 1. Motor or component loose. 2. V-belt worn, loose, pulleys misaligned, or belt slapping cover. 3. Knives/gibs at fault. 4. Pulley loose. 5. Incorrectly mounted to workbench. 6. Motor mount loose/broken. 7. Cutterhead bearing(s) at fault. 8. Motor bearings at fault. 	<ol style="list-style-type: none"> 1. Replace damaged or missing bolts/nuts or tighten if loose. 2. Inspect/replace belt (Page 43). Realign pulleys if necessary. 3. Resharpen/replace knives; set knife alignment/height correctly (Page 35). 4. Secure pulley on shaft. 5. Adjust feet, shim, or tighten mounting hardware. 6. Tighten/replace. 7. Replace bearing(s)/realign cutterhead. 8. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement.

Operation

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Table is hard to adjust.	1. Table lock engaged/partially engaged.	1. Completely loosen table lock.
Excessive snipe (gouge in end of board that is uneven with rest of cut); back of workpiece is concave.	1. Outfeed table is set too low, or knives (straight knife cutterheads only) set too high. 2. Operator pushing down on trailing end (infeed side) of workpiece as it leaves cutterhead.	1. Align outfeed table with cutterhead knives/inserts at top dead center (Page 37). 2. Focus most of the workpiece pressure against outfeed table while cutting.
Workpiece stops in middle of cut; front of workpiece is concave.	1. Outfeed table set too high.	1. Align outfeed table with cutterhead knives/inserts at top dead center (Page 37).
Workpiece chipping, tear-out, indentations, or overall rough cuts.	1. Workpiece is rough or has loose knots/surface flaws; not suitable for jointing. 2. Not feeding workpiece to cut "with" the grain. 3. Dull knives/insert(s). 4. Nicked, or chipped knives/insert(s). 5. Feeding workpiece too fast. 6. Excessive depth of cut. 7. Lack of proper dust collection or clogged dust port.	1. Inspect workpiece. Use smooth stock without loose knots/surface flaws. 2. Flip workpiece 180° before feeding again. 3. Sharpen/replace knives (Page 35); Rotate/replace insert(s) (Page 33). 4. Replace knives (Page 35); Rotate/replace insert(s) (Page 33). 5. Reduce feed rate. 6. Reduce depth of cut. 7. Clear blockages, ensure dust collection is operating efficiently; upgrade dust collector.
Fuzzy grain left in workpiece.	1. Wood has high moisture content. 2. Dull knives/insert(s).	1. Ensure wood moisture content is less than 20%. Allow to dry if necessary. 2. Sharpen/replace knives (Page 35); Rotate/replace insert(s) (Page 33).
Long lines or ridges that run along the length of the board.	1. Nicked, or chipped knives/insert(s). 2. Loose or incorrectly installed insert(s) (spiral cutterheads only). 3. Dirt or debris under carbide insert(s) (spiral cutterheads only).	1. Replace knives (Page 35); Rotate/replace insert(s) (Page 33). 2. Remove/replace insert(s) (Page 33), and install properly. 3. Remove insert(s), clean bottom of insert/cutterhead mounting pocket, and re-install (Page 33).

Operation

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Uneven cutter marks, wavy surface, or chatter marks across face of workpiece.	<ol style="list-style-type: none"> 1. Feeding workpiece too fast. 2. Knives/insert(s) not adjusted at even heights in cutterhead. 3. Dirt or debris under carbide insert(s) (spiral cutterheads only). 	<ol style="list-style-type: none"> 1. Reduce feed rate. 2. Adjust knives so they are set up evenly in cutterhead (Page 35). Remove, clean, and re-install any inserts that are "raised" in cutterhead (Page 33). 3. Remove insert(s), clean bottom of insert/cutterhead mounting pocket, and re-install (Page 33).
Glossy surface; scorching or burn marks on workpiece.	<ol style="list-style-type: none"> 1. Dull knives/insert(s). 2. Feed rate too slow. 	<ol style="list-style-type: none"> 1. Sharpen/replace knives (Page 35); Rotate/replace insert(s) (Page 33). 2. Increase feed rate.
Workpiece is concave or convex along its length after jointing.	<ol style="list-style-type: none"> 1. Workpiece not held with even pressure against outfeed table during cut. 2. Workpiece too uneven at start of operation. 3. Tables not parallel with cutterhead body and each other. 	<ol style="list-style-type: none"> 1. Apply even downward pressure against workpiece throughout entire travel along outfeed side during cut. 2. Take partial cuts to remove extreme high spots before doing a full pass. 3. Check/adjust table parallelism (Page 37).
Workpiece edges not square; tapered cut produced.	<ol style="list-style-type: none"> 1. Fence not square to table(s); fence tilt unlocked. 2. Warped infeed or outfeed table. 3. Knives/insert(s) not adjusted at even heights in cutterhead. 	<ol style="list-style-type: none"> 1. Square fence to table(s); lock fence. 2. Regrind/replace table. 3. Adjust knives so they are set up evenly in cutterhead (Page 35). Remove, clean, and re-install any inserts that are "raised" in cutterhead (Page 33).

Electrical Safety Instructions

These pages are current at the time of printing. However, in the spirit of improvement, we may make changes to the electrical systems of future machines. Compare the manufacture date of your machine to the one stated in this manual, and study this section carefully.

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

⚠ WARNING

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

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

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

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

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

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

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

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

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

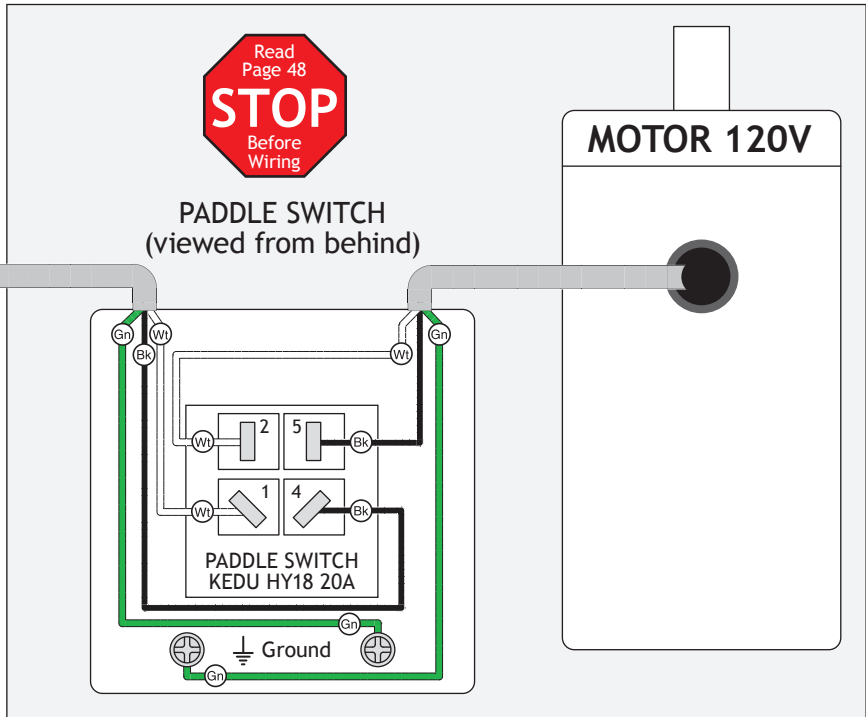
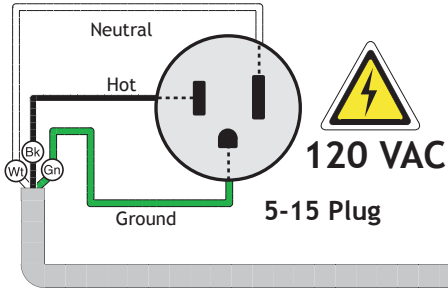
NOTICE

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

WIRING DIAGRAM COLOR KEY

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

Wiring Diagram



⚠ WARNING!
SHOCK HAZARD!
Disconnect power before working on wiring

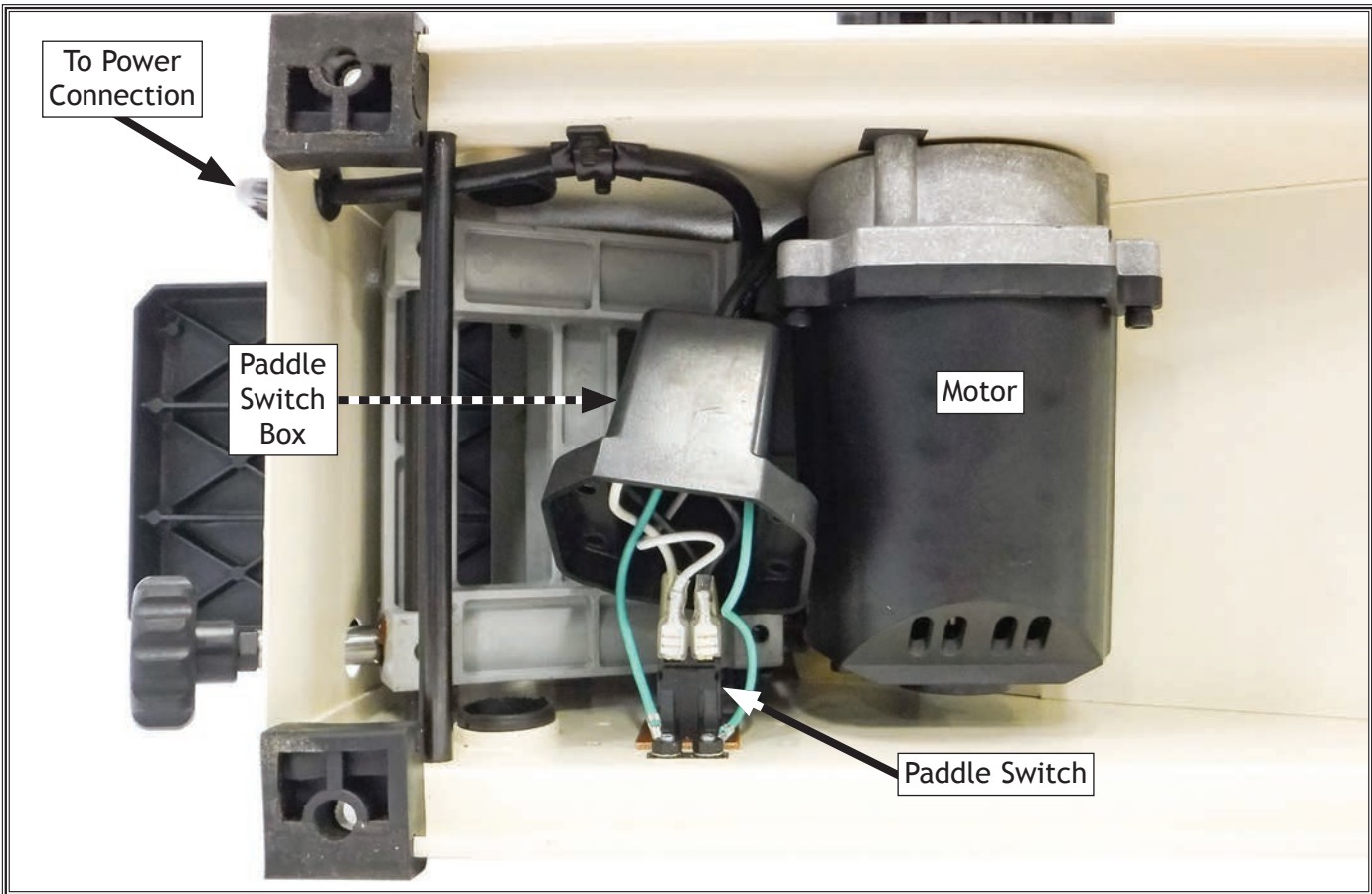
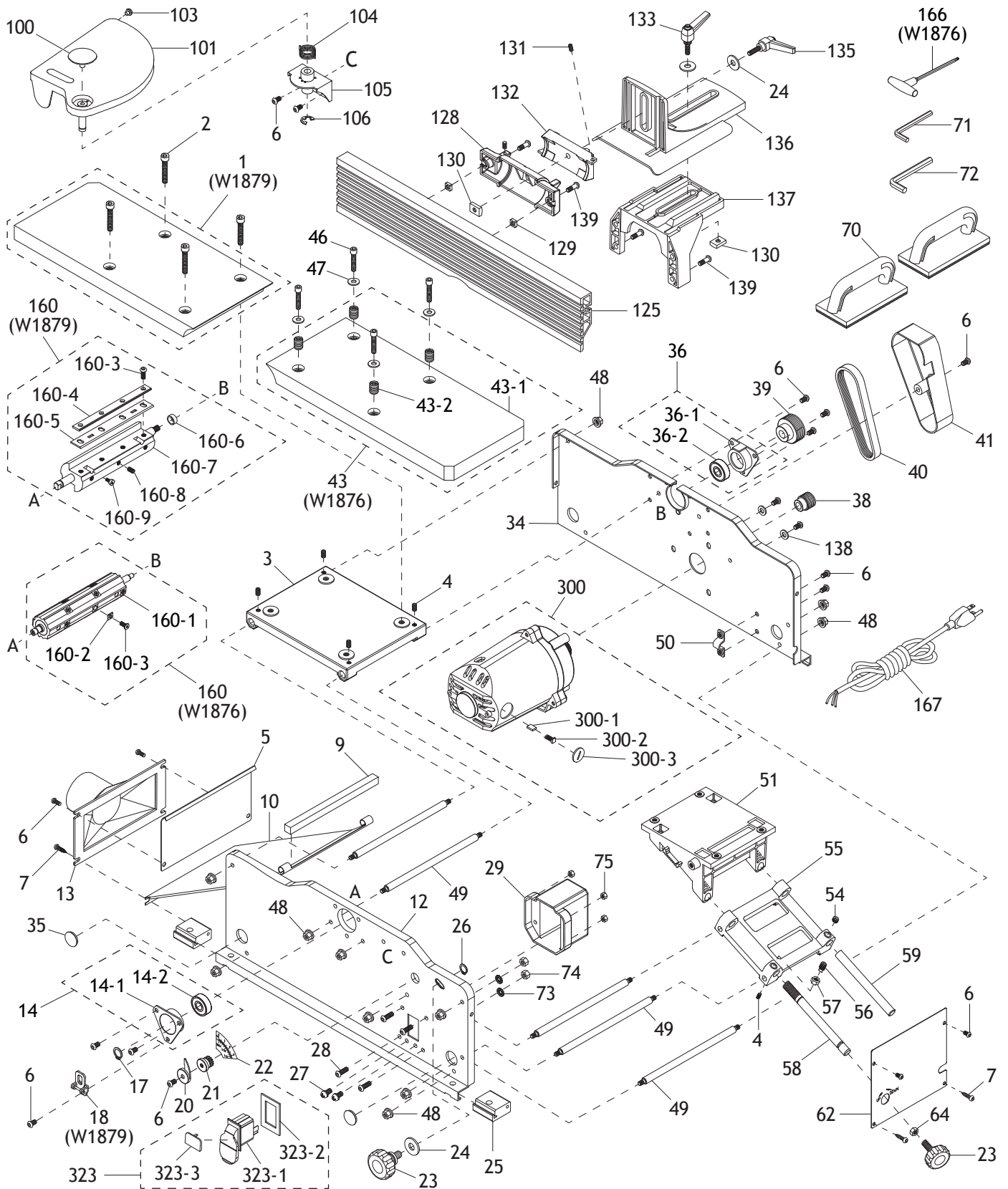


Figure 54. Wiring overview.

SERVICE

PARTS

Main



PARTS

Main Parts List

REF	PART #	DESCRIPTION
1	X1879001	TABLE (W1879)
2	X1879002	CAP SCREW M8-1.25 X 30 (W1879)
3	X1876003	OUTFEED TABLE SUPPORT
4	X1876004	SET SCREW M6-1 X 8
5	X1876005	DUST CHUTE COVER
6	X1876006	BUTTON HD CAP SCR M6-1 X 12
7	X1876007	TAP SCREW 1/4 X 5/8
9	X1876009	FOAM SEAL
10	X1876010	DUST CHUTE
12	X1876012	FRONT BASE PANEL
13	X1876013	DUST PORT 2-1/2"
14	X1876014	FRONT BEARING RETAINER ASSEMBLY
14-1	X1876014-1	FRONT BEARING RETAINER
14-2	X1876014-2	BALL BEARING 6201ZZ
17	X1876017	EXT RETAINING RING 12MM
18	X1879018	CUTTERHEAD LOCK (W1879)
20	X1876020	SCALE POINTER
21	X1876021	SCALE GEAR
22	X1876022	SCALE PLATE
23	X1876023	KNOB BOLT M8-1.25 X 18, 12-LOBE, D49
24	X1876024	FENDER WASHER 8MM
25	X1876025	FOOT PAD
26	X1876026	EXT RETAINING RING 16MM
27	X1876027	PHLP HD SCR M5-.8 X 8
28	X1876028	BUTTON HD CAP SCR M5-.8 X 25
29	X1876029	PADDLE SWITCH BOX
34	X1876034	REAR BASE PANEL
35	X1876035	ROUND PLUG 35MM
36	X1876036	REAR BEARING RETAINER ASSEMBLY
36-1	X1876036-1	REAR BEARING RETAINER
36-2	X1876036-2	BALL BEARING 6201ZZ
38	X1876038	MOTOR PULLEY
39	X1876039	CUTTERHEAD PULLEY
40	X1876040	POLY-V BELT 125J5
41	X1876041	BELT COVER
43	X1876043	TABLE ASSEMBLY (W1876)
43-1	X1876043-1	TABLE (W1876)
43-2	X1876043-2	SET SCREW M12-1.25 X 15 HOLE-PT, SLOTTED (W1876)
46	X1876046	CAP SCREW M6-1 X 30 (W1876)
47	X1876047	FENDER WASHER 6MM (W1876)
48	X1876048	FLANGE NUT M6-1
49	X1876049	STUD-DE M6-1 X 100, 12
50	X1876050	POWER CORD CLAMP
51	X1876051	INFEED TABLE SUPPORT
54	X1876054	SET SCREW M6-1 X 10
55	X1876055	SUPPORT BRACKET
56	X1876056	SET SCREW M6-1 X 16
57	X1876057	HEX NUT M6-1
58	X1876058	ADJUSTMENT ROD

REF	PART #	DESCRIPTION
59	X1876059	ADJUSTMENT SHAFT
62	X1876062	RIGHT BASE PANEL
64	X1876064	HEX NUT M8-1.25
70	X1876070	PUSH BLOCK
71	X1876071	HEX WRENCH 2.5MM
72	X1876072	HEX WRENCH 4MM
73	X1876073	EXT TOOTH WASHER 5MM
74	X1876074	HEX NUT M5-.8
75	X1876075	LOCK NUT M5-.8
100	X1876100	ROUND PLUG 42MM
101	X1876101	CUTTERHEAD GUARD
103	X1876103	RUBBER BUMPER
104	X1876104	TORSION SPRING 1.6 X 23MM
105	X1876105	GUARD MOUNTING BRACKET
106	X1876106	E-CLIP 10MM
125	X1876125	FENCE
128	X1876128	TILT BRACKET
129	X1876129	T-SLOT NUT 7, M6-1
130	X1876130	SQUARE NUT M8-1.25
131	X1876131	SET SCREW M5-.8 X 8
132	X1876132	TILT SUPPORT BRACKET
133	X1876133	ADJ HANDLE M8-1.25 X 30, 50L
135	X1876135	ADJ HANDLE M8-1.25 X 40, 50L
136	X1876136	FENCE SLIDE BRACKET
137	X1876137	FENCE SUPPORT BRACKET
138	X1876138	FLAT WASHER 6MM
139	X1876139	BUTTON HD CAP SCR M6-1 X 16
160	X1876160	CUTTERHEAD ASSEMBLY (W1876)
160-1	X1876160-1	SPIRAL CUTTERHEAD 6" (W1876)
160-2	X1876160-2	CARBIDE INSERT 14 X 14 X 2 (W1876)
160-3	X1876160-3	FLAT HD TORX SCR M5-.8 X 16 (W1876)
160	X1879160	CUTTERHEAD ASSEMBLY (W1879)
160-3	X1879160-3	BUTTON HD CAP SCR 1/4-20 X 5/8 (W1879)
160-4	X1879160-4	KNIFE CLAMP BAR (W1879)
160-5	X1879160-5	JOINTER KNIFE 6-1/4" X 7/8" X 1/16" (W1879)
160-6	X1879160-6	SPACER 12ID X 16OD X 4L (W1879)
160-7	X1879160-7	CUTTERHEAD 6" 2-KNIFE (W1879)
160-8	X1879160-8	SET SCREW M6-1 X 10 (W1879)
160-9	X1879160-9	ADJUSTMENT SCREW M4-.7 X 10 (W1879)
166	X1876166	T-HANDLE TORX DRIVER T-25 (W1876)
167	X1876167	POWER CORD 18G 3W 72" 5-15P
300	X1876300	MOTOR 1-1/2HP 120V 1-PH
300-1	X1876300-1	CARBON BRUSH
300-2	X1876300-2	BRUSH HOLDER
300-3	X1876300-3	BRUSH COVER
323	X1876323	PADDLE SWITCH ASSEMBLY
323-1	X1876323-1	PADDLE SWITCH KEDU HY18 20A
323-2	X1876323-2	PADDLE SWITCH COVER
323-3	X1876323-3	PADDLE SWITCH KEY

Labels & Cosmetics

WARNING!
Failure to keep hands clear of cutterhead may result in serious personal injury.

Cutterhead exposed between these pieces.

WARNING!
Failure to keep hands clear of cutterhead may result in serious personal injury.

DANGER!
ROTATING CUTTERHEAD BELOW!

WARNING!
KICKBACK HAZARD!
1. Ensure outfeed table is even with cutterhead.
2. Never exceed the maximum depth of cut.
3. Do not stand directly behind workpiece.

WARNING!
ALWAYS USE PUSH BLOCKS!
Push blocks minimize the possibility of operator's hands contacting the cutterhead while cutting.

SHOP FOX

MODEL W1876
6" BENCHTOP JOINTER
W/SPIRAL-TYPE CUTTERHEAD

Specifications

Motor: 1/2 HP, 120V, 7 1/2, 60 Hz
Full-Load Current Rating: 10A
Cutterhead: Spiral-Type whirlbeads inserts
Insert Size: 14 x 1/4 x 2 1/8"
Total Cutterhead Insert: 12
Maximum Depth of Cut: 3/8"
Cutterhead Diameter: 2 1/2" Ø
Cutterhead Gullet: 11,000 RPM
Cuts Per Minute: 6,000
Maximum Depth of Cut: 1/8"
Fence Size: 6-1/4" x 30"
Sound Rating: 92-94 dB
Weight: 43 lbs.

WARNING!

To reduce the risk of serious injury when using this machine:

- Read and understand owner's manual before operating.
- Always wear ANSI-approved eye protection and respirator.
- Only plug power cord into a grounded outlet.
- Always use approved eye and hearing protection, and respirator.
- Keep all hands in place until proper operating condition.
- Never edge-joint stock smaller than 1" long, 3/4" wide, or 1/4" thick.
- Never face-joint stock smaller than 1" long, 3/4" wide, or 1/2" thick.
- Always use push blocks when face planing.
- Keep hands at least 12" away from cutterhead.
- Never cut deeper than 1/8" on a single pass.
- To back long tail, roll up skewer, and DO NOT wear loose clothing, gloves, or jewelry.
- Turn motor OFF and disconnect power before changing inserts, adjusting table/feeds, or servicing.
- Be aware of "kickback" hazards and how to prevent them.
- Before starting, ensure table are adjusted properly, inserts are secure, and jointer is stable.
- DO NOT touch boards with cracks, loose knots, or any defects.
- DO NOT expose to rain or use in wet locations.
- Always support workpiece against fence and table. Never attempt any operation free-handed.
- Always feed workpiece against cutterhead rotation. Never move workpiece backward with feeding.
- Prevent unauthorized use by children or untrained users; restrict access or disable machine when unattended.

SHOP FOX

MODEL W1879
6" BENCHTOP JOINTER

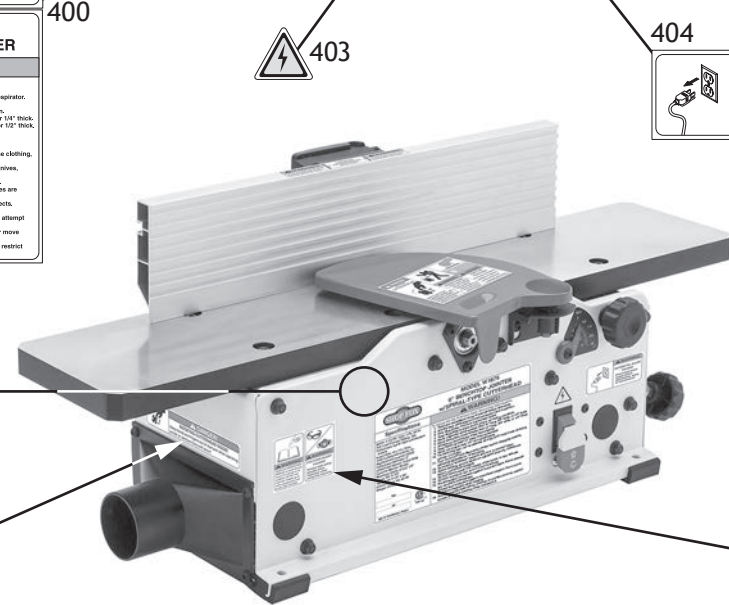
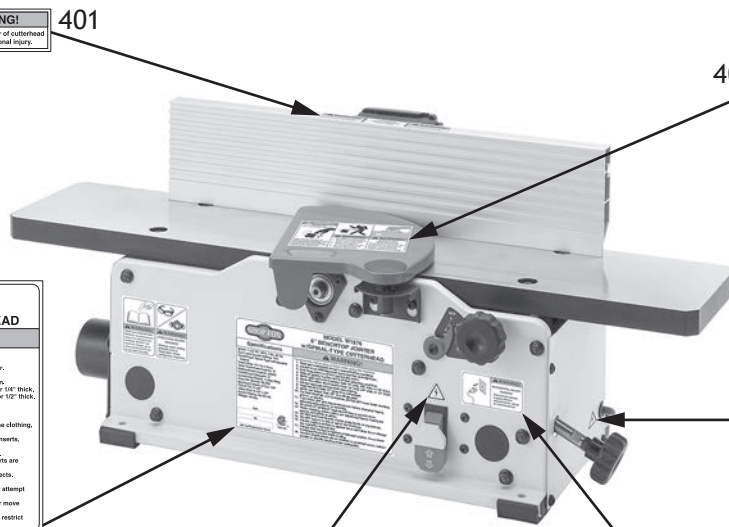
Specifications

Motor: 1/2 HP, 120V, 7 1/2, 60 Hz
Full-Load Current Rating: 10A
Cutterhead: 2-KHILL
Insert Size: 14 x 1/4 x 1 1/4"
Total Cutterhead Insert: 12
Maximum Depth of Cut: 3/8"
Cutterhead Diameter: 2 1/2" Ø
Cutterhead Gullet: 11,000 RPM
Cuts Per Minute: 6,000
Maximum Depth of Cut: 1/8"
Fence Size: 6-1/4" x 30" x 1"
Bowl Jointing: 0-2"
Table Size: 6-1/4" x 30" x 1"
Sound Rating: 90-92 dB
Weight: 43 lbs.

WARNING!

To reduce the risk of serious injury when using this machine:

- Read and understand owner's manual before operating.
- Always wear ANSI-approved eye and hearing protection, and respirator.
- Only plug power cord into a grounded outlet.
- Always use approved eye and hearing protection, and respirator.
- Keep all hands in place until proper operating condition.
- Never edge-joint stock smaller than 1" long, 3/4" wide, or 1/4" thick.
- Never face-joint stock smaller than 1" long, 3/4" wide, or 1/2" thick.
- Always use push blocks when face planing.
- Keep hands at least 12" away from cutterhead.
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- To back long tail, roll up skewer, and DO NOT wear loose clothing, gloves, or jewelry.
- Turn motor OFF and disconnect power before changing knives, adjusting table/feeds, or servicing.
- Be aware of "kickback" hazards and how to prevent them.
- Before starting, ensure table are adjusted properly, knives are secure, and jointer is stable.
- DO NOT touch boards with cracks, loose knots, or any defects.
- DO NOT expose to rain or use in wet locations.
- Always support workpiece against fence and table. Never attempt any operation free-handed.
- Always feed workpiece against cutterhead rotation. Never move workpiece backward with feeding.
- Prevent unauthorized use by children or untrained users; restrict access or disable machine when unattended.



DANGER!
ROTATING CUTTERHEAD INSIDE!
Keep hands and fingers out of dust port when operating jointer or serious injury will occur!

WARNING!
ACCIDENTAL INJURY HAZARD!
Disconnect power supply before adjustments, setup or maintenance!

WARNING!
READ and UNDERSTAND MANUAL to avoid serious injury! If a manual is not available, DO NOT use machine! Instead, go to www.woodstockint.com or call (360) 734-3482.

WARNING!
EYE/LUNG INJURY HAZARD!
Always wear safety glasses and a respirator when using this machine.

REF	PART #	DESCRIPTION
400	X1876400	MACHINE ID LABEL (W1876)
400	X1879400	MACHINE ID LABEL (W1879)
401	X1876401	CUTTERHEAD EXPOSURE LABEL
402	X1876402	CUTTERHEAD GUARD LABEL
403	X1876403	ELECTRICITY LABEL

REF	PART #	DESCRIPTION
404	X1876404	DISCONNECT 110V LABEL
405	X1876405	COMBO WARNING LABEL
406	X1876406	CUTTERHEAD WARNING LABEL
407	X1876407	TOUCH-UP PAINT, SHOP FOX WHITE

WARNING

Safety labels warn about machine hazards and how to prevent serious personal injury. The owner of this machine **MUST** maintain the original location and readability of all labels on this machine. If any label is removed or becomes unreadable, **REPLACE** that label before allowing machine to be operated again. Contact us at (360) 734-3482 or www.woodstockint.com to order new labels.

WARRANTY

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

Woodstock International, Inc. will repair, replace, or arrange for a dealer refund, at its expense and option, the Shop Fox machine or machine part proven to be defective for its designed and intended use, provided that the original owner returns the product prepaid to an authorized warranty or repair facility as designated by our Bellingham, Washington office with proof of their purchase of the product within two years, and provides Woodstock International, Inc. reasonable opportunity to verify the alleged defect through inspection. If it is determined there is no defect, or that the defect resulted from causes not within the scope of Woodstock International Inc.'s warranty, then the original owner must bear the cost of storing and returning the product.

This is Woodstock International, Inc.'s sole written warranty and any and all warranties that may be implied by law, including any merchantability or fitness, for any particular purpose, are hereby limited to the duration of this written warranty. We do not warrant that Shop Fox machinery complies with the provisions of any law, acts or electrical codes. We do not reimburse for third party repairs. In no event shall Woodstock International, Inc.'s liability under this limited warranty exceed the purchase price paid for the product, and any legal actions brought against Woodstock International, Inc. shall be tried in the State of Washington, County of Whatcom. We shall in no event be liable for death, injuries to persons or property or for incidental, contingent, special or consequential damages arising from the use of our products.

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

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



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